

BFC-10W9

10.1" Multifunctional Bezel Free Multi-Touch Panel Computer

Quick Reference Guide

1st Ed –22 September 2016

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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 BFC-10W9 10.1" Multifunctional Bezel Free Multi-Touch Panel Computer
- 1 x DVD-ROM contains the followings:
 - User's Manual (this manual in PDF file)
 - Ethernet driver and utilities
 - VGA drivers and utilities
 - Audio drivers and utilities
 - Chipset drivers
- Other major components include the followings:
 - 60W adapter and power cord



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

1.3 System Specifications

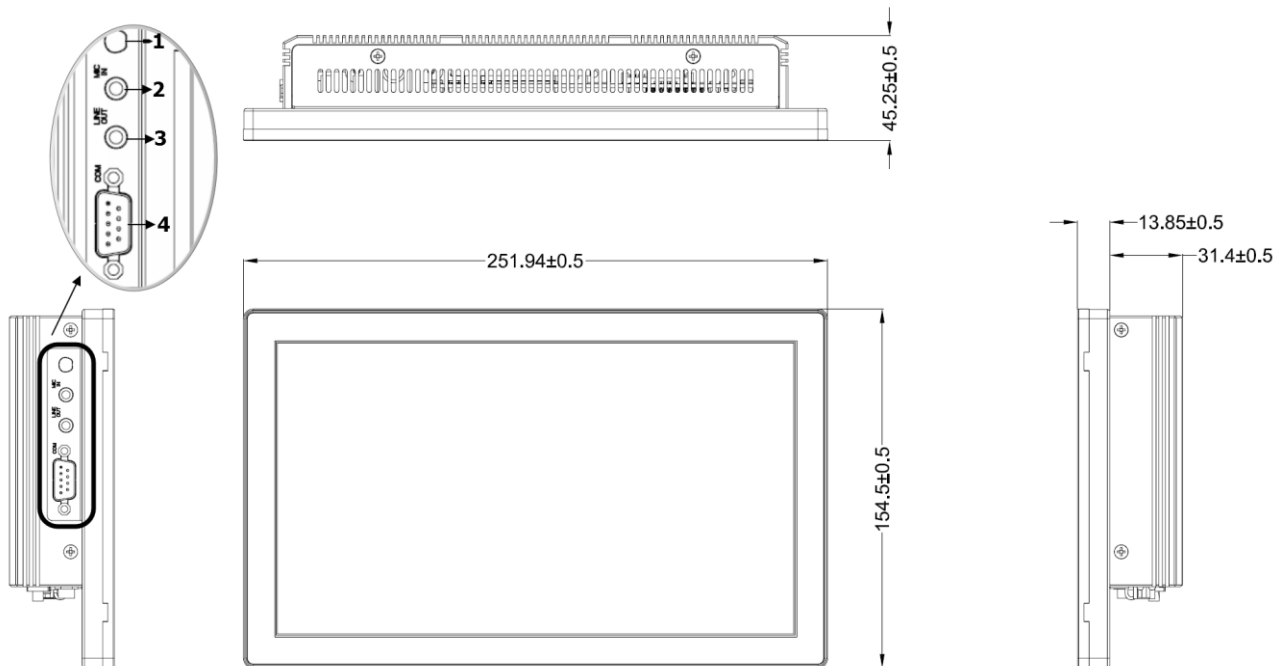
System		
Version	BFC-10W9 A1/A2	BFC-10W9 B1
Part Number	BFC-10W9-384-A1R BFC-10W9-384-A2R	BFC-10W9-190-B1R
Board	ECM-BYT	
CPU	Intel® Atom™ E3845 4-Core 1.91GHz CPU	Intel® Celeron® J1900 4-Core 2.0GHz CPU
BIOS	AMI uEFI BIOS, 64M-bit SPI Flash BIOS	
I/O Chip	EC ITE IT8528E	
System Memory	One SODIMM socket supports up to 8GB DDR3L 1333MHz SDRAM	
CF	One CompactFlash Type I/II socket	
Hard Driver Bay	2.5" HDD or SSD (Total height: 66.05mm) *By Optional with MOQ apply	Support One 2.5" HDD or SSD
WiFi	By Optional Mini PCIe WiFi module	
Watchdog Timer	Reset: 1 sec.~255 min. and 1 sec. or 1 min./step	
H/W Status Monitor	Monitoring system temperature and voltage. Auto throttling control when CPU overheats	
Expansion	1 x Mini-PCIe (mSATA supported)	
Panel		
Panel Model	AUO G101STN01.0	IVO M101GWT9 R4
LCD size	10.1", 16:9	
Display type	LED	
Resolution	1024 x 600	
Pixel pitch	0.2175 (H) x 0.2088 (V)	
Luminance	250 cd/m ²	350 cd/m ²
Contrast ratio	500	
Viewing angle	70(U), 70(D), 60(L), 60(R)	70(U), 70(D), 70(L), 70(R)
Response time	16 ms	
Backlight	LED Backlight	
Touch Type	Projected Capacitive Touch	
Transmission	86%	
Touch Interface	USB	
Rear I/O		
Serial Port	1 x RS232, 1x RS232/422/485 (selected by jumper)	
Ethernet	2 x RJ-45 (Dual Intel I211AT Gigabit Ethernet)	
Display	1 x HDMI & 1 x VGA	
Audio port	1 x Mic in	1 x Mic in, 1 x Line out

