

Outdoor Rated Low PIM RA 4.3-10 Male to 7/16 DIN Male Cable SPO-250 Coax in 50 cm Using Times Microwave Parts

The RA 4.3-10 male to 7/16 DIN male 50 cm cable using SPO-250 coax, part number FMCA2010-50CM, from Fairview Microwave is in-stock and ships same day. This Fairview 4.3-10 to 7/16 DIN cable assembly has a male to male gender configuration with 50 ohm corrugated SPO-250 coax. Fairview Microwave's corrugated RF cable assemblies are ideal for applications where durability and high power are needed. Our low PIM design offers excellent passive intermodulation performance with PIM levels better than -160 dBc. The FMCA2010-50CM 4.3-10 male to 7/16 DIN male cable assembly operates to 5.8 GHz. The right angle 4.3-10 interface on the SPO-250 cable allows for easier connections in tight spaces. Times Microwave cable is used in each assembly and TMS components are used to form connections with the super flexible low PIM cable. These cable assemblies are expertly built to satisfy your specific need with high quality Times Microwave Systems manufactured parts.

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 | Min | Typ | Max | Units |
|-------------------------|-----|--------------|-------|--------------|
| Frequency Range | DC | | 5.8 | GHz |
| VSWR | | | 1.4:1 | |
| Velocity of Propagation | | 83 | | % |
| Passive Intermodulation | | -165 | -160 | dBc |
| Capacitance | | 24 [78.74] | | pF/ft [pF/m] |
| Inductance | | 0.054 [0.18] | | uH/ft [uH/m] |

Performance by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency | 0.45 | 0.7 | 1 | 2.5 | 5.8 | GHz |
| Insertion Loss (Max.) | 0.21 | 0.26 | 0.31 | 0.49 | 0.76 | dB |

Electrical Specification Notes:

PIM test results vary between cables

The Insertion Loss data above is based on the performance specifications of the coax used in this assembly. The Insertion Loss includes an estimated insertion loss of $0.1 * \text{SQRT}(F\text{GHz})$ dB per connector.

Mechanical Specifications

Cable Assembly

Length* 19.685 in [500 mm]

Cable

Cable Type SPO-250



Configuration:

- 4.3-10 Male Right Angle
- TC-250-4310M-RA-LP
- 7/16 DIN Male
- TC-250-716M-LP
- SPO-250

Features:

- Max Frequency 5.8 GHz
- Low PIM: -160 dBc Max
- 83% Phase Velocity
- PE Jacket
- 100% Tested with PIM Test Results Marked on Cable
- Lightweight and Extremely Flexible
- Low Loss with Excellent VSWR
- IP67 (when mated)
- Using Times Microwave Components

Applications:

- General Purpose
- Laboratory Use
- Low PIM Applications
- Distributed Antenna Systems (DAS)
- Multi-Carrier Communication Systems
- PIM Testing

Cable Diagram:

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| | |
|--------------------------------------|----------------------------------|
| Impedance | 50 Ohms |
| Inner Conductor Type | Solid |
| Inner Conductor Material and Plating | Copper Clad Aluminum |
| Dielectric Type | Foam PE |
| Number of Shields | 1 |
| Shield Layer 1 | Helically Corrugated Copper Tube |
| Outer Conductor Material and Plating | Copper |
| Jacket Material | PE, Black |
| Jacket Diameter | 0.303 in [7.7 mm] |
| One Time Minimum Bend Radius | 1.25 in [31.75 mm] |
| Bending Moment | 0.5 lbs-ft [0.68 N-m] |

Connectors

| Description | Connector 1 | Connector 2 |
|---------------------------------|---------------------|---------------------|
| Type | 4.3-10 Male | 7/16 DIN Male |
| Impedance | 50 Ohms | 50 Ohms |
| Contact Material & Plating | Brass, Silver | Brass, Silver |
| Contact Plating Spec. | 200 µin | 200 µin |
| Dielectric Type | PTFE | PTFE |
| Body Material & Plating | Brass, Tri-Metal | Brass, Tri-Metal |
| Body Plating Spec. | 80 µin | 80 µin |
| Coupling Nut Material & Plating | Brass, Nickel | Brass, Nickel |
| Coupling Nut Plating Spec. | 200 µin | 80 µin |
| Torque | 15.05 in-lbs 1.7 Nm | 22.127 ft-lbs 30 Nm |

Environmental Specifications
Temperature

| | |
|-----------------|-------------------|
| Operating Range | -55 to +200 deg C |
| Storage Range | -55 to +200 deg C |

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

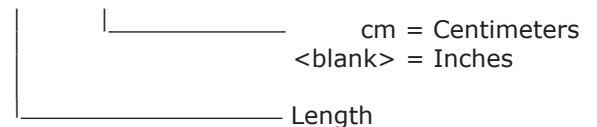
Plotted and Other Data

Notes:

- Values at 25°C, sea level.

