

RITY82

8" ALL IN ONE Fanless POS Terminal

Quick Reference Guide

1st Ed – 07 October 2014

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FCC Statement



THIS DEVICE COMPLIES WITH PART 15 FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

- (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE.
- (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

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 TO RADIO COMMUNICATIONS.

OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

A Message to the Customer

Avalue Customer Services

Each and every Avalue's product is built to the most exacting specifications to ensure reliable performance in the harsh and demanding conditions typical of industrial environments. Whether your new Avalue device is destined for the laboratory or the factory floor, you can be assured that your product will provide the reliability and ease of operation for which the name Avalue has come to be known.

Your satisfaction is our primary concern. Here is a guide to Avalue's customer services. To ensure you get the full benefit of our services, please follow the instructions below carefully.

Technical Support

We want you to get the maximum performance from your products. So if you run into technical difficulties, we are here to help. For the most frequently asked questions, you can easily find answers in your product documentation. These answers are normally a lot more detailed than the ones we can give over the phone. So please consult the user's manual first.

To receive the latest version of the user's manual; please visit our Web site at:

<http://www.avalue.com.tw/>

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1. Getting Started

1.1 Safety Precautions

Warning!



Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges. Only experienced electronics personnel should open the PC chassis.

Caution!



Always ground yourself to remove any static charge before touching the CPU card. Modern electronic devices are very sensitive to static electric charges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components in a static-dissipative surface or static-shielded bag when they are not in the chassis.

1.2 Packing List

- 1 x RITY Series Panel PC
- 1 x Power Adapter
- 1 x Power Cord
- 1 x VESA Kits



If any of the above items is damaged or missing, contact your retailer.

1.3 System Specifications

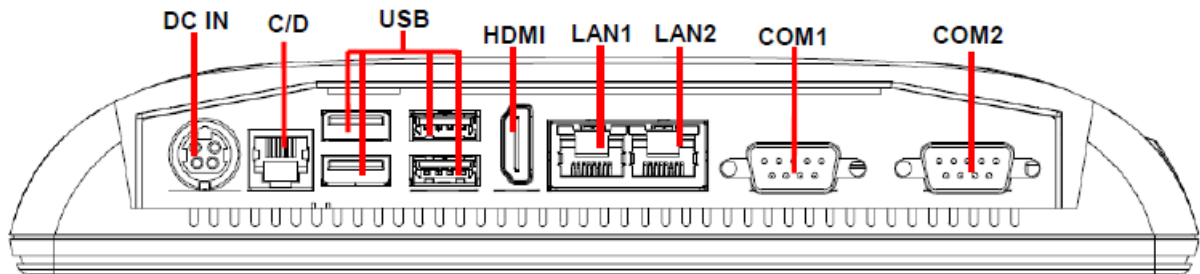
LCD Data	
LCD size	8.0"
Display Type	WSVGA TFT
Resolution	1024 x 600
Color	262K color by 6 bit RGB signal
Luminance	500cd/m ²
Contrast ratio	700
Viewing angle	70(H) x 65(V)
Backlight	LED
Touch Data	
Type	5 Wires resistive / PCT
Light transmission	RES 75% / PCT 90%
Interface	RES RS232 / PCT USB
CPU	Intel® Celeron Processor J1900 4-Core 2GHz (D, 10W) Intel® Celeron Processor N2910 4-Core 1.86GHz (M, SDP, 4.5W/TDP, 7.5W) Intel® Atom Processor E3845 4-Core 1.91GHz (I, 10W)
Cooling method	Fanless
System chipset	Intel® Valleyview SoC integrated
Memory	1 x 204-pin SODIMM Socket Up to 8GB DDR3L 1066/1333 SDRAM
Rear panel I/O	2 x RS-232
	COM1 & 2 supported RS422/485. Setting by BIOS
	All Pin9 supported RI / 5V / 12V. Setting by BIOS
	2 x LAN (Intel I210AT GbE controller)
	3 x USB 3.0, 1 x USB 2.0
	1 x RJ11 for Cash Drawer, Supported DC12V / 24V 1A out. Setting by BIOS
	HDMI
	1 x Power minidin 4P for DC in w/ lock type
HDD	mSATA
SSD	One mSATA socket
Speaker	2W, 8Ω
Color	Default Black Optional White
Mounting	Wall/Stand/VESA 75 mm x 75 mm

