

SBC-5530H User's Manual

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SBC - 5530H NS GX1- 300 / NS5530A , Half-size Single Board Computer with VGA/CRT/LCD , 2S1P/232/422/485, Ethernet , SSD and Digital I/O

Startup Manual

Packing List (option)

Before you begin installing your card, please make sure that the following materials have been shipped:

- 1 SBC-5530H all-in-one single board computer
- 1 hard disk drive (IDE) interface cable (40-pin)
- 1 floppy disk drive interface cable (34-pin)
- 1 parallel port cable (26-pin)
- 1 serial port cable (9-pin)
- 1 user's manual
- CD-ROM or disks for utility, drivers, and manual (in DOC/PDF format)
- Warranty certificate

If any of these items are missing or damaged, contact your distributor or sales representative immediately.

Note 1: For detailed contents of the SBC-5530H, please refer to the enclosed CD-ROM or disk (in DOC/PDF format).

Note 2: Acrobat Reader is acquired to view any PDF file. Acrobat Reader can be downloaded at: www.adobe.com/Prodindex/acrobat/readstep.html

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Specifications

SBC-5530H Functions

- **CPU** :NS GX-300Mhz
- **CPU socket** : On Board CPU
- **BIOS** : Award Flash BIOS
- **Chipset** : NS 5530A
- **I/O Chipset** :Winbond W83977AF. Full 16-bit I/O decoded
- **Memory** : Onboard one 168-pin DIMM socket supports up to 256 Mbytes SDRAM

- **Enhanced IDE** : Support two IDE devices. Supports Ultra DMA/33 mode with data transfer rate .
- **FDD interface** : Supports up to two floppy disk drives, 5.25" (360KB and 1.2MB) and /or 3.5" (720KB, 1.44MB, and 2.88MB)
- **Parallel port** : One parallel port. Supports SPP, ECP and EPP modes
- **Serial ports** : One COM1 RS-232 and One COM2 RS-232/422/485 serial ports. Ports can be configured as COM1, COM2, or disabled individually.
- **IR interface** :Supports one IrDA Tx/Rx header
- **Keyboard/mouse connector** : supports PC/AT keyboard and PS/2 mouse
- **USB connectors** : 5 x 2 header onboard supports dual USB ports
- **Battery** : Lithium battery for data retention
- **Watchdog Timer** : Can generate a system reset, IRQ11, or RESET. Support software selectable time out interval. 1 sec-255 sec, I/O port 441h enable/disable, I/O port 443h timer set
- **Digital I/O** : 4 bits TTL digital input and 4 bits TTL digital output, I/O port 220h
- **Power management** : Supports ATX (or HDD-Type power connector) and AT(P8)power supply. LAN wake up, and External modem ring-in functions. I/O Peripheral devices, support power saving And doze/standby/suspend modes. APM 1.2compliant

Flat Panel/CRT Interface

- **Chipset** : C&T 69000
- **Display memory** : Built-in 2MB SDRAM
- **Display type** : Supports non-interlaced CRT and LCD (TFT, DSTN, and Mono) displays. Can display both CRT and Flat Panel simultaneously
- **Resolution** : Up to 1024x768@64K colors

Ethernet interface

- **Chipset** : RTL8139C 100Base-T Fast Ethernet controller
- **Ethernet interface** : 100Base-T RJ-45 connector.

SSD Interface

One 32-pin DIP socket supports M-systems DiskOnChip 2000 Series up to 288MB

Expansion Slots

- **PC/104 connector** : One 16-bit 104-pin connector onboard
- **ISA BUS** : One 16-bit ISA golden finger slot

Mechanical and environmental

- **Power supply voltage** :
+5V (4.75V to 5.25V), +12V (11.4V to 12.6V)
- **Board size** :
7.3”(L)X4.8”(W)

Jumpers Function

Connectors on the board link it to external devices such as hard disk drives, a keyboard, or floppy drives. In addition, the board has a number of jumpers that allow you to configure your system to suit your application. The following tables list the function of each of the board's jumpers and connectors.

JP1 Clear CMOS

JP 2/3/4/5/6/15

RS-232/422/485 function select

JP9 Watch Dog IRQ11/RESET select

JP10 Panel voltage select

JP11 DOC(SSD) voltage 3.3/5V select

JP12 KB POWER connector

JP13 LCD SHF CLOCK select

JP14 DOC(SSD) address select

J2 Chassis fan power connector

J3 Power on switch / Reset

J4 HDD_LED / SMI

J5 USB ports connector

J6 LAN LED connector

J8 AT Keyboard connector

COM1/J9 Serial ports connector

J10 Printer ports connector

J 11/12 PC/104 connector

J13 Digital I/O connector

J14 KEYLOCK/POWER LED/IrDA

J15 SPEAKER

ATX1 ATX power connector

AT1 AT(P8) Power connector

CN1 HDD-Type power connector

VGA1 VGA CRT/DDC interface connector

KB1 PS2 Keyboard / mouse

DIMM1 DIMM socket

FDD1 Floppy drive connector

IDE1 HDD drive connector

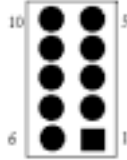
SW1 (1~4) LCD panel type select

LAN1 100Base-T Ethernet connector

LCD1 LCD display connector

J9 COM2 PIN LIST

Pin Number	Signal	Pin Number	Signal
1	DCD	6	DSR
2	SIN(RXD)	7	RTS
3	SOUT (TXD)	8	CTS
4	DTR	9	RI(+5V, +12V)
5	GND	10	N.C

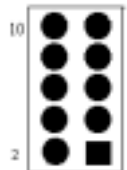


J9 COM2 422/ 485 PIN LIST

Pin Number	Signal	Pin Number	Signal
1	DCD(422 TXD-485 DATA-)	6	DSR
2	RXD(422 RXD+)	7	RTS
3	SOUT(422 TXD+/485DATA+)	8	CTS
4	DTR(422 RXD-)	9	RI(+5V, +12V)
5	GND	10	N.C

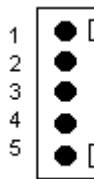
J5 USB PIN LIST

Pin Number	Signal	Pin Number	Signal
1	USBVCC	2	GND
3	USBD0-	4	GND
5	USBD0+	6	USBD1+
7	GND	8	USBD1-
9	GND	10	USBVCC



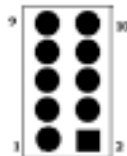
J8 AT K/B PIN LIST

Pin Number	Signal
1	KCLK
2	KDATA
3	X
4	GND
5	KVCC



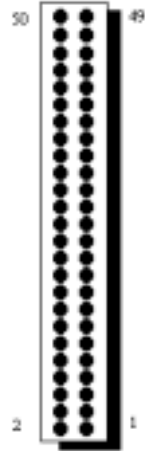
DIO1 DIGITAL I/O PIN LIST

Pin Number	Signal	Pin Number	Signal
1	GND	2	GND
3	DOUT4	4	DIN1
5	DOUT3	6	DIN2
7	DOUT2	8	DIN3
9	DOUT1	10	DIN4



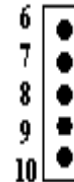
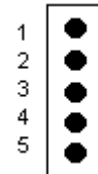
LCD1

Pin Number	Signal	Pin Number	Signal
1	+12v	2	+12V
3	GND	4	GND
5	+5V(+3V)	6	+5V(+3V)
7	ENAVEE	8	GND
9	P0	10	P1
11	P2	12	P3
13	P4	14	P5
15	P6	16	P7
17	P8	18	P9
19	P10	20	P11
21	P12	22	P13
23	P14	24	P15
25	P16	26	P17
27	P18	28	P19
29	P20	30	P21
31	P22	32	P23
33	P24	34	P25
35	SHFCLK	36	FLM (V-SYS)
37	M	38	LP (H-SYS)
39	GND	40	ENABKL
41	P26	42	P27
43	P28	44	P29
45	P30	46	P31
47	P32	48	P33
49	P34	50	P35



J14 POWER LED / IrDA PIN LIST

Pin Number	Signal
1	VCC
2	X
3	IRRX
4	GND
5	IRTX
6	PLED+
7	X
8	PLED-
9	KLOCK
10	GND



JP1

JP1	CONFIG
1-2	Normal ★
2-3	Clear CMOS

JP2 , JP3 , JP4 , JP5 , JP6 , JP15

RS232 / RS422 / RS485 Select					
	JP2	JP3	JP4	JP5	JP15
★ RS232	1-2	1-2	1-2	1-2	1-2/3-4
RS422	2-3	2-3	2-3	2-3	7-8
RS485	2-3	2-3	2-3	2-3	5-6

JP6	5 Voltage	12 Voltage
RS232/RS422 Voltage Select	1 - 2	2 - 3

JP9

JP9	WatchDog Select
1-2	IRQ11
2-3	System RESET ★

JP10

JP10	LCD Voltage Select
1-2	5 Voltage ★
2-3	3.3 Voltage

JP11

JP11	DOS Voltage Select
1-2	5 Voltage ★
2-3	3.3 Voltage

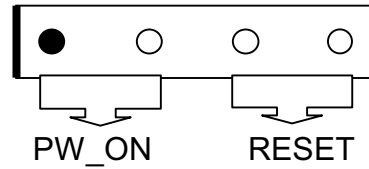
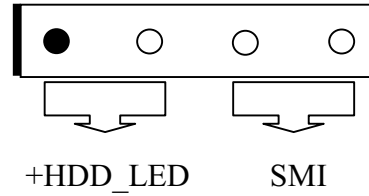
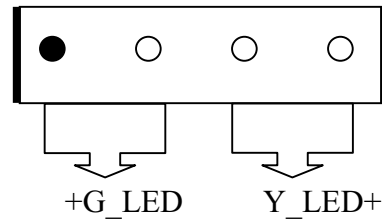
JP13

JP13	LCD Shift Clock Select
1-2	SHF - ★
2-3	SHF +

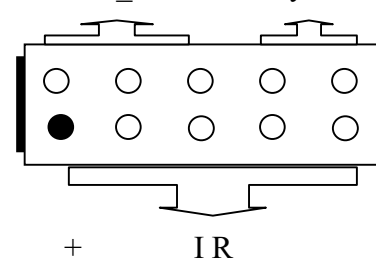
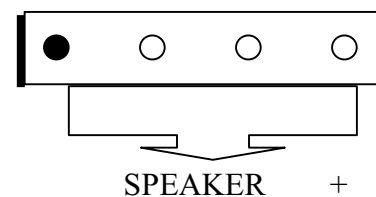
JP14

