

# RSB-4221

## TI Sitara™ ARM® AM3358 Cortex®-A8 3.5" SBC



### Features

- TI Sitara AM3358 Cortex A8 1.0GHz
- On board DDR3 800MHz 1GB memory and 4GB NAND flash EMMC
- Supports 18-bit LVDS with up to 1366 x 768 resolution
- Hardware watchdog timer for system protection
- M.2 E-key slot for Wi-Fi/Bluetooth module
- Operating temperature 0~60°C
- Lower power consumption, fanless design
- Supports Linux and Android BSP



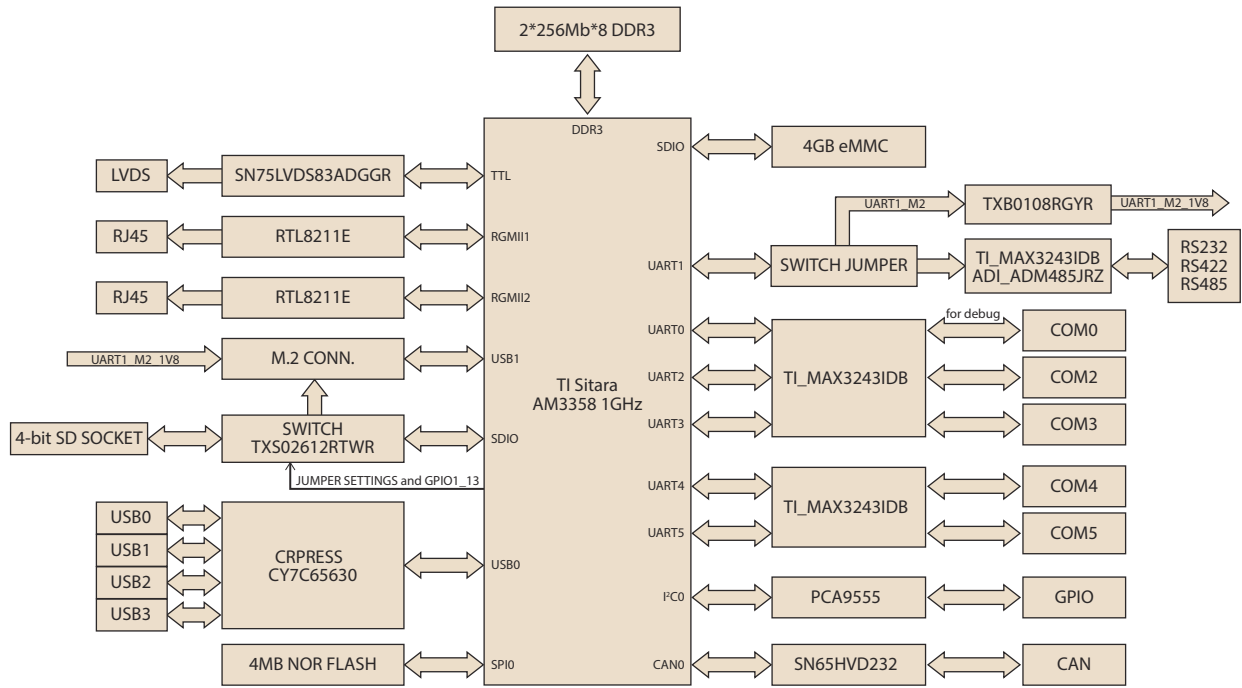
### Introduction

RSB-4221 is a RISC single board computer (SBC) integrated with a TI Sitara AM3358 Cortex-A8 processor. This system features two gigabit Ethernet ports, five serial ports, four USB host ports, a hardware watchdog timer, as well as M.2/SD to enable Wi-Fi and Bluetooth. RSB-4221 also supports touch panel control via USB and single-channel 18-bit LVDS with up to 1366 x 768 resolution, providing the ideal automation control solution for smart grid, industrial, and machine automation applications.

### Specifications

Form Factor		3.5" SBC
Processor System	CPU	TI Sitara AM3358 Cortex A8 1.0 GHz
	Capacity	Onboard DDR3 800 MHz 1GB
	Flash	4 GB eMMC NAND Flash for OS and 4 MB SPI NOR Flash for ADV loader
Graphics	LVDS	Supports 18-bit LVDS with up to 1366 x 768 resolution
	Touch	Yes, via USB signal
Ethernet	Chipset	TI AM3358 integrated RGMII
	Speed	2 x 10/100/1000 Mbps
WatchDog Timer		MSP430G2202 (time out: 1 ~ 6553 s, default 60 s/power on/off 1 s)
I/O	USB	4 x USB 2.0 hosts (2 x USB ports and 2 x pin headers)
	Serial	1 x 4-wire RS232/422/485 and 4 x 2-wire RS232 ports
	CAN	1
	GPIO	12
	I <sup>2</sup> C	1
	Recovery	1 x recovery button (for Android)
Expansion	M.2	1 x M.2 for Wi-Fi and Bluetooth
	SD Socket	1 x SD (optional w/ M.2)
Power	Power Supply Voltage	+12V DC-in
	Power Type	2-pole lockable DC-in
	Power Consumption	TBC
Environment	Operating Temperature	0 ~ 60 °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	Android	4.1.6
	Linux	Kernel 3.2.0
Certifications		CE/FCC Class B

## Block Diagram



## Ordering Information

Part Number	CPU	Memory	eMMC	SPI	LCD	SD	CAN	UART	GPIO	Touch	USB Host	LAN	M.2	Operating Temperature
RSB-4221CS-MDA1E	TI AM3358 1 GHz	1GB	4 GB	4 MB	1	1	1	5	12	1	4	2	1	0 - 60 °C

## Packing List

Part Number	Description	Quantity
RSB-4221CS-MDA1E	RSB-4221 TI AM3358 1 Ghz 1GB DDR	1

## Optional Accessories

Part Number	Description
1700022161-01	A cable D-SUB 9P(F) 1-to-2 UART cable
96PSA-A36W12R1	A/D 100 ~ 240 V, 36 W, 12 V
1700023575-01	CAN cable
1700023576-01	A cable USB-A 1-to-2 cable
1700019474	D-SUB 9P(F)/D-SUB 9P(F) Debug/RS232/RS485 cable
SQF-ISDS1-4G-82C	SQF SD C6 SLC 4G, 1CH
170203183C	Power cord 3P Europe (WS-010 + WS-083)183 cm
1700023307-01	DC jack/plug-in 1*2P-5.0 10 cm RSB-4220 cable
1700023366-01	Backlight cable
1700024543-01	LVDS cable
170203180A	Power cord 3P UK 2.5A/3A 250 V 1.83 M
1700001524	Power cord 3P UL 10A 125 V 180 cm
IDK-1107WR-40WVA1E	7-inch LCD w/ touch control

## Dimensions

Unit: mm

