



ATEN AD Series Audio Digital Signal Processor User Guide

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ATEN AD Series Audio Digital Signal Processor User Guide



Overview

With AD004E / AD400E / AD202E Audio Digital Signal Processor with Dante you can log in remotely from a computer using RS-232 interface that allows system control through a high-end controller or PC.

Connecting to the AD004E / AD400E / AD202E via RS-232

1. Connect a host computer or control system to the RS-232 Serial port on the AD004E / AD400E / AD202E
2. Download and install controller software that supports RS-232 serial control and the operation system of your controller
3. Execute the software and configure the connection settings to the following:
 - COM Port: **COM1**
 - Baud rate: **9600**
 - Parity: **None**
 - Data bits: **8**
 - Stop bits: **1**
4. When a session is established with the AD004E / AD400E / AD202E, you can control and configure the AD004E / AD400E / AD202E via RS-232 For more information on commands, see:
 - [Command Syntax, page 3](#)
 - [Command List, page 6](#)

Protocol

The followings are the protocols to use:

- Ethernet: UDP (User Datagram Protocol)
- Port: 8000

CLI Commands

Overview

The AD004E / AD400E / AD202E can be configured and controlled via RS-232 commands when connected to a host computer or other device, such as a control system. This chapter provides information on command syntax and the commands that controls and configures the AD004E / AD400E / AD202E.

Command Syntax

CLI Command Format

The formula is as following: command + parameter + [ENTER]

Command:

The word that begins a command line to indicate an action to be performed. Command is required to be specified.

Parameter:

An argument that provides information to a command. There are two kinds of parameter:

- **variable:** the strings, or characters, or symbols that can be composed
- **control:** a specific and single string, or character, or symbol

Note: Parameter is not required.

ENTER:

The identifier that is used to end a command and symbolized as ↵. It is represented as 0x0D or 0x0D0x0A in ASCII code. This field is required.

Example

Here we take the example of the mute command for demonstration, and the formula is as following:
Command + Output + Num1 + Address + Num2 + Control+ [ENTER] In this command line, Output, Num1, Address, and Num2 are variable parameters while Control is control parameter.
The following tables show the possible values for the mute command

Command	Description
mute	Mute the selected output channel.

Variable Parameters		Description
Output	o	output channel
Num1	xx	output channel number w xx: 01–04
	*	all output channels
Address	a	device address
Num2	zz	device address number w zz: 1–4 or 01–04
	*	all devices

Control Parameter		Description
Control	on	mute on (no audio)
	off	mute off (audio out)

Enter	Description
↵	Enter and send out the comand.

Acknowledge		Description
Ack	Command OK	Command is correct and the function is excuted.
	Command incorrect	unavailable command or parameters

Acknowledge

Each acknowledge must end with “**Command OK**” or “**Command Incorrect**” and an ASCII code “**0x03**” which

indicates ETX (End-of-Text; symbolized as ▼) as the termination character.
The format is as following:acknowledge + 0x03

Example

Example 1By sending the command line below to the device:mute o02 on✓
You will get the response from the device as following:Command OK✓▼

Example 2

By sending the command line below to the device:mute o02 on✓
You may get the response from the device as following:
Command Incorrect✓▼

Command List

Use the following commands to control and configure the AD004E / AD400E

/ AD202E via RS-232. For details on establishing an RS-232 session to the AD004E / AD400E / AD202E, see [Connecting to the AD004E / AD400E / AD202E via RS-232, page 1](#).

Mute

Function

Command	Description
mute	Mute the selected input or output channel.

Formula 1

To control command with parameters, see the followings:

Syntax:

Mute + Output + Num1 + Control + [ENTER]or
Mute + Input + Num2 + Control + [ENTER]

Parameters:

The following table shows the possible values for the mute command.

Output	Description
o	output channel
Num1	Description
xx	output channel number w AD004E: 01–04 w AD400E: 01–04 w AD202E: 01–04
*	all output channels
Input	Description
i	input channel

Num2	Description
xx	input channel number w AD004E: N/A w AD400E: 01–04 w AD202E: 01–02
*	all input channels
Control	Description
on	mute on (no audio)
off	mute off (audio out)
Enter	Description
↵	Enter and send out the command.

Acknowledge:

Ack	Description
Command OK	Command is correct and the function is excuted.
Command incorrect	unavailable command or parameters

Formula 2

To query command without parameters, see the followings:

Syntax:

mute + [ENTER]

Acknowledge:

Ack	Description
mute status=on Command OK	Command is correct and the function is excuted.
Command incorrect	unavailable command or parameters

Available Commands List:

Command	Output / Input	Num1	Control	Enter	Description
mute	o	02	on	↵	Mute output channel 2
mute	o	*	off	↵	Turn on all output channels
mute	i	04	on	↵	Mute input channel 4
mute				↵	Query mute status w Reply message example: mute status=on

Volume

Function

Command	Description
volume	Adjust the audio volume.

