



STM32MP15 microprocessor



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A quality version of this page, accepted on 25 October 2019, was based off this revision.

In a first part, this article shows the STM32MP157 line block diagram. STM32MP157 belongs to STM32MP1 Series (refer to the list of part numbers provided below).

The second part of this article digs into technical aspects, and provides entry points to:

- STM32MP15 **documentation**
- articles dedicated to **Internal peripherals** that make the transition towards the software frameworks required to control these peripherals
- the list of **boards** supporting STM32MP15 devices
- the supported **software distributions**, that can be downloaded into the STM32MP15 device.

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1 Introduction

STM32MP15 microprocessors are based on the Arm[®]Cortex[®]-A7 dual core. They support Trustzone mode for secure operations, a **Vivante GPU** and an Arm[®]Cortex[®]-M4 coprocessor.

Arm[®]Cortex[®]-M4 coprocessor and its peripheral set are directly inherited from the STM32 MCU family ^[1].



2 Part number codification

The table below shows the STM32MP15 microprocessor different part numbers available, together with their corresponding internal peripherals, security options and packages.

- STM32MP15x

	STM32MP15 1 Access line	STM32MP153 Foundation line	STM32MP157 Advanced line
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)

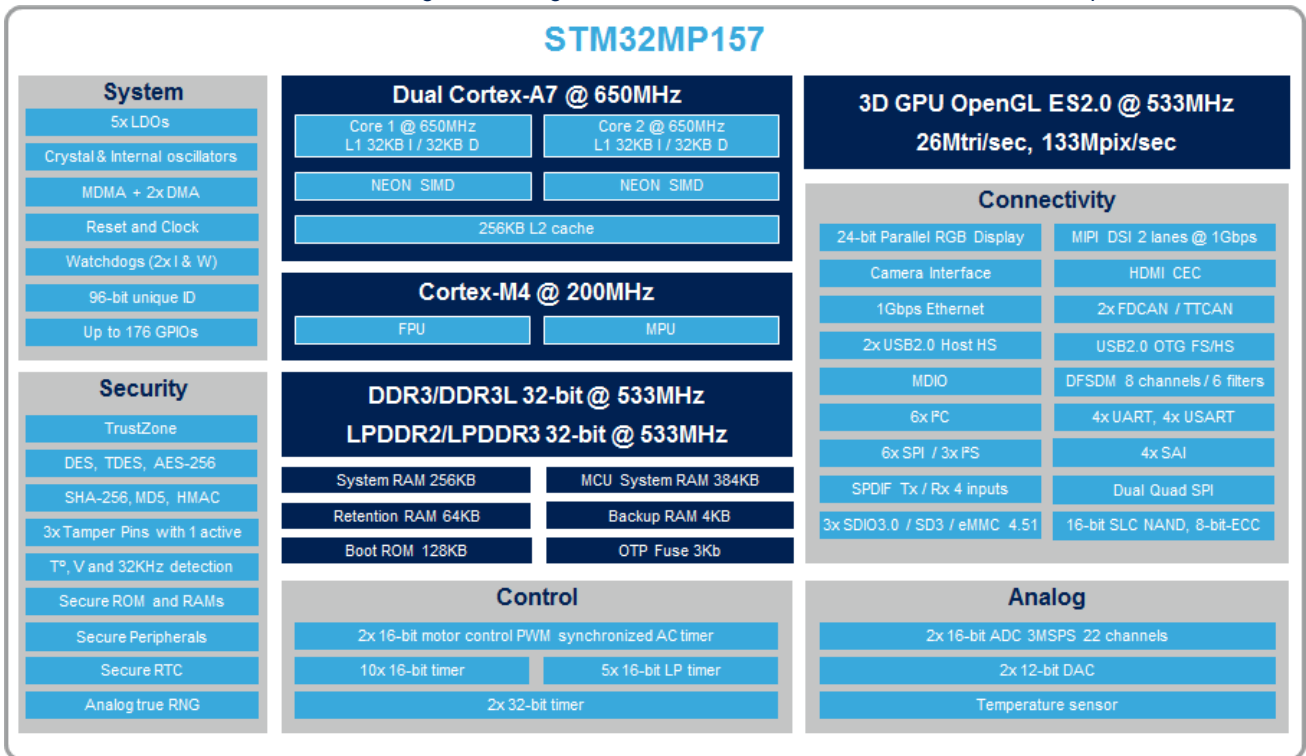
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STM32MP15xxAA	TFBGA448 18x18
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3 Block diagrams

