

**“Providing Quality Today for
Tomorrow’s Technology”**

K & F Company Presentation

Est. 1972

Company Overview

- Established in 1972, K & F Electronics (“K & F” or the Company”), based in Fraser, Michigan and is a leading manufacturer of small; short order (quick turn) precision printed circuit boards (“PCB”).
- K & F serves numerous industries including the research, automotive, original equipment manufacturers (“OEM”) and the industrial electrical product markets.
- K & F has developed a large and diversified customer base over its 48 year history. The Company’s core group of customers includes well known and nationally established research and development facilities, automotive manufacturers and suppliers, consumer electronics companies, and industrial component companies.
- K & F supplies to textile, RF microwave, sensors, Homeland Security, contract manufacturing, medical, time tracking, trucking, and rectification power control.



K & F Manufacturing



Headquartered in Fraser Michigan (39 miles from Detroit Metropolitan Wayne Airport), K & F conducts manufacturing and administrative activities from approximately 30,000 square foot facility. The integrated manufacturing operation includes the following departments:

- Tooling
 - Photo fabrication
 - Drilling
 - Screening
 - Machining
 - Wet Process
 - Chemistry Laboratory
 - Inspection & Test
 - Waste treatment
 - Operations Department.
- Equipment

K & F's manufacturing capabilities include the production of multiple types of boards including single, double, and multi-layered printed circuit boards and assemblies.

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K & F Manufacturing Take-Aways



- 30,000 SQ. FT of manufacturing
- 30 Employees with majority having 10+ tenure
- Most employees have 10-20 years of experience
- Over 1000+ customers and continuously growing
- Air conditioning throughout the entire plant
- In house waste treatment
- No land fill utilization
- Ionic Exchange with Electro Winning.

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PCB Product Overview

Currently, K & F offers its customers a value-added line of quick-turn, single and double, and multi-layer high volume, precision printed circuit board components. K & F's products are highly diversified across numerous industries. Due to K & F's years of experience, K & F's customers rely on the company for year-over-year work. K & F submits proposals on approximately 800 bids per year. The following provides a quick overview of both customers and products.

K & F's top twenty (20) accounts which represent 55% for 2016-2018 are made up of the following industry categories including medical, textile, antennas, research, and assembly to name a few. Specifically, single, double sided and multi-layered boards are produced for these numerous customers. K & F has an active customer base of over 1000+ customers.

K & F has been known for serving the small sized customer better than most competition due to the fact K & F is equipped to do small runs while also offering quick turns. K & F also well-known for serving the customer specific needs, like counter bore and counter sink on the boards. K & F current and future size allows for special customer requests to be workable and profitable, where overhead of a large company would dramatically reduce profit.

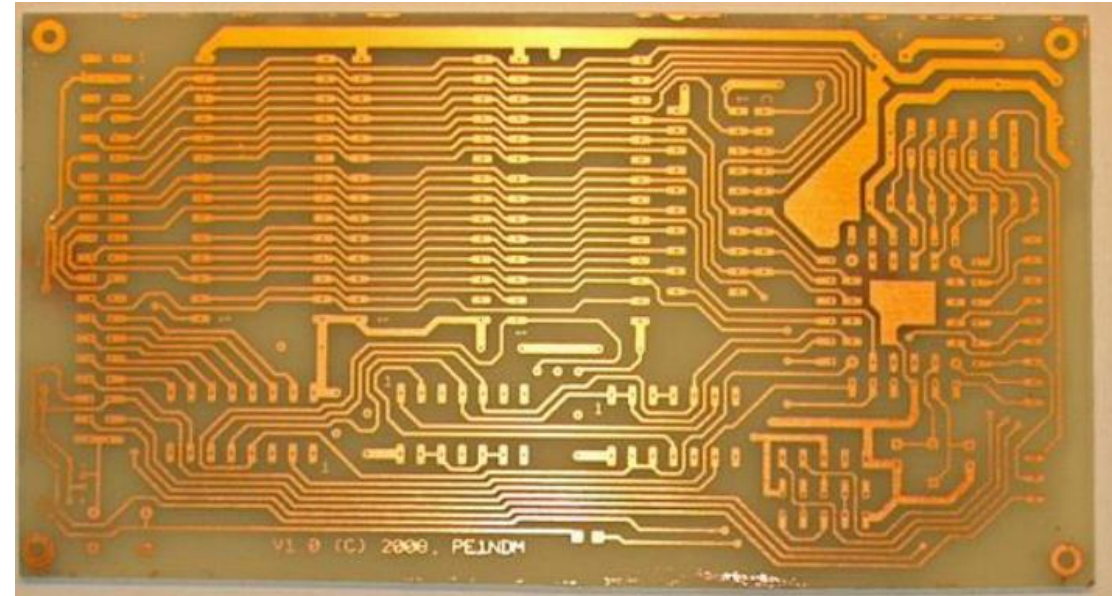
K & F is ISO 2009:2015 certified.



