



## TNC Male to SMA Male Cable 12 Inch Length Using LMR-400-UF Coax with HeatShrink

### RF Cable Assemblies Technical Data Sheet

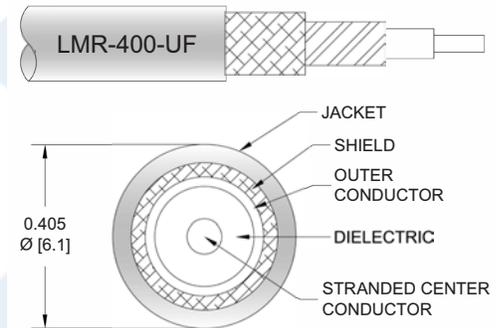
PE3C1704/HS-12

#### Configuration

- Connector 1: TNC Male
- Connector 2: SMA Male
- Cable Type: LMR-400-UF

#### Features

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 85% Phase Velocity
- Double Shielded
- TPE Jacket



#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3C1704/HS-12 TNC male to SMA male 12 inch cable using LMR-400-UF 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 TNC to SMA cable assembly has a male to male gender configuration with 50 ohm flexible LMR-400-UF coax. The PE3C1704/HS-12 TNC male to SMA male cable assembly operates to 5.8 GHz. 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: [TNC Male to SMA Male Cable 12 Inch Length Using LMR-400-UF Coax with HeatShrink PE3C1704/HS-12](#)



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#### Electrical Specifications

| Description                   | Minimum | Typical      | Maximum | Units                            |
|-------------------------------|---------|--------------|---------|----------------------------------|
| Frequency Range               | DC      |              | 5.8     | GHz                              |
| VSWR                          |         |              | 1.45:1  |                                  |
| Velocity of Propagation       |         | 85           |         | %                                |
| RF Shielding                  | 90      |              |         | dB                               |
| Group Delay                   |         | 1.2 [3.94]   |         | ns/ft [ns/m]                     |
| Capacitance                   |         | 23.9 [78.41] |         | pF/ft [pF/m]                     |
| Inductance                    |         | 0.06 [0.2]   |         | uH/ft [uH/m]                     |
| DC Resistance Inner Conductor |         | 1.07 [3.51]  |         | $\Omega$ /1000ft [ $\Omega$ /Km] |
| DC Resistance Outer Conductor |         | 1.65 [5.41]  |         | $\Omega$ /1000ft [ $\Omega$ /Km] |
| Jacket Spark                  |         |              | 8,000   | Vrms                             |

#### Specifications by Frequency

| Description           | F1   | F2   | F3   | F4   | F5   | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency             | 0.25 | 0.5  | 1    | 2.5  | 5.8  | GHz   |
| Insertion Loss (Max.) | 0.22 | 0.23 | 0.24 | 0.28 | 0.33 | dB    |

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax used in this assembly. Insertion Loss is estimated as 0.1 dB per connector.

#### Mechanical Specifications

##### Cable Assembly

|          |                    |
|----------|--------------------|
| Length*  | 12 in [304.8 mm]   |
| Diameter | 0.622 in [15.8 mm] |

##### Cable

|                                      |                     |
|--------------------------------------|---------------------|
| Cable Type                           | LMR-400-UF          |
| Impedance                            | 50 Ohms             |
| Inner Conductor Type                 | Stranded            |
| 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                      | TPE, Black          |
| Jacket Diameter                      | 0.405 in [10.29 mm] |

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|                              |                        |
|------------------------------|------------------------|
| One Time Minimum Bend Radius | 1 in [25.4 mm]         |
| Repeated Minimum Bend Radius | 4 in [101.6 mm]        |
| Bending Moment               | 0.38 lbs-ft [0.52 N-m] |
| Flat Plate Crush             | 20 lbs/in [0.36 Kg/mm] |
| Tensile Strength             | 160 lbs [72.57 Kg]     |

**Connectors**

| Description                       | Connector 1      | Connector 2      |
|-----------------------------------|------------------|------------------|
| Type                              | TNC Male         | SMA Male         |
| Impedance                         | 50 Ohms          | 50 Ohms          |
| Mating Cycles                     | 500              |                  |
| Contact Material and Plating      | Brass, Gold      | Brass, Gold      |
| Contact Plating Specification     |                  | 50µ" Min         |
| Dielectric Type                   |                  | Teflon           |
| Body Material and Plating         | Brass, Tri-Metal | Brass, Tri-Metal |
| Coupling Nut Material and Plating | Brass, Tri-Metal | Brass, Tri-Metal |

