

At-A-Glance Cable Comparison

Our At-A-Glance RF/Microwave Cable Assembly comparison chart allows an easy overview of Maury's Test Port, Stability™ and Utility™ cables' performance.

Test Port RF/Microwave Cable Assemblies

Maury 8944, 8946 and 8948 series test port cable assemblies have been designed specifically for use with commercial Vector Network Analyzers (VNAs) that are equipped with calibration-grade metrology NMD connectors. In order to deliver the highest accuracy in vector-network measurements, test port assemblies are extremely flexible while maintaining excellent phase and amplitude stability. Test Port cable assemblies are offered in standard lengths of 25 or 38 inches with 7mm, NMD3.5mm and NMD2.4mm connectors. Complete product details available in Maury data sheet 2Z-001.

Stability™ RF/Microwave Cable Assemblies

Maury Microwave's Stability™ series sets the standard for high-performance ruggedized microwave/RF cable assemblies. Designed specifically for phase-stable and amplitude-stable applications, Stability™ offers excellent measurement repeatability even after cable flexure. With a ruggedized, durable construction, Stability™ will outlast and outperform other assemblies resulting in a reduced total cost-of-test. Stability's™ light weight, superior flexibility and small form factor make it ideal for daily use with VNA's, test instruments, bench-top testing and ATE systems. Stability™, the phase stable cable of choice.

Stability™ cable assemblies are now part of the ColorConnect™ family! Following the proposed IEEE high-frequency connector/adaptor color convention, Stability™ cable assemblies are the first commercially available assemblies to offer clear indications of compatibility and intermatability. ColorConnect™ makes it a simple matter to avoid and eliminate damaged equipment, degraded equipment reliability, degraded performance and lengthy maintenance times due to improper mating (and attempted mating) of incompatible interconnects. Complete product details available in Maury data sheet 2Z-004.

Utility™ RF/Microwave Cable Assemblies




Maury Microwave's Utility™ series sets the standard for high-end all-purpose test and measurement cable assemblies. Designed for general testing applications, Utility™ offers excellent value with its low cost, low insertion loss, excellent return loss, flexibility, and amplitude and phase stability. Utility™ is the ideal interconnection for reliable and repeatable measurements when mated with test instruments including bench-top testing, on-wafer characterization and ATE systems.

Like Maury's Stability™ cable assemblies, Utility™ cable assemblies are now part of the ColorConnect™ family! Complete product details available in Maury data sheet 2Z-005.

Visit our website at: maurymw.com to learn more and shop online for these Cable Assemblies and other Maury products.



Maury RF/Microwave Cable Assembly Solutions

| |  Test Port |  Stability Maury Microwave |  Utility™ Maury Microwave |
|--|---|--|---|
| Frequency Range | Up to 50 GHz | Up to 67 GHz | Up to 20 GHz |
| Available Connector Types | 7mm, NMD3.5mm, NMD2.4mm | N, 3.5mm, 2.92mm, 2.4mm, 1.85mm | N, SMA |
| Cable Length | 25", 38" | 24", 36", 48", 60", 78"* (or custom lengths) | 24", 36", 48", 60", 78" (or custom lengths) |
| Phase Stability vs Bending @18GHz | ±1.8° typical ±3.6° maximum | ±2.0° typical ±4.5° maximum | ±3.0° typical N/A maximum |
| Amplitude Stability vs Bending @18GHz | <±0.020 dB typical ±0.15 dB maximum | <±0.015 dB typical ±0.02 dB maximum | <±0.015dB typical N/A maximum |
| Power Handling (Watts) @18GHz | N/A | 90 | 95 |
| Typical IL (raw cable only) @ 18GHz | 0.39dB/ft | 0.54dB/ft | 0.64dB/ft |
| VSWR @ 18GHz | 1.20 typical 1.29 maximum | 1.25 typical 1.30 maximum | 1.30 maximum |
| Velocity of Propagation | 85% | 76% | 71% |
| Delay (ns/ft, only for cable) | 1.24 | 1.30 | 1.45 |
| Crush Resistance (lb/in) | 800 | 260 | 131 |
| Weight (oz/ft) | 3.20 | 1.61 | 0.65 |
| Outer Diameter of Cable (inch) | 0.60 | 0.28 | 0.19 |
| Dynamic Minimum Bending Radius (inch) | 2.25 | 2.00 | 2.00 |
| Connector Mating Cycle | N/A | 5,000 | 5,000 |
| Cable Flex Cycles | 100,000 | 20,000 | 10,000 |
| Operating Temperature (Assembly) | 23±5°C (VNA-Specific) | -55°C~125°C | -55°C~105°C |
| Low Profile Option | No | Yes | No |
| TVAC Option | No | Yes | No |
| Typical Applications | VNA | Phase-stable applications | General T&M lab use, production test |

* 2.4mm and 1.85mm cables are available in 24", 36" and 48" (or custom lengths).

2900 Inland Empire Blvd. • Ontario, California 91764 • USA
Tel: 909-987-4715 • Fax: 909-987-1112 • Email: maury@maurymw.com