

## Times Microwave LMR-500-UF Low Loss Flexible Coax Cable Black TPE Jacket Ultra Flex



### LMR-500-UF-BULK



## Times Microwave Systems Connector Specification

### Configuration

- Low Loss, Outdoor Flexible Cable
- 2 Shield(s)

### Features

- Max Operating Frequency of 8 GHz
- Phase Velocity 85% VoP
- Stranded Center Conductor Resulting in an Ultra Flexible Coax
- Max Operating Temperature +85°C
- TPE Jacket
- Min Install Bend Radius of 1.25 inches

### Applications

- Laboratory Applications
- General Purpose RF Interconnect
- RF Test Systems Requiring Highly Flexible Coax
- Antenna Installs

### Description

LMR-500-UF Ultra Flex version of the 500 series Low Loss Coax from Times Microwave is part of the large product offering by Fairview Microwave of radio frequency coaxial cable types specifically stocked to be ready for same-day shipment. Fairview Microwave LMR-500-UF coax cable is manufactured in an ultra flexible design and has a 50 Ohm impedance. This low loss and ultra flexible 50 Ohm coax cable LMR-500-UF is constructed with a 0.500 inch diameter and Black TPE jacket.

LMR-500-UF flexible 50 Ohm coax cable with TPE jacket is rated for a 8 GHz maximum operating frequency. This 50 Ohm 0.500 inch diameter and low loss ultra flexible coax cable is built with an aluminum double shield count and RF shielding of 90 dB. Times Microwave LMR-500-UF TPE coax is constructed with Foam PE dielectric and a maximum operating temperature of 85 degrees C. Fairview Microwave's offering of LMR-500-UF coax cable provides specs for this wire on its RF coax cable LMR-500-UF datasheet.

LMR-500-UF cable is part of more than one million RF, microwave parts in stock at Fairview Microwave. This Times Microwave low loss ultra flexible LMR-500-UF coax cable is ready to buy and can be shipped worldwide. Fairview Microwave also maintains a wide selection of other radio frequency coaxial cable types that ship same-day from our warehouse as with the rest of our other RF/microwave components.

\* LMR™ is a trademark of Times Microwave Systems.

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		8	GHz
Impedance		50		Ohms
Velocity of Propagation		85		%
Time Delay		1.2 [3.94]		ns/ft [ns/m]
Shielding Effectiveness	90			dB
Dielectric Withstanding Voltage (DC)			2,500	Vdc
Jacket Spark			8,000	Vrms
Inner Conductor DC Resistance			0.68	Ohms/1000ft
Outer Conductor DC Resistance			1.27	Ohms/1000ft

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**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Nominal Capacitance		23.9 [78.41]		pF/ft [pF/m]
Nominal Inductance		0.06 [0.2]		uH/ft [uH/m]
Input Power (Peak)			22	kWatts

**Performance by Frequency Band**

Description	F1	F2	F3	F4	F5	Units
Frequency	50	150	220	450	900	MHz
Attenuation, Typ	0.8	1.5	1.8	2.6	3.8	dB/100ft
	2.62	4.92	5.91	8.53	12.47	dB/100m
Input Power (CW), Max	2,840	1,610	1,320	910	630	Watts

Description	F6	F7	F8	F9	F10	Units
Frequency	1.5	1.8	2	2.5	6	GHz
Attenuation, Typ	5	5.5	5.8	6.6	10.6	dB/100ft
	16.4	18.04	19.03	21.65	34.78	dB/100m
Input Power (CW), Max	480	430	410	360	220	Watts

**Mechanical Specifications**

Diameter	0.5 in [12.7 mm]
Weight	0.133 lbs/ft [0.2 kg/m]
Min. Bend Radius (Installation)	1.25 in [31.75 mm]
Min. Bend Radius (Repeated)	5 in [127 mm]
Bending Moment	1.25 lbs-ft [1.7 N-m]
Tensile Strength	260 lbs [117.93 kg]
Flat Plate Crush	35 lbs/in [0.63 kg/mm]

**Construction Specifications**

Description	Material and Plating	Diameter
Inner Conductor	Copper, 1 Strand	0.142 in [3.61 mm]
Conductor Type	Stranded	
Dielectric	Foam PE	0.11 in [2.79 mm]
First Shield	Aluminum Tape	
Second Shield	Tinned Copper	
Jacket	TPE, Black	0.5 in [12.7 mm]

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#### Environmental Specifications

##### Temperature

Operating Range	-40 to 85 deg C
Installation 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:

Times Microwave LMR-500-UF Low Loss Flexible Coax Cable Black TPE Jacket Ultra Flex 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.

