CareFusion All-In-One (AIO) PC Platform DMS-SA1300-A1E user manual

Intel® Atomᴛᴍ D2550 CPU

All In One (AIO) panel PC with 15" TFT LCD

Version	Date	TAB Changed	Changes content
0.1	2013/12/26	ALL	1. Establish tab " 1.2 RF Instructions " 2. Establish tab " 2.4 Main Board Jumper Setting & Connector List CIC" 3. Establish tab "2.5 Docking Board Connector List "

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1. INTRODUCTION

The document combines text and illustrations, providing a comprehensive overview of the system. The information is presented as sequential steps of action, allowing the user to learn directly how to use the device.
The text provides explanations and instructs the user step by- step in the practical use of the product, with short, clear instructions in easy-to-follow sequence.

Definitions

WARNING	*A WARNING statement provides important information about a potentially hazardous situation which, if not avoided, could result in death or serious injury.*
CAUTION	*A CAUTION statement provides important information about a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient or in damage to the equipment or other property.*
NOTE	*A NOTE provides additional information intended to avoid inconveniences during operation.*

1.1 Safety Instructions

Strictly follow these Instructions for Use, please read these safety instructions carefully.
Remind to keep this User's Manual for later reference, and any use of the product requires full understanding and strict observation of all portions of these instructions. Observe all WARNINGS and CAUTIONS as rendered throughout this manual and on labels on the equipment.
Repair of the device may also only be carried out by trained service personnel. Advantech recommends that a service contract be obtained with Advantech Service and that all repairs also be carried out by them. Otherwise the correct functioning of the device may be compromised.

WARNING
Because of the danger of electric shock, never remove the cover of a device while it is in operation or connected to a power outlet.
If one of the following situations arises, get the equipment checked by service personnel:
• a. The power cord or plug is damaged.
• b. Liquid has penetrated into the equipment.
• c. The equipment has been exposed to moisture.
• d. The equipment does not work well, or you cannot get it to work according to the user's manual.
• e. The equipment has been dropped and damaged.
• f. The equipment has obvious signs of breakage.
Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning and keep this equipment away from humidity.

CAUTION
To avoid short-circuiting and otherwise damaging the device, do not allow fluids to come in contact with the device. If fluids are accidentally spilled on the equipment, remove the affected unit from service as soon as possible and contact the service personnel to verify that patient safety is not compromised
Put this equipment on a reliable surface during installation. Dropping it or letting it fall may cause damage. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.

CAUTION
To prevent overheating, do not cover the openings and place the device in direct sunlight or near radiant heaters.
Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
Position the power cord so that people cannot step on it. Do not place anything over the power cord.
If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over voltage.

CAUTION
Do not leave this equipment in an uncontrolled environment where the storage temperature is below -20° C (-4° F) or above 60° C (140° F). this may damage the equipment.
If your computer is losing dramatic time or the BIOS configuration reset to default, the battery has no power.
CAUTION
Do not replace battery yourself. Please contact a qualified technician or your retail.
The computer is provided with a battery-powered real-time clock circuit.
There is a danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacture. Discard used batteries according to the manufacturer's instructions
Improper installation of VESA mounting can result in serious personal injury! VESA mount installation should be operated by professional technician, please contact the service technician or your retail if you need this service.
The detail operating procedure specified on Appendix A.
CLASSIFICATION:
• Supply Class I adapter
• No applied part
• Continuous Operation
• Not AP or APG category
WARNING
This device is not suitable for use in the presence of flammable anesthetic mixture with air, oxygen, nitrous oxide, or for life support system.
Maintenance: to properly maintain and clean the surfaces, use only the approved products or clean with a dry applicator.
CAUTION
When servicing the device, always use replacement parts that are qualified to Advantech standards. Advantech Medical cannot warrant or endorse the safe performance of third-party replacement parts for use with our medical device..
Disposing of your old product
Within the European Union

EU-wide legislation, as implemented in each Member State, requires that waste electrical and electronic products carrying the mark (left) must be disposed of separately from normal household waste. This includes monitors and electrical accessories, such as signal cables or power cords. When you need to dispose of your display products, please follow the guidance of your local authority, or ask the shop where you purchased the product, or if applicable, follow any agreements made between yourself. The mark on electrical and electronic products only applies to the current European Union Member States.

1.2 RF Instructions

FCC Warning

15.105 Class B digital device or warning

This equipment has been tested and found to comply with the limits for a Class B digital device,

pursuant to Part 15 of the 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 of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and 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/TV technician for help.

15.21 warning

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

15.19 Labeling

This device complies with Part 15 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.

RF Exposure warning

for mobile devices without co-location condition (the transmitting antenna is installed or located more than 20cm away from the body of user and near by person)

FCC RF Radiation Exposure Statement:

FCC ID : YWX-ES-AIO-02

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

IC Warning

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

1.3 List of Accessories

Before installing your All In One (AIO) panel PC, ensure that the following materials have been received:
• DMS-SA13 All In One (AIO) panel PC
• Accessories for DMS-SA13
  User's manual and Utilities"

Docking station
Adapter

Warning
No user serviceable parts inside, refer servicing to qualified personnel.
Only the accessories indicated on the list of accessories above have been tested and
approved to be used with the device. Accordingly it is strongly recommended that only
these accessories be used in conjunction with the specific device. Otherwise the
correct functioning of the device may be compromised.

