Revision 1.4

User's Manual



Universal gang programmer



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1. Overview

GW-uni2 is the gang programmer for all SAMSUNG MCU and Fujitsu MCU with standard serial writing. The Gang programmer consists of a master unit (GW-uni2) which connects to various programming adapter sockets for programming all devices with a different package.

This gang programmer can program 8 devices with very fast programming speed once. It is good for mass production. A data is saved in GW-uni2 memory by PC so it works without PC (Stand-alone mode). User can easily set a device information by a device part number selection.

1.1 Features and Specifications

- 1) Support all SAMSUNG MCUs and Fujitsu MCUs with Standard Serial Writing.
- 2) Internal Memory: 100Mbyte
- 3) GW-uni2 setup and initialize with PC application program.
- 4) Stand-alone operation mode without PC.
 - (GW-uni2 should be setup by PC application program for the stand-alone mode in advance)
- 5) Program maximum 8 devices once.
- 6) Display a current state and a working state by LCD
- 7) Device selection can be set by a device part number.
- 8) Program : Data programming to a device.
 - Other functions can be worked with program option
- 9) Program Option
 - Auto Chip Erase : Erase before program.
 - Auto Verification : Verify after program
 - Read Protection : A device ROM data can't be read
 - SMART Option
- 10) Erase : Erase a device ROM data.
- 11) Verify : Compare a butter memory data to a device data
- 12) Blank check: Check a device ROM data initialized (0xFF)
- 13) Device Checksum : Display a checksum of a device in the first socket.
- 14) Buffer Checksum : Display a checksum of GW-uni2 buffer memory data.
- 15) Dump : Display a device ROM data or a buffer memory data.
- 16) Read buffer : Save a buffer memory data as a PC file.(Intel hex format).
- 17) Read device : Save a device ROM data in buffer memory.
- 18) Program counter : Display the number of programed device.
- 19) Key Lock : Restrict functions in stand-alone mode.
- 20) Password Change : Change a password
- 21) GW-uni2 setting information: Display GW-uni2 setting information
- 22) Socket State : Display each socket state
- 23) User can use the latest software with a simple upgrade.



- 24) Data download speed: 860Kbps (MAX)
- 25) Program speed(average)

Samsung : OTP = 2KBps, MTP = 10KBps Fujitsu : 4KBps

- 26) Power : 19VDC 500mA power adapter (110/220VAC[60HZ])
- 27) Operating system: Windows NT/2000/XP/Win7 (only 32bit)
- 28) Support Intel hex format, SAMSUNG hex format, Binary format.
- 29) Size: 350mm x 220mm x 35mm Weight: 1.4kg

1.2 Packing Includes

- 1) GW-uni2 main body
- 2) USB Cable
- 3) Power adapter (19VDC)
- 4) PC Application program (CD)
- 5) User's manual (CD)
- 6) USB Driver file (CD)



GW-uni2 main body



Power Adapter and Cable



PC Application program USB Driver file User's Manual



USB Cable



2. Setup

2.1 Host system requirement

- 1) Over IBM Pentium PC.
- 2) Window 2000/NT/XP/7 32bit-OS
- 3) CD-ROM, USB port
- 4) Operating System with 20MB of free Hard disk space
- 5) Over RAM 64MB

2.2 To install PC application program

- Insert the installation CD into CD-ROM drive on your PC or download software at SEMINIX web site. (<u>www.seminix.com</u>).
- 2) Execute the setup file in CD.
- 3) Install PC application program in order according to the instruction.
- 4) The program is installed at the folder "C:\Program Files\seminix\GW-uni2" when the installation is finished.

2.3 To install USB driver

- After restarting a host PC, connect GW-uni2 to USB port of the host PC Then, the PC displays " Found New hardware Wizard" dialog.
- 2) Select ' C:\Program Files\seminix\GW-uni2\drives and finish the setup.

2.4 GW-uni2 Configuration

- ① Socket connection port
- 2 LCD panel
- 3 Touch Key
- 4 Power switch
- 5 Adapter connection port
- 6 USB connection port

1				SEMINI ¥ GW-uni
				2
			() () () () () () () () () () () () () (; ; ; ; ; ;
(containing)		English		
4	(5)	6=	•

Figure 2.4 GW-uni2 configuration (Front/Side)



3. PC Application Program

3.1 PC application program

- 1) Selection a device for program and send information of device to GW-uni2.
- 2) Download a data for program to GW-uni2 buffer memory.
- 3) Set Program Option.
- 4) Program count can be cleared.
- 5) Execute Erase, Write, Verify, Blank Check, Device Checksum, Buffer Checksum, Dump and Read Buffer
- 7) GW-uni2 software upgrade.

3.2 Hardware setup

- 1) Connect a power adapter to GW-uni2 and turn on the power
- 2) Connect GW-uni2 to PC by USB cable.
- 3) Put a adapter socket in GW-uni2.
- 4) Put a device chip in a socket adapter.



Figure 3.2 GW-uni2 Hardware setup



3.3 USB Connection

1) Execute the application program and click the USB connection icon.



Figure 3.3.1 USB Connection

 *** GW-uni2 is connected **" message and information of 'GW-uni2 setting', 'Program count' and 'Program Option setting' are displayed when GW-uni2 is connected by USB.

evice		1	VDD	• VF	P
b 🚇 🗳 📭 🗞	🖽 🖪		🕩 🚇 😡		
** GW-uni2 is connected ** Firmware Version : 1.01		Data Informatio Start Address End Address Checksum	n	Program Co Success Nu Fail Num Cle	unt Im 000000 000000 ar Count
		- GW-uni2 Settin Device Start Address	g Information NOTHING 00000000	Operation C Key Lo Passw	Pption ck vord Change
		End Address	0000000	Program Op IV Auto Ch IV Auto Ve	ition ip Erase rification
		VDD(V) VPP(V)	3.3 3.3	C Auto BI	ank Checking ad Protection Option
ocket State				1	
SOCKET #1	SOC	KET #2	SOCKET #3		SOCKET #4
SOCKET #5	500	KET #6	SOCKET #7		SOCKET #8

Figure 3.3.2 Finish USB connection

* Try from 1) again when USB connection is failed.



3.4 Device selection

1) Click the 'Device' icon.



Figure 3.4.1 Device selection

2) 'Select Device' Window is displayed.

le Execution Prog Device	ram Option <u>H</u> elp	li l	▼ VDD	VPP	2
					_
Select De Manufa Sam Fujit	cturer sung	Core	Pro	duct Number	
	<u>×</u>		ОК	Cancel	ng on J
Socket state SOCKET #1 SOCKET #5	SI SI	DCKET #2	SOCKET #3	SOCKE	T #4 T #8

Figure 3.4.2 'Select Device' Window



		VDD	▼ VPP
Ba 🔒	😂 🕸 🗞 🖽 🕯		
	Select Device		
	SIGGE DOMES		
	Manufacturer	Core	Product Number
	Fujitsu	S3F9XXX	SMILLIG
		S3F8XXX 8051	
		Calm ARM	
		Cortex M0 Cortex M3	
	1		
		ОК	Cancel
Conket			
Socket S		CKET #2 SOCKET	3 SOCKET #

3) Select a manufacturer, a Core and a product number.

