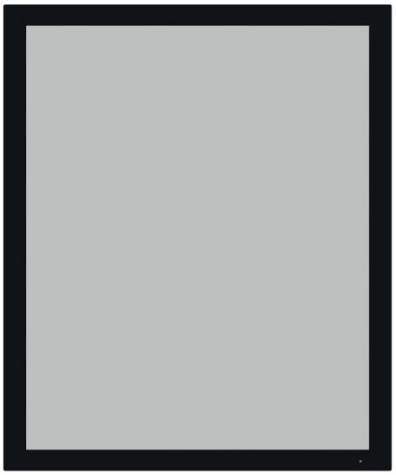
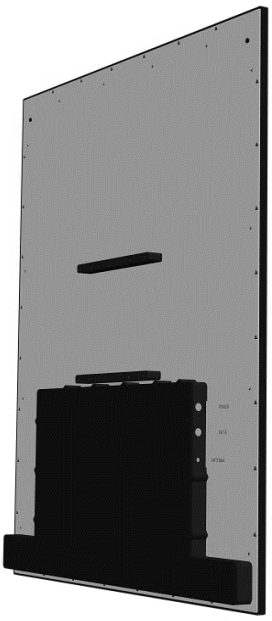
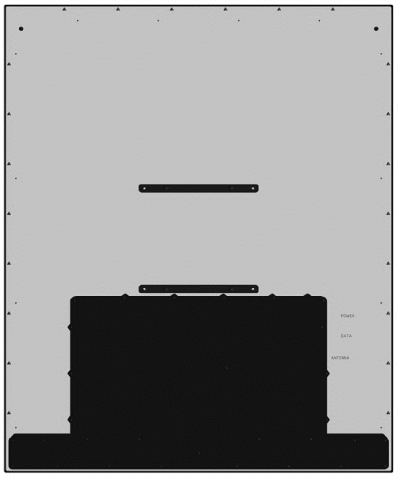
42" Outdoor Digital Sign: Model V42-OSM

An ultra-low power digital display built for outdoor use

Model V42-OSM
TECHNICAL SPECIFICATIONS







Large 42" Display	High Resolution	Sunlight Readable
Weatherproof IP65	Ultra-low Power	Solar Power Compatible
Impact Rated IK08	Landscape or Portrait	VESA mounting

© 2021 Volanti Displays

42" Outdoor Digital Sign: Model V42-OSM

General description:

The V42-OSM uses a 42” reflective E Ink® panel, it is designed for outdoor use and it is ultra-low power, ie suitable for solar power. It has a 42” active display area with 2160 x 2880 pixels, and it is capable of displaying images at up to 16 gray levels.

The main application is as a Public Information Display.
The Outdoor Master is designed to operate in full outdoor conditions and has an IP65 rating as well as an IK8 impact rating. The enclosure is aluminum, with an AR treated optically bonded cover glass; the result is a display system with excellent temperature performance and protection against humidity, UV and IR radiation. The enclosure minimizes the solar load thus enabling use 24/7/365 outdoors and in full sun.

The display is readable even in bright environments and with direct sunlight on the front of the screen. In addition the integrated front light offers illumination during the night. It can be used in portrait or landscape mode depending on the mounting method and image content. On the back of the display there are the power and signal connections as well as the VESA standard mounting holes.

Features:

- High contrast reflective technology
- 2160 x 2880 resolution
- USB image interface (other options available)
- Ultra-wide viewing angle
- Ultra-low power consumption, solar power suitable
- Pure reflective mode
- Built-in front light for night vision
- Bi-stable (holds its image without power)
- Designed for usage in Outdoor conditions
- IP65 and IK08 ratings
- Optically bonded cover glass
- 200x200mm VESA mount

Options:

- Integrated Raspberry Pi 3 Model B+
- Wi-fi or cellular (LoRa to be confirmed)
- Solar power kit
- Custom mounting solutions

