

TASCAM MX-8A/DCP Series

CONTROL I/O Terminals

RS-232C／ETHERNET Protocol Specifications

Ver. 1.00

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TEAC Corporation

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1. Overview

An MX-8A/DCP Series unit can be controlled from a computer or other connected device using the RS-232C (MX-8A only) or ETHERNET connector on the unit. In this document, the MX-8A/DCP Series is the controlled device. Moreover, the connected device controlling the unit is the external controller.

2. Specifications

RS-232C connector (MX-8A only)

Electronic specifications

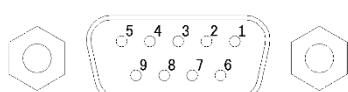
| | |
|-------------------------------------|---|
| Standard | JIS X-5101 (equivalent to the former JIS-C-6361 and EIA RS-232C standards) Note that this is not compatible with the RS-422 used in professional VTRs. |
| Impedance at receiver | When measured with an applied voltage between -3 V and +3 V or between -15 V and +15 V, the DC resistance is between 3 k ohms and 7 k ohms. Total load capacitance is 2500 pF or less. |
| Open circuit voltage at transmitter | 25V or less |
| Open circuit voltage at receiver | 2V or less |
| Signal voltage | When the open circuit voltage at the receiver is 0 V, the signal voltage is between -5 V and +5 V or between -15 V and +15V against a load impedance between 3 k ohms and 7 k ohms. |
| Signal discrimination | Logic "1" : -3V or less Logic "0" : +3V or more |

Communication format

| | |
|------------------------------|--------------------------------------|
| Circuit type | 3-wire, Half-duplex |
| Transmission type | Digital binary serial |
| Data signal rate (baud rate) | 4800/9600/19200/38400/57600 bits/sec |
| Data bits | 7/8 bits |
| Parity bits | None/ODD/EVEN |
| Stop bits | 1/2 bit |

Connector pin-out

| | |
|-----------|---------------------------------------|
| Connector | D-sub 9pin female (Inch screw thread) |
|-----------|---------------------------------------|

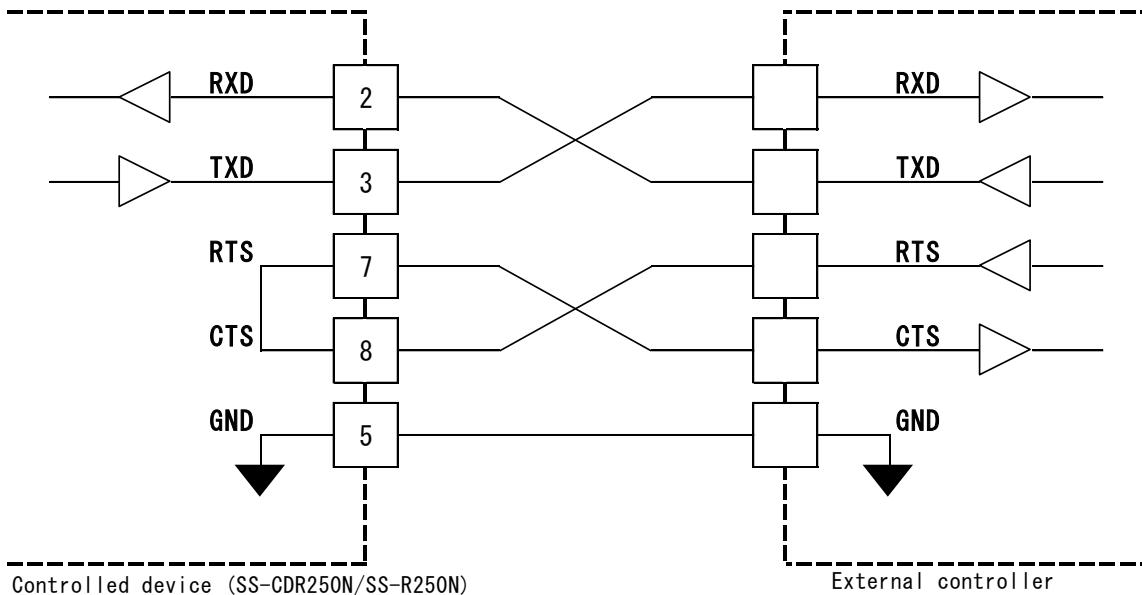


Terminal pin-out and input/output signals

| Pin No. | In/Out | Signal name | Description |
|---------|--------|-------------|---|
| 1 | - | NC | Not connected |
| 2 | In | Rx Data | Data received at this pin (*1) |
| 3 | Out | Tx Data | Data transmitted from this pin |
| 4 | Out | (Reserved) | Reserved |
| 5 | - | GND | Signal ground pin |
| 6 | In | (Reserved) | Reserved |
| 7 | In | RTS | Request To Send (input of send request) (*2) |
| 8 | Out | CTS | Clear To Send (output of receive preparation complete) (*2) |
| 9 | - | NC | Not connected |

*1: Make sure that a voltage applied to Pin No. 2 for Rx DATA conforms to the RS-232C standard.

*2: Pins No. 7 and 8 are short-circuited to receive or transmit RTS/CTS signals. When conducting RTS/CTS control, refer to the design of the external controller.

**ETHERNET connector****Transmission interface**

| | |
|-----------------------|---------------------------------|
| Transmission system | Full-duplex |
| Transmission protocol | TCP/IP |
| Port number | 54726 (fixed) |
| Ethernet standard | 100BASE-TX |
| Connector | RJ-45 |
| Cable | Category 5e or faster STP cable |

Overview of ETHERNET connection (LOGIN)

Logging in is necessary after connecting by TCP/IP with the controlled device to enable protocol interactions.

Login procedure

1. Connect by TCP/IP.
For the IP address, enter that of the controlled device.
The port number is “54726” (fixed).
2. Send a “CR+LF” command complete code. (Carriage return (CR: 0x0D) + line feed (LF: 0x0A))
The unit will reply with, “Enter Password” .
3. Next send the password + “CR+LF” to log in.
 - No password is set for the controlled device when shipped new from the factory.
 - If no password has been set, send “CR+LF” only.
4. If the login succeeds, the unit will reply with, “Login Successful” .
This completes enabling protocol interactions with the unit.

ATTENTION

- Only one Ethernet connection is to be made.
If another host is already connected, the result will be “Another User Already Connected” and the connection will be ended.
- If no protocol exchange occurs for three minutes when connected, a timeout will occur and the connection will be ended.
To prevent timeouts from occurring, retrieve the device name, for example, regularly (at intervals of less than three minutes).

Command Format Overview

Fundamental command specifications

| | RS-232C | ETHERNET |
|----------------------------|--|---|
| Character use | Use ASCII characters. Using UTF-8 for certain commands, including setting names. | |
| Delimiter | Half-width (standard) space (: 0x20) | |
| Command start code | Linefeed (LF: 0x0A) | None |
| Command end code | Carriage return (CR: 0x0D) | (Carriage return (CR: 0x0D) + line feed (LF: 0x0A)) |
| Maximum data length | 1024 bytes (including LF/CR) | |

Command format

RS-232C

| | | | | | | | | | |
|---|--------------|-----------|-------------|-----------|-------------|-----|-------------|-----------|----|
| LF | Command Type | Delimiter | Parameter 1 | Delimiter | Parameter 2 | ... | Parameter N | Delimiter | CR |
| • The delimiter for the final parameter can be omitted. ↑ | | | | | | | | | |

ETHERNET

| | | | | | | | | | |
|---|-----------|-------------|-----------|-------------|-----|-------------|-----------|----|----|
| Command Type | Delimiter | Parameter 1 | Delimiter | Parameter 2 | ... | Parameter N | Delimiter | CR | LF |
| • The delimiter for the final parameter can be omitted. ↑ | | | | | | | | | |

Command format details

| Item | Contents | | |
|--------------|---|---------------------------------|---|
| Command Type | SET | Setting command | External controller → Controlled device |
| | GET | Retrieval command | External controller → Controlled device |
| | NOTIFY | Notification command | External controller → Controlled device |
| | METER | Meter data notification command | External controller ← Controlled device |
| Parameter | When the command type is SET, set Key: Value. When the command type is GET, set Key. When the command type is NOTIFY/METER, set Key: Value. • Using delimiters, multiple parameter settings can be made. For example: SET□Parameter1□Parameter2□...) • See the Command list below for details about Key/Value. | | |

Command details

SET command

Use this when you want to change a controlled device setting value.

When the external controller sends a SET command and the controlled device receives it, the result will be sent to the external controller.

Detailed command examples

Example 1: Muting input channel 1

SET ANLGIN/1/MUTE:ON

According to the result, one of the following responses will be sent from the controlled device to the external controller.

Setting made properly OK SET

Setting not made properly OK SET ANLGIN/1/MUTE:ERRX

(X depends on the parameter.)

• If the setting value was changed, the result will be transmitted to the external controller as a NOTIFY command.

NOTIFY ANLGIN/1/MUTE:ON

Example 2: Muting input channels 1/2/3

SET ANLGIN/1/MUTE:ON ANLGIN/2/MUTE:ON ANLGIN/3/MUTE:ON

According to the result, one of the following responses will be sent from the controlled device to the external controller.

Setting made properly OK SET

Setting not made properly OK SET ANLGIN/3/MUTE:ERRX
(The parameter that could not be set will result in an error.)
• If the setting value was changed, the result will be transmitted to the external controller
as a NOTIFY command.
NOTIFY ANLGIN/1/MUTE:ON ANLGIN/2/MUTE:ON ANLGIN/3/MUTE:ON

GET command

Use this when you want to retrieve a controlled device setting value.

When the external controller sends a GET command and the controlled device receives it, the result will be sent to the external controller.

Detailed command examples

Example 1: Retrieving the input channel 1 mute setting

GET ANLGIN/1/MUTE

According to the result, one of the following responses will be sent from the controlled device to the external controller.

Setting made properly OK GET ANLGIN/1/MUTE:OFF

Setting not made properly OK GET ANLGIN/1/MUTE:ERRX

(X depends on the parameter.)

Example 2: Retrieving the input channel 1/2/4 mute settings

GET ANLGIN/1/MUTE ANLGIN/2/MUTE ANLGIN/3/MUTE

According to the result, one of the following responses will be sent from the controlled device to the external controller.

Setting made properly

OK GET ANLGIN/1/MUTE:OFF ANLGIN/2/MUTE:OFF ANLGIN/3/MUTE:OFF

Setting not made properly

OK SET ANLGIN/1/MUTE:OFF ANLGIN/2/MUTE:OFF ANLGIN/3/MUTE:ERRX

(The parameter that could not be set will result in an error.)

NOTIFY command

When a setting has been changed on a controlled device, it sends this to the external controller.

Command examples

Example 1: When the input channel 1 mute setting has been changed (OFF→ON)

NOTIFY ANLGIN/1/MUTE:ON

Example 2: When multiple settings have been changed

NOTIFY ANLGIN/1/MUTE:ON ANLGIN/2/MUTE:ON ANLGIN/3/MUTE:ON

METER command

When a setting is made to acquire meter data, the controlled device sends this to the external controller.

(See the following command sequence example for details.)

Meter data acquisition setting example

1. Set the interval and total time for meter data acquisition (unit: milliseconds).

SET METER/TOTAL:10000 METER/INTERVAL:100

2 Turn the setting ON for the meter data you want to acquire.

SET ANLGIN/1/METER/PRE:ON

In this case, the control device will send meter data to the external controller for 10 seconds every 100 milliseconds (see below).

METER ANLGIN/1/METER/PRE:XXXXXXXX

(XXXXXXXX: meter data value)

CID parameter (CID:XXXXXXXX) overview

A CID (Command ID) can be set in order to identify which SET/GET command prompted the response. If CID is set in a command, the controlled device will include it as is when responding to the remote controller.

Example 1: SET CID:12345678 ANLGIN/1/MUTE:ON

→ OK SET CID:12345678

Example 2: GET CID:12345678 ANLGIN/1/MUTE

→ OK GET CID:12345678 ANLGIN/1/MUTE:ON

Command errors

- If the command type sent to the controlled device cannot be recognized, it will return the command to the remote controller with “NG” (no good) added to the beginning.

Example 1

PUT ANLGIN/1/MUTE:ON

→ NG PUT ANLGIN/1/MUTE:ON

- Due to a command parameter sent to the controlled device, a command is sent to the remote controller with “ERRX” (see below for X) added.

Example 1: When key was invalid (ERR1)

GET ANLGIN/1/MUTEE

→GET ANLGIN/1/MUTEE:ERR1

Example 2: When Value was invalid (ERR2)

SET ANLGIN/1/TRIM:+40.0

→SET ANLGIN/1/TRIM:ERR2

Maximum command length

The maximum length of command that can be sent and received is 1024 bytes.

