

## BL STM32MP157



Board - Line

## TRIPLE PROCESSOR POWER FOR YOUR PROJECT OR PROOF OF CONCEPT! STM32MP157 BASEBOARD WITH DUAL ARM® CORTEX®-A7 AND ARM® CORTEX®-M4!

The System on Module (SoM) from Kontron Electronics is already placed on a handy Baseboard. It offers concentrated computing power for visualization, Internet communication and demanding control tasks in machine and device construction.

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. Display interfaces such as RGB and DSI are already available. With the Arm® Cortex®-M4 processor, the STM32MP157A features proven microcontroller technology with a variety of peripheral interfaces. Some digital I/O channels are on board as well as two analog in channels. Remote I/O modules can be connected via a CAN interface. This board thus offers an excellent solution for implementing very compact, cost effective high-performance touch HMIs or machine controls. Support of the common radio 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 Baseboard BL STM32MP157 is the excellent basis for a fast project start and for your project success.

### FEATURES

- ▶ Dual Arm® Cortex®-A7 Core and Arm® Cortex®-M4 combined together
- ▶ 3D GPU
- ▶ 4,3" form factor
- ▶ Scalable memory expansion
- ▶ Pre-installed embedded Linux operating system incl. all drivers for communication and LCD/touch interfaces

### CLIENT BENEFIT

- ▶ Communication and Realtime in one intelligent package
- ▶ Quick and easy realization of complex processor solutions
- ▶ Low-cost solutions using simple Baseboards
- ▶ Wide range of communication interfaces

### APPLICATIONS

- ▶ Control
- ▶ Communication
- ▶ Visualization
- ▶ HMI/MMI
- ▶ IoT/Industry 4.0

# TECHNICAL DATA

FUNCTION	STANDARD LAYOUT	OPTIONS
<b>MICROPROCESSOR</b>		
CPU	STM32MP157A 2x Arm® Cortex®-A7 @650 MHz, 1x Arm® Cortex®-M4 @200 MHz, 3D GPU	
<b>MEMORY SoM MODULE</b>		
DDR3-RAM	512 MB	256 MB
NAND-Flash	512 MB	256 MB
NOR-Flash	2 MB	
<b>MEMORY SoM BASEBOARD</b>		
eMMC	4 GB	128 GB
SD-Card	1x micro-SD Slot	
<b>COMMUNICATION</b>		
Ethernet	2x 10/100 Mbit/s	
USB	2x 2.0 Host, 1x 2.0 OTG	
Serial	1x RS232, 1x RS485	
CAN	1x CAN 2.0	
DIO	2x DIO (24V/up to 800mA)	
AIO	2x AIN (0...24V)	
<b>DISPLAY / TOUCH</b>		
LCD Interface	1x RGB 24 bit, 1x LVDS, 1x HDMI up to 1366 x 768 @60fps	
Touch	1x I <sup>2</sup> C, USB	
<b>OTHER</b>		
Power supply	24V DC ±20%	
Power consumption	Linux running < 2W	
Temperature range	0°C...+70°C	
Operating system	Embedded Linux (Yocto Distribution)	
Form factor	105,5 x 67 mm (4,3")	
Internal RTC	on SoM with Quartz	
External RTC	1x on Baseboard	
RTC buffering	Battery on Baseboard CR1220	
Debug	1x Console	
Audio	1x Buzzer	
Safety	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

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