Product Overview

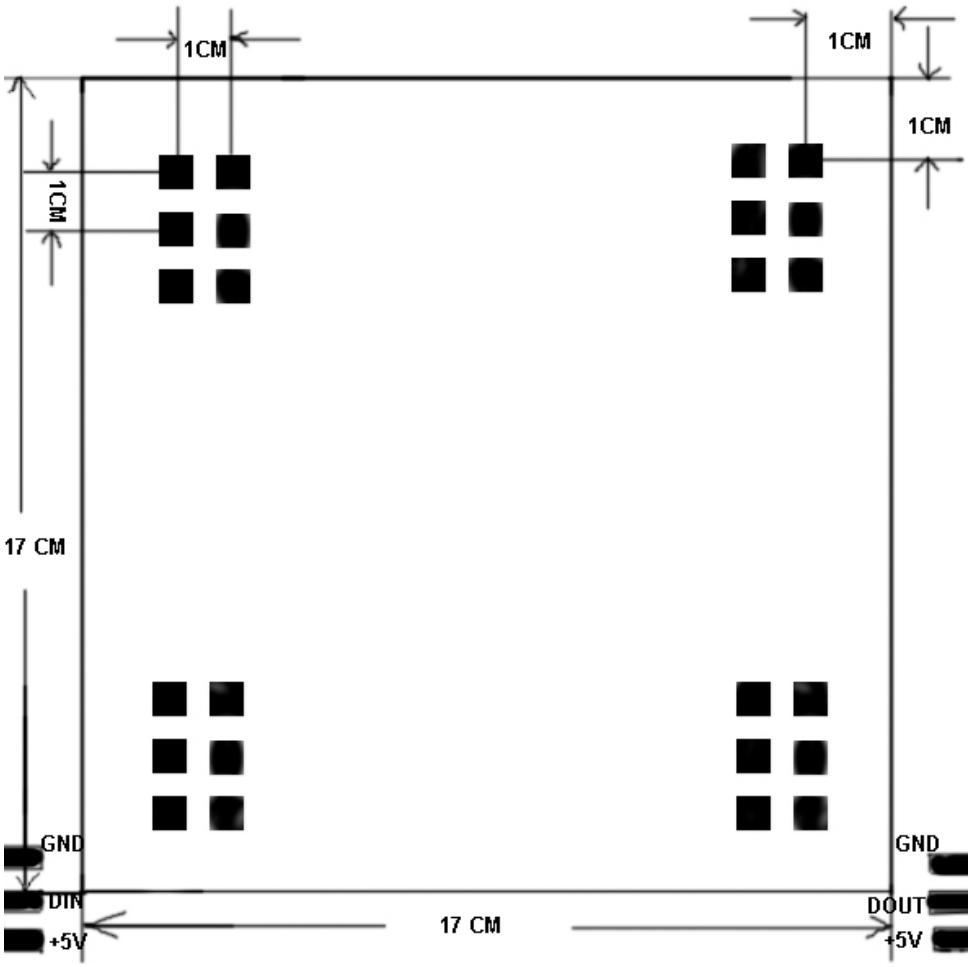
D25616*16 Pixel display panel is a LED dot matrix display product witch is specially designed for the field of LED-Clothing, it has many advantages as follow: Small size, light weight, arbitrary curved, easy to carry, Low-voltage drive, green energy, high brightness, low power, long life.

D256 use our Company's advance Intelligent LED driver IC, WS2812 as the basic unit. 16 Pixels are placed each line, and there are 16 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.

