CPC-2103

21.5" 6th Gen Intel® Core™ SoC i7/i5/i3 & Celeron® BGA Processor Fanless PCAP Touch Panel PC

Quick Reference Guide

1ˢᵗ Ed –07 March 2017

Part No. E2017CP23A0R

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 UNDESIRED 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.

Copyright Notice

Disclaimer

CONTENT

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 CPC-2103 21.5" 6th Gen Intel® Core™ SoC i7/i5/i3 & Celeron® BGA Processor Fanless PCAP Touch Panel PC
- Other major components include the followings:
  — 1 x Power Cord
  — 1 x Adapter
  — 2 x Ornaments
  — 1 x Screws pack

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

1.3 System Specifications

Component	
Mother Board	• Mother Board of EMX-SKLUP • EMX-SKLUP-6600-A1R / EMX-SKLUP-6300-A1R / EMX-SKLUP-6100-A1R / EMX-SKLUP-3955-A1R
CPU	• 6th Gen Intel® Core™ i7-6600U, 2-Core, 2.6GHz / i5-6300U, 2-Core, 2.4GHz / i3-6100U, 2-Core, 2.3GHz / 3955U, 2-Core, 2.0GHz processor
LVDS in	• 2CH 18/24bits LVDS 1920 x 1080 input
Memory	• 2 x 260-pin DDR4 2133 MHz SO-DIMM supports up to 32GB (Default 1x 4GB DDR4)
Storage	• 1 x 2.5" Storage
Power Supply	• DC in
Adapter	• 84W (ACC-ADP-084N-02R)
System Fan	• Fanless
Speaker	• 2 x 3W Speakers
Camera	• 1.0M pixel, HD 720P Webcam (Optional)
Panel	
LCD Panel	• 21.5" 16:9 Full HD 1920 x 1080 panel with PACP (w/ Touch Control Board)
B/L Inverter/Converter	• LED Driver Board ZX-L0712-2247R
Touch Screen	• 21.5" PCAP
Touch Controller	• USB Control board
Others	• 1 x Button for power ON/OFF • 1 x Brightness UP • 1 x Brightness DOWN • 1 x Reserve button
External I/O	
USB Port	• 4 x USB3.0
Video Port	• 1 x DP++ • 1 x HDMI/DP
Audio Port	• 1 x Mic-in, 1 x Line-out
LAN Port	• 2 x RJ45
Wireless LAN Antenna	• 2 x PIFA Antenna
Indicator Light	• 1 x Power LED
Expansion Slots	• Right Side IO: 2 x USB

CPC-2103

	• Left Side IO: 3 x COM
Mechanical	
Power Type	• +12V DC in
Power Connector Type	• DC Jack
Dimension	• 528 x 345 x 62 mm
Weight	• 8.4 kg
Color	• Plastic White
Fanless	• Yes
Reliability	
EMI Test	• CE/FCC Class B
Safety	• UL/CB design compatible
Vibration Test	• Sine Vibration test (Non-operation) • Test Fc : Vibration sinusoidal 1. Test Acceleration : 2G 2. Test frequency : 5 ~ 500 Hz 3. Sweep：1 Oct/ per one minute. (logarithmic) 4. Test Axis : X,Y and Z axis 5. Test time : 10 min. each axis 6. System condition : Non-Operating mode 7. Reference IEC 60068-2-6 Testing procedures • Package Vibration Test 1. PSD: 0.026G²/Hz, 2.16 Grms 2. Non-operation mode 3. Test Frequency : 5-500Hz 4. Test Axis : X,Y and Z axis 5. 30 min. per each axis 6. IEC 60068-2-64 Test:Fh • Random Vibration Operation • Reference IEC60068-2-64 Testing procedures • Test Fh : Vibration boardband random Test 1. PSD: 0.00050513G²/Hz, 0.5 Grms 2. Operation mode 3. Test Frequency : 5-500Hz 4. Test Axis : X,Y and Z axis 5. 30 minutes per each axis 6. IEC 60068-2-64 Test: Fh 7. Storage : N/A
Mechanical Shock Test	• Bump Test

