

EW-VMF User's Guide

Overview

The EW-VMF is one of Holtek's device writers and is an upgraded version of the HT-VMF-02 writer. The EW-VMF supports EV Boards programmed using the old writers but also adds certain programming functions to some devices such as the VMF01A, VMF02A and VMF03A.

The EV Board contains the HT36, HT37, HT83 and HT86 series devices. Different MCUs require related EV Boards for simulation.

Simulation Listing

The current EV Boards in the market are the VMF01A, VMF02A and VMF03A which can replace all the older version EV Boards.

Note:

- The older EV Boards are currently in a Keep status. Simulations with the VMF0XA are recommended for new developments.
- It is not recommended to keep using the Music & Voice MCUs that have been replaced by the Enhanced MCUs.
- Eg:
 - The HT36 series MCU has been replaced by the enhanced HT37 series MCU.
 - The HT86030, HT86070, HT86072, HT86144, HT86192, HT86R192, HT86384, HT86R384, HT86576 and HT86768 have been replaced by the enhanced HT86AXX and HT86BXX series MCU.

Simulation Tool Listing Table:

- VMF01A: supports the HT37 series

Enhanced Music MCU								
Board Name	Core EV	Flash Memory	Support IC	Size	Version	Writer	History Name	Status
	HT37P00	MX29LV033C 32Mbit (TSOP 40)	HT37Q20, HT37Q30, HT37Q40, HT37Q50, HT37Q60, HT37Q70	Big	Ver4.1	EW-VMF	HT37P06	M (Keep)
	HT37P00	MX29LV640D 64Mbit (TSOP 48)	HT37A20, HT37A30, HT37A40, HT37A50, HT37A60, HT37A70	Big		EW-VMF	HT37P07	M (Keep)
	HT37P00	MX29LV033C 32Mbit (LQFP 80)	HT37B30, HT37B50, HT37B70, HT37B90	Small	Ver4.2	EW-VMF	HT37P08	M (Keep)
VMF01A	HT37P00	MX29LV320D 32Mbit (LQFP 80)		Small	Ver1.0	EW-VMF	HT37P0A	A (Promote)

- VMF02A: supports the HT83 series

Q-Voice™ MCU								
Board Name	Core EV	Flash Memory	Support IC	Size	Version	Writer	History Name	Status
	HT83P00	MX29LV033C 32Mbit (TSOP 40)	HT83004, HT83007, HT83010, HT83020, HT83038, HT83050, HT83074, HT83R074	Big		EW-VMF	HT83P06	C (Close)
	HT83P00	MX29LV033C 32Mbit (LQFP 80)		Small	Ver2.0	EW-VMF	HT83P07	M (Keep)
VMF02A	HT83P00	MX29LV320D 32Mbit (LQFP 80)		Small	Ver1.0	EW-VMF	HT83P0A	A (Promote)

- VMF03A: supports the HT86A and HT86B series

AID Type Voice MCU									
Board Name	Core EV	Flash Memory	Support IC	Size	Version	Writer	History Name	Status	
	HT86P10	MX29LV033C 32Mbit (TSOP 40)	HT86B05, HT86B10, HT86BR10, HT86B20, HT86B30, HT86BR30, HT86B40	Big	Ver1.0	EW-VMF	HT86P16	M (Keep)	
	HT86P10	MX29LV033C 32Mbit (LQFP 80)	HT86B50, HT86B60, HT86BR60, HT86B70, HT86B80, HT86B90	Small	Ver2.1	EW-VMF	HT86P17	M (Keep)	
VMF03A	HT86P10	MX29LV320D 32Mbit (LQFP 80)		Small	Ver1.0	EW-VMF	HT86P1A	A (Promote)	
Enhanced Voice MCU									
Board Name	Core EV	Flash Memory	Support IC	Size	Version	Writer	History Name	Status	
	HT86P10	MX29LV033C 32Mbit (TSOP 40)		Big	Ver1.0	EW-VMF	HT86P16	M (Keep)	
	HT86P10	MX29LV033C 32Mbit (LQFP 80)	HT86A36, HT86A72, HT86AR72	Small	Ver2.1	EW-VMF	HT86P17	M (Keep)	
VMF03A	HT86P10	MX29LV320D 32Mbit (LQFP 80)		Small	Ver1.0	EW-VMF	HT86P1A	A (Promote)	

- The HT36 series has been replaced by the HT37 series

Music MCU									
Board Name	Core EV	Flash Memory	Support IC	Size	Version	Writer	History Name	Status	
	HT36P00	MX29LV033C 32Mbit (TSOP 40)	HT36QXX, HT36AXX, HT36BXX	Big		EW-VMF	HT36P05	C (Close)	
	HT36P00	MX29LV033C 32Mbit (TSOP 40)		Big		EW-VMF	HT36P06	M (Keep)	

