



CELLFLEX® 1-5/8" premium attenuation low loss flexible cable support CBRS, C-Band up to 3.98GHz

FEATURES / BENEFITS

• Ultra Low Attenuation

The reduced attenuation of CELLFLEX® 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 Technologies 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



External Document Links

[CELLFLEX Drum Selection Guide](#)

[Notes](#)

Technical features

INFORMATION

Applications		Main feed line, intended for outdoor usage
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STRUCTURE

Size		1-5/8
Inner Conductor Diameter	mm (in)	17.6 (0.693)
Inner Conductor Material		Corrugated Copper Tube
Dielectric Diameter	mm (in)	42.4 (1.669)
Dielectric Material		Foam Polyethylene
Outer Conductor Diameter	mm (in)	46.4 (1.827)
Outer Conductor Material		Corrugated Copper
Jacket Diameter	mm (in)	50.2 (1.976)
Jacket Material		Black Polyethylene



**TESTING AND ENVIRONMENTAL**

<b>Phase Stabilized</b>		Phase stabilized and phase matched cables and assemblies are available upon request.
<b>Compliance</b>		DIN EN ISO 9001:2015 ISO 14001:2015 RoHS 2011/65/EU - China RoHS SJ/T 11364-2006 REACH (EC 1907/2006) UL1581 - UV Resistance Jacket IEC 60754-1/-2
<b>Installation Temperature</b>	°C(°F)	-40 to 60 (-40 to 140)
<b>Storage Temperature</b>	°C (°F)	-70 to 85 (-94 to 185)
<b>Operation Temperature</b>	°C(°F)	-50 to 85 (-58 to 185)

**ELECTRICAL SPECIFICATIONS**

<b>Impedance</b>	Ω	50 +/- 1
<b>Maximum Frequency</b>	GHz	2.75
<b>Velocity</b>	%	90
<b>Capacitance</b>	pF/m (pF/ft)	74 (22.5)
<b>Inductance</b>	uH/m (uH/ft)	0.185 (0.056)
<b>Peak Power Rating</b>	kW	310
<b>RF Peak Voltage</b>	Volts	5600
<b>Jacket Spark</b>	Volt RMS	10000
<b>Inner Conductor dc Resistance</b>	Ω/1000 m (Ω/1000 ft)	1.3 (0.4)
<b>Outer Conductor dc Resistance</b>	Ω/1000 m (Ω/1000 ft)	0.47 (0.14)
<b>Passive Intermodulation PIM</b>	min. dBc	-160
<b>Return Loss (VSWR) Performance</b>		20 (1.22) @ 450-617 MHz 24 (1.13) @ 617-960 MHz 24 (1.13) @ 1695-2200 MHz 20 (1.22) @ 2300-2700 MHz 12 (1.67) @ 3500-3980 MHz

**MECHANICAL SPECIFICATIONS**

<b>Cable Weight, Nominal</b>	kg/m (lb/ft)	1.07 (0.72)
<b>Minimum Bending Radius, Single Bend</b>	mm (in)	200 (8)
<b>Minimum Bending Radius, Repeated Bends</b>	mm (in)	500 (20)
<b>Bending Moment</b>	Nm (lb-ft)	42 (31)
<b>Tensile Strength</b>	N (lb)	2500 (562)
<b>Recommended / Maximum Clamp Spacing</b>	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
1	0.06	0.02	181.81
100	0.64	0.20	17.40
200	0.93	0.28	12.06
450	1.44	0.44	7.78
700	1.84	0.56	6.1
800	1.98	0.60	5.66
900	2.12	0.65	5.29
1800	3.16	0.96	3.55
2000	3.36	1.02	3.34
2200	3.56	1.08	3.15
2400	3.74	1.14	2.99
2700	4.02	1.22	2.79
2750	4.06	1.24	2.76