Test Report

Report No.:	MTi220516001-06E1
Date of issue:	2022-07-12
Applicant:	Shenzhen Jiayz photo industrial ., Ltd.
Product:	Microphone
Model(s):	Blink500 ProX RX, Blink500 ProX RXQ, Blink500 ProX 4RX, Blink500 Pro 4RX, Blink500 ProX RXDi, Blink500 ProX RXUC, Blink500 ProX RXDi-S, Blink500 ProX RXUC-S
FCC ID:	2ARN3-120403RX

Shenzhen Microtest Co., Ltd.
http://www.mtitest.com

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5. Any objection to this report shall be submitted to the laboratory within 15 days from the date of receipt of the report.

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TEST RESULT CERTIFICATION	
Applicant's name	Shenzhen Jiayz photo industrial ., Ltd.
Address	A16 Building, Intelligent Terminal Industrial Park of Silicon Valley Power, Guanlan, Longhua District, Shenzhen, China.
Manufacturer's Name	Shenzhen Jiayz photo industrial ., Ltd.
Address	A16 Building, Intelligent Terminal Industrial Park of Silicon Valley Power, Guanlan, Longhua District, Shenzhen, China.
Product description	
Product name	Microphone
Trademark	N/A
Model Name	Blink500 ProX RX
Serial Model	Blink500 ProX RXQ, Blink500 ProX 4RX, Blink500 Pro 4RX, Blink500 ProX RXDi, Blink500 ProX RXUC, Blink500 ProX RXDi-S, Blink500 ProX RXUC-S
Standards	FCC Part 15.249
Test procedure	ANSI C63.10-2013
Date of Test	
Date (s) of performance of tests ..... :	2022-06-16 ~ 2022-07-12
Test Result ..... :	Pass
This device described above has been tested by Shenzhen Microtest Co., Ltd. and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.	

Testing Engineer : Yanice Xie

(Yanice Xie)

Technical Manager : Leon Chen

(Leon Chen)

Authorized Signatory : Tom Xue

(Tom Xue)

1 General description

1.1 Feature of equipment under test (EUT)

Equipment:	Microphone
Model Name:	Blink500 ProX RX
Serial Model:	Blink500 ProX RXQ, Blink500 ProX 4RX, Blink500 Pro 4RX, Blink500 ProX RXDi, Blink500 ProX RXUC, Blink500 ProX RXDi-S, Blink500 ProX RXUC-S
Model Difference:	All the models are the same circuit and module, except the model name.
Operation Frequency:	2406 - 2474 MHz
Modulation Type:	GFSK
Antenna Type:	FPC antenna
Antenna Gain:	-0.7dBi
Max. Field Strength:	95.72dBuV/m
Power Source:	Input: RX: DC 5V 40mA
Cable:	USB-A to USB-C cable 0.3m 3.5mm TRS to TRRS Output Cable for Smartphones 0.85m
Battery:	RX: DC 3.7V 400mAh
Hardware version:	V0.4
Software version:	V1.01

1.2 Operation channel list

Channel	Frequency(MHz)	Channel	Frequency(MHz)
0	2406	8	2446
1	2440	9	2450
2	2414	10	2454
3	2418	11	2458
4	2422	12	2462
5	2434	13	2466
6	2438	14	2470
7	2442	15	2474

1.3 Test Frequency Channel

Channel	Frequency(MHz)
Low	2406
Middle	2442
High	2474

1.4 EUT operation mode

During testing, RF test program provided by the manufacture to control the Tx operation followed the test requirement.

1.5 Ancillary equipment list

Equipment	Model	S/N	Manufacturer
Adapter	HW-090200CH0	/	Huizhou BYD Electronics Co., Ltd.
Mobile phone	neo	/	vivo
Earphone	/	/	/

2 Summary of Test Result

Test procedures according to the technical standards:

Item	FCC Part No.	Description of Test	Result
1	FCC Part15.203	Antenna Requirement	Pass
2	FCC Part15.207	AC power line conducted emission	Pass
5	FCC Part15.249(d)	Radiated spurious emission	Pass
4	FCC Part 15.215	20dB and 99% Bandwidth	Pass

3 Test Facilities and Accreditations

3.1 Test laboratory

Test Laboratory	Shenzhen Microtest Co., Ltd
Location	101, No. 7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China.
FCC Registration No.	448573

3.2 Environmental conditions

Temperature:	15ºC~35ºC
Humidity	20%~75%
Atmospheric pressure	98kPa~101kPa

3.3 Measurement uncertainty

The reported uncertainty of measurement y ± U，where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2，providing a level of confidence of approximately 95 %

RF frequency	1 x 10-7
RF power, conducted	± 1 dB
Conducted emission(150kHz~30MHz)	± 2.5 dB
Radiated emission(9KHz-30MHz)	± 4.0 dB
Radiated emission(30MHz~1GHz)	± 4.2 dB
Radiated emission (above 1GHz)	± 4.3 dB
Temperature	±1 degree
Humidity	± 5 %

3.4 Test software

Software Name	Manufacturer	Model	Version
Bluetooth and WiFi Test System	Shenzhen JS tonscend co,.ltd	JS1120-3	2.5.77.0418

4 List of test equipment

Equipment No.	Equipment Name	Manufacturer	Model	Serial No.	Calibration date	Due date
MTI-E043	EMI Test Receiver	Rohde&schwarz	ESCI7	101166	2022/05/05	2023/05/04
MTI-E044	TRILOG Broadband Antenna	schwarabeck	VULB 9163	9163-1338	2021/05/30	2023/05/29
MTI-E047	Amplifier	Hewlett-Packard	8447F	3113A06150	2022/05/05	2023/05/04
MTI-E089	ESG Vector Signal Generator	Agilent	N5182A	MY49060455	2022/05/05	2023/05/04
MTI-E058	ESG Series Analog Ssignal Generator	Agilent	E4421B	GB40051240	2022/05/05	2023/05/04
MTI-E062	PXA Signal Analyzer	Agilent	N9030A	MY51350296	2022/05/05	2023/05/04
MTI-E066	MXA Signal Analyzer	Agilent	N9020A	MY50143483	2022/05/05	2023/05/04
MTI-E078	Synthesized Sweeper	Agilent	83752A	3610A01957	2022/05/05	2023/05/04
MTI-E079	DC Power Supply	Agilent	E3632A	MY40027695	2022/05/05	2023/05/04
MTI-E045	Double Ridged Broadband Horn Antenna	schwarabeck	BBHA 9120D	9120D-2278	2021/05/30	2023/05/29
MTI-E021	EMI Test Receiver	Rohde&schwarz	ESCS30	100210	2022/05/05	2023/05/04
MTI-E022	Pulse Limiter	Schwarzbeck	VSTD 9561-F	00679	2022/05/05	2023/05/04
MTI-E023	Artificial mains network	Schwarzbeck	NSLK 8127	NSLK 8127 #841	2022/05/05	2023/05/04
MTI-E046	Active Loop Antenna	Schwarzbeck	FMZB 1519 B	00044	2021/05/30	2023/05/29
MTI-E048	Amplifier	Agilent	8449B	3008A02400	2022/05/05	2023/05/04
MTI-E072	Thermometer Clock Humidity Monitor	-	HTC-1	/	2022/05/05	2023/05/04
Note: the calibration interval of the above test instruments is 12 or 24 months and the calibrations are traceable to international system unit (SI).						

5 Test Result

5.1 Antenna requirement

5.1.1 Standard requirement

FCC PART 15.203;

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

This requirement does not apply to carrier current devices or to devices operated under the provisions of §§15.211, 15.213, 15.217, 15.219, 15.221, or §15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

5.1.2 EUT Antenna

The antenna is a FPC antenna, which was permanently affixed to the device and un-replaced, complies with 15.203. In addition, the maximum antenna gain is -0.7dBi.

5.2 AC power line conducted emission

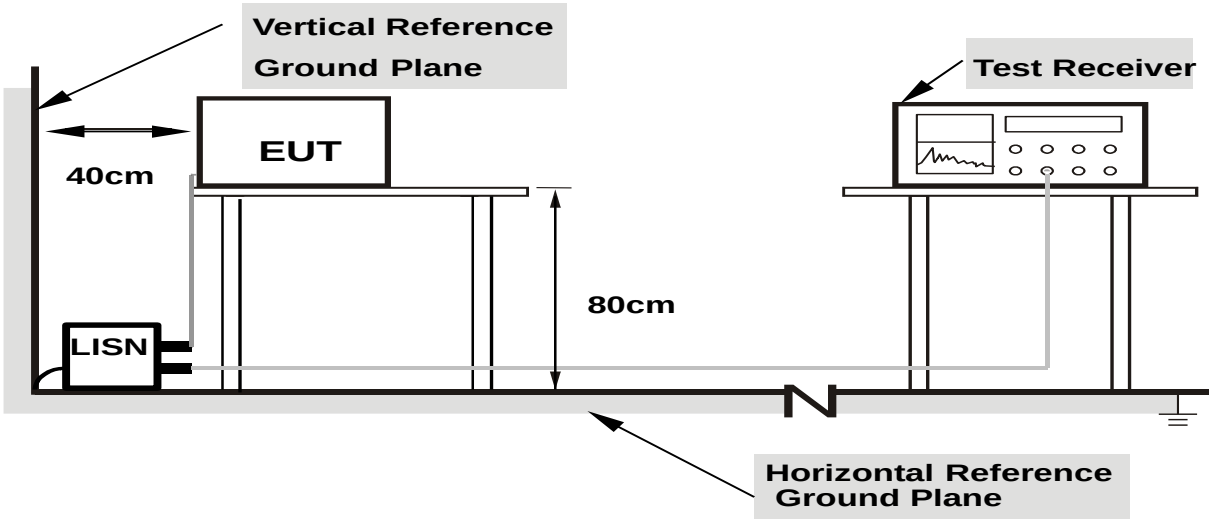
5.2.1 Limits

FCC §15.207;

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50μH/50Ω line impedance stabilization network (LISN).

