

3U VPX SBC and Multifunction I/O



September 2023 Trans Pacific Technologies – The NAI 68INT6 Product Release Notes

Features:

68INT6—SBC

- VPX / OpenVPX (ANSI/VITA 65)
- Intel® Core™ i7 11th Gen (Tiger Lake) to 2.8 Hz w/4 Cores & 12M Smart Cache
- Background Built-In-Test (BIT) continually checks and reports on the health of each channel
- Operating temperature: 0° C to +55° C commercial, -40° C to +85° C rugged

68G5—Multifunction I/O

- VPX / OpenVPX (ANSI/VITA 65)
- Support for three independent, smart function modules
- Background Built-In-Test (BIT) continually checks and reports on the health of each channel
- Independent x1 SerDes interface to each function module slot
- Designed to meet ANSI / VITA 47 environmental requirements
- Operating temperature: 0° C to 70° C commercial, -40° C to +85° C rugged

SIU32—System

- 2x 3U OpenVPX™ Card Slots, Supports up to 6 I/O and/or communication modules with 100+ smart function modules to choose from Independent x1 SerDes interface to each function module slot
- Operating temp: -40 °C to +71 °C @ thermal interface, conduction cooled
- Environmental/EMI: MIL-STD-461, MIL-STD-810, MIL-STD-1275, MIL-STD-704

North Atlantic Industries,

NAI, has just released one of their newest SBC the [68INT6](#). It is a 3U OpenVPX™ SOSA™ aligned single board computer. It boasts an Intel® Core™ i7-1186GRE 11th Generation (Tiger Lake) processor.

The 68INT6 will be one of the first NAI SOSA™ aligned SBC that will include XMC connectors. Both VITA 42, XMC 1.0, and VITA 61, XMC 2.0, options are available. This will allow mating of any manufacturers Switched Mezzanine Cards (XMC) directly to the NAI SBC.

This means that one may take any other manufacturer of SOSA™ Aligned XMC card and mount it directly to the 68INT6. Adding an XMC card such as a GPU will add both extra high-end graphics along with the graphics processing capability to the already powerful Intel® Core™ SBC. NAI's vast module selection can then be selectively added onto a 68G5 thus increasing the capability of the system now with the quality modules expected from NAI.

This can be installed by NAI in one of their rugged, deployable [SIU3X](#) along with the necessary 3U VPX power supply for a turnkey system that will be factory verified.

Being that the 68INT6 and the [68G5](#) are both 3U OpenVPX™, they could also be installed in any 3U OpenVPX™ rugged chassis with VITA 65 backplane able to accommodate the standard slot profiles. If required other 3U OpenVPX™ cards can be selected to meet the full needs of the design thus making the options almost limitless.

Trans Pacific Technologies is available to assist from helping to acquire the desired turnkey system to any integration required all the way from the design and development to the deployment of your system if required.

Other Products of Interest

[GPGPU and Video Processing](#) —Applications include Radar Processing and AI

[Avionics Data Bus](#) — MIL-STD-1553, ARINC 429, AFDX, Time Triggered Ethernet and CANBus

[FPGA's](#)

[Chassis](#)

Contact Information:

ティー・ピー・ティー株式会社 (TPT K.K.)
Telephone: 81-3-5832-7350
TPT KK: [Contact](#)