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USB	1 x USB3.0, 3 x USB2.0	
Speaker	2 x 2W	
Display		
Chipset	Intel® Valleyview SOC integrated Graphics Support Dual display (Intel® HD Graphics)	
Resolution	VGA: Max. 2560x1080@ 60 Hz HDMI: Max. 1920x1200@ 60 Hz LVDS: Max. 1920x1080@ 60 Hz	
LVDS	Dual 18/24-bit LVDS	
Audio		
AC97 Codec	Realtek ALC892 supports 5.1CH Audio	
Mechanical & Environmental		
Mounting	Wall/Stand/VESA 75 mm x 75 mm	Wall/Stand/VESA 75 mm x 75 mm Wall/Stand/VESA 100 mm x 100 mm
Power Input	+12V ~ +26V DC in	
Power Type	AT/ATX	
Operating Temp.	32 to 104°F (0 to 40°C)	
Storage Temp.	-14 to 140°F (-10 to 60°C)	
Operating Humidity	5%~90% relative humidity, non-condensing	
Dimensions	251.94 x 154.5 x 45.25mm 251.94 x 154.5 x 66.05 (w/ HDD)	252.2 x 154.7 x 48.85mm
Weight	1.4kg	1.6kg
Reliability		
EMI Test	CE/FCC Class B	
Dust and Rain Test	Front side IP65	

1.4 System Overview

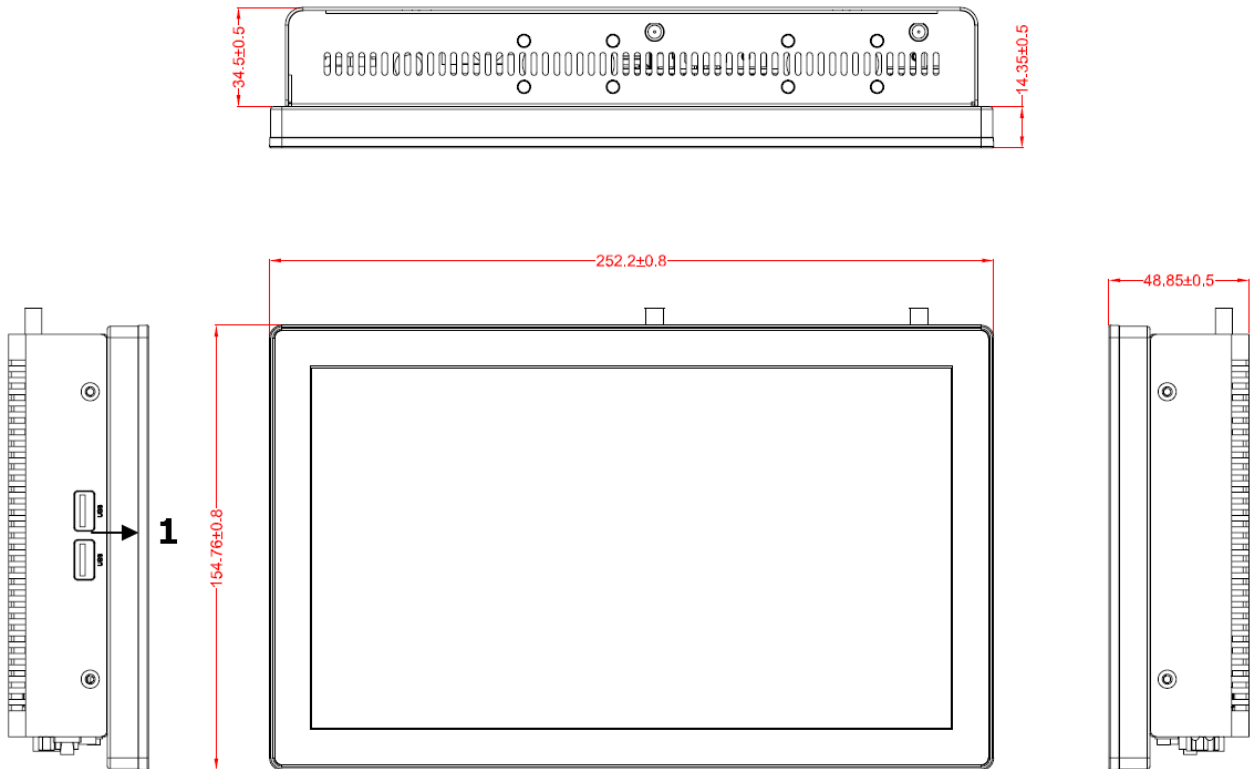
1.4.1 Front & Top View (A1/A2 Version)



Connectors

Label	Function	Note/ Location
COM2	Serial port connector	DB-9 male connector/4
MIC in	Mic in connector	Audio Jack/ 2
Line Out	Line Out connector	Audio Jack/ 3 (By optional)
Antenna	Antenna for WIFI/ BT	(Reserve for Antenna)/ 1

