User's Manual

DNPOS70P-5BTH-N3700
DNPOS70P-5WTH-N3700
DNPOS70P-5BT-N3710
DNPOS70P-5WT-N3710
DNPOS70P-5BT-J3710
DNPOS70P-5WT-J3710

Copyrights

Liability Disclaimer

Regulatory Information

FCC Notices

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the Federal Communications Commission (FCC) Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Increase the separation between the equipment and the receiver.
• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
• Consult the dealer or an experienced radio or television technician for help.

This device complies with Part 15 (A) 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.

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS DEVICE. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE DEVICE.

CE Notice

This device complies with **EMC Directive 2004/108/EC** issued by the Commission of the European Community.

Contents

WEEE Notice

The **WEEE** mark applies only to countries within the European Union (EU) and Norway.
This appliance is labeled in accordance with **European Directive 2002/96/EC** concerning **waste electrical and electronic equipment** (**WEEE**). The Directive determines the framework for the return and recycling of used appliances as applicable throughout the European Union. This label is applied to various products to indicate that the product is not to be thrown away, but rather reclaimed upon end of life per this Directive.

Contents

Contents

Hardware Setup

1.1. Packing Contents

1. Dynasty X 1

4. Drive and Utility DVD X 2

2. Power Adapter X 1
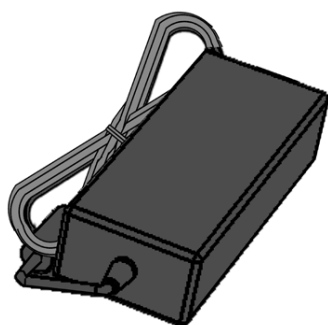
3. Power Cord X 1

1.2. Quick Tour

Power Switch
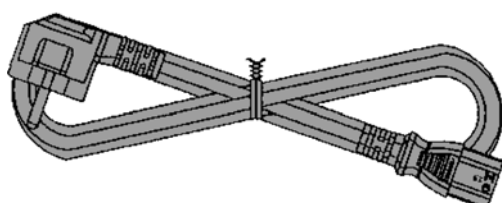
LED Indicator

☀ The **Power** indicator will glow green when power is on.

Back Panel I/O

USB 2.0 x 2   LAN 1   COM 1   CASH DRAWER

MINI-DP   USB 3.0 x 2   LAN 2   COM 2   DC IN

2nd HDD   ANT

Proprietary Connector

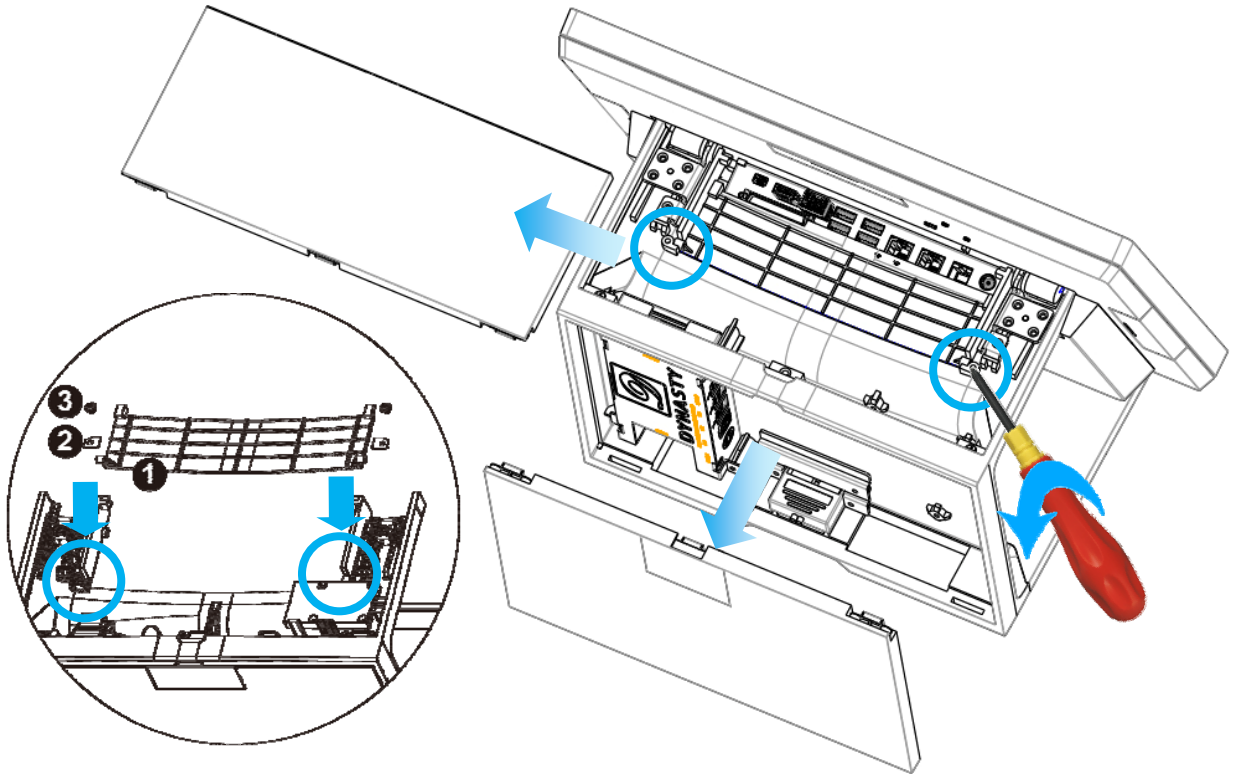COM 3   COM 4
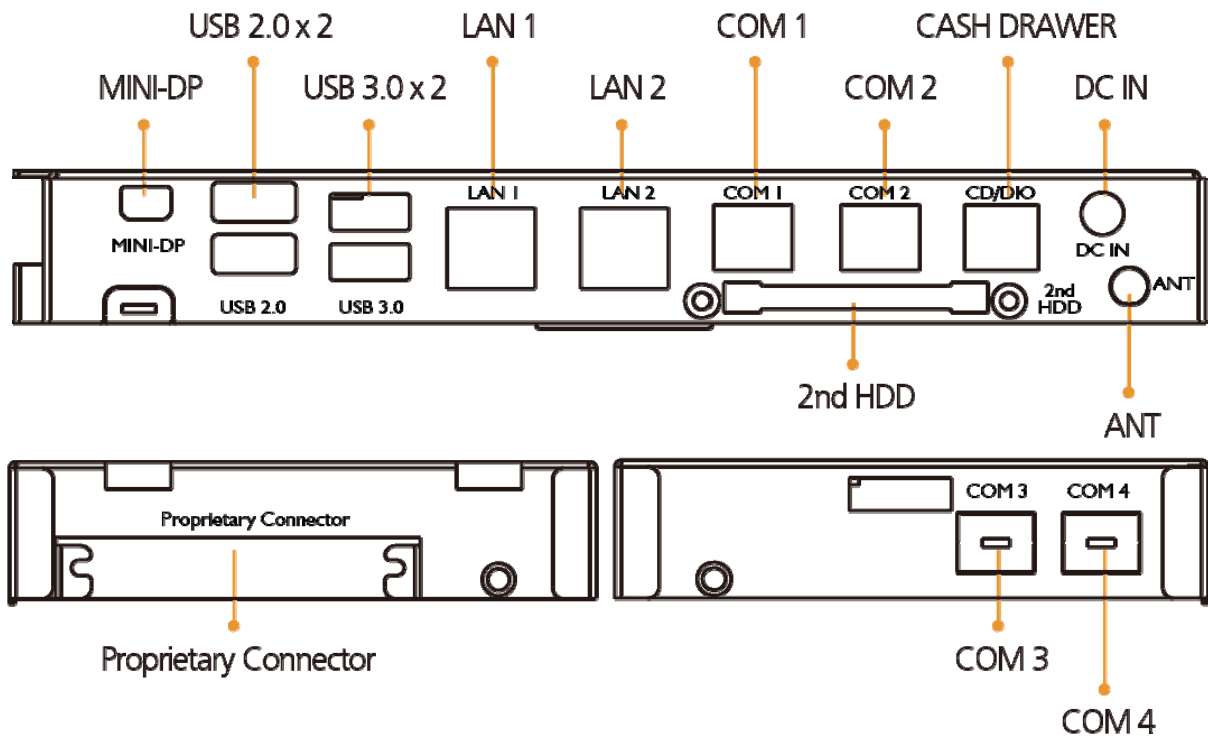
1.3. Basic Peripherals Installation

