

50 Watt Mixer Amplifier

Application Programming Interface

Version Information

Version	Release Date	Notes
2	Feb 2025	Added StbyMode API command.

Commands

General

This document provides an alphabetical list of commands available for AT-GAIN-M50-LZ series of products. Commands are case-sensitive. If the command fails or is entered incorrectly, then the feedback is “Command FAILED”. Commands are sent using RS-232. There should be a 500 millisecond delay between each command sent to the unit.



IMPORTANT: Each command is terminated with a carriage-return (0x0d) and the feedback is terminated with a carriage-return and line-feed (0x0a).

Command	Description
APwrOffTime	Sets the power-off time.
AudFuncPort	Selects the desired input/output.
Cspara	Sets the baud rate, data bits, parity bit, and stop bits for the serial port.
help	Displays the list of available commands.
MIC	Sets the microphone settings.
Mreset	Resets the unit to factory-default settings.
PASense	Sets PA sense system release delay, in seconds.
PATrigger	Returns the open (no) or closed (nc) status of the PA sense trigger port.
PATriggerMode	Sets the state of the PA sense trigger port.
PWCTRL	Enables or disables the power save mode.
PWOFF	Execute this command to power-off the unit.
PWON	Execute this command to power-on the unit.
PWSTA	Displays the power state of the unit.
StbyMode	Sets the standby mode to be used.
Reboot	Performs a soft reboot of the AT-GAIN-M50-LZ.
STNDBY	Places the AT-GAIN-M50-LZ in low-power mode.
System	Displays the status of the unit.
Type	Displays the model of the unit.
Version	Displays the current firmware version of the unit.
VIN	Sets the input volume level.
VolKnobBusy	Returns the state of the volume knob on the AT-GAIN-VOL.
VOUTMute	Enables / disables muting of the output audio signal.
VOUT	Sets the output volume level.

Commands

APwrOffTime

Sets the duration of inactivity required before the device enters either Eco or Net standby mode. Time is specified in minutes. By default, the time is set to 15 minutes. Specify the `sta` argument to display the current setting.

Syntax

```
APwrOffTime X
```

Parameter	Description	Range
X	Time	1...240, sta

Example

```
APwrOffTime 20
```

Feedback

```
APwrOffTime 20
```

AudFuncPort

Selects the desired input/output.

Syntax

```
AudFuncPort X
```

Parameter	Description	Range
X	Port	in1, in2, out, sta

Example

```
AudFuncPort in1
```

Feedback

```
AudFuncPort in1
```

Commands

Cspara

Sets the baud rate, data bits, parity bit, and stop bits for the serial port. Use the `sta` argument to display the current serial port settings. Each argument must be separated by a comma; no spaces are permitted. Brackets must be used when executing this command. There is no space between the bracketed arguments and the command. The default baud rate is 115200.

Syntax

```
Cspara[W,X,Y,Z]
```

Parameter	Description	Range
W	Baud rate	4800, 9600, 19200, 38400, 57600, 115200
X	Data bits	7, 8
Y	Parity bit	None, Odd, Even
Z	Stop bits	1, 2

Example

```
Cspara[115200,8,0,1]
Cspara sta
```

Feedback

```
Cspara[115200,8,0,1]
Cspara [115200,8,0,1]
```

help

Displays the list of available commands. To obtain help on a specific command, enter the `help` command followed by the name of the command.

Syntax

```
help X
```

Parameter	Description	Range
X	Command name (optional)	Command

Example

```
help
```

Feedback

```
Command List
-----
APwrOffTime
AudFuncPort
Cspara
...
...
```

Commands

MIC

Sets the microphone settings. Specify the `sta` argument to return the current settings.

Syntax

```
MIC X Y
```

Parameter	Description	Range
X	Parameter	<code>on</code> , <code>off</code> , <code>atime</code> , <code>rtime</code> , <code>sens</code> , <code>reduce</code> , <code>sta</code>
Y	Range	Refer to range values in table, below.

