



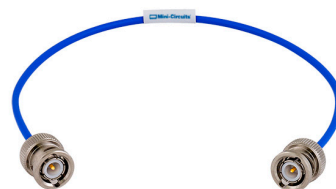
Coaxial Cable

086-BM+ Series

50Ω DC to 3 GHz

The Big Deal

- Hand-formable to any shape, 6mm min bend radius
- BNC-Male connectors
- Excellent return loss
- Low insertion loss
- Ideal for interconnect of assembled systems



CASE STYLE: KP2467

Product Overview

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 6mm 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, 6mm | 6mm bend-radius makes the cable ideal for connections in tight spaces and crowded layouts. |
| 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 <ul style="list-style-type: none"> • 211W at 0.5 GHz • 80W at 3 GHz | Supports medium to high RF power levels used in transmit paths. |

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





Coaxial Cable

50Ω 12 inch DC to 3 GHz

Maximum Ratings

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

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

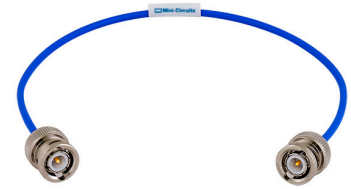
Features

- Wideband frequency coverage, DC to 3 GHz
- Low Loss, 0.4 dB at 3 GHz
- Excellent Return Loss, 27 dB at 3 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**

Applications

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

086-12BM+



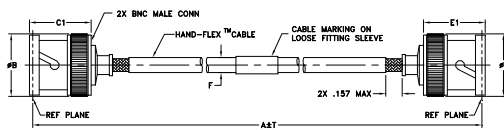
CASE STYLE: KP2467-12

| | |
|------------|-----------|
| Connectors | Model |
| BNC-Male | 086-12BM+ |

+RoHS Compliant

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

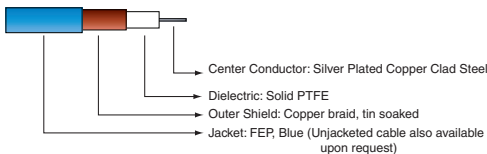
Outline Drawing



Outline Dimensions (inch/mm)

| | | | | |
|--------|------|-------|------|-------|
| A | B | C1 | C2 | D |
| 12.0 | .57 | .59 | -- | .57 |
| 304.80 | 14.5 | 14.99 | -- | 14.5 |
| E1 | E2 | F | T | wt |
| .59 | -- | .108 | 0.10 | grams |
| 14.99 | -- | 2.75 | 2.54 | 25.88 |

Cable Construction



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

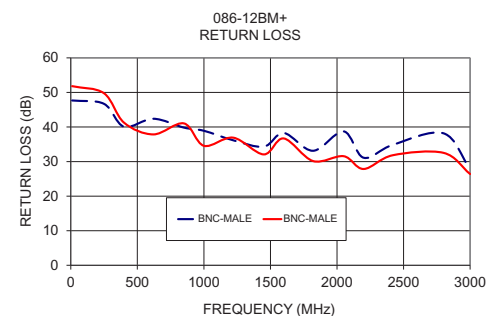
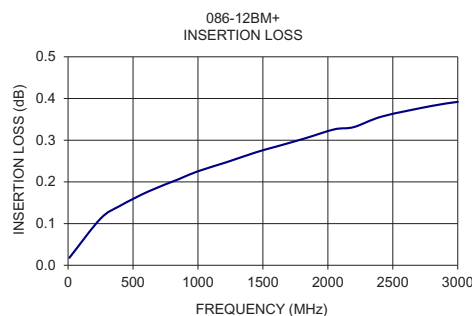
Electrical Specifications at 25°C

| Parameter | Condition (GHz) | Min. | Typ. | Max. | Unit |
|---------------------|-----------------|------|------|------|--------|
| Frequency Range | | DC | | 3 | GHz |
| Length ² | | | 12 | | inches |
| Insertion Loss | DC - 3 | — | 0.27 | 0.7 | dB |
| Return Loss | DC - 3 | 19 | 36 | — | dB |

1. Unjacketed cable also available upon request.
2. Custom sizes available, consult factory.

Typical Performance Data

| Frequency (MHz) | Insertion Loss (dB) | Return Loss (dB) | |
|-----------------|---------------------|------------------|----------|
| | | BNC-Male | BNC-Male |
| 10 | 0.02 | 47.7 | 51.8 |
| 250 | 0.11 | 46.7 | 49.7 |
| 400 | 0.14 | 40.1 | 41.3 |
| 620 | 0.18 | 42.4 | 37.9 |
| 850 | 0.21 | 39.8 | 41.0 |
| 1000 | 0.23 | 38.9 | 34.6 |
| 1220 | 0.25 | 36.2 | 36.9 |
| 1450 | 0.27 | 34.3 | 32.1 |
| 1600 | 0.28 | 38.3 | 36.7 |
| 1820 | 0.30 | 33.1 | 30.2 |
| 2050 | 0.33 | 38.7 | 31.6 |
| 2200 | 0.33 | 31.1 | 27.9 |
| 2420 | 0.36 | 34.9 | 31.8 |
| 2800 | 0.38 | 38.2 | 32.5 |
| 3000 | 0.39 | 27.8 | 26.4 |



