



HOLLAND INTERFACE SOLUTIONS

A HOLLAND 1916 COMPANY

Display Solutions

Display Solutions



LCD Panels

TFT, IPS, OLED, MONOCHROME, BAR-STYLE, ROUND, CHARACTER & GRAPHIC DISPLAYS
RGB, LVDS, MIPI, eDP, HDMI, SPI - FROM .96" TO 75"



Touch Panels & Cover Glass

CAPACITIVE & RESISTIVE - STANDARD AND CUSTOM COVER GLASS
MULTI WIRE / MULTI TOUCH / CHEM STRENGTHEN / AG & AR FILMS - FROM .96" TO 75"



Overlays

KEYPADS AND GRAPHIC SOLUTIONS



Controller Boards

AD BOARDS, TOUCH CONTROLLERS, POWER BOARDS
VGA, DVI, HDMI, DISPLAY PORT



Single Board Computers

WINDOWS, ANDROID, LINUX



Cables

LVDS, USB, HDMI, USB, POWER, & CUSTOM OPTIONS



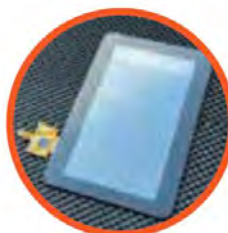
Standard Solutions

Standard LCD Panels

Panel Size	0.96" to 15.6"
Touch Panel	Capacitive and Resistive
Interface	RGB / LVDS / MIPI /eDP / HDMI
Backlight	Luminance : Up to 1100 Nit (cd/m2) Lifetime: Up to 50k Hours
Application	HMI, Industrial, Commercial, Medical, Consumer
Features	Highly Customizable High Brightness Wide-Operating Temperatures Wide-Viewing Angles / High Contrast

Standard Touch Solutions

Panel Size	0.96" to 15.6"	
Cover Glass	Thickness	0.7mm – 4.0mm
	Silkscreen Printing Ceramic Etching	Logo / Frame / Multi Color
Structure	Capacitive	G+G G+FF G+F P+G P+FF P+F (P: PMMA or PC)
	Resistive	4 Wire 5 Wire 8 Wire
Cover Glass Surface Treatment	Anti-Fingerprint (Coating) Anti-Reflection (Coating) Anti-Bacteria (Coating) Anti-Glare (Etching)	
Lamination	Tape Bonding Optical Bonding	
Special Requirements	Multiple-Point Touch EMI / EMC Standards IK Standards (Impact Resistance) UV Resistance Glove Touch Wet Touch	



Standard Displays

Size	Resolution		Brightness	Interface		Touch Panel
1.3”	240x240		500	8 Bit SPI		RTP/CTP
1.5”	240x240		500	8 Bit SPI		RTP/CTP
2.4”	240x320		300-500	MIPI	SPI	RTP/CTP
2.8”	240x320	480x640	180-500	SPI	RGB	RTP/CTP
				MIPI		
3.2”	240x320		230-280	MCU	RGB	RTP/CTP
3.5”	320x240	320x480	200-1000	RGB	SPI	RTP/CTP
	480x480	640x480		MCU	MIPI	
4.0”	480x480	480x800	300-1000	MIPI	SPI+RGB	RTP/CTP
4.3”	480x272	480x800	300-900	RGB		RTP/CTP
	800x480					
5.0”	480x272	640x480	250-1000	RGB	LVDS	RTP/CTP
	800x480	720x1280		MIPI	HDMI	
5.7”	640x480	720x1440	350-1000	RGB	MIPI	RTP/CTP
7.0”	800x480	800x1280	200-1100	RGB VCON	LVDS	RTP/CTP
	1024x600			HDMI	MIPI	
8.0”	800x480	800x600	450-800	RGB	LVDS	RTP/CTP
	1024x600	1024x768		HDMI		
10.1”	1024x600	1280x800	300-1200	LVDS	HDMI	RTP/CTP

Our standard display solution range from .96" to 32"
These are our top selling panels for Medical, Commercial,
Industrial, & Consumer applications.



High Bright Displays

Size	Resolution		Brightness (cd/m ²)	Interface	Touch Panel	Operating Temp	
6.5"	640x480		800	LVDS	RTP/CPT	-30~80 °C	
7.0"	1024x600	800x480	1000	LVDS	RTP/CPT	-20~70 °C	
8.0"	800x600		1000	RGB	RTP/CPT	-30~80 °C	
8.4"	800x600	1024x768	1000-1500	LVDS	RTP/CPT	-30~85 °C	
10.1"	1280x800		700-1500	LVDS, MIPI, eDP	RTP/CPT	-20~70 °C	
10.4"	800x600	1024x768	700-2500	LVDS	RTP/CPT	-20~70 °C	-30~85 °C
12.1"	1280x800	1024x768	600-1200	LVDS	RTP/CPT	-30~85 °C	
13.3"	1920x1080		800-1200	LVDS	RTP/CPT	-20~70 °C	
15.0"	1024x768		800-1500	LVDS	RTP/CPT	-20~70 °C	
15.6"	1366x768	1920x1080	800-2000	eDP LVDS	RTP/CPT	-30~80 °C	
17.0"	1280x1024	1920x1200	800-2000	LVDS	RTP/CPT	-30~85 °C	
17.3"	1920x1080		700-1000	eDP LVDS	RTP/CPT	0~70 °C	
18.5"	1366x768	1920x1080	700-1000	LVDS	RTP/CPT	-20~70 °C	
19.0"	1280x1024		800-2000	LVDS	RTP/CPT	-30~85 °C	
19.5"	1600x900		1500	LVDS	RTP/CPT	0~50 °C	
20.0"	1920x1080		1000-1500	LVDS	RTP/CPT	0~50 °C	
21.5"	1920x1080		500-2500	LVDS	RTP/CPT	0~60 °C	
23.0"	1920x168		700	LVDS	CPT	-20~60 °C	
23.8"	1920x1080		1500	LVDS	CPT	0~50 °C	
24.0"	1920x1080	1920x1200	500-1500	LVDS	CPT	-20~70 °C	
27"	1920x1080	2560x1440	700-1700	LVDS	CPT	-20~60 °C	
27" 4K	3840x2160		850	eDP LVDS	CPT	-20~60 °C	
32.0"	1920x1080		800-1500	LVDS	CPT	-20~60 °C	