Frequency (MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 note2	56 - 46 note2
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00
Note1: The tighter limit applies at the band edges. Note2: The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.		

5.2.2 Test setup



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

5.2.3 Test procedure

a. EUT Operating Conditions

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

b. The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

c. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment's powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

d. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

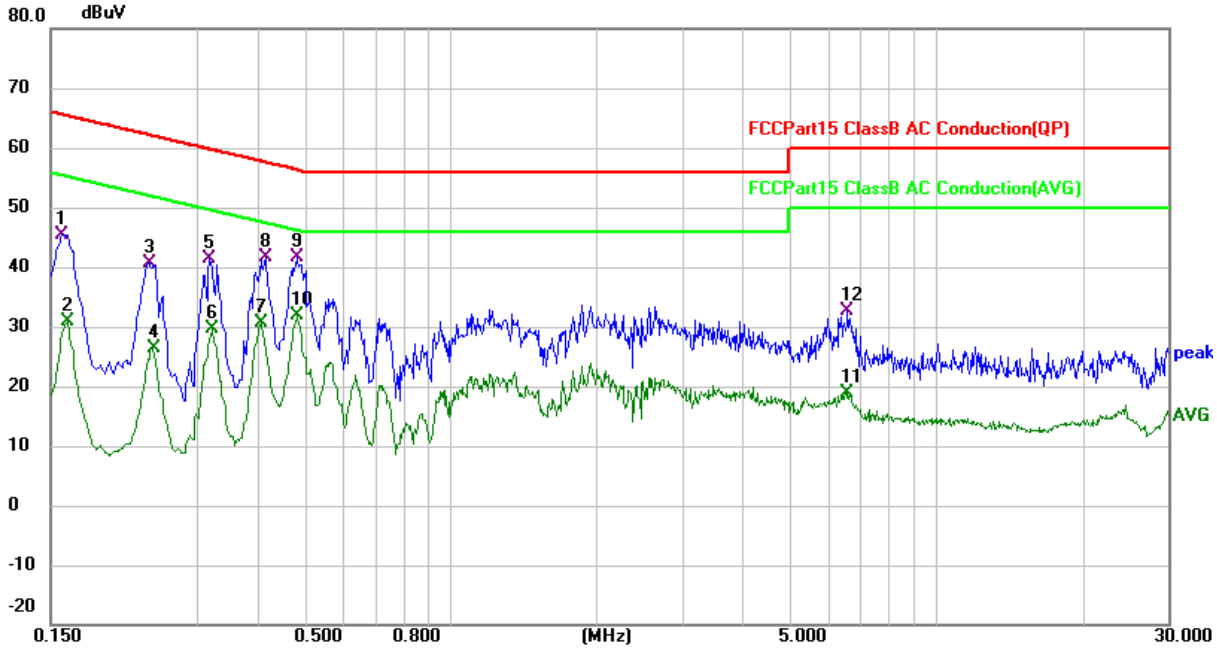
e. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

f. LISN at least 80 cm from nearest part of EUT chassis.

For the actual test configuration, please refer to the related Item –EUT Test Photos.

