SEADA

# Motorized Retractable Monitor & Microphone + DB system

## User Manual

SC15/17/22FG
SC15/17/22FG-DB

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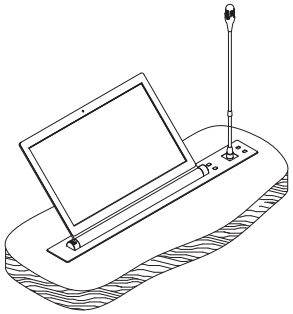
# 1. Introduction

The SEADA FG & FG-DB Series Motorized Retractable Monitors are state of the art exquisite monitors and microphone system that are made from aluminum. To ensure the finest ergonomics and the best viewing angle it has a vertical motorized movement that can be tilted from 0°to 45°. FG & FG-DB series comes in three different sizes of 15'',17'' and 22'' to satisfy different users' need.

This system can be used as a standalone unit in class rooms, offices, receptions etc. In addition, it can operate as a multi units' system with the SEADA built-in DB paperless conference system. The DB system enables participants to share their on screen content with the rest of room via a single button pressing.

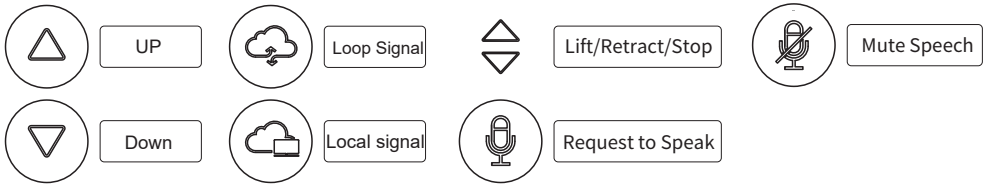
When it is not in use, the monitor and microphone can be retracted into the housing beneath the desk. This makes the desk surface tidy as well as putting the monitor and microphone in a safe and secure location.



# 2. Packing List

| | | | | |
|---|---|---|---|---|
| 1. Retractable Monitor | x1 | 5. 1.5m USB Cable | x2 | |
| 2. Power Lead | x1 | 6. Cat Cable | x1 or 2 | (2 for DB only) |
| 3. User Manual | x1 | 7. 0.3m HDMI Cable | x1 | (DB only) |
| 4. DB9 Cable (F to F) | x1 | 8. 1.2m HDMI Cable | x1 or 2 | (2 for DB only) |

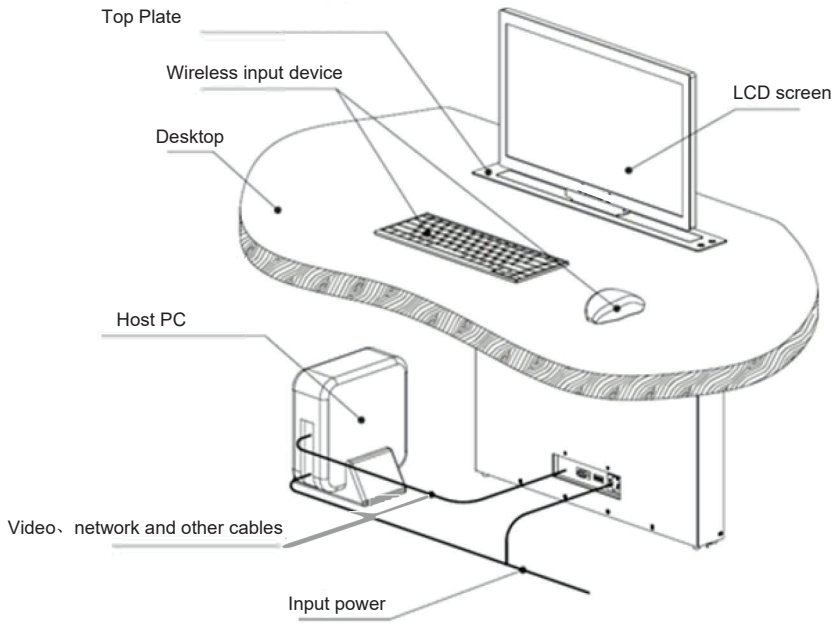
- **Button Function**





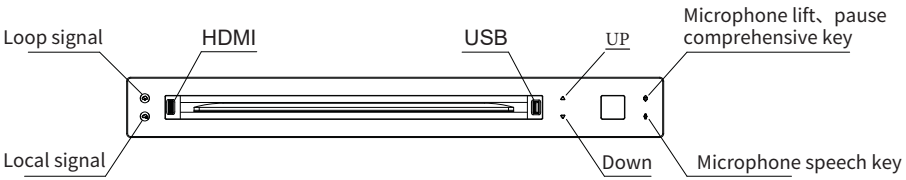

# 3. Features

1) Ultra slim screen design
2) Motorized retractable monitor
3) 0 to 45 or 15 degrees of adjustable screen
4) Content sharing ability with DB system built-in
5) HDMI port on top plate with DB system enable 3rd video source connect and display
6) Two buttons control for up, down, pause and angle adjustment
7) Ergonomic design
8) Integrated PC USB Port
9) Touch screen
10) Support HDMI/DVI/VGA inputs
11) Stylish design
12) RS485 controlling
13) Support power socket daisy chain



