

LMR lite®-400 Flexible Low Loss Communications Coax

Ideal for...

- Drop-in replacement for RG-8/9913 Air-Dielectric type Cable
- Jumper Assemblies in Wireless Communications Systems
- Short Antenna Feeder runs
- Any application (e.g. WLL, GPS, LMR, WLAN, WISP, WiMax, SCADA, Mobile Antennas) requiring an easily routed, low loss RF cable



| Part Description | | | | Stock |
|------------------|-------------|--------------|--|-------|
| Part Number | Application | Jacket Color | | Code |
| LMR-LW400 | Outdoor | PE Black | | 45001 |
| LMR-LW400-DB | Outdoor | PE Black | | 45091 |

PE = Polyethylene

| 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 |

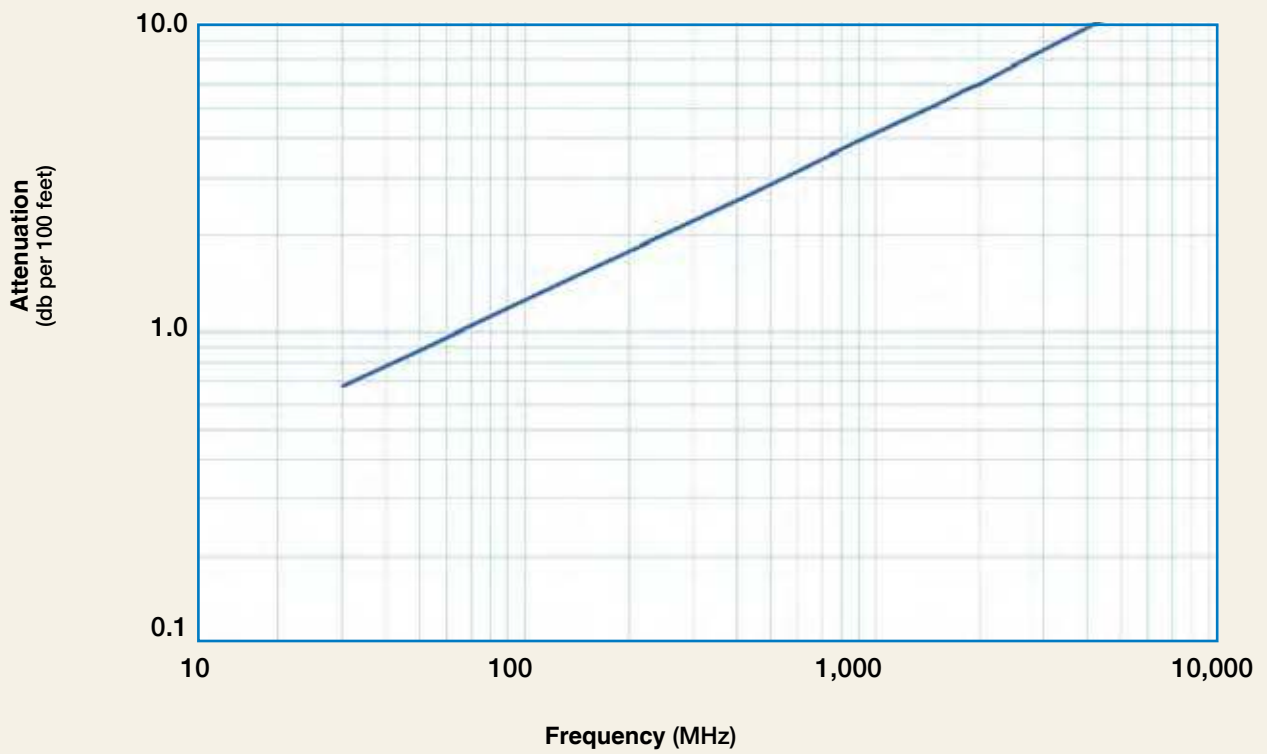
| Construction Specifications | | | |
|-----------------------------|---------------|-------|---------|
| Description | Material | In. | (mm) |
| Inner Conductor | Solid BCCAl | 0.108 | (2.74) |
| Dielectric | Foam PE | 0.285 | (7.24) |
| Outer Conductor | Aluminum Tape | 0.291 | (7.39) |
| Overall Braid | Aluminum | 0.320 | (8.13) |
| Jacket | (See table) | 0.405 | (10.29) |

| Mechanical Specifications | | | |
|---------------------------|----------------|------|----------|
| Performance Property | Units | US | (metric) |
| Bend Radius: installation | in. (mm) | 1.00 | (25.4) |
| Bend Radius: repeated | in. (mm) | 4.0 | (101.6) |
| Bending Moment | ft-lb (N-m) | 0.5 | (0.50) |
| Weight | lb/ft (kg/m) | .050 | (0.075) |
| Tensile Strength | lb (kg) | 160 | (72.6) |
| Flat Plate Crush | lb/in. (kg/mm) | 40 | (0.71) |

| Electrical Specifications | | | |
|---------------------------|-------------------|-------|----------|
| Performance Property | Units | US | (metric) |
| Velocity of Propagation | % | 84 | |
| Dielectric Constant | NA | 1.38 | |
| Time Delay | nS/ft (nS/m) | 1.20 | (3.92) |
| Impedance | ohms | 50 | |
| Capacitance | pF/ft (pF/m) | 23.9 | (78.4) |
| Inductance | uH/ft (uH/m) | 0.060 | (0.20) |
| Shielding Effectiveness | dB | >90 | |
| DC Resistance | | | |
| Inner Conductor | ohms/1000ft (/km) | 1.39 | (4.6) |
| Outer Conductor | ohms/1000ft (/km) | 6.1 | (20.0) |
| Voltage Withstand | Volts DC | 2500 | |
| Jacket Spark | Volts RMS | 8000 | |
| Peak Power | kW | 16 | |

TIMES MICROWAVE

Attenuation vs. Frequency (typical)



| Frequency (MHz) | 30 | 50 | 150 | 220 | 450 | 900 | 1500 | 1800 | 2000 | 2500 | 5800 | 8000 |
|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Attenuation dB/100 ft | 0.7 | 0.9 | 1.5 | 1.9 | 2.7 | 3.9 | 5.1 | 5.7 | 6.0 | 6.8 | 10.8 | 13.0 |
| Attenuation dB/100 m | 2.2 | 2.9 | 5.0 | 6.1 | 8.9 | 12.8 | 16.8 | 18.6 | 19.6 | 22.2 | 35.5 | 42.7 |
| Avg. Power kW | 3.33 | 2.57 | 1.47 | 1.20 | 0.83 | 0.58 | 0.44 | 0.40 | 0.37 | 0.33 | 0.21 | 0.17 |

Calculate Attenuation =

$(0.122290) \cdot \sqrt{FMHz} + (0.000260) \cdot FMHz$ (interactive calculator available at 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