VEEK-MT-SoCKit Upgrade Kit

1. Overview

The Video and Embedded Evaluation Kit - Multi-Touch for SoCKit Upgrade Kit(VEEK-MT-SoCKit Upgrade Kit) offers customers who already own a SoCKit board a brand new integrated platform to develop various embedded applications. We provide simple and straightforward installation guidelines for users to assemble their already owned SoCKit with this upgrade kit.

With upgrade kit installed, this bundle also known as VEEK-MT-SoCKit features a SoCKit development board targeting the Cyclone V SoC FPGA, as well as a capacitive LCD multimedia color touch panel which natively supports multi-touch gestures. A 5-megapixel digital image sensor, ambient light sensor, and 3-axis accelerometer make up the rich feature-set.

The VEEK-MT-SoCKit upgrade kit for SoCKit interfaces SoCKit board through HSMC interface. The kit provides customized HSMC cable and acrylics for SoCKit and VEEK-MT to be assembled in a cubic form. The kit also provides useful reference designs for software developers to build comple embedded systems.

- **Company: Terasic**
- **Tel: +886-3-5750880**
- **Fax:+886-3-5726690**
- **Add: 9F., No.176, Sec.2, Gongdao 5th Rd, East Dist, Hsinchu City, 30070. Taiwa**

2. Specification

Interface

- Type: HSMC
- Control IO-Standard Voltge: 2.5V
- Power Source: 3.3V and 12V from HSMC

LCD Display

- 7-inch TFT LCD with pixel resolution of 800*480
- 16 million colors (8-bit RGB)
- LED backlight

5-Megapixel Digital Image Sensor

- 2,592H x 1,944V active pixels with Bayer color arrangement
- Programmable frame rate up to 70FPS (VGA)
- Snapshot-mode mode to take frames on demand
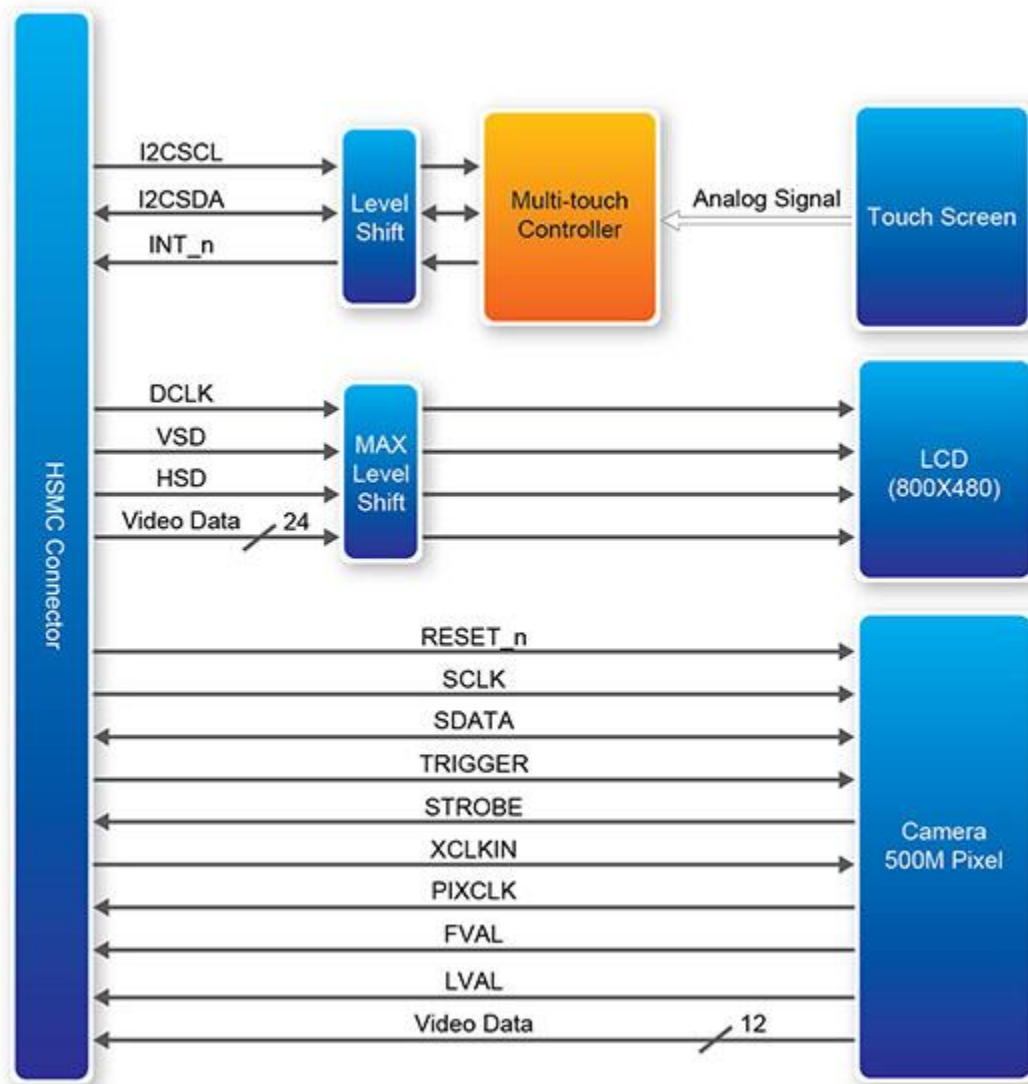- Simple two-wire serial control interface

