

# INSTABEND® 086

## 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:

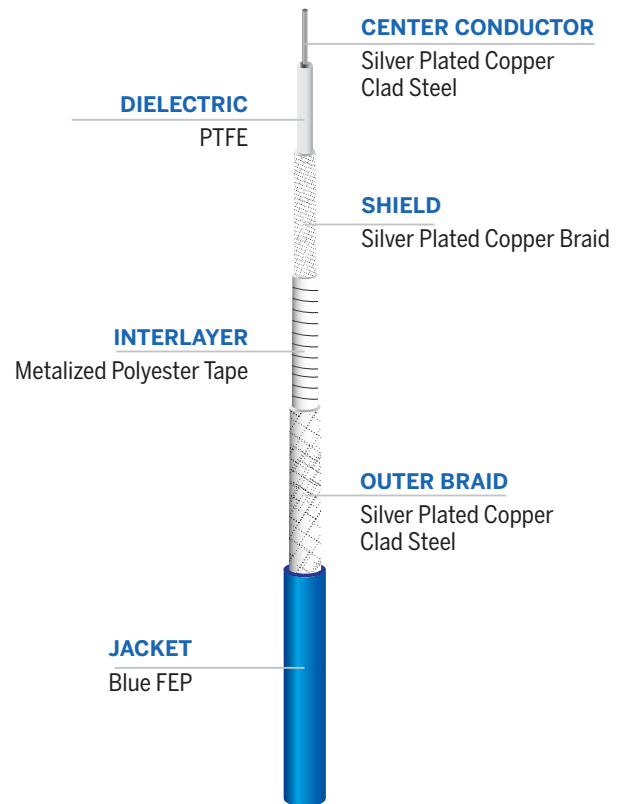
- Readily available
- Extreme bending from the back of the connector for minimal footprint
- 90° torque resistance
- Highly stable VSWR
- Ruggedized backend

### Specifications

$\Omega$  Impedance  
50 Ohms  
Units

Op Temp  
-85 to 257°F  
-65 to 125°C

Diameter	in (mm)	0.105 (2.67)
Weight	lb/ft (g/m)	0.013 (0.19)
Minimum Bend Radius	in (mm)	0.25 (6.35)
Maximum Frequency	GHz	50
Maximum Operating Voltage	VACrms	100
Velocity of Propagation	%	70
Capacitance	pF/ft (pF/m)	29 (95.1)
Delay	ns/ft (ns/m)	1.45 (4.76)
Shielding	dB	-90



### Calculation

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

Cable Insertion Loss  
 $f = \text{Frequency (MHz)}$

Use **K** values with  
 matching length unit

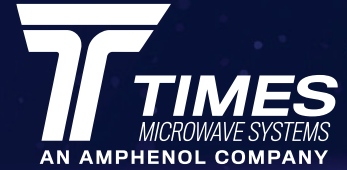
K values	dB/ft	db/m
K1	0.006446	0.021148
K2	0.000013	0.000043

### Typical Connector Loss

Frequency (MHz)	dB/pair	Frequency (MHz)	dB/pair
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

IB086 - CODE CODE - 10.0 CM

- Connector A      Connector B -      Length / 3 dig      in / cm

CODE	Part Number	Description	VSWR max
SMPF	47389	SMP Female Straight	1.35 @ DC-12.4 GHz 1.50 @ 12.4- 18 GHz 1.70 @ 18- 40 GHz
SM	47388	SMA Male Straight	1.25 @ DC-27 GHz
KM	47393	2.92 Male Straight	1.25 @ DC-27 GHz 1.40 @ 27-40 GHz



Global manufacturing capability: US, and Asia.

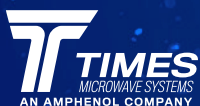


Heritage—in the air and on the ground, thousands of assemblies built over decades.



Assembled and tested assemblies provide assured performance.

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