

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



### PE3W12168/HS

#### Configuration

- Connector 1: SMA Female
- Connector 2: TNC Male
- 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 PE3W12168/HS SMA female to TNC male 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 female to male gender configuration with 50 ohm flexible LMR-240 coax. The PE3W12168/HS SMA female to TNC male 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	
PE3W12168/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	
PE3W12168/HS-12	12 inch	Insertion Loss (Typ.)	0.24	0.26	0.28	0.33	0.41	dB	0.095
PE3W12168/HS-24	24 inch	Insertion Loss (Typ.)	0.28	0.32	0.36	0.46	0.61	dB	0.128
PE3W12168/HS-36	36 inch	Insertion Loss (Typ.)	0.32	0.37	0.43	0.59	0.82	dB	0.161
PE3W12168/HS-48	48 inch	Insertion Loss (Typ.)	0.36	0.43	0.51	0.72	1.02	dB	0.194
PE3W12168/HS-60	60 inch	Insertion Loss (Typ.)	0.4	0.48	0.58	0.85	1.22	dB	0.227

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:	0.095 pounds
Additional Weight per Inch:	0.00275 pounds

#### Mechanical Specifications

##### Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.062 lbs [28.12 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	0.75 in [19.05 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 Female	TNC Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles		500
Contact Material and Plating	Beryllium Copper, Gold	Phosphor Bronze, Gold
Contact Plating Specification		50μ in. minimum
Dielectric Type	PTFE	Teflon
Body Material and Plating	Brass, Gold	Brass, Tri-Metal
Body Plating Specification		80μ in. minimum
Coupling Nut Material and Plating		Brass, Tri-Metal
Coupling Nut Plating Specification		80μ in. minimum
Torque		20 in-lbs 2.26 Nm

**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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**PE3W12168/HS**

**Typical Performance Data**

**How to Order**

Part Number Configuration:

**PE3W12168/HS - xx uu**



Example: PE3W12168/HS-12 = 12 inches long cable  
PE3W12168/HS-100cm = 100 cm long cable

SMA Female to TNC Male 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 Female to TNC Male Low Loss Cable Using LMR-240 Coax with HeatShrink PE3W12168/HS](https://www.pasternack.com/sma-female-to-tnc-male-low-loss-cable-using-lmr-240-with-heatshrink-pe3w12168-hs)

URL: <https://www.pasternack.com/sma-female-to-tnc-male-low-loss-cable-using-lmr-240-with-heatshrink-pe3w12168-hs-p.aspx>

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# PE3W12168/HS CAD Drawing

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

