

# Top 5 reasons to buy through a distributor

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*Wide selection of parts, technical support on a range of devices and ability to provide small quantities for prototyping.*

Electronic distributors are a vital cog in the electronics supply chain, providing numerous semiconductors, components, developer boards and more for OEMs and engineers globally.

No two distributors are alike in what they provide, but they are similar in that they make the supply chain easier for companies by offering devices they can get quickly in small or large unit quantities. A high service distributor stocks several hundreds of thousands of devices and is willing to ship small quantities very quickly. A broad-line distributor is geared more toward large production runs but can also supply small quantities if needed.

Specialty distributors generally stock only devices that they have expertise in and often adopt a more traditional approach to component distribution.

Generally, distributors stock components and semiconductors from a variety of vendors including sensors, embedded systems, LEDs, RF and microwave devices, discretes, passives, audio components, power devices, automotive semiconductors, cables, wires and connectors.

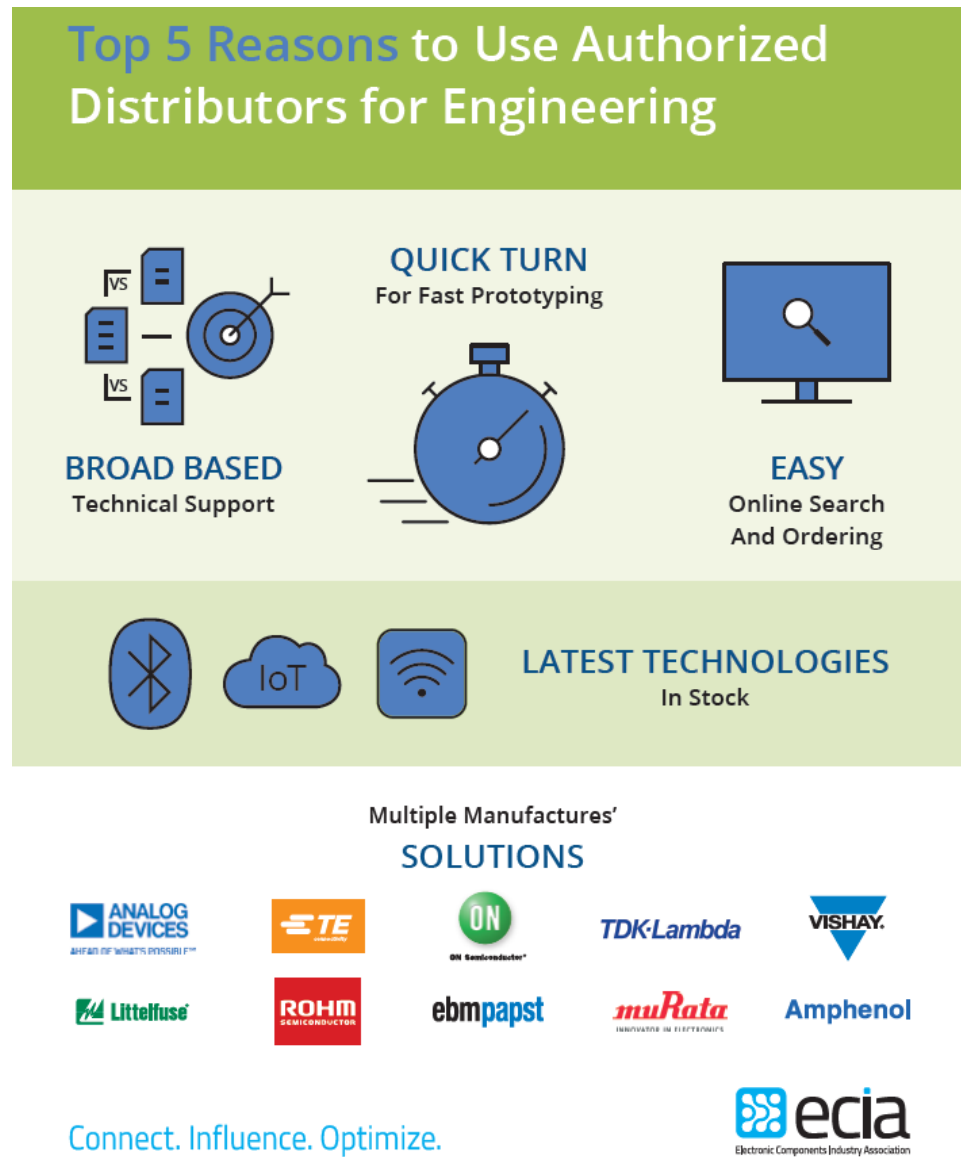


Figure 1. Top five reasons to use authorized distributors for engineering. Source: ECIA

Why buy through a distributor? There are five key reasons.

