



## THE BIG DEAL

- Wideband frequency coverage, DC to 6 GHz
- High Power, 300 W at 3 GHz
- Low Loss, 0.57 dB typ at 6 GHz
- Excellent Return Loss, 26 dB typ up to 6 GHz
- Hand formable to almost any custom shape without special bending tools
- 8mm bend radius for tight installations
- Anti-torque nut prevents cable stress during installation
- Insulated outer jacket standard
- Ideal for interconnect of assembled systems



Generic photo used for illustration purposes only

|                   |                |        |
|-------------------|----------------|--------|
| <b>Model No.</b>  | 141-18NM-300W+ |        |
| <b>Case Style</b> | KQ1637-18      |        |
| <b>Connectors</b> | N-Male         | N-Male |

### +RoHS Compliant

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

## 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-NM-300W+ 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. N-male connectors make these cables ideal for connection of assemblies with N connector types. 141-NM-300W+ series cables are available in a variety of lengths to meet 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, 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.  |
| N-Male connectors   | Supports easy interconnection of components and equipment in systems with N connector types.   |
| Good power handling <ul style="list-style-type: none"> <li>• 300W at 3 GHz</li> </ul> | Supports medium to high RF power levels used in transmit paths.  |



**HAND FLEX™**

# Coaxial Cable

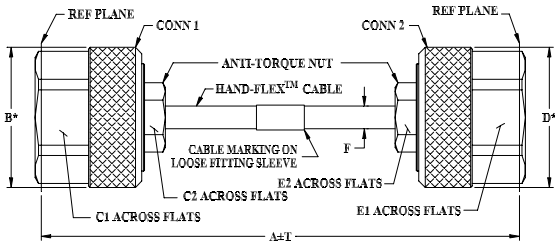
**141-18NM-300W+**

## MAXIMUM RATINGS

|                                   |                |
|-----------------------------------|----------------|
| Operating Temperature             | -45°C to 85°C  |
| Storage Temperature               | -55°C to 105°C |
| Power Handling at 25°C, Sea Level | 300 W at 3 GHz |

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

## OUTLINE DRAWING

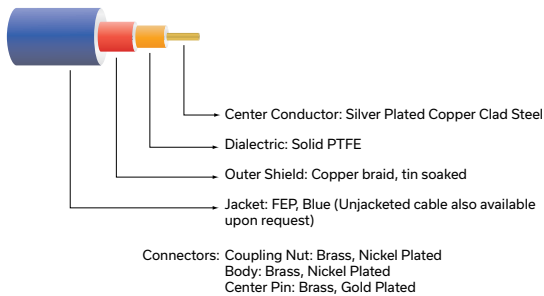


\* OVERALL CONNECTOR DIMENSION (CONNECTOR SHAPE MAY VARY)

## OUTLINE DIMENSIONS (Inch/mm)

|        |        |           |       |       |
|--------|--------|-----------|-------|-------|
| A      | B      | C1        | C2    | D     |
| 18.00  | 0.88   | 0.750     | 0.375 | 0.88  |
| 457.20 | 22.352 | 19.05     | 9.53  | 22.35 |
| E1     | E2     | F         | T     | wt    |
| 0.750  | 0.375  | .163±.004 | 0.15  | grams |
| 19.05  | 9.53   | 4.14±0.10 | 3.81  | 82.57 |

## CABLE CONSTRUCTION

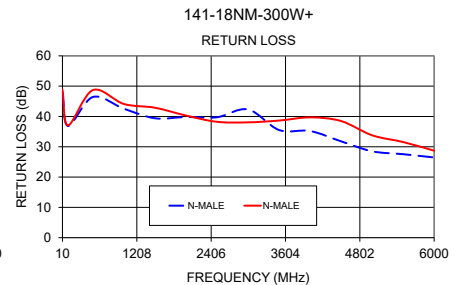
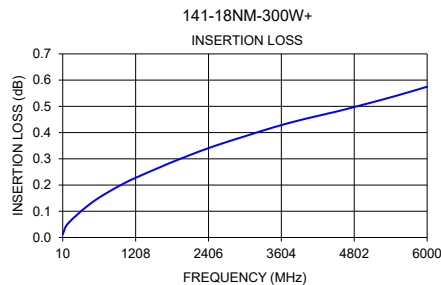


## ELECTRICAL SPECIFICATIONS AT 25°C

| Parameter       | Frequency (GHz) | Min. | Typ. | Max. | Units  |
|-----------------|-----------------|------|------|------|--------|
| Frequency range |                 | DC   |      | 6    | GHz    |
| Length          |                 | 18   |      |      | inches |
| Insertion Loss  | DC - 2          | -    | 0.17 | 0.51 | dB     |
|                 | 2 - 6           | -    | 0.45 | 0.92 |        |
| Return Loss     | DC - 2          | 23   | 41   | -    | dB     |
|                 | 2 - 6           | 23   | 35   | -    |        |

