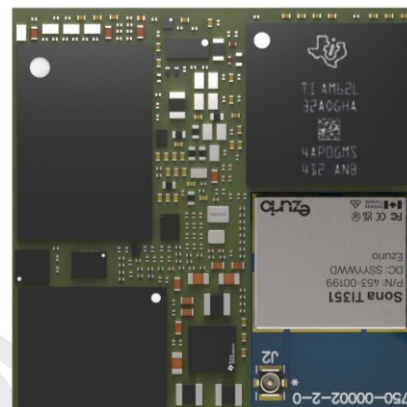


A secure and small TI AM62L based OSM-SF SOM: Display, Industrial Peripherals, and optional Wi-Fi 6 and Bluetooth LE 5.4

(Offered with TI CC3351 Wi-Fi 6 and Bluetooth LE 5.4 – or choose from our broad wireless options!)

Our new Carbon AM62L OSM-SF family is powered by Texas Instrument's AM62L processor family, TI's TPS65214 PMIC, our Sona TI351 (TI CC3351) Wi-Fi 6 and BLE 5.4 wireless module, LPDDR4 RAM, and flash storage. The Carbon AM62L is designed to meet the processing and connectivity needs of commercial, industrial, and medical products. Our flexible production options allow you to choose the RAM, flash storage, and Sona Wi-Fi and Bluetooth connectivity that is most optimized for your product. All Carbon AM62L modules come with our industry leading software and integration support.

- **Powerful Multiprocessing:** Dual-core 1.25 GHz Cortex-A53 microprocessor subsystem
- **Display:** Support a MIPI-DSI interface with resolutions up to 1920 x 1080 @ 60 fps
- **Offered with Sona TI351 Wi-Fi 6 and Bluetooth Low Energy 5.4:** Optional wireless based on TI CC3351. Additionally, choose from our Sona IF513 and Sona NX611 radios.
- **High Speed Interfaces:** USB 2.0 (480 Mbps) and dual Gigabit Ethernet (1 Gbps)
- **Industrial Interfaces:** UART, SPI, I2C, I2S, CAN-FD, GPIO, and more
- **Software and Board Support Options:** Yocto Linux/Builroot Linux/Debian for Cortex-A53s
- **Secure and Encrypted Boot, Secure Enclave, and Secure File Storage:** Robust, secure, and encrypted boot mechanisms to ensure only trusted software boots on your device. Store and use secure keys, certificates, and credentials in run-time isolated trusted environment.
- **OSM-SF v1.2 Standard Form Factor:** 30mm x 30mm OSM-SF solder down form factor ensures one carrier design can support multiple processor, memory, and wireless configurations.
- **Hardware Upgrade Roadmap:** Build a product design that can easily be upgraded to the latest processors and wireless options as future Ezurio SOMs based on the OSM standard are released.
- **Advanced Common Carrier/Development Board:** Display, audio, Ethernet, USB, CAN, I2C, SPI, UART, power measurement, and more. Use in development and as reference designs for your carrier board design.



Choose the Options That Fit Your Project Needs

Temperature Range: Choose our industrial temperature models for harsh environments or our commercial temperature models for cost optimization

Memory: Choose the LPDDR4 DRAM and onboard flash storage sizes that best fits your design's cost and performance. Boot from offboard eMMC is desired.

Wi-Fi and Bluetooth: Select from our line of Sona wireless modules featuring dual band Wi-Fi 6, tri-band Wi-Fi 6E, up to Bluetooth 6.0, and multiple antenna configurations.

Carrier Board Customization: Use our reference carrier board to accelerate your design or we can create a fully custom board solution for your project

Long Term Software Support: Choose from Yocto Linux, Builroot Linux, Debian for the Cortex-A53s. Optional **Summit Suite Vulnerability Monitoring and Remediation** ensures your Yocto and Builroot SBOMs stay up to date with the latest security fixes.

Device Security: Our optional **Summit Suite Chain of Trust** service includes secure and encrypted boot architecture, secure programming of the hardware root of trust and device image, secure generation and provisioning of customers specific keys and certificates, and a secure signing service for generating new firmware and certificates.

