

Distribution Plays an Ever-Larger Role in Wireless Manufacturing

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 Publisher

Not many years ago, the RF and microwave industry used distributors almost exclusively for the “generic” electronics parts that are used in all types of electronics. Capacitors, resistors, general-purpose transistors, logic ICs, operational amplifiers and other common components were obtained through distribution.

Components specific to the industry, however, were typically obtained either by a direct sales arrangement or by coordination through manufacturers’ representatives. Only a few of the most widely used products for RF and microwave applications were successfully sold through distribution. For example, common connector types and vacuum tubes for the industrial and broadcast replacement market have been sold through distribution for many years. However, even manufacturers of these products relied heavily on direct or rep sales.

Wireless communications brings change

The industry’s situation is much different today. Explosive growth in wireless communications has created new mass markets for RF and microwave technology, as well as an atmosphere of increased competition. Demand is high, which means continually increasing business for most distributors.

“Were seeing lots of new customers,” said Chuck Swift of C.W. Swift & Associates.

In many cases, these new customers are unfamiliar names in the RF and microwave industry, since new companies are moving into the wireless business daily. Many are startups and spin-offs just getting started in the industry.

Some of the other new business, however, comes from one-time purchases from companies

who cannot get delivery from a preferred supplier. A few are contract manufacturers.

Along with the change to a more commodity-oriented market, the wireless industry has adopted manufacturing methods that were pioneered by consumer electronics firms over the past ten years. Many of these methods require greater participation by distributors, taking on new roles in the control of inventory and delivery, and sometimes in the manufacturing process itself. Some of the services distributors are now providing to their customers include:

- maintaining local inventory;
- coordinating tightly-controlled delivery schedules;
- maintaining inventory in the customer’s facility on consignment, to be sold when used;
- kitting parts in preparation for assembly;
- performing quality pre-screening;
- offering parametric testing and sorting; and
- arranging medium- to long-term pricing agreements.

Distributors are even providing system integration, prototype design and assembly and value-added services for either customer or principal, services seen as a significant growth area for some distributors. For example, Avnet Electronics provides custom packaging services and even manufactures the Avantek line of modular components. RF Vision, an RF/microwave distributor recently started by Wyle, included cable assembly capability as part of its initial development plan.

With the pool of available RF/microwave engineers at an all-time low, manufacturers are also turning to their suppliers to provide techni-

cal expertise. For their principals, a distributor may develop and provide evaluation boards and sample kits. For customers, prototype circuits, applications support and engineering design are among the services that may be requested.

The “problem” of high demand

Distributors are facing one major obstacle for growth — finding supplies to keep up with demand. Some parts, especially capacitors, are on allocation despite rapid expansion by capacitor manufacturers, and customers are trying every means possible to get the parts they need to meet manufacturing timetables.

For some components, “It’s been a scramble for the past six to eight months to see who’s got it,” says Mike Caputo of Microwave Components.

Distributors are looking for new suppliers to meet this demand, but the consensus is that everyone is experiencing this problem. Although the market is strong and business is good, all distributors are as frustrated as their customers about supplies. They see unfilled orders as business that could be lost, not just delayed. Companies who cannot get what they need from their regular distributors will try other companies instead.

Where is new business coming from?

The wireless infrastructure market is strong. Current large-scale business includes delivering cable, connectors or completed assemblies for cellular, PCS and other wireless base station equipment. Additional business comes from passive components like couplers, filters,

and isolators, although distribution is smaller than direct or rep sales for these products.

A developing large market is millimeter-wave components. Demand is growing for 2.9, 2.4 and 1.8 mm connectors used at mm-wave frequencies, along with passive components and semiconductors. LMDS, point-to-point and point-to-multipoint systems are in the early phases of rapid growth.

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Future challenges

The principal advantages of purchasing through a distributor are a local presence and the ability to obtain parts from multiple sources in a single order. While there are challenges to traditional distribution by new methods, including e-business, distributors are optimistic that the advantages noted above will not be seriously eroded by new, less personal avenues.

Service remains the first objective of distributors. They want to provide a conduit for sales that satisfies their principals, and they understand that customers’ needs must be met in order to keep their business.

In the RF and microwave specialty, changes are dramatic compared to military and commercial business of the past. The customer base includes new players and the quantities, delivery schedules and value-added services required by customers have all changed. The good news is that the wireless industry is presently very strong, and distributors are sharing in that success. With few signs pointing to a slowdown, distributors should be prepared to continue their efforts to satisfy high demand for their services. ■

Distribution News

IFR Systems is now the exclusive reseller for Hameg Instruments of Frankfort, Germany. Hameg makes oscilloscopes, spectrum analyzers, and a line of bus-controlled instruments that includes multimeters, frequency counters, function generators, synthesizers, power supplies and frequency standards.

Digi-Key has added Coto Technology to its line of relay products. Coto is a maker of reed relays, including models for RF switching. Digi-Key will stock several of the company’s product lines.

Richardson Electronics has signed a worldwide distribution agreement with ANADIGICS, a supplier of integrated circuits and modular components for wireless and broadband communications. Richardson is a specialized distributor of RF products, with 37 stocking locations worldwide.

Avnet Electronics has announced the signing of a global distribution agreement with Semflex. Semflex manufactures RF coaxial cable assemblies for test equipment and wireless infrastructure equipment.