

Active Matrix

TFT LCDs

Deliver Best-in-Class
Front-of-Screen Performance



Optrex TFT LCDs provide exceptionally high contrast, color saturation and luminance and a range of performance enhancements such as Natural Color Matrix (NCM) for true color fidelity, Anti-reflective coating and Ultra-Wide Viewing angles.

Why Choose Optrex for your TFT LCD Designs?

- Upward compatibility
- Higher luminance (Up to 1500 nits)
- Ultra-Wide Viewing technology (Up to 170° viewing angle)
- Field replaceable/long life CCFL
- Reverse Scan
- Wide temperature range
- RoHS compliant*
- NCM (Natural Color Matrix)

- 6/8 bit compatibility with LVDS interfaces
- Reduced EMI via LVDS interfaces
- Anti-reflective coating
- Wide format



Quickstart Your Design with LCD ToolKITs™

To speed design and save engineering & procurement time, Optrex's LCD ToolKITs™ contain everything you need to put a TFT LCD display into operation - right out of the box.

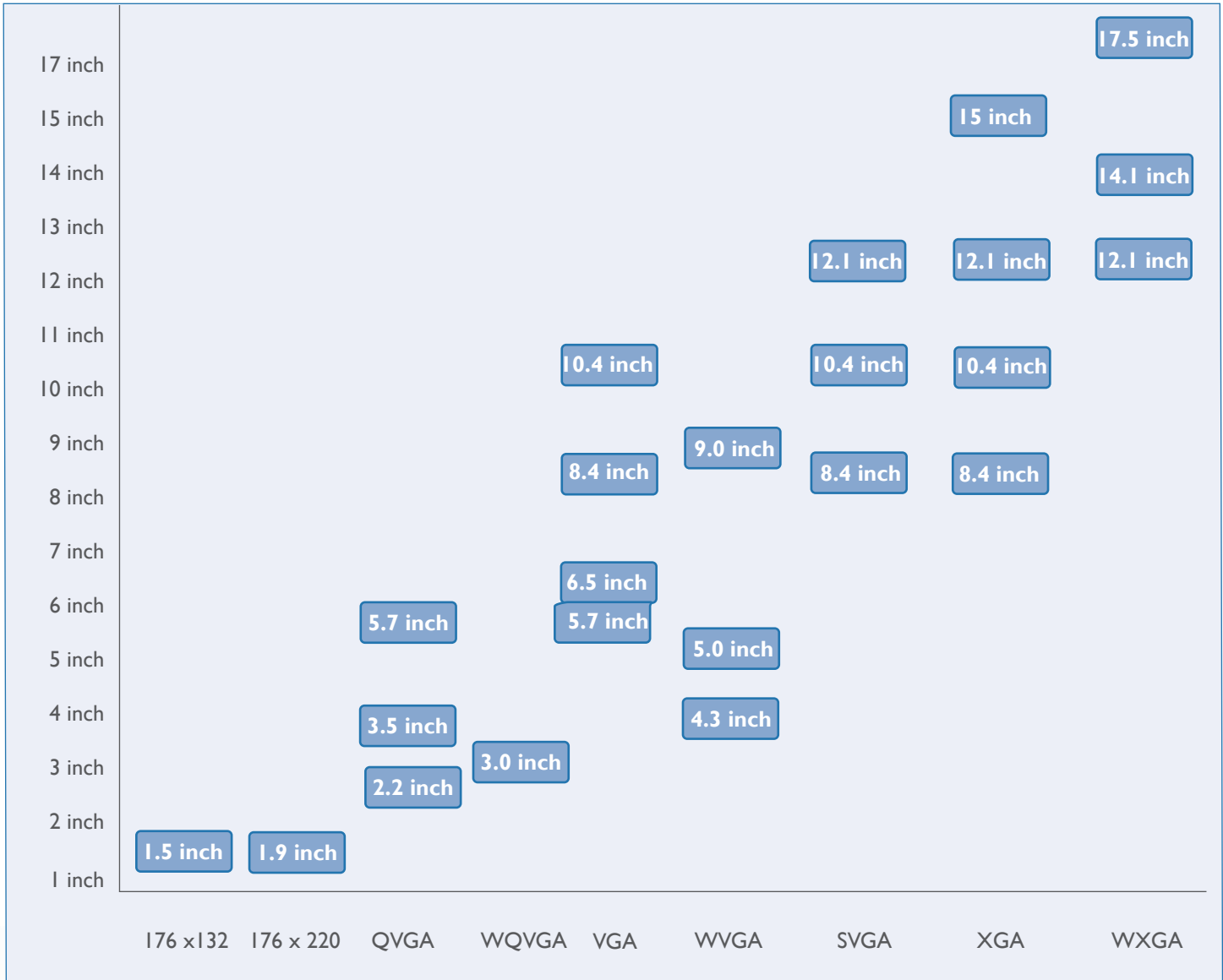
- TFT panel
- Controller
- Inverter
- Cables
- Software
- Power supply





