

## Fire Rated BNC Male to BNC Male Low Loss Cable Using TCOM-400-FR Coax With Times Microwave Components

### PE3C10412

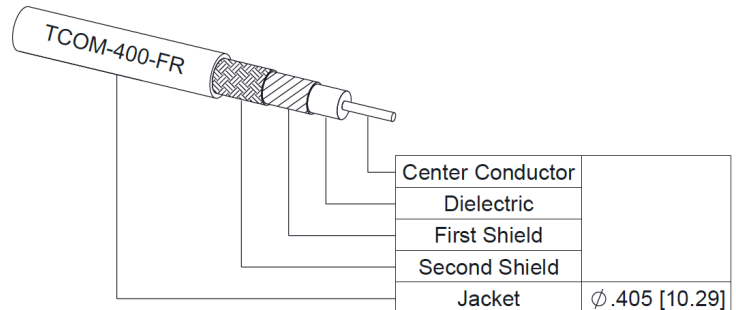


#### Configuration

- Connector 1: BNC Male
- Connector 2: BNC Male
- Cable Type: TCOM-400-FR
- Coax Flex Type: Flexible

#### Features

- Max Frequency 6 GHz
- Shielding Effectivity > 100 dB
- 85% Phase Velocity
- Double Shielded
- PE Jacket
- 500 Mating Cycles



#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3C10412 BNC male to BNC male cable using TCOM-400-FR 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 BNC to BNC cable assembly has a male to male gender configuration with 50 ohm flexible TCOM-400-FR coax. The PE3C10412 BNC male to BNC male cable assembly operates to 6 GHz. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness of better than 100 dB.

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		6	GHz
VSWR			1.4:1	
Velocity of Propagation		85		%
RF Shielding	100			dB
Group Delay		1.2 [3.94]		ns/ft [ns/m]
Capacitance		23.9 [78.41]		pF/ft [pF/m]
Inductance		0.06 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		1.39 [4.56]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		1.47 [4.82]		Ohms/1000ft [Ohms/Km]

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#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Jacket Spark			8,000	Vrms

#### Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	250	500	1000	2500	6000	MHz	
PE3C10412	Custom Lengths Available	Insertion Loss (Typ.)	0.021	0.03	0.044	0.072	0.117	dB/ft	
			0.07	0.1	0.15	0.24	0.39	dB/m	
PE3C10412-12	12 inch	Insertion Loss (Typ.)	0.53	0.53	0.55	0.58	0.62	dB	0.246
PE3C10412-24	24 inch	Insertion Loss (Typ.)	0.55	0.56	0.59	0.65	0.74	dB	0.326
PE3C10412-36	36 inch	Insertion Loss (Typ.)	0.57	0.59	0.64	0.72	0.86	dB	0.406
PE3C10412-48	48 inch	Insertion Loss (Typ.)	0.59	0.62	0.68	0.79	0.97	dB	0.486
PE3C10412-60	60 inch	Insertion Loss (Typ.)	0.61	0.65	0.72	0.86	1.09	dB	0.566

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:	0.25 dB
Loss due to Connector 2:	0.25 dB
Base Weight:	0.246 pounds
Additional Weight per Inch:	0.00666 pounds

#### Mechanical Specifications

##### Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.246 lbs [111.58 g]

##### Cable

Cable Type	TCOM-400-FR
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper Clad Aluminum
Dielectric Type	PE (F)
Number of Shields	2
Shield Layer 1	Silver Plated Copper Braid
Shield Layer 2	Tinned Copper Braid
Jacket Material	PE, Black
Jacket Diameter	0.405 in [10.29 mm]
One Time Minimum Bend Radius	1 in [25.4 mm]
Repeated Minimum Bend Radius	4 in [101.6 mm]
Bending Moment	0.5 lbs-ft [0.68 N-m]
Flat Plate Crush	40 lbs/in [0.71 Kg/mm]
Tensile Strength	160 lbs [72.57 Kg]

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#### Connectors

Description	Connector 1	Connector 2
Type	BNC Male	BNC Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles	500	500
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	50 microns	50 microns
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	80 microns	80 microns
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Plating Specification	80 microns	80 microns

#### 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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### PE3C10412

#### Typical Performance Data

#### How to Order

Part Number Configuration:

**PE3C10412**

**- xx**

**uu**

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

Example: PE3C10412-12 = 12 inches long cable  
PE3C10412-100cm = 100 cm long cable

Fire Rated BNC Male to BNC Male Low Loss Cable Using TCOM-400-FR Coax With Times Microwave Components 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: [Fire Rated BNC Male to BNC Male Low Loss Cable Using TCOM-400-FR Coax With Times Microwave Components PE3C10412](#)

URL: <https://www.pasternack.com/fire-rated-bnc-male-to-bnc-male-low-loss-cable-using-tcom-400-fr-pe3c10412-p.aspx>

The information contained within 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 Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

PE3C10412 CAD Drawing

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