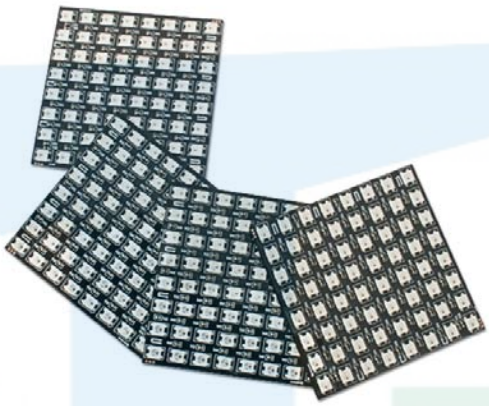
Specification

8IC*8IC Easy display



HTD-88DE-PCBA Pixel Screen

Product name

LED Pixel screen (FPC)

Item No.

HTD-88DE-PCBA

Date

2016-12-30

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RoHS

1. Product Overview

8*8 Pixel display panel is a LED dot matrix display product which is specially designed for the field of LED-Clothing, it has many advantages as follow: Small size, light weight, arbitrary curved, easy to carry, Low-voltage drive, green energy, high brightness, low power, long lifespan.

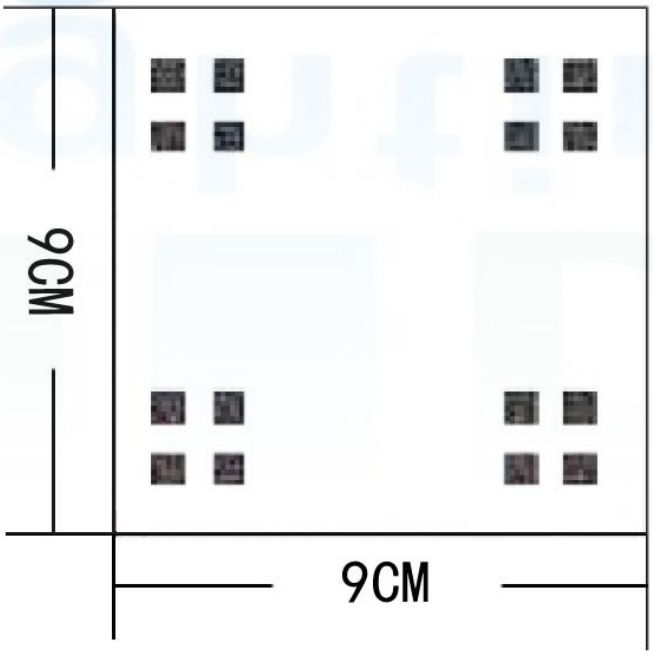
8*8 Pixel display use our Company's advanced Intelligent LED driver IC—WS2811/2812B as the basic unit. 8 Pixels are placed each line, and there are 8 lines on each panel. The space between each pixel is 1cm. This product is totally able to meet the basic requirement of Chinese character displaying. When used it with a controller additionally, it can also display numbers, English, video and so on.

Light Source: LED	Item Type: Panel Screen	LED Light Source: SMD 5050 RGB
Input Voltage(V): DC5V	Lamp Power: 19.2W	CRI (Ra>): 95
Color Temperature(CCT): Full Color	Working Temperature(°C): -40 ~ 60	Lifespan(Hour): 50000
Lamp Boby Material: Copper	IP Rating: IP20 (Non-waterproof)	Certification: RoHS
Place of Origin: Shenzhen, China	Brand name: HTD Lighting	Model: HTD-88DE-PCBA
Gray Scale: 256 Gray	PCB Material: Soft Cooper Board	IC Type: WS2811
FPCB Color: Black	Emitting Angle: 180 Degree	FPCB Size(CM): 9*9

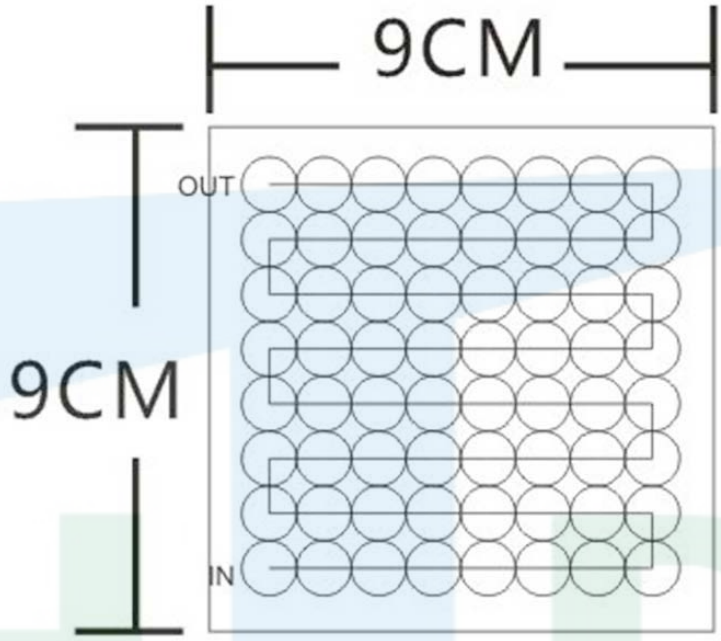
2. The Main Application

- LED-Clothing products.
- Stage lighting, decorating.
- Require frequently disassembly. Occasions which need to be implemented in a limited space.

