



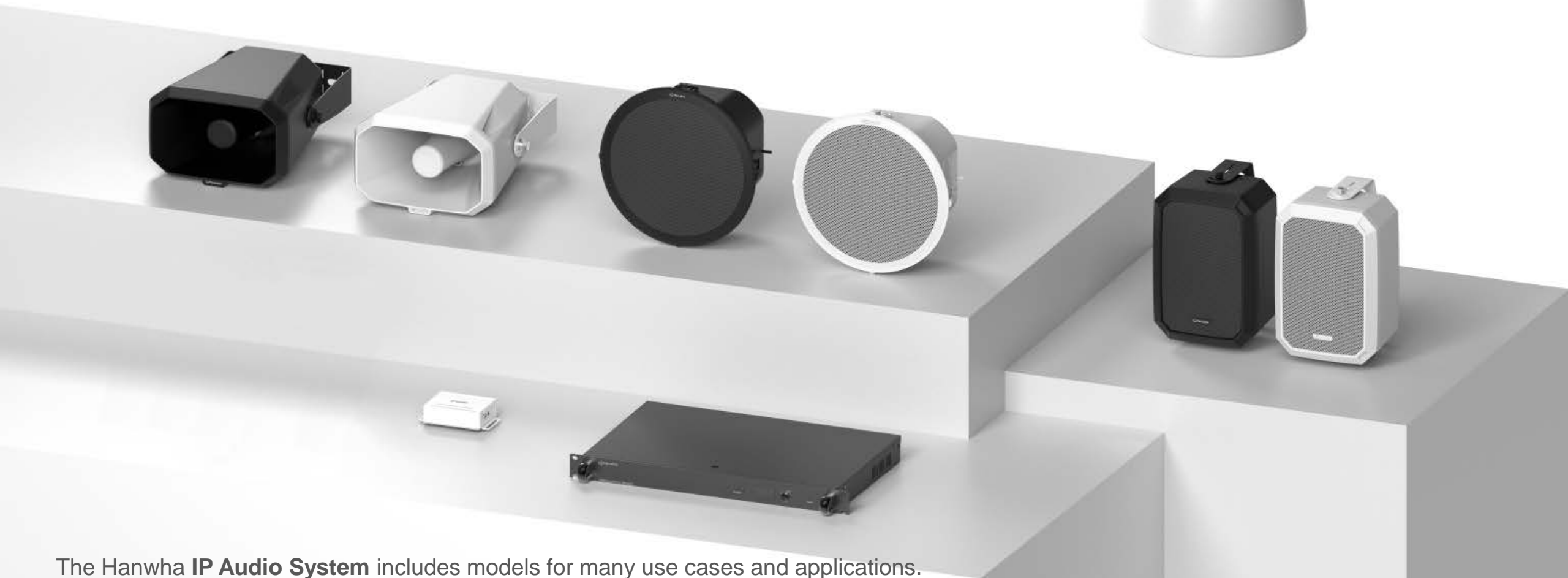
IP Audio System (IPAS)

Release Notes 10/27/2023

FW Ver. 3.4.4.12

IP Audio System Introduction

IP Audio System



The Hanwha **IP Audio System** includes models for many use cases and applications.

IP Audio System makes security systems more secure by responding with stored TTS or live messages so it can reduce unwanted activities.

IP Audio System delivers flexible background music and scheduled message in single or multiple areas.

Use Case: Security & Safety

For Shop / Department Store

Provide real-time prevention from unwanted activities
Protecting property on premises



