

LMR-500-UF Ultra Flex version of the 500 series Low Loss Coax



LMR-500-UF

Times Microwave Systems Coax Cable Specification

Configuration

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

Features

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

Applications

- RF Test Systems
- Antenna Installs
- Laboratory Applications
- General Purpose RF Interconnect
- Jumper Assemblies

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 Pasternack of radio frequency coaxial cable types specifically stocked to be ready for same-day shipment. Pasternack 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. Pasternack'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 Pasternack. This Times Microwave low loss ultra flexible LMR-500-UF coax cable is ready to buy and can be shipped worldwide. Pasternack 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 |
| Nominal Capacitance | | 23.9 [78.41] | | pF/ft [pF/m] |

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Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|--------------------|---------|------------|---------|--------------|
| 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 | 5.8 | 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] |

Environmental Specifications

| | |
|---------------------------------------|------------------|
| Temperature Operating Range | -40 to +85 deg C |
|---------------------------------------|------------------|

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| | |
|--------------------|------------------|
| 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:

LMR-500-UF Ultra Flex version of the 500 series Low Loss Coax from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [LMR-500-UF Ultra Flex version of the 500 series Low Loss Coax LMR-500-UF](#)

URL: <https://www.pasternack.com/low-loss-flexible-lmr-500-uf-tpe-jacket-aluminum-tape-over-tinned-copper-outer-conductor-double-shielded-lmr-500-uf-p.aspx>

The information contained within 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. Pasternack Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

LMR-500-UF CAD Drawing

LMR-500-UF Ultra Flex version of the 500 series Low Loss Coax

