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ADVANTECH DSD-5038 38 Inch Stretched Display User Manual

ADVANTECH
Enabling an Intelligent Planet

User Manual

DSD-5038 Series
38″ Industrial Stretched Signage
Display Monitor

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Product Warranty (2 years)

Advantech warrants the original purchaser that each of its products will be free from defects in materials and workmanship for two years from the date of purchase. This warranty does not apply to any products that have been repaired or altered by persons other than repair personnel authorized by Advantech, or products that have been subject to misuse, abuse, accident, or improper installation. Advantech assumes no liability under the terms of this warranty as a consequence of such events.

Because of Advantech's high quality-control standards and rigorous testing, most customers never need to use our repair service. If an Advantech product is defective, it will be repaired or replaced free of charge during the warranty period. For out-of-warranty repairs, customers will be billed according to the cost of replacement materials, service

time, and freight. Please consult your dealer for more details. If you believe your product to be defective, follow the steps outlined below.

1. Collect all the information about the problem encountered. (For example, CPU speed, Advantech products used, other hardware and software used, etc.) Note anything abnormal and list any onscreen messages displayed when the problem occurs.

2. Call your dealer and describe the problem. Please have your manual, product, and any helpful information readily available.

3. If your product is diagnosed as defective, obtain a return merchandise authorization (RMA) number from your dealer. This allows us to process your return more quickly.

4. Carefully pack the defective product, a completed Repair, and Replacement Order Card, and proof of purchase date (such as a photocopy of your sales receipt) into a shippable container. Products returned without proof of purchase date are not eligible for warranty service.

5. Write the RMA number clearly on the outside of the package and ship the package prepaid to your dealer.

Declaration of Conformity

CE

This product has passed the CE test for environmental specifications when shielded cables are used for external wiring. We recommend the use of shielded cables. This type of cable is available from Advantech. Please contact your local supplier for ordering information.

Test conditions for passing also include the equipment being operated within an industrial enclosure. In order to protect the product from damage caused by electrostatic discharge (ESD) and EMI leakage, we strongly recommend the use of CE-compliant industrial enclosure products.

FCC Class B

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 instruction manual, 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:

- 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 assistance.

Technical Support and Assistance

1. Visit the Advantech website at **www.advantech.com/support** to obtain the latest product information.
2. 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 calling:
   – 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

Warnings, Cautions, and Notes

⚠️ **Warning!** Warnings indicate conditions that if not observed can cause personal injury!

⚠️ **Caution!** Cautions are included to help prevent hardware damage and data losses. For example, "Batteries are at risk of exploding if incorrectly installed. Do not attempt to recharge, force open, or heat the battery. Replace the battery only with the same or equivalent type as recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions."

📄 **Note!** Notes provide additional optional information.

Document Feedback
To assist us with improving this manual, we welcome all comments and constructive criticism. Please send all feedback in writing to **support@advantech.com**.

Safety Instructions

1. Read these safety instructions carefully.
2. Retain this user manual for future reference.
3. Disconnect the equipment from all power outlets before cleaning. Use only a damp cloth for cleaning. Do not use liquid or spray detergents.

4. For pluggable equipment, the power outlet socket must be located near the equipment and easily accessible.

5. Protect the equipment from humidity.

6. Place the equipment on a reliable surface during installation. Dropping or letting the equipment fall may cause damage.

7. The openings on the enclosure are for air convection. Protect the equipment from overheating. Do not cover the openings.

8. Ensure that the voltage of the power source is correct before connecting the equipment to a power outlet.

9. Position the power cord away from high-traffic areas. Do not place anything over the power cord.

10. All cautions and warnings on the equipment should be noted.

11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage from transient overvoltage.

12. Never pour liquid into an opening. This may cause fire or electrical shock.

13. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.

14. If any of the following occurs, have the equipment checked by service personnel:
    – The power cord or plug is damaged.
    – Liquid has penetrated the equipment.
    – The equipment has been exposed to moisture.
    – The equipment is malfunctioning or does not operate according to the user manual.
    – The equipment has been dropped and damaged.
    – The equipment shows obvious signs of breakage.