1.4.2 Front & Top View (B1 Version)

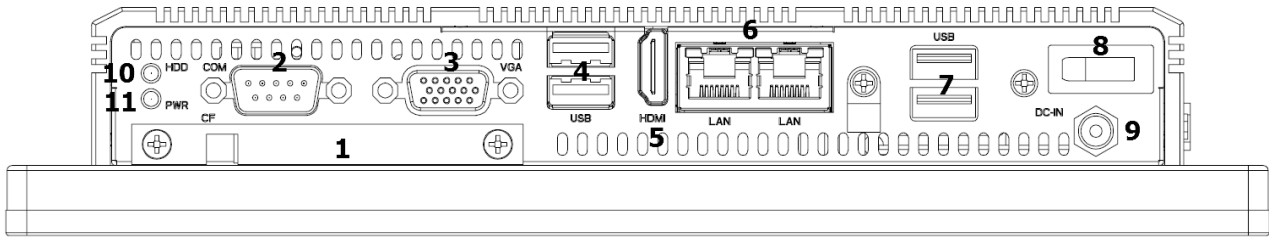


Connectors

Label	Function	Note/ Location
USB	USB connector	USB2.0/ 1

BFC-10W9

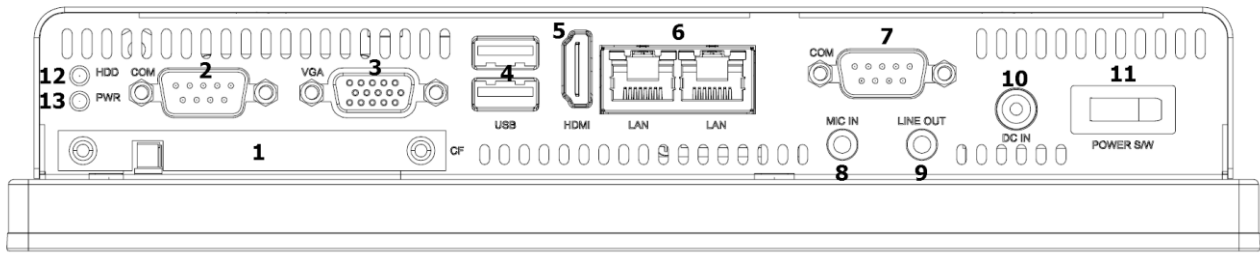
1.4.3 Rear View (A1/A2 Version)



Connectors

Label	Function	Note/ Location
COM1	Serial port connector	DB-9 male connector/ 2
HDMI	HDMI connector	HDMI out/ 5
VGA	VGA connector	VGA Out/ 3
HDD	HDD Indicator	HDD status/ 10
LAN	RJ-45 Ethernet	LAN port/ 6
Power	System power switch	Power on/ off/ 8
USB	USB connector	USB2.0/ 4
PWR	Power Indicator	Power status/ 11
DC-IN	Lockable DC Jack	DC in/ 9
CF	CF card slot	CF/ 1
USB	USB connector	USB2.0/ 7

1.4.4 Rear View (B1 Version)



Connectors

Label	Function	Note/ Location
COM1	Serial port connector	DB-9 male connector/ 2
COM2	Serial port connector	DB-9 male connector/ 7
HDMI	HDMI connector	HDMI out/ 5
VGA	VGA connector	VGA Out/ 3
HDD	HDD Indicator	HDD status/ 12
LAN	RJ-45 Ethernet	LAN port/ 6
Power	System power switch	Power on/ off/ 11
USB	USB connector	USB2.0/ 4
PWR	Power Indicator	Power status/ 13
DC-IN	Lockable DC Jack	DC in/ 10
CF	CF card slot	CF/ 1
Mic in	Mic in connector	Audio Jack/ 8
Line Out	Line Out connector	Audio Jack/ 9

2. Hardware Configuration

For advanced information, please refer to:

- 1- BFC-10W9 Quick Reference Guide or User's Manual
- 2- ECM-BYT included in this manual.

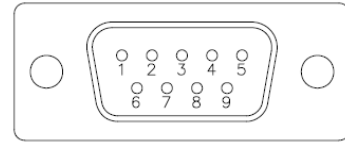
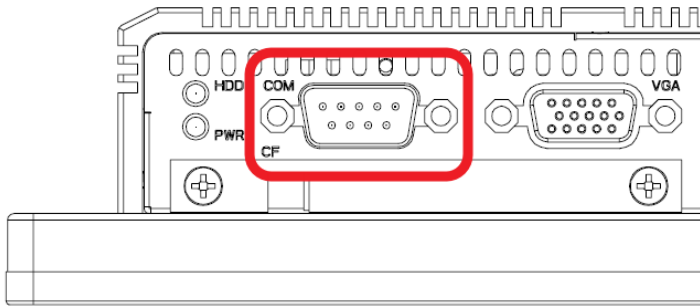


Note: If you need more information, please visit our website:

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

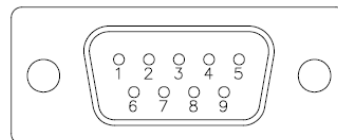
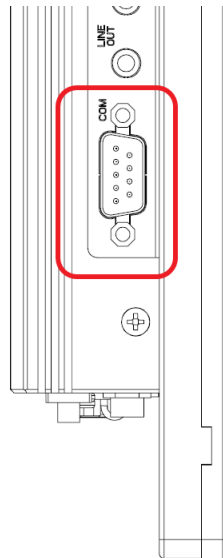
2.1 BFC-10W9 connector mapping (A1/A2 Version)