## 4. Function Features

### 1. Monitor + DB keyboard function indicate




① Up Press the **Up** button, monitor goes up

② Down Press the **Down** button, monitor goes down

③ Stop Press the **UP** or **Down** button when the monitor is moving, the monitor movement will be stopped

④ Adjust the angle

When monitor stops at upper limit, users can press the Up and Down buttons to adjust the monitor angle

⑤ USB port

Transfer data with connected PC

⑥ Local signal (DB only)

Press this button to show the content from local PC or HDMI port input from top plate. Its light will be on

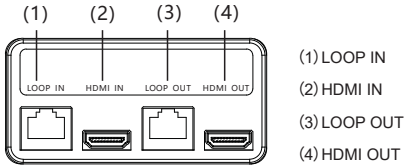
⑦ Loop signal (DB only)

Press this button to share the content. Its light will be on. If loop light is on and local light is off, the screen will show the content from other content sharing station in the system.

⑧ HDMI (DB only)

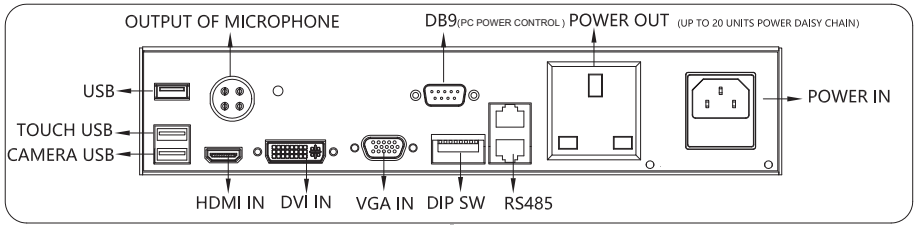
Connect video source here to be displayed on screen. It has priority over connected PC source

### 2. DB Interface Panel




(1) LOOP IN
(2) HDMI IN
(3) LOOP OUT
(4) HDMI OUT

### 3. Device Interface Panel





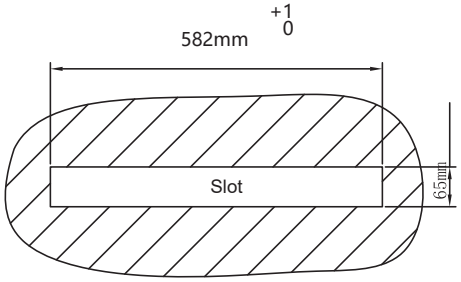

## 5. Product Features

| | SC15G & SC15FG-DB | SC17FG & SC17FG-DB | SC22FG & SC22FG-DB |
|---|---|---|---|
| Screen Size | 15.6 inch | 17.3 inch | 21.5 inch |
| Aspect Ratio | 16:9 | | |
| Resolution | 1920*1080 | | |
| Inputs | VGA/HDMI 1/HDMI 2 | | HDMI/DVI/VGA |
| Inputs Switching | Top plate buttons/RS485 | | |
| Backlight | LED | | |
| Contrast | 1200:1 | 800:1 | 3000:1 |
| Response Time | 20ms | 30ms | 6.5ms |
| Brightness | 300cd/m² | 250cd/m² | 250cd/m² |
| View Angle | 85/85/85/85 | | 89/89/89/89 |
| Front Panel | T is touch screen/ Toughened glass | | |
| Frame Finish | Aluminum alloy | | |
| Display Area | 358.7×221.3mm | 408.5×256.8mm | 496.4×291mm |
| Screen Thickness | ≤6mm | ≤6mm | ≤8mm |
| Power Supply | AC220-240V with power daisy chain up to 20 units | | |
| Power Consumption | ≤75W | | |
| Fully up Time | 18s | 20s | 23s |
| Loading Capacity | ≤3.5Kg | | |
| Device Weight | Net: 14Kg,Gross: 17Kg | Net: 17Kg,Gross:20Kg | Net: 22Kg, Gross: 28Kg |
| Top Plate Flatness | ±0.2mm | | |
| Unit Size (WxLxH) | 73×590×690mm | 73×650×690mm | 73×730×690mm |
| Top Plate Size | 73×590mm | 73×650mm | 73×730mm |
| Housing Slot Size | 65×582mm | 65×642mm | 65×722mm |
| Adjustable Angle | 0-45° | 0-45° | 0-15° |
| Panel Color | Silver or Black | | |
| USB Port on Plate | 1 | | |
| | DMB Parameter | | |
| Bandwidth | 9Gbps | | |
| Range of loop clock | 140MHz-150MHz | | |
| Signal | HDMI1.4, backwards compatible | | |
| Color Depth | 8bit | | |
| Resolution | 1080p@60Hz | | |
| Maximum Distance | 20m (CAT5e，1080P60) | | |
| Microphone Length | 320-430mm | | |

