

Model 5422A vs Model 5422 – What’s the Difference?

December 2020 — The Model 5422A builds on the strengths of the popular Model 5422 and offers some significant changes and improvements. The Model 5422A will meet or exceed the performance of the Model 5422, suitable for all applications originally slated for Model 5422 use.

- **Ethernet Ports and Network Configurations**

The Model 5422A has three Gigabit (“GigE”) Ethernet ports versus the two provided by the Model 5422. This allows installations to utilize independent network connections for Redundant Dante audio paths and management webpage access. The two Ethernet connections required for supporting Redundant Dante can now be fully independent from the Ethernet connection used to access the Model 5422A’s monitoring and configuration webpages. This increased capability won’t impact users that may share one or two networks for the Dante audio transport and device management functions. However, larger or more sophisticated installations may benefit from being able to maintain separate Dante audio and management networks.



Model 5422A Dante Intercom Audio Engine
Front and Rear Panel Views

In addition to the Model 5422A’s three GigE ports, an expanded set of network configuration choices are available in the Dante Controller application. Using this capability the operation of the Model 5422A’s three Ethernet ports can be selected from among four unique configurations. The choices are Switched, Redundant, Switched+Mgmt, and Redundant+Mgmt. In this way, full flexibility can be achieved when connecting the Model 5422A into virtually any network configuration.

- **Firmware Updating**

The Model 5422A allows updating of its main and programmable logic (FPGA) firmware using a standard USB flash drive. This method is not better than what’s utilized in the Model 5422, but is more compatible with contemporary installations where LAN (local area network) connections are typically “locked out” from FTP (file transfer protocol) capability as part of security practices. And, looking ahead, it’s not expected that this will change.

In theory, there’s nothing wrong with the Model 5422 using FTP to allow direct updating of the unit’s main and FPGA firmware files. However, this does require an “open” internet connection. Upon invoking a firmware update request on one of the Model 5422’s management webpages, a connection is automatically established between the Model 5422 and the Studio Technologies’ FTP server. Then the requested firmware file will be downloaded into the Model 5422’s memory. While this technically works very well, changes to network security norms have made the use of FTP problematic. In many cases, network security implementations prevent an FTP session from being established. While there are ways of working around this issue, such as “opening” a port to FTP traffic or installing and running a local FTP server, it’s proven to be a common problem for technical personnel. (Maybe a “common headache” is a better way of stating the situation!) The Model 5422A’s method of firmware updating, using a USB flash drive instead of FTP, better meets the requirements of modern installations. A USB type A connector, located on the Model 5422A’s back panel, allows firmware updating using a standard USB flash drive. The latest Model 5422A’s main

and FPGA firmware files are available for download on the Studio Technologies' website. Those files can then be transferred to a USB flash drive. Once that flash drive is plugged into the USB connector on the Model 5422A's back panel, it just takes seconds for the files to be updated. And, as with both the Models 5422A and 5422, all firmware files are stored in non-volatile memory.

- **Management Webpage Design**

The design of the monitoring and configuration webpages associated with the Model 5422A's web server have been updated. This should provide an improved user experience including displaying additional operating characteristics.

- **Status LEDs and Front-Panel Display**

The Model 5422A includes an additional LED indicator on its front panel. This provides a status indication of the new management Ethernet port. The backlit display offers additional pages to allow direct observation of the Model 5422A's configuration and operating status.

What Hasn't Changed?

The features, configuration choices, and digital audio performance of the Model 5422 have been maintained in the Model 5422A. Any application that could utilize a Model 5422 will find that a Model 5422A can serve as an exact substitute. The two units are identical in size and weight, both mounting in one space (1U) of a standard 19-inch rack enclosure. The same connections are provided with the exception that the Model 5422A has one additional RJ45 jack associated with its third Gigabit Ethernet port.