

SMA Male to SMA Male Low PIM Cable 12 Inch Length Using TCOM-195 Coax

PE3W19294-12

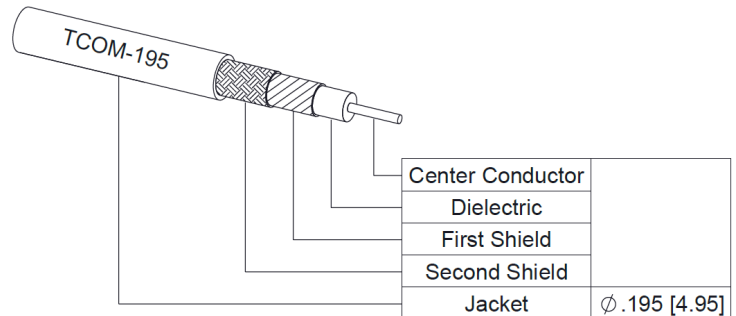


Configuration

- Connector 1: SMA Male
- Connector 2: SMA Male
- Cable Type: TCOM-195
- Coax Flex Type: Flexible

Features

- Max Frequency 12.4 GHz
- Low PIM: -155 dBc Max
- 80% Phase Velocity
- Triple Shielded
- PE Jacket



Applications

- General Purpose
- Laboratory Use
- Low PIM Applications

Description

Pasternack's PE3W19294-12 SMA male to SMA male 12 inch cable using TCOM-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 male to male gender configuration with 50 ohm flexible TCOM-195 coax. The PE3W19294-12 SMA male to SMA male cable assembly operates to 12.4 GHz. Our low PIM design also offers excellent passive intermodulation performance with PIM levels better than -155 dBc. The triple shielding of this Pasternack cable assembly provides excellent shielding effectiveness.

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		12.4	GHz
VSWR			1.4:1	
Velocity of Propagation		80		%
Group Delay		1.27 [4.17]		ns/ft [ns/m]
Passive Intermodulation			-155	dBc
IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz				
Capacitance		25.4 [83.33]		pF/ft [pF/m]
Inductance		0.064 [0.21]		uH/ft [uH/m]
DC Resistance Inner Conductor		7.16 [23.49]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		3.42 [11.22]		Ohms/1000ft [Ohms/Km]

SMA Male to SMA Male Low PIM Cable 12 Inch Length Using TCOM-195 Coax

PE3W19294-12



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	500	1000	2500	5000	12400	MHz	
PE3W19294	Custom Lengths Available	Insertion Loss (Typ.)	0.083	0.115	0.186	0.27	0.435	dB/ft	
			0.28	0.38	0.62	0.89	1.43	dB/m	
PE3W19294-12	12 In	Insertion Loss (Typ.)	0.29	0.32	0.39	0.47	0.64	dB	0.067
PE3W19294-24	24 In	Insertion Loss (Typ.)	0.37	0.43	0.58	0.74	1.07	dB	0.103
PE3W19294-36	36 In	Insertion Loss (Typ.)	0.45	0.55	0.76	1.01	1.51	dB	0.138
PE3W19294-48	48 In	Insertion Loss (Typ.)	0.54	0.66	0.95	1.28	1.94	dB	0.173
PE3W19294-60	60 In	Insertion Loss (Typ.)	0.62	0.78	1.13	1.55	2.38	dB	0.208

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:	0.067 pounds
Additional Weight per Inch:	0.00292 pounds

Mechanical Specifications

Cable Assembly

Length	12 in [304.8 mm]
Width/Diameter	.5 in [12.7 mm]
Weight	0.067 lbs [30.39 g]

Cable

Cable Type	TCOM-195
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper
Dielectric Type	PE (F)
Number of Shields	3
Shield Layer 1	Silver Plated Copper Braid
Shield Layer 2	Tinned Copper Braid over Aluminum Tape
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]

SMA Male to SMA Male Low PIM Cable 12 Inch Length Using TCOM-195 Coax



PE3W19294-12

Connectors

Description	Connector 1	Connector 2
Type	SMA Male	SMA Male
Specification	MIL-STD-348A	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	50 µin minimum	50 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
Hex Size	5/16 inch	5/16 inch
Torque	3 in-lbs 0.34 Nm	3 in-lbs 0.34 Nm

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

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

Plotted and Other Data

Notes:

SMA Male to SMA Male Low PIM Cable 12 Inch Length Using TCOM-195 Coax



PE3W19294-12

Typical Performance Data

How to Order

Part Number Configuration:

PE3W19294

- xx

uu

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: PE3W19294-12 = 12 inches long cable
PE3W19294-100cm = 100 cm long cable

