

# 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:

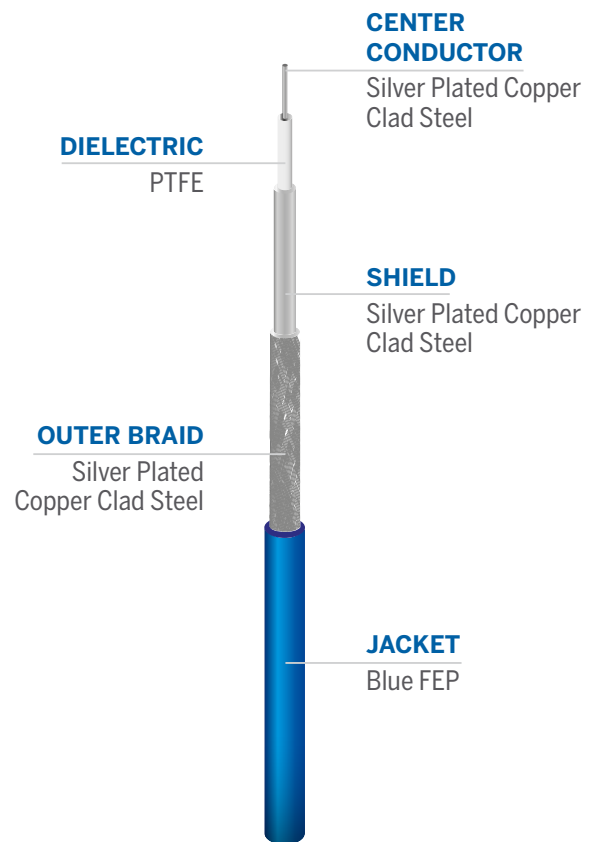
- Readily Available
- Low-profile bending close to the connector back-end for minimal footprint
- Lightweight

## 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

$$IL = (K1 \times \sqrt{f}) + K2 \times f \times \text{Cable Length} + \text{Connector Loss}$$

Cable Insertion Loss  
f = Frequency (MHz)

Use **K** values with  
matching length unit

K values	dB/ft	dB/m
<b>K1</b>	0,01195	0,03920795
<b>K2</b>	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**    **-XX**    **XX-**    **XX.X**    **XX**  
                  └──┘    └──┘    └──┘    └──┘  
                  - Connector A    Connector B -    Length    in / ft / cm / m

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	1.20 @ DC-6.0 GHz 1.35 @ 6.0-26.5 GHz
KM	47425	2.92 Male Straight	1.20 @ DC-6.0 GHz 1.35 @ 6.0-26.5 GHz 1.40 @ 26.5-40.0 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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