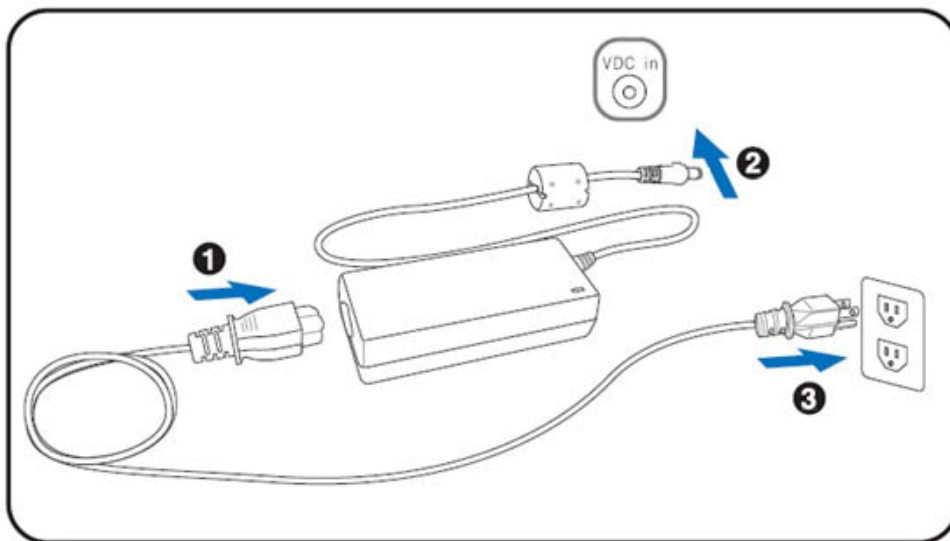All cables and wires from peripherals to the POS device are recommended to connected as the direction as shown below.

- Tight two screws on the cable cover if necessary.

Power Adapter

Important!

Plug the AC adapter into the POS/PPC, and then connect to the mains power supply.

Connect the 2-pin radio jack of the adapter to the **DC 19V** jack on the back panel of the device.
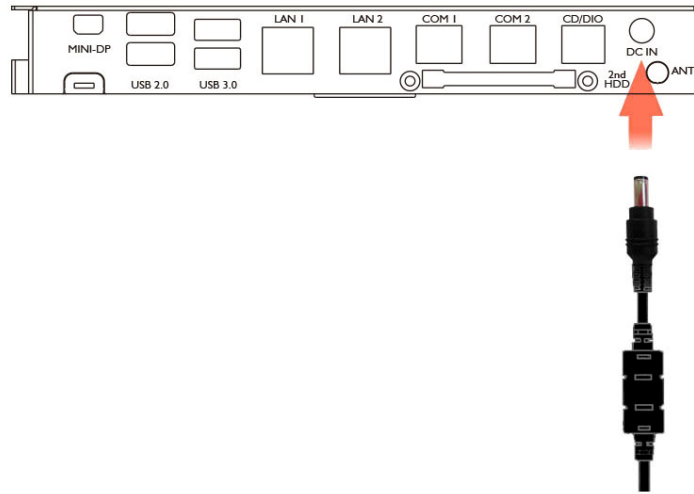
USB Mouse, USB Keyboard and USB ODD

Connect your USB Mouse, USB Keyboard and USB ODD to **USB** ports on the back panel of the device.
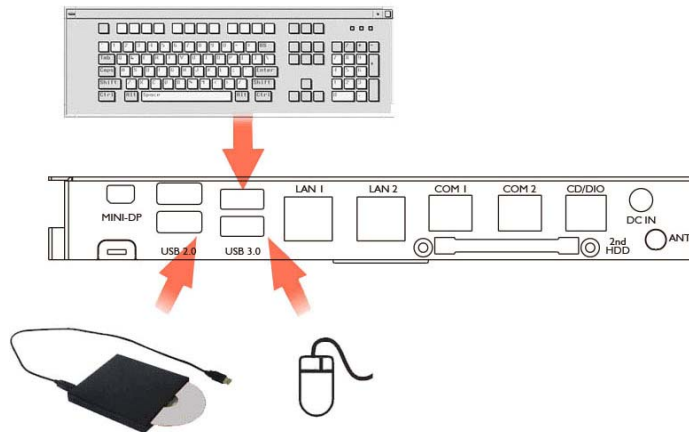
LAN Cable

Connect one end of RJ-45 LAN cable to the **LAN** port on the back panel of the device, another end to your internet device.

