|  |  |  |
| --- | --- | --- |
| **Command** | **Response** | **Comments** |
| **SEND COMMANDS** | | |
| 0sa5e5 c4.amp.mute 01 01 | 0ra5e5 000 | First argument (01) is the output/zone  Second argument is the input (0X), or zone off (00) |
| 0sa5e6 c4.amp.out 01 00 | 0t0114 sa c4.amp.out 01 00 | First argument (01) is the output/zone  Second argument is the input (0X), or zone off (00) |
| 0sa5e9 c4.sy.unsub "ethernet" | 0sa821 c4.sy.unsub "zigbee" |  |
| 0sa822 c4.sy.unsub "zigbee" | 0ra822 v01 |  |
| 0sa823 c4.sy.sub "ethernet" | 0ra823 000 |  |
| 0sa82e c4.amp.digi 01 00 | 0ra82e 000 | Sets the input to digital?  First argument is the input?  Second argument is on (01) / off (00) |
| 0s2df4 c4.amp.mute 01 00 | 0r2df4 000 | First argument is the output/zone.  Second argument is on (01) / off (00). |
| 0s2df6 c4.amp.chvol 01 c3 | 0r2df6 000 | First argument is output/zone.  Second argument is the volume level to set to (hex?-see table). |
| 0sb1e3 c4.amp.vlim ce ba f4 a6 | 0rb1e3 000 | Set volume limits.  None (00) or specific volume in hex. |
| 0sb1e8 c4.amp.conf 01 | 0rb1e8 000 | Set linear volume curve.  On (01) / Off (00) |
| 0s7b3c c4.amp.psave 03 |  | Set powersave state.  Disabled (02) / Enabled (03) |
|  |  |  |
|  |  |  |
| **GET COMMANDS (Checks these at startup and shutdown of the amp)** | | |
| 0ga824 c4.sy.fwv | 0ra824 000 c4.sy.fwv "03.24.45" | Returns firmware version. Seems to poll this every 5 minutes. Probably to see if the AMP is still connected. |
| 0ga825 c4.sy.afwv | 0ra825 n01 |  |
| 0ga826 c4.amp.ain | 0ra826 000 c4.amp.ain 00 00 00 00 | Lists active inputs? Active (01) / Inactive (00) |
| 0ga827 c4.amp.vlim | 0ra827 000 c4.amp.vlim 00 00 00 00 | Volume limits |
| 0ga828 c4.amp.avol | 0ra828 000 c4.amp.avol c2 ab b0 ab | Current volume setting |
| 0ga829 c4.amp.amut | 0ra829 000 c4.amp.amut 01 01 01 01 | Current mute setting |
| 0ga82a c4.amp.abss | 0ra82a 000 c4.amp.abss 00 00 00 00 | Current bass setting |
| 0ga82b c4.amp.atrb | 0ra82b 000 c4.amp.atrb 00 00 00 00 | Current treble setting |
| 0ga82c c4.amp.abal | 0ra82c 000 c4.amp.abal 00 00 01 01 | Current balance setting |
| 0ga82d c4.amp.psave | 0ra82d 000 c4.amp.psave 02 | Current powersave setting / state. Disabled (02), Power Save (01), Awake (00) |
|  |  |  |

**Command format:**

* Commands start with an ID that is 6 characters long. The ID begins with 0s (send commands) or 0g (get commands). The next 4 seem to be random/sequential.
* The ACK response from the C4 is the same as the request from the controller, except it always begins with 0r.
* 000 seems to be an OK response, e00 seems to be ERROR. Not sure there is als0 v01 and n01 for a couple of commands.
* All commands are sent and received in bytes and terminate with \r\n at the end.

**Volume table:**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Hex** | **Volume** | **Hex** | **Volume** | **Hex** | **Volume** | **Hex** | **Volume** | **Hex** | **Volume** |
| 9c | 0 | b0 | 20 | c5 | 41 | d9 | 61 | ed | 81 |
| 9d | 1 | b1 | 21 | c6 | 42 | da | 62 | ee | 82 |
| 9e | 2 | b2 | 22 | c7 | 43 | db | 63 | ef | 83 |
| 9f | 3 | b3 | 23 | c8 | 44 | dc | 64 | f0 | 84 |
| a0 | 4 | b4 | 24 | c9 | 45 | dd | 65 | f1 | 85 |
| a1 | 5 | b5 | 25 | ca | 46 | de | 66 | f2 | 86 |
| a2 | 6 | b6 | 26 | cb | 47 | df | 67 | f3 | 87 |
| a3 | 7 | b7 | 27 | cc | 48 | e0 | 68 | f4 | 88 |
| a4 | 8 | b8 | 28 | cd | 49 | e1 | 69 | f5 | 89 |
| a5 | 9 | b9 | 29 | ce | 50 | e2 | 70 | f6 | 90 |
| a6 | 10 | ba | 30 | cf | 51 | e3 | 71 | f7 | 91 |
| a7 | 11 | bb | 31 | d0 | 52 | e4 | 72 | f8 | 92 |
| a8 | 12 | bc | 32 | d1 | 53 | e5 | 73 | f9 | 93 |
| a9 | 13 | bd | 33 | d2 | 54 | e6 | 74 | fa | 94 |
| aa | 14 | be | 34 | d3 | 55 | e7 | 75 | fb | 95 |
| ab | 15 | bf | 35 | d4 | 56 | e8 | 76 | fc | 96 |
| ac | 16 | c0 | 36 | d5 | 57 | e9 | 77 | fd | 97 |
| ad | 17 | c1 | 37 | d6 | 58 | ea | 78 | fe | 98 |
| ae | 18 | c2 | 38 | d7 | 59 | eb | 79 | ff | 99 |
| af | 19 | c3 | 39 | d8 | 60 | ec | 80 | 00 | 100 |