



# IP-BASED PA & INTERCOM SYSTEM

## CX-1000 Series

**Connecting  
Every Voice and Vision**



# Your Eyes, Your Voice, Your Broadcast: All in One Place

Monitor live CCTV footage, communicate instantly,  
and broadcast effortlessly—all from a single interface.

## CX Series



### Connected Comms

Seamlessly integrates voice,  
video, and systems for  
comprehensive information.



### Clear Delivery

Ensuring reliable and  
intelligible communication with  
advanced audio technologies.



### Evolving Workplace

Flexible platform adapting to  
dynamic needs with  
integrated communication  
and insights.

# 01

## What is the CX Series

The CX Series is a next-generation communication system that combines audio and video. By supporting common industry-standard protocols - including ONVIF Profile S and SIP - it integrates voice, broadcast, and video by supporting various common protocols, meeting diverse communication needs. With network connectivity, it easily integrates with existing systems, while TOA's long-standing expertise in emergency broadcasting and clear sound technology ensures optimal communication for customers.



# 02

## Why choose the CX Series

The CX Series is designed to simplify and strengthen communication by integrating audio and video into a single platform. By supporting ONVIF Profile S and SIP-based communication, it allows users to monitor live camera footage on the CX terminal while managing calls and broadcasts, enabling secure and intuitive centralized control. Combined with TOA's advanced audio technologies, including noise and echo cancellation, the CX Series delivers clear, reliable sound for professional and mission-critical environments.

### Challenge 1

Our existing system has various devices and software for different uses, making operation and management complex and difficult.

### Challenge 2

Due to labor shortages, a system that requires minimal effort to operate is needed!

### Challenge 3

Existing intercom systems have difficulties with excessive noise in noisy environments, making it difficult to hear voices.

### Challenge 4

As the facility plans to expand, a system with high scalability is needed.



## The CX Series solves these challenges



### User-Friendly Operation

The CX Series integrates voice calls, broadcast, and video, streamlining information sharing. This enables flexible and efficient communication centered around people, in both daily operations and emergencies, meeting the needs of universities, office buildings, parkings, and various other environments.



### Clear and Precise Sound

The system reduces noise with microphone arrays and noise-canceling features, while high-quality speakers ensure clear communication with excellent sound quality. Additionally, automatic equalizing based on the environment enhances audio clarity.



### Flexible Scalability

Up to 3,000 devices can be connected, not only CX terminals but also SIP phones and CCTV cameras supporting generic protocols, as well as the IP-A1 Series. Boasting easy integration and continuous system updates, the CX Series ensures a future-proof system.

# 03 Lineup

A versatile lineup designed to enhance communication, broadcasting, monitoring, and operations - reliably and efficiently across diverse environments.

## System Manager CX-SM1000



Central control for up to 3,000 devices. Fault detection, logging, program timers, and audio scenes ensure secure, efficient operation.

## Control I/O Unit CX-CC1016



Provides versatile analogue I/O with 16 inputs & 16 outputs. It easily integrates with external systems for automated & flexible control, enhancing system responsiveness.

## Video Operation Station CX-OP1700 ONVIF | S



Enables video calls. Supports CCTV monitoring via ONVIF Profile S. Includes a touch panel monitor, mic broadcast, and speaker for enhanced situational awareness.

## Operation Station CX-OP1500



Enables cost-effective voice communication via universal protocols. Features mic broadcast & speaker, enhancing clear communication across systems.

## Video Call Station CX-CL1750



IP65-rated, durable door terminal enables video calls. Ideal for secure door entry and surveillance, offering security and peace of mind.

## Call Station CX-CL1550



IP65-rated terminal for clear voice communication. Ideal for secure door entry, offering reliable access control for any environment.

## Touch Screen Remote Microphone CX-RM1700 ONVIF | S



Easy touch control for broadcasting and ONVIF-based camera monitoring. Delivers clear audio and enhances situational awareness.

## Audio Interface 6in2out CX-AF1062



Versatile interface with 6 audio inputs & 2 audio outputs. Enables flexible setups by integrating with additional systems. Perfect for multi-source audio management.

## Power Amplifier 120W 10SS CX-PA1120



Versatile 120W amplifier with 10 speaker outputs. Ideal for wide-area broadcasting and volume control. Enhances communication in various applications.

## Power Amplifier 240W 10SS CX-PA1240



Versatile 240W amplifier with 10 speaker outputs. Ideal for wide-area broadcasting and volume control. Enhances communication in demanding applications.

# 04 System Features

The CX Series connects people with user-friendly features, offering security, reliability, and flexibility for various applications.

## Max 3,000 Devices

This system supports up to 3,000 device connections, ensuring reliable communication for large-scale environments like universities and railways. It provides seamless performance across expansive networks.

## Protocol Support

The system supports a range of standard protocols, including SIP-based calls and ONVIF Profile S CCTV integration, enabling centralized management. This provides seamless communication and enhances operational efficiency.

## Easy System Operation

The system manager constantly monitors devices for faults and collects all logs in bulk. This feature ensures real-time detection of issues, allowing for smooth, secure operation and peace of mind.

## Clear Sound

Leveraging TOA's 90+ years of experience, this system ensures clear, reliable audio that effectively communicates messages in any environment, providing users with a stress-free listening.

## High Fault Tolerance

Redundancy options allow network paths to be duplicated, ensuring continuous communication even if one path fails. This feature enhances the system's resilience to failures.