TFT LCDs At-a-Glance

Optrex TFT LCDs deliver best-in-class front-of-screen performance for a wide variety of Industrial, Telecommunications and Automotive applications in sizes ranging from 1.5-inch to 17.5-inch displays.



Optrex Offers Long Manufacturing Lifecycles

- Three to five year life cycles
- Backward compatibility in future models
- Performance increases with each planned upgrade



Special Features / Technologies

Natural Color Matrix	NCM delivers true color fidelity using a hardware-based color transform algorithm to render vivid color; crisp text and artifact-free video that are true to the source data.	
Anti-reflective Coating	Surface reflectivity is reduced to approximately 0.3%, Providing outstanding performance in high ambient- light environments with excellent legibility, No glare, no decrease in luminance or contrast, and no increase in backlight power consumption.	
Ultra Wide Viewing	<ul style="list-style-type: none"> • Up to 170° viewing angle • New wide viewing film type • IPS (In- Plain - Switch)mode Technology for some product size, 	
High Luminance	<ul style="list-style-type: none"> • Up to 1500 nits luminance • Designed for operation in direct sunlight • Low power consumption with top/bottom lamp design 	
Wide Format	<ul style="list-style-type: none"> • Meets high definition display format • Expands usable display area and allows more information on the screen 	
Transflective	<ul style="list-style-type: none"> • Transflective displays offer both Reflective and Transmissive modes, resulting in high light reflectance for a bright display. • Achieve 20% reflectivity 	
Touch Screen	A touch screen display provides the ability for the user to make choices by touching icons or graphical buttons on the screen. Offer Standard 4-wire touch screen product manufactory integration.	
LED backlight	No warm-up, larger dimming ratio. Lowe power consumption, Improved EMI performance(high voltage inverter not needed), No Mercury, enviromental friendly.	

For more detail information, please vist our website: www.optrex.com

Legend:	Natural Color Matrix	Ultra Wide Viewing	High Luminance	Anti-reflective Coating	Transflective	Wide Format	Touch Screen
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TFT LCD Display Line-up

Small Protatable Size TFT

Size	Part #	Display Format	Contrast	Nits	Interface	Viewing Angle	Operating Temp.	Special Features
1.5"	T-51991GD015-MLW-AIN	176 x 132	80:1	150	CMOS	(h v): ±30 ±30	-10 to 60°C	
1.9"	T-51909GD019J-LM-ACN	176 x 220	350:1	230	CMOS	(h v):TBD	-20 to 70°C	
3.0"	T-55149GD030J-MLW-AJN	240 x 400	105:1	400	CMOS	(h v): ±70 -60/80	-20 to 70°C	
3.5"	T-51963GD035J-MLW-AFN	240 x 320	70:1	160	CMOS	(h v): ±40 ±40	-20 to 70°C	
	T-51963GD035J-MLW-AGN	240 x 320	70:1	130	CMOS	(h v): ±40 ±40	-20 to 70°C	
	T-51963GD035J-MLW-AHN	320 x 240	70:1	160	CMOS	(h v): ±40 ±40	-20 to 70°C	
	T-55343GD035JU-LW-ADN	320 x 240	700:1	400	CMOS	(h v): ±80 ±80	-20 to 70°C	
	T-55343GD035JU-LW-AEN	320 x 240	700:1	400	CMOS	(h v): ±80 ±80	-20 to 70°C	
4.3"	T-55226D043J-LW-AAN	800 x 480	300:1	200	CMOS	(h v): ±65 -65/45	-20 to 70°C	
5.0"	T-55290GD050J-LW-A-AAN	800 x 480	500:1	200	CMOS	(h v): ±85 ±85	-20 to 70°C	
	T-55382GD050JU-LW-A-AAN	800 x 4800	500:1	320	CMOS	(h v): ±65 -45/65	-20 to 70°C	
	T-55382GD050JU-LW-A-ABN	800 x 480	500:1	400	CMOS	(h v): ±65 -45/65	-20 to 70°C	
	T-55423GD050J-LW-A-AAN	800 x 480	500:1	200	CMOS	(h v): ±85 ±85	-20 to 70°C	
	T-55423GD050J-LW-A-ABN	800 x 480	600:1	300	CMOS	(h v): ±85 ±85	-20 to 70°C	
5.7"	T-55264GD057J-FW-ABN	240 x 320	350:1	500	CMOS	(h v): ±70 ±70	-20 to 70°C	
	T-55264GD057J-FW-ADN	240 x 320	350:1	400	CMOS	(h v): ±70 ±70	-20 to 70°C	
	T-55265GD057J-LW-ABN	240 x 320	350:1	500	CMOS	(h v): ±70 ±70	-20 to 70°C	
	T-55265GD057J-LW-ACN	240 x 320	350:1	400	CMOS	(h v): ±70 ±70	-20 to 70°C	
	AA057VF02	640 x 480	600:1	400	CMOS	(h v): ±80 -60/80	-30 to 80°C	

