

TNC Male Right Angle to TNC Male Right Angle Low Loss Cable Using LMR-100A-UF Coax



PE3W15903

Configuration

- Connector 1: TNC Male Right Angle
- Connector 2: TNC Male Right Angle
- Cable Type: LMR-100A-UF
- Coax Flex Type: Flexible

Features

- Max Frequency 6 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- TPE Jacket



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W15903 TNC male right angle to TNC male right angle cable using LMR-100A-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 TNC cable assembly has a male to male gender configuration with 50 ohm flexible LMR-100A-UF coax. The PE3W15903 TNC male to TNC male cable assembly operates to 6 GHz. The right angle TNC interfaces on the LMR-100A-UF cable allow for easier connections in tight spaces. 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.

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------------------------|---------|---------------|---------|-----------------------|
| Frequency Range | DC | | 6 | 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] | | Ohms/1000ft [Ohms/Km] |
| DC Resistance Outer Conductor | | 9.5 [31.17] | | Ohms/1000ft [Ohms/Km] |

TNC Male Right Angle to TNC Male Right Angle
Low Loss Cable Using LMR-100A-UF Coax



PE3W15903

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|--------------|---------|---------|---------|-------|
| Jacket Spark | | | 2,000 | Vrms |

Specifications by Frequency

| Part Number | Length | Description | F1 | F2 | F3 | F4 | F5 | Units | Weight (lbs) |
|-----------------|--------------------------|-----------------------|-----------|-------|------|-------|-------|-------|--------------|
| | | | Frequency | | | | | MHz | |
| PE3W15903 | Custom Lengths Available | Insertion Loss (Typ.) | 0.115 | 0.165 | 0.24 | 0.398 | 0.641 | dB/ft | |
| | | | 0.38 | 0.55 | 0.79 | 1.31 | 2.11 | dB/m | |
| PE3W15903-24 | 24 In | Insertion Loss (Typ.) | 0.63 | 0.73 | 0.88 | 1.2 | 1.69 | dB | 0.115 |
| PE3W15903-36 | 36 In | Insertion Loss (Typ.) | 0.75 | 0.9 | 1.12 | 1.6 | 2.33 | dB | 0.123 |
| PE3W15903-48 | 48 In | Insertion Loss (Typ.) | 0.86 | 1.06 | 1.36 | 2 | 2.97 | dB | 0.131 |
| PE3W15903-100CM | 100 CM | Insertion Loss (Typ.) | 0.78 | 0.95 | 1.19 | 1.71 | 2.51 | dB | 0.125 |
| PE3W15903-200CM | 200 CM | Insertion Loss (Typ.) | 1.16 | 1.49 | 1.98 | 3.02 | 4.61 | dB | 0.151 |

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: | 0.2 dB |
| Loss due to Connector 2: | 0.2 dB |
| Base Weight: | 0.106 pounds |
| Additional Weight per Inch: | 0.00067 pounds |

Mechanical Specifications

Cable Assembly

| | |
|----------------|---------------------|
| Width/Diameter | 0.5 in [12.7 mm] |
| Weight | 0.106 lbs [48.08 g] |

Cable

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

TNC Male Right Angle to TNC Male Right Angle
Low Loss Cable Using LMR-100A-UF Coax



PE3W15903

Connectors

| Description | Connector 1 | Connector 2 |
|------------------------------|----------------------|----------------------|
| Type | TNC Male Right Angle | TNC Male Right Angle |
| Impedance | 50 Ohms | 50 Ohms |
| Configuration | Right Angle | Right Angle |
| Contact Material and Plating | Brass, Gold | Brass, Gold |
| Dielectric Type | POM | POM |
| Body Material and Plating | Brass, Nickel | Brass, Nickel |

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

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

Plotted and Other Data

Notes:

TNC Male Right Angle to TNC Male Right Angle
Low Loss Cable Using LMR-100A-UF Coax



PE3W15903

Typical Performance Data

How to Order

Part Number Configuration:

PE3W15903

- **xx**

uu

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

Example: PE3W15903-12 = 12 inches long cable
PE3W15903-100cm = 100 cm long cable

TNC Male Right Angle to TNC Male Right Angle Low Loss Cable Using LMR-100A-UF 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.