IC Replaced by HT37XXX, Flash Board Replaced by HT37PXX

- The HT86xxx series has been replaced by the HT86Axx and HT86Bxx series

Voice MCU									
Board Name	Core EV	Flash Memory	Support IC	Size	Version	Writer	History Name	Status	
	HT86P00	MX29LV033C 32Mbit (TSOP 40)	HT86030, HT86070, HT86072, HT86144, HT86192, HT86R192, HT86384,	Big		EW-VMF	HT86P05	C (Close)	
	HT86P00	MX29LV033C 32Mbit (TSOP 40)	HT86R384, HT86576, HT86768	Big	Ver1.0	EW-VMF	HT86P06	M (Keep)	

IC Replaced by HT86AXX and HT86BXX, Flash Board Replaced by HT86P1X

Software Installation

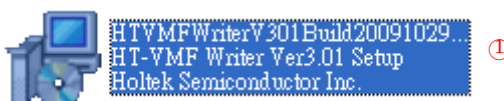
The software supplied with the EW-VMF is the HTVMFWriter.exe. Place the mouse at the status column and double click to check the version information as shown in the figure below.



Software Download: http://www.holtek.com/english/tech/tool/voicetools_ht8386.htm#ide

Installation Procedure:

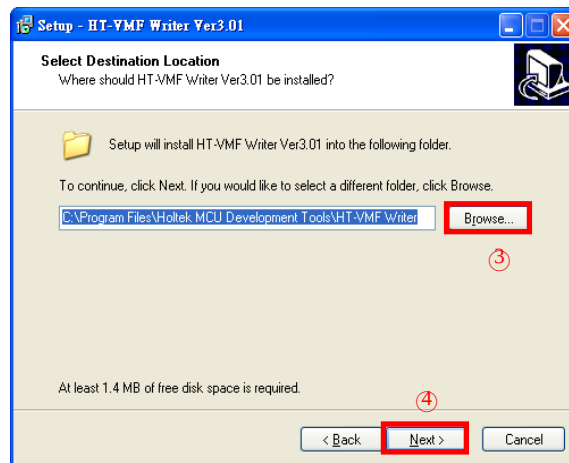
- Double click the Setup icon.



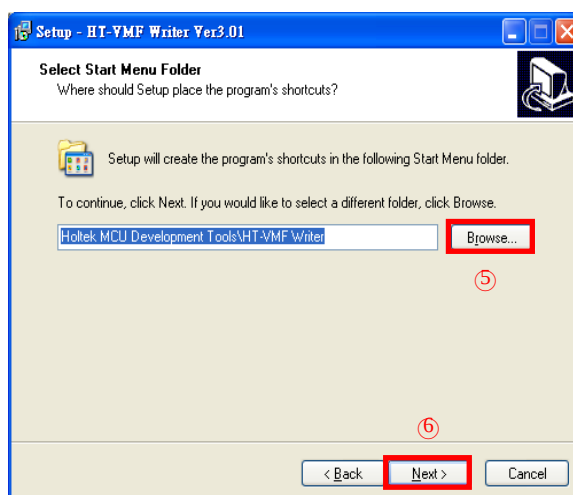
- Select Next to enter the next step.



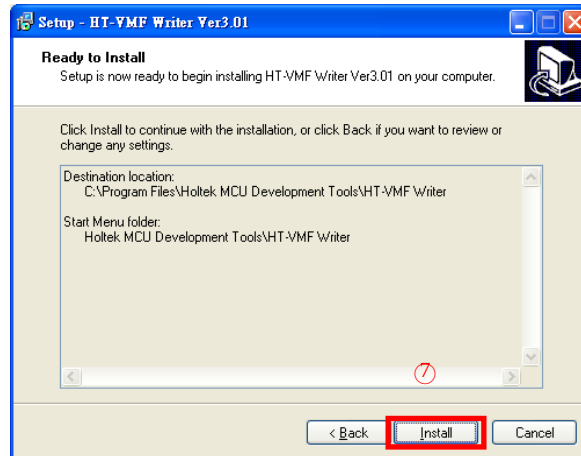
- Choose a directory for installation. Click Next for the next step.



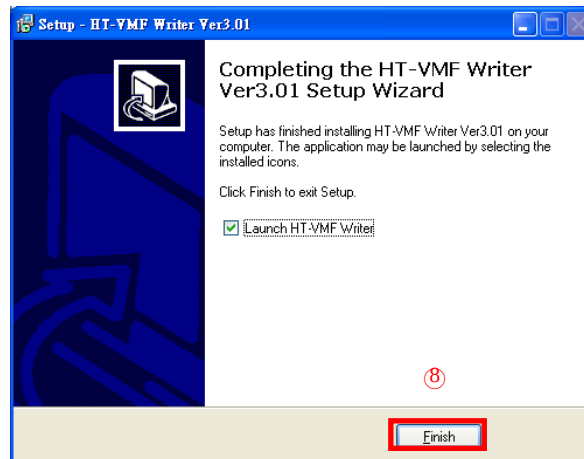
- Choose a Start Menu folder. Click Next for the next step.



