

HighBright and sunlight readable TFT-Displays

- Sizes 2.2 to 55"
- SmartLED Converter
- **VACUBOND**[®] Optical Bonding Service
- Embedded



Ortustech Blanview Technology



DATA DISPLAY GROUP
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New-Blanview

Original high reflectance performance

Excellent outdoor readability

Overwhelming ultra low power consumption

Transmissive LCD

Power consumption: Good
Outdoor readability: Poor

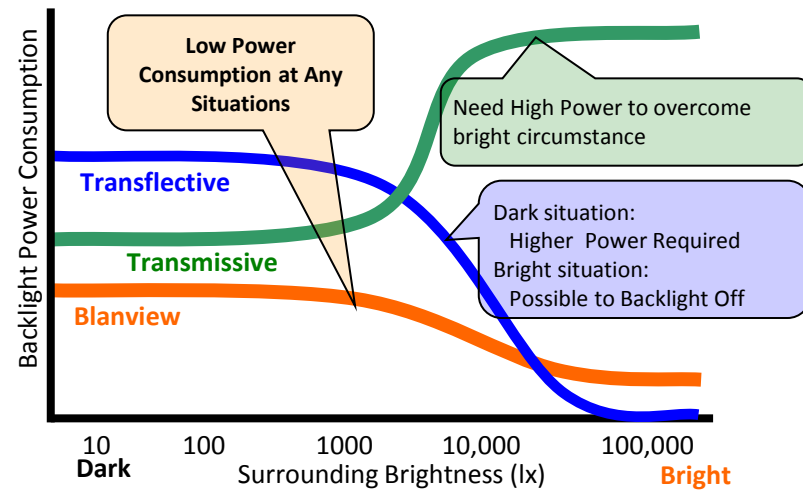
New-Blanview LCD

Power consumption: Good
Outdoor readability: Good

Transflective LCD

Power consumption: Poor
Outdoor readability: Good

ORTUSTECH's innovative **Blanview technology** perfectly combines the advantages of transmissive and transflective displays: **optimum readability and colour fidelity** under almost all viewing angles and lighting conditions, even when exposed to direct sunlight, are main features of this technology. Since Blanview displays also show an up to 60% reduced power consumption (compared to conventional transmissive displays), this technology is perfect for all **mobile applications and battery driven devices.**



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Ortustech Blanview 2.2 to 5" TFT Displays



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Panel	COM22H2P16ULC	COM27H2P37ULC	COM32H3N89ULC
Manufacturer	Ortustech	Ortustech	Ortustech
Type / size	New Blanview / 2.2"	New Blanview / 2.7"	Blanview / 3.2"
Viewing angle (v/h)	160°/160°	160°/160°	160°/160°
Resolution	QVGA 320x240	QVGA 240x320	WVGA 480x800
Input	TTL	TTL	TTL
BLU/Converter integrated	LED/NO	LED/NO	LED/NO
Brightness (cd/m²)	400	350	380
Temperature operating (°C)	-20...+70	-20...+70	-20...+70
Special features			Low depth

Display Appearance under strong light



Blanview



Conventional Transmissive

Panel	COM35H3P04XLC	COM35H3P08ULC	COM43H4M85ULC	COM48H4N22ULC	COM50H5N01ULC
Manufacturer	Ortustech	Ortustech	Ortustech	Ortustech	Ortustech
Type / size	Blanview / 3.5"	Blanview / 3.5"	New Blanview / 4.3"	New Blanview / 4.8"	Blanview / 5.0"
Viewing angle (v/h)	160°/160°	160°/160°	160°/160°	160°/160°	160°/160°
Resolution	QVGA 320x240	VGA 480x640	WVGA 480x800	WXGA 720x1280	WVGA 800x480
Input	TTL	TTL	TTL	MIPI	LVDS
BLU/Converter integrated	LED/NO	LED/NO	LED/NO	LED/NO	LED/NO
Brightness (cd/m²)	300	250	400	300	400
Temperature operating (°C)	-20...+70	-20...+70	-20...+70	-20...+70	-30...+85
Special features				Low depth	

