



MX-HYB/EDC API

MX-1007-HYB | MX-0804-EDC

Application Programming Interface

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Supported Firmware	Refer to Supported Product Firmware/Software for details.

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1. Overview

The following contains the connection and commands to control the matrix switchers. By following the content contained in this document, the switcher can be controlled and configured via a 3rd party RS-232 control system.

IMPORTANT NOTE!

Due to differences between matrix series and model versions within a series, some commands have different parameters based on the model and version. These differences are noted where applicable and should be followed as sending an incorrect parameter may cause the unit to lock up and become inoperative.

1.1 Supported Product Firmware/Software

The following products and firmware versions are supported by this version of the API. The firmware versions listed are the minimum supported at time of publication; firmware may be higher except where otherwise noted.

Product	Status Since Last Doc Rev	Supported Product Versions
MX-1007-HYB	added	v1 or higher
MX-0804-EDC	added	v1 or higher

1.2 Before You Begin

Verify that the following items are on hand and that all documentation is reviewed before continuing:

- Configured and Operational HYB|EDC Matrix
- Refer to [Supported Product Firmware/Software](#) for a complete list of supported products and versions. Control System and Control System
Documentation.....
- PC or Mac for configuring product and telnet communications
- Network Connection with Network Passwords.....
- Current Product Firmware (if available), Software, and Documentation downloaded from [WyreStorm.com](#)

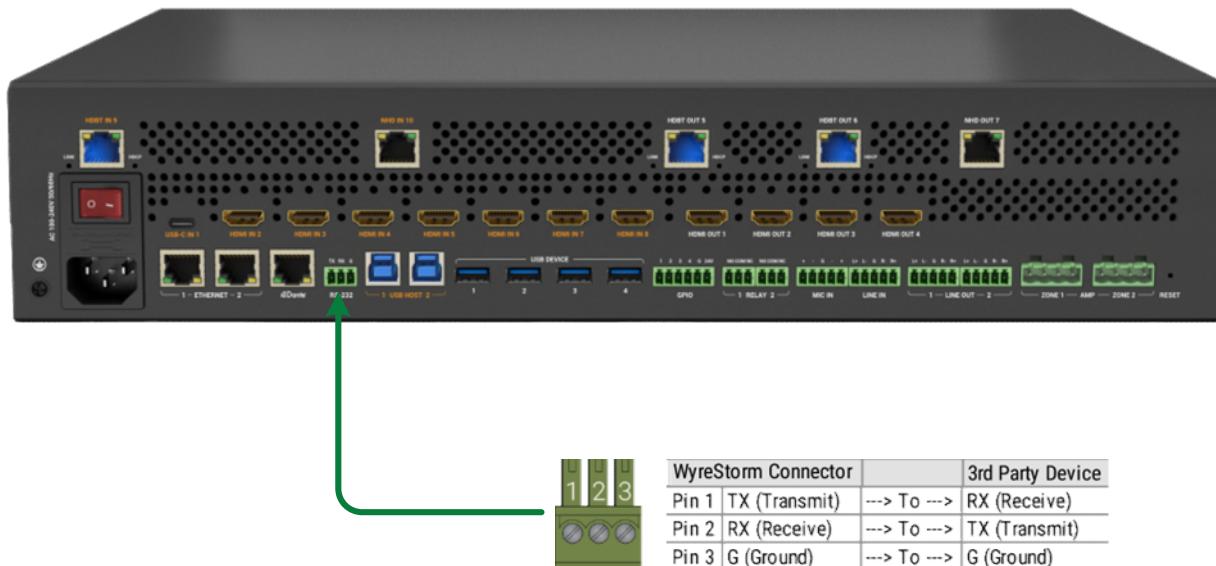
2. Wiring and Communication Configuration

WyreStorm recommends that all wiring for the installation is run and terminated prior to making connections to the switcher. Read through this section in this entirety before running or terminating the wires to ensure proper operation and to avoid damaging equipment.

2.1 RS-232 Connections

The following wiring diagrams show the pinouts for the WyreStorm device. While not shown, connect the TX (transmit) to RX (receive) pins at the control system or PC side of the cable. Most control systems and computers are configured for Digital Terminal Equipment (DTE) where pin 2 is RX and pin 3 is TX. This can vary from device to device, refer to the documentation for the connected device for pin functionally to ensure that the connect connections can be made.

Note: MX-1007-HYB shown below. Port may be in a different location for the various models.



RS-232 Port Settings

Baud rate:	9600bps
Data Bits:	8bits
Parity:	None
Stop Bits:	1bit
Flow Control:	None

2.2 Network Connections

2.2.1 IP Settings

Default IP Address	DHCP by default Auto IP method if DHCP is not present. Refer to IP Addressing and Web UI Access
Default IP Port	23

IP Addressing and Web UI Access

These matrix switchers use an Auto IP method to generate the initial IP address based on the network connections. By default, the IP address is set to DHCP and will pull the IP address from a connected DHCP server. Should the network not contain a DHCP server, the IP address will be generated based on the unit's MAC address. The above operation will occur unless the IP Address setting in the web UI is set to static.

1. Connect the matrix to the same network as a PC.
2. Using a 3rd party network scanner, scan the network for the IP address of the matrix.
3. Open a web browser and enter the IP Address of the matrix.
4. Enter the password for the matrix. The default password is: admin.

IP Address Notes

- The installer password and general password are the same by default. WyreStorm recommends changing the password for installer login to avoid any unwanted changes being made to the matrix configuration.