Figure 3.4.3 Device selection

4) A device information is showed when click the 'OK' icon.

Ready



Figure 3.4.4 Display a device information



3.5. File open

1) Click the file open icon.



Figure 3.5.1 File open

2) Select a file(*.hex or *.bin).



Figure 3.5.2 File selection.



3) Check the end address and checksum.

* It can take a little time for checksum depending on a file size.



Figure 3.5.3 Finish the file selection



3.6 Program option

- 1) Select program option.
- (1) Auto Chip Erase
- (2) Auto Verification
- (3) Auto Blank Checking : Check a device ROM data initialized(0xFF)
- (4) Auto Read Protection : Device ROM data is read as '0'
- (6) SMART Option
- 2) Process of program option.
- (1) Chip Erase (Auto Chip Erase)
- (2) Blank Check (Auto Blank Checking)
- (3) Data Write
- (4) SMART Option Write (SMART Option)
- (5) Verify (Auto Verification)
- (6) SMART Option Verify (SMART Option)
- (7) Read Protection (Auto Read Protection)



Figure 3.6.1 Program Option





3) There is an unavailable option depending on a selected device.

Figure 3.6.2 Program Option - unavailable Option



3.7 System Power(VDD), Program Power(VPP)

1) VDD : System power setting - User can set 3.3V or 5.0V.



Figure 3.7.1 VDD setting

2) VPP : Program power setting - User can set VPP from 3.3V to 12.5V in the unit of 0.1V

Deuder 0 0051	83511.00	MOD F ON		unn [F 01/	
Device Samsung 8051	S3FIIBG 💌	VDD 5.04	<u> </u>	VEE	5.U¥	-
ا 🖼 🗳 📭 🏷 🧮 ا				1	5.1V	
** GW-uni2 is connected **	Data Information		Program	Coun	5.2V 5.3V	~
Firmware Version : 1.01	Start Address	0000000	Success	Num	000000	8
File Open:	End Address	00007FFF	Fail Num	ſ	000000	1
D:₩Projetcs₩Test file₩test (01″FF)_32K.bin	Checksum	C000		Clear (Count	
File Check File Conversion	GW-uni2 Setting I	nformation	Operation	Optic	n	
File Checksum	Device	S3FI1BG	🗆 Key I	_ock		
	Start Address	0000000	Pas	sword	Change	
	End Address	0000000	Program	Option Chip E	n Erase	
	Checksum	0000	🔽 Auto	Verific	ation	
		5.0	Auto	Blank	Checking	
2	VPP(V)	5.0		Reau RT Op	tion	
Socket State						
SOCKET #1 SC	OCKET #2	SOCKET #3		SO	CKET #4	
SOCKET #5	OCKET #6	SOCKET #7	- r	SO	CKET #8	-)

Figure 3.7.2 VPP setting



3.8 Program count

- 1) Success Num : Display the number of program success
- 2) Fail Num : Display the number of program fail

Device Samsung 8051	S3FI1BG	VDD 5.0V	✓ VPP 5.0V	
b 🚇 ൙ 🌵 🍫 🖽				
uccessII	🛃 🛛 Data Informatio	n	Program Count	
PBOGRAM 1	Start Address	00000000	Success Num 000001	
- Erase	End Address	00007FFF	Fail Num 000007	
- Blank Check - Writing	Checksum	C000	Clear Count	
- Verification - Protection	GW-uni2 Settin	g Information	Operation Option	
complete!!	Device	S3FI1BG	Key Lock	
PROGRAM]	Start Address	Start Address 00000000	Password Change	
- Blank Check	End Address	00007FFF	Program Option	
- Verification	Checksum	C000	Auto Chip Erase Auto Verification Auto Blank Checking Auto Blank Checking	
complete!!	VDD(V)	5.0		
	VPP(V)	5.0	SMART Option	
Socket State				
SUCCESS	FAIL	FAIL	FAIL	
-	- FAIL	E AU	EAU	

Figure 3.8.1 Program Count

- 3) The initialization window of 'Success Num' and 'Fail Num' is showed after click the 'Clear Count' button.
- 4) The count is initialized when user puts a password on 'Password' blank in 'Clear count' and clicks 'Clear Count' button.



Figure 3.8.2 Clear Count



5) The 'Success: Count Cleared!' message window is showed when the initialization is normally finished.

Device Samsung I	8051 S3FI1BG 💽 VDD 5.01	V • VPP 5.0V
le 🔍 📽 📭 ষ		ĺ
Success!! [PROGRAM] - Erase - Blank Check - Writing	Data Information Start Address 00000000 End Address 00007FFF Checksum C000	Program Count Success Num 000001 Fail Num 000007 Clear Count
- Verification - Protection complete!! [PROGRAM] - Erase - Blank Check - Writing	Clear Count GW-uni2 오uccess : Counter Cleared!	x ration Option Key Lock Password Change gram Option Auto Chip Erase
- Verification		AULO YCHIILAUUII
- Verification - Protection complete!!	VDD(V) 5.0 VPP(V) 5.0	Auto Verification Auto Blank Checking Auto Read Protection SMART Option
Verification - Protection complete!!	VDD(V) 5.0 VPP(V) 5.0	✓ Auto Blank Checking ✓ Auto Read Protection ✓ SMART Option
Verification - Protection complete!! Socket State SUCCESS	VDD(V) 5.0 VPP(V) 5.0 FAIL FAIL	Image: Section of the section of t

Figure 3.8.3 Success message

6) 'Success Num' and 'Fail Num' is initialized to '0' after the 'Clear Count' process is normally finished.

Device Samsung 8051	S3FI1BG 🔹 VDE	5.0V VPP 5.0V
💩 🚇 🖻 🏕 🕎 🛅		
Success!! [PROGRAM] - Erase - Blank Check - Writing	Data Information Start Address 00000 End Address 00007 Checksum C00	000 Program Count Success Num 000000 FFF Fail Num 000000 Clear Count
- Verification - Protection complete!! [PROGRAM]	GW-uni2 Setting Inform Device S3FI1 Start Address 00000	ation Operation Option BG Key Lock Password Change
- Ltase - Blank Check - Writing - Verification	End Address 00007 Checksum C00	FFF Value Chip Erase
complete!!	VDD(V) 5.0 VPP(V) 5.0	Auto Blank Checking Auto Read Protection SMART Option
Socket State		
SUCCESS	FAIL	FAIL FAIL
FAIL	FAIL	FAIL

Figure 3.8.4 Clear Program Count



3.9 Data download

1) Save the selected file data, device information and program options etc. to GW-uni2 internal memory.

