STORM-TEST™

VNA TEST CABLES & ADAPTERS (50, 40 & 26.5 GHz)

APPLICATIONS

- Vector Network Analyzers
- Bench-Top Testing
- Laboratory Testing
- High-Speed Digital Testing (HDST)
- Accurate Critical Measurements

PRECISION, RUGGEDIZED TEST CABLE

- Engineered to provide precise measurements with stable electrical performance
- Excellent loss, VSWR, & phase/amplitude stability with flexure.
- Internally ruggedized cable construction delivers longer life, repetitive mating and prevents crushing, bending & twisting
- Accurate & repeatable measurements
- Performance tested prior to shipment

FEATURES	BENEFITS
~ *Custom cable bend protection behind the connector*	~ *Optimizes cable assembly product life*
~ *Crush & torque resistant due to internal armoring*	~ *Mechanical robustness*
~ *Braided FEP jacket*	~ *Natural abrasion resistance prevents fraying of outer jacket*
~ *Phase and amplitude stable with flex*	~ *Calibration accuracy is maintained, reducing downtime*
~ *Flexible*	~ *Ease of use*
~ *Phase matching options*	~ *Customer specific requirements*

MARKETS SERVED

T&M · RADAR · MILITARY · AERO

TELEDYNE STORM MICROWAVE
Everywhereyoulook™

High value microwave and electronic interconnect solutions

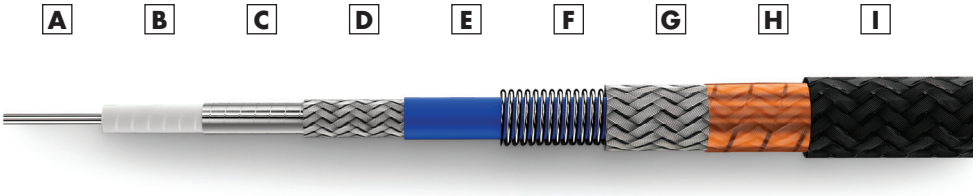
www.teledynestorm.com

SPECIFICATIONS		STORM-TEST™		
Cable Designator		**931**	**931**	**931**
Operating Frequency (Max, GHz)		50	40	26.5
Attenuation–Nominal @ (dB @ max freq, nom.)		1.308	1.155	0.92
Typical VSWR (2 straight connectors)		1.35:1 @ 50 GHz	1.30:1 @ 40 GHz	1.22:1 @ 26.5 GHz
Cable Delay (ns. per ft/m)		1.27/4.17	1.27/4.17	1.27/4.17
Phase Stability vs. Flexure* (deg @ max freq, typical)		±6.1	±4.9	±3.2
Amplitude Stability vs. Flexure* (deg @ max freq, typical)		0.21	0.15	0.13
Shielding Effectiveness–Minimum (dB @ 1 GHz)		–95	–95	–95
Crush Resistance		100 lbs./in. Minimum	100 lbs./in. Minimum	100 lbs./in. Minimum
Min Bend Radius, (in/mm)	DYNAMIC	2.00 / 50.80	2.00 / 50.80	2.00 / 50.80
	STATIC	1.00 / 25.40	1.00 / 25.40	1.00 / 25.40
Connectors		2.4 mm	2.4 mm, 2.92 mm	3.5 mm
Phase Matching		Yes, upon request.	Yes, upon request.	Yes, upon request.
Operating Temperature Range (°C)		–54 to +125	–54 to +125	–54 to +125

