SWIFT BRIDGE TECHNOLOGIES

ExpressRF™

RF CABLE ASSEMBLIES
DC – 65GHZ

Flexible, low signal loss with a broad frequency range, DC through 65GHz. Cable sizes compatible with all connectors designed for RG402 and RG405 coax. These entry level cables are for cost sensitive applications that don't require the highest level of performance. Time delay matched pairs to within 1ps available.

ExpressRF™ RF CABLE ASSEMBLIES, 65 GHz

For use with:
TDR Oscilloscopes
Network Analyzers
Spectrum Analyzers
Wafer Probing Systems
Test Rack Systems
Automated Test Equipment

Applications:
Test and Measurement
High Frequency Clocking
Vehicle Tracking Systems
High Frequency Probing
Telecommunications
Wireless LAN
WiMax

MEASUREMENT QUALITY

The overall excellent performance of ExpressRF™ Cable Assemblies ensures accurate and repeatable measurements on the DUT (device under test). All cable assemblies are 100% tested to assure S-parameters meet or exceed their specified performance.

PHASE/TIME DELAY MATCHING

Upon request, phase or time delay matching can be specified for Express™ RF cable assemblies. According to the user's requirements for their application, cable assemblies may be specified to meet absolute or relative matching values.

- **Absolute matching** is when one or more cable assemblies conform to a specific time delay target value within some tolerance (±) value.
- **Relative or Differential matching** is when the time delays of two or more assemblies conform to a specified delay range. Relative or differential matching ensures consistent matching within a set of cables, but an assembly from one set may not necessarily be matched with cable assemblies in another set. Swift Bridge Technologies addresses this by uniquely labeling the cables within a matched pair or set.

CABLE SPECIFICATIONS

MAXIMUM OPERATING FREQUENCY	RG405 Equivalent 65 GHz	RG402 Equivalent 40 GHz
MECHANICAL CHARACTERISTICS		
Inside Minimum Cable Bend Radius (static), in	0.15	0.25
Inside Minimum Cable Bend Radius (dynamic), in	0.75	1.25
Operating Temperature Range	-45°C to 125°C	-45°C to 125°C
Minimum Cable Bend Radius (dynamic), in	2.0	2.0
Temperature Range	-40°C to 125°C	-40°C to 125°C
CONSTRUCTION		
Center Conductor	SPC, Solid, Ø 0.020"	SPC, Solid, Ø 0.036"
Dielectric	Low Density PTFE	Low Density PTFE
Shield	SPC Braid over SPC Flat Wire	SPC Braid over SPC Flat wire
Jacket	Fluoropolymer, Ø 0.100"	Fluoropolymer, Ø 0.160"
ELECTRICAL CHARACTERISTICS		
Impedance, ohms	50 ± 2	50 ± 2
Typical Velocity of Propagation, %	76	78
Capacitance (nominal), pf/ft	26	27
Shielding Effectiveness thru 20 GHz, db	>90	>90
Typical Flexure Phase Stability, 360° wrap around 4.5" diameter mandrel, thru max. *f*	± 12	± 9
Max. Structural VSWR thru Max. Frequency (coax only)	<1.1 : 1	<1.1 : 1
Typical Attenuation, dB/ft (coax only)		
18 GHz	0.82	0.42
26 GHz	1.03	0.52
32 GHz	1.20	0.58
40 GHz	1.40	0.67
50 GHz	1.63	NA
65 GHz	1.90	NA

North America and Europe
Design Center and Sales Office
6975 SW Sandburg Street, Suite 200
Tigard, Oregon 97223
(971) 888-4821

Asia Pacific and India
Swift Bridge Technologies (M) Sdn Bhd
Lot 81, Jalan PKNK 1/8,
Kawasan Perindustrian Sg. Petani,
08000 Sungai Petani,
Kedah, Malaysia
+6-012-483-2186

Asia Sales Office
2-07-24, Harbour Trade Centre
Gat Lebuh Macallum,
10300 Penang, Malaysia
+60 4 2610029

US and Malaysia facilities are ISO 9001:2015 certified.

info@swiftbridgetechnologies.com
www.swiftbridgetechnologies.com

1/2018 070-0038-00 Rev A