



## SMA Male to SMA Male Low PIM Cable 24 Inch Length Using 1/4 inch Superflexible Coax

### RF Cable Assemblies Technical Data Sheet

PE3C7863-24

#### Configuration

- Connector 1: SMA Male
- Connector 2: SMA Male
- Cable Type: 1/4" Superflexible

#### Features

- Max Frequency 6 GHz
- Low PIM: -150 dBc Max
- Shielding Effectivity > 120 dB
- 82% Phase Velocity
- PE Jacket
- Low PIM and Low Loss
- 100% Tested with PIM Test Results Marked on Cable

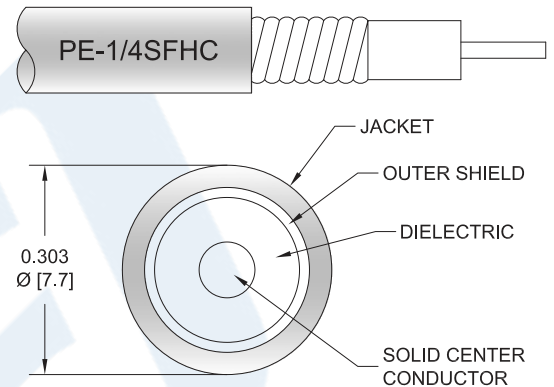
#### Applications

- General Purpose
- Laboratory Use
- Low PIM Applications
- Distributed Antenna Systems (DAS)
- Low PIM Applications and PIM Testing

#### Description

Pasternack's PE3C7863-24 SMA male to SMA male 24 inch cable using 1/4 inch superflexible coax is part of our full line of RF components available for same-day shipping. Pasternack's corrugated RF cable assemblies are ideal for applications where durability and high power are needed. This Pasternack SMA to SMA cable assembly has a male to male gender configuration with 50 ohm corrugated 1/4" superflexible coax. The PE3C7863-24 SMA male to SMA male cable assembly operates to 6 GHz. Our low PIM design also offers excellent passive intermodulation performance with PIM levels better than -150 dBc.

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 Male to SMA Male Low PIM Cable 24 Inch Length Using 1/4 inch Superflexible Coax PE3C7863-24](#)



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#### Electrical Specifications

| Description                   | Minimum | Typical      | Maximum | Units                            |
|-------------------------------|---------|--------------|---------|----------------------------------|
| Frequency Range               | DC      |              | 6       | GHz                              |
| VSWR                          |         |              | 1.5:1   |                                  |
| Velocity of Propagation       |         | 82           |         | %                                |
| RF Shielding                  | 120     |              |         | dB                               |
| Passive Intermodulation       |         |              | -150    | dBc                              |
| Capacitance                   |         | 24.4 [80.05] |         | pF/ft [pF/m]                     |
| Inductance                    |         | 0.059 [0.19] |         | uH/ft [uH/m]                     |
| DC Resistance Inner Conductor |         | 3.2 [10.5]   |         | $\Omega$ /1000ft [ $\Omega$ /Km] |
| DC Resistance Outer Conductor |         | 2.53 [8.3]   |         | $\Omega$ /1000ft [ $\Omega$ /Km] |
| Jacket Spark                  |         |              | 2,000   | Vrms                             |

#### Specifications by Frequency

| Description           | F1   | F2   | F3   | F4   | F5   | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency             | 0.1  | 0.25 | 0.5  | 1    | 3    | GHz   |
| Insertion Loss (Typ.) | 0.23 | 0.25 | 0.27 | 0.31 | 0.41 | dB    |

#### Electrical Specification Notes:

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

#### Mechanical Specifications

##### Cable Assembly

|          |                   |
|----------|-------------------|
| Length*  | 24 in [609.6 mm]  |
| Diameter | 0.35 in [8.89 mm] |

##### Cable

|                                      |                                  |
|--------------------------------------|----------------------------------|
| Cable Type                           | 1/4" Superflexible               |
| Impedance                            | 50 Ohms                          |
| Inner Conductor Type                 | Solid                            |
| Inner Conductor Material and Plating | Copper Clad Aluminum             |
| Dielectric Type                      | PE (F)                           |
| Number of Shields                    | 1                                |
| Shield Layer 1                       | Helically Corrugated Copper Tube |
| Jacket Material                      | PE, Black                        |
| Jacket Diameter                      | 0.303 in [7.7 mm]                |