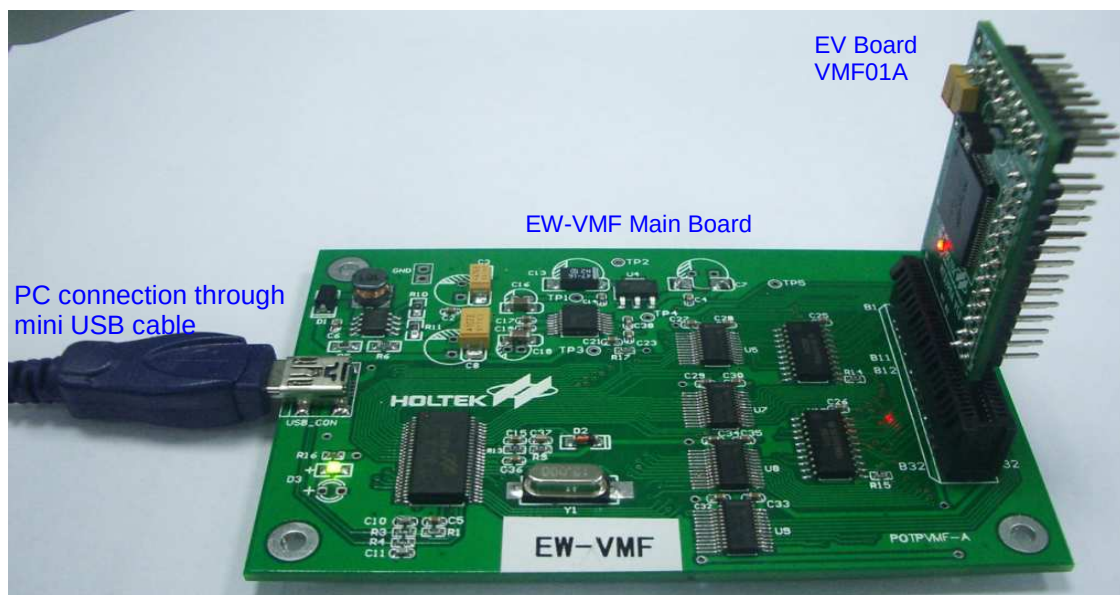
- Specify the installation path. Click Next to continue with the installation.



- Click Finish to complete the installation.



Hardware Connection



Software Description

Software Control Description

- File

Menu	Command
Open	Open an existing .COD file
File Name	Display the save path of the active file
File Size	Display the total byte numbers of the active files in decimal
File Checksum	Display the last four numbers of the active file bytes in hexadecimal

- Process

Menu	Command
Erase	Erase the window data from the specified Flash unit
Program	Write the window data to the specified Flash unit
Verify	Calibrate the window data of the specified Flash unit

- Auto Process

Menu	Command
Auto	Click the Auto button to execute in turn the operation corresponding to the specified function names.

- Demo Board Info

Menu	Command
More Info	Click the button to see more Flash information: MID, DID, data width, Flash size

- Process Range Setting

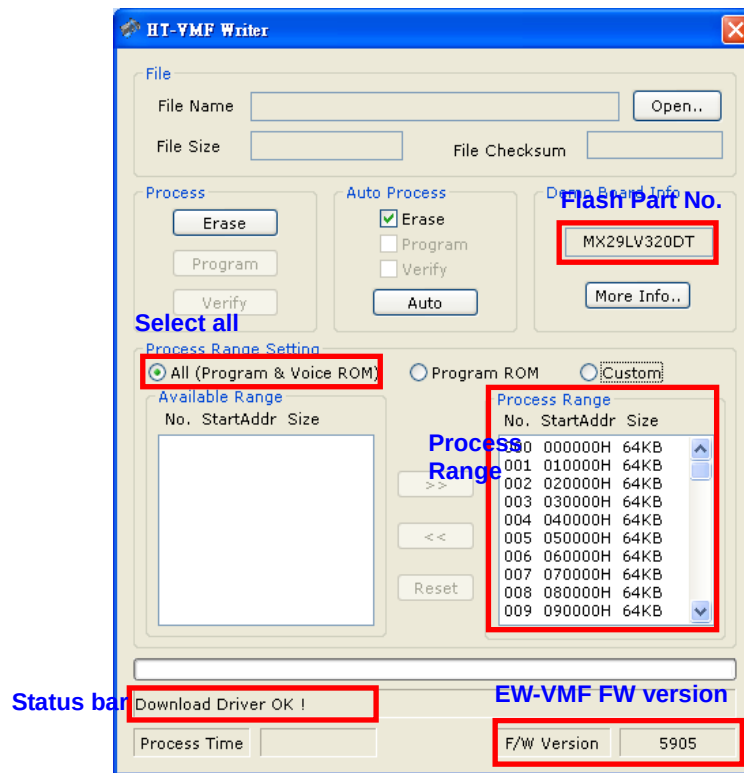
Menu	Command
All	Select all Flash units to whom all operations are valid. The operation will be separated in segments for execution. Each segment size differs according to the specification of the Flash unit.
Program ROM	The operation is only valid to the first 64 bytes of the Flash where the space is constantly used to save the MCU program
Custom	Operation only to the specified segment selected by the users
Available Range	Available Range: display the presently available segments
Process Range	Process Range: display the presently processed segments.
>>	Valid only under the Custom menu for adding the specified segments to the Process Range
<<	Valid only under the Custom menu for erasing the specified segments from the Process Range
Reset	Clear the present Process Range

