

SONY

Beamforming Microphone

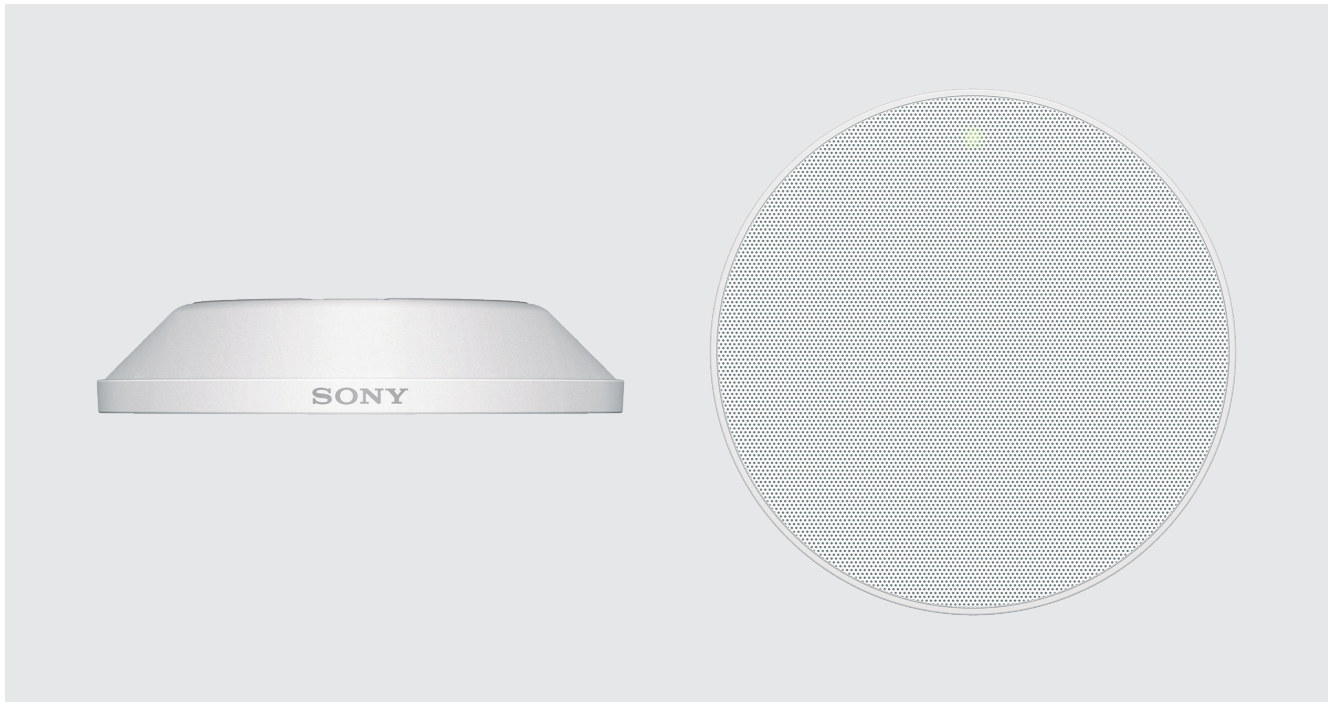
MAS-A100



MAS-A100 Beamforming Microphone A hands-free lecture and presentation solution

Introducing Sony's beamforming ceiling microphone with advanced speech reinforcement and audio recording technologies – enabling truly hands-free lectures and presentations.





Hands-free ceiling beamforming microphone with speech reinforcement capability

The MAS-A100 is a state-of-the-art speech reinforcement* and recording solution. Attaching and positioning lavalier microphones is time-consuming, and handheld microphones restrict movement. Sony's Beamforming microphone easily affixes to the ceiling leaving the orator location-free, hassle-free and hands-free to focus on presenting.

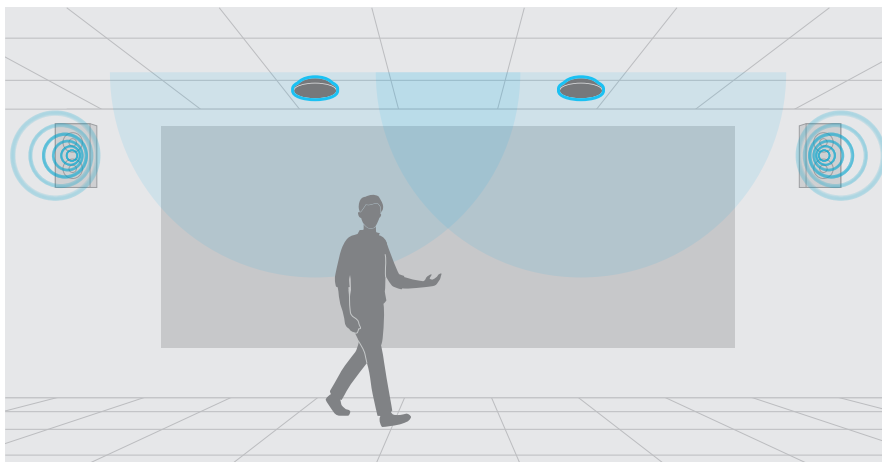
*Loud speaker system is required for speech reinforcement

Dedicated channels for speech reinforcement and recording

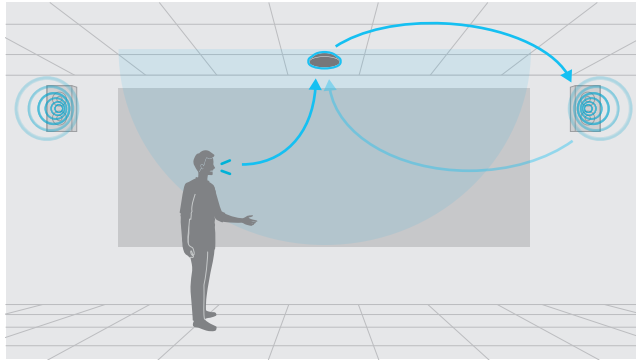
Our comprehensive solution employs audio volume stabilization and clear audio processing to produce sharp recordings. The MAS-A100 has two channel outputs. The dual output channel enables simultaneous speech reinforcement and recording. The dedicated rec channel can capture and record over to a wide range at optimal intelligibility - perfect for lecture capture.

Simple installation and management

Supporting Dante® and PoE, MAS-A100 links with third-party systems via a single cable connection. Auto-calibration streamlines system configuration, and settings can easily be adjusted via the network using Sony's free MASM-1 management software. With simple settings, central management and no need to monitor battery use, the MAS-A100 is a convenient classroom audio solution.

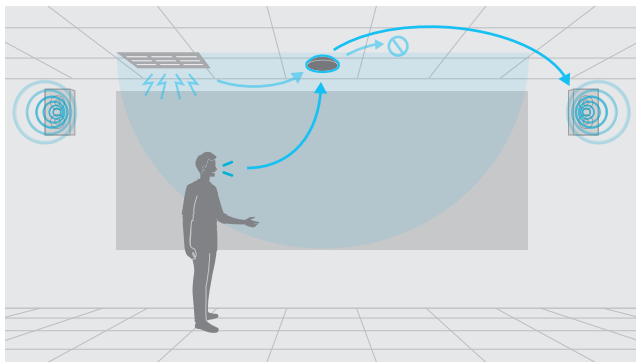


The MAS-A100 Beamforming Microphone features a range of unique Sony's technologies which work together to create the ultimate hands-free lecture and presentation solution.



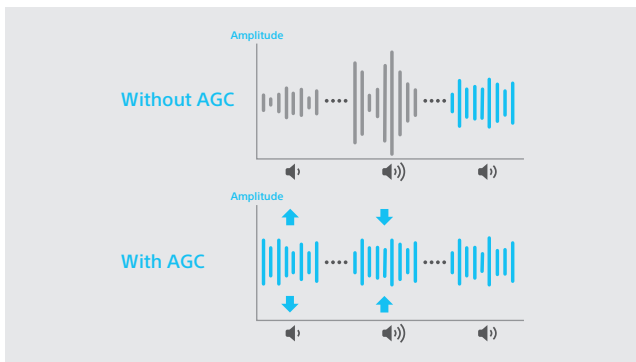
Beamforming and Intelligent Feedback Reducer

The integration of beamforming technology and our market-leading Intelligent Feedback Reducer produces clear audio with hands-free speech reinforcement, leaving the presenter hands-free. Sony's high-performance digital signal processing and unique algorithms extract speech sound while suppressing unwanted feedback (howling).



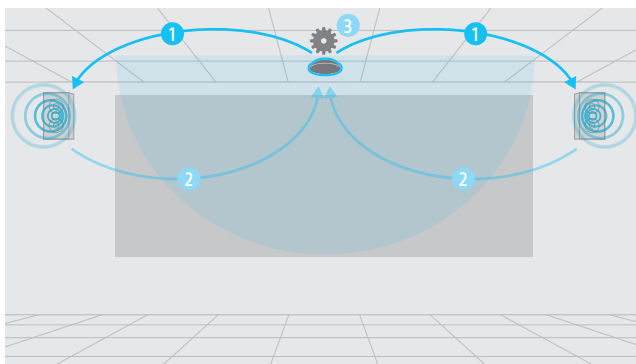
Noise reduction

Our Beamforming Microphone incorporates advanced noise reduction technologies to minimize ambient noise. Stationary background noise arising from projectors and air conditioning are automatically detected and reduced to achieve clear sound resulting in better intelligibility and, ultimately, better understanding for listeners.



Automatic gain control

The MAS-A100 has a useful built-in volume normalization feature to maintain stable volume regardless of the distance between the presenter and the microphone, leaving the presenter free to move around the space without the audio quality deteriorating. Automatic gain control adjusts the strength of the signal received to ensure clear and consistent sound for easy listening.

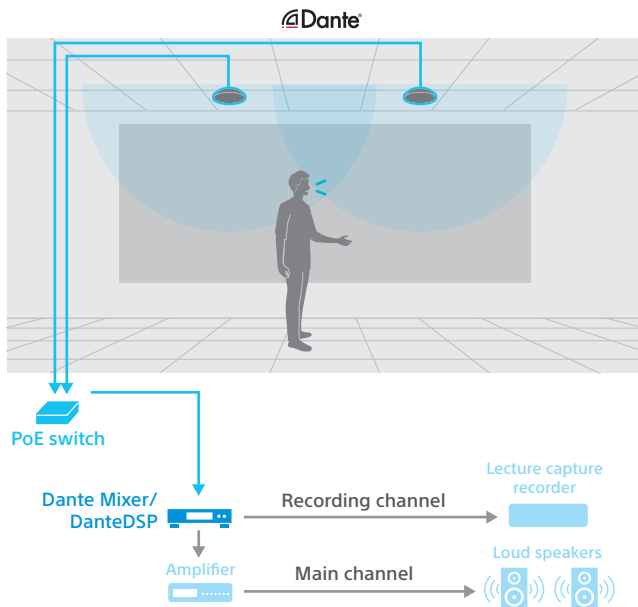


Automatic calibration

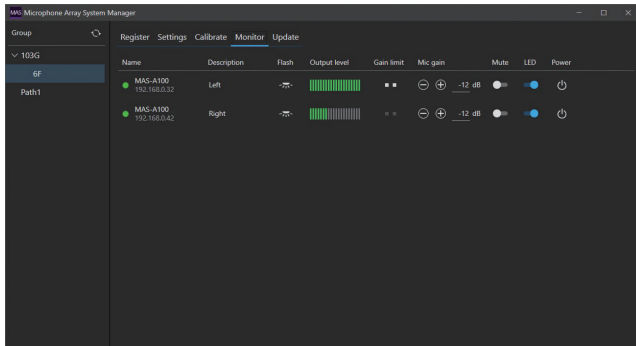
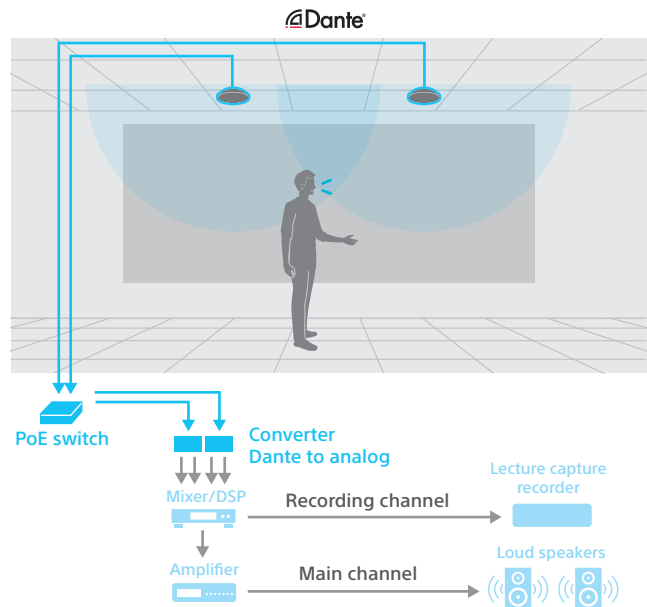
The Beamforming Microphone optimizes the parameters of audio processing for speech reinforcement automatically. The microphone generates a test signal, which is captured by the loud speakers. The system then calculates and configures the parameters for speech reinforcement. This calibration is required only on initial installation, minimizing time-consuming set-up and system maintenance.

1. Generate test signal
2. Capture test signal from loud speakers
3. Calculate and configure optimal parameters for speech reinforcement

Connect to Dante audio system



Connect to Analog audio system



Microphone Array System Manager (free download)

Our comprehensive solution includes Sony's free Microphone Array System Manager software (MASM-1). The software supports installation and configuration of initial settings, as well as monitoring, operations and firmware management. The MASM-1 is a total management solution, enabling users to manage multiple microphones in various locations centrally and easily via the local network.

Additional features

Dante and PoE compatibility

The MAS-A100 is compatible with third-party Dante mixers, converters and other devices, as well as power over ethernet (PoE). There's no complicated wiring – a single cable can connect the microphone to the system.

Status LED

The microphone has a built-in status LED, enabling both instructor and operator to easily recognize the microphone status.

API

Our Beamforming Microphone can be operated by API, permitting simple external control and customization as well as linking with existing systems.

Specifications

Networking	
Cable requirements	Cat5e UTP or higher
Audio	
Frequency response	100-10,000 Hz *
Sensitivity	0 dBFS/Pa at 1 kHz *
Maximum SPL	94 dBSPL
Signal to noise ratio	75 dB (A-weighted, 1 kHz, 1 Pa) *
Latency	Under 24 ms (Not including Dante latency)
Self noise	19 dBSPL (A-weighted) *
Dynamic range	75 dB *
Dante digital output	
Channel count	2 channels (Main, Rec) with Dante
Sampling rate	48 kHz
Bit depth	24
Audio interface	Dante, AES67
Digital Signal Processing	
Audio technologies	
	Beamforming
	Feedback reducer
	Automatic gain control
	Noise reduction
	Noise gate
	Automatic calibration with test signal
	Equalizer
	API for external control system
Performance	
Maximum noise reduction	24 dB
Maximum feedback reduction	32 dB
Configuration	
Mic gain (output volume)	-60 dB ~ +12 dB
Capture range	narrow/standard/wide
Feedback reduction	low/middle/high
Noise reduction	low/middle/high
Noise gate	off/low/middle/high
Equalizer	Fixed 5-band, ±12 dB (1 dB Step)
General	
Connector type	RJ45
Power requirements	Power over Ethernet (PoE), Class 0
Power consumption	13 W, maximum 9 W@25°C, typical
Weight	Approx. 2 lb 3.2 oz (1 kg) (main unit only) Approx. 2 lb 14 oz (1.3 kg) (with ceiling bracket)
Dimensions	Φ : approx. 9 1/2 inch (240 mm) Height : approx. 2 inch (50 mm)
Control browser (MAS-A100)	Google Chrome
Operating temperature range	0-40 °C
Operating humidity	20 % to 80 % (no condensation allowed)
Storage temperature	-4 °F to 140 °F (-20 °C to +60 °C)
Storage humidity	20 % to 80 % (no condensation allowed)
Supplied accessories	Ceiling bracket (1) Safety regulations (3) Template (1)

* Not Including signal processing

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 The values for weight and dimension are approximate.
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 Sony's Beamforming Microphone is compatible with third-party Dante® audio networking
 using standard IP networks to transmit high-quality, uncompressed audio with near-zero latency.

Sony Electronics Inc.
 115 West Century Road, Suite 250
 Paramus, NJ 07652
 pro.sony

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