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AMENDMENT HISTORY

Version	Date	Description	
V1.0	Aug, 2010	New Release	
V1.1	Sep, 2010	Modify figure of IC pin location.	
V1.2	Ian 2011	1. Add TM57PE10, TM57PE11A OTP IC	
V 1.2	Jan, 2011	2. Add Mass Production Mode page	
		1. Add 8-bit: TM57PA10A, TM57ML40, TM56FA40	
		2. Add Compare File function	
V1 3	Mar 2011	3. Add Set Protect	
, 1.5	101ur, 2011	4. Add Read Chip Information	
		5. Add Production Limit mode	
		Add page 9, 28, 33~42	
V1.4	Dec. 2011	1. Add 8-bit: TM5/PE15, TM5/PA20A, TM5/P11 OTP IC	
	,	2. Add TWR99 Auto Reset function	
		3. Add Update F/W and Load data screen	
		4. Add page $13 \sim 15, 45, 46$	
V1.5	May, 2012	1. Add 8-bit OTP IC: TM5/PETIB, TM5/PA21 2. Add Download write data and write parameters comparing function	
	-	2. Add Download while data and while parameters comparing function	
		A Modify the Independent Firmware version 1.0 to version 1.1	
		5 Modify the external control signal (to match the semi-automatic	
		machine usage)	
		6. Modify pages 3, 6, 8, 15, 16, 29, 33, 38	
		1. Add 8-bit IC: TM57PE15A, TM57PA21, TM57PA25, TM57MR10.	
V1.6	Sep, 2012	TM57MR20 IC writer function.	
		2. Modify the TWR99 Writer Firmware (Compatible with previous	
		versions and the new version of the hardware).	
		3. Improve the TWR99 software, download data file continue to hold	
		problem.	
		4. Modify of TWR99 Firmware (solve problem: LED lights prompt,	
		and P.10 output signal is different).	
V1 7	Ian 2013	1. Add 8-bit IC: TM57MA21, TM57PA20A, TM57MR10,	
· 1./	Juli, 2015	TM57MR20, TM57P11, TM57P11B, TM57PE11BS, TM57P11C,	
		TM57PE11C, TM57PE11CS, TM57PE12AS, TM57PE15AS,	
		TM5/PE15C, TM5/PE15CS IC writer function	
		2. Merge TWR98 TWR99 software program, and is compatible with	
		nardware 1 w K98/99 writer 2 Modify the TM57 series IC write ID word program to reduce ID	
		3. Modify the TWS7 series IC write ID word program to reduce ID word write error occurred	
		4 Modify Pood IC Information function	
		5 Modify TM57 series IC program software to shorten the program	
		time	
		6 Add FLASH / MTP Series IC operating Blank Check function, will	
		be done Clear all data of the alarm	
		7. Modify the TM89 series of IC entry mode by sending 42 INT instead	
		of sending 34 INT	
		8. Modify TM57 Series IC Firmware show version, upgrade to version	
		1.2	



		9. Modify pages 2, 6, 10, 11		
V1.8	June, 2013	 Add 8-bit IC: TM57P11CU, TM57MA20, TM57MA21A, TM57MA21B, TM57FA40A, TM57PE12D, TM57PA11, TM57PE16, TM57PE20A, TM57PT20A IC writer function 		
		2. TM57 series OTP IC Firmware modified to reduce interference		
		problems PA4 pin and Address disorder		
		3. TM57 series OTP IC parameter is modified to reduce the data		
		VIIIe eIIOF FM57 series OTP IC ID Word Bit 12–13 determine command		
		to modify to prevent re-write may result LVR problems		
		resulting the low voltage mode can not enter		
		5. Modify TM57 Series IC Firmware show version, upgrade to version		
		1.2		
		6. Modify 8Bit series IC, System CFG Data Description		
		/. Modify pages 3 1 Add New IC writer function :		
V1.9	Dec,2013	TM52 = miss + TM52M5254 + TM52M5259		
		TM52F5284, TM52F5288, TM52F2260, TM52F2261, TM52F2264		
		TM57 series : TM57PA45, TM57ME16, TM57PA15, TM57PA21B, TM57PA25B, TM57FA40A, TM57FLA80A		
		TM56 series : TM56MH40		
		TM87 series : TM8793		
		USB Full Speed series : TMU3115		
		2. Modify MTP / FLASH series IC, Check ID_mechanism		
		3. Part of the IC, 25P05 / 25X20 IC store command modification		
		4. Modify some IC write operating parameters		
		 Modify TM57 Series IC Firmware show version, upgrade to version 1.4 		
		5. Modify some software bugs		
		8. Modify pages 3, 4, 5, 6		
		1. Add New IC writer function :		
		TM52 series : TM52F5264, TM52F5268, TM52F5274, TM52F5278		
V2.0	Aug, 2014	TM57 series : TM57PA16, TM57PT16, TM57PA45, TM57PA28, TM57PA46, TM57PT46, TM57MA25, TM57PA20B, TM57PA20AS, TM57ME16AS		
 strengthen TM52 s Part of the IC, 25P 		2. strengthen TM52 series IC, ICP program mode capability		
		Part of the IC, 25P05 / 25X20 IC store command modification		
		4. Add Serial Number function in TM52 series IC		
1				



		5.	Add (IAP) Write function in TM52 series IC	
		6.	Add TM57MT20 IC trim frequency function	
		7.	solving software in Win7 / Win8 use issues	
		8.	Modify some software bugs	
			Modify pages 3,4	
		1.	Add New IC writer function :	
			TM52 series : TM52F2280, TM52F2284, TM52F2230, TM52F2234	
	Nov, 2014		TM57 series : TM57PE20B, TM57PT20B,	
V2.1		2.	TM52 series IC, adding ICP (4 Wire) program mode	
		3.	TM57 Series Touch Key IC Firmware modification	
		4.	Modify some software bugs	
		5.	Modify pages 4	
		1.	Add New IC writer function : TM57 series : TM57PA 16B TM57PT16B	
	Feb, 2015			
		2.	Flash Memory 25P05 / 25X20 IC store command modification (for TM57 serial OTP IC)	
V2.2		3.	TM52 series Touch Key IC Firmware modification	
		4.	Software and Firmware version will consistency, automatic updates	
		5.	Modify some software bugs	
		6.	Modify pages 4	



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PRODUCT NAME

TWR99

TITLE

USB Writer

FEATURES

- 1. USB Interface.
- 2. The device can be attached to a computer and controlled by software for programming or it can also be operated independently as a stand-alone writer.
- 3. Both software and firmware can be updated.



1. Support 8-bit series IC

- **<u>1.1</u>** 8-bit TM52 series: Please refer to the Device List in the TWR99 Software.
- **<u>1.2</u>** 8-bit TM56 series: Please refer to the Device List in the TWR99 Software.
- **<u>1.3</u>** 8-bit TM57 series: Please refer to the Device List in the TWR99 Software.

