

DESCRIPTION		PACKAGING
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RP2040 MCU Board, With 1.28inch Round LCD, accelerometer and gyroscope Sensor

SKU: 22668
Part Number: RP2040-LCD-1.28
Brand: Waveshare

\$16.99

1

ADD TO CART

\$16.59	2+
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\$16.39	DESCRIPTION	PACKAGING
\$16.31		4+

Related Products:



5

RP2040 MCU Board, With 1.28inch Round LCD, Accelerometer And Gyroscope Sensor

RP2040 MCU Board

With LCD

DESCRIPTION

Based on Raspberry Pi RP2040

PACKAG



Dual-core
ARM Cortex M0+



Type-C Port



240 x 240 Pixels



65K RGB

Features

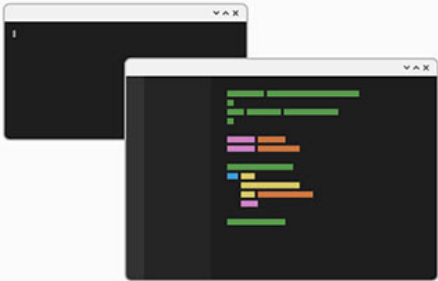

DESCRIPTION	PACKAGING
<p>RP2040-LCD-1.28 is a low-cost, high-performance MCU board designed by Waveshare. Tiny size with onboard 1.28inch LCD round display, Li-ion battery recharge manager, 6-axis sensor (3-axis accelerometer and 3-axis gyroscope) and so on, adapting all GPIO and Debug pins, which makes it easy for you to develop and integrate it into products quickly.</p> <p>Key features include:</p> <ul style="list-style-type: none"> • RP2040 microcontroller chip designed by Raspberry Pi in the United Kingdom • Dual-core Arm Cortex M0+ processor, flexible clock running up to 133 MHz • 264KB of SRAM, and 2MB of on-board Flash memory • Type-C connector, keeps it up to date, easier to use • Onboard 1.28inch 240×240 pixels 65K colorful IPS LCD display for clear color pictures • Lithium battery recharge/discharge header, suitable for mobile devices • All GPIO pins are adapted through 1.27 pitch female headers (There are 30 pins in total, but some pins have been connected to the internal circuit, please refer to the wiki for details when multiplexing) • USB 1.1 with device and host support • Low-power sleep and dormant modes • Drag-and-drop programming using mass storage over USB • 2 × SPI, 2 × I2C, 2 × UART, 4 × 12-bit ADC, 16 × controllable PWM channels • Accurate clock and timer on-chip • Temperature sensor • Accelerated floating-point libraries on-chip • 8 × Programmable I/O (PIO) state machines for custom peripheral support 	

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C/C++, MicroPython Support

Comprehensive SDK, Dev Resources, Tutorials To Help You Easily Get Started

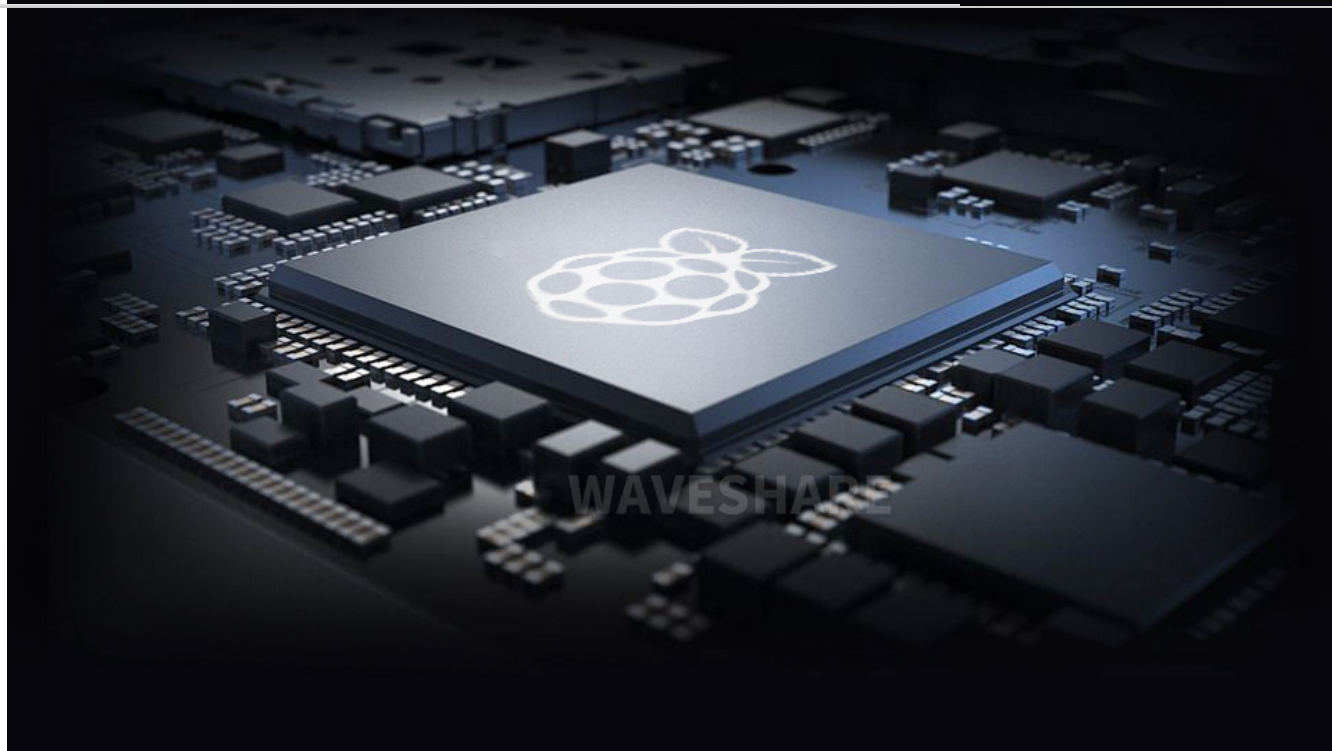
DESCRIPTION	PACKAGING
<div data-bbox="240 264 679 544"></div> <div data-bbox="767 277 1145 333"><h3>Pico C/C++ SDK</h3></div> <div data-bbox="767 367 1356 551"><p>The Raspberry Pi official C SDK can be used from the command line, or from popular integrated development environments like Visual Studio Code and Eclipse.</p></div>	
<div data-bbox="323 725 617 1016"></div> <div data-bbox="767 752 1083 808"><h3>MicroPython</h3></div> <div data-bbox="767 842 1356 1025"><p>MicroPython is a full implementation of the Python 3 programming language that runs directly on embedded hardware like Raspberry Pi Pico.</p></div>	

