

MIL-DTL-17 BNC Male to BNC Male Cable Using M17/183-00001 Coax



PE3M0253

Configuration

- Connector 1: BNC Male M39012/16-0013
- Connector 2: BNC Male M39012/16-0013
- Cable Type: M17/183-00001
- Coax Flex Type: Flexible

Features

- Max Frequency 1 GHz
- 65.9% Phase Velocity
- Double Shielded
- PVC Jacket
- Lot Traceability
- J-STD-Soldering
- Qualified (QPL) cable and connectors
- RF Test Plots
- Test Report
- In stock and ready to ship

Applications

- General Purpose
- Laboratory Use
- Hi-Rel
- MIL-DTL-17 Requirements
- Avionics
- IFF
- SATCOM
- ECM

Description

Pasternack's MIL-DTL-17 cable assemblies are part of our full line of reliable RF components available for same-day shipping. These commercial-off-the-shelf (COTS), military grade cable assemblies are designed and processed with high reliability in mind. MIL-PRF-39012 connectors and MIL-C-17 coaxial cable are assembled using J-STD soldering processes and WHMA-A-620 workmanship criteria. The combination of materials, processing and acceptance testing work together to create a dependable cable assembly for applications where performance over time is important or the cost of failure is high. Each finished MIL-DTL-17 cable assembly is traceable to its component lots and a test report is available for every lot produced.

Our MIL-DTL-17 cable assembly datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave cable assemblies allow designers to configure and customize their signal connections however they like. Whether the need is to provide reliable mil-spec connections or fielding dependable RF cable assemblies, Pasternack has the right cable assemblies for the job. Pasternack can also expertly build your custom cable assemblies for you and ship same day.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		1	GHz
VSWR			1.4:1	
Velocity of Propagation		65.9		%
Capacitance		32.2 [105.64]		pF/ft [pF/m]
DC Resistance Inner Conductor		0.97 [3.18]		Ohms/1000ft [Ohms/Km]

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Dielectric Withstanding Voltage (AC)			1,500	Vrms

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency					MHz	
PE3M0253	Custom Lengths Available	Insertion Loss (Typ.)	0.04	0.065	0.118	0.188	0.28	dB/ft	
			0.14	0.22	0.39	0.62	0.92	dB/m	
PE3M0253-12	12 inch	Insertion Loss (Typ.)	0.24	0.27	0.32	0.39	0.48	dB	0.077
PE3M0253-24	24 inch	Insertion Loss (Typ.)	0.28	0.33	0.44	0.58	0.76	dB	0.104
PE3M0253-36	36 inch	Insertion Loss (Typ.)	0.32	0.4	0.56	0.77	1.04	dB	0.131
PE3M0253-48	48 inch	Insertion Loss (Typ.)	0.36	0.46	0.68	0.96	1.32	dB	0.158
PE3M0253-60	60 inch	Insertion Loss (Typ.)	0.4	0.53	0.79	1.14	1.6	dB	0.185

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:	0.1 dB
Loss due to Connector 2:	0.1 dB
Base Weight:	0.077 pounds
Additional Weight per Inch:	0.00225 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.077 lbs [34.93 g]

Cable

Cable Type	M17/183-00001
Impedance	50 Ohms
Inner Conductor Type	Stranded
Inner Conductor Material and Plating	Tinned Copper
Dielectric Type	PE
Number of Shields	2
Shield Layer 1	Tinned Copper
Shield Layer 2	Aluminum Polyester
Jacket Material	PVC
Jacket Diameter	0.195 in [4.95 mm]

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Connectors

Description	Connector 1	Connector 2
Type	BNC Male	BNC Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	ASTM B488	ASTM B488
Dielectric Type	Teflon	Teflon
Outer Conductor Material and Plating	Brass, Silver	Brass, Silver
Outer Conductor Plating Specification	ASTM B700	ASTM B700
Body Material and Plating	Brass, Silver	Brass, Silver
Body Plating Specification	ASTM B700	ASTM B700
Seal Gasket Material	Silicone Rubber	Silicone Rubber

Environmental Specifications

Operating Range Temperature -30 to +85 deg C

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:
Values at 25°C, sea level.

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PE3M0253

Typical Performance Data

How to Order

Part Number Configuration:

PE3M0253

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Example: PE3M0253-12 = 12 inches long cable
PE3M0253-100cm = 100 cm long cable

MIL-DTL-17 BNC Male to BNC Male Cable Using M17/183-00001 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: [MIL-DTL-17 BNC Male to BNC Male Cable Using M17/183-00001 Coax PE3M0253](#)

URL: <https://www.pasternack.com/mil-dtl-17-bnc-male-to-bnc-male-cable-using-m17-183-00001-pe3m0253-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.

PE3M0253 CAD Drawing

MIL-DTL-17 BNC Male to BNC Male Cable Using M17/183-00001 Coax

REVISIONS		
REV.	DESCRIPTION	DATE
A	INITIAL RELEASE	6/24/2021
		A. GANWANI

LENGTH MEASURED FROM REF. PLANE TO REF. PLANE

**M39012/16-0013
BNC MALE**

LENGTH MEASURED FROM REF. PLANE TO REF. PLANE

**M39012/16-0013
BNC MALE**

NOTES:

- ALL BLACK HEAT SHRINK WITH WHITE MARKINGS 3 PLACES.

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<p>PASTERNACK an INFINITE brand</p>	<p>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</p>	<p>ITEM NO. PE3M0253</p>
<p>SIZE A</p>	<p>CAGE CODE 53919</p>	<p>DRAWN BY K.DANG</p>

<p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS</p> <p>TOLERANCES: .X = ±.2 [.08] .XX = ±.02 [.51] .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% [L / -0</p>	<p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p>
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