Specifications

Category	Feature	Specification
Processors	Applications Processor	2x Cortex-A53 cores @ up to 1.25 GHz
Memory	RAM	512MB, 1GB, and 2GB LPDDR4
	Storage	Up to 1GB flash onboard (1GB flash default), Up to 128GB eMMC offboard
Graphics and Video	Display Interfaces	1x MIPI DSI, up to 1920 x 1080 @ 60 fps
Audio	Audio Interfaces	1x I2S
Peripherals Interfaces		2x USB 2.0 (480 Mbps)
		2x Gigabit Ethernet with IEEE® 1588 and TSN
		2x CAN-FD
		3x 4-wire UART**
		2x 2-wire UART
		3x I2C
		2x SPI
		1x 8-bit eMMC 5.1 up to HS200 speed
		1x 4-bit SDIO 3.0/eMMC 5.1 up to UHS-1
		1x PWM
Wireless	Sona Wi-Fi and Bluetooth Modules	24x GPIO
		2x ADC
		Sona TI351
		Sona IF513
Power	Supply Voltage	Sona NX611
		5V
Physical	Dimensions	OSM-SF v1.2 Standard – 30mm x 30mm
Environmental	Temperature Range	0°C to +70°C (Commercial) and -40° to +85 °C (Industrial)
	Lead Free	Lead-free and RoHS-compliant

*Not to OSM-SF v1.2 spec, but pin-compatible with other Ezurio OSM-SF modules

**The additional Interfaces beyond OSM-SF v1.2 spec are available on OSM's GPIO pins

Ordering Information

Part	Description
EZOMC-62L-0100-00000-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 1GB / No Flash / Without Wireless / 0 to +70°C / Tape and Reel
EZOMI-62L-0100-00000-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 1GB / No Flash / Without Wireless / -40 to +85°C / Tape and Reel
EZOMC-62L-0101-00000-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 1GB / 1GB Flash / Without Wireless / 0 to +70°C / Tape and Reel
EZOMI-62L-0101-00000-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 1GB / 1GB Flash / Without Wireless / -40 to +85°C / Tape and Reel
EZOMC-62L-0200-00000-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 2GB / No Flash / Without Wireless / 0 to +70°C / Tape and Reel
EZOMI-62L-0200-00000-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 2GB / No Flash / Without Wireless / -40 to +85°C / Tape and Reel
EZOMC-62L-0201-00000-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 2GB / 1GB Flash / Without Wireless / 0 to +70°C / Tape and Reel
EZOMI-62L-0201-00000-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 2GB / 1GB Flash / Without Wireless / -40 to +85°C / Tape and Reel
EZOMC-62L-0100-00199-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 1GB / No Flash / Sona TI351 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-62L-0100-00199-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 1GB / No Flash / Sona TI351 1MHF4L / -40 to +85°C / Tape and Reel
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EZOMC-62L-0201-00199-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 2GB / 1GB Flash / Sona TI351 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-62L-0201-00199-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 2GB / 1GB Flash / Sona TI351 1MHF4L / -40 to +85°C / Tape and Reel
EZOMI-62L-0201-00199-2C	Carbon AM62L OSM-SF: AM62L / 2 A53 / 2GB / 1GB Flash / Sona TI351 1MHF4L / -40 to +85°C / Cut Tape

Part	Description
EZOMC-62L-0100-00184-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 1GB / No Flash / Sona IF513 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-62L-0100-00184-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 1GB / No Flash / Sona IF513 1MHF4L / -40 to +85°C / Tape and Reel
EZOMC-62L-0101-00184-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 1GB / 1GB Flash / Sona IF513 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-62L-0101-00184-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 1GB / 1GB Flash / Sona IF513 1MHF4L / -40 to +85°C / Tape and Reel
EZOMC-62L-0200-00184-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 2GB / No Flash / Sona IF513 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-62L-0200-00184-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 2GB / No Flash / Sona IF513 1MHF4L / -40 to +85°C / Tape and Reel
EZOMC-62L-0201-00184-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 2GB / 1GB Flash / Sona IF513 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-62L-0201-00184-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 2GB / 1GB Flash / Sona IF513 1MHF4L / -40 to +85°C / Tape and Reel
EZOMI-62L-0201-00184-2C	Carbon AM62L OSM-SF: AM62L / 2 A53 / 2GB / 1GB Flash / Sona IF513 1MHF4L / -40 to +85°C / Cut Tape
EZOMC-62L-0100-00158-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 1GB / No Flash / Sona NX611 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-62L-0100-00158-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 1GB / No Flash / Sona NX611 1MHF4L / -40 to +85°C / Tape and Reel
EZOMC-62L-0101-00158-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 1GB / 1GB Flash / Sona NX611 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-62L-0101-00158-2	Carbon AM62L OSM-SF: AM62L / 2 A53 / 1GB / 1GB Flash / Sona NX611 1MHF4L / -40 to +85°C / Tape and Reel
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