

**FEATURES**

- Wideband frequency coverage, DC to 18 GHz
- Low Insertion Loss, 0.38 dB Typ. at 18 GHz
- Excellent Return Loss, 27 dB Typ. at 18 GHz
- Hand Formable to Almost Any Custom Shape Without Special Bending Tools
- 8 mm Bend Radius for Tight Installations
- Anti-Torque Nut Prevents Cable Stress During Installation
- Insulated Outer Jacket Standard
- Ideal for Interconnect of Assembled Systems

APPLICATIONS

- Replacement for Custom Bent 0.141" Semi-Rigid Cables
- Communication Receivers and Transmitters
- Military and Aerospace System
- Environmental and Test Chambers



Generic photo used for illustration purposes only

| | |
|-------------------|-------------|
| Model No. | 141-8NM+ |
| Case Style | KQ1637-8 |
| Connectors | N type-Male |

+RoHS Compliant

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

ELECTRICAL SPECIFICATIONS AT +25 °C

| Parameter | Frequency (GHz) | Min. | Typ. | Max. | Units |
|---------------------|-----------------|------|------|------|--------|
| Frequency Range | | DC | — | 18 | GHz |
| Length ¹ | | | 8 | | inches |
| Insertion Loss | DC-2 | - | 0.09 | 0.4 | dB |
| | 2-6 | - | 0.22 | 0.7 | |
| | 6-12 | - | 0.30 | 0.9 | |
| | 12-18 | - | 0.38 | 1.2 | |
| Return Loss | DC-2 | 23 | 41 | - | dB |
| | 2-6 | 23 | 35 | - | |
| | 6-12 | 17 | 33 | - | |
| | 12-18 | 17 | 27 | - | |

1. Custom sizes available, consult factory

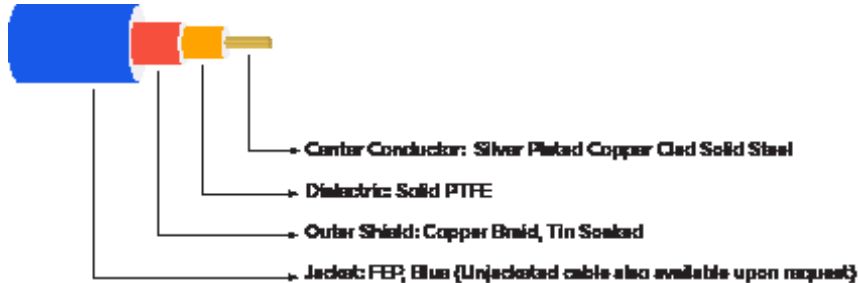
ABSOLUTE MAXIMUM RATINGS²

| Parameter | Ratings |
|-------------------------------------|-------------------|
| Operating Temperature | -55 °C to +105 °C |
| Storage Temperature | -55 °C to +105 °C |
| Power Handling at +25 °C, Sea Level | 546 W at 0.5 GHz |
| | 387 W at 1 GHz |
| | 273 W at 2 GHz |
| | 156 W at 6 GHz |
| | 121 W at 10 GHz |
| | 90 W at 18 GHz |

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

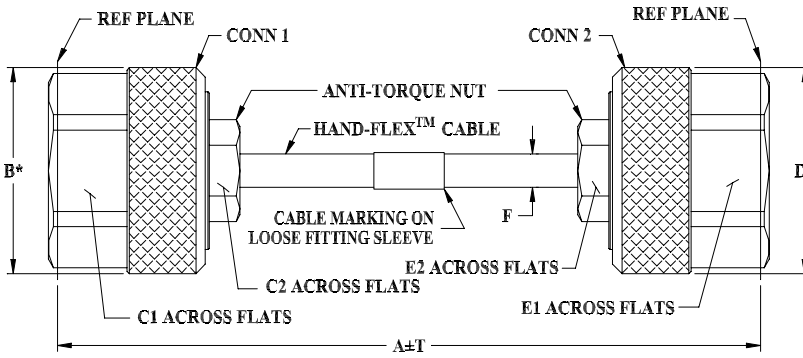


CABLE CONSTRUCTION



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

OUTLINE DRAWING



* OVERALL CONNECTOR DIMENSION
 (CONNECTOR SHAPE MAY VARY)