Notes

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Typical Performance Data

| FREQUENCY (MHz) | INSERTION LOSS (dB) | BNC-MALE 1 RETURN LOSS (dB) | BNC-MALE 2 RETURN LOSS (dB) |
|--------------------|---------------------------|-----------------------------------|-----------------------------------|
| 10 | 0.02 | 47.7 | 51.8 |
| 20 | 0.03 | 45.1 | 48.7 |
| 30 | 0.04 | 43.4 | 46.6 |
| 40 | 0.04 | 42.1 | 45.5 |
| 50 | 0.05 | 41.6 | 43.4 |
| 60 | 0.05 | 41.0 | 43.8 |
| 70 | 0.06 | 40.7 | 43.5 |
| 80 | 0.06 | 40.5 | 43.1 |
| 90 | 0.07 | 40.3 | 43.2 |
| 100 | 0.07 | 40.2 | 43.1 |
| 150 | 0.09 | 41.7 | 45.2 |
| 170 | 0.09 | 43.0 | 47.6 |
| 250 | 0.11 | 46.7 | 49.7 |
| 320 | 0.13 | 43.0 | 43.2 |
| 400 | 0.14 | 40.1 | 41.3 |
| 470 | 0.15 | 42.6 | 45.4 |
| 550 | 0.17 | 58.3 | 43.6 |
| 620 | 0.18 | 42.4 | 37.9 |
| 700 | 0.19 | 37.1 | 35.8 |
| 770 | 0.20 | 36.4 | 37.1 |
| 850 | 0.21 | 39.8 | 41.0 |
| 920 | 0.22 | 49.0 | 38.8 |
| 1000 | 0.23 | 38.9 | 34.6 |
| 1070 | 0.23 | 34.5 | 33.5 |
| 1150 | 0.24 | 33.7 | 35.0 |
| 1220 | 0.25 | 36.2 | 36.9 |
| 1300 | 0.25 | 47.6 | 35.2 |
| 1370 | 0.26 | 40.3 | 32.8 |
| 1450 | 0.27 | 34.3 | 32.1 |
| 1520 | 0.28 | 33.9 | 33.7 |
| 1600 | 0.28 | 38.3 | 36.7 |
| 1670 | 0.29 | 52.1 | 33.8 |
| 1750 | 0.30 | 36.2 | 30.4 |
| 1820 | 0.30 | 33.1 | 30.2 |
| 1900 | 0.31 | 34.5 | 33.9 |
| 1970 | 0.32 | 41.5 | 40.2 |
| 2050 | 0.33 | 38.7 | 31.6 |
| 2120 | 0.33 | 32.8 | 28.0 |
| 2200 | 0.33 | 31.1 | 27.9 |
| 2270 | 0.34 | 32.5 | 31.3 |
| 2350 | 0.35 | 36.3 | 48.1 |
| 2420 | 0.36 | 34.9 | 31.8 |
| 2500 | 0.36 | 30.9 | 26.9 |
| 2570 | 0.36 | 29.6 | 26.3 |
| 2650 | 0.37 | 30.6 | 29.2 |
| 2720 | 0.38 | 34.3 | 37.5 |
| 2800 | 0.38 | 38.2 | 32.5 |
| 2900 | 0.38 | 30.4 | 26.1 |
| 3000 | 0.39 | 27.8 | 26.4 |



