MICROFLEX ADVANCE™

THE INVISIBLE AUDIO SOLUTION FOR AV CONFERENCING.
Introducing Microflex® Advance™ Networked Array Microphones: versatile and elegant AV conferencing solutions that discreetly and precisely capture the richness of the human voice.

Shure Microflex Advance array microphones feature market-unique, new technologies that fundamentally change voice coverage and capture in AV conferencing and collaboration environments.

Microflex Advance Ceiling Arrays provide configurable and invisible coverage from above, for rooms of any size, shape or application.

Microflex Advance Table Arrays provide versatile and adjustable coverage areas in elegant, low-profile tabletop solutions.

Both feature new Shure software tools that enable AV conference room designers to be more creative and conference managers to be more productive.
ARCHITECT & INTERIOR DESIGNER
Providing an “invisible” audio solution, Microflex Advance enables architects and interior designers to create visually stunning workspaces, without sacrificing sound quality. It gives clients the style they want and the audio quality they need.

SYSTEM DESIGNER & INTEGRATOR
Microflex Advance offers increased efficiency and unique application flexibility that let you deliver great AV solutions much faster. The power of proprietary Shure DSP Utilities and Dante make system design, installation, and configuration simple and straightforward.

WHO BENEFITS?

CEO
Teams work more effectively and produce better results when communication between their members is natural and effortless. Microflex Advance eliminates inefficient meetings caused by poor audio, and allows the team to focus on their work rather than spending time to make things work.

IT MANAGER & ADMINISTRATOR
Microflex Advance smoothly integrates into your existing IT infrastructure, without affecting network speed or performance. Scalable to any size, with central control capabilities, it makes AV/IT support more effective and less time consuming.

USER
Microflex Advance enables users to be more productive and creative - simply, to do their best work. It enhances communication by allowing everyone to hear, and be heard and understood clearly, while removing distractions and avoiding listener fatigue during collaboration sessions.

CFO & FINANCE TEAM
Microflex Advance is a cost-effective audio solution that can be deployed in a variety of applications, eliminating the need for separate audio equipment purchases for audio-only and video conferencing use. Backed by industry-leading service and proven reliability, it presents a future-proof investment.
ULTIMATE AV FLEXIBILITY

Ceiling Arrays use Steerable Coverage™ technology to position pick-up areas throughout a room with coverage more precise than shotgun microphones.

Configurable Coverage
Configure up to eight pick-up patterns in three dimensions and adjust them for uniform acoustic performance throughout the room. Each Ceiling Array lobe can be steered toward a participant using the Auto Configuration mode in the control software for quick audio setup and capture.

Flexible Networking
Mix, route and manage the signals from up to eight coverage areas as discrete channels on a Dante network over a single Ethernet cable. An individual automix channel provides added flexibility.

Workflow Efficiency
The microphone includes multiple templates to speed initial set-up and ten presets for importing or exporting array configurations.

Digital Signal Processing
Microflex Advance Ceiling Arrays feature proprietary Shure DSP Utilities for precise coverage settings, automatic mixing and equalization, and echo reduction.

Application Profile
A Ceiling Array is ideal for formal boardrooms where no visible microphones on the work surface is the preference. This microphone is configured to capture seven discrete listening areas with coverage for an 11-seat meeting. Under average room conditions, at a height of approx. 3 meters with seated talkers, the recommended coverage diameter is approx. 9 meters.
AGILE TABLETOP PERFORMANCE

Table Array microphones use Steerable Coverage™ technology to capture pristine audio around conference tables of different sizes, shapes and uses.

Configurable Coverage
Set the coverage geometry for up to four areas in 15° increments, and specify the polar pattern for each configuration including cardioid, supercardioid, hypercardioid, omnidirectional, bidirectional and a new, market-unique toroid pattern.

Flexible Networking
Mix, route and manage the signals from up to four coverage areas as discrete channels on a Dante network over a single Ethernet cable. An individual automix channel provides added flexibility.

Mute Controls
Program the touch-sensitive mute button for toggle, push-to-mute, push-to-talk or disable settings to send controls to external devices.

LED Displays
The configurable multi-colored LED light ring shows the mute status of the microphone in use and displays lighted segments to confirm coverage areas and automix settings.

Application Profile
Table Arrays are ideal for meeting rooms where the number of attendees varies and an uncluttered table is preferred.

This microphone captures six meeting participants in three discrete listening areas with two cardioid patterns and one bidirectional pick-up pattern.

Coverage Map
- 3 Round Tables
- 2 Cardioid Patterns
- 1 Bidirectional Pattern

Color LED Choices
Specify one of 8 LED colors to communicate microphone mute status, room security levels or other conditions.

Exclusive Toroid Pattern
Optimizes the voices of seated or standing participants by rejecting overhead noise from projectors or other sources.
SIMPLY SMARTER SOLUTIONS

Both arrays include proprietary Shure DSP Utilities that optimize voice quality by reducing room noise and improving speech intelligibility.

Steerable Coverage™
Configure and control incredibly accurate polar patterns that capture participants in any location of a meeting space. Preconfigured templates in the control software simplify setup.

Echo Reduction (Ceiling Array only)
Employs a simple way of reducing acoustic echo by preventing far end talkers from activating local microphone channels. Very effective as a front end to codecs with single channel AEC.

Automatic Mixing
Increases clarity and reduces noise. This yields improved audio quality, intelligibility, and seamless interaction between conference sites.

Parametric Equalization (PEQ)
Each Ceiling Array channel features a 4-band PEQ for the precise control of sound, while Table Arrays feature a 4-band PEQ that is assignable to any channel including the Automatic Mixer output channel.

Browser-Based Tools
Both arrays feature browser-based tools that make it easy to remotely monitor and control microphones, configure capture areas using convenient templates, set polar pattern preferences and specify mixing and routing preferences.

Rich Third-Party Controls
Both microphones work seamlessly with audio conferencing processors, video conferencing codecs, and PC-based conferencing solutions. They also offer an extensive API (Application Program Interface) for versatile integration and control of muting, presets, LED states, and other settings via third-party control systems.
APPLICATION FLEXIBILITY

Match single or multiple arrays to the AV conferencing needs of rooms of any size, configuration or activity: formal presentations, intimate discussions, distance learning or collaborative work.

Table Array Coverage Maps

- **Small Round Table**
  - Profile: 1 Round Table 6 Chairs
  - Setup: 1 Table Array 1 Bidirectional Pattern 2 Cardioid Patterns

- **Medium Round Table**
  - Profile: 1 Round Table 9 Chairs
  - Setup: 1 Table Array 1 Toroid Pattern

- **Square Table**
  - Profile: 1 Square Table 8 Chairs
  - Setup: 1 Table Array 4 Supercardioid Patterns

- **Rectangular Table**
  - Profile: 1 Rectangular Table 5 Chairs
  - Setup: 1 Table Array 1 Supercardioid Pattern 2 Cardioid Patterns

- **Large Conference Room**
  - Profile: 1 Rectangular Table 28 Chairs
  - Setup: 2 Ceiling Arrays 14 Coverage Areas

- **Medium Conference Room**
  - Profile: 1 Rectangular Table 14 Chairs
  - Setup: 1 Ceiling Array 8 Coverage Areas

- **Multi-Purpose Room | Conference Setup**
  - Profile: 3 Rectangular Tables 21 Chairs
  - Setup: 1 Ceiling Array 8 Coverage Areas

- **Multi-Purpose Room | Classroom Setup**
  - Profile: 4 Rectangular Tables 16 Chairs
  - Setup: 1 Ceiling Array 7 Coverage Areas

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**Designer System Configuration Software**

- Create projects with multiple “virtual” MXA910 Ceiling Arrays on top of an imported room layout diagram.
- Identify how many MXA910s are needed for a given room or floor and see their lobes in relation to each other.
- Pickup lobes and other settings for each MXA910 can be configured and saved on the user’s computer, without being connected to any MXA910 hardware.
- Settings can be exported as device preset files, and later imported into each MXA910 via its user interface.
- Requires Windows 7 or higher.

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**Coverage Capabilities**

- Installed at a height of 3 meters (10 feet), Ceiling Arrays capture audio from seated participants to a recommended area of 9 meters (30 feet) in diameter, meeting the STIPA “A” intelligibility rating.
- Pickup lobes and other settings for each MXA910 can be configured and saved on the user’s computer, without being connected to any MXA910 hardware.
- Settings can be exported as device preset files, and later imported into each MXA910 via its user interface.
- Requires Windows 7 or higher.
Shure Networked Audio Processors and Interfaces seamlessly integrate with Microflex Advance and enhance collaboration by offering a complete, high-quality audio conferencing solution and the most intelligible meeting sound.

Audio Performance
Enhanced meeting room audio for natural communication and better interaction in AV conferences with remote team members.

Connectivity
Connect how you want, with options for Dante devices, analog room conference systems, PC-based soft codecs via USB, or mobile devices.

Simplicity
Pre-defined templates for system configuration reduce programming time, and allow installation within seconds.

Compact & Quiet Design
Silent and small-size form factor allows fast and discreet installation behind a TV screen or under the table, without any audible fan noise.

Perfectly Paired Conferencing Audio
The new IntelliMix P300 Audio Conferencing Processor was developed to seamlessly integrate with MXA910 Ceiling Array and the MXA310 Table Array Microphones. Working in perfect synergy, the P300 processor and Microflex Advance microphones deliver a hassle-free, cost-effective conferencing audio system. The P300 offers pre-defined templates that enable set up literally in seconds, and an unobtrusive form factor for discreet installations. Versatile features and connectivity options provide freedom of choice when joining a room video system, soft codec, or connecting laptops and mobile devices.
**INSTALLATION SOLUTIONS**

**MXA910 Ceiling Array Microphones** are designed for suspension, pole and flush mounting in metric or imperial formats.

- **Integrated Vibration Isolation** Prevents transmission of mechanical noise through the microphone.
- **Plenum-Rated** UL 2043 suitable for air handling spaces and plenum compliant when used with supplied Fyre Wrap® accessory.
- **Available Ceiling Adapters & Accessories**
  - A910-25MM Ceiling Array Adapter Configures a 600 mm Ceiling Array for a 625 mm grid.
  - A910-JR Junction Box Adapter Allows the Ethernet cable connected to the Array to be installed inside flex conduit.
  - A910-HCM Hard Ceiling Mount Accessory Allows flush-mount installation in a drywall or hard ceiling. Mount can be pre-installed in the ceiling and MXA910 installed later using the access door. Provides knockouts for conduit connections.

Audio Network Interfaces are 1/3 rack mountable and can also be mounted under-the-table or on a wall.

**Expressive Finishes**

Ceiling and Table Array microphones are available in black, white and aluminum finishes to match room aesthetics or the finishes of other AV system components. Ceiling Array microphones can also be painted.
SHURE NETWORKED SYSTEMS

Wired or wireless, analog or digital, Shure components work together as an ecosystem of enterprise-scale microphone solutions for managed AV conferencing environments.

**Microflex® Advance™ | MXA**

Microflex Advance Array Microphones offer a versatile and elegant AV conferencing solution that allows to accurately capture sound sources from any location in a meeting room, while utilizing Dante™ audio for digital networked setup and control.

**Networkable Microphones**
- Ceiling Array Microphone | MXA910
- Table Array Microphone | MXA310

**Microflex® Wireless | MXW**

Microflex Wireless brings vivid, lifelike sound and wireless flexibility to managed AV environments. Easy to configure and expand, the system scales from custom boardrooms to networked enterprises.

**Networkable System Components**
- Networked Charging Stations | MXWNC52, MXWNC54, MXWNC58
- 2-, 4- and 8-Channel Access Points: Ferrite | MXWAPT2, MXWAPT4, MXWAPT8
- 4- and 8-Channel Audio Network Interfaces | MXWANI4, MXWANI8

**Microphone Form Factors**
- Hybrid Bodypack Transmitter | MXW1
- Handheld Transmitter | MXW2
- Boundary Transmitter | MXW6
- Gooseneck Base Transmitter | MXW8

**Connectivity**
- Dante
- PoE

**Microflex® | MX**

Microflex wired microphones deliver the highest standard of quality and efficiency, with ANI Audio Network Interfaces allowing to bring the microphones onto a Dante network.

