

SAMSUNG



Samsung Semiconductor, Inc.
Product Selection Guide

TFT-LCD

August 2007

TFT-LCD	PAGE
MONITOR PANELS	
15", 17", 19"	3
21.3", 22", 24", 30"	3
DIGITAL INFORMATION DISPLAY PANELS	
40", 46", 52", 57", 70", 82"	4
SD/HD/FULL HD TV PANELS	
32", 40", 46", 52"	5
MOBILE PANELS	
3.5", 4.3", 4.8"	6
7", 12"	7

LCD PANELS FOR MONITORS (UP TO 20")

	15.0"	17.0"		19.0"		
	LTM150XO-L01	LTM170EU-L31	LTM170E8 -L01	LTM190EX-L31	LTM190E4-L02	LTM190M2-L31
Size (inch)	15.0"	17.0"	17.0"	19.0"	19.0"	19.0"
Resolution	XGA	SXGA	SXGA	SXGA	SXGA	Wide XGA+
Number of Pixels	1,024 x 768	1,280 x 1,024	1,280 x 1,024	1,280 x 1,024	1,280 x 1,024	1,440 x 900
Active Area (mm)	304.1 X 228.1	337.9 x 270.3	337.9 x 270.3	376.3 X 301.1	376.3 X 301.1	408.2 x 255.2
Pixel Pitch (mm)	0.297	0.264	0.264	0.294	0.294	0.284
Mode	BTN II	BTN III	PVA	BTN III	PVA	BTN III
Number of Colors	16.2M	16.7M	6-Bit Hi-FRC =16M	16.7M	16.7M	16.7M
Contrast Ratio (typ.)	700:1	1:000:1	1,000:1	1:000:1	1,500:1	1,000:1
Brightness (cd/_)	250	300	280	300	250	300
Response Time (at 25_)	8ms	5ms	< 25ms	5ms	< 20ms	5ms
Color Gamut	60%	72%	72%	72%	72%	72%
Viewing Angle (U/D/L/R)	75/60/75/75	80/80/80/80	89/89/89/89	80/80/80/80	89/89/89/89	80/80/80/80
Interface	1 Ch. LVDS	2 Ch. LVDS	2 Ch. LVDS	2 Ch. LVDS	2 Ch. LVDS	2 Ch. LVDS
Supply Voltage (V)	3.3	5	5	5	5	5
Backlights	2 CCFL	4 CCFL	4 CCFL	4 CCFL	4 CCFL	4 CCFL
Outline Dimension (mm)	326.5 x 253.5 x 11.5	358.5 x 296.5 x 17.5	354.9 x 290.3 x 13.3	396.0 x 324.0 x 16.5	396.0 x 324.0 x 17.5	428.0 x 278.0 x 18.0
Weight (g)	1,050	2,100	1,650	2,200	2,600	2,500
Production	Now	Now	Now	Now	Now	Now

LCD PANELS FOR MONITORS (MORE THAN 20")

30.0"	LTM213U6-L01	LTM220M1-L01	LTM240M2-L02	LTM300M1-P01
Size (inch)	21.3"	22.0"	24.0"	30.0"
Resolution	UXGA	Wide SXGA+	Wide UXGA	Wide QXGA
Number of Pixels	1,600 x 1,200	1,680 x 1,050	1,920 x 1,200	2,560 x 1,600
Active Area (mm)	432.0 X 324.0	473.8 x 296.1	518.4 X 324.0	641.3 x 400.8
Pixel Pitch (mm)	0.270	0.282	0.270	0.251
Mode	S-PVA	BTN III	S-PVA	S-PVA
Number of Colors	16.7M	16.7M	16.7M	16.7M
Contrast Ratio (typ.)	1,000:1	1,000:1	1,000:1	1,000:1
Brightness (cd/_)	300	300	500	400
Response Time (at 25_)	25ms	5ms	6ms (Grey to Grey)	6ms
Color Gamut	72%	72%	72%	72%
Viewing Angle (U/D/L/R)	89/89/89/89	80/80/80/80	89/89/89/89	90/90/90/90
Interface	2 Ch. LVDS	2 Ch. LVDS	2 Ch. LVDS	Dual TMDS
Supply Voltage (V)	5	5	5	12
Backlights	6 CCFL	4 CCFL	6 CCFL, Direct BLU	16 CCFL
Outline Dimension (mm)	462.0 x 361.0 x 22.5	493.7 x 320.1 x 17.0	546.4 x 352.0 x 35.8	677.3 x 436.8 x 42.3
Weight (g)	3,500	2,800	3,200	5,100
Production	Now	Now	Now	Now

