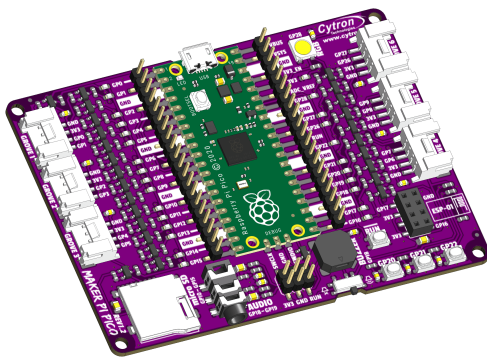


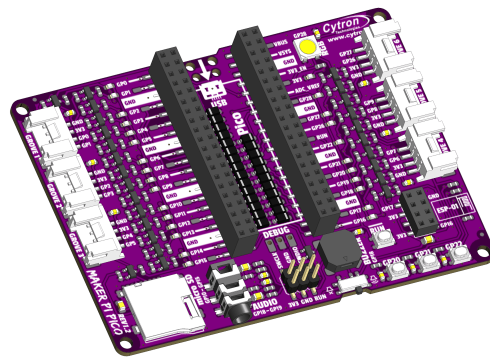


MAKER PI PICO

Simplifying Raspberry Pi Pico for Beginner



MAKER-PI-PICO



MAKER-PI-PICO-NB

Datasheet

Rev 1.2
March 2021

Information in this publication regarding device applications and the like is intended through suggestion only and may be superseded by updates. It is your responsibility to ensure that your application meets your specifications. No representation or warranty is given and no liability is assumed by Cytron Technologies Incorporated with respect to the accuracy or use of such information or infringement of patents or other intellectual property rights arising from such use or otherwise. Use of Cytron Technologies's products as critical components in the life support system is not authorized except with express written approval by Cytron Technologies. No licenses are conveyed, implicitly or otherwise, under any intellectual property rights.