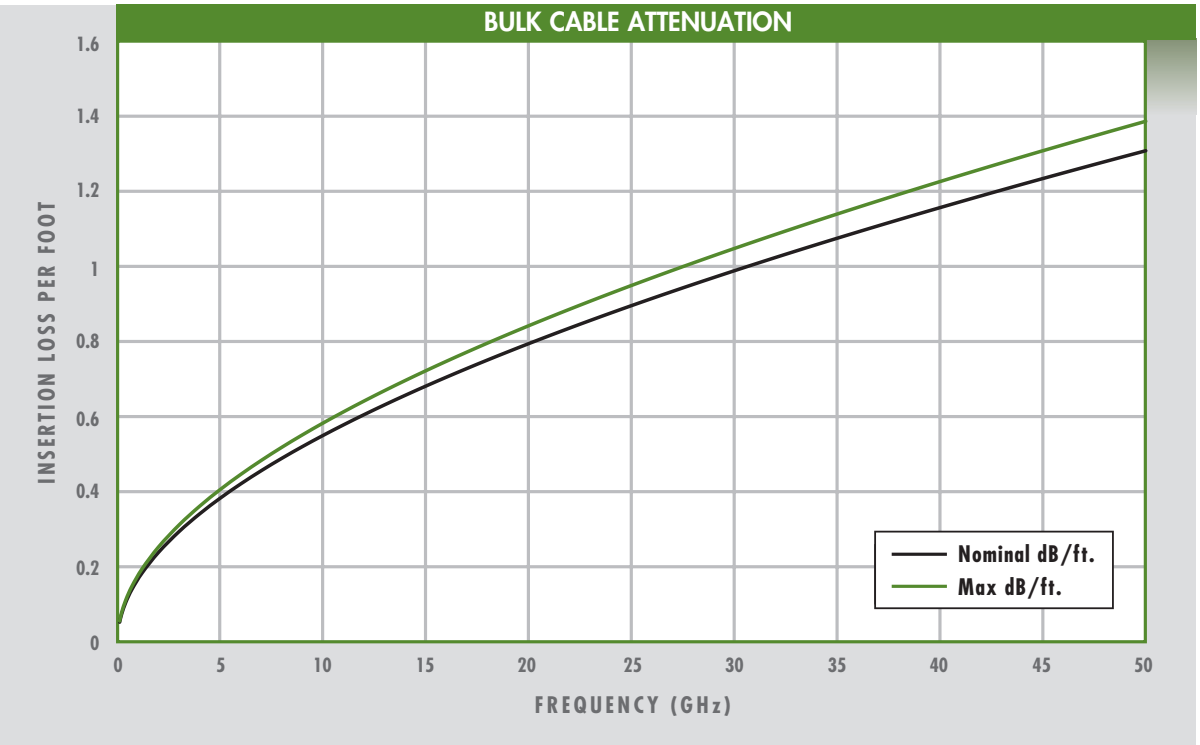
* ± 360° bends around a 4"/101.6mm mandrel

Specifications subject to change without notice.