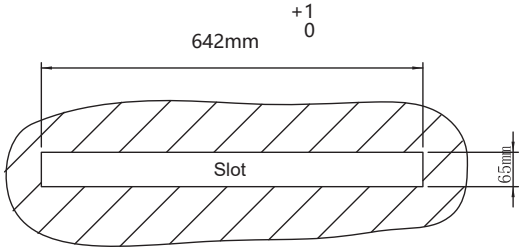
## 6. Installation guidance

Retractable monitors must be installed on the hard and good quality desktop. it is recommend to cut the slot on table no less than 350mm from the edge of the table to give enough leg room.

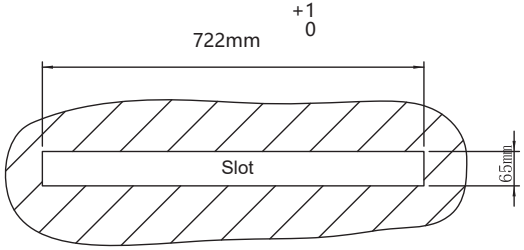
Make sure the table height is enough to host the unit and to avoid the unit touch the floor.




SC15FG & SC15FG-DB Slot Cut Size




SC17FG & SC17FG-DB Slot Cut Size




SC22FG & SC22FG-DB Slot Cut Size

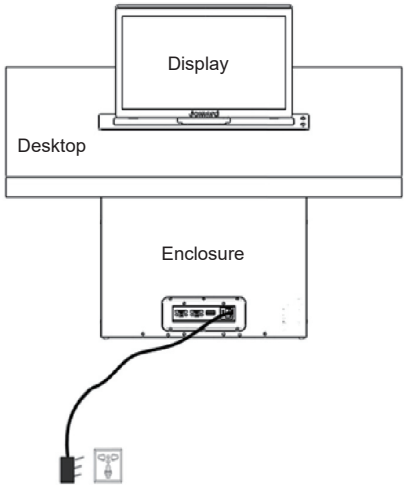


## 6. Installation guidance

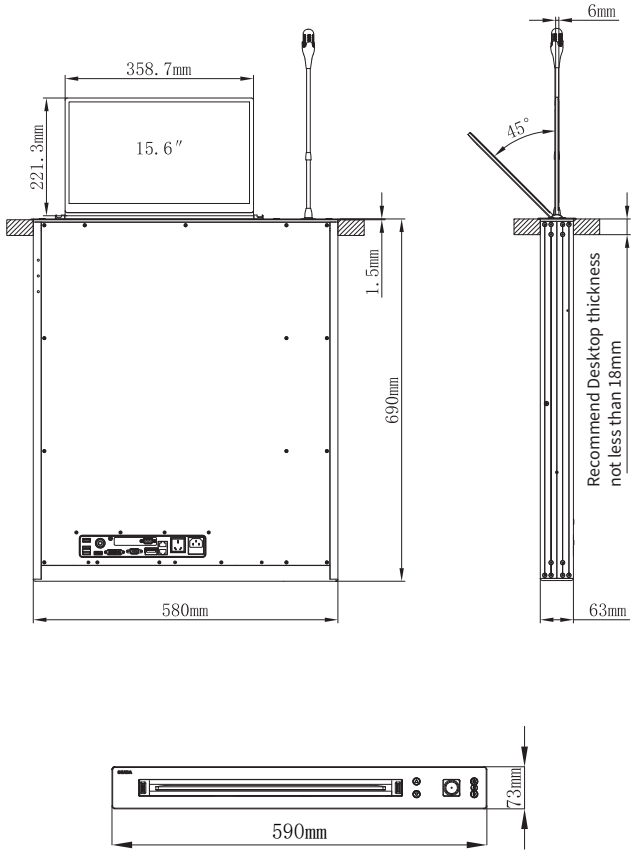
Slide the unit into the table via the slot. Ensure the unit sitting on the table properly. Remove the screen protection foams from the unit.