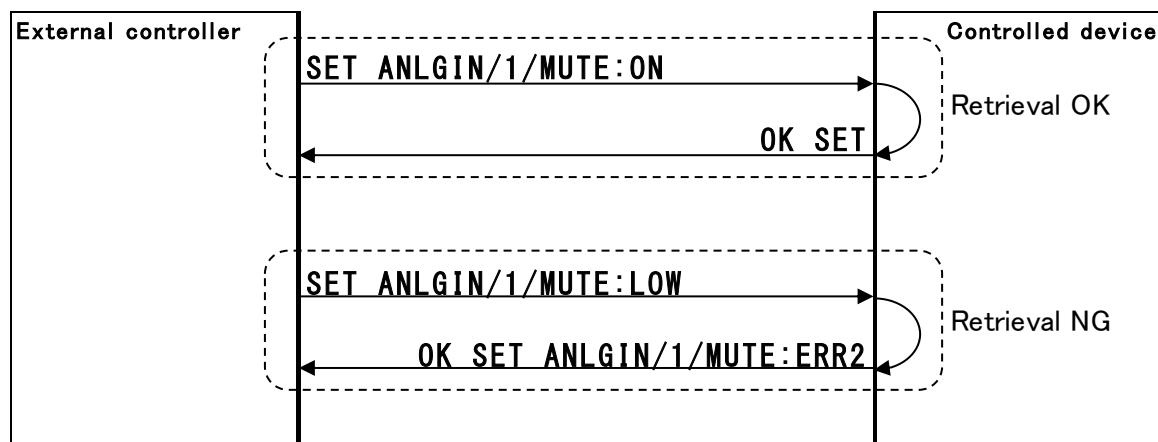
- Be careful not to let commands sent to the controlled device exceed 1024 bytes (including LF/CR).
- If a command sent from the controlled device in response to a GET command, for example, would exceed 1024 bytes, it will be divided into parts with suitable sizes and be sent from the control device to the external controller.

Command sequence examples

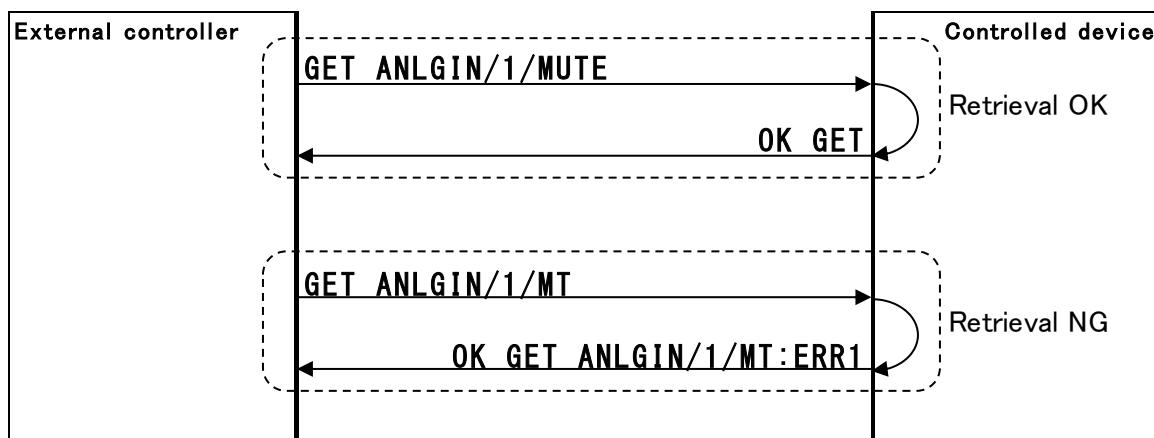
When the command type is SET/GET, make the external controller wait after it is sent to the controlled device until the controlled device sends a response to the command before sending the next SET/GET command.

Command sequence examples for each command type

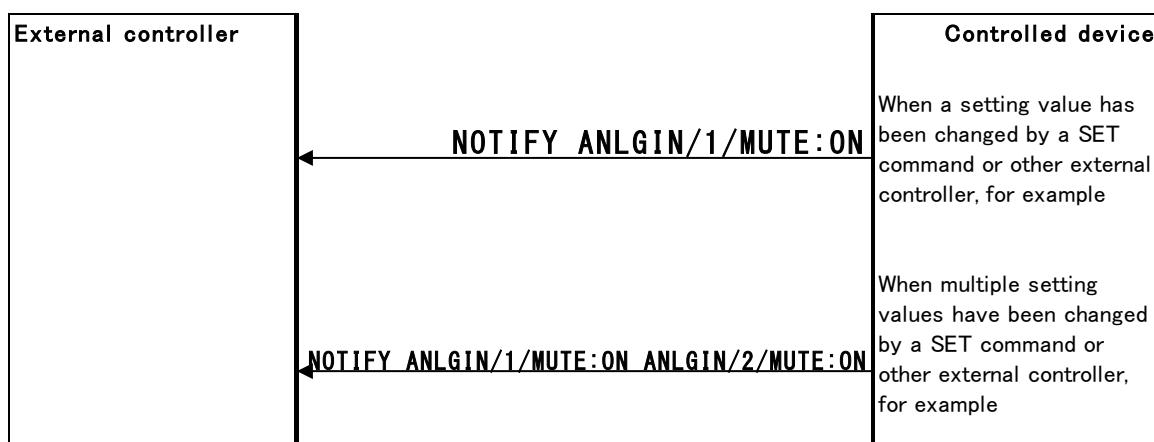
Example: SET command



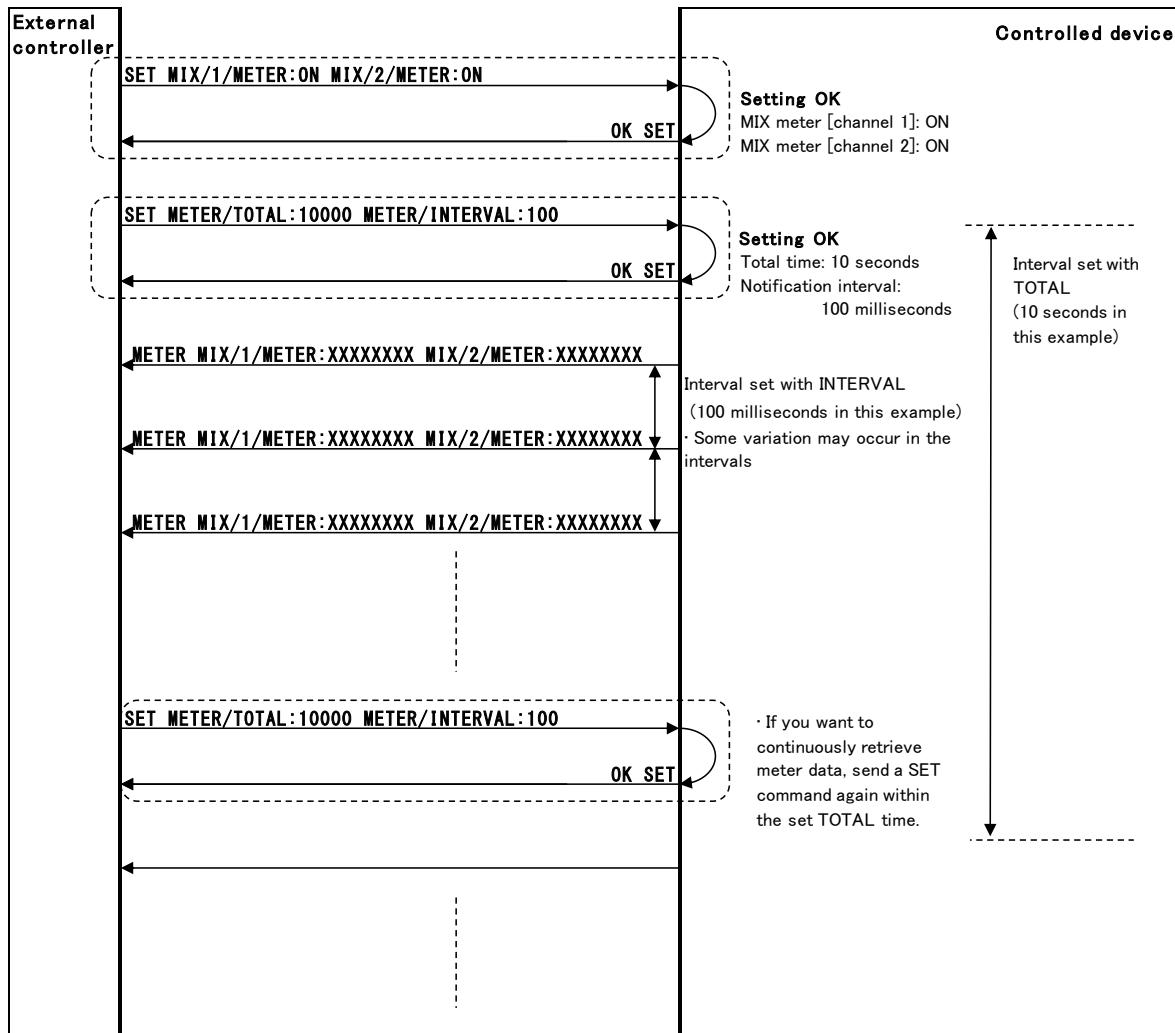
Example: GET command



Example: NOTIFY command



Example: METER command



3. Command list

| Category | Key | Parameter | <input checked="" type="checkbox"/> Supported <input type="checkbox"/> Not supported | | | Description |
|----------|----------------------|---|--|-------------------------------------|-------------------------------------|---|
| | | | SET | GET | NOTIFY | |
| Common | CID | XXXXXXXX | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Unique ID set on the host |
| | NOTIFY | OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | NOTIFY command notification on/off setting |
| Input | ANLGIN/X/NAME | : "Input1" | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | "Input1" Input name (UTF-8 character string inside quotation marks ("") with 96-byte maximum) |
| | ANLGIN/X/MUTE | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Input mute setting |
| | ANLGIN/X/FADER | : -INF, -127.0 ~ 0.0 ~ +10.0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Input fader setting |
| | ANLGIN/X/SEL | : LINE/MIC | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Input selection (Line or Mic) |
| | ANLGIN/X/PHANT | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Phantom power setting |
| | ANLGIN/X/PAD | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Mic Gain setting |
| | ANLGIN/X/GAIN | : LOW/HIGH | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | PAD Gain setting |
| | ANLGIN/X/TRIM | : MIC:+36.5(MX-8A:36.0, MM-4DIN:33.0)~0 LINE:+10.0~ -10.0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Trim setting |
| | ANLGIN/X/PHASE | : NOR/INV | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Phase setting |
| | ANLGIN/X/ALC | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Auto Level Control setting |
| | ANLGIN/X/COMP/ENABLE | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Compressor ON/OFF setting |
| | ANLGIN/X/COMP/THRE | : -32~0(1step) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Compressor threshold level setting |
| | ANLGIN/X/COMP/RATIO | : XX(1/1.1/1.3/1.5/1.7/2/2.5/3/3.5/4/5/6/8/16/1000) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Compressor compression ratio setting |
| | ANLGIN/X/COMP/GAIN | : 0~20(1step) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Compressor output gain setting |
| | ANLGIN/X/COMP/ATK | : 2~200(2step) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Compressor Attack time setting |
| | ANLGIN/X/COMP/REL | : 10~1000(10step) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Compressor Release time setting |
| | ANLGIN/X/COMP/METER | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Meter data acquisition ON/OFF setting |
| | ANLGIN/X/EQ/ENABLE | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | EQ ON/OFF setting |
| | ANLGIN/X/EQ/L0/GAIN | : -12~0~+12(1step) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Low band Gain setting |
| | ANLGIN/X/EQ/L0/FREQ | : 32/40/50/60/70/80/90/100/125/150/200/225/250/300/350/400/450/500/600/ 700/800/850/900/950/1000/1100/1200/1300/1400/1500/1600 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Low band cutoff frequency setting |
| | ANLGIN/X/EQ/LOWCUT | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Low band low-cut setting |
| | ANLGIN/X/EQ/Y/GAIN | : -12~0~+12(1step) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Band Gain setting |
| | ANLGIN/X/EQ/Y/FREQ | : 32/40/50/60/70/80/90/100/125/150/200/225/250/300/350/400/450/500/600/ 700/800/850/900/950/1000/1100/1200/1300/1400/1500/1600/2000/2200/2400/2600/2800/3000/3200/3400/3600/3800/4000/4500/5000/5500/6000/6500/ 7000/7500/8000/9000/10000/12000/13000/14000/15000/16000/17000/18000 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Band cutoff frequency setting |
| | ANLGIN/X/EQ/Y/Q | : 0.25/0.50/1.00/2.00/4.00/8.00/16.00 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Band resonance setting |
| | ANLGIN/X/EQ/HI/GAIN | : -12~0~+12(1step) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | High band Gain setting |
| | ANLGIN/X/EQ/HI/FREQ | : 1800/1900/2000/2200/2400/2600/2800/3000/3200/3400/3600/3800/4000/4500/5000/ 5500/6000/6500/7000/7500/8000/9000/10000/11000/12000/13000/14000/15000/16000/17000/18000 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | High band cutoff frequency setting |
| | ANLGIN/X/METER/PRE | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Meter data acquisition ON/OFF setting |
| | ANLGIN/X/METER/POST | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Meter data acquisition ON/OFF setting |
| | ANLGIN/X/METER/SEND | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Meter data acquisition ON/OFF setting |
| | USBIN/X/METER/POST | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Meter data acquisition ON/OFF setting |
| | AESIN/X/NAME | : "Input1" | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Input name (UTF-8 character string inside quotation marks ("") with 96-byte maximum) |
| | AESIN/X/MUTE | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | MUTE setting |
| | AESIN/X/FADER | : -INF, -127.0 ~ 0.0 ~ +10.0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Fader setting |
| | AESIN/X/METER | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Meter data acquisition ON/OFF setting |
| | DANTEIN/X/NAME | : "DanteIn1" | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Dante name (UTF-8 character string inside quotation marks ("") with 96-byte maximum) |
| | DANTEIN/X/METER | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Meter data acquisition ON/OFF setting |

