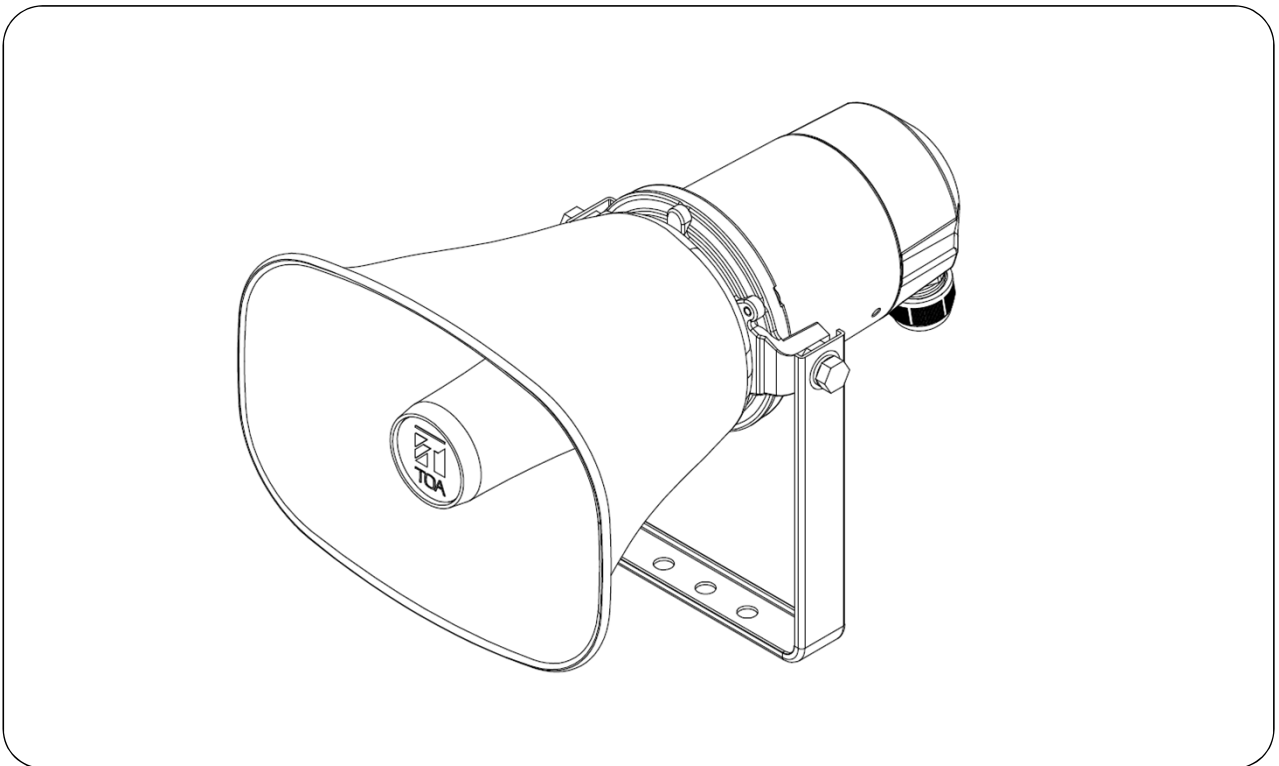# IP HORN SPEAKER UC- 4SC615 Q

Thank you for purchasing TOA's IP Horn Speaker.
Please carefully follow the instructions in this manual to ensure long, trouble-free use of your equipment.

CONTENTS

1. SAFETY INFORMATION

● Before installation or use, make sure to carefully read all the instructions in this section for correct and safe operation.
● Make sure to follow all the precautionary instructions in this section, which contain important warnings and/or cautions regarding safety.
● After reading, keep this manual handy for future reference.

Safety Symbol and Message Conventions

Safety symbols and message described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety hazards.

⚠ **WARNING** Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.

⚠ **CAUTION** Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.

