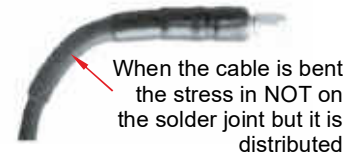


- VSWR is low due to the flat ribbon based construction.
- VSWR and attenuation are stable with aging and flexures.

## Unique solution for Test Applications



### Rugged Strain Relief



DuraTest-Series Pre-Connectorized Cable Sets are intended for daily use in the test labs and in automated testings. Feature excellent phase stability, low insertion loss and high flexure usage without loss of properties. Uses Triple Shielded e-PTFE taped cable and precision SMA or N connectors.

### APPLICATIONS

- OEM test cables replacement
- Test cable for environmental and temperature test chambers
- R&D Labs
- Automated testing

### TECHNICAL PERFORMANCE

- Strain relief design avoids breakage at connector/cable joint
- Stable IL, VSWR & phase even after repeated flex cycles
- Phase stable with temperature
- Connectors: Precision & low VSWR SMA or N
- VSWR: <1.38:1@18GHz (for SMA(M) straight on both sides)

### Physical & Mechanical Specifications

Parameters	Specifications	Parameters	Specifications
Jacket	< 4.8 mm	Weight	0.054 kg/m
Bending Radius (min.)	23 mm	Temperature Range	-55°C to +150°C

### Electrical Specifications

Parameters	Specifications
Impedance	50 ohms
Velocity of Prop.	76 %
Shielding Effectiveness	better than -95 dB
Capacitance	26.7 pF/ft
Frequency Range	DC~18 GHz

### Attenuation & Power Handling Vs Frequency

Frequency (GHz)	Insertion Loss		Power Watts
	dB/100ft	dB/100m	
0.4	6.4	20.09	900
3	17.8	58.4	320
10	33.3	109.4	165
12	36.7	120.4	150
18	45.5	149.4	120

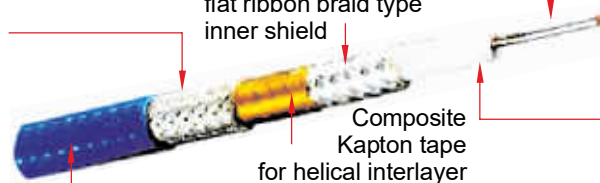
### Triple Shielded e-PTFE taped Cable provides Phase & VSWR stability with bending

