TOA



Sound Solutions

For Educational Environments

School is in session!

Ensure **safety**, **security**, and **sound coverage** with TOA.



Our Education Advantage

Here at TOA, we know that sound systems act as a pivotal affordance for teachers and other educative support staff, and through their incorporation into schools and other educative spaces, educating can not only become easier, but also more impactful and fulfilling. Our infrared wireless classroom voice-lift system –the IR-800– already serves as a prime example of how such technology can act as a bright light for students in many school districts across North America. Through this series as well as our other education-focused sound solutions, we aim to help educators create the optimal educational space to allow for student growth, learning, and most importantly their experience in the most formative years of their lives.



Classroom audio distribution systems (CADS), formerly known as sound field amplification systems, should be used, when appropriate, to achieve clearer speech signals (Larsen & Blair, 2008). With these systems, the signal level is greatly improved since only the voice at the microphone is amplified, not the background noise. [1]

[1] SAC, Speech-Language & Audiology Canada, SAC position paper on Classroom Acoustics, May 2019

School administrators acknowledge the impact that voice lift systems provide for those in the school ecosystem. Teachers provide a very important service; ensuring they can continue to deliver their message with an intelligible voice is key. By implementing the infrared voice lift system with microphone and wide-dispersion speaker, teachers do not need to raise their voices to reach all areas of the room. The system distributes their voice evenly and clearly throughout the classroom with very little effort. This results in lower vocal fatigue and increased stamina. Educators can feel confident that their lessons are being heard by the students, which reduces their stress levels.

Sound solutions developed with K-12 as well as Post-Secondary in mind.

In addition to ensuring that each student is able to learn irrespective of their seat or the acoustics in the classroom, here at TOA we know that schools and learning spaces are connected spaces, and need to be designed as such. Our sound systems also ensure that announcements are crystal clear, whether it's morning announcements to the entire building or campus, or focused paging in a specific area for staff or students – we offer a range of solutions for learning spaces. We work together with you to find a sound concept perfectly tailored to your facility or application. Whatever your needs, we can help!

It is well known that students who sit at the front of the class can hear the teacher better than those who sit further back. This is even more apparent when the teacher is facing the chalkboard. Student success will be hampered if the presented material is not being absorbed. Our IR-800 system supports full classroom learning by dispersing the information to all students equally. The magnitude of this effect will be noticed with more engaged students and increased grades.





It is no understatement to state that each school is unique, with each designed in a distinct shape and size. This means that like the school itself, the sound system too must be unique, employing the correct solution that delivers the campus wide features to communicate and secure their students effectively and efficiently. Such a system must offer the functionality necessary for administrators and teachers to feel confident in the school's security and ability to easily connect to other individuals or the entire school through public address.

Even spaces within a singular school or building within a campus can require drastically different components. You wouldn't want speakers fit for a gym or auditorium fitted into classrooms and audiences, or non-weather resistant components fitted for outdoor applications. TOA takes the guesswork out of the design process with our Technical Design Proposal services, our expert technical support team digitally recreate your facility to then test and document the best possible options for each and every space. All so you can rest assured that your school is being equipped with the very best sound possible.

Classroom Voice Lift

TOA strives to enhance the environment within educational facilities to improve student learning and increase voice intelligibility throughout the building and multi-campus locations. Students spend the majority of their time at school in a classroom; this directed TOA to focus on their setting. The development of our IR-800 voice lift system and recent second-generation IR-800 Plus, has firmly implanted TOA's footprint in the education market.

While IR-800 is designed to help create an ideal environment for student success, it also significantly reduces vocal fatigue for teachers. This forms a win-win effect for education in schools, improving both student learning and the workplace health and safety of teachers.



