



## **Touch-it CE VESA / Front Panel glass 15,6**

### Operating Instructions

- **Display and Touch**
- **Projected Capacitive Touch**
- **Easy Integration**
- **Ready For Use**

# Touch-it CE 15,6

## Operating Instructions

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### 1 General

#### 1.1 Used Symbols

Symbol The following symbols are used in this instruction manual:



#### **DANGER!**

Denotes a direct threat of danger. Not observing this pointer may be life threatening or lead to serious injuries.



#### **CAUTION!**

Denotes a possibly dangerous situation. Not observing this pointer can cause minor injuries or lead to material damages.



#### **INFORMATION!**

Denotes application pointers and other useful information.

#### 1.2 General Pointers



#### **INFORMATION**

This device was manufactured according to DIN EN ISO 9001 and left the factory in a perfect state. In order to maintain this state and to assure the safe operation, the user must consider the pointers and warning remarks, which are contained in this instruction manual.

Please check immediately: Is the device damaged or is any equipment missing? (See chapter Commissioning) In the case of defect please inform us immediately.



#### **CAUTION**

#### **Intended Use**

These products are **not** designed, developed and produced for use, which pose fatal risks and dangers that may cause death, injuries, serious physical impairments or other loss, if no exceptional security measures are ensured. Thus there are limitations for use in the monitoring of nuclear reactions in nuclear power plants, flight control systems, air traffic control, in the control of mass transportation, medical life support systems and control of weapon systems.

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If the device is used for other purposes or incorrectly operated, Christ Electronic Systems GmbH will not hold damages liable.

Do not operate the touch-sensitive surface of the screen with any abrasive or sharp-edged objects.

Protect the Touch-it Panel PC against caustic chemicals and long solar radiation.

Never cover the Touch-it Panel PC completely or build it in a small closed and unvented housing.

This is a Class A product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures.



### **DANGER**

In the case of damage of the device, shut it down and disconnect it immediately from the supply voltage.

Disconnect every connection line and send it back to Christ Electronic Systems GmbH.

Only the qualified staffs are allowed to carry out the repairs. The incorrect repair may lead to serious danger for the user.

## 1.3 Cleaning



### **INFORMATION**

Use a humid and soft cloth with gentle soap suds to clean.



### **CAUTION**

Do not clean the touch-sensitive surface of the monitor with detergents containing solvent or acid.

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### 1.4 Certification



#### INFORMATION

The device is certificated for operation in the US and Canada and comply with FCC regulations. The certification is available on request.

#### Type label:



#### International Certification

##### USA:

##### FCC (Federal Communications Commission)

The device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause any harmful interference. (2) This device must accept any interference received, including interference that may cause undesired operations.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. NOTE: This equipment has been tested and found comply with the limits of Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial environment. 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. Operation of this equipment in a resident area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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### 2 Technical Data

#### 2.1 System

<b>CPU</b>	NXP i.MX6DL, DualCore 1 GHz
<b>Graphic</b>	3D Vivante GC880 2D Vivante GC320
<b>Video Decoder</b>	H.264, MPEG-4/XviD, MPEG-2, H.263
<b>Memory</b>	1 GB DDR3 RAM
<b>Storage</b>	4 GB eMMC FLASH Internal: MicroSD (up to 64GB)
<b>CMOS Battery</b>	RTC Lithium Battery (optional)
<b>Operating System</b>	Linux Embedded

#### 2.2 Power Supply

<b>Supply Voltage</b>	24 VDC $\pm$ 20%
<b>Power Consumption</b>	15 W
<b>Power Switch</b>	No

#### 2.3 Mechanical & Environmental

	Front Panel	VESA
<b>Housing Front</b>	Glass, Black Frame	
<b>Housing</b>	Aluminium / Silver	
<b>Dimensions</b>	403.2 mm x 252.6 mm x 52.4 mm	403.2 mm x 252.6 mm x 68.0 mm
<b>Weight</b>	3.8 kg	3.5 kg
<b>Cooling</b>	Passive	
<b>Operating Temperature</b>	0 ~ 50 °C	
<b>Storage Temperature</b>	-10 ~ 70 °C	
<b>Humidity</b>	5 ~ 80 % (non condensing)	
<b>Protection Class</b>	IP65 (IP20 rear)	IP65
<b>Certification</b>	CE, EN55032 Class A, EN55024, UL, FCC	

