

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the fiscal year ended September 30, 2017.

Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the transition period from _____ to _____.

Commission File Number 0-16106

CLEARFIELD, INC.

(Exact Name of Registrant as Specified in its Charter)

Minnesota

(State of incorporation)

41-1347235

(I.R.S. Employer Identification No.)

7050 Winnetka Avenue North

Suite 100

Brooklyn Park, Minnesota 55428

(Address of principal executive office)

(763) 476-6866

Registrant's telephone number, including area code

Securities registered pursuant to Section 12(b) of the Act:

(Title of class)

Common Stock, par value \$.01 per share
(Including Series B Junior Participating Preferred Share Purchase Rights)

(Name of exchange on which registered)

The NASDAQ Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act:

NONE

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

YES NO

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act.

YES NO

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

YES NO

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

YES NO

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

YES NO

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company as defined in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer
Smaller Reporting Company Emerging Growth Company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).

YES NO

The aggregate market value of the voting and non-voting equity held by non-affiliates of the registrant, as of the last business day of the registrant's most recently completed second fiscal quarter computed by reference to the price at which the common equity was last sold was approximately \$189,907,864.

The number of shares of common stock outstanding as of November 8, 2017 was 13,811,455.

Documents Incorporated by Reference:

Portions of our proxy statement for the 2018 Annual Meeting of Shareholders, to be filed within 120 days after the end of the fiscal year covered by this report, are incorporated by reference into Part III.

CLEARFIELD, INC.

ANNUAL REPORT ON FORM 10-K
TABLE OF CONTENTS

<u>PART I</u>		<u>1</u>
<u>ITEM 1.</u>	<u>BUSINESS</u>	<u>1</u>
<u>ITEM 1A.</u>	<u>RISK FACTORS</u>	<u>6</u>
<u>ITEM 1B.</u>	<u>UNRESOLVED STAFF COMMENTS.</u>	<u>13</u>
<u>ITEM 2.</u>	<u>PROPERTIES.</u>	<u>13</u>
<u>ITEM 3.</u>	<u>LEGAL PROCEEDINGS.</u>	<u>13</u>
<u>ITEM 4.</u>	<u>MINE SAFETY DISCLOSURES</u>	<u>14</u>
<u>PART II.</u>		<u>14</u>
<u>ITEM 5.</u>	<u>MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER REPURCHASES OF EQUITY SECURITIES.</u>	<u>14</u>
<u>ITEM 6.</u>	<u>SELECTED FINANCIAL DATA</u>	<u>17</u>
<u>ITEM 7.</u>	<u>MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	<u>17</u>
<u>ITEM 7A.</u>	<u>QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	<u>27</u>
<u>ITEM 8.</u>	<u>FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA</u>	<u>28</u>
<u>ITEM 9.</u>	<u>CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.</u>	<u>47</u>
<u>ITEM 9A.</u>	<u>CONTROLS AND PROCEDURES</u>	<u>47</u>
<u>ITEM 9B.</u>	<u>OTHER INFORMATION</u>	<u>48</u>
<u>PART III.</u>		<u>48</u>
<u>ITEM 10.</u>	<u>DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.</u>	<u>48</u>
<u>ITEM 11.</u>	<u>EXECUTIVE COMPENSATION.</u>	<u>48</u>
<u>ITEM 12.</u>	<u>SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.</u>	<u>48</u>
<u>ITEM 13.</u>	<u>CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE</u>	<u>48</u>
<u>ITEM 14.</u>	<u>PRINCIPAL ACCOUNTANT FEES AND SERVICES</u>	<u>49</u>
<u>PART IV.</u>		<u>49</u>
<u>ITEM 15.</u>	<u>EXHIBITS AND FINANCIAL STATEMENT SCHEDULES</u>	<u>49</u>
<u>ITEM 16.</u>	<u>FORM 10-K SUMMARY</u>	<u>49</u>
<u>SIGNATURES</u>		<u>52</u>

PART I

ITEM 1. BUSINESS

Background

Clearfield, Inc. (“Clearfield” or the “Company”) is a Minnesota corporation which was founded in 1979. Our corporate headquarters are located at 7050 Winnetka Avenue North, Suite 100, Brooklyn Park, Minnesota, 55428, and our corporate website is www.clearfieldconnection.com. The information available on our website is not part of this Report. Our annual report on Form 10-K, our quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act are available free of charge through the “About Clearfield” link at our website as soon as reasonably practicable after we file such material with, or furnish it to, the Securities and Exchange Commission. Our filings with the Securities and Exchange Commission are also available at the www.sec.gov.

Description of Business

Clearfield, Inc. manufactures, markets and sells an end-to-end fiber management and enclosure platform that consolidates, distributes and protects fiber as it moves from the inside plant to the outside plant and all the way to the home, business and cell site. The Company has extended this product line with a fiber delivery platform of optical cable, connectors and microduct that delivers fiber to environments previously not economically or environmentally viable. The Company has successfully established itself as a value-added supplier to its target market of broadband service providers, including incumbent local exchange carriers (Traditional Carriers, within the Tier 2 and Tier 3 broadband markets), large national and global telecom providers (Tier 1), wireless operators, MSO/cable TV companies, utility/municipality, enterprise, data center and military markets, while also serving the broadband needs of the competitive local exchange carriers (Alternative Carriers). The Company also provides contract manufacturing services for original equipment manufacturers (OEM) requiring copper and fiber cable assemblies built to their specifications. Clearfield has continued to expand its product offerings and broaden its customer base during its years of operation.

By aligning its in-house engineering and technical knowledge alongside its customers’ needs, the Company has been able to develop, customize and enhance products from design through production. Substantially all of the final build and assembly is completed at Clearfield’s plants in Brooklyn Park, Minnesota and Mexico, with manufacturing support from a network of domestic and global manufacturing partners. Clearfield specializes in producing these products on both a quick-turn and scheduled delivery basis. The Company deploys a hybrid sales model with some sales made directly to the customer, some made through two-tier distribution partners and some sales through original equipment suppliers who private label its products.

Products

Clearview Cassette

The Clearview™ Cassette, a patented technology, is the main building block of the Company’s product platform. The value of the building block approach is that Clearfield is the only company to provide the needs of every leg of the telecommunications network with a single building block architecture, reducing the customers’ cost of deployment by reducing labor costs associated with training and reducing inventory carrying costs.

Clearview Classic and Clearview Blue. Clearview Classic and Clearview Blue, is a system of five parts that nest together in the cassette’s main housing to support a wide range of applications. Parts can be added or removed as needed to support the environment in which it is deployed. Clearview Blue, while fully compatible with Clearview Classic, is designed for the utmost in modularity and scalability. It builds upon the Clearview Classic by offering a smaller footprint and integrated slack storage and splicing functionality.

Clearview xPAK: Engineered to land small port count fiber terminations and optical components, the patented xPAK is shipped flat and unassembled. Following simple pictorial user instructions, a technician will assemble the device to match the field requirements of the installation site. Application environments include cell back-haul, business class service delivery, node segmentation, fiber exhaust scenarios, utility sub-stations or fiber-to-the-desk deployment.

Clearview Black: Designed to handle harsh environments, Clearview Black incorporates the same flexibility and scalability of both the Clearview Classic and Clearview Blue in a 50% smaller footprint. All types of fiber cable construction can be integrated within the cassette to support all patch only, patch and splice (in-cassette), passive optical component hardware and multi-fiber push on plug-and-play scenarios.

Connectivity and Optical Components

The Clearview system consolidates, distributes and protects fibers as they move from the inside plant to the home and business. These fibers are either connectorized directly for cable-to-cable deployment or are connectorized onto optical components that may amplify or divide the signals they carry. We provide products that meet a customer's cable-to-cable deployment or optical component needs.

Cable-to-Cable Deployment: Fiber Deep is a class of fiber assemblies that guarantees performance at .02dB insertion loss – fully half that of the industry standard. This metric extends the link loss budget effectively, extending the distance upon which fiber can be deployed. In addition, achieving 2dB improvement in optical budget reduces power consumption by 10%. The power savings, multiplied by even a small thousand home network, is a significant contribution to a community's sustainability efforts.

Optical Components: Clearfield packages optical components for signal coupling, splitting, termination, multiplexing, demultiplexing and attenuation for a seamless integration within its fiber management platform. This value-added packaging allows the customer to source from a single supplier and reduces space requirements. The products are built and tested to meet the strictest industry standards ensuring customers trouble-free performance in extreme outside plant environments.

FieldSmart

Utilizing the Clearview Cassette and xPAK as building blocks, FieldSmart is a series of panels, cabinets, wall boxes and other enclosures that house the Clearview components to provide a consistent design from the inside plant of the telco's "central office" or cable television's "head-end", all the way through the outside plant to the access network and through to the home. At each leg of the network, the FieldSmart platform delivers a modular and scalable architecture that allows the service provider to align their capital equipment expenditures alongside their subscriber revenues.

Inside Plant: The FieldSmart Fiber Crossover Distribution System ("FxDS") and high density FieldSmart FxHD provides complete fiber management modularity and scalability across the fiber network. Using the Clearview building block approach, each fiber management element provides modularity of physical fiber protection in the environment in which it is placed. Easily configured for initial placement and scaling from 12-ports to a full rack of 1,728-ports, the FieldSmart FxDS requires only four unique blocks to configure initial deployment. The user then places what is needed on the frame as subscriber take rates dictate. The FxHD is an integrated fiber management solution delivered via the Clearview Blue Cassette. With instant access to all cassettes, adapters, and jumpers, the frame is designed as a front access frame, meaning all installation is done from one side of the frame providing the option to reclaim the aisle space required for frame solutions that require rear access – and to use that space for other equipment or more frames. The FxHD can be placed against a wall, within a cage in data center co-location environments, or back to back.

Outside Plant: The FieldSmart Fiber Scalability Center (“FSC”) is a modular and scalable outside plant cabinet that allows rollout of Fiber-to-the-Premise services by communication service providers without a large initial expense. Each outside plant cabinet stores feeder and distribution splices, splitters, connectors and slack cable neatly and compactly, utilizing field-proven designs to maximize bend radius protection, connector access, ease of cable routing and physical protection, thereby minimizing the risk of fiber damage. The FieldSmart Makwa incorporates all of the features found in our above ground cabinets and adds the ability to deploy the FieldSmart FSC Distribution Hub in a below grade application. The FSC product, with the Clearview cassette at its heart, has been designed to scale with the application environment as demand requires and to reduce service turn-up time for the end-user.

Access Network: FieldSmart Fiber Delivery Point (“FDP”) is a series of enclosure systems that incorporates the delivery of fiber connectivity to the neighborhood or business district in the most cost-effective footprint possible. This family of wall-mount enclosures provides 12 to 144 ports of connectivity for multi-dwelling unit fiber deployments, fiber demarcation, security systems (CCTV), telecommunications room needs and horizontal/intermediate cross-connects.

Access Network: FieldSmart Small Count Delivery (“SCD”) is a series of enclosure systems that are packaged to make landing small count fiber more cost-effective and efficient than previously thought possible. This family of wall-mount enclosures, panels and drop cable cases provide up to 12 ports of connectivity when fiber management is critical but high-count density is required. The FieldSmart SCD is targeted for application environments such as cell backhaul, business class service delivery, node segmentation, fiber exhaust in a field pedestal, sub-station turn-up or fiber-to-the-desk deployment.

FieldShield

FieldShield is both a patented and patent-pending fiber pathway and protection method aimed at reducing the cost of broadband deployment. FieldShield takes industry standard glass and makes it easier and less expensive to install. FieldShield starts with a ruggedized microduct designed to support all aerial, direct bury, and inside plant “last mile” needs. Created from the most rugged HDPE polymers, FieldShield Microduct is strong enough to be placed using traditional methods of boring and plowing, leveraging existing conduit placement equipment, as well as newer, less disruptive technologies such as micro trenching or saw cutting.

FieldShield Pushable Fiber easily slips through the microduct's smooth inner wall. Utilizing bend-insensitive glass, FieldShield Pushable Fiber is available in a variety of fiber counts, with bulk reels or factory terminated options offering total installation flexibility. A factory pre-connectorized FieldShield Pushable Connector eliminates costly labor in the field and presents reliable, consistent and guaranteed performance along with lower installation costs. After being pushed into the microduct, the slip-resistant protective housing of the FieldShield Pushable connector is removed and the connector snaps together - all in seconds, providing a cost-effective, tech-friendly means of installing optical fiber without jeopardizing fiber protection.

The FieldShield YOURx platform consists of hardened terminals, test access points, and multiple drop cable options designed for the most challenging portion of the access network across all fiber drop cable media. FieldShield FLEXdrop, FieldShield Flat Drop, and FieldShield Strong Fiber, through the use of the FieldShield Flexport and Flex Connector, provide same port connectivity regardless of the media being deployed.

The hardened FieldShield YOURx terminal provides a single product use approach at the drop for below grade, pedestal and pole mount options. The FieldShield YOURx-TAP provides a secure demarcation between the service provider and customer equipment and eliminates slack storage problems by utilizing a deploy reel. The pathways between these hardened closures are all interfaced using same port connectivity for both duct and flat drop cable. The YOURx platform continues the Company theme of using a modular, building block approach with tool-less system design focusing on the fiber drop to the customer.

CraftSmart

CraftSmart is a full line of optical protection field enclosures, extending Clearfield presence in the fiber industry. The CraftSmart Fiber Protection Pedestals (“FPP”) and CraftSmart Fiber Protection Vaults (“FPV”) are integrated solutions, optimized to house FieldSmart products at the last mile access point of the network in above-grade or below-grade installations.

CraftSmart aims to optimize fiber protection and storage while ensuring industry standards. Utilizing methods of sealing and below-grade protection, along with Clearfield innovation, CraftSmart is a turn-key solution for the deployment of passive optics from the central office/head-end to the customer premise.

Cable Assemblies

Clearfield manufactures high quality fiber and copper assemblies with an industry-standard or customer-specified configuration. Industry-standard assemblies built include but are not limited to: single mode fiber, multimode fiber, multi-fiber, CATV node assembly, DS1 Telco, DS 3 (734/735) coax, Category 5e and 6, SCSI, Token Ring, and V.35. In addition, Clearfield’s engineering services team works alongside the engineering design departments of our original equipment manufacturer (“OEM”) customers to design and manufacture custom solutions for both in-the-box as well as network connectivity assemblies specific to that customer’s product line.

Markets

Clearfield’s products are sold across broadband service providers, including traditional telephone companies, competitive local exchange carriers, multiple service operators (cable television), wireless service providers, and municipal-owned utilities that utilize fiber in their service offerings to businesses and consumers. The Company also sells fiber and copper products to commercial and industrial customers.

FTTP

Fiber to the Premise (also called Fiber to the Home) is a means of delivering the highest possible level of bandwidth directly to the user. The Company’s sales and marketing efforts have principally been focused on the U.S., with investments in Canada and the Caribbean regions added in recent years.

FTTB

Fiber to the Business is the rapid expansion of fiber services, principally by multiple service (cable TV) operators to penetrate the business marketplace.

FTT-Cell site

Fiber to the Cell site is the trend in which wireless service providers are re-focusing their efforts from building towers for coverage to enhancing their coverage for bandwidth. Fiber is the medium of choice for their upgrade. Currently, a very small percentage of these cell sites are served by fiber.

DAS

A distributed-antenna system, or DAS, is a network of spatially separated antenna nodes connected to a common source via a transport medium that provides wireless service within a geographic area or structure. DAS antenna elevations are generally at or below the clutter level and node installations are compact. Fiber may be used to backhaul data from the antenna.

C-RAN

Cloud Radio Access Network (C-RAN) uses front-haul fiber to connect the Remote Radio Head (RRH) to a Baseband Unit (BBU) located in a datacenter (i.e., the cloud). C-RAN is an evolution of RAN cellular architecture that traditionally used fiber to backhaul signals from the BBU at a tower back to the mobile core network.

Build to Print

In addition to a proprietary product line designed for the broadband service provider marketplace, Clearfield provides contract manufacturing services for original equipment manufacturers requiring copper and fiber cable assemblies built to their specification.

Competition

Competitors to the FieldSmart product lines include, but are not limited to, Corning Cabling Systems, Inc., OFS (Furukawa Electric North America, Inc.), AFL Telecommunications (a subsidiary of Fujikura Ltd.), Fujikura Ltd., Nokia, and CommScope, Inc. Competitors to the CraftSmart product line include Emerson Network Power, a subsidiary of Emerson Electric Co., and Charles Industries, Ltd. Competitors to FieldShield include PPC Broadband, Inc. Nearly all of these firms are substantially larger than Clearfield and as a result may be able to procure pricing for necessary components and labor at much lower prices. Clearfield believes that it has a competitive advantage with customers who can leverage the cost savings the Clearview Cassette can provide and those who require quick-turn, high-performance customized products, and that it is at competitive disadvantage with customers who principally seek large volume commodity products.

Sources of Materials and Outsourced Labor

Numerous purchased materials, components, and labor are used in the manufacturing of the Company's products. Most of these are readily available from multiple suppliers. However, some components and outsourced labor are purchased from a single or a limited number of suppliers. The loss of access to some components and outsourced labor could have an adverse effect on our ability to deliver products on a timely basis and on our financial performance.

Major Customers and Financial Information about Geographic Areas

The following table summarizes customers comprising 10% or more of net sales for the years ended September 30, 2017, 2016, and 2015:

	Year Ended September 30,		
	2017	2016	2015
Customer A	20%	21%	25%
Customer B	15%	16%	*

* Less than 10%

These major customers, like our other customers, purchase our products from time to time through purchase orders, and we do not have any agreements that obligate these major customers to purchase products in the future from us. As of September 30, 2017, Customer B accounted for 19% of accounts receivable. As of September 30, 2016, Customers A and B accounted for 18% and 12% of accounts receivable, respectively. Customers A and B are both distributors.

The Company allocates sales from external customers to geographic areas based on the location to which the product is transported. Sales outside the United States are principally to countries in the Caribbean, Canada, Central and South America.

The following table presents our domestic and international sales for each of the last three fiscal years:

	Year Ended September 30,		
	2017	2016	2015
United States	\$ 67,901,000	\$ 71,264,000	\$ 55,324,000
All Other Countries	6,047,000	4,024,000	5,000,000
Total Net Sales	\$ 73,948,000	\$ 75,288,000	\$ 60,324,000

Patents and Trademarks

As of September 30, 2017, we had 11 patents granted and multiple patent applications pending both inside and outside the United States. We have also developed and are using trademarks and logos to market and promote our products, including Clearview[®], FieldSmart[®], FieldShield[®], and CraftSmart[®].