| Category | Key | Parameter | <input checked="" type="checkbox"/> Supported <input type="checkbox"/> Not supported | | | Description |
|----------|--------------------------|---|--|-------------------------------------|-------------------------------------|--|
| | | | SET | GET | NOTIFY | |
| Mix | MIX/X/NAME | : "Mix1" | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | MIX name |
| | MIX/X/MUTE | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | MIX MUTE setting |
| | MIX/X/FADER | : -INF, -127.0 ~ +10.0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | MIX fader setting |
| | MIX/X/ANLGAIN/Y/MUTE | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | MIX (X) and ANALOG IN (Y) Mute settings |
| | MIX/X/ANLGAIN/Y/FADER | : -INF, -127.0 ~ +10.0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | MIX (X) and ANALOG IN (Y) fader settings |
| | MIX/X/USBIN/Y/MUTE | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | MIX (X) and USB IN (Y) Mute settings |
| | MIX/X/USBIN/Y/FADER | : -INF, -127.0 ~ +10.0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | MIX (X) and USB IN (Y) fader settings |
| | MIX/X/DANTEIN/Y/MUTE | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | MIX (X) and DANTE IN (Y) Mute settings |
| | MIX/X/DANTEIN/Y/FADER | : -INF, -127.0 ~ +10.0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | MIX (X) and DANTE IN (Y) fader settings |
| | MIX/X/DUCK/ENABLE | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Ducking ON/OFF setting |
| | MIX/X/DUCK/SRC | : INPUT1/INPUT2/INPUT3/INPUT4/INPUT5/INPUT6/INPUT7/INPUT8/ MIX1/MIX2/MIX3/MIX4/MIX5/MIX6/MIX7/MIX8/ DANTE1/DANTE2/DANTE3/DANTE4 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Ducking source setting |
| | MIX/X/DUCK/THRE | : -30/-24/-18/-12/-6 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Ducking threshold setting |
| | MIX/X/DUCK/ATT | : 0/-3/-6/-9/-12/-18/-24/-INF | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Ducking Attenuate setting |
| | MIX/X/DUCK/REL | : 0.1/0.5/1.0/1.5/2.0/2.5/3.0/3.5/4.0/4.5/5.0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Ducking Release time setting |
| | MIX/X/ANC/ENABLE | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | ANC (Ambient Noise Compensator) function setting |
| | MIX/X/ANC/SRC | : INPUT1/INPUT2/INPUT3/INPUT4/INPUT5/INPUT6/INPUT7/INPUT8/ MIX1/MIX2/MIX3/MIX4/MIX5/MIX6/MIX7/MIX8/ DANTE1/DANTE2/DANTE3/DANTE4 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | ANC source setting |
| | MIX/X/ANC/THRE | : -60 ~ 0 (1step) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | ANC threshold setting |
| | MIX/X/ANC/MAXGAIN | : 0 ~ 20 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | ANC maximum input signal level adjustment setting |
| | MIX/X/ANC/MINGAIN | : -20 ~ 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | ANC minimum input signal level adjustment setting |
| | MIX/X/ANC/RATIO | : 0.5 ~ 2.0 (0.1step) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | ANC input signal level adjustment ratio setting |
| | MIX/X/ANC/TIME | : 1 ~ 60 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | ANC input signal level adjustment response speed setting |
| | MIX/X/ANC/GAP/THRE | : -60 ~ 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | ANC GAP threshold setting |
| | MIX/X/ANC/GAP/TIME | : 0.1 ~ 10.0 (0.1step) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | ANC GAP judgment time setting |
| | MIX/X/METER | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Meter data acquisition ON/OFF setting |
| | USBOUT/X/ANLGAIN/Y/MUTE | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | USB OUT (X) and ANALOG IN (Y) Mute settings |
| | USBOUT/X/ANLGAIN/Y/FADER | : -INF, -127.0 ~ +10.0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | USB OUT (X) and ANALOG IN (Y) Fader setting |
| | USBOUT/X/USBIN/Y/MUTE | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | USB OUT (X) and USBIN IN (Y) Mute settings |
| | USBOUT/X/USBIN/Y/FADER | : -INF, -127.0 ~ +10.0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | USB OUT (X) and USBIN IN (Y) fader settings |
| | USBOUT/X/METER | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Meter data acquisition ON/OFF setting |

| Category | Parameter | | Command Type | | | Description |
|----------|------------------------|--|-------------------------------------|-------------------------------------|-------------------------------------|---------------------------------------|
| | Key | Value | SET | GET | NOTIFY | |
| Output | ANLGOUT/X/NAME | : "Output1" | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Output name |
| | ANLGOUT/X/MUTE | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Output MUTE setting |
| | ANLGOUT/X/ROUTING | : MIX1/MIX2/MIX3/MIX4/MIX5/MIX6/MIX7/MIX8/ DANTE1/DANTE2/DANTE3/DANTE4/ ANALOG1/ANLOG2/ANALOG3/ANALOG4/DISCONNECT | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Output routing setting |
| | ANLGOUT/X/FADER | : -INF, -127.0 ~ +10.0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Output fader setting |
| | ANLGOUT/X/PHASE | : NOR/INV | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Output Phase setting |
| | ANLGOUT/X/EQ/ENABLE | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | EQ ON/OFF setting |
| | ANLGOUT/X/EQ/L0/GAIN | : -12 ~ +12 (1step) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Low band Gain setting |
| | ANLGOUT/X/EQ/L0/FREQ | : 32/40/50/60/70/80/90/100/125/150/175/200/225/250/300/350/400/450/500/600/ 700/800/850/900/950/1000/1100/1200/1300/1400/1500/1600/1700/1800/1900/2000/ 2200/2400/2600/2800/3000/3200/3400/3600/3800/4000/4500/5000/5500/6000/6500/ 7000/7500/8000/9000/10000/11000/12000/13000/14000/15000/16000/17000/18000 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Low band cutoff frequency setting |
| | ANLGOUT/X/EQ/LOWCUT | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Low Cut setting |
| | ANLGOUT/X/EQ/Y/GAIN | : -12 ~ +12 (1step) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Band Y Gain setting |
| | ANLGOUT/X/EQ/Y/FREQ | : 32/40/50/60/70/80/90/100/125/150/175/200/225/250/300/350/400/450/500/600/ 700/800/850/900/950/1000/1100/1200/1300/1400/1500/1600/1700/1800/1900/2000/ 2200/2400/2600/2800/3000/3200/3400/3600/3800/4000/4500/5000/5500/6000/6500/ 7000/7500/8000/9000/10000/11000/12000/13000/14000/15000/16000/17000/18000 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Band Y cutoff frequency setting |
| | ANLGOUT/X/EQ/Y/0 | : 0.25/0.50/1.00/2.00/4.00/8.00/16.00 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Band Y resonance setting |
| | ANLGOUT/X/EQ/HI/GAIN | : -12 ~ +12 (1step) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | High band Gain setting |
| | ANLGOUT/X/EQ/HI/FREQ | : 32/40/50/60/70/80/90/100/125/150/175/200/225/250/300/350/400/450/500/600/ 700/800/850/900/950/1000/1100/1200/1300/1400/1500/1600/1700/1800/1900/2000/ 2200/2400/2600/2800/3000/3200/3400/3600/3800/4000/4500/5000/5500/6000/6500/ 7000/7500/8000/9000/10000/11000/12000/13000/14000/15000/16000/17000/18000 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | High band cutoff frequency setting |
| | ANLGOUT/X/EQ/HIGHCUT | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | High Cut setting |
| | ANLGOUT/X/DELAY/ENABLE | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Delay Time ON/OFF setting |
| | ANLGOUT/X/DELAY/TIME | : 0 ~ 300msec (0.02msec step) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Delay Time setting |
| | ANLGOUT/X/LIMIT/ENABLE | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Delay Time setting |
| | ANLGOUT/X/LIMIT/THRE | : -54 ~ 0 (1step) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Limiter threshold setting |
| | ANLGOUT/X/LIMIT/METER | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Meter data acquisition ON/OFF setting |
| | ANLGOUT/X/TESTTONE | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | TEST TONE ON/OFF |
| | ANLGOUT/X/METER | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Meter data acquisition ON/OFF setting |
| | AESOUT/X/NAME | : "Output1" | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Output name |
| | AESOUT/X/MUTE | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Output MUTE setting |
| | AESOUT/X/FADER | : -INF, -127.0 ~ +10.0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Fader setting |
| | AESOUT/X/METER | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Meter data acquisition ON/OFF setting |
| | DANTEOUT/X/NAME | : "DANTEOUT1" | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | DANTE name |
| | DANTEOUT/X/METER | : OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Meter data acquisition ON/OFF setting |
| | DANTEOUT/X/ROUTING | : MIX1/MIX2/MIX3/MIX4/MIX5/MIX6/MIX7/MIX8/ DANTE1/DANTE2/DANTE3/DANTE4/ ANALOG1/ANLOG2/ANALOG3/ANALOG4/DISCONNECT | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Dante OUT routing setting |

| Category | Parameter | | | <input checked="" type="checkbox"/> Supported <input type="checkbox"/> Not supported | | | Description |
|-----------|------------------------|---|--|--|-------------------------------------|-------------------------------------|--|
| | Key | : | Value | SET | GET | NOTIFY | |
| Test Tone | TESTTONE/ENABLE | : | OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Test Tone Mode ON/OFF setting |
| | TESTTONE/PATT | : | SINE/WHITE/PINK | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Test Pattern setting |
| | TESTTONE/FREQ | : | 32/40/50/60/70/80/90/100/125/150/175/200/225/250/300/350/400/450/500/600/700/800/850/900/950/1000/1100/1200/1300/1400/1500/1600/1700/1800/1900/2000/2200/2400/2600/2800/3000/3200/3400/3600/3800/4000/4500/5000/5500/6000/6500/7000/7500/8000/9000/10000/11000/12000/13000/14000/15000/16000/17000/18000 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Test Tone frequency setting |
| | TESTTONE/GAIN | : | -127 – 0 (1Step) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Test Tone volume setting |
| GPI | GPI/SWITCH/X/ASSIGN/Y | : | DISABLE/IN1~4/MIXmANLGINn/MIXmDANTEInn/MIX1~4/OUT1~4 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | GPI Switch connector assignment setting |
| | GPI/SWITCH/X/MODE | : | TOGGLE/HOLD_ON/HOLD_OFF | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | GPI Switch connector operation mode setting |
| | GPI/LED/X/MODE | : | MUTE_ON/MUTE_OFF | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | GPI Switch connector operation mode setting |
| | GPI/CONTROL/X/ASSIGN/Y | : | DISABLE/IN1~4/MIXmANLGINn/MIXmDANTEInn/MIX1~4/OUT1~4 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | GPI Control connector control assignment setting |
| System | DEVICE/NAME | : | "MX-8A" | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Device name (20-byte maximum) |
| | DEVICE/MODELNAME | : | "MX-8A" | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Model name (20-byte maximum) |
| | DEVICE/VER/SYSTEM | : | V1.00B0010 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Device Version |
| | DEVICE/SERIAL | : | XXXXXXXXXX | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Device Serial Number |
| | DEVICE/SAMPLE | : | 44100/48000 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Device sampling frequency |
| | DEVICE/RESET | : | FACT/BOOT/PARAM | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Device reset (factory default/reboot) |
| | DEVICE/IDENTIFY | : | EXE | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | IDENTIFY command (confirm connection from app) |
| | DEVICE/REFLEVEL | : | 24/22/20/18/15 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Reference level setting |
| | DEVICE/MIXERMODE | : | DIRECT/MIXER | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Switch between MIXER and DIRECT modes |
| | DEVICE/WALLCON/PWR | : | OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Turn power supply for wall outlet (24V) ON/OFF |
| | LED/BRIGHT | : | 0 – 8 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | LED brightness adjustment |
| | NETWORK/PASS | : | "MX-8A" | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Network password (20-byte maximum) |
| | NETWORK/DHCP/ENABLE | : | OFF/ON | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | DHCP ON/OFF |
| | NETWORK/DHCP/SUB | : | 255.255.255.000 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | DHCP ON時のSubnet Mask |
| | NETWORK/DHCP/GATE | : | 000.000.000.000 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | DHCP ON時のDefault Gateway |
| | NETWORK/IP | : | 192.168.100.100 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Network IP Address |
| | NETWORK/SUB | : | 255.255.255.000 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Subnet Mask |
| | NETWORK/GATE | : | 000.000.000.000 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Default Gateway |
| | NETWORK/MAC | : | 00022EXXXXXX | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | MAC address |
| | REMOTE/232/BAUD | : | 4800/9600/19200/38400/57600 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | RS-232C Baud Rate |
| | REMOTE/232/PALI | : | NONE/ODD/EVEN | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | RS-232C Parity Bit |
| | REMOTE/232/STOP | : | 1/2 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | RS-232C Stop Bit |
| | REMOTE/232/LEN | : | 7/8 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | RS-232C Data Length |
| Meter | METER/INTERVAL | : | 100 – TOTAL(step:1ms) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Meter data notification interval (100msec minimum) |
| | METER/TOTAL | : | 0(Off) – 86400000(step:1ms) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Meter data total notification time (24-hour maximum) |

4. Command list

4.1 INPUT

- Analog input channel name

Use this to set the analog input channel name.