RITY82

Dimensions	231.7 mm x 149.5mm x 42 mm
Weight	TBD
Operating temperature	0°C to 35°C.
Storage temperature	-10°C to 60°C.
Relative humidity	10% to 95% @ 40°C (Non Condensing)
Power input	+24VDC in 90W, optional 120W & 130W for 24V DC out SKU.

1.4 System Overview

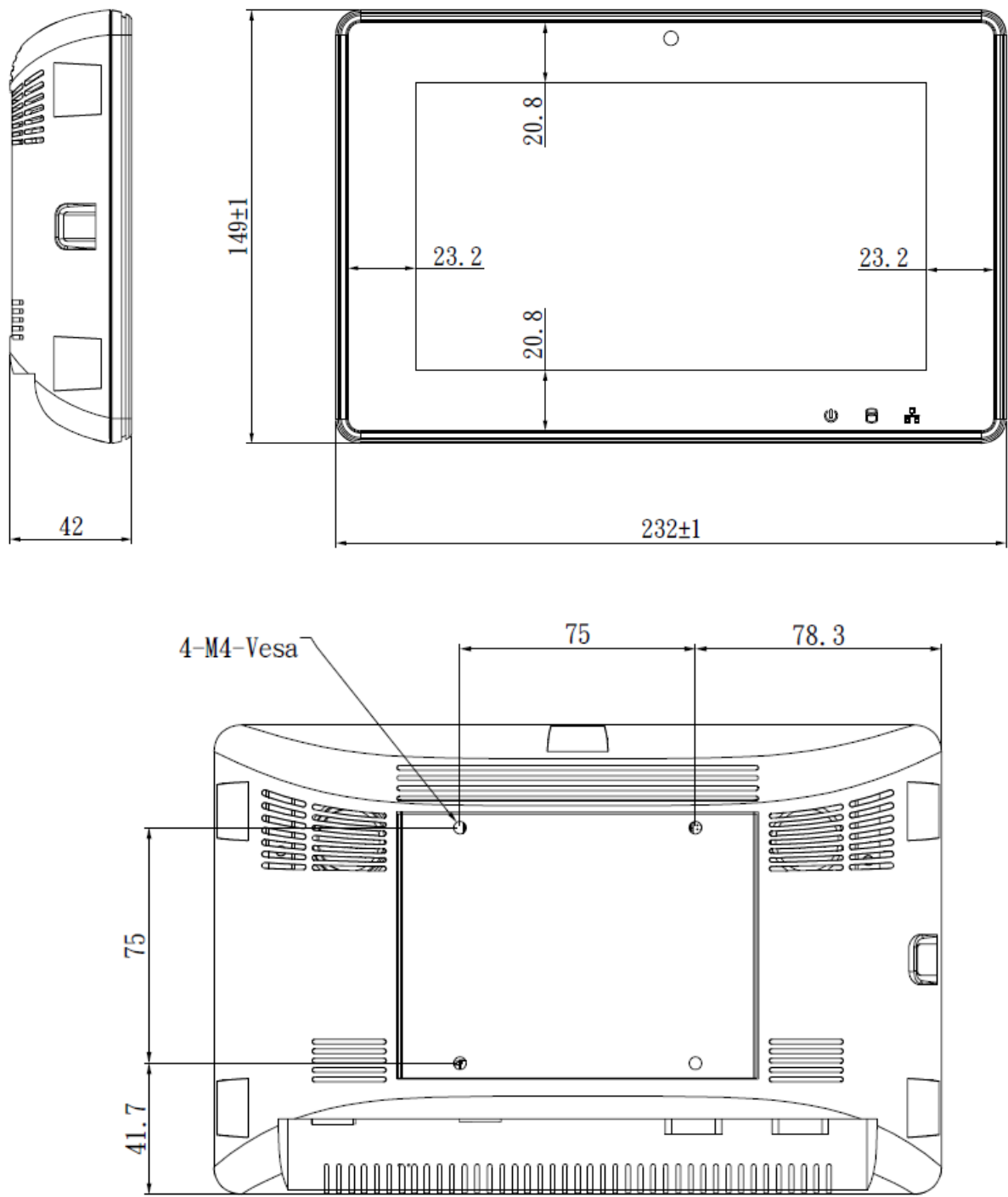
1.4.1 Rear View



Connectors

Label	Function	Note
COM1/2	External Serial Port 1/2 connector	DB-9 male connector
C/D	Cash Drawer connector	
USB	3 x USB 3.0 connector 1 x USB 2.0 connector	
LAN1/2	RJ-45 Ethernet connector 1/2	
HDMI	HDMI connector	
DC-IN	DC Power-in connector	

1.5 System Dimensions



(Unit: mm)

2. Hardware Configuration

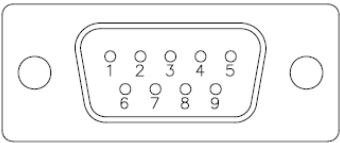
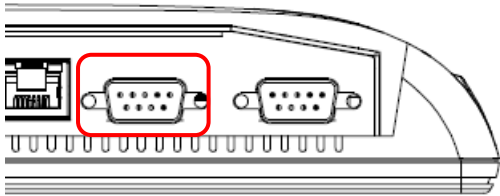


Note: If you need more information, please visit our website:

<http://www.avalue.com.tw>

