TOA

M-8080D Series

Digital Matrix Mixer System



One system for music, paging, and zone management.

Discreet background music, intelligible announcements, easy handling. Sounds good.

In many ways, the right acoustics are an important factor in creating a unique atmosphere in shops and other locations open to the public. After all, music – like light, architecture and interior design – creates a distinctive environment where you can perfectly present your products and make your customers feel good.

At retail locations, the atmosphere created by music can significantly increase browsing time and the frequency of customer visits. Furthermore, studies have shown that music has a very positive effect on buying behaviour. A restaurant or bar with a really good atmosphere is more likely to be visited again. Whatever audience you are targeting, the transmission quality and individual choice of background music is key to the success of any acoustic design for a restaurant, hotel or shop.

A hotel or conference centre where the technical equipment not only underlines the overall service orientation, but is – where it is necessary – easy to use for customers and clients, provides a service that is worth of recommendation.

And at TOA it's about much more than music. Whether you're informing your customers about irresistible offers or calling staff – we offer a range of solutions for restaurants, retail, and other locations with customer trafic. Our sound systems also ensure that announcements are crystal clear and also empower non-technical staff to easily accommodate whatever event is being hosted. We work together with you to find a sound concept perfectly tailored to your needs. Does your restaurant, bar or shop need to sound phenomenal? Let us help you with that.



You need more than PA and background music?

From simple sound to highly sophisticated site supervision – our sound and voice alarm systems are exceptionally versatile and reliable. For example, in addition to superb audio quality, our systems also provide a safe environment for the public.

But not enough – our services for you also include:

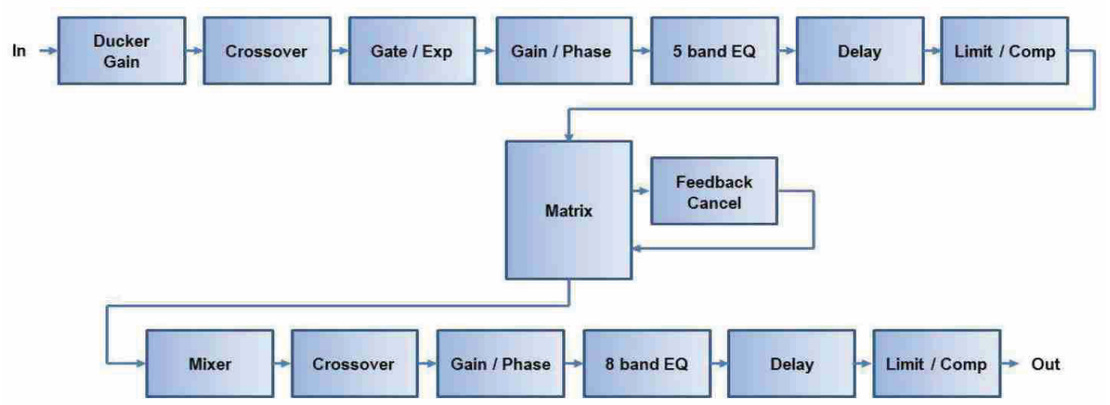
- Custom planning
- Flexible sound concepts
- Long-standing expertise
- Wide range of products
- Reliable products



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 state-of-the-art 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)
  - » Max. System I/O: 12 x 12.

DSP FUNCTIONS



APPLICATIONS

- Retail Store
- Restaurant / Bar
- Gym
- Mall
- Hotel
- Education
- Museum
- Auditorium
- Multi purpose hall
- Gymnasium
- Conference rooms
- Restaurants / Bars

8X8 DIGITAL MATRIX MIXER



M-8080D

REMOTE AUDIO CONTROL PANEL



M-800RC

REMOTE AUDIO CONTROL PANEL WITH AUDIO OUT



M-802RC

REMOTE AUDIO INPUT OUTPUT PANEL



M-822IO

REMOTE MICROPHONE



M-800RM

REMOTE AUDIO CONTROL PANEL WITH TOUCH DISPLAY



M-800RCT

EXTENSION MODULE 4 PORTS



M-804EX

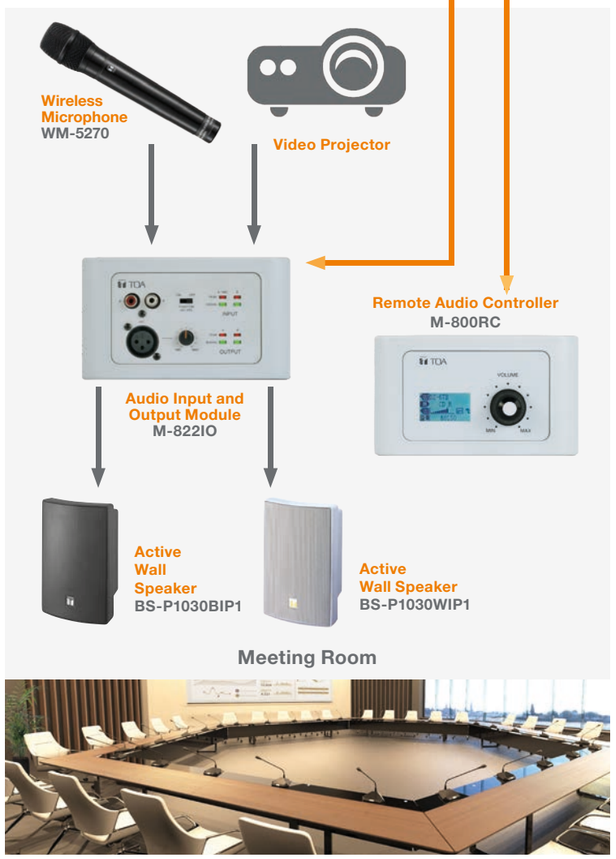
Application Example / **Hotel**

Simple multi-audio service and distribution

A hotel is more than just a room with a bed. A hotel is a meeting of service and sensual experience. Service is not only written in capital letters here, but understood as the main focus of everyone's tasks.