Round wire braid type Outer Shield provides shielding and mechanical protection

Silver-plated copper flat ribbon braid type inner shield

Solid silver plated Center conductor for lowest attenuation

FEP (Fluorinated Ethylene Propylene) Jacket

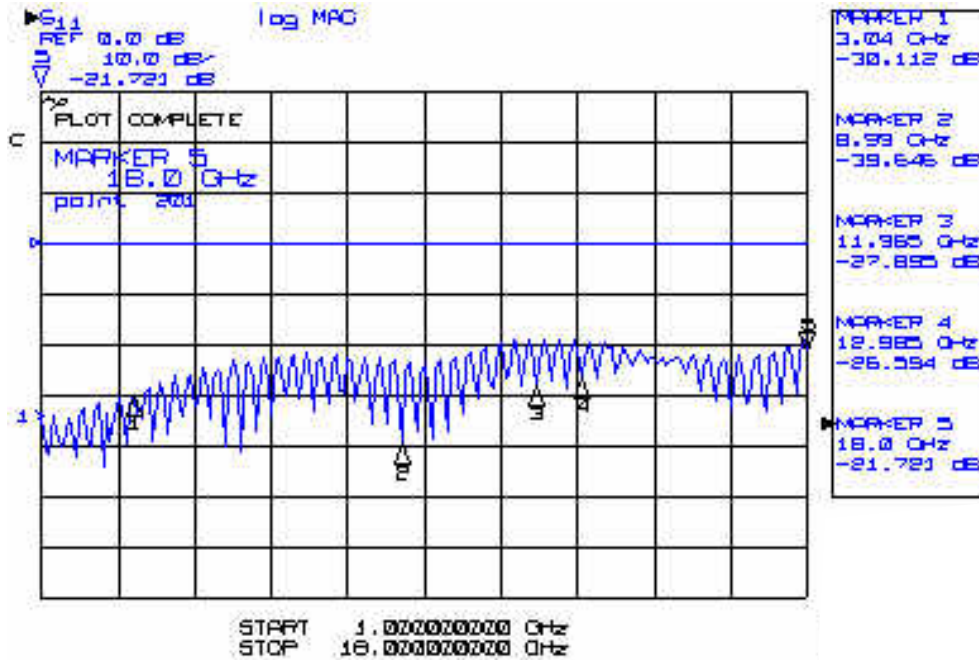


Taped PTFE dielectric with 76% velocity

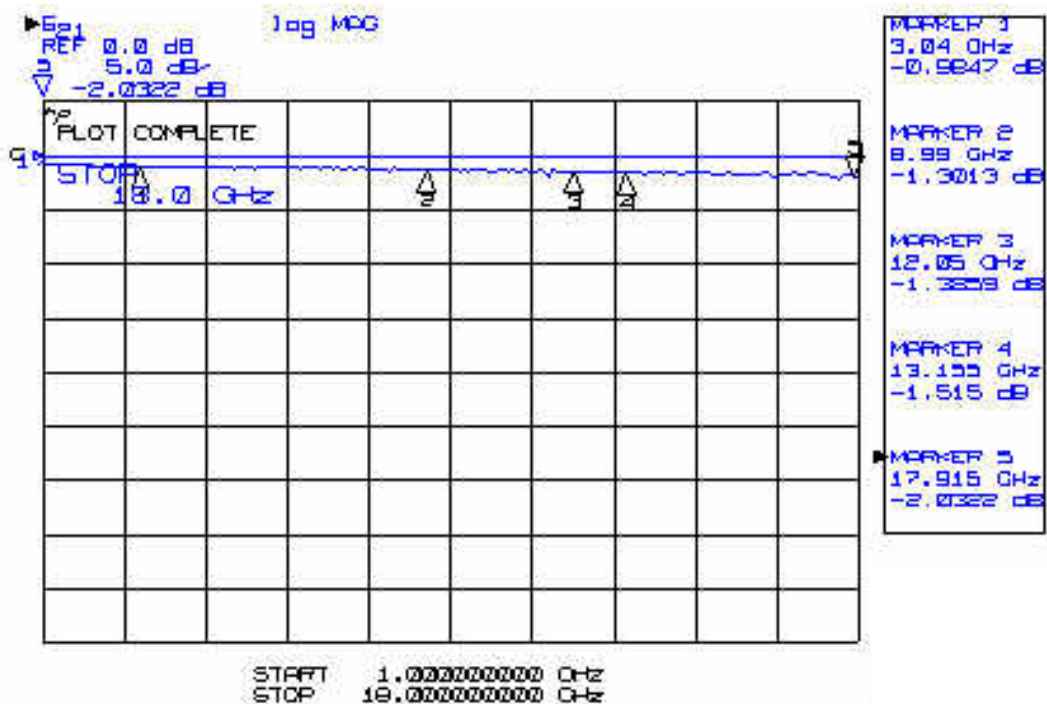
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**S11 Plot of 1m DuraTest Pre-connectorized cable set with SMA(M) on both sides**



**S21 Plot of 1m DuraTest Pre-connectorized cable set with SMA(M) on both sides**



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### Connector Specifications

Specifications	SMA Connectors	N Connectors	TNC Connectors
Outer Conductor	Stainless Steel Passivated or Gold Plated	Copper alloy	Copper alloy
Center Conductor	Brass, Gold Plated	Brass, Gold Plated	Brass, Gold Plated
Insulation	PTFE	PTFE	PTFE
Gasket	Silicon Rubber	Silicon Rubber	Silicon Rubber
Nominal Impedance	50Ω	50Ω	50Ω
Frequency range	DC~18 GHz	DC~11 GHz	DC~11 GHz
Mating/Unmating	500 operations min.	500 operations min.	500 operations min.
Vibration	As per MIL-STD-202, method 204, test condition D		
Mechanical Shock	As per MIL-STD-202, method 213, test condition I		
Thermal Shock	As per MIL-STD-202, method 107, test condition B		
Corrosion	As per MIL-STD-202, method 101, test condition B		
Humidity	As per MIL-STD-202, method 106		
Temperature Cycle	As per MIL-STD-202, method 102A, test condition C		

### Ordering Codes Description

(Length)                      (Connector 1)                      (Connector 2)  
 DuraTest - □ □ - □ (□ / □) - □ (□ / □) - □  
                   **L L**                                      **1 2 3**                                      **1 2 3 U**

<b>LL</b>	Length	0.5 = 0.5 ; 1 = 1.0 ; 2 = 2.0
<b>1</b>	Connector Series	SMA = SMA ; N = N ; TNC = TNC
<b>2</b>	Male/Female Designator	M = Male ; F = Female
<b>3</b>	Orientation of Connector	ST = Straight ; RA = Right Angle
<b>U</b>	Unit of Length	M = Meter ; F = Feet ; I = Inch

