



# MICROFLEX™ ADVANCE™

## MXA310 Table Array Microphone

The Microflex Advance Table Array is a premium networked array microphone ideal for AV Conferencing applications requiring pristine audio and low profile appearance. Proprietary Steerable Coverage™ technology deploys highly flexible coverage zones for best-in-class audio capture 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 market-unique, new toroid pattern.



Available in white, aluminum, and black finishes

### Flexible Networking

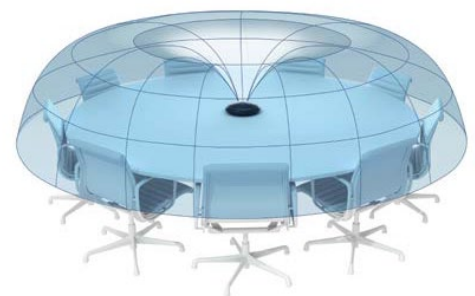
Mix, route and manage the signals from the individual coverage areas as discrete channels on a Dante network over a single Ethernet cable. A separate automix channel provides added flexibility.

### Mute Control

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

### Multi-Color LED Displays

Specify one of eight LED colors, displayed as lighted segments or full light ring, to communicate microphone mute status, coverage areas, automix settings or other conditions.



Exclusive **toroid pattern** optimizes the voices of seated or standing meeting participants by rejecting overhead noise from HVAC, projectors and other sources.

## Table Array Coverage Examples

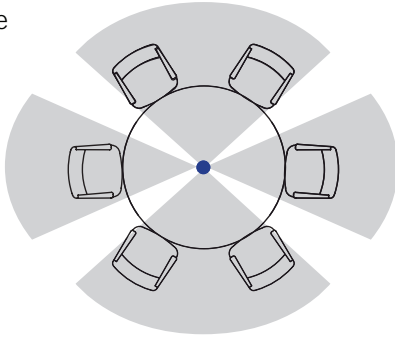
### Round Work Surface

*Profile*

1 Round Table  
6 Chairs

*Setup*

1 Table Array  
**2 Cardioid Pattern**  
**1 Bidirectional Pattern**



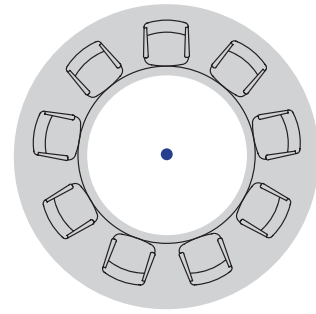
### Round Work Surface

*Profile*

1 Round Table  
9 Chairs

*Setup*

1 Table Array  
**1 Toroid Pattern**



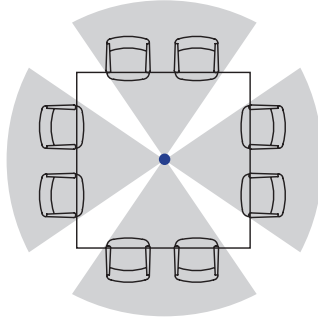
### Square Work Surface

*Profile*

1 Square Table  
8 Chairs

*Setup*

1 Table Array  
**4 Supercardioid Patterns**



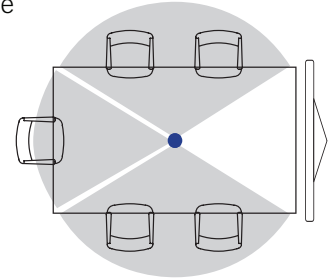
### Rectangle Work Surface

*Profile*

1 Rectangular Table  
5 Chairs

*Setup*

1 Table Array  
**1 Supercardioid Pattern**  
**2 Cardioid Pattern**



All specifications measured from cardioid polar pattern. Values for all patterns are within ± 3 dB of these specifications unless otherwise noted.

### Polar Pattern

All channels independently adjustable

Cardioid, Hypercardioid, Supercardioid, Toroid, Omnidirectional, Bidirectional

### Connector Type

RJ45

### Power Requirements

Power over Ethernet (PoE), Class 0

### Power Consumption

4W, maximum

### Weight

362 g (0.8 lbs)

### Dimensions

H x W x D

3.6 x 13.4 x 13.4 cm (1.4 x 5.3 x 5.3 in.)

### Control Application

HTML5 Browser-based

### Operating Temperature Range

-6.7°C (20°F) to 40°C (104°F)

### Storage Temperature Range

-29°C (-20°F) to 74°C (165°F)

## Audio

### Frequency Response

100 to 20,000 Hz

### Dante Digital Output

Channel Count	5 total channels (4 independent transmit channels, 1 IntelliMix® Automatic mixing transmit channel)
Sampling Rate	48 kHz
Bit Depth	24

### Sensitivity

at 1 kHz, -15 dB Gain Setting

-21 dBFS/Pa

### Maximum SPL

1 kHz at 1% THD, -15 dB Gain Setting

115.2 dB SPL

### Signal-To-Noise Ratio

Ref. 94 dB SPL at 1 kHz, -15 dB Gain Setting

Cardioid	75 dB
Toroid	67 dB

### Latency

Not including Dante latency

<1 ms

### Self Noise

-15 dB Gain Setting

Cardioid	19.2 dB SPL-A
Toroid	26.8 dB SPL-A

### Dynamic Range

-15 dB Gain Setting

Cardioid	96 dB
Toroid	90 dB SPL

### Built-in Digital Signal Processing

Per Channel	Equalizer (4-band Parametric) [2], Mute, Gain (140 dB range)
System	IntelliMix Automatic mixing, Low-Cut Filter (-12 dB/octave @150 Hz)

[1] 1 Pa=94 dB SPL

[2] Assignable to one channel at a time

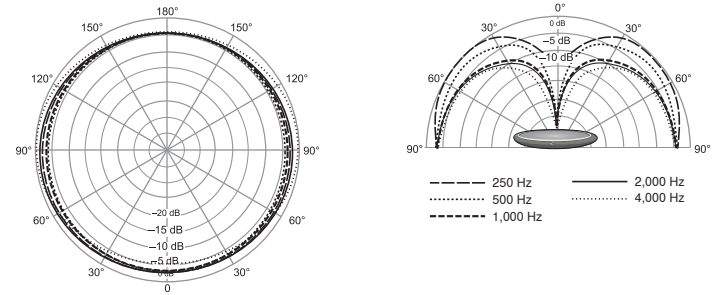
## Networking

### Cable Requirements

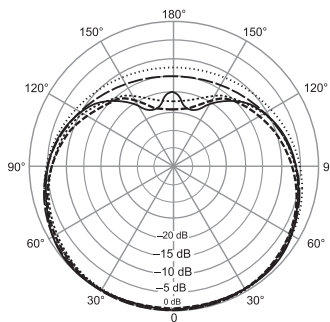
Cat 5e or higher (shielded cable recommended)

## Polar Response

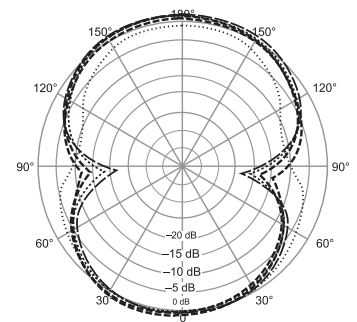
### Toroid



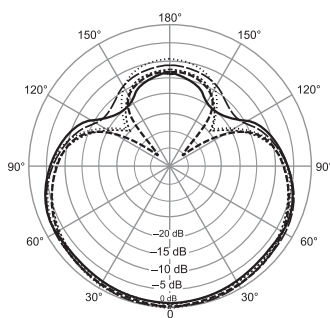
### Cardioid



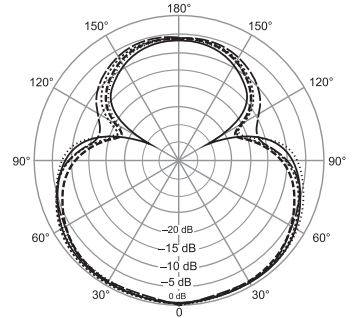
### Bidirectional



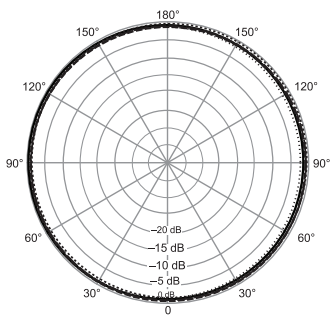
### Supercardioid



### Hypercardioid



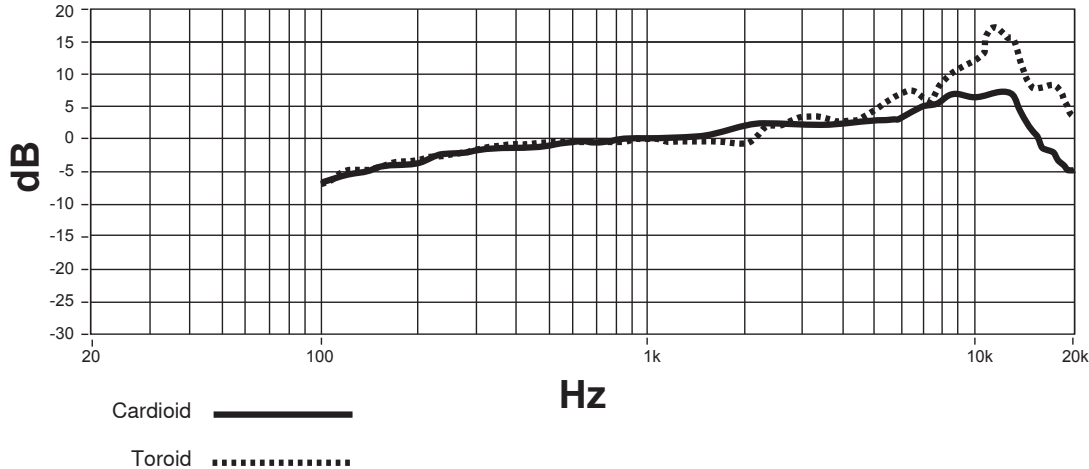
### Omnidirectional



--- 250 Hz      — 2,000 Hz  
 ..... 500 Hz      ..... 4,000 Hz  
 - - - - 1,000 Hz

# Frequency Response

Frequency response measured from a distance of 2 feet (61 cm).



# IP Ports and Protocols

## Shure Control

Port	TCP/UDP	Protocol	Description	Factory Default
21	tcp	FTP	Required for firmware updates (otherwise closed)	Closed
22	tcp	SSH	Not supported	Closed
23	tcp	Telnet	Standard console interface	Closed
68	udp	DHCP	Dynamic Host Configuration Protocol	Open
80*	tcp	HTTP	Required to launch embedded web server	Open
427	tcp/udp	SLP <sup>†</sup>	Required for inter-device communication	Open
443	tcp	HTTPS	Not supported	Closed
161	tcp	SNMP	Not supported	Closed
162	tcp	SNMP	Not supported	Closed
843*	tcp	Flash	Required for web application	Open
2202	tcp	ASCII	Required for 3rd party control strings	Open
5353	udp	mDNS <sup>†</sup>	Required for device discovery	Open
5568	udp	SDT <sup>†</sup>	Required for inter-device communication	Open
8023	tcp	Telnet	Debug console interface	Password
8180*	tcp	Flash	Required for web web application	Open
8181*	tcp	Flash	Required for web web application	Open
8427	udp	Multicast SLP <sup>†</sup>	Required for inter-device communication	Open
64000	tcp	Telnet	Required for Shure firmware update	Open

## Dante Audio & Controller

Port	TCP/UDP	Protocol	Description
162	udp	SNMP	Used by Dante
[319-320]*	udp	PTP <sup>†</sup>	Dante clocking
4321, 14336-14600	udp	Dante	Dante audio
[4440, 4444, 4455]*	udp	Dante	Dante audio routing
5353	udp	mDNS <sup>†</sup>	Used by Dante
[8700-8706, 8800]*	udp	Dante	Dante Control and Monitoring
8751	udp	Dante	Dante Controller
16000-65536	udp	Dante	Used by Dante

\*These ports must be open on the PC or control system to access the device through a firewall.

†These protocols require multicast. Ensure multicast has been correctly configured for your network.

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