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

**Plotted and Other Data**

Notes:

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PE3C1704/HS-12

#### How to Order

Part Number Configuration:

PE3C1704/HS - xx uu

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

Example: PE3C1704/HS-12 = 12 inches long cable  
PE3C1704/HS-100cm = 100 cm long cable

TNC Male to SMA Male Cable 12 Inch Length Using LMR-400-UF 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: [TNC Male to SMA Male Cable 12 Inch Length Using LMR-400-UF Coax with HeatShrink PE3C1704/HS-12](#)

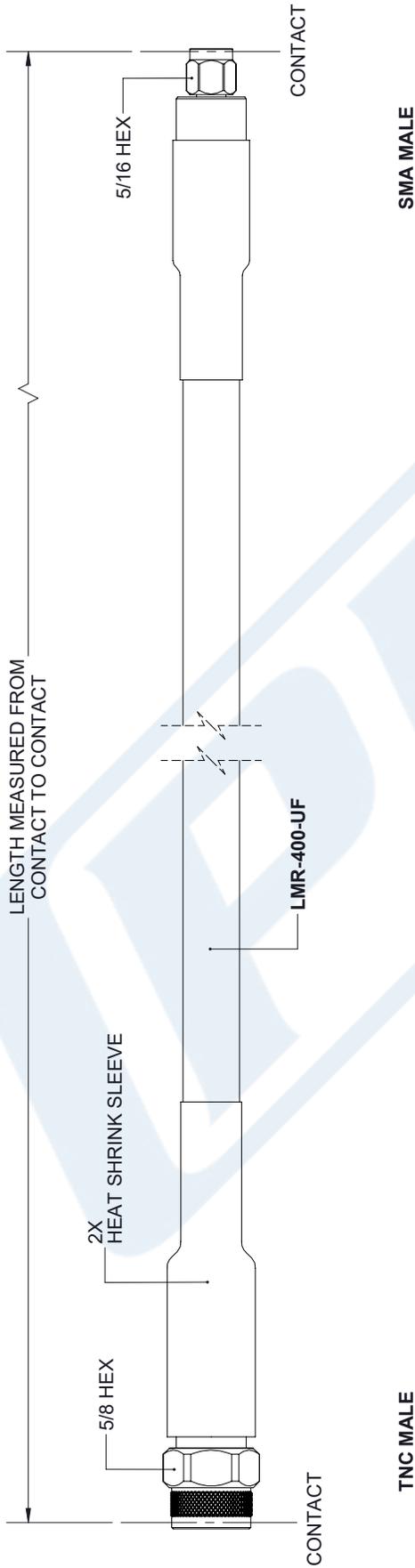
URL:

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.

# PE3C1704/HS-12 CAD Drawing

TNC Male to SMA Male Cable 12 Inch Length Using LMR-400-UF Coax with HeatShrink

| REVISIONS |                 |           |          |
|-----------|-----------------|-----------|----------|
| REV.      | DESCRIPTION     | DATE      | APPROVED |
| A         | INITIAL RELEASE | 8/24/2020 | S. ELLIS |



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

**TOLERANCES:**

|              |       |             |        |
|--------------|-------|-------------|--------|
| .X = ±.2     | [.08] | FRACTIONS   |        |
| .XX = ±.02   | [.51] |             | ± 1/32 |
| .XXX = ±.005 | [.13] | ANGLES ± 1° |        |

**CABLE LENGTH (L) TOLERANCES:**

|        |        |           |             |                    |
|--------|--------|-----------|-------------|--------------------|
| L ≤ 12 | [305]  | = +1      | [25] / -0   |                    |
| 12     | [305]  | < L ≤ 60  | [1524] = +2 | [51] / -0          |
| 60     | [1524] | < L ≤ 120 | [3048] = +4 | [102] / -0         |
| 120    | [3048] | < L ≤ 300 | [7620] = +6 | [152] / -0         |
|        |        | 300       | [7620]      | < L = +5% / L / -0 |

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

**THIRD-ANGLE PROJECTION**

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SHEET 1 OF 1

SCALE N/A

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|      |           |          |             |
|------|-----------|----------|-------------|
| SIZE | CAGE CODE | DRAWN BY | ITEM NO     |
| A    | 53919     | K. DANG  | PE3C1704/HS |
| REV  |           |          | A           |

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