Backlog

Backlog reflects purchase order commitments for our products received from customers that have yet to be fulfilled. Backlog orders are generally shipped within three months. The Company had a backlog of \$3,984,000, \$4,568,000, and \$3,540,000 as of September 30, 2017, 2016, and 2015, respectively.

Seasonality

We are affected by the seasonal trends in the industries we serve. We typically experience sequentially lower sales in our first and second fiscal year quarters, primarily due to customer budget cycles, deployment schedules, some customer geographical concentrations as well as standard vacation and holiday calendars. Sales usually reach a seasonal peak in our third and fourth fiscal quarters.

Product Development

Product development for Clearfield's product line program has been conducted internally. We believe that the communication industry environment is constantly evolving and our success depends on our ability to anticipate and respond to these changes. Our focus is to analyze the environment and technology and work to develop products that simplify our customers' business by developing innovative high quality products utilizing modular design wherever possible. Research and development are reflected in Selling, General & Administrative expenses and are not material to the overall expense total.

Employees

As of September 30, 2017, the Company had approximately 230 full-time employees. We also employ seasonal, part-time employees and independent contractors. None of our employees are covered by any collective bargaining agreement. We believe our employee relations to be good.

Segment Reporting

The Company operates in a single reportable segment.

ITEM 1A. RISK FACTORS

To compete effectively, we must continually improve existing products and introduce new products that achieve market acceptance.

The telecommunications equipment industry is characterized by rapid technological changes, evolving industry standards, changing market conditions and frequent new product and service introductions and enhancements. The introduction of products using new technologies or the adoption of new industry standards can make our existing products, or products under development, obsolete or unmarketable. In order to remain competitive and increase sales, we will need to anticipate and adapt to these rapidly changing technologies, enhance our existing products and introduce new products to address the changing demands of our customers.

Many of our competitors have greater engineering and product development resources than we have. Although we expect to continue to invest resources in product development activities, our efforts to achieve and maintain profitability will require us to be selective and focused with our research and development expenditures. In addition, sales to certain broadband service providers may require third-party independent laboratory testing in order to obtain industry certifications in order to be able to sell to those customers. Further, our existing and development-stage products may become obsolete if our competitors introduce newer or more appealing technologies. If these technologies are patented or proprietary to our competitors, we may not be able to access these technologies.

If we fail to anticipate or respond in a cost-effective and timely manner to technological developments, changes in industry standards or customer requirements, or if we experience any significant delays in product development or introduction, our business, operating results and financial condition could be affected adversely.

Our operating results may fluctuate significantly from quarter to quarter, which may make budgeting for expenses difficult and may negatively affect the market price of our common stock.

Because many purchases by customers of our products relate to a specific customer project and are procured by the customer from time to time through purchase orders, the short-term demand for our products can fluctuate significantly. This fluctuation can be further affected by the long sales cycles necessary to obtain contracts to supply equipment for these projects, the availability of capital to fund our customers' projects, changes, or delays in customer deployment schedules and the impact of the government regulation to encourage service to unserved or underserved communities, rural areas or other high cost areas on customer buying patterns. These long sales cycles may result in significant effort expended with no resulting sales or sales that are not made in the anticipated quarter or fiscal year. Certain customers and prospective customers, typically larger broadband service providers, are conducive to these long sales cycles which may be multi-year efforts. Demand for our products will also depend upon the extent to which our customers and prospective customers initiate these projects and the extent to which we are selected to provide our equipment in these projects, neither of which can be assured. In addition, a sharp increase in demand could result in actual lead times longer than quoted, and a sharp decrease in demand could result in excess stock. These factors generally result in fluctuations, sometimes significant, in our operating results. Other factors that may affect our quarterly operating results include:

- the volume and timing of orders from and shipments to our customers, particularly significant customers such as Customer A that accounted for 20%, 21% and 25% of sales in the years ended September 30, 2017, 2016, and 2015, respectively, and Customer B that accounted for 15% and 16% in the years ended September 30, 2017 and 2016, respectively;
- mergers and acquisitions activity among our customers;
- work stoppages and other developments affecting the operations of our customers;
- the timing of and our ability to obtain new customer contracts and the timing of revenue recognition;
- the timing of new product and service announcements;
- the availability of products and services;
- market acceptance of new and enhanced versions of our products and services;
- variations in the mix of products and services we sell;
- the utilization of our production capacity and employees;
- the availability and cost of key components of our products;

- changes in the valuation allowance relating to our deferred tax assets and the resulting income tax benefits or expenses; and
- excess tax benefits for stock-based compensation.

Further, we budget our expenses based in part on expectations of future sales. If sales levels in a particular quarter are lower than expected, our operating results will be affected adversely.

Because of these factors, our quarterly operating results are difficult to predict and are likely to vary in the future. If our operating results are below financial analysts' or investors' expectations, the market price of our common stock may fall abruptly and significantly.

Our success depends upon adequate protection of our patent and intellectual property rights.

Our future success depends in part upon our proprietary technology. We attempt to protect our proprietary technology through patents, trademarks, copyrights and trade secrets. However, these legal means afford us only limited protection and may not adequately protect our rights or remedies to gain or keep any advantages we may have over our competitors. Accordingly, we cannot predict whether these protections will be adequate, or whether our competitors will develop similar technology independently, without violating our proprietary rights.

Our competitors, many of which have significant resources, may make substantial investments in competing products and technologies, or may apply for and obtain patents that will prevent, limit, or interfere with our ability to manufacture or market our products. We may litigate to enforce patents issued to us and to defend against claimed infringement of the rights of others or to determine the ownership, scope, or validity of our proprietary rights and the rights of others.

On January 31, 2017, CommScope Technologies LLC filed a complaint against us asserting infringement of CommScope patents by certain Clearfield products. See Item 3, "Legal Proceedings." This litigation may negatively affect our business, results of operations and financial condition due to the likely substantial cost of defense and potential diversion of the attention of company management away from operational activities. In addition, an adverse determination in this litigation could have a material adverse effect on our business, financial condition and results of operations.

Additional litigation may be necessary in the future to defend or enforce our intellectual property rights, to protect our patents and trade secrets, and to determine the validity and scope of our proprietary rights. Any additional litigation also may involve substantial costs and potential diversion of the attention of company management away from operational activities. Any claim of infringement against us could involve significant liabilities to third parties, could require us to seek licenses from third parties, and could prevent us from manufacturing, selling or using our products. The occurrence of this litigation or the effect of an adverse determination in the current litigation or similar future litigation could have a material adverse effect on our business, financial condition and results of operations.

Intense competition in our industry may result in price reductions, lower gross profits and loss of market share.

Competition in the telecommunications equipment and services industry is intense. Our competitors may have or could develop or acquire marketing, financial, development and personnel resources that exceed ours. Our ability to compete successfully will depend on whether we can continue to advance the technology of our products and develop new products, the acceptance of our products among our customers and prospective customers and our ability to anticipate customer needs in product development, as well as the price, quality and reliability of our products, our delivery and service capabilities and our control of operating expenses.

We cannot assure you that we will be able to compete successfully against our current or future competitors. Increased competition from manufacturers of telecommunications equipment such as ours may result in price reductions, lower gross profit margins, and increased discounts to customers and loss of market share and could require increased spending by us on research and development, sales and marketing and customer support.

We rely on single-source suppliers, which could cause delays, increases in costs or prevent us from completing customer orders, all of which could materially harm our business.

We assemble our products using materials and components supplied by various subcontractors and suppliers. We purchase critical components for our products, including injected molded parts, various cabling, optical components, and connectors from third parties, some of whom are single- or limited-source suppliers. If any of our suppliers are unable to ship critical components, we may be unable to manufacture and ship products to our distributors or customers. If the price of these components increases for any reason, or if these suppliers are unable or unwilling to deliver, we may have to find another source, which could result in interruptions, increased costs, delays, loss of sales and quality control problems.

Further, the costs to obtain certain raw materials and supplies, such as fiber and copper cabling, are subject to price fluctuations, which may be substantial, because of global market demands. Many companies utilize the same raw materials and supplies in the production of their products as we use in our products. Companies with more resources than us may have a competitive advantage in obtaining raw materials and supplies due to greater purchasing power. Some raw materials or supplies may be subject to regulatory actions, which may affect available supplies. Furthermore, due to general economic conditions in the United States and globally, our suppliers may experience financial difficulties, which could result in increased delays, additional costs, or loss of a supplier.

The termination or interruption of any of these relationships, or the failure of these manufacturers or suppliers to supply components or raw materials to us on a timely basis or in sufficient quantities, likely would cause us to be unable to meet orders for our products and harm our reputation and our business. Identifying and qualifying alternative suppliers would take time, involve significant additional costs and may delay the production of our products. If we fail to forecast our manufacturing requirements accurately or fail to properly manage our inventory with our contract manufacturers, we could incur additional costs, experience manufacturing delays and lose sales. Further, if we obtain a new supplier or assemble our product using an alternative source of supply, we may need to conduct additional testing of our products to ensure the product meets our quality and performance standards. Any delays in delivery of our product to distributors or customers could be extended, and our costs associated with the change in product manufacturing could increase.

The failure of our third-party manufacturers to manufacture the products for us, and the failure of our suppliers of components and raw materials to supply us consistent with our requirements as to quality, quantity and timeliness could materially harm our business by causing delays, loss of sales, increases in costs and lower gross profit margins.

A significant percentage of our sales in the last three fiscal years have been made to a small number of customers, and the loss of these major customers would adversely affect us.

In fiscal year 2017, Customers A and B comprised approximately 20% and 15% of net sales, respectively. In fiscal year 2016, Customers A and B comprised approximately 21% and 16% of net sales, respectively. Additionally, in fiscal year 2015, Customer A comprised approximately 25% of net sales. These customers purchase our products from time to time through purchase orders, and we do not have any agreements that obligate these major customers to purchase products in the future from us. The loss of any one or more of these customers, the substantial reduction, delay or cancellation in orders from any such customer or our inability to collect the accounts receivable from these customers, could have a material adverse effect on our business, financial position and results of operations.

Further consolidation among our customers may result in the loss of some customers and may reduce sales during the pendency of business combinations and related integration activities.

We believe consolidation among our customers in the future will continue in order for them to increase market share and achieve greater economies of scale. Consolidation has impacted our business as our customers focus on completing business combinations and integrating their operations. In connection with this merger and acquisition activity, our customers may postpone or cancel orders for our product based on revised plans for technology or network expansion pending consolidation activity. Customers integrating large-scale acquisitions may also reduce their purchases of equipment during the integration period, or postpone or cancel orders.

The impact of significant mergers among our customers on our business is likely to be unclear until sometime after such transactions are completed. After a consolidation occurs, a customer may choose to reduce the number of vendors from which it purchases equipment and may choose one of our competitors as its preferred vendor. There can be no assurance that we will continue to supply equipment to the surviving communications service provider after a business combination is completed.

Our planned implementation of an enterprise resource planning (“ERP”) software solution and other information technology systems could result in significant disruptions to our operations.

We plan to evaluate and potentially implement ERP software solutions and other complementary information technology systems over the next several years. Implementation of these solutions and systems is highly dependent on coordination of numerous software and system providers and internal business teams. The interdependence of these solutions and systems is a significant risk to the successful completion of the initiatives and the failure of any one system could have a material adverse effect on the implementation of our overall information technology infrastructure. We may experience difficulties as we transition to these new or upgraded systems and processes, including loss or corruption of data, delayed shipments, decreases in productivity as our personnel implement and become familiar with new systems, increased costs and lost revenues. In addition, transitioning to these new systems requires significant capital investments and personnel resources. Difficulties in implementing new or upgraded information systems or significant system failures could disrupt our operations and have a material adverse effect on our capital resources, financial condition, results of operations or cash flows. In addition, we could incur material unanticipated expenses, including additional costs of implementation or costs of conducting business. These risks could result in significant business disruptions or divert management's attention from key strategic initiatives and have a material adverse effect on our capital resources, financial condition, results of operations or cash flows.

Product defects or the failure of our products to meet specifications could cause us to lose customers and sales or to incur unexpected expenses.

If our products do not meet our customers' performance requirements, our customer relationships may suffer. Also, our products may contain defects or fail to meet product specifications. Any failure or poor performance of our products could result in:

- lack of or delayed market acceptance of our products;
- delayed product shipments;
- unexpected expenses and diversion of resources to replace defective products or identify and correct the source of errors;
- damage to our reputation and our customer relationships;
- delayed recognition of sales or reduced sales; and
- product liability claims or other claims for damages that may be caused by any product defects or performance failures.

Our products are often critical to the performance of telecommunications systems. We offer customers limited warranty provisions. If the limitations on the product warranties are unenforceable in a particular jurisdiction or if we are exposed to product liability claims that are not covered by insurance, a claim could harm our business.

We are dependent on key personnel.

Our failure to attract and retain skilled personnel could hinder the management of our business, our research and development, our sales and marketing efforts and our manufacturing capabilities. Our future success depends to a significant degree upon the continued services of key senior management personnel, including Cheryl Beranek, our Chief Executive Officer and John Hill, our Chief Operating Officer. We have employment agreements with Ms. Beranek and Mr. Hill that provide that if we terminate the employment of either executive without cause or if the executive terminates her or his employment for good reason, we would be required to make specified payments to them as described in their employment agreements. We have key person life insurance on Ms. Beranek and Mr. Hill. Further, our future success also depends on our continuing ability to attract, retain and motivate highly qualified managerial, technical and sales personnel. Our inability to retain or attract qualified personnel could have a significant negative effect and thereby materially harm our business and financial condition.

We face risks associated with expanding our sales outside of the United States.

We believe that our future growth depends in part upon our ability to increase sales in international markets. These sales are subject to a variety of risks, including fluctuations in currency exchange rates, tariffs, import restrictions and other trade barriers, unexpected changes in regulatory requirements, longer accounts receivable payment cycles, potentially adverse tax consequences, and export license requirements. In addition, we are subject to the risks inherent in conducting business internationally, including political and economic instability and unexpected changes in diplomatic and trade relationships. Currency fluctuations may also increase the relative price of our product in international markets and thereby could also cause our products to become less affordable or less price competitive than those of international manufacturers. These risks associated with international operations may have a material adverse effect on our revenue from or costs associated with international sales.

Our results of operations could be adversely affected by economic conditions and the effects of these conditions on our customers' businesses.

Adverse changes in economic conditions, including the recent recession in the United States, have resulted and may continue to result in lower spending among our customers and contribute to decreased sales to our distributors and customers. Further, our business may be adversely affected by factors such as downturns in economic activity in specific geographic areas or in the telecommunications industry; social, political or labor conditions; or adverse changes in the availability and cost of capital, interest rates, tax rates, or regulations. These factors are beyond our control, but may result in decreases in spending among customers and softening demand for our products. Declines in demand for our products will adversely affect our sales. Further, challenging economic conditions also may impair the ability of our customers to pay for products and services they have purchased. As a result, our cash flow may be negatively impacted and our allowance for doubtful accounts and write-offs of accounts receivable may increase.

Our stock price has been volatile historically and may continue to be volatile. The price of our common stock may fluctuate significantly.

The trading price of our common stock has been and may continue to be subject to wide fluctuations. Our stock price may fluctuate in response to a number of events and factors, such as quarterly variations in operating results, announcements of technological innovations or new products by us or our competitors, changes in financial estimates and recommendations by securities analysts, the operating and stock price performance of other companies that investors may deem comparable to us, and new reports relating to trends in our markets or general economic conditions.

In addition, the stock market is subject to price and volume fluctuations that affect the market prices for companies in general, and small-capitalization, high-technology companies like us in particular. These broad market and industry fluctuations may adversely affect the price of our common stock, regardless of our operating performance. Further, any failure by us to meet or exceed the expectations of financial analysts or investors is likely to cause a decline in our common stock price. Further, recent economic conditions have resulted in significant fluctuations in stock prices for many companies, including Clearfield. We cannot predict when the stock markets and the market for our common stock may stabilize. In addition, although our common stock is listed on the NASDAQ Stock Market, our common stock has at times experienced low trading volume in our past. Limited trading volume subjects our common stock to greater price volatility and may make it difficult for our shareholders to sell shares at an attractive price.

National Broadband Plan's transitioning from the USF to the CAF program may cause our customers and prospective customers to delay or reduce purchases.

In October of 2011, the Federal Communications Commission approved the National Broadband Plan which called for the restructuring of the long-standing USF (Universal Service Fund). A key element of this program is the transition out of the USF program, which awards an operating subsidy to telecommunications companies providing service to high-cost serving areas, to the Connect America Fund (CAF) which would provide a capital expenditure subsidy for the build-out of the country's broadband network. In addition, other universal service and inter-carrier compensation reforms scheduled to begin in the coming years will eliminate subsidies that carriers have traditionally relied upon to support service in high-cost, rural areas. Our customers or prospective customers may delay purchases until the financial impact to them from the transition to the CAF becomes clear. To the extent our customers or prospective customers receive reduced subsidies under the CAF, they may reduce the spending associated with their projects, delay projects, or not pursue projects. Any of these actions may result in reduced demand for our products with these customers or prospective customers.

Future sales of shares of our common stock in the public market may negatively affect our stock price.

Future sales of our common stock, or the perception that these sales could occur, could have a significant negative effect on the market price of our common stock. This increase, in turn, could dilute future earnings per share, if any, and could depress the market value of our common stock. Dilution and potential dilution, the availability of a large amount of shares for sale, and the possibility of additional issuances and sales of our common stock may negatively affect both the trading price of our common stock and the liquidity of our common stock.

Anti-takeover provisions in our organizational documents, Minnesota law and other agreements could prevent or delay a change in control of our company.

Certain provisions of our articles of incorporation and bylaws, Minnesota law and other agreements may make it more difficult for a third-party to acquire, or discourage a third-party from attempting to acquire, control of our company, including:

- the provisions of our bylaws setting forth the advance notice and information requirements for shareholder proposals, including nominees for directors, to be considered properly brought before shareholders;
- the right of our board of directors to establish more than one class or series of shares and to fix the relative rights and preferences of any such different classes or series
- the provisions of Minnesota law relating to business combinations and control share acquisitions and

the provisions of our stock option plans allowing for the acceleration of vesting or payments of awards granted under the plans in the event of specified events that result in a “change in control” and provisions of agreements with certain of our executive officers requiring payments if their employment is terminated and there is a “change in control.”

These measures could discourage or prevent a takeover of us or changes in our management, even if an acquisition or such changes would be beneficial to our shareholders. This may have a negative effect on the price of our common stock.

Compliance with changing regulation of corporate governance and public disclosure may result in additional expenses.