Sound design in a hotel has to consider many things: Unobtrusive but atmospheric background music; unagitated and intelligible information; easy-to-use event technology for the most diverse occasions. All of this should be easy to operate and flexibly adaptable to the most varied purposes.

- 6 zones including 8 audio signal paths are individually processed by M-8080D.
- M-822IO can be used locally for mic and line signal directly operated by a local user.
- Paging and volume for every zone are controlled from the reception using M-800RCT Touch Panel Controller.





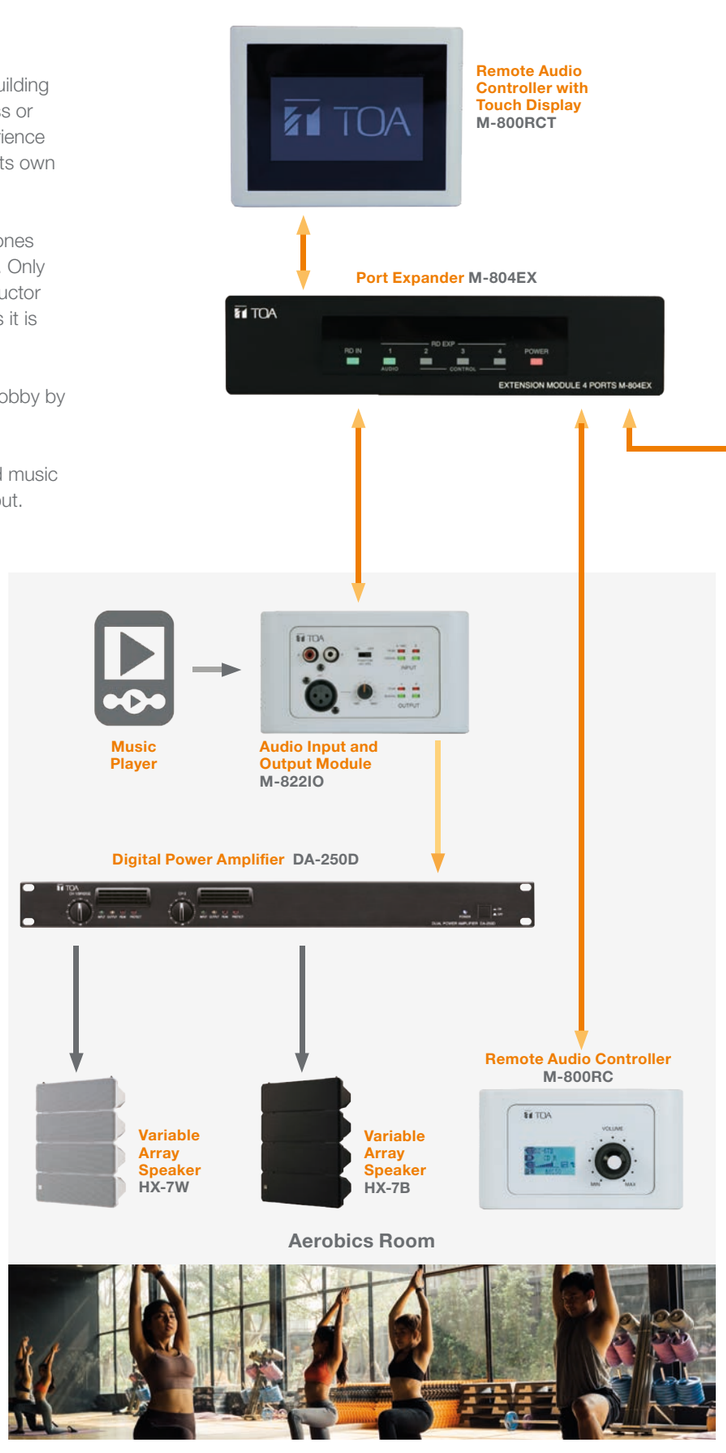
Application Example / **Gym**

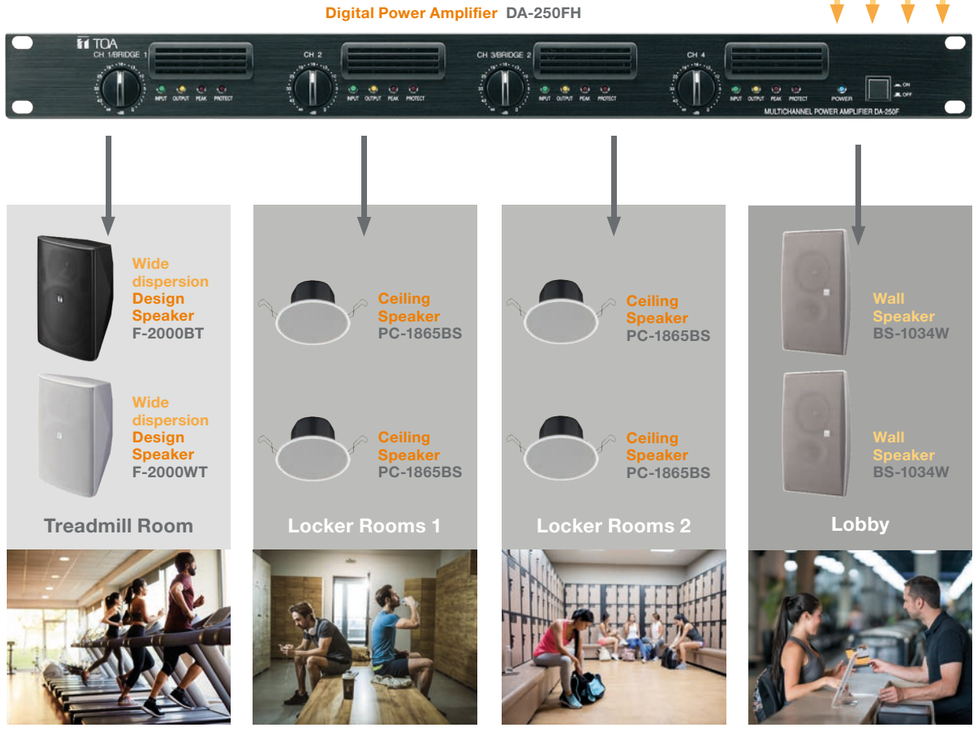
Flexible sound control

Whether it's cardio training on the treadmill, muscle building on machines, fun and athletic exertion in a fitness class or relaxation in the sauna – an essential part of the experience is also how the customers perceive it. Each area has its own requirements and is sounded differently.

