Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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Cypress FM4 Graphics Controller MCU Starter Kit

The Cypress S6E2DH series graphics controller MCU starter kit provides an easy to use, cost-effective solution to evaluate an ARM® Cortex®- M4 based microcontroller that incorporates a dedicated hardware graphics engine allowing rich display images. The board comes complete with WQVGA TFT display with a touch sensor and on-board CMSIS-DAP enabling the user to connect directly to a PC and begin development. In addition to the evaluation board, the Cypress solution includes a free-of-charge graphics authoring tool and low-level libraries for the graphics engine.
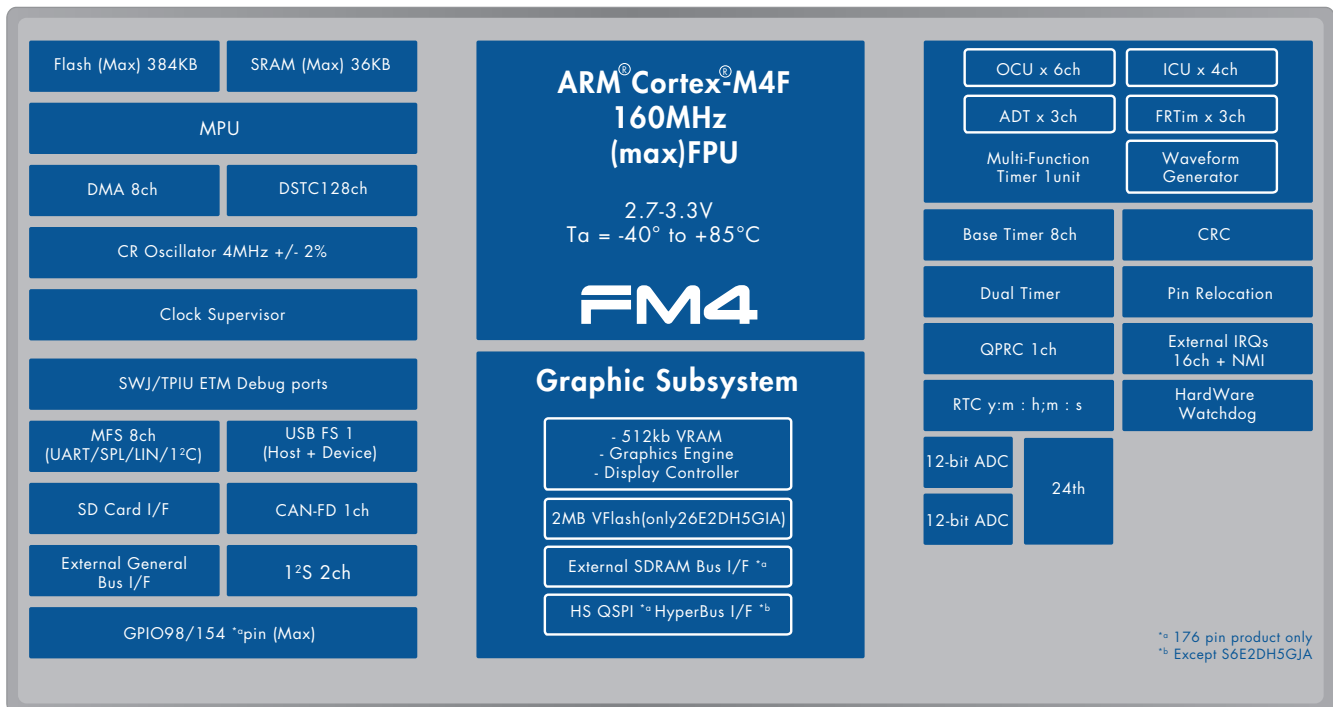
Cypress's S6E2DH MCU is ideal for embedded applications with TFT displays such as home appliances, multi-function printers, industrial equipment, electronic musical instruments and security systems.

