

# SL STM32MP157

Graphics, communication and realtime control  
in one single chip

---



We can't do Magic, but we'll bring everything under one Roof!

- ▶ Dual Arm® Cortex®-A7 Core and Arm® Cortex®-M4 in one housing
- ▶ 3D GPU
- ▶ Scalable memory expansion
- ▶ Pre-installed embedded Linux operating system incl. all drivers for communication and LCD/touch interfaces

POSSIBILITIES START HERE



**kontron**  
S&T Group

# SL STM32MP157

## Graphics, communication and realtime control in one single chip

The System on Module (SoM) from Kontron Electronics offers concentrated computing power for visualization, Internet communication and demanding control tasks in mechanical engineering and device technology. Three processor cores in one housing provide the right solution for every task. Based on the Linux operating system, the Arm® Cortex®-A7 Dual Core part handles all complex visualization tasks, including the display of web content. With the Arm® Cortex®-M4 processor, the STM32MP157A features proven microcontroller technology with a wide range of peripherals.

Thus, this SoM provides an excellent solution module to realize very compact, powerful device or machine controls in combination with existing or individual baseboards. The support of common touch displays and wireless technologies required for the IoT is a matter of course.

Whether you want to develop your own baseboard or we can do it for you: In any case, the SoM SL STM32MP157 is the excellent basis for a fast and reliable design and your project success.

### CLIENT BENEFITS

- ▶ Communication and Realtime in one intelligent package
- ▶ Quick and easy realization of complex processor solutions
- ▶ No special layout know-how needed for DDR3 RAM connectivity
- ▶ Short Time to Market
- ▶ Requires only one voltage supply (3.3 V)

### APPLICATIONS

- ▶ IoT/Industry 4.0
- ▶ Automation
- ▶ Medical technology
- ▶ Communications
- ▶ Single processor module for wide range of baseboard families
- ▶ Minimum-footprint applications

### ▶ TECHNICAL DATA

FUNCTION		STANDARD	OPTIONS
MICROPROCESSOR	CPU	SL STM32MP157A (2x Arm® Cortex®-A7 @650 MHz, 1x Arm® Cortex®-M4 @200 MHz, 3D GPU)	
MEMORY	DDR3-RAM NAND-FLASH NOR-FLASH	512 MByte 512 MByte 2 MByte	256 MByte 256 MByte
COMMUNICATION	ETHERNET USB CAN I/O  SDIO	1x 10/100 Mbit/s, PHY included 1x 2.0 Host, 1x 2.0 OTG 1x CAN 2.0 3x UART 2x I2C, 19x GPIO, 2x PWM, 2x ADC 2x SDIO, 4.0 bit	
DISPLAY / TOUCH	LCD INTERFACE	1x MIPI DSI, 1x RGB 24 bit up to 1366 x 768 @60fps	
OTHER	POWER SUPPLY POWER CONSUMPTION TEMPERATURE RANGE OPERATING SYSTEM FORM FACTOR FOOTPRINT INTERNAL RTC SAFETY	3,3 V ± 5 % max. < 1,25 W -40 °C .. +85 °C Embedded Linux (Yocto Distribution) 25,5 x 25,5 mm 88 Pin CASTELLATIONS, 38 LGA Pads on SoM with Quartz TrustZone, AES 256, SHA-256, MD5, HMAC, 3x Tamper Pins with 1 active, Secure RAMs, Secure Peripherals, Secure RTC, Analog true RNG, 98-bit unique ID	

### Your contact

**Kontron Electronics GmbH**  
Kantstraße 10  
72663 Großbottlingen, Germany  
Tel.: + 49 7022 4057-0  
Fax: + 49 7022 4057-22  
info@kontron-electronics.de  
[www.kontron-electronics.de](http://www.kontron-electronics.de)

### Global Headquarters

**Kontron S&T AG**  
Lise-Meitner-Str. 3-5  
86156 Augsburg, Germany  
Tel.: + 49 821 4086 0  
Fax: + 49 821 4086 111  
info@kontron.com  
[www.kontron.com](http://www.kontron.com)