1.4 Additional Information and Assistance

Contact your distributor, sales representative, or Advantech's customer service center for
technical support if you need additional assistance. Please have the following information
ready before you call:
• Product name and serial number
• Description of your peripheral attachments
• Description of your software (operating system, version, application software, etc.)
• A complete description of the problem
• The exact wording of any error messages
• This equipment is a source of electromagnetic waves. Before use please, make sure that
there are not EMI sensitive devices in its surrounding which may malfunction therefore.
Environmental protection
• Follow national requirements to dispose of unit.
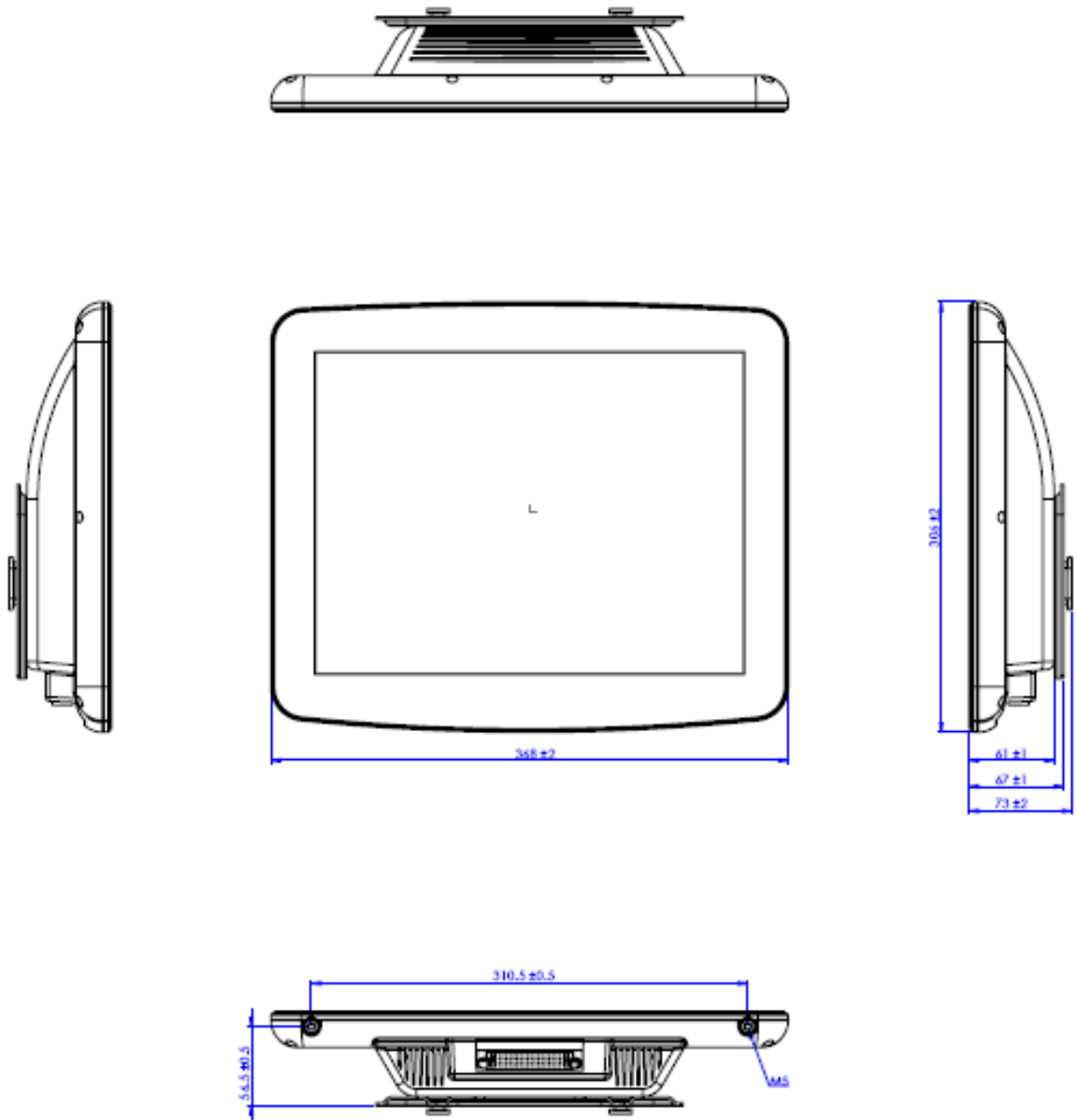
2. GENERAL INFORMATION

2.1 Introduction

The DMS-SA13 is an Intel® Atom™ D2550 Processor 1.86GHz processor-AIO panel PC. It is a PC-based system with 15" color TFT LCD display, without I/O and power input, all I/O and power input are through docking station, the docking station include DC-In、8 USB ports、2 Ethernet ports、Line out and SATA interface, the DMS-SA13 is an user-friendly computer.

2.2 Specifications

Platform Specification	Description	Remark
Processor	Intel D2550 1.8Ghz with 1MBL2 cache	
System Chipset	NM10	
System Memory	DDR3 1333MHz slot x 2(Max 2GB/slot)	
Storage	SATA through Docking	
Display Specification		
Size	15" LED Backlight LCD	Rev A: C3 Rev B: C4
Resolution	1024 x 768	
Brightness (post touch screen)	350 cd/m2	
Contrast Ratio	700:1	
Viewing Angle (H)	140° (min)~160° (typ)	
Viewing Angle (V)	120° (min)~140° (typ)	
Touch	Projected Capacitive	Rev A: AVCT Rev B: Getac
Wireless Communication		
WLAN	802.11b/g/n	Combo card
Bluetooth	Bluetooth 3.0 HS	
Audio		
Internal Speaker	5W x 2	MFG P/N 1750005720-01
Expansion slot		
Mini-card	1 x half size mini card (PCI-E&USB)	For WiFi & BT
Bottom		
Docking Connectors	88pin(51720-10107201) Giga Lan x 2, audio out x 1, USB x 8 ,12V DC, SATA x 1	
Power Source	12V-24V to AIO through docking	
LED indicator	Through docking station	No LED on AIO ID