Command types: GET, SET, NOTIFY

| | | |
|-------|---|------------------------------------|
| Key | ANLGIN/{ia}/NAME | {ia} : analog input channel number |
| Value | UTF-8 character string of 96 bytes or less inside quotation marks ("(0x22)) | |

- Analog input channel mute

Use this to set analog input channel muting.

Command types: GET, SET, NOTIFY

| | | |
|-------|-------------------------|------------------------------------|
| Key | ANLGIN/{ia}/MUTE | {ia} : analog input channel number |
| Value | OFF | Mute: off |
| | ON | Mute: on |

- Analog input channel fader

Use this to set the analog input channel fader.

Command types: GET, SET, NOTIFY

| | | |
|-------|--------------------------|------------------------------------|
| Key | ANLGIN/{ia}/FADER | {ia} : analog input channel number |
| Value | -INF | Negative infinity (muted) |
| | -127.0 - 0.0 - +10.0 | dB in 0.1dB increments |

- Analog input channel LINE/MIC select

Use this to set the Analog input LINE/MIC selection setting.

Command types: GET, SET, NOTIFY

| | | |
|-------|------------------------|------------------------------------|
| Key | ANLGIN/{ia}/SEL | {ia} : analog input channel number |
| Value | LINE | Line input |
| | MIC | Mic input |

- Analog (mic) input channel phantom power

Use this to set the analog (mic) input phantom power.

Command types: GET, SET, NOTIFY

| | | |
|-------|----------------------------|-----------------------------------|
| Key | ANLGIN/ <u>{ia}</u> /PHANT | {ia}: analog input channel number |
| Value | OFF | Phantom power off |
| | ON | Phantom power on |

- Analog (mic) input channel pad

Use this to set the analog (mic) input channel pad.

Command types: GET, SET, NOTIFY

| | | |
|-------|--------------------------|-----------------------------------|
| Key | ANLGIN/ <u>{ia}</u> /PAD | {ia}: analog input channel number |
| Value | OFF | PAD off |
| | ON | PAD on |

- Analog (mic) input channel gain

Use this to set the analog (mic) input channel gain.

Command types: GET, SET, NOTIFY

| | | |
|-------|---------------------------|-----------------------------------|
| Key | ANLGIN/ <u>{ia}</u> /GAIN | {ia}: analog input channel number |
| Value | LOW | Mic gain LOW |
| | HIGH | Mic gain HIGH |

- Analog input channel trim

Use this to set the analog input channel trim.

Command types: GET, SET, NOTIFY

| | | |
|-----------------------------|------------------------------|-----------------------------------|
| Key | ANLGIN/ <u>{ia}</u> /TRIM | {ia}: analog input channel number |
| Value | When LINE/MIC select is LINE | |
| <hr/> | | |
| | +10.0 – -10.0 | dB in 0.5dB increments |
| <hr/> | | |
| When LINE/MIC select is MIC | | |
| MX-8A | +36.0 – 0 | dB in 0.5dB increments |
| MM-4D/IN | +33.0 – 0 | dB in 0.5dB increments |
| Other | +36.5 – 0 | dB in 0.5dB increments |

- Analog input channel phase

Use this to set the analog input channel phase.

Command types: GET, SET, NOTIFY

| | | |
|-------|----------------------------|------------------------------------|
| Key | ANLGIN/ <u>{ia}</u> /PHASE | {ia} : analog input channel number |
| Value | NOR | Normal (in phase) |
| | INV | Inverse (phase reversed) |

- Analog input channel ALC enable

Use this to set the analog input channel automatic level control function.

Command types: GET, SET, NOTIFY

| | | |
|-------|--------------------------|------------------------------------|
| Key | ANLGIN/ <u>{ia}</u> /ALC | {ia} : analog input channel number |
| Value | OFF | ALC off |
| | ON | ALC on |

- Analog input channel compressor enable

Use this to turn the analog input channel compressor on/off.

Command types: GET, SET, NOTIFY

| | | |
|-------|----------------------------------|------------------------------------|
| Key | ANLGIN/ <u>{ia}</u> /COMP/ENABLE | {ia} : analog input channel number |
| Value | OFF | Compressor off |
| | ON | Compressor on |

- Analog input channel compressor threshold

Use this to set the analog input channel compressor threshold.

Command types: GET, SET, NOTIFY

| | | |
|-------|--------------------------------|------------------------------------|
| Key | ANLGIN/ <u>{ia}</u> /COMP/THRE | {ia} : analog input channel number |
| Value | -32 ~ 0 | dB in 1dB increments |

- Analog input channel compressor ratio

Use this to set the analog input channel compressor ratio.

Command types: GET, SET, NOTIFY

| | | |
|-------|--|-----------------------------------|
| Key | ANLGIN/[ia]/COMP/RATIO | {ia}: analog input channel number |
| Value | 1, 1.1, 1.3, 1.5, 1.7, 2, 2.5, 3, 3.5, 4, 5, 6, 8, 16 | Compression ratio (input/output) |
| | 1000 | Infinite compression ratio |

- Analog input channel compressor gain

Use this to set the analog input channel compressor gain.

Command types: GET, SET, NOTIFY

| | | |
|-------|------------------------------|-----------------------------------|
| Key | ANLGIN/[ia]/COMP/GAIN | {ia}: analog input channel number |
| Value | 0 – 20 | [dB], 1 step |

- Analog input channel compressor attack time

Use this to set the analog input channel compressor attack time.

Command types: GET, SET, NOTIFY

| | | |
|-------|-----------------------------|-----------------------------------|
| Key | ANLGIN/[ia]/COMP/ATK | {ia}: analog input channel number |
| Value | 2 – 200 | ms in 2ms increments |

- Analog input channel compressor release time

Use this to set the analog input channel compressor release time.

Command types: GET, SET, NOTIFY

| | | |
|-------|-----------------------------|-----------------------------------|
| Key | ANLGIN/[ia]/COMP/REL | {ia}: analog input channel number |
| Value | 10 – 1000 | ms in 10ms increments |

- Analog input channel compressor meter enable

Use this to turn the analog input channel compressor meter data acquisition on/off. If on, when a “meter acquisition” command is issued, the compressor meter data will be sent.

Command types: GET, SET, NOTIFY

| | | |
|-------|-------------------------------|-----------------------------------|
| Key | ANLGIN/[ia]/COMP/METER | {ia}: analog input channel number |
| Value | OFF | Meter acquisition off |
| | ON | Meter acquisition on |

- Analog input channel equalizer enable

Use this to enable/disable the analog input channel equalizer.

Command types: GET, SET, NOTIFY

| | | |
|-------|------------------------------|-----------------------------------|
| Key | ANLGIN/{ia}/EQ/ENABLE | {ia}: analog input channel number |
| Value | OFF | Equalizer off |
| | ON | Equalizer on |

- Analog input channel equalizer low band gain

Use this to set the low band gain for the analog input channel equalizer. When low cut is on, this setting has no effect.

Command types: GET, SET, NOTIFY

| | | |
|-------|-------------------------------|-----------------------------------|
| Key | ANLGIN/{ia}/EQ/L0/GAIN | {ia}: analog input channel number |
| Value | -12 – 0 – +12 | dB in 1dB increments |

- Analog input channel equalizer low band frequency

Use this to set the low band frequency for the analog input channel equalizer.

Command types: GET, SET, NOTIFY

| | | |
|-------|--|-----------------------------------|
| Key | ANLGIN/{ia}/EQ/L0/FREQ | {ia}: analog input channel number |
| Value | 32, 40, 50, 60, 70, 80, 90, 100, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500, 600, 700, 800, 850, 900, 950, 1000, 1100, 1200, 1300, 1400, 1500, 1600 | [Hz] |

- Analog input channel equalizer mid band gain

Use this to set the mid band gain for the analog input channel equalizer.

Command types: GET, SET, NOTIFY

| | | |
|-------|--------------------------------|--|
| Key | ANLGIN/{ia}/EQ/{x}/GAIN | {ia}: analog input channel number {x}: band name (1, 2) |
| Value | -12 – 0 – +12 | dB in 1dB increments |

- Analog input channel equalizer band low-cut enable

Use this to make the equalizer low band into a low cut filter for the analog input channel.

Command types: GET, SET, NOTIFY

| | | |
|-------|--------------------------------|------------------------------------|
| Key | ANLGIN/ <u>{ia}</u> /EQ/LOWCUT | {ia} : analog input channel number |
| Value | OFF | Low cut off (shelving EQ mode) |
| | ON | Low cut on |

- Analog input channel equalizer mid band frequency

Use this to set the mid band frequency for the analog input channel equalizer.

Command types: GET, SET, NOTIFY

| | | |
|-------|---|---|
| Key | ANLGIN/ <u>{ia}</u> /EQ/ <u>{x}</u> /FREQ | {ia} : analog input channel number <u>{x}</u> : band name (1, 2) |
| Value | 32, 40, 50, 60, 70, 80, 90, 100, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500, 600, 700, 800, 850, 900, 950, 1000, 1100, 1200, 1300, 1400, 1500, 1600, 1700, 1800, 1900, 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3400, 3600, 3800, 4000, 4500, 5000, 5500, 6000, 6500, 7000, 7500, 8000, 9000, 10000, 11000, 12000, 13000, 14000, 15000, 16000, 17000, 18000 | [Hz] |

- Analog input channel equalizer mid band Q

Use this to set the mid band Q for the analog input channel equalizer.

Command types: GET, SET, NOTIFY

| | | |
|-------|---|---|
| Key | ANLGIN/ <u>{ia}</u> /EQ/ <u>{x}</u> /Q | {ia} : analog input channel number <u>{x}</u> : band name (1, 2) |
| Value | 0.25, 0.50, 1.00, 2.00, 4.00, 8.00, 16.00 | Q value |

- Analog input channel equalizer high band gain

Use this to set the high band gain for the analog input channel equalizer.

Command types: GET, SET, NOTIFY

| | | |
|-------|---------------------------------|------------------------------------|
| Key | ANLGIN/ <u>{ia}</u> /EQ/HI/GAIN | {ia} : analog input channel number |
| Value | -12 - 0 - +12 | dB in 1dB increments |

- Analog input channel equalizer high band frequency

Use this to set the high band frequency for the analog input channel equalizer.

Command types: GET, SET, NOTIFY

| | | |
|-------|--|------------------------------------|
| Key | ANLGIN/{ia}/EQ/HI/FREQ | {ia} : analog input channel number |
| Value | 1800, 1900, 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3400, 3600, 3800, 4000, 4500, 5000, 5500, 6000, 6500, 7000, 7500, 8000, 9000, 10000, 11000, 12000, 13000, 14000, 15000, 16000, 17000, 18000 | [Hz] |

- Analog input channel pre meter enable

Use this to turn analog input channel pre meter data acquisition on/off. If on, when a “meter acquisition” command is issued, the compressor meter data will be sent.

Command types: GET, SET, NOTIFY

| | | |
|-------|-----------------------|------------------------------------|
| Key | ANLGIN/{ia}/METER/PRE | {ia} : analog input channel number |
| Value | OFF | Meter acquisition off |
| | ON | Meter acquisition on |

- Analog input channel post meter enable

Use this to turn analog input channel post meter data acquisition on/off. If on, when a “meter acquisition” command is issued, the compressor meter data will be sent.

Command types: GET, SET, NOTIFY

| | | |
|-------|------------------------|------------------------------------|
| Key | ANLGIN/{ia}/METER/POST | {ia} : analog input channel number |
| Value | OFF | Meter acquisition off |
| | ON | Meter acquisition on |

- Analog input channel send meter enable

Use this to turn mixer bus send meter data acquisition on/off for the analog input channel. If on, when a “meter acquisition” command is issued, the compressor meter data will be sent.

