ITCS-HPFCC
High Performance Fire Control Computer

Features

- High Performance Fire Control Computer Platform
  - Open VPX Vita 65
  - Vita 48.7 AFB
  - Vita 46
  - VPX 3U 4 Intel Xeon-D SBC
  - VPX 3U 10G/1G Switch Board
  - VPX 3U Power Supply Board

- Processer
  - Intel® Xeon-D
  - Up to eight Xeon-class cores in a single, power efficient Soc package(Broadwell-DE SoC)
  - DDR4-2133 ECC SDRAM
  - 16GB in one channel
  - On Board SSD 128GB NAND Flash
  - USB 2.0 ports
  - OS (Wind River VxWorks)
  - Two 10GBase-KR Ethernet interfaces
  - One 1GBase-KX Ethernet interface
  - One 1GBase-T Ethernet interface

- Switch
  - 1/10G Base-T   4Ports
  - 10G Base-KR   10Ports
  - 10G SFP+   2Ports

  - VLAN Support
  - DHCP Support
  - Auto-negotiation Support
  - Loop Detection Support
  - Multicast Support
  - Mirror Support

- Power
  - Input Voltage 20~35VDC
  - Output Voltage 12VDC

- Operation Temp -30 ~ 60℃ (MAX)

- Cooling Type
  - Conduction & Air cooling

Board Image

Description

The Fire control computer must accurately calculate and determine the trajectory and direction of the weapon to be launched by input data from radar observations, inertia system data, and various sensor data as well as various sources of human input. It also consists of high-performance computer systems to control Multi Target. Intellics offers a high-performance computer platform for Fire control, ITCS-FCC.
ITCS-FCC is consist of 4 3U VPX SBCs and 3U 10G Switch Board, Power supply Board. SBC is on Intel Xeon-D CPU for high performance.
The system consists of Open Architecture and is built in a rigid structure to ensure performance even in severe environments to ensure reliability.

intellics
Intelligent Computer Systems

bsi. AS/EN 9100 Series
Aviation, Space and Defense
FM583992

Technical Specifications

Configuration Board
- VPX 3U Xeon-D Board x 4ea
- VPX 3U 10/1G Switch Board x 1ea
- VPX 3U Power Board x 1ea
- Back Plane x 1ea

Ethernet Port
- 10G SFP+ 2Ports Connect Switch Board
- 10G Base-T 1port Connect Switch Board
- 1G Base-T 4Ports Connect each Xeon-D
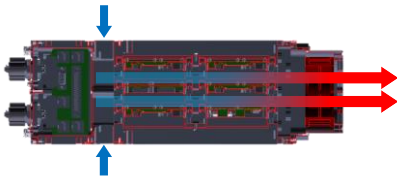
OS
- vxWorks (RTOS)

Functional description
- Signal interface
  USB, Ethernet, USB-console

Power
- Input Voltage 20~35VDC
- Output Voltage 12VDC

Cooling
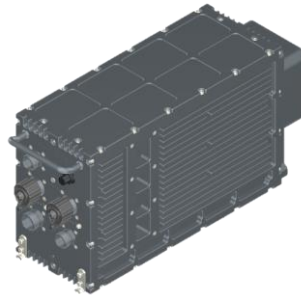- Conduction & Air Cooling

Power
- Input Voltage 20 ~ 30 VDC
- Power Consumption: 20W Typical

Standards
- VITA 65 Open VPX
- Vita 46
- Vits 48.7 AFB

Physical
- Size : 136mm (L) x 450mm (W) x 237mm (H)
- Weight : 12 Kg(Max)

Circular Connectors J1
- Input Power 24V DC

Circular Connectors J2
- 1/10G Base-T

Circular Connectors J3
- 10G SFI+

Circular Connectors J4
- 10G SFI+

Circular Connectors J5
- 1G Base-T

Circular Connectors J6
- USB x 4ea each Xeon-D
- Console HUB

Operation Temperature
- -30°C to +60°C

Environmental Condition
  MIL-STD-810
  MIL-STD-461

Board Block Diagram

Intellics
Intelligent Computer Systems