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3.4 to 5.7" TFT Displays

Panel	GNTQ35SNGC1E0	GKCY43SNBH2E0	GWTW05SNCH3E0	GKTV57NNAD1E0	AC043NA11	AA050MG03
Manufacturer	SGD	SGD	SGD	SGD	Mitsubishi	Mitsubishi
Type / size	TN / 3.5"	TN / 4.3"	TN / 5.0"	TN / 5.7"	IPS / 4.3"	IPS / 5.0"
Viewing angle (v/h)	110°/120°	110°/130°	130°/150°	115°/130°	170°/170°	170°/170°
Resolution	320x240	480x272	WVGA 800x480	VGA 640x480	480x272	WVGA 800x480
Input	TTL	TTL	TTL	TTL	TTL	TTL
BLU/Converter integrated	LED/NO	LED/NO	LED/NO	LED/NO	LED/NO	LED/NO
Brightness (cd/m²)	1000	1000	700	900	1000	900
Temperature operating (°C)	-30...+80	-20...+70	-20...+70	-20...+70	-30...+80	-30...+80
					<i>Reverse Scan</i>	<i>Reverse Scan</i>



The impressive little converter board is used for TFT displays sized 4.3" to 5.7" and transforms the LVDS signal to a TTL signal, connects via flat flex cable (FFC) and has an on board LED converter. This enables TFT displays to be connected easily to video converter boards, as well as to IPCs / SBCs, or even, the customer's own solutions.

Additional features of the IF392 Board:

- Integrated 4-, 5- and 8-wire touch controller for resistive touch screens with USB interface
- Optional RS232 interface for touch controller
- Supports PWM (pulse width modulation) and analog backlight dimming



6.5 and 7" TFT Displays

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Panel	G065VN01V2-V540	AA070MC01	AA070MC11	AA070ME01	AA070ME11	AT070MJ11	AT070MP11
Manufacturer	Data Display Group	Mitsubishi	Mitsubishi	Mitsubishi	Mitsubishi	Mitsubishi	Mitsubishi
Type / size	TN / 6.5"	IPS / 7"	IPS / 7"	TN / 7"	TN / 7"	TN / 7"	IPS
Viewing angle (v/h)	140°/160°	170°/170°	170°/170°	140°/160°	140°/160°	140°/160°	170°/170°
Resolution	VGA 640x480	WVGA 800x480	WVGA 800x480	WVGA 800x480	WVGA 800x480	WVGA 800x480	WVGA 800x480
Input	LVDS	LVDS	LVDS	LVDS	LVDS	LVDS	LVDS
BLU/Converter integrated	LED/NO*	LED/YES	LED/NO*	LED/YES	LED/NO*	LED/NO*	LED/NO*
Brightness (cd/m²)	1200	1000	1300	1000	1500	1500	1100
Temperature operating (°C)	-30...+85	-30...+80	-30...+80	-30...+80	-30...+80	-40...+85	-40...+85
	<i>Reverse Scan</i>	<i>Reverse Scan</i>	<i>Reverse Scan</i>	<i>Reverse Scan</i>	<i>Reverse Scan</i>	<i>Reverse Scan</i>	<i>Reverse Scan</i>
	<i>*SmartLED Converter available</i>						
	Resistive Touch						
4-wire	✓	✓	✓	✓	✓	✓	✓
4-wire glass/glass	✓	✓	✓	✓	✓	✓	✓
4-wire glass/glass with polarizer		✓					
	PCAP Touch						
Projected Capacitive Touch Sensor	✓	✓	✓	✓	✓	✓	✓
	Finished design: PCAP Touch - Cover Glass Black Printed						
Projected Capacitive Touch Sensor	✓	✓	✓	✓	✓	✓	✓
	Industrial TFT-Controller						
Serial stand alone GUI TFT-Controller	✓	✓	✓	✓	✓	✓	✓
USB-Client to LVDS TFT-Controller	✓	✓	✓	✓	✓	✓	✓
RGB/DVI to LVDS TFT-Controller	✓	✓	✓	✓	✓	✓	✓
Options: HDMI, DP, Video, Audio	✓	✓	✓	✓	✓	✓	✓

