NC-840/841/842
PC/104 Module RS-232/485 x 2
Audio, DOC SSD Socket

USER'S MANUAL

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This user's manual list necessary information to assist both Embedded Computer manufacturers and end-users in installing and setting up the system. The information contained in this user's manual is subject to change without any notice.

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ACKNOWLEDGEMENTS

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Specifications:

- RS-232 x 2 for 3rd/4th COM (optional RS-232 x 1+ RS-422 / RS-485 x1): SMC 665 I/O chip support 2 ports 16C550 high speed RS-232C.

- Audio: ESS 1869A 3D high-performance, mixed-signal, 16-bit stereo Chip.

- High-quality 20-voice ESFM Music Synthesizer, support FM music Synthesis in OPL-3.

- Programmable sample rates from 4 to 48 KHz for record and playback.

- Full duplex for simultaneous record and playback.

- 3-button hardware master volume control and PC speaker volume control.

- Software address mapping, 4 DMA and 6 IRQ selections for Plug and Play.

- MPU-401 (UART mode) interface for wavetable synthesizers & MIDI devices.

- High speed 16-bit ADC and DAC with filters.

- 7-channel stereo audio mixer with multi Input Sources (DAC synthesizer , mono in, Microphone in, line in and CD in).

- Output: Speaker out, line out and game port.

- DOC SSD Socket: 32-pin socket for M-System DOC SSD 2~144MB.

COMPONENT LOCATIONS

CN1

CN2

ESS Audi.oDrive ES1869S

JP1 **JP2** **JP3** **JP4** **JP5**

JP6

JP7

SSD

J1

J2

J3 **J4** **J5**

J6

J7

J8

CN3

SL1
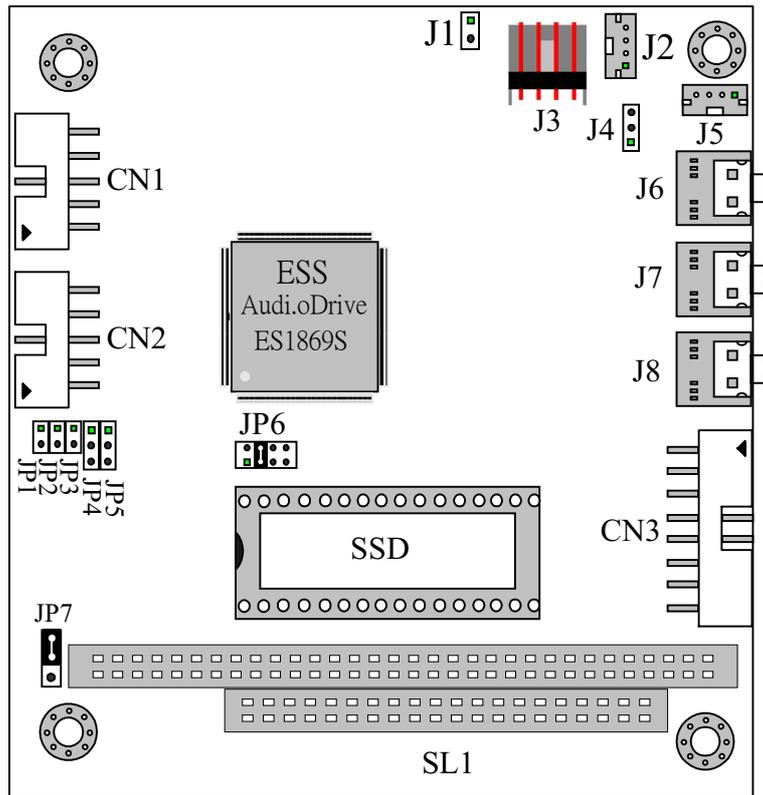
Jumper Setting:

Connection Name	Function	Note
CN1	External COM Port A	Standard COM Port
CN2	External COM Port B	Standard COM Port
CN3	For IBM PC Game Port	Standard Game Port

Jumper Name	Function	Note
J1	PC Speaker In	
J2	CD-ROM Audio In	Support Sony
J3	CD-ROM Audio In	Support Mitsumi
J4	Connect Modem Voice in	
J5	Mono Audio Out	
J6	Audio Out	
J7	Line In	
J8	MIC. In	

Jumper Name	Function	Note
JP1	Terminator	
JP2	Full/Half Duplex Function	
JP3	Full/Half Duplex Function	
JP4	Enable The Receiver Gate	
JP5	Enable The Transceiver Gate	
JP6	M-System Address Select	
JP7	Single +5v Select	

J2: Support SONY CD-ROM Audio In

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	GND	2	R
3	GND	4	L

J3:Support Mitsumi CD-ROM Audio In

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	L	2	GND
3	GND	4	R

J4:Mono Audio Out

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	L	2	GND
3	R		

J5:Mono Audio Out

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	GND	2	AOUTL
3	NC	4	AOUTR

J6:Audio Out

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	GND	2	L
3	NC	4	NC
5	R		

J7:Line In

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	GND	2	L
3	GND	4	GND
5	R		

J8:MIC IN

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	GND	2	MIC IN
3	GND	4	NC
5	NC		

JP1: Work station termination jumper -- Factory default is OFF
   (JP1 'ON' for last node).

