

FASTER NOW!
i.MX6ULL with 800 MHz

**i.MX6ULL/UL SOM
THE MIGHTY MIDGET!**



COMPUTING POWER, COMMUNICATION AND GRAPHICS ON 25 MM X 25 MM COMPLEX APPLICATION PROCESSOR AS EASY TO USE AS A MICROCONTROLLER!

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 Ultralite Derivatives series to the lower-price segment of our i.MX6 microprocessor family. For the price of microcontroller, you now get a high-performance application processor with a Cortex A7 core, 528 MHz pulse frequency and a variable-configuration interface landscape.

Kontron Electronics postage stamp-format SoM lets you combine complex computing performance with low-cost, easy-to-implement baseboards. In this way you can quickly develop mature, industry-capable solutions while relying on long-term availability of our processor modules.

FEATURES

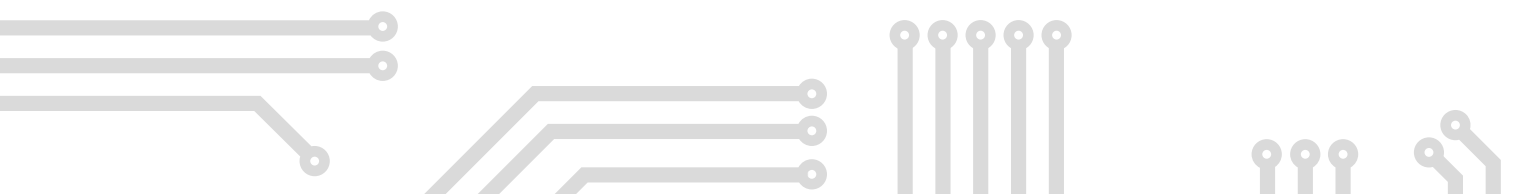
- ▶ Embedded application and control processor
- ▶ Module featuring Cortex A7 architecture, RAM and Flash, Ethernet and serial interfaces, GPIOs as well as I²C, SPI and LCD interfaces
- ▶ Pre-installed embedded Linux operating system incl. all drivers for communication and LCD/touch interfaces

CLIENT BENEFIT

- ▶ Quick and easy realization of complex processor solutions
- ▶ Low-cost solutions available as 2-layer baseboards and higher
- ▶ No special layout knowhow needed for DDR3 RAM connectivity
- ▶ Short time to market
- ▶ Requires only one voltage supply (3.3V)

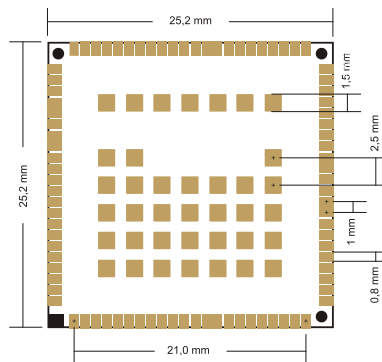
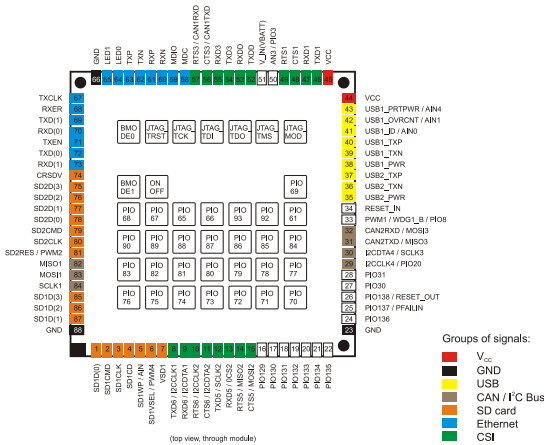
APPLICATIONS

- ▶ Industry
- ▶ Medical technology
- ▶ Communications
- ▶ IoT
- ▶ M2M
- ▶ Single processor module for wide range of baseboard families
- ▶ Minimum-footprint applications



TECHNICAL DATA

FUNCTION	STANDARD LAYOUT ULL	STANDARD LAYOUT UL	OPTIONS
MICROPROCESSOR			
CPU	i.MX 6ULL(Cortex A7, 800 MHz)	i.MX 6UL(Cortex A7, 528 MHz)	
MEMORY			
DDR3-RAM		256 MB	512 MB / 1 GB
NOR-Flash		1 MB	
NAND-Flash		256 MB	512 MB
COMMUNICATION			
Ethernet		2x 10/100 Mbit (1x external PHY required)	
USB		2x USB 2.0, 1x as OTG	
Serial		up to 5x UART	
CAN		up to 2x CAN 2.0B	
I/O		up to 2x I ² C, up to 3x SPI, up to 48x GPIO, up to 8x analog IN, up to 4x PWM	
SDIO		1x SDIO 3.0-ready, 4 bit; 1x SDIO, 4 bit	
DISPLAY / TOUCH			
LCD Interface		1x RGB up to WXGA (1366 x 768)	
Touch		1x TouchScreenController 4/5-Wire resistive	
OTHER			
Power supply		only 3,3V +/-5%	
Power consumption		< 1,5W (as per I/O configuration)	
Temperature range		0 .. +70°C	-40 .. +85°C
Operating system		Embedded Linux (Yocto)	
Footprint		88 Pin CASTELLATIONS, 38 LGA Pads	
RTC		onboard with quartz	
SECURITY			
	Without Smart Card Interface AES-128, RNG, eFuse, Secure RTC	With Smart Card Interface Ciphers, OTF DRAM Encryption, RNG, 10 Tamper Pins, eFuse, RSA4096 DPA Protection, Secure RTC, 32 KB Secure Storage	



YOUR CONTACT

Kontron Electronics GmbH
Kantstraße 10, 72663 Großbettlingen, Germany

Phone: +49 7022 4057-0
Fax: +49 7022 4057-22
E-Mail: info@kontron-electronics.de
Web: www.kontron-electronics.de

GLOBAL HEADQUARTERS

Kontron S&T AG
Lise-Meitner-Str. 3-5, 86156 Augsburg, Germany

Phone: +49 821 4086 0
Fax: +49 821 4086 111
E-Mail: info@kontron.com
Web: www.kontron.com

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