Chapter 1
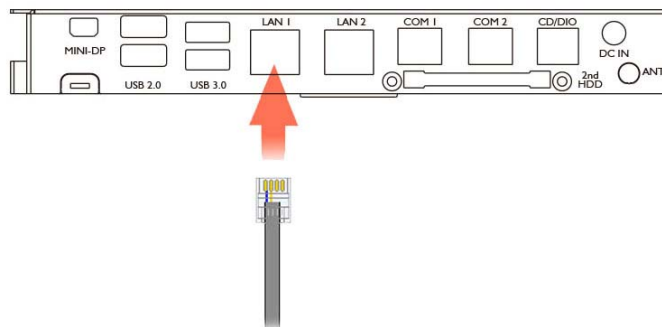
Cash Drawer

Connect one end of RJ-12 cable to the **Cash Drawer** port on the back panel of the device, another end to your cash drawer.
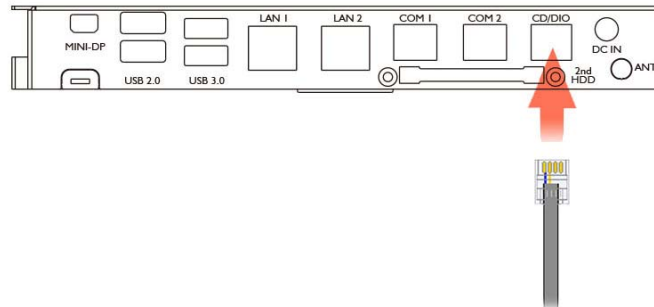
Customer Display

1. Remover the customer display mounting hole cover from the device and pull out the connector from the device.
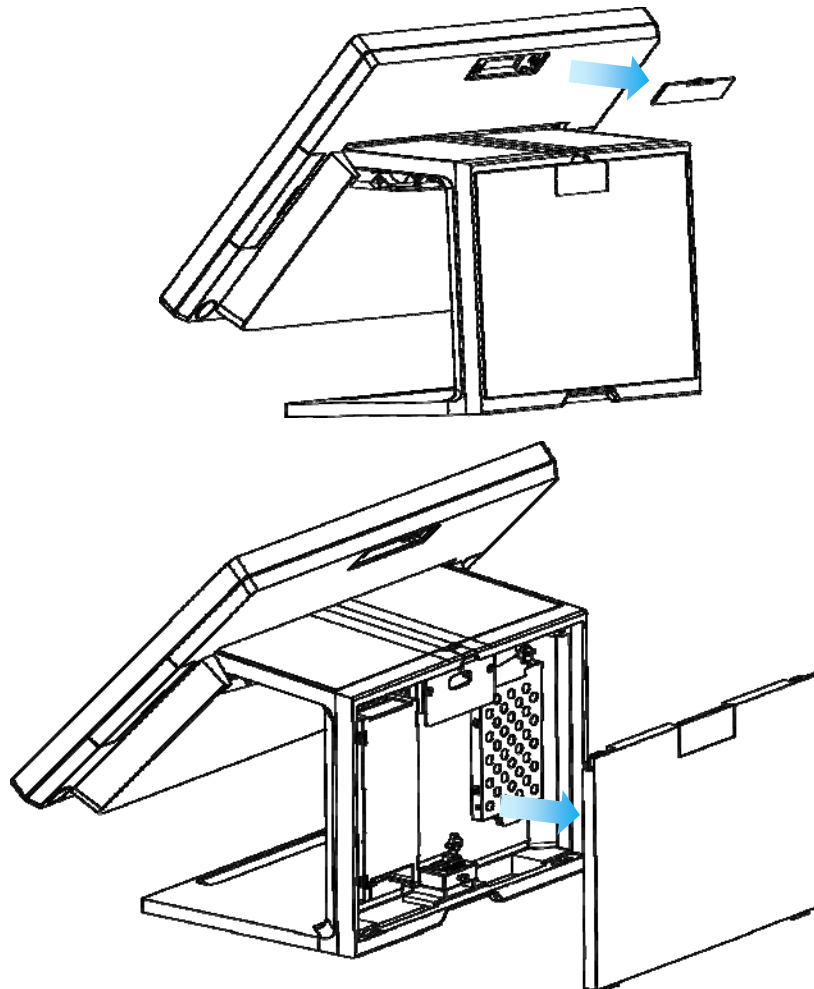
2. Adjust the hinge of the custom monitor (2nd display), and then connect to the device as shown below.

Optional installation by different SKU

Recommended installation

Optional installation by different SKU

3. Mount the customer display to the device and tighten the two PHILLIPS M3 screws as shown below.
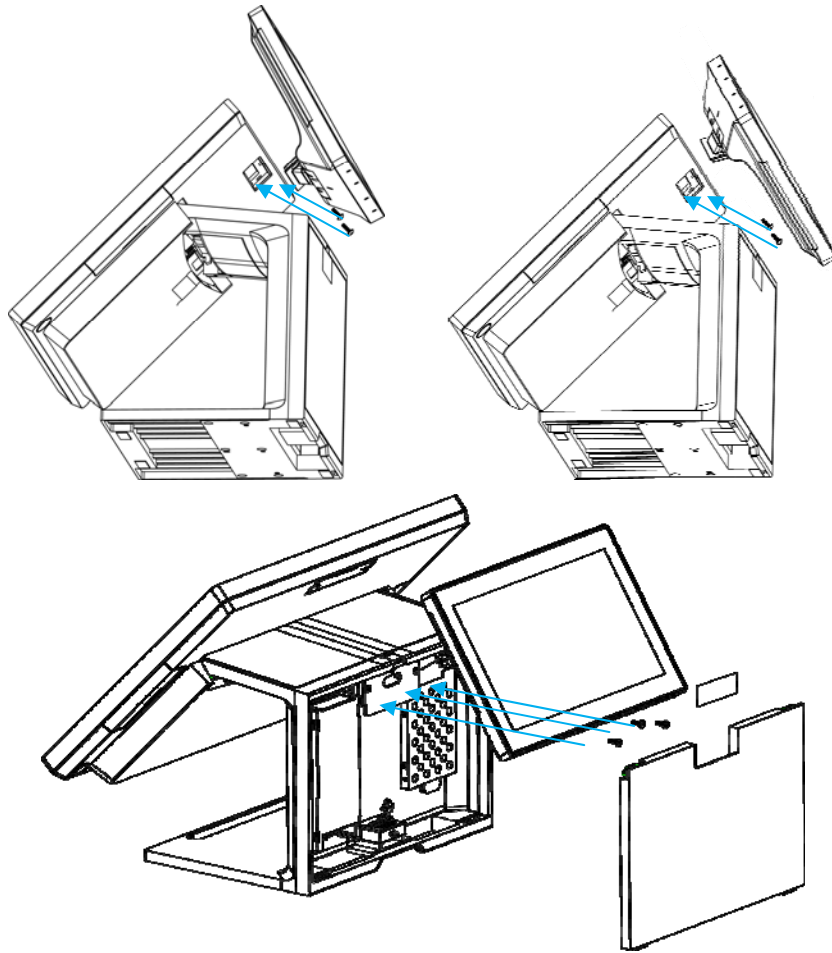
4. Finished.
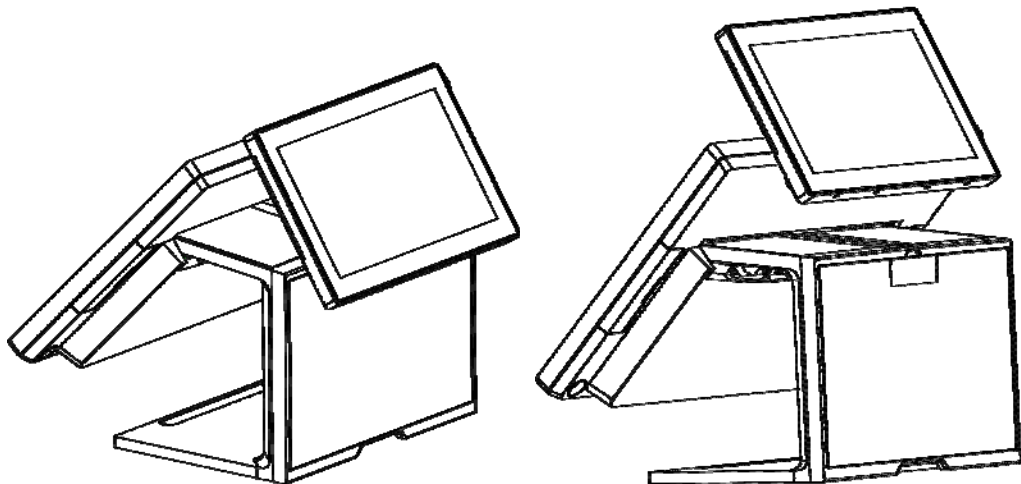
Customer VFD