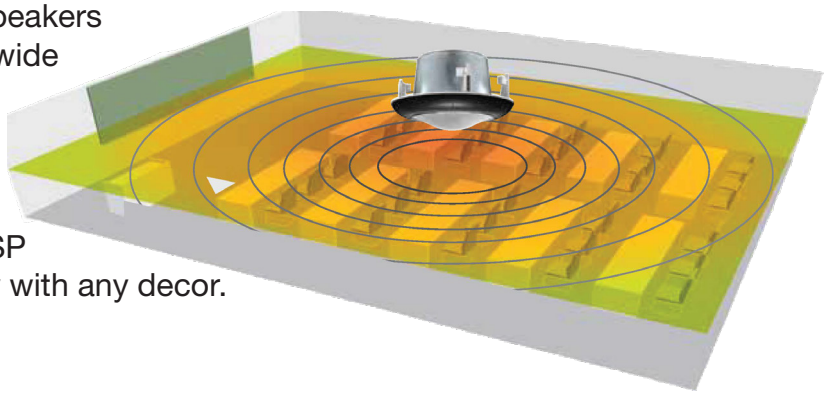


Infrared Wireless Microphone System

Due to the fact that these microphones operate on infrared frequencies rather than radio frequencies, they are free to operate without interference from wireless systems in neighboring classrooms for clear, uninterrupted communication, and there is no limit to the number of active systems that can operate without interference in any building. Available in handheld and lanyard types with the option of connecting a headset or lavaliere, TOA infrared microphones feature high sound quality for excellent intelligibility, and extended battery life for operation up to eight hours. A wide coverage receiver is built in for stable voice transmission in various classroom sizes. An ALD (Assisted Listening Device) output with level control provides audio feed to external systems for children who require it.

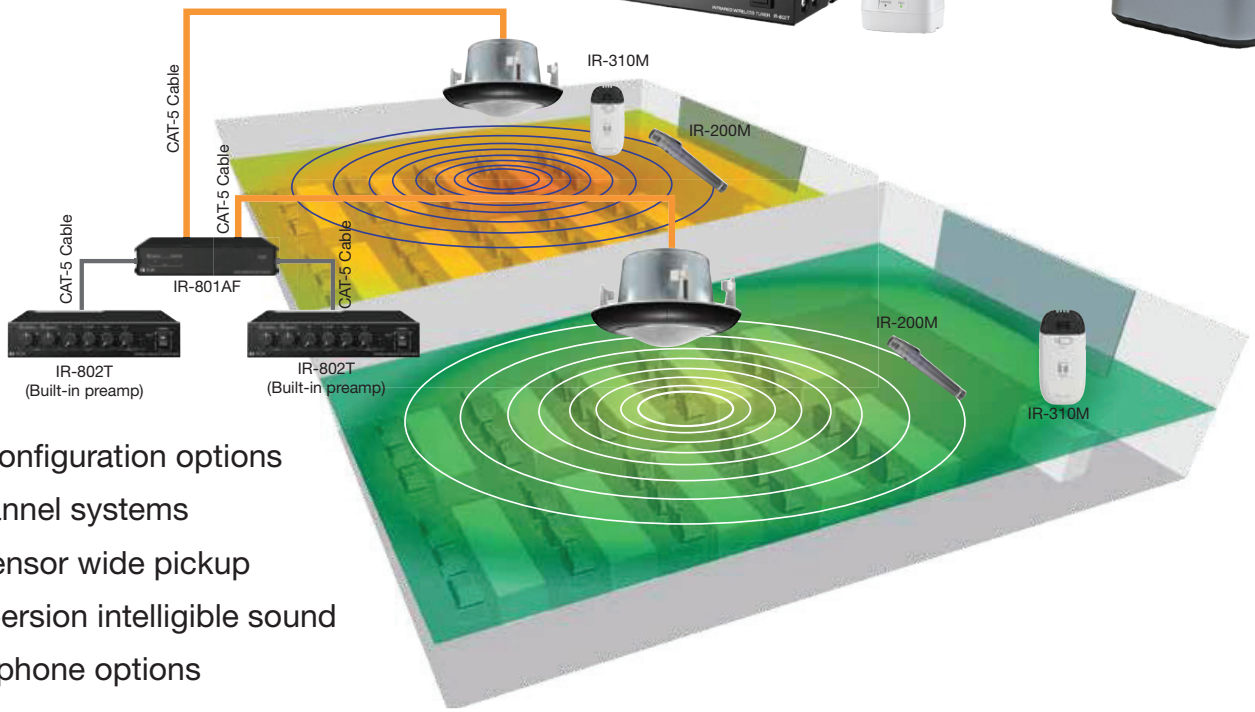
Wide-Dispersion Ceiling Speakers

The IR-820SP speaker utilizes a wide dispersion coverage pattern to deliver clear speech intelligibility to every student, no matter where in the room they may be seated. This characteristic also reduces the number of speakers that need to be installed to cover the same wide area. Sound dissemination is even throughout the space, allowing for a comfortable and stress-free learning environment where students can flourish with increased comprehension. The IR-820SP Speaker design also blends in unobtrusively with any decor.

