

Low PIM RA N Male to N Female Cable 1/4 inch Superflexible Coax

The RA type N male to type N female cable using 1/4 inch superflexible coax, part number FMCA2258, from Fairview Microwave is in-stock and ships same day. This Fairview type N to type N 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. Our low PIM design offers excellent passive intermodulation performance with PIM levels better than -150 dBc. The FMCA2258 type N male to type N female cable assembly operates to 6 GHz. The right angle type N 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]		$\Omega/1000\text{ft}$ [Ω/Km]
DC Resistance Outer Conductor		2.53 [8.3]		$\Omega/1000\text{ft}$ [Ω/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

Cable

Cable Type
Impedance

1/4" Superflexible
50 Ohms



Configuration:

- N Male Right Angle
- N 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
- Low PIM Applications
- Distributed Antenna Systems (DAS)
- Low PIM Applications and PIM Testing

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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	N Male	N Female
Specification	IEC 61169-16	IEC 61169-16
Impedance	50 Ohms	50 Ohms
Contact Material & Plating	Brass, Silver	Bronze, 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:

FMCA2258 - xx uu


cm = Centimeters

<blank> = Inches

Length

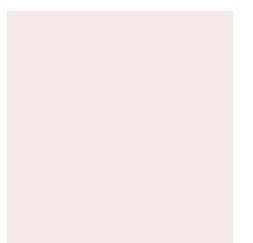
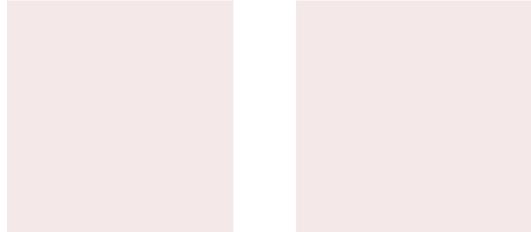
Example: FMCA2258-12 = 12 inches long cable
 FMCA2258-100cm = 100 cm long cable

Low PIM RA N Male to N Female Cable 1/4 inch Superflexible Coax 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.

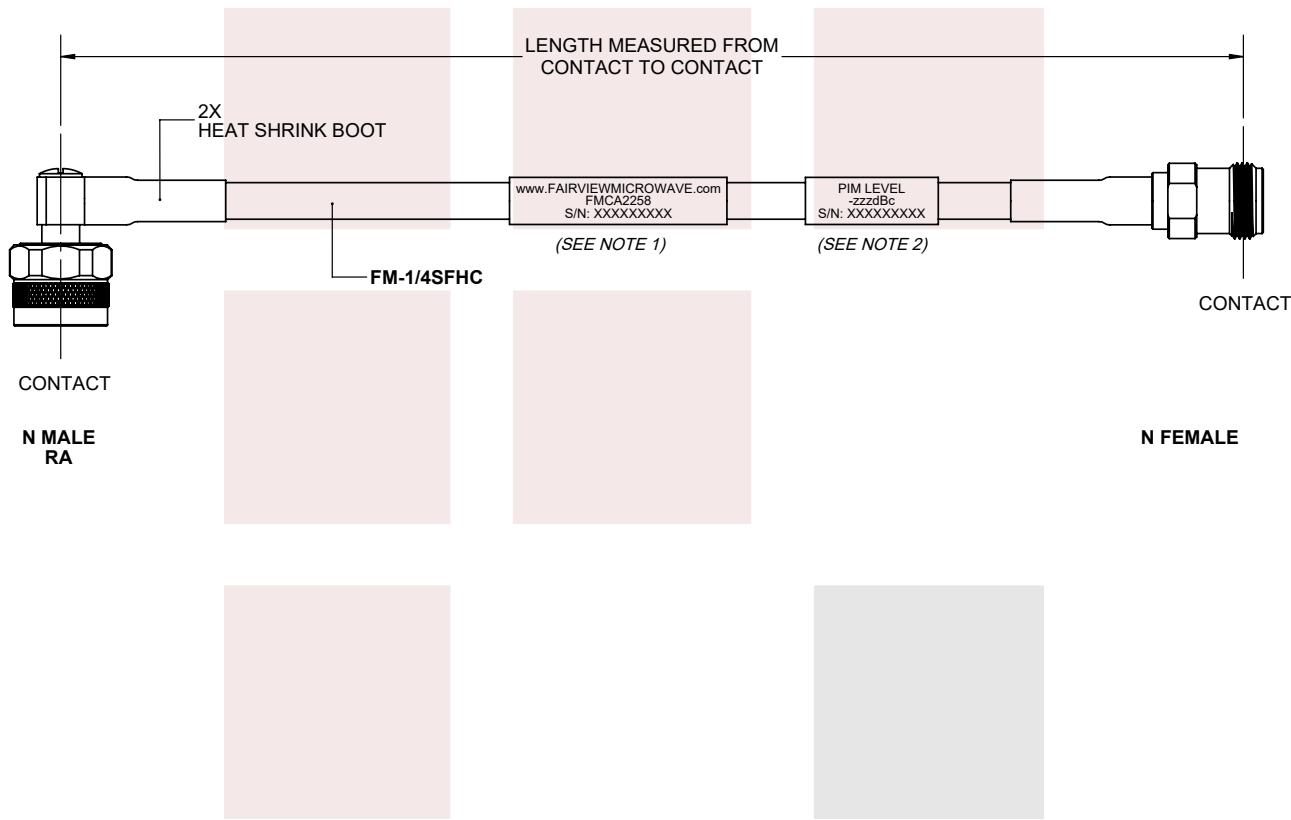
Click the following link to obtain additional part information: [Low PIM RA N Male to N Female Cable 1/4 inch Superflexible Coax FMCA2258](#)

URL: <https://www.fairviewmicrowave.com/low-pim-ra-n-male-n-female-cable-fm-1-4-sfhc-coax-fmca2258-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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	TOLERANCES:	CABLE LENGTH (L) TOLERANCES:	
TITLE Low PIM RA N Male to N Female Cable 1/4 inch Superflexible Coax	X = ± 2 [5.08] FRACTIONS XX = ± 0.02 [.51] $\pm 1/32$ XXX = $\pm .005$ [.13] ANGLES $\pm 1^\circ$	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 = $\pm 5\%$ L / -0	ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.
SIZE A	CAGE CODE 3FKR5	DRAWN BY K.DANG	ITEM NO. FMCA2258 REV A

T-Rev.D