AIU
Aircraft Interface Unit

ALL WE DO
To Serve Those Who Serve

SCI®
A Sanmina Company

Superior capabilities for advanced aircraft data acquisition

In today's cutting-edge aircraft platforms, every bit of data is critical for mission success. This is why SCI designed the Aircraft Interface Unit (AIU) to be the industry leader in advanced data-acquisition capabilities. With a superior combination of performance and flexibility, the AIU consistently outpaces the competition.

Powerful Performance

The AIU is a high-performance, low-powered line replaceable unit (LRU) designed to interface with various analog and discrete input/output (I/O) signals to a MIL-STD-1553 databus. The AIU's compact form factor and rugged design make it the ideal choice for any system requiring a scalable and/or distributed data collection network.

Total Flexibility

A typical AIU aircraft installation employs multiple units operating both independently and in parallel to provide fault-tolerant collection and distribution of data. Each AIU has a power supply, microprocessor and three addi-tional card slots for intelligent I/O modules.

The AIU offers superior Size, Weight and Power (SWaP) reductions, taking up just 115 cubic inches and weighing only 3.3 pounds. It requires 14 watts of power while offering 112 fully configurable I/O channels.

Features + Capabilities

• 112 configurable I/O channels
• Three (3) I/O modules
• MIL-STD-1553B interface
• RS-232 maintenance interface
• RS-422 interface
• MIL-E-5400 Class 1A
• MIL-STD-810
• MIL-STD-461E
• RTCA/DO-160D Level 4
• 28V DC power

• Built-In-Test
• 32-bit RISC processors
• Under two-millisecond latency
• Support for parallel operations
• Field programmable
• High channel density
• Obsolescence program
• Receivers for AC and DC analog signals, open/short and voltage discretes, synchro signals, thermocouples, Resistance Temperature Detectors
• Drivers for DC analog signals, 400 HZ analog references, DC voltage discretes and discrete open/short

Platforms (Non-Exhaustive)

• AH-6i
• AH-64D/E
• SB>1 Defiant