

TNC Male to SMA Male Low Loss Cable Using LMR-100 Coax with HeatShrink, LF Solder



PE3W07180LF/HS

Configuration

- Connector 1: TNC Male
- Connector 2: SMA Male
- Cable Type: LMR-100A
- 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 PE3W07180LF/HS TNC male to SMA 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 TNC to SMA cable assembly has a male to male gender configuration with 50 ohm flexible LMR-100A coax. The PE3W07180LF/HS TNC male to SMA 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]

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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	
PE3W07180LF/HS	Custom Lengths Available	Insertion Loss (Typ.)	0.064	0.115	0.165	0.24	0.432	dB/ft	
			0.21	0.38	0.55	0.79	1.42	dB/m	
PE3W07180LF/HS-24	24 In	Insertion Loss (Typ.)	0.33	0.43	0.53	0.68	1.07	dB	0.064
PE3W07180LF/HS-36	36 In	Insertion Loss (Typ.)	0.4	0.55	0.7	0.92	1.5	dB	0.073
PE3W07180LF/HS-48	48 In	Insertion Loss (Typ.)	0.46	0.66	0.86	1.16	1.93	dB	0.082
PE3W07180LF/HS-100CM	100 CM	Insertion Loss (Typ.)	0.41	0.58	0.75	0.99	1.62	dB	0.076
PE3W07180LF/HS-200CM	200 CM	Insertion Loss (Typ.)	0.62	0.96	1.29	1.78	3.04	dB	0.106

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:	0.055 pounds
Additional Weight per Inch:	0.00075 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.046 lbs [20.87 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	TNC Male	SMA Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	30 µin minimum	
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Gold
Body Plating Specification	100 µin minimum	
Coupling Nut Material and Plating	Brass, Nickel	Brass, Gold
Coupling Nut Plating Specification	100 µin minimum	
Hex Size		5/16 in
Torque		5 in-lbs 0.57 Nm

Environmental Specifications

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

Plotted and Other Data

Notes:

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PE3W07180LF/HS

Typical Performance Data

How to Order

Part Number Configuration:

PE3W07180LF/HS - xx uu

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

Length

Base Number

Example: PE3W07180LF/HS-12 = 12 inches long cable
PE3W07180LF/HS-100cm = 100 cm long cable

TNC Male to SMA Male Low Loss Cable Using LMR-100 Coax with HeatShrink, LF Solder 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.

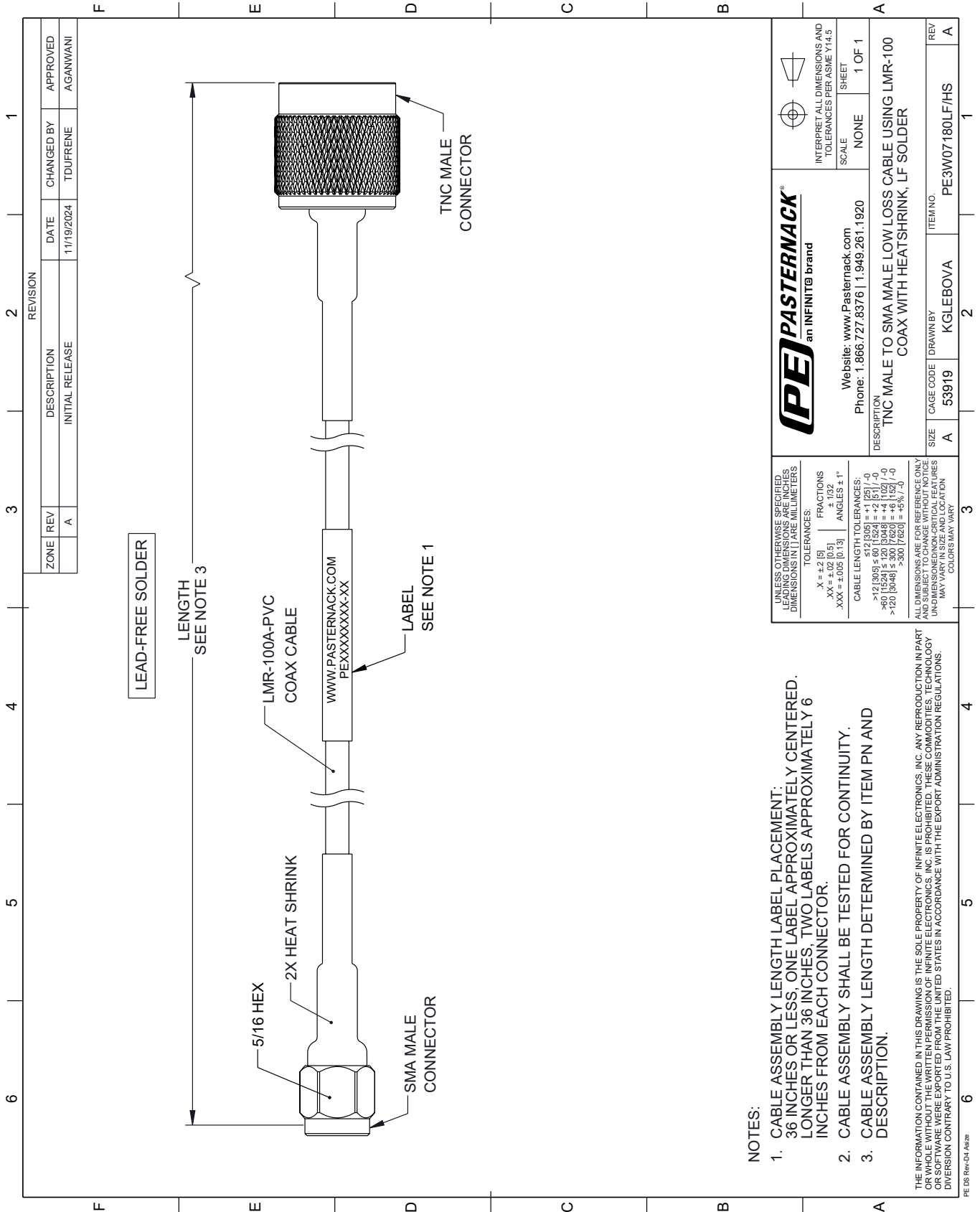
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [TNC Male to SMA Male Low Loss Cable Using LMR-100 Coax with HeatShrink, LF Solder PE3W07180LF/HS](#)

URL: <https://www.pasternack.com/tnc-male-to-sma-male-low-loss-cable-using-lmr-100-with-heatshrink-lf-solder-pe3w07180lf-hs-p.aspx>

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PE3W07180LF/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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PE DS Rev-04 Add2

REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV			
	A	11/19/2024	TDURENE	AGANWANI
DESCRIPTION				
INITIAL RELEASE				

		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5	
		SCALE	SHEET
Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920		NONE	1 OF 1
DESCRIPTION TNC MALE TO SMA MALE LOW LOSS CABLE USING LMR-100 COAX WITH HEATSHRINK, LF SOLDER			
SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	53919	KGLEBOVA	PE3W07180LF/HS
REV			A

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE MILLIMETERS.

TOLERANCES:

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

CABLE LENGTH TOLERANCES:

>12 [305] ≤ 60 [1524]	± 1 [25] / -0
>60 [1524] ≤ 120 [3048]	± 4 [102] / -0
>120 [3048] ≤ 300 [7620]	± 8 [203] / -0
>300 [7620]	± 16 [406] / -0

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