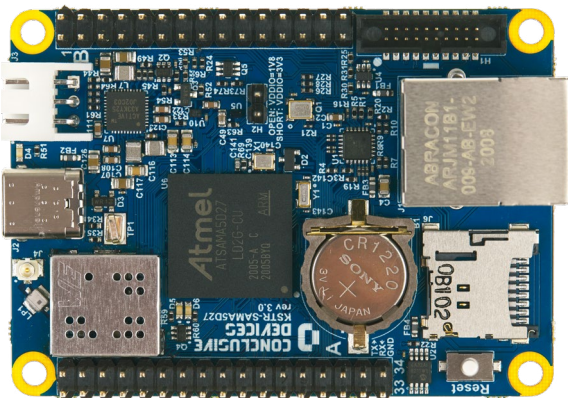


# KSTR-SAMA5D27 SBC

Extremely small form factor Single Board Computer

Based on Microchip ATSAMA5D27 SoC

Featuring Arm® Cortex®-A5 500 MHz



## Product Highlights

<p>500 MHz single core Arm® MPU</p>	<p>256 MB RAM</p>	<p>Extremely small form factor</p>	<p>Built-in battery management</p>
<p>Long off-grid operation</p>	<p>Arm® TrustZone®</p>	<p>Stackable GPIO headers</p>	<p>Ethernet Wi-Fi Bluetooth USB-C</p>

## KSTR-SAMA5D27 - Extremely small form factor Single Board Computer

- All in one SBC, smaller than a credit card
- Ideal for secure node computing and IoT solutions
- Advanced security with hardware cryptographic acceleration
- Easy to expand thanks to PCIe M.2 connectors
- Operates directly from a Li-Ion or Li-Poly battery

## 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.

For more information contact:  
[sales@conclusive.pl](mailto:sales@conclusive.pl)

## KSTR-SAMA5D27 Specifications

<b>SoC</b>	Microchip SAMA5D27, 1 core Arm® Cortex®-A5 500 MHz 32-Bit CPU
<b>SoC Features</b>	<ul style="list-style-type: none"> <li>Arm® TrustZone®</li> <li>Secure Boot</li> <li>Hardware encryption engine</li> <li>Memory Integrity Monitor</li> <li>Real-time clock on-die</li> <li>Less than 200 µA low power state with fast wake up</li> <li>5 µA backup mode</li> </ul>
<b>Memory</b>	256 MB LPDDR2
<b>Ethernet</b>	10/100 Mbps Ethernet (RJ45)
<b>Wireless connectivity</b>	2.4 GHz WLAN IEEE 802.11 b/g/n (CYW4343W) Bluetooth 4.1
<b>Mass storage</b>	SD card slot 4KB EEPROM
<b>USB</b>	1x USB 2.0 OTG (USB Type-C connector) 1x USB 2.0 Host (on expansion header)
<b>Debug</b>	<ul style="list-style-type: none"> <li>Console debug UART on the expansion header- Conclusive Developer Cable connector providing access to: <ul style="list-style-type: none"> <li>- System UART</li> <li>- JTAG port</li> <li>- System I2C bus (EEPROM programming)</li> </ul> </li> </ul>
<b>Software support</b>	<ul style="list-style-type: none"> <li>Ubuntu 20.04 LTS</li> <li>U-Boot</li> <li>Linux 4.14-5.6 (Buildroot and Yocto)</li> <li>FreeBSD 13 (on request)</li> </ul>
<b>Additional features</b>	<ul style="list-style-type: none"> <li>3 status LEDs - Power Indicator, System Heartbeat, user programmable</li> <li>RTC clock with CR1220 battery upkeep</li> <li>VDDIO voltage switch pins (3.3 V or 1.8 V selection)</li> <li>Reset switch</li> <li>34 and 30 pin connectors with the following interfaces: <ul style="list-style-type: none"> <li>- 3.3 V, 2.5 V, 1.8 V, 5.0 V and VBAT power supply pins</li> <li>- 2x Flexcom (configurable: I2C, SPI, UART)</li> <li>- I2C</li> <li>- 6 channel ADC with Vref</li> <li>- 10-bits ISC (Image Sensor Controller), 10-Bit and 12-Bit sensors support</li> <li>- 4-channel PWM</li> <li>- Timer I/O</li> <li>- CAN</li> <li>- USB</li> <li>- PDMIC audio input</li> <li>- Console UART</li> </ul> </li> </ul>
<b>Dimensions</b>	130 x 130 mm