

Little Sound DJ (LSDJ)

Chiptune on Game Boy

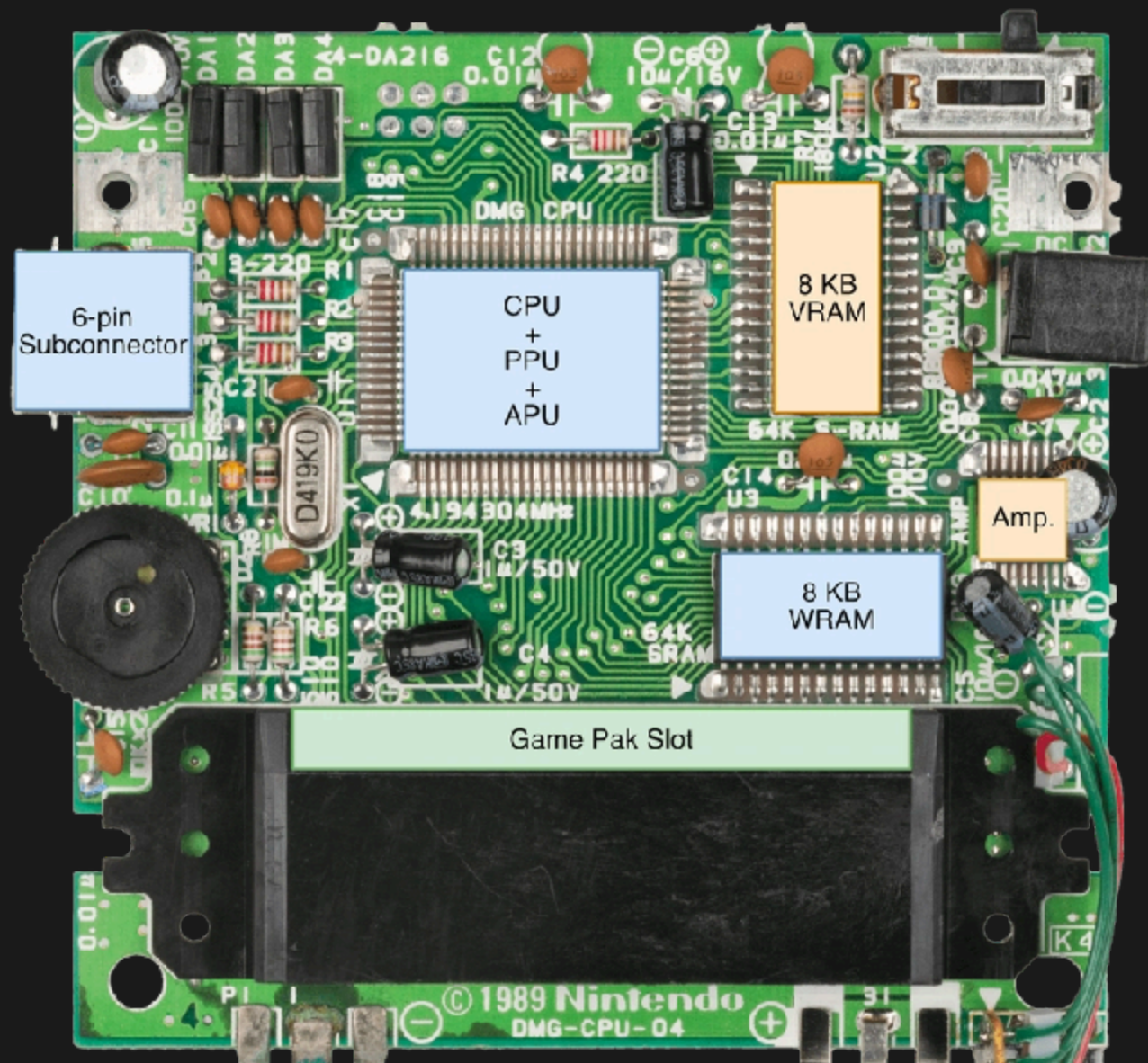
2025-05-18 | SWEC 2025

Simon Weis

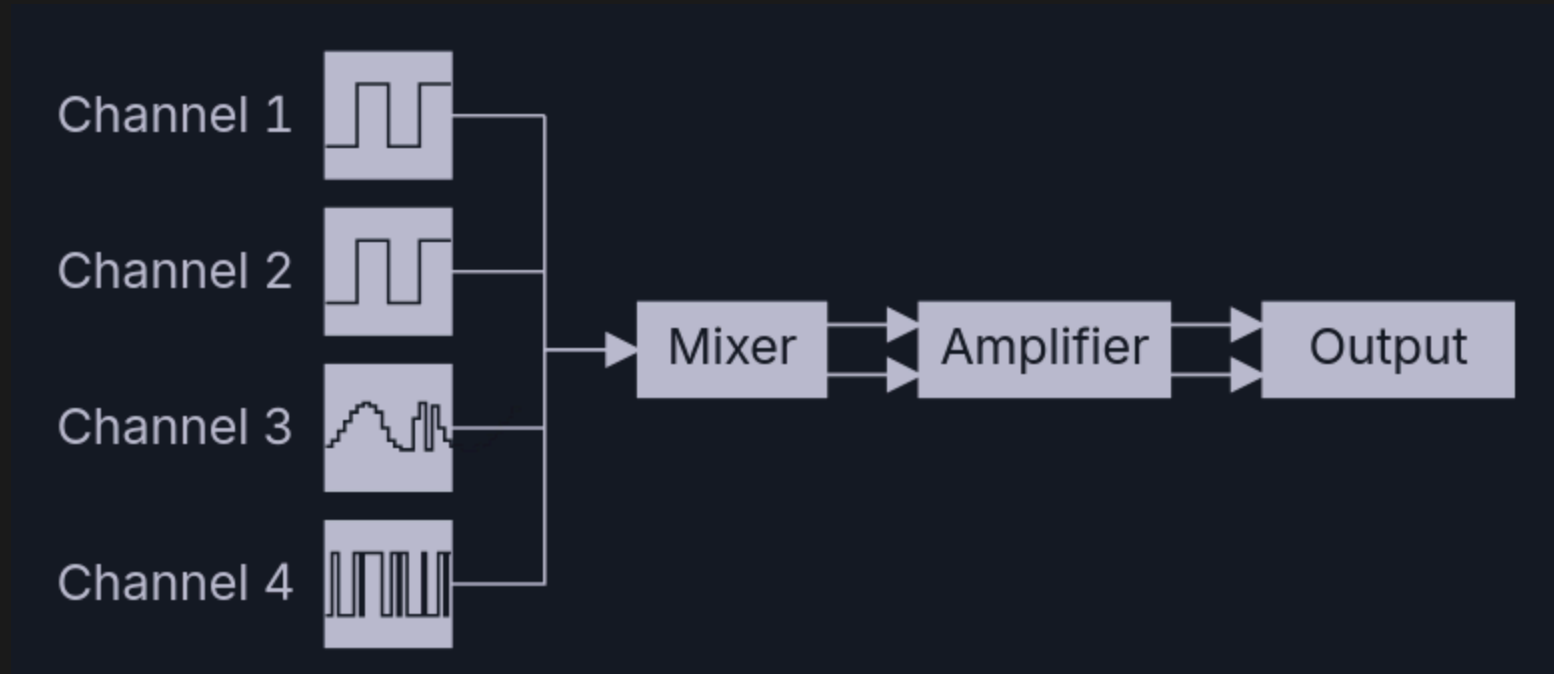


Why Game Boy?

- Limited hardware → creative constraints
- Unique 4-bit sound
- Portable music studio
- Nostalgic appeal
- Active chiptune community