3. Command Overview

3.1 Command Delimiter for Sent Commands

When sending commands using the IPv4 / Telnet API channel, or when using the RS-232 API channel, all command lines sent from the 3rd party controller to the matrix should end with a specific character. This signifies when the command is processed by the matrix. This is usually specified in 3rd party control software as the "command delimiter," "stop character," or "line terminator."

Accepted delimiter characters are:

Character	Shorthand	Hex Notation	Escape Notation	Decimal Notation
Line Feed	LF	0A	\n	10
Carriage Return + Line Feed	CR LF	0D 0A	\r\n	13 10

Please note, most 3rd party control software will either append these characters automatically or an option to specify them will be present.

Note: It is important that the last delimiter character is LF and not CR.

4. Controlling Matrix Switching

4.1 Controlling Video

Switching Video Outputs

Command structure:

SET SW <INPUT> <OUTPUT>

Response Syntax:

SW <INPUT> <OUTPUT>

Example Command:

SET SW in4 out1

Example Response:

SW in4 out1

HYB Series

<INPUT> = in1 ~ in10 , in0

<OUTPUT> = out1~out7 , all

EDC Series

<INPUT> = in1 ~ in8 , in0

<OUTPUT> = out1~out4 , all

Note: <INPUT> value of “in0” power downs the output.

Query Video Output Mapping

Command structure:

GET MP <OUTPUT>

Response Syntax:

MP GET <INPUT> <OUTPUT>

Example Command:

GET MP out1

Example Response:

MP in4 out1

HYB Series

<INPUT> = in1 ~ in10 , in0

<OUTPUT> = out1~out7 , all

EDC Series

<INPUT> = in1 ~ in8 , in0

<OUTPUT> = out1~out4 , all

4.2 Controlling Audio

Select Audio Mixer Input

Command structure:

SET MIXER_IN <PRM1> <PRM3> <PRM2>

Response Syntax:

MIXER_IN <PRM1> <PRM3> <PRM2>

HYB Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

<PRM2> = On, Off

<PRM3> = OUT1 ~ OUT7, Dantein1 ~ Dantein4, usbhost, micin1 ~ micin2, linein

Note: Analog input: micin1, micin2, linein

Digital input: Dantein1 ~ Dantein4, usbhost (usbhost

does

not work with Remote USB MIXER)

Video De-embed: OUT1 ~ OUT7

Example Command:

SET MIXER_IN 1 OUT1 ON

EDCSeries

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

<PRM2> = On, Off

<PRM3> = OUT1 ~ OUT4, Dantein1 ~ Dantein4, usbhost, micin1 ~ micin2, linein

Note: Analog input: micin1, micin2, linein

Digital input: Dantein1 ~ Dantein4, usbhost (usbhost

does not work with Remote USB MIXER)

Video De-embed: OUT1 ~ OUT4

Query Audio Mixer Input

Command structure:

GET MIXER_IN <PRM1>

Response Syntax:

MIXER_IN <PRM1> <PRM2> <PRM3>

HYB Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

<PRM2> = On, Off

<PRM3> = {OUT1 ~ OUT7, Dantein1 ~ Dantein4, usbhost, micin1 ~ micin2, linein}

Note: Analog input: micin1, micin2, linein

Digital input: Dantein1 ~ Dantein4, usbhost

(usbhost does not work with Remote USB MIXER)

Video De-embed: OUT1 ~ OUT7

Example Command:

GET MIXER_IN 1

Example Response:

MIXER_IN 1 On Dantein1

EDCSeries

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

<PRM2> = On, Off

<PRM3> = OUT1 ~ OUT4, Dantein1 ~ Dantein4, usbhost, micin1 ~ micin2, linein

Note: Analog input: micin1, micin2, linein

Digital input: Dantein1 ~ Dantein4, usbhost

(usbhost does not work with Remote USB MIXER)

Video De-embed: OUT1 ~ OUT4

Set Audio Mixer Output

Command structure:
SET MIXER_OUT <PRM1> <PRM2> <PRM3>

Response Syntax:
MIXER_OUT <PRM1> <PRM2> <PRM3>

HYB Series

<PRM1> = 1, 2

1: indicates Local audio Mix 1.
2: indicates Local audio Mix 2.

<PRM2> = LINEOUT1, LINEOUT2, AMPOUT,
DANTEOUT12, DANTEOUT34, NHDOUT

Available only in Local audio mixer1: LINEOUT1, AMPOUT,
DANTEOUT12, NHDOUT

Available only in Local audio mixer2: LINEOUT2,
DANTEOUT34

<PRM3> = On, Off

Example Command:
SET MIXER_OUT 1 LINEOUT1 ON

EDC Series

<PRM1> = 1, 2

1: indicates Local audio Mix 1.
2: indicates Local audio Mix 2.

<PRM2> = LINEOUT1, LINEOUT2, AMPOUT,
DANTEOUT12, DANTEOUT34, NHDOUT

Available only in Local audio mixer1: LINEOUT1, AMPOUT,
DANTEOUT12, NHDOUT

Available only in Local audio mixer2: LINEOUT2,
DANTEOUT34

<PRM3> = On, Off

Example Response:
MIXER_OUT 1 LINEOUT1 ON

Get Audio Mixer Output

Command structure:

GET MIXER_OUT <PRM1> <PRM2> <PRM3>

Response Syntax:

MIXER_OUT <PRM1> <PRM2> <PRM3>

HYB Series

<PRM1> = 1, 2

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

<PRM2> = LINEOUT1, LINEOUT2, AMPOUT,
DANTEOUT12, DANTEOUT34, NHDOUT

Available only in Local audio mixer1: LINEOUT1, AMPOUT,
DANTEOUT12, NHDOUT

Available only in Local audio mixer2 :LINEOUT2,
DANTEOUT34

<PRM3> = On, Off

Example Command:

GET MIXER_OUT 1 LINEOUT1 ON

EDC Series

<PRM1> = 1, 2

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

<PRM2> = LINEOUT1, LINEOUT2, AMPOUT,
DANTEOUT12 , DANTEOUT34, NHDOUT

Available only in Local audio mixer1:LINEOUT1, AMPOUT,
DANTEOUT12,NHDOUT

Available only in Local audio mixer2:LINEOUT2,
DANTEOUT34

<PRM3> = On, Off

Example Response:

MIXER_OUT 1 LINEOUT1 ON

Set Audio Mixer Input Volume

Command structure:

SET MIXER_IN_VOL <PRM1> <PRM2> <PRM3>

Response Syntax:

MIXER_IN_VOL <PRM1> <PRM2> <PRM3>

HYB Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

<PRM2> = OUT1 ~ OUT7, Dantein1 ~ Dantein4, usbhost, micin1 ~ micin2, linein

Analog input: micin1, micin2, linein

Digital input: Dantein1 ~ Dantein4, usbhost

(usbhost does not work with Remote USB MIXER)

Video De-embed: OUT1 ~ OUT7

<PRM3> = {[-20, 20], [-20, 40]}

When in is LINEIN, DANTEin1~2, OUT1~OUT7, usbhost, the
prm = [-20, 20]

When in is MICIN, prm = [-20, 40]

Example Command:

SET MIXER_IN_VOL 1 MICINI -20

EDC Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

Example Response:

MIXER_IN_VOL 1 MICINI -20

<PRM2> = OUT1 ~ OUT4, Dantein1 ~ Dantein4, usbhost, micin1 ~ micin2, linein}

Analog input: micin1, micin2, linein

Digital input: Dantein1 ~ Dantein4, usbhost (usbhost does not
work with Remote USB MIXER)

Video De-embed: OUT1 ~ OUT4

<PRM3> = {[-20, 20], [-20, 40]}

When in is LINEIN, DANTEin1~2, OUT1~OUT4, usbhost, the
prm = [-20, 20]

When in is MICIN, prm = [-20, 40]

Get Audio Mixer Input Volume

Command structure:

GET MIXER_IN_VOL <PRM1> <PRM2> <PRM3>

Response Syntax:

MIXER_IN_VOL <PRM1> <PRM2> <PRM3>

HYB Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

<PRM2> = OUT1 ~ OUT7, Dantein1 ~ Dantein4, usbhost, micin1 ~ micin2, linein

Analog input: micin1, micin2, linein

Digital input: Dantein1 ~ Dantein4, usbhost

(usbhost does not work with Remote USB MIXER)

Video De-embed: OUT1 ~ OUT7

<PRM3> = {[[-20, 20], [-20, 40]]}

When in is LINEIN, DANTEin1~2, OUT1~OUT7, usbhost, the
prm = [-20, 20]

When in is MICIN, prm = [-20, 40]

Example Command:

GET MIXER_IN_VOL 1 MICINI -20

EDC Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

<PRM2> = OUT1 ~ OUT4, Dantein1 ~ Dantein4, usbhost, micin1 ~ micin2, linein}

Analog input: micin1, micin2, linein

Digital input: Dantein1 ~ Dantein4, usbhost (usbhost does not
work with Remote USB MIXER)

Video De-embed: OUT1 ~ OUT4

<PRM3> = {[[-20, 20], [-20, 40]]}

When in is LINEIN,DANTEin1~2,OUT1~OUT4, usbhost, the
prm = [-20, 20]

When in is MICIN, prm = [-20, 40]

Example Response:

MIXER_IN_VOL 1 MICINI -20

Set Audio Mixer Output Volume

Command structure:

SET MIXER_OUT_VOL <PRM1> <PRM2>

Response Syntax:

MIXER_OUT_VOL <PRM1> <PRM2>

HYB Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

<PRM2> = [-100, 0]

-100 means mute

Example Command:

SET MIXER_OUT_VOL 1 -100

EDC Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

Example Response:

MIXER_OUT_VOL 1 -100

<PRM2> = [-100, 0]

-100 means mute

Get Audio Mixer Output Volume

Command structure:

GET MIXER_OUT_VOL <PRM1>

Response Syntax:

MIXER_OUT_VOL <PRM1> <PRM2>

HYB Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

<PRM2> = [-100, 0]

-100 means mute

Example Command:

GET MIXER_OUT_VOL 1

EDC Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

Example Response:

MIXER_OUT_VOL 1 -100

<PRM2> = [-100, 0]

-100 means mute

Mute/Unmute Input Mixer Audio

Command structure:

SET MIXER_IN_MUTE <PRM1> <PRM2> <PRM3

Response Syntax:

MIXER_IN_MUTE <PRM1> <PRM2> <PRM3>

HYB Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

<PRM2> = OUT1 ~ OUT7, Dantein1 ~ Dantein4, micin1 ~ micin2, linein

Analog input: micin1, micin2, linein

Digital input: Dantein1 ~ Dantein4, USB Host Audio(USB Host Audio does not work with Remote USB MIXER)

Video De-embed:OUT1 ~ OUT7

<PRM3> = on, off

Example Command:

SET MIXER_IN_MUTE 1 OUT1 ON

EDC Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

Example Response:

MIXER_IN_MUTE 1 OUT1 ON

<PRM2> = OUT1 ~ OUT7, Dantein1 ~ Dantein4, micin1 ~ micin2, linein

Analog input: micin1, micin2, linein

Digital input: Dantein1 ~ Dantein4, USB Host Audio(USB Host Audio does not work with Remote USB MIXER)