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Printed Circuit Board Overview

- K & F Electronics Inc., is a manufacturer of printed circuit boards. Printed circuit boards are a major part of all electronic products in the world. The industry refers to the printed wiring board (PWB) industry, SIC 334412.
- A printed wiring board (PWB) is the foundation for virtually all electronics in the world. It is the base upon which electronic components such as integrated circuit chips and capacitors are mounted. The PWB, or printed circuit board (PCB) provides both the physical structure for mounting and holding electronic components well as the electrical interconnection between components PWB consist of a non-conducting substrate (typically fiberglass with epoxy resin) upon that conductive patten or circuitry is formed.
- **Note:** Copper is the most prevalent conductor, although nickel, silver, tin, tin-lead, and gold may also be used as etch-resist or top level metal. K & F can work with all conductors to provide the best product.



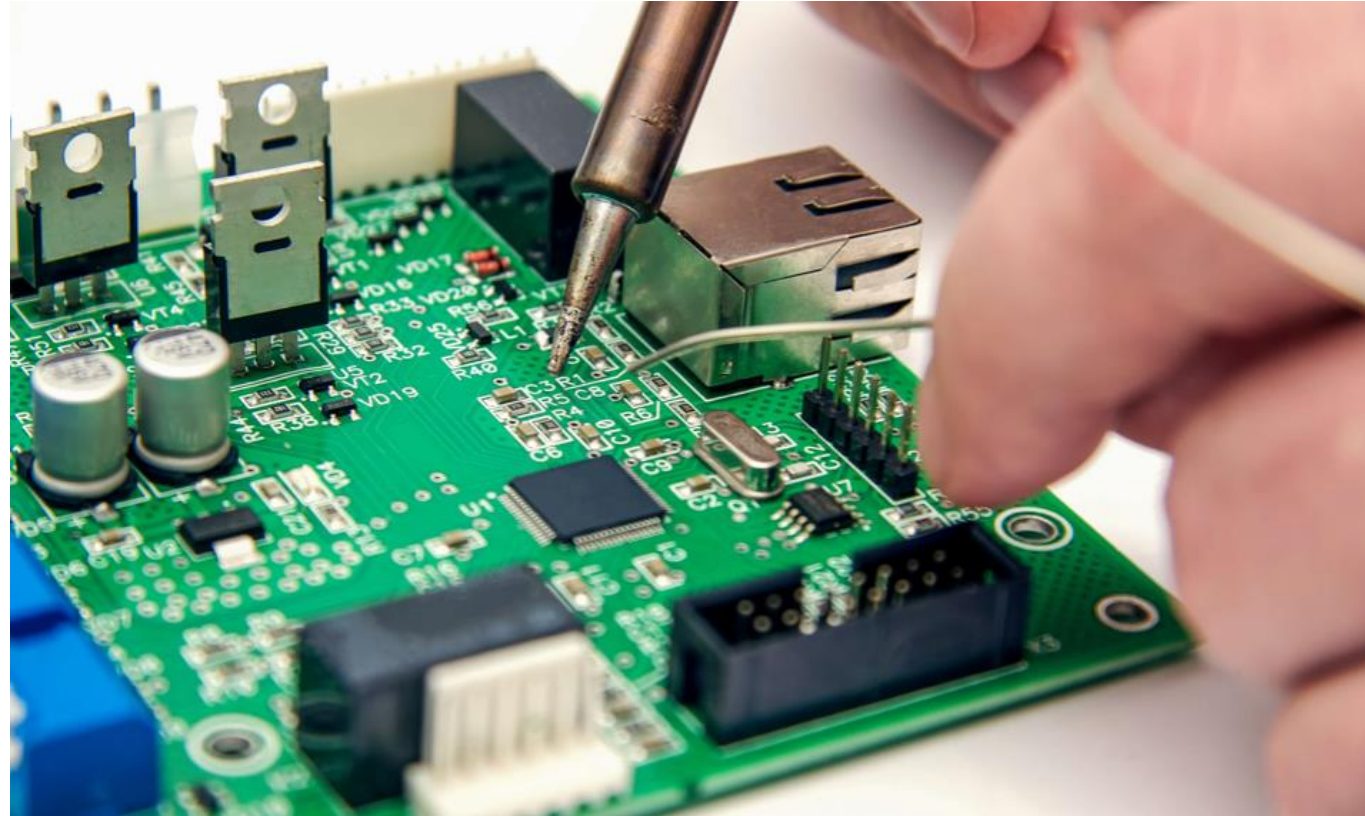
K & F PCB Assembly Overview

K & F additionally offers Printed Circuit Board (PCB) Assembly.

The team of professional assemblers, state-of-the-art facilities, and deep expertise allows K & F can offer the following.

K & F offers the following service:

- Component Sourcing
- Partial Turn-Key Assembly
- Full Turn-Key Assembly



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K & F Milestones

1972

THE BEGINNING

Earl Kincaid founded K & F Electronics in 1972. Earl opened his shop in Fraser Michigan, a suburb of Detroit. What began as a tiny two-man shop has expanded into a 30,000 square foot facility employing over 30 people.

1996

THE LEGACY TRANSITION

Through old-fashioned hard work, Earl and son Rick grew K & F Electronics into being an industry leader in printed circuit board manufacturing. Rick worked side by side with his father and became a part owner. Twelve years ago, he became sole owner and president.

