Fairview Microwave
an INFINITE brand

FMCA2297-48
DATA SHEET

Low PIM 1.0/2.3 Plug to 1.0/2.3 Plug Cable TFT-402 Coax in 48 Inch Using Times Microwave Components

The 1.0/2.3 plug to 1.0/2.3 plug 48 inch cable using TFT-402 coax, part number FMCA2297-48, from Fairview Microwave is in-stock and ships same day. This Fairview 1.0/2.3 to 1.0/2.3 cable assembly has a plug to plug 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 FMCA2297-48 1.0/2.3 plug to 1.0/2.3 plug cable assembly operates to 5.8 GHz. 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.

Configuration:

- 1.0/2.3 Plug
- 1.0/2.3 Plug
- TFT-402

Features:

- Max Frequency 5.8 GHz
- Low PIM: -150 dBc Max
- Shielding Effectivity > -80 dB
- 76% Phase Velocity
- Double Shielded
- FEP Jacket
- 500 Mating Cycles

Applications:

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

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	DC		5.8	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	0.25	0.5	1	2.5	5.8	GHz
Insertion Loss (Typ.)	0.31	0.45	0.64	1.01	1.55	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 per connector.

Mechanical Specifications

Cable Assembly

Length*	48 in [121.92 cm]
Diameter	0.33 in [8.38 mm]

Cable

Cable Type	TFT-402

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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	1.0/2.3 Plug	1.0/2.3 Plug
Impedance	50 Ohms	50 Ohms
Mating Cycles	500	500
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, Tri-Metal	Brass, Tri-Metal
Coupling Nut Plating Spec.	80 µin	80 µin

Environmental Specifications

Temperature

Operating Range -40 to +125 deg C

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

How to Order

Part Number Configuration: **FMCA2297 - xx uu**

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

Example: FMCA2297-12 = 12 inches long cable
FMCA2297-100cm = 100 cm long cable

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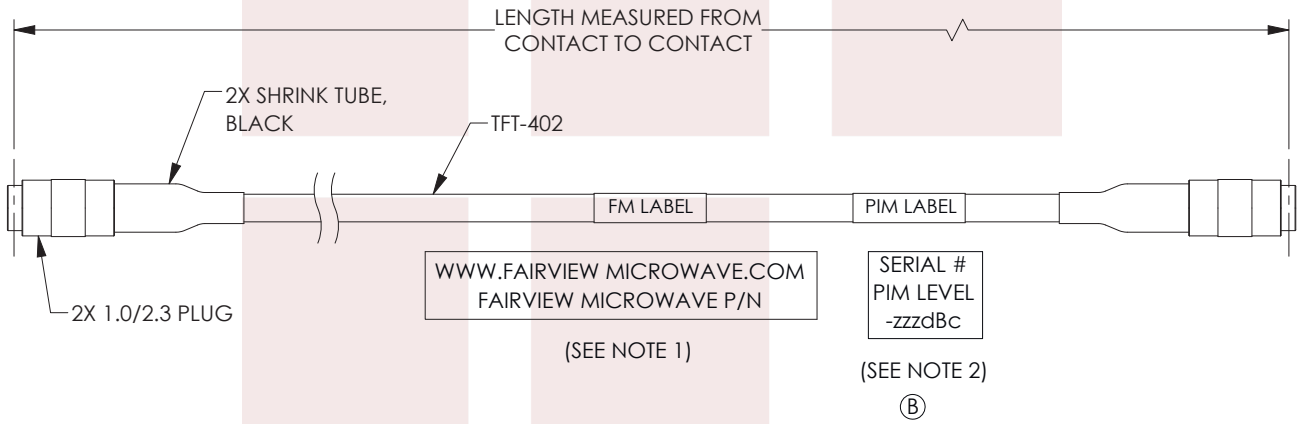
Low PIM 1.0/2.3 Plug to 1.0/2.3 Plug Cable TFT-402 Coax in 48 Inch Using Times Microwave Components from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: Low PIM 1.0/2.3 Plug to 1.0/2.3 Plug Cable TFT-402 Coax in 48 Inch Using Times Microwave Components FMCA2297-48

URL: https://www.fairviewmicrowave.com/low-pim-1.0-2.3-plug-1.0-2.3-plug-cable-tft-402-coax-fmca2297-48-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	04/10/2021	SELLIS
B	ADD PIM LABEL, UPDATE NOTES	8/3/21	



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 6" FROM CABLE END 1 PLACE.

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TITLE

Low PIM 1.0/2.3 Plug to 1.0/2.3 Plug Cable TFT-402 Coax in 48 Inch Using Times Microwave Components

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	FMCA2297	B

T-Rev.D