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4 Technical documentation

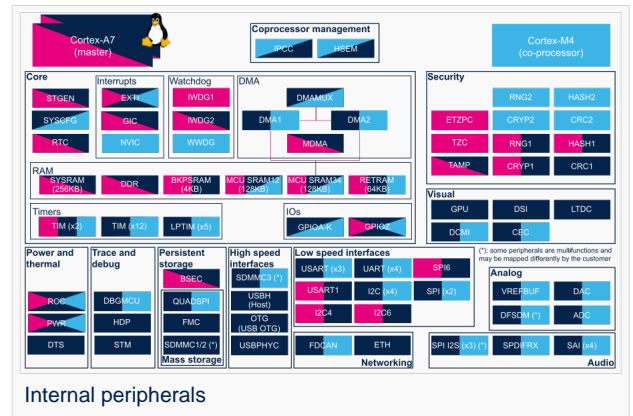
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- an overview of each peripheral
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6 How to get further with STM32MP15 ecosystem

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6.2 Supported software distributions

 STM32MPU Embedded Software distribution	 STM32MPU Embedded Software distribution for Android
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Click the links above to find information on:

- [Distribution composition and associated software architecture](#)
- [Associated release notes](#)



7 References

- STM32 MCU family

Graphics Processing Units

Microcontroller Unit (MCUs have internal flash memory and are intended to operate with a minimum amount of external support ICs. They commonly are a self-contained, system-on-chip (SoC) designs.)

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Stable: 12.02.2020 - 16:40 / Revision: 12.02.2020 - 16:37

