



## Sound Solutions

For Educational Environments



**School is in session!**

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



## Our Education Advantage

Here at TOA Canada, we know that sound systems act as a pivotal affordance for teachers and other educational support staff, and through their incorporation into schools and other educational 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 boards across Canada. 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.<sup>1</sup>

<sup>1</sup> 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, reduces their stress levels.

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.



# 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.



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 Canadian schools, improving both student learning and the occupational health and safety of teachers.

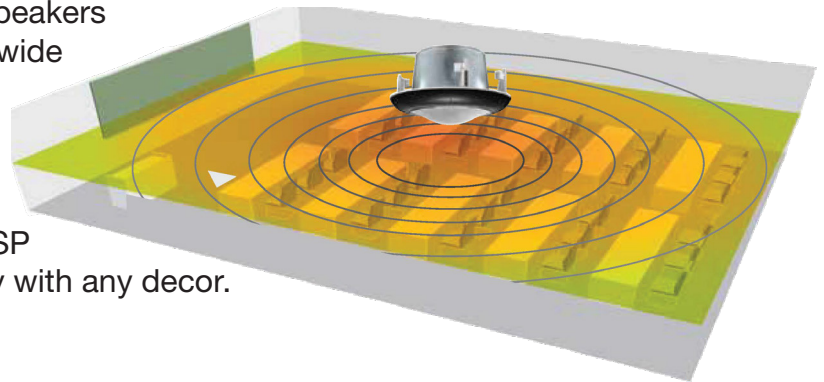
# Infrared Wireless Microphone System



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 lavalier, 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

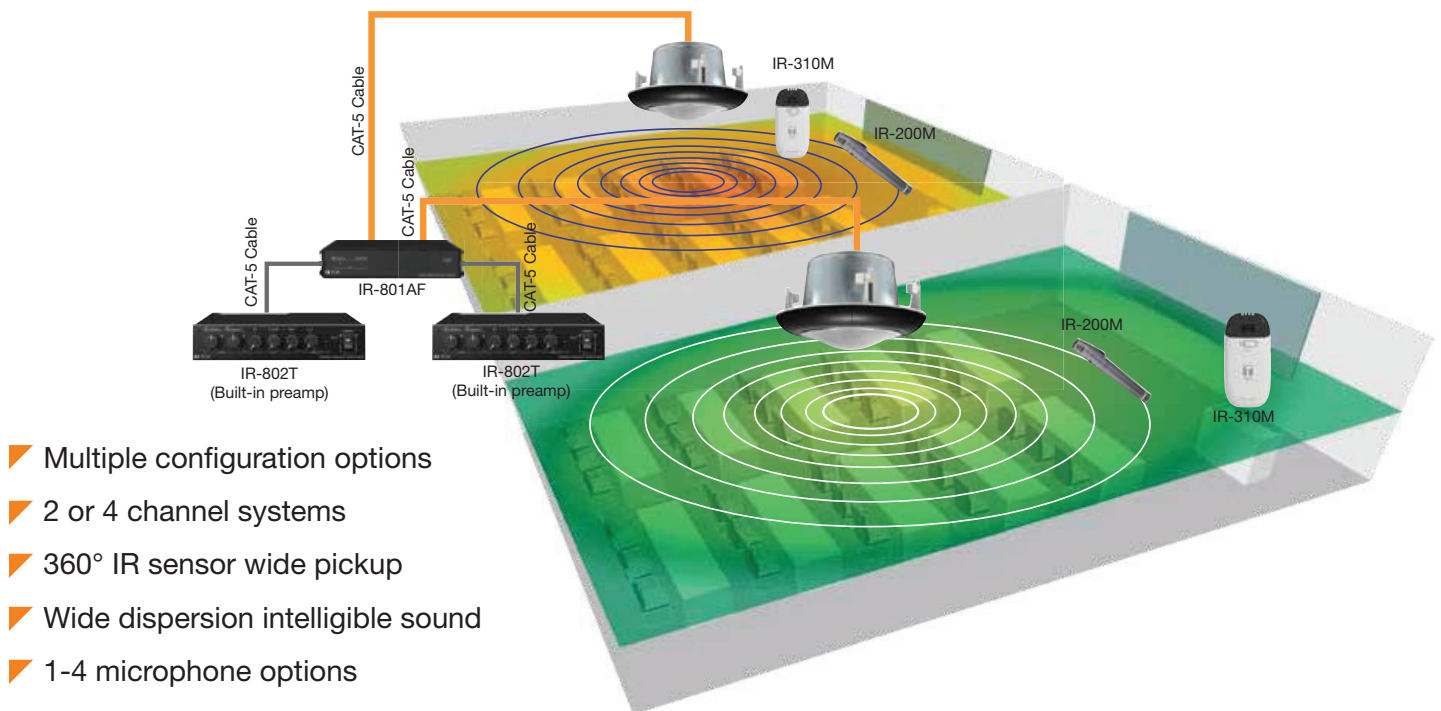
The IR-820SP speaker utilizes a wide dispersion coverage pattern to deliver clear speech intelligibility to every student, no matter where in the room they may be seated. This characteristic also reduces the number of speakers that need to be installed to cover the same wide area. Sound dissemination 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 boards, 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.







