BFC-10W7

10.1" Multifunctional Bezel Free Multi-Touch Panel Computer

Quick Reference Guide

3rd Ed –05 September 2013

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Part No. E201710W7A2R

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-10W7 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.

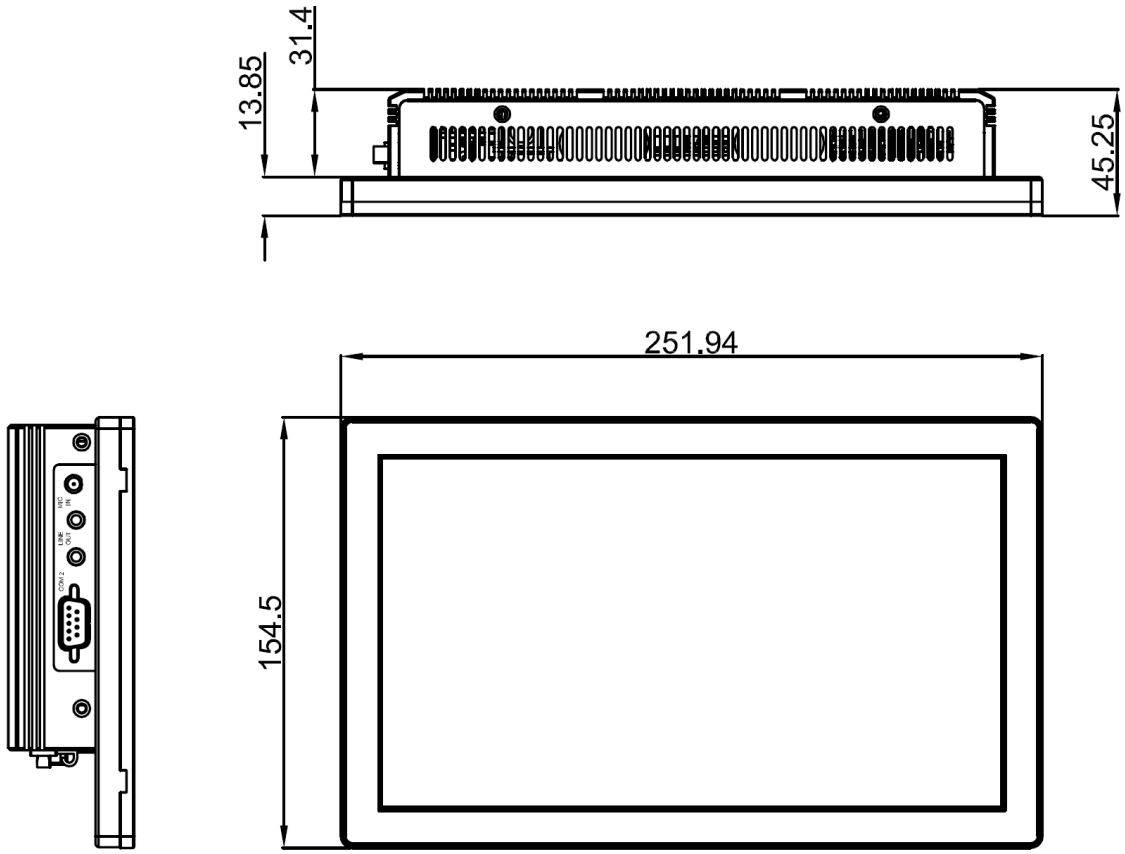
1.3 System Specifications

System	
Board	ECM-CDV
CPU	Intel® Atom™ Dual-Core D2550 1.86GHz CPU
BIOS	AMI 8M-bit SPI BIOS
System Chipset	Intel® NM10 Express Chipset
I/O Chip	Nuvoton W83627DHG-P
System Memory	One SODIMM socket supports up to 4GB DDR3 800/1066 SDRAM
SSD	One CompactFlash Type I/II socket
Hard Driver Bay	Optional One 2.5”HDD or SSD (Total height: 66.05mm)
WiFi	Optional Mini PCIe WiFi 802.11b/g/n
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	
LCD size	10.1", 16:9
Display type	LED
Resolution	1024 x 600
Pixel pitch	0.2175 (H) x 0.2088 (V)
Luminance	200 cd/m²
Contrast ratio	500
Viewing angle	20(U), 45(D), 45(L), 45(R)
Response time	25 ms
Backlight	LED Backlight
Touch Type	Projected Capacitive Touch
Touch Light 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 82574L Gigabit Ethernet)
VGA	1 x HDMI & 1 x VGA
Audio port	1 x Mic in
USB	3 x USB
Speaker	2 x 2W (or optional Line out x 1)