Video De-embed:OUT1 ~ OUT4

<PRM3> = on, off

Query Mute/Unmute Input Mixer Audio

Command structure:

GET MIXER_IN_MUTE <PRM1> <PRM2>

Response Syntax:

MIXER_IN_MUTE <PRM1> <PRM2> <PRM3>

HYB Series

< <PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

<PRM2> = OUT1 ~ OUT7, Dantein1 ~ Dantein4, micin1 ~ micin2, linein

Analog input: micin1, micin2, linein

Digital input: Dantein1 ~ Dantein4, USB Host Audio(USB Host Audio does not work with Remote USB MIXER)

Video De-embed:OUT1 ~ OUT7

<PRM3> = on, off

Example Command:

GET MIXER_IN_MUTE 1 OUT1

Example Response:

MIXER_IN_MUTE 1 OUT1 ON

EDC Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

<PRM2> = OUT1 ~ OUT7, Dantein1 ~ Dantein4, micin1 ~ micin2, linein

Analog input: micin1, micin2, linein

Digital input: Dantein1 ~ Dantein4, USB Host Audio(USB Host Audio does not work with Remote USB MIXER)

Video De-embed:OUT1 ~ OUT4

<PRM3> = on, off

Mute/Unmute Mixer Output Audio

Command structure:
SET MIXER_OUT_MUTE <PRM1> <PRM2>

Response Syntax:
MIXER_OUT_MUTE <PRM1> <PRM2>

Example Command:
SET MIXER_OUT_MUTE 1 ON

Example Response:
MIXER_OUT_MUTE 1 ON

HYB Series
<PRM1> = 1, 2, 3
1: indicates Local audio Mix 1.
2: indicates Local audio Mix 2.
3: indicates Remote USB MIXER.

<PRM2> = ON, OFF

EDC Series
<PRM1> = 1, 2, 3
1: indicates Local audio Mix 1.
2: indicates Local audio Mix 2.
3: indicates Remote USB MIXER.

<PRM2> = ON, OFF

Query Mute/Unmute Mixer Output Audio

Command structure:
GET MIXER_OUT_MUTE <PRM1> <PRM2>

Response Syntax:
MIXER_OUT_MUTE <PRM1> <PRM2>

Example Command:
GET MIXER_OUT_MUTE

Example Response:
MIXER_OUT_MUTE

HYB Series
<PRM1> = 1, 2, 3
1: indicates Local audio Mix 1.
2: indicates Local audio Mix 2.
3: indicates Remote USB MIXER.

<PRM2> = ON, OFF

EDC Series
<PRM1> = 1, 2, 3
1: indicates Local audio Mix 1.
2: indicates Local audio Mix 2.
3: indicates Remote USB MIXER.

<PRM2> = ON, OFF

Set the Ducking Power Status for the Mixer

Command structure:

SET MIXER_DUCK_PWR <PRM1> <PRM2>

Response Syntax:

MIXER_DUCK_PWR <PRM1> <PRM2>

HYB Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

<PRM2> = ON, OFF

Example Command:

SET MIXER_DUCK_PWR 1 ON

EDC Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

Example Response:

MIXER_DUCK_PWR 1 ON

<PRM2> = ON, OFF

Get the Ducking Power Status for the Mixer

Command structure:

GET MIXER_DUCK_PWR <PRM1>

Response Syntax:

MIXER_OUT_MUTE <PRM1> <PRM2>

HYB Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

<PRM2> = ON, OFF

Example Command:

GET MIXER_DUCK_PWR 1

EDC Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER.

Example Response:

MIXER_DUCK_PWR 1 ON

<PRM2> = ON, OFF

Select Audio Mixer Ducking Master Input

Command structure:

SET DUCK_MASTER <PRM1> <PRM2>

Response Syntax:

DUCK_MASTER <PRM1> <PRM2>

HYB Series

<PRM1> 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER

<PRM2> = Dantein1 ~ Dantein4, micin1 ~ micin2

Example Command:

SET DUCK_MASTER 1 Dantein1

EDC Series

<PRM1> 1, 2, 3

1: indicates Local audio Mix 1.

2: indicates Local audio Mix 2.

3: indicates Remote USB MIXER

Example Response:

DUCK_MASTER 1 Dantein1

<PRM2> = Dantein1 ~ Dantein4, micin1 ~ micin2

Get the selected input of the Audio Mixer Ducking Master

Command structure:

GET DUCK_MASTER <PRM1>

Response Syntax:

DUCK_MASTER <PRM1> <PRM2>

HYB Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1

2: indicates Local audio Mix 1

3: indicates Remote USB MIXER.

<PRM2> = Dantein1 ~ Dantein4, Micin1 ~ Micin2

Example Command:

GET DUCK_MASTER 1

EDC Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1

2: indicates Local audio Mix 1

3: indicates Remote USB MIXER.

