

EM2416 Download Wince6.0 Image Manual

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1. The necessary files for download image

IROM_Fusing_Tool.exe: the program is used to fuse the Bootloader into the SD-card (Only for XP).

DNW.exe: the serial debug program is used to show the board details on the computer. **USB_Driver:** the USB driver of the PC is used to download the files on the base board from computer (only for XP).

IROM_SD_EBOOT.nb0: the SD-card Bootloader is used to boot the WINCE kernel or load it into NAND flash.

STEPLDR.bin: the first NAND flash Bootloader is used to boot the EBOOT.bin.

EBOOT.bin: the second NAND flash Bootloader is used to boot the WINCE kernel. **xip.bin:** the WINCE kernel image.

2. Download boot image into SD card

Preparing a 2GB SD-card and plug it with an adapter into your computer. Make sure your SD-card adapter can be normally used in your computer and select the removable disk as your device; you could format it with FAT32 file-system.

🔒 IROM_Fusing_Tool
SD/MMC Drive 🛛 👻 Drive Size
Image file to fuse
Browse
The image file will be fused from to On Drive
START

Double-click the **IROM_Fusing_Tool.exe** as follows:

Click "**Browse**" button and select the **IROM_SD_EBOOT.nb0** file in the WINCE images folder as follows:



打开	? 🛽	<
查找范围(<u>I</u>):	🗁 EM2416_IMAGE 🛛 🔮 🎲 🖽 -	
	IROM_SD_EBOOT. nb0]
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网上邻居	文件名 @): ┃	J
	文件类型 (I): Image (*. nb0)	Ĵ
	🗌 以只读方式打开 🗷	

Click" **SD/MMCDrive**" and select the Removable Disk letter on user computer, for example: **H**

A IROM_Fusing_Tool	
SD/MMC Drive I V Drive Size	
C:\Documents and Settings\Administrator\桌面\EM24 Browse	
The image file will be fused from to on	Drive
START	

Click "**TART**" button to fuse the **IROM_SD_EBOOT.nb0** into the SD card until the windows message box pop-up.





Unplug the SD card from the SD card adapter and insert it into the slot on the baseboard.

3. Download image into board

Open the **DNW.exe** program and set its configuration as follows:

[DNW->Configuration->Options]

Baud Rate: 115200

COM port: COM1 (user computer COM number, to the actual subject)

DRW v0.	.60C - For WinCE [COM:x][USB:x][ADDR:0x30000000]	_ 🗆 🛛
Serial Port	USB Port Configuration Help UART/USB Options Serial Port Baud Rate COM Port C 115200 C COM 1 C 57600 C COM 2 C 38400 C COM 3 C 19200 C COM 4 C 14400 C 9600	
	USB Port Download Address 0×30000000	~

Click" **OK**" to save the configuration and exit. In the menu, click [Serial Port->Connect] to open the serial port.

Set the board to start from SD card: baseboard "**F_SEL**" put dial to the right, then, power on the board, and click the PC **SPACE bar**:



Serial Port USB Port Configuration Help	
Ethernet Boot Loader Configuration:	^
0) IP address: 0.0.0.0	
1) Subnet mask: 255.255.255.0	
2) DHCP: Disabled	
3) Boot delay: 1 seconds	
4) Reset to factory default configuration	
5) Startup image: LAUNCH EXISTING	
6) Program disk image into SmartMedia card: Enabled	
7) Program CS8966 MAC address (60:00:00:00:00:00)	
8) KITL Configuration: DISABLED	
y) Format Boot Media For BinFS	
H) Frase Hil Blocks	
B) MARK BAO BLOCK AT RESERVED BLOCK	
C) Clean Budt uption: FHLSE	
E) Lodge neserveu bluck	
) Low level for mac the small freque calu	
R) Read Configuration	
U) DOWNLOAD image now(USB)	
W) Write Configuration Right Now	=
S) DONLOAD image now(SD)Now	
Enter your selection:	~

Select "5" and "6", make sure there are:

5) Startup image: LAUNCH EXISTING

6) Program disk image into SmartMedia card: Enabled

Select "**b**" -> "**9**" -> "**u**":

Enter your selection: b Reserving Blocks [0x0 - 0x5]reserve complete.