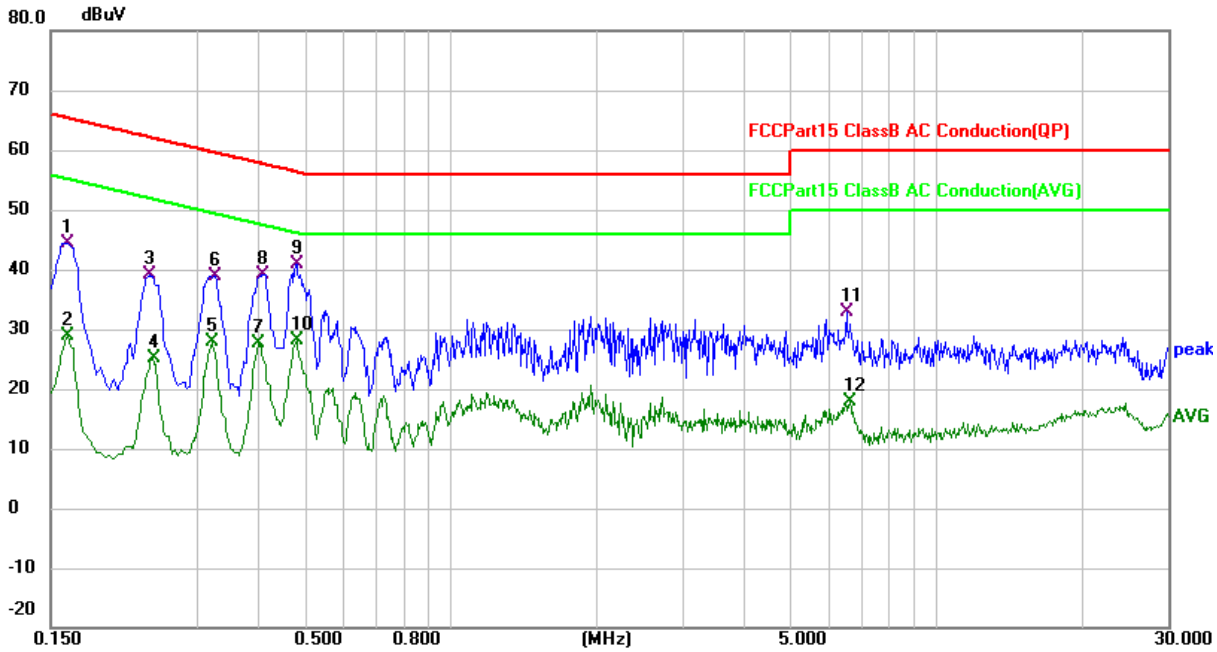
5.2.4 Test results

EUT:	Microphone	Model Name :	Blink500 ProX RX
Pressure:	101kPa	Polarization:	N
Test voltage:	AC 120V/60Hz	Test mode:	Charging+TX



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1580	34.40	10.99	45.39	65.57	-20.18	QP
2		0.1620	19.94	10.99	30.93	55.36	-24.43	AVG
3		0.2380	29.72	10.99	40.71	62.17	-21.46	QP
4		0.2420	15.49	10.99	26.48	52.03	-25.55	AVG
5		0.3180	30.46	10.98	41.44	59.76	-18.32	QP
6		0.3220	18.61	10.97	29.58	49.66	-20.08	AVG
7		0.4060	19.68	10.98	30.66	47.73	-17.07	AVG
8		0.4140	30.59	10.98	41.57	57.57	-16.00	QP
9		0.4820	30.57	11.06	41.63	56.30	-14.67	QP
10	*	0.4820	20.77	11.06	31.83	46.30	-14.47	AVG
11		6.5060	7.31	11.58	18.89	50.00	-31.11	AVG
12		6.5900	21.09	11.59	32.68	60.00	-27.32	QP

EUT:	Microphone	Model Name :	Blink500 ProX RX
Pressure:	101kPa	Polarization:	L
Test voltage:	AC 120V/60Hz	Test mode:	Charging+TX



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1620	33.50	10.98	44.48	65.36	-20.88	QP
2		0.1620	17.85	10.98	28.83	55.36	-26.53	AVG
3		0.2380	28.11	10.91	39.02	62.17	-23.15	QP
4		0.2420	14.15	10.91	25.06	52.03	-26.97	AVG
5		0.3220	17.12	10.88	28.00	49.66	-21.66	AVG
6		0.3260	28.02	10.89	38.91	59.55	-20.64	QP
7		0.4020	16.70	10.91	27.61	47.81	-20.20	AVG
8		0.4100	28.23	10.90	39.13	57.65	-18.52	QP
9	*	0.4780	30.02	10.89	40.91	56.37	-15.46	QP
10		0.4820	17.23	10.90	28.13	46.30	-18.17	AVG
11		6.5380	21.41	11.39	32.80	60.00	-27.20	QP
12		6.6500	6.59	11.39	17.98	50.00	-32.02	AVG

5.3 Radiated spurious emission

5.3.1 Limit

FCC PART 15.249(a);

Except as provided in paragraph (a) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Frequency (MHz)	Field Strength of Fundamental (mV/m)	Field Strength of Harmonics (μV/m)
902-928	50	500
2400-2483.5	50	500
5725-5875	50	500

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

5.3.2 Test method

a) The EUT is placed on a turntable, which is 0.8m above ground plane for test frequency range blew 1GHz, and 1.5m above ground plane for test frequency range above 1GHz.

b) EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.

c) Use the following spectrum analyser settings:

   1) Span = wide enough to fully capture the emission being measured

   2) RBW = 1 MHz for f ≥ 1GHz, 100 kHz for f < 1 GHz

   3) VBW ≥ RBW, Sweep = auto

   4) Detector function = peak

   5) Trace = max hold

d) Follow the guidelines in ANSI C63.4-2014 with respect to maximizing the emission by rotating the EUT, adjusting the measurement antenna height and polarization, etc. The peak reading of the emission, after being corrected by the antenna factor, cable loss, pre-amp gain, etc., is the peak field strength, submit this data. Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.

e) The peak level, once corrected, must comply with the limit specified in Section 15.209. Set the RBW = 1MHz, VBW = 10Hz, Detector = PK for AV value, while maintaining all of the other instrument settings.