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7" TFT Displays

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Panel	AM-1280800P3TZQW-10H	AM-1280800P3TZQW-00H	TCG070WVVLQGPNN-AN-40	GKTW70SFGA1S0	GKTW70SNCE1EL
Manufacturer	AMPIRE	AMPIRE	Kyocera	SGD	SGD
Type	SFT*	SFT*	AWV*	TN	TN
Viewing angle (v/h)	160°/160°	160°/160°	170°/170°	120°/140°	120°/140°
Resolution	WXGA 1280x800	WXGA 1280x800	WVGA 800x480	WVGA 800x480	WVGA 800x480
Input	LVDS	LVDS	LVDS	LVDS	LVDS
BLU/Converter integrated	LED/YES	LED/YES	LED/YES	LED/YES	LED/YES
Brightness (cd/m²)	1000	1500	1000	900	1000
Temperature operating (°C)	-20...+70	-20...+70	-30...+80	-20...+70	-20...+70
	* <i>SuperFineTFT</i>	* <i>SuperFineTFT</i>	* <i>Advanced Wide View</i>	improved sunlight readability	
Resistive Touch					
4-wire	✓	✓	✓	✓	✓
4-wire glass/glass	✓	✓	✓	✓	✓
4-wire glass/glass with polarizer		✓			
PCAP Touch					
Projected Capacitive Touch Sensor	✓	✓	✓	✓	✓
Finished design: PCAP Touch - Cover Glass Black Printed					
Projected Capacitive Touch Sensor	✓	✓	✓	✓	✓
Industrial TFT-Controller					
Serial stand alone GUI TFT-Controller			✓	✓	✓
USB-Client to LVDS TFT-Controller	✓	✓	✓	✓	✓
RGB/DVI to LVDS TFT-Controller	✓	✓	✓	✓	✓
Options: HDMI, DP, Video, Audio	✓	✓	✓	✓	✓

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8" and 8.4" TFT Displays

Panel	NL8048AC21-01F	TCG084SVLQxPNN-ANx33	AA084SB11	AA084SD11	AA084XB11	AA084XE11
Manufacturer	NLT	Kyocera	Mitsubishi	Mitsubishi	Mitsubishi	Mitsubishi
Type / size	TN / 8"	AWV* / 8.4"	TN / 8.4"	TN / 8.4"	TN / 8.4"	TN / 8.4"
Viewing angle (v/h)	160°/160°	170°/170°	140°/160°	140°/160°	140°/160°	140°/160°
Resolution	WVGA 800x480 / 8"	SVGA 800x600	SVGA 800x600	SVGA 800x600	XGA 1024x768	XGA 1024x768
Input	LVDS	LVDS	LVDS	LVDS	LVDS	LVDS
BLU/Converter integrated	LED/YES	LED/YES	LED/NO*	LED/NO*	LED/NO*	LED/NO*
Brightness (cd/m²)	1000	1200	1200	1200	1000	1000
Temperature operating (°C)	-30...+80	-30...+80	-30...+80	-30...+80	-30...+80	-30...+80
			<i>Reverse Scan</i>	<i>Reverse Scan</i>	<i>Reverse Scan</i>	<i>Reverse Scan</i>
		* <i>Advanced Wide View</i>	* SmartLED Converter available			
			Resistive Touch			
4-wire	✓	✓	✓	✓	✓	✓
4-wire glass/glass	✓	✓	✓	✓	✓	✓
			PCAP Touch			
Projected Capacitive Touch Sensor	✓	✓	✓	✓	✓	✓
			Industrial TFT-Controller			
Serial stand alone GUI TFT-Controller	✓	✓	✓	✓	✓	✓
USB-Client to LVDS TFT-Controller	✓	✓	✓	✓	✓	✓
RGB/DVI to LVDS TFT-Controller	✓	✓	✓	✓	✓	✓
Options: HDMI, DP, Video, Audio	✓	✓	✓	✓	✓	✓

