

Power consumption (Typical condition)

Ambient temperature: 25° C

Clock settings: SYSCLK=50MHz, SDRAMCLK=100MHz, LCDCLK=20MHz

PLL1, PLL2 settings: Reference clock=10MHz, Output = 100MHz

LCD mode and settings: Generic TFT, VGA, Data mode 32-bpp, Display mode 18-bit

Voltage settings

Voltage settings [V]	
CORE	1.8
PLL1	1.8
PLL2	1.8
OSC1	1.8
OSC2	1.8
HVDD1 (Host I/F)	3.3
HVDD2 (LCD I/F)	3.3
HVDD3 (Camera1 I/F)	3
HVDD4 (Camera2 I/F, GPIO, Misc.)	3
HVDD5 (SDRAM I/F)	3.3

S1D13513F (QFP)

Function mode	Operation	LVDD [mA]					HVDD [mA]					LVDD + HVDD Total Consumption [mW]
		CORE	PLL1	PLL2	OSC1	OSC2	HVDD1	HVDD2	HVDD3	HVDD4	HVDD5	
Idle	Power save ON	2.9	1.9	1.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	12.8
	Power save OFF	41.7	1.9	1.9	0.3	0.0	0.0	0.0	0.0	0.0	9.2	112.9
Static image display	Main Window 640x480 dots, 32-bpp	56.4	1.9	1.9	0.3	0.0	0.0	8.9	0.9	0.0	12.8	183.4
	Main Window 640x480 dots, 16-bpp	55.6	1.9	1.9	0.3	0.0	0.0	8.4	0.9	0.0	13.4	182.1
	Main Window 640x480 dots, 8-bpp	54.9	1.9	1.9	0.3	0.0	0.0	5.6	0.9	0.0	12.0	166.9
	Main Window 640x480 dots, 32-bpp, PIP1 Window 640x480 dots, 32-bpp	56.4	1.9	1.9	0.3	0.0	0.0	8.9	0.9	0.0	12.8	183.4
	Main Window 640x480 dots, 32-bpp, PIP2 Window 640x480 dots, 32-bpp	66.9	1.9	1.9	0.3	0.0	0.0	8.9	0.9	0.0	16.0	212.9
	Main Window 640x480 dots, 32-bpp, PIP1 Window 640x480 dots, 32-bpp, PIP2 Window 640x480 dots, 32-bpp	64.2	1.9	1.9	0.3	0.0	0.0	7.1	0.9	0.0	13.8	194.5
	Main Window 640x480 dots, 16-bpp	60.3	1.9	1.9	0.3	0.0	0.0	7.1	0.9	1.7	13.8	192.5
Camera image display	PIP1 Window 640x480 dots, 16-bpp	60.3	1.9	1.9	0.3	0.0	0.0	7.1	0.9	1.7	13.8	192.5
	PIP2 Window 640x480 dots, 16-bpp	70.2	1.9	1.9	0.3	0.0	0.0	7.1	0.9	1.7	14.7	213.4
	Main Window 640x480 dots, 16-bpp, 73x71 pixels x 15 sprites	57.7	1.9	1.9	0.3	0.0	0.4	12.4	0.9	0.0	15.5	207.6
Sprite ON	Main Window 640x480 dots, 16-bpp, Move BitBLT	56.0	1.9	1.9	0.3	0.0	3.5	10.4	0.9	0.0	13.4	200.9

S1D13513F (BGA)

Function mode	Operation	LVDD [mA]					HVDD [mA]					LVDD + HVDD Total Consumption [mW]
		CORE	PLL1	PLL2	OSC1	OSC2	HVDD1	HVDD2	HVDD3	HVDD4	HVDD5	
Idle	Power save ON	2.9	1.8	1.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	12.6
	Power save OFF	41.6	1.8	1.9	0.2	0.0	0.0	0.0	0.0	0.0	10.1	115.4
Static image display	Main Window 640x480 dots, 32-bpp	55.7	1.8	1.9	0.2	0.0	0.0	8.1	2.4	0.0	13.5	186.0
	Main Window 640x480 dots, 16-bpp	55.4	1.8	1.9	0.2	0.0	0.0	7.5	2.4	0.0	17.6	197.1
	Main Window 640x480 dots, 8-bpp	54.8	1.8	1.9	0.2	0.0	0.0	5.1	2.4	0.0	14.1	176.3
	Main Window 640x480 dots, 32-bpp, PIP1 Window 640x480 dots, 32-bpp	55.7	1.8	1.9	0.2	0.0	0.0	8.0	2.4	0.0	13.5	185.9
	Main Window 640x480 dots, 32-bpp, PIP2 Window 640x480 dots, 32-bpp	65.9	1.8	1.9	0.2	0.0	0.0	8.0	2.4	0.0	15.3	209.9
	Main Window 640x480 dots, 32-bpp, PIP1 Window 640x480 dots, 32-bpp, PIP2 Window 640x480 dots, 32-bpp	63.4	1.8	1.9	0.2	0.0	0.0	6.4	2.4	0.0	14.0	195.8
	Main Window 640x480 dots, 16-bpp	60.3	1.8	1.9	0.2	0.0	0.0	6.4	2.4	1.6	18.5	209.6
Camera image display	PIP1 Window 640x480 dots, 16-bpp	60.3	1.8	1.9	0.2	0.0	0.0	6.4	2.4	1.6	18.5	209.7
	PIP2 Window 640x480 dots, 16-bpp	70.0	1.8	1.9	0.2	0.0	0.0	6.4	2.4	1.6	17.6	224.3
	Main Window 640x480 dots, 16-bpp, 73x71 pixels x 15 sprites	57.5	1.8	1.9	0.2	0.0	0.6	9.8	2.4	0.0	18.1	212.1
Sprite ON	Main Window 640x480 dots, 16-bpp, Move BitBLT	55.5	1.8	1.9	0.2	0.0	3.1	9.7	2.4	0.0	13.9	202.4