

# SAGA\_VIDEO\_MODE Register



Change the current SAGA Video Mode,  
including PixelFormat and DoubleScan flags.

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## Name

- SAGA\_VIDEO\_MODE

## Address

- 0xDFF1F4

## Access

- Write-Only

## Size

- 16-bits
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## Description

A valid SAGA Video Mode value is an addition of :

- **Low Byte** : SAGA\_VIDEO\_FORMAT
  - **High Byte** : SAGA\_VIDEO\_DBLSCAN
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## Low Byte : SAGA\_VIDEO\_FORMAT

This enumeration is used to describe the PixelFormat of the Video.

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| Name                     | Value | BytesPerPixel | Description      |
|--------------------------|-------|---------------|------------------|
| SAGA_VIDEO_FORMAT_OFF    | 0x00  | _             | Chunky-DMA Off   |
| SAGA_VIDEO_FORMAT_CLUT8  | 0x01  | 1             | CLUT8            |
| SAGA_VIDEO_FORMAT_RGB16  | 0x02  | 2             | R5   G6   B5     |
| SAGA_VIDEO_FORMAT_RGB15  | 0x03  | 2             | -   R5   G5   B5 |
| SAGA_VIDEO_FORMAT_RGB24  | 0x04  | 3             | R8   G8   B8     |
| SAGA_VIDEO_FORMAT_RGB32  | 0x05  | 4             | -   R8   G8   B8 |
| SAGA_VIDEO_FORMAT_YUV422 | 0x06  | 2             | Y4   U2   V2     |

## High Byte : SAGA\_VIDEO\_DBLSCAN

This enumeration is used to describe the DoubleScan flag of the Video.

| Name                   | Value | Description                               |
|------------------------|-------|-------------------------------------------|
| SAGA_VIDEO_DBLSCAN_OFF | 0x00  | Normal Display                            |
| SAGA_VIDEO_DBLSCAN_X   | 0x01  | Double output each X-Pixel (X-DoubleScan) |
| SAGA_VIDEO_DBLSCAN_Y   | 0x02  | Double output each Row (Y-DoubleScan)     |
| SAGA_VIDEO_DBLSCAN_XY  | 0x03  | Double output (XY-DoubleScan)             |

## Examples

Example in C:

```
#define SAGA_VIDEO_MODE 0x00DFF1F4

#define SAGA_VIDEO_FORMAT_OFF    0
#define SAGA_VIDEO_FORMAT_CLUT8  1
#define SAGA_VIDEO_FORMAT_RGB16  2 //   R5 | G6 | B5
#define SAGA_VIDEO_FORMAT_RGB15  3 // - | R5 | G5 | B5
#define SAGA_VIDEO_FORMAT_RGB24  4 //   R8 | G8 | B8
#define SAGA_VIDEO_FORMAT_RGB32  5 // - | R8 | G8 | B8
#define SAGA_VIDEO_FORMAT_YUV422 6 //   Y4 | U2 | V2

#define SAGA_VIDEO_DBLSCAN_OFF    0
#define SAGA_VIDEO_DBLSCAN_X     1
#define SAGA_VIDEO_DBLSCAN_Y     2
#define SAGA_VIDEO_DBLSCAN_XY    (SAGA_VIDEO_DBLSCAN_X |
SAGA_VIDEO_DBLSCAN_Y)

#define SAGA_VIDEO_MODE_FORMAT(x) (((x) & 0xff) << 0)
#define SAGA_VIDEO_MODE_DBLSCN(x) (((x) & 0xff) << 8)

// Video Mode = DblScan OFF + RGB16

*(volatile UWORD *)SAGA_VIDEO_MODE =
```

```
SAGA_VIDEO_MODE_FORMAT(SAGA_VIDEO_FORMAT_RGB16) |  
SAGA_VIDEO_MODE_DBLSCN(SAGA_VIDEO_DBLSCAN_OFF);  
  
// Video Mode = DblScan XY + CLUT8  
  
*(volatile UWORD *)SAGA_VIDEO_MODE =  
SAGA_VIDEO_MODE_FORMAT(SAGA_VIDEO_FORMAT_CLUT8) |  
SAGA_VIDEO_MODE_DBLSCN(SAGA_VIDEO_DBLSCAN_XY);
```

Example in ASM:

```
SAGA_VIDEO_MODE EQU $DFF1F4  
  
SAGA_VIDEO_FORMAT_OFF EQU $00  
SAGA_VIDEO_FORMAT_CLUT8 EQU $01  
SAGA_VIDEO_FORMAT_RGB16 EQU $02 ; R5|G6|B5  
SAGA_VIDEO_FORMAT_RGB15 EQU $03 ; -|R5|G5|B5  
SAGA_VIDEO_FORMAT_RGB24 EQU $04 ; R8|G8|B8  
SAGA_VIDEO_FORMAT_RGB32 EQU $05 ; -|R8|G8|B8  
SAGA_VIDEO_FORMAT_YUV422 EQU $06 ; Y4|U2|V2  
  
SAGA_VIDEO_DBLSCAN_OFF EQU $00  
SAGA_VIDEO_DBLSCAN_X EQU $01  
SAGA_VIDEO_DBLSCAN_Y EQU $02  
SAGA_VIDEO_DBLSCAN_XY EQU (SAGA_VIDEO_DBLSCAN_X | SAGA_VIDEO_DBLSCAN_Y)  
  
; Video Mode = DblScan OFF + RGB16  
  
MOVE.W #$0002,$DFF1F4  
MOVE.W #(SAGA_VIDEO_FORMAT_RGB16|SAGA_VIDEO_DBLSCAN_OFF<<8),SAGA_VIDEO_MODE  
  
; Video Mode = DblScan XY + CLUT8  
  
MOVE.W #$0301,$DFF1F4  
MOVE.W #(SAGA_VIDEO_FORMAT_CLUT8|SAGA_VIDEO_DBLSCAN_XY<<8),SAGA_VIDEO_MODE
```

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Last update: **2016/05/23 19:07**