The range of each of parameter is as follows:

Parameter	Description	Range
<code>on</code>	Enables microphone	N/A
<code>off</code>	Disables microphone	N/A
<code>atime</code>	Attack time (ms)	1...1000
<code>rtime</code>	Release time (ms)	1...3000
<code>sens</code>	Microphone sensitivity level (dB)	-60...0
<code>reduce</code>	Background noise reduction (dB)	-60...0

Example

```
MIC atime 100
```

```
MIC sta
```

Feedback

```
MIC atime 100
```

```
MIC sens -30
MIC reduce -20
MIC atime 100
MIC rtime 1000
```

Mreset

Resets the unit to factory-default settings.

Syntax

```
Mreset
```

This command does not require any parameters

Example

```
Mreset
```

Feedback

```
Mreset
```

PA Sense

Sets PA sense system release delay, in seconds. Specify the `sta` argument to return the current setting.

Syntax

```
PA Sense X Y
```

Parameter	Description	Range
X	Parameter	<code>ptime</code> , <code>sta</code>
Y	Range	Refer to range value in table, below.

The range for the `ptime` parameter is as follows:

Parameter	Description	Range
<code>ptime</code>	Release time (sec)	3...25

Example

```
PA Sense ptime 1
```

Feedback

```
PA Sense ptime 1
```

PA Trigger

Returns the open (no) or closed (nc) status of the PA sense trigger port. Refer to [PATriggerMode](#) for more information. The `sta` argument must be specified.

Syntax

```
PA Trigger X
```

Parameter	Description	Range
X	Required	<code>sta</code>

Example

```
PA Trigger sta
```

Feedback

```
PA Trigger open
```

Commands

PATriggerMode

Sets the state of the PA sense trigger port. The PA sense system uses a contact closure trigger port that can be interfaced to IP PA receivers that have contact closure outputs. When configured as Normally Open (NO), the trigger port is considered inactive when the two pins are not shorted. When configured as Normally Closed (NC), the pins are shorted. Specify the `sta` argument to return the current setting.

Syntax

```
PATriggerMode X
```

Parameter	Description	Range
X	State	NO, NC, sta

Example

```
PATriggerMode NO
```

Feedback

```
PATriggerMode NO
```

PWCTRL

Enables or disables automatic standby functionality. Specify the `sta` argument to return the current setting.

Syntax

```
PWCTRL X
```

Parameter	Description	Range
X	State	on, off, sta

Example

```
PWCTRL on
```

Feedback

```
PWCTRL on
```

PWOFF

Executing this command will turn off the AT-GAIN-M50-LZ according to the standby mode set by the **StbyMode** command. Use the **PWON** command to turn on the AT-GAIN-M50-LZ.

- If **StbyMode** is set to `Eco`, sending the PWOFF command will place the unit in Eco standby mode.
- If **StbyMode** is set to `Net`, sending the PWOFF command will place the unit in Net standby mode.

Syntax

```
PWOFF
```

This command does not require any parameters

Example

```
PWOFF
```

Feedback

```
PWOFF
```

PWON

Executing this command will turn on the AT-GAIN-M50-LZ according to the standby mode set by the **StbyMode** command. Use the **PWOFF** command to turn off the AT-GAIN-M50-LZ.

- If **StbyMode** is set to **Eco**, sending the PWON command will turn on the AT-GAIN-M50-LZ from the Eco standby mode.
- If **StbyMode** is set to **Net**, sending the PWON command will turn on the AT-GAIN-M50-LZ from the Net standby mode.

Syntax

```
PWON
```

This command does not require any parameters

Example

```
PWON
```

Feedback

```
PWON
```

PWSTA

Displays the current power state of the AT-GAIN-M50-LZ.

Syntax

```
PWSTA
```

This command does not require any parameters

Example

```
PWSTA
```

Feedback

```
PWON
```

Commands

StbyMode

Sets the standby mode to be used. Specify the `sta` argument to return the current setting. The `Eco` and `Net` arguments are case-sensitive.

