

Fire Rated TNC Male to TNC Male Low Loss Cable Using LMR-100-FR Coax



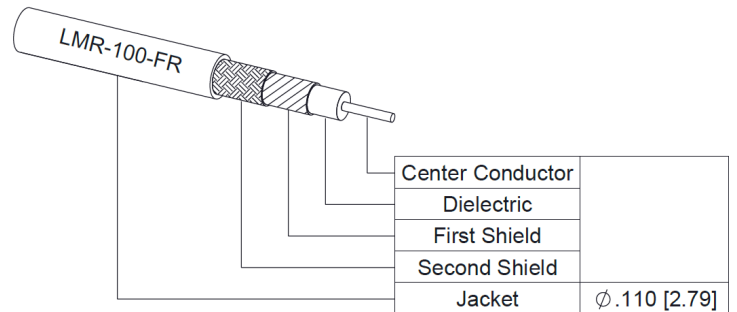
PE3W13727

Configuration

- Connector 1: TNC Male
- Connector 2: TNC Male
- Cable Type: LMR-100A-FR
- Coax Flex Type: Flexible

Features

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



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W13727 TNC male to TNC male cable using LMR-100-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-100A-FR coax. The PE3W13727 TNC male 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.

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]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		9.5 [31.17]		Ohms/1000ft [Ohms/Km]

Fire Rated TNC Male to TNC Male Low Loss Cable Using LMR-100-FR Coax



PE3W13727

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	
PE3W13727	Custom Lengths Available	Insertion Loss (Typ.)	0.07	0.115	0.165	0.24	0.432	dB/ft	
			0.23	0.38	0.55	0.79	1.42	dB/m	
PE3W13727-24	24 In	Insertion Loss (Typ.)	0.64	0.73	0.83	0.98	1.37	dB	0.088
PE3W13727-36	36 In	Insertion Loss (Typ.)	0.71	0.85	1	1.22	1.8	dB	0.097
PE3W13727-48	48 In	Insertion Loss (Typ.)	0.78	0.96	1.16	1.46	2.23	dB	0.106
PE3W13727-100CM	100 CM	Insertion Loss (Typ.)	0.73	0.88	1.05	1.29	1.92	dB	0.1
PE3W13727-200CM	200 CM	Insertion Loss (Typ.)	0.96	1.26	1.59	2.08	3.34	dB	0.13

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:	0.25 dB
Loss due to Connector 2:	0.25 dB
Base Weight:	0.079 pounds
Additional Weight per Inch:	0.00075 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.079 lbs [35.83 g]

Cable

Cable Type	LMR-100A-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
Jacket Material	FRPE, 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]

Fire Rated TNC Male to TNC Male Low Loss
Cable Using LMR-100-FR Coax



PE3W13727

Connectors

Description	Connector 1	Connector 2
Type	TNC Male	TNC Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
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

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

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

Plotted and Other Data

Notes:

Fire Rated TNC Male to TNC Male Low Loss Cable Using LMR-100-FR Coax



PE3W13727

Typical Performance Data

How to Order

Part Number Configuration:

PE3W13727

- xx

uu

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: PE3W13727-12 = 12 inches long cable
PE3W13727-100cm = 100 cm long cable

Fire Rated TNC Male to TNC Male Low Loss Cable Using LMR-100-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.

