



**CBS4**

UHF Slot Antennas  
CBS and 2CBS Series

Slot antennas are a popular method of providing versatile antennas for UHF TV broadcasting applications. The RFS CBS series of slot antennas were developed for Band IV and V antenna applications, offering bandwidths up to 110MHz for multichannel operation.

The standard CBS series is also available as a dual stack antenna (designated 2CBS series) with two CBS radiators stacked in a single fibreglass radome. Dual inputs are available on the 2CBS series as an option.

An improved VSWR over 1 or 2 channels can be achieved by the addition of a tuning unit that is connected to the input terminal of the antenna.

CBS antennas offer extremely low wind loading characteristics and thus, low cost support structures.

These antennas offer many advantages over comparable panel arrays. Of compact cylindrical construction they are ideal for use in situations where low wind loadings are a primary concern. They are also aesthetically pleasing, having a low profile while maintaining great strength for the most severe weather including cyclonic conditions.

Top mounting and mounting to a single leg of a tower structure is possible and on site assembly, erection and aligning are relatively simple. Minimal maintenance is required.

Having a 7/8" EIA flange input (excepting the CBS7LP), plus the totally sealed fibreglass radome, these antennas are fully pressurized. Unpressurized operation is achieved simply by removing the drain plug in the base plate.

**FEATURES / BENEFITS**

- Copper/brass construction - stainless steel mounting interface
- Horizontal polarization
- Low wind loading
- Fully pressurized
- Multichannel operation is possible
- Temperature range -40 to +60 degrees C available.



CBS Antenna Series showing CBS7

**Technical features**

**STRUCTURE**

Product Line		Antenna TV
Product Type		Band IV/V (UHF) TV Slot Antenna CBS4

**ELECTRICAL SPECIFICATIONS**

Frequency Range	MHz	470 - 536
Polarization		Horizontal
Nominal Gain (Mid-band)	dBd	9.5
Return Loss	dB	20 Note #1
Power Rating	kW	1.3
Null Fill (minimum)	%	5
Beam Tilt	degrees	0
Impedance (unbalanced)	$\Omega$	50



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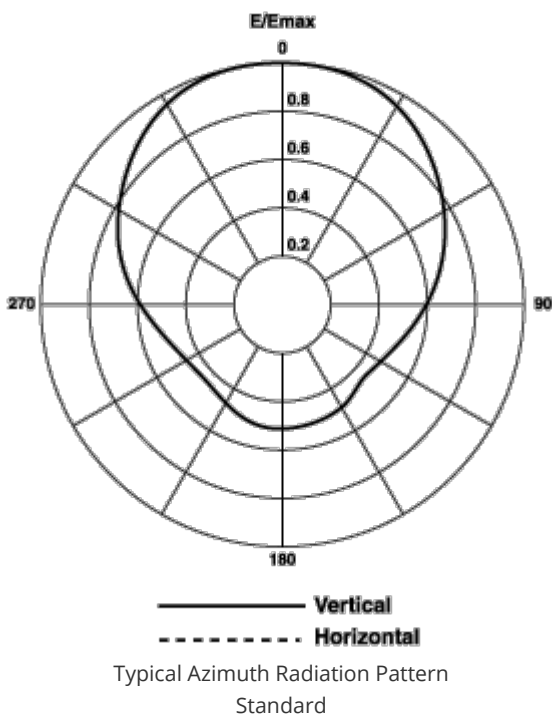
**MECHANICAL SPECIFICATIONS**

Input Connector		7/8" EIA Flange
Dimensions (Height or Length)	cm (in)	260 (102)
Radome Diameter	mm (in)	217 (8.5)
Base Diameter	mm (in)	336 (13.2)
Mounting (Standard)	mm (in)	8 x 22mm (7/8) holes on a 292mm (11.5) PCD
Effective Area Front (full antenna) No Ice	m <sup>2</sup> (ft <sup>2</sup> )	0.54 (5.8)
Wind Load @ 50 m/sec Front	kN (lb)	0.64 (140)
Pressurization Operational	kPa (psi)	10 - 25 (1.5 - 3.6)
Pressurization Test	kPa (psi)	100 (15)
Weight	kg (lb)	38 (84)

**MATERIAL**

Material - Radome		Fibreglass
Material - Support Pole / Mounting		Base Flange - Stainless steel
Material - Radiators		Brass
Colour		Radome colour white or grey

[BTV038D1\\_CBS\\_HRP.psd](#)



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**Notes**

**Note 1** Better than 26dB over limited bandwidth with additional tuning/cost.