

## Reverse Polarity SMA Male (Plug) Connector For LMR-240, LMR-240-DB, LMR-240-UF, RG8X, .240 inch, B7808A Cable, Crimp/Solder

RP SMA male connector with crimp/solder attachment for LMR-240, LMR-240-DB, LMR-240-UF, RG8X, .240 inch and B7808A, part number FMCO1051, from Fairview Microwave is in-stock and ships same day. Our reverse polarity male configuration uses a male connector body with a female inner contact receptacle. This SMA male connector operates up to a maximum frequency of 6 GHz and offers good VSWR of 1.35:1.

Fairview's RP SMA male connector FMCO1051 datasheet specifications and outline drawing are shown in this PDF below. Our extensive offering of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. From providing an I/O for a board design to creating a custom cable assembly configuration, Fairview Microwave has a connector solution to meet your needs. Fairview Microwave also has the expertise to build your custom cable assemblies for you and ship them same-day.

### Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	DC		6	GHz
VSWR			1.35:1	

### Mechanical Specifications

<b>Size</b>	
Length	0.997 in [25.32 mm]
Width/Dia.	0.312 in [7.92 mm]
Weight	0.0139 lbs [6.3 g]
Mating Torque	5 in-lbs [0.57 Nm]

### Material Specifications

Description	Material	Plating
Contact	Beryllium Copper	Gold
Insulation	PTFE	
Body	Brass	Gold
Coupling Nut	Brass	Gold

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

### Plotted and Other Data

Notes:



### Configuration:

- SMA Male Reverse Polarity Connector
- 50 Ohms
- Straight Body Geometry
- LMR-240, LMR-240-DB, LMR-240-UF, RG8X, .240 inch, B7808A Interface Type
- Crimp/Solder Attachment
- 5/16 inch Hex

### Features:

- Operating Frequency of 6 GHz Max.
- Good VSWR of 1.35:1
- Reverse Polarity
- Gold Plated Beryllium Copper Contact

### Applications:

- General Purpose Test
- Custom Cable Assemblies

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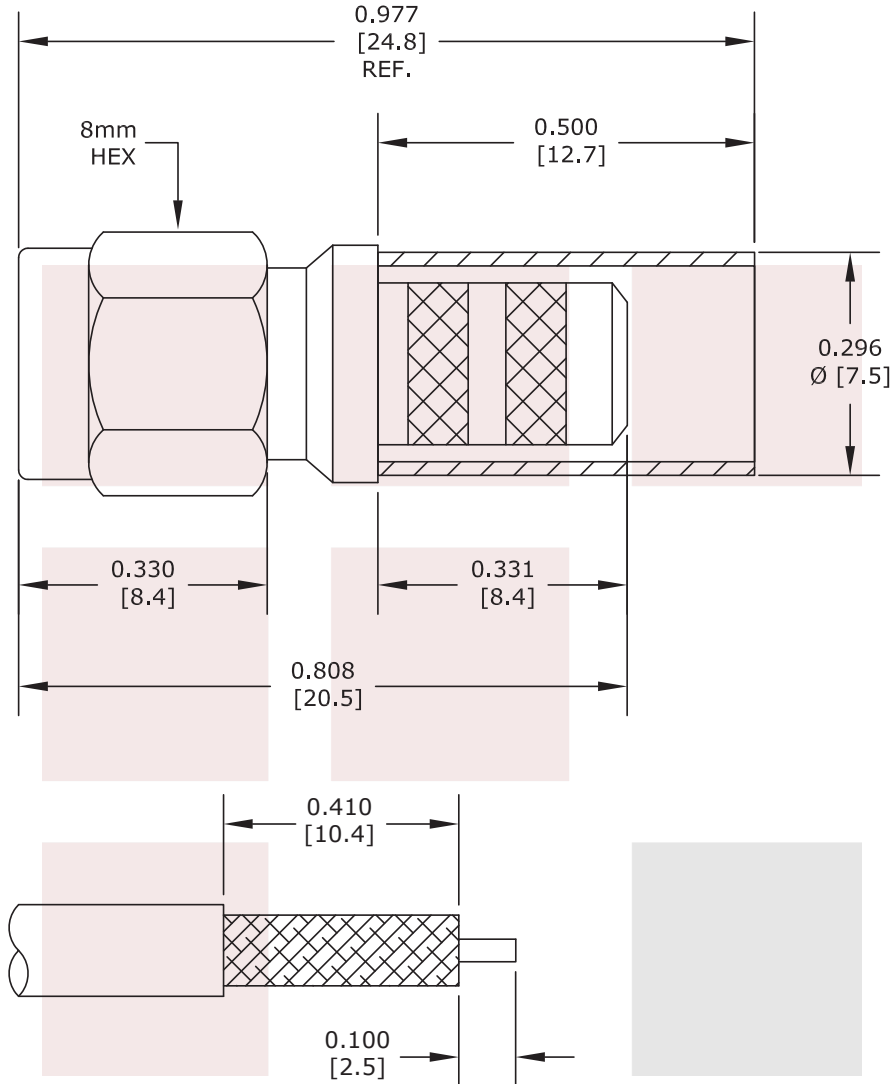
Reverse Polarity SMA Male (Plug) Connector For LMR-240, LMR-240-DB, LMR-240-UF, RG8X, .240 inch, B7808A Cable, Crimp/Solder from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Reverse Polarity SMA Male \(Plug\) Connector For LMR-240, LMR-240-DB, LMR-240-UF, RG8X, .240 inch, B7808A Cable, Crimp/Solder FMCO1051](#)