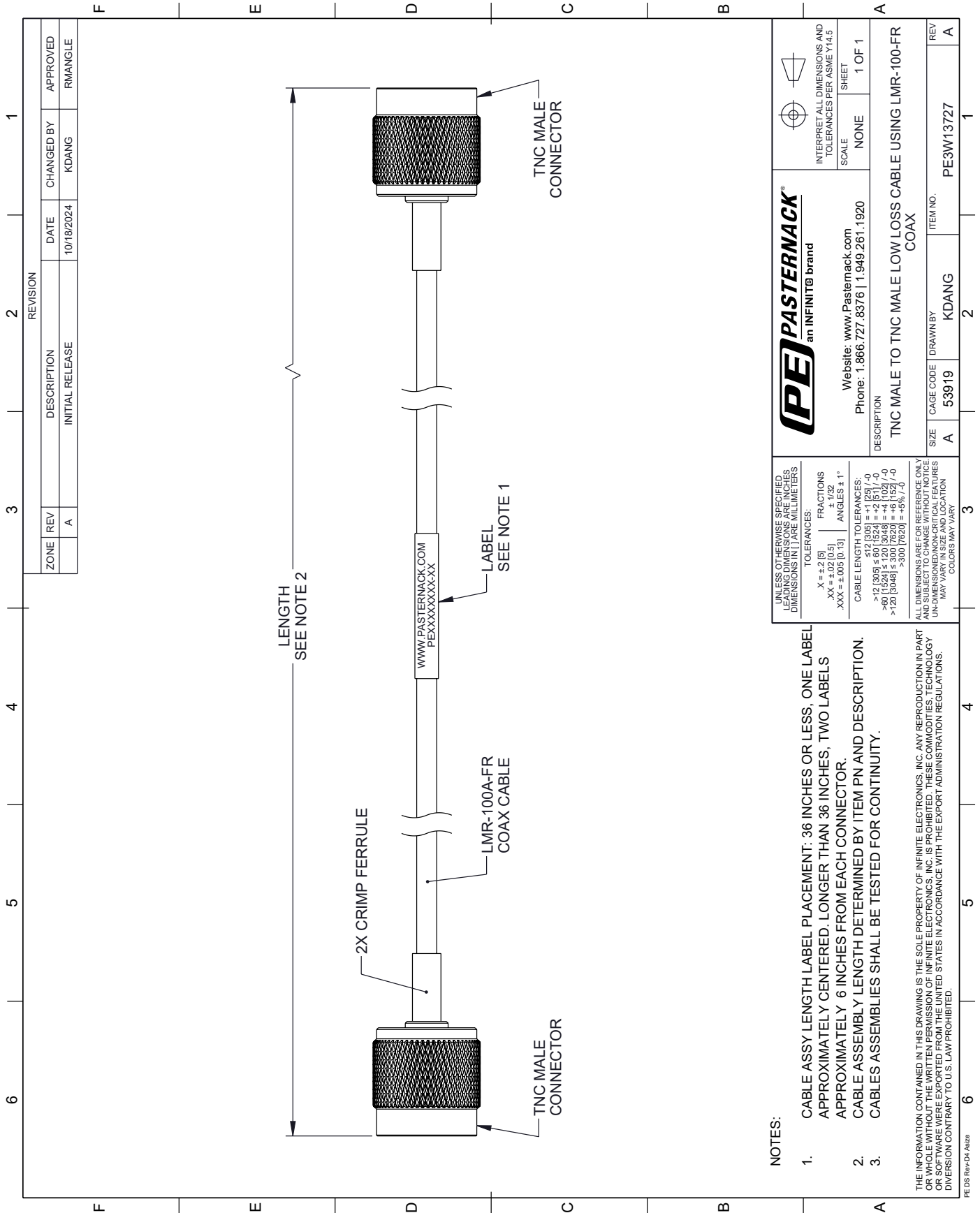
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Fire Rated TNC Male to TNC Male Low Loss Cable Using LMR-100-FR Coax PE3W13727](#)

URL: <https://www.pasternack.com/fire-rated-tnc-male-to-tnc-male-low-loss-cable-using-lmr-100-fr-pe3w13727-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.

PE3W13727 CAD Drawing

Fire Rated TNC Male to TNC Male Low Loss Cable Using LMR-100-FR Coax



<p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN PAREMILLIMETERS</p> <p>TOLERANCES:</p> <p>X = ±.2 [5] FRACTIONS ± 1/32 .XX = ±.02 [0.5] ANGLES ± 1° .XXX = ±.005 [0.13]</p> <p>CABLE LENGTH TOLERANCES:</p> <p>>12 [305] ≤ 60 [1524] = +1 [25] / -0 >60 [1524] ≤ 120 [3048] = +4 [102] / -0 >120 [3048] ≤ 300 [7620] = +5 [127] / -0 >300 [7620] = +5 [127] / -0</p> <p>ALL DIMENSIONS ARE FOR REFERENCE ONLY. DIMENSIONS ON CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.</p>		<p>PE PASTERNAK an INFINITE brand</p> <p>Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920</p>		<p>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</p> <p>SCALE: NONE</p> <p>SHEET: 1 OF 1</p>																					
<p>REVISION</p> <table border="1"> <tr> <th>ZONE</th> <th>REV</th> <th>DESCRIPTION</th> <th>DATE</th> <th>CHANGED BY</th> <th>APPROVED</th> </tr> <tr> <td></td> <td>A</td> <td>INITIAL RELEASE</td> <td>10/18/2024</td> <td>KDANG</td> <td>RWANGLE</td> </tr> </table>		ZONE	REV	DESCRIPTION	DATE	CHANGED BY	APPROVED		A	INITIAL RELEASE	10/18/2024	KDANG	RWANGLE	<p>DESCRIPTION: TNC MALE TO TNC MALE LOW LOSS CABLE USING LMR-100-FR COAX</p> <table border="1"> <tr> <th>SIZE</th> <th>CAGE CODE</th> <th>DRAWN BY</th> <th>ITEM NO.</th> <th>REV</th> </tr> <tr> <td>A</td> <td>53919</td> <td>KDANG</td> <td>PE3W13727</td> <td>A</td> </tr> </table>		SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV	A	53919	KDANG	PE3W13727	A
ZONE	REV	DESCRIPTION	DATE	CHANGED BY	APPROVED																				
	A	INITIAL RELEASE	10/18/2024	KDANG	RWANGLE																				
SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV																					
A	53919	KDANG	PE3W13727	A																					

- 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.