



SMA Female Bulkhead to TNC Male Low Loss Cable Using LMR-195 Coax

RF Cable Assemblies Technical Data Sheet

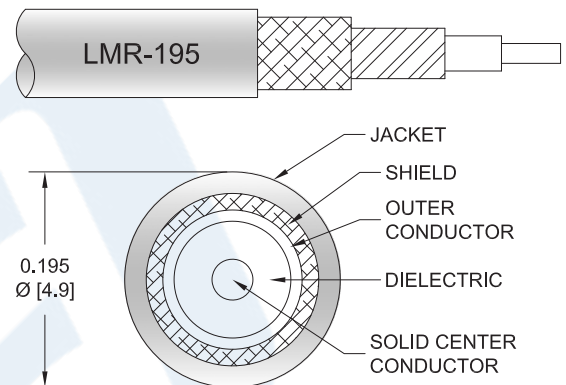
PE3W10825

Configuration

- Connector 1: SMA Female Bulkhead
- Connector 2: TNC Male
- Cable Type: LMR-195

Features

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 80% Phase Velocity
- Double Shielded
- PE Jacket



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W10825 SMA female bulkhead to TNC male 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 SMA to TNC cable assembly has a female to male gender configuration with 50 ohm flexible LMR-195 coax. The PE3W10825 SMA female to TNC male cable assembly operates to 5.8 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: [SMA Female Bulkhead to TNC Male Low Loss Cable Using LMR-195 Coax PE3W10825](#)



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Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------------------------|---------|--------------|---------|----------------------------------|
| Frequency Range | DC | | 5.8 | GHz |
| VSWR | | | 1.4:1 | |
| 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 | | 7.6 [24.93] | | Ω /1000ft [Ω /Km] |
| DC Resistance Outer Conductor | | 4.9 [16.08] | | Ω /1000ft [Ω /Km] |
| Jacket Spark | | | 3,000 | Vrms |

Specifications by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|-------|-------|-------|------|-------|-------|
| Frequency | 0.25 | 0.5 | 1 | 2.5 | 5.8 | GHz |
| Insertion Loss (Typ.) | 0.057 | 0.081 | 0.116 | 0.19 | 0.299 | dB/ft |
| | 0.19 | 0.27 | 0.38 | 0.62 | 0.98 | dB/m |

Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.1 dB per connector.

Mechanical Specifications

Cable Assembly

Weight 0.069 lbs [31.3 g]

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
 Jacket Material PE, Black
 Jacket Diameter 0.195 in [4.95 mm]

One Time Minimum Bend Radius 0.5 in [12.7 mm]

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| | |
|------------------------------|------------------------|
| 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 | SMA Female Bulkhead | TNC Male |
| Impedance | 50 Ohms | 50 Ohms |
| Contact Material and Plating | Beryllium Copper, Gold | Brass, Gold |
| Contact Plating Specification | 50 µin minimum | 30 µin minimum |
| Dielectric Type | PTFE | PTFE |
| Body Material and Plating | Brass, Nickel | Brass, Nickel |
| Body Plating Specification | 100 µin minimum | 100 µin minimum |
| Coupling Nut Material and Plating | | Brass, Nickel |
| Coupling Nut Plating Specification | | 100 µin minimum |

Environmental Specifications

Temperature

| | |
|-----------------|------------------|
| Operating Range | -40 to +85 deg C |
|-----------------|------------------|

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

Plotted and Other Data

Notes:

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 Cable Using LMR-195 Coax PE3W10825](#)



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PE3W10825

How to Order

Part Number Configuration:

PE3W10825

- **xx**

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Unit of Measure:
cm = Centimeters
<blank> = Inches
Length
Base Number

Example: PE3W10825-12 = 12 inches long cable
PE3W10825-100cm = 100 cm long cable

SMA Female Bulkhead to TNC Male Low Loss Cable Using LMR-195 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.