Device	Samsung	805	1	S3FI1BG	VDD 5.0V	✓ VPP 5.0V
6 4	🖻 🕸	*	🖽 🗗			
** GW-uni2 is connected Firmware Version : 1.01				elected file to the b Start Address	uffer memory of G ¹ 00000000	V-uni2 gram Count Success Num 000000 Eail Num 000000
File Open: D:\Projetcs\Test file\test (01^FF]_32K.bin			Checksum	C000	Fail Num 000000 Clear Count Operation Option Key Lock Password Change	
File Check File Conversion File Checksum OK!!		GW-uni2 Settin Device	g Information S3FI1BG			
				End Address	0000000	Program Option
				Checksum	0000	Auto Verification
				VDD(V)	5.0	Auto Blank Checking
			8	VPP(V) 5.0		SMART Option
Socket S	itate					
SO	CKET #1		SOC	KET #2	SOCKET #3	SOCKET #4
0	CKET #5		SOC	ET #6	SOCKET #7	SOCKET #8

Figure 3.9.1 Download

- 2) Display the message "Download Success!" after download
- 3) Display information on 'GW-uni2 Setting Information' window after download.

		diana Daning	The same from the
Device Samsung 8051	S3FI1BG 📩	VDD 5.0V	▼ VPP 5.0V <u></u>
le 🔒 📽 🕸 🖽			
** GW-uni2 is connected ** Firmware Version : 1.01 File Open: D:#Projetcs#Test file#test	Data Information Start Address End Address	00000000 00007FFF	Program Count Success Num 000000 Fail Num 000000
(01°FF)_32K.bin File Check.	Checksum	000	Clear Count
File Conversion File Checksum	-GW-uni2 Setting	Information -	Operation Option
OK!!	Device	S3FI1BG	Password Change
Download	Start Address	00000000	
Buffer Checksum Success!!	End Address	00007FFF	Auto Chip Erase
	Checksum	C000	Auto Verification
		5.0	Auto Blank Checking
		5.0	SMART Option
Socket State			
SOCKET #1	DCKET #2	SOCKET #3	SOCKET #4
SOCKET #5	DCKET #6	SOCKET #7	SOCKET #8

Figure 3.9.2 Download Success



3.10 Program

- 1) Write a data from GW-uni2 buffer memory to a device.
- 2) Execute selected program options in order.
- 3) Display the program result of each socket in 'Socket state' windows.
- 4) Program count is renewed.



Figure 3.10 Program

3.11 Verify

: Display the result after comparing a written data of a device and a data of a GW-uni2 buffer memory.



Figure 3.11 Verify



3.12 Chip erase

: Delete a device ROM data..



Figure 3.12 Erase

3.13 Blank check

: Check a device ROM data initialized(0xFF)

Device Samsung 8051	S3FI1BG	VDD 5.0V	▼ VPP 5.0V
🕾 🔍 🛩 😜 🖽 (
Buffer Checksum	Data In Check if	devices are blank d	ata (FF) am Count
	Start Address	0000000	Fail Num 000007
[PROGRAM] - Erase - Writing	Checksum	C000	Clear Count
- Verification complete!!	- GW-uni2 Settin	g Information	Operation Option
I Verify 1	Device	S3FI1BG	☐ Key Lock
completell	Start Address	0000000	Password Change
[Chip Erase] complete!!	End Address	00007FFF	Program Option
I. Black Charle 1	Checksum	C000	Auto Verification
completell	VDD(V)	5.0	Auto Blank Checking
	VPP(V)	5.0	SMART Option
Socket State			
SUCCESS	JCCESS	SUCCESS	SUCCESS
SUCCESS	JCCESS	SUCCESS	SUCCESS

Figure 3.13 Blank Check



3.14 Device checksum

: Display a device checksum in the #1(Master) socket of 8 sockets.



Figure 3.14 Device Checksum

3.15 Buffer checksum

: Display a checksum of GW-uni2 internal memory data.

ine Execution Frogram Option Tielp		In sections Provide		
Device Samsung 8051	S3FI1BG	VDD 5.0V	✓ VPP 5.0V	
🖦 🌲 🐸 🕸 🌄 🛅	Q Q D			
[Chip Erase]	- Data Informatio	n Get checksum	from the buffer memory	
compreten	Start Address	0000000	Success Num 000002	
[Blank Check]	End Address	00007FFF	Fail Num 000014	
complete!!	Checksum	C000	Clear Count	
PROGRAM] - Erase	GW-uni2 Settin	g Information	Operation Option	
- Writing	Device S3FI1BG		E Key Lock	
- Verification	Derice		Password Change	
	Start Address	0000000	Des essent Oction	
[Device Checksum]	End Address	00007FFF	Program Option	
	Checksum	C000	Auto Verification	
[Buffer Checksum]	VIDDAA	E 0	Auto Blank Checking	
: 0000		5.0	Auto Read Protection	
	VPP(V)	5.0	SMART Option	
Socket State			I consider a second sec	
SOCKET #1 SOCI	KET #2	SOCKET #3	SOCKET #4	
	VET #6	SOCKET #7	SOCKET #8	

Figure 3.15 Buffer Checksum



3.16 Dump

- : Display buffer memory or device ROM data.
- 1) Execute the Dump window after clicking the dump icon.

Device Samsung 8051	S3FI1BG	VDD 5.0V	VPP .	5.0V
Li 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		0		22-247
Chip Erase]	- Data Informatio	n View the	data of device or d	ata of buffer r
I Plank Chack 1	End Address	00007555	Fail Num	000002
complete!!	Checksum	C000	Clear Count	
[PROGRAM]	- GW-uni2 Settin	a Information	Oneration Ontio	n -
- Writing	Device	S3FI1BG	Key Lock	
- Verification complete!!	Device	0000000	Password	Change
[Device Checksum]	End Address	00007FFF	Program Option	
: CUUU	Checksum	C000	Auto Verific	rase ation
[Buffer Checksum] : C000	VDD(V)	5.0	T Auto Blank	Checking
	VPP(V)	5.0	C Auto Read	Protection ion
Socket State				
SOCKET #1 SO	CKET #2	SOCKET #3	SO	CKET #4
SOCKET #5 SO	CKET #6	SOCKET #7		CKET #8

Figure 3.16.1 Dump execution

- 2) Address is changed by '<<' and '>>' button.
- 3) 'Buffer Memory' : Display buffer memory data.
- 4) 'Device<Socket#1>' : Display device ROM data in a socket #1.

evice												VL	DD				VPP
9	~	-	L F	13.4	36363		4		-		_		-	-		_	
nn Data		- AL					-	6 - 199	1.1.	100							
1	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	OF	Address
000000	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	OF	
000010	10	11	12	13	14	15	16	17	18	19	1A	1B	10	1D	1E	1F	<< 00000000 >>
000020	20	21	22	23	24	25	26	27	28	29	2A	2B	20	2D	2E	2F	Pat
000030	30	31	32	33	34	35	36	37	38	39	3A	3B	3C	3D	3E	3F	361
000040	40	41	42	43	44	45	46	47	48	49	4A	4 B	4C	4D	4E	4F	Dume
000050	50	51	52	53	54	55	56	57	58	59	5A	5B	5C	5D	5E	5F	Dump
000060	60	61	62	63	64	65	66	67	68	69	6A	6B	6C	6D	6E	6F	Buffer Memory
000070	70	71	72	73	74	75	76	77	78	79	7A	7B	7C	7D	7E	7F	Davies (Destat #1)
000080	80	81	82	83	84	85	86	87	88	89	8A	8B	8C	8D	8E	8F	Device Cocket #12
000090	90	91	92	93	94	95	96	97	98	99	9A	9B	9C	9D	9E	9F	
0000A0	AO	A1	A2	A3	A4	A5	A6	A7	A8	A9	AA	AB	AC	AD	AE	AF	
0000B0	BO	B1	B2	B 3	B4	B5	B6	B7	B 8	B 9	BA	BB	BC	BD	BE	BF	
0000C0	CO	C1	C2	C3	C4	C5	C6	C7	C8	C9	CA	СВ	CC	CD	CE	CF	
0000D0	DO	D1	D2	D3	D4	D5	D6	D7	D8	D9	DA	DB	DC	DD	DE	DF	
0000E0	EO	E1	E2	E3	E4	E5	E6	E7	E8	E9	EA	EB	EC	ED	EE	EF	
0000F0	FO	F1	F2	F3	F4	F5	F6	F7	F8	F9	FA	FB	FC	FD	FE	FF	EXIT
																125	
1 300	, UL.	55			1		TAN	-			1		1.6				TAIL
F	ΔII				1		FAI	Ê	_		ſ		F۵			-	FAII

