

## Low PIM 2.2-5 Female to N Female Bulkhead Cable TFT-5G-402 Coax in 48 Inch Using Times Microwave Components



### FMCA2533-48

#### Configuration

- Connector 1: 2.2-5 Female
- Connector 2: N Female Bulkhead
- Cable Type: TFT-5G-402
- Coax Flex Type: Flexible

#### Features

- Max Frequency 5.8 GHz
- Low PIM: -160 dBc Max
- Shielding Effectivity > 80 dB
- 76% Phase Velocity
- Double Shielded
- FEP Jacket

#### Applications

- General Purpose
- Laboratory Use
- Low PIM Applications
- Indoor and Outdoor Use
- Plenum Rated Applications

#### Description

The 2.2-5 female to type N female bulkhead 48 inch cable using TFT-5G-402 coax, part number FMCA2533-48, from Fairview Microwave is in-stock and ships same day. This Fairview 2.2-5 to type N cable assembly has a female to female gender configuration with 50 ohm flexible TFT-5G-402 coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. Our low PIM design offers excellent passive intermodulation performance with PIM levels better than -160 dBc. The FMCA2533-48 2.2-5 female to type N female cable assembly operates to 5.8 GHz. Our RF cable assembly with type N bulkhead interface allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications. The double shielding of this Fairview cable assembly provides excellent shielding effectiveness of better than 80 dB.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other RF cable assembly value added services including connector orientation or clocking, heat shrink booting and labeling are also available. RF testing can also be performed to document the electrical performance of your cable assembly.

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		5.8	GHz
VSWR			1.4:1	
Velocity of Propagation		76		%
RF Shielding	80			dB
Passive Intermodulation			-160	dBc
IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz				

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**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Capacitance		26.7 [87.6]		pF/ft [pF/m]

**Specifications by Frequency**

Description	F1	F2	F3	F4	F5	Units
Frequency	0.25	0.5	1	2.5	5.8	GHz
Insertion Loss (Typ.)	0.38	0.51	0.67	1.02	1.53	dB

Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax and connectors used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.1\*SQRT(FGHz) dB for the 2.2-5 connector and 0.1 dB for the N connector.

**Mechanical Specifications**

**Cable Assembly**

Width/Diameter 0.748 in [19 mm]

**Cable**

Cable Type TFT-5G-402  
 Impedance 50 Ohms  
 Inner Conductor Type Solid  
 Inner Conductor Material and Plating Copper  
 Dielectric Type PTFE  
 Number of Shields 2  
 Jacket Material FEP, Blue  
 Jacket Diameter 0.16 in [4.06 mm]  
 One Time Minimum Bend Radius 0.75 in [19.05 mm]

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**Connectors**

Description	Connector 1	Connector 2
Type	2.2-5 Female	N Female Bulkhead
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles	100	
Contact Material and Plating	Beryllium Copper, Silver	Brass, Silver
Contact Plating Specification	200 µin	5 µm
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Beryllium Copper, Silver	Brass, Tri-Metal
Outer Conductor Plating Specification	100 µin	3 µm
Body Material and Plating	Brass, Silver	Brass, Tri-Metal
Body Plating Specification	100 µin	3 µm
Torque	26 in-lbs 2.94 Nm	10 in-lbs 1.13 Nm

**Environmental Specifications**

Operating Range Temperature -40 to +125 deg C

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

**Plotted and Other Data**

Notes:

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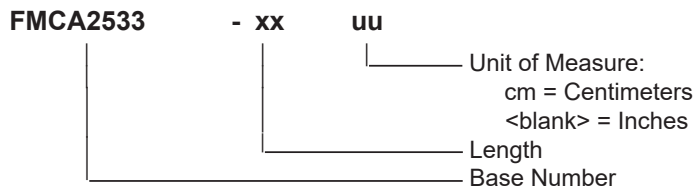


**FMCA2533-48**

**Typical Performance Data**

**How to Order**

Part Number Configuration:



Example: FMCA2533-12 = 12 inches long cable  
FMCA2533-100cm = 100 cm long cable

Low PIM 2.2-5 Female to N Female Bulkhead Cable TFT-5G-402 Coax in 48 Inch Using Times Microwave Components from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

