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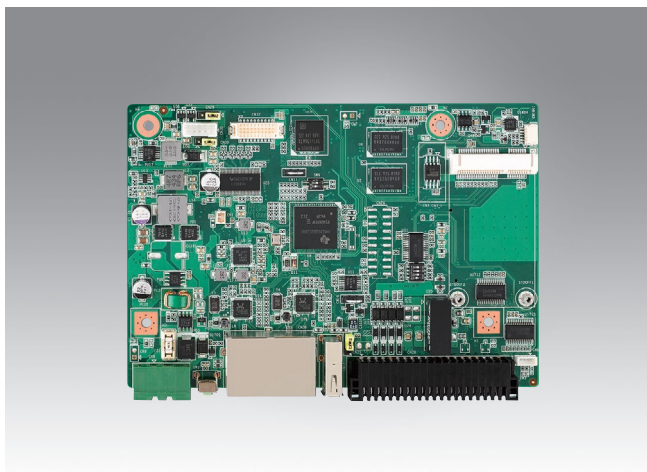
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# RSB-4220

## TI Sitara AM3352 Cortex A8 3.5" Single board



### Features

- TI Sitara AM3352 Cortex A8 1.0GHz
- On-board DDR3 800MHz 512MB & 4MB SPI NOR Flash & 4GB eMMC NAND Flash
- Support 4GPI / 4GPO w/ESD & isolation
- 6x UART w/ESD protection (Contact 4KV / Air 8KV)
- Support 2x Gigabit Ethernet ports and 1x Mini PCIe socket
- Supports Linux Kernel V3.2.0
- Operation temperature 0 ~ 60° C / -40 ~ 85° C
- Support 18bit LVDS resolution up to 1366 x 768
- HW WTD for system protection



