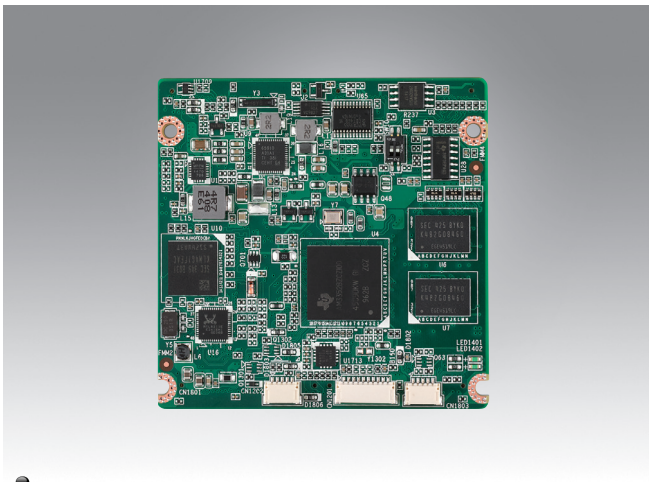
ROM-3310

TI Sitara™ ARM® AM3352 Cortex®-A8 1GHz RTX2.0 Module



Features

- TI Sitara™ ARM® AM3352 Cortex®-A8 1Ghz high performance processor
- On board DDR3 512MB memory / 4GB EMMC
- Supports wide range power input 5V~24V
- Supports 1 GbE, 1 USB 2.0, 1 USB 2.0 OTG, 2 CANbus, 10 GPIO, 4 UART, 1 I²C, 1 I²S, 1 SPI, 1 SDIO
- Operating temperature 0 ~ 60 °C / -40 ~ 85 °C
- Low power consumption, fanless design
- Supports Linux BSP

Introduction

ROM-3310 RTX2.0 module integrates an ARM Cortex A8 single core 1 GHz TI AM3352 series ultra low power SoC and I/O solution with Linux. TI AM3352 supports multiple serial ports, 5V~24V wide range power inputs, and wide temperature -40 ~ 85 °C operation for data collection in industrial applications. Based on a thickness of 2 mm board, it uses an anti-oxidization golden finger design.

ROM-3310 RTX2.0 module offers an Advantech ROM-DB3900 evaluation carrier board for easy integration and hardware design reference, and also provides a Linux BSP utility and reference codes for application development and device integration.

Specifications

Form Factor		RTX 2.0
Processor System	CPU	TI Sitara Cortex A8 AM3352 1Ghz
Memory	Technology	DDR3 on board 800MHz
	Capacity	512MB
	Flash	4GB EMMC NAND Flash for O.S & 4MB SPI NOR Flash for ADV loader
Graphics	Parallel RGB	1 x 24-bit TTL, 1366 x 768
Ethernet	Chipset	TI AM3352 Integrated RGMII
	Speed	1 x 10/100/1000 Mbps
RTC	RTC	Yes
WatchDog Timer		MSP430G2202 (time out : 0.1~6553.5s, power on/off 4s)
I/O	USB	1 x USB 2.0 host,1 x USB 2.0 OTG
	I²S	1
	SDIO	1
	Serial Port	4 x UART (1 x 4 wire, 3 x 2 wire w/ 3.3V)
	SPI	1
	CAN	2 x CAN 2.0
	GPIO	10
	I²C	1
Power	Power Supply Voltage	5 ~ 24 V
	Power Consumption	2.11W (Max)
Environment	Operating Temperature	0 ~ 60 °C/ -40 ~ 85 °C
	Operating Humidity	0% ~ 90% relative humidity, non-condensing
Mechanical	Dimensions (W x D)	68 x 68 mm
Operating System		Linux Kernel v3.2.0
Certifications		CE/FCC Class B