1. Remover the customer VFD mounting hole cover from the device and pull out the connector from the device.
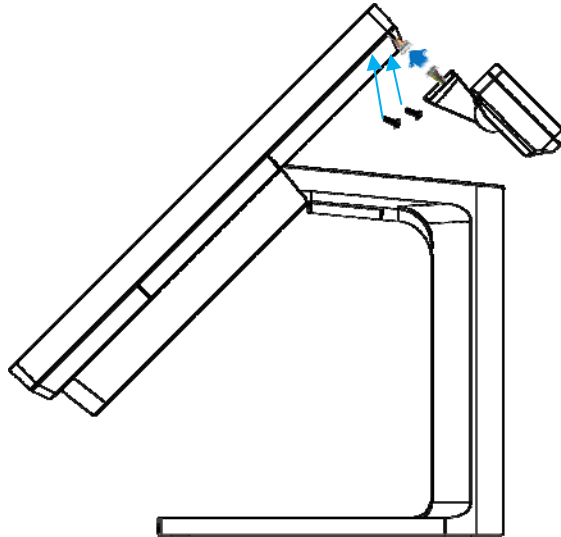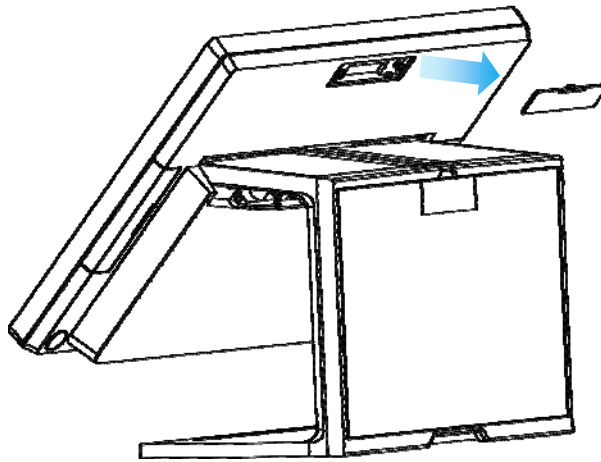
B. Power Supply Configuration

Power up the device and hit the DEL key to enter the BIOS. When the BIOS screen appears use the TAB key to select Advanced. Use the arrow keys to select Super IO Configuration then type ENTER. The screen below will appear. Use the arrow keys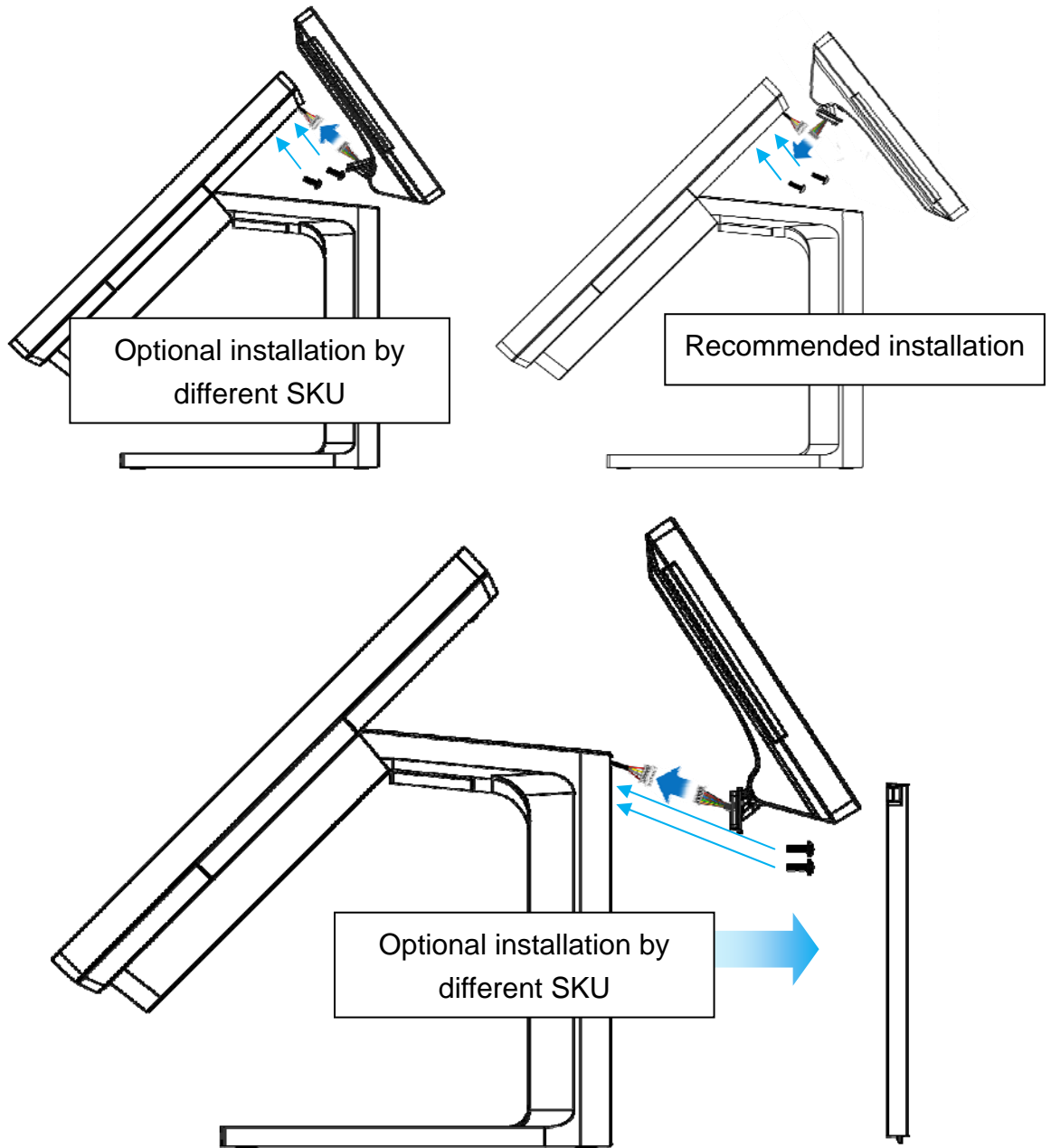 to select **Serial Port 6** RI/12V depending on what port the customer display is connected to. Select 12V to enable power to the correct COM port. Type F10 to save the settings and exit the BIOS setup.