OUTLINE DIMENSIONS (Inch/mm)

| | A | B | C1 | C2 | D | E1 | E2 | F | T |
|--------|--------|------|-------|-------|-------|-------|----|-----------|------|
| inches | 8.00 | 0.36 | 0.315 | 0.250 | 0.197 | 0.480 | - | .089±.002 | 0.10 |
| mm | 203.20 | 9.14 | 8.00 | 6.35 | 5.00 | 12.2 | - | 2.26±.05 | 2.54 |

Total Weight: 10.18 grams



Coaxial Cable

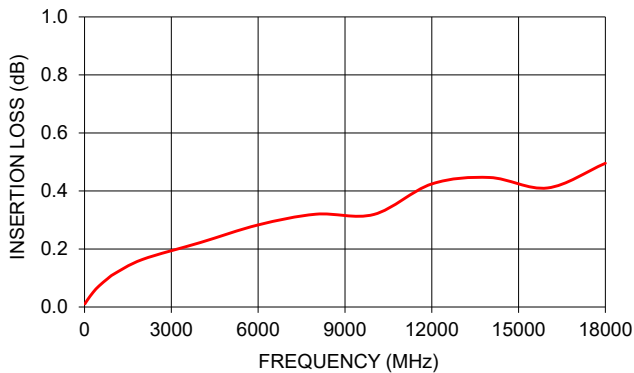
141-8NM+

50Ω 8 inch DC to 18 GHz N-Type Male

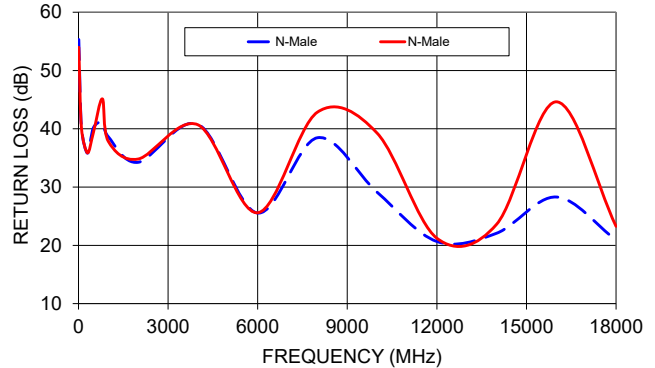
TYPICAL PERFORMANCE DATA AND CHARTS

| Frequency (MHz) | Insertion Loss (dB) | Return Loss (dB) | |
|-----------------|---------------------|------------------|-------------|
| | | N-Type Male | N-Type Male |
| 10 | 0.01 | 55.32 | 53.98 |
| 100 | 0.02 | 40.20 | 40.11 |
| 300 | 0.05 | 35.81 | 35.87 |
| 500 | 0.07 | 40.19 | 39.37 |
| 800 | 0.10 | 41.10 | 45.14 |
| 1000 | 0.11 | 38.63 | 37.83 |
| 2000 | 0.16 | 34.25 | 34.81 |
| 4000 | 0.22 | 40.78 | 40.68 |
| 6000 | 0.28 | 25.55 | 25.60 |
| 8000 | 0.32 | 38.47 | 42.86 |
| 10000 | 0.32 | 29.12 | 39.25 |
| 12000 | 0.42 | 20.66 | 21.22 |
| 14000 | 0.45 | 22.08 | 23.62 |
| 16000 | 0.41 | 28.30 | 44.63 |
| 18000 | 0.50 | 20.92 | 23.27 |

