We supply sound, not equipment.
TOA Free Design Services
freedesign@toaelectronics.com

As one of the many ways TOA endeavors to partner with our customers, we offer Free Design Services to installers and end-users alike. Houses of worship, schools, corporate campuses, correctional facilities, sports complexes, retail establishments, restaurants/bars, transportation hubs, healthcare facilities, performance venues, government buildings, and military facilities are just a sample of the types of systems we design.

What we may need from you: (1) blueprints or floor plans in AutoCAD or .pdf; (2) system functionality requirements; (3) coverage areas; and (4) budget. With your information TOA will provide you a complete audio system design, normally within three to five business days. As an added bonus your project may qualify for project registration. Ask your TOA Sales Manager for details.

We look forward to working with you on your next project!

 BENEFITS OF FREE DESIGN SERVICES

- Normal turnaround in 3-5 business days
- Bill of materials and quote referral
- One-line diagrams
- Speaker allocation
- 3D modeling of direct sound
- Programming & commissioning services
- Scope of work

 BENEFITS OF PROJECT REGISTRATION

- Potential discounts to assist with securing projects
- Timely shipments and minimized backorder time
- Partnership development with TOA staff
- Factory direct design and consultation
- Expert technical support
- Product and system training
- Strict confidentiality

TOA strives to be a partner with our customers in order to offer the best possible solutions, with the best quality products, at the most competitive costs. Our challenge to you is: give us the opportunity to partner with you.

Experience
- Over 80 years of experience
- World leader in commercial & professional audio products
- World renowned installations

Quality
- All audio products have a five-year warranty
- Reliable and durable: best MTBF in the industry

Selection
- Broadest range of products in the commercial audio industry

Warehouse
- Centrally located warehouse for minimum delivery time to any destination

Customer Service
- Expert technical support team
- Expert engineering for free design services
- Extensive representation across the country
- Customized trainings
- Certifications for engineered products

Commitment
- Competitively priced quality products and solutions with excellent customer service
LENUBIO Integrated Audio Collaboration System

The LENUBIO Integrated Audio Collaboration System is the latest cutting edge meetingIO Series product by TOA Electronics. As a professional steerable microphone array system with integrated stereo soundbar LENUBIO is the perfect all-in-one conferencing solution for small to medium size conference spaces with great return on investment. Built-in AEC (Acoustic Echo Cancellation), ANC (Ambient Noise Cancellation), and EQ maximize performance making collaboration between remote sites a very natural experience. Connectivity includes USB ports for direct integration with computers and webcams, Bluetooth, codec input/output, stereo audio inputs/outputs, and contact inputs/outputs. LED indicators identify and track the presenters location in addition to showing mute status, and microphone gain level. It is truly real-time beam steering illuminated. Easy installation is made possible with included mounting hardware. Available in black and white, the unit is powered via Ultra PoE or regular power supply.

REAL-TIME BEAM STEERING ILLUMINATED

Seven LED indicators behind the front grille illuminate to visually track presenter location, display microphone gain level, and show microphone mute status.

GUI FOR EASY SETUP AND CONTROL

The browser interface is available to make adjustments to parameter settings such as mixer volume controls, audio processing, LED indicator management, control I/O, presets, and voice tracking field adjustments for coverage within a 20 foot range.

KEY BENEFITS

- LENUBIO creates the most natural communication available for team collaboration between remote locations. With the integrated array mic and sound positioned below the display participants actually talk with each other just as they would in normal conversation.
- For impromptu meetings, a smartphone can be quickly paired with LENUBIO via bluetooth connectivity for exceptionally clear communication.
- Presentations become impactful with the professional grade high-quality audio delivered via stereo soundbar with subwoofer output.

KEY FEATURES

- TOA’s beam steering array microphone technology
- Integrated DSP functions including Acoustic Echo Cancellation and Ambient Noise Control
- Bluetooth interface for smartphones
- Built-in USB Hub for webcam integration
- Stereo soundbar with stereo inputs/outputs
- Codec input/output and Contact Closure inputs/outputs
- GUI provides intuitive control via browser
- Included mounting hardware for easy installation

LENUBIO SYSTEM DIAGRAM
AMIO Real-time Steering Array Microphone

The AMIO Real-time Steering Array Microphone is the newly upgraded premier flagship conferencing microphone in TOA’s meetingIO Series. AMIO delivers the most natural kind of speaking and conversation experience for corporate speeches, company meetings, and team collaborations between remote locations. That same benefit can be extended to executive offices, houses of worship, court rooms, higher education classrooms, and even theatrical venues. With a completely controllable area of acceptance, AMIO offers solutions to many challenges such as a presenter’s limited range of motion, speech volume drop-offs, acoustical anomalies, background chatter, and many others. Because AMIO knows exactly where the presenters are at all times it can literally dial out unwanted sound while maximizing the fidelity and intelligibility of the speakers’ voices.

**KEY BENEFITS**

- Natural conversation without concern for speaker location or proper mic technique
- Natural reproduction of sound without accentuating ambient noises
- Unobtrusive profile favorable for architectural interior design requirements
- Uninterrupted line of sight for video
- “Plays nicely with others” - compatible with all 3rd party audio conferencing hardware

**KEY FEATURES**

- 8-element mic array provides an extremely narrow (50˚) polar pattern for tight pickup and maximum gain before feedback
- Digital algorithmic processing locates the sound source within a user definable range (30˚-180˚) and “steers” the beam instantaneously towards it. The microphone rejects sound sources outside of the area of acceptance
- Voice capture up to 30ft and tracking ranges up to 180 degrees
- Mechanical mute switch with LED indicator (green for “ON” and red for “MUTE”) which can be disabled via iPad app or browser where necessary
- Free iPad app allows real-time, remote control of beam steering parameters with visual feedback of mic and sound source position
- Available in black and white
- Optional mounting bracket for ceiling, wall, and tabletop: MB-AM1B-Q (Black) and MB-AM1B-Q (White)
- Mic controller features Power and Signal LED indicators, low-frequency cutoff switch, analog line output (terminal block/XLR), output level switch (-50dB; -10dB; +4dB), microphone input (mini XLR TA-3 connector)
- Chassis single space, half rack
- Built-in web server also provides remote parameter settings via web browser
- Optional rackmounting brackets: MB-15B-BK (for single unit) and MB-15B-J (for two units side by side)

**ADDITIONAL KEY BENEFITS**

- Presets for changing room configurations
- iPad App for intuitive set-and-forget configuration or ultimate real-time control of one or multiple AMIOs
- User-friendly mute control with clear status indication
- Easy installation and flexible placement including ceiling, wall, or tabletop applications

**Angle Adjustable Bracket is Now Available**

- MB-AM1B-Q: Bracket (Black)
- MB-AM1B-Q: Bracket (White)
- HY-AM1W-Q: Angle Adjustable Pole (White)
- HY-AM1W-Q: Angle Adjustable Pole (Black)

**AMIO SYSTEM DIAGRAM (2 MIC SETUP)**

**Array Microphone**

- 8 Microphone Elements
- Balanced Output
- Output Gain Level
- Low-Cut Filter
- Mini XLR Input (AES3 - Max 200ft)

**Control Unit**

- Mechanical Mute Switch with LED Indicator (Green for “ON” and Red for “MUTE”) which can be disabled via iPad app or browser where necessary
- Free iPad app allows real-time, remote control of beam steering parameters with visual feedback of mic and sound source position
- Available in black and white
- Optional mounting bracket for ceiling, wall, and tabletop: MB-AM1B-Q (Black) and MB-AM1B-Q (White)
- Mic controller features Power and Signal LED indicators, low-frequency cutoff switch, analog line output (terminal block/XLR), output level switch (-50dB; -10dB; +4dB), microphone input (mini XLR TA-3 connector)
- Chassis single space, half rack
- Built-in web server also provides remote parameter settings via web browser
- Optional rackmounting brackets: MB-15B-BK (for single unit) and MB-15B-J (for two units side by side)
### meetingIO Series / AMIO

**Specifications**

- **Power Source**: 24V DC (supplied from the Control Unit)
- **Microphone**: Unidirectional electret condenser microphones
- **Directivity Angle**: Horizontal 50° (AES: 44 Hz – 18 kHz, cardioid: 20°)
- **Frequency Response**: 150 Hz – 18 kHz
- **Maximum Input Sound Pressure**: 105 dB SPL
- **Operation**: Mechanical mute switch
- **Indicator**: Microphone status indicator (output: green, mute: red)
- **Microphone Cable**: Low-capacitance (AES-EBU) shielded twisted pair cable 18m (32.81 ft) with a connector equivalent to TA-3
- **Dimensions**: 465.0 (W) x 22.1 (H) x 64.9 (D) mm (19.05” x 0.87” x 2.56”) excluding cable
- **Weight**: 2.1 kg (4.6 lb)

**Option**

- **AM-CF1B (Black)**
  - **Power Source**: 12 V DC (supplied from the specified AC adapter) or 24 V DC (supplied from an optional AD-246 AC adapter)
  - **Current Consumption**: Under 3.5 A
  - **Inputs**: USB Audio: 2 channels, USB 3.0/USB 2.0/USB 1.1 micro-B port, Bluetooth: 2 channels
    - Codec: 1 channel, RCA phono jack, −10 dB, 10 kΩ, unbalanced type
    - Codec: 2 channels, RCA phono jack, −10 dB, 10 kΩ, unbalanced type
  - **Outputs**: USB Audio: 2 channels, USB 3.0/USB 2.0/USB 1.1 micro-B port
    - Codec: 1 channel, RCA phono jack, −10 dB, 10 kΩ, unbalanced type
    - Codec: 2 channels, RCA phono jack, −10 dB, 10 kΩ, balanced type
  - **Control Inputs**: 2 inputs, removable terminal block (5 pins), no-voltage make contact
  - **Control Outputs**: 2 outputs, removable terminal block (6 pins), no-voltage make contact, relay contact output

**Life Safety**

- **Network I/F**: 10 BASE-T/100BASE-TX, RJ-45 connector
- **Codec**: 1 channel, RCA phono jack, −10 dB, 600 Ω, unbalanced type
- **Microphone Cable**: Low-capacitance (AES-EBU) shielded twisted pair cable 10 m (32.81 ft) with a connector equivalent to TA-3
- **Indicators**: Power (blue/green/orange), USB connection (green), Bluetooth (blue), Multifunction (green/red)
- **Dimensions**: 799 (w) x 83.2 (h) x 85.5 (d) mm (31.46” x 3.28” x 3.37”)
- **Weight**: 4.6 kg (10.14 lb)

**CONNECTIONS**

- **A**: Wallmount Hardware (included)
- **B**: Wallmount Hardware

### meetingIO Series / LENUBIO

**Specifications**

- **Power Source**: 24V DC (supplied from the Control Unit)
- **Microphone**: Unidirectional electret condenser microphones
- **Directivity Angle**: Horizontal 50° (800 Hz - 18 kHz, Array mode), 180° (Cardioid mode)
- **Frequency Response**: 70 m (229.66 ft) (use of the AES/EBU cable)
- **Maximum Input Sound Pressure**: 150 Hz - 18 kHz
- **Operating Humidity Range**: 90% RH (no condensation)
- **Operating Temperature Range**: 0 – 40˚C
- **Control Inputs**: 1 input, removable terminal block (6 pins), no-voltage make contact
- **Control Outputs**: 1 output, removable terminal block (6 pins), no-voltage make contact, relay contact output

**Audio**

- **Network I/F**: 10 BASE-T/100BASE-TX, RJ-45 connector
- **Codec**: 1 channel, RCA phono jack, −10 dB, 600 Ω, balanced type
- **Microphone Cable**: Low-capacitance (AES-EBU) shielded twisted pair cable 10 m (32.81 ft) with a connector equivalent to TA-3
- **Indicators**: Power (blue/green/orange), USB connection (green), Bluetooth (blue), Multifunction (green/red)
- **Dimensions**: 410 (w) x 22.1 (h) x 64.9 (d) mm (16.14” x 0.87” x 2.56”)
- **Weight**: 1.4 kg (3.08 lb)
TS-VS Conferencing Management & Voting Software

The TS-VS Conferencing Management and Voting Software is a Windows-based software which provides real-time monitoring and control functionalities for the TOA TS-910 Series Conference System. With its customizable GUI, users are able to configure the layout of the software to match their seating plan and name attendees as needed. Together with the use of the software, the TS-910 Conference System can seamlessly integrate with CCTV and Card Access systems.

The TS-910 Series Conference System permits both infrared and wired systems to be used in combination to overcome aesthetic and practical challenges. There is no radio interference and all communications stay within the coverage area of the IR transceivers. It offers exceptional sound quality, efficient communication for any type of conference, and is suitable for either permanent installations or more mobile applications.

**KEY FEATURES**

- Ability to monitor and control up to 192 conference units
- Up to 4 speakers can talk simultaneously
- All speaking control can be done using this software
- Real-time monitoring of speaking status and battery status for all conference units
- Remote gain adjustments for chairman and delegate units
- Management of voting results
- Storage of operation logs
- Multi-screen display ability
- Pie chart voting results can be displayed via external monitor
- Integration with CCTV system for monitoring of the conference room and speakers
- Integration with Card Access system for enabling and disabling stations
- Security encryption
- Built-in FBS for feedback elimination

![Image of conference room with TS-VS software interface](image-url)
N-SP80 Series SIP/Onvif Intercom

TOA’s N-SP80 Series SIP Intercom System offers flexible audio and video communications using standard SIP and Onvif protocols. It is compatible with a variety of SIP servers. The N-SP80 Series can work as a Peer-to-Peer mode stand-alone system, or it can be integrated with TOA’s N-8000 IP Intercom system via N-8000SG SIP Gateway.

The N-SP80 Series SIP Intercom Station employs the Session Initiation Protocol to enable both audio and video communication. Compatible with the G.722 audio codec, the N-SP80 supports high-quality audio and video transmission. The device features easy unlocking operation that gives you simple access to controls. This makes it ideal for installing at a building entrance, carpark gate, or other points of entry.

KEY FEATURES

- SIP-based intercom stations
- Supports G.711a, G.711u, G.722, G.729 audio codecs for high-quality conversation
- Integrates with TOA N-8000 Intercom via N-8000SG SIP Gateway
- System configuration and setting via web browser
- Unlimited number of stations are connectable in one system using peer-to-peer mode
- N-SP80MS1 provides video conference capability
- Multi-cast transmission enables paging to multiple zones
- Compatible with a variety of SIP servers (Cisco, Avaya, Asterisk and Genetec)*
- Two control relay outputs on each door station
- Two tamper-switch inputs on each door station
- Network video streaming and recording by a NVR using Onvif protocol
- Secondary SIP server for server redundancy
- Detects server disconnection
- Flexible ringtone setting

*All company names mentioned above are trademarks or registered trademarks of their respective owners.

A smart product that's easy to set up.
The N-SP80 opens up the world of access control.
System Examples

The N-SP80MS1 can be used in tandem with TOA’s N-8000 to deliver public announcements and support access control. Adding the optional N-8000SG allows you to add a video access control function to an existing N-8000 Series intercom.

Specifications

**N-SP80MS1**

- **Power Source**: Power supply device that complies with IEEE 802.3af standard or 12V DC with optional AC adapter
- **Graphic Display**: 7-inch capacitive touch screen TFT LCD, 800 x 480 pixels, 16:9 wide screen aspect ratio
- **Camera**: 2 mega pixels CMOS camera, free rotation
- **Network Protocol**: SIP RFC3261, TCP/UDP/IP, PPPoE, RTP/RTCP
- **Operation System**: Android 4.2
- **Voice Codec**: G.711A/µ, G.723, G.729a/b, G.722, iLBC, AMR-NB, AMR-WB, OPUS
- **Video Codec**: H.263, H.264
- **DTMF Modes**: Inband, RFC2833, SIP INFO
- **Audio Features**: VAD, CNG, Echo Canceller G.165/G.168
- **Network Interface**: Dual switched 10/100Mbps port, optional PoE
- **Wi-Fi**: IEEE 802.11 b/g/n
- **External Interface**: USB 2.0, 3.5mm headset jack, HDMI
- **IP assignment**: Static IP, DHCP, PPPoE
- **Management**: LCD Menu Configuration, TR069, WebUI
- **Dimensions (W x H x D)**: 230 × 218 × 93.7 mm / 9.06” x 8.58” x 3.69”

**N-8000 IP Intercom System**

- **Power Source**: Power supply device that complies with IEEE 802.3af standard or 12V DC with optional AC adapter
- **Resolution**: Up to 1080p
- **Button**: 1 panic button; 1 reset button (on board)
- **Microphone**: 1 integrated microphone, IP67
- **Speaker**: 2 Watt, IP66
- **Input Relay**: 2 input relays for alarm
- **Output Relay**: 2 output relays for door opener
- **Call Indication**: 1 RGB LED (colors: red, green, blue)
- **Power Input**: 12V DC input
- **Power Consumption**: Less than 12W
- **Dust/Water Protection**: IP54
- **Operating Temperature**: 20°C to +50°C (4 °F to +122 °F)
- **Installation**: Flush-mounted, Face in Clipsal 164/4 back box
- **Finish**: 316 grade stainless steel
- **Dimensions**: PCB: 76 x 48 mm / 2.99” x 1.89”, 120 x 261 x 61 mm / 4.72” x 10.27” x 2.4”
- **Options**: YC-400: 3-gang backbox, YC-840: 3-gang heated backbox with tamper switch

*All product and company names are trademarks or registered trademarks of their respective owners.*
N-8000SG SIP Gateway Interface Software

The N-8000SG SIP Gateway is a CISCO CERTIFIED interface to the N-8000 IP Packet Intercom System. The N-8000SG acts as an endpoint (SIP Extension) on the existing SIP server, providing paging, duplex communication and relay control between up to five SIP ports (i.e. voice paths) and any master station or remote station on an N-8000 system. The N-8000SG can access up to 192 paging zones and/or 3,056 remote stations/masters.

It supports five simultaneous conversations (voice paths) per license. Multiple N-8000SG licenses may be used on the same N-8000 system. The N-8000SG supports full duplex communication (with IP and 2-wire master stations) and half duplex communication with sub-stations. The N-8000 system can provide analog audio inputs and outputs, contact closure inputs and outputs, and remote station interfaces anywhere on a LAN or WAN. Any master or remote station can access the N-8000SG to ring any extension on the SIP system.

Features

- Connects to VoIP phone system as SIP extension
- Provides a SIP server to the N-8000 IP Packet Intercom System (5 lines)
- Call and transfer from N-8000 to SIP systems and vice versa
- Allows five separate 2-way conversations between the phone system and any master or sub-station on an N-8000 System
- Ability to initiate pages and access door remote control features

License (USB Dongle)

- Allows remote control of sub-station contact closures from the phone system
- Can page up to 192 separate zones
- Zones can include any master or sub-station or analog audio output on the N-8000 system
- Zones can be grouped as needed
- Audio conversion from N-8000 to SIP system and vice versa
- N-8000 uses G.722, 16kHz; SIP uses G.711 u-law
- Operating System: Windows 7 Professional (32/64bit)

Genetec Technology Alliance Partner

Genetec™ Security Center* offers customers a unified intuitive interface to simplify operations with core systems including access control, video surveillance, and automatic number plate recognition (ANPR). The SIP-enabled communications management module available in Security Center is called Sipelia*, and enables seamless SIP-based communications between operators and intercom devices deployed throughout the customer’s organization. Sipelia offers customers full communications management capabilities and facilitates the incorporation of intercom and communications into any security strategy.

N-8000 Series 2-Wire Type Stations/N-8052DS

N-8052DS Door Station

Features

- 2-gang version of N-8050DS
- Hands-free half-duplex communication
- Separate mic and speaker
- Control output (open collector)
- IP-54 rated

*All product and company names are trademarks or registered trademarks of their respective owners.
The NX-300 Network Audio Broadcast System can convert audio signals to high quality digital signals for audio transmission across any geographical distance via IP networks such as LAN or internet. Contact closures can be operated remotely in the same manner.

The NX-300 System uses an advanced implementation of TOA’s Packet Audio™ streaming technology (same as NX-100 System) with improved broadcast capacity & system expandability. WAV file record functions and other advanced features are provided. The NX-300 System can be used to create wide area public address systems over any IP network. Ideal for transportation audio distribution systems, corporate messaging, ATMs, parking system communications & industrial facilities.

### KEY FEATURES
- Transmits 16 bit audio sample rate up to 48 kHz for better than CD audio quality
- Up to 500 NX-300PSs can be connected to each other via LAN or WAN
- Up to 1,000 links can be established and broadcast per channel
- Up to 64 NX-300PSs can be programmed for use over extremely wide areas
- High or low broadcast priority can be set to allow for paging override with alert tones, or announcements

### NX-300 SYSTEM RAILWAY STATION EXAMPLE
Using existing network infrastructure, the NX-300PS can be easily deployed to multiple stations. LAN/WAN capability provides virtually unlimited distance between stations using standard media converters. Automated announcements can be broadcast to any or all stations on the network.

### Specifications

**Power Source**
- NX-300PS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Source</td>
<td>External 24V DC (21.6-24.4 V) power supply or AC adapter AD-246 (option or the equivalent)</td>
</tr>
<tr>
<td>Power/Current Consumption</td>
<td>10 W (AC operation), 310 mA (DC operation)</td>
</tr>
</tbody>
</table>

**Audio**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio Input</td>
<td>2-channels, balanced (transformer isolated), unbalanced, 240 LIM/MIC, chargeable, volume adjustable. (Rated input: -20 dB (*1), (LINE: -40 dB (*1), (MIC): PAB function: -16 dB (*1)), removable terminal block (6 pins))</td>
</tr>
<tr>
<td>Audio Output</td>
<td>2-channels, balanced (transformer isolated), 600Ω or less (Rated output: 0 dB (*1) (unbalanced input) / 0 dB (*1) (balanced input), removable terminal block (5 pins))</td>
</tr>
<tr>
<td>Frequency Response</td>
<td>50 Hz - 18 kHz (48 kHz sampling frequency, PCM, 0 to -6 dB deviation referenced to 1 kHz)</td>
</tr>
<tr>
<td>Audio Format</td>
<td>WAV file</td>
</tr>
</tbody>
</table>

**Number of Storable Audio Files**
- Max. 8

**Storable Time of Audio File**
- Max. 2 minutes per audio file (16 kHz sampling frequency, sub-band-ADPCM, monaural)

**Control Input**
- 8-channels, no-voltage make contact input: Open voltage: 24 V DC, short-circuit current: 2 mA or less, removable terminal block (9 pins) (Only Channel B equipped with failure detection.)

**Control Input Failure Detection**
- Connection resistance to make the function active: 20 kΩ ±5 %
- Connector: Twisted pair cable (shielded type is recommended)

**Control Output**
- 8-channels, dry contact relay output (polarized), withstands 30V DC, control current: 50 mA max., removable terminal block (2 pins) (Only Channel 8 equipped with failure detection.)

**Network Section**
- Network 1F, 10BASE-T/100BASE-TX, Full-duplex/half-duplex Auto-negotiation
- Network Protocol: TCP, UDP, ARP, HTTP, RTP, IGMP, FTP, HTTP
- Audio packet transmission: unicast (Up to 16 simultaneous transmissions), multicast (Up to 64 simultaneous transmissions)
- Connector: RJ45, connector
- Interface: 24bit A/D 24bit D/A
- Voice sampling frequency: 8 kHz, 16 kHz, 32 kHz, 48 kHz (controllable by software)
- Qualifying bit number: 10 bits
- Voice encoding method: PCMA, sub-band ADPCM (controllable by the software)
- Voice packet loss recovery: Silence insertion
- Audio delay time: Min. 20 ms

**Indicator**
- 2-channels, audio input, SIGNAL (green) PEAK (red), 2-channels, audio output, SIGNAL (green) LIM (ACT) green, BUSS (green), STATUS (green), ERROR (yellow), RUN (green)

**Setting switch**
- Reset: ground input, audio input, audio output, L/M/C/LINE

**SD Section**
- For log storage (Max. 10000); Media: SD/SDHC card (Max. 32 GB) (*2); File system: FAT16, FAT32
- *Use only SD memory cards rated at 100 mA current consumption or less; *No SD card provided

**Operating Temperature**
- -10°C to +50°C (-14°F to 122°F), (2°C to +40°C for 2 minutes)

**Operating Humidity**
- 90 % RH or less (no condensation)

**Dimensions (W x H x D)**
- 210 x 443 x 258 mm (8 27" x 1.74" x 10.16")

**Weight**
- 1.7 kg (3.75 lbs.)

**Accessories (included)**
- Rack mounting bracket: MB-15B 8 (for rack mounting one NX-300 unit), MB-15B J (for rack mounting two NX-300 units)

**Option**
- Wall mounting bracket: YC-850, AC adapter AD-246

*TOA’s unique technology makes it possible to transmit high-quality audio signals in real time over any IP network.*
EV-700 Network Message Controller

Adding the TOA EV-700 Network Message Controller to your existing PA system provides numerous benefits for large facilities ranging from retail stores and shopping malls to schools, factories and railway lines. The EV-700 permits easy manual distribution or automatic timed and repeat announcements, background music, and other audio programs activated by external devices. Excellent sound quality is a hallmark of this unit. Creation and editing of various sound source files and programs, updating of settings and activation of announcements can be handled easily by direct input or managed remotely via a network. Recorded emergency messages are ready for broadcast at any moment.

KEY FEATURES

- **High-quality WAV format** (44.1 kHz/32 kHz, 16 bit)
- **Emergency broadcasts override non-emergency broadcasts**
- **Automatic gain control (AGC) function adjusts the playback volume to a reference level**
- **Users can create or edit sound source files by directly inputting new phrases or combining pre-registered phrases to create up to 256 audio programs**
- **Creation/loading/storage on a memory card (storage capacity 32,768 sound source files and 256 audio programs)**
- **35 preinstalled sound source files**

Flexible sound source customization

- **Users can create or update sound source files by directly inputting new phrases or combining pre-registered phrases to create audio programs that meet their particular PA needs**
- **Creation/loading/storage on a memory card (storage capacity 32,768 sound source files and 256 audio programs)**
- **35 preinstalled sound source files**

Dedicated software enabling remote setting and operation

- **Installation of dedicated software enables staff in any networked location to create, edit, store and activate broadcast programs on a PC.** The timing of new or edited programs and settings can be synchronized so that programs are broadcast simultaneously in every location on the network. Benefits include time and cost savings as well as greatly enhanced operating flexibility.
- **On-screen GUI facilitating intuitive remote storage of sound source files and activation of broadcasts**
- **Simple and full function modes for basic or advanced user interaction**

Superior sound quality

- **Sound source files containing announcements, BGM, chimes and other content are recorded on a memory card, eliminating concerns about deterioration in sound quality with repeated playback.**
- **Recording in high-quality WAV format (44.1 kHz/32 kHz, 16 bit)**
- **Supplied a memory card (1 GB)***
- **Automatic gain control (AGC) function for adjusting the playback volume to a reference level**
  * Extra memory card slot provided for mounting of second card for recovery or backup.

Interactive operation with external devices

The EV-700 can be operated in conjunction with a variety of external devices.

- **The EV-700’s operating status can be indicated with an LED in the control room.**
- **An indicator reminds operators during the recording or program deletion process that no broadcasting can be conducted.**
- **Playback of sound source files activates broadcasting patterns in a connected matrix device.**

Prompt emergency broadcasting

Prerecorded emergency announcements are stored for immediate broadcast when needed.

- **Emergency broadcasts prioritized in emergency situations**
- **The broadcasting zones and number or lengths of repeat broadcasts can be set in advance.**

R.E.M. (Recording Endless Message) function enables operators to create/initiate repeated play back of emergency announcements quickly and evacuate with other occupants before anticipated emergencies such as tsunami.
Specifications

**EV-700PS**

**Power Source**
Supplied from an external 24 V DC (21.6 - 26.4 V) 400 mA power supply, Removable terminal block (2 pins) or from an included AD-246 AC adapter.

**Power Consumption**
10 W

**Wave Format**
44.1 kHz/32 kHz sampling rate, 16 bits PCM, WAV file (monaural)

**Sound Source Rewriting Method**
LAN data transfer/Analog recording/Direct write to CF memory card using the setting software

**Audio Input**
MIC: −55 dB*1 (microphone input volume control in maximum position), 600Ω, unbalanced, 1/4" mono phone jack
LINE(rear): −20 dB*1 (line input volume control in maximum position), 10 kΩ, unbalanced, Removable terminal block (12 pins)
LINE(front): −29 dB*1 (line input volume control in maximum position), 10 kΩ, unbalanced, RCA pin jack

**Audio Output**
LINE 1, 2: 0 dB*1, 600Ω, unbalanced, Removable terminal block (12 pins)
Headphones: 0 dB*1, 100Ω, monaural, 1/8" stereo mini jack

**Frequency Response**
20 Hz − 20 kHz ±3 dB (1 kHz)
50 Hz − 14 kHz ±3 dB (IT-450 mounted, 1 kHz)

**Distortion**
0.3 % or less (1 kHz at rated output)

**Storage Media**
CompactFlash™ specification Memory card

**Number of Mountable Memory cards**
2 (1 Memory card containing preset sound sources is supplied.) Backup operation available when 2 cards are mounted.

**Maximum Recording Time**
About 3 hours (at 44.1 kHz sampling rate) or about 4 hours (at 32 kHz sampling rate)

**Audio Output Method**
Single channel monaural

**Control Input**
Activations 1−16, playback, pause, recording, erasure/clear, emergency playback, emergency recording, emergency pause
No-voltage make contact input, pulse make contact length: 50 ms or more, open voltage: 30 V DC, short-circuit current: 10 mA, Removable terminal block (16 pins)

**Control Output**
Shorting outputs 1−8 (busy), Error: contact capacity: 30 V DC, 0.5 A, Removable terminal block (8 pins)

**Operating Display**
7-segment LED, 5 digits

**Operating Temperature**
0 °C to 40 °C / 32 °F to 122 °F

**Operating Humidity**
95% RH or less (no condensation)

**Dimensions**
430 (W) x 44 (H) x 222 (D) mm / 16.54” x 1.73” x 8.74”

**Weight**
2.4 kg / 5.29 lbs.

**Included Accessories**
Memory card (Containing prerecorded audio files) x 1, Rubber foot x 4, Removable terminal plug (2 pins) x 1, Removable terminal plug (8 pins) x 2, Removable terminal plug (16 pins) x 2, Removable terminal plug (12 pins) x 2, Front cover fixing screw x 2, CD (setting software) x 1

**Option**
Rack mounting bracket: MB-158
MM-700F 6x4 Matrix Mixer with DSP

The MM-700F is a four channel matrix/preamp with analog control of digital processing. While browser remote control is available Q2 of 2018, no PC is required to set up and operate this versatile unit. Enhanced functionality is tailored to both background music and paging applications. Matrix and DSP settings, can be made simply, without the need for a computer. Time spent on installation and system tuning is greatly reduced. The paging function has a two-levels of priority: (1) manual activation or (2) automatic (vox) activation. The MM-700F is ideally suited for establishments where different kinds of background music are required for different zones, or where staff paging announcements are selectively directed to one area such as a restaurant or sales area. The optional WP-700 provides volume control and source selection for up to four zones. Upcoming wireless remote control will be available via browser for any computer or smart device.

