Fairview Microwave
an INFINITE brand

# FMCA2324-50CM DATA SHEET

## QMA Male to QMA Male Right Angle Low PIM Cable 50 CM Length Using TFT-402 Coax Using Times Microwave Components

The QMA male to RA QMA male 50 cm cable using TFT-402 coax, part number FMCA2324-50CM, from Fairview Microwave is in-stock and ships same day. This Fairview QMA to QMA cable assembly has a male to male gender configuration with 50 ohm flexible TFT-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 -150 dBc. The FMCA2324-50CM QMA male to QMA male cable assembly operates to 3 GHz. The right angle QMA interface on the TFT-402 cable allows for easier connections in tight spaces. 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 | Min | Typ | Max | Units |
|---|---|---|---|---|
| Frequency Range | DC | | 3 | GHz |
| VSWR | | | 1.4:1 | |
| Velocity of Propagation | | 76 | | % |
| RF Shielding | -80 | | | dB |
| Passive Intermodulation | | | -150 | dBc |
| Capacitance | | 26.7 [87.6] | | pF/ft [pF/m] |
| DC Resistance Inner Conductor | | 8.5 [27.89] | | Ω/1000ft [Ω/Km] |
| DC Resistance Outer Conductor | | 5.6 [18.37] | | Ω/1000ft [Ω/Km] |

### Performance by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|---|---|---|---|---|---|---|
| Frequency | 0.1 | 0.25 | 0.5 | 1 | 3 | GHz |
| Insertion Loss (Typ.) | 0.19 | 0.24 | 0.29 | 0.37 | 0.57 | 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 right angle connector and 0.1 dB for the straight connector.

### Mechanical Specifications

**Cable Assembly**

| | |
|---|---|
| Length* | 19.68 in [499.87 mm] |
| Diameter | 0.413 in [10.49 mm] |

### Configuration:

- QMA Male
- QMA Male Right Angle
- TFT-402

### Features:

- Max Frequency 3 GHz
- Low PIM: -150 dBc Max
- Shielding Effectivity > -80 dB
- 76% Phase Velocity
- Double Shielded
- FEP Jacket
- 100 Mating Cycles

### Applications:

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

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**Cable**

| | |
|---|---|
| Cable Type | TFT-402 |
| Impedance | 50 Ohms |
| Inner Conductor Type | Solid |
| Inner Conductor Material and Plating | Copper, Silver |
| Dielectric Type | PTFE |
| Number of Shields | 2 |
| Shield Layer 1 | Silver Plated Copper Braid |
| Shield Layer 2 | Tinned Copper Braid |
| Jacket Material | FEP, Blue |
| Jacket Diameter | 0.16 in [4.06 mm] |
| One Time Minimum Bend Radius | 0.75 in [19.05 mm] |

**Connectors**

| Description | Connector 1 | Connector 2 |
|---|---|---|
| Type | QMA Male | QMA Male |
| Impedance | 50 Ohms | 50 Ohms |
| Mating Cycles | 100 | 100 |
| Contact Material & Plating | Brass, Silver | Beryllium Copper, Silver |
| Contact Plating Spec. | 5 µm | 200 µin |
| Dielectric Type | PTFE | PTFE |
| Body Material & Plating | Brass, Silver | Brass, Tri-Metal |
| Body Plating Spec. | 5 µm | 80 µin |
| Coupling Nut Material & Plating | | Brass, Tri-Metal |
| Coupling Nut Plating Spec. | | 80 µin |

## 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: **FMCA2324 - xx uu**

- uu: cm = Centimeters; <blank> = Inches
- xx: Length

Example: FMCA2324-12 = 12 inches long cable
FMCA2324-100cm = 100 cm long cable



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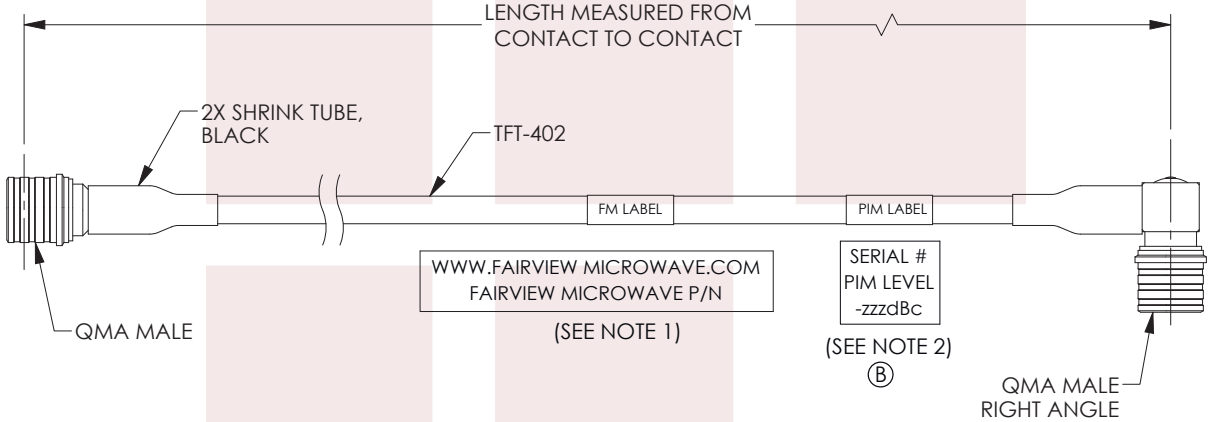
QMA Male to QMA Male Right Angle Low PIM Cable 50 CM Length Using TFT-402 Coax Using Times Microwave Components from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: QMA Male to QMA Male Right Angle Low PIM Cable 50 CM Length Using TFT-402 Coax Using Times Microwave Components FMCA2324-50CM

URL: https://www.fairviewmicrowave.com/low-pim-qma-male-ra-qma-male-cable-tft-402-coax-fmca2324-50cm-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 | 04/13/2021 | SELLIS |
| B | ADD PIM LABEL, UPDATE NOTES | 7/12/21 | SRAUTUS |




**NOTES:**

1. CABLES 84" AND UNDER HAVE 1 LABEL CENTERED. CABLES OVER 84" HAVE 2 LABELS, ONE AT EACH END 12" FROM THE FRONT OF THE CONNECTOR.
2. PIM LABEL 6" FROM CABLE END 1 PLACE.

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TITLE

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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:

.X = ±.2 [5.08]
.XX = ±.02 [ .51 ]
.XXX = ±.005 [ .13 ]
FRACTIONS ± 1/32
ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:

L ≤ 12 [305] = +1 [25] / -0
12 [305] < L ≤ 60 [1524] = +2 [51] / -0
60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
300 [7620] < L = +5%L / -0

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

| SIZE | CAGE CODE | DRAWN BY | ITEM NO. | REV |
|---|---|---|---|---|
| A | 3FKR5 | DFRISIELLO | FMCA2324 | B |

T-Rev.D

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