



KSTR-SAMA5D27 Single Board Computer



KSTR-SAMA5D27

- Arm® Cortex®-A5 500 MHz Processor
- 10/100 Mbit/s Ethernet, 96 Mbit/s Wi-Fi b/g/n, Bluetooth 4.1 LE
- Arm® TrustZone® Security, Stackable GPIO Headers, Secure Boot
- USB-C/Li-lon battery powered with battery charging features
- Compact Form Factor: 50×70 mm



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KSTR-SAMA5D27 Specifications	
SoC	Microchip SAMA5D27, 1 core Arm® Cortex®-A5 500 MHz 32-Bit CPU
SoC Features	Arm® TrustZone®, Secure Boot, Hardware encryption engine, Memory Integrity Monitor, Real-time clock on-die, Less than 200 μA low power state with fast wake up, 5 μA backup mode
Memory	256 MB LPDDR2
Ethernet	10/100 Mbit/s Ethernet (RJ-45)
Wireless connectivity	2.4 GHz WLAN IEEE 802.11 b/g/n Bluetooth 4.1
Mass storage	SD card slot 4 KB EEPROM
USB	1x USB 2.0 OTG (USB Type-C connector) 1x USB 2.0 Host (on expansion header)
Debug	Console debug UART on the expansion header Conclusive Developer Cable connector providing access to: - System UART - JTAG port - System I2C bus (EEPROM programing)
Software support	Linux 6.5 & 6.1, U-Boot, Yocto, Buildroot, Ubuntu, FreeBSD (on request)
Additional features	3 status LEDs - Power Indicator, System Heartbeat, user programmable RTC Battery backup (CR1220) for RTC and static RAM VDDIO voltage switch pins (3.3 V or 1.8 V selection) Reset switch
	34 and 30 pin connectors with the following interfaces: - 3.3 V, 2.5 V, 1.8 V, 5.0 V and VBAT power supply pins - 2x Flexcom (configurable: I2C, SPI, UART) - I2C - 6 channel ADC with Vref - 10-bits ISC (Image Sensor Controller), 10-bit and 12-bit sensors support - 4-channel PWM - Timer I/O - CAN - USB - PDMIC audio input - Console UART - QWIIC connector
Power supply	USB Type-C connector External Li-lon battery with charging, charge level and temperature monitoring support. 3 pin connector and solder pads.
Dimensions	50 x 70 mm

About Conclusive Engineering

We provide reliable development and consulting services for various embedded platforms, assisting enterprises and manufacturing companies in optimizing their processes through tailored embedded system services, products, and hardware solutions.

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