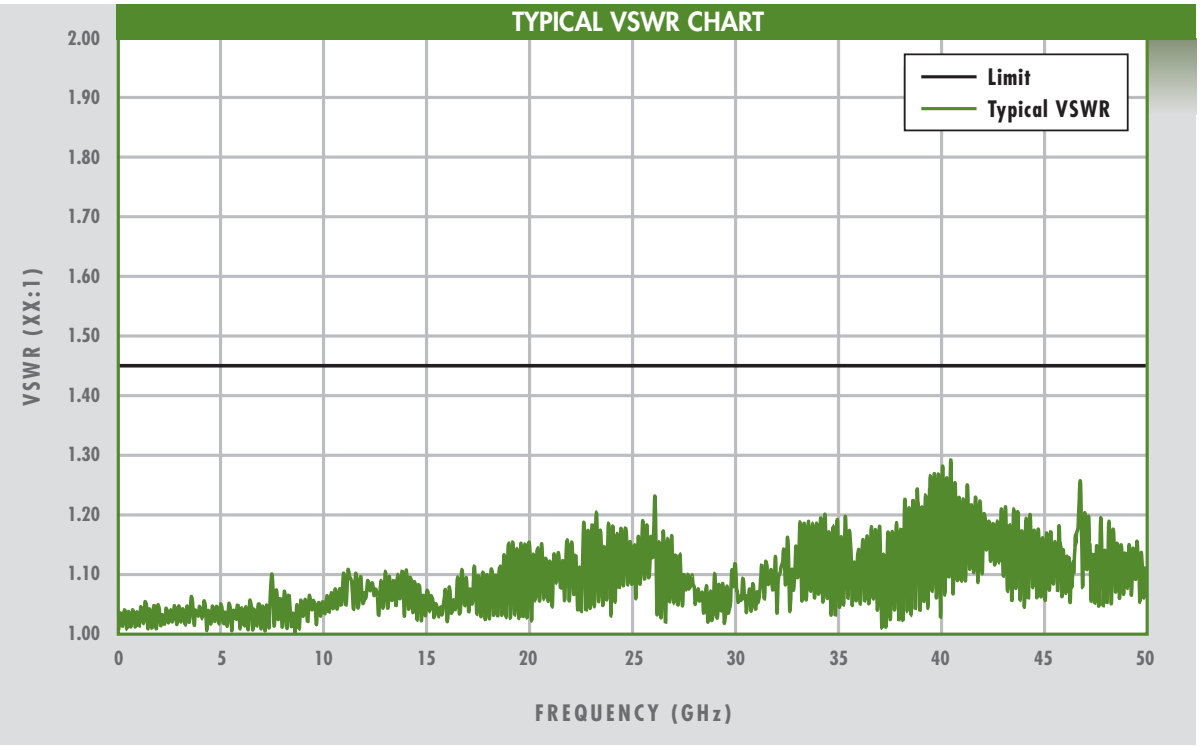
CABLE CONSTRUCTION



- **A** Silver-plated copper center conductor
- **B** Low loss, low density PTFE dielectric
- **C** Helically wrapped SPC flat wire shield
- **D** High coverage silver-plated copper inner braid
- **E** Inner jacket
- **F** Crush/torque protection
- **G** Strength reinforcing silver-plated copper outer braid
- **H** Outer tape
- **I** Braided jacket



For cable assembly insertion loss, call us or visit our Web site, www.teledynestorm.com.



STORM-TEST™ 50 CONNECTOR COMBINATION PART NUMBERS*

50 GHz

CONNECTOR INTERFACE			
			
MALE	FEMALE	RUGGEDIZED MALE	RUGGEDIZED FEMALE
2.4 mm SP	2.4 mm SJ	2.4 mm NMD SP	2.4 mm NMD SJ

CONNECTOR OPERATING FREQUENCY
50 GHz

50 GHz	2.4 mm NMD SJ	2.4 mm SJ	2.4 mm SP	2.4 mm NMD SP
2.4 mm NMD SJ	0101	0110	0111	0112
2.4 mm SJ	0110	1010	1011	1012
2.4 mm SP	0111	1011	1111	1112
2.4 mm NMD SP	0112	1012	1112	1212

See back page for available adapters.

CONNECTOR CODES	
SP	Straight Plug
SJ	Straight Jack
NMD	Ruggedized Test Port Connector

* *Other connector styles available; consult Storm.*

EXAMPLES:

931-0111-**036** = 2.4 mm NMD SJ to 2.4 mm SP, **36 inches**

ORDERING INFORMATION: Part Number Designation

CABLE DESIGNATOR		CONNECTOR COMBINATION PART NUMBER		ASSEMBLY LENGTH IN INCHES
931	–		–	SEE EXAMPLE †

STORM-TEST™ 40 CONNECTOR COMBINATION PART NUMBERS*

40 GHz

CONNECTOR INTERFACE			
			
MALE	FEMALE	RUGGEDIZED MALE	RUGGEDIZED FEMALE
2.92 mm SP	2.92 mm SJ	2.92 mm NMD SP	2.92 mm NMD SJ
2.4 mm SP	2.4 mm SJ	2.4 mm NMD SP	2.4 mm NMD SJ

CONNECTOR OPERATING FREQUENCY
40 GHz

40 GHz	2.4 mm NMD SJ	2.4 mm SJ	2.4 mm SP	2.4 mm NMD SP	2.92 mm NMD SJ	2.92 mm SJ	2.92 mm SP	2.92 mm NMD SP
2.92 mm NMD SJ	0102	0210	0211	0212	0202	0220	0221	0222
2.92 mm SJ	0120	1020	1120	1220	0220	2020	2021	2022
2.92 mm SP	0121	1021	1121	1221	0221	2021	2121	2122
2.92 mm NMD SP	0122	1022	1122	1222	0222	2022	2122	2222

See back page for available adapters.

