Instruction Manual - 08/2012

# DVI Splitter

## PDS0800 Dual Link DVI Splitter

display SOLUTIONS

EIZO

# LC displays for medical diagnostics

# DVI splitter
# PDS0800-HD Dual Link DVI Splitter

Operating Instructions




08/2012
1013482-A2

## Legal information

### Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

| ⚠DANGER |
| --- |
| indicates that death or severe personal injury **will** result if proper precautions are not taken. |

| ⚠WARNING |
| --- |
| indicates that death or severe personal injury **may** result if proper precautions are not taken. |

| ⚠CAUTION |
| --- |
| with a safety alert symbol, indicates that minor personal injury can result if proper precautions are not taken. |

| CAUTION |
| --- |
| without a safety alert symbol, indicates that property damage can result if proper precautions are not taken. |

| NOTICE |
| --- |
| indicates that an unintended result or situation can occur if the relevant information is not taken into account. |

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

### Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

### Proper use of EIZO products

Note the following:

| ⚠WARNING |
| --- |
| EIZO products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by EIZO. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed. |

### Trademarks

All names identified by ® are registered trademarks of their respective owners. Please refer to the trademarks listed in the appendix. The remaining trademarks in this publication may be trademarks whose use by third parties for their own purposes could violate the rights of the owner.

### Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

EIZO GmbH
Display Technologies
Siemensallee 84
76187 KARLSRUHE
GERMANY

1013482-A2
℗08/2012

# Table of contents

# 1 Introduction

## 1.1 Contents of this documentation

This document describes the functionality and appropriate use of the PDS0800-HD Dual Link DVI Splitter.

To ensure clarity, it does not contain all detailed information on this product.

The contents of this document are neither part of a previous or existing agreement, commitment or legal relationship, nor does it modify such.

# Safety notes 2

## 2.1 Safety Agency Compliance Statements

Read this section before beginning any procedure.

The following text provides safety precautions to follow when installing a EIZO product.

### Safety Precautions

For your protection, observe the following safety precautions when setting up your equipment:

- Follow all cautions and instructions marked on the equipment.
- Ensure that the voltage and frequency of your power source match the voltage and frequency in scribed on the equipments electrical rating label.
- Never push objects of any kind through openings in the equipment.
- Dangerous voltages may be present.
- Conductive foreign objects could produce a short circuit that could cause fire, electric shock, or damage to your equipment.

### Modifications to Equipment

Do not make mechanical or electrical modifications to the equipment. EIZO GmbH is not responsible for regulatory compliance of a modified EIZO product.

### Placement of a EIZO Product

**⚠ CAUTION**

- Do not block or cover the openings of your EIZO product.
- Never place a EIZO product near a radiator or heat register.
- Failure to follow these guidelines can cause over heating and affect the reliability of your EIZO product.

## Power Cord Connection

**⚠ CAUTION**

EIZO products a redesigned to work with power systems having a grounded neutral (grounded return for DC-powered products).

- To reduce the risk of electric shock, do not plug EIZO products into any other type of power system.
- Contact your facilities manager or a qualified electrician if you are not sure what type of power is supplied to your building.

**Not all power cords have the same current ratings.**

- Do not use the power cord provided with your equipment for any other products or use. Household extension cords do not have overload protection and are not meant for use with computer systems. Do not use household extension cords with your EIZO product.

## Multiple power cords

The following caution applies only to devices with multiple power cords.

**⚠ CAUTION**

For products with multiple power cords, all power cords must be disconnected to completely remove power from the system.

## Rack System Warning

The following warnings apply to Racks and Rack Mounted systems.

**⚠ CAUTION**

For safety, equipment should always be loaded from the bottom up.

That is, install the equipment that will be mounted in the lowest part of the rack first, then the next higher systems, etc.

To prevent the rack from tipping during equipment installation, the anti-tilt bar on the rack must be deployed.

To prevent extreme operating temperature within the rack insure that the maximum temperature does not exceed the product's ambient rated temperatures.

To prevent extreme operating temperatures due to reduced airflow consideration should be made to the amount of airflow that is required for a safe operation of the equipment.

