TESTING LABORATORY
CERTIFICATE #4820.01

FCC PART 15B

TEST REPORT

For

SZ DJI Osmo Technology Co.,Ltd.

12th floor,West Wing,Skyworth Semiconductor Design Building NO.18 Gaoxin South 4th Ave, Nanshan District,Shenzhen,China

FCC ID: 2ANDR-OT1121807

Report Type: Original Report	**Product Type:** OSMO POCKET WIRELESS MODULE
Report Number:	RDG180701002-00A
Report Date:	2018-07-20
Reviewed By:	Jerry Zhang EMC Manager Jerry Zhang
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Dongguan) No.69 Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, China Tel: +86-769-86858888 Fax: +86-769-86858891 www.baclcorp.com.cn

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

EUT Name:	OSMO POCKET WIRELESS MODULE
EUT Model:	OT-112
FCC ID:	2ANDR-OT1121807
Rated Input Voltage:	DC 5V
The Highest Operating Frequency:	5825 MHz
External Dimension:	40 mm (L) x 40 mm (W) x 25 mm (H)
Serial Number:	180701002
EUT Received Date:	2018-07-01

Objective

This report is prepared on behalf of *SZ DJI Osmo Technology Co.,Ltd.* in accordance with FCC Part 15B Part 2, Part J, and Part 15, Subpart A and B of the Federal Communications Commission's rules..

The objective of the manufacturer is to determine the compliance of EUT with FCC Part 15 B Class B.

Related Submittal(s)/Grant(s)

FCC submissions with Part 15C DTS, FCC ID: 2ANDR-OT1121807.
FCC submissions with Part 15E NII, FCC ID: 2ANDR-OT1121807.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2014 American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.

Measurement Uncertainty

Parameter	Measurement Uncertainty
Unwanted Emissions, radiated	30M~200MHz: 4.55 dB,200M~1GHz: 5.92 dB,1G~6GHz: 4.98 dB, 6G~18GHz: 5.89 dB,18G~26.5G:5.47 dB
Temperature	±1℃
Humidity	±5%
AC Power Lines Conducted Emission	3.12 dB (150 kHz to 30 MHz)

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 897218,the FCC Designation No. : CN1220.

The test site has been registered with ISED Canada under ISED Canada Registration Number 3062D.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in a typical fashion (as normally used by a typical user), that was provided manufacturer.

Test mode: Operating

During this test mode, the EUT was powered by adapter, and transmit data from OSMO Pocket to mobile Phone.

Equipment Modifications

No modification was made to the EUT.

EUT Exercise Software

No software was used during test.

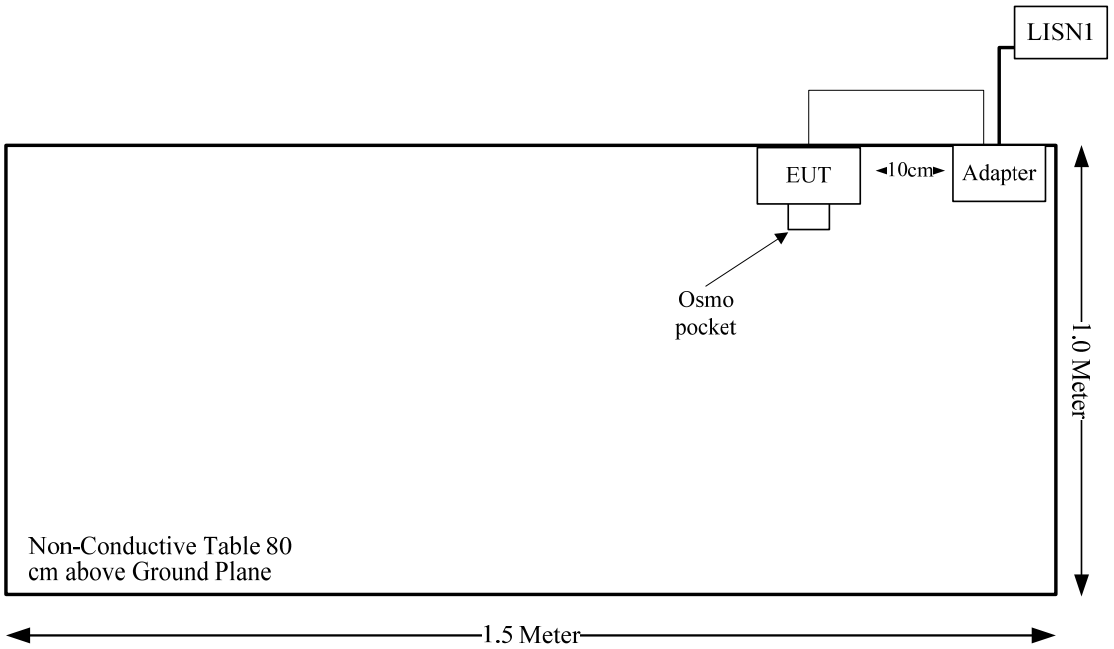
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Dji	Osmo Pocket	OT110	N/A
Soy	Adapter	s005ayu0500101	N/A
Apple	Mobile Phone	A1524	FK1R96VYG5QT

Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
USB Cable	Yes	No	1.08	Adapter	EUT

Block Diagram of Test Setup

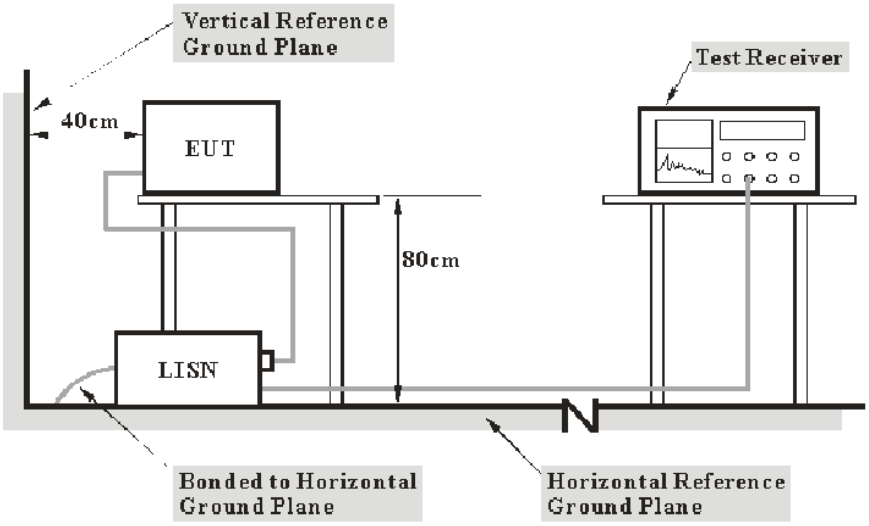


SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Results
§15.107	Conducted Emissions	Compliant
§15.109	Radiated Emissions	Compliant

FCC PART 15B §15.107 – CONDUCTED EMISSIONS

EUT Setup



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

The setup of EUT is according with per ANSI C63.4-2014 measurement procedure. The specification used was with the FCC Part 15 B Class B limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the first LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result (QuasiPeak or Average) = Meter Reading + Corr.

Note:
Corr. = Cable loss + Factor of coupling device