

## Low Loss TNC Male to RA QMA Male Cable LMR-240-UF Coax in 12 Inch with Times Microwave components

The TNC male to RA QMA male 12 inch cable using LMR-240-UF coax, part number FMC00299-12, from Fairview Microwave is in-stock and ships same day. This Fairview TNC to QMA cable assembly has a male to male gender configuration with 50 ohm flexible LMR-240-UF coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMC00299-12 TNC male to QMA male cable assembly operates to 5.8 GHz. The right angle QMA interface on the LMR-240-UF cable allows for easier connections in tight spaces. The double shielding of this Fairview cable assembly provides excellent shielding effectiveness of better than 90 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  |              | 5.8   | GHz                              |
| VSWR                          |     |              | 1.4:1 |                                  |
| Velocity of Propagation       |     | 84           |       | %                                |
| RF Shielding                  | 90  |              |       | dB                               |
| Group Delay                   |     | 1.21 [3.97]  |       | ns/ft [ns/m]                     |
| Capacitance                   |     | 24.2 [79.4]  |       | pF/ft [pF/m]                     |
| Inductance                    |     | 0.06 [0.2]   |       | uH/ft [uH/m]                     |
| DC Resistance Inner Conductor |     | 4.28 [14.04] |       | $\Omega$ /1000ft [ $\Omega$ /Km] |
| DC Resistance Outer Conductor |     | 3.89 [12.76] |       | $\Omega$ /1000ft [ $\Omega$ /Km] |
| Jacket Spark                  |     |              | 5,000 | Vrms                             |

### Performance by Frequency

| Description           | F1   | F2   | F3  | F4   | F5   | Units |
|-----------------------|------|------|-----|------|------|-------|
| Frequency             | 0.25 | 0.5  | 1   | 2.5  | 5.8  | GHz   |
| Insertion Loss (Typ.) | 0.35 | 0.37 | 0.4 | 0.46 | 0.54 | dB    |

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax cable and connectors used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.1 dB for the straight connector and 0.2 dB for the right angle connector

### Mechanical Specifications

#### Cable Assembly

Length\* 12 in [304.8 mm]

#### Cable

Cable Type LMR-240-UF



### Configuration:

- TNC Male
- QMA Male Right Angle
- LMR-240-UF

### Features:

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 84% Phase Velocity
- Double Shielded
- TPE Jacket

### Applications:

- General Purpose
- Laboratory Use

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|                                      |                        |
|--------------------------------------|------------------------|
| Impedance                            | 50 Ohms                |
| Inner Conductor Type                 | Stranded               |
| Inner Conductor Material and Plating | Copper                 |
| Dielectric Type                      | PE (F)                 |
| Number of Shields                    | 2                      |
| Shield Layer 1                       | Aluminum Tape          |
| Shield Layer 2                       | Tinned Copper Braid    |
| Jacket Material                      | TPE, Black             |
| Jacket Diameter                      | 0.24 in [6.1 mm]       |
| One Time Minimum Bend Radius         | 0.75 in [19.05 mm]     |
| Repeated Minimum Bend Radius         | 2.5 in [63.5 mm]       |
| Bending Moment                       | 0.13 lbs-ft [0.18 N-m] |
| Flat Plate Crush                     | 13 lbs/in [0.23 Kg/mm] |
| Tensile Strength                     | 80 lbs [36.29 Kg]      |

### Connectors

| Description                     | Connector 1           | Connector 2            |
|---------------------------------|-----------------------|------------------------|
| Type                            | TNC Male              | QMA Male               |
| Impedance                       | 50 Ohms               | 50 Ohms                |
| Mating Cycles                   | 500                   |                        |
| Contact Material & Plating      | Phosphor Bronze, Gold | Beryllium Copper, Gold |
| Contact Plating Spec.           | 50μ in. minimum       |                        |
| Dielectric Type                 | PTFE                  | PTFE                   |
| Outer Cond Material & Plating   | Brass, Tri-Metal      | Brass, Nickel          |
| Body Material & Plating         | Brass, Tri-Metal      | Brass, Nickel          |
| Body Plating Spec.              | 80μ in. minimum       |                        |
| Coupling Nut Material & Plating | Brass, Tri-Metal      |                        |
| Coupling Nut Plating Spec.      | 80μ in. minimum       |                        |
| Torque                          | 20 in-lbs 2.26 Nm     |                        |

### Mechanical Specification Notes:

\*All cable assemblies have a length tolerance of 1.5% or  $\pm 3/8"$ , whichever is greater.

### Environmental Specifications

#### Temperature

|                 |                  |
|-----------------|------------------|
| Operating Range | -40 to +85 deg C |
| Storage Range   | -70 to +85 deg C |

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

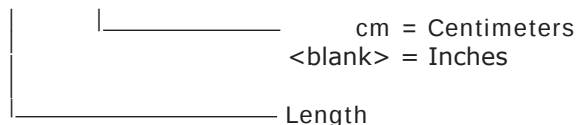
### Plotted and Other Data

Notes:

## How to Order

Part Number Configuration:

**FMC00299 - xx uu**



Example: FMC00299-12 = 12 inches long cable  
FMC00299-100cm = 100 cm long cable

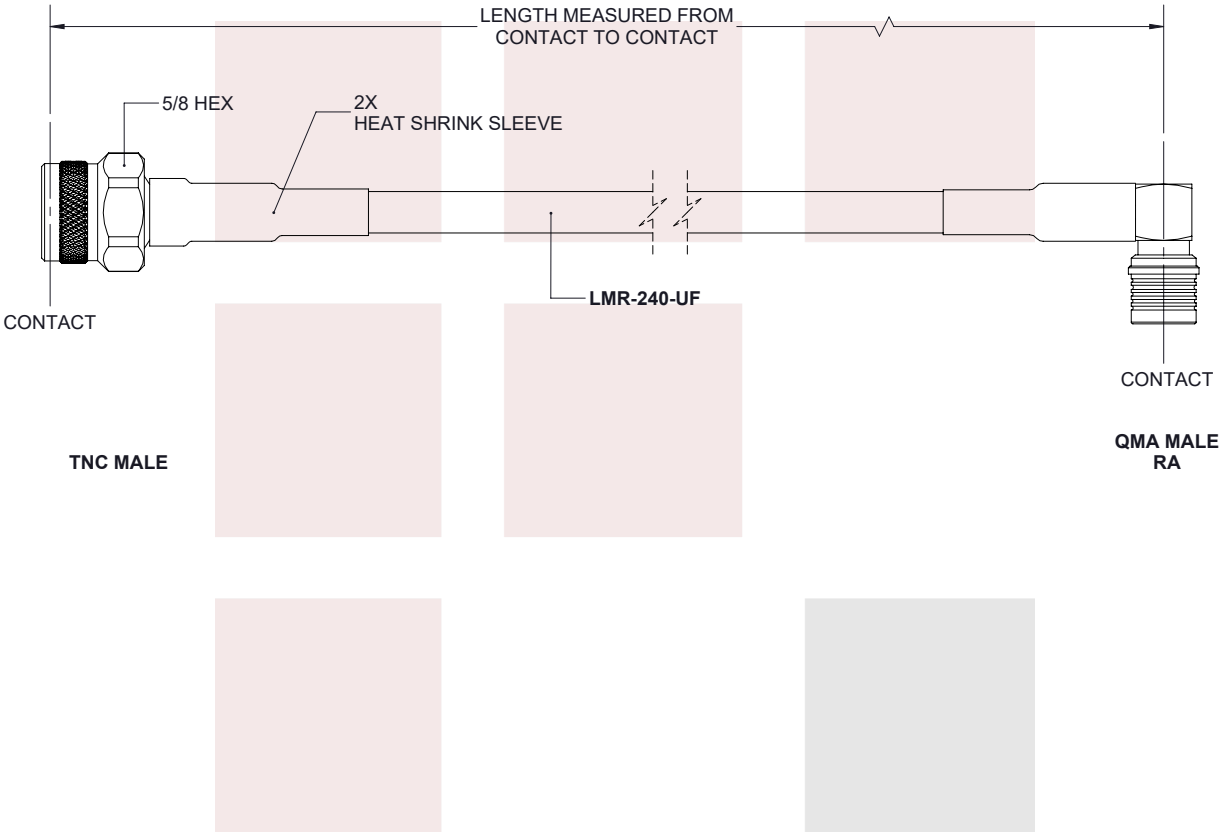
Low Loss TNC Male to RA QMA Male Cable LMR-240-UF Coax in 12 Inch with Times Microwave components from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [Low Loss TNC Male to RA QMA Male Cable LMR-240-UF Coax in 12 Inch with Times Microwave components FMC00299-12](https://www.fairviewmicrowave.com/tnc-male-ra-qma-male-cable-lmr240uf-coax-fmc00299-12-p.aspx)

URL: <https://www.fairviewmicrowave.com/tnc-male-ra-qma-male-cable-lmr240uf-coax-fmc00299-12-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 | 2/21/2020 | S.ELLIS  |



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| <div><div><div></div><div></div><div></div><div></div></div><div><div>Fairview Microwave</div><div>an INFINITE brand</div></div></div> |                 | UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES<br>DIMENSIONS IN [ ] ARE MILLIMETERS                                                                                                                                                                                                             |                   | THIRD-ANGLE PROJECTION<br>   |  |
| TITLE<br><br>Low Loss TNC Male to RA QMA Male Cable LMR-240-UF Coax in 12 Inch with Times Microwave components                         |                 | TOLERANCES:                                                                                                                                                                                                                                                                                               |                   | CABLE LENGTH (L) TOLERANCES: |  |
|                                                                                                                                        |                 | .X = ±.2 [ .51 ]    FRACTIONS    L ≤ 12 [305] = +1 [25] / -0<br>.XX = ±.02 [ .51 ]    ± 1/32    12 [305] < L ≤ 60 [1524] = +2 [51] / -0<br>.XXX = ±.005 [ .13 ]    ANGLES ± 1°    60 [1524] < L ≤ 120 [3048] = +4 [102] / -0<br>120 [3048] < L ≤ 300 [7620] = +6 [152] / -0<br>300 [7620] < L = +5%L / -0 |                   | SHEET 1 OF 1                 |  |
|                                                                                                                                        |                 | ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.                                                                                                                                                                                                                                                              |                   | SCALE N/A                    |  |
| SIZE A                                                                                                                                 | CAGE CODE 3FKR5 | DRAWN BY K.DANG                                                                                                                                                                                                                                                                                           | ITEM NO. FMC00299 | REV A                        |  |

T-Rev.D