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SONIA AMP

USER GUIDE

OVERVIEW

The Xilica Sonia Amp is a PoE+/PoE++ powered, IP-addressable amplifier designed to power up to eight (8) Sonia C5 5.25" speakers from a single unit. As a completely CATx-based ceiling audio solution with 4 channels of audio, Sonia Amp enables the benefits of individually addressable CATx connected speakers, but at up to 50% lower cost of POE-powered loudspeakers. With the inclusion of a PoE-mic port, any PoE-powered ceiling microphone can be connected to the network and powered through the Sonia Amp, resulting in a single CATx drop to the entire room consisting of the ceiling microphone and all of the speakers, dramatically reducing installation time and infrastructure cost.

When paired with the Xilica QR1, Xilica Voicematch optimizes speaker tuning and also provides fault detection on each speaker channel.

WHAT'S IN THE BOX

Sonia Amp
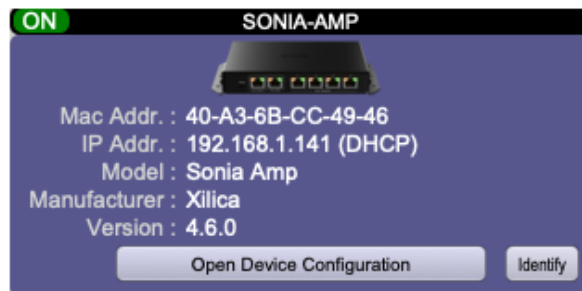(2) M4x5MM Mounting Screws for mounting to a Sonia C5 speaker
Setup Guide

MOUNTING

Please refer to the included Setup Guide for instructions on installing the unit.

CONFIGURING

Sonia Amp settings are configured using Xilica Designer software, offered in Mac and PC versions and can be downloaded at: https://www.xilica.com/support/

Once Sonia Amp is installed on the network, open Xilica Designer to locate the discovered Sonia Amp in Network View:

If several Sonia Amp devices are installed and appear in the Network View screen making it difficult to identify which device you are configuring, momentarily pressing the Device Reset button on Sonia Amp will cause the device to enter Identify mode, and will indicate 'FLASHING' on the corresponding Device Tile in Network View.

Right-clicking on the device tile above will provide options to update firmware, mute the device, identify the device by flashing the status LED, reboot, or enter device setup.

To configure Sonia Amp, enter device setup by selecting this option from the menu or by double-clicking on the device tile.
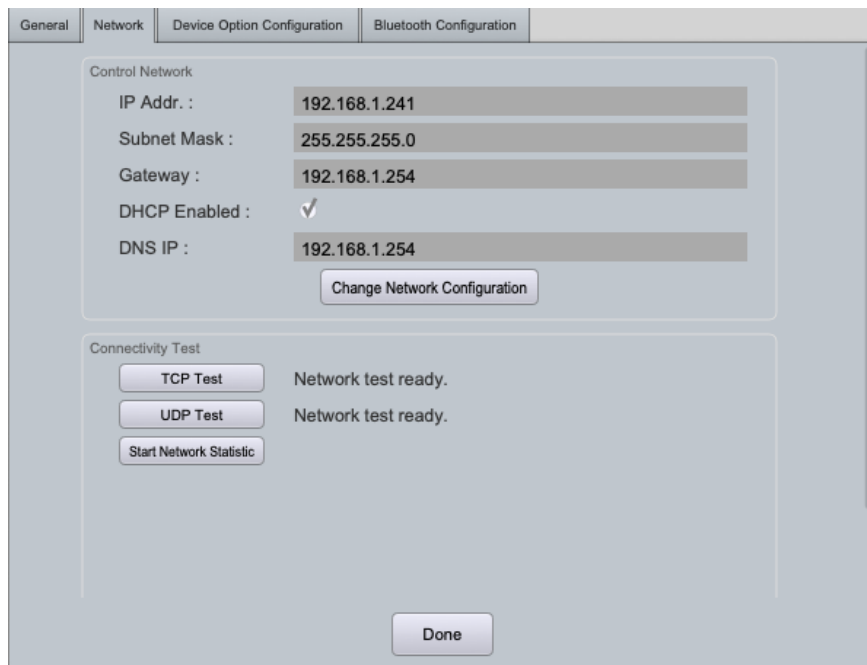
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GENERAL SETTINGS

Under the General Settings Tab, the Device Name shown in the Device Tile can be updated by selecting the Modify button next to the Device Name field.

