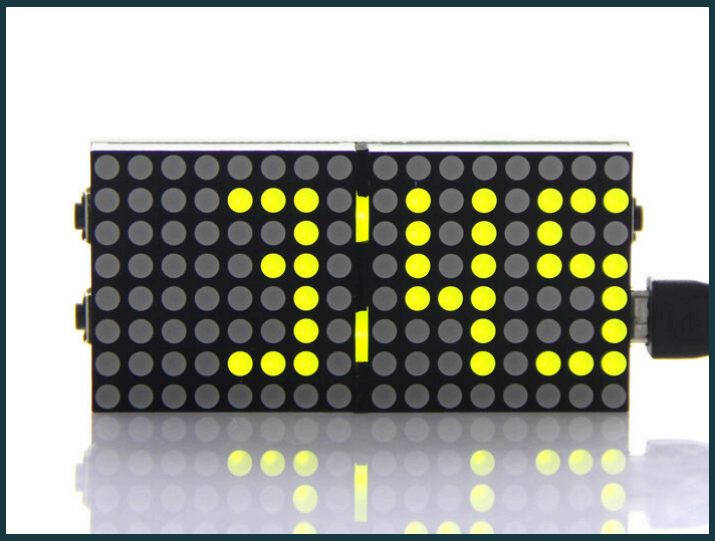
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INDUSTRIAL PRODUCT DATASHEET

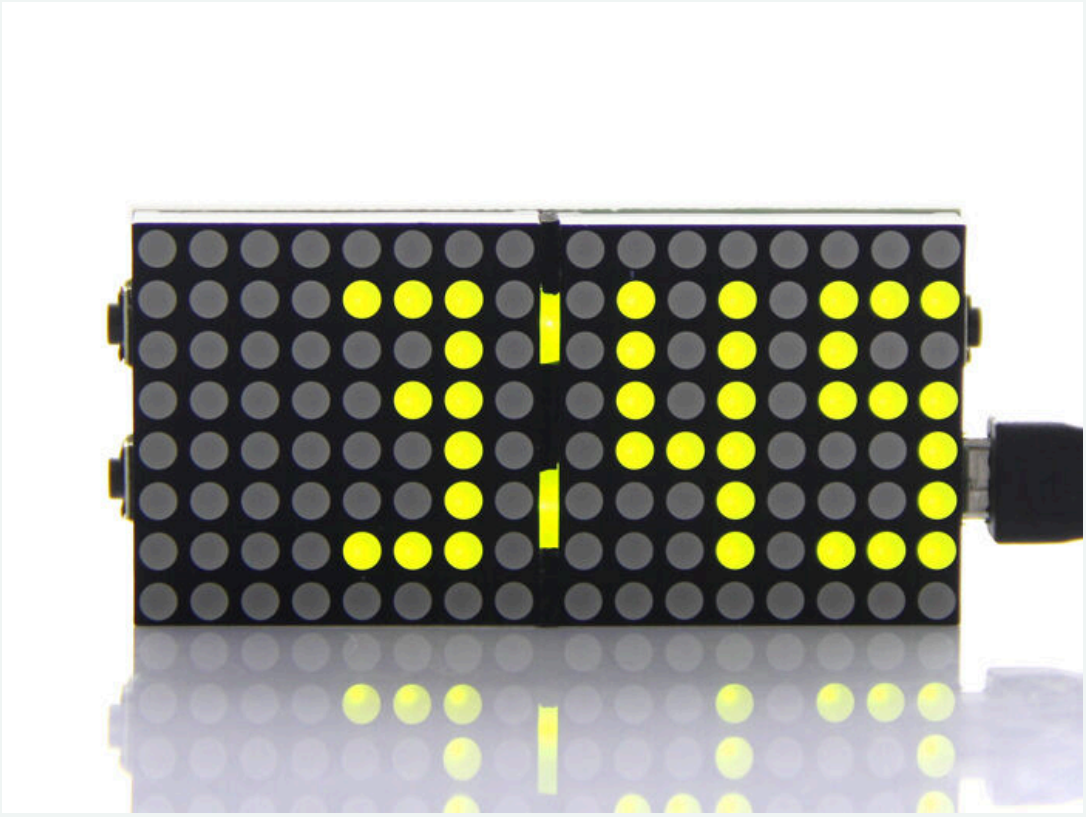
Matrix Clock

The Matrix Clock is a compact Arduino-compatible LED matrix clock with a real time clock, musical alarms, and battery-friendly sleep mode.

SKU	UPDATED	PRICE
102990135	2026-08-19 11:47:30	$50.00(Excl. VAT)



Overview



The Matrix Clock is a single board, highly compact, Arduino compatible clock that displays the time on an LED matrix display. Based on the Arduino Leonardo, it features a 16x8 LED matrix, ATMEGA32U4 microcontroller, coin cell powered Real Time Clock Calendar, musical alarms, and a compact form factor suitable for custom housings.

Key Features

The Matrix clock is a single board, highly compact, Arduino compatible clock that displays the time on an LED matrix display. The display and rich firmware library allow for animated transitions between minutes.