⚠ WARNING

When Installing the Unit

• Install the unit only in a location that can structurally support the weight of the unit and the mounting bracket. Doing otherwise may result in the unit falling down and causing personal injury and/or property damage.

• When installing the unit in the snowy area, take appropriate measures to prevent snow from lying on the unit. If the snow lies on the unit, the unit may fall, causing personal injuries.

• Do not use other methods than specified to mount the bracket. Extreme force is applied to the unit and the unit could fall off, possibly resulting in personal injuries.

• Attach the safety wire to the unit. If not attached, the unit could fall off, resulting in personal injury.

• Use nuts and bolts that are appropriate for the ceiling's or wall's structure and composition. Failure to do so may cause the speaker to fall, resulting in material damage and possible personal injury.

• Tighten each nut and bolt securely. Ensure that the bracket has no loose joints after installation to prevent accidents that could result in personal injury.

• Do not mount the unit in locations exposed to constant vibration. The mounting bracket can be damaged by excessive vibration, potentially causing the unit to fall, which could result in personal injury.

When the Unit is in Use

• Should the following irregularity be found during use, immediately switch off the power, disconnect the power supply plug from the AC outlet and contact your nearest TOA dealer. Make no further attempt to operate the unit in this condition as this may cause fire or electric shock.
  ・If you detect smoke or a strange smell coming from the unit.
  ・If water or any metallic object gets into the unit
  ・If the unit falls, or the unit case breaks
  ・If the power supply cord is damaged (exposure of the core, disconnection, etc.)
  ・If it is malfunctioning (no tone sounds.)

• To prevent a fire or electric shock, never open nor remove the unit case as there are high voltage components inside the unit. Refer all servicing to qualified service personnel.

• To prevent the electromagnetic wave from badly influencing medical equipment, make sure to switch off the unit's power when placing it in close proximity to the medical equipment.

⚠ CAUTION

When Installing the Unit

• Avoid touching the unit's sharp metal edge to prevent injury.

When the Unit is in Use

• Do not place heavy objects on the unit as this may cause it to fall or break which may result in personal injury and/or property damage. In addition, the object itself may fall off and cause injury and/or damage.

• Do not operate the unit for an extended period of time with the sound distorting. Doing so may cause the connected speakers to heat, resulting in a fire.

• Do not stand or sit on, nor hang down from the unit as this may cause it to fall down or drop, resulting in personal injury and/or property damage.

• Have the unit checked periodically by the shop from where it was purchased. Failure to do so may result in corrosion or damage to the unit or its mounting bracket that could cause the unit to fall, possibly causing personal injury.

• Be sure to observe the following instructions. Failure to do so may cause hearing impairment.
  ・Reduce the volume to its lowest setting before use.
  ・Never use the unit close to a person's ear.
  ・Point the unit in the direction where there is no one when conducting operational tests.

FCC REQUIREMENTS

Note
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Modifications
Any modifications made to this device that are not approved by TOA Corporation may void the authority granted to the user by the FCC to operate this equipment.

Warning: Operation of this equipment in a residential environment could cause radio interference.

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2. OVERVIEW

TOA's UC-4SC615 is an IP horn speaker which can be directly connected to an IP network as an endpoint device with a single network cable. Voice announcement, two-way communication, and audio monitoring can be achieved through network. Thanks to its powerful sound and IP66 enclosure, the audio information can be clearly heard even in outdoor spaces. The UC-4SC615 supports various types of industrial standard network protocols and it can be a great option for VMS (Video Management System) and other network audio communication system integrations.

