

Central Air Data Computer

A-10 CADC – P/N 9B-81073-1

NSN #6610-01-499-5732

Technical Overview

The IS&S Central Air Data Computer (CADC), P/N 9B-81073-1, was developed as an avionics upgrade to the USAF A-10 aircraft. The CADC receives air mass and aircraft status inputs in the form of pneumatic and electrical signals. These inputs are used to compute accurate air data information and scale it for primary flight data displays, navigation, fire control, and flight controls.

CADC interfaces are compatible with the A-10 and many other equivalent air data systems on alternate aircraft.

The 9B-81073-1 CADC is a form, fit, and function replacement for the existing USAF A-10 unit. Air data information is provided digitally to onboard systems, including flight management and fire control, through dual MIL-STD-1553B busses. A 3-wire synchro interface is compatible with existing or later generation solid state barometric altimeters (SSBA), meeting standard military specifications. Continuous BIT insures the integrity of all data provided.

- ❑ Computes air data for interfacing equipment in analog, digital, and discrete formats.
- ❑ Dual MIL-STD-1553B data bus provides data to IFFCC/LASTE.
- ❑ Provides synchro output to existing altimeter or new SSBA.
- ❑ Integral data checking and fault detecting operation.
- ❑ Solves acute obsolescence problems.
- ❑ Certifications: Environmental, MIL-E-5400, Class 2, MIL-STD-461

This CADC uses the latest transducer and electronic component technologies, increasing the level of accuracy, while greatly enhancing reliability. The unit meets the stringent hardware environmental requirements for the demanding (high "G" force) A-10 environment.

A further upgrade in performance of the air data system results when purchased in conjunction with the IS&S Solid State Barometric Altimeter (P/N 9D-00249).



Signal Outputs

Fine Alt Synchro Output:	MIL-A-83419C
CADC Valid:	Relay
1553B Data Bus A:	Serial Data
1553B Data Bus B:	Serial Data
Altitude Encoding:	Switch AIMS Code

Signal Inputs

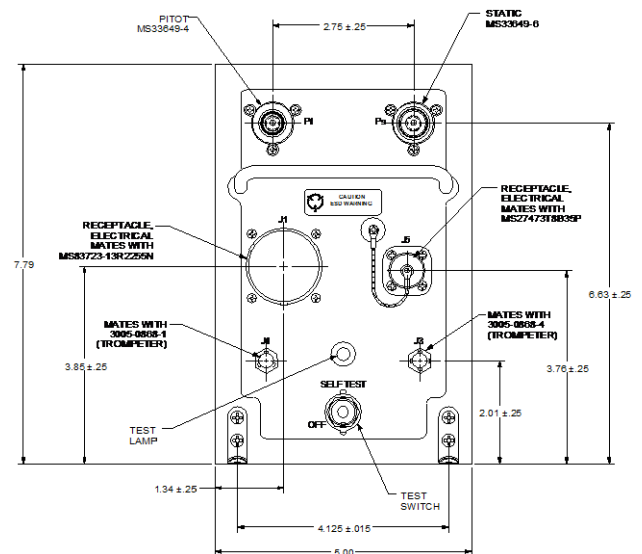
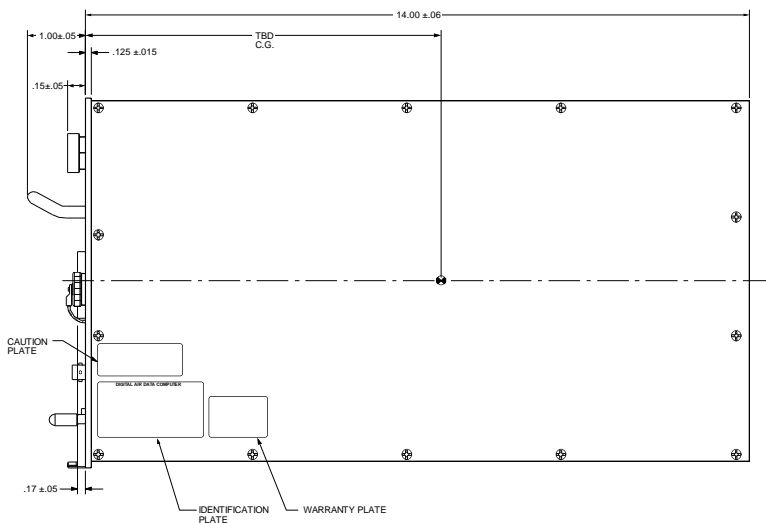
Primary Power:	115 VAC, 400 Hz (100 mA max)
Indicated Total Temp:	Resistance
Indicated Static Pressure:	Pneumatic
Indicated Total Pressure:	Pneumatic
Serial Data Bus:	Serial Data
28 VDC System Test Switch:	Discrete (28 VDC)
Baro Setting:	MIL-A-83419C

Operating Specifications

Altitude Range: -1000 to 45,000 ft
Airspeed: 49 to 600 kts
Mach Number: 0.1 to 0.8 Mach
Reliability: 20,000 hours MTBF
Weight: 12 lbs max.

Environment: MIL-E-5400, Class 2
MIL-STD-461

Outline Dimensions



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