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10.1" TFT Displays

Panel	AL101WXL02-N	TM101JDHG32-00	AM-19201200B1TZQW-00	AM-19201200B1TZQW-T51
Manufacturer	AMOLED	Tianma	Ampire	Ampire
Type	IPS	SFT	MVA	MVA
Viewing angle (v/h)	170°/170°	170°/170°	170°/170°	170°/170°
Resolution	WXGA 1280x800	WXGA 1280x800	WUXGA 1920x1200	WUXGA 1920x1200
Input	LVDS	LVDS	LVDS	LVDS
BLU/Converter integrated	LED/NO*	LED/YES	LED/YES	LED/YES
Brightness (cd/m²)	1300	1000	1000	850
Temperature operating (°C)	-20...+70	-20...+70	-20...+70	-20...+70
	<i>*SmartLED Converter available</i>			
Resistive Touch				
4-wire	✓	✓	✓	
4-wire glass/glass	✓	✓	✓	
PCAP Touch				
Projected Capacitive Touch Sensor	✓	Version: integrated	✓	integrated
Finished design: PCAP Touch - Cover Glass Black Printed				
Projected Capacitive Touch Sensor	✓	✓	✓	
Industrial TFT-Controller				
Serial stand alone GUI TFT-Controller				
USB-Client to LVDS TFT-Controller	✓	✓	✓	✓
RGB/DVI to LVDS TFT-Controller	✓	✓	✓	✓
Options: HDMI, DP, Video, Audio	✓	✓	✓	✓

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10.4" TFT Displays

VGA / SVGA

Panel	AA104VJ12	GV TSA4TNBL4E0
Manufacturer	Mitsubishi	SGD
Type	TN	TN
Viewing angle (v/h)	140°/160°	110°/140°
Resolution	VGA 640x480	SVGA 800x600
Input	LVDS	LVDS
BLU/Converter integrated	LED/NO*	LED/NO*
Brightness (cd/m ²)	1500	1500
Temperature operating (°C)	-20...+70	-20...+70
	<i>*SmartLED Converter available</i>	
	Resistive Touch	
4-wire	✓	✓
4-wire glass/glass	✓	✓
	PCAP Touch	
Projected Capacitive Touch Sensor	✓	✓
	Finished design: PCAP Touch - Cover Glass Black Printed	
Projected Capacitive Touch Sensor	✓	✓
	Industrial TFT-Controller	
Serial stand alone GUI TFT-Controller	✓	✓
USB-Client to LVDS TFT-Controller	✓	✓
RGB/DVI to LVDS TFT-Controller	✓	✓
Options: HDMI, DP, Video, Audio	✓	✓

