



## SMA Female Bulkhead to UMCX 2.5 Plug Cable Using 1.13mm Coax, RoHS

### RF Cable Assemblies Technical Data Sheet

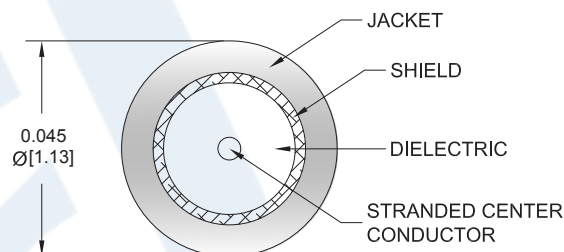
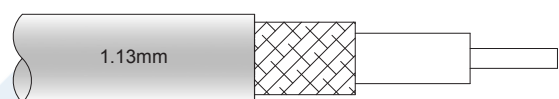
**PE3CA1001**

#### Configuration

- Connector 1: SMA Female Bulkhead
- Connector 2: UMCX 2.5 Plug
- Cable Type: 1.13mm

#### Features

- Max Frequency 6 GHz
- FEP Jacket
- 1.2mm, 1.6mm, 2.1mm and 2.5mm mated assembly height's
- 100% RF and Continuity tested
- Compatible with Hirose U.FL and IPEX MHF products
- Available in 0.81mm, 1.13mm, 1.37mm, RG178 and RG178-DS shielded coax
- Small foot print with easy snap on/off mating



#### Applications

- General Purpose
- Laboratory Use
- Wireless LAN, Mini PCI
- Mobile Antenna/GPS/Radio Systems
- PDA/PCS/Cellular Handset applications
- Wireless Communications systems (LAN, GSM, PCS, WCDMA, UMTS)

#### Description

Pasternack's UMCX 2.5 series ultra-miniature coaxial cable assemblies (also called 2.5mm UMCX) have a mated connection height of only 2.5mm. They are constructed using a flexible micro-coax cable and are compatible with ultra-miniature products from companies such as Hirose, IPEX, and other UMCX connector and cable manufacturers. Our UMCX 2.5 plug connectors are comparable in design to the Hirose U.FL series of connectors and the IPEX MHF series connectors. Pasternack also provides three additional connector options for our between-series 0.81mm micro-coax jumper cables including UMCX 2.5, WMCX 1.6 and HMCX32 1.2 low profile connectors with differing form factors and mated heights.

Our UMCX 2.5 between series cables can be ordered with Female Bulkhead versions of SMA, Reverse Polarity SMA and Type N connectors as well as an SMA Male option. These cables provide a convenient connector interface for applications that require and RF signal to be routed to an external RF component such as an antenna or to provide a test point for the RF printed circuit board. Other coax cable options include 1.13mm, 1.37mm, RG178, and RG178-DS (double shielded). These U.FL and MHF compatible UMCX 2.5 cable assemblies are available from stock in standard lengths, and custom lengths are available upon request. Standard length UMCX 2.5 cables ship the same day they are ordered.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Female Bulkhead to UMCX 2.5 Plug Cable Using 1.13mm Coax, RoHS PE3CA1001](#)



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**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		6	GHz
VSWR			1.5:1	
Operating Voltage (DC)			300	Vdc

**Specifications by Frequency**

Description	F1	F2	F3	F4	F5	Units
Frequency	0.25	0.5	1	2.5	6	GHz
Insertion Loss (Typ.)	0.5	0.7	0.97	1.44	1.98	dB/ft
	1.64	2.3	3.18	4.72	6.5	dB/m
VSWR (Max.)	1.35:1	1.35:1	1.35:1	1.35:1	1.5:1	
Return Loss (Max.)	16.54	16.54	16.54	16.54	13.98	dB

**Mechanical Specifications**

**Cable Assembly**

**Cable**

Cable Type	1.13mm
Impedance	50 Ohms
Inner Conductor Type	Stranded
Inner Conductor Material and Plating	Copper, Silver
Dielectric Type	FEP
Number of Shields	1
Shield Layer 1	Tinned Copper
Outer Conductor Material and Plating	Tinned Copper
Jacket Material	FEP
Jacket Diameter	0.044 in [1.12 mm]

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**Connectors**

Description	Connector 1	Connector 2
Type	SMA Female Bulkhead	UMCX 2.5 Plug
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold	
Body Material and Plating	Brass, Gold	

**Mechanical Specification Notes:**

Dielectric color may change but will not affect electrical performance.

