

5. Command

5.1. Command List

5.1.1. Standard Command List

Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
NOP	0	1	↑	XX	0	0	0	0	0	0	0	0	00h
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Soft Reset	0	1	↑	XX	0	0	0	0	0	0	0	1	01h
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Read display identification information	0	1	↑	XX	0	0	0	0	0	1	0	0	04h
	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	XX	ID1 [7:0]							XX	
	1	↑	1	XX	ID2 [7:0]							XX	
	1	↑	1	XX	ID3 [7:0]							XX	
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Read Number of the Errors on DSI	0	1	↑	XX	0	0	0	0	0	1	0	1	05h
	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	XX	P [7:0]							XX	
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Read Display Status	0	1	↑	XX	0	0	0	0	1	0	0	1	09h
	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	XX	D [31:24]							XX	
	1	↑	1	XX	D [23:16]							XX	
	1	↑	1	XX	D [23:8]							XX	
	1	↑	1	XX	D [7:0]							XX	
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Read Display Power Mode	0	1	↑	XX	0	0	0	0	1	0	1	0	0Ah
	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	XX	D [7:2]							0	0
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Read Display MADCTL	0	1	↑	XX	0	0	0	0	1	0	1	1	0Bh
	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	XX	D [7:2]							0	0
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Read Pixel Format	0	1	↑	XX	0	0	0	0	1	1	0	0	0Ch
	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	XX	0	DPI [2:0]			0	DBI [2:0]			XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Read Display Image Mode	0	1	↑	XX	0	0	0	0	1	1	0	1	0Dh
	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	XX	D [7:0]							XX	
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Read Display signal Mode	0	1	↑	XX	0	0	0	0	1	1	1	0	0Eh
	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	XX	D7	D6	D5	D4	D3	D2	D1	D0	XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Read Display Self-Diagnostic Result	0	1	↑	XX	0	0	0	0	1	1	1	1	0Fh
	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	XX	D7	D6	0	0	0	0	0	D0	XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Sleep IN	0	1	↑	XX	0	0	0	1	0	0	0	0	10h
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Sleep OUT	0	1	↑	XX	0	0	0	1	0	0	0	1	11h
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Partial Mode ON	0	1	↑	XX	0	0	0	1	0	0	1	0	12h

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Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Normal Display Mode ON	0	1	↑	XX	0	0	0	1	0	0	1	1	13h
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Display Inversion OFF	0	1	↑	XX	0	0	1	0	0	0	0	0	20h
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Display Inversion ON	0	1	↑	XX	0	0	1	0	0	0	0	1	21h
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
All Pixel OFF	0	1	↑	XX	0	0	1	0	0	0	1	0	22h
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
All Pixel ON	0	1	↑	XX	0	0	1	0	0	0	1	1	23h
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Display OFF	0	1	↑	XX	0	0	1	0	1	0	0	0	28h
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Display ON	0	1	↑	XX	0	0	1	0	1	0	0	1	29h
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Column Address Set	0	1	↑	XX	0	0	1	0	1	0	1	0	2Ah
	1	1	↑	XX	SC [15:8]							XX	
	1	1	↑	XX	SC [7:0]							XX	
	1	1	↑	XX	EC [15:8]							XX	
	1	1	↑	XX	EC [7:0]							XX	
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Page Address Set	0	1	↑	XX	0	0	1	0	1	0	1	1	2Bh
	1	1	↑	XX	SP [15:8]							XX	
	1	1	↑	XX	SP [7:0]							XX	
	1	1	↑	XX	EP [15:8]							XX	
	1	1	↑	XX	EP [7:0]							XX	
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Memory Write	0	1	↑	XX	0	0	1	0	1	1	0	0	2Ch
	1	1	↑	D1 [23:0]							XX		
	1	1	↑	Dx [23:0]							XX		
	1	1	↑	Dn [23:0]							XX		
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Memory Read	0	1	↑	XX	0	0	1	0	1	1	1	0	2Eh
	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	D1 [23:0]							XX		
	1	↑	1	Dx [23:0]							XX		
	1	↑	1	Dn [23:0]							XX		
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Partial Area	0	1	↑	XX	0	0	1	1	0	0	0	0	30h
	1	1	↑	XX	SR [15:8]							XX	
	1	1	↑	XX	SR [7:0]							XX	
	1	1	↑	XX	ER [15:8]							XX	
	1	1	↑	XX	ER [7:0]							XX	
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Vertical Scrolling Definition	0	1	↑	XX	0	0	1	1	0	0	1	1	33h
	1	1	↑	XX	TFA [15:8]							XX	
	1	1	↑	XX	TFA [7:0]							XX	
	1	1	↑	XX	VSA [15:8]							XX	
	1	1	↑	XX	VSA [7:0]							XX	
	1	1	↑	XX	BFA [15:8]							XX	
	1	1	↑	XX	BFA [7:0]							XX	
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Tearing Effect Line OFF	0	1	↑	XX	0	0	1	1	0	1	0	0	34h
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Tearing Effect Line ON	0	1	↑	XX	0	0	1	1	0	1	0	1	35h
	1	1	↑	XX	0	0	0	0	0	0	0	M	XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Memory Access Control	0	1	↑	XX	0	0	1	1	0	1	1	0	36h
	1	1	↑	XX	MY	MX	MV	ML	BGR	MH	X	X	XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex

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Vertical Scrolling Start Address	0	1	↑	XX	0	0	1	1	0	1	1	1	37h
	1	1	↑	XX	VSP [15:8]								XX
	1	1	↑	XX	VSP [7:0]								XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Idle Mode OFF	0	1	↑	XX	0	0	1	1	1	0	0	0	38h
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Idle Mode ON	0	1	↑	XX	0	0	1	1	1	0	0	1	39h
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Interface Pixel Format	0	1	↑	XX	0	0	1	1	1	0	1	0	3Ah
	1	1	↑	XX	0	DPI [6:4]			0	DBI [2:0]			XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Memory Write Continue	0	1	↑	XX	0	0	1	1	1	1	0	0	3Ch
	1	1	↑	D1 [23:0]									XX
	1	1	↑	Dx [23:0]									XX
	1	1	↑	Dn [23:0]									XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Memory Read Continue	0	1	↑	XX	0	0	1	1	1	1	1	0	3Eh
	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	D1 [23:0]									XX
	1	↑	1	Dx [23:0]									XX
	1	↑	1	Dn [23:0]									XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Write Tear Scan line	0	1	↑	XX	0	1	0	0	0	1	0	0	44h
	1	1	↑	XX	N [15:8]								XX
	1	1	↑	XX	N [7:0]								XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Read Tear Scan Line	0	1	↑	XX	0	1	0	0	0	1	0	1	45h
	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	XX	N [15:8]								XX
	1	↑	1	XX	N [7:0]								XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Write Display Brightness value	0	1	↑	XX	0	1	0	1	0	0	0	1	51h
	1	↑	1	XX	DBV [7:0]								XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Read Display Brightness Value	0	1	↑	XX	0	1	0	1	0	0	1	0	52h
	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	XX	DBV [7:0]								XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Write CTRL Display value	0	1	↑	XX	0	1	0	1	0	0	1	1	53h
	1	1	↑	XX	0	0	BCTRL	0	DD	BL	0	0	XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Read CTRL Display value	0	1	↑	XX	0	1	0	1	0	1	0	0	54h
	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	XX	0	0	BCTRL	0	DD	BL	0	0	XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Write Content Adaptive Brightness Control value	0	1	↑	XX	0	1	0	1	0	1	0	1	55h
	1	1	↑	XX	0	0	0	0	0	0	C [1:0]		XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Read Content Adaptive Brightness Control value	0	1	↑	XX	0	1	0	1	0	1	1	0	56h
	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	XX	0	0	0	0	0	0	C [1:0]		XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Write CABC Minimum Brightness	0	1	↑	XX	0	1	0	1	1	1	1	0	5Eh
	1	1	↑	XX	CMB [7:0]								XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Read CABC Minimum Brightness	0	1	↑	XX	0	1	0	1	1	1	1	1	5Fh
	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	XX	CMB [7:0]								XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Read automatic brightness	0	1	↑	XX	0	1	1	0	1	0	0	0	68h

control self-diagnostic result	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	XX	D [7:6]		0	0	0	0	0	0	XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Read ID1	0	1	↑	XX	1	1	0	1	1	0	1	0	DAh
	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	XX	ID1 [7:0]								XX
Command Function	D/CX	RDX	WRX	D [23:8]	D7	D6	D5	D4	D3	D2	D1	D0	Hex
Read ID2	0	1	↑	XX	1	1	0	1	1	0	1	1	DBh
	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	XX	ID2 [7:0]								XX
Command Function	D/CX	RDX	WRX	D [23:8]	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0	Hex
Read ID3	0	1	↑	XX	1	1	0	1	1	1	0	0	DCh
	1	↑	1	XX	X	X	X	X	X	X	X	X	XX
	1	↑	1	XX	ID3 [7:0]								XX