Button Control	Through docking station	No Button on AIO ID
Mechanical and Environment		
Dimensions (W x L x H)	368x306x73	
Weight	5.5kg	
Operating Temperature	5℃~40℃	
Storage Temperature	-20℃~60℃	
Operating Humidity	15%~85% relative humidity, non-condensing	
Storage Humidity	15%~85% relative humidity, non-condensing	
Transportation	ISTA 2B ISTA 2A	-20℃~50℃ 15%~85% non-condensing Compression Random Vibration, base down for 60 minutes at 2, 4, 100 and 200 Hz Horizontal Impact Rotational Edge Drop -20℃~50℃ 15%~85% non-condensing
OS support	Microsoft Windows Embedded Standard (XP) Microsoft Windows Embedded Standard 7	
Certifications		
EMC	CISPR11 Class B	
	IEC 60601-1-2 Class A (minimal)	
	IEC61000-4-2 Clause 3	IEC61000-4-2, Level 3(6KV/8KV)
	IEC 61000-4-3 Class2	
	IEC61000-4-4	
	IEC61000-4-5	
	IEC61000-4-8	
	IEC61000-6-3 Class B	Generic Emission (must meet with additional 4 dB margin)
Safety	IEC60950-1	
RoHS	Directive 2002/95/EC	

2.3 Dimensions

Unit: mm

VESA Mounting: 100x100mm

Warning: Use suitable mounting apparatus to avoid risk of injury

Cleaning/Disinfecting
During normal use of the DMS-SA13 may become soiled and should, therefore, be cleaned regularly. Agents: Green tinctured soap and Enzymatic detergents
Steps:
1. Wipe the DMS-SA13 with a clean cloth that has been moistened in the cleaning solution.
2. Prepare agent per manufacturer's instructions.
3. Wipe thoroughly with a clean cloth

Cautions
Do not immerse or rinse the DMS-SA13 and its peripherals. If you accidentally spill liquid on the device, disconnect the unit from the power source. Contact your Biomed regarding the continued safety of the unit before placing it back in operation.
Do not spray cleaning agent on the chassis. Do not use disinfectants that contain phenol. Do not autoclave or clean the DMS-SA13 or its peripherals with strong aromatic, chlorinated, ketone, ether, or Esther solvents, sharp tools or abrasives. Never immerse electrical connectors in water or other liquids.

2.4 Main Board Jumper Setting & Connector List
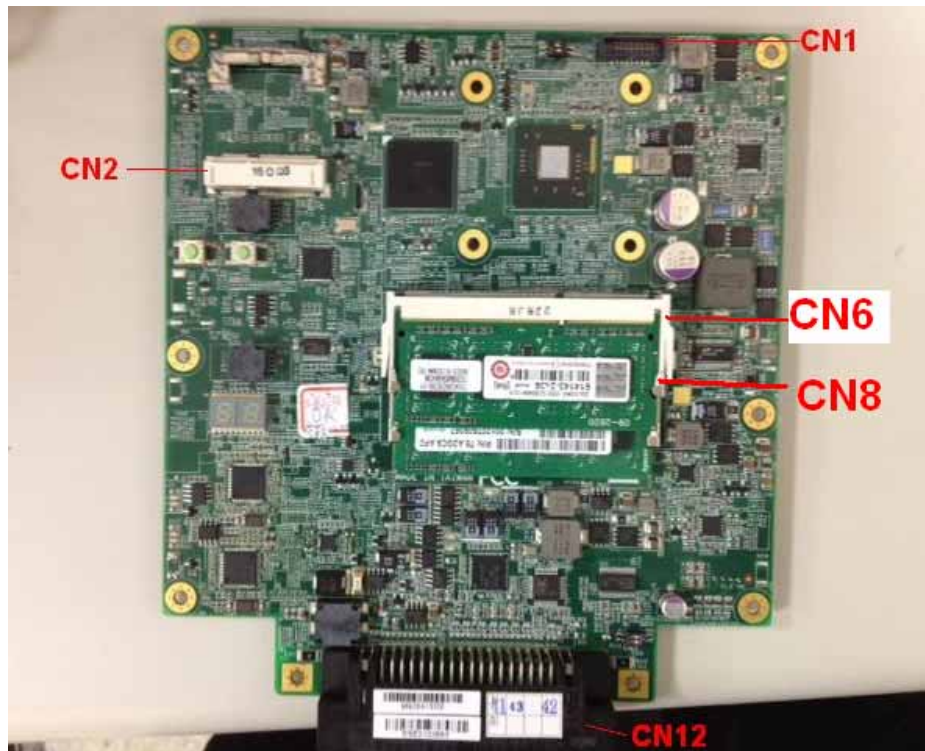
Main board Top side
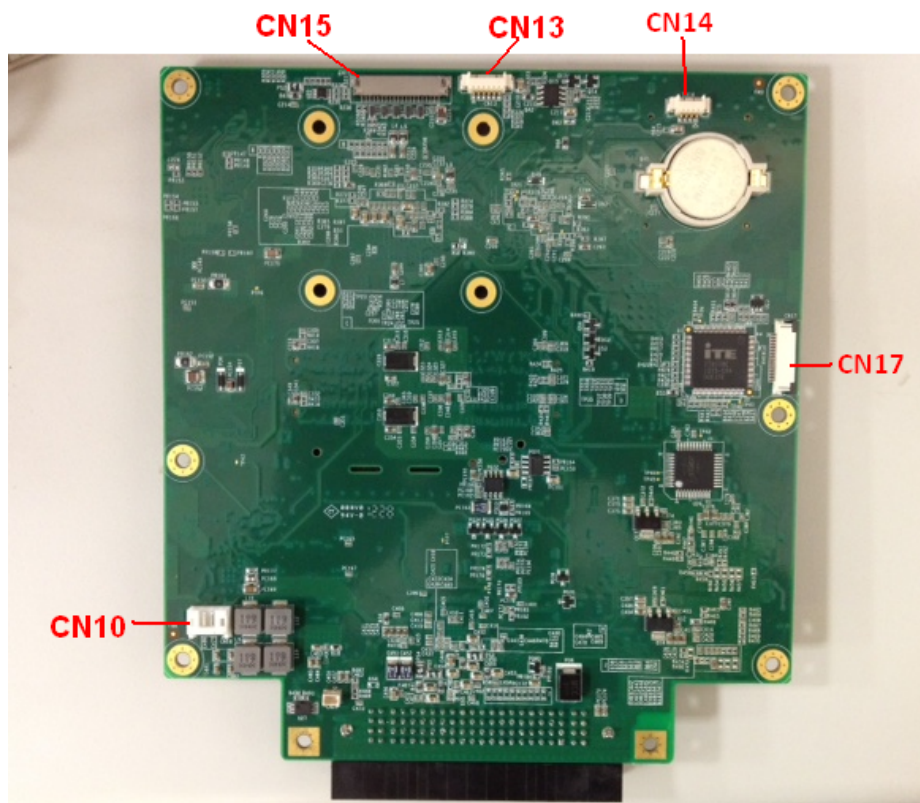
Main board Bottom side