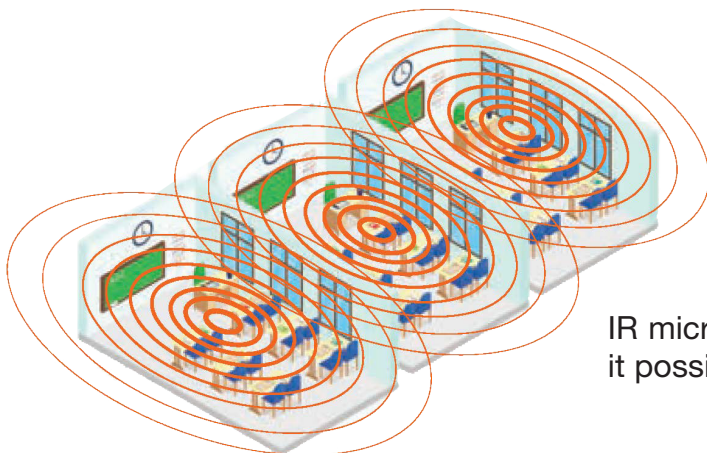
## IR Wireless Solutions for Larger Spaces

Wireless is a big factor for convenience, it is a big factor of considerations 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.



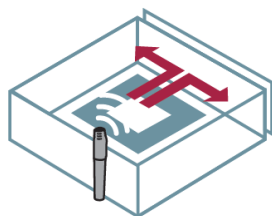
Our Infrared Wireless Microphone System incorporates a range of communication enhancing features that will appeal to users who want confidentiality as well as interference-free communication. Because the microphones use infrared signals, matters being discussed won't leave the room, and the wireless 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.

# Infrared System Advantage

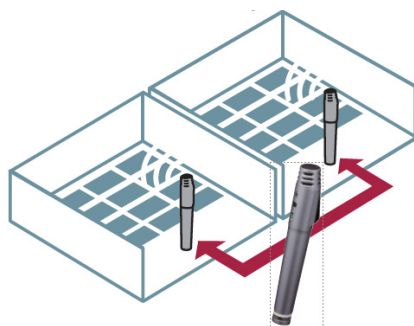


As shown above, walls act as a shield, meaning that infrared microphones can be used without the worry of interference from adjacent rooms (see figure above). This makes IR systems extremely useful in comparison to systems using radio waves as interference can occur for such systems when used in close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

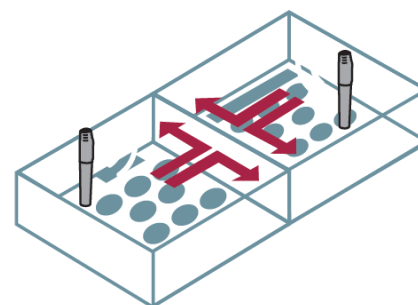
IR microphones can even all be set same channel making it possible for a single microphone to be used in any room without interference between separate rooms.