# Description

# 3

## 3.1 Scope of delivery

| Product | Order No. | Description |
|---|---|---|
| PDS0800-HD | 6GF6020-0AA00-1AA1 | 2x Dual Link Splitter, Single Link HD output (8 MPixel monitor), one power supply |

## 3.2 Important features

PDS0800-HD is a Dual Link DVI Splitter. Two independent DVI dual link inputs are repeated and doubled to connect two monitors or equivalent devices to one graphics card output.

### PDS0800-HD

- Up to two splitter can be cascaded.
- Power is supplied to the DVI power pin of the outputs to feed attached (optical) receiver/transmitter.
- The DDC signal path can be routed between the two outputs under software control.
- The address of each cascaded splitter can be set up with a rotary switch.
- Fixed EDID data for an 8 MPixel display can be selected to use the HD output without the need to connect a display.
- To supply power to a receiver of a video cable extender the input DVI connectors can be fed with 350 mA DC power.
- When the input signals of the both inputs are at (2x) 1920 x 2160 x 60 Hz (quad HD) an additional output signal is available with a down scaled single HD output of the quad input signal as DVI and Component output.

When Large Monitor Manager LMM56800 is used the following features are supported to control the PDS0800:

- Reading and writing via DDC to either the main or secondary output.
- Status of both power supplies.
- Number of attached PDS0800-HD devices.
- DVI link status

# Connecting

# 4

Figure 4-1 Front View: Input and Output Connections

PDS0800-HD and its different variations are rack mountable 19" 1U units.

- Use four screws to fix the PDS0800-HD in a rack as recommended by the rack manufacturer.

PDS0800-HD comes with one power supply. For redundant operation a second power supply can added.

Figure 4-2 Front View

After connecting the power cords either one or both LED's will light up green and the PDS0800-HD is ready to operate.

Figure 4-3 Rear View (with optional redundant power supply)

- Use the cable straps as strain relief for the power cable as shown in " Power cable strain relief".

Figure 4-4 Power cable strain relief (with optional redundant power supply)

## 4.1 Input connection

- Connect the inputs "Input A" and "Input B" to the graphics board.

The LED's near the input connectors show the status of the input DVI link:

| LED | Status |
|---|---|
| Red | No link active |
| Yellow | Single Link active |
| Green | Dual Link active |
| Off | Not used |

Input Link Status

- Set up the address switch according to the following table "Address Rotary Switch".

  Take care that the first PDS0800-HD in the video chain has address "0", the second in the chain has address "1" and so on. Not more than two can be cascaded.

For debug purposes the switch can be used at positions 4 to 7 or C to F. In these positions the EDID data are supplied from internally and no DDC communication to the monitor is possible. The EDID data supplied are compatible with the EIZO 8 MPixel monitor.

| Position | Splitter address | EDID Data | Power to input |
|---|---|---|---|
| 0 | 0 | From main or secondary output | Not connected |
| 1 | 1 | From main or secondary output | Not connected |
| 2 | 2 | From main or secondary output | Not connected |
| 3 | Not used | From main or secondary output | Not connected |
| 4 | 0 | Internal EDID data | Not connected |
| 5 | 1 | Internal EDID data | Not connected |
| 6 | 2 | Internal EDID data | Not connected |
| 7 | Not used | Internal EDID data | Not connected |
| 8 | 0 | From main or secondary output | Connected |
| 9 | 1 | From main or secondary output | Connected |
| A | 2 | From main or secondary output | Connected |
| B | Not used | From main or secondary output | Connected |
| C | 0 | Internal EDID data | Connected |
| D | 1 | Internal EDID data | Connected |
| E | 2 | Internal EDID data | Connected |
| F | Not used | Internal EDID data | Connected |

Address Rotary Switch

**Note**

**Optical or other receiver**

If an optical or other receiver is connected to the input DVI connector address positions "8" to "F" supply 5 V DC on the appropriate pin of the connector.

# 4.2 Output connection

## Main and secondary outputs

- Connect the outputs "Main Output" "A" and "B" and/or "Secondary Output" "A and "B" to the displays as needed.
- Connect the first display to the "Main Output", so that valid EDID data are received by the Large Monitor Manager LMM56800.
- When PDS0800-HD is cascaded, connect the "Secondary Output" of the first PDS0800-HD with address "0" to the input of the second PDS0800-HD and set its address to "1". For more details see the next chapter and sub chapters depending on the use of the PDS0800-xxx.

