

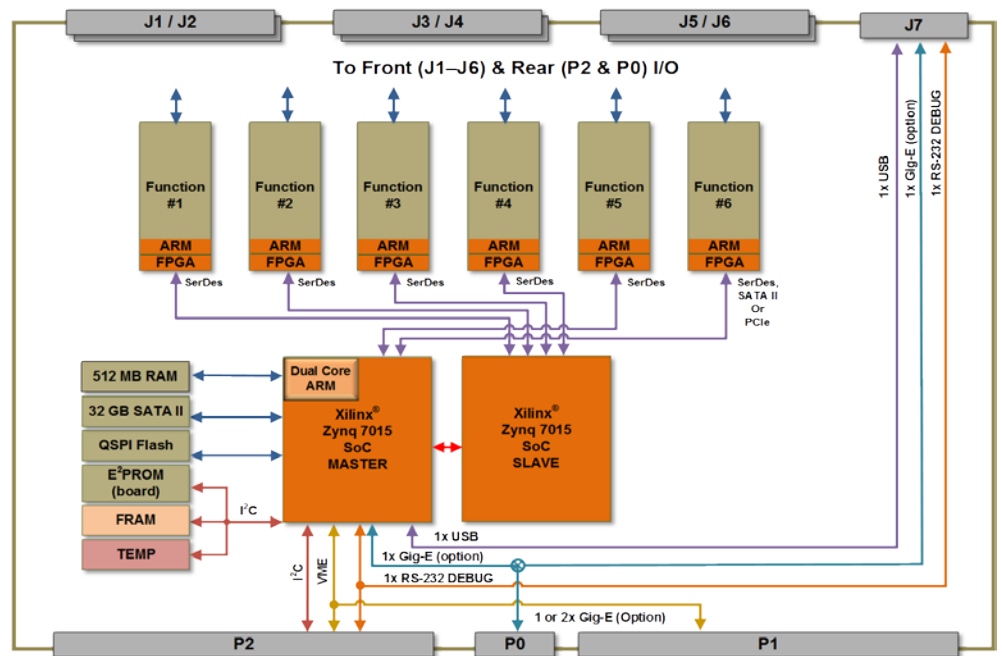


64ARM1 6U VME SBC with Six I/O Function Module Slots

Over 70 different functions to choose from

Configure to Customize

The [64ARM1](#) is a 6U VME ARM® Cortex®-A9 based Single Board Computer that can be configured with up to six NAI smart I/O and communications function modules. Ideally suited for rugged Mil-Aero applications, the 64ARM1 delivers off-the-shelf solutions that accelerate deployment of SWaP-optimized systems in air, land and sea applications.



Features

- ARM® Cortex® -A9 Dual Core 800MHz Processor
- 512 MB DDR3 SDRAM
- Up to 32 GB SATA II NAND Flash (256 GB expansion option in slot #6)
- < 5 W MB power dissipation
- Up to 6 independent, smart I/O function modules supported
- Front and/or rear I/O
- 70+ modules to choose from
- 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
- 1x RS232 to front or rear I/O
- I²C bus to rear I/O
- 1x USB 2.0 port to rear or front I/O
- Wind River®, VxWorks® and Xilinx® PetaLinux OS support
- 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 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		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 Switch*	12 Ports; Layer 2/3 Management		

*Occupies 2 slots

**Function slot 6 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 6U 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 64ARM1 includes BSP and SDK support for Wind River® Linux, VxWorks® and Xilinx® PetaLinux tools. 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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