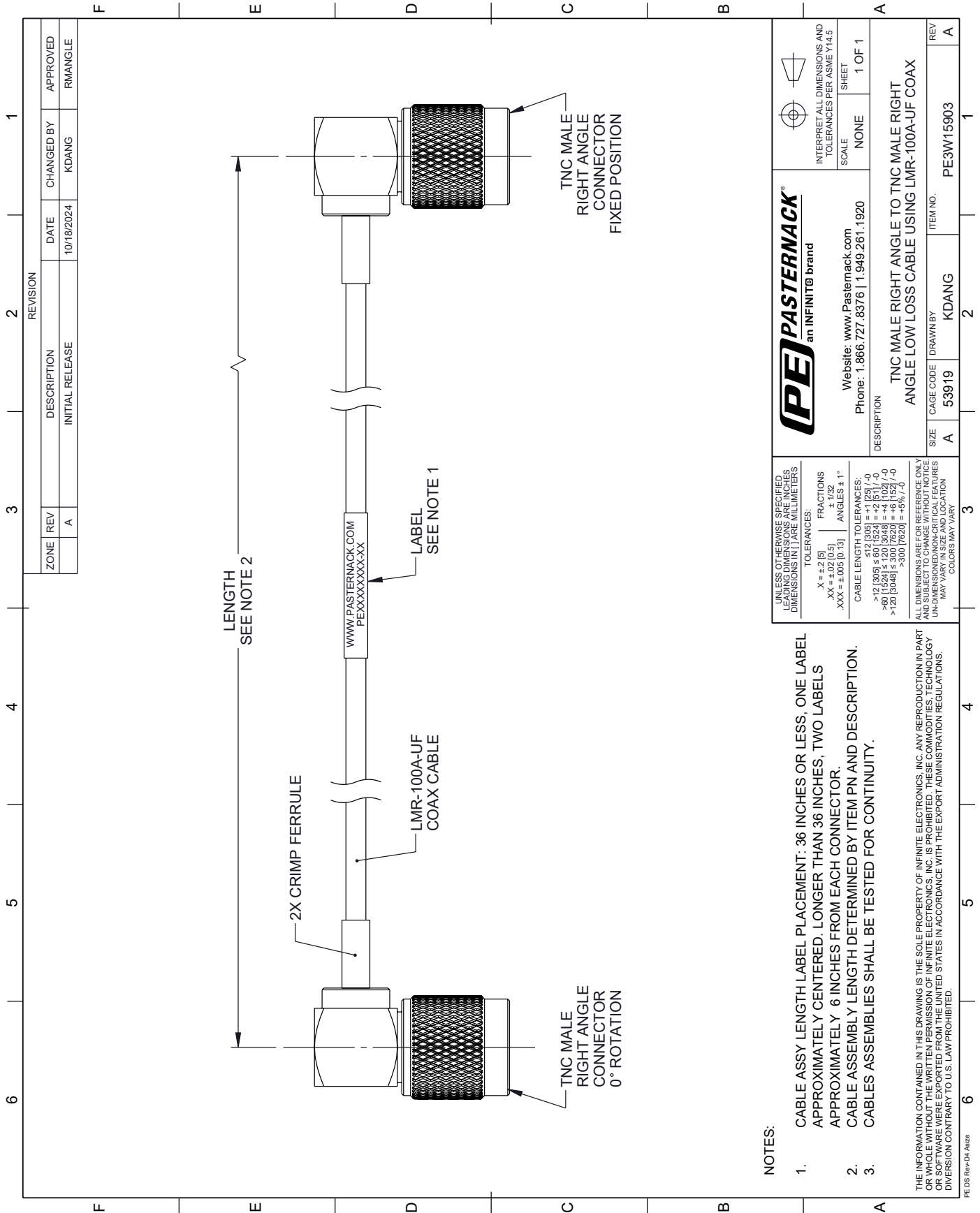
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [TNC Male Right Angle to TNC Male Right Angle Low Loss Cable Using LMR-100A-UF Coax PE3W15903](#)

URL: <https://www.pasternack.com/tnc-male-right-angle-to-tnc-male-low-loss-cable-using-lmr-100a-uf-pe3w15903-p.aspx>

The information contained within 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 Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

PE3W15903 CAD Drawing

TNC Male Right Angle to TNC Male Right Angle Low Loss Cable Using LMR-100A-UF Coax



| REVISION | | DATE | CHANGED BY | APPROVED | | |
|----------|-----|-------------|-----------------|------------|-------|---------|
| ZONE | REV | DESCRIPTION | INITIAL RELEASE | 10/18/2024 | KDANG | RWANGLE |
| | A | | | | | |

| UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN PAREMILLIMETERS | TOLERANCES: | FRACTIONS | ANGLES |
|--|--------------|-----------|--------|
| X = ±.2 [5] | ±.02 [0.5] | ± 1/32 | ± 1° |
| .XX = ±.02 [0.5] | ±.005 [0.13] | | ± 1° |
| CABLE LENGTH TOLERANCES: | | | |
| >12 [305] | ±.01 [0.25] | | |
| >60 [1524] | ±.02 [0.51] | | |
| >120 [3048] | ±.03 [0.76] | | |
| >300 [7620] | ±.05 [1.27] | | |

ALL DIMENSIONS ARE FOR REFERENCE ONLY UNLESS OTHERWISE SPECIFIED. DIMENSIONS ON CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

NOTES:

- CABLE ASSY 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 LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.
- CABLES ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

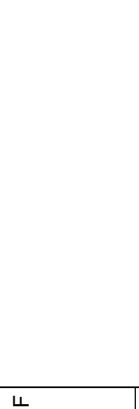
PE DS Rev-04 A1828

| | |
|-------------|--|
| DESCRIPTION | TNC MALE RIGHT ANGLE TO TNC MALE RIGHT ANGLE LOW LOSS CABLE USING LMR-100A-UF COAX |
| SIZE | A |
| CAGE CODE | 53919 |
| DRAWN BY | KDANG |
| ITEM NO. | PE3W15903 |
| REV | A |

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