HDMI Display Kits

Size	Resolution		Brightness (cd / m2)		Interface	Touch Panel	Operating Temp
4.3”	800x480		500		LVDS	Optional	-30~85 °C
5.0”	800x480		400		LVDS	Optional	-30~85 °C
6.5”	640x480		800		LVDS	Optional	-30 ~ 80 °C
7.0”	800x480	1024x600	1000	1200	LVDS	Optional	-20~70 °C
8.0”	1024x600		800		LVDS	Optional	-20~70 °C
8.4”	800 x 600	1024 x 768	400-1000		LVDS	Optional	-30 ~ 80 °C
10.1”	1024x600	1280x800	1000		LVDS	Optional	-20~70 °C
10.4”	800x600		350		LVDS	Optional	-20~70 °C
11.6”	1920x1080		300		LVDS	Optional	0~50 °C
12.1”	800 x 600	1024 x 768	400-1500		LVDS	Optional	-20 ~ 70 °C
	1280 x 800						
13.3”	1920 x 1080		400		LVDS	Optional	-20 ~ 70 °C
15”	1024 x 768		300-1800		LVDS	Optional	-20 ~ 70 °C
17”	1280 x 1024		250-800		LVDS	Optional	-20 ~ 70 °C
17.3”	1920 x 1080		300		LVDS	Optional	-20 ~ 70 °C



HDMI Display Kits

Size	Resolution		Brightness (cd/m ²)	Interface	Touch Panel	Operating Temp
18.5"	1366 x 768	1920 x 1080	350-500	LVDS	Optional	-20~70 °C
19.0"	1280 x 1024		250-1600	LVDS	Optional	-30~70 °C
21.5"	1920 x 1080		250-1000	LVDS	Optional	-10~80 °C
23.8"	1920 x 1080		250-1000	LVDS	Optional	-30~80 °C
24.0"	1920 x 1080	1920 x 1200	250-300	LVDS	Optional	-20~70 °C
27.0"	1920 x 1080	3840 x 2160	300-360	LVDS	Optional	0~80 °C
31.5"	3840 x 2160		300	LVDS	Optional	0~70 °C
32.0"	1920x1080		400-1500	LVDS	Optional	-20~60 °C

Kits Include:

- LCD Panel
- AD Board
- Backlight Cable
- Backlight Driver Board
- AD Board to Driving Board Cable
- OSD Board
- OSD Cable

Compatible with



Round Displays

Size	Resolution	Brightness (cd/m2)	Interface	Touch Panel	Operating Temp
1.6"	400x400	300	QSPI	RTP/CTP	-20~70 °C
1.8"	360x360	600	SPI	RTP/CTP	-30~85 °C
2.1"	480x480	300	RGB 18-bit+SPI	RTP/CTP	-20~70 °C
2.8"	480x480	250	RGB 24-bit	RTP/CTP	-30~85 °C
4.0"	720x720	600	MIPI	RTP/CTP	-30~85 °C
5.0"	1080x1080	1000	MIPI	RTP/CTP	-20~60 °C



- Wearable
- Fitness Tracker
- Knob Display
- Smart Gauge

Bar-Style Displays



3.7" 240x960

- Shelf Signage



4.0" 400x960

- Medical



4.6" 320x960

- Automotive



7.0" 280x1424

Size	Resolution	Brightness (cd / m2)	Interface	Touch Panel	Operating Temp
3.7"	240x960	350	RGB 18-bit+SPI	RTP/CTP	-20~70 °C
3.9"	480x128	1000	RGB 24-BIT	RTP/CTP	-30~85 °C
4.0"	400x960	350	RGB 18-bit+SPI	RTP/CTP	-20~70 °C
4.6"	320x960	300	RGB 18-bit+SPI	RTP/CTP	-20~70 °C
7"	280x1424	300	MIPI	RTP/CTP	-20~70 °C
10.25"	1920x720	850	LVDS	RTP/CTP	-40~85 °C
12.3"	1920x720	850	LVDS	RTP/CTP	-30~85 °C



12.3"
1920x720

10.25"
1920x720



Large Bar-Style Displays (Ultra-Wide)



