



## QN Male to Reverse Polarity SMA Female Bulkhead Cable 48 Inch Length Using LMR-195 Coax with HeatShrink

### RF Cable Assemblies Technical Data Sheet

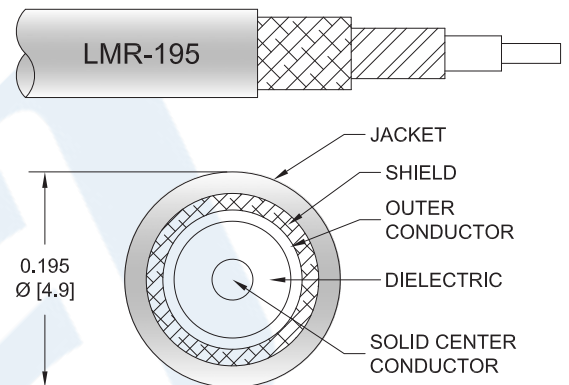
PE3W06854-SP1-48

#### Configuration

- Connector 1: QN Male
- Connector 2: SMA Female Reverse Polarity Bulkhead
- Cable Type: LMR-195

#### Features

- Max Frequency 4 GHz
- Shielding Effectivity > 90 dB
- 80% Phase Velocity
- Double Shielded
- PE Jacket



#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3W06854-SP1-48 QN male to reverse polarity SMA female bulkhead 48 inch cable using LMR-195 coax is part of our full line of RF components available for same-day shipping. Pasternack's flexible RF cable assemblies are ideal for applications where tight bends and flexure are required. This Pasternack QN to reverse polarity SMA cable assembly has a male to female gender configuration with 50 ohm flexible LMR-195 coax. The PE3W06854-SP1-48 QN male to reverse polarity SMA female cable assembly operates to 4 GHz. Our RF cable assembly with SMA bulkhead interface allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness of better than 90 dB.

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: [QN Male to Reverse Polarity SMA Female Bulkhead Cable 48 Inch Length Using LMR-195 Coax with HeatShrink PE3W06854-SP1-48](#)



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**Electrical Specifications**

| Description                          | Minimum | Typical      | Maximum | Units                     |
|--------------------------------------|---------|--------------|---------|---------------------------|
| Frequency Range                      | DC      |              | 4       | GHz                       |
| VSWR                                 |         |              | 1.5:1   |                           |
| Velocity of Propagation              |         | 80           |         | %                         |
| RF Shielding                         | 90      |              |         | dB                        |
| Group Delay                          |         | 1.27 [4.17]  |         | ns/ft [ns/m]              |
| Capacitance                          |         | 25.4 [83.33] |         | pF/ft [pF/m]              |
| Inductance                           |         | 0.064 [0.21] |         | uH/ft [uH/m]              |
| DC Resistance Inner Conductor<br>Km] |         | 7.6 [24.93]  |         | Ohms/1000ft [Ohms/<br>Km] |
| DC Resistance Outer Conductor<br>Km] |         | 4.9 [16.08]  |         | Ohms/1000ft [Ohms/<br>Km] |
| Jacket Spark                         |         |              | 3,000   | Vrms                      |

**Specifications by Frequency**

| Description           | F1   | F2   | F3   | F4   | F5   | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency             | 0.25 | 0.5  | 1    | 2.5  | 4    | GHz   |
| Insertion Loss (Max.) | 0.43 | 0.53 | 0.66 | 0.96 | 1.16 | dB    |

Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax use in this assembly. The Insertion Loss includes an estimated insertion loss of 0.2dB of connector Loss

**Mechanical Specifications**

**Cable Assembly**

Length\* 48 in [121.92 cm]

**Cable**

Cable Type LMR-195  
 Impedance 50 Ohms  
 Inner Conductor Type Solid  
 Inner Conductor Material and Plating Copper  
 Dielectric Type PE (F)  
 Number of Shields 2  
 Shield Layer 1 Aluminum Tape  
 Shield Layer 2 Tinned Copper Braid

