

# **EM100Pro Series Frequently Asked Questions**

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If the EM100Pro Series (EM100Pro/EM100Pro-G2/EM100Pro-G3) does not operate normally, please check whether both the software (SW) and the firmware (FW) are the latest versions and have the correct hold pin setting.

1. Check the software version on DediProg Website

#### 2. HOLD pin setting

- 1. If EM100Pro Series has replaced the SPI Flash on the board, please set to **default low**.
- 2. If using QUAD IO to read Data, please set to Input by default.
- 3. If the board does not have SPI flash, please set to Floating by default.

Note: If using QUAD IO to read, IC must be removed from the board.

If set up correctly and have the appropriate SW/FW version, but EM100Pro Series still has operation/emulation issues, please refer to the below possible causes:

#### 1. All Functions are "Greyed-Out" and disable on software GUI.

12. 		DediProg EM100Pro serial flash	emulator 4.2.24		- 🗆 🗙
File View Help					
DHIP SELECT	DDWNLDAD VERIFY RUN	STOP UPLOAD EDIT BAT	CH CONFIGURE		
Currently emulation on:	Application Memory Chip 1	Application Memory Chip 2			
EM100 Operation Log				SPI Bus Status Pin Status CS# CLK SO SI HOLD# Last Issued Command	SPI Trace Start Trace Stop Trace Clear Buffer Save Trace Display Trace
SPI Hyper Terminal					T
				Check Point	Start Stop Clear Buffer Save Log SPI HT Viewer
Hold Pin Setting Reset Pin Setting	Memory Info Type: Manufact.: Size(KB): VCC(mV):	File Info Name Size: Checksum:	Batch Config Setti	] 19	
Device Not Ready					

Cause 1: The USB driver was not successfully installed.

Please download the latest driver installation guide and USB driver.

Cause 2: Check the power of EM100Pro Series. If the status light is not on, please send the device back to DediProg.



#### 2. Some functions are not available on the software.

Cause 1: If the Log window shows "Authentication Fail" notice, that means EM100Pro Series has hardware problem, please send the device back to DediProg.

	DediProg	EM100Pro serial flash emi	ulator 4.2.24 DP000004		- 🗆 🗙
ile View Help					
CHIP SELECT OPEN FILE		DP UPLOAD EDIT I			
Currently emulation on: 🗰	Application Memory Chip 1 C Applica	ation Memory Chip 2			
■M100 Operation Log () Welcome to Dedifyrog 4. () Type: EM JOOPRO () MCU Version: 2.25 () FPGA: 0.073 (3.3V) () HW Version: 0 () Serial Number: DP00000 () Serial Number: DP00000 () Start BN100Pro Hold Pin Setti () Checking Authentication Authentication Fall () Start EM100/EM100Pro.	4 JOPro/EM 100 ng: Filoating by default ting: Diable reset pin	eady to boot your system now.		SPI Bus Status Pin Status CS# High CLK Low SO High SI Low HOLD# High Last Issued Command [0x00	SPI Trace Start Trace Stop Trace Clear Buffer Save Trace Display Trace
SPI Hyper Terminal				Check Point	Start
					Stop
					Clear Buffer
					Save Log
					SPI HT Viewer
Hold Pin Setting	Memory Info	File Info	Batch Config Sett	ting	
Floating by default	Type: IS25LQ032C Manufact.: ISSI	Name Size: Checksum:	Stop Emulation Reload file	Reload file	
Reset Pin Setting Disable reset pin	Size(KB): 4096 VCC(mV): 3300		Download to EM100/ Verify from EM100/EI Start Emulation		
Device Ready					

Cause 2: The software and the firmware are the older versions, please check the latest version on DediProg website.

Note: The firmware supports two kinds of voltages: 1.8V and 3.3V.

#### 3. Emulation failure:

Step 1: Check if the cable head is connected to the board in the correct direction.

Step 2: Check if the physical flash IC can boot the board or not.

- If it cannot, then please check your BIOS code.
- If it can, then please proceed to the below steps:
  Check EM100Pro Series Emulate function
  - 1. If you have DediProg programmers like SF100, SF600 or SF600Plus, then use the programmer to test if the ICs that were emulated by the EM100Pro Series are programmable.