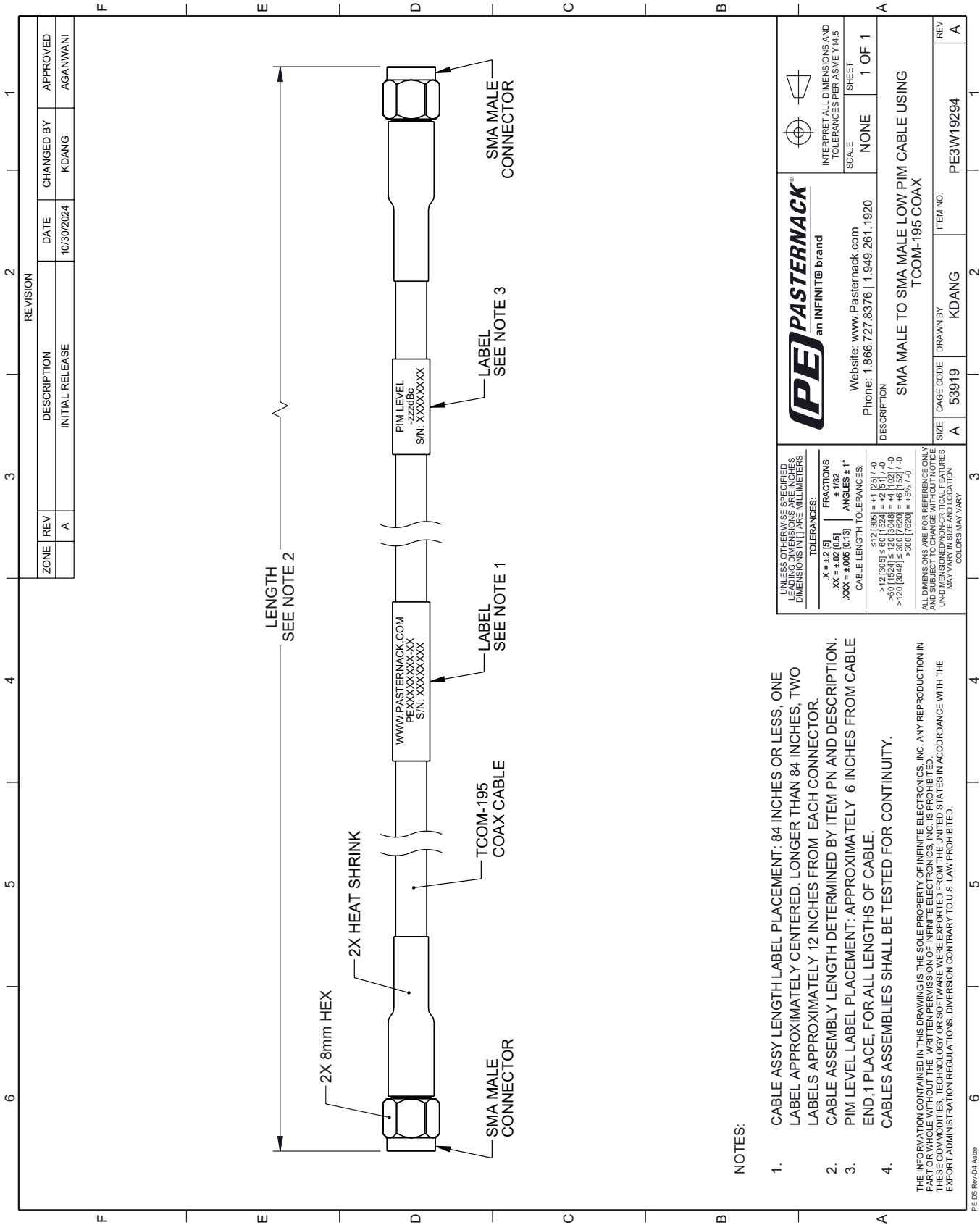
SMA Male to SMA Male Low PIM Cable 12 Inch Length Using TCOM-195 Coax from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Male to SMA Male Low PIM Cable 12 Inch Length Using TCOM-195 Coax PE3W19294-12](#)

URL: <https://www.pasternack.com/sma-male-to-sma-male-low-pim-cable-12-inch-length-using-tcom-195-pe3w19294-12-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.

PE3W19294-12 CAD Drawing
SMA Male to SMA Male Low PIM Cable 12 Inch Length Using TCOM-195 Coax



NOTES:

- 1. CABLE ASSY LENGTH LABEL PLACEMENT: 84 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 84 INCHES, TWO LABELS APPROXIMATELY 12 INCHES FROM EACH CONNECTOR.
- 2. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.
- 3. PIM LEVEL LABEL PLACEMENT: APPROXIMATELY 6 INCHES FROM CABLE END, 1 PLACE, FOR ALL LENGTHS OF CABLE.
- 4. CABLES ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE MILLIMETERS.

TOLERANCES:

.X = ±.2 [5]	FRACTIONS ± 1/32
.XX = ±.02 [0.5]	ANGLES ± 1°
.XXX = ±.005 [0.13]	CABLE LENGTH TOLERANCES:

≤ 12 [305]	±.12 [3.05]
> 12 [305] ≤ 60 [1524]	±.25 [6.35]
> 60 [1524] ≤ 120 [3048]	±.50 [12.7]
> 120 [3048]	±.75 [19.05]

ALL DIMENSIONS ARE FOR REFERENCE ONLY. DIMENSIONS FOR NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

PE PASTERNAK
an INFINITE brand

Website: www.Pasternack.com
Phone: 1.866.727.8376 | 1.949.261.1920

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE
SHEET: 1 OF 1

DESCRIPTION SMA MALE TO SMA MALE LOW PIM CABLE USING TCOM-195 COAX			
SIZE A	CAGE CODE 53919	DRAWN BY KDANG	ITEM NO. PE3W19294
REV A			