



TNC Male to TNC Male Cable 100 cm  
Length Using LMR-195-FR Coax

**RF Cable Assemblies Technical Data Sheet**

**PE3W05242-100CM**

**Configuration**

- Connector 1: TNC Male
- Connector 2: TNC Male
- Cable Type: LMR-195-FR

**Features**

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 76% Phase Velocity
- Double Shielded
- FRPE Jacket

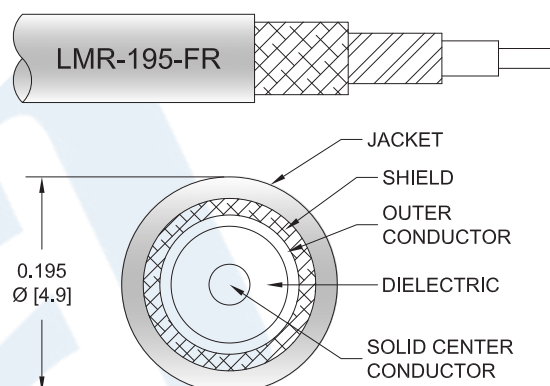
**Applications**

- General Purpose
- Laboratory Use

**Description**

Pasternack's PE3W05242-100CM TNC male to TNC male 100 cm cable using LMR-195-FR 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 TNC cable assembly has a male to male gender configuration with 50 ohm flexible LMR-195-FR coax. The PE3W05242-100CM TNC male to TNC 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 TNC Male Cable 100 cm Length Using LMR-195-FR Coax PE3W05242-100CM](#)



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### Electrical Specifications

| Description                          | Minimum | Typical      | Maximum | Units                     |
|--------------------------------------|---------|--------------|---------|---------------------------|
| Frequency Range                      | DC      |              | 5.8     | GHz                       |
| VSWR                                 |         |              | 1.4:1   |                           |
| Velocity of Propagation              |         | 76           |         | %                         |
| 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  | 3    | GHz   |
| Insertion Loss (Max.) | 0.39 | 0.47 | 0.58 | 0.83 | 0.88 | dB    |

#### Electrical Specification Notes:

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

### Mechanical Specifications

#### Cable Assembly

|          |                     |
|----------|---------------------|
| Length*  | 39.37 in [100 cm]   |
| Diameter | 0.591 in [15.01 mm] |

#### Cable

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

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 TNC Male Cable 100 cm Length Using LMR-195-FR Coax PE3W05242-100CM](#)



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|                              |                        |
|------------------------------|------------------------|
| Jacket Material              | FRPE, 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                               | TNC Male        | TNC Male        |
| Impedance                          | 50 Ohms         | 50 Ohms         |
| Contact Material and Plating       | Brass, Gold     | Brass, Gold     |
| Contact Plating Specification      | 30 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   | Brass, Nickel   |
| Coupling Nut Plating Specification | 100 µin minimum | 100 µin minimum |

Mechanical Specification Notes:

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

### 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: [TNC Male to TNC Male Cable 100 cm Length Using LMR-195-FR Coax PE3W05242-100CM](#)



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## RF Cable Assemblies Technical Data Sheet

**PE3W05242-100CM**

### How to Order

Part Number Configuration:

**PE3W05242**

- **xx**

**uu**

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

Example: PE3W05242-12 = 12 inches long cable  
PE3W05242-100cm = 100 cm long cable

TNC Male to TNC Male Cable 100 cm Length Using LMR-195-FR 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.

