

SMA Male to TNC Female Low Loss Cable Using LMR-240 Coax with HeatShrink



PE3W17553/HS

Configuration

- Connector 1: SMA Male
- Connector 2: TNC Female
- Cable Type: LMR-240
- Coax Flex Type: Flexible

Features

- Max Frequency 6 GHz
- Shielding Effectivity > 90 dB
- 84% Phase Velocity
- Double Shielded
- PE Jacket



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W17553/HS SMA male to TNC female cable using LMR-240 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 male to female gender configuration with 50 ohm flexible LMR-240 coax. The PE3W17553/HS SMA male to TNC female cable assembly operates to 6 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		6	GHz
VSWR			1.4:1	
Velocity of Propagation		84		%
RF Shielding	90			dB
Group Delay		1.21 [3.97]		ns/ft [ns/m]
Capacitance		24.2 [79.4]		pF/ft [pF/m]
Inductance		0.06 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		3.2 [10.5]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		3.89 [12.76]		Ohms/1000ft [Ohms/Km]

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Jacket Spark			5,000	Vrms

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency					MHz	
PE3W17553/HS	Custom Lengths Available	Insertion Loss (Typ.)	0.039	0.056	0.076	0.129	0.204	dB/ft	
			0.13	0.19	0.25	0.43	0.67	dB/m	
PE3W17553/HS-12	12 inch	Insertion Loss (Typ.)	0.53	0.55	0.57	0.62	0.7	dB	0.153
PE3W17553/HS-24	24 inch	Insertion Loss (Typ.)	0.57	0.61	0.65	0.75	0.9	dB	0.186
PE3W17553/HS-36	36 inch	Insertion Loss (Typ.)	0.61	0.66	0.72	0.88	1.11	dB	0.219
PE3W17553/HS-48	48 inch	Insertion Loss (Typ.)	0.65	0.72	0.8	1.01	1.31	dB	0.252
PE3W17553/HS-60	60 inch	Insertion Loss (Typ.)	0.69	0.77	0.87	1.14	1.51	dB	0.285

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:	0.24 dB
Base Weight:	0.153 pounds
Additional Weight per Inch:	0.00275 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.12 lbs [54.43 g]

Cable

Cable Type	LMR-240
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper
Dielectric Type	PE (F)
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper Braid
Jacket Material	PE, Black
Jacket Diameter	0.24 in [6.1 mm]
One Time Minimum Bend Radius	0.153 in [3.89 mm]
Repeated Minimum Bend Radius	2.5 in [63.5 mm]
Bending Moment	0.25 lbs-ft [0.34 N-m]
Flat Plate Crush	20 lbs/in [0.36 Kg/mm]
Tensile Strength	80 lbs [36.29 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Male	TNC Female
Specification	MIL-STD-348	
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles		500
Contact Material and Plating	Beryllium Copper, Gold	Brass, Tri-Metal
Contact Plating Specification	ASTM B488	80 μin minimum
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Brass, Tri-Metal	
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification		80 μin minimum
Coupling Nut Material and Plating	Brass, Tri-Metal	
Hex Size	5/16 Inch	

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

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

Plotted and Other Data

Notes:

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Typical Performance Data

How to Order

Part Number Configuration:

PE3W17553/HS - xx uu



Example: PE3W17553/HS-12 = 12 inches long cable
PE3W17553/HS-100cm = 100 cm long cable

SMA Male to TNC Female Low Loss Cable Using LMR-240 Coax with HeatShrink 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.