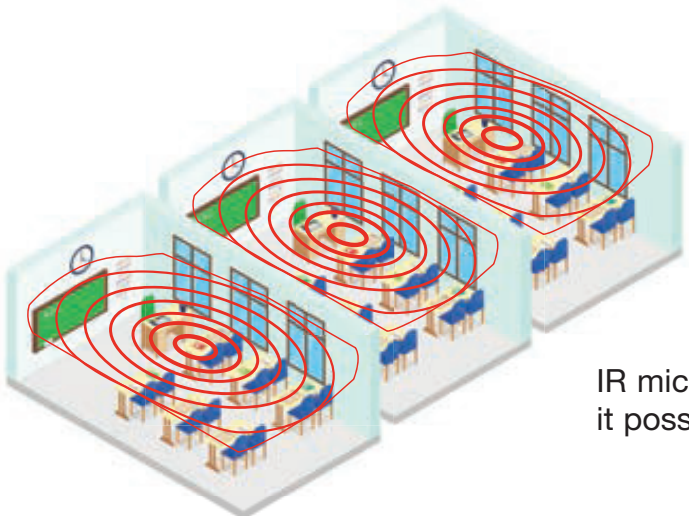


With the feedback we received from teachers and school districts, TOA augmented the successful IR-800 system to maximize its flexibility in educational environments. With the addition of an interface unit, the voice lift system can now be designed to suit various classroom configurations. For larger classrooms, you now have the option of installing two speakers. The IR-801 AF interface also allows for room-combining and/or division in rooms with a removable wall, transitioning smoothly from a single large system into two separate systems with the flip of a switch.





- Multiple configuration options
- 2 or 4 channel systems
- 360° IR sensor wide pickup
- Wide dispersion intelligible sound
- 1-4 microphone options



Infrared System Advantage

As shown above, walls act as a shield, meaning that infrared microphones can be used without the worry of interference from adjacent rooms (see figure above). This makes IR systems extremely useful in comparison to systems using radio waves as interference can occur for such systems when used in close proximity (see figure left).

IR microphones can even all be set same channel making it possible for a single microphone to be used in any room without interference between separate rooms.

Portable Speaker Voicelift System

Developed as the missing piece of the puzzle that was the IR-800 Infrared Classroom Voicelift system, the IR-842 Portable Speaker Voicelift System works just as the name implies. This system was designed to provide voicelift amplification to unique spaces as well as facilities who are unable to utilize an installed voicelift solution. The system can be set up and packed away in moments, meaning educators are also no longer limited to traditional classroom spaces or rooms with installed audio systems. With the IR-842, almost any indoor space can become a classroom that any educator would be proud to teach in.

This compact, portable infrared classroom soundfield system, can also utilize additional IR-842 sub-units and IR receivers to enhance the reception and coverage in what could otherwise be considered too challenging a space to deliver optimal sound coverage.

Adding to its versatility, the IR-842 offers multiple mounting options—making it ideal for both portable and installed setups. It can be placed on a desktop for quick deployment, mounted to a wall using the included C-channel bracket, or installed on a pole with the optional pole mount bracket. For ease of ordering, the IR-842Kit1 is available for purchase, containing all the system essentials and ready to be customized with optional accessories to best fit your space.



In addition to delivering superior infrared audio, the IR-842 can receive Bluetooth signals for easy wireless streaming and supports a standard wired microphone input for traditional setups. IR-842 series kits take the guesswork out of creating flexible Voicelift Systems for education. Designed for both portable and installed applications in mind, these kits include the ideal mix of IR-842 units, microphones, and series peripherals to fit unique classroom layouts. With ready-to-go configurations, schools can quickly deploy systems that deliver clear, consistent audio coverage—making procurement simple and implementation stress-free.



IR-842 Additional Equipment

IR-842BAG (Carrying Bag)



This Carrying bag consists of 1 large storage compartment and 6 smaller storage compartments. Each bag can store one main unit (or sub unit), as well as AC adapter, microphones, additional receivers/ cables, etc.

IR-842HY (Pole Mounting Bracket)

For added versatility and configuration options, users can mount main and sub units using this speaker stand adapter in as little as two steps. First attach the adapter to either the main unit or sub unit via the two screw holes on the underside of the unit. Then place the unit onto that pole and tighten the bracket fixing screw to secure the adapter to the stand.



IR-200M, IR-300M, & IR-310M (Compatible Mics)



Users have the option of three IR-842 compatible microphones to pair with the portable speaker voicelift system, with two channels allowing for up to two separate mics to be used at a time.





Voicelift Flexibility



WB-802



IR-800D

Today's learning environments demand technology that adapts to evolving teaching styles and classroom layouts. In addition to the IR-800 series kits, educators also can utilize optional series accessories to customize system capabilities to each space. Enhancing this system's flexibility, the WB-802 wall mounting bracket provides secure, space-saving installation for optimal placement of the IR-802T, while the IR-800D Infrared Receiver Expander allows the connection of an external receiver to expand coverage and eliminate potential blind spots for better IR reception. Together, these solutions make the IR-800 series a scalable, reliable choice for schools committed to engaging, inclusive education.