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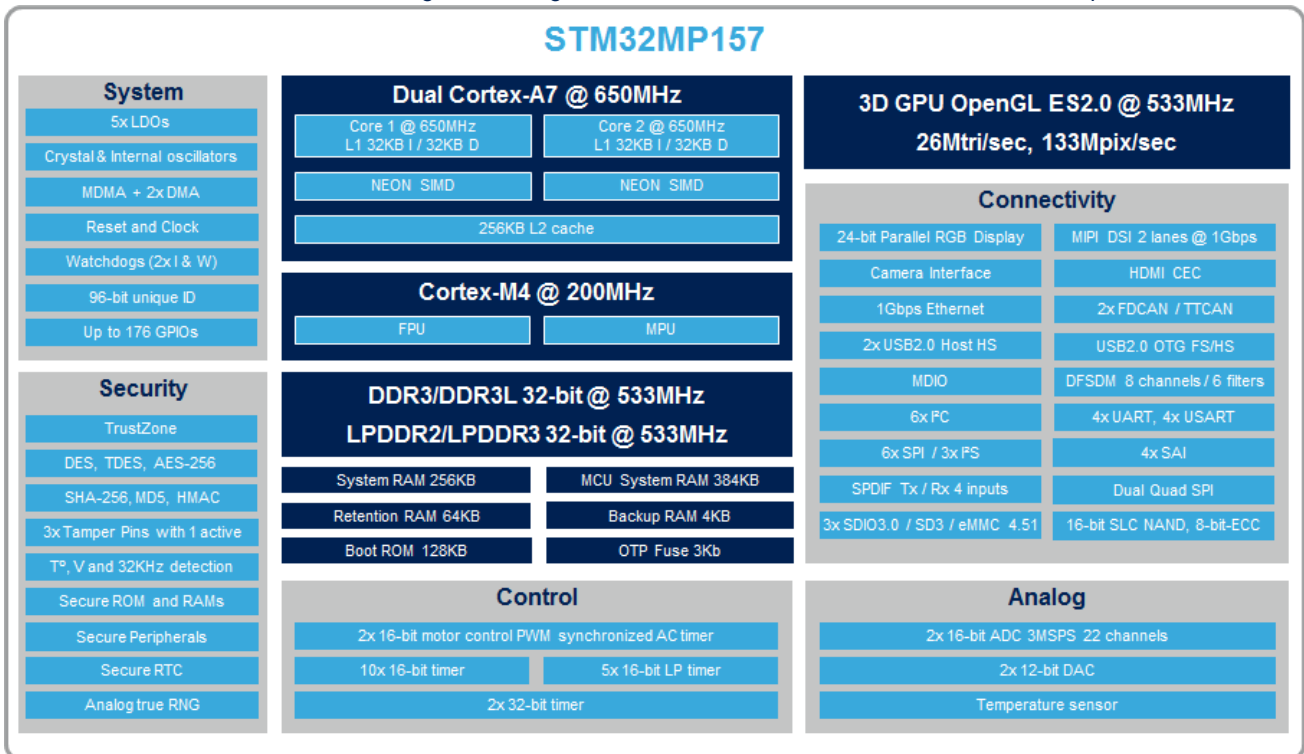
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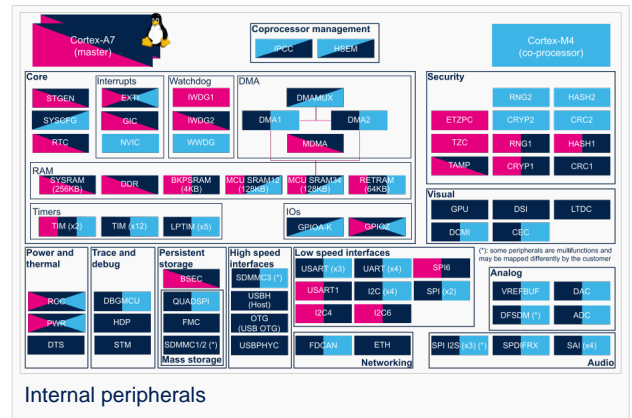
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