



## 1. General Description

### 1-1. Introduction

The F2280 is highly integrated TFT flat panel interface board that allows connect analog, 15 pin RGB source with TFT panels. From a single 12 V power supply, the F2280 generates all the voltages required by a TFT panel and includes the power sequencing features. The F2280 is capable of displaying FHD and lower resolutions with 16,777,216 colors based on its red, green, and blue analog video input. Synchronization signals of applicable resolution modes can be detected automatically.

### 1-2. Electrical Characteristics

#### Features

- Zoom and shrink scaling (all resolution from VGA to FHD)
- Integrated 8-bit triple-channel ADC/PLL

#### Analog RGB Input port

- Support up to FHD
- Support for Sync-on-Green (SOG)

#### Auto Detection/Auto calibration

- Input format detection
- Compatibility with standard VESA mode and support user-defined mode
- Smart engine for Phase/Image position/Color calibration

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Scaling

- Fully programmable zoom ratios
- Independent Horizontal/Vertical scaling
- Sharpness/Smooth filter enhancement
- Support non-linear scaling from 4:3 to 16:9 or 16:9 to 4:3

Output Format

- Support for 8 or 6-bit panels
- One or two pixel output format

Other Option:Audio (2W) x 2

**1-3. Power consumption**

Panel : G150XTN03

Inverter : LED

Resolution : 1024X 768@60Hz

Condition	Audio minimum	Audio maximum
A/D Board only	2.4W	
A/D Board + Panel 3	13W	17W
Power saving	0.4W	



## 2. Operating Environment

- Operating Temperature : -20°C ~ +70°C
- Storage Temperature : -30°C ~ +75°C
- Humidity Max : 80 %

## 3. Applicable Timing

Resolution	Refresh Rate	Horizontal Frequency	Pixel Frequency	Standard Type	Remarks
640 x 400	70 Hz	31.46 KHz		VESA Standard	
720 x 400	70 Hz	31.46 KHz		VESA Standard	
640 x 480	60Hz	31.50 KHz	25.175 MHz	Industrial Standard	
	72Hz	37.90 KHz	31.500 MHz	VESA Standard	
	75Hz	37.50 KHz	31.500 MHz	VESA Standard	
800 x 600	60Hz	37.9 KHz	40.000 MHz	VESA Standard	
	72Hz	48.10 KHz	50.000 MHz	VESA Standard	
	75Hz	46.90 KHz	49.500 MHz	VESA Standard	
1024 x 768	60Hz	48.40 KHz	65.000 MHz	VESA Standard	
	70 Hz	56.5 KHz	75.000 MHz	VESA Standard	
	75Hz	60.00 KHz	78.750 MHz	VESA Standard	

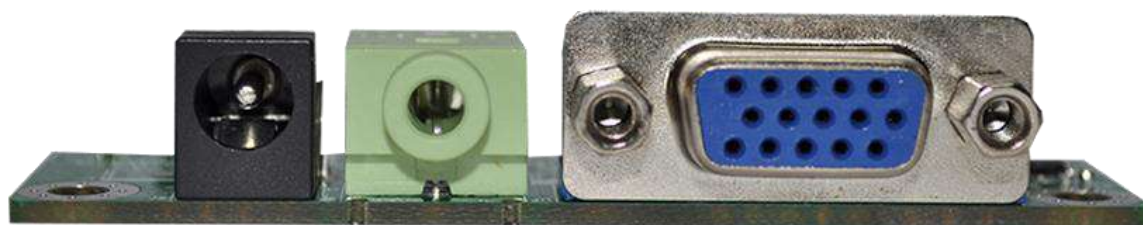
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Resolution	Refresh Rate	Horizontal Frequency	Pixel Frequency	Standard Type	Remarks
1280 x 1024	60Hz	64.00 KHz	108.000 MHz		
	75Hz	80.00 KHz	135.000 MHz		
1360 x 768	60Hz	47.70 KHz	85.500 MHz		
1440 x 900	60Hz	59.9 KHz	106.500 MHz		
	75Hz	75.0 KHz	136.750 MHz		
1600 x 1200	60Hz	75.0 KHz	162.000 MHz		
	75Hz	93.8 KHz	202.500 MHz		
1680 x 1050	60Hz	64.7 KHz	119.000 MHz		
	75Hz	74.9 KHz	187.000 MHz		
1920 x 1080	60Hz	59.9 KHz	106.500 MHz		

## 4. Mechanical Drawing

### 4-1. Connector Descriptions



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**4-2. Mechanical Drawing**

