

# OVERVIEW OF X5HV1.0 BOARD BRING-UP SOFTWARE PACKAGE FOR MAY 2025

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LLWEB-20210137

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# AGENDA

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- X5Hv1.0 Board bring up package
- Boot sequence and support timing

# X5HV1.0 BOARD BRING UP PACKAGE

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## Target for each release:

- ✓ **May:** Verify boot up sequence and basic functions for Linux BSP
- ✓ **Jun:** Verify power management functions (SCP)
- ✓ **Jul:** Develop user application on Renesas Framework environment

## Software in May 2025:

- ✓ **Drivers:** Boot Loader, Linux BSP, SCP FW to boot up Linux OS for the evaluation board.
- ✓ **Debug tool:** e2 studio supports for debugging SW running on RSIP-M, SCP, CR52.

## Start up procedure for board bring up package:

- ✓ File list, the procedure for extract, rebuild, installation
  - ✓ 20250530-rcar-xos\_sdk1-x5h\_v4.23.0\_Yocto\_Linux\_patch.zip / ReleaseNote.txt

**Test results:** “Test Result for X5Hv1.0 Board Bring-up software in May 2025”

# BOOT SEQUENCE AND SUPPORT TIMING

# BOOT SEQUENCE & SUPPORT TIMING FOR X5H1.0 BRING-UP

## IPL + SCP + FREERTOS + MCAL + LINUX

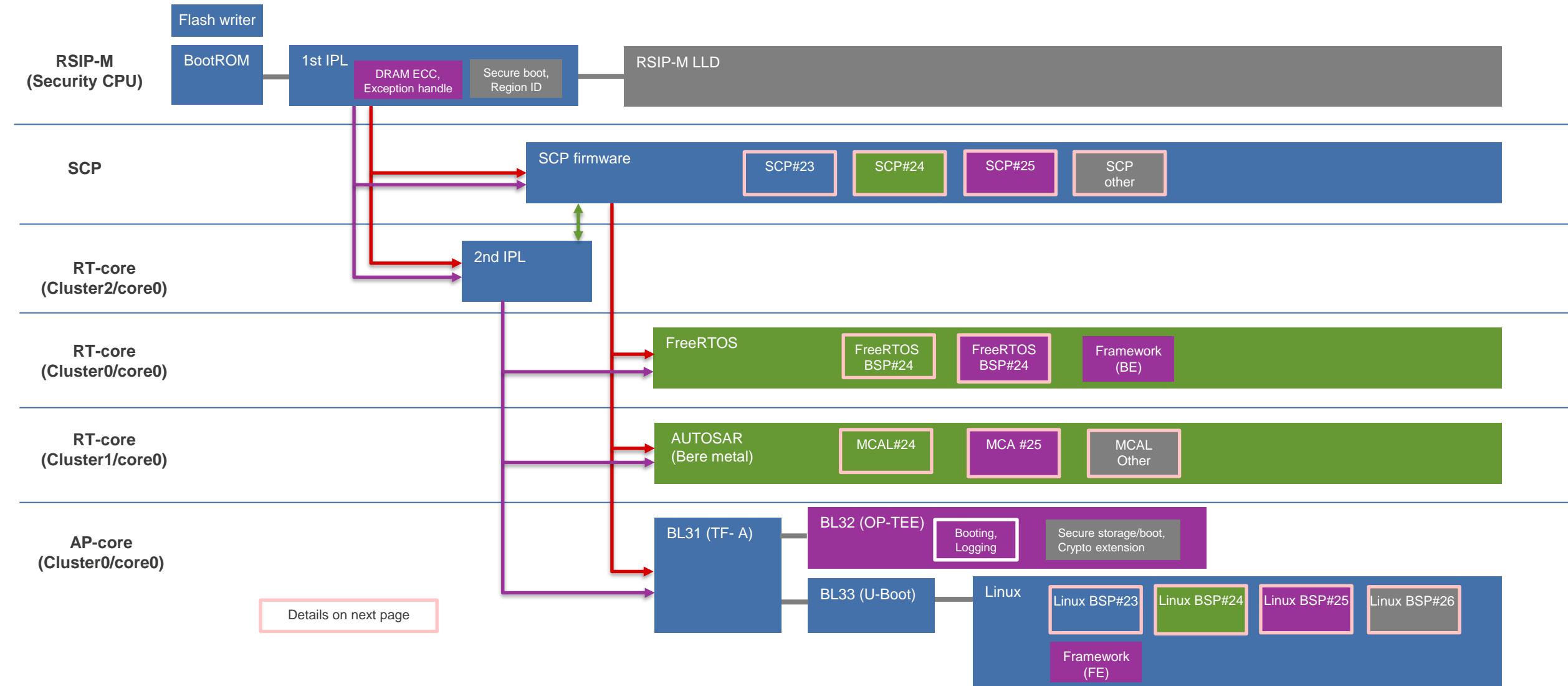
Phase1  
e/o May

Phase2  
e/o Jun

Phase3  
e/o Jul

Other  
e/o Aug or later

Boot CPU  
Loading program  
SCMI communication



# DRIVER RELEASE PLAN

Verification during bring-up is for functional testing against the functional requirements only.  