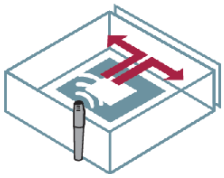
For unique or challenging spaces where the IR-800 or IR-842 series may not be the perfect fit, even more uniquely customized infrared solutions are available through using IR-700 devices. This flexibility ensures we can design and deliver tailored audio systems that meet the specific needs of any educational environment.

IR Wireless Solutions for Larger Spaces

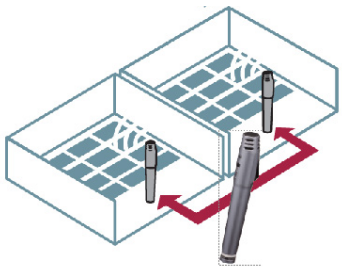
Wireless is a big factor for convenience for any modern system. From classroom sessions to presentations and performances in halls and auditoriums, TOA offers a wide range of IR systems fit for every application. The Wireless advantage of our IR systems allows for more dynamic presentations free of the hassles of cable tangling and length limitations, whilst still delivering the high quality of sound that is synonymous with TOA.



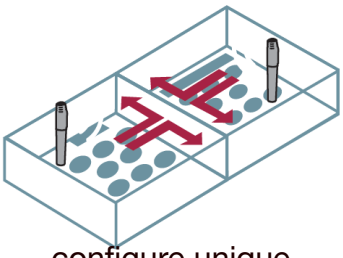
Our Infrared Wireless Microphone System incorporates a range of communication enhancing features that will appeal to users who want confidentiality as well as interference-free communication. Because the microphones use infrared signals, matters being discussed won't leave the room, and the wireless microphones can be used in several adjacent classrooms simultaneously without interference. In this way, this infrared microphone system can meet communication needs in educational environments perfectly.



Devote a single system to a large space



Utilize mics in multiple spaces via channel configuration



configure unique systems for each large space within the school or on campus

Campus-wide Communication & Safety



Whether it be a single building or multi-campus education facility, the security requirements and communication needs remain the same. With schools designed in many shapes and sizes, employing the correct solution that delivers the campus wide features to communicate and secure their students is paramount. The system in place must offer the functionality necessary for administrators and teachers to feel confident in the school's security and ability to easily connect to other individuals or the entire school through public address. Searching for the right mass notification system that can deliver intelligible sound throughout your entire school both indoor and outdoor can be a daunting task. TOA understands the importance of student safety and the safety of the faculty. We carry a comprehensive product line that effectively manages building communication and security to ensure all occupants are safe at all times.

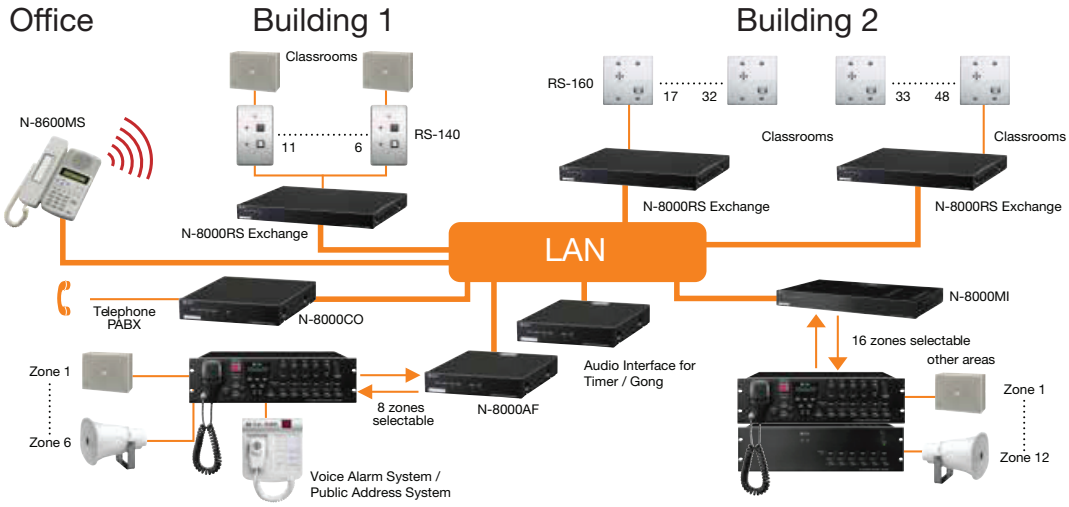




Key Benefits of Using TOA Intercom & Mass Notification Solutions

- Communication for regular day activities
- Ample coverage throughout facility
- Critical messaging during emergencies
- Single zone to multi zone, indoor or outdoor announcements
- Voice paging by microphone, intercom or phone system
- Digital signaling and messaging can be used
- Priority and muting capabilities