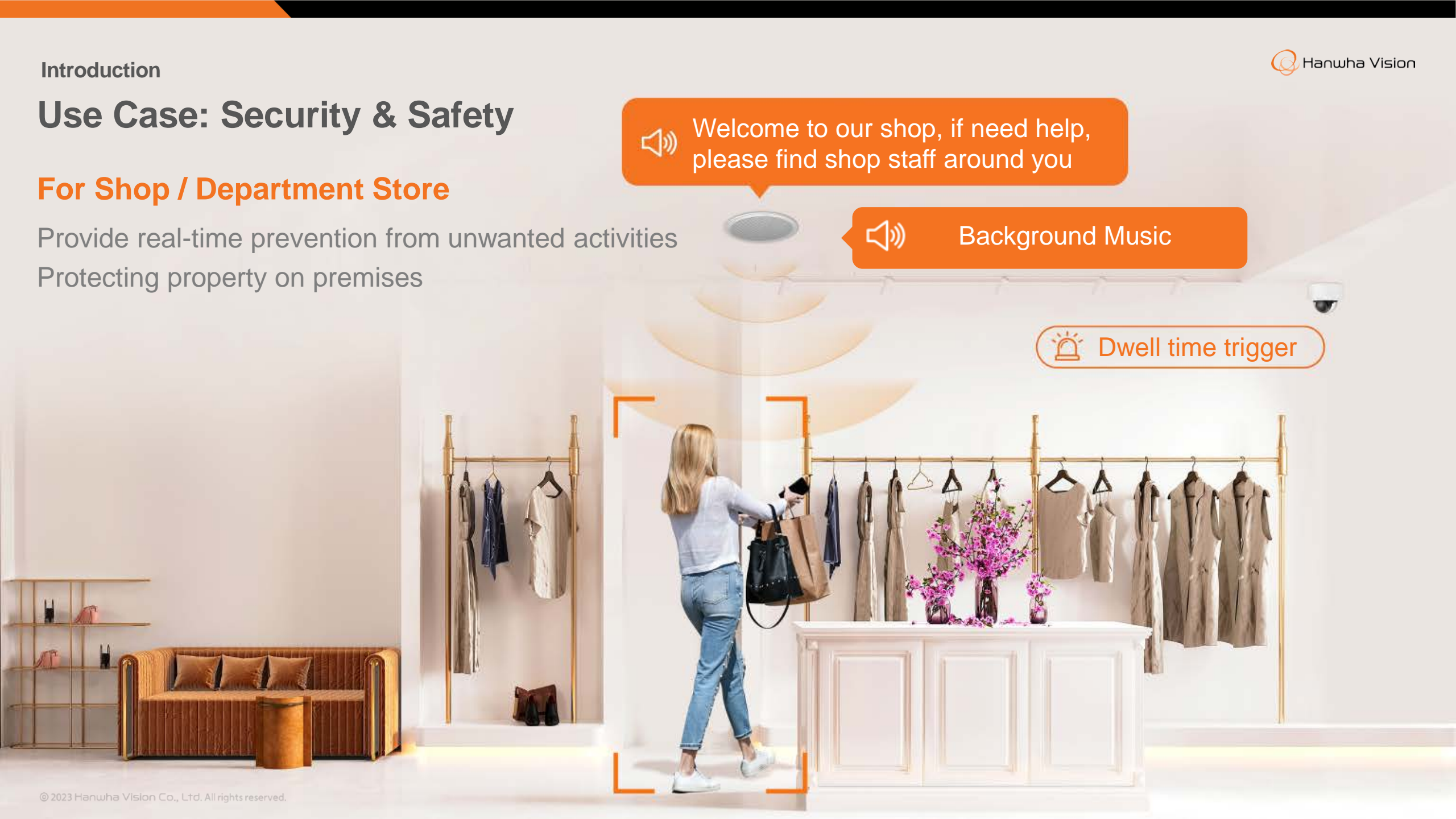
Welcome to our shop, if need help, please find shop staff around you



Background Music



Dwell time trigger



Introduction

Use Case: Security & Safety



Virtual Line Cross



Please stay away from the fence

For Fence/ Border line

The Solution to stop situation before it happens
Real-time prevention from unwanted activities
Protecting property on premises