Figure 3.16.2 Dump window



3.17 Read Buffer

: Read data in buffer memory and save it as an intel hex file to PC

1) Click 'Read Buffer' button and the password window is displayed.



Figure 3.17.1 Read Buffer execution

2) Input password and click 'Check' button and start to execute Read Buffer.

Device	Samsung	805	1	S3FI1BG		VDD 5.0V	<u>.</u>	VPP 5.0V
6 <u>4</u>	🖻 🖟	*	🖽 🖪		Þ	t 🖪 🛛		
** GW-uni2 is connected Firmware Version : 1.01 File Open: D:#Projetcs#Test file#test f01**ED 32K bin			X	– Data Infor Start Add End Addr Checksur	mation ress ess n	00000000 00007FFF C000	Program Success Fail Num	Count Num 000003 000061 Clear Count
01°FF_32K.bin File Check File Conversion File Checksum OK!!			Check P Check P	assword Password assword Check		ration Key Pas gram Auto	n Option Lock sword Change Option Chip Erase Verification	
			×	VDD(V) VPP(V)	, T	5.0 5.0	Auto Auto Auto Auto SMA	Blank Checking Read Protection RT Option
Socket S	itate							
SO	CKET #1		SOC	KET #2		SOCKET #	3	SOCKET #4
1	OVET HE	÷:	POC	/ET #C		SOCKET #	7	SOCKET #8

Figure 3.17.2 Input password



Device Samsung 8051	S3FI1BG	VDD 5.0V	VPP 5.0V	
💩 🚇 😂 🕸 🌄 🛅				
** GW-uni2 is connected **	Data Informatio	n	Program Count	
File Open'	End Address	00007FFF	Fail Num 000003	
D:#Projetcs#Test file#test [01~FF]_32K.bin	Checksum	C000	Clear Count	
File Check File Conversion	GW-uni2 Settin	g Information	Operation Option	
File Checksum OK!!	Device	S3FI1BG	Key Lock	
Read Buffer Memory	Start Address	00000000	Password Change	
Completed!! D:#Projetcs#Tool#GW-	End Address	00007FFF	Program Option	
Universal2#Debug#seminix.hex	Checksum C000		Auto Verification	
	VDD(V)	5.0	Auto Blank Checking	
	VPP(V)	5.0	SMART Option	
- Socket State		4		
SOCKET #1 SO	CKET #2	SOCKET #3	SOCKET #4	
SOCKET #5 SO	CKET #6	SOCKET #7	SOCKET #8	

3) File address is displayed after 'Read Buffer' is completed

Figure 3.17.3 Complete 'Read Buffer'

3.18 Key Lock

: If the 'Key Lock Selected', the following function will be protected

- PC Application Program
- : 'Device Selection', 'Download', 'Program Option', 'Dump' function
- Stand-alone mode
- : 'Device Setting', 'Program Option' and 'Read Device' function
- 1) Click the 'Key Lock' check box and 'Key Lock' setting window is displayed.



Figure 3.18.1 Key Lock execution



- 2) Input password and click 'Lock' or 'Unlock' button
- 3) 'Lock' : Set the key lock
- 4) 'Unlock': Set the key unlock
- 5) 'Exit'

Device Samsung 805	1 S3FI1BG 💽 V	DD 5.0V VPP 5.0V
le 🔒 🖻 🕪 ಶ		a D
** GW-uni2 is connected ** Firmware Version : 1.01 ile Open: :WProjetcs#Test file#test D1~FF]_32K.bin	Data Information Start Address 000 End Address 000 Checksum C	00000 Program Count Success Num 000003 07FFF Fail Num 000061 000 Clear Count
ile Check. Ile Conversion Ile Checksum K!! tead Buffer Memory iompleted!! ::WProjetcs#Tool#GW- Iniversal2#Debug#seminix	Key Lock Password Lock	eration Option Key Lock Password Change Skit option Auto Chip Erase
1. L	VDD(V)	5.0 Auto Blank Checking 5.0 Auto Read Protection 5.0 SMART Option
Socket State		
SOCKET #1	SOCKET #2	SOCKET #3 SOCKET #4
SOCKET #5	SOCKET #6	SOCKET #7 SOCKET #8

Figure 3.18.2 Key Lock

w 제목없음 - GW-uni2 Ella Execution Program Option	Help	
Device Samsung 805	S3FI1BG VDD 5.0V	✓ VPP 5.0V ✓
* GW-uni2 is connected ** Firmware Version : 1.01 File Open: D:#Projetcs#Test file#test [017FF]_32K.bin	Data Information Start Address 00000000 End Address 000007FFF Checksum C000 Key Lock	Program Count Success Num 000003 Fail Num 000061 Clear Count
riie Coneck. File Conversion File Checksum OK!! Read Buffer Memory Completed!! Di#Projetes#Tool#GW- Universal2#Debug#seminix	Key Lock Password Unlock Exit	eration Option Key Lock Password Change ogram Option Auto Chip Erase Auto Verification
	VDD(V) 5.0 VPP(V) 5.0	Auto Blank Checking Auto Read Protection SMART Option
Socket State	r	-
SOCKET #1	SOCKET #2 SOCKET #3	SOCKET #4
SOCKET #5	SOCKET #6 SOCKET #7	SOCKET #8
eady		Connected

