HAND FLEX™

Coaxial Cable

086 SBMMCR Model Series

50Ω DC to 6 GHz

CASE STYLE: KP2016-XX

XX= cable length in inches

The Big Deal

- SMA-F bulkhead connector at one end
- MMCX-M blind Mate push-on/snap-on connector at one end
- Ideal for interconnect of assembled systems in tight spaces

Product Overview

The 086 Series Hand-Flex Coaxial Cables are ideal for interconnection of coaxial components or sub-systems in tight spaces. The construction includes a silver-plated copper steel wire center conductor which maintains the shape after bending. The outer shield is copper braid, tin soaked, which minimizes signal leakage and at the same time flexible for easy bend. Dielectric is low loss PTFE. SMA-F connector have passivated stainless steel coupling nut over a gold plated connector body and Beryllium copper over a gold plated center contact. MMCX-M connector has gold plated, brass body and center conductor. The 086 Series hand-Flex cables are available in variety of length to meet your requirements.

Key Features

Feature	Advantages
Hand-Formable RF Cables	The 086 Series Hand-Flex cables are hand formable making them ideal for use integrating coaxial components and sub-assemblies without the need for special cable-bending tools and alleviating the risk of damage during the bending process typical of semi-rigid coaxial cable assemblies.
Tight Bend Radius	Capable of only 6mm bend radius, the 086 Hand Flex series is able to make connections in tight spaces making these cables ideal for dense system integration
SMA-F bulkhead connector at one end	Mounts directly on equipment racks eliminating need for bulkhead adapter, thereby improving reliability
MMCX-M blind Mate Right angle push-on/snap-on	Quick connect/disconnect snap-on mating reduces installation time
Excellent Return loss, • 22 dB typ. at 3 GHz • 18 dB typ. at 6 GHz	The 086 Series Hand-Flex Cables are ideally suited for interconnecting a wide variety of RF components while minimizing VSWR ripple contribution due to mating cables & connectors.

HAND FLEX™

Coaxial Cable

086-6SBMMCR+

50Ω 6 inch DC to 6 GHz

CASE STYLE: KP2016-6

Connectors	Model
SMA-Female Bulkhead– Right Angle MMCX-Male	086-6SBMMCR+

Maximum Ratings

Operating Temperature	-55°C to 105°C
Storage Temperature	-55°C to 105°C
Power Handling at 25°C, Sea Level	50W at 2 GHz

Permanent damage may occur if any of these limits are exceeded.

Features

- Wideband frequency coverage, DC to 6 GHz
- Low Loss, 0.37 dB at 6 GHz
- Excellent Return Loss, 18 dB at 6 GHz
- Hand formable to almost any custom shape without special bending tools
- 6mm bend radius for tight installations
- Insulated outer jacket standard1
- Connector interface, meets MIL-STD-348
- Ideal for interconnect of assembled systems

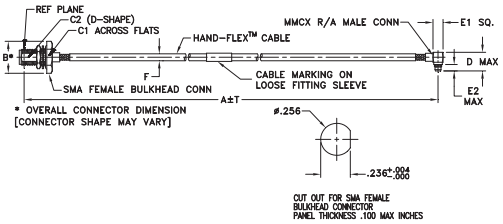
+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Applications

- Replacement for custom bent 0.086" semi-rigid cables
- Communication receivers and transmitters
- Military and aerospace system
- Environmental and test chambers

Outline Drawing

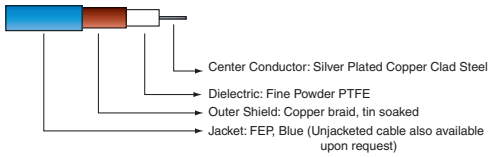


Outline Dimensions (inch / mm)

A	B	C1	C2	D
6.0	.51	.433	.232	.30
152.40	12.95	11.00	5.89	7.62

E1	E2	F	T	wt
.158	.138	.108	0.05	grams
4.01	3.51	2.75	1.27	6.86

Cable Construction



SMA-F Bulkhead Connector:
Hex Nut: Stainless Steel Gold Plated
Body: Stainless Steel Gold Plated
Socket: BeCu, Gold Plated

MMCX-Male Connector:
Body: Brass, Gold Plated
Center Pin: Brass, Gold Plated

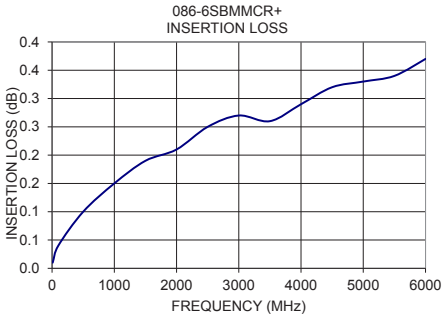
Electrical Specifications at 25°C

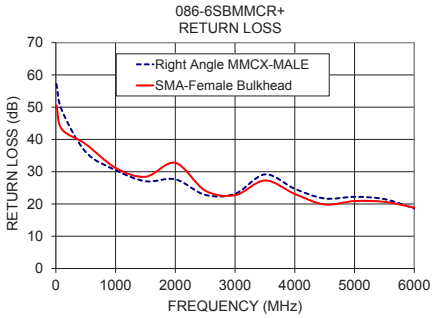
Parameter	Condition (GHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC		6	GHz
Length[1]			6		inches
Insertion Loss	DC - 2	—	0.1	0.4	dB
	2 - 4	—	0.3	0.7	
	4 - 6	—	0.3	0.7	
Return Loss	DC - 2	17	38	—	dB
	2 - 4	17	25	—	
	4 - 6	17	21	—	

1. Custom sizes available, consult factory.

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	
		SMA-Female Bulkhead	Right Angle MMCX-Male
10	0.01	50.58	57.16
100	0.04	43.17	49.04
500	0.1	38.55	36.12
1000	0.15	31.19	30.5
1500	0.19	28.43	27.04
2000	0.21	32.75	27.64
2500	0.25	24.15	22.82
3000	0.27	22.72	23.14
3500	0.26	27.29	29.17
4000	0.29	23.11	24.69
4500	0.32	19.84	21.7
5000	0.33	20.91	22.22
5500	0.34	20.66	21.51
6000	0.37	18.89	18.62





Notes

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.

B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.

C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp