



# FlatView XXL Monitor

Doc. User Guide Rev. 1.0 Doc. ID: 1062-2144



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# FLATVIEW XXL MONITOR – USER GUIDE

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# **Revision History**

Revision	Brief Description of Changes	Date of Issue	Author / Editor
1.0	Initial version	2018-Feb-21	CW

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# Symbols

The following symbols may be used in this user guide

	DANGER indicates a hazardous situation which, if not avoided,
	will result in death or serious injury.
<b>A</b> WARNING	WARNING indicates a hazardous situation which, if not avoided,
	could result in death or serious injury.
NOTICE	NOTICE indicates a property damage message.
	CAUTION indicates a hazardous situation which, if not avoided,
ACAOHON	may result in minor or moderate injury.
	Electric Shock!
14	This symbol and title warn of hazards due to electrical shocks (> 60 V) when touching
	products or parts of products. Failure to observe the precautions indicated and/or
	prescribed by the law may endanger your life/health and/or result in damage to your
	material.
	ESD Sensitive Device!
	This symbol and title inform that the electronic boards and their components are sensitive
	to static electricity. Care must therefore be taken during all handling operations and inspections of this product in order to ensure product integrity at all times.
	HOT Surface!
	Do NOT touch! Allow to cool before servicing.
^	Laser!
	This symbol inform of the risk of exposure to laser beam and light emitting devices (LEDs)
	from an electrical device. Eye protection per manufacturer notice shall review before
	servicing.
	This symbol indicates general information about the product and the user guide.
	This symbol also indicates detailed information about the specific product configuration.
	This symbol precedes helpful hints and tips for daily use.

# For Your Safety

Your new Kontron product was developed and tested carefully to provide all features necessary to ensure its compliance with electrical safety requirements. It was also designed for a long fault-free life. However, the life expectancy of your product can be drastically reduced by improper treatment during unpacking and installation. Therefore, in the interest of your own safety and of the correct operation of your new Kontron product, you are requested to conform with the following guidelines.

# **High Voltage Safety Instructions**

As a precaution and in case of danger, the power connector must be easily accessible. The power connector is the product's main disconnect device.

#### 

Warning

All operations on this product must be carried out by sufficiently skilled personnel only.



#### Electric Shock!

Before installing a non hot-swappable Kontron product into a system always ensure that your mains power is switched off. This also applies to the installation of piggybacks. Serious electrical shock hazards can exist during all installation, repair, and maintenance operations on this product. Therefore, always unplug the power cable and any other cables which provide external voltages before performing any work on this product.

Earth ground connection to vehicle's chassis or a central grounding point shall remain connected. The earth ground cable shall be the last cable to be disconnected or the first cable to be connected when performing installation or removal procedures on this product.

### Special Handling and Unpacking Instruction



#### ESD Sensitive Device!

Electronic products and their components are sensitive to static electricity. Therefore, care must be taken during all handling operations and inspections of this product, in order to ensure product integrity at all times.

Do not handle this product out of the products protective enclosure while the product is not used for operational purposes unless it is otherwise protected.

Whenever possible, unpack or pack this product only at EOS/ESD safe work stations. Where a safe work station is not guaranteed, it is important for the user to be electrically discharged before touching the product with his/her hands or tools. This is most easily done by touching a metal part of your system housing.

It is particularly important to observe standard anti-static precautions when changing piggybacks, ROM devices, jumper settings etc. If the product contains batteries for RTC or memory backup, ensure that the product is not placed on conductive surfaces, including anti-static plastics or sponges. They can cause short circuits and damage the batteries or conductive circuits on the product.

# Lithium Battery Precautions

If your product is equipped with a lithium battery, take the following precautions when replacing the battery.

#### 

#### Danger of explosion if the battery is replaced incorrectly.

- Replace only with same or equivalent battery type recommended by the manufacturer.
- Dispose of used batteries according to the manufacturer's instructions.

# General Instructions on Usage

In order to maintain Kontron's product warranty, this product must not be altered or modified in any way. Changes or modifications to the product, that are not explicitly approved by Kontron and described in this user guide or received from Kontron Support as a special handling instruction, will void your warranty.

This product should only be installed in or connected to systems that fulfill all necessary technical and specific environmental requirements. This also applies to the operational temperature range of the specific board version that must not be exceeded. If batteries are present, their temperature restrictions must be taken into account.

In performing all necessary installation and application operations, only follow the instructions supplied by the present user guide.

Keep all the original packaging material for future storage or warranty shipments. If it is necessary to store or ship the product then re-pack it in the same manner as it was delivered.

Special care is necessary when handling or unpacking the product. See Special Handling and Unpacking Instruction.

# Quality and Environmental Management

Kontron aims to deliver reliable high-end products designed and built for quality, and aims to complying with environmental laws, regulations, and other environmentally oriented requirements. For more information regarding Kontron's quality and environmental responsibilities, visit <u>http://www.kontron.com/about-kontron/corporate-responsibility/quality-management</u>.

### **Disposal and Recycling**

Kontron's products are manufactured to satisfy environmental protection requirements where possible. Many of the components used are capable of being recycled. Final disposal of this product after its service life must be accomplished in accordance with the applicable country, state, or local laws or regulations.

### WEEE Compliance

The Waste Electrical and Electronic Equipment (WEEE) Directive aims to:

- Reduce waste arising from electrical and electronic equipment (EEE)
- Make producers of EEE responsible for the environmental impact of their products, especially when the product become waste
- Encourage separate collection and subsequent treatment, reuse, recovery, recycling and sound environmental disposal of EEE
- Improve the environmental performance of all those involved during the lifecycle of EEE



Environmental protection is a high priority with Kontron. Kontron follows the WEEE directive. You are encouraged to return our products for proper disposal.

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# 1/ Introduction

This user guide describes the FlatView XXL Monitor made by Kontron, also denoted as FlatView XXL within this user guide. This user guide focuses on describing the FlatView XXL special features. New users are recommended to study the short installation instructions within this user guide before switching on the power.

