

## FastEdge 20 RF CABLE ASSEMBLIES

FastEdge<sup>™</sup> RF cable assemblies utilize air-enhanced PTFE dielectrics and precision RF connectors to deliver optimal flexibility and performance at their specified frequency ranges. This durable RF interconnect solution incorporates custom molded flex reliefs and an abrasion resistant polyurethane jacket. FastEdge cables are designed to balance accuracy and repeatability with their excellent amplitude and phase stability performance. Time delay or phase matching may be specified upon request.

FastEdge<sup>™</sup> RF cable assemblies can be used in variety of applications and with instrumentation wherein accurate measurements demand low loss signal transmission. Applications may include:

- Clock Timing
- Compliance Testing
- Wireless Communication
- Probing
- Multiplexing

REGULATORY

unication • Signal Routing

# **400-0733-01** RA SMA (M) TO RA SMA (M) CABLE ASSEMBLY, 0.5M

## PERFORMANCE SPECIFICATIONS

ELECTRICAL CHARACTERISTICS	DC – 20GHz
Coax Impedance, ohms	50 ± 1.5
Typical Velocity of Propagation, %	80
Shielding Effectiveness thru 20GHz, dB	>90
Typical Flexure Phase Stability, 360° loop around 4.5" diameter mandrel, degrees of phase change	± 4º 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	-1.3
Typical Insertion Loss Stability, 360° loop around 4.5" diameter mandrel, dB	± 0.05

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
Assembly Length, meter	0.5

CONSTRUCTION	
Center Conductor	SPC, Solid
Dielectric	Low Density PTFE
Inner Shield	SPC Flat Wire
Outer Shield	SPC Braid
Jacket	Polyurethane, 125°C

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



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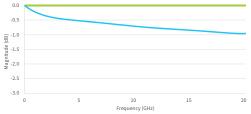
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## PERFORMANCE SPECIFICATIONS

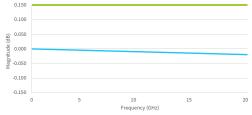
TYPICAL S-PARAMETER PERFORMANCE AND TYPICAL INSERTION LOSS AND PHASE STABILITY PERFORMANCE



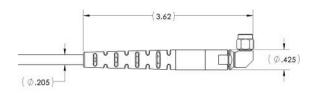
### S21 INSERTION LOSS



IL∆W/360° WRAP,Ø4.5" MANDREL

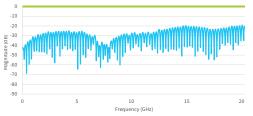


#### CONNECTOR AND FLEX RELIEF DIMENSIONS





### S22 RETURN LOSS



#### PHASE △ W/ 360° WRAP, Ø 4.5" MANDREL

