mrTentacles SNES Reproduction PCB 27C322 support (and 27C160) Instructions



- 1. Game with save / SRAM
- 2. Game without save / SRAM
- 3. Notes on using 27c160 chips

1 Game with save / SRAM

Components needed:

- 2x 1k resistors
- 2x 1N4148 signal diodes
- 2x 0.1uf ceramic cap
- 1x 22uf electrolytic cap
- 2x 74HC257, SMD SOIC Package
- 1x 2N2222 NPN transistor, TO-92 Package
- 1x 74LS139 OR 74HC139, DIP Package
- 1x 2032 battery with solder tabs, most 2032 holders are supported but all don't fit height wise, the clearance in the snes cart shells is only 6mm, can also be mounted on the back of the board.
- 1x SRAM 6264, 64k/8KB 8bit wide 5volt, both wide and slim packages are supported
- 1x 12F629 SOIC pre-programmed with supercic key code, this is for bypassing the lockout feature in unmodified consoles (retron5 and other clone consoles doesn't care) Code found here <u>https://sd2snes.de/blog/cool-stuff/supercic</u>
- 1x 27C322 preprogrammed with a rom, make sure to remove any added header.

Solder all the passives and set the jumper on the middle of the board as indicated

Components in lowest profile order, makes soldering easier:

- 1 2x 74HC257
- 2 R1, R2, D1, D2
- 3 12F629, Super CiC Key
- 4 C1, C3
- 5 Q1, C2 (Make sure to solder in the correct orientation)
- 6 Battery, SRAM

Snes games are either HiROM or LoROM Solder the preprogrammed ROM chip and the 74LS139/74HC139 chip accordingly

HiROM with save



LoROM with save



See 3 Notes on using 27c160 eprom if you are using 27c160 as ROM chip

2 Game without save / SRAM

Components needed:

- 1x 0.1uf ceramic cap
- 1x 22uf electrolytic cap
- 2x 74HC257, SMD SOIC Package
- 1x 12F629 SOIC pre-programmed with supercic key code, this is for bypassing the lockout feature in unmodified consoles (retron5 and other clone consoles doesn't care) Code found here <u>https://sd2snes.de/blog/cool-stuff/supercic</u>
- 1x 27C322 preprogrammed with a rom, make sure to remove any added header.

Solder all the passives and set the jumper on the middle of the board as indicated Components in lowest profile order, makes soldering easier:

- 1 2x 74HC257
- 2 12F629, Super CiC Key
- 3 C3
- 4 C2 (Make sure to solder in the correct orientation)

Snes games are either Hirom or Lorom Solder the preprogrammed ROM chip accordingly

LoROM game without save



HiROM game without save



3 Notes on using 27c160 eprom

Note that the chip needs to be programmed in 16bit mode, the 257 chips are still in use.

Just build as normal but before placing the ROM chip (27C160) bend leg 32 and fit it to the marked holes, LoROM or HiROM accordingly

HiROM, bend leg out LoROM, bend leg in



LoROM configuration, leg bent in