3. FEATURES

Conversation
・SIP conversation with SIP telephones or other audio communication devices using SIP protocol.
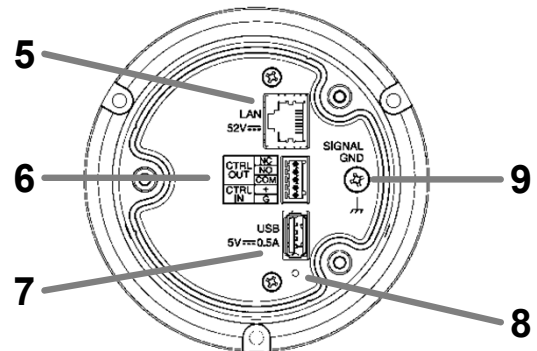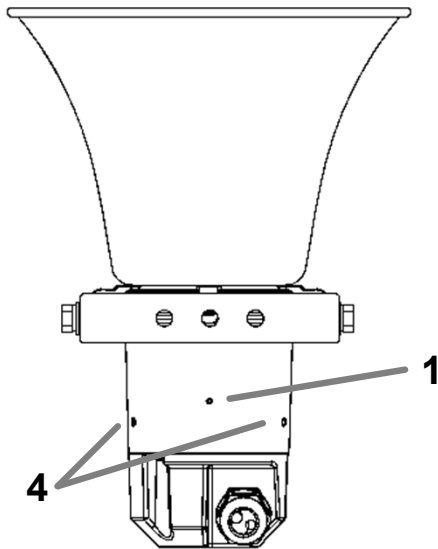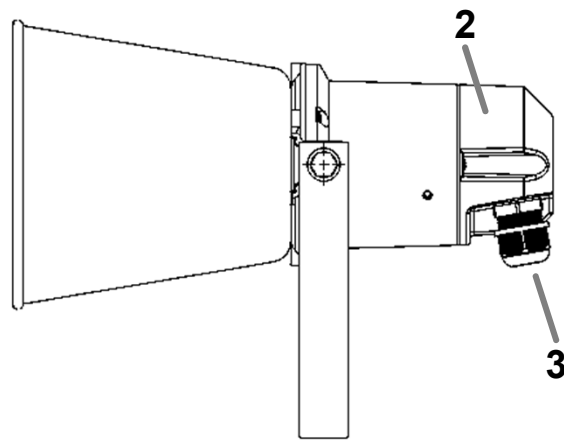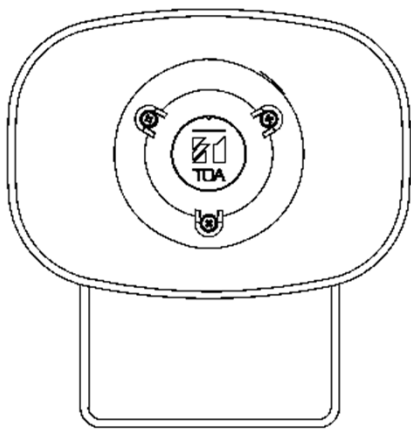・ONVIF conversation with VMS software.
Paging
・Multi-cast paging can be received from 10 different stations.
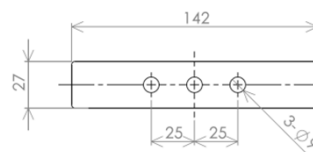・Background music can be selected from the internal audio source play-list. (Can be used by future updates)
Monitoring
・Audio stream being monitored by VMS with ONVIF.
・Control Input and Control Output are available.

4. NAMES AND FUNCTIONS

Rear Panel without Back Cover

Bracket Dimensions

1. System Status Indicators

Indicator Activity		System Status
Blue	Power ON	During startup or In broadcasting
Green		Waiting
Yellow		Failure or Initialization in progress
Extinguished		Power OFF

2. Back Cover
Covers the connector panel. Install the cable after connecting it to the speaker.

3. Cable Gland
Attaches and secures the end of LAN cable or contact cable.
Recommended cable: φ"4.5~6.0"mm

4. Microphone
For picking up ambient sounds or for two-way talk.

5. LAN Connection Terminal
To connect a LAN cable for PoE power supply.

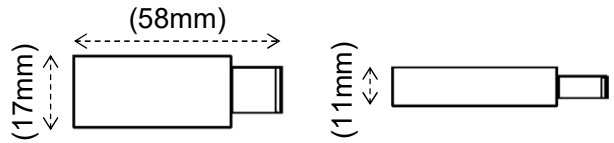## 6. External Control Input and Relay Output
By control input, you can play internal audio source and call to SIP telephone.
By connecting the relay output to a flashlight etc., you can indicate the status such as broadcasting.