**Network Compatible Microphones (via ANI)**
- Multi-Element Boundary Microphone | MX396
- Low Profile Boundary Microphone | MX395
- Modular Gooseneck Microphone | MX405 / MX410

**Connectivity**
- XLR
- Block

**Audio Network Interfaces | ANI**

The ANI Audio Network Interfaces provide simple connection of Dante and analog microphones, for seamless integration into existing AV/IT infrastructures.

**Features**
- ANI22: Connects up to 2 mic/line analog signals to a Dante Network + 2 Dante digital audio signals to mic/line analog signals
- ANI4IN: Connects up to 4 mic/line analog signals to a Dante Network
- ANI4OUT: Converts up to 4 Dante digital audio signals to mic/line analog signals
- Available with Block and XLR connectors

**Audio Network Interfaces | MXWANI4 & MXWANI8**

4- and 8-Channel Audio Network Interfaces convert Dante microphone systems to analog for connection to downstream devices.

**IntelliMix® Digital Automatic Mixer | SCM820**

The innovative 8-channel microphone mixer provides advanced IntelliMix® automatic mixing capabilities along with Dante connectivity and versatile configuration options.
Microflex Advance Specifications (Note: All specifications subject to change.)

<table>
<thead>
<tr>
<th>Model</th>
<th>Ceiling Array Microphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beam Width</td>
<td>All specifications measured from narrow beam width. Values for all widths are within ± 3 dB of these specifications unless otherwise noted.</td>
</tr>
<tr>
<td>/ Polar Pattern</td>
<td>Polar Pattern - All channels independently adjustable</td>
</tr>
<tr>
<td>Connector Type</td>
<td>RJ45</td>
</tr>
<tr>
<td>Power Requirements</td>
<td>Power over Ethernet (PoE), Class 0</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>9W, maximum</td>
</tr>
<tr>
<td>Weight</td>
<td>4.26 kg (9.4 lbs)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>MXA910xx: 603.8 x 603.8 mm (23.7 x 23.7 in.)</td>
</tr>
<tr>
<td></td>
<td>MXA910xx-60CM: 593.8 x 593.8 mm (23.6 x 23.6 in.)</td>
</tr>
<tr>
<td></td>
<td>A910-25MM: 619.7 x 619.7 mm (24.4 x 24.4 in.)</td>
</tr>
<tr>
<td>Control Plenum Rating</td>
<td>Requires Fyrewrap® fire protective wrap system (Included)</td>
</tr>
<tr>
<td>Dust Protection</td>
<td>IEC 60659 IP5X Dust Protected</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-6.7°C (20°F) to 40°C (104°F)</td>
</tr>
<tr>
<td>Storage Temperature Range</td>
<td>-29°C (-20°F) to 74°C (160°F)</td>
</tr>
</tbody>
</table>

**NETWORKING**

| Cable Requirements | Cat 5e or higher (shielded cable recommended)                                             |

**AUDIO**

| Frequency Response | 180 to 17,000 Hz                                                                           |
| Dante Digital Output | Channel Count: 9 total channels (8 independent, 1 IntelliMix Automatic mixing transmit channel) |
| Sample Rate: 48kHz | Bit Depth: 24                                                                             |
| Sensitivity        | at 1 kHz, -15 dB Gain Setting                                                             |
| Max SPL            | Ref. 94 dB SPL at 1 kHz, 21 dB SPL                                                        |
| Latency            | Not including Dante latency                                                               |
| Self Noise         | 11 dB SPL-A, -15 dB Gain Setting                                                         |
| Dynamic Range      | 82.25 dB, -15 dB Gain Setting, 96 dB SPL-A                                                |
| Built-In Digital Signal Processing | Per Channel: Equalizer (4-band Parametric), Mute, Gain, Echo Reduction |
| Intelligibility Scale | Equivalent acoustic performance, compared to a cardioid gooseneck microphone (environment dependent) |

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