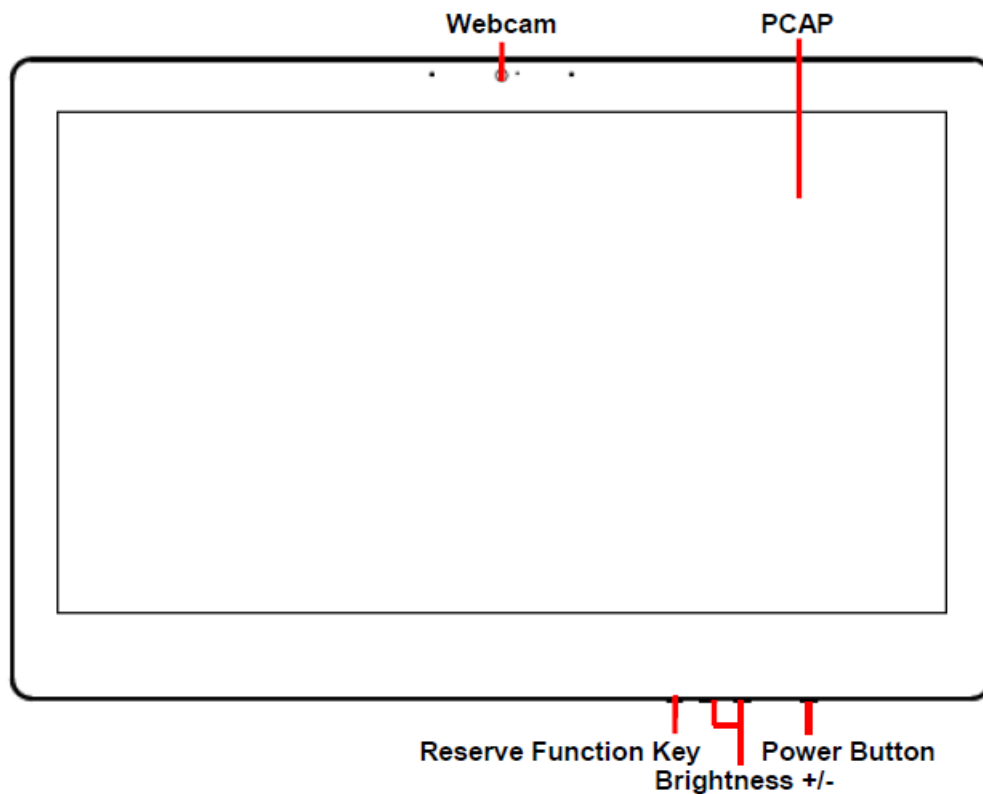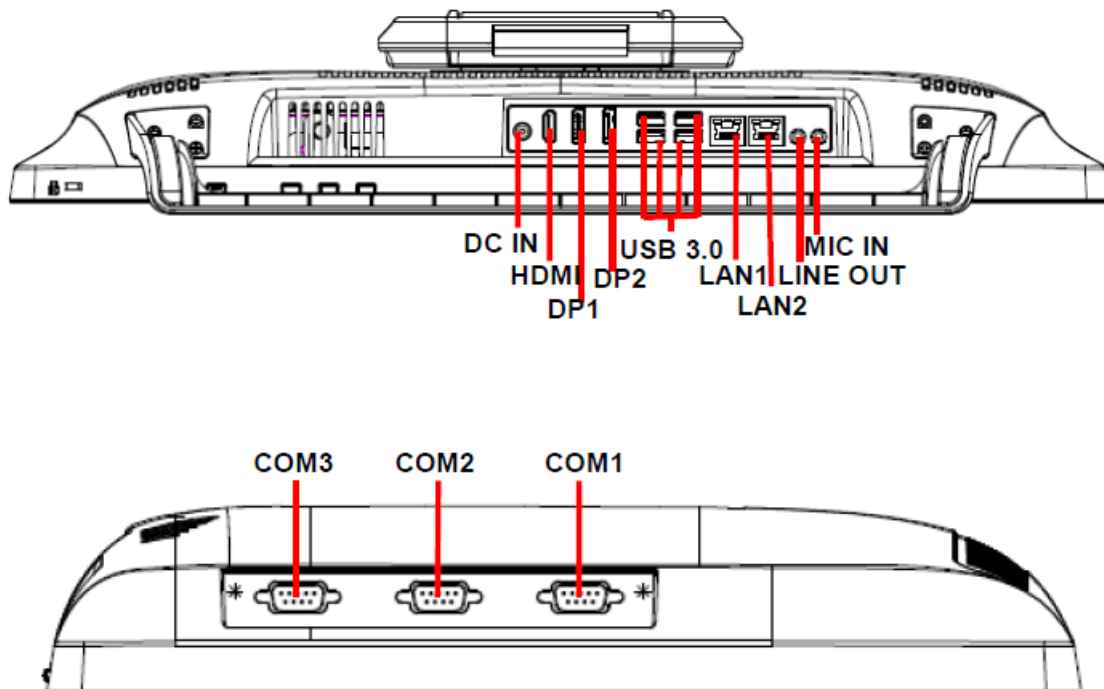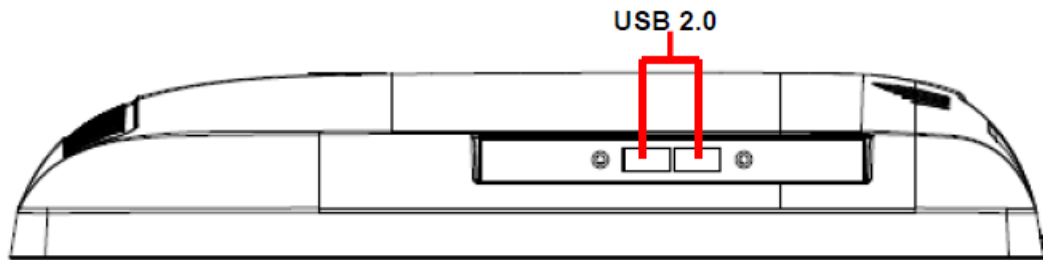|	
	1. Wave form：Half Sine wave 2. Acceleration Rate：10g for operation mode 3. Duration Time：11ms 4. No. of Shock：Z axis 300 times 5. Test Axis: Z axis 6. Operation mode 7. Reference IEC 60068-2-29 Testing procedures Test Eb : Bump Test
Drop Test	• Packing Drop 1. One corner , three edges, six faces 2. ISTA 2A, IEC-60068-2-32 Test:Ed
Operating Temperature	• 0°C ~ 40°C (32°F ~ 104°F), ambient w/ air flow
Operating Humidity	• 0 ~ 90% Relative Humidity, Non-condensing
Storage Temperature	• -20°C ~ 60°C (-4°F ~ 140°F)

