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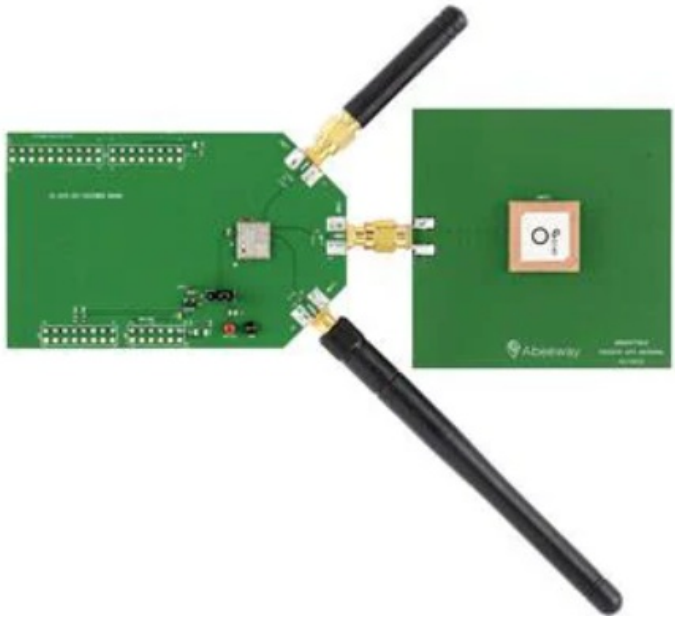
muRata LBAA0XV2GT Lora Module



Product Specifications

- Part Number: LBAA0XV2GT
- FCC ID: VPYLB2GT
- IC: 772C-LB2GT
- Dimensions:
  - Length: 18.55 mm
  - Width: 0.34 mm

Product Usage Instructions

Antenna Application Guidance

The LBAA0XV2GT module is certified to operate with specific antennas. Ensure to use only the approved antennas with the following peak gains:

- Whip antenna by Linx with peak gain of 2.5dBi for the 2.4GHz ISM band
- Whip antenna by TE with peak gain of 2.0dBi for the sub-GHz band
- FPC antenna by TE with peak gain of 2.1dBi for the sub-GHz band

Refer to the provided part numbers for the recommended antennas and connectors for proper assembly.

Assembly Instructions

When assembling the antenna, ensure to follow the PCB trace from the module’s RF pin

to the u.FL connector for the FPC antenna. Use components of specified values and sizes as listed below:

Ref #	Value	Size
R44	0R	0402
L10	4.7nH	0402
C165	5.6pF	0402

FCC & IC Statements

Compliance with FCC and IC regulations is essential. Any modifications not approved may void the user's authority to operate the equipment. Maintain a minimum distance of 20cm between the device and your body to comply with radiation exposure limits.

LBAA0XV2GT has been FCC/ISED certified as Single Modular Approval with the following IDs.

- FCC ID: VPYLB2GT
- IC: 772C-LB2GT

The module is limited to OEM installation ONLY. The OEM integrator is responsible for ensuring that the end-user has no manual instruction to remove or install module. Therefore, the final host product must be submitted to Murata for confirmation that the installation of the module into the host complies with the regulations of the FCC and IC Canada. Specifically, if an antenna other than the model documented in the Filing is used, a Class 2 Permissive Change must be filed with the FCC.
Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

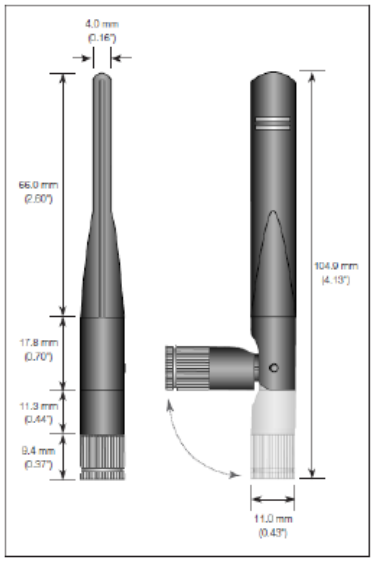
This module has been approved by the FCC to operate with the antenna types with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device. The following antenna has been certified in combination with the

module. Refer to the next pages for the antenna application guidance.