The LED's near the "Main Output" and "Secondary Output" signal the status of the DDC connection:

| "Main Output" LED | "Secondary Output" LED | |
|---|---|---|
| Green | Off | DDC input A/B connected to "Main Output" A/B |
| Off | Green | DDC input A/B connected to "Secondary Output" A/B |
| Red | Off | DDC input A/B connected to "Main Output " A/B SL right |
| Off | Off | DDC is not connected externally, internally only; see address switch for details. |

DDC connection status of main and secondary output

## HD DVI and component outputs

- Connect the HD Display either to the DVI connector marked with "DVI" or to the component output marked as "YPbPr" through the Mini-DIN connector and the adapter to Chinch connectors.

The LED's near the "HD-" and -Component-Output" signal the status of the HD output connection:

| "HD Output" LED | |
|---|---|
| Red | There is no valid signal on either input channel. |
| Yellow | Either the offset between the inputs is too large, or one input signal only is connected. |
| Green | There is a valid HD output signal from both inputs. |
| Off | Not used |

Status of the HD-output

# Functions

# 5

## 5.1 PDS0800

As version PDS0800-HD the main functionality is the Splitter. There are two dual-link DVI-D input ports marked as "Input A" and "Input B". Each of these inputs "A" and "B" split the incoming single- or dual-link DVI signal in two identical output signals. "Main Output" "A" and "B" and "Secondary Output" "A" and "B". The output connectors are DVI-D type connectors.

The Splitter works over the full range of frequencies from 25 MHz to 165 MHz per link.

The two channels "A" and "B" are independent from each other.

Up to two PDS0800-HD can be cascaded by connecting "Main Output" "A" and "B" to the next PDS0800's "Input" "A" and "B". For each following PDS0800-HD the address has to be increased. The address is used to address a switch in side of each cascaded PDS0800-HD to switch the DDC connections.

By default the DDC signal from "Input A" is connected to "Main Output A" and the DDC signal from "Input B" is connected to "Main Output B". The DDC connection can be switched from "MainOutput" to "Secondary Output" under software control via a DDC command. The LED's near the output connectors for main and secondary outputs show the connection status of the DDC line. For details see see table "DDC connection status of main and secondary output" (Page 16).

## 5.2 PDS0800-HD Quad HD to Single HD functionality

This version of the PDS0800-HD is able to scale down a Quad HD resolution signal on inputs "A" and "B" and output it on the "HD-Output" as single link DVI or an analog component signal. The horizontal and vertical input resolution is divided by two with a bilinear filter. For the detailed HD output timing refer to chapter "Output video-timings" (Page 24).

To connect chinch connectors to the component input a 7-pins Mini-DIN to Chinch female adapter is supplied.

When valid input signals are supplied and the offset between input "A" and "B" is not more then 512 pixels the LED near the "HD-Output" lights up green. Both input channels are displayed.

When the offset is more than 512 pixels or one input signal is missing the LED lights up yellow. Only one input signal is used and display on the HD display. If both input channels are connected but their offset is too large the input signal "B" is displayed. When one input signal is connected only this one is displayed.

The LED lights up red when no valid input signals are connected.

The functionality of the PDS0800-HD Splitter is available in this version as well.

Up to two PDS0800-HD can be cascaded by connecting "Main Output" "A" and "B" to the next PDS0800's Input "A" and "B". For each following PDS0800-HD increase the cascading address. It is used to switch the DDC connection on each of the PDS0800.

By default the DDC signal from "Input A" is connected to "Main Output A" and the DDC signal from "Input B" is connected to "Main Output B". The DDC connection can be switched from "Main Output" to "Secondary Output" under software control via a DDC command.

## 5.3 Output power on DVI connectors

All of the seven DVI connectors have 5 V DC output as specified in the DVI specification.

PDS0800-HD has 3 groups of current limited power outputs:

Input and output connectors "A", input and output connectors "B" and the HD output are grouped.

Each group can use a maximum current of 750 mA.

The power supplied on the inputs "A" and "B" can be enabled or disabled, for details see table "Address Rotary Switch". (Page 14)

## 5.4 Remote status control

### 5.4.1 Browser Interface

The PDS0800-HD functionality can be controlled via the software interface of the Large Monitor Manager LMM56800.