Command types: GET, SET, NOTIFY

| | | |
|-------|------------------------|------------------------------------|
| Key | ANLGIN/{ia}/METER/SEND | {ia} : analog input channel number |
| Value | OFF | Meter acquisition off |
| | ON | Meter acquisition on |

- USB input channel post meter enable

Use this to turn USB input channel post meter data acquisition on/off. If on, when a “meter acquisition” command is issued, the compressor meter data will be sent.

Command types: GET, SET, NOTIFY

| | | |
|-------|-----------------------|--------------------------------|
| Key | USBIN/{iu}/METER/POST | {iu}: USB input channel number |
| Value | OFF | Meter acquisition off |
| | ON | Meter acquisition on |

- AES input channel name

Use this to set the AES input channel name.

Command types: GET, SET, NOTIFY

| | | |
|-------|---|--------------------------------|
| Key | AESIN/{ie}/NAME | {ie}: USB input channel number |
| Value | UTF-8 character string of 96 bytes or less inside quotation marks ("(0x22)) | |

- AES input channel mute

Use this to set the AES input channel muting.

Command types: GET, SET, NOTIFY

| | | |
|-------|-----------------|--------------------------------|
| Key | AESIN/{ie}/MUTE | {ie}: USB input channel number |
| Value | OFF | Mute: off |
| | ON | Mute: on |

- AES input channel fader

Use this to set the AES input channel fader setting.

Command types: GET, SET, NOTIFY

| | | |
|-------|----------------------|--------------------------------|
| Key | AESIN/{ie}/FADER | {ie}: USB input channel number |
| Value | -INF | Negative infinity (muted) |
| | -127.0 – 0.0 – +10.0 | dB in 0.1dB increments |

- AES input channel meter enable

Use this to turn AES input channel meter data acquisition on/off. If on, when a “meter acquisition” command is issued, the compressor meter data will be sent.

Command types: GET, SET, NOTIFY

| | | |
|-------|---------------------------|---------------------------------|
| Key | AESIN/ <u>{ie}</u> /METER | {ie} : AES input channel number |
| Value | OFF | Meter acquisition off |
| | ON | Meter acquisition on |

- Dante input channel name

Use this to set the Dante input channel name.

Command types: GET, SET, NOTIFY

| | | |
|-------|---|-----------------------------------|
| Key | DANTEIN/ <u>{id}</u> /NAME | {id} : Dante input channel number |
| Value | UTF-8 character string of 96 bytes or less inside quotation marks ("(0x22)) | |

- Dante input meter enable

Use this to turn Dante input signal meter data acquisition on/off. If on, when a “meter acquisition” command is issued, the compressor meter data will be sent.

Command types: GET, SET, NOTIFY

| | | |
|-------|-----------------------------|-----------------------------------|
| Key | DANTEIN/ <u>{id}</u> /METER | {id} : Dante input channel number |
| Value | OFF | Meter acquisition off |
| | ON | Meter acquisition on |

4.2 MIX

- Mix bus name

Use this to set a mix bus name.

Command types: GET, SET, NOTIFY

| | | |
|-------|--|---------------------|
| Key | MIX/ <u>{m}</u> /NAME | {m}: mix bus number |
| Value | UTF-8 character string of 96 bytes or less inside quotation marks (" (0x22)) | |

- Mix bus mute

Use this to set mix bus muting.

Command types: GET, SET, NOTIFY

| | | |
|-------|-----------------------|---------------------|
| Key | MIX/ <u>{m}</u> /MUTE | {m}: mix bus number |
| Value | OFF | Mute: off |
| | ON | Mute: on |

- Mix bus fader

Use this to set a mix bus fader.

Command types: GET, SET, NOTIFY

| | | |
|-------|------------------------|------------------------|
| Key | MIX/ <u>{m}</u> /FADER | {m}: mix bus number |
| Value | -INF | Negative infinity |
| | -127.0 – 0.0 – +10.0 | dB in 0.1dB increments |

- Mixer bus analog input channel mute

Use this to set mix bus analog input channel muting.

Command types: GET, SET, NOTIFY

| | | |
|-------|--|--|
| Key | MIX/ <u>{m}</u> /ANLGIN/ <u>{ia}</u> /MUTE | {m}: mix bus number {ia}: analog input channel number |
| Value | OFF | Mute: off |
| | ON | Mute: on |

- Mix bus analog input channel fader

Use this to set a mix bus analog input fader.

Command types: GET, SET, NOTIFY

| | | |
|-------|---|--|
| Key | MIX/ <u>{m}</u> /ANLGIN/ <u>{ia}</u> /FADER | {m}: mix bus number {ia}: analog input channel number |
| Value | -INF | Negative infinity (muted) |
| | -127.0 – 0.0 – +10.0 | dB in 0.1dB increments |

- Mix bus USB input channel mute

Use this to set mix bus USB input channel muting.

Command types: GET, SET, NOTIFY

| | | |
|-------|---|---|
| | MIX/ <u>{m}</u> /USBIN/ <u>{iu}</u> /MUTE | {m}: mix bus number {iu}: USB input channel number |
| Value | OFF | Mute: off |
| | ON | Mute: on |

- Mix bus USB input channel fader

Use this to set mix bus USB input channel fader.

Command types: GET, SET, NOTIFY

| | | |
|-------|--|---|
| | MIX/ <u>{m}</u> /USBIN/ <u>{iu}</u> /FADER | {m}: mix bus number {iu}: USB input channel number |
| Value | -INF | Negative infinity (muted) |
| | -127.0 – 0.0 – +10.0 | dB in 0.1dB increments |

- Mix bus DANTE input channel mute

Use this to set mix bus DANTE input channel muting.

Command types: GET, SET, NOTIFY

| | | |
|-------|---|---|
| | MIX/ <u>{m}</u> /DANTEIN/ <u>{id}</u> /MUTE | {m}: mix bus number {id}: DANTE input channel number |
| Value | OFF | Mute: off |
| | ON | Mute: on |

- Mix bus DANTE input channel fader

Use this to set a mix bus DANTE input channel fader.

Command types: GET, SET, NOTIFY

| | | |
|-------|--|---|
| | MIX/ <u>{m}</u> /DANTEIN/ <u>{id}</u> /FADER | {m}: mix bus number {id}: DANTE input channel number |
| Value | -INF | Negative infinity (muted) |
| | -127.0 – 0.0 – +10.0 | dB in 0.1dB increments |

- Mix bus ducking enable

Use this to enable/disable mix bus ducking.

Command types: GET, SET, NOTIFY

| | | |
|-------|------------------------------|---------------------|
| Key | MIX/ <u>{m}</u> /DUCK/ENABLE | {m}: mix bus number |
| Value | OFF | Ducking off |
| | ON | Ducking on |

- Mix bus ducking source

Use this to set the mix bus ducking source.

Command types: GET, SET, NOTIFY

| | | |
|-------|---------------------------|---|
| Key | MIX/ <u>{m}</u> /DUCK/SRC | {m}: mix bus number |
| Value | INPUT <u>{ia}</u> | Select the analog input {ia}: analog input channel number |
| | MIX <u>{m*}</u> | Select the mix bus output {m*}: mix bus number Note: m ≠ m* |
| | DANTE <u>{id}</u> | Select the DANTE input {id}: DANTE input channel number |

- Mix bus ducking threshold

Use this to set the mix bus ducking threshold.

Command types: GET, SET, NOTIFY

| | | |
|-------|----------------------------|---------------------|
| Key | MIX/ <u>{m}</u> /DUCK/THRE | {m}: mix bus number |
| Value | -30, -24, -18, -12, -6 | [dBFS] |

- Mix bus ducking attenuation

Use this to set the mix bus ducking attenuation.

Command types: GET, SET, NOTIFY

| | | |
|-------|---------------------------------------|-----------------------------------|
| Key | MIX/ <u>{m}</u> /DUCK/ATT | {m}: mix bus number |
| Value | 0, -3, -6, -9, -12, -18, -24, -INF | [dB] Negative infinity (muted) |
| | | |

- Mix bus ducking release time

Use this to set the mix bus ducking release time.

Command types: GET, SET, NOTIFY

| | | |
|-------|--|---------------------|
| Key | MIX/ <u>{m}</u> /DUCK/REL | {m}: mix bus number |
| Value | 0.1, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0 | [sec] |
| | | |

- Mix bus ANC enable

Use this to turn the mix bus ANC (Ambient Noise Compensator) function on/off.

Command types: GET, SET, NOTIFY

| | | |
|-------|-----------------------------|---------------------|
| Key | MIX/ <u>{m}</u> /ANC/ENABLE | {m}: mix bus number |
| Value | OFF | ANC off |
| | ON | ANC on |

- Mix bus ANC source

Use this to set the mix bus ANC source.

Command types: GET, SET, NOTIFY

| | | |
|-------|--------------------------|---|
| Key | MIX/ <u>{m}</u> /ANC/SRC | {m}: mix bus number |
| Value | INPUT <u>{ia}</u> | Analog input channel {ia}: analog input channel number |
| | MIX <u>{m*}</u> | Mix bus {m*}: mix bus number Note: m ≠ m* |
| | DANTE <u>{id}</u> | DANTE input channel {id}: DANTE input channel number |

- Mix bus ANC threshold

Use this to set the mix bus ANC threshold.

Command types: GET, SET, NOTIFY

| | | |
|-------|---------------------------|------------------------|
| Key | MIX/ <u>{m}</u> /ANC/THRE | {m}: mix bus number |
| Value | -60 – 0 | dBFS in 1dB increments |

- Mix bus ANC max gain

Use this to set the mix bus ANC maximum gain.

Command types: GET, SET, NOTIFY

| | | |
|-------|------------------------------|----------------------|
| Key | MIX/ <u>{m}</u> /ANC/MAXGAIN | {m}: mix bus number |
| Value | 0 – 20 | dB in 1dB increments |

- Mix bus ANC min gain

Use this to set the mix bus ANC minimum gain.

Command types: GET, SET, NOTIFY

| | | |
|-------|------------------------------|----------------------|
| Key | MIX/ <u>{m}</u> /ANC/MINGAIN | {m}: mix bus number |
| Value | -20 – 0 | dB in 1dB increments |

- Mix bus ANC ratio

Use this to set the mix bus ANC gain ratio.

Command types: GET, SET, NOTIFY

| | | |
|-------|----------------------------|--------------------------------|
| Key | MIX/ <u>{m}</u> /ANC/RATIO | {m}: mix bus number |
| Value | 0.5 – 2.0 | Gain/(Input level – Threshold) |

- Mix bus ANC response time

Use this to set the mix bus ANC gain adjustment response time.

Command types: GET, SET, NOTIFY

| | | |
|-------|---------------------------|-----------------------------|
| Key | MIX/ <u>{m}</u> /ANC/TIME | {m}: mix bus number |
| Value | 1 – 60 | Seconds in 1-sec increments |

- Mix bus ANC gap threshold

Use this to set the mix bus gap threshold.

Command types: GET, SET, NOTIFY

| | | |
|-------|-------------------------------|----------------------|
| Key | MIX/ <u>{m}</u> /ANC/GAP/THRE | {m}: mix bus number |
| Value | -60 – 0 | dB in 1dB increments |

- Mix bus ANC gap time

Use this to set the mix bus ANC gap release judgment time.

Command types: GET, SET, NOTIFY

| | | |
|-------|-------------------------------|-------------------------------|
| Key | MIX/ <u>{m}</u> /ANC/GAP/TIME | {m}: mix bus number |
| Value | 0.1 – 10.0 | Seconds in 0.1-sec increments |

- Mix bus meter enable

Use this to turn mix bus meter data acquisition on/off. If on, when a Meter interval/Meter total time command is issued, the compressor meter data will be sent.

Command types: GET, SET, NOTIFY

| | | |
|-------|------------------------|-----------------------|
| Key | MIX/ <u>{m}</u> /METER | {m}: mix bus number |
| Value | OFF | Meter acquisition off |
| | ON | Meter acquisition on |

- USB OUT mix bus analog input mute

Use this to set USB OUT mix bus analog input channel muting.

Command types: GET, SET, NOTIFY

| | | |
|-------|--|---|
| | USBOUT/ <u>{ou}</u> /ANLGIN/ <u>{ia}</u> /MUTE | {ou}:USB bus number (1 = L, 2 = R) {ia}: analog input channel number |
| Value | OFF | Mute: off |
| | ON | Mute: on |

- USB OUT mix bus analog input fader

Use this to set a USB OUT mix bus analog input channel fader.

Command types: GET, SET, NOTIFY

| | | |
|-------|--------------------------------------|---|
| | USBOUT/[ou]/ANLGIN/[ia]/FADER | {ou}:USB bus number (1 = L, 2 = R) {ia}: analog input channel number |
| Value | -INF | Negative infinity (muted) |
| | -127.0 – 0.0 – +10.0 | dB in 0.1dB increments |

- USB OUT mix bus USB input mute

Use this to set USB OUT mix bus USB input channel muting.

