

OUR MOST SECURE WIRELESS SUBSYSTEM EVER.



Laird's 60 Series SOM, based on the Microchip SAMA5D36 processor, brings all of Laird's industry competence and capabilities into one solution. The SOM provides superior enterprise-class Wi-Fi connectivity with full support for 2x2 MU-MIMO 802.11ac WLAN, plus Bluetooth 4.2 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 30mm x 30mm 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** – Laird's Chain of Trust Architecture provides layers of security to mitigate attacks.
- **CVE Checking and Penetration Testing** – Laird 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.

FEATURES AT A GLANCE



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, I²C, and GPIOs.



SIGNED AND SECURED AT EVERY LAYER

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



THE FULL POWER OF THE SUMMIT SOFTWARE 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, ETSI, and IC, as well as Wi-Fi Alliance certification and Bluetooth SIG Qualification.



INDUSTRY-LEADING SUPPORT

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

APPLICATION AREAS



Healthcare and Medical Devices



IoT Bridging / Gateways



Industrial Environments

Shared Specifications

Category	Feature	Specification	
Chipset	Microprocessor	Atmel/Microchip SAMA5D36 Cortex A5, 536 MHz	
	Wireless Interface	Marvell 88W8997/88PG823	
Interfaces	Peripheral Interfaces	TFT LCD Display	
		1x MMC/SD/SDIO Card Port	
		2x SPI Master	
	Bridging Interfaces	2x I ² C	
ADC & GPIOs			
Networking	Antenna	2x USB Host Ports	
		1x CAN 2.0 bus	
	Wi-Fi	1x 10/100 Ethernet (RMII)	
		1x 10/100/1000 Ethernet (RGMII)	
Security	Bluetooth	3x UART Lines	
	Ethernet	1x USB Device Port	
	FIPS-140-2	2x U.FL Connector	
Software	Development Tools	802.11ac Wave 2, 2x2 MU-MIMO w/Laird's Summit Software Stack Adaptive Worldwide Mode	
		Bluetooth 2.1 EDR + 4.2 BLE (Bluetooth 5 Ready)	
	Radio Management	Ethernet	1x 10/100/100 w/ IEEE 1588
		Standards	1x 10/100
Physical	Dimensions	Hardware accelerated via on-board hardware cryptographic engine	
		Weight	WEP, WPA, WPA2
Environmental	Operating Temperature	WEP (RC4), TKIP (RC4), AES (Rijndael), Encryption Key Provisioning, Static, PSK	
		Regulatory	802.1X Extensible Authentication Protocol Types (EAP-FAST, EAP-TLS, EAP-TTLS, PEAP-GTC, PEAP-MSCHAPv2, PEAP-TLS, LEAP)
Regulatory	Approvals	Precompiled SDK, toolchain, and development images	
		Support to build your own image or SDK	
Regulatory	Approvals	Host Communications API	
		Eclipse Plugin	
Regulatory	Approvals	Laird Connection Manager, Web API, and touchscreen configuration via attached peripheral	
		Approvals	30 mm x 30 mm x 2.8 mm (1.18 in x 1.18 in x .11 in)
Regulatory	Approvals	5 g (.0011 lbs)	
		Approvals	-30° to +85°C (-22° to +185°F)
Regulatory	Approvals	FCC / IC / CE / Giteki / KCC	
		Approvals	

For full specifications on the 60 Series SOM, please see the 60 SOM datasheet.

ORDERING INFORMATION

Part	Description
453-00003	60 Series SOM
455-00003	Development board for the 60 Series SOM
455-00004	LCD touchscreen for the 60 Series SOM development board (add-on)