

Carbon AM62 OSM-MF Evaluation Kit with 7-Inch Touchscreen Display, Sona TI351 Wi-Fi 6 and Bluetooth 5.4, OSM Carrier Board, HDMI Adapter, Antenna, Optional Camera, and Accessory Cables

What's in the kit?



Carbon AM62 OSM-MF



Sona TI351 Wi-Fi 6 and Bluetooth 5.4



7 inch Display with stand



OSM Carrier Board



HDMI Adapter



FlexPIFA Wi-Fi and Bluetooth Antenna



Accessory Cables



**(Optional Camera Variant):
Arducam xISP - 8.3MP 4K Camera**

Our new Carbon AM62 Evaluation Kit includes our TI AM62-based OSM-MF SOM which has an onboard TI CC351-based Sona TI351 Wi-Fi 6 + Bluetooth 5.4 module, 7-inch touchscreen display with stand, OSM Carrier Board, HDMI Adapter, Wi-Fi and BT antenna, and accessory cables. The Carbon AM62 OSM-MF Evaluation Kit is designed to allow commercial, industrial, and medical device design teams a platform for easy evaluation of the Carbon AM62 OSM-MF. After evaluation of the Carbon AM62 OSM-MF, our flexible manufacturing process allows your team to choose the best RAM, storage, and connectivity options for your product. The Carbon AM62 OSM-MF Evaluation Kit comes with our industry-leading software and integration support to accelerate your product development team.

- **Powerful Heterogenous Multiprocessing:** Four 1.4 GHz Cortex-A53 cores, a 400 MHz Cortex-M4F applications MCU core, an 400 MHz Cortex-R5F device management core, and a dual-core Programmable Real-Time Unit. Run Linux and multiple RTOSes simultaneously on dedicated cores.
- **Graphics and Display:** Kit includes a 7-inch 1280x800 resolution touchscreen. Carbon AM62 OSM-MF supports displays with resolutions up to 3840 x 1080, dual independent displays, and a highly capable 8 GLOPS GPU
- **Advanced Vision Pipeline:** Support multiple cameras via a 4-lane MIPI-CSI-2 interface with virtual channels
- **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 / Buildroot Linux / QNX / Debian for Cortex-A53s, FreeRTOS for the Cortex-M4F and Cortex-R5F
- **OSM-MF v1.2 Standard Form Factor:** 45mm x 30mm OSM-MF solder down form factor ensures one carrier design can support multiple processor, memory, and wireless configurations. Allows a **hardware upgrade roadmap** to the latest processors and wireless options as future Ezurio OSM-MF SOMs are released.
- **Advanced Common Carrier/Development Board:** Display, camera, audio, Ethernet, USB, PCI-Express, CAN, I2C, SPI, UART, power measurement, and more. Use in development and as reference designs for your carrier board design.

Specifications

Category	Feature	Specification
Processors	Applications Processor	4x Cortex-A53 cores @ up to 1.4 GHz
	Applications Microcontroller	1x Cortex-M4F core @ up to 400 MHz
	Device Management MCU	1x Cortex-R5F core @ up to 400 MHz
	GPU	Imagination GPU Up to 8 GFLOPS, OpenGL ES3.1 and Vulkan 1.2 API support
	Real-Time	Dual-core Programmable Real-Time Unit Subsystem (PRUSS) @ up to 333 MHz
Memory	RAM	2GB LPDDR4
	Storage	16GB eMMC
Graphics and Video	Display Interfaces	7-inch 1280x800 resolution touchscreen 1920x1080 resolution RGB to HDMI adapter 2x 4-lane LVDS (display connector) 1x 18-bit RGB (display connector)
	Camera	1x 4-lane MIPI-CSI (camera connector) Optional: Included Arducam xISP - 8.3MP 4K Camera with onboard ISP
Interfaces	USB	1x USB 2.0 (Type-C) 1x USB 2.0 (M.2 connector)
	CAN	2x CAN (terminal connector)
	SDIO	1x SDIO (M.2 connector)
	UART	4x UART (debug connector, TTL)
		1x UART (M.2 connector)
		1x UART (USB to Serial Debug Console)
	SPI	3x SPI (debug connectors)
	I2C	2x I2C (debug connectors)
	GPIO	21x GPIO via OSM Specification (debug connectors)
		(Note: SPI, UART, and I2C can be muxed to GPIO)
	Storage	1x microSD card slot
	RTC Backup Power	CR1220 Battery Holder (Battery Not Included)
	Audio Interfaces	1x Audio Jack (Headphones and Microphone)
	Networking	2x Gigabit Ethernet
Physical	Dimensions	489mm x 317mm x 108mm (19.25in x 12.5in x 4.25in)
	Weight	1.8KG (with Camera and tripod))
Wireless	Sona Wi-Fi and Bluetooth Modules	Sona TI351 with 1 MHF4L
Supply Voltage		12V
Environmental	Temperature Range	-40°C to +85°C (Industrial)
	Lead Free	Lead-free and RoHS-compliant

Ordering Information

Part	Description
Evaluation Kits	
EZOMI-625-0216-00199-2-K2	Carbon AM62 OSM-MF Evaluation Kit: 7 in Display / Eval Board / HDMI Adapter / SOM with Adapter / AM62 / 2GB RAM / 16GB eMMC / TI351 Wi-Fi-BT / Accessories
EZOMI-625-0216-00199-2-KC	Carbon AM62 OSM-MF Evaluation Kit: 7 in Display / 8.3MP Camera / Eval Board / HDMI Adapter / SOM on Adapter / AM62 / 2GB RAM / 16GB eMMC / TI351 Wi-Fi-BT / Accessories
EZCBC-000-0000-00000-2-K2	OSM Evaluation Kit: Eval Board / HDMI Adapters / Eval Board / Antennas / Accessories / SOM sold separately
Boards for Evaluation Kits	
EZOMI-625-0216-00199-2-1K	Carbon AM62 OSM-MF SOM with Adapter: AM62 / 2GB RAM / 16GB eMMC / TI351 Wi-Fi-BT / For Use with OSM EVK
EZOMI-625-0216-00117-2-1K	Carbon AM62 OSM-MF SOM with Adapter: AM62 / 2GB RAM / 16GB eMMC / IF573 Wi-Fi-BT / For Use with OSM EVK
EZOMI-625-0216-00134-2-1K	Carbon AM62 OSM-MF SOM with Adapter: AM62 / 2GB RAM / 16GB eMMC / 60 Series Wi-Fi-BT / For Use with OSM EVK

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