**Environmental Specifications**

**Temperature**

Operating Range -55 to +125 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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**PE3CA1001**

#### How to Order

Part Number Configuration:

**PE3CA1001**

- **xx**

**uu**

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

Example: PE3CA1001-12 = 12 inches long cable  
PE3CA1001-100cm = 100 cm long cable

SMA Female Bulkhead to UMCX 2.5 Plug Cable Using 1.13mm Coax, RoHS 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.

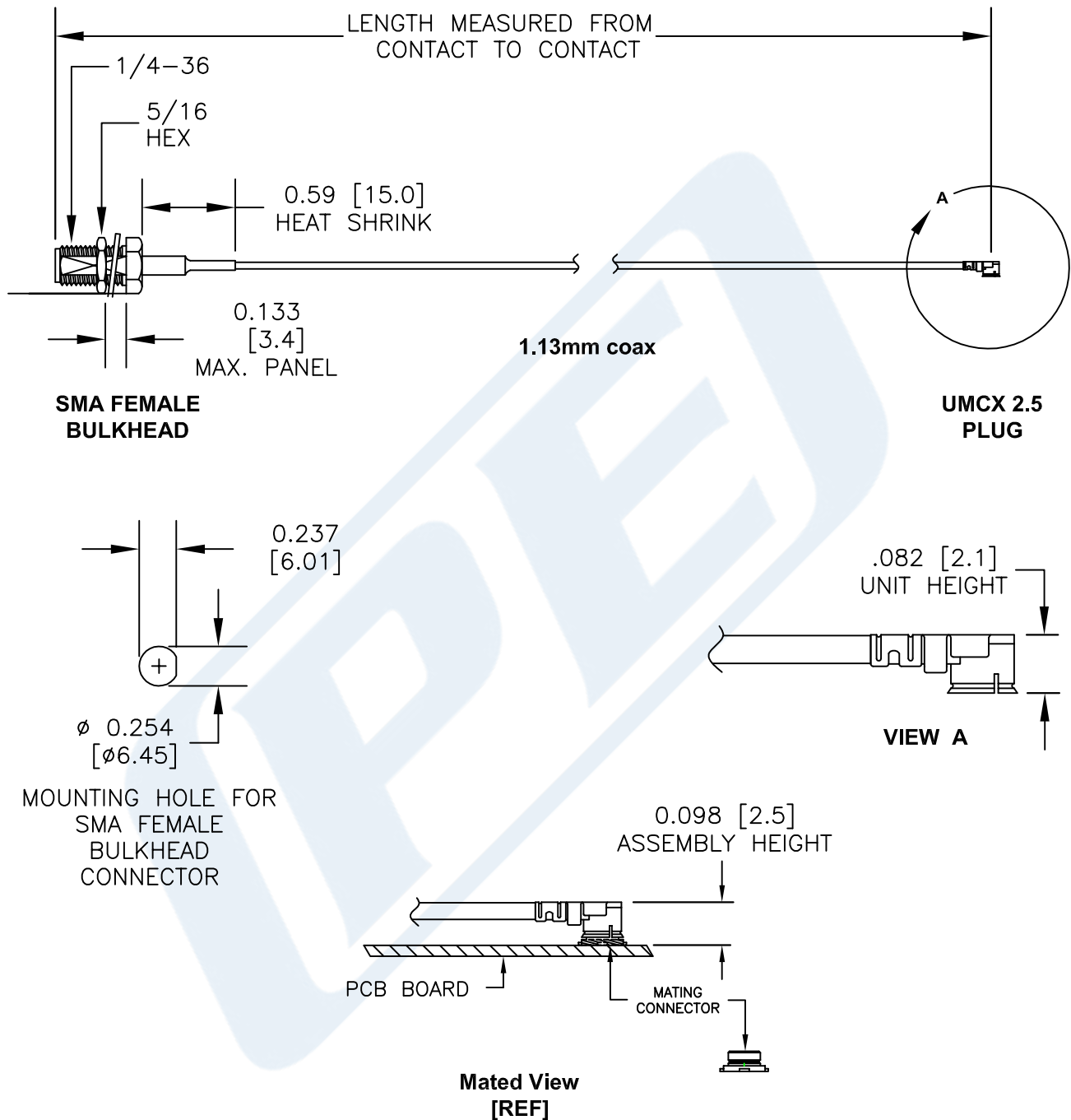
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. 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.

# PE3CA1001 CAD Drawing

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UMCX connectors are similar to U.FL\*  
 \*U.FL is a Registered Trademark of  
 Hirose Electronic Group



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## NOTES:

1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].
4. LENGTH TOLERANCE IS  $\pm 1.5\%$  OR 3/8", WHICHEVER IS GREATER.

DWG TITLE

**PE3CA1001**

**FSCM NO. 53919**

CAD FILE

011415

SCALE N/A

SIZE A

200