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10.4" TFT Displays

XGA

Panel	AA104XL02	AA104XD12	AA104XG12	AT104XH11	TCG104XGLPAPNN-AN40
Manufacturer	Mitsubishi	Mitsubishi	Mitsubishi	Mitsubishi	Kyocera
Type	TN transflective	TN	IPS	TN	AWV*
Viewing angle (v/h)	-50~35°/-50~35°	130°/160°	170°/170°	160°/160°	170°/170°
Resolution	XGA 1024x768	XGA 1024x768	XGA 1024x768	XGA 1024x768	XGA 1024x768
Input	LVDS	LVDS	LVDS	LVDS	LVDS
BLU/Converter integrated	LED/YES	LED/NO*	LED/NO*	LED/YES	LED/YES
Brightness (cd/m²)	300	1000	900	1200	1300
Temperature operating (°C)	-30...+80	-30...+80	-30...+80	-40...+85	-30...+80
	sunlight readable	<i>Reverse Pin</i>			<i>* Advanced Wide View</i>
			Resistive Touch		
4-wire	✓	✓	✓	✓	✓
4-wire glass/glass	✓	✓	✓	✓	✓
			PCAP Touch		
Projected Capacitive Touch Sensor	✓	✓	✓	✓	✓
			Finished design: PCAP Touch - Cover Glass Black Printed		
Projected Capacitive Touch Sensor	✓	✓	✓	✓	✓
			Industrial TFT-Controller		
Serial stand alone GUI TFT-Controller	✓	✓	✓	✓	✓
USB-Client to LVDS TFT-Controller	✓	✓	✓	✓	✓
RGB/DVI to LVDS TFT-Controller	✓	✓	✓	✓	✓
Options: HDMI, DP, Video, Audio	✓	✓	✓	✓	✓

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12.1" TFT Displays

Panel	G121XN01V0-V554	GKVG1MNDK2A0	AA121XL01	AA121XN11	TCG121XGLPBPNN-AN40	NL12880BC20-07F
Manufacturer	Data Display Group	SGD	Mitsubishi	Mitsubishi	Kyocera	NLT
Type	TN	MVA	TN	TN	AWV*	TN
Viewing angle (v/h)	160°/160°	176°/176°	140°/160°	160°/160°	170°/170°	160°/160°
Resolution	XGA 1024x768	WXGA 1280x800	XGA 1024x768	XGA 1024x768	XGA 1024x768	WXGA 1280x800
Input	LVDS	LVDS	LVDS	LVDS	LVDS	LVDS
BLU/Converter integrated	LED/NO	LED/NO	LED/NO	LED/NO	LED/YES	LED/NO
Brightness (cd/m ²)	1500	1300	1000	1300	1200	1800
Temperature operating (°C)	-30...+55*	-30...+80	-30...+80	-30...+80	-30...+80	-20...+70
	-30...+85 at 1100 cd/m ²		<i>Reverse Scan</i>		<i> Advanced Wide View</i>	
Resistive Touch						
4-wire	✓	✓	✓	✓	✓	✓
4-wire glass/glass	✓	✓	✓	✓	✓	✓
PCAP Touch						
Projected Capacitive Touch Sensor	✓	✓	✓	✓	✓	✓
Industrial TFT-Controller						
Serial stand alone GUI TFT-Controller	✓		✓	✓	✓	✓
USB-Client to LVDS TFT-Controller	✓	✓	✓	✓	✓	✓
RGB/DVI to LVDS TFT-Controller	✓	✓	✓	✓	✓	✓
Options: HDMI, DP, Video, Audio	✓	✓	✓	✓	✓	✓

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15" TFT Displays

Panel	G150XGE-L04-V570	G150XTN06.3	G150XTN05.1	AA150XW14*	AA150PD13	AA150XT01
Manufacturer	DD-Group	AUO	AUO	Mitsubishi	Mitsubishi	Mitsubishi
Type	TN	TN	TN	IPS	IPS	TN
Viewing angle (v/h)	140°/160°	150°/160°	120°/140°	170°/170°	170°/170°	140°/160°
Resolution	XGA 1024x768	XGA 1024x768	XGA 1024x768	XGA 1024x768	SXGA+ 1400x1050	XGA 1024x768
Input	LVDS	LVDS	LVDS	LVDS	LVDS	LVDS
BLU/Converter integrated	LED/NO*	LED/YES	LED/YES	LED/NO*	LED/NO*	LED/NO*
Brightness (cd/m²)	1000*	1600	1200	1000	1000	800
Temperature operating (°C)	-30...+80	-30...+70	-30...+85	-30...+80	-30...+85	-20...+70
	* 1350cd/m² with heatsink <i>Reverse Pin</i>	<i>Reverse Pin</i>	<i>Reverse Pin</i>	*Successor of AA150XW11 <i>Reverse Pin</i>	<i>Reverse Pin</i>	<i>Reverse Pin</i>
	* SmartLED Converter available					
	Resistive Touch					
4-wire	✓	✓	✓	✓	✓	✓
4-wire glass/glass	✓	✓	✓	✓	✓	✓
	PCAP Touch					
Projected Capacitive Touch Sensor	✓	✓	✓	✓	✓	✓
	Industrial TFT-Controller					
Serial stand alone GUI TFT-Controller	✓	✓	✓	✓		✓
USB-Client to LVDS TFT-Controller	✓	✓	✓	✓	✓	✓
RGB/DVI to LVDS TFT-Controller	✓	✓	✓	✓	✓	✓
Options: HDMI, DP, Video, Audio	✓	✓	✓	✓	✓	✓