- Miscellaneous

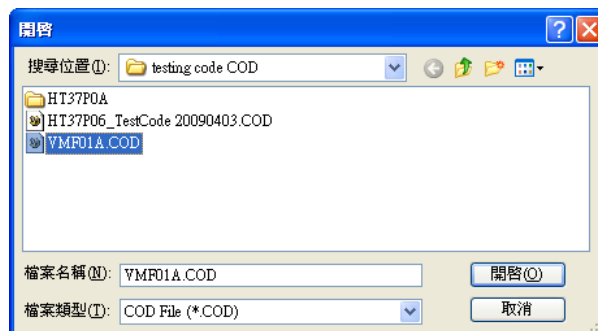
Menu	Command
Process Time	Display the operation time consumption of Erase, Program and Verify.
F/W Version	Display the EW-VMF FW version

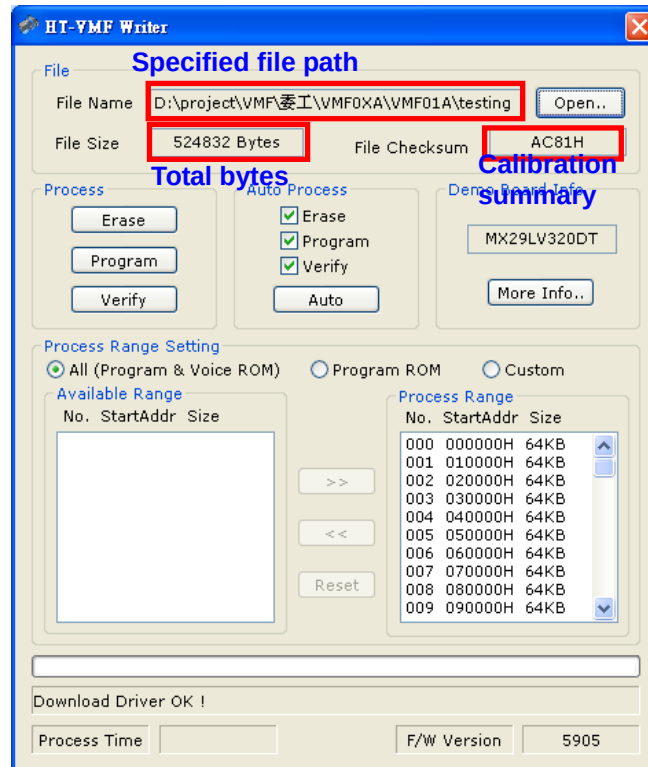
Writing Process

- Open the HTVMFWriter.exe after the hardware has been connected and the following dialog box will be shown in the normal condition.

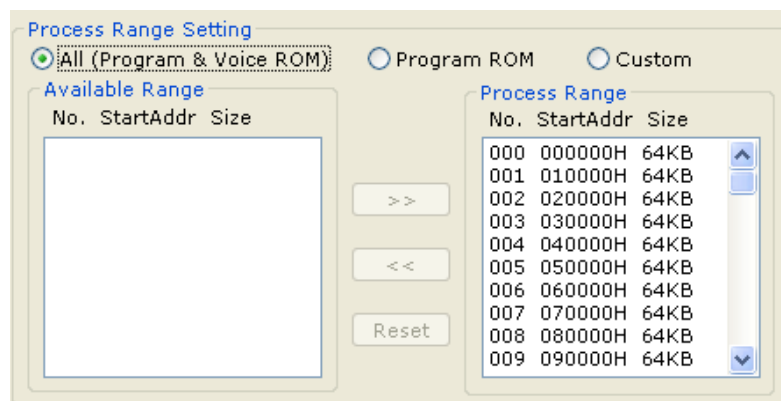


- Click 【Open...】 and choose an active .COD file

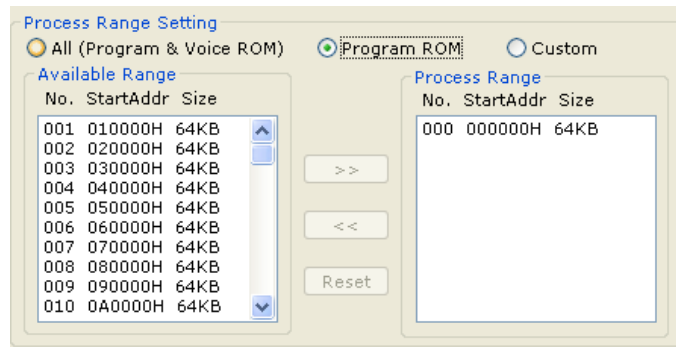




- Select the required Flash Process Range according to actual conditions. Three types are selectable:
 - All : select the full Flash



