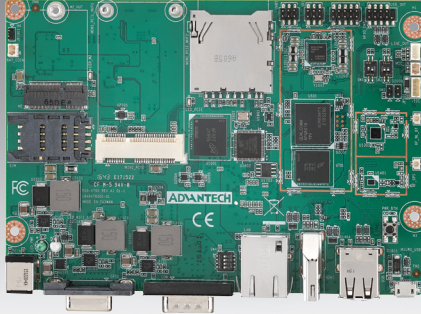


# RSB-4760

Qualcomm ARM® Cortex®-A53 APQ8016  
3.5" SBC

Preliminary



## Introduction

RSB-4760 is a RISC 3.5" single board computer (SBC) powered by Qualcomm ARM® Cortex®-A53 APQ8016 processor that supports full HD display and intergrades on board wireless solution – Wi-Fi, BT and GNSS. RSB-4760 also features in mini PCIe, M.2, and SIM card slots for expanding connectivity capability, like 3G, 4G/LTE modules. Equipped with complete Android, Linux and Win10 IoT core BSPs, this SBC enables customers to easily develop unique application on specific OS.

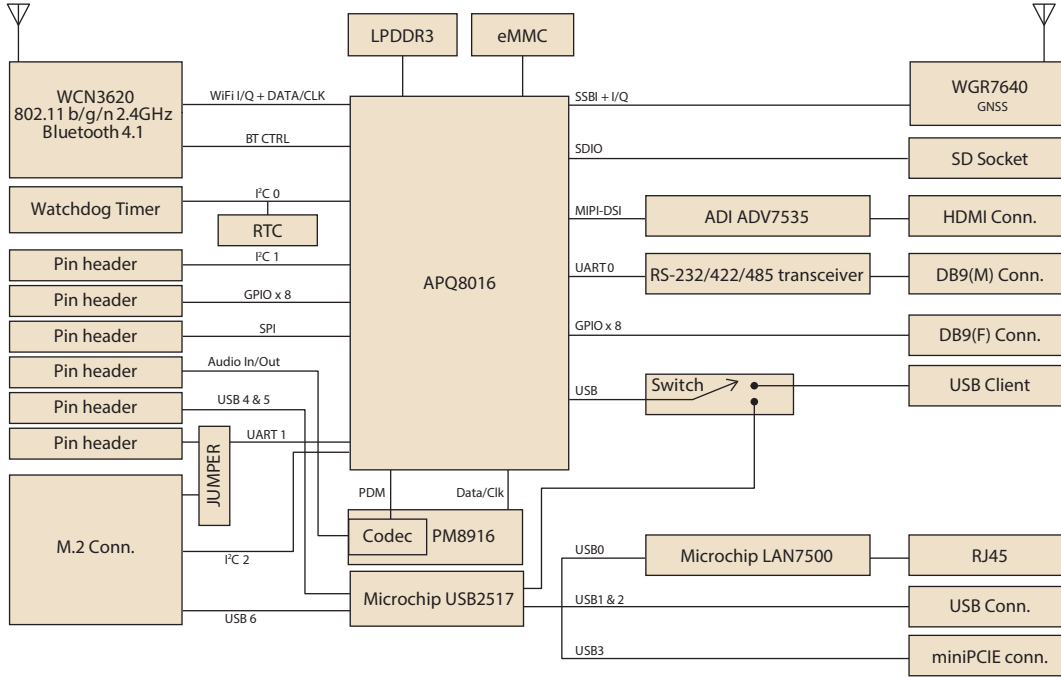
## Specifications

Form Factor		3.5" SBC
Processor System	CPU	Quad-core ARM® Cortex® A53 APQ8016
	Technology	LPDDR3 1066MHz
	Capacity	On-board 1GB / 2GB LPDDR3
	Flash	8GB
Graphics	HDMI	1 HDMI, 1920 x 1080 at 60Hz
	H/W Video Codec	Encode: 30 fps 720p (H.264 Baseline/MPEG-4)
		30 fps 1080p (MPEG-4/H.264/VP8/H.263)
	Decode: 30 fps 1080p (MPEG-4/H.264/H.263/DivX/MPEG2/VC1/Soreson/VP8)	
Ethernet	Chipset	Microchip LAN7500
	Speed	1 10/100/1000 Mbps
Connectivity	Wi-Fi	WCN3620 802.11 b/g/n 2.4GHz
	Bluetooth	WCN3620 Bluetooth 4.1
	GNSS	WGR7640
RTC		Yes
WatchDog Timer		Yes
Expansion	SD socket	1 x SD socket
	M.2	1 x M.2 2230 Key.E
	mini PCIe	1 x Full size mini PCIe slot (USB signal only)
	SIM	1 x mini-SIM slot
I/O	SATA	-
	SATA Power	-
	USB	2 x USB 2.0 Type A / 2 x USB 2.0 pin header / 1 micro USB client
	Audio	1 x line-out, 1 x mic-in via pin header
	SPDIF	-
	Serial Port	1 x 4 wires RS-232/422/485 via D-SUB 9 1 x 4 wires console via pin header (Configurable for general purpose UART or M.2 UART signal)
	SPI	1
	CAN	-
	GPIO	8 x GPIO via D-SUB 9 / 8 x GPIO via pin header (3.3V TTL level)
