



# Outdoor Rated Low PIM 4.3-10 Female to RA N Male Cable SPO-250 Coax Using Times Microwave Parts

The 4.3-10 female to RA type N male cable using SPO-250 coax, part number FMCA2007, from Fairview Microwave is in-stock and ships same day. This Fairview 4.3-10 to type N cable assembly has a female 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 FMCA2007 4.3-10 female to type N male cable assembly operates to 5.8 GHz. The right angle type N 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 | Тур          |  | Max          | Unit      | s    |
|-------------------------|-----|--------------|--|--------------|-----------|------|
| Frequency Range         | DC  |              |  | 5.8          | GHz       |      |
| VSWR                    |     |              |  | 1.4:1        |           |      |
| Velocity of Propagation |     | %            |  |              |           |      |
| Passive Intermodulation |     | -165         |  | -160         | dBc       |      |
| Capacitance             |     | 24 [78.74]   |  | pF/ft [pF/m] |           |      |
| Inductance              |     | 0.054 [0.18] |  | 3]           | uH/ft [ul | l/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 | k.) 0.041 | 0.051 | 0.062 | 0.103 | 0.167 | dB/ft |
|                     | 0.13      | 0.17  | 0.2   | 0.34  | 0.55  | dB/m  |

**Electrical Specification Notes:** 

PIM test results vary between cables

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.1\*SQRT(FGHz) dB per connector.

### **Mechanical Specifications**

**Cable Assembly** 

Length\* 0 in [0 mm]

Cable

Cable Type SPO-250



## **Configuration:**

- 4.3-10 Female
- TC-SPP250-4310F-LP
- N Male Right Angle
- TC-SPO250-NM-RA-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

Number of Shields Shield Layer 1

Shield Layer 1 Helically Corrugated Copper Tube
Outer Conductor Material and Plating Copper

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                 | Connect             | or 1    | Connector 2       |  |  |  |
| Туре                        | 4.3-10 Fe           | male    | N Male            |  |  |  |
| Impedance                   | 50 Ohn              | าร      | 50 Ohms           |  |  |  |
| Contact Material & Plating  | Phosphor Bron       | ze, Sil | ver Brass, Silver |  |  |  |
| Contact Plating Spec.       | 200 µii             | n       | 200 μin           |  |  |  |
| Dielectric Type             | PTFE                |         | PTFE              |  |  |  |
| Outer Cond Material & Plat  | ng Brass, Tri-Metal |         |                   |  |  |  |
| Outer Cond Plating Spec.    | 80 μin              |         |                   |  |  |  |
| Body Material & Plating     | Brass, Tri-M        |         | Brass, Tri-Metal  |  |  |  |
| Body Plating Spec.          | 80 μin              | 1       | 80 µin            |  |  |  |
| Coupling Nut Material & Pla | nting               |         | Brass, Tri-Metal  |  |  |  |
| Coupling Nut Plating Spec.  |                     |         | 80 μin            |  |  |  |
| Torque                      | 15.05 in-lbs 1.7 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: FMCA2007 - xx uu

cm = Centimeters <blank> = Inches

———— Length

Example: FMCA2007-12 = 12 inches long cable

FMCA2007-100cm = 100 cm long cable





Outdoor Rated Low PIM 4.3-10 Female to RA N Male Cable SPO-250 Coax 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 4.3-10 Female to RA N Male Cable SPO-250 Coax Using Times Microwave Parts FMCA2007

The information contained in this document is accurate to the best of our knowledge and representative of the part

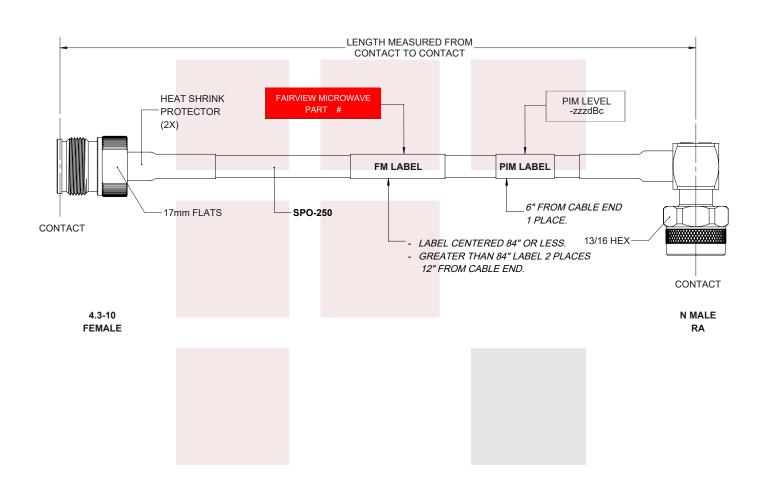
URL: https://www.fairviewmicrowave.com/low-pim-4.3-10-female-ra-n-male-cable-spo250-coax-fmca2007-p.aspx

| described   | herein. It    | may be i  | necessar  | y to ma  | ke modifica | ations to tl | ne part a | nd/or tl | ne documer  | itation of the p | art, in order |
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| to impleme  | ent improv    | ements.   | Fairview  | / Microw | ave reserv  | es the righ  | t to mak  | e such o | changes as  | required. Unle   | ss otherwise  |
| stated, all | specification | ons are r | nominal.  | Fairvie  | w Microwa   | ve does no   | ot make   | any rep  | resentation | or warranty r    | egarding the  |
|             |               |           |           |          |             | r purpose,   | and Fair  | view Mi  | crowave do  | es not assume    | any liability |
| arising out | t of the use  | of any p  | art or do | ocument  | tation.     |              |           |          |             |                  |               |
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STANDARD TOLERANCES

.X  $\pm 0.2$  .XX  $\pm 0.01$  .XXX  $\pm 0.005$ 

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

| Fairview Microwave   | 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]. |              |                 |       |        |      |
|--|---|--------------|-----------------|-------|--------|------|
| Outdoor Rated Low PIM 4.3-10 Female to RA N Male<br>Cable SPO-250 Coax Using Times Microwave Parts | DWG NO FMC  |              | CAGE CODE 3FKR5 |       |        |      |
|  | CAD FILE 06/05/19   | SHEET 1 OF 1 | SCAL            | E N/A | SIZE A | 7361 |