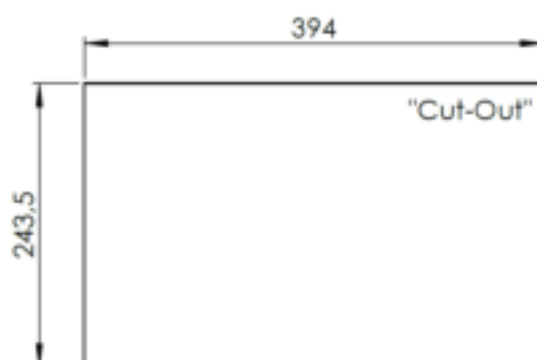
# Touch-it CE 15,6

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### 3 Commissioning

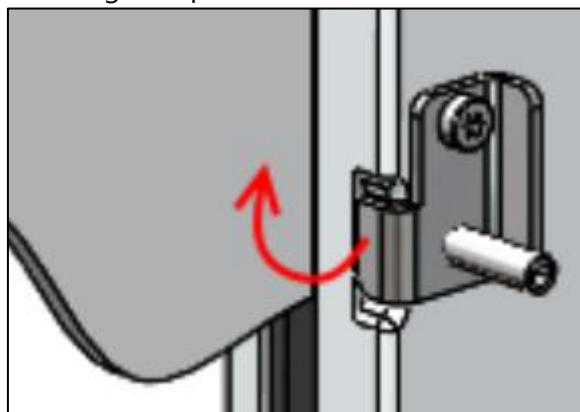
#### 3.1 Mounting Front Panel

The variant Touch-it CE Front Panel is designed for front mounting.  
Each Front Panel has its own cut-out drawing.

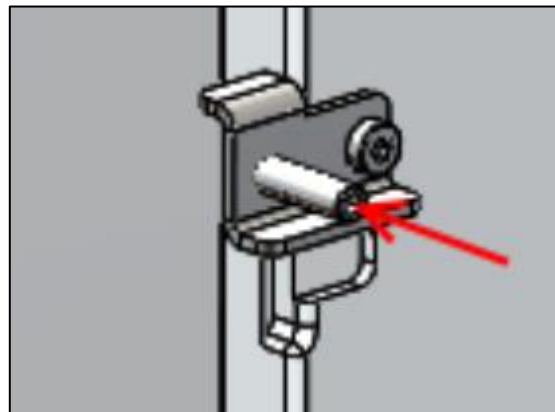


To clamp the Front Panel into the cut-out you can use the pre-assembled fastening clamps.

Turn fastening clamp to the side



Screw in the setscrew



#### CAUTION

For the best installation result the use of all pre-assembled fastening clamps is highly recommended. Depending on individual installation circumstances a new IP rating may be considered.

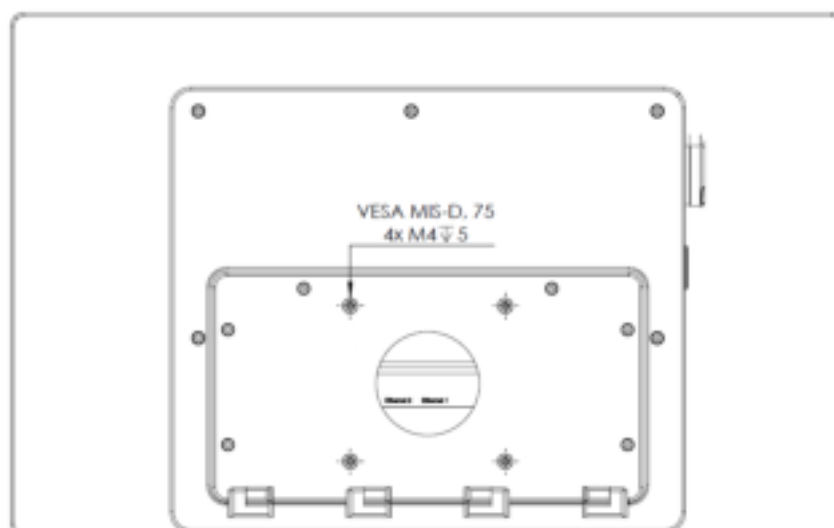


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### 3.2 Mounting VESA

The variant Touch- it CE VESA is designed for VESA MIS-D, 75, mounts.



