



Roland Steffen

Roland Steffen is an executive vice president of Rohde & Schwarz and head of the company's test and measurement division, with responsibility for development, production and marketing of the company's instruments and systems.

Steffen has been with Rohde & Schwarz for 35 years. Previously, he was director of the mobile radio test and measurement products subdivision. Before that, he was head of R&D for protocol testers.

Scope for more business

Graham Pitcher finds out from Roland Steffen how Rohde & Schwarz plans to build its oscilloscope business.

It took test and measurement specialist Rohde & Schwarz almost eight decades to enter the oscilloscope market. Having made that momentous step, the company is continuing to invest in the sector in order to broaden its portfolio and take market share. According to Roland Steffen, executive vice president and head of the company's test and measurement division: "It's a must. We want to be a significant player and there will be more announcements in the next 12 months."

While Rohde & Schwarz made its name as a developer and supplier of wireless test equipment, it now addresses market segments ranging from mobile phones to aerospace and defence.

With 9100 employees and an annual turnover of €1.8 billion, the company is becoming increasingly international. Some 20% of its R&D is now undertaken outside of Germany and it's increasing R&D headcount in what it terms as 'key markets'.

That in-house expertise is being applied in a range of ways, notably in the design of components for use in its instruments. "We have to do this in house," Steffen said. "It's almost impossible for us to get the technology in the market. But ASICs and A/D converters take longer to design than you might think."

Rohde & Schwarz has a strong track record in chip design. "We started with monolithic microwave ICs for RF and have since designed mixed signal chips for scopes and baseband processors for spectrum analysers. We're now moving to FPGAs as they become more powerful. If you can't do it with an FPGA, it'll be a custom design."

FPGAs are seen to be a benefit because they bring flexibility to the customer – they can download new software, Steffen observed – but there is a downside. "As more powerful FPGAs become more widely available, technology doesn't act as a barrier to entry for competitors."

While Rohde & Schwarz has a leading position in wireless test – more than 50% of all mobile phones are testing using its equipment – that's not the case in the scope market.

"We have a small share, probably less than 5%," Steffen admitted, "but we only entered the market three years ago. We've made good progress and are happy with the results. The scope market is mature and new products will allow us to increase share."

The recently announced expansion to the RTM scope range is an example. "RTM scopes allow the user to see signals where other devices see noise. It can sample at 5Gsamples/s and has almost no boot time – turn it on and it's working."

However, Rohde & Schwarz' problem, as far as the scope market is concerned, is that it is lost in the noise. "It's a mature market with three strong players," Steffen admitted. "At the moment, we're amongst a lot of companies who claim to be number four. It won't be easy to overtake them; it's on our agenda, but it's hard to predict when. But we won't give up."

So how does he envisage building demand for the company's scopes within what appears to be a static market? "Addressing the embedded market is difficult," he said. "The challenge is to find new customers."

When it first entered the scope market, Rohde & Schwarz limited sales to existing customers. Now it has to look beyond them. "We have to address customers we haven't served before and we have to broaden the portfolio." Steffen says these products will probably not be at the high end.

Steffen: "It's a mature market with three strong players. It won't be easy to overtake them; it's on our agenda, but it's hard to predict when. But we won't give up."

It's also about branding: not every company in the embedded market will be aware that Rohde & Schwarz supplies scopes. "We do well serving large companies, such as Astrium. Our challenge is reaching the five employee companies typical of the embedded market."

Currently, Rohde & Schwarz mainly sells directly to the customer. "We have had some good results through distribution," Steffen accepted, "but it's a trade off between low cost and value. We stand for quality, so we have to ask ourselves what we can offer, which

markets we can address and what technology we can leverage."

One solution to the conundrum is the development of the value instrument initiative. "We will be expanding the portfolio by creating value instruments for the low price segment," he said.

What factors will drive the developments? "Good, reliable hardware," Steffen said. "We're in the business of making honest equipment, not creating a good datasheet. For example, our scopes support 1mV/division – and that's not achieved through software zoom. We also need good interfaces – touchscreens are now standard – as well as accessories."

Steffen admits accessories remain an area where it's 'work in progress'. "But we have developed differential probes which have twice the bandwidth of the competition. It doesn't look like an improvement on the datasheet, but it's the kind of thing which makes our products more attractive."

However, Steffen points to a trend towards higher frequency designs. "As technology advances, high end becomes mid range and so on. So our next step in the scope market will probably be something with a bandwidth of more than 4GHz."

Asked about PXI, Steffen was non-committal. "We ask ourselves this question every year. At the moment, we don't think it's a good idea for us because our market is best served by flexible instruments. While there is interest in modularity, I don't think it's possible at the high end yet; it's not the way forward for the next few years," he concluded.