

## It Starts With An Idea

*Technology Leaders in electronic design - Electronic Design Magazine*

Electronic Concepts is the recognized and respected leader of the specialty film capacitor segment of the electronics industry. Their capacitor design sets the industry standards, offering the flexibility to handle any film capacitor requirement. As a vertically integrated manufacturer, they offer the electronic industry a unique combination of resources with broad engineering expertise.

After graduating from Rutgers, with a BSEE degree, founder and president Bernard Lavene worked as a division manager for capacitors at both Del Electronics and Electronic Associates, Inc. Although he was already building a successful career, the young engineer saw a void in the industry and set out to fill it. By concentrating all of his resources and energies into creating products that would address the new demanding requirements of the high tech industries, he founded, Electronic Concepts in 1969.

Starting modestly, Bernard Lavene continued developing a host of new products, that later became industry standards for the military and industrial markets. A typical development was the "Avionicap", the smallest film capacitor in the world, specified in MILPRF-55514, with established reliability requirements. Through the years he never strayed from his original goal, which was to be on the forefront of the film capacitor technology.

With this clear vision for the future, he realized that in order to be an industry leader; it would be necessary to apply the company's resources to the manufacture of ultra-thin plastic film, which is the primary raw material that determines overall capacitor performance. This was accomplished by establishing its film manufacturing division, becoming the only manufacturer in the United States capable of producing solvent cast ultra-thin films.

With the advent of this film division, vertically integrated with Electronic Concepts, the electronic industry for the first time had a film capacitor supplier who had complete control over the critical raw material. This eliminated the dependence on the chemical industry, which is mainly concerned with the development of new film for packaging applications. It ensures the control of availability as well as film integrity with controlled processes, quality, metallizing, and slitting. As a result, ECI was able to develop new films specifically dedicated to new capacitor requirements.

Recently, Electronic Concepts has introduced new items to its "Minifilm" line. These include the new Monolithic Polymer and PPS surface mounted and radial leaded film capacitors. Both offer ultra small size, low loss dielectric, excellent frequency characteristics and superior environmental packaging surpassing open chip design. Their unique patented construction meets moisture resistance per MIL-PRF-55514.

From the very beginning, quality has been a priority at ECI. All materials used in manufacturing, including the film dielectric resins, lead wires, metal cases, end seals and potting resins are traceable back to their original batches. The company prides itself in its attention to detail. Internal process control sheets follow each production run through manufacturing and is signed and dated after each operating step.

ECI consistently reinvests their sales into Research and Development. That commitment is reflected in the high quality of their products. Attention is placed on experimenting with new polymers and production methods to produce film with superior physical and electrical characteristics.

From modest beginnings over 30 years ago, Electronic Concepts has grown to be a worldwide player. Today, the company headquarters in Eatontown, New Jersey has over 64,000 square ft plus a 20,000 square foot facility in Galway, Ireland. Over the years, Bernard Lavene has helped develop countless new products, authored technical articles and holds 15 patents. Still, he never strayed from the business model he carved in 1969 when he founded ECI. It is a company with an emphasis on meeting customer's needs, through innovative quality products and on-time delivery. ECI is poised for a bright future.

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