

SB35 Development Platform Flash Tool Download

User's Guide

Aug. 2021 Version 1.0



Document Revisions

Date	Revision Number	Document Changes
08/2021	1.0	Initial version



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1 Overview

This tutorial guides new developers how to download the images with the MTK flash tool to i350 based SB35 development board.

2 Preparation

Flash tool supports Ubuntu and Windows OS.

- Driver_Auto_Installer_EXE_v5.1632.00.zip (VCOM driver for Win7/8/10)
- SP_Flash_Tool_exe_Windows_v5.2044.00.000.zip (For Windows)
- SP_Flash_Tool_exe_Linux_v5.2044.00.100.zip (For Ubuntu)

3 Download Android Images for SB35

3.1 Linux Flash Tool Download

• Extract "SP_Flash_Tool_exe_Linux_v5.2044.00.100.zip " and run "flash_tool". Linux flash_tool doesn't require any extra driver.

Smart Phone Flash Tool(Runtime Trace Mode)		×
<u>File Options Window H</u> elp		
Welcome Format Download Readback Memory Test Image: State of the		
Download-Agent //media/wdssd/SP_Flash_Tool_exe_Linux_v5.2044.00.100/MTK_AllInOne_DA.bin	choose	
MediaTek Authentication File	choose	
Download Only Image: Control of the second sec		
0 B/s 0 Bytes 0%		



• Point SW image by click "Scatter-loading" button and choose the file " MT8168_Android_scatter.txt" in SB35 image folder.

Welco	ome Form <u>a</u> t	Download Readback	Memory <u>T</u> est			
C	ownload	Stop				
Dow	nload-Agent	media/wdssd/SP_Flash_To	ol_exe_Linux_v5.2044.0	0.100/MTK_AllIn	One_DA.bin	📄 cho
Scal	tter-loading File	media/wdssd/SB35/out/ta	arget/product/sb35/MT81	L68_Android_sca	• • • • • • • • • • • • • • • • • • •	😑 cho
4T8168	hentication File				•	😑 cho
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×	pgpt	0x00000000000000000	0x0000000000043ff	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/GPT.img	
×	cam_vpu1	0x000000000480000	0x000000000592dbf	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/cam_vpu1-verified.in	ng
×	cam_vpu2	0x000000001380000	0x00000000170fd0f	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/cam_vpu2-verified.in	ng
×	cam_vpu3	0x000000002280000	0x00000000228ccbf	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/cam_vpu3-verified.in	ng
×	lk	0x0000000082c0000	0x000000008365d0f	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/lk-verified.img	
×	lk2	0x0000000083c0000	0x000000008465d0f	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/lk-verified.img	
×	boot	0x0000000084c0000	0x000000000a4bffff	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/boot.img	
×	recovery	0x00000000a4c0000	0x00000000c4bffff	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/recovery.img	
×	logo	0x00000000c540000	0x00000000c70bc1f	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/logo-verified.bin	
×	dtbo	0x00000000cd40000	0x00000000cd49aff	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/dtbo-verified.img	
×	tee1	0x00000000e040000	0x00000000e206adf	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/tee-verified.img	
×	tee2	0x00000000e540000	0x00000000e706adf	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/tee-verified.img	
×	vbmeta	0x000000011640000	0x000000011640fff	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/vbmeta.img	
×	vbmeta_system	0x000000012180000	0x000000012180fff	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/vbmeta_system.img	
×	vbmeta_vendor	0x000000012580000	0x000000012580fff	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/vbmeta_vendor.img	
×	super	0x000000012980000	0x00000008179445b	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/super.img	
×	cache	0x0000000cb380000	0x0000000cb38b04b	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/cache.img	
×	userdata	0x0000000d2380000	0x0000000d239710b	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/userdata.img	

Make sure the mode is "Download Only". However, in engineer development stage, partition table may change due to requirement. If this case happens and show below message, please change the mode to "Firmware Upgrade".



DON'T select "Format All + Download", it will permanently erase your NVRAM data, such as serial no., ethernet mac address ...



• Press "Download" icon.