*1 meter cable set with SMA (Male) on both sides = DuraTest-1.0-SMA(M/ST)-SMA(M/ST)-M*

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### Cable Set Ordering Codes

Ordering Code	Length	Insertion Loss (dB) Typical			
		0.5 GHz	2 GHz	11 GHz	18 GHz
<b>SMA (Male) Straight - SMA (Male) Straight (DC to 18 GHz)</b>					
DuraTest-0.5-SMA(M/ST)-SMA(M/ST)-M	0.5m	0.25	0.49	0.95	1.20
DuraTest-1.0-SMA(M/ST)-SMA(M/ST)-M	1m	0.41	0.63	1.42	1.95
DuraTest-2.0-SMA(M/ST)-SMA(M/ST)-M	2m	0.71	1.24	2.75	3.50
DuraTest-5.0-SMA(M/ST)-SMA(M/ST)-M	5m	1.64	2.90	6.45	8.15
DuraTest-1.0-SMA(M/ST)-SMA(M/ST)-F	1 feet	0.14	0.21	0.6	0.85
DuraTest-2.0-SMA(M/ST)-SMA(M/ST)-F	2 feet	0.24	0.55	0.99	1.29
<b>SMA (Male) Straight - SMA (Male) Right Angle (DC to 12 GHz)</b>					
DuraTest-0.5-SMA(M/ST)-SMA(M/RA)-M	0.5m	0.29	0.51	0.99	-
DuraTest-1.0-SMA(M/ST)-SMA(M/RA)-M	1m	0.42	0.64	1.44	-
DuraTest-2.0-SMA(M/ST)-SMA(M/RA)-M	2m	0.79	1.25	2.96	-
DuraTest-5.0-SMA(M/ST)-SMA(M/RA)-M	5m	1.70	3.10	6.95	-
DuraTest-1.0-SMA(M/ST)-SMA(M/RA)-F	1 feet	0.15	0.24	0.69	-
DuraTest-2.0-SMA(M/ST)-SMA(M/RA)-F	2 feet	0.25	0.59	1.07	-
<b>SMA (Male) Right Angle - SMA (Male) Right Angle (DC~12 GHz)</b>					
DuraTest-0.5-SMA(M/RA)-SMA(M/RA)-M	0.5m	0.29	0.55	1.03	-
DuraTest-1.0-SMA(M/RA)-SMA(M/RA)-M	1m	0.42	0.65	1.45	-
DuraTest-2.0-SMA(M/RA)-SMA(M/RA)-M	2m	0.79	1.27	2.98	-
DuraTest-5.0-SMA(M/RA)-SMA(M/RA)-M	5m	1.72	3.19	7.10	-
DuraTest-1.0-SMA(M/RA)-SMA(M/RA)-F	1 feet	0.16	0.29	0.72	-
DuraTest-2.0-SMA(M/RA)-SMA(M/RA)-F	2 feet	0.26	0.62	1.12	-
<b>N (Male) Straight - N (Male) Straight (DC~11 GHz)</b>					
DuraTest-0.5-N(M/ST)-N(M/ST)-M	0.5m	0.28	0.52	0.99	-
DuraTest-1.0-N(M/ST)-N(M/ST)-M	1m	0.43	0.64	1.43	-
DuraTest-2.0-N(M/ST)-N(M/ST)-M	3m	0.79	1.26	2.85	-
DuraTest-5.0-N(M/ST)-N(M/ST)-M	5m	1.63	3.10	6.55	-
DuraTest-1.0-N(M/ST)-N(M/ST)-F	1 feet	0.15	0.24	0.68	-
DuraTest-2.0-N(M/ST)-N(M/ST)-F	2 feet	0.25	0.56	0.99	-
<b>TNC (Male) Straight - TNC (Male) Straight (DC~11 GHz)</b>					
DuraTest-0.5-TNC(M/ST)-TNC(M/ST)-M	0.5m	0.28	0.52	0.99	-
DuraTest-1.0-TNC(M/ST)-TNC(M/ST)-M	1m	0.43	0.64	1.43	-
DuraTest-2.0-TNC(M/ST)-TNC(M/ST)-M	2m	0.79	1.26	2.85	-
DuraTest-5.0-TNC(M/ST)-TNC(M/ST)-M	5m	1.63	3.10	6.55	-
DuraTest-1.0-TNC(M/ST)-TNC(M/ST)-F	1 feet	0.15	0.24	0.68	-
DuraTest-2.0-TNC(M/ST)-TNC(M/ST)-F	2 feet	0.25	0.56	0.99	-

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