**Note:** If ever the unit needs to be taken out of the table for relocation, please put the screen protection foams back before the actions.

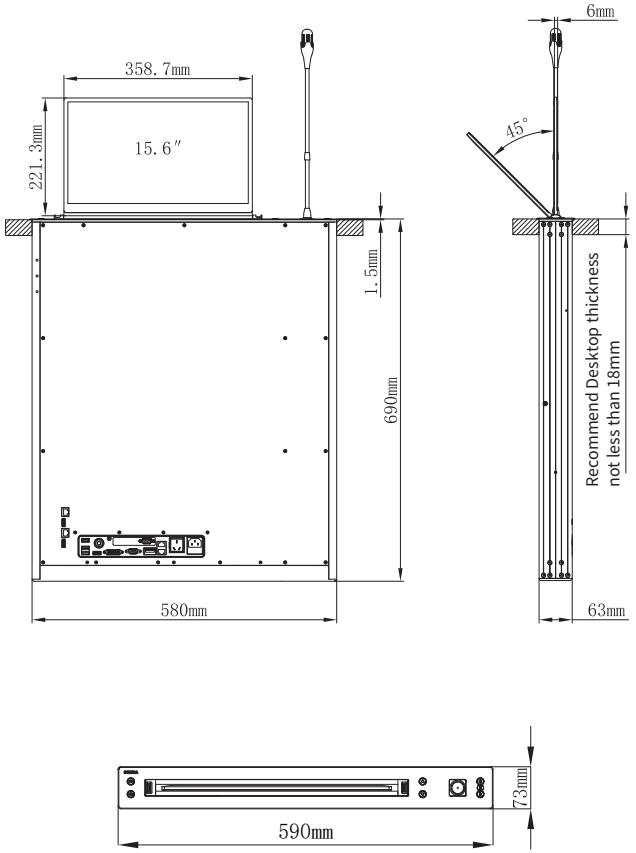
Connect all the cables and power up the unit, and then the control buttons on top plate will be lit which means the unit is ready.



