



### RF Cable Assemblies Technical Data Sheet

PE3C6347

### Configuration

Connector 1: N MaleConnector 2: NEX10 MaleCable Type: SPO-250

### **Features**

- Max Frequency 5.8 GHz
- Low PIM: -160 dBc Max
- 83% Phase Velocity
- PE Jacket
- 500 Mating Cycles
- 100% Tested with PIM Test Results Marked on Cable
- Lightweight and Extremely Flexible
- Low Loss with Excellent VSWR
- IP67 (when mated)
- Using Times Microwave Components

### **Applications**

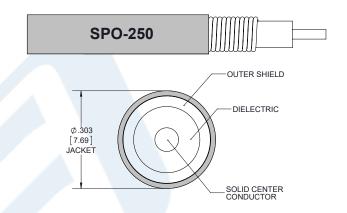
- General Purpose
- Laboratory Use
- Low PIM Applications
- Distributed Antenna Systems (DAS)
- Multi-Carrier Communication Systems
- PIM Testing

### Description

Pasternack's PE3C6347 type N male to NEX10 male cable using SPO-250 coax is part of our full line of RF components available for same-day shipping. Pasternack's corrugated RF cable assemblies are ideal for applications where durability and high power are needed. This Pasternack type N to NEX10 cable assembly has a male to male gender configuration with 50 ohm corrugated SPO-250 coax. The PE3C6347 type N male to NEX10 male cable assembly operates to 5.8 GHz. Our low PIM design also offers excellent passive intermodulation performance with PIM levels better than -160 dBc. Times Microwave cable is used in each assembly and TMS components are used to form connections with the super flexible low PIM cable. These cable assemblies are expertly built to satisfy your specific need with high quality Times Microwave Systems manufactured parts.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other available RF cable assembly value added services include connector orientation or clocking, heat shrink booting and custom labeling. RF testing can also be performed to document the electrical performance of your cable assembly.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: Outdoor Rated N Male to NEX10 Male Low PIM Cable Using SPO-250 Coax Using Times Microwave Parts PE3C6347



Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623 **Phone:** (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451





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### **Electrical Specifications**

| Description             | Minimum | Typical      | Maximum | Units        |
|-------------------------|---------|--------------|---------|--------------|
| Frequency Range         | DC      |              | 5.8     | GHz          |
| VSWR                    |         | 200          | 1.4:1   |              |
| Velocity of Propagation |         | 83           |         | %            |
| Passive Intermodulation |         | -165         | -160    | dBc          |
| Capacitance             |         | 24 [78.74]   |         | pF/ft [pF/m] |
| Inductance              |         | 0.054 [0.18] |         | uH/ft [uH/m] |

### **Specifications by Frequency**

| Description           | F1    | F2    | F3    | F4    | F5    | Units |
|-----------------------|-------|-------|-------|-------|-------|-------|
| Frequency             | 0.45  | 0.7   | 1     | 2.5   | 5.8   | GHz   |
| Insertion Loss (Max.) | 0.041 | 0.051 | 0.062 | 0.103 | 0.167 | dB/ft |
|                       | 0.13  | 0.17  | 0.2   | 0.34  | 0.55  | dB/m  |

**Electrical Specification Notes:** 

PIM test results vary between cables

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.1\*SQRT(FGHz) dB per connector.

#### **Mechanical Specifications**

#### **Cable Assembly**

Diameter 0.63 in [16 mm]

Cable

Cable TypeSPO-250Impedance50 OhmsInner Conductor TypeSolid

Inner Conductor Material and Plating Copper Clad Aluminum

Dielectric Type Foam PE
Number of Shields 1

Shield Layer 1 Helically Corrugated Copper Tube

Outer Conductor Material and Plating

Jacket Material

Jacket Diameter

Copper
PE, Black
0.303 in [7.7 mm]

One Time Minimum Bend Radius 1.25 in [31.75 mm]

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**Bending Moment** 

0.5 lbs-ft [0.68 N-m]

#### Connectors

| Description                        | Connector 1          | Connector 2  NEX10 Male |  |  |
|------------------------------------|----------------------|-------------------------|--|--|
| Туре                               | N Male               |                         |  |  |
| Impedance                          | 50 Ohms              | 50 Ohms                 |  |  |
| Mating Cycles                      | 500                  | 500                     |  |  |
| Contact Material and Plating       | Brass, Silver        | Brass, Silver           |  |  |
| Contact Plating Specification      | 200 μin              | 100 µin                 |  |  |
| Dielectric Type                    | PTFE                 | PTFE                    |  |  |
| Body Material and Plating          | Brass, Tri-Metal     | Brass, Tri-Metal        |  |  |
| Body Plating Specification         | 80 μin               | 100 μin                 |  |  |
| Coupling Nut Material and Plating  | Brass, Tri-Metal     | Brass, Tri-Metal        |  |  |
| Coupling Nut Plating Specification | 80 µin               | 100 µin                 |  |  |
| Torque                             | 9.74 in-lbs [1.1 Nm] | 13.28 in-lbs [1.5 Nm]   |  |  |

Mechanical Specification Notes:

### **Environmental Specifications**

**Temperature** 

Operating Range -55 to +200 deg C Storage Range -55 to +200 deg C

Compliance Certifications (see product page for current document)

### **Plotted and Other Data**

Notes:

Values at 25°C, sea level.

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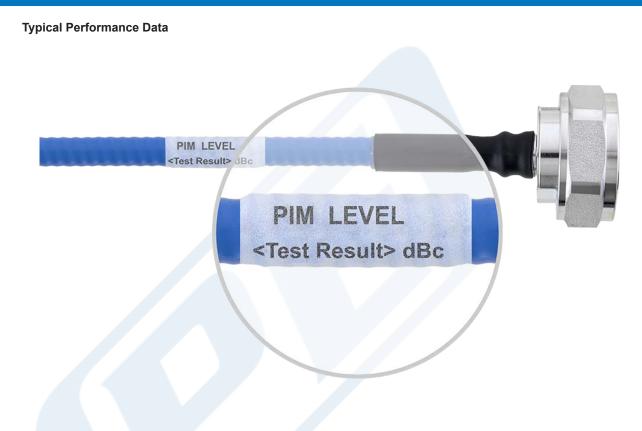
<sup>\*</sup>All cable assemblies have a length tolerance of 1.5% or  $\pm$  3/8", whichever is greater.





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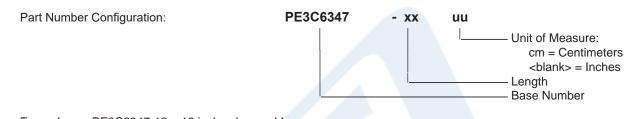




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#### **How to Order**



Example: PE3C6347-12 = 12 inches long cable PE3C6347-100cm = 100 cm long cable

Outdoor Rated N Male to NEX10 Male Low PIM Cable Using SPO-250 Coax Using Times Microwave Parts from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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URL: https://www.pasternack.com/n-male-nex10-male-spo250-cable-assembly-pe3c6347-p.aspx

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

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PE3C6347 CAD Drawing
Outdoor Rated N Male to NEX10 Male Low PIM Cable Using SPO-250 Coax Using Times Microwave Parts

