API Command Guide for COM-MIC-HUB

Document Version: V1.0.0
Date: Dec 11th, 2024

Contents

1. Logging on to the Device

You can log on to the device by establishing telnet session. The login username is “admin”, the password is null, and the port number of the telnet service is 23.

Assume that the device’s IP address is 192.168.10.254, input the following command in the terminal:

```
telnet 192.168.10.254 //Establish telnet session.
Connecting to 192.168.10.254: 23…
Connection established.

username: admin          //Input the username.
password: *              //The password is null.
/ # gbcontrol --device-info
V1.0.18
/ #
```

2. Commands for System Settings

2.1 Setting IP and MAC Addresses

Command Structure:

```
gbconfig --ip-addr IPADDR NETMASK GATEWAY
gbconfig --mac MAC
```

Explanation:

- *IPADDR*: The device’s IP address.
- *NETMASK*: The subnet mask.
- *GATEWAY*: The gateway.
- *MAC*: The MAC address.

Example

To set IP address manually for the device:

```
gbconfig --ip-addr 192.168.10.254 255.255.0.0 192.168.10.1
```

To set MAC address for the device:

```
gbconfig –mac 00:00:00:00:01:01
```

Note:

You need to reboot the device for the settings above to take effect. To reboot the device, refer to section 2.3.

2.2 Obtaining IP and MAC Addresses

Command Structure:

```
gbconfig --show --ip-addr   //To obtain the device's IP address.
gbconfig --show --mac       //To obtain the device's MAC address.
gbconfig --show PARAM       //To obtain the value of a certain parameter.
```

2.3 Rebooting the Device

Command Structure:

```
gbcontrol --reboot
```

2.4 Restoring the Device to Factory Defaults

Command Structure:

```
gbcontrol --reset
```

Note:

You need to reboot the device for the setting above to take effect. To reboot the device, refer to section 2.3.

2.5 Obtaining Device Information

Command Structure:

```
gbcontrol --device-info
```

3. Commands for Audio Settings

3.1 Selecting Audio Input

Command Structure:

```
gbconfig --audio-input-select <prm>
prm = {usb, analog}

gbconfig --show --audio-input-select  //To obtain audio input selection result.
```

3.2 Selecting Audio Output

Command Structure:

```
gbconfig --audio-out-select <prm>
prm = {usb, aecout}
gbconfig --show --audio-out-select  //To obtain the audio output selection result.
```

3.3 Setting Audio Linking

Command Structure:

`gbconfig --link-status <prm1> <prm2> <prm3> <prm4> <prm5> <prm6> <prm7>`

`gbconfig --show --link-status` //To obtain the linking status of the audio inputs and audio outputs.

Explanation:

- *<prm1>*: Denotes the linking between CEILING MIC input and USB HOST output (INPUT_CEILING_MIC_OUTPUT_USB_HOST).

  <prm1> = {*0, 1*}

  "0" Denotes the audio input and output are linked, "1" Denotes the audio input and output are unlinked.

- *<prm2>*: Denotes the linking between CEILING MIC input and AEC OUT (INPUT_CEILING_MIC_OUTPUT_AEC_OUT).

  <prm2> = {*0, 1*}

  "0" Denotes the audio input and output are linked, "1" Denotes the audio input and output are unlinked.

- *<prm3>*: Denotes the linking between USB HOST input and LINE OUT (INPUT_USB_HOST_OUTPUT_LINE_OUT).

  <prm3> = {*0, 1*}

  "0" Denotes the audio input and output are linked, "1" Denotes the audio input and output are unlinked.

- *<prm4>*: Denotes the linking between REC REF input and LINE OUT (INPUT_REC_REF_OUTPUT_LINE_OUT).

  <prm4> = {*0, 1*}

  "0" Denotes the audio input and output are linked, "1" Denotes the audio input and output are unlinked.

- *<prm5>*: Denotes the linking between WIRELESS MIC IN and USB HOST output (INPUT_WIRELESS_IN_OUTPUT_USB_HOST).

  <prm5> = {*0, 1*}

  "0" Denotes the audio input and output are linked, "1" Denotes the audio input and output are unlinked.

- *<prm6>*: Denotes the linking between WIRELESS MIC IN and AEC OUT (INPUT_WIRELESS_IN_OUTPUT_AEC_OUT).

  <prm6> = {*0, 1*}

  "0" Denotes the audio input and output are linked, "1" Denotes the audio input and output are unlinked.

- *<prm7>*: Denotes the linking between WIRELESS MIC IN and LINE OUT (INPUT_WIRELESS_IN_OUTPUT_LINE_OUT).

