

## RA 4.1/9.5 Mini DIN Male to 4.1/9.5 Mini DIN Female Cable 1/4 inch Superflexible Coax

The RA 4.1/9.5 Mini DIN male to 4.1/9.5 Mini DIN female cable using 1/4 inch superflexible coax, part number FMCA2235, from Fairview Microwave is in-stock and ships same day. This Fairview 4.1/9.5 Mini DIN to 4.1/9.5 Mini DIN cable assembly has a male to female gender configuration with 50 ohm corrugated 1/4" superflexible coax. Fairview Microwave's corrugated RF cable assemblies are ideal for applications where durability and high power are needed. The FMCA2235 4.1/9.5 Mini DIN male to 4.1/9.5 Mini DIN female cable assembly operates to 6 GHz. The right angle 4.1/9.5 Mini DIN interface on the 1/4" Superflexible cable allows for easier connections in tight spaces.

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  |              | 6     | GHz                              |
| VSWR                          |     |              | 1.5:1 |                                  |
| Velocity of Propagation       |     | 82           |       | %                                |
| RF Shielding                  | 120 |              |       | dB                               |
| Passive Intermodulation       |     |              | -150  | dBc                              |
| Capacitance                   |     | 24.4 [80.05] |       | pF/ft [pF/m]                     |
| Inductance                    |     | 0.059 [0.19] |       | uH/ft [uH/m]                     |
| DC Resistance Inner Conductor |     | 3.2 [10.5]   |       | $\Omega$ /1000ft [ $\Omega$ /Km] |
| DC Resistance Outer Conductor |     | 2.53 [8.3]   |       | $\Omega$ /1000ft [ $\Omega$ /Km] |
| Jacket Spark                  |     |              | 2,000 | Vrms                             |

### Performance by Frequency

| Description           | F1    | F2    | F3    | F4    | F5    | Units |
|-----------------------|-------|-------|-------|-------|-------|-------|
| Frequency             | 0.1   | 0.25  | 0.5   | 1     | 3     | GHz   |
| Insertion Loss (Typ.) | 0.016 | 0.026 | 0.039 | 0.057 | 0.107 | dB/ft |
|                       | 0.05  | 0.09  | 0.13  | 0.19  | 0.35  | dB/m  |

#### Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.25dB connector loss.

### Mechanical Specifications

#### Cable Assembly

Diameter 0.94 in [23.88 mm]

#### Cable

Cable Type 1/4" Superflexible



### Configuration:

- 4.1/9.5 Mini DIN Male Right Angle
- 4.1/9.5 Mini DIN Female
- 1/4" Superflexible

### Features:

- Max Frequency 6 GHz
- Low PIM: -150 dBc Max
- Shielding Effectivity > 120 dB
- 82% Phase Velocity
- PE Jacket
- Low PIM and Low Loss
- 100% Tested with PIM Test Results Marked on Cable

### Applications:

- General Purpose
- Laboratory Use
- Distributed Antenna Systems (DAS)
- Low PIM Applications and PIM Testing

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|                                      |                                  |
|--------------------------------------|----------------------------------|
| Impedance                            | 50 Ohms                          |
| Inner Conductor Type                 | Solid                            |
| Inner Conductor Material and Plating | Copper Clad Aluminum             |
| Dielectric Type                      | PE (F)                           |
| Number of Shields                    | 1                                |
| Shield Layer 1                       | Helically Corrugated Copper Tube |
| Jacket Material                      | PE, Black                        |
| Jacket Diameter                      | 0.303 in [7.7 mm]                |
| One Time Minimum Bend Radius         | 0.5 in [12.7 mm]                 |
| Repeated Minimum Bend Radius         | 1 in [25.4 mm]                   |
| Typical Flex Cycles                  | 20                               |
| Tensile Strength                     | 79 lbs [35.83 Kg]                |

**Connectors**

| Description                     | Connector 1           | Connector 2             |
|---------------------------------|-----------------------|-------------------------|
| Type                            | 4.1/9.5 Mini DIN Male | 4.1/9.5 Mini DIN Female |
| Specification                   | IEC 61169-11          | IEC 61169-11            |
| Impedance                       | 50 Ohms               | 50 Ohms                 |
| Contact Material & Plating      | Brass, Silver         | Brass, Silver           |
| Dielectric Type                 | PTFE                  | PTFE                    |
| Body Material & Plating         | Brass, Tri-Metal      | Brass, Tri-Metal        |
| Coupling Nut Material & Plating | Brass, Tri-Metal      |                         |

**Environmental Specifications**
**Temperature**

Operating Range -40 to +85 deg C

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

**Plotted and Other Data**

Notes:

**How to Order**

Part Number Configuration:

**FMCA2235 - xx uu**

cm = Centimeters  
<blank> = Inches  
Length

Example: FMCA2235-12 = 12 inches long cable  
FMCA2235-100cm = 100 cm long cable

RA 4.1/9.5 Mini DIN Male to 4.1/9.5 Mini DIN Female Cable 1/4 inch Superflexible Coax from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part of the broadest selection in the industry.