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|                              |                        |
|------------------------------|------------------------|
| Jacket Material              | PE, Black              |
| Jacket Diameter              | 0.195 in [4.95 mm]     |
| One Time Minimum Bend Radius | 0.5 in [12.7 mm]       |
| Repeated Minimum Bend Radius | 2 in [50.8 mm]         |
| Bending Moment               | 0.2 lbs-ft [0.27 N-m]  |
| Flat Plate Crush             | 15 lbs/in [0.27 Kg/mm] |
| Tensile Strength             | 40 lbs [18.14 Kg]      |

**Connectors**

| Description                          | Connector 1      | Connector 2                          |
|--------------------------------------|------------------|--------------------------------------|
| Type                                 | QN Male          | SMA Female Reverse Polarity Bulkhead |
| Impedance                            | 50 Ohms          | 50 Ohms                              |
| Mating Cycles                        | 100              |                                      |
| Contact Material and Plating         | Brass, Silver    |                                      |
| Dielectric Type                      | PTFE             |                                      |
| Outer Conductor Material and Plating | Beryllium Copper |                                      |
| Body Material and Plating            | Brass, Silver    | Brass, Nickel                        |
| Coupling Nut Material and Plating    | Brass, Silver    |                                      |

Mechanical Specification Notes:

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

**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

Notes:

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#### How to Order

Part Number Configuration:

**PE3W06854**

- **xx**

**uu**

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: PE3W06854-12 = 12 inches long cable  
PE3W06854-100cm = 100 cm long cable

QN Male to Reverse Polarity SMA Female Bulkhead Cable 48 Inch Length Using LMR-195 Coax with HeatShrink 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [QN Male to Reverse Polarity SMA Female Bulkhead Cable 48 Inch Length Using LMR-195 Coax with HeatShrink PE3W06854-SP1-48](#)

URL: <https://www.pasternack.com/qn-male-sma-female-lmr195-cable-assembly-pe3w06854-sp1-48-p.aspx>

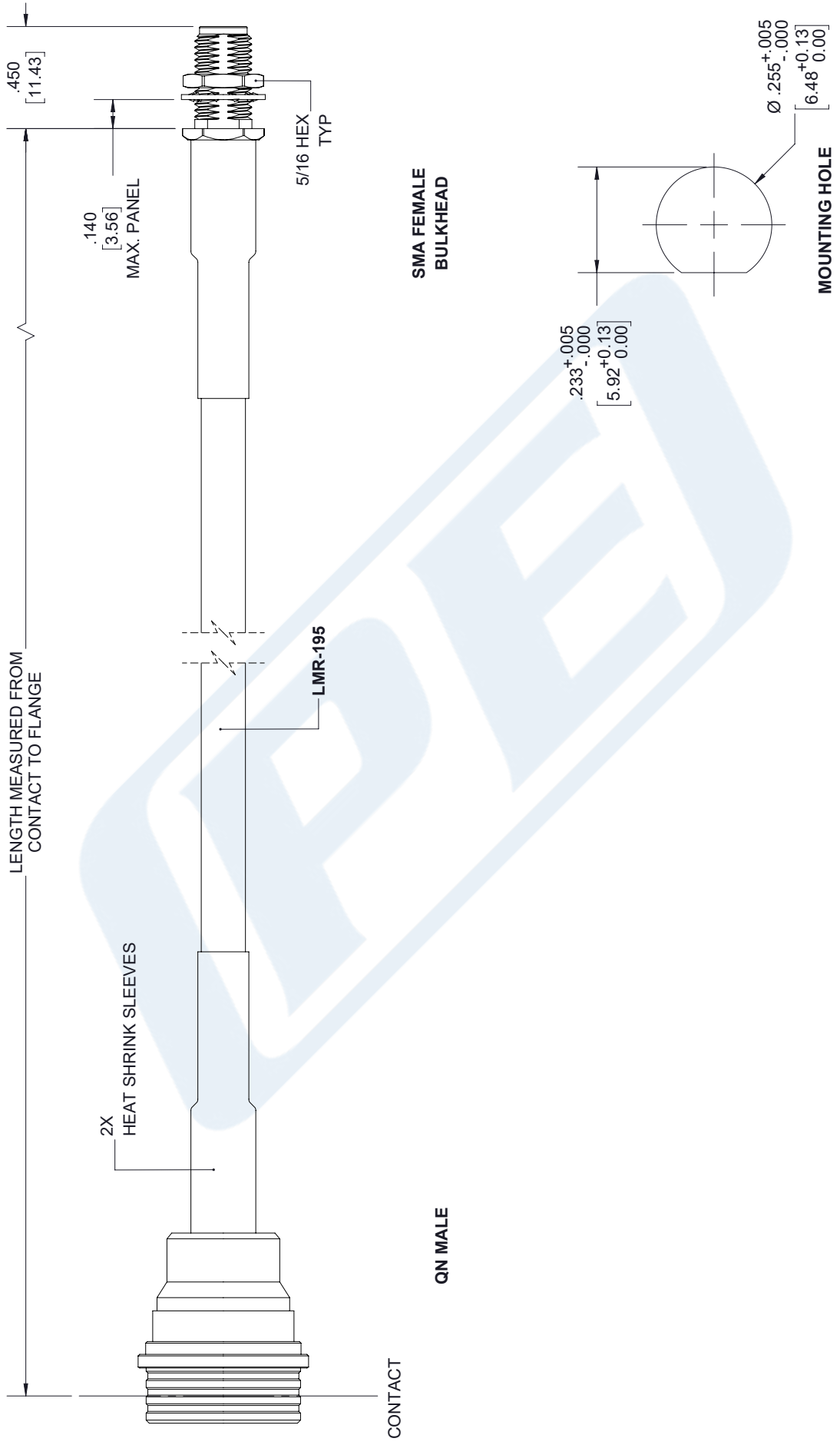
The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such 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.

