

CMC Radiating Coaxial Cable

CMC 50D-158

PRODUCT DESCRIPTION

- The cable is used as a distributed antenna to provide communications in tunnels, subway mines, large building complexes, and any other application in confined areas.
- Slots in the copper outer conductor allow a controlled portion of the internal RF energy to be radiated into the surrounding environment and can be designed individually.
- With the broadband capability of 75~3000MHz, this cable is used for both one-way and two-way communication systems, and a single radiating cable can handle multiple communication systems simultaneously.



CONSTRUCTION

Inner conductor	Smooth copper tube	Φ17.30mm
Insulation	Physically foamed PE	Φ43.50mm
Outer conductor	Corrugated copper tube with double row milled slots	Φ46.50mm
Jacket	Non-halogenated, fire retardant PE	Φ49.50mm

MECHANICAL PROPERTIES

Minimum bending radius	mm	280
Tensile force	N	3000

ELECTRICAL PROPERTIES

Impedance	Ω	50±2
Capacitance	pF/m	75
Propagation velocity	%	88
DC breakdown voltage	kV	10
Insulation resistance	MΩ•km	>10000

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TRANSMISSION PROPERTIES

Frequency MHz	Nom. attenuation @20 °C,dB/100m	Coupling loss(50%/95%) @20 °C,dB
150	1.03	74 / 86
450	1.97	80 / 92
900	3.00	79 / 91
1800	4.80	74 / 86
1900	4.93	76 / 88
2200	5.40	83 / 95
2400	5.80	85 / 97

Attenuation & Coupling loss test method : IEC 61196-4.

VSWR

Tested in customers' operating band	≤1.3
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ENVIRONMENTAL PROPERTIES

Recommended storage temperature	°C	-70~+85
Recommended installation temperature	°C	-25~+60
Recommended operating temperature	°C	-40~+85