

Delta Series, DPA Series

Choosing the Best Remote Control Method for your Application



Introduction

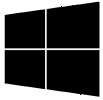
AudioCore is XTA's mature remote control software application, that runs under Windows operating system and offers advanced control and monitoring facilities for an array of XTA signal processing devices.

The Amped Edition is an extension of this application and is designed to monitor and control the Delta Series DSP amplifiers from MC² and the APA and DPA Series amplifiers from XTA.

It does not replace the latest release of AudioCore available on the XTA website, as it does not support XTA signal processor control (DP224/6/6i/DC1048/4 Series/5 Series and all OEM variants).

It primarily connects to devices using an Ethernet data connection, although it will also connect via a USB connection or RS485 (with suitable converter).

The software has been tested for compatibility with the following Windows versions:



Windows XP

Windows 7: 32 and 64 bit editions

Windows 8.1

Windows 10: 32 and 64 bit editions



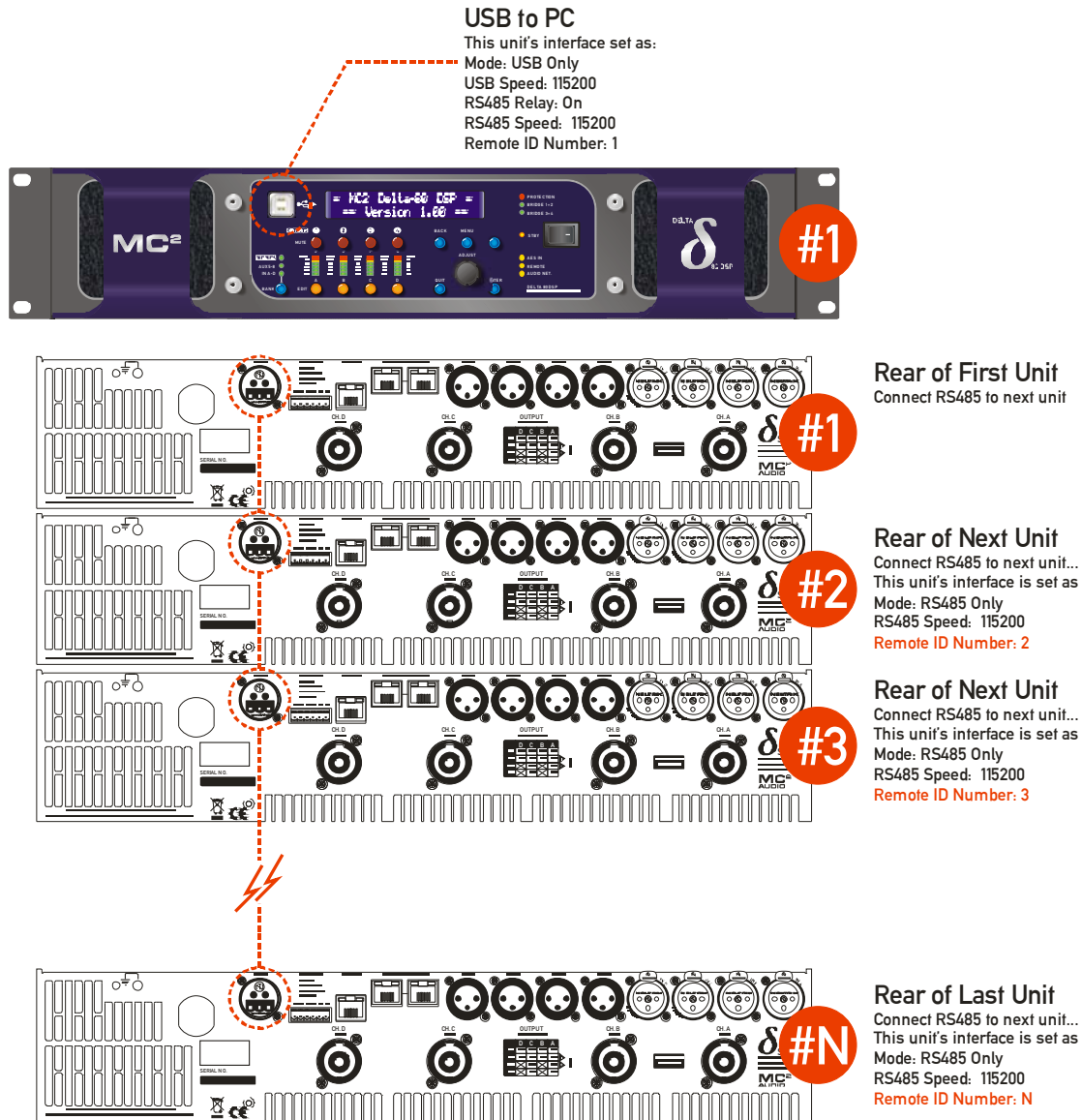
Are you a mac user?