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15.4 to 17" TFT Displays

Panel	G15411-LE1-V549D	NL192108BC18-06F	G170EG01V1-V567	G170ETN02.1
Manufacturer	Data Display Group	NLT	Data Display Group	AUO
Type / size	TN / 15.4"	SFT / 15.6"	TN / 17.0"	TN / 17.0"
Viewing angle (v/h)	140°/160°	176°/176°	140°/160°	140°/160°
Resolution	WXGA 1280x800	Full HD 1920x1080	SXGA 1280x1024	SXGA 1280x1024
Input	LVDS	eDP*	LVDS	LVDS
BLU/Converter integrated	LED/NO*	LED/NO*	LED/NO*	LED/NO*
Brightness (cd/m²)	925	1500	1000	800
Temperature operating (°C)	-30...+80	-30...+85	-30...+85	-30...+80
	<i>*SmartLED Converter available</i>	<i>* LVDS2eDP interface available</i>		
	Resistive Touch			
4-wire	✓	✓	✓	✓
4-wire glass/glass	✓	✓	✓	✓
	PCAP Touch			
Projected Capacitive Touch Sensor	✓	✓	✓	✓
	Industrial TFT-Controller			
Serial stand alone GUI TFT-Controller				
USB-Client to LVDS TFT-Controller	✓	✓	✓	✓
RGB/DVI to LVDS TFT-Controller	✓	✓	✓	✓
Options: HDMI, DP, Video, Audio	✓	✓	✓	✓

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18.5 to 19" TFT Displays

Panel	G185XW01V2-V566	G185XW01V2-V568	AL190SXL01-N	G190ETN01.6	NL128102AC29-17
Manufacturer	Data Display Group	Data Display Group	AMOLED	AUO	NLT
Type	TN / 18.5"	TN / 18.5"	TN	TN	SFT
Viewing angle (v/h)	160°/170°	160°/170°	160°/170°	160°/170°	176°/176°
Resolution	WXGA 1366x768	WXGA 1366x768	SXGA 1280x1024	SXGA 1280x1024	SXGA 1280x1024
Input	LVDS	LVDS	LVDS	LVDS	LVDS
BLU/Converter integrated	LED/NO*	LED/NO*	LED/NO*	LED/YES	LED/YES
Brightness (cd/m²)	1000	1500	1000	1600	800
Temperature operating (°C)	0...+60	0...+50	-30...+85	-30...+70	-20...+70
			<i>*SmartLED Converter available</i>		
			Touch Screen		
Analog Resistive Touch Sensor	✓	✓	✓	✓	✓
Projected Capacitive Touch Sensor	✓	✓	✓	✓	✓
			Industrial TFT-Controller		
Serial stand alone GUI TFT-Controller					
USB-Client to LVDS TFT-Controller	✓	✓	✓	✓	✓
RGB/DVI to LVDS TFT-Controller	✓	✓	✓	✓	✓
Ask for Options: HDMI, DP, Video, Audio	✓	✓	✓	✓	✓