URL: <https://www.fairviewmicrowave.com/sma-male-reverse-polarity-lmr-240-connector-fmco1051-p.aspx>

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STRIPPING DIMENSIONS

CRIMP SIZE REQUIRED

CONTACT: SOLDER  
FERRULE: .255" HEX CRIMP TOOL

NOTES:  
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.  
3. DIMENSIONS ARE IN INCHES [mm].

TITLE Reverse Polarity SMA Male (Plug) Connector For LMR-240, LMR-240-DB, LMR-240-UF, RG8X, .240 inch, B7808A Cable, Crimp/Solder	DWG NO <b>FMC01051</b>		CAGE CODE <b>3FKR5</b>		
	CAD FILE 030215	SHEET	SCALE N/A	SIZE A	2233

N Male Low PIM Connector Clamp/Solder Attachment for TCOM-240, TCOM-240-FR, LMR-240, LMR-240-DB, LMR-240-FR, LMR-240-UF



**TCP-240-NMC-LP**

**Configuration**

- N Male Connector
- IEC-61169-16
- 50 Ohms
- Straight Body Geometry
- Connector Interface Types: TCOM-240, TCOM-240-FR, LMR-240, LMR-240-DB, LMR-240-FR, LMR-240-UF, LMR-LW240
- Low PIM Design

**Features**

- Operating Frequency of 6 GHz Max.
- Good VSWR of 1.3:1
- PIM levels better than -160 dBc
- Silver Plated Brass Contact
- 200 µin minimum contact plating

**Applications**

- General Purpose Test
- Wireless Communications
- Custom Cable Assemblies
- Low PIM Applications

**Description**

Type N Male Low PIM Connector Clamp/Solder Attachment for TCOM-240, TCOM-240-FR, LMR-240, LMR-240-DB, LMR-240-FR, LMR-240-UF and LMR-LW240 Cable, part number TCP-240-NMC-LP, from Fairview Microwave is in-stock and ships same day. This type N male connector operates up to a maximum frequency of 6 GHz and offers good VSWR of 1.3:1. The type N male connector also has low passive intermodulation (PIM) of -160 dBc.

Fairview's type N male connector TCP-240-NMC-LP datasheet specifications and outline drawing are shown in this PDF below. Our extensive offering of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. From providing an I/O for a board design to creating a custom cable assembly configuration, Fairview Microwave has a connector solution to meet your needs. Fairview Microwave also has the expertise to build your custom cable assemblies for you and ship them same-day.

