

SMA Female Bulkhead to TNC Male Low Loss Space Cable 12 Inch Length Using PE-R200LL Coax



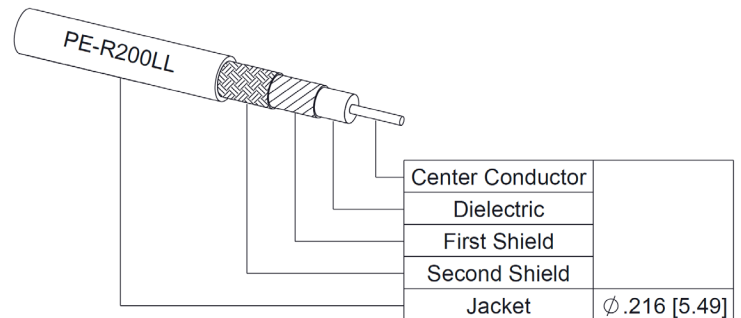
PE3C100015-12

Configuration

- Connector 1: SMA Female Bulkhead
- Connector 2: TNC Male
- Cable Type: PE-R200LL
- Coax Flex Type: Flexible

Features

- Max Frequency 18 GHz
- Shielding Effectivity > 100 dB
- 82% Phase Velocity
- Double Shielded
- ETFE Jacket
- Up to 300 Mrad of Radiation Resistance
- Low Outgassing (TML <1%, CVCM <1%) per ASTM E-595
- Operating Temperature -65 to +150 Deg C
- Built in a Facility with < 100,000 Particles/sq ft
- Built to IPC-A-620 Class 3



Applications

- General Purpose
- Laboratory Use
- Vacuum Environments
- Low Earth Orbit (LEO)
- Space (Exploration, Launches, Maintenance, Stations)
- Ground Systems
- Satellites

Description

Pasternack's PE3C100015-12 SMA female bulkhead to TNC male 12 inch cable using PE-R200LL 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 SMA to TNC cable assembly has a female to male gender configuration with 50 ohm flexible PE-R200LL coax. The PE3C100015-12 SMA female to TNC male cable assembly operates to 18 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 100 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.

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------------------|---------|---------|---------|-------|
| Frequency Range | DC | | 18 | GHz |
| VSWR | | | 1.4:1 | |
| Velocity of Propagation | | 82 | | % |
| RF Shielding | 100 | | | dB |

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PE3C100015-12

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------|---------|------------|---------|--------------|
| Capacitance | | 25 [82.02] | | pF/ft [pF/m] |

Specifications by Frequency

| Part Number | Length | Description | F1 | F2 | F3 | F4 | F5 | Units | Weight (lbs) |
|------------------|--------------------------|-----------------------|-----------|-------|------|------|------|-------|--------------|
| | | | Frequency | | | | | MHz | |
| PE3C100015 | Custom Lengths Available | Insertion Loss (Typ.) | 0.068 | 0.098 | 0.15 | 0.22 | 0.33 | dB/ft | |
| | | | 0.23 | 0.33 | 0.5 | 0.73 | 1.09 | dB/m | |
| PE3C100015-12 | 12 Inch | Insertion Loss (Typ.) | 0.27 | 0.3 | 0.35 | 0.42 | 0.61 | dB | 0.129 |
| PE3C100015-18 | 18 Inch | Insertion Loss (Typ.) | 0.31 | 0.35 | 0.43 | 0.53 | 0.82 | dB | 0.153 |
| PE3C100015-24 | 24 Inch | Insertion Loss (Typ.) | 0.34 | 0.4 | 0.5 | 0.64 | 1.02 | dB | 0.177 |
| PE3C100015-100CM | 100 CM | Insertion Loss (Typ.) | 0.43 | 0.53 | 0.7 | 0.93 | 1.55 | dB | 0.239 |
| PE3C100015-200CM | 200 CM | Insertion Loss (Typ.) | 0.65 | 0.85 | 1.19 | 1.65 | 2.89 | dB | 0.396 |

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

| | |
|-----------------------------|--------------|
| Loss due to Connector 1: | 0.1 dB |
| Loss due to Connector 2: | 0.1 dB |
| Base Weight: | 0.129 pounds |
| Additional Weight per Inch: | 0.004 pounds |

