R&D Driving European Market for Signal Generators, Arbitrary Waveform Generators

The market for signal generators (SGs) and arbitrary waveform generators (AWGs) in Europe is more developed and mature than elsewhere in the world, with the region ranking second globally in terms of revenue.

This is mainly due to the aerospace and defense (A&D) as well as communications industries in the region, which are expected to generate moderate growth for the market going forward.

New analysis from Frost & Sullivan (http://www.testandmeasurement.frost.com), Analysis of the Signal Generator and Arbitrary Waveform Generator Market, finds that the European market generated €126.8 million in 2010 and estimates this to reach €153.9 million in 2017. The research covers radio frequency (RF) signal generators, microwave signal generators and arbitrary waveform generators.

Significant R&D and design activity, paralleled by the continued development of wireless standards, will promote uptake of SGs and AWGs.

"In the current scenario, the European market is tending to focus heavily on R&D," explains Frost & Sullivan Research Analyst Mariano Kimbara. "There are a number of lucrative market opportunities emerging for high-end and high-performance test systems."

The continuous development of wireless standards has also contributed to the growth of the SG and AWG market in Europe. The next 10 years will be a 'wireless decade', marked by the launch of different types of wireless devices.

"The rapid development of standards such as wireless interoperability for microwave access (WiMAX), third-generation (3G) wireless, fourth-generation (4G) wireless, and wideband code-division multiple access (WCDMA) will support steady growth in the SG segment," remarks Kimbara. "The development of the 60GHz market and new wireless technologies in the A&D segment will provide impetus to market expansion."

Even though SG and AWG technology is mature, efforts at product enhancement and new product introductions bode well for the future. Several leading players in the European market are engaged in R&D activity on high-speed bandwidth, which is boosting user confidence and creating growth potential.

However, the ongoing uncertainty in the European market is impacting capital expenditures of end users. Volatile economic conditions have led end users to reconsider acquiring new test equipment.

"Promisingly, however, the communications and A&D segments are set to augment growth opportunities not only in terms of revenues but also in terms of innovation and product capacities," concludes Kimbara. "Projects in the A&D domain requiring high-end signal generators that were previously suspended are being reconsidered, signaling continued optimism about market prospects."

If you are interested in more information on this study, please send an e-mail with your contact details to Anna Zanchi, Corporate Communications, at anna.zanchi@frost.com.

MIMO App Note

Agilent Technologies released an application note on MIMO (multiple-in, multiple-out) technologies and the basic properties of wireless channels, which goes on to introduce the concepts of spatial correlation and its effects on MIMO performance. The note also includes a demonstration of modeling the spatial characteristics of MIMO channels and describes how these complex channels can be emulated using commercially available instrumentation such as the Agilent N5106A PXB baseband generator and signal emulator. Go to: http://cp.literature.agilent.com/litweb/pdf/5989-8973EN.pdf.