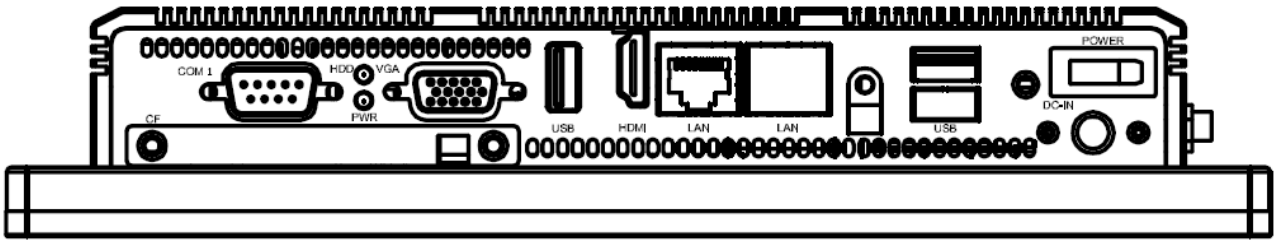
Display	
Chipset	Intel NM10 Express Chipset
Resolution	CRT: up to 2048x1536@ 60 Hz
Dual Display	CRT + LVDS with clone mode
LVDS	Dual 18/24-bit LVDS
Audio	
AC97 Codec	Realtek ALC892 supports 5.1CH Audio
Audio Interface	Line out (audio jack), AMP Line-in, Line-out, Mic-in (in header)
Mechanical & Environmental	
Mounting	Wall/Stand/VESA 75 mm x 75 mm
Power Input	Wall/Stand/VESA 75 mm x 75 mm
Power Output	100~250 Vdc/ 47~63 Hz
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	251.94mm x 154.5mm x 45.25mm
Weight	251.94mm x 154.5mm x 66.05mm (w/ HDD)
Reliability	
EMI Test	CE/FCC Class B
Dust and Rain Test	Front side IP65
Operating Temperature	0°C ~ 40°C
Operating Humidity	0%~90% relative humidity, non-condensing
Storage Temperature	-10°C ~ 60°C

1.4 System Overview

1.4.1 Front & Top View



1.4.2 Rear View



Connectors

Label	Function	Note
COM1~2	Serial port connector1~2	DB-9 male connector
HDMI	HDMI connector	
VGA	VGA connector	
HDD	HDD Indicator	

LAN	RJ-45 Ethernet	
LINE OUT	Line-out audio jack	(optional)
Power	System power switch	
USB	USB connector	
PWR	Power Indicator	
DC-IN	DC power-in connector	
MIC IN	Microphone-in audio jack	

2. Hardware Configuration

For advanced information, please refer to:

1- BFC-10W7 Quick Reference Guide or User's Manual
2- ECM-CDV included in this manual.

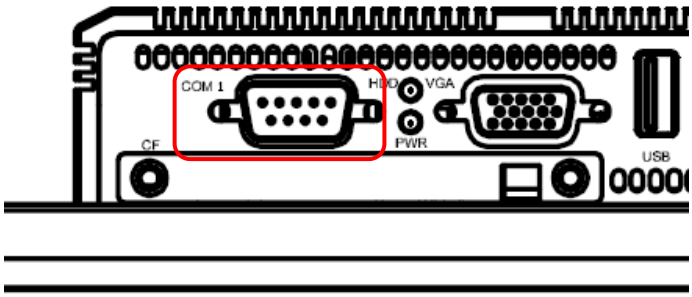


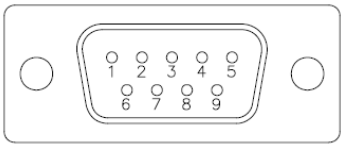
Note: If you need more information, please visit our website:

