



# DATA SHEET

## HPL 50-1/4F HFR

**AST**  
**M5309**

High Fire resistant Low smoke Zero Halogen Jacket

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- 1 - Inner Conductor** : Copper-clad Aluminium  
Diameter : 2.50 ± 0.05 mm
- 2 - Dielectric** : Foam Polyethylene  
Diameter : 6.40 ± 0.20 mm  
Eccentricity : < 2%
- 3 - Outer Conductor** : Annularly corrugated copper tube  
Diameter over outer conductor : 7.60 ± 0.20 mm  
Diameter inside bottom : 6.50 ± 0.20 mm  
Section length : 4.0 ± 0.05 mm
- 4 - Jacket** : Black High Fire resistant Low smoke Zero Halogen Compound  
Diameter : 9.50 ± 0.30 mm
- 5 - Ink marking** : Metric length



**ACOME HYPERCELL COAX LSOH HFR HPL 50-1/4 FLEXIBLE M5309 LOT lot N°**

### Mechanical & Environmental Characteristics

Packaging : 500 meters  
Weight approx : 113kg/km  
Fire resistance : IEC332-1/332-3A/UL1666/NFC32070.2.2/RATP K26  
Smoke toxicity : IEC754-2/NFC20-454  
Smoke density : IEC1034

Installation Bending radius : 40 mm - Min.  
Operating Bending radius : 100 mm - Min.  
Tensile Strength : 560 N - Max.  
Installation temperature range : -20°C / + 60°C  
Operating temperature range : -40°C / + 85°C

### Electrical Characteristics

Impedance : 50 ± 1Ω  
Capacitance : 78.5 ± 1.5 pF/m  
Intermodulation IM3 (GSM-UMTS) maxi : -158 dBc (-163 dBc typical)  
Velocity : 85%, Dielectric constant : 1.38, typical values  
Screening effectiveness : > 120 dB

Max Operating frequency : 15 GHz  
Peak power rating : 7.5 kW  
Operating voltage : 0.87 kV RMS  
Test voltage : 1.8 kV RMS  
Insulation Resistance : > 10000 MΩ.km  
DC resistance : Inner conductor : ≤ 6.05Ω /km  
: Outer conductor : ≤ 4.45Ω /km

*Test methods are meeting the requirements of :*

IEC60096-0-1, IEC61196-1, IEC60966-1

Frequency MHz	Attenuation db/100m @ 20°C Typical	Power kW @ 40°C-Ambient Temp Inner conductor: 100°C
30	2.25	4.38
80	3.71	2.66
150	5.14	1.92
450	9.14	1.08
824	12.64	0.78
900	13.26	0.74
960	13.74	0.72
1000	14.04	0.70
1500	17.55	0.56
1700	18.81	0.52
1800	19.42	0.51
1900	20.02	0.49

Frequency MHz	Attenuation db/100m @ 20°C Typical	Power kW @ 40°C-Ambient Temp Inner conductor: 100°C
2000	20.60	0.4879
2200	21.75	0.45
2300	22.30	0.44
2400	22.83	0.43
2500	23.36	0.42
3000	25.92	0.378
3300	27.38	0.358
3400	27.86	0.355
3500	28.33	0.35
3600	28.80	0.34
3800	29.71	0.32

*This technical specification is for reference only and is subject to change without notice*

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