

Embest S3CEV40 Getting Start

Initialization

Safeguard:	transparency organic glass
Sub-board:	LCD&TSP(installed,320x240 STN) board --- (J3 connector to mainboard); and 4x4 keyboard(installed) --- (J2 connector to mainboard)
Mainboard:	

User Interface(connector)

connector	label	connector	label	connector	label
IDE-40pin	J3	JTAG-20pin	J12	Power 5.0V	J9
UART0	J2	EBI (s3c44b0x)	J10	USB	J8
UART1	J1	EBI (s3c44b0x)	J11	Ethernet-RJ45	J6
LCD&TSP	J5	EBI (s3c44b0x)	J13	MicroPHONE	
KEY	J7	EBI (s3c44b0x)	J14	EARPHONE	J4

Switch settings

switch	Init-settings	Description
SW1&SW2	Open	Unused(open together) or used(closed together) UART1
SW3	Open	reserve
SW4	Open	reserve
SW5	Open	Little endian (closed) or Big endian (open)
SW6	Voltage select	Power supply by USBPOWER or EXTPOWER

Power up or Reset the Board

8-segment LED all lit; LED1 and LED2 flash(1Hz); LCD display producer information normally;select function test by PC keyboard; information by UART0 showed as following:

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Embest S3C44B0X Evaluation Board(S3CEV40)
*=====*
*=              Embest Info&Tech Co.,LTD.              *=
*=====*
*===== R&D CENTER =====*
*===== 86-755-25631365 =====*
*===== support@embedinfo.com =====*
*===== Version 2.1 =====*

Please select test item:
1: 8LED test   2: LCD test   3: Keyboard test
4: Sound test  5: Timer test  6: Ethernet DHCP test
7: Flash test  8: IIC test   9: Ethernet TFTP test
0: TouchScreen test
>

```



Function Tests

> 1 Look at 8-segment Digit LED...		8-SEG LED display 0 – F, return
> 2 Look at LCD...		Look at LCD
> 3 Please press one key on KeyBoad(4 x 4) and look at LED		Press a key (keyboard on board) and display on 8-SEG LED
> 4 CODEC: Philips UDA1341 (U5) Please listen to sound. Press any key to exit...		'De-Dee...' output from EARFONE
> 5 Timer Start, press any key to exit... ****		Print signal '*' each 1 second
> 6 Waiting DHCP server to Respond. Press any key to exit ...	Listen from DHCP server	Return the IP from DHCP server Receive DHCP Message from server 12.12.10.10 Config local ip address 12.12.10.5
> 7 SST39VF160-90 (U12) Write 0x00-0xff to flash address 0x30000... Flash Write and Check Success!		Write 0x00 – 0xFF to FLASH then read them to check(compare)
> 8 IIC Test using AT24C04 (U18)... Write char 0-f into AT24C04 Read 16 bytes from AT24C04 0 1 2 3 4 5 6 7 8 9 a b c d e f		Write 0x00 – 0xFF to EEPROM then read them to check(compare)
> 9 Do you want to configure local IP ? Y/y to configure local IP addr; D/d to use Default IP addr(192.168.0.200). Press any key to continue ... (y) Please input IP address(xxx.xxx.xxx.xxx) then press ENTER: 192.168.0.10 Manual Set local ip 192.168.0.10 Press any key to exit ...		Configure staic IP in DOS as following: arp –s 192.168.0.10 00-06-98-01-7e-8f Press Y or y to reset IP <i>Input the correct Enternet IP address</i> Then run TFTPDown.exe to download bin code to FLASH

> 0

Touch Screen coordinate Rang in:

(Xmin,Ymin) is :(xxx,xxx)

(Xmax,Ymax) is :(xxx,xxx)

To use current settings. Press N/n key.

Want to Set Again(Y/N)? **Y or y** Now press the diagonal point to ensure the coordinate

LCD separate 16-tablet
Please Touch TSP, then Print
it's coordinate to UART0

Touch TSP's Cornor to ensure Xmax,Ymax,Xmax,Xmin

User touch coordinate(X,Y) is :(0239,0679)

User touch coordinate(X,Y) is :(0608,0303)

first diagonal point
second diagonal point

Touch Screen coordinate Rang in:

(Xmin,Ymin) is :(0239,0303) (x1,y1)

(Xmax,Ymax) is :(0608,0679) (x2,y2)

To use current settings. Press N/n key.

Want to Set Again(Y/N)? **N or n** Now can get the coordinate value after press the key

* The Normal result (x2-x1) a little larger than 320 and (y2-y1) a little larger than 240

Pixel: 320 X 240. Coordinate Rang in: (0,0) - (320,240)

LCD TouchScreen Test Example(please touch LCD screen)

press any key to exit...

X-Posion[AIN1] is 0097 Y-Posion[AIN0] is 0132

X-Posion[AIN1] is 0117 Y-Posion[AIN0] is 0132

After power up or Reset the board, LCD also print the info showed as:

(A Icon of mouse print here)

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>

Note: Please connect UART0(115.2K,8,N,1) to PC COMx

❑ **Embest Test images**

Image	FLASH	Description
test_flash.bin	Sector from 1 to 90	Hardware Test for S3CEV40
Boardinit.bin	Sector from 1 to 11	CPU startup file image (only initialize board)
Tftp_down_test.bin	Upon 0x30000 space	For the use of TFTP translation test
Other image	Compile the S3CEV40 projects on IDE and program into FLASH	

* Image file lie in directory Software\Image\

❑ **uCLinux for S3CEV40**

Image	ROM	Description
Bootloader.bin	Sectors from 1 to 16	Boot loader
Kernel.bin	Sectors from 17 to 192	Operation System kernel
Romfs.bin	Sectors from 193 to 512	File system format of uclinux

* Image file lie in directory Software\Image\uclinux_beta2

❑ **User Guide documents**

* **Embest S3CEV40 Board**

Please reference to Document\S3CEV40_UserGuide.pdf

* **uclinux for S3CEV40**

Please reference to Document\uCLinux for S3CEV40 Guide.pdf



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