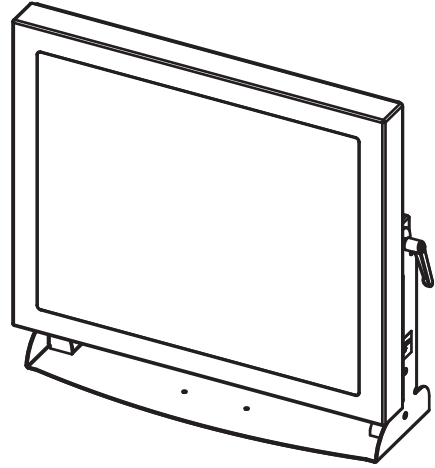


# SG-S192/ SG-S212/ SG-S232

## Quick Reference Guide



Ver. Q1

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## Specifications

### System

CPU Support	Intel® Celeron® J6412 processor Intel® Atom® x6425RE processor (option)
Memory Support	1 x DDR4 3200MHz SO-DIMM socket (up to 32GB) (non-ECC)
Operating System	Windows® 11 / Windows® 10 IoT LTSC 64bit Ubuntu 20.04 (Kernel 5.4)
Enclosure	Stainless SUS304
IP Rating	IP66 / IP69K
Power Input	DC In 12V/24V
Watchdog	1~255 second Watchdog timer selectable
Mounting Support	VESA 100 / Stand
System Weight	<b>SG-S192:</b> 15kg / <b>SG-S212:</b> 16.9kg / <b>SG-S232:</b> 19.1kg
Dimensions (WxHxD) (w/o Stand)	<b>SG-S192:</b> 488 x 416 x 95.3mm/ <b>SG-S212:</b> 590 x 395 x 92.3mm/ <b>SG-S232:</b> 635 x 404 x 91.8mm
Dimensions (WxHxD) (with Stand)	<b>SG-S192:</b> 488 x 464 x 160mm/ <b>SG-S212:</b> 590 x 447.5 x 160mm/ <b>SG-S232:</b> 635 x 463 x 160mm
Certifications	FCC / CE

### I/O Ports

Power Input	1 x M12 waterproof connector, supporting 12V/24V DC
USB	2 x USB 2.0 M12 waterproof connectors (4 x USB ports)
Serial Ports	2 x COM M12 waterproof connectors, with RS-232/422/485
LAN	2 x 1GbE LANs with M12 waterproof connectors Supports Wake-On-LAN

Storage	1 x 2.5" SATA III SSD
Expansion Bus	1 x full-sized Mini PCIe slot (Mini PCIe and USB signal)

