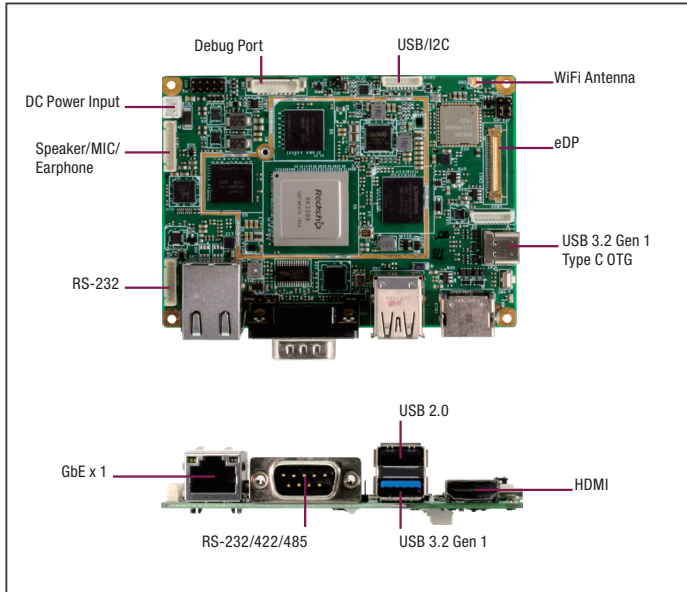


# RICO-3399

Pico-ITX Fanless Board with Rockchip ARM Cortex-A72 Dual-core and Cortex-A53 Quad-core Processor

RISC Boards



## Features

- Rockchip RK3399
- Onboard LPDDR3 2GB/4GB (Optional)
- Onboard eMMC 16GB and Micro-SD Card Slot
- HDMI (2.0), eDP
- WiFi 802.11 a/b/g/n/ac, BT V4.2, GPS (Optional), NFC (Optional)
- GbE: RJ45 x 1
- USB 3.2 Gen 1: OTG x 1, Type A x 1
- USB 2.0: Type A x 1, Pin Header x 1
- RS-232/422/485 x 1, RS-232 x 1
- 8-bit GPIO, I2C, mPCIe Slot x 1
- +12V DC Input
- OS Support: Android 8.1 / Debian
- Small Board Size: 100mm x 72mm (PICO-ITX)



## Specifications

System	
Form Factor	Pico-ITX
CPU	Rockchip RK3399 Cortex™-A72 Dual-core 1.8GHz and Cortex™-A53 Quad-core 1.4GHz
GPU	Mali-T864
Graphics	Video Decode: MPEG-1, MPEG-2, MPEG-4, H.263, H.264, H.265, VC-1, VP8, VP9, MVC Video Encode: H.264 UP to HP@level4.1, MVC and VP8
Memory Capacity	Onboard LPDDR3 2GB/4GB (Optional)
Storage/SSD	16GB eMMC and Micro-SD card
Operating System	Android 8.1 / Debian
Kernel	Kernel 4.4
Watchdog Timer	Integrated
Power Requirement	+12V DC input
Power Consumption (Typical)	0.6A@12V, full load, Hexa-core CPU
Dimension	3.94" x 2.84" (100 mm x 72 mm)
Gross Weight	0.44 lb (0.2 Kg)
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 176°F (-40°C ~ 80°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	80,000
Certification	CE/FCC
Display	
HDMI	HDMI (2.0) up to 4K x 2K @60Hz
eDP	Up to 4K x 2K @60Hz
LVDS	—
MIPI	—
RF Function	
WiFi	802.11 a/b/g/n/ac
BT	Bluetooth V4.2 + EDR

I/O	
Ethernet	GbE x 1
USB Port	USB 3.2 Gen 1 Type C OTG x 1 USB 3.2 Gen 1 (Bottom)/USB 2.0 (Top) dual port x 1 USB 2.0 Pin Header x 1 (Integrated)
Serial Port	RS-232/422/485 x 1 RS-232 Pin header x 1 Debug port pin header x 1
Audio	2.5W (by 4Ω) Speaker/ Microphone/ Earphone
GPIO	8-bit (4-in, 4-out)
Expansion Slot	Full-size mini-PCIe slot x 1 (For 3G/4G card)
SIM Slot	Nano-SIM
SD Socket	Support Micro-SD card
Camera	—

