



## 2.2-5 Male to 2.2-5 Female Cable 24 Inch Length Using 1/4 inch Superflexible Coax

### RF Cable Assemblies Technical Data Sheet

**PE3C7858-24**

#### Configuration

- Connector 1: 2.2-5 Male
- Connector 2: 2.2-5 Female
- 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
- Distributed Antenna Systems (DAS)
- Low PIM Applications and PIM Testing

#### Description

Pasternack's PE3C7858-24 2.2-5 male to 2.2-5 female 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 2.2-5 to 2.2-5 cable assembly has a male to female gender configuration with 50 ohm corrugated 1/4" superflexible coax. The PE3C7858-24 2.2-5 male to 2.2-5 female cable assembly operates to 6 GHz.

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: [2.2-5 Male to 2.2-5 Female Cable 24 Inch Length Using 1/4 inch Superflexible Coax PE3C7858-24](#)



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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]   |         | Ω/1000ft [Ω/Km] |
| DC Resistance Outer Conductor |         | 2.53 [8.3]   |         | Ω/1000ft [Ω/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 | 0.69 in [17.53 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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## 2.2-5 Male to 2.2-5 Female Cable 24 Inch Length Using 1/4 inch Superflexible Coax

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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                                 | 2.2-5 Male       | 2.2-5 Female     |
| Specification                        | 2.2-5            | 2.2-5            |
| Impedance                            | 50 Ohms          | 50 Ohms          |
| Contact Material and Plating         | Brass, Silver    |                  |
| Dielectric Type                      | PTFE             | PTFE             |
| Outer Conductor Material and Plating |                  | Bronze, Silver   |
| Body Material and Plating            | Brass, Tri-Metal | Brass, Tri-Metal |
| Coupling Nut Material and Plating    | 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:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.2-5 Male to 2.2-5 Female Cable 24 Inch Length Using 1/4 inch Superflexible Coax PE3C7858-24](#)



## 2.2-5 Male to 2.2-5 Female Cable 24 Inch Length Using 1/4 inch Superflexible Coax

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**PE3C7858-24**

#### How to Order

Part Number Configuration:

**PE3C7858**

- **xx**

**uu**

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

Example: PE3C7858-12 = 12 inches long cable  
PE3C7858-100cm = 100 cm long cable

2.2-5 Male to 2.2-5 Female 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: [2.2-5 Male to 2.2-5 Female Cable 24 Inch Length Using 1/4 inch Superflexible Coax PE3C7858-24](#)

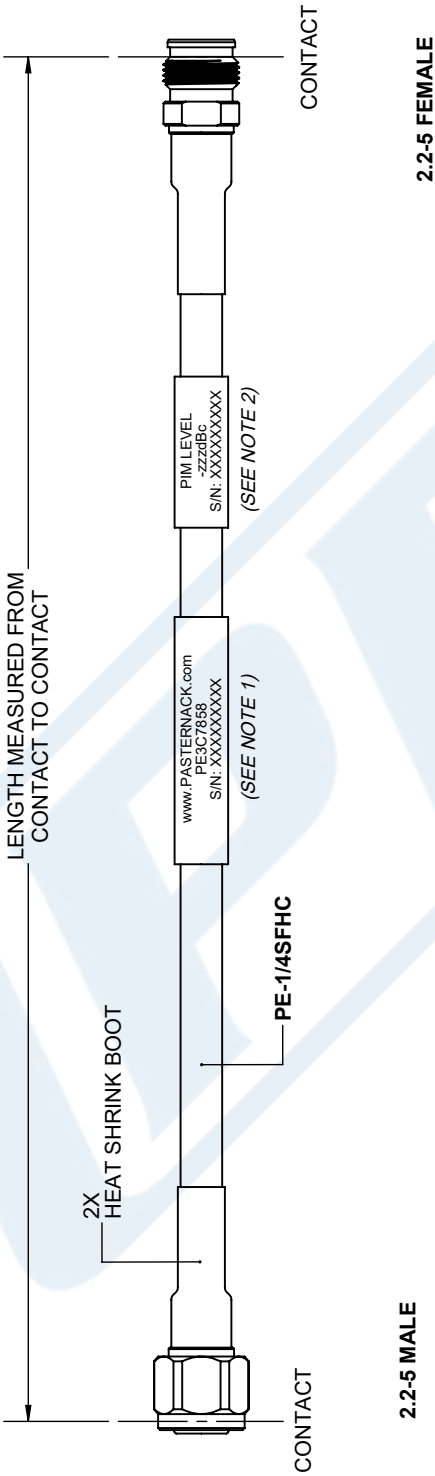
URL: <https://www.pasternack.com/2.2-5-male-2.2-5-female-pe-1-4-sfhc-cable-assembly-pe3c7858-p.aspx>

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.

PE3C7858-24 CAD Drawing

2.2-5 Male to 2.2-5 Female Cable 24 Inch Length Using 1/4 inch Superflexible Coax

| REVISIONS |                 |           |          |
|-----------|-----------------|-----------|----------|
| REV.      | DESCRIPTION     | DATE      | APPROVED |
| A         | INITIAL RELEASE | 1/15/2021 | 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.

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

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

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.

**PE PASTERNAK**  
an INFINITE brand

Pasternack Enterprises, Inc.  
P.O. Box 16759, Irvine, CA 92623.  
Phone: 1.949.261.1920 | 1.866.727.8376  
Fax: 1.949.261.7451  
Website: www.pasternack.com  
E-mail: sales@pasternack.com

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

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SIZE A

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ITEM NO. PE3C7858

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