CN1	VGA Setting
Part Number	1653002938
Footprint	HD_8x2P_50_BOX
Description	BOX HEADER 8x2P 1.27mm
Pin	Pin Name
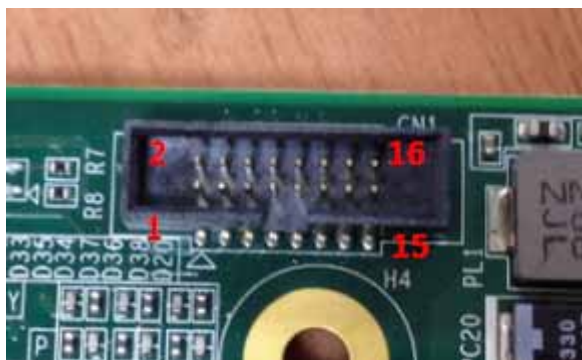
Pin	Part Ref
1	VGA_RED_CONN
2	+V5S_CONN_VGA
3	VGA_GREEN_CONN
4	GND
5	VGA_BLUE_CONN
6	Not Connected to Net
7	Not Connected to Net
8	VGA_DDCSDA_CONN
9	GND
10	CRT_HSYNC_R
11	GND
12	CRT_VSYNC_R
13	GND
14	VGA_DDCSCL_CONN
15	GND
16	Not Connected to Net

CN2	Mini PCIE
Part Number	1654002538
Footprint	FOX_AS0B226-S68K7F
Description	MINI PCI E 52P 6.8mm 90D SMD AS0B226-S68N7H
Pin	Pin Name

Pin	Net Name	Pin	Net Name
1	WAKE_N_R	29	GND
2	+V3.3SB	30	SMB_CLK_RESUME_IO
3	Not Connected to Net	31	PCIE_TX2_C_DN
4	GND	32	SMB_DATA_RESUME_IO
5	Not Connected to Net	33	PCIE_TX2_C_DP
6	+V1.5	34	GND
7	MPCIE_CLKREQ_N	35	GND
8	Not Connected to Net	36	USB_P2_DN_H
9	GND	37	GND
10	Not Connected to Net	38	USB_P2_DP_H
11	CLK_SRC_MINIPCIE_DN	39	+V3.3SB
12	Not Connected to Net	40	GND
13	CLK_SRC_MINIPCIE_DP	41	+V3.3SB
14	Not Connected to Net	42	LED_WWAN

15	GND	43	GND
16	Not Connected to Net	44	LED_WLAN
17	Not Connected to Net	45	Not Connected to Net
18	GND	46	LED_WPAN
19	Not Connected to Net	47	Not Connected to Net
20	WIFI_DISABLE_N	48	+V1.5
21	GND	49	Not Connected to Net
22	PRST_MINI#	50	GND
23	PCIE_RX2_DN	51	BT_DISABLE_N
24	+V3.3SB	52	+V3.3SB
25	PCIE_RX2_DP		
26	GND		
27	GND		
28	+V1.5		

CN10	Speaker
Part Number	1655304120
Footprint	WHL4H-2M_A
Description	WAFER BOX 4P 2.0mm 90D(M) DIP 2001-WR-4 RoHS
Pin	Pin Name
1	AMP_ROUT_N
2	AMP_ROUT_P
3	AMP_LOUT_N
4	AMP_LOUT_P
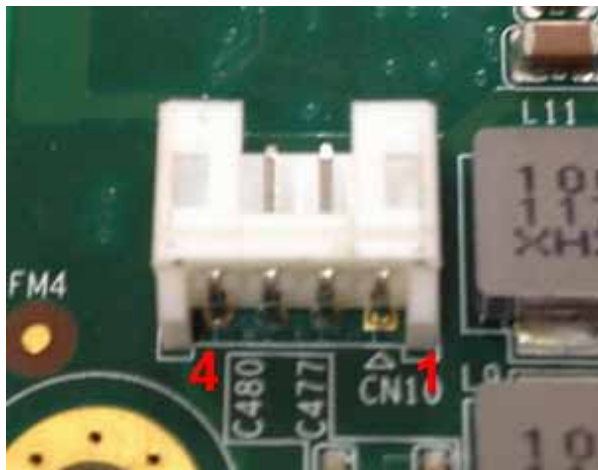
| CN12	Docking Connector (To Docking IO board)
Part Number	1654010250
Footprint	DOCKING_88P_51720-10107201A
Description	Docking CONN. 88P 90D(M) DIP 51720-10107201AALF
Pin	Pin Name