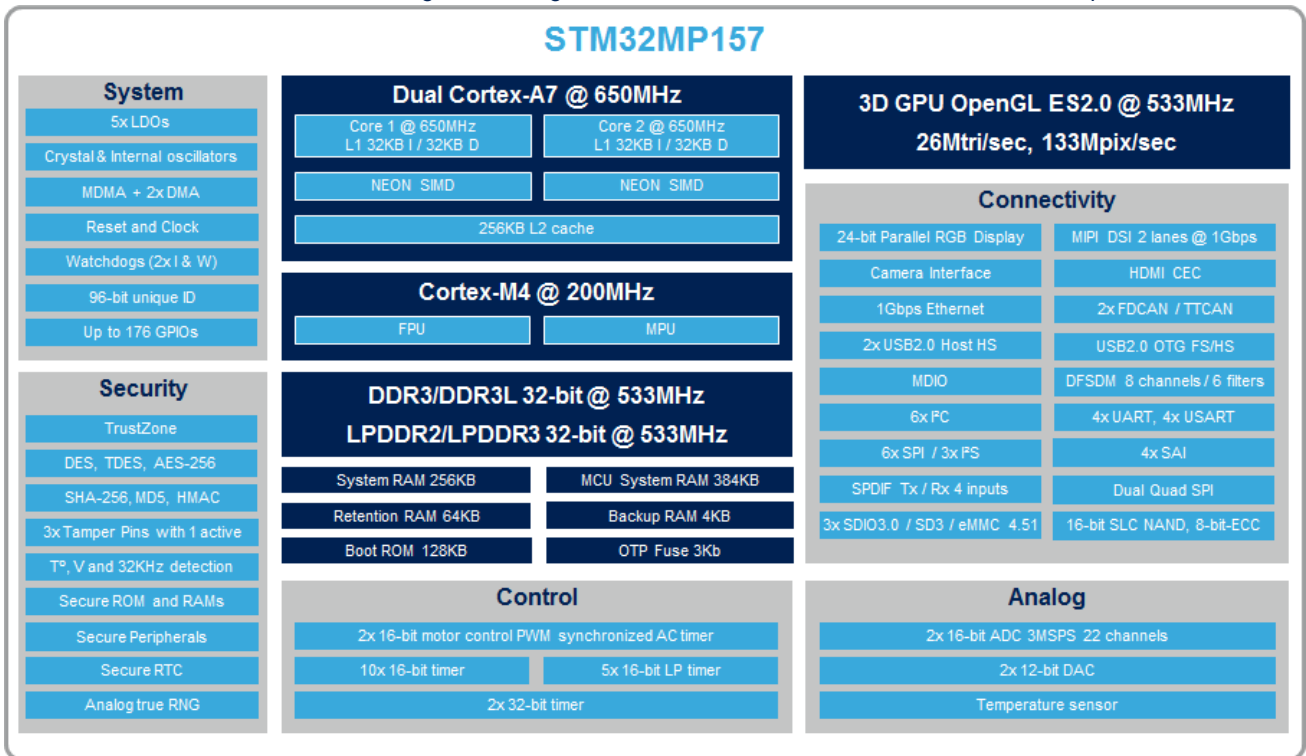
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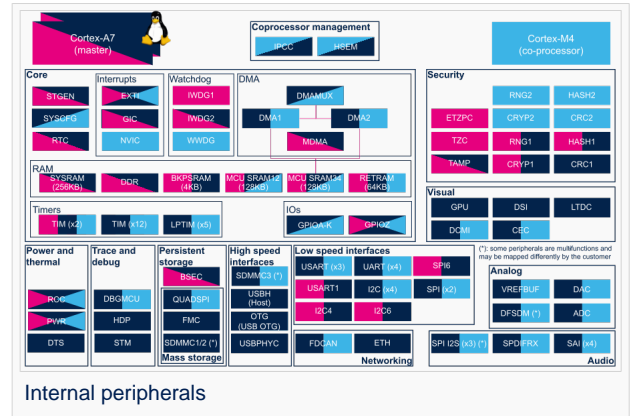
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Subcategories

