

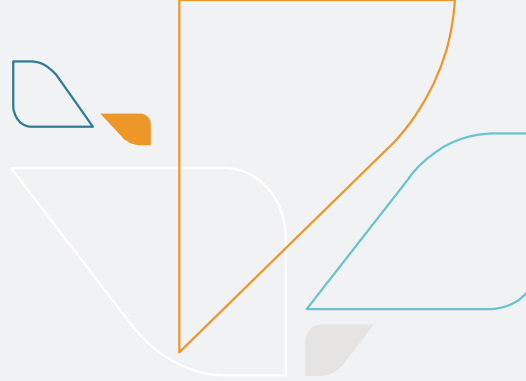


# Corrugated Cable for Wireless Communications Systems

Product Specification for:

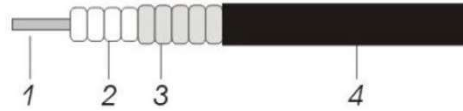
## 1/2" Air Dielectric plenum jacket

Part#: 41010301486 (preliminary part)



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

- Excellent attenuation performance
- Low VSWR
- Outstanding passive intermodulation



Material & Dimensions		
Inner Conductor	Copper Clad Aluminum wire	Ø 4.80±0.03 mm
Insulation	Air dielectric	Nom.11.7
Outer Conductor	Annular corrugated copper tube	Outer Conductor Diameter: 13.85±0.25mm Outer Conductor Outside Bottom Diameter: Nom12.0mm Outer Conductor Pitch: 5.10±0.30mm
Jacket	White PVC	15.70±0.30mm (Normal Thickness: 0.7mm; Min. Thickness: 0.60mm)

Electrical Specifications	
Impedance	50 ± 2 Ω
Relative Velocity of Propagation	88%
Capacitance	75.5 pF/m
PIM (Intermodulation(3rd order,2*20W))	≤-161dBc
Maximum Operating Frequency	8.8 GHz
Peak Power Rating	40.0 kW
Insulation Resistance	≥ 5000 MΩ . km
Jacket Spark Test Voltage	5000 Vrms
Return Loss (VSWR)	0.70~0.894 GHz≤1.25 (-19.1dB) 0.806GHz~0.96 GHz≤1.25 (-19.1dB) 1.7GHz~2.7 GHz≤1.25 (-19.1dB)

Environmental Specifications	
Installation Temperature	-5°C to +60°C
Operating Temperature	-20°C to +70°C
Storage Temperature	-20°C to +70°C

Compliance	
Fire	CMP,ETL,UL444,NFPA 262



## Mechanical Specifications

Cable Weight	Nom.0.308kg/m
Max Tensile force	113 kg
Min. bending radius	Single: 70mm Repeated: 127mm (15 bends min)
Bending moment	3.8N-m
Flat plate crush strength	2kg/mm

## Attenuation Specifications

Frequency (MHz)	Attenuation (dB/100m)	Average Power (KW)
450	4.853	1.57
700	6.176	1.24
800	6.648	1.115
894	7.07	1.08
960	7.354	1.04
1000	7.526	1.01
1500	9.461	.81
1800	10.503	.73
2000	11.163	.65
2200	11.798	.65
2500	12.714	.6
2700	13.303	.57
3000	14.159	.54
3400	15.256	.5
3800	16.311	.47
4000	16.824	.45
5000	19.277	.4
6000	21.581	.35

1. Nominal attenuation at 20°C cable temperature (typical) . Maximum value + 10%.
2. Mean power rating at 40°C (104°F) ambient temperature