



N Female Bulkhead to WMCX 1.6 Plug  
Cable Using 0.81mm Coax, RoHS

TECHNICAL DATA SHEET

PE3CA1014

Pasternack's WMCX 1.6 series ultra-miniature coaxial cable assemblies (also called 1.6mm WMCX) have a mated connection height of only 1.6mm. They are constructed using a flexible micro-coax cable and are compatible with ultra-miniature products from companies such as Hirose and IPEX cable manufactures. Our WMCX 1.6 plug connectors are comparable in design to the Hirose W.FL series of connectors and the IPEX MHFIII 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 WMCX 1.6 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. These W.FL and MHFIII compatible WMCX 1.6 cable assemblies are available from stock in standard lengths, and custom lengths are available upon request. Standard length WMCX 1.6 cables ship the same day they are ordered.

**Features**

- 1.6mm mated assembly height
- Operate from DC to 6GHz
- 100% RF and Continuity tested
- Compatible with Hirose W.FL and IPEX MHFIII products
- 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)

**Configuration**

Connector 1	N Female Bulkhead
Connector 2	WMCX 1.6 Plug
Cable Type	0.81mm

**Electrical Specifications**

Frequency Range	DC to 3 GHz
Impedance	50 Ohms
Max VSWR	1.35:1

**Performance by Frequency**

**Frequency 1**

Frequency	250 MHz
VSWR	1.35:1
Return Loss	16.54 dB
Insertion Loss	0.55 dB/ft [1.80 dB/m]

**Frequency 2**

Frequency	500 MHz
VSWR	1.35:1
Return Loss	16.54 dB

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Female Bulkhead to WMCX 1.6 Plug Cable Using 0.81mm Coax, RoHS PE3CA1014](#)



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Insertion Loss 0.78 dB/ft [2.56 dB/m]

**Frequency 3**

Frequency 1000 MHz  
VSWR 1.35:1  
Return Loss 16.54 dB  
Insertion Loss 1.25 dB/ft [4.1 dB/m]

**Frequency 4**

Frequency 2.5 GHz  
VSWR 1.35:1  
Return Loss 16.54 dB  
Insertion Loss 1.9 dB/ft [6.23 dB/m]

**Frequency 5**

Frequency 3 GHz  
VSWR 1.35:1  
Return Loss 16.54 dB  
Insertion Loss 2.07 dB/ft [6.79 dB/m]

**Mechanical Specifications**

**Temperature**

Temperature Operating Range -55 to +125 deg C

**Size**

**Cable**

Cable Type 0.81mm  
Inner Conductor Type Stranded  
Cable Inner Conductor Copper, Silver  
No of Shields 1  
Cable Outer Conductor 1 Tinned Copper  
Dielectric Type FEP  
Jacket Material FEP  
Jacket Diameter 0.032 in [0.81 mm]

**Connector 1**

Type N Female Bulkhead  
Configuration Straight  
Mount Method Bulkhead  
Inner Conductor Material and Plating Phosphor Bronze, Gold  
Body Material and Plating Brass, Nickel

**Connector 2**

Type WMCX 1.6 Plug  
Configuration Straight

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Female Bulkhead to WMCX 1.6 Plug Cable Using 0.81mm Coax, RoHS PE3CA1014](#)



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**Compliance Certifications** (visit [www.Pasternack.com](http://www.Pasternack.com) for current document)

RoHS Compliant

Yes

REACH Compliant

12/19/2011

**Plotted and Other Data**

Notes:

- Values at +25 °C, sea level

**How to Order**

Part Number Configuration:

**PE3CA1014**

- **xx**

**uu**

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

Example: PE3CA1014-12 = 12 inches long cable  
PE3CA1014-100cm = 100 cm long cable

N Female Bulkhead to WMCX 1.6 Plug Cable Using 0.81mm 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.

