

XTA & MC2 OSC Protocol Information document

Dated 09/09/20

XTA DPA and MC2 Delta Introduction

XTA DPA and Delta series units will listen to OSC commands via the ethernet UDP protocol.

To use OSC commands on your XTA DPA or Delta DSP use the amplifier front panel to enable the OSC option in the `Interface` menu.

When this interface is enabled you will be prompted to configure the following:-

Rx Port = 8000 (the listen / receive port)
Tx Port = 9000 (the talk / transmit port)
ip address = this is the ip address of the iOS/Android/ control device.
Eg your phone or tablet or computers ip address

Important note – when implementing OSC control it is worth considering using either fixed IP addressing on your network or long lease times on your DHCP server.

If you opt for DHCP addressing you may need to adjust the IP address setting in your app and amplifier frequently.

As the amplifier listens to port 8000 (unless you change it in the menu above) you should configure the outgoing port on your control app or console to 8000.

OSC can control the following :-

Memory Recall (all types)

Individual Mute	Pattern Mutes
Absolute Gains	Incremental Gains
Absolute Delays	Incremental Delays

When using the Hexler `TouchOSC` application to run a control panel on a target device the following setting should be enabled you will need to configure

Host (IP Address) – IP Address of the unit you wish to control

Port (outgoing)- (eg 8000) the listen port of your MC2/XTA unit

Port(incoming) - (eg 9000)the transmit port of you MC2/XTA unit

Enable `CoreMIDI`

In the **options menu** enable `Bundle Messages`.

Associated with this document are some example Touch OSC templates which can be modified to suit your application, they use the commands which are detailed in the following pages.

Command Detail

IMPORTANT : A,B,C,D is case sensitive – must be in caps

Individual Mutes:

Input Channel

Command = /input/*/mute

Where * = channel A, B, C or D

values [int] (0 or 1), [float] (0.0 or 1.0)

1 – Mute active.

Output Channels

Command = /output/amp/*/mute

Command = /output/aux/*/mute

Where * = output 1, 2, 3 or 4

values [int] (0 or 1), [float] (0.0 or 1.0)

1 – Mute active.

Absolute Gains:

Input Channels

Command = /input/*/gainabs

Where * = input channel A, B, C or D)

values [int] (-400 to +60), [float] (-40.0 to +6.0)

Note Int steps are 10ths of dB.

Output Channels

Command = /output/amp/*/gainabs

Command = /output/aux/*/gainabs

Where * = output / aux channel 1, 2, 3 or 4

values [int] (-400 to +150), [float] (-40.0 to +15.0)

Note Int steps are 10ths of dB.

Absolute Delays:

Input Channels

Command = /input/*/delayabs

Where * = input channel A, B, C or D

values [float] (0.0 to 650.0) mS.

Output Channels

Command = /output/amp/*/delayabs

Command = /output/aux/*/delayabs

Where * = output / aux channel 1, 2, 3 or 4

values [float] (0.0 to 650.0) mS.

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Relative Gains:*Input Channels*

Command = /input/*/gainrel

Where * = input channel A, B, C or D

values [int] (-200 to +200), [float] (-20.0 to +20.0)

Note Int steps are 10ths of dB.

Output Channels

Command = /output/amp/*/gainrel

Command = /output/aux/*/gainrel

Where * = output / aux channel 1, 2, 3 or 4

values [int] (-200 to +200), [float] (-20.0 to +20.0)

Note Int steps are 10ths of dB.

Relative Delays:*Input Channels*

Command = /input/*/delayrel

Where * = input channel A, B, C or D

values [float] (-100.0 to +100.0) mS.

Output Channels

Command = /output/amp/*/delayrel

Command = /output/aux/*/delayrel

Where * = output / aux channel 1, 2, 3 or 4

values [float] (-100.0 to +100.0) mS.

Pattern Mutes:*Input Channels*

Command = /input/mutepattern

values [int] (-15 to +15), [float] (-15.0 to +15.0)

Note: Binary weighted channels A = 1, B = 2, C = 4 and D = 8

Negative values = Mute, Positive = Unmute.

Output Channels

Command = /output/mutepattern

values [int] (-255 to +255), [float] (-255.0 to +225.0)

Note: Binary weighted channels Amp 1 = 1, Amp 2 = 2, Amp 4 = 4 etc.

Aux 1 = 16, Aux 2 = 32 etc.

Negative values = Mute, Positive = Unmute.

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Command Detail

Memory Recalls:

Recall Input Memories, Command = /recallmem/input
Recall Source Memories, Command = /recallmem/sources
Recall Output Memories to Amp Command = /recallmem/amp
Recall Output Memories to Aux Command = /recallmem/aux
Recall Everything Memories Command = /recallmem/all
values [int] (1 to max memory), [float] (1.0 to max memory).

Refresh Commands:

Updates the osc control with product current state

Refresh Mute, Command = /refresh/item/mutes
Refresh Mute, Command = /refresh/item/gains
Refresh Mute, Command = /refresh/item/delays
Refresh Mute, Command = /refresh/pattern

Note for /refresh/pattern multiple parameter can be refreshed defined by the `value`
Values [int] 1 to 7, [float] 1.0 to 7.0

1 for Mutes, 2 for Gains, 4 for Delays

For Example : refreshing gains & mute [float] value = 3

Troubleshooting note – a refresh command *Updates settings on the control panel with the current ones.* The unit sends the reply to a refresh command from the units transmit port to the ip address configured in the OSC menu.

If the refresh command does not work check these settings.

Unit = eg XTA DPA or Delta DSP

Revisions

Pre release 27/01/2021

Version 1.0 10/2/2021 Refresh command info updated

End of Document