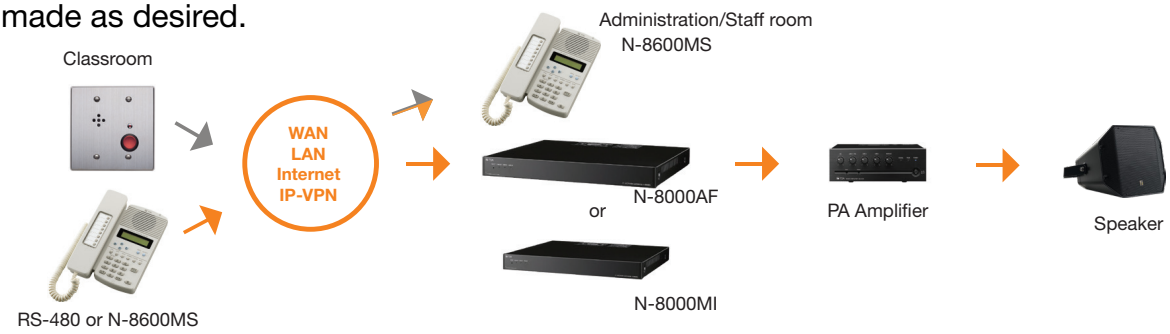
School Installation Example: N-8000 Intercom & VM-3000 Mass Notification System



Daily Communications

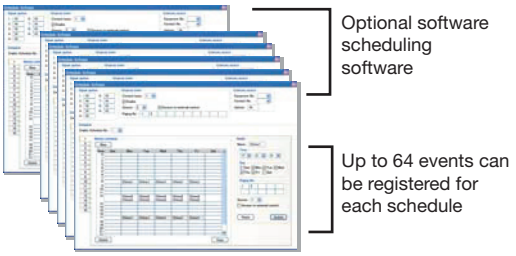
Calling & Paging Functions:

Allows the master station as well as external input equipment to initiate communications via PA equipment or the speakers of individual stations. Operators can use the setup software to configure up to 192 paging zones to which paging calls can be made as desired.



Time Signal Function:

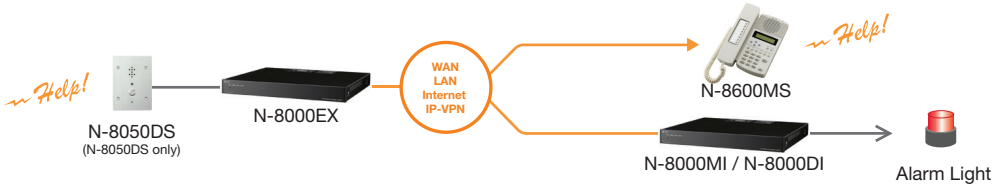
Useful for time-based notifications and schedules, built-in chime tones or other audio signals from externally connected equipment can be broadcast to all stations and PA equipment according to a preset schedule.



Security & Safety

Audio Trigger:

Sets off an alarm if audio input to a pre-programmed station's microphone fulfills pre-set conditions (detection time or signal level). Examples include calls to the designated master station or contact output generated by another interface unit.



Scan Monitor:

Enables remote security monitoring by allowing the master station as well as analog telephones and external telephones to audio monitor two or more pre-programmed stations.



