

# Using a Single or Multiple HDA-SW5 AVB Switches in an HDA System

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URC HDA devices and software provide countless options to configure and optimize audio settings to achieve performance and flexibility for almost any application.

The following article details using a single HDA-SW5 or multiple HDA-SW5 AVB switches in an HDA system. In addition, it shows two (2) AVB switch and HDA equipment connection options.

Note: An HDA-SW5 AVB switch is only required when using two (2) or more URC HDA devices

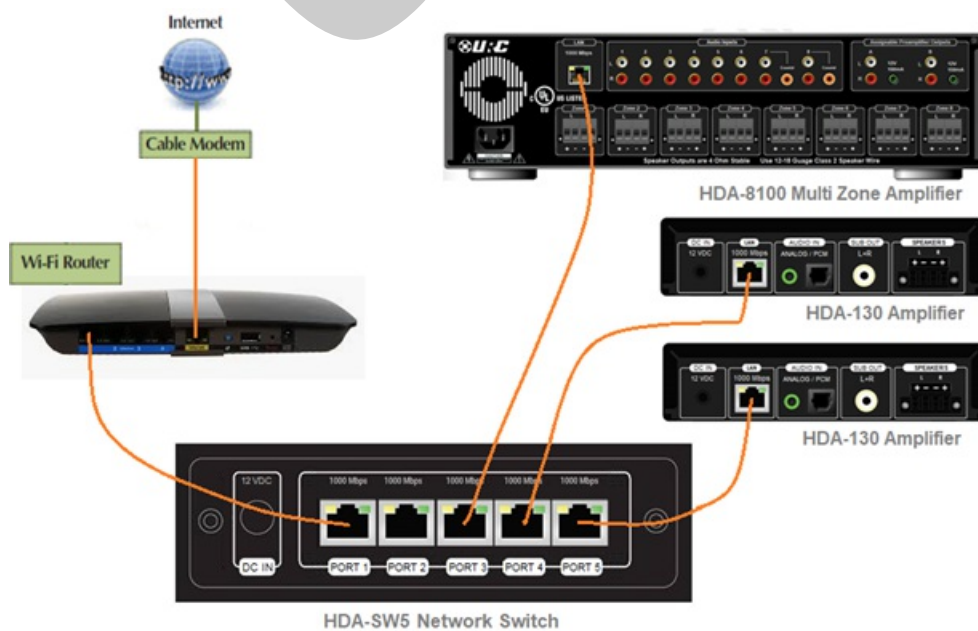
For example, if you are using only one (1) HDA-8100 amplifier in a system, no HDA-SW5 switch is required. However, if you were to add another HDA device such as an HDA-130 amplifier or an HDA-I/O Input/Output Stream Adaptor, you would need to add the HDA-SW5 AVB switch.

1. When sharing AVB signals, no more than seven (7) AVB switches should be used in an HDA system. By using no more than seven AVB switches, the guaranteed audio latency between zone will never exceed 2 milliseconds, which is not perceivable by the human ear.

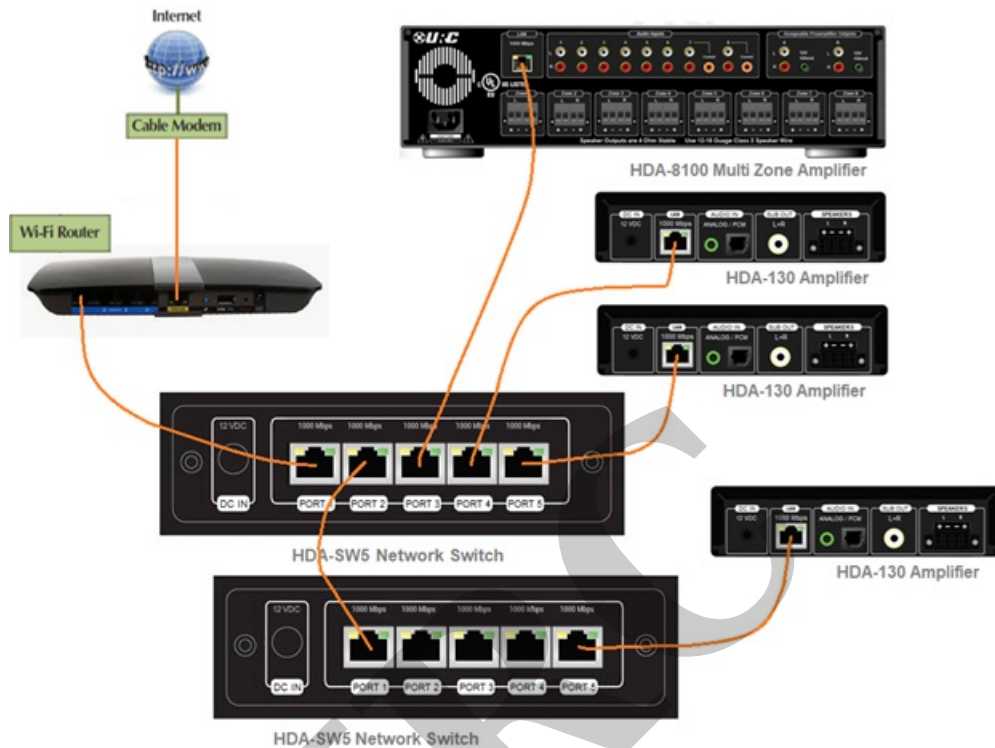
2. When using an AVB switch like the HDA-SW5, the switches must be connected in either daisy-chain or a star topology.

Shown below are supported AVB Switch Installation Examples:

*Installation Example #1  
Connecting a single HDA-SW5 switch*



*Installation Example #2*  
*Connecting multiple HDA-SW5 switches*



3. Because of the supported HDA-SW5 connection examples, a maximum of 23 HDA chassis can be used in a system with seven (7) HDA-SW5 units. (**Note the reference to 23 HDA “chassis” – not 23 HDA “zones”**)

4. If an HDA system requires the use of more than 23 HDA “chassis”, the installer will need to use a third-party AVB switch in the system.

URC has tested the “Luminex Gigacore” line of network switches with HDA devices and they are fully compatible with each other. Luminex switches can also be used in conjunction with HDA-SW5 Switches in the same installation.

More information on Luminex Gigacore switches can be found [here](#).

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**Additional Information & Resources:**

To learn more about HDA products and programming, please see the [HDA Programmers Guide](#) or the Accelerator 3 online [Programming Guide](#).