Whether driving beats or soothing sounds, different zones can be conveniently controlled from the reception/bar. Only the microphone for his course is operated by the instructor himself, of course – simple and uncomplicated, just as it is needed at the moment.

- Volume "and presets" can be controlled from the lobby by touch panel remote controller M-800RCT.
- In Aerobics Rooms, instructors can play dedicated music via Music player connected to M-822IO input/output.
- Volume is controlled with a specific M-800RC device.





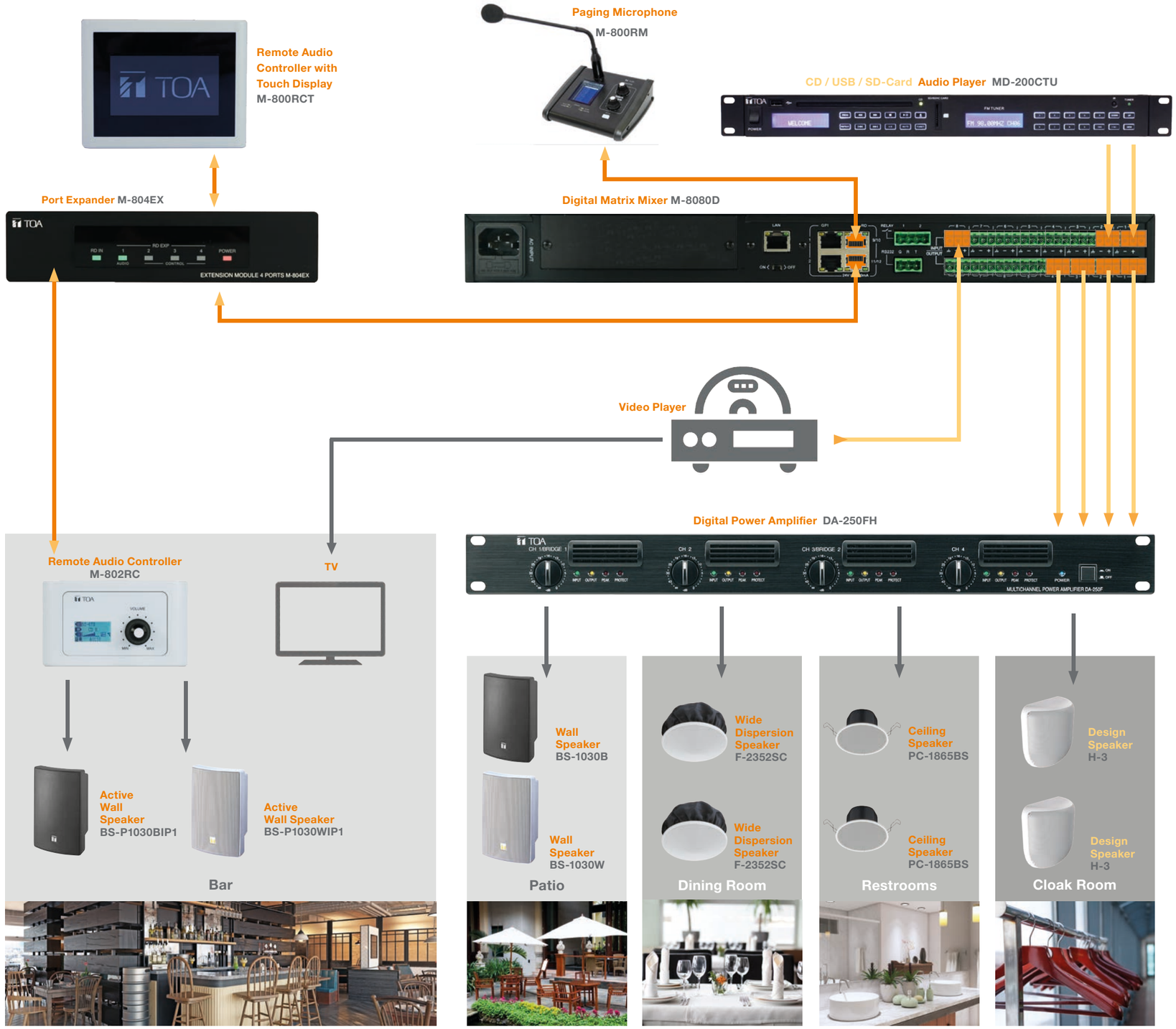
Application Example / **Restaurant / Bar**

Easy and quick volume control for operators

You want to play Sinatra at the bar, Taylor Swift on the patio and Elvis Costello at the door? Conveniently control the playlist and volume in four different zones using the optional remote control panels.

