



**HIGHNESS**<sup>TM</sup>

*One of a kind*

12.1" Industrial Grade Panel Mount Display

**PM121XG001-HB**



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**HIGHNESS MICROELECTRONICS PVT. LTD.**

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# 1. Technical Specification

|                       |   |   |
|-----------------------|---|---|
| Screen Size           | 12.1" diagonal                                    |   |
| Active Area (H x V)   | 245.76 x 184.32 mm                                |   |
| Resolution            | 1024 x 768  |   |
| Aspect Ratio          | 4:3   |   |
| Pixel Pitch (H x V)   | 0.24 x 0.24 mm                                    |   |
| Color                 | 16.2M   |   |
| Viewing Angle         | 80°/80°/80°/80°                                   |   |
| Luminance             | 500 cd/m <sup>2</sup> (Standard Model)            |   |
|                       | 500~900 cd/m <sup>2</sup> (High Brightness Model) |   |
| Contrast              | 700:1   |   |
| Response Time         | 55ms  |   |
| Operating Temperature | -20° to +70° C                                    |   |
| Storage Temperature   | -20° to +70° C                                    |   |
| Input Interface       | Options   | HDMI                                      |
|                       |   | HDMI, DVI & VGA                           |
|                       |   | DVI, HDMI, S-Video, Composite Video & VGA |
| Power Input           | 12V DC  |   |
| Power Consumption     | 20 Watt   |   |
| Backlight Type        | LED   |   |
| Backlight Life        | 50,000 hours                                      |   |
| Enclosure             | Mild Steel / Aluminum                             |   |
| Mounting              | Front Mounting                                    |   |
|                       | Back Mounting, VESA mount (Optional)              |   |

## 2. Touch Screens (Optional)

### 2.1 Projected Capacitive Touchscreen

|                   |                                   |
|-------------------|-----------------------------------|
| Touch Screen Type | Projected Capacitive              |
| Interface         | USB / I2C / UART                  |
| Input Method      | Finger                            |
| Transparency      | $\geq 80\%$ ( $\pm 3\%$ )         |
| Haze              | $< 3\%$                           |
| Surface Type      | Antiglare                         |
| Operating Force   | 10-80 g                           |
| Durability        | 3,000,000 Touch at a Single Point |
| Hardness          | $> 3H$                            |
| Capacitance       | $< 5\text{ Nf}$                   |
| Supported OS      | Windows, Linux & Android          |

### 2.2 Resistive Analog Touchscreen

|                   |                                   |
|-------------------|-----------------------------------|
| Touch Screen Type | 4/5 Wire Resistive                |
| Interface         | USB                               |
| Input Method      | Stylus or Finger                  |
| Transparency      | $\geq 85\%$ ( $\pm 3\%$ )         |
| Haze              | $< 3\%$                           |
| Surface Type      | Antiglare                         |
| Operating Force   | 70-100 g                          |
| Durability        | 1,000,000 Touch at a Single Point |
| Hardness          | $> 3H$                            |
| Supported OS      | Windows & Linux                   |

### 3. Enhancement Solutions (Optional)

#### 3.1. Anti-Reflective / Anti-Glare / Anti-Finger-Print Coating

| Particulars      | Details |
|------------------|---------|
| Reflection       | 0.57%   |
| Transparency     | 92%     |
| Haze             | 15%     |
| Surface Hardness | 3H      |

#### 3.2. Surface Hardness Coating

| Particulars      | Details      |
|------------------|--------------|
| Hardness         | Upto 9H      |
| Transparency     | 91.3%        |
| Haze             | 0.2%         |
| Water Resistance | 60°C, 90% RH |
| Heat Resistance  | 140°C        |

#### 3.3. Optical Bonding

| Particulars   | Details   |
|---------------|---|
| Structure     | Glass + Glass<br>(Soda Lime Glass + TFT-LCD Module or<br>Touch Screen + TFT-LCD Module) |
| Temperature   | -40 to +85°C  |
| Humidity      | 0 to 95% RH   |
| Transparency  | 91%   |
| UV Resistance | UVA 340nm   |

#### 3.4. EMI-MESH

| Item   | Value                  |    |
|--|------------------------|----|
| Mesh Composition Base Material/ (Plated Deposit) | Copper                 |    |
| Openings/ inch                                   | 82                     |    |
| Wire Diameter                                    | 8µm                    |    |
| Surface Resistance                               | < 0.15Ω/m <sup>2</sup> |    |
| H Field 1MHz                                     | 89                     |    |
| E 10 MHz   | 90                     |    |
| Plane Wave                                       | 100 MHz                | 84 |
|  | 400 MHz                | 77 |
|  | 1 GHz                  | 62 |
|  | 10 GHz                 | 42 |

## Model Numbers / Ordering Information

| Model No.                   | Particulars     | Details   |
|-----------------------------|-----------------|---|
| PM121XG001-HB               | Brightness      | High Brightness   |
| PM121XG001-HB-A             | Input Interface | HDMI  |
| PM121XG001-HB-B             |                 | HDMI, DVI & VGA Input                                       |
| PM121XG001-HB-C             |                 | DVI, HDMI, S-Video, Composite Video & VGA                   |
| PM121XG001-HB-y-PT          | Touch Screens   | Projected Capacitive  |
| PM121XG001-HB-y-RT          |                 | 4 Wire Resistive Analog                                     |
| PM121XG001-HB-y-5RT         |                 | 5 Wire Resistive Analog                                     |
| PM121XG001-HB-y-zz-AG/AR/AF | Enhancements    | Anti-Reflective / Anti-Glare /<br>Anti-Finger-Print Coating |
| PM121XG001-HB-y-zz-HF       |                 | Surface Hardness Coating                                    |
| PM121XG001-HB-y-zz-OB       |                 | Optical Bonding   |
| PM121XG001-HB-y-zz-##-E     |                 | EMI-MESH  |

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(Manufacturer reserves the sole right to change the specifications without prior notice)  
 (Touch screen will reduce the original luminance of the LCD display)