  <prm7> = {*0, 1*}

  "0" Denotes the audio input and output are linked, "1" Denotes the audio input and output are unlinked.

Example

To link the CEILING MIC input to the USB HOST:

```
gbconfig --link-status 0 1 1 1 1 1 1
```

Feedback

```
0 1 1 1 1 1 1
```

To obtain the linking status of the audio inputs and ouputs:

```
gbconfig --show --link-status
```

Feedback

```
0 1 1 1 1 1 1                    //The CEILING MIC input and the USB HOST are linked.
```

3.4 Setting Audio Volume

Command Structure:

`gbconfig --volume <prm1> <prm2> <prm3> <prm4> <prm5> <prm6> <prm7>`

`gbconfig --show --volume` //To obtain the linking status of the audio inputs and audio outputs.

Explanation:

- *<prm1>*: Denotes the output volume of the LINE OUT (VOL_OUT_LINEOUT).

  <prm1> = {*-60-0*}(dB)

- *<prm2>*: Denotes the output volume of the AEC OUT (VOL_OUT_AEC_OUT).

  <prm2> = {*-60-0*}(dB)

- *<prm3>*: Denotes the output volume of the USB HOST (VOL_OUT_USB_HOST).

  <prm3> = {*-60-0*}(dB)

- *<prm4>*: Denotes the input volume of the CEILING MIC (VOL_IN_CEILING_MIC).

  <prm4> = {*-60-0*}(dB)

- *<prm5>*: Denotes the input volume of the USB HOST (VOL_IN_USB_HOST).

  <prm5> = {*-60-0*}(dB)

- *<prm6>*: Denotes the input volume of the AEC REF (VOL_IN_AEC_REF).

  <prm6> = {*-60-0*}(dB)

- *<prm7>*: Denotes the input volume of the WIRELESS IN (VOL_IN_WIRELESS_IN).

  <prm7> = {*-60-0*}(dB)

Example

To set volume for the audio inputs and outputs:

```
gbconfig --volume 0 0 0 0 0 0 0
```

Feedback

```
0 0 0 0 0 0 0
```

To obtain the volume of the audio inputs and ouputs:

```
gbconfig --show --volume
```

Feedback

```
0 0 0 0 0 0 0
```

3.5 Resetting Audio Parameters

Command Structure:

`gbcontrol --reset-audio`

3.6 Setting Ducking Parameters

Command Structure:

`gbconfig --ducking <prm1> <prm2> <prm3> <prm4> <prm5> <prm6> <prm7>`

Explanation:

- *<prm1>*: To enable or disable the ducking function.

  <prm1> = {0, 1} //"0": disable, "1": enable

- *<prm2>*: To select ducking master between wireless mic and ceiling mic.

  <prm2> = {0, 1} //"0": wireless mic, "1": ceiling mic

- *<prm3>*: To specify the volume threshold for ducking to occur.

  <prm3> = {-60-0}(dB)

- *<prm4>*: To specify the ducking depth.

  <prm4> = {-60-0}(dB)

- *<prm5>*: To specify the ducking attack time.

  <prm5> = {1-1000}(ms)

- *<prm6>*: To specify the ducking release time.

  <prm6> = {1-3000}(ms)

- *<prm7>*: To enable or disable the USB IN ducking function.

  <prm7> = {0, 1} //"0": disable, "1": enable

`gbconfig --show --ducking` //To obtain the values of ducking related parameters.

Example

To enable the ducking function, select the wireless mic as ducking master, disable the USB IN ducking, and configure the ducking parameters:

```
gbconfig --ducking 1 0 -30 -20 100 1000 0
```

Feedback

```
1 0 -30 -20 100 1000 0
```

To obtain the ducking information:

```
gbconfig --show --ducking
```

Feedback

```
1 0 -30 -20 100 1000 0
```

3.7 Resetting Ducking Parameters

Command Structure:

`gbcontrol --reset-ducking`

3.8 Setting Ceiling MIC Mute/Unmute

Command Structure:

`gbconfig --ceiling-mic-mute <prm>`

Explanation:

- *<prm>*: To mute or unmute the ceiling mic.

  <prm> = {0, 1} //"0": unmute, "1": mute

`gbconfig --show –ceiling-mic-mute` //To obtain the ceiling mic's muting status.

Example

To unmute the ceiling mic:

`gbconfig --ceiling-mic-mute 0`

Feedback

`0`

To check if the ceiling mic is being muted:

`gbconfig --show –ceiling-mic-mute`

Feedback

`0`

3.9 Setting S.O.S Mode

Command Structure:

`gbconfig --sos-mode <prm>`

Explanation:

- *<prm>*: To select the message output mode.