Legend: Natural Color Matrix Ultra Wide Viewing High Luminance Anti-reflective Coating Transflective Wide Format Touch Screen



TFT LCD Display Line-up

Size	Part #	Display Format	Contrast	Nits	Interface	Viewing Angle	Operating Temp.	Special Features
6.5"	T-51750GD065J-FW-ADN	640 x 480	300:1	400	CMOS	(h v): ±55 30/-60	-25 to 75°C	
	T-51750GD065J-FW-AFN	640 x 480	300:1	400	CMOS	(h v): ±55 -30/60	-25 to 75°C	
	T-51750GD065J-LW-ANN	640 x 480	300:1	750	CMOS	(h v): ±55 -30/60	-25 to 75°C	
	T-51750GD065J-LW-AON	640 x 480	300:1	750	CMOS	(h v): ±55 -30/60	0 to 60°C	
	T-51750GD065J-FW-APN	640 x 480	TBD	TBD	CMOS	(h v): ±55 -30/60	TBD	
	T-51750GD065J-LW-AQN	640 x 480	300:1	600	CMOS	(h v): ±55 -30/60	0 to 60°C	
	T-51952D065J-FW-A-ABN	640 x 480	700:1	600	CMOS	(h v): ±70 -60/50	-20 to 70°C	
	T-51952D065J-FW-A-ACN	640 x 480	750:1	600	CMOS	(h v): ±65 -60/50	-20 to 70°C	
8.4"	T-51638D084J-FW-A-AB	640 x 480	500:1	480	CMOS	(h v): ±65 -60/50	-20 to 70°C	
	T-51638D084J-FW-A-AC	640 x 480	500:1	480	CMOS	(h v): ±65 -60/50	-20 to 70°C	
	T-55151FD084J-MFW-A-AAN	640 x 480	200:1	200	CMOS	(h v): ±80 -70/50	-20 to 70°C	
	T-55308D084J-FW-A-AAN	800 x 600	600:1	400	LVDS	(h v): ±80 -60/80	-20 to 70°C	
	T-51639D084JU-FW-A-AB	1024 x 768	400:1	300	LVDS	(h v): ±65 -50/60	-20 to 70°C	
8.8"	T-51965GD088H-FW-AHN	640 x 240	185:1	250	LVDS	(h v): ±50 ±45	-40 to 80°C	
9.0" W	T-55311D090J-FW-A-AAN	800 x 480	600:1	600	LVDS	(h v): ±75 -60/80	-20 to 70°C	
	T-55311D090J-FW-A-ABN	800 x 480	600:1	600	LVDS	(h v): ±80 -60/80	-20 to 70°C	
10.4"	T-55225D104J-FW-A-AAN	1024 x 768	500:1	400	CMOS	(h v): ±65 -65/50	-20 to 70°C	
	T-51944D104J-FW-A-ABN	800 x 600	600:1	400	LVDS	(h v): ±65 -60/50	-20 to 70°C	
	T-51944D104J-FW-A-AA	800 x 600	500:1	400	LVDS	(h v): ±70 -60/50	-20 to 70°C	
	T-55334D104J-FW-A-AAN	640 x 480	700:1	1500	CMOS	(h v): ±70 -65/65	-20 to 70°C	
	T-51513D104JU-FW-A-AHN	640 x 840	600:1	430	CMOS	(h v): ±65 -45/65	-20 to 70°C	
	T-51513D104JU-FW-A-AIN	640 x 840	600:1	430	CMOS	(h v): ±65 -45/65	-20 to 70°C	
	T-51513D104J-FW-A-AKN	640 x 480	400:1	380	CMOS	(h v): ±80 -80/70	-20 to 70°C	
	T-51513D104J-FW-A-AJN	640 x 480	500:1	430	CMOS	(h v): ±65 -65/45	-20 to 70°C	
	T-55333GD104J-FW-A-AAN	640x 480	600:1	500	CMOS	(h v): ±70 -65/65	-20 to 70°C	
	T-55320GD104J-FW-A-AAN	640 x 480	600:1	500	CMOS	(h v): ±70 -65/65	-20 to 70°C	

