PRODUCT DATASHEET

ICA12-50JPLLR-ARMR

PlenumShield Armored 1/2" ClearFill®Line Aluminum Plenum-Rated Air-Dielectric Coaxial Cable for In-Building Applications

PlenumShield Armored ClearFill®Line 1/2" low-loss air dielectric cable, Plenum-rated, CMP



PlenumShield, Armor Dimension 23.11mm (0.91in)

FEATURES / BENEFITS

- **Complaint with NFPA 72 section 12.4.2 Pathway Survivability Level 1**
- **Supports Multiple RF Signals**
- **Complete Shielding**
  The solid outer conductor of the ClearFill®Line coaxial cable creates a continuous RFI/EMI shield that minimizes system interference.
- **Outstanding Intermodulation Performance**
  RFS Technologies coaxial cable's solid inner and outer conductors virtually eliminate intermods. Intermodulation performance is also confirmed with state-of-the-art equipment at the RFS Technologies factory.
- **Wide Range of Applications**
  Typical areas of application are feedlines for plenum-space installations within occupied buildings or structures.

Technical features

APPLICATIONS

Applications		Public Safety	In-building DAS, BDA	Wireless Communication	Cable Solutions

STRUCTURE

Size		1/2
Inner Conductor Diameter	mm (in)	4.8 (0.19)
Inner Conductor Material		Copper-Clad Aluminum Wire
Dielectric Diameter	mm (in)	11.8 (0.464)
Dielectric Material		Extruded Polyethylene
Outer Conductor Diameter	mm (in)	13.8 (0.54)
Outer Conductor Material		Corrugated Aluminum
Jacket Diameter	mm (in)	15.93 (0.627)
Jacket Material		PVC, Plenum Rated / Color Red Water-resistant
Armor	mm(in)	23.11 (0.91)
Cable Type		PlenumShield, Air-Dielectric, Corrugated, Armored Cable

TESTING AND ENVIRONMENTAL

Fire Performance		Flame Retardant, Plenum-rated, CMP	
Flame Retardant Jacket Specifications		Meets/Exceeds Steiner Tunnel Test Method UL 910, NEC 820-53 (a) CMP, NFPA-262	
Regulatory Compliance		NEC Article 800 Communication Circuits ETL Listed to UL444 Canadian CSA C.22.2/FT6	NFPA 72 section 12.4.2 Pathway Survivability Level 1
Installation Temperature	°C(°F)	-20 to 60 (-4 to 140)	
Storage Temperature	°C (°F)	-40 to 85 (-40 to 185)	
Operation Temperature	°C(°F)	-40 to 85 (-40 to 185)	

All values nominal unless tolerances provided; information contained in the present datasheet is subject to confirmation at time of ordering

ICA12-50JPLLR-ARMR

PlenumShield Armored 1/2" ClearFill®Line Aluminum Plenum-Rated Air-Dielectric Coaxial Cable for In-Building Applications

ELECTRICAL SPECIFICATIONS

Impedance	Ω	50 +/- 1
Maximum Frequency	GHz	6
Velocity	%	88
Capacitance	pF/m (pF/ft)	75 (22.86)
Inductance	uH/m (uH/ft)	0.19 (0.058)
Peak Power Rating	kW	40
RF Peak Voltage	Volts	2000
Jacket Spark	Volt RMS	8000
Inner Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	1.48 (0.45)
Outer Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	2.29 (0.7)
Return Loss (VSWR) Performance		24 (1.13) @ 698-960 MHz 24 (1.13) @ 1395-1432 MHz 24 (1.13) @ 1700-2155 MHz 20 (1.22) @ 2300-2700 MHz 18 (1.29) @ 3550-4200 MHz 18 (1.29) @ 5150-6000 MHz
Temperature & Power		High Power Rating

MECHANICAL SPECIFICATIONS

Cable Weight, Nominal	kg/m (lb/ft)	0.34 (0.23)
Minimum Bending Radius, Repeated Bends	mm (in)	304.8 (12)
Recommended / Maximum Clamp Spacing	m (ft)	0.5 / 0.9 (1.8 / 3)

