



**DATA SHEET**  
**HPL 50-7/8 F**  
Black Polyethylene Jacket

**AST**  
**M5423**  
Page: 1/1

- 1 - Inner Conductor** : Copper tube  
Outer Diameter :  $9.0 \pm 0.10$  mm
- 2 - Dielectric** : Foam Polyethylene  
Diameter :  $22.0 \pm 0.20$  mm  
Eccentricity : < 2%
- 3 - Outer Conductor** : Annularly corrugated copper tube  
Diameter over outer conductor :  $24.70 \pm 0.20$  mm  
Diameter outside bottom :  $22.0 \pm 0.20$  mm  
Section length :  $7.0 \pm 0.15$  mm
- 4 - Jacket** : Black Polyethylene  
Diameter :  $27.40 \pm 0.25$  mm
- 5 - Ink marking** : Metric length



**ACOME HYPERCELL COAX HPL 50-7/8 FLEXIBLE M5423 LOT X lot N°**

**Mechanical Characteristics**

Packaging : 500 meters  
Halogen content : IEC754-1  
Installation temperature range :  $-25^{\circ}\text{C} / + 60^{\circ}\text{C}$   
Operating temperature range :  $-40^{\circ}\text{C} / + 85^{\circ}\text{C}$

Weight approx : 446kg/km  
Installation Bending radius : 120 mm - Min.  
Operating Bending radius : 250 mm - Min.  
Tensile Strength : 1400 N - Max.

**Electrical Characteristics**

Impedance :  $50 \pm 1 \Omega$   
Capacitance :  $76.5 \pm 1.5$  pF/m  
Intermodulation IM3 (GSM-UMTS) maxi : -158 dBc (-163 dBc typical)  
Velocity : 88%, Dielectric constant : 1.32, typical values  
Screening effectiveness : > 120 dB

Operating frequency : 5 GHz  
Peak power rating : 90 kW  
Operating voltage : 3 kV RMS  
Test voltage : 6 kV RMS  
Insulation Resistance : > 10000 M $\Omega$ .km  
DC resistance : Inner conductor :  $\leq 1.55 \Omega/\text{km}$   
: Outer conductor :  $\leq 1.30 \Omega/\text{km}$

*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	0.62	15.92
80	1.03	9.58
150	1.43	6.88
450	2.57	3.80
824	3.56	2.71
900	3.74	2.58
960	3.87	2.49
1000	3.98	2.43
1500	5.00	1.92
1700	5.33	1.79
1800	5.52	1.73
1900	5.73	1.67

Frequency MHz	Attenuation db/100m @ 20°C Typical	Power kW @ 40°C-Ambient Temp Inner conductor : 100°C
2000	5.90	1.62
2200	6.25	1.53
2300	6.42	1.48
2400	6.57	1.44
2500	6.76	1.42
3000	7.53	1.28
3300	8.01	1.18
3400	8.16	1.17
3500	8.29	1.15
3600	8.45	1.12
3800	8.75	1.09

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

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