

InterTronic Antennas

Creating solutions in communications and science

2 - 3 Metre High Performance Antenna Systems

The InterTronic 2-3 metre class antenna systems are designed to operate from L-band up to Ka-band. They offer very accurate reflector surfaces, precision pointing and a full astronomy grade control system.

The pedestal is extremely rigid and can be used in high wind locations.



Features:

- Durable Construction
 - Formed aluminum reflector
 - Galvanized steel structure and hub
 - Stainless steel fittings
- Wide range of receive only feeds
- Full astronomy grade Ethernet interface control system
- Tilt for keyhole elimination available as an option
- Easy worldwide shipping, assembly and commissioning

Specifications

Reflectors:

Various reflector sizes from 2m to over 3m

Suitable for use up to Ka-band

A current application is a 2.1m diameter aluminium prime focus antenna with an F/D of 0.375 and typical surface accuracy of 0.38 mm (0.015 inch) RMS all causes.

Feeds:

A wide variety of feeds are available for this system, single band satellite communications feeds at L through Ka bands, or wideband special feeds for astronomy or surveillance.

Mechanical:

Pointing accuracy

0.010 degrees typical

Slew rate

Up to 12 deg/sec maximum in azimuth

Azimuth travel

Zero backlash single motor, 270° min

Up to ±190° as an option

Elevation travel

Precision zero backlash jack system, 6 - 88°

Feed Support

Prime Focus, suitable for up to 25kg (55 lbs)

Standard or custom plates and adaptors available

Electrical:

Control Interface

Ethernet, using our high accuracy control system with 0.001 degree resolution

Power requirement

200-240V 3 Phase AC preferred. Other possibilities include single phase AC or 48V DC

Environment:

Temperature range for full spec

-15 to +50°C (extendable as an option)

Temperature for survival

-30 to +60°C

Wind speed

50 km/h (30 mph) operational

High wind option available

160 km/h (100mph) survival in stowed position

Optional items:

- Electrically controlled tilt axis adjuster for keyhole elimination and LEO applications
- Fiber optic interface converter for Ethernet control port
- Additional software options for satellite communications applications and tracking
- Twin azimuth drive version for operation in extreme wind environments

Manufacturing and commissioning features:

- Single piece fully assembled reflector (2.1m size) easily installed by two people without lifting equipment or special tools
- Pedestal ships partially assembled for simple installation on site
- Pre-wired plug and socket interconnections to control cabinet
- Supplied with our standard ACI interface program as a starter software