

DuraLine

Durable Test Cable Assemblies



Typical Applications:

- * Mass production Test
- * OEM Port Test Line
- * RF Test Platform
- * Lab and R&D Test
- * Operation Site Test
- * Environmental Test Chamber
- * Field Experiment Test

Duraline Test Cable is the high performance , cost-effective and durable test cable assemblies designed for a broad range of test and interconnect applications. Duraline test cable use the silver-plated copper clad steel as center conductor, solid PTFE as dielectric, and anti-twist SPC flat braid as outer conduct.

Duraline cables can provide long life and stability in the applications where they are repeatedly flexed and mated/unmated. With the taped covering and the silver-plated ribbon braid, the Duraline cable can offer the better shielding effectiveness and more stable.

Focussimple uses the industry's most advanced design for the connectors of the test cable. The precise type N connector combines BeCu center conductor with gold plating, stainless steel shell and high-strength PEI as the dielectric material. The PEI insulator is 100 times of strong than the PTFE insulator, which can make the test cable more stable and more durable after long-term use.

Feature & Benefits:

- * Good phase stable vs. bending
- * Long work life vs. bending
- * Tri-shielding construction
- * onnector with BeCu center conductor and stainless steel shell
- * High-strength PEI as connector insulator



Duraline warranty

Focussimple Shanghai provides four months of the warranty period for DuraLine from the date of its delivery .if problems occur by normal use during this four months , our company responsible for the repair or replacement .

DuraLine Specification

Mechanical and Specifications

Dimension	mm	Inch
Center Conductor	0.94	0.037
Dielectric	2.97	0.12
Out Conductor	3.17	0.125
Inner Layer	3.33	0.13
Shielding	3.88	0.153
Jacket	4.85	0.19
PVC Armor	10.8	0.425
S/S Armor	10.50	0.41
Press of Armor	PVC: 200N/25mm; SS: 1000N/25mm	
Bending Radius	25.00	1.00
Retension Force	>175 lbs	
Cycle Times	>5000	
Length Tolerance	≤1m, +20mm, -0; >1米, +2%,-0	
Operation Temp.	Default	105°C
	High Temp. Boots	165°C
	PVCArmor	75°C
	SS Armor	150°C

Electrical Specifications

Frequency		6GHz	18GHz	26.5GHz
VSWR	N	1.15:1	1.30:1	-
	SMA	1.15:1	1.25:1	1.30:1
Impedance	50 Ohms			
Velocity	70%			
Shielding	>100 dB			
Capacitance	29.4 pf/ft=96.4 pf/meter			
Mechanical Phase	Max:0.19°/GHz(See next page for actual)			
Mechanical Attenuation	Max: +/-0.1 dB(DC-26.5Ghz)			
Attenuations Max@25°C				
Frequency (GHz)	dB/100 m	dB/100 Ft		
1	40.03	12.20		
2	58.92	17.96		
3	74.33	22.65		
6	112.03	34.15		
8	133.58	40.71		
12	172.27	52.51		
18	223.99	68.27		
26.5	290.12	88.42		
Other Frequency	(A=K1*sqrt(FMHz)+K2*FMHz)			
K1	1.1414400			
K2	0.0039360			
Average Power (25°C, See Level, cable only)				
Frequency (GHz)	Watts (max.)			
1	539			
2	363			
6	180			
12	117			
18	88			
26.5	65			



Cable structure :

Center Conductor: Silver plated copper clad steel

Media: Solid PTFE

Outer conductor: SPC Ribbon braiding

The middle layer: Kapton foil

Outer shield: SPC braid

Outer sheath: Blue FEP

Armor (optional): Normal PVC / high temperature stainless steel

Duraline Test cable have optional normal PVC armor, enhanced stainless steel armor and S/S armor with PUR jacket. Duraline armored test cable assemblies are designed for high volume production test in the wireless base station, antenna application and passive device and so on. Duraline Armor test cable assemblies are enhanced durable with can save costs by reducing worn part replacement time. Besides, costs can also be saved by reducing system calibration and trouble removal time due to its excellent stability. The stabilization of the cable performance can make the test system more accurate and repeatable.

To avoid failure caused by frequently bending and torsion, Duraline test cable assemblies have a long metal tail and double high-strength shrink tube which can offer fully protection to joint areas between the cable and the connector.



