QorIQ T4241 VPX board performs data processing and digital signal processing. It consists of two boards:
- QorIQ T4241 VPX Board
- QorIQ T4241 VPX RTM Board

10G Ethernet port is available on RTM boards.
Key Features

- Board works on a single 12V power supply
- Dual threaded 12 core QorIQ T4241 processor
- Kintex-7 FPGA
- 256MB (64Mx32) boot NOR Flash
- 8GB (8Gx8) data NAND flash
- Three independent 4GB (72-bit) DDR3L memory interfaced
- 4Mb (512K x 8) MRAM memory
- Three 10/100/1000 Ethernet on front side terminated on RJ45
- 4 – lane PCIe is connected to PCIe switch
- 8 – lane PCIe to XMC connector
- 2 – lane PCIe connected to Kintex-7 FPGA
- 32GB (32Gx8) SATA memory
- On-board microSD connector
- Two UART (RS232) ports terminated on a single DB9 connector
- Two USB2.0 ports
- 64MB configuration NOR Flash for Kintex-7 FPGA
- 2GB DDR3L memory connected to Kintex-7 FPGA
- 3.5mm audio Jack
- EEPROM and RTC
- Master Reset switch

Technical Data

CPU
- QorIQ T4241 dual threaded 12 core processor, 1.5GHz to 1.8GHz
- QorIQ T4161 dual threaded 8 core processor, 1.5GHz to 1.8GHz (On Request)
- QorIQ T4081 dual threaded 4 core processor, 1.5GHz to 1.8GHz (On Request)

Memory
- 256MB (64Mx32) boot NOR Flash for T4241 processor
- 12GB DDR3L SDRAM with ECC Support to T4241 processor
- 4Mb (512K x 8) MRAM memory
- 64MB configuration NOR Flash for Kintex-7 FPGA
- 2GB DDR3L SDRAM connected to Kintex-7 FPGA
- 2Kbit (256X8) EEPROM memory

Mass Storage
- 8GB (8Gx8) data NAND flash
- 32GB (32Gx8) nanoSSD SATA storage device
- microSD card slot

Audio
- One Headphone OUT on Main board
- Audio Codec supporting programmable sampling rates

Front Fascia Interfaces
- DB9 Connector for 2- RS232 channels
- Master Reset Switch
- Three 10/100/1000 Ethernet ports
- Stacked USB2.0 Type-A connector
- 3.5mm jack for Headphone Out
- Debug LEDs
Technical Data

Expansion Slots
• XMC site on main board

Supervision and Control
• Spartan6 FPGA as system supervisor
• Current Monitoring
• Temperature measurement
• Watchdog timer

Backplane Standard
• AV46DOT0 VPX Standard

Electrical Specifications
• Single 12V power supply
• Power Consumption: 12V, 11A - Without XMC card & 12V, 13A – With XMC card

Mechanical Specifications
• Air cooled 6U VPX form factor

Environmental Specifications
• Operating temperature:-20°C to +55°C
• Vibration, Humidity, Shock, Fungus, Salt Fog test- MIL-STD-810G

Reliability
• MTBF : 63069.94 hr@55C according to MIL-HDBK-217F

EMC
• MIL-STD-461E/F

Software Support
• Diagnostic RTL for validation of board
• Linux 4.14.22, bare kernel

BIOS
• U-boot Universal boot loader

CoreEL PART NUMBER

CT7006-FP01  QorlQT4241VPXBoard