Size / Resolution : 19" / 1920 x 360
Brightness(cd/m²) : 300
Led Lifetime (Hrs) : 30,000
Viewing Angle : 89/89/89/89
NTSC : 72%
Contrast : 1,200 : 1
Outline (WxHxD) : 491.5 x 109.4 x 12.8
Active Area(HxV) : 476.64 x 89.37
Interface : LVDS
Operating Temp (°C) : 0~50



Size / Resolution : 21" / 1920 x 132
Brightness(cd/m²) : 300
Led Lifetime(Hrs) : 30,000
Viewing Angle : 89/89/89/89
NTSC : 72%
Contrast : 1,200 : 1
Outline (WxHxD) : 542.42 x 54.7 x 12.77
Active Area(HxV) : 529.416 x 36.397
Interface : LVDS
Operating Temp (°C) : 0~50



Size / Resolution : 24" / 1920 x 360
Brightness(cd/m²) : 300
Led Lifetime(Hrs) : 30,000
Viewing Angle : 89/89/89/89
NTSC : 72%
Contrast : 1,200 : 1
Outline (WxHxD) : 612.7 x 132.1 x 12.8
Active Area(HxV) : 597.888 x 112.104
Interface : LVDS
Operating Temp (°C) : 0~50



Size / Resolution : 28" / 1920 x 360
Brightness(cd/m²) : 700
Led Lifetime(Hrs) : 50,000
Viewing Angle : 89/89/89/89
NTSC : 72%
Contrast : 1,200 : 1
Outline (WxHxD) : 732 x 165 x 16.8
Active Area(HxV) : 699.84 x 131.22
Interface : LVDS
Operating Temp (°C) : 0~50



Size / Resolution : 28.6" / 1920 x 540
Brightness(cd/m²) : 1,000
Led Lifetime(Hrs) : 50,000
Viewing Angle : 89/89/89/89
NTSC : 72%
Contrast : 1,000 : 1
Outline (WxHxD) : 731.46 x 229.49 x 21.34
Active Area(HxV) : 698.4 x 196.425
Interface : LVDS
Operating(°C) : -10~60



Size / Resolution : 36.6" / 1920 x 290
Brightness(cd/m²) : 700
Led Lifetime(Hrs) : 50,000
Viewing Angle : 89/89/89/89
NTSC : 72%
Contrast : 1,200 : 1
Outline (WxHxD) : 960 x 174.35 x 17.4
Active Area(HxV) : 919.3 x 138.85
Interface : LVDS
Operating(°C) : 0~50

Character Module Displays

Display Format	Outline Dimension (mm)	Viewing Area (mm)	Active Area (mm)	Character Size (mm)	Dot Size (mm)	Duty	Interface	IC	
8×2	58×32	38×16	27.81×11.5	2.96×5.56	0.56×0.66	1/16	6800,SPI,I2C	ST7066,RW1063	
12×2	55.7×32	46×14.5	37.85×11.7	2.65×5.5	0.45×0.60	1/16	6800,SPI,I2C	ST7066,RW1063	
16×1	80×36	66×16	59.62×6.56	3.07×6.56	0.55×0.75	1/16	6800,SPI,I2C	ST7066,RW1063	
16×1	85×28	66×16	59.62×6.56	3.07×6.56	0.55×0.75	1/16	6800,SPI,I2C	ST7066,RW1063	
16×1	122×33	99×13	94.84×9.66	4.84×8.06	0.92×1.10	1/16	6800,SPI,I2C	ST7066,RW1063	
16×2	84×44	66×16	56.2×11.5	2.95×5.55	0.55×0.65	1/16	6800,SPI,I2C	ST7066,RW1063	
16×2	80×36	66×16	56.2×11.5	2.95×5.55	0.55×0.65	1/16	6800,SPI,I2C	ST7066,RW1063	
16×2	80×36	66×16	56.2×11.5	2.95×5.55	0.55×0.65	1/16	UART	ST7066	
16×2	80×36	66×16	56.2×11.5	2.95×5.55	0.55×0.65	1/16	USB	ST7066	
16×2	85×36	66×16	56.2×11.5	2.95×5.55	0.55×0.65	1/16	6800,SPI,I2C	ST7066,RW1063	
16×2	85×30	66×16	56.2×11.5	2.95×5.55	0.55×0.65	1/16	6800,SPI,I2C	ST7066,RW1063	
16×2	80×36	66×16	56.2×11.5	2.95×5.55	0.55×0.65	1/16	6800,SPI,I2C	ST7066,RW1063	
16×2	122×44	99×24	94.84×20	4.80×8.56	0.92×1.10	1/16	6800,SPI,I2C	ST7066,RW1063	
16×2	122×44	99×24	94.2×20	4.8×8.06	0.92×1.1	1/16	UART	ST7066	
16×2	85×32.6	66×16	56.2×11.5	2.95×5.55	0.55×0.65	1/16	6800,SPI,I2C	ST7066,RW1063	
16×2	85×25.2	66×16	56.2×11.5	2.95×5.55	0.55×0.65	1/16	6800,SPI,I2C	ST7066,RW1063	
16×2	85×25.2	66×16	56.21×11.5	2.95×5.55	0.55×0.65	1/17	6800,SPI,I2C	ST7066,RW1063	
16×2	59×29.3	52×15	46.7×9.84	2.45×4.67	0.45×0.54	1/18	6800,SPI,I2C	ST7066,RW1063	
16×2	65.4×28.2	54.8×19	48.42×12.12	2.67×5.57	0.51×0.67	1/19	6800,SPI,I2C	ST7066,RW1063	
16×2	66.7×23.3	61x15.9	56.2×11.85	2.95×5.55	0.55×0.65	1/20	6800,SPI,I2C	ST7066,RW1063	
16×2	80×36	66×16	56.2×11.5	2.95×5.55	0.55×0.65	1/21	6800,SPI,I2C	ST7066,RW1063	
16×4	87×60	62×26	56.2×20.8	2.95×4.75	0.55×0.55	1/22	6800,SPI,I2C	ST7066,RW1063	
16×4	70.6×60	60×32.6	56.2×20.8	2.95×4.75	0.55×0.55	1/23	6800,SPI,I2C	ST7066,RW1063	

