5.2.5. Read Display Status (09h)

09h	RDDST (Read Display Status)												
	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	HEX
Command	0	1	↑	XX	0	0	0	0	1	0	0	1	09h
1st Parameter	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
2nd Parameter	1	↑	1	XX	D [31:24]								XX
3rd Parameter	1	↑	1	XX	D [23:16]								XX
4th Parameter	1	↑	1	XX	D [23:8]								XX
5th Parameter	1	↑	1	XX	D [7:0]								XX

Description

This command indicates the current status of the display as described in the table below:

Bit	Description	Value	Status
D31	Booster voltage status	0	Booster OFF
		1	Booster ON
D30	Row address order	0	Top to Bottom (When MADCTL D7 = 0)
		1	Bottom to Top (When MADCTL D7 = 1)
D29	Column address order	0	Left to Right (When MADCTL D6 = 0)
		1	Right to Left (When MADCTL D6 = 1)
D28	Row/column exchange	0	Normal Mode (When MADCTL D5 = 0)
		1	Reverse Mode (When MADCTL D5 = 1)
D27	Vertical refresh	0	LCD Refresh Top to Bottom (When MADCTL D4 = 0)
		1	LCD Refresh Bottom to Top (When MADCTL D4 = 1)
D26	RGB/BGR order	0	RGB (When MADCTL D3 = 0)
		1	BGR (When MADCTL D3 = 1)
D25	Horizontal refresh order	0	LCD Refresh Left to Right (When MADCTL D2 = 0)
		1	LCD Refresh Right to Left (When MADCTL D2 = 1)
D22	Interface color pixel format definition	101	16-bit/pixel
D21		110	18-bit/pixel
D20		111	24-bit/pixel
D19	Idle mode ON/OFF	0	Idle Mode OFF
		1	Idle Mode ON
D18	Partial mode ON/OFF	0	Partial Mode OFF
		1	Partial Mode ON
D17	Sleep IN/OUT	0	Sleep IN Mode
		1	Sleep OUT Mode
D16	Display normal mode ON/OFF	0	Display Normal Mode OFF
		1	Display Normal Mode ON
D15	Vertical scrolling status	0	Vertical Scroll OFF
		1	Vertical Scroll ON
D13	Inversion status	0	Inversion OFF
		1	Inversion ON
D10	Display ON/OFF	0	Display is OFF
		1	Display is ON
D9	Tearing effect line ON/OFF	0	Tearing Effect Line OFF
		1	Tearing Effect ON

	D [8:6]	Gamma curve selection	000	GC0
	D5	Tearing effect line mode	0	Mode 1, V-Blanking only
			1	Mode 2, both H-Blanking and V-Blanking

Note: This bit indicates the current status of the line when this command is sent.

X = void

Restriction

Register Availability

Status	Availability
Normal Mode On, Idle Mode Off, Sleep Out	Yes
Normal Mode On, Idle Mode On, Sleep Out	Yes
Partial Mode On, Idle Mode Off, Sleep Out	Yes
Partial Mode On, Idle Mode On, Sleep Out	Yes
Sleep In	Yes

Default

Status	Default Value
Power On Sequence	32'h00610000h
SW Reset	32'h00610000h
HW Reset	32'h00610000h

Flow Chart