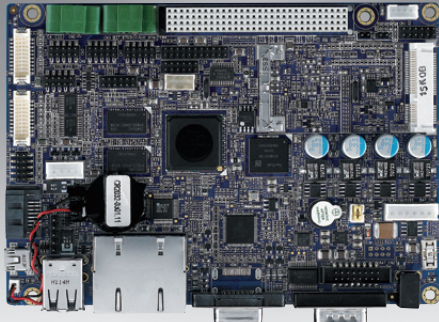


# RSB-4210

## Freescale ARM Cortex-A8 i.MX53 SBC



### Features

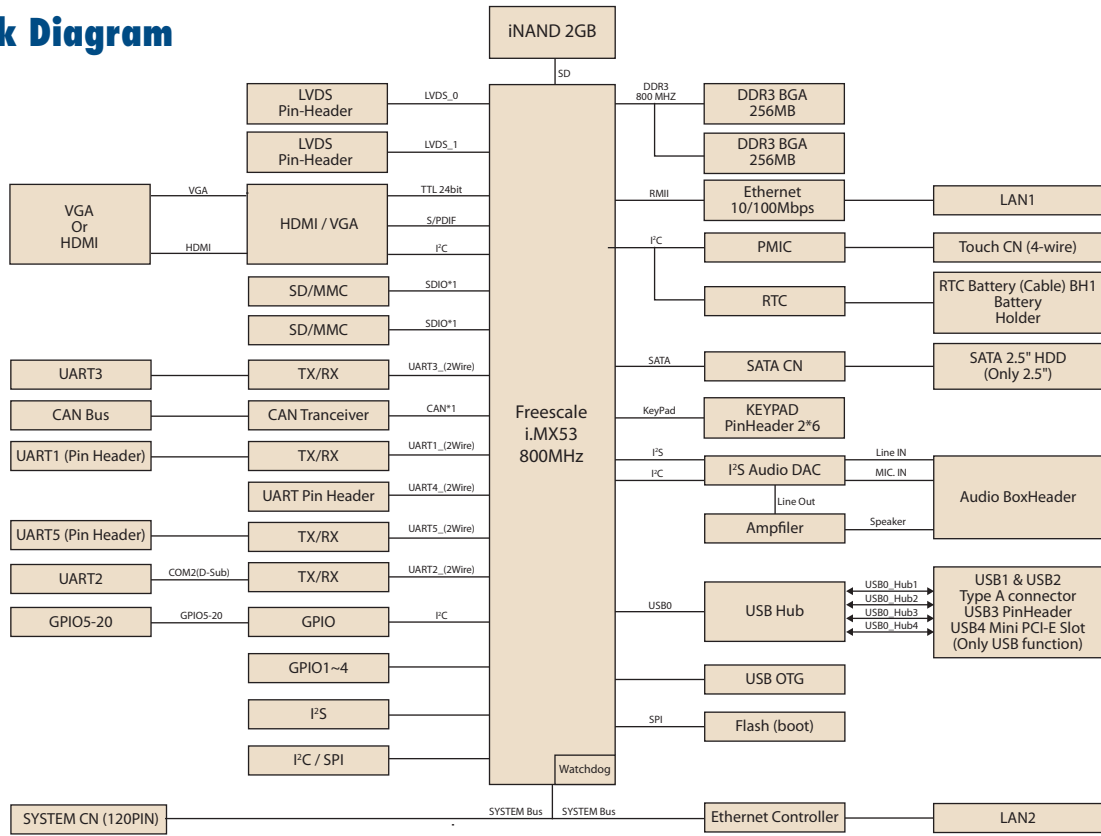
- Freescale ARM® Cortex-A8 i.MX53 800MHz high performance processor
- Supports OpenGL ES 2.0 and OpenVG 1.1 hardware accelerators
- Supports full HD 1080p video decode and HD 720p video encode hardware engine
- LCD, Touch, UART, I<sup>2</sup>C, SPI, GPIO, USB, VGA, HDMI I/O interface
- Supports SATA storage interface and CAN-bus for vehicle applications
- DC power input support 9 ~ 24 V
- Supports Embedded Linux 2.6, Windows® Embedded Compact 7