Keeping abreast of, and in compliance with, changing laws, regulations and standards relating to corporate governance and public company disclosure requirements, including the Sarbanes-Oxley Act of 2002 and in particular Section 404 of that Act relating to management certification of internal controls, new disclosures relating to “conflict minerals”, the regulations of the Securities and Exchange Commission and the rules of the NASDAQ Stock Market have required an increased amount of management attention and external resources. We intend to invest all reasonably necessary resources to comply with evolving corporate governance and public disclosure standards, and this investment may result in increased general and administrative expenses and a diversion of management time and attention from revenue-generating activities to compliance activities.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 2. PROPERTIES

Clearfield leases a 71,000 square foot facility at 7050 Winnetka Avenue North, Brooklyn Park, Minnesota consisting of our corporate offices, manufacturing and warehouse space. The lease term is ten years and two months and commenced on January 1, 2015. However, upon proper notice and payment of a termination fee of approximately \$214,000, the Company has a one-time option to terminate the lease effective as of the last day of the eighth year of the term after the Company commenced paying base rent.

We also have an indirect lease arrangement for a 46,000 square foot manufacturing facility in Tijuana, Mexico. The lease term is three years and commenced on August 1, 2017.

We believe our existing facilities are sufficient to meet our current and future space requirements.

ITEM 3. LEGAL PROCEEDINGS

On January 31, 2017, CommScope Technologies LLC (“CommScope”) filed a Complaint against Clearfield, Inc. in the United States District Court for the District of Minnesota. The Complaint asserts infringement of thirteen CommScope patents by certain Clearfield products, including our FieldSmart® PON Cabinets, WaveSmart® Ruggedized Splitters, Clearview® Blue and Clearview® Classic Cassettes, FieldShield® Deployment Reel System, SmartRoute® Panel, FieldShield® Multiport SmartTerminal and FieldShield® Hardened Connectors. The asserted CommScope patents are U.S. Patent Nos. 7,233,731; 8,811,791; 7,198,409; 7,809,233; 9,201,206; 7,809,234; 7,816,602; 8,263,861; 8,705,929; 8,938,147; RE42,258; 7,397,997 and 9,122,021. CommScope’s Complaint seeks an injunction against further infringement and an award of unspecified compensatory and enhanced damages, interest, costs and attorneys’ fees.

On April 24, 2017, we filed an Answer to CommScope's Complaint denying all claims of infringement and asserting affirmative defenses on the grounds of non-infringement, invalidity and unenforceability, among others. Trial is scheduled for on or about August 1, 2019.

On September 25, 2017 and October 12, 2017, we instituted proceedings with the U.S. Patent and Trademark Office for inter partes reviews to challenge the validity of two of the CommScope patents.

We intend to vigorously defend this lawsuit and believe that none of our products violate any valid intellectual property of CommScope. However, litigation is inherently uncertain, and any judgment or injunctive relief entered against us or any adverse settlement could negatively affect our business, results of operations and financial condition. In addition, this litigation may negatively affect our business, results of operations and financial condition due to the likely substantial cost of defense and potential diversion of the attention of company management away from operational activities.

In addition to the matter described above, we are exposed to a number of asserted and unasserted legal claims encountered in the ordinary course of business. Although the outcome of any such legal action cannot be predicted, we do not believe that any of these other claims or potential claims will be material to our business, results of operations or financial condition.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is traded on The NASDAQ Global Market system of The NASDAQ Stock Market LLC under the symbol "CLFD."

The following table sets forth the quarterly high and low sales prices for our common stock for each quarter of the past two fiscal years.

Fiscal Year Ended September 30, 2017		High		Low
Quarter ended December 31, 2016	\$	21.60	\$	16.01
Quarter ended March 31, 2017		21.50		15.00
Quarter ended June 30, 2017		16.50		12.20
Quarter ended September 30, 2017		14.80		11.00
Fiscal Year Ended September 30, 2016		High		Low
Quarter ended December 31, 2015	\$	16.51	\$	11.59
Quarter ended March 31, 2016		16.24		12.27
Quarter ended June 30, 2016		18.99		15.27
Quarter ended September 30, 2016		20.28		16.82

The foregoing prices reflect inter-dealer prices, without dealer markup, markdown, or commissions and may not represent actual transactions.

Approximate Number of Holders of Common Stock

There were approximately 290 holders of record of our common stock as of September 30, 2017.

Dividends

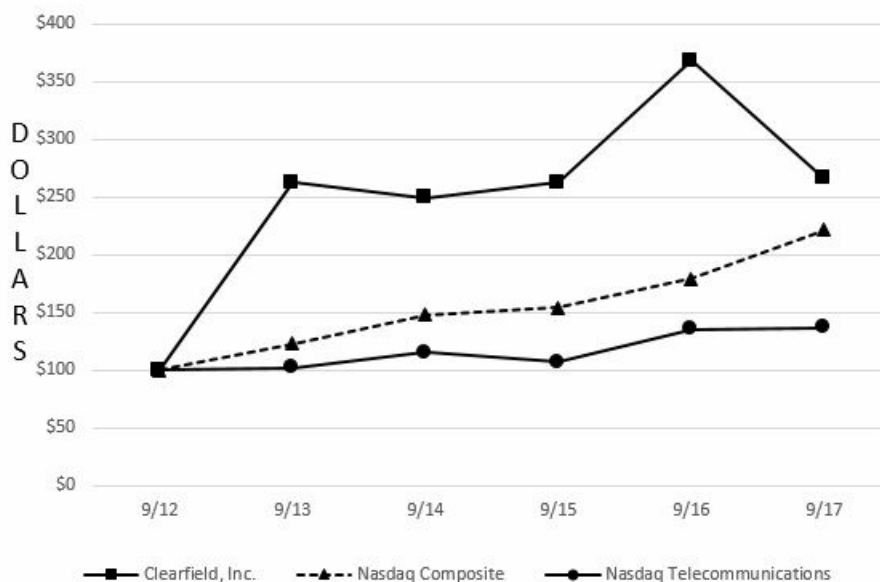
We have never paid cash dividends on our common stock. We currently intend to retain any earnings for use in our operations and do not intend in the foreseeable future to pay cash dividends on our common stock.

Stock Performance Graph

The information provided under this subsection shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the Exchange Act), or incorporated by reference into any filing of Clearfield, Inc. under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

The following graph shows a comparison of the 5-year cumulative total return on Clearfield, Inc.'s common stock relative to the NASDAQ Composite index, which the Company has selected as a broad market index, and the NASDAQ Telecommunications index, which the Company has selected as a published industry index. The graph assumes an investment of \$100 (with reinvestment of all dividends) is made in the Company's common stock and in each index on September 30, 2012 and its relative performance is tracked through September 30, 2017. The returns shown are based on historical results and are not intended to suggest future performance.

COMPARISON OF 5-YEAR CUMULATIVE TOTAL RETURN*
Among Clearfield, Inc., The NASDAQ Stock Market Composite Index
And The NASDAQ Telecommunications Index



Company/Index	September 30, 2012	September 30, 2013	September 30, 2014	September 30, 2015	September 30, 2016	September 30, 2017
Clearfield, Inc.	\$ 100.00	\$ 262.82	\$ 249.12	\$ 262.82	\$ 367.91	\$ 266.14
Nasdaq Composite Index	100.00	122.77	148.08	153.99	179.29	221.75
Nasdaq Telecommunications Index	100.00	101.70	115.28	107.06	134.94	136.52

Equity Compensation Plan Information

The following table describes shares of our common stock that are available on September 30, 2017 for purchase under outstanding stock-based awards, or reserved for issuance under stock-based awards or other rights that may be granted in the future, under our equity compensation plans:

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding those reflected in first column)
Equity compensation plans approved by security holders			
2010 Employee Stock Purchase Plan	-	\$ -	117,255
2007 Stock Compensation Plan	38,950	2.79	1,103,657
Total	38,950	\$ 2.79	1,220,912

There are no equity compensation plans not approved by the Company's shareholders and all outstanding equity awards have been granted pursuant to shareholder-approved plans. In addition to options, the 2007 Stock Compensation Plan permits restricted stock awards and other stock-based awards.

Issuer Repurchases

The Company repurchased a total of 42,348 shares of our common stock during the fourth quarter of fiscal year 2017 in connection with payment of taxes upon the vesting of restricted stock previously issued to employees. Additionally, in November 2014, the Company's Board of Directors authorized an \$8,000,000 common stock repurchase program, which was increased by \$4,000,000 on April 25, 2017 to a total authorization of \$12,000,000. The repurchase program does not obligate Clearfield to repurchase any particular amount of common stock during any period. The repurchase will be funded by cash on hand. The repurchase program is expected to continue indefinitely until the maximum dollar amount of shares has been repurchased or until the repurchase program is earlier modified, suspended or terminated by the Board of Directors.

The following table presents the total number of shares repurchased during the fourth quarter of fiscal 2017 by month and the average price paid per share:

ISSUER PURCHASES OF EQUITY SECURITIES

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Program ⁽¹⁾
July 1-31, 2017	34,802	\$ 13.01	34,802	\$ 7,961,269
August 1-31, 2017	105,625	11.66	63,277	7,220,582
September 1-30, 2017	4,212	12.06	4,212	7,169,768
Total	144,639	\$ 12.00	102,291	\$ 7,169,768

(1) Amount remaining from the \$12,000,000 repurchase authorizations approved by the Company's Board of Directors.

ITEM 6. SELECTED FINANCIAL DATA

The following selected financial data has been derived from our financial statements and should be read in conjunction with the Financial Statements and related notes thereto set forth in Item 8 and with "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in Item 7 of this Annual Report on Form 10-K.

	Year Ended September 30				
	2017	2016	2015	2014	2013
Selected Statements of Earnings Data					
Net sales	\$ 73,947,619	\$ 75,287,726	\$ 60,323,917	\$ 58,045,292	\$ 53,353,080
Gross profit	30,264,259	32,870,248	24,867,953	24,598,766	21,989,578
Income from operations	5,311,883	10,731,692	7,051,355	8,518,126	7,444,735
Income tax expense	1,737,974	2,876,032	2,475,238	3,180,978	2,803,172
Net income	3,847,839	8,013,062	4,682,008	5,432,851	4,733,844
Net income per share basic	\$ 0.28	\$ 0.60	\$ 0.35	\$ 0.42	\$ 0.38
Net income per share diluted	\$ 0.28	\$ 0.59	\$ 0.34	\$ 0.40	\$ 0.36
Selected Balance Sheet Data					
Total assets	\$ 69,494,037	\$ 70,595,313	\$ 57,627,617	\$ 51,847,898	\$ 46,413,339
Long-term liabilities	725,796	655,534	1,311,232	-	21,101
Shareholders' equity	64,525,120	62,594,043	51,279,130	46,746,634	40,078,036

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Cautionary Statement Regarding Forward-Looking Information

Statements made in this Annual Report on Form 10-K, in the Company's other SEC filings, in press releases and in oral statements, that are not statements of historical fact are "forward-looking statements." Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results or performance of the Company to be materially different from the results or performance expressed or implied by such forward-looking statements. The words "believes," "expects," "anticipates," "seeks" and similar expressions identify forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date the statement was made. The risks and uncertainties that could cause actual results to differ materially and adversely from those expressed or implied by the forward-looking statements include those risks described in Part I, Item 1A "Risk Factors."

Overview of Business: The Company sells highly configurable fiber management and connectivity products to broadband service providers serving the Fiber-to-the-Premises (“FTTP”), Fiber-to-the-Business (“FTTB”), and Fiber-to-the-Cell site markets in the U.S. and in certain limited markets outside the U.S., including countries in the Caribbean, Canada, Central and South America. The Company’s sales channels include direct to customer, through distribution partners, and to original equipment suppliers who private label its products. The Company’s products are sold by its sales employees and independent sales representatives.

Critical Accounting Policies: In preparing our financial statements, we make estimates, assumptions and judgments that can have a significant impact on our sales, income or loss from operations and net income or loss, as well as on the value of certain assets and liabilities on our balance sheet. We believe that there are several accounting policies that are critical to an understanding of our historical and future performance, as these policies affect the reported amounts of sales, expenses and significant estimates and judgments applied by management. While there are a number of accounting policies, methods and estimates affecting our financial statements, areas that are particularly significant include:

- Revenue recognition;
- Accounting for income taxes;
- Valuation and evaluating impairment of long-lived assets and goodwill; and
- Valuation of inventory.

Revenue Recognition Revenue is recognized when persuasive evidence of an arrangement exists, the product has been delivered, the fee is fixed, acceptance by the customer is reasonably certain and collection is reasonably assured. This generally occurs upon shipment of product to the customer. Sales of the Company’s products are subject to limited warranty obligations that are included in the Company’s terms and conditions. Also, the Company offers limited discounts and rebates to customers which are recorded in net sales on an estimated basis as the sales are recognized. The Company records freight revenues billed to customers as sales and the related shipping and handling cost in cost of sales. Taxes collected from customers and remitted to governmental authorities are presented on a net basis.

Income Taxes We account for income taxes in accordance with Accounting Standards Codification (“ASC”) 740, *Income Taxes*, under which deferred income taxes are recognized based on the estimated future tax effects of differences between the financial statement and tax bases of assets and liabilities given the provisions of enacted tax laws. Deferred income tax provisions and benefits are based on changes to the assets or liabilities from year to year. In providing for deferred taxes, we consider tax regulations of the jurisdictions in which we operate, estimates of future taxable income, and available tax planning strategies. If tax regulations, operating results, or the ability to implement tax-planning strategies vary, adjustments to the carrying value of deferred tax assets and liabilities may be required. A valuation allowance is recorded when it is more likely than not that a deferred tax asset will not be realized. The recorded valuation allowance is based on significant estimates and judgments and if the facts and circumstances change, the valuation allowance could materially change.

In accounting for uncertainty in income taxes, we recognize the financial statement benefit of a tax position only after determining that the relevant tax authority would more likely than not sustain the position following an audit. For tax positions meeting the more likely than not threshold, the amount recognized in the financial statements is the largest benefit that has a greater than 50 percent likelihood of being realized upon ultimate settlement with the relevant tax authority. The Company recognizes interest and penalties accrued on any unrecognized tax benefits as a component of income tax expense.

As of September 30, 2017, the Company had no U.S. federal net operating loss (“NOL”) carry-forwards and approximately \$6,437,000 state NOLs. The U.S. federal NOL carry forward amounts were fully utilized in fiscal year 2016. The state NOL carry forward amounts expire in fiscal years 2018 through 2022 if not utilized. In fiscal year 2009, the Company completed an Internal Revenue Code Section 382 analysis of the loss carry-forwards and determined that all of the Company’s loss carry-forwards were utilizable and not restricted under Section 382. The Company has not updated its Section 382 analysis subsequent to 2009 and does not believe there have been any events subsequent to 2009 that would impact the analysis.

As part of the process of preparing our financial statements, we are required to estimate our income tax liability in each of the jurisdictions in which we do business. This process involves estimating our actual current tax expense together with assessing temporary differences resulting from differing treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities. We must then assess the likelihood that these deferred tax assets will be recovered from future taxable income and, to the extent we believe that recovery is not more likely than not or unknown, we must establish a valuation allowance. If the valuation allowance is reduced, the Company would record an income tax benefit in the period in which that determination is made. If the valuation allowance is increased, the Company would record additional income tax expense.

As of September 30, 2016, the Company’s remaining valuation allowance of approximately \$322,000 related to state net operating loss carry forwards. During the fourth quarter of 2017, the Company reversed approximately \$163,000 of its remaining valuation allowance. Approximately \$131,000 of the reversal related to the expiration and utilization of state net operating losses in 2017. The remaining decrease of \$32,000 is related to higher future year expected NOL utilization based on updated profitability estimates. The remaining valuation allowance balance as of September 30, 2017 of \$159,000 relates entirely to state net operating loss carry forwards we do not expect to utilize. The Company will continue to assess the assumptions used to determine the amount of our valuation allowance and may adjust the valuation allowance in future periods based on changes in assumptions of estimated future income and other factors.

The Company files income tax returns in the U.S. Federal jurisdiction, and various state jurisdictions. Based on its evaluation, the Company has concluded that it has no significant unrecognized tax benefits. With limited exceptions, the Company is no longer subject to U.S. federal and state income tax examinations for fiscal years ending prior to 2002. We are generally subject to U.S. federal and state tax examinations for all tax years since 2002 due to our net operating loss carryforwards and the utilization of the carryforwards in years still open under statute. In 2007, the Company changed its fiscal year end from March 31 to September 30.

During the quarter ended December 31, 2015, the Company early adopted Accounting Standards Update (“ASU”) 2015-17 to present balance sheet classification of deferred income taxes as noncurrent. This adoption was applied prospectively and therefore, prior periods were not retrospectively adjusted.

During the quarter ended September 30, 2016, the Company early adopted ASU 2016-09, *Improvements to Employee Share-Based Payment Accounting*. The standard is intended to simplify various aspects of the accounting and presentation of share-based payments. During the quarter ended September 30, 2016, the Company elected to early adopt this standard as of October 1, 2015. The impact of this early adoption is more fully described in Footnote D.

Impairment of Long-Lived Assets and Goodwill The Company’s long-lived assets at September 30, 2017 consisted primarily of property, plant and equipment, patents and goodwill. The Company reviews the carrying amount of its property, plant and equipment and patents if events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. When this review indicates the carrying amount of an asset or asset group exceeds the sum of the future undiscounted cash flows expected to be generated by the assets, the Company recognizes an asset impairment charge against operations for the amount by which the carrying amount of the impaired asset exceeds its fair value.

Determining fair values of property, plant and equipment and patents using a discounted cash flow method involves significant judgment and requires the Company to make significant estimates and assumptions, including long-term projections of cash flows, market conditions and appropriate discount rates. Judgments are based on historical experience, current market trends, consultations with external valuation specialists and other information. If facts and circumstances change, the use of different estimates and assumptions could result in a materially different outcome. The Company generally develops these forecasts based on recent sales data for existing products, planned timing of new product launches, and estimated expansion of the FTTP market.

The Company operates as one reporting unit and reviews the carrying amount of goodwill annually in the fourth quarter of each fiscal year and more frequently if events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. The Company determines its fair value for goodwill impairment testing purposes by calculating its market capitalization and comparing that to the Company's carrying value. The Company's goodwill impairment test for the years ended September 30, 2017, 2016, and 2015 resulted in excess fair value over carrying value and therefore, no adjustments were made to goodwill. During the year ended September 30, 2017, there were no triggering events that indicated goodwill could be impaired.

