

ilPSC-ANTRAD-301D

Dynamic Azimuth/Elevation/Roll Axes Antenna Stabilizer and Positioner

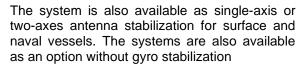
The iIPSC-ANTRAD-301 is part of a family of single axis, two-axesand three axes stabilizers for antennas being used on naval and surface vessels. It is derived from our motion tables designed for gyro calibration.

- Open frame design for easy implementation of customer's antennas (e.g. phased-array)
- Three axes gyro stabilization
- high angular resolution
- high dynamic capability
- standard or customized RF and NF slip rings
- size and sliprings scaleable to operator's needs
- control via CAN or Ethernet or RS232/422

The antenna is protected against the environment by a radom, which can be adapted by its transmission behavior to the antenna operating frequencies. The system can also be delivered without radom. The system is delivered with full integrated servo motor and electronics. stabilization gyro or IMU (inertial measurement unit), integrated GPS, integrated iSCU stabilization & control unit and algorithms for stabilization and pointing to moving or static targets (satellites, vehicles), capability for coni-

cal scan and RF signal feedback for improved pointing performance. As an option the unit can also be delivered with external vibration absorbers

All signals are fed via robust connectors of type MIL-C-38999-III and TNC to the user. RF signal connectors antenna specific.



Standard designs as well as customized designs are provided.

Technical Data iIPSC-ANTRAD-301D (customized versions on request [TBD]):

Angular Positioning Rate: ± 400 °/s

Angular Acceleration: $> 500 \, ^{\circ}\!/s^{2}$ (depends on payload size and available power; up to 2'000 $^{\circ}\!/s^{2}$)

Positioning Resolution: < 1 arcsec Linearity / Scale factor error: < 0.003 %

Accuracy in Position: < 5 arcsec (0.001'4°)

modulare architecture: designed for applied 600 / 900 / 1'200 mm antenna dish; Size:

diameter and height antenna specific

Antenna Payload Weight: 15 / 25 / 50 kg or TBD (customer's antenna and amplifier electronics) azimuth rotation angle unlimited, elevation -60...+105°, roll +/- 110° or TBD Angular freedom: Slip Rings:

RF sliprings, coax, 6 ways (DC to 2.2 GHz, 50 Ohm, insertion loss 2.5 dB max) or TBD NF / DC sliprings, 20 ways each 32 V / 2 A, option: 4 ways each 60 V / 5 A or TBD Ethernet / CAN / RS232/422 for command and read-out of stabilization and control

standard: iVRU-FC; option iOLFOG-S-D or iMGYR-SN or TBD Inertial sensors / IMS:

option: geo-referencing system of type iTraceRT-F400 or iNAV-FMS or iNAV-FJI

Odometer input: as option to aid the IMS on surface vehicles

Connector: MIL-C-38999-III, TNC; RF depending on antenna type

-20...+56 °C (operating) or TBD Temperature:

Environment / MTBF/ MTTR: IP66 at radom site / 30.000 hrs (estimated) / 10 minutes

35...180 kg (without payload), depending on antenna and required dynamics Size, Weight: 24 V DC or 230 V AC / 115 V AC; up to 4 kW (depends on required dynamics) Power:

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