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|                              |                   |
|------------------------------|-------------------|
| One Time Minimum Bend Radius | 0.5 in [12.7 mm]  |
| Repeated Minimum Bend Radius | 1 in [25.4 mm]    |
| Typical Flex Cycles          | 20                |
| Tensile Strength             | 79 lbs [35.83 Kg] |

**Connectors**

| Description                       | Connector 1      | Connector 2      |
|-----------------------------------|------------------|------------------|
| Type                              | SMA Male         | SMA Male         |
| Specification                     | SMA              | SMA              |
| Impedance                         | 50 Ohms          | 50 Ohms          |
| Contact Material and Plating      | Brass, Silver    | Brass, Silver    |
| 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 |

**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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## SMA Male to SMA Male Low PIM Cable 24 Inch Length Using 1/4 inch Superflexible Coax

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#### How to Order

Part Number Configuration:

PE3C7863

- xx

uu

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

Example: PE3C7863-12 = 12 inches long cable  
PE3C7863-100cm = 100 cm long cable

SMA Male to SMA Male Low PIM Cable 24 Inch Length Using 1/4 inch Superflexible 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 1/4 inch Superflexible Coax PE3C7863-24](#)

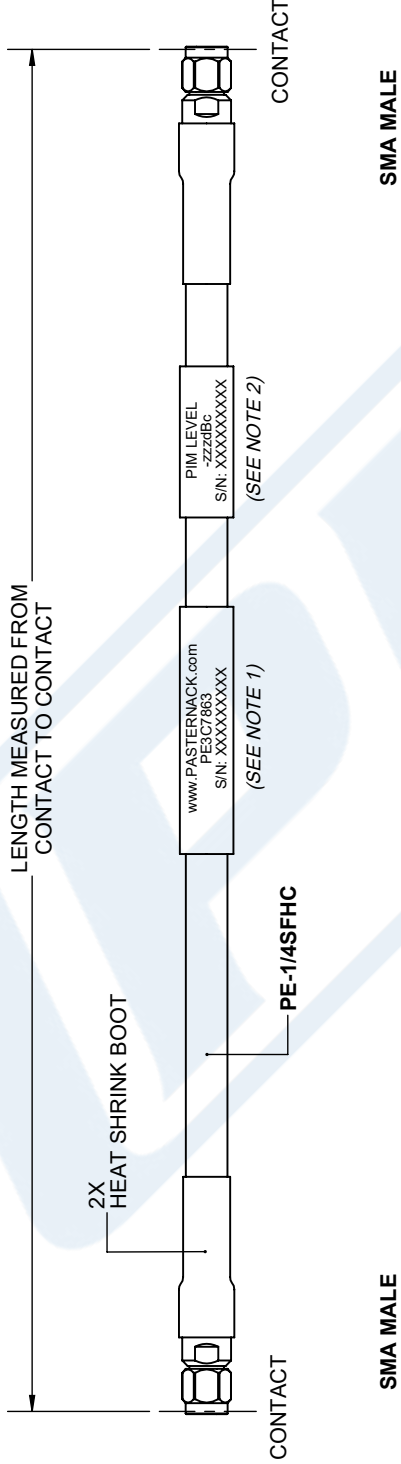
URL: <https://www.pasternack.com/sma-male-sma-male-pe-1-4-sfhc-cable-assembly-pe3c7863-24-p.aspx>

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.

# PE3C7863-24 CAD Drawing

SMA Male to SMA Male Low PIM Cable 24 Inch Length Using 1/4 inch Superflexible Coax

| REVISIONS |                 |           |          |
|-----------|-----------------|-----------|----------|
| REV.      | DESCRIPTION     | DATE      | APPROVED |
| A         | INITIAL RELEASE | 1/18/2021 | S. ELLIS |



**NOTES:**

1. CABLES 84" AND UNDER HAVE 1 LABEL CENTERED. CABLES OVER 84" HAVE 2 LABELS, ONE AT EACH END 12.0" FROM THE END OF THE CONNECTOR.
2. 6" FROM CABLE END 1 PLACE FOR ALL LENGTHS OF CABLE.

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 LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS |                  |
| .X = ±.2 [ .008 ]  | 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% L / -0      |
| ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.   |                  |

**PE PASTERNAK**  
an INFINITI brand

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|      |           |          |          |
|------|-----------|----------|----------|
| SIZE | CAGE CODE | DRAWN BY | ITEM NO. |
| A    | 53919     | K.DANG   | PE3C7863 |

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

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|-----|---|
| REV | A |
|-----|---|