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21.5 to 37" TFT Displays

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Panel	G215HVN01.0(S03)-V599	P215HAN02.0	AL240FHL01-N	G240UAN01.1	P320HVN03.0	P370IVN01.0
Manufacturer	Data Display Group	AUO	AMOLED	AUO	AUO	AUO
Type / size	Advanced MVA / 21.5"	AHVA / 21.5"	VA / 24"	AHVA / 24"	Advanced MVA / 31.5"	Advanced MVA / 37"
Viewing angle (v/h)	178°/178°	178°/178°	178°/178°	178°/178°	178°/178°	178°/178°
Resolution	FHD 1920x1080	FHD 1920x1080	FHD 1920x1080	WUXGA 1920x1200	FHD 1920x1080	FHD 1920x540
Input	LVDS	LVDS	LVDS	LVDS	LVDS	LVDS
BLU/Converter integrated	LED/NO*	LED/NO*	LED/NO*	LED/YES	LED/YES	LED/NO*
Brightness (cd/m²)	850	1500	1000	750	1000	1000
Temperature operating (°C)	0...+60	0...+50	-20...+70	0...+40	0...+50	0...+50
Special Features						Bartype display
	<i>*SmartLED Converter available</i>					
	Touch Screen					
Analog Resistive Touch Sensor	✓	✓	✓	✓	✓	✓
Projected Capacitive Touch Sensor	✓	✓	✓	✓	✓	✓
	Industrial TFT-Controller					
Serial stand alone GUI TFT-Controller						
USB-Client to LVDS TFT-Controller	✓	✓	✓	✓	✓	✓
RGB/DVI to LVDS TFT-Controller	✓	✓	✓	✓	✓	✓
Options: HDMI, DP, Video, Audio	✓	✓	✓	✓	✓	✓

High Brightness TFTs







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46 to 55" TFT Displays



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Panel	LTI460HZ01-0	LTI460HF01-V(0)	P460HVN04.3	LD470DUP-SEH1	LD490EPN-UKH1	P550HVN06.0
Manufacturer	Samsung 	Samsung 	AUO 	LG 	LG 	AUO 
Type / size	SVA / 46"	SVA / 46"	A-MVA / 46"	IPS / 47"	IPS / 49"	A-MVA / 55"
Viewing angle (v/h)	178°/178°	178°/178°	178°/178°	178°/178°	178°/178°	178°/178°
Resolution	FHD 1920x1080	FHD 1920x1080	FHD 1920x1080	FHD 1920x1080	FHD 1920x1080	FHD 1920x1080
Input	LVDS	LVDS	LVDS	LVDS	LVDS	LVDS
BLU/Converter integrated	LED/NO*	LED/NO*	LED/YES	LED/YES	LED/YES	LED/YES
Brightness (cd/m²)	5000	2500	1500	2000	1500	2500
Temperature operating (°C)	0...+50	0...+50	-0...+50	0...+50	0...+50	-0...+50
	<i>*SmartLED Converter available</i>	<i>*SmartLED Converter available</i>				
	EOL 2017			EOL 2017		
Touch Screen						
Analog Resistive Touch Sensor	✓		✓	✓	✓	✓
Projected Capacitive Touch Sensor	✓		✓	✓	✓	✓
Industrial TFT-Controller						
Serial stand alone GUI TFT-Controller						
USB-Client to LVDS TFT-Controller	✓		✓	✓	✓	✓
RGB/DVI to LVDS TFT-Controller	✓		✓	✓	✓	✓
Options: HDMI, DP, Video, Audio	✓		✓	✓	✓	✓



High TN1 110°C Flüssigkristall: Verhindert eine Schwärzung des Displays unter Sonneneinstrahlung

High Brightness TFTs

your specialist for flat screen solutions



SmartLED Converters

Our R&D department has developed the SmartLED converter series for an optimized control of modern LED backlights. Of course we can also customize the SmartLED converters to fit your project requirements concerning mechanics, additional features, cost-efficient hardware etc