**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		6	GHz
VSWR			1.3:1	
Insertion Loss			0.245	dB
Passive Intermodulation			-160	dBc
Impedance		50		Ohms

**Mechanical Specifications**

**Size**

- Length 1.545 in [39.24 mm]
- Width 0.748 in [19 mm]
- Height 0.748 in [19 mm]
- Weight 0.09 lbs [40.82 g]
- Mating Cycles 500 Cycles
- Mating Torque 44.25 in-lbs [[5.00 Nm]]

N Male Low PIM Connector Clamp/Solder Attachment for TCOM-240, TCOM-240-FR, LMR-240, LMR-240-DB, LMR-240-FR, LMR-240-UF



## TCP-240-NMC-LP

### Material Specifications

Description	Material	Plating
Contact	Brass	Silver 200 µin minimum
Insulation	PTFE	
Body	Brass	Tri-Metal 100 µin minimum
Coupling Nut	Brass	Tri-Metal 100 µin minimum
Retaining Ring	Brass	Silver 200 µin minimum
Gasket	Silicone	

### Environmental Specifications

**Temperature**

Operating Range

Shock

Vibration

Thermal Shock

-40 to +125 deg C

MIL-STD-202, Meth.213, Con.I

MIL-STD-202, Meth.204, Cond.D

MIL-STD-202, Meth.107, Cond.B

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

### Plotted and Other Data

Notes:

# N Male Low PIM Connector Clamp/Solder Attachment for TCOM-240, TCOM-240-FR, LMR-240, LMR-240-DB, LMR-240-FR, LMR-240-UF



## TCP-240-NMC-LP

### Assembly Instruction

**NOTICE OF PROPRIETARY RIGHTS:** THIS DOCUMENT CONTAINS CONFIDENTIAL DATA, INCLUDING TRADE SECRETS, PROPRIETARY TO TIMES MICROWAVE SYSTEMS. DISCLOSURE OF THIS DATA IS EXPRESSLY CONDITIONED UPON YOUR ASSENT THAT ITS USE IS LIMITED TO USE WITHIN YOUR COMPANY ONLY. ANY OTHER USE IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF TIMES MICROWAVE SYSTEMS.

SYM	REVISION DESCRIPTION	DFM	DATE	APPD	DATE
A	RELEASED FOR PRODUCTION	Jouken	2019/09/17	Monica	2019/09/17
B	ECN-000000001	Monica	2020/05/18	Tony Z	2020/05/18

**Notes:**  
1. Center pin crimp size Hex. 2.15x3.0mm(0.085"x0.118"), Contact pin retention force ≥10 lbs

I. MATERIALS & FINISHES				II. ELECTRICAL PROPERTIES	
Components	Materials	Finishes	Thk. (μ")	Impedance:	50 Ω
Body	Brass	Albaloy	100	Frequency Range:	DC to 6 GHz
Coupling Nut	Brass	Albaloy	100	Dielectric Withstanding Voltage:	1000 V rms
Contact Pin	Brass	Silver	200	Insulation Resistance:	≥5000 MO
Insulator	PTFE	-	-	VSWR:	±1.30
Gasket	Silicone	Red	-	Insertion Loss:	-0.1x√f(GHz) dB
Clamp/Ring	Brass	Silver	200	PIM(dBc; 2x-4x3dBm):	<160
Clamp2	Phosphor Bronze	Albaloy	100		

III. ENVIRONMENTAL PROPERTIES				IV. MECHANICAL PROPERTIES	
Temperature Range:	-40°C to +125°C	Center Contact:	Solder/Crimp		
Thermal Shock:	MIL-STD-202, Meth.107, Cond. B	Outer Contact:	Clamp		
Vibration:	MIL-STD-202, Meth.204, Cond. D	Coupling Nut Torque:	3 N.m		
Shock:	MIL-STD-202, Meth.213, Cond. I	Crd-Connector Retention Force:	250N		
Climate Class:	IEC 60068-1/2/21	Duration:	500 Cycles		
RoHS:	Compliant				

**V. TOOLINGS & ACCESSORIES**  
Heat Shrink Tube: 9.5x50.8 (3-1) 1 pcs  
20 x50.8 (3-1) 1 pcs

**RECOMMENDED CABLE STRIPPING DIMS**  
Connector Axis: 15.85 mm(0.624")

Interface Compatible with Standard:  
IEC-61169-16  
MIL-STD-348

UNLESS OTHERWISE SPECIFIED		DFM	Jouken	TIMES
ALL DIMENSIONS ARE IN mm		DATE	2019/09/17	MICROWAVE SYSTEMS
MACHINED SURFACES FINISH 1.6 RMS MAX.		CHKD	Patrick	TCP-240-NMC-LP
REMOVE ALL BURRS 0.10X45° MAX. BREAK		DATE	2019/09/17	Type N Male (Plug) Infrtek Installation
MACHINE CORNERS 0.10X45° D MAX. FILLET		APPD	Monica	Straight Connector for TCOM-240 Cable
TOLERANCES ON DECIMALS		SCALE	1:1	3190-6574
.X ±0.15 .XX ±0.1		DATE	2019/09/17	REV
ANGLES 2° FRACTIONS ±0.1		SHT	1/1	B
DO NOT SCALE DRAWING				

