



## Fanless Mini PC

TC-800	800MHz Mini PC
TC-850	800MHz Mini PC, with LPT/COM
TC-850CF	800MHz Mini PC, with LPT/COM/CF
TC-850CE	800MHz Mini PC, with LPT/COM/WinCE
RB-851	800MHz Mini PC, with LPT/HDD/CF/miniPCI
RB-852	800MHz Mini PC, with LPT/CF/2x LAN/miniPCI
RB-853	800MHz Mini PC, with LPT/HDD/CF/2x LAN
RB-854	800MHz Mini PC, with LPT/HDD/CF/6x USB



User's Manual

## SAFETY INFORMATION

### WARNING

Do not expose your computer to rain or moisture, in order to prevent shock and fire hazard.

Never install your computer in wet locations.

Do not open the cabinet to avoid electrical shock. Refer to your nearest dealer for qualified personnel servicing.

Never touch un-insulated terminals or wire unless your power adaptor and display monitor are disconnected.

Locate your computer as close as possible to the socket outline for easy access and to avoid force caused by entangling of your arms with surrounding cables from the computer.

When using Mini PC, avoid using or installing the modem to the serial port during a storm or a lightning.

Do not use the modem or a telephone to report a gas leak in the vicinity of the leak.

USB connectors are not supplied with Limited Power Sources.

## REGULATORY

### FCC CLASS A NOTE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference in which case the user will be required to correct the interference at his own expense. Testing was done with shielded cables. Therefore, in order to comply with the FCC regulations, you must use shielded cables with your installation.

### WARNING

This product Complies with EN55022 Class A. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as set out in the interference - causing equipment standard entitled "Digital Apparatus", ICES-003 of the Department of Communications.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe (A) prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques", NMB-003 édictée par le ministre des Communications.

### MANUFACTURER'S DECLARATION OF CONFORMITY

This equipment has been tested and found to comply with the requirements of European Community Council Directives 89/336/EEC and 73/23/EEC relating to electromagnetic compatibility and product safety respectively.

### ATTENTION

This product has been designed and certified to comply with certain regulatory requirements pertaining to Information Technology Equipment. This product has not been designed for use as a medical device. Without limitation of the foregoing, this product is not intended and has not been certified for use in a hospital or clinical environment to diagnose, treat, or monitor patients under medical supervision, and is not intended and has not been certified to make physical or electrical contact with patients, nor to transfer energy to or from patients and/or to detect such energy transfer to or from patients.

## PREFACE

### TC-800/TC-850/TC-850CF/RB- 850/RB-851/RB-852/RB-853/RB-854



XTENDLAN introduces an industrial classic in the computing industry, by featuring TC-800,TC-85x, RB-85x, a compact PCs that connects people through networking via global internet across the continents over the channels of sea bay. The conquest for browsing e-information through wired LAN/WAN. This portable device is handy for travelers and service technicians who worked in and out of the office. For office desk workers, this showpiece occupies very little space on a corner of the table, and it is so convenient that you may locked it in your drawer after office hours.

A jewel in the crown MiniPC for thin client users, which is handy-rugged-robust. TC-800,TC-85x, RB-85x serves as the Internet Appliance that offers state-of-art design for applications surrounding networking, computing, transaction and information transport.

XTENDLAN connotes the MiniPC for small business enterprises to serve these boxes to users for the connection to a server as thin client. The MiniPC achieves multi-servers requirement to serve as firewall, mail-server, print server, and many other single task application in the office. Furthermore, with MiniPC, business executive can work his way from the office to home, a student can do his assignment from the dormitory and continue back at home. TC-800 allows you to use your computer with just one finger press at the power button. It is built in an awesome mechanical dimension of 170×124×38mm(or 58mm TC-85x, RB-85x), equivalent to 4.32"x3.15"x0.96"(or 1.47"), this is just a right device for space conscious environment.