The Kontron FlatView XXL series with its brilliant and large screens up to 65-inch opens the door to meaningful, clear and comprehensive visualization. The industrial grade design includes an IP54 sealed metal housing and guarantees a reliable 24x7 operation even in challenging environments. Both front options, IR-touch screen and protection glass, provide a robust, scratch proof and easy to clean front surface.

All displays feature Full-HD resolution and, in case of even higher resolution requirements, Ultra-HD (4k) displays are also available. Typical applications are process visualization, plant data collection and manufacturing execution systems. Furthermore, due to the FlatViews XXL's thoroughly modular design the FlatView XXL series can be easily customized to meet specific individual application needs.

General FlatView XXL features are:

- Display sizes 32" to 65" with and without touch
- Full-HD with optional Ultra-HD
- VESA wall mount possible
- Fanless use
- Modular mechanical design.
- ▶ Industrial grade: Robust, reliable versatile and maintenance –free
- Self explaining OSD (On-Screen Display)

Additionally, when developing our products we exclusively use embedded components to meet the current requirements and support sustainability for the future (Industry 4.0) such as long-term availability of embedded components.

Figure 1: FlatView XXL Monitor



# 2/ General Safety Instructions for IT Equipment

Read these safety instructions carefully and observe the instructions for your own safety, and correct use of the product. Additionally, observe all warnings and instructions on the product and within this user guide.

# **AWARNING** Read this chapter carefully and take careful note of the instructions that have been compiled for your safety. If the following general safety instructions are not observed, it could lead to injuries to the operator and/or damage of the product; in cases of nonobservance of the instructions Kontron is exempt from accident liability, this also applies during the warranty period.

The product has been built and tested according to the basic safety requirements and has left the manufacturer in a safety-related, flawless condition. To maintain this condition and also to ensure safe operation, the operator must not only observe the correct operating conditions for the product but also the following general safety instructions.

#### Product

- Do not insert sharp objects or spill liquid through slots in the housing. They may cause accident fire, electric shock or failure
- Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks
- Do not touch the screen directly with your fingers. You may damage the screen, and oil from your skin is difficult to remove
- Do not apply excess pressure to the screen

#### Power and Power plug

- Use the type of power indicated on the type label
- The power cable serves as a disconnecting device. For this reason, the outlet of the power source must be located near the product and be easily accessible.
- > The electrical installations must correspond to the requirements of local (country-specific) regulations.
- Disconnect the power plug from the AC outlet under following conditions:
  - If not in use for an extended period time.
  - When the power cord or plug is damaged or frayed.
  - If the product does not operate normally when the operating instructions are followed.
  - If the product exhibits a distinct change in performance, service may be required.

#### Cables

- Do not allow anything to rest on the power cord.
- Take care that there are no cables, particularly power cables, in areas where persons can trip over them.
- Do not locate this product where persons will walk on the cord.
- Do not overload wall outlets or power cords. Ensure that the total of all units plugged into the wall outlet does not exceed 10 amperes.
- Ensure that the total ampere ratings on all units plugged into the extension cord is not above the cord's rating.

#### Environment

- Install on a flat level surface.
- Install in a well-ventilated place.
- Keep away from:
  - Overly hot environments
  - Cold environments
  - Humid environments
  - Direct sunlight
  - Dusty environment
  - Equipment that generate strong magnetic fields

# 2.1. Electrostatic Discharge (ESD)

A sudden discharge of electrostatic electricity can destroy static-sensitive devices or micro-circuitry. Therefore, proper packaging and grounding techniques are necessary precautions to prevent damage.

Always following ESD Sensitive device precautions below:



#### ESD Sensitive Device!

Keep electrostatic sensitive parts in their containers until they arrive at the ESD-safe workplace. Always be properly grounded when touching a sensitive board, component, or assembly.

For more Information, see the Special Handling and Unpacking Instruction within this user guide and Chapter 2.1.1 Grounding Methods below.

- Transport in ESD-safe containers such as boxes or bags.
- Keep electrostatic sensitive parts in their containers until they arrive at the ESD-safe workplace.
- Always be properly grounded when touching a sensitive board, component, or assembly.
- Store electrostatic-sensitive parts in protective packaging or on antistatic mats.

### 2.1.1. Grounding Methods

The following measures help to avoid electrostatic damages to the device:

- Cover workstations with approved antistatic material. Always wear a wrist strap connected to the workplace, as well as properly grounded tools and equipment.
- Use antistatic mats, heel straps, or air ionizers for more protection.
- Always handle electrostatically sensitive components by their edge or by their casing.
- Avoid contact with pins, leads, or circuitry.
- > Turn off power and input signals before inserting and removing connectors or connecting test equipment.
- Keep the work area free of non-conductive materials such as ordinary plastic assembly aids and styrofoam.
- ▶ Use field service tools such as cutters, screwdrivers, and vacuum cleaners that are conductive.
- Always place drives and boards with the PCB-assembly-side down on the foam.

# 3/ Scope of Delivery and Accessories

Check that your package is complete, and contains the items below (according to the ordered unit configuration). If you discover damaged or missing items, contact your dealer.

#### Table 1: Scope of Delivery

Description
FlatView XXL (32", 42", 55" or 65") display
Safety Instructions for IT equipment



Cabling is factory installed for the 32", 42" and 55" displays.



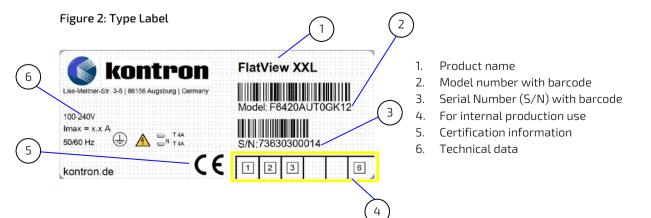
All 65" displays come with the customer ordered cable, for customer configuration. For more information on available cables types and lengths, see Chapter 3.2: Product Variants.

#### Table 2: Optional Accessories

	Description
8 8	VCM Universal Wall Mount
	Available on customer request

### 3.1. Type Label and Product Identification

To identify the product refer to the type label positioned on the rear side of the housing.



