

# RITY102

10" ALL IN ONE Fanless POS Terminal

## Quick Reference Guide

2<sup>nd</sup> Ed – 12 June 2017

### Copyright Notice

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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/>

# Content

<b>1.</b>	<b>Getting Started</b> .....	<b>4</b>
1.1	Safety Precautions .....	4
1.2	Packing List.....	4
1.3	System Specifications .....	5
1.4	System Overview .....	7
1.4.1	Rear View .....	7
1.5	System Dimensions .....	8
<b>2.</b>	<b>Hardware Configuration</b> .....	<b>9</b>
2.1	RITY102 connector mapping .....	10
2.2.1	External Serial Port 1 connector (COM1) .....	10
2.2.2	External Serial Port 2 connector (COM2) .....	11

# 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



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

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## 1.3 System Specifications

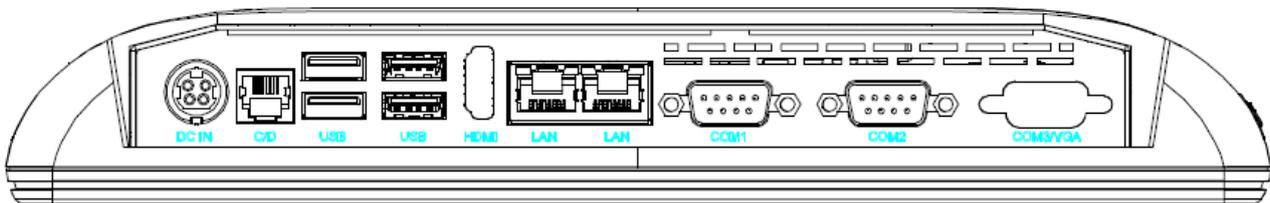
<b>LCD Data</b>	
<b>LCD size</b>	10.1"
<b>Display Type</b>	WSVGA TFT
<b>Resolution</b>	1024 x 600
<b>Color</b>	262K color by 6 bit RGB signal
<b>Luminance</b>	350 cd/m <sup>2</sup>
<b>Contrast ratio</b>	500
<b>Viewing angle</b>	70(U), 70(D), 70(L), 70(R)
<b>Backlight</b>	LED
<b>Touch Data</b>	
<b>Type</b>	5 Wires resistive / PCT
<b>Light transmission</b>	RES 75% / PCT 90%
<b>Interface</b>	RES RS232 / PCT USB
<b>CPU</b>	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)
<b>Cooling method</b>	Fanless
<b>System chipset</b>	Intel® Valleyview SoC integrated
<b>Memory</b>	1 x 204-pin SODIMM Socket Up to 8GB DDR3L 1066/1333 SDRAM
<b>Rear panel I/O</b>	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
<b>HDD</b>	SATA SLim
<b>SSD</b>	One mSATA socket
<b>Speaker</b>	2W, 8Ω
<b>Expansion</b>	mPCIe socket w/ SIM holder for 3G application
<b>WIFI</b>	Optional USB WIFI 802.11 b,g (Will occupy one USB pin header)
<b>Color</b>	Default Black Optional White

## RITY102

<b>Mounting</b>	Wall/Stand/VESA 75 mm x 75 mm
<b>Dimensions</b>	260 mm X 178 mm X 42 mm
<b>Weight</b>	TBD
<b>Operating temperature</b>	0°C to 35°C.
<b>Storage temperature</b>	-10°C to 60°C.
<b>Relative humidity</b>	10% to 95% @ 40°C ( Non Condensing )
<b>Power input</b>	+24VDC in 90W, optional 120W & 130W for 24V DC out SKU.

