



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

**Product Description**

The SBB-EP series of antennas are broadband, elliptically polarized low wind load antennas ideally suited for use as an interim, permanent reserve or main antenna. The SBB is ideally suited to the broadcaster who requires a high performance antenna with frequency agility to allow for both current and future channel operation. Patented technology enables a very stable elliptical polarization performance with almost constant vertical to horizontal ERP ratio over the full UHF band. Ideal for use by a single broadcaster, or multiple broadcasters as a shared antenna, SBB antennas provide unprecedented broadband performance.

**Features**

- Full broadband performance 470-698 MHz for future and current channel allocations.
- Very stable elliptical polarization V/H ERP ratio.
- Corrosion resistant construction with cylindrical fiberglass radome.
- Extremely low wind loading.
- High maximum power rating. Reduced power models available on request.
- Supplied with brackets for side mounting.



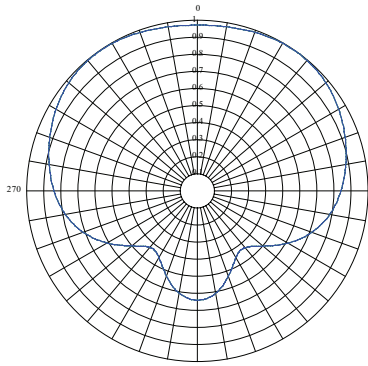
**Antenna Specifications**

Model Number	SBB-EP-8	SBB-EP-16	SBB-EP-24
Frequency Range, MHz		470-698	
Number of slots	8	16	24
Polarization	Right Hand Elliptical		
<b>C170 Pattern</b>			
Azimuth Pattern directivity Hpol (times) (dB)		1.7 (2.3)	
Peak gain Hpol (times) (dBd) <small>Note 1</small>	16 (12.05)	27 (14.3)	39 (15.9)
Polarization ratio (Vpol ERP/Hpol ERP) <small>Note 2</small>		30%	
<b>C160 Pattern</b>			
Azimuth Pattern directivity Hpol (times) (dB)		1.6 (2.0)	
Peak gain Hpol (times) (dBd) <small>Note 4</small>	15 (11.75)	25 (14.0)	36 (15.6)
Polarization ratio (Vpol ERP/Hpol ERP) <small>Note 2</small>		25%	
Beam Tilt, typical (degrees) – other beam tilt upon request	1.5	1.25	1.0
VSWR	< 1.15:1 (1.1 on channel)		
Impedance (Ohms)	50	50	50 or 75
Input power Max. (kW @ 600 MHz)	34	60	60 or 78
Input connector (in)	4-1/16"	6-1/8"	6-1/8" or 7-3/16"
<b>Mounting</b>	Antenna provided with 25" standoff brackets for mounting on poles or tower legs from 3.5" to 6.0" OD		
Diameter, in (mm)		15 (381)	
Antenna height, ft (m)	14.1 (4.3)	28.5 (8.7)	43 (13.1)
Weight, lb (kg)	551 (250)	1367 (620)	2095 (950)
Effective Area CaAc, ft <sup>2</sup> (m <sup>2</sup> ) <small>Note 3</small>	10.8 (1.0)	21.6 (2.0)	32.4 (3.0)
Radome Color	White		
Pressurization – Operational, psi (kPa)		1.4-3.6 (10-25)	
Pressurization – Test, psi (kPa)		15 (100)	

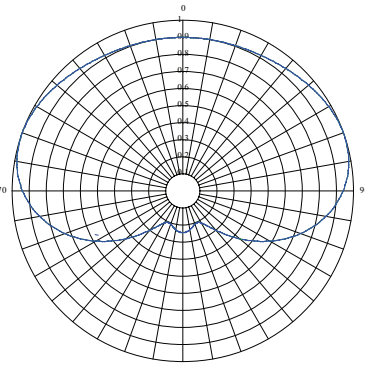
Note 1: Gain at 590 MHz (sum of HRP and VRP directivities).

Note 2: Elliptical polarization V/H power ratio variation is +/- 3% from 470 MHz to 650 MHz

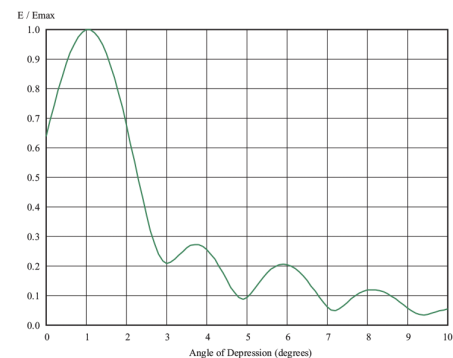
Note 3: CaAc is calculated using Ca=0.6 from ANSI/TIA-222-G, Table 2.8 based on supercritical flow. Contact a qualified structural consultant to confirm this applies to your installation.



Horizontal Radiation Pattern C160



Horizontal Radiation Pattern C170



Elevation Radiation Pattern typical 24 slots

All information contained in the present datasheet is subject to confirmation at time of ordering.