Using The Shure MXA910 Ceiling Array Microphone on Cisco Webex Devices

The Shure MXA910 Ceiling Array Microphone is a ceiling-mounted array microphone intended for use in various AV conferencing environments, including meeting rooms, boardrooms, and multi-purpose spaces. It utilizes up to eight adjustable lobes to pick up audio from participants.

This document provides guidelines on the use of the Shure MXA910 microphone with Cisco Webex® video devices. Apps for setting up and controlling the Shure products that must be downloaded include:

- Shure Web Device Discovery Application
- Shure Designer System configuration software
- Audinate Dante Controller

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Connecting the Shure MXA910 and P300 to a Cisco SX80 or Room Kit Pro

The Shure MXA910 and IntelliMix P300 are Dante Audio Network devices. To connect their audio output to a Cisco® product requires an analog connection. The P300 has balanced Euroblock analog outputs, easily connecting to the inputs of the Cisco SX80 or Room Kit Pro. Note that these codecs have four-pin microphone inputs: signal +, signal −, ground; and mute control (marked with a microphone symbol). The mute control is for Cisco’s microphones and should not be connected.

Configure the MXA910, IntelliMix P300, and Cisco SX80 or Room Kit Pro for your room and applications according to the device’s user guide. The SX80 and Room Kit Pro microphone inputs can be configured via the admin web interface. The input should be configured as line input (turning off 48V phantom power). The default level setting on the SX80 and Room Kit Pro input is appropriate, provided that the Shure P300 analog output is configured with mic level (-46 dB) analog gain. Refer to Figure 2, which shows where to control this parameter within the P300 web-based control interface.

Alternatively, the P300 can be configured with line-level (0 dB) analog gain, and the input level on the SX80 or Room Kit Pro should then be reduced from the default 58 dB to 12 dB to achieve a level equivalent to the level from Cisco’s own tabletop microphone, and to ensure the input is not overloaded. To manage noise performance, keeping the output from the P300 on line level and reducing input gain on the SX80 and Room Kit Pro is preferable.
When using the P300’s echo cancellation and noise reduction processing, the echo control and noise reduction processing in the Cisco codec should be disabled. This can be configured via the admin web interface.

Cisco’s MX700 and MX800 systems use a variant of the SX80 codec. Cisco Room Kit Pro and Room 70 G2 use the Codec Pro, and the same configuration guidelines apply to these products.

**Connecting the MXA910 to other Cisco Webex video devices**

As long as the Shure IntelliMix P300 is configured with mic level (-46 dB) analog gain, the Shure MXA910 can be connected to any Webex video device with an analog microphone input. A connector adapter is needed for products with a 3.5mm jack microphone input.

Cisco products such as the SX10, SX20, MX200 G2, MX300 G2, Room 55, Room Kit, and Room Kit Plus do not have the same options or range on microphone input gain as the SX80.

**Potential issues**

- **Overloading the microphone inputs**
  Microphone inputs on Cisco products can easily be overloaded if the output gain from Shure IntelliMix P300 is not set to mic level (-46 dB) analog gain. This may result in microphone signal clipping and distortion.

- **Missing software support for third-party microphones**
  Some Cisco products have older software versions that disable third-party microphones. Software versions from CE 8.3 and newer are recommended.