		Smart	Phone Flash Tool(Ru	ntime Trace I	Mode)	
Options Window Help						
We	Icome Format	Download Readback	Memory Test			
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6	+	O Char				
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	and the second					- choose
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a 🦳 🕤 📘	ggpt	0x00000000000000000	0x0000000000043ff	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/GPT.img	
	cam_vpul	0x000000000480000	0x000000000592dbf	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/cam_vpu1-verified.i	mg
2	cam_vpu2	0x000000001380000	0x00000000170fd0f	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/cam_vpu2-verified.i	ng
2	cam_vpu3	0x000000002280000	0x00000000228ccbf	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/cam_vpu3-verified.i	mg
	lk Ik	0x0000000082c0000	0x000000008365d0f	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/lk-verified.img	
2	lk2	0x0000000083c0000	0x000000008465d0f	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/lk-verified.img	
	boot boot	0x0000000084c0000	0x000000000a4bffff	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/boot.img	
2	c recovery	0x000000000a4c0000	0x00000000c4bffff	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/recovery.img	_
	logo	0x00000000c540000	0x000000000c70bc1f	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/logo-verified.bin	
2	dtbo	0x00000000cd40000	0x000000000cd49aff	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/dtbo-verified.img	
	teel	0x0000000000e040000	0x0000000000e206adf	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/tee-verified.img	
	ubraeta	0x00000000000540000	0x0000000000000000000000000000000000000	EMMC_USER	/media/wdssd/SB35/out/target/product/sb35/tee-verified.img	
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	super	0×0000000012980000	0x000000008179445b	EMMC USER	/media/wdssd/SB35/out/target/product/sb35/super.img	
	cache	0x00000000cb380000	0x00000000cb38b04b	EMMC USER	/media/wdssd/SB35/out/target/product/sb35/cache.img	
	userdata	0x0000000d2380000	0x00000000d239710b	EMMC USER	/media/wdssd/SB35/out/target/product/sb35/userdata.img	
			-			
	0 B/s	0 Bytes EMM	C High Speed 0	:00 USB: [DA Download All(high speed,auto detect)	

Plug USB cable to SB35, then plug 12V power adaptor to SB35.





• Flash will start as below. After re-flash done, flashtool will show "Download Ok".







You may need to purge modemmanager if you can't start the download process.

\$ sudo apt-get purge modemmanager

3.2 Windows Flash Tool Download

- Extract "Driver_Auto_Installer_EXE_v5.1632.00.zip" and run "DriverInstall.exe" if no driver installed yet.
- Extract "SP_Flash_Tool_exe_Windows_v5.2044.00.000.zip".
- Run "flash_tool.exe".
- Follow the same download procedures as 3.1 Linux Flash Tool Download
- If your Windows Driver is installing properly, you can find USB VCOM (COMxx) port in Windows Device Manager during the download.

	🗧 Smart Phone Flash Tool(Runtime Tr	ace Mode)				-	
	File Options Window Help						
Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state	BM	Welcome Format	Download Rea	dback Memory Test			
 ⇒ Computer ⇒ Disk drives ⇒ Display adapters > ⇒ DVD/CD-ROM drives ⇒ Human Interface Devices ⇒ Human (167.457.41) 		Download-Agent Scatter-loading File	C:\SP_Flash_Tool_exe C:\sb30.userdebug.im	:_Windows_v5.1928.01 age\MT8167_Android_s	.000\\MTK_AllInOne_DA.bi	n V	choose
The AliA AIAPI controllers The AliA AIAPI controllers	MT8362	Authentication File		End Address	Region	Location	Choose
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> 🏣 System devices > 🏺 Universal Serial Bus controllers	D Chip Info	✓ tee_a (x0000000009900000	0x00000000009b69edf	EMMC_USER	C:\sb30.userdebug.image\tee-verif	ied.img
	Chip Name: MT8167 Chip Version: 0x0000cb00	✓ vbmeta_a (✓ system_a (✓ system_b (x000000000c700000)x000000000cd800000 x0000000cd800000	0x0000000003d94218f 0x00000000d3655117	EMMC_USER EMMC_USER EMMC_USER	C:\sb30.userdebug.image\vbmeta. C:\sb30.userdebug.image\system.i C:\sb30.userdebug.image\system_i	mg mg other.img
	Ext Clock: EXT_26M Extern RAM Type: DRAM Extern RAM Size: 0x80000000	✓ vendor_a ✓ userdata	0x000000018d800000	0x00000001958700e7 0x00000001Fd88c0F3	EMMC_USER EMMC_USER	C:\sb30.userdebug.image\vendor.i C\sb30.userdebug.image\userdata	ng Img
	EMMC Flash	15.63M/s	298.00M	[system] EMMC H	a] Download Flash 38% igh Speed 0:23	MediaTek PreLoader USB VCOM (Android) (COM1

4 Troubleshooting

If you see the error message while downloading, please try more times and repeat the following steps (Step 2 ~ Step 5)

- 1. Run flash_tool
- 2. Remove power cable. (Android device power off)
- 3. Flash tool press "Download" icon. (Download Only)
- 4. Connect the micro USB cable to your PC and Android device.
- 5. Connect power cable. (Android device power on)
- 6. Download will start.

5 Reference

• SB35-Android_User_Guide.pdf