

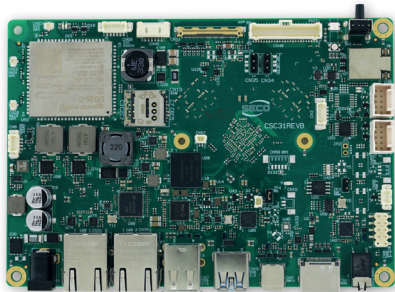
Single Board Computer



SBC-C31

3.5" SBC with Rockchip RK3399 SoC

The Right Balance of Graphic/Computing Performance and Cost



HIGHLIGHTS

CPU
Rockchip RK3399 Processor

CONNECTIVITY
up to 2x GbE; opt WiFi; up to 2x RS-232 or RS-485 or CAN; opt Modem with SIM slot or eSIM

GRAPHICS
4-Core Mali-T860MP4 GPU

MEMORY
Soldered-down LPDDR4 memory, up to 4GB total

Available in Extended Temperature Range



MAIN FIELDS OF APPLICATION



FEATURES

Processor	Rockchip RK3399 processor, 2x Cortex®-A72 MP cores + 4x Cortex®-A53 MPCores, up to 1.8GHz, 64-bit architecture	Audio	Optional I2S Audio Codec w/ TRSS Jack (MicIn / Lineout)
Max Cores	2+4	Serial Ports	1x Debug UARTs Up to 2x RS-232 (factory options) Up to 2x RS-485 (factory options) Up to 2x CAN ports (factory options).
Memory	Soldered-down LPDDR4 memory, up to 4GB total, 64-bit interface	Other Interfaces	Optional 2x MIPI-CSI Camera connectors, 4-lanes CSI input each one miniSIM slot or eSIM for on-board optional modem I/O Connector #1 with I2C interface + 1x Open-Drain + (RS-232 or RS-485 - factory alternatives) I/O Connector #2 with 3xGPIOs + 1x PWM + (RS-232 or RS-485 or TTL UART - factory alternatives) Dedicated connector for I2C Touch Screen Controller Support Optional Ultra-low Power RTC (Alternative to CAN Controller #2) Optional SPI external interface (alternative to CAN Controller #1) Optional LED Driver Optional Trust Secure Element on-board
Graphics	4-Core Mali-T860MP4 GPU OpenGL ES 1.1/2.0/3.0/3.1, OpenVG 1.1, OpenCL, DX11 support Embedded VPU, able to offer: <ul style="list-style-type: none"> H.265 10-bit, H.264 10-bit, VP9 8-bit 4Kx2K@60fps HW Decoding MPEG-4/MPEG-2/VP8 1080p@60fps HW Decoding H.264, VP8 1080p@30fps HW encoding Supports 2 independent video outputs	Power Supply	+12V _{DC} ÷ +24 V _{DC} RTC battery
Video Interfaces	LVDS Single / Dual Channel interface eDP 1.3 interface HDMI 4K interface DP 1.2 interface on USB Type-C connector (alternate mode)	Operating System	Linux Yocto Android (under development)
Video Resolution	HDMI, DP: Up to 4K x 2K @60Hz eDP: Up to 4096 x 2160 (4K) LVDS: Up to 1920 x 1080 @60Hz	Operating Temperature*	0°C ÷ +60°C (Commercial Temperature range) -20°C ÷ +85°C (Extended Temperature range)
Mass Storage	SPI Flash (alternative to CAN Controller #1) eMMC 5.1 Drive soldered on-board microSD slot	Dimensions	146 x 102 mm (3.5" form factor)
Networking	Up to 2 x Gigabit Ethernet ports Optional soldered on-board M.2 1216 WLAN 802.11 a/b/g/n/ac + BT 5.0 module Optional on-board LTE Modem	*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.	
USB	1 x USB 3.0 Type-C port (Alternate mode with DP) 1x USB 3.0 Host port on Type-A socket 2 x USB 2.0 Host ports on Dual Type-A socket Up to 2 x USB 2.0 Host ports on internal pin header		

Information subject to change. Please visit www.seco.com to find the latest version of this datasheet.

