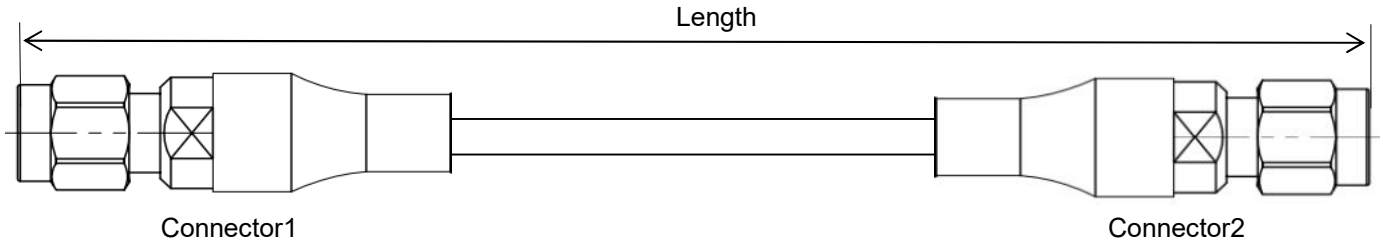
Armored Bench Test Cable Assembly, Using PL140

DC-110 GHz, 1.0mm Male to 1.0mm Male PL140-1M1M-L-A(L:Length)

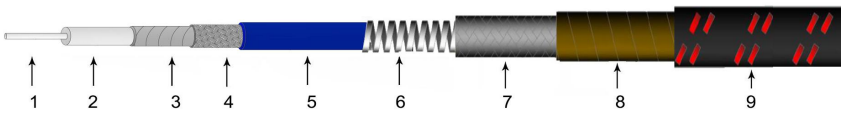


· Length can be in meter or in inch etc, e.g, PL140-1M1M-10CM-A. Standard length tolerance: ±1.5%. Custom lengths and other connector types available.
· Length is measured from one connector end to the other connector end as shown above. For RA connectors, use the pin center-line.

Configuration

Connector 1	1.0mm male	**Connector 2**	1.0mm male
Body	Passivated stainless steel	Body	Passivated stainless steel
Center Contact	Gold plated BeCu	Center Contact	Gold plated BeCu
Cable Type	PL140 with armor		

Cable and Armor Construction



No.	Construction	Materials	Size（mm）
1	Center Conductor	Silver plated copper	0.32
2	Dielectric	Foamed PTFE	0.91
3	Outer Conductor	Silver-plated copper tape wrap	1.05
4	Outer Shield	Silver-plated copper wire braid	1.17
5	Jacket	FEP	1.42
6	Crush Resistance Layer	Stainless steel spiral	2.80
7	Strengthening Layer	Silver plated copper braid	3.11
8	Waterproof Layer	PTFE Binder	3.30
9	Armor Jacket	Braiding PTFE Red+Black	4.00

Electrical

Frequency	DC-110 GHz
Impedance	50 Ω
VSWR Max	1.35
IL Max(10 cm assembly)	2.7dB
Velocity of Propagation	79%
Temp Phase Stability	<500ppm(-40℃ to +70℃)
* Mechanical Phase Stability	± 12 º

* Wrapped 360˚ around a 40mm radius mandrel.

Mechanical & Environmental

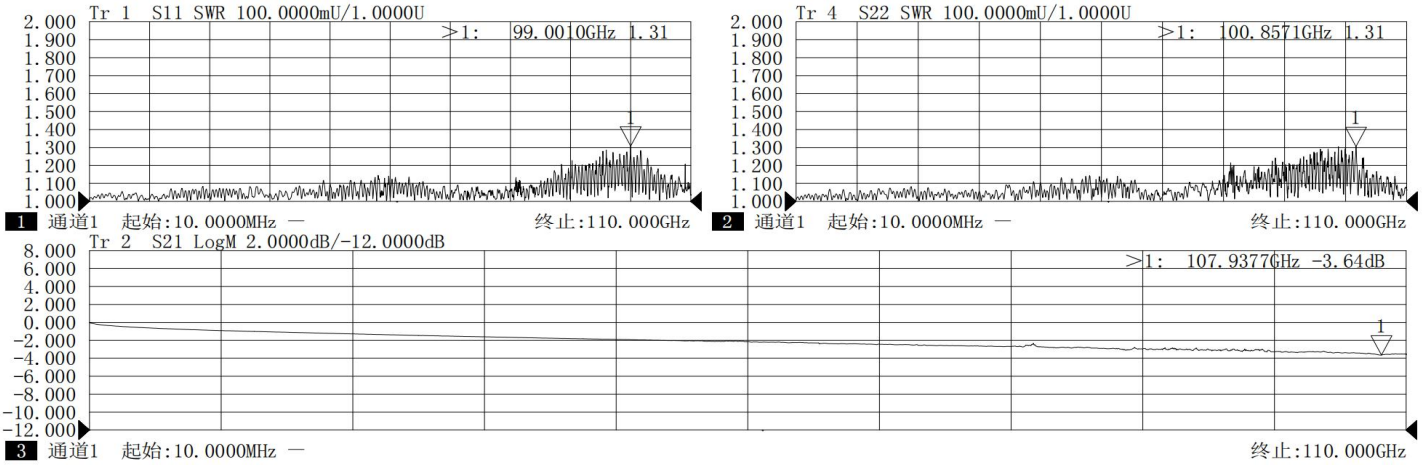
Min.Bending Radius Static	20mm
Min. Bending Radius Repeated	40mm
Flex Life Min	20000 cycles
Temperature(Operation)	-50～105 ºC
Temperature(Storage)	-60～105 ºC

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

Frequency MHz	300	1000	2000	3000	6000	12000	16000	18000	26500	40000	67000	110000
dB/Meter	0.6	1.1	1.6	2.0	2.8	4.0	4.6	4.9	6.2	7.8	10.5	14.6
Avg.Power W	61	33	24	19	14	10	8	8	6	5	4	3

Notes:
1) The above attenuation refers to typical loss of cable only. Insertion loss per connector is estimated as 0.06dB 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 (PL140-1M1M-20CM-A)



Typical Test Data (PL140-1M1M-50CM-A)