CONNECTOR CODES	
SP	Straight Plug
SJ	Straight Jack
NMD	Ruggedized Test Port Connector

* *Other connector styles available; consult Storm.*

EXAMPLES:

931-0221-**036** = 2.92 mm NMD SJ to 2.92 mm SP, **36 inches**

† *12" min. length. For max. length, contact Teledyne Storm.*

STORM-TEST™ 26.5 CONNECTOR COMBINATION PART NUMBERS*

26.5 GHz

CONNECTOR INTERFACE			
			
MALE	FEMALE	RUGGEDIZED MALE	RUGGEDIZED FEMALE
3.5 mm SP	3.5 mm SJ	3.5 mm NMD SP	3.5 mm NMD SJ
2.92 mm SP	2.92 mm SJ	2.92 mm NMD SP	2.92 mm NMD SJ
2.4 mm SP	2.4 mm SJ	2.4 mm NMD SP	2.4 mm NMD SJ

CONNECTOR OPERATING FREQUENCY
26.5 GHz

26.5 GHz	2.4 mm NMD SJ	2.4 mm SJ	2.4 mm SP	2.4 mm NMD SP	2.92 mm NMD SJ	2.92 mm SJ	2.92 mm SP	2.92 mm NMD SP	3.5 mm NMD SJ	3.5 mm SJ	3.5 mm SP	3.5 mm NMD SP
3.5 mm NMD SJ	0103	0310	0311	0312	0203	0320	0321	0322	0303	0330	0331	0332
3.5 mm SJ	0130	1030	1130	1230	0230	2030	2130	2230	0330	3030	3031	3032
3.5 mm SP	0131	1031	1131	1231	0231	2031	2131	2231	0331	3031	3131	3132
3.5 mm NMD SP	0132	1032	1132	1232	0232	2032	2132	2232	0332	3032	3132	3232

See back page for available adapters.

EXAMPLES:

931-0321-**036** = 3.5 mm NMD SJ to 2.92 mm SP, **36 inches**

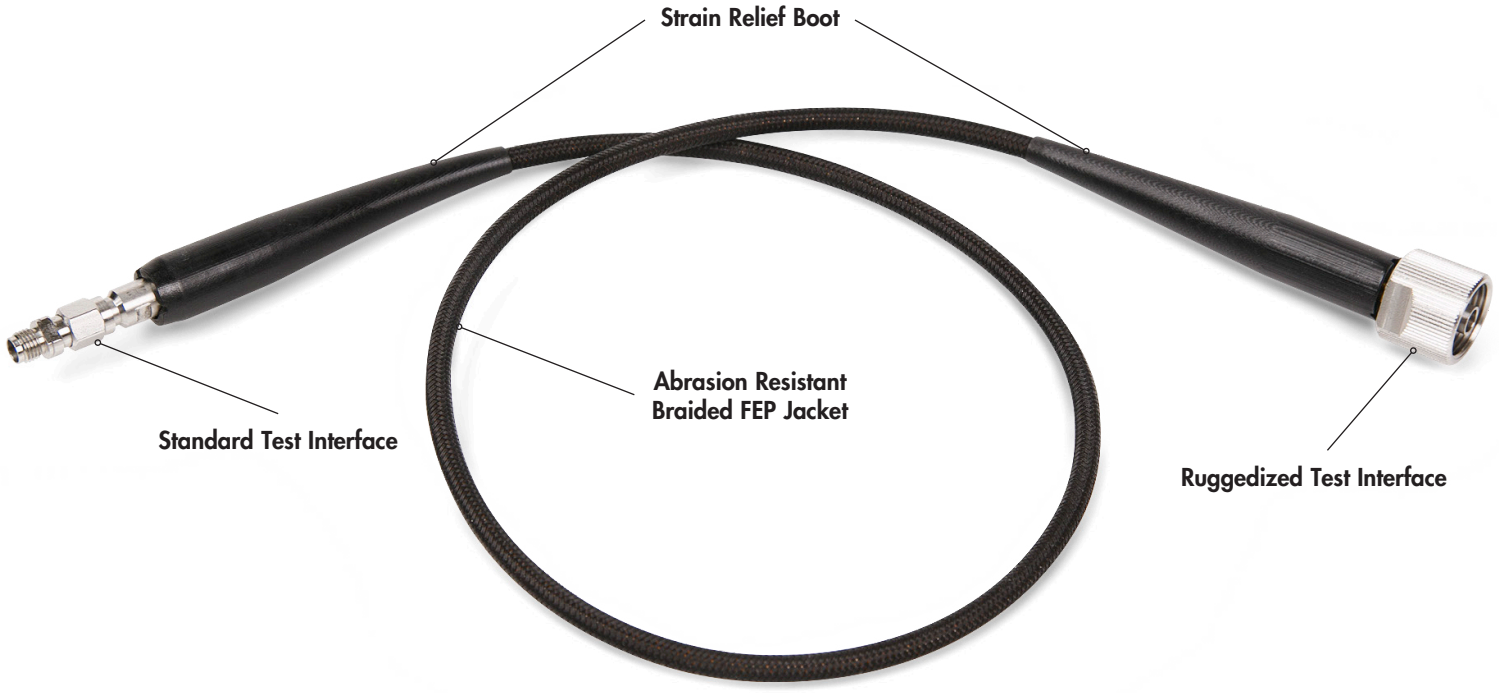
ORDERING INFORMATION: Part Number Designation

CABLE DESIGNATOR		CONNECTOR COMBINATION PART NUMBER		ASSEMBLY LENGTH IN INCHES
931	–		–	SEE EXAMPLE †

CONNECTOR CODES	
SP	Straight Plug
SJ	Straight Jack
NMD	Ruggedized Test Port Connector

* *Other connector styles available; consult Storm.*

† *12" min. length. For max. length, contact Teledyne Storm.*



STORM-TEST™

VNA TEST CABLES & ADAPTERS (50, 40 & 26.5 GHz)

PRECISION, RUGGEDIZED TEST CABLE

ADAPTERS FOR STORM-TEST 50, 40 & 26.5

	ADAPTER TYPE	PART NUMBER	ADAPTER DESCRIPTION
	In Series	**750-0045-001**	2.4 mm to 2.4 mm Female
	In Series	**750-0046-001**	2.4mm Female to 2.4 mm Male
	In Series	**750-0047-001**	2.4 mm Male to 2.4 mm Male
	Between Series	**750-0048-001**	2.92 mm Female to 2.4 mm Male
	Between Series	**750-0049-001**	2.92 mm Male to 2.4 mm Male
	Between Series	**750-0050-001**	3.5 mm Female to 2.4 mm Male
	Between Series	**750-0051-001**	3.5 mm Male to 2.4 mm Male

PART NUMBER	MAX FREQ (GHz)	VSWR (Max Freq)	LOSS (Max IL @ Max Freq)	LENGTH (in/mm)	PHASE (deg @ Max Freq)
750-0045-001	50	1.25:1	0.49 dB	0.84 / 21.34	981.6
750-0046-001					
750-0047-001					
750-0048-001	40	1.20:1	0.50 dB	0.797 / 20.24	770.3
750-0049-001					
750-0050-001	26.5	1.20:1	0.44 dB	0.758 / 19.25	518.8
750-0051-001					

TELEDYNE
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Everywhereyoulook™

AS9100/ISO 9001 REGISTERED

10221 Werch Drive
Woodridge, Illinois 60517

www.teledynestorm.com

Tel 630.754.3300
Fax 630.754.3500
Toll Free 888.347.8676
storm_microwave@teledyne.com