JP2&JP3 OFF: Always OFF to select RS-422 Full Duplex Function.
JP2&JP3 ON: Always ON to select RS-485 Half Duplex Function.

JP4: 1- 2 ON : CN2 IS ASIGNED TO BE RS-232 PORT.
   2- 3 ON : CN2 IS ASIGNED TO BE RS-422/RS-485 PORT.

JP5: 1- 2 ON : ENABLE   THE GATE BYE SMC666 RTS2J SIGNAL.
   2- 3 ON : ALWAYS ENABLE THE RECEIVER GATE.

JP6: M-System DiskOnChip Address can be selected as C000, C800,
   D000 or D800 by JP6.

ADDRESS SELECTION	JUMPER SETTING			
	PIN1&2	PIN3&4	PIN5&6	PIN7&8
C000	ON	OFF	OFF	OFF
C800	OFF	ON	OFF	OFF
D000	OFF	OFF	ON	OFF
D800	OFF	OFF	OFF	ON

JP7: 1-2 ON +5V
   2-3 ON +12V

SOFTWARE INSTALL

The NC-840 & NC-842 SUPPORT
WIN95 & WIN31 & NT40 & OS/2 & DOS SYSTEM

WIN95/98 Setup

The NC-840 & NC-842 is a Plug and Play device. That means that setting when into win95 can auto detect.

1 We has support win95 ES1869 Plug and Play AudioDrive(WDM) Software.

2 If your system is win98 , they can auto detailed but you must input win98 CD-ROM .

  (a)   choose " Control Panel ".

  (b) In the "Control Panel" window double click the "System" icon.
  (c) A. That can show Es1869 Control Interface (WDM)
   B.   Es1869 Plug and Play AudioDrive(WDM)
   C.   Gameport Joystick.

WIN 31 SETUP

1 We are support NC-840 & NC-842 for WIN31 Utility.

2 On the CD you received with your NC-840 you will find a file In NC-840 subdirectory NC840\ESS1869\WIN31.

3 And Run SETUP.

4 The first screen is a welcome screen that asks you to close all running programs. After installation Windows needs to be restarted for the settings to take effect. Confirm this box and proceed.

5 This screen ask you if you want to add your drivers. In case you have already installed you drivers, the program will ask you if you would like to uninstall the drivers.

6 In the Setup screen the top three settings should match your jumper settings.NC-840 settings you will have to choose now. Note that if there are few free interrupts, you can choose to let the NC-840 share the same interrupt as the soundcard.

7 When you have confirmed you setup by clicking the " OK" button you will be asked to restart Windows so you changes can take effect.

WINNT/4.0 SETUP

1 Like Windows 95, Windows NT 4.0 (and NT 3.51) includes standard support for the ESS ES1869 chipset. Drivers are to be found on the Windows NT 4.0 installation media.

2 Windows NT 4.0 supplies a very detailed report of system resources that are being used by your hardware:

(1) Choose " Windows NT Diagnostics" under the " Administrative Tools" section

(2) In the " Windows NT Diagnostics" window click "Resources" to obtain a detailed list of used system resources. This should provide you with enough information to select your setting for the NC-840.

3 The driver installation is a very simple procedure, keep your Windows NT 4.0 installation CDROM ready because they include drive support for the NC-840.

(1) Double click the icon " My Computer" and go to "Control Panel"

(2) In the " Control Panel " windows select the " Multimedia " icon.

(3) The "Multimedia" window shows a list a list of installed multimedia drivers, click the "Add" button to proceed with driver installation for the sound-card.

(4) In the "Add" window select double click the "Unlisted or Updated Driver" or click "OK"

(5) Find the drivers on your Windows NT 4.0 installation media in the directory : NC840\ESS1869\NT40

(6) When the installation finds the drive it will display name and version Number

(7) ESS1869A Base address should match the jumper setting on the NC-840/842.

(8) ESS1869A Configuration Screen : the IRQ and DMA should match the jumper setting on the NC840/842. The MPU-401 address you can choose freely, as long as it dose not conflict with another device.

(9) After confirmation of the settings, reboot your system.

Warranty

This product is warranted to be in good working order for a period of one year from the date of purchase. Should this product fail to be in good working order at any time during this period, we will, at our option, replace or repair it at no additional charge except as set forth in the following terms. This warranty does not apply to products damaged by misuse, modifications, accident or disaster.

Vendor assumes no liability for any damage, lost profits, lost savings or any other incidental or consequential damage resulting from the use, misuse of, or inability to use this product. Vendor will not be liable for any claim made by any other related party.

Return authorization must be obtained from the vendor before returned merchandise will be accepted. Authorization can be obtained by calling or faxing the vendor and requesting a Return Merchandise Authorization (RAM) number. Returned goods should always be accompanied by a clear problem description.