

# FlexLine

-- High Performance Phase Stable Ultra-flex Test Cable



Typical Applications:

- \* High Volume Production Test Stations
- \* OEM Test Port Cables
- \* RF Test Platform
- \* Research & Development Labs
- \* Field Testing
- \* RF circuits Testing

Flexline test cable assembly is high performance and is approximately 40% more flexible than the standard DuraLine. This cable is combined with stranded silver-plated copper center conductor and ND-PTFE dielectric, inner layer which make the cable more stable.

The connectors are uses BeCu center contact with gold plating and stainless steel shell to make sure the long work life of the test cable assemblies.

Features & Benefits:

- \* Mechanical phase and amplitude stability
- \* 40% more flexible
- \* Tri-shielding construction
- \* Connector with BeCu center contact and stainless steel shell
- \* High-strength PEI as connector insulator



## FlexLine warranty

Focusimple provides three months of the warranty period for FlexLine from the date of its delivery .if problems occur by normal use during this three months , our company responsible for the repair or replacement .

# FlexLine *Specification*

## Mechanical and Specifications

Dimensions	mm	Inch
Center Conductor	1.02	0.040
Dielectric	3.07	0.121
Out Conductor	3.27	0.129
Inter Layer	3.47	0.137
Outer Shield	4.10	0.163
Jacket	5.20	0.205
PVC Armor	10.80	0.425
S/S Armor	10.50	0.413
Armor Anti-stress	1000N/25mm	
Minimen Bending Radius	25.00	1.00
Retension Force	>175 lbs	
Cycle Times	>5000	
Length Tolerance	≤1m, +20mm, -0; >1m, +2%,-0	
Operation Temp.	Default	85°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 of Propagation	76%			
Shielding Effectiveness	>90 dB			
Capacitance	27 pf/ft=88 pf/meter			
Mechanical Phase	Max:0.1°/GHz(See next page for actual)			
Mechanical Amplitude	Max: +/-0.08 dB( DC-26.5Ghz)			
Attenuations Max@25°C				
Frequency (GHz)		dB/100 m	dB/100 Ft	
1		38.49	11.73	
2		55.91	17.04	
3		69.87	21.30	
6		103.25	31.47	
8		121.94	37.16	
12		154.91	47.21	
18		198.08	60.37	
26.5		252.14	76.85	
Attenuation at Frequency	(A=K1*sqrt(FMHz)+K2*FMHz)			
K1	1.1370000			
K2	0.0025300			
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			



Cable structure :

Center conductor: Silver plated copper clad steel

Dielectric: Solid PTFE

Outer conductor: SPC Ribbon braiding

Interlayer: Kapton foil

Outer shield: SPC braid

Jacket: Blue PUR

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



Connector structure :

Center contact: Beryllium copper with gold plating

Insulator: Solid PTFE + high strength PEI

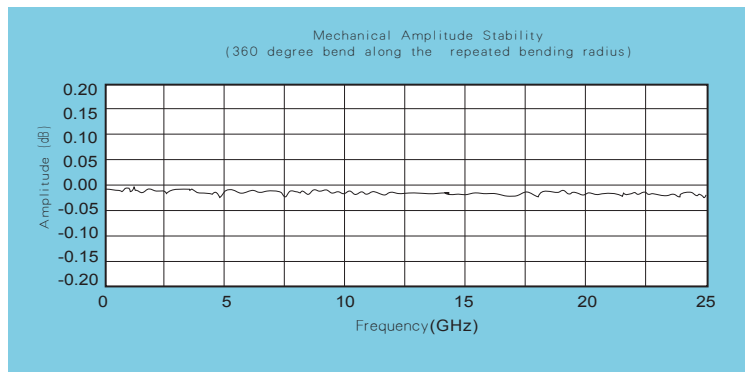
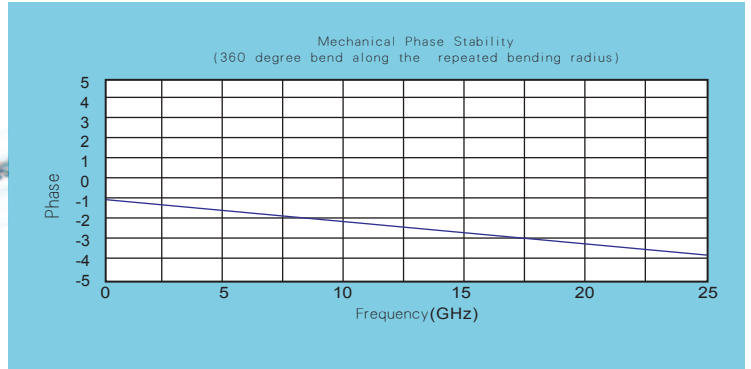
Solder cup: Split optimized solder cup;

Body: Stainless steel passivated

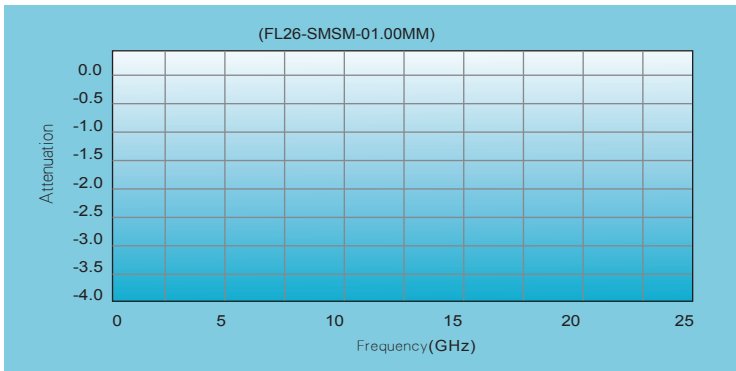
Nuts: Stainless steel passivated

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

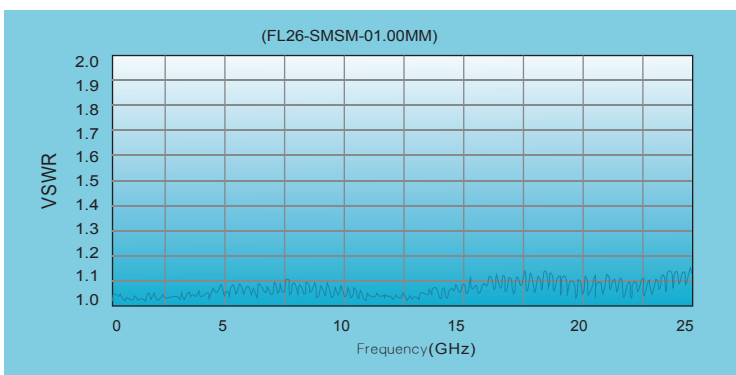
# FlexLine *Tested Data*



## ATTENUATION



## VSWR



## Ordering Selection Information

N = No armor  
 P = PVC armor  
 S = Stainless Steel Armor  
 R = PUR armor

**M: Metric system, meter**  
 E.g.: -01.20M = 1.2meter  
**F: Imperial Standard, Ft**  
 E.g.: 07.50F = 7.5 Ft

**FLXXX-XXXXXX-XX.XXX**

Frequency  
 18 = 18.0 GHz  
 26 = 26.5 GHz

**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

R



PUR armor – stainless steel armor+  
 PUR jacket

S



Stainless steel armor –stainless  
 steel double layer+ torsion layer