💠 USB_Writer TM	157PA40			
File Device Opera	ation <u>A</u> bout			
Auto	llank check Program Verify	1	Smart Option	Fuse
	IC Type Select		×	
	Series : MCU: 8 Bit TM57 S	Geries	ОК	
	IC Type : TM57PA40		Cancel	
	🗖 Display Serial Number	EXHV ISP program		Checksum
	Series List :	Type List :		Program Pin Placement:
	MCU: 8 Bit TM57 Series	TM57PE10_14 TM57PE10_18 TM57PE12_14 TM57PE12_14 TM57PA20_16 TM57PA20_20 TM57PA40_20 TM57PA40_20 TM57FA40_8 TM57FA40_8 TM57FA40_16 TM57FA40_20 TM57F1A80_48		VSS T-16 VDD PA42 PA33 14 PA1 VPP 4 9 PA0 TM57PA40_16PIN
				🌿 USB was not connected

<u>1.4</u> IC Program Filename Extension:

- **<u>1.4.1</u>** TM52 series IC Program Extension: *.tenx file
- **<u>1.4.2</u>** TM56 series IC Program Extension: *.hex file
- 1.4.3 TM57 series IC Program Extension: *.hex file



2. Hardware and PC setup

Step 1: Connect the DC 9V Adapter and USB Cable (mini B Type).



Step 2: Turn the Power on.





3. Hardware Function Description

• BUSY • Fail • OK	
十速科技股份有限公司 tenx technology inc.	
TWR99	3
2 Enter Mode 1	
4	

<u>3.1</u> Mode button: click once will switch to the next mode (as shown in Table 1)

	-		
NO.	LCD Display mode	Description	
1	CHIP NAME (ex. TM57PA40)	CHIP NAME	
2	AUTO	AUTO (Blank check + Program + Verify) function	
3	BLANK CHECK BLANK CHECK (OTP series IC: Blank check) (FLASH/MTP series IC: Erase+Blank check)		
4	PROGRAM	PROGRAM (Program + Verify) function	
5	VERIFY	VERIFY function	
6	CHECKSUM_EEPROM	This function is used to check the correctness of the PC download data, which is to be programmed to the EEPROM. It is deemed correct if the Checksum value from EEPROM is equal to the Checksum value from software.	
7	CHECKSUM_O OTP	This function is used to read back the data from the OTP Chip to do the Checksum calculation. It will be deemed correct only if the Checksum value from OTP chip is equal to the Checksum value from EEPROM.	
8	FW VERSION	FW VERSION $=>$ (ex. TM57PA40 : 1.2)	

Table 1



3.2 Enter button: once the mode is selected, press Enter to execute.

<u>3.3</u> Programming pins for IC type:

Please refer to the Program Pin Placement in the TWR99 software.



3.4 EX_Control: External Control Signal





3.4.1: Signal Name and Pin Location

9:N.C.	7:Result2	5:GND	3:Result0	1:VDD
10:N.C.	8:N.C.	6:GND	4:Result1	2:Start

3.4.2: Signal Function

- 1. VDD pin => Output Power, +3V
- 2. Start pin => Input Start signal, Hi Pulse valid (start signal valid width >10 ms)
- 3. Result0, Result1 and Result2 pins => Output Programming result, the status is as below:

Result2	Result1	Result0	Status
1	0	0	BUSY
0	1	0	FAIL
0	0	1	OK

3.5 LCD Panel and LED: Display the programming result.

- **<u>3.5.1</u>** Yellow LED: the LED blinks when downloading writer file data or during writing process, means it is in busy state.
- **<u>3.5.2</u>** Red LED: red light ON means writing process fails. When IC is taken away or writing mode is switched to another mode, LED will be switched off.
- **3.5.3** Green LED: green light ON means the writing process succeeded. When IC is taken away or writing mode is switched to another mode, LED will be switched off.



4. Software Function Guide

File Device Operation About 8	
Auto Blank check Program Verify 5 10 Smart Optical Fuse	
D:\智存\code\tice59 build U37 np\pa4U-not reuse\not rei 4 Chip Name IM57PA40	
	9
00000050 00 00 40 00 FF 3F FF 3F FF 3F FF 3F FF 3F FF 3F $(2, 2, 2, 2, 2, 2)$	
00000060 FF 3F . ? ? ? ? ? ? ? ? ? ? ? ?	
00000070 FF 3F , ?, ?, ?, ?, ?, ?, ?, ?, ?	 1
00000080 FF 3F , ?, ?, ?, ?, ?, ?, ?	
00000090 FF 3F , ?, ?, ?, ?, ?, ?, ?, ?	/3
000000A0 FF 3F , ?, ?, ?, ?, ?, ?, ?, ?	
000000B0 FF 3F , ?, ?, ?, ?, ?, ?, ?, ?	
000000C0 FF 3F , ?, ?, ?, ?, ?, ?, ?	
000000D0 FF 3F 77, ?, ?, ?, ?, ?, ?, ?, ?	
000000E0 FF 3F 77 ????????	
000000F0 FF 3F 77 77 77 7	
	J
X=742 Y=212 USB STANDALONE	WRITER
2/	

- 1. Display the programming data
- 2. Display whether the TWR99 Device is connected to PC or not
- 3. Display OTP IC programming-pins placement (Corresponding to the Hardware programming port)
- 4. Display the file path and the HEX file name
- 5. Display the Chip name
- 6. Display IC Fuse data
- 7. Program Toolbar:
 - 7.1: Execute programming instruction (Auto, Blank, Check, Program, Verify, etc... functions, which, just like using the function of "Mode" button on hardware, can be executed directly from the software when TWR99 USB port is connected to the PC)
 - 7.2: Blank check function
 - <u>7.3</u>: Program function (program + verify)
 - <u>7.4</u>: Verify function
- 8. Menu bar:
 - <u>8.1</u>: File \Rightarrow Load the HEX file.
 - <u>8.2</u>: Device => Select programming CHIP.
 - <u>8.3</u>: Operation => Update Firmware, programming Serial Number, Check for new software version.
 - <u>8.4</u>: About \Rightarrow Display software version.
- 9. Checksum: Display the Checksum value of the programming file.
- 10. Smart Option: Display System Configuration definition.





5. TWR99 Software Operation

Step 1: Start the TWR99 Software tool.



💠 USB_Writer	
File Device Operation About	Eur
Auto Blank check Program Verify	Fuse
Chip Name :	
	Checksum
	Program Pin Placement:
	disconnected
1	
X=546 Y=148	🥰 USB is not connected

Step 2: The TWR99 writer is open; confirm that the TWR99 Device is connected to PC.

	ISB_Writ	er	
Eile	<u>D</u> evice	Operation About	
	Auto	Blank check Program Verify Smart Option	-Fuse
Ē			
É			
			Checksum
			Pur comp Die Placements
			Frogram Fin Flacement:
			connect
			connect
ш			USB STANDALONE WRITER



Step 3: Click on Device (Select CHIP)

💠 USB_Writer TM57FA40	
File Device Operation About	
Auto Blank check Program Verify (mart Optio)	Fuse
Chip Name TM57FA40	
	Checksum FFFF
	Frogram Fin Flacement:
	VPP 3 •
	PA3 7 8 PA2
	• 10 VDD
	PA11314 PA0
	PA415 •
I	• 20 GND
=56 Y=0	🖙 USB STANDALONE WRITER
File Device Operation About	
Anto Blank chack III Type Select	×1 Fuse
Series : MCU: 8 Bit TM57 Series OK	

Series List :	Type List :	Checksum 148D
MCU: 8 Bit TM57 Series MCU: 8 Bit TM56 Series	TM57PE11 TM57PE12 TM57PA10	Program Pin Placement:
	TM57PA20 TM57PA40 TM57FA40 TM57FLA80	•10 VDD
	ТМ57МЕ20	PA415 • • 20 GND
		哈 USB STANDALONE WRITER

🗖 Display Serial Number 🛛 🗖 EXHV ISP program

Cancel

IC Type : TM57PA40





Step 4: Select programming CHIP.

