MC² AUDIO   **XTA**

Delta, DPA Series
IP Connection to Cisco Switches

Introduction

The release of firmware version 1.15 corrects a connection issue that could prevent Cisco switches from establishing a link with Delta and DPA amplifiers.

The use of auto-negotiation to establish the speed capabilities of the connection can cause the switch to ignore a direct link to the amplifier. If you are connecting via the Dante card and "looping through" to the control port, you will not experience this issue. The "loop through" method will establish a 1G connection to the switch via the Dante card's interface.

Firmware Change

As this may be the first time the firmware has been changed on the amplifier, please follow the instructions below carefully. Loading new firmware uses the same "Flash Loader" utility bundled with the firmware or presets "bin" (binary) file. Firmware (or Program) files have the prefix "LTAM".

Amplifier Communications Set-up

Updates can be performed through an Ethernet, USB or RS485 connection. Choose the correct port on the amplifier and configure it accordingly though the Interface Sub-menu.

Download the Files

Go to the Support > TechNotes section of the MC² website to find the latest firmware – these will be bundled with the "Flash Loader" application that is used to connect and update your amplifier.

http://www.mc2-audio.co.uk/support/tech-notes/
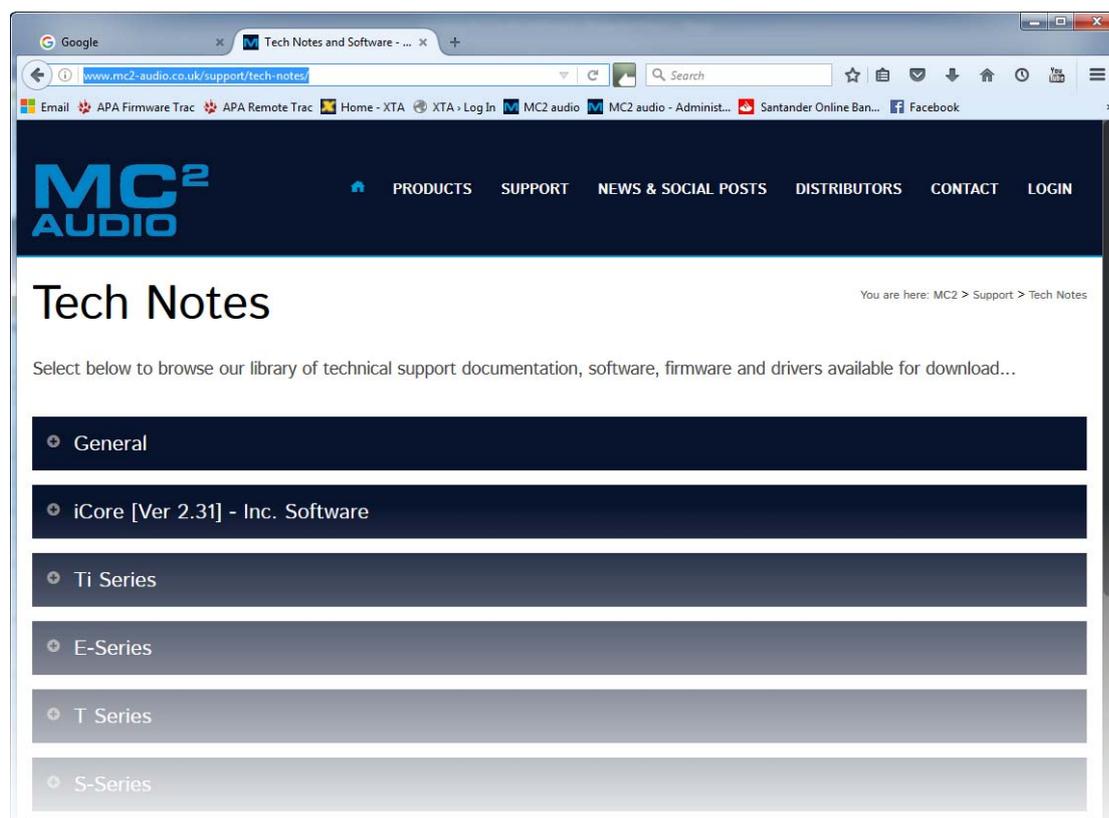
Unzip the files – you will have the loader application, and the firmware files as appropriate.

