ADP

End of Life

Avionics Development Platform

Please see XPand1200

- Avionics rapid-development platform
- Utilizes conduction-cooled, deployable 3U VPX modules
- Based on the XPand1200 chassis
- Rear Transition Module (RTM) support for maximum I/O flexibility
- Intel® or NXP (formerly Freescale) processor-based SBCs
- Wide variety of I/O options
- MIL-STD-1553
- ARINC 429
- MIL-STD-188-203-1A (ATDS)
- RS-232/422/433/485
- 10/100/1000BASE-T Ethernet
- 10GbE (10GBASE-T) and SFP+ optical Ethernet
- A/D, D/A conversion
- 28 V avionics GPIO, TTL I/O
- Video capture, DVI/VGA/DisplayPort video output
- Solid-State Drive (SSD) storage
- 110-240 VAC, 50/60 Hz power input
- Third-party XMC/PMC integration available

ADP

The ADP is a low-cost, flexible, 3U OpenVPX™ avionics system development platform. It includes standard interfaces found in avionics applications, such as MIL-STD-1553, ARINC 429, MIL-STD-188-203-1A (ATDS), and 28 V avionics GPIO. Complementing the I/O interfaces is a rich set of CPU options to meet any performance or power requirement. The ADP leverages COTS chassis, backplanes, power supplies, and RTMs along with conduction-cooled 3U VPX payload modules. The payload modules in the ADP are the same conduction-cooled modules that will go into the deployed avionics system.

Leveraging COTS chassis, backplanes, power supplies, and RTMs in the development platform enables software development to start quickly. In addition, the development of the deployed system custom hardware components (e.g. ATR chassis, backplane, and power supply), can be done in parallel while software development is progressing on the ADP.

The ADP is shipped with Linux, device drivers for all X-ES and third-party boards, and a full suite of tests demonstrating interface functionality. By providing an integrated, tested solution ready for immediate development, the ADP significantly reduces development schedule risk and increases the Test Readiness Level (TRL) of the final deployed system.

X-ES can perform hardware/software integration of third-party VPX and mezzanine peripherals. For the deployed solution, X-ES has ½ ATR chassis solutions, high-performance backplane designs, and power supplies with holdup power and EMI shielding from which custom system solutions easily can be derived. Please consult an X-ES sales representative to start designing your ideal Avionics Development Platform today.

X-ES
Extreme Engineering Solutions

...Always Fast

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SBC Options

- XPedite5470: NXP QorIQ P4080
- XPedite5570: NXP QorIQ P2020
- XPedite5970: NXP QorIQ T2080
- XPedite7470: Intel® Core™ i7
- XPedite7570: Intel® Core™ i7

Storage Options

- XPort6105: 512 GB SSD (XMC)

Third-Party Mezzanine Support

- XChange3000: XMC/PMC carrier card

Communication Options

- Third-party: MIL-STD-1553 PMC
- Third-party: ARINC 429 PMC
- Third-party: MIL-STD-188-203-1A (ATDS) PMC
- XPort1003: RS-232/422/433/485
- XChange3012: 2x 10/100/1000BASE-T, 6x 1000BASE-BX Ethernet switch
- XPort3000: 10GbE (10GBASE-T) and SFP+ optical Ethernet
- XPort9100: 28 V avionics I/O

Power

- 110-240 VAC, 50/60 Hz power input
- 550 W total simultaneous power
- Up to 50 A on 12 V
- Up to 50 A on 5 V
- Up to 25 A on 3.3 V
- ±12 V AUX
- 3.3 V AUX

Physical Characteristics

- Dimensions: 11.5 in. (L) x 5.5 in. (W) x 16.5 in. (H)
- Weight: 20 lbs. (with backplane and power supply)