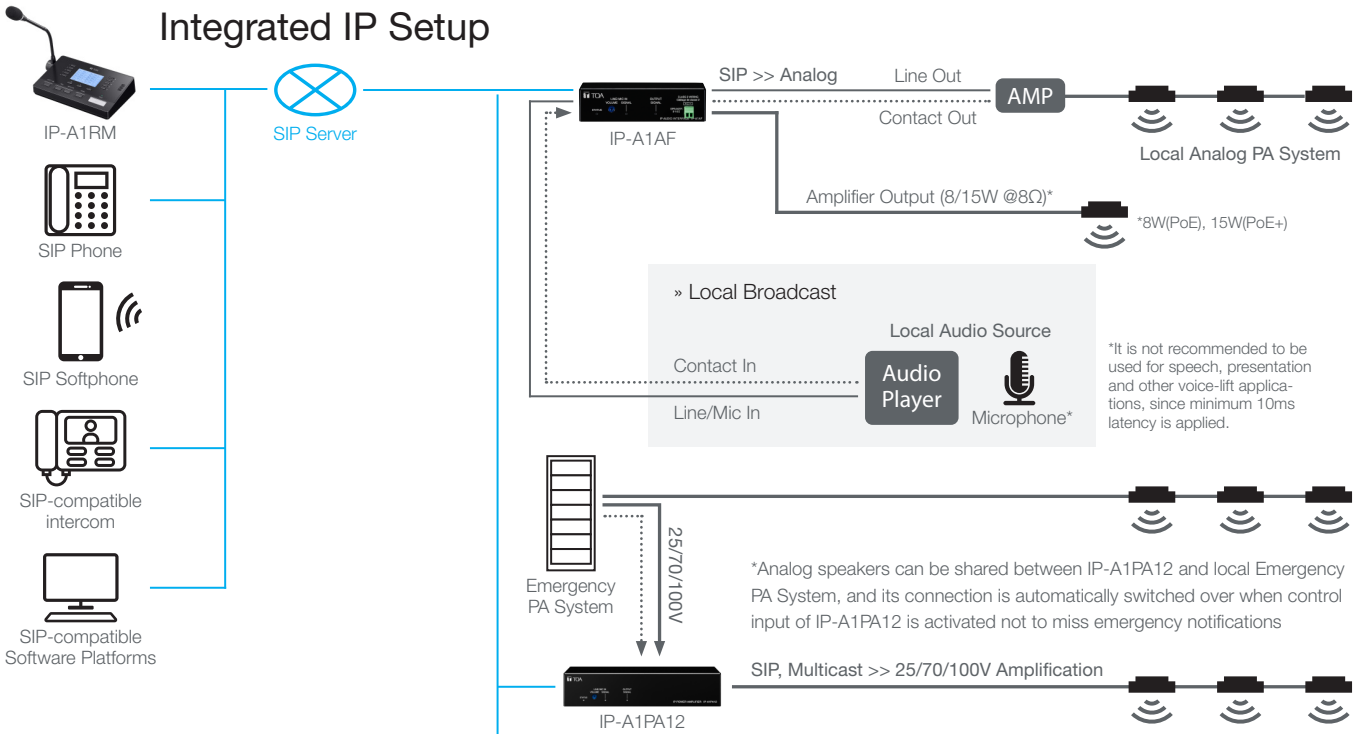
IP-A1 Audio Endpoints

The IP-A1 series comprises advanced IP audio endpoint devices designed in familiar form factors. While they may resemble simple speakers or audio interfaces, their capabilities go far beyond appearances. Aside from aesthetics, IP-A1 systems also carries highly flexible scalability—ranging from a minimal PA setup, expanding to a fully integrated, campus-wide IP-based PA system.

The series adopts common industrial standard protocols, which helps to establish fully integrated systems by communicating not only between IP-A1 series devices, but also with existing speakers and amplifiers alongside external devices and platforms such as: SIP phones, security VMS (Video Management Software), and Access Control or Sensing systems.



Integrated IP Setup



UL Certified Speakers

Choosing the correct speaker for your system is as important as the system itself. If the sound is not intelligible in all areas of the building, then the announcement can be missed by individuals and their safety put in danger.



Why IP?

IP-A1 series IP audio solutions adopt common industrial standard protocols for its audio communications and controls. This allows for ease of integration, either by only utilizing IP-A1 components, or with external devices and platforms such as SIP phone, security VMS (Video Management Software), access control, or sensing systems. Adding an IP-A1 device into your commercial communication system elevates it to the next level, facilitating flexible audio communications over your network.



Key Elements of Audio Communications

When

Triggers

Sensor/Alarm
Scheduled Timer
Manual Activation

What

Contents

Live Voice (PA mic)
Live Voice (SIP Phone)
Live Voice (VMS)
Recorded message/tone

Where

Zone/Area

All Call
Specific Zone/Area
Individual Spot/Speaker

How

Secure Delivery

Priority Management
Volume Control

Key Features

Audio File Storage	Standard Protocols	Audio Management	Easy Configuration	Integration Friendly
MP3/WAV 80MB	SIP, Onvif Multicast	Priority & Volume	Browser UI & Software	HTTP API & Contact In/Out

*Onvif is a registered trademark of ONVIF Inc.

The IP-A1 series delivers a flexible and scalable communication platform for educational facilities of any size. By leveraging standard IP networks, administrators can distribute live announcements, scheduled notifications, prerecorded messages, and emergency communications across specific zones or entire campuses. With support for industry-standard protocols including SIP, ONVIF, and multicast audio, the system integrates seamlessly with existing infrastructure while providing a future-ready foundation for campus-wide communication, safety, and operational efficiency.