In smaller restaurants it is important that the level of the background music is nothing more than perceptible ambiance and is not too dominant, otherwise a pleasant atmosphere will be difficult to achieve. Music is like salt in the soup: you shouldn't be able to taste it, but you'd notice if it wasn't there.

- 4 analog outputs of M-8080D are used for 4 separate zones with volume controlled from the mixer itself or the remote panels.
- Two additional line out come from the M-802RC remote controller using a digital connection from the M-8080D.
- It feeds the bar area where M-802RC remote can be replaced by M-822IO In/Out interface for DJ shows or karaoke sessions.



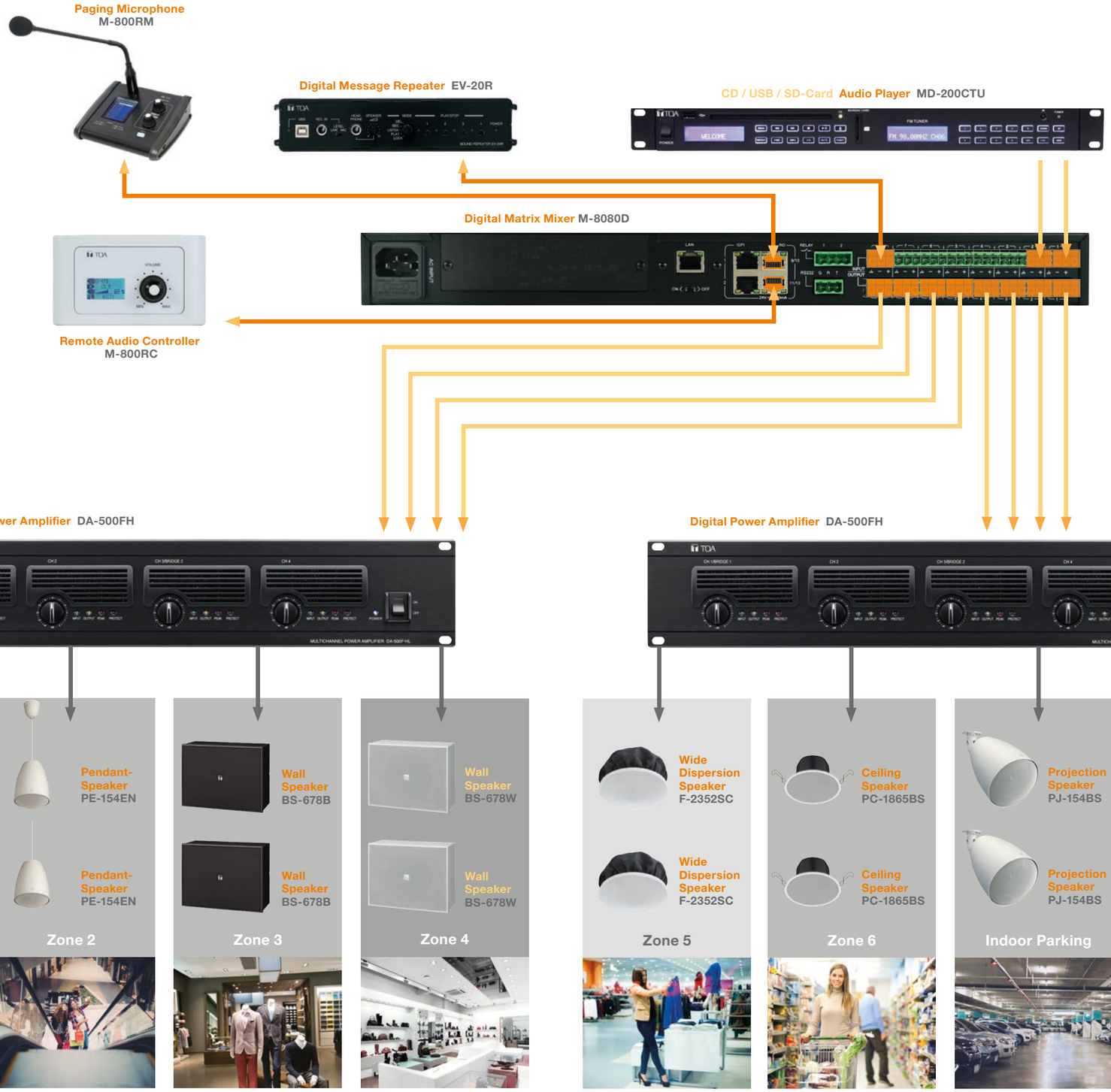
Application Example / **Mall**

Control up to 12 independent zones with a single M-8080D

A shopping centre gathers different shops that offer customers a wide variety of goods and services. In the best case, the customer can do all the errands at once in a single visit. To make visitors feel comfortable, background music and general atmosphere must be tailored to the respective product group, while supporting the general feeling of well-being. After all, people will only spend time in a place where they feel comfortable.

If you want your customers' shopping to be less of a chore and more of an experience, then a well-balanced sound system is what you need.

- The system is operated centrally, for example at the reception or a service point, and offers both live announcements such as current information and search calls, as well as pre-recorded announcements for information, warnings, closure etc.
- M-8080D feeds 2 x 4 analog inputs of amplifiers. Each amplifier offers 4 individual lines of high impedance speakers to broadcast BGM program, live paging and pre-recorded announcement in separate zones.
- For more zones, 2 x additional OUT are available by using a M-822IO.



