

ADU-400

AIR DATA UNIT

AIR DATA COMPUTATION
HIGH ALTITUDE HIGH AIRSPEED
E/TSO C106 and E/TSO C88 COMPATIBLE





ADU-400

AIR DATA UNIT

ADU-400 (Air Data Unit) is a configurable air data unit designed and developed by ASELSAN. It can be used as primary air data source for various aircraft systems.

ADU-400 calculates air data parameters from integrated pressure sensors and an external OAT probe. ADU-400 can also interface with an accelerometer for instantaneous vertical speed calculation and with an AOA sensor for AOA calculation.

ADU-400 provides calculated air data mainly through ARINC 429 interfaces and also through discrete signal interfaces. ADU-400 has encoded altimeter output interface to provide altitude information for transponders.

With its reliable and rugged design, the ADU-400 meets harsh environmental requirements of various Rotary and Fixed Wing Aircrafts.

General Specifications

- Air data calculation and high accuracy per E/TSO C106
- Encoded altimeter output per E/TSO C88
- SAT and TAT probes compatibility for OAT measurement
- Instantaneous vertical speed indication (IVSI) capability
- AOA measurement capability
- Barometric setting via digital or analog interfaces
- SSEC and PSEC capability
- Highly configurable
- Back compatibility with various in use Air Data Units
- Static port : SAE AS5202-05
- Pitot port : SAE AS5202-04

Physical Specifications

- Dimensions : 180mm(W)x45mm(H)x180mm(D)
- Weight : < 1,1kg

Technical Specifications

- Altitude Range : -2000ft/53000ft
- Barometric Correction Range: 22inHg/31inHg
- Altitude Rate (ROC) Range : ± 20000 ft/min
- Airspeed Range : 0knots / 450knots
- Mach Range : 0,1 / 1,0
- SAT Range : -100°C/+350°C
- TAT Range : -100°C/+350°C
- AOA Range : $\pm 60^\circ$
- VMO Range : 150knots/450 knots
- Power consumption : 13W maximum
- Power inputs : 28VDC dual
- Software design per RTCA DO-178C Level A
- Hardware design per RTCA DO-254 Level A

Interfaces

- Static and pitot pressure input interfaces
- Outside air temperature (OAT) input interface
- Accelerometer input interface
- Angle of attack (AOA) input interface
- Analog barometric setting input interface
- Resolver input (future use) interfaces
- Encoded altimeter output interface
- ARINC 429 I/O interfaces
- RS422 I/O interfaces
- Discrete I/O interfaces

Environmental Conditions

- Operating Temperature and Altitude: -40°C/+70°C, 50000ft
- Storage Temperature: -55°C/+85°C

Qualifications

- RTCA DO-160G
- MIL-STD-810H
- Contact ASELSAN for MIL-STD-704 and MIL-STD-461 compatibility.