Based on the Arduino Leonardo, the Matrix Clock is fully compatible with the Arduino IDE and can be easily updated or customised with new sketches, uploaded via a USB Micro cable. A coin cell powered Real Time Clock Calendar keeps track of the time and date when the unit is not powered. The Matrix Clock can also play musical alarms that can be easily reprogrammed with different tunes. Due to its compact form factor the Matrix clock could be fitted in any number of housings - even a pocket watch style housing. If portability is desirable then the unit can be battery powered and a sleep function is available (by taking one of the expansion pins to ground) in order to extend battery life.

Features

- 16x8 LED Matrix display
- ATMEGA32U4 microcontroller
- Coin cell powered Real Time Clock Calendar (1x Battery CR1220, 12mmDia x 2mm Required)
- Texas Instruments TLC5920 LED driver
- 4 Buttons
- Piezo speaker output
- Sleep mode input
- 2 power inputs, USB Micro connector or 6V - 9V DC in. (Normal powered by Vin switches when USB power is present).
- Compact form factor

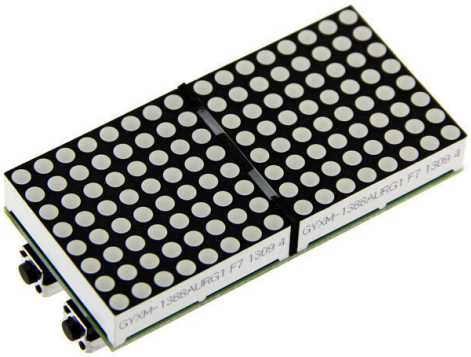
Specifications

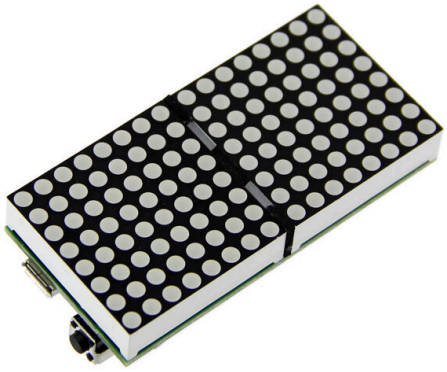
Documents

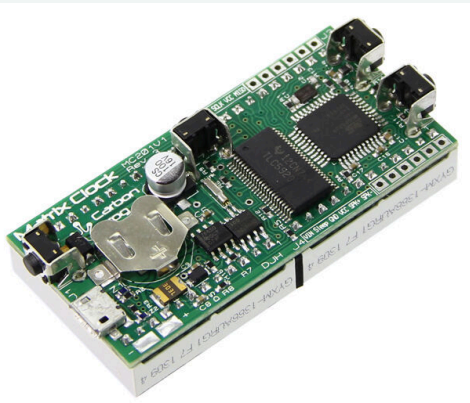
- Matrix Clock Product page
- Firmware download
- Matrix Clock Wiki

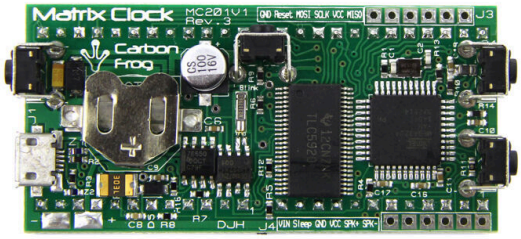
Please contact **dan@carbonfrog.com** for technical support, any further questions, please contact **enquiry@carbonfrog.com**.

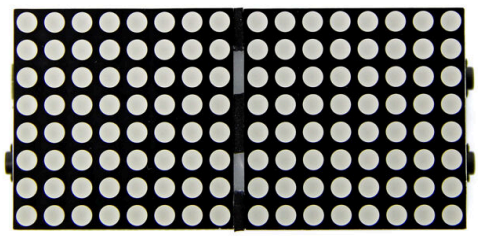
Product Gallery

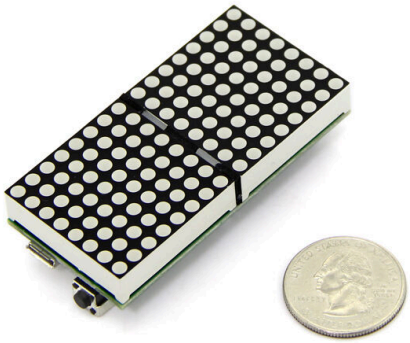












Specification

Microcontroller	Atmel ATmega32u4 in TQFP-44 package
Operating Voltage	5V USB powered or 6V to 9V Vin
Power and communications	USB Micro B
Current	Approx 90mA average during normal operation Max. 300mA
LED Matrix	2x, 8x8, 3mm green LEDs
Clock speed	Microcontroller 16MHz, RTCC 32.768MHz
SRAM	2.5 KB
EEPROM	1 KB
Flash Memory	32 KB
Expansion Header	Gnd, Vin, 5V, Sleep, Piezo-, Piezo+
Size	66mm wide x 32mm high x 17mm deep
Weight	30g

Compliance & Logistics

HSCODE	8531200000
USHSCODE	9114905000
UPC	841454106005
COO	CHINA

Resource Links

- https://www.seeedstudio.com/Matrix-Clock-p-1824.html
- Wiki

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