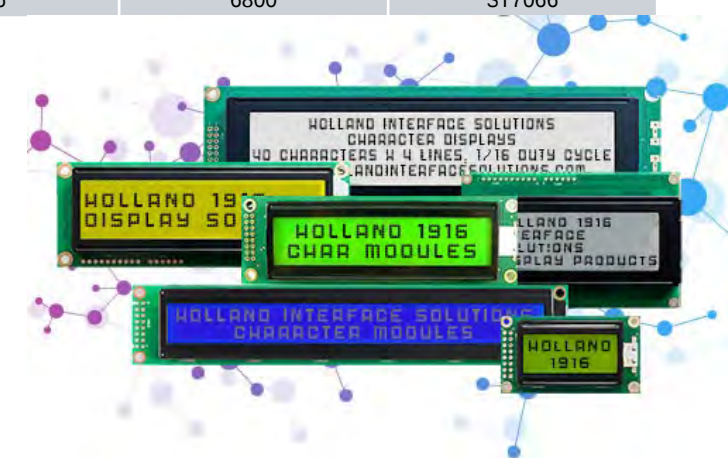
Character Module Displays (Cont.)

Display Format	Outline Dimension (mm)	Viewing Area (mm)	Active Area (mm)	Character Size (mm)	Dot Size (mm)	Duty	Interface	IC
20×2	116×37	85×18.6	73.5×11.5	3.2×5.55	0.60×0.65	1/24	6800,SPI,I2C	ST7066,RW1063
20×2	116×37	85×18.6	73.5×11.5	3.2×5.55	0.60×0.65	1/25	UART	ST7066
20×2	89×21.5	75×15	68.5×10.7	2.95×5.15	0.55×0.60	1/26	6800,SPI,I2C	ST7066,RW1063
20×2	180×40	149×23	142.8×20.64	6×9.66	1.12×1.12	1/27	6800,SPI,I2C	ST7066,RW1063
20×2	146×43	123×23	118.84×18.97	4.84×9.22	0.92×1.10	1/28	6800,SPI,I2C	ST7066,RW1063
20×4	98×60	77×25.2	70.4×20.8	2.95×4.75	0.55×0.55	1/29	6800,SPI,I2C	ST7066,RW1063
20×4	98×60	77×25.2	70.4×20.8	2.95×4.75	0.55×0.55	1/30	UART	ST7066
20×4	98×60	77×25.2	70.4×20.8	2.95×4.75	0.55×0.55	1/16	6800,SPI,I2C	ST7066,RW1063
20×4	77×47	60×22	55.1×17.56	2.3×4.03	0.42×0.46	1/16	6800,SPI,I2C	ST7066,RW1063
20×4	146×62.5	123.5×43	118.84×38.47	4.84×9.22	0.92×1.10	1/16	6800,SPI,I2C	ST7066,RW1063
20×4	87×58	74.4×24.8	70.4×20.8	2.95×4.75	0.55×0.55	1/16	6800,SPI,I2C	RW1063
20×4	87×58	74.4×24.8	70.4×20.8	2.95×4.75	0.55×0.55	1/16	6800,SPI,I2C	RW1063
24×2	118×36	94.5×16	88.3×11.5	3.2×5.55	0.60×0.65	1/16	6800,SPI,I2C	ST7066,RW1063
40×2	182×33.5	154.4×16.5	147.5×11.5	3.20×5.55	0.60×0.65	1/16	6800,SPI,I2C	ST7066,RW1063
40×4	190×54	147×29.5	140.45×23.16	2.78×4.89	0.50×0.55	1/16	6800	ST7066

Holland offers a wide range of standard Character LCD modules. Our LCD character displays are available from 8x2, 12x2, 16x1, 16x2, 16x4, 20x2, 20x4, 24x2 through to 40x4 formats with 5x8 dot matrix characters. The LCD panel technologies include TN, STN, FSTN, FFSTN types, also with polarizer positive mode and negative mode options. There are different LED backlights available in various colors including yellow/green, white, red, blue, green, amber, and RGB LEDs as well as no backlight option



To meet the demands of customer applications, these character LCD displays are available with viewing angles of 6:00, 12:00, 3:00, and 9:00 o'clock. Holland offers various IC options of character fonts including English/Japanese, western European, eastern European, Scandinavian European, Cyrillic (Russian), and Hebrew/Arabic. These LCD character modules and LCM Modules can be used in Military, Medical, Industrial, and Consumer applications.