http://www.avalue.com.tw

2.1 BFC-10W7 connector mapping

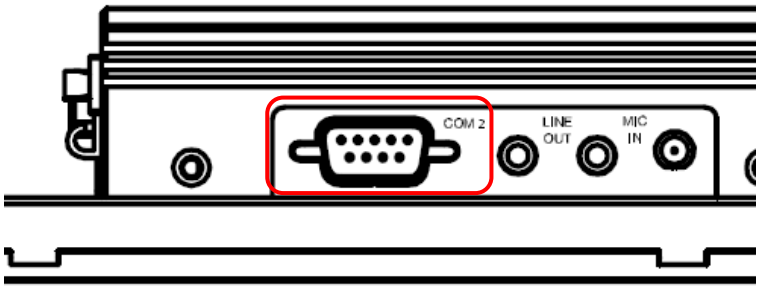
2.1.1 External Serial Port 1 connector (COM1)

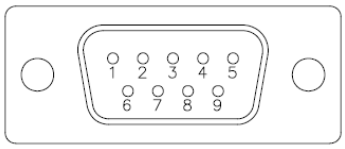




Signal	PIN	PIN	Signal
DCDA#	1	2	RxDA
TxDA	3	4	DTRA#
GND	5	6	DSRA#
RTSA#	7	8	CTSA#
RIA#	9	10	NC

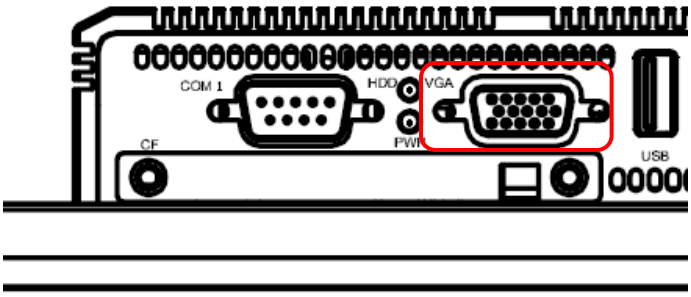
2.1.2 External Serial Port 2 connector (COM2)

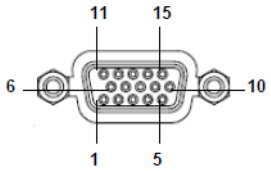




Signal	PIN	PIN	Signal
DCDB#	1	2	RxDB
TxDB	3	4	DTRB#
GND	5	6	DSRB#
RTSB#	7	8	CTSB#
RIB#	9	10	NC

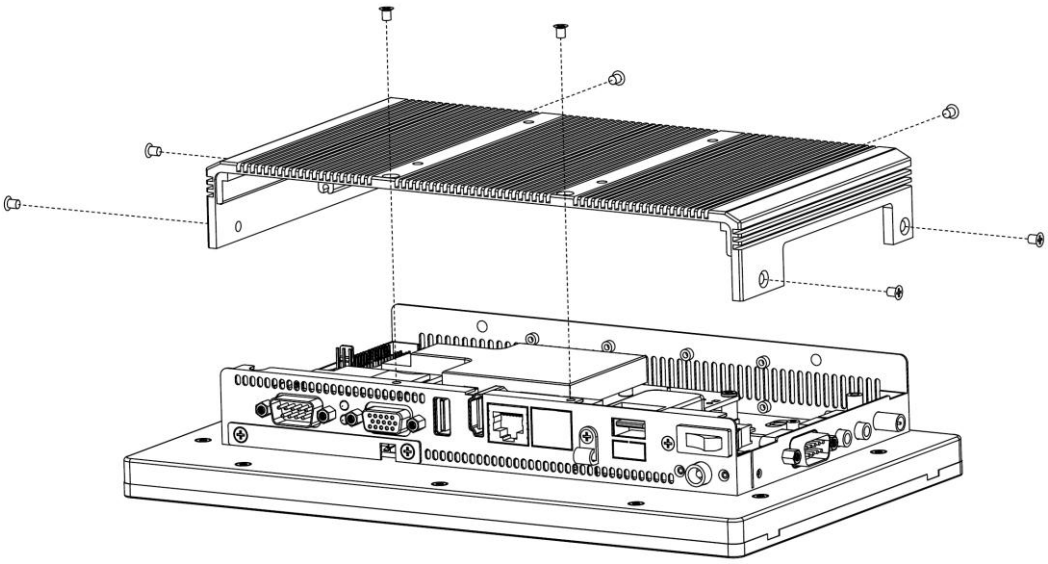
2.1.3 VGA connector (VGA)