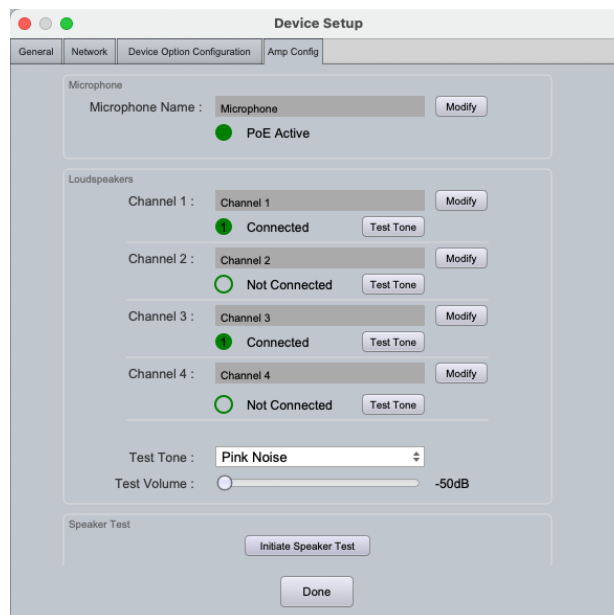General settings also include details on Serial Number, MAC address, model and Firmware Version.

To lock configuration settings, device security may be enabled by adding a password.

NETWORK SETTINGS

Network settings allows configuration for either DHCP or Static IP. To set a Static IP address, click 'Change Network Configuration', uncheck DHCP Enabled, enter the static IP address, Subnet Mask and Gateway address and click Apply.

CONFIGURATION

The Sonia Amp Configuration tab has various features to assist in installation and troubleshooting. The Microphone section has a PoE Active indicator to show if a PoE-enabled device is connected to the Sonia Amp PoE Mic Port. It is also possible to name the microphone device connected by clicking Modify.

Sonia Amp can detect the number of speakers on a specific channel and playback a test tone to assist in installation and troubleshooting. Clicking Initiate Speaker Test will detect Sonia C5 speakers and display the number of speakers connected per channel. In addition, once the Speaker Test completes, Sonia Amp will indicate the number of speakers connected to each channel on the LEDs of the Sonia Amp Speaker Port (one green LED = 1 Sonia C5 connected, two green LEDs = 2 Sonia C5s connected). The Speaker Test takes approximately 60 seconds, and a slightly audible fluttering sound will be heard from the Sonia C5s as the Sonia Amp tests Sonia C5 connectivity.
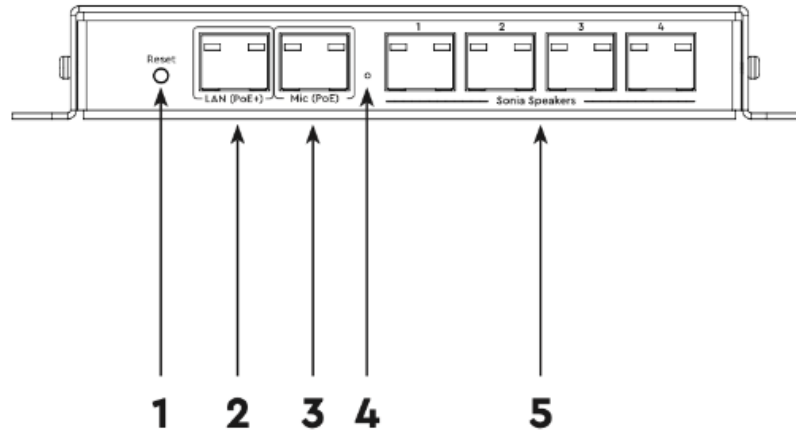
Each speaker channel can be named individually and a Test Tone can be initiated for diagnosing audio issues and confirming the correct audio channel. The Test Tone can be selected as Pink Noise, White Noise, or a 1kHz tone, with volume control available as shown.

DANTE CONFIGURATION

For convenience, several Dante configuration settings are also available in Designer Network view, allowing for Dante setup parameters to be set from Network View instead of through Dante Controller.