N Male Low PIM Connector Clamp/Solder Attachment for TCOM-240, TCOM-240-FR, LMR-240, LMR-240-DB, LMR-240-FR, LMR-240-UF from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

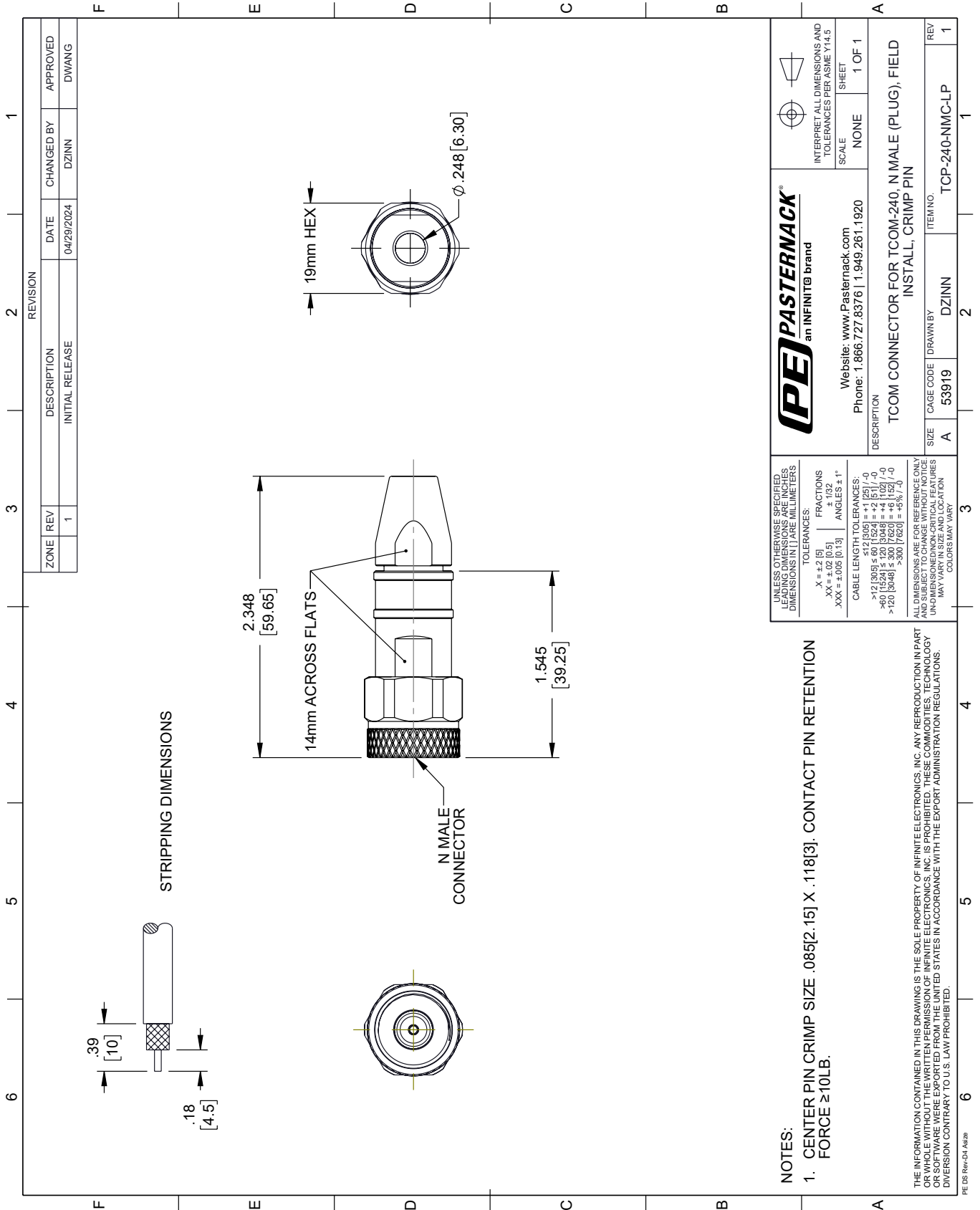
For additional information on this product, please click the following link: [N Male Low PIM Connector Clamp/Solder Attachment for TCOM-240, TCOM-240-FR, LMR-240, LMR-240-DB, LMR-240-FR, LMR-240-UF TCP-240-NMC-LP](https://www.fairviewmicrowave.com/n-male-tcom-240-tcom-240-fr-lmr-240-lmr-240-db-lmr-240-fr-lmr-240-uf-lmr-240-uf-lmr-240-connector-tcp-240-nmc-lp-p.aspx)