Pin	Net Name	Pin	Net Name	Pin	Net Name
A1	MDI3+_1	B4	GND	D15	TUSB1_z_P+
A10	DK_PWRBTN_D#	B5	MDI1-_1	D16	TUSB0_z_P-
A11	+V5_TUSB23	B6	MDI2-_2	D17	GND
A12	USB5_z_P-	B7	+V1.9_LAN1_B	D18	USB4_z_P+
A13	+V5_USB45	B8	MDI0-_2	D2	GND
A14	+V5_TUSB01	B9	+V1.9_LAN2_B	D3	PLUG_SATA0_RX+
A15	GND	C1	PLUG_SATA0_TX-	D4	GND
A16	SMB_CLK_MAIN	C10	USB7_z_P+	D5	MDI0+_1
A17	FRONT_z_R	C11	TUSB3_z_P-	D6	MDI3+_2
A18	FRONT-JD	C12	GND	D7	MDI1-_2
A2	GND	C13	TUSB2_z_P+	D8	GND
A3	MDI2-_1	C14	TUSB1_z_P-	D9	USB6_z_P+
A4	LAN1_LED1	C15	GND	G1	PGND
A5	MDI1+_1	C16	TUSB0_z_P+	G2	PGND
A6	MDI2+_2	C17	USB4_z_P-	G3	PGND
A7	GND	C18	+V3.3SB	G4	PGND
A8	MDI0+_2	C2	GND	G5	PGND

A9	+V5_USB67	C3	PLUG_SATA0_RX-	G6	PGND
B1	MDI3-_1	C4	LAN2_LED1	G7	PGND
B10	EN_COREPWR	C5	MDI0-_1	G8	PGND
B11	LED_WXAN#	C6	MDI3-_2	H1	PGND
B12	SATA_LED_N	C7	MDI1+_2	H2	PGND
B13	USB5_z_P+	C8	USB6_z_P-	P1	+Vin_a
B14	GND	C9	GND	P2	+Vin_a
B15	GND	D1	PLUG_SATA0_TX+	P3	+Vin_a
B16	SMB_DATA_MAIN	D10	USB7_z_P-	P4	+Vin_a
B17	+V5	D11	GND	P5	+Vin_a
B18	FRONT_z_L	D12	TUSB3_z_P+	P6	+Vin_a
B2	GND	D13	TUSB2_z_P-	P7	+Vin_a
B3	MDI2+_1	D14	GND	P8	+Vin_a

CN13	LED
Part Number	1654906400
Footprint	WHL6HS-125-85204
Description	WAFER 6x1P 1.25mm 90D(M) SMD 85204-06001
Pin	Pin Name
1	+12_INV
2	GND
3	Not connect
4	Not connect
5	MB_LVDS_BKLT_EN
6	MB_LVDS_BKLT_CTRL
7	GND
8	GND
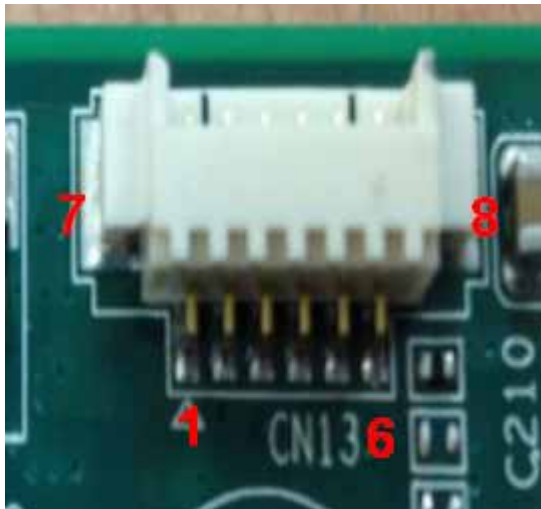
CN14	Touch
Part Number	1654904503
Footprint	WF_4P_49_BOX_RA
Description	WAFER BOX 4x1P 1.25mm 90D(M) SMD 85204-04001
Pin	Pin Name
1	GND
2	USB+
3	USB-
4	+5V
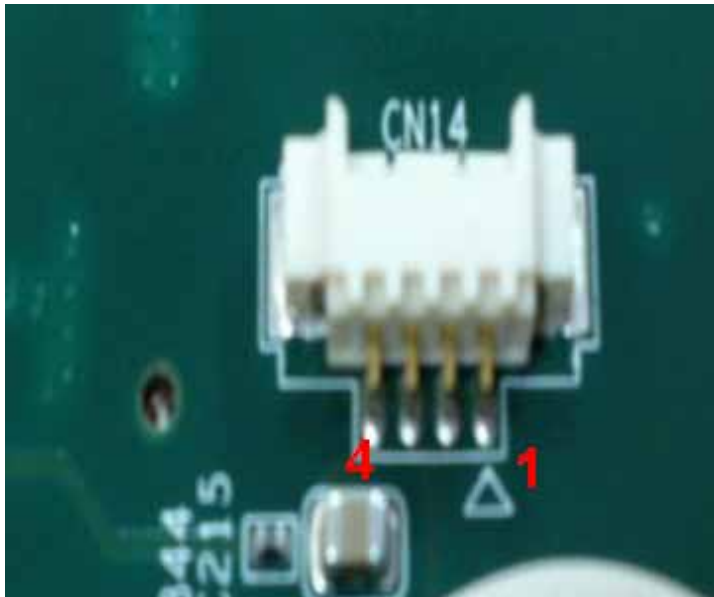
CN15	LVDS
Part Number	1653920140
Footprint	DF19G-20x1H
Description	CONN. 20P 1.0mm 90D(M) SMD DF19G-20P-1H(54)
Pin	Pin Name
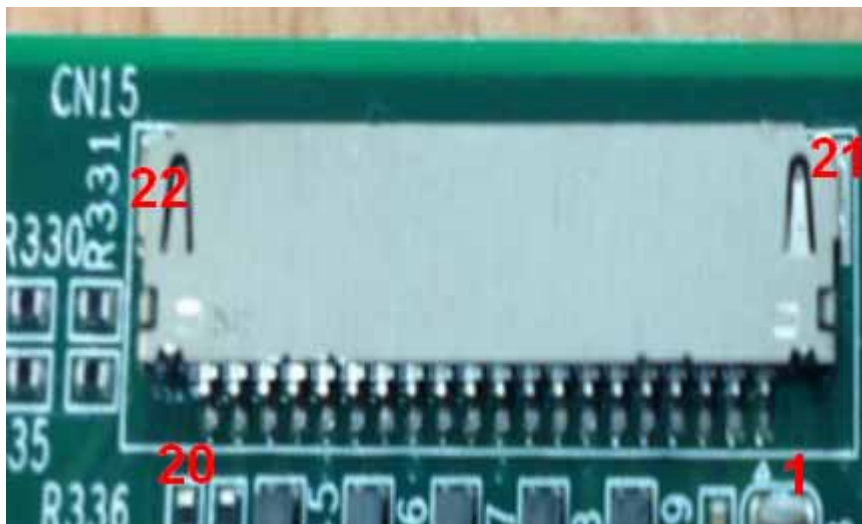
Pin	Net Name	Pin	Net Name
1	+VDD_LCD	12	LVDS_TX2_B_DP
2	+VDD_LCD	13	GND
3	GND	14	LVDS_CLK_B_DN
4	REV_SCAN	15	LVDS_CLK_B_DP
5	LVDS_TX0_B_DN	16	GND
6	LVDS_TX0_B_DP	17	LVDS_TX3_B_DN
7	GND	18	LVDS_TX3_B_DP
8	LVDS_TX1_B_DN	19	N17023703
9	LVDS_TX1_B_DP	20	LVDS_SEL68
10	GND	21	GND
11	LVDS_TX2_B_DN	22	GND