Formula 1

To control command with parameters, see the followings:

Syntax:

Volume + Output + Num1 + Volume + Control + [ENTER]or
Volume + Input + Num2 + Volume + Control + [ENTER]

Parameters:

The following table shows the possible values for the volume command.

Output	Description
o	output channel
Num1	Description
xx	output channel number w AD004E: 01–04 w AD400E: 01–04 w AD202E: 01–04
*	all output channels
Input	Description
i	input channel
Num2	Description
xx	input channel number w AD004E: N/A w AD400E: 01–04 w AD202E: 01–02
*	all input channels

Volume	Description
v	volume
step	step volume
Control	Description
xx	0–20
+	Increase volume by one step. w maximum: 20
–	Decrease volume by one step. w minimum: 0
Enter	Description
↵	Enter and send out the command.

Acknowledge:

Ack	Description
Command OK	Command is correct and the function is excuted.
Command incorrect	unavailable command or parameters

Formula 2

To query command without parameters, see the followings:

Syntax:

volume + [ENTER]

Acknowledge:

Ack	Description
mute i01 status=15 Command OK	Command is correct and the function is executed.
Command incorrect	unavailable command or parameters

Command	Output / Input	Num	Volume	Control	Enter	Description
volume	o	01	v	10	↵	Adjust the volume level of output channel 1 to be 10.
volume	o	*	v	5	↵	Adjust the volume level of all output channel to be 5.
volume	i	03	step	+	↵	Increase the volume of input channel 3 by one step.
volume	o	02	step	-	↵	Decrease the volume of output channel 2 by one step.
volume					↵	Query the volume status. w Reply message example: volume i02 status=15 or volume o04 status=7

Load Profile

Function

Command	Description
profile	Load a saved profile.

Formula

To control command with parameters, see the followings:

Syntax:

Command + Profile + Num + Control + [ENTER]

Parameters:

The following table shows the possible values for the load profile command.

Profile	Description
f	profile
Num	Description
yy	profile number w AD004E: 1–24 w AD400E: 1–24 w AD202E: 1–24
Control	Description
load	Load a saved profile.
Enter	Description
↵	Enter and send out the command.

Acknowledge:

Ack	Description
Command OK	Command is correct and the function is excuted.
Command incorrect	unavailable command or parameters

Command	Profile	N1	Control	Enter	Description
profile	f	3	load	↵	Load the saved profile, profile3.

Read

Function

Command	Description
read	Read the information from the device.

Formula

To control command with parameters, see the followings:

Syntax:

Command + Key + [ENTER]

Parameters:

The following table shows the possible values for the read command.

Key	Description
version	firmware version information
Enter	Description
↵	Enter and send out the command.

Acknowledge:

Ack	Description
Command OK	Command is correct and the function is excuted.
Command incorrect	unavailable command or parameters

Available Commands List:

Command	Key	Enter	Description
read	version	↵	Read the firmware version information from the device.

Standby Mod

Function

Command	Description
standby	Enter or leave standby mode.

Formula

To control command with parameters, see the followings:

Syntax:

Command + Control + [ENTER]

Parameters:

The following table shows the possible values for the standby command.

Control	Description
on	Put the device into standby mode.
off	Wake up the device from standby mode.
Enter	Description
↵	Enter and send out the command.

Acknowledge:

Ack	Description
Command OK	Command is correct and the function is excuted.
Command incorrect	unavailable command or parameters

Available Commands List:

Command	Control	Enter	Description
standby	on	↵	Enter standby mode.
standby	off	↵	Leave standby mode.

Clear All Settings

Function

Command	Description
clearallsetting	Clear all the settings of the devices

Formula

Syntax:

Command + [ENTER]

Parameters:

Command	Description
clearallsetting	Clear all the settings of the devices
Enter	Description
↵	Enter and send out the command.

Acknowledge:

Ack	Description
Command OK	Command is correct and the function is excuted.
Command incorrect	unavailable command or parameters

Available Commands List:

Command	Enter	Description
clearallsetting	↵	Clear all the settings of the devices.

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Computer Use Interface
USB Device
AC004E, AC004E, AC004E
Audio Digital Signal Processor
with USB

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AD004E, AD400E, AD202E, AD Series Audio Digital Signal Processor, AD Series, Audio Digital Signal Processor, Digital Signal Processor, Signal Processor, Processor

References

- [📄 ATEN - Simply Better Connections | ATEN Corporate Headquarters](#)
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