

Type Specification

The EA3462 X band shaped reflector radar antenna is designed for high performance sea surface surveillance. It provides the highest gain currently available from this size of antenna, whilst minimizing weight and wind loading.

The Inverse Cossec² elevation beam shape is ideal for the detection of small and large targets at both short and long range, including where the antenna is mounted on a high tower, building or hillside.

The antenna is supplied as standard with remotely controlled polarization switching, Variants can be supplied for C band, or dual band operation. Existing applications include critical Vessel Traffic Systems applications, law enforcement, port security, border protection and search and rescue.



Key features include:

- High gain & Low Sidelobes
- Inverse Cossec² elevation pattern
- Switchable polarisation as standard
- Ability to transmit very short pulses (<20ns pulse width) with minimal distortion.
- Useful short range detection capability to approx 22° below horizon.
- Suitable for frequency agile and frequency diverse operation

General & Mechanical		Environmental	
Type	Shaped Reflector	Operational Wind Speed	180 km/hr
Aperture Size	5.5 m x 0.7 m	Survival Wind Speed	240 km/hr
Total weight (incl. turning gear)	1370kg	Humidity	100%
Overall Height	1.9m (from mounting flange)	Operational temp.	-30°C to +60°C
Max Swept radius	3.1 m	Protection	Suitable for salt laden coastal environment.
Rotation rate	Up to 22 r.p.m (nominal)		
Design Life	20 years		

Electrical Specification			
Beam Characteristics	Inverse Cossec ² Elevation Pattern		
Operating Frequency	X-band, 9.0 – 9.5 GHz		
Gain	40dBi		
VSWR	≤ 1.3:1		
Polarisation	Circular or Switchable		
ICR	≤ -17dB in Az. and El. plane		
Azimuth 3dB Beamwidth	≤ 0.45°		
Azimuth Sidelobes	Within 15°	Within 90°	Backlobes
	≤ -28dB	≤ -40dB	≤ -38dB
Elevation 3dB Beamwidth	4.2°		

Options at Extra Cost

Dual encoders; choice of encoders. Available in S or C Band variants, or dual band. IFF facilities can be built in. Fixed, dual or variable rotation rates. Reflector can be reversed for air surveillance.

Specifications are subject to change as part of Easat's ongoing improvement policy. Customers are advised to confirm specifications prior to contract. Rev7 July 2008