#### Browser Interface

The browser interface of the Large Monitor Manager LMM56800 shows details under the "MDM" "Status" tab. For details see ' MDM-1 Manual'.

### 5.4.2 Connection Status

The following status is shown if the monitors and the PDS0800-HD devices are powered or not.

#### No PDS0800-HD is connected and displays are connected

When no PDS0800-HD is connected and displays are connected the status looks like this:

| Status | Description |
|---|---|
| Monitor output 1A: [Device ID] [Vendor ID] | "Output 1A" is the connector "A" at the first graphics board.<br>"Output 1B" is the connector "B" at the first graphics board.<br>"[Device ID] [Vendor ID]" is the string found in the EDID data set of the connected display. |
| Monitor output 1B: [Device ID] [Vendor ID] | |

## PDS0800-HD is used as single splitter with four video connections

When PDS0800-HD is used as single splitter with four video connections (some displays maybe connected two video connections per display) the following information is shown:

| Status | Description |
|---|---|
| Monitor output 1A.0MA: [Device ID] [Vendor ID] | "Output 1A.0MA" is connector "A" of the "Main Output" of the first PDS0800-HD at address "0", connected to connector "A" at the first graphics board.<br>"Output 1B.0MB" is connector "B" of the "Main Output" of the first PDS0800-HD at address"0", connected to connector "B" at the first graphics board.<br>"Output 1A.0SA" is connector "A" of the "Secondary Output" of the first PDS0800-HD at address"0", connected to connector "A" at the first graphics board.<br>"Output 1B.0SB" is connector "B" of the "Secondary Output" of the first PDS0800-HD at address "0", connected to connector "B" at the first graphics board. |
| Monitor output 1B.0MB: [Device ID] [Vendor ID] | |
| Monitor output 1A.0SA: [Device ID] [Vendor ID] | |
| Monitor output 1B.0SB: [Device ID] [Vendor ID] | |

## PDS0800-HD is used with two cascaded splitter with six video connections

When PDS0800-HD is used with two cascaded splitter with six video connections (some displays maybe connected two video connections per display) the following information is shown:

| Status | Description |
|---|---|
| Monitor output 1A.0MA: [Device ID] [Vendor ID] | "Output 1A.0MA" is connector "A" of the "Main Output" of the first PDS0800-HD at address "0", connected to connector "A" at the first graphics board. |
| Monitor output 1B.0MB: [Device ID] [Vendor ID] | "Output 1B.0MB" is connector "B" of the "Main Output" of the first PDS0800-HD at address "0", connected to connector "B" at the first graphics board. |

| Status | Description |
|---|---|
| Monitor output 1A.0SA.1MA: [Device ID] [Vendor ID] | "Output 1A.0SA.1MA" is connector "A" of the "Main Output" of the PDS0800-HD at address "1" connected to the connector "A" of the "Secondary Output" of the first PDS0800-HD at address "0", connected to connector "A" at the first graphics board. |
| Monitor output 1B.0SB.1MB: [Device ID] [Vendor ID] | "Output 1B.0SB.1MB" is connector B of the " Main Output" of the PDS0800-HD at address "1" connected to the connector "B" of the "Secondary Output" of the first PDS0800-HD at address "0", connected to connector "B" at the first graphics board. |
| Monitor output 1A.0SA.1SA: [Device ID] [Vendor ID] | "Output 1A.0SA.1SA" is connector "A" of the "Secondary Output" of the PDS0800-HD at address "1" connected to the connector "A" of the "Secondary Output" of the first PDS0800-HD at address "0", connected to connector "A" at the first graphics board. |
| Monitor output 1B.0SB.1SB: [Device ID] [Vendor ID] | "Output 1B.0SB.1SB" is connector "B" of the "Secondary Output" of the PDS0800-HD at address "1" connected to the connector "B" of the "Secondary Output" of the first PDS0800-HD at address "0", connected to connector "B" at the first graphics board. |

### 5.4.3 Power Supply Status

In addition to the status of the connected monitors the status of the power supplies of each PDS0800-HD can be checked in the same tab of the browser.

