

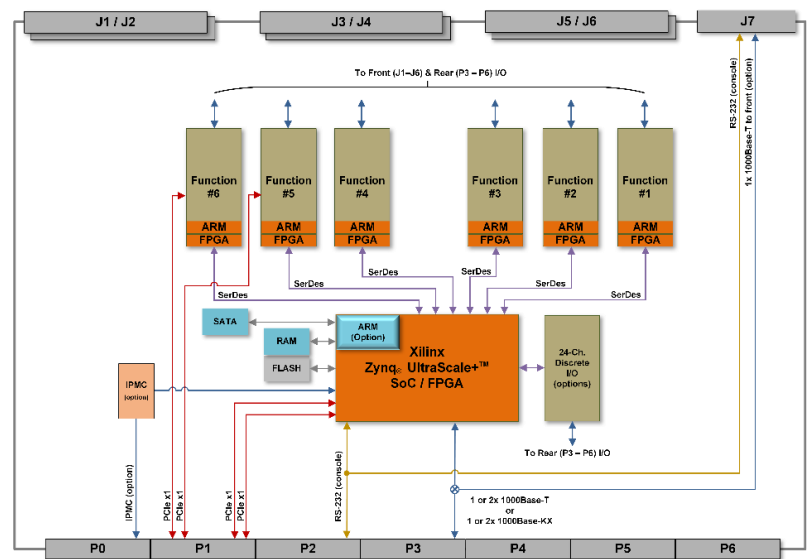
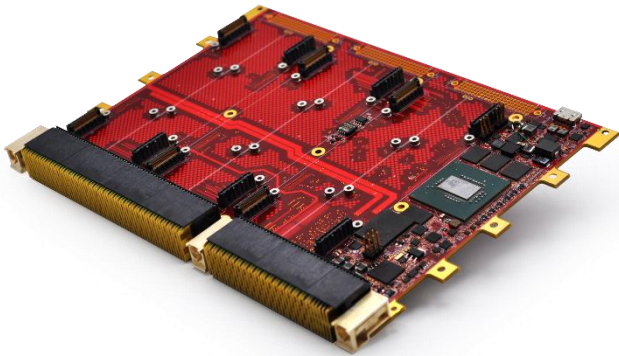


67G6 6U OpenVPX Multifunction I/O & Communication Board

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

Configure to Customize

The 67G6 is a 6U OpenVPX board that can be configured with up to six NAI Intelligent I/O and communication function modules. Ideally suited for rugged Mil-Aero applications, the 67G6 delivers off-the-shelf solutions that accelerate deployment of SWaP-optimized systems in air, land and sea applications.



Features

- **OpenVPX Profile:**
 - SLT6-PER-4U-10.3.3
 - MOD6-PER-4U-12.3.3-2
- **Data plane:**
 - 2 x1 PCIe (end point only)
 - 2 x1 PCIe direct to module
- **Control plane:**
 - 2x 10/100/1000Base-T or
 - 2x 1000Base-KX
- **IPMC Support (configured option)**
 - VITA 46.11 Tier-2 compatible
- **ARM® Cortex®-A53 Processor (option)**
 - Provides access for local I/O processing
 - 2 GB DDR4 + ECC / 32 GB SATA (std.)
 - PetaLinux, Deos™, VxWorks® 7
- **Up to 6 independent Intelligent I/O function modules supported**
- **24 Channels programmable Discrete I/O (option)**
 - 0 to 60 VDC; Sink, source or push/pull
 - Standard (SF) or Enhanced (EF) Function
- **Independent x1 SerDes interface to each function module slot**
- **Continuous Background Built-in-Test (BIT) (for function as applicable)**
- **RS-232 console/maintenance port**
- **COSA Architecture**
- **Intelligent I/O library support included**
- **VICTORY Interface Services (contact factory)**
- **Commercial or rugged applications operating temperature**
 - Commercial: 0°C to 70°C
 - Rugged -40°C to 85°C

Select up to 6 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		Specialized Communications	
MIL-STD-1553	Quad Ch Dual Redundant; Transformer or Direct	Ethernet*², TTE+ Deterministic NIC (PCIe)	1 Ch., 3 redundant ports SAE AS6802 (TTEthernet™); ARINC664 Part7 and Avionics Full-Duplex Switched Ethernet (AFDX®); and IEEE 802.3 best-effort protocol.
RS-232/422/423/485	4 Ch	Firewire*² IEEE-1394b (PCIe)	2 Ch., 3 ports per Ch. Direct or with Transceiver Line Interface Module (TLIM)
ARINC 429/575	12 Ch		
CANBus	8 Ch		
Ethernet Switch*^{1,2}	12 Ports; Layer 2/3 Management		

*1 Occupies 2 slots, *2 Contact factory for support/availability

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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