7. USB Connection Terminal
Connect a USB memory to this terminal for internal audio play back. (Can be used by future updates)
The size of USB device must be
58 x 17 x 11 mm (H x W x D) or less.

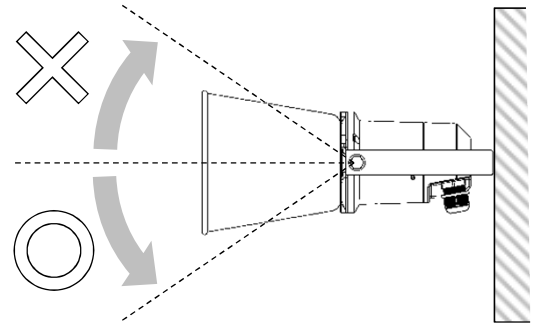## 8. RESET Button
Press this button to restart the speaker.

9. Signal Grand
Connect a ground wire to earth ground.

5. INSTALLATION PRECAUTIONS

IMPORTANT
Do not set up above the horizontal direction.

IMPORTANT
Attach the safety wire to the unit. If not attached, the unit could fall off, resulting in personal injury.

6. INSTALLATION

6.1. How to use the Cable Gland

Follow the instructions below when installing the LAN cable.
*Recommended cable: φ"4.5~6.0"mm

Step 1.
Separate the cable gland components from each other.

Step 2.
Pass through RJ-45 connector and caulk cable.

Step 3.
Fix all the components except for the lid.
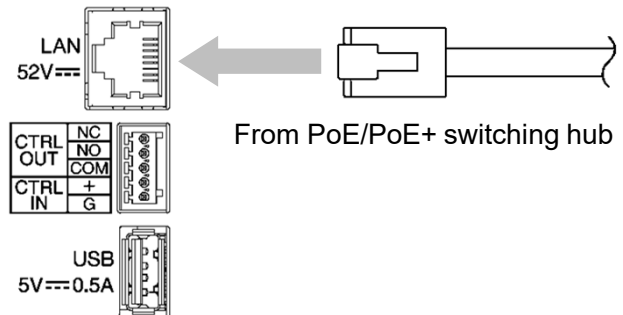
Step 4.
Close the lid.

6.2. Network Connection

The US-4SC615 automatically recognizes the network types(10 BASE-T or 100 BASE-TX) and start a network connection. For this connection, use a straight UTP Category 5 or greater LAN (Ethernet) cable terminated with an RJ-45 connector.

Power can be supplied from the PoE / PoE+ switching hub when this terminal is connected to it.
In this case, use the switching hub, which is "IEED802.3af compliant".

⚠ **CAUTION**

When power is supplied from the PoE switching hub, be sure to use either PoE/PoE+ (IEEE802.3 af/at).
The use of the switching hub other than the specified one may cause a fire.

From PoE/PoE+ switching hub

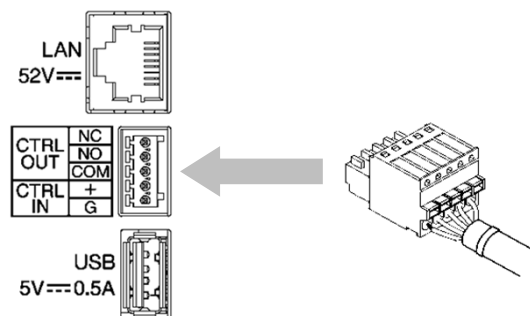## 6.3. Terminal Plug Connection

Use the removable plugs supplied with the UC-4SC615 unit to connect the terminals by following the instructions below

Avoid soldering cable conductor, as contact resistance may increase when the cable is tightened and the solder is crushed, possibly resulting in an excessive rise in joint temperatures.