How to Order

Part Number Configuration:

FMCA2010 - xx uu


Example: FMCA2010-12 = 12 inches long cable
 FMCA2010-100cm = 100 cm long cable

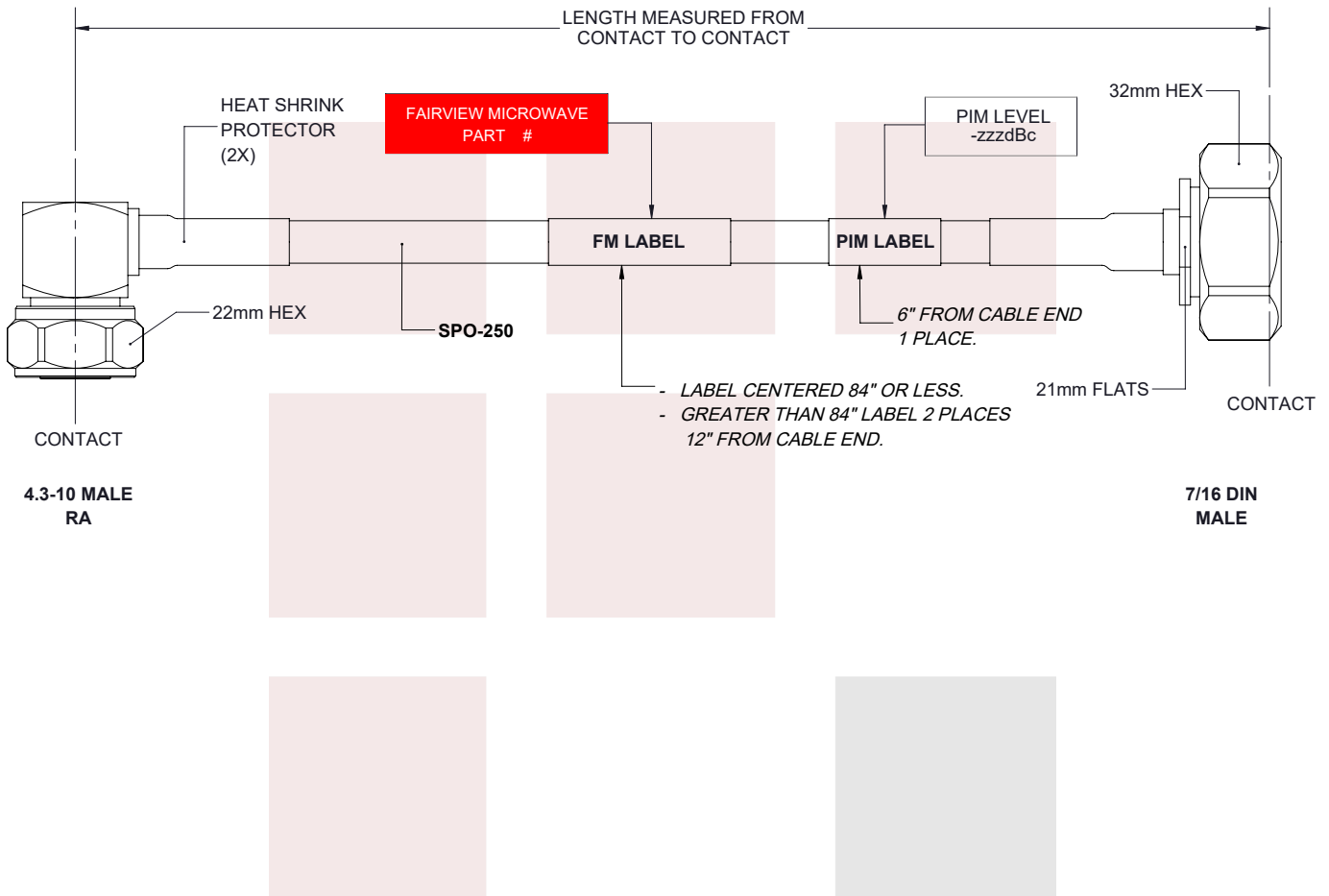
Outdoor Rated Low PIM RA 4.3-10 Male to 7/16 DIN Male Cable SPO-250 Coax in 50 cm Using Times Microwave Parts from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [Outdoor Rated Low PIM RA 4.3-10 Male to 7/16 DIN Male Cable SPO-250 Coax in 50 cm Using Times Microwave Parts FMCA2010-50CM](https://www.fairviewmicrowave.com/low-pim-ra-4.3-10-male-7-16-din-male-cable-spo250-coax-fmca2010-50cm-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. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.





| STANDARD TOLERANCES | |
|---------------------|--------|
| .X | ±0.2 |
| .XX | ±0.01 |
| .XXX | ±0.005 |

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

| | | | | | | |
|--|---|----------------------|-----------------|---------------------------|-----------|------|
|  Fairview Microwave an INFINIT [®] brand | 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]. | | | | | |
| | DWG NO FMCA2010 | | | CAGE CODE 3FKR5 | | |
| TITLE Outdoor Rated Low PIM RA 4.3-10 Male to 7/16 DIN Male Cable SPO-250 Coax in 50 cm Using Times Microwave Parts | | CAD FILE 06/05/19 | SHEET 1 OF 1 | SCALE N/A | SIZE A | 7361 |