

3.5"-SBC-R390

HIGH-PERFORMANCE & BUDGET-FRIENDLY



3.5" SINGLE BOARD COMPUTER WITH ARM® CORTEX®-A72 + CORTEX®-A53 BASED PROCESSOR, ROCKCHIP RK3399

- ▶ 1x eDP, 1x LVDS, 1x DP, 1x HDMI 2.0 for dual display support
- ▶ 2x GbE LAN, Wi-Fi, Bluetooth for wired & wireless network connection
- ▶ 2x USB 3.0, 3x USB 2.0, 1x USB 2.0 OTG, 2x UART for peripheral connection
- ▶ 8-bit GPIO for device / signal control
- ▶ eMMC, 1x Micro SD Cage, 1x mPCIe, 1x M.2 Key B, 1x M.2 Key E for storage & expansion

3.5"-SBC-R390

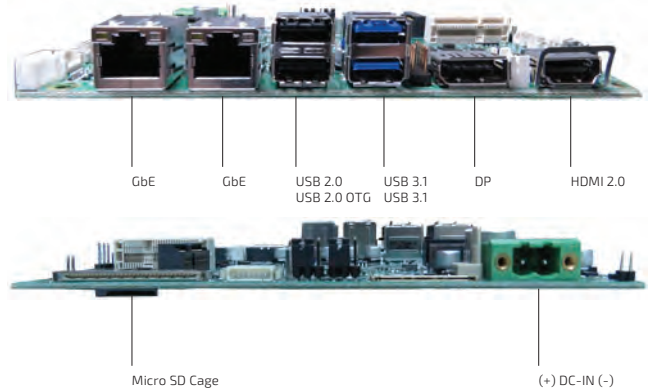
3.5" SINGLE BOARD COMPUTER WITH ARM® CORTEX®-A72 + CORTEX®-A53 BASED PROCESSOR, ROCKCHIP RK3399

3.5"-SBC-R390 is a 3.5" single board computer powered by Rockchip RK3399 processor based on ARM® big.LITTLE architecture with ARM® Cortex®-A72 (big) and Cortex®-A53 (LITTLE), which delivers optimized performance in 4K Ultra HD streaming at 60 fps with the lowest power. It is an ideal platform for integration into a

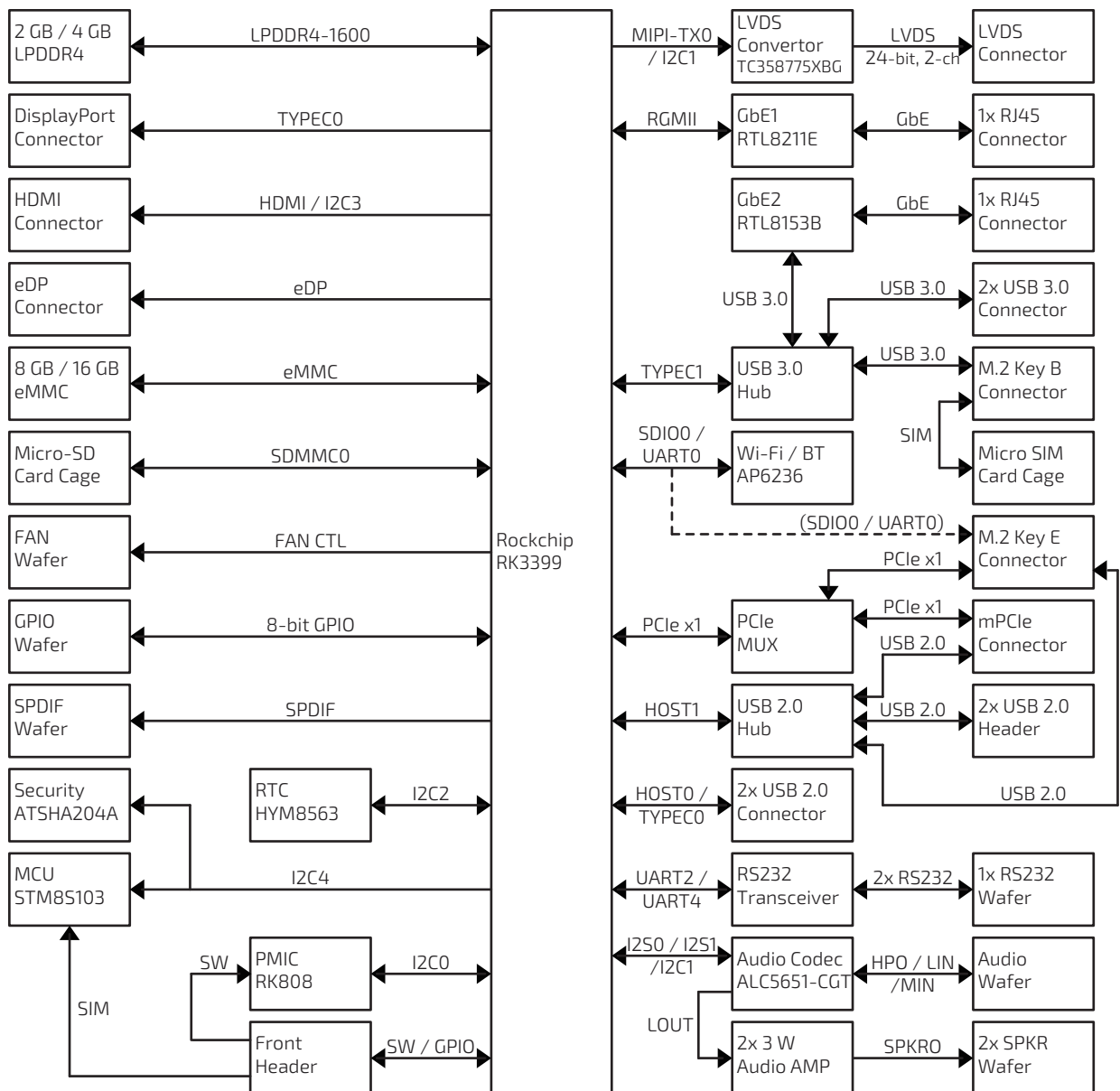
fanless system used in budget-conscious consumer, commercial or industrial applications, such as home entertainment, digital signage, kiosk, smart office, smart surveillance and industrial control.