### 1) Access to a variety of components

Electronic distributors carry a variety of semiconductors and components from multiple manufacturers, but they also have access to a range of electronic components that companies buying from a manufacturer might not readily have access to.

This is a huge advantage over dealing directly with manufacturers where a company would be forced to work deals with multiple vendors and pay multiple fees for similar parts. Instead, an OEM could come to a distributor, get a wide selection of components and semiconductors for a build and be able to assemble what is needed directly without having to make numerous deals.

Additionally, distributors are particularly good about new product introductions and have access to the latest and greatest electronic components and semiconductors available. If a company buying from a distributor needs an upgrade to a current build or wants to know if the latest components are available, the distributor is likely to have whatever is needed for the job, whether it be the internet of things (IoT), automotive design, wireless or wired connectivity, data centers and more.

### 2) Comparing different solutions in one place

Having access to a whole range of devices in one place allows companies buying from distributors to gather information about all the devices at once. Maybe one device is a better fit for a build than another, but without having the necessary information about all the devices available, the wrong device could be chosen.

Instead, most distributors have multiple manufacturers' parts that can provide a solution to a design problem by comparing different solutions side by side to find the right component for a design. Having this information gives design engineers the information they need in one place, weeding out what they do not want quickly.

### 3) Technical support

One big reason to buy from a distributor is the technical support that distributors provide. Because these distributors typically stock a broad range of products, their knowledge base tends to be much wider about the devices they stock in inventory compared to a single company whose knowledge base is limited to its own inventory or to a particular series of parts.

Having broad-based technical support can often be as valuable as having access to multiple manufacturer components and semiconductors. Often, component distributors have a technical library on their website where users can gain full details of the product from the data sheets. These libraries are often open, and access can be gained regardless of whether components are being bought from them.

Additionally, electronic component distributors' technical support engineers are on staff all day to help and are often trained by the manufacturers, providing in-depth support when it is needed. Furthermore, in some cases, distributors have actual field application engineers that can come on-site.

This is especially valuable when problems are discovered during the design process compared to manufacturers that can only give technical support for a connector, a particular semiconductor or resistor.

#### 4) Small quantities for prototyping

Sometimes engineers do not need large quantities when designing a product, but just a handful for prototyping to see what works and what does not in their design. Distributors are vital in this instance as most provide samples or small quantities needed to do prototyping design work — often the next day and in one shipment — before accepting a large order for the full design.

Small quantities are not typically something that a manufacturer is equipped to deal with and would mean spending a lot of money on just three or four parts.

#### 5) One stop shop

Electronic component distributors do carry multiple components from different manufacturers with everything needed for a design engineer — semiconductors, connectors, resistors, power supplies — but they do more than just provide these devices for designers. Some distributors offer complete custom builds or developer boards so that users, makers or design engineers can get to work, immediately saving time.

These custom builds and developer boards could be put together by the engineers themselves using manufacturers or distributors, but having it already put together could mean a designer going directly to a prototype phase and accelerating time-to-market.

Additionally, buying from a distributor is significantly more efficient because, from a purchasing perspective, the fulfillment part later down the road is easier because the relationship had already been established. Distributors are also able to give product lifecycle information as well, so a design engineer will know if the parts are readily available or depleting.

#### Conclusion

Buying from a distributor offers numerous advantages over buying directly from a manufacturer. Buyers can examine a variety of different components — whether it is semiconductors, connectors, resistors or power supplies — comparing devices side-by-side to determine the best fit for a job, receiving technical support on a wide range of products not just specific to a manufacturer and allowing designers to only buy a small quantity of materials for prototyping.