

InterTronic Antennas

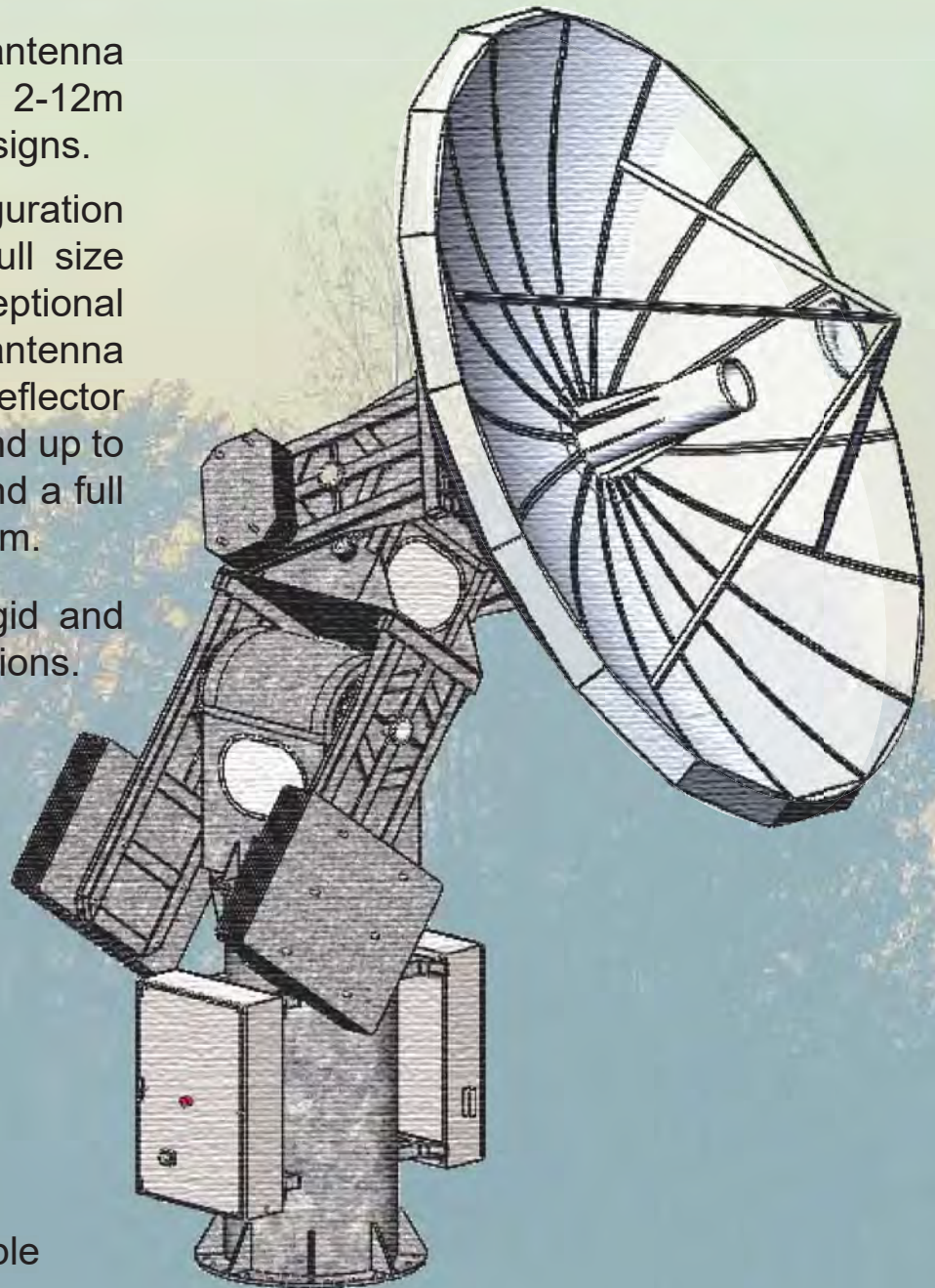
Creating solutions in communications and science

4.5 Metre High Performance Antenna System

The InterTronic 4.5 metre antenna systems are derived from our 2-12m family of high performance designs.

The new X-Y pedestal configuration has all the features of our full size systems, including the exceptional strength and accuracy. This antenna provides very accurate reflector surfaces to operate from L-band up to Ka-band, 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
 - Stainless steel fittings
- Wide range of feeds available
- X-Y motion eliminates zenith keyhole
- Ideal for LEO and MEO communications
- Full astronomy grade Ethernet interface control system
- Easy worldwide shipping, assembly and commissioning

Specifications

Reflectors:

Designed for reflector sizes from 4m to 6m

An all causes RMS surface accuracy of 0.012" typical and 0.015" max enables use at frequencies to above 32GHz

Prime focus, ring focus or Cassegrain optics with shaping for performance optimization
Typical F/D of 0.375.

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 30°/sec on both axes
Slew acceleration	Up to 20°/sec ²
Travel	2-90° elevation and 360° azimuth with no keyhole
Drives	Torque biased dual pinion
Brakes	Failsafe on both axes

Electrical:

Control Interface	Ethernet, using our high accuracy control system with 0.001 degree resolution
Power requirement	208 or 408V 3 Phase AC

Environment:

Temperature range for full spec	-15 to +50°C (extendable as an option)
Temperature for survival	-30 to +60°C
Wind speed	105 km/h (65 mph) operational 240 km/h (150mph) survival in stowed position

Optional items:

- RF systems for transmit and receive.
- Additional software options for satellite tracking and communications applications
- Fiber optic interface converter for Ethernet control port

Manufacturing and commissioning features:

- Sectionally assembled reflector easily installed
- Pedestal ships fully assembled for simple installation on site
- Supplied with our standard ACI interface program as a starter software