Abnormal test cases are not verified.

SDK Ver	1 <sup>st</sup> release (May)	V4.24.0 (Jun)	V4.25.0 (Jul)	Aug or later
AUTOSAR	MCAL	-	MCAL#24	MCAL#25
	CDD		MCU, PORT, FLS, Ethernet(1G), CAN (Normal CAN, CAN-FD mode), SPI	Ethernet(10G), Flexray, GPT, ICU, LIN, DIO, OCU, WDG, PWM, CAN (+CAN-XL Mode).
FreeRTOS BSP	MCAL	-	I2C, SCP	Ethernet Switch, CRC, RFSO, SMMU THS, I3C, CAN-Ether Conversion, CAN Routing,
	CDD		FreeRTOS BSP#24	FreeRTOS BSP#25
Linux BSP	Linux BSP#23	Kernel(Core, GIC, Generic Timer, MPU), SCIF/HSCIF, I2C, VIRTIO Backend driver, RPMsg, MFIS, SCP, GPIO	FreeRTOS BSP#25	-
	Kernel(Core, GIC, Generic Timer, MMU) Ethernet(1G), Ethernet Switch, PCIe4, GPIO, I2C, SCIF/HSCIF	RPMsg (MFIS), SCP, WCRC, UClE, PCIe6, QSPI, UFS, Ethernet(10G)	Logging, UClE, WDT, RT-DMAC, SMMU frontend driver	Linux BSP#26 (Aug)
SCP firmware	See next page			

\*Considering pull-in to in #25.

# DRIVER RELEASE PLAN BY EACH FUNCTION IN SCP FW

SCP#23  
Phase1  
e/o May

SCP#24  
Phase2  
e/o Jun

SCP#25  
Phase3  
e/o Jul

SCP Other  
e/o Aug or later

Function	Drivers								
	Reset	STBC	CLK	Module Controller	DBSC5	PMIC	I2C	APMU	THS
1. Core Standby (CPU Idle) 2. Static CPU on/off (CPU Hotplug) 3. PD Ctrl 4. System Reset / Shutdown 5. Suspend to RAM	4, 5	4, 5	4, 5	1, 2, 3, 4, 5	5	5	5	1, 2, 5 2. CPU on	N/A
6. CLK Ctrl	N/A	N/A	6	6	N/A	N/A	N/A	N/A	N/A
7. DVFS/DFS (CPU Freq)	N/A	N/A	7	N/A	N/A	7	7	N/A	N/A
8. IP Reset	N/A	N/A	N/A	8	N/A	N/A	N/A	N/A	N/A
9. Thermal sensor information	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9

