

Engine Interface Unit

DESCRIPTION

The Engine Interface Unit (EIU) is a rack mounted device that collects multiple analog signals from the aircraft engines and converts them to digital format. The EIU outputs data over an industry standard ARINC 429 data bus that interfaces to a multifunctional cockpit display. Data is also output directly to the Flight Data Recorder via analog signals.

The EIU features redundant signal processing to provide reliable data gathering and is capable of storing engine parameter data to aid in trend monitoring and exceedance tracking.

INPUT ENGINE PARAMETERS

- ✓ Torque
- ✓ Prop Speed
- ✓ Turbine Inlet Temperature
- ✓ Oil Quantity
- ✓ Oil Press - Engine
- ✓ Oil Press - Gearbox
- ✓ Oil Temperature
- ✓ Fuel Flow
- ✓ Oil Cooler Flap Position
- ✓ Engine Discretes
- ✓ Aircraft Discretes



APPLICATIONS

The EIU is now being used in a system supplied by ASB Avionics for the L382G and C-130. The ASB Avionics system replaces 32 two-inch round indicators and 22 annunciators with an 8 x 10 inch glass display.



FEATURES

- ✓ ARINC 600 4MCU case
- ✓ 9 input signals each engine
- ✓ ARINC 429 output
- ✓ 0-5V output to FDR
- ✓ RTCA/DO-160D qualified
- ✓ Data storage capable
- ✓ Rack mountable

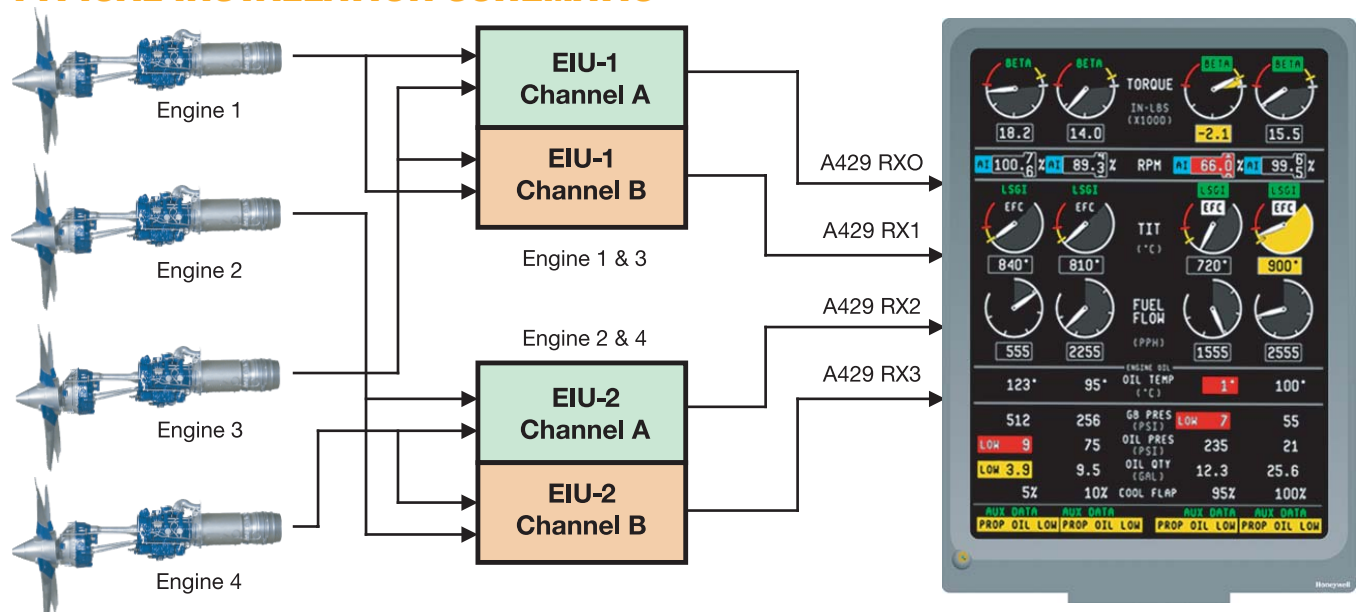
Engine Interface Unit

QUALIFICATION SPECIFICATIONS

RTCA/DO-160D Section	Description	Category
4	Temperature & Altitude	C1
4	Max Operating Altitude	35,000 ft
4	Low Operating Temperature	-40°C
4	High Operating Temperature	55°C
4	Short Time High Operating Temperature	70°C
4	Ground Survival Low Temperature	-55°C
4	Ground Survival High Temperature	85°C
4	Decompression	Required
4	Overpressure	Required
5	Temperature Variation	C
6	Humidity	A
7	Operational Shocks and Crash Safety	B
8	Vibration	Cat. S, A/C Type 3, Zone 2, Fig. 8-3, Curve M MIL-STD-810F, 514.5, Cat. 13
9	Explosion Proofness	E - Environment II

RTCA/DO-160D Section	Description	Category
10	Waterproofness	W
11	Fluid Susceptibility	X
12	Sand and Dust	X
13	Fungus Resistance	F by analysis
14	Salt Spray	X
15	Magnetic Effect	Z
16	Power Input, MIL-E-7894A	B
17	Voltage Spike	A
18	Audio Frequency Conducted Susceptibility	B
19	Induced Signal Susceptibility	Z
20	Radio Frequency Susceptibility (Radiated and Conducted)	CY
21	Emission of Radio Frequency Energy	L
22	Lightning Induced Transient Susceptibility	A3G33
23	Lightning Direct Effect	X
25	Electro Static Discharge (ESD)	X

TYPICAL INSTALLATION SCHEMATIC



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