



CELLFLEX® 1/2" low loss flexible cable support CBRS, C-Band and LAA up to 6GHz

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 RF/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



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[Notes](#)

[CELLFLEX Drum Selection Guide](#)

Technical features

INFORMATION

Applications	OEM jumpers, Main feed transitions to equipment, GPS lines, intended for outdoor usage
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STRUCTURE

Size		1/2
Inner Conductor Diameter	mm (in)	4.8 (0.189)
Inner Conductor Material		Copper-Clad Aluminum Wire
Dielectric Diameter	mm (in)	11.3 (0.445)
Dielectric Material		Foam Polyethylene
Outer Conductor Diameter	mm (in)	13.8 (0.543)
Outer Conductor Material		Corrugated Copper
Jacket Diameter	mm (in)	15.8 (0.622)
Jacket Material		Black Polyethylene



**TESTING AND ENVIRONMENTAL**

<b>Phase Stabilized</b>		Phase stabilized and phase matched cables and accessories 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	8.8
<b>Velocity</b>	%	87
<b>Capacitance</b>	pF/m (pF/ft)	76 (23.2)
<b>Inductance</b>	uH/m (uH/ft)	0.19 (0.058)
<b>Peak Power Rating</b>	kW	38
<b>RF Peak Voltage</b>	Volts	1950
<b>Jacket Spark</b>	Volt RMS	8000
<b>Inner Conductor dc Resistance</b>	Ω/1000 m (Ω/1000 ft)	1.62 (0.5)
<b>Outer Conductor dc Resistance</b>	Ω/1000 m (Ω/1000 ft)	3.55 (1.08)
<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 18 (1.28) @ 3500-4200 MHz 16 (1.37) @ 5150-6000 MHz

**MECHANICAL SPECIFICATIONS**

<b>Cable Weight, Nominal</b>	kg/m (lb/ft)	0.18 (0.125)
<b>Minimum Bending Radius, Single Bend</b>	mm (in)	70 (2.756)
<b>Minimum Bending Radius, Repeated Bends</b>	mm (in)	125 (4.921)
<b>Bending Moment</b>	Nm (lb-ft)	6.5 (4.79)
<b>Tensile Strength</b>	N (lb)	1050 (236)
<b>Recommended / Maximum Clamp Spacing</b>	m (ft)	0.6 / 1 (2 / 3.25)

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

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
1	0.21	0.06	35.34
100	2.18	0.66	3.45
200	3.12	0.95	2.41
450	4.77	1.45	1.57
700	6.03	1.83	1.24
800	6.48	1.97	1.16
900	6.91	2.10	1.09
1800	10.09	3.07	0.74
2000	10.70	3.26	0.70
2200	11.28	3.44	0.67
2400	11.84	3.61	0.63
2700	12.66	3.86	0.59
3000	13.43	4.01	0.56
3500	14.67	4.47	0.51
4000	15.84	4.83	0.47
5000	18.03	5.51	0.42
6000	20.07	6.14	0.37
7000	22.0	6.73	0.34
8800	25,24	7.73	0.30