Times Microwave Systems Introduces New Clarity 110 Test Cables for Advanced Testing of 5G, 6G, Automotive Radar and More

Ultra-Stable Through 110 GHz with Exceptionally Low Attenuation, Clarity™ 110 Addresses Key Challenges in Testing with a High Frequency Response, Rugged and Durable Construction, Excellent Phase Stability and Long Flex Life

WALLINGFORD, CT — Times Microwave Systems, the preeminent brand in innovative RF and microwave interconnect assemblies, cables, and connectors, today introduced its new Clarity™ 110 test cable designed to accommodate the higher frequencies required for advanced testing of automotive radar, 5G, 6G, and beyond. The Clarity 110 test cable is ultra-stable through 110 GHz with exceptionally low attenuation for critical mmWave high frequency measurements, where phase stability and repeatability are of concern. It is also ideal for applications including semiconductor testing and on-wafer probing.

Advanced technologies have introduced new testing challenges in terms of repeatability, reliability, and reproducibility. For example, networks using microwave backhaul, fronthaul and fixed wireless are predicted to exceed 100 GHz. The increasing use of automotive radar systems to power safety-critical applications such as advanced driver-assistance systems require the ability to test the fundamental frequencies of radar systems, but also how they behave at their harmonics, which necessitates measurements up to 110 GHz.

Clarity 110 is the newest addition to Times Microwave Systems’ proven Clarity Series, known for its industry-leading performance and unparalleled value. The test cable features steel torque, crush and overbend protection with abrasion resistance—without compromising flexibility. The design includes an ergonomic, stainless steel protective barrel strain relief and a hex coupling nut.

The new test lead offers a very repeatable, low insertion loss cable that functions throughout the desired frequency range to ensure a high-fidelity measurement. Tight phase control is a further parameter for optimizing system performance in advanced wireless technologies such as 5G and 6G smart antennas. Clarity 110 offers a phase-stable cable assembly that utilizes a microporous PTFE

About Times Microwave Systems
A pioneering brand in innovative RF and microwave interconnect assemblies, cables, and connector designs, Times Microwave Systems (TMS) is a division of Amphenol. The company has more than 110 years of experience in the industry and offers the most comprehensive suite of products on the market. TMS continues to rapidly expand its portfolio by addressing defense, medical, telecommunications, precision tests, and space applications. With a staff of more than 100 engineers and a global manufacturing presence, TMS is uniquely qualified to produce the right solution for our customers’ complex requirements.
dielectric, coupled with a helically wound metalized interlayer, to maintain a flexible, phase, and amplitude stable test assembly.

Test systems are also connected and disconnected often. With high frequencies, this could require recalibration every time a module or cable is moved. Clarity 110 was designed with a long flex life to withstand extensive handling and can be easily moved around on a test bench, either in R&D or in a production environment, to reduce the amount of recalibration required. 1.0 mm connectors (male and female) also come standard with the Clarity 110, designed to handle frequencies to 110 GHz and the rigors of testing.

“RF testing has become more complex as technology is rapidly advancing,” said John Muzzio, Applications Engineer at Times Microwave. “Times Microwave Systems has decades of experience and the market knowledge necessary to create unique coaxial cable and connector solutions for testing applications in any number of complex environments.”

Additionally, specialized test cables have increasingly long lead times. Times Microwave's expanded global footprint, vast network of manufacturing facilities and distributors, and well-established product inventory enables the company to continue providing quality products with reduced lead times.

Times Microwave Systems has designed and built thousands of assemblies and delivered proven performance in the most rigorous environments. In-house engineering and manufacturing capabilities enable Times Microwave to deliver RF products that meet the most demanding requirements, including customized solutions in product design, installation, regulatory compliance, and performance improvement, with global manufacturing capabilities across six sites around the world. Most importantly, as a manufacturer with fully integrated design, production, assembly and testing capabilities, Times Microwave can deliver RF interconnect solutions from conception through testing and production.

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