[CTRL IN]   No-voltage make contact input
Open-circuit voltage: 12 V DC or less
Short-circuit current: 2 mA or less

[CTRL OUT]   Relay contact output
Withstand voltage: 40 V DC
Control current: 2 to 300 mA

[Recommended Cable]
SOLID WIRE: 24-16 AWG / 0.51-1.29mm
STRANDED WIRE: 24-16 AWG / 0.205-1.31 mm²
WIRE STRIP LENGTH: 6-8mm

7. SYSTEM SETTINGS

7.1. Before You Begin

Access the web servers of all devices using the web browser, and then set up the system. Settings cannot be performed while offline.

- Make sure you remember combinations of MAC address and IP address.
- You need a PC for IP address settings. Make sure all the IP addresses belong to the same network system. For example, if the IP address for the speaker is 192.168.14.1, the IP address for PC should be 192.168.14.xx.

7.2. Connection to System Setting

Step 1.
Open web browser and enter "Unit's IP address" in the address field.

Tip:
The factory-preset IP address is: "192.168.14.1"

Note:
- Use the Google Chrome to open the browser.
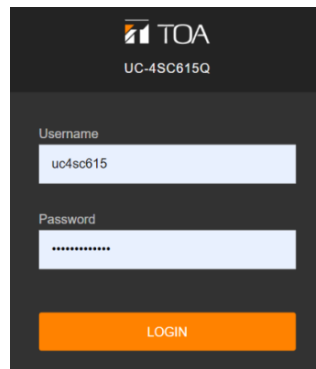- Do not launch multiple web browsers at the same time.

Step 2.
Enter a user name and a password.
The menu screen is displayed.
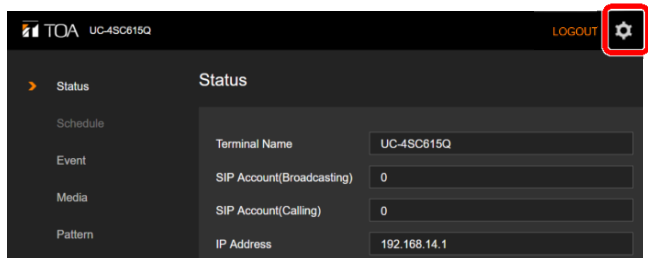
Tip:
Default user name and password are as follows,
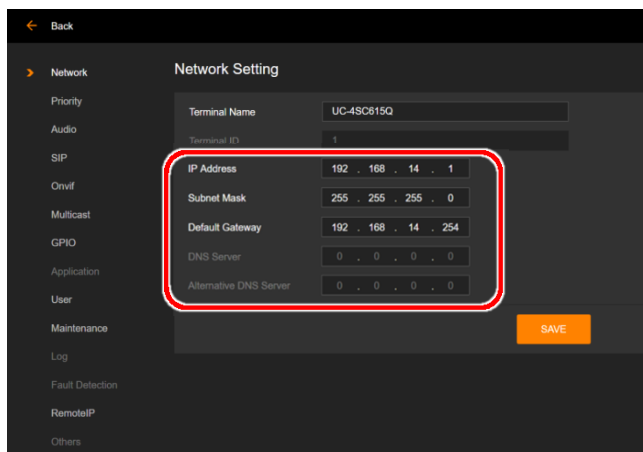　User name:　　uc4sc615
　Password:　　uc4sc615guest

Step 3.
Click "Setting icon" to open the setting screen.

Setting icon

Step 4.
Perform network settings for the UC-4SC615 unit.

8. INITIALIZATION

Follow the procedure below to restore the UC-4SC615 unit to its default setting states:

Step 1.
Connect a LAN cable and restart UC-4SC615 while pressing the Reset switch.

Initialized setting:
  Login User name
  Login Password
  IP address (Default IP: 192.168.14.1)
  Subnet Mask
  Default Gateway

Note:
Make sure the status indicator changing yellow. The initialization has been completed by then.

Step 2.
Open the web browser and enter "Unit's IP address" in the address field.
And enter a user name and a password.
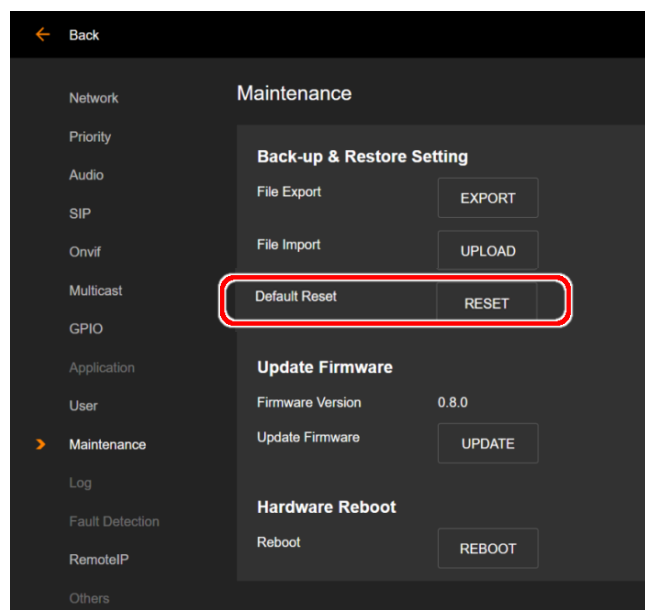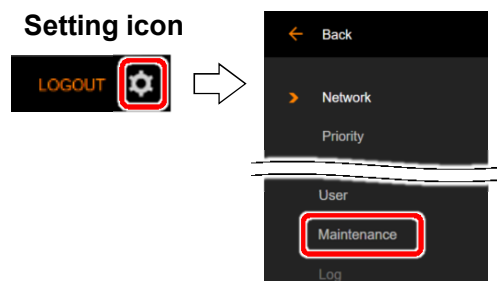The menu screen is displayed.
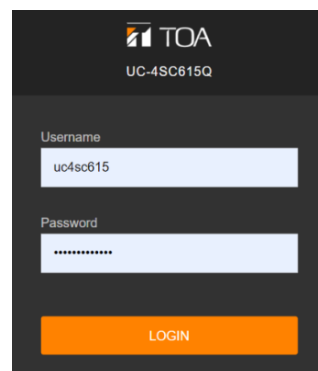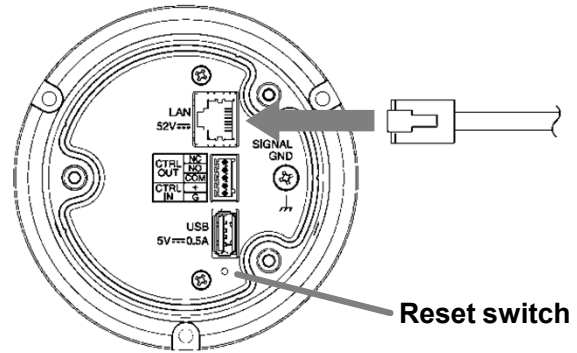
Tip:
IP address: 192.168.14.1
User name: uc4sc615
Password: uc4sc615guest

Step 3.
Click "Setting icon" to open the setting screen.
And click "Maintenance" to open the Maintenance screen.

Step 4.
Click "RESET" to restore all the settings to their original states.

Reset switch

Setting icon

9. SOFTWARE LICENSE INFORMATION

The UC-4SC615 employs software based on the following open-source software licenses:

  • GNU General Public License version 1 (GPL-1.0)
  • GNU General Public License version 2 (GPL-2.0)
  • GNU General Public License version 3 (GPL-3.0)
  • GNU Affero General Public License version 3 (AGPL-3.0)
  • GNU Lesser General Public License version 2 (LGPL-2.0)
  • GNU Lesser General Public License version 2.1 (LGPL-2.1)
  • GNU Lesser General Public License version 3 (LGPL-3.0)
  • Mozilla Public License version 2.0 (MPL-2.0)
  • IBM ICU License (ICU)
  • Artistic License 1.0 (Artistic-1.0)
  • Eclipse Distribution License 1.0 (EDL-1.0)
  • libgsm License
  • The 3-Clause BSD License
  • The 2-Clause BSD License
  • MIT License (MIT)
  • Apache License 2.0 (Apache-2.0)
  • Academic Free License version 2.0 (AFL-2.0)
  • Eclipse Public License 1.0 (EPL-1.0)
  • Freetype Project License (FTL)
  • Iozone License version 3
  • ISC License (ISC)
  • libbzip2 License version 1.0.6
  • libpng License version 1.2.6
  • NTP License (NTP)
  • OpenLDAP Public License version 2.8
  • OpenSSL License
  • PHP License version 3.01 (PHP-3.01)
  • Python Software Foundation License version 2 (PSF-2.0)
  • zlib License
  • Others

We do not guarantee the operation of open-source software itself, but we do guarantee the functionality of such software incorporated within the UC-4SC615 according to the provision of each license.

For Specific Open-Source Software Information
Please contact your nearest TOA dealer if you require details about any of the open-source software incorporated within the UC-4SC615. However, we will not be able to respond to inquiries about the contents of the open source.

10. SPECIFICATIONS

Power Source	PoE / PoE+ (IEEE802.3af/at) (via RJ-45)
Power Consumption	13W (Use of the PoE) 22W (Use of the PoE+)
Microphone	Electret Condenser Microphone
Amplifier Rated Output	8W (Use of the PoE) 15W (Use of the PoE+)
Sensitivity	121dB (15W, 1m) (500Hz - 2.5kHz, peak level) 109dB (1W, 1m) (500Hz – 2.5kHz, peak level) 110dB (15W, 1m) (100Hz – 10kHz, pink noise) 107dB (8W, 1m) (100Hz – 10kHz, pink noise)
Frequency Response	315 Hz – 12.5kHz
Sampling Frequency	8kHz-48kHz
Audio Codec	G.711u/a, G.722, L16 (8 – 48kHz)
Network Interface	10BASE-T/100BASE-TX, RJ-45
Network Protocol	TCP/IP, UDP, HTTP, RTP, ARP, ICMP, RTSP, SIP (RFC3261), ONVIF v17.12
Control Input	1channel, no-voltage make contact input, open voltage: 5 V DC, short-circuit current: 2 mA or less, removable terminal block (5pins)
Control Output	1channel, relay contact output, withstand voltage: 30 V DC, control current: max.300 mA, removable terminal block (5pins)
USB Interface	USB2.0 Type-A 1port
Indicator	LAN LINK/ACT, (Yellow/Green) STATUS (Yellow/Green/Blue)
Dust/Water Protection	IP66
Operating Temperature	-20 to +55℃ (-4°F to +131°F)
Operating Humidity	90% RH or less (no condensation)
Finish	Horn flare and body: Aluminum, off-white (RAL 9010 equivalent), paint Rear cover: ABS resin, off-white (RAL 9010 equivalent), paint Reflector horn: ABS resin, off-white(RAL 9010 equivalent) Bracket, screws and bolts: Stainless steel
Dimensions	222(W) ×231(H) ×296(D) mm (8.74" × 9.09 " × 11.65 ")
Weight	1.5kg (3.31 lb)
Option	Speaker mount bracket: SP-131 Pole band: YS-60B Speaker mount bracket: SP-301 Speaker mount bracket: SP-201 Swivel bracket: YS-151S

TOA CANADA CORPORATION