# 75INT2 3U cPCI SBC with Two I/O Function Module Slots

Over 70 different functions to choose from

Configure to Customize

The **75INT2** is a 3U cPCI Intel® Core™ i7-based Single Board Computer that can be configured as a System Controller or Peripheral with up to two NAI smart I/O and communications function modules. Ideally suited for rugged Mil-Aero applications, the 75INT2 delivers off-the-shelf solutions that accelerate deployment of SWaP-optimized systems in air, land and sea applications.
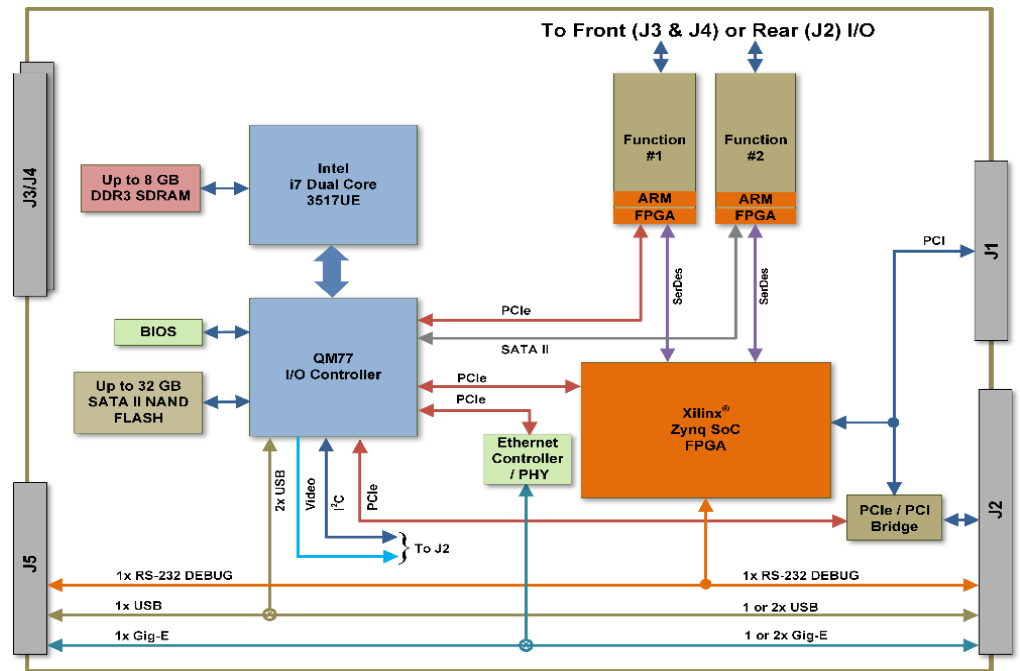
Features

- **Intel® Core™ i7-3517UE @ 1.5 GHz Dual Core Processor**
- **Up to 8 GB DDR3 SDRAM**
- **Up to 32 GB SATA II NAND Flash (256 GB expansion option in slot #2)**
- **PCIe interface to function module slot 1 for 2 additional Gig-E ports**
- **< 25 W MB power dissipation**
- **Up to 2 independent smart I/O function modules supported**
- **System Controller (SysCon) or peripheral option**

- **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**
- **2x USB 2.0, 1 to front and 1 or 2 to rear I/O**
- **1x RS232 to front or rear I/O**
- **I²C Bus to rear I/O**
- **Factory configurable Video Output; HDMI, DVI, LVDS or VGA**

- **CentOS, Red Hat® Linux® or Windows® Embedded Standard 7 OS support**
- **Continuous Background Built-in-Test (BIT)**
- **COSA® Architecture**
- **Intelligent I/O library support included**
- **VICTORY Interface Services (Contact factory)**
- **Operating temp: 0° C to +70° C or Rugged -40° C to +85° C**

Select up to 2 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	**Memory Expansion**	
RS-232/422/423/485	4 Ch	SATA II Flash***	Up to 256 GB
ARINC 429/575	12 Ch		
CANBus	8 Ch		
Ethernet Interface*	2x 10/100/1000 Base-T		
Ethernet Switch**	12 Ports; Layer 2/3 Management		

*Function slot 1 only

**Occupies 2 module slots

***Function slot 2 only

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 3U SBC in the industry. Preexisting, fully-tested functions can be combined in an unlimited number of ways quickly and easily.

Board Support Package and Software Support

The 75INT2 includes BSP and SDK support for Wind River® Linux, VxWorks® and Windows Embedded Standard 7. In addition, software support kits are supplied, with source code and board-specific library I/O APIs, to facilitate system integration. Each I/O function has dedicated processing, unburdening the 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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Certified Small Business