15. Do not leave the equipment in an environment with a storage temperature of below -20 °C (-4 °F) or above 60 °C (140 °F) as this may damage the components. The equipment should be kept in a controlled environment.

16. In accordance with IEC 704-1:1982 specifications, the sound pressure level at the operator's position does not exceed 70 dB (A).

DISCLAIMER: These instructions are provided according to IEC 704-1 standard. Advantech disclaims all responsibility for the accuracy of any statements contained herein.

 Caution! If the power adapter is not shipped with the unit, information regarding the power adapter's output rating (24 Vdc, 5 A min, or 120 W min) is provided in the user manual, enabling enable users to select an appropriate power adapter.

Introduction

Advantech's DSD-5038 series products are industrial stretched signage display monitors of an innovative size, shape, and display resolution, designed to be quickly and easily integrated with Advantech's embedded box computers, such as the ARK and DS series computers.

Features

- 38″ (16:4) 1920 x 358, high-resolution stretched display with LED backlighting
- High brightness of 800 cd/m2
- High contrast ratio (1:4000)
- 0 ~ 45 °C (32 ~ 113 °F) operating temperature

- Ultra-wide viewing angle (176° / 176°)

- Input signal HDMI/DVI/VGA

- RS232 remote control support

- Audio output

- Wall mount (200 x 100 mm;7.87 x 3.93 in)

- Fanless design

Applications

The DSD-5038 series can be used as public information displays and are especially suitable for narrow or limited spaces. Below are some application examples.

- Displaying Bus/Metro route maps

- Station information displays (advertisements or schedules)

- Signage displays in elevators

- Advertisements in cafeterias and public venues

- Entertainment / Gaming

- Public advertisement displays

1.4 Product Photographs
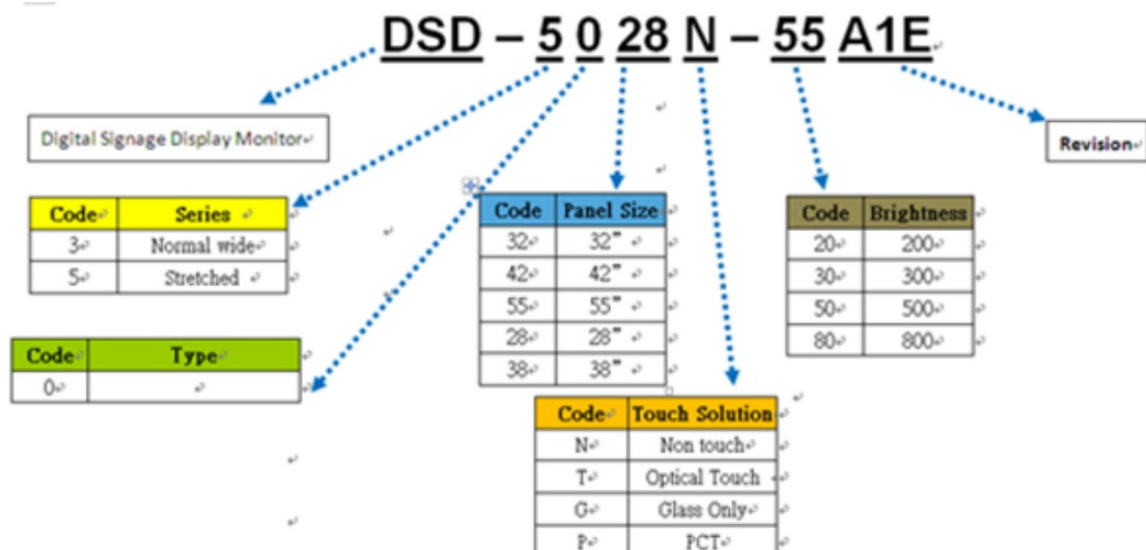
Front View

Rear View

I/O View (left/right)

