

# EmQ-RK390



## Rockchip® RK3399 Processor Qseven® R2.1 CPU Module



### Features

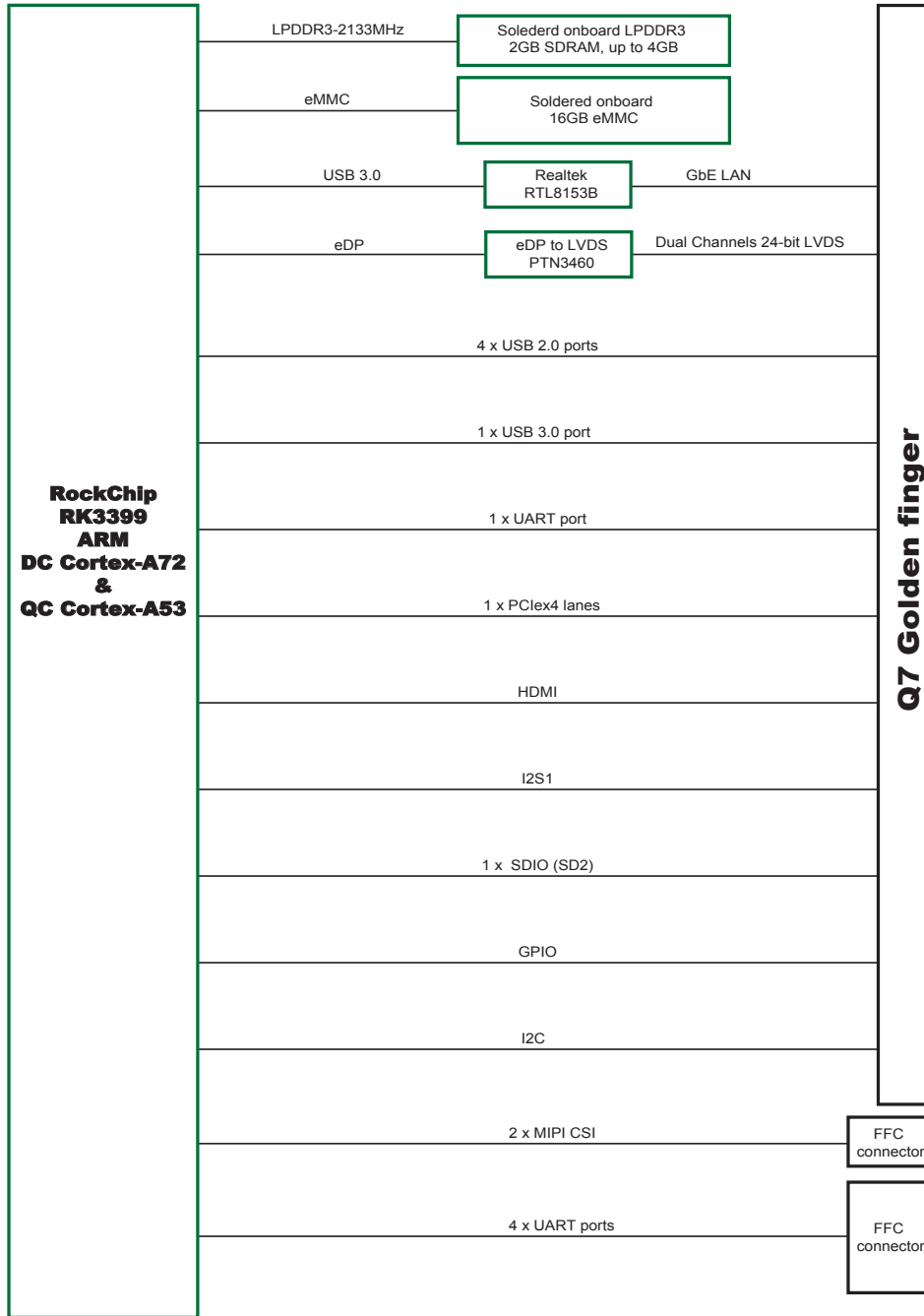
- **Fanless Design**
- Soldered onboard Rockchip® RK3399 processor
- Integrated Gigabit Ethernet
- One dual channels 24-bit LVDS and one HDMI port
- **Extended operating temp.: -20 ~ 70°C**

System	
Processor	Soldered onboard Rockchip RK3399 Dual-core Cortex-A72 + Quad-core Cortex-A53 processor
Memory	Soldered onboard 2GB LPDDR3 SDRAM, optional 4GB
I/O	
Serial Port	5 x UART ports, one port to GF, four ports to FFC connector on CPU module
USB 2.0	4 x USB 2.0 ports 1 x SuperSpeed ports
Serial ATA	N/A
Expansion	1 x PCIe x4 lanes can be configured as either of x1 (default), x2 or x4, SDIO, I2C
Storage	Soldered onboard 16GB eMMC
Ethernet Chipset	1 x Realtek RTL8153B USB 3.0 GbE controller
GPIO	8-bit GPIO supported
Audio	I2S Link
Camara	2 x MIPI CSI support (4 x lanes + 2 x lanes)
Display	
Graphics Chipset	Integrated GPU
Graphics Interface	LCD: Dual Channel 24-bit LVDS 1 x HDMI port
OS Support	
Linux: Ubuntu, Buildroot	
Android 8.1	

Mechanical & Environmental	
Power Requirement	DC 5V
Power Consumption	TBD
Operating Temp.	-20 ~ 70°C (-4 ~ 158°F)
Operating Humidity	10 ~ 95% @ 70°C (non-condensing)
Dimension (L x W)	70 x 70 mm (2.76" x 2.76")



## Block Diagram



### Ordering Information

EmQ-RK390D16-2G	Qseven R2.1 RockChip RK3399 CPU Module w/ 2GB LPDDR3 memory down & 16GB eMMC
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### Optional Accessories

HS-0390-F1	Heat spreader
HS-0000-W3	Universal evaluation Heatsink for Qseven CPU module
PBQ-9020	Qseven R2.1 w/ EPIC form factor Carrier Board for EmQ-RK390
CBK-02-9020-00	Cable kit 2 x COM cables