# **SEPC-CDD2**

Fanless Intel<sup>®</sup> Atom™ D2550 with Intel<sup>®</sup> NM10 Express Chipset Tiny Box PC

# **Quick Reference Guide**

1<sup>st</sup> Ed – 02 February 2015

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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.

#### **Notice**

This guide is designed for experienced users to setup the system within the shortest time. For detailed information, please always refer to the electronic user's manual.

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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: <a href="http://www.avalue.com.tw/">http://www.avalue.com.tw/</a>

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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

Before you begin installing your single board, please make sure that the following materials have been shipped:

- 1 x SEPC-CDD2 Fanless Intel® Atom™ D2550 with Intel® NM10 Express Chipset Tiny Box PC
- 1 x DVD-ROM contains the followings:
  - Driver Utility
- Other major components include the followings:
  - Adapter X 1
  - Power cord X 1
  - Rubber x 4
  - Screws



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

# 1.3 System Specifications

System			
CPU	Onboard Intel® Atom™ Processor D2550 (1M Cache, 1.86 GHz)		
BIOS	AMI 16MBit SPI BIOS		
System Chipset	Intel® NM10 Express Chipset		
I/O Chip	Nuvoton NCT5577D		
System Memory	One 204-pin DDR3 1066/1333MHZ SO-DIMM socket, supports up to 4GB Max		
Storage	Support 2.5" Driver Bay		
Watchdog Timer	Reset: 1sec. ~ 65535sec./min. and 1sec. or 1min./step		
H/W Status	Monitoring CPU & System Temperature and Voltage		
Monitor			
Expansion	1 x Mini PCI-e socket		
Expansion	*Mini PCI-e and m-SATA SSD switch through Jumper		
External I/O			
USB port	4 x USB 2.0		
COM port	1 x RS-232 port (Pin 9 without power)		
LAN port	1 x RJ45		
VGA port	1 x VGA		
HDMI port	1 x HDMI		
SD card	1 x SD card socket		
Audio port	1 x Line-out, 1 x Mic-in		
DC Jack	1 x DC Jack 2.5mm connector		
WiFi Optional			
	1 x Power on/off with Power LED button		
Others	1 x CIR for remote control		
Others	2 x SMA connector (optional)		
	1 x 4bit GPIO		
Display			
Chipset	Integrated Intel® Graphics Media Accelerator Supports dual display		
Resolution	VGA: 2560 x 1600/ HDMI: 1920 x 1080		
Dual Display	VGA + HDMI		
Audio			
Audio Codec	Realtek ALC661 HD Audio Decoding controller supports 2-CH		
Audio Interface	Line-out, Mic-in		
Ethernet			
LAN Chip	1 x Realtek RT8111E PCI-e Gigabit Ethernet		
Ethernet Interface	rface 10/ 100/ 1000 Base-Tx Gigabit Ethernet		

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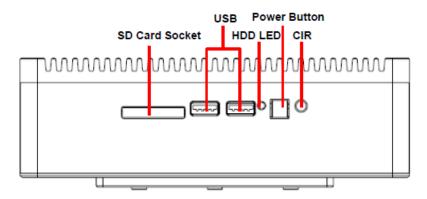
SIM card	
SIM card	1x SIM Card socket
SD card socket	
SD card socket	1 x SD Card socket
Environment	
&Mechanical	
Power Type	12V 5A 60W adapter
Operating Town	0 ~ 45°C (32 ~ 113°F), (w/SSD, mSATA), ambient w/ air flow
Operating Temp.	0 ~ 40°C (32 ~ 104°F), (w/HDD), ambient w/ air flow
Storage Temp	-20 ~ 75°C (-4 ~ 167°F) w/SSD
Storage remp	-20 ~ 65°C (-4 ~ 149°F)w/HDD
<b>Operating Humidity</b>	0 ~ 90% Relative Humidity, Non-condensing
Size (L x W) 180mm x 122mm x 55.5 mm	



**Note:** Specifications are subject to change without notice.

# 1.4 System Overview

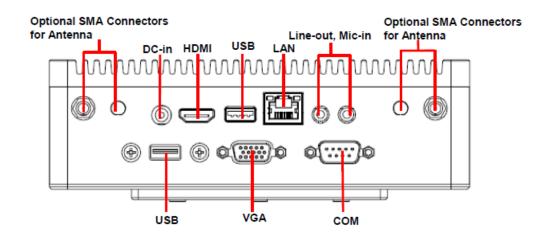
#### **Front View** 1.4.1



### **Connectors**

Label	Function	Note	
Power Button	Power on button		
HDD LED	HDD LED indicator		
CIR	Consumer IR		
USB	2 X USB 2.0 Type A connector		
SD Card Socket	SD/MS/MMC socket		

#### 1.4.2 **Rear View**



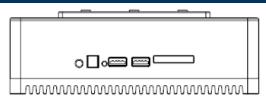
### Connectors

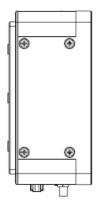
Label	Function	Note
COM	Serial port connector	DB-9 male connector
DC-in	DC power-in connector	
HDMI	HDMI connector	