2.1 RITY82 connector mapping

2.2.1 External Serial Port 1 connector (COM1)



In RS-232 Mode

Signal	PIN	PIN	Signal
DCDA#	1	2	RXDA
TXDA	3	4	DTRA#
GND	5	6	DSRA#
RTSA#	7	8	CTSA#
RIA#	9		

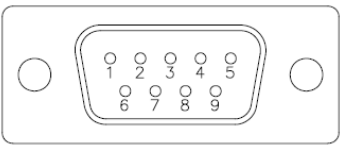
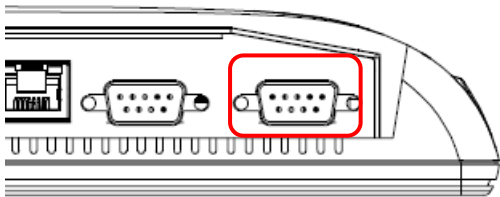
In RS-422 Mode

Signal	PIN	PIN	Signal
TxD1-	1	2	TxD1+
RxD1+	3	4	RxD1-
GND	5	6	NC
NC	7	8	NC
NC	9		

In RS-485 Mode

Signal	PIN	PIN	Signal
DATA1-	1	2	DATA1+
NC	3	4	NC
GND	5	6	NC
NC	7	8	NC
NC	9		

2.2.2 External Serial Port 2 connector (COM2)



In RS-232 Mode

Signal	PIN	PIN	Signal
DCDB#	1	2	RXDB
TXDB	3	4	DTRB#
GND	5	6	DSRB#
RTSB#	7	8	CTSB#
RIB#	9		

In RS-422 Mode

Signal	PIN	PIN	Signal
TxD1-	1	2	TxD1+
RxD1+	3	4	RxD1-
GND	5	6	NC
NC	7	8	NC
NC	9		

In RS-485 Mode

Signal	PIN	PIN	Signal
DATA1-	1	2	DATA1+
NC	3	4	NC
GND	5	6	NC
NC	7	8	NC
NC	9		