JP14	DOC Address Select
1-2	CC-CD ★
3-4	D0-D1
5-6	D4-D5
7-8	D8-D9

















★ default

J3**J4****J6****LAN LED****J14**

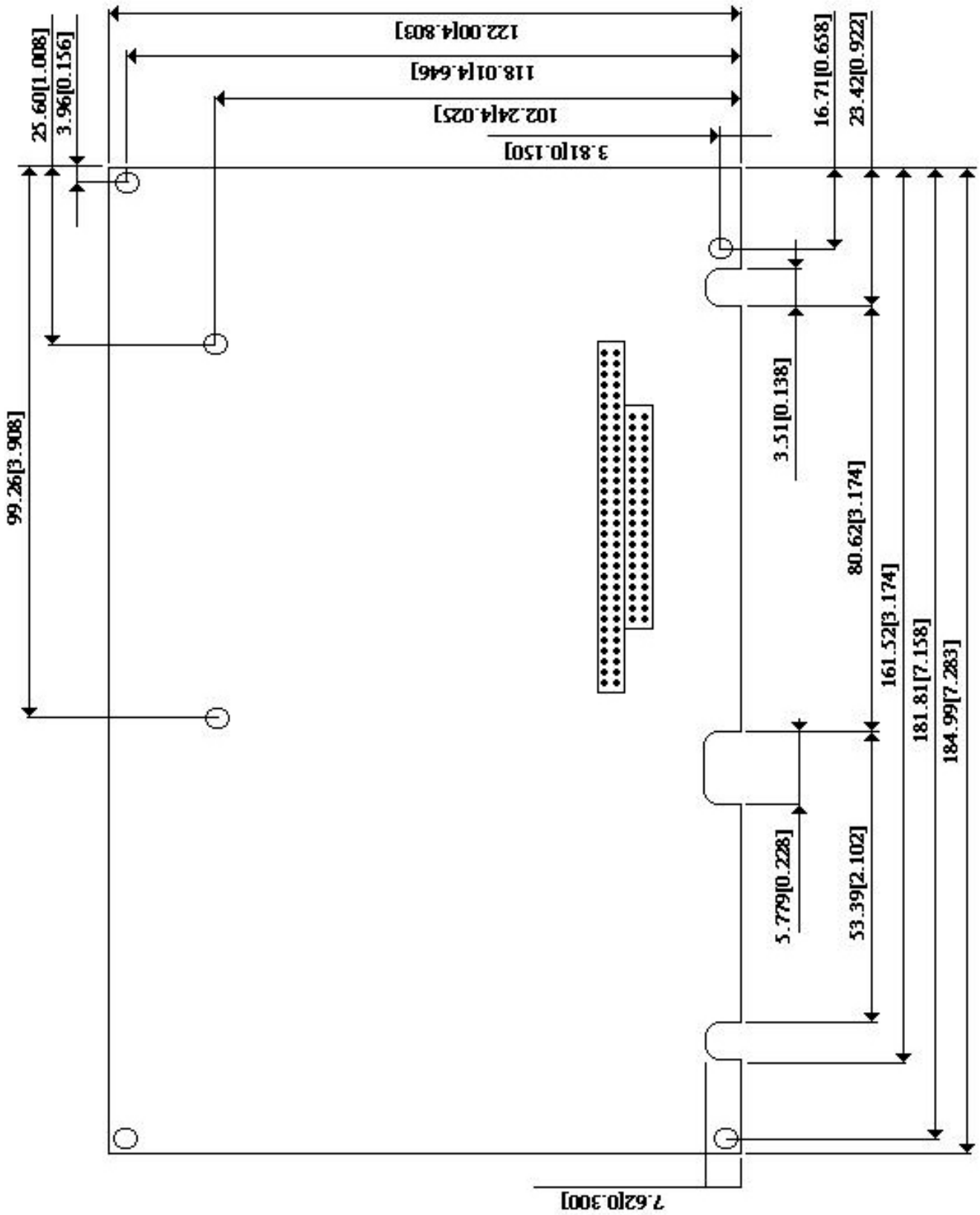
+PWR_LED- Key Lock

**J15**

SW1: LCD PANEL TYPE SELECT

DISPLAY	TYPE	Setting (SW1)
1024*768	Dual scan STN	
1280*1024	TFT color	
640*480	Dual scan STN	
800*600 36bits	Dual scan STN	
640*480	Sharp TFT color	
640*480	18-bits TFT color	
1024*768	TFT color	
800*600	TFT color	
800*600	TFT color	
★default 800*600	TFT color	
800*600	Dual scan STN color	
800*600	Dual scan STN color	
1024*768	TFT color	
1280*1024	Dual scan STN	
1024*600	Dual scan STN	
1024*600	TFT color	

BOARD DIMENSIONS



Notice

Dear Customer,

Thank you for purchasing the SBC-5530H board. Please read user's manual thoroughly before you install and use the board. The product that you have purchased comes with two-year warranty, but we will not be responsible for any misusing of the product. Therefore, we strongly urge you to read the manual first before using the product.