## WEB GUI

With a user-friendly web GUI, the system allows for the centralized monitoring, timer settings, audio scene adjustments, e.g. It makes it easy to build an intuitive system tailored to user needs.



# 01 Calling

The CX Series, in addition to basic calling and paging, supports transfer functions, a phone book, group calls, remote dialing, and SIP phone connectivity. It also integrates with external systems, such as remote door control or telephone systems, for seamless communication in various applications.



	CX-OP1700	CX-OP1500	CX-CL1750	CX-CL1550
				
Power Source	PoE / 12V DC	PoE / 12V DC	PoE / 12V DC	PoE / 12V DC
Voice Call	✓	✓	✓	✓
Video Call	✓	—	✓	—
CCTV Monitoring	✓	—	—	—
Controls 	✓	✓	✓	✓
Environmental Ratings	<b>IP3X</b> (0 to +40°C / 32 to 104°F)	— (0 to +40°C / 32 to 104°F)	<b>IP65 / IK08</b> (-40 to +60°C / -40 to 140°F)	<b>IP65 / IK08</b> (-40 to +60°C / -40 to 140°F)
External Speaker Out (Maximum output 2 W 8 Ω)	✓	✓	✓	✓

## Key Features of Calling

### Phone Book

Easily call contacts by selecting them from the phone book, ensuring quick access and efficient communication management.



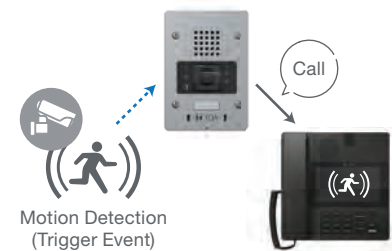
### Video Call

Make video calls using built-in cameras and view CCTV footage via ONVIF Profile S, allowing visual confirmation during communication.



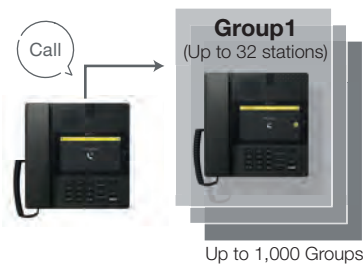
### Remote Dialing

Allows dialing via control inputs for seamless integration with external systems. Ideal for automated call initiation and remote access applications.



### Group Call

Simultaneously call multiple devices via a group number. Integrates with auto-forwarding, ensuring efficient communication workflows.



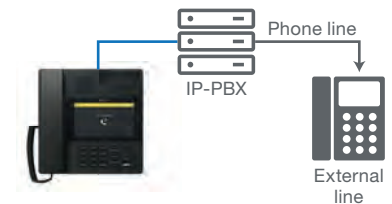
### SIP Phone

Communicate seamlessly with SIP-enabled devices, including smartphones with a SIP app.



### External Calling

Connect with external phone lines for seamless communication beyond the internal network. Supports both inbound and outbound calls, ensuring flexibility in various scenarios.



\*External lines subject to local regulations.

### Call Forwarding

- Manual & automatic forwarding
- Time-based forwarding
- Busy forwarding
- Failover forwarding
- No response forwarding
- Group call



### Door Remote Control

Trigger external devices based on control inputs, dialing actions, or call status. For example, remotely unlock electric locks during calls to enhance security and access control.



### Hands-free Call

Enables hands-free communication via the built-in speaker or a connected headset, allowing flexible operation in various environments.



## 02 Broadcast

Leveraging TOA's expertise in emergency broadcasting, the CX Series integrates intercom systems with general and emergency broadcasts while supporting CCTV and IP-A1 Series integration. This enables seamless, scalable, and centrally managed operations.



### General Broadcasting

#### Microphone Broadcasting

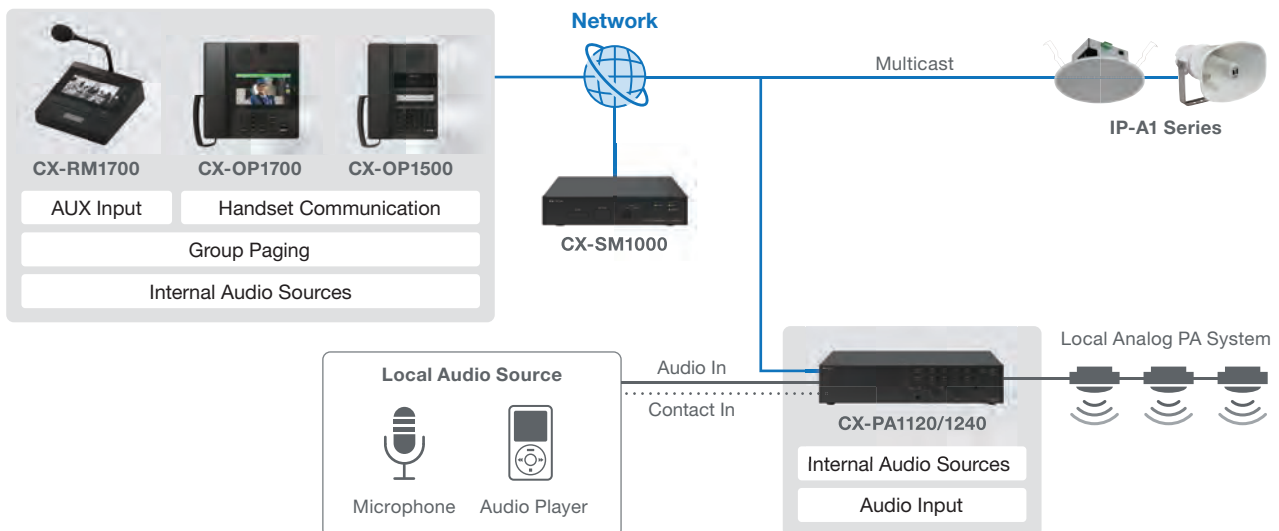
Announcements to the selected broadcast destinations using the device's microphone or an external microphone via AUX input.