141-8NM+ INSERTION LOSS



141-8NM+ RETURN LOSS



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/terms/viewterm.html

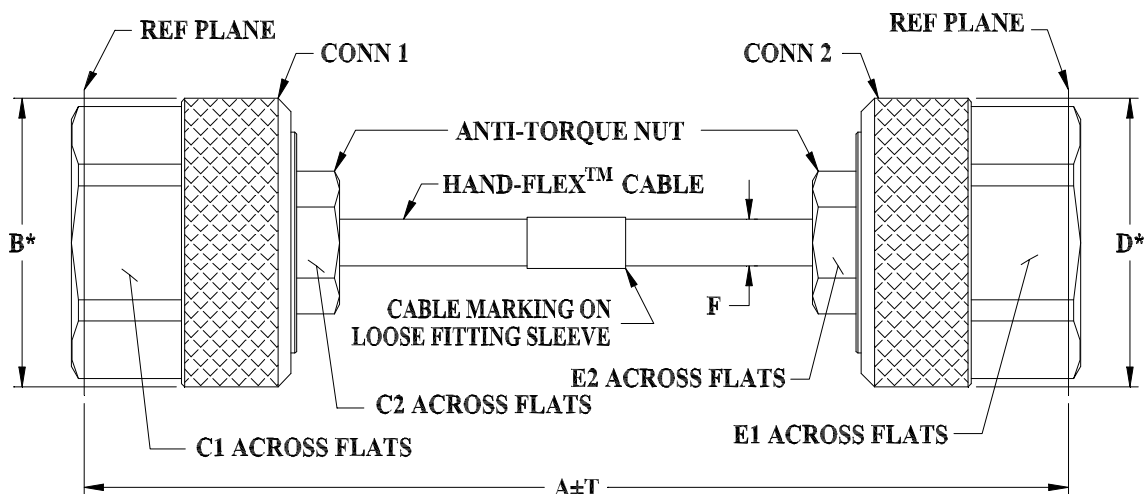
Typical Performance Data

| FREQUENCY (MHz) | INSERTION LOSS (dB) | N-MALE 1 RETURN LOSS (dB) | N-MALE 2 RETURN LOSS (dB) |
|--------------------|------------------------|---------------------------------|---------------------------------|
| 10 | 0.01 | 55.32 | 53.98 |
| 100 | 0.02 | 40.20 | 40.11 |
| 300 | 0.05 | 35.81 | 35.87 |
| 500 | 0.07 | 40.19 | 39.37 |
| 1000 | 0.11 | 38.63 | 37.83 |
| 2000 | 0.16 | 34.25 | 34.81 |
| 2500 | 0.18 | 31.67 | 31.56 |
| 3000 | 0.20 | 31.63 | 31.98 |
| 3500 | 0.21 | 34.69 | 36.13 |
| 4000 | 0.22 | 40.78 | 40.68 |
| 4500 | 0.23 | 41.86 | 45.10 |
| 5000 | 0.25 | 33.02 | 33.76 |
| 5500 | 0.27 | 28.54 | 28.92 |
| 6000 | 0.28 | 25.55 | 25.60 |
| 6500 | 0.29 | 29.31 | 29.18 |
| 7000 | 0.29 | 34.78 | 33.38 |
| 7500 | 0.31 | 44.71 | 47.56 |
| 8000 | 0.32 | 38.47 | 42.86 |
| 8500 | 0.33 | 47.55 | 39.60 |
| 9000 | 0.34 | 31.85 | 31.47 |
| 9500 | 0.34 | 28.62 | 31.01 |
| 10000 | 0.32 | 29.12 | 39.25 |
| 10500 | 0.33 | 25.09 | 28.24 |
| 11000 | 0.37 | 22.84 | 22.90 |
| 11500 | 0.42 | 19.94 | 20.72 |
| 12000 | 0.42 | 20.66 | 21.22 |
| 12500 | 0.40 | 21.99 | 23.84 |
| 13000 | 0.38 | 30.52 | 32.34 |
| 13500 | 0.41 | 28.73 | 30.69 |
| 14000 | 0.45 | 22.08 | 23.62 |
| 14500 | 0.44 | 23.29 | 24.70 |
| 15000 | 0.42 | 25.29 | 26.89 |
| 15500 | 0.41 | 26.38 | 30.00 |
| 16000 | 0.41 | 28.30 | 44.63 |
| 16500 | 0.41 | 28.27 | 35.58 |
| 17000 | 0.42 | 31.25 | 29.69 |
| 17500 | 0.45 | 28.47 | 34.33 |
| 18000 | 0.50 | 20.92 | 23.27 |

