

## **Product: 2.4GHz wireless module Model(s): WF8023**

### **OEM/Integrators Installations User Manual**

Note: The module is limited to OEM installation ONLY;

The OEM integrator is responsible for ensuring that the end-user has no manual instructions to remove or install module.

If the FCC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module.

This exterior label can use wording such as the following:

**“Contains Transmitter Module FCC ID: 2ABH3-FOSFDA”**

When the module is installed inside another device, the user manual of this device must contain below warning statement:

1 ∙ This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

2 ∙ Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generate, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: —Reorient or relocate the receiving antenna.

— Increase the separation between the equipment and receiver.

— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

— Consult the dealer or an experienced radio/TV technician for help.

Note: The Grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

That separate approval is required for all other operating configurations, including portable configurations with respect to Part 2.1093 and different antenna configurations.

This product is mounted inside of the end product only by professional installers OEM. They use this module with changing the power and control signal setting by software of end product within the scope of this application. End user cannot change this setting.

The equipment complies with RF exposure limits. This module is limited to installation in mobile or fixed applications. The antenna used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The device has been evaluated to meet general RF exposure requirement.

To maintain compliance with FCC's RF exposure guidelines, this equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

If the IC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use wording such as the following:

**“Contains Transmitter Module IC: 23337-FOSFDA”**

When the module is installed inside another device, the user manual of this device must contain below warning statements:

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## Setup

### Installation:

1. Connect 3.3V regulate power to the Module 3.3V pin.
2. Connect GDN to Module GND.
3. Connect Enable pin to Module REST pin.
4. Connect Host USB Interface DP/DM to module DP/DM
5. Connect antenna to Module RFA or RFB pin.



Note:

One side of a coaxial cable (RG178) is connected to the antenna pin of the module, and the other side is connected to the antenna through the RP-SMA connector. The length of coaxial cable is 0.18m.

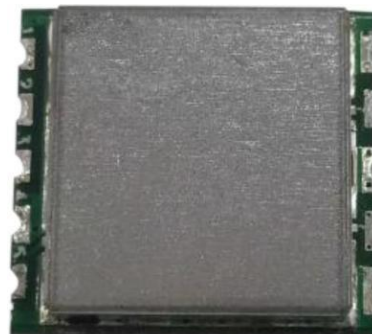
### Antenna Specification

Frequency Range(MHz)	2.4GHz~2.5GHz
Impedance( $\Omega$ )	50
Peak Gain(dBi)	3.0dBi
VSWR	$\leq 1.8$
Admitted Power	50W
Polarization	Linear, Vertical
Radiation	Omni-directional
Connector	RP-SMA

More module information is provided below:

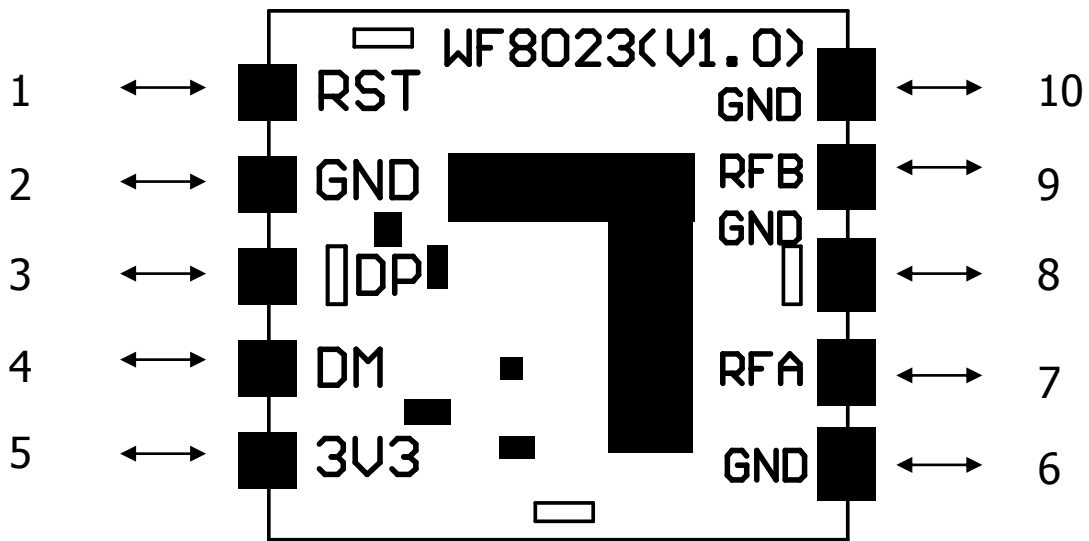


WF8023 BOTVIEW



WF8023 TOPVIEW

## Pin Assignment



Pin NO.	Pin Name	Pin Description	I/O
1	RST	Connect to 3.3V via a 100k resistor	I
2 , 6 , 8 , 10	GND	Ground	
3	DP	USB Interface DP	I/O
4	DM	USB Interface DM	I/O
5	3.3V	Power Supply	I
7	RFA	Connect to antenna	I/O
9	RFB	Connect to antenna	I/O

Outline Dimension