5.3.3 Test Result

Below 30MHz

EUT：	Microphone	Model name. ：	Blink500 ProX RX
Pressure：	1010 hPa	Test voltage：	AC 120V/60Hz
Test mode：	Charging+TX	Polarization :	--

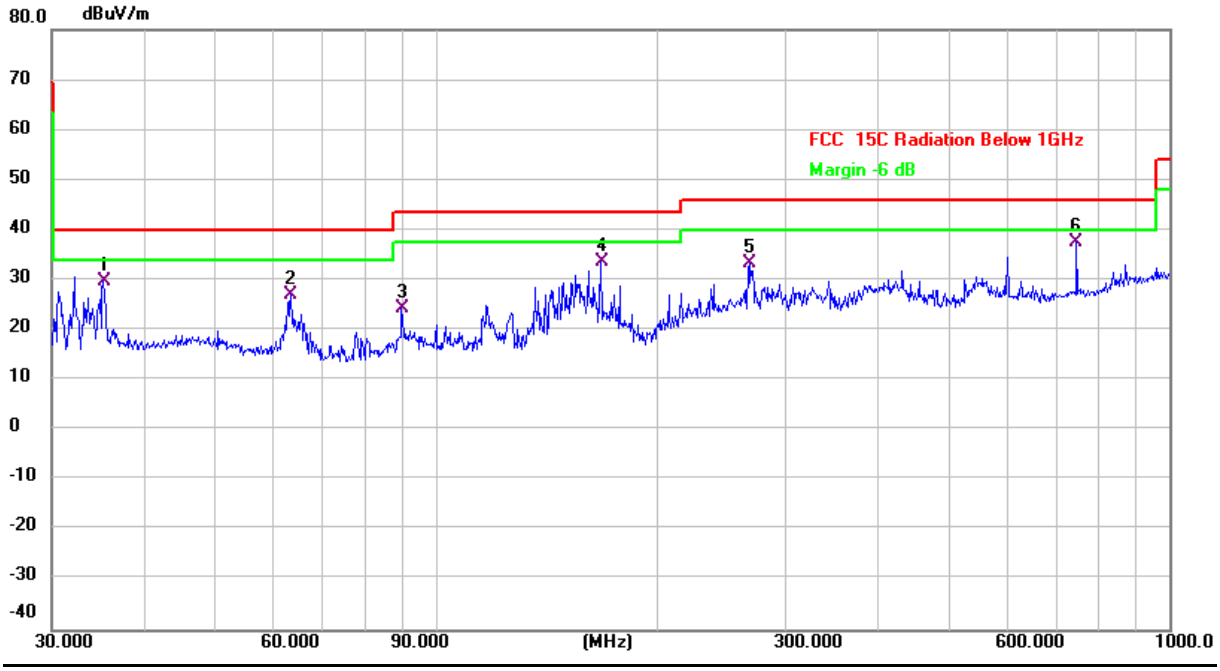
Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	Pass
--	--	--	--	Pass

Note:

1. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
2. Distance extrapolation factor =40 log (specific distance/test distance)(dB);
3. Limit line = specific limits (dBuV) + distance extrapolation factor.

