



## SMA Female Bulkhead to SMA Male Right Angle Low Loss Cable 48 Inch Length Using LMR-195 Coax with HeatShrink

### RF Cable Assemblies Technical Data Sheet

PE3C4769/HS-48

#### Configuration

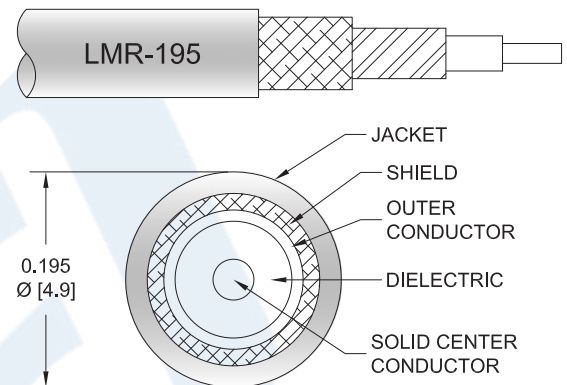
- Connector 1: SMA Female Bulkhead
- Connector 2: SMA Male Right Angle
- Cable Type: LMR-195

#### Features

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 80% Phase Velocity
- Double Shielded
- PE Jacket

#### Applications

- General Purpose
- Laboratory Use



#### Description

Pasternack's PE3C4769/HS-48 SMA female bulkhead to SMA male right angle 48 inch cable using LMR-195 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 SMA cable assembly has a female to male gender configuration with 50 ohm flexible LMR-195 coax. The PE3C4769/HS-48 SMA female to SMA male cable assembly operates to 5.8 GHz. The right angle SMA interface on the LMR-195 cable allows for easier connections in tight spaces. Our RF cable assembly with SMA bulkhead interface allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications. 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: [SMA Female Bulkhead to SMA Male Right Angle Low Loss Cable 48 Inch Length Using LMR-195 Coax with HeatShrink PE3C4769/HS-48](#)



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### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		5.8	GHz
VSWR			1.4:1	
Velocity of Propagation		80		%
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]		$\Omega$ /1000ft [ $\Omega$ /Km]
DC Resistance Outer Conductor		4.9 [16.08]		$\Omega$ /1000ft [ $\Omega$ /Km]
Jacket Spark			3,000	Vrms

### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.25	0.5	1	2.5	5.8	GHz
Insertion Loss (Typ.)	0.5	0.62	0.78	1.06	1.5	dB

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax cable and connectors used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.1 dB for the straight connector and 0.2 dB for the right angle connector.

### Mechanical Specifications

#### Cable Assembly

Length\* 48 in [121.92 cm]  
Diameter 0.433 in [11 mm]

#### Cable

Cable Type LMR-195  
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

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Jacket Material	PE, 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	SMA Female Bulkhead	SMA Male Right Angle
Specification	MIL-STD-348A	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Specification	50µ in. minimum	50 µin minimum
Dielectric Type	Teflon	PTFE
Outer Conductor Material and Plating	Brass, Gold	
Outer Conductor Plating Specification	3µ in. minimum	
Body Material and Plating	Brass, Gold	Brass, Nickel
Body Plating Specification	3µ in. minimum	100 µin minimum
Coupling Nut Material and Plating		Brass, Nickel
Coupling Nut Plating Specification		100 µin minimum
Hex Size		5/16 inch
Torque		3 in-lbs [0.34 Nm]

### Environmental Specifications

#### Temperature

Operating Range -20 to +80 deg C

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

### Plotted and Other Data

Notes:

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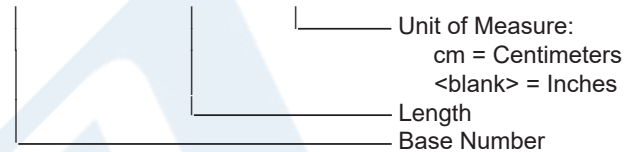
RF Cable Assemblies Technical Data Sheet

PE3C4769/HS-48

**How to Order**

Part Number Configuration:

**PE3C4769/HS - xx uu**



Example: PE3C4769/HS-12 = 12 inches long cable  
PE3C4769/HS-100cm = 100 cm long cable

SMA Female Bulkhead to SMA Male Right Angle Low Loss Cable 48 Inch Length Using LMR-195 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 Bulkhead to SMA Male Right Angle Low Loss Cable 48 Inch Length Using LMR-195 Coax with HeatShrink PE3C4769/HS-48](https://www.pasternack.com/sma-female-sma-male-lmr195-cable-assembly-pe3c4769-hs-48-p.aspx)

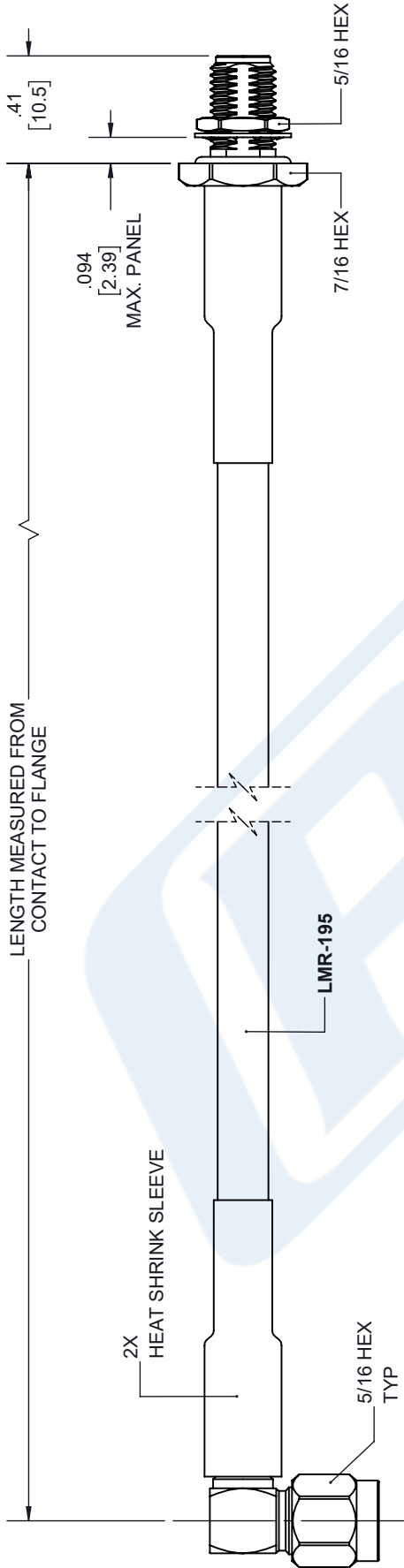
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements.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

# PE3C4769/HS-48 CAD Drawing

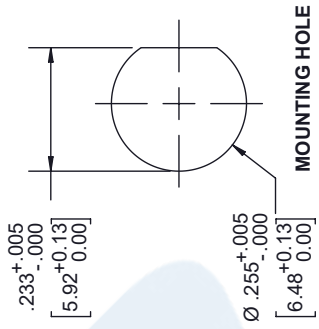
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REVISIONS		
REV.	DESCRIPTION	DATE
A	INITIAL RELEASE	11/30/2020
		APPROVED S. ELLIS



**SMA FEMALE  
BULKHEAD**

**SMA MALE  
RA**



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

**TOLERANCES:**

.X = ±.2 [ .508]    FRACTIONS ± 1/32  
.XX = ±.02 [ .51]    ANGLES ± 1°  
.XXX = ±.005 [ .13]

**CABLE LENGTH (L), TOLERANCES:**

L ≤ 12 [305] = +1 [25] / -0  
12 [305] < L ≤ 60 [1524] = +2 [51] / -0  
60 [1524] < L ≤ 120 [3048] = +4 [102] / -0  
120 [3048] < L ≤ 300 [7620] = +6 [152] / -0  
300 [7620] < L = +5% / -0

ALL DIMENSIONS SHOWN  
ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

REV A

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