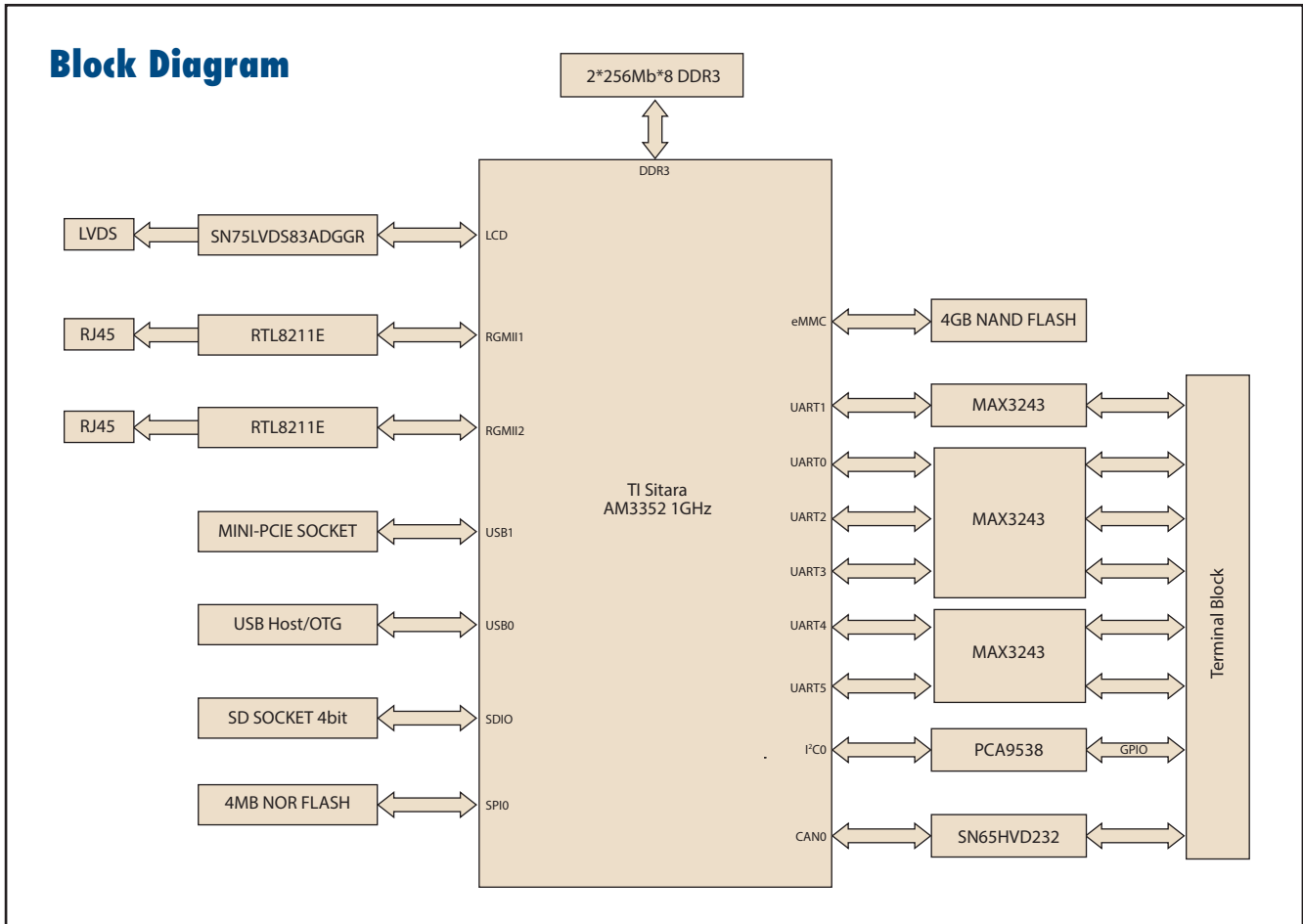
### Introduction

RSB-4220 series are the RISC SBC which integrated TI Sitara AM3352 Cortex-A8 processor. It offers 2x gigabit Ethernet, 6x serial port, 4x GPI and 4x GPO. For the industrial application, the UART & GPIO feature a rugged ESD and isolation protection and it can protect system from unstable power damage. Otherwise, RSB-4220 also has multiple power input and operation temperature support, even support a single channel 18 bit LVDS up to 1366 x 768 resolution. It is an ideal solution for automation control such as smart grid, industrial and machinery automation applications.

### Specifications

Form Factor		3.5" SBC	
Processor System	CPU	TI Sitara AM3352 Cortex A8 1.0GHz	
	Capacity	On-board DDR3 800MHz 512MB	
	Flash	4 GB eMMC NAND Flash for O.S. and 4 MB SPI NOR Flash for booting code	
Graphics	LVDS	Support 18bit LVDS resolution up to 1366 x 768	
Ethernet	Transceiver	RTL 8211	
	Speed	2 x 10/100/1000 Mbps	
WatchDog Timer		MSP430G2202 (time out:1~6553s,default 60s/power on/off 1s)	
I/O	USB	USB2.0 HOST /OTG (By jumper selection)	
	UART	6 (1x 4 wires RS-232/422/485, 5x 2 wires RS-232) The 6 UART w/ ESD protection (Contact 4KV/ Air 8KV)	
	CAN	1 x CAN bus version 2.0 A and B	
		4x GPI/4x GPO (w/ESD & isolation, optional)	
	GPIO	<b>GPI:</b> ESD protection: Contact 4KV/ Air 8KV Isolation: 0 ~ 50Voc input and 10KHz speed	<b>GPO:</b> ESD protection: Contact 4KV/ Air 8KV Isolation: 5 ~ 40Voc output and 10KHz speed (200mA max/channel sink current)
	I <sup>2</sup> C	1	
Expansion	Button	1x Reset	
	Mini PCIe	1x mini-PCIe socket (USB signal only)	
	SD Socket	1 x SD slot	
Power	Power Supply Voltage	+ 12/19/24 VDC-In	
	Power Type	Two poles lockable DC-in	
	Power Consumption	2.8W (Idle)	
Environment	Operational Temperature	0 ~ 60° C/ -40 ~ 85° C	
	Operating Humidity	5%~95% Relative Humidity, non-condensing	
Mechanical	Dimensions (W x D x H)	146 x 102 x 1.6 mm	
Operating System		Linux kernel v3.2.0	
Certifications		CE/FCC Class B	

### Block Diagram



### Ordering Information

Part Number	CPU	Memory	eMMC	LCD	SD	CAN	UART	GPIO	Isolation	ESD	USB host/ OGT	LAN	mini-PCle	Operation Temperature
RSB-4220CS-MCA1E	TI AM3352 1.0GHz	512MB	4GB	1	1	1	6	8	Serial: No GPIO: Yes	Serial: Yes GPIO: Yes	1	2	1	0 ~ 60° C
RSB-4220WS-MCA1E	TI AM3352 1.0GHz	512MB	4GB	1	1	1	6	8	Serial: No GPIO: Yes	Serial: Yes GPIO: Yes	1	2	1	-40 ~ 85° C

### Packing List

Part Number	Description	Quantity
1652006830-01	TERMINAL BLOCK 20x2P 2.54mm 180D 0156-1A40	1
RSB-4220CS-MCA1E	RSB-4220 1GHz for 0~60°	Choose
RSB-4220WS-MCA1E	RSB-4220 1GHz for -40~85°	Any One

### Optional Accessories

Part Number	Description
1652006830-01	20x2P 2.54mm 180D 0156-1A40
96PSA-A36W12R1	ADP A/D 100-240V 36W 12V
96LEDK-A070WV40NB1	7" LED PANEL 350N 800X480(G) G070VW01 V1
1700022248-02	M CABLE USB-A(M)/USB-A(M) 15CM AMK-V006E
1700021565-11	Debug Cable
SQF-ISDS1-4G-82C	SQF SD C6 SLC 4G, 1CH
170203183C	Power Cord 3P Europe (WS-010+WS-083)183cm
1700023307-01	A cable DC JACK/Plug-in 1*2P-5.0 10cm RSB-4220
1700023366-01	Backlight cable
1700024543-01	LVDS cable
170203180A	Power Cord 3P UK 2.5A/3A 250V 1.83M
1700001524	Power Cord 3P UL 10A 125V 180cm