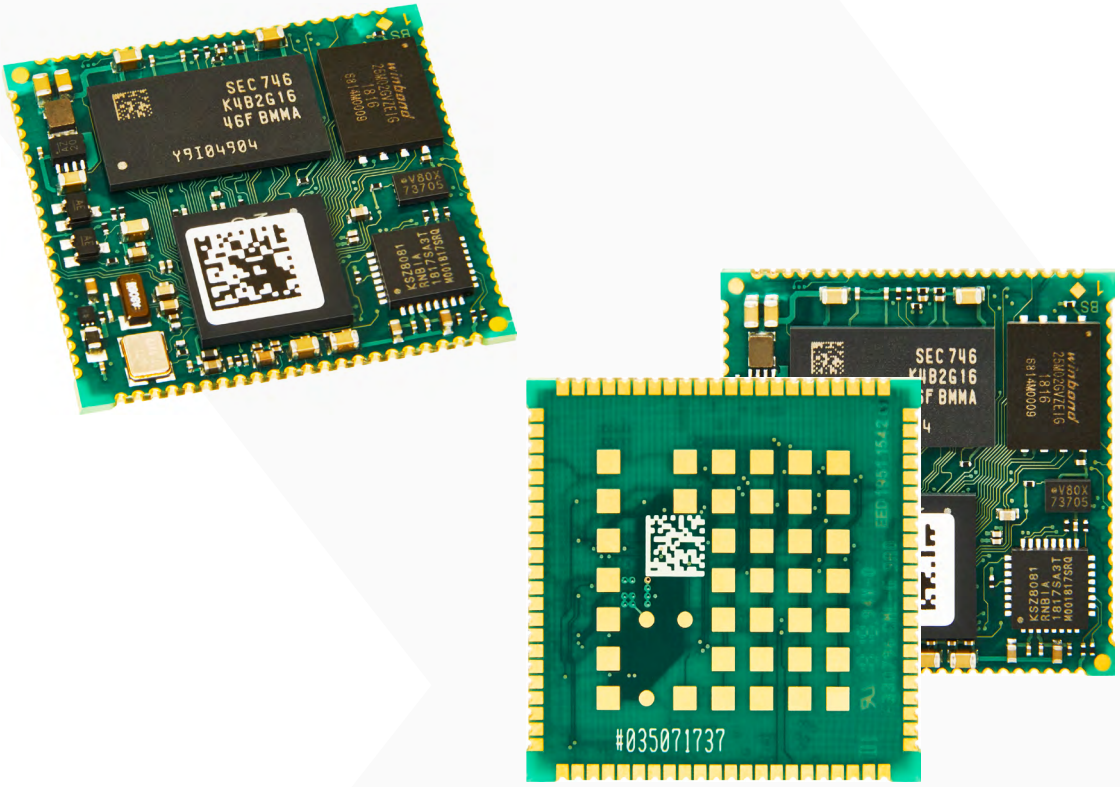
SL i.MX6 ULL/UL

SoM-Line



Computing Power, Communication and Graphics on 25 x 25 mm

- NXP i.MX6 ULL/UL, Embedded application and control processor
- Module featuring 1x Arm® Cortex®-A7 architectur, RAM and Flash, Ethernet and serial interfaces, GPIOs as well as I²C, SPI and LCD interfaces
- Pre-intalled embedded Linux demo operating system incl. drivers for communication and LCD/touch interfaces, optional with CODESYS® SoftSPS

kontron
The Power of IoT

Technical Information

FUNCTION		STANDARD LAYOUT ULL	STANDARD LAYOUT UL	OPTIONS
MICROPROCESSOR	CPU	NXP i.MX6ULL 1x Arm® Cortex®-A7 @800 MHz	NXP i.MX6UltraLite 1x Arm® Cortex®-A7 @528 MHz	
MEMORY	DDR3-RAM NAND-FLASH NOR-FLASH	512 MByte 512 MByte 1 MByte		256 MByte 256 MByte
COMMUNICATION	ETHERNET USB CAN I/O SDIO ANALOG	2x 10/100 Mbit/s, 1x PHY included 2x USB 2.0 OTG 1x CAN 2.0 B 3x UART, 2x I²C, 1x SPI, 16x GPIO, 2x PWM, 2x SDIO (4 bit) 3x ADC		
DISPLAY / TOUCH	LCD INTERFACE	1x RGB 24 bit up to 1366 x 768 @60fps		
OTHER	POWER SUPPLY POWER CONSUMPTION TEMPERATUR RANGE OPERATING SYSTEM FORM FACTOR FOOTPRINT INTERNAL RTC	3.3 V ±5 % max. < 1 W, Linux running < 0.5 W -40 °C ... +85 °C Embedded Linux (Yocto Distribution), optional CODESYS® SoftSPS 25,5 x 25,5 mm 88 Pin CASTELLATIONS, 38 LGA Pads on SoM with Quartz		
SECURITY		Secure Boot, TRNG, AES-128	Secure Boot, TRNG, Tamper Detection, Secure Storage (including 32 KB Secure RAM), Cryptographics Accelerators (AES-128, DES 3DES, ARC4, MD5, SHA-1, SHA-224, SHA-256, RSA/ ECDSA), Secure Debug, OPT Space	

Product Highlights

The Internet of Things (IoT) demands ever smaller, higher-powered but nevertheless cost-efficient controller solutions with high requisites in terms of computing power, interface variety and driver support.

