

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



RF Cable Assemblies Technical Data Sheet

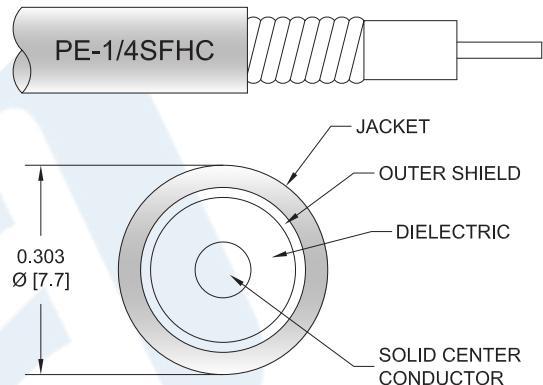
PE3C7858

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 2.2-5 male to 2.2-5 female 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 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 Using 1/4 inch Superflexible Coax PE3C7858](#)

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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]		$\Omega/1000\text{ft}$ [Ω/Km]
DC Resistance Outer Conductor		2.53 [8.3]		$\Omega/1000\text{ft}$ [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.)	0.016	0.026	0.039	0.057	0.107	dB/ft
	0.05	0.09	0.13	0.19	0.35	dB/m

Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.2dB connector loss.

Mechanical Specifications

Cable Assembly

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]

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 Using 1/4 inch Superflexible Coax PE3C7858](#)

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PE3C7858

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 Using 1/4 inch Superflexible Coax PE3C7858](#)

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



RF Cable Assemblies Technical Data Sheet

PE3C7858

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 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 Using 1/4 inch Superflexible Coax PE3C7858](#)

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 CAD Drawing

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

REV.		DESCRIPTION		DATE	APPROVED
A	INITIAL RELEASE	1/15/2021	S.ELLIS		
REVISIONS					

2.2-5 MALE

2.2-5 FEMALE

CONTACT

CONTACT

2X HEAT SHRINK BOOT

LENGTH MEASURED FROM CONTACT TO CONTACT

PIM LEVEL SIN: XXXXXXXX (SEE NOTE 1)

PIM LEVEL SIN: XXXXXXXX (SEE NOTE 2)

PE-1/4SFHC

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

REV A

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
TOLERANCES:

X = ± 2 [5.08]	FRACTIONS $\pm 1/32$
XX = $\pm .02$ [5.1]	ANGLES $\pm 1^\circ$
XXX = $\pm .005$ [1.3]	CABLE LENGTH (L) TOLERANCES:

L \leq 12 [305] = $+1[28]/-0$
12 [305] $<$ L \leq 60 [1524] = $+2[51]/-0$
60 [1524] $<$ L \leq 120 [3048] = $+4[102]/-0$
120 [3048] $<$ L \leq 300 [7620] = $+6[152]/-0$
300 [7620] $<$ L \leq 450 [11430] = $+8[192]/-0$
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