

PS180-100G

100 GHz Micro-Miniature Phase Stable Coaxial Cable

The PS180-100G is a micro-miniature flexible coaxial cable featuring a 1.80 mm outer diameter, Solid-PTFE dielectric, and triple-shielded construction. Designed for mmWave and sub-THz interconnect applications up to 100 GHz, it provides low loss, stable phase behavior vs. bending, and excellent screening effectiveness.



- Max Operating Frequency: 100 GHz
- Solid PTFE Insulation Dielectric
- Phase Change vs. Bending: ± 0.3 °/GHz
- Nominal Outer Diameter: 1.80 mm
- Triple Shielding Construction (>90 dB Effectiveness)
- Direct Replacement for HUBER+SUHNER Minibend-047

STRUCTURE & PHYSICAL DIMENSIONS

Layer	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 0.29	0.29
Insulation	Solid-PTFE	-	0.95
Inner Shield	Silver Plated Copper Strip	-	1.10
Interlayer	High Temperature Aluminium Foil	-	1.23
Outer Shield	Alloy Wire Braid	-	1.43
Jacket	Green FEP	-	1.80

MECHANICAL CHARACTERISTICS

Min. Bend Radius (Static)	20.0 mm
Min. Bend Radius (Dynamic)	40.0 mm
Weight	0.047 kg/m
Operating Temperature	-55 to +125 °C

ELECTRICAL CHARACTERISTICS

Impedance	50 Ohm
Velocity of Propagation	70%
Capacitance	94 pF/m
Screening Effectiveness	> 90 dB
Dielectric Voltage	500 V DC

ATTENUATION & POWER HANDLING

Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ [dB/m] | $K1 = 0.03613110$, $K2 = 0.00001221$

Frequency (MHz)	Nom. Attenuation (dB/m @ 25°C)	Max Power Handling (W @ 40°C)
500	0.81	100
1000	1.15	70
3000	2.02	40
6000	2.87	28
10000	3.74	22
16000	4.77	17
18000	5.07	16
26500	6.21	13
40000	7.71	11
67000	10.17	8
100000	12.65	6

CROSS REFERENCE GUIDE

Primary Model	Equivalent Industry Reference	Compatibility Type
PS180-100G	HUBER+SUHNER Minibend-047	Direct Drop-In Equivalent