

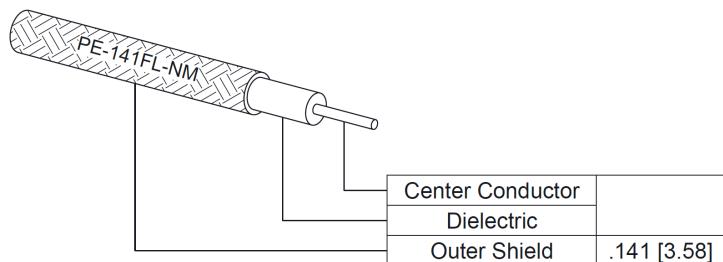
## BMB Size 8 D38999 Contact Socket to BMB Size 8 D38999 Contact Socket Cable Using PE-141FL-NM Coax with HeatShrink, LF Solder



### PE3M0396

#### Configuration

- Connector 1: Push-on BMB Socket
- Connector 2: Push-on BMB Socket
- Cable Type: PE-141FL-NM
- Coax Flex Type: Formable



#### Features

- Max Frequency: 22 GHz
- Can be installed in all D38999 size 8 inserts
- Lot traceability
- High speed RF cable assembly

#### Applications

- Military and Aerospace
- Avionics
- Industrial Automation

#### Description

The PE3M0396 from Pasternack is a D38999 cable assembly that is built with a size 8 BMB Socket contact on one end and a BMB Socket connector on the other. Pasternack MIL-DTL-38999 (also known as D38999 or 38999) coaxial cable assembly products are used in applications requiring high quality such as laboratory RF test and measurement, rugged and designed for defense/military, production environments, general use, etc. This BMB to BMB cable assembly is a part of one of the largest selections of same-day ship coaxial cables for RF, microwave, and millimeter wave interconnect solutions. This high frequency D38999 cable assembly operates at a maximum frequency of 22 GHz.

The PE3M0396 RF cable has a Copper jacket. This radio frequency cable assembly can withstand temperatures ranging from -65 to 165 degrees C. Our BMB Socket to BMB Socket cable has a maximum VSWR of 1.4:1. This formable RF cable assembly with a 0.5-inch diameter has silver plated copper as the cable's inner conducting material and PTFE dielectric type. The PE3M0396 in-series RF cable has 0.375 inches of repeated minimum bend radius along with 90 dB of minimum RF shielding.

BMB Socket to BMB Socket cable assembly is built with PE-141FL-NM, which is a flexible coax type. The Pasternack PE3M0396 formable cable assembly has a 50 Ohm impedance and is single shielded. Additional dimensions, specifications, and CAD drawings for this BMB to BMB RF cables are available on our downloadable PDF datasheet.

BMB Socket to BMB Socket cable assembly is just one of more than one million in-stock RF products available. Pasternack is where to buy high quality custom RF cable assembly products for rugged and MIL-STD designed military/defense, aerospace, outdoor and harsh environment, microwave and millimeter wave radio transmitter receiver, component inter-connection and more for RF test & measurement labs, telecom, phase stable, phase and delay matching, and other radio frequency applications can be manufactured. Variations of BMB cable assemblies can also be built and will ship on the same day as well, search this website or contact us for assistance. For further information on similar products, our expert technical support and trained sales team can get you the ideal BMB to BMB RF cable assembly as per your requirements.

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## PE3M0396

### Referenced Specifications

IPC J-STD-001	Requirements for Soldered Electrical and Electronic Assemblies
IPC J-STD-006	Requirements for Electronic Grade Solder Alloys and Fluxed and Non-Fluxed Solid Solders for Electronic Soldering Applications
IPC/WHMA-A-620	Requirements and Acceptance for Cable and Wire Harness Assemblies
MIL-DTL-17	Cables, Radio Frequency, Flexible and Semirigid, General Specification for
MIL-PRF-39012	Connectors, Coaxial, Radio Frequency, General Specification for
MIL-STD-348	Radio Frequency Connector Interfaces for MIL-DTL-3643, MIL-DTL-3650, MIL-DTL-3655, MIL-DTL-25516, MIL-PRF-31031, MIL-PRF-39012, MIL-PRF-49142, MIL-PRF-55339, MIL-DTL-83517
SAE AS22520	Crimping Tools, Wire Termination, General Specification For
SAE AS23053	Insulation Sleeving, Electrical, Heat Shrinkable, General Specifications For
SAE AS5942	Marking of Electrical Insulating Materials
IPC J-STD-001	Requirements for Soldered Electrical and Electronic Assemblies

### Material Specifications

Component	Specification
Cable	PE-141FL-NM in accordance with PE-141FL-NM datasheet
Connector 1	in accordance with MIL-DTL-38999
Connector 2	in accordance with MIL-DTL-38999
Heat Shrink 1	M23053/5-106-0 in accordance with SAE AS23053
Heat Shrink 2	M23053/5-106-0 in accordance with SAE AS23053
Solder	SAC305 in accordance with J-STD-006

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		22	GHz
VSWR			1.4:1	
Velocity of Propagation		70		%
RF Shielding	90			dB

