

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

MAY 30, 2025
LLWEB-20210137

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AGENDA

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

X5HV1.0 BOARD BRING UP PACKAGE

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:

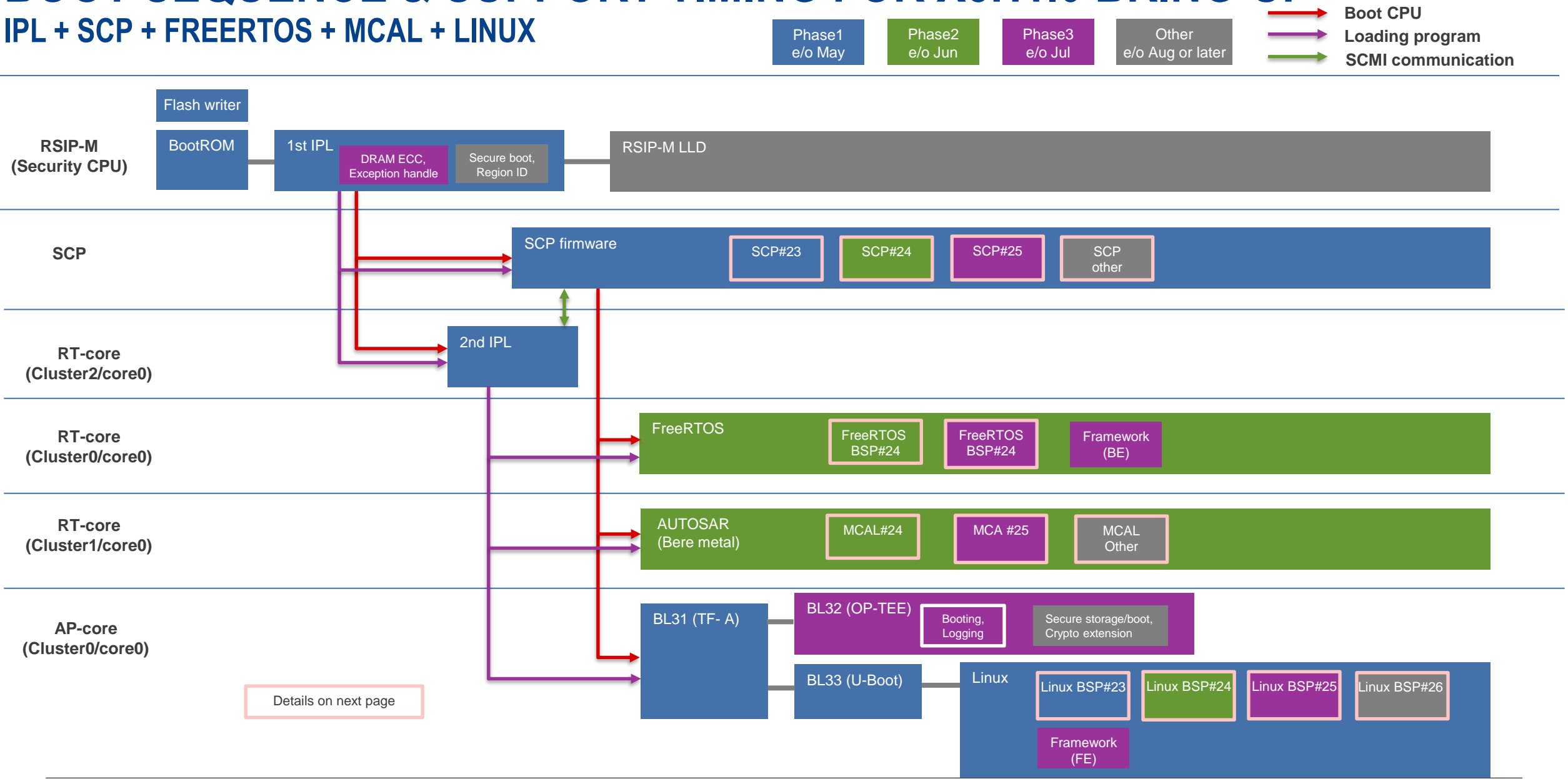
- ✓ File list, the procedure for extract, rebuild, installation
 - ✓ 20250530-rcar-xos_sdk1-x5h_v4.23.0_Yocto_Linux_patch.zip / ReleaseNote.txt

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



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 st release (May)	V4.24.0 (Jun)	V4.25.0 (Jul)	Aug or later
AUTOSAR		-	MCAL#24	MCAL#25	MCAL#26 (Aug)
	MCAL		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).
	CDD		I2C, SCP	Ethernet Switch, CRC, RFSO, SMMU	THS, I3C, CAN-Ether Conversion, CAN Routing,
FreeRTOS BSP		-	FreeRTOS BSP#24	FreeRTOS BSP#25	-
			Kernel(Core, GIC, Generic Timer, MPU), SCIF/HSCIF, I2C, VIRTIO Backend driver, RPMsg, MFIS, SCP, GPIO	Logging, UCle, WDT, RT-DMAC, SMMU frontend driver	-
Linux BSP		Linux BSP#23	Linux BSP#24	Linux BSP#25	Linux BSP#26 (Aug)
		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)	MMC, USB2.0 Host, USB2.0 Function, USB3.1 Host, USB3.1 Function, DMA, PTP, SMMU	Video Capture*, Audio, Display*, RWDT, I3C, RTC, WWD, CAN, MSIOF, PWM, Timer, Wayland, V4L2/VSP Manager
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