Legend: Natural Color Matrix Ultra Wide Viewing High Luminance Anti-reflective Coating Transflective Wide Format Touch Screen



TFT LCD Display Line-up

Size	Part #	Display Format	Contrast	Nits	Interface	Viewing Angle	Operating Temp.	Special Features
12.1" W	T-55312D121J-FW-A-ABN	1280 x 800	500:1	400	LVDS	(h v): ±75 -65/70	-20 to 70°C	NCM
	T-55105D121J-FW-A-AAN	1024 x 768	600:1	1000	LVDS	(h v): ±65 -75/45	-20 to 70°C	NCM
12.1"	T-55105D121J-FW-A-ABN	1024 x 768	700:1	1000	LVDS	(h v): ±60 -75/45	-20 to 70°C	NCM
	T-55105D121J-FW-A-ACN	1024 x 768	450:1	900	LVDS	(h v): ±85 -70/80	-20 to 70°C	NCM
	T-51756D121J-FW-A-ACN	1024 x 768	550:1	320	LVDS	(h v): ±65 -75/45	-20 to 70°C	NCM
	T-51756D121J-FW-A-ADN	1024 x 768	600:1	320	LVDS	(h v): ±60 -75/45	-20 to 70°C	NCM
	T-51756D121J-FW-A-AEN	1024 x 768	400:1	280	LVDS	(h v): ±85 -80/70	-20 to 70°C	NCM
	T-52017D121J-FW-A-AAN	800 x 600	650:1	1000	LVDS	(h v): ±65 -75/45	-20 to 70°C	NCM
	T-52017D121J-FW-A-ABN	800 x 600	700:1	1000	LVDS	(h v): ±60 -75/45	-20 to 70°C	NCM
	T-51866D121J-FW-A-AA	800 x 600	500:1	350	LVDS	(h v): ±65 -75/45	-20 to 70°C	NCM
	T-51866D121J-FW-A-ABN	800 x 600	600:1	400	LVDS	(h v): ±60 -75/45	-20 to 70°C	NCM
	T-51512D121J-FW-A-AFN	800 x 600	500:1	400	CMOS	(h v): ±65 -75/45	-20 to 70°C	NCM
	T-51512D121J-FW-A-AGN	800 x 600	500:1	400	CMOS	(h v): ±60 -75/45	-20 to 70°C	NCM
	T-51512D121J-FW-A-AHN	800 x 600	400:1	350	CMOS	(h v): ±80 -80/70	-20 to 70°C	NCM
	T-55196D121J-FW-A-AAN	800 x 600	650:1	1500	LVDS	(h v): ±65 -75/45	-20 to 70°C	NCM
	T-55196D121J-FW-A-ABN	800 x 600	700:1	1500	LVDS	(h v): ±60 -75/45	-20 to 70°C	NCM
14.1" W	T-55313D141J-FW-A-ABN	1280 x 800	700:1	400	LVDS	(h v): ±80 -80/70	-20 to 70°C	NCM
15"	T-51863D150J-FW-A-AA	1024 x 768	450:1	250	LVDS	(h v): ±75 -60/50	-20 to 70°C	NCM
	T-51863D150J-FW-A-AE	1024 x 768	450:1	450	LVDS	(h v): ±75 -60/50	-20 to 70°C	NCM
	T-51863D150J-FW-A-AD	1024 x 768	350:1	400	LVDS	(h v): ±85 -80/70	-20 to 70°C	NCM
	T-51863D150J-FW-A-AFN	1024 x 768	600:1	800	LVDS	(h v): ±75 -60/50	-20 to 70°C	NCM
	T-55335D150J-FW-A-AAN	1024 x 768	650:1	1500	LVDS	(h v): ±75 -60/50	-20 to 70°C	NCM
17.5"	T-55336D175J-FW-A-AAN	1280 x 768	500:1	400	LVDS	(h v): ±75 -60/50	-20 to 70°C	NCM

