HAND FLEX™

Coaxial Cable

086-10BM+

50Ω 10 inch DC to 3 GHz BNC Male

THE BIG DEAL

- Wideband frequency coverage, DC to 3 GHz
- Low Insertion Loss, 0.2 dB Typ. to 3 GHz
- Excellent Return Loss, 35 dB Typ. to 3 GHz
- Hand-formable to almost any custom shape without special bending tools
- 6 mm bend radius for tight installations
- Insulated outer jacket standard
- Connector interface, meets MIL-STD-348
- Ideal for interconnect of assembled systems

Generic photo used for illustration purposes only

Model No.	086-10BM+
Case Style	KP2467-10
Connectors	BNC Male

+RoHS Compliant
The +Suffix identifies RoHS Compliance.
See our website for methodologies and qualifications

APPLICATIONS

- Replacement for custom bent 0.086" semi-rigid cables
- Communication Receivers and Transmitters
- Military and Aerospace Systems
- Environmental Test Chambers

PRODUCT OVERVIEW

The 086-BM+ Series Hand-Flex™ Coaxial Cables are ideal for interconnecting coaxial components and sub-assemblies in a wide range of systems, including communications, military and aerospace, environmental test chambers and more. The hand-formable cable provides a minimum bend radius of 6 mm to accommodate tight layouts without the need for bending tools, adapters or brackets. BNC Male connectors make these cables ideal for connection of assemblies with BNC connector types. 086-BM+ series cables are available in a variety of lengths to meet your system needs.

KEY FEATURES

Feature	Advantages
Hand-Formable RF Cables	Facilitates the assembly of coaxial systems and sub-systems without the need for special cable bending tools or adapters. Reduces the risk of damage during bending.
Tight Bend Radius	Capable of 6 mm bend radius, the 086 Hand-Flex™ series is able to make connections in tight spaces making these cables ideal for dense system integration.
Low Insertion Loss	Minimizes overall signal path loss.
Excellent Return Loss	Minimizes signal reflection and VSWR ripple contribution
BNC Male Connectors	Supports easy interconnection of components and equipment in systems with BNC connector types.
Good Power Handling Capability: • 211 W at 0.5 GHz • 80 W at 3 GHz	Supports medium to high RF power levels used in transmit paths. For higher power handling, refer to our 141-XXBM+ series cables.

1. Unjacketed cable also available upon request.

REV. A
ECO-017558
086-10BM+
MCL NY
260520

ELECTRICAL SPECIFICATIONS AT +25 °C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range	—	DC	—	3	GHz
Length[1]	—		10		inches
Insertion Loss	DC–3	—	0.22	0.6	dB
Return Loss	DC–3	19	37	—	dB

1. Custom sizes available, consult factory.

ABSOLUTE MAXIMUM RATINGS[2]

Parameter	Ratings
Operating Temperature	-55 °C to +105 °C
Storage Temperature	-55 °C to +105 °C
Power Handling at +25°C, Sea Level	211 W at 0.5 GHz 150 W at 1 GHz 101 W at 2 GHz 80 W at 3 GHz

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

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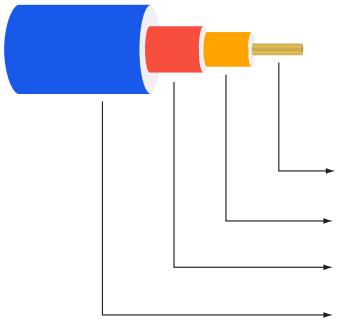
CABLE CONSTRUCTION



Center Conductor: Silver Plated Copper Steel

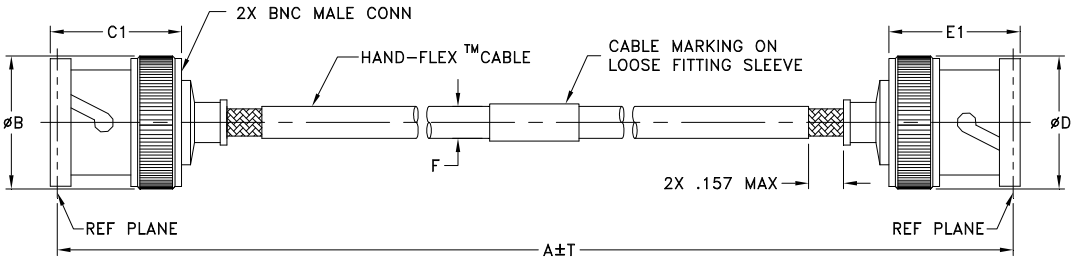
Dielectric: Solid PTFE

Outer Shield: Copper Braid, Tin Soaked

Jacket: FEP, Blue (Unjacketed cable also available upon request)