# SPECIFICATION

<b>Features</b>	<b>Description</b>
<b>CPU</b>	Onboard VIA EDEN-N Nano BGA processor 800MHz
<b>BIOS</b>	AMI BIOS
<b>System Chipset</b>	VIA CLE266 / VT8235
<b>I/O Chip</b>	VT1211
<b>System Memory</b>	Onboard 256MB DDR266
<b>Expansion</b>	1x X-PCI connector (RB-851, RB-852)
<b>I/O</b>	
<b>MIO</b>	1x EIDE (Ultra DMA 133) (optional), 1 x LPT (optional), 1x CF (optional) 1 x RS-232 (optional) , 1x PS/2 K/B, 1 x PS/2 Mouse More info in Apendix
<b>USB</b>	2x USB 2.0 Ports (one in front) (6x USB RB-854)
<b>Display</b>	
<b>Chipset</b>	Integrated VIA UniChrome 2D/3D Graphics with MPEG2 Accelerator
<b>Display Memory</b>	8/16/32 MB share system memory
<b>Resolution CRT</b>	CRT mode : 1280 x 1024 @32 bpp (85Hz) LCD/Simultaneous mode : 1280 x 1024 @ 32 bpp (85Hz)
<b>Audio</b>	
<b>AC97 2.2 (Codec)</b>	VT1612
<b>Audio Interface</b>	Line out, Line in, Mic in
<b>Ethernet</b>	
<b>Chipset</b>	VT6103 10/100 Base-T (2x LAN optional)
<b>Remote Boot ROM</b>	Built-in boot ROM function
<b>Mechanical &amp;Environment</b>	
<b>Power Requirement+</b>	5V~5.25V @ 4A (with VIA Eden-N 800Mhz, 256MB DDR266 & Laptop HDD)
<b>Operating Temperature</b>	0 ~ 60°C (32 – 140°F)
<b>Operating Humidity</b>	0 ~ 90% relative humidity, non-condensing
<b>Size (W x H x D)</b>	170 x 124 x 58 mm (TC-800 170 x 124 x 38 mm)
<b>Weight (3800/3850)</b>	920 g

# TC-800,TC-85x, RB-85x OVERVIEW

## Front Panel

### Power LED

The power LED lights up, when system is turn on.

### HDD LED

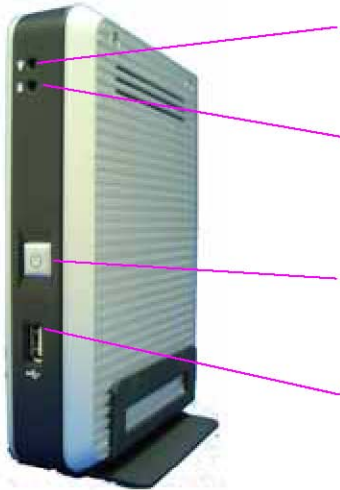
The HDD LED flashes when the system is working. Please do not turn off the system when HDD start running

### Power Switch

Depress switch to turn on & turn off the systems.

### USB port

For connection to devices with USB interface (keyboard, mouse, HDD, CDROM, Memory Stick, etc.)



## Back Panel

Power switch

DC Power Jack (3-pin)

PS/2 Keyboard & Mouse (6-pin)

PS/2 Mouse (6-pin)

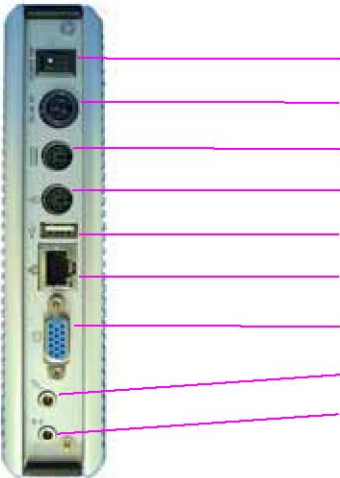
USB port

RJ-45 LAN Jack

VGA port

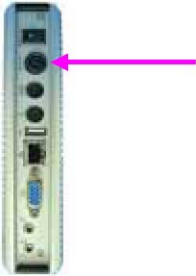
Mic-in

Audio Line out



# PERIPHERALS

## CONNECTING THE POWER ADAPTOR



### Power Adaptor

To use your computer immediately, take and use the supplied AC adaptor as a power source. See the left diagram for visual connection.

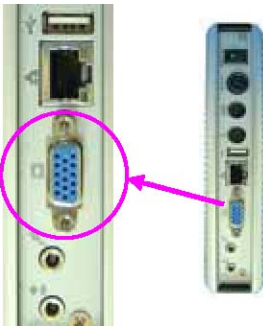
Connect the DC power jack of the power adaptor to the DC Input jack of TC-800/850.

### Turning ON Your Computer

Press the power button as indicated on the figure on your left-side, the system will start automatically.



## CONNECTING THE MONITOR



### VGA Connection

Depending on your choice of viewing, select a conventional CRT or the LCD VGA monitor.