The Legacy

THE PRODUCT, SERVICE & QUALITY

K & F Electronics is capable of running 1 board or tens of thousands, a simple single sided board or an intricate 24-layer board. We manufacture boards using high temperature and special application materials. Our engineering staff is always available to help with all your questions.

Historic and Beyond

THE RECOGNITION

K & F Electronics exhibited at four trade shows SMTA Grand Rapids MI, SMTA Atlanta GA, PCB West Santa Clara CA, and Amcon Novi MI.

K & F Electronics was featured in at least 2 articles in every tradeshow publication and the magazine PCD&F. The Washington Post, Macomb Daily, Detroit Free Press, and many highly read magazines have also published articles about our challenges and achievements.

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K & F History

Founding Days: Earl Kincaid founded K & F Electronics in 1972. Earl opened his shop in Fraser Michigan, a suburb of Detroit. What began as a tiny two-man shop has expanded into a 30,000 square feet facility employing currently approximately **20** people.

Multi-year Transfer of Knowledge: Richard Kincaid has been employee of K & F Electronics since 1976. Through old-fashioned hard work, Earl and son Rick grew K & F Electronics into being a Michigan leader in printed circuit board manufacturing. In 1986 Richard Kincaid bought 40% of the business, then in 1996 acquired %100 of the company. Currently, Rick's son Sean is working alongside his father adding driving operations. Specifically, Sean is focused on growing sales and responding to request for quotes in a timely manner.

Capabilities: K & F Electronics is capable of running one board or tens of thousands, a simple single and double sided boards or an intricate 24-layer board through strategic partners. K & F manufactures boards using high temperature and special application materials. K & F engineering staff is always available to assist a client with specific needs.

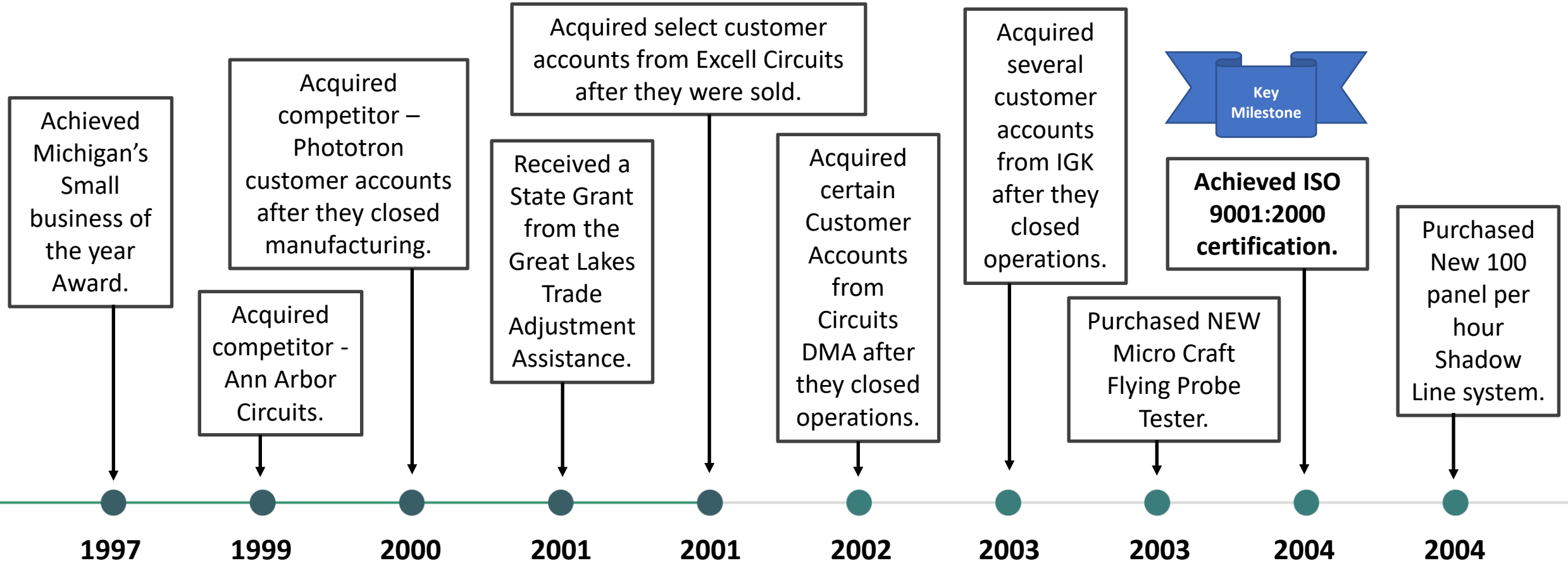
Highlights: In 2012 K & F Electronics exhibits and promotes at four trade shows SMTA, PCB West, and Amcon. K & F Electronics was featured in at least two articles in every tradeshow publication and the magazine PCD&F. The Washington Post, Macomb Daily, Detroit Free Press, and many highly read magazines have also published articles about the K & F's industry challenges and achievements.