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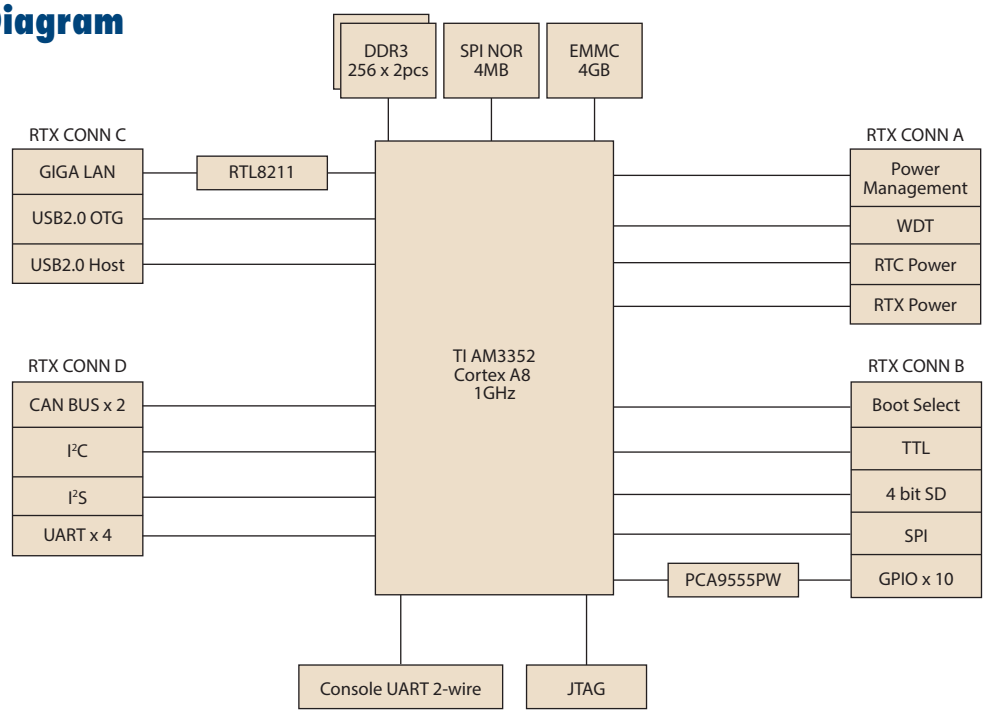
Block Diagram



Ordering Information

Part Number	CPU	Memory	Flash	Parallel RGB	LAN	GPIO	USB Host	USB OTG	I²C	I²S	SD	SPI	UART	CAN	Operating Temperature
ROM-3310WS-MCA1E	TI Sitara AM 3352 Cotex A8 1GHz	512MB	4GB	1	1	10	1	1	1	1	1	1	4	2	-40 ~ 85 °C
ROM-3310CS-MCA1E	TI Sitara AM 3352 Cotex A8 1GHz	512MB	4GB	1	1	10	1	1	1	1	1	1	4	2	0 ~ 60 °C

Development Board

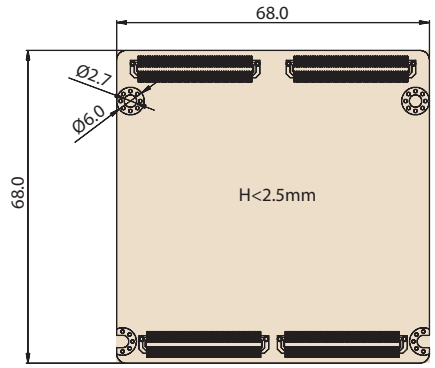
Part No.	Description
ROM-DB3900-SWA1E	Development board for RTX2.0 module
ROM-DK3310-F0A1E	ROM-3310 EVK Kit (RTX v2.0)

Optional Accessories

Part Number	Description
9696ED2000E	Debug adapter board
1700022373-01	Debug port cable for ROM-3420/5420/3310
1960070578T001	Heatsink_Black for ROM-3310
1930002234	Screws M2.5x12.5L, for Heatsink

Dimensions

Unit: mm



Embedded Linux Support and Design-in Services

Hardware Certified Ubuntu and Yocto with Eco Partner Services

Linux is the most popular embedded OS for transportation, outdoor services, factory automation, and mission critical applications. Its open source and kernel reliability features ease security updates, and make it particularly adaptable to new AI and Edge computing technology. Advantech has cooperated with Canonical and other software partners to provide hardware certified Ubuntu image and Yocto BSP as Linux offerings. The Advantech, Embedded Linux, and Android Alliance (ELAA) delivers local software services and consultation.

Features

Certified OS and BSP	Licensed Services	Numerous AI and Edge Resources	Local Partner Alliance
• Platform compatibility tests • Preloaded functional driver and software stacks	• License authorized Canonical delivers 10-years of bug fixes and security updates • In-house bundled service	• Containerized technology for service provision and deployment • AI resources from Caffe, TensorFlow, and mxnet	• Embedded Linux and Android Alliance (ELAA)

WISE-DeviceOn

Massive IoT Device Management Utility

IoT deployment and management typically involves numerous disparate devices installed on multiple sites. These devices require effective monitoring, managing, and tracking. Advantech's easy-to-use WISE-DeviceOn interface enables users to remotely monitor device health, troubleshoot problems, and send software/firmware updates over-the-air (OTA). In sum, DeviceOn empowers quick real-time responsiveness to emerging problems.

Features

Comprehensive Management	Remote Access	Efficient Operations
• Devices status • Peripherals/firmware • Open for extension	• Real-time monitoring • Remote controls • Troubleshooting	• Zero-touch on-boarding • OTA updates • Batch control

Product Highlights

SOM-6883
High-performance 11th Gen Intel® COMe Type 6 Module

MIO-5375
Compact 11th Gen Intel® Outdoor Focused 3.5" SBC

EPC-B5587
10th Gen Intel® Xeon® based Edge server

EPC-R3220
Arm based IoT Edge Gateway