## 7. Product Drawing

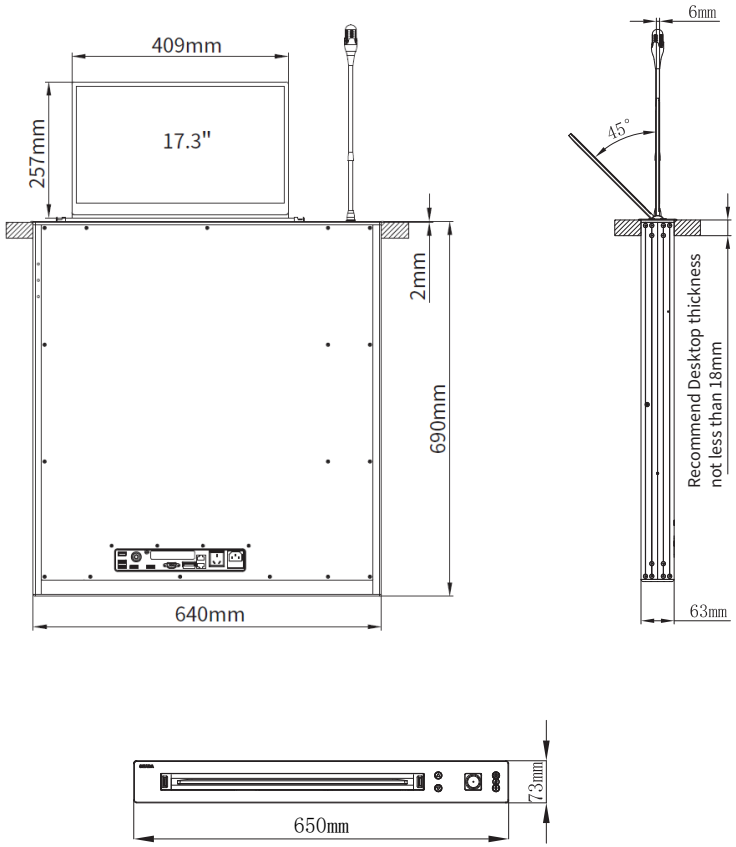



SC15FG dimensions




SC15FG-DB dimensions

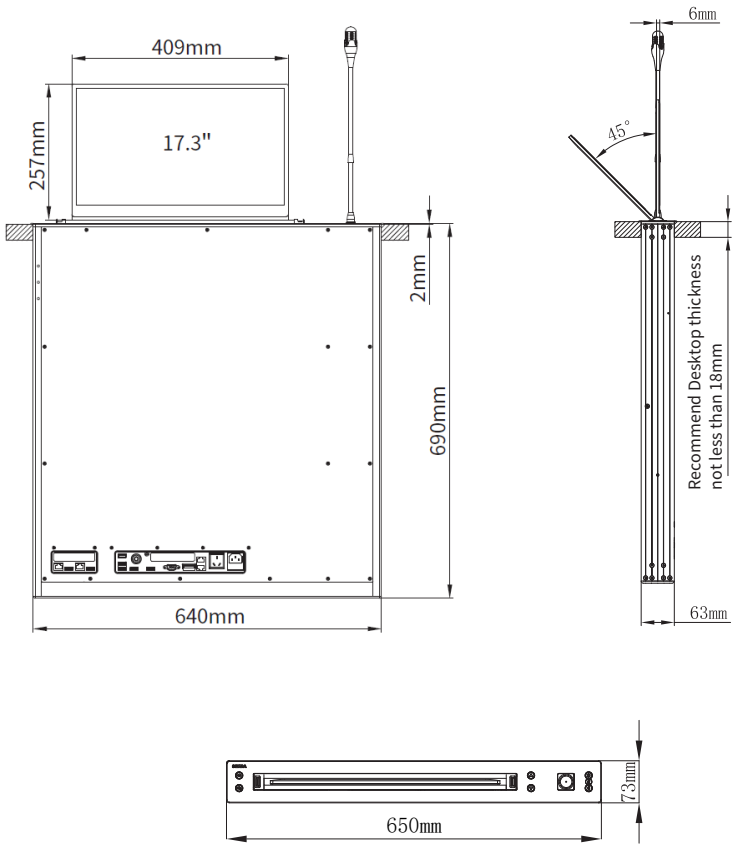
## 7. Product Drawing




SC17FG dimensions

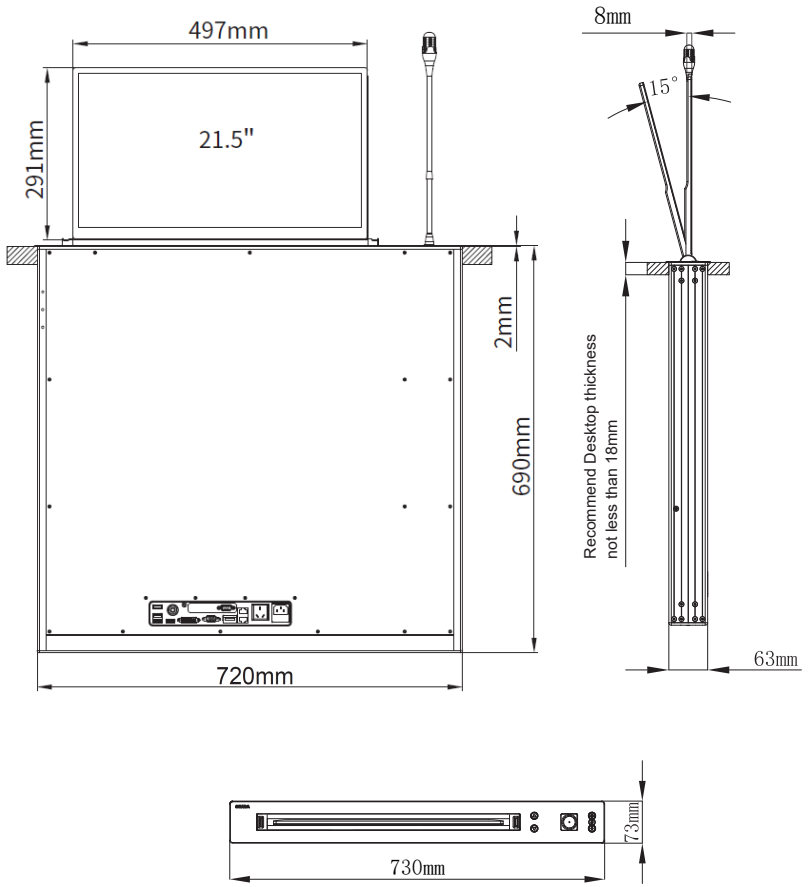


## 7. Product Drawing




SC17FG-DB dimensions

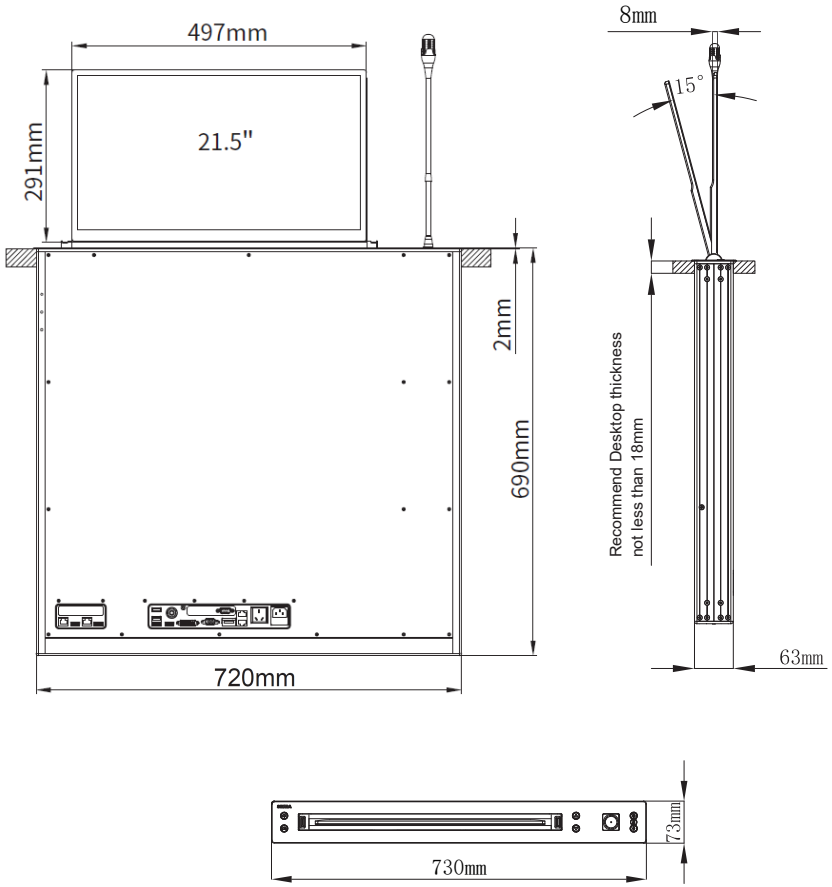
## 7. Product Drawing




SC22FG dimensions



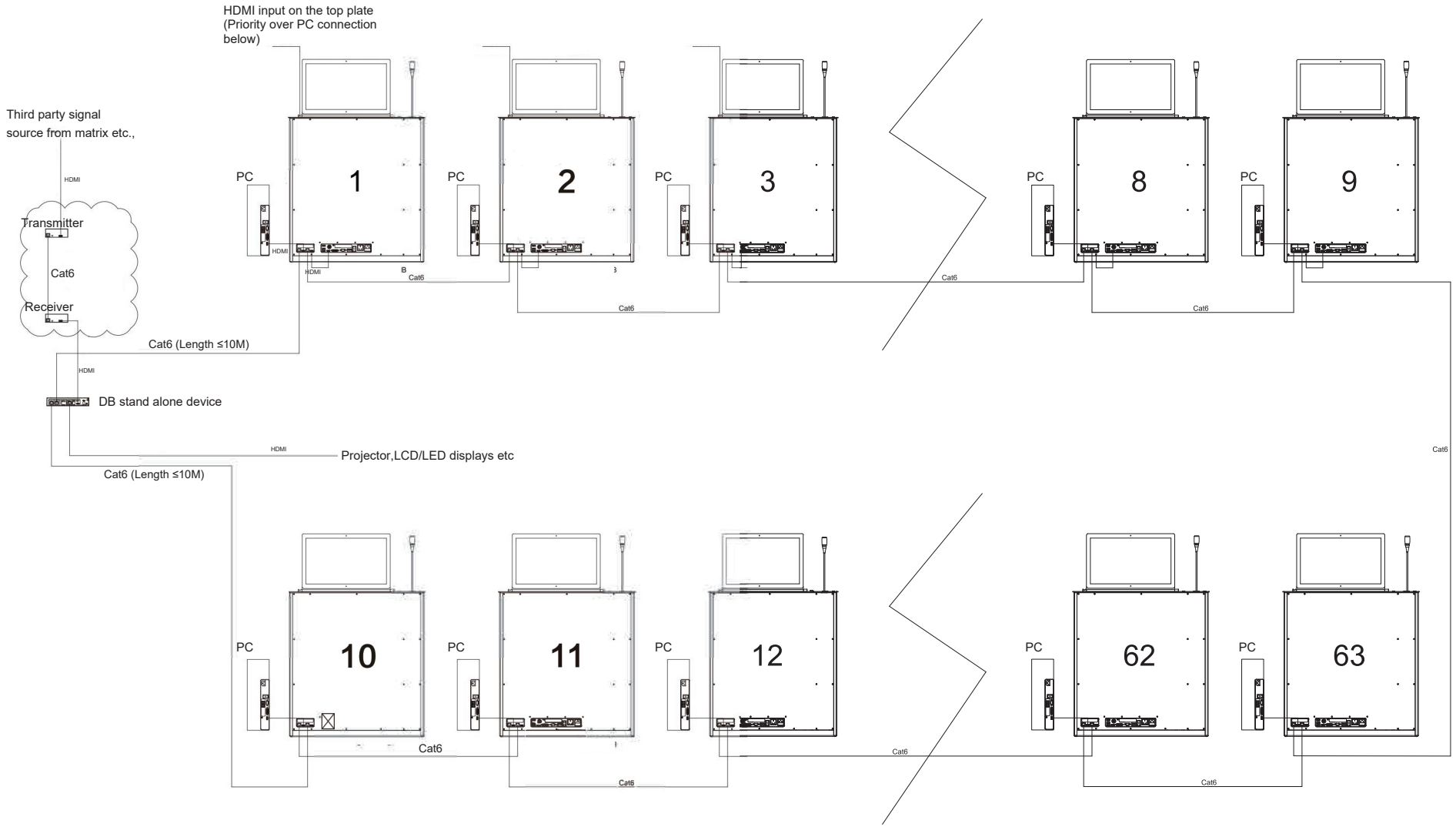
## 7. Product Drawing




SC22FG-DB dimensions

## 8. System diagram

Video signal connection diagram with DB system

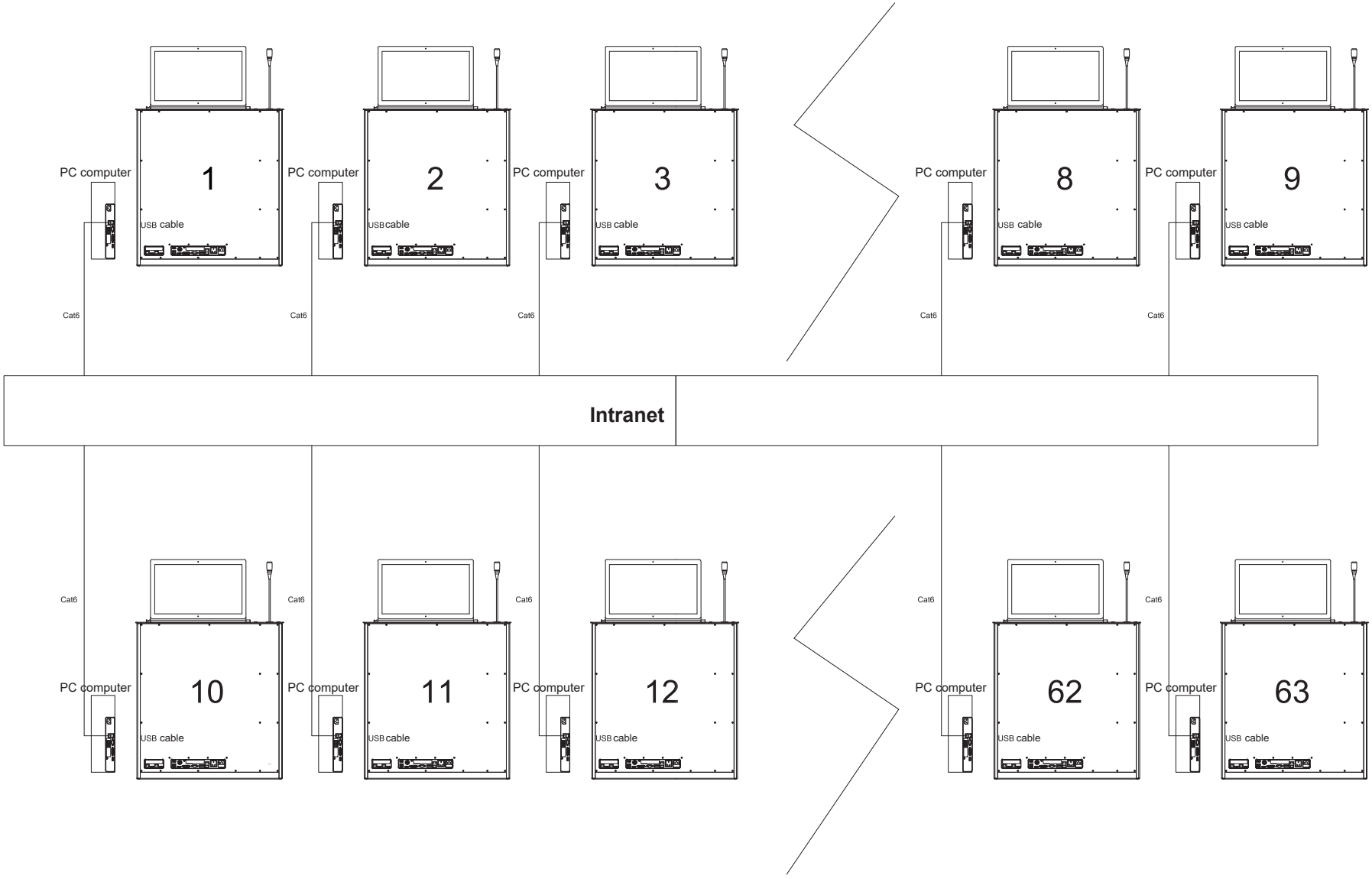





## 8. System diagram

In order to enable DB system, RS485 connection also needs to be established. Please refer to RS485 connection diagram

Network connection diagram






8. System diagram

RS485 connection diagram




8. System diagram

Power connection diagram




8. System diagram