2.1.1 External Serial Port 1 connector (COM1)



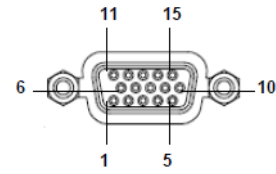
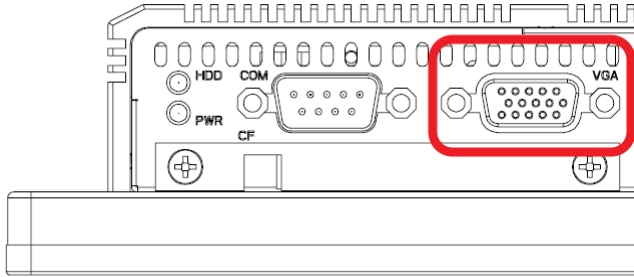
Signal	PIN	PIN	Signal
DCDA#	1	2	RxDA
TxDA	3	4	DTRA#
GND	5	6	DSRA#
RTSA#	7	8	CTSA#
RIA#	9	10	NC

2.1.2 External Serial Port 2 connector (COM2)



Signal	PIN	PIN	Signal
DCDB#	1	2	RxDB
TxDB	3	4	DTRB#
GND	5	6	DSRB#
RTSB#	7	8	CTSB#
RIB#	9	10	NC

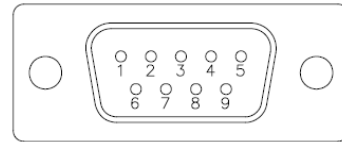
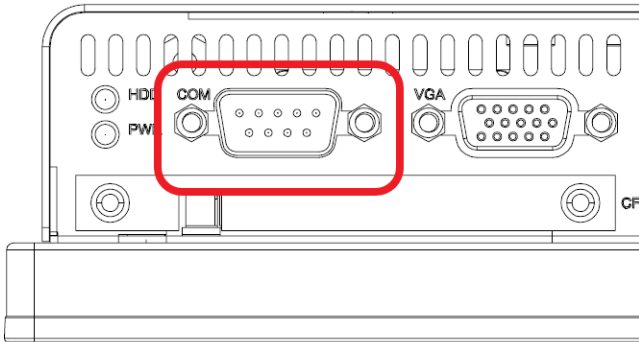
2.1.3 VGA connector (VGA)



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

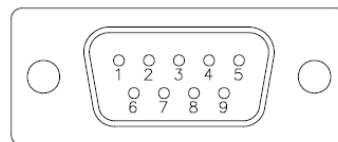
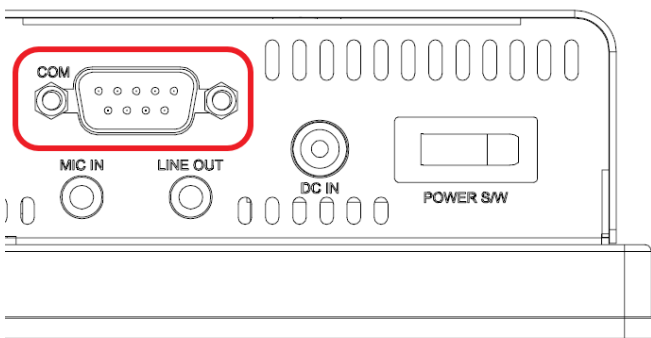
2.2 BFC-10W9 connector mapping (B1 Version)

2.2.1 External Serial Port 1 connector (COM1)



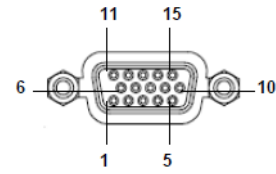
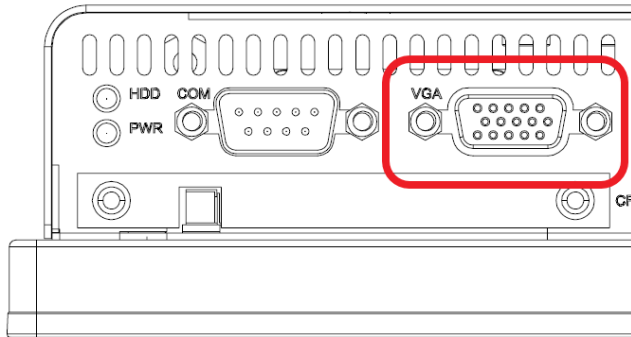
Signal	PIN	PIN	Signal
DCDA#	1	2	RxDA
TxDA	3	4	DTRA#
GND	5	6	DSRA#
RTSA#	7	8	CTSA#
RIA#	9	10	NC

