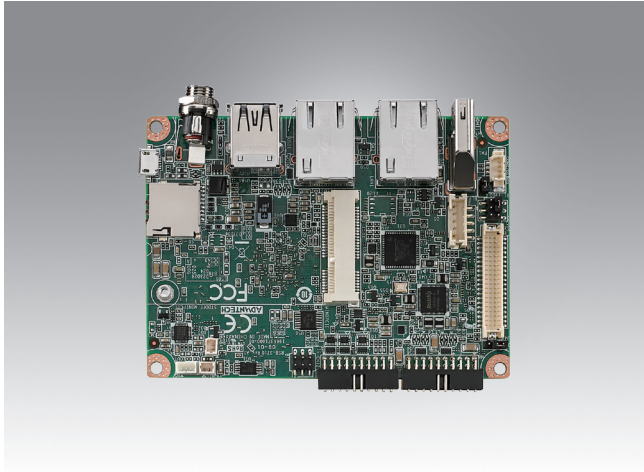


# RSB-3710

## Rockchip RK3399 Cortex-A72 2.5" SBC with UIO40-Express



### Features

- Rockchip RK3399 ARM Dual Cortex-A72 and Quad Cortex-A53 1.8 GHz
- Onboard LPDDR4 2 GB
- 1 HDMI, 1 Dual Channel 24 bit LVDS or 1eDP
- 2 2-wire RS-232, 1 USB3.0, 4 USB2.0, 1 Micro SD, 1 Mic. in / Line out
- 1 mini-PCIe for LTE/WiFi/BT
- Supports Debian9/10 and Android7.1/10.0
- Support I/O Expansions by UIO40-Express I/O boards



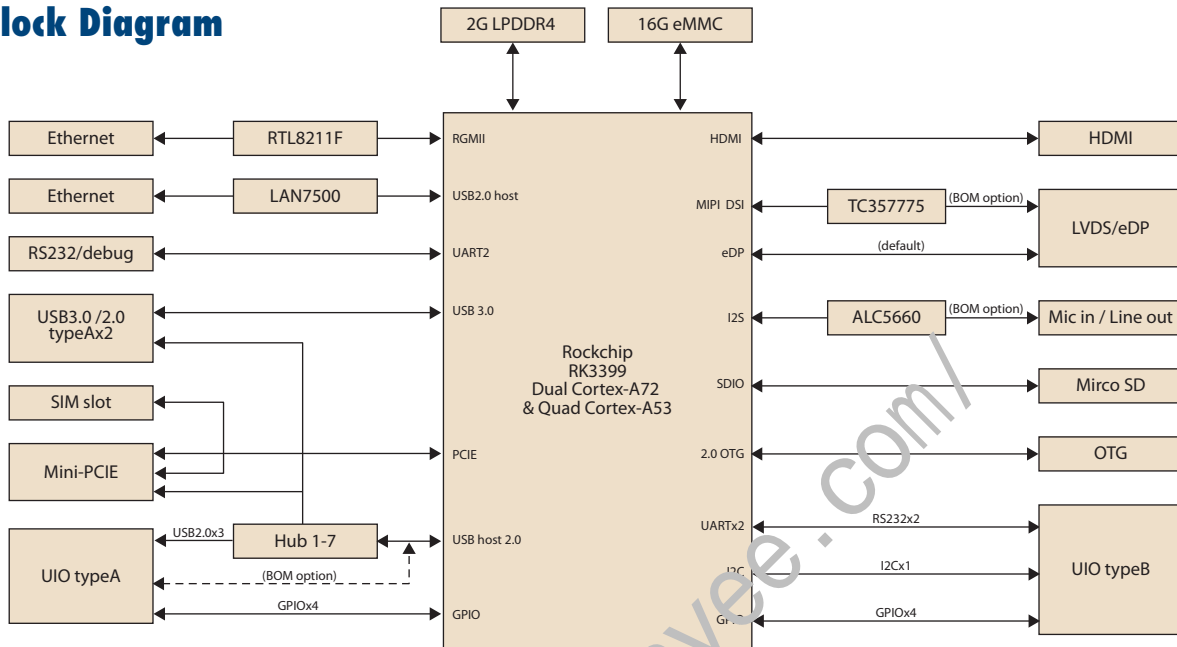
### Introduction

RSB-3710 is a RISC 2.5" single board computer (SBC) powered by a high-performance Rockchip RK3399 ARM dual Cortex-A72 and quad Cortex-A53 high performance processor which supports 4K display from HDMI. It offers both rich display as HDMI/LVDS/eDP and rich IO as dual RS-232/Serials/2USB/12GPIO. RSB-3710 also features Mini-PCIe, and SIM card slots for integrating Wi-Fi, Bluetooth, and 3G/4G modules. It is an ideal solution for healthcare, security, IOT gateway and Vending machine application.