CN17	EC Debug port
Part Number	1654009557
Footprint	FPC24H-05M
Description	FFC/FPC Conn. 24P 0.5mm 90D(F) SMD 52435-2471
Pin	Pin Name
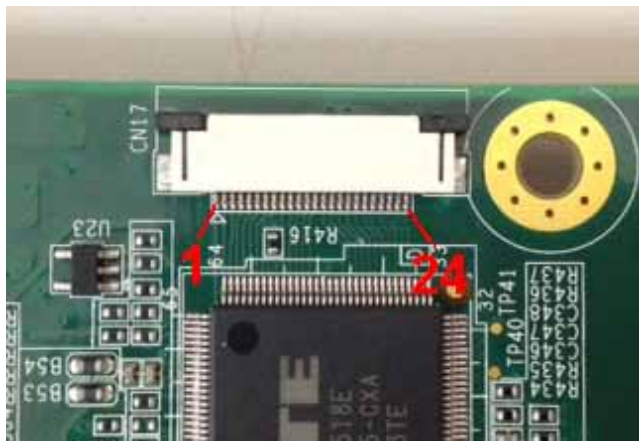
Pin	Net Name	Pin	Net Name
1	EC_KSI7	14	EC_KSO10
2	EC_KSI6	15	EC_KSO9
3	EC_KSI5	16	EC_KSO8
4	EC_KSI4	17	EC_KSO7
5	EC_KSI3	18	EC_KSO6
6	EC_KSI2	19	EC_KSO5
7	EC_KSI1	20	EC_KSO4
8	EC_KSI0	21	EC_KSO3
9	EC_KSO15	22	EC_KSO2
10	EC_KSO14	23	EC_KSO1
11	EC_KSO13	24	EC_KSO0
12	EC_KSO12		
13	EC_KSO11		

2.5 Docking Board Connector List
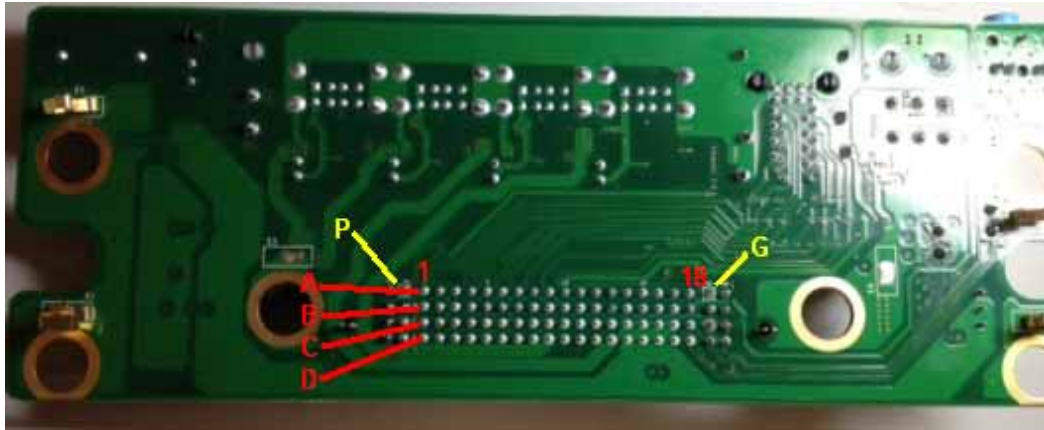
Pin	Description	Pin	Description	Pin	Description	Pin	Description
P1	VIN	P3	VIN	P5	VIN	P7	VIN
P2	VIN	P4	VIN	P6	VIN	P8	VIN
A1(D1)	SATATXP	B1(C1)	SATATXN	C1(B1)	GBE1MID3N	D1(A1)	GBE1MID3P
A2(D2)	GND	B2(C2)	GND	C2(B2)	GND	D2(A2)	GND
A3(D3)	SATARXP	B3(C3)	SATARXN	C3(B3)	GBE1MID2P	D3(A3)	GBE1MID2P
A4(D4)	GND	B4(C4)	GBE2ACTLED	C4(B4)	GND	D4(A4)	GBE1ACTLEDN
A5(D5)	GBE1MID0P	B5(C5)	GBE1MID0N	C5(B5)	GBE1DMID1N	D5(A5)	GBE1DMID1P
A6(D6)	GBE2MID3P	B6(C6)	GBE2MID3N	C6(B6)	GBE2DMID2N	D6(A6)	GBE1DMID2P
A7(D7)	GBE2MID1N	B7(C7)	GBE2MID1P	C7(B7)	GBE1CTREF	D7(A7)	GND
A8(D8)	GND	B8(C8)	USB7_0N	C8(B8)	GBE2MID0N	D8(A8)	GBE2MID0P
A9(D9)	USB7_0P	B9(C9)	GND	C9(B9)	GBE2CTREF	D9(A9)	USB67_VCC
A10(D10)	USB7_1N	B10(C10)	USB7_1P	C10(B10)	PSON#	D10(A10)	PWRBTN#
A11(D11)	GND	B11(C11)	USB3N	C11(B11)	WIRELESSLED#	D11(A11)	USB23_VCC
A12(D12)	USB3P	B12(C12)	GND	C12(B12)	DISKLED#	D12(A12)	USB5N
A13(D13)	USB2N	B13(C13)	USB2P	C13(B13)	USB5P	D13(A13)	USB45_VCC
A14(D14)	GND	B14(C14)	USB1N	C14(B14)	GND	D14(A14)	USB01_VCC
A15(D15)	USB1P	B15(C15)	GND	C15(B15)	GND	D15(A15)	GND
A16(D16)	USB0N	B16(C16)	USB0P	C16(B16)	SMBDATA	D16(A16)	SMBCLK
A17(D17)	GND	B17(C17)	USB4N	C17(B17)	VCC5	D17(A17)	LINEOUT-R
A18(D18)	USB4P	B18(C18)	3VDUAL	C18(B18)	LINEOUT-L	D18(A18)	JACK_DETECT
G1	GND	G3	GND	G5	GND	G7	GND
G2	GND	G4	GND	G6	GND	G8	GND