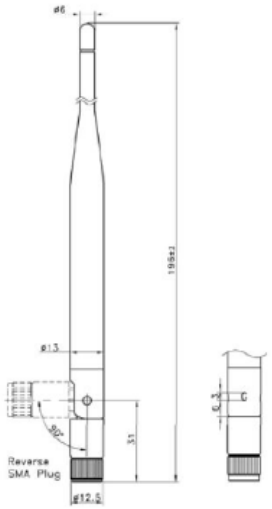
- Whip antenna by Linx with peak gains of 2.5dBi for the 2.4GHz ISM band
- Whip antenna by TE with peak gain of 2.0dBi for the sub-GHz band
- FPC antenna by TE with peak gain of 2.1dBi for the sub-GHz band

Antenna Application Guidance

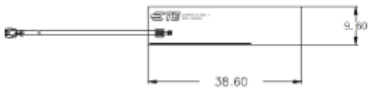
2.4GHz antenna
P/N: ANT-DB1-RAF-RPS



Sub-GHz antenna
P/N: 001-0002

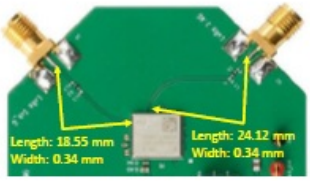


Sub-GHz antenna
P/N: 2195835-X



RP-SMA connector for Sub-GHz antenna

RP-SMA connector for 2.4GHz antenna

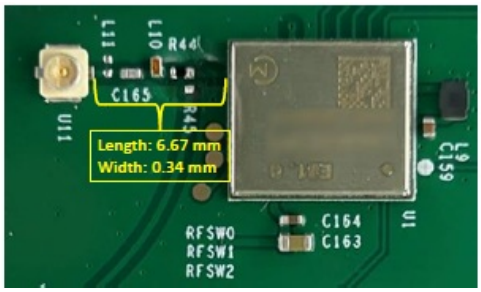


PCB for assembly the antenna

Antenna Application Guidance for FPC antenna

PCB trace from module's RF pin to the u.FL connector for the FPC antenna

Ref #	**R44**	**L10**	**C165**
Value	0R	4.7nH	5.6pF
Size	0402	0402	0402



FCC Statements

Please take note that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

This equipment complies with FCC/IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body.

When the FCC ID 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 ”Contains transmitter module FCC ID: VPYLB2GT” or “Contains FCC ID: VPYLB2GT”.

FCC Statements (cont.)

This equipment has been tested and found to comply with the limits for a Class B digital device, under 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 usedbyh 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 to 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

IC Statements

This device complies with Industry Canada licence-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.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be chosen so that the equivalent isotropically radiated power (EIRP) is not more than that necessary for successful communication.

IC Statements (cont.)

This equipment complies with FCC/IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body.

When the Industry Canada certification 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 be use wording ”Contains transmitter module IC: 772C-LB2GT” or “Contains IC: 772C-LB2GT”.

FAQs

Q: Can I use antennas other than the ones listed?

A: No, using antennas not certified with the LBAA0XV2GT module is strictly prohibited.

Q: What should I do if the FCC/IC ID is not visible?

A: If the ID is not visible when the module is installed in another device, ensure that the exterior of the device displays the appropriate label referencing the enclosed module.

Q: How should I handle interference issues?

A: The device must accept any interference received and should not cause harmful interference according to FCC and ICregulations.

Documents / Resources

	muRata LBAA0XV2GT Lora Module [pdf] User Manual LB2GT, VPYLB2GT, LBAA0XV2GT, LBAA0XV2GT Lora Module, LBAA0XV2GT, Lora Module, Module

References

- User Manual

muRata

LB2GT, LBAA0XV2GT, LBAA0XV2GT Lora Module, LoRa Module, Module, muRata, VPYLB2GT

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