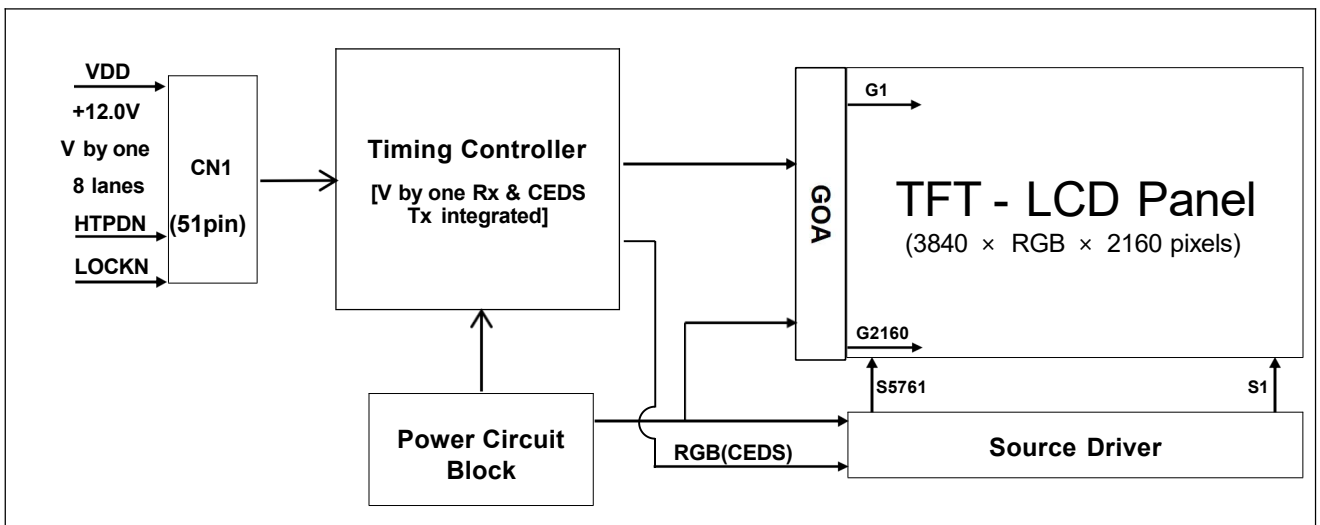


1.0 GENERAL DESCRIPTION

1.1 Introduction

DV430QUB-P10 is a color active matrix TFT LCD open cell using amorphous silicon TFT's (Thin Film Transistors) as an active switching device. This module has a 43 inch diagonally measured active area with UHD resolutions (3840 horizontal by 2160 vertical pixel array). Each pixel is divided into RED, GREEN, BLUE dots which are arranged in island and this module can display 1.07G colors. The TFT-LCD panel used for this module is adapted for a low reflection and higher color type.



1.2 Features

- V by one interface with 8 lanes
- High-speed response
- Low color shift image quality
- 8-bit + FRC color depth, display 1.07G colors
- High luminance and contrast ratio, low reflection and wide viewing angle
- DE (Data Enable) only mode
- ADS technology is applied for high display quality
- RoHS compliant
- Both landscape and portrait usage support
- 7*24 Hrs Continuous Operation

| | | | |
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1.0 GENERAL DESCRIPTION

1.3 Application

- Home Alone Multimedia TFT-LCD TV
- Display Terminals for Control System
- Ultra High Definition TV(UHD TV)
- AV application Products

1.4 General Specification

< Table 1. General Specifications >

| Parameter | Specification | Unit | Remark |
|-------------------------|---|--------|------------------------------|
| Active area | 941.184(H) × 529.416 (V) | mm | |
| Number of pixels | 3840*(RGB)*2160 | pixels | |
| Pixel pitch | 245.1(H) ×245.1 (V) | μm | |
| Pixel arrangement | Pixels RGB Island | | |
| Display colors | 1.07G (8bits + FRC) | colors | |
| Display mode | Transmission mode, Normally Black | | |
| Open Cell Transmittance | 4.1 | % | At center point with BOE BLU |
| Weight | 1.58 | Kg | |
| Power Consumption | 9.6(Typ.) | Watt | With TCON Board |
| Surface Treatment | Haze 1%, 3H, Semi-glare or Anti-glare treatment (Front Polarizer) Clear (Bottom Polarizer) | | |

| | | |
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2.0 ABSOLUTE MAXIMUM RATINGS

The followings are maximum values which, if exceed, may cause faulty operation or damage to the unit. The operational and non-operational maximum voltage and current values are listed in Table 2.