Application Example / **Retail store**

Simple installation with ambiance control

For a clear, bold sound in your shop install a multichannel system and, depending on the number of channels required, an additional power amplifier if needed.

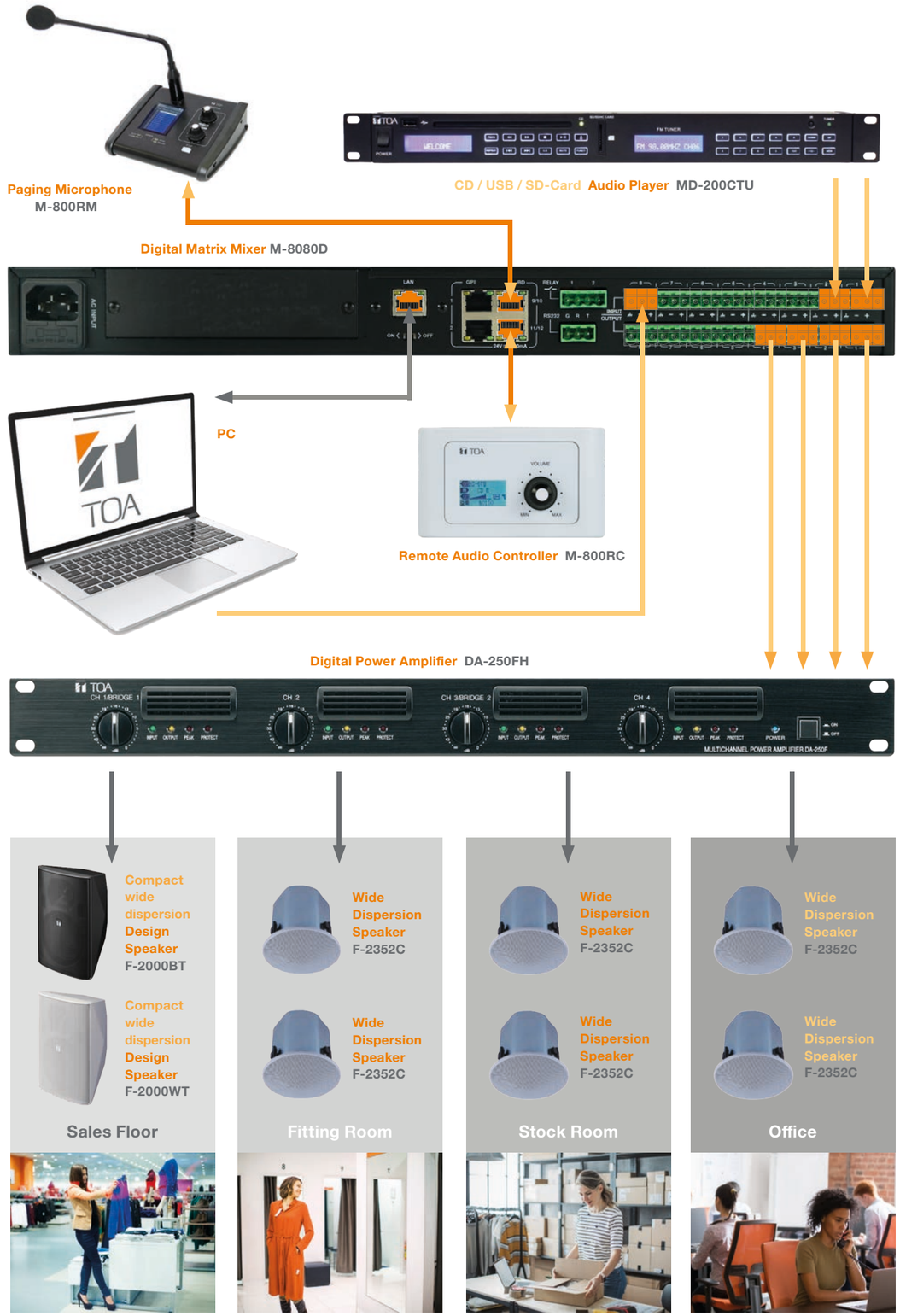
To obtain the desired sound, we offer a wide range of loud-speakers that will allow to adjust the system exactly to your needs.

- The 4 zone volumes are individually controlled from the office or from the counter with stereo or mono signals.
- A free Soundcard Output of PC can be connected to M-8080D to broadcast Music/Messages/ Advertisement.
- The computer can be used to edit the M-8080D as well.
- M-800RM: Live announcements to the shop, warehouse, office ...







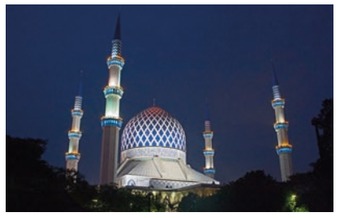













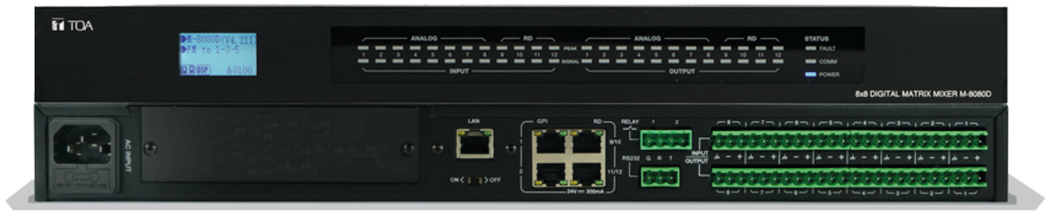






M-8080D Digital Matrix Mixer system: One system to rule them all.

