


WG6031P00

WG6031-00 Pmod Board

User Guide

Draft 0.2

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a module solution provider

WG6031P00

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1. INTRODUCTION

The WG6031P00 is a 12-pin Pmod Wi-Fi board for JORJIN WG6031-00 module. The purpose of this user guide is to help user understanding how to use the WG6031P00 evaluation board to complete hardware setup.

1.1. General Features

The WG6031P00 Board includes the following features:

- Dimensions: 38 mm (L) x 20 mm (W)
- IEEE 802.11b/g/n compliant RF transceiver
- SMA RF connector for external antenna
- 12-pin Pmod connector with SPI interface
- VBAT supporting 3.0 to 3.6V operation , typical 3.3V
- Operating temperature : 0°C to 70°C

2. BOARD PIN ASSIGNMENT

Figure 2-1 shows the top view of the Pmod board.

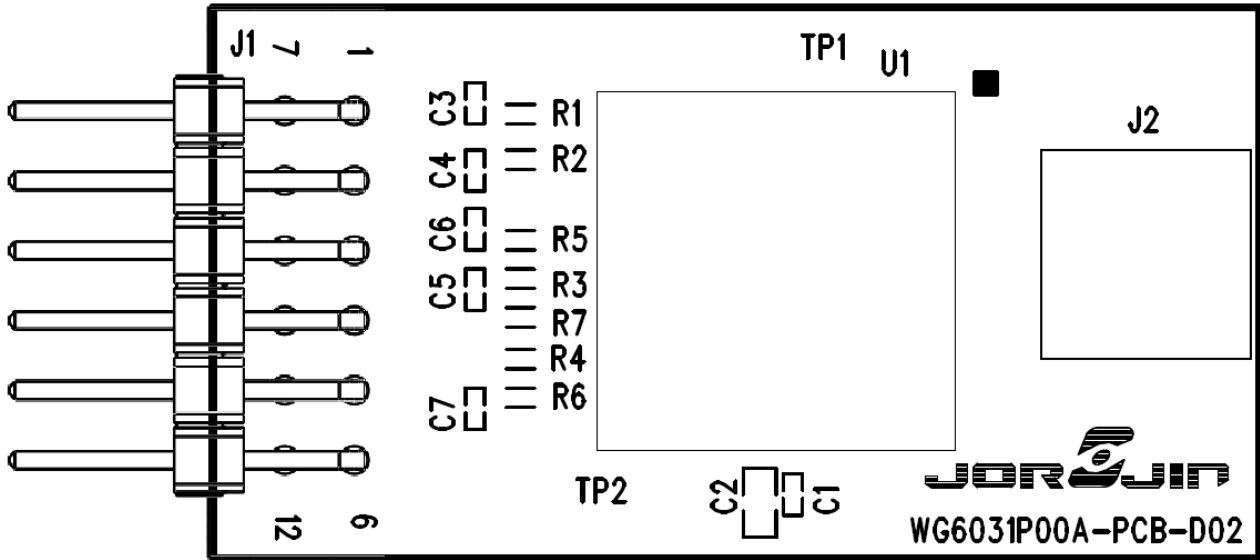


Figure 2-1. WG6031P00 Top View

2.1. Pin Description

Table 2-1 describes the board pins.

Table 2-1. Pin Description

No.	Signal Name	Type	Description
1	SPI_SS	I	SPI Slave Select
2	SPI_MOSI	I	SPI Master out / Slave in Data
3	SPI_MISO	O	SPI Master in / Slave out Data
4	SPI_CLK	I	SPI Clock Input
5	GND	Power	Ground
6	VDD	Power	Power supply input. Typical 3.3V.
7	SPI_IRQ	O	SPI Interrupt Output
8	RESET	I	Hardware Reset
9	NC	-	Not Connection.
10	NC	-	Not Connection.
11	GND	Power	Ground
12	VDD	Power	Power supply input. Typical 3.3V.

3. ELECTRICAL CHARACTERISTICS

The Pmod WiFi board access through Jorjin WG6031-00 WLAN module, for electrical characteristics, see the WG6031-00 WLAN Module Data Sheet (WG6031-00-DTS).

4. BILL OF MATERIALS (BOM)

Table 4-1 lists the BOM for the Pmod board.