Command types: GET, SET, NOTIFY

| | | |
|-------|------------------------------------|--|
| | USBOUT/[ou]/USBIN/[iu]/MUTE | {ou}:USB bus number (1 = L, 2 = R) {iu}: USB input channel number |
| Value | OFF | Mute: off |
| | ON | Mute: on |

- USB OUT mix bus USB input fader

Use this to set a USB OUT mix bus USB input channel fader.

Command types: GET, SET, NOTIFY

| | | |
|-------|-------------------------------------|--|
| | USBOUT/[ou]/USBIN/[iu]/FADER | {ou}:USB bus number (1 = L, 2 = R) {iu}: USB input channel number |
| Value | -INF | Negative infinity (muted) |
| | -127.0 – 0.0 – +10.0 | dB in 0.1dB increments |

- USB OUT mix bus meter enable

Use this to turn USB OUT mix bus meter data acquisition on/off. If on, when a Meter interval/Meter total time command is issued, the compressor meter data will be sent.

Command types: GET, SET, NOTIFY

| | | |
|-------|--------------------------|------------------------------------|
| Key | USBOUT/[ou]/METER | {ou}:USB bus number (1 = L, 2 = R) |
| Value | OFF | Meter acquisition off |
| | ON | Meter acquisition on |

4.3 Output

- Analog output channel name

Use this to set the analog output channel name.

Command types: GET, SET, NOTIFY

| | | |
|-------|---|-------------------------------------|
| Key | ANLGOUT/[oa]/NAME | {oa} : analog output channel number |
| Value | UTF-8 character string of 96 bytes or less inside quotation marks ("(0x22)) | |

- Analog output channel mute

Use this to set analog output channel muting.

Command types: GET, SET, NOTIFY

| | | |
|-------|--------------------------|-------------------------------------|
| Key | ANLGOUT/[oa]/MUTE | {oa} : analog output channel number |
| Value | OFF | Mute: off |
| | ON | Mute: on |

- Analog output channel routing

Use this to set analog output channel routing (source selection).

Command types: GET, SET, NOTIFY

| | | |
|-------|-----------------------------|--|
| Key | ANLGOUT/[oa]/ROUTING | {oa} : analog output channel number |
| Value | MIX{m} | Select a mix bus as a source {m} : mix bus number |
| | DANTE{id} | Select a DANTE input as a source {id} : DANTE input channel number |
| | ANALOG{ia} | Select an analog input channel as a source {ia} : analog input channel number |
| | DISCONNECT | Select no source (mute) |

- Analog output channel fader

Use this to set an analog output signal fader.

Command types: GET, SET, NOTIFY

| | | |
|-------|---------------------------|-------------------------------------|
| Key | ANLGOUT/[oa]/FADER | {oa} : analog output channel number |
| Value | -INF | Negative infinity (muted) |
| | -127.0 – 0.0 – +10.0 | dB in 0.1dB increments |

- Analog output channel phase

Use this to set the analog output channel phase.

Command types: GET, SET, NOTIFY

| | | |
|-------|-----------------------------|-------------------------------------|
| Key | ANLGOUT/ <u>{oa}</u> /PHASE | {oa} : analog output channel number |
| Value | NOR | Normal (in phase) |
| | INV | Inverse (phase reversed) |

- Analog output channel equalizer enable

Use this to enable/disable the analog output channel equalizer.

Command types: GET, SET, NOTIFY

| | | |
|-------|---------------------------------|-------------------------------------|
| Key | ANLGOUT/ <u>{oa}</u> /EQ/ENABLE | {oa} : analog output channel number |
| Value | OFF | Equalizer off |
| | ON | Equalizer on |

- Analog output channel equalizer low band gain

Use this to set the low band gain for the analog output channel equalizer.

Command types: GET, SET, NOTIFY

| | | |
|-------|----------------------------------|-------------------------------------|
| Key | ANLGOUT/ <u>{oa}</u> /EQ/LO/GAIN | {oa} : analog output channel number |
| Value | -12 - 0 - +12 | [dB], 1 step |

- Analog output channel equalizer low band frequency

Use this to set the low band frequency for the analog output channel equalizer.

Command types: GET, SET, NOTIFY

| | | |
|-------|--|--|
| Key | ANLGOUT/ <u>{oa}</u> /EQ/LO/FREQ | {oa} : analog output channel number |
| Value | 32, 40, 50, 60, 70, 80, 90, 100, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500, 600, 700, 800, 850, 900, 950, 1000, 1100, 1200, 1300, 1400, 1500, 1600, 1700, 1800, 1900, 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3400, 3600, 3800, 4000, 4500, 5000, 5500, 6000, 6500, 7000, 7500, 8000, 9000, 10000, 11000, 12000, 13000, 14000, 15000, 16000, 17000, 18000 | [Hz], 32 - 1600 Hz : Low cut off 32 - 18000 Hz: Low cut on |

- Analog output channel equalizer low cut

Use this to change the equalizer low band into a low cut filter for the analog output channel.

Command types: GET, SET, NOTIFY

| | | |
|-------|-------------------------------|-------------------------------------|
| Key | ANLGOUT/[oa]/EQ/LOWCUT | {oa} : analog output channel number |
| Value | OFF | Low cut disabled (shelving enabled) |
| | ON | Low cut enabled |

- Analog output channel equalizer mid band gain

Use this to set the mid band gain for the analog output channel equalizer.

Command types: GET, SET, NOTIFY

| | | |
|-------|---------------------------------|--|
| Key | ANLGOUT/[oa]/EQ/[x]/GAIN | {oa} : analog output channel number [x] : 1-8 |
| Value | -12 - 0 - +12 | [dB], 1 step |

- Analog output channel equalizer mid band frequency

Use this to set the mid band frequency for the analog output channel equalizer.

Command types: GET, SET, NOTIFY

| | | |
|-------|---|--|
| Key | ANLGOUT/[oa]/EQ/[x]/FREQ | {oa} : analog output channel number [x] : equalizer band number (1 - 8) |
| Value | 32, 40, 50, 60, 70, 80, 90, 100, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500, 600, 700, 800, 850, 900, 950, 1000, 1100, 1200, 1300, 1400, 1500, 1600, 1700, 1800, 1900, 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3400, 3600, 3800, 4000, 4500, 5000, 5500, 6000, 6500, 7000, 7500, 8000, 9000, 10000, 11000, 12000, 13000, 14000, 15000, 16000, 17000, 18000 | [Hz], |

- Analog output channel equalizer mid band Q

Use this to set the mid band Q for the analog output channel equalizer.

Command types: GET, SET, NOTIFY

| | | |
|-------|---|--|
| Key | ANLGOUT/[oa]/EQ/[x]/Q | {oa} : analog output channel number [x] : equalizer band number (1 - 8) |
| Value | 0.25, 0.50, 1.00, 2.00, 4.00, 8.00, 16.00 | Q value |

- Analog output channel equalizer high band gain

Use this to set the high band gain for the analog output channel equalizer.

Command types: GET, SET, NOTIFY

| | | |
|-------|--------------------------------------|-------------------------------------|
| Key | <code>ANLGOUT/[oa]/EQ/HI/GAIN</code> | {oa} : analog output channel number |
| Value | -12 – 0 – +12 | [dB], 1 step |

- Analog output channel equalizer high band frequency

Use this to set the high band frequency for the analog output channel equalizer.

Command types: GET, SET, NOTIFY

| | | |
|-------|---|--|
| Key | <code>ANLGOUT/[oa]/EQ/HI/FREQ</code> | {oa} : analog output channel number |
| Value | 32, 40, 50, 60, 70, 80, 90, 100, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500, 600, 700, 800, 850, 900, 950, 1000, 1100, 1200, 1300, 1400, 1500, 1600, 1700, 1800, 1900, 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3400, 3600, 3800, 4000, 4500, 5000, 5500, 6000, 6500, 7000, 7500, 8000, 9000, 10000, 11000, 12000, 13000, 14000, 15000, 16000, 17000, 18000 | [Hz], 1800 – 18000 Hz: High cut off 32 – 18000 Hz: High cut on |

- Analog output channel equalizer high cut

Use this to set the high cut of the high band for the analog output channel equalizer.

Command types: GET, SET, NOTIFY

| | | |
|-------|--------------------------------------|--------------------------------------|
| Key | <code>ANLGOUT/[oa]/EQ/HIGHCUT</code> | {oa} : analog output channel number |
| Value | OFF | High cut disabled (shelving enabled) |
| | ON | High cut enabled |

- Analog output channel delay enable

Use this to enable/disable the analog output channel delay.

Command types: GET, SET, NOTIFY

| | | |
|-------|--|-------------------------------------|
| Key | <code>ANLGOUT/[oa]/DELAY/ENABLE</code> | {oa} : analog output channel number |
| Value | OFF | Delay off |
| | ON | Delay on |

- Analog output channel delay time

Use this to set the analog output channel delay time.

Command types: GET, SET, NOTIFY

| | | |
|-------|--------------------------------------|-------------------------------------|
| Key | <code>ANLGOUT/[oa]/DELAY/TIME</code> | {oa} : analog output channel number |
| Value | 0 – 300 | msec in 0.02msec increments |

- Analog output channel limiter enable

Use this to enable/disable the analog output channel limiter.

Command types: GET, SET, NOTIFY

| | | |
|-------|--|-------------------------------------|
| Key | <code>ANLGOUT/[oa]/LIMIT/ENABLE</code> | {oa} : analog output channel number |
| Value | OFF | Limiter off |
| | ON | Limiter on |

- Analog output channel limiter threshold

Use this to set the analog output channel limiter threshold.

Command types: GET, SET, NOTIFY

| | | |
|-------|--------------------------------------|-------------------------------------|
| Key | <code>ANLGOUT/[oa]/LIMIT/THRE</code> | {oa} : analog output channel number |
| Value | -54 – 0 | dBFS in 1dB increments |

- Analog output channel limiter meter enable

Use this to turn limiter output meter data acquisition on/off for the analog output channel. If on, when a Meter interval/Meter total time command is issued, the compressor meter data will be sent.

Command types: GET, SET, NOTIFY

| | | |
|-------|---------------------------------------|-------------------------------------|
| Key | <code>ANLGOUT/[oa]/LIMIT/METER</code> | {oa} : analog output channel number |
| Value | OFF | Meter acquisition off |
| | ON | Meter acquisition on |

- Analog output channel test tone

Use this to set the analog output channel test tone output.

Command types: GET, SET, NOTIFY

| | | |
|-------|------------------------------|---|
| Key | ANLGOUT/[oa]/TESTTONE | {oa} : analog output channel number |
| Value | OFF | Test tone off |
| | ON | Test tone on This outputs a test on through the analog audio output. |

- Analog output channel meter enable

Use this to turn analog output channel meter data acquisition on/off. If on, when a Meter interval/Meter total time command is issued, the compressor meter data will be sent.

Command types: GET, SET, NOTIFY

| | | |
|-------|---------------------------|-------------------------------------|
| Key | ANLGOUT/[oa]/METER | {oa} : analog output channel number |
| Value | OFF | Meter acquisition off |
| | ON | Meter acquisition on |

- AES output channel name

Use this to set the AES output channel name.

Command types: GET, SET, NOTIFY

| | | |
|-------|---|----------------------------------|
| Key | AESOUT/[oe]/NAME | {oe} : AES output channel number |
| Value | UTF-8 character string of 96 bytes or less inside quotation marks ("(0x22)) | |

- AES output channel mute

Use this to set AES output channel muting.

Command types: GET, SET, NOTIFY

| | | |
|-------|-------------------------|----------------------------------|
| Key | AESOUT/[oe]/MUTE | {oe} : AES output channel number |
| Value | OFF | Mute: off |
| | ON | Mute: on |

- AES output channel fader

Use this to set the AES output channel fader.

Command types: GET, SET, NOTIFY

| | | |
|-------|----------------------------|----------------------------------|
| Key | AESOUT/ <u>{oe}</u> /FADER | {oe} : AES output channel number |
| Value | -INF | Negative infinity (muted) |
| | -127.0 – 0.0 – +10.0 | dB in 0.1dB increments |

- AES output meter enable

Use this to turn AES output channel meter data acquisition on/off. If on, when a Meter interval/Meter total time command is issued, the compressor meter data will be sent.

Command types: GET, SET, NOTIFY

| | | |
|-------|----------------------------|----------------------------------|
| Key | AESOUT/ <u>{oe}</u> /METER | {oe} : AES output channel number |
| Value | OFF | Meter acquisition off |
| | ON | Meter acquisition on |

- Dante output channel name

Use this to set the Dante output channel name.

Command types: GET, SET, NOTIFY

| | | |
|-------|---|------------------------------------|
| Key | DANTEOUT/ <u>{od}</u> /NAME | {od} : DANTE output channel number |
| Value | UTF-8 character string of 96 bytes or less inside quotation marks ("(0x22)) | |

- Dante output channel meter enable

Use this to turn Dante output channel meter data acquisition on/off. If on, when a Meter interval/Meter total time command is issued, the compressor meter data will be sent.

