



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

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



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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 or Exceeds: IEC 60754-1, -2; IEC 60332-1-1, -2; IEC 61034-1, -2; IEC 60332-3-24 (formerly IEC 60332-3-C)**

Technical Features

APPLICATIONS

Applications	Main feed line, Riser-rated In-Building, CPR classified cable
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STRUCTURE

Cable Type		Foam-Dielectric, Corrugated
Size		1-5/8"
Jacket Option		Black, Radiation resistant
Inner Conductor	mm (in)	17.6 (0.69) Corrugated Copper Tube
Dielectric	mm (in)	42.4 (1.67) Foam Polyethylene
Outer Conductor	mm (in)	46.4 (1.83) Corrugated Copper
Jacket	mm (in)	50.2 (1.98) Polyethylene, PE, Metalhydroxite Filling, Megolon S304

ELECTRICAL SPECIFICATIONS

Impedance	Ω	50 +/- 1
Maximum Frequency	GHz	2.75
Velocity	%	90.0
Capacitance	pF/m (pF/ft)	74 (22.5)
Inductance	μH/m (μH/ft)	0.185 (0.056)
Peak Power Rating	kW	310.0
RF Peak Voltage	Volts	5600.0
Jacket Spark	Volt RMS	10000.0
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)
Return Loss (VSWR) Performance		Standard for 40-2700 MHz, Premium according to B-Class
Min. Return Loss (Max. VSWR)	dB (VSWR)	Standard 20 (1.222), Premium 24 (1.135)
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
Tensile Strength	N (lb)	2500 (562)
Recommended / Maximum Clamp Spacing	m (ft)	1.2 / 1.5 (4 / 5)



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ATTENUATION AND POWER RATING

Frequency MHz	Attenuation		Power kW
	dB/100m	dB/100ft	
0.5	0.04	0.013	258.00
1	0.06	0.019	182.00
1.5	0.08	0.023	148.00
2	0.09	0.027	128.00
10	0.20	0.06	56.90
20	0.28	0.086	39.90
30	0.34	0.105	32.50
50	0.45	0.137	25.00
88	0.60	0.184	18.60
100	0.64	0.196	17.40
108	0.67	0.205	16.70
150	0.80	0.243	14.00
174	0.86	0.263	13.00
200	0.93	0.283	12.10
300	1.16	0.352	9.66
400	1.35	0.412	8.30
450	1.44	0.439	7.78
500	1.53	0.465	7.33
512	1.55	0.471	7.23
600	1.69	0.515	6.63
700	1.84	0.561	6.09
750	1.91	0.583	5.87
800	1.98	0.604	5.66
824	2.02	0.615	5.55
894	2.11	0.644	5.31
900	2.12	0.646	5.29
925	2.15	0.656	5.21
960	2.20	0.67	5.10
1000	2.25	0.686	4.98
1250	2.56	0.779	4.38
1400	2.73	0.832	4.11
1500	2.84	0.866	3.95
1700	3.06	0.932	3.66
1800	3.16	0.963	3.55
2000	3.36	1.03	3.34
2100	3.46	1.06	3.24
2200	3.56	1.08	3.15
2400	3.75	1.14	2.99
2500	3.84	1.17	2.92
2600	3.93	1.20	2.85
2700	4.02	1.23	2.79
2750	4.07	1.24	2.75

Attenuation at 20°C (68°F) cable temperature;
tolerance +/- 5% max.; Mean power rating at
40°C (104°F) ambient temperature

TESTING AND ENVIRONMENTAL

Fire Performance	Flame Retardant, LS0H
Flame Retardant Jacket Specifications	Meets/Exceeds: IEC 60754-1, -2; IEC 60332-1-1, -2; IEC 61034-1, -2; IEC 60332-3-24 (formerly IEC 60332-3-C); UL 1581; UL 1666; NFPA130 (ed. 2014) Ch.12 (NFPA70) via UL-1685/FT4/IEEE1202; NEC type CATVR; CPR: https://products.rfsworld.com/userfiles/cpr/rfs-products-cpr-compliance.pdf
Installation Temperature	-25 to 60 (-13 to 140) °C(°F)
Storage Temperature	-70 to 85 (-94 to 185) °C(°F)
Operation Temperature	-50 to 85 (-58 to 185) °C(°F)

External Document Links

Notes