Keys View

1.5 Naming Conventions

DSD – 5 0 28 N – 55 A1E

Digital Signage Display Monitor

Code	Series
3	Normal wide
5	Stretched

Code	Type
0	

Code	Panel Size
32	32"
42	42"
55	55"
28	28"
38	38"

Code	Touch Solution
N	Non touch
T	Optical Touch
G	Glass Only
P	PCT

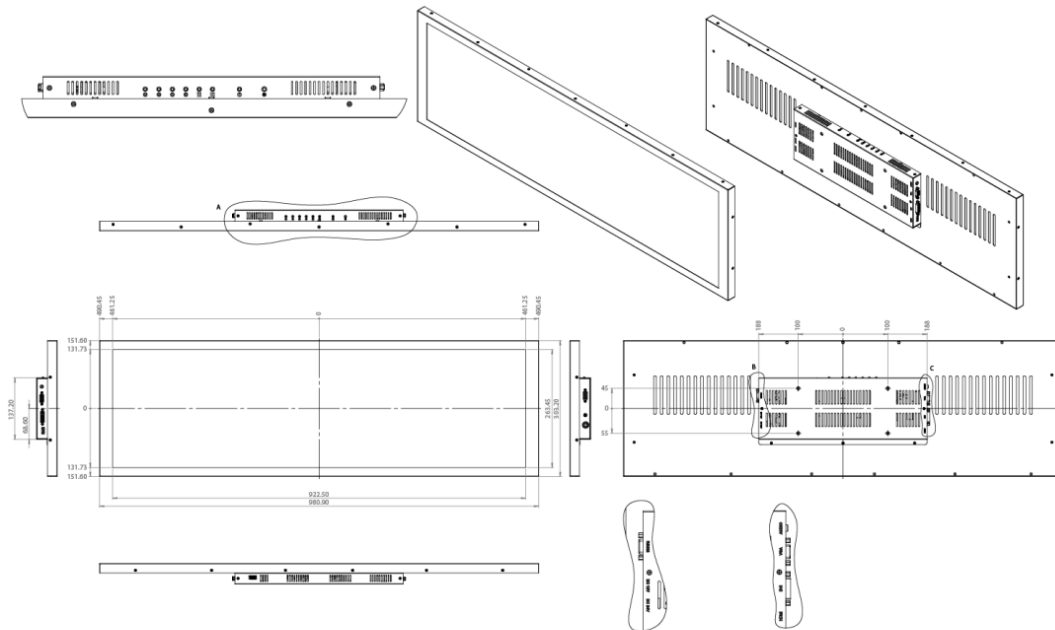| Code	Brightness
20	200
30	300
50	500
80	800

Revision

Specifications

> 📄 **Note!** The DSD-5038 series monitors are equipped with the features and specifications described below. Unless otherwise stated, all monitor specifications are subject to change without prior notification.

	Model	DSD-5038
Display	Size	38″ stretched LED panel
	Resolution	1920 x 538 (16:4)
	Viewing Angle	176°(H)/176°(V)
	Brightness	800 (cd/m2)
	Color Support	16.7 M colors
	Contrast Ratio	4000:1
	Response Time	9.5 msec
	Backlight Life	50,000 hrs
Environment	Operating Temperature	0 – 45 °C (32 – 113 °F)
	Storage Temperature	-10 – 60 °C (-4 – 140 °F)
	Humidity	80% RH maximum (Ta E 45 °C/ 113 °F), non-condensing
	Vibration	5-500Hz, 0.002G2/ Hz, 1 Grms, 1 hour for X,Y, and Z per axis
System	I/O	Input: 1 x HDMI, 1 x DVI D, 1 x VGA; 1 x RS232 (reserved for the remote control); 24Vpc power din Output: 1 x audio output; 12 Vir jack (maximum is 12 W)
	OLD	Source/Enter, Menu, Up, Down, Left, Right, Power On/Off
	Power	120 W power adapter, with AC100-240 V input and DC +24 V @ 5A output
	EMC Compliance	CE/FCC/CCC

2.2 Dimensions

Figure 2.1 DSD-5038 Series Dimensions

2.3 Packing List

- 1 x 120 W DC24 V power adapter
- 1 x DVI cable 2.0 meter
- 1 x HDMI cable
- 1 x RS232 9P/9P 1.8M M/F cable (optional)
- 1 x power cord (optional)

Note! The accessories listed above may differ depending on the software development kit.

