Product Data and Specifications

VISIONPRO

January 8, 2014

49-1201-00

Specialty Touch Monitor

49-1201-00

PRODUCT DATA AND SPECIFICATIONS

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REVISION RECORD

January 8, 2014	Initial release

GENERAL SPECIFICATIONS

This product is a 1/2 VGA (640 by 240 resolution & 8 by 3 aspect ratio) color display with a LVDS Video and serial 5 wire touch serial interface.

Part Number	***49-1201-00***
Module Dimensions	8.04(W) in x 2.76(H) in x 1.06(D) in
Screen active area	5.83W in x 2.12(H) in
Dot pitch	$3.05X10^{-3}$ (W) in x 3(R,G,B)(W) x $8.82X10^{-3}$(H) in
Resolution	640 x 3(RGB)(W) x 240(H) dots
LCD type	TFT (R,G,B) vertical stripe active matrix
Backlight	21 each 40K hour[1] LEDs
Video Interface	6bit LVDS
Power supply	
Display Driver (V_{DD})	5V
Backlight Driver (V_{BL})	12V
Power consumption	
Display Driver (P_{DD})	1.15W
Backlight Driver (P_{BL})	1.01W
Brightness	320cd/m^2
Weight	245g
Touch Technology	5 wire Resistive /AG/ 3H hardness

RECOMMENDED OPERATING CONDITIONS

Parameter	Min	Nom	Max
$V_{in(DD)}$ (V)	4.8	5.0	5.2
$V_{in(BL)}$ (V)	11.5	12.0	12.5
$I_{in(DD)}$ (mA)	–	205	250
$I_{in(BL)}$ (mA)	–	84	95

1 The LED component lifetime at rated current and operating at 25oC

ABSOLUTE MAXIMUM RATINGS

Parameter	Min	Max
$V_{in(DD)}$ (V)	-0.3	+5.5
$V_{in(BL)}$ (V)	-0.3	15
$V_{in(Logic\ \&\ LVDS)}$ (V)	-0.3	3.6
$V_{in(LVDS\ touch\ clock)}$ (V)	-0.3	$V_{in(DD)}$ +0.3
Power Dissipation (W)	-	2.39
Storage Temperature °C	-30	+80
Operating Temperature °C	-20	+70
Relative Humidity	20%	85% (NC)
Touch Force[2] (N) LEDs	-	0.78

DISPLAY CHARACTERISTICS

Chromaticity	Y	x	y
Red	-	0.62	.34
Green	-	0.35	0.60
Blue	-	0.14	0.09
White	320	0.29	0.31

2 Finger activation or Radius 0.003-0.3 inches polyacetal or silicon rubber stylus.

INTERFACE (I/O)

Part Number	Mating Connector	Manufacturer
3-1634224-2	1658608-2	TE Connectivity

Pin 1	IN0-	Pixel Data		**Pin 14**	IN0+	Pixel Data
Pin 2	IN1-	Pixel Data		**Pin 15**	IN1+	Pixel Data
Pin 3	IN2-	Pixel Data		**Pin 16**	IN2+	Pixel Data
Pin 4	CLK IN-	Pixel Clock		**Pin 17**	CLK IN+	Pixel Clock
Pin 5	$V_{in(DD)}$	Display Power		**Pin 18**	$V_{in(DD)}$	Display Power
Pin 6	INB+	Touch DCLK TxD+/RxD+		**Pin 19**	INA-	Touch DCLK TxD-/RxD-
Pin 7	VSS	Display Ground				
Pin 8	VSS	Display Ground		**Pin 20**	D in	Touch serial data in
Pin 9	VSS	Display Ground		**Pin 21**	D out	Touch serial data out
Pin 10	VSS	Display Ground		**Pin 22**	CS	Touch Chip Select
Pin 11	VSS	Display Ground		**Pin 23**	PENIRQ	Touch Pen Interrupt
Pin 12	VSS	Display Ground		**Pin 24**	NC	No Connection
Pin 13	$V_{in(BL)}$	Back Light Power		**Pin 25**	$V_{in(BL)}$	Back Light Power

TOUCH INTERFACE[3]