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

## Portable Speaker Voicelift System

Building upon the success of our IR-800 Infrared Classroom Voicelift system, the IR-842 Portable Speaker Voicelift System works just as the name implies. This new system can be set up and packed away in moments, meaning educators are 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.





## IR-842PMU (Main Unit)

The IR-842PMU is a compact, portable infrared classroom soundfield system. It is designed for use in conjunction with TOA's IR-200 (handheld) or TOA's IR-300 (hands-free) infrared microphones. The system boasts high sensitivity and clear sound in a portable frame with an included C bracket for mounting.

This system can also utilize additional IR-842PSU (sub-units) to enhance the reception and coverage of this portable infrared classroom soundfield system.



## IR-842R (External Infrared Receiver)



The IR-842R is an external infrared receiver for the IR-842PMU, also used to enhance the reception of the system when a sub unit is not necessary. Prime use cases include irregularly shaped spaces or when multiple lines-of-sight to a receiver is required.

## 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.



Turn any space into an education space, **with TOA.**

# IR-842 Additional Equipment

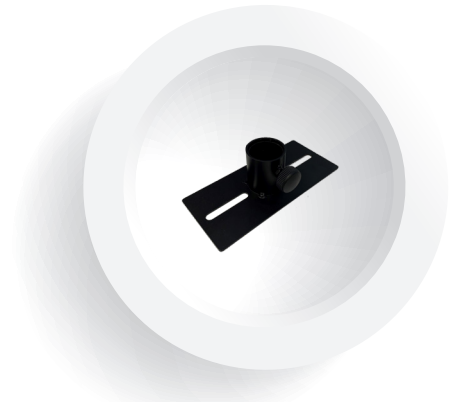
## IR-842BAG (Carrying Bag)



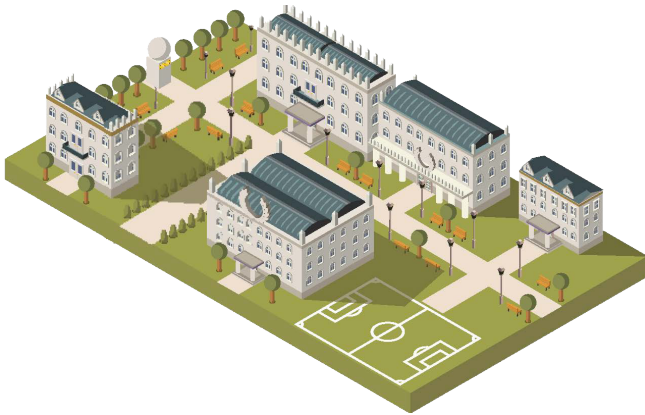
This carrying bag consists of 1 large storage compartment and 6 smaller storage compartments. Each bag can store one main unit (or sub unit), as well as AC adapter, microphones, additional receivers/cables, etc.

