



Junkosha Unveils Cutting-Edge mmWave Cabling Solutions at IMS 2024

Interconnect pioneers use premier International Microwave Symposium (IMS) to showcase expanded Microwave/RF Test Cable Assemblies portfolio

IMS Booth: 848

June 17th, 2024 - Junkosha is set to showcase its extensive range of high-frequency cabling solutions at the IEEE MTT International Microwave Symposium (IMS) 2024, the premier annual gathering for microwave technologists. Making its debut is the new metrology-grade MWX871 cable, designed for specialized applications such as Vector Network Analyzer (VNA) calibration tests, delivering the highest accuracy measurement for frequencies up to 70GHz. Alongside this latest product, Junkosha will feature its ultra-phase stable cable line-up designed to meet the higher frequency demands of tomorrow's 5G/6G networks.

With the widespread adoption of 5G and the transition to higher frequencies, the demand for mmWave-compatible cables in product R&D and shipment inspections is increasing. Depending on the degree of degradation and the characteristics of the cable itself, the signal amplitude frequency characteristics of these cables can fluctuate when bent leading to measurement errors and decreased stability. In response to these challenges, Junkosha has developed the new 70GHz metrology-grade Microwave/mmWave VNA Test Cable which offers exceptional phase (within +/- 8.9°) and amplitude stability (within +/-0.10 dB) during flexure, along with robust phase stability in varying temperatures.

Tomohiro Ogawa, Product Manager at Junkosha, explains: "Developed in-house, the key dielectric components in Junkosha's mmWave cables are optimized for peak performance.



Consequently, the cable exhibits outstanding phase stability and phase-return characteristics, as well as its resilience to bending and temperature fluctuations. Equipped with a ruggedized port-side NMD connector for reliable and robust connections to the VNA, this new interconnect solution is designed to withstand the most demanding testing environments."

With over 70 years of industry-leading experience in the RF market, Junkosha offers an extensive range of test cables tailored for various Test & Measurement applications. Their product portfolio includes high phase stability cables for measuring instruments up to 145 GHz, cables designed for wide temperature ranges and high durability for product verification up to 67 GHz and EPTFE tape wrapped phase stable cables for testing integrated antenna systems up to 67 GHz.

"With a wider line up to choose from, we are able to provide customers with a range of solutions tailored to their specific applications," continues Ogawa. "Our latest products being showcased at IMS 2024 all feature characteristics including an ability to consistently test signal integrity without impacting performance. mmWave frequencies necessitate the highest quality cabling and interconnect solutions to endure the most rigorous conditions, of which Junkosha are constantly innovating new precision engineered cabling solutions for the 5G industry that stand up to the rigors of higher frequencies while providing reliable electrical performance with proven phase and amplitude stability."

The IEEE MTT International Microwave Symposium (IMS) is the premier annual international meeting for technologists involved in all aspects of microwave theory and practice. It consists of over 500 exhibiting companies that represent state-of-the-art technologies including materials, devices, components, and subsystems, as well as design and simulation software and test and measurement equipment. In addition, it comprises a full week of events including technical paper presentations, workshops and tutorials. The in-person symposium



is being held between 16-21 June 2024, with the exhibition occurring 18-20 June. For more information, visit: <https://ims-ieee.org/>

For more information on Junkosha's precision engineered MWX range, visit: <https://www.junkosha.com/en/products/cable>.

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Notes to Editors:

About Junkosha

Junkosha are pioneers of sophisticated fluoropolymer application technologies across many sectors including microwave interconnect and medical devices. With three operations in Japan, including its headquarters as well as sites in the US, UK and China, it is one of the best kept advanced technology secrets outside of Japan. The company provides wire and cable products, including microwave interconnects, robot cables, high data rate cables, camera link cable assemblies, ultrafine coaxial cables and assemblies, cables for clean environments, and general wires and cables. It also provides tube and fitting products, including generic resin tubes, fluoropolymer tubes, high-barrier tubes, flexible multi-layered tubes, industrial hoses, degassing modules, heat-shrinkable tubes, and the market leading peelable heat shrink tubes.



Junkosha Microwave/mmWave Coaxial Cable Assembly
8 series - VNA Test Assembly