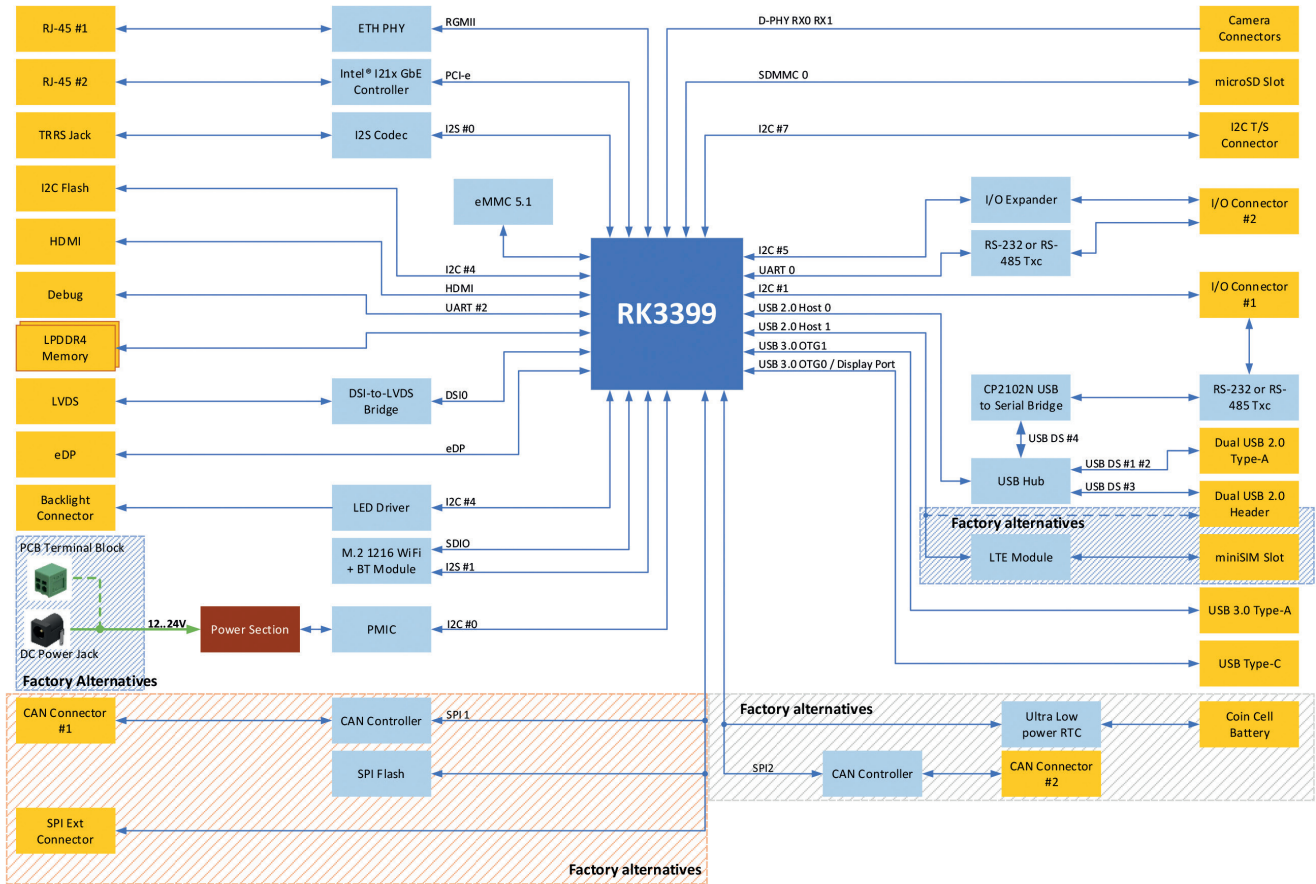


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BLOCK DIAGRAM



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