2.4 Power Output

The DSD-5038 series supports 12Vdc output with a maximum loading of 12 W, effective only when the monitor is powered on.
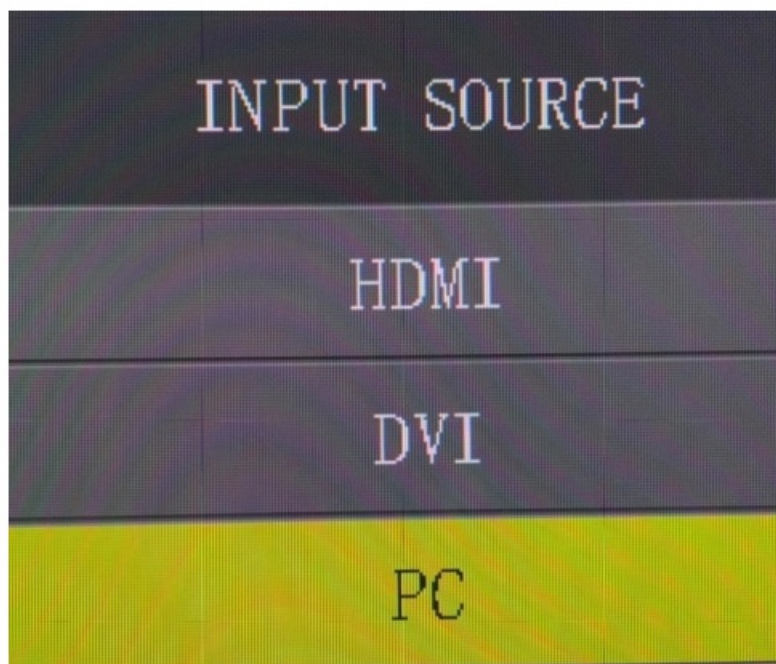
OSD Functions

Users are advised to ensure that all content designs are based on a resolution of 1920 x 538. The onscreen display (OSD) key for the DSD-5038 series monitors (1920 x 538 resolution) is provided below.

Button	Description
Power	Turns the monitor power on or off
Menu	Activates the OSD menu
	Closes the OSD menu
Auto	Automatically adjusts the clock and phase
	H-position and V-position
Value Up/Down/Left/ Right	Used to move the selector to an option
	Changes the gauge value of the selected option

LED Function	
DPMS ON	Blue
DPMS STANDBY	Orange

3.1.1 Select Signal Input Source
HDMI/DVI/VGA

3.1.2 Picture Settings
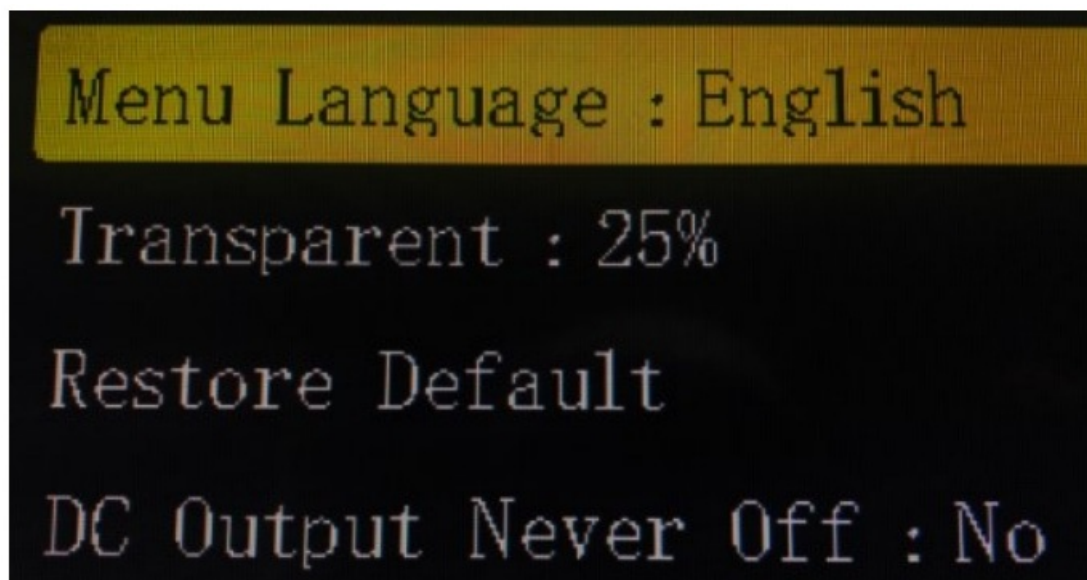The Image Size settings can only be adjusted if the source signal resolution is not 1920 x 538.
3.1.2.1 Picture Settings
Image Size: Zoom, top (Note 3), and bottom (Note 3).