#### BGM Broadcasting

BGM broadcasting utilizing internal sources, user-defined audio content, or external inputs via AUX/ audio connections.

#### Broadcast Patterns

Set broadcast destinations and audio sources, and automatically control broadcasting and output based on time and events.



## Key Features of Broadcast

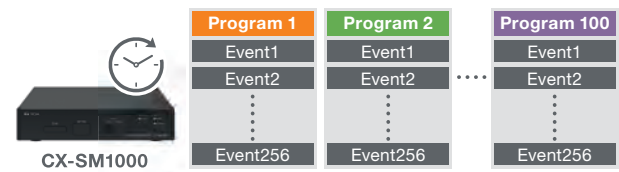
### Video Monitoring Broadcast

The CX Series supports CCTV integration via ONVIF Profile S, allowing users to monitor live video and broadcast to the corresponding location with a single touch.



### Program Timer

The CX Series Program Timer automates broadcasts and events based on schedules. It offers flexible timing, multi-event triggers, and area-specific controls for efficient operations.



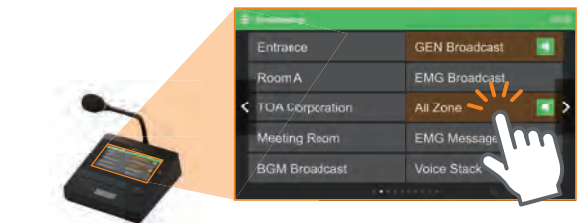
### Voice Stack Broadcasting

Voice Stack Broadcasting queues a message during high-priority broadcasts and delivers it once they conclude. This ensures accurate communication for emergency and operational updates.



### Operation via Touch Screen

The CX-RM1700/OP1700, equipped with a touch screen, enables intuitive and versatile broadcast control. Its user-friendly design allows for easy operation of various broadcast patterns.



## Emergency Mode

In emergencies such as intrusions or disasters, emergency mode is activated via device operation or control input. Broadcasts take priority over other functions, and connected attenuators (e.g., at CX-PA1120/PA1240) are bypassed to output audio at the level set in the Audio Scene Emergency. Evacuation guidance can be delivered in up to three timed phases, with specific messages, destinations, and control outputs. Devices prioritize calls, broadcasts, and signal processing automatically, and all emergency broadcast can be recorded.

### Emergency Mode Activation



### Effective Evacuation Direction



## 03 Maintenance

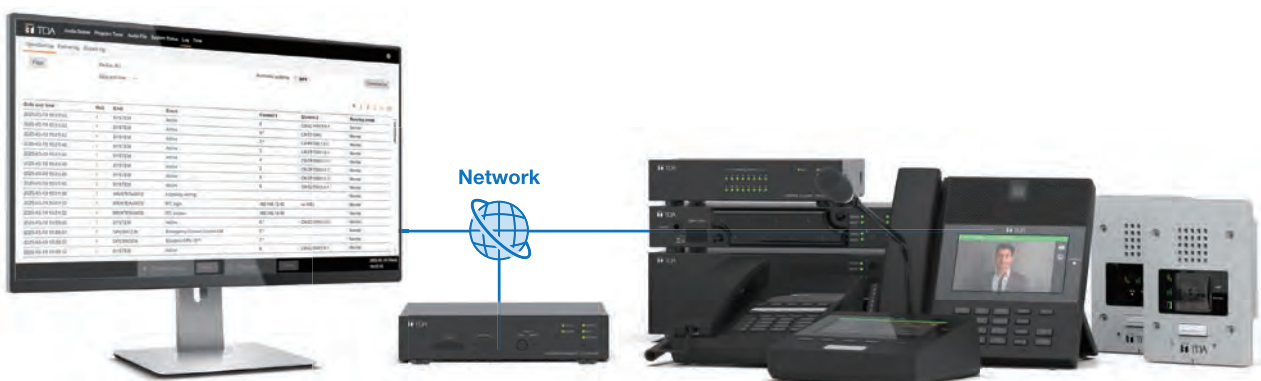
Designed for reliable maintenance and efficient operation, the CX Series simplifies system management through intuitive tools, smart fault detection, and network redundancy —ensuring stability and reducing the daily operational load.



### CX-SM1000

#### Efficient Operation Support and Secure System Management

The CX Series focuses on enhancing operational convenience, streamlining maintenance, and ensuring stable system management. It supports quick response to anomalies through fault detection and log retrieval, while intuitive daily management is made possible through the use of the web GUI. The program timer function further enhances operational efficiency. Additionally, network redundancy ensures system stability and scalability, enabling flexible operations for a variety of applications and reducing management burden. All of this is made possible by the system manager, the CX-SM1000.