**KEY FEATURES**
- 4 BGM/Audio source selection on each output
- 2 levels of priority paging/mute functions
- DSP preset EQ selection
- WP-700 zone source/volume control available
- 4 stereo line and 2 priority MIC/LINE inputs with matrix routing to 4 line outputs
- 2 priority inputs with different priority level for paging or other audio source to override stereo line inputs
- Each priority input has input gain level, mute sensitivity and mute hold time adjustments.
- Independent DSP preset selection per each channel and 50Hz HPF for speaker protections
- DSP preset selections include general EQs, TOA speaker EQs and X-over settings to be used with subwoofers
- Up to 4 wall mount remote control, WP-700 can be connected to control the line input selection and output volume
- 100-240V universal power supply

**OPTIONS**
- WP-700 Wall Panel Remote
  Wall mount remote control, WP-700 can be connected via CAT-5 straight LAN cable to control the line input selection and output volume of each output

**Specifications**

**MM-700F**

- **Power Source**: 100 - 240V AC, 50/60Hz
- **Power Consumption**: 9 W or less
- **Frequency Response**: 20Hz - 20 kHz (-3 dB / +1 dB)
- **Total Harmonic Distortion**: 1% or less, at 1kHz, rated output
- **Certifications**: cULus 60065, EN60065, EN55032, EN55020, FCC part15 class A

**Input**
- Priority 1-2:
  - Mic -60 dB/Line -10 dB* selectable, 2.2 kΩ, electronically-balanced, removable terminal block
- Line In 1-4:
  - -10 dB*, 10 kΩ, unbalanced, 2 RCA jacks (Stereo summing)

**Output**
- Line Out 1-4:
  - 0 dB*, 600 Ω, unbalanced, terminal block
- MCH:
  - 0 dB*, 600 Ω, transformer balanced, terminal block

**DSP Preset**
- 16 presets in 4 banks (64) at each output channel, selectable

**S/N Ratio**
- Mic: 60 dB* or more, Line: 75 dB* or more (A-weighted)

**Muting**
- Manual mute / Automatic mute

**Mute Hold Time**
- 50ms - 10 seconds, adjustable

**Priority Level**
- PRIORITY 1 > PRIORITY 2 > LINE 1-4

**Control**
- Power:
  - ON/OFF switch, Power remote terminal
- Priority 1-2:
  - MIC/LINE selector switch, Gain control, Assign switch, Auto mute switch, Mute sense control, Manual mute terminal, Mute hold time control, Priority mix switch
- Line In 1-4:
  - Gain control, Assign selector switch
- Output 1-4:
  - LINE IN 1-4 selector switch, Output gain control, DSP bank selector switch, DSP preset selector switch
- Remote 1-4:
  - Remote control connector (RU-45), Remote link switch

**Operating Temperature**
- 0 °C to 40 °C / 32 °F to 104 °F

**Operating Humidity**
- 35% to 80%RH (no condensation)

**Finish**
- Panel: Aluminum, hair line, black, Case: Steel plate, black, paint

**Dimension**
- 422 (W) x 107.6 (H) x 350 (D) mm / 16.54” x 4.24” x 13.78”

**Weight**
- 5.7 kg / 12.3 lbs

**Included Accessories**
- Power cord (2m/5.65ft) x1, Removable terminal plug (5 pins x 2, 3 pins x 1, 2 pins x 4), Rack mounting bracket x 2, Bracket mounting screws x 4, User manual x 1

**Option**
- WP-700 Wall Panel Remote

**Options**
MA-725F 6x4 Matrix Mixer Amplifier

TOA’s MA-725F matrix amplifier is an all-in-one solution for multi-zone applications combining a 6x4 audio matrix, DSP and four-channel Class-D amplifiers into one chassis. It is equipped with 4 independent line inputs, and 2 MIC/LINE priority inputs. Each output has independent DSP preset adjustment with input source matrix selection. It features high power (250Wx4 @70V/100V) and various input capabilities. The system is controlled via front panel, remote zone/source/volume selector, or smart device (Q2 2018).

**KEY FEATURES**

- 4 stereo line and 2 priority MIC/LINE inputs with matrix routing to 4 amplifier outputs.
- 2 priority inputs with different priority level for paging or other audio source to override stereo line inputs.
- Each priority input has input gain level, mute sensitivity and mute hold time adjustments.
- 4 channels of 250W Class-D amplifier at 70V/100V.
- Independent DSP preset selection per each channel and 50Hz HPF for speaker protections.
- DSP preset selections include general EQs, TOA speaker EQs and X-over settings to be used with subwoofers.
- Each output channel also has auxiliary line output to deliver audio to other audio systems for scale expansions.
- Up to 4 wall mount remote controls, WP-700 can be connected via CAT-5 straight LAN cable to control the line input selection and output volume of each output.

**OPTION**

WP-700 Wall Panel Remote

- Wall mount remote control. WP-700 can be connected via CAT-5 straight LAN cable to control the line input selection and output volume of each output.

**Specifications**

<table>
<thead>
<tr>
<th>MA-725F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power Source</strong></td>
</tr>
<tr>
<td><strong>Power Consumption</strong></td>
</tr>
<tr>
<td><strong>Frequency Response</strong></td>
</tr>
<tr>
<td><strong>Total Harmonic Distortion</strong></td>
</tr>
<tr>
<td><strong>Certifications</strong></td>
</tr>
<tr>
<td><strong>Input</strong></td>
</tr>
<tr>
<td><strong>Line In 1-4:</strong></td>
</tr>
<tr>
<td><strong>Output</strong></td>
</tr>
<tr>
<td><strong>Line Out 1-4:</strong></td>
</tr>
<tr>
<td><strong>MOH:</strong></td>
</tr>
<tr>
<td><strong>DSP Preset</strong></td>
</tr>
<tr>
<td><strong>S/N Ratio</strong></td>
</tr>
<tr>
<td><strong>Muting</strong></td>
</tr>
<tr>
<td><strong>Mute Hold Time</strong></td>
</tr>
<tr>
<td><strong>Priority Level</strong></td>
</tr>
<tr>
<td><strong>Power</strong></td>
</tr>
<tr>
<td><strong>Priority 1-2:</strong></td>
</tr>
<tr>
<td><strong>Line In 1-4:</strong></td>
</tr>
<tr>
<td><strong>Output 1-4:</strong></td>
</tr>
<tr>
<td><strong>Remote 1-4:</strong></td>
</tr>
<tr>
<td><strong>Operating Temperature</strong></td>
</tr>
<tr>
<td><strong>Operating Humidity</strong></td>
</tr>
<tr>
<td><strong>Finish</strong></td>
</tr>
<tr>
<td><strong>Dimension</strong></td>
</tr>
<tr>
<td><strong>Weight</strong></td>
</tr>
<tr>
<td><strong>Included Accessories</strong></td>
</tr>
</tbody>
</table>

*Options: WP-700 Wall Panel Remote*
A-5000 Series Networkable Mixer Amplifier with DSP

Background music plays an important part of your business and therefore quality and reliability must also match performance, design and style. The A-5000 Series offers the ability to control your music just the way you want it, with built-in digital signal processors (DSP) and digital amplification. The unit boasts high efficiency and durability for long-term use. Precise EQ settings via PC are designed to intuitively achieve optimal performance and security. Available in 60 and 120 Watt versions, the A-5000 series is an ideal choice for small to medium restaurants and retail establishments.

KEY FEATURES
- Compact 1RU design (1/2 width)
- Hi-/Low-Z speaker connection
- 60W and 120W models
- 4 inputs (2 x mic/line) with mute function
- Remote master volume control
- Setup using intuitive GUI software
- 5-band Parametric Equalizer for each input and output
- Mute (Mic 1 priority: Manual mute all channels)
- HPF/LPF, and 5-Band parametric equalizer for amplifier output
- Compressor for each input 1 and 2
- FBS on mic inputs 1 and 2
- Free GUI (Graphical User Interface)

OPTIONS

System Application Example

Networkable Mixer Amplifier / A-5000 Series

Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>A-5000</th>
<th>A-5012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Source</td>
<td>100 - 240 V AC, 50/60 Hz</td>
<td></td>
</tr>
<tr>
<td>Rated Output</td>
<td>60 W</td>
<td>120 W</td>
</tr>
<tr>
<td>Power/Curr. Consumption</td>
<td>50 W (rated output), 20 W (based on cULus standards)</td>
<td>207 W (rated output), 39 W (based on cULus standards)</td>
</tr>
<tr>
<td>Frequency Response</td>
<td>50 Hz - 20 kHz</td>
<td>50 Hz - 20 kHz</td>
</tr>
<tr>
<td>S/N Ratio</td>
<td>MIC 1, 2: 60 dB, LINE 1 - 4: 80 dB (A-weighted)</td>
<td></td>
</tr>
<tr>
<td>Function</td>
<td>Input Equalizer: 3 filters per input; HPF, LPF, and 5-Band Filter; Parametric equalizer: 5 filters per input; Octave filter: 20 kHz - 20 kHz; Compressor: ON/OFF selectable on inputs 1 and 2 (OFF by default); Threshold input 1: Output Equalizer: 10 points selectable; Through, Low-pass filter 6/12/18 dB, Unattenuated, RCA pin jack; Input Equalizer: 3 filters per input; HPF, LPF, and 5-Band Filter; Parametric equalizer: 5 filters per input; Octave filter: 20 kHz - 20 kHz; Compressor: ON/OFF selectable on inputs 1 and 2 (OFF by default); Threshold input 1: Output Equalizer: 10 points selectable; Through, Low-pass filter 6/12/18 dB, Unattenuated, RCA pin jack</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>Mute control, Remote master volume control, Power ON/OFF switch, IP (see manual)</td>
<td></td>
</tr>
<tr>
<td>LED Indicator</td>
<td>Power, Signal, Peak, Protect</td>
<td></td>
</tr>
<tr>
<td>Network Interface</td>
<td>E1/10BASE-T</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>8.27 x 2.87 x 4.79 (210 x 73 x 121 mm)</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>7.94 lbs. (3.6 kg)</td>
<td></td>
</tr>
<tr>
<td>Accessory</td>
<td>1 x CD (setting software), 1 x Large type removable terminal plug (5-pin), 2 x Small type removable terminal plug (5-pin), 6 x Bracket mounting screw, 6 x Pan-socket, 5 x Power supply cord (6 ft x 30 ft)</td>
<td></td>
</tr>
</tbody>
</table>
BG-2240D 240W and BG-2480D 480W Digital Mixer Amplifiers

The BG-2240D (240W) and BG-2480D (480W) are 5-input mixer amplifiers designed for background music distribution and general announcements in commercial spaces such as bars/restaurants, retail stores and hospitality facilities. They are each equipped with an MOH output that permits two independent zones when used in conjunction with an optional external power amplifier with a line level analog audio input. These digital mixer amplifiers are lighter, more efficient and cooler running than conventional amplifiers. Beyond these upgrades, the BG-2240D/BG-2480D have the same basic feature set as analog BG-2000 models, including: Dual balanced priority mic/line inputs, dual unbalanced line inputs for BGM sources, assignable 2nd zone/MOH output, front panel bass & treble controls, remote volume control port, assignable mute function and a module option slot which accepts any range of compatible 900 Series input & special function modules.

KEY FEATURES

- 240W output @ 70V
- 460W output @ 100V, 70V
- Dual balanced priority mic/line inputs
- Dual unbalanced line inputs for BGM sources
- Rear panel-mounted DIP switches allow easy configuring of settings
- Provides automatic/manual mute function with adjustable muting sensitivity
- Incorporates Remote volume control connection
- 2-channel broadcast capability together with zone 2 expansion capability in conjunction with BA-200 Series
- Tamper-proof, front-panel bass and treble controls are recessed to protect their settings
- Thermal protection circuitry prevents potential damage from excessive heat build-up
- AC mains Circuit Breaker
- Supplied accessory security knobs for volume controls prevent unauthorized-volume setting changes
- Remote volume control port (AT-10K)
- Assignable mute function
- Module slot accepts optional 900 Series plug-in modules for custom system configurations

OPTIONS

- MB-1000 Rack Mount Bracket
- 900 Series Input & Special Function Modules
- Volume attenuators
- MB-1000 Rack Mount Bracket
- 900 Series Input & Special Function Modules
- Volume attenuators

Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>BG-2240D</th>
<th>BG-2480D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Source</td>
<td>120V AC, 60 Hz</td>
<td>100-240V AC, 50/60 Hz</td>
</tr>
<tr>
<td>Rated Output</td>
<td>240W</td>
<td>480W</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>300W (rated output), 55W</td>
<td>600W (rated output), 110W</td>
</tr>
<tr>
<td>(based on cULus standards)</td>
<td></td>
<td>(based on UL60065 standards)</td>
</tr>
<tr>
<td>Frequency Response</td>
<td>50Hz – 20kHz</td>
<td></td>
</tr>
<tr>
<td>Total Harmonic Distortion</td>
<td>0.8% or less, 1kHz</td>
<td></td>
</tr>
<tr>
<td>Output</td>
<td>0 dB*, 600Ω, balanced, removable terminal block</td>
<td>Line 1/TEL: selectable, 10Ω, electronically balanced, removable terminal block</td>
</tr>
<tr>
<td>Output Regulation</td>
<td>2 dB or less, no load to full load (1kHz)</td>
<td>Line 2, 3: –10 dB*, 10kΩ, unbalanced, removable terminal block or RCA jack</td>
</tr>
<tr>
<td>Phantom Power</td>
<td>On/Off switch for Mic, 24V DC</td>
<td></td>
</tr>
<tr>
<td>Tone Control</td>
<td>Basic: ±10 dB at 100 Hz, Treble: ±10 dB at 10kHz</td>
<td></td>
</tr>
<tr>
<td>Muting</td>
<td>Manual mute/Automatic mute</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>Mic gain control, Line 1/TEL gain control, Line 2 gain control, Line 3 gain control, Module: gain control, Bass tone control, Treble tone control, MUTE output gain control, MUTE control (Manual mute), Remote volume control, Mute sense control, Line 1/TEL selector switch, Phantom power switch (Mic), Auto mute switch (Mic, Line 1/TEL, Module), Mute receive switch (Mic, Line 1/TEL, Line 2, 3, Module), MUTE assign switch (Mic, Line 1/TEL, Line 2, 3, Module), Power ON/OFF switch</td>
<td></td>
</tr>
<tr>
<td>Indicator</td>
<td>Power LED, Signal level LED, Peak LED</td>
<td></td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0 °C to 40 °C (32 °F to 104 °F)</td>
<td></td>
</tr>
<tr>
<td>Finish</td>
<td>Panel: ABS resin, black, Case: Steel plate, black paint</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>254 (W) × 94.3 (H) × 287.3 (D) (in: 10.53” × 3.71” × 11.29”)</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>13.5kg (30 lb)</td>
<td>17.9kg (39 lb)</td>
</tr>
<tr>
<td>Accessory</td>
<td>Volume control cover: YA-920 × 5, Removable terminal plug (2 pins) × 4, Removable terminal plug (3 pins) × 2, Removable terminal plug (4 pins) × 1, Removable terminal plug (5 pins) × 1</td>
<td></td>
</tr>
<tr>
<td>Option</td>
<td>Rack mounting brackets: MB-1000</td>
<td>Rack mounting brackets: MB-1000</td>
</tr>
</tbody>
</table>

Grocery Store System Example
AV-60S Plenum-Rated 60W/70V Digital Micro Amplifier

Building on the success of the AV-20D Class D Micro Amp, the AV-60S adds more power (60W x 1 vs. 20W x 2) and dual impedance operation, with power output at 4 Ohm and 70V. It keeps the original compact size and can use the same mounting accessories as the AV-20D. It also features UL 2043 rating for plenum installation and is Energy Star 2.0 compliant. The AV-60S also sports a similar compliment of mixable inputs, (RCA, 1/8" mini & transformer balanced Phoenix) as well as front panel volume, bass & treble and level/power indicators. Designed for use with projector installations in board/classroom applications as well as point of sales, kiosk and signage applications or anywhere a small, yet powerful amplifier is required.

KEY FEATURES

- Micro Class D amplifier
- UL 2043-rated for plenum installation
- Energy Star certified including Auto Standby
- 60W x 1 @ 4Ω or 70V
- Small size (approx. 6" x 6" x 1.75") allows convenient & flexible placement
- Clip Limiter prevents distortion due to overload
- Remote Volume Control port for use with 10kΩ pot

OPTIONS

- MB-AV20PM Metal Pole Mount Bracket
- MB-AV20RM Metal Rack Mount Kit (1 or 2 amplifiers are mountable in 1 unit)
- MB-2M80 Metal Desk-mount Bracket
- Hardwired electrical option included

PROJECTOR MOUNT APPLICATION IN PLENUM SPACE

![Image](image1.png)

AC can be hardwired with included adapter

**Specification**

| AV-60S | Power Supply | AC100V-240V, 50-60Hz, AC inlet on rear panel |
| --- | Power consumption | Less than 1W: power save mode, Less than 8W @ 70V, Less than 11W @ 4Ω |
| Output | 60W @ 4Ω, 60W @ 70V |
| Protection | Thermal protection, Over current protection |
| Input | Line 1: -10/-20dB* (selectable), 10KΩ, transformer-balanced, removables terminal block (2P) |
| Indication | Power LED (green), Signal LED (green), Peak LED (red), Protect LED (yellow) |
| Frequency Response | 4Ω mode: 20Hz to 20KHz ±3dB, 70V mode: 60Hz to 20KHz ±3dB |
| THD+N | Less than 0.15% |
| Tone Control | Bass: ±10dB at 100Hz, Treble: ±10dB at 10KHz |
| Controls | Master volume control, Variable volume control, Bass/Treble tone control, 70V/4Ω selector (1 or 2, Line, Link) |
| Dimensions | 150 (w) x 44 (h) x 156 (d) mm (5.90" x 1.73" x 6.14") |
| Weight | 1.12 Kg (2.5 Ibs) |
| Accessories | Removable terminal plug (2P x 2), Removable terminal plug (3P x 2), AC power cord x 1, Rubber foot x 4, EMT adaptor plate x 1 |

*0dB = 1V, Reference = 1kHz

![Image](image2.png)
The TOA SR-T5 is a 2-way line array speaker featuring 8 13cm (5.2”) low-frequency cones and 24 tweeters, in which low- and high-frequency speaker units are arranged vertically within close proximity to each other. The curved vertical speaker arrangement covers the entire audience area from front to rear with uniform sound volume. Thanks to the excellent vertical coverage control, reflection of sound waves off the ceiling and walls is reduced, delivering clear sound without causing strain on the listeners’ ears. The superb speech clarity and sturdy impact-resistant construction of the SR-T5 make it ideal for installations in sports facilities with strong reverberation, such as school gymnasiums. No additional protector grill is required.

**SR-T5 All-In-One Fixed Dispersion Array Speaker**

**KEY FEATURES**
- Uniform sound volume and clear audio output
- Sturdy impact-resistant construction
- Internal two-way passive crossover network circuitry for single-amplifier operation
- Speaker’s downward angle adjustable with accessory mounting bracket
- Horizontal angle adjustable in conjunction with optional SR-PB5 Wall Pan Bracket
- Optional MT-20601 Matching Transformer for use in high-impedance applications
- Safety wire supplied to prevent the speaker from falling during installation work and after installation

**COVERAGE AREA EXAMPLE**

**SR-PB5 Wall Pan Bracket**
- Adjustable Angle Range: Horizontal: 5°, 10° (when the supplied mounting bracket is used)
- Horizontal (left or right): 5°, 10° (when the optional SR-PB5 Wall Pan Bracket is used)
- Input Terminal: M5 screw terminal, distance between barriers: 12.2 mm (0.48”)
- Finish: Enclosure: Plywood, black, urethane paint; Baffle: Polypropylene, black; Punched net: Steel plate, black, acrylic paint; Mounting bracket: Steel plate, black, acrylic paint
- Dimensions: 310 (W) × 1,239 (H) × 341 (D) mm / 12.2” × 48.78” × 13.43”
- Weight: 29 kg / 63.93 lb (including accessories)
- Accessories: Mounting bracket A × 1, Mounting bracket B × 1, Mounting bracket bolt × 4, Side cover × 5, Side cover mount screw × 10, Eye bolt x 1, Safety wire × 1

**OPTIONAL ACCESSORIES**

**MT-50601 Matching Transformer**
- Rated Input Power: 40 W
- Input Impedance: 600 Ω (600W), 3000 Ω (600W), 7000 Ω (700W), 10000 Ω (700W), 15000 Ω (700W)
- Output Impedance: 8Ω
- Weight: 1.2 kg (2.65 lb)