Example Response:

DUCK_MASTER 1 Dantein1

<PRM2> = Dantein1 ~ Dantein4, Micin1 ~ Micin2

Set the Ducking Attack time for the Mixer

Command structure:

SET DUCK_ATTACK_TIME <PRM1> <PRM2>

Response Syntax:

DUCK_ATTACK_TIME <PRM1> <PRM2>

HYB Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1

2: indicates Local audio Mix 2

3: indicates Remote USB MIXER

<PRM2> = 1 ~ 500 (Step = 10ms)

Example Command:

SET DUCK ATTACK TIME 1 20

EDC Series

< PRM1> = 1, 2, 3

1: indicates Local audio Mix 1

2: indicates Local audio Mix 2

3: indicates Remote USB MIXER

Example Response:

DUCK ATTACK TIME 1 20

<PRM2> = 1 ~ 500 (Step = 10ms)

Get the Ducking Attack time of the Mixer

Command structure:

GET DUCK_ATTACK_TIME <PRM1>

Response Syntax:

DUCK_ATTACK_TIME <PRM1> <PRM2>

HYB Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1

2: indicates Local audio Mix 2

3: indicates Remote USB MIXER

<PRM2> = 1 ~ 500 (Step = 10ms)

Example Command:

GET DUCK ATTACK TIME 1

EDC Series

<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1

2: indicates Local audio Mix 2

3: indicates Remote USB MIXER

Example Response:

DUCK ATTACK TIME 1 20

<PRM2> = 1 ~ 500 (Step = 10ms)

Set the Ducking Release time for the Mixer

Command structure:
SET DUCK_RELEASE_TIME <PRM1> <PRM2>

Response Syntax:
DUCK_RELEASE_TIME <PRM1> <PRM2>

HYB Series
<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.
2: indicates Local audio Mix 2.
3: indicates Remote USB MIXER.

<PRM2> | ~ 2000 (Step = 10ms)

Example Command:
SET DUCK_RELEASE_TIME 1 20

EDC Series
< PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.
2: indicates Local audio Mix 2.
3: indicates Remote USB MIXER.

Example Response:
DUCK_RELEASE_TIME 1 20

<PRM2> | ~ 2000 (Step = 10ms)

Get the Ducking Release time for the Mixer

Command structure:
GET DUCK_RELEASE_TIME <PRM1>

Response Syntax:
DUCK_RELEASE_TIME <PRM1> <PRM2>

HYB Series
<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.
2: indicates Local audio Mix 2.
3: indicates Remote USB MIXER.

<PRM2> | ~ 2000 (Step = 10ms)

Example Command:
GET DUCK_RELEASE_TIME 1

EDC Series
<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.
2: indicates Local audio Mix 2.
3: indicates Remote USB MIXER.

Example Response:
DUCK_RELEASE_TIME 1 20

<PRM2> | ~ 2000 (Step = 10ms)

Set the Ducking Depth for the Mixer

Command structure:
SET DUCK_DEPTH <PRM1> <PRM2>

Response Syntax:
DUCK_DEPTH <PRM1> <PRM2>

Example Command:
SET DUCK_DEPTH 1 20

Example Response:
DUCK_DEPTH 1 20

HYB Series
<PRM2> = 1, 2, 3
1: indicates Local audio Mix 1.
2: indicates Local audio Mix 2.
3: indicates Remote USB MIXER.

<PRM2> = 1 ~ 100 (step = 1)

EDC Series
< PRM2> = 1, 2, 3
1: indicates Local audio Mix 1.
2: indicates Local audio Mix 2.
3: indicates Remote USB MIXER.

<PRM2> = 1 ~ 100 (step = 1)

Get the Ducking Depth for the Mixer

Command structure:
GET DUCK_DEPTH <PRM1>

Response Syntax:
DUCK_DEPTH <PRM1> <PRM2>

Example Command:
GET DUCK_DEPTH 1

Example Response:
DUCK_DEPTH 1 20

HYB Series
<PRM2> = 1, 2, 3
1: indicates Local audio Mix 1.
2: indicates Local audio Mix 2.
3: indicates Remote USB MIXER.

<PRM2> = 1 ~ 100 (step = 1)

EDC Series
< PRM2> = 1, 2, 3
1: indicates Local audio Mix 1.
2: indicates Local audio Mix 2.
3: indicates Remote USB MIXER.

<PRM2> = 1 ~ 100 (step = 1)

Set the Ducking trigger for the Mixer

Command structure:
SET DUCK_TRIGGER <PRM1> <PRM2>

Response Syntax:
DUCK_TRIGGER <PRM1> <PRM2>

HYB Series
<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.
2: indicates Local audio Mix 2.
3: indicates Remote USB MIXER.

<PRM2> = -90 ~ 10 (step = .5dB)

Example Command:
SET DUCK_TRIGGER 1 10

Example Response:
DUCK_TRIGGER 1 10

EDC Series
<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.
2: indicates Local audio Mix 2.
3: indicates Remote USB MIXER.

<PRM2> = -90 ~ 10 (step = .5dB)

Get the Ducking trigger for the Mixer

Command structure:
GET DUCK_TRIGGER <PRM1>

Response Syntax:
DUCK_TRIGGER <PRM1> <PRM2>

HYB Series
<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.
2: indicates Local audio Mix 2.
3: indicates Remote USB MIXER.

<PRM2> = -90 ~ 10 (step = .5dB)

Example Command:
GET DUCK_TRIGGER 1 10

Example Response:
DUCK_TRIGGER 1 10

EDC Series
<PRM1> = 1, 2, 3

1: indicates Local audio Mix 1.
2: indicates Local audio Mix 2.
3: indicates Remote USB MIXER.

