Automation Control Specification for Classe Audio Sigma 2200i
Rev 1.00   17 March 2017

Rev History:
1.00   Initial specification.

Classé IP Automation Control

Classé products equipped for digital audio streaming via Ethernet (AirPlay and DLNA) are also capable of remote control over Ethernet.

To take advantage of this feature several requirements need to be met.

1. The Classé product should be attached to your local area network and have a valid IP address for that network. The Classé product IP address can be viewed on the front panel touch screen by pressing the 'Menu' hard key on the left side of the screen followed by 'System Setup' and then the 'Network' buttons on the touch screen.

2. The remote control or automation device needs to be able to transmit and receive Ethernet packets using TCP protocol and be attached to the same physical network as the Classé product and be addressed on the same sub-net.

The port that Classé products use for TCP control is 50001.

Control is achieved by simply sending a TCP packet to the Classé product at its IP address and port number (50001) with the message or payload being the command string. Only one command should be issued per packet, a valid reply should be received before a new command is issued.

Any replies to the command or status messages will be sent back to the originating IP address (the remote control devices IP) and same port number (50001).

Command structure
All commands are terminated with an ASCII carriage return.
All Status strings are terminated with an ASCII carriage return and line feed.

Command strings

The command strings consist of all ASCII characters and carriage return.
The following is a list of commands that are recognized by the 2200i:

MAIN n	change main input to input number n
INP+	steps to the next input
INP-	steps to the previous input
OUTP n	Output configuration n
VOLM vv.v	sets volume to vv.v, or the nearest possible value, mute disengaged
	A valid input is a number from 00.0 to 99.9 where 00.0 sets volume relative display
	to --- (or mute) and 99.9 sets volume relative display to 14 (maximum)
VOL+	*steps the volume up from current, mute disengaged
VOL-	*steps the volume down from current, mute disengaged
MUTE	if not muted, engage mutes and adjusts volume
UNMT	if muted, disengages mute and returns to premute volume level
BALL	shift balance ½ dB to left
BALC	recenter to even balance
BALR	shift balance ½ dB to the right
STBY	puts 2200i into standby.
OPER	puts 2200i into operate mode
T1_0	turns off trigger 1
T1_1	turns on trigger 1
T2_0	turns off trigger 2
T2_1	turns on trigger 2
LCD0	sets the front panel LCD to low power "screen saver" mode
LCD1	sets the front panel LCD to high intensity
LCD2	sets the front panel LCD to medium intensity
LCD3	sets the front panel LCD to low intensity
IRC nnn	passes IR code nnn, where nnn is the code identified in the 2200i IR code table
STAT MAIN	request for main volume and input selection
STAT AUTO	status requests for automatic status updates, volume relative display (--- : +14.0)
STAT AUTA	as STAT AUTO but volume will be shown as absolute (0.0 : 100.0)
STAT OUTP	request for output status
STAT OFF	disables automatic status updates
STAT PWR	request for standby status
AMX	requests the AMX Beacon
STMO	toggles stereo/mono modes
TCDIS	disable tone control
TCEN	enable tone control
TTCW	tone tilt clockwise (bass cut, treble boost), must be in tilt mode
TTCCW	tone tilt counter clockwise (bass boost, treble cut), must be in tilt mode
TCB+	tone control bass boost, must be in discrete tone control mode
TCB-	tone control bass cut, must be in discrete tone control mode
TCT+	tone control treble boost, must be in discrete tone control mode
TCT-	tone control treble cut, must be in discrete tone control mode

Replies and Status

The 2200i will send a 3 character reply to acknowledge each recognized command. The acknowledgement character is an exclamation point (!) followed by a carriage return and line feed. There is no leading address field for this reply. If the command received by the 2200i is not recognized, a question mark character replaces the exclamation point. The reply is generated within 100ms of the receipt of the last command termination character (line feed). If no reply is received at the PC/controller host after 100ms., the command should be reissued.

The following status strings are returned by the 2200i:

SY PWRUP	2200i has completed power up
SY STBY	2200i is in standby
SY OPER	2200i is in operate
SY VOLM vv.v	Volume is at vv.v. If mute engaged the string "muted" is appended.
SY MAIN n	2200i has source number n selected.
SY OUTP n	2200i has output number n selected.
SY MODE x	x = STEREO or MONO
SY TONE a B:x.x T:y.y	a = EN or DIS B: = bass cut or boost T: treble cut or boost
SY PWR x	x = ON (unit operational) or OFF (unit in standby)