Make your connection by following the reference diagram from the VGA cable of your cable to the 15-pin D-Sub VGA port.

# PERIPHERALS

## CONNECTING THE USB

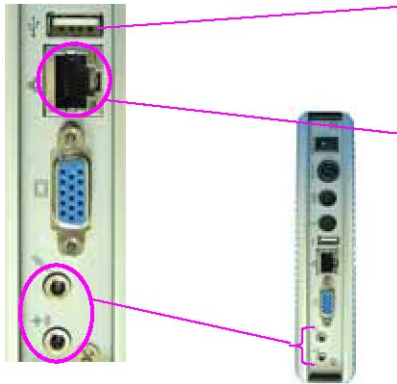
TC-800/850 provides USB port (one each in front & at the back of the cabinet).

### Front cabinet Turning ON Your Computer



Press the power button as indicated on the figure on your left-side, the system will start automatically.

## CONNECTING USB, SPEAKER/EARPHONE AND WEB



### USB Port

The second USB port is available for connection to USB devices.

### Connecting to WEB

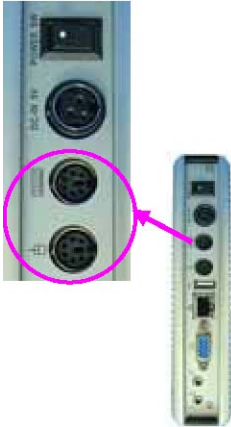
There is an available RJ-45 LAN jack for connection to the hub of your intranet; and via your server for internet service (see diagram for RJ-45 LAN jack).

### Speaker/Earphone

TC-800/850 supports Input/Output device for speaker, earphone and MIC (Microphone), etc...



## CONNECTING THE KEYBOARD AND MOUSE



### **Describing Mouse actions**

#### Action Description

**Point** –Slide and point your mouse to your desired position.

**Click** –Press the left button once.

**Double-click** –Press the left button twice.

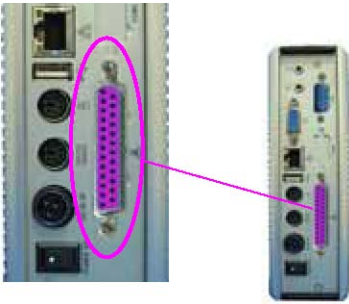
**Right-click** –Press the right button once. When selecting (most) programs, this action displays a shortcut menu of the context-sensitive choices.

**Scroll wheel** –Move your finger along the wheel of your mouse (just upright your middle finger) and scroll vertically to move page upward and downward.

### **Describing Keyboard**

The keypad usually comes in standard QWERTY; except that different language(s) keyboard comes with additional special characters..

## CONNECTING PRINTER PORT



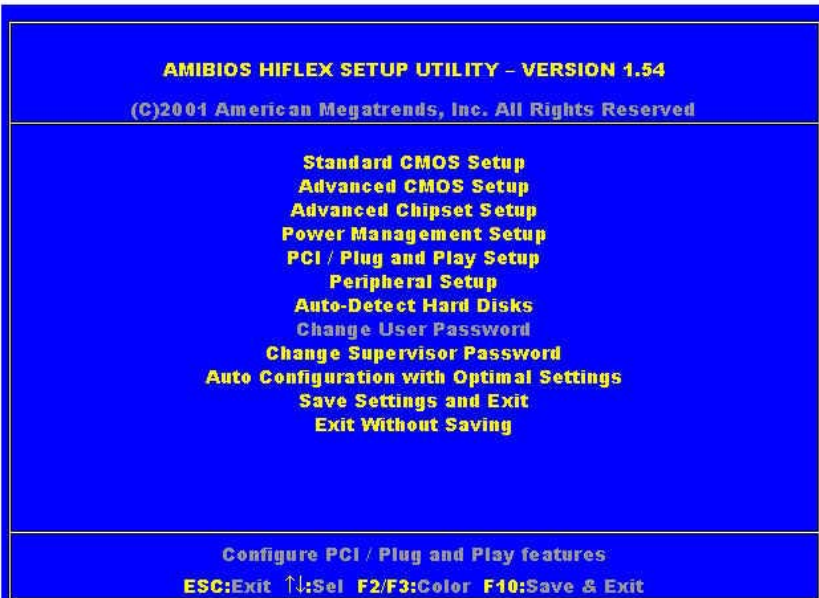
### Printer Port

The printer port is usually connected to a Printer for printing hardcopy materials. It is normally idle most of the time.