# 3.2. Product Variants

The FlatView XXL series of large screen closed case industrial grade monitor variants are:

1. Housing: F6 -Full metal Closed housing (IP54)

2.	Display size:	32"
		42"
		55"
		65"
3.	Touch screen:	IR-touch
		Protection glass (without IR-touch)

**4.** Further options:

Cables	
DVI	2 m, 3 m and 5 m
DP	1.8 m, 3 m and 5 m
USB 2.0	Type A -2 m, 3 m and 5 m

# 4/Technical Data

#### Table 3: Technical Data

Display Size	32"	42"	55"	65"	65"
Display Manufacturer	LG	AUO	AUO	AUO	AUO
Display Type	LD320EUN-SEM1	P420HVN03.1	P550HVN02.2	P650HVN03.0	P650HVN04.0
Resolution	1920x1080, Full-HD	1920x1080, Full-HD	1920x1080, Full-HD	1920x1080, Full-HD	1920x1080, Full-HD
Format	16:9	16:9	16:9	16:9	16:9
Contrast Ratio	1300:1	4000:1	4000:1	4000:1	4000:1
Brightness	400 cd/m2	700 cd/m2	500 cd/m2	500 cd/m2	700 cd/m2
Angle View	178°/178°	178°/178°	178°/178°	178°/178°	178°/178°
Colors	16.7 million	16.7 million	16.7 million	16.7 million	16.7 million
LED Lifetime (> 50%, 25°C)	50.000 h	50.000 h	50.000 h	50.000 h	50.000 h
Dimensions W x H x D (mm)	780x475x96.5	1050x640x132	1302x787x145	1547x931x181.5	1547x931x181.5
Weight	~ 20 kg	~ 40 kg	~ 60 kg	~ 75 kg	~ 75 kg
Touch Options	Protection glass, IR-touch				
Mounting Option	Full metal housing				
Fastening	VESA 200/200 or	200/up to 600	VESA 200/400	VESA 200-600/2	200-1000
Color	RAL 7021 (black anthracite)				
Cooling	Fanless passive cooling				
Video IN	1x DVI, 1x Display Port				
I/O Options	USB 2.0 (Type A) – only for IR-touch variants				
Protection Class	IP54				
Certification	CE				
EMC	EN55022 Class A				

### 4.1. Electrical Specification

All FlatView XXL series are AC voltage systems designed for direct connection to the mains AC power source. The power cable is either brought out of the housing using one of the two lead-through or for the 65-inch display variants is available as a connector on the back panel, see Table 8: Back Panel Mechanical Features – 65" Displays.

Before, connecting the power cable to the power source ensure that the power source meets the power requirements specified on the FlatView XXL Type label, and the requirements of local (country-specific) regulations.

For grounding, the protective earth connection is positioned on the rear side of the housing next to the main power supply switch.

#### **A**CAUTION

For AC power connection. The power source must meet the power requirement specified on the FlatView XXL type label.

#### Table 4: Power Specification

Display Size	32"	42"	55"	65"	65"
Power Supply (V AC )	90 V AC to 264 V AC, at 47 Hz to 63 Hz				

# 4.2. Environmental Specification

The FlatView XXL series conforms to the following environmental specifications.

#### **Table 5: Environmental Specifications**

Operating Temperature	0°C - 45°C ambient
Humidity	10%-90% @ 39°C, non condensing

#### 4.3. Standards and Approvals

The FlatView XXL series conforms to the requirements of the following standards.



If the user modifies the product, prerequisites for specific approvals such as CE conformity declaration (safety requirements) may no longer apply.

### 4.3.1. CE

This product is CE certified.

# 4.3.2. Electromagnetic Compatibility

This product has been designed for low level of radiated emission for residential, commercial and light-industrial environments and high immunity level for industrial environmental and complies with the EN 55022 class A specification for radiated and conducted emissions.

EN 55022 Class A	Emission of Information Technology Equipment (ITE), radio disturbance characteristics	
	and limits and methods of measurement (Class A)	

### 4.3.3. RoHS

RoHS II Directives	Compliant with the directive on the restriction of the use of certain hazardous	
	substances in electrical and electronic equipment	

#### 4.3.4. WEEE

WEEE Directive	Compliant with the Waste Electrical and Electronic Equipment (WEEE) Directive to
	reduce waste of electrical and electronic equipment, encourage recycling and
	environmental disposal and increase the environmental awareness of producers

# 4.4. Mechanical Specification

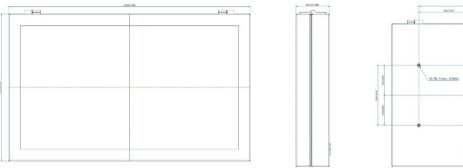
Four different display sizes are available 32-inch, 42-inch, 55-inch and 65-inch. The following table lists the mechanical dimensions of the FlatView XXI displays.

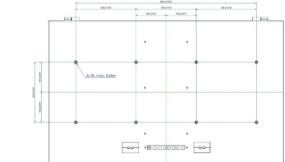
FlatView XXL	32" (F632)	42" (F642)	55" (F655)	65" (F665)
Height	780 mm	1050 mm	1302 mm	1547 mm
	(30.71")	(41.34")	(51.26")	(60,91")
Width	475 mm	640 mm	775.5 mm	917 mm
	(18.70")	(25.20")	(30,53")	(36,10")
Depth	96.5 mm	100.5 mm	119.5 mm	181.5 mm
	(3.80")	(3.96")	(4.70")	(7.15")

For more detailed mechanical dimensions, refer to the outline dimensions drawings within this chapter. Each dimension drawing shows the main external mechanical features such as the position and size of the VESA mounting holes, opening hinges, OSD control panel, and cable lead through or external I/O connector panel.

