AL PLUS *CSeries*

Low and Medium Power C-Pol UHF and Mobile Media Antennas

Low and Medium Power UHF and Mobile Media Antenna Systems

The circularly polarized AL PLUS UHF television antenna line satisfies the antenna requirements of many Part 74 television translators, low power and Class A television stations, single frequency networks, and 700 MHz mobile data applications. The antenna is a compact, end fed, design that features a slot covers for environmental protection. The circularly polarized AL PLUS is available in 8 and 12 bay model and versions have been developed for low and medium power applications. The antenna is suitable for either analog or digital broadcast applications.

Features

- Circularly polarized UHF television antenna
- Excellent elevation pattern inherent of end fed antenna designs
- Slot Covered for environmental protection: long life, low maintenance, and reliability (full radome enclosure available)
- Omnidirectional azimuth pattern standard, directional patterns on application
- Compact single piece configuration simplifies installation

Characteristics

Frequency Range	470 – 806 MHz (U.S. channels 14-69, European channels 21E-62E)
Operating Frequency	Specify by channel number or frequency band
Input Impedance	50 ohms
Input Type	1-5/8" EIA for low power and 3-1/8" EIA for medium power
VSWR	1.10:1 over single channel
Beam Tilt	1.75 degrees for 8-Bay, 1.25 degrees for 12-Bay

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Electrical Specifications

Part Number	Number of Bays	Average Power Rating (Kw)	Tv Peak Power Rating (Kw)	Standard Beam Tilt (Degrees)	Input Flange
Model L — Low Power					
AL8-(#)-PLC	8	3	7	1.75	1-5/8-inch EIA
AL12-(#)-PLC	12	3	7	1.25	1-5/8-inch EIA
Model M — Medium Power					
AL8-(#)-PMC	8	10	23	1.75	3-1/8-inch EIA
AL12-(#)-PMC	12	10	23	1.25	3-1/8-inch EIA

(#) Indicate operating channel (14 to 69)

	8-Bay	12-Bay
RMS Gain at Main Lobe (Horizontal and Vertical):	4.25 (6.28 dBd)	6.29 (7.99 dBd)
RMS Gain at Horizontal (Horizontal and Vertical):	3.50 (5.45 dBd)	4.99 (6.98 dBd)
Azimuth Pattern Circularity:	±1 dB H-Pol; ±3 dBV-Pol	
Axial Ratio:	<3 dB, at the peak of the V-Pol Beam	
Electrical Beam Tilt:	-1.75 degrees	-1.25 degrees
Antenna VSWR, Maximum:	1.10 over 6 MHz channel	
Frequency Range:	Any single television channel 470 to 862 MHz	

Mechanical Specifications

	8-Bay	12-Bay
Radome Diameter, OD:	8.16-inches	8.16-inches
Length:	13.2-feet	18.5-feet
Weight*:	165-lbm	225.5-lbm
CaAa*:	17.9 sq. ft.	22.3 sq. ft.
Ingress Protection Rating:	65	65

* Does not include mounts

Note: The IEC Test Standard EN 60529 outlines an international classification system for the sealing effectiveness of enclosures of electrical equipment against the intrusion into the equipment of foreign objects (i.e. tools, dust, fingers) and moisture. This classification system uses the letters "IP" ("Ingress Protection") followed by two digits. The first digit of the IP code indicates the degree that persons are protected against contact with moving parts (other than smooth rotating shafts, etc.) and the degree that equipment is protected against solid foreign bodies intruding into an enclosure. The second digit indicates the degree of protection of the equipment inside the enclosure against the harmful entry of various forms of moisture (e.g. dripping, spraying, submersion, etc.)