	点击 OK
SB_Writer TM57PA40	×
File Device Operation About	
Auto Blank check I IC Type Select	X ruse
Series : MCU: 8 Bit	t TM57 Series
IC Type : TM57PA40	Cancel
🗖 Display Serial N	umber 🗖 EXHV ISP program
Series List :	Type List : Checksum
MCU: 8 Bit TM57 Se	ries TM57PE11 Program Pin Placement:
MCU: 8 Bit TM56 Se	ries TM57PE12
	TM57PA40 • •
	TM57FA40 • 10 VDD
	TM57FLA80 PA11314 PA0
	PA415 •
	• 20 GND

Step 5: Click on "File" => select "Load File".

💠 USB_Writer TM57PA40		_ 🗆 🗡
File Device Operation About		
Load File Save As Blank check Program Verify	Smart Option Fuse	
Exit	Chip Name TM57PA40	
	Checksum	
	Program Pin Place	ment:
	VPP 3	
	• 10 VDC)
	PA11314 PA0)
	• • • • • • • • • • • • • • • • • • •	
,	• 20 GM	,
	USB STANDAL	ONE WRITER



Step 6: Select the HEX file

SB_Writer TM57PA40	X
Eile Device Operation About	
Auto Blank check Program Verify Smart Option	Fuse
C:\Documents and Settings\sitsni\互面\TM57P440 hin	
Chip Name IMS/FA4U	1
00000000 02 30 FF 打开 ?>	
00000010 FF 19 08 查找范围(I): 🗁 新建文件夹 🔽 🗣 🖻 💣 🖽 -	
00000020 16 20 16	
00000030 C8 19 A1	
00000040 A0 0B 18	ecksum
00000000 00 00 40 00000060 FF 3F FF	
00000070 FF 3F FF	ogram fin fiacement.
00000080 FF 3F FF	
00000090 FF 3F FF	VPP 3
000000A0 FF 3F FF	••
000000B0 FF 3F FF 文件名 (M): ITM57PA40. HEX 打开 (D)	• 10 VDD
00000000 FF 3F FF 文件类型 ①: TxIce Hex Files (*.hex)	
	A PA415 ●
000000F0 FF 3F . ?. ?. ?. ?. ?. ?. ?. ? 🖵	••
	• 20 GND
	STANDALONE WRITER

Step 7: Load the file

SB_Writer IM89P59	
<u>File Device Operation About</u>	
Muto Blank check Program Verify Smart Option Chip Name : TM89P59	Fuse Unprotect
下載資料中,諸勿關閉電源或拔除USB接線 Downloading Data, Please don't power off or plug out USB cable	Checksum Program Pin Placement: BAK 1 2 VBAT VPP 3 • RESET 5 6 GND • 10 VL5 • 14 INT • •
	STANDALONE WRITER



Step 8: When loading the file, the LCD of the writer will display as follows



Step 9: The download is completed

Auto Blank check Program Verify Smart Option Fuse D:MyDatak集面\u00e4k集面\u00e4k集面\u00e4k集面\u00e4k集面\u00e4k集面\u00e4k集面\u00e4k集面\u00e4k集面\u00e4k集面\u00e4k集面\u00e4k集面\u00e4k集面\u00e4k集面\u00e4k集面\u00e4k集面\u00e4k集面\u00e4k集面\u00e4k集团 Checksum 871E Tr載資料中,請勿關閉電源或拔除USE接線 Checksum 871E Downloading Data, Please don't power off or plug out USB cable BAK 1 2 V Message Loading Data Ok TESET 5 6 G	<u> </u>
下載資料中,諸勿關閉電源或拔除USE接線 Checksum 图71E Downloading Data, Please don't power off or plug out USE cable Program Pin Placement Message Loading Data Ok 確定 10 V	rotect
	BAT
	_5 IT



Step 10: Start execution (start loading into hardware)

💠 USB_Writer TM89P59	
File Device Operation About	
Kuto Blank check Program Verify Smart Option	n Fuse
D:\MyData\桌面\hexL镜錄檔\89p59(bx1393)\89p59.epm Chip Name : TM89P59	
00000000 00 58 01 58 02 58 03 58 04 58 05 58 06 58 07 58 .X, X, X	Checksum 871E
00000080 40 D7 01 00 20 EA 44 C1 89 4F A4 80 4D D7 04 00 20 IN* LAL CK. N* DÁ 00000000 20 EA 44 C1 89 4F A4 80 4D C1 DF 04 00 20 EA 44 C1 N* DÁ 000000000 89 4F A8 80 4D 70 40 02 DEA 44 C1 89 4F A4 80 4D 7 N* DÁ C DÁ D DO DO EA 44 C1 89 4F A8 84 D D D DA D	Program Pin Placement: BAK 1 2 VBAT VPP 3 • RESET 5 6 GND • • 10 VL5 • 14 INT • •
X=558 Y=210	🖙 USB STANDALONE WRITER

Step 11: After successfully loading the file, the LCD panel on the writer will display the CHIP NAME.



Step 12: Select the function on the toolbar (Auto, Blank, Check, Program, Verify).

🔶 U	SB_Write	r				
<u>F</u> ile	Device	<u>O</u> peration	<u>A</u> bout			
	Auto	Blank	check	Program	Verify	
						-





6. Manually Update Firmware Steps

Step 1: Click on "Operation" => select "Update F/W"

- {- U	SB_Writ	er TM57P/	440						_ 🗆 🗙
Eile	<u>D</u> evice	Operation	<u>A</u> bout						
	Auto	Update F Serial Nu Check ne	=/W Imber Program ew version	Verify	Chip Name	Smart Option TM57PA40	-Fuse		
							Checksw	n 148D	
							Program	Pin Placemen	t:
							VPP	3	
							PA1 PA4	• 10 VDD 314 PA0 5 •	
								• 20 GND	
							් 🗘 🕫	5B STANDALONE	WRITER

Step 2: Select the file to Update.

CSB_Writer TM57PA40	
File Device Operation About	
Auto Blank check Program Verify Smart Option	;e
·打开	<u>د</u>
查找范围(I): 🗁 98test_code 💌 ← 🖻 📸 Ⅲ▼	
C2	
	sum 148D
	am Pin Placement:
	P 3 •
文件名 (M): TWR98_firmware_v21.nce 打开 (D)	
文件类型 ①: TxIce Nce Files (*.nce) 取消	• 10 VDD
	₩11314 PA0 PA415 ●
	• • • 20 GND



Step	3:	Click	on	"open"	(start	loading	into	hardware)	
			-		(

File Device Operation About	
Auto Blank check Program Verify Smart Option	Fuse
Chip Name TM57PA40	
Message	
Update Firmware Ok	Checksum 148D
研定	Program Pin Placement:
	VPP 3 •
	•••
	• 10 VDD
	PA11314 PA0
	PA415
	• 20 GND
	😂 USB STANDALONE WRITER

Step 4: During the Updating Firmware period, the LCD will display UPDATE_FW WAIT.