Suitable mounting variants are:

#### VESA Desk Stand



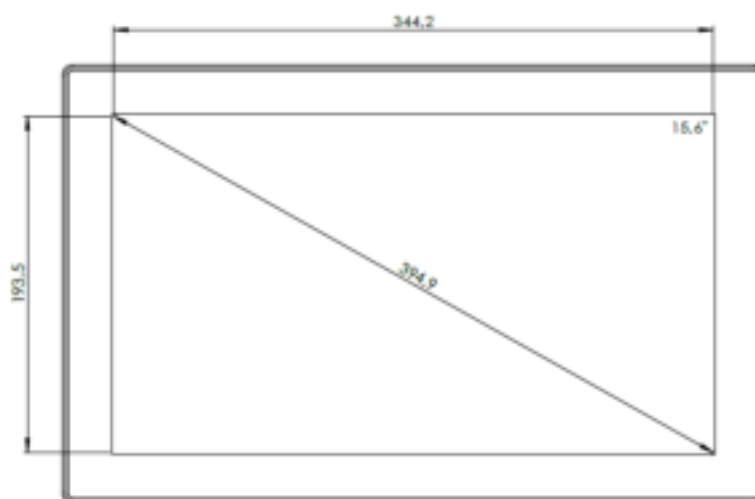
#### Arm Mounting System VESA-SA75



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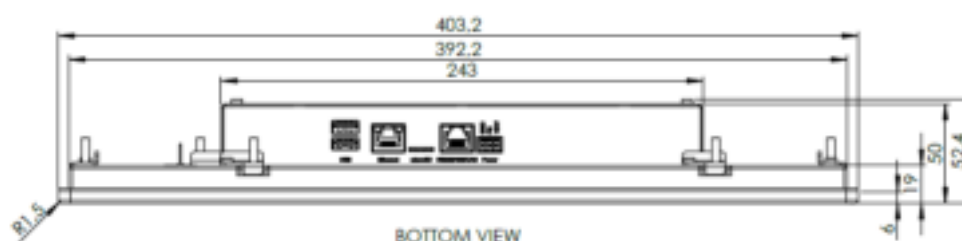
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### 3.3 Technical Drawing

