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

Product Description

The SBB series of antennas are broadband low wind load antennas ideally suited for use as an interim, permanent reseve 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. Ideal for use by a single broadcaster, or multiple broadcasters as a shared antenna, SBB antennas provide unprecedented broadband performance.

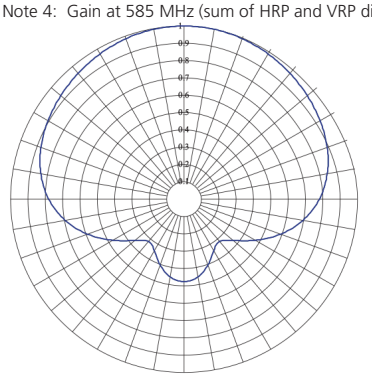
Features

- Full broadband performance 470-700MHz for future and current channel allocations.
- Corrosion resistant construction with cylindrical fiberglass radome.
- Extremely low wind loading.
- High power rating.
- Supplied with brackets for side mounting.

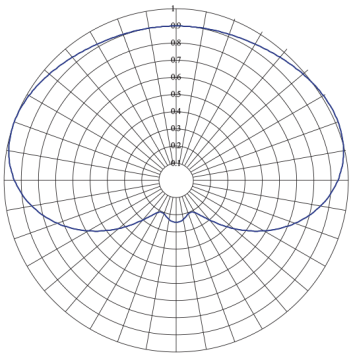
Antenna Specifications

Model Number	SBB-8	SBB-16	SBB-24	SBB-32
Frequency Range, MHz	470-700	470-700	470-700	470-700
Number of slots	8	16	24	32
C170 Pattern				
HRP directivity Hpol, dB		2.3		
Peak gain Hpol, dBd (numeric) Note 4	11.7 (14.7)	14.0 (25.3)	15.9 (38.6)	17.1 (51)
S180 Pattern				
HRP directivity Hpol, dB		2.55		
Peak gain Hpol, dBd (numeric) Note 4	11.9 (15.5)	14.27 (26.7)	16.11 (40.8)	17.3 (54.0)
VRP directivity, dBd	9.4	11.7	13.6	14.8
Beam Tilt, degrees	1.5	1.25	1.0	.075
VSWR	< 1.15:1	< 1.08:1 (1.1 on channel)	< 1.08:1	< 1.08:1
Impedance, Ohms		50		
Input power Max., kW	20	40	60	65
Input Connectors, in	3-1/8 EIA	6-1/8 EIA	6-1/8 EIA	6-1/8 EIA
Mounting	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)	17' 5" (5.3)	35' 5" (10.8)	53' 6" (16.3)	71' 6" (21.8)
Weight, lb (kg)	408 (185)	1036 (470)	1675 (760)	2689 (1220)
Effective Area CaAc, ft² (m²) Note 1	13 (1.2)	27 (2.5)	41 (3.8)	54 (5.0)
Wind Load @ 112 mph (50 M/Sec) windspeed, lb (kN) Note 2	405 (1.8)	843 (3.8)	1281 (5.7)	1686 (7.5)
Torsional Moment @ 112 mph (50 M/Sec) windspeed, ftlb Note 3	885 (1.2)	1844 (2.5)	2803 (3.8)	3688 (5.0)
Polarization		Horizontal		
Color		White radome, other on request		
Pressurization - Operational, psi (kPa)		1.4-3.6 (10-25)		
Pressurization - Test, psi (kPa)		15 (100)		

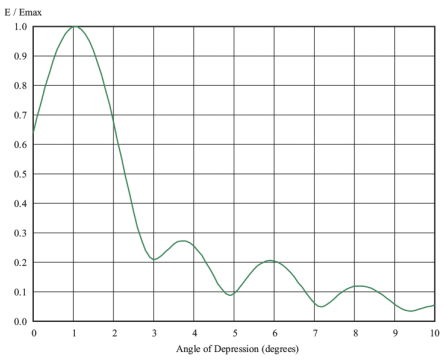
Note 1: CaAc is calculated using Ca=0.6 from ANSI/TIA-222-G, Table 2.8 based on supercritical flow. Contact a qualified structural consultant to confirm this applies to your installation.
Note 2: Antenna mounting pole and interface steelwork to tower is not included in wind load calculations.
Note 3: Calculated torsional moment is about centre of antenna mounting pole.
Note 4: Gain at 585 MHz (sum of HRP and VRP directivities).



Horizontal Radiation Pattern Skull 180



Horizontal Radiation Pattern Cardioid 170



Elevation Radiation Pattern typical 24 slots