### Specifications

Form Factor	2.5" SBC with UIO40-Express for I/O Expansions	
Processor System	CPU	Rockchip RK3399 ARM dual Cortex-A72 and quad Cortex-A53 1.8 GHz
Memory	Technology	LPDDR4 1333MHz
	Capacity	On-board 2 GB
	Flash	16GB of eMMC NAND Flash for OS and Advantech's boot loader
NPU	NPU	-
Graphics	HDMI	1 HDMI 2.0, upto 4kx2k at 60Hz
	LVDS	1 Dual Channel 18/24 Bit LVDS (Shared with eDP, by BOM Option), Backlight power, 5/12V, Max. 1A, upto 1920x1080@60Hz
	eDP	1, max 2.7Gbps /Reused with LVDS but default as eDP, upto 1920x1080@60Hz
	Graphics Engine	OpenGL ES 1.1/2.0/3.1, OpenCL 1.1, DirectX 11
	H/W Video Codec	Decoder: MPEG-1, MPEG-2, MPEG-4, H.263, H.264, AVS, VC-1, VP8, MVC, HEVC/H.265 decoder, 4k@60FPS Encoder: H.264 (BP@level4.0, MP, HP@level4.0), MVC and VP8
Ethernet	Chipset	RTL8211FS
	Speed	2 10/100/1000 Mbps
WatchDog Timer	WatchDog Timer	Yes
I/O	USB	1 USB3.0+1 USB2.0, by TypeA
	Audio	1 Mic. in / Line out by pin header (option)
	CAN	-
	Serial Port	1 2 wires RS-232 by COM2 pin header (default configured as debug console)
	Camera Input	-
	UIO40-Express	3 USB2.0, 2 UART, 1 I2C, 12 GPIOs
Indicator	LED	1 Power LED 1 Programmable LED
	Mini PCIe	1 Full Size Mini PCIe Slot (with PCIE/USB)
Expansion	M.2	-
	SD Socket	1 Micro SD Socket
	SIM Slot	1 Nano SIM Slot
Power	Power Supply Voltage	+12 V
	Power Type	Lockable DC-Jack (2pin type connector by BOM option)
	Power Consumption	11.5W
Environment	Operating Temperature	0 ~ 60 °C / -20 ~ 85 °C
	Operating Humidity	5%~95% Relative humidity, non-condensing
Mechanical	Dimensions	100 x 72 x 19 mm
	Weight	0.05kg
Operation System	Debian9/10 and Android7.1/10.0	
Certifications	CE/FCC Class B	

## Block Diagram



## Ordering Information

Part No.	CPU	Memory	Flash Memory	HDMI	eD	LVDS	LAN	USB Host	SD	CANbus	Operating Temperature
RSB-3710CO-XNA1E	RK3399	2 GB	16 GB	1	1	-	2	2	1	-	0 ~ 60 °C
RSB-3710WO-XNA1E	RK3399K	2 GB	16GB	1	1	-	2	2	1	-	-20 ~ 85 °C
RSB-3710CO-XDA1E	RK3399	2GB	16GB	1	-	1	2	2	1	-	0 ~ 60 °C
RSB-3710WO-XDA1E	RK3399K	2GB	16GB	1	-	1	2	2	1	-	-20 ~ 85 °C

## Packing List

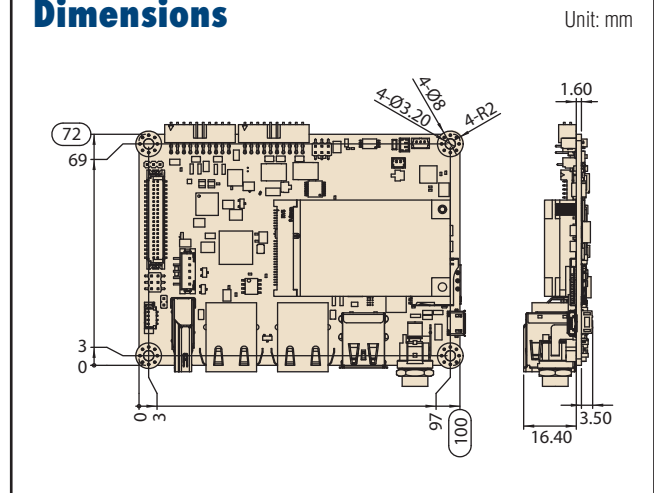
Part Number	Description
RSB-3710	RSB-3710 2.5" SBC with Hea. Sink

## Optional Accessories

Part Number	Description
96PSA-A36W12R1-3	ADP A/D 100-240V 36W 12V C6 DC PLUG 90° 62368
96PSA-A36W12W7-5	ADP A/D 100-240V 36W 12V C6 LOCK DC JACK 62368
1700030307-01	UIO40 extending cable of UIO SBC, 3COM&8GPIO
1700031429-01	Line out cable
1700026878-01	Mic. in cable
170203183C	Power cord 3P EU 183cm
1700008921	Power Cord 3P PSE 183cm
170203180A	Power cord 3P UK 183cm
1700001524	Power Cord UL 3P 10A 125V 183cm
1700019146	Power Cord CCC 3P 10A 250V 183cm
1700026611-01	Debug cable
1750007965-01	Antenna Cable R/P SMA (M) to MHF4, 300mm
1750008717-01	WiFi Dual band 2.4G and 5G Antenna
EWM-W159M201E	IEEE 802.11a/b/g/n/ac 2T2R and BT 5.0 Module (M.2 2230)
EXM-CMPF1-M2E01E	M.2(NGFF) to MiniPCIE KEY-E Adapter
968AD00479*	4G module LTE Cat 4 for China
1750006009	Antenna Cable SMA (F) to MHF 1.32 25cm
1750008303-01	Antenna AN0727-64SP6BSM
SQF-MSDM1-8G-21C	SQF MICRO SD C10 MLC 8G (-25 ~ 85 °C)
IDK-1107WR-40WVA1E	7" LED PANEL 400N with 4WR touch, 800x480(G)
1700031071-01	LVDS cable for IDK-1107WR

\* Please contact us to get suitable cellular module for your region.

## Dimensions



## Front I/O on RSB-3710