1. BOARD LAYOUT & FUNCTION

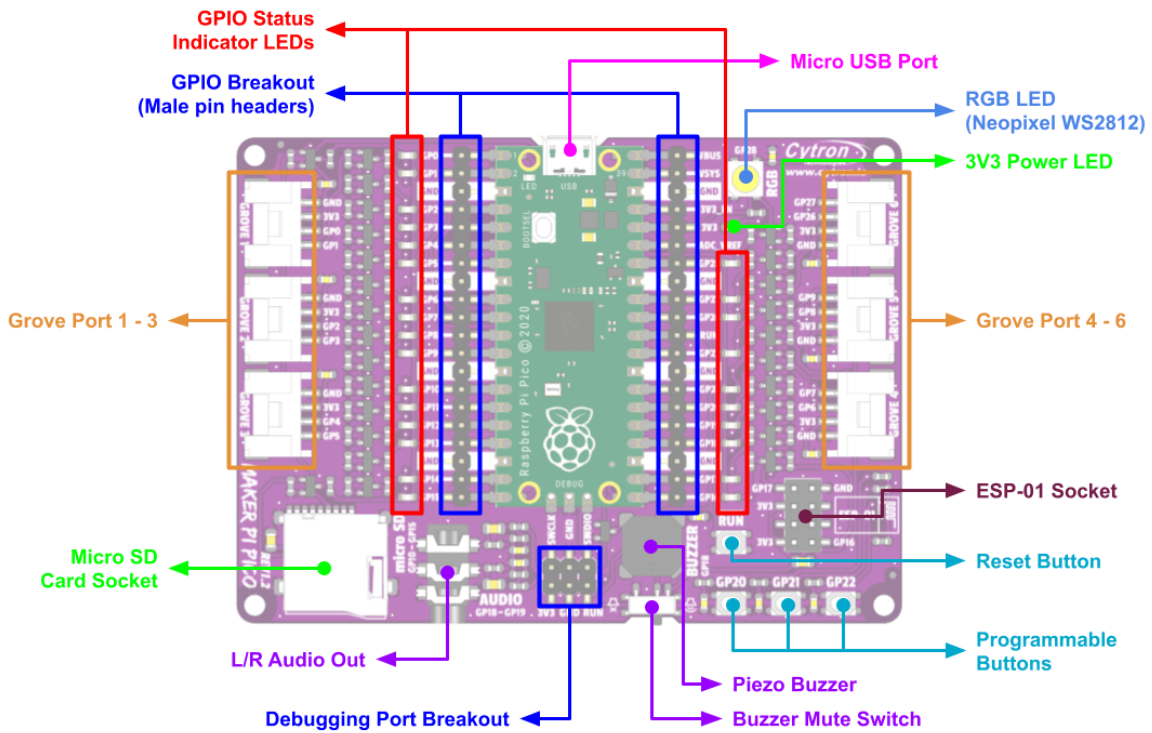


Figure 1: MAKER-PI-PICO Board Functions

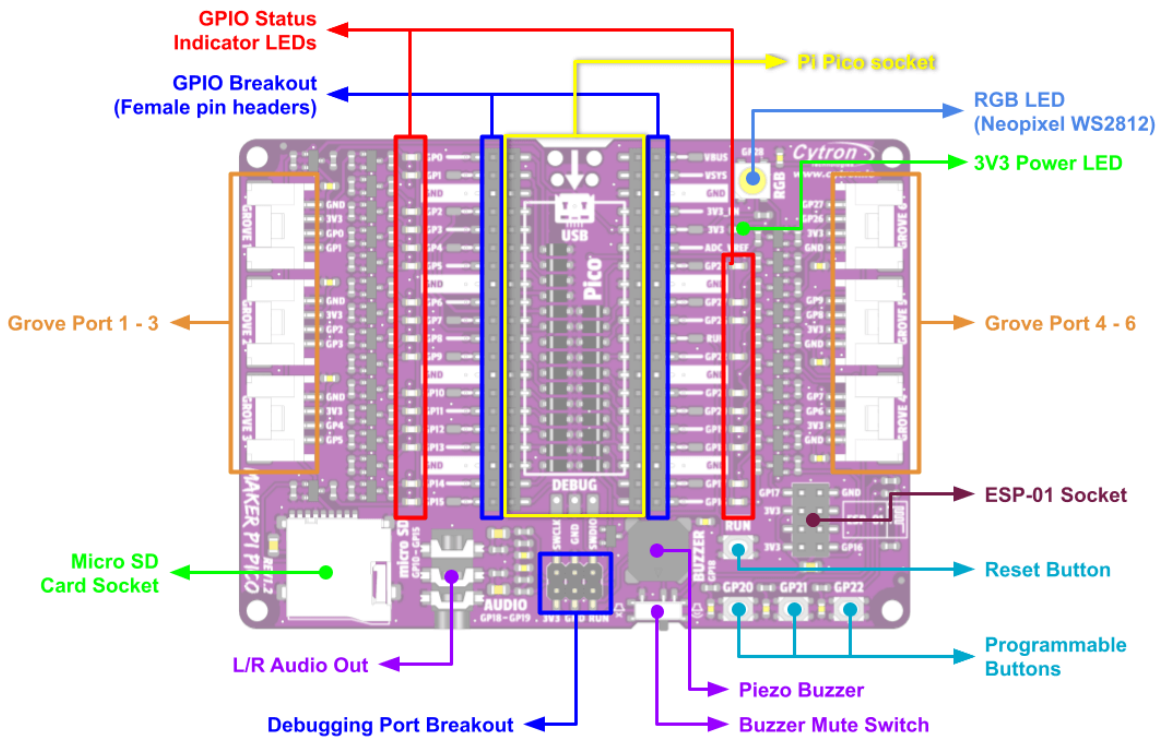


Figure 2: MAKER-PI-PICO-NB Board Functions

Function	Description																							
Micro USB Port *MAKER-PI-PICO only	Used to power up the Maker Pi Pico and upload programs from PC.																							
3V3 Power LED	LED indicator for 3V3. Turn on when powered up.																							
GPIO LEDs	LED indicator for Raspberry Pi Pico GPIO. Turn on when the GPIO state is high.																							
WS2812B RGB LED	User programmable WS2812B RGB LED. Connected to GP28.																							
GPIO Breakout	Breakout of the Raspberry Pi Pico GPIO pins. * MAKER-PI-PICO = Male Pin Headers * MAKER-PI-PICO-NB = Female Pin Headers																							
Debugging Port Breakout	Breakout of the Raspberry Pi Pico debugging port.																							
Reset Button	Press to reset the Raspberry Pi Pico.																							
Programmable Buttons	Connected to pin GP20, GP21 and GP22 respectively. Accessible from the user program. * Rev1.0.0 to 1.1.0 = To enable internal pull-up in software. * Rev1.2.0 = Pulled-up permanently on hardware with debouncing capacitor.																							
Piezo Buzzer	Can be used to play tone or melody. Connected to GP18.																							
Buzzer Mute Switch	Used to mute the piezo buzzer.																							
Audio Out	Non amplified audio output. Can be connected to an earphone or amplified speaker. <ul style="list-style-type: none"> • Left Channel : GP18 • Right Channel : GP19 																							
