

TECHNICAL SPECIFICATIONS

Corrugated Cable for Wireless Communications Systems

Product Specification for:

½" Flexible RF Coaxial Cable Super Flex

PART#(S): LRFSF5FCSBP61RL



Designed for wireless communication systems demanding high performance broadband and low-loss. Liberty cables are versatile infrastructure solutions for indoors or outdoors environments.

KEY FEATURES:

- Excellent attenuation performance
- Low VSWR
- Outstanding passive intermodulation

Material & Dimensions		
Inner Conductor	Copper Clad Aluminum wire	Ø 3.58±0.03 mm
Insulation	Foam PE	Ø 9.40±0.20 mm
Outer Conductor	Helical corrugated copper tube	Ø 12.00±0.20mm
Jacket	Low Smoke Zero Halogen (LSZH)	Ø 13.30 ±0.20mm
Electrical Specifications		
Impedance		50 ± 1 Ω
Relative Velocity of Propagation		81%
Capacitance		83 pF/m
PIM (Intermodulation (3 rd order, 2*20W))		≤-160dBc
Maximum Operating Frequency		8.8 GHz
Peak Power Rating		40.0 kW
Insulation Resistance		≥ 10000 MΩ . km
DC Breakdown Voltage		2500V
Jacket Spark Test Voltage		5000 Vrms
Inner Conductor DC-resistance		≤1.62 Ω/km
Outer Conductor DC-resistance		≤3.70 Ω/km
Shielding Attenuation		≥120dB
Environmental Specifications		
Installation Temperature	-40°C to + 85°C	
Operating Temperature	-55°C to + 85°C	
Storage Temperature	-70°C to + 85°C	



Mechanical Specifications			
Cable Weight		≈195 kg/km	
Tensile strength		750 N	
Min. bending radius (single)		80 mm	
Min. bending radius (repeated)		125 mm	
Bending moment		6.5 Nm	
Flat plate crush strength		12 N/mm	
Standard Conditions		VSWR	
Attenuation, VSWR 1.0 Ambient Temperature	20°C	300MHz - 2700MHz	≤1.15
Average Power, VSWR 1.0 Ambient Temperature	40°C	3300MHz - 4200MHz	≤1.20
Average Power, Inner Conductor Temperature	100°C	4400MHz - 5000MHz	≤1.25

Mechanical Specifications		
Frequency (MHz)	Attenuation (dB/100m)	Average Power (kW)
200	4.60	1.53
450	7.04	1.00
800	9.57	0.74
900	10.20	0.69
1800	14.90	0.47
2000	15.80	0.45
2200	16.70	0.42
2500	17.90	0.39
2700	18.80	0.38
3000	19.90	0.36
3400	21.40	0.33
4000	23.50	0.30
5000	26.80	0.26
6000	29.80	0.24

* Maximum attenuation value shall be 105% of the nominal attenuation value

Compliance	
RoHS 2011/65/EU	Compliant
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
Fire	IEC 60754-1.-2 ; IEC 60332-1.-2 ; IEC 61034-1.-2 ; IEC 60332-3-24.
Packaging (length, type)	500 meters, wood reel