Connector structure :

Center Conductor: Beryllium copper with gold plating

Media: Solid PTFE + high strength PEI

Solder Cup: Split optimized solder cup;

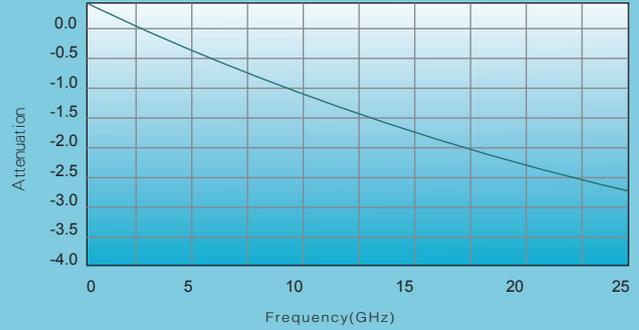
Outer conductor: Stainless steel passivation

Nuts: Stainless steel passivation

(Optimized high strength dielectric to ensure the firmness of the center pin after many times of plug)

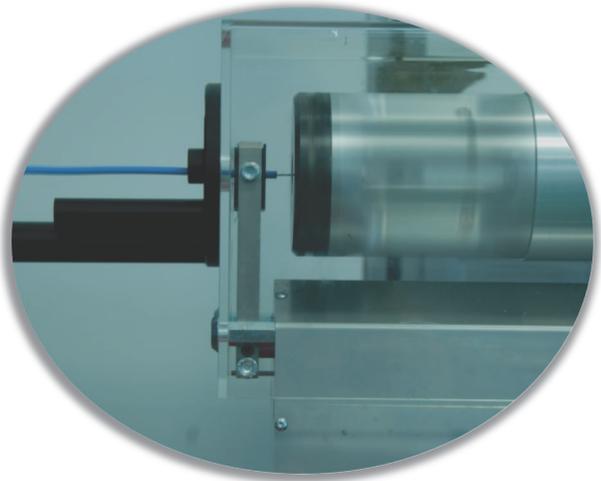
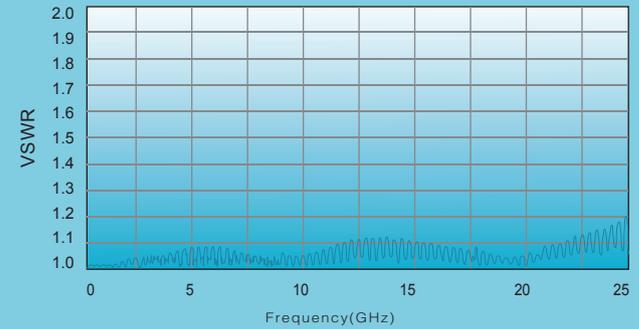
ATTENUATION

(Actual:DLN26-SMSM-01.00MM)



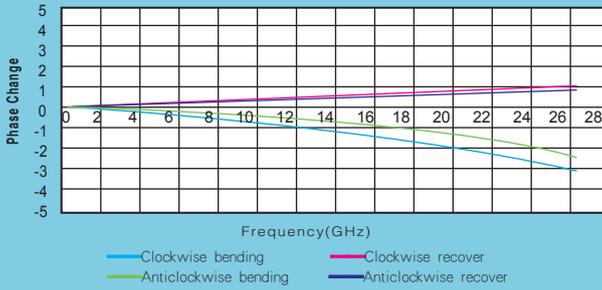
VSWR

(Actual:DLN26-SMSM-01.00M)



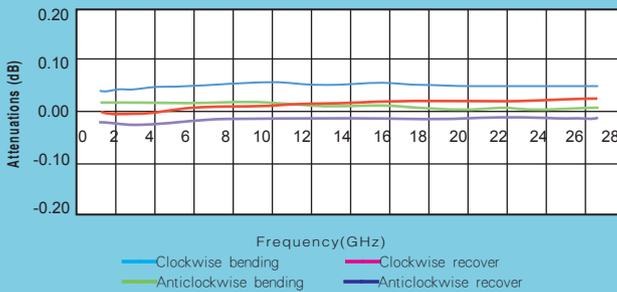
Mechanical Phase

(Actual:DLN-SMSM-01.00M, Among 100MM 360 degree)



Mechanical Phase

(Actual:DLN-SMSM-01.120M, Among 100MM 360 degree)



Ordering Selection Information

N = No armor
 P = PVC armor
 S = Stainless Steel Armor
 R = PUR armor
 T = temperature casing
 B = high temperature sleeve +
 Stainless Steel Armor

Frequency
 18 = 18.0 GHz
 26 = 26.5 GHz

DLXXX-XXXXXX-XX.XXX

M: Metric, M
 E.g: 01.20M = 1.2M
 F: British, Ft
 E.g.: 07.50F = 7.5 Ft

Connector Type, two sides independent

SM = SMA Male
 SF = SMA Female
 NM = Type N Male
 N1T = Type N Male one Turn
 NF = Type N Female
 TM = TNC Male
 SMR= SMA Male Right Angle
 NMR= Type N Male Right Angle
 TMR = TNC Male Right Angle

Armor Selection Information

P



PVC armor - built in reinforced spring PVC sheath

S



Stainless steel armor -stainless steel double layer+ torsion layer

R



PUR armor—stainless steel armor+ PUR jacket