Step 5: After successfully updating Firmware, the LCD will display the CHIP NAME.





7. Serial Number Programming Set-up Flow

Step 1: Confirm that TWR99 Device is connected to PC.

Step 2: Select Device -> Select CHIP and Click OK (USB: support Low speed and Full speed series)

Step 3: Select Operation -> Serial Number Programming.

💠 USB_Writer TM57FA40		
Eile Device Operation About		
Auto Blank check Program Verify	Smart Option	- Fuse
Serial Number Program	< 457FA40	
Chip Type : TM57FA40 S/N SET	· · · · ·	
Start Serial NO[Hex] : 00000000000000000000000000000000000	'‡.	
End Serial NO[Hex] : 00000000000000000000000000000000000	. UE.	Checksum
S/N Start Address[Hex] : 0000		Program Pin Placement:
S/N End Address[Hex] : 0000		VPP 3 •
Counter OK (Hex) : 0 Reset Count	•••••	PA3 7 8 PA2 10 VDD
NG (Hex) : 0		PA11314 PA0 PA415 •
Total (Hex) : 0		• 20 GND
S/N Program Close		
	· · · · · · · ·	
		STANDALONE WRITER



🕂 USB_Writer TM57FA40		
Eile Device Operation About		
Auto Blank check Program Verify Smal	rt Option	Fuse
Serial Number Program	40	
Chip Type : TM57FA40 S/N SET		
Serial Number Set	‡. NÈ	
S/N Length [Hex]: 10	· · ·	Checksum
S/N Start Address (Hex) : 0000		
		VPP 3
Start Serial NO (Hex) : 00000000000000000000000000000000000	· · · · · ·	PA3 7 8 PA2 • 10 VDD
Direction (MSB in) : 💿 Low Byte 🔿 High Byte		PA11314 PA0 PA415
		• 20 GND
Load Cancel		
	•••	
		🖙 USB STANDALONE WRITER

Step 4: Select S/N SET=> Setting the Serial Number parameters.

Step 5: Setting the S/N Length[Hex] (range: 0x01~0x10)

Step 6: Setting the S/N Start Address[Hex].

Step 7: Setting the Start Serial NO[Hex].

Step 8: Setting the S/N Amount[Hex] (the amount of OPT IC programming).

Step 9: Setting the S/N Direction[MSB In]

For Example: Serial Number value=12345678

Select "Low Byte" to program the OTP IC location: 12 34 56 78

Select "High Byte" to program the OTP IC location: 78 56 34 12

Step 10: After the setting procedure, click the Load button (load the serial configuration data into TWR99, please wait for it to complete)



If USB is not connected, the configuration data of serial number cannot be loaded successfully.

💠 USB_Writer TM57FA40	_ _ X
<u>File Device Operation About</u>	
Auto Blank check Program Verify Smart Opt	ion Fuse
Serial Number Program X 57FA40	
Chip Type : TM57FA40 S/N SET	
Serial Number Set	
S/N Length [Hex]: 8 Step5	Checksum
S/N Start Address (Hex): 200 step6	
Start Serial NO (Hex) : 123456789 sten7	VPP 3
S/N Amount (Hex): 100 step8	PA3 7 8 PA2 • 10 VDD
Direction (MSB in) : • Low Byte • High Byte step9	PA11314 PA0 PA415 •
	• • • 20 GND
step10 Load Cancel	
	<u> </u>
	USB STANDALONE WRITER



SB_Writer TM57FA40		
Eile Device Operation About	d True	
Auto Blank check Program Verify	Smart Option	
Serial Number Program	× 457FA40	
Chip Type : TM57FA40 S/N SET	· · · · · ·	
Start Serial NO[Hex] : 0000000123456789		
End Serial NO[Hex] : 0000000123456888	. +0 Checksum	
S/N Start Address[Hex] : 0200	Program Pin	Placement:
S/N End Address[Hex] : 0207	······ VPP 3	:
Counter Reset Count	PA3 7	8 PA2 10 VDD
NG (Hex) : 0	PA11 PA41	314 PA0
Total (Hex): 0		20 GND
Enable S/N Program Close		
·		

Step 10_1: Once data are loaded successfully, the S/N Program button will be enabled.

Step 10_2: If the data are not loaded successfully, the S/N Program button will be disabled.

💠 USB_Writer TM57FA40		
File Device Operation About		
Auto Blank check Program Verify	Smart Option	Fuse
Serial Number Program	× 457FA40	
Chip Type : TM57FA40 S/N SET	· · · · ·	
Start Serial NO[Hex] : 0000000123456789	' ‡.	
End Serial NO[Hex] : 0000000123456888	'.0E. .+0	Checksum
S/N Start Address[Hex] : 0200		Program Pin Placement:
S/N End Address[Hex] : 0207		VPP 3
Counter OK (Hex) : 0 Reset Count	·····	PA3 7 8 PA2 10 VDD
NG (Hex) : 0	·····	PA11314 PA0 PA415
lotal (Hex):		• • • 20 GND
Disable S/N Program Close		
	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	
		😽 USB was not connected



After the above steps are completed, user can choose two modes of operation: to connect to PC and let PC control the programming process or go offline and programmed by using TWR99 independently.

- 1. Operating guide for using PC to control the programming process:
 - a. Click on S/N Program button to start the programming process.
 - b. If programming is successful, the count number for "Start Serial NO", "OK", and "Total" will be incremented by 1 automatically.
 - c. If programming is fail, the count number for "NG", "Total" will be incremented by 1 automatically.
 - d. When the S/N Program button is disabled, it means that the programming process for the serial number is completed. Reset and reload configuration data of S/N from the "S/N SET" window if required.
 - e. "Reset Count" button will reset the "OK", "NG", and "Total" count number to zero.
 - f. **Attention:** Do not press the "Enter" key on the TWR99 hardware during programming if PC control mode is used.
- 2. Operating guide for using TWR99 writer for programming independently:
 - a. The function for the Mode button is to switch the display value for "Serial Number", "OK", "NG", or "TOTAL".
 - <u>a-1</u>: SNH => Display higher order digits of Serial Number (9~16 bytes), but when S/N Length is less than 9, this mode will not display the number.



<u>a-2</u>: SNL => Display lower order digits of Serial Number ($1 \sim 8$ bytes).



<u>a-3</u>: OK => Display the number of successful programming.





<u>a-4</u>: NG \Rightarrow Display the number of fail programming.



<u>a-5</u>: TOTAL \Rightarrow Display the total number of programming.





- b. The function for the "Enter" key is to execute programming procedure.
- c. If programming is successful, the count number for "Serial Number", "OK", and "TOTAL" will be incremented by 1 automatically.
- d. If programming is fail, the count number for "NG", "TOTAL" will be incremented by 1 automatically.
- e. When the "Enter" key is disabled, it means that the programming procedure for the serial number is completed. Reset and reload configuration data of S/N from the "S/N SET" window if required.
- f. Attention: if the power of TWR99 is turned off and on again, the serial number will be reset back to the initial value.



