

XPedite6109

NXP QorIQ T1042 Quad-Core Processor-Based, Air-Cooled XMC/PrPMC with Four Front-Panel 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
- ▶ Linux BSP
- ▶ Wind River VxWorks BSP
- ▶ QNX Neutrino BSP
- ▶ Green Hills INTEGRITY BSP
- ▶ LinuxWorks LynxOS BSP



XPedite6109

The XPedite6109 is a high-performance, XMC/PrPMC, single board computer supporting an NXP QorIQ T1042 processor and accommodating up to 8 GB of DDR3 ECC SDRAM.

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 XPedite6109 provides four 10/100/1000BASE-T Ethernet ports to the front panel in addition to USB 2.0, PCI Express, and RS-232/422/485 serial to P14/P15.

The XPedite6109 offers a high-performance, feature-rich solution for current and future generations of embedded applications. Linux, Wind River VxWorks, QNX Neutrino, Green Hills INTEGRITY, and LinuxWorks 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 Interfaces

- Two RS-232/422/485 serial ports
- Two USB 2.0 ports
- One I²C interface

Front Panel I/O

- Four 10/100/1000BASE-T Ethernet ports

Software Support

- Wind River VxWorks BSP
- Linux BSP
- Green Hills INTEGRITY-178 BSP
- Contact factory for availability of QNX Neutrino and LynuxWorks 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 g²/Hz (maximum), 5 to 2000 Hz
Shock	20 g, 11 ms sawtooth
Humidity	Up to 95% non-condensing

† Contact factory for airflow rate details.

