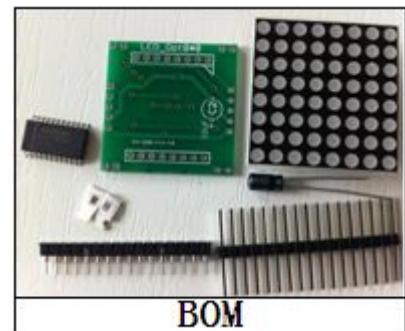
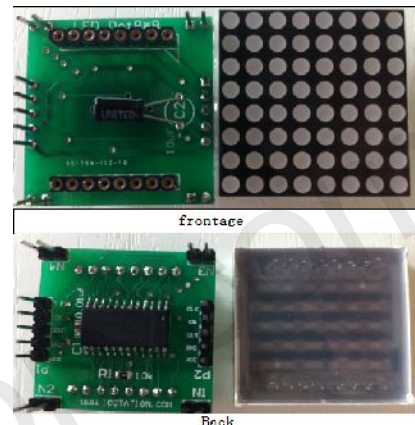


DOT MATRIX MODULE

I. Product Feature:

- 1 Seamless splicing and so that the dot matrix can be flexible spliced .
- 2 Common cathode with bright dot matrix(8*-8), display fresh and brilliant picture.
- 3 A screen roll freely, to achieve the perfect picture display
- 4 Since the master chip is used in Max7219 to make product have the following characteristics :
 - 1).The transmission efficiency of up to 10MHz.
 - 2).Can be individually controlled for each point.
 - 3).Lowest power consumption of 450uA (one module).
 - 4).Power-on reset automatically display full black
 - 5).Serial communication, a great saving of MCU IO, also can be extended To expand the program with SPI.
 - 6).For each screen brightness control, by setting the Max7219 instructions.

II, Application: Education,DIY, Robot,etc.



III. ABSOLUTE MAXIMUM RATINGS

Voltage (with respect to GND)

V+.....-0.3V to 6V

DIN, CLK, LOAD, CS.....-0.3V to 6V

Current

DIG0–DIG7 Sink Curr..... 500mA

SEGA–G, DP Source Current 100mA

Continuous Power Dissipation (TA = +85 °C)

Narrow Plastic DIP.....0.87W

Wide SO 0.76W

Narrow Cerdip.....1.1W

Operating Temperature Ranges(Max7219)

MAX7219..... 0°C to +70 °C

Storage Temperature Range-65 °C to +160°C

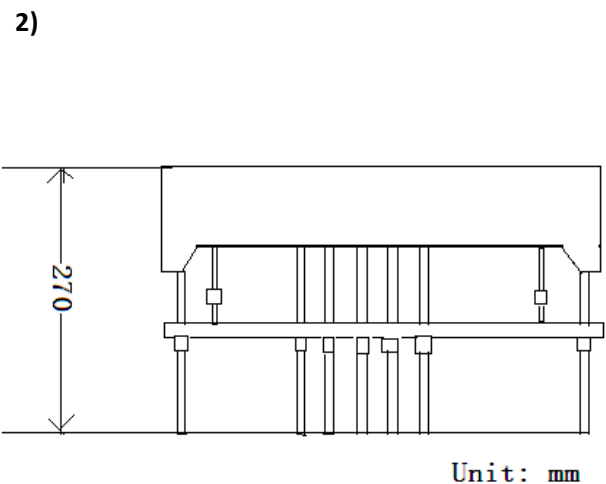
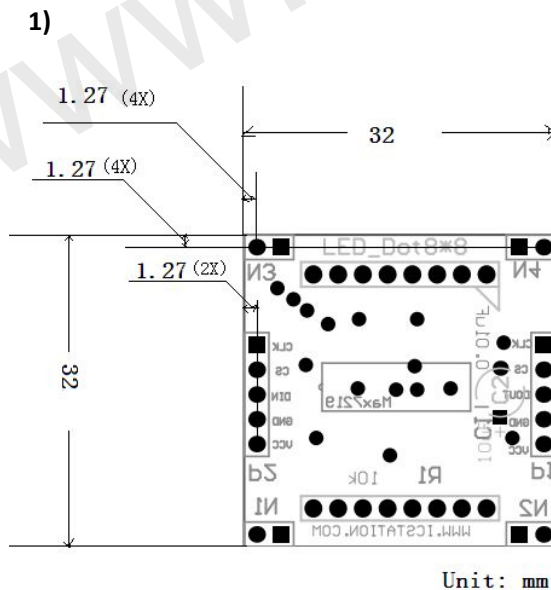
Lead Temperature (soldering, 10sec)+300°C