3. SYSTEM SETUP

3.1 A Quick Tour of the DMS-SA13

Before you start to set up the DMS-SA13, take a moment to become familiar with the locations and purposes of the controls, drives, connections and ports, which are illustrated in the figures below. This device do not have HDD inside the unit, to running this device correct, you need connect a docking board to have connection to HDD and power.

When you place the DMS-SA13 upright on the desktop, its front panel appears as shown in Figure 2-1.

3.1.1 Front view

3.1.2 Rear view

When you turn the DMS-SA13 around and look at its rear cover, as shown in Figure 2-2,

3.2 Installation Procedures

3.2.1 Connecting the power cord to system

The DMS-SA13 could only be powered by a DC power adapter with docking station.

Be sure to always handle the power cords by holding the plug ends only.

Follow these procedures in order:

1. Connect the DMS-SA13 into docking station then connect female end of the power adapter to the DC-in of the docking station.

(See Figure 2-4.)

2. Connect the female end of the power cord to the DC power adapter

Figure 2-4

3.2.2 Switch on the power

Press the power button on the right-hand side of docking station to power on the system.

3.3 Running the BIOS Setup Program

Your DMS-SA13 is likely to have been properly set up and configured by your dealer prior to delivery. You may still find it necessary to use the BIOS (Basic Input-Output System) setup program to change system configuration information, such as the current date and time or your type of hard drive. The setup program is stored in read-only memory. It can be accessed either when you turn on or reset the panel PC, by pressing the " Crtl+Alt+Del " key on your keyboard immediately after powering on the computer. Then press "Del" to get into BIOS, and it require a password "U$th3forc3" before get into set up menu.

The settings you specify with the setup program are recorded in a special area of memory called CMOS RAM. This memory is backed up by a battery so that it will not be erased when you turn off or reset the system. Whenever you turn on the power, the system reads the settings stored in CMOS RAM and compares them to the equipment check conducted during

the power on self-test (POST). If an error occurs, an error message will be displayed on screen, and you will be prompted to run the setup program. The current firmware versions, default settings, and options for the BIOS appear in the Appendix.

3.4 Installing System Software

Recent releases of operating systems from major vendors include setup programs which load automatically and guide you through hard disk preparation and operating system installation. The guidelines below will help you determine the steps necessary to install your operating system on the panel PC hard drive.

Note

Some distributors and system integrators may have already pre-installed system software prior to shipment of your DMS-SA13.

If required, insert your operating system's installation or setup diskette into the external diskette drive until the release button pops out.

The BIOS supports system boot-up directly from the CD-ROM drive. You may also insert your system installation CD-ROM disk into your external CD-ROM drive.

Power on or reset the system by pressing the "Ctrl"+"Alt"+"Del" keys simultaneously. The Ubiquitous Touch Computer will automatically load the operating system from the diskette or CD-ROM.

If you are presented with the opening screen of a setup or installation program, follow the instructions on screen. The setup program will guide you through preparation of your hard drive, and installation of the operating system.

3.5 Installing the Drivers

After installing your system software, you will be able to set up the Chipset, Graphics, Ethernet, audio and touch screen functions by your own external CD-ROM drive. All the drivers except the CD-ROM drive driver are stored in a CD-ROM disc entitled "Drivers and Utilities."

The various drivers and utilities in the CD-ROM disc have their own text files which help users install the drivers and understand their functions. These files are a very useful supplement to the information in this manual.

For your reference, the directory of drivers on the "Drivers and Utilities" CD-ROM "d:\driver" folder

Note

The drivers and utilities used for the DMS-SA13 panel PCs are subject to change without notice. If in doubt, check Advantech's website or contact our application engineers for the latest information regarding drivers and utilities.