- Program ROM: select the first 64KB of the Flash only



Process Range Setting

☒ All (Program & Voice ROM) ☒ **Program ROM** ☐ Custom

Available Range

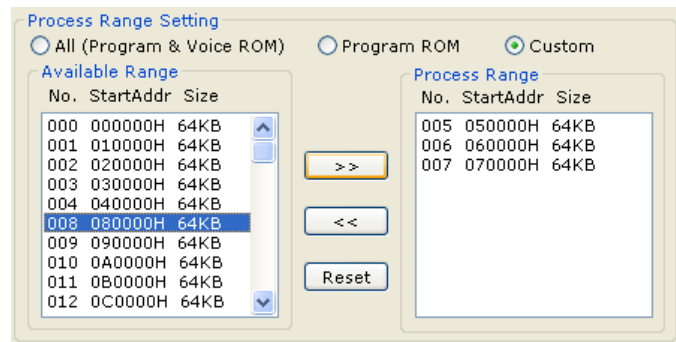
No.	StartAddr	Size
001	010000H	64KB
002	020000H	64KB
003	030000H	64KB
004	040000H	64KB
005	050000H	64KB
006	060000H	64KB
007	070000H	64KB
008	080000H	64KB
009	090000H	64KB
010	0A0000H	64KB

Process Range

No.	StartAddr	Size
000	000000H	64KB

>> << Reset

- Custom: select the process range according to the actual condition



Process Range Setting

☐ All (Program & Voice ROM) ☐ Program ROM ☒ **Custom**

Available Range

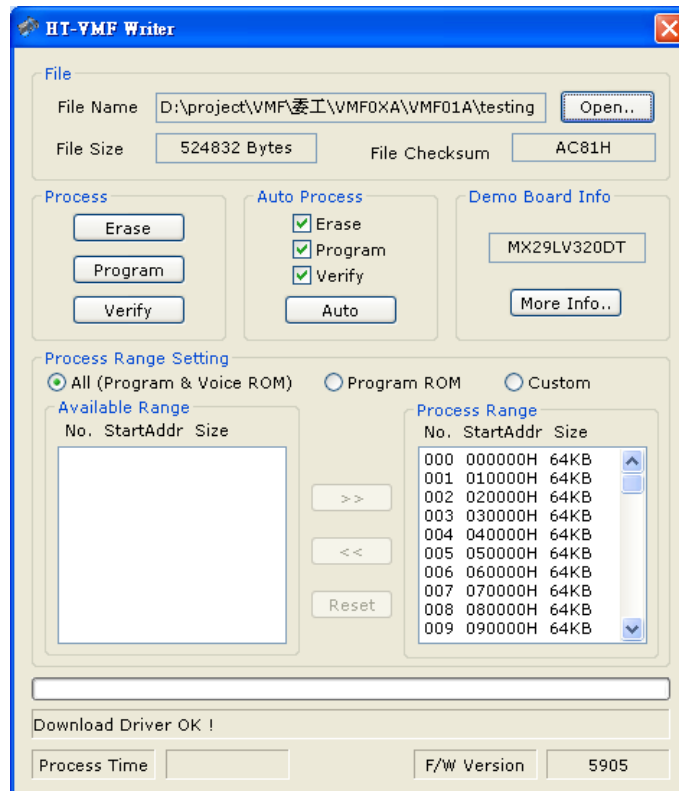
No.	StartAddr	Size
000	000000H	64KB
001	010000H	64KB
002	020000H	64KB
003	030000H	64KB
004	040000H	64KB
008	080000H	64KB
009	090000H	64KB
010	0A0000H	64KB
011	0B0000H	64KB
012	0C0000H	64KB

Process Range

No.	StartAddr	Size
005	050000H	64KB
006	060000H	64KB
007	070000H	64KB

>> << Reset

- Click the process button according to requirements to execute the Flash operation.
The Erase command must be executed before programming each time.



HT-VMF Writer

File

File Name: D:\project\VMF\委工\VMF0XA\VMF01A\testing Open..

File Size: 524832 Bytes File Checksum: AC81H

Process

Erase Program Verify

Auto Process

☒ Erase ☒ Program ☒ Verify Auto

Demo Board Info

MX29LV320DT More Info..

