

WH-L101-H-P datasheet

File Version: V1.0.0

WH-L101-H-P

WH-L101-H-P is high frequency and half-duplex LoRa module which supports point-to-point communication protocol. Transmitting side and receiving side must meet the following three conditions to realize point-to-point communication:

- Same speed level.
- Same channel.
- Same target address or both are broadcast address.

WH-L101-H-P supports following three work mode(Note: No matter which mode, one data package length can't over 252 bytes, otherwise data package will be discarded):

- AT command mode: In this mode, user can send AT commands to configure module.
- Transparent transmission mode: In this mode, data transmission procedure won't influence data content.
- Fixed point mode: In this mode, target address and channel can be changed to switch target module. Based on transparent transmission mode, first and second bytes of transmitted data will be target address and third byte will be channel. When module transmits data, target address and channel will be changed and settings will restore after transmitting.

Basic parameters as follow table:

	Parameter	Range
Wireless parameter	Working frequency range	905~925MHz
	Transmitting power	Working voltage range from 1.8V to 2.4V, transmitting power can be set between 10dBm~17dBm. Working voltage range from 2.4V to 3.6V, transmitting power can be set between 10dBm~20dBm.
	Receiving sensitivity	-138.5dBm@0.268Kbps
	Communication distance	3500m
	Antenna	Bonding pad
Hardware parameter	Data interface	1200bps~115200bps
	Working voltage	1.8V~3.6V
	Working current	@3.3V: Transmitting current 130mA; Receiving current 16mA; Wake up receiving current 4μA.
	Working temperature	-40℃~+85℃
	Storage temperature	-45℃~+90℃
	Working humidity	10~90%RH
	Storage humidity	10~90%RH
	Dimension	18.2mm*26.6mm*2.6mm
Encapsulation interface	SMT(surface-mount technology)	

2.Contact Us

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3.Update History

2017-12-22 V1.0.0 established.

Federal Communication Commission Statement (FCC, U.S.)

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 generates, 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 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.

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

FCC Caution:

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

IMPORTANT NOTES

Co-location warning:

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

OEM integration instructions:

This device is intended only for OEM integrators under the following conditions:

The transmitter module may not be co-located with any other transmitter or antenna. The module shall be only used with the external antenna(s) that has been originally tested and certified with this module.

As long as the conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.).

Validity of using the module certification:

In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization for this module in combination with the host equipment is no longer considered valid and the FCC ID of the module cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

End product labeling:

The final end product must be labeled in a visible area with the following: "Contains Transmitter Module [FCC ID: 2AQUW-WH-L101](#)".

Information that must be placed in the end user manual:

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module. The end user manual shall include all required regulatory information/warning as show in this manual.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.