Eco - (DEFAULT) This low-power mode consumes 0.5 watts, which complies with ERP regulations. The unit will automatically go into this standby mode after the **APwrOffTime** timer has elapsed. To turn the unit back on, press any button on the front panel or send the **PWON** command using RS-232.

Net - This low-power mode consumes approximately 2.2 watts. The unit will automatically go into this standby mode after the **APwrOffTime** timer has elapsed. To turn the unit back on, press any button on the front panel or send the **PWON** command using RS-232.

Syntax

```
StbyMode X
```

Parameter	Description	Range
X	Mode	Eco, Net, sta

Example

```
StbyMode Eco
```

Feedback

```
StbyMode Eco
```

Reboot

Performs a soft reboot of the AT-GAIN-M50-LZ.

Syntax

```
Reboot
```

This command does not require any parameters

Example

```
Reboot
```

Feedback

```
Reboot
```

STNDBY

Places the AT-GAIN-M50-LZ in low-power mode. This complies with ErP power consumption limits of < 0.5 watts.

Syntax

```
STNDBY
```

This command does not require any parameters

Example

```
STNDBY
```

Feedback

```
STNDBY
```

System

Returns the status of the unit. The `sta` argument must be specified.

Syntax

```
System X
```

Parameter	Description	Range
X	Required	sta

Example

```
System sta
```

Feedback

```
Model AT-GAIN-M50-LZ
Version V0.7.13
VIN1 0
VIN2 0
VOUT1 -20
VIN2 LEVEL -85
VOUTMute1 off
AudFuncPort in1
MODE Stereo
LOAD 4 (Ohm)
PWSTA on
PWCTRL on
STNDBY
APwrOffTime 15
MIC on
MIC sens -30
MIC reduce -20
MIC atime 100
MIC rtime 1000
PASense rtime 5
PASense inlevel 0
PATrigger Open
PATriggerMode NO
```

Type

Returns the model information of the unit.

Syntax

```
Type
```

This command does not require any parameters

Example

```
Type
```

Feedback

```
AT-GAIN-M50-LZ
```

Version

Displays the current firmware version of the unit.

Syntax

```
Version
```

This command does not require any parameters

Example

```
Version
```

Feedback

```
1.0.0
```

VIN

Increases / decreases the audio input volume. In addition to specifying an integer value, the + and - arguments can be used to increment or decrement the volume level by 1. The input must be specified and no spaces must exist between the first parameter and the command. Specify the `sta` argument to return the current setting.

Syntax

```
VINX Y
```

Parameter	Description	Range
X	Input	1, 2
Y	Value	+, -, -60...0, sta

Example

```
VIN2 -10
```

Feedback

```
VIN2 -10
```

VolKnobBusy

Returns the state of the volume knob on the AT-GAIN-VOL. If the AT-GAIN-VOL is connected to the AT-GAIN-M50-LZ, then `VolKnobBusy 1` will be returned. Otherwise, `VolKnobBusy 0` is returned.

Syntax

```
VolKnobBusy
```

This command does not require any parameters

Example

```
VolKnobBusy
```

Feedback

```
VolKnobBusy 1
```

Commands

VOUTMute

Enables / disables muting of the output audio signal. Specify the `sta` argument to return the current setting.

Syntax

```
VOUTMuteX Y
```

Parameter	Description	Range
X	Output	1
Y	Status	on, off, sta

Example

```
VOUTMute1 on
```

Feedback

```
VOUTMute1 on
```

VOUT

Increases / decreases the audio output volume. In addition to specifying an integer value, the + and - arguments can be used to increment or decrement the volume level by 1. The output must be specified and no spaces must exist between the first parameter and the command. Specify the `sta` argument to return the current setting.

Syntax

```
VOUTX Y
```

Parameter	Description	Range
X	Output	1
Y	Value	+, -, -60...0, sta

Example

```
VOUT1 -10
```

Feedback

```
VOUT1 -10
```

