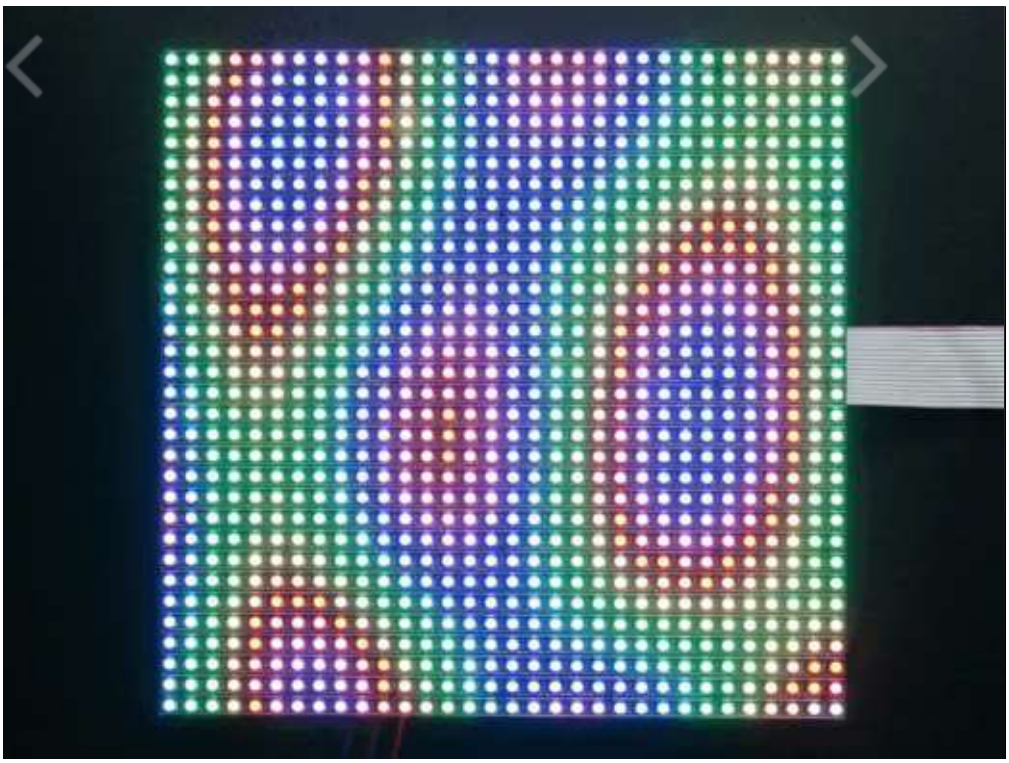
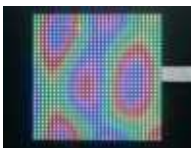
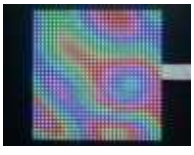














32x32 RGB LED Matrix Panel - 5mm Pitch

PRODUCT ID: 2026

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DESCRIPTION

TECHNICAL DETAILS

DESCRIPTION

Bring a little bit of Times Square into your home with this sweet 32 x 32 square RGB LED matrix panel. These panels are normally used to make video walls, here in New York we see them on the sides of busses and bus stops, to display animations or short video clips. We thought they looked really cool so we picked up a few boxes of them from a factory.

These are a lot like our 6mm Grid 32x32 RGB LED matrix panel, but The LEDs on this panel are also a little closer together (a 5mm grid) so you won't have to stand as far away to appreciate it. They are made to look good indoors, even with a wide-angle view (160 degrees) and look great in ambient light.

These matrices have 1024 bright RGB LEDs arranged in a 32x32 grid on the front. On the back there is a PCB with two IDC connectors (one input, one output: in theory you can chain these together) and 12 16-bit latches that allow you to drive the display with a 1:16 scan rate.

These displays are technically 'chainable' - connect one output to the next input - but our Arduino example code does not support this (yet). It requires a high speed processor and more RAM than the Arduino has!

These panels require 13 digital pins (6 bit data, 7 bit control) and a good 5V supply, up to 4A per panel. We suggest our 4A regulated 5V adapter and then connecting a 2.1mm jack. Please check out our tutorial for more details!

Comes with:

- A single 32x32 RGB panel,
- An IDC cable
- A power cable
- We also include 4 mounting screws and mini-magnets (it appears these are often mounted on a magnetic base).

Keep in mind that these displays are designed to be driven by FPGAs or other high speed processors: they do not have built in PWM control of any kind. Instead, you're supposed to redraw the screen over and over to 'manually' PWM the whole thing. On a 16 MHz arduino, we managed to squeeze 12-bit color (4096 colors) with 40% CPU usage but this display would really shine if driven by any FPGA, CPLD, Propeller, XMOS or other high speed multi-core controller. The good news is that the display is pre-white balanced with nice uniformity so if you turn on all the LEDs it's not a particularly tinted white.

Of course, we wouldn't leave you with a datasheet and a "good luck!" We have a full wiring diagrams and working Arduino library code with examples from drawing pixels, lines, rectangles, circles and text. You'll get your color blasting within the hour! On an Arduino, you'll need 16 digital pins, and about 1600 bytes of RAM to buffer the 12-bit color image. At this time we do not have wiring documentation for the MEGA.

TECHNICAL DETAILS

Datasheet

- Dimensions: 167.6mm x 167.6mm x 14.3mm / 6.56" x 6.56" x 0.56"
- Panel weight with IDC cables and power cables: 218.82g
- 5V regulated power input, 4A max (all LEDs on)
- 5V logic
- 2000 mcd LEDs on 5mm pitch
- 1/16 scan rate
- Indoor display, 160 degree visibility
- Displays are 'chainable' - connect one output to the next input - but our Arduino example code does not support this yet

We have a full tutorial here!



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[Raspberry Pi LED Matrix Display]
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16x24 Red LED Matrix Panel



Medium 16x32 RGB LED



5V 4A (4000mA) switching



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32x32 RGB LED Matrix



Female DC Power adapter -



5V 2A (2000mA) switching



Adafruit RGB Matrix HAT +



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