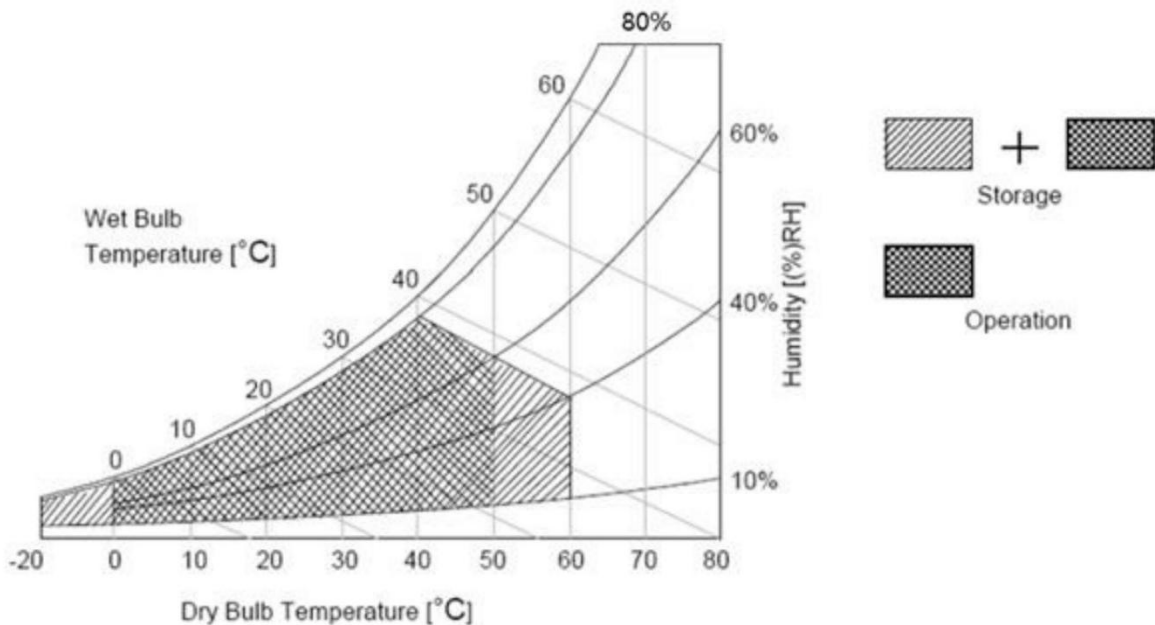
< Table 2. Open Cell Absolute Maximum Ratings >

[VSS=GND=0V]

| Parameter | Symbol | Min. | Max. | Unit | Remark |
|----------------------------|------------------|---------|------|------|------------|
| Power Supply Voltage | VDD | VSS-0.3 | 13.2 | V | Ta = 25 °C |
| Operating Temperature | T _{OP} | 0 | +50 | °C | Note 1 |
| Storage Temperature | T _{SUR} | -20 | +60 | °C | |
| | T _{ST} | -20 | +60 | °C | |
| Operating Ambient Humidity | Hop | 10 | 80 | %RH | |
| Storage Humidity | Hst | 10 | 80 | %RH | |

Note 1 : Temperature and relative humidity range are shown in the figure below.

