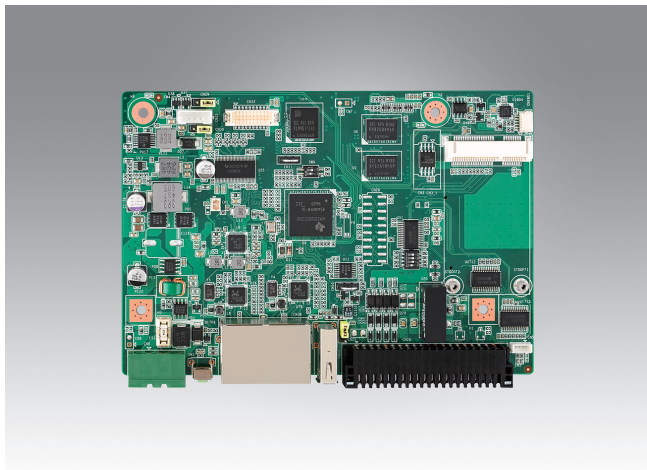


# RSB-4220

## TI Sitara™ ARM® AM3352 Cortex®-A8 3.5" SBC



### Features

- TI Sitara™ ARM® AM3352 Cortex®-A8 1.0GHz
- On-board DDR3 800MHz 512MB & 4MB SPI NOR Flash & 4GB eMMC NAND Flash
- Supports 4GPI / 4GPO w/isolation
- 5x serial port w/ESD protection (Contact 4KV / Air 8KV)
- Supports 2x Gigabit Ethernet ports and 1x Mini PCIe socket
- Supports 18-bit LVDS with up to 1366 x 768 resolution
- HW WTD for system protection
- Operating temperature 0 ~ 60 °C / -40 ~ 85 °C
- Lower power consumption, fanless design
- Supports Linux BSP