Features

- Cypress FM4 S6E2DH MCU
- CMSIS-DAP JTAG adapter
- USB-Device (Type-B connector)
- WQVGA TFT Panel with touch
- 512MB Spansion HyperFlash™ memory for image storage
- 128MB SDRAM for external VRAM
- I^2S connection to codec
- SD card interface
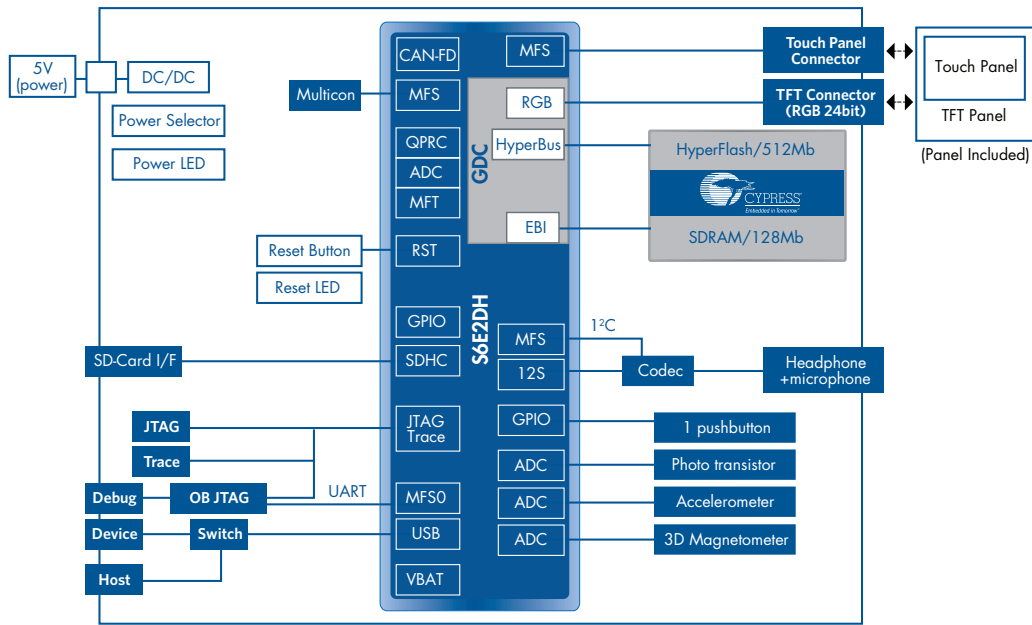
Part number: FM4-176L-S6E2DH

MCU block diagram / features

Flash (Max) 384KB	SRAM (Max) 36KB
MPU	
DMA 8ch	DSTC128ch
CR Oscillator 4MHz +/- 2%	
Clock Supervisor	
SWJ/TPIU ETM Debug ports	
MFS 8ch (UART/SPL/LIN/I^2C)	USB FS 1 (Host + Device)
SD Card I/F	CAN-FD 1ch
External General Bus I/F	I^2S 2ch
GPIO98/154 *ᵃpin (Max)	

ARM® Cortex®-M4F 160MHz (max)FPU

2.7-3.3V
Ta = -40° to +85°C

FM4

Graphic Subsystem

- 512kb VRAM
- Graphics Engine
- Display Controller

2MB VFlash(only26E2DH5GIA)

External SDRAM Bus I/F *ᵃ

HS QSPI *ᵃ HyperBus I/F *ᵇ

OCU x 6ch	ICU x 4ch
ADT x 3ch	FRTim x 3ch
Multi-Function Timer 1unit	Waveform Generator
Base Timer 8ch	CRC
Dual Timer	Pin Relocation
QPRC 1ch	External IRQs 16ch + NMI
RTC y:m : h;m : s	HardWare Watchdog
12-bit ADC	24th
12-bit ADC	

*ᵃ 176 pin product only
*ᵇ Except S6E2DH5GJA
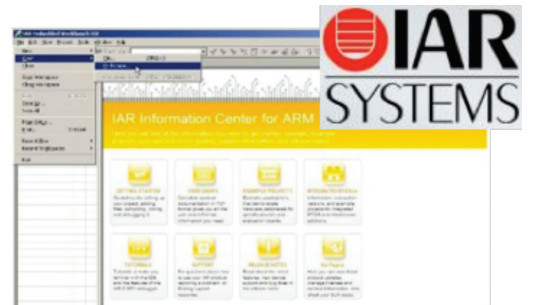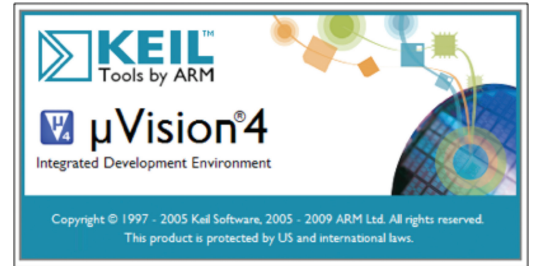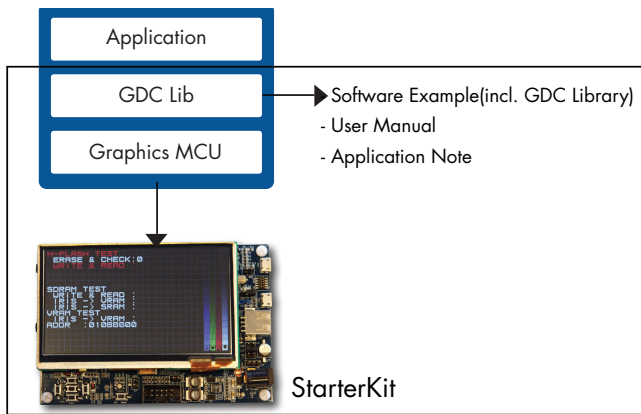
Starter kit block diagram

Development environment / evaluation board

Graphics Software Development environment

Development Tools
ARM (KEIL) / IAR SYSTEMS

GDC Software Architecture

Note: This document may be revised by subsequent versions or modifications due to changes in technical specifications.

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