Mechanical Specifications

Cable Assembly

| | |
|----------------|---------------------|
| Length | 12 in [304.8 mm] |
| Width/Diameter | 0.562 in [14.27 mm] |
| Weight | 0.129 lbs [58.51 g] |

Cable

| | |
|--------------------------------------|----------------------|
| Cable Type | PE-R200LL |
| Impedance | 50 Ohms |
| Inner Conductor Type | Solid |
| Inner Conductor Material and Plating | Copper, Silver |
| Dielectric Type | PTFE |
| Number of Shields | 2 |
| Shield Layer 1 | Silver plated copper |
| Shield Layer 2 | Silver plated copper |
| Jacket Material | ETFE, Black |
| Jacket Diameter | 0.216 in [5.49 mm] |
| One Time Minimum Bend Radius | 1.08 in [27.43 mm] |

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PE3C100015-12

Connectors

| Description | Connector 1 | Connector 2 |
|-------------------------------|-----------------------------|-----------------------------|
| Type | SMA Female Bulkhead | TNC Male |
| Impedance | 50 Ohms | 50 Ohms |
| Configuration | Straight | Straight |
| Contact Material and Plating | Beryllium Copper, Gold | Brass, Gold |
| Contact Plating Specification | 30 µin minimum | 30 µin minimum |
| Dielectric Type | PTFE | PTFE |
| Body Material and Plating | Stainless Steel, Passivated | Stainless Steel, Passivated |

Environmental Specifications

Operating Range Temperature -65 to +150 deg C

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

Plotted and Other Data

Notes:
Values at 25°C, sea level.

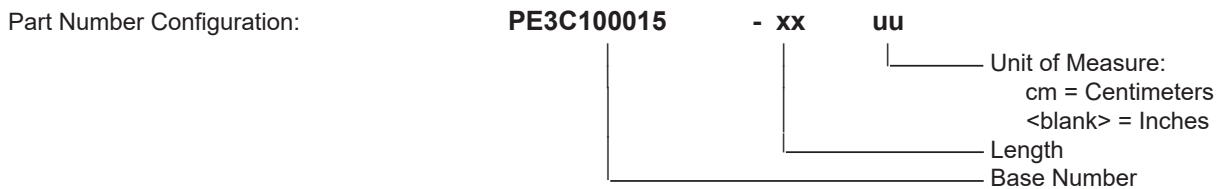
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PE3C100015-12

Typical Performance Data

How to Order



Example: PE3C100015-12 = 12 inches long cable
 PE3C100015-100cm = 100 cm long cable

SMA Female Bulkhead to TNC Male Low Loss Space Cable 12 Inch Length Using PE-R200LL Coax 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.