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 state-of-the-art signal processing 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 very different applications. M-8080D is intended for non-experts. The system uses fix 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.



Features

- M-8080D offers state-of-the-art signal processing in a cost effective package
- A large choice of I/O options in order to cover most of applications
- **Audio I/O:**
- Standard: 8 analogue IN / 8 analogue OUT on rear panel ports of M-8080D.
- Optional: 4 digital IN / 4 digital OUT via remote devices analog I/O.
- Max. System I/O: 12 x 12.
- PC Editor Software: Settings can be memorized for easy duplication or modification.
- TCP/IP for LAN control
- Cabling: CAT 5e (or better) cable to connect the remote controllers
- **Remote Devices:**
- M-8080D offers a large choice of devices for volume adjustment, paging management, routing and I/O modules.
- **DSP Functions:**
- Input: Ducker, Gain/Phase, Crossover, Gate/Expander, 5 band EQ , Delay, Limiter / Compressor.
- Matrix, Feedback Cancel.
- Output: Mixer, Crossover, Gain/Phase, 8 band EQ, Delay, Limiter / Compressor

Applications

- Retail Store
- Restaurant / Bar
- Gym
- Mall
- Hotel
- Education
- Museum
- Auditorium
- Multi purpose hall
- Gymnasium
- Conference rooms
- Restaurants / Bars

M-8080D Series / Mixer Unit / **M-8080D**



M-8080D

- 8 analog IN and 8 analog OUT
- 4 digital IN and 4 digital OUT
- DSP functionalities EQ, Compressor, Delay and more
- Easy and quick operation
- Intuitive GUI via PC
- Extended remote controller options

Specifications

	M-8080D
Power source	220 - 240 V AC, 50 / 60 Hz
Phantom power	+48 VDC, switchable, Inputs 1 - 8
Frequency response	20 Hz - 20 kHz (±3 dB)
Power consumption	40W
S/N ratio	105 dB ((A weighted)
Indicator	LC-Display: Displays device information: name, fimrware version, ID, communication status LEDs: Input: Analog Signal (Green)x8, Analog Peak(Red)x8, RD signal(Green)x4, RD Peak(Red)x4 Output: Analog Signal (Green)x8, Analog Peak(Red)x8, RD signal(Green)x4, RD Peak(Red)x4 Status: Fault(Red)x1, Comm(Green)x1, Power(Blue)x1
Crosstalk	79 dB
Inputs	AUDIO INPUT: 1-8: -48 to 0dBv, 6.8 kΩ, electronic balanced, removable terminal block (3 pins x8)
Outputs	AUDIO OUTPUT: 1-8: 0dBv, 1.8kΩ, Maximum output 20 dBu(7.75V), electronic balanced, removable terminal block (3 pins x 8)
Controls	CONTROL INPUT: GPI 1 - 2: no-voltage contact input, open voltage: 1.5V DC, short-circuit current: Under 3 mA, RJ45 Connector x 2 CONTROL OUTPUT: Relay 1 - 2: withstand voltage: 24V DC, control current: Under 500 mA, removable terminal block (4 pins) RD port: RD 9 - 12: transmits and receives AES3 digital audio plus control data. Connect remote devices such as M-822IO, M-800RC, M-802RC, M-800RCT and M-800RM, maximum cable length is 100 meters, RJ45 Connector x 2
Signal processing	Equalizer / Filter Gate Compressor Ducker Feedback Compression (FBC) Auto Mixer Delay
Sampling Frequency	48 kHz, 24 bit
Equalizer / Filter	5 band EQ (LPF and HPF) for IN and 8 band EQ (LPF and HPF) for OUT Parametic Equalizer: 19.7 - 20160 HZ, range: ±18 dB, Q: 0.4 - 128, Type: peak/low/high
Compressor	Threshold: -30 to +20 dB in 1 dB steps Attack: 10 -150 ms Release: 10 ms - 1 s
Delay	0 - 1361.2916 ms
Matrix	8 x 8 12 x 12 (Expandable via optional equipment)
Operating temperature	0°C to + 40°C (32°F to 104°F)
Finish	Aluminium, Steel plate, surface-treated, paint, black
Dimensions	483 x 44.2 x 259 mm (W x H x D)
Weight	4,6 kg

M-8080D Series / Remote Microphone / **M-800RM**



M-800RM

- Up to 12 different zones
- Zone LC display
- Zone selector with volume control
- Push-to-talk gooseneck microphone
- Status and communication indicators
- USB port to load Chimes sound files
- RD port, for connection to M-8080D
- 100 m cable length

Specifications

	M-800RM
Power source	24 V DC (Powered by M-8080D or M-804EX)
Frequency response	20 Hz - 20 kHz (±3 dB)
Audio output	0dBV, electronic balanced, RJ45 Connector
Inputs	USB port: Load WAV files for chimes sound
Controls	Microphone volume control and all zone selector
Indicator	LC-Display: Displays device information: ID, volume, zone selector LEDs: Input signal (Green) Input Peak (Red) Busy (Red) Communication (Green)
Directivity	Unidirectional
Operating temperature	0°C to + 40°C (32°F to 104°F)
Finish	Steel plate, surface-treated, paint, black
Dimensions	176 x 61.8 x 162.4 mm (W x H x D)
Weight	0,8 kg



M-800RCT

- Input/Output signal routing
- Volume control
- Preset Control
- 4.3" touch screen
- Direct power supply by network cable
- LCD screen with output level display
- RD port IN, for connection to M-8080D
- RD port LINK for daisy chain connection
- 100m CAT5e cable length

