

# M5407Z
# HYPERCELL

HPL 50-7/8 LA - Black Polyethylene Jacket

## GENERAL CHARACTERISTICS

| | |
|---|---|
| Inner Conductor: | Copper tube Outer Diameter: 9.25 mm |
| Dielectric: | Foam Polyethylene Diameter: 22.4 mm |
| Outer Conductor: | Corrugated copper Outer Diameter: 24.7 mm |
| Jacket: | Black Polyethylene Diameter: 27.4 mm |

Ink marking: ACOME HYPERCELL COAX HPL 50-7/8 LA M5407 LOT X lot N° (+ Metric length)

### MECANICAL

Bending radius:

- Operating : 250 mm – Min
- Installation : 120 mm – Min

Tensile Strength: 1450 N – Max

Weight: 431 kg/km

Packaging: 500 m

### 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: 73.5 pF/m
Passive Intermodulation : ≤-158 dBc
Velocity: 90%
Dielectric constant: 1.23
Screening effectiveness: > 120 dB
Operating frequency: ≤ 5 GHz
Peak power rating: 95 kW
Operating voltage: 3 kV RMS
Insulation Resistance: > 10000 MΩ.km
DC resistance:

- Inner conductor: ≤ 1.55 Ω/km
- Outer conductor: ≤ 1.40 Ω/km

| Frequency (MHz) | Attenuation (dB/100m) @ 20°C Typical | Power kW @ 40°C-Ambient Temperature Inner conductor: 100°C |
|---|---|---|
| 30 | 0.59 | 16.29 |
| 80 | 0.98 | 9.85 |
| 150 | 1.37 | 7.10 |
| 450 | 2.45 | 3.97 |
| 824 | 3.42 | 2.86 |
| 900 | 3.56 | 2.72 |
| 960 | 3.73 | 2.63 |
| 1000 | 3.78 | 2.57 |
| 1500 | 4.74 | 2.04 |
| 1700 | 5.17 | 1.91 |
| 1800 | 5.25 | 1.84 |
| 1900 | 5.41 | 1.79 |
| 2000 | 5.58 | 1.70 |
| 2200 | 5.89 | 1.65 |
| 2300 | 6.04 | 1.60 |
| 2400 | 6.19 | 1.56 |
| 2500 | 6.34 | 1.53 |
| 3000 | 7.06 | 1.37 |
| 3300 | 7.46 | 1.29 |
| 3400 | 7.60 | 1.26 |
| 3500 | 7.73 | 1.25 |
| 3600 | 7.86 | 1.22 |
| 3800 | 8.12 | 1.18 |
| 5000 | 9.69 | 0.90 |