Connectors: Body & Coupling Nut: Brass, Nickel Plated
Center Pin: Brass, Gold Plated

OUTLINE DRAWING



OUTLINE DIMENSIONS (Inch / mm)

A	B	C1	C2	D	E1	E2	F	T	wt
10.0	.57	.59	--	.57	.59	--	.108	0.10	grams
254.00	14.5	14.99	--	14.5	14.99	--	2.75	2.54	24.97

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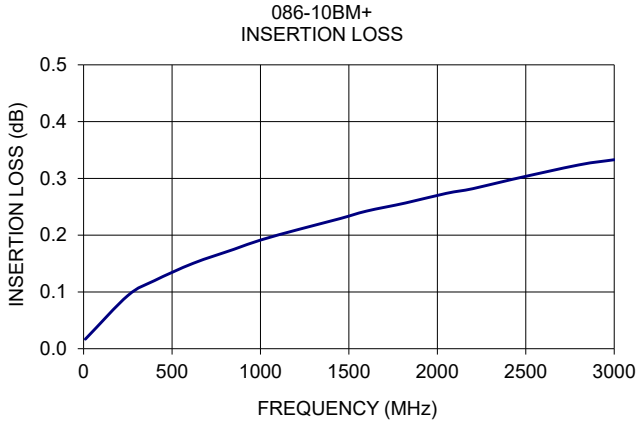
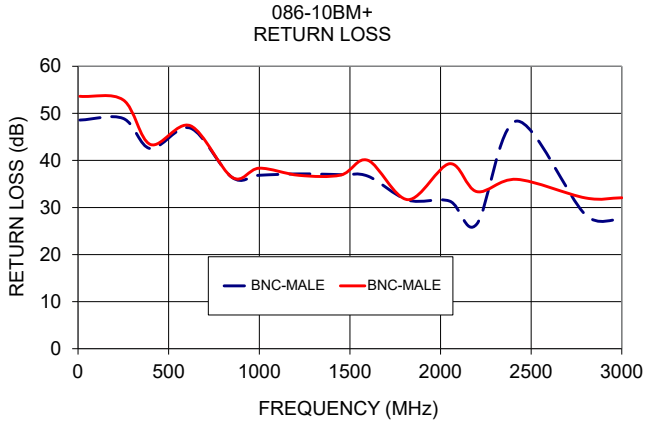
50Ω 10 inch DC to 3 GHz BNC Male

TYPICAL PERFORMANCE DATA AND CHARTS

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	
		BNC Male	BNC Male
10	0.02	48.6	53.6
250	0.09	48.9	52.8
400	0.12	42.5	43.4
620	0.15	46.9	47.4
850	0.18	36.4	36.4
1000	0.19	36.8	38.4
1220	0.21	37.1	36.8
1450	0.23	37.0	36.9
1600	0.24	36.6	40.0
1820	0.26	31.6	31.7
2050	0.27	31.4	39.3
2200	0.28	26.5	33.4
2420	0.30	48.4	36.0
2800	0.32	28.4	32.0
3000	0.33	27.5	32.1





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-Circuits' 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/terms/viewterm.html

