SL i.MX8M MINI

SOM - Line

QUAD CORE WITH 1.6 GHZ, EMMC AND DDR4 MEMORY ON JUST 30mm x 30mm

Our new system-on-module SoM SL i.MX8M Mini offers maximum performance on a minimum footprint for use in demanding 3D graphics, wide-ranging communication tasks and computing-intensive applications. The cutting-edge processor (4x Cortex®-A53) and memory technology (DDR4) can be deployed easily and rapidly for custom board and application development.

Equipped with state-of-the-art encryption technologies, secure boot and further security features, the SoM satisfies the most exacting security requirements. In combination with the latest wireless technologies and modern software architectures, it is the ideal building block for developing secure devices in large-scale IoT networks.

High performance, compact design and low cost make the SoM SL i.MX8M Mini an excellent basis for proprietary Baseboard development. Ready2Use: Thanks to the included Linux Board Support Package and full development environment, the system is ready for immediate deployment.

FEATURES

▶ 4x Arm® Cortex®-A53 @1.6 GHz and 1x Arm® Cortex-M4 @400 MHz

▶ 2D GPU, 3D GPU

▶ Memory expansion

▶ Pre-installed embedded Linux operating system incl. all drivers for communication and LCD/touch interfaces
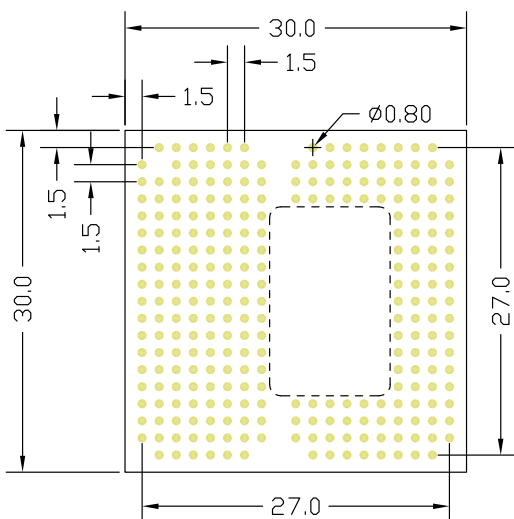
CLIENT BENEFIT

▶ Quick and easy realization of complex processor solutions

▶ Complex pin multiplexing and sophisticated DDR4 RAM layout already implemented

▶ Short Time to Market

▶ Requires only one voltage supply (5V)

APPLICATIONS

▶ IoT/Industry 4.0

▶ Automation and control technology

▶ HMI, Touch Panel

▶ Consistent processor module for wide range of Baseboard families

▶ Minimum-footprint applications

FUNCTION	STANDARD	OPTIONS
MICROPROCESSOR		
CPU	4x Arm® Cortex®-A53 @1.6 GHz, 1x Arm® Cortex®-M4 @400 MHz, 2D GPU and 3D GPU	
MEMORY		
LPDDR4-RAM	1 GB	up to 4 GB
NOR-Flash	2 MB	
eMMC	8 GB	up to 128 GB
COMMUNICATION		
Ethernet	1x 1 Gbit/s	
USB	2x 2.0 OTG	
I/O	4x UART, 4x I²C, 2x SPI, 27x GPIO, 3x PWM, 1x PCIe, 1x SAI, 1x QSPI, 2x SDIO, 1x 4 bit, 1x 8 bit	
DISPLAY / TOUCH		
LCD interface	1x MIPI DSI (4-lane), up to 1920 x 1080 @60fps	
Camera interface	1 MIPI CSI2 (4-lane)	
OTHER		
Power supply	5V DC ±5%	
Power consumption	Linux running < 1W, max. < 3,5W	
Temperature range	-25°C … +85°C	
Operating system	Embedded Linux (Yocto Distribution), Microsoft Windows 10 IoT Core	
Form factor	30 x 30 mm	
Footprint	267 Pin / RM 1,5mm	
Safety	HAB Secure Boot, TrustZone, TRNG, RSA up to 4096, AES-128/192/256, 3DES, ARC4, MD-5, SHA up to 256, ECC, Secure JTAG	

EVALUATION BOARD ALREADY AVAILABLE

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