Specifications

	M-800RCT
Power source	24 V DC (Powered by M-8080D or M-804EX or external)
Indicator	Touch LC-Display Displays device information: ID, Volume, communication status
Inputs	RD In: Transmits and receives AES3 digital audio plus control data Connect to M-8080D, M-804EX o M-800RC, M-800RCT for daisy chain, RJ45 connector
Outputs	RD EXP: Transmits and receives control data Connect to M-800RC or M-800RCT, RJ45 connector
Controls	Volume / Routing / Presets
Operating temperature	0°C to +40°C
Finish	Polycarbonate, ABS resin, traffic white (RAL 9016 or equivalent), Panel.
Dimensions	150 x 115 x 28 mm (W x H x D)
Weight	0,3 kg



M-800RC



M-802RC

M-800RC

- Input/Output signal routing
- Volume control
- Direct power supply by network cable
- LCD screen with output level display
- RD port IN, for connection to M-8080D
- RD port LINK for daisy chain connection
- 100m CAT5e cable length

M-802RC

- Input/Output signal routing
- Volume control
- Direct power supply by network cable
- 2 analog outputs
- LCD screen with output level display
- RD port IN, for connection to M-8080D
- RD port LINK for daisy chain connection
- 100m CAT5e cable length

Specifications

	M-800RC	**M-802RC**
Power source	24 V DC (Powered by M-8080D or M-804EX or external)	
Frequency response	-	20 Hz - 20 kHz
Distortion	-	< 0.01 %
S/N ratio	-	105 dB (A weighted)
Indicator	LC-Display Displays device information: ID, Volume, communication status	
Crosstalk	-	79 dB
Inputs	RD In: Transmits and receives AES3 digital audio plus control data Connect to M-8080D, M-804EX o M-800RC, M-800RCT for daisy chain, RJ45 connector	
Outputs	RD EXP: Transmits and receives control data Connect to M-800RC or M-800RCT, RJ45 connector	Audio Output: Line output 1 - 2: 0 dBV, 1.8kOhm, Maximum output 20dBu (7.75V), electronic balanced, screw terminal (3 pins x 2)
Controls	Volume / Routing	
Sampling Frequency	48 kHz, 24 bit	
Operating temperature	0°C to +40°C	
Finish	Polycarbonate, ABS resin, traffic white (RAL 9016 or equivalent), Panel.	
Dimensions	147 x 86 x 65 mm (W x H x D)	
Weight	0,3 kg	

M-8080D Series / Audio Input Output Module / **M-822IO**



M-822IO

- Built-in A/D and D/A converter
- 2 analog inputs (MIC/ stereo line)
- 2 analog outputs
- Phantom Power
- Input Sensitivity
- Direct power supply by network cable
- RD port IN, for connection to M-8080D
- 100m CAT5e cable length

Specifications

	M-822IO
Power source	24 V DC (Powered by M-8080D or M-804EX or external)
Phantom power	+48 VDC, MIC input, switchable
Frequency response	20 Hz - 20 kHz
Distortion	< 0.01 %
S/N ratio	105 dB (A weighted)
Indicator	LED Audio Input: 2x Signal (Green), 2x Peak (Red) LED Audio Output: 2x Signal (Green), 2x Peak (Red)
Crosstalk	79 dB
Inputs	RD In: Transmits and receives AES3 digital audio plus control data Connect to M-8080D, M-804EX o M-800RC, M-800RCT for daisy chain, RJ45 connector Audio input MIC Input: -48 dBV, 5.1 kOhm, electronic balanced, XLR connector Line input A-B: 0 dBV, 5.1kOhm, unbalanced, RCA pin jack
Outputs	RD EXP: Transmits and receives control data Connect to M-800RC or M-800RCT, RJ45 connector Audio Output Line output 1 - 2: 0 dBV, 1.8 kOhm, Maximum output 20 dBu (7.75V), electronic balanced, screw terminal (3 pins x 2)
Controls	Volume / Routing
Sampling Frequency	48 kHz, 24 bit
Operating temperature	0°C to +40°C
Finish	Polycarbonate, ABS resin, traffic white (RAL 9016 or equivalent), Panel.
Dimensions	147 x 86 x 52 mm (W x H x D)
Weight	0,3 kg

M-8080D Series / Port Expander / **M-804EX**



M-804EX

- 1 digital port In (from M-8080D)
- 1 digital port Out for audio plus control
- 3 digital port Out for control only
- 24V DC power supply

Options

Specifications

	M-804EX
Power source	24 V DC (Powered by M-8080D or external)
Indicator	RD IN (Green) RD exp audio (Green) RD exp control (Green) x3 Power (Red)
Inputs	RD IN: Transmits and receives AES3 digital audio plus control data Connect to M-8080D, RJ45 connector
Outputs	RD EXP: Port 1: transmits and receives AES3 digital audio and control data Connect to M-822IO, M-800RC, M-800RCT or M-800RM, RJ45 connector Port 2 - 4: transmits and receives control data connect to M-800RC or M-800RCT, RJ45 connector
Operating temperature	0°C to + 40°C (32°F to 104°F)
Finish	Aluminium, Steel, surface-treated, paint, black
Dimensions	196.2 x 44.2 x 133 mm (W x H x D)
Weight	0,9 kg

Our loudspeaker range: set up for every application.

Loudspeakers have to meet a wide variety of requirements. For this reason, loudspeakers have been and continue to be developed that are optimised for a specific application, for example for music, alarms or voice announcements. The wide range of TOA speakers provide the perfect solution for every application.

