



QMA Male to QMA Male Low PIM Cable Using 1/4 inch Superflexible Coax

RF Cable Assemblies Technical Data Sheet

PE3C7870

Configuration

- Connector 1: QMA Male
- Connector 2: QMA 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 PE3C7870 QMA male to QMA male 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 QMA to QMA cable assembly has a male to male gender configuration with 50 ohm corrugated 1/4" superflexible coax. The PE3C7870 QMA male to QMA 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: [QMA Male to QMA Male Low PIM Cable Using 1/4 inch Superflexible Coax PE3C7870](#)



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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.)	0.016	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 0.41 in [10.41 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	QMA Male	QMA Male
Specification	QMA	QMA
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

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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How to Order

Part Number Configuration:

PE3C7870

- **xx**

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

Example: PE3C7870-12 = 12 inches long cable
PE3C7870-100cm = 100 cm long cable

QMA Male to QMA Male Low PIM 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.

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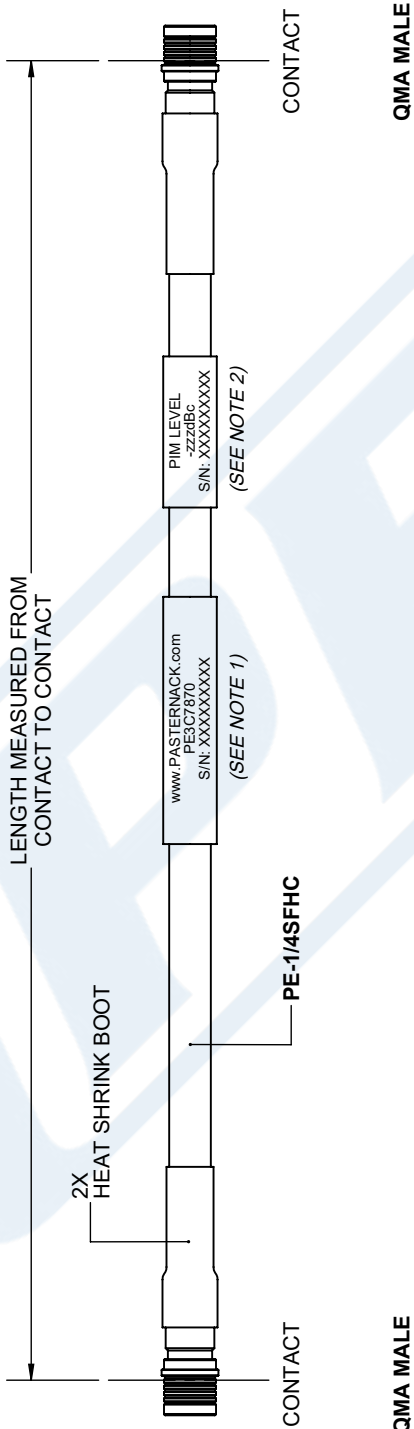
URL: <https://www.pasternack.com/qma-male-qma-male-pe-1-4-sfhc-cable-assembly-pe3c7870-p.aspx>

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.

PE3C7870 CAD Drawing

QMA Male to QMA Male Low PIM Cable Using 1/4 inch Superflexible Coax

REVISIONS		
REV.	DESCRIPTION	DATE
A	INITIAL RELEASE	1/18/2021
		APPROVED
		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.

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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS	
.X = ±.2 [.508]	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% / -0
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.	

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an INFINITE brand

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SIZE: A CAGE CODE: 53919 DRAWN BY: K.DANG ITEM NO.: PE3C7870

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SHEET 1 OF 1	SCALE N/A
REV A	REV A