DIGITAL INFORMATION DISPLAY PANELS (UP TO 50")

	40" Narrow Bezel		46" Narrow Bezel	
	LTI400WT-L02 (White)	LTI400AA01-001 (Black)	LTI460WT-L02 (White)	LTI460AA01-001 (Black)
Size (inch)	40.0"	40.0"	46.0"	46.0"
Resolution	WXGA, 1366 x 768	WXGA, 1366 x 768	WXGA, 1366 x 768	WXGA, 1366 x 768
Aspect Ratio	16:9	16:9	16:9	16:9
Active Area (mm)	885.168 X 497.664	885.168 X 497.664	1018.353 x 572.544	1018.353 x 572.544
Pixel Pitch (mm)	0.648 X 0.648	0.648 X 0.648	0.7455 X 0.7455	0.7455 X 0.7455
Liquid Crystal Mode	S-PVA	S-PVA	S-PVA	S-PVA
Brightness	700 cd/m ₂	700 cd/m ₂	700 cd/m ₂	700 cd/m ₂
Contrast Ratio	2000:1	2000:1	2000:1	2000:1
Number of Colors	16.7M (8bit)	16.7M (8bit)	16.7M (8bit)	16.7M (8bit)
Color Gamut	72%	72%	72%	72%
Response Time (G to G)	8 ms	8 ms	8 ms	8 ms
Viewing Angle (U/D/L/R)	89/89/89/89	89/89/89/89	89/89/89/89	89/89/89/89
Interface	1ch LVDS	1ch LVDS	1ch LVDS	1ch LVDS
Power Supply Voltage (V)	12v(Logic), 24v(BLU)	12v(Logic), 24v(BLU)	12v(Logic), 24v(BLU)	12v(Logic), 24v(BLU)
Power Supply Current (I)	0.86A (Logic), 10.3A (BLU)	0.86A (Logic), 10.3A (BLU)	1A (Logic), 12A (BLU)	1A (Logic), 12A (BLU)
Outline Dimension (mm)	911.7 x 524.2 x 58.7	911.7 x 524.2 x 58.7	1047.4 x 600.6 x 59.3	1047.4 x 600.6 x 59.3
Weight (g)	12,500	12,500	18,000	18,000
Production	07' Aug	07' Aug	Now	Now
Other features	Narrow bezel Landscape / Portrait	Narrow bezel Landscape / Portrait Black Top chassis SMART Function	Narrow bezel Landscape / Portrait	Narrow bezel Landscape / Portrait Black Top chassis SMART Function

DIGITAL INFORMATION DISPLAY PANELS (MORE THAN 50")

	52"	57"	70"	82"
	LTI520HB01-001	LTI570HH-L01	LTI700HD01-001	LTI820HT-L01
Size (inch)	52.0"	57.0"	70.0"	82.0"
Resolution	WUXGA, 1920 x 1080	WUXGA, 1920 x 1080	WUXGA, 1920 x 1080	WUXGA, 1920 x 1080
Aspect Ratio	16:9	16:9	16:9	16:9
Active Area (mm)	1,251.36 x 703.89	1,251.36 x 703.89	1,549.44 x 1,871.56	1,805.76 x 1,015.74
Pixel Pitch (mm)	0.65175 X 0.65175	0.65175 X 0.65175	0.807 X 0.807	0.9405 X 0.9405
Liquid Crystal Mode	S-PVA	S-PVA	S-PVA	S-PVA
Brightness	600 cd/m ₂	600 cd/m ₂	600 cd/m ₂	600 cd/m ₂
Contrast Ratio	2000:1	1200:1	1500:1	1200:1
Number of Colors	16.7M (8bit)	16.7M (8bit)	16.7M (8bit)	16.7M (8bit)
Color Gamut	72%	72%	72%	72%
Response Time (G to G)	8 ms	8 ms	8 ms	8 ms
Viewing Angle (U/D/L/R)	89/89/89/89	89/89/89/89	89/89/89/89	89/89/89/89
Interface	2ch LVDS	2ch LVDS	2ch LVDS	2ch LVDS
Power Supply Voltage (V)	12v(Logic), 24v(BLU)	12v(Logic), 24v(BLU)	12v(Logic), 24v(BLU)	12v(Logic), 24v(BLU)
Power Supply Current (I)	1.2A (Logic), 21A (BLU)	1.2A (Logic), 21A (BLU)	1.8A (Logic), 45A (BLU)	1.9A (Logic), 50A (BLU)
Outline Dimension (mm)	1192 x 688 x 61	1328 x 764 x 64.5	1630 x 952 X 81.6	1878.6 x 1083.6 X 92.5
Weight (g)	21,000	31,000	45,000	63,000
Production	07' Dec	Now	Now	07' 3Q
Other features	Landscape / Portrait	Landscape / Portrait	Portrait / Landscape	Portrait / Landscape

