



Band IV/V (UHF) Antenna 470-700MHz

Product Description

The PEP-Lite broadband low wind load antenna has dual inputs and is capable of horizontal, vertical, circular or elliptical polarization. The PEP-Lite broadband array is ideally suited to the broadcaster who requires maximum flexibility now and into the future. These antennas are also suited to MIMO and MISO operation. Ideal for use by a single broadcaster, or multiple broadcasters as a shared antenna, PEP-Lite antennas use RFS patented VPT technology. Different broadcasters sharing the same antenna can have station specific polarization ratios which can be changed post-installation by varying the output phase of the combiner.

Features

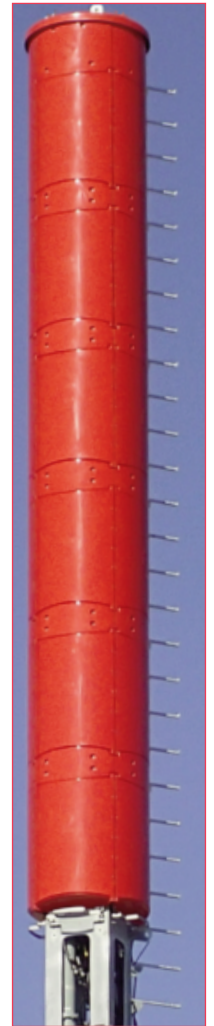
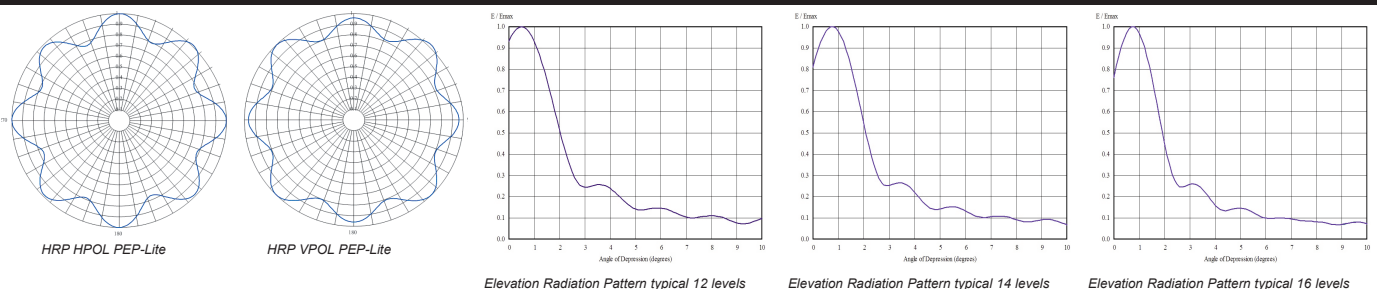
- Fully engineered for Digital TV, Mobile TV, MIMO and MISO applications
- Corrosion resistant construction with cylindrical fibreglass radome
- Single/independent inputs allowing utmost polarization flexibility
- Horizontal/vertical, circular or elliptical polarization
- Extremely low wind loading
- Standard and hurricane rated options
- High power rating
- Array design allows for custom design of horizontal and vertical radiation patterns. Option available to modify vertical radiation pattern characteristics in the field, when specified at time of order.

Specifications

Model Omni	PEPL48D	PEPL56D	PEPL64D
Frequency range (MHz)		470-700	
Number of bays (levels)	12	14	16
HRP directivity Hpol (dB)	2.0	2.0	2.0
VRP directivity (dBd)	13.8	14.4	15.0
Peak gain Hpol (dBd)	15.5	16.1	16.6
Peak numerical gain Hpol (times)	35.1	40.4	45.7
RMS gain Hpol (dBd)	14.7	15.3	15.9
RMS numerical gain Hpol (times)	29.6	34.0	38.6
Diameter (mm)	923	923	923
Diameter (in)	36	36	36
Antenna height (m)	14.5	16.8	19.1
Antenna height (ft)	47' 7"	55' 2"	62' 8"
Effective Area CaAa (m ²) *Note 1, 2	8.5	9.7	11.0
Effective Area CaAa (ft ²)	91	105	118
Polarization	Horizontal / Vertical / Circular / Elliptical		
Number of Channels	Multi-channel		
Antenna System Omni ripple, dB	± 1.5 typical		
VSWR	< 1.1:1		
Input Power (kW per input)	60 (6-1/8") / 80 (7-3/16") / 120 (8-3/16")		
Input Connectors	2 x 6-1/8" EIA / 2 x 7-3/16" / 1 x 8-3/16"		
Impedance (ohms)	50 or 75		
Color	Red / White radome standard, other upon request		
Pressurization - Operational, kPa (psi)	10-25 (1.4-3.6)		
Pressurization - Test, kPa (psi)	100 (15)		