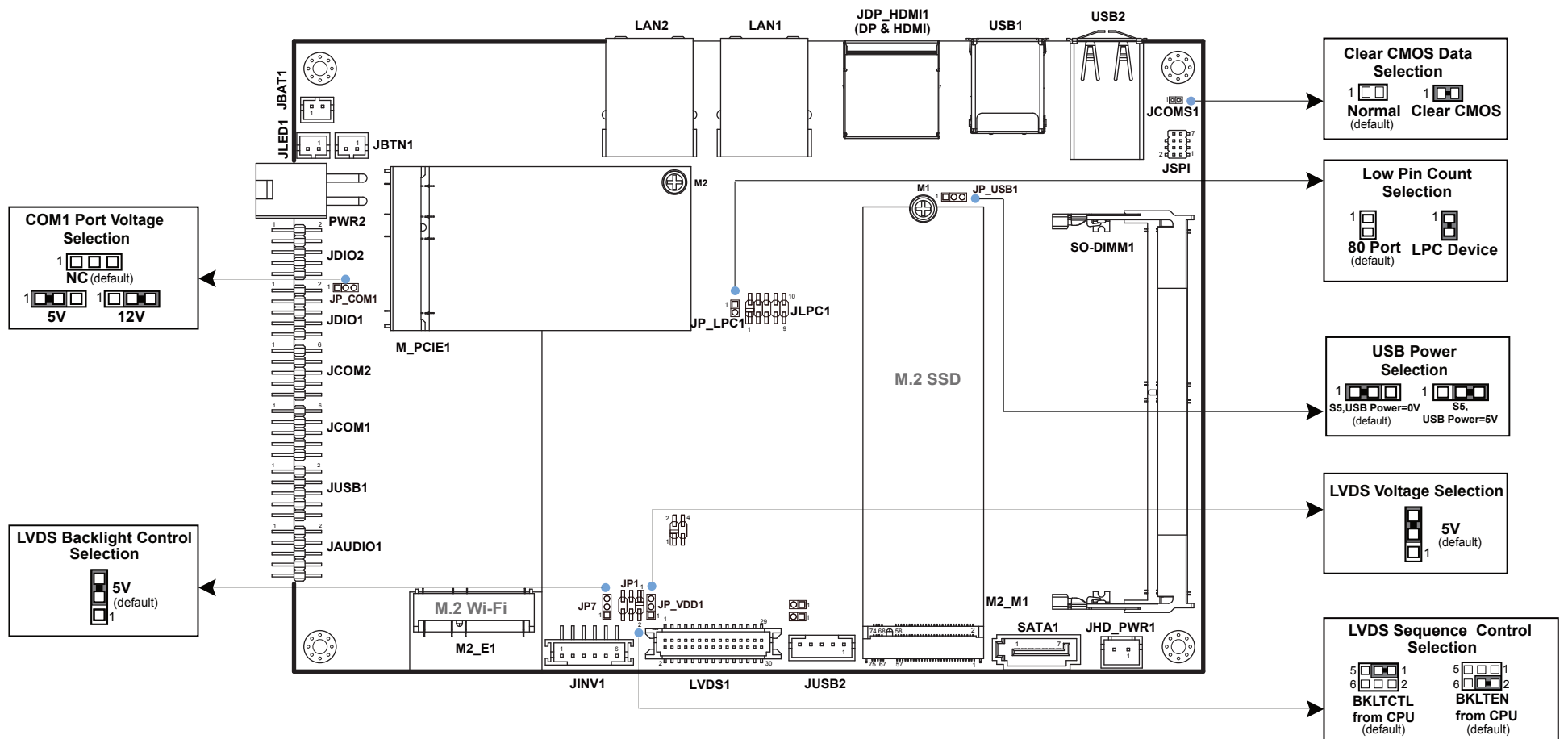
### Display

LCD	<b>SG-S192:</b> 19" TFT LCD (LED) resolution 1280x1024 <b>SG-S212:</b> 21.5" TFT LCD (LED) resolution 1920x1080 <b>SG-S232:</b> 23.8" TFT LCD (LED) resolution 1920 x 1080
Touchscreen	Projected capacitive touchscreen (USB interface) or 5-wire resistive touchscreen (option)

### Environment

Operating Temperature (with airflow)	0°C~50°C (32°F~122°F) -20°C~50°C (-4°F~122°F) (Wide-ranged temp. sku and components)
Storage Temperature	-20°C~80°C (-4°F~176°F)
Humidity	20% ~ 90%

## Jumper Setting



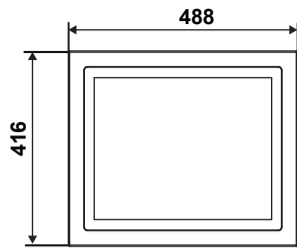
### CAUTION!

- Danger of explosion may occur if the battery is replaced incorrectly. Replace batteries only with the same or equivalent type recommended by the manufacturer. Dispose the used batteries according to the manufacturer's instructions.
- The waterproof capability of the device may be incapable when the screws are loosened.
- The O-ring to seal the device may be damaged during the maintenance process. Qualified engineer is recommended to make the O-ring replacement to keep the waterproof capability of the device.

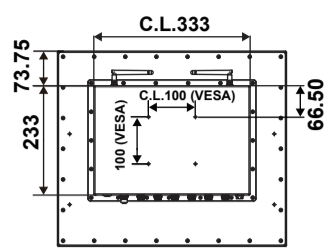
## SG-S192 Overview

(Unit: mm)