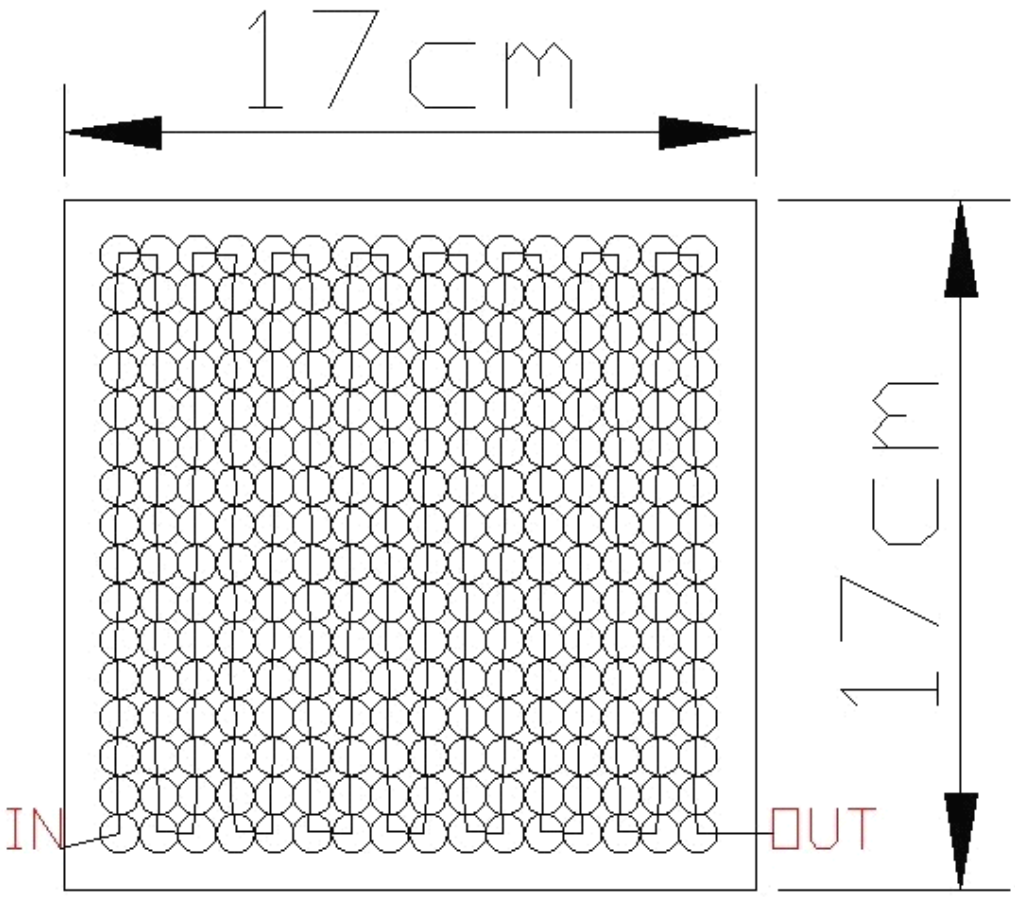
The Main Application areas

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

Mechanical Dimensions（Unit:cm）



Wire Connection



PIN Funtion:

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

Maximum Ratings（If not specified, T_A=25℃,V_{SS}=0V）

Paramater	Symbol	Range	Unit
Power Voltage	V_{DD}	+4.5~+5.3	V
Logic input voltage	V_I	-0.5～VDD+0.5	V
Operating Temperature	Topt	-25～+80	℃
Storage Temperature	Tstg	-40~+105	℃

Electrical parameters（If not specified，T_A=-20～+70℃，V_{DD}=4.5～5.5V, V_{SS}=0V）

Paramater	Symbol	Minimal	Typical	Maximum	Unit
Input Current	ID	0.3A	——	15A	A
Operating Voltage	VDD	4.5V	5.0v	5.3V	V

RGB Chip Characteristic parameters

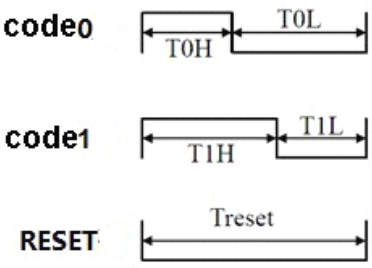
Color	Model	Wavelength (nm)	Luminous intensity (mcd)	Operating Voltage (V)
Blue	13CBAUP	465-467	180-200	3.0-3.4
Green	13CGAUP	522-525	660-720	3.0-3.4
Red	10R1MUX	620-625	390-420	2.0-2.2

Data Transfer (TH+TL=1.25μs±600ns)

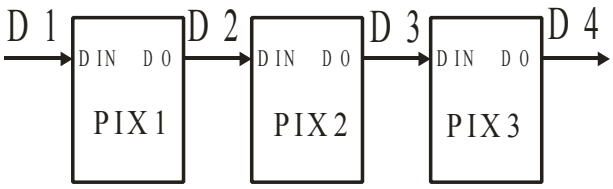
T0H	Code 0， hight level	0.4μs	±150ns
T1H	Code 1， hight level	0.8 μs	±150ns
T0L	Code 0， low level	0.85μs	±150ns
T1L	Code 1， low level	0.45 μs	±150ns
RES	low level	>50μs	

Timing Waveforms

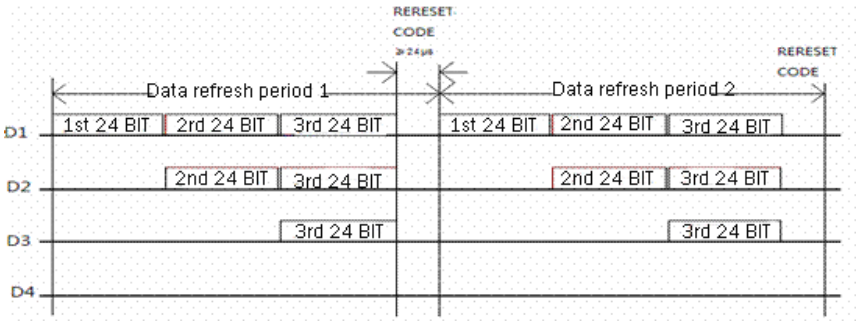
Input code:



Connection Method:



Data Transfer Method:



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

24bit data structure:

G7	G6	G5	G4	G3	G2	G1	G0	R7	R6	R5	R4	R3	R2	R1	R0	B7	B6	B5	B4	B3	B2	B1	B0

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