## Key Features of Maintenance

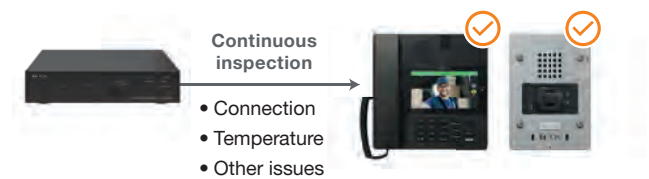
### Daily Advanced Check

The system automatically runs fault detection once a day. Any anomalies in internal audio lines, direct keys and file server connection are notified via sound or display. Manual checks can also be performed via terminal or browser.



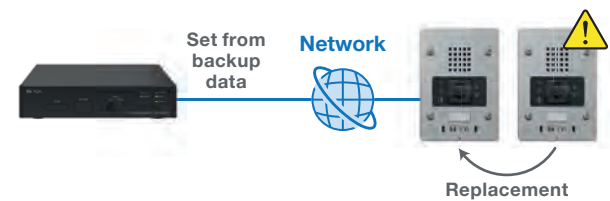
### Continuous Fault Monitoring

The system continuously monitors for faults during operation. Any anomalies in device connections, temperature, or data integrity are notified via sound or display.



### Fast Device Exchange

The system manager backs up all device settings. When replacing a faulty device, only network settings are needed, and the system manager allows the new device to be configured by uploading the settings over the network.



### System-wide Log Retrieval

The system manager enables system-wide log collection internally, on SD card or on a network drive, simplifying data retrieval. It aids in fault analysis, identifying causes, and preventing future issues by reviewing historical data.



### Web GUI

The GUI runs in a web browser without software installation. It allows centralized control of audio scenes including volume levels, scheduling, real-time configuration and device monitoring.



### Network Redundancy

Network redundancy allows for dual paths, ensuring continuous communication even if one route fails. This enhances fault tolerance, enabling reliable system operations.

# Universities

Solution for multi-building facilities

## CONTROL ROOM



CCTV footage of entrances and each building can be monitored, and, depending on the situation, operations such as making calls or broadcasting announcements can be carried out from the operation station.

## Utilization of analogue equipment



The CX Series audio interfaces and power amplifiers enable the effective use of analog PA speakers and systems, allowing for centralized management and operation with the CX Series.

## ENTRANCES



The CX-CL1750's built-in camera and CCTV camera send video to the operation station, enabling operators to see and speak with callers at gates or doors.

## CLASSROOM



Communication with the control room and other areas, as well as the operation of Emergency Notification in the event of an anomaly, can be performed.