Graphic Module Displays

Display Format	Outline Dimension (mm)	Viewing Area (mm)	Active Area (mm)	Dot Size (mm)	Dot Pitch (mm)	Duty	Interface	IC
122×32	84×44	60×18	53.64×15.64	0.40×0.45	0.44×0.49	1/32	6800	SBN1661G
122×32	65.4×28.2	54.8×19	48.76×15.32	0.36×0.41	0.40×0.45	1/32	6800	SBN1661G
122×32	65.4×28.2	54.8×19	48.76×14.36	0.36×0.41	0.40×0.45	1/32	6800	SBN1661G
122×32	84×44	60×18	53.64×15.64	0.40×0.45	0.44×0.49	1/32	6800	SBN1661G
122×32	59×29.3	52×15	45.72×11.97	0.345×0.345	0.375×0.375	1/32	6800	SBN1661G
122×32	80×36	60×18	53.64×15.64	0.40×0.45	0.44×0.49	1/32	6800	SBN1661G
122×32	65.4×28.2	54.8×19	48.76×14.36	0.36×0.41	0.40×0.45	1/32	6800	SBN1661G
122×32	59×29.3	52×15	45.72×11.97	0.345×0.345	0.375×0.375	1/32	6800	SBN1661G
122×32	80×36	60×18	53.64×15.64	0.40×0.45	0.44×0.49	1/32	6800	SBN1661G
122×32	59×32.1	52×15	45.72×11.97	0.345×0.345	0.375×0.375	1/32	6800	SBN1661G
122×32	77.8×27.2	60×18	53.64×15.64	0.40×0.45	0.44×0.49	1/32	6800	SBN1661G
122×32	84×44	60×18	53.64×15.64	0.40×0.45	0.44×0.49	1/32	6800,SPI	ST7920
122×32	65.4×28.2	54.8×19	48.76×15.32	0.36×0.41	0.40×0.45	1/32	6800,SPI	ST7920
122×32	59×29.3	52×15	45.72×11.97	0.345×0.345	0.375×0.375	1/32	6800,SPI	ST7920
128×64	93×70	72×40	66.52×33.24	0.48×0.48	0.52×0.52	1/64	6800	NT7107, NT7108
128×64	75×52.7	58.8×31.4	55.01×27.49	0.40×0.40	0.43×0.43	1/64	6800	NT7107, NT7108
128×64	78×70	62×44	56.3×38.38	0.42×0.58	0.44×0.60	1/64	6800	NT7107, NT7108
128×64	78×70	62×44	56.3×38.38	0.42×0.58	0.44×0.60	1/64	8080	RA6963
128×64	55×50	43.5×29	40.92×26.92	0.28×0.35	0.32×0.39	1/64	6800	NT7107, NT7108
128×64	80×70	72×40	66.52×33.24	0.48×0.48	0.52×0.52	1/64	6800	NT7107, NT7108
128×64	93×70	72×40	66.52×33.24	0.48×0.48	0.52×0.52	1/32	6800,SPI	ST7920
128×64	93×70	72×40	66.52×33.24	0.48×0.48	0.52×0.52	1/32	6800,SPI	ST7920
128×64	113×53	72×40	66.52×33.24	0.48×0.48	0.52×0.52	1/64	6800	NT7107, NT7108
128×64	95.5×50.2	72×40	66.52×33.24	0.48×0.48	0.52×0.52	1/64	6800	NT7107, NT7108
128×128	85×100	62×62	55.01×55.01	0.40×0.40	0.43×0.43	1/128	8080	RA6963
128×128	72.5×69.9	50×49	44.77×44.77	0.32×0.32	0.35×0.35	1/128	8080	RA6963

