

M5432Z
HYPERCELL

HPL 50-1-1/4F ALU - Black Polyethylene Jacket

GENERAL CHARACTERISTICS

Inner Conductor:	Copper tube Outer Diameter: 13.1 mm
Dielectric:	Foam Polyethylene Diameter: 32.8 mm
Outer Conductor:	Corrugated Aluminum Diameter over outer conductor: 35.85 mm
Jacket:	Black Polyethylene Diameter: 39.5 mm

Marking (Metric): ACOME HYPERCELL COAX HPL50-1-1/4F ALU M5432 LOT X Lot No. XXXXm

MECHANICAL

Bending radius:

- Operating : 380 mm – Min
- Installation : 200 mm – Min

Tensile Strength: 2000 N – Max

Weight: 736 kg/km

ENVIRONMENTAL

Temperature range:

- Operating: -40°C / +85°C
- Installation: -25°C / +60°C
- Storage: -70°C / +85°C

Halogen content: IEC 60754-1

Test methods: IEC 60096-0-1, 61196-1, 60966-1

ELECTRICAL

Impedance : 50 ± 1 Ω
Return loss :

- 400 ~ 500 MHz ≤ -26.5 dB
- 800 ~ 1000 MHz ≤ -26.5 dB
- 1700 ~ 2200 MHz ≤ -24 dB
- 2500 ~ 2700 MHz ≤ -23.5 dB

Capacitance: 76 pF/m
Passive Intermodulation : ≤-158 dBc (-163 dBc typical)
Velocity: 88%
Dielectric constant: 1.29
Screening effectiveness: > 120 dB
Operating frequency: ≤ 3.4 GHz
Cut-off frequency: 3.7 GHz
Peak power rating: 181 kW
Operating voltage: 4.3 kV RMS
Insulation Resistance: > 10000 MΩ.km
DC resistance:

- Inner conductor: ≤ 1.10 Ω/km
- Outer conductor: ≤ 0.65 Ω/km

Frequency (MHz)	Attenuation (dB/100m) @ 20°C Typical	Power kW @ 40°C-Ambient Temperature Inner conductor: 100°C
30	0.48	22.49
80	0.81	13.42
150	1.14	9.56
450	2.06	5.18
824	2.90	3.64
900	3.07	3.45
960	3.15	3.32
1000	3.25	3.24
1500	4.15	2.61
1700	4.45	2.34
1800	4.60	2.26
1900	4.75	2.18
2000	4.90	2.11
2200	5.20	1.99
2300	5.35	1.93
2400	5.50	1.88
2500	5.60	1.83
3000	6.30	1.63
3300	6.65	1.52
3400	6.75	1.50