3. Mechanical Dimensions (Unit: cm)



4. Wire Connection



5. PIN Function

No.	Symbol	PIN	Function Description
1	+5V	POWER	5V power supply
2	DIN	Data Input	Input the control signal
3	GND	Earth	Earthling
4	DOUT	Data Output	Output the control signal, connect to the next panel's DIN

6. Maximum Ratings (If not specified, TA=25℃, VSS=0V)

Parameter	Symbol	Range	Unit
Power Voltage	VDD	+4.5~+5.3	V
Logic input voltage	VI	-0.5~VDD+0.5	V
Operating Temperature	Topt	-25~+80	℃
Storage Temperature	Tstg	-40~+105	℃

7. Electrical Parameters (If not specified, TA=-20~+70℃, VDD=4.5~5.5V, VSS=0V)

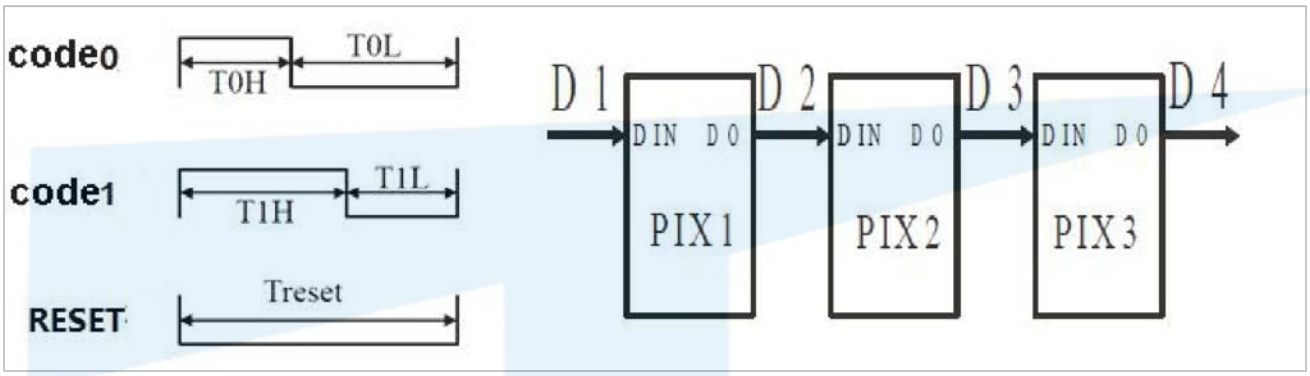
Color	Model	Wavelength(nm)	Luminous intensity(mcd)	Operating Voltage(V)
Blue	13CBAUP	465-467	180-200	3.0-3.4
Green	13CGAUP	522-525	660-720	3.0-3.4
Red	10R1MUX	620-625	390-420	2.0-2.2

8. Data Transfer (TH+TL=1.25μs±600ns)

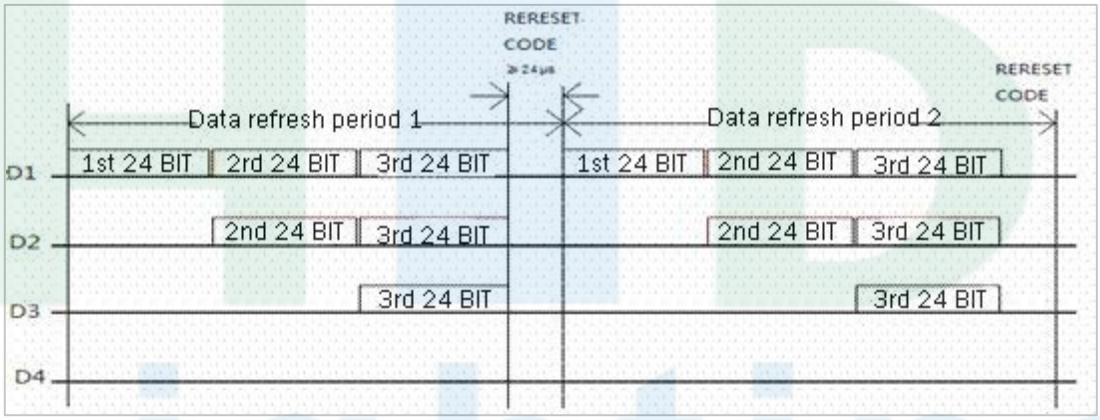
T0H	Code 0, high level	0.4μs	±150ns
T1H	Code 1, high level	0.8μs	±150ns
T0L	Code 0, low level	0.85μs	±150ns
T1L	Code 1, low level	0.45μs	±150ns
RES	low level	>50μs	

9. Timing Waveform

Input code **Connection Method**



10. Data Transfer Method



Note: The D1 on the figure above is the data sent by MCU, D2, D3, D4 are the data being transferred and adjusted by the next level circuit

11. 24bit Data Structure

G7	G6	G5	G4	G3	G2	G1	G0	R7	R6	R5	R4	R3	R2	R1	B7	B6	B5	B4	B3	B2	B1	B0

Note: High data bits are sent first. Sending data according the order: GRB