

Test Report

Prepared for: Level Up Holding Co., Inc

Models: LBA-VI-T12
LBA-VI-T12-CELL-V

Description: Video Intercom System with 12 inch Screen

FCC ID: 2A267-LBAVI12T-CV

To

FCC Part 1.1310

Date of Issue: October 27, 2021

On the behalf of the applicant:

Level UP Holding Co.
6020 N 55th Ave
Glendale, AZ 85301

Attention of:

Joseph Butler
Ph: (602)775-5360
E-Mail: jbulter@golittlebird.com

Prepared by
Compliance Testing, LLC
1724 S. Nevada Way
Mesa, AZ 85204
(480) 926-3100 phone / (480) 926-3598 fax
www.compliancetesting.com
Project No: p2180004.12



Greg Corbin

Project Test Engineer

This report may not be reproduced, except in full, without written permission from Compliance Testing.
All results contained herein relate only to the sample tested

Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	10/27/2021	Greg Corbin	Original Document

ANAB

Compliance Testing, LLC, has been accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to the joint ISO-ILAC-IAF Communiqué dated January 2009).

The tests results contained within this test report all fall within our scope of accreditation, unless noted below.

Please refer to <http://www.compliancetesting.com/labscope.html> for current scope of accreditation.



FCC Site Reg. #349717

IC Site Reg. #2044A-2

Non-accredited tests contained in this report:

N/A

Model: LBA-VI-T12-CELL-V

Description: Video Intercom System with 12 inch screen

Software: Littlebird Test Software Rev 1.0

Serial Number: N/A

Additional Information:

The EUT is a modern version of the traditional telephone entry system for a gated community or complex. This device allows residents to access the property by swiping a physical credential such as a key fob, or their smartphone, as well as providing directory lookup and calling for property guests.

The EUT contains a 125 kHz transmitter and 2 pre-certified modules, (BLE and Cellular).

The 125 kHz transmitter was a pre-certified module with Limited Modular Approval. Full compliance testing was performed and a new FCC ID was issued for the 125 kHz transmitter.

The maximum output powers were obtained from the FCC RF test report (p2180004_FCC 15.209_rev 1.0).

Transmitter	Frequency Range	ERP / EIRP Radiated Power	
		(dBm)	(mw)
RFID	125 kHz	ERP = -98 dBm (-0.6 dBuV/m)	1.59 e-13
BLE	2402 – 2480 MHz	EIRP = -0.51 dBm @ 2480 MHz	0.89
Cellular Band 4	1710 – 1755 MHz	EIRP = 14.4 dBm @1720 MHz	27.5
Cellular Band 13	777- -787 MHz	EIRP = 26.1 dBm @ 782 MHz	407.38

The EUT does not have a conducted port. All three transmitter output powers were measured radiated in a 3 meter anechoic chamber.

The manufacturer produces a variant of the model tested. The variant is the same as the model tested with the cellular module removed. The model with the cellular module was tested to represent the worst case of the 2 models.

Model Tested and Variants

Model Tested	Description
LBA-VI-T12-CELL-V	12 inch non-touch screen with Verizon Cellular Modem
Variants	
LBA-VI-T12	12 inch non-touch screen without Verizon Cellular Modem

Since the frequency ranges of the 3 transmitters are independent of each other, individual RF Exposure calculations were performed for each transmitter per the most recent RF Exposure rules FCC CFR 47 part 1.1307, 1.1310 and KDB 447498 D01 DR04-44449.

Section 6.3.1 of KDB 447498 D01 DR04-44449, states:

To determine if a mobile device with multiple transmitters qualifies for simultaneous transmission test exemption, the basic approach is to evaluate MPE compliance for each transmitter, either by measurement or computational modeling (the latter being subject to PAG). In this way one can assess if each transmitter qualifies for the standalone test exemptions of Section 2.1.

125 kHz Transmitter RF Exposure assessment.

ERP Output Power = -0.6 dBuV /m (-98 dBm, 1.59 e-13 mw).

RF Exposure for the BLE transmitter was evaluated per FCC CFR 47 Part 1.1307(b)(3)(i)(C) to see if the BLE transmitter is below the ERP Threshold.