8. Set-up and Operations for Programming Serial Number

Step 1: Select "Device":

SB_Writer TM57FA40		_ 🗆 🗙
File Device Operation About		
Auto Blank check Program Verify	Fuse	
Chip Name TM57FA40		
	Checksum FFFF	
	Program Pin Placement:	
	VPP 3 •	
	PA3 7 8 PA2	
	• 10 VDD	
	PA11314 PA0	
	PA415	
	 20 GND 	
	STANDALONE W	RITER

Step 2: After selecting IC type, please enable the "Display Serial Number", then click on "OK".

💠 USB_Writer TM5	7FA40			×
Eile Device Operation	on About nk check Program Verify	Chip Name TM57F.	Puse	
x=58 Y=0	IC Type Select Series : MCU: 8 Bit TM57 IC Type : TM57FA40 I Display Serial Number Series List : MCU: 8 Bit TM57 Series MCU: 8 Bit TM56 Series	X Series OK Cancel EXHV ISP program Type List : TM57PE11 TM57PE12 TM57PA10 TM57PA20 TM57PA40 TM57FA40 TM57FLA80 TM57FLA80 TM57ME20	Checksum FFFF Program Pin Placement: VPP 3 PA3 7 8 PA2 10 VDD PA11314 PA0 PA415 20 GND CB STANDALONE WRITER	



Step 3: Enter "Serial Number Set" setting (Please refer to 7. Serial Number Programming Set-up Flow, step 5~step 9)

SB_Writer TM57FA40	×
<u>Eile Device Operation About</u>	
Auto Blank check Program Verify Smart Option	Fuse
Chip Name : TM57FA40	
Serial Number Set	
S/N Length [Hex]: 10	
S/N Start Address (Hex) : 0000	Checksum
	Program Pin Placement:
Start Serial NO (Hex) : 00000000000000000000000000000000000	
S/N Amount (Hex) : 0	VPP 3 •
	PA3 7 8 PA2
Direction (MSB in) : • Low Byte • High Byte	• • •
	PA11314 PA0
	PA415
Load Cancel	• 20 GND
	- A.
	USB STANDALONE WRITER

Step 4: After setting the data in "Serial Number Set" window, click on the "Load" button.

SB_Writer TM57FA40		
<u>File Device Operation About</u>		
Auto Blank check Program Verify	Smart Option	2
	Chip Name TM57FA40	
Serial Number Set	×	
S/N Length [Hex]: 3		
S/N Start Address (Hex) : 300		
Start Serial NO (Hex) : 12345		ram Pin Placement:
S/N Amount (Hex) : 5		
Direction (MSB in) : 💿 Low Byte	C High Byte	
		• 10 VDD
beal	Cancel	11314 PA0
		- • 20 GND
X=170 Y=55		USB STANDALONE WRITER





Step 5: Click on "File" -> Select "Load File"

💠 USB_Writer TM57FA40	_ 🗆 🗵
File Device Operation About	
Load File Blank check Program Verify Smart Option Fuse	
Exit Chip Name : TM57FA40	
Checksum	
Program Pin Placem	ent:
VPP 3 •	
PA3 7 8 P/	42
• 10 VE	ID .
PA11314 P/ PA415 •	10
• • • 20 Gt	In
USB STANDA	ALONE WRITER

Step 6: Select the HEX file then click on "open" button.

VSB_Writer TM57FA40	
<u>File Device Operation About</u>	
Auto Blank check Program Verify Smart Option	Fuse
捜尋位置 (D): 🧰 tx2705 🗾 🖛 🖻 💣 囲 🕶	
tx2705 software new HW	Checksum
1 推新 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Program Pin Placement
I SkCode PP.hex	
Tio.HEX	VPP 3 •
TX2705_TEST_CODE.HEX	PA3 7 8 PA2
	• 10 VDD
	PA11314 PA0
	PA415 •
檔案類型(I): TxIce Hex Files (*.hex)	• • • 20 GND
	STANDALONE WRITER



Step 7: Wait until the files are downloaded OK, click on "confirm" button to enter the Serial Number Program mode

H	•USB_Writ	er '	TM5	7FA	40																			
E	ile <u>D</u> evice	Op	erati	on	<u>A</u> bo	ut																		
	Auto		Bla	nk c	heck		Pr	ogra	m		Ve:	rify			_1					Smar	Optio	n	-Fuse	
	E:\DATA1\	tenx _.	_OTI	? inf	orma	tion'	\tx27	05\1	X27	05_	TESI	r_cc	DDE	.bin			Ch	ip Name	: T1	457FA4	0	1		
																						-		
	00000000	4B	30	05	12	09	14	10	30	49	14	15	30	89	14	1A	30	K0	01	0	:0 _	1		
	00000010	CY	14	11	30	09	15	24	30	49	15	28	30	89	01	60	00	U	. \$UI	. +U		-		
	00000020	10	19	A/ co	00	32	20	09	10	м	essa	iae	111	X	60	32	20				<u>,</u>			
	00000030	49	00	00 Δ7	00	04 CQ	10	80	00			-		-	hΔ	- 27 - NG	11	+ &	9.2	+ 8	·		04.02	
	00000040	40	19	81	00	60	00	27	00		Load	ling (Data	ı Ok	11	40	19	+· S· · ·	' . ' 1	· +· 3· · & I	e		Checksum UACS	
	00000060	81	00	60	00	FF	19	Â0	00		· · · · · · · ·			_	9	87	00	es		. <u>1</u>	t.		Program Pin Placement:	
	00000070	AO	0B	34	30	40	00	00	19			確知	Ē		9	85	00	. 40@)		T.			
	00000080	05	16	4B	30	45	16	65	30						17	ΕO	30	K0Ē	e0.	. ~0E.	àO		VPP 3 •	
	00000090	85	17	19	31	3B	30	01	19	05	00	80	19	ΟB	00	0C	00	1;1	0					
	000000A0	8C	19	ΟĐ	00	05	12	00	00	05	10	52	30	00	19	0C	00	a.:		. F0			PAJ / 8 PAZ	
	00000080	00	19	8A	00	FF	19	0D	00	04	19	08	00	FF	19	07	00				···		• • •	
	0000000000	FF	19	87	00	00	19	87	00	60	30	07	16	6E	30	47	16	‡	‡.`	0 nC	IG.		PA11314 PA0	
	0000000000	72	30	87	16	/6	30	07	15	/A	30	55	30	10	19	11	00	ruţ. vi ~0	UÇ. Z	UeU	• •		PA415 •	
	000000000000000000000000000000000000000	03	00	70	30	10	19	11	00	03	00	70	30	10	19	07	00		• • • •	. UU 	•••	_	• • • 20 CND	
	000000000	03	00	13	50	10	13		00	03	00	10	50	UF	10	07	00			. , 0	•••		- 20 GND	
											-											-	Cer un crun u cur	
							Ш	Ш							Ш								USB STANDALONE	WRITER