A significant reduction in our market capitalization or in the carrying amount of net assets of a reporting unit could result in an impairment charge. If the carrying amount of a reporting unit exceeds its fair value, the Company would measure the possible goodwill impairment loss based on an allocation of the estimate of fair value of the reporting unit to all of the underlying assets and liabilities of the reporting unit, including any previously unrecognized intangible assets. The excess of the fair value of a reporting unit over the amounts assigned to its assets and liabilities is the implied fair value of goodwill. An impairment loss is recognized to the extent that a reporting unit's recorded goodwill exceeds the implied fair value of goodwill. An impairment loss would be based on significant estimates and judgments, and if the facts and circumstances change, a potential impairment could have a material impact on the Company's financial statements.

During the year ended September 30, 2017, the Company incurred an impairment charge on long-lived assets of \$643,604. This impairment was related to the cancellation of an enterprise resource planning software implementation. No impairment of long-lived assets or goodwill has occurred during the years ended September 30, 2016 or 2015, respectively.

Valuation of Inventory The Company maintains a material amount of inventory to support its manufacturing operations and customer demand. This inventory is stated at the lower of cost or market. On a regular basis, the Company reviews its inventory and identifies that which is excess, slow moving and obsolete by considering factors such as inventory levels, expected product life and forecasted sales demand. Any identified excess, slow moving and obsolete inventory is written down to its market value through a charge to cost of sales. It is possible that additional inventory write-down charges may be required in the future if there is a significant decline in demand for the Company's products and the Company does not adjust its manufacturing production accordingly.

Results of Operations

Year ended September 30, 2017 compared to year ended September 30, 2016

Net sales for fiscal year 2017 decreased 2%, or \$1,340,000, to \$73,948,000 from net sales of \$75,288,000 in 2016.

Sales in fiscal year 2017 to commercial data networks and broadband service providers were 95% of net sales, or \$69,921,000, compared to \$69,850,000, or 93%, of net sales in fiscal 2016. Among this group, the Company recorded \$6,047,000 in international sales in fiscal year 2017 versus \$4,024,000 in fiscal year 2016. Sales associated with build-to-print manufacturing for original equipment manufacturers outside of the telecommunications market in 2017 were 5% of net sales, or \$4,027,000, compared to \$5,438,000, or 7%, of net sales in fiscal year 2016. The Company allocates sales from external customers to geographic areas based on the location to which the product is transported. Accordingly, international sales represented 8% and 5% of net sales for the years ended September 30, 2017 and 2016, respectively.

The decrease in net sales for the fiscal year 2017 as compared to fiscal year 2016 is primarily attributable to a decrease in fiscal year 2017 of the ongoing builds of an Alternative Carrier customer by \$4,733,000 as compared to the fiscal year 2016. International sales increased \$2,023,000 during the same period due to an increase in demand in fiber deployments. In addition, the Company had an increase of \$1,370,000 in fiscal year 2017 net sales to our customer base of commercial data network providers, build-to-print and OEM manufacturers, and broadband service providers, outside of the Alternative Carrier group and international sales noted above when compared to fiscal 2016. The improvement was due to increased deployments by the Company's Traditional Carrier and Tier 1 customers. Revenue from all customers is obtained from purchase orders submitted from time to time. Accordingly, the Company's ability to predict orders in future periods or trends affecting orders in future periods is limited.

Cost of sales for fiscal year 2017 was \$43,683,000, an increase of \$1,266,000, or 3%, from the \$42,417,000 in fiscal year 2016. Gross profit decreased 8%, or \$2,606,000, from \$32,870,000 for fiscal year 2016 to \$30,264,000 for fiscal year 2017. Gross profit percent was 40.9% in fiscal year 2017, as compared to 43.7% for fiscal year 2016. The year-over-year decrease in gross profit was primarily due to decreased volume. The decrease in gross profit percent was primarily due to a higher percentage of sales to the Tier 1 customer group, which typically have lower margins, along with a lower percentage of sales associated with the integration of optical components within our product line, which typically have higher margins.

Selling, general and administrative expense for fiscal year 2017 was \$24,952,000, an increase of \$2,813,000, or 13%, compared to \$22,139,000 for fiscal year 2016. This increase is primarily composed of an increase of \$1,793,000 in compensation costs due primarily to additional sales and marketing personnel, an increase of \$831,000 in stock compensation expense, an increase of \$702,000 in product development costs, an increase of \$928,000 in legal expenses, and an impairment of long-lived assets of \$644,000, somewhat offset by a decrease of \$2,444,000 in performance compensation accruals when compared to fiscal year 2016.

Income from operations for fiscal year 2017 was \$5,312,000 compared to \$10,732,000 for fiscal year 2016. This decrease is attributable to decreased gross profit and the increased selling, general and administrative expenses described above.

Interest income in fiscal year 2017 was \$274,000 compared to \$157,000 for fiscal year 2016. The increase is due mainly to higher interest rates earned on its investments in fiscal 2017 as well as higher cash invested balances. The Company invests its excess cash primarily in FDIC-backed bank certificates of deposit and money market accounts.

Income tax expense for fiscal year 2017 was \$1,738,000 compared to \$2,876,000 for fiscal year 2016. Due to net operating loss utilization, income tax expense primarily had a non-cash effect on the operating cash flow for the year ended September 30, 2016. The decrease in tax expense of \$1,138,000 from the year ended September 30, 2016 is primarily due to decreased profitability in fiscal year 2017. The increase in the income tax expense rate to 31.1% for fiscal year 2017 from 26.4% for fiscal year 2016 is primarily the result of the Company having fewer positive discrete items in fiscal year 2017 compared to fiscal year 2016 as a result of the Company early adopting ASU 2016-09 in the fourth quarter ended September 30, 2016. The accounting standard update required that the tax effects of stock-based compensation be recognized in the income tax provision of the Company's statement of earnings. For prior quarters of fiscal 2016, the amounts relating to the tax effects of stock-based compensation were recasted to conform to the current year's presentation. Previously, these amounts were recognized in additional paid-in capital on the Company's balance sheet. As a result, the Company recognized net tax benefits related to stock-based compensation awards which lowered income tax expense by \$675,000 for fiscal year 2016. Our provisions for income taxes include current federal tax expense, state income tax expense, and deferred tax expense.

Net income for fiscal year 2017 was \$3,848,000 or \$0.28 per basic and diluted share, compared to \$8,013,000 or \$0.60 per basic share and \$0.59 per diluted share for the year 2016.

Year ended September 30, 2016 compared to year ended September 30, 2015

Net sales for fiscal year 2016 increased 25% to \$75,288,000 from net sales of \$60,324,000 in 2015. Sales growth was experienced from existing clients as well as from the development of new accounts within the telecommunications industry. The growth in sales includes increased sales from within the wireless market and cable provider's customer group and increased sales to our Alternative Carrier customer group, offset slightly by decreased international sales.

As a result of the above factors, sales in fiscal year 2016 to commercial data networks and broadband service providers were 93% of net sales, or \$69,850,000, compared to \$54,822,000, or 91%, of net sales in fiscal 2015. Among this group, the Company recorded \$4,024,000 in international sales in fiscal year 2016 versus \$5,000,000 in fiscal year 2015. Sales associated with build-to-print manufacturing for original equipment manufacturers outside of the telecommunications market in 2016 were 7% of net sales, or \$5,438,000, compared to \$5,502,000, or 9%, of net sales in fiscal year 2015. The Company allocates sales from external customers to geographic areas based on the location to which the product is transported. Accordingly, international sales represented 5% and 8% of net sales for the years ended September 30, 2016 and 2015, respectively.

The increase in net sales for the year ended September 30, 2016 of \$14,964,000 compared to fiscal year 2015 is primarily attributable to an increase of \$13,506,000 in net sales to our customer base of commercial data network providers, build-to-print and OEM manufacturers, and broadband service providers, outside of the Alternative Carrier group and international sales noted below, when compared to fiscal 2015. The improvement was due to increased deployments by the Company's Traditional Carrier customers, as well as expanded sales channels. Ongoing builds of an Alternative Carrier customer also increased net sales by \$2,434,000 for the year ended September 30, 2016. Net sales for fiscal year 2016 were negatively affected by a decrease in international sales of \$976,000 from the prior fiscal year due to sluggish demand.

Cost of sales for fiscal year 2016 was \$42,417,000, an increase of \$6,961,000, or 20% from the \$35,456,000 in fiscal year 2015. Gross margin was 43.7% in fiscal year 2016, as compared to 41.2% for fiscal year 2015. Gross profit increased 32%, or \$8,002,000, from \$24,868,000 for fiscal year 2015 to \$32,870,000 for fiscal year 2016. The year-over-year increase in cost of sales is primarily a result of increased sales volume. The increase in gross profit percentage is the result of a higher percentage of sales associated with the integration of optical components within our product line, which generally have higher margins.

Selling, general and administrative expense for fiscal year 2016 was \$22,139,000, up 24% compared to \$17,817,000 for fiscal year 2015. This increase is primarily composed of higher compensation expenses in the amount of \$3,376,000 mainly due to additional personnel, wage increases, higher performance compensation accruals, increased stock compensation expense of \$198,000, and increased depreciation expense of \$121,000.

Income from operations for fiscal year 2016 was \$10,732,000 compared to \$7,051,000 for fiscal year 2015. This increase is attributable to increased net sales and higher gross profit.

Interest income in fiscal year 2016 was \$157,000 compared to \$106,000 for fiscal year 2015. The increase is due mainly to higher interest rates earned on its investments in fiscal 2016. The Company invests its excess cash primarily in FDIC-backed bank certificates of deposit and money market accounts.

Income tax expense for fiscal year 2016 was \$2,876,000 compared to \$2,475,000 for fiscal year 2015. Due to net operating loss utilization, income tax expense primarily had a non-cash effect on the operating cash flow for the years ended September 30, 2016 and 2015. The increase in tax expense of \$401,000 from the year ended September 30, 2015 is primarily due to increased profitability in fiscal year 2016. The decrease in the income tax expense rate to 26.4% for fiscal year 2016 from 34.6% for fiscal year 2015 is primarily the result of the Company early adopting ASU 2016-09 effective with the fourth quarter ended September 30, 2016. The new accounting standard requires that the tax effects of stock-based compensation be recognized in the income tax provision of the Company's statement of earnings. For prior quarters of fiscal 2016, the amounts relating to the tax effects of stock-based compensation were recasted to conform to the current year's presentation. Previously, these amounts were recognized in additional paid-in capital on the Company's balance sheet. As a result, the Company recognized net tax benefits related to stock-based compensation awards which lowered income tax expense by \$675,000 for fiscal year 2016. Our provisions for income taxes include current federal tax expense, state income tax expense, and deferred tax expense.

Net income for fiscal year 2016 was \$8,013,000 or \$0.60 per basic share and \$0.59 per diluted share, compared to \$4,682,000 or \$0.35 per basic share and \$0.34 per diluted share for the year 2015.

Liquidity and Capital Resources

At September 30, 2017, the Company had combined balances of short-term cash and investments and long-term investments of \$44,289,000 as compared to \$44,244,000 at September 30, 2016. As of September 30, 2017, our principal source of liquidity was our cash and cash equivalents and short-term investments. Those sources total \$24,473,000 at September 30, 2017, compared to \$33,541,000, at September 30, 2016. Investments considered long-term are \$19,816,000 at September 30, 2017, compared to \$10,703,000 at September 30, 2016. Our excess cash is invested mainly in certificates of deposit and money market accounts. Substantially all of our funds are insured by the FDIC. We believe the combined balances of short-term cash and investments along with long-term investments provide a more accurate indication of our available liquidity. We had no long-term debt obligations at September 30, 2017 or 2016, respectively.

We believe our existing cash equivalents and short-term investments, along with cash flow from operations, will be sufficient to meet our working capital and investment requirements for beyond the next 12 months. The Company intends on utilizing its available cash and assets primarily for its continued organic growth and potential future strategic transactions, as well as execution of the share repurchase program adopted by our Board of Directors. The share repurchase program was originally adopted on November 13, 2014 with \$8,000,000 authorized for common stock repurchases. On April 25, 2017, our Board of Directors increased the authorization to \$12,000,000 of common stock.

Operating Activities

Net cash generated from operations for the fiscal year ended September 30, 2017 totaled \$6,298,000. Cash provided by operations included net income of \$3,848,000 for the fiscal year ended September 30, 2017, which included non-cash expenses for depreciation and amortization of \$1,622,000, stock-based compensation of \$2,320,000, and impairment of long-lived assets of \$644,000 offset by changes in operating assets and liabilities using cash. Changes between fiscal year 2017 and fiscal year 2016 in working capital items using cash consisted primarily of a decrease in accounts payable and accrued expenses of \$3,065,000 offset slightly by a decrease in accounts receivable of \$762,000. The decrease in accounts payable and accrued expenses is primarily due to decreased performance compensation accruals. The decrease in accounts receivable is primarily attributable to decreased sales in the quarter ended September 30, 2017 compared to the same quarter of fiscal 2016. Accounts receivable balances can be influenced by the timing of shipments for customer projects and payment terms. Days sales outstanding, which measures how quickly receivables are collected, was 36 days for September 30, 2017 and 35 days for September 30, 2016.

Net cash generated from operations for the fiscal year ended September 30, 2016 totaled \$11,553,000. Cash provided by operations included net income of \$8,013,000 for the fiscal year ended September 30, 2016, which included non-cash expenses for depreciation and amortization of \$1,449,000 and stock-based compensation of \$1,405,000, along with a non-cash benefit from deferred taxes of \$2,341,000. The Company has historically been utilizing its net operating losses ("NOLs") for taxes due and made cash payments related to taxes of \$1,131,000, \$51,000 and \$361,000 in the fiscal periods 2016, 2015 and 2014, respectively. Since the federal NOLs are now fully consumed as of September 30, 2016, the Company will no longer have this non-cash tax benefit, which will result in the Company having to use cash for its tax expense. Changes between fiscal year 2016 and fiscal year 2015 in working capital items using cash included increases in accounts receivable, inventory, and other current assets of \$1,988,000, \$1,190,000, and \$813,000, respectively. The increase in accounts receivable is primarily attributable to increased sales in the quarter ended September 30, 2016. Accounts receivable balances can be influenced by the timing of shipments for customer projects and payment terms. Days sales outstanding was 35 days for both September 30, 2016 and September 30, 2015. The increase in inventory represents an adjustment for seasonal demand along with changes in stocking levels for new product development. The increase in other current assets is primarily due to an increase in income taxes receivable at September 30, 2016. Changes in working capital items providing cash between fiscal year 2016 and fiscal year 2015 included an increase in accounts payable and accrued expenses of \$2,324,000, primarily due to increased performance compensation accruals.

Net cash generated from operations for the fiscal year ended September 30, 2015 totaled \$6,848,000. Cash provided by operations included net income of \$4,682,000 for the fiscal year ended September 30, 2015, which included non-cash expenses for depreciation and amortization of \$1,216,000 and stock-based compensation of \$1,075,000, along with a non-cash benefit from deferred taxes of \$2,342,000. The Company has historically been utilizing its net operating losses ("NOLs") for taxes due and made cash payments related to taxes of \$51,000, \$361,000 and \$154,000 in the fiscal periods 2015, 2014 and 2013, respectively. When the NOLs are fully consumed, the Company will no longer have this non-cash tax benefit which will result in the Company having to use cash for its tax expense. Changes between fiscal year 2015 and fiscal year 2014 in working capital items using cash included increases in inventory and accounts receivable of \$1,793,000 and \$983,000, respectively. The increase in inventory represents an adjustment for seasonal demand along with changes in stocking levels for new product development. The increase in accounts receivable is primarily attributable to increased sales in the quarter ended September 30, 2015. Accounts receivable balances can be influenced by the timing of shipments for customer projects and payment terms. Days sales outstanding was 35 days for September 30, 2015 and 32 days for September 30, 2014. Changes in working capital items providing cash between fiscal year 2015 and fiscal year 2014 included an increase in accounts payable and accrued expenses of \$164,000 and a decrease in other current assets of \$121,000.

Investing Activities

For the fiscal year ended September 30, 2017, we used \$2,022,000 in cash for the purchase of capital equipment and patents. These purchases were mainly related to information technology and manufacturing equipment. During fiscal year 2017, we purchased \$17,630,000 of FDIC-backed certificates of deposit and sold \$8,107,000 of FDIC-backed certificates of deposit. The result is cash used in investing activities of \$11,540,000 in fiscal year 2017 as compared to \$1,642,000 in fiscal year 2016. In fiscal year 2018, the Company intends to continue investing in the necessary computer hardware and software required to optimize its business, along with appropriate manufacturing equipment to continue to maintain a competitive position in manufacturing capability.

For the fiscal year ended September 30, 2016, we used \$1,627,000 in cash for the purchase of capital equipment and patents. These purchases were mainly related to information technology and manufacturing equipment. During fiscal year 2016, we purchased \$8,138,000 of FDIC-backed certificates of deposit and sold \$8,123,000 of FDIC-backed certificates of deposit. The result is cash used in investing activities of \$1,642,000 in fiscal year 2016 as compared to \$5,744,000 in fiscal year 2015.

For the fiscal year ended September 30, 2015, we used \$4,543,000 in cash for the purchase of capital equipment and patents. Included in this amount were purchases of \$3,027,000 in leasehold improvements and office equipment for the build out of our new Minnesota facility which was completed in the fiscal 2015 second quarter and purchases of manufacturing and warehouse equipment of \$1,079,000. During fiscal year 2015, we purchased \$10,374,000 of FDIC-backed certificates of deposit and sold \$9,093,000 of FDIC-backed certificates of deposit. The result is cash used in investing activities of \$5,744,000 in fiscal year 2015 as compared to \$3,586,000 in fiscal year 2014.

Financing Activities

For the fiscal year ended September 30, 2017, the Company used \$3,647,000 for the repurchase of common stock. Also, the Company received \$335,000 during the fiscal year ended September 30, 2017 from employees' purchase of stock through our Employee Stock Purchase Plan ("ESPP"). The Company used \$953,000 to pay for taxes as a result of employees' exercises of stock options and vesting of restricted shares using share withholding. As a result, the net cash used in financing activities during fiscal year 2017 was \$4,237,000.

For the fiscal year ended September 30, 2016, the Company used \$334,000 for the repurchase of common stock. Also, the Company received \$254,000 and \$549,000 during the fiscal year ended September 30, 2016 from employees' purchase of stock through the ESPP and the exercise of stock options, respectively. The Company used \$438,000 to pay for taxes as a result of employees' exercises of stock options and vesting of restricted shares using share withholding. As a result, the net cash provided by financing activities during fiscal year 2016 was \$32,000.