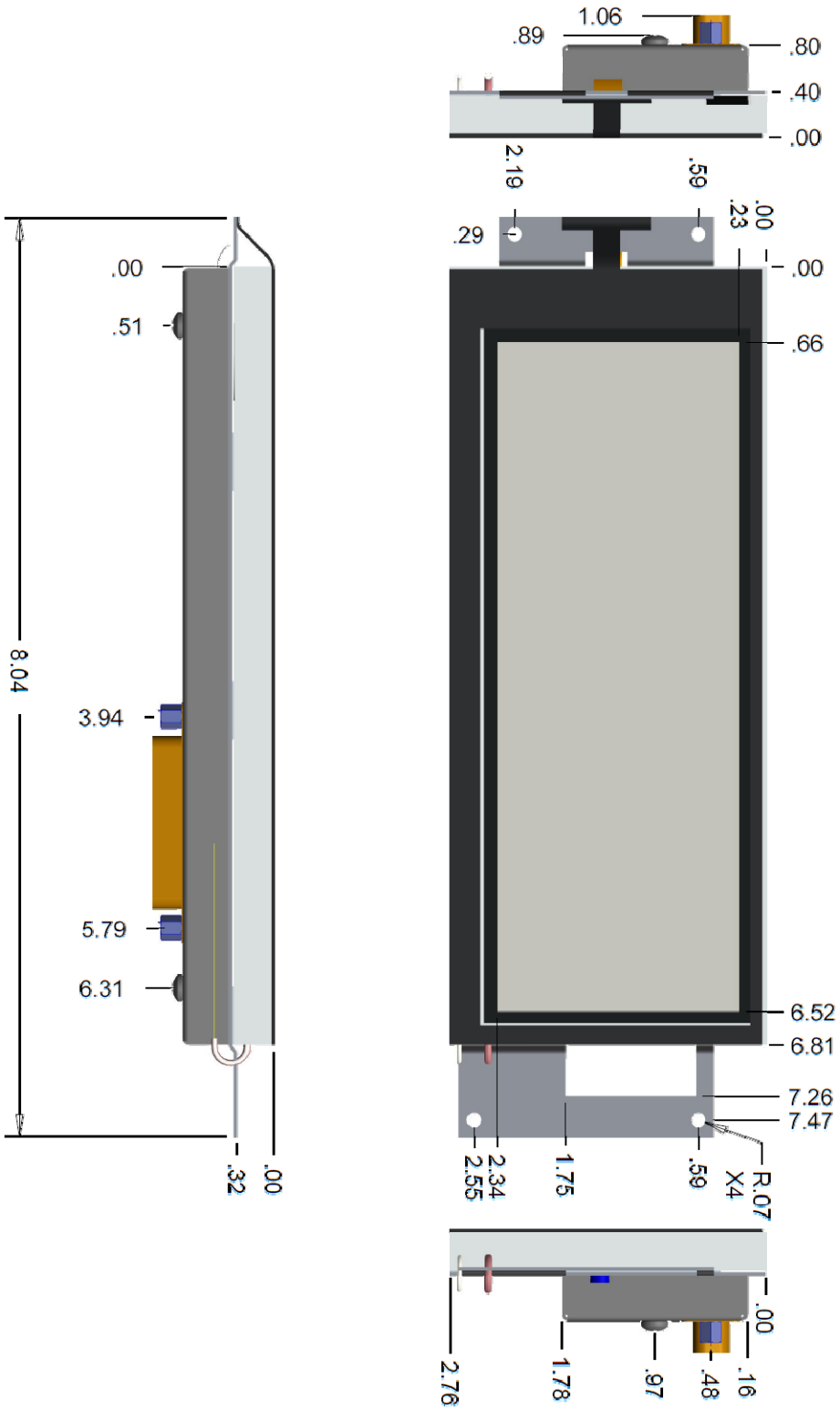
Serial Communication protocol supported	10Khz clock

BACKLIGHT INTERFACE[4]

DC Supply only	No dimming capabilities available

3 Burr-Brown ADS7845 5 wire touch serial interface DCLK via RS485 transceiver.
4 DC Pass through.

DRAWINGS[5]



5 All dimensions are in inches +/- 0.005 (Not to scale).

PRECAUTIONS AND WARNINGS

Stresses above those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions above those indicated in the operational section of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability. Absolute maximum ratings apply individually only, not in combination.

ESD: This device is sensitive to electro-static discharge. Proper handing and anti-static precautions should be implemented before opening the delivery package.

Storage: Store away from light and maintain -30°C to 80°C at 55%-75% humidity when storing for extended periods or product degradation may occur.

When mounting this display, proper cushioning is required to prevent damage to the touch screen and for avoiding excessive shock to the delicate internal parts. Use only mounting hardware without damaging features such as "star washers" or adhesives which could damage or degrade the product.

Touch interface and Handling

The bezel or housing should be at least 2mm from the active area of the touch panel. When there is a cosmetic concern for hiding the panel, an over-hanging lip is required on the bezel. This should not touch the touch panel active area under any circumstance of operation and particles should not allowed to become lodged underneath and activate the touch panel or touch panel failure will result.

Use only a clean soft cotton cloth and ethanol to clean the display. Do not use any other chemical. Wipe in linear motions, changing the cloth surface with each stroke. Do not let water, saliva, condensation or any other liquids remain on the display as discoloration is likely to occur.

Do not activate, apply to or rub on the touch panel with a tool harder than 3H.

Do not apply any adhesives or tape to the front of the display or touch panel as this will result in delamination if removed.

Impact, vibration and drop has not been rated due to the various configurations and the strong dependence on mounting schemes. Contact an Application Engineer for specific application properties.

Components of this display which may not affect electrical performance are subject to change without notice due to availability.

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