

TNC Male to TNC Male Low Loss Cable Using LMR-200-FR Coax with HeatShrink



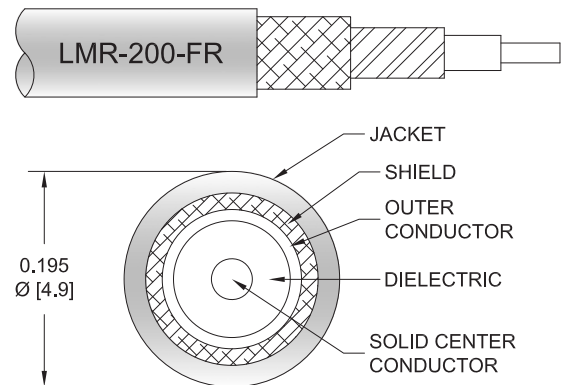
PE3C6870/HS

Configuration

- Connector 1: TNC Male
- Connector 2: TNC Male
- Cable Type: LMR-200-FR
- Coax Flex Type: Flexible

Features

- Max Frequency 6 GHz
- Shielding Effectivity > 90 dB
- 83% Phase Velocity
- Double Shielded
- FRPE Jacket



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3C6870/HS TNC male to TNC male cable using LMR-200-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 TNC cable assembly has a male to male gender configuration with 50 ohm flexible LMR-200-FR coax. The PE3C6870/HS TNC male 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		83		%
RF Shielding	90			dB
Group Delay		1.22 [4]		ns/ft [ns/m]
Capacitance		24.5 [80.38]		pF/ft [pF/m]
Inductance		0.061 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		5.36 [17.59]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		4.9 [16.08]		Ohms/1000ft [Ohms/Km]

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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	
PE3C6870/HS	Custom Lengths Available	Insertion Loss (Typ.)	0.051	0.073	0.104	0.169	0.264	dB/ft	
			0.17	0.24	0.35	0.56	0.87	dB/m	
PE3C6870/HS-24	24 inch	Insertion Loss (Typ.)	0.31	0.35	0.41	0.54	0.73	dB	0.157
PE3C6870/HS-36	36 inch	Insertion Loss (Typ.)	0.36	0.42	0.52	0.71	1	dB	0.185
PE3C6870/HS-48	48 inch	Insertion Loss (Typ.)	0.41	0.5	0.62	0.88	1.26	dB	0.213
PE3C6870/HS-60	60 inch	Insertion Loss (Typ.)	0.46	0.57	0.72	1.05	1.52	dB	0.241
PE3C6870/HS-72	72 inch	Insertion Loss (Typ.)	0.51	0.64	0.83	1.22	1.79	dB	0.269

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:	0.128 pounds
Additional Weight per Inch:	0.00234 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.1 lbs [45.36 g]

Cable

Cable Type	LMR-200-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
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	2 lbs-ft [2.71 N-m]
Flat Plate Crush	15 lbs/in [0.27 Kg/mm]
Tensile Strength	40 lbs [18.14 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	TNC Male	TNC Male
Specification	MIL-STD-348	MIL-STD-348
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Hex Size	5/8 Inch	5/8 Inch

Environmental Specifications

Operating Range Temperature -40 to +165 deg C

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

Plotted and Other Data

Notes:

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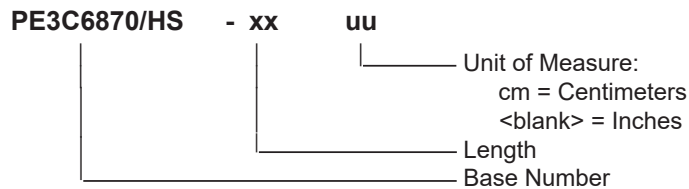


PE3C6870/HS

Typical Performance Data

How to Order

Part Number Configuration:



Example: PE3C6870/HS-12 = 12 inches long cable
PE3C6870/HS-100cm = 100 cm long cable

TNC Male to TNC Male Low Loss Cable Using LMR-200-FR 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 Low Loss Cable Using LMR-200-FR Coax with HeatShrink PE3C6870/HS](#)

URL: <https://www.pasternack.com/tnc-male-to-tnc-male-low-loss-cable-using-lmr-200-fr-with-heatshrink-pe3c6870-hs-p.aspx>

The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to implement improvements. Pasternack Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

PE3C6870/HS CAD Drawing

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