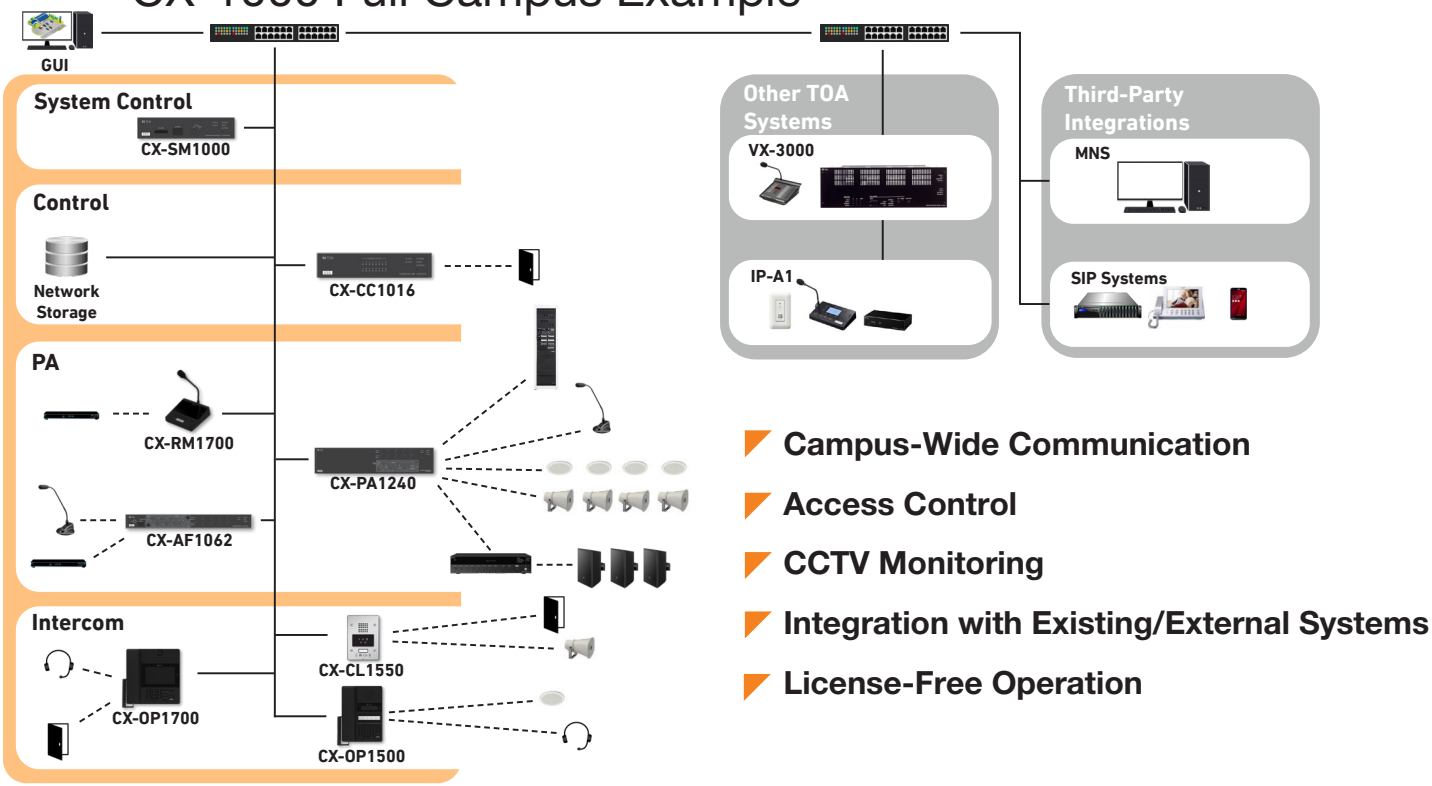
CX-1000 IP Intercom



A step beyond the IP-A1 series, the CX-1000 Series is a next-generation system that combines audio and video communications. It integrates voice, broadcast, and video by supporting various common protocols, meeting diverse communication needs without ***the requirement of a license to operate. 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. It seamlessly integrates public address, video intercom, and other existing systems such as networked CCTV or analog PA/VA, delivering a unified platform for comprehensive information management. Operators can effortlessly monitor CCTV footage, make calls, and broadcast messages, all from a single, intuitive interface.***

The CX-1000 Series offers flexible scalability, supporting up to 3,000 device connections. It integrates easily with standard protocols such as SIP and HTTP, and provides physical control I/Os for versatile connectivity.