This category has the following 2 subcategories, out of 2 total.

A

- [Android distribution \(2 P\)](#)

S

- [STM32Cube MPU Package \(3 P\)](#)
Stable: 08.06.2020 - 07:20 / Revision: 18.05.2020 - 15:26

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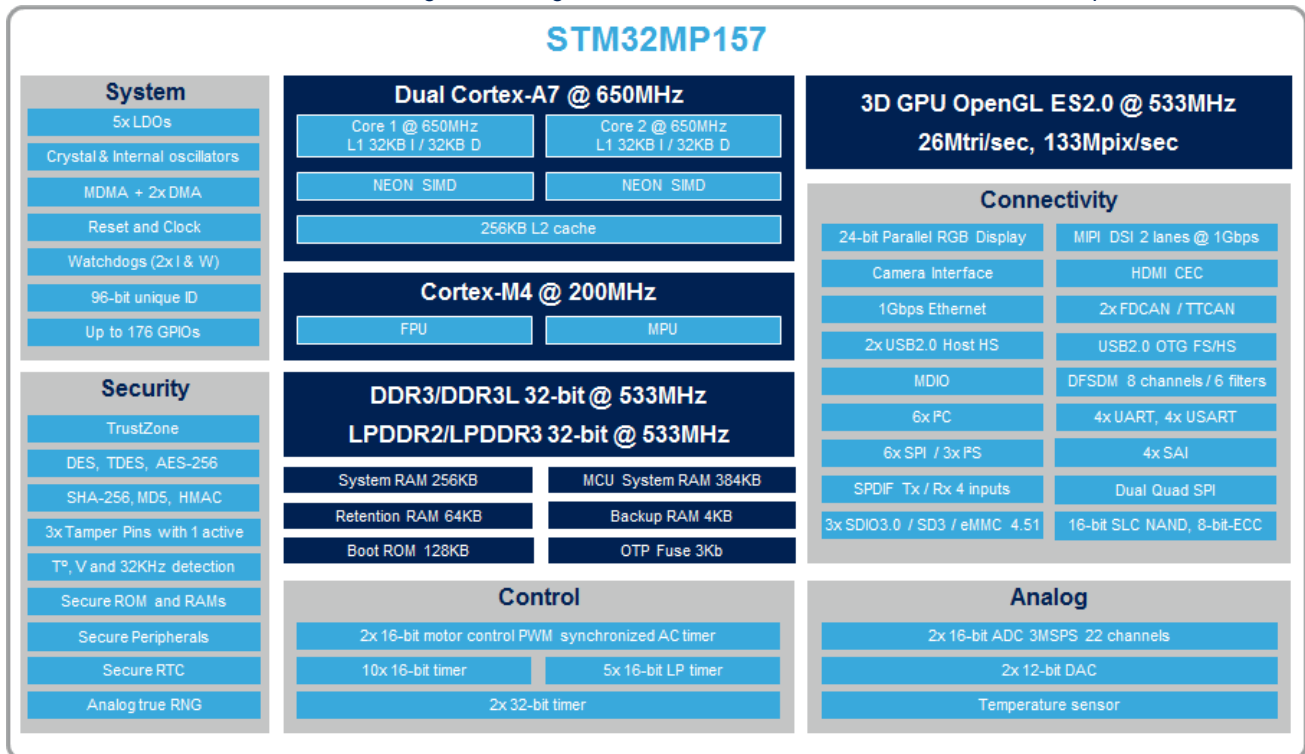