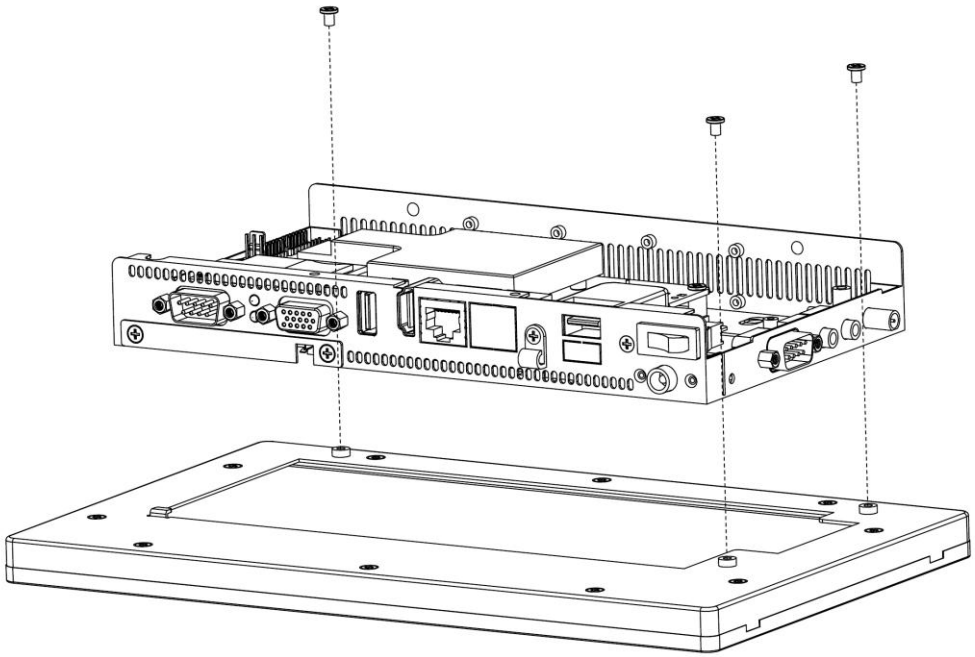


PIN	Signal	PIN	Signal	PIN	Signal
1	R	6	GND	11	NC
2	G	7	GND	12	DATA
3	B	8	GND	13	HSYNC
4	NC	9	+5V	14	VSYNC
5	GND	10	GND	15	CLK

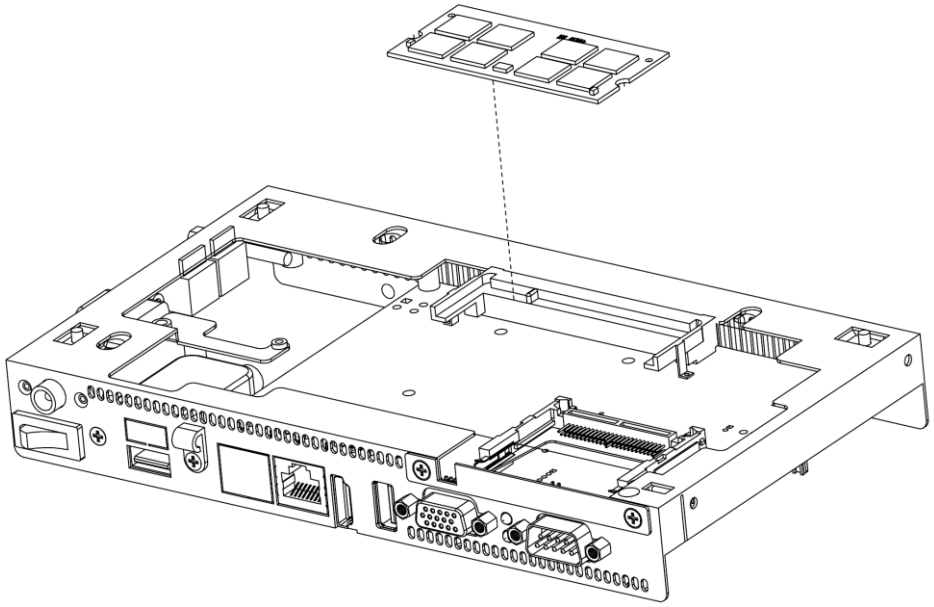
2.2 Installing Memory (BFC-10W7)



