

Low Loss Flexible LMR-500 Coax Cable Double Shielded with Black PE Jacket



LMR-500-BULK

Times Microwave Systems Coax Cable Specification

Configuration

- Low Loss Flexible Cable
- 2 Shield(s)

Features

- Easily Routed
- Low Loss Cable
- RF Shielding > 90dB
- Designed for Outdoor Use

Applications

- Jumper Assemblies
- Short Antenna Feeder Runs
- Wireless Communications

Description

Pasternack's LMR series RF cables from Times Microwave offer an ideal solution for applications where flexibility is essential. These flexible cables provide low loss with a minimum bend radius of 1.25 in. for installation. Pasternack's LMR cables are designed for use in outdoor applications. The LMR-500's UV resistant polyethylene (PE) jacket has a life expectancy of 20 years. This low loss RF cable is also double shielded to provide greater than 90 dB RF shielding.

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|--------------------------------------|--------------|-------------|---------|--------------|
| Frequency Range | DC | | 8 | GHz |
| Impedance | | 50 | | Ohms |
| Velocity of Propagation | | 86 | | % |
| Time Delay | | 1.18 [3.87] | | ns/ft [ns/m] |
| Shielding Effectiveness | 90 | | | dB |
| Dielectric Withstanding Voltage (DC) | | | 3,000 | Vdc |
| Jacket Spark | | | 8,000 | Vrms |
| Inner Conductor DC Resistance | | | 0.82 | Ohms/1000ft |
| Outer Conductor DC Resistance | | | 1.27 | Ohms/1000ft |
| Nominal Capacitance | 23.6 [77.43] | | | pF/ft [pF/m] |
| Nominal Inductance | 0.059 [0.19] | | | 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 | 0.7 | 1.2 | 1.5 | 2.2 | 3.1 | dB/100ft |
| | 2.3 | 3.94 | 4.92 | 7.22 | 10.17 | dB/100m |

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Performance by Frequency Band

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|-------|-------|-------|-------|-----|-------|
| Input Power (CW), Max | 3,393 | 1,931 | 1,583 | 1,088 | 752 | Watts |

| Description | F6 | F7 | F8 | F9 | F10 | Units |
|-----------------------|-------|-------|-------|-------|------|----------|
| Frequency | 1.5 | 1.8 | 2 | 2.5 | 6 | GHz |
| Attenuation, Typ | 4.1 | 4.6 | 4.8 | 5.5 | 8.9 | dB/100ft |
| | 13.45 | 15.09 | 15.75 | 18.04 | 29.2 | dB/100m |
| Input Power (CW), Max | 569 | 515 | 485 | 428 | 264 | Watts |

Electrical Specification Notes:

Values at 25°C, sea level.//Attenuation = 0.096590*sqrt(FMHz) + 0.000260

Mechanical Specifications

| | |
|---------------------------------|--------------------------|
| Diameter | 0.5 in [12.7 mm] |
| Weight | 0.105 lbs/ft [0.16 kg/m] |
| Min. Bend Radius (Installation) | 1.25 in [31.75 mm] |
| Min. Bend Radius (Repeated) | 5 in [127 mm] |
| Bending Moment | 1.75 lbs-ft [2.37 N-m] |
| Tensile Strength | 260 lbs [117.93 kg] |
| Flat Plate Crush | 50 lbs/in [0.89 kg/mm] |

Construction Specifications

| Description | Material and Plating | Diameter |
|-----------------|--------------------------------|---------------------|
| Inner Conductor | Copper Clad Aluminum, 1 Strand | 0.142 in [3.61 mm] |
| Conductor Type | Solid | |
| Dielectric | PE (F) | 0.37 in [9.4 mm] |
| First Shield | Aluminum Tape | 0.376 in [9.55 mm] |
| Second Shield | Tinned Copper | 0.405 in [10.29 mm] |
| Jacket | PE, Black | 0.5 in [12.7 mm] |

Environmental Specifications

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

Environmental Specification Notes:
Designed for outdoor use

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

Plotted and Other Data

Notes:

Low Loss Flexible LMR-500 Coax Cable Double Shielded with Black PE Jacket 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: [Low Loss Flexible LMR-500 Coax Cable Double Shielded with Black PE Jacket LMR-500-BULK](#)

URL: <https://www.pasternack.com/50-ohm-low-loss-lmr-500-pe-jacket-double-shielded-black-lmr-500-bulk-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-BULK CAD Drawing

Low Loss Flexible LMR-500 Coax Cable Double Shielded with Black PE Jacket