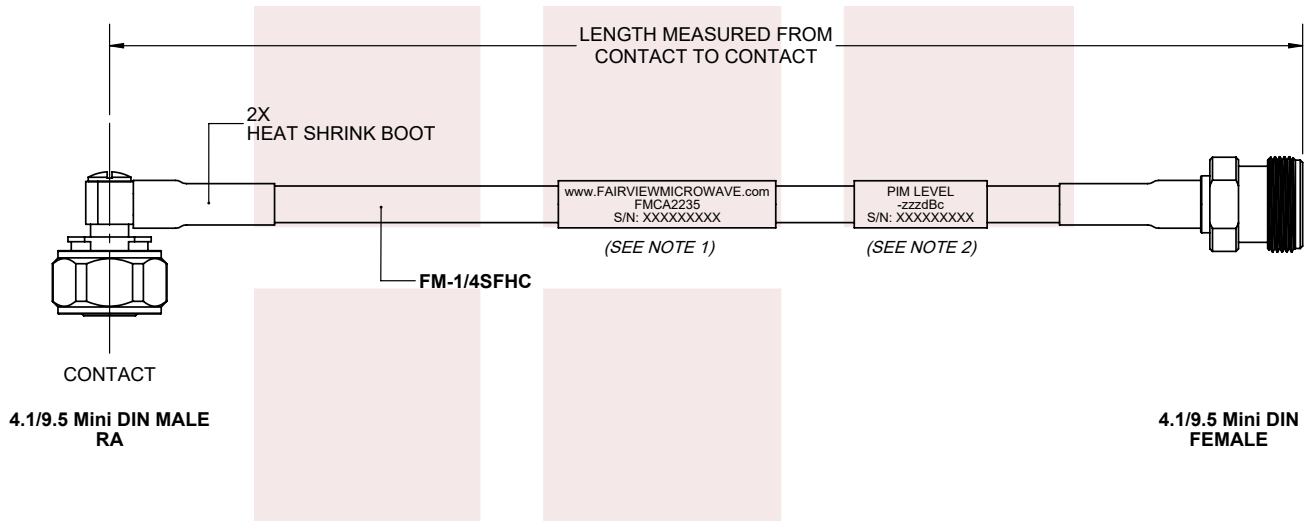
Click the following link to obtain additional part information: [RA 4.1/9.5 Mini DIN Male to 4.1/9.5 Mini DIN Female Cable 1/4 inch Superflexible Coax FMCA2235](#)

URL: <https://www.fairviewmicrowave.com/4.1-9.5-male-4.1-9.5-female-pe-1-4-sfhc-cable-assembly-FMCA2235-p.aspx>

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.



| REVISIONS |                 |           |          |
|-----------|-----------------|-----------|----------|
| REV.      | DESCRIPTION     | DATE      | APPROVED |
| A         | INITIAL RELEASE | 1/19/2021 | S.ELLIS  |



**NOTES:**

1. CABLES 84" AND UNDER HAVE 1 LABEL CENTERED. CABLES OVER 84" HAVE 2 LABELS, ONE AT EACH END 12.0" FROM THE END OF THE CONNECTOR.
2. 6" FROM CABLE END 1 PLACE FOR ALL LENGTHS OF CABLE.

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|   |   |   |                             |                             |                  |        |   |                    |             |  |   |                                      |   |  |  |                            |  |
|---|---|---|-----------------------------|-----------------------------|------------------|--------|---|--------------------|-------------|--|---|--------------------------------------|---|--|--|----------------------------|--|
| <p><b>Fairview Microwave</b><br/>an INFINIT<sup>®</sup> brand</p>   | <p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES<br/>DIMENSIONS IN [ ] ARE MILLIMETERS</p> <p>TOLERANCES:      CABLE LENGTH (L) TOLERANCES:</p> <table border="0"> <tr> <td>.X = ±.2 [5.08]</td> <td>FRACTIONS</td> <td>L ≤ 12 [305] = +1 [25] / -0</td> </tr> <tr> <td>.XX = ±.02 [.51]</td> <td>± 1/32</td> <td>12 [305] &lt; L ≤ 60 [1524] = +2 [51] / -0</td> </tr> <tr> <td>.XXX = ±.005 [.13]</td> <td>ANGLES ± 1°</td> <td>60 [1524] &lt; L ≤ 120 [3048] = +4 [102] / -0</td> </tr> <tr> <td></td> <td></td> <td>120 [3048] &lt; L ≤ 300 [7620] = +6 [152] / -0</td> </tr> <tr> <td></td> <td></td> <td>300 [7620] &lt; L = +5%L / -0</td> </tr> </table> | .X = ±.2 [5.08]                             | FRACTIONS                   | L ≤ 12 [305] = +1 [25] / -0 | .XX = ±.02 [.51] | ± 1/32 | 12 [305] < L ≤ 60 [1524] = +2 [51] / -0 | .XXX = ±.005 [.13] | ANGLES ± 1° | 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0 |   |                                      | 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0 |  |  | 300 [7620] < L = +5%L / -0 | <p>THIRD-ANGLE PROJECTION</p> <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF FAIRVIEW MICROWAVE CORPORATION. ALL RIGHTS RESERVED.</p> |
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| <p>TITLE</p> <p>RA 4.1/9.5 Mini DIN Male to 4.1/9.5 Mini DIN Female<br/>Cable 1/4 inch Superflexible Coax</p> | <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p> <table border="1"> <tr> <td>SIZE</td> <td>CAGE CODE</td> <td>DRAWN BY</td> <td>ITEM NO.</td> <td>REV</td> </tr> <tr> <td>A</td> <td>3FKR5</td> <td>K.DANG</td> <td>FMCA2235</td> <td>A</td> </tr> </table>  | SIZE  | CAGE CODE                   | DRAWN BY                    | ITEM NO.         | REV    | A                                       | 3FKR5              | K.DANG      | FMCA2235                                   | A | <p>SHEET 1 OF 1</p> <p>SCALE N/A</p> |   |  |  |                            |  |
| SIZE  | CAGE CODE   | DRAWN BY                                    | ITEM NO.                    | REV                         |                  |        |   |                    |             |  |   |                                      |   |  |  |                            |  |
| A   | 3FKR5   | K.DANG                                      | FMCA2235                    | A                           |                  |        |   |                    |             |  |   |                                      |   |  |  |                            |  |

T-Rev.D