For the fiscal year ended September 30, 2015, the Company used \$849,000 for the repurchase of common stock. Also, the Company received \$211,000 and \$43,000 during the fiscal year ended September 30, 2015 from employees' purchase of stock through the ESPP and the exercise of stock options, respectively. The Company used \$639,000 to pay for taxes as a result of employees' exercises of stock options and vesting of restricted shares using share withholding. As a result, the net cash used by financing activities during fiscal year 2015 was \$1,224,000.

Contractual Obligations as of September 30, 2017

	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Operating lease obligations	\$ 3,597,970	\$ 584,249	\$ 1,161,604	\$ 814,300	\$ 1,037,817
Total	\$ 3,597,970	\$ 584,249	\$ 1,161,604	\$ 814,300	\$ 1,037,817

Operating Leases

We have entered into various non-cancelable operating lease agreements for office equipment and our office and manufacturing spaces in Minnesota and Mexico expiring at various dates through February 2024. Certain of these leases have escalating rent payment provisions. We recognize rent expense under such leases on a straight-line basis over the term of the lease.

Quarterly Financial Data (Unaudited)

Quarterly data for the years ended September 30, 2017 and 2016 was as follows:

Statement of Earnings Data	Quarter Ended			
	December 31, 2016	March 31, 2017	June 30, 2017	September 30, 2017
Net sales	\$ 18,266,162	\$ 17,651,771	\$ 19,611,297	\$ 18,418,389
Gross profit	7,208,720	7,442,814	7,937,250	7,675,475
Income from operations	1,191,196	1,280,636	1,322,557	1,517,494
Net income	876,930	907,521	803,316	1,260,072
Net income per share Basic	\$ 0.06	\$ 0.07	\$ 0.06	\$ 0.09
Net income per share Diluted	\$ 0.06	\$ 0.07	\$ 0.06	\$ 0.09

Statement of Earnings Data	Quarter Ended			
	December 31, 2015	March 31, 2016	June 30, 2016	September 30, 2016
Net sales	\$ 15,689,715	\$ 16,947,187	\$ 21,598,720	\$ 21,052,104
Gross profit	6,676,796	7,280,449	9,340,197	9,572,806
Income from operations	1,979,781	2,143,497	3,461,845	3,146,569
Net income	1,487,454*	1,492,979*	2,362,061*	2,670,568*
Net income per share Basic	\$ 0.11	\$ 0.11	\$ 0.18	\$ 0.20
Net income per share Diluted	\$ 0.11	\$ 0.11	\$ 0.17	\$ 0.20

*In March 2016, the Financial Accounting Standards Board (“FASB”) issued ASU No. 2016-09, *Improvements to Employee Share-Based Payment Accounting*. The standard is required to be adopted by all companies in their first fiscal year beginning after December 15, 2016 but allows companies to early adopt prior to this date. The standard is intended to simplify various aspects of the accounting and presentation of share-based payments. During the quarter ended September 30, 2016, the Company elected to early adopt this standard as of October 1, 2015. Adoption of this standard impacted the previously filed 10-Qs for fiscal 2016 as follows:

Statements of earnings— The new accounting standard requires that the tax effects of stock-based compensation be recognized in the income tax provision of the Company’s Statements of Earnings. Previously, these amounts were recognized in additional paid-in capital on the Company’s Balance Sheets. The new standard requires these amounts to be recasted within these quarters due to the prospective adoption of this standard in the fourth quarter of fiscal 2016. Accordingly, net tax benefits related to stock-based compensation awards of \$104,134, \$54,313, and \$79,640 for the quarters ended December 31, 2015, March 31, 2016, and June 30, 2016, respectively, were recognized as reductions of income tax expense in the statements of earnings. These tax benefits reduced our effective income tax rate 5.2%, 2.5%, and 2.3% for the quarters ended December 31, 2015, March 31, 2016, and June 30, 2016, respectively. The changes were applied on a prospective basis and resulted in an increase in basic and diluted earnings per share of \$0.01 and \$0.01 for the quarters ended December 31, 2015 and June 30, 2016, respectively. The change had no effect on basic and diluted earnings per share for the quarter ended March 31, 2016. The net tax benefit recognized during the quarter ended September 30, 2016 was \$437,096, which reduced our effective tax rate 13.7% to 16.3% for the quarter and resulted in an increase in basic and diluted earnings per share of \$0.03 and \$0.04, respectively. The net tax benefit recognized during the year ended September 30, 2016 was \$675,183, which reduced our effective tax rate 6.2% to 26.4% for the year and resulted in an increase in basic and diluted earnings per share of \$0.05.

Recent Accounting Pronouncements:

In May 2014, the FASB issued guidance creating Accounting Standards Codification (“ASC”) Section 606, *Revenue from Contracts with Customers*. The new section will replace Section 605, “Revenue Recognition” and creates modifications to various other revenue accounting standards for specialized transactions and industries. The section is intended to conform revenue accounting principles with a concurrently issued International Financial Reporting Standards with previously differing treatment between United States practice and those of much of the rest of the world, as well as to enhance disclosures related to disaggregated revenue information. The updated guidance is effective for annual reporting periods beginning after December 15, 2017, and interim periods within that reporting period. Early application is permitted only as of annual reporting periods beginning after December 15, 2016, including interim periods within that reporting period. The Company is planning to complete an assessment of its revenue streams during the second and third quarters of fiscal 2018 to determine the impact that this standard will have on its business practices, financial condition, results of operations and disclosures.

In July 2015, the FASB issued ASU 2015-11, *Inventory (Topic 330) Related to Simplifying the Measurement of Inventory* which applies to all inventory except inventory that is measured using last-in, first-out (“LIFO”) or the retail inventory method. Inventory measured using first-in, first-out (“FIFO”) or average cost is covered by the new amendments. Inventory within the scope of the new guidance should be measured at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. Subsequent measurement is unchanged for inventory measured using LIFO or the retail inventory method. The amendments will take effect for public business entities for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. The new guidance should be applied prospectively, and earlier application is permitted as of the beginning of an interim or annual reporting period. We do not expect adoption to have a material impact on our financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases*, which requires lessees to present right-of-use assets and lease liabilities on the balance sheet for all leases with terms longer than 12 months. The guidance is to be applied using a modified retrospective approach at the beginning of the earliest comparative period in the financial statements and is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted. The Company is evaluating the impact the adoption of this ASU will have on our financial statements.

In January 2017, the FASB issued ASU 2017-04 which offers amended guidance to simplify the accounting for goodwill impairment by removing Step 2 of the goodwill impairment test. A goodwill impairment will now be measured as the amount by which a reporting unit’s carrying value exceeds its fair value, limited to the amount of goodwill allocated to that reporting unit. This guidance is to be applied on a prospective basis effective for the Company’s interim and annual periods beginning after January 1, 2020, with early adoption permitted for any impairment tests performed after January 1, 2017. The Company is evaluating the impact the adoption of this ASU will have on our financial statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The Company is subject to changes in market interest rates on cash, cash equivalents, and short-term investments. These market risks have not changed significantly since September 30, 2016. Increases or decreases in interest rates will have an effect on these balances. At September 30, 2017, and 2016, the Company had cash and cash equivalents and short-term investments totaling \$24,473,000 and \$33,541,000, respectively. Most of these balances were invested in interest-bearing money market accounts or CD’s maturing within 12 months. Due to the nature of these money market accounts and CD’s, we believe that we do not have any material exposure to changes in the fair value of our cash equivalents and short-term investments as a result of changes in interest rates.

The Company uses the U.S. dollar as its functional currency. As such, fluctuations in foreign currency exchange rates have historically not been material to the Company. Accordingly, the Company believes it does not have any material exposure to fluctuations in foreign currency.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

**Clearfield, Inc.
INDEX TO FINANCIAL STATEMENTS**

	<u>Page</u>
Report of Independent Registered Public Accounting Firm	29
Financial Statements	
Balance Sheets	31
Statements of Earnings	32
Statements of Shareholders' Equity	33
Statements of Cash Flows	34
Notes to Financial Statements	35

The supplementary financial information required by this Item 8 is included in Item 7 under the caption "Quarterly Financial Data (Unaudited)."

Report of Independent Registered Public Accounting Firm

To the Shareholders, Audit Committee and Board of Directors
Clearfield, Inc.

We have audited the accompanying balance sheets of Clearfield, Inc. as of September 30, 2017 and 2016, and the related statements of earnings, shareholders' equity and cash flows for each of the years in the three-year period ended September 30, 2017. We also have audited Clearfield, Inc.'s internal control over financial reporting as of September 30, 2017, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) (2013 framework). The company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on these financial statements and an opinion on the company's internal control over financial reporting based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements include examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Clearfield, Inc. as of September 30, 2017 and 2016 and the results of its operations and cash flows for each of the years in the three-year period ended September 30, 2017, in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, Clearfield, Inc. maintained, in all material respects, effective internal control over financial reporting as of September 30, 2017, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) (2013 framework).

/s/ Baker Tilly Virchow Krause, LLP

Minneapolis, Minnesota
November 15, 2017

CLEARFIELD, INC.
BALANCE SHEETS

Assets	September 30, 2017	September 30, 2016
Assets		
Current Assets		
Cash and cash equivalents	\$ 18,536,111	\$ 28,014,321
Short-term investments	5,937,150	5,527,075
Accounts receivable, net	7,237,641	7,999,210
Inventories	8,453,567	8,373,155
Other current assets	978,933	1,198,917
Total current assets	41,143,402	51,112,678
Property, plant and equipment, net	5,434,172	5,780,814
Other Assets		
Long-term investments	19,816,000	10,703,000
Goodwill	2,570,511	2,570,511
Other	529,952	428,310
Total other assets	22,916,463	13,701,821
Total Assets	\$ 69,494,037	\$ 70,595,313
Liabilities and Shareholders' Equity		
Current Liabilities		
Accounts payable	\$ 1,739,791	\$ 2,573,292
Accrued compensation	2,410,026	4,697,138
Accrued expenses	93,304	75,306
Total current liabilities	4,243,121	7,345,736
Other Liabilities		
Deferred taxes	444,076	411,779
Deferred rent	281,720	243,755
Total other liabilities	725,796	655,534
Total Liabilities	4,968,917	8,001,270
Commitment and Contingencies		
Shareholders' Equity		
Preferred stock, \$.01 par value; 500,000 shares; no shares issued or outstanding	-	-
Common stock, \$.01 par value; 50,000,000 shares authorized; 13,812,821 and 14,126,279 shares issued and outstanding at September 30, 2017 and 2016, respectively	138,128	141,263
Additional paid-in capital	55,406,888	57,320,515
Retained earnings	8,980,104	5,132,265
Total shareholders' equity	64,525,120	62,594,043
Total Liabilities and Shareholders' Equity	\$ 69,494,037	\$ 70,595,313

The accompanying notes are an integral part of these financial statements.

CLEARFIELD, INC.
STATEMENTS OF EARNINGS

	Year Ended September 30, 2017	Year Ended September 30, 2016	Year Ended September 30, 2015
Net sales	\$ 73,947,619	\$ 75,287,726	\$ 60,323,917
Cost of sales	43,683,360	42,417,478	35,455,964
Gross profit	30,264,259	32,870,248	24,867,953
Operating expenses			
Selling, general, and administrative	24,952,376	22,138,556	17,816,598
Income from operations	5,311,883	10,731,692	7,051,355
Interest income	273,930	157,402	105,891
Income before income taxes	5,585,813	10,889,094	7,157,246
Income tax expense	1,737,974	2,876,032	2,475,238
Net income	\$ 3,847,839	\$ 8,013,062	\$ 4,682,008
Net income per share Basic	\$ 0.28	\$ 0.60	\$ 0.35
Net income per share Diluted	\$ 0.28	\$ 0.59	\$ 0.34
Shares used in calculation of net income per share:			
Basic	13,532,375	13,372,579	13,216,010
Diluted	13,660,806	13,663,349	13,587,532

The accompanying notes are an integral part of these financial statements.

CLEARFIELD, INC.
STATEMENTS OF SHAREHOLDERS' EQUITY

	Common Stock		Additional paid-in capital	Retained earnings (accumulated deficit)	Total shareholders' equity
	Shares	Amount			
Balance at September 30, 2014	13,742,964	\$ 137,430	\$ 56,036,989	\$ (9,427,785)	\$ 46,746,634
Stock-based compensation expense	-	-	1,074,727	-	1,074,727
Repurchase of common stock	(72,089)	(721)	(848,436)	-	(849,157)
Restricted stock forfeiture, net	(7,900)	(79)	79	-	-
Employee stock purchase plan	20,216	202	211,257	-	211,459
Exercise of stock options, net of shares exchanged for payment	60,011	600	42,506	-	43,106
Tax withholding related to vesting of restricted stock grants and exercise of stock options	(37,544)	(375)	(638,932)	-	(639,307)
Excess tax benefit of stock options exercised	-	-	9,660	-	9,660
Net income	-	-	-	4,682,008	4,682,008
Balance at September 30, 2015	13,705,658	137,057	55,887,850	(4,745,777)	51,279,130
Establishment of deferred tax asset for the adoption of ASU 2016-09	-	-	-	1,864,980	1,864,980
Stock-based compensation expense	-	-	1,404,899	-	1,404,899
Repurchase of common stock	(27,090)	(271)	(333,490)	-	(333,761)
Restricted stock issuance, net	258,266	2,583	(2,583)	-	-
Employee stock purchase plan	22,318	223	254,203	-	254,426
Exercise of stock options, net of shares exchanged for payment	191,853	1,918	546,926	-	548,844
Tax withholding related to vesting of restricted stock grants and exercise of stock options	(24,726)	(247)	(437,290)	-	(437,537)
Net income	-	-	-	8,013,062	8,013,062
Balance at September 30, 2016	14,126,279	141,263	57,320,515	5,132,265	62,594,043
Stock-based compensation expense	-	-	2,319,975	-	2,319,975
Repurchase of common stock	(270,124)	(2,701)	(3,644,613)	-	(3,647,314)
Restricted stock issuance, net	(7,809)	(78)	78	-	-
Employee stock purchase plan	25,867	258	334,434	-	334,692
Exercise of stock options, net of shares exchanged for payment	14,053	140	28,577	-	28,717
Tax withholding related to vesting of restricted stock grants and exercise of stock options	(75,445)	(754)	(952,078)	-	(952,832)
Net income	-	-	-	3,847,839	3,847,839
Balance at September 30, 2017	13,812,821	\$ 138,128	\$ 55,406,888	\$ 8,980,104	\$ 64,525,120

The accompanying notes are an integral part of these financial statements.

CLEARFIELD, INC.
STATEMENTS OF CASH FLOWS

	Year Ended September 30, 2017	Year Ended September 30, 2016	Year Ended September 30, 2015
Cash flows from operating activities:			
Net income	\$ 3,847,839	\$ 8,013,062	\$ 4,682,008
Adjustments to reconcile net income to cash provided by operating activities:			
Depreciation and amortization	1,622,094	1,449,202	1,216,083
Impairment of long-lived assets	643,604	-	-
Deferred income taxes	32,297	2,340,771	2,342,045
Loss on disposal of assets	35,281	12,348	23,196
Stock-based compensation expense	2,319,975	1,404,899	1,074,727
Changes in operating assets and liabilities:			
Accounts receivable, net	761,569	(1,988,310)	(983,044)
Inventories	(80,412)	(1,190,301)	(1,792,512)
Other current assets	180,456	(812,811)	121,381
Accounts payable and accrued expenses	(3,064,650)	2,323,891	164,336
Net cash provided by operating activities	6,298,053	11,552,751	6,848,220
Cash flows from investing activities:			
Purchases of property, plant and equipment	(1,951,615)	(1,550,128)	(4,518,782)
Purchase of investments	(17,630,075)	(8,138,075)	(10,374,000)
Proceeds from sale of property and equipment	5,100	729	79,936
Patent additions	(69,936)	(77,138)	(24,418)
Sale of investments	8,107,000	8,123,000	9,093,000
Net cash used in investing activities	(11,539,526)	(1,641,612)	(5,744,264)
Cash flows from financing activities:			
Repurchase of common stock	(3,647,314)	(333,761)	(849,157)
Proceeds from issuance of common stock under employee stock purchase plan	334,692	254,426	211,459
Proceeds from issuance of common stock	28,717	548,844	43,106
Excess tax benefit from exercise of stock options	-	-	9,660
Tax withholding related to vesting of restricted stock grants and exercise of stock options	(952,832)	(437,537)	(639,307)
Net cash (used in) provided by financing activities	(4,236,737)	31,972	(1,224,239)
(Decrease) increase in cash and cash equivalents	(9,478,210)	9,943,111	(120,283)
Cash and cash equivalents at beginning of year	28,014,321	18,071,210	18,191,493
Cash and cash equivalents at end of year	<u>\$ 18,536,111</u>	<u>\$ 28,014,321</u>	<u>\$ 18,071,210</u>
Supplemental cash flow information			
Cash paid during the year for income taxes, net of refunds	\$ 1,471,203	\$ 1,130,930	\$ 50,850
Non-cash financing activities			
Cashless exercise of stock options	\$ 34,268	\$ 853,033	\$ 207,738
Establishment of deferred tax asset for the adoption of ASU 2016-09	\$ -	\$ 1,864,980	\$ -

The accompanying notes are an integral part of these financial statements.

NOTES TO FINANCIAL STATEMENTS

NOTE A – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Description of Business: Clearfield, Inc., (the “Company”) is a manufacturer of a broad range of standard and custom passive connectivity products to customers throughout the United States and internationally. These products include fiber distribution systems, optical components, Outside Plant (“OSP”) cabinets, and fiber and copper cable assemblies that serve the communication service provider, including Fiber-to-the-Premises (“FTTP”), large enterprise, and original equipment manufacturer (“OEM”) markets.

Revenue Recognition: Revenue is recognized when persuasive evidence of an arrangement exists, the product has been delivered, the fee is fixed, acceptance by the customer is reasonably certain and collection is reasonably assured. This generally occurs upon shipment of product to the customer. Sales of the Company’s products are subject to limited warranty obligations that are included in the Company’s terms and conditions. Also, the Company offers limited discounts and rebates to customers which are recorded in net sales on an estimated basis as the sales are recognized. The Company records freight revenues billed to customers as sales and the related shipping and handling cost in cost of sales. Taxes collected from customers and remitted to governmental authorities are presented on a net basis.

Cash and Cash Equivalents: The Company considers all highly liquid investments with original maturities of three months or less to be cash equivalents. Cash equivalents at September 30, 2017 and 2016 consist entirely of short-term money market accounts.

The Company maintains cash balances at several financial institutions, and at times, such balances exceed insured limits. The Company has not experienced any losses in such accounts and believes it is not exposed to any significant credit risk on cash and cash equivalents.