# 4.4.1. 32" Full Metal Variant (F632)

#### Figure 3: 32" Full Metal Variant (F632)





# 4.4.2. 42" Full Metal Variant (F642)

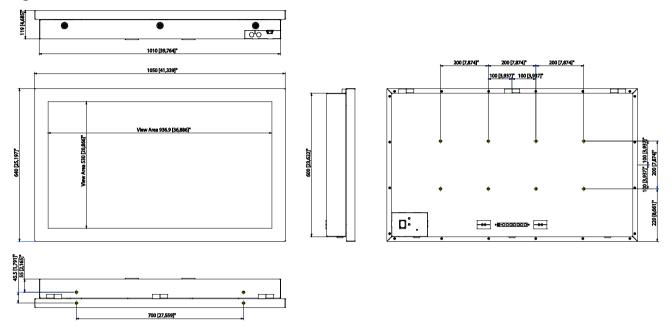
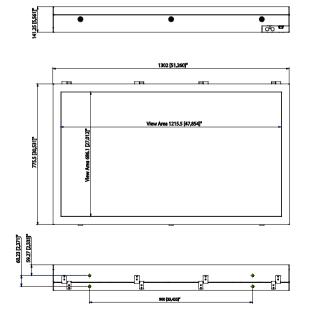
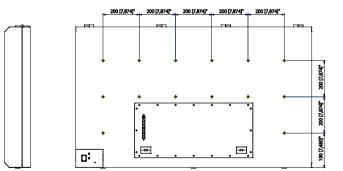


Figure 4: 42" Full Metal Variant (F642)

# 4.4.3. 55" Full Metal Variant (F655)

Figure 5: 55" Full Metal Variant (F655)





# 4.4.4. 65" Full Metal Variant (F665)

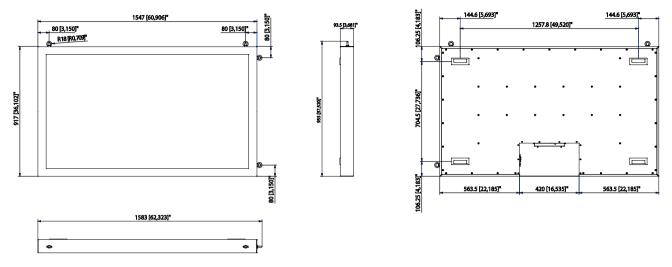


Figure 6: 65" Full Metal Variant (F665)

# 5/ Product Description

Before working with the FlatView XXL system, we recommend that users take a few minutes to learn about the various parts of the FlatView XXL.

The FlatView XXL is a robust display suitable for operation in harsh industrial environments and applications. The LCD display is a high quality display incorporating a color active matrix Thin Film Transistor (TFT) LCD with monitor sizes ranging from either 32-inch to 65-inch. The LCD display is available with or without touch. The IR-touch screen works similarly to a 'light barrier' and is the only touch screen where no direct contact with the display is necessary. The IR-touch is backed by a reflective Protection glass that makes it virtually vandal-proof, while not reducing the performance of the touch screen, and enables the IR-touch screen to be operated with fingers, gloves and other items.

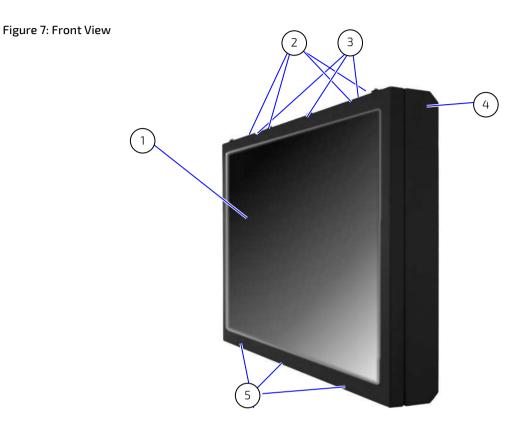
All FlatView XXL variants are available in a full metal housing, where the housing differs depending on the display size:

- 32-inch, 42-inch and 55-inch displays are factory configured and all customer ordered cables are led out of the housing for direct connection. This includes a power cable for direct connection to a power source and I/O cables from the available internal interface ports.
- 65-inch displays include four hand grips on each corner of the back panel. The I/O connectors and power connector are available externally on the back panel in the I/O area. Additionally, a dust and dirt cover can be assembled to protect the I/O area from dust and dirt. The cover includes cable lead throughs to lead the I/O cables and power cable out of the I/O area.

The FlatView XXL connects directly to a main power source and is a fanless system using a passive cooling solution. The FlatView XXL's sturdy IP54 full metal housing operates in extended temperature range, as well as under vibration and shock, making it ideal for industrial applications.

The mounting and operation of the FlatView XXL is allowed in both the horizontal and vertical position. The vertical operating position is only possible when supported by the OS used. When mounting in your application, use a heavy duty VESA compliant mounting system. For more information, see Chapter 7.1 Mounting Instructions.

### 5.1. Front View



- 1. Display screen
- 2. Four VESA mounting holes (M8), to mount by hanging.
- 3. Barrel hinges
- 4. Full metal housing
- 5. Locking screws to open the housing, located on the underside of the housing

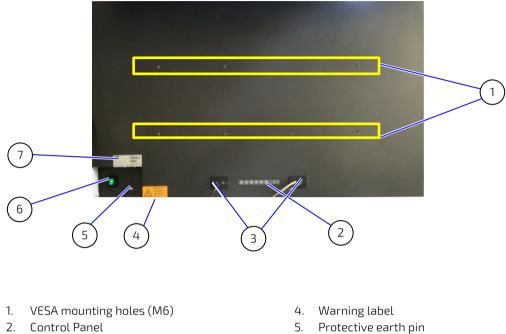


The 65" Full metal variant (FS65) does not include opening hinges and locking screws. To open the FS65 variant release the back panel by unscrewing the fastening screws and then remove the complete back panel.

### 5.2. Rear View

Each display size has a specific back panel where the main items are the position of the main items differ The figure below shows a 55-inch display back panel and describes the main elements.

