

V9968 Programmer's Manual

Attention!

This document has been translated from Japanese to English from its original source at:

https://github.com/hra1129/V9968_Cartridge/blob/main/fpga/V9968_Cartridge_TangNano20K/src/th9958/manual/v9968_programmers_manual_sprite.pdf

This documentation was translated on March 6, 2026, and it is important to note that it is part of a Work in Progress documentation on the development of V9968 and information could change or it can contain errors.

For the most up-to-date and accurate information, please refer to the original documentation and repository:

https://github.com/hra1129/V9968_Cartridge

V9968 Programmer's Manual

Sprite

table of contents

1. Introduction.....3

1. Introduction

This document describes the sprite functionality of the V9968 processor.

2. Sprite mode1

Sprite mode1 is the sprite function of the TMS9918.

It is only available in Graphic1, Graphic2, and MultiColor modes.

32 sprite planes can be displayed simultaneously, of which only four can be arranged horizontally.

Sprite planes are numbered from #0 to #31, with planes with lower numbers having higher priority and planes with higher numbers having lower priority. If there are many arranged horizontally, only the four with highest priority will be displayed. This determination is made on a line-by-line basis, so if sprites are lined up with slight differences in display position vertically, some sprites will disappear in part, while others will be displayed.

3. Sprite mode2

Sprite mode2 is a sprite function added from V9938.

Only available in Graphic 3 to 7 modes.

4. Sprite mode3

Sprite mode3 is a sprite function added in V9968.

Sprite mode 1 or 2 can be switched to Sprite mode 3. In other words, it can be used in Graphic 1 to 7 and MultiColor modes.