If you would like to experience remote control of your amplifiers on an iPad, please search for and download DeltaDirect from the App Store.

Choosing the Best Remote Control Method for your Application

Direct USB

The simplest method to connect to computer is with a simple USB cable via the front panel of a Delta/DPA amplifier. APA amplifiers can only be connected via an Ethernet connection. If you are working exclusively with Delta/DPA amplifiers then as long as the first device can be near the computer, this will allow all other amplifiers to be daisy-chained from the RS485 bus:

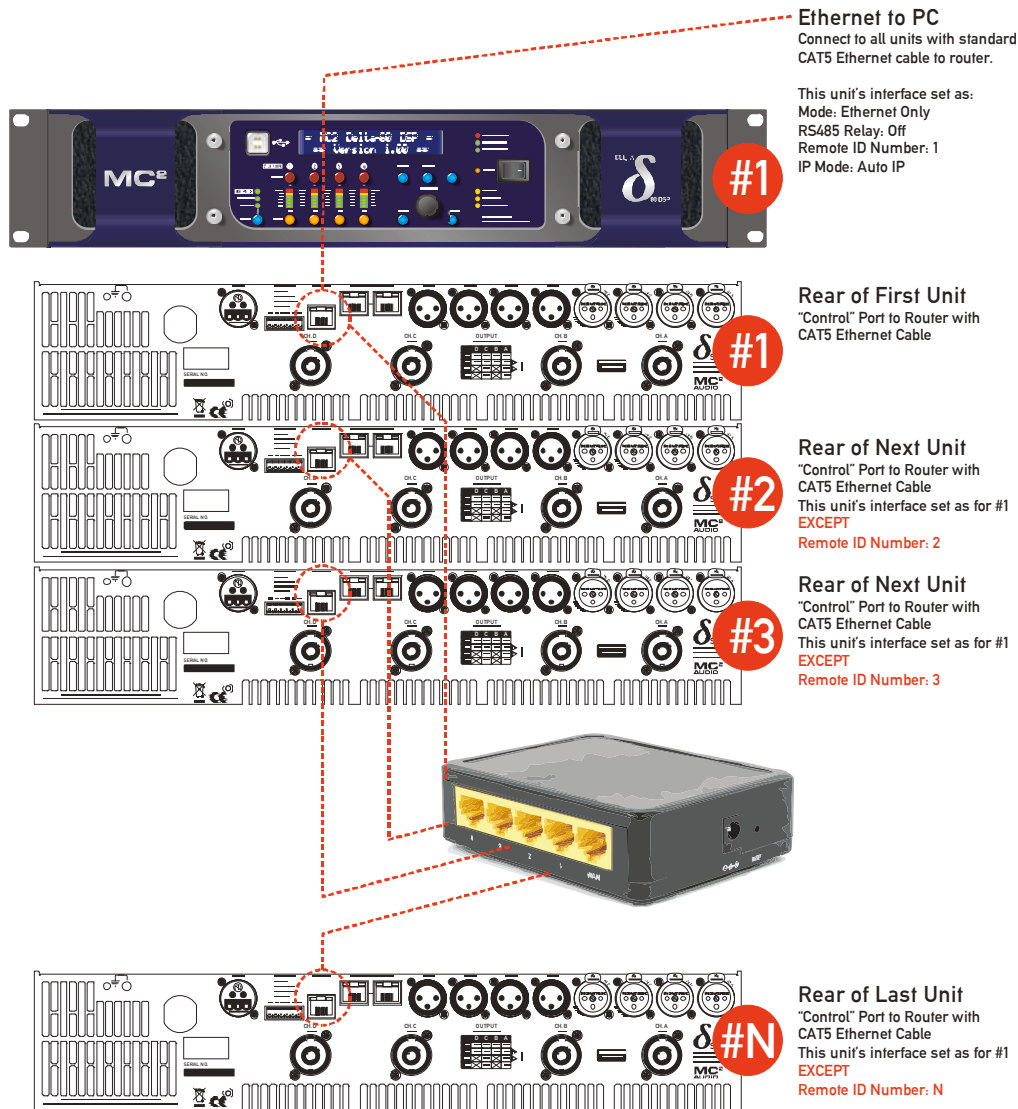


The only disadvantage is that this connection method cannot work with DeltaDirect – our iPad app, as there is no way to establish a wireless control connection. Remember that the total length of an RS485 bus is 1000m from the first device to the last – not 1000m per interconnect!

Ethernet Only

Connecting using a standard Ethernet cable either direct to a PC, or via a LAN is the method most widely used as it is still low cost and uses standard cables and existing infrastructure. Connection using a switch will be required for multiple amplifiers unless RS485 relay mode is used, which will be covered in a subsequent section.

If your system includes APA amplifiers, the Ethernet connection is the only method that can be used.



Remember that the recommended max distance for a point to point Ethernet connection is 100m – beyond this a switch must be used to extend the distance. Make sure that there is only one DHCP server on a network if multiple switches or routers are being used (especially if a Wifi router is connected as well).