Caution: Never enable the 12 V without the customer display attached and be sure to disable the 12 V before removing the customer display.
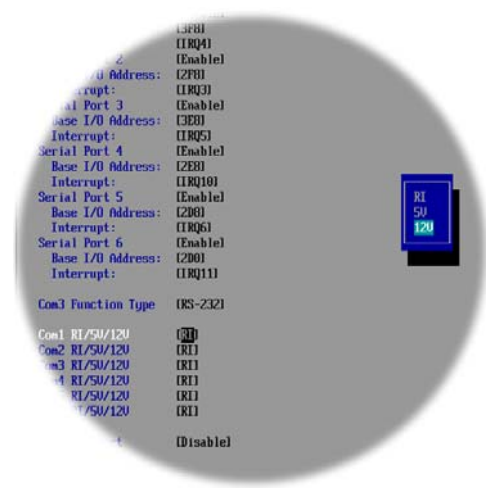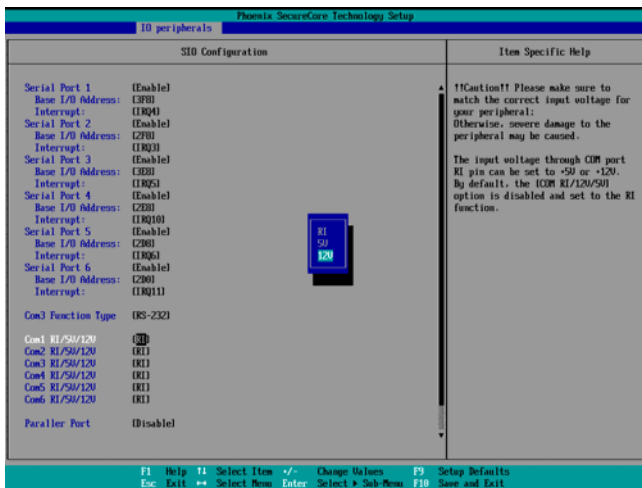
MSR

1. Remove the MSR cover from the device.

Chapter 1
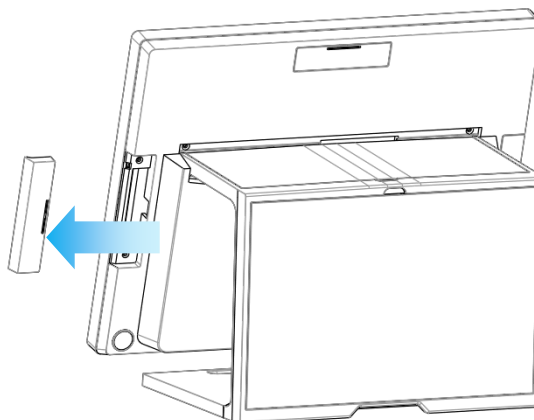
2. Connect the cable of the ibutton with MSR assembly to the device.
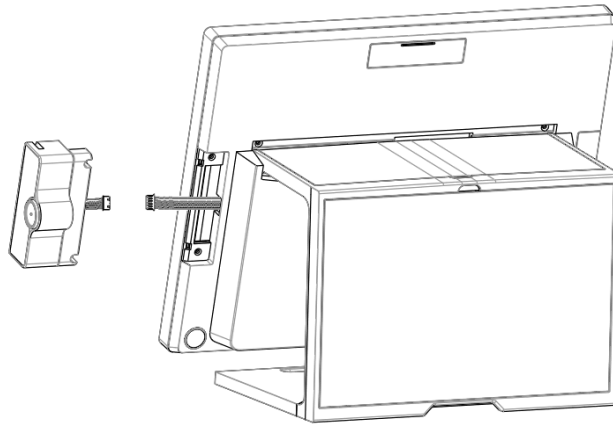
3. Tighten the two PHILLIPS M3 screws to fix the MSR assembly as shown below.
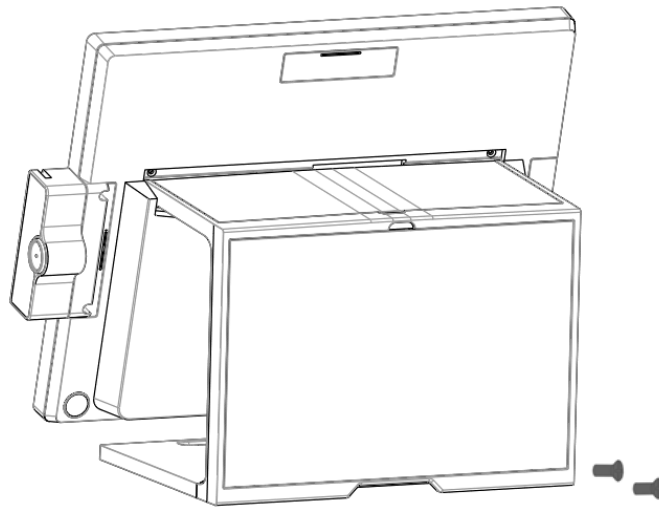
4. Finished.
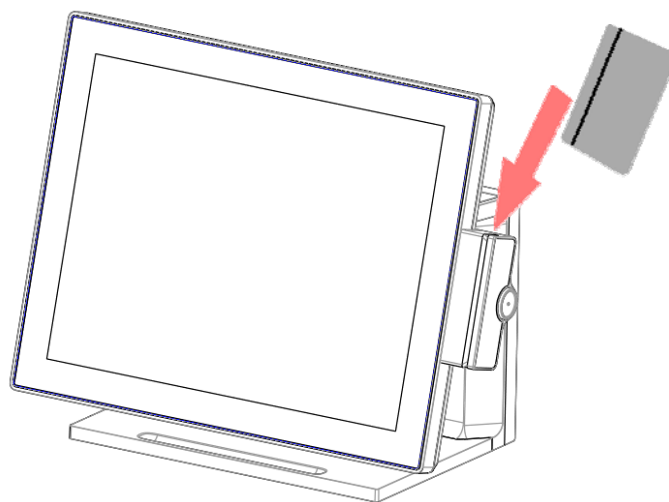
Note:

The MSR is powered by **USB**,

1.4. Adjust Angle
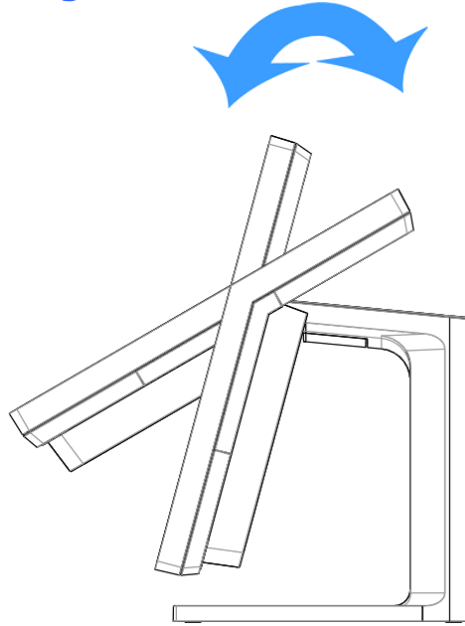
1.5. Turn on the device

1. Make sure all peripherals are connected properly.
2. Press and hold the power switch until the power indicator on the power switch glow green.

Power Switch
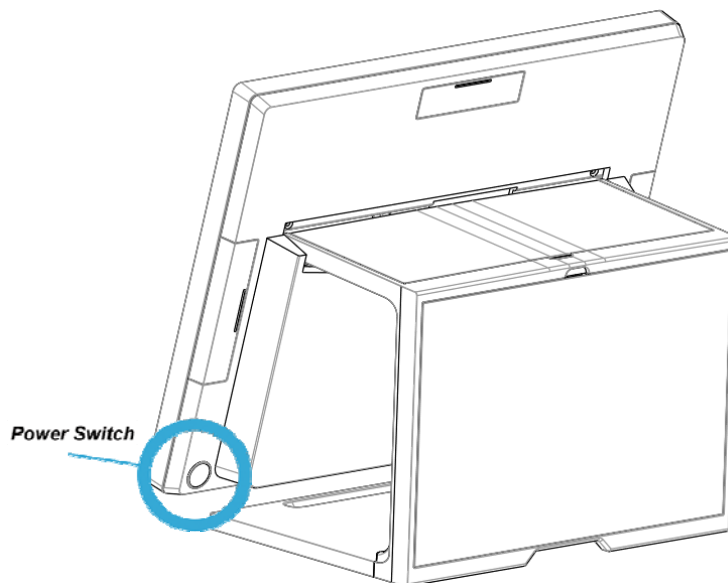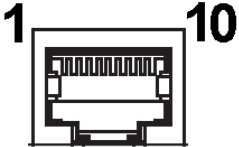
I/O Definition

Please refer the detailed technical information about all I/O ports as followings.
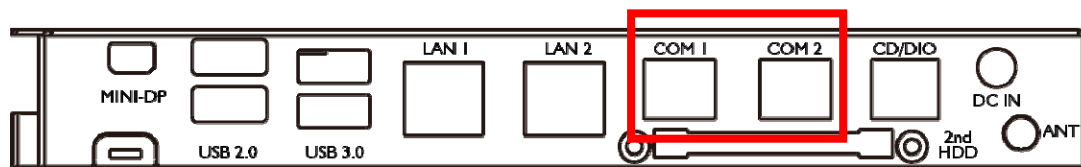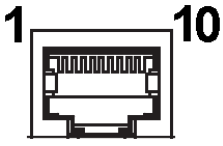
2.1. RJ50

RJ50_COM1

Pin	Signal Name	Pin	Signal Name
1	XRIA_N	6	XRXDA
2	XDSRA_N	7	GND
3	XRTSA_N	8	XCTSA_N
4	GND	9	XDTRA_N
5	XTXDA	10	XDCDA_N
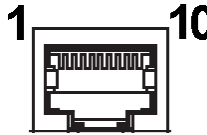
RJ50_COM2

Pin	Signal Name	Pin	Signal Name
1	XRIB_N	6	XRXDB
2	XDSRB_N	7	GND
3	XRTSB_N	8	XCTSB_N
4	GND	9	XDTRB_N
5	XTXDB	10	XDCDB_N
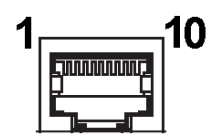
RJ50_COM3

Pin	Signal Name	Pin	Signal Name
1	XRIB_N	6	XRXDB
2	XDSRB_N	7	GND
3	XRTSB_N	8	XCTSB_N
4	GND	9	XDTRB_N
5	XTXDB	10	XDCDB_N

COM 3 : RS232/422/485, Pin RI with RI/5V/12V selectable by BIOS

PIN	R232	RS422	RS485
10	DCD	TX-	D-
6	RXD	TX+	D+
5	TXD	RX+	
9	DTR	RX-	

RJ50_COM4

Pin	Signal Name	Pin	Signal Name
1	XRIB_N	6	XRXDB
2	XDSRB_N	7	GND
3	XRTSB_N	8	XCTSB_N
4	GND	9	XDTRB_N
5	XTXDB	10	XDCDB_N

2.2. Cash Drawer
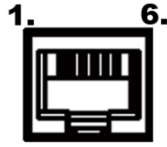
PIN	Description	PIN	Description
1	GND	4	12V / 19V
2	D_OUT0	5	D_OUT1
3	D_IN	6	GND

Cash Drawer Control

The Cash Drawer Controller use one I/O addresses to control the Cash Drawer.