### Specifications by Frequency

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## PE3M0396

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	1000	2000	4500	9000	22000	MHz	
PE3M0396	Custom Lengths Available	Insertion Loss (Typ.)	0.16	0.22	0.36	0.55	0.964	dB/ft	
			0.54	0.72	1.2	1.82	3.17	dB/m	
PE3M0396-6	6 inch	Insertion Loss (Typ.)	0.29	0.31	0.39	0.48	0.69	dB	0.68
PE3M0396-12	12 inch	Insertion Loss (Typ.)	0.37	0.42	0.57	0.76	1.17	dB	1.34
PE3M0396-24	24 inch	Insertion Loss (Typ.)	0.53	0.64	0.93	1.31	2.13	dB	2.66
PE3M0396-36	36 inch	Insertion Loss (Typ.)	0.69	0.86	1.29	1.86	3.1	dB	3.98
PE3M0396-48	48 inch	Insertion Loss (Typ.)	0.85	1.08	1.66	2.42	4.06	dB	5.3
PE3M0396-60	60 inch	Insertion Loss (Typ.)	1.01	1.3	2.02	2.97	5.02	dB	6.62

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: 1.34 pounds

Additional Weight per Foot: 1.32 pounds

### Electrical Specification Notes:

Values at 25°C, sea level.

## Mechanical Specifications

### Cable Assembly

Description	Minimum	Typical	Maximum	Units
Length*			0 [0]	in [mm]
Weight		1.34 [607.81]		lbs [g]
Repeated Minimum Bend Radius	0.375			in

### Cable Characteristics

Description	Specification
Cable Type	PE-141FL-NM
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Silver Plated Copper
Dielectric Type	PTFE
Number of Shields	1
Outer Conductor 1 Material and Plating	Copper-Tin Composite
Jacket Material	Copper

### Connector Characteristics

Description	Connector 1	Connector 2
Type	BMB Socket	BMB Socket

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## PE3M0396

### Connector Characteristics

Description	Connector 1	Connector 2
Specification	MIL-DTL-38999	MIL-DTL-38999
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Connection Method	Push-on	Push-on
Contact Size	8	8
Mating Cycles	500	500
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Stainless Steel, Passivated	Stainless Steel, Passivated
Body Material and Plating	Stainless Steel, Passivated	Stainless Steel, Passivated

Mechanical Specification Notes:

### Environmental Specifications

Description	Specification
Temperature Operating Range	-65 to +165 deg C

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

### Plotted and Other Data

Notes:

Values at 25°C, sea level.

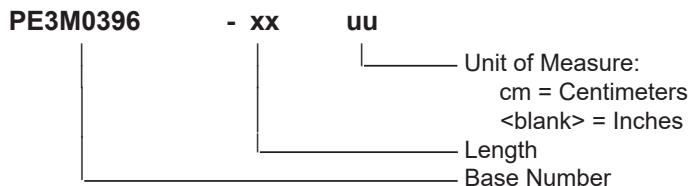
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## PE3M0396

### How to Order

Part Number Configuration:



Example: PE3M0396-12 = 12 inches long cable  
PE3M0396-100cm = 100 cm long cable

Cable Assembly Length Tolerances:

Imperial English		Metric	
"L" ≤ 1 ft	+0.5 in / -0 in	"L" ≤ 0.3 m	+12.5 mm / -0 mm
1 ft < "L" ≤ 5 ft	+1 in / -0 in	0.3 m < "L" ≤ 1.5 m	+25 mm / -0 mm
5 ft < "L" ≤ 10 ft	+2 in / -0 in	1.5 m < "L" ≤ 3 m	+50 mm / -0 mm
10 ft < "L" ≤ 25 ft	+3 in / -0 in	3 m < "L" ≤ 7.5 m	+75 mm / -0 mm
25 ft < "L"	+2%"L" / -0%"L"	7.5 m < "L"	+2%"L" / -0%"L"

\* Cable Length = "L"

BMB Size 8 D38999 Contact Socket to BMB Size 8 D38999 Contact Socket Cable Using PE-141FL-NM Coax with HeatShrink, LF Solder 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: [BMB Size 8 D38999 Contact Socket to BMB Size 8 D38999 Contact Socket Cable Using PE-141FL-NM Coax with HeatShrink, LF Solder PE3M0396](#)

URL: <https://www.pasternack.com/bmb-8-contact-socket-to-bmb-8-contact-socket-cable-using-pe-141fl-nm-coax-with-heatshrink-lf-solder-pe3m0396-p.aspx>

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# PE3M0396 CAD Drawing

BMB Size 8 D38999 Contact Socket to BMB Size 8 D38999 Contact Socket  
Cable Using PE-141FL-NM Coax with HeatShrink, LF Solder

		REVISION			
ZONE	REV	DESCRIPTION	INITIAL RELEASE	DATE	CHANGED BY
3	A			9/23/2024	DMAY
3	2				
3	1				

## LEAD-FREE SOLDER

LENGTH MEASURED FROM  
REF. PLANE TO REF. PLANE  
SEE NOTE 3

-3X M23053/5-106-0  
SEE NOTE 1

.260 [6.6]

NOTES:

1. BLACK HEATSHRINK WITH WHITE MARKINGS 3 PLACES.
2. CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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PE DS Rev-D4 Asize