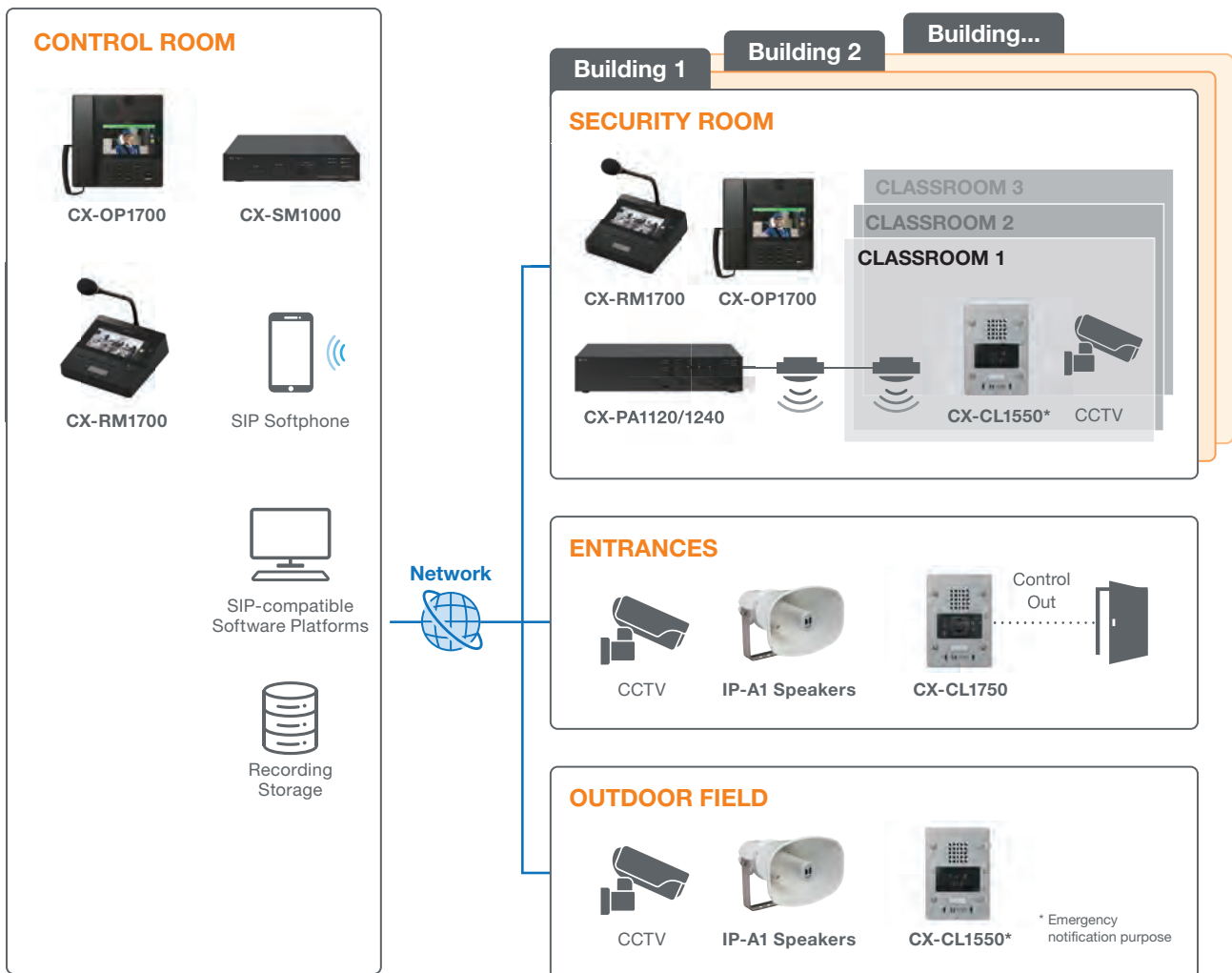
## Safety and Security

The CX Series provides comprehensive communication for large-scale facilities through its IP-based system. The call stations installed at entrance gates and doors are built with robust, impact-resistant construction (IK08-rated) and, through built-in cameras and integration with CCTV enable remote monitoring of the site from control or security rooms. These stations allow remote control of doors and gates from the control room, ensuring the safety of the facilities through communication, video, and control. Additionally, by installing operation stations and call stations in classrooms and laboratories, smooth communication within each area is facilitated. In the event of an anomaly, emergency notifications can be instantly sent to administrators from the call stations, enabling rapid evacuation across all areas. Furthermore, the system supports external telephone calls\*, allowing direct communication with fire departments, hospitals, or police. By utilizing the CX-AF1062 and CX-PA1120/1240, integration with analog PA systems is easy, allowing for the effective use of various setup solutions while providing centralized management and operation of all communications.

\*External lines subject to local regulations.



## System Example



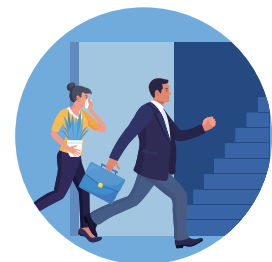
### System Integration

The support for generic protocols and the audio interface enable integration with CCTV, analog systems, and even the IP-A1 Series, allowing for the creation of a unified communication system.



### Mobile Operation

With a SIP app installed on a smartphone or PC, communication with the CX Series is possible. Additionally, remote door control can be performed from the smartphone.