LCD PANELS FOR TVS (UP TO 40")

	32"		40"	
	LTA320WT-L05	LTA400WT-L17	LTA400HT-L03	
Size (inch)	32"	40"	40"	
Resolution	WXGA	WXGA	WUXGA	
Aspect Ratio	16:9	16:9	16:9	
Number of Pixels	1366*768	1366*768	1920*1080	
Active Area (mm)	697.6845x392.256	885.168x497.664	885.6X 498.15	
Pixel Pitch (mm)	0.51075	0.648	0.461	
Mode	SPVA	SPVA	SPVA	
Number of Colors	16.7M	16.7M	16.7M	
Color Gamut	72%	72%	72%	
Contrast Ratio (typ.)	2000:1	2000:1	2000:1	
Brightness (cd/m ₂)	500	500	500	
Response Time (at 25°C)	8(G/G)	8(G/G)	8(G/G)	
Viewing Angle (U/D/L/R)	89	89	89	
Interface	LVDS(1ch)	LVDS(1ch)	LVDS(2ch)	
Power Supply Voltage (V)	5	12	12	
Backlight	24	24	24	
Outline Dimension (mm)	760.0x 450.0x48.0	952.0x 551.0x51.8	952.0x 551.0x51.8	
Weight (g)	8	11	11	
Production	Now	Now	Now	

LCD PANELS FOR TVS (MORE THAN 40")

	46"		52"
	LTA460WT-L14	LTA460HT-L03	LTA520HA02
Size (inch)	46"	46"	52"
Resolution	WXGA	WUXGA	WXGA
Aspect Ratio	16:9	16:9	16:9
Number of Pixels	1366*768	1920*1080	1366*768
Active Area (mm)	1018.353 x572.544	1018.08x 572.67	1152.0x 648.0
Pixel Pitch (mm)	0.7455	0.17675	0.6
Mode	SPVA	SPVA	SPVA
Number of Colors	16.7M	16.7M	1.07B
Color Gamut	72%	72%	90%
Contrast Ratio (typ.)	2000:1	1800:1	2000:1
Brightness (cd/m ₂)	500	500	500
Response Time (at 25°C)	8(G/G)	10(Tr),6(Tf)	8(G/G)
Viewing Angle (U/D/L/R)	89	89	89
Interface	LVDS(1ch)	LVDS(2ch)	LVDS(2ch)
Power Supply Voltage (V)	12	12	12
Backlight	24	24	24
Outline Dimension (mm)	1083.0 x 627.0x57.5	1083.0 x 627.0x57.5	1226.0 x 719.2x58.5
Weight (g)	16	16	21
Production	Now	Now	Now

LCD MOBILE PANELS (UP TO 4")

3.50"		
	LMS350GF03	LMS350GF07
Size (inch)	3.50"	3.50"
Resolution	320xRGBx240	320xRGBx240
Display Mode	TMR	TMR
Display Colors	16.7M	16.7M
Interface	24 bit RGB I/F	24 bit RGB I/F
Brightness (cd/m ₂)	320	350
Contrast Ratio	400	400
Panel Power Consumption	25	25
B/L Power Consumption	400	400
Light Source	LED	LED
Storage Temperature (°C)	-30~70	-30~70
Operation Temperature (°C)	-20~70	-20~70
Active Area (mm)	70.08x52.56	70.08x52.56
Module Dimensions (mm)	76.90x63.90x4.25	76.90x63.90x3.15
Mass Production	Now	3Q '07

NOTE: All monitors are 16:9 WXGA, high contrast, fast response time, high brightness

LCD MOBILE PANELS (4" TO 5")