<PRM2> = -90 ~ 10 (step = .5dB)

Set the Mode of the Amplifier

Command structure:
SET AMP_CH_SEL <PRM1>

Response Syntax:
AMP_CH_SEL <PRM1>

HYB Series
<PRM1> = 1, 2

1: 4x 15 watts
2: 2x 30 watts

Example Command:
SET AMP_CH_SEL 1

EDC Series
N/A

Example Response:
AMP_CH_SEL 1

Get the Mode of the Amplifier

Command structure:
GET AMP_CH_SEL

Response Syntax:
AMP_CH_SEL <PRM1>

HYB Series
<PRM1> = 1, 2

1: 4x 15 watts
2: 2x 30 watts

Example Command:
GET AMP_CH_SEL

EDC Series

N/A

Example Response:
AMP_CH_SEL 1

Enable/Disable Phantom Power

Command structure:
SET MIC_PHA_PWR <PRM1> <PRM2>

Response Syntax:
SET MIC_PHA_PWR <PRM1> <PRM2>

Example Command:
SET MIC_PHA_PWR I on

Example Response:
MIC_PHA_PWR I on

HYB Series

<PRM1> = I, 2

I = Mic1, 2 = Mic2

<PRM2> = on, off

EDC Series

<PRM1> = I, 2

I = Mic1, 2 = Mic2

<PRM2> = on, off

Query Phantom Power

Command structure:
GET MIC_PHA_PWR <PRM1>

Response Syntax:
MIC_PHA_PWR <PRM1> <PRM2>

Example Command:
GET MIC_PHA_PWR I

Example Response:
MIC_PHA_PWR I on

HYB Series

<PRM1> = I, 2

I = Mic1, 2 = Mic2

<PRM2> = on, off

EDC Series

<PRM1> = I, 2

I = Mic1, 2 = Mic2

<PRM2> = on, off

5. USB Switching

Set the USB Host

Command structure:
SET USB_HOST <PRMI>

Response Syntax:
USB_HOST <PRMI>

Example Command:
SET USB_HOST typec

Example Response:
USB_HOST typec

HYB Series

<PRM1> = typec, usbhost1, usbhost2, in9, in10

EDC Series

<PRM1> = typec, usbhost1, usbhost2

Query the USB Host

Command structure:
GET USB_HOST

Response Syntax:
USB_HOST <PRMI>

Example Command:
GET USB_HOST

Example Response:
USB_HOST typec

HYB Series

<PRM1> = typec, usbhost1, usbhost2, in9, in10

EDC Series

<PRM1> = typec, usbhost1, usbhost2

6. GPIO and RELAY Control

Configure the GPIO IN

Command structure:

SET GPIO_IN_CTL <PRM1> <PRM2> <PRM3>

Response Syntax:

GPIO_IN_CTL <PRM1> <PRM2> <PRM3> <PRM4>

HYB Series

<PRM1> = 1, 2, 3, 4

<PRM2> = 1-5

(low-state Threshold)

<PRM3> = 1-5

(high-state Threshold)

<PRM4> = high, low

Example Command:

SET GPIO_IN_CTL 1 1 3

Example Response:

GPIO_IN_CTL 1 1 3 HIGH

EDC Series

<PRM1> = 1, 2, 3, 4

<PRM2> = 1-5

(low-state Threshold)

<PRM3> = 1-5

(high-state Threshold)

<PRM4> = high, low

Get the GPIO IN Configurations

Command structure:

GET GPIO_IN_CTL <PRM1>

Response Syntax:

GPIO_IN_CTL <PRM1> <PRM2> <PRM3> <PRM4>

HYB Series

<PRM1> = 1, 2, 3, 4

<PRM2> = 1-5

(low-state Threshold)

<PRM3> = 1-5

(high-state Threshold)

<PRM4> = high, low

Example Command:

GET GPIO_IN_CTL 1

Example Response:

GPIO_IN_CTL 1 1 3 HIGH

EDC Series

<PRM1> = 1, 2, 3, 4

<PRM2> = 1-5

(low-state Threshold)

<PRM3> = 1-5

(high-state Threshold)

<PRM4> = high, low

Configure the GPIO OUT

Command structure:

SET GPIO_OUT_CTL <PRM1> <PRM2> <PRM3>

Response Syntax:

GPIO_OUT_CTL <PRM1> <PRM2> <PRM3>

HYB Series

<PRM1> = 1, 2, 3, 4

<PRM2> = ON, OFF

<PRM3> = high, low

Example Command:

SET GPIO_OUT_CTL 1 ON HIGH

Example Response:

GPIO_OUT_CTL 1 ON HIGH

EDC Series

<PRM1> = 1, 2, 3, 4

<PRM2> = ON, OFF

<PRM3> = high, low

GET the GPIO OUT Configurations

Command structure:

GET GPIO_OUT_CTL <PRM1>

Response Syntax:

GPIO_OUT_CTL <PRM1> <PRM2> <PRM3>

Example Command:

GET GPIO_OUT_CTL I

Example Response:

GPIO_OUT_CTL I ON HIGH

HYB Series

<PRM1> = I, 2, 3, 4

<PRM2> = ON, OFF

<PRM3> = high, low

EDC Series

<PRM1> = I, 2, 3, 4

<PRM2> = ON, OFF

<PRM3> = high, low

Configure the Relay

Command structure:

SET RELAY <PRM1> <PRM2>

Response Syntax:

RELAY <PRM1> <PRM2>

Example Command:

SET RELAY I ON

Example Response:

RELAY I ON

HYB Series

<PRM1> = I, 2

<PRM2> = ON, OFF

EDC Series

<PRM1> = I, 2

<PRM2> = ON, OFF

GET the Relay Configurations

Command structure:

GET RELAY <PRM1>

Response Syntax:

RELAY <PRM1> <PRM2>

Example Command:

GET RELAY I

Example Response:

RELAY I ON

HYB Series

<PRM1> = I, 2

<PRM2> = ON, OFF

EDC Series

<PRM1> = I, 2

<PRM2> = ON, OFF

7. Saving and Recalling an Audio/Video Scene

Save a Scene

Command structure:

SAVE PRESET <PRM>

Response Syntax:

PRESET <PRM>

Example Command:

SAVE PRESET I

<PRM> =I~6

Example Response:

PRESET I

Recall a Scene

Command structure:

RESTORE PRESET <PRM>

Response Syntax:

PRESET <PRM>

Example Command:

RESTORE PRESET I

<PRM> =I~6

Example Response:

PRESET I

8. Controlling Display Power via CEC

CEC Display Power

Command structure:

SET CEC_PWR <OUTPUT> <PRM>

HYB Series

<PRM> = on, off

<OUTPUT> = out1 ~ out6, all

Response Syntax:

CEC_PWR <OUTPUT> <PRM>

Example Command:

SET CEC_PWR out2 on

EDC Series

<PRM> = on, off

<OUTPUT> = out1 ~ out4, all

Example Response:

CEC_PWR out2 on

Set CEC Auto Power

Command structure:

SET AUTOCEC_FN <OUTPUT> <PRM>

HYB Series

<PRM> = on, off

<OUTPUT> = out1 ~ out6, all

Response Syntax:

AUTOCEC_PWR <OUTPUT> <PRM>

Example Command:

SET AUTOCEC_FN out2 on

EDC Series

<PRM> = on, off

<OUTPUT> = out1 ~ out4, all

Example Response:

AUTOCEC_FN out2 on

The matrix can automatically send a CEC Power On command to an output when an HDMI input signal is detected. CEC Power Off commands can also automatically be sent after “X” amount of time when a signal detection is lost. See “Set CEC Auto Power Off Delay” section for details.

Query CEC Auto Power

Command structure:

GET AUTOCEC_FN <OUTPUT>

HYB Series

<PRM> = on, off

<OUTPUT> = out1 ~ out6, all

Response Syntax:

AUTOCEC_FN <OUTPUT> <PRM>

Example Command:

GET AUTOCEC_FN out2

Example Response:

AUTOCEC_FN out2 on

EDC Series

<PRM> = on, off

<OUTPUT> = out1 ~ out4, all

Set CEC Auto Power Off Delay

Command structure:

SET AUTOCEC_D <OUTPUT> <PRM>

HYB Series

<PRM> = 1 ~ 30

<OUTPUT> = out1 ~ out6, all

Response Syntax:

AUTOCEC_D <OUTPUT> <PRM>

EDC Series

<PRM> = 1 ~ 30

<OUTPUT> = out1 ~ out4, all

Example Command:

SET AUTOCEC_D out1 5

Example Response:

AUTOCEC_FN out1 5

Note: <PRM> is in minutes. A value of 10 is equal to a 10-minute delay.

Query CEC Auto Power Off Delay

Command structure:

GET AUTOCEC_D <OUTPUT>

HYB Series

<PRM> = 1 ~ 30

<OUTPUT> = out1 ~ out6, all

Response Syntax:

AUTOCEC_D <OUTPUT> <PRM>

EDC Series

<PRM> = 1 ~ 30

<OUTPUT> = out1 ~ out4, all

Example Command:

GET AUTOCEC_D out1

Example Response:

AUTOCEC_D out1 5

Note: <PRM> is in minutes. A value of 10 is equal to a 10-minute delay.

7 Matrix EDID Settings

Set Input EDID

Command structure:

SET EDID <INPUT> <PRM>

Response Syntax:

EDID <INPUT> <PRM>

Example Command:

SET EDID in1 2

HYB Series

<INPUT> = in1~in9 , all

<PRM> = 1~26

1 : Copy form HDMI output 1

2 : Copy form HDMI output 2

...

7 : Copy form HDMI output 7

8 : Fixed 4K60 2.0CH PCM Audio with HDR;

9 : Fixed 4K60 2.0CH PCM Audio with SDR;

10 : Fixed 4K30 2.0CH PCM Audio with HDR;

11 : Fixed 4K30 2.0CH PCM Audio with SDR;

12 : Fixed 1080p@60Hz 2.0CH PCM Audio with HDR;

13 : Fixed 1080p@60Hz 2.0CH PCM Audio with SDR

EDC Series

<INPUT> in1 ~ in8

<PRM> = 1 ~ 30

1 : Copy form HDMI output 1

2 : Copy form HDMI output 2

3 : Copy form HDMI output 3

4 : Copy form HDMI output 4

5 : Fixed 4K60 2.0CH PCM Audio with HDR;

6 : Fixed 4K60 2.0CH PCM Audio with SDR;

7 : Fixed 4K30 2.0CH PCM Audio with HDR;

8 : Fixed 4K30 2.0CH PCM Audio with SDR;

9 : Fixed 1080p@60Hz 2.0CH PCM Audio with HDR;

10 : Fixed 1080p@60Hz 2.0CH PCM Audio with SDR;

Example Response:

EDID in1 2

GET Input EDID

Command structure:
GET EDID <INPUT>

Response Syntax:
EDID <INPUT> <PRM>

Example Command:
GET EDID in1

HYB Series

<INPUT> = in1~in9 , all
<PRM> = 1~26
1 : Copy form HDMI output 1
2 : Copy form HDMI output 2
...
7 : Copy form HDMI output 7
8 : Fixed 4K60 2.0CH PCM Audio with HDR;
9 : Fixed 4K60 2.0CH PCM Audio with SDR;
10 : Fixed 4K30 2.0CH PCM Audio with HDR;
11 : Fixed 4K30 2.0CH PCM Audio with SDR;
12 : Fixed 1080p@60Hz 2.0CH PCM Audio with HDR;
13 : Fixed 1080p@60Hz 2.0CH PCM Audio with SDR