ESP-01 Socket	Socket for ESP-01 ESP8266 WiFi module. Can be used to IoT-enable your project.																							
Micro SD Card Socket	Socket for micro SD Card. <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2" style="background-color: #c6e0b4;">Raspberry Pi Pico GPIO</th> <th colspan="2" style="background-color: #c6e0b4;">SD Card</th> </tr> <tr> <th style="background-color: #c6e0b4;">SD Mode</th> <th style="background-color: #c6e0b4;">SPI Mode</th> </tr> </thead> <tbody> <tr> <td>GP10</td> <td>CLK</td> <td>SCK</td> </tr> <tr> <td>GP11</td> <td>CMD</td> <td>SDI</td> </tr> <tr> <td>GP12</td> <td>DAT0</td> <td>SDO</td> </tr> <tr> <td>GP13</td> <td>DAT1</td> <td>X</td> </tr> <tr> <td>GP14</td> <td>DAT2</td> <td>X</td> </tr> <tr> <td>GP15</td> <td>CD/DAT3</td> <td>CSn</td> </tr> </tbody> </table> <p style="text-align: center; margin-top: 5px;">* Unused pins must be configured as internal pull-ups.</p>	Raspberry Pi Pico GPIO	SD Card		SD Mode	SPI Mode	GP10	CLK	SCK	GP11	CMD	SDI	GP12	DAT0	SDO	GP13	DAT1	X	GP14	DAT2	X	GP15	CD/DAT3	CSn
Raspberry Pi Pico GPIO	SD Card																							
	SD Mode	SPI Mode																						
GP10	CLK	SCK																						
GP11	CMD	SDI																						
GP12	DAT0	SDO																						
GP13	DAT1	X																						
GP14	DAT2	X																						
GP15	CD/DAT3	CSn																						
Pi Pico Socket *MAKER-PI-PICO-NB only	Socket for Raspberry Pi Pico. Can be used with Raspberry Pi Pico with Pre-soldered Headers .																							