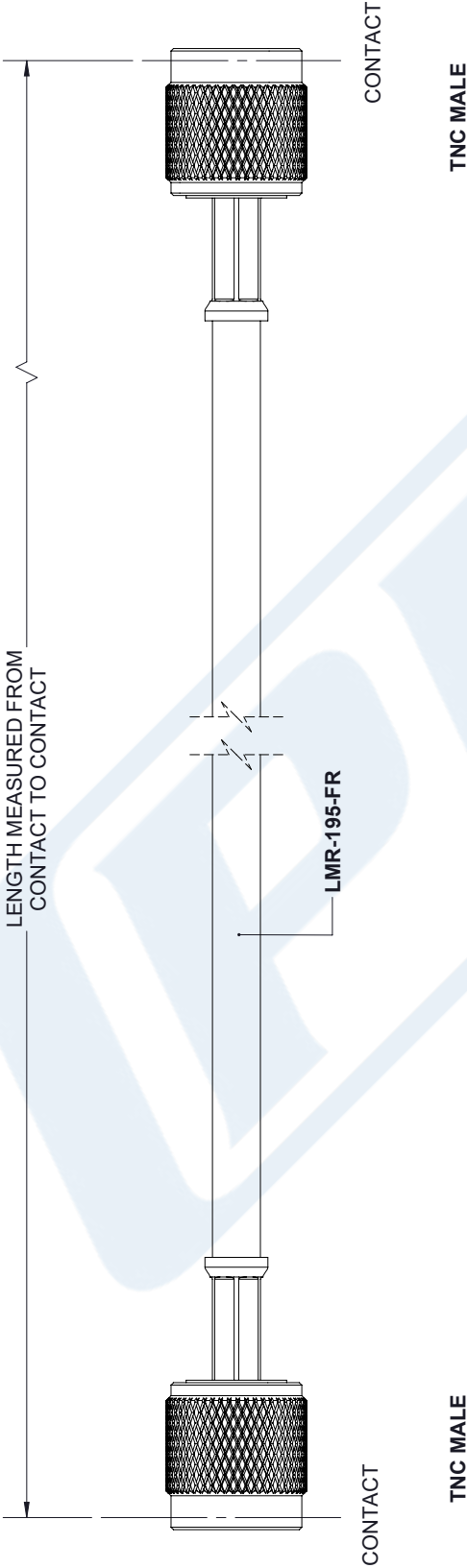
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [TNC Male to TNC Male Cable 100 cm Length Using LMR-195-FR Coax PE3W05242-100CM](https://www.pasternack.com/tnc-male-tnc-male-lmr195fr-cable-assembly-pe3w05242-100cm-p.aspx)

URL: <https://www.pasternack.com/tnc-male-tnc-male-lmr195fr-cable-assembly-pe3w05242-100cm-p.aspx>

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PE3W05242-100CM CAD Drawing  
TNC Male to TNC Male Cable 100 cm Length Using LMR-195-FR Coax

| REVISIONS |                 |          |          |
|-----------|-----------------|----------|----------|
| REV.      | DESCRIPTION     | DATE     | APPROVED |
| A         | INITIAL RELEASE | 04/23/19 | SELLIS   |



|                                                                                                  |        |             |       |
|--------------------------------------------------------------------------------------------------|--------|-------------|-------|
| UNLESS OTHERWISE SPECIFIED<br>LEADING DIMENSIONS ARE INCHES<br>DIMENSIONS IN [ ] ARE MILLIMETERS |        |             |       |
| TOLERANCES:                                                                                      |        |             |       |
| X±.2                                                                                             | [5.08] | FRACTIONS   |       |
| .XX±.01                                                                                          | [.25]  |             | ±.132 |
| .XXX±.005                                                                                        | [.13]  | ANGLES ± 1° |       |
| ALL DIMENSIONS SHOWN<br>ARE FOR REFERENCE ONLY.                                                  |        |             |       |
| THIRD-ANGLE PROJECTION                                                                           |        |             |       |
|                                                                                                  |        |             |       |

|                       |       |                                                                                                                                                                                         |             |
|-----------------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <br>an INFINITO brand |       | 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 |             |
| SIZE                  | CAGE  | DRAWN BY                                                                                                                                                                                | PART NUMBER |
| A                     | 53919 | K.DANG                                                                                                                                                                                  | PE3W04028   |
|                       |       |                                                                                                                                                                                         | REV         |
|                       |       |                                                                                                                                                                                         | A           |

|                                                                                                                        |   |     |   |
|------------------------------------------------------------------------------------------------------------------------|---|-----|---|
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| SHEET                                                                                                                  | 1 | OF  | 1 |
| SCALE                                                                                                                  |   | N/A |   |

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