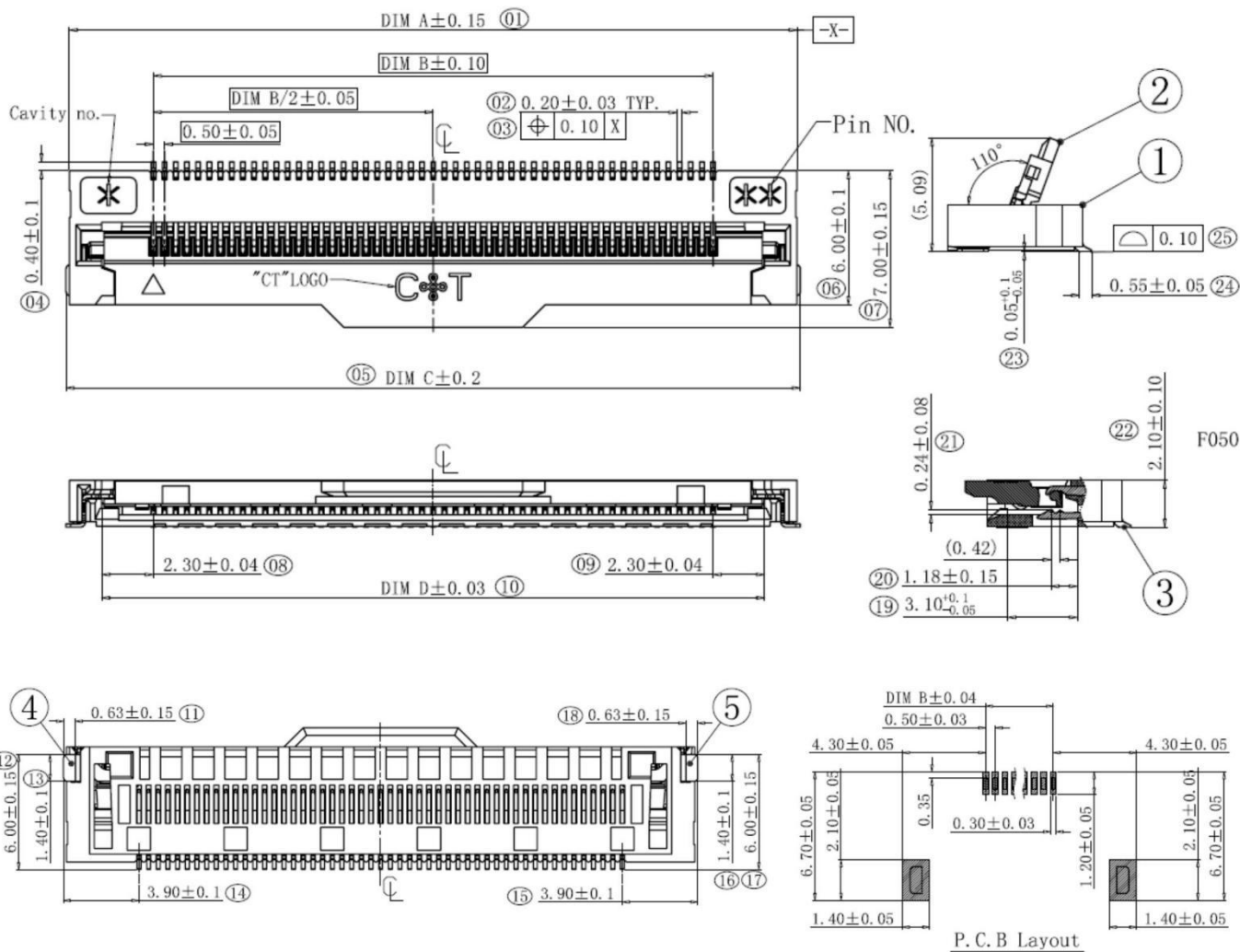
Note 2 : Wet bulb temperature should be 39 °C max. and no condensation of water.



3.0 INTERFACE CONNECTION

3.1 TCON Board Input CNT & FFC Drawing

-51pin Connector Drawing-F05035-51P-H (Changtong)



| PIN NO. | DIM A | DIM B | DIM C | DIM D |
|---------|-------|-------|-------|-------|
| 30 | 22.00 | 14.50 | 22.30 | 19.10 |
| 41 | 27.50 | 20.00 | 27.80 | 24.60 |
| 51 | 32.50 | 25.00 | 32.80 | 29.60 |

| | | | |
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4.0 MECHANICAL CHARACTERISTICS

4.1 Dimensional Requirements

Figure 3(located in Appendix) shows mechanical outlines for the model DV430QUB-H20. Other parameters are shown in Table 3.

< Table 3. Dimensional Parameters >

| Parameter | Specification | Unit |
|------------------|---|--------|
| Active area | 941.184(H) × 529.416 (V) | mm |
| Pixel pitch | 245.1(H) × 245.1 (V) | μm |
| Number of pixels | 3840(H) × 2160(V) (TFT pixel) 3840(H) × 2160(V) (1 CF pixel= R + G + B dots) | pixels |