For two PDS0800-HD the status message is:

- PDS0800-HD at address "0" power supply 1: 0
- PDS0800-HD at address "0" power supply 2: 0
- PDS0800-HD at address "1" power supply 1: 1
- PDS0800-HD at address "1" power supply 2: 0

For the PDS0800-HD devices with status "0" the power supplies are turned on and working. Status "1" means power supply failed or there is no power supply connected.

### 5.4.4 Link Status

The DVI link status of each input channel can be checked.

For two PDS0800-HD the status message is:

- PDS0800-HD at address "0" link A: 0
- PDS0800-HD at address "0" link B: 0

- PDS0800-HD at address "1" link A: 1
- PDS0800-HD at address "1" link B: 0

For the PDS0800-HD devices with link status "0" the dual link connection is established. With link status "1" there is no dual link established (may be single link or no link at all).

### 5.4.5 External Software Interface for LMM56800

The external software interface has the same functionality as the browser interface. Additionally it allows the communication to the displays via the DDC interface.

For details see the document: 'External Software Interface for MDM'.

# Technical specifications

# 6

## 6.1 Electrical specification

PDS0800-HD itself has a two independent 12 V DC inputs. Only one of them is needed for normal operation. So the second input can be used for redundancy.

### PDS0800

| | |
|---|---|
| Power input voltage | 12 V DC ± 10 % |
| Power input current | 3.0 A max. (approximately 1.5 A internally and 1.5 A externally to supply the video connectors) |
| Power input connector | ODU Medi-Snap 3 pin |
| Video input connector | DVI-D dual link |
| Video input connector | 5 V DC max. 750 mA, can be turn off<br>See note[1)] and note[2)] |
| Video input frequency | Min. 25 MHz ... max. 260 MHz |
| Video output main and secondary connector | DVI-D dual link |
| Video output main and secondary frequency | Max. 260 MHz |
| Video output main and secondary connector | 5 V DC, max. 750 mA<br>See note[2)] |
| Video HD-output "DVI" connector | DVI-D single link |
| Video HD- output "DVI" connector | 1080 progressived timing at 60 Hz<br>For details see chapter "Input video-timing for HD output" (Page 24) |
| Video HD- output "DVI" connector | 5 V DC, max. 750 mA<br>See note[2)] |
| Video HD- output "YPbPr" output connector | Mini DIN connector with adapter to 3x chinch |
| Video HD-output "YPbPr" output connector | 1080 interlaced timing at 60 Hz<br>For details see chapter "Input video-timing for HD output" (Page 24) |

1) The 5 V DC supply of the input connectors can be turned off with the address switch.

2) The output power is limited to 750 mA per group. There are three groups:

- Group "a" includes all input, output connectors of type "A".
- Group "b" includes all input, output connectors of type "B".
- Group "c" is the HD-DVI output.

### Power supply

| Power supply | |
|---|---|
| Type | TR45A12 |
| Input voltage | 90 ... 264 V AC |
| Input frequency | 50 ... 60 Hz |
| Inrush current | 60 A max. at 240 V AC |
| Isolation | Input to output 4.242 kV DC |
| Conducted EMI | CISPR/FCC Class B |
| Leakage current | 3.5 mA max. |
| Input connector | IEC 320/C14 |
| Output voltage | 12 V DC |
| Output current | 3.75 A |
| Output connector | ODU Medi-Snap 3 pin |
| Marking | CE, GS, CCC, FCC, PS E, RoHS, UL (file number E 17 6177) |

## 6.2 Input video-timing for HD output

In order to get an output signal on the HD output the input signals on input "A" and "B" must meet the following requirements.

| Per input channel | |
|---|---|
| • H-Display | 1920 pixel |
| • V-Display | 2160 lines |
| • Max. Pixel-Clock | 130 MHz |
| • To display both input channels in the HD output signal | The maximum offset between DE valid for both inputs is 512 Pixel |

## 6.3 Output video-timings

The supported HD output timings are based on the international television video standards as defined by ITU and SMPTE 274M for the high definition resolution of 1920 x 1080.