## 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.



# 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 Canada 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.

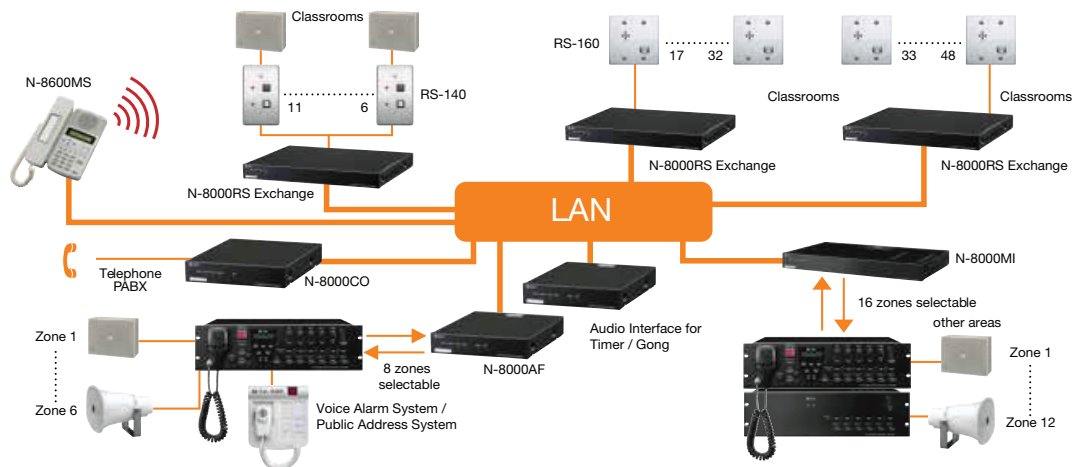




## Key Benefits of Using TOA Intercom & Mass Notification Solutions

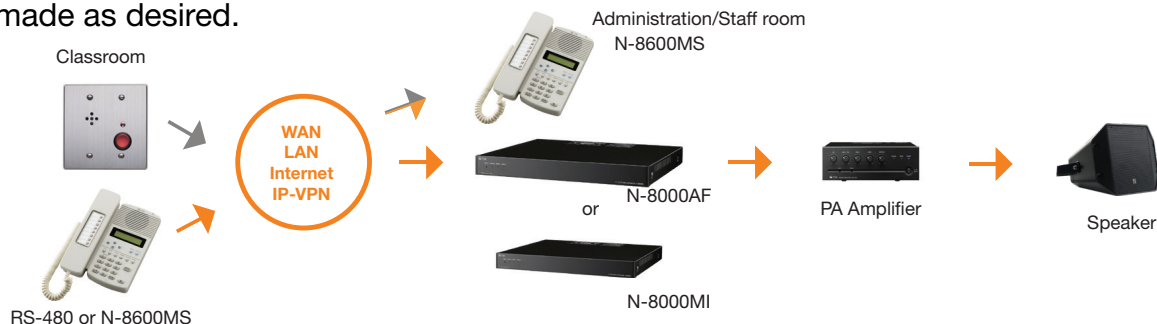
- Communication for regular day activities
- Ample coverage throughout facility
- Critical messaging during emergencies
- Single zone to multi zone, indoor or outdoor announcements
- Voice paging by microphone, intercom or phone system
- Digital signaling and messaging can be used
- Priority and muting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

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

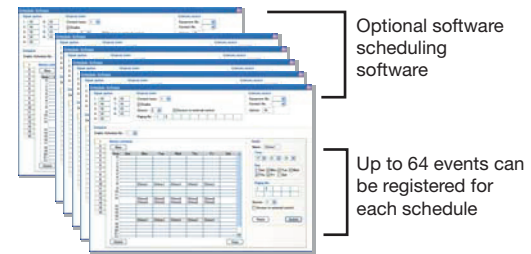


## Daily Communications

**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.

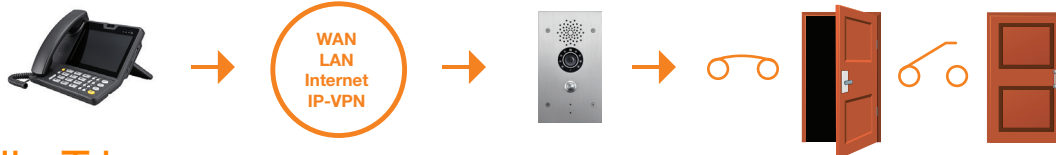


**Time Signal Function:** Useful for time-based notifications and schedules, built-in chime tones or other audio signals from externally connected equipment can be broadcast to all stations and PA equipment according to a preset schedule.

