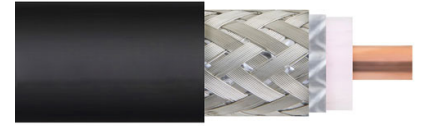


## Low Loss Flexible LMR-500-DB Outdoor/Watertight Rated Coax Cable Double Shielded with Black PE Jacket



### LMR-500-DB-BULK

#### Times Microwave Systems Coax Cable Specification

##### Configuration

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

##### Features

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

##### Applications

- Jumper Assemblies
- Short Antenna Feeder Runs
- Wireless Communications

##### Description

LMR-500-DB-BULK part number from Pasternack is a LMR-500-DB coax cable that is flexible. Pasternack LMR-500-DB flexible coax cable is 50 Ohm and has a PE (F) dielectric. Our LMR-500-DB coax is constructed with a 0.5 jacket made of PE. LMR-500-DB coax has a shield count of 2, a RF shielding of 90 dB and the maximum frequency for this Pasternack cable is 8 GHz. LMR-500-DB coax cable has an attenuation at 1 GHz of 3.1 dB.

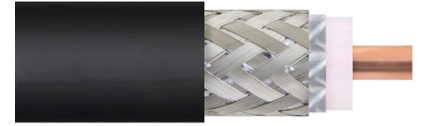
#### Electrical Specifications

| 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   |

## Low Loss Flexible LMR-500-DB Outdoor/Watertight Rated Coax Cable Double Shielded with Black PE Jacket



### LMR-500-DB-BULK

#### Performance by Frequency Band

| Description           | F1    | F2    | F3    | F4    | F5    | Units    |
|-----------------------|-------|-------|-------|-------|-------|----------|
| 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  |
| 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 =  $0.096590 \cdot \sqrt{\text{FMHz}} + 0.000260$

#### Mechanical Specifications

|                                 |                          |
|---------------------------------|--------------------------|
| Diameter                        | 0.5 in [12.7 mm]         |
| Weight                          | 0.102 lbs/ft [0.15 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

|                    |                  |
|--------------------|------------------|
| <b>Temperature</b> |                  |
| Operating Range    | -40 to +85 deg C |
| Installation Range | -40 to +85 deg C |
| Storage Range      | -70 to +85 deg C |

Environmental Specification Notes:

Outdoor/Watertight

## Low Loss Flexible LMR-500-DB Outdoor/Watertight Rated Coax Cable Double Shielded with Black PE Jacket



### LMR-500-DB-BULK

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

#### Plotted and Other Data

Notes:

Low Loss Flexible LMR-500-DB Outdoor/Watertight Rated 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.

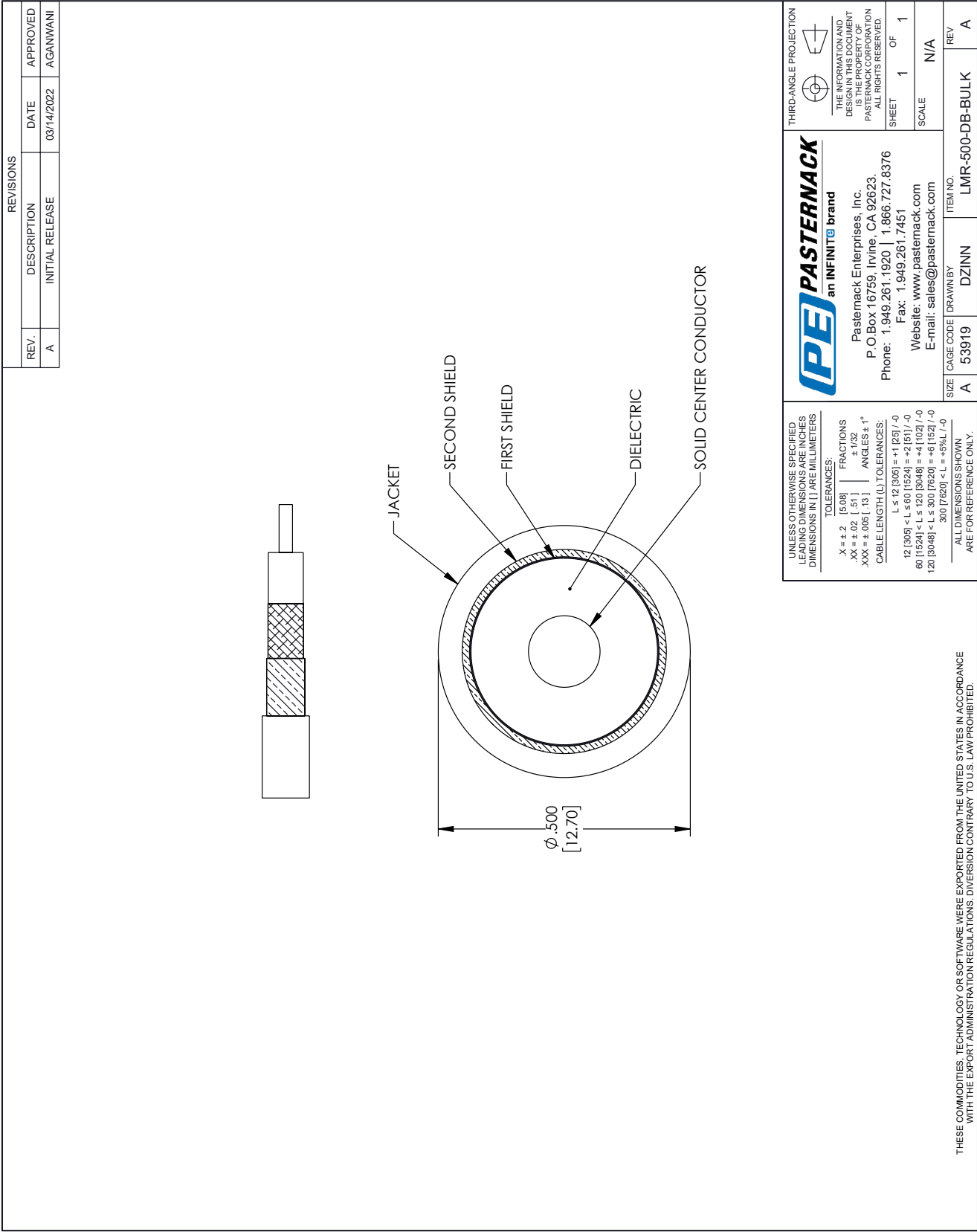
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low Loss Flexible LMR-500-DB Outdoor/Watertight Rated Coax Cable Double Shielded with Black PE Jacket LMR-500-DB-BULK](#)

URL: <https://www.pasternack.com/50-ohm-low-loss-lmr-500-db-pe-jacket-doubleshieldedblack-lmr-500-db-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-DB-BULK CAD Drawing

Low Loss Flexible LMR-500-DB Outdoor/Watertight Rated Coax Cable Double Shielded with Black PE Jacket



JACKET

SECOND SHIELD

FIRST SHIELD

DIELECTRIC

SOLID CENTER CONDUCTOR

Ø.500  
[12.70]