



## TNC Male to SMA Male Low Loss Cable Using LMR-195-FR Coax

### RF Cable Assemblies Technical Data Sheet

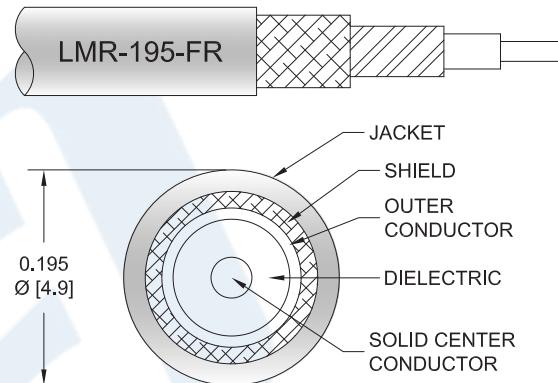
PE3W04028

#### Configuration

- Connector 1: TNC Male
- Connector 2: SMA Male
- Cable Type: LMR-195-FR

#### Features

- Max Frequency 2 GHz
- Shielding Effectivity > 90 dB
- 76% Phase Velocity
- Double Shielded
- FRPE Jacket



#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3W04028 TNC male to SMA male cable using LMR-195-FR 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-195-FR coax. The PE3W04028 TNC male to SMA male cable assembly operates to 2 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.

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-195-FR Coax PE3W04028](#)



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#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		2	GHz
VSWR			1.4:1	
Velocity of Propagation		76		%
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		7.6 [24.93]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		4.9 [16.08]		Ohms/1000ft [Ohms/Km]
Jacket Spark			3,000	Vrms

#### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.1	0.25	0.5	1	2	GHz
Insertion Loss (Max.)	0.04	0.06	0.09	0.12	0.17	dB/ft
	0.13	0.2	0.3	0.39	0.56	dB/m

#### Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.2dB of connector loss.

#### Mechanical Specifications

##### Cable Assembly

Diameter 0.591 in [15.01 mm]

##### Cable

Cable Type LMR-195-FR  
 Impedance 50 Ohms  
 Inner Conductor Type Solid  
 Inner Conductor Material and Plating Copper  
 Dielectric Type PE  
 Number of Shields 2  
 Shield Layer 1 Aluminum Tape  
 Shield Layer 2 Tinned Copper Braid

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Jacket Material	FRPE, 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	0.2 lbs-ft [0.27 N-m]
Flat Plate Crush	15 lbs/in [0.27 Kg/mm]
Tensile Strength	40 lbs [18.14 Kg]

#### Connectors

Description	Connector 1	Connector 2
Type	TNC Male	SMA Male
Specification		MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	30 $\mu$ in minimum	50 $\mu$ in minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	100 $\mu$ in minimum	100 $\mu$ in minimum
Coupling Nut Material and Plating	Brass, Nickel	Brass, Nickel
Coupling Nut Plating Specification	100 $\mu$ in minimum	100 $\mu$ in minimum
Hex Size		5/16 inch
Torque		3 in-lbs [0.34 Nm]

#### Mechanical Specification Notes:

\*All cable assemblies have a length tolerance of 1.5% or  $\pm$  3/8", whichever is greater.

#### Environmental Specifications

##### Temperature

Operating Range

-40 to +85 deg C

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

#### Plotted and Other Data

Notes:

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## TNC Male to SMA Male Low Loss Cable Using LMR-195-FR Coax

### RF Cable Assemblies Technical Data Sheet

PE3W04028

#### How to Order

Part Number Configuration:

**PE3W04028**

- **xx**

**uu**

Unit of Measure:  
cm = Centimeters  
<blank> = Inches  
Length  
Base Number

Example: PE3W04028-12 = 12 inches long cable  
PE3W04028-100cm = 100 cm long cable

TNC Male to SMA Male Low Loss Cable Using LMR-195-FR 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.

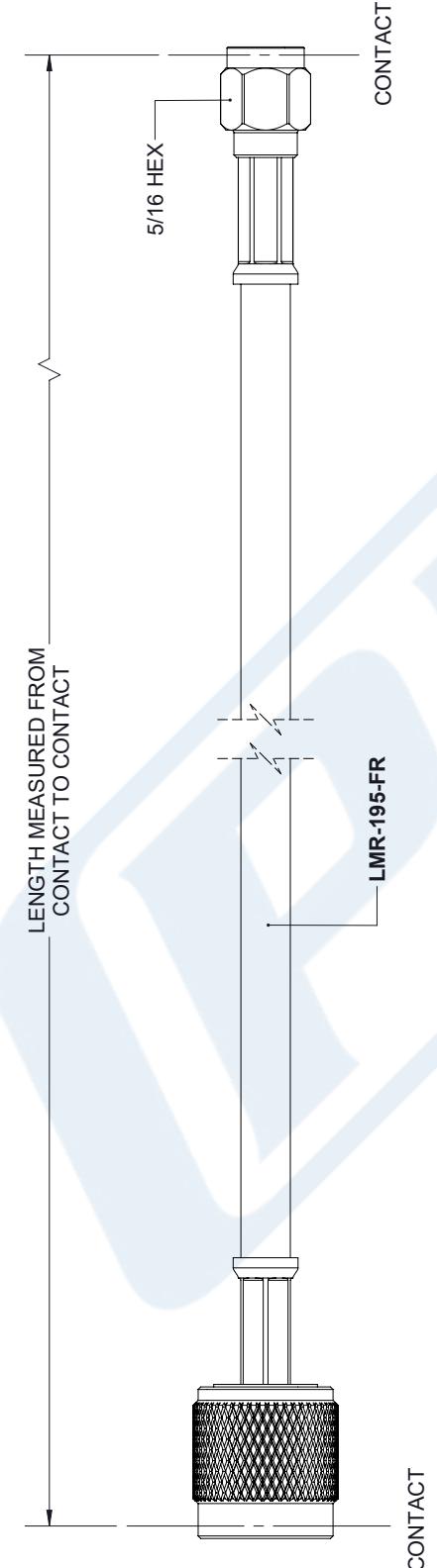
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URL: <https://www.pasternack.com/tnc-male-sma-male-lmr195fr-cable-assembly-pe3w04028-p.aspx>

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**PE3W04028 CAD Drawing**  
TNC Male to SMA Male Low Loss Cable Using LMR-195-FR Coax

REVISIONS					
REV.	DESCRIPTION	DATE	APPROVED		
A	INITIAL RELEASE	04/23/19	S.ELLIS		



LENGTH MEASURED FROM  
CONTACT TO CONTACT

TOLERANCES:  
X=± .2 [5.08]      FRACTIONS:  
.XX=± .01 [ .25 ]      ± 1/32  
.XXX=± .005 [ .13 ]      ANGLES ± 1°

ALL DIMENSIONS SHOWN  
ARE FOR REFERENCE ONLY.  
THIRD-ANGLE PROJECTION

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

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SHEET 1 OF 1  
SCALE N/A  
PART NUMBER PE3W04028  
REV A

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