

WaveArtist..txt

(the following is from the armlinux CVS)

WaveArtist mixer and volume levels can be accessed via these commands:

nn30 read registers nn, where nn = 00 - 09 for mixer settings
0a - 13 for channel volumes
mm31 write the volume setting in pairs, where mm = (nn - 10) / 2
rr32 write the mixer settings in pairs, where rr = nn/2
xx33 reset all settings to default
0y34 select mono source, y=0 = left, y=1 = right

nn	15	14	13	12	11	10	9	8	7	bits 6	5	4	3	2	1
0															
00	0	0	0	1	1	left line mixer gain					left aux1 mixer gain				
lmute															
01	0	0	1	0	1	left aux2 mixer gain					right 2 left mic gain				
mmute															
02	0	0	1	1	1	left mic mixer gain					left mic		left mixer gain		
dith															
03	0	1	0	0	1	left mixer input select					lrfg		left ADC		
gain															
04	0	1	0	1	1	right line mixer gain					right aux1 mixer gain				
rmute															
05	0	1	1	0	1	right aux2 mixer gain					left 2 right mic gain				
test															
06	0	1	1	1	1	right mic mixer gain					right mic		right mixer gain		
rbyps															
07	1	0	0	0	1	right mixer select					rrfg		right ADC		
gain															
08	1	0	0	1	1	mono mixer gain					right ADC mux sel		left ADC		
mux sel															
09	1	0	1	0	1	loopb	left linout	loop	ADCch	TxFch	OffCD	test			
loopb	loopb	osamp													

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```
+-----+
0a | 0 | left PCM channel volume
|
+-----+
0b | 0 | right PCM channel volume
|
+-----+
0c | 0 | left FM channel volume
|
+-----+
0d | 0 | right FM channel volume
|
+-----+
0e | 0 | left wavetable channel volume
|
+-----+
0f | 0 | right wavetable channel volume
|
+-----+
10 | 0 | left PCM expansion channel volume
|
+-----+
11 | 0 | right PCM expansion channel volume
|
+-----+
12 | 0 | left FM expansion channel volume
|
+-----+
13 | 0 | right FM expansion channel volume
|
+-----+
```

lmute: left mute
mmute: mono mute
dith: dithds
lrfg:
rmute: right mute
rbyps: right bypass
rrfg:
ADCch:
TxFch:
OffCD:
osamp:

And the following diagram is derived from the description in the CVS archive:

The diagram illustrates the internal architecture of the AD1875 audio processor. It shows the signal path from multiple inputs to the final outputs. Key components and their connections are as follows:

- Inputs:** Line L, Aux2 L, Aux1 L, DAC L, and Mono output.
- Processing Blocks:**
 - Mute/Gain:** Each input has a mute and gain control block.
 - Mix:** A mix block combines signals from Aux1, Aux2, and the DAC.
 - Mux:** A multiplexer selects between the mix and the Mono output.
 - AMP:** An amplifier block that receives signals from the mix and the Mono output.
- Registers and Control:**
 - r2b4-5:** Controls the PreAmp and the main mute/gain blocks.
 - r3b3-0:** Controls the AMP and the DAC.
 - r8b0-2:** Controls the Mux and the Mono output.
 - r2b1-3:** Controls the Mix and the Mono output.
 - r9b8-9:** Controls the Mux and the Mono output.
 - r0b0:** Controls the Mux and the Mono output.
 - r1b0:** Controls the Mono output.
- Signal Flow:**
 - Line L, Aux2 L, and Aux1 L signals pass through mute and gain blocks, then to the Mix block.
 - DAC L signal passes through a mute and gain block, then to the Mux block.
 - Mono output signal passes through a mute and gain block, then to the Mux block.
 - The Mux block output goes to the AMP block.
 - The AMP block output goes to the ADC L.