# PE3W06854-SP1-48 CAD Drawing

## QN Male to Reverse Polarity SMA Female Bulkhead Cable

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| REVISIONS |                 |          |
|-----------|-----------------|----------|
| REV.      | DESCRIPTION     | DATE     |
| A         | INITIAL RELEASE | 04/30/19 |
|           |                 | APPROVED |
|           |                 | S. ELLIS |



|  |                  |  |              |           |         |       |       |           |       |             |  |  |
|--|------------------|--|--------------|-----------|---------|-------|-------|-----------|-------|-------------|--|--|
| <p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <table border="0"> <tr> <td>X±.2</td> <td>[5.08]</td> <td>FRACTIONS</td> </tr> <tr> <td>.XX±.01</td> <td>[.25]</td> <td>±.132</td> </tr> <tr> <td>.XXX±.005</td> <td>[.13]</td> <td>ANGLES ± 1°</td> </tr> </table> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p> <p>THIRD-ANGLE PROJECTION</p> |                  | X±.2   | [5.08]       | FRACTIONS | .XX±.01 | [.25] | ±.132 | .XXX±.005 | [.13] | ANGLES ± 1° | <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION. ALL RIGHTS RESERVED.</p> <p>SHEET 1 OF 1</p> <p>SCALE N/A</p> |  |
| X±.2   | [5.08]           | FRACTIONS                                    |              |           |         |       |       |           |       |             |  |  |
| .XX±.01  | [.25]            | ±.132  |              |           |         |       |       |           |       |             |  |  |
| .XXX±.005  | [.13]            | ANGLES ± 1°                                  |              |           |         |       |       |           |       |             |  |  |
| <p><b>PE PASTERNAK</b><br/>an INFINITO brand</p> <p>Pasternack Enterprises, Inc.<br/>P.O. Box 16759, Irvine, CA 92623.<br/>Phone: 1.949.261.1920   1.866.727.8376<br/>Fax: 1.949.261.7451<br/>www.pasternack.com   e-mail: sales@pasternack.com</p>  |                  | <p>REV A</p> <p>PART NUMBER PE3W06854/HS</p> |              |           |         |       |       |           |       |             |  |  |
| <p>SIZE A</p> <p>CAGE 53919</p> <p>DRAWN BY K.DANG</p>   | <p>SCALE N/A</p> | <p>REV A</p>                                 | <p>REV A</p> |           |         |       |       |           |       |             |  |  |

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