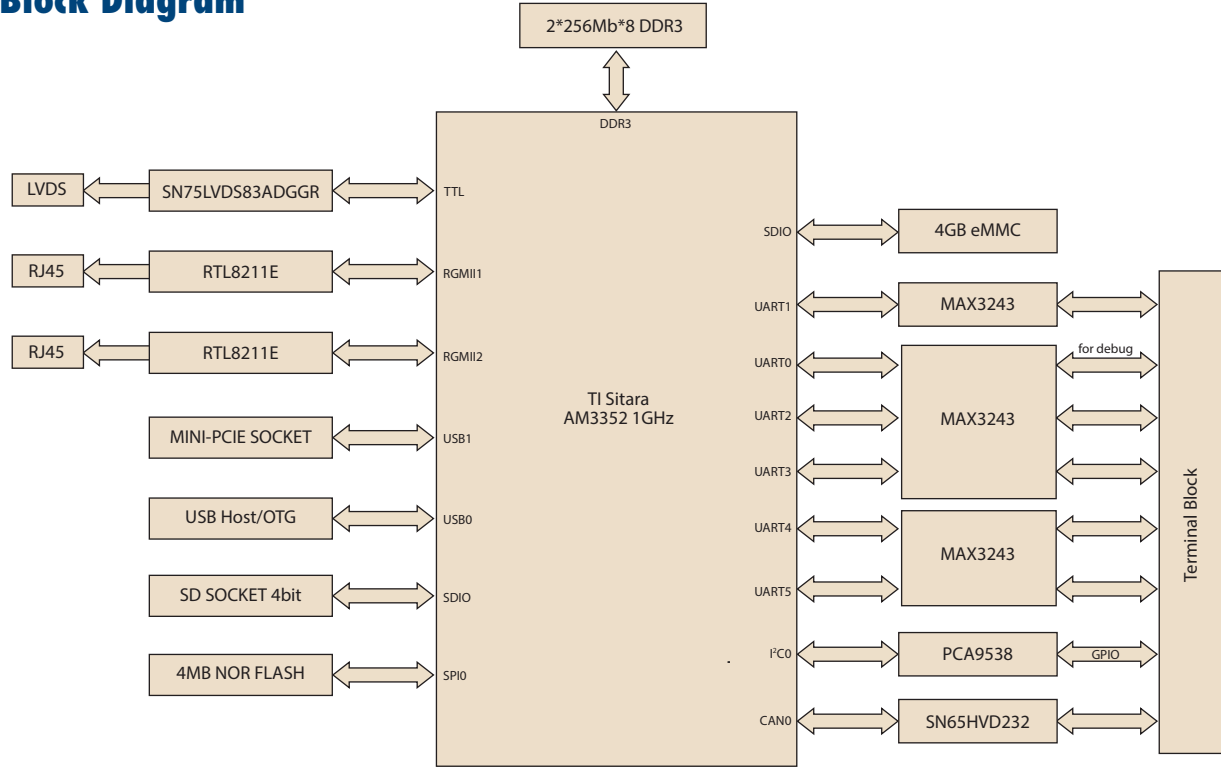
### Introduction

The RSB-4220 series comprises RISC SBCs with integrated TI Sitara AM3352 Cortex-A8 processors. Units offer 2x gigabit Ethernet, 5x serial ports, 4x GPI and 4x GPO. For industrial applications, the serial port & GPIO feature rugged ESD and isolation that protect the system from unstable power damage. Also, RSB-4220 has multiple power inputs and operating temperature support, and even supports a single channel 18-bit LVDS with up to 1366 x 768 resolution. It is an ideal solution for automation control such as smart grid, 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 ADV loader	
Graphics	LVDS	Supports 18-bit LVDS with up to 1366 x 768 resolution	
Ethernet	Chipset	TI AM3352 integrated RGMII	
	Speed	2 x 10/100/1000 Mbps	
WatchDog Timer		MSP430G2202 (time out:1~6553s,default 60s/power on/off 1s)	
I/O	USB	1x USB2.0 HOST /OTG (By jumper selection)	
	Serial Port	5 (1x 4 wires RS-232/422/485, 4x 2 wires RS-232) The 5 serial port w/ ESD protection (Contact 4KV/ Air 8KV)	
	CAN	1x CAN bus version 2.0 A and B	
		4x GPI/4x GPO (w/isolation)	
	GPIO	<b>GPI:</b> Isolation: 0 ~ 50Voc input and 10KHz speed	<b>GPO:</b> Isolation: 5 ~ 40Voc output and 10KHz speed (200mA max/channel sink current)
	ꞯC	1	
Expansion	Button	1x Reset	
	Mini PCIe	1x mini-PCIe socket (USB signal only)	
	SD Socket	1x SD slot	
Power	Power Supply Voltage	+ 12/19/24 VDC-In	
	Power Type	Two poles lockable DC-in	
	Power Consumption	3.3W (Max)	
Environment	Operating 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	
Certifications		CE/FCC Class B	

### Block Diagram



### Ordering Information

Part Number	CPU	Memory	eMMC	LCD	SD	CAN	Serial	GPIO	Isolation	ESD	USB host/OGT	LAN	Heatsink	mini-PCIE	Operation Temperature
RSB-4220CS-MCA1E	TI AM3352 1.0GHz	512MB	4GB	1	1	1	5	8	Serial: No GPIO: Yes	Serial: Yes GPIO: Yes	1	2	N/A	1	0 ~ 60 °C
RSB-4220WS-MCA1E	TI AM3352 1.0GHz	512MB	4GB	1	1	1	5	8	Serial: No GPIO: Yes	Serial: Yes GPIO: Yes	1	2	1	1	-40 ~ 85 °C

### Packing List

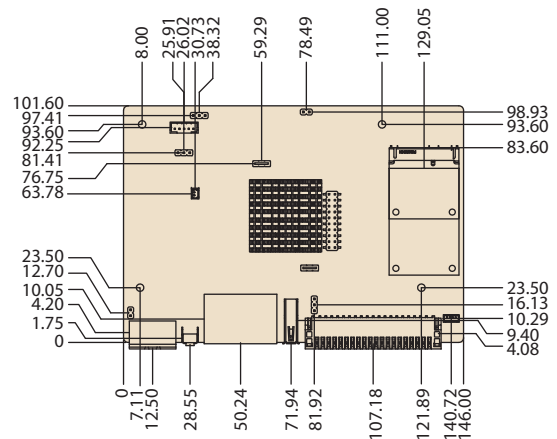
Part Number	Description	Quantity
1652006830-01	TERMINAL BLOCK 20x2P 2.54mm 180D 0156-1A40	1
RSB-4220CS-MCA1E	RSB-4220 1GHz for 0 ~ 60 °C	Choose
RSB-4220WS-MCA1E	RSB-4220 1GHz for -40 ~ 85 °C	Any One

### Optional Accessories

Part Number	Description
96PSA-A36W12R1	ADP A/D 100-240V 36W 12V
1700023307-01	DC JACK to Plug-in cable
1700001524	Power Cord 3P UL 10A 125V 180cm
170203180A	Power Cord 3P UK 2.5A/3A 250V 1.83M
170203183C	Power Cord 3P Europe (WS-010+WS-083)183cm
SQF-ISDS1-4G-82C	SQFlash SD card 4G
96LEDK-A070WV40NB1	7" LED PANEL 350N 800X480(G) G070VW01 V1
1700023366-01	LCD backlight cable
1700024543-01	LVDS cable
1700021565-11	D-SUB 9P cable for debug

### Dimensions

Unit: mm



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[GCS22.8.100.4.2.I](#) [GLS11.2.053.2.2.E](#) [A20-OLINUXINO-LIME-E16GS16M](#) [A20-OLINUXINO-LIME-S16M](#) [A20-OLINUXINO-LIME2-](#)  
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