© 2021 Volanti Displays

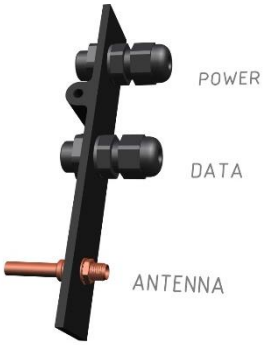
42" Outdoor Digital Sign: Model V42-OSM

Main Specifications	
Items	**Description**
Type	42” E Ink monochrome display
Panel technology	Electronic Paper Display
Display Size	42”
Image Input	USB - BMP image or other based on optional media device
Active image area dimensions	856.8 x 642.6 mm
Power	12V DC Standby power: 0.7W (plus other devices) Full screen image write: 14.6W (plus optional devices) Front edge-light: 4.3W (max)
Characters displaying	Resolution: 2880 x 2160 Pixel pitch: 0.2975 x 0.2975 mm 16 gray level – 4bit (monochrome)
Optical characteristics	Contrast ratio: 12:1 (typical) White reflectance: 40% Viewing angle: > 160°
Front glass	4 mm tempered anti-glare optically bonded glass
Front light	Luminance: 25 nits max Uniformity: 50% - 60%
Front light reliability	50K hours at 75% of original luminance value
Environmental conditions	Ambient operating temperature: -15 to +65 °C Storage temperature: -25 to +70 °C Relative humidity: 5 to 95% non-condensing
Ratings	IP-65 weatherproof IK08 impact resistance
Solar load	800 w/m^2 (incident solar radiation) 1150 w/m^2 (ambient solar radiation)
Mounting	200 x 200mm VESA, M6 screws, landscape or portrait
Dimensions	725 x 939 x 42 mm
Weight	23 kg

© 2021 Volanti Displays

42" Outdoor Digital Sign: Model V42-OSM

POWER / DATA Cable Connection

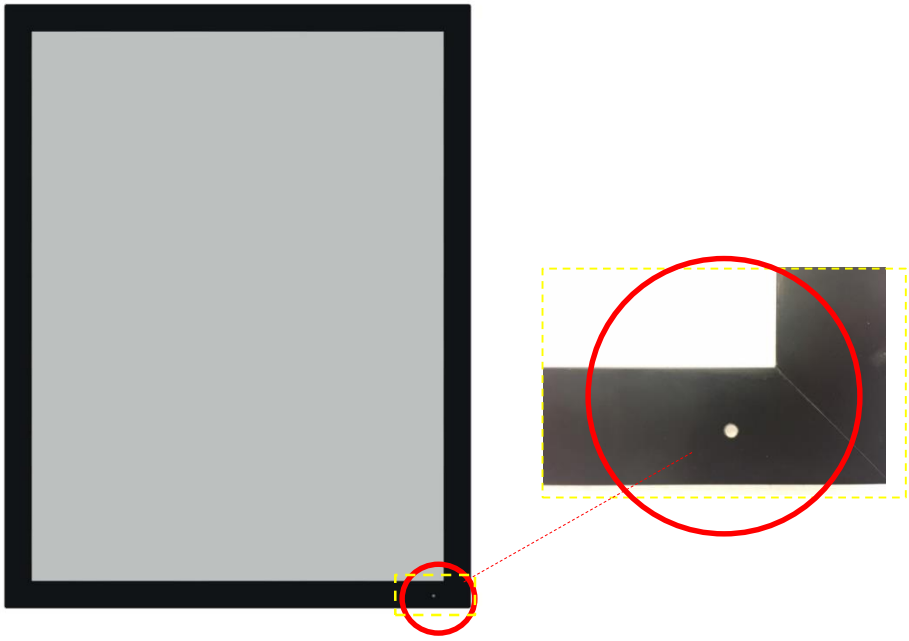


The power and data connectors, and the wi-fi antenna are located on the back of the display.

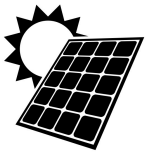
- Power: 12VDC
- Data: USB or other depending on the integrated devices such as Raspberry Pi.
- Antenna: Wi-fi or cellular depending on integrated devices.

Ambient light sensor:

The Outdoor Master light sensor is located on the front frame of the display. This can be used to enable automatic on/off of the front lighting of the display for use in low light conditions.