When it comes to public address, whether 100V-based or low impedance, whether EN-54-24 certified, weatherproof, conforming to British Standard BS 5839 – or not –there is a loudspeaker to suit at TOA. These combine easy installation, excellent transmission characteristics, durability and quality with a design that fits into any desired environment. And they all have one thing in common: excellent sound.

Column speakers

Column loudspeakers deliver excellent sound quality with precisely aligned sound reinforcement, for example in medium-sized buildings such as churches, sports halls or auditoriums.
Multiple loudspeaker drivers are arranged vertically to create a wide horizontal dispersion. At the same time, they limit vertical dispersion, minimising reverberation problems in acoustically problematic rooms. The weatherproof loudspeakers with IP65 protection rating are suitable for outdoor use.



CS Series Wide Range Horn Speakers

Wide-range paging speakers for voice paging, background music and tone signaling distribution. Weatherproof polyurethane resin paint and impact-proof lightweight ABS resin enclosure.



Variable Line Array Speakers

The compact modular design includes four pre-assembled modules and connects bass and wideband speakers. The dispersion angles are adjustable to 60, 45, 30 and 15 degrees for variable dispersion angles.



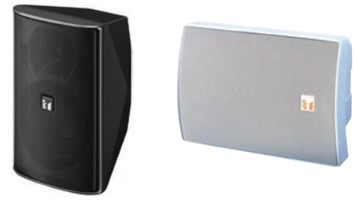
F Series Wide-Dispersion Speakers

Two-way bass-reflex design. Wide-dispersion characteristics for better sound coverage and improved tonal response. Included accessory brackets expand options for installation. 4″, 5″ and 8″ models. Black/white and weather-proof versions available



Wall Mount Box Speaker

2-way bass-reflex speaker with transformer for Hi/Lo (100V, 70V/ 8 ohms) impedance with 30W of rated output. Easy to install with equipped bracket. IP-X4 rated.



Projection Speakers

Stylish and outstanding design inspired by the finest lighting fixtures that blend into any interior design. Flexible speaker direction adjustment with accessory brackets.



Pendant Speakers

Stylish and outstanding design inspired by the finest lighting fixtures. Ideally suited for such venues as shopping malls and restaurants with high ceiling.



FB-120 Subwoofer

Designed for use in conjunction with TOA HX-5 series or other full-range speakers. Wide frequency range/ 600W continuous program/ Sensitivity (1W, 1m): 90 dB.



F Series Ceiling Speakers

The F Series ceiling speakers reproduce the entire frequency range in a balanced manner over a wide dispersion angle, so that the sound quality remains constant regardless of the listener's position. This provides a practical solution to a common problem with ceiling speakers: it is usually difficult to balance the areas under the speakers and to the side of them – usually either the side areas come out too dull or the areas below them come out unpleasantly sharp in sound.
Because they technically solve this problem, F Series ceiling speakers are ideal for providing large areas with consistently high sound quality and excellent speech intelligibility. Last but not least, the existing areas can be sounded with fewer loudspeakers, thus reducing installation costs. Expanded listening area coverage thanks to the extra-wide dispersion characteristics makes it possible to utilize fewer speakers to cover a desired area, allowing more cost-effectiveness.



Planning a sound system?

Get in touch!

We support you in the planning and project management of your property and take care of your questions and concerns!

Learn more about us and our products at www.toa.eu

Tel +49 40 251719-0
Mail contact@toa-eu.com



Integrated system solutions for every type of sound application.

Voice alarm systems

From simple public address systems to highly complex object monitoring, our public address and voice alarm systems are distinguished by their remarkable versatility and reliability. In addition to outstanding audio quality, our systems help to create a safe environment for the public. In the event of danger, your ELA system ensures that visitors are addressed and this is optimised in two respects: On the one hand, your alarm system reaches exactly the people you need to reach. On the other, the announcements are adapted to any background noise and made accordingly as loud as required – all whilst maintaining the best possible speech intelligibility. Whether all persons in the building need to be reached or only a certain area requires your announcement, each zone is notified clearly and unambiguously.

Intercom systems

Our intercom systems are suitable for a wide range of applications. We not only offer a broad product portfolio, but can also adapt the devices to your specific requirements. For example, an intercom system enhances the effectiveness of your voice alarm system even further: After an alarm has been triggered, precisely tailored measures can be taken – not only because the call receiver is available to assist the person seeking help directly, but also because announcements and instructions reach all required destinations without any problems. unication or managing emergencies and dangers: your TOA Intercom system is the reliable partner at your side.



Speakers

Whether required for music, alarm, announcements, or you need positionally versatile ceiling, wall or horn loudspeakers, durable weatherproof, EN-certified or ball-proof speakers – we have a vast portfolio of loudspeakers offering the optimum solution for every requirement, whatever the location. TOA loudspeakers all have one thing in common – excellent sound!

PA / Sound systems

For many events music plays an essential role, and yet the audio requirements are always different. Your TOA sound system offers the best possible sound for all planned occasions and events, because our systems can not only transmit music, but also speech. All, of course, wirelessly. And on a technical level our solutions certainly don't sound like a compromise, but are uncompromisingly good.

Wireless line up

With our range of wireless microphones and radio transmission products, we cover the entire spectrum of possible applications. From presentations to concert sound reinforcement, from conference rooms to theatres: for your specific project we select the perfect equipment from all the possibilities. Whether lavalier or hand-held microphone, fixed installation or mobile racks, we've got every usage requirement covered. All optimised for speech, vocals or instruments.





We supply sound, not equipment.
www.toa.eu



My TOA and Trantec distributor

TOA Electronics Europe GmbH
www.toa.eu

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