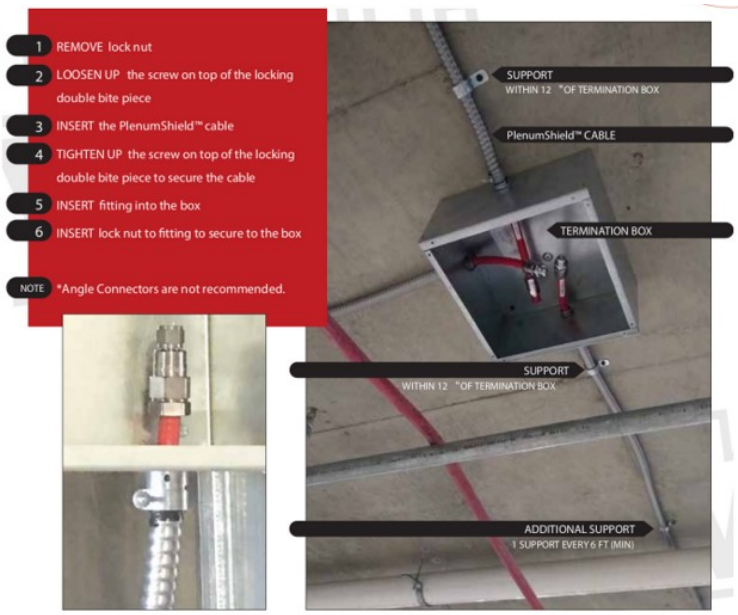
All values nominal unless tolerances provided; information contained in the present datasheet is subject to confirmation at time of ordering

ATTENUATION @ 20°C (68°F) AND POWER RATING @ 40°C (104°F)

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
0.5	0.16	0.05	40
1	0.23	0.07	32.80
1.5	0.29	0.09	26.80
2	0.33	0.10	23.20
10	0.74	0.23	10.30
20	1.06	0.32	7.22
30	1.30	0.40	5.89
50	1.68	0.51	4.55
88	2.25	0.69	3.40
100	2.41	0.73	3.18
108	2.51	0.76	3.05
150	2.98	0.91	2.57
174	3.22	0.98	2.38
200	3.46	1.05	2.21
300	4.29	1.31	1.79
400	5	1.52	1.53
450	5.32	1.62	1.44
500	5.63	1.72	1.36
512	5.71	1.74	1.34
600	6.22	1.90	1.23
700	6.76	2.06	1.14
750	7.02	2.14	1.09
800	7.28	2.22	1.06
824	7.40	2.25	1.04
894	7.74	2.36	0.99
900	7.76	2.37	0.99
925	7.88	2.40	0.98
960	8.05	2.45	0.96
1000	8.23	2.51	0.93
1250	9.32	2.84	0.83
1400	9.93	3.03	0.78
1500	10.30	3.15	0.75
1700	11.10	3.38	0.70
1800	11.50	3.49	0.67
2000	12.20	3.71	0.63
2100	12.50	3.81	0.62

All values nominal unless tolerances provided; information contained in the present datasheet is subject to confirmation at time of ordering

2200	12.80	3.92	0.61
2300	13.20	4.02	0.59
2400	13.50	4.12	0.57
2500	13.80	4.22	0.56
2600	14.20	4.31	0.55
2700	14.50	4.41	0.54
3000	15.40	4.69	0.51
3500	16.90	5.14	0.46
3600	17.10	5.22	0.46
4000	18.30	5.56	0.43
4500	19.60	5.97	0.40
5000	20.90	6.36	0.38
5500	22.10	6.74	0.36
6000	23.30	7.11	0.34



PlenumShield Typical Installation

External Document Links
LINK TO VEX FILE

Notes
Armor Dimension mm(in), 23.11(0.91)

All values nominal unless tolerances provided; information contained in the present datasheet is subject to confirmation at time of ordering