Command types: GET, SET, NOTIFY

| | | |
|-------|------------------------------|------------------------------------|
| Key | DANTEOUT/ <u>{od}</u> /METER | {od} : DANTE output channel number |
| Value | OFF | Meter acquisition off |
| | ON | Meter acquisition on |

- Dante output channel routing

Use this to set the Dante output channel routing.

Command types: GET, SET, NOTIFY

| | | |
|-------|--------------------------------|---|
| Key | DANTEOUT/ <u>{od}</u> /ROUTING | {od} : DANTE output channel number |
| Value | MIX <u>{m}</u> | Select a mix bus as a source <u>{m}</u> : mix bus number |
| | DANTE <u>{id}</u> | Select a DANTE input as a source <u>{id}</u> : DANTE input channel number |
| | ANALOG <u>{ia}</u> | Select an analog input channel as a source <u>{ia}</u> : analog input channel number |
| | DISCONNECT | Select no source (mute) |

4.4 Test Tone

- Test tone enable

Use this to enable/disable the test tone.

Command types: GET, SET, NOTIFY

| | | |
|-------|-----------------|---------------|
| Key | TESTTONE/ENABLE | |
| Value | OFF | Test tone off |
| | ON | Test tone on |

- Test tone generation pattern

Use this to set the test tone generation pattern.

Command types: GET, SET, NOTIFY

| | | |
|-------|---------------|-------------|
| Key | TESTTONE/PATT | |
| Value | SINE | Sine wave |
| | WHITE | White noise |
| | PINK | Pink noise |

- Test tone frequency

Use this to set the frequency if the test tone generation pattern is set to SINE.

Command types: GET, SET, NOTIFY

| | | |
|-------|--|------|
| Key | TESTTONE/FREQ | |
| Value | 32, 40, 50, 60, 70, 80, 90, 100, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500, 600, 700, 800, 850, 900, 950, 1000, 1100, 1200, 1300, 1400, 1500, 1600, 1700, 1800, 1900, 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3400, 3600, 3800, 4000, 4500, 5000, 5500, 6000, 6500, 7000, 7500, 8000, 9000, 10000, 11000, 12000, 13000, 14000, 15000, 16000, 17000, 18000 | [Hz] |

- Test tone gain

Use this to set the test tone gain. The test tone is generated at full scale.

Command types: GET, SET, NOTIFY

| | | |
|-------|---------------|----------------------|
| Key | TESTTONE/GAIN | |
| Value | -127 – 0 | dB in 1dB increments |

4.5 GPI

- **GPI switch assign**

Use this to set GPI switch connector operation assignments. (Up to four functions can be assigned to one switch.)

Command types: GET, SET, NOTIFY

| | | |
|-------|-------------------------------------|---|
| Key | GPI/SWITCH/ <u>{sw}</u> /ASSIGN/{y} | <u>{sw}</u> : switch connector number {y}: assignment number (1 - 4) |
| Value | DISABLE | No assignment |
| | IN{ia} | Analog input channel muting {ia}: analog input channel number |
| | MIX{m}ANLGIN{ia} | Mix bus analog input channel muting {m}: mix bus number {ia}: analog input channel number |
| | MIX{m}DANTEIN{id} | Mix bus DANTE input channel muting {m}: mix bus number {id}: analog input channel number |
| | MIX{m} | Mix bus muting {m}: mix bus number |
| | OUT{oa} | Analog output channel muting {oa}: analog output channel number |

- **GPI switch mode**

This sets the GPI switch connector operation mode.

Command types: GET, SET, NOTIFY

| | | |
|-------|-------------------------------|---|
| Key | GPI/SWITCH/ <u>{sw}</u> /MODE | <u>{sw}</u> : switch connector number |
| Value | TOGGLE | Muting is turned on/off each time the switch is pressed |
| | HOLD_ON | Muting is turned on while the switch is being pressed. |
| | HOLD_OFF | Muting is turned off while the switch is being pressed |

- GPI LED mode

This sets the GPI LED connector operation mode.

Command types: GET, SET, NOTIFY

| | | |
|-------|-----------------------------|--|
| Key | GPI/LED/ <u>{led}</u> /MODE | {led} : LED connector number |
| Value | MUTE_ON | The connected LED lights when muting is on. |
| | MUTE_OFF | The connected LED lights when muting is off. |

- GPI control assign

Use this to set GPI CONTROL connector operation assignments. (Up to four functions can be assigned to one switch.)

Command types: GET, SET, NOTIFY

| | | |
|-------|---------------------------------------|---|
| Key | GPI/CONTROL/ <u>{cnt}</u> /ASSIGN/{y} | {cnt} : control connector number {y} : assignment number (1 - 4) |
| Value | DISABLE | No assignment |
| | IN{ia} | Analog input channel volume control {ia} : analog input channel number |
| | MIX{m}ANLGIN{ia} | Mix bus analog input channel volume control {m} : mix bus number {ia} : analog input channel number |
| | MIX{m}DANTEIN{id} | Mix bus DANTE input channel volume control {m} : mix bus number {id} : analog input channel number |
| | MIX{m} | Mix bus volume control {m} : mix bus number |
| | OUT{oa} | Analog output channel volume control {oa} : analog output channel number |

4.6 Meter

- Meter interval

This sets the meter data transmission interval. If this command is sent, the controlled device will keep sending meter data for the time set with Meter total time . For details about data sent from the controlled device, see the meter value list in the Appendix 5.3.

command type SET

| | | |
|-------|----------------|--------------------|
| key | METER/INTERVAL | |
| Value | 100 – TOTAL | [msec], 1msec step |

- Meter total time

This sets the meter data transmission time. If this command is sent, the controlled device will keep sending meter data for the time set. For details about data sent from the controlled device, see the meter value list in the Appendix 5.3.

command type SET

| | | |
|-------|-------------------|--------------------|
| key | METER/INTERVAL | |
| Value | 0(Off) – 86400000 | [msec], 1msec step |

4.7 System

4.7.1 Device

● Device name

This acquires the model name of the controlled device.

Command type: GET

| | | |
|-------|---|--|
| Key | DEVICE/NAME | |
| Value | UTF-8 character string of 96 bytes or less inside quotation marks ("(0x22)) | |

● Device nickname

This sets the nickname of the controlled device.

Command types: SET, GET, NOTIFY

| | | |
|-------|---|--|
| Key | DEVICE/NAME | |
| Value | UTF-8 character string of 96 bytes or less inside quotation marks ("(0x22)) | |

● Device system version

This acquires the version number of the controlled device.

Command type: GET

| | | |
|-------|-------------------|---|
| Key | DEVICE/VER/SYSTEM | |
| value | V{ver}B{build} | {ver}: version number {build}:: build number |
| | | Ex. 1.01 Ex. 0082 |

● Device serial number

This acquires the serial number of the controlled device.

Command type: GET

| | | |
|-------|---|--|
| Key | DEVICE/SERIAL | |
| Value | 8 characters (English alphabet and numbers) | |

● Device sample rate

This acquires the sample rate of the controlled device.

Command type: GET, NOTIFY

| | | |
|-------|----------------------------|------|
| Key | DEVICE/SAMPLE | |
| value | 44100, 48000, 88200, 96000 | [Hz] |

- Device reset

This resets the controlled device.

command type SET

| | | |
|-------|--------------|---|
| Key | DEVICE/RESET | |
| Value | FACT | This restores factory default settings. |
| | BOOT | This reboots the unit. |

- Device identify

This identifies the controlled device.

For details about operation when identifying, see Appendix 5.2.

command type SET

| | | |
|-------|-----------------|--|
| Key | DEVICE/IDENTIFY | |
| Value | EXE | |

- Device reference level

Use this to set the controlled device reference level (maximum input level).

Command types: SET, GET, NOTIFY

| | | |
|-------|--------------------|---------------------------|
| Key | DEVICE/REFLEVEL | |
| Value | 24, 22, 20, 18, 15 | Maximum input level [dBu] |

- Device mixer mode

This sets the mixer mode of the controlled device.

Command types: SET, GET, NOTIFY

| | | |
|-------|------------------|------------------------------|
| Key | DEVICE/MIXERMODE | |
| Value | DIRECT | Direct mode (mixer mode off) |
| | MIXER | Mixer mode |

- Device wall controller power

Set the power supply to the RS-485 wall controller of the controlled device.

Command types: SET, GET, NOTIFY

| | | |
|-------|--------------------|------------------|
| Key | DEVICE/WALLCON/PWR | |
| Value | OFF | Power supply off |
| | ON | Power supply on |

- Device LED brightness

This sets the LED brightness of the controlled device.

Command types: SET, GET, NOTIFY

| | | |
|-------|--------------------|--------------------------|
| Key | DEVICE/WALLCON/PWR | |
| Value | 0 – 8 | 0 : unlit 8 : maximum |

4.7.2 Network

- Network password

Set the password used to connect to the controlled device from the network.

Command types: SET, GET, NOTIFY

| | | |
|-------|---|--|
| Key | NETWORK/PASS | |
| Value | UTF-8 character string of 96 bytes or less inside quotation marks ("(0x22)) | |

- Network DHCP enable

This turns the DHCP function on/off.

Command types: SET, GET, NOTIFY

| | | |
|-------|---------------------|----------|
| Key | NETWORK/DHCP/ENABLE | |
| Value | OFF | DHCP off |
| | ON | DHCP on |

- Network DHCP subnet address

This acquires the subnet address set by DHCP.

Command type: GET

| | | |
|-------|--------------------|----------------------|
| Key | NETWORK/DHCP/SUB | |
| Value | xxx. xxx. xxx. xxx | Ex. 255. 255. 255. 0 |

- Network DHCP default gateway IP address

This acquires the default gateway address set by DHCP.

Command type: GET

| | | |
|-------|--------------------|--------------------|
| Key | NETWORK/DHCP/GATE | |
| Value | xxx. xxx. xxx. xxx | Ex. 192. 168. 0. 1 |

- Network IP address

This acquires the device IP address. When DHCP is off, use this to set the IP address.

command type GET, SET, NOTIFY

| | | |
|-------|--------------------|---------------------|
| Key | NETWORK/IP | |
| Value | xxx. xxx. xxx. xxx | Ex. 192. 168. 0. 10 |

- Network subnet address

When DHCP is off, use this to set the subnet address.

command type GET, SET, NOTIFY

| | | |
|-------|--------------------|----------------------|
| Key | NETWORK/SUB | |
| Value | xxx. xxx. xxx. xxx | Ex. 255. 255. 255. 0 |

- Network default gateway address

When DHCP is off, use this to set the default gateway address.

command type GET, SET, NOTIFY

| | | |
|-------|--------------------|--------------------|
| Key | NETWORK/GATE | |
| Value | xxx. xxx. xxx. xxx | Ex. 192. 168. 0. 1 |

- Network MAC address

Use this to acquire the MAC address of the controlled device.

Command type: GET

| | | |
|-------|--------------|------------------|
| key | NETWORK/MAX | |
| Value | xxxxxxxxxxxx | Ex. 00022E821710 |

4.7.3 Remote

- RS-232C baudrate

Use this to set the RS-232C baud rate.

command type GET, SET, NOTIFY

| | | |
|-------|-----------------------------|-------|
| Key | REMOTE/232/BAUD | |
| Value | 4800/9600/19200/38400/57600 | [bps] |

- RS-232C parity bit

Use this to set the RS-232C parity bit.

command type GET, SET, NOTIFY

| | | |
|-------|-----------------|---------------|
| Key | REMOTE/232/PALI | |
| Value | NONE | No parity bit |
| | ODD | Odd |
| | EVEN | Even |

- RS-232C stop bit

This sets the number of RS-232C stop bits.

command type GET, SET, NOTIFY

| | | |
|-------|-----------------|------------------|
| Key | REMOTE/232/STOP | |
| Value | 1 | Stop bits 1 bit |
| | 2 | Stop bits 2 bits |

- RS-232C data length

This sets the RS-232C data length.

command type GET, SET, NOTIFY

| | | |
|-------|----------------|--------------------|
| Key | REMOTE/232/LEN | |
| Value | 7 | Data length 7 bits |
| | 8 | Data length 8 bits |

5. Appendix

5.1 Commands related to MIX

For the DCP series, commands related to MIX are only effective when the mixer mode is mix. They will be ignored when the mode is direct.

5.2 Behavior during identification

MX-8A: Each time the command is sent, the control device will indicate identification for about five seconds.

DCP Series: Sending the command will turn identification indication on and off.

