

TID-600R Network Intercom



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Wisenet Video Intercom

- Introduction of Intercom Concept
- Key Features
- Specifications
- Accessories

1. This webinar is being recorded and will be available for replay and in pdf format. Please visit <https://www.hanwhasecurity.com/trainings/webinars/> to view past webinars & sign up for future ones.

2. All participants have been put into listen only mode.

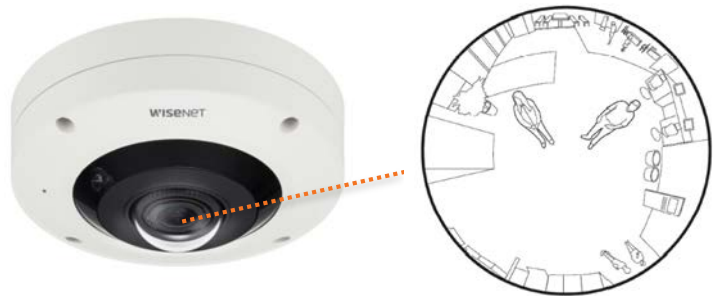
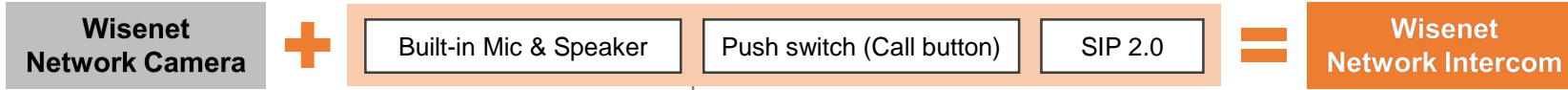
3. We will take Q&A time permitting and if time runs out to answer all of the questions, we will reply to you individually afterwards. Please use the Chat or Q&A section.

Manufacturing and Compliance

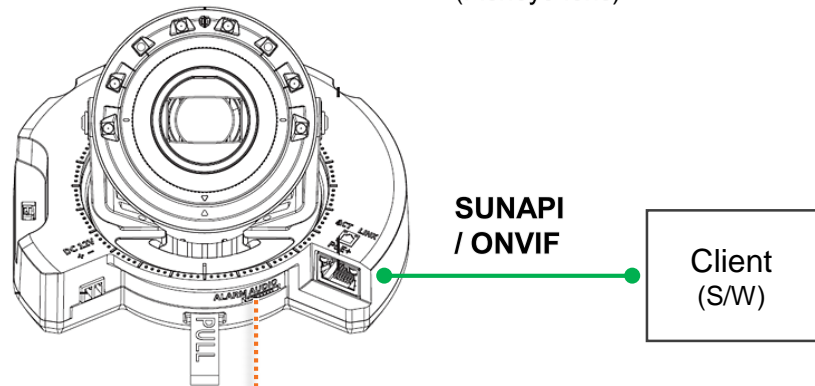
- Hanwha Techwin is a Global Fortune 500 company based in South Korea, with over 30 years of manufacturing experience in video surveillance. Our Supply Chain of Trust is critical to our cybersecurity.
- All IP cameras, analog cameras, NVRs, DVRs and encoders sold and distributed in North America are manufactured in Hanwha's facilities in **South Korea** and **Vietnam**.
- Hanwha Techwin manufactures a full suite of products compliant with **NDAA** and **TAA** provisions making them eligible for GSA Schedule Contracts and other government opportunities.



Concept: Compare to a camera

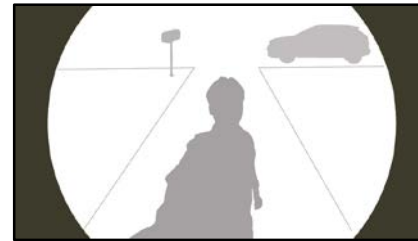


Overhead view
360° FoV, 1:1 ratio
(Fisheye lens)



SUNAPI / ONVIF
Client (S/W)

Audio & Alarm I/O port



Front view
180° HFoV, 16:9 ratio
(Fisheye lens)

Built-in speaker
= Audio out + speaker

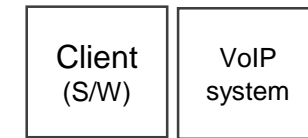
Call button
= Alarm in + push switch
→ New SUNAPI protocols
(CallRequest and etc)

Built-in mic
= Audio in + mic
with echo cancellation
& noise reduction



Built-in tampering switch
= Alarm in + switch
→ New SUNAPI protocols

Relay out
= Alarm out with power
→ Alarm out NO. 2 (NO/NC)



SUNAPI / ONVIF
+ **SIP** (Session Initiation Protocol)
→ able to use
SIP S/W or devices simultaneously
with SUNAPI/ONVIF client

Where to use



**Building
/ Office**

**Entrance
control**

Install with
PoE extender
camera



Handover to
Other camera



**Parking lot
/ Platform**

**Call for
administrator
help**

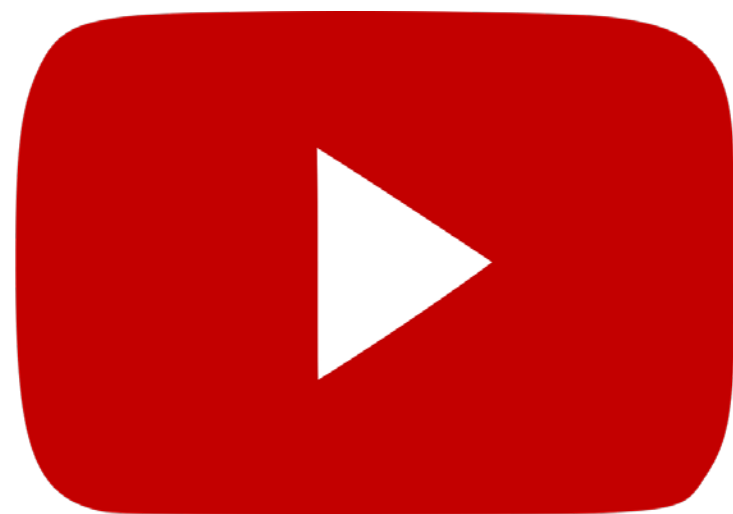


**Health
facility**

**Interact without
physical contact**



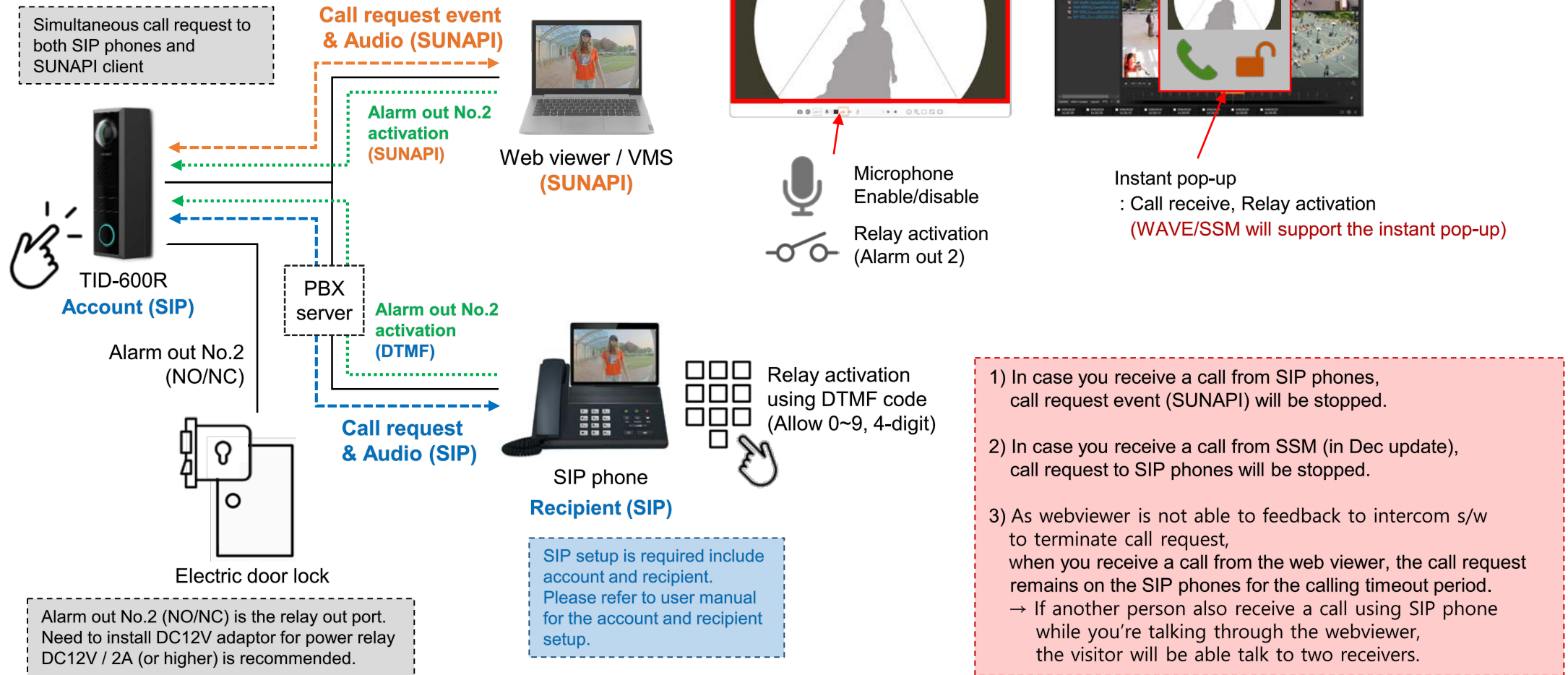
Demonstration Video





Concept: How it works

Call making flow



Key features

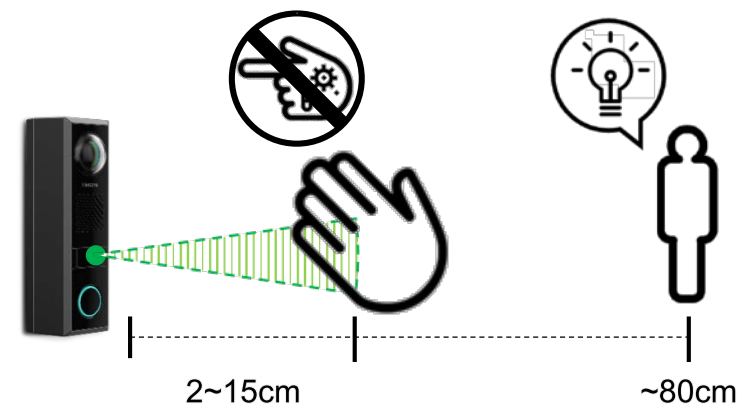
Integration with SIP devices & Touchless call

- **SIP 2.0 protocol support**

- Integration with VoIP systems and IP PBX
 - . SIP (Session Initiation Protocol) is a signaling protocol used for voice, video and messaging applications.
 - . RFC 3261 (SIP base standard), RFC 3515 (SIP refer), RFC 2976 (SIP info), SIP using TLS, RFC 5630 (SIPS URI scheme), RFC 2833 (DTMF)

- **Touchless call**

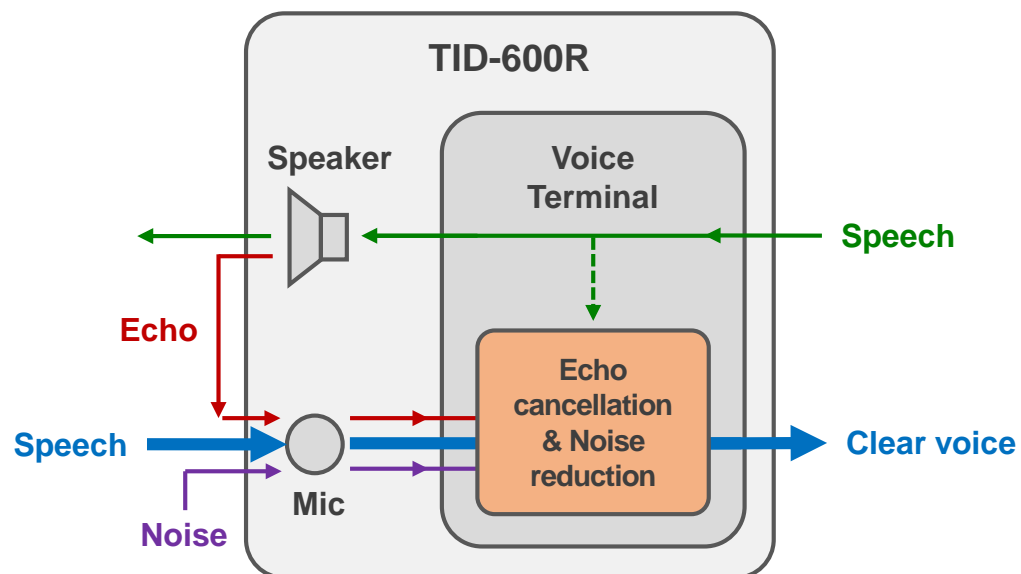
- Call making without physical contact to the call button
 - Prevention of transmission of diseases through the hands
 - : Place a hand within 2~15cm from the front sensor and wait 1 second
- Welcome LED lighting
 - : Status LED on when an object detected within 80cm



Key features

Full duplex two-way talk with clear sound

- **Echo cancellation and noise reduction**
 - Clear sound by active echo cancellation and noise reduction



- **Loud Speaker**
 - Max. 85dB at a distance of 0.5m which is a loud enough speaker power for average commercial and residential environments

110dB	Car horn, Chain saw
100dB	Handheld drill, Subway platform
90dB	Welder, Inside a noisy factory
80dB	Heavy Traffic / Noisy restaurant
50~60dB	Quiet Office, Normal conversation

← TID-600R

< Source >

<https://pulsarinstruments.com/en/post/decibel-chart-noise-level>

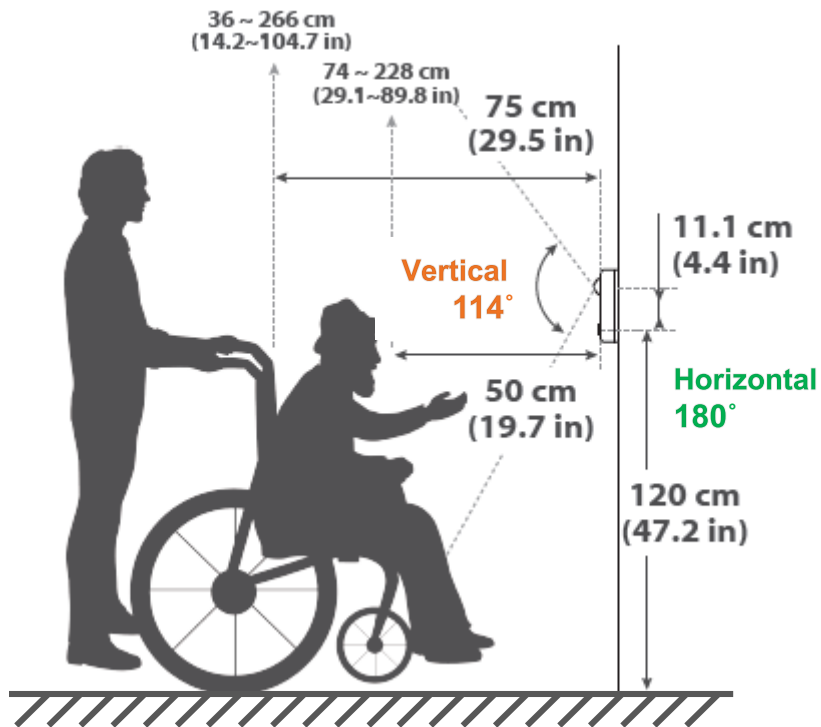
<https://www.healthlinkbc.ca/health-topics/tf4173>

Key features

Optimized video quality and wide FoV for entrance

- **Wide Field of View**

- Horizontal 180°, Vertical 114° FoV
- IR viewable length : 5m



- **Video Quality**

- Strong 150dB WDR video against backlight
- Clear night image with IR LED and noise reduction



Key features

Control electric locks & Built-in tampering switch

- **12VDC relay out**
 - Support relay out port for electric locks using 12VDC.



Electric door strike

Input power of typical door strikes sold in the market
: 12VDC, 200 ~ 320mA



Magnet electric lock

Input power of typical magnet locks sold in the market
: 12VDC, 100 ~ 520mA

< Note >

*Relay out doesn't work when TID-600R is powered by PoE switch only.
12VDC adapter is required to use power relay output.*

***Max. 550mA out is available with 2A 12VDC adapter.
(include power consumption of TID-600R)***

- **Tampering switch**
 - Built-in tampering switch can be used to detect if improperly opened



- **Color LED status indicator**



Color	Type	Status
Blue	Steady / Sensor detected (Welcome)	Idle
	Blink	Call button pushed & call waiting
	Slow blink	Calling
Green	Steady	Relay activation
Red	Steady	Booting up
	Blink	Comm. error
White	Steady	F/W update

Key features

License-free video and audio analytics

- **Supported analytics**

Video analytics	Appear, Disappear, Loitering, Virtual line, Enter/Exit, Directional Detection
Detection	Motion detection, Audio detection, Shock detection

Overview

Network Intercom

- 1/2.8" 2MP sensor
- 1.6mm fixed lens : HFoV 180°, VFoV 114°
- IR viewable length 5m
- Built-in mic and speaker : 85dB speaker out at 0.5m
- Echo cancellation and noise reduction
- SIP 2.0 support : Integration with VoIP systems
- Touchless call, Built-in tamper switch
- PoE/12VDC
 - . Max. 550mA relay out with 2A 12VDC adapter
- IP65, IK08, NEMA4X

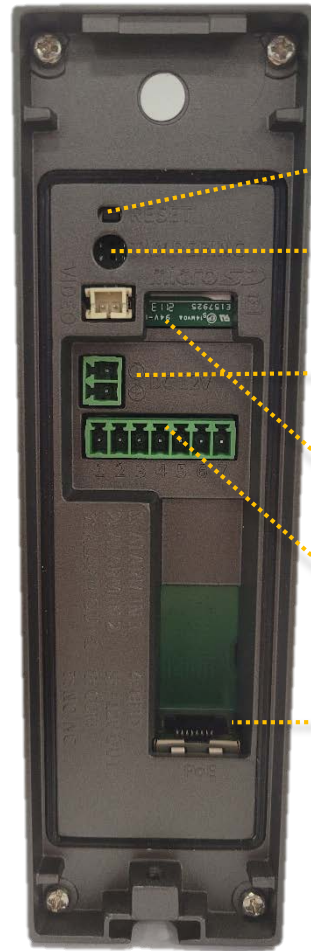


Specifications

	TID-600R
Imaging Device	1/2.8" 2MP CMOS
Resolution	1920x1080 to 320x240
Max. Framerate	H.265/H.264: Max. 60fps, MJPEG: Max. 30fps,
Focal Length / FoV	1.6mm fixed focal F1.6 / H: 180°, V: 114°
IR Viewable Length	5m
Backlight Compensation	BLC, HLC, WDR(150dB), SSSR
Audio streaming	Two-way(Full duplex)/one-way selectable, Echo cancellation and noise reduction
Analytics	Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Shock detection, Sound classification
Alarm I/O	Input 2ea / Output 1ea, Tampering switch Relay out 1ea (Max. 550mA with 2A 12VDC adapter)
SIP(Session Initiation Protocol)	SIP 2.0(RFC 3261 and companion RFCs)
Operating Temp./Humidity	-30°C~+55°C / Less than 95% RH
Certification	IP65, IK08, NEMA4X
Input Voltage	PoE, 12VDC
Color / Material	Dark gray / Aluminum
Dimension / Weight	49 x 165 x 48mm (1.93x6.50x1.89") / 490g



Appearance



Reset

Tempering Sensor

**Power Port
(DC 12V)**

Micro SD card slot

Alarm Cable port

Network Port

Appearance



Front



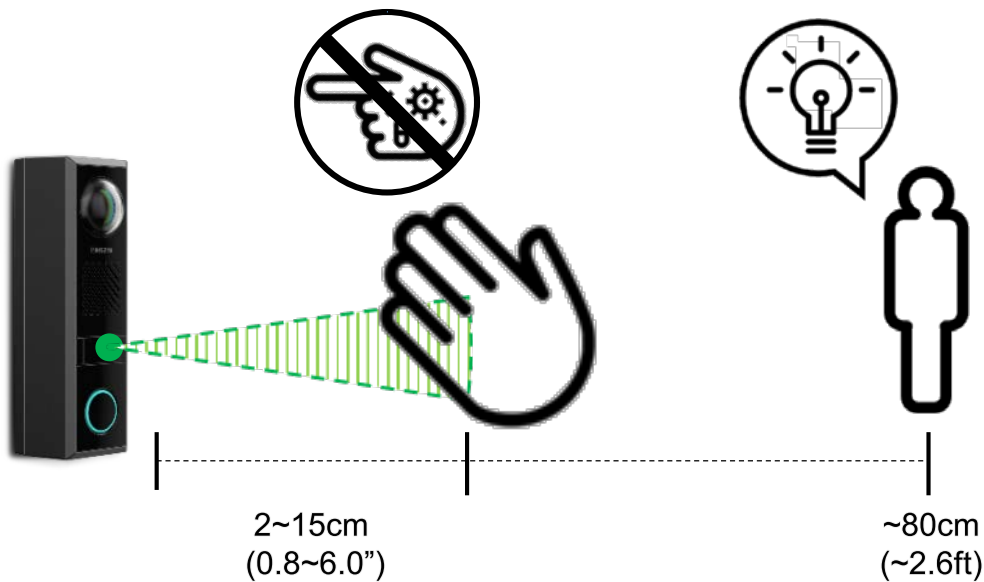
Back



Side

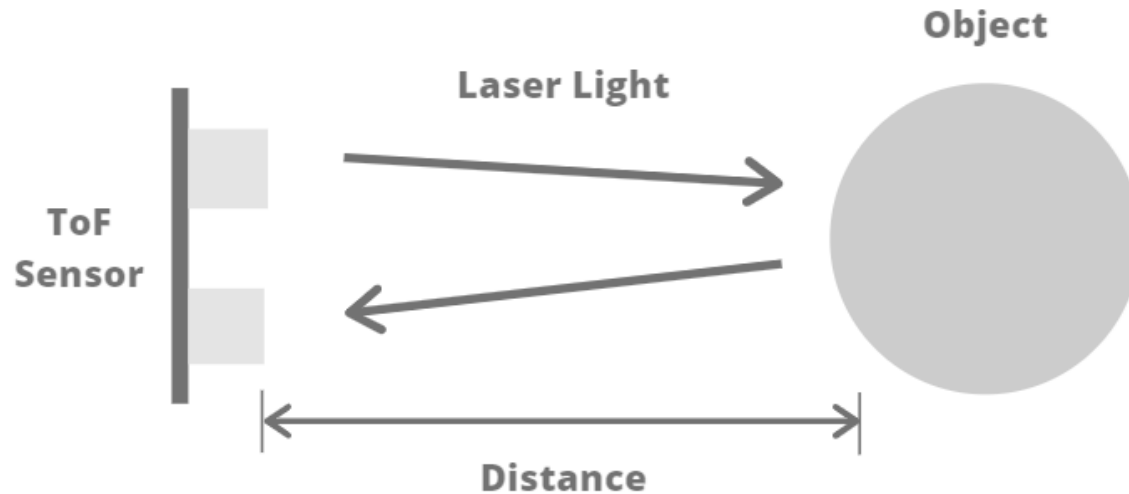
Touchless Call

- **Contact free interface**
- Call making without physical contact to the call button
 - Prevention of transmission of diseases through the hands
- Place a hand within 2~15cm from the front sensor and wait 1 second. This feature can be enabled/disable on Web viewer of TID-600R.
- Welcome LED Lighting
 - LED status when an person detected within 80cm



ToF sensor

- **Time of Flight**
- The light generated by the small laser reflects on the object and emits infrared light returning to the sensor.
- Based on the difference in time between the emission of light and the return to the sensor, the sensor measures the distance between the object and the sensor.



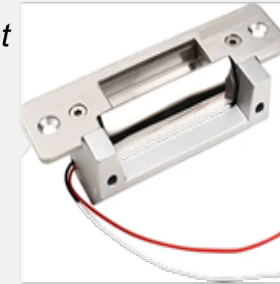
Control Electric Locks

- **12VDC Relay out**

- Support relay out port for electric locks using 12VDC.

Electric Door Strike

- *Input power of typical door strikes sold in the market*
- *: 12VDC, 200~320mA*

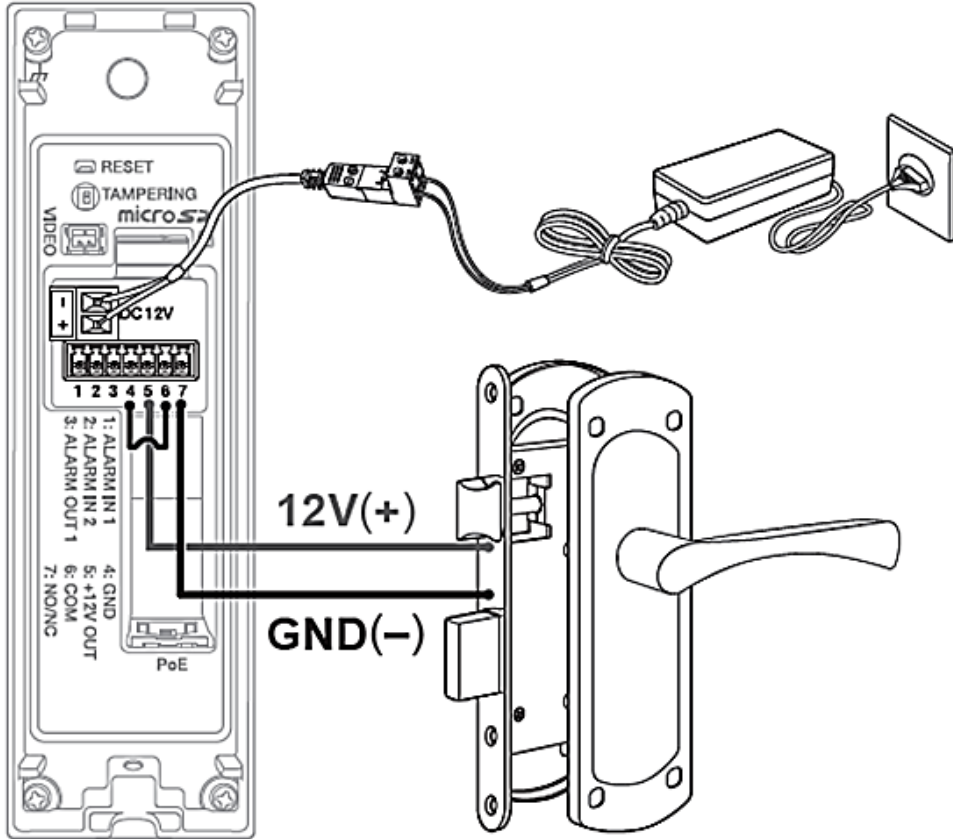


Electromagnetic Lock

- *Input power of typical magnet locks sold in the market*
- *: 12VDC, 100~520mA*

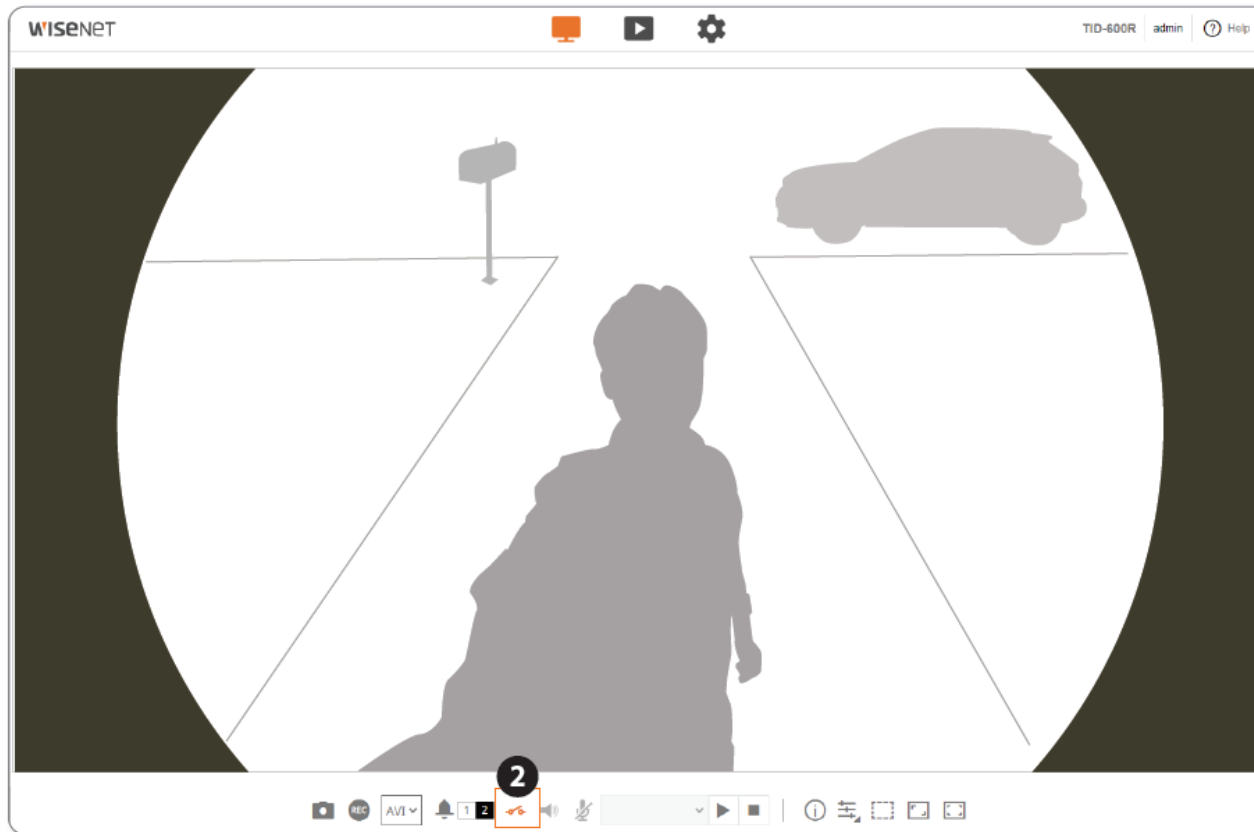


Connection Diagram



Opening Door on Webviewer

- Relay button on Live monitoring page
 - door remains open for the specified duration, and then it closes.
 - Setup >> Alarm output 2



DTMF code

- Dual Tone Multi Frequency

The screenshot shows the WISENET configuration interface for the 'DTMF & Tampering switch' section. The interface is divided into two tabs: 'DTMF' and 'Tampering switch'. The 'DTMF' tab is active, and the 'Enable DTMF code reception' checkbox is checked. The 'Code' field is set to '1234'. The 'Event action settings' section includes options for FTP, E-mail, Record, Alarm output 1, Alarm output 2 (N/C/NC port), and Audio clip. The 'Event activation time' is set to 'Always'.

1 Enable DTMF code reception

2 Code: 1234

3 Alarm output 2 (N/C/NC port): Off

Event action settings:

FTP	<input type="checkbox"/> Enable
E-mail	<input type="checkbox"/> Enable
Record	<input type="checkbox"/> Enable
Alarm output 1	Off
Alarm output 2 (N/C/NC port)	Off
Audio clip	Off

Event activation time: Always Only scheduled time

Buttons: Apply, Cancel

Tampering & LED indicator

- **Tampering Switch**

- Built-in tampering switch can be used to detect if improperly opened



- **Color LED Status Indicator**

Color	Type	Status
Blue	Steady / Sensor detected (Welcome)	Idle
	Blink	Call button pushed & call waiting
	Slow blink	Calling
Green	Steady	Relay activation
Red	Steady	Booting up
	Blink	Comm. error
White	Steady	F/W update



Tampering S/W

DTMF & Tampering switch

DTMF | **Tampering switch**

Enable tampering switch

Event action settings

FTP	<input type="checkbox"/> Enable
E-mail	<input type="checkbox"/> Enable
Record	<input type="checkbox"/> Enable
Alarm output 1	Off <input type="button" value="v"/>
Alarm output 2 (NO/NC port)	Off <input type="button" value="v"/>
Audio clip	Off <input type="button" value="v"/> <input type="button" value="▶"/>

Event activation time

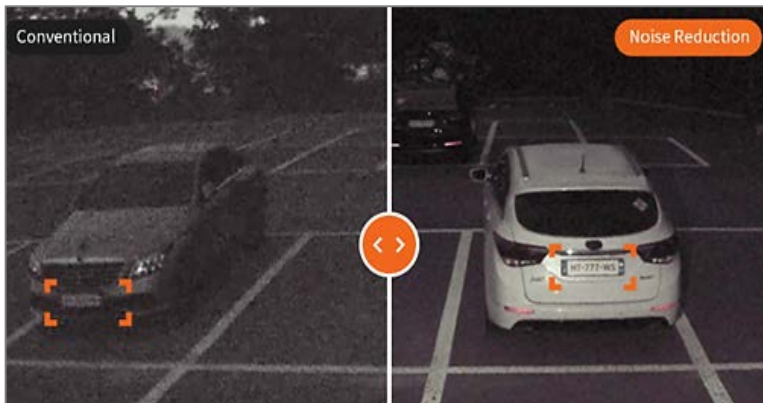
Always Only scheduled time

Video quality



- **4-frame WDR (150dB)**
 - Identify visitor through optimal WDR images even in backlight situations.

- **Noise reduction & WiseIR**
 - Clear night image with noise reduction algorithm and IR LED application



TID-600R

Sample Images

WISENET

@ 06:00



TID-600R
(Color, WDR)

TID-600R

Sample Images

WISENET

@ 09:00



TID-600R
(Color, WDR)

TID-600R

Sample Images

WISENET

@ 12:00



TID-600R
(Color, WDR)

TID-600R

Sample Images

WISENET

@ 15:00



TID-600R
(Color, WDR)

TID-600R

Sample Images

WISENET

@ 17:00



TID-600R
(Color, WDR)

TID-600R

Sample Images

WISENET

@ 20:00



TID-600R
(Color, WDR)

TID-600R

Sample Images

WISENET

@ 20:30



TID-600R
(B/W, IR On)

TID-600R

Sample Images

WISENET

@ 23:00



TID-600R
(B/W, IR On)

TID-600R

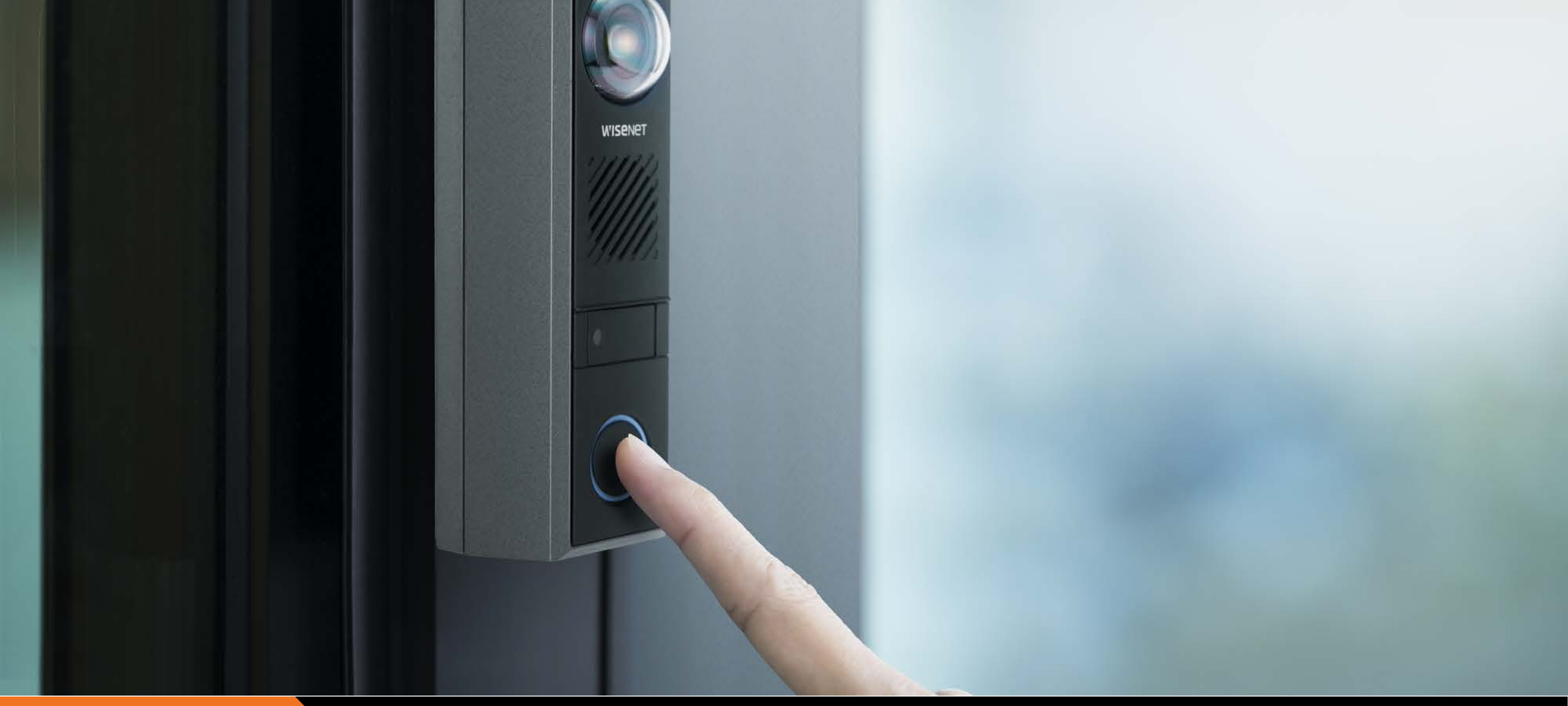
Sample Images

WISENET

@ 04:00



TID-600R
(B/W, IR On)



Account Setup (SIP)

Setup > Intercom > Account

Account

Account list

1

Select	Use	Name	User ID	Domain name	Transport mode	Status
<input type="radio"/>	<input checked="" type="checkbox"/>	▶ peer-to-peer	peer-to-peer	192.168.212.49	UDP	Available 192.168.212.49
3 <input type="radio"/>	<input checked="" type="checkbox"/>	▶ 2008	2008	192.168.212.16	UDP	Available 192.168.212.16

4

Video profile

Name	voip
Codec	H264
Resolution	1280x720
Frame rate	30
Crop encoding	false

Add account

Account information

Name

User ID

Authentication ID

Password

Domain name

Advanced setup ▾

- 1) Click 'Add'.
- 2) Input the account information.
 - . User ID is extension number.
 - . Domain name is SIP server IP address.
- 3) Check 'Use' for the account to use.
- 4) After adding an account and 'Apply', click 'Refresh' to check the status.

- Up to 5 accounts are available include the default peer-to-peer account.
- Default account can not be removed or disabled.
- Only one account can be used. (can be checked)

Setup > Intercom > Recipient > Recipient list

Recipient

Call request

4 Single Group (Parallel forking)

2007

Recipient list

Group **All** 1 2 3 4 5

1

Select	Name ▲	SIP address ▲	Type ▲	Group				
				<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
<input type="checkbox"/>	▶ p2p	sip:192.168.212.48	PeerToPeer	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
<input type="checkbox"/>	▶ 2007	sip:2007@192.168.212.16	Registrar	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Add recipient

2 Name 2007

SIP address sip:2007@192.168.212.16

Type Registrar

3 Group Group 1 Group 2 Group 3 Group 4 Group 5

Peer-to-peer / Registrar

- 1) Click 'Add'.
- 2) Input information of recipient
- 3) In case using group call(parallel forking), check the box for the group number you want to assign.
- 4) Choose recipient to call. Group number will be displayed if group call is selected.

• Up to 30 recipients and 5 groups are available

Peer-to-peer

SIP address format

sip:(IP address)

- sip: basic prefix such as http://
 - IP address : IP address of VoIP phone
- example) sip:192.168.212.48

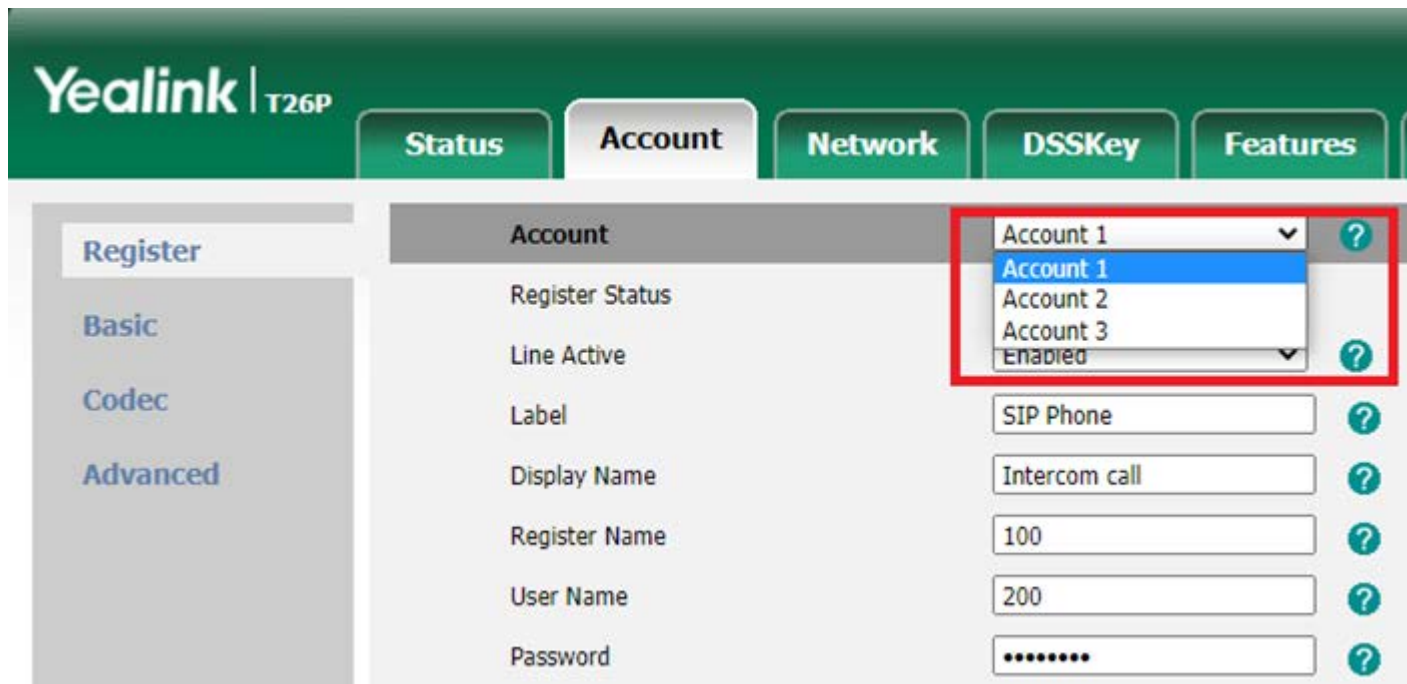
Registrar (when PBX server is used)

SIP address format

sip:(User ID)@(IP address)

- sip: basic prefix such as http://
 - User ID : User ID of VoIP phone
 - IP address : IP address of server that VoIP phone is connected
- example) sip:2007@192.168.212.48

Peer to Peer Connection. Direct connection from SIP phones to the intercom

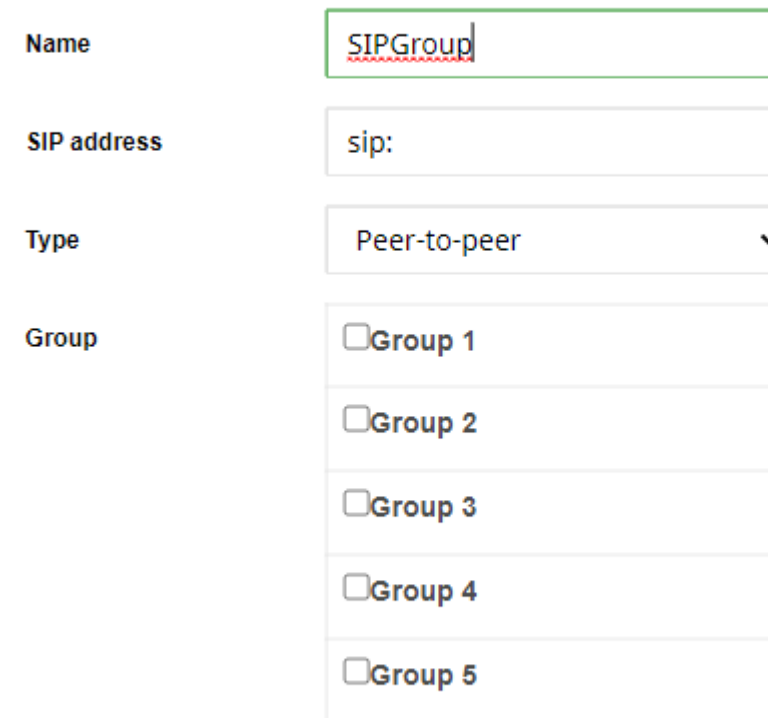


The screenshot shows the Yealink T26P web interface. The 'Account' tab is selected. A dropdown menu is open, showing 'Account 1' selected. The dropdown menu is highlighted with a red box. The interface includes a sidebar with 'Register', 'Basic', 'Codec', and 'Advanced' sections. The main content area shows fields for 'Register Status', 'Line Active', 'Label', 'Display Name', 'Register Name', 'User Name', and 'Password'.

Program phone to connect to the intercom directly, using one of the account available in the phone setting.

Set the Type to Peer to Peer mode and set the group (If used)

Add recipient



The 'Add recipient' dialog box is shown. It has an orange header. The fields are: 'Name' (SIPGroup), 'SIP address' (sip:), 'Type' (Peer-to-peer), and 'Group' (Group 1, Group 2, Group 3, Group 4, Group 5). The 'Group' field has five radio buttons, all of which are unchecked.

OK

Cancel

Compatible VMS & NVR

	VMS			NVR	
	SSM	WAVE	Milestone / Genetec	Legacy NVR	New NVR
Monitoring	○	○	○	○	○
Call request event receive	○	Basic Supported Now. Advanced popup Q1 2022	In plan	X	○
Two-way talk & Relay control	○	Basic door open supported now. Advanced Q1 2022.	△	△	△

△ : Need to control manually. Dedicated function is not supported

Tested SIP devices

	Brand / Model name
Phones	SIP phones from Cisco (CP-8845, CP8865), Grandstream (GXV3370, GXV3380), Yealink (T58A)
Software	Asterisk PBX software, Genetec Sipelia
PBX server	Wahsega Diet PBX

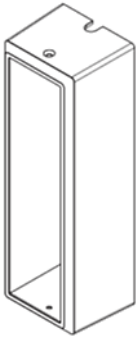
Compatible VMS & NVR

	Status
WAVE	Video layout triggered at the call (Done). Q1 2022 for the full integration with audio support
Genetec	Compatible with Sipelia without the call pause
Milestone	In plan – Targeting for Q2 2022

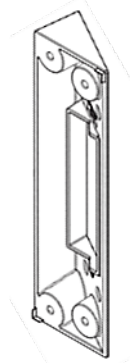
Tested SIP devices

	Brand / Model name
Phones	SIP phones from Cisco (CP-8845, CP8865), Grandstream (GXV3370, GXV3380), Yealink (T58A)
Softphones	MicroSIP, Mizuphone
PBX server	Cisco CUCM Ver. 14 / 3CX Ver.18 / Grandstream / Freepbx / Wahsega Diet PBX

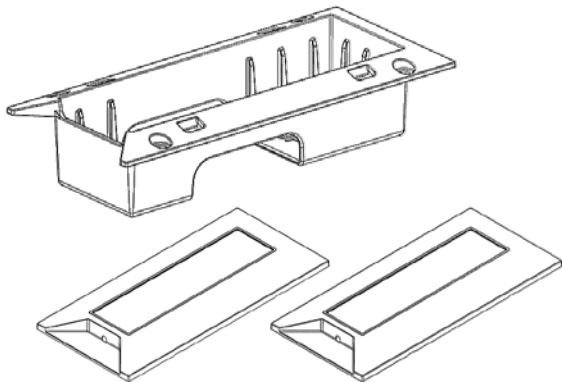
Skin cover / Tilt mount / Flush mount

**SBC-165W** Skin cover

- . Color : White
- . Material : Plastic

**SBS-165TM** Tilt mount

- . Color : Black
- . Material : Plastic
- . Tilt angle 30°

**SHS-165F** Flush mount

- . Color : White, Dark gray
- . Material : Aluminum (housing),
Plastic (front cover 2ea. Dark gray, White)

TID-600R

Appearance

WISENET



TID-600R + SBC-165W (skin cover)

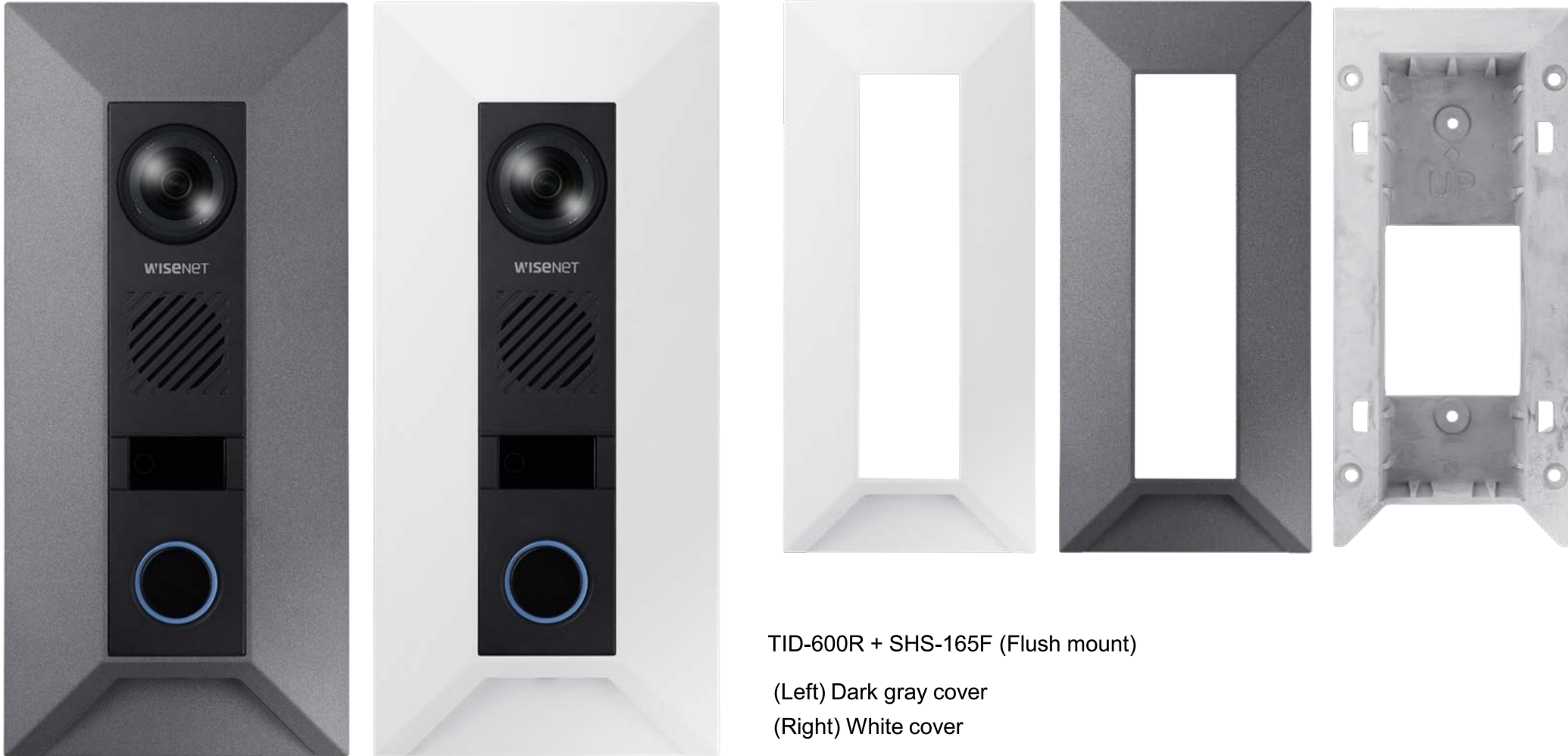


TID-600R + SBS-165TM (Tilt mount)

TID-600R

Appearance

WISENET



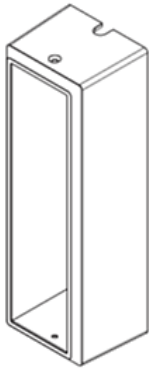
TID-600R + SHS-165F (Flush mount)

(Left) Dark gray cover

(Right) White cover

Accessories

- Skin Cover
 - Wrapping type for painting



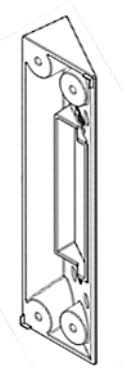
SBC-165W

- . Color : White
- . Material : Plastic



TID-600R
+
SBC-165W

- Tilt mount



SBS-165TM

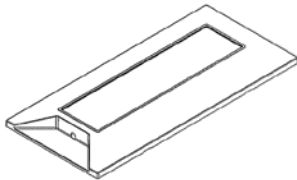
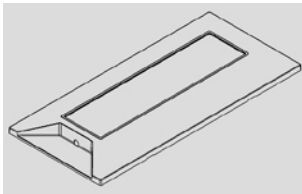
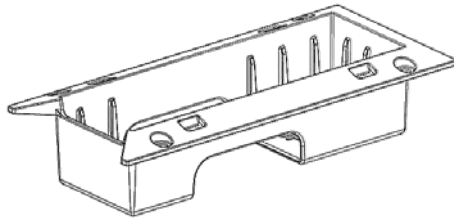
- . Color : Black
- . Material : Plastic
- . *Tilt angle : 30°*



TID-600R
+
SBS-165TM

Accessories

- Flush mount



SHS-165F

- . Color : White, Dark gray
- . Material :
 - Aluminum (housing)
 - Plastic (front cover 2ea,)



TID-600R
+
SBC-165F

Availability

The TID-600R has been released and is available to order.

Stock in quantity is expected to be available around the end of February.



Thank You!



Questions?



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