Game Boy Audio System

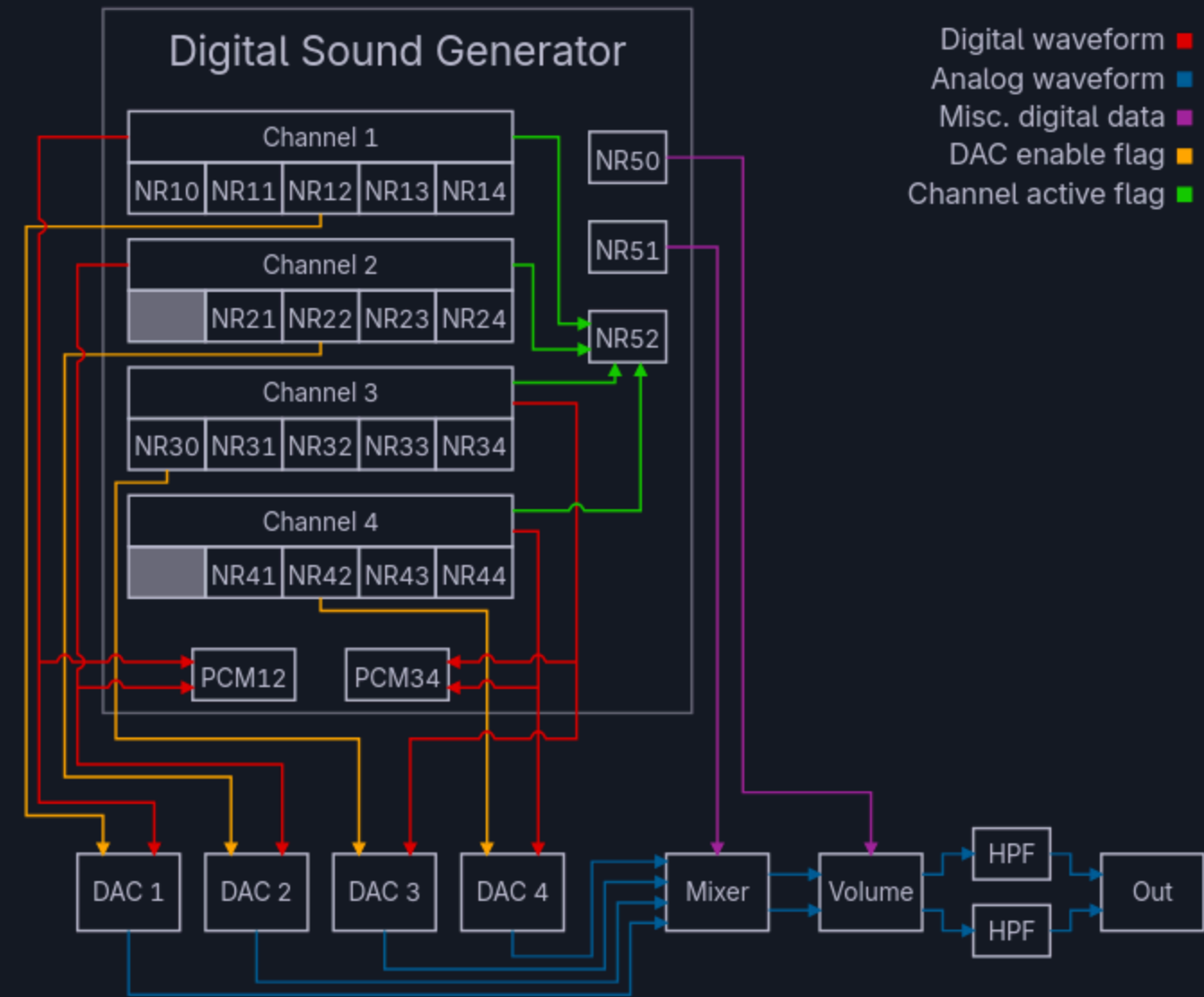


Four Channels (monophonic)

- Pulse-based channel with sweep function
- Pulse-based channel without sweep
- Wave based channel
- Noise channel

The APU

- Clocked by the master clock (runs faster on SGB1)
- 4 Bit Volume register and DAC
- Internally uses Durations instead of Frequencies



Source: Lior "LIJI32" Halphon

Step	Length Ctr	Vol Env	Sweep
0	Clock	-	-
1	-	-	-
2	Clock	-	Clock
3	-	-	-
4	Clock	-	-
5	-	-	-
6	Clock	-	Clock
7	-	Clock	-
Rate	256 Hz	64 Hz	128 Hz

LSDJ

PHRASE 00					WAV
	NOTE	NOTE	INSTR	CMD	
0	BD	CYM	I00	---	CP0
1	---	---	I	---	
2	---	OHH	I00	---	128
3	CHH	---	I00	---	
4	SD	COW	I00	---	1
5	---	---	I	---	2
6	BD	RIM	I00	---	WOW
7	---	---	I	---	N
8	---	OHH	I00	---	
9	---	COW	I00	---	
A	BD	---	I00	---	
B	---	CLA	I00	---	
C	SD	CLA	I00	---	
D	BD	MAL	I00	---	G
E	CHH	---	I00	---	SC
F	RIM	CLP	I00	---	IT

Demo

Resources

- [Official LSDJ Website](#)
- [LSDJ Wiki](#)
- [Kits \(Samples\)](#)
- [Community Forum](#)
- [gbdev.io](#)

Thank You!

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