**Specifications**

<table>
<thead>
<tr>
<th>SR-T5</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Enclosure</td>
<td>Bass-reflex type</td>
</tr>
<tr>
<td>Power Handling Capacity</td>
<td>Continuous pink noise: 250 W, Continuous program: 750 W</td>
</tr>
<tr>
<td>Rated Impedance</td>
<td>8Ω</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>95 dB / 1 W, 1 m equivalent, measured at 4 m / 13.12 ft</td>
</tr>
<tr>
<td>Frequency Response</td>
<td>70 Hz – 20,000 kHz</td>
</tr>
<tr>
<td>Crossover Frequency</td>
<td>3 kHz</td>
</tr>
<tr>
<td>Directivity</td>
<td>Horizontal: 105°, Vertical: 35°</td>
</tr>
<tr>
<td>Speaker Component</td>
<td>Low frequency: 13 cm (5.12”) cone-type × 8; High frequency: Balanced dome type × 24</td>
</tr>
<tr>
<td>Recommended Installation Height</td>
<td>4 – 5.5 m (13.12 – 18.04 ft) (Speaker top, when installed in sport facilities 30 m (98.43 ft) in length)</td>
</tr>
<tr>
<td>Adjustable Angle Range</td>
<td>Downward: 0°, 1°, 2°, 3° (when the supplied mounting bracket is used)</td>
</tr>
<tr>
<td>Input Terminal</td>
<td>M5 screw terminal, distance between barriers: 12.2 mm (0.48”)</td>
</tr>
<tr>
<td>Finish</td>
<td>Enclosure: Plywood, black, urethane paint; Baffle: Polypropylene, black; Punched net: Steel plate, black, acrylic paint; Mounting bracket: Steel plate, black, acrylic paint</td>
</tr>
<tr>
<td>Dimensions</td>
<td>310 (W) × 1,239 (H) × 341 (D) mm / 12.2” × 48.78” × 13.43”</td>
</tr>
<tr>
<td>Weight</td>
<td>29 kg / 63.93 lb (including accessories)</td>
</tr>
<tr>
<td>Accessories</td>
<td>Mounting bracket A × 1, Mounting bracket B × 1, Mounting bracket bolt × 4, Side cover × 5, Side cover mount screw × 10, Eye bolt x 1, Safety wire × 1</td>
</tr>
</tbody>
</table>
The HA-1010 is composed of multiple horn speakers positioned in a vertical array. It features longer range sound coverage than conventional horn speakers grouped together. Narrowly focused vertical directivity allows excessive volume to be controlled at closer proximity. The HA-1010 speaker array provides a dispersion pattern of 90° horizontally x 15° vertically. This directivity high-frequency array horn speaker provides 2 70V taps of 30 and 50 watts, allowing for proper power sizing in almost any application. It is ideal for Mass Notification and Voice Message announcements in various outdoor areas including parking lots, parks and recreation areas, hotel & resort grounds, sports arenas, military facilities and transportation terminals.

**Specifications**
- **Model:** HA-1010
- **Rated Input:** 50W
- **Rated Impedance:** 100Ω (50W), 200Ω (25W)
- **Sound Pressure Level:** 114dB (1W, 1m)
- **Maximum Sound Pressure Level:** 131dB (50W, 1m)
- **Frequency Response:** 35Hz - 20kHz
- **Directivity Angle:** Horizontal: 90° (2kHz), Vertical: 15° (2kHz)
- **Speakers Component:** 8 horn speaker units x 8
- **Operating Temperature:** -20°C to +55°C (-4°F to +131°F)
- **Water Protection:** IPX5
- **Finish:** Case, Panel: Aluminum, salt-resistant, paint, grey; Front grille: Aluminum, black; Bracket: Stainless steel (SUS 304), paint, grey
- **Dimensions:** 417 (W) x 1233 (H) x 140.5 (D) mm / 16.37" x 48.54" x 5.53" in
- **Weight:** 13.5 kg / 29.76 lb

**FB-3862CU Ceiling Subwoofer**

The FB-3862CU is a high-performance flush-mount ceiling subwoofer assembly for low frequency enhancement of distributed loudspeaker systems. A 60W 70/100V transformer is included, and the bandpass design eliminates the need for a bi-amplified system. The 8-Ohm bypass allows for applications using electronic crossovers and dedicated low impedance power amplifiers. The FB-3862CU subwoofer rounds out TOA’s F-Series premier speaker line to offer a full spectrum sonic experience suitable for retail environments, restaurants, lounges, conference rooms, and any application where music or video content require high quality sound.

**Specifications**
- **Model:** FB-3862CU
- **Enclosure:** Bandpass
- **Rated Input:** 60W (70/100V)
- **Power Handling Capacity:** 100W RMS 200W Peak
- **Impedance:** 70V line, 60W/30W/15W/3.8W/1.9W with 8Ω bypass
- **Sensitivity:** 88dB 1W/1m
- **Frequency Response:** 47-200 Hz (-10dB)
- **Speaker Component:** 8" driver, oiled paper cone and foamed surround
- **Certifications:** UL2043/UL1480A, Baffle meets UL 94-V0 flammability rating, RoHS
- **Mounting Hole:** 350mm diameter
- **Input Terminal:** Phoenix-type parallel outputs (max 12AWG stranded cable)
- **Recommended Cable:** Max 12AWG stranded unshielded twisted pair (jacket per code)
- **Finish:** White
- **Dimensions:** 383 mm diameter x 326.5 mm height (15.08" x 12.85")
- **Weight:** 6.45 kg (14.22 lbs.)
- **Included Accessories:** Steel support ring (C-ring), qty 2 steel support rails, speaker hole template, operation manual
- **Optional Accessories:** Support and safety cables (load rated chain or load rated aircraft cable)
GS-302 In-Ground Garden Speaker

The GS-302 Garden Speaker is a compact speaker that is ideal for applications such as paging and background music broadcasting in locations such as gardens, theme parks, and resort facilities. The exterior is formed of corrosion-resistant material that gives it an extended service life in adverse environments (IPX4 category). The Garden Speaker’s inconspicuous design enables it to be easily installed in the middle of garden shrubbery and virtually disappears into its surroundings.

KEY FEATURES
• Compact Garden Speaker ideal for paging and background music broadcasting in gardens, theme parks and resort facilities
• Corrosion resistant exterior, ensures long life
• Small and inconspicuous blending in with surrounding environment
• 15W 70V line
• IPX4 rated for outdoor usage

Specifications
- Enclosure: Sealed type
- Rated Input: 30W (100V line), 15W (70V line)
- Rated Impedance: 100V line: 330Ω (30W), 670Ω (15W), 1kΩ (10W), 2kΩ (5W), 3.3kΩ (3W), 70V line: 330Ω (15W), 670Ω (7.5W), 1kΩ (5W), 2kΩ (2.5W), 3.3kΩ (1.5W)
- Sensitivity: 87dB (1W, 1m)
- Frequency Response: 100 – 8,000Hz
- Speaker Component: 12cm splash-proof cone-type
- Input Terminal: Push-in terminal
- Applicable Cable: Solid copper wire: 0.8 – 1.6mm, Stranded copper wire: 0.75 – 1.25mm
- Water Capability: Meets IPX4 requirements
- Finish: Top cover and base: FRP resin, dark gray, semi-gloss, paint, Speaker panel: ABS resin, dark gray, semi-gloss, paint, Legs: Aluminum, dark gray, semi-gloss, paint
- Dimensions: 270 × 335 (H)mm / 10.6" x 13.2"
- Weight: 2.4kg/5.3 lbs

PC-1869 Spring Loaded Ceiling Speaker

KEY FEATURES
• Spring clamp mechanism for easy mounting to the ceiling
• Input impedance easily changed by adjusting the tap position of the transformer
• Push-in type input terminal block
• Allows bridge wiring

Specifications
- Rated Input: 6 W (100 V line), 3 W (70 V line)
- Rated Impedance: 100 V line: 1.7 kΩ (6 W), 3.3 kΩ (3 W), 6.7 kΩ (1.5 W), 13 kΩ (0.8 W), 70 V line: 1.7 kΩ (3 W), 3.3 kΩ (1.5 W), 6.7 kΩ (0.8 W), 13 kΩ (0.4 W)
- Sensitivity: 83dB (1W, 1m) (500 Hz - 5 kHz, pink noise)
- Frequency Response: 55 Hz - 18 kHz (peak -20 dB)
- Speaker Component: 12 cm (5") cone-type
- Dimension for Fixing Hole: Mounting hole: 150±3 mm (5.91"±0.12") Ceiling Flanges: 5 - 25 mm (0.2" - 0.98")
- Applicable Cable: 600 V vinyl-insulated cable (4 wire or 3 wire), solid copper wire: 0.8 - 1.6mm, stranded copper wire: 0.75 - 1.25mm (meets requirements in AWG 13 - 16)
- Connection: Push-in connector (bridging terminal - 2 branch type)
- Weight: 650 g (1.41 lbs)

F-Series Speaker Accessories

NEW F Series Ceiling Speaker Accessories

Applicable Models
- F-122C/F-122CU2
- F-2322C/F-2322CU2
- F-2352C/F-2352CU2
- F-2352SC

Drywall Rough-in Kit
- F-DRYWALLKIT

Black Replacement Grill
- Q-F122GRBK

NEW F Series Wide-Dispersion Box Speaker Accessories

Applicable Models
- F-1000BT/WT
- F-1000BTWP/WTWP
- F1300BT/WT
- F-1300BTWP/WTWP

Rust-Proof Aluminum Grill

NEW F Series Ceiling Speaker Accessories

Applicable Models
- F-122C/F-122CU2
- F-2322C/F-2322CU2
- F-2352C/F-2352CU2
- F-2352SC

Drywall Rough-in Kit
- F-DRYWALLKIT

Black Replacement Grill
- Q-F122GRBK

NEW F Series Wide-Dispersion Box Speaker Accessories

Applicable Models
- F-1000BT/WT
- F-1000BTWP/WTWP
- F1300BT/WT
- F-1300BTWP/WTWP

Rust-Proof Aluminum Grill
VM-3000 Series UL2572/864 Certified Audio Distribution System

TOA is proud to announce the arrival of the latest version of the VM-3000 system, a full range audio distribution system that meets UL emergency notification and life safety standards. The VM-3000 series is a cost-effective integrated public address and voice alarm system engineered with powerful digital signal processing (DSP). It is designed to fulfill the UL2572 Mass Notification and UL864 Fire/Voice Evacuation codes in the US as well as the EN 54 certification in Europe and CAN/ULC-S576 in Canada. The VM-3000 Series complies with the new NFPA 72 code governing Mass Notification Systems. It not only ensures voice alarm in an emergency but also high quality audio broadcasting. The compact design enables the system to fit best in small to medium sized applications such as schools, shopping centers, and corporate buildings.