The EUT output power at 1.59 e-13 mw (-99 dBm) is below the 1 mw exemption allowed.

No further evaluation of the 125 kHz transmitter is required.

BLE Transmitter

The BLE transmitter was evaluated per FCC CFR 47 Part 1.1307(b)(3)(i)(C).

The ERP Threshold ERP_{TH} was calculated and compared to the ERP_{DUT} output power.

EUT test information

Frequency	ERP_{DUT}		Distance
Hz	mW	dBm	cm
2480000000	2.18776162	3.4	20

1.1307(b)(3)(i)(C) Table 1 ERP Threshold							
Frequency MHz	ERP_{th} W	ERP_{th} dBm	$R_{min} \geq \lambda/2\pi$ m	R m	λ m	$\lambda/4$ m	Limit Ratio ERP_{dut} / ERP_{th}
0.3 - 1.34	76.800	48.854	0.019	0.200	0.121	0.030	0.000
1.34 - 30	0.000	-16.490					39.630
30 - 300	0.153	21.853					0.006
300 - 1,500	1.270	31.037					0.001
1,500 - 100,000	0.768	28.854					0.001

The ERP_{DUT} at 2.2 mw is below the ERP_{TH} of 768 mw at 2480 MHz at a distance of 20 cm.

The BLE transmitter output power is below the ERP threshold and meets the ERP threshold exemption of FCC CFR 47 Part 1.1307(b)(3)(i)(C).

No further RF Exposure evaluation is required for the BLE transmitter.

Cellular Transmitter

The Cellular transmitter was evaluated per FCC CFR 47 Part 1.1307(b)(3)(i)(B).
 Each band of the cellular transmitter was evaluated separately.

The Power Threshold P_{TH} was calculated and compared to the ERP_{DUT} output power.

EUT test information

Band	Frequency	ERP_{DUT}		Distance
	Hz	mW	dBm	cm
4	1720000000	27.5	14.4	20
13	782000000	407.4	26.1	20

Band 4 Evaluation

1.1307(b)(3)(i)(B) P Threshold									
				Portable 2.1093			Mobile 2.1091		
Frequency	ERP_{20cm}	x	d	$P_{th} (0.5 \leq d \leq 20 \text{ cm})$		Limit Ratio	$P_{th} (20 < d \leq 40 \text{ cm})$		Ratio to Limit
GHz	mW		cm	mW	dBm	ERP_{dut} / P_{th}	mW	dBm	ERP_{dut} / P_{th}
0.3 - 1.5	3508.800	1.885	20	3508.800	35.452	0.008	3508.800	35.452	0.008
1.5 - 6	3060.000	1.825	20	3060.000	34.857	0.009	3060.000	34.857	0.009

The ERP_{DUT} at 27.5 mw for Band 4 is below the P_{TH} of 3060 mw at 1720 MHz at a 20 cm distance.

The Band 4 cellular transmitter output power is below the Power threshold and meets the Power threshold exemption of FCC CFR 47 Part 1.1307(b)(3)(i)(B).

Band 13 Evaluation

1.1307(b)(3)(i)(B) P Threshold									
				Portable 2.1093			Mobile 2.1091		
Frequency	ERP_{20cm}	x	d	$P_{th} (0.5 \leq d \leq 20 \text{ cm})$		Limit Ratio	$P_{th} (20 < d \leq 40 \text{ cm})$		Ratio to Limit
GHz	mW		cm	mW	dBm	ERP_{dut} / P_{th}	mW	dBm	ERP_{dut} / P_{th}
0.3 - 1.5	1595.28	1.371	20	1595.280	32.028	0.255	1595.28	32.028	0.255
1.5 - 6	3060.00	1.655	10	971.755	29.876	0.504	3060.00	34.857	0.160

The ERP_{DUT} at 489.8 mw for Band 13 is below the P_{TH} of 617.7 mw at 784.5 MHz at a 20 cm distance.

The Band 13 cellular transmitter output power is below the Power threshold and meets the Power threshold exemption of FCC CFR 47 Part 1.1307(b)(3)(i)(B).

No further RF Exposure evaluation is required for the cellular transmitter

END OF TEST REPORT