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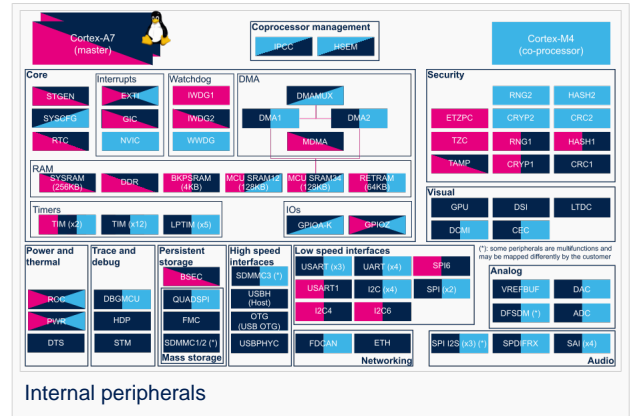
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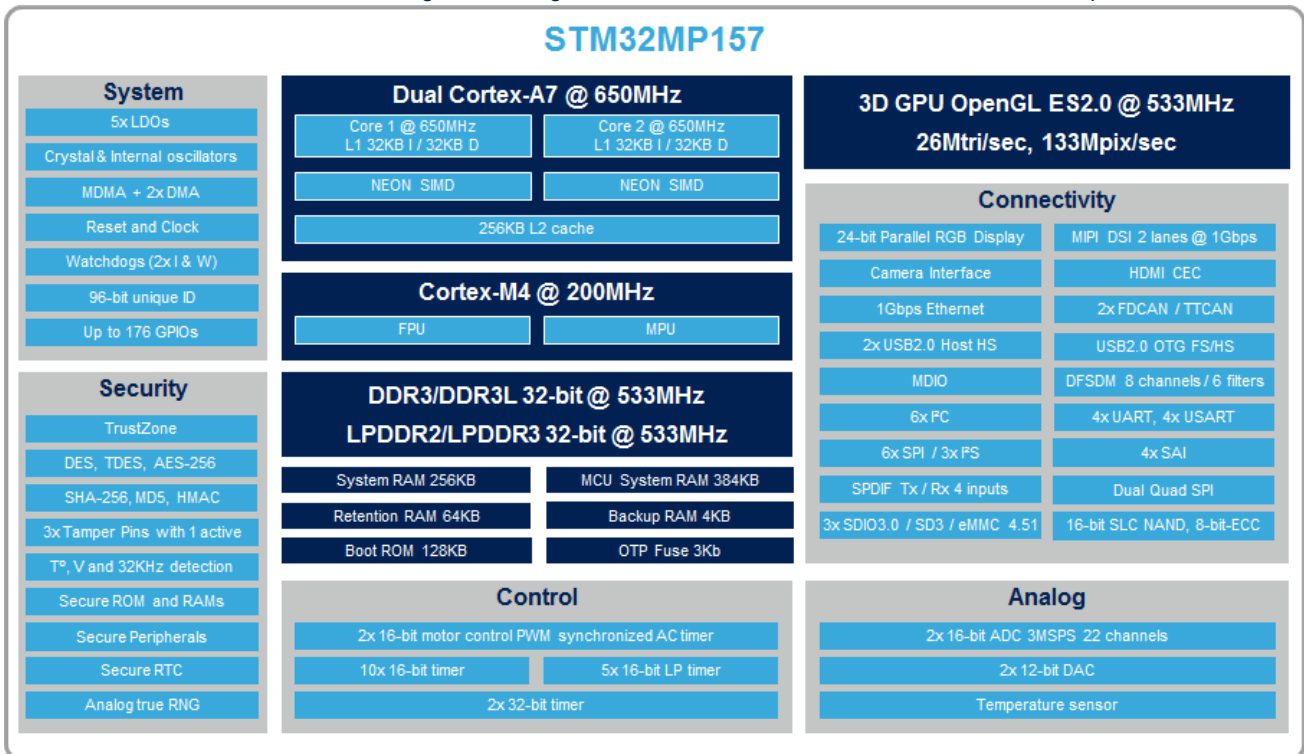
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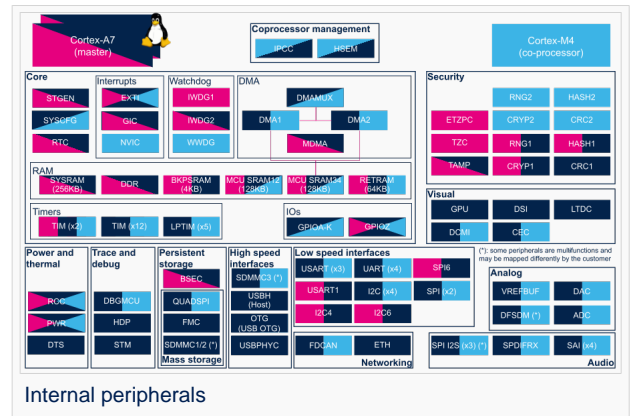
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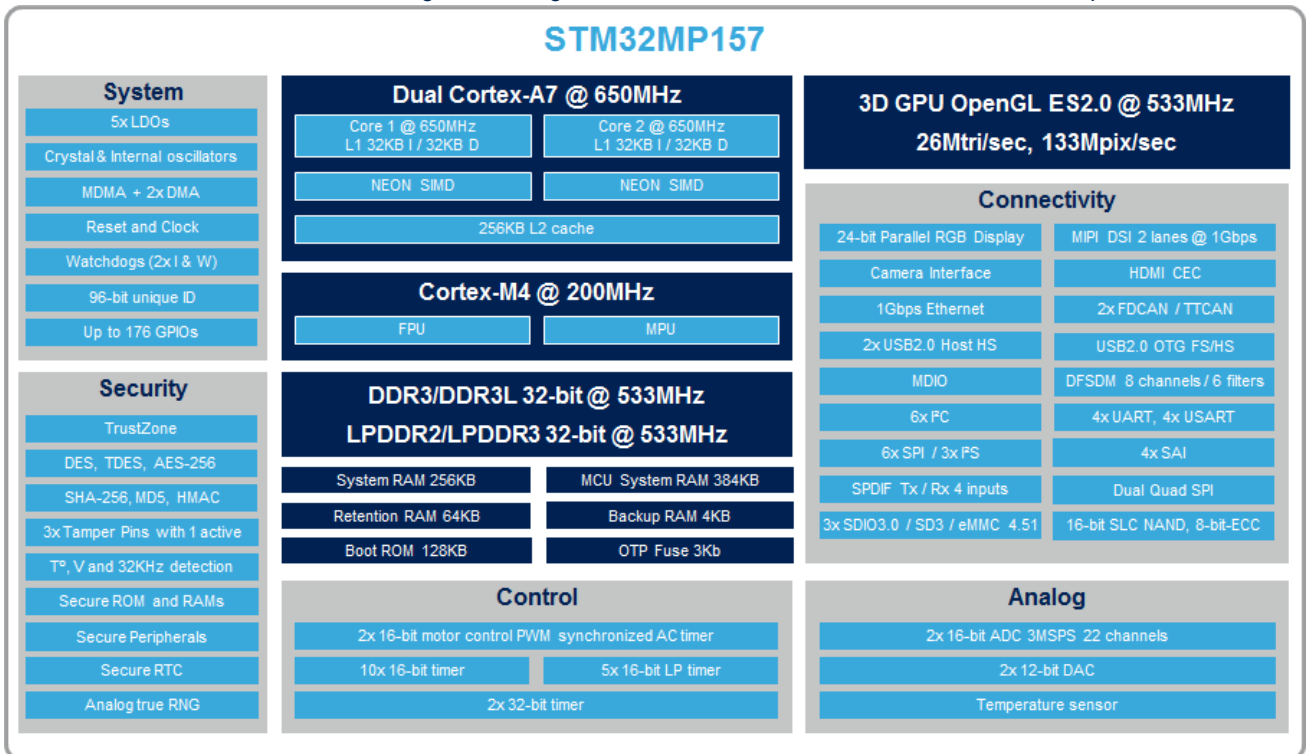