KEY FEATURES
• The VM is designed around the same robust technology that has kept TOA a leader in reliability year after year.
• Broadcasts standard paging, background music and pre-recorded messages to up to 60 zones with the high quality, full range sound that TOA is known for around the world.
• Broadcasts Mass Notification pre-recorded and live announcements (certified UL2572 and CAN/ULC-S576) with full supervision and battery backup
• Broadcasts Fire/Voice alarms (pre-recorded temporal and voice announcements) and live announcements. When used with fire/voice certified (UL1480/UL2043) loudspeakers and a UL listed FACP, the system is certified UL864.
• In systems where both MNS and Fire/Voice are required, priority can be given to the FACP or the MNS system as required by local codes.

ADDITIONAL KEY FEATURES
• TOA high quality audio (50Hz - 20kHz)
• UL864 (Fire Voice) / UL2572 (MNS) / CAN UL S576 (MNS) certified system (when installed per the manufacturer’s instructions)
• Up to six non-emergency pre-recorded messages stored as .wav files
• Up to four emergency pre-recorded messages stored as .wav files
• Emergency alert tones for each emergency message customizable and stored as separate .wav files
• Comprehensive fault monitoring and reporting for all Emergency functions
• Speaker line fault monitoring and reporting per zone
• VM-3240VA capable of supporting 9 extension amplifiers (60 zones at 2009W)
• Assignable priorities for non-emergency signals (music/paging)
• Pages/pre-recorded messages may be programmed to override or be mixed with BGM
• Zoned non-emergency paging from RM-200MPS paging stations
• Programmed by free PC software; PC not required for operation
• Can be used with any UL certified addressable fire alarm panel
• Hardware lockout of LAN port for extra security

VM-3000 SERIES INTEGRATED VOICE EVACUATION SYSTEM LAYOUT

UL2572/864 Certified Audio Distribution System / VM-3000 Series
UL2572/864 Certified Audio Distribution System / VM-3000 Series

(a) Eighteen-Zone 600W Audio Distribution System with Fire Voice and MNS (UL2572/ UL864)**

(b) Eighteen-Zone 600W Audio Distribution System Only**

VM-3240VA System management amplifier
VM-3240E Extension amplifier
VM-3000SW Emergency power supply
VM-3000SW AM MNS Trigger
UL Listed FACP* Addressable Fire Alarm Panel
Terminal Cabinet* UL Listed Terminal Cabinet
NAC 1* Fire Shroud
NAC 2* MNS Shroud
TOA Speakers UL486/565R
RM-200XL, RM-210 Remote microphone + Extension Unit
VM Source 1* Background Music
VM Source 2* Background Music

*For illustrative purposes only consult operating manual for correct configuration

Specifications

VM-3240VA

<table>
<thead>
<tr>
<th>Specifications</th>
<th>VM-3240EA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Source</td>
<td>120V AC, 60Hz</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>600 W (at rated output), 260 W ( according to UL 60065), 63 W (at no signal)</td>
</tr>
<tr>
<td>Rated Output</td>
<td>240 W, 230V (according to UL 60065), 200 W, 220V (according to UL 864), 100 W (at no signal)</td>
</tr>
<tr>
<td>Frequency Response</td>
<td>50 Hz – 30 kHz, 40 kHz (at rated output), 800 Hz – 2.8 kHz (according to UL 2572 and UL 864), 400 Hz – 4 kHz (according to CAN/ULC S576)</td>
</tr>
<tr>
<td>Distortion</td>
<td>0.7% or less (at rated output)</td>
</tr>
<tr>
<td>SN Ratio</td>
<td>85 dB or more</td>
</tr>
<tr>
<td>Audio Input/Output Characteristics</td>
<td>Sampling frequency: 48 kHz</td>
</tr>
<tr>
<td></td>
<td>A/D D/A converter: 24 bit</td>
</tr>
<tr>
<td></td>
<td>Input: 1 – 8: –0.5dB to 0.5dB (-10 dB to 0.5dB) (changeable), 600Ω, electronically balanced, combined BUR connector (female) / phone jack</td>
</tr>
<tr>
<td></td>
<td>Input: 9 – 12: –0.5dB to 0.5dB (-10 dB to 0.5dB) (changeable), 600Ω, electronically balanced, removable terminal block (14 pins)</td>
</tr>
<tr>
<td></td>
<td>BGM 1 – 2: –10 dB, unbalanced, RCA jack pin output, External amplifier input: 70 V line, removable terminal block (14 pins)</td>
</tr>
<tr>
<td></td>
<td>BGM 3 – 8: –10 dB, unbalanced, RCA jack pin output, External amplifier input: 70 V line, removable terminal block (14 pins)</td>
</tr>
<tr>
<td></td>
<td>Local Input: –50 dB* (MIC) / –10 dB* (LINE) (changeable), 600Ω, electronically balanced, removable terminal block (14 pins)</td>
</tr>
<tr>
<td></td>
<td>External amplifier input: 70 V line, removable terminal block (4 pins)</td>
</tr>
<tr>
<td></td>
<td>Output: Connecting the VM-3240E, RJ45 female connector</td>
</tr>
<tr>
<td></td>
<td>Link cable: Connect the RM-300MFPS/200MPS Remote Microphone, RJ45 female connector</td>
</tr>
<tr>
<td></td>
<td>Maximum distance: Total 800 m (2624.67 ft) between this unit and remote microphone</td>
</tr>
<tr>
<td></td>
<td>VM Link: Connecting the VM-3240E, RJ45 female connector</td>
</tr>
<tr>
<td></td>
<td>Link cable: Category 5 Shielded Twisted-Pair straight cable (CAT5-STP)</td>
</tr>
<tr>
<td></td>
<td>Maximum distance: Total 800 m (2624.67 ft) between this unit and remote microphone</td>
</tr>
<tr>
<td></td>
<td>VM-3000SW AM MNS Trigger</td>
</tr>
<tr>
<td></td>
<td>Link cable: Shielded Category 5</td>
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<tr>
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<td>VM-3240VA System management amplifier</td>
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<td></td>
<td>VM-3240E Extension amplifier</td>
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<td></td>
<td>UL Listed FACP* Addressable Fire Alarm Panel</td>
</tr>
<tr>
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<td>Terminal Cabinet* UL Listed Terminal Cabinet</td>
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<tr>
<td></td>
<td>NAC 1* Fire Shroud</td>
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<tr>
<td></td>
<td>NAC 2* MNS Shroud</td>
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<td></td>
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<td>RM-200XL, RM-210 Remote microphone + Extension Unit</td>
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<td></td>
<td>VM Source 1* Background Music</td>
</tr>
<tr>
<td></td>
<td>VM Source 2* Background Music</td>
</tr>
<tr>
<td></td>
<td>*For illustrative purposes only consult operating manual for correct configuration</td>
</tr>
</tbody>
</table>

*Warning:
Always wear protective ear muff or ear plug.

*Note:
For illustrative purposes only consult operating manual for correct configuration.

**For illustrative purposes only consult operating manual for correct configuration.
The TOA D5000 Series provides unprecedented speech clarity for delivering a quality listening experience to audiences in any speaking scenario. Experience for yourself the clarity, ease and safety of this wireless solution, whether for the classroom, office meeting rooms, banquet halls, courthouses, etc.

**KEY FEATURES**

- TOA’s proprietary digital audio processing ensures optimal sound quality and intelligibility for speech applications
- Up to 32 simultaneous channels *Region dependent
- 15 compatible channels per 6 MHz, 20 compatible channels per 8 MHz TV channel
- Proprietary encryption settings to prevent data leakage
- Approx. 100 m operating range (line of sight)
- Dedicated maintenance software enables visual monitoring of any jam radio waves or changes to incoming radio waves
- Signal stability is assured using the digital diversity method
- Control of peripherals is possible using contact output

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**Digital Wireless Receiver WT-D5800**

- Frequency channel scan
- Feedback suppression
- Built-in optimized preset equalization in microphones
- Detectable antenna
- Audio mixing with cascading voice input connectivity
- Antenna mixing with cascading antenna connectivity

**Digital Handheld Transmitter WM-D5200**

- Lightweight body
- 1 AA alkaline battery provides up to 8 hours of continuous use
- Selectable microphones sensitivity
- Selectable transmission output (1 mW/10 mW) 3-step battery life indicator

**Beltpack Transmitter WM-D5300**

- Ultra slim and lightweight body
- 1 AA alkaline battery provides up to 8 hours of continuous use
- Selectable microphones sensitivity
- Selectable transmission output (1 mW/10 mW)
- 3-step battery life indicator

**System components**

- Lavalier Microphone YP-M5300
- Headworn Microphone WH-4000H
  - Unidirectional electret condenser microphone
  - Connector for ø3.5 mini-plug
- Headworn Microphone WH-4000A
  - Unidirectional electret condenser microphone

**Specifications**

**Digital Wireless Receiver WT-D5800**

- **Frequency Range**: 576 MHz to 606 MHz
- **Receiving Sensitivity**: 132 dB SPL (Sensitivity: L)
- **Receiving System**: Built-in type
- **Operating Temperature**: -10 °C to +50 °C
- **Battery**: AA Alkaline, AA rechargeable battery
- **Battery Life**: Approx. 10 hours

**Maintenance Software**

Maintenance Software, which supports setup and better operation of D5000 digital wireless system, is available on TOA DATA LIBRARY (www.toa-products.com/international/)

- Simultaneous status check of up to 16 receivers
- **Walk-Test** function allows you to check the antennas’ reception level in the entire room where the microphone is used
- **Channel Scan** displays unused frequency channels
- **Spectrum Scan** visualizes the level and frequency of undesired signals in the specified frequency range

---

**Digital Handheld Transmitter WM-D5200**

- Frequency channel scan
- Feedback suppression
- Built-in optimized preset equalization in microphones
- Detectable antenna
- Audio mixing with cascading voice input connectivity
- Antenna mixing with cascading antenna connectivity

**Digital Handheld Transmitter WM-D5300**

- Frequency channel scan
- Feedback suppression
- Built-in optimized preset equalization in microphones
- Detectable antenna
- Audio mixing with cascading voice input connectivity
- Antenna mixing with cascading antenna connectivity

**Specifications**

**Digital Handheld Transmitter WM-D5200**

- **Frequency Range**: 576 MHz to 606 MHz
- **Receiving Sensitivity**: 132 dB SPL (Sensitivity: L)
- **Receiving System**: Built-in type
- **Operating Temperature**: -10 °C to +50 °C
- **Battery**: AA Alkaline, AA rechargeable battery
- **Battery Life**: Approx. 10 hours