Dual-Core Arm Processor

Dual-Core Arm Cortex M0+ Processor, Flexible Clock Running Up To 133 MHz

DESCRIPTION

PACKAG



30 × Multi-Function GPIO Pins

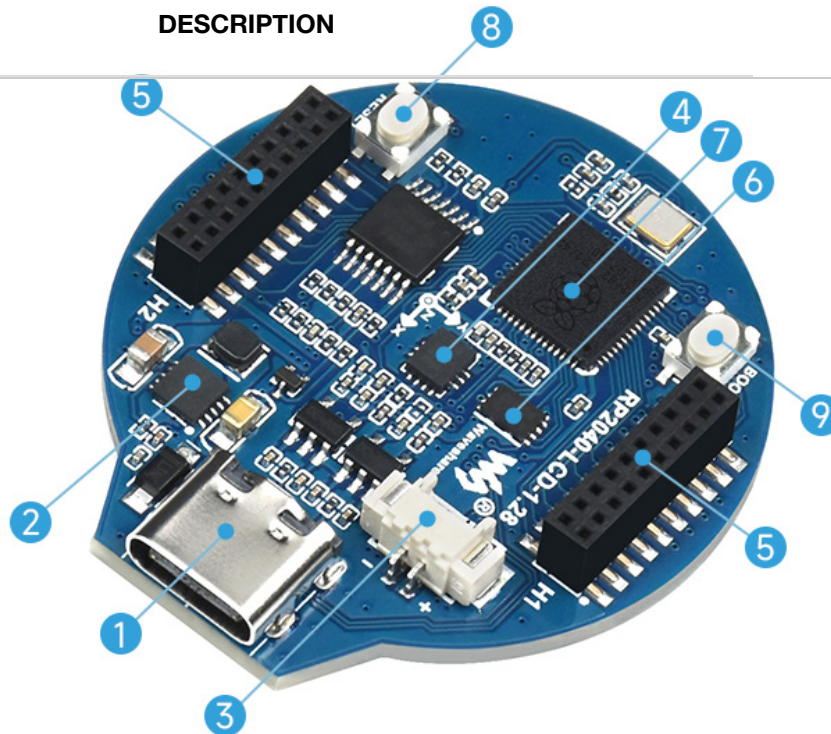
Configurable Pin Function, Allows Flexible Development And Integration

PACKAGING



GP 6	IMU_SDA	I2C SDA	GP 12	LCD_RST	LCD Reset
GP 7	IMU_SCL	I2C SCL	GP 23	IMU_INT1	QMI8658C INT1
GP 8	LCD_DC	LCD Command/Data Selection	GP 24	IMU_INT2	QMI8658C INT2
GP 9	LCD_CS	LCD Chip Selection	GP 25	LCD_BL	LCD Backlight Control
GP 10	LCD_CLK	LCD CLK	GP 29	BAT_ADC	Battery Voltage Acquisition Pin biased by resistors to 1/2 value of the battery voltage
GP 11	LCD_DIN	LCD MOSI			