Figure 3.18.3 Key Unlock



Device Samsung 8051	S3FI1BG	▼ VDD 5.0V	▼ VPP 5.0V
t 🔒 😂 🕸 🌄 🗄 🖺		0 8 0	
** GW-uni2 is connected ** Firmware Version : 1.01 'ile Open:	– Data Informatic Start Address End Address	on 00000000 00007FFF	Program Count Success Num 000003 Fail Num 000061
D:#Projetcs#Test file#test 01~FF] 32K.bin	Checksum	C000	Clear Count
File Conversion GW-uni2 File Checksum			n Option Lock
File Conversion File Checksum OK!! Read Buffer Memory Completed!! Differ Strool #GW	/ Locked!! ou use this function,	you must disable 'K	N Option Lock ssword Change Option Chip Erase
Tile Conversion GW-uni2 Tile Checksum DK!! Read Buffer Memory SumProjeted!! Jniversal2#Debug#seminix.hex	y Locked!! ou use this function, [you must disable 'K	ey Lock ey Lock sword Change Option Chip Erase
File Conversion File Checksum OK!! Read Buffer Memory Completed!! Di#Projetes#Tool#GW Universal2#Debug#seminix.hex	y Locked!! ou use this function, 또만 Checksum VDD(V)	you must disable 'K COOO 5.0	Auto Blank Checking
Tile Conversion File Checksum Still Read Buffer Memory Completed!! D:#Projetcs#Tool#GWW Jniversal2#Debug#seminix.hex	y Locked!! ou use this function, Etecksum YDD(Y) YPP(Y)	you must disable 'K COOO 5.0 5.0	Auto Bank Checking Auto Read Protection SMART Option
File Conversion File Checksum DK!! Read Buffer Memory Completed!! D:WProjetcs#Tool#GW Jniversal2#Debug#seminix.hex Socket State	y Locked!! ou use this function, Checksum VDD[V] VPP[V]	you must disable 'K COOO 5.0 5.0	Auto Verification Auto Blank Checking Auto Read Protection SMART Option
File Conversion File Conversion OK!! Read Buffer Memory Completed!! Universal2#Debug#seminix.hex Socket State SOCKET #1 SOC	y Locked!! ou use this function. Checksum YDD(Y) YPP(M) CKET #2	you must disable 'K C000 5.0 5.0 SOCKET #3	Auto Blank Checking Auto Verification SMART Option SOCKET #4

Figure 3.18.4 Key lock mode - Device Selection Error

- * This function helps to avoid an operator's mistake in the mass production line.
- * You must set Password before use this function.(refer to 3.19 Password Change)



3.19 Password Change

- : Change password
- 1) Click the 'Password Change' button and the 'Password' setting window is displayed

ine Execution Fragram Option Help		
Device Samsung 8051	S3FI1BG VDD 5.	0V <u>▼</u> VPP 5.0V
Be 🔒 🍃 🌵 🌄 🖬 🕅		3
** GW-uni2 is connected ** Firmware Version : 1.01 File Open: D:\Projetcs\Test file\test D(TFF) 32K.bin	Data Information Start Address 00000000 End Address 00007FFF Checksum C000	Program Count Success Num 000003 Fail Num 000061 Clear Count
File Check File Conversion File Checksum OK!!	GW-uni2 Setting Information Device S3F11BG	Operation Option Key Lock Password Change
Read Buffer Memory Completed!! D:#Projetcs#Tool#GW- Universal2#Debug#seminix.hex	Start Address 00000000 End Address 00007FFF Checksum C000	Program Option
	VDD(V) 5.0	Auto Blank Checking
<u></u>	VPP(V) 5.0	SMART Option
Socket State		
SOCKET #1 SOC	KET #2 SOCKET	SOCKET #4
SOCKET #5 SOC	KET #6 SOCKET	F #7 SOCKET #8

Figure 3.19.1 'Password Change' execution

2) Input a previous password in 'Password' blank box and input a new password in 'New Password' blank box and click 'Change' button to change the password

Device Samsung 805	I S3FI1BG 💌 VDD	5.0V • VPP 5.0V •
Be 🔒 🖻 🕪 🍫		
** GW-uni2 is connected ** Firmware Version : 1.01 File Open:	Data Information Start Address 0000000 End Address 000007FF	Program Count DO Success Num 000003 FF Fail Num 0000061
01"FF]_32K.bin	assword Change	Clear Count
rne check. File Conversion File Checksum OK!! Read Buffer Memory completed!! D:\Projetcs\Tool\GW- Universal2\Debug\semini:	Password Change Password New Password Change Exit	ration Option Key Lock Password Change gram Option Auto Chip Erase Auto Verification
-	VDD(V) 5.0 VPP(V) 5.0	Auto Blank Checking Auto Read Protection SMART Option
Socket State		
SOCKET #1	SOCKET #2 SOCK	SOCKET #4
SOCKET #5	SOCKET #6 SOCK	ET #7 SOCKET #8

Figure 3.19.2 Password Change



Derice Jamsung 005	1 S3FI1BG <u>VDD 5.0V</u>	✓ VPP 5.0V
le 🔒 😂 📭 🍫		
** GW-uni2 is connected ** Firmware Version : 1.01 File Open:	Data Information Start Address 00000000 End Address 00007FFF	Program Count Success Num 000003 Fail Num 0000061
D:#Projetcs#Test file#test (01~FF)_32K.bin	⁹ assword Change	Clear Count
File Conversion File Checksum OK!! Read Buffer Memory Completed!! D:\Projetcs\Tool\GW- Universal2\Debug\semini:	GW-uni2 E Success : Password Changed!	ration Option Key Lock Password Change gram Option Auto Chip Erase Auto Verification
-	VPP(V) 5.0	Auto Blank Checking Auto Read Protection SMART Option
Socket State		POCKET #4
POCKET #1		SULKEL#4
SOCKET #1	SUCKET #2 SUCKET #3	

3) A message window about a result is displayed after changing password.

Figure 3.19.3 Finish Password Change

- A password is not set at first
- Password can be set to maximum 8 words.
- Password is not set when 'New Password' blank box is not filled.



3.20 Socket state

: Display an operating result on each socket.

D I D DOT	005400	UND F AL	UND F ALL	
Device Samsung 8051	S3FI1BG 👱	VDD [5.0¥	▼ VPP 5.0V ·	
💩 🚑 📽 🕸 🖉 🛅		t 🚇 🛛		
** GW-uni2 is connected ** A Firmware Version : 1.01	Data Information Start Address	00000000	Program Count Success Num 000003	
File Onen:	End Address	00007FFF	Fail Num 000061	
D:#Projetcs#Test file#test (01~FF)_32K.bin	Checksum	C000	Clear Count	
File Check File Conversion	GW-uni2 Setting	Information	Operation Option	
File Checksum	Device S3FI1BG		Key Lock	
UKI	Start Address 00000000	00000000	Password Change	
Read Buffer Memory Completed!! D:#Projetcs#Tool#GW-	End Address	00007FFF	Program Option	
Universal2#Debug#seminix.hex	Checksum	C000	Auto Verification	
		5.0	Auto Blank Checking	
58		5.0	SMART Option	
Socket State				
SOCKET #1 SOC	CKET #2	SOCKET #3	SOCKET #4	
SOCKET #5 SOC	CKET #6	SOCKET #7	SOCKET #8	

Figure 3.20 Display a socket state

3.21 State window

: Display an operating result on the 'Socket State' window.