Example Response:
EDID in1 2

EDC Series

<INPUT> in1 ~ in8
<PRM> = 1 ~ 30

1 : Copy form HDMI output 1
2 : Copy form HDMI output 2
3 : Copy form HDMI output 3
4 : Copy form HDMI output 4
5 : Fixed 4K60 2.0CH PCM Audio with HDR;
6 : Fixed 4K60 2.0CH PCM Audio with SDR;
7 : Fixed 4K30 2.0CH PCM Audio with HDR;
8 : Fixed 4K30 2.0CH PCM Audio with SDR;
9 : Fixed 1080p@60Hz 2.0CH PCM Audio with HDR;
10 : Fixed 1080p@60Hz 2.0CH PCM Audio with SDR;

Set EDID Input Write

Command structure:

SET EDID_W <INPUT> <PRM1> <PRM2>

Response Syntax:

EDID_W <INPUT> <PRM1> <PRM3>

Example Command:

SET EDID_W in1 block0 XX...XX<CR><LF>

HYB Series

<INPUT> = in1~in9

<PRM1> = block0~block1

<PRM2> = one block of 256 bytes EDID ASCII data **w/ spaces** (HEX data must be converted to ASCII)

<PRM3> = ok, error (error= check sum error)

EDC Series

<INPUT> = in1~in8

<PRM1> = block0~block1

<PRM2> = one block of 256 bytes EDID ASCII data **w/ spaces** (HEX data must be converted to ASCII)

<PRM3> = ok, error

(error= check sum error)

Example Response:

EDID_W in1 block0 ok<CR><LF

GET EDID Input Read

Command structure:

GET EDID_R <OUTPUT> <PRM1> <PRM2>

Response Syntax:

EDID_R <OUTPUT> <PRM1> <PRM2>

Example Command:

GET EDID_R out1<CR><LF>

HYB Series

<OUTPUT> = out1 ~ out7

<PRM1> = block0~block1

<PRM2> = one block of 256 bytes EDID ASCII data (HEX data must be converted to ASCII)

EDC Series

<OUTPUT> = out1 ~ out4

<PRM1> = block0~block1

<PRM2> = one block of 256 bytes EDID ASCII data **w/ spaces** (HEX data must be converted to ASCII)

Example Response:

EDID_R out1 block0

XX...XX<CR><LF>

EDID_R out1 block1

XX...XX<CR><LF>

8 Scaling Configuration

8.1 Configuring the scaling outputs

Should the output video need to be scaled to the native resolution of a connected display, the following commands can be implemented.

Setting output resolution

Command structure:

SET VIDOUT_RES <OUTPUT>

Response Syntax:

VIDOUT_RES <OUTPUT> <PRM>

Example Command:

SET VIDOUT_RES out1 1920x1080@60

Example Response:

VIDOUT_RES out1 1920x1080@60

HYB Series

<OUTPUT> = out1~out7

<PRM> =

AUTO,
3840x2160@60
3840x2160@50
3840x2160@30
3840x2160@25
3840x2160@24
1920x1200@60
1920x1080@60
1920x1080@50
1680x1050@60
1600x1200@60
1600x900@60
1440x900@60
1366x768@60
1360x768@60
1280x1024@60
1280x960@60
1280x800@60
1280x768@60
1280x720@60
1280x720@50
1024x768@60
800x600@60

EDC Series

<OUTPUT> = out1~out4

<PRM> =

AUTO,
3840x2160@60
3840x2160@50
3840x2160@30
3840x2160@25
3840x2160@24
1920x1200@60
1920x1080@60
1920x1080@50
1680x1050@60
1600x1200@60
1600x900@60

I440x900@60
I366x768@60
I360x768@60
I280x1024@60
I280x960@60
I280x800@60
I280x768@60
I280x720@60
I280x720@50
I024x768@60
800x600@60

Query output resolution

Command structure:

GET VIDOUT_RES <OUTPUT>

Response Syntax:

VIDOUT_RES <OUTPUT><PRM>

HYB Series

<OUTPUT> = out1~out7

<PRM> =

AUTO,
3840x2160@60
3840x2160@50
3840x2160@30
3840x2160@25
3840x2160@24
1920x1200@60
1920x1080@60
1920x1080@50
1680x1050@60
1600x1200@60
1600x900@60
1440x900@60
1366x768@60
1360x768@60
1280x1024@60
1280x960@60
1280x800@60
1280x768@60
1280x720@60
1280x720@50
1024x768@60
800x600@60

Example Command:

GET VIDOUT_RES out1

Example Response:

VIDOUT_RES out1 1920x1080@60

EDC Series

<OUTPUT> = out1~out4

<PRM> =

AUTO,
3840x2160@60
3840x2160@50
3840x2160@30
3840x2160@25
3840x2160@24
1920x1200@60
1920x1080@60
1920x1080@50
1680x1050@60
1600x1200@60
1600x900@60
1440x900@60
1366x768@60
1360x768@60
1280x1024@60
1280x960@60
1280x800@60
1280x768@60
1280x720@60
1280x720@50

1024x768@60
800x600@60

9 Troubleshooting

Query IP Address

Command:

GET IPADDR

Response Syntax:

IPADDR <PRM>

<PRM> = IPv4 Address

Query Firmware Version

Command:

GET VER

Response Syntax:

VER <PRM>

<PRM> = current installed firmware version

Reboot Matrix

Command:

REBOOT

Response:

REBOOT

No Parameters

Restore Factory Defaults

Command:

RESET

Response:

RESET

No Parameters

10 Contacting Technical Support

Should further clarification of the content in this document or assistance on troubleshooting be required, please contact WyreStorm technical support.

Phone: UK: +44 (0) 1793 230 343 | ROW: 844.280.WYRE (9973)

Contact Request: <http://wyrestorm.com/contact-tech-support>

11 Document Revision History

V1.0 -December 2023 - Initial release

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