### Component output 1080 interlaced timing

| | |
|---|---|
| • Pixel-Clock | 74.25 MHz |
| • H-Display | 1920 pixel |
| • H-FrontPorch | 72 pixel |
| • H- Sync Width | 48 pixel |

| | |
|---|---|
| • H-BackPorch | 160 pixel |
| • H-Total | 2200 pixel |
| • V-Display | 1080 lines |
| • V-Display-Field | 540 lines |
| • V-BlankField | 22/23 lines (top/bottom field, top field first) |
| • V-FrontPorch | 2 lines |
| • V- Sync Width | 5 lines |
| • V-BackPorch | 15/16 lines |
| • V-Total | 1125 lines |
| • V-Field-Rate | 60.0 Hz |
| • V-Frame-Rate | 30.0 Hz |
| • Signal | YPrPb |
| • Signal Level | According to EIA-770.3 (300 mV/700 mV) |
| • Video DACs | 3 high quality 10-bit with 4x oversampling |
| • Chroma Subsampling | 4:2:2 |

### DVI output 1080 progressived timing

| | |
|---|---|
| • Pixel-Clock | 148.5 |
| • H-Display | 1920 pixel |
| • H-FrontPorch | 72 pixel |
| • H- Sync Width | 48 pixel |
| • H-BackPorch | 160 pixel |
| • H-Total | 2200 pixel |
| • V-Display | 1080 lines |
| • V-BackPorch | 36 lines |
| • V-FrontPorch | 4 lines |
| • V- Sync Width | 5 lines |
| • V-Total | 1125 lines |

## 6.4 Mechanical design

| | |
|---|---|
| Size | • 19" wide<br>• 1U High, 23.6 mm<br>• 120 mm deep |
| Weight | 1.4 kg |

## 6.5 Mechanical requirements

| | |
|---|---|
| Packaged tests continuous shock | According EN 60068-2-29 and EN 60721-3-2, class 2M2 |
| Package drop test | According EN 24180-2 |
| Sound noise level | No noise emitted |

## 6.6 Climatic conditions

### During operation

| | |
|---|---|
| Temperature range | +5 °C … +40 °C according EN 60068-2-1 and EN 60068-2-2 |
| Humidity | 10 % ... 80 %, relative (non-condensing), damp heat, 25 °C, according EN 60068-2-38. |
| Pressure | 700 ... 1060 hPa (525 ... 795 mm Hg) or up to 3050 m (10 000ft) |

### During transport and storage (packaged)

| | |
|---|---|
| Temperature range | -20 °C … +60 °C according EN 60068-2-1 and EN 60068-2-2 |
| Humidity | 10 % ... 95 %, relative (non-condensing), +25 °C, according EN 60068-2-38 |

## 6.7 Safety regulations

| | |
|---|---|
| Electrical safety | Power supply according IEC 60950/EN 60950, UL 60950 (file number E 17 4440) |

## 6.8 Electromagnetic compatibility

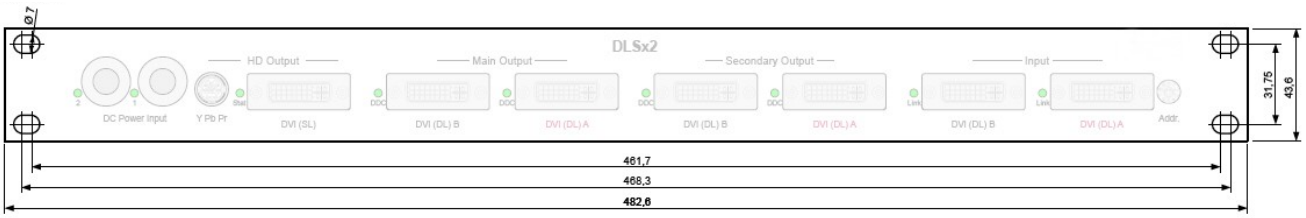
| | |
|---|---|
| EMC | According EN 55022 and EN 55024 |
| Radiated emissions | |
| • Harmonic Current Emissions | IEC 61000-3-2/EN61000-3-2 |
| • Voltage Changes | IEC 61000-3-3/EN 61000-3-3 |
| • Level B Radiated & Conducted Emissions | CISPR 22/ EN 55022 or CISPR 11/EN 55011 |
| | FCC class A |