4. ADDENDUM

4.1 Firmware Version History

All-In-One		BIOS (project version)	EC	Notes
(CFN P/N & Rev)	(ADV P/N & Rev)			
353475-01 A	DMS-SA1300-A1E	SA13X007	0006	Initial Production Release
353475-01 B	DMS-SA1300-A1E	SA13X007	0006	Change Antenna to meet FCC certification

4.2 BIOS settings and options

Default is the underlined _italic_ where applicable	
Main Tab	
BIOS Information	Display the vendor, core version, etc.
System Language	Allows the user to set the system default language: _English_ or _French_.
System Date	Allows the user to set the date on the system real-time clock RTC. Navigate to the month, day, or year and type in the correct numeric value.
System Time	Allows the user to set the time on the RTC. Navigate to the hour, minute, or second and type in the correct numeric value.
Access level	Display _Administrator_
Advanced Tab	
ACPI Settings	Selecting item presents new screen for the following options.
*Enable Hibernation	_Enable_ or _disable_
*ACPI Sleep State	Highest ACPI sleep state the system will enter when the SUSPEND button is pressed: _Suspend disabled, S1 (CPU Stop clock), and S3 (Suspend to RAM)_.
CPU Configuration	Selecting item presents new screen for the following options.
*CPU information	Display the type, speed, etc.
IDE Configuration	Selecting item presents new screen for the following options.
*SATA Controller(s)	Options: _Enable_ or _disable_
*Configure SATA as	Subsection when SATA controller is Enabled. Select a configuration for SATA controller: _IDE_ or _AHCI_.
USB Configuration	Selecting item presents new screen for the following options.
*USB devices	Display the number of devices seen <e.g. keyboard, 2 mice, 3 hubs, etc.>
*Legacy USB Support	Options: _Enabled_ - Supports USB devices. _Disabled_ - Supports USB devices only for EFI applications. _Auto_ - Disable USB devices support if devices are not connected.

Super IO Configuration	Selecting item presents new screen for the following options.
*Super IO chip	Display the super IO device
*H/W monitor	Selecting item to presents new screen containing PC voltage(s) and temperature(s)
<u>Chipset Tab</u>	
Host Bridge	Selecting item presents new screen for the following options.
*Memory frequency and timing	Selecting item presents new screen for the following options.
**MRC fast boot	Options: <u>*Enable*</u> or *disable*
**Dyn SR	Options: <u>*Enable*</u> or *disable*
*Intel IGD configuration	Selecting item presents new screen for the following options.
**IGFX - Boot type	Options: <u>*VBIOS default,*</u> *LFP, EFP, LFP+EFP*
**LCD Panel type	Options: <u>*VBIOS default,*</u> *1024x768, 1280x1024, 1366x768, 1224x600, 1280x800*
**Fixed Graphic Memory Size	Options: *128MB.* <u>*256MB*</u>
*Memory information	Display the frequency, total present, and value per slot
South Bridge	Selecting item presents new screen for the following options.
*Azalia Controller	Options: <u>*HD Audio*</u> or *disable*
<u>Boot Tab</u>	
Setup Prompt Timeout	Number of seconds to wait for the setup activation key: <u>*1*</u> to *65535 (0xFFFF)*. Indefinite waiting is invoked by entering 65535.
Bootup Numlock State	Keyboard Num lock state: <u>*On*</u> or *Off*.
Quiet Boot	Determines if the BIOS should hide the normal POST messages with the motherboard or system manufacturer's full-screen logo. When it is enabled, the BIOS will display the full-screen logo during the boot-up sequence, hiding normal POST messages. When it is disabled, the BIOS will display the normal POST messages, instead of the full-screen logo: *Enable* or <u>*disable*</u>.
Option ROM Messages	Display mode for option ROM: <u>*Force BIOS*</u> or *keep current*.

Set Boot Priority	Sets the default boot order of the devices connected based on device type.
	
	The default behaviors are as follows for no change in original configuration:
	    system boots from the SATA lines if the hard drive is good
	    system boots back to the BIOS login if the hard drive is bad, corrupted, or missing
	  The USB or PXE behaviors are as follows:

	system boots from the selected path then reverts back to the default behavior for subsequent boots after USB or PXE is removed.
<u>Security Tab</u>	
Administrator Password	Limits access to changing the BIOS setup. It is only asked when attempting to enter BIOS setup if User Password is not assigned. The default Password is U$3th3forc3.
User Password	Set User password to access BIOS. No default password is assigned.
HDD Security configuration	Display header.
HDD <port # & mfg name>	The port # and manufacturer name appear for a functional drive(s). If device(s) supports security, selecting item presents new screen for the following options for each drive.
*HDD information	Display the types of security supported and status of each.
*Set User Password	Set User password to access drive. No default password is assigned.
*Set Master Password	Set Master password to enable drive security. No default password is assigned.
<u>Save & Exit Tab</u>	
Save Changes and Exit	When you have completed the system configuration changes, select this option to leave BIOS setup environment and the new system configuration parameters can take effect.
Discard Changes and Exit	Leave BIOS setup environment without saving any changes.
Save Change and Reset	Leaves the BIOS setup environment with saving any changes and reboots the computer so the new system configuration parameters can take effect.
Discard Changes and Reset	Reboot the computer without saving any changes
Restore Defaults	Load default value for all setup options.
Save as User Defaults	Save the changes done so far as user default.
Restore User Defaults	Restore the user default to all the setup options.
Boot Override	Immediately following this header is a list of bootable devices. Upon selecting a device that is not the default Boot device, the BIOS will restart and boot from that selection once. Then, any subsequent soft or hard boots will be with the default device.
Launch EFI from file/system device	Attempts to launch EFI shell application from one of the available file system devices.
<u>Keys' function</u>	
Up/Down arrows (↑/↓)	Select item
Left/Right arrows (←/→)	Select screen
Enter	Select

Plus/Minus (+/-)	Change option
F1	General Help
F2	Previous value
F3	Optimized or defaults
F4	Save and Exit
F10	Save and Reset
ESC	Exit
<u>Advanced Functionalities</u>	The following capabilites are required for the BIOS if applicable. Their specific location within the BIOS is not critical.
Intel Fast Flash Standby	Selecting item presents new screen for the following options.
*iFFS Support	Options: *Enable* or <u>*Disable*</u>
EC version	Display the F/W version of embedded controller
Launch PXE OpROM	Boot option for legacy network device: *Enable* or <u>*disable*</u>.
Notes: "*" – Denotes an item not appearing on the initial "Tab". The item is a sub or alternate selection after choosing the higher level option.	