#### Figure 8: Rear View

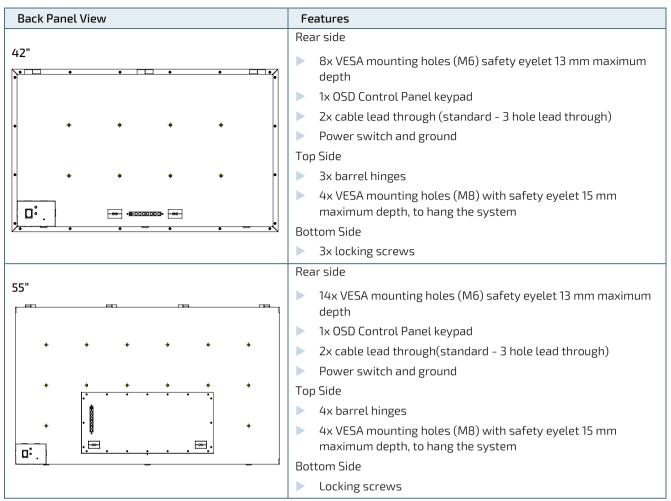


- 3. Two cable lead through for maximum of up to 6 cables (factory-configured)
- 6. Main power button
- 7. Type label

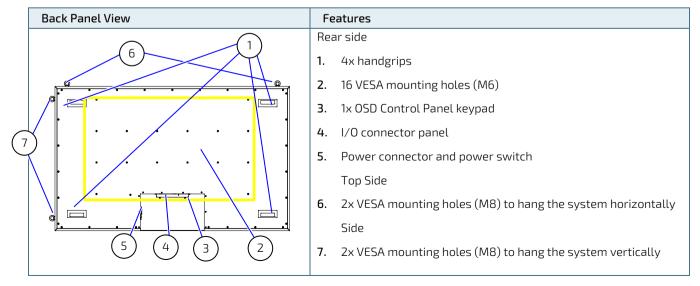
#### 5.2.1. Back Panel Views

The back panel of the F632 (32-inch), F642 (42-inch) and F6 (55-inch) displays provide factory configured cables led out of the housing for direct connection. Specific features of each back panel are listed in the table below.

Back Panel View	Features
32"	<ul> <li>Rear side</li> <li>8x VESA mounting holes (M6) safety eyelet 13 mm maximum depth</li> <li>1x OSD Control Panel keypad</li> <li>2x cable lead through (standard - 3 hole lead through)</li> <li>Top Side</li> <li>3x barrel hinges</li> <li>4x VESA mounting holes (M8) with safety eyelet 15 mm maximum depth, to hang the system</li> <li>Bottom Side</li> <li>3x locking screws</li> </ul>



The 65-inch back panel is a full metal solution with externally connected I/O interfaces and power connector with switch. For this solution, the cables are not lead out of the housing. The I/O connectors are user installed. If required the I/O area can be assembled with a dust and dirt cover including two lead throughs to lead the cables out of the I/O area and ensure that the I/O area is not exposed to dust and dirt. The following table shows the position of the main features.



#### Table 8: Back Panel Mechanical Features – 65" Displays

# 5.3. I/O Interface Connections

For both the factory installed I/O interface variants (F632, F642 and F655) and externally connect I/O Interface variant (F65), the following interfaces are available:

- 1x Display Port (DP)
- > 1x DVI
- ▶ 1x USB 2.0 (Type A) only for IR-touch variant

For the factory installed I/O interface Full metal variants (F632, F642 and F655) the requested I/O interfaces are lead out of the housing using two (IP65) three-hole lead-throughs on the rear side of the housing and externally available for direct use. Because the cables are internally connected, the cable is partially within the housing and the full cable length is not available for external use. The available external cable length is the original length minus approximately 0.3 m. This reduction in usable cable length must be taken into consideration when ordering the I/O cables.



To ensure the required cable length for the application, the reduction in the usable cable length must considered when ordering the I/O cables.

For the externally connect I/O Interface variant (F65) the interface connectors are available for direct user connection on the underside of the back panel, see Table 8: Back Panel Mechanical Features – 65" Displays. Because the I/O cables and power cable are externally connected, the full cable length is available for external use

For more information on the possible cable length, see Chapter 3.2: Product Variants or contact your local Kontron sales representative or Kontron Inside Sales.

NOTICE

When disconnecting any power cable or I/O interface cables, do not pull the cable by grabbing the cable itself. Hold the cable connector whenever disconnecting a cable.

# 6/ Configuration

The modular design of the FlatView XXL allows for easily customization to meet specific individual application needs.

For display sizes 32-inch, 42-inch and 55-inch the FlatView XXL is factory configured to the customer's required I/O Interface configuration and it is not possible to access the internal components to change the requested factory Interface configuration. For more information on the possible configuration options, see Chapter 3.2: Product Variants.

For the display size 65-inch the FlatView XXL comes with an external I/O Interface connector and if required it is possible to change the external Interface configuration. For more information, on the possible configuration options, see Chapter 3.2: Product Variants.

### **AWARNING** Do not open the FlatView XXL housing. No user-serviceable parts inside.

# 7/ Installation and Starting Up

### 7.1. Mounting Instructions

The FlatView XXL is a stand-alone solution designed to be mounted in the user's application using heavy duty VESA 200/1000 compliant mounting systems. Mounting holes are located on the rear side of the full metal housing. The number of mounting holes varies depending on the size of the display. For more information on the number and the position of the VESA mounting holes, see Chapter 4.4: Mechanical Specification, and Table 7: Back Panel Mechanical Features - 32", 42" and 55" Displays and Table 8: Back Panel Mechanical Features – 65" Displays.

## 7.1.1. Mounting by Hanging

It is possible to mount by hanging using the available VESA mounting holes.

This F632, F642 and F655 variants can hang horizontally using VESA mounting holes at the top of the housing, see Table 7: Back Panel Mechanical Features - 32", 42" and 55" Displays.

The F665 variant can hang in both the horizontal and vertical orientation using VESA mounting holes at the top and the side of the housing, see Table 8: Back Panel Mechanical Features – 65" Displays.

# 7.1.2. Mounting Orientation

Both horizontal or vertical orientations can be used when mounting. The vertical operating position is only possible when supported by the Installed Operating System.