Note: Specifications are subject to change without notice.
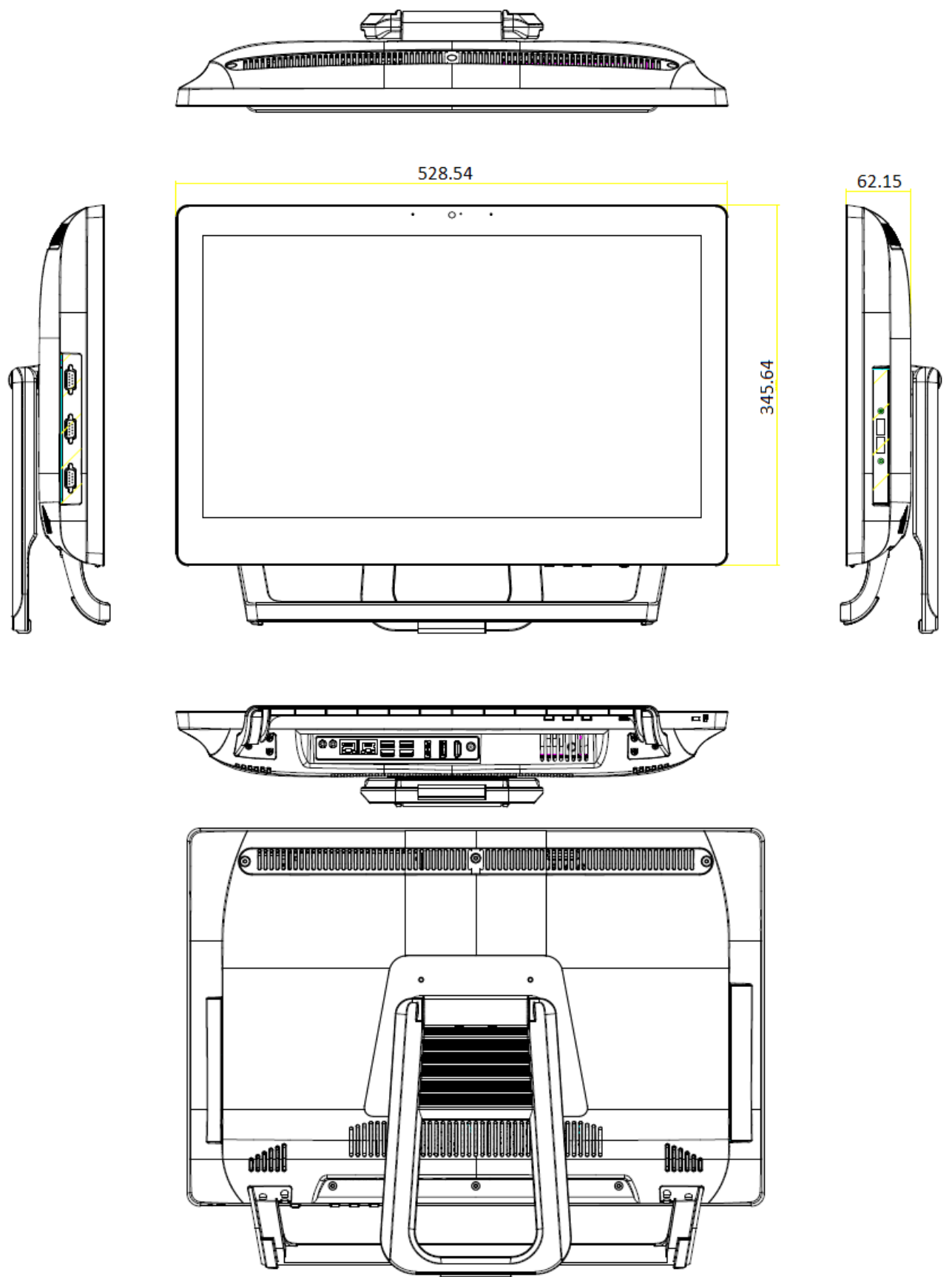
1.4 System Overview