**Digital Handheld Transmitter WM-D5300**

- **Frequency Range**: 576 MHz to 606 MHz
- **Receiving Sensitivity**: 132 dB SPL (Sensitivity: L)
- **Receiving System**: Built-in type
- **Operating Temperature**: -10 °C to +50 °C
- **Battery**: AA Alkaline, AA rechargeable battery
- **Battery Life**: Approx. 10 hours

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- Simultaneous status check of up to 16 receivers
- **Walk-Test** function allows you to check the antennas’ reception level in the entire room where the microphone is used
- **Channel Scan** displays unused frequency channels
- **Spectrum Scan** visualizes the level and frequency of undesired signals in the specified frequency range

---

**Wall Mount Antenna YW-4500**

- **Frequency Range**: 576 MHz to 606 MHz
- **Receiving Sensitivity**: 132 dB SPL (Sensitivity: L)
- **Receiving System**: Built-in type
- **Operating Temperature**: -10 °C to +50 °C
- **Battery**: AA Alkaline, AA rechargeable battery
- **Battery Life**: Approx. 10 hours

---

**Antenna Distributor WD-5800**

- **Frequency Range**: 576 MHz to 606 MHz
- **Receiving Sensitivity**: 132 dB SPL (Sensitivity: L)
- **Receiving System**: Built-in type
- **Operating Temperature**: -10 °C to +50 °C
- **Battery**: AA Alkaline, AA rechargeable battery
- **Battery Life**: Approx. 10 hours

---

**System components**

- Lavalier Microphone YP-M5300
- Headworn Microphone WH-4000H
- Headworn Microphone WH-4000A
  - Unidirectional electret condenser microphone
  - Connector for ø3.5 mini-plug
  - Connector for ø5 mini-plug

---

**Maintenance Software**

Maintenance Software, which supports setup and better operation of D5000 digital wireless system, is available on TOA DATA LIBRARY (www.toa-products.com/international/)

- Simultaneous status check of up to 16 receivers
- **Walk-Test** function allows you to check the antennas’ reception level in the entire room where the microphone is used
- **Channel Scan** displays unused frequency channels
- **Spectrum Scan** visualizes the level and frequency of undesired signals in the specified frequency range
TRANTEC S4.04 Series 4-Channel Economy Wireless Solution

The S4.04 is Transtec’s simplest plug and play system, designed to launch you in to the world of wireless. It’s rugged and compact frame hold a reliable multifunctioning system that is optimized for use with a range of microphones from handheld, to lapels, to headsets, or alternatively can be used with a musical instrument.

KEY FEATURES
- Up to 4 simultaneous channels
- Fully synthesised PLL quartz tuning technology
- IR Sync - Infrared auto channel setup
- Approx. 100m operating range (line of sight)

S4.04 Series Economy Wireless Solution Kits
Dynamic Handheld Microphone Set
S4.04-HD = S4.04-RX + S4.04-HDX

Lavalier Microphone Set
S4.04-L = S4.04-RX + S4.04-LTX

TRANTEC S4.10 Series 16-Channel Economy Wireless System

The S4.10 Series is designed to make multi channel wireless as simple as possible. The system is encased in a sturdy yet compact metal frame. It can be used with a wide range of microphones, or musical instruments making it the perfect solution for amateur and semi professional musicians and theatre performers.

KEY FEATURES
- Up to 16 simultaneous channels (region dependent)
- Fully synthesised PLL quartz tuning technology
- IR Data Link
- Approx. 100m operating range (line of sight)
- Desktop or rack-mount option for receivers

S4.10 Series Economy Wireless Solution Kits
Dynamic Handheld Microphone Set
S4.10-HD = S4.10-RXA + S4.10-HDX

Lavalier Microphone Set
S4.10-L = S4.10-RXA + S4.10-LTX
TOA's 5000 Series high performance wireless microphone systems are now future-proofed with M band (506-538 MHz) for commercial use with professional features at a reasonable price. Condenser and dynamic handheld microphones are available, as are beltpack transmitter for use with headset or lavaliere microphones. Select transmitters are rechargeable (with TOA NiMH batteries) using optional battery chargers. See product catalog and website for details.

**Future-Proothing the 5000 Series Performance Wireless Solution**

On April 13, 2017, most of the 600MHz frequencies that had been available to wireless microphone manufacturers were auctioned off to, and repurposed for use by, other wireless services. The phased transition of these frequencies from sellers to buyers will occur between April 13, 2017 and July 13, 2020. To obtain the latest information available on which geographical areas are currently affected please reference [https://data.fcc.gov/download/incentive-auctions/Current_Transition_Files/](https://data.fcc.gov/download/incentive-auctions/Current_Transition_Files/)

If your area has transitioned, you must not operate wireless microphones on frequencies in the new 600MHz service band (614-698MHz). There are some exceptions in this service band. Please check the FCC website for information on acceptable use in the 600MHz band.

TOA 5000 series and Trantec 5.3 series wireless microphones can be ordered with “H” band frequencies (572-608MHz) to assure future compliance with FCC regulations. Additional “M” band frequencies (506-542MHz) are available for the 5000 series.

TOA has introduced two new wireless systems, the Trantec S4.04 and S4.10. These new Trantec wireless microphones operate in the “M” band frequencies (506MHz to 542MHz).

**Trantec Economy Wireless Solution / S4.10 & S4.04 Series**

### Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>S4.10-RX</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Carrier Power</td>
<td>10 mW</td>
</tr>
<tr>
<td>Audio Frequency Response</td>
<td>80 Hz -1.5 kHz</td>
</tr>
<tr>
<td>Audio Input Level</td>
<td>140 dBSPL (maximum)</td>
</tr>
<tr>
<td>Power Supply</td>
<td>1 AA size alkaline battery, 1.5 V</td>
</tr>
<tr>
<td>Battery Life</td>
<td>Approx. 10 hours</td>
</tr>
<tr>
<td>Finish</td>
<td>Resin, coating</td>
</tr>
<tr>
<td>Dimensions</td>
<td>250 x 55 mm / 9.8&quot; x 2.2&quot;</td>
</tr>
<tr>
<td>Weight</td>
<td>245g / 8.6oz (with battery)</td>
</tr>
</tbody>
</table>

### Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>S4.10-LTX</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Carrier Power</td>
<td>10 mW</td>
</tr>
<tr>
<td>Audio Frequency Response</td>
<td>50 Hz -1.5 kHz</td>
</tr>
<tr>
<td>Audio Input Level</td>
<td>-6 dBV (maximum), mic gain 0dB</td>
</tr>
<tr>
<td>Power Supply</td>
<td>1 AA size alkaline battery, 1.5 V</td>
</tr>
<tr>
<td>Battery Life</td>
<td>Approx. 10 hours</td>
</tr>
<tr>
<td>Finish</td>
<td>Resin, coating</td>
</tr>
<tr>
<td>Dimensions</td>
<td>250 x 55 mm / 9.8&quot; x 2.2&quot;</td>
</tr>
<tr>
<td>Weight</td>
<td>85g / 3oz (with battery)</td>
</tr>
</tbody>
</table>

### Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>S4.10-RXA</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Carrier Power</td>
<td>10 mW</td>
</tr>
<tr>
<td>Audio Frequency Response</td>
<td>50Hz - 1.5 kHz</td>
</tr>
<tr>
<td>Audio Output Level (Max.)</td>
<td>Balanced (XLR socket): -20dBu</td>
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<tr>
<td>Power Supply</td>
<td>11-18 VDC 300mA</td>
</tr>
<tr>
<td>Dimensions</td>
<td>215 (W) x 39 (H) x 102 (D) mm / 8.5&quot; x 1.5&quot; x 4&quot; (excluding antenna and BNC)</td>
</tr>
<tr>
<td>Weight</td>
<td>480g / 1.06lbs</td>
</tr>
</tbody>
</table>

### Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>S4.04-RX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversity Reception</td>
<td>Antenna Diversity</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>1mV at 45dB, S/N</td>
</tr>
<tr>
<td>Squelch</td>
<td>Tone SQ, Carrier SQ, Noise SQ</td>
</tr>
<tr>
<td>Audio Frequency Response</td>
<td>50Hz - 1.5 kHz</td>
</tr>
<tr>
<td>Audio Input Level</td>
<td>140 dBSP  (maximum)</td>
</tr>
<tr>
<td>Power Supply</td>
<td>1 AA size alkaline battery, 1.5 V</td>
</tr>
<tr>
<td>Battery Life</td>
<td>Approx. 10 hours</td>
</tr>
<tr>
<td>Finish</td>
<td>Resin, coating</td>
</tr>
<tr>
<td>Dimensions</td>
<td>250 x 55 mm / 9.8&quot; x 2.2&quot;</td>
</tr>
<tr>
<td>Weight</td>
<td>450g / 6.6oz (with battery)</td>
</tr>
</tbody>
</table>

### Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>S4.04-LTX</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Carrier Power</td>
<td>10 mW</td>
</tr>
<tr>
<td>Audio Frequency Response</td>
<td>50 Hz -1.5 kHz</td>
</tr>
<tr>
<td>Audio Input Level</td>
<td>-6 dBV (maximum), mic gain 0dB</td>
</tr>
<tr>
<td>Power Supply</td>
<td>1 AA size alkaline battery, 1.5 V</td>
</tr>
<tr>
<td>Battery Life</td>
<td>Approx. 10 hours</td>
</tr>
<tr>
<td>Finish</td>
<td>Resin, coating</td>
</tr>
<tr>
<td>Dimensions</td>
<td>250 x 55 mm / 9.8&quot; x 2.2&quot;</td>
</tr>
<tr>
<td>Weight</td>
<td>85g / 3oz (with battery)</td>
</tr>
</tbody>
</table>

**Future-Proothing the 5000 Series Performance Wireless Solution**

TOA’s 5000 Series high performance wireless microphone systems are now future-proofed with M band (506-538 MHz) for commercial use with professional features at a reasonable price. Condenser and dynamic handheld microphones are available, as are beltpack transmitter for use with headset or lavaliere microphones. Select transmitters are rechargeable (with TOA NiMH batteries) using optional battery chargers. See product catalog and website for details.

If your area has transitioned, you must not operate wireless microphones on frequencies in the new 600MHz service band (614-698MHz). There are some exceptions in this service band. Please check the FCC website for information on acceptable use in the 600MHz band.

TOA 5000 series and Trantec 5.3 series wireless microphones can be ordered with “H” band frequencies (572-608MHz) to assure future compliance with FCC regulations. Additional “M” band frequencies (506-542MHz) are available for the 5000 series.

TOA has introduced two new wireless systems, the Trantec S4.04 and S4.10. These new Trantec wireless microphones operate in the “M” band frequencies (506MHz to 542MHz).