Graphic Module Displays

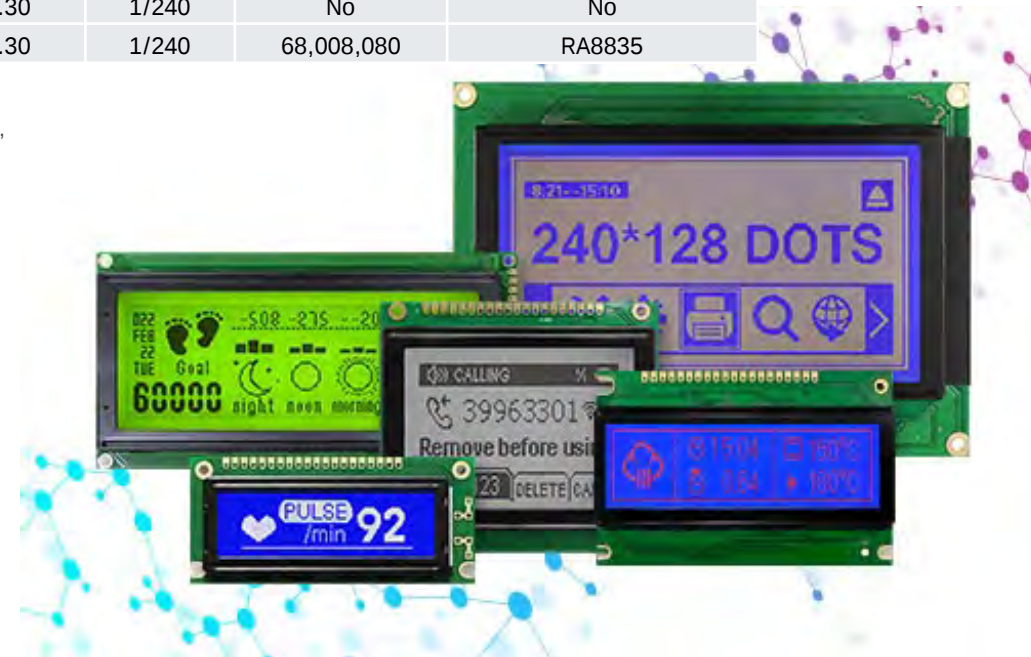
Display Format	Outline Dimension (mm)	Viewing Area (mm)	Active Area (mm)	Dot Size (mm)	Dot Pitch (mm)	Duty	Interface	IC
144×32	85×36	66×16	60.44×13.44	0.38×0.38	0.42×0.42	1/32	6800,SPI	ST7920
144×32	80×36	66×16	60.44×13.4	0.38×0.38	0.42×0.42	1/32	6800,SPI	ST7920
144×32	85.5×30	66×16	60.44×13.4	0.38×0.38	0.42×0.42	1/32	6800,SPI	ST7920
160×32	85.2×55	74×22	70.36×19.47	0.40×0.56	0.44×0.61	1/32	68,008,080	SBN1661G
160×32	122×44	99×24	95.95×19.15	0.55×0.55	0.60×0.60	1/32	6800,SPI	ST7920
160×32	122×44	99×24	95.95×19.15	0.55×0.55	0.60×0.60	1/32	6800,SPI	ST7920
160×32	85.2×55	74×22	70.36×19.47	0.40×0.56	0.44×0.61	1/32	68,008,080	SBN1661G
160×80	100×54	72×40	67.17×33.57	0.39×0.39	0.42×0.42	1/80	8080	RA6963
160×80	93×70	72×40	67.17×33.57	0.39×0.39	0.42×0.42	1/80	8080	RA6963
160×128	129×102	101×82	95.96×76.76	0.56×0.56	0.60×0.60	1/128	8080	RA6963
160×128	150×112	101×82	95.96×76.76	0.56×0.56	0.60×0.60	1/128	8080	RA6963
160×128	129×102	101×82	95.96×76.76	0.56×0.56	0.60×0.60	1/128	8080	RA6963
160×160	89.2×85	62×62	60.78×60.78	0.36×0.36	0.38×0.38	1/160	No	No
160×160	85×100	62×62	60.78×60.78	0.36×0.36	0.38×0.38	1/160	8080	RA8806
192×32	116×37	85×18.6	80.6×15.96	0.38×0.46	0.42×0.50	1/32	6800,SPI	ST7920
192×32	116×37	85×18.6	80.6×15.96	0.38×0.46	0.42×0.50	1/32	6800,SPI	ST7920
192×64	130×65	102×39	96×32	0.46×0.46	0.50×0.50	1/64	6800	NT7107, NT7108
192×64	120×62	102×39	96×32	0.46×0.46	0.50×0.50	1/64	6800	NT7107, NT7108
192×64	150×62.5	123.5×43	120.92×40.28	0.59×0.59	0.63×0.63	1/64	6800	NT7107, NT7108
192×128	102.3×86	78.5×55	71.02×47.34	0.35×0.35	0.37×0.37	1/128	8080	RA6963
202×32	146×43	123×23	119.16×18.86	0.57×0.57	0.59×0.59	1/32	68,008,080	SBN1661G
240×64	180×65	133×39	127.16×33.88	0.49×0.49	0.53×0.53	1/64	8080	RA6963
240×64	180×65	133×39	127.16×33.88	0.49×0.49	0.53×0.53	1/64	8080	RA6963
240×64	180×60	137×44	127.17×33.89	0.50×0.50	0.53×0.53	1/64	8080	RA6963
240×64	180×65	132.6×39	127.15×33.87	0.48×0.48	0.53×0.53	1/64	8080	RA6963