5.3 Meter value list

| Value | Data[dB] | Value | Data[dB] | Value | Data[dB] |
|------------|----------|------------|----------|------------|----------|
| 0x0020C49B | -60.0 | 0x4E054E17 | -4.3 | 0x648299ED | -2.1 |
| 0x008273A6 | -48.0 | 0x4EEC95C3 | -4.2 | 0x65AC8C2F | -2.0 |
| 0x08138561 | -24.0 | 0x4FD68B07 | -4.1 | 0x66D9F1A8 | -1.9 |
| 0x101D3F2D | -18.0 | 0x50C335D3 | -4.0 | 0x680AD492 | -1.8 |
| 0x2026F30F | -12.0 | 0x51B29E2F | -3.9 | 0x693F3F45 | -1.7 |
| 0x4026E73C | -6.0 | 0x52A4CC3B | -3.8 | 0x6A773C39 | -1.6 |
| 0x40E5124F | -5.9 | 0x5399C82D | -3.7 | 0x6BB2D604 | -1.5 |
| 0x41A5711B | -5.8 | 0x54919A57 | -3.6 | 0x6CF2175B | -1.4 |
| 0x42680A28 | -5.7 | 0x558C4B22 | -3.5 | 0x6E350B13 | -1.3 |
| 0x432CE40F | -5.6 | 0x5689E30E | -3.4 | 0x6F7BBC23 | -1.2 |
| 0x43F4057E | -5.5 | 0x578A6AB7 | -3.3 | 0x70C6359F | -1.1 |
| 0x44BD7539 | -5.4 | 0x588DEAD1 | -3.2 | 0x721482BF | -1.0 |
| 0x45893A13 | -5.3 | 0x59946C2A | -3.1 | 0x7366AEDB | -0.9 |
| 0x46575AF8 | -5.2 | 0x5A9DF7AB | -3.0 | 0x74BCC56C | -0.8 |
| 0x4727DEE6 | -5.1 | 0x5BA9657 | -2.9 | 0x7616D20D | -0.7 |
| 0x47FACCF0 | -5.0 | 0x5CBA514A | -2.8 | 0x7774E07E | -0.6 |
| 0x48D02C3F | -4.9 | 0x5DCD31BD | -2.7 | 0x78D6FC9E | -0.5 |
| 0x49A8040F | -4.8 | 0x5EE34105 | -2.6 | 0x7A3D3272 | -0.4 |
| 0x4A825BB5 | -4.7 | 0x5FFC8890 | -2.5 | 0x7BA78E21 | -0.3 |
| 0x4B5F3A99 | -4.6 | 0x611911EA | -2.4 | 0x7D161BF8 | -0.2 |
| 0x4C3EA838 | -4.5 | 0x6238E6BA | -2.3 | 0x7E88E865 | -0.1 |
| 0x4D20AC2A | -4.4 | 0x635C10C5 | -2.2 | 0x80000000 | 0.0 |

Note: If values for Data [dB] and Value other than those in the list are needed, they can be calculated as follows.

$$\text{Data [dB]} = 20 \times \log_{10} (\text{Value (base 10)} / (2^{31}))$$

$$\text{Value (base 10)} = (10^{\text{Data [dB]}} / 20) \times (2^{31})$$

5.4 Command device compatibility list

| Category | Parameter Key | Supported | | * Supported (with channel limit) | | Not supported | | |
|----------|----------------------|-----------|---------|----------------------------------|---------|---------------|------------|---------|
| | | MX-8A | MM-4D X | MM-4D E | ML-4D X | ML-4D E | MM-2D X | MM-2D E |
| Common | CID | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NOTIFY | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Input | ANLGIN/X/NAME | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/MUTE | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/FADER | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/SEL | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/PHANT | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/PAD | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/GAIN | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/TRIM | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/PHASE | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/ALC | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/COMP/ENABLE | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/COMP/THRE | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/COMP/RATIO | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/COMP/GAIN | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/COMP/ATK | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/COMP/REL | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/COMP/METER | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/EQ/ENABLE | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/EQ/LO/GAIN | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/EQ/LO/FREQ | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/EQ/LOWCUT | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/EQ/Y/GAIN | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/EQ/Y/FREQ | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/EQ/Y/Q | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/EQ/HI/GAIN | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/EQ/HI/FREQ | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/METER/PRE | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/METER/POST | ✓ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | ANLGIN/X/METER/SEND | □ | ✓ | ✓ | □ | □ | ✓ * ✓ * | □ |
| | USBIN/X/METER/POST | ✓ | □ | □ | □ | □ | □ | □ |
| | AESIN/X/NAME | □ | □ | □ | □ | □ | □ | ✓ |
| | AESIN/X/MUTE | □ | □ | □ | □ | □ | □ | ✓ |
| | AESIN/X/FADER | □ | □ | □ | □ | □ | □ | ✓ |
| | AESIN/X/METER | □ | □ | □ | □ | □ | □ | ✓ |
| | DANTEIN/X/NAME | □ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | DANTEIN/X/METER | □ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

| Category | Parameter Key | Supported | | * Supported (with channel limit) | | | | Not supported | |
|----------|-------------------------|-----------|---------|----------------------------------|---------|---------|---------|---------------|-------|
| | | MX-8A | MM-4D X | MM-4D E | ML-4D X | ML-4D E | MM-2D X | MM-2D E | AE-4D |
| Mix | MIX/X/NAME | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | □ |
| | MIX/X/MUTE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | □ |
| | MIX/X/FADER | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | □ |
| | MIX/X/ANLGIN/Y/MUTE | ✓ | ✓ | ✓ | □ | □ | ✓ * | ✓ * | □ |
| | MIX/X/ANLGIN/Y/FADER | ✓ | ✓ | ✓ | □ | □ | ✓ * | ✓ * | □ |
| | MIX/X/USBIN/Y/MUTE | ✓ | □ | □ | □ | □ | □ | □ | □ |
| | MIX/X/USBIN/Y/FADER | ✓ | □ | □ | □ | □ | □ | □ | □ |
| | MIX/X/DANTEIN/Y/MUTE | □ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | □ |
| | MIX/X/DANTEIN/Y/FADER | □ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | □ |
| | MIX/X/DUCK/ENABLE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | □ |
| | MIX/X/DUCK/SRC | ✓ | ✓ | ✓ | ✓ * | ✓ * | ✓ * | ✓ * | □ |
| | MIX/X/DUCK/THRE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | □ |
| | MIX/X/DUCK/ATT | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | □ |
| | MIX/X/DUCK/REL | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | □ |
| | MIX/X/ANC/ENABLE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | □ |
| | MIX/X/ANC/SRC | ✓ | ✓ | ✓ | ✓ * | ✓ * | ✓ * | ✓ * | □ |
| | MIX/X/ANC/THRE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | □ |
| | MIX/X/ANC/MAXGAIN | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | □ |
| | MIX/X/ANC/MINGAIN | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | □ |
| | MIX/X/ANC/RATIO | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | □ |
| | MIX/X/ANC/TIME | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | □ |
| | MIX/X/ANC/GAP/THRE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | □ |
| | MIX/X/ANC/GAP/TIME | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | □ |
| | MIX/X/METER | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | □ |
| | USBOUT/X/ANLGIN/Y/MUTE | ✓ | □ | □ | □ | □ | □ | □ | □ |
| | USBOUT/X/ANLGIN/Y/FADER | ✓ | □ | □ | □ | □ | □ | □ | □ |
| | USBOUT/X/USBIN/Y/MUTE | ✓ | □ | □ | □ | □ | □ | □ | □ |
| | USBOUT/X/USBIN/Y/FADER | ✓ | □ | □ | □ | □ | □ | □ | □ |
| | USBOUT/X/METER | ✓ | □ | □ | □ | □ | □ | □ | □ |

| Category | Parameter Key | Supported | | * Supported (with channel limit) | | | | Not supported | |
|----------|------------------------|-----------|---------|----------------------------------|---------|---------|---------|---------------|-------|
| | | MX-8A | MM-4D X | MM-4D E | ML-4D X | ML-4D E | MM-2D X | MM-2D E | AE-4D |
| Output | ANLGOUT/X/NAME | ✓ | □ | □ | ✓ | ✓ | ✓ * | ✓ * | □ |
| | ANLGOUT/X/MUTE | ✓ | □ | □ | ✓ | ✓ | ✓ * | ✓ * | □ |
| | ANLGOUT/X/ROUTING | ✓ | □ | □ | ✓ * | ✓ * | ✓ * | ✓ * | □ |
| | ANLGOUT/X/FADER | ✓ | □ | □ | ✓ | ✓ | ✓ * | ✓ * | □ |
| | ANLGOUT/X/PHASE | ✓ | □ | □ | ✓ | ✓ | ✓ * | ✓ * | □ |
| | ANLGOUT/X/EQ/ENABLE | ✓ | □ | □ | ✓ | ✓ | ✓ * | ✓ * | □ |
| | ANLGOUT/X/EQ/LO/GAIN | ✓ | □ | □ | ✓ | ✓ | ✓ * | ✓ * | □ |
| | ANLGOUT/X/EQ/LO/FREQ | ✓ | □ | □ | ✓ | ✓ | ✓ * | ✓ * | □ |
| | ANLGOUT/X/EQ/LOWCUT | ✓ | □ | □ | ✓ | ✓ | ✓ * | ✓ * | □ |
| | ANLGOUT/X/EQ/Y/GAIN | ✓ | □ | □ | ✓ | ✓ | ✓ * | ✓ * | □ |
| | ANLGOUT/X/EQ/Y/FREQ | ✓ | □ | □ | ✓ | ✓ | ✓ * | ✓ * | □ |
| | ANLGOUT/X/EQ/Y/Q | ✓ | □ | □ | ✓ | ✓ | ✓ * | ✓ * | □ |
| | ANLGOUT/X/EQ/HI/GAIN | ✓ | □ | □ | ✓ | ✓ | ✓ * | ✓ * | □ |
| | ANLGOUT/X/EQ/HI/FREQ | ✓ | □ | □ | ✓ | ✓ | ✓ * | ✓ * | □ |
| | ANLGOUT/X/EQ/HIGHCUT | ✓ | □ | □ | ✓ | ✓ | ✓ * | ✓ * | □ |
| | ANLGOUT/X/DELAY/ENABLE | ✓ | □ | □ | ✓ | ✓ | ✓ * | ✓ * | □ |
| | ANLGOUT/X/DELAY/TIME | ✓ | □ | □ | ✓ | ✓ | ✓ * | ✓ * | □ |
| | ANLGOUT/X/LIMIT/ENABLE | ✓ | □ | □ | ✓ | ✓ | ✓ * | ✓ * | □ |
| | ANLGOUT/X/LIMIT/THRE | ✓ | □ | □ | ✓ | ✓ | ✓ * | ✓ * | □ |
| | ANLGOUT/X/LIMIT/ATK | ✓ | □ | □ | ✓ | ✓ | ✓ * | ✓ * | □ |
| | ANLGOUT/X/TESTTONE | ✓ | □ | □ | □ | □ | □ | □ | □ |
| | ANLGOUT/X/METER | ✓ | □ | □ | ✓ | ✓ | ✓ | ✓ | □ |
| | AESOUT/X/NAME | □ | □ | □ | □ | □ | □ | □ | ✓ |
| | AESOUT/X/MUTE | □ | □ | □ | □ | □ | □ | □ | ✓ |
| | AESOUT/X/FADER | □ | □ | □ | □ | □ | □ | □ | ✓ |
| | AESOUT/X/METER | □ | □ | □ | □ | □ | □ | □ | ✓ |
| | DANTEOUT/X/NAME | □ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | □ |
| | DANTEOUT/X/METER | □ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | DANTEOUT/X/ROUTING | □ | ✓ | ✓ | ✓ * | ✓ * | ✓ * | ✓ * | □ |

| Category | Parameter Key | Supported | | * Supported (with channel limit) | | Not supported | | |
|-----------|------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---------------------------------------|-------------------------------------|
| | | MX-8A | MM-4D X | MM-4D E | ML-4D X | ML-4D E | MM-2D X | MM-2D E |
| Test Tone | TESTTONE/ENABLE | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | TESTTONE/PATT | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | TESTTONE/FREQ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | TESTTONE/GAIN | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| GPI | GPI/SWITCH/X/ASSIGN/Y | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> * | <input type="checkbox"/> |
| | GPI/SWITCH/X/MODE | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> * | <input type="checkbox"/> |
| | GPI/LED/X/MODE | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> * | <input type="checkbox"/> |
| | GPI/CONTROL/X/ASSIGN/Y | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> * | <input type="checkbox"/> |
| System | DEVICE/NAME | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | DEVICE/MODELNAME | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | DEVICE/VER/SYSTEM | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | DEVICE/SERIAL | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | DEVICE/SAMPLE | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | DEVICE/RESET | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | DEVICE/IDENTIFY | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | DEVICE/REFLEVEL | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | DEVICE/MIXERMODE | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | DEVICE/WALLCON/PWR | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | LED/BRIGHT | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | NETWORK/PASS | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | NETWORK/DHCP/ENABLE | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | NETWORK/DHCP/SUB | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | NETWORK/DHCP/GATE | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | NETWORK/IP | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | NETWORK/SUB | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | NETWORK/GATE | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | NETWORK/MAC | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | REMOTE/232/BAUD | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | REMOTE/232/PALI | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | REMOTE/232/STOP | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | REMOTE/232/LEN | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Meter | METER/INTERVAL | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | METER/TOTAL | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

