



## THE BIG DEAL

- Wideband frequency coverage, DC to 6 GHz
- High Power, 300 W at 3 GHz
- Low Loss, 0.40 dB typ at 6 GHz
- Excellent Return Loss, 29 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>  | 141-12NM-300W+ |        |
| <b>Case Style</b> | KQ1637-12      |        |
| <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.  |



# Coaxial Cable

## 141-12NM-300W+

### MAXIMUM RATINGS

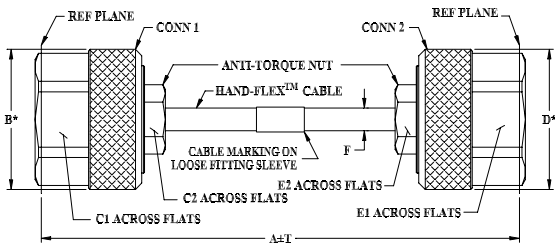
|                                   |                |
|-----------------------------------|----------------|
| Operating Temperature             | -45°C to 85°C  |
| Storage Temperature               | -55°C to 105°C |
| Power Handling at 25°C, Sea Level | 300 W at 3 GHz |

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

### ELECTRICAL SPECIFICATIONS AT 25°C

| Parameter       | Frequency (GHz) | Min. | Typ. | Max. | Units  |
|-----------------|-----------------|------|------|------|--------|
| Frequency range |                 | DC   |      | 6    | GHz    |
| Length          |                 | 12   |      |      | inches |
| Insertion Loss  | DC - 2          | -    | 0.12 | 0.41 | dB     |
|                 | 2 - 6           | -    | 0.31 | 0.74 |        |
| Return Loss     | DC - 2          | 23   | 42   | -    | dB     |
|                 | 2 - 6           | 23   | 34   | -    |        |

### OUTLINE DRAWING



\* OVERALL CONNECTOR DIMENSION (CONNECTOR SHAPE MAY VARY)

### OUTLINE DIMENSIONS (Inch/mm)

| A      | B      | C1    | C2    | D     |
|--------|--------|-------|-------|-------|
| 12.00  | 0.88   | 0.750 | 0.375 | 0.88  |
| 304.80 | 22.352 | 19.05 | 9.53  | 22.35 |

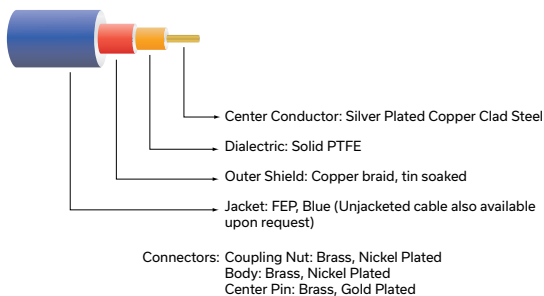
  

| E1    | E2    | F         | T    | wt    |
|-------|-------|-----------|------|-------|
| 0.750 | 0.375 | .163±.004 | 0.10 | grams |
| 19.05 | 9.53  | 4.14±0.10 | 2.54 | 75.72 |

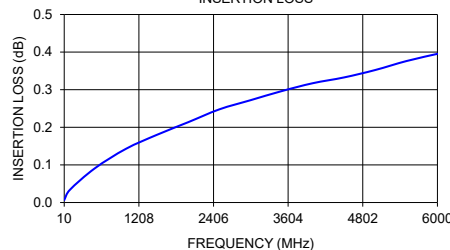
### TYPICAL PERFORMANCE DATA

| Frequency (MHz) | Insertion Loss (dB) | Return Loss (dB) |        |
|-----------------|---------------------|------------------|--------|
|                 |                     | N-MALE           | N-MALE |
| 10              | 0.01                | 51.42            | 53.52  |
| 100             | 0.03                | 38.73            | 39.16  |
| 500             | 0.09                | 36.20            | 37.85  |
| 1000            | 0.14                | 45.92            | 50.22  |
| 1500            | 0.18                | 41.84            | 45.27  |
| 2000            | 0.21                | 40.48            | 44.47  |
| 2500            | 0.25                | 32.53            | 38.39  |
| 3000            | 0.27                | 34.90            | 40.30  |
| 3500            | 0.30                | 35.39            | 40.20  |
| 4000            | 0.32                | 32.97            | 36.84  |
| 4500            | 0.33                | 38.27            | 38.46  |
| 5000            | 0.35                | 29.25            | 35.15  |
| 5500            | 0.38                | 29.20            | 32.67  |
| 6000            | 0.40                | 36.64            | 38.55  |

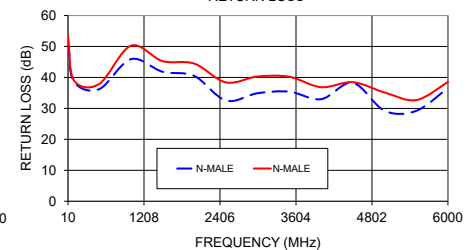
### CABLE CONSTRUCTION



141-12NM-300W+  
INSERTION LOSS



141-12NM-300W+  
RETURN LOSS



### 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)

