Compatibility Advisory

Title	Compatibility Advisory for Chip Revision Numbering Scheme
Issue date	2022/09/29
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Serial Number	NA
Version	v1.0

Introduction

Espressif is introducing **vM.X** numbering scheme to indicate chip revisions.

M – Major number, indicating the major revision of the chip product. If this number changes, it means the software used for the previous version of the product is incompatible with the new product, and the software version shall be upgraded for the use of the new product.

X – Minor number, indicating the minor revision of the chip product. If this number changes, it means the software used for the previous version of the product is compatible with the new product, and there is no need to upgrade the software.

The vM.X scheme replaces previously used chip revision schemes, including ECOx numbers, Vxxx, and other formats if any.

Mapping Between Previously Used Schemes and vM.X Scheme

The table below shows the mapping between previously used chip revision schemes, their identification in ESP-IDF logs, and the vM.X scheme.

Chip Series	Previously Used Schemes	Previous Identification in ESP-IDF Logs	vM.X
ESP32	V0	0	v0.0
	ECO, V1	1	v1.0
	ECO, V3	3	v3.0

Chip Series	Previously Used Schemes	Previous Identification in ESP-IDF Logs	vM.X
ESP32-S2	n/a	0	v0.0
	ECO1	1	v1.0
ESP32-C3	Chip Revision 3	3	v0.3
	Chip Revision 4	4	v0.4
ESP32-S3	V001	0 (this is a bug in ESP-IDF logs)	v0.1
	V002	n/a	v0.2

Identification of Chip Revisions

For chip products, chip revision may be identified by two methods:

1. Programmatically reading content of specific registers and eFuses
2. Visually checking chip marking

Both methods are covered in the Chip Errata documents, for example, *ESP32 Series SoC Errata*. They are also described in the specific PCN for chip revision upgrade, for example, *PCN for Upgrade Chip Revision of ESP32-S3 Series Products*.

For module products that are based on chips, chip revision may be identified by module marking, which is described in the specific PCN for chip revision upgrade, for example, *PCN for Upgrade Chip Revision of ESP32-S3 Series Products*.

Anticipated Impact

Chip Errata update: *ESP32 Series SoC Errata* will be updated by replacing ECOx numbers with the vM.X scheme.

Web content update: Previously used chip revision schemes on www.espressif.com will be updated to the vM.X scheme.

The change of chip revision numbering scheme does not affect product form, fit, function, or reliability.

Contact

If you have any questions, please contact Espressif.