The FLatView XXL has to be installed and operated only by trained and qualified personnel
Due to the weight of the FlatView XXL Kontron recommends that the mounting procedure is carried-out by two persons.
Installation by using of a VESA 200/100 compliant mounting system. The mounting system must be designed to support the heavy load of the FlatView XXL.
During operation, the housing must be properly installed and secured using the corresponding VESA compliant screws.

### 7.2. Starting Up

The FlatView XXL is delivered ready for use with factory configured cabling and pre-installed software. Read the following instructions before starting the FlatView XXL.

#### **ACAUTION** The power source must meet the power requirement specified on the type label.

- 1. Before starting the FlatView XXL connect the power cable to the power source.
- 2. Connect the I/O interface cables that are lead-out of the housing to the correct interface.



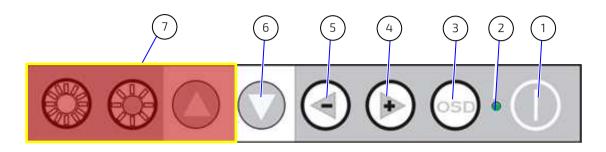
Failure to connect the I/O Interface cables, displays a 'No Cable' message for each of the possible I/O interfaces.

- 3. Press the main power on button, to start the FlatView XXL. The LED power indicator turns green.
- 4. To alter any of the display setting, use the OSD control panel keypad.

# 8/ System Settings with On-Screen Display Menu

With the self-explaining OSD (On-Screen Display) settings can be modified and special features controlled. The OSD uses a number of menus to making changes and turn on or turn off special features. To select the OSD configuration use the OSD-keypad shown below.

#### Figure 9: OSD Keys



1	Power Switch	Power switch to turn on or turn off		
2	Lamp LED	Power LED to indicate the current power condition.		
		LED Off	No Power	
		LED Green	Active	
		LED Yellow	Standby	
3	OSD Menu / Select	1 )	OSD menu on the screen ack in the OSD main menus	
4	Adjust (increase +)	Moves right t	o enter the highlighted items sub menu	
5	Adjust (decrease -)	Moved down the OSD menu list		
6	Select 🗌	Selects the highlighted menu item		
7	Not available	No function f	No function for this product family	

### 8.1. OSD Menu

After pressing the OSD Menu key (Figure 9, Pos. 3) the main menu appears. The OSD main menu setting are located on the left side of the display screen. If selected, the main menu setting is highlighted in a black box and the sub menu items relating to the selected main menu setting are displayed in the center of the display screen. If a sub menu item is selected, the sub menu item is highlighted in a black box and the sub menu's options are displayed on the right side of the display screen.

The main menu setting are Input Select, Image Adjustments, Color Adjustment, OSD Setting and System Settings.

# 8.1.1. Main Menu: Input Select



# 8.1.1.1. Sub Menu: Main Picture Channel



# 8.1.1.2. Sub Menu: Scan Inputs



#### 8.1.2. Main Menu: Image Adjustments



# 8.1.2.1. Sub Menu: Sharpness



### 8.1.2.2. Sub Menu: Auto Adjust

Only active with other display interfaces than DVI.

### 8.1.2.3. Sub Menu: Auto Color Adjust

Only active with other display interfaces than DVI.

### 8.1.2.4. Sub Menu: Clock

Only active with other display interfaces than DVI.

#### 8.1.2.5. Sub Menu: Phase

Only active with other display interfaces than DVI.

#### 8.1.2.6. Sub Menu: Hor. Position

Only active with other display interfaces than DVI.

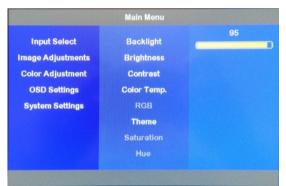
#### 8.1.2.7. Sub Menu: Ver. Position

Only active with other display interfaces than DVI.

### 8.1.3. Main Menu: Color Adjustment



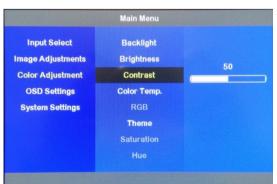
# 8.1.3.1. Sub Menu: Backlight



# 8.1.3.2. Sub Menu: Brightness



### 8.1.3.3. Sub Menu: Contrast



# 8.1.3.4. Sub Menu: Color Temperature



# 8.1.3.5. Sub Menu: RGB

Not active to select.

# 8.1.3.6. Sub Menu: Theme



# 8.1.4. Main Menu: OSD Settings

Input Select     OSD Timeout     DVI       Image Adjustments     OSD Hor. Pos.     1920x1080 60       Color Adjustment     OSD Ver. Pos.     1920x1080 60       OSD Settings     OSD Blend     1920x1080 60       System Settings     OSD Orientation     1920x1080 60       OSD Language     1920x1080 60     1920x1080 60			
Color Adjustments     OSD Hor. Pos.       Color Adjustment     OSD Ver. Pos.       OSD Settings     OSD Blend       System Settings     OSD Orientation	Input Select	OSD Timeout	
OSD Settings OSD Blend System Settings OSD Orientation	Image Adjustments	OSD Hor. Pos.	1920x1080 60Hz
System Settings OSD Orientation	Color Adjustment	OSD Ver. Pos.	
	OSD Settings	OSD Blend	
OSD Language	System Settings	OSD Orientation	
		OSD Language	

# 8.1.4.1. Sub Menu: OSD Timeout



# 8.1.4.2. Sub Menu: OSD Hor. Pos.



# 8.1.4.3. Sub Menu: OSD Ver. Pos.



# 8.1.4.4. Sub Menu: OSD Blend



# 8.1.4.5. Sub Menu: OSD Orientation



# 8.1.4.6. Sub Menu: OSD Language



# 8.1.5. Main Menu: System Settings

Input Select	Info	DVI
Image Adjustments	Mode Info	1920x1080 60Hz
Color Adjustment	Restore user defaults	
OSD Settings	Save user defaults	
System Settings	Reset factory default	
	AA Option	

# 8.1.5.1. Sub Menu: Info



# 8.1.5.2. Sub Menu: Mode Info



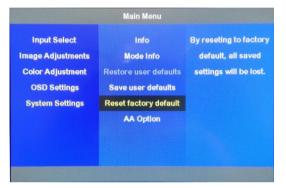
# 8.1.5.3. Sub Menu: Restore user defaults

Not active to select.