# 9. Command lines

Users are able to control the retractable monitors via sending command lines to RS485 ports of the units

Setting for RS485 port
Baud rate：9600
Data bit：8
Parity bit：NONE
Stop bit：1
RS485
baud rate: 9600

When RS485 input port is RJ45, pin1 is “+”, pin2 is “-“.

| Control objects | Command | Command String | Command explaining |
|---|---|---|---|
| SCFG<br>SCFG-DB | UP | F6 5E 00 De_Add 04 01 CR | Microphone Up |
| | Stop | F6 5E 00 De_Add 04 00 CR | Microphone Stop |
| | Down | F6 5E 00 De_Add 05 01 CR | Microphone Down |
| | UP | F6 5E 00 De_Add 06 01 CR | Screen & Microphone Up |
| | Stop | F6 5E 00 De_Add 06 00 CR | Screen & Microphone Stop |
| | Down | F6 5E 00 De_Add 07 01 CR | Screen & Microphone Down |
| | UP | F6 5E 00 De_Add 01 01 CR | Screen Up |
| | Stop | F6 5E 00 De_Add 01 00 CR | Screen Stop |
| | Down | F6 5E 00 De_Add 02 01 CR | Screen Down |
| | HDMI | F6 5E 00 De_Add 03 00 CR | Signal from HDMI |