Process Range Setting

☒ All (Program & Voice ROM) ☐ Program ROM ☐ Custom

Available Range

No.	StartAddr	Size
-----	-----------	------

Process Range

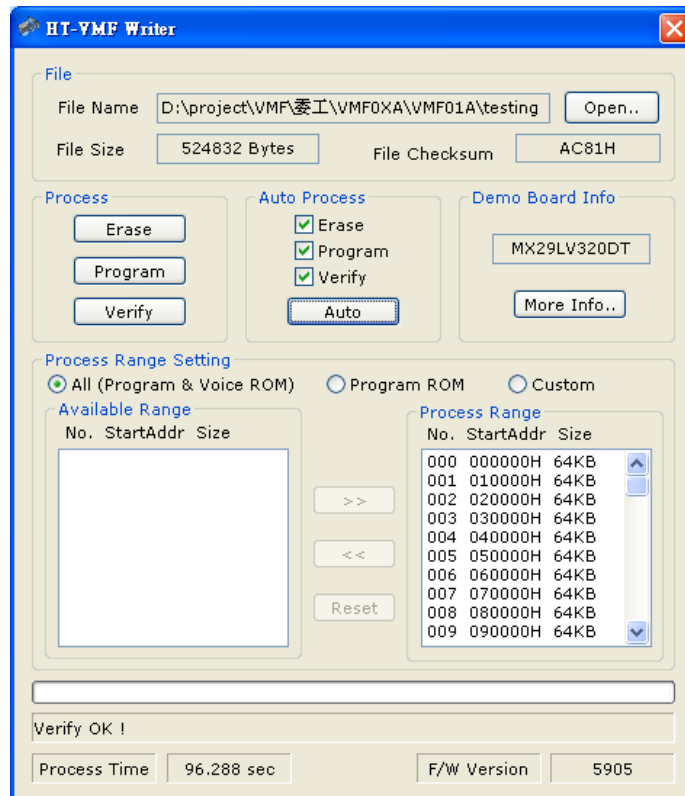
No.	StartAddr	Size
000	000000H	64KB
001	010000H	64KB
002	020000H	64KB
003	030000H	64KB
004	040000H	64KB
005	050000H	64KB
006	060000H	64KB
007	070000H	64KB
008	080000H	64KB
009	090000H	64KB

>> << Reset

Download Driver OK !

Process Time: F/W Version: 5905

- After programming, remove the EV Board and place it on the application circuit for further simulation.



Special Considerations

EV Board Unable to Find

This may result from bad connection of the gold fingers. Try to heighten the EV Board a little.

Cannot Find the Demo Board or Not Supported Demo Board Type !

Calibration Failed when Writing the Flash

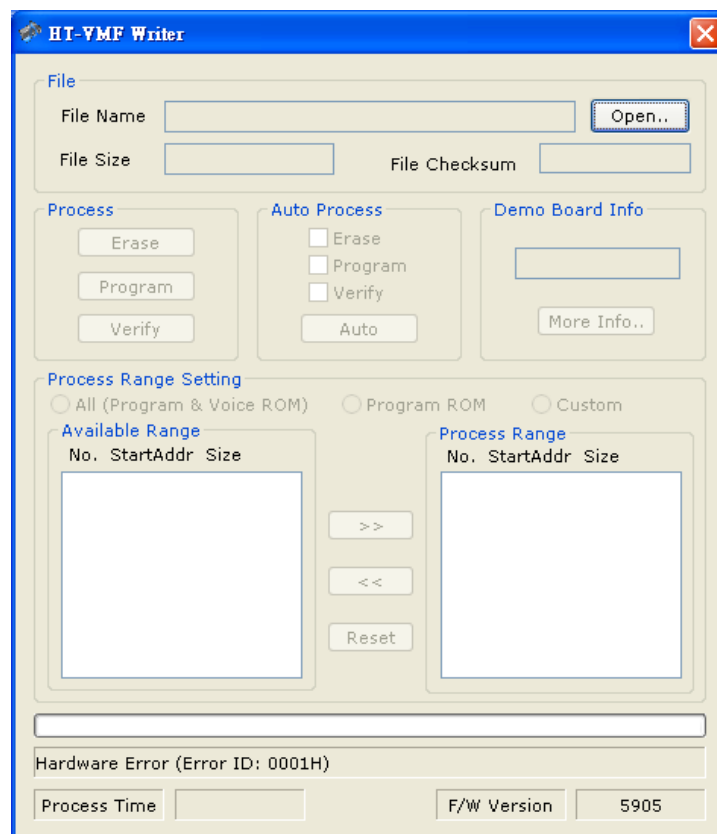
Erase command must be executed before programming.

Programming Successful but EV Board Unable to Simulate

Please refer to the simulation listing and specify the EV Board that supports the MCU you use.

