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LED MODULE

INDOOR 32X16 P6mm.



| ITEM | DESIGNED | INSPECTOR | APPROVED |
|-----------|----------------|--------------|--------------------|
| SIGNATURE | <i>A. Ward</i> | <i>Z. C.</i> | <i>[Signature]</i> |
| DATE | 2008/12/23 | 2008/12/23 | 2008/12/23 |

1.LED MODULE NAME : INDOOR 32X16 P6mm.

2.FEATURES

| ITEM | | DESCRIPTION |
|---------------|----------------|------------------------------|
| DISPLAY COLOR | | Full Color(Red+Green+Blue) |
| WEIGHT | | 60(g) |
| DRIVE MODE | | 1/8 DUTY DRIVE |
| APPLICATION | | INDOOR |
| STRUCTURE | SIZE(WxHxD) | 192x96x32(mm) |
| | DOT PITCH | 6(mm) |
| | NUMBER OF DOTS | 512(32x16)DOTs |
| | LED PER DOT | 3in1(Red+Green+Blue) LED SMD |

3.ABSOLUTE MAXIMUM RATINGS


| ITEM | SYMBOL | VALUE | UNIT | REMARK |
|----------------------------|------------------|---------------------|------|--------|
| OPERATING TEMPERATURE | T_{op} | -40 ~ 60 | °C | |
| STORAGE TEMPERATURE | T_{stg} | -40 ~ 80 | °C | |
| SUPPLY VOLTAGE | V_{cc} | 0 ~ +5.5 | V | |
| SIGNAL INPUT VOLTAGE LEVEL | V_{iH}, V_{iL} | -0.4 ~ $V_{cc}+0.4$ | V | |

4.RECOMMENDED OPERATING CONDITIONS

| ITEM | | SYMBOL | MIN. | TYP. | MAX. | UNIT | REMARK |
|----------------------------|---------------------|----------|---------------------|------|---------------------|------|--------|
| SUPPLY VOLTAGE | LED & LOGIC CIRCUIT | V_{cc} | 4.75 | 5 | 5.25 | V | |
| SIGNAL INPUT VOLTAGE LEVEL | | V_{iH} | $0.7 \times V_{cc}$ | - | V_{cc} | | |
| | | V_{iL} | 0 | - | $0.3 \times V_{cc}$ | | |
| OPERATING TEMPERATURE | | T_{op} | 0 ~ 45 | | | °C | |

5. ELECTRICAL CHARACTERISTICS (AT $T_a = 25^\circ\text{C}$)

| ITEM | SYMBOL | VALUE | UNIT | REMARK |
|--------------------------------|----------|-------|------|--------|
| CLOCK FREQUENCY | F | 15 | MHz | |
| CURRENT CONSUMPTION PER MODULE | I_{cc} | 3 | A | ALL ON |

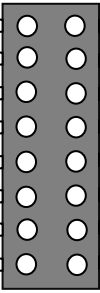
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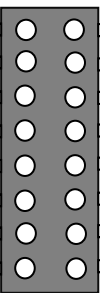
6. OPTICAL CHARACTERISTICS (AT Ta = 25°C)

| ITEM | | SYMBOL | MIN. | TYP. | MAX. | UNIT | REMARK |
|---------------|-------|-------------|------|------|------|----------|----------------|
| BRIGHTNESS | RED | L_v | - | 220 | - | cd/m^2 | |
| | GREEN | | - | 500 | - | | |
| | BLUE | | - | 150 | - | | |
| | WHITE | | - | 870 | - | | |
| WAVELENGTH | RED | λ_p | | 617 | | nm | |
| | GREEN | | | 528 | | | |
| | BLUE | | | 465 | | | |
| VIEWING ANGLE | HOR. | Angle | | 120 | | deg(°) | 50% Brightness |
| | VER. | | | 120 | | | |

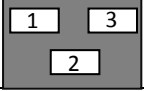
7. SIGNAL FUNCTION

1) DATA SIGNAL CONNECTOR

| Pin Map (IN) | Pin Number | Pin Name | Function Description |
|--|------------|----------|----------------------------|
|  | 1 | A | 3 bit line Address |
| | 2 | B | |
| | 3 | C | |
| | 4 | Green | Data Input Green Color |
| | 5 | Blue | Data Input Blue Color |
| | 6 | Red | Data Input Red Color |
| | 7 | OE | Brightness Control |
| | 8 | Latch | Data Strobe |
| | 9 | Clock | Shift Clock for Input Data |
| | 10-16 | GND | Ground of the Module |


| Pin Map (OUT) | Pin Number | Pin Name | Function Description |
|---|------------|-----------|-----------------------------|
|  | 1 | A_Out | 3 bit line Address_Out |
| | 2 | B_Out | |
| | 3 | C_Out | |
| | 4 | Green_Out | Data Output Green Color |
| | 5 | Blue_Out | Data Output Blue Color |
| | 6 | Red_Out | Data Output Red Color |
| | 7 | OE_Out | Brightness Control |
| | 8 | Latch_Out | Data Strobe |
| | 9 | Clock_Out | Shift Clock for Output Data |
| | 10-16 | GND | Ground of the Module |

2) POWER CONNECTOR

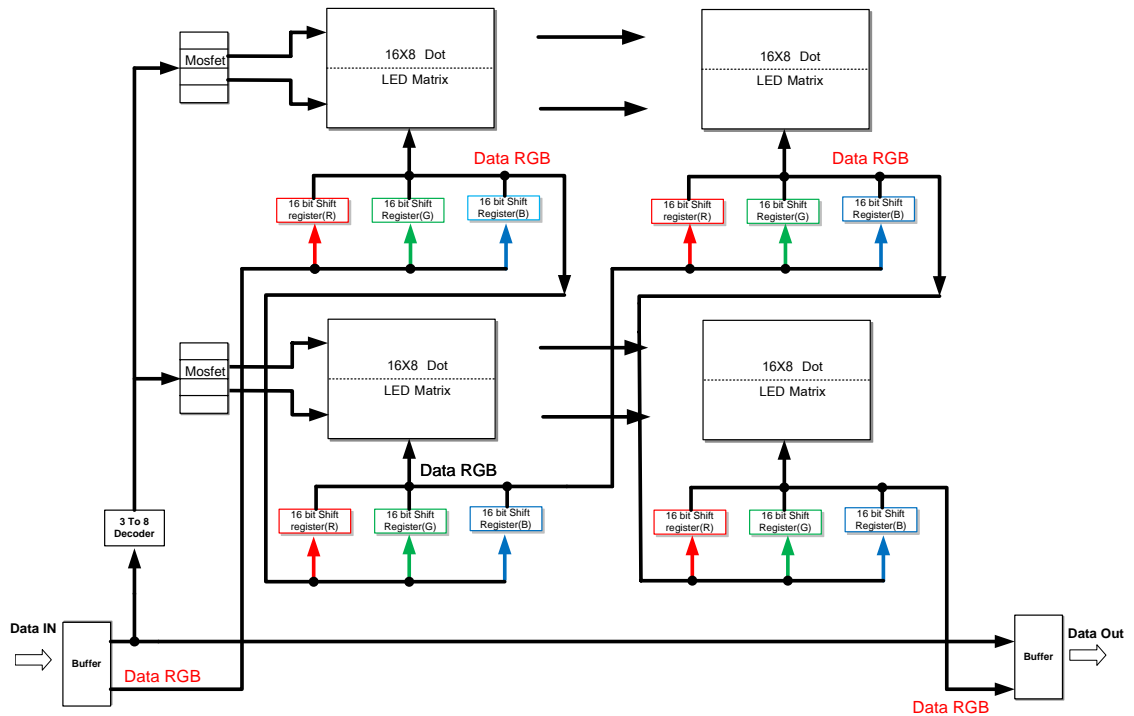
| Pin Map (Power) | Pin Number | Pin Name | Function Description |
|---|------------|----------|----------------------------------|
|  | 1 | VLED | Supply Voltage for LED |
| | 2 | GND | Ground of Module |
| | 3 | VCC | Supply Voltage for logic Circuit |


3) CONNECTOR SPECIFICATION

| ITEM | VENDOR | MODUL NO. | SPECIFICATION | HOUSING MODEL NO. |
|-----------|--------|-----------|----------------|-------------------|
| DATA CON | GTK | SCP14GS11 | 14Pin P2.54mm. | SC14TA11 |
| POWER CON | - | - | CABLE | - |

