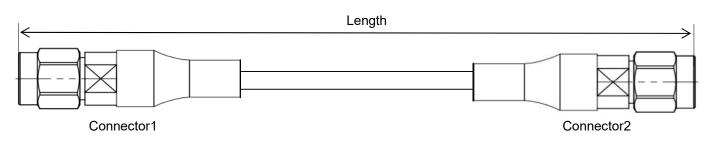


High Flex Life Economy Test Cable Assembly, Using FL520

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: ±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

Electrical

_				2	1.1110	
	1	Ť	1	1	1	1
	1	2	3	4	5	6
No.	Co	nstructi	on	Size (mm)	Materials
1	Ce	nter Co	nductor	1.2	29	Solid silver-plated copper
2	Die	lectric		3.9	90	Low density PTFE
3	Out	ter Con	ductor	4.1	15	Silver-plated flat copper ribbon braid
4	Inte	erlayer		4.2	28	Aluminum foil wrap
5	Ou	ter Shie	eld	4.7	73	Silver-plated copper wire braid
6	Jac	ket		5.2	20	FEP

Mechanical & Environmental

Frequency	DC-18 GHz	Min.Bending Radius Static	25mm
Impedance	50 Ω	Min. Bending Radius Repeated	52mm
VSWR Max	1.25	Velocity of Propagation	76%
IL Max(1 meter assembly)	1.7dB	Temperature(Operation)	-50∼85 °C
*Mechanical Phase Stability	<±6°	Temperature(Storage)	-60~85 °C
Amplitude Stability vs Shaking	<±0.2dB		

* Wrap the cable 360 degree around a mandrel whose radius 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=0.8	356233							K2=	=0.0005	91		
Attenuation at any frequency							I×SQR ⁻	T(FMHz	z)]+[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)

🔆 Agi	lent Technologi	es		Global pass	/fail status: NC	ONE page 1	of 1			
Window 1	(1) S11 Units SWR C 2-Port									
2.00	Tr 1 S11 SWR 0	.100U/ 1.00U							> 1: 17.932688	GHz 1.1562
1.90									- 1. 17.552000	GH2 1.1302
1.80										
1.70										
1.60										
1.50										
1.40										
1.30										
1.20										
1.10									٨	
			MMMMMMM	MMMMM	MMMMM	MMMMM	mmm	An Ma MAMA	MAMM	MMMMM
1.00	Ch1:	Start 50.0000 MHz						WW VU V	W	Stop 18.0000 GHz
Window 2	(1) S22 Units									
2.00	SWR C 2-Port Tr 2 S22 SWR 0	1001/ 1 0011								
1.90	1 2 022 04110	1.000/ 1.000							> 1: 17.708313	GHz 1.1453
	-									
1.80	-									
1.70										
1.60	-									
1.50			-		-					
1.40										
1.30	s .									
1.20										1
1.10				A.A. A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	No. 0 0 0.000		0.0.0	0 A	- AMAMANA
1.00	mmmm	wwwww	MMMMM	www.N. M. M. M. M. M. M.	104 00 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MMMMMM	mmm	WWWW	WWWW	W. W.W.
		Start 50.0000 MHz								Stop 18.0000 GHz
Window 3	(1) S21 dB LogMag C 2-Port									
4.00	Tr 3 S21 LogM 1	.000dB/ 0.00dB							> 1: 18.00000	GHz -1.4860 dB
3.00	n <u></u>									
2.00			-							
1.00										
0.00										
-1.00										
-2.00										
-3.00										
-4.00										
	-									
-5.00										
-6.00	L Ch1:	Start 50.0000 MHz					1	1	1	Stop 18.0000 GHz