Step 8: Click on "S/N Program" button to start programming process

<mark>∻</mark> USB_Write	r TM57FA40	_ 🗆 🗙
<u>File</u> <u>D</u> evice <u>C</u>	Operation About	
Auto	Blank check Program Verify	Smart Option
E:\DATA1\ter	ux_OTP information\tx2705\TX2705_TEST_CODE.bin Chip N	Name : TM57FA40
00000000 4	Serial Number Program	×
00000010 0		
00000020 0	Chip Type : TM57FA40 S/	/N SET
00000030 4		
00000040 8	Start Serial NO[Hex] : 123456	Checksum 0AC3
00000050 4	End Social NOIHand + 192454	Pro man Dia Diacamanti
00000060 8	End Serial NO[Hex]: 12345A	riogram rin riacement.
00000070 A	0.0.0	
00000080 0	SIN Start Address[Hex] : U300	VPP 3
00000030 0	S/N End Address[Hex] : 0302	PA3 7 8 PA2
00000080 0	· · · ·	• 10 VDD
000000C0 F	Counter	••
000000000 7	OK (Hex): 0 Res	eset Count PAILS 14 PAU PAILS •
000000E0 0		••
000000F0 0		• 20 GND
,	Total (Hex) : 0	
X=12 Y=0		👘 👘 USB STANDALONE WRITER
	S/N Program	e

Notes: After the completion of programming process, if programming code + serial number is desired, go back to Step1 and start all over.





9. Programming Guide for EXHV ISP Mode

Step 1: Select Device

LSB_Writer TM57FA40	
File Device Operation About	
Auto Blank check Program Verify mart Optio	Fuse
Chip Neps TW57E440	
	Checksum FFFF
	Program Pin Placement:
	VPP 3 •
	PA3 7 8 PA2
	• 10 VDD
	PA11314 PA0
	PA415 •
	• 20 GND
,=56 T=U	VA USB STANDALONE WRITER

Step 2: Select IC type and check mark "EXHV ISP program", and then click on "OK"

💠 USB_Writer TM57FA40			_ <u> </u>
<u>File Device Operation About</u>			
Auto Blank check I	IC Type Select	X	Fuse
	Series : MCU: 8 Bit TM57 S IC Type : TM57FLA80	Series OK Cancel	
	Series List :	Type List :	Checksum
	MCU: 8 Bit TM57 Series MCU: 8 Bit TM56 Series	TM57PE11 TM57PE12 TM57PA10	Frogram Fin Flacement:
		TM57PA20 TM57PA40	PA3 7 8 PA2
		TM57FA40 TM57FLA80 TM57ME20	PA11314 PA0 PA415 •
I			• • 20 GND
X=171 Y=2			STANDALONE WRITER



Step 3: The main screen will show "EXHV ISP Program"

💠 USB_Writer TM57FLA80	
<u>File Device Operation About</u>	
Auto Blank check Program Verify Smart Option Chip Name : IM57FLA80	Fuse
	Checksum Program Pin Placement:
	VPP 3 •
	PA11314 PA0
	STANDALONE WRITER

Step 4: Click on "File" -> Select "Load File"

TM57FLA80	
Elle Device Operation Auto Blank check Program Verify Smart Option Chip Name : TM57FLA80	Fuse
開容 ?★ 搜尋位置①: be 2708 software new HW ◆	EXHV ISP Program Checksum Program Pin Placement:
in-rc_HEX in-rc_00.HEX TouchKey_ST6.HEX in-rc_00.HEX	VPP 3
檔案名稱(M): touch_key_timer1_vol.HEX 開啓(O) 檔案類型(I): TxIce Hex Files (*.hex)	• 10 VDD PA11314 PA0 • 20 GND



Step 5: Wait until files are downloaded OK





10. Error Messages

- <u>10.1</u>: VOLTAGE ERROR => The voltage of VPP or VDD is abnormal (send back TWR99 to tenx for repair).
- <u>10.2</u>: EEPROM ERROR => Error for reading the Programming Data (send back TWR99 to tenx for repair).
- <u>10.3</u>: PROTECT = IC data are protected and cannot be read.
- <u>10.4</u>: BUSY FAIL =>The IC Programming signals are connected to TWR99 well.
- 10.5: B FAIL => Blank Test fails
- <u>10.6</u>: P FAIL => Programming data fails
- <u>10.7</u>: V FAIL => Comparing data fails
- <u>10.8</u>: I FAIL => 4-bit series Programming Mode failed

8-bit series ID Programming failed

- 10.9: D FAIL => Check ID fails
- 10.10: F FAIL => Programming the FUSE or SYSTEM CONFIG data fails
- <u>10.11</u>: NO CHIP = IC or connection is not connected properly. Please confirm whether IC is put properly or the line is connected perfectly.
- <u>10.12</u>: E FAIL => Writer Checksum data comparing error
- <u>10.13</u>: ENTRANCEF => Check IC enters write mode fail





11. Programming Guide for Mass Production Mode

This function contains only Auto mode, which records OK and NG counts, and checksum display, there are no other functions, so it is recommended to be used in mass production.

Step 1: Select Device

💠 USB_Writer TM57PE12	
File Device Operation About	
Xuno Blank check Program Verify Smart Option	Fuse
Chip Name : IMS/PEI2	
	Checksum 3725
	Program Pin Placement:



Generation About	X
Auto Blank check Program Verify Sma	art Option
IC Type Select	
Series : MCU: 8 Bit TM57 Series OK	
IC Type : TM57PE10 Cancel	Checksum 3725
Mass Production Mode	Program Pin Placement:
Series List' Type List'	
MCU: 8 Bit TM57 Series TM57PE10_14	
TM57PE11_8 TM57PE11A_8 TM57PE12_14	
TM57 E12_14 TM57PA10_16 TM57PA20_16	
TM57PA20_20 TM57PA40_16 TM57PA40_20	
TM57FA40_8 TM57FA40_16 TM57FA40_20	USB STANDALONE WRITER

Step 2: Select IC type and enable the "Mass Production Mode", and then click on "OK"

Step 3: The main screen will show "Mass Production Mode" and Enable Auto function







Step 4: Execute File -> Load File

🛟 USB_Writer TM57PE10	
Eile Device Operation About	
Load File Blank check Program Verify Smart Option	Fuse
Exit Chip Name : TM57PE10	
	Mass Production Mode
	Checksum
	Program Pin Placement:
	• •
	::
	::
	::
	PA1 14 PA0
	VPP 3 12 PA3
	₹35 ¶ II ₹ <i>DD</i>
	TM57PE10_14 PIN
	😽 USB STANDALONE WRITER

Step 5: Select the programming files then click on "open" button.

