



## SMA Male to UMCX 2.5 Plug Cable 3 Inch Length Using RG178-DS Coax, RoHS

### RF Cable Assemblies Technical Data Sheet

PE3CA1027-3

#### Configuration

- Connector 1: SMA Male
- Connector 2: UMCX 2.5 Plug
- Cable Type: RG178-DS

#### Features

- 1.2mm, 1.6mm, 2.1mm and 2.5mm mated assembly height's
- Operate from DC to 6GHz
- 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

- 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 manufactures. 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.

#### Electrical Specifications

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

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Male to UMCX 2.5 Plug Cable 3 Inch Length Using RG178-DS Coax, RoHS PE3CA1027-3](#)



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### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.25	0.5	1	2.5	6	GHz
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

Length	3 in [76.2 mm]
Weight	0.01 lbs [4.54 g]

#### Cable

Cable Type	RG178-DS
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	0.086 in [2.18 mm]

### Connectors

Description	Connector 1	Connector 2
Type	SMA Male	UMCX 2.5 Plug
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Brass, Gold	
Coupling Nut Material and Plating	Brass, Gold	
Body Material and Plating	Brass, Gold	

### Environmental Specifications

#### Temperature

Operating Range	-55 to +125 deg C
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### Compliance Certifications (visit [www.Pasternack.com](http://www.Pasternack.com) for current document)

RoHS Compliant	Yes
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## SMA Male to UMCX 2.5 Plug Cable 3 Inch Length Using RG178-DS Coax, RoHS

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#### Plotted and Other Data

Notes:

- Values at 25°C, sea level.

#### How to Order

Part Number Configuration:

**PE3CA1027 - xx uu**

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

Example: PE3CA1027-12 = 12 inches long cable  
 PE3CA1027-100cm = 100 cm long cable

SMA Male to UMCX 2.5 Plug Cable 3 Inch Length Using RG178-DS Coax, RoHS from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

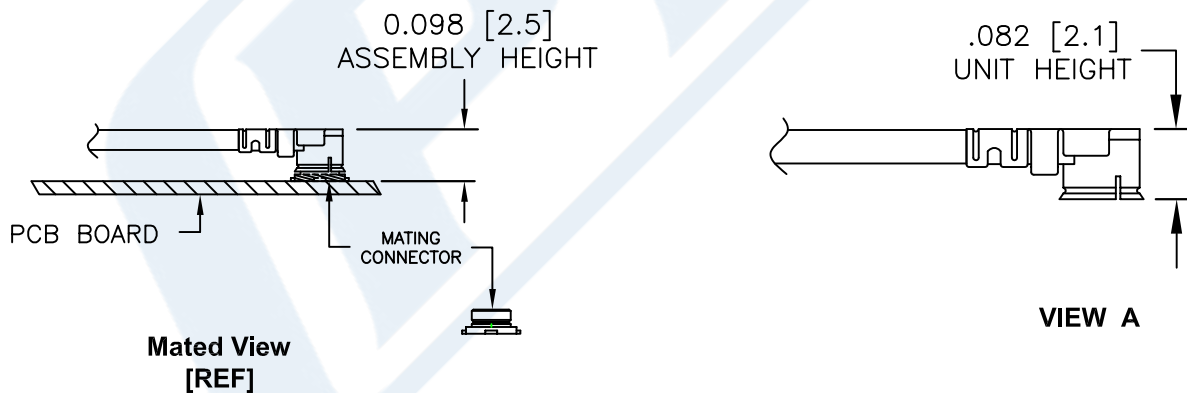
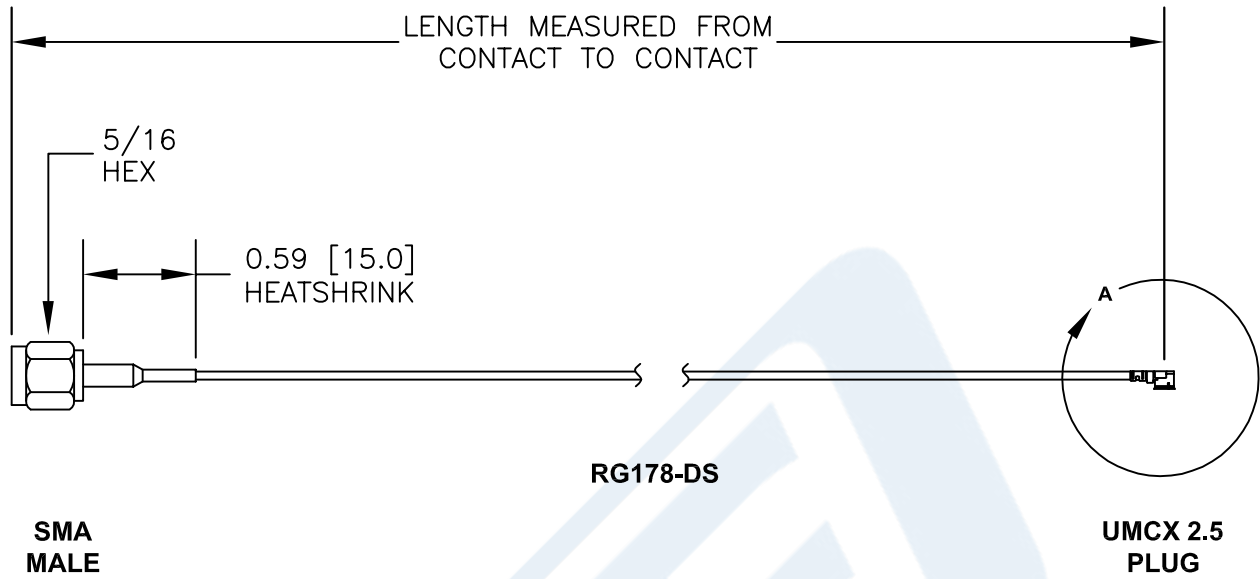
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URL: <http://www.pasternack.com/sma-male-umcx-2.5-plug-rg178-ds-cable-assembly-pe3ca1027-3-p.aspx>

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.

# PE3CA1027-3 CAD Drawing

SMA Male to UMCX 2.5 Plug Cable 3 Inch Length Using RG178-DS Coax, RoHS



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

**PE3CA1027**

FSCM NO. 53919

CAD FILE

011515

SCALE N/A

SIZE A

200