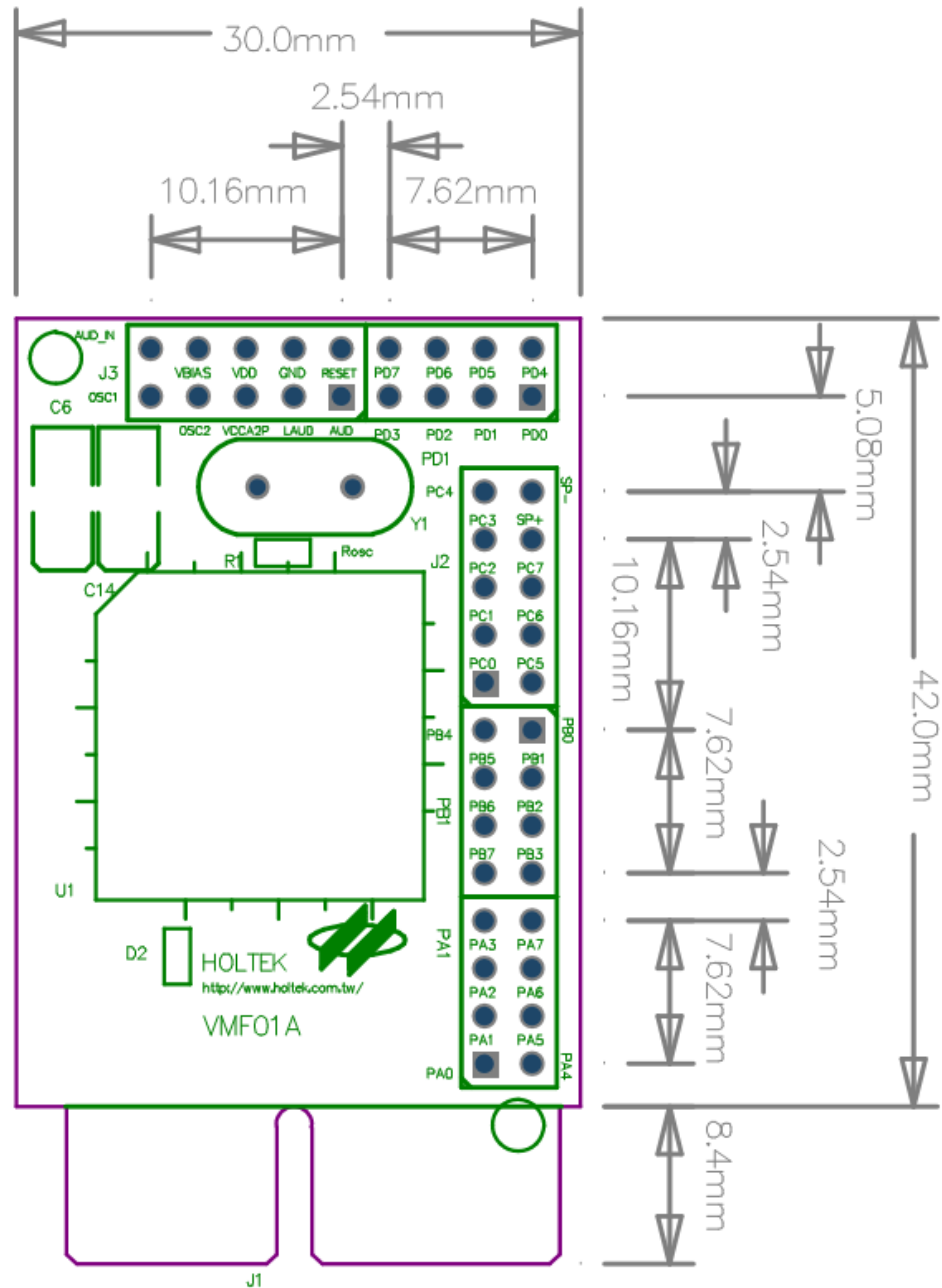
Hardware Error

If an error occurs, please contact Holtek FAE.