# 8.1.5.4. Sub Menu: Save user defaults



# 8.1.5.5. Sub Menu: Reset factory defaults



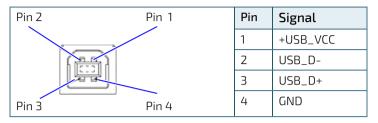
# 8.1.5.6. Sub Menu: AA Option



# 9/ Standard Interface Connector – Pin outs

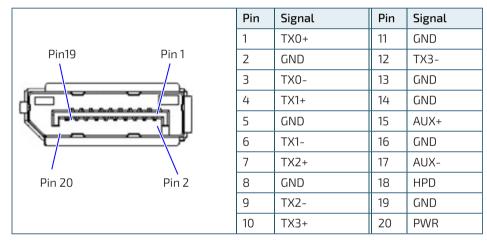
# 9.1.1.1. USB 2.0 Client Connector (Type A)

#### Table 9: USB Client Connector Pinout



# 9.1.1.2. Display Port (DP) Connector

#### Table 10: DP Connector Pinout



# 9.1.1.3. DVI Connector

#### Table 11: DVI Connector Pinout

		Pin	Signal	Pin	Signal	Pin	Signal
		2	Rx2+	10	Rx1+	18	Rx0+
Pin 1	Pin 8	3	GND	11	GND	19	GND
。 (####################################		4	NC	12	NC	20	NC
	88 O	5	NC	13	NC	21	NC
		6	SCL	14	+5V	22	GND
		7	SDA	15	GND	23	RxC+
Pin 17 Pin 2	4 C5	8	NC	16	HP	24	RxC-
		C1	RED	C3	BLUE	C5	GND
		C2	GREEN	C4	HSYNC	C5-	GND

# 10/ Technical Support

Before contacting Kontron for support of a technical problem, check the troubleshooting information below to find out more about possible solutions. If the troubleshooting table does not contain a solution for the technical problem, contact Kontron Support (http://www.kontron.com/support).

To request support via e-mail, report documentation errors, or general customer feedback, use Kontron's Contact Support Request Form by visiting:

http://www.kontron.com/about-kontron/company-overview/contact-us/forms/contact-support.

In case the request form does not work or you do not get a response within 48 hours, send a follow up email to <a href="support@kontron.com">support@kontron.com</a>

Make sure you have the following product identification information on hand when you call:

- Product name,
- Product model number
- Serial number (SN) of the unit

Be ready to explain the nature of your problem to the service technician.



The serial number can be found on the type Label, placed on the rear side of the system.

### 10.1. Troubleshooting

Before contacting Kontron support, check the following suggestions for a possible quick solution.

#### Table 12: Troubleshooting

No Image is Showing				
Is the power cord connected ?	Check and make sure that the power cable from the device is corrected correctly to the power outlet. Check that the power switch, is green, this mean the device is switched on.			
Is the power LED light next to the power switch on?	Press the power button to switch on the display, the power switch, should be green.			
Is the power on but you still	Adjust brightness and contrast in Image			
don't have a picture?	Adjustment>Contrast or Image adjustment>Brightness			
Do you see a "No Signal" message?	If "No Signal" is displayed, the display eventually goes into sleeping mode/ shuts down.			
Display Image is Incorrect				
Display position is incorrect.	Adjust your display to the ideal setting in the OSD menus. OSD Settings>OSD Horizonal Position OSD Settings>OSD Vertical Position			
Vertical bars and stripes appear on the screen?	Adjust your display to the ideal setting in the OSD menus.			
The color of the screen is abnormal/ pixels don't match/ noise	Check if the signal cable is properly attached Set the color settings in the OSD Control Panel: Image Adjustment>Contrast or Color Adjustment>Color Temperature			

# 11/Warranty

Kontron defines product warranty in accordance with regional warranty definitions. Claims are at Kontron's discretion and limited to the defect being of a material nature. To find out more about the warranty conditions and the defined warranty period for your region, following the steps below:

1. Visit Kontron's Term and Conditions webpage.

http://www.kontron.com/terms-and-conditions

2. Click on your region's General Terms and Conditions of Sale.

# 11.1. Limitation/Exemption from Warranty Obligation

In general, Kontron shall not be required to honor the warranty, even during the warranty period, and shall be exempted from the statutory accident liability obligations in the event of damage caused to the product due to failure to observe the following:

- General safety instructions for IT equipment within this user guide
- Warning labels on the product and warning symbols within this user guide
- Information and hints within this user guide

Additionally, alterations or modifications to the product that are not explicitly approved by Kontron, described in this user guide, or received from Kontron Support as a special handling instruction will void your warranty.

Due to their limited service life, parts which by their nature are subject to a particularly high degree of wear (wearing parts) are excluded from the warranty beyond that provided by law.



If the FlatView XXL is opened, the warranty is lost!

### 11.2. Returning Defective Merchandise

All equipment returned to Kontron must have a Return of Material Authorization (RMA) number assigned exclusively by Kontron. Kontron cannot be held responsible for any loss or damage caused to the equipment received without an RMA number. The buyer accepts responsibility for all freight charges for the return of goods to Kontron's designated facility. Kontron will pay the return freight charges back to the buyer's location in the event that the equipment is repaired or replaced within the stipulated warranty period. Follow these steps before returning any product to Kontron.

1. Visit the RMA Information website:



Kontron's RMA Information website can be found at: http://www.kontron.com/support-and-services/support/rma-information

# **RMA INFORMATION**

RMA (Return of Material Authorization) Procedures

All equipment returned to Kontron must have a Return Material Authorization (RMA) number assigned exclusively by Kontron. Kontron cannot be held responsible for any loss or damage caused to the equipment received without an RMA number. The Buyer accepts responsibility for all freight charges for the return of goods to Kontron's designated facility. Kontron will pay return freight charges back to the Buyer's location in the event that the equipment is repaired or replaced within the warranty period stipulated herewith.

