## LBEQ6ZZ1ES Installation Manual for FCC



Please make sure that your product has been evaluated and confirmed from the aspect of the fitness for the specifications and this documentation of our product.

FCC ID of this product is as follows.

FCC ID: VPYLB1ES

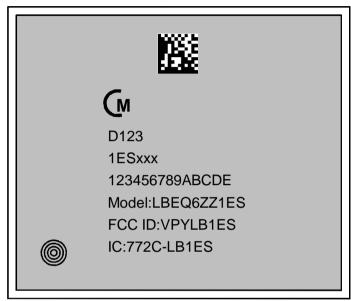
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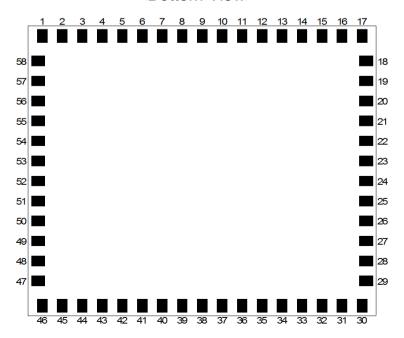
# 1. PIN Layout



<Top View>



<Bottom View>



No.	PIN NAME	No.	PIN NAME	No.	PIN NAME
1	GND	21	PCM_SYNC	41	NC
2	GND	22	GND	42	GND
3	GND	23	SD_CLK	43	GPIO2
4	NC	24	SD_CMD	44	GPIO3
5	NC	25	SD_D0	45	GND
6	NC	26	SD_D1	46	GND
7	GPIO0	27	SD_D2	47	GND
8	TCK	28	SD_D3	48	NC
9	TMS	29	GND	49	GND
10	TDI	30	GND	50	GND
11	TDO	31	VBAT	51	GND
12	GPIO1	32	GND	52	GND
13	GND	33	PDn	53	GND
14	NC	34	UART_TX	54	GND
15	GND	35	UART_RX	55	GND
16	VIO	36	UART_CTS	56	GND
17	GND	37	UART_RTS	57	ANT
18	PCM_IN	38	NC	58	GND
19	PCM_OUT	39	GND		
20	PCM_CLK	40	NC		

# 2. Supply Voltage



		min.	typ.	max.	unit
Operating Temperature		-40	25	85	deg.C
Supply Voltage	VBAT	3.0	3.3	3.6	V

## 3. Power Levels



#### <Wi-Fi 2.4GHz>

Mode	Setting Power
	[dBm]
IEEE 802.11b	17
IEEE 802.11g	13
IEEE 802.11n	13

## <Wi-Fi 5GHz>

Mode	Setting Power
	[dBm]
IEEE 802.11a	14
IEEE 802.11n (HT20)	14
IEEE 802.11n (HT40)	13
IEEE 802.11ac (HT20)	8
IEEE 802.11ac (HT20	8
IEEE 802.11ac (VHT80)	8

## <Bluetooth>

Mode	Setting Power
	[dBm]
BT	7
BLE	7

## 4. Notice



#### **Federal Communication Commission Interference Statement**

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 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.

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.

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

## 4. Notice



#### **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.

## 4. Notice



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

- 1) The antenna must be installed such that 20 cm is maintained between the antenna and users, and
- 2) The transmitter module may not be co-located with any other transmitter or antenna.
- 3) The use of an antenna with gain less than 2.07 dBi (for 2.4GHz) and 2.43 dBi (for 5GHz)

As long as 2 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

**IMPORTANT NOTE:** In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not 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**

This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following: "Contains FCC ID:VPYLB1ES". The grantee's FCC ID can be used only when all FCC compliance requirements are met.

#### **Manual Information To the End User**

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.