

GENESYS NanoADC[™] AIR DATA COMPUTER FOR MANNED AND UNMANNED PLATFORMS



The Genesys NanoADC[™] Air Data Computer is a highly compact, lightweight, DAL-A device for use in demanding environments where cost, size, weight, robustness, and reliability are critical. NanoADC is ideal for manned and unmanned aircraft including fixed-wing and rotary-wing platforms.

The NanoADC senses pitot and static pressures to provide air data (Pressure Altitude, Airspeed, Vertical Speed, and Outside Air Temperature) to other avionics.

FEATURES INCLUDE

- Reliable. DO-178B, Level A software
- Exportable. Non-ITAR controlled (7A994)
- Lightweight. <1lb including OAT probe
- Rugged. Meets RTCA/DO-160F and MIL-STD environmental standards
- Compact. 3.25" x 3.75"x 2.049" (NanoADC)



ULTRA COMPACT ADC MEETING HIGH-PERFORANCE REQUIREMENTS

NanoADC SPECIFICATIONS	
Features	Specifications
MTBF	>23,000 hrs. (MIL-HDBK 217 Electrical Stress, AUC, 100%Duty Cycle, 35 deg C)
COM Ports	RS232 RS422 ARINC-429 (high speed, labels 203, 206, 210, 211, & 212) ARINC-429 (low speed, labels 203, 206, 210, 211, 212 & 377)
Input Voltage	Nominal 14 to 28V, dual bus
Maximum Input Voltage	Spikes to 80V
Minimum Input Voltage	Down to 10V for 30 seconds
Power Consumption	20W at 28VDC
Temperature Range	-55°C to +70°C
Pressure Altitude Range	-1,000 MSL to FL550
Altitude Resolution	<1 ft
Altitude Accuracy	Meets or exceeds TSO-C106
Airspeed Range	20 to 550 KIAS
Airspeed Resolution	0.01 KIAS
Airspeed Accuracy	+- 10KIAS below 50 KIAS, Meets or exceeds TSO-C106 from 50 - 450 KIAS, +- 5 KIAS above 450 KIAS
Vertical Speed Range	+-32,768 ft/min
Vertical Speed Resolution	1 ft/min
Vertical Speed Accuracy	5% or 30 ft/min whichever is greater
OAT Calibration Range	-70°C to +100°C
OAT Resolution	0.1°C
OAT Accuracy	±1.5°C from -70°C to +70°C (per TSO-C106) ±2.5°C from +70°C to +100°C
DO-160F Qualification	[(F2)A2]B,B,B[H+R+S+U]XRXSFSZBAZ[ZC][WK]H[A3]33, A4J44]XXAC
Certification	RTCA/DO-178B, Level A



OAT PROBE SPECIFICATIONS

Features	Specifications
Impedence	1,000 Ohm RTD (cabling: 20'/24 gauge wire to 40'/22 gauge wire)
Size	2.0"H x 2.5"W x 3.9"D (ADAHRS, excluding connectors and mounting flange)
Weight	ADC: 304g (0.67 lbs) OAT Probe: 59g (0.13 lbs)
Enclosure	Machined 6061-T6 aluminum
Finish	Black anodized



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