  <prm> = {ethernet, rs232, contact}

`gbconfig --show --sos-mode` //To obtain the output mode of the S.O.S message.

Example

To select ethernet as the message output mode:

`gbconfig --sos-mode ethernet`

Feedback

`ethernet`

To obtain the output mode of the S.O.S message:

`gbconfig --show --sos-mode`

Feedback

```
ethernet
```

3.10 Setting Contact Input Mode

Command Structure:

`gbconfig --input-contact-mode <prm>`

Explanation:

- *<prm>*: To select the Alarm In mode.

  <prm> = {closure, voltage}

`gbconfig --show --input-contact-mode` //To obtain the contact input mode.

Example

To select contact closure as the Alarm In mode:

```
gbconfig --input-contact-mode closure
```

Feedback

```
closure
```

To obtain the Alarm In mode:

```
gbconfig --show --input-contact-mode
```

Feedback

```
closure
```

3.11 Setting Contact Output Mode

Command Structure:

`gbconfig --output-contact-mode <prm>`

Explanation:

- *<prm>*: To select the contact output mode.

  <prm> = {closure, voltage}

`gbconfig --show --output-contact-mode` //To obtain the contact output mode.

Example

To select contact closure as the contact output mode:

```
gbconfig --output-contact-mode closure
```

Feedback

```
closure
```

To obtain the contact output mode:

```
gbconfig --show --output-contact-mode
```

Feedback

```
closure
```

3.12 Setting Ethernet Paramters

Command Structure:

```
gbconfig --ethernet-config <prm1> <prm2> <prm3> <prm4>
```

Explanation:

- *<prm1>*: Denotes the remote server's IP address and port number.

  <prm1> = {ip:port}

- *<prm2>*: Denotes the protocol.

  <prm2> = {tcp, telnet}

- *<prm3>*: Denotes the login username.

  <prm3> = {str}

- *<prm4>*: Denotes the login password.

  <prm4> = {str}

`gbconfig --show --ethernet-config` //To obtain the Ethernet information.

Example

To connect to the remote server through TCP:

```
gbconfig --ethernet-config  192.168.10.3:1023  tcp
```

To connect to the remote server through telnet:

```
gbconfig --ethernet-config  192.168.10.3:1023  telnet  user1  pass1
```

To obtain the remoter server's IP information:

```
gbconfig --show --ethernet-config
```

Feedback

```
192.168.10.3:1023  telnet  user1  pass1
```

3.13 Setting Ethernet Message

Command Structure:

```
gbconfig --ethernet-message <prm>
```

Explanation:

- *<prm>*: Denotes the message content to be sent to the server.

  <prm> = {str}

`gbconfig --show --ethernet-message` //To obtain the message to be sent to the server.

Example

To send the message “hello world” to the server through Ethernet:

```
gbconfig --ethernet-message  'hello world'
```

To obtain the message to be sent to the server:

```
gbconfig --show --ethernet-message
```

Feedback

```
hello world
```

Note: The message string to be sent must be quoted with a pair of single quotes.

3.14 Setting RS232 Paramters

Command Structure:

`gbconfig --rs232-config <Boud_Rate>-<Data_Bits><Parity><Stop_Bits> <Hex_Mode> <Append_CR_LF>`

Explanation:

- *Boud_Rate* = {2400, 4800, 9600, 19200, 38400, 57600, 115200} // Baud rate
- *Data_Bits* = {6, 7, 8}
- *Parity* = {n, o, e}
- *Stop_Bits* = {1, 2}
- *Hex_Mode* = {ascii, hex}
- *Append_CR_LF* = {1: enable, 0: disable}

`gbconfig --show --rs232-config` //To obtain the RS232 paramters information

Example

To set RS232 paramters:

```
gbconfig --rs232-config 115200-8n1 ascii 1
```

To obtain the RS232 paramters information:

```
gbconfig --show --rs232-config
```

Feedback

```
115200-8n1 ascii 1
```

3.15 Setting RS232 Commands

Command Structure:

`gbconfig --rs232-command <prm>`

Explanation:

- *<prm>* = {str} //The command content

```
gbconfig --show --rs232-command //To obtain the RS232 command
```

Example

To configure the RS232 command as 'abcdef1234':

```
gbconfig --rs232-command 'abcdef1234'
```

To obtain the RS232 command content:

```
gbconfig --show --rs232-command
```

Feedback

```
abcdef1234
```

Note: The command string to be sent must be quoted with a pair of single quotes.