What's On Board



1. USB Type-C connector

USB 1.1 with device and host support

2. ETA6096

high efficiency Lithium battery recharge manager

3. Battery Header

MX1.25 header, for 3.7V Lithium battery, allows recharging the battery and powering the board at the same time

4. QMI8658C

IMU, includes a 3-axis gyroscope and a 3-axis accelerometer

5. 1.27mm pitch headers

Adapting all GPIO and Debug pins

6. W25Q16JVUXIQ

2MB NOR-Flash

7. RP2040

Dual-core processor, up to 133MHz operating frequency

8. RESET Button

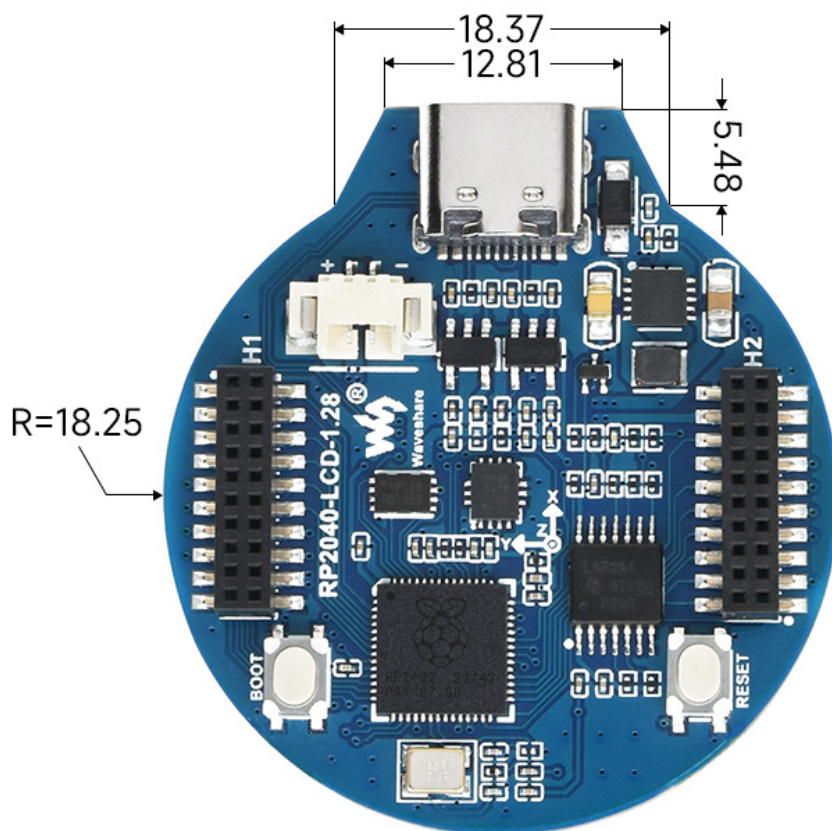
9. BOOT Button

press it when resetting to enter download mode

Outline Dimensions

DESCRIPTION

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Unit:mm

Resources & Services



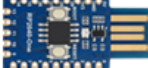




WAVESHARE
ORIGINAL ✓PROFESSIONAL
TECH SUPPORTRICH RESOURCES
MANUAL & DEMO

Wiki: www.waveshare.com/wiki/RP2040-LCD-1.28

Pico Product Selection

	PRODUCT	MAIN CHIP	DESCRIPTION REGULATOR CHIP	USB	FLASH	PSRAM	LITHIUM BATTERY HEADER	PACKAGING ONBOARD LCD
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 RASPERRY PI PICO H	RP2040	DESCRIPTION						PACKAGING
		DC-DC, 800mA	Micro USB	2MB	-	-	-	

			DESCRIPTION					PACKAGING	
	RASPBERRY PI PICO W		DC-DC, 3000mA	Micro USB	2MB	-	-	with WiFi	
	 RASPBERRY PI PICO		DC-DC, 800mA	Micro USB	2MB	-	-	-	
	 TYPE-A VER.		LDO, 500mA	Type- A	4MB	-	-	-	
	 MINI VER.		LDO, 800mA	Type- C	2MB	-	-	-	
	 ROUND LCD VER.		LDO, 300mA	Type- C	2MB	-	Support(allows recharging the battery and powering the board at the same time)	1.28inch IPS LCD	
	 LCD VER.		DC-DC, 1800mA	Type- C	2MB	-	Support(allows recharging the battery and powering the board at the same time)	0.96inch IPS LCD	
	 PLUS VER.		DC-DC, 1800mA	Type- C	4MB/16MB	-	Support(allows recharging the battery and powering the board at the same time)	-	

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