Mission & Focus: Though technology has changed, the values of this family owned business have not. Customer quality and satisfaction remains the management and employees top priority. K & F prides itself on high quality product with on-time delivery. K & F is dedicated to all potential and current customers and will support specific needs with experienced sales, customer service and engineering staff.

For over 48 years, K & F has remained a reliable source for quality printed circuit boards, and look forward to working with all industries. Since 1996, the Company has documented its yearly achievements. Technology upgrades, awards, competitor buyouts, ad other items K & F is proud of.

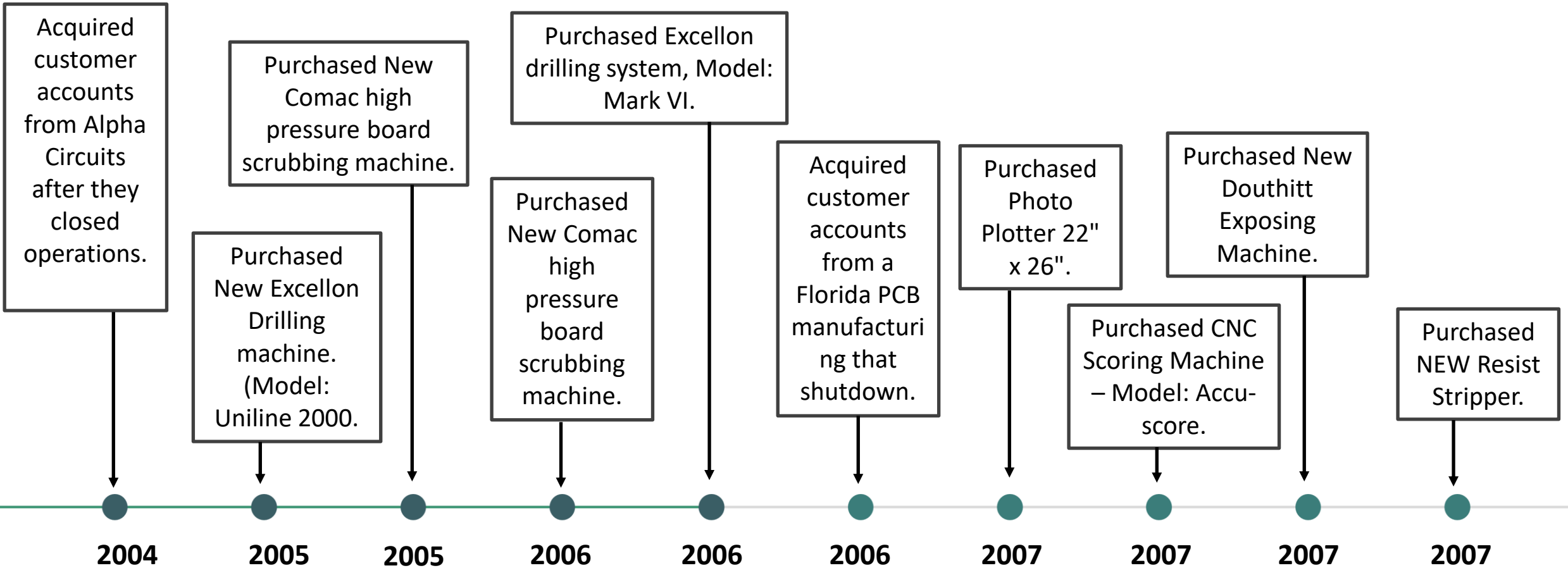
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K & F Growth Through The Years



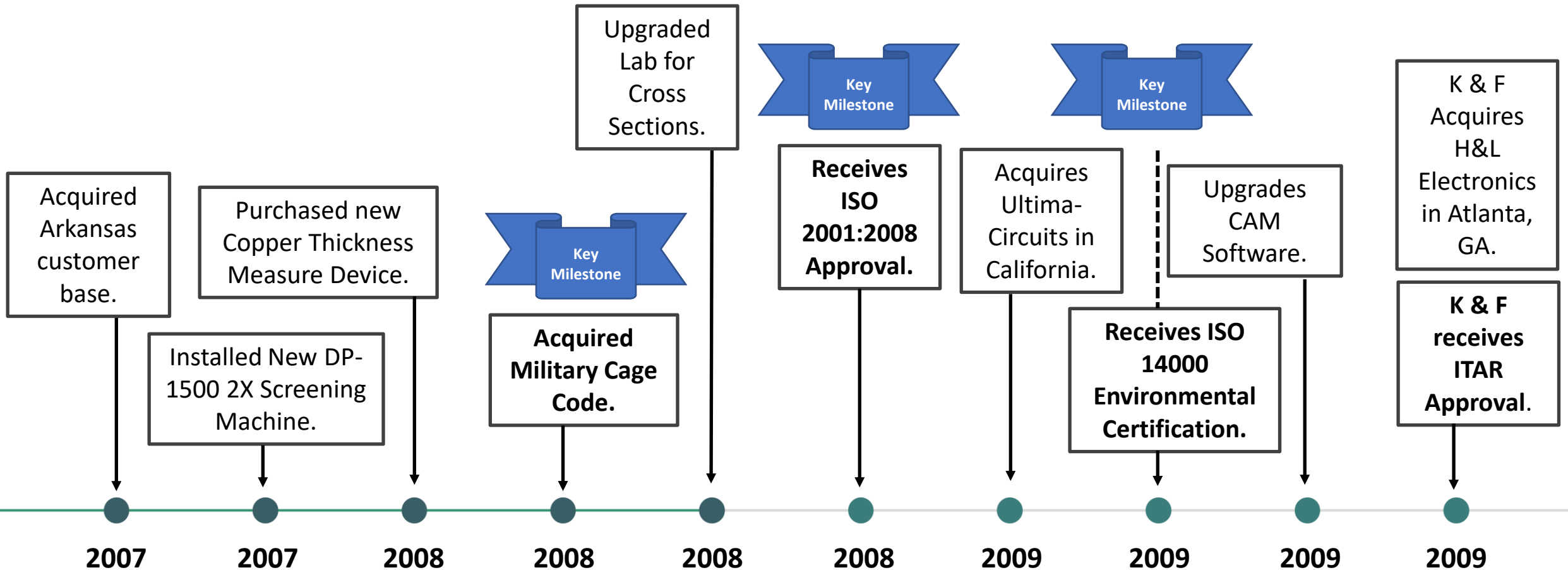
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K & F Growth Through The Years