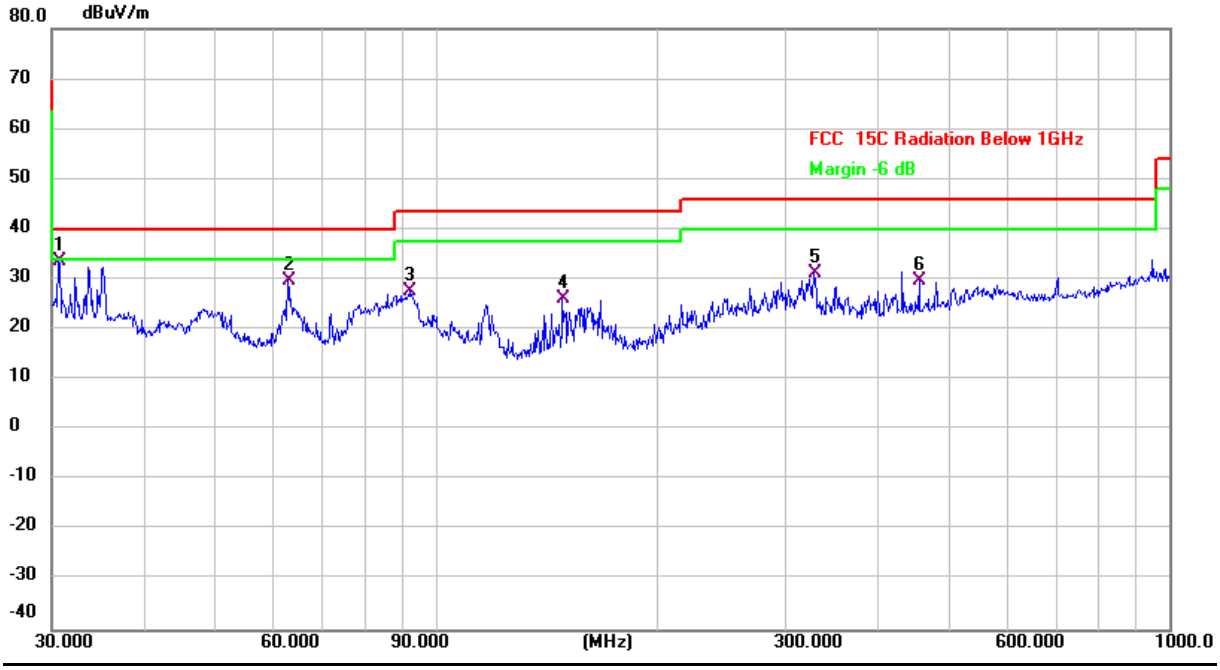
30MHz-1GHz

EUT:	Microphone	Model Name:	Blink500 ProX RX
Pressure:	101kPa	Polarization:	Horizontal
Test voltage:	AC 120V/60Hz	Test Mode:	TX-2474MHz



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		35.2512	37.93	-8.12	29.81	40.00	-10.19	QP
2		63.5356	36.83	-9.68	27.15	40.00	-12.85	QP
3		89.9047	33.28	-8.92	24.36	43.50	-19.14	QP
4		167.8243	43.32	-9.66	33.66	43.50	-9.84	QP
5		267.5455	38.94	-5.69	33.25	46.00	-12.75	QP
6	*	747.4825	36.88	0.76	37.64	46.00	-8.36	QP

EUT:	Microphone	Model Name:	Blink500 ProX RX
Pressure:	101kPa	Polarization:	Vertical
Test voltage:	AC 120V/60Hz	Test Mode:	TX-2474MHz



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	30.6379	42.37	-8.81	33.56	40.00	-6.44	QP
2		62.8708	39.36	-9.64	29.72	40.00	-10.28	QP
3		92.4624	36.39	-8.81	27.58	43.50	-15.92	QP
4		148.9625	36.49	-10.41	26.08	43.50	-17.42	QP
5		327.8873	35.65	-4.53	31.12	46.00	-14.88	QP
6		455.9058	33.39	-3.52	29.87	46.00	-16.13	QP

Note:

1. Emission Level = Meter Reading + Factor, Margin= Emission Level- Limit, Factor = Antenna Factor + Cable Loss – Pre-amplifier.
2. The three modulated high, medium and low channels have been tested. The report only shows the worst mode. The worst mode is CH15.

1GHz-26.5GHz:

Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dBμV)	(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	Peak/AVG	H/V
GFSK - 2406 MHz TX mode							
4812	40.52	1.53	42.05	74.00	-31.95	Peak	V
4812	34.57	1.53	36.10	54.00	-17.90	AVG	V
7218	40.39	5.46	45.85	74.00	-28.15	Peak	V
7218	33.93	5.46	39.39	54.00	-14.61	AVG	V
9624	40.37	6.34	46.71	74.00	-27.29	Peak	V
9624	33.94	6.34	40.28	54.00	-13.72	AVG	V
4812	40.25	1.53	41.78	74.00	-32.22	Peak	H
4812	33.70	1.53	35.23	54.00	-18.77	AVG	H
7218	40.11	5.46	45.57	74.00	-28.43	Peak	H
7218	33.70	5.46	39.16	54.00	-14.84	AVG	H
9624	40.68	6.34	47.02	74.00	-26.98	Peak	H
9624	34.69	6.34	41.03	54.00	-12.97	AVG	H
GFSK - 2442 MHz TX mode							
4884	41.25	1.68	42.93	74.00	-31.07	Peak	V
4884	34.95	1.68	36.63	54.00	-17.37	AVG	V
7326	40.17	5.44	45.61	74.00	-28.39	Peak	V
7326	33.80	5.44	39.24	54.00	-14.76	AVG	V
9768	41.63	6.37	48.00	74.00	-26.00	Peak	V
9768	35.73	6.37	42.10	54.00	-11.90	AVG	V
4884	39.98	1.68	41.66	74.00	-32.34	Peak	H
4884	33.53	1.68	35.21	54.00	-18.79	AVG	H
7326	39.79	5.44	45.23	74.00	-28.77	Peak	H
7326	33.66	5.44	39.10	54.00	-14.90	AVG	H
9768	39.92	6.37	46.29	74.00	-27.71	Peak	H
9768	33.78	6.37	40.15	54.00	-13.85	AVG	H

Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dBμV)	(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	Peak/AVG	H/V
GFSK - 2474 MHz TX mode							
4948	40.79	1.82	42.61	74.00	-31.39	Peak	V
4948	34.42	1.82	36.24	54.00	-17.76	AVG	V
7422	40.98	5.44	46.42	74.00	-27.58	Peak	V
7422	34.72	5.44	40.16	54.00	-13.84	AVG	V
9896	41.18	6.41	47.59	74.00	-26.41	Peak	V
9896	34.95	6.41	41.36	54.00	-12.64	AVG	V
4948	40.73	1.82	42.55	74.00	-31.45	Peak	H
4948	34.44	1.82	36.26	54.00	-17.74	AVG	H
7422	41.17	5.44	46.61	74.00	-27.39	Peak	H
7422	34.84	5.44	40.28	54.00	-13.72	AVG	H
9896	41.61	6.41	48.02	74.00	-25.98	Peak	H
9896	35.72	6.41	42.13	54.00	-11.87	AVG	H

Note:

1. All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).
2. Emission Level= Antenna Factor + Cable Loss + Read Level - Preamp Factor
3. All the modulation modes have been tested, and the worst results are reflected in the report.

5.3.4 Band edge–Field strength of fundamental

Frequency	Ant. Polarization	Emission level	Limits	Detector	Result
(MHz)	H / V	dBμV/m	dBμV/m		
2406	H	95.72	114	PK	PASS
2406	H	92.14	94	AV	PASS
2406	V	86.92	114	PK	PASS
2406	V	86.08	94	AV	PASS

Frequency	Ant. Polarization	Emission level	Limits	Detector	Result
(MHz)	H / V	dBμV/m	dBμV/m		
2442	H	93.16	114	PK	PASS
2442	H	90.42	94	AV	PASS
2442	V	84.73	114	PK	PASS
2442	V	82.64	94	AV	PASS

Frequency	Ant. Polarization	Emission level	Limits	Detector	Result
(MHz)	H / V	dBμV/m	dBμV/m		
2474	H	80.91	114	PK	PASS
2474	H	76.54	94	AV	PASS
2474	V	78.66	114	PK	PASS
2474	V	73.50	94	AV	PASS

5.3.5 Band edge-radiated

Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dBμV)	(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	Peak/AVG	H/V
GFSK – Low band-edge							
(MHz)	(dBμV)	(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	Peak/AVG	H/V
2310	42.94	-6.60	36.34	74.00	-37.66	Peak	V
2310	33.21	-6.60	26.61	54.00	-27.39	AVG	V
2390	52.12	-6.23	45.89	74.00	-28.11	Peak	V
2390	33.72	-6.23	27.49	54.00	-26.51	AVG	V
2400	51.18	-6.18	45.00	74.00	-29.00	Peak	V
2400	33.26	-6.18	27.08	54.00	-26.92	AVG	V
2310	46.79	-6.60	40.19	74.00	-33.81	Peak	H
2310	33.28	-6.60	26.68	54.00	-27.32	AVG	H
2390	60.67	-6.23	54.44	74.00	-19.56	Peak	H
2390	37.15	-6.23	30.92	54.00	-23.08	AVG	H
2400	60.67	-6.18	54.49	74.00	-19.51	Peak	H
2400	35.10	-6.18	28.92	54.00	-25.08	AVG	H
GFSK – High band-edge							
2483.5	49.71	-5.79	43.92	74.00	-30.08	Peak	V
2483.5	38.54	-5.79	32.75	54.00	-21.25	AVG	V
2500	48.43	-5.72	42.71	74.00	-31.29	Peak	V
2500	38.58	-5.72	32.86	54.00	-21.14	AVG	V
2483.5	59.53	-5.79	53.74	74.00	-20.26	Peak	H
2483.5	38.98	-5.79	33.19	54.00	-20.81	AVG	H
2500	50.60	-5.72	44.88	74.00	-29.12	Peak	H
2500	38.53	-5.72	32.81	54.00	-21.19	AVG	H

5.4 20dB and 99% bandwidth

5.4.1 Limits

FCC §15.215(c)

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in § 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

5.4.2 Test method

Use the following spectrum analyzer settings:

For 20 dB bandwidth

Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel

RBW ≥1% of the 20 dB bandwidth

VBW ≥RBW

Sweep = auto

Detector function = peak

Trace = max hold

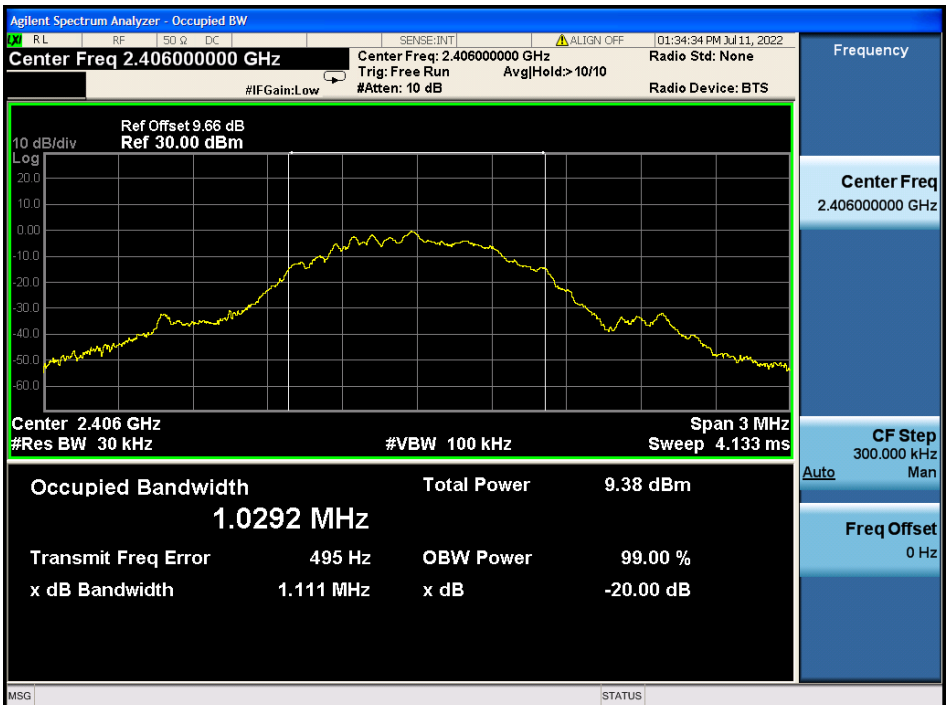
The EUT should be transmitting at its maximum data rate. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. Use the marker-delta function to measure 20 dB down one side of the emission. Reset the marker-delta function, and move the marker to the other side of the emission, until it is (as close as possible to) even with the reference marker level. The marker-delta reading at this point is the 20 dB bandwidth and 99% occupied bandwidth of the emission

5.4.3 Test result

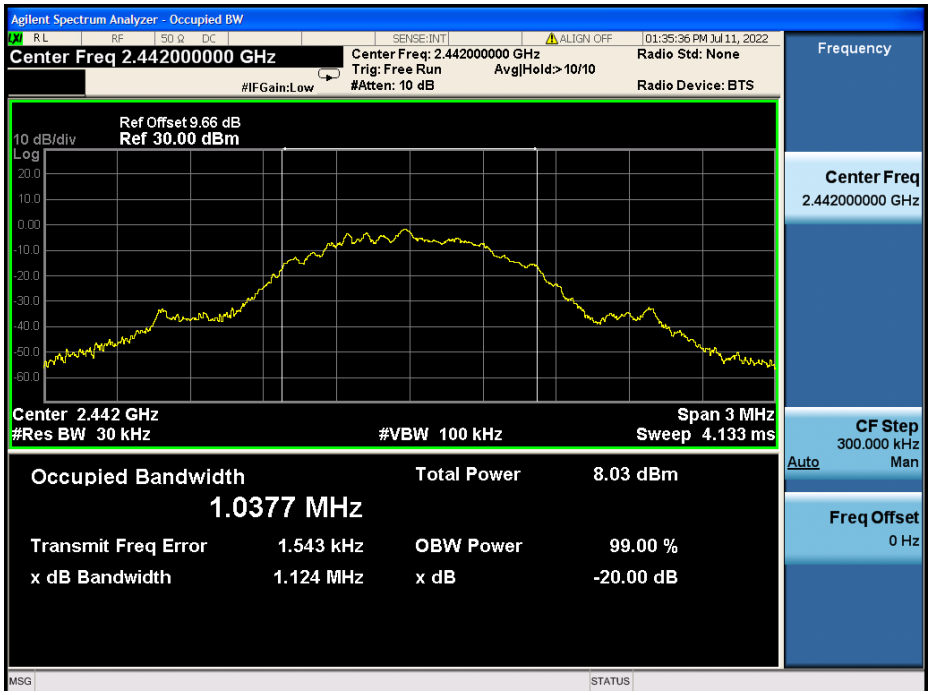
Frequency (MHz)	20dB bandwidth (MHz)	99% bandwidth (MHz)
2406	1.111	1.0292
2442	1.124	1.0377
2474	1.130	1.0449

Test plots

2406MHz



2442MHz



2474MHz

Photographs of the Test Setup

See the Appendix – Test setup photos.

Photographs of the EUT

See the Appendix - EUT Photos.

----END OF REPORT----