Kontron provides a customer oriented RMA-service in order to get your unit repaired very fast and efficiently. Please refer to the instructions outlined in the RMA procedures of the individual entities:

#### KONTRON AMERICA

- Kontron America
- Kontron Canada

#### KONTRON EUROPE

- Kontron Europe GmbH Deggendorf
- Kontron Europe GmbH Augsburg
- Kontron Modular Computers S.A.S. Toulon

#### KONTRON ASIA PACIFIC

- Kontron Penang
- Kontron Beijing

Download the RMA Request sheet for **Kontron Europe GmbH - Augsburg** and fill out the form. Take care to include a short detailed description of the observed problem or failure and to include the product identification Information (Name of product, Product number and Serial number). If a delivery includes more than one product, fill out the above information in the RMA Request form for each product.

- 2. Send the completed RMA-Request form to the given fax or email address at Kontron Europe GmbH Augsburg.
- 3. The goods for repair must be packed properly for shipping, considering shock and ESD protection.



Goods returned to Kontron Europe GmbH in non-proper packaging will be considered as customer caused faults and cannot be accepted as warranty repairs.

4. Add the RMA-sheet to the relevant delivery address and include the RMA-No with the shipping paperwork. Send the product to the following delivery address:

Kontron Europe GmbH RMA Support Lise-Meitner-Str. 3-5 86156 Augsburg Germany

Phone: +49 (0) 821 4086-0

Fax: +49 (0) 821 4086 111

Email: service@kontron.com

5. After Kontron Europe GmbH receives the product, a confirmation of the order is sent via email to the address named on the RMA sheet.

# 12/ Storage, Transportation and Maintenance

### 12.1. Storage

If the product is not in use for an extended period time, disconnect the power plug from the AC outlet .If it is necessary to store the product then re-pack the product as originally delivered to avoid damage. The storage facility must meet the products environmental storage requirements as stated within this user guide. Kontron recommends keeping all the original packaging material for future storage or warranty shipments.

# 12.2. Transportation

To ship the product use the original packaging, designed to withstand impact and adequately protect the product. When packing or unpacking products always take shock and ESD protection into consideration and use an EOS/ESD safe working area.

# 12.3. Maintenance

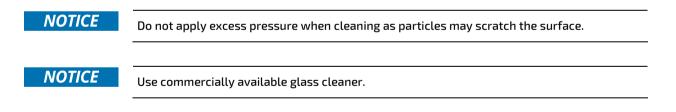
In order to maintain condition and ensure safe operation, observe the instructions and warnings contained in this user guide.

Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Maintenance or repair on the open product may only be carried out by qualified personnel authorized by Kontron.

# **AWARNING** Do not open the FlatView XXL. No user-serviceable parts inside. Danger due to high voltages.

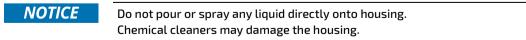
# 12.3.1. Cleaning the Screen

When cleaning the surface of the display screen with a soft, dry and clean lint-cloth to eliminate dust and particles of dirt from the screen.



# 12.3.2. Cleaning the Housing

When cleaning the housing use a soft moist cloth to remove dirt gently from the housing.



# 13/ Disposal

Final disposal of this product after the product's service life must be accomplished in accordance with the applicable country, state, or local laws or regulations.



Kontron manufactures products to satisfy environmental protection requirements where possible. Many of the components used are capable of being recycled.

Kontron follows the Waste Electrical and Electronic Equipment (WEEE) Directive that aims to reduce waste arising from Electrical and Electronic waste and therefore encourages customers to return Kontron products for proper disposal. For more information regarding WEEE compliance, see the Disposal and Recycling section at the start of this user guide.

# Appendix A: List of Acronyms

### Table 13: List of Acronyms

API	Application Programming Interface	
ВМС	Base Management Controller	
CF card	Compact Flash card	
CPU	Central Processing Unit	
DP	Display Port	
DVI	Digital Video Interface	
ECC	Error Checking and Correction	
EMC	Electromagnetic Compatibility	
ESD	Electro Static Device	
FRU	Field Replaceable Unit	
GPU	Graphics Processing Unit	
Full HD	Full High Definition	
HD	High Definition Drive	
HDD	Hard Disk Drive	
НРМ	PICMG Hardware Platform Management specification family	
IOL	IPMI-Over-LAN	
IOT	Internet of Things	
IPMI	Intelligent Platform Management Interface	
IR	Infrared	
KCS	Keyboard Controller Style	
KVM	Keyboard Video Mouse	
LCD	Liquid Crystal Display	
MEI	Management Engine Interface	
NCSI	Network Communications Services Interface	
OSD	On-Screen Display	
PCIe	PCI-Express	
PECI	Platform Environment Control Interface	
PICMG®	PCI Industrial Computer Manufacturers Group	
RMA	Return Material Authorization	
RTC	Real Time Clock	
SATA	Serial ATA	
SD card	Secure Digital memory card	
SEL	System Event Log	
ShMC	Shelf Management Controller	
SMBus	System Management Bus	
SMWI	System Monitor Web Interface	
SN	Serial Number	

SOL	Serial Over LAN		
SSH	Secure Shell		
TFT	Thin Film Transistor		
ТРМ	Trusted Platform Module		
UEFI	Unified Extensible Firmware Interface		
USB	Universal Serial Bus		
VLP	Very Low Profile		
WiFi	Wireless LAN		



### About Kontron

Kontron is a global leader in embedded computing technology (ECT). As a part of technology group S&T, Kontron offers a combined portfolio of secure hardware, middleware and services for Internet of Things (IoT) and Industry 4.0 applications. With its standard products and tailor-made solutions based on highly reliable state-of-the-art embedded technologies, Kontron provides secure and innovative applications for a variety of industries. As a result, customers benefit from accelerated time-to-market, reduced total cost of ownership, product longevity and the best fully integrated applications overall. For more information, please visit: www.kontron.com

### **Global Headquarters**

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