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#### 2. Check SPI Trace

					SPI Trace Viewer		- 🗆 🗙
Save Trace	Displ	ay All	Clear Lo	•	Translation		
TIMESTAMP(s)	CNT	CMD	ADDRESS	DATA			
22.25367358 22.25368289 22.25369200 22.25370151 22.25370147 22.25372014 22.25372014 22.25372819 22.25373547 22.2537547 22.2537547 22.2537547 22.2537547 22.2537547 22.25375420 22.27837364 22.45784526	53265 53266 53268 53269 53270 53271 53272 53272 53275 53275 53276	05 05 05 05 05 05 05 05 05 05 05 08	00 00 00	00 00 00 00 00 00 00 00 00 00 00 00 00	A 11 08 BF 17 63 F5 37 1B 0 P D8 87 DC 1B C0 8B 19 82 0 E 5A EE 44 72 D6 A7 97 C7 0 75 AD ED 66 AA 10 63 50 1A 47 45 DD 62 9E 2P 03 3A 17 79 08 40 67 7C B5 FF CE 15 02 CD 49 03 6A 8A 09 4F AL 18 35 64 1A 27 54 C0 0E D 10 9B E1 32 8E 36 5D 39 9E 18 35 64 1A 27 54 C0 0E D 19 8B 36 93 AA 2C 8B 50 B 19 2A 36 60 58 31 41 75 E0 1 17 40 84 60 5E 2A 94 80 7C 85 E C0 04 8A 60 EE CA 40 00 19 2A 36 60 58 31 41 75 E0 1 17 00 38 06 62 A9 88 B7 C3E 12 7A 17 2D D BA 64 88 C59 12 7A 01 72 DD BA 64 88 C57 12 7A 18 42 15 64 12 65 77 19 3 19 2C 85 64 A8 70 78 56 71 93 19 2C 85 64 A8 70 78 78 65 71 93 19 2C 85 64 A8 70 78 78 65 71 93 19 2C 85 64 A8 70 78 78 65 71 93 19 2C 85 64 A8 70 78 78 65 71 93 19 2C 85 64 A8 70 78 78 65 71 93 19 2C 85 64 A8 70 78 78 65 71 93 10 2C 85 64 A8 70 78 78 65 65 71 93 10 2C 85 64 A8 77 78 78 65 65 71 93 10 2C 85 64 A8 77 78 78 65 65 71 93 10 2C 85 64 A8 77 78 78 65 65 71 93 10 2C 85 64 A8 77 78 78 65 65 71 93 10 2C 85 64 A8 77 78 78 78 65 65 71 93 10 2C 85 64 A8 77 78 78 65 65 71 93 10 2C 85 64 A8 77 78 78 78 65 65 71 93 10 2C 85 64 A8 78 78 78 78 78 78 78 78 78 78 78 78 78	22 3C C9 7D 3E 22 51 0B 88 6E 20 51 0B 88 6E 20 51 09 67 71 51 39 97 71 51 59 97 72 50 25 74 76 D9 3 35 07 BF 24 8 67 9B 43 39 54 DE 12 D6 8B 23 04 70 5E 26 19 61 82 58 1D 19 0C 1A 73 BA 2 3D 7F 9A 64 3E 12 28 49 3 38 AA F6 47 30 5 1A F7 E5 53 10 14 F7 DD 24 0 F4 ED 3F 9F	
Filter	x06)	Г	Normal Read(0	x03)	Chip Erase(0xC7)	Address Range:	
Write Disable(0	)x04)	Г	Fast Read(0x0	)B)	Chip Erase(0x60)	Start: 0x 0	
Read Status Re	-		Page Program		Read ID(0x9F)	End: 0x FFFFFF	Start Filtering
Write Status Register (0x01)		D1) [	Sector Erase(0	xD8)	Others: 0x	Mask Non Significant Address E	lits Save Result

a) SPI trace has data

- Cause 1: High Read/Write frequency causes "bit lost", so try to reduce the read frequency. The highest frequency that supported by "Normal Read" is 33Mhz, so it is recommended to use "Fast Read" instead of "Normal Read."
- 2. Cause 2: The board's voltage is incorrect. Use voltage testing tool to check if the board and the IC are having the corresponding voltage.
- 3. Cause 3: If the hold pin that designs the serial flash on the circuit board is directly connected to the VCC (Without pull-up resistor), then the hold pin must be set as "floating" or "input" in software configuration.
- 4. Cause 4: The command is not supported. Please provide the SPI trace to support@dediprog.com.
- b) SPI does not have any data
  - 1. Cause 1: If the hold pin that designs the serial flash on the circuit board is directly connected to the VCC (Without pull-up resistor), then the hold pin must be set as "floating" or "input" in software configuration.
  - Cause 2: High Read/Write frequency causes "bit lost", so try to reduce the read frequency. The highest frequency that supported by "Normal Read" is 33Mhz, so it is recommended to use "Fast Read" instead of "Normal Read."

If the above steps cannot solve the issues, please e-mail the SPI trace to support@dediprog.com

4. Some part of the board can be successful emulated with the same BIOS code. Please provide the SPI traces that have succeeded or failed to us at support@dediprog.com, and we will help you solve the problems

Note: Please test it under the same conditions, for example, with the same BIOS code, model name, cables, and EM100Pro Series, etc.

If the above Q&A does not resolve your issues, please provide the following information to

#### support@dediprog.com

- 1. Programmer Type (EM100Pro Series/EM100)
- 2. Full IC part number
- 3. Software Version
- 4. Firmware Version (MCU version & FPGA version)
- 5. Connection Way
- 6. Platform type
- 7. Screenshot of the related information



## **Revision History**

Date	Version	Description	
2015/07/14	1.0	First Edition	
2016/11/01	1.1	Update Image and SPI trace	
2023/07/06	1.2	Add EM100Pro-G3 and modified the FAQ layout	

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