Connect To The Amplifier

Plug in the appropriate cable according to your chosen connection method. Remember – if you are connecting via an USB or RS485, you will need to make sure your amplifier is set to ID1 for the loader to find it.
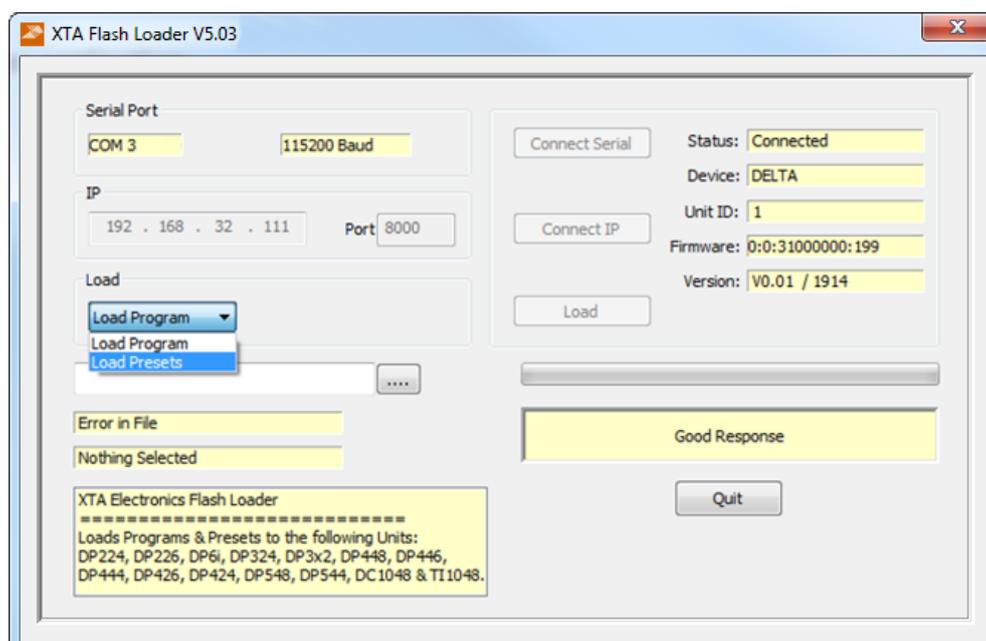
Start the loader application:
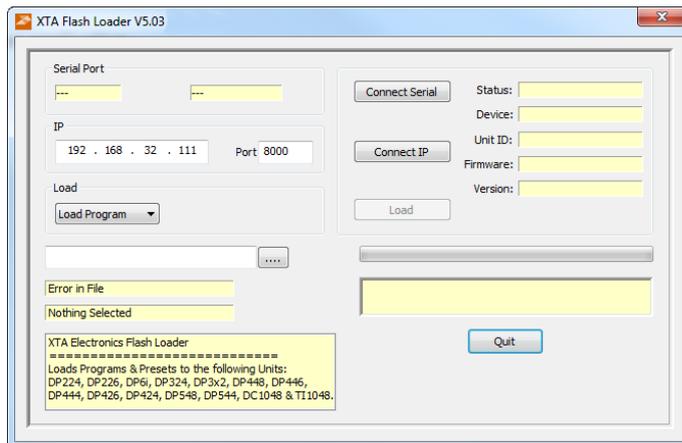
Press the "Connect Serial" button if using USB or RS485, or "Connect IP" if using an Ethernet connection. **We recommend you choose either a USB or wired Ethernet connection.**

After a few seconds, the unit should be located and its status and type should be displayed, along with the current firmware and some other information.

Choose What To Load

From the drop-down list under "Load" choose "program" (firmware), and then locate the correct file by pressing the "…" button.

The file type will have been filtered for you – LTAM*.bin for firmware (program) files or LTAR*.bin for preset files.

Start The Update!

