

## TNC Male to TNC Male Right Angle Low Loss Cable Using LMR-195-UF Coax with HeatShrink



### PE3W13456/HS

#### Configuration

- Connector 1: TNC Male
- Connector 2: TNC Male Right Angle
- Cable Type: LMR-195-UF
- Coax Flex Type: Flexible

#### Features

- Max Frequency 3 MHz
- Shielding Effectivity > 90 dB
- 74% Phase Velocity
- Double Shielded
- TPE Jacket

#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3W13456/HS TNC male to TNC male right angle cable using LMR-195-UF 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-195-UF coax. The PE3W13456/HS TNC male to TNC male cable assembly operates to 3 MHz. The right angle TNC interface on the LMR-195-UF cable allows for easier connections in tight spaces. 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			1.35:1	
Velocity of Propagation		74		%
RF Shielding	90			dB
Group Delay		1.27 [4.17]		ns/ft [ns/m]
Capacitance		25.4 [83.33]		pF/ft [pF/m]
Inductance		0.064 [0.21]		uH/ft [uH/m]
DC Resistance Inner Conductor		9.5 [31.17]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		4.9 [16.08]		Ohms/1000ft [Ohms/Km]
Operating Voltage (AC)			500	Vrms

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**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Jacket Spark			3,000	Vrms

**Specifications by Frequency**

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency					MHz	
PE3W13456/HS	Custom Lengths Available	Insertion Loss (Typ.)	0.042	0.068	0.097	0.132	0.246	dB/ft	
			0.14	0.23	0.32	0.44	0.81	dB/m	
PE3W13456/HS-12	12 Inch	Insertion Loss (Typ.)	0.35	0.37	0.4	0.44	0.55	dB	0.116
PE3W13456/HS-24	24 Inch	Insertion Loss (Typ.)	0.39	0.44	0.5	0.57	0.8	dB	0.137
PE3W13456/HS-36	36 Inch	Insertion Loss (Typ.)	0.43	0.51	0.6	0.7	1.04	dB	0.158
PE3W13456/HS-60	60 Inch	Insertion Loss (Typ.)	0.51	0.64	0.79	0.96	1.53	dB	0.2
PE3W13456/HS-300	300 Inch	Insertion Loss (Typ.)	1.35	2	2.73	3.6	6.45	dB	0.62

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:	0.2 dB
Base Weight:	0.116 pounds
Additional Weight per Inch:	0.00175 pounds

Electrical Specification Notes:  
Values at 25°C, sea level.

**Mechanical Specifications**

**Cable Assembly**

Width/Diameter	0.5 in [12.7 mm]
Weight	0.095 lbs [43.09 g]

**Cable**

Cable Type	LMR-195-UF
Impedance	50 Ohms
Inner Conductor Type	Stranded
Inner Conductor Material and Plating	Copper
Dielectric Type	Foam PE
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper
Jacket Material	TPE, Black
Jacket Diameter	0.195 in [4.95 mm]
One Time Minimum Bend Radius	0.5 in [12.7 mm]
Repeated Minimum Bend Radius	2 in [50.8 mm]
Bending Moment	0.1 lbs-ft [0.14 N-m]
Flat Plate Crush	10 lbs/in [0.18 Kg/mm]
Tensile Strength	40 lbs [18.14 Kg]

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**Connectors**

Description	Connector 1	Connector 2
Type	TNC Male	TNC Male Right Angle
Specification		MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Right Angle
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:  
Values at 25°C, sea level.

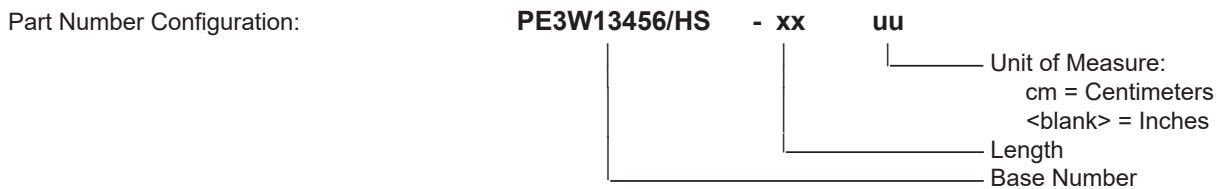
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**PE3W13456/HS**

**Typical Performance Data**

**How to Order**



Example: PE3W13456/HS-12 = 12 inches long cable  
PE3W13456/HS-100cm = 100 cm long cable

TNC Male to TNC Male Right Angle Low Loss Cable Using LMR-195-UF 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: [TNC Male to TNC Male Right Angle Low Loss Cable Using LMR-195-UF Coax with HeatShrink PE3W13456/HS](#)

URL: <https://www.pasternack.com/tnc-male-to-tnc-male-low-loss-cable-using-lmr-195-uf-with-heatshrink-pe3w13456-hs-p.aspx>

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# PE3W13456/HS CAD Drawing

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