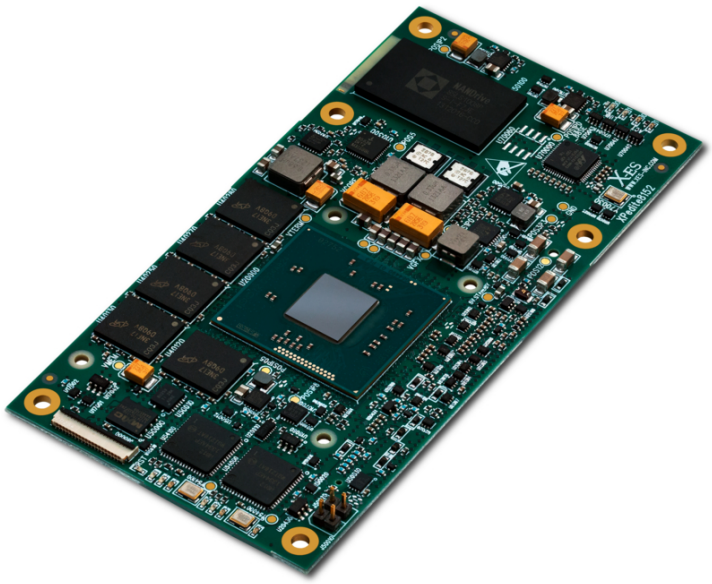
XPedite8152

Intel® Atom™ Processor-Based Rugged COM Express® Module

- Supports Intel® Atom™ E3800 family processors (formerly Bay Trail-I)
- COM Express® Extended Mini form factor with ruggedization enhancements
- Standard COM Express® enhanced Type 10 pinout
- Conduction- or air-cooled
- Extended shock and vibration tolerance
- Up to 4 GB of DDR3-1333 ECC SDRAM
- Up to 32 GB of NAND flash
- Two Gigabit Ethernet ports
- Two serial ports
- Four USB 2.0 ports
- One USB 3.0 port
- Three SATA 3.0 Gb/s ports
- Wind River VxWorks BSP
- Linux BSP
- One Dual-Mode DisplayPort interface and one Embedded DisplayPort interface
- Microsoft Windows drivers
- Contact factory for availability of Green Hills INTEGRITY, QNX Neutrino, and LynuxWorks LynxOS BSPs



XPedite8152

The XPedite8152 is a ruggedized COM Express module that extends the COM Express Mini form factor to 55 mm x 109 mm and supports an enhanced Type 10 pinout. The ultra-small, standards-based, COM Express form factor brings processing to a wide range of applications. Available in both conduction- and air-cooled versions, the XPedite8152 supports the Intel® Atom™ processor. With up to four cores running at up to 1.91 GHz, the Intel® Atom™ delivers enhanced performance and efficiency for today's network information processing and other embedded computing applications.

The XPedite8152 complements processor performance with up to 4 GB of DDR3-1333 ECC SDRAM. It also hosts numerous I/O ports, including two Gigabit Ethernet ports, four USB 2.0 ports, one USB 3.0 port, three SATA 3.0 Gb/s ports, two I²C ports, two serial ports, one Dual-Mode DisplayPort interface, one Embedded DisplayPort interface, and a Serial Peripheral Interface (SPI).

The XPedite8152 provides a high-performance, feature-rich solution for current and future generations of embedded applications. Wind River VxWorks and Linux Board Support Packages (BSPs) are available, as well as Microsoft Windows drivers.

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Processor

- Intel® Atom™ E3800 Family processors (formerly Bay Trail-I)
- Up to four cores

Memory

- Up to 4 GB of DDR3-1333 SDRAM
- Up to 32 GB of NAND flash

COM Express®

- Enhanced Type 10 pinout
- Extended Mini form factor (55 mm x 109 mm)

Ruggedization and Reliability

- Class III PCB fabrication and assembly
- Soldered DDR3 ECC SDRAM
- Tin whisker mitigation
- Designed and tested for extended solder joint reliability
- Additional mounting holes for rugged and conduction-cooled environments
- Bootloader and OS-level BIT support

Interface

- Two 10/100/1000BASE-T ports
- Three SATA 3.0 Gb/s ports
- Four USB 2.0 ports
- One USB 3.0 port
- Two I²C interfaces
- Two serial ports
- One Dual-Mode DisplayPort interface
- One Embedded DisplayPort interface
- One Serial Peripheral Interface (SPI)

Additional Features

- Non-volatile memory write protection

Software Support

- Wind River VxWorks BSP
- Linux BSP
- Microsoft Windows drivers
- Contact factory for availability of Green Hills INTEGRITY, QNX Neutrino, and LynuxWorks LynxOS BSPs

Environmental Requirements

Contact factory for appropriate board configuration based on environmental requirements.

- Supported ruggedization levels (see chart below): 3, 5
- Conformal coating available as an ordering option
- Thermal performance will vary based on CPU frequency and application

Power Requirements

- Power will vary based on configuration and usage. Please consult factory.

Ruggedization Level	Level 1	Level 3	Level 5
Cooling Method	Standard Air-Cooled	Rugged Air-Cooled	Conduction-Cooled
Operating Temperature	0 to +55°C ambient (300 LFM)	-40 to +70°C (600 LFM)	-40 to +85°C (board rail surface)
Storage Temperature	-40 to +85°C ambient	-55 to +105°C ambient	-55 to +105°C ambient
Vibration	0.002 g²/Hz, 5 to 2000 Hz	0.04 g²/Hz (maximum), 5 to 2000 Hz	0.1 g²/Hz (maximum), 5 to 2000 Hz
Shock	20 g, 11 ms sawtooth	30 g, 11 ms sawtooth	40 g, 11 ms sawtooth
Humidity	0% to 95% non-condensing	0% to 95% non-condensing	0% to 95% non-condensing