

Type Specification

The **EA2526-XS** shaped reflector antenna is purpose designed to meet the modern requirements of vessel traffic systems and coastal surveillance. It is particularly suited for coastal radar systems operating in areas which experience heavy rainfall rates.

This design offers enhanced radio frequency performance compared with the earlier designs such as the Eaton-AIL 25 foot and the Racal-Decca HR25 25 foot reflector antennas. The EA2526-XS antenna has been specifically designed as an upgrade for these older structures as well as new installations.

Available in several variants, the EA2526 series antennas utilise the same main reflector with different feed structures to satisfy various customer needs. Other variants include single S-band and single X-band frequency systems.



| General & Mechanical | |
|-----------------------------------|--|
| Type | Shaped Reflector |
| Aperture Size | 7.5 m x 1.0 m |
| Total weight (incl. turning gear) | < 3.25 tonnes (Cast Iron) < 2.50 tonnes (Al. version) |
| Overall Height | 2.35m (from mounting flange) |
| Max Swept radius | 4.1 m |
| Rotation rate | Up to 22 r.p.m (nominal) |
| Design Life | 20 years |

| Environmental | |
|------------------------|--|
| Operational Wind Speed | 160 km/hr |
| Survival Wind Speed | 240 km/hr |
| Humidity | 100% |
| Operational temp. | -30°C to +60°C |
| Protection | Suitable for salt laden coastal environment. |

| RF Specification | | |
|-------------------------|-----------------------------|------------------------|
| Beam Characteristics | X-band Pencil Beam | S-band Pencil Beam |
| Operating Frequency | 9.0 – 9.5 GHz | 2.9 – 3.2 GHz |
| Gain | 46 dBi at rotary joint | 35 dBi at rotary joint |
| VSWR | ≤ 1.3:1 | ≤ 1.3:1 |
| Polarisation | Circular or Switchable | Fixed Circular |
| ICR | -17 dB in Az. and El. plane | |
| Boresight offset X/S | 0.9° | |
| Azimuth 3dB Beamwidth | ≤ 0.35° | ≤ 1.1° |
| Azimuth Sidelobes | Within 10° ≤ -26dB | Within 10° ≤ -25dB |
| | Backlobes ≤ -38dB | Backlobes ≤ -38dB |
| Elevation 3dB Beamwidth | 1.8° | 5.5° |

| Options at Extra Cost |
|---|
| Dual redundant motors; choice of encoders; choice of polarisations; 'S' & 'X' band only variants. Various rotation speeds, various environmental specifications. |

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