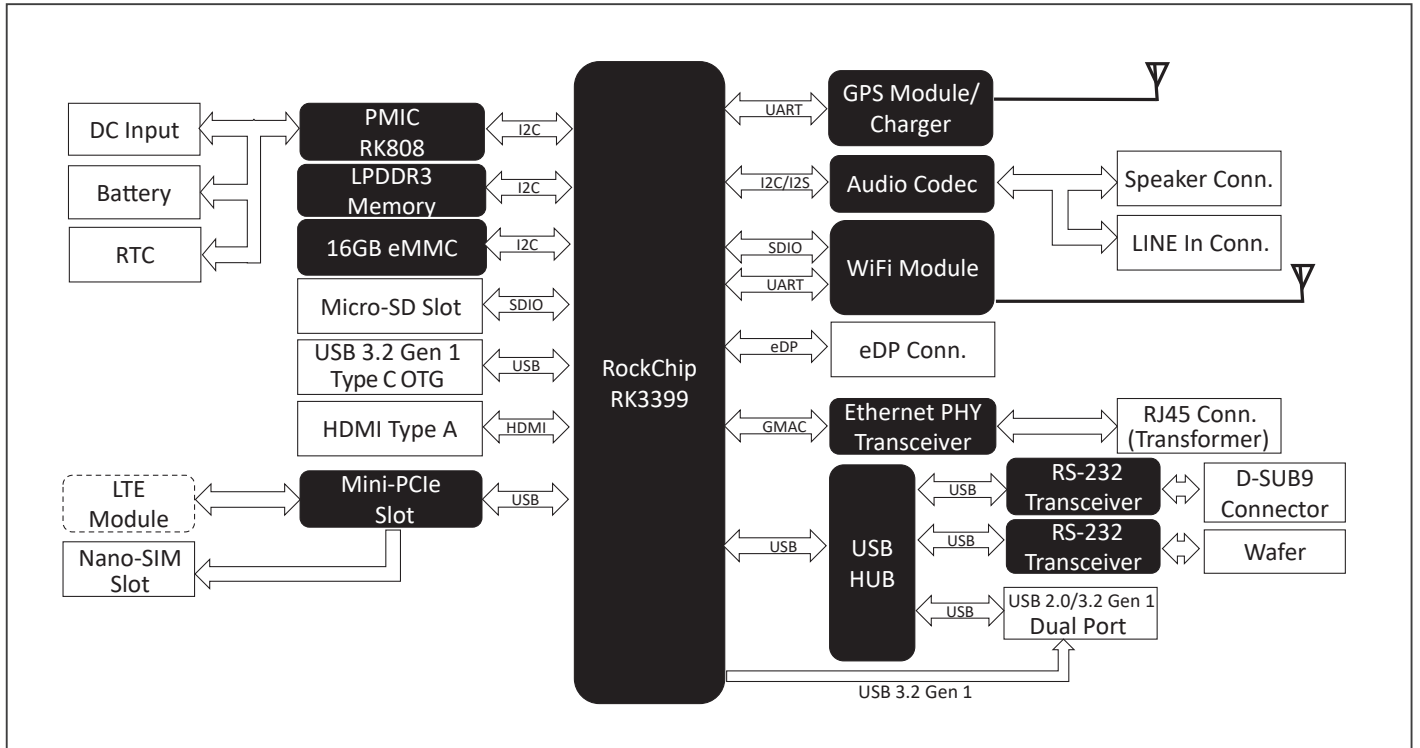
## Packing List

- MB Power Cable
- RTC Battery
- RICO-3399

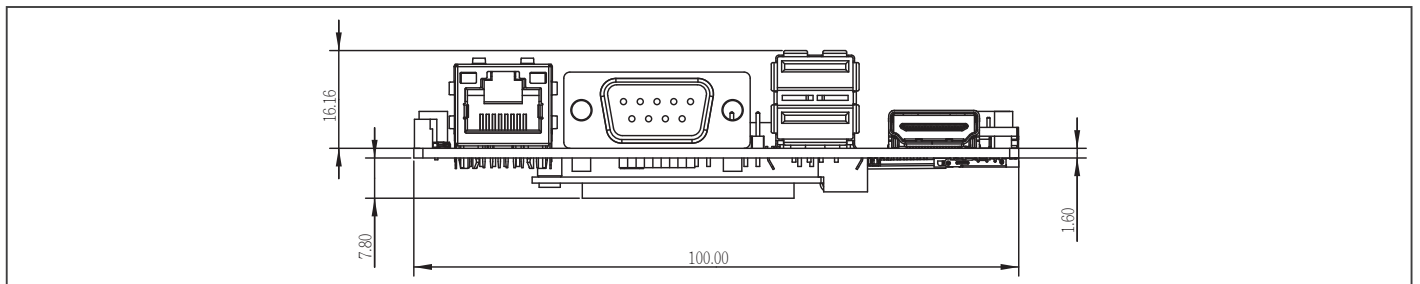
## Optional Accessories

Part Number	Description	Qty.
1701090150	COM Cable, Length 15cm	1
125530060Y	12V 60W Power Adapter	1
9697T41703-S	NFC Board	1
9697T47700-D	GPS & Battery Charger Board	1

### Block Diagram Unit: mm



### Dimension Unit: mm



### Ordering Information

Part Number	CPU	RAM	Storage	LAN	RS-232	USB	Display	WiFi & BT	3G/LTE Slot
RICO-3399-A10-0001	ARM Dual Cortex-A72 + Quad Cortex-A53	2GB LPDDR3	16GB eMMC	GbE x 1	1 (RS-232) 1 (RS-232/422/485)	4	1 (HDMI) 1 (eDP)	802.11 a/b/g/n/ac BT 4.2 + EDR	1 (mPCIe Slot)
RICO-3399-A10-0002	ARM Dual Cortex-A72 + Quad Cortex-A53	2GB LPDDR3	16GB eMMC	GbE x 1	1 (RS-232) 1 (RS-232/422/485)	4	1 (HDMI)	—	—
RICO-3399-A10-0003 (MOQ: 50)	ARM Dual Cortex-A72 + Quad Cortex-A53	4GB LPDDR3	16GB eMMC	GbE x 1	1 (RS-232) 1 (RS-232/422/485)	4	1 (HDMI) 1 (eDP)	802.11 a/b/g/n/ac BT 4.2 + EDR	1 (mPCIe Slot)