Digital Accelerometer

- Up to 13-bit resolution at +/- 16g
- SPI (3- and 4-wire) digital interface
- Flexible interrupts modes

Ambient Light Sensor

- Precise illumination measurement under diverse lighting conditions
- Programmable interrupts
- 16-bit digital output with I2C fast-mode at 400 kHz
- Programmable analog gain and Integration time
- 50/60Hz lighting ripple rejection

MTLC Block Diagram

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Connectivity

➡ **Assembled with SoCKit to form VEEK-MT-SoCKit**

➡ **Assembled with other FPGA main boards, please visit: MTLC**

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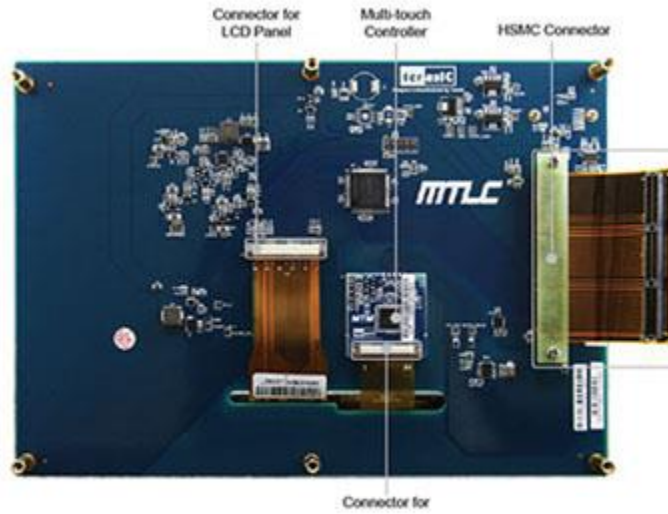
3. Kit content

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- Capacitive Multi-Touch LCD and Camera Module
- Quick Start Guide
- Screw and Copper Pillar Package
- HSMC Cable
- Bracket
- Acrylics for SoCkit
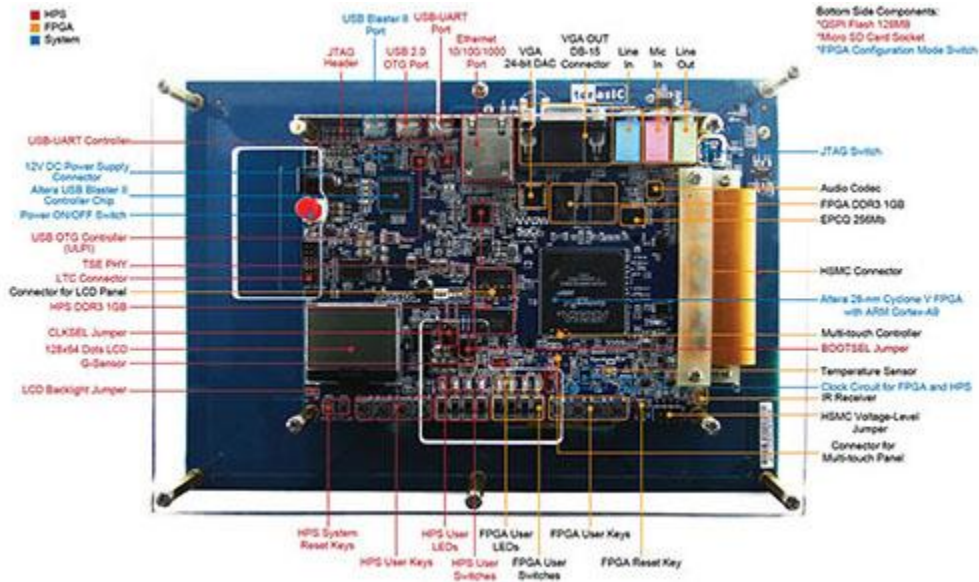- 8GB microSD Card Class 10 with Card Reader

4. Layout

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5-Megapixel Digital Camera
Ambient Light Sensor
7"LCD Touch Panel

Connector for LCD Panel
Multi-touch Controller
HSMC Connector

MTLC

Connector for

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After Upgrade to VEEK-MT-SoCKit

•Size：223*160*47 mm

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