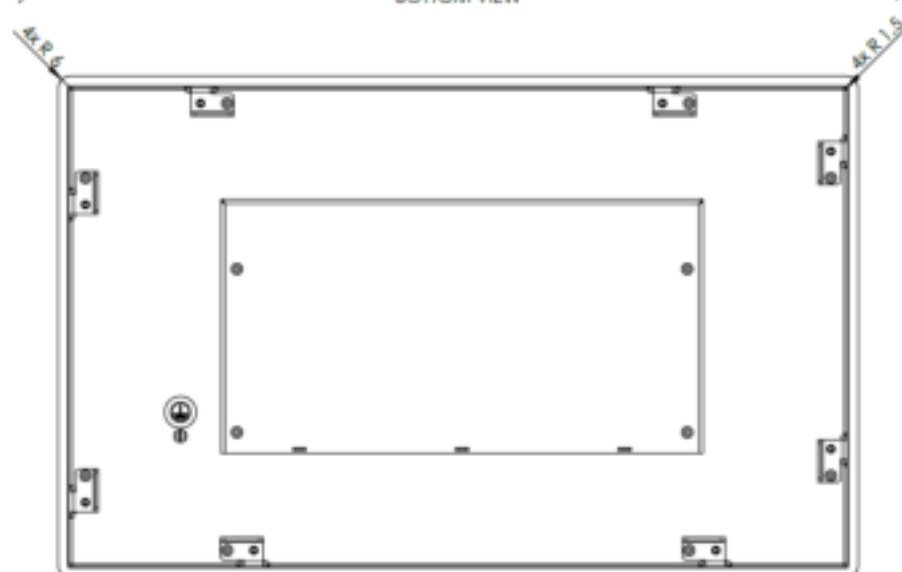


FRONT VIEW

### FRONT PANEL E702613



BOTTOM VIEW



REAR VIEW

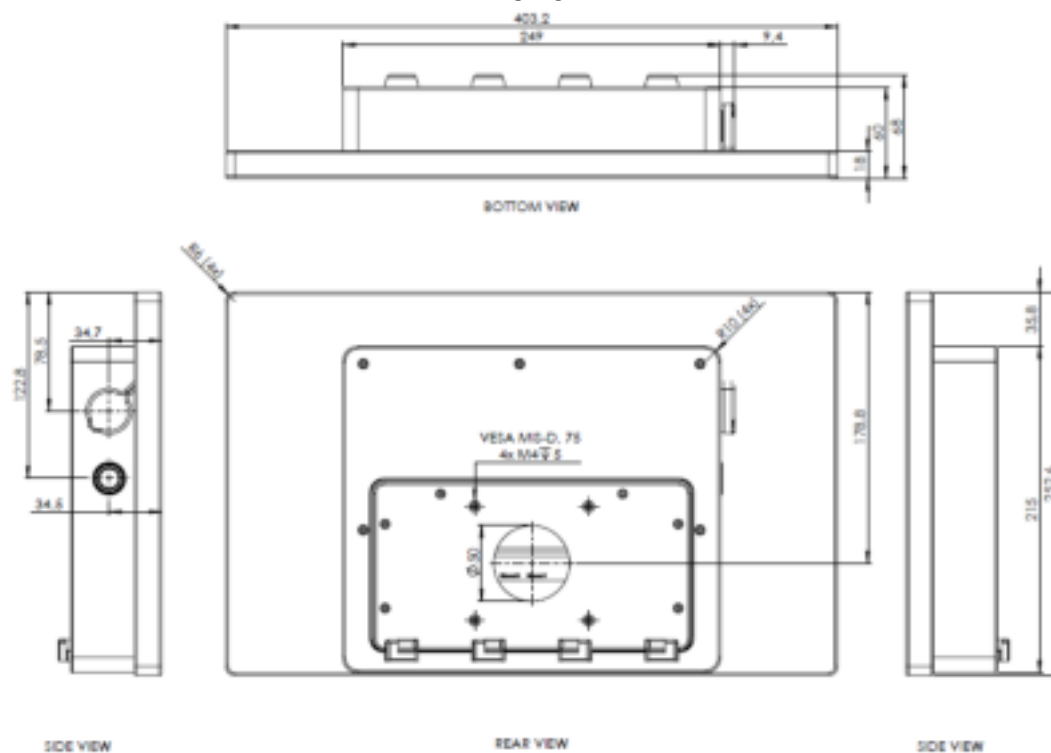


SIDE VIEW

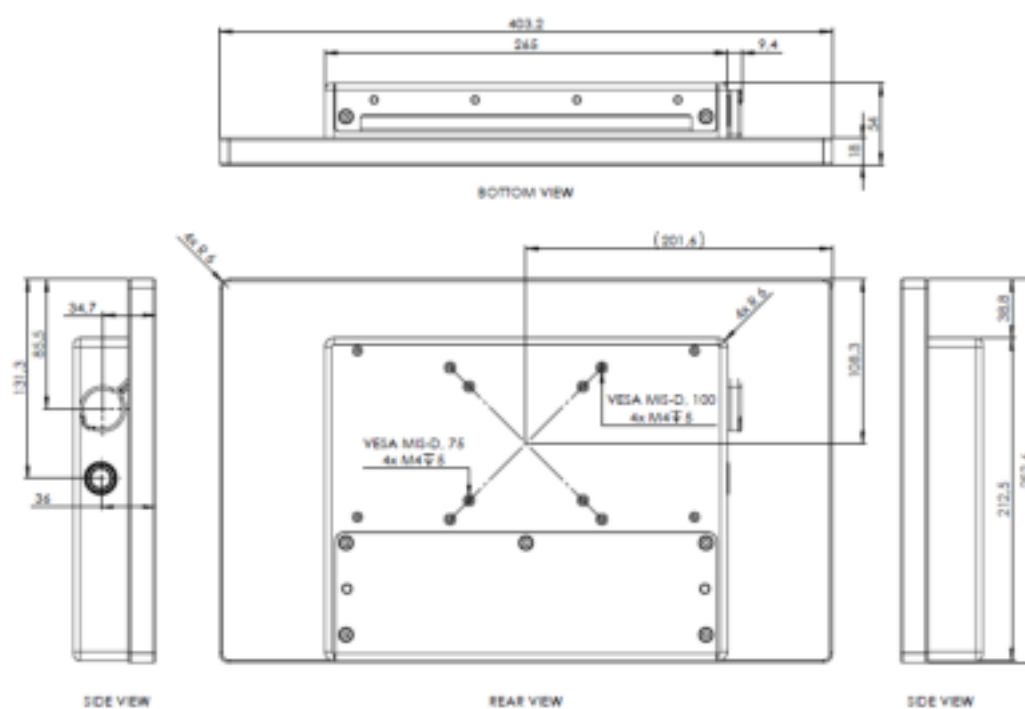
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### VESA E702617