# BIOS

## RECONFIGURING TC-800,TC-85x, RB-85x

- 1 Take note that AMI BIOS is used in the TC-800/850. To reconfigure the computer, depress or hit the <Del> key to enter your **BIOS setup main menu**.
- 2 Select from the menu, the desired setup for change.
- 3 Press <Esc> to go back to main menu.
- 4 Move your cursor to "Save Settings and Exit", press "Y" to save the changes that you just made. TC-800/850 will restart accordingly to your new setup.



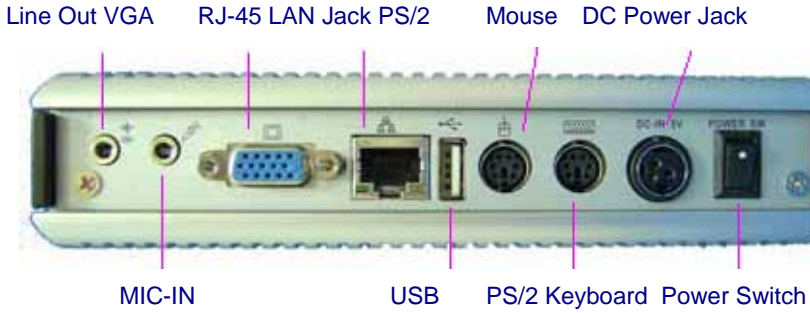
## APPENDIX

### ONBOARD CONNECTORS SUMMARY

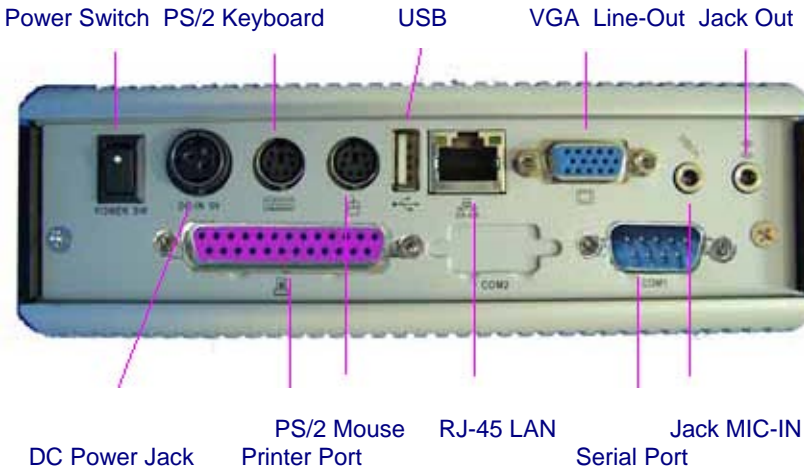
#### SUMMARY TABLE FOR CPU BOARD

Nbr	Description	Type of Connections	Pin nbrs.
J1:	LAN	RJ-45 FOXCONN	8-pin
J2:	IDE Connector	Box Header, 22x2-2.0mm	44-pin
J3:	VGA Connector	D-Sub Connector	15-pin
J4:	USB1 (Front)	USB 90° Type1 Connector	8-pin
J5:	USB (Back)	USB Type1 Connector	6-pin
J6, J7:	PS/2 Keyboard & Mouse	Mini-Din Connector 6P	6-pin
J8	PRN (Printer)	Box Header, 13x2-2.0mm	26-pin
J9:	COM1 /RS-232	Pin Header, 5x2-2.0mm	10-pin
J11, J13:	Line-Out, MIC	Two contact Switch	6-pin
J12, J19:	Line-In, SB5V	Wafer Header 4-2.0mm	4-pin
J15:	RST (Reset)	Header 2x1-2.0mm	2-pin
J16:	Fan	Wafer Header 2-2.0mm	2-pin
J17:	DC 5V Input	Mini-Din Connector 3P	3-pin
J18:	X-PCI	Header 32x2-2.0mm	64-pin
SP1:	Buzzer		2-pin

