

## SMA Female to TNC Female Low Loss Cable Using LMR-100 Coax



### PE3C7542

#### Configuration

- Connector 1: SMA Female
- Connector 2: TNC Female
- Cable Type: LMR-100A
- Coax Flex Type: Flexible

#### Features

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- PVC Jacket



#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3C7542 SMA female to TNC female 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 SMA to TNC cable assembly has a female to female gender configuration with 50 ohm flexible LMR-100A coax. The PE3C7542 SMA female to TNC female 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.

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		5.8	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]

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#### 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	
PE3C7542	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	
PE3C7542-24	24 In	Insertion Loss (Typ.)	0.43	0.53	0.68	1	1.49	dB	0.043
PE3C7542-36	36 In	Insertion Loss (Typ.)	0.55	0.7	0.92	1.4	2.13	dB	0.052
PE3C7542-48	48 In	Insertion Loss (Typ.)	0.66	0.86	1.16	1.8	2.77	dB	0.061
PE3C7542-100CM	100 CM	Insertion Loss (Typ.)	0.58	0.75	0.99	1.51	2.31	dB	0.055
PE3C7542-200CM	200 CM	Insertion Loss (Typ.)	0.96	1.29	1.78	2.82	4.41	dB	0.085

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:	0.1 dB
Loss due to Connector 2:	0.1 dB
Base Weight:	0.034 pounds
Additional Weight per Inch:	0.00075 pounds

#### Mechanical Specifications

##### Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.034 lbs [15.42 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]
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]

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#### Connectors

Description	Connector 1	Connector 2
Type	SMA Female	TNC Female
Specification	MIL-STD-348	MIL-STD-348
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles	100	
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Brass, Nickel	
Body Material and Plating	Brass, Nickel	Brass, Nickel

#### Environmental Specifications

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

#### Plotted and Other Data

Notes:

SMA Female to TNC Female Low Loss Cable Using LMR-100 Coax



**PE3C7542**

**Typical Performance Data**

**How to Order**

Part Number Configuration:

**PE3C7542**

**- xx**

**uu**

Unit of Measure:  
cm = Centimeters  
<blank> = Inches

Length

Base Number

Example: PE3C7542-12 = 12 inches long cable  
PE3C7542-100cm = 100 cm long cable

SMA Female to TNC Female Low Loss 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.

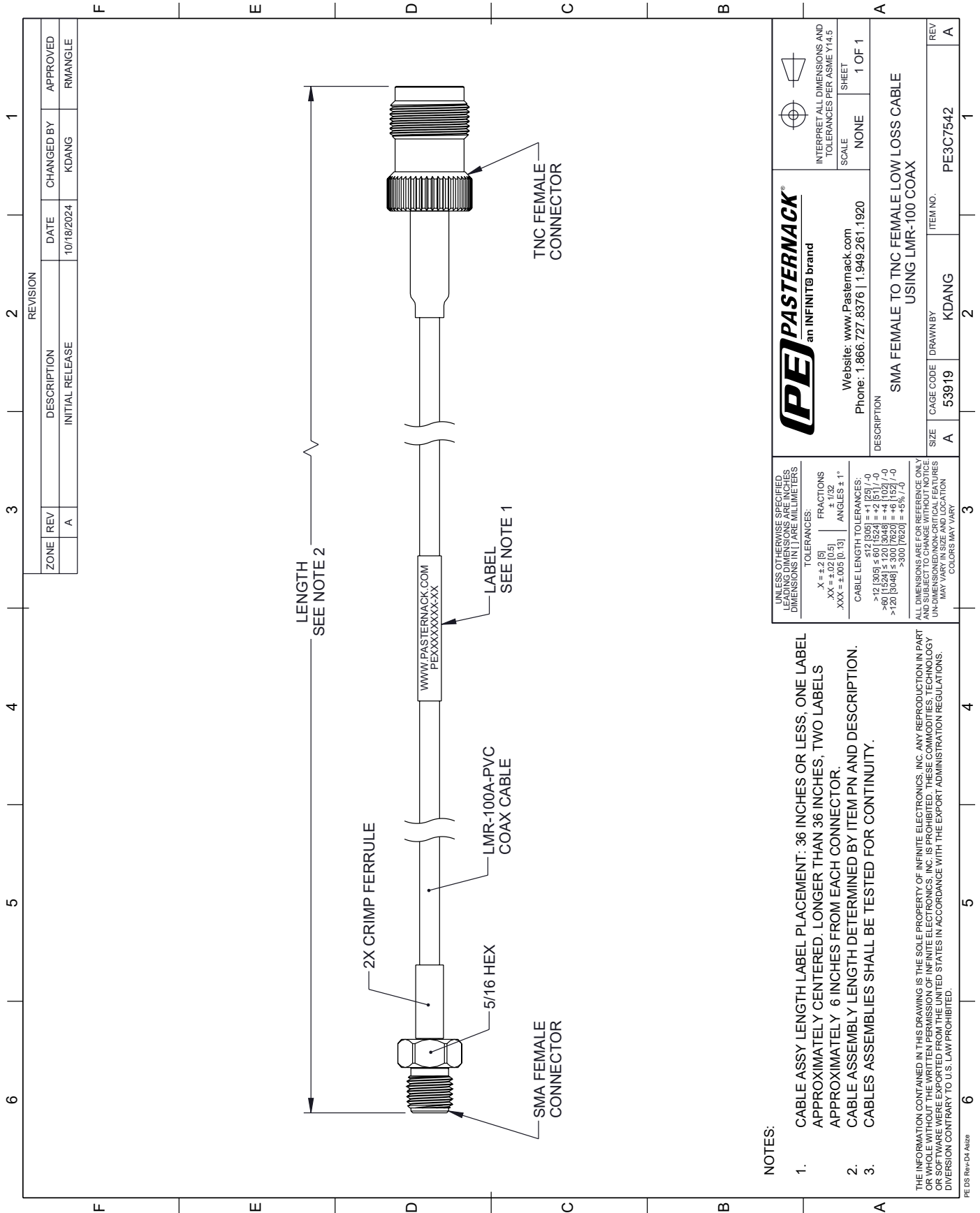
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Female to TNC Female Low Loss Cable Using LMR-100 Coax PE3C7542](#)

URL: <https://www.pasternack.com/sma-female-to-tnc-female-low-loss-cable-using-lmr-100-pe3c7542-p.aspx>

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# PE3C7542 CAD Drawing

SMA Female to TNC Female Low Loss Cable Using LMR-100 Coax



**NOTES:**

1. 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.
2. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.
3. CABLES ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

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PE DS Rev-04 A1822

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN PARE MILLIMETERS	
TOLERANCES:	
.X = ±.2 [5]	FRACTIONS ± 1/32
.XX = ±.02 [0.5]	ANGLES ± 1°
.XXX = ±.005 [0.13]	
CABLE LENGTH TOLERANCES:	
>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	
ALL DIMENSIONS ARE FOR REFERENCE ONLY UNLESS OTHERWISE SPECIFIED. DIMENSIONS ON CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY	

Website: <a href="http://www.Pasternack.com">www.Pasternack.com</a> Phone: 1.866.727.8376   1.949.261.1920	
INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5	SCALE: NONE SHEET: 1 OF 1
DESCRIPTION: SMA FEMALE TO TNC FEMALE LOW LOSS CABLE USING LMR-100 COAX	
SIZE: A	CAGE CODE: 53919 DRAWN BY: KDANG
ITEM NO.: PE3C7542	REV: A