2.2.2 External Serial Port 2 connector (COM2)



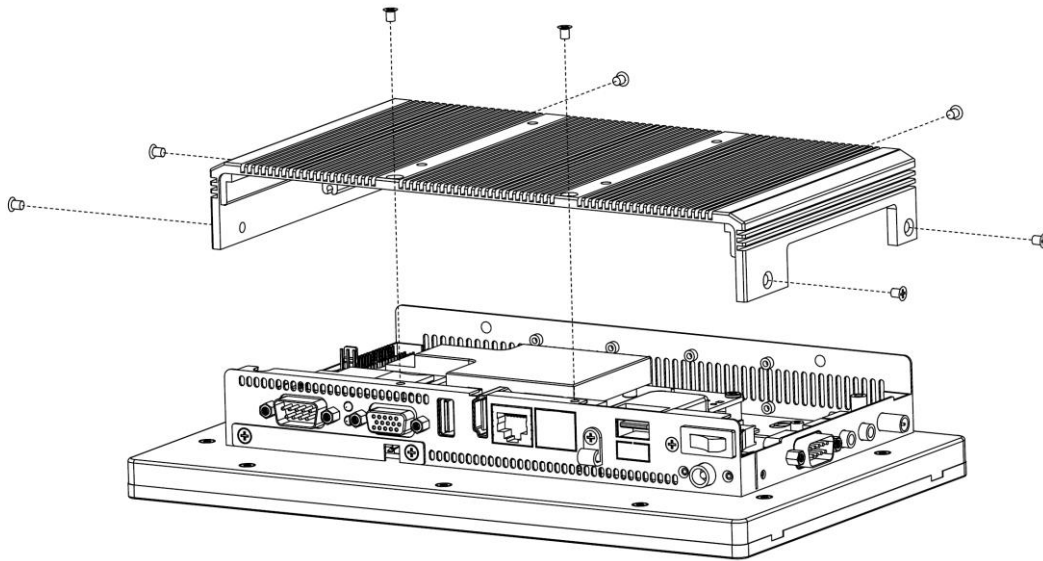
Signal	PIN	PIN	Signal
DCDB#	1	2	RxDB
TxDB	3	4	DTRB#
GND	5	6	DSRB#
RTSB#	7	8	CTSB#
RIB#	9	10	NC

2.2.3 VGA connector (VGA)

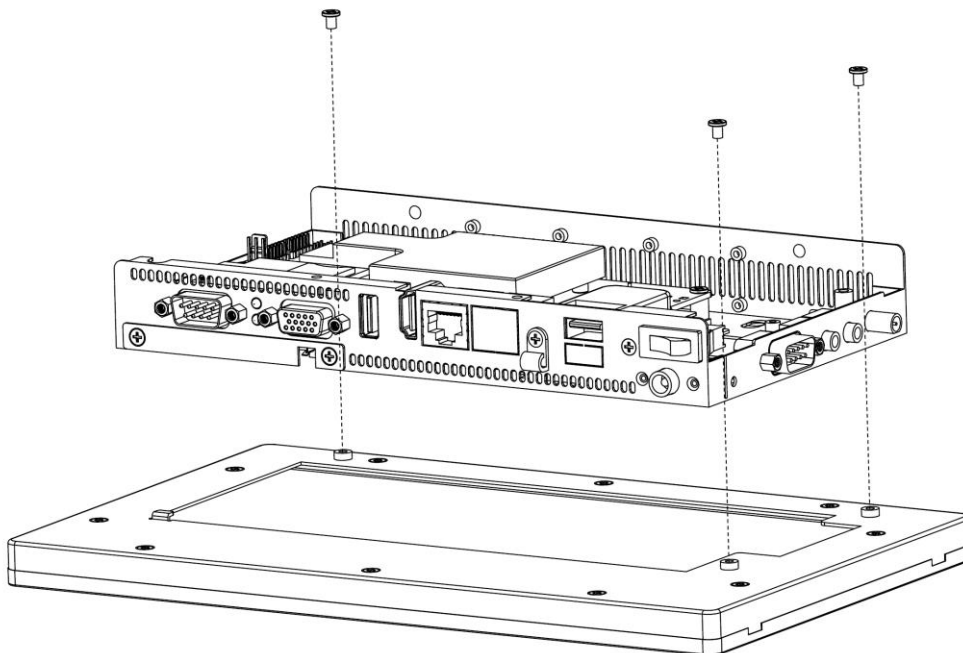


PIN	Signal	PIN	Signal	PIN	Signal
1	R	6	GND	11	NC
2	G	7	GND	12	DATA
3	B	8	GND	13	HSYNC
4	NC	9	+5V	14	VSYNC
5	GND	10	GND	15	CLK

2.3 Installing Memory (BFC-10W9 A1/A2 Version)

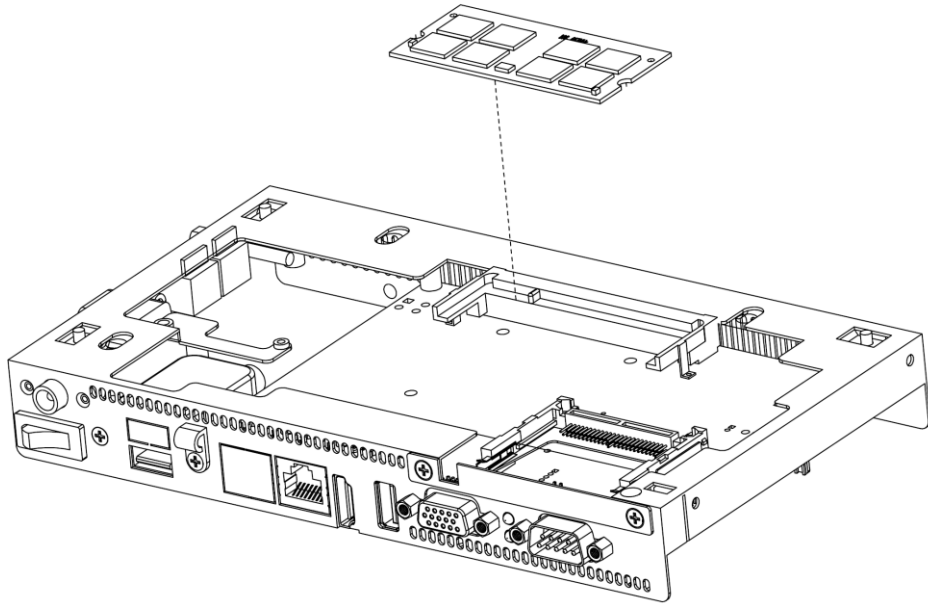


Step 1. Remove the 8 screws to disassemble your system back cover.



