

## Outlook 2019 - What does the design engineer need?



*Graham Maggs*

The industry right now is buoyant. If you can't make money in the Electronics Components business today, you should probably consider another career. Unprecedented demand for components by the burgeoning automotive market, continued massive component consumption by personal devices and the emergence of IoT platforms in every aspect of our lives – from smart homes, offices and cities, to remote diagnostics, to industrial production - means that many parts are on long lead times or even allocation.

In such circumstances, all distributors can report excellent numbers. Yet this situation will not last indefinitely. Although most pundits predict that shortages will continue through the whole of next year, experience shows us that the electronics business is cyclical and when things change, distributors without a clearly-defined role may well suffer.

Indeed, even in good times, there is pressure: with the glut of mergers and acquisition activity that has occurred in the semiconductor and component manufacturing sector over the last five years, some of the remaining mega-companies have felt able to strip their distribution network of all but a few key distribution partners. This has inevitably forced margins down.

As a customer you may be wondering how this will affect you. Talk of reduced margins sounds good, but if there are fewer distributors, will that mean less choice and a tendency towards monopoly?

Simply speaking, in order to prosper, electronic component distributors – just like any other service sector activity – must fulfil a market need. And in order to do that, they need to have a very clear picture of their place in the market.

For way too long, many distributors have tried to be ‘all things to all men’, with their pitch changing depending on who they are talking to. Nor is it convincing if the proposition changes ‘strategically’ too often: evolution in accordance and in response to changing market needs is one thing – knee-jerk changes in policy are quite another thing altogether!

### **Servicing the design engineer**

I’ll leave other distributors to comment where they see their fortunes lie. For Mouser it has always been very clear: we service the design engineer. Let me be more specific: if companies wish to buy in large production quantity volumes from Mouser, they are, of course, quite welcome to do so, but we have designed all our services, processes and infrastructure to specifically fulfil the needs of design engineers who typically place small order quantities as they progress from initial design conception, through prototyping and initial ramp up. It is our strong belief, borne out by long experience, that the needs of the design engineer are completely different to those of the procurement department. More, we believe that in order to completely satisfy either sector then you have to focus only on that sector. Let me explain.

### **The need for information**

Design engineers need information. They need access to new devices. They need design tools. They need all of this and they need it quickly. When a new design has been evaluated, the procurement department steps in. They do not need design ideas. They are not interested in new parts, the parts they require will have already been specified on the design. They certainly don’t need design tools. Yet they will have potentially huge volume orders to place. If a distributor is trying to service both design and production, it will be very tempting to ‘follow the money’ and to fulfil a massive production order which may be scheduled over a long period. From this standpoint, supplying one or two parts on quick turn-around for a designer working on a project that in all likelihood will never see the light of day will seem like very poor return indeed.

Yet it is precisely this business activity – delivering low volumes of new products to the design engineer in order to fuel his creativity – that has made Mouser successful, no matter what the prevailing business conditions are.

We believe that our focus on being the best we can in this sector has resulted in our dramatic growth – globally, Mouser is up 40.5% this year on last, and the run rate in Europe is even higher at 45.5%.

So, what does the design engineer need? Let’s start with the basics: stock. As obvious as this may seem, many distributors essentially order inventory to satisfy scheduled orders, so there is limited availability for new customers.

At Mouser pretty much all of our stock is freely available to buy, and we keep on increasing the stock we carry to support our business growth. One year ago, we opened a massive extension to our global warehouse and headquarters, now we are about to break ground on a new extension, due for completion next year.

Currently we have over 850,000 different parts in stock and by the end of 2018 we are committed to that figure being over one million. On average we fulfil greater than 16,000 orders every day, and approximately 60,000 different items are picked every day.

Let’s look then at the profile of this inventory. Designers need the latest parts if they are to differentiate their latest projects. Production distributors are unlikely to focus on new products because they have no order history. For Mouser, it is a central pillar of our philosophy that we should have the latest parts available on the shelves – so much so that the tag that we prefer to use to describe what we do is NPI (New Product Introduction) Distributor.

New parts by themselves aren't enough: our customers need the complete design ecosystem, especially the design tools. One independent survey calculated that Mouser has the largest number of design tools, available off the shelf, of any distributor in our industry.

Then there is what Mouser likes to term 'the knowledge base'. This is, of course, not 'a product' so much as a service, but we believe that it is vital that Mouser takes on the role of providing design ideas – from inspirational articles which describe a new emerging trend, through design ideas, reference designs and worked examples.

In the past, industry might have looked to FAEs to fulfil this role – in practice, today very few distributors can afford FAEs except, perhaps, for their largest customers (and even here, only rarely).

Mouser commits significant resource to lead the way creating targeted content, backed by the required resources, to help designers of all types – from experienced professionals at multi-national customers to first timers who may not even have any EE training but who have spotted a solution - perhaps an IoT implementation – that will solve a challenge in their field of expertise; new developments in medical wearables immediately springs to mind, as we see many examples of doctors, nurses and carers coming up with new designs to help patient treatment.

So, looking forward to 2019 and beyond, as far as electronic component distribution is concerned, we believe that focus is the key to success. If you are still trying to be all things to all men, there is a good chance that you will not really deliver anything to anyone. But by properly addressing a real market need, and by being the best at what you do, customers will see the benefits of working with a partner who solves a challenge for.

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