Ethernet Boot Loader Configuration:

```
Enter your selection: 9
Enter LowLevelFormat [0x6, 0x7ff].
Erasing flash block(s) [0x6, 0x7ff] (please wait): #### SECC1 Uncorrectable
error(0x4b40) ####
#### NAND LB ReadSectorInfo ECC Correct Spare1 Error
EraseBlocks: found a bad block (0x12d) - skipping...
#### SECC1 Uncorrectable error(0x170c0) ####
#### NAND_LB_ReadSectorInfo ECC_Correct_Spare1 Error
EraseBlocks: found a bad block (0x5c3) - skipping...
#### SECC1 Uncorrectable error(0x1cfc0) ####
#### NAND_LB_ReadSectorInfo ECC_Correct_Spare1 Error
EraseBlocks: found a bad block (0x73f) - skipping...
Done.
WriteMBR: MBR block = 0x6.
Done.
Ethernet Boot Loader Configuration:
```



If it is first time to burn image, please install the USB download driver before burning, in the install dialog box, assign to the USB_Driver directory: **secusb2.inf and secusb2.sys.** After install the USB download driver, in the DNW status bar: USB: X -> USB: OK:

m DRV v0.60C - For VinCE [COM1, 115200bps] [USB:0K] [ADDR:0x30000000]	
Serial Port USB Port Configuration Help	
error(0x4b40) ####	<u>^</u>
#### NAND_LB_ReadSectorInfo ECC_Correct_Spare1 Error	
EraseBlocks: found a bad block (0x12d) - skipping	
#### SECC1 Uncorrectable error(0x170c0) ####	
#### NAND_LB_ReadSectorInfo ECC_Correct_Spare1 Error	
EraseBlocks: found a bad block (0x5c3) - skipping	
#### SECC1 Uncorrectable error(0x1cfc0) ####	
#### NAND_LB_ReadSectorInfo ECC_Correct_Spare1 Error	
EraseBlocks: found a bad block (0x73f) - skipping	
	×

Then start to burn image:

🔤 DNW v0. 60C - For WinCE [COM1, 115200bps] [USB: 0K] [ADDR: 0x30000000] 📃 🔳	×	
Serial Port USB Port Configuration Help		
8) KITL C(Transmit) : DISABLED	^	
9) Format UBOOT VBOOT		
H) Erase K Test C:\Documents and Settings\Administrator\桌面\2416 Wince\A70\xip.bin		
C) Clean L C:\Documents and Settings\Administrator\桌面\2416 Wince\A70\EBOOT. bin		
D) Download image not C:\Documents and Settings\Administrator\桌面\2416_Wince\A70\STEPLDR.bin		
E) Erase Reserved B1 C:\Documents and Settings\Administrator\桌面\2416_Wince\W35\xip.bin		
F) LOW-level format C:\Documents and Settings\Administrator\桌面\2416_Wince\W35\EBOOT.bin		
R) Read Configuratio		
U) DOWNLOAD image not C:\Documents and Settings\Administrator\桌面\2416_Wince\W43\xip.bin		
W) Write Configurati C:\Documents and Settings\Administrator\桌面\2416_Wince\W43\EBOOT.bin		
S) DONLOAD image now(SD)Now		
Enter your selection: y		
System ready!		
Preparing for downloadg_bAutoDownload:		
0 a Three was benies have if Web44 et ann		
INFU: *** VEVICE NAME 'EM2410_0' *** Please send the Image through USB	≣	
r redse send ene rødge en odgn odd.	-	



打开		? 🗙
查找范围(I):	🗀 EM2416_3.5inch 🔽 🖙 🛅 🕶	
Recent Recent 桌面 我的文档 夏朝 我的电脑	EBOOT. bin STEPLDR. bin xip. bin	
网上邻居		
	文件名 (M): STEPLDR. bin 丁	Ŧ©
	文件类型 (I): BIN Files (*.bin;*.nb0;*.lst;*.ubi;*. ▼ B	取消

Select "STEPLDR.bin" and burn it into the board.

	×
Serial Port USB Port Configuration Help	
S) DONLOAD image now(SD)Now	^
Enter your selection: y	
System ready!	
Preparing for downloadg_bAutoDownload:	
0 a INFOR YAY Device Name (FMOR46 0) YAY	
INFU: *** DEVICE NAME EM2410_0 *** Please send the Image through USB.	
Download BIN file information:	
 [0]: Base Address=0x0	
Stepldr image	
rom_offset=0x0.	
ROMHDR at Address 00000044h dwlmagolopoth - 0v1000	
dwNm8locks = 0x1	
dwBlock(0x0) X g_FlashInfo.wSectorsPerBlock(0x40) = 0x0	
INFO: Step loader image stored to Smart Media. Please Reboot. Halting	
	\mathbf{v}

Reset the board and click PC **space bar**, the board into command line, then select "**u**" to burn the "**EBOOT.bin**" as the same burn "**STEPLDR.bin**".





Finally, switch '**F_SEL**' to left on carrier board to set EM2416 boot from Nand flash. Then power on EM2416 board, in the console, select '**u**' to burn "**xip.bin**" as the same burn "**STEPLDR.bin**", after that the WINCE system will start up.