URL: <https://www.fairviewmicrowave.com/n-male-tcom-240-tcom-240-fr-lmr-240-lmr-240-db-lmr-240-fr-lmr-240-uf-lmr-240-uf-lmr-240-connector-tcp-240-nmc-lp-p.aspx>

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# TCP-240-NMC-LP CAD Drawing

N Male Low PIM Connector Clamp/Solder Attachment for TCOM-240, TCOM-240-FR, LMR-240, LMR-240-DB, LMR-240-FR, LMR-240-UF



**NOTES:**

- CENTER PIN CRIMP SIZE  $.085[2.15] \times .118[3]$ . CONTACT PIN RETENTION FORCE  $\geq 10\text{LB}$ .

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

TOLERANCES:  
 .X =  $\pm .2$  [5]  
 .XX =  $\pm .02$  [0.5]  
 .XXX =  $\pm .005$  [0.13]

FRACTIONS:  
 $\pm 1/32$   
 ANGLES  $\pm 1^\circ$

CABLE LENGTH TOLERANCES:  
 $< 12$  [305]  $\leq 60$  [1524] =  $\pm 1$  [25] / -0  
 $> 60$  [1524]  $\leq 120$  [3048] =  $\pm 4$  [102] / -0  
 $> 120$  [3048]  $\leq 300$  [7620] =  $\pm 5$  [127] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE  
SHEET: 1 OF 1

DESCRIPTION: TCOM CONNECTOR FOR TCOM-240, N MALE (PLUG), FIELD INSTALL, CRIMP PIN

SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	53919	DZINN	TCP-240-NMC-LP

REV 1

## LMR®-240-UF UltraFlex Communications Coax

### Ideal for...

- Jumper Assemblies in Wireless Communications Systems
- Short Antenna Feeder runs (e.g. WLL, GPS, LMR, Mobile Antennas)
- Any application that requires periodic/repeated flexing



• **LMR® - UltraFlex** has a stranded center conductor and rubber outer jacket designed for multiple bending/flexing cycles. It is used for both indoor and outdoor applications.

• **Flexibility** and bendability are hallmarks of the LMR-240-UF cable design. The flexible outer conductor enables the tightest bend radius available for any cable of similar size and performance.

• **Low Loss** is another hallmark feature of LMR-240-UF. Size for size LMR has the lowest loss of any flexible cable and comparable loss to semirigid hard-line cables.

• **RF Shielding** is 50 dB greater than typical single shielded coax (40 dB). The multi-ply bonded foil outer conductor is rated conservatively at > 90 dB (i.e. >180 dB between two adjacent cables).

• **Weatherability:** LMR-240-UF cables are designed for outdoor exposure and have a life expectancy in excess of 10 years.

• **Connectors:** A wide variety of connectors are available for LMR-240-UF cable, including all common interface types, reverse polarity, and solder-on center pins. Most LMR connectors employ crimp outer attachment using standard hex crimp sizes.

• **Cable Assemblies:** All LMR-240-UF cable types are available as pre-terminated cable assemblies. Refer to the section on FlexTech for further details.

