

# 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

$\Omega$  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.



Times Microwave Systems  
358 Hall Avenue, Wallingford, CT 06492, USA  
T 800. 867.2629 F 203. 949.8423  
[www.timesmicrowave.com](http://www.timesmicrowave.com)