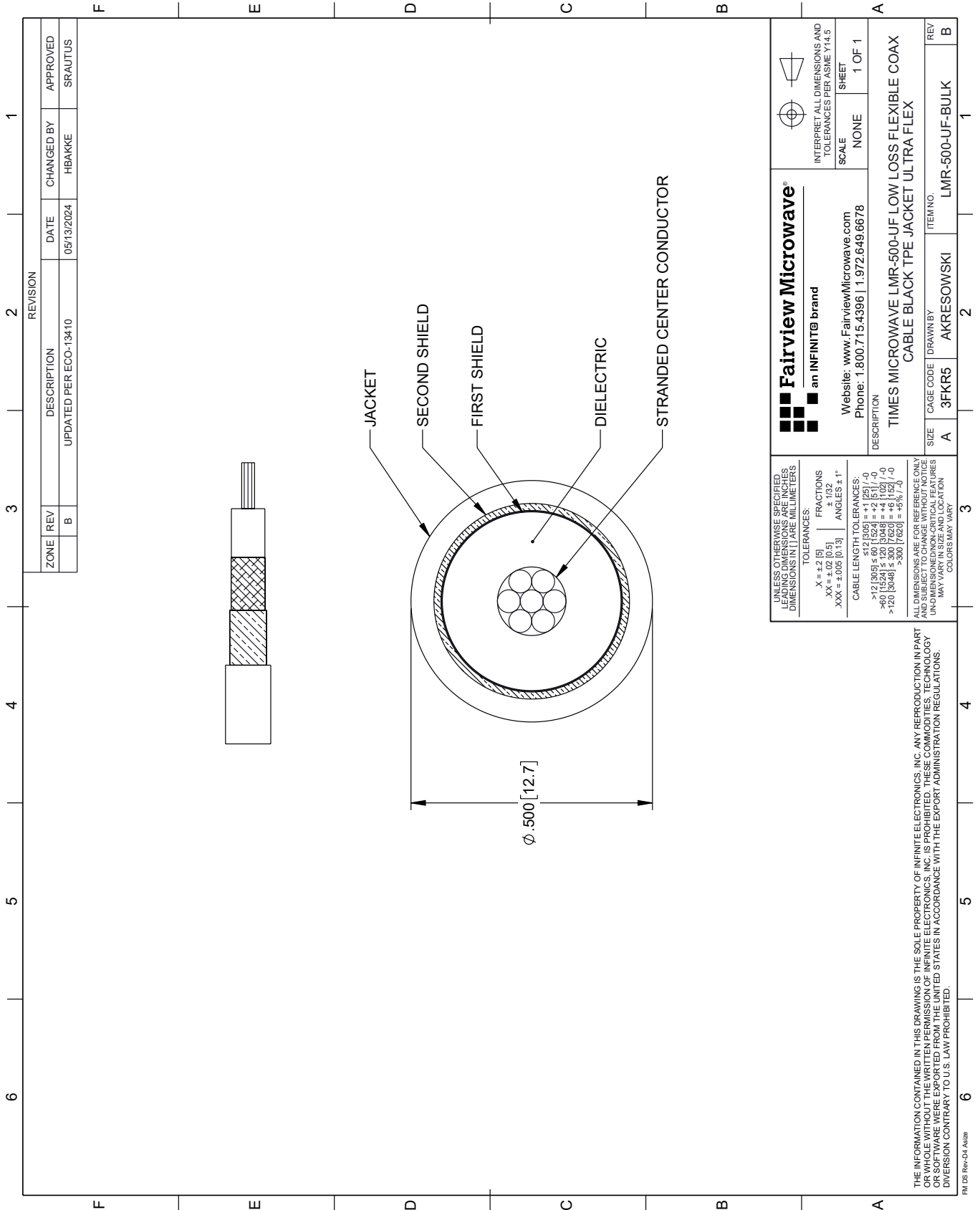
For additional information on this product, please click the following link: [Times Microwave LMR-500-UF Low Loss Flexible Coax Cable Black TPE Jacket Ultra Flex LMR-500-UF-BULK](#)

URL: <https://www.fairviewmicrowave.com/lmr-500-uf-low-loss-flexible-coax-cable-tpe-jacket-lmr-500-uf-bulk-p.aspx>

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# LMR-500-UF-BULK CAD Drawing

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REVISION		DATE	CHANGED BY	APPROVED	
ZONE	REV	DESCRIPTION	DATE	CHANGED BY	APPROVED
	B	UPDATED PER ECO-13410	05/13/2024	HBAKKE	SRAUTUS

 <b>Fairview Microwave®</b> an INFINIT® brand Website: <a href="http://www.FairviewMicrowave.com">www.FairviewMicrowave.com</a> Phone: 1.800.715.4396   1.972.649.6678		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SCALE: NONE SHEET: 1 OF 1
DESCRIPTION TIMES MICROWAVE LMR-500-UF LOW LOSS FLEXIBLE COAX CABLE BLACK TPE JACKET ULTRA FLEX		
SIZE	CAGE CODE	ITEM NO.
A	3FKR5	AKRESOWSKI
DRAWN BY		REV
AKRESOWSKI		B

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

TOLERANCES:  
 .X = ±.2 [5]      FRACTIONS ± 1/32  
 .XX = ±.02 [0.5]      ANGLES ± 1°  
 .XXX = ±.005 [0.13]

CABLE LENGTH TOLERANCES:  
 >12 [305] ≤ 60 [1524] = ±1 [25] / -0  
 >60 [1524] ≤ 120 [3048] = ±4 [102] / -0  
 >120 [3048] ≤ 300 [7620] = ±5% / -0

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

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