LBUA0VG2BP User Manual for FCC

FCC ID:VPYLB2BP

Since this module is not sold to general end users directly, there is no user manual of module.
For the details about this module, please refer to the specification sheet of module.
This module should be installed in the host device according to the interface specification (installation procedure).

● Warning;

CFR §15.521(a) notice

This module may not be employed for the operation of toys. Operation onboard aircraft, ship or satellite is prohibited.
CFR §15.519 a(2) notice

The use of antennas mounted on outdoor structures, e.g., antennas mounted on the outside of a building or on a telephone pole, or any fixed outdoors infrastructure is prohibited. Antennas may be mounted only on the hand held UWB device.

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 device complies with below part 15 of FCC Rules.
Part 15 Subpart F

The modular transmitter is only FCC authorized for the specific rule parts (i.e., FCC transmitter rules)
listed on the grant, and the host product manufacturer is responsible for compliance to any other
FCC rules that apply to the host not covered by the modular transmitter grant of certification.

The final host product still requires Part 15 Subpart B compliance testing with the modular
transmitter installed.

The OEM integrator is responsible for ensuring that the end-user has no manual instruction to remove or install module, This module has been evaluated stand alone to meet portable use without restriction, however, if a host product also contains other transmitter(s) and antenna(s), necessary test or evaluation needs to be performed in order to meet the requirement.

Antenna Change Notice to Host manufacturer
If you desire to increase antenna gain and either change antenna type or use same antenna type certified, a Class II permissive change application is required to be filed by us, or you(host manufacturer) can take responsibility through the change in FCC ID(new application) procedure followed by a Class II permissive change application.

This module needs to supply a regulated voltage from host device.
• VDD_1V8_DIG: 1.71~1.98V
• VDD_1V8_RF: 1.71~1.98V
Since there is no space which indicates FCC ID on this module, FCC ID is indicated in a manual.
If the FCC ID is not visible when the module is installed inside another device,
then the module is installed must also display a label referring to the enclosed module.

03 August 2022   2

LBUA0VG2BP User Manual for FCC

Maker	Supported Antenna				
	P/N	Type	Gain [dBi]		Appearance
			5ch	9ch	
Murata	MTD-ANT-027-1-A_UWB_ANT18mm	Patch	0.9	2.7	

● The following statements must be described on the user manual of the host device of this module;

| Contains Transmitter Module FCC ID:VPYLB2BP | or | Contains FCC ID: VPYLB2BP |

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.

*If it is difficult to describe this statement on the host product due to the size, please describe in the User's manual.

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

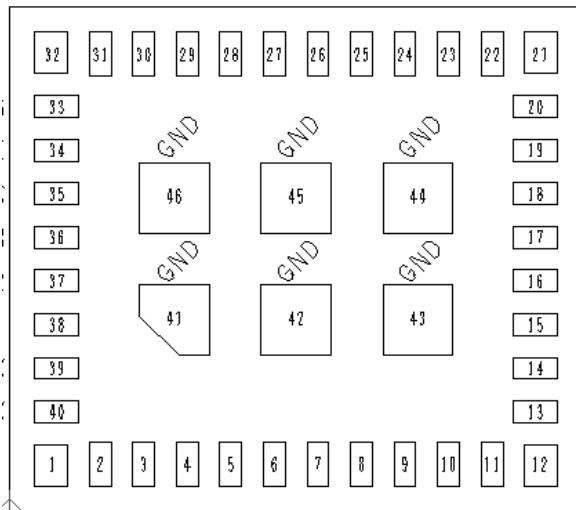# LBUA0VG2BP Operational Description

FCC ID of this product is as follows.
FCC ID: VPYLB2BP

Contents
1. PIN Layout
2. Supply Voltage
3. Power Levels
4. Theory of operation
5. Antenna