Accordingly, we have added the improved models of the Ultralite series to the lower-price segment of our i.MX6 microprocessor-family. For the price of a microcontroller, you now get a high-performance application processor with 1x Arm® Cortex®-A7 core, 800 MHz clock frequency and a variable-configuration interface landscape.

Kontron Electronics' SoM, in the size of a postage stamp, allows you to combine complex computing performance with costeffective, easy-to-implement Baseboards. This enables us to quickly develop mature, industry-standard solutions while you can rely on the long-term availability of our processor modules.

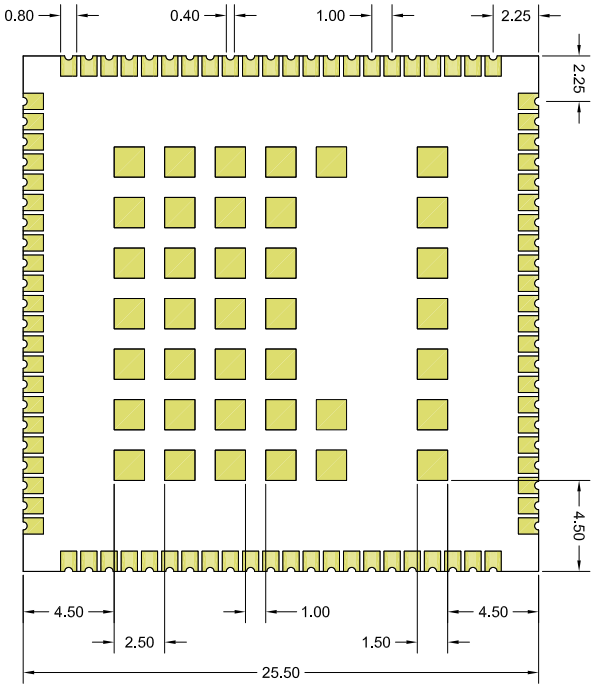
Client Benefits

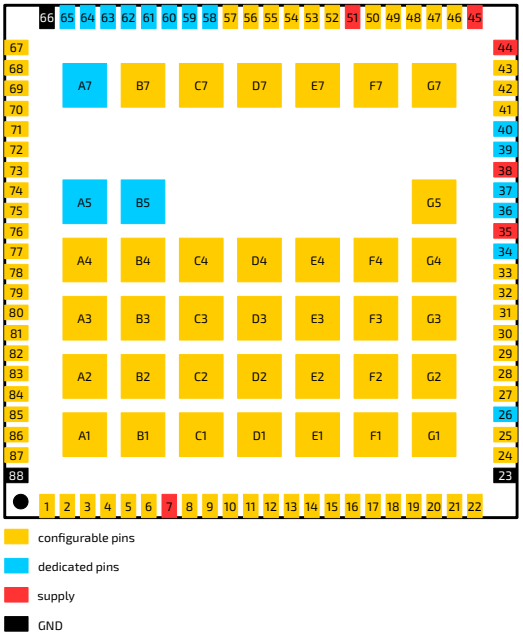
- Quick and easy realization of complex processor solutions
- Low-cost solutions available as 2-layer Baseboards
- No special layout know-how needed for DDR3 RAM connectivity
- Short Time to Market
- Requires only one volatage supply (3.3 V)

Applications

- IoT/Industry 4.0
- Medial technology
- Mechanical engineering
- Communications
- Single processor module for wide range of Baseboard families
- Minimum-footprint applications

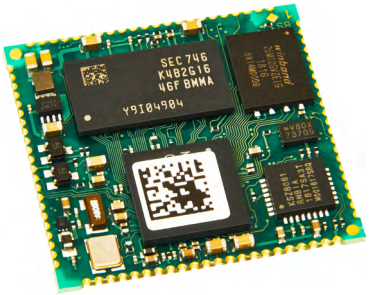
Dimensions





Products SoM-Line

PRODUCTNAME	ARTICLE NO.	OPTIONS
SL i.MX6 UL 256 MB/256 MB	40099 123	CODESYS® LOW License
SL i.MX6 UL 512 MB/512 MB	40099 124	CODESYS® LOW License
SL i.MX6 ULL 256 MB/256 MB	40099 144	CODESYS® LOW License
SL I.MX6 ULL 512 MB/512 MB	40099 145	CODESYS® LOW License



Products Board-Line

PRODUCTNAME	ARTICLE NO.	OPTIONS
BL i.MX6 UL 512 MB/512 MB	40099 191	CODESYS® LOW License
BL i.MX6 ULL 512 MB/512 MB	40099 148	CODESYS® MED License
AC Connector Set BL/AL/DL	30099 006	Order in addition to BL i.MX6 UL/ULL
USB Debug-Adapter	40099 101	-

Development kit

PRODUCTNAME	ARTICLE NO.	OPTIONS
DK i.MX6 UL 512 MB/512 MB	50099 061	BL i.MX6 UL, Power Supply, USB Cables , Debug Adapter, Connector Set
DK i.MX6 ULL 512 MB/512 MB	50099 046	BL i.MX6 ULL, Power Supply, USB Cables , Debug Adapter, Connector Set
DK 5" i.MX6 ULL 512 MB/512 MB	50099 042	BL i.MX6 ULL Touch Display, Power Supply, USB Cables , Debug Adapter, Connector Set

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**

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