### PA10004391

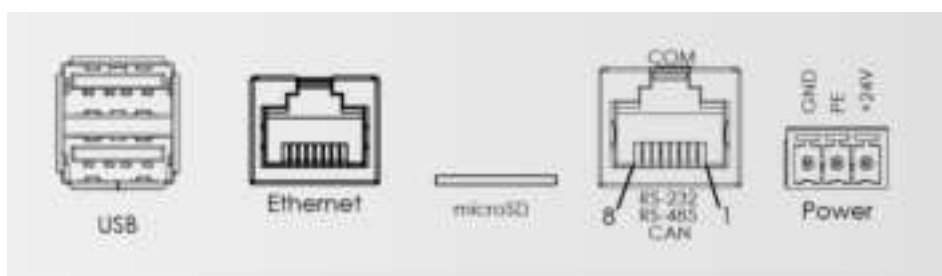


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### 3.4 Interfaces

<b>USB</b>	2 x USB 2.0
<b>Ethernet</b>	1 x 100 Mbit Ethernet
<b>Communication</b>	1 x RS-232, 1 x RS485, 1 x CAN (one connector)
<b>Power Connector</b>	Phoenix 3-pol MC 1,5/ 3-ST-3,5 BK



INTERFACES

COM Connector Pinning

Pin	Function	Description
1	GND	Ground
2	GND	Ground
3	RS485_P	RS485 Positiv
4	RS232_TX	RS232 Transmitter Signal
5	RS232_RX	RS232 Receiver Signal
6	RS485_N	RS485 Negative
7	CAN_Low	CAN Low Signal
8	CAN_High	CAN High Signal

### 3.5 Power supply

The power supply was part of the safety and EMC certification and it is necessary to use this kind or a similar one in respect of the technical datas:

<b>Type of power supply</b>	FSP060-DAAN2
<b>Input voltage</b>	100-240Vac
<b>Output voltage</b>	24Vdc
<b>Max. output current</b>	2,5A
<b>Power Connector</b>	Phoenix 3-pol MC 1,5/ 3-ST-3,5 BK

Changing the type of the power supply without our permission, may cause problems with the conformity of the certifications and therefore is not guaranteed

The device is only permitted to be supplied with a SELV/PELV power supply or with safety extra lowvoltage (SELV) per EN 62368-1

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### 4 Software

The highly customized software consists of:

- **Bootloader: Das U-Boot**
- **Linux (poky/ces-fb based)**
- **Kiosk browser based on chromium**

The system is configured to load a pre-set webpage and offer no additional method of configuration and does not allow any other use for the operator.

The system admin can configure the system via ssh.

#### 4.1 Accessing the System

##### 4.1.1 Accessing the System via SSH (Secure Shell)

SSH can be used for encrypted login over the network or for encrypted file transfer between your PC and the device.

```
ssh root@ <IP address of the device>
```

Example:

```
user@linux-pc:~$ ssh root@10.15.15.16
The authenticity of host '10.15.15.16 (10.15.15.16)' can't be established.
RSA key fingerprint is 54:09:6d:2e:c6:b3:09:06:8d:4b:a8:0c:a8:7d:64:4a.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '10.15.15.16' (RSA) to the list of known hosts.
root@10.15.15.174's password:
root@pixedl:~#
```

SSH uses port 22. User name and password are the same as for serial (RS232) login.

```
User: root
```

```
Password: root123
```

Because the IP address of the device is set to DHCP, **nmap** can be used to scan for the evalkit.

```
sudo nmap -sP <network identifier/netmask>
```

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Example:

```
sudo nmap -sP 10.15.15.0/24
```

This scans from IP address 10.15.15.0 to 10.15.15.255

### 4.2 Rebuilding the Image

Our source repositories and short instructions on how to rebuild the image can be found on:

<https://github.com/software-celo/ces-bsp-platform>.

### 4.3 Recover the Delivery State

To recover the delivery state of the image you can follow the instructions found in the CURT User Guide

<https://christelectronicssystemsbbox.com/v/curt-manual> (PA10002483).

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