03 August 2022

1.PIN Layout

Top View

No.	Terminal Name	No.	Terminal Name	No.	Terminal Name	No.	Terminal Name
1	GND	13	ANT0	25	HOST_4	37	COEX_2
2	SE_2	14	GND	26	HOST_1	38	COEX_1
3	SE_1	15	GND	27	HOST_2	39	UART2_TX
4	GPIO05_SENSORINT	16	ANT1	28	HOST_3	40	UART2_RX
5	GND	17	GND	29	GND	41	GND
6	XTAL2_32K	18	GND	30	VDD_1V8_RF	42	GND
7	XTAL1_32K	19	GND	31	VDD_1V8_DIG	43	GND
8	GND	20	ANT2	32	GND	44	GND
9	SWD_CLK	21	GND	33	GPIO03_SYNC	45	GND
10	SWD_IO	22	GND	34	CHIPENABLE	46	GND
11	GND	23	GPIO11	35	RTC_SYNC		
12	GND	24	GPIO14	36	GPIO08		

2.Supply Voltage

DUT PIN Name	Min.	Typ.	Max.	unit
VDD_1V8_DIG	1.71	1.80	1.98	V
VDD_1V8_RF	1.71	1.80	1.98	V

3. Power Levels

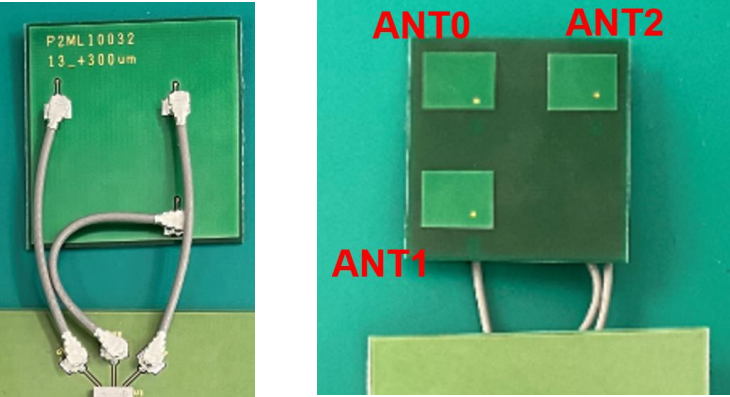| Modulation	Channel	MAXIMUM TUNE UP TOLERANCE	
		Peak Power	Average Power
BPM-BPSK	5, 9	0dBm/50MHz	-41.3dBm/MHz
BPSK	5, 9	0dBm/50MHz	-41.3dBm/MHz

3. Key Features

- Main IC : NXP / SR150
- Compliant with IEEE802.15.4z HRP PHY
- Supports SHF UWB bands, Ch5(6489.6MHz) and 9(7987.2MHz)
- Supports 62.4MHz,124.8MHz and 249.6MHz PRF mode
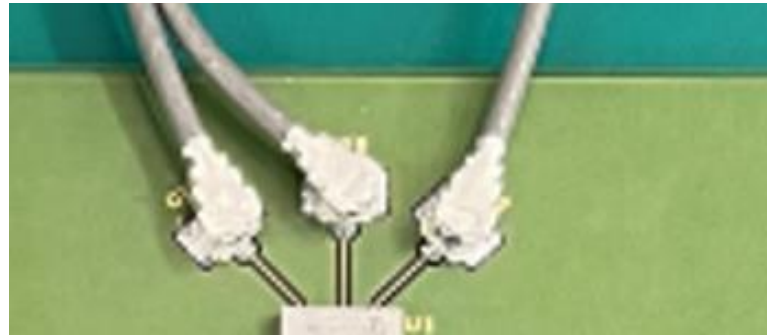- Data rates of 6.81Mbps, 7.8Mbps, 27.24Mbps and 31.2Mbps

4.Antenna

Maker	Supported Antenna				
	P/N	Type	Gain [dBi]		Appearance
			5ch	9ch	
Murata	MTD-ANT-027-1-A_UWB_ANT18mm	Patch	0.9	2.7	

■ 50-ohm line(microstrip line pattern)

Certification tests are conducted in the following patterns.

The 50ohm microstrip line needs to be copied
when module is installed in the End product.

Murata provides set makers with Gerber data or something similar

03 August 2022   **10**