Register Location: 48Ch

Attribute: Read / Write

Size: 8-bit

BIT	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0
Attribute	Reserved	Read	Reserved		Write		Reserved	

7	6	5	4	3	2	1	0
X		X	X			X	X

Reserved

Cash Drawer "DOUT bit0" pin output control

Cash Drawer "DOUT bit1" pin output control

Reserved

Cash Drawer "DIN bit0" pin input status
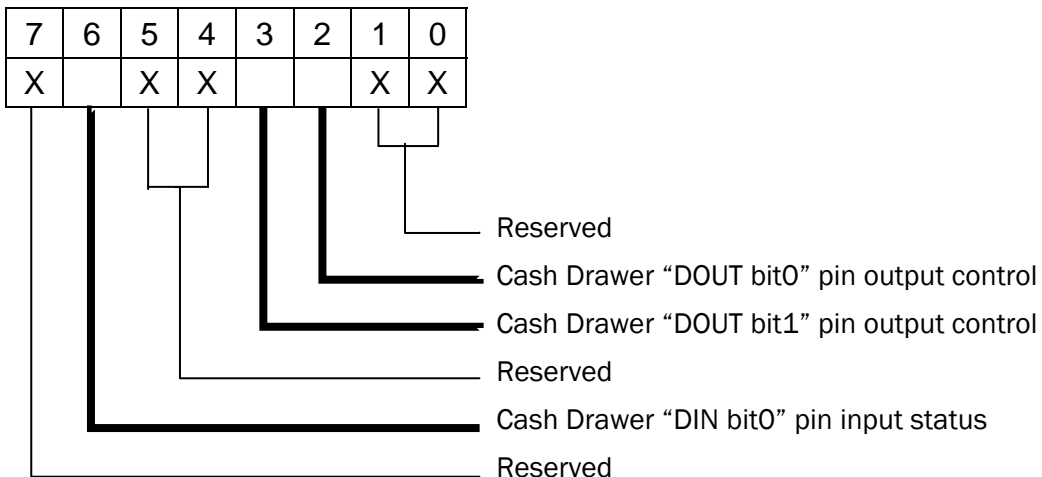
Reserved

BIT7: Reserved

BIT6: Cash Drawer "DIN bit0" pin input status.

= 1: the Cash Drawer opened

= 0: the Cash Drawer closed or no Cash Drawer

BIT5: Reserved

BIT4: Reserved

BIT3: Cash Drawer "DOUT bit1" pin output control.

= 1: Opening the Cash Drawer

= 0: Allow close the Cash Drawer

BIT2: Cash Drawer "DOUT bit0" pin output control.

= 1: Opening the Cash Drawer

= 0: Allow close the Cash Drawer

BIT1: Reserved

BIT0: Reserved

Note: Please follow the Cash Drawer control signal design to control the Cash Drawer.

Cash Drawer Control Command Example

Use Debug.EXE program under DOS or Windows98

Command	Cash Drawer
O 48C 04	Opening
O 48C 00	Allow to close
➢ Set the I/O address 48Ch bit2 =1 for opening Cash Drawer by "DOUT bit0" pin control.	
➢ Set the I/O address 48Ch bit2 = 0 for allow close Cash Drawer.	

Command	Cash Drawer
I 48C	Check status
➢ The I/O address 48Ch bit6 =1 mean the Cash Drawer is opened or not exist.	
➢ The I/O address 48Ch bit6 =0 mean the Cash Drawer is closed.	
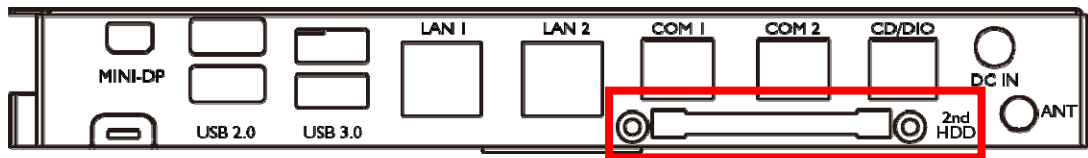
2.3. 2nd HDD

S1	GROUND	S7	GROUND
S2	TP+	P4	GROUND
S3	TP-	P5	GROUND
S4	GROUND	P7	5V
S5	RP-	P8	5V
S6	RP+		

2.4. Distributed Display Head Connector

Pin NO.	Pin Define	Pin NO.	Pin Define	Pin NO.	Pin Define	Pin NO.	Pin Define
1	IN_D0	18	GND	35	LVDS1_CLK	52	XCTS_N5
2	IN_D2	19	P3V3	36	XRTS_N5	53	XDSR_N5
3	IN_D0#	20	HPD1_R	37	LVDS1_DAT	54	XRXD5
4	IN_D2#	21	P3V3	38	XTXD5	55	XRTS_N5
5	GND	22	DDIO_DISP_ON_3V	39	GND	56	XTXD5
6	GND	23	+5V	40	XDTR_N5	57	XDTR_N5
7	IN_D1	24	DDIO_BLON_3V	41	+5VS5	58	XDCD_N5
8	IN_D3	25	+5V	42	XDCD_N5	59	XRI_N5
9	IN_D1#	26	DDIO_PWM_3V	43	+5VS5	60	XRI_N5
10	IN_D3#	27	P12V	44	XRI_N5	61	GND
11	GND	28	GND	45	+5V_USBP3	62	GND
12	GND	29	P12V	46	XRI_N5	63	+5VS5
13	DP_HDMI_DETECT	30	XCTS_N5	47	USB_H3_P	64	+5VS5
14	AUXP	31	P12V	48	XRI_N5	65	+5V_USBP3
15	NBSWON1#	32	XDSR_N5	49	USB_H3_N	66	USB_H3_N
16	AUXN	33	+3VS5	50	DEEP_PWRLED#	67	USB_H3_P
17	P3V3	34	XRXD5	51	GND	68	GND