Table 1: MAKER-PI-PICO & MAKER-PI-PICO-NB Board Functions

2. RASPBERRY PI PICO PINOUT DIAGRAM

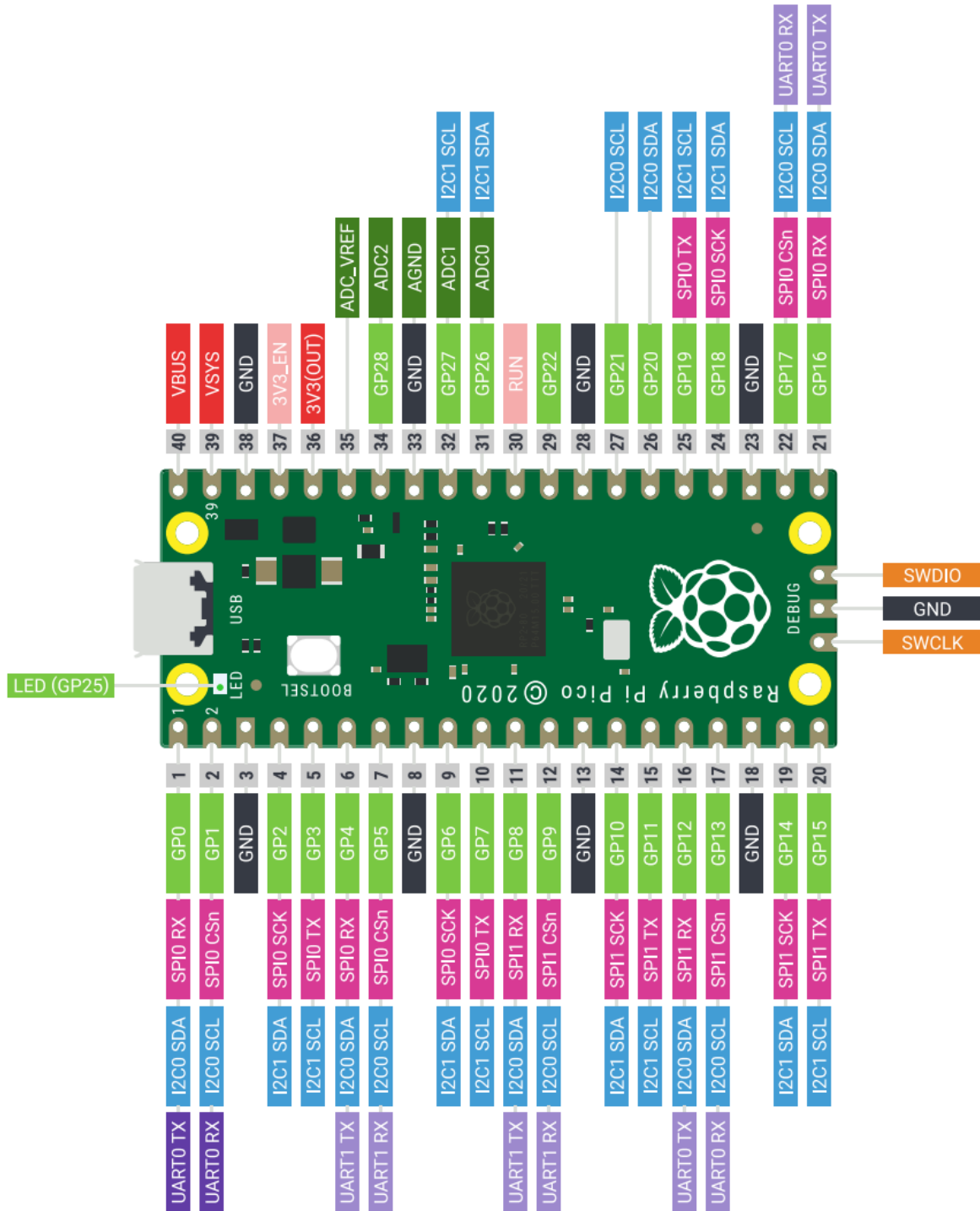


Figure 3: Raspberry Pi Pico Pinout Diagram

3. SPECIFICATIONS

No	Parameters	Min	Max	Unit	
1	Power Input Voltage (USB)	4.5	5.5	VDC	
2	Digital Input Voltage	Low Level	-0.3	0.8	V
		High Level	2.0	3.6	V
3	Digital Output Voltage	Low Level	0	0.5	V
		High Level	2.62	3.3	V
4	Analog Input Voltage	0	3.3	V	
5	Operating Temperature	-20	85	°C	

Table 2: MAKER-PI-PICO Absolute Maximum Ratings

Prepared by:

Cytron Technologies Sdn Bhd

www.cytron.io

No. 1, Lorong Industri Impian 1,
Taman Industri Impian,
14000 Bukit Mertajam,
Penang, Malaysia.

Tel: +604 - 548 0668

Fax: +604 - 548 0669

Email:

support@cytron.io

sales@cytron.io