



## 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)

### MECHANICAL

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 :  $50 \pm 1 \Omega$

Return loss :

- 400 ~ 500 MHz  $\leq -26.5$  dB
- 800 ~ 1000 MHz  $\leq -26.5$  dB
- 1700 ~ 2200 MHz  $\leq -24$  dB
- 2500 ~ 2700 MHz  $\leq -23.5$  dB

Capacitance: 73.5 pF/m

Passive Intermodulation :  $\leq -158$  dBc

Velocity: 90%

Dielectric constant: 1.23

Screening effectiveness:  $> 120$  dB

Operating frequency:  $\leq 5$  GHz

Peak power rating: 95 kW

Operating voltage: 3 kV RMS

Insulation Resistance:  $> 10000$  M $\Omega$ .km

DC resistance:

- Inner conductor:  $\leq 1.55$   $\Omega$ /km
- Outer conductor:  $\leq 1.40$   $\Omega$ /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   |