Specification
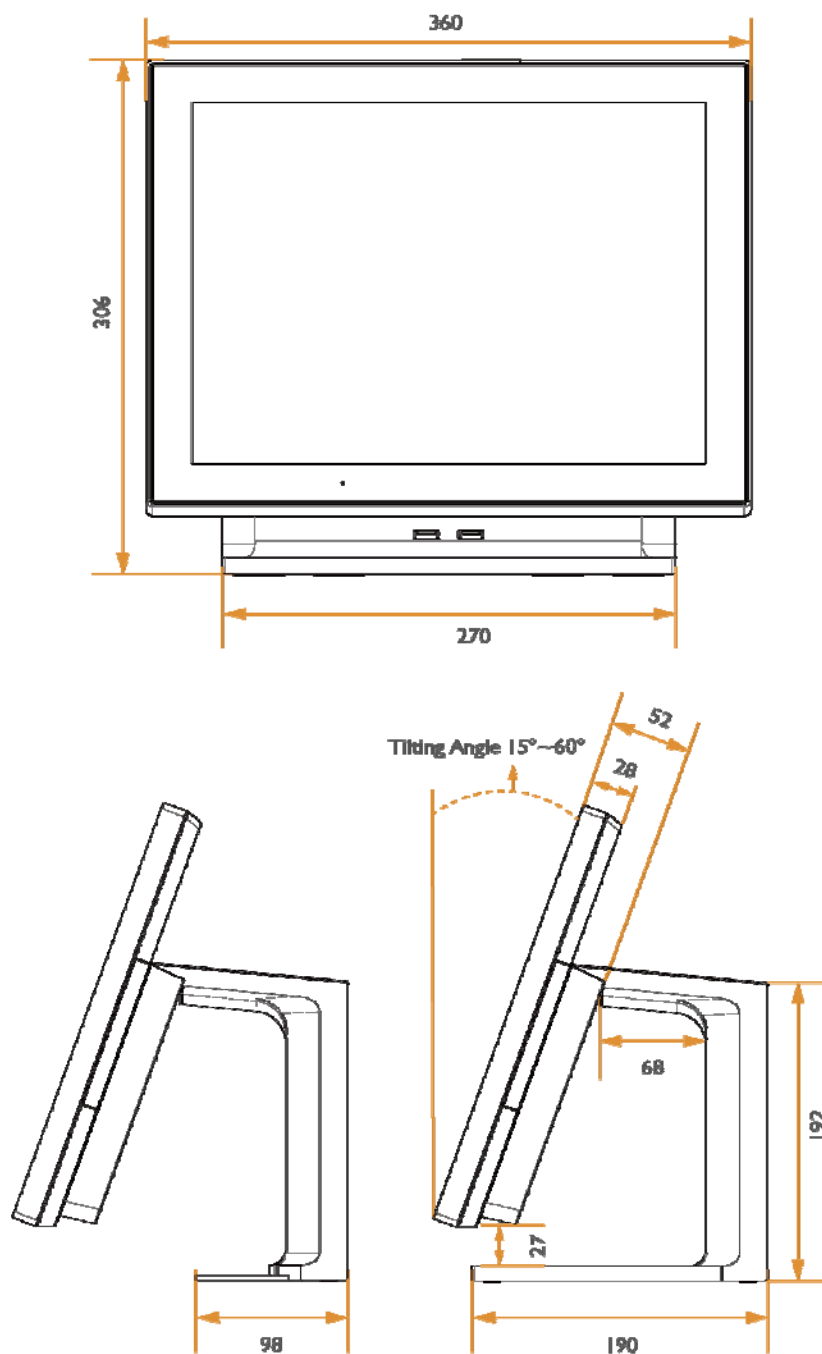
UNIT	mm
RANGE	TOLERANCES
0 - 10	± 0.10
10 - 50	± 0.15
50 - 100	± 0.20
100 -	± 0.25

Main Board

CPU	Intel Braswell SoC processor: Pentium® N3700 (14nm, 2M Cache, up to 2.40 GHz) Pentium® N3710 (14nm, 2M Cache, up to 2.56 GHz) Celeron® Processor N3160 (2M Cache, up to 2.24 GHz)
Graphic	Intel® HD Graphics
System Memory	SO-DIMM DDR3L 1333/1600MHz x 1, Max. 8GB
Cooling Solution	Fanless conductive thermal module
BIOS	Phoenix uEFI BIOS
OS	Windows Embedded POSReady 7 (64bit only) Windows 7 Professional for Embedded Systems (64bit only) Windows Embedded 8 Industry (64bit only) Linux kernel 3.0+ & associated distributions Windows 10
EC	EBN-specified embedded controller

Display

Display Size	15" 4:3 Industrial grade panel (Option 15.6" 16:9)
Panel backlight type	LED with 50K hours of life
Brightness	250 nits
Resolution	1024x 768 (1366 x 768 optional for 15.6" model)
Touch Screen	P-cap multitouch with 7H hardness cover lens
Front panel type	True flat bezel free with IP65 compliant
Tilting Angle	20°~60°

Storage Device

Interface	SATA-3 (6.0 Gb/s) x 2
HDD or SSD	mSATA slot x 1 (for SSD) 2.5" HDD or SSD (Option) x 1

Indicators

	Power

Wireless Connectivities

Dual Band WiFi & Bluetooth	Intel AC3160 802.11 ac/a/b/g/n Wireless LAN with BT4.0 combo, half size mini PCIE type

I/O Ports

Serial	Serial Port x 6, DB-9 Pin9 with RI/5V/12V selectable by BIOS. COM 1: RS-232, RJ-50 with convert to DB-9 cable COM 2: RS-232, RJ-50 with convert to DB-9 cable COM 3: RS-232/422/485 selectable by BIOS, RJ-50 with convert to DB-9 cable COM 4: RS-232, RJ-50 with convert to DB-9 cable COM 5: RS-232, Internal reserved for 2x20 VFD Customer Display COM 6: RS-232, Internal reserved
USB	USB 3.0 x 2

	USB 2.0 x 2
Giga LAN	Gigabit Ethernet by RJ-45 x 2, support Wake on LAN
Cash Drawer	RJ-12 x 1, support 12V / 24V DC cash drawer
Audio	2W Speaker x 1
Display Port	mini DP x 1 Option: Cable @ DP-to-VGA, DP-to-DVI, DP-to-HDMI
DC-in	19~24V DC input, Radio jack x 1
PUH (Power USB Hub) module (option)	24V PoweredUSB x 1 12V PoweredUSB x 2 USB2.0 x 2 24V DC-out x 1 External 120W 24V DC adapter
Others	
Mounting mechanism	Support VESA Mount Option: Panel-mounting and Rear-mounting bracket
Power Supply	External 65W 19V DC Option: External 120W 19V
Color	Titanium-Black, Titanium-White; Gold-Black, Gold-white, Titanium-colors With standard powdered painting finishing, optional in electroplated with hairline finishing
Ingress Protection	IP65 @ front panel
Material	Aluminum-Zinc Alloy frame with PC+ABS service door and cable cover.
Certifications	CE / FCC / WEEE / RoHS / VCCI / CCC
Dimension (WxDxH)	36 x 21.5 x 30.6 cm (14 x 8.5 x 12 inch)
Net Weight / Gross Weight	6.6 kg ,14.6 lb / 8.6kg, 19 lb
Environmental Conditions	
Operating Temperature	With extended temperature SSD/mSATA/RAM/Adapter : -20 ~ 60°C (-4 ~ 140°F) with 0.7m/s air flow With standard system configurations: 0 ~ 50°C (-32 ~ 122°F) with 0.7m/s air flow
Storage Temperature	-40 ~ 85° C (-40 ~ 185° F)
Relative Humidity	95% @ 40°C (104°F), non-condensing

Chapter 5