Device Samsung 8051	S3FI1BG • VDD 5.0	VPP 5.0V	
Be 🔒 📽 🕸 🖽 🗈]	
** GW-uni2 is connected ** Firmware Version : 1.01 File Open: D:#Projetcs#Test file#test 01 FFL_32K.bin	Data Information Start Address 00000000 End Address 00007FFF Checksum C000	Program Count Success Num 000003 Fail Num 000061 Clear Count	
File Check. File Conversion File Checksum OK!! Completed!! D:#Projetes#Tool#GW- Universal2#Debug#seminix.hex	GW-uni2 Setting Information Device S3FI1BG Start Address 00000000 End Address 00007FFF Checksum C000 VDD(Y) 5.0	Operation Option Key Lock Password Change Program Option Auto Chip Erase Auto Verification Auto Blank Checking Auto Read Protection	
Socket State	CKET #2 SOCKET	#3 SOCKET #4	
SOCKET #5 SOC	CKET #6 SOCKET	#7 SOCKET #8	

Figure 3.21 State Window



3.22 GW-uni2 Setting window

: Display GW-uni2 setting state.

ile Execution Program Option Help				
Device Samsung 8051	S3FI1BG 🔄	VDD 5.0V	▼ VPP 5	.0V 🔹
💩 🚑 📽 🕸 🐺 🖆 🖆		D 🖲 🛛		
** GW-uni2 is connected ** Firmware Version : 1.01 File Open: D:#Projetcs#Test file#test (01FTF_123K.bin	Data Information Start Address End Address Checksum	00000000 00007FFF C000	Program Count Success Num 00000 Fail Num 00006 Clear Count	
File Check File Conversion File Checksum OK!!	- GW-uni2 Setting Device	Information S3FI1BG	Operation Optio	n Change
Read Buffer Memory Completed!! D:₩Projetcs#Tool₩GW- Universal2#Debug#seminix.hex	End Address	00007FFF C000	Program Option ✓ Auto Chip Erase ✓ Auto Verification	
	VDD(V)	5.0	Auto Blank	Checking
		5.0	SMART Opt	Protection ion
Socket State			-	
SOCKET #1 SOC	CKET #2	SOCKET #3	SOC	CKET #4
SOCKET #5 SOC	KET #6	SOCKET #7	SOC	CKET #8

Figure 3.22 GW--uni2 setting window

- 1) Device : Display a device name.
- 2) Start Address : Display a program start address.
- 3) End Address : Dispaly a program end address.
- 4) Checksum : Display a data checksum which is downloaded.
- 5) VDD : Display a system voltage.
- 6) VPP : Display a program voltage.

GW-uni2 works based on GW-uni2 setting information so check whether GW-uni2 setting is changed after changing GW-uni2 setting information. (device information, Program option, Download etc.)

* The setting value is displayed when GW-uni2 is connected to PC GW-uni2 normally.



3.23 Upgrade

- Upgrade GW-uni2 software.
- Please check a new firmware file at SEMINIX homepage(<u>www.seminix.com</u>) periodically
- User can check the version information at 'Help -> About GW-uni2... ' menu

1) Upgrade process

(1) Write "UPGRD" to the 'Start Address' blank and then enter the 'Enter' key.

▶ 제목없음 - G₩-uni2				
Elle Execution Program Option Help				
Device	1	VDD	▼ VPP	<u>_</u>
🚨 🔒 🥔 🐱 🖗	e, a d			
** GW-uni2 is connected ** Firmware Version : 1.01	- Data Informatio Start Address	n UPGRD	Program Count Success Num	000003
GW-Uni2 FirmWare Upgrade	End Address Checksum		Fail Num Clear C	000061
Download Success!! GW-uni2 Upgrade Success!! [1] Disconnect USB CABLE [2] GW-uni2 Power OFF [3] GW-uni2 Power ON [4] Connect USB CABLE ** GW-uni2 is disconnected **	GW-uni2 Settin Device Start Address End Address Checksum Checksum VDD(V) VDP(V)	g Information S3FI1BG 00000000 00007FFF C000 5.0 5.0	Operation Option Key Lock Password Program Option Auto Chip E Auto Verifici Auto Blank Auto Read f SMART Opt	n Change rase ation Checking Protection ion
Socket State SOCKET #1 SOCK	KET #2	SOCKET #3		CKET #4
SOCKET #5 SOCI	KET #6	SOCKET #7	SOC	CKET #8
Ready				Disconnected

Figure 3.23 Upgrade Start

- (2) The upgrade data is downloaded when user enters 'Enter key'
- (3) GW-uni2 is upgraded after finish the download.
- (4) Restart GW-uni2 about 20 min later (Power off -> Power On)



4. Stand-alone mode

4.1 System on and initialization

: To use GW-uni2 with stand-alone mode, user should setup PC application program and download a data first

Touch keys don't work if the USB cable is connected so please disconnect USB cable for the stand-alone mode.

- 1) Set a device with reference to '3.4 Device selection'
- 2) Set a program option with reference to '3.6 Program Option'
- 3) Download a data with reference to '3.5 File Open', '3.9 Data Download'
- 4) Disconnect USB cable. (The key is not working when USB cable is connected)
- 5) The system information is kept until user set it again.

4.2 LCD display information

: There is a program standing mode when user turns on GW-uni2 power after initialization



Figure 4.2 LCD display

1) Program Option : Display Program option

- (1) 🛃 : Auto Chip Erase
- (2) 🗐 : Auto Verification
- (3) 🚺 : Auto Blankcheck
- (4) 題 : Auto Read Protection
- (5) 🚇 : Auto LDC Protection
- (6) 🛃 : Auto Hard Lock
- (7) 🔁 : SMART Option

2) Current Mode : Display a current mode.

- (1) PROGRAM, VERIFICATION, ERASE, BLANK CHECK, DVC CHECKSUM, and BUF CHECKSUM
- (2) A mode is changed in order when touch 'LEFT' and 'RIGHT' keys.



- 3) Device Name
- : Display a device name.(Display 'Nothing' when there is not any selected device)
- 4) Device Information : Display Device setting information..
- (1) Vdd : System Power (Voltage)
- (2) Vpp : Program Power (Voltage)
- (3) E.A : End Address (Hex)
- (4) Checksum : Buffer Checksum (Hex)

4.3 Program mode

: Program standing state

R Ø
[PROGRAM]
Device : S3F9454
Vdd : 5.0 Vpp : 12.5

Figure 4.3.1 Program Mode

1) Touch 'PROGRAM' key and execute the program mode.

Rø	ļ		
Dev	ice : S3F	9454	
<	Write	>	
	25%		

Figure 4.3.2 Program Mode - Write to a device

- 2) Execute a program option together
- 3) Touch the 'RIGHT' key for 'Verification mode'
- 4) Touch the 'LEFT' key for 'Buf Checksum mode'
- 5) Touch the 'MENU' key for 'Menu mode'.



4.4 Verification mode

R Ø
[VERIFICATION]
Device : S3F9454
Vdd : 5.0 Vpp : 12.5

Figure 4.4.1 Verification Mode

1) Touch the 'PROGRAM' key for verify.

RØ	
Device : S3F9454	
< Verify SMCU >	
25%	

Figure 4.4.2 Verification mode - Verify

- 2) Touch the 'RIGHT' key for 'Erase mode'.
- 3) Touch the 'LEFT' key for 'Program mode'.
- 4) Touch the 'MENU' key for 'Menu mode'.