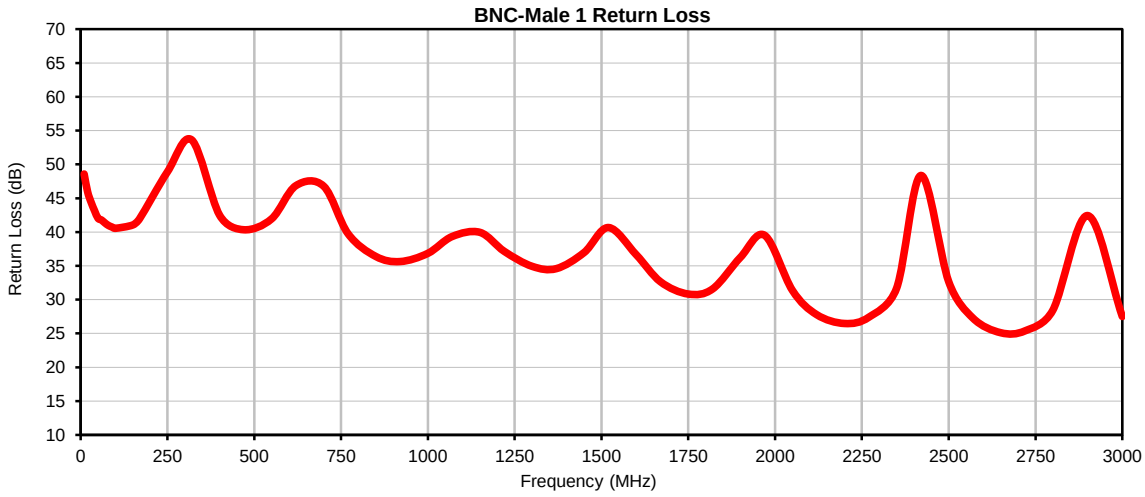
Hand-Flex Coaxial Cable, BNC-M/BNC-M 086-10BM+

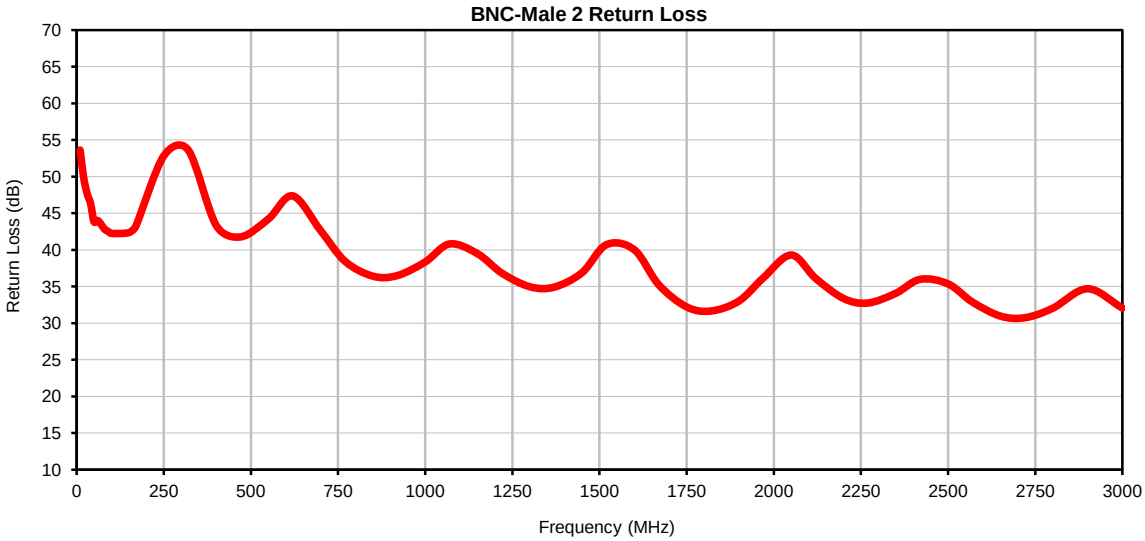
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	BNC-MALE 1 RETURN LOSS (dB)	BNC-MALE 2 RETURN LOSS (dB)
10	0.02	48.6	53.6
20	0.02	45.9	49.9
30	0.03	44.4	47.7
40	0.03	43.1	46.3
50	0.04	42.0	43.8
60	0.04	41.8	44.0
70	0.05	41.3	43.5
80	0.05	41.0	42.8
90	0.05	40.7	42.5
100	0.06	40.5	42.3
150	0.07	41.0	42.4
170	0.07	42.0	43.3
250	0.09	48.9	52.8
320	0.11	53.6	53.6
400	0.12	42.5	43.4
470	0.13	40.3	41.8
550	0.14	41.9	44.2
620	0.15	46.9	47.4
700	0.16	46.8	42.6
770	0.17	39.8	38.4
850	0.18	36.4	36.4
920	0.18	35.6	36.5
1000	0.19	36.8	38.4
1070	0.20	39.3	40.8
1150	0.20	39.9	39.5
1220	0.21	37.1	36.8
1300	0.22	34.9	35.0
1370	0.22	34.6	34.9
1450	0.23	37.0	36.9
1520	0.24	40.7	40.7
1600	0.24	36.6	40.0
1670	0.25	32.6	35.2
1750	0.25	30.8	32.2
1820	0.26	31.6	31.7
1900	0.26	36.2	33.0
1970	0.27	39.5	36.2
2050	0.27	31.4	39.3
2120	0.28	27.8	36.1
2200	0.28	26.5	33.4
2270	0.29	27.4	32.8
2350	0.29	31.7	34.1
2420	0.30	48.4	36.0
2500	0.30	32.7	35.4
2570	0.31	27.3	32.9
2650	0.31	25.1	31.0
2720	0.31	25.4	30.7
2800	0.32	28.4	32.0
2900	0.33	42.4	34.7
3000	0.33	27.5	32.1

