

INSTABEND™ 047

High Performance Microwave Assemblies



INSTABEND™ are flexible, coaxial microwave assemblies designed for interconnects between RF circuit cards, modules and enclosure panels. The cable can be bent very closely behind the connector, simplifying cable routing.

Features:

- Readily Available
- Low-profile bending close to the connector back-end for minimal footprint
- Lightweight

Specifications

Ω Impedance
50 Ohms
Units

Op Temp
-85 to +257°F
-65 to +125°C

Diameter	in (mm)	0.061 (1.55)
Weight	lb/ft (g/m)	0.004 (6.0)
Minimum Bend Radius	in (mm)	0.130 (3.30)
Maximum Frequency	GHz	50
Maximum Operating Voltage	VACrms	100
Capacitance	pF/ft (pF/m)	29.9 (98.1)
Delay	ns/ft (ns/m)	1.45 (4.76)
Shielding	dBc	-90



Calculation

$$IL = \underbrace{(K1 \times v(f) + K2 \times f)}_{\text{Cable Insertion Loss}} \times \underbrace{\text{Cable Length}}_{\text{Length unit must match K value unit}} + \text{Connector Loss}$$

↓
k values

k values	dB/ft	db/m
K1	0,01195	0,03920795
K2	0,000013	0,000042653

Typical Connector Loss

Frequency (MHz)	dB/pr	Frequency (MHz)	dB/pr
500	0.04	10000	0.19
1000	0.06	12000	0.21
2000	0.08	14000	0.22
4000	0.12	16000	0.24
6000	0.15	18000	0.25
8000	0.17		

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Ordering Guide

IB047 - **CODE** **CODE** - **10.0** **CM**
- Connector A Connector B - Length Units of measure
CM - Centimeters
IN - Inches

CODE	Part Number	Description	VSWR max
SMPF	47432	SMP Female Straight	1.35 @ DC-12.4 GHz 1.50 @ 12.4- 18 GHz
SM	47396	SMA Male Straight	1.25 @ DC-27 GHz
KM	47425	2.92 Male Straight	1.25 @ DC-27 GHz 1.40 @ 27-40 GHz



Global manufacturing capability: US, and Asia.



Heritage—in the air and on the ground, thousands of assemblies built over decades.



Assembled and tested assemblies provide assured performance.



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