▶ PRODUCT HIGHLIGHTS

- ▶ ARM® Cortex®-A72 + Cortex®-A53 based CPU, Rockchip RK3399
- ▶ 2 GByte / 4 GByte DDR3 memory down
- ▶ 1x eDP, 1x LVDS, 1x DP, 1x HDMI 2.0 for dual display support
- ▶ 2x GbE LAN, Wi-Fi, Bluetooth for network connection
- ▶ 2x USB 3.0, 3x USB 2.0, 3x USB 2.0 OTG for USB device connection
- ▶ 2x UART for serial device connection
- ▶ 8-bit GPIO for device / signal control
- ▶ 16 GByte / 32 GByte eMMC, 1x Micro SD Cage for storage
- ▶ 1x mPCIe, 1x M.2 Key B, 1x M.2 Key E for expansion



▶ BLOCK DIAGRAM



► TECHNICAL INFORMATION

SYSTEM	PROCESSOR	Rockchip RK3399 (64-bit Dual Core ARM® Cortex®-A72 + Quad Core Cortex®-A53 up to 1.8 GHz)
	MEMORY	Rockchip RK3399K (64-bit Dual Core ARM® Cortex®-A72 + Quad Core Cortex®-A53 up to 2.0 GHz) 2 GByte / 4 GByte DDR3 memory down
VIDEO	GRAPHICS DISPLAY INTERFACE	Mali-T864 1x eDP (4096 x 2160 @ 60 Hz) 1x LVDS (24-bit, 2-ch, 1920 x 1200 @ 60 Hz) 1x DP (4096 x 2160 @ 60 Hz, on rear) 1x HDMI 2.0 (4096 x 2160 @ 60 Hz, on rear)
	MULTIPLE DISPLAY	Dual Display
AUDIO	AUDIO CODEC AUDIO INTERFACE	Realtek ALC5651 2x Speaker-out (3 W, by header) 1x Line-out (by header) 1x Line-in (by header) 1x Mic-in (by header)
NETWORK CONNECTION	ETHERNET WIRELESS	2x GbE LAN (RJ45 on rear, 1x Realtek RTL8211E, 1x Realtek RTL8153B) Wi-Fi + Bluetooth (AMPAK AP6236)
PERIPHERAL CONNECTION	USB	2x USB 3.0 (Type A on rear) 3x USB 2.0 (1x Type A on rear, 2x by header)
	SERIAL PORT OTHER I/Os	1x USB 2.0 OTG (Type A on rear) 2x UART (by header) 1x 8-bit GPIO (by header)
STORAGE & EXPANSION	eMMC MICRO SD CAGE mPCIe M.2	16 GByte / 32 GByte eMMC (onboard) 1x Micro SD Cage (onboard) 1x mPCIe (Full size, mixed w/ PCIe x1 / USB 2.0) 1x M.2 Key B (Type 3042, mixed w/ USB 3.0) 1x M.2 Key E (Type 2230, mixed w/ PCIe x1 / USB 2.0)
	SIM CARD HOLDER	1x SIM Card Cage (Micro type, connected to M.2 Key B)
POWER	INPUT VOLTAGE CONNECTOR	DC 24 V 2-pin Phoenix Connector (on rear)
FIRMWARE	WATCHDOG REAL TIME CLOCK SECURITY	Power on / off management & Watchdog Timer support (ST STM8S103 MCU) I2C RTC Chip onboard (HAOYU HYM8563) Microchip ATSHA204A CryptoAuthentication
SYSTEM CTRL & MONITORING	FP HEADER	1x Header for Power Switch, User-defined Switch & 2x User-defined LED
COOLING	FAN	1x Wafer for Smart Fan
SOFTWARE	OS SUPPORT	Android 7.1
MECHANICAL	DIMENSION (L x W)	ECX (146 mm x 105 mm / 5.75" x 4.13")
ENVIRONMENTAL	OPERATING TEMPERATURE STORAGE TEMPERATURE HUMIDITY	0 °C ~ 60 °C / 32 °F ~ 140 °F -20 °C ~ 65 °C / -4 °F ~ 149 °F 0 % ~ 95 %
CERTIFICATION	EMC & SAFETY	CE Class B, FCC Class B