1.4.1   Front View

Webcam   PCAP

Reserve Function Key   Power Button
Brightness +/-

1.4.2   Rear/Side View

DC IN   USB 3.0   MIC IN
HDMI DP2   LAN1 LINE OUT
DP1   LAN2

COM3   COM2   COM1

USB 2.0

Connectors

Label	Function	Note
DC IN	DC power-in connector	
DP1/2	DP connector 1/2	
HDMI	HDMI connector	
USB 2.0	2 x USB2.0 connector	
USB 3.0	4 x USB3.0 connector	
LAN1/2	RJ-45 Ethernet 1/2	
LINE OUT	Line-out audio jack	
MIC IN	Mic-in audio jack	
COM1~3	Serial port 1~3 connector	

1.5 System Dimensions

528.54

62.15

345.64

(Unit: mm)

2. Hardware Configuration

For advanced information, please refer to:

1- EMX-SKLUP User's Manual

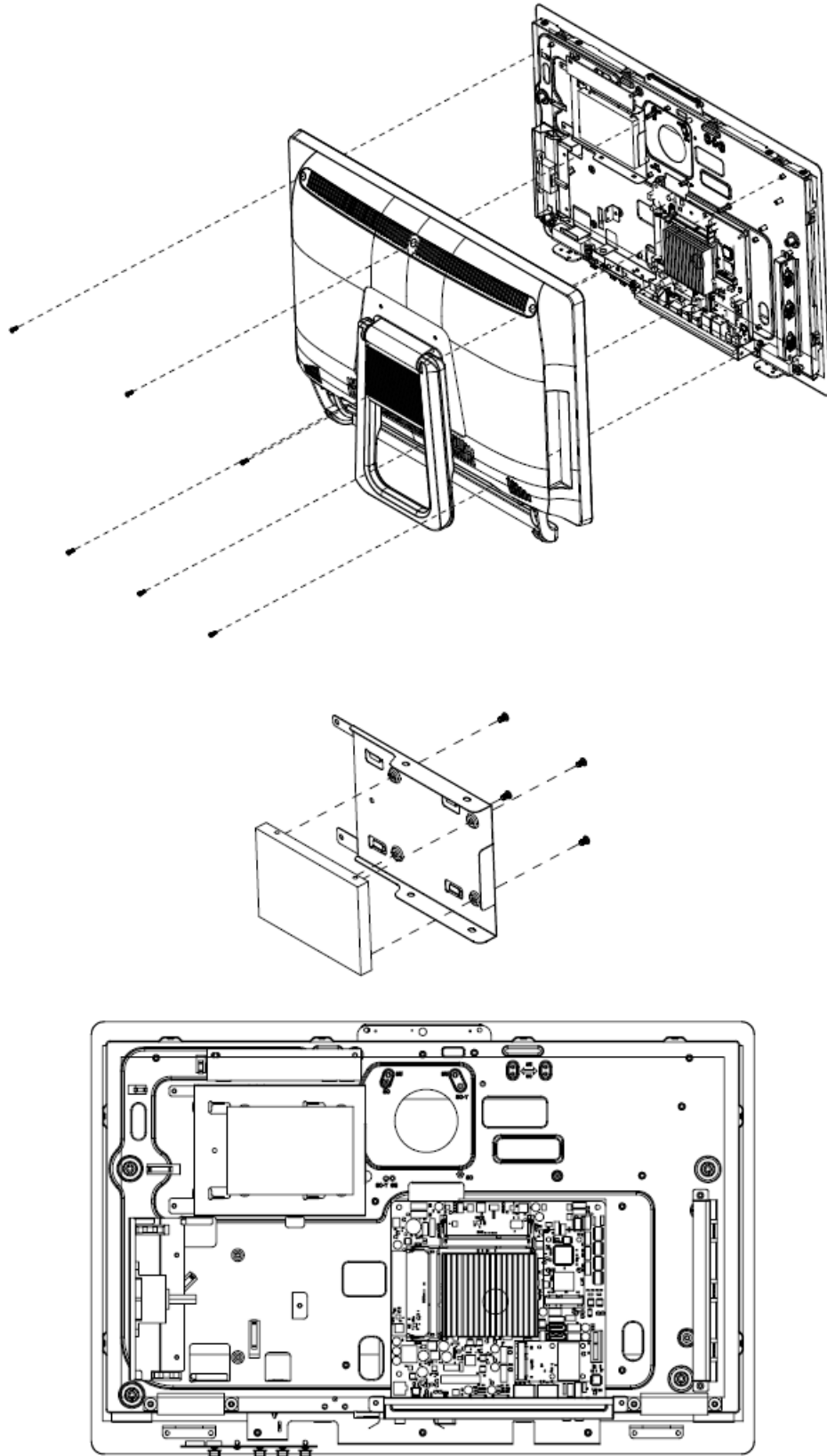**Note:** If you need more information, please visit our website:

http://www.avalue.com.tw

2.1 CPC-2103 connector mapping

2.1.1 Serial port connector (COM)

Signal	PIN	PIN	Signal
NDCD#	1	6	NDSR#
NRXD	2	7	NRTS#
NTXD	3	8	NCTS#
NDTR#	4	9	NRI#
GND	5		

2.2 Installing Hard Disk

Step1. Unfasten 6 screws of the back cover and take it off.

Step2. Secure HDD by means of 4 screws.

Step3. Re-assemble your system back through previous steps to complete the installation.