Graphic Module Displays

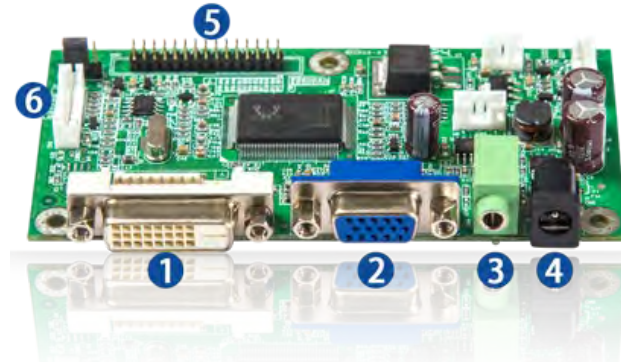
Display Format	Outline Dimension (mm)	Viewing Area (mm)	Active Area (mm)	Dot Size (mm)	Dot Pitch (mm)	Duty	Interface	IC
240×128	170×93.4	128×74	119.97×63.97	0.47×0.47	0.50×0.50	1/128	8080	RA6963
240×128	144×104	114×64	107.98×57.58	0.43×0.43	0.45×0.45	1/128	8080	RA6963
240×128	144×104	114×64	107.98×57.58	0.43×0.43	0.45×0.45	1/128	8080	RA6963
320×240	160×109	122×92	115.18×86.38	0.34×0.34	0.36×0.36	1/240	No	No
320×240	160×109	122×92	115.18×86.38	0.34×0.34	0.36×0.36	1/240	68,008,080	RA8835
320×240	160×109	122×92	115.18×86.38	0.34×0.34	0.36×0.36	1/240	68,008,080	S1D13700
320×240	160×109	122×92	115.18×86.38	0.34×0.34	0.36×0.36	1/240	68,008,080	S1D13700
320×240	160×109	122×92	115.18×86.38	0.34×0.34	0.36×0.36	1/240	68,008,080	S1D13700
320×240	148.02×120.24	120.14×92.14	115.18×86.38	0.34×0.34	0.36×0.36	1/240	68,008,080	RA8835
320×240	148.02×120.24	120.14×92.14	115.18×86.38	0.34×0.34	0.36×0.36	1/240	68,008,080	S1D13700
320×240	142×96	104×79.3	95.97×71.97	0.27×0.27	0.30×0.30	1/240	68,008,080	RA8835
320×240	142×96	104×79.3	95.97×71.97	0.27×0.27	0.30×0.30	1/240	No	No
320×240	139×100	104×79.3	95.98×71.98	0.27×0.27	0.30×0.30	1/240	68,008,080	RA8835

Hollands graphic LCD displays are available in dot matrix format of graphic resolution including 122x32, 128x64, 128x128, 144x32, 160x128, 160x160, 160x32, 160x80, 192x64, 192x128, 240x64, 320x240 etc. Our Graphic LCD modules include different options of polarizer in reflective, transmissive or transfective types. Our LED backlights are available in various colors including yellow/green, white, blue, red, amber and RGB.

We have an extensive range of LCD graphic displays with various backlight and LCD type combinations. Holland's graphic LCD can be used on instrument and industry machinery equipment as well as electrical home appliances, consumer electronics including white goods, POS system, home applications, industrial instrument, automation, audio/visual display systems, and medical devices.

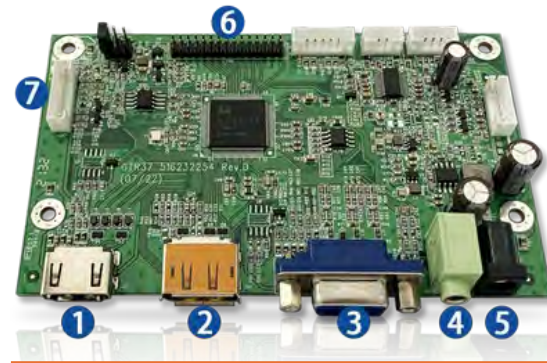


Controller Boards



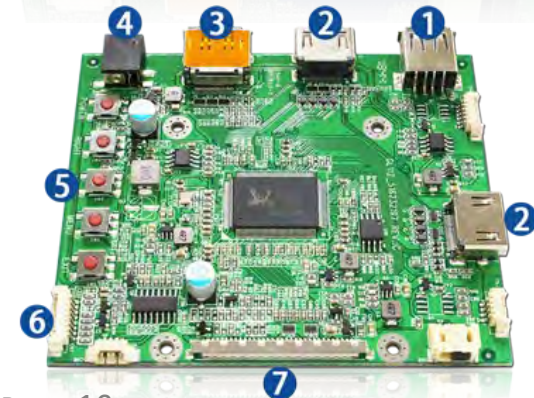
LVDS AD Board : VGA / DVI

1.	DVI input
2.	VGA input
3.	Audio Phone Jack
4.	DC Jack
5.	LVDS Connector
6.	OSD Key Connector
Operating Temp. : -20 ~ 70°C	
Outline : 110mm x 56mm	



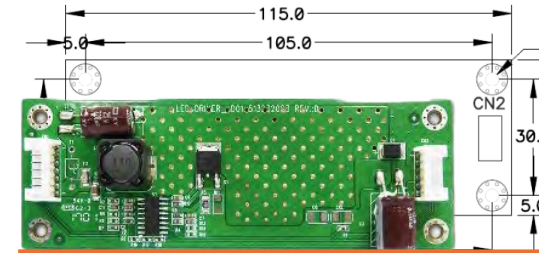
LVDS AD Board : HDMI / VGA / DP

1.	HDMI input
2.	Display Port input
3.	VGA input
4.	Audio Phone Jack
5.	DC Jack
6.	LVDS Connector
7.	OSD Key Connector
Operating Temp. : -20 ~ 70°C	
Outline : 120mm x 74mm	



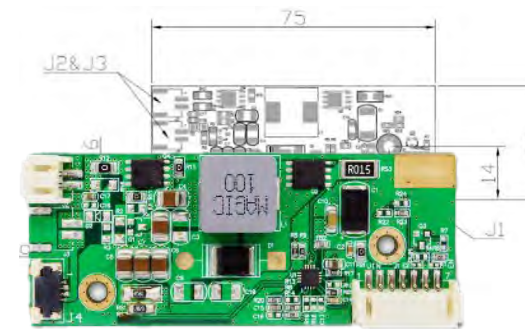
eDP AD Board : HDMI x 2 / DP

1.	USB output
2.	HDMI input x 2
3.	Display Port input
4.	DC Jack
5.	Built-in OSD Key
6.	OSD Key Connector
7.	eDP Connector
Operating Temp. : -20 ~ 70°C	
Outline : 100mm x 85mm	