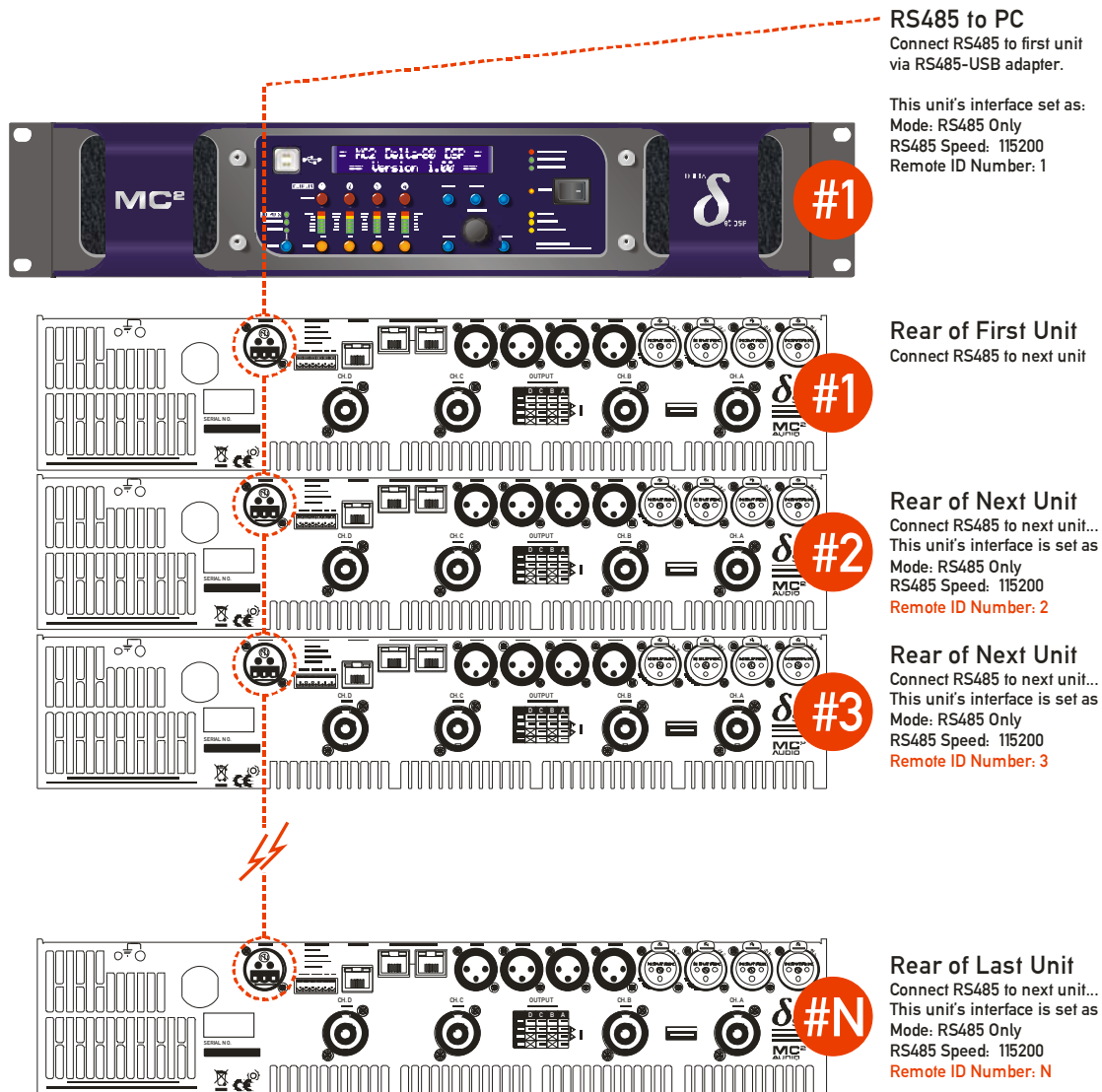
This method, if using a Wifi router, will also allow use of DeltaDirect – out iPad app, but be aware it cannot be online at the same time as AudioCore! AudioCore can also connect wirelessly and this is a seamless change from the wired connection as long as the Wifi network is setup on the PC.

RS485 Only

RS485 mode is useful in situations where there may be long distances required between connected units, and it is not possible or practical to use the Ethernet method of connection. RS485 can cover up to 1000m (greater distances if the baud rate is reduced), but remember this distance figure is the total for the bus, not the distance between devices.

It will require a USB to RS485 converter (this is an intelligent adapter, not just a cable adapter) – please ask us about this or read the interface guide on XTA's website here:

http://www.audiocore.co.uk/wp-content/uploads/2015/06/remote_interface-guide_15.pdf

