

Topaz Tz170 J484 Development Kit

The Topaz Tz170 FPGA features high-density, low-power 16 nm Efinix® Quantum® fabric wrapped with an I/O interface in a small footprint package for easy integration. The [Tz170 J484 development board](#) with the on-board memory has 256 Mbit memory that supports LPDDR4. The board has a variety of multi-purpose QSE connectors that work with Efinix daughter cards (available separately) or for your own custom cards.

Additionally, you can use the FMC connector with FPGA mezzanine cards to extend the board's functionality even further. Together these features help you prototype and design your high-volume application.

This board is preloaded with an example design that demonstrates the spinning donut and running light programs by using the LPDDR4 controller and a Sapphire SoC design.

With the development kit, you get a free license for the [Efinity® software](#) with 1 year of upgrades. You can request another year of maintenance for free at any time. The Efinity software provides a complete tool flow from RTL design to bitstream generation, including synthesis, place-and-route, debugging, and timing analysis.

The Tz170 J484 development board, included in the kit, has these components:

- Efinix Tz170J484 FPGA in a 484-ball FineLine BGA package
- LPDDR4 256 Mbit x32 bits memory:
 - Up to 1.6 Gbps double-data rate (LPDDR4)
- Two 256 Mbit SPI NOR flash memories
- Four MIPI, LVDS, and GPIO high-speed QSE connectors to attach your own custom daughter cards
- Micro-SD card slot
- FPGA mezzanine card (FMC) with low pin-count connector (LPC)
- USB Type-C connector to configure the development board
- 33.33, 50, and 74.25 MHz oscillators for Tz170 PLL input
- User LEDs and switches:
 - 6 LEDs
 - 2 pushbutton switches
- Power:
 - 12.0 V power supply connector
 - On-board regulator sources: 0.62 V, 0.85 V, 0.95 V, 1.1 V, 1.2 V, 1.8 V, 3.3 V, 5.0 V
 - Power good and Tz170 configuration done LEDs

Availability

The Topaz Tz170 J484 Development Kit is available for purchase. Visit our website www.efinixinc.com for a listing of distributors and sales representatives or buy online from DigiKey (www.digikey.com).



What's In the Box?

- Topaz Tz170 J484 development board preloaded with a demonstration design
- 1 USB type-C cable
- 12 V, 5 A universal power adapter
- 4 standoffs and 4 nuts

Figure 1 Topaz Tz170 J484 Development Kit Block Diagram

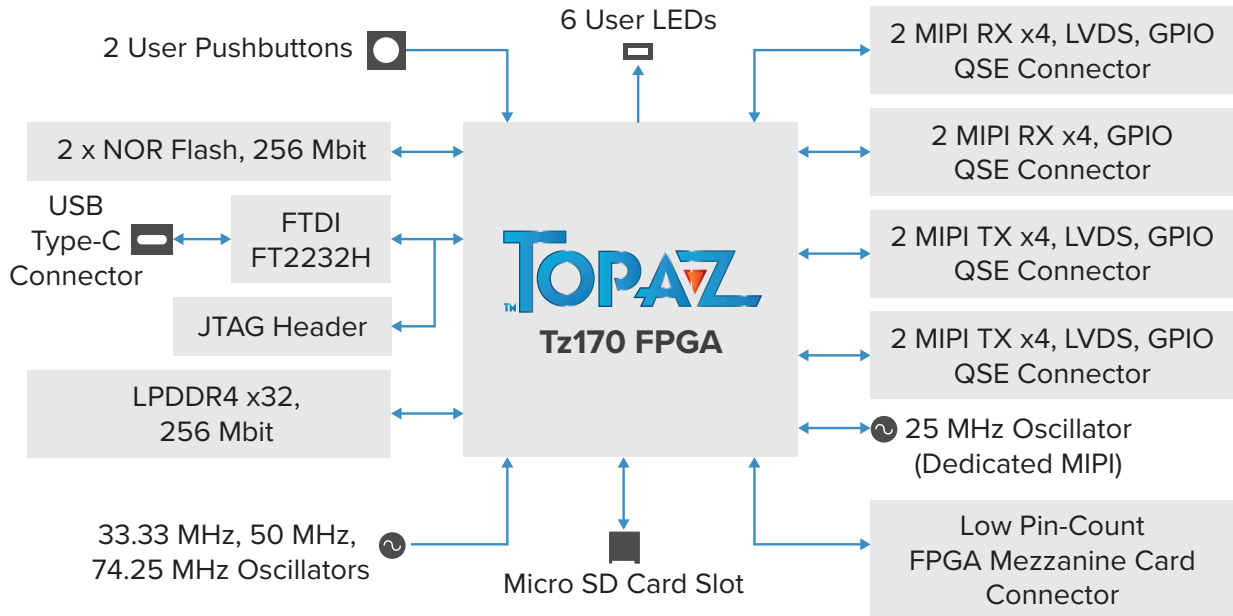


Figure 2 Topaz Tz170 J484 Development Board