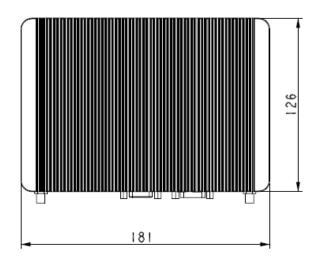
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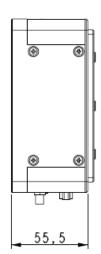
Line-out	Line-out jack		
Mic-in	Microphone-in audio jack		
LAN	Gigabit LAN (RJ-45) connector		
USB	2 X USB 2.0 Type A connector		
VGA	VGA connector		

# 1.5 System Dimensions

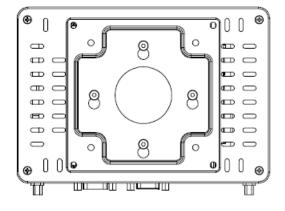












(Unit: mm)

Note: VESA Bracket optional

# 2. Hardware Configuration

Please refer to ENX-CDD User's Manual for advanced information.

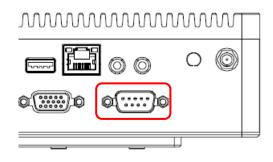


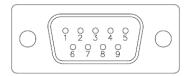
**Note:** If you need more information, please visit our website:

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# 2.1 SEPC-CDD2 connector mapping

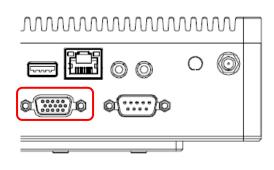
#### 2.1.1 Serial port connector (COM)

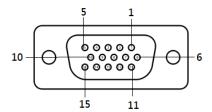




Signal	PIN	PIN	Signal
DCD#	1	6	DSR#
RXD	2	7	RTS#
TXD	3	8	CTS#
DTR#	4	9	RI#
GND	5		

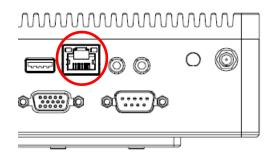
#### 2.1.2 VGA connector (VGA)





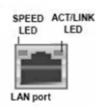
PIN	Signal	PIN	Signal	PIN	Signal
1	R	6	GND	11	NC
2	G	7	GND	12	DATA
3	В	8	GND	13	HSYNC
4	NC	9	NC	14	VSYNC
5	NC	10	NC	15	CLK

#### 2.1.3 Gigabit LAN (RJ-45) connector (LAN)



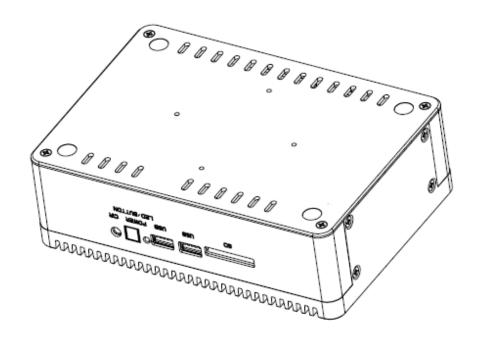
#### Note:

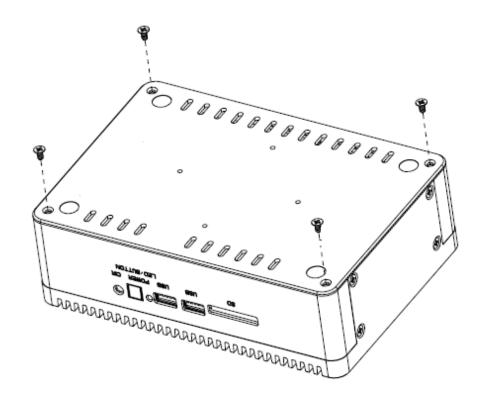
This port allows Gigabit connection to a Local Area Network (LAN) through a network hub. Refer to the table below for the LAN port LED indications.



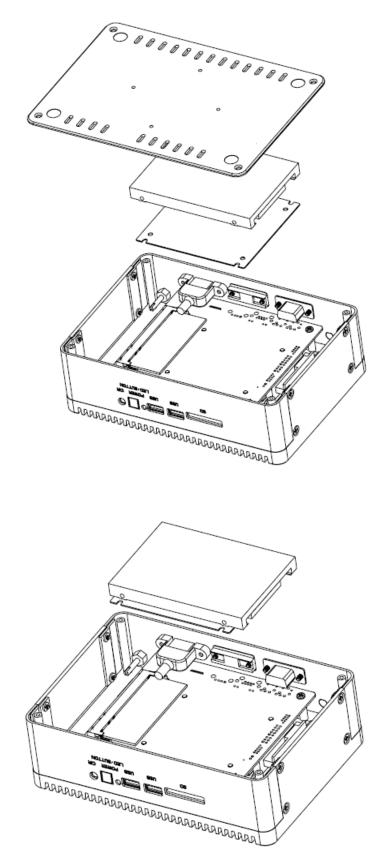
Speed	Speed	ACT/Link	ACT/Link	
Status	Description	Status	Description	
OFF	10Mbps	OFF	Disconnection	
OFF	connection	OFF		
Green	100Mbps	Yellow	Linked	
	connection	On		
Green	1Gbps	Yellow	Data activity	
	connection	Blinking	Data activity	

# 2.2 Installing Hard Disk & Memory





**Step1.** Unfasten 4 screws to remove the back cover.



Step2. Insert the HDD and fasten 4 screws.

**Step3.** Assemble the back cover back as step 2 to step 1.