Just before you press the "Load" button – please close any other applications running on the PC – interruptions in the process could render your amplifier inoperable. Do not disconnect the cable, turn off the power or attempt to close the loader app once loading has begun!

Now that you have been warned (!) – press the "Load" button. Confirm the load, and the amplifier will switch to Standby and begin to load the new firmware. A message detailing progress will accompany the bar on the loader app:

```
            Remote Load   374B
         Block  0  of  4096
```
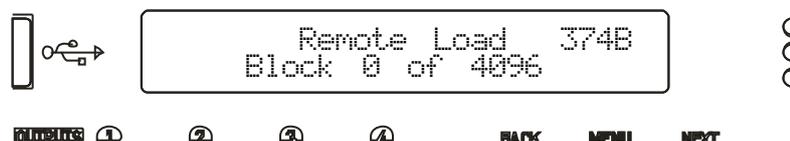
Upon completion, the app will close and your amplifier will restart – that's it!

New Interface Menu Item

Updating to version 1.15 will introduce an extra option in the interface setup, which allows the auto-negotiation to be turned off and a fixed speed capability reported to the switch, so the link is always established.

Running through the interface set-up wizard will show this option at the end of the process if the connection type is either "Ethernet Only" or "Ethernet or USB".

Mode= Ethernet Only: The Ethernet control port on the rear panel is active. Selecting this choice will then ask for the following further information to be confirmed:
RS485 Relay: Choose ON to relay all remote control data onto the RS485 network for connection to further devices (other Delta DSP amplifiers)
RS485 Speed: Only shown if RS485 Relay = ON: set RS485 baud rate (recommended to use 115200)
Remote ID Number: Set a device ID (still required even on Ethernet connections). This must be unique to the connected unit – setting the same ID on multiple units may cause comms problems for all devices.
IP Mode: Choose either Static or Auto IP. Auto IP will generate an IP address based on unique hardware features such as MAC address. Choose Static if you need to select the IP address to lie within a specific range, for instance when working within a larger infrastructure.
GtWay: The gateway address is used for external access to the Internet and should be left at the default setting.
SubNt: The subnet mask is used to subdivide IP addresses into groups that allow further sub-groups addressing to be defined, so further extending the address range. Leave at default 255.255.255.0 unless specifically required.
IP: The IP address specifies the amplifier's unique identifier on the Ethernet network. It is used in conjunction with the amplifier's Remote ID number to identify individual devices on the network. Make sure this is not set to the same value as any other devices or comms problems will occur.
IP Speed: Choose either 10M Duplex (not required for most applications), 100M Duplex (default setting and the one to choose if you cannot establish a link with your switch), or Automatic (auto-negotiation on).

Mode= Ethernet Or USB: The Ethernet control port on the rear panel is active, so long as the amplifier is not connected via USB, whereupon it automatically takes priority. Selecting this choice will then ask for the following further information to be confirmed:

  RS485 Relay: Choose ON to relay all remote control data onto the RS485 network for connection to further devices (other Delta DSP amplifiers)

  USB Speed: As the USB connection appears as a virtual comm port in remote software, it still has an associated serial speed. Leave at the default of 115200. This is not the actual USB serial data rate – it's the virtual COM port data rate!

  RS485 Speed: Only shown if RS485 Relay = ON: set RS485 baud rate (recommended to use 115200)

  Remote ID Number: Set a device ID (still required even on Ethernet connections). This must be unique to the connected unit – setting the same ID on multiple units may cause comms problems for all devices.

  IP Mode: Choose either Static or Auto IP. Auto IP will generate an IP address based on unique hardware features such as MAC address. Choose Static if you need to select the IP address to lie within a specific range, for instance when working within a larger infrastructure.

  GtWay: The gateway address is used for external access to the Internet and should be left at the default setting.

  SubNt: The subnet mask is used to subdivide IP addresses into groups that allow further sub-groups addressing to be defined, so further extending the address range. Leave at default 255.255.255.0 unless specifically required.

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  IP Speed: Choose either 10M Duplex (not required for most applications), 100M Duplex (default setting and the one to choose if you cannot establish a link with your switch), or Automatic (auto-negotiation on).