



CELLFLEX® 1-5/8" premium attenuation low loss flexible cable; flame retardant / halogen free jacket.

FEATURES / BENEFITS

• Ultra Low Attenuation

The further reduced attenuation of CELLFLEX® premium attenuation coaxial cable results in extremely efficient signal transfer in your RF system, especially at high frequencies.

• Complete Shielding

The solid outer conductor of CELLFLEX® coaxial cable creates a continuous RFI/EMI shield that minimizes system interference.

• Low VSWR

Special low VSWR versions of CELLFLEX® coaxial cables contribute to low system noise.

• Outstanding Intermodulation Performance

CELLFLEX® coaxial cable's solid inner and outer conductors virtually eliminate intermods. Intermodulation performance is also confirmed with state-of-the-art equipment at the RFS factory.

• High Power Rating

Due to their low attenuation, outstanding heat transfer properties and temperature stabilized dielectric materials, CELLFLEX® cable provides safe long term operating life at high transmit power levels.

• Wide Range of Application

Typical areas of application are: feedlines for broadcast and terrestrial microwave antennas, wireless cellular, PCS and ESMR base stations, cabling of antenna arrays, and radio equipment interconnects.

• Meets/Exceeds: IEC 60754-1, -2; IEC 60332-1-1; IEC 61034-1, -2; IEC 60332-3-24; EN50575



1-5/8" CELLFLEX® Low-Loss Foam Dielectric Coaxial Cable

Technical features

APPLICATIONS

| Applications | | Indoor | Wireless Communication | TV & Radio | HF Defense | Mobile Radio | Cable Solutions |
|--------------|--|--------|------------------------|------------|------------|--------------|-----------------|
|--------------|--|--------|------------------------|------------|------------|--------------|-----------------|

STRUCTURE

| | | |
|--------------------------|---------|--|
| Cable Type | | Foam-Dielectric, Corrugated |
| Size | | 1-5/8 |
| Jacket Option | | Black, Radiation resistant |
| Inner Conductor Diameter | mm (in) | 17.6 (0.69) |
| Inner Conductor Material | | Corrugated Copper Tube |
| Dielectric Diameter | mm (in) | 42.4 (1.67) |
| Dielectric Material | | Foam Polyethylene |
| Outer Conductor Diameter | mm (in) | 46.4 (1.83) |
| Outer Conductor Material | | Corrugated Copper |
| Jacket Diameter | mm (in) | 50.2 (1.98) |
| Jacket Material | | Polyethylene, PE, Metalhydroxite Filling |

TESTING AND ENVIRONMENTAL

| | | |
|--------------------------|---------|------------------------|
| Fire Performance | | Flame Retardant, LS0H |
| Installation Temperature | °C (°F) | -25 to 60 (-13 to 140) |
| Storage Temperature | °C (°F) | -70 to 85 (-94 to 185) |
| Operation Temperature | °C (°F) | -50 to 85 (-58 to 185) |

**ELECTRICAL SPECIFICATIONS**

| | | |
|--------------------------------|-------------------------|--|
| Impedance | Ω | 50 +/- 1 |
| Maximum Frequency | GHz | 2.75 |
| Velocity | % | 90 |
| Capacitance | pF/m (pF/ft) | 74 (22.5) |
| Inductance | uH/m (uH/ft) | 0.185 (0.056) |
| Peak Power Rating | kW | 310 |
| RF Peak Voltage | Volts | 5600 |
| Jacket Spark | Volt RMS | 10000 |
| Inner Conductor dc Resistance | Ω/1000 m (Ω/1000 ft) | 1.3 (0.4) |
| Outer Conductor dc Resistance | Ω/1000 m (Ω/1000 ft) | 0.47 (0.14) |
| Passive Intermodulation PIM | typ. dBc | -160 |
| Return Loss (VSWR) Performance | | Standard (for 40-2700 MHz) or Premium |
| Min. Return Loss (Max. VSWR) | dB (VSWR) | Standard 20 (1.222), Premium 24 (1.135)/ 23 (1,152) |
| Phase Stabilized | | Phase stabilized and phase matched cables and assemblies are available upon request. |
| Temperature & Power | | Standard |

MECHANICAL SPECIFICATIONS

| | | |
|--|--------------|-------------------|
| Cable Weight, Nominal | kg/m (lb/ft) | 1.25 (0.84) |
| Minimum Bending Radius, Single Bend | mm (in) | 200 (8) |
| Minimum Bending Radius, Repeated Bends | mm (in) | 500 (20) |
| Bending Moment | Nm (lb-ft) | 42 (31) |
| Tensile Strength | N (lb) | 2500 (562) |
| Recommended / Maximum Clamp Spacing | m (ft) | 1.2 / 1.5 (4 / 5) |

ATTENUATION @ 20°C (68°F) AND POWER RATING @ 40°C (104°F)

| Frequency, MHz | dB per 100m | dB per 100ft | Power, kW |
|----------------|-------------|--------------|-----------|
| 100 | 0.64 | 0.20 | 17.40 |
| 200 | 0.93 | 0.28 | 12.10 |
| 450 | 1.44 | 0.44 | 7.78 |
| 800 | 1.98 | 0.60 | 5.66 |
| 900 | 2.12 | 0.65 | 5.29 |
| 1800 | 3.16 | 0.96 | 3.55 |
| 2000 | 3.36 | 1.03 | 3.34 |
| 2200 | 3.56 | 1.08 | 3.15 |
| 2400 | 3.75 | 1.14 | 2.99 |
| 2700 | 4.02 | 1.23 | 2.79 |
| 2750 | 4.07 | 1.24 | 2.75 |

External Document Links

Notes