Investments: The Company currently invests its excess cash in bank certificates of deposit (“CD’s”) that are fully insured by the Federal Deposit Insurance Corporation (“FDIC”) with a term of not more than five years. CD’s with original maturities of more than three months are reported as held-to-maturity investments and are recorded at amortized cost, which approximates fair value due to the negligible risk of changes in value due to interest rates. The maturity dates of our CD’s are as follows:

	September 30, 2017	September 30, 2016
Less than one year	\$ 5,937,150	\$ 5,527,075
1-5 years	19,816,000	10,703,000
Total	<u>\$ 25,753,150</u>	<u>\$ 16,230,075</u>

Accounts Receivable: Credit is extended based on the evaluation of a customer’s financial condition and collateral is generally not required. Accounts that are outstanding longer than the contractual payment terms are considered past due. The Company does not charge interest on past due receivables. The Company determines its allowance by considering a number of factors, including the length of time trade receivables are past due, the Company’s previous loss history, the customer’s current ability to pay its obligation to the Company, and the condition of the general economy and the industry as whole. The Company writes off accounts receivable when they become uncollectible; payments subsequently received on such receivables are credited to the allowance for doubtful accounts.

NOTE A – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES - Continued

The allowance for doubtful accounts activity for the years ended September 30, 2017, 2016, and 2015 is as follows:

Year Ended	Balance at Beginning of Year	Additions Charged to Costs and Expenses	Less Write-offs	Balance at End of Year
September 30, 2017	\$ 93,473	\$ -	\$ (14,388)	\$ 79,085
September 30, 2016	79,473	25,000	(11,000)	93,473
September 30, 2015	97,950	-	(18,477)	79,473

Fair Value of Financial Instruments: The financial statements include the following financial instruments: cash and cash equivalents, short-term investments, long-term investments, accounts receivable, accounts payable and accrued expenses. Other than long-term investments, all financial instruments' carrying values approximate fair values because of the short-term nature of the instruments. Long-term investments' carrying value approximates fair value due to the negligible risk of changes in value due to interest rates.

Inventories: Inventories consist of finished goods, raw materials and work in process and are stated at the lower of average cost (which approximates first in, first out) or market. Inventory is valued using material costs, labor charges, and allocated factory overhead charges and consists of the following:

	September 30, 2017	September 30, 2016
Raw materials	\$ 5,991,863	\$ 5,702,762
Work-in-process	724,248	471,305
Finished goods	1,737,456	2,199,088
Inventories	<u>\$ 8,453,567</u>	<u>\$ 8,373,155</u>

Inventory is stated at the lower of cost or market. On a regular basis, the Company reviews its inventory and identifies that which is excess, slow moving, and obsolete by considering factors such as inventory levels, expected product life, and forecasted sales demand. Any identified excess, slow moving, and obsolete inventory is written down to its market value through a charge to cost of sales. It is possible that additional inventory write-down charges may be required in the future if there is a significant decline in demand for the Company's products and the Company does not adjust its manufacturing production accordingly or if new products are not accepted by the market.

Property, Plant and Equipment: Property, plant and equipment are recorded at cost. Significant additions or improvements extending asset lives are capitalized, while repairs and maintenance are charged to expense when incurred. Depreciation is provided in amounts sufficient to relate the cost of assets to operations over their estimated useful lives. Leasehold improvements are amortized over the shorter of the remaining term of the lease or estimated life of the asset. Estimated useful lives of the assets are as follows:

	Years	
Equipment	3	7
Leasehold improvements	7	10 or life of lease
Vehicles	3	

NOTE A – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES – Continued

Property, plant and equipment consist of the following:

	September 30, 2017	September 30, 2016
Manufacturing Equipment	\$ 5,370,962	\$ 4,585,422
Office Equipment	3,600,006	3,513,002
Leasehold Improvements	2,404,331	2,422,669
Vehicles	193,702	193,702
Property, plant and equipment, gross	11,569,001	10,714,795
Less accumulated depreciation	6,134,829	4,933,981
Property, plant and equipment, net	<u>\$ 5,434,172</u>	<u>\$ 5,780,814</u>

Depreciation expense for the years ended September 30, 2017, 2016, and 2015 were \$1,614,272, \$1,445,910, and \$1,214,512, respectively.

Goodwill and Patents: The Company operates as one reporting unit and reviews the carrying amount of goodwill annually in the fourth quarter of each fiscal year and more frequently if events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. The Company determines its fair value for goodwill impairment testing purposes by calculating its market capitalization and comparing that to the Company's carrying value. The Company's goodwill impairment test for the years ended September 30, 2017, 2016, and 2015 resulted in excess fair value over carrying value and therefore, no adjustments were made to goodwill. During the year ended September 30, 2017, there were no triggering events that indicated goodwill could be impaired.

A significant reduction in our market capitalization or in the carrying amount of net assets of a reporting unit could result in an impairment charge. If the carrying amount of a reporting unit exceeds its fair value, the Company would measure the possible goodwill impairment loss based on an allocation of the estimate of fair value of the reporting unit to all of the underlying assets and liabilities of the reporting unit, including any previously unrecognized intangible assets. The excess of the fair value of a reporting unit over the amounts assigned to its assets and liabilities is the implied fair value of goodwill. An impairment loss is recognized to the extent that a reporting unit's recorded goodwill exceeds the implied fair value of goodwill. An impairment loss would be based on significant estimates and judgments, and if the facts and circumstances change, a potential impairment could have a material impact on the Company's financial statements.

No impairment of goodwill has occurred during the years ended September 30, 2017, 2016, or 2015, respectively.

The Company capitalizes legal costs incurred to obtain patents. Once accepted by either the U.S. Patent Office or the equivalent office of a foreign country, these legal costs are amortized using the straight-line method over the remaining estimated lives, not exceeding 20 years. As of September 30, 2017, the Company has 11 patents granted and multiple pending applications both inside and outside the United States.

Impairment of Long-Lived Assets: The Company assesses potential impairments to its long-lived assets or asset groups when there is evidence that events occur or changes in circumstances indicate that the carrying amount of an asset or asset group may not be recovered. An impairment loss is recognized when the carrying amount of the long-lived asset or asset group is not recoverable and exceeds its fair value. The carrying amount of a long-lived asset or asset group is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset or asset group.

NOTE A – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES – Continued

Any required impairment loss is measured as the amount by which the carrying amount of a long-lived asset or asset group exceeds its fair value and is recorded as a reduction in the carrying value of the related asset or asset group and a charge to operating results. During the year ended September 30, 2017, the Company incurred an impairment charge on long-lived assets of \$643,604 which was charged to selling, general, and administrative expenses. This impairment was related to the cancellation of an enterprise resource planning software implementation. No impairment of long-lived assets occurred during the years ended September 30, 2016 or 2015, respectively.

Income Taxes: The Company records income taxes in accordance with the liability method of accounting. Deferred taxes are recognized for the estimated taxes ultimately payable or recoverable based on enacted tax law. The Company establishes a valuation allowance to reduce the deferred tax assets when it is more likely than not that a deferred tax asset will not be realizable. Changes in tax rates are reflected in the tax provision as they occur.

In accounting for uncertainty in income taxes, we recognize the financial statement benefit of a tax position only after determining that the relevant tax authority would more likely than not sustain the position following an audit. For tax positions meeting the more likely than not threshold, the amount recognized in the financial statements is the largest benefit that has a greater than 50 percent likelihood of being realized upon ultimate settlement with the relevant tax authority. As of both September 30, 2017 and September 30, 2016, the Company did not have any unrecognized tax benefits. The Company recognizes interest and penalties accrued on any unrecognized tax benefits as a component of income tax expense. We do not expect any material changes in our unrecognized tax benefits over the next 12 months.

Stock-Based Compensation: We measure and recognize compensation expense for all stock-based payments at fair value over the requisite service period. We use the Black-Scholes option pricing model to determine the weighted average fair value of options. For restricted stock grants, fair value is determined as the average price of the Company's stock on the date of grant. Equity-based compensation expense is broken out between cost of sales and selling, general and administrative expenses based on the classification of the employee. The determination of fair value of stock-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as by assumptions regarding a number of subjective variables. These variables include, but are not limited to, the expected stock price volatility over the term of the awards, and actual and projected employee stock option exercise behaviors.

The expected terms of the options are based on evaluations of historical and expected future employee exercise behavior. The risk-free interest rate is based on the U.S. Treasury rates at the date of grant with maturity dates approximately equal to the expected life at grant date. Volatility is based on historical and expected future volatility of the Company's stock. The Company has not historically issued any dividends and does not expect to in the future. Forfeitures for both option and restricted stock grants are estimated at the time of the grant and revised in subsequent periods if actual forfeitures differ from estimates.

If factors change and we employ different assumptions in the determination of the fair value of grants in future periods, the related compensation expense that we record may differ significantly from what we have recorded in the current periods.

Research and Development Costs: Research and development costs amounted to \$865,568, \$838,122, and \$750,107, in 2017, 2016, and 2015, respectively, and are charged to expense when incurred.

Advertising Costs: Advertising costs amounted to \$378,217, \$350,399, and \$284,093, in 2017, 2016, and 2015, respectively, and are charged to expense when incurred.

NOTE A – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES - Continued

Net Income Per Share: Basic and diluted net income per share is computed by dividing net income by the weighted average number of common shares outstanding and the weighted average number of dilutive shares outstanding, respectively. Weighted average common shares outstanding for the years ended September 30, 2017, 2016, and 2015 were as follows:

Year ended September 30,	2017	2016	2015
Net income	\$ 3,847,839	\$ 8,013,062	\$ 4,682,008
Weighted average common shares	13,532,375	13,372,579	13,216,010
Dilutive potential common shares	128,431	290,770	371,522
Weighted average dilutive common shares outstanding	13,660,806	13,663,349	13,587,532
Earnings per share:			
Basic	\$ 0.28	\$ 0.60	\$ 0.35
Diluted	\$ 0.28	\$ 0.59	\$ 0.34

There were no potentially dilutive shares excluded from the calculation above for the years ended September 30, 2017, 2016, and 2015.

Use of Estimates: The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, related revenues and expenses and disclosure about contingent assets and liabilities at the date of the financial statements. Significant estimates include the deferred tax asset valuation allowance, the valuation of our inventory, rebates related to revenue recognition, performance compensation accruals and the valuation of long-lived assets and goodwill. Actual results may differ materially from these estimates.

Recently Issued Accounting Pronouncements:

In May 2014, the FASB issued guidance creating Accounting Standards Codification (“ASC”) Section 606, *Revenue from Contracts with Customers*. The new section will replace Section 605, “Revenue Recognition” and creates modifications to various other revenue accounting standards for specialized transactions and industries. The section is intended to conform revenue accounting principles with a concurrently issued International Financial Reporting Standards with previously differing treatment between United States practice and those of much of the rest of the world, as well as to enhance disclosures related to disaggregated revenue information. The updated guidance is effective for annual reporting periods beginning after December 15, 2017, and interim periods within that reporting period. Early application is permitted only as of annual reporting periods beginning after December 15, 2016, including interim periods within that reporting period. The Company is planning to complete an assessment of its revenue streams during the second and third quarters of fiscal 2018 to determine the impact that this standard will have on its business practices, financial condition, results of operations and disclosures.

In July 2015, the FASB issued ASU 2015-11, *Inventory (Topic 330) Related to Simplifying the Measurement of Inventory* which applies to all inventory except inventory that is measured using last-in, first-out (“LIFO”) or the retail inventory method. Inventory measured using first-in, first-out (“FIFO”) or average cost is covered by the new amendments. Inventory within the scope of the new guidance should be measured at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. Subsequent measurement is unchanged for inventory measured using LIFO or the retail inventory method. The amendments will take effect for public business entities for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. The new guidance should be applied prospectively, and earlier application is permitted as of the beginning of an interim or annual reporting period. We do not expect adoption to have a material impact on our financial statements.

NOTE A – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES - Continued

In February 2016, the FASB issued ASU 2016-02, *Leases*, which requires lessees to present right-of-use assets and lease liabilities on the balance sheet for all leases with terms longer than 12 months. The guidance is to be applied using a modified retrospective approach at the beginning of the earliest comparative period in the financial statements and is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted. The Company is evaluating the impact the adoption of this ASU will have on our financial statements.

In January 2017, the FASB issued ASU 2017-04 which offers amended guidance to simplify the accounting for goodwill impairment by removing Step 2 of the goodwill impairment test. A goodwill impairment will now be measured as the amount by which a reporting unit's carrying value exceeds its fair value, limited to the amount of goodwill allocated to that reporting unit. This guidance is to be applied on a prospective basis effective for the Company's interim and annual periods beginning after January 1, 2020, with early adoption permitted for any impairment tests performed after January 1, 2017. The Company is evaluating the impact the adoption of this ASU will have on our financial statements.

NOTE B – COMMITMENTS AND FACILITIES

Operating Leases: The Company leases office and manufacturing facilities in Minnesota and Mexico for its ongoing operations, which expire at various dates through February 2024. The Company also leases various pieces of office equipment. Certain of these leases have escalating rent payment provisions. We recognize rent expense under such leases on a straight-line basis over the term of the lease. For the years ended September 30, 2017, 2016, and 2015, total rent expense was \$768,000, \$658,000 and \$630,000 respectively. Rent expense includes operating expenses, insurance, and related taxes.

As of September 30, 2017, the future minimum lease payments required under operating lease agreements are as follows:

Year ending September 30	Operating leases
2018	\$ 584,249
2019	593,586
2020	568,018
2021	402,123
2022	412,177
Thereafter	1,037,817
Total minimum lease payments	<u>\$ 3,597,970</u>

Share Repurchase: On November 13, 2014, the Company announced that its board of directors had approved a stock repurchase program under which it will purchase up to \$8 million of its outstanding shares of common stock. On April 25, 2017, the Board of Directors increased the repurchase authorization by \$4,000,000 to \$12,000,000 of common stock. The program does not obligate Clearfield to repurchase any particular amount of common stock during any period. The repurchase will be funded by cash on hand. The repurchase program is expected to continue indefinitely until the maximum dollar amount of shares has been repurchased or until the repurchase program is earlier modified, suspended or terminated by the board of directors. As of September 30, 2017, the Company may repurchase up to \$7,169,768 of its outstanding shares of common stock.

NOTE C – SHAREHOLDERS' EQUITY

The Company is authorized to issue 50,000,000 shares of common stock at \$.01 par value and 5,000,000 undesignated shares. From the undesignated shares, 500,000 shares have been designated as Series B Junior Participating Preferred Shares and none of such shares have been issued or are outstanding. The Board of Directors may, by resolution, establish from the remaining undesignated shares different classes or series of shares and may fix the relative rights and preferences of shares in any class or series.

Stock-Based Compensation: The Company's stock-based compensation plans are administered by the Compensation Committee of the Board of Directors, which selects persons to receive awards and determines the number of shares subject to each award and the terms, conditions, performance measures and other provisions of the award.

The Company currently has one equity compensation plan, the 2007 Stock Compensation Plan, from which it grants equity awards that are used as an incentive for directors, officers, and other employees. The Company's Stock Option Plan for Non-Employee Directors was terminated in February of 2010 and 67,500 authorized but unissued shares became unavailable for awards because of the termination. The 2007 Stock Compensation Plan has 1,103,657 shares available for issue as of September 30, 2017. As of September 30, 2017, \$5,208,269 of total unrecognized compensation expense related to non-vested awards is expected to be recognized over a period of approximately 7.1 years. The Company recorded related compensation expense for the years ended September 30, 2017, 2016, and 2015 of \$2,319,975, \$1,404,899, and \$1,074,727, respectively. For the year ended September 30, 2017, \$2,103,621 of this expense was included in selling, general and administrative expense and \$216,354 was included in cost of sales. For the year ended September 30, 2016, \$1,272,656 of this expense was included in selling, general and administrative expense and \$132,243 was included in cost of sales. For the year ended September 30, 2015, all of this expense was included in selling, general and administrative expense.

Stock Options: The Company uses the Black-Scholes option-pricing model to estimate fair value of stock-based awards. The Company did not grant stock options during the years ended September 30, 2017, 2016, and 2015.

Options are generally granted at fair market values determined on the date of grant and vesting normally occurs over a three to five-year period. The maximum contractual term is normally six years. However, options granted to directors have a one year vesting period and a six year contractual term. Shares issued upon exercise of a stock option are issued from the Company's authorized but unissued shares. There were no options vested during the year ended September 30, 2017 and 2016, respectively. For the year ended September 30, 2017, there were 10,500 stock options that were exercised using a cashless method of exercise. For the year ended September 30, 2016, there were 152,484 stock options that were exercised using a cashless method of exercise. The intrinsic value of options exercised during the years ended September 30, 2017 and 2016 was \$237,172 and \$2,644,220, respectively. The intrinsic value of options exercisable as of September 30, 2017 is \$421,237.

NOTE C – SHAREHOLDERS’ EQUITY – Continued

Option transactions under the 2007 Stock Compensation Plan during the years ended September 30, 2017 and 2016 are summarized as follows:

	Number of shares	Weighted average exercise price	Weighted average fair value
Outstanding at September 30, 2015	297,384	\$ 5.29	
Granted	-	-	-
Cancelled or Forfeited	-	-	-
Exercised	(242,584)	5.78	
Outstanding at September 30, 2016	54,800	3.13	
Granted	-	-	-
Cancelled or Forfeited	-	-	-
Exercised	(15,850)	3.97	
Outstanding at September 30, 2017	38,950	\$ 2.79	

The following table summarizes information concerning options exercisable under the 2007 Stock Compensation Plan:

Year ended	Exercisable	Weighted average remaining contractual life (years)	Weighted average exercise price
September 30, 2017	38,950	2.73	\$ 2.79
September 30, 2016	54,800	2.83	\$ 3.13

The following table summarizes information concerning options currently outstanding at:

Year Ended	Number outstanding	Weighted average remaining contractual life (years)	Weighted average exercise price	Aggregate intrinsic value
September 30, 2017	38,950	2.73	\$ 2.79	\$ 421,237
September 30, 2016	54,800	2.83	\$ 3.13	\$ 858,771

Restricted Stock: The Company’s 2007 Stock Compensation Plan permits our Compensation Committee to grant other stock-based awards. The Company awards restricted stock grants to employees that vest over one to ten years.