Hand-Flex Coaxial Cable, BNC-M/BNC-M 086-10BM+

Typical Performance Curves

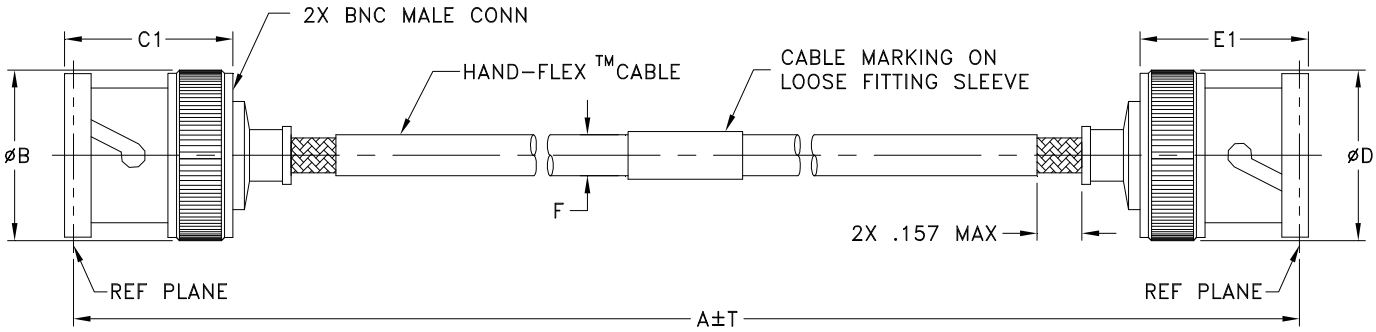




Case Style KP

KP2467

Outline Dimensions



KP2467 SERIES
BNC MALE (CONN-1)
BNC MALE (CONN-2)

CASE STYLE #	A		B	C1	C2	D	E1	E2	F		T		WEIGHT GRAMS
	INCH	MM							086U-ABM+	086-ABM+	INCH	MM	
KP2467-6	6.00	152.40	.57 (14.5)	.59 (14.9)	- -	.57 (14.5)	.59 (14.9)	- -	.089±.002 (2.26±0.05)	.108 NOM (2.72 NOM)	.05	1.27	23.14
KP2467-8	8.00	203.20									.10	2.54	24.06
KP2467-10	10.00	254.00									.10	2.54	24.97
KP2467-12	12.00	304.80									.10	2.54	25.88
KP2467-18	18.00	457.20									.15	3.81	28.63
KP2467-24	24.00	609.60									.15	3.81	31.37

Unless otherwise specified dimensions are in inches (mm).
Tolerances: 2Pl. ± .03; 3Pl. ± .015

Note:

1. 141 Hand-Flex™ Coaxial Cable.
2. "A" represents length of cable.

Mini-Circuits®
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Environmental Specifications **ENV52**

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 105° C or -55° to 85° C (see datasheet) Ambient Environment	Individual Model Data sheet
Storage Temperature	-55° to 105° C or -55° to 85° C (see data sheet) Ambient Environment	Individual Model Data Sheet
Thermal Shock	-55° to 100°C, 100 Cycles	MIL-STD-202F; Method 107G
Multiple Bend Radius	40 mm, 5 times for 141 series cables 30 mm, 5 times for 086 series cables	
Single Bend Radius	8 mm for 141 series cables 6 mm for 086 series cables	

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