SB_Writer TM57PE10	<u> </u>
Eile Device Operation About	
Auto Blank check Program Verify Smart Option	Fuse
Chin Names (TMERDE10	
Chtp Name : IMS/FEI0	
開啓 ? ×	
搜尋位置①: 💼 我已接收的檔案 🗾 🗢 🖻 📸 🎟 -	
☐ TM57PE12_hex ☐ 57ME20.HEX ☐ pep ☐ TWR98 021 ☐ S7PE10 REUSE.HEX ☐ tm5	Mass Production Mode
TWR99 98 2.9 S7PE10 NO_REUSE.HEX THEX FA40.HEX AUGUST	Checksum
I Construction of the second s	Program Pin Placement:
	• •
檔案名稱(11): [57PE10 NO_REUSE.HEX 開啓(0)	•••
檔案類型(I): Txlce Hex Files (*.hex) _ 取消	
	PA1 14 PA0 13 PA4 VPP3 12 PA3
	TM57PE10_14 PIN
	🖙 USB STANDALONE WRITER



Step 0. Wait until the mes are upwindaded C	Step	6: Wait	until the	files are	downloaded	OK
---	------	---------	-----------	-----------	------------	----





Step 7: Hardware Display and Operate:

a. Display CHIP NAME (Hold 2 sec Display)



- b. Display Auto Mode: (Mode button: click once will change OK and NG Display)
 - 1. Display Checksum
 - 2. Display the counting number that the programming procedure is successful.
 - 3. Display the counting number that the programming procedure is not successful.



c. Display Firmware version and Checksum_E information (Press the Mode button more than 3 seconds to get the information).

LCD	×
CH CHM	nanca
	··
DITHLU	· 1.1

d. Enter button: press Enter to execute.



12. Production Limit Mode Writer Operation

This function contains only Auto mode, which records OK and NG counts, and checksum display, there are no other functions, so it is recommended to be used in mass production.

Step 1: Select Device

💠 USB_Write	r TM57PE10			×
File Device	Operation <u>A</u> bout			
Auto	Blank check Program V	enify	Smart Option	Fuse
1		Chip Nam	e : TM57PE10	
	IC Type Select		×	
	Series : MCU: 8 Bit TM57 S	Series	ОК	
	IC Type : TM57PE10		Cancel	
	🔲 Display Serial Number	🗖 EXHV ISP program		Checksum
	Mass Production Mode	ISP program		Program Pin Placement:
	Production Limit : 1			::
	Series List :	Type List :		
	MCU: 8 Bit TM57 Series	TM57PE10_14	<u> </u>	PA1 2 17 PA0
		TM57PE10_18		VDP 4 16 PA4
		TM57PE11_10		VSS 3 14 VDD
		TM57PE11A_10	_	::
		TM57PE11B 10		• •
		TM57PE11BS_6		
		TM57P11C_8		INSTREE _ 18PIN
		TM57PE11C_8		USB STANDALONE WRITER
		TM57PE12_14		
	1	TM57PF12AS 6	-	



Step 2: Select IC and enable the Production Limit Mode to set the writer counts (1~99999999), then press OK.

💠 USB_Write	r TM57PE10		
File Device Q	<u>D</u> peration <u>A</u> bout		
Auto	Blank check Program V	erify Smart Op	tion Fuse
<u> </u>		Chip Name : TM57PE10	
	IC Type Select	×	
	Series : MCU: 8 Bit TM57	Series OK	
	IC Type : TM57PE10	Cancel	
	🗖 Display Serial Number	EXHV ISP program	Checksum
	Mass Production Mode	🗖 ISP program	Program Pin Placement:
	✓ Production Limit : 100		::
	Series List :	Type List :	
	MCU: 8 Bit TM57 Series	TM57PE10_14 TM57PE10_18 TM57PE10_18 TM57PE11_8 TM57PE11_10	PA1 2 17 PA0 16 PA4 VPP 4 15 PA3 VSS 5 14 VDD
		TM57PE11A_10	::
		TM57PE11B 10	
		TM57PE11BS_6	TM 57PE10 18PIN
		TM57P11C_8	
		TM57PE11CS 8	USB STANDALONE WRITER
		TM57PE12_14	
	1	TM57PF12AS 6	

Step 3: Main window will show "Production Limit Mode" and enable "Auto" function

SB_Writer TM57PE10	
File Device Operation About	
Xuno Blank check Program Verify Smart Option Fuse	
Chip Name : TM57PE10	
Production Limit	
Charless	
Program Pin Placement:	
VPP 3 •	
PA3 7 • • 10 VDD	
PATT314 PAU PA415 •	
• 20 422	
	.p



Step 4: Select File -> Load File

VISB_Writer TM57PE10	
File Device Operation About	_
Load File Blank check Program Verify Smart Option	Fuse
Exit Chip Name : TM57PE10	
	Production Limit
	Checksum
	Program Pin Placement:
	VPP 3 •
	PA3 7 •
	• •
	PA11314 PA0 PA415 •
	• •
	• 20 VSS
	🖙 USB STANDALONE WRITER

Step 5: Select the writer file, then press "open" button

USB_Writer TM57PE10		_ 🗆 🗙
Elle Device Operation Ab	out k Program Verify Smart Option Fuse Chip Name : TM57PE10	
	開留 建建位置①: → 我已接收的檔案 ← È 管 匣 ← 匣 → III + IIII + III + IIII + IIIII + IIII + IIII + IIII + IIII + IIIII + IIII + IIII + IIII + IIII + IIII + IIII + IIIII + IIII + IIIII + IIII + IIII + IIII + IIII + IIIII + IIII + IIII + IIII + IIII + IIIII + IIIII + IIII + IIIII + IIIII + IIII + IIII + IIIII + IIIII + IIIII + IIIIII	
	檔案名稱 @U: 577E10 REUSE HEX 開啓② PA3 7 ● 10 VDD 檔案類型(I): TxIce Hex Files (*.hex) ▼ 取消 PA11314 PA0 PA11314 PA0 PA15 ● 20 VSS	





Step 6: Wait file download OK





Step 7: Hardware display and operation:

a. Display CHIP NAME (holds for 2 secs display)



- b. Display Limit mode: (hardware mode button can only switch to OK and NG display)
 - 1. Checksum
 - 2. Write OK count
 - 3. Write NG count



c. Display Firmware version and Checksum_E information (Press the Mode button more than 3 seconds to get the information)

LCD	×
CLU CIIM	·onco
	.00200
E7PA10	:11
	• ••• •••

- d. Enter button: execute writing process
- e. When OK count reaches the writing limit setting, TWR99 will not continue to execute



13. Compare File Function Operation

Display TWR99 register data, "IC Name", "Download File Time", and "Compare File Result".

Step 1: Select Operation -> Compare File

SB_Writer TM57PE10			
Ele Device Operation About Auto Update F/W Serial Number Program Check new version Compare File Set Protect Read Chip Info	Verify	Smart Option Chip Name : TM57PE10	Fuse Checksum 32CC
			Program Pin Placement: VPP 3 • PA3 7 • 10 VDD • PA113 4 PA0 PA415 • • 20 VSS





Step 2: Download File information window shows up

Auto Blank check Program Verify Smart Option Chip Name : TM57PE10	- Fuse
Download File Information	
Download File Time :2011/3/28_13:52:17 Compare Result :	Checksum 32CC Program Pin Placement:
Compare File Cancel	VPP 3 PA3 7 10 VDD
	PA11314 PA0 PA415 20 VSS
	USB STANDALONE WRITER

Step 3: Press "Compare File" button, select the file to be compared, then press "Open" button.

