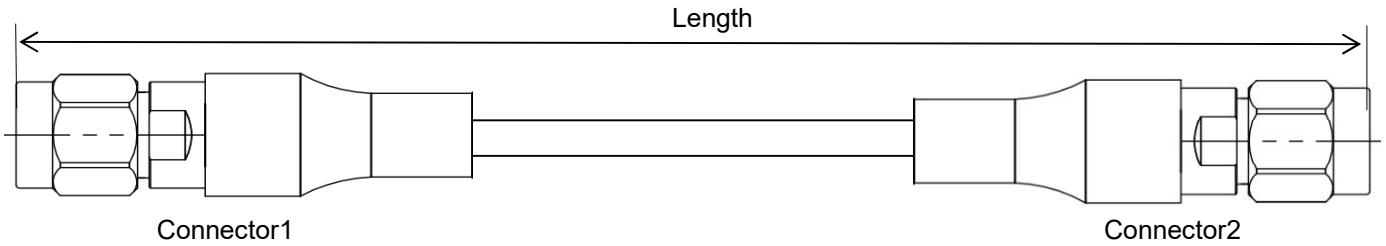


Ultra-Low Loss Phase Stable High Power Cable Assembly, Using PL800

DC-18 GHz, N Male to N Male

PL800-NMNM-L(L:Length)

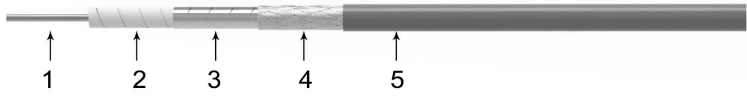


- Length can be in meter or in inch etc, e.g, PL800-SMAMSMAM-1M. Standard length tolerance: $\pm 1.5\%$. Custom lengths and other connector types available.
- Length is measured from one connector end to the other connector end as shown above. For RA connectors, use the pin center-line.

Configuration

Connector 1	N male	Connector 2	N male
Body	Passivated stainless steel	Body	Passivated stainless steel
Center Contact	Gold plated brass	Center Contact	Gold plated brass
Cable Type	PL800		

Cable Construction



No.	Construction	Size (mm)	Materials
1	Center Conductor	2.30	Solid silver-plated copper
2	Dielectric	6.30	Ultra-low density PTFE
3	Outer Conductor	6.50	Silver-plated copper tape wrap
4	Outer Shield	7.10	Silver-plated copper wire braid
5	Jacket	7.85	FEP



Electrical

Frequency	DC-18 GHz
Impedance	50 Ω
VSWR Max	1.3
IL Max(1 meter assembly)	1.1dB
*Mechanical Phase Stability	$< \pm 5^\circ$
Amplitude Stability vs Shaking	$< \pm 0.1\text{dB}$

Mechanical & Environmental

Min.Bending Radius Static	40mm
Min. Bending Radius Repeated	80mm
Velocity of Propagation	83%
Temperature(Operation)	-50~105 $^\circ\text{C}$
Temperature(Storage)	-60~105 $^\circ\text{C}$

* Wrapped 360° around a 80mm radius mandrel.

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

Frequency MHz	300	1000	2000	3000	6000	8000	10000	12000	14000	16000	18000
dB/100 Meter	8.0	14.8	21.1	26.0	37.3	43.4	48.9	53.9	58.6	63.0	67.1
Avg.Power kW	3.341	1.812	1.269	1.029	0.716	0.615	0.547	0.496	0.456	0.425	0.398

Attenuation at any frequency= $[0.456380 \times \text{SQRT}(\text{FMHz})] + [0.000328 \times \text{FMHz}]$

- 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 $0.04\text{dB} \times \text{SQRT Freq}(\text{GHz})$.
 - 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 (PL800-NMNM-1M)

