



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

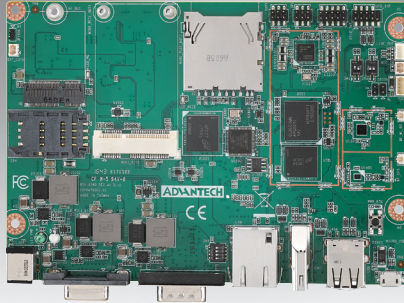
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



RSB-4760

Qualcomm ARM® Cortex®-A53 APQ8016
3.5" SBC

NEW



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 Debian BSPs, this SBC enables customers to easily develop unique application on specific OS.

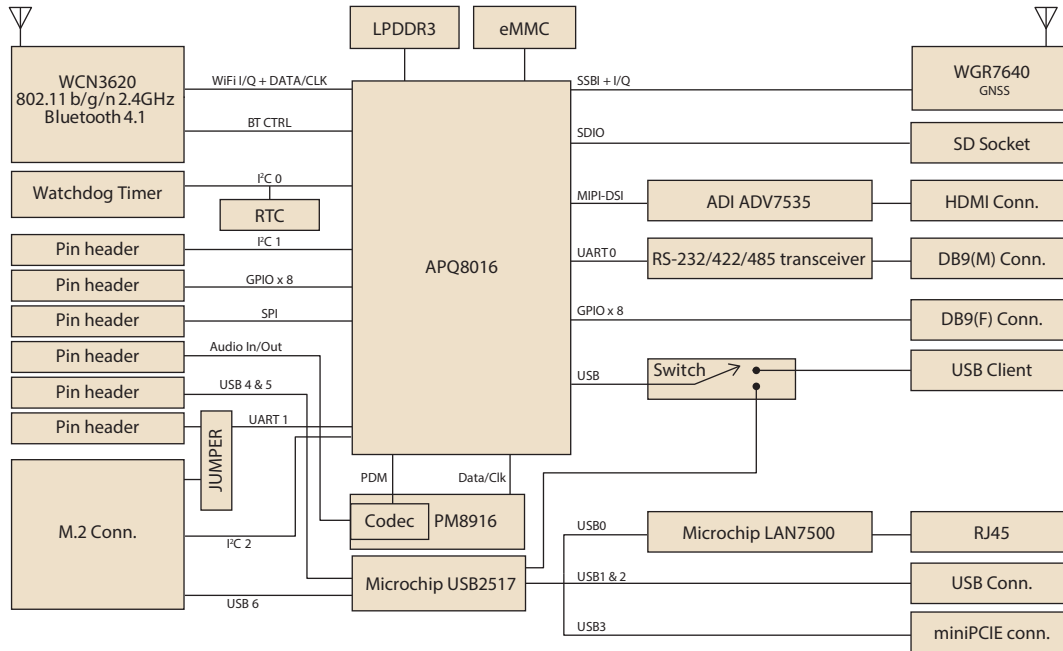
Specifications

| | | |
|------------------|------------------------------------|--|
| 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 x 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 | 6 W |
| Environment | Operational Temperature | 0 – 60° C |
| | Operating Humidity | 5% – 95% |
| Mechanical | Dimensions (W x D) | 102 x 146 mm |
| Operating System | | Android / Yocto Linux / Debian |
| Certifications | | CE/RED/FCC/IC/SRRC/TELEC |

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 Debian

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 |

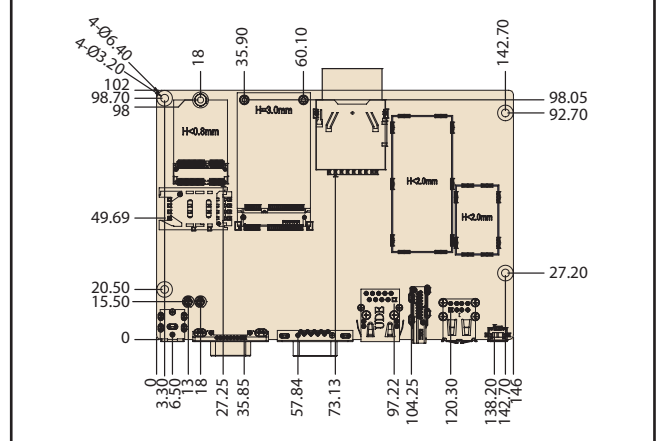
Packing List

| 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 |
| 1700008921 | Power Cord 3P PSE 183cm |
| 1700026931-01 | Debug cable |
| ROM-ED20-00A1E | Debug adapter board |
| 1750006043 | Cable R/P SMA (M) to MHF 1.32 150mm |
| 1750006010 | Cable R/P SMA (M) to MHF 1.32 200mm |
| 1750008671-01 | Dipole Antenna. 2.4+5G WIFI 2.5/4dBi SMA/M-R L=109mm |
| 1750007622-01 | Dipole Antenna. 2.4 WIFI 3.5dBi SMA/M-R L=120mm |
| 1750008717-01 | Dipole Antenna. 2.4+5G WIFI 3dBi SMA/M-R L=109mm |
| 1750008772-01 | Dipole Antenna. 2.4+5G WIFI 3/4.4dBi SMA/M-R L=136mm |
| 1750006432 | Antenna GPS antenna 5000mm |
| 1750007991-01 | Antenna GPS+BDS+GONASS 5000mm |
| 1750006264 | Antenna Cable SMA(F)/MHF 15cm |
| 1750006009 | Antenna Cable SMA(F)/MHF 25cm |

Dimensions



External I/O