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Touch Screen Solution

Size	Part #	Display Format	Contrast	Nits	Interface	Viewing Angle	Operating Temp.	Special Features
3.5"	T-51963GD035J-MLW-AGN	240 x 320	70:1	130	CMOS	(h v): ±40 ±40	-20 to 70°C	
	T-55343GD035JU-LW-AEN	320 x 240	450:1	400	CMOS	(h v): TBD	-20 to 70°C	
5.0"	T-55423GD050J-LW-A-AAN	800 x 480	500:1	200	CMOS	(h v): ±85 ±85	-20 to 70°C	
5.7"	T-55264GD057J-FW-ADN	320 x 240	350:1	400	CMOS	(h v): ±70 ±70	-20 to 70°C	
	T-55265GD057J-LW-ACN	320 x 240	350:1	400	CMOS	(h v): ±70 ±70	-20 to 70°C	
6.5"	T-51750GD065J-FW-APN	640 x 480	300:1	TBD	CMOS	TBD	TBD	
	T-51750GD065J-LW-AQN	640 x 480	300:1	600	CMOS	(h v): ±55 -30/60	-0 to 60°C	

More touch Screen custom solutions are available, please contact us for details.

LED Backlighting Solution

Size	Part #	Display Format	Contrast	Nits	Interface	Viewing Angle	Operating Temp.	Special Features
5.7"	AA057VF02	640 x 480	600:1	400	CMOS	(h v): ±80 -60/80	-30 to 80°C	
	T-55265GD057J-LW-ACN	320 x 240	350:1	400	CMOS	(h v): ±70 ±70	-20 to 70°C	
6.5"	T-51750GD065J-LW-ANN	640 x 480	300:1	750	CMOS	(h v): ±55 -30/60	-20 to 70°C	
	T-51750GD065J-LW-AQN	640 x 480	300:1	600	CMOS	(h v): ±55 -30/60	-0 to 60°C	
	T-51750GD065J-LW-AON	640 X 480	300:1	750	CMOS	(h v): ±55 -30/60	-25 to 75°C	
12.1"	T-55373D121J-LW-A-AAN	800 x 600	500:1	400	CMOS	(h v): ±65 -75/45	-20 to 70°C	
	T-55374D121J-LW-A-AAN	800 x 600	500:1	400	LVDS	(h v): ±65 -75/45	-20 to 70°C	

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Quickstart Your Design with LCD ToolKITs™

Optrex LCD ToolKITs™ contain a TFT LCD panel, controller and backlight inverter boards, cables and a CD-ROM with a Quick Set-up guide and controller manual. This complete kit speeds design and saves engineering and procurement time. LCD ToolKITs support VGA, DVI, composite video and S-video interfaces.



*It's all
in the Box*

Available ToolKITs™

Size	Part #	Module
6.5 inch	TK065V01	T-51750GD065J-FW-A*
10.4 inch	TK104S01	T-51944D104J-FW-A-A*
12.1 inch	TK121S01	T-51512D121J-FW-A-A*
12.1 inch	TK121S02	T-51866D121J-FW-A-A*
12.1 inch	TK121X01	T-51756D121J-FW-A-A*
15.0 inch	TK150X03	T-51863D150J-FW-A-A*



TFT Panel



TFT Controller Board with On-Screen Display Board



VGA (Analog RGB) Cable



12V DC Power Supply



Backlight Inverter



DVI (Digital) Video Cable



S-Video & Composite Video Cables



Quick Set-Up and Documentation CD-ROM

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