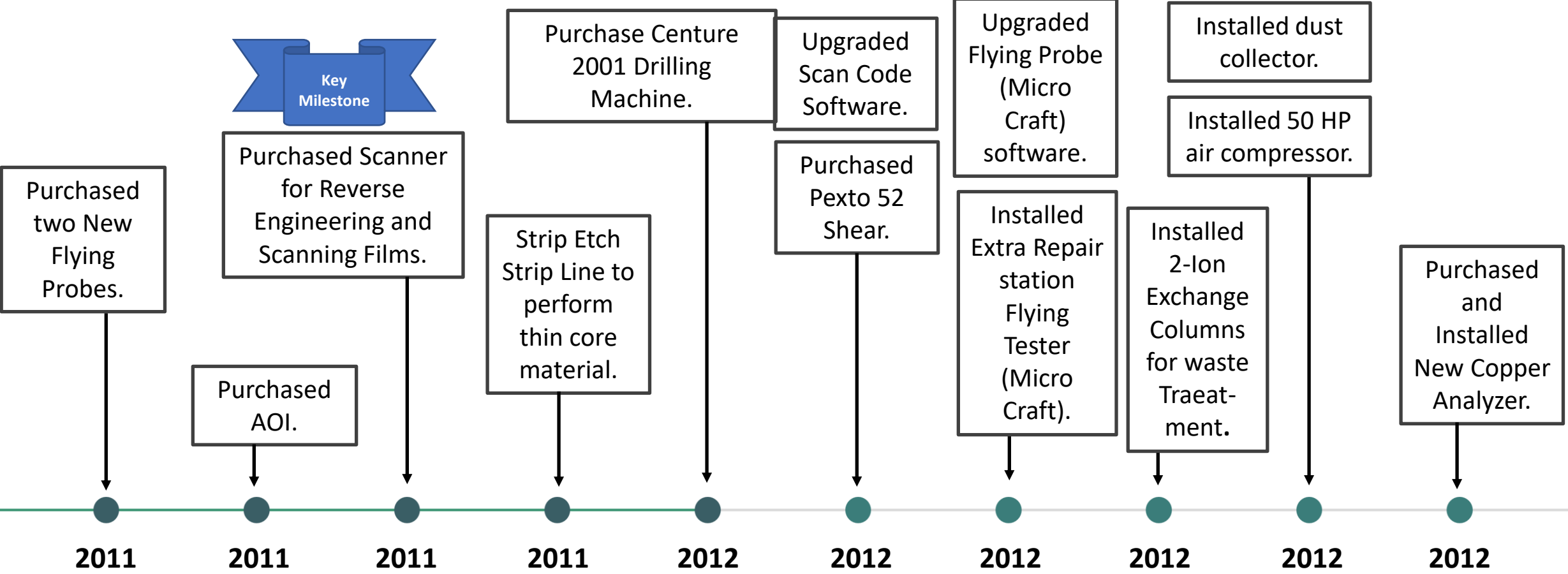
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K & F Growth through The Years



