

## Low Loss N Male to N Female Bulkhead Weatherproof Cable SPO-250 Coax in 24 Inch with Times Microwave Components



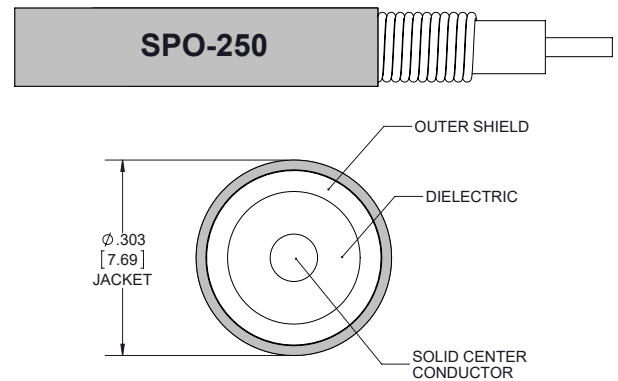
### FMCA2563/WP-24

#### Configuration

- Connector 1: N Male
- Connector 2: N Female Bulkhead
- Cable Type: SPO-250
- Coax Flex Type: Flexible

#### Features

- Max Frequency 6 GHz
- Low PIM: -160 dBc Max
- 83% Phase Velocity
- PE Jacket
- Silicone Connector Boot
- IP68 Rated



#### Applications

- General Purpose
- Laboratory Use

#### Description

The type N male to type N female bulkhead 24 inch cable using SPO-250 coax, part number FMCA2563/WP-24, from Fairview Microwave is in-stock and ships same day. This Fairview type N to type N cable assembly has a male to female gender configuration with 50 ohm flexible SPO-250 coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA2563/WP-24 type N male to type N female cable assembly operates to 6 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.

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		6	GHz
VSWR			1.4:1	
Velocity of Propagation		83		%
Passive Intermodulation			-160	dBc
IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz				
Capacitance		24 [78.74]		pF/ft [pF/m]
Inductance		0.054 [0.18]		uH/ft [uH/m]

#### Specifications by Frequency

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**FMCA2563/WP-24**

Part Number	Length	Description	F1	F2	F3	F4	Units	Weight (lbs)
			Frequency	500	1000	2500	6000	
FMCA2563/WP	Custom Lengths Available	Insertion Loss (Typ.)	0.042	0.06	0.103	0.166	dB/ft	
			0.14	0.2	0.34	0.55	dB/m	
FMCA2563/WP-12	12 Inch	Insertion Loss (Typ.)	0.22	0.26	0.37	0.52	dB	0.849
FMCA2563/WP-24	24 Inch	Insertion Loss (Typ.)	0.26	0.32	0.47	0.68	dB	0.896
FMCA2563/WP-36	36 Inch	Insertion Loss (Typ.)	0.3	0.38	0.57	0.85	dB	0.943
FMCA2563/WP-60	60 Inch	Insertion Loss (Typ.)	0.39	0.5	0.78	1.18	dB	1.037
FMCA2563/WP-50CM	50 CM	Insertion Loss (Typ.)	0.24	0.3	0.43	0.62	dB	0.88

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\*SQRT(FGHz) dB  
 Loss due to Connector 2: 0.1 dB  
 Base Weight: 0.849 pounds  
 Additional Weight per Inch: 0.00391 pounds

**Mechanical Specifications**

**Cable Assembly**

Length 24 in [609.6 mm]  
 Width/Diameter .5 in [12.7 mm]  
 Weight 0.896 lbs [406.42 g]

**Cable**

Cable Type SPO-250  
 Impedance 50 Ohms  
 Inner Conductor Type Stranded  
 Inner Conductor Material and Plating Copper Clad Aluminum  
 Dielectric Type Foam PE  
 Outer Conductor 1 Material and Plating Copper, Corrugated  
 Jacket Material PE  
 Jacket Diameter 0.303 in [7.7 mm]  
 One Time Minimum Bend Radius 1 in [25.4 mm]  
 Bending Moment 0.5 lbs-ft [0.68 N-m]

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**Connectors**

Description	Connector 1	Connector 2
Type	N Male	N Female Bulkhead
Option	Weatherproof Boot	
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Phosphor Bronze, Silver	Phosphor Bronze, Silver
Contact Plating Specification	196 µin minimum	200 µin minimum
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating		Brass, Tri-Metal
Outer Conductor Plating Specification		100 µin minimum
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	118 µin minimum	100 µin minimum
Coupling Nut Material and Plating	Brass, Tri-Metal	
Coupling Nut Plating Specification	118 µin minimum	
Boot Material	Silicone	Silicone

**Environmental Specifications**

Operating Range Temperature	-40 to +85 deg C
Ingress Protection (IP) Rating	IP68

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

**Plotted and Other Data**

Notes:  
Values at 25°C, sea level.

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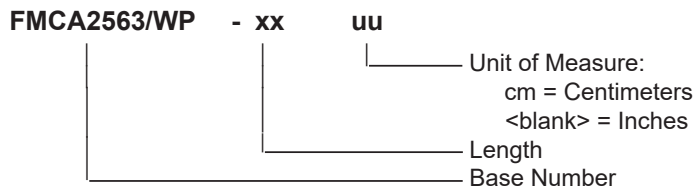


**FMCA2563/WP-24**

**Typical Performance Data**

**How to Order**

Part Number Configuration:



Example: FMCA2563/WP-12 = 12 inches long cable  
FMCA2563/WP-100cm = 100 cm long cable

Low Loss N Male to N Female Bulkhead Weatherproof Cable SPO-250 Coax in 24 Inch with 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.