CX-1000 Full Campus Example



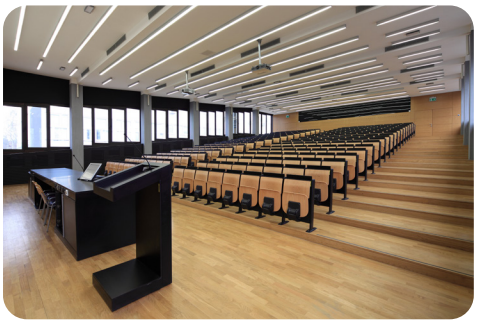
- **Campus-Wide Communication**
- **Access Control**
- **CCTV Monitoring**
- **Integration with Existing/External Systems**
- **License-Free Operation**

Gyms, Multi-Purpose Rooms, Auditoriums, & Cafeterias:

Large gatherings of students for school events in gymnasiums and auditoriums require a sound system capable of delivering audio clearly. TOA systems are designed to easily install as a new solution or integrate and enhance existing systems. Combining powerful amplifiers and outstanding digital mixers with reliable and durable speakers, TOA systems will offer cost-effective solutions for larger spaces.







Line Array Speaker Systems

This type of speaker permits various configurations to maximize sound transmission over long distances and minimize reflections. Their sound directivity makes them well suited for larger spaces like auditoriums and gymnasiums. The Impact-resistant construction is a great selling feature when installing the system in a gymnasium. These speakers are designed for minimum volume attenuation over distance to allow the high-quality sound to be evenly dispersed at natural-sounding levels and do not need special equalization.



UHF & Digital Microphones

Sound intelligibility is an important factor in student learning therefore educational institutions want a microphone that is reliable every time. TOA provides a full range of digital and UHF wireless microphones, optimized for both general and specific applications. All series are optimally compatible with accompanying tuner units and ancillary equipment.



D-5000 Series Digital Microphones

Multi-Channel Amplifiers

To ensure that sound fills the largest spaces found in schools, multi-channel amplifiers are the best choice for these audio systems. With versatile features and outstanding durability, DA series amplifiers make an ideal addition to sound systems found in gymnasiums, auditoriums, and more.



DA-250F Power Amplifier

MW-42BT Audio Interface with USB and Bluetooth



The MW-42BT serves as an all-in-one control panel for educators, elevating teaching through a simple and straight-forward audio interface for every challenge a school day may bring. Equipped with Microphone, AUX (3.5mm), USB, and Bluetooth inputs, as well as one Mono balanced output. The in-wall design and modern appearance make it ideal for saving space and integration to classrooms and larger educative spaces alike.

The One System at the Heart of the School: The M-8080D Digital Matrix Mixer

Dedicated to music, paging, discussion, and zone management, the M-8080D delivers advanced features in a cost-effective package tailored for educational environments. Whether it's clear announcements in hallways, dynamic sound in gyms, immersive audio in theaters and auditoriums, or background music in common areas, the M-8080D ensures precise control across every space.

Projects using DSP platforms often demand multiple inputs and outputs, and the M-8080D meets this need with a broad selection of I/O options designed for flexibility and ease of integration. Its intuitive touchscreen interface enhances accessibility, allowing staff to manage zones and audio settings effortlessly.

Designed for non-experts, the M-8080D uses a fixed architecture for quick, straightforward operation. The user-friendly GUI mirrors a familiar hardware-style layout, enabling fast programming and rapid deployment—so schools can achieve professional-grade audio control without complexity.

Digital Matrix Mixing At a Glance



- M-8080D series is dedicated to music, paging, discussion and zone management solutions
- M-8080D series includes a digital Mixer Unit that is supported by remote controllers, remote Audio I/O controllers and a remote Paging Microphone.
- M-8080D offers software driven signal processing in a cost-effective package
- Audio I/O:
  - » 8 analog IN / 8 analog OUT
  - » 4 digital IN / 4 digital OUT (expandable via remote devices of M-8080D Series)

A-800 Series Mixer Amplifiers: Big Power in Smaller Spaces

Providing maximum flexibility with up to eight inputs and up to 480 W of power, A-800 Series amplifiers are a smart choice for educational AV systems because they combine flexibility, reliability, and advanced features into a small form factor for single zone applications. Features include multiple mic and line inputs, flexibility through 2x 900-Series module slots in addition to its fixed I/O, a built-in DSP for clear sound and feedback control, and remote browser-based management for easy IT oversight.





SP-11N VoIP phone paging module



BT-01 Bluetooth module



WTU-M9800 AM wireless microphone receiver module



900 Series Modules

Educators have access to a catalog of over 40 modules, all designed to allow users to configure their system for an exact need or purpose. These 900 series modules allow TOA systems to become uniquely yours.

TOA

We supply sound, not equipment



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