



Coaxial Cable Specifications

| Cable Type | LDF4-50A |
|---|-------------------------|
| General | |
| Jacket | Black PE |
| Outer Conductor | Corrugated Cu |
| Dielectric | PE Foam |
| Inner Conductor | Cu clad Al |
| Mechanical | |
| Nominal Size | 1/2 in |
| Jacket O.D., mm (in) | 15.88 (.625) |
| Outer Conductor O.D., mm (in) | 13.84 (.545) |
| Foam Dielectric O.D., mm (in) | 13.00 (.512) |
| Inner Conductor O.D., mm (in) | 4.80 (.189) |
| Weight - kg/m (lb/ft) | .2232 (0.15) |
| Tensile strength, kg (lb) | 113 (250) |
| Crush , kg/mm (lb/in) | 2.0 (110) |
| Minimum bend radius, mm (in) | 125 (5) |
| One time minimum bend radius, mm (in) | 51 (2) |
| Bending moment, N-m (lb-ft) | 3.9 (2.8) |
| Number of bends, minimum (typical) | 15 (50) |
| Environmental | |
| Storage Temperature, Deg. C (Deg. F) | -70 to +85(-94 to +185) |
| Installation Temperature, Deg. C (Deg. F) | -40 to +60(-40 to +140) |
| Operating Temperature, Deg. C (Deg. F) | -55 to +85(-67 to +185) |
| Electrical | |
| Impedance, ohms | 50 +/- 1 |
| Pulse reflection, max % | 0.5 |
| Frequency, max MHz | 8,800 |
| Velocity, % | 88 |
| Peak power, kW | 40 |
| DC Resistance, Inner, ohm/km (ohm/kft) | 1.48 (.45) |
| DC Resistance, Outer, ohm/km (ohm/kft) | 1.90 (.58) |
| Capacitance, pF/m (pF/ft) | 75.8 (23.1) |
| Inductance, microH/m (microH/ft) | .190 (.05) |
| DC breakdown, volts | 4000 |
| Jacket spark, volts RMS | 8000 |

HELIAX®**Cable Specifications (Cont'd)**

| Cable Type | LDF4-50A | | | |
|------------|--------------|-------------|---------|----------|
| | Freq. MHz | Attenuation | | Average |
| | | dB/100ft | dB/100m | Power-kW |
| | 0.5 | 0.046 | 0.149 | 40.0 |
| | 1 | 0.064 | 0.211 | 35.8 |
| | 1.5 | 0.079 | 0.260 | 29.2 |
| | 2 | 0.091 | 0.299 | 25.3 |
| | 10 | 0.204 | 0.669 | 11.3 |
| | 20 | 0.290 | 0.952 | 7.93 |
| | 30 | 0.356 | 1.17 | 6.46 |
| | 50 | 0.462 | 1.52 | 4.98 |
| | 88 | 0.618 | 2.03 | 3.73 |
| | 100 | 0.659 | 2.16 | 3.49 |
| | 108 | 0.686 | 2.25 | 3.36 |
| | 150 | 0.813 | 2.67 | 2.83 |
| | 174 | 0.878 | 2.88 | 2.62 |
| | 200 | 0.943 | 3.10 | 2.44 |
| | 300 | 1.17 | 3.83 | 1.97 |
| | 400 | 1.36 | 4.45 | 1.70 |
| | 450 | 1.45 | 4.74 | 1.59 |
| | 500 | 1.52 | 5.00 | 1.51 |
| | 512 | 1.54 | 5.07 | 1.49 |
| | 600 | 1.68 | 5.52 | 1.37 |
| | 700 | 1.82 | 5.98 | 1.26 |
| | 800 | 1.96 | 6.43 | 1.17 |
| | 824 | 1.99 | 6.53 | 1.15 |
| | 894 | 2.08 | 6.82 | 1.10 |
| | 960 | 2.17 | 7.11 | 1.06 |
| | 1000 | 2.22 | 7.28 | 1.04 |
| | 1250 | 2.49 | 8.18 | 0.921 |
| | 1500 | 2.76 | 9.06 | 0.833 |
| | 1700 | 2.96 | 9.71 | 0.777 |
| | 2000 | 3.24 | 10.6 | 0.710 |
| | 2300 | 3.50 | 11.5 | 0.657 |
| | 3000 | 4.07 | 13.3 | 0.565 |
| | 4000 | 4.80 | 15.8 | 0.479 |
| | 5000 | 5.46 | 17.9 | 0.421 |
| | 6000 | 6.09 | 20.0 | 0.378 |
| | 8000 | 7.24 | 23.7 | 0.318 |
| | 8800 | 7.66 | 25.1 | 0.300 |

| | |
|--|-----------|
| Rating temp (atten), Deg C (Deg F) | 20 (68) |
| Rating temp (power)-inner, Deg C (Deg F) | 100 (212) |
| Rating temp (power)-ambient, Deg C (Deg F) | 40 (104) |



Standard VSWR Specifications

| Frequency | | Assembly VSWR, Maximum (R.L., dB) | | | | |
|--------------------------|-------------------|-----------------------------------|-----------------------|-------------------------|--------------------------|-------------------|
| Band, GHz | Type Number | 1-25 ft (.3-8 m) | 25-100 ft (8-30 m) | 100-200 ft (30-60 m) | 200-500 ft (60-150 m) | 500+ft (150 m) |
| .806-.960 and 1.7-2.0 | LDF4-50A | 1.09 (27.3)** | 1.11 (25.7)** | 1.13 (24.3)** | 1.13 (24.3)** | 1.13 (24.3)* |
| | LDF4RN-50A | 1.09 (27.3)** | 1.11 (25.7)** | 1.13 (24.3)** | 1.13 (24.3)** | 1.13 (24.3)* |

*Note: 1.13 VSWR Guaranteed for bulk standard cable lengths 500 ft and above.

**Note: Expected typical values based on guaranteed 1.13 VSWR for bulk cable and Type N or DIN straight connectors.

If guaranteed VSWR is required contact Andrew.

Low VSWR Specifications, Type LDF4P-50A-()

| Frequency | | Assembly VSWR, Maximum (R.L., dB) | | | | | |
|--------------------------|---------------------|-----------------------------------|---------------------|-----------------------|-------------------------|--------------------------|-------------------|
| Band, GHz | Type Number | Using Conn. Type | 1-25 ft (.3-8 m) | 25-100 ft (8-30 m) | 100-200 ft (30-60 m) | 200-500 ft (60-150 m) | 500+ft (150 m) |
| .806-.960 | LDF4P-50A-40 | N | 1.10 (26.4) | 1.10 (26.4) | 1.10 (26.4) | 1.10 (26.4) | 1.10 (26.4) |
| | | 7/16 DIN | 1.10 (26.4) | 1.10 (26.4) | 1.10 (26.4) | 1.10 (26.4) | 1.10 (26.4) |
| .806-.960 and 1.7-2.2 | LDF4P-50A-42 | N | 1.10 (26.4) | 1.10 (26.4) | 1.10 (26.4) | 1.10 (26.4) | 1.10 (26.4) |
| | | 7/16 DIN | 1.10 (26.4) | 1.10 (26.4) | 1.10 (26.4) | 1.10 (26.4) | 1.10 (26.4) |
| 1.7-2.2 | LDF4P-50A-41 | N | 1.10 (26.4) | 1.10 (26.4) | 1.10 (26.4) | 1.10 (26.4) | 1.10 (26.4) |
| | | 7/16 DIN | 1.10 (26.4) | 1.10 (26.4) | 1.10 (26.4) | 1.10 (26.4) | 1.10 (26.4) |