

A-2 ERI Antenna Specification Sheet

University of New Mexico
Albuquerque, New Mexico

General Specifications

Antenna Type High Power FM-Broadcast, Suitable For Diplexing
Model Number SHPX-6AC-SP
Number of Bay Levels Six
Polarization Right Hand Circular

Electrical Specifications

Antenna Input Power Capability (Single Feed) 15 KW Max ⁽¹⁾
Operating Frequency Band 89.1 and 89.9 Megahertz.
VSWR <1.22:1 @ Operating
Frequencies ⁽²⁾
Azimuthal Pattern Circularity Less Than +/- 1.5 dB from RMS (Free Space)
Power Split 50/50 (Horizontal & Vertical)
Quarter Wave Shorting Stub Yes
Frequency Specific Information:

<u>Frequency</u>	<u>Station ERP</u>	<u>Beam Tilt</u>	<u>First Null Fill</u>	<u>Second Null Fill</u>	<u>Power Gain</u>	<u>Line Loss</u> ⁽³⁾	<u>Filter Loss</u> ⁽⁴⁾	<u>Computed TPO</u>
89.9	18 KW	-2.01°	2%	1%	3.088	.1619 db	.5562 db	6.8 KW

Mechanical Specifications

Antenna Feed System Fed With Single Line
Input Connector 3 1/8"-50 Ohm EIA Flanged
Element Deicing Radomes
Interbay Spacing 131' 3/8" Center to Center
Array Length 48'
Construction Material (Antenna) All Noncorrosive
Construction Material (Mounting) All Stainless Steel

1) Power Capability Has Been Rated Assuming an Operating Transmission VSWR of 1.5:1

2) VSWR Specification Achieved After On Site Tuning For User Specific Frequencies.

3) Line Loss Assumes A Feed Run of 30 Feet, 3" Andrew Helix HJ8-50B and 132.5' Feet of Dielectric Rigid 3 1/8" Coax.

4) Losses Taken From Actual "TEE" Combiner.