3.1.3 Language Settings
Options: English, Traditional Chinese

Note The zoom (480i, 480p, 820p, 1080i, 1080p).

Note Mode select.

3.2 RS-232 Remote Control
3.2.1 Configuration
BAUDRATE: 19200
PARITY: None
BITS: 8
STOP BIT: 1

3.2.2 Commands

KEY	COMMAND
POWER	BE EF 02 06 00 AE D7 07 00 00 00 00 00
SOURCE	BE EF 02 06 00 7F D6 06 00 00 00 00 00
MENU	BE EF 02 06 00 C8 D7 01 00 00 00 00 00
RIGHT	BE EF 02 06 00 4C D6 05 00 00 00 00 00
LEFT	BE EF 02 06 00 9D D7 04 00 00 00 00 00
UP	BE EF 02 06 00 FB D7 02 00 00 00 00 00
DOWN	BE EF 02 06 00 2A D6 03 00 00 00 00 00

VGA mode only

KEY	COMMAND
Auto Adjust	BE EF 02 06 00 58 D5 11 00 00 00 00 00

Introduction

For monitors that are malfunctioning, users are requested to refer to the following advice before contacting Advantech's service center. If you are still unable to resolve the problem using the instructions provided below, please contact your local distributor or service center.

Troubleshooting

Images not displayed on the screen

- Ensure all I/O and power connectors are correctly installed and connected. (Refer to Section 1.4, I/O View (left / right))
- Ensure the connectors are not crooked, broken, or loose.
- Ensure the monitor is powered on, as indicated by the LED.
- Ensure that the monitor brightness is not set to the minimum value.
- Ensure that the screen resolution does not exceed that specified for the particular LCD type.

Images are incorrectly displayed, or full-screen images not displayed

- Please ensure that the screen resolution setting on the motherboard is correct.

The position of the screen is not in the center

- Adjust the H-position and V-position, or select the "Auto" option.

Out of range

- The onscreen message "Out of Range" indicates that the output signal is not appropriate for the LCD display,

for example, the output resolution exceeds the resolution specified for the LCD.

- Adjust the BIOS settings to the correct resolution.

No signal

- The monitor is powered on, but is not displaying or receiving an output signal from the computer. Check all power switches, power cables, and VGA cable to ensure all are correctly connected.

Hibernate

- If the monitor goes into hibernation mode, the display is either set to the power-saving mode or the monitor is not receiving an output signal from the computer. If the display is set to power-saving mode, adjust the BIOS settings and/or Windows configuration. If the monitor is not receiving an output signal from the computer, check that the cable connecting the computer to the display monitor is securely attached.

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Documents / Resources

User Manual DSD-5038 Series 38" Industrial Stretched Signage Display Monitor ADVANTECH	**ADVANTECH DSD-5038 38 Inch Stretched Display** [pdf] User Manual DSD-5038, 38 Inch Stretched Display, DSD-5038 38 Inch Stretched Display, Stretched Display, Display

References

- **A** **Advantech Co-Creating the Future of the IoT World**
- **A** **Online Support - Advantech**