🛟 USB_Writer TM57PE10	
Ele Device Operation About Auto Blank check Program. Verify Smart Option Chip Name : TM57PE10	- Fuse
開啓 接尋位置①:	
Image: Symplectic and the symplect	Checksum 32CC Program Pin Placement:
檔案名稱(U): 57PE10 REUSE.HEX 開啓(O) 檔案類型(I): TxIce Hex Files (*.hex) ▼ 取消	VPP 3 • PA3 7 • 10 VDD PA11314 PA0
	PA415 • • 20 VSS



Step 4: Wait for compare result:

🔆 USB_Writer TM57PE10	
File Device Operation About	
Auto Blank check Program Verify Smart Option Chip Name : TM57PE10	- Fuse
Download File Information Chip Name : TM57PE10 Download File Time :2011/3/28_13:52:17 Compare Result : OK	Checksum 32CC Program Pin Placement:
Compare File Cancel	VPP 3 • PA3 7 • 10 VDD PA11314 PA0 PA415 •
	● 20 VSS

☆USB_Writer TM57PE10	<u> </u>
File Device Operation About	
Auto Blank check Program Verify Smart Option	-Fuse
Chip Name TM57PE10	
Download File Information	
Chin Name : TM57DE10	
	Checksum 32CC
Download File Time :2011/3/28_13:52:17	
Compare Result : Fail	Program Pin Placement:
Compare File Cancel	VPP 3 •
	PA3 7 •
	• 10 VDD
	PA11314 PA0
	PA415
	• 20 VSS
	😪 USB STANDALONE WRITER



14. Set Protect Function Operation

Step 1: Select Operation -> Set Protect

TMS5_Writer TM57PE10	
Eile Device Operation About	
Auto Update F/W Verify Smart Option	Fuse
Serial Number Program	
Compare File	
Set Protect	
Read Chip Info	
	Production Limit
	2200
	Checksum 3200
	Program Pin Placement:
	VPP 3
	• •
	• 10 VDD
	D411214 D40
	PATT314 PAU PA415 •
	• •
	• 20 435
	🖙 USB STANDALONE WRITER

Step 2: Option Select 1 window shows up

SB_Writer TM57PE10	
Eile Device Operation About	_
Auto Blank check Program Verify Smart Option	Fuse
Chin Name : TM57PE10	
Option Select 1	
• Unprotect C Protect	Production Limit
	Checksum 32CC
	Program Pin Placement
	Tiogram Thi Theomonic
	• •
	VPP 3 •
	PA3 7 •
	• • • •
	PA11314 PA0
	FA415
	• 20 VSS
	🖙 USB STANDALONE WRITER

Step 3: Select Unprotect or Protect, then press "OK" button, wait for the setting completes



15. Read Chip Info Function Operation

Note: It does not support Mass Production and Production Limit mode

Read Target IC info, "system config", "checksum", "ID".

Step 1: Select Operation -> Read Chip Info

Eile Device Operation About	
File Device Operation About Auto Serial Number Program Check new version Compare File Set Protect Read Chip Info	Fuse Checksum Program Pin Placement: VPP 3 • PA3 7 • 10 VDD PA11314 PA0 PA415 • 20 VSS
	USB STANDALONE WRITER



Step 2: Read chip information window shows up

💠 USB_Writer TM57PE10	_ 🗆 🗙
File Device Operation About	
Auto Blank check Program Verify Smart Option	Fuse
D:\MyData\My Documents\我已接收的檔案\57PE10 NO_REUSE.bin Chip Name: TM57PE10	
00000000 10 30 22 30 FF 3F . 0" 0. ?. ?. ?. ?. ?. A	
00000010 FF 25 55 55 55 55 55 55 55 55 55 55 55 55	
00000020 FF Read CHIP Information	
0000030 81	
00000040 00 Chip Name:	
00000050 89?.?	
	Checksum OCFC
00000080 FF Checksum:	
00000090 FF ID: ?. ?. ?. ?	Program Pin Placement:
000000A0 FF ?. ?. ?. ?. ?	
000000B0 FF ?. ?. ?. ?. ?	
00000000 FF ?. ?. ?. ?. ?	
000000D0 FF Read Cancel ?. ?. ?. ?	VPP 3 •
	P43 7
	• 10 VDD
00000100 FF 3F 77 3F 3F 77 3F	• •
00000120 FF 3F , 2, 2, 2, 2, 2, 2, 2, 2	PA11314 PA0
00000130 FF 3F . ?. ?. ?. ?. ?. ?. ?. ?.	PA415
00000140 FF 3F . ?. ?. ?. ?. ?. ?. ?. ?.	• 20 VSS
00000150 FF 3F . ?. ?. ?. ?. ?. ?. ?. ?.	
00000160 FF 3F . ?. ?. ?. ?. ?. ?. ?. ?.	
00000170 FF 3F . ?. ?. ?. ?. ?. ?. ?. ?	
X=140 Y=0	🖙 USB STANDALONE WRITER

Step 3: Press "Read" button, start reading

💠 USB_Writer TM57PE10	_ 🗆 🗙
File Device Operation About	
Auto Blank check Program Verify Smart Option	
D:\MyData\My Documents\我已接收的檔案\57PE10 NO_REUSE.bin Chip Name: TM57PE10	
00000000 10 30 22 30 FE 3F FE 3F FE 3F FF 3F FF 3F FF 3F 0" 0 2 2 2 2 2 2 4	
00000020 FF Read CHIP Information	
00000030 81	
00000040 00 Chin Name : TM57PE10) 0¿.	
00000050 89	
00000060 FF System Config: 3fea ?. ?. ? ?	OCTO
00000070 FF Checksum 3fff ?. ?. ?. ? Checksum	UCFC
00000080 FF ?????	Discoment:
00000090 FF ID: 3a10 ?. ?. ?. ? Program Fm	riacement.
000000A0 FF ?. ?. ?	
000000B0 FF ?. ?. ?. ?	
000000C0 FF	
Read Cancer ?. ?. ? VP	•3 ●
000000E0 FF	37
000000F0 FF 3F FF 77, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7,	
00000100 FF 3F . V. V. V. V. V. V. V	• •
00000110 FF 3F 0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.	11314 PA0
000000120 FF 3F	415 •
	• •
	 20.422
	5TANDALONE WRITER



16. Reset Operation

During TWR99 operation, if Firmware is error because of abnormal shutdown or crash, software will automatically reset Firmware after the device is rebooting.

Step 1: Press the Enter key, function performs Reset Firmware

🛟 USB_Writer TM57PE12		
<u>File Device Operation About</u>		
Auto Blank check Program	Verify Smart Option Chip Name : TM57PE12	Fuse
	Message IWR99 Error About To Enter The Test Mode. Please Wait IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Checksum 021E Program Pin Placement:
		VDD 4 11 VSS PA45 10 PA0 PA36 VPP7 8 PA1 TM57PE12_14 PIN
		VDD4 11 VSS PA45 10PA0 PA36 ● VPP7 8PA1 TM57PE12_14PIN



VSB_Writer TM57PE12	
<u>File Device Operation About</u>	
Auto Blank check Program Verify Smart Option	Fuse
Chip Name : TM57PE12	
	Checksum
	Program Pin Placement:
	Trogram F ar F and the second s
	::
	::
	•••
	• •
	VDD 4 11 VSS
	PA4 5 10 PA0
	VPP 7 8 PA1
	TM57PE12_14 PIN
	STANDALONE WRITER

Step 2: Executing Reset Firmware (Do not power off or unplug the USB cable)

Step 3: Execution is complete, please re-select the IC

