

RSB-4210 Evaluation Kit

**Freescale i.MX53 SBC
with Linux Kernel 2.6**



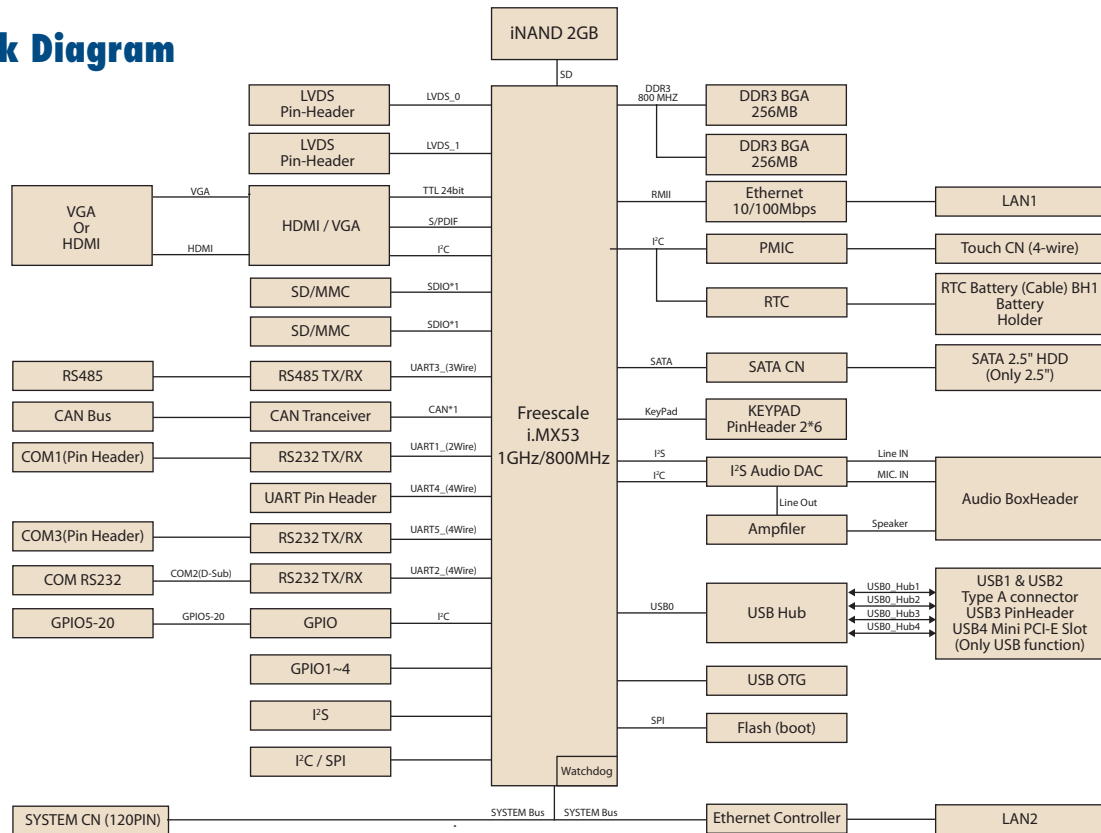
Features

- Freescale ARM® Cortex™-A8 i.MX53 800 MHz high performance processor
- Supports OpenGL ES 2.0 and OpenVG™ 1.1 hardware accelerators
- Supports full HD 1080p video decode and HD 720p video encode hardware engine
- LCD, Touch, UART, I²C, I²S, SPI, GPIO, USB, VGA, HDMI I/O interface
- Supports SATA storage interface and CAN-bus for vehicle applications
- DC power input support 9 ~ 24 V
- Supports Android, Embedded Linux 2.6, Windows® Embedded Compact 7

Specifications

Kernel	CPU	Freescale i.MX53 Cortex-A8 800 MHz
	Multi-Media Support	1080p decode/ 720p encode
	2D/3D Accelerators	Supports OpenGL ES 1.1 & 2.0, OpenVG 1.0
	System RAM	512 MB DDR3 Memory
	Image/AP Flash	2 GB onboard flash
	Graphics Chip	CPU internal 24-bit LCD controller
	RTC	Yes
	Watchdog Timer	Yes
	Power Management	Normal / idle mode
Reset	H/W reset & S/W reset	
I/O	COM	UART1 pin header x1 (2 wires) UART2 RS-232 DB9 connector x1 (4 wires) UART3, UART4 pin header x2 (4 wires) UART5 RS-485 phoenix connector x1 (2 wires)
	Ethernet LAN	2 x 10/100 Mbps
	USB Host	4 (2 x Type A, 1 x pin header and 1 x mini PCIe)
	USB OTG	1
	SD/MMC	2
	SATA	1
	Touch	4-wire resistive type
	Keypad	6 x 6 matrix
	I ² C Interface	1
	I ² S Interface	1
	CAN Bus	1
	SPI Interface	1
	HDMI/VGA	VGA
	Mini PCIe Connector	Yes (USB interface)
	System Bus	Yes
GPIO	20-pin 3.3V TTL level GPIOs	
Multimedia	Graphics Chip	CPU internal 24-bit LCD controller
	Resolution	Default: 800 x 480 WVGA; 320 x 240 ~ 1920 x 1080 (optional)
	LCD Interface	2 x 24 bit LVDS LCD connector
	Brightness/Backlight Control	Yes
Power	Audio	Line-in, Line-out, MIC-in, Speaker-out
	DC-input	9V ~ 24V ± 5%
Power Consumption	Normal Run	~2.3 W
	Full Run	~3.8 W
Mechanical & Environmental	Board Size	146 x 102 x 20 mm
	Weight	110g
	Operating Temperature	0 ~ 60°C (32 ~ 140°F)
	Operating Humidity	5% ~ 95% relative humidity, non-condensing

Block Diagram



Packing List

Part No.	Description	Quantity
RSB-4210CF-A78AAE	FSL i.MX536 512MB DDR3 RAM w/ 2GB flash	1
96LEDK-A070WV32RB1	LCD-LED Backlight 7" LVDS RGB 97G070V1N0F-2	1
170000194	Touch cable	1
1700014418	LVDS cable	1
1700019577	LCD backlight cable	1
1757003734	Adapter 100-240V 65W 19V 3.42A 9NA0651256	1
1700018785	SATA power cable	1
1700004711	SATA signal cable	1
1700019546-11	Speaker & audio cable	1
1700100250	F Cable IDE#2 10P-2.0/D-SUB 9P (M) 25CM	2
1700019129	USB type A Host	1
1700019077	Mini USB cable (Client)	1
1700019076	Mini USB cable (Host)	1
1654909900	Terminal connector 9P Female	1
1700019474	RS-232 AND RS-485 cable	1
1700019476	RS-422 cable	1
SQF-ISDS2-2G-ETE	SQFlash SD Card SLC 2G, 2CH (-40 ~ 85°C)	1

Ordering Information

Part No.	Description
RSB-4210DK-B00E	Evaluation kit for Freescale i.MX53 w/Linux 512 MB DDR3 SDRAM, 2 GB onboard flash
Power cord	1700001524 for 3-pin USA standard power cord 170203183C for 3-pin Europe standard power cord 170203180A for 3-pin UK standard power cord