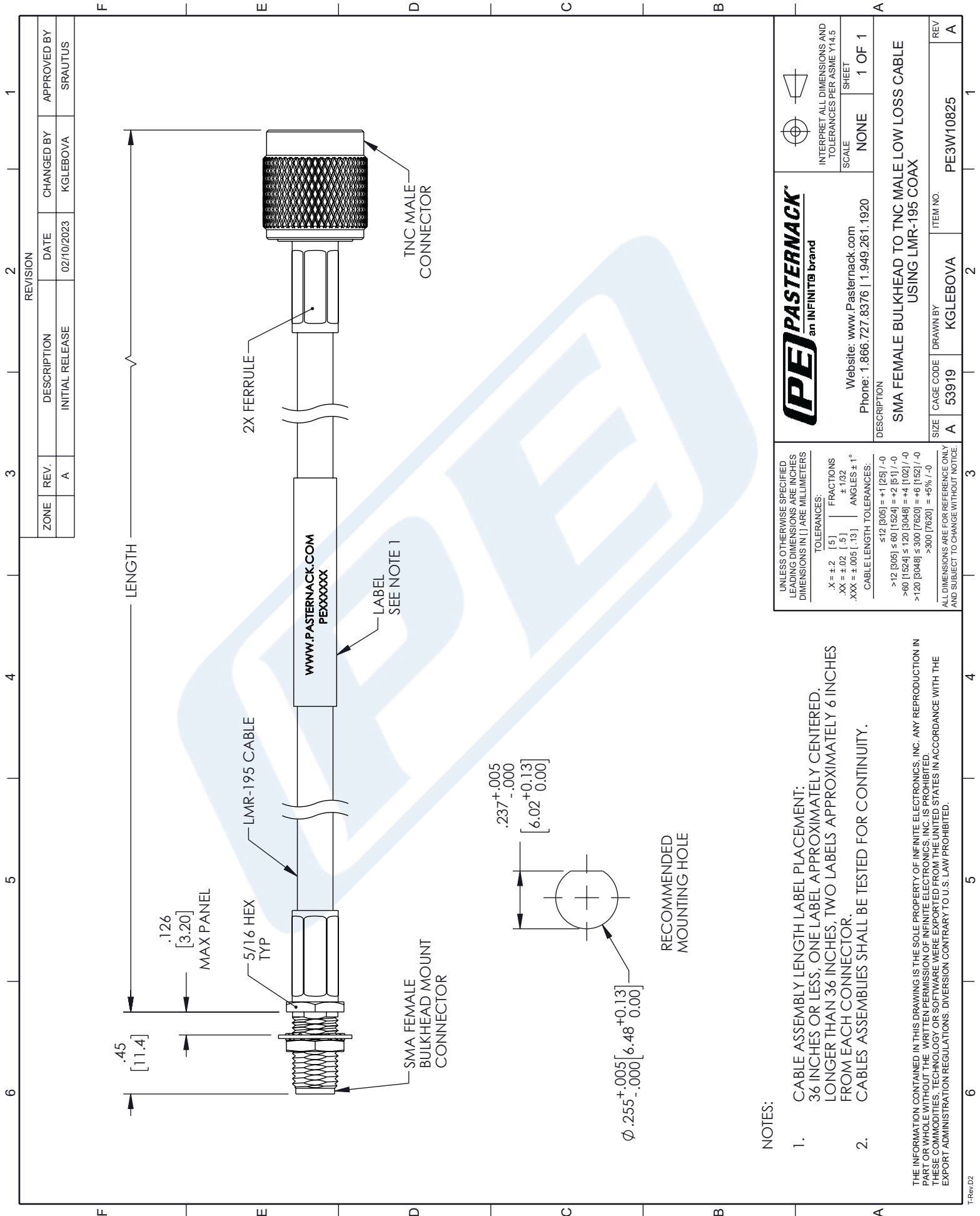
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URL: <https://www.pasternack.com/sma-female-bulkhead-to-tnc-male-low-loss-cable-using-lmr-195-pe3w10825-p.aspx>

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.

PE3W10825 CAD Drawing

SMA Female Bulkhead to TNC Male Low Loss Cable Using LMR-195 Coax



| REVISION | | DATE | CHANGED BY | APPROVED BY |
|----------|------|-------------|-----------------|-------------|
| ZONE | REV. | DESCRIPTION | INITIAL RELEASE | |
| | A | | 02/10/2023 | KGLEBOVA |
| | | | | SRAUTUS |

| | | | |
|---|-----------|--|-----------|
| PASTERNAK an INFINIT® brand | | INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SCALE: NONE SHEET: 1 OF 1 | |
| Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920 | | DESCRIPTION: SMA FEMALE BULKHEAD TO TNC MALE LOW LOSS CABLE USING LMR-195 COAX | |
| SIZE | CAGE CODE | DRAWN BY | ITEM NO. |
| A | 53919 | KGLEBOVA | PE3W10825 |

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

TOLERANCES:
 .X = ±.2 [5] FRACTIONS ±.1/32
 .XX = ±.02 [-.5] ANGLES ± 1°
 .XXX = ±.005 [-.13] CABLE LENGTH TOLERANCES:
 ≤12 [305] = +.1 [25] / -0
 >12 [305] ≤ 60 [1524] = +.2 [5] / -0
 >60 [1524] ≤ 120 [3048] = +.4 [102] / -0
 >120 [3048] ≤ 300 [7620] = +.6 [152] / -0
 >300 [7620] = +.5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE.

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.
- CABLES ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

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