| | VGA | F6 5E 00 De_Add 03 01 CR | Signal from VGA |
| | DVI | F6 5E 00 De_Add 03 02 CR | Signal from DVI |
| | Status Check | F6 5E 00 De_Add 0A 0B CR | Status check |

De_Add: The Device Address for each individual unit. Please see table below for setting up
If De_Add in command string is '00', the command is applied to all devices in the system

CR: The last two digitals from the sum of the values of all HEX in the string
e.g. F6 5E 00 De_Add 01 01 CR CR= F6 + 5E + 00 + De_Add + 01 + 01
If De_Add = 00 CR = 56, so the comman line is 'F6 5E 00 00 01 01 56'



# 9. Command lines

| Unit DIP SW for Device Address | | | | | | Code | |
|---|---|---|---|---|---|---|---|
| 1st | 2nd | 3rd | 4th | 5th | 6th | Base-16 | Base-10 |
| OFF | OFF | OFF | OFF | OFF | OFF | 0×00 | 0 |
| ON | OFF | OFF | OFF | OFF | OFF | 0×01 | 1 |
| OFF | ON | OFF | OFF | OFF | OFF | 0×02 | 2 |
| ON | ON | OFF | OFF | OFF | OFF | 0×03 | 3 |
| OFF | OFF | ON | OFF | OFF | OFF | 0×04 | 4 |
| ON | OFF | ON | OFF | OFF | OFF | 0×05 | 5 |
| OFF | ON | ON | OFF | OFF | OFF | 0×06 | 6 |
| ON | ON | ON | OFF | OFF | OFF | 0×07 | 7 |
| OFF | OFF | OFF | ON | OFF | OFF | 0×08 | 8 |
| ON | OFF | OFF | ON | OFF | OFF | 0×09 | 9 |
| OFF | ON | OFF | ON | OFF | OFF | 0×0a | 10 |
| ON | ON | OFF | ON | OFF | OFF | 0×0b | 11 |
| OFF | OFF | ON | ON | OFF | OFF | 0×0c | 12 |
| ON | OFF | ON | ON | OFF | OFF | 0×0d | 13 |
| OFF | ON | ON | ON | OFF | OFF | 0×0e | 14 |
| ON | ON | ON | ON | OFF | OFF | 0×0f | 15 |

**Note:**

- Only first 6 switches are for device address setting
- Ensure each device has the unique address in the system
- Device Address must be set up for the device with DB system for content sharing
- DB system will do a signal boost every 4 devices to ensure the signal quality