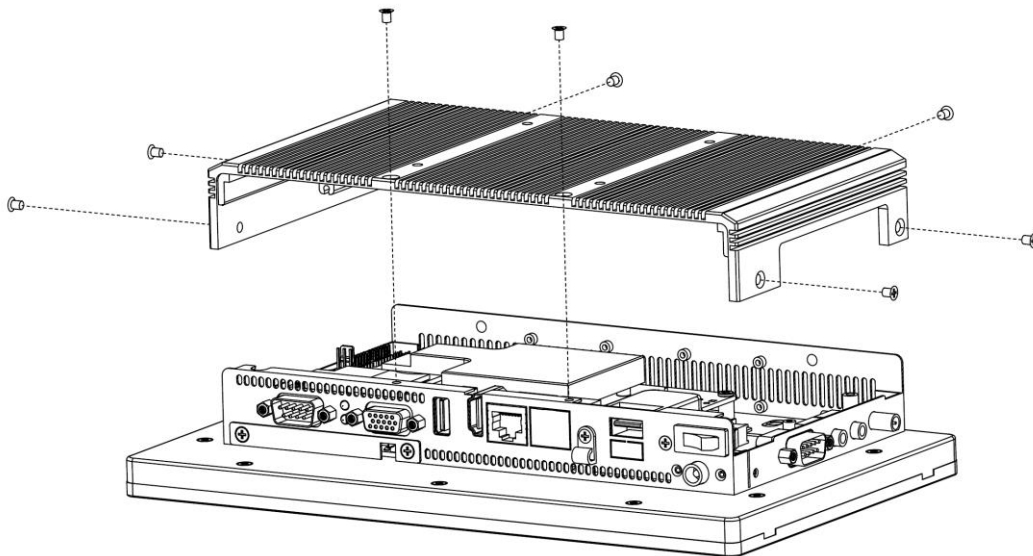
Step 2. Remove the 3 screws to disassemble your panel pc bezel.

BFC-10W9

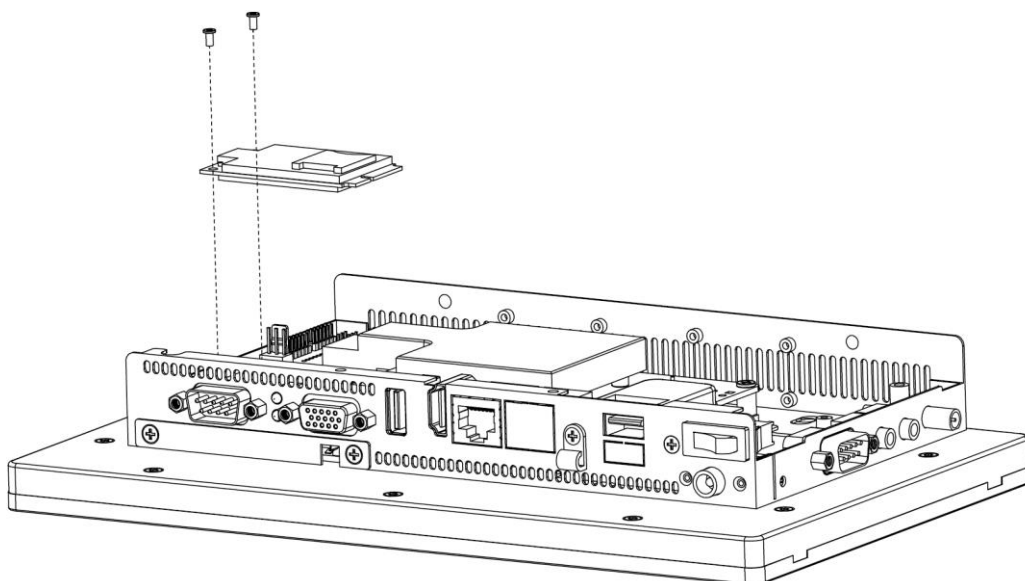


Step 3. Insert DDR3 SO-DIMM memory into the memory socket.