### Efficient Evacuation

With TOA's deep history as a voice evacuation system manufacturer, it implements features such as emergency mode with area settings for each phase, ensuring effective evacuation during emergencies.

# Corporate Buildings

Advanced Intercom System for Secure, Integrated Communication



## ENTRANCE and RECEPTION



The built-in camera of the CX-CL1750 allows reception staff to remotely monitor visitors. Door control and other operations can be managed directly from the operation terminal, providing a smooth entry experience for visitors. Additionally, CCTV footage can be viewed from the operation terminal, preventing unauthorized access.

## OFFICE



In the event of unauthorized access, the emergency notification call station allows immediate communication with the security center, where the situation can be assessed using CCTV footage.

## SECURITY CENTER



- Situation confirmation via audio & video
- Evacuation instructions via broadcast
- Door access control
- Call to the police

The CX-OP1700 allows the Security Center to perform all tasks, including situation verification through CCTV footage and audio, phased evacuation broadcasts based on the extent of damage, remote door access control, and external calls to the police and fire department.

## Next-Level Security Intercom System

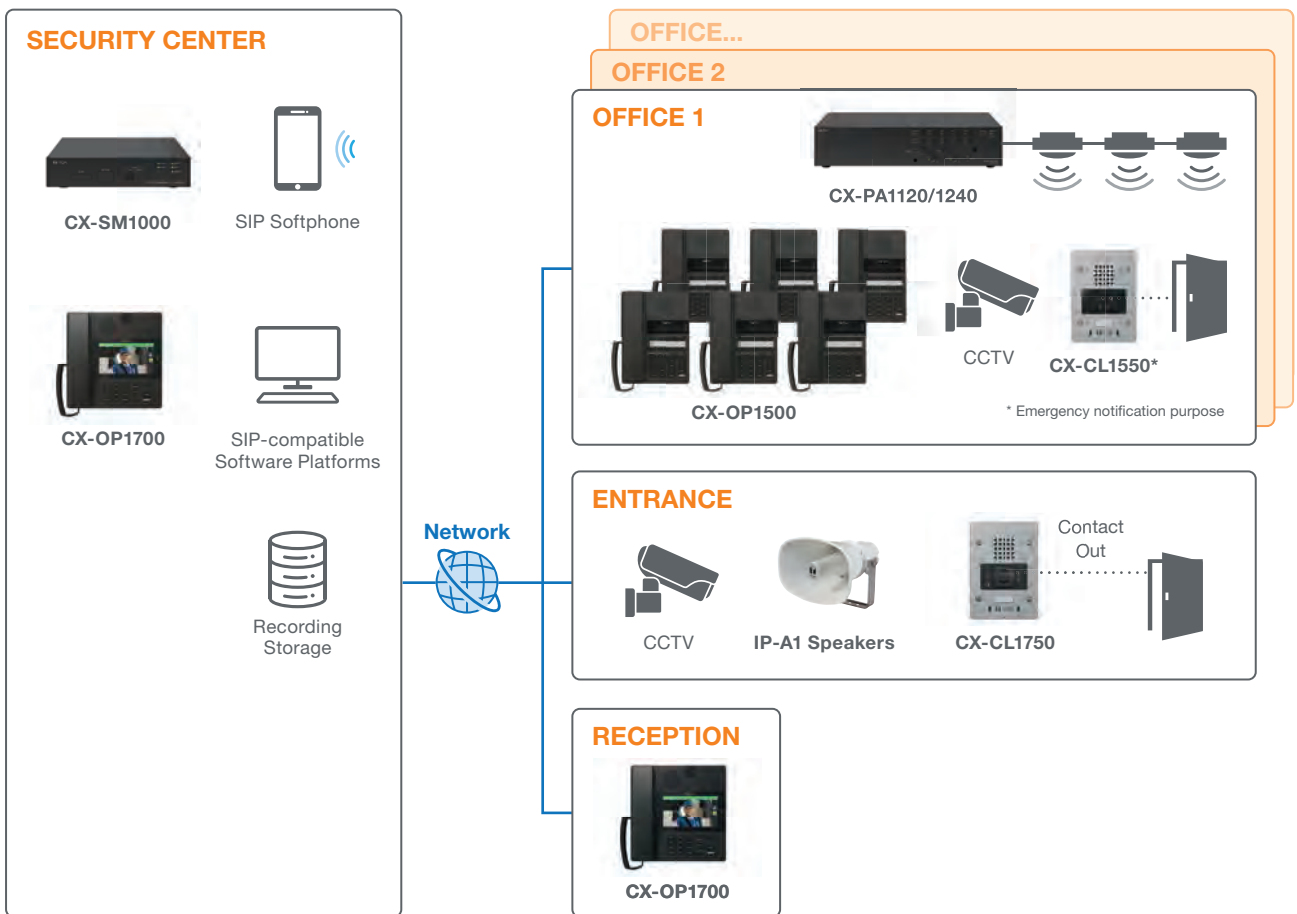
The CX Series is an advanced intercom system that seamlessly integrates communication, broadcasting, and network-based management into a single, unified platform. It ensures compatibility with a wide range of products and services, making installation straightforward and system expansion effortless, even in large-scale or complex facilities.