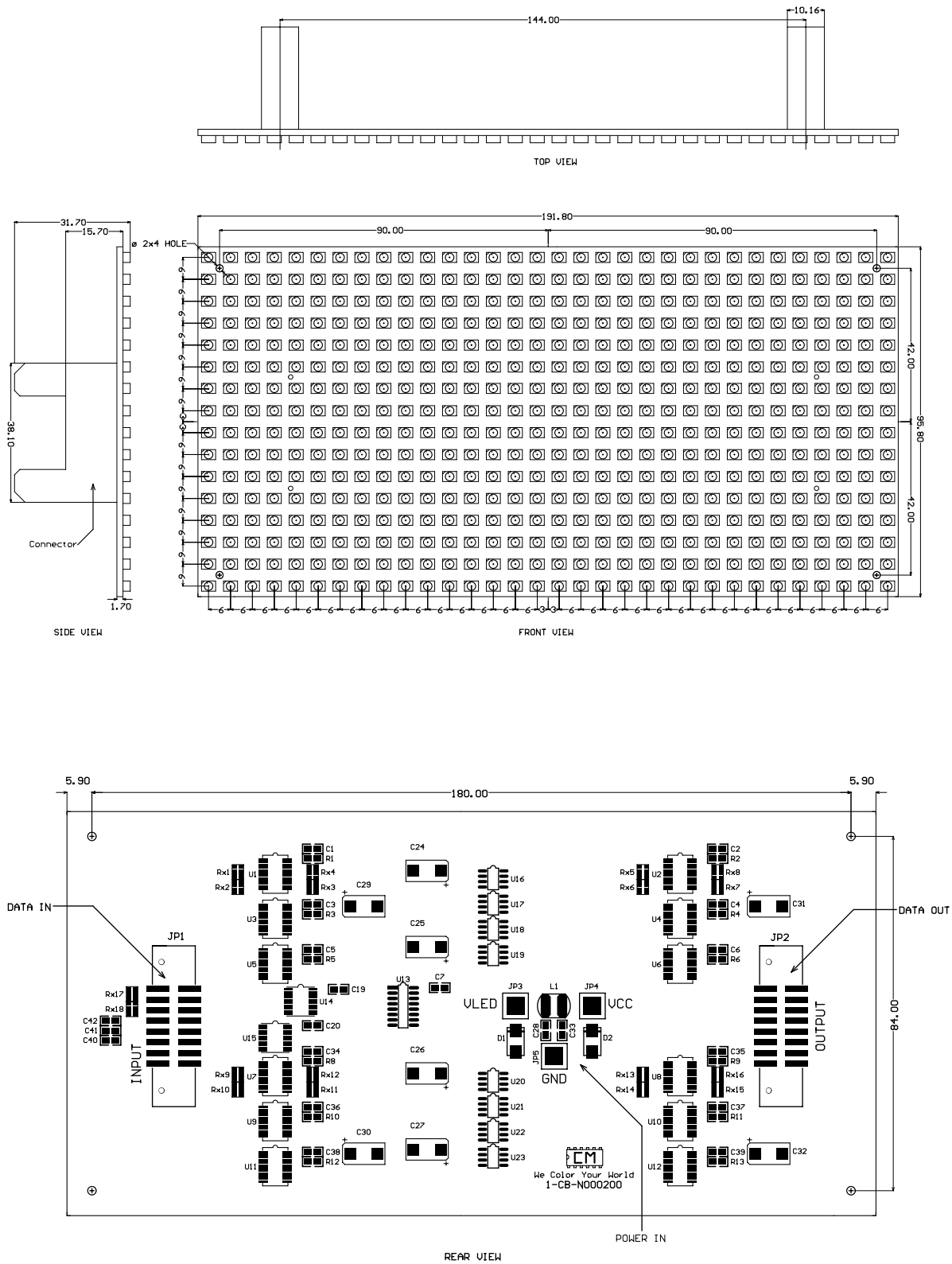
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8. BLOCK DIAGRAM



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9. DIMENSION



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