Construction Specifications			
Description	Material	In.	(mm)
Inner Conductor	Stranded BC	0.056	(1.42)
Dielectric	Foam Polyethylene	0.150	(3.81)
Outer Conductor	Aluminum Tape	0.155	(3.94)
Overall Braid	Tinned Copper	0.178	(4.52)
Jacket	Black Thermoplastic Elastomer	0.240	(6.10)

Mechanical Specifications			
Performance Property	Units	US	(metric)
Bend Radius: installation	in. (mm)	0.75	(19.1)
Bend Radius: repeated	in. (mm)	2.5	(63.5)
Bending Moment	ft-lb (N-m)	0.125	(0.17)
Weight	lb/ft (kg/m)	0.034	(0.05)
Tensile Strength	lb (kg)	80	(36.3)
Flat Plate Crush	lb/in. (kg/mm)	13	(0.23)

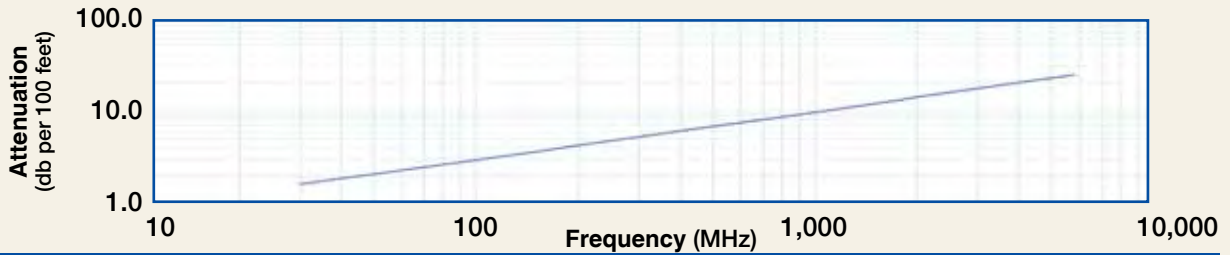
Environmental Specifications		
Performance Property	°F	°C
Installation Temperature Range	-40/+185	-40/+85
Storage Temperature Range	-94/+185	-70/+85
Operating Temperature Range	-40/+185	-40/+85

Electrical Specifications			
Performance Property	Units	US	(metric)
Velocity of Propagation	%	84	
Dielectric Constant	NA	1.42	
Time Delay	nS/ft (nS/m)	1.21	(3.97)
Impedance	ohms	50	
Capacitance	pF/ft (pF/m)	24.2	(79.4)
Inductance	uH/ft (uH/m)	0.060	(0.20)
Shielding Effectiveness	dB	>90	
DC Resistance			
Inner Conductor	ohms/1000ft (/km)	4.28	(14.1)
Outer Conductor	ohms/1000ft (/km)	3.89	(12.8)
Voltage Withstand	Volts DC	1500	
Jacket Spark	Volts RMS	5000	
Peak Power	kW	5.6	

Part Description				
Part Number	Application	Jacket	Color	Stock Code
LMR-240-UF	Indoor/Outdoor	TPE	Black	54041

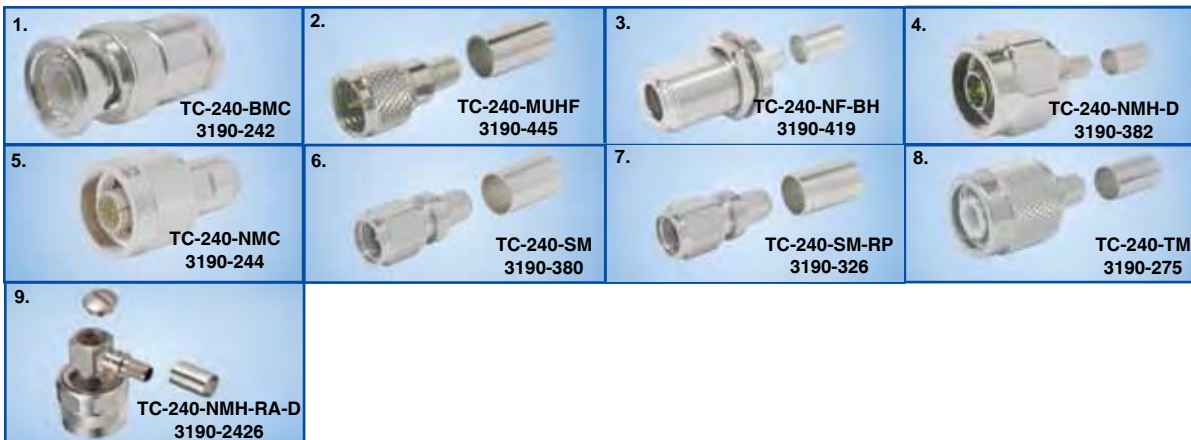


Attenuation vs. Frequency (typical)