Restricted stock transactions during the years ended September 30, 2017 and 2016 are summarized as follows:

	Number of shares	Weighted average grant date fair value
Unvested shares at September 30, 2015	409,130	\$ 9.97
Granted	269,173	17.43
Vested	(103,826)	7.99
Forfeited	(10,907)	12.99
Unvested shares at September 30, 2016	563,570	14.26
Granted	3,795	16.45
Vested	(185,231)	12.30
Forfeited	(11,604)	14.79
Unvested shares at September 30, 2017	370,530	\$ 15.24

NOTE C – SHAREHOLDERS' EQUITY – Continued

The Company repurchased a total of 75,445 shares of our common stock at an average price of \$12.63 in connection with payment of taxes upon the vesting of restricted stock previously issued to employees for the year ended September 30, 2017. The Company repurchased a total of 19,072 shares of our common stock at an average price of \$17.97 in connection with payment of taxes upon the vesting of restricted stock previously issued to employees for the year ended September 30, 2016.

Employee Stock Purchase Plan: The Clearfield, Inc. 2010 Employee Stock Purchase Plan ("ESPP") allows participating employees to purchase shares of the Company's common stock at a discount through payroll deductions. The ESPP is available to all employees subject to certain eligibility requirements. Terms of the ESPP provide that participating employees may purchase the Company's common stock on a voluntary after tax basis. Employees may purchase the Company's common stock at a price that is no less than the lower of 85% of the fair market value of one share of common stock at the beginning or end of each stock purchase period or phase. The ESPP is carried out in six-month phases, with phases beginning on July 1 and January 1 of each calendar year. For the phases that ended on December 31, 2016 and June 30, 2017, employees purchased 11,144 and 14,723 shares, respectively, at a price of \$15.21 and \$11.22 per share, respectively. For the phases that ended on December 31, 2015 and June 30, 2016, employees purchased 10,352 and 11,966 shares, respectively, at a price of \$11.40 per share. As of September 30, 2017, the Company has withheld approximately \$73,542 from employees participating in the phase that began on July 1, 2017. After the employee purchase on June 30, 2017, 117,255 shares of common stock were available for future purchase under the ESPP.

NOTE D – INCOME TAXES

In March 2016, the Financial Accounting Standards Board ("FASB") issued ASU No. 2016-09, *Improvements to Employee Share-Based Payment Accounting*. The standard is required to be adopted by all companies in their first fiscal year beginning after December 15, 2016 but allows companies to early adopt prior to this date. The standard is intended to simplify various aspects of the accounting and presentation of share-based payments. During the quarter ended September 30, 2016, the Company elected to early adopt this standard as of October 1, 2015. Adoption of this standard had the following impact on the Company's financial statements:

Statements of earnings— The new accounting standard requires that the tax effects of stock-based compensation be recognized in the income tax provision of the Company's Statements of Earnings. Previously, these amounts were recognized in additional paid-in capital on the Company's Balance Sheets. The new standard requires these amounts to be recasted within these quarters due to the prospective adoption of this standard in the fourth quarter of fiscal 2016. Accordingly, tax benefits related to stock-based compensation awards of \$104,134, \$54,313, and \$79,640 for the quarters ended December 31, 2015, March 31, 2016, and June 30, 2016, respectively, were recognized as reductions of income tax expense in the statements of earnings. These tax benefits reduced our effective income tax rate 5.2%, 2.5%, and 2.3% for the quarters ended December 31, 2015, March 31, 2016, and June 30, 2016, respectively. The changes were applied on a prospective basis and resulted in an increase in basic and diluted earnings per share of \$0.01 and \$0.01 for the quarters ended December 31, 2015 and June 30, 2016, respectively. The change had no effect on basic and diluted earnings per share for the quarter ended March 31, 2016. The net tax benefit recognized during the quarter ended September 30, 2016 was \$437,096, which reduced our effective tax rate 13.7% to 16.3% for the quarter and resulted in an increase in basic and diluted earnings per share of \$0.03 and \$0.04, respectively. The net tax benefit recognized during the year ended September 30, 2016 was \$675,183, which reduced our effective tax rate 6.2% to 26.4% for the year and resulted in an increase in basic and diluted earnings per share of \$0.05.

NOTE D – INCOME TAXES – Continued

Statements of cash flows – The standard requires that excess tax benefits from stock-based employee awards be reported as operating activities in the Company’s Statements of Cash Flows. Previously, these cash flows were included as hypothetical inflows/outflows in both operating and financing activities. The Company elected to apply this change on a prospective basis, resulting in an increase in net cash provided by operating activities and a decrease in net cash used by financing activities of \$348,000, \$741,000, and \$1,786,000 for the three months ended December 31, 2015, the six months ended March 31, 2016, and the nine months ended June 30, 2016, respectively, compared to the previously filed Form 10-Qs.

Statements of shareholders’ equity – The standard requires that as of the beginning of the annual period of adoption, previously unrecognized excess tax benefits be recognized on a modified retrospective basis and record a deferred tax asset for the balance with an offsetting adjustment to retained earnings. The Company recognized additional deferred tax assets and adjusted retained earnings in the amount of \$1,864,980 on October 1, 2015.

In recording stock-based compensation expense, the new standard allows companies to make a policy election as to whether they will include an estimate of awards expected to be forfeited or whether they will account for forfeitures as they occur. We have elected to include an estimate of forfeitures in the computation of our stock-based compensation expense. As this treatment is consistent with the Company’s previous practice, this election had no impact on our financial statements.

The new standard requires that employee taxes paid when an employer withholds shares for tax-withholding purposes be reported as financing activities in the consolidated statements of cash flows. As this treatment is consistent with the Company’s previous practice, this election had no impact on our financial statements.

Realization of net operating loss carry-forward and other deferred tax temporary differences are contingent upon future taxable earnings. The Company’s deferred tax assets were reviewed for expected utilization by assessing the available positive and negative factors surrounding its recoverability.

As of September 30, 2016, the Company’s remaining valuation allowance of approximately \$322,000 related to state net operating loss carry forwards. During the fourth quarter of 2017, the Company reversed approximately \$163,000 of its remaining valuation allowance. Approximately \$131,000 of the reversal related to the expiration and utilization of state net operating losses in 2017. The remaining decrease of \$32,000 is related to higher future year expected NOL utilization based on updated profitability estimates. The remaining valuation allowance balance as of September 30, 2017 of \$159,000 relates entirely to state net operating loss carry forwards we do not expect to utilize. The Company will continue to assess the assumptions used to determine the amount of our valuation allowance and may adjust the valuation allowance in future periods based on changes in assumptions of estimated future income and other factors. If the valuation allowance is reduced, we would record an income tax benefit in the period the valuation allowance is reduced. If the valuation allowance is increased, we would record additional income tax expense.

NOTE D – INCOME TAXES – Continued

The valuation allowance activity for the years ended September 30, 2017, 2016, and 2015 is as follows:

Year Ended	Balance at Beginning of Year	Income Tax Benefit	Reversal for State NOL Expiration and Utilization	Balance at End of Year
September 30, 2017	\$ 322,404	\$ (32,154)	\$ (131,096)	\$ 159,154
September 30, 2016	658,808	(78,044)	(258,360)	322,404
September 30, 2015	847,826	(53,836)	(135,182)	658,808

Significant components of deferred income tax assets and liabilities are as follows at:

	September 30, 2017	September 30, 2016
Long-term deferred income tax assets (liabilities):		
Intangibles	\$ (90,085)	\$ (67,450)
Property and equipment depreciation	(948,653)	(815,374)
Net operating loss carry forwards and credits	551,125	702,113
Stock-based compensation	209,645	221,905
Inventories	503,632	388,292
Prepaid expenses	(48,847)	(44,511)
Accrued expenses and reserves	404,649	312,227
Goodwill	(866,388)	(786,577)
Gross long-term deferred tax liability	(284,922)	(89,375)
Valuation allowance	(159,154)	(322,404)
Net long-term deferred tax liability	\$ (444,076)	\$ (411,779)

As of September 30, 2017 and 2016, the current income tax receivable was approximately \$409,000 and \$643,000, respectively. Current income tax receivable amounts are included in Other Current Assets in the Company's balance sheets.

During the quarter ended December 31, 2015, the Company early adopted ASU 2015-17 to present balance sheet classification of deferred income taxes as noncurrent. This adoption was applied prospectively and therefore, prior periods were not retrospectively adjusted.

As of September 30, 2017, the Company had no U.S. federal net operating loss ("NOL") carry-forwards and approximately \$6,437,000 state NOLs. The U.S. federal NOL carry forward amounts were fully utilized in fiscal year 2016. The state NOL carry forward amounts expire in fiscal years 2018 through 2022 if not utilized. In addition, as of September 30, 2017, the Company has Minnesota research and development and alternative minimum tax credits of \$159,000 and \$46,000, respectively. The Company has not recorded a valuation allowance on these deferred tax assets as the Company believes it is more likely than not they will be utilized before they begin to expire in fiscal year 2030.

The Company completed an Internal Revenue Code Section 382 analysis of the loss carry forwards in 2009 and determined then that all of the Company's loss carry forwards are utilizable and not restricted under Section 382. The Company has not updated its Section 382 analysis subsequent to 2009 and does not believe there have been any events subsequent to 2009 that would impact the analysis.

NOTE D – INCOME TAXES – Continued

Under ASU No. 2016-09, an entity recognizes all excess tax benefits and tax deficiencies relating to stock-based compensation as income tax expense or benefit in the statement of earnings. This change eliminates the notion of the “APIC” pool and related prior year disclosures for excess tax deductions not reflected in the Company’s deferred tax asset presentation.

The following is a reconciliation of the federal statutory income tax rate to the effective tax rate as a percent of pre-tax income for the following years ended:

	September 30, 2017	September 30, 2016	September 30, 2015
Federal statutory rate	34%	34%	34%
State income taxes	1%	1%	1%
Permanent differences	(1%)	-	1%
Change in valuation allowance	(4%)	(3%)	(3%)
Expiration and utilization of state NOL’s	3%	2%	2%
Research and development credits	(1%)	(1%)	-
Excess tax benefits from stock-based compensation	(1%)	(7%)	-
Tax rate	<u>31%</u>	<u>26%</u>	<u>35%</u>

Components of the income tax expense are as follows for the years ended:

	September 30, 2017	September 30, 2016	September 30, 2015
Current:			
Federal	\$ 1,627,125	\$ 428,638	\$ 67,373
State	78,552	106,623	65,820
Current income tax expense	<u>1,705,677</u>	<u>535,261</u>	<u>133,193</u>
Deferred:			
Federal	8,680	2,434,294	2,377,590
State	23,617	(93,523)	(35,545)
Deferred income tax expense	<u>32,297</u>	<u>2,340,771</u>	<u>2,342,045</u>
Income tax expense	<u>\$ 1,737,974</u>	<u>\$ 2,876,032</u>	<u>\$ 2,475,238</u>

The Company is required to recognize the financial statement benefit of a tax position only after determining that the relevant tax authority would more likely than not sustain the position following an audit. For tax positions meeting the more likely than not threshold, the amount recognized in the financial statements is the largest benefit that has a greater than 50 percent likelihood of being realized upon ultimate settlement with the relevant tax authority. The Company applies the interpretation to all tax positions for which the statute of limitations remained open. The Company had no liability for unrecognized tax benefits and did not recognize any interest or penalties during the years ended September 30, 2017, 2016, or 2015.

The Company is subject to income taxes in the U.S. federal jurisdiction, and various state jurisdictions. Tax regulations within each jurisdiction are subject to the interpretation of the related tax laws and regulations and require significant judgment to apply. With few exceptions, the Company is no longer subject to U.S. federal, state and local, income tax examinations by tax authorities for fiscal years ending prior to 2002. We are generally subject to U.S. federal and state tax examinations for all tax years since 2001 due to our net operating loss carryforwards and the utilization of the carryforwards in years still open under statute. The Company changed its fiscal year end in 2007 from March 31 to September 30.

NOTE E – CONCENTRATIONS

Suppliers: The Company purchases critical components for our products, including injection molded parts and connectors from third parties, some of whom are single- or limited-source suppliers. If any of our suppliers are unable to ship critical components, we may be unable to manufacture and ship products to our distributors or customers. If the price of these components increases for any reason, or if these suppliers are unable or unwilling to deliver, we may have to find another source, which could result in interruptions, increased costs, delays, loss of sales and quality control problems.

Customers: The following table summarizes customers comprising 10% or more of net sales for the years ended September 30, 2017, 2016, and 2015:

	Year Ended September 30,			
	2017	2016	2015	
Customer A	20%	21%	25%	
Customer B	15%	16%	*	

* Less than 10%

As of September 30, 2017, Customer B accounted for 19% of accounts receivable. As of September 30, 2016, Customers A and B accounted for 18% and 12% of accounts receivable, respectively. Customers A and B are both distributors.

Long-lived assets: As of September 30, 2017 and 2016, the Company had property, plant and equipment with a net book value of \$581,396 and \$376,004, respectively, located in Mexico.

NOTE F – EMPLOYEE BENEFIT PLAN

The Company maintains a contributory 401(k) profit sharing benefit plan, whereby eligible employees may contribute a portion of their earnings, not to exceed annual amounts allowed under the Internal Revenue Code. For the year ended September 30, 2014 and through December 31, 2014, the Company matched 100% of the first 3% and 50% of the next 2% of the participant's eligible compensation that was contributed by the participant. Effective January 1, 2015, the Company matched 100% of the first 3% and 50% of the next 3% of the participant's eligible compensation that was contributed by the participant. The Company's contributions under this plan were \$652,615, \$520,530 and \$460,868 for the years ended September 30, 2017, 2016, and 2015, respectively.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

The Company's management carried out an evaluation, under the supervision and with the participation of the Company's Chief Executive Officer and the Company's Chief Financial Officer of the effectiveness of the design and operation of the Company's disclosure controls and procedures (as such term is defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended) as of September 30, 2017. Based upon that evaluation, the Company's Chief Executive Officer and the Company's Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining an adequate system of internal control over financial reporting, as such term is defined in Rule 13a-15(f) of the Exchange Act. Under the supervision and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in the 2013 *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on that evaluation, management concluded that, as of September 30, 2017, our internal control over financial reporting was effective. Management reviewed the results of its assessment with our Audit Committee. The effectiveness of our internal control over financial reporting as of September 30, 2017 has been audited by Baker Tilly Virchow Krause, LLP, an independent registered public accounting firm, as stated in its report which is included in Item 8 of this Annual Report on Form 10-K.

Changes in Internal Control over Financial Reporting

No changes in the Company's internal control over financial reporting occurred during the fourth quarter of fiscal year 2017 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information required by Item 10 to be included in our Proxy Statement for our 2018 Annual Meeting of Shareholders (the "2018 Proxy Statement"), which will be filed with the Securities and Exchange Commission pursuant to Regulation 14A within 120 days after the end of the fiscal year for which this report is filed, is incorporated herein by reference into this section.

ITEM 11. EXECUTIVE COMPENSATION

The information required by Item 11 to be included in the 2018 Proxy Statement, is incorporated herein by reference into this section.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

See "Equity Compensation Plan Information" under Item 5, "Market For Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities" of Part II hereof.

The remainder of the information required by Item 12 to be included in the 2018 Proxy Statement, is incorporated herein by reference into this section.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by Item 13 to be included in the 2018 Proxy Statement, is incorporated herein by reference into this section.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by Item 14 to be included in the 2018 Proxy Statement, is incorporated herein by reference into this section.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

- (a) Documents filed as part of this report.
(1) Financial Statements.

The financial statements of Clearfield, Inc. are filed herewith under Item 8. "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K.

- (2) Certain financial statement schedules have been omitted because they are not required, not applicable, or the required information is provided in other financial statements or the notes to the financial statements.

- (b) Exhibits.

ITEM 16. FORM 10-K SUMMARY

Not applicable.

EXHIBIT INDEX

Number	Description	Incorporated by Reference to
3.1	Restated Articles of Incorporation, of APA Optics, Inc. (n/k/a Clearfield, Inc.) dated November 3, 1983 and Articles of Amendment dated December 9, 1983, July 30, 1987, March 22, 1989, September 14, 1994 and August 17, 2000	Exhibit 3.1 to Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2000
3.1 (a)	Articles of Amendment to Articles of Incorporation dated August 25, 2004	Exhibit 3.1 to Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004
3.2	Amended and Restated Bylaws of Clearfield, Inc.	Exhibit 3.1 to Registrant's Current Report on Form 8-K dated February 25, 2016
*10.1	Form of Agreement regarding Indemnification of Directors and Officers with certain current and former directors	**
*10.2	2007 Stock Compensation Plan, as amended through December 23, 2016	Appendix A to the Registrant's Proxy Statement filed with the SEC on January 10, 2017 for the 2017 Annual Meeting of Shareholders held on February 23, 2017.
*10.3	Employment Agreement dated December 16, 2008 by and between Clearfield, Inc. and Cheryl P. Beranek.	Exhibit 10.26 to Registrant's Current Report on Form 8-K dated December 16, 2008
*10.4	Employment Agreement dated December 16, 2008 by and between Clearfield, Inc. and John P. Hill.	Exhibit 10.27 to Registrant's Current Report on Form 8-K dated December 16, 2008
*10.5	Clearfield, Inc. Code 280G Tax Gross Up Payment Plan Adopted November 18, 2010	Exhibit 10.1 to Registrant's Current Report on Form 8-K dated November 18, 2010.
10.6	Clearfield, Inc. 2010 Employee Stock Purchase Plan	Appendix A to the Registrant's Proxy Statement filed with the SEC on January 26, 2010 for the 2010 Annual Meeting of Shareholders held on February 25, 2010.
10.7	Standard Form Industrial Building Lease dated September 9, 2014 by and between Clearfield, Inc. and First Industrial, L.P.	Exhibit 10.1 to Registrant's Current Report on Form 8-K dated September 10, 2014.
23.1	Consent of Baker Tilly Virchow Krause, LLP	**

31.1	Certification of Chief Executive Officer (principal executive officer) Pursuant to Rules 13a-14(a) and 15d-14(a) of the Exchange Act	**
31.2	Certification of Chief Financial Officer (principal financial officer) Pursuant to Rules 13a-14(a) and 15d-14(a) of the Exchange Act	**
32	Certification of Chief Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. § 1350	**
101.INS	XBRL Instance Document	**
101.SCH	XBRL Taxonomy Extension Schema	**
101.CAL	XBRL Taxonomy Calculation Linkbase	**
101.LAB	XBRL Taxonomy Labels Linkbase	**
101.PRE	XBRL Taxonomy Presentation Linkbase	**
101.DEF	XBRL Taxonomy Definition Linkbase	**

* Indicates a management contract or compensatory plan or arrangement.

** Indicates exhibit filed herewith.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Clearfield, Inc.

Date: November 15, 2017

/s/ Cheryl Beranek
Cheryl Beranek
President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Each person whose signature appears below hereby constitutes and appoints Cheryl Beranek and Daniel Herzog and each of them, as his true and lawful attorney-in-fact and agent, with full power of substitution, to sign on his behalf, individually and in each capacity stated below, all amendments to this Form 10-K and to file the same, with all exhibits thereto and any other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully and to all intents and purposes as each might or could do in person, hereby ratifying and confirming each act that said attorneys-in-fact and agents may lawfully do or cause to be done by virtue thereof.

