

DuraLine-TPS

High Performance Phase Stable Test Cable Assembly



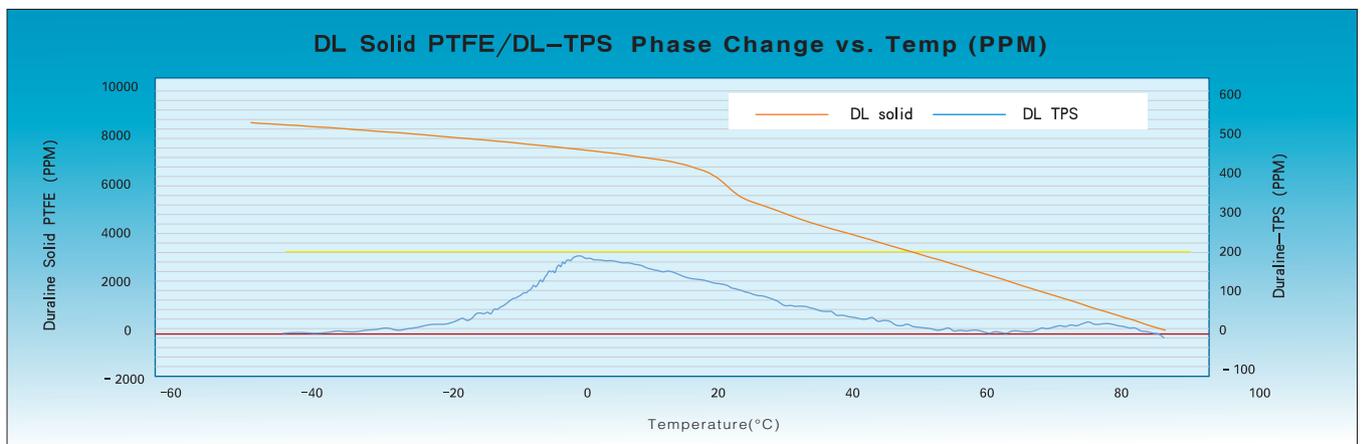
Typical Applications:

- * High Volume Production Test Stations
- * Environmental and Temperature Test Chambers
- * OEM Test Platform
- * RF Test Platform
- * Research & Development Labs
- * Field RF Testing

DuraLine-TPS is the newest design by Focusimple for the phase stability test cable assembly at the normal ambient temperature of -40°C to $+85^{\circ}\text{C}$. DuraLine-TPS use the SPC ribbon braid and tri-shielding construction as the standard DuraLine test cable, but it features special dielectric material to make sure the phase stable vs. temperature.

Duraline-TPS is also phase stable with repeatedly flexed with excellent VSWR and return loss performance. Its phase changing is less than 250PPM at -40°C to $+85^{\circ}\text{C}$ and is linearity to changes of temperature from 0°C to $+45^{\circ}\text{C}$.

Duraline-TPS test cable assemblies can be widely used in test systems, interconnection and phase-matching application that's sensitive to phase changes in temperature.



Feature & Benefits:

- * Good phase stable vs. temperature
- * Mechanical phase and amplitude stability
- * Long using life vs. bending
- * Tri-shielding construction
- * Connector with Becu center conductor and stainless steel shell
- * High-strength PEI as connector insulator

Duraline-TPS warranty

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

DuraLine-TPS

Specification

Mechanical and Specifications		
Dimension	mm	Inch
Center Conductor	1.05	0.040
Dielectric	2.98	0.117
Out Conductor	3.18	0.125
Inner Layer	3.34	0.131
Shielding	3.91	0.154
Jacket	4.85	0.191
PVC Armor	10.8	0.425
S/S Armor	10.50	0.41
Press of Armor	1000N/25cm	
Bending Radius	25.00	1.00
Retention Force	>175 lbs	
Cycle Times	>5000	
Length Tolerance	≤1m, +20mm, -0; >1m, +2%,-0	
Operation Temp.	Default	105°C
	High Temp. Boots	165°C
	PVC Armor	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	76%			
Shielding	>90 dB			
Capacitance	27 pf/ft=88 pf/meter			
Mechanical Phase	Max:0.1°/GHz(See next page for actual)			
Mechanical Attenuation	Max: +/-0.10 dB(DC-26.5Ghz)			
Attenuations Max@25°C				
Frequency (GHz)	dB/100 m	dB/100 Ft		
1	35.41	10.79		
2	51.49	15.69		
3	64.38	19.62		
6	95.27	29.04		
8	112.58	34.31		
12	143.16	43.63		
18	183.27	55.86		
26.5	233.55	71.17		
Other Frequency	(A=K1*sqrt(FMHz)+K2*FMHz)			
K1	1.0440000			
K2	0.0024000			
Average Power (25°C, See Level, cable only)				
Frequency (GHz)	Watts (max.)			
1	149			
2	102			
6	55			
12	37			
18	29			
26.5	23			

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

DLX-TPSXX-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