

## Second Dimension R&T DxS-NROM-256-01

Last Updated: January 2, 2017

### Parts List:

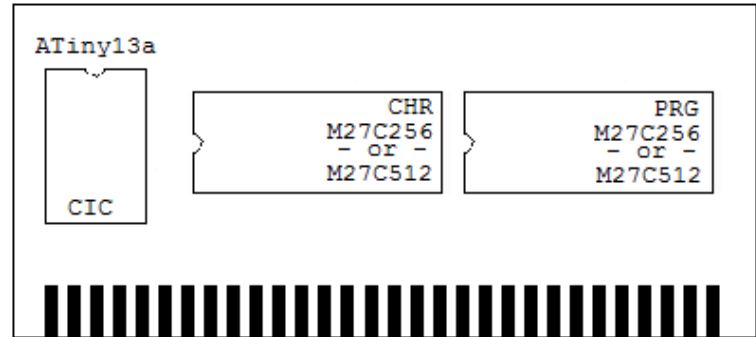
- CAPACITOR (C1): 0.1uF

### Compatible EPROM's:

- M27C256
- M27C512

### CIC Chip:

- ATiny13a



The DXS-NROM-256-01 can use both M27C256 and M27C512 EPROM's without the need of rewiring. The binary for the ATiny13a can be downloaded from [http://www.second-dimension.com/downloads/NES\\_CIC\\_Binary\\_avrciczz-v3.zip](http://www.second-dimension.com/downloads/NES_CIC_Binary_avrciczz-v3.zip)

**NOTE:** This PCB does not support official CIC chips and does not support WRAM, SRAM, or CHR RAM options. The DXS-NROM-256-01 only supports NROM mapper games.

**Mirroring:** If the NES ROM uses Horizontal Mirroring, solder the V solder pads below the EPROM's, and if the NES ROM uses Vertical Mirroring, solder the H solder pads.

### Programming the ATTiny13a EPROM:

These instructions are based off of the GQ USB Universal EPROM Programmer software. If you're using different programming software, the settings should be the same, but the process may be different.

Once your software is loaded

- Select the ATTiny13a Device (ATTiny13a SERIAL)
- Open the **avrciczz.hex** file
- Write the HEX file to the ATTiny13a EPROM
- Press the CFG Button on the toolbar to open the **AVR CFG** window (your software may have this located in a different section, please consult your software documentation).
- Set the Fuse High Byte to **0xFB** and the Fuse Low Byte to **0x70**. For the proper settings, refer to the table below.
- Press the **Write** button. Agree to the prompts, then press **Exit**.

**WARNING:** If you set the fuse before writing the HEX file, you won't be able to write the data to the ATTiny13a.

Fuse High Byte		Fuse Low Byte	
-	✗	SPIEN	✓
-	✗	EESAVE	✗
-	✗	WDTON	✗
SELFPRGE	✗	CKDIV8	✗
DWEN	✗	SUT1	✓
BODLEVEL	✓	SUT0	✓
BODLEVEL	✗	CKSEL1	✓
RSTDISBL	✗	CKSEL0	✓

Table 1, ATTiny13a Fuse Settings