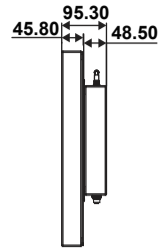
### Front View



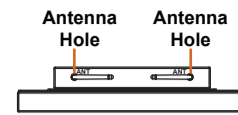
### Rear View



### Side View



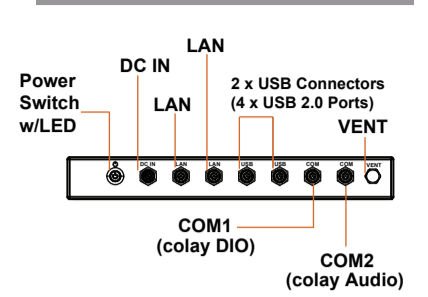
### Top View



### Bottom View

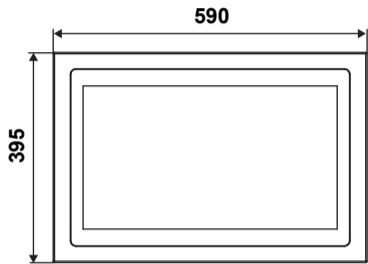


### Rear I/O View

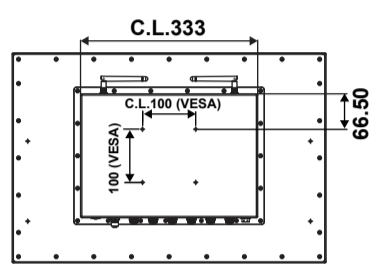


## SG-S212 Overview

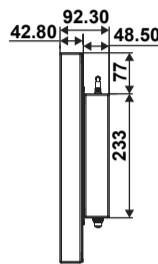
### Front View



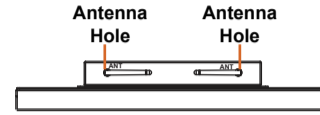
### Rear View



### Side View



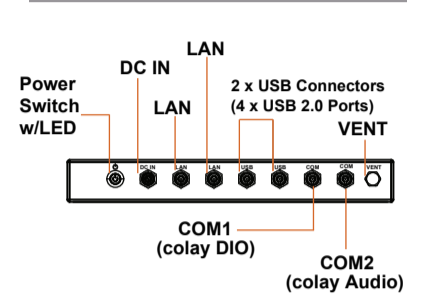
### Top View



### Bottom View

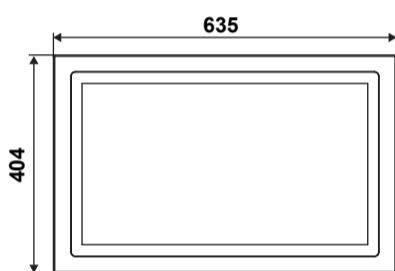


### Rear I/O View

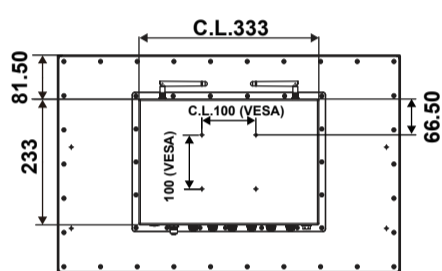


## SG-S232 Overview

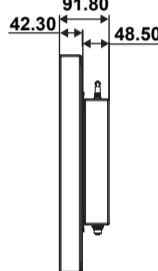
### Front View



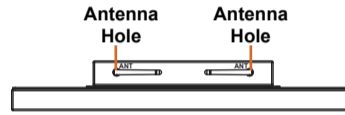
### Rear View



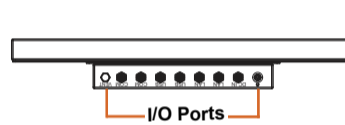
### Side View



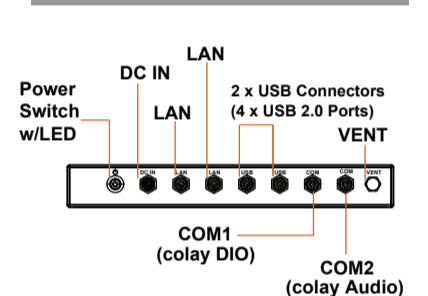
### Top View



### Bottom View

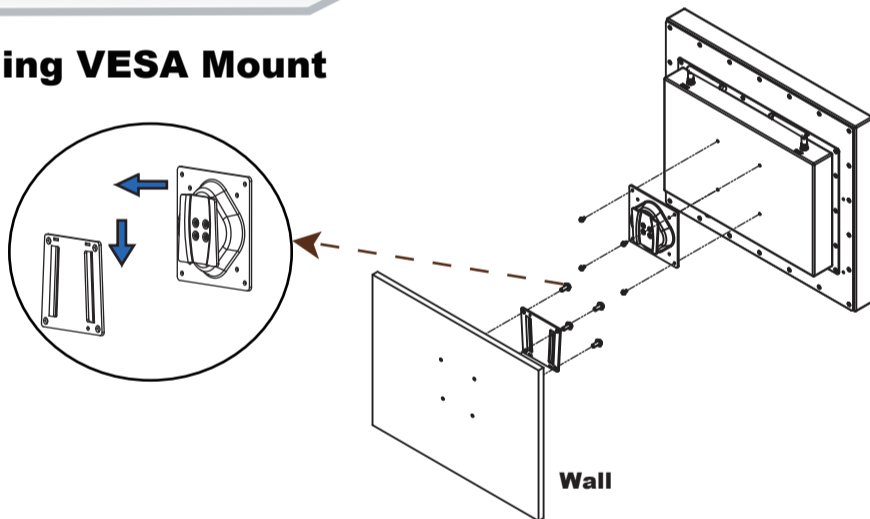


### Rear I/O View



## Quick Setup

### Installing VESA Mount



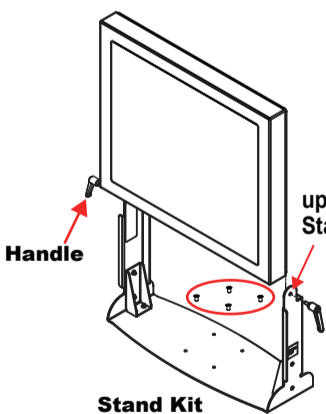
### VESA Mount Accessories

#### VESA Mount



VESA Mount Kit x 1

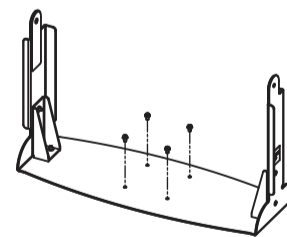
### Installing Stand Kit



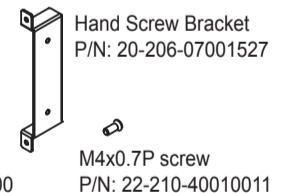
**Step 1. Attach Panel PC onto Stand Kit and align the side holes on the rear of Panel PC with the upper holes of the Stand Kit.**

**Step 2. Fasten the two handles into the side holes of the Stand Kit to secure the system and complete.**

### Stand Installation Accessories



**Stand Kit x 1 + Screw x 4**  
M4 x 0.7P screw  
P/N: 22-240-40020011



**Hand Screw Bracket x 2 + Screw x 4**  
Hand Screw Bracket  
P/N: 20-206-07001527  
M4x0.7P screw  
P/N: 22-210-40010011

## Safety Precaution

The following messages are reminders for safety on how to protect your system from damages and extend a long life of the system.

