

ROM-1210 Evaluation Kit

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



Features

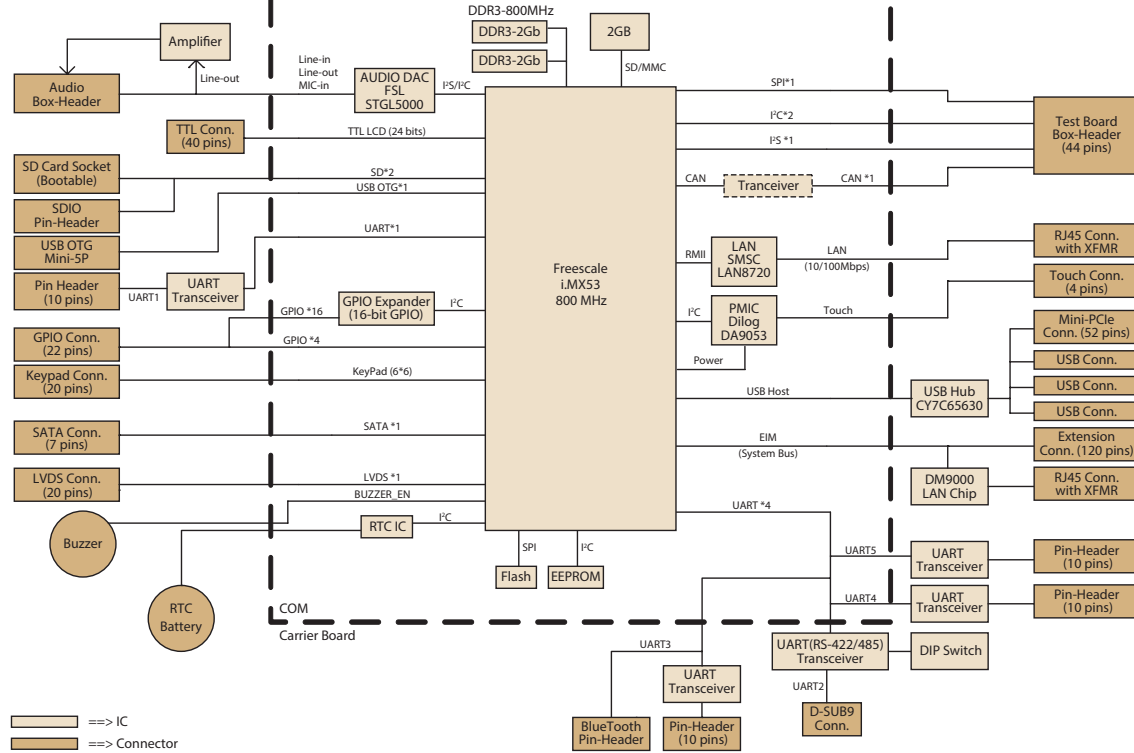
- Freescale ARM Cortex A8 i.MX53 800 MHz high performance processor
- Supports OpenGL ES2.0 and OpenVG™ 1.1 hardware accelerators
- Supports full HD 1080p video decode and HD 720p video encode hardware engine.
- Freescale Smart Speed™ Technology supports low power consumption
- Rich I/O for LCD out, TV out, Audio, USB, LAN, multi UART (5), SD (2), GPIO (20), I²C (2), SPI (2), Keypad 6x6
- Supports wide range of working temperatures: -40 ~ 85° C (optional)
- Supports Embedded Linux2.6, Windows Embedded Compact 7



Specifications

Kernel	CPU	Freescale i.MX536 Cortex A8 800 MHz
	2D/3D Accelerators	OpenGL ES2.0 and OpenVG™ 1.1 hardware accelerators
	OS	Linux 2.6 as default. (Windows Embedded Compact 7 as options)
	DRAM	512 MB DDR3
	Boot up Flash	4 MB SPI flash
	Image/AP Flash	2 GB
	RTC	Via S-35390A on CPU module
	Watchdog Timer	Internal
	Power Management	Standard/idle/suspend mode
Interface	COM	5 UART ports (2 wires, UART2 is 2 wires & support RS-422/485)
	USB Host	3 Type-A , 1 x Pin header and 1 for miniPCle
	USB Client	1
	LAN	2
	SATA	1
	SD/MMC	2
	PCI Express	1 x miniPCle interface
	GPIO	20 pins 3.3V TTL level GPIO
	Hotkey/Matrix Key Pad	6 x 6 matrix keypad thru box header
	I ² C	2
	I ² S	1
	SPI	1
	CAN-bus	1
	System Bus	1
Buzzer Control	Yes	
Display	Graphic Chip	CPU internal 24-bit LCD controller
	LCD Resolution	Default: 800 x 480, 7" WVGA LAVD interface. Optional: 320 x 240 ~ 1920 x 1080
	Brightness/Backlight Control	Yes
	T/S	1
	Audio	1 x Box header
Power	DC Input	12~24V ±5% (Transform to 3.3/3.6/5V for SOM, 12V for inverter)
	Power Consumption	Full run: 2.2W Normal run: 0.8W
Mechanical and Environmental	Board Size	205 x 155 mm
	Weight	0.3 kg (COM+CSB)
	Operation Temperature	0 ~ 60° C (-40 ~ 85° C by component change)
	Operation Humidity	5% ~ 95% Relative Humidity, non condensing

Block Diagram



Packing List

Part No.	Description	Quantity
ROM-1210CF-A78AAE	FSL i.MX536 512MB DDR3 RAM w/ 2GB flash	1
96920CSB02E	ASS'Y for RTX-CSB A1 01-3 RoHS	1
96LEDK-A070WV32RB1	LCD-LED Backlight 7" LVDS RGB 97G070V1N0F-2	1
170000194	Touch cable	1
1700014418	LVDS cable	1
1700014438	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)	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	D-SUB 9P(F) 2 wires/RS485 cable	1
1700019476	D-SUB 9P(F) RS422 cable	1
2062121012	DVD-ROM FOR ROM-1210 evaluation kit V1.0	1
SQF-ISDS2-2G-ETE	SQFlash SD card SLC 2G, 2CH (-40 ~ 85° C)	1

Ordering Information

Part No.	Description
ROM-1210DK-B00E	Evaluation kit for Freescale i.MX53 w/ Linux 512 MB DDR3 SDRAM, 2 GB on board 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