

Overview

The **Hercules™** TMS570LC43x LaunchPad™ Development Kit is a low-cost evaluation platform based on the highest performance Hercules MCU **TMS570LC4357** – lockstep cached 300MHz ARM® Cortex®-R5F based TMS570 series automotive-grade MCU designed to aid in the development of **ISO 26262** and **IEC 61508** functional safety applications.

This LaunchPad features connectivity options such as IEEE 1588 precision time **Ethernet PHY DP83630** and has the capability in addition to the standard BoosterPack headers, for further expansion to an FPGA or an external SRAM using high density connectors for MCU's parallel interfaces - EMIF, RTP and DMM.

The TMS570LC43x MCUs include many diagnostic features such ECC protection for CPU caches & other memories and a rich set of peripherals such as two 12-bit ADCs, programmable High-End timers, motor control peripherals (eQEP, eCAP, ePWM), Ethernet, FlexRay, MibSPI, EMIF and many serial communication interfaces.

This LaunchPad is pre-programmed with a Hercules safety MCU demo enabling users to easily learn about the key safety, data acquisition and control features of the Hercules MCU platform.

Find additional information on LaunchPad Development Kits, supported BoosterPacks and available resources at ti.com/launchpad. Visit the **LAUNCHXL2-570LC43 Wiki** for software downloads including Ethernet connectivity using lwIP and other resources. Explore different applications on your LaunchPad Development Kit with **BoosterPack plug-in modules**.

Features

- USB powered and capability for external 5v supply
- On board USB XDS_ICDIc2 JTAG debug
- IEEE 1588 precision time Ethernet PHY DP83630
- On board SCI to PC serial communication
- User programmable push buttons
- Reset switches
- LEDs and Analog input
- Two 40 pin BoosterPack XL Headers (one populated)
- High density connectors for parallel ports (EMIF, RTP, DMM) for further expansion
- Footprint for prototyping headers (not populated) to bring out all MCU Pins
- External high-speed emulation via 14-pin TI-JTAG header (not populated)