Built with robust security features and reliable emergency response capabilities, the CX Series strengthens the safety of employees, visitors, and assets while enhancing the technological resilience of the building. Its distributed architecture ensures uninterrupted operation even in the event of localized failures, providing peace of mind in mission-critical environments.

From corporate headquarters and universities to data centers that safeguard critical information, and smart buildings that demand multifunctional integration, the CX Series delivers versatility, scalability, and operational efficiency. For property owners, this combination of performance and reliability can contribute to both smoother daily operations and long-term value growth.



## System Example



## One-stop evacuation instructions using audio and video

The CX Series enables quick and seamless management of emergency situations, such as intruder alerts. It notifies users of any unusual activity, verifies the situation through audio and video, guides evacuation using broadcasts and signage, and contacts the appropriate civil authorities.



### Emergency Notification

Pressing the button on the emergency notification call station installed in the office immediately sends a notification to the Security Center.



### Situation Confirmation

The Security Center monitors and verifies the situation on-site through audio and live CCTV footage.

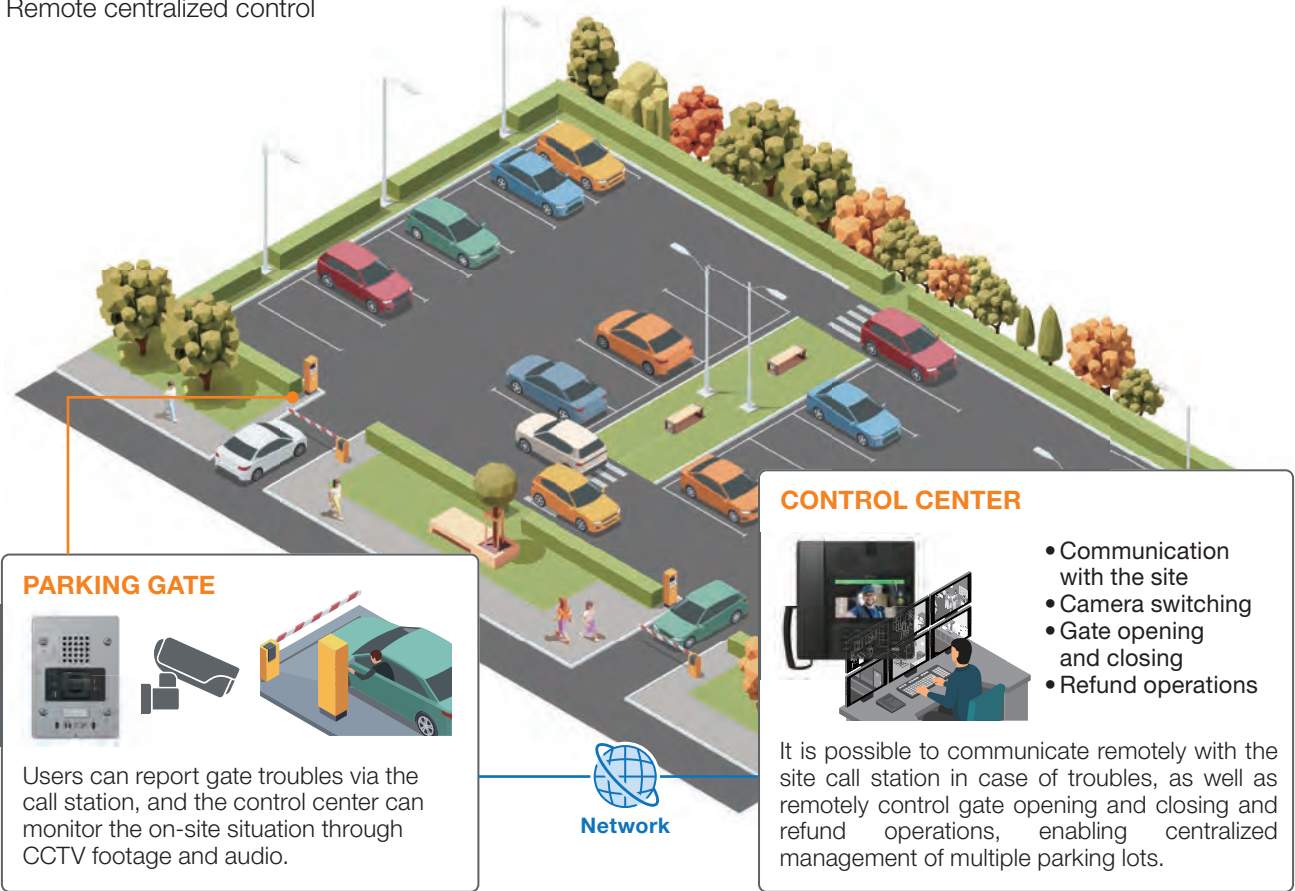


### Evacuation Guidance

All broadcasting, signage and door control via contact signals can be executed from the operation station, ensuring rapid evacuation guidance.

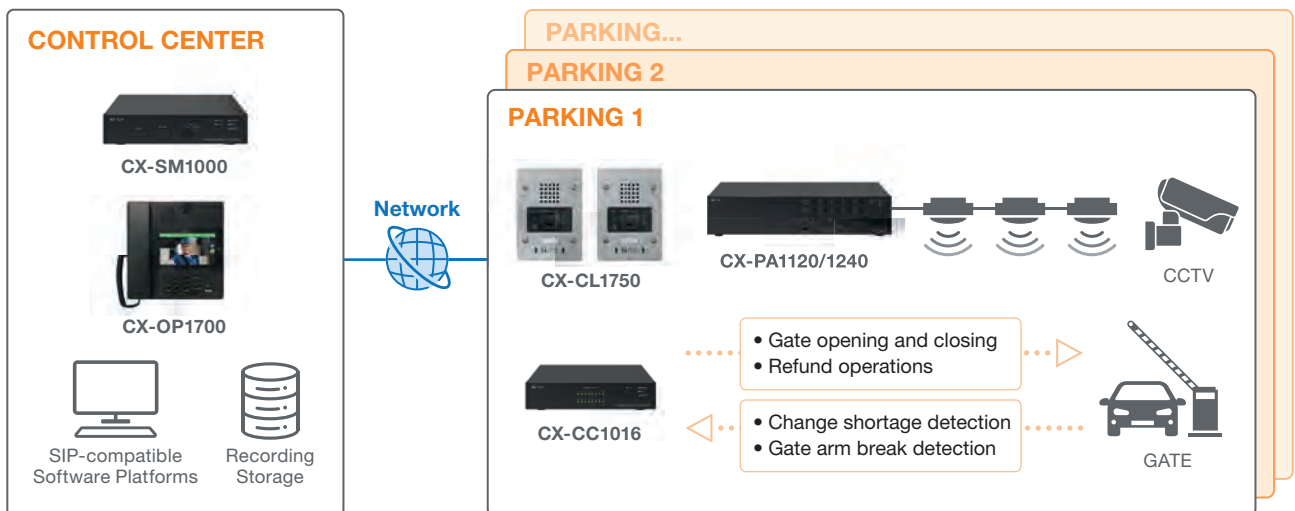
# Parking

Remote centralized control



## System Example

The control center enables efficient centralized management of multiple parking facilities. When a user encounters a gate issue, they can contact the control center via the CX-CL1750, where an operator responds by remotely operating gate equipment or dispatching maintenance staff. Real-time data from the CX-CC1016 allows monitoring of gate conditions, detecting issues such as coin shortages and gate arm break to ensure smooth parking operations.



## Others

Flexibility through IP integration and advanced security



### Versatile and Secure Solutions for a Wide Range of Environments



The CX Series offers high scalability, advanced security, and integrated management through support for standard protocols. It is not only ideal for the examples mentioned but also well-suited for any environment that requires efficient operation, including hospitals, factories, railway stations, and airports. This series provides exceptional flexibility and scalability, making it perfect for a wide range of applications.

# Specification

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## CX-SM1000 System Manager



- Central control unit indispensable for the CX Series system
- System fault buzzer and LED
- Dual LAN ports for flexible and reliable network connection
- Compatible with SIP, HTTP, and other standard protocols
- SD card slot for log storage and configuration backup
- Relay and open collector outputs for external control
- Desktop, rack, or wall mountable for flexible installation
- 24 V DC power input

## CX-CC1016 Control I/O Unit



- 16-channel inputs and 16-channel relay outputs control unit for external device integration
- LED indicator for each output
- Compact design for desktop, rack, or wall mounting
- 24 V DC power input

## CX-OP1700 Video Operation Station



- 5-inch touch screen LCD with intuitive operation keys
- Full-duplex communication via handset and hands-free with echo canceller
- Built-in HD camera with 69° horizontal viewing angle
- ONVIF Profile S compliant for integration with CCTV and network cameras
- Dual MEMS mics and array processing for clear pickup
- 3.5mm headset jack for versatile audio output
- 2 control inputs and 2 open collector outputs for external device integration
- Desktop or wall mounting options with optional bracket
- PoE (IEEE802.3af compliant) or 12 V DC power