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

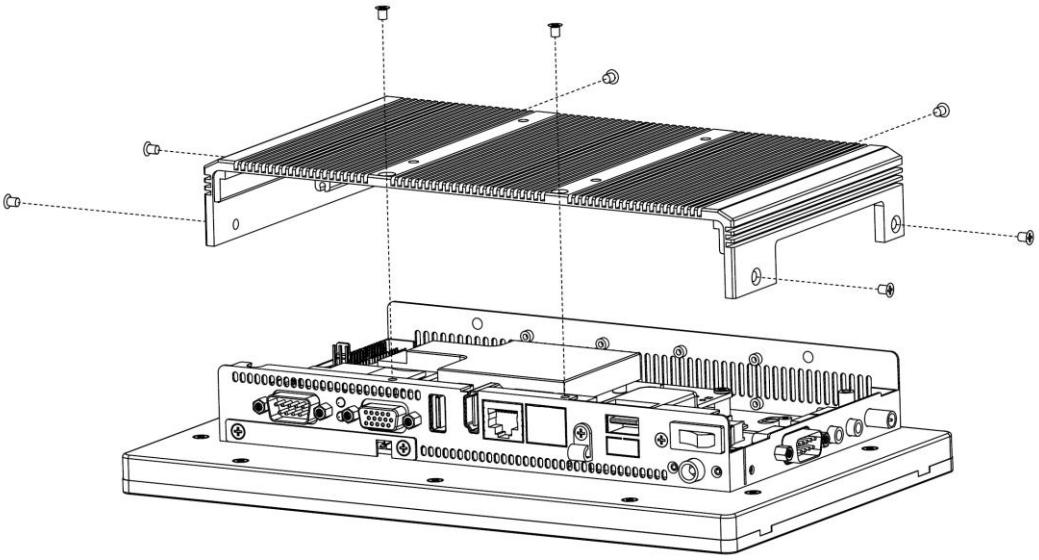


Step 2. Remove the 3 screws to disassemble your panel pc bezel.

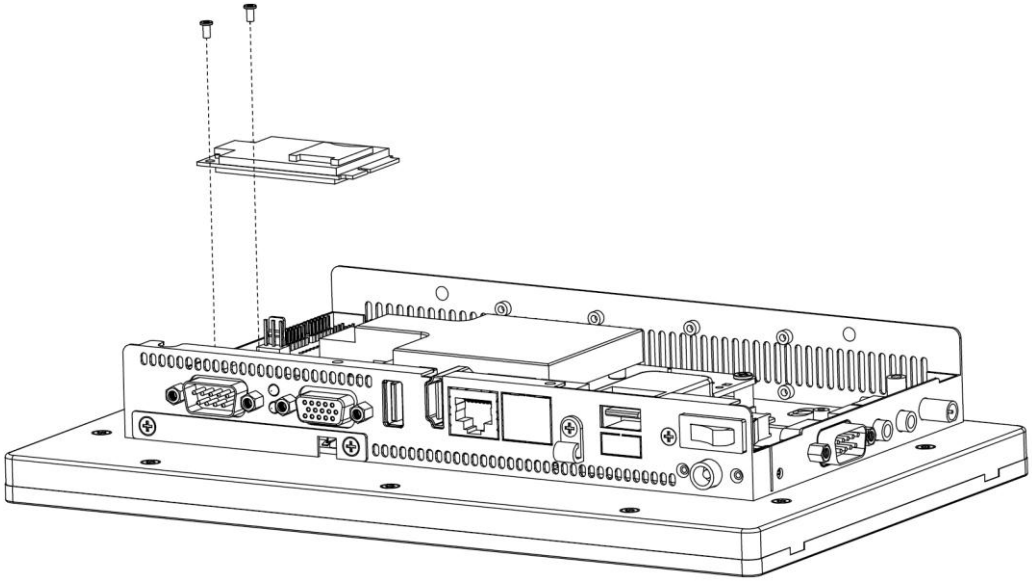


Step 3. Insert DDR3 SO-DIMM memory into the memory socket.

2.3 Installing PCIE device (BFC-10W7)



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



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