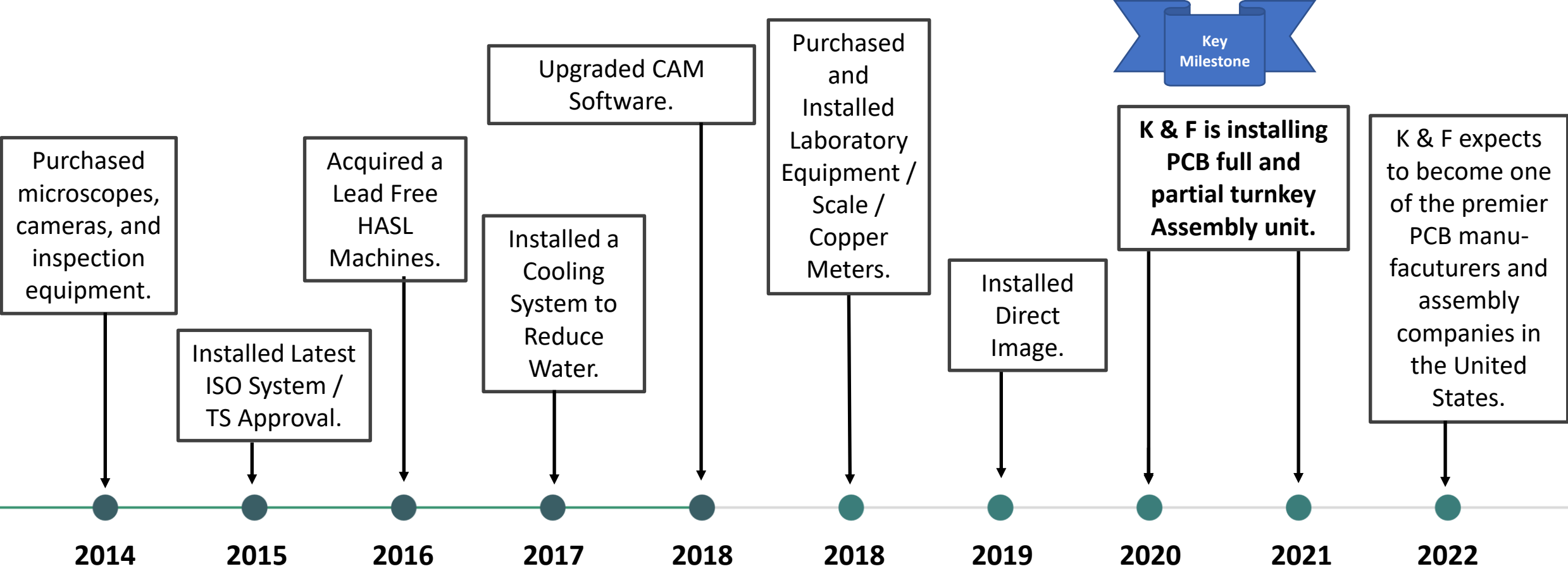
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Growth Through The Years



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Growth Through The Years



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Industry Served

K & F has provided printed circuit boards for numerous industries over its history. The following highlights a few of the business sectors.

- MEDICAL
- TEXTILE
- HOMELAND SECURITY
- MILITARY
- MARINE
- SENSORS
- INSTRUMENTATION
- COMMUNICATIONS



- CONTRACT ASSEMBLY COMPANIES
- LED LIGHTING
- LED WITH ALUMINUM BOARDS
- AUTOMOTIVE
- UNIVERSITIES
- AUDIO
- SIGNS
- MACHINE CONTROL



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Aerial Shot of K & F Manufacturing



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- Machining
- Machining
- Wet Process
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- Waste treatment
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Vendor Codes



K & F Electronics, Inc. has had a long history working with a number of the Fortune 500 companies. K & F has received the following vendor codes.



61143 BWNZA



057698789 54608



K & F Approvals

K & F Electronics, Inc. has received the following industry approvals to better serve its diversified customer base.



- ITAR Approved
- UL Approved - E71379
- Cage Code - 1TQ60
- ISO 9001 – 2008
- IPC Member
- SMTA Member
- Automation Alley Member

Materials Available

- ✓ ARLON
- ✓ FR-4
- ✓ FR-4 High Temp
- ✓ Polyimide
- ✓ Teflon
- ✓ Rogers
- ✓ Aluminum
- ✓ CEM-1
- ✓ RF Materials
- ✓ Ceramic

Gerber files can be produced from several formats

- Film
- Blank Boards
- Taped Artwork
- Multi-layers
- Fully Populated

For Lead-Free Finish We provide the following options:

- ✓ ENIG (Electroless Nickel-Immersion Gold)
- ✓ Ag (Immersion Silver)
- ✓ Tn (Immersion Tin)
- ✓ OSP (Organic Solder ability Preservative)
- ✓ Lead-Free HASL (Hot Air Solder level)

If a lead-free finish is specified, K & F Electronics will comply with current RoHS requirements and will state so on our Certificate of Compliance.

Lead-Free Option:

Other than lead (in the case of HASL finish), the PCBs we provide you meet the RoHS guidelines for cadmium, mercury, hexavalent chromium and both polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) flame retardants.

The use of provided lead-free finishes requires the buyer to analyze what internal changes may be required for lead-free product, including but not limited to, shelf life, handling, storage and component assembly (working with the higher temperature lead-free solder requires special equipment).

Buyer purchases such lead-free product assuming all responsibility for fully understanding the integrity and reliability of a lead-free assembly (component joining) as it relates to their product. Buyer also assumes responsibility for specifying laminate capable of withstanding the higher temperature of lead-free solder (single or multiple heat exposures).

