

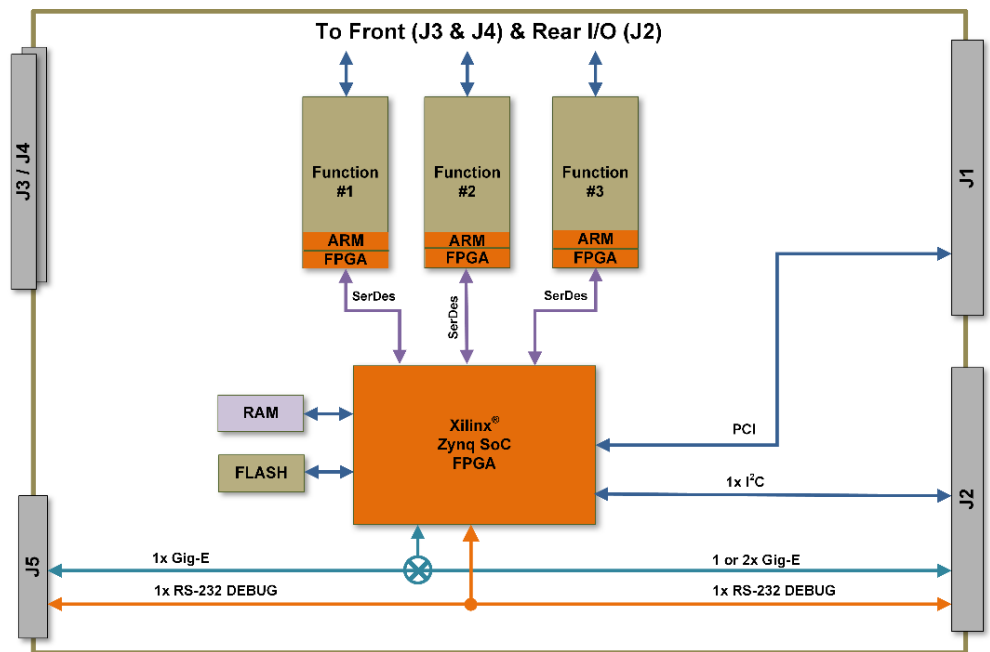


75G5 3U cPCI Multifunction I/O & Communication Board

Three I/O and Communication function module slots –
Over 70 different functions to choose from

Configure to Customize

The [75G5](#) is a 3U cPCI board that can be configured with up to three NAI smart I/O and communication function modules. Ideally suited for rugged Mil-Aero applications, the 75G5 delivers off-the-shelf solutions that accelerate deployment of SWaP-optimized systems in air, land and sea applications.



Features

- Up to 3 independent smart I/O function modules supported
- Front and/or rear I/O
- Commercial or rugged applications
- Independent x1 SerDes interface to each function module slot
- 2x 10/100/1000 Base-T Ethernet; 2 to rear or 1 to rear and 1 to front I/O
- Continuous Background Built-in-Test (BIT)
- Intelligent I/O library support included
- COSA[®] Architecture
- VICTORY Interface Services (Contact factory)
- Operating temp: 0° C to 70° C or Rugged -40° C to +85° C

Select up to 3 independent functions for your application

| I/O | | Measurement & Simulation | |
|--|---|--|---|
| A/D | ±1.25 VDC to ±100 VDC or 0-25 mA; 16 or 24-Bit; 12 or 16 Ch | Synchro/Resolver-Digital | 16-Bit; ±1Arc-Min accuracy; 4 Ch. (Measurement) |
| D/A | ±1.25 VDC to ±80 VDC or ±25 mA to 100 mA; 16-Bit, 4-16 Ch | LVDT/RVDT-Digital | 16-Bit resolution; 4 Ch. (Measurement) |
| Discrete | 0 to 60 VDC; Sink, source or push/pull; up to 24 Ch | Digital-Synchro/Resolver | 16-Bit; Up to 3 VA; 1-3 Ch. (Simulation) |
| Isolated Discrete | 0 to ±80 VAC or VDC; 16 Ch | Digital-LVDT/RVDT | 16-Bit; Up to 3 VA; 1-3 Ch (Simulation) |
| Relay | SPDT; 4 Ch | AC Reference | 2 to 115 V _{RMS} ; Up to 6 VA; 1 Ch |
| TTL | 0 to 5.5 VDC; 24 Ch | RTD | 16-Bit; 2, 3 or 4-wire; 8 Ch |
| Differential Transceiver | Up to ±12V; 422/485 Pulse Gen/Meas; 16 Ch | Thermocouple | J, K, T, E, R, S, B, N; 4 Ch |
| Communications | | Strain Gage | 16-Bit; 4 Ch |
| MIL-STD-1553 | Quad Ch Dual Redundant; Transformer or Direct | | |
| RS-232/422/423/485 | 4 Ch | | |
| ARINC 429/575 | 12 Ch | | |
| CANBus | 8 Ch | | |
| Ethernet Switch* | 12 Ports; Layer 2/3 Management | | |

*Occupies 2 slots

Architected for Versatility

NAI's Configurable Open System Architecture™ (COSA®) offers a choice of over 70 smart I/O, communications, or Ethernet switch functions, providing the highest packaging density and greatest flexibility of any multifunction I/O board in the industry. Preexisting, fully-tested functions can be combined in an unlimited number of ways quickly and easily.

Software Support

Software Support Kits (SSKs) for multiple operating systems are supplied free of charge, with source code and board-specific library I/O APIs, to facilitate system integration. Each I/O function has dedicated processing, unburdening the system SBC from unnecessary data management overhead.

Background Built-In-Test (BIT)

BIT continuously monitors the status of all I/O during normal operations and is totally transparent to the user. SBC resources are not consumed while executing BIT routines. This simplifies maintenance, assures operational readiness, reduces life-cycle costs and— *keeps your systems mission ready.*

One-Source Efficiencies

Eliminate man-months of integration with a configured, field-proven system from NAI. Specification to deployment is a seamless experience as all design, state-of-the-art manufacturing, assembly and test are performed— by one trusted source. All facilities are located in the U.S. and optimized for high-mix/low volume production runs and extended lifecycle support.

Product Lifecycle Management

From design-in to production, and beyond, NAI's product lifecycle management strategy ensures the long-term availability of COTS products through technology refresh, configuration management and obsolescence component purchase and storage.

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