



# PC-TFT-35PA

## Interface Board

### Features

- Used for TFT-LCD Display: 3.5" AND-TFT-35PA
- DC/DC DC/AC Video Decoder All In One
- NTSC/PAL Video input Switch
- Up/Down Display Reverse
- Left/Right Display Reverse
- Single Operation Voltage +12V
- RoHS Compliant

The PC-TFT-35PA interface board is designed to work with the **AND-TFT-35PA** color TFT 3.5" display and together is suitable for security, video games, door phone, video phone, portable TV, and instrument display applications.

### Mechanical Characteristics

Parameter	Specification	Unit
Screen Size	3.5(diagonal)	inch
Display Format	160x234	dot
Active Area	71.6 x 52.7	mm
Dot Pitch	0.149 (W)x0.225 (H)	mm
Pixel Configuration	Delta	—
Weight	58±3	g
Outline Dimension	84(W) x 69(H) x 7(D)	mm
Contrast Ratio:	350:1	ratio
View Angle	(V) +15° C/ -35° C (H) ± 50° C	deg.
Color	Full Color	—
Brightness	250	cd/m <sup>2</sup>

### Absolute Maximum Rating

Parameter	Sym	Min	Max	Unit
Input Voltage	V <sub>in</sub>	+10	+14	V
Video Input Signal	Video in	0.5	2.0	V <sub>p-p</sub>
Digital Input Signal	TTL	+0.3	+5.3	V
Operating Temp.	—	-10	60	°C
Relative Humidity	—	5	90	%RH
Storage Temp	—	-25	80	°C
Relative Humidity	—	0	90	%RH

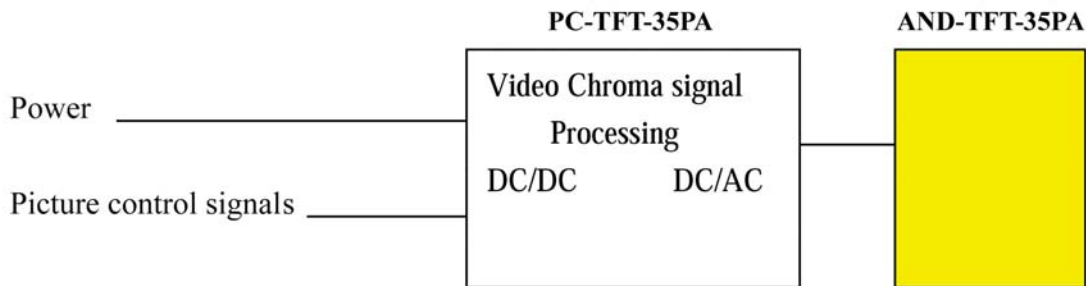
### Electrical Characteristics

Parameter	Symbol	I/O	Min	Typ	Max	Unit	Remark
Input Voltage	V <sub>in</sub>	I	+10	+12	+14	V	
Total Current	I <sub>in</sub>	I	—	TBD	—	mA	
Power Consumption	—	I	—	TBD	—	W	@+12V
Video Input Signal	Video in	I	—	1.0	—	V <sub>p-p</sub>	@75Ω
Output Voltage	+5V	O	—	+5V	—	V	
Brightness Adjust	Bright	I	+1.60	+2.20	+2.50	V	
Contrast Adjust	Contrast	I	+1.60	+1.80	+2.50	V	
Color Adjust	Color	I	+0.60	+1.40	+1.80	V	
Tint Adjust	Tint (NTSC only)	I	+1.40	+1.90	+2.40	V	
Video Auto Detect	NTSC/PAL	I	—	TTL	—	V	
Screen Reverse	Left/Right	I	—	TTL	—	V	
Screen Reverse	Up/Down	I	—	TTL	—	V	