Final Take-away from K & F

- Though technology has changed, the values of this family owned business have not. Customer satisfaction remains our top priority. We promise you a high quality product with on time delivery. We are dedicated to our customers and will support you with our experienced sales, customer service and engineering staff.
- **For over 48 years, K & F has remained a reliable source for quality printed circuit boards. We look forward to working with you!**
- K & F over it's 48 year history has developed a solid Printed Circuit Board manufacturing and assembly business.
- Customers have relied on the K & F for high quality quick-turn printed circuit boards for over 48 years.
- K & F's book of business is well diversified. This has allowed K & F to build a deep expertise and serve numerous industries.

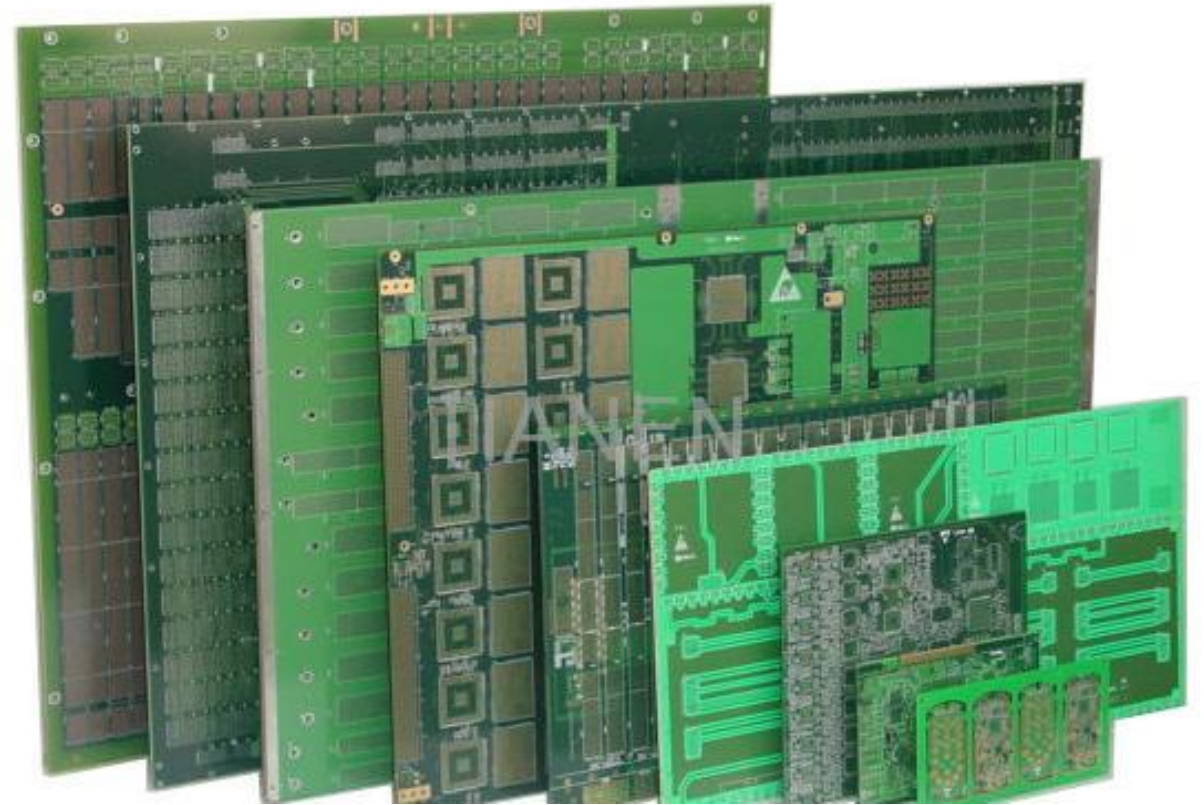
Mr. Kincaid (Rick), his son (Sean), and the K & F employees stand behind every product manufactured and assembled!

K & F Contact Information:

Toll Free: (888) 772-5310 **Federal Tax ID:** 38-2031996
D&B NUMBER: 057698789

Sales Contacts: **Rick Kincaid** **P: 586-294-8720**
 Sean Kincaid **P: 586-294-5999**

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Customer Service:	Sean Kincaid	sean.kincaid@circuitboards.com
Technical Questions:	Paul Morgan	info@circuitboards.com
Expediting / Job Status:	Scott Barbish	sbarbish@circuitboards.com
Production Manager	Hank Rambo	info@circuitboards.com