# Specification

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## CX-OP1500 Operation Station



- 16-character × 2-line LCD for clear status display
- Full-duplex communication via handset and hands-free with echo canceller
- Dual MEMS mics and array processing for clear pickup
- 3.5mm headset jack for versatile audio output
- 2 control inputs and 2 open collector outputs for external device integration
- Desktop or wall mounting options with optional bracket
- PoE (IEEE802.3af compliant) or 12 V DC power
- Dual LAN ports with PoE support on port A

## CX-CL1750 Video Call Station



- Full-duplex hands-free communication with echo canceller
- Built-in camera (1280x720 pixels) for video communication
- Dual MEMS mics and array processing for clear pickup
- IP65/IK08 compliant for outdoor durability
- 4 control inputs and 4 outputs for external device integration
- Flush or wall mounting for flexible installation
- PoE (IEEE802.3af compliant) or 12 V DC power
- Dual LAN ports with PoE support on port A

## CX-CL1550 Call Station



- Full-duplex hands-free communication with echo canceller
- Dual MEMS mics and array processing for clear pickup
- IP65/IK08 compliant for outdoor durability
- 4 control inputs and 4 outputs for external device integration
- Flush or wall mounting for flexible installation
- PoE (IEEE802.3af compliant) or 12 V DC power
- Dual LAN ports with PoE support on port A

# Specification

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## CX-RM1700 Touch Screen Remote Microphone



- 5-inch touch screen LCD and direct keys for intuitive operation
- ONVIF Profile S compliant for video monitoring from network cameras
- Equipped with an electret condenser microphone
- Built-in dynamic speaker with 1 W max output
- 1 control input and 1 relay output for external device integration
- PoE (IEEE802.3af compliant) or 12 V DC power
- Dual LAN ports with PoE support on port A

## CX-AF1062 Audio Interface 6in2out



- Supports 6 balanced audio inputs and 2 balanced audio outputs
- Comprehensive volume control for all inputs and outputs
- Signal processing with Gain, EQ, Comp, AGC, Trim, Gate (VOX)
- Dual LAN ports
- 10 direct keys with multiple LED indicators
- 10 control inputs and 10 control outputs for external device integration
- Desktop, rack, or wall mountable for flexible installation

# Specification

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## CX-PA1120 Power Amplifier 120W 10SS



- 120 W rated output
- 2 balanced audio inputs
- 10 balanced speaker outputs, selectable 100 V / 70 V output voltage
- Signal processing with Gain, EQ, Comp, AGC, Trim, Gate(VOX), ANC
- Dual LAN ports
- 10 direct keys with multiple LED indicators
- 10 control inputs and 10 relay control outputs
- Emergency control input with voltage control

## CX-PA1240 Power Amplifier 240W 10SS



- 240 W rated output
- 2 balanced audio inputs
- 10 balanced speaker outputs, selectable 100 V / 70 V output voltage
- Signal processing with Gain, EQ, Comp, AGC, Trim, Gate(VOX), ANC
- Dual LAN ports
- 10 direct keys with multiple LED indicators
- 10 control inputs and 10 relay control outputs
- Emergency control input with voltage control

# Your Partner for Sound

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**We supply sound,  
not equipment.**



Founded in 1934 in Kobe, Japan, we draw upon more than 90 years of experience in researching, developing and integrating commercial and professional audio and security equipment.

Our pride lies in the fact that we use this knowledge to create acoustic sound fields for millions of people to make their lives safer and more pleasant. Since its founding, TOA has pursued its business based upon a solid Management Philosophy, known as the “Three Confidences”. These important basic foundations will carry us into an even brighter and prosperous future.

In addition, at TOA “Smiles” convey more than mere satisfaction. They are a deeper expression - of security, of trust, and of emotions - and these are keys to the values we deliver.

This rare involvement in every stage of people’s public lives has long been our reason for being, and it continues to be our highest corporate value.

TOA group is headquartered in Kobe and consists of 19 subsidiaries, which are divide into 5 regions.

- ▣ Japan
- ▣ East Asia
- ▣ South East Asia and Oceania
- ▣ South and North America
- ▣ Europe and Africa

**Smiles for the Public**

# Your Support in EMEA Region

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TOA Electronics Europe GmbH (TEE) is located in Hamburg, Germany, since 1973 and has branches in the UK, France, Poland, Benelux, Russia, South Africa, Dubai and Saudi-Arabia. Our Export Sales Team takes care of all other EMEA regions.

In each country we have certified distributors, who take care of our clients and their requirements. TOA has a

very good relationship to all of its distributors and is in constant communication to get the best market knowledge.

Furthermore our European warehouse, which is also located in Hamburg, ensures immediate access to thousands of TOA products to offer you a high delivery performance.

## Our Engineering Team **supports you with:**



**System & Project  
Planning**



**Rack  
Assembling**



**Technical  
Support**



**Trainings  
& Seminars**

- ✔ Expert knowledge in selecting the best system design for your project
- ✔ Sound coverage simulations using EASE®\* planning the speaker positioning
- ✔ Technical expertise during system installation
- ✔ Assistance during the commissioning with all system documentation.

**Let's plan your next  
project together!**

Give us a call: **+49 (0) 40 25 17 19 0** or  
contact us via mail: **contact@toa-eu.com**



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