

MCX Plug to TNC Male Cable Using LMR-100 Coax

RF Cable Assemblies Technical Data Sheet

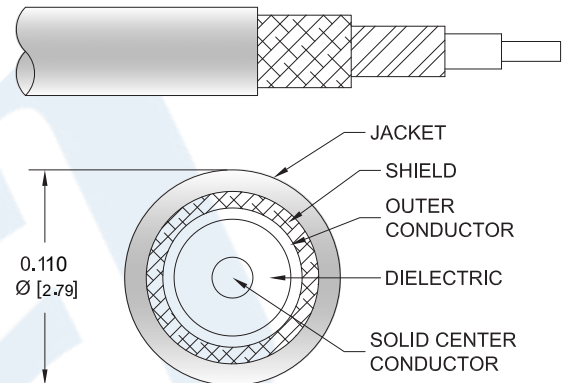
PE3C9912

Configuration

- Connector 1: MCX Plug
- Connector 2: TNC Male
- Cable Type: LMR-100A
- Coax Cable Group: 8
- Coax Flex Type: Flexible

Features

- Max Frequency 3 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- PVC Jacket



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3C9912 MCX plug to TNC male cable using LMR-100 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 MCX to TNC cable assembly has a plug to male gender configuration with 50 ohm flexible LMR-100A coax. The PE3C9912 MCX plug to TNC male cable assembly operates to 3 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: [MCX Plug to TNC Male Cable Using LMR-100 Coax PE3C9912](#)

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Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------------------------|---------|---------------|---------|----------------------------------|
| Frequency Range | DC | | 3 | GHz |
| VSWR | | | 1.4:1 | |
| Velocity of Propagation | | 66 | | % |
| RF Shielding | 90 | | | dB |
| Group Delay | | 1.54 [5.05] | | ns/ft [ns/m] |
| Capacitance | | 30.8 [101.05] | | pF/ft [pF/m] |
| Inductance | | 0.077 [0.25] | | uH/ft [uH/m] |
| DC Resistance Inner Conductor | | 81 [265.75] | | Ω /1000ft [Ω /Km] |
| DC Resistance Outer Conductor | | 9.5 [31.17] | | Ω /1000ft [Ω /Km] |
| Jacket Spark | | | 2,000 | Vrms |

Specifications by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|-------|----------|----------|----------|----------|-------|
| Frequency | 0.1 | 0.25 | 0.5 | 1 | 3 | GHz |
| Insertion Loss (Max.) | 1.064 | 1.115391 | 1.165777 | 1.240166 | 1.434815 | dB/ft |
| | 3.49 | 3.66 | 3.82 | 4.07 | 4.71 | dB/m |
| VSWR (Max.) | 1.4:1 | 1.4:1 | 1.4:1 | 1.4:1 | | |
| Return Loss (Max.) | 15.56 | 15.563 | 15.563 | 15.563 | | dB |

Mechanical Specifications

Cable Assembly

Weight 0.052 lbs [23.59 g]

Cable

Cable Type LMR-100A
 Impedance 50 Ohms
 Inner Conductor Type Solid
 Inner Conductor Material and Plating Copper Clad Steel
 Dielectric Type PE
 Number of Shields 2
 Shield Layer 1 Aluminum Tape
 Shield Layer 2 Tinned Copper Braid
 Jacket Material PVC, Black
 Jacket Diameter 0.11 in [2.79 mm]

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| | |
|------------------------------|------------------------|
| One Time Minimum Bend Radius | 0.25 in [6.35 mm] |
| Repeated Minimum Bend Radius | 1 in [25.4 mm] |
| Bending Moment | 0.1 lbs-ft [0.14 N-m] |
| Flat Plate Crush | 10 lbs/in [0.18 Kg/mm] |
| Tensile Strength | 15 lbs [6.8 Kg] |

Connectors

| Description | Connector 1 | Connector 2 |
|------------------------------------|------------------|------------------------|
| Type | MCX Plug Push-On | TNC Male Threaded |
| Specification | CECC 22220 | |
| Impedance | 50 Ohms | 50 Ohms |
| Contact Material and Plating | Brass, Gold | Beryllium Copper, Gold |
| Contact Plating Specification | 30 µin minimum | 15 µin |
| Dielectric Type | PTFE | Teflon |
| Body Material and Plating | Brass, Nickel | Brass, Nickel |
| Body Plating Specification | 100 µin minimum | 100 µin |
| Coupling Nut Material and Plating | | Brass, Nickel |
| Coupling Nut Plating Specification | | 100 µin |

Environmental Specifications

Temperature

Operating Range -40 to +85 deg C

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

Plotted and Other Data

Notes:

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How to Order

Part Number Configuration:

PE3C9912

- **xx**

uu

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

Example: PE3C9912-12 = 12 inches long cable
PE3C9912-100cm = 100 cm long cable

MCX Plug to TNC Male Cable Using LMR-100 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.

