

XPedite6106

NXP QorIQ T1042 Quad-Core Processor-Based, Air-Cooled XMC/PrPMC with Four Gigabit Ethernet Ports

- ▶ NXP QorIQ T1042 processor with four Power Architecture® e5500 cores at up to 1.4 GHz
- ▶ Alternate NXP QorIQ processors: T1022 and T2081
- ▶ Air-cooled
- ▶ Up to 8 GB of DDR3 ECC SDRAM
- ▶ Up to 512 MB of NOR flash (with redundancy)
- ▶ Up to 32 GB of NAND flash
- ▶ One x4 PCI Express interface to P15 Gen2 (T10xx) or Gen3 (T2081)
- ▶ PCI PrPMC interface
- ▶ Four 10/100/1000BASE-T Ethernet ports
- ▶ Two RS-232/422/485 serial ports
- ▶ Two USB 2.0 ports
- ▶ Two SATA ports to P16 (optional)
- ▶ Linux BSP
- ▶ Wind River VxWorks BSP
- ▶ QNX Neutrino BSP
- ▶ Green Hills INTEGRITY BSP
- ▶ LynuxWorks LynxOS BSP



XPedite6106

The XPedite6106 is a high-performance, XMC/PrPMC, single board computer supporting an NXP QorIQ T1042 processor. It is a design refresh of the XPedite6100, intended to update obsolete components while maintaining the same functionality and features.

The T1042 processor offers four e5500 cores running at up to 1.4 GHz with a single channel of DDR3 memory, all within a low power envelope. Alternate processors T1022 and T2081 are available.

The XPedite6106 provides a high-performance, feature-rich solution for current and future generations of embedded applications. Linux, Wind River VxWorks, QNX Neutrino, Green Hills INTEGRITY, and LynuxWorks LynxOS Board Support Packages (BSPs) are available.



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Processor

- NXP QorIQ T1042 processor with four Power Architecture® e5500 cores at up to 1.4 GHz
- 256 kB back-side L2 cache (per core)
- 256 kB platform cache
- IEEE 754 Floating-Point Unit support

Alternate Processor Configurations

- T1022 (two e5500 cores) at up to 1.4 GHz
- T2081 (four dual-threaded e6500 cores) at up to 1.8 GHz

Memory

- Up to 8 GB of DDR3 ECC SDRAM
- Up to 512 MB of NOR flash (with redundancy)
- Up to 32 GB of NAND flash

PrPMC Interface

- 66/33 MHz PCI
- 32-bit bus interface

P15 XMC Interface

- x4 PCI Express Gen2 (T10xx) or Gen3 (T2081)

P14/P16 XMC/PMC Interface

- Two 10/100/1000BASE-T Ethernet ports to P14
- One 10/100/1000BASE-T Ethernet port to P16
- Two RS-232/422/485 serial ports
- 3.3 V GPIO
- Up to two USB 2.0 ports
- Two SATA ports capable of 6 Gb/s (optional, contact factory)

Front Panel I/O

- One 10/100/1000BASE-T Ethernet port
- Two RS-232 serial ports
- One USB 2.0 port

Software Support

- Wind River VxWorks BSP
- Linux BSP
- Green Hills INTEGRITY-178 BSP
- Contact factory for availability of QNX Neutrino and LinuxWorks LynxOS BSPs

Physical Characteristics

- Air-cooled XMC/PMC form factor
- Dimensions: 149 mm x 74 mm, 10 mm stacking height

Environmental Requirements

Contact factory for appropriate board configuration based on environmental requirements.

- Supported ruggedization levels (see chart below): 1
- Conformal coating available as an ordering option

Power Requirements

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

Ruggedization Level

Level 1

Cooling Method	Standard Air-Cooled
Operating Temperature	0 to +55°C ambient †
Storage Temperature	-40 to +85°C ambient
Vibration	0.002 g ² /Hz (maximum), 5 to 2000 Hz
Shock	20 g, 11 ms sawtooth
Humidity	Up to 95% non-condensing

† Contact factory for airflow rate details.

