

OSM-S AM62L

SoM-Line



The SoM combines the connectivity and energy efficiency of the TI AM62L with the advantages of the OSM standard in a minimal footprint

- TI AM62L, 2x Arm® Cortex®-A53 @1.25 GHz
- LPDDR4-RAM
- Ethernet 2x 1 Gbit/s with Time Sensitive Network
- 2x CAN FD

FUNCTION		STANDARD
MICROPROCESSOR	CPU	TI AM62L, 2x Arm® Cortex®-A53 @1.25 GHz
MEMORY	LPDDR4-RAM eMMC EEPROM	1 GByte, optional 512 MByte, 2 GByte 4 GByte, optional up to 128 GByte 8 kByte
COMMUNICATION	ETHERNET USB I/O CAN	2x 1 Gbit/s IEEE 1588 (with TSN) 2x USB 2.0 (Host or Device) 5x UART, 2x I ² C, 2x SPI, 15x GPIO, 3x PWM, 1x SAI, 2x SDIO 4-bit, 2x ADC 2x CAN FD
DISPLAY	DISPLAY INTERFACE	1x MIPI DSI (4-lane), 1x RGB 18 bit Up to 1920 x 1080 @60 fps
OTHER	POWER SUPPLY IO VOLTAGE POWER CONSUMPTION TEMPERATURE RANGE RTC (I ² C) OPERATING SYSTEM FORM FACTOR FOOTPRINT	5 V DC ±5 % TBD TBD -25 °C to +85 °C, ambient, non-condensing 45 nA/1ppm @25 °C Embedded Linux (Yocto Distribution) 30 x 30 mm OSM Size S 332 Pin/1.25 mm pitch
SAFETY		Secure boot, Trusted Execution Environment (TEE), Dedicated Security Controller, AES – 128-/192-/256-bit, SHA2 – 224-/256-/384-/512-bit, DRBG, PKA

Product Highlights

The OSM-S AM62L is a compact System-on-Module based on the Open Standard Module specification, offering a wide range of functions in a footprint of just 30 mm x 30 mm. Its energy-efficient dual-core Arm® Cortex®-A53 processor from Texas Instruments, running at 1.25 GHz, provides the ideal foundation for cost-optimized embedded applications that require a balanced combination of performance, energy efficiency, and attractive pricing.

The powerful AM62L SoC supports 512 MB to 2 GB LPDDR4 RAM as well as 4 GB to 128 GB eMMC flash, enabling scalable memory configurations for a wide range of applications. Integration of

user interfaces is simplified by MIPI-DSI and RGB interfaces. Two Gigabit Ethernet ports and two CAN FD interfaces ensure fast and reliable communication.

Integrated security features such as Secure Boot and cryptographic acceleration ensure the highest level of data security. Energy efficiency and reliability make the OSM-S AM62L ideal for fan-less systems in continuous operation. The open OSM standard simplifies integration into existing systems and accelerates the development of customized embedded solutions.

Client benefits

- OSM - Open Standard Modul™ Size-S
- Fully automated soldering, assembly and testing possible
- Complex processor solutions can be implemented quickly and easily
- Complex pin multiplexing and sophisticated LPDDR4-RAM layout already implemented
- Requires only one voltage supply (5 V)

Applications

- Human-Machine Interface (HMI)
- Medical – Patient Monitoring
- Smart Home and Building Automation
- EV charging stations
- Energy infrastructure (Smart Meter & Solar Gateway)
- Mobile/industrial printers
- Industrial automation technology



About Kontron

Kontron AG is a leading IoT technology company. For more than 20 years, Kontron has been supporting companies from a wide range of industries to achieve their business goals with intelligent solutions. From automated industrial operations, smarter and safer transport to advanced communications, connectivity, medical, and energy solutions, the company delivers technologies that add value for its customers. With the acquisition of Katek SE in early 2024, Kontron significantly strengthens its portfolio with the new GreenTec division, focusing on solar energy and eMobility, and grows to around 8,000 employees in over 20 countries worldwide. Kontron is listed on the SDAX® and TecDAX® of the German Stock Exchange.

For more information, please visit: www.kontron.com

About Kontron Electronics

Kontron Electronics GmbH is a full-service provider in the electronics industry, offering comprehensive services in development, rapid prototyping, and manufacturing. The company's portfolio includes proprietary and customer-specific products, development and engineering services for complex electronic components, modules, and systems, as well as production and assembly services for complete assemblies. The company is part of the Kontron AG technology group.

For more Information please visit: www.kontron-electronics.com

Your Contact

Kontron Electronics GmbH

Max-Planck-Straße 6
72636 Frickenhausen, Germany
Tel.: +49 7022 4057-0
info@kontron-electronics.de

www.kontron-electronics.de

Global Headquarters

Kontron Europe GmbH

Gutenbergstraße 2
85737 Ismaning, Germany
Tel.: +49 821 4086-0
info@kontron.com

www.kontron.com