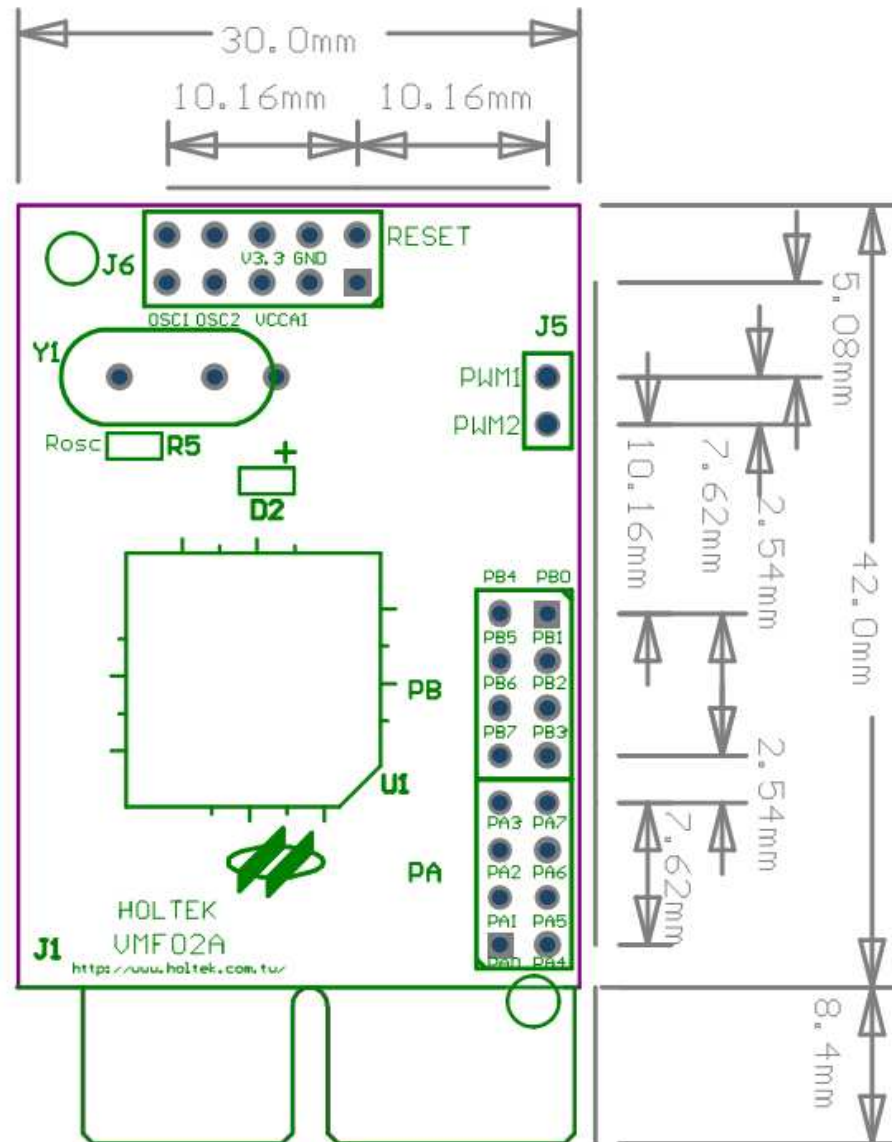


Main EV Board Dimensions

VMF01A PCB Dimension



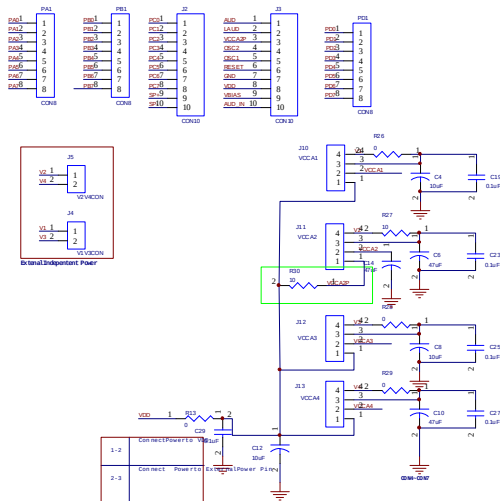
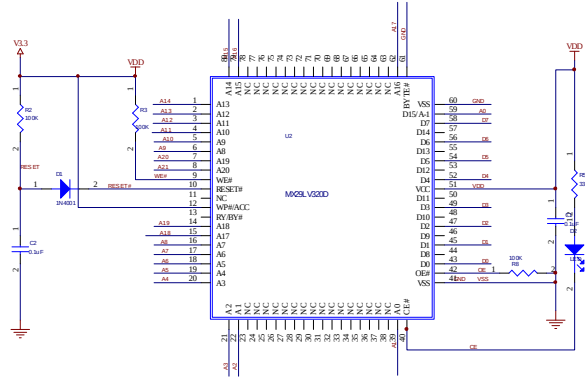
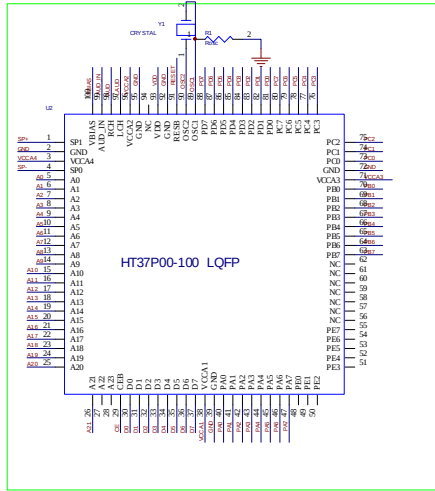
VMF02A PCB Dimension



[illegible]

Main EV Board Application Circuits

VMF01A Circuits



A11	1	25	A30
A12	2	26	A31
A13	3	27	A32
A14	4	28	A33
A15	5	29	A34
A16	6	30	A35
A17	7	31	A36
A18	8	32	A37
A19	9	33	A38
A20	10	34	A39
A21	11	35	A40
A22	12	36	A41
A23	13	37	A42
A24	14	38	A43
A25	15	39	A44
A26	16	40	A45
A27	17	41	A46
A28	18	42	A47
A29	19	43	A48
A30	20	44	A49
A31	21	45	A50
A32	22	46	A51
A33	23	47	A52
A34	24	48	A53

[illegible]

