



TILEmpower-Gx72 MP Platform

40Gbps Programmable Networking and Security

The TILEmpower-Gx72™ MP platform is a robust and feature-rich 1U networking and computing platform based on the industry-leading TILE-Gx72™ manycore processor. The platform is ideally suited for applications and deployments where processing power, programmability, and I/O throughput is key.

Comprehensive Feature Set

The engine at the heart of the TILEmpower-Gx72 MP is the powerful TILE-Gx72 processor. Its 72 processor cores provide flexible computing for a wide range of applications, from intelligent networking and security processing to multimedia processing. The processor incorporates 23 MBytes of on-chip cache and is supported with four channels of DDR3 memory with ECC protection.

The TILE-Gx™ processor's high-speed I/O is deployed to 24 ports of 1Gb Ethernet plus two ports of 10Gb SFP+. The multicore Programmable Intelligent Packet Engine (mPIPE™) packet processing front-end that is integrated into the TILE-Gx72 enables wire-speed processing at minimum packet sizes on all ports. The platform also includes remote monitoring of power supply voltages and currents, processor die temperature, fan status, and more.



HIGHLIGHTS

BENEFITS

- State of the Art 72-core processor enables true Software-Defined Networking (SDN)
- Redundant fans and power supplies for High Availability (HA) applications
- Multiple 1Gb and 10Gb Ethernet ports for flexible network connectivity
- Hardware crypto engines deliver line-rate security services such as IPsec and SSL

TYPICAL USER APPLICATIONS

The TILEmpower-Gx72 MP Platform is ideal for a variety of computing and I/O-intensive tasks such as:

- Software-defined network switching and routing
- Network monitoring for quality-of-service, billing or other purposes
- Security and computation intensive applications such as DPI, DDoS, IDS/IPS, SSL, or IPsec

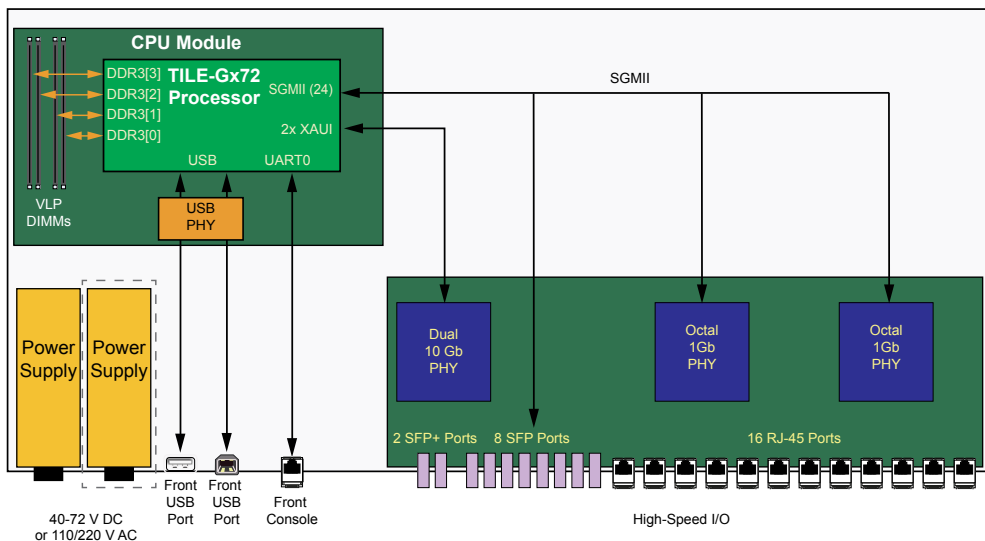


Figure 1. TILEmpower-Gx72 MP Platform Block Diagram

SPECIFICATIONS

GENERAL

- 19" rack chassis, 1RU height
- RoHS-6 compliant per EU 2002/95/EC

PROCESSOR SUPPORT

- Powered by the TILE-Gx72 processor with 72 cores @ 1.0 GHz and 23MB cache

MEMORY SUPPORT

- Four DIMM sockets on the processor module with a total of 16 Gb memory
- DDR3 Very Low Profile (VLP) DIMMs
- Supports RDIMM or UDIMM with ECC

HIGH-SPEED I/O

Included I/O ports:

- 16 ports RJ45 1GbE
- 8 ports SFP 1GbE
- 2 ports SFP+ 10GbE

MISCELLANEOUS I/O

- One USB 2.0 port, type B endpoint
- One USB 2.0 port, type A host
- One RS-232 UART port

OTHER FEATURES

- 256 Kb I2C ROM on CPU module
- 16 MB SPI ROM on CPU module for bootload
- 128GB mSATA Solid State Disc (SSD)

POWER

- Dual, hot-swappable power supplies (standard)
- Power options:
 - 40 - 72 V DC input
 - 90 - 240 V AC input
- Power dissipation (typical): 140 W
- Cooling:
 - Six fans with front-to-rear airflow
 - Tachometer feedback for fan fail detection

COMPLIANCE

- RoHS-6 compliant per EU 2002/95/EC
- EN 60950-1 Safety
- EN 55022, EN 55024 EMI/EMC
- EN61000-3-3 LOW VOLTAGE EMC

ENVIRONMENTAL

- Operating temperature: 0 to 40° C
- Storage temperature: -40° to 70° C
- Humidity: 10% to 90% RH, non-condensing

PHYSICAL SPECIFICATIONS

- Box height: 1.7" (4.3 cm)
- Box length: 15.3" (38.9 cm)
- Box width: 17" (43.3 cm)
- Weight: 22.0 lbs (10.0 kg)

INCLUDED ACCESSORIES

- Front-mounting ears

CUSTOMER PROVIDED ACCESSORIES

- SFP and SFP+ cartridges for Ethernet I/O
- Ethernet interface cables

*Contact Mellanox for availability of other high-speed I/O modules.

Ordering Part Number	Processor	Processor Frequency	Memory Installed	MiCA Crypto	I/O Interfaces	Drives Installed	Power Supply
TLB4-07280-10-RM1US-24S1-2S10-16-240HD-E	TILE-Gx8072	1.0 GHz	16 GBytes	Yes	<ul style="list-style-type: none"> – Sixteen 100M/1GbE (RJ45) ports – Eight 1GbE (SFP) ports – Two 10GbE (SFP+) ports 	128 GB SSD	90-240VAC



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