4.5 Erase mode

: Make a device ROM initialize (0xff)

RØ
[ERASE]
Device : S3F9454
Vdd : 5.0 Vpp : 12.5

Figure 4.5.1 Erase Mode

1) Touch the 'PROGRAM' key for erase.

R	ø				
II	Devi	ce :	S3F	9454	
	<	ER	ASE	>	

Figure 4.5.2 Erase Mode - Erase

- 2) Touch the 'RIGHT' key for 'Blank Check mode'.
- 3) Touch the 'LEFT' key for 'Verification mode'.
- 4) Touch the 'MENU' key for 'Menu mode'.



4.6 Blank Check mode

: Check a device ROM data initialized(0xff)

RØ
[BLANK CHECK]
Device :S3F9454
Vdd : 5.0 Vpp : 12.5

Figure 4.6.1 Blank check mode

1) Touch the 'PROGRAM' key for 'Blank Check'.

r. Ø	
Device : S3F9454	
< Blank Check >	
25%	

Figure 4.6.2 Blank check mode - Blank check

- 2) Touch the 'RIGHT' key for 'DVC Checksum mode'.
- 3) Touch the 'LEFT' key for 'Erase mode'.
- 4) Touch the 'MENU' key for 'Menu mode'.



4.7 Device Checksum mode

: Get a device checksum in the first socket(Master) of 8 sockets

R Ø
[DVC CHECKSUM]
Device : S3F9454
Vdd : 5.0 Vpp : 12.5

Figure 4.7.1 Device checksum mode

1) Touch the 'PROGRAM' key for device checksum.



Figure 4.7.2 Device Checksum - Loading

< Device Checksum >
Device : S3F9454
E.A : 0xXXXXXXXX
CheckSum : 0xXXXX

Figure 4.7.3 Device Checksum - Done

- 2) Touch the 'RIGHT' key for 'BUF Checksum mode'.
- 3) Touch the 'LEFT' key for 'Blank Check mode'.
- 4) Touch the 'MENU' key for 'Menu mode'.
 - * E.A : End Address
 - * C.A : Current Address
 - * Checksum : 2byte



4.8 Buffer Checksum

: Display a checksum of GW-uni2 buffer memory.

R Ø
[DVC CHECKSUM]
Device : S3F9454
Vdd : 5.0 Vpp : 12.5

Figure 4.8.1 Device checksum mode

1) Touch the 'PROGRAM' key for 'Buffer Checksum'.

Buffer Checksum
E.A : 0xXXXXXXXX
C.A : 0xXXXXXXXX
25%

Figure 4.8.2 Buffer Checksum - Loading



Figure 4.8.3 Buffer Checksum - Done

- 2) Touch the 'RIGHT' key for 'Program mode' ..
- 3) Touch the 'LEFT' key for 'DVC Check mode'.
- 4) Touch the 'MENU' key for 'Menu mode'.
 - * E.A : End Address
 - * C.A : Current Address
 - * Checksum : 2byte



4.9 Menu mode

: Touch the key for Menu mode in 'Program Mode', 'Verification Mode' and 'Erase Mode'



Figure 4.9.1 Menu Mode

1) Menu

- (1) Device Setting : Set a device value by part no.
- (2) Program Option : Select a program option.
- (3) Read Device : Read a device ROM data and save it to a buffer memory.
- (4) Program Count : Display the programed device number.
- (5) Beep Sound : On and off the beep sound.
- (6) Information : Display GW-uni2 information.
- (7) Return : Return to previous mode.
- 2) Display the chosen menu with an inverted color.
- 3) Menu can be changed by 'UP' and 'DOWN' key.
- 4) Touch the 'MENU' key to select a chosen menu.
- 5) Touch the 'PROGRAM' key for a previous mode.



4.10 Device Setting

: Change system setting value depending on a chosen device.

Device Name	
S3F80JB	
S3P80K5	
S3P80K9	

Figure 4.10 Device Setting

- 1) Display a chosen device with an inverted color
- 2) A device can be changed by 'UP' and 'DOWN' key.
- 3) Touch the 'MENU' key to select a chosen menu.
- 4) Touch the 'PROGRAM' key for a previous mode.

*This device setting can't used if there is the 'Key lock' setting.

4.11 Program Option

: Change a program option.

Dev	vice Name
Ve	erification
Bl	ank Check
Re	eadProtection

Figure 4.11 Program Option

- 1) Display an icon when an option is chosen.
- 2) An option can be changed by 'UP' and 'DOWN' key.
- 3) Touch the 'MENU' key to select a chosen option.
- 4) Touch the 'PROGRAM' key for a previous mode.
- 5) Back to a menu mode when 'Return' is selected.

*This program option can't be used if there is the 'Key lock' setting.



4.12 Read Device

: Read a device ROM data in the socket #1 and save it to GW-uni2 buffer memory.

1) Display a device setting menu when 'Read Device' is selected.

Device Name	
S3F80JB	
S3F80K5	
S3F80K9	

Figure 4.12.1 Device selection

2) Display a confirmation window when a device is selected.

Read Device		
Device Name		
Continue?		
[NO] YES		

Figure 4.12.2 Read Device confirmation

- 3) Back to a menu mode when 'NO' is selected.
- 4) Execute 'Read Device' when 'YES' is selected.



Figure 4.12.3 Read Device - Loading

5) Back to a previous mode when 'Read Device' is finished.

*This Read Device can't be used if there is the 'Key lock' setting.



4.13 Program Count

- (1) Success : The number of program success.
- (2) Fail : The number of program fail.

Program Count			
Success	:	000000	
Fail	:	000000	

Figure 4.13 Program Count

4.14 Beep Sound

: On and off beef sound.



Figure 4.14 Beep Sound

4.15 Information

- (1) Display a hardware version.
- (2) Display a software version.
- (3) Display a buffer memory size.

INFORMATION			
H / W	:	Ver 2.0	
S / W	:	Ver 1.0	
Memory	:	100 MB	

Figure 4.15 Information

4.16 Return

: Back to the previous mode (Program Mode, Verification Mode, Erase Mode)



4.17 Result

- 1) Display an operating result of each socket.
- 2) Display "G" with programming success.
 - Display "F" with programming fail.

Display "I" with Socket Mismatch fail. (Device setting - Socket)

Display "E" with End of Socket-Life-Time.



Figure 4.17 Display LCD Result

4.18 Socket LED

State		LED RED	LED GREEN
Stand By		OFF	ON
Execute Function		Х	Х
Desult	Success	OFF	OFF
Result	Fail	ON	OFF

Table 4.18 Socket LED Description



4.19 Socket Life Time

The socket adapter consists of several mechanical parts so that it is consumption goods, whose life time is limited. GW-uni2 will display the warning message on the LCD of GW-uni2 when the programming counts of the socket adapter reaches the life time (counts) of its socket adapter.

[W.	ARNIGN!]	
Sock	et LifeTir	ne	
#1 #	#2	#4	Socket No.
÷	#6	#8	Socket No.

4.19 Socket Life Time

After the warning message is displayed, GW-uni2 will program the devices continuously until 10% over counts than the life time count of socket adapter. So GW-uni2 will not program the devices when the programming count is over than 10% of the life time (count) of the socket adapters because the programming reliability could not be guaranteed.