Frequency (MHz)	30	50	150	220	450	900	1500	1800	2000	2500	5800
Attenuation dB/100 ft	1.6	2.1	3.6	4.4	6.3	9.1	11.8	13.0	13.8	15.5	24.4
Attenuation dB/100 m	5.3	6.8	11.9	14.4	20.8	29.8	38.9	42.8	45.2	50.9	80.1
Avg. Power kW	1.24	0.96	0.55	0.45	0.31	0.22	0.17	0.15	0.14	0.13	0.08

Calculate Attenuation = (0.290501) • √FMHz + (0.000396) • FMHz (interactive calculator available at [http://www.timesmicrowave.com/cable\\_calculators](http://www.timesmicrowave.com/cable_calculators))  
 Attenuation: VSWR=1.0; Ambient = +25°C (77°F) Power: VSWR=1.0; Ambient = +40°C; Inner Conductor = 100°C (212°F);  
 Sea Level; dry air; atmospheric pressure; no solar loading



**Connectors**

Interface	Description	Part Number	Stock Code	VSWR** Freq. (GHz)	Coupling Nut	Inner Contact Attach	Outer Contact Attach	Finish* /Pin	Length in (mm)	Width in (mm)	Weight lb (g)
1. BNC Male	Straight Plug	TC-240-BMC	3190-242	<1.25:1 (2.5)	Knurl	Solder	Clamp	S/G	1.7 (43)	0.56(14.2)	0.040 (18.1)
2. Mini-UHF	Straight Plug	TC-240-MUHF	3190-445	<1.25:1 (2.5)	Knurl	Solder	Crimp	N/G	1.1 (28)	0.45(11.4)	0.014 (6.4)
3. N Female	Bulkhead Jack	TC-240-NF-BH	3190-419	<1.25:1 (2.5)	NA	Solder	Crimp	A/G	1.7 (44)	0.88(22.2)	0.115 (52.2)
4. N Male	Straight Plug	TC-240-NMH-D	3190-382	<1.25:1 (2.5)	Hex	Solder	Crimp	N/S	1.5 (38)	0.75(19.1)	0.086 (39.0)
5. N Male	Straight Plug	TC-240-NMC	3190-244	<1.25:1 (2.5)	Knurl	Solder	Clamp	S/G	1.5 (38)	0.75(19.1)	0.082 (37.2)
6. SMA Male	Straight Plug	TC-240-SM	3190-380	<1.25:1 (10)	Hex	Solder	Crimp	SS/G	1.0 (25)	0.32(8.1)	0.016 (7.3)
7. SMA Male	Reverse Polarity	TC-240-SM-RP	3190-326	<1.25:1 (2.5)	Hex	Solder	Crimp	SS/G	1.0 (25)	0.32(8.1)	0.016 (7.3)
8. TNC Male	Straight Plug	TC-240-TM	3190-275	<1.25:1 (2.5)	Knurl	Solder	Crimp	N/S	1.7 (43)	0.59(15.0)	0.043 (19.5)
9. N Male	Right Angle	TC-240-NMH-RA-D	3190-2426	<1.35:1 (6)	Hex/Knurl	Solder	Crimp	A/G	1.2 (32.4)	1.22 (31.0)	0.091 (41.7)

\* Finish metals: N=Nickel, S=Silver, G=Gold, SS=Stainless Steel, A=Alballoy \*\*VSWR spec based on 3 foot cable with a connector pair

**Hardware Accessories**

Type	Part Number	Stock Code	Description
Ground Kit	GK-S240TT	GK-S240TT	Standard Ground Kit (each)

**Install Tools**

Type	Part Number	Stock Code	Description
Crimp Tool	CT-240/200/195/100	3190-667	Crimp tool for LMR-100, 195, 200 and 240 connectors
Cutting Tool	CCT-01	3190-1544	Cable end flush cut tool
Replacement Blade	RB-01	3190-1609	Replacement blade for cutting tool