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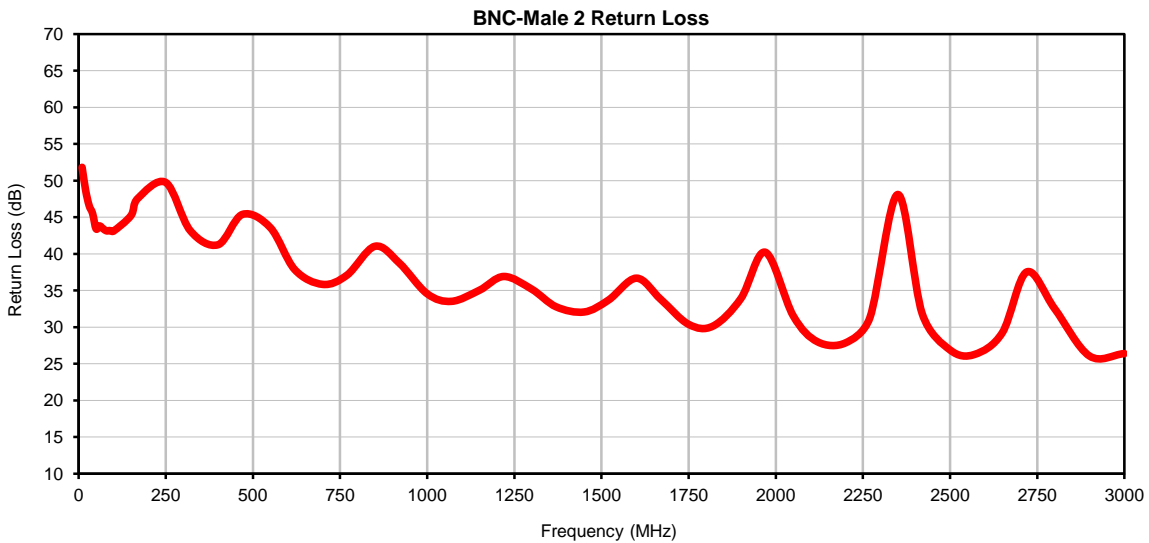
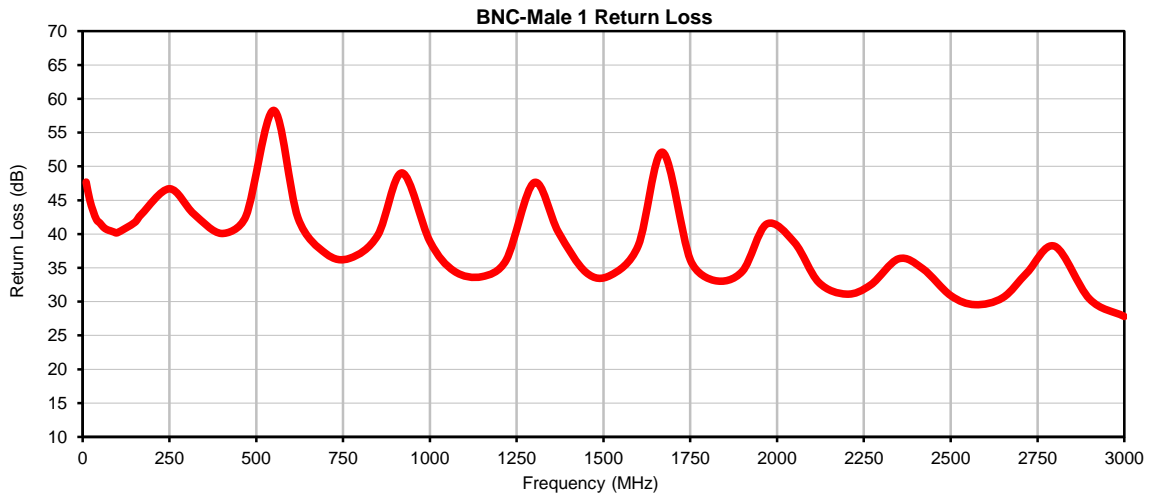


The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

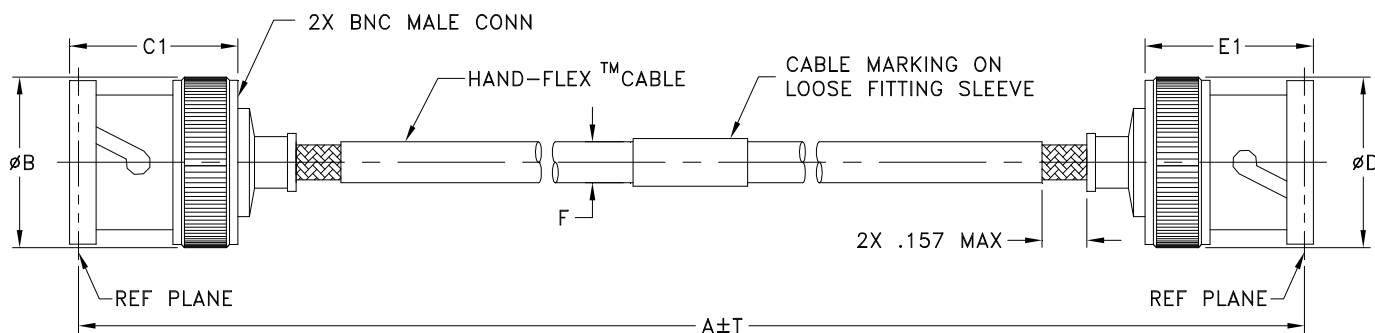
IF/RF MICROWAVE COMPONENTS

REV. OR
086-12BM+
7/27/2017
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Typical Performance Curves



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.



INTERNET <http://www.minicircuits.com>

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Mini-Circuits ISO 9001 & ISO 14001 Certified



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 | |