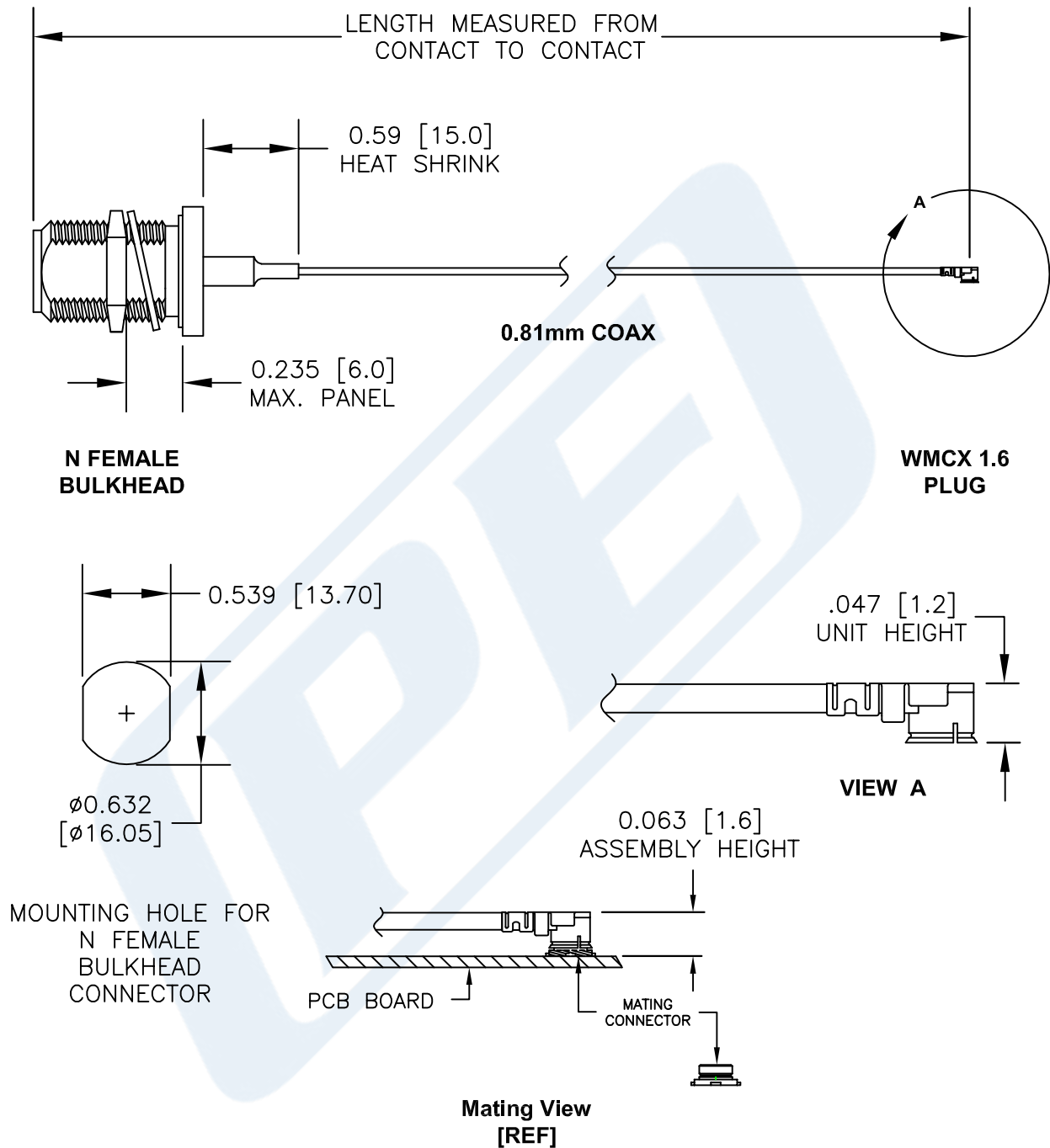
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Female Bulkhead to WMCX 1.6 Plug Cable Using 0.81mm Coax, RoHS PE3CA1014](http://www.pasternack.com/n-female-wmcx-1.6-plug-0.81mm-cable-assembly-pe3ca1014-p.aspx)

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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.

# PE3CA1014 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

**PE3CA1014**

FSCM NO. 53919

CAD FILE

031215

SCALE N/A

SIZE A

150