IV. PIN Define

Pin	Function
CLK	Serial-Clock Input. 10MHz maximum rate.
CS	Chip-Select Input. Serial data is loaded into the shift register while CS is low.
DIN	Serial-Data Input. Data is loaded into the internal 16-bit shift register on CLK's rising edge
DOUT	Serial-Data Output. The data into DIN is valid at DOUT 16.5 clock cycles later.
VCC	Positive Supply Voltage. Connect to +5V.
GND	Ground

Note: More information See: [reference\MAX7219datasheet.pdf](#)

V. Physical Diagram (Normally)



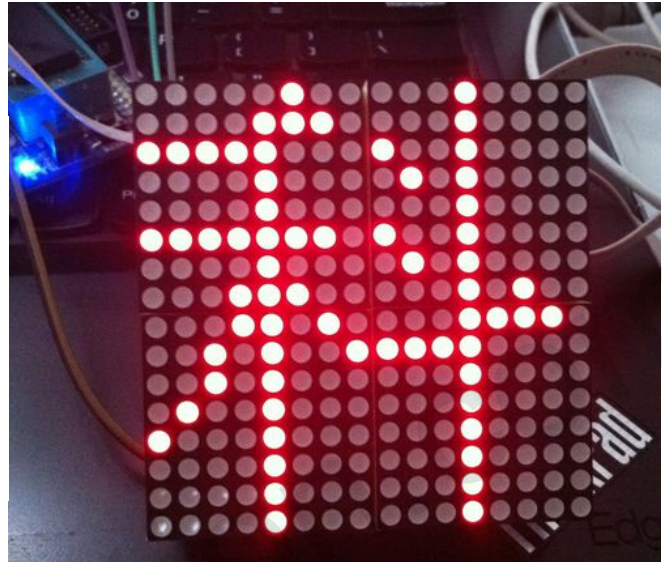
- 3) To Install, Remember these two places must be same side otherwise the function cannot be achieved



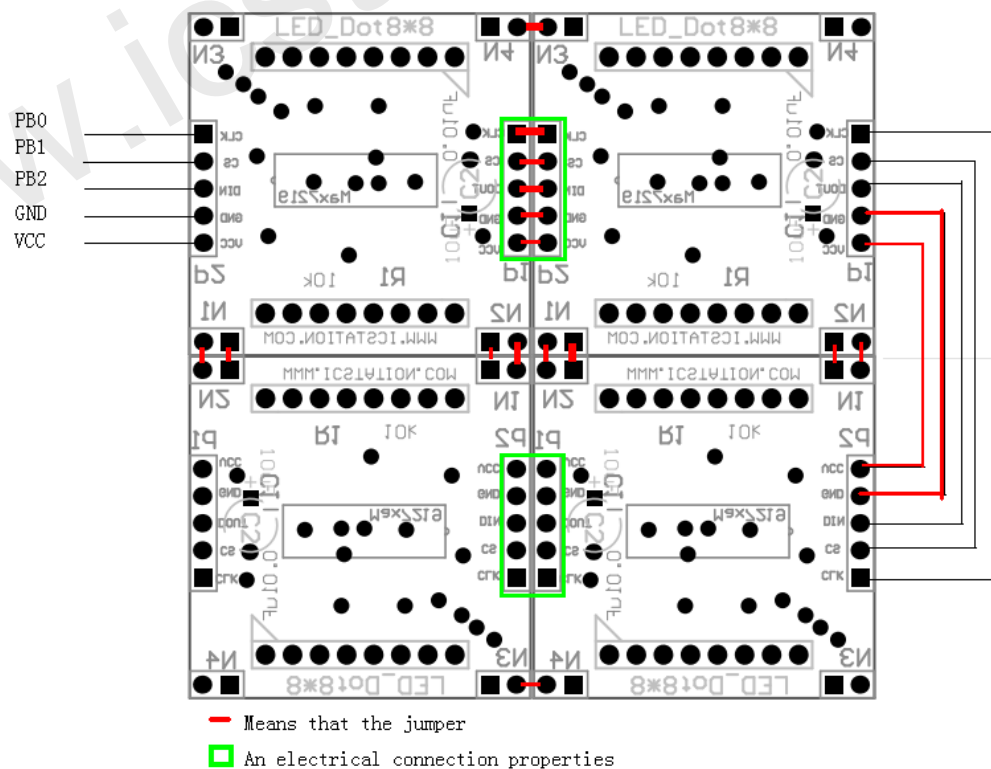
VI. Example

1. Introduce

This module USES a four product combination showed a Chinese characters, you can see the Chinese character "科" is the perfect display on top of the screen. This routine uses ATmega32 DIP encapsulation microcontroller



2. Connect Diagram



Note: Jumper cap on both sides are linked

V. **Code :** See : [code\display a character using four device.zip](#)(In this document)

V. **Reference:** [See: reference\MAX7219datasheet.pdf](#)

IX,Warning:

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If any problem, please contact us: www.icstation.com

Document Revision A