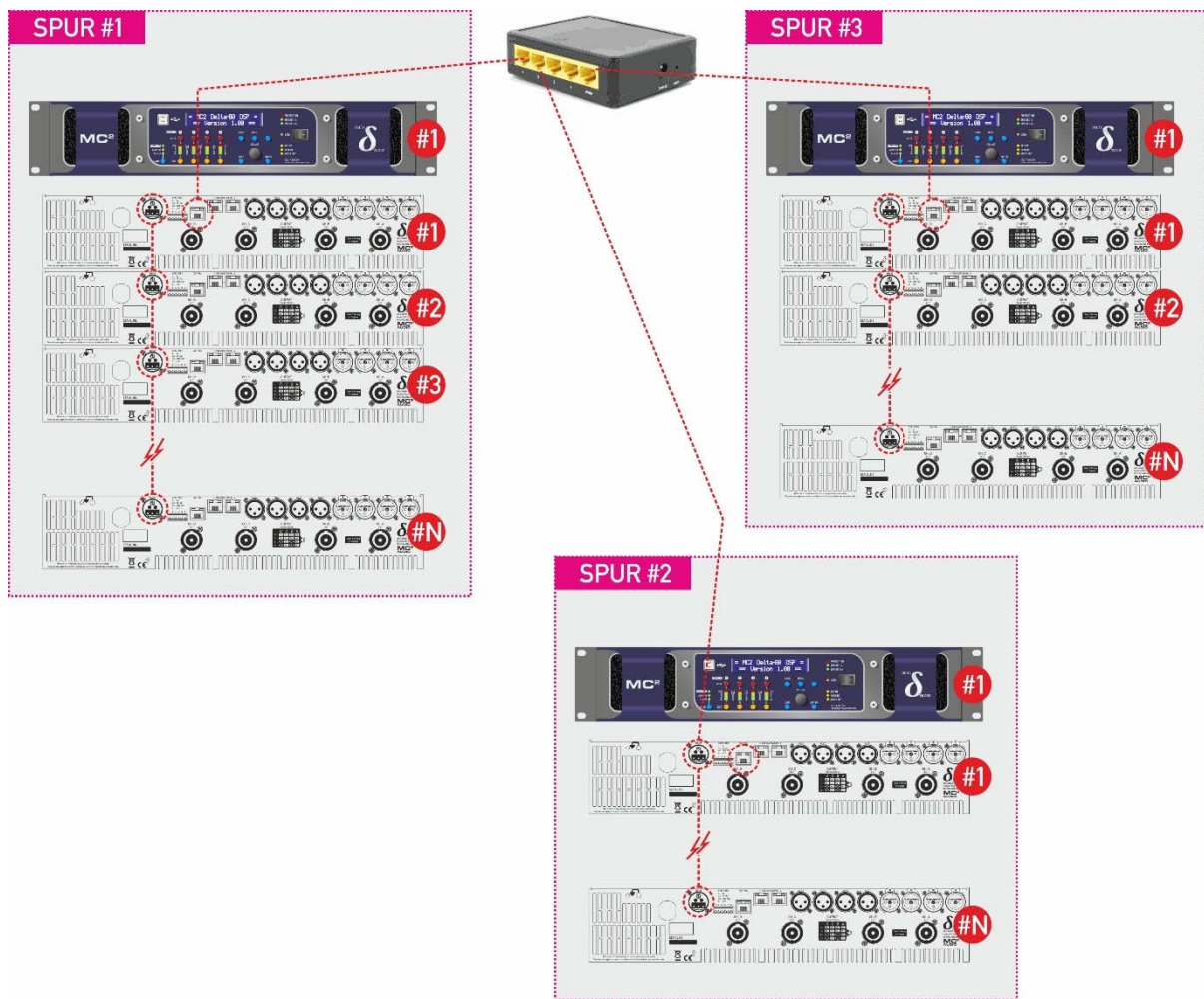


Remember that APA amplifiers cannot connect via RS485 (despite having the RS485 socket on the rear panel – this is for test diagnostic purposes only)

What About RS485 Relay Mode?

RS485 relay mode can be used in both USB and Ethernet systems – with USB systems it is seamless and all amplifiers will be discovered via the single RS485 chain from the rear of the “Master” unit. In the case of Ethernet systems, one unit can assume the role of a “Master” as with a USB connection, with subsequent “downstream” units being connected via the RS485 bus: It is also possible to have multiple “spurs” of Ethernet connected “Masters” with daisy-chained units on RS485 from each “Master” amplifier. This is only possible with Delta and DPA amplifiers – remember APA amplifiers must be individually connected to a switch/router via the Ethernet “Control” port (USB and RS485 remote control cannot be used with APA amplifiers).

This would be a useful connection scenario when the number of Ethernet switch ports is limited, or a single wireless router is being directly used with only a few ports available.



Note that the total number of IDs on the system must not exceed 32 amplifiers, and that ID numbers cannot be repeated, even on the individual spurs as in the example system above.