<u>Signatures</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Cheryl Beranek</u> Cheryl Beranek	President, Chief Executive Officer (principal executive officer) and Director	November 15, 2017
<u>/s/ Daniel Herzog</u> Daniel Herzog	Chief Financial Officer (principal financial and accounting officer)	November 15, 2017
<u>/s/ Ronald G. Roth</u> Ronald G. Roth	Director	November 15, 2017
<u>/s/ Roger G. Harding</u> Roger G. Harding	Director	November 15, 2017
<u>/s/ Donald R. Hayward</u> Donald R. Hayward	Director	November 15, 2017
<u>/s/ Charles N. Hayssen</u> Charles N. Hayssen	Director	November 15, 2017
<u>/s/ Patrick F. Goepel</u> Patrick F. Goepel	Director	November 15, 2017

APA OPTICS, INC.¹

INDEMNIFICATION AGREEMENT

This INDEMNIFICATION AGREEMENT (the “**Agreement**”) is made as of _____, by and between APA Optics, Inc., a Minnesota corporation (the “**Company**”), and _____ (“**Indemnitee**”).²

RECITALS

1. The Company desires to attract and retain qualified directors, officers, employees and other agents, and to provide them with protection against liability and expenses incurred while acting in that capacity;
2. The Articles of Incorporation and Bylaws of the Company contain provisions for indemnifying directors and officers of the Company, and the Bylaws and Minnesota law contemplate that separate contracts may be entered into between the Company and its directors and officers, employees and other agents with respect to their indemnification by the Company;
3. The Company understands that Indemnitee has reservations about serving or continuing to serve the Company without adequate protection against personal liability arising from such service, and that it is also of critical importance to Indemnitee that adequate provision be made for advancing costs and expenses of legal defense; and
4. The Board of Directors of the Company has approved, as being in the best interests of the Company, indemnity contracts substantially in the form of this Agreement for directors and officers of the Company and its subsidiaries and for certain other employees and agents of the Company designated by the Board of Directors.

NOW, THEREFORE, in order to induce Indemnitee to serve or to continue to serve as a director and/or officer of the Company, and in consideration of Indemnitee’s service to the Company, the parties agree as follows:

1. **Contractual Indemnity.** The Company hereby agrees, subject to the limitations of Sections 2 and 5 hereof and the limitations of Minnesota Statute 302A.521:

¹ APA Optics, Inc. is now known as Clearfield, Inc.

² Current directors that are Indemnitee parties to this Agreement and dates of the Agreement are: Ronald G. Roth dated February 5, 2002. Former directors/officers that are Indemnitee parties to this Agreement and dates of the Agreement are: Anil Jain dated February 5, 2002, Kenneth A. Olsen dated February 5, 2002, Robert M. Ringstad dated February 5, 2002, Gregory Von Wald dated February 5, 2002, Stephen A. Zuckerman, MD dated February 5, 2002 and John G. Reddan dated November 14, 2002.

(a) To indemnify, defend and hold Indemnitee harmless to the greatest extent possible under applicable law from and against any and all judgments, fines, penalties, amounts paid in settlement and any other amounts reasonably incurred or suffered by Indemnitee (including attorneys' fees) in connection with any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative, or investigative, including an action by or in the right of the Company, to which Indemnitee is, was or at any time becomes a party, or is threatened to be made a party, by reason of the fact that Indemnitee is, was or at any time becomes a director, officer, employee or agent of the Company or is or was serving or at any time serves at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise (collectively referred to hereafter as a "Claim"), whether or not arising prior to the date of this Agreement.

(b) To pay any and all expenses reasonably incurred by Indemnitee (i) in defending any Claim or Claims (including reasonable attorneys' fees and other reasonable costs of investigation and defense) or (ii) in appearing as a witness for, or at the request of, or cooperating with or assisting the Company, in connection with any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative, or investigative, including an action by or in the right of the Company, as the same are incurred and in advance of the final disposition of any such Claim or Claims; provided, however, that advances pursuant to clause b(i) shall be made only upon receipt of an undertaking by or on behalf of Indemnitee to reimburse such amounts if it shall be ultimately determined that Indemnitee is not entitled to be indemnified by the Company under this Agreement, and is not entitled to be indemnified by the Company under the Articles of Incorporation, the Bylaws, or Minnesota law.

(c) The termination of any action or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that (i) Indemnitee did not act in good faith and in a manner which Indemnitee reasonably believed to be in the best interests of the Company, or (ii) with respect to any criminal action or proceeding, Indemnitee had reasonable cause to believe that Indemnitee's conduct was unlawful.

2. **Limitations on Contractual Indemnity.** Indemnitee shall not be entitled to indemnification or advancement of expenses under Section 1:

(a) if a court of competent jurisdiction, by final judgment or decree, shall determine that (i) the Claim or Claims in respect of which indemnity is sought arise from Indemnitee's fraudulent, dishonest or willful misconduct, or (ii) such indemnity is not permitted under applicable law; or

(b) on account of any suit in which judgment is rendered for an accounting of profits made from the purchase or sale by Indemnitee of securities of the Company in violation of the provisions of Section 16(b) of the Securities Exchange Act of 1934 and amendments thereto or similar provisions of any federal, state or local statutory law; or

- (c) for any acts or omissions or transactions from which a director may not be indemnified under the Minnesota Business Corporation Act; or
- (d) with respect to proceedings or claims initiated or brought voluntarily by Indemnitee and not by way of defense, except (i) with respect to proceedings brought in good faith to establish or enforce a right to indemnification under this Agreement or any other statute or law, or (ii) at the Company's discretion, in specific cases if the Board of Directors of the Company has approved the initiation or bringing of such suit; or
- (e) for expenses or liabilities of any type whatsoever (including, but not limited to, judgments, fines, ERISA excise taxes or penalties, and amounts paid in settlement) which have been paid directly to Indemnitee by an insurance carrier under a policy of directors' and officers' liability insurance maintained by the Company; or
- (f) on account of any suit brought against Indemnitee for misuse or misappropriation of non-public information, or otherwise involving Indemnitee's status as an "insider" of the Company, in connection with any purchase or sale by Indemnitee of securities of the Company.

3. **Continuation of Contractual Indemnity.** Subject to the termination provisions of Section 11, all agreements and obligations of the Company contained herein shall continue for so long as Indemnitee shall be subject to any possible action, suit, proceeding or other assertion of a Claim or Claims.

4. **Expenses; Indemnification Procedure.** The Company shall advance all expenses incurred by Indemnitee in connection with the investigation, defense, settlement or appeal of any civil or criminal action or proceeding referenced in Section 1 hereof (but not amounts actually paid in settlement of any such action or proceeding). Indemnitee hereby undertakes to repay such amounts advanced if, and to the extent that, it shall ultimately be determined that Indemnitee is not entitled to be indemnified by the Company as authorized hereby. The advances to be made hereunder shall be paid by the Company to Indemnitee within twenty (20) days following delivery of a written request therefor by Indemnitee to the Company.

5. **Notification and Defense of Claim.** If any action, suit, proceeding or other Claim is brought against Indemnitee in respect of which indemnity may be sought under this Agreement:

- (a) Indemnitee will promptly notify the Company in writing of the commencement thereof, and the Company and any other indemnifying party similarly notified will be entitled to participate therein at its own expense or to assume the defense thereof and to employ counsel reasonably satisfactory to Indemnitee. Notice to the Company shall be directed to the Chief Executive Officer of the Company at the address shown on the signature page of this Agreement (or such other address as the Company shall designate in writing to Indemnitee). Notice shall be deemed received three (3) business days after the date postmarked if sent by domestic certified or registered mail, properly addressed; otherwise notice shall be deemed received when such notice shall actually be received by the Company. Indemnitee shall have the right to employ its own counsel in connection with any such Claim and to participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of Indemnitee unless (i) the Company shall not have assumed the defense of the Claim and employed counsel for such defense, or (ii) the named parties to any such action (including any impleaded parties) include both Indemnitee and the Company, and Indemnitee shall have reasonably concluded that joint representation is inappropriate under applicable standards of professional conduct due to a material conflict of interest between Indemnitee and the Company, in either of which events the reasonable fees and expenses of such counsel to the Indemnitee shall be borne by the Company upon delivery to the Company of the undertaking referred to in subparagraph (b) of Section 1. However, in no event will the Company be obligated to pay the fees or expenses of more than one firm of attorneys representing Indemnitee and any other agents of the Company in connection with any one Claim or separate but substantially similar or related Claims in the same jurisdiction arising out of the same general allegations or circumstances.

(b) The Company shall not be liable to indemnify Indemnitee for any amounts paid in settlement of any Claim effected without the Company's written consent, and the Company shall not settle any Claim in a manner which would impose any penalty or limitation on Indemnitee without Indemnitee's written consent; provided, however, that neither the Company nor Indemnitee will unreasonably withhold its consent to any proposed settlement and, provided further, that if a claim is settled by the Indemnitee with the Company's written consent, or if there be a final judgment or decree for the plaintiff in connection with the Claim by a court of competent jurisdiction, the Company shall indemnify and hold harmless Indemnitee from and against any and all losses, costs, expenses and liabilities incurred by reason of such settlement or judgment.

(c) Indemnitee shall give the Company such information and cooperation as it may reasonably require and as shall be within Indemnitee's power.

(d) Any indemnification provided for in Section 1 shall be made no later than forty-five (45) days after receipt of the written request of Indemnitee. If a Claim under this Agreement, under any statute, or under any provision of the Company's Articles of Incorporation or Bylaws providing for indemnification, is not paid in full by the Company within forty-five (45) days after a written request for payment thereof has first been received by the Company, Indemnitee may, but need not, at any time thereafter bring an action against the Company to recover the unpaid amount of the claim and, subject to Section 13 of this Agreement, Indemnitee shall also be entitled to be reimbursed for the expenses (including attorneys' fees) of bringing such action. It shall be a defense to any such action (other than an action brought to enforce a claim for expenses incurred in connection with any action or proceeding in advance of its final disposition) that Indemnitee has not met the standards of conduct which make it permissible under applicable law for the Company to indemnify Indemnitee for the amount claimed but the burden of proving such defense shall be on the Company, and Indemnitee shall be entitled to receive interim payments of expenses pursuant to Section 4 unless and until such defense may be finally adjudicated by court order or judgment from which no further right of appeal exists. It is the parties' intention that if the Company contests Indemnitee's right to indemnification, the question of Indemnitee's right to indemnification shall be for the court to decide, and neither the failure of the Company (including its Board of Directors, any committee or subgroup of the Board of Directors, independent legal counsel, or its stockholders) to have made a determination that indemnification of Indemnitee is proper in the circumstances because Indemnitee has met the applicable standard of conduct required by applicable law, nor an actual determination by the Company (including its Board of Directors, any committee or subgroup of the Board of Directors, independent legal counsel, or its stockholders) that Indemnitee has not met such applicable standard of conduct, shall create a presumption that Indemnitee has or has not met the applicable standard of conduct.

(e) If, at the time of the receipt of a notice of a Claim, the Company has director and officer liability insurance in effect, the Company shall give prompt notice of the commencement of such proceeding to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of the Indemnitee, all amounts payable as a result of such proceeding in accordance with the terms of such policies.

6. **Scope.** Notwithstanding any other provision of this Agreement, the Company hereby agrees to indemnify the Indemnitee against any Claim to the fullest extent permitted by law, notwithstanding that such indemnification is not specifically authorized by the other provisions of this Agreement, the Company's Articles of Incorporation, the Company's Bylaws or by statute. In the event of any change, after the date of this Agreement, in any applicable law, statute or rule which expands the right of a Minnesota corporation to indemnify a member of its board of directors, an officer or other corporate agent, such changes shall be, ipso facto, within the purview of Indemnitee's rights and the Company's obligations, under this Agreement. In the event of any change in any applicable law, statute, or rule which narrows the right of a Minnesota corporation to indemnify a member of its Board of Directors, an officer, or other corporate agent, such changes, to the extent not otherwise required by applicable law to be applied to this Agreement, shall have no effect on this Agreement or the parties' rights and obligations hereunder.

7. **Partial Indemnification.** If Indemnitee is entitled under any provision of this Agreement to indemnification by the Company for some or a portion of the expenses, judgments, fines or penalties actually or reasonably incurred by him in the investigation, defense, appeal or settlement of any civil or criminal action or proceeding, but not, however, for the total amount thereof, the Company shall nevertheless indemnify Indemnitee for the portion of such expenses, judgments, fines or penalties to which Indemnitee is entitled.

8. **Public Policy.** Both the Company and Indemnitee acknowledge that in certain instances, Federal law or applicable public policy may prohibit the Company from indemnifying its directors and officers under this Agreement or otherwise. Indemnitee understands and acknowledges that the Company has undertaken or may be required in the future to undertake with the Securities and Exchange Commission to submit the question of indemnification to a court in certain circumstances for a determination of the Company's right under public policy to indemnify Indemnitee.

9. **Insurance.** The Company shall maintain insurance for the purpose of indemnifying Indemnitee and other agents of the Company against personal liability, including costs of legal defense, while Indemnitee continues to serve the Company in an “official capacity” as defined in MSA 302A.521(1)(c). The terms and liability limits of such insurance shall be solely within the discretion of the Company.

10. **No Restrictions.** The rights and remedies of Indemnitee under this Agreement shall not be deemed to exclude or impair any other rights or remedies to which Indemnitee may be entitled under the Certificate of Incorporation or Bylaws of the Company, or under any other agreement, provision of law or otherwise, nor shall anything contained herein restrict the right of the Company to indemnify Indemnitee in any proper case even though not specifically provided for in this Agreement, nor shall anything contained herein restrict Indemnitee’s right to contribution as may be available under applicable law.

11. **Termination.** The Company may terminate this Agreement at any time upon ninety (90) days’ written notice, but any such termination will not affect Claims relating to events occurring prior to the effective date of termination.

12. **Severability.** Each of the provisions of this Agreement is a separate and distinct agreement and independent of the others, so that if any provision hereof shall be held to be invalid or unenforceable for any reason, such invalidity or unenforceability shall not affect the validity or enforceability of the other provisions hereof.

13. **Attorneys’ Fees.** In the event of any litigation or other action or proceeding to enforce or interpret this Agreement, the prevailing party as determined by the court shall be entitled to an award of its reasonable attorneys’ fees and other costs, in addition to such relief as may be awarded by a court or other tribunal.

14. **Further Assurances.** The parties will do, execute and deliver, or will cause to be done, executed and delivered, all such further acts, documents and things as may be reasonably required for the purpose of giving effect to this Agreement and the transactions contemplated hereby.

15. **Acknowledgment.** The Company expressly acknowledges that it has entered into this Agreement and assumed the obligations imposed on the Company hereunder in order to induce Indemnitee to serve or to continue to serve as an agent of the Company, and acknowledges that Indemnitee is relying on this Agreement in serving or continuing to serve in such capacity.

16. **Construction of Certain Phrases.**

(a) **“Company”:** For purposes of this Agreement, references to the “Company” shall also include, in addition to the resulting corporation in any consolidation or merger to which The Company, Inc. is a party, any constituent corporation (including any constituent of a constituent) absorbed in consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, employees or agents, so that if Indemnitee is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, Indemnitee shall stand in the same position under the provisions of this Agreement with respect to the resulting or surviving corporation as Indemnitee would have with respect to such constituent corporation if its separate existence had continued.

(b) **Benefit Plans:** References to “fines” contained in this Agreement shall include any excise taxes assessed on Indemnitee with respect to an employee benefit plan; and references to “serving at the request of the Company” shall include any service as a director, officer, employee or agent of the Company which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants, or beneficiaries.

(c) **“Proceeding”:** For purposes of this Agreement, “proceeding” shall include any and all forms of “alternative dispute resolution,” including without limitation arbitration and mediation.

17. **Counterparts.** This Agreement may be executed in one or more counterparts, each of which shall constitute an original.

18. **Notice.** All notices, requests, demands and other communications under this Agreement shall be in writing and shall be deemed duly given (i) if delivered by hand and received for by the party addressee, on the date of such receipt, or (ii) if mailed by domestic certified or registered mail with postage prepaid, on the third business day after the date postmarked. Addresses for notice to either party are as shown on the signature page of this Agreement, or as subsequently modified by written notice.

19. **Governing Law; Binding Effect; Amendment.**

(a) This Agreement shall be interpreted and enforced in accordance with the laws of the State of Minnesota as applied to agreements between Minnesota residents entered and to be performed entirely within Minnesota (without regard to conflict of law provisions).

(b) This Agreement shall be binding upon Indemnitee and the Company, their successors and assigns, and shall inure to the benefit of Indemnitee, his heirs, personal representatives and assigns and to the benefit of the Company, its successors and assigns.

(c) No amendment, modification, termination or cancellation of this Agreement shall be effective unless in writing signed by both parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

APA Optics, Inc.
a Minnesota corporation

By: _____

Name: _____

Title: _____

Address:

Indemnitee

(Signature of Indemnitee)

Address:

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statements on Form S-8 (File No. 333-44500, File No. 333-136828, File No. 333-151504, File No. 333-166495, File No. 333-173793 and File No. 333-217652) of Clearfield, Inc. of our report dated November 15, 2017, relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this annual report on Form 10-K for the year ended September 30, 2017.

/s/ Baker Tilly Virchow Krause, LLP

Minneapolis, Minnesota
November 15, 2017

CERTIFICATION

I, Cheryl Beranek, certify that:

1. I have reviewed this annual report on Form 10-K of Clearfield, Inc.;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly represent in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's control over financial reporting.
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.

November 15, 2017

/s/ Cheryl Beranek
Cheryl Beranek
Chief Executive Officer
(Principal executive officer)

CERTIFICATION

I, Daniel Herzog, certify that:

1. I have reviewed this annual report on Form 10-K of Clearfield, Inc.;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly represent in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's control over financial reporting.
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.

November 15, 2017

/s/ Daniel Herzog
Daniel Herzog
Chief Financial Officer
(Principal financial and accounting officer)

CERTIFICATION

The undersigned certifies pursuant to 18 U.S.C. 1350 that:

1. The accompanying Annual Report on Form 10-K for the period ended September 30, 2017 fully complies with the requirements of Sections 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 15, 2017

/s/ Cheryl Beranek
Cheryl Beranek
Chief Executive Officer

/s/ Daniel Herzog
Daniel Herzog
Chief Financial Officer