Advanced Stabilized Technologies Group (ASTG) develops, manufactures and supplies high performance, stabilized VSAT antennas marketed under the product name C2SAT.

C2SAT OEM P9 Platform

Single or Simultaneous Dual band RF Solutions

ROBUST

ASTG develops high performance stabilized antennas for military and government customers requiring antenna solutions for harsh and unfriendly environments. The C2SAT OEM P9 stabilizer offers a proven hardware and software platform to customers in the VSAT industry who want to integrate their own developed radio solutions. ASTG also offers its customers development of alternative radio solutions based on the 4-axes system, e.g. X, Ka, Ku as single band or dual band implementations.

The C2SAT product range is based on a modular mechanical design.

- Ruggedized, robust mechanical design with high resonance frequency
- Easy to adapt to other reflector sizes and frequency bands
- Powerful and dimensioned to handle unbalanced axes
- Each 50 ms the system predicts how the ship (in pitch, roll, yaw) will move based on the three last sensor samples which is made possible on account of the high precision IMU
- 4-axes solves the problem with high elevation

The C2SAT P9 platform is suitable for dishes up to 1,5 meter and a payload of 18kg.

4-AXES TECHNOLOGY

ASTG provides stabilized VSAT antennas built on a unique and proven 4-axes technology. The design enables shorter geometric path and less rotation torque for each axis, extending the life of the mechanical parts of the antenna as the system is subjected to less stress than a 3-axes system.

FAST & ROBUST SYSTEM

The antenna system is fast due to the gimbal design with AC servo motors on each axis and the gradient satellite tracking method on all 4 axes. Robustness is built into the system, partly because of the solid rig construction, but also because the 4-axis gimbal design facilitates less weight to move and a minimum of movement for each axis - all the time.

COMPLETE FUNCTIONALITY

The C2SAT OEM platform includes the Antenna Control Unit (ACU), providing a full set of tools for remote monitoring and control based on web access, as well as tested interfaces towards the major modern suppliers on the market together with functionality for redundant systems.

Technical Specification P9

Features	Specification data
Stabilisation Type	4-axes gimbals. AC servo low inertia belt drive.
Weight	65 kg (143 lbs)
Height	87 cm (34 inch)
Payload Weight	18 kg (40 lbs) Max
Payload Diameter	1.5 m (59") Max
BUC Size	26 x 16 cm (10 x 6.3 inch) Max 50 W internal, 100 W– 200 W external.
Antenna Movement, azimuth	Continuous, unlimited (slip ring)
Antenna Movement, Elevation	- 5 – 120 °
Antenna Movement, Cross Level	± 30°
Antenna Movement, Polarisation	± 120°
Velocity	100°/s
Acceleration	100°/s²
Ship Motion	± 30° per 4s in pitch, roll and yaw
Heave	+/- 5m @3s
Pointing accuracy	0.1° RMS MAX
GPS Antenna	Built in
Compass Interface	NMEA 0183
Nominal Voltage:	220 – 230VAC @ 50/60 Hz (115V available as option)
Power Consumption	175 W typ, 400 W Max
Operating Temperature	- 20 – 55 °C
Storage Temperature	-40 – 70 °C
Humidity	Condensing 97% @ 30°
Designed to fulfil following standards	MIL-STD-167-1 MIL-STD-461-E MIL-STD-810-F IEC 60945

ASTG Advanced Stabilized Technologies Group

Robust Antennas for the Most Demanding Customers

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