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K & F Contact Information



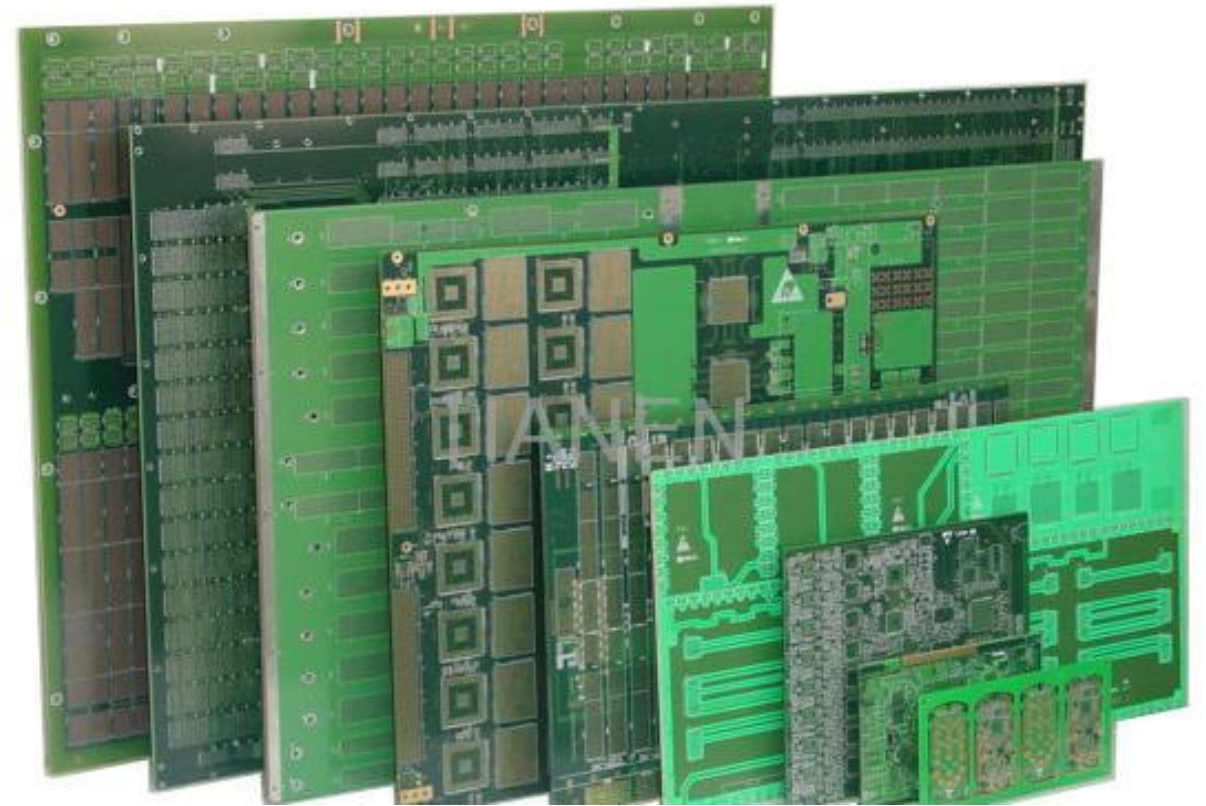
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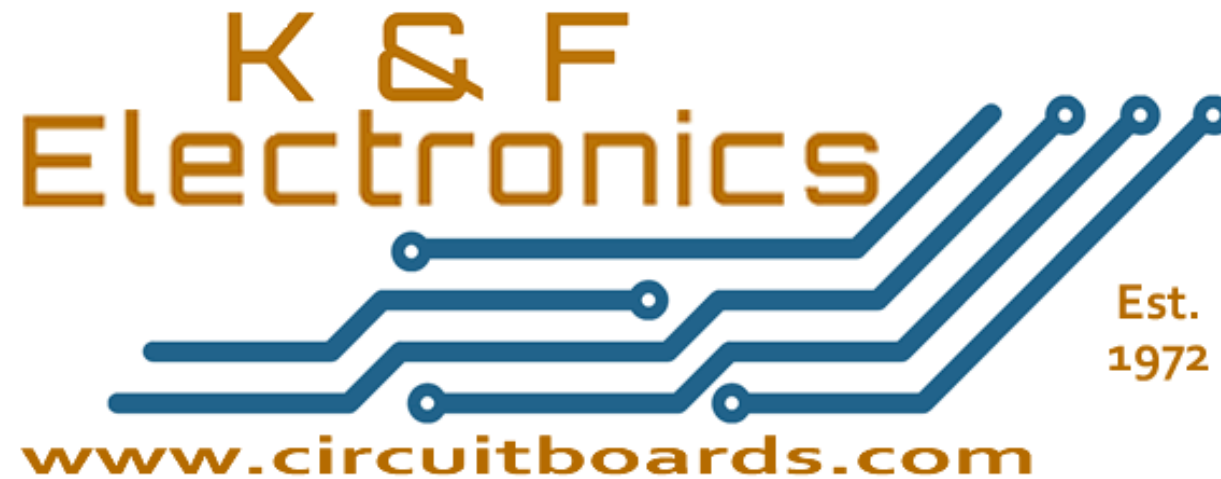
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New Customer Form

- **New Customer Form**
- Company Name _____ Phone: _____
- Trading Name _____ Fax : _____
- Shipping Address:
 - _____
 - _____
- Billing Address:
 - _____
 - _____
- Contact Names:
- Purchasing: _____ Phone: _____
- E-mail: _____
- Accounting: _____ Phone: _____
- E-Mail: _____
- Please provide invoice preference:
- Mail copies of invoices: _____
- E-Mail copies of invoices: _____
- Our standard method of shipping is UPS Ground. Federal Express is available by request.
- UPS Account Number: _____
- Federal Express Account Number: _____





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www.circuitboards.com