



Maximum scalability, versatile, fast, durable and energy-efficient.

Low consumption & high performance

- > The Cortex CPUs from STMicroelectronics are on the cutting edge of their industry thanks to the combination of functional integration, performance and extremely low current consumption they provide.

Two in one

- > The combination of Cortex-A7 and Cortex-M4 with full access to the peripherals is one-of-a-kind and makes a versatile range of designs possible. Depending on the application, you can use a PIN in Cortex M4 for your real-time application or a PIN in embedded Linux on Cortex-A7.

Easy porting

- > Use the tools you're familiar with like CubeMX and Cube Library for the Cortex-M4. For the Cortex-A7, we offer the convenient Linux BSP tool with Yocto layer.

Small footprint, plenty of power

- > At 30x40 mm, the module is smaller than a passport photo – yet it fits easily into any design. Even the space below the module can be used efficiently.

Long-term availability, long lifetime

- > Our modules will be available as long as STM offers the CPU. We provide modules for extended temperature ranges to maximize the service life.

Secure boot

- > In a world of increasing networking and complexity, security matters a great deal. The boot procedure can be secured so that only your software will run on the devices.

Flexibility squared

- > For our modules, the entire PIN-compatible STM32MP1 product line is available. You just select the best CPU for your application: Dual or single-core Cortex-A7, with 3D accelerator or with Crypto-API.
- > For the working memory, select the DDR3-RAM between 128 MB and 1,024 MB or eMMC between 128 MB and 64 GB.

Retail price

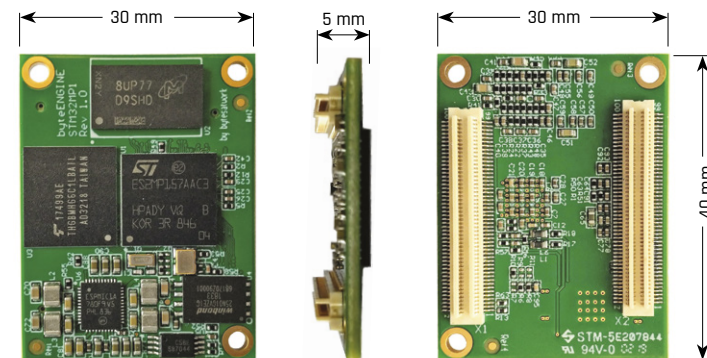
- > Starting at €33.00 for the STM32MP151 module variant with 128 MB RAM and 128 MB SPI-NOR Flash.

Features	STM32MP151	STM32MP153	STM32MP157
Cortex-A7	Single	Dual	Dual
Cortex-M4	Yes	Yes	Yes
GPU	No	No	Yes
Display	TFT	TFT	TFT/DSI
CAN	No	Yes	Yes

SECURITY

STM32MP15xA	Basic
STM32MP15xC	Secure boot + cryptography (CRYP)

DIMENSIONS



industrial computing module byteENGINE STM32MP1

MODULE SPECIFICATION

CPU Cortex-M4	single 209 MHz
CPU Cortex-A7	STM32MP151, STM32MP153 or STM32MP157 @650/800 MHz single or dual
Memory	128 MB to 1028 MB
Flash eMMC	4 GB to 64 GB
SPI-NOR	128 MB
Temperature	-40 to +85 degrees Celsius
Power	5 V, 2 watts
Dimensions	40 x 30 x 5 mm
Plugs	2 x 100 PIN

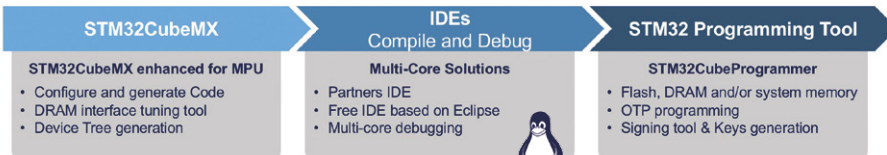


CONNECTORS

X1	USB, Ethernet, SPI, UART, I2C, SDMMC, AUDIO, ADC
X2	POWER, LCD, Flexible Memory Controller (FMC)

STM32MP1 Software Tools

Complete support of Arm Cortex-A + Cortex-M architecture



FACTSHEET

BLOCK DIAGRAM