Please change the used socket adapters into new ones in case of that, and then program the devices continuously.



5. Operation Sequence



Figure 5.1 Operation Sequence



6. Key Function map



Figure 6.1 Key Function Map

* Please make sure that USB cable should not be connected when user want to use the stand-alone mode because 'Key' is not working when USB cable is connected.



7. In-System Program

7.1 UAS-Pellet2 Adapter Cable

: You must use a UAS-Pellet2 Adapter Cable when you use GW-uni2 to program MCU(or COB) on the PCB.



Connect GW-uni2 to User board via UAS-Pellet2 Adapter Cable



Figure 7.1 Component of UAS-pellet2 Adapter Cable



7.2 Connection

- (1) 20CB6-Adapter Board 'GND' Target-MCU 'GND(Vss)'
- (2) 20CB6-Adapter Board 'VDD' Target-MCU 'Vdd(Vcc)'
- (3) 20CB6-Adapter Board 'RST' Target-MCU 'Reset'
- (4) 20CB6-Adapter Board 'VPP' Target-MCU 'Vpp(Test)'
- * if 'Reset pin' and 'Vpp(Test) pin' are same, you have only to connect 'Vpp(Test) pin'.
- (5) 20CB6-Adapter Board 'SCLK' Target-MCU 'SCLK'

(6) 20CB6-Adapter Board 'SDAT' - Target-MCU 'SDATA'



Figure 7.2 Connect UAS-Pellet2 Adapter Cable to MCU

Rsdat : 4.7K ohm Rclk : 4.7K ohm Rrst : 1K~4.7K ohm Cvpp : 10nF Cvdd : 10nF





2) Connect UAS-Pellet2 Adapter to 20CB6 Adapter-Board via connect cable.

Figure 7.3 Connect UAS-Pellet2 Adapter cable to the User Board

3) Put a UAS-Pellet2 adapter cable in GW-uni2.

7.3 Caution

- 1) 2m of cable is the maximum length from UAS-Pellet2 socket to 20CB6-Adapter Board
- 2) 20cm of cable is the maximum length from Adapter-Board to Target-MCU.
- 3) if you program to MCU on board, you must use the UAS-Pellet2 Adapter Cable.
- 4) Please check components Rsdat, Rclk, Rrst, Cvpp, Cvdd.



Parameter	Conditions		Min	Тур	Max	Unit
Current Consumption	Stand By		-	-130	-150	
	Operating		-	-	-300	mA
VDD	VPP 3.3 ~ 12.5		3.3		5.0	V
VPP	VDD 3.3 or 5.0		3.3		12.5	V
	VDD = 3.3V	VPP=3.3V	-	-	500	mA
Idd		VPP=12.5V	-	-	500	mA
luu	VDD = 5.0V	VPP=5.0V	-	-	500	mA
		VPP=12.5V	-	-	500	mA
	VDD = 3.3V	VPP=3.3V	-	-	25	mA
loo		VPP=12.5V	-	-	25	mA
ihb		VPP=5.0V	-	-	25	mA
	00 - 5.00	VPP=12.5V	-	-	25	mA

8. Electrical Characteristics

9. Special Notice

- 1) Please make sure to check device information, End address, Vdd, Vpp, buffer check sum before programming.
- 2) Please check device checksum regularly for normal programming
- 3) Please check Vdd and Vpp regularly
- 4) Please contact SEMINIX when there is a problem of device programming
- 5) GW-uni2 is the socket programmer only so SEMINIX can't take the responsibility for all accidents after user's artificial manipulation without SEMINIX socket
- 6) SEMINIX doesn't take the responsibility of GW-uni2 from user's careless mistake.



10. Socket Adapter Selection Guide

SAMSUNG S3F9xxx series adapter socket table

Device Name	Package type	Adapter socket
S3F94C4 S3F94C8	16SOP 16TSOP 20DIP 20SOP 20SSOP	UAS-94C4/8-16SOP UAS-94C4/8-16TSOP UAS-94C4/8-20DIP UAS-94C4/8-20SOP UAS-94C4/8-20SSOP

SAMSUNG S3F8xxx series adapter socket table

Device Name	Package type	Adapter socket
S3F80Q5	24ELP	UAS-80Q5-24ELP
S3F80QB	44ELP	UAS-80QB-44ELP
S3F80P5	24SOP 24SDIP	UAS-80P5-24SOP UAS-80P5-24SDIP
S3F80P9	28SOP	UAS-80P9-28SOP
S3F80PB	44QFP	UAS-80P9/B-44QFP
S3F8285 S3F8289 S3F828B	80QFP 80TQFP	UAS-8285/9/B-80QFP UAS-8285/9/B-80TQFP
S3F84B8	20DIP 20SOP	UAS-84B8-20DIP UAS-84B8-20SOP
S3F84I9	42SDIP 44QFP	UAS-8419-42DIP UAS-8419-44QFP

SAMSUNG S3F8XXX series adapter socket table

Device Name	Package type	Adapter socket
S3F8S15 S3F8S19	48QFP 48TQFP 48ELP	UAS-8S15/9-48QFP UAS-8S15/9-48TQFP UAS-8S15/9-48ELP
S3F8S24 S3F8S28	24SOP 24TSSOP 20DIP 20SOP 20SSOP	UAS-8S24/8-24SOP UAS-8S24/8-24TSOP UAS-8S24/8-20DIP UAS-8S24/8-20SOP UAS-8S24/8-20SSOP



Device Name	Package type	Adapter socket
S3F8S34 S3F8S35 S3F8S38 S3F8S39	32SOP 32SDIP 32ELP	UAS-8S34/5/8/9-32SOP UAS-8S34/5/8/9-32SDIP UAS-8S34/5/8/9-32ELP
S3F8S45	44QFP	UAS-8S45-44QFP
S3F8S5A	44QFP	UAS-8S5A-44QFP
S3F8S6B	64QFP 64SDIP	UAS-8S6B-64QFP UAS-8S6B-64SDIP
S3F8S7B	80QFP 80TQFP	UAS-8S7B-80QFP UAS-8S7B-80TQFP
S3F8S8B	100QFP 100TQFP	UAS-8S8B-100QFP UAS-8S8B-100TQFP

SAMSUNG S3F8XXX series adapter socket table

SAMSUNG On-board Chip/COB type adapter cable

Device Name	Package type	Adapter socket
In-System Programing	Samsung Standard	UAS-Pellet2
COB (Chip On Board)	Pellet(Die form)	UAS-Pellet2

SAMSUNG CalmRISC16 (S3FCXXX) series adapter socket table

Device Name	Package type	Adapter socket
S3FC40D	100QFP 100TQFP 128QFP	UAS-C40D-100QFP UAS-C40D-100TQFP UAS-C40D-128QFP

SAMSUNG ARM7 series adapter socket table

Device Name	Package type	Adapter socket
S3F4A0K	144LQFP	UAS-4A0K-144LQFP
S3F4A1H	100TQFP	UAS-FA1H-100TQFP
S3F4A2F	80TQFP	UAS-4A2F-80TQFP
S3F401F	100QFP	UAS-401F-100QFP

