

## SMA Male to SMA Male Low PIM Cable 24 Inch Length Using TCOM-195 Coax

### PE3W19294-24

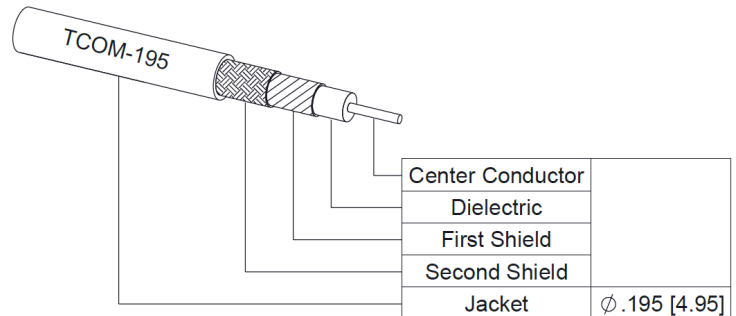


#### Configuration

- 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 PE3W19294-24 SMA male to SMA male 24 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 PE3W19294-24 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] |

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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             | 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         | 24 in [609.6 mm]    |
| Width/Diameter | .5 in [12.7 mm]     |
| Weight         | 0.103 lbs [46.72 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]                 |

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#### 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:

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### PE3W19294-24



#### 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 24 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 24 Inch Length Using TCOM-195 Coax PE3W19294-24](https://www.pasternack.com/sma-male-to-sma-male-low-pim-cable-24-inch-length-using-tcom-195-pe3w19294-24-p.aspx)

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PE3W19294-24 CAD Drawing
SMA Male to SMA Male Low PIM Cable 24 Inch Length Using TCOM-195 Coax