Typical Performance Data

| FREQUENCY (MHz) | INSERTION LOSS (dB) | N-MALE 1 RETURN LOSS (dB) | N-MALE 2 RETURN LOSS (dB) |
|--------------------|---------------------------|---------------------------------|---------------------------------|
| 10 | 0.01 | 55.32 | 53.98 |
| 100 | 0.02 | 40.20 | 40.11 |
| 300 | 0.05 | 35.81 | 35.87 |
| 500 | 0.07 | 40.19 | 39.37 |
| 1000 | 0.11 | 38.63 | 37.83 |
| 2000 | 0.16 | 34.25 | 34.81 |
| 2500 | 0.18 | 31.67 | 31.56 |
| 3000 | 0.20 | 31.63 | 31.98 |
| 3500 | 0.21 | 34.69 | 36.13 |
| 4000 | 0.22 | 40.78 | 40.68 |
| 4500 | 0.23 | 41.86 | 45.10 |
| 5000 | 0.25 | 33.02 | 33.76 |
| 5500 | 0.27 | 28.54 | 28.92 |
| 6000 | 0.28 | 25.55 | 25.60 |
| 6500 | 0.29 | 29.31 | 29.18 |
| 7000 | 0.29 | 34.78 | 33.38 |
| 7500 | 0.31 | 44.71 | 47.56 |
| 8000 | 0.32 | 38.47 | 42.86 |
| 8500 | 0.33 | 47.55 | 39.60 |
| 9000 | 0.34 | 31.85 | 31.47 |
| 9500 | 0.34 | 28.62 | 31.01 |
| 10000 | 0.32 | 29.12 | 39.25 |
| 10500 | 0.33 | 25.09 | 28.24 |
| 11000 | 0.37 | 22.84 | 22.90 |
| 11500 | 0.42 | 19.94 | 20.72 |
| 12000 | 0.42 | 20.66 | 21.22 |
| 12500 | 0.40 | 21.99 | 23.84 |
| 13000 | 0.38 | 30.52 | 32.34 |
| 13500 | 0.41 | 28.73 | 30.69 |
| 14000 | 0.45 | 22.08 | 23.62 |
| 14500 | 0.44 | 23.29 | 24.70 |
| 15000 | 0.42 | 25.29 | 26.89 |
| 15500 | 0.41 | 26.38 | 30.00 |
| 16000 | 0.41 | 28.30 | 44.63 |
| 16500 | 0.41 | 28.27 | 35.58 |
| 17000 | 0.42 | 31.25 | 29.69 |
| 17500 | 0.45 | 28.47 | 34.33 |
| 18000 | 0.50 | 20.92 | 23.27 |

Outline Dimensions



* OVERALL CONNECTOR DIMENSION
(CONNECTOR SHAPE MAY VARY)

KQ1637 SERIES

N MALE (CONN-1)

N MALE (CONN-2)

| CASE STYLE # | A | | B | C1 | C2 | D | E1 | E2 | F | | T | | WEIGHT GRAMS |
|--------------|-------|---------|----------------|-----------------|----------------|----------------|-----------------|----------------|--------------------------|--------------------------|------|-------|--------------|
| | INCH | MM | | | | | | | 141U-ANM+ | 141-ANM+ | INCH | MM | |
| KQ1637-3 | 3.00 | 76.20 | .88 (22.35) | .750 (19.05) | .375 (9.53) | .88 (22.35) | .750 (19.05) | .375 (9.53) | .141±.003 (3.58±0.07) | .163±.004 (4.14±0.10) | .05 | 1.27 | 65.43 |
| KQ1637-6 | 6.00 | 152.40 | | | | | | | | | .05 | 1.27 | 68.86 |
| KQ1637-7 | 7.00 | 177.80 | | | | | | | | | .10 | 2.54 | 70.00 |
| KQ1637-8 | 8.00 | 203.20 | | | | | | | | | .10 | 2.54 | 71.14 |
| KQ1637-10 | 10.00 | 254.00 | | | | | | | | | .10 | 2.54 | 73.43 |
| KQ1637-12 | 12.00 | 304.80 | | | | | | | | | .10 | 2.54 | 75.72 |
| KQ1637-15 | 15.00 | 381.00 | | | | | | | | | .15 | 3.81 | 79.15 |
| KQ1637-24 | 24.00 | 609.60 | | | | | | | | | .15 | 3.81 | 89.43 |
| KQ1637-59.1 | 59.06 | 1500.00 | | | | | | | | | .40 | 10.16 | 129.55 |

Unless otherwise specified dimensions are in inches (mm).

Tolerances: 2Pl. ± .03; 3Pl. ± .015

Note:

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



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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 Ambient Environment | Individual Model Data Sheet |
| Storage Temperature | -55° to 105°C Ambient Environment | Individual Model Data Sheet |
| Thermal Shock | -55° to 100°C, 50 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 | |