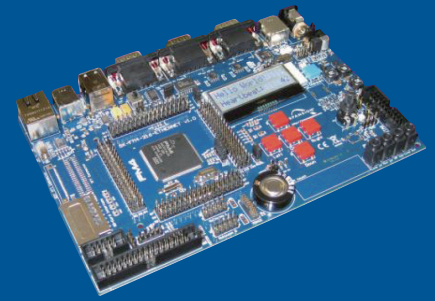


# Cypress FM4 Family of MCUs Development Starter Kit SK-FM4-216-ETHERNET



## Cypress FM4 Starter Kit

### DESCRIPTION

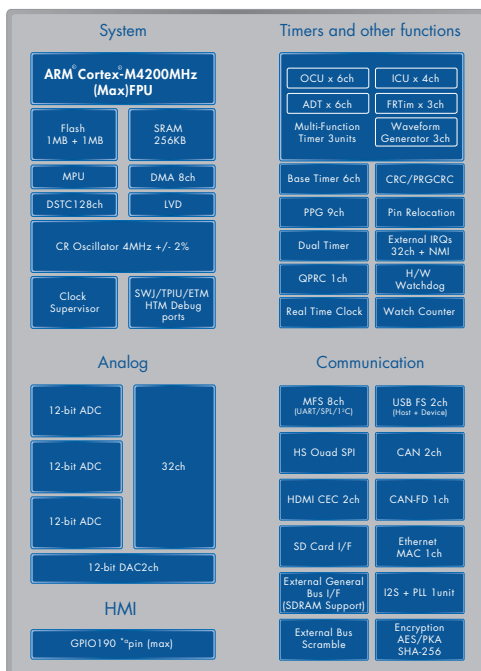
The Cypress FM4 starter kit, SK-FM4-216-ETHERNET, is equipped with everything you need to evaluate this general-purpose microcontroller. This board contains a selection of typical external components to easily test the S6E2CC's advanced internal peripheral functions. All pins are accessible through pin headers enabling custom hardware, such as sensors and motors, to be connected easily.

### ABOUT CYPRESS'S FM4 MCU FAMILY - S6E2CC SERIES

The S6E2CC series, based on the ARM® Cortex®- M4F core, boasts a 200 MHz operating frequency and supports a diverse set of on-chip peripherals for enhanced human-machine interfaces (HMI) and machine-to-machine (M2M) communication. The architecture is optimized for very high performance allowing efficient data movement with a 16kB flash accelerator enabling zero wait state execution. Peripheral-to-RAM and RAM-to-peripheral data movement is possible without CPU intervention by either an 8-channel DMA or the unique and powerful descriptor system data transfer controller (DSTC). In addition, this series supports up to 2MB flash and 256KB SRAM memory, more than a dozen different communication and memory interfaces and motor control functionality.

The rich set of peripherals and large memory of this series, allows single-chip solutions for a wide variety of applications requiring advanced, high-speed computing performance including wireless communication hubs with special accommodation for over-the-air (OTA) programming, factory automation, industrial Internet of Things (IoT), motor control, office automation, building management systems, smart meters, digital cameras and multi-function printers.

### S6E2CCAL0AGL20000 BLOCK DIAGRAM



### KEY FEATURES

- Monitoring all pins: 216 pins
- IEEE802.3 Ethernet RJ45
- USB Type-A, Type-B connector
- CAN transceiver, CAN-FD transceiver
- SDIF (SD card Interface)
- On board ICE (CMSIS-DAP)
- Flash memory S25FL164K (via Quad SPI)
- I2S audio interface
- Motor control interface
- Multi function serial interface
- LCD module
- TFT display interface
- Potentiometer (via A/D Converter)
- Push buttons (via GPIO)
- Reset button
- User setting jumpers
- JTAG-ICE, ETM Trace connector
- USB bus power, USB-device bus power, JTAG, external power supply (9V-24V)

## PACKAGE CONTENTS

### HARDWARE

- SK-FM4-216-ETHERNET (starter kit board)

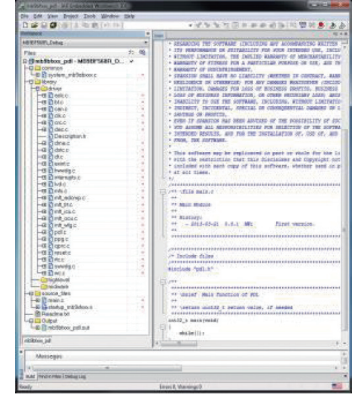
### FIRMWARE

- s6e2cc\_template
- s6e2cc\_pdl
- sw-examples
- USB Virtual-COM port

### DOCUMENTS & TOOLS

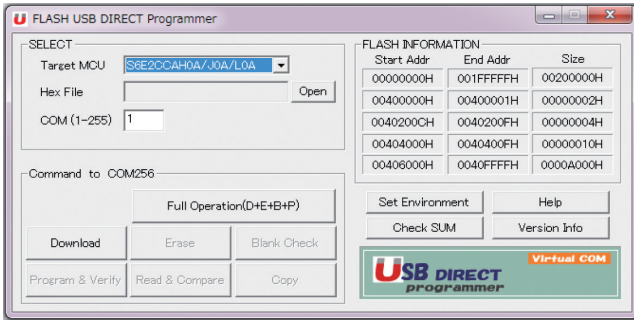
- Flash USB Direct Programmer
- Schematic file
- ReadMe\_SK-FM4-216-ETHERNET
- Serial Port Viewer

## Peripheral Driver Library



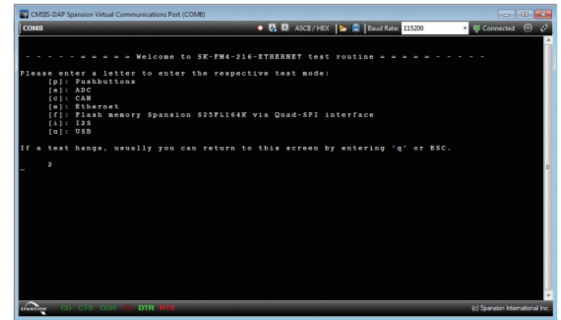
Development workspace

## USB DIRECT Programmer



Program the Flash through USB I/F

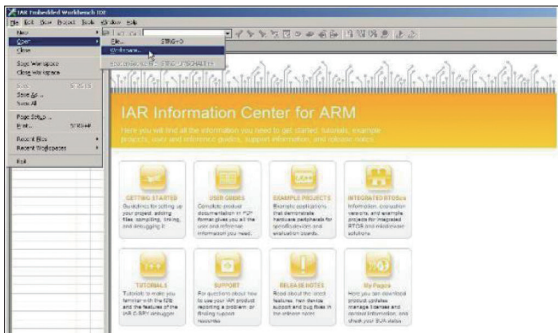
## Serial Port Viewer



Display test result through UART

## DEVELOPMENT ENVIRONMENT

All sample and peripheral driver library code is developed under IAR Embedded Workbench and KEIL  $\mu$ Vision.



IAR site: <http://www.iar.com/>



KEIL site: <http://www.arm.com/>

## Web

Detailed Cypress FM4 evaluation board (SK-FM4-216-Ethernet) starter kit information is available at:  
URL : <http://www.cypress.com/ARMStarterKits>

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