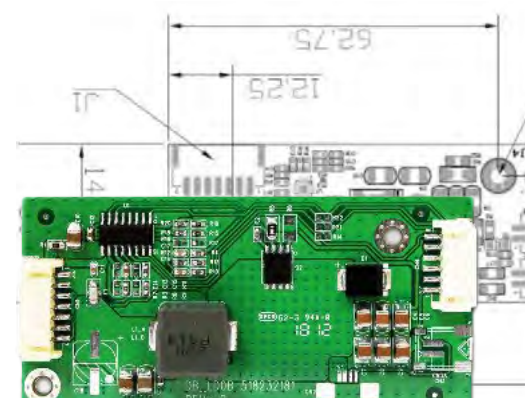
LED Backlight Driver Board

Input Voltage	10.8V ~ 24V
Input Current	2.5A (max)
Output Voltage	51V (max)
Output Current	800mA (max)
Output Channel	4 channel of LED strings
Efficiency	80% (min)
Application	10.1"~32" Panel
Dimension	115mm(L) x 40mm(W) x 12mm(H)
OCP/OVP Function	



LED Backlight Driver Board

Input Voltage	10.8V ~ 26V
Input Current	3A (typ)
Output Voltage	61V (max)
Output Current	800mA (typ)
Output Channel	4 channel of LED strings
Efficiency	80% (typ)
Application	10.1"~32" Panel
Dimension	84mm(L) x 40.8mm(W) x 8mm(H)
OCP/OVP Function	



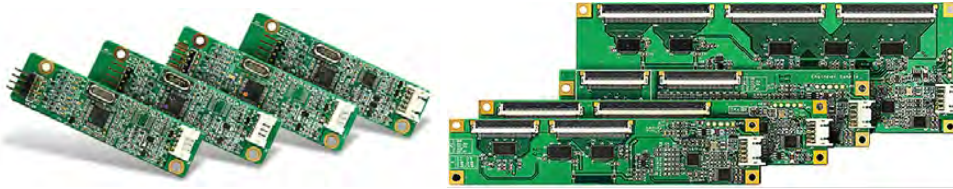
LED Backlight Driver Board

Input Voltage	10.8V ~ 15V
Input Current	3A (typ)
Output Voltage	50V (max)
Output Current	1,000mA (max)
Output Channel	2 light (parallel)
Efficiency	80% (typ)
Application	10.1"~32" High Brightness Display
Dimension	75mm(L) x 30mm(W) x 8.5mm(H)
OCP/OVP Function	

Display Accessories & Services

Touch Panel Driver Boards

- 4, 5, and 8 wire resistive driver boards.
- Capacitive Touch controller boards.
- Custom programming and calibration services are available.
- Locking gates and connectors



Cables

- LVDS
- HDMI
- USB
- Custom Solutions



Custom Cover Glass

Cover Glass

- Custom Shape
- Custom Artwork
- Custom Colors



- Rounded
- Specialty Shapes
- UV Resistant
- Anti-Bacterial

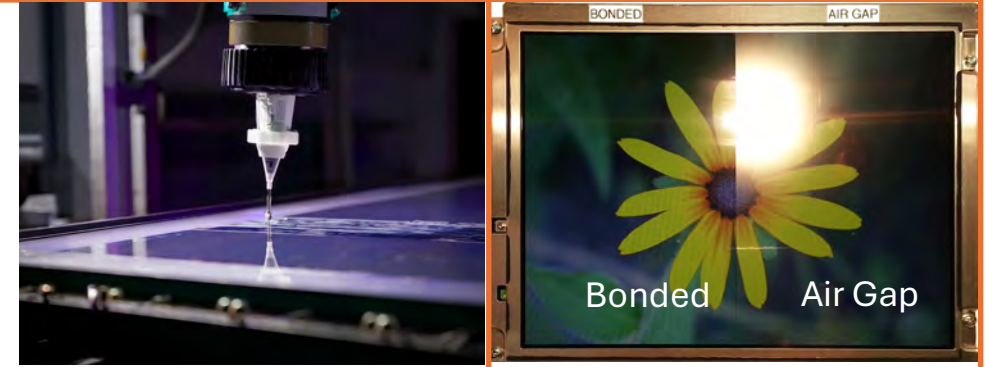


- Anti-Glare
- Anti-Reflection
- Anti-Fingerprint
- Etched-Haze

- Drilled Holes
- 8H Hardened Glass

Bonding

- Optical Bonding
- UHB-Adhesive Tape



Single Board Computers

Embedded Motherboard series offers a wide range of popular form factors. This includes 3.5" single board computers, Pico-ITX, Thin Mini-ITX, Mini-ITX, Micro ATX, ATX, and ARM-based embedded boards, designed to meet diverse industrial and embedded computing needs.



- CPU: ROCKCHIP, NXP, INTEL
- Outputs: HDMI, LVDS, MIPI, eDP, MINI DP, VGA
- COM PORTS: USB, SATA, COM, LAN

Thank you

HOLLAND INTERFACE SOLUTIONS

A HOLLAND 1916 COMPANY

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