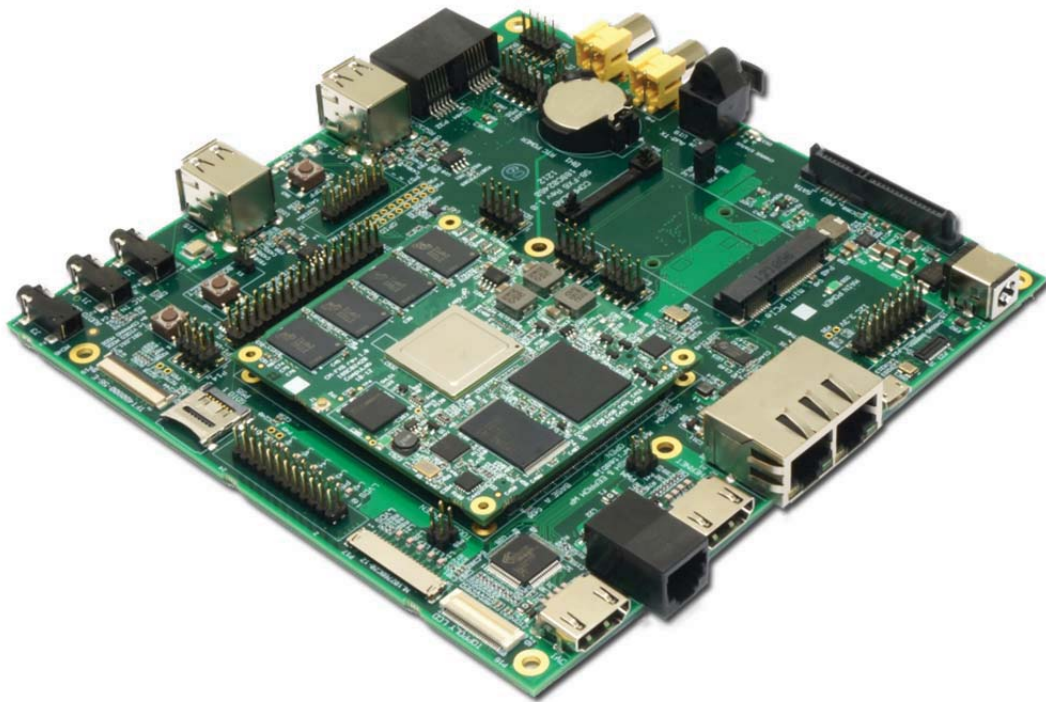


Single Board Computer

SBC-FX6



Introduction

The SBC-FX6 is a small board PC based the Freescale i.MX6 CPU. It is implemented with a CM-FX6 computer-on-module providing most of the functions and a SB-FX6 carrier board providing connectors and several additional functions. The rich feature set of the SBC-FX6 is customisable according to the price / performance needs of the target.

The SBC-FX6 contains expansion connectors which accommodate a wide range of standard peripheral devices. Wide input range switched power supply is compatible with requirements for telecom and automotive applications.

System, Graphics and I/Os

		SB	CM
CPU, RAM, Graphics, Storage	Please refer to CM-FX6 Specification		
Display	HDMI 1.4, Stereo-3D support, up to 1920x1200 @ 60Hz, HDMI Connector. DVI, up to 1920x1080, HDMI Connector. Parallel RGB, up to 225 Mpixels/sec, FPC connector. 2 LVDS interfaces, up to 165 Mpixels/sec, 100-mil header, FPC compatible with the NL10276BC20-12 LCD panel.	+	+
Gigabit Ethernet	1000 BaseT Ethernet port. Implemented with the CM-FX6 GbE controller. RJ-45 connector, activity LEDs.	+	E
	1000 BaseT Ethernet port. Implemented with the on-board Realtek RTL8111 GbE controller. RJ-45 connector, activity LEDs. Mutually exclusive with the mini-PCIe socket.	EVAL	+
USB	1 OTG USB2.0 high-speed port, 480 Mbps, micro-USB connector 1 host USB2.0 high-speed ports, 480 Mbps, type-A connector	+	U2
	1 OTG USB2.0 high-speed port, 480 Mbps, micro-USB connector 4 host USB2.0 high-speed ports, 480 Mbps, type-A connectors	+	U5
SATA	SATA interface, 7-pin vertical SATA connector	+	CxxxM NDx
Serial Ports	1 RS232 port, rx/tx only, RS232 levels, up to 460 Kbps, RJ-11 connector	+	+
	2 RS232/RS485 ports, rx/tx only, RJ-11 connectors	Z	+
Sound I/O	Analog audio implemented with the CM-FX6 audio codec Stereo output, line-in, microphone input; 3.5mm jacks	+	A
	S/PDIS input / output, electrical and optical connectors	+	+
PCIe	MiniPCIe socket. Mutually exclusive with the secondary GbE interface.	EVAL	+
CAN	CAN bus interface with isolator and driver, 100-mil header	Y	+
SD	SD socket / MicroSD socket	+ / +	+ / WB
WiFi & Bluetooth	Implemented with the CM-FX6 on board wireless module WiFi 802.11 b/g/n based on Marvell 88W878. On-board connector for external antenna. Bluetooth 3.0 + High Speed (HS) (also compatible with Bluetooth 2.1 + EDR)	+	WB
GPIO	Up to 24 GPIO, 100-mil header	+	+
Video Input	1 parallel camera port (up to 20 bit and up to 240 MHz peak) FPC connector	EVAL	+
	MIPI CSI-2 interface, 100-mil connector	EVAL	+
Battery Management	Charging and supervision support for Lithium-ion polymer batteries	EVAL	+
RTC	Real time clock operated from on-board rechargeable lithium battery	+	+

Electrical and Mechanical Specification

Active Power Consumption	TBD
Dimensions	160mm x 160mm x 25mm
Operating Temperature (case)	Commercial: 0° to +70°, Extended: -20° to +70°, Industrial: -40° to +85°

Block Diagram