#### 1. Check the Cable Voltage

- The range of operating voltage should be DC 12V/24V. Otherwise, the system could be damaged.

#### 2. Environmental Conditions

- Place your SG-S192 / SG-S212 / SG-S232 on a sturdy, level surface. Be sure to allow enough space to have easy access around the system.
- Avoid extremely hot or cold place to install the system.
- Avoid exposure to sunlight for a long period of time or in an airtight space.
- Avoid the system from any heating device or using the system when it's been left outdoors in a cold winter day.
- Bear in mind that the operating ambient temperature is from 0°C ~ 50°C (32°F~122°F).
- Avoid moving the system rapidly from a hot place to a cold place and vice versa because condensation may come from inside of the system.
- Placing the sy in strong vibrations may cause hard disk failure.
- Don't place the system close to any radio-active device in case of signal interference.

#### 3. Handling

- Do not turn the system upside down. This may cause the hard drive to mal-function.
- Avoid putting heavy objects on top of the system.

#### 4. Good Care

- When the outside of the case is stained, remove the stain with a neutral washing agent with a dry cloth.
- Never use strong agents such as benzene and thinner to clean the system.
- If heavy stains are present, moisten a cloth with diluted neutral washing agent or with alcohol and then wipe thoroughly with a dry cloth.
- If dust has been accumulated on the outside, remove it by using a special vacuum cleaner for computers.

**CAUTION!** Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

**WARNING!** Some internal parts of the system may have high electrical voltage. And therefore we strongly recommend that qualified engineers can open and disassemble the system. Please handle LCD and Touchscreen with extra care as they are easily breakable.