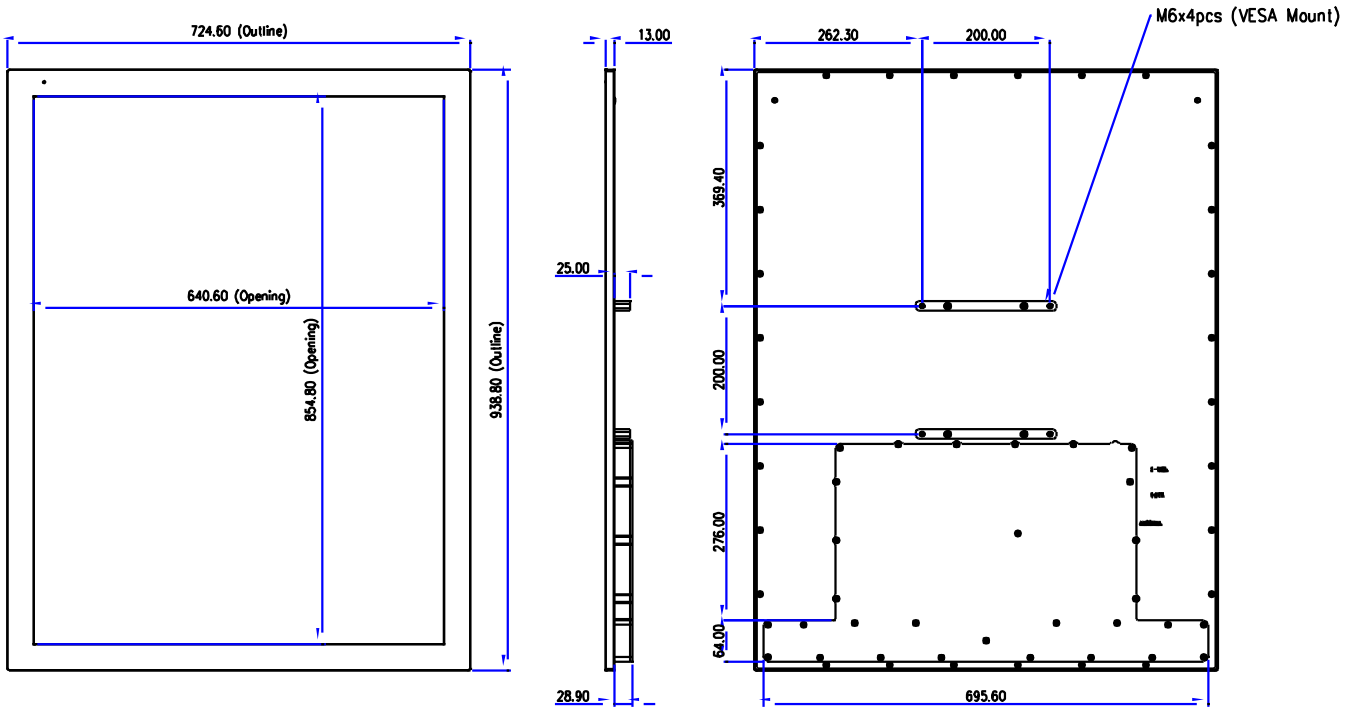
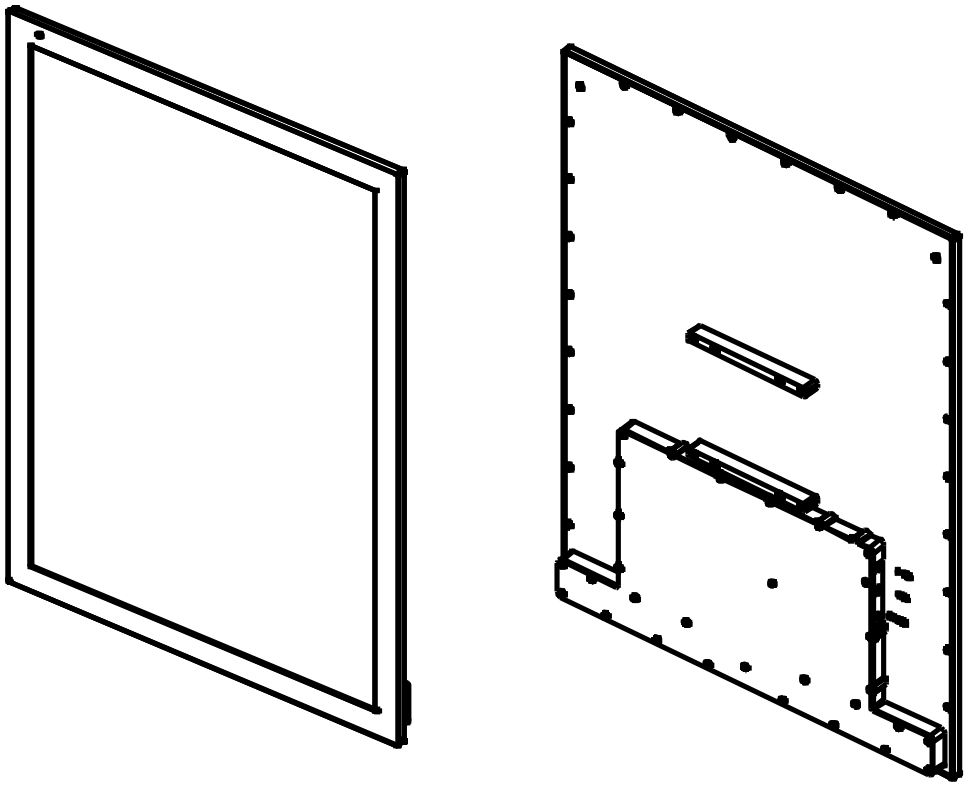
Solar Power Kit Option:



The V42-OSM display is ultra-low power and can be powered by solar:

- Solar panel
- Power controller
- Battery

© 2021 Volanti Displays

42" Outdoor Digital Sign: Model V42-OSM

Dimensions