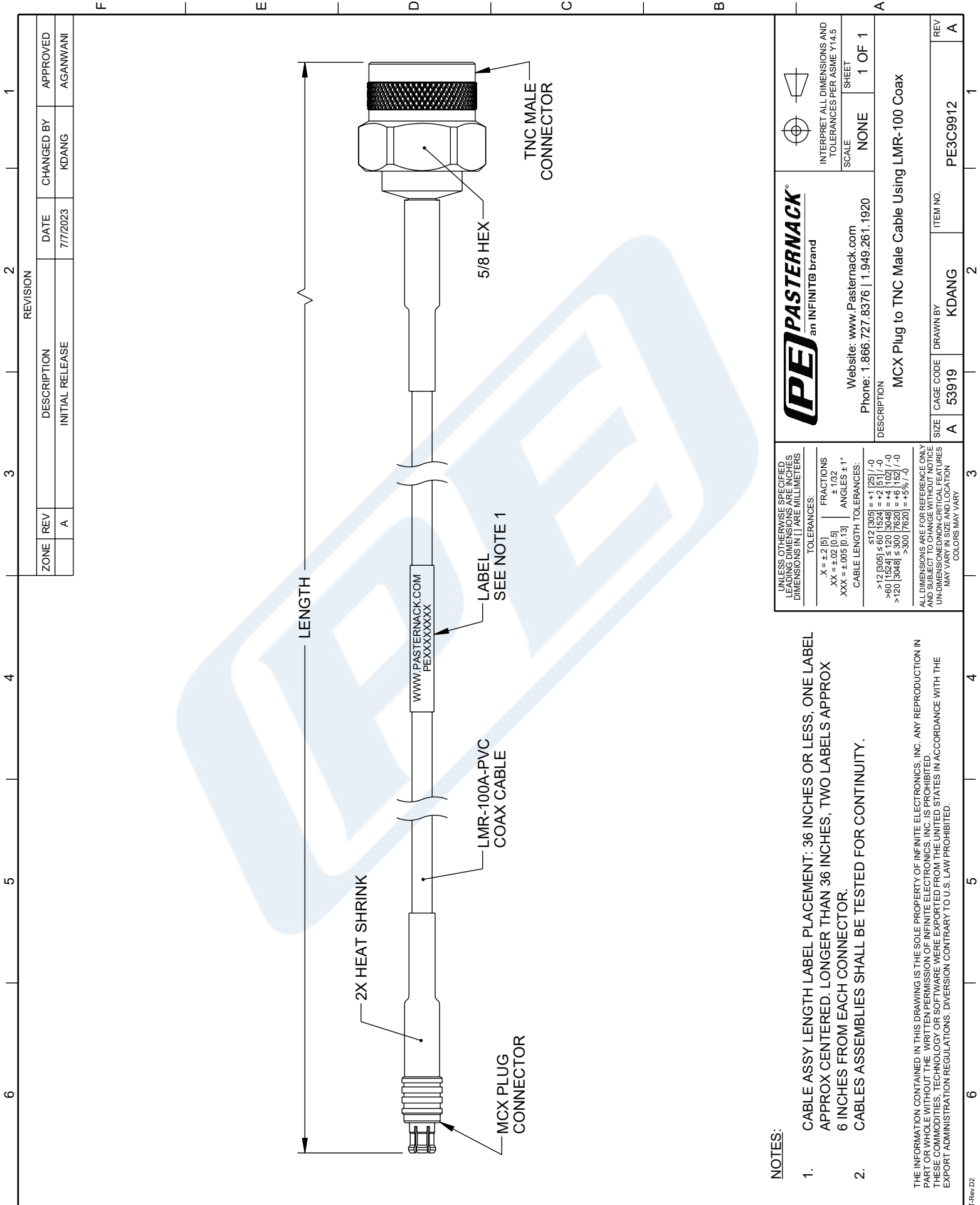
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URL: <https://www.pasternack.com/mcx-plug-to-tnc-male-cable-using-lmr-100-pe3c9912-p.aspx>

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.

PE3C9912 CAD Drawing

MCX Plug to TNC Male Cable Using LMR-100 Coax



| ZONE | | REV | DESCRIPTION | DATE | CHANGED BY | APPROVED |
|------|--|-----|-----------------|----------|------------|----------|
| | | A | INITIAL RELEASE | 7/7/2023 | KDANG | AGANWANI |

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] | ±.1 [25] | /-0 |
| >12 [305] ≤ 60 [1524] | ±.2 [5.1] | /-0 |
| >60 [1524] ≤ 120 [3048] | ±.4 [102] | /-0 |
| >120 [3048] ≤ 300 [7620] | ±.6 [152] | /-0 |
| >300 [7620] | ±.8 [203] | /-0 |

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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5
SCALE: NONE SHEET: 1 OF 1

DESCRIPTION
MCX Plug to TNC Male Cable Using LMR-100 Coax

| | | | | |
|------|-----------|----------|----------|-----|
| SIZE | CAGE CODE | DRAWN BY | ITEM NO. | REV |
| A | 53919 | KDANG | PE3C9912 | A |

- NOTES:**
- CABLE ASSY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROX CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROX 6 INCHES FROM EACH CONNECTOR.
 - CABLES ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
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