Please note that the PC or Laptop that is running Designer must be connected over wired-Ethernet and not WiFi for Dante configuration parameters to be available in Network View. If connected over WiFi, the Dante tabs will not be displayed.
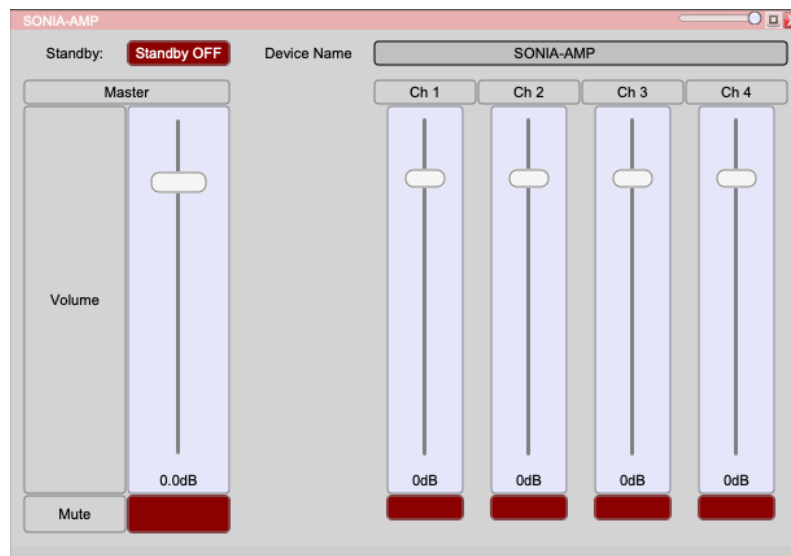
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OPERATION

1. **Reset Button**:
    1. Identify Mode: press and hold for 2 seconds. Once Identify Mode is activated, the Device Status Indicator will flash green, and the Device Tile for the device in Network View of Xilica Designer will indicate 'Flashing'. This feature is useful for locating the device in Xilica Designer Network View when there are several devices in the list. Pressing the button again will exit Identify Mode.
    2. Factory Reset: Press and hold for 10 seconds until the Status LED begins flashing yellow/green alternatively. This will cause the device to return to factory default settings and reboot. Note that all configuration parameters will be erased.
2. **LAN PoE+ Port**: Used for networked audio and power. This port is capable of both PoE+ and PoE++ power input.
3. **PoE-Enabled Microphone Port:** for network connection and PoE-power of a PoE-powered ceiling microphone.
4. **Device Status Indicator**: provides visual indication of the status of the device.
    1. Off: device is not connected to PoE.
    2. Green (Solid): device is powered and active.
    3. Green (Flashing): device is in Identify mode.
    4. Yellow (Solid): device is booting.
    5. Yellow/Green (Alternating): device is undergoing factory reset.
    6. Yellow (Flashing): device is in an error condition.
5. **Sonia Speaker Ports**: provides analog audio over CATx to Sonia C5 speakers (up to 2 Sonia C5s per port).

During operation, the following Sonia Amp parameters are available in Xilica Designer Project view when in Online Control mode, or buy selecting the Open Device Configuration button on the Network View device tile:

Standby: This toggle button will switch Standby Mode on and off. Standby mode puts the amp into low-power mode, and no audio will pass through to the speakers.

Volume sliders and audio mutes for Sonia Amp (Master) and individual channels are provided for advanced configuration.

FREQUENTLY ASKED QUESTIONS

What is the output power capability of Sonia Amp?

The output power of Sonia Amp is dependent on the PoE input power and PoE Mic Port connection. Please see the table below for the output power rating for each scenario assuming a single Sonia C5 connected per channel:

Sonia Amp Input Power:	PoE+	PoE++*
PoE Mic Not Connected	1 x 15W	1 x 15W
	2 x 7W	2 x 15W
	4 x 4W	4 x 10W
PoE Mic Connected	1 x 7W	1 x 15W
	2 x 4W	2 x 15W
	4 x 2W	4 x 7W

*Note: IEEE 802.3bt, Type 3 PoE++ power (60W Max)

Note: Driving the amp past the output power limitations listed above may cause the Sonia Amp to begin clipping and the PoE network switch to reset PoE power on the network port, resulting in a pause in audio due to a reboot cycle on the Sonia Amp. Future software enhancements will aid in preventing PoE power port resets through additional power limiting functionality.

How many Sonia C5s can be connected to each Sonia Amp speaker channel port?

A total of two Sonia C5 speakers may be connected per Sonia Amp Speaker channel port using the second CATx port on the Sonia C5 speaker to daisy-chain an additional Sonia C5. This results in a parallel speaker connection, and therefore the output power of the speaker channel will be split across the two Sonia C5s.

What is the max distance of category cable between the network switch and the PoE+ port on Sonia Amp?

The distance between the network switch and the Sonia Amp is 100m for Category 5 cable and above.

What is the max distance of category cable between the Sonia Amp and Sonia C5 loudspeaker?

The max distance is currently specified at 10m for optimal audio performance.

Will the Sonia Amp work with other loudspeakers in addition to the Sonia C5?

The Sonia Amp was developed specifically for and QA tested with Xilica Sonia loudspeakers, and thus only this configuration is supported.

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ADDITIONAL RESOURCES

Website Product Page

Sonia Amp Datasheet

Contact Support