

SWIFT BRIDGE TECHNOLOGIES

DuraWave PS43

RUGGEDIZED CABLE ASSEMBLIES

DuraWave™ PS cable assemblies are phase and magnitude stable RF cables designed for on-site field testing, manufacturing environments and the testing laboratory. They utilize a rugged armored construction to prevent external stresses from being introduced into the coaxial transmission line. Their coaxial construction utilizes air-enhanced PTFE dielectrics and precision RF connectors to deliver optimal performance at their specified frequency ranges. DuraWave PS cables are optimal for a variety of instrumentation such as Network Analyzers, Spectrum Analyzers, and wherever accurate measurements demand excellent signal stability and low signal loss.

400-0805-01 2.92 MM (M) TO 2.92 MM (M) CABLE ASSMEBLY, 1M

PERFORMANCE SPECIFICATIONS

ELECTRICAL CHARACTERISTICS	DC - 43.5GHz
Coax Impedance, ohms	50 ± 1.5
Typical Velocity of Propagation, %	80
Shielding Effectiveness thru 20GHz, dB	100
Typical Flexure Phase Stability, 360° loop around 4.5” diameter mandrel, degrees of phase change	± 7^0 thru Max. Frequency
Guaranteed Flexure Phase Stability, 360° loop around 4.5” diameter mandrel, degrees of phase change	± 10^0 thru Max. Frequency
Max. Structural VSWR thru Max. Frequency (w/ connector)	1.3:1
Max. Return Loss thru Max. Frequency (w/ connector), dB	-18
Typical Insertion Loss at Max. Frequency, dB	-2.5
Guaranteed Insertion Loss at Max. Frequency, dB	-3.2
Typical Insertion Loss Stability, 360° loop around 4.5” diameter mandrel, dB	± 0.05
Guaranteed Insertion Loss Stability, 360° loop around 4.5” diameter mandrel, dB	± 0.15

MECHANICAL CHARACTERISTICS	
Inside Minimum Cable Bend Radius (static), in	1
Inside Minimum Cable Bend Radius (dynamic), in	2
Flexural Durability, Flex Cycles (2” Bend Radius)	>1000
Temperature Range, °C	-45 to 125
Crush Resistance, lbs/linear in.	>250
Assembly Length, meter	1

CONSTRUCTION	
Center Conductor	SPC, Solid
Dielectric	Low Density PTFE
Inner Shield	SPC Flat Wire
Outer Shield	SPC Braid
Crush Resistant Armor	Stainless Steel Coil with Stainless Steel Braid
Jacket	Polyolefin, 125°C

REGULATORY	All materials comply with the EU RoHS directive EU/2015/863 and published exemptions.

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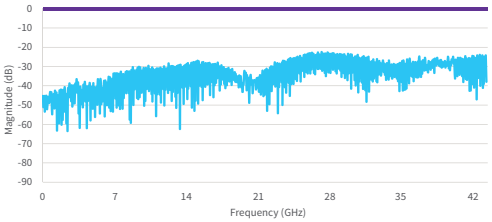


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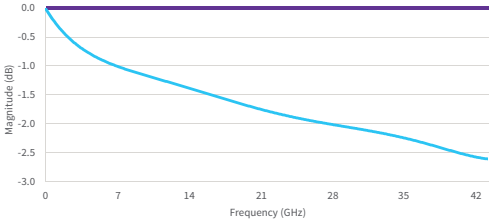
PERFORMANCE SPECIFICATIONS

TYPICAL S-PARAMETER PERFORMANCE AND TYPICAL INSERTION LOSS AND PHASE STABILITY PERFORMANCE

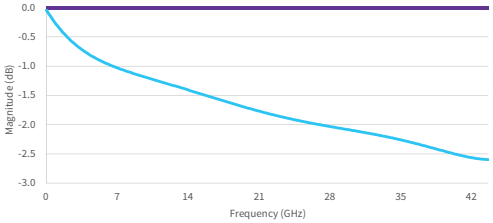
S11 RETURN LOSS



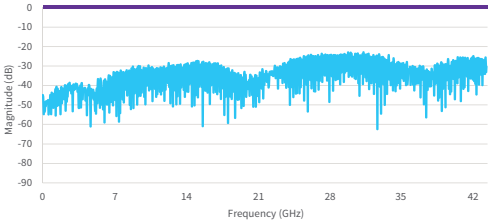
S12 INSERTION LOSS



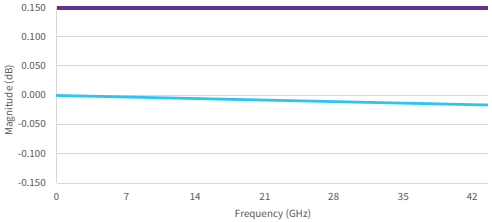
S21 INSERTION LOSS



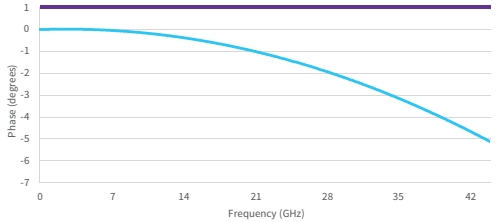
S22 RETURN LOSS



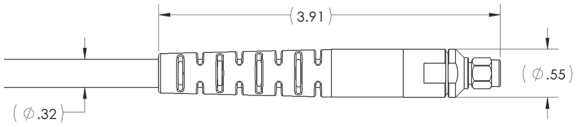
IL Δ W/ 360° WRAP, Ø 4.5" MANDREL



PHASE Δ W/ 360° WRAP, Ø 4.5" MANDREL



CONNECTOR AND FLEX RELIEF DIMENSIONS



SWIFT BRIDGE TECHNOLOGIES

DuraWave PS43

RUGGEDIZED CABLE ASSEMBLIES

BENEFITS

- Guaranteed phase and insertion loss stability with flexure
- Low Loss and Low VSWR
- Durable but flexible
- Crush and torque resistant armoring for enhanced reliability
- Injection molded flex reliefs to reduce stresses and excessive bending
- Weather resistant
- Temperature rated for 125°C continuous use

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