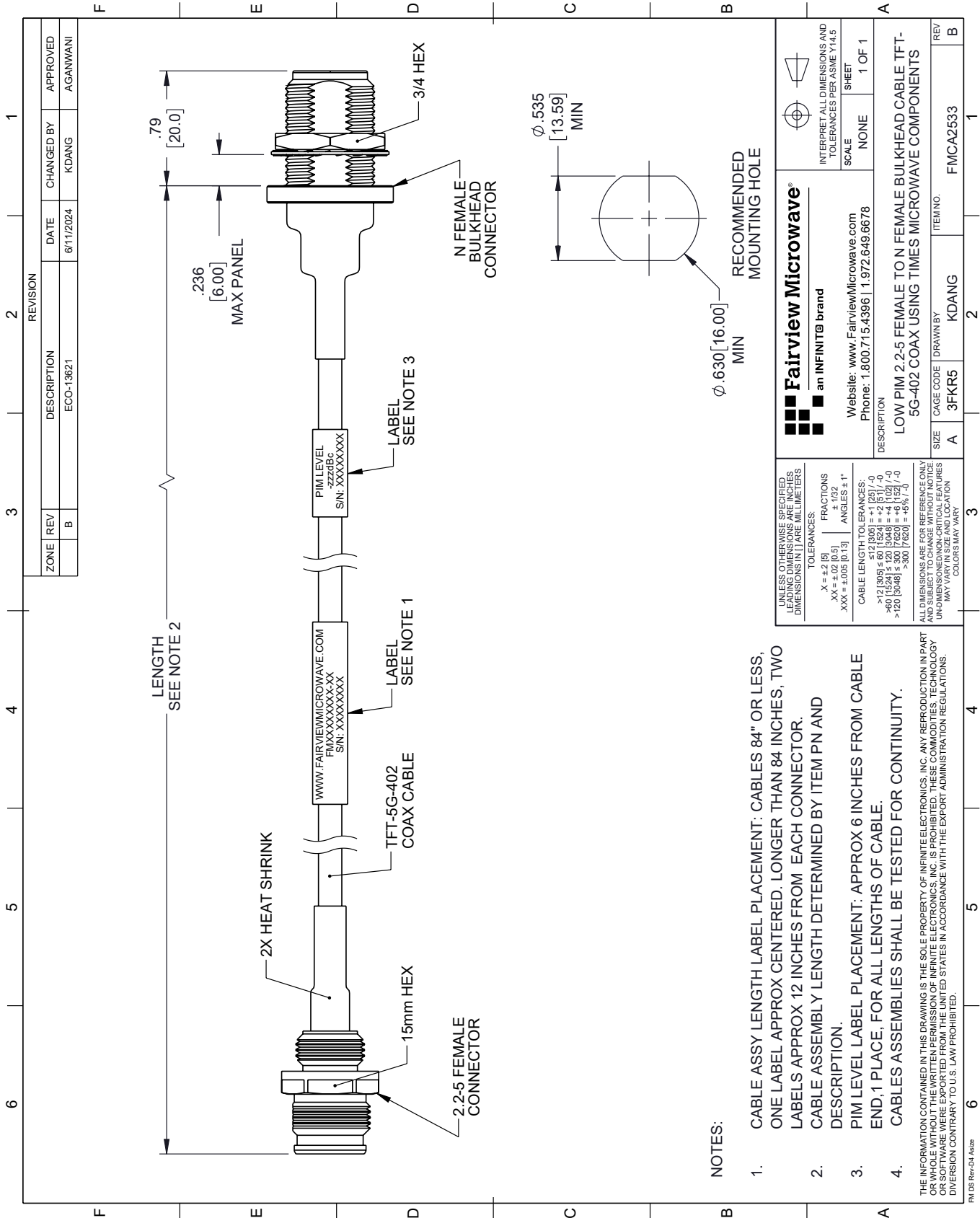
For additional information on this product, please click the following link: [Low PIM 2.2-5 Female to N Female Bulkhead Cable TFT-5G-402 Coax in 48 Inch Using Times Microwave Components FMCA2533-48](#)

URL: <https://www.fairviewmicrowave.com/product/rf-cable-assemblies/low-pim-2.2-5-female-to-n-female-bulkhead-cable-tft-5g-402-coax-in-48-inch-using-times-microwave-components-fmca2533-48.html>

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# FMCA2533-48 CAD Drawing

Low PIM 2.2-5 Female to N Female Bulkhead Cable TFT-5G-402 Coax in 48 Inch Using Times Microwave Components



**Fairview Microwave®**  
an INFINITO brand

Website: [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com)  
Phone: 1.800.715.4396 | 1.972.649.6678

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND DIMENSIONS IN [ ] ARE IN MILLIMETERS.

TOLERANCES:  
 .X = ±.2 [5]      FRACTIONS ± 1/32  
 .XX = ±.02 [0.5]      ANGLES ± 1°  
 .XXX = ±.005 [0.13]

CABLE LENGTH TOLERANCES:  
 >12 [305] ≤ 60 [1524] = ±.1 [25] / -0  
 >60 [1524] ≤ 120 [3048] = ±.4 [102] / -0  
 >120 [3048] ≤ 300 [7620] = ±.6 [15] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE      SHEET: 1 OF 1

DESCRIPTION	SIZE	CAGE CODE	DRAWN BY	ITEM NO.
LOW PIM 2.2-5 FEMALE TO N FEMALE BULKHEAD CABLE TFT-5G-402 COAX USING TIMES MICROWAVE COMPONENTS	A	3FKR5	KDANG	FMCA2533

- NOTES:**
- CABLE ASSY LENGTH LABEL PLACEMENT: CABLES 84" OR LESS, ONE LABEL APPROX CENTERED. LONGER THAN 84 INCHES, TWO LABELS APPROX 12 INCHES FROM EACH CONNECTOR.
  - CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.
  - PIM LEVEL LABEL PLACEMENT: APPROX 6 INCHES FROM CABLE END, 1 PLACE; FOR ALL LENGTHS OF CABLE.
  - CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
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