### Specifications

Form Factor		3.5" SBC
Processor System	CPU	Freescale i.MX53 800 MHz (ARM Cortex A8)
	Technology	DDR3 800 MHz
	Capacity	On-board DDR3 512 MB
	Flash	2 GB eMMC NAND Flash for O.S. and 4 MB SPI NOR Flash for Advantech boot loader
Graphics	LVDS	2 x 24-bit LVDS
	HDMI	-
	VGA	1
	Graphics Engine	1 IPU. OpenGL ES 2.0 for 3D, BitBlit for 2D and OpenVG 1.1
	H/W Video Codec	Decoder: MPEG-4 ASP, H.264 HP, H.263, MPEG-2 MP, MJPEG BP Encoder: MPEG-4 SP, H.264 BP, H.263, MJPEG BP
Ethernet	Chipset	Freescale i.MX53 integrated MII
	Speed	2x 10/100 Mbps
WatchDog Timer		Yes
I/O	SATA	1
	SATA Power	Yes
	USB	3 x USB 2.0 Host 1 x USB 2.0 OTG
	Audio	Line-in, Speaker-out, Mic-in
	SPDIF	-
	SDIO	2x (SD slot x1, pin header x1)
	Serial Port	2 x 2 wire pin header 1 x RS-485, 1 x 2 wire DB9 connector
	SPI	1
	CAN	1
	GPIO	20-pin 3.3V TTL Level GPIOs
	I2C	1
	System Bus	Yes
	Touch	4-wire resistive type
	Keypad	6 x 6 matrix
Button	-	
Expansion	Mini PCIe	Only USB signal
	SD Socket	1 x SD slot
	SIM	1 x SIM slot
Power	Power Supply Voltage	9 ~ 24 V
	Power Type	DC-in
	Power Consumption	2.3 Watts
Environment	Operational Temperature	0 ~ 60° C/ -40 ~ 85° C
	Operating Humidity	5%~95% Relative Humidity, non-condensing
Mechanical	Dimensions (W x D)	146 x 102 x 20 mm
Operating System		Linux V2.6
Certifications		CE/FCC Class A

### Block Diagram

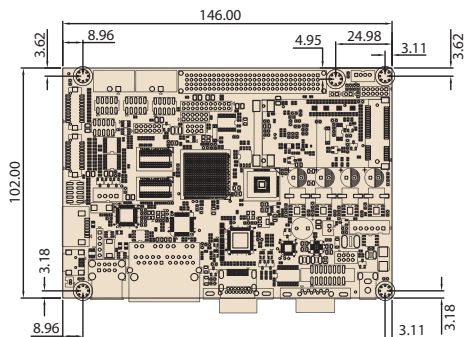


### Ordering Information

Part No.	CPU	Memory	Flash	HDMI	VGA	LVDS	LAN	Serial Port	SATA	USB Host	USB OTG	System bus	SD	CANbus	Operating Temperature
RSB-4210CF-A78AAE	Freescale i.MX536 Cortex-A8 800 MHz	512 MB	2 GB	-	1	2	2	2 x 2 wire UART, 1 x RS232, 1 x RS485	Yes	4	1	Yes	2	Yes	0 - 60° C
RSB-4210WF-A78AAE	Freescale i.MX536 Cortex-A8 800 MHz	512 MB	2 GB	-	1	2	2	2 x 2 wire UART, 1 x RS232, 1 x RS485	Yes	4	1	Yes	2	Yes	-40 - 85° C

### Dimensions

Unit: mm



### RSB-4210DK-B00E Design-in Package

Part No.	Description
RSB-4210DK-B00E	Evaluation kit for Freescale i.MX53 w/ Linux 2.6 512MB DDR3 SDRAM, 2 GB 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