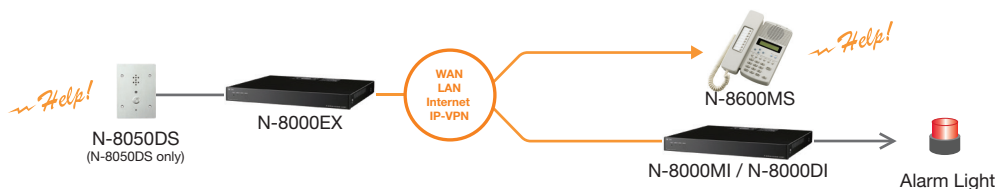


## Security & Safety

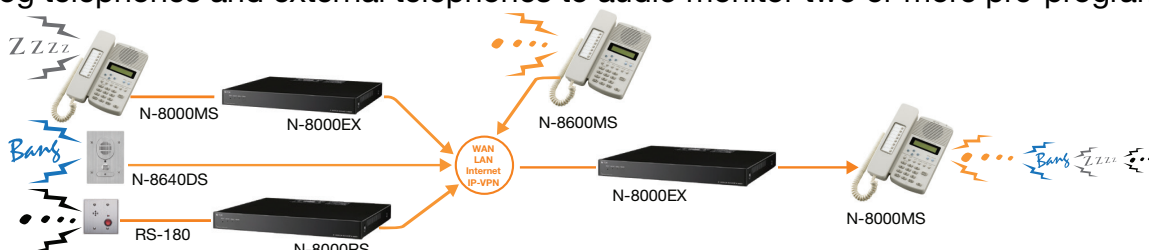
**Access Control:** SIP-based intercom stations offer high quality audio and video communication and a user-friendly access control. View who is at the door, speak to them to gather information and decide to open the door or not.



**Audio Trigger:** Sets off an alarm if audio input to a pre-programmed station's microphone fulfils 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.



## Conventional / IP Paging & Mass Notification

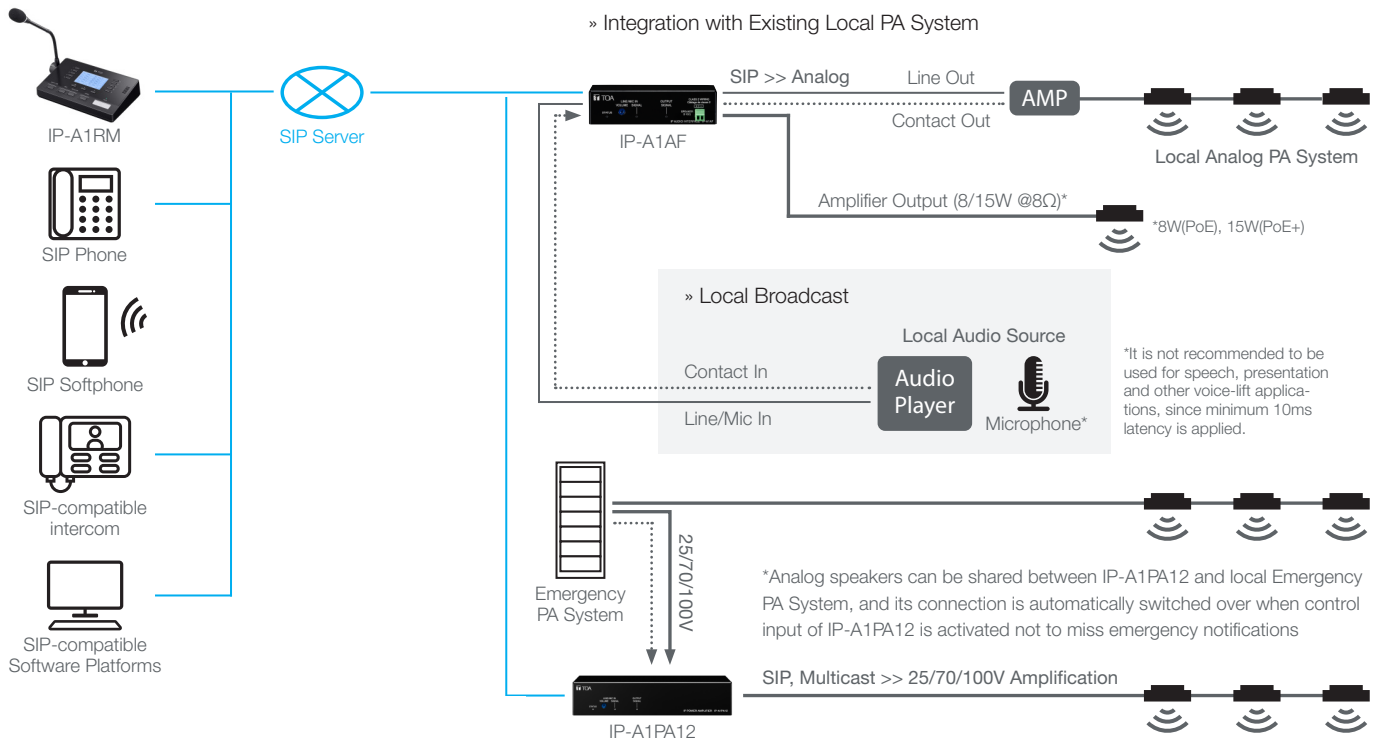
TOA Canada designs reliable and functional school solutions to execute daily school tasks while at the same time supplying the control and monitoring necessary to support a safe environment. Our IP and SIP based systems have the ability to integrate with other TOA and third-party equipment, generating an all-in-one complete school offering.