General Features

- Control via analog voltage (0..3.3V or 0..5V) or PWM (100 .. 1000Hz)
- Output PWM synchronized to input, sync signal or free-running with programmable frequency
- I²C for ambient light sensor and temperature sensor(s)
- Additional GPIOs for local control (pushbuttons, sensor pads or potentiometer) of brightness
- Capability to connect multiple boards in a master-slave setup for high-power applications
- Control input for NVIS mode
- Error flag to detect failure of power stage or LED rail
- Flexible Microcontroller Control
 - On-Board microcontroller handles all input and control signal
 - Features are defined by firmware
- LED brightness control by PWM dimming for stable color temperature;
- optionally, use current control or combined dimming for brightness control
- Control characteristic curve can be adapted upon customer request

Some features require specific firmware support or are mutually exclusive to other features.

Please contact your sales partner to discuss possible options or combinations.

Special Features

SmartLED-II

- 11 - 16V input range
- Output: 7 – 10V, 200mA – 2A per channel (rail)
- Max. 2.3A output current (depending on actual rail configuration due to total power limit)
- Efficiency \geq 92%



SmartLED-III

- 10 - 14.5V input range
- Output: 9 – 40V, 30mA – 260mA per channel (rail), total power limited to approx. 17W+
- Wide dimming range up to 1:15000 (depends on PWM frequency)
- Efficiency \geq ca. 90%



SmartLED-IV

- 8 - 28V input range
- Output: 30 – 60V, 30mA – 500mA per channel (rail), total power limited to approx. 45W
- Efficiency \geq ca. 92%





Optical Bonding Service

Cover Glass

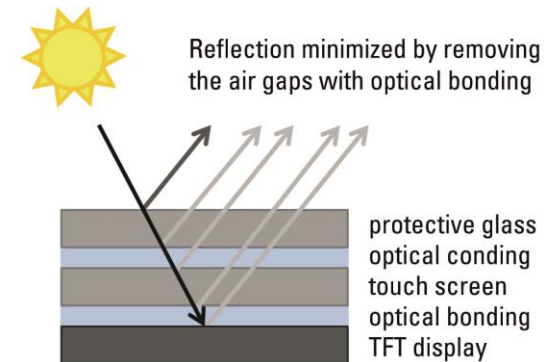
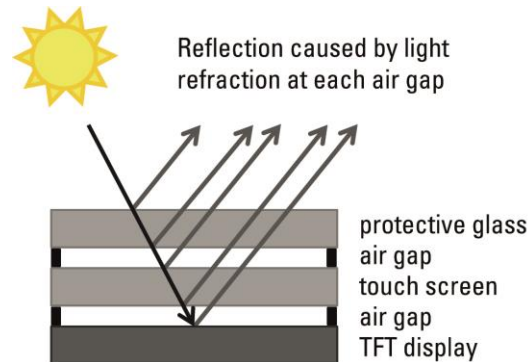
- Schott Xensation (thin & high hardness)
- Toughened Safety Glass
Ceramic or Organic Silkscreen

Touch Screen

- Projected Capacitive Touch
- Resistive Touch Glass/Glass
- Resistive Touch Film/Glass
- Analog Matrix Resistive MultiTouch

Professional Bonding
VACUBOND[®]

Economy Bonding
VACUBOND[®]





Embedded

Embedded Boards



2,5" Pico-ITX™
3,5" Single Board Computer
PC/104
Slot SBC

Industrial Mainboards



Mini-ITX™
Micro-ATX
Flex-ATX
ATX

Embedded Systems



Embedded Box PCs
Embedded Panel PCs
Embedded Server
Embedded Desktop PCs
Digital Signage Player
Industrial Monitors

Accessories & IoT



Gateways
Switches
Router
Memory, CPUs
Cables
Power Supplies

Available Features & Options:

Designed for Industrial Applications
Extended Temperature -40°C...+85°C
Design-in Support
Kits (Board with OS, Display & Cables)

Long-term Availability
Custom Design
Fixed Bill of Material
EOL / PCN Handling



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