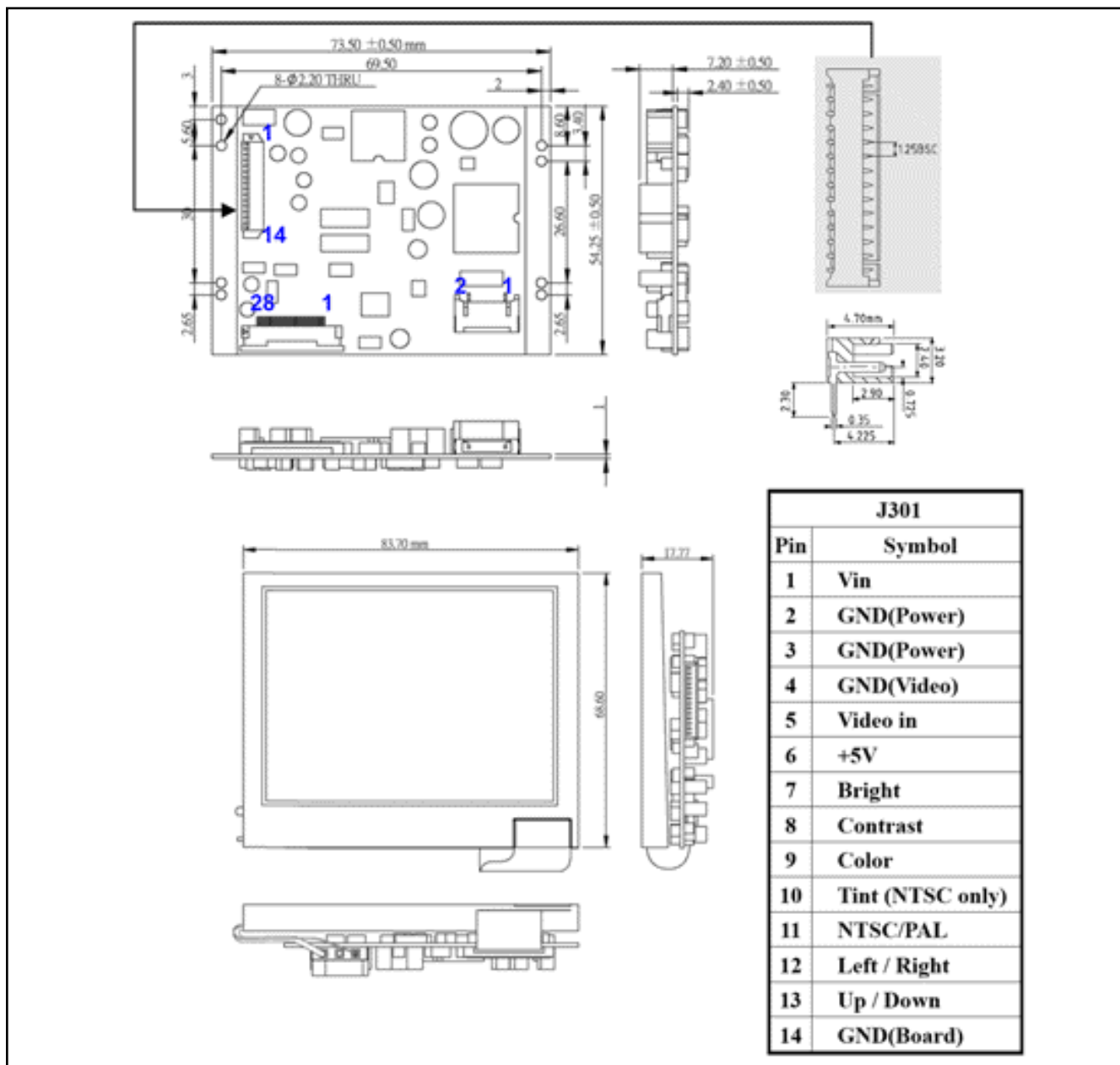
Product specifications contained herein may be changed without prior notice.

It is therefore advisable to contact Purdy Electronics before proceeding with the design of equipment incorporating this product.

## Block Diagram



## Outline Dimensions (General Tolerance $\pm 0.50\text{mm}$ )



**Pin Assignment of Signal Input (pitch 1.25mm, side entry type)**

Pin No	Symbol	I/O	Description	Remark
1	Vin	I	+12V Voltage DC Input	
2	GND	I	Power Ground	
3	GND	I	Power Ground	
4	GND	I	Signal Ground	
5	Video in	I	Video Input	
6	+5V	O	+5V Voltage DC Output	Note 1
7	Bright	I	Brightness Control	
8	Contrast	I	Contrast Control	
9	Color	I	Color Control	
10	Tint	I	Tint Control	Note 2
11	NTSC / PAL	O	Auto detect system output	Note 3
12	Left / Right	I	Left / Right Reverse	Note 4
13	Up / Down	I	Up / Down Reverse	Note 4
14	GND	I	Power Ground	

Note1 : The +5V power supply external control circuit. (Max. output is 5mA)

Note2 : The TINT is only operating in NTSC system.

Note3 : The output High level for NTSC mode and Low level for PAL mode.

Note4 : Default is reversed scanning(High) and Low is for normal scanning.  
Please do force this pin to ground for normal scan.

**Output For LCD Panel Backlight**

Pin No	Symbol	I/O	Description	Remark
1	HV+	O	High Voltage Terminal for Backlight	Connect to Pink Wire
2	HV-	-	Return Terminal for Backlight	Connect to White Wire

**Panel Backlight Data**

Parameter	Symbol	Min	Typ	Max	Unit	Remark
Lamp Voltage	VL	-	265	-	Vrms	IL = 3mA
Lamp Current	IL	-	3	-	mAmps	
Brightness	-	200	250	-	cd/m <sup>2</sup>	

**Inverter Data (Ta=25°C @+12V)**

Parameter	Symbol	Min	Typ	Max	Unit	Remark
Lamp Voltage	VL	-	TBD	-	Vrms	IL = mA
Lamp Current	IL	-	TBD	-	mAmps	