



Mini-Circuits



Coaxial Cable

141-6BM+

50Ω 6 inch DC to 3 GHz BNC-Male

THE BIG DEAL

- Wideband frequency coverage, DC to 3GHz
- Low Loss, 0.13 dB at 3 GHz
- Excellent Return Loss, 25 dB at 3 GHz
- Hand formable to almost any custom shape without special bending tools
- 8mm bend radius for tight installations
- Insulated outer jacket standard¹
- Ideal for interconnect of assembled systems



Generic photo used for illustration purposes only

| | |
|------------|------------|
| Model No. | 141-6SMNB+ |
| Case Style | KQ2160-6 |
| Connectors | BNC-Male |

APPLICATIONS

- Replacement for custom bent 0.141" semi-rigid cables
- Communication Receivers and Transmitters
- Military and Aerospace System
- Environmental and Test Chambers

PRODUCT OVERVIEW

141-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 8mm 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. 141-BM+ series cables are available in a variety of lengths to meet your system needs.

KEY FEATURES

| Features | Advantages |
|---|---|
| Hand-formable RF cables | Facilitates the assembly of coaxial systems and sub-systems without the need for special cablebending tools or adapters. Reduces the risk of damage during bending. |
| Tight bend-radius, 8mm | 8mm 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. |
| High Power Handling Capability: <ul style="list-style-type: none">• 546W at 0.5 GHz• 180W at 3 GHz | Supports medium to high RF power levels used in transmit paths. |





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ELECTRICAL SPECIFICATIONS AT +25°C

| Parameter | Frequency (GHz) | Min. | Typ. | Max. | Units |
|---------------------|-----------------|------|------|------|--------|
| Frequency Range | | DC | | 3 | GHz |
| Length ² | | 6 | | | inches |
| Insertion Loss | DC - 3 | — | 0.10 | 0.40 | dB |
| Return Loss | DC - 3 | 19 | 37 | — | dB |

1. Unjacketed cable also available upon request.

2. Custom sizes available, consult factory.

ABSOLUTE MAXIMUM RATINGS

| Parameter | Ratings |
|-----------------------------------|--|
| Operating Temperature | -55°C to +105°C |
| Storage Temperature | -55°C to +105°C |
| Power Handling at 25°C, Sea Level | 546W at 0.5 GHz 387W at 1 GHz 273W at 2 GHz 180W at 3 GHz |

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





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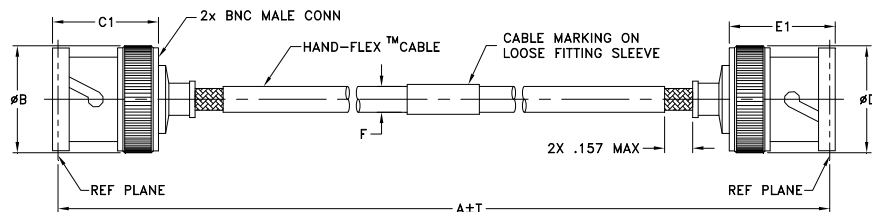
CABLE CONSTRUCTION



- Center Conductor: Silver Plated Copper Clad 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 |
|--------|-------|-------|----|-------|-------|----|-----------|------|-------|
| 6.0 | .57 | .59 | - | .57 | .59 | - | .163±.004 | .05 | grams |
| 152.40 | 14.48 | 14.99 | - | 14.48 | 14.99 | - | 4.14±0.10 | 1.27 | 27.26 |





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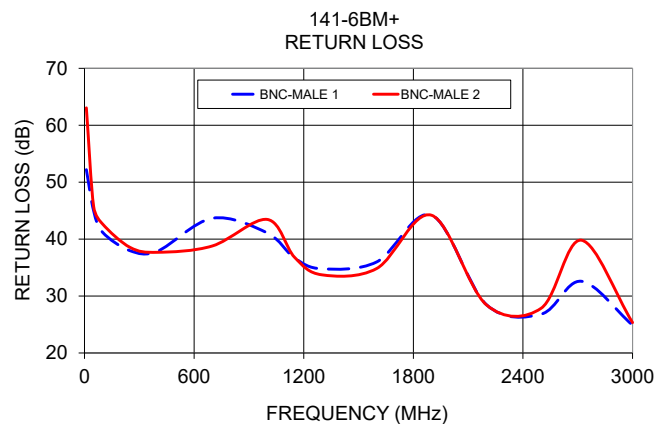
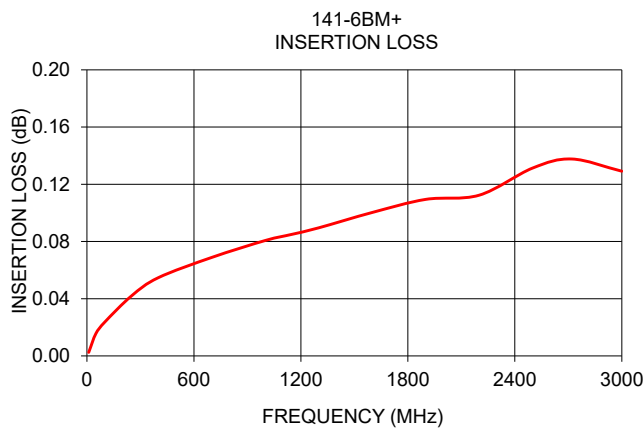
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TYPICAL PERFORMANCE DATA AND CHARTS

| Frequency (MHz) | Insertion Loss (dB) | Return Loss (dB) | |
|--------------------|------------------------|---------------------|----------|
| | | BNC-Male | BNC-Male |
| 10 | 0.00 | 52.20 | 63.06 |
| 50 | 0.02 | 44.97 | 45.72 |
| 100 | 0.02 | 41.16 | 42.62 |
| 250 | 0.04 | 37.95 | 38.53 |
| 400 | 0.05 | 37.89 | 37.68 |
| 700 | 0.07 | 43.67 | 38.80 |
| 1000 | 0.08 | 41.09 | 43.46 |
| 1150 | 0.08 | 36.67 | 36.80 |
| 1300 | 0.09 | 34.79 | 33.72 |
| 1600 | 0.10 | 36.00 | 34.85 |
| 1900 | 0.11 | 44.21 | 44.19 |
| 2200 | 0.11 | 28.49 | 28.46 |
| 2500 | 0.13 | 26.82 | 27.87 |
| 2720 | 0.14 | 32.59 | 39.81 |
| 3000 | 0.13 | 24.89 | 25.34 |



NOTES

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



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