

Titanium Ti180 M484 Development Kit

The Titanium Ti180 M484 Development Kit has everything you need to develop and prototype designs for the Ti180 FPGA. This kit showcases the Ti180's hardened MIPI D-PHY, supporting up to 2.5 Gbps per lane, and hardened LPDDR4x and LPDDR4x controllers. Use the Raspberry Pi V2 camera to stream video and store data in the development board's 256-MBit, 1.6 Gbps LPDDR4 or 2.0 Gbps LPDDR4x SDRAM. Two IMX477 camera connector daughter cards let you process video data from 12.3 megapixel IMX477 camera modules.¹ The development board also has two Macronix high-performance 256 Mb SPI NOR flash chips so you can store additional user data such as RISC-V software. The kit also includes Ethernet and HDMI connector daughter cards so you can process data in the FPGA and send it to a display or another system.

The Ti180 M484 development board, included in the kit, has these components:

- Ti180 FPGA in a 484-ball FineLine BGA package
- 256 Mbit x16, LPDDR4 (up to 1.6 Gbps) or LPDDR4x (up to 2.0 Gbps) memory
- 2 x 256Mb SPI NOR flash memories
- 4 x multi-purpose high-speed QSE connectors to attach the daughter cards included in the kit or your own custom daughter cards
- Micro-SD card slot
- FPGA mezzanine card with low pin-count connector
- USB Type-C connector to configure the development board
- 33.33 MHz, 50 MHz, and 74.25 MHz oscillators for PLL input
- 6 user LEDs
- 2 user pushbutton switches
- 33.33 MHz, 50 MHz, and 74.25 MHz oscillators for PLL input
- 25 MHz dedicated MIPI clock oscillator

Availability

The Titanium Ti180 M484 Development Kit is available for pre-ordering. Visit us online at www.efinixinc.com for a listing of distributors and sales representatives to pre-order your kit today.

What's In the Box?

- Titanium Ti180 M484 development board preloaded with a demonstration design
- Raspberry Pi v2 camera module
- Dual Raspberry Pi Camera Connector Daughter Card
- 2 IMX477 Camera Connector Daughter Cards
- FMC-to-QSE Adapter Card
- HDMI Connector Daughter Card
- Ethernet Connector Daughter Card
- MIPI and LVDS Expansion Daughter Card
- 15-pin flat cable
- 2 22-pin flat cables
- USB type C cable
- 12 V, 5 A universal power adapter
- Heat sink
- 14 standoffs, 10 screws, and 14 nuts



¹ IMX477 camera modules are not included in the kit.

Figure 1 Titanium Ti180 M484 Development Kit Block Diagram

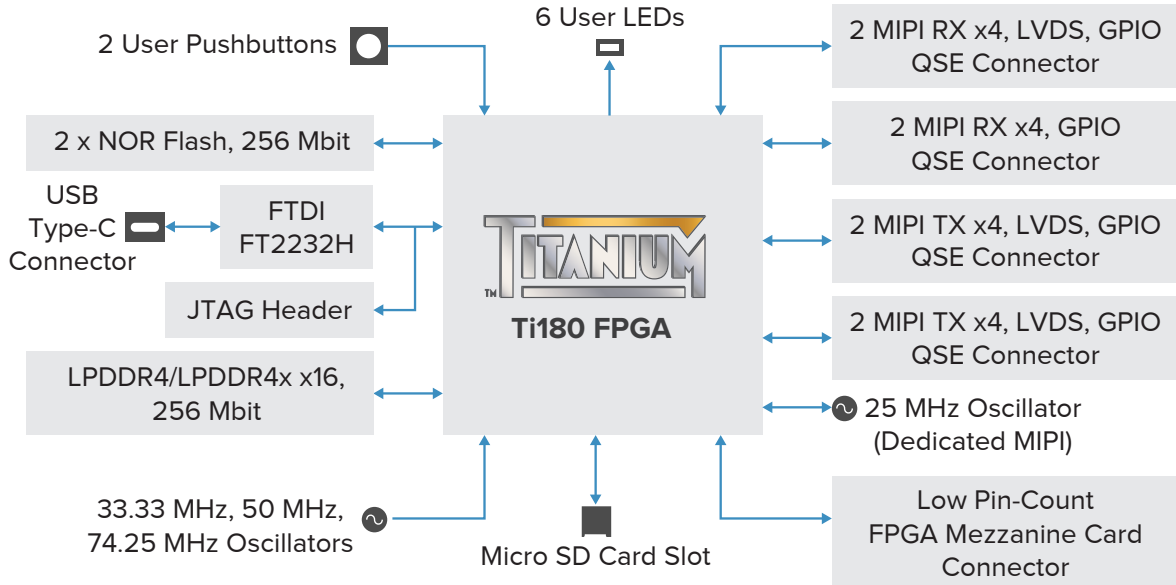


Figure 2 Titanium Ti180 M484 Development Board