| Immunity | |
|---|---|
| • Electrostatic discharge on casing parts (ESD) | IEC 61000-4-2/EN 61000-4-2 Level 2 |
| • EM Field Immunity | IEC 61000-4-3/EN 61000-4-3 Level 2 |
| • Fast Transient/Burst Immunity | IEC 61000-4-4/EN 61000-4-4 Level 2 |
| • Surge Immunity | IEC 61000-4-5/EN 61000-4-5 Level 2 |
| • Conducted Disturbances | IEC61000-4-6/EN 61000-4-6 Level 2 |
| • Power Freq Magnetic Immunity | IEC61000-4-8/EN 61000-4-8 Level 2 |
| • Voltage Dips, Short Interrupt, Voltage Variations Immunity | IEC 61000-4-11/EN 61000-4-11 Level 3 |
| | FCC class A |

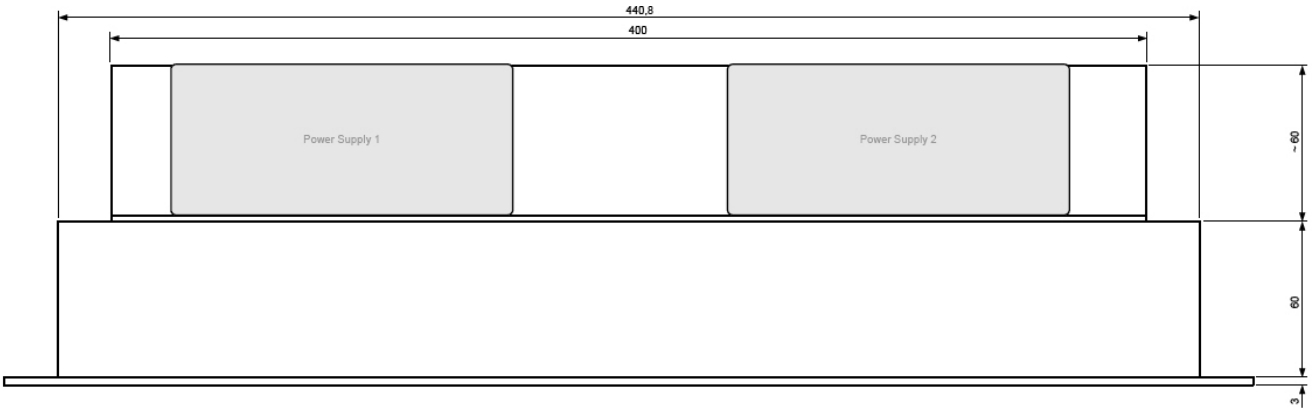
# Dimensional drawings

7

## 7.1 Front view

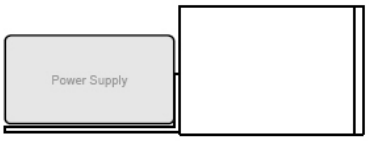



## 7.2 Top view




Remark: Power Supply 2 is optional.

## 7.4 Side view



# Appendix

# A

## A.1 Warranty

Opening of the housing, or electrical or mechanical changes on or in the device, result in cancellation of the warranty. For warranty details, please contact the sales partner from whom you purchased the product. These warranty conditions are neither extended nor limited by the contents of this user manual.

## A.2 Repairs

Please contact the sales partner from whom you purchased the product.

## A.3 Environmental protection

Please observe all local requirements and laws pertaining to the disposal of displays.

## A.4 Accessory devices

Devices connected to the display (e.g. PC) must also comply with the relevant safety specifications.

## A.5 Contact

### Support during installation and for technical questions

Medical monitor solutions (http://www.eizo.eu)

## A.6 Regulatory Compliance Statements

Your product is marked to indicate its compliance class:

- Federal Communications Commission (FCC) - USA

## A.7 FCC Class A Notice

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.
2. This device must accept any interference received, including interference that may cause undesired operation.

---

**Note**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

---

# A.8 FCC Class B Notice

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.
2. This device must accept any interference received, including interference that may cause undesired operation.

**Note**

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 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/television technician for help.

## Modifications

Any modifications made to this device that are not approved by EIZO GmbH, may void the authority granted to the user by the FCC to operate this equipment.

# Index

## H



## P



## S



## T



## W

Order Nr.: 1013482-A2

EIZO GmbH
Display Technologies

Siemensallee 84
76187 KARLSRUHE
GERMANY

www.eizo.eu