Introduction

Main Features



All-In-One

Standalone IP speaker
with built-in amplifier



PoE & PoE+

PoE+ for
higher volume



TTS

Text To Speech



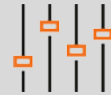
Monitoring

Easy IP Audio system
monitoring



Scalability

Connect up to
512 devices



Upgrade

Can be used with
analog speakers



SIP

Compatible with SIP
Devices and PBX Systems



Scheduler

Schedule music and
prerecorded messages



Storage

Onboard and
expandable storage



Specifications

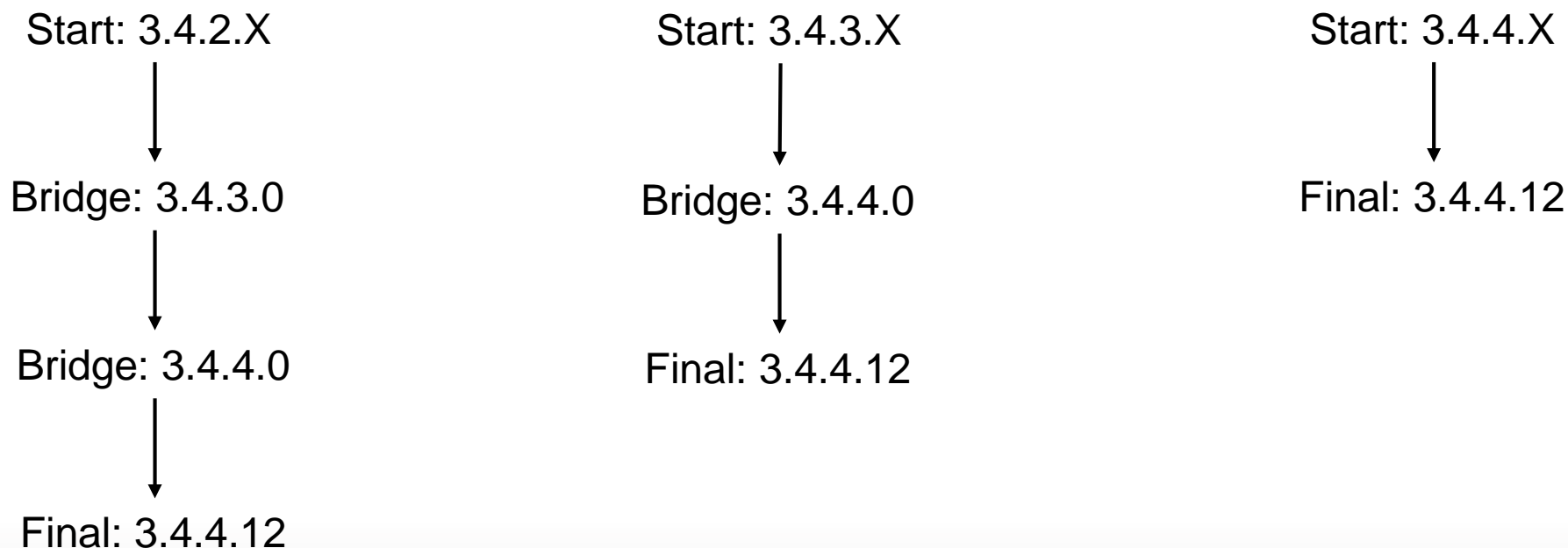
Category		Speakers				Devices	
		Plenum Ceiling	Pendant	Wall	Horn	Audio Module	Audio Server
		SPA-C110B/W	SPA-P100B/W	SPA-W100B/W	SPA-H100B/W	SPA-D1000	SPA-S1000
Line output	Frequency Response	20Hz ~ 20kHz	130Hz~20kHz	20Hz ~ 20kHz	650Hz~5.3kHz	-	-
Power Amp	Amplifier	Built in 10W Class D				-	
Network	Ethernet	10/100 Base-T					
Memory	Internal Memory	1 GB				-	
	Micro SD Card Slot	SDHC up to 32GB				-	
General	Operating Temperature	-20 ~ +50°C (-4°F ~ +122°F)	-20 ~ +50°C (-4°F ~ +122°F)	-20 ~ +50°C (-4°F ~ +122°F)	-35°C ~ +55°C (-31°F ~ +131°F)	-20 ~ +50°C (-4°F ~ +122°F)	-10 ~ +40°C (14°F ~ +104°F)
	Operating Humidity	10~85% RH (Non-Condensing)	10~85% RH (Non-Condensing)	10~85% RH (Non-Condensing)	10~85% RH (Non-Condensing)	10~85% RH (Non-Condensing)	10~85% RH (Non-Condensing)
	IP code	-	-	IP54	IP66	-	-
Power	PoE PoE+	PoE (IEEE 802.3 af type 1 Class 3) PoE+(IEEE 802.3 at type 2 Class 4)				AC 120-240V, 50/60Hz, 10W DC 24V, 350mA	
Audio	Audio Compression	WAV, MP3 in mono/stereo from 64 kbps to 320 kbps					
Speaker	Max. Sound Pressure Level	100dB	101dB	101dB	124dB	-	-
	Sensitivity (1Watt)	90dB	91dB	90dB	111dB	-	-
	Multi-source Dynamic PA control	Multi-source up to 48 (Multicast) (Audio 24CH + Mic 24CH) Up to 256 Zone Control (Multicast) Up to 20 Zone Control (Unicast) Up to 255 Groups				Multi-source up to 48 (Multicast) (Audio 24CH + Mic 24CH) Up to 256 Zone Control (Multicast) Up to 20 Zone Control (Unicast) Up to 255 Groups	
	TTS	English(US, UK), German, French, Spanish, Russian					

IP Audio System Release Notes

Firmware Upgrades

If your IPAS device is running firmware prior to 3.4.4.12 you may need to use a bridge firmware to update to the latest firmware.

After performing each firmware update ensure you factory default the IPAS device.
Future firmware updates will not need a factory default.