## REAR CONNECTORS OUTLINE FOR TC-800



## REAR CONNECTORS OUTLINE FOR TC-850/850CF/850CE



## REAR CONNECTORS OUTLINE FOR RB-85x series

### RB-851



Compact flash slot

### RB-852 / RB-853



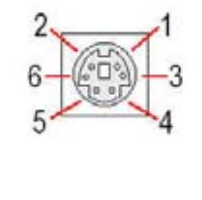
2<sup>nd</sup> RJ-45 LAN

### RB-854

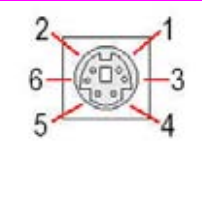


## PIN ASSIGNMENTS

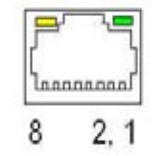
J6:KBD(PS/2Keyboard & Mouse) – 6-pin Mini-Din Connector

	Pin #	Signal Name
	1	KBCLK
	2	PMCLK
	3	GND
	4	KBDAT
	5	PMDAT
6	SB5V	

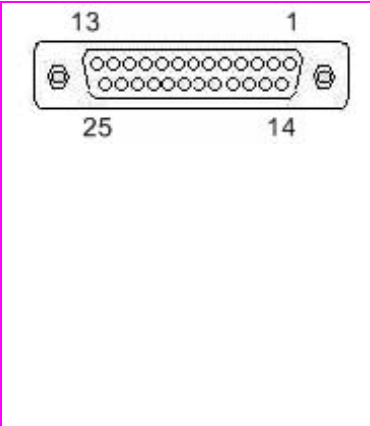
J7: Mouse (PS/2 Mouse) – 6-pin Mini-Din Connector

	Pin #	Signal Name
	1	PMCLK
	2	NC
	3	GND
	4	PMDAT
	5	NC
6	SB5V	


J1: RJ-45 FOXCONN (LAN)– 12-pin RJ45 Connector

	Pin #	SignalName	Pin #	SignalName
	1	FTXD+	2	FTXD-
	3	FRXIN+	4	NC
	5	NC	6	FRXIN-
	7	NC	8	NC


J8 : Printer- 25-pin Dsub Connector

	Pin #	Signal Name	Pin #	Signal Name
	1	STB-	14	AFD-
	2	PD0	15	ERR-
	3	PD1	16	PRINIT-
	4	PD2	17	SLIN-
	5	PD3	18	GND
	6	PD4	19	GND
	7	PD5	20	GND
	8	PD6	21	GND
	9	PD7	22	GND
	10	ACK-	23	GND
	11	BUSY	24	GND
	12	PE	25	GND
13	SLCT	-	-	


## Power Sw – Push Button Switch

	Pin #	Status
		ON
	0	OFF

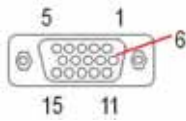
## J17: DC-IN (DC-IN 5V) – 3-pin MINI-DIN Lock Pin Socket

	Pin #	Signal Name
	1	VCC
	2	GND
	3	NC

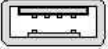
## J4: USB1 (USB1x90°)- 4-pin USB Type 1 Connector (Vertical Type)

	Pin #	Signal Name
	1	VCC
	2	USB0-
	3	USB0+
	4	GND
	5	GGND
	6	GGND


## J3: VGA – 15-pin Dsub Connector

	Pin #	SignalName	Pin #	SignalName	Pin #	SignalName
	1	MR	6	GND	11	NC
	2	MG	7	GND	12	VCC
	3	MB	8	GND	13	HYSYNC
	4	NC	9	NC	14	VSYNC
	5	GND	10	GND	15	VCC


J5:USB (USB2): For connection to external –4-pin USB Type 1 Connector

	Pin #	SignalName
	1	VCC
	2	USB2-
	3	USB2+
	4	GND
	5	GGND
	6	GGND

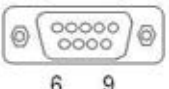
USB J11: MIC\_IN – 5-pin RCA Phone Jack device

	Pin #	SignalName
	1	GND
	2	AUD MIC
	3	GND
	4	GND
	5	REF

J13: Line-out – 5-pin Phone Jack

	Pin #	SignalName
	1	GND
	2	LOUT L
	3	NC
	4	NC
	5	LOUT R


J9: COM1 - 9-pin Dsub Connector

	Pin #	SignalName	Pin #	SignalName
	1	DCD1	2	RXD1
	3	TXD1	4	DTR1
	5	GND	6	DSR1
	7	RTS1	8	CTS1
	9	RI1		



## Action status

LEDS: POWER ON/OFF & HDD R/W

 	LED Color	State
	Green	Power On
	Red Flashes	HDD R/W