| | | | |
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5.0 APPENDIX

5.1 Backlight test report

43 寸组装测试报告

| | | | | | | | |
|-------|-------------------------|---|------|---------------------|----------|----------|----------|
| 机种 | | 430/ELED | 测试仪器 | 多路测温仪 CA210 BM-7 尺规 | | | |
| 玻璃型号 | | DV430QUB-P10 | | | | | |
| 分类 | 项目 | 测试内容 | 测试结果 | | 判定结果 | 备注 | |
| 物理特性 | 外观尺寸 | 与结构件图纸相符 | OK | | OK | | |
| | 屏外观 | 外观良好 | OK | | OK | | |
| | | 结构件有无锈蚀 | 无 | | OK | | |
| | | 结构件有无划伤 | 无 | | OK | | |
| | | 表面颜色均匀一致 | OK | | OK | | |
| | | 玻璃有无坏线 | 无 | | OK | | |
| | | 显示区域有无坏点，无斑 | 无 | | OK | | |
| | | 背光有无异物 | 无 | | OK | | |
| 电器性能 | 屏中心高度 cd/m2 | 400 | | OK | | | |
| | 背光功率 | 720mA/69-72V | | 64-72W | OK | | |
| | 屏高度分布 |  | 384 | 396 | 389 | OK | 9点测试法 |
| | | | 393 | 400 | 392 | | |
| | | | 383 | 392 | 275 | | |
| | 屏分辨率 | 3840x2160 | | OK | 详参考玻璃规格书 | | |
| | 比例模式 | 16:09 | | OK | 详参考玻璃规格书 | | |
| | 对比度 | 1200:1 (Typ.) (透射) | | OK | 详参考玻璃规格书 | | |
| | 屏老化时间 | 连续通电老化 24 小时 | | 无故障 | | OK | 详参考玻璃规格书 |
| 可视角度 | 89/89/89 (Typ.) (CR≥10) | | | | | 详参考玻璃规格书 | |
| 工作温度: | 0 ~ 50 °C | | | | OK | | |

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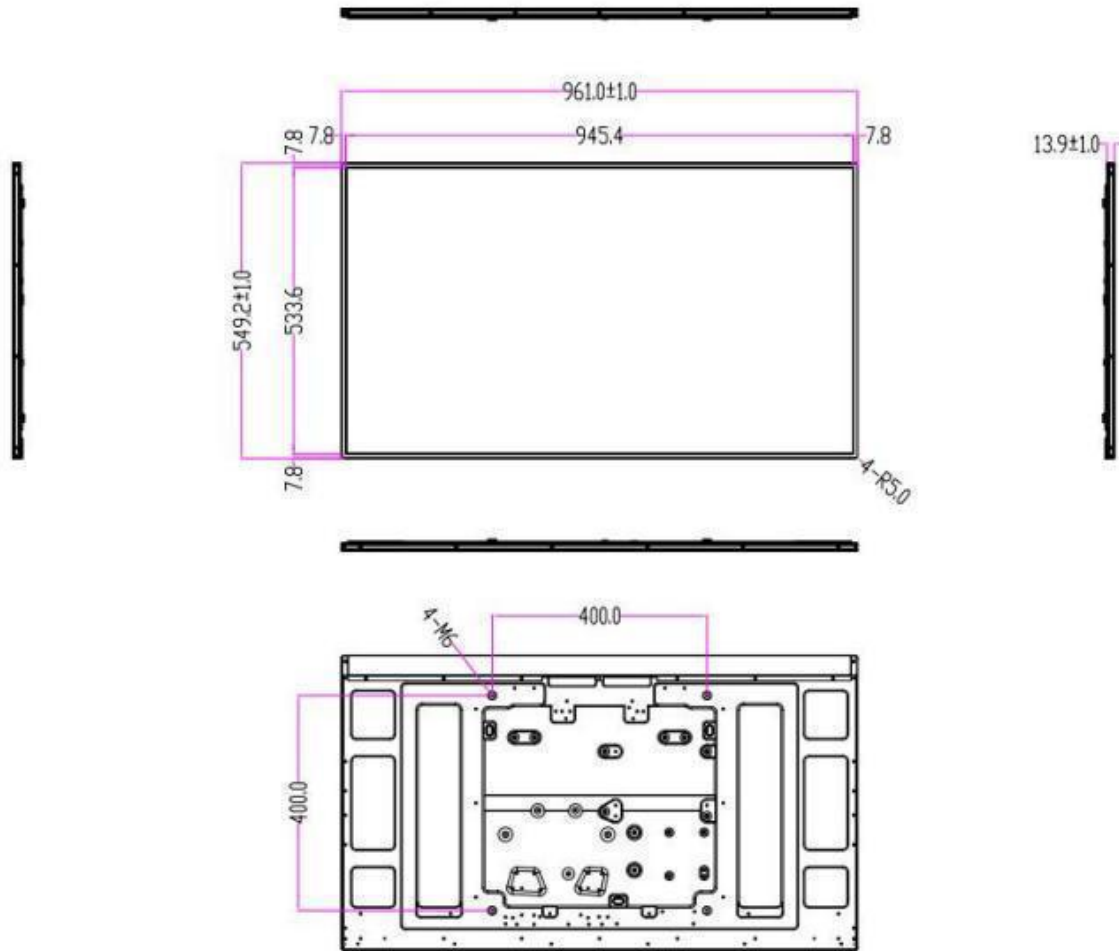
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5.0 APPENDIX

5.2 Outline dimension



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