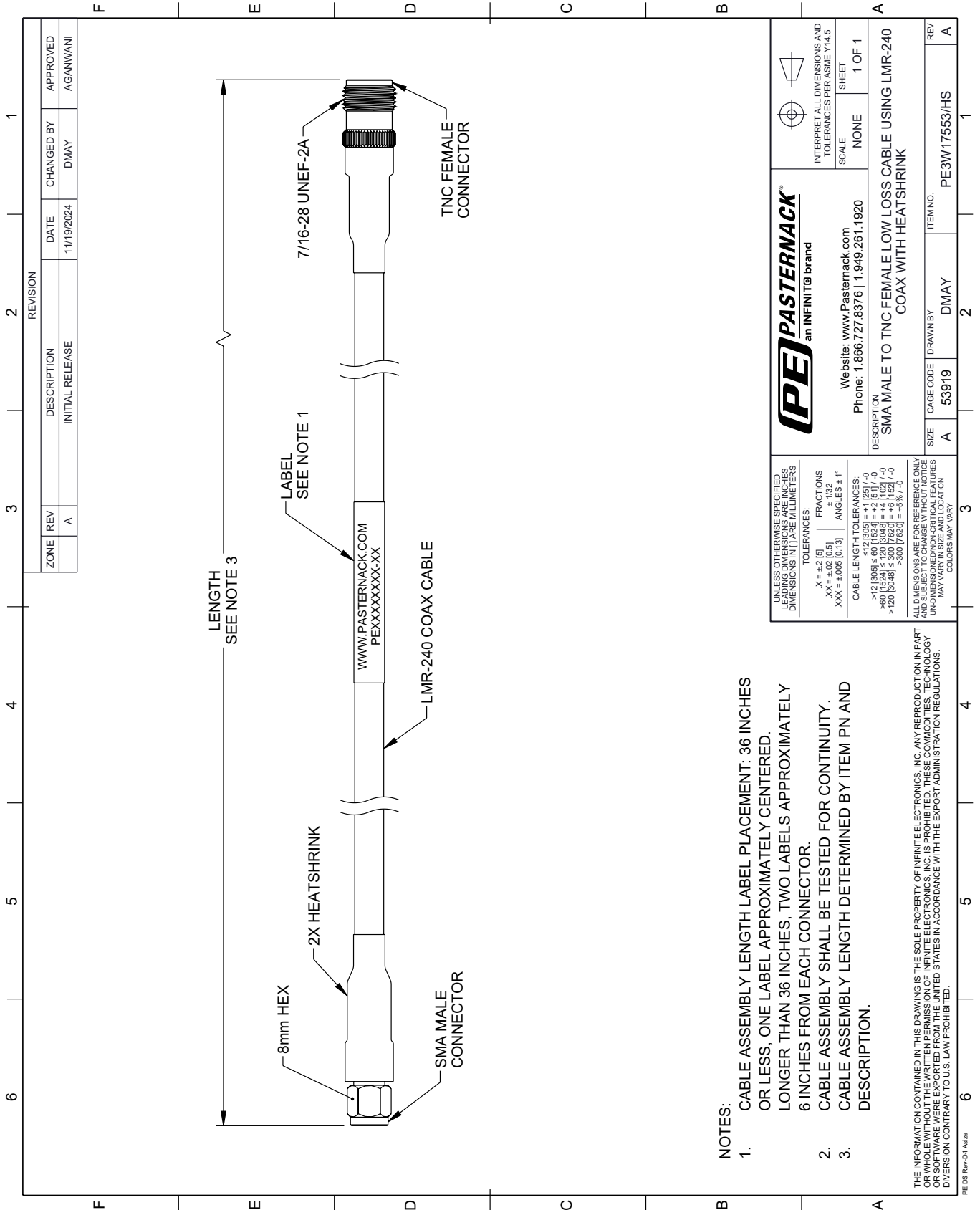
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Male to TNC Female Low Loss Cable Using LMR-240 Coax with HeatShrink PE3W17553/HS](#)

URL: <https://www.pasternack.com/sma-male-to-tnc-female-low-loss-cable-using-lmr-240-with-heatshrink-pe3w17553-hs-p.aspx>

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PE3W17553/HS CAD Drawing

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NOTES:

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

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	<p>DESCRIPTION: SMA MALE TO TNC FEMALE LOW LOSS CABLE USING LMR-240 COAX WITH HEATSHRINK</p>	<p>ITEM NO.: PE3W17553/HS</p>

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND TRAILING DIMENSIONS ARE IN MILLIMETERS.

TOLERANCES:

.X = ±.2 [5]	FRACTIONS ± 1/32
.XX = ±.02 [0.5]	ANGLES ± 1°
.XXX = ±.005 [0.13]	

CABLE LENGTH TOLERANCES:

<12 [305]	±.005 [0.125]
>12 [305] < 60 [1524]	±.01 [0.25]
>60 [1524] < 120 [3048]	±.02 [0.5]
>120 [3048]	±.03 [0.75]

ALL DIMENSIONS ARE FOR REFERENCE ONLY. DIMENSIONS OF CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.