- Note 1: CaAa is calculated based on supercritical flow conditions to ANSI/TIA-222-G. Contact a qualified structural consultant to confirm this applies to your installation.
- Note 2: An effective area of 0.5 m² (5.4 ft²) to account for lightning rod, lifting jib etc. at the top of the antenna is included. Estimated CaAa of climbing rung 0.1 m²/m height (0.33 ft²/ft height) is not included in the calculation. Interface steelwork to tower, and power divider network is not included in effective area calculations.
- Note 3: Gain at 666 MHz, omni-directional configuration, first null filled to 20%.
- Note 4: HPol gains shown only.

Patterns



PEP-Lite

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Band IV/V (UHF) Antenna 470-700MHz

Model	Cardioid	PEPL36C	PEPL42C	PEPL48C
Frequency range (MHz)			470-700	
Number of bays (levels)		12	14	16
HRP directivity Hpol (dB)		3.2	3.2	3.2
VRP directivity (dBd)		13.8	14.4	15.0
Peak gain Hpol (dBd)		16.8	17.3	17.8
Peak numerical gain Hpol (times)		47.5	53.7	60.8
RMS gain Hpol (dBd)		N/A	N/A	N/A
RMS numerical gain Hpol (times)		N/A	N/A	N/A
Diameter (mm)		923	923	923
Diameter (in)		36	36	36
Antenna height (m)		14.5	16.8	19.1
Antenna height (ft)		47' 7"	55' 2"	62' 8"
Effective Area CaAa (m ²) *Note 1, 2		8.5	9.7	11.0
Effective Area CaAa (ft ²)		91	105	118
Polarization		Horizontal / Vertical / Circular / Elliptical		
Number of Channels		Multi-channel		
Antenna System Omni ripple, dB		N/A		
VSWR		< 1.1:1		
Input Power (kW per input)		60 (6-1/8") / 80 (7-3/16") / 120 (8-3/16")		
Input Connectors		2 x 6-1/8" EIA / 2 x 7-3/16" / 1 x 8-3/16"		
Impedance (ohms)		50 or 75		
Color		Red / White radome standard, other upon request		
Pressurization - Operational, kPa (psi)		10-25 (1.4-3.6)		
Pressurization - Test, kPa (psi)		100 (15)		

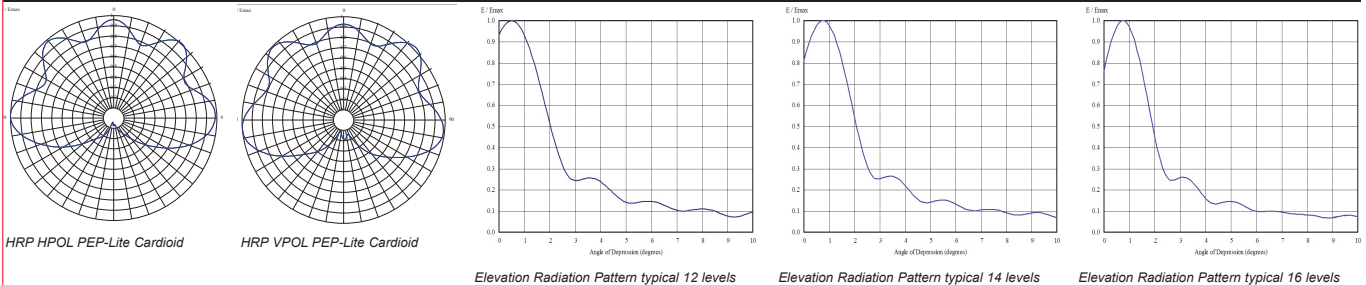
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Note 4: HPol gains shown only.

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