2.4 Installing mini PCIe device (BFC-10W9 B1 Version)



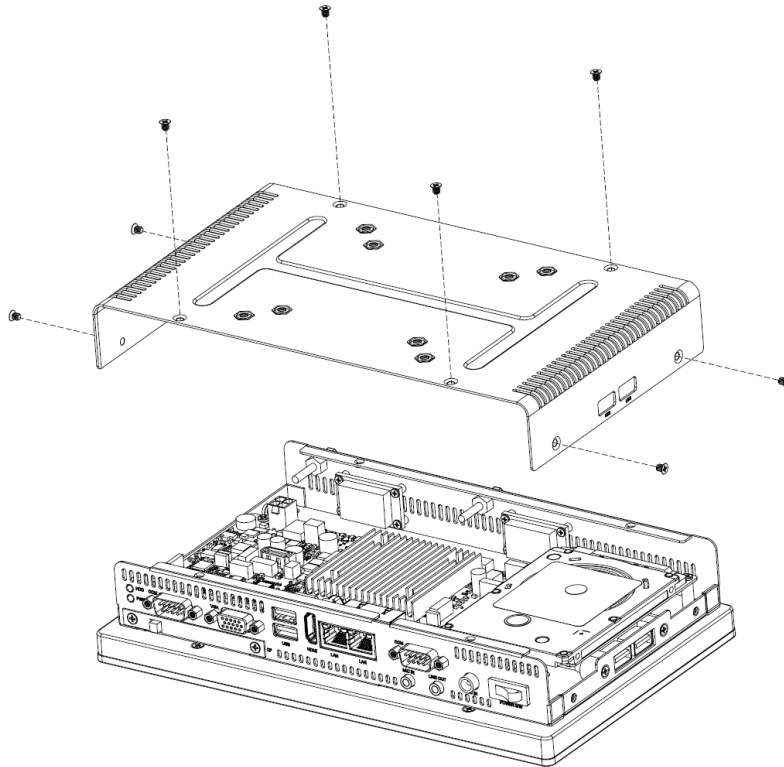
Step1. Remove the 8 screws to disassemble your system back cover.



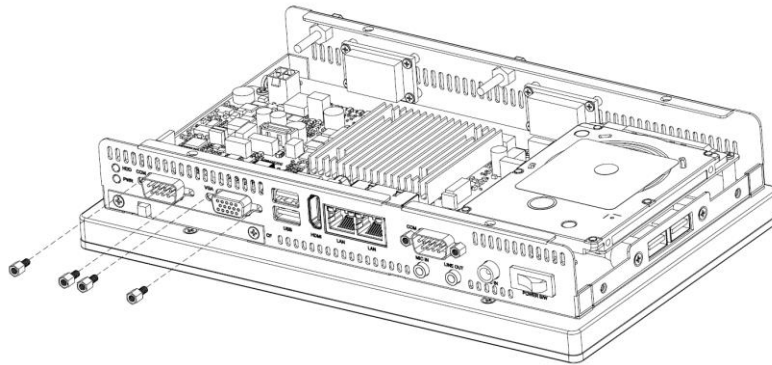
Step2. Please install mini PCIe device, and fasten with 2 screws

Noted: if mini PCIe slot without screw holes, you can just plug in mini PCIe device without fasten screws

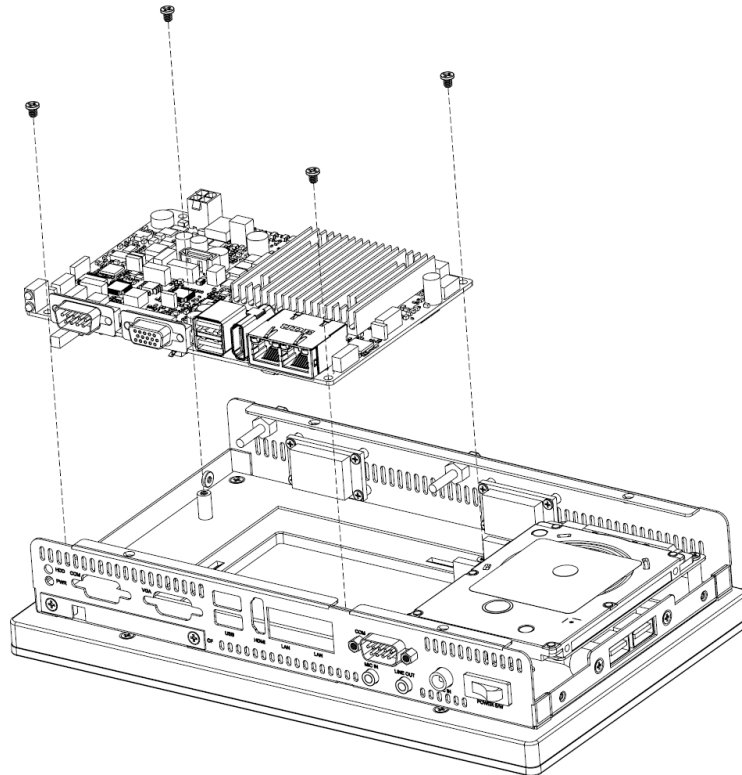
2.5 Installing Memory & mini PCIe device (BFC-10W9 B1 Version)



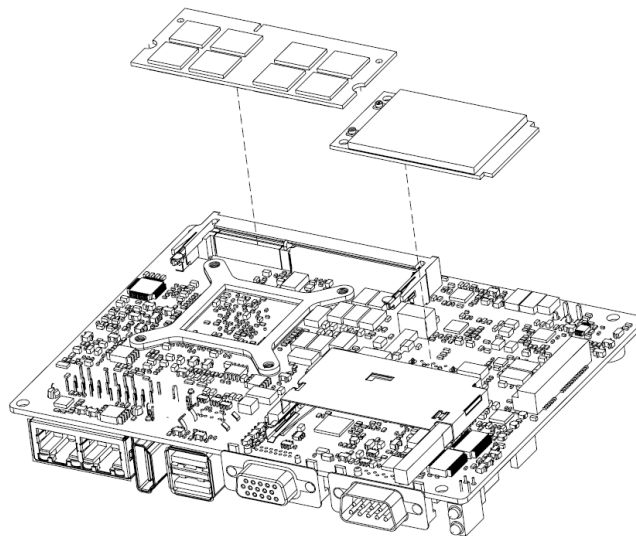
Step 1. Remove the 8 screws to disassemble your system back cover.