Table 4-1. Pin Description

Item	Description	Part Number	Reference	Qty	Manufacturer
1	RTL8189 WiFi Module	WG6031-00A	U1	1	Jorjin
2	PIN Header / 2x6pin / pitch 2.54mm / DIP / Right Angle 1.5mm type / Male	P201-R1GP-060_030-12	J1	1	承洧
3	RF-CON/SMA/STRAIGHT FEMALE/SMD	SMA-10V21-TGG-SMT	J2	1	HUS-TSAN
4	CAP 0402 / 0.1uF / 10V / X7R / ±10%	0402B104K100CT	C1	1	Walsin
5	CAP 0603 / 10uF / X5R / 10V / ±10%	GRM188R61A106KE69D	C2	1	Murata
6	RES 0402 / OR / Jumper	WR04X000 PTL	R1,R2,R3,R4,R5,R6,R7	7	Walsin

5. PACKAGE INFORMATION

5.1. Board mechanical outline

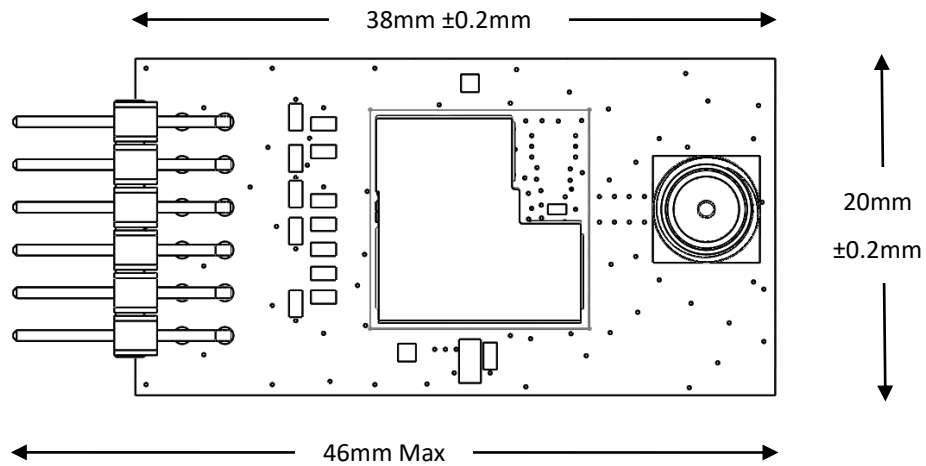


Figure 5-1 Pmod WiFi Board Top Drawing

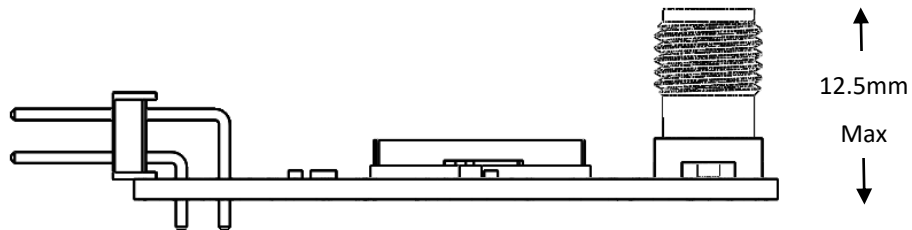


Figure 5-2 Pmod WiFi Board Side Drawing

5.2. RF Connection

The WG6031P00 Pmod WiFi board used the following RF SMA that connected to external Antenna.

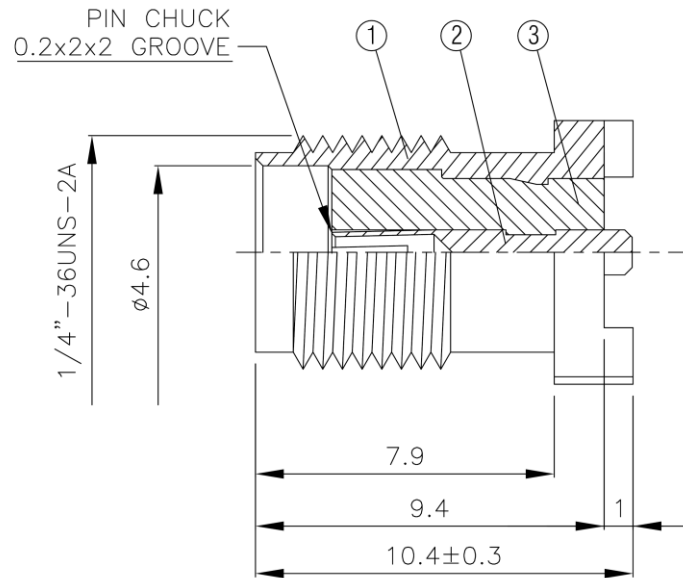


Figure 5-3 RF SMA Connect Drawing

5.3. Antenna information



Brand	Model Name	Antenna Type	Connector	Gain (dBi)
WIESON	GPOT155-002	Dipole	SMA	2.0

6. ORDERING INFORMATION

Part number:	WG6031P00A
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7. HISTORY CHANGE

Revision	Date	Description
Draft 0.1	2017-05-18	Initial Document creation.
Draft 0.2	2017-11-01	<ol style="list-style-type: none">1. Updated Board drawing and BOM List2. Modified the tolerance of the Pmod board3. Add Antenna information