Creating a secure environment with access control and emergency paging in all parts of the building is what we do. TOA Canada has earned the respect it receives from the educational market because of our experience and our product diversity. We supply responsive systems with all the bells and whistles in a cost-effective, high-performance bundle.





# Sophisticated PA System Integrations



## Why IP-A1?

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 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.

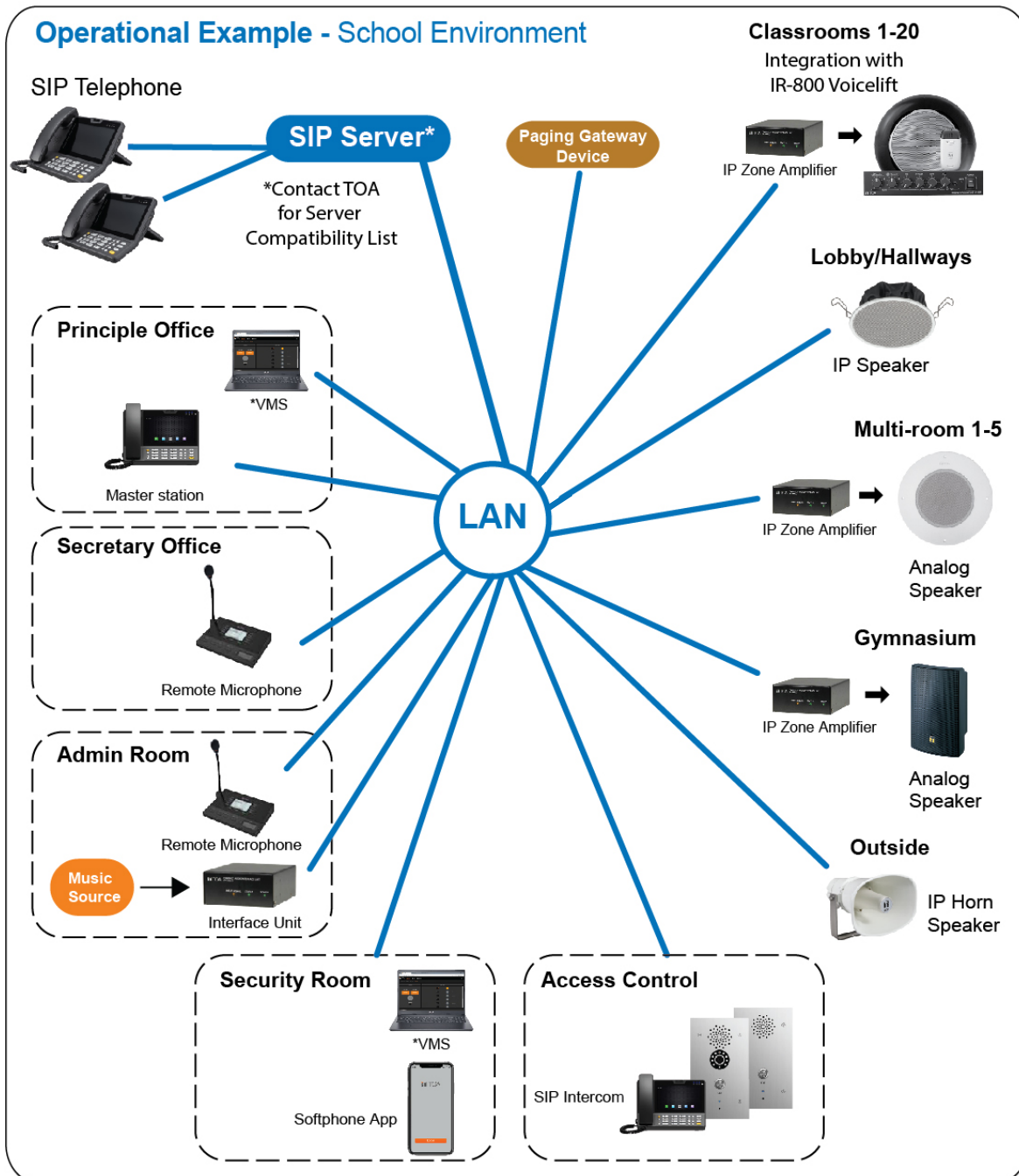
# Networked PA System

In a network PA system, equipment such as microphones and speakers can directly connect to the network. TOA's full solution permits access to create pre-recorded messages, live event triggers, and a host of other incredible options.

\*Integrates with a VMS or operates as a standalone solution

## Key Features

- Integrates in existing facility network system (serverless architecture)
- Flexible zone settings
- Broadcast scheduling
- Trigger broadcast events