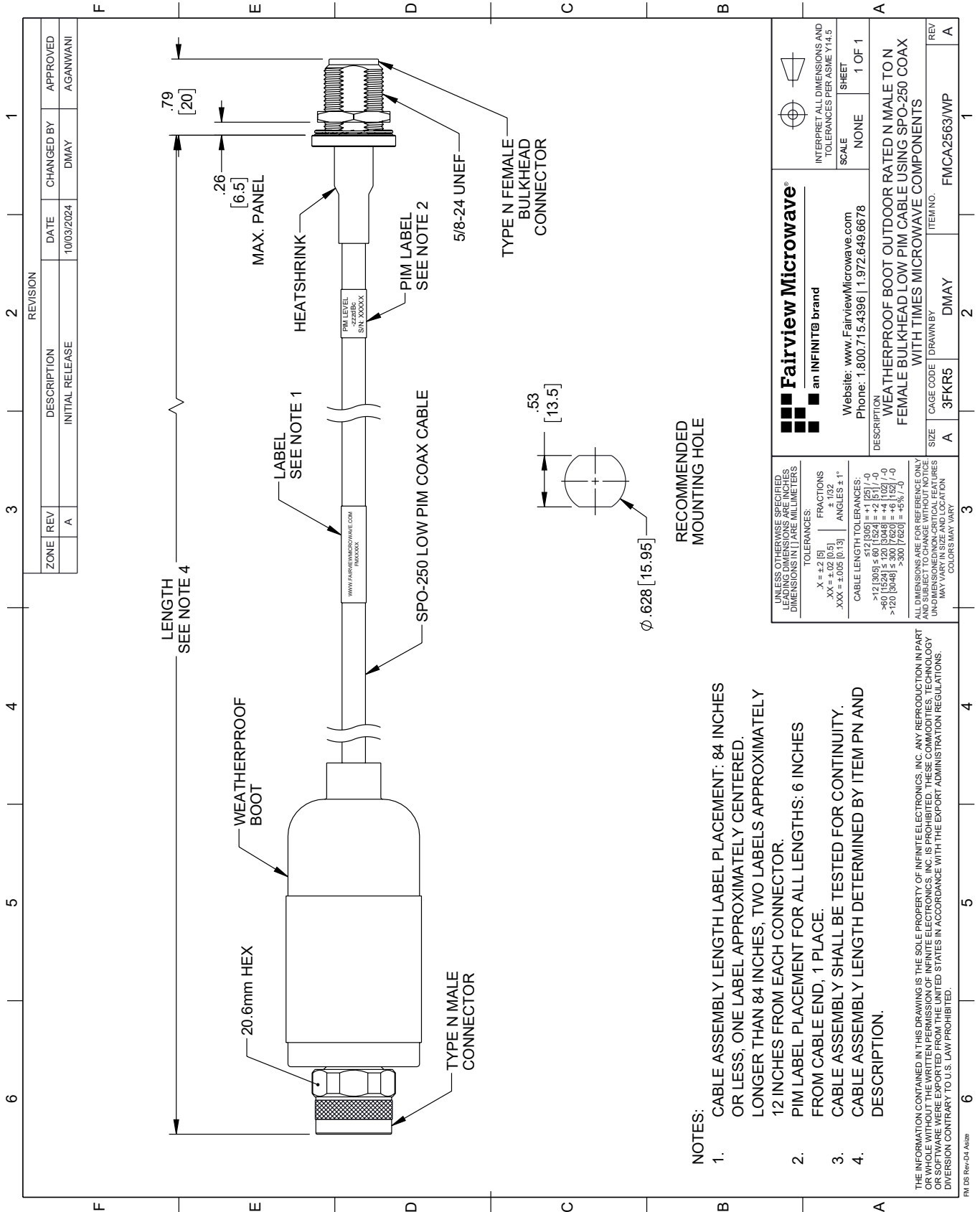
For additional information on this product, please click the following link: [Low Loss N Male to N Female Bulkhead Weatherproof Cable SPO-250 Coax in 24 Inch with Times Microwave Components FMCA2563/WP-24](https://www.fairviewmicrowave.com/low-loss-n-male-to-n-female-bulkhead-weatherproof-cable-spo-250-coax-in-24-inch-with-times-microwave-components-fmca2563/wp-24)

URL: <https://www.fairviewmicrowave.com/low-loss-n-male-to-n-female-bulkhead-weatherproof-cable-spo-250-coax-in-24-inch-with-times-microwave-components-fmca2563/wp-24-p.aspx>

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# FMCA2563/WP-24 CAD Drawing

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**NOTES:**

1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 84 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 84 INCHES, TWO LABELS APPROXIMATELY 12 INCHES FROM EACH CONNECTOR.
2. PIM LABEL PLACEMENT FOR ALL LENGTHS: 6 INCHES FROM CABLE END, 1 PLACE.
3. CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
4. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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