60 Series SOM

2x2 MIMO 802.11ac and Bluetooth 5.1 System-on-Module

OUR MOST SECURE WIRELESS SUBSYSTEM EVER

New: The 60 Series SOM is now certified for FIPS 140-3! Ezurio is the first vendor to provide a validated FIPS 140-3 Level 1 module that includes Wi-Fi data-in-transit which is pre-engineered to integrate into highly sensitive device designs. Our 60 Series SOM is that offering, validated by NIST's Cryptographic Module Validation Program for the most stringent software requirements in today's data-sensitive applications.

Ezurio's 60 Series SOM brings all of our industry competence and capabilities into one solution. The SOM provides superior enterprise-class Wi-Fi connectivity with full support for 2x2 MIMO 802.11ac WLAN, plus Bluetooth 5.1 dual-mode. This solution is equipped with a Cortex A5 applications processor, wireless and wired connectivity, enterprise-grade security, LCD support, and comprehensive Linux board support package (BSP).

The 60 SOM is the ideal system on module for devices that require superior connectivity. Complete with the Sterling 60 series module and Summit Software Stack, the SOM provides superior wireless connectivity in harsh RF environments. It also supports dual-Ethernet and CAN bus for wired connectivity. The 30 mm x 30 mm form factor and variety of interfaces allow the 60 Series SOM to be used as a wireless bridge, main processing unit, or IoT gateway.

- **Improved Wi-Fi Performance** – 2x2 MIMO 802.11ac Wi-Fi supports greater throughput via support for additional spatial streams
- **Onboard cryptographic engine** which supports FIPS 140-2, meeting FIPS requirements with minimal performance impacts
- **Chain of Trust Architecture** – Ezurio's Chain of Trust Architecture provides layers of security to mitigate attacks
- **CVE Checking and Penetration Testing** – Ezurio monitors and patches for worldwide vulnerabilities and looks for new vulnerabilities and passes improvements via software releases
- **Reduced Time-to-Market** – Use the 60 Series SOM as the main processing unit for a fully-featured finished product
- **Fully Featured Development Kit** – Prototype and design with the full suite of 60 Series SOM features before integrating with your device

Key Features

Connectivity at the Core

The 60 Series SOM is designed with connectivity at the core; including Wi-Fi, Bluetooth, Dual-Ethernet, CAN bus, USB, UART, SPI, SD, I^2C, and GPIOs.

Signed and Secured at Every Layer

Laird Connectivity's Chain of Trust Architecture creates secure modules, running approved software, with secured file systems.

The Full Power of the Summit Stack

The stack provides superior performance in harsh environments, with faster channel scanning, 15x faster roaming, and 50% more consistent roaming when compared to other radios.

SOM as a Platform for Faster Time to Market

The 60 Series SOM can serve as the main platform for your product, providing a feature rich base and speeding your design to market.

Global Certifications

Regulatory compliance for FCC, EU, and ISED Canada, as well as Wi-Fi Alliance certification and Bluetooth SIG Qualification.

Industry-Leading Support

Ezurio's Tier 2 and FAE support bring expert assistance to your integration, working with you and Ezurio engineering to reduce your time to market.

Application Areas

Healthcare and medical devices

IoT Bridging/Gateways

Industrial environments

https://www.ezurio.com/

Interested in our 60 Series SOM?
Visit www.ezurio.com/60-series-som

Specifications

Category	Feature	Specification
Chipset	**Wireless Interface**	NXP 88W8997/88PG823
Interfaces	**Peripheral Interfaces**	TFT LCD Display 1x MMC/SD/SDIO Card Port 2x SPI Master 2x I^2C ADC & GPIOs 2x USB Host Ports 1x CAN 2.0 bus
	Bridging Interfaces	1x 10/100 Ethernet (RMII) 1x 10/100/1000 Ethernet (RGMII) 3x UART Lines 1x USB Device Port
	Antenna	2x U.FL Connector
Networking	**Wi-Fi**	802.11ac, 2x2 MIMO w/Laird Connectivity's Summit Software Stack Adaptive Worldwide Mode
	Bluetooth	Bluetooth 2.1 EDR + 5.1 Bluetooth LE (Bluetooth 5 Ready)
	Ethernet	1x 10/100/100 w/ IEEE 1588 1x 10/100
Security	**FIPS-140-2**	Hardware accelerated via on-board hardware cryptographic engine
	Standards	WEP, WPA, WPA2-Personal, WPA2-Enterprise, WPA3-Personal, WPA3-Enterprise, and WPA3-Enterprise SuiteB 192-bit
	Encryption	WEP (RC4), TKIP (RC4), AES (Rijndael), Encryption Key Provisioning, Static, PSK
	Dynamic	802.1X Extensible Authentication Protocol Types (EAP-FAST, EAP-TLS, EAP-TTLS, PEAP-GTC, PEAP-MSCHAPv2, PEAP-TLS, LEAP)
Software	**Development Tools**	Precompiled SDK, toolchain, and development images Support to build your own image or SDK Host Communications API Eclipse Plugin
	Radio Management	Laird Connectivity Connection Manager, Web API, and touchscreen configuration via attached peripheral
Physical	**Dimensions**	30 mm x 30 mm x 2.8 mm (1.18 in. x 1.18 in. x 0.11 in.)
	Weight	5 g (.0011 lbs.)
Environmental	**Operating Temperature**	-30° to +85°C (-22° to +185°F)
Regulatory	**Approvals**	FCC/ISED/EU/MIC/KCC
Certifications	**FIPS**	FIPS 140-3 Approval Cert 5090 Cert 5054

Ordering Information

Part	Description
453-00137	60 Series SOM using 1 Gb LPDDR2 RAM and 2 Gb NAND flash
453-00138	60 Series SOM using 2 Gb LPDDR2 RAM and 4 Gb NAND flash
453-00003	60 Series SOM using 1 Gb LPDDR1 RAM and 2 Gb NAND flash
453-00004	60 Series SOM using 2 Gb LPDDR1 RAM and 4 Gb NAND flash
453-00137-K1	Development Board for the 60 Series SOM using 1 Gb LPDDR2 RAM and 2 Gb NAND flash
453-00138-K1	Development Board for the 60 Series SOM using 2 Gb LPDDR2 RAM and 4 Gb NAND flash
455-00003	Development Board for the 60 Series SOM using 1 Gb LPDDR1 RAM and 2 Gb NAND flash
455-00039	Development Board for the 60 Series SOM using 2 Gb LPDDR1 RAM and 4 Gb NAND flash
455-00004	LCD touchscreen for the 60 Series SOM development board (add-on)

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