Step 2. Remove the 4 screws on COM port and VGA port

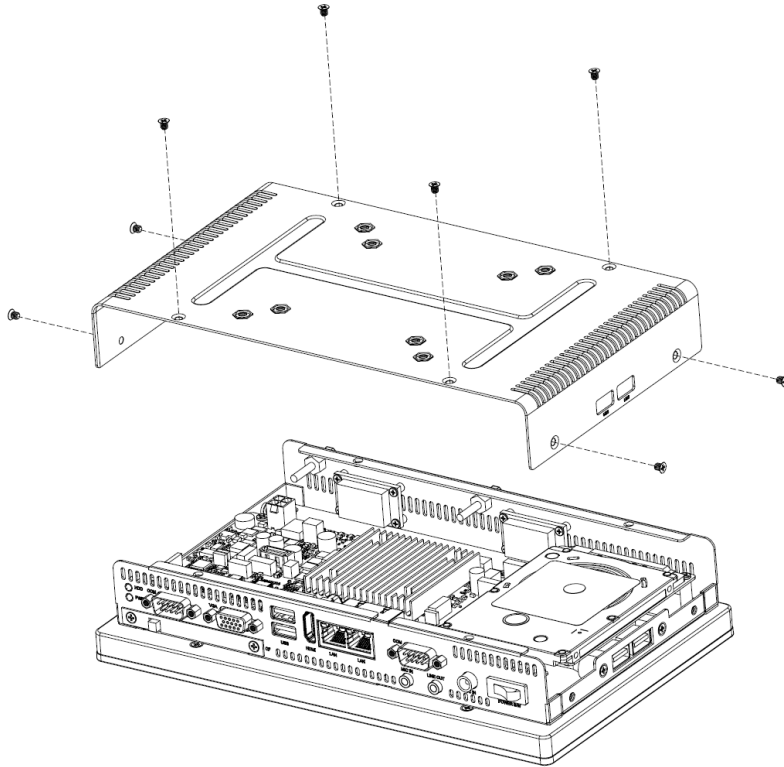


Step 3. Remove 4 screws on SBC and release SBC from the box

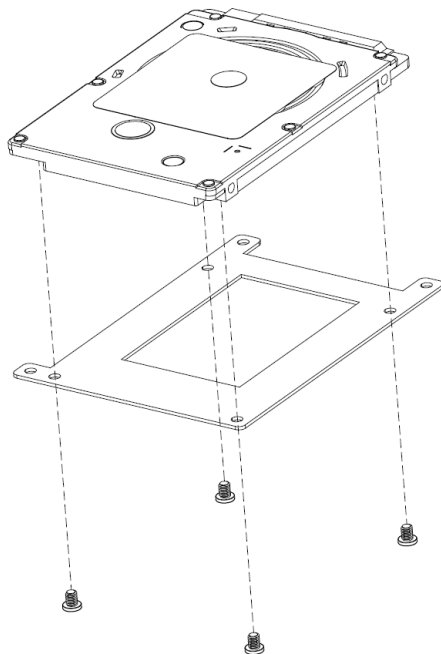


Step 4. Install Memory & mini PCIe device to correct slot.

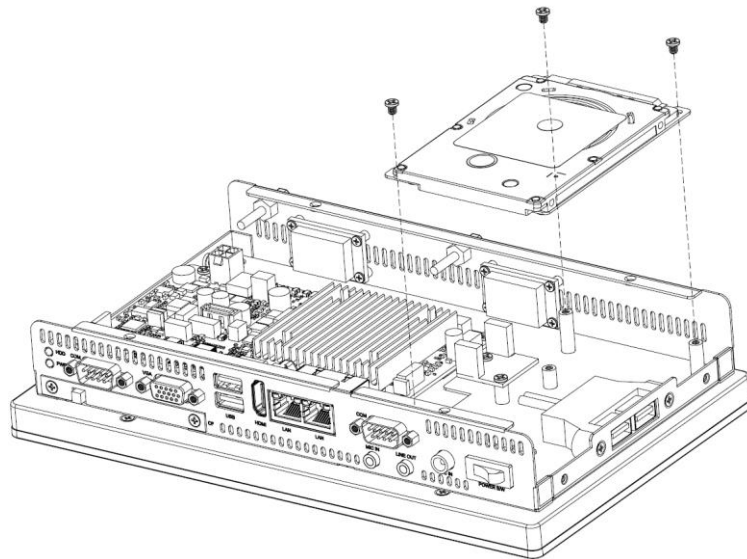
2.6 Installing Storage (BFC-10W9 B1 Version)



Step1. Remove the 8 screws to disassemble your system back cover.



Step2. Fasten your storage (2.5" HDD or SSD) into HDD bracket with 4 screws



Step3. Fasten your storage (2.5" HDD or SSD) on box with 4 screws