## TYPICAL PERFORMANCE DATA

| Frequency (MHz) | Insertion Loss (dB) | Return Loss (dB) |        |
|-----------------|---------------------|------------------|--------|
|                 |                     | N-MALE           | N-MALE |
| 10              | 0.01                | 47.95            | 48.91  |
| 100             | 0.05                | 36.86            | 37.08  |
| 500             | 0.13                | 46.42            | 48.70  |
| 1000            | 0.20                | 42.56            | 44.11  |
| 1500            | 0.26                | 39.40            | 42.88  |
| 2000            | 0.31                | 39.82            | 40.31  |
| 2500            | 0.35                | 39.74            | 38.23  |
| 3000            | 0.39                | 42.32            | 38.06  |
| 3500            | 0.42                | 35.53            | 38.64  |
| 4000            | 0.45                | 35.19            | 39.70  |
| 4500            | 0.48                | 31.79            | 38.48  |
| 5000            | 0.51                | 28.50            | 33.79  |
| 5500            | 0.54                | 27.55            | 31.56  |
| 6000            | 0.57                | 26.46            | 28.70  |

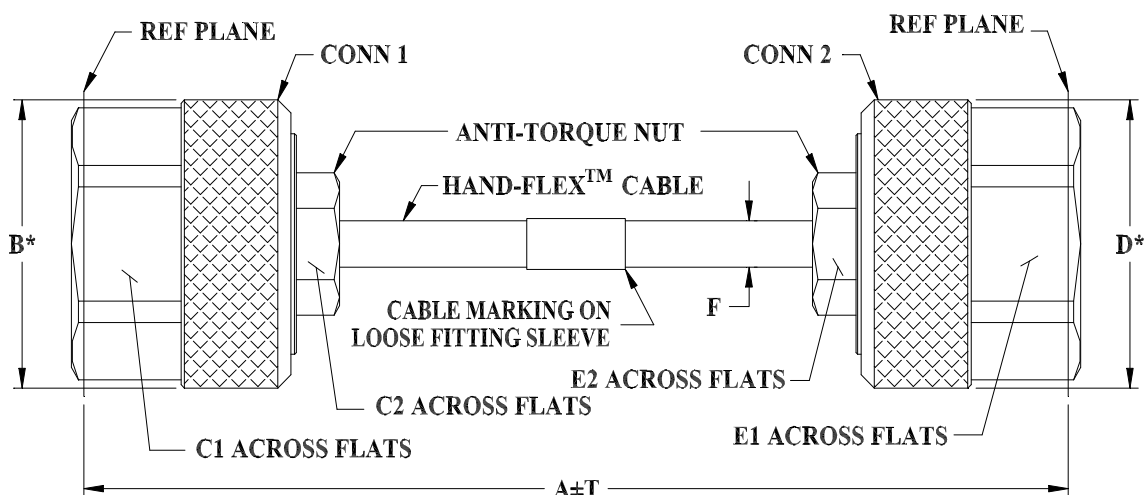


## NOTES

- 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-Circuits' 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](http://www.minicircuits.com/terms/viewterm.html)



### 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<br>(22.35) | .750<br>(19.05) | .375<br>(9.53) | .88<br>(22.35) | .750<br>(19.05) | .375<br>(9.53) | .141 $\nabla$ .003<br>(3.58 $\nabla$ 0.07) | .163 $\nabla$ .004<br>(4.14 $\nabla$ 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        |
| KQ1637-18    | 18.00 | 457.20  |                |                 |                |                |                 |                |  |  | .15  | 3.81 | 82.57        |
| KQ1637-24    | 24.00 | 609.60  |                |                 |                |                |                 |                |  |  | .15  | 3.81 | 89.43        |
| KQ1637-30    | 30.00 | 762.00  |                |                 |                |                |                 |                |  |  | .20  | 5.08 | 96.29        |
| KQ1637-59.1  | 59.06 | 1500.00 | .40            | 10.16           | 129.55         |                |                 |                |  |  |      |      |              |

Unless otherwise specified dimensions are in inches (mm).

Tolerances: 2Pl.  $\pm .03$ ; 3Pl.  $\pm .015$

#### Note:

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



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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.

| <b>Specification</b>  | <b>Test/Inspection Condition</b>   | <b>Reference/Spec</b>       |
|-----------------------|--|-----------------------------|
| Operating Temperature | -45° to 85°C<br>Ambient Environment  | Individual Model Data Sheet |
| Storage Temperature   | -55° to 105°C<br>Ambient Environment   | Individual Model Data Sheet |
| Multiple Bend Radius  | 40 mm, 5 times for 141 series cables<br>30 mm, 5 times for 086 series cables |                             |
| Single Bend Radius    | 8 mm for 141 series cables<br>6 mm for 086 series cables                     |                             |