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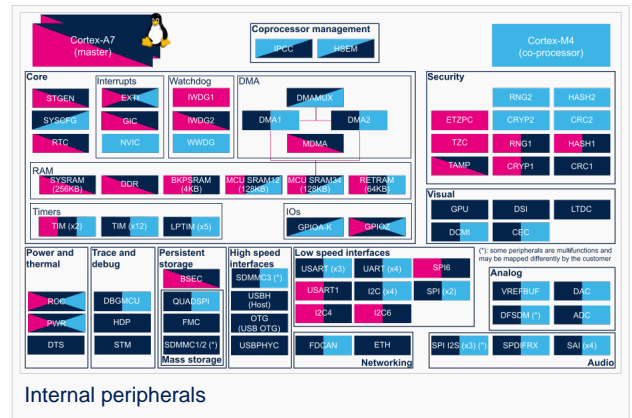
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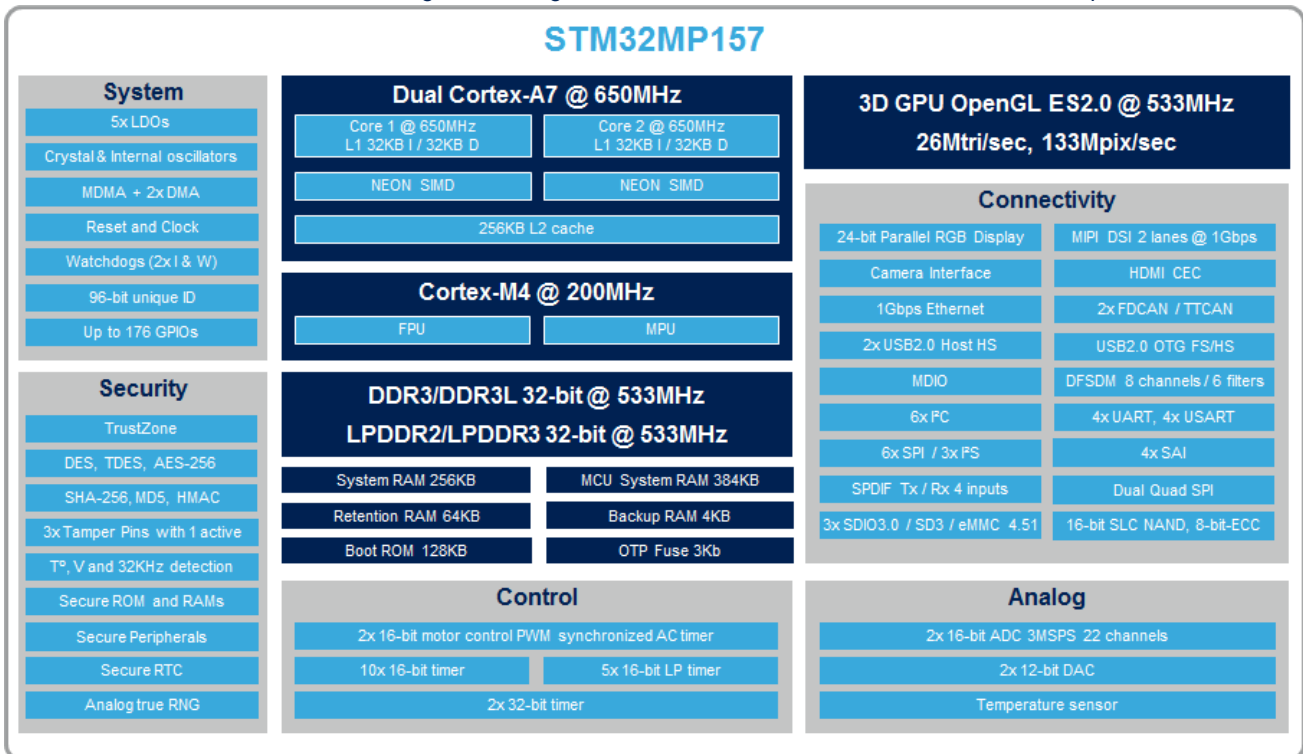
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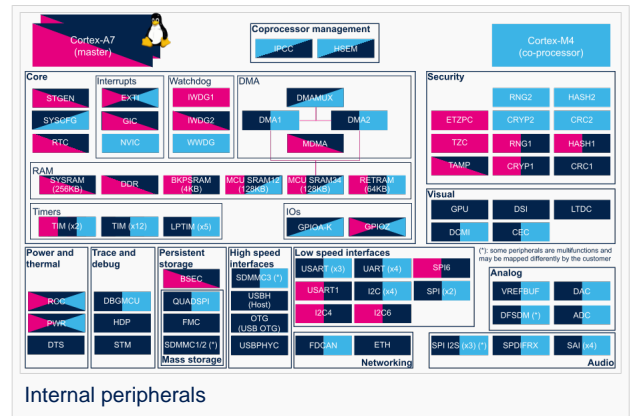
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Microcontroller Unit (MCUs have internal flash memory and are intended to operate with a minimum amount of external support ICs. They commonly are a self-contained, system-on-chip (SoC) designs.)

Display Serial Interface (MIPI[®] Alliance standard)

Controller Area Network (robust bus mainly used for automotive applications)