- Video Management System Integration (ONVIF & HTTP)
- Several broadcasting options (from SIP phones and VMS software)





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

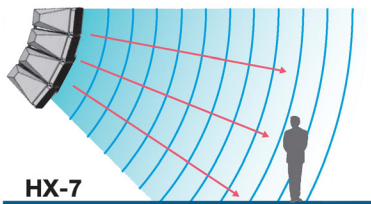
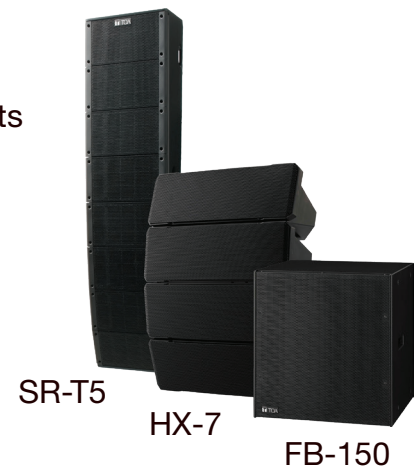
Large gatherings of students for school events in gymnasiums and auditoriums require an audio system to deliver the message clearly. TOA products are designed to easily install as a new solution or integrate and enhance existing systems. Combined with our powerful amplifiers and outstanding digital mixers, our systems will offer cost-effective solutions for larger spaces.

## Line Array Speaker Systems

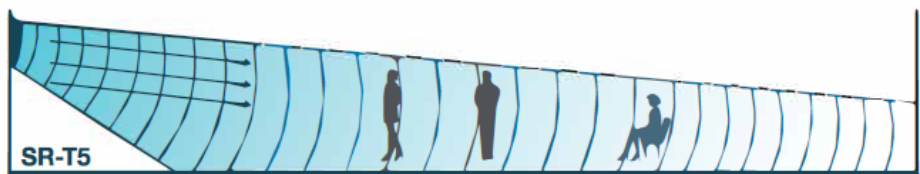
This type of speaker permits various configurations to maximize sound transmission over long distances and minimize reflections. Their sound directivity makes them well suited for larger spaces like auditoriums and gymnasiums. The Impact-resistant construction is a great selling feature when installing 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.