	4.30"		4.80"			
	LTE430WQ-F0C	LMS430HF02	LTE480WQ-F02	LMS480HF02	LMS480KF02	LMS480KF01
Size (inch)	4.30"	4.30"	4.80"	4.80"	4.80"	4.80"
Resolution	480x272xRGB	480x272xRGB	480x272xRGB	480x272xRGB	800xRGBx480	800xRGBx480
Display Mode	TMR	TMR	TMR	TMR	TMR	TMR
Display Colors	16.7M	16.7M	16.7M	16.7M	16.7M	16.7M
Interface	24 bit RGB IF	24 bit RGB I/F	24 bit RGB I/F	24 bit RGB I/F	24 bit RGB I/F	24 bit RGB I/F
Brightness (cd/m ₂)	400	500	350	400	280	350
Contrast Ratio	1000	1000	400	400	300	300
Panel Power Consumption	100	100	80	80	250	250
B/L Power Consumption	730	730	726	726	900	900
Light Source	LED	LED	LED	LED	LED	LED
Storage Temperature (°C)	-40~85	-40~85	-30~70	-30~70	-30~70	-30~70
Operation Temperature (°C)	-20~70	-20~70	-20~60	-20~60	-20~60	-20~60
Active Area (mm)	95.04x53.856	95.04x53.856	105.84x59.98	105.84x59.98	103.8x62.28	103.8x62.28
Module Dimensions (mm)	105.5x67.2x4.05	105.5x67.2x2.9	114.24x72.88x4.2	114.24x72.88x3.15	111.8x74.28x3.93	111.8x74.28x2.98
Mass Production	Now	Now	Now	Now	3Q '07	3Q '07

LCD MOBILE PANELS (MORE THAN 5")

	7.00"				12.00"
	LTE700WQ-F05	LTP700WV-F01	LTP700WV-F02	LMS700KF01	LTA120W1-T02
Size (inch)	7.00"	7.00"	7.00"	7.00"	12.00"
Resolution	480x234xRGB	800xRGBx480	800xRGBx480	800xRGBx480	800xRGBx480
Display Mode	TMR	TMR	TMR	TMR	TMR
Display Colors	16.7M	16.7M	16.7M	16.7M	262K
Interface	24bit RGB I/F	24bit RGB I/F	24bit RGB I/F	24bit RGB I/F	18bit RGB I/F
Brightness (cd/m ₂)	450	350	350	280	300
Contrast Ratio	500	300	300	300	300
Panel Power Consumption	84	200	200	200	200
B/L Power Consumption	3780	1600	3780	1600	6840
Light Source	LED	LED	CCFL	LED	CCFL
Storage Temperature (°C)	-30~70	-30~70	-30~70	-30~70	-30~70
Operation Temperature (°C)	-20~60	-20~60	-20~60	-20~60	-0~70
Active Area (mm)	154.08x86.58	152.4x91.44	152.4x91.44	152.4x91.44	265.80x149.52
Module Dimensions (mm)	166.0x100.0x5.7	163.2x104.0x3.4	165.0x104.0x5.4	163.2x104.0x4.5	281.3x171.4x9.7
Mass Production	Now	Now	Now	Now	Now

Samsung is the TFT-LCD worldwide leader with a broad product line that includes LCD panels for notebook PCs, desktop monitors, digital TVs, mobile devices and large commercial displays. Samsung products utilize innovations like PVA (Plus Viewing Angle) and Super-PVA technologies as well as enhanced viewing with accelerated response times, improved color accuracy, ultra-high contrast ratios and mobile displays that can be easily viewed in daylight. Manufacturing facilities include 7th and 8th generation LCD fabs to support the demand for affordable HDTVs.

For more information, visit our website: www.usa.samsungsemi.com

Disclaimer: The information in this publication has been carefully checked and is believed to be accurate at the time of publication. Samsung assumes no responsibility, however, for possible errors or omissions, or for any consequences resulting from the use of the information contained herein. Samsung reserves the right to make changes in its products or product specifications with the intent to improve function or design at any time and without notice and is not required to update this documentation to reflect such changes. This publication does not convey to a purchaser of semiconductor devices described herein any license under the patent rights of Samsung or others. Samsung makes no warranty, representation, or guarantee regarding the suitability of its products for any particular purpose, nor does Samsung assume any liability arising out of the application or use of any product or circuit and specifically disclaims any and all liability, including without limitation any consequential or incidental damages.



www.usa.samsungsemi.com

Copyright 2007. Samsung and Samsung Semiconductor, Inc. are registered trademarks of Samsung Electronics, Co., Ltd. All other names and brands may be claimed as the property of others. The appearance of all products, dates, figures, diagrams and tables are subject to change at any time, without notice.

BR-07-ALL-003 Printed 8/07