
SWIFT BRIDGE TECHNOLOGIES

# FastEdge 26

## RF CABLE ASSEMBLIES

FastEdge™ 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™ 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
- Signal Routing

# 400-0729-00 SMA (M) TO SMA (M) 1.5 PS MATCHED PAIR, 0.5M

## PERFORMANCE SPECIFICATIONS

| ELECTRICAL CHARACTERISTICS | DC – 26.5GHz |
|---|---|
| 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 | ± $6^0$ 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 | -1.3 |
| Typical Insertion Loss Stability, 360° loop around 4.5” diameter mandrel, dB | ± 0.05 |
| Difference in Time Delay within Pair, ps | 1.5 |

| 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 |

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


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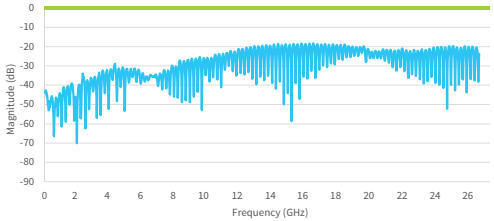
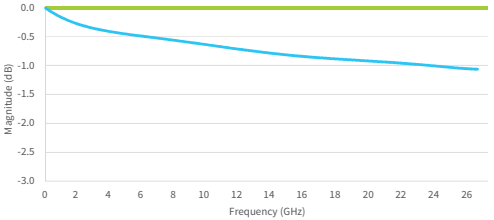
## PERFORMANCE SPECIFICATIONS

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

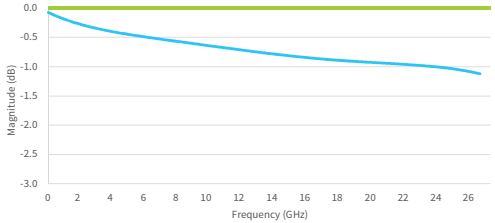
S11 RETURN LOSS



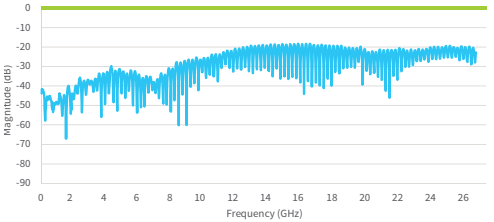

S12 INSERTION LOSS



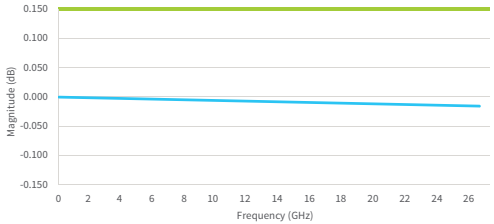

S21 INSERTION LOSS



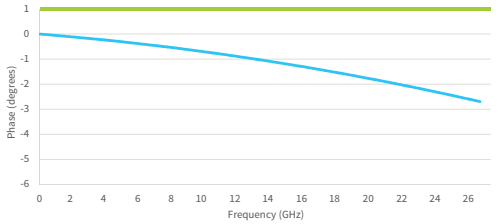

S22 RETURN LOSS




IL Δ W/ 360° WRAP, Ø 4.5" MANDREL




PHASE Δ W/ 360° WRAP, Ø 4.5" MANDREL




### CONNECTOR AND FLEX RELIEF DIMENSIONS