## 1.4 System Overview

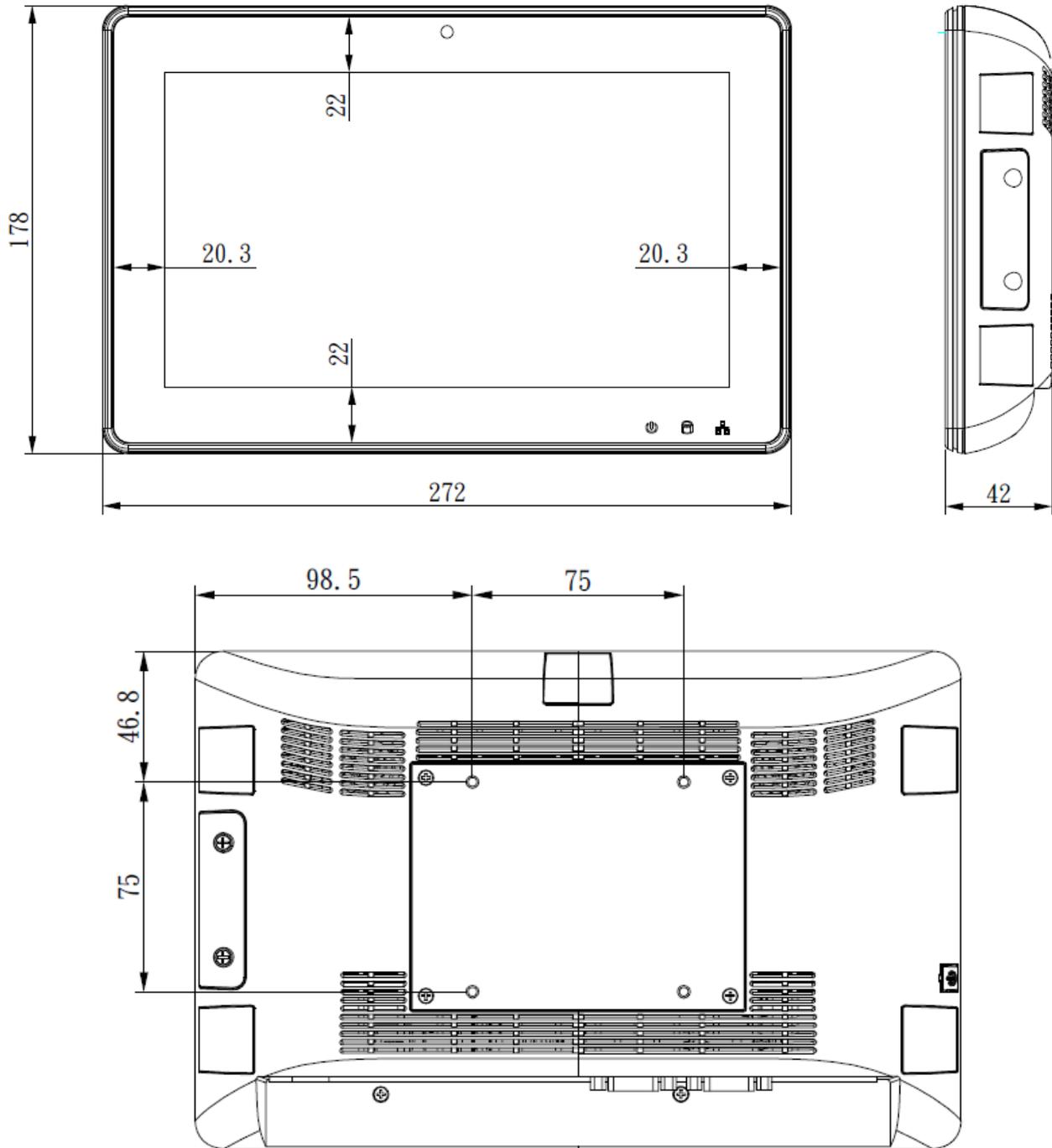
### 1.4.1 Rear View



### Connectors

Label	Function	Note
<b>COM1/2</b>	External Serial Port 1/2 connector	DB-9 male connector
<b>COM3/VGA</b>	External Serial Port 3 connector/ VGA connector	
<b>C/D</b>	Cash Drawer connector	
<b>USB</b>	3 x USB 3.0 connector 1 x USB 2.0 connector	
<b>LAN</b>	2 x RJ-45 Ethernet connector	
<b>HDMI</b>	HDMI connector	
<b>DC-IN</b>	DC Power-in connector	

## 1.5 System Dimensions



(Unit: mm)

# 2. Hardware Configuration

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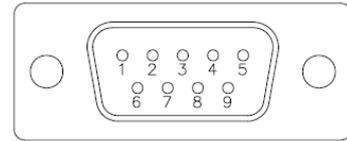
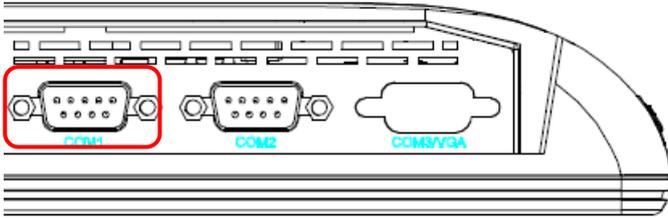


**Note:** If you need more information, please visit our website:

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

## 2.1 RITY102 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		

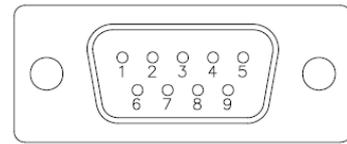
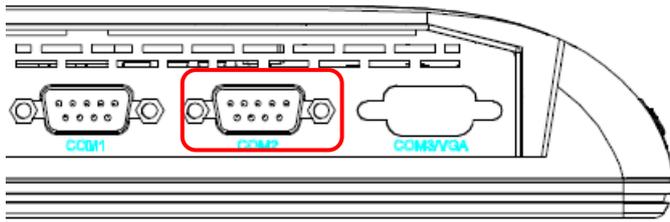
#### In RS-422 Mode

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		

