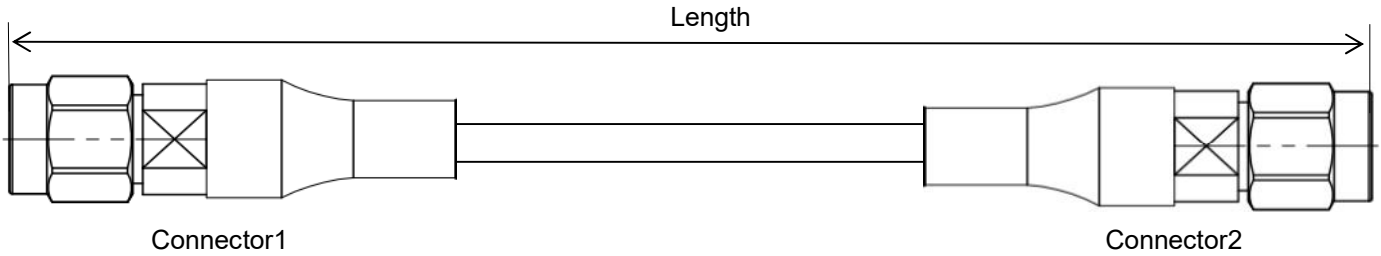


High Flex Life Economy Test Cable Assembly, Using FL520

DC-18 GHz, SMA Male to SMA Male

FL520-SMAMSMAM-L(L:Length)

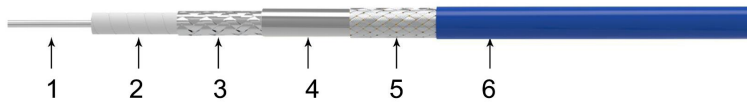


- Length can be in meter or in inch etc, e.g, FL520-SMAM-SMAM-1M. Standard length tolerance: $\pm 1.5\%$. Custom lengths and other connector types available.
- Length is measured from one connector end to the other connector end as shown above. For RA connectors, use the pin center-line.

Configuration

Connector 1	SMA male	Connector 2	SMA male
Body	Passivated stainless steel	Body	Passivated stainless steel
Center Contact	Gold plated brass	Center Contact	Gold plated brass
Cable Type	FL520		

Cable Construction



No.	Construction	Size (mm)	Materials
1	Center Conductor	1.29	Solid silver-plated copper
2	Dielectric	3.90	Low density PTFE
3	Outer Conductor	4.15	Silver-plated flat copper ribbon braid
4	Interlayer	4.28	Aluminum foil wrap
5	Outer Shield	4.73	Silver-plated copper wire braid
6	Jacket	5.20	FEP

Electrical

Frequency	DC-18 GHz
Impedance	50 Ω
VSWR Max	1.25
IL Max(1 meter assembly)	1.7dB
*Mechanical Phase Stability	$< \pm 6^\circ$
Amplitude Stability vs Shaking	$< \pm 0.2\text{dB}$

Mechanical & Environmental

Min.Bending Radius Static	25mm
Min. Bending Radius Repeated	52mm
Velocity of Propagation	76%
Temperature(Operation)	-50~85 $^\circ\text{C}$
Temperature(Storage)	-60~85 $^\circ\text{C}$

* Wrap the cable 360 degree around a mandrel whose diameter is ten times of the cable jacket size.

Bulk Cable Attenuation(Typical@25°C) & Power(VSWR=1.0; 40°C; Sea level)

Frequency MHz	400	500	1000	1350	1500	6000	8000	10000	12400	14000	18000
dB/100 Meter	17.4	19.4	27.7	32.3	34.0	69.9	81.3	91.5	102.7	109.6	125.5
Avg.Power kW	1.201	1.072	0.754	0.646	0.612	0.298	0.256	0.228	0.203	0.190	0.166

K1=0.856233

K2=0.000591

Attenuation at any frequency=[K1×SQRT(FMHz)]+[K2×FMHz]

- Notes:**
- 1) The above attenuation refers to typical loss of cable only, max loss is 1.1 times of typical loss. Insertion loss per connector is estimated as 0.04dB x SQRT Freq(GHz).
 - 2) Power handling values are calculated based on cable properties. Power handling will vary based on connector type and actual VSWR of the cable assembly.

Typical Test Data (FL520-SMAMSMAM-1M)