- Versatile mounting options
- Minimal reflective effects
- Uniform sound volume
- Clear audio output



HX-7



SR-T5

### 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.



PC-580RU & PC-580RVU  
\*HY-BBS80 back can required for UL use



F-series ceiling  
speakers CU version



PE-604U & PE-304U  
Pendant Speaker



BS-680U  
Wall mount speaker



Outdoor or Indoor Speakers

\*Also available in a UL version by  
special order. UL 1480 UEAY



\*CS-64 Wide Range  
Weatherproof Speaker



\*CS-154 & \*CS 304  
Wide Range  
Weatherproof Speaker



SC-630TU  
Paging Horn Speaker

## Wide-Range Horn Speakers

TOA's CS Series wide-range paging speakers are ideal for indoor and outdoor commercial sound system applications for voice paging, background music and tone signaling distribution. CS Series speakers offer wider frequency range and superior sound quality.



## MW-41BT Audio Interface with USB and Bluetooth



MW-41BT is TOA's second generation of audio input panels. It is 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 educational spaces alike. The MW-41BT 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.

## UHF 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 UHF and Digital wireless microphones optimized for both general and specific applications, all optimally compatible with accompanying tuner units and ancillary equipment.



## M-8080D Digital Matrix Mixer System

The M-8080D Digital Matrix Mixer system is dedicated to music, paging, discussion and zone management solutions for commercial audio applications. Easy to use and to implement, M-8080D offers modern features in a cost-effective package. Projects using DSP platforms usually require a minimum number of inputs and outputs. M-8080D offers a large choice of I/O options making it a good choice for a variety of different applications. Intended for non-experts. The system uses fixed architecture for quick and easy operation. The intuitive GUI utilizes a familiar hardware-like layout to enable a fast-programming timeline and rapid hardware implementation.



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

The industry leader in PA and BGM, future-proofed. Our A-800 series mixer amplifier provides maximum flexibility with up to eight inputs and up to 480 W of power. Browser based control and monitoring from anywhere reduces your time troubleshooting and adjusting systems. Onboard DSP, a sleek new appearance, two available 900 series module slots and TOA's legendary quality and reliability makes this a perfect fit for background and foreground music, paging, and noise masking applications.

### A-800 Series Key Benefits & Features

- » Remote Troubleshooting & web browser interface
- » Adjust the speaker volume either by the physical controls, by the optional remote volume controller, or on a web browser.
- » Flexible Input via 900 series input modules
- » TOA Class D amplifiers for maximum efficiency
- » Auto Gain Control for microphone inputs
- » Onboard DSP
- » Dynamic Feedback Filters
- » Speaker EQ (3 bands of parametric EQ) Input tone controls
- » Assignable input priorities
- » Built-in defeatable pre-announce chime
- » Log Data
- » IP protocol available



DA-250F Power Amplifier

### Power Amplifiers

To ensure that the sound reaches your audience, use a TOA amplifier to power your audio system. The versatile features and outstanding value of our amplifiers along with the variety of amplifiers available, make an ideal addition to any school system.

### 900 Series Modules

A series dedicated to expanding the already versatile mixer/amplifier series' that TOA provides, 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. Our 900 series modules allow our systems to become uniquely yours.



SP-11N VoIP phone paging module



NM-1 noise masking module



WTU-M9800 AM wireless microphone receiver module





**We supply sound, not equipment.**

**TOA Canada Corporation**

**1-800-263-7639**

**[www.toacanada.com](http://www.toacanada.com)**

**[sales@toacanada.com](mailto:sales@toacanada.com)**