	I2C	1
	System Bus	-
	Touch	-
	I/R	-
LED	1 x Power LED, 1 x Wi-Fi&BT LED	
Button	1 x Power Button, 1 x Reset Button	
Power	Power Supply Voltage	9-36V
	Power Type	DC-in
	Power Consumption	TBD
Environment	Operational Temperature	0 – 60° C
	Operating Humidity	5% – 95%
Mechanical	Dimensions (W x D)	102 x 146 mm
Operating System		Android / Yocto Linux / Windows 10 IoT Core
Certifications		CE/FCC Class B

## Features

- Qualcomm ARM® Cortex®-A53 APQ8016 Quad core up to 1.2 GHz
- Onboard 1GB/2GB LPDDR3 memory and 8GB eMMC
- 1 HDMI, 1 RS-232/422/485, 1 GbE, 4 USB 2.0, 16 GPIO, 1 I2C, 1 SPI
- Highly intergrated on-board wireless connectivity - Wi-Fi, BT, and GNSS
- Connectivity expansion capability - M.2, mini-PCIe
- Wide voltage range DC power input
- Support Android, Linux and Win 10 IoT Core

### Block Diagram



### Ordering Information

Part Number	CPU	Memory	Flash	HDMI	LAN	Serial Port	USB Host	SD	Operating Temperature
RSB-4760CQ-QNA1E	Qualcomm APQ8016 Quad Core 1.2GHz	1GB	8GB	1	1	1 x 4 wires RS-232/422/485 1 x 4 wires UART (Console)	4	1	0 ~ 60 °C
RSB-4760CQ-WNA1E	Qualcomm APQ8016 Quad Core 1.2GHz	2GB	8GB	1	1	1 x 4 wires RS-232/422/485 1 x 4 wires UART (Console)	4	1	0 ~ 60 °C

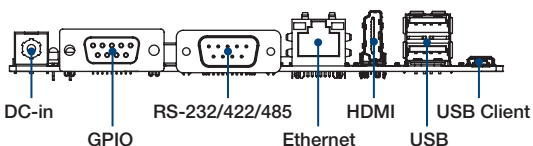
### Packing List

Part Number	Description
RSB-4760	RSB-4760 3.5" SBC

### Optional Accessories

Port Number	Description
96PSA-A36W12R1	Adapter 100-240 36W 12V 3A 9NA0362308
170203183C	Power cord 3P Europe (WS-010+WS-083) 183 cm
170203180A	Power cord 3P UK 2.5A/3A 250 V 1.83 M
1700001524	Power cord 3P UL 10A 125 V 180 cm
1700026931-01	Debug cable
ROM-ED20-00A1E	Debug adapter board
TBD	RSB-4760 metal chassis

### External I/O



### Dimensions

Unit: mm