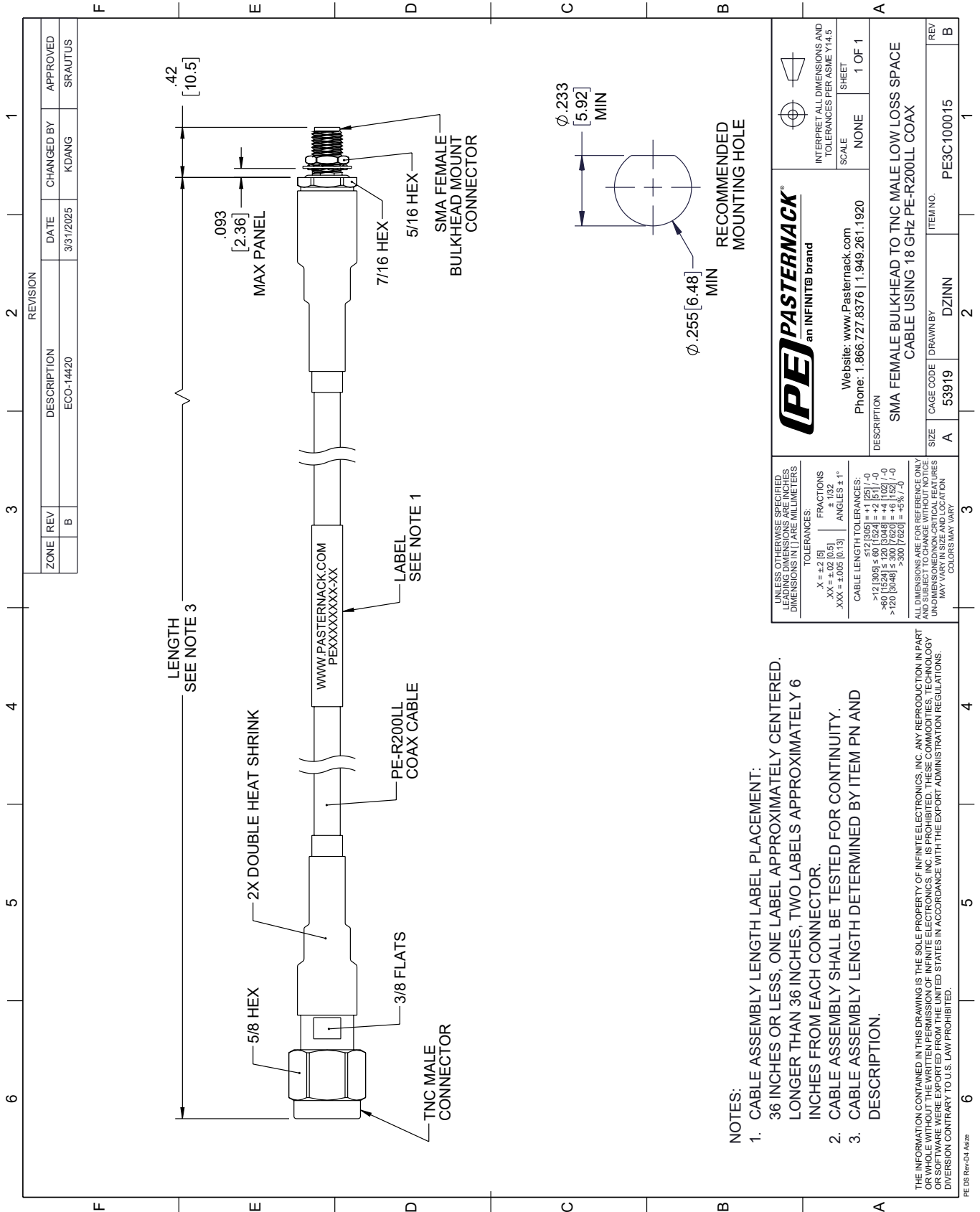
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Female Bulkhead to TNC Male Low Loss Space Cable 12 Inch Length Using PE-R200LL Coax PE3C100015-12](https://www.pasternack.com/sma-female-bulkhead-to-tnc-male-low-loss-space-cable-12-inch-length-using-pe-r200ll-pe3c100015-12-p.aspx)

URL: <https://www.pasternack.com/sma-female-bulkhead-to-tnc-male-low-loss-space-cable-12-inch-length-using-pe-r200ll-pe3c100015-12-p.aspx>

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PE3C100015-12 CAD Drawing

SMA Female Bulkhead to TNC Male Low Loss Space Cable 12 Inch Length Using PE-R200LL Coax



- NOTES:**
- CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
 - CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
 - CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE MILLIMETERS.

TOLERANCES:

X = +.2 [5] FRACTIONS ± 1/32
 .XX = ±.02 [0.5] ANGLES ± 1°
 .XXX = ±.005 [0.13]

CABLE LENGTH TOLERANCES:

>12 [305] ≤ 60 [1524] = +.1 [25] / -0
 >60 [1524] ≤ 120 [3048] = +.4 [102] / -0
 >120 [3048] ≤ 300 [7620] = +.6 [152] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

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 Phone: 1.866.727.8376 | 1.949.261.1920

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE SHEET: 1 OF 1

DESCRIPTION: SMA FEMALE BULKHEAD TO TNC MALE LOW LOSS SPACE CABLE USING 18 GHZ PE-R200LL COAX

| REV | DESCRIPTION | DATE | CHANGED BY | APPROVED |
|-----|-------------|-----------|------------|----------|
| B | ECO-14420 | 3/31/2025 | KDANG | SRAUTUS |

| SIZE | CAGE CODE | DRAWN BY | ITEM NO. |
|------|-----------|----------|------------|
| A | 53919 | DZINN | PE3C100015 |