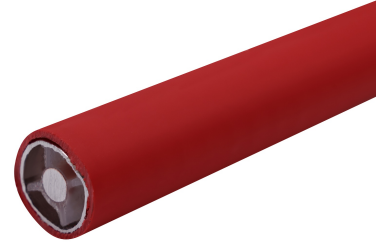


PLN-AL-50R

Product Description

- Gamma's rigid PLN-AL-50R is ideal for public safety DAS and lower frequency cellular DAS installations. The rigid shield allows for easy cutting, trimming and pulling of the cable.
- Lower VSWR, perfect shielding effectiveness, lead to smaller energy loss and interference.
- UL 1581 Standard of UV Resistance
- Water-resistant



Construction		
Component	Material	Diameter, mm
Inner conductor	Copper-clad Aluminum	4.80±0.03
Insulation	Polyethylene spline	11.70±0.05
Outer conductor	Ring-corrugated Aluminum	13.85±0.25
Jacket	Polyvinylchloride (PVC)	16.3±0.30

Mechanical Characteristics	
Minimum single bending radius, mm	63.5
Minimum repeated bending radius, mm	127
Minimum number of bends	15
Maximum tensile strength, N	≥790
Bending moment, N-m	6.779
Fiat plate crush strength, kg/mm	1.429
Recommended maximum clamp spacing, m	1



Rigid Aluminum-Shielded Coaxial Air- Core Plenum Cable

PLN-AL-50R

Electrical Properties	
Impedance, Ohms	50±2
Nominal capacitance, pF/m	75.459
Nominal inductance, µH/m	0.19
Propagation velocity, %	88
DC breakdown voltage, kV	4.0
Jacket spark-test voltage, Vrms	5000
Operating frequency band, MHz	1-6000
Insulation resistance, MΩ·kms	10 ⁵
Peak power rating, kW	40
Cut-off frequency, MHz	8800

Transmission Properties			
Frequency, MHz	Attenuation, dB/100 m	Attenuation, dB/100 ft	Average Power, kW
1.0	0.216	0.066	35.37
1.5	0.264	0.081	28.84
2.0	0.306	0.093	24.95
10.0	0.691	0.211	11.04
20.0	0.985	0.300	7.75
30.0	1.213	0.370	6.29
50.0	1.581	0.482	4.83
85.0	20.87	0.636	3.66
88.0	2.126	0.648	3.59
100.0	2.274	0.693	3.35
108.0	2.368	0.722	3.22
150.0	2.821	0.860	2.70
174.0	3.054	0.931	2.50
200.0	3.292	1.003	2.32
204.0	3.327	1.014	2.29
300	4.104	1.251	1.86

Transmission Properties			
Frequency, MHz	Attenuation, dB/100 m	Attenuation, dB/100 ft	Average Power, kW
400.0	4.808	1.465	1.59
450.0	5.134	1.565	1.49
460.0	5.194	1.584	1.47
500.0	5.445	0.211	1.40
512.0	5.517	1.659	1.38
600.0	6.032	1.682	1.26
700.0	6.583	1.839	1.16
800.0	7.105	2.007	1.07
824.0	7.227	2.166	1.06
894.0	7.574	2.203	1.01
960.0	7.892	2.308	0.97
1000.0	8.081	2.405	0.94
1218.0	9.068	2.463	0.84
1250.0	9.207	2.764	0.83
1500.0	10.256	2.806	0.74
1700.0	11.053	3.126	0.69
1794.0	11.416	3.480	0.67
1800.0	11.439	3.487	0.67
2000.0	12.192	3.716	0.63
2100.0	12.559	3.828	0.61
2200.0	12.920	3.938	0.59
2300.0	13.276	4.046	0.57
2500.0	13.975	4.259	0.55
2700.0	14.656	4.467	0.52

Transmission Properties			
Frequency, MHz	Attenuation, dB/100 m	Attenuation, dB/100 ft	Average Power, kW
3000.0	15.649	4.770	0.49
3400.0	16.928	5.159	0.45
3600.0	17.551	5.349	0.43
3700.0	17.859	5.443	0.43
3800.0	18.164	5.536	0.42
3900.0	18.467	5.628	0.41
4000.0	18.768	5.72	0.41
4100.0	19.066	5.811	0.40
4200.0	19.363	5.902	0.39
4300.0	19.658	5.991	0.39
4400.0	19.951	6.081	0.38
4500.0	20.241	6.169	0.38
4600.0	20.531	6.257	0.37
4700.0	21.818	6.345	0.37
4800.0	21.108	6.432	0.36
4900.0	21.388	6.519	0.36
5000.0	21.671	6.605	0.35
6000.0	24.420	7.443	0.31

Return Loss	
Frequency Range	VSWR (dB)
700-894MHz	≤1.25(-19)
806-960MHz	≤1.25(-19)
1700-2200MHz	≤1.25(-19)

Environmental Properties	
Recommended storage temperature, °C	-20 to 85
Recommended installation temperature, °C	-5 to 60
Recommended operating temperature, °C	-20 to 85

Regulatory Compliance	
2011/California Proposition 65/EU(RoHS)	Compliant
REACH-SVHC	Compliant
ETL Certification	PLENUM CMP/CATVP/NFPA 262

Ordering Information		
Description	Part Number	Spool Length, Feet
Rigid Aluminum Shielded Plenum Cable	PLN-AL-50R-[COLOR]-[LGTH]	1000 or 500

[COLOR]: White=WHT, Red=RED

P/N Example: PLN-AL-50R-RED-SP = 1,000 FT spool of Red Aluminum Shielded Cable
 PLN-AL-50R-WHT-500 = 500 FT spool of White Aluminum Shielded Cable
 Cable is sold in 100 FT Quantities