

Microflex[®] Advance[™] Ceiling Array Microphone Specifications





All specifications measured from narrow beam width. Values for all widths are within \pm 3 dB of these specifications unless otherwise noted.

Beam Width

Adjustable	Narrow	35 degrees
	Medium	45 degrees
	Wide	55 degrees

Connector Type

RJ45

Power Requirements

Power over Ethernet (PoE), Class 0

4.26 kg (0.4 lbg)

Power Consumption

9W, maximum

Weight MXA910

1417-01-10	4.20 kg (0.4 lbb)			
Product Dimensions				
MXA910xx		603.8 x 603.8 mm (23.77 x 23.77 in.)		
MXA910xx-60	CM	593.8 x 593.8 mm (23.38 x 23.38 in.)		

619.7 x 619.7 mm (24.4 x 24.4 in.)

A910-25MM control application

HTML5 Browser-based

Plenum Rating

Requires Fyrewrap® fire protective wrap system (Included)

UL2043 (Suitable for Air Handling Spaces)

Dust Protection

IEC 60529 IP5X Dust Protected

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

180 to 17,000 Hz

AES67 or Dante Digital Output

Channel Count	10 total channels (8 independent transmit channels, 1 Automatic mixing transmit channel, 1 echo reduction receive channel)		
Sampling Rate	48 kHz		
Bit Depth	24		

Sensitivity

at 1 kHz

0.75 dBFS/Pa

Maximum SPL

Relative to 0 dBFS overload

93.25 dB SPL

Signal-To-Noise Ratio

Ref. 94 dB SPL at 1 kHz

83 dB A-weighted

Latency

Not including Dante latency

6 ms

Self Noise

11 dB SPL-A

Dynamic Range

82.25 dB

Built-in Digital Signal Processing

MXA910	Automatic mixing, Echo Reduction, Equalizer (4-band Parametric), Mute, Gain
	(140 dB range)

Intelligibility Scale

Equivalent acoustic performance, compared to a cardioid gooseneck microphone (environment dependent)

Cardioid distance multiplied by 1.6

Networking

Cable Requirements

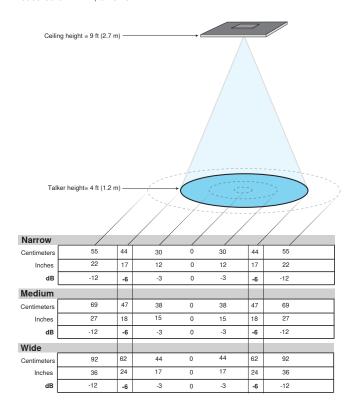
Cat 5e or higher (shielded cable recommended)

Lobe Sensitivity

The edge of the blue coverage area for each channel in the web application represents where the sensitivity reaches -6 dB. Understanding how lobe sensitivity is displayed helps to:

- Provide complete coverage in a space, either by adding lobes or changing the lobe width. This
 ensures the sensitivity is within 6 dB in all areas. It is acceptable for lobes to slightly overlap.
- Ensure that spacing and isolation are adequate to reduce noise and maximize automatic mixing performance.

Measured at 1 kHz, on-axis

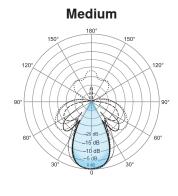


Polar Response

Polar response measured directly on-axis from a distance of 6 feet (1.83 m).

Wide

150°
150°
150°
150°
150°
120°
90°
60°
-15 dB
-10 dB
-30°
60°
-30 dB
-30°

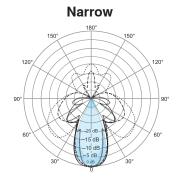


2,500 Hz

-- 4,000 Hz

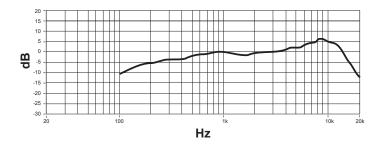
----- 1,000 Hz

----- 1,500 Hz



Frequency Response

Frequency response measured directly on-axis from a distance of 6 feet (1.83 m).



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†	Required for inter-device communication	Open
443	tcp	HTTPS	Not supported Closed	
161	tcp	SNMP	Not supported Closed	
162	tcp	SNMP	Not supported Closed	
2202	tcp	ASCII	Required for 3rd party control strings	Open
5353	udp	mDNS [†]	Required for device discovery	Open
5568	udp	SDT [†]	SDT [†] Required for inter-device communication Open	
8023	tcp	Telnet	Debug console interface Pa	
8180*	tcp	HTML	Required for web application Open	
8427	udp	Multcast SLP†	Required for inter-device communication Open	
64000	tcp	Telnet	Required for Shure firmware update Ope	

Dante Audio & Controller

Port	TCP/UDP	Protocol	Description
162	udp	SNMP	Used by Dante
[319-320]*	udp	PTP [†]	Dante clocking
2203	udp	Custom	Required for packet bridge
4321, 14336-14600	udp	Dante	Dante audio
[4440, 4444, 4455]*	udp	Dante	Dante audio routing
5353	udp	mDNS [†]	Used by Dante
[8700-8706, 8800]*	udp	Dante	Dante Control and Monitoring
8751	udp	Dante	Dante Controller
16000-65536	udp	Dante	Used by Dante

 $^{^{\}star}$ These ports must be open on the PC or control system to access the device through a firewall.

 $^{^{\}dagger}$ These protocols require multicast. Ensure multicast has been correctly configured for your network.