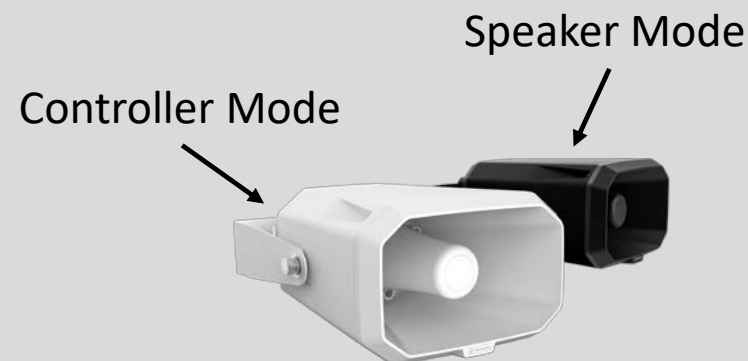


Single Speaker vs. Multi Speaker Feature Set



Single Speaker

- BGM, TTS, Chime, on demand from source file management (like button mode)
- BGM, TTS, Chime on Annual Schedule
- Network Configuration
- Time Configuration
- SIP
- Event and Preset
- Logging
- Audio Monitoring of Registered Devices



Multi Speaker (2+ Devices)

- BGM, TTS, Chime, in **Button mode**
- BGM, TTS, Chime on Annual Schedule
- **BGM, TTS, Chime in group**
- Network Configuration
- Time Configuration
- SIP
- Event and Preset
- Logging
- **Triggering Audio File Playback via VMS/SUNAPI***

***All SUNAPI Commands Require a Minimum of 2 IPAS Devices**

Considerations

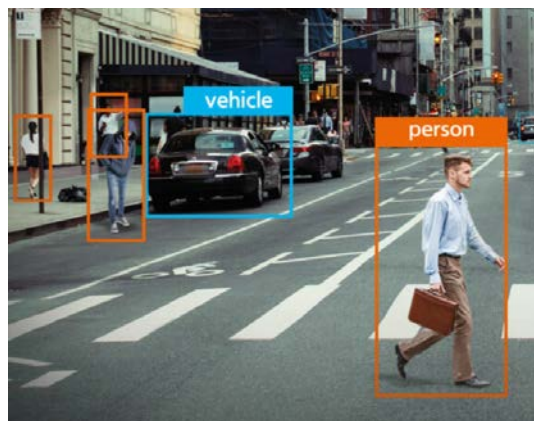
- Talkdown is limited to SIP only at this time.
- The IPAS devices do not have Echo Cancellation capabilities built in at this time.
 - SIP/PBX systems commonly have Echo Cancellation built in.
- SUNAPI Commands require a minimum of 2 IPAS devices.
- NVR/DVR are not currently supported.
- Online music streaming service is not currently supported.
- Analog audio input for ingesting existing audio sources will be added in the next hardware revision.
- Handover directly from the camera to IPAS device will require new camera firmware for all models. This is currently in development.
- Backup/restore of device settings is not currently supported.
- The POE switches below may not power the IPAS devices due to a switch hardware limitation. You must change the switch or add a power injector in this case.
 - Mokerlink POE-F162G
 - Mokerlink POE-G083GS
 - Edge-Core ecs2100-28p



Main Integration Scenarios

Event to Action

Event



VMS



Action



***WAVE only works in the case of Event to Action, but not Talkdown**

Main Integration Scenarios

Talkdown

SIP Phone



Speak from SIP phone
through IP Speaker

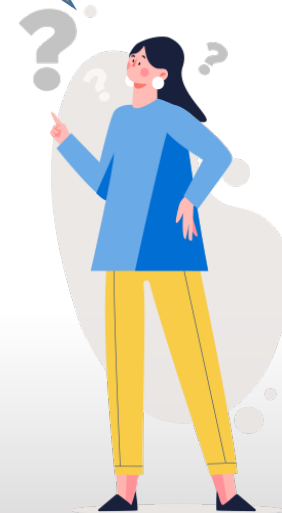


2-Way Communication



Listen from Speaker's
Microphone through SIP Phone

Speaker



Integration Partners



WAVE - 5.X

- WAVE integration uses the rules engine and SUNAPI for event to action.
- Speaker enrolment is not supported at this time.
- Talkdown is on the roadmap for 6.1 (Q4 2024).



Security Desk - 5.11.3
Hanwha Plugin - 1.02.00

- Genetec integration uses the Hanwha Plugin for event to action only.
- Speaker enrolment is not supported at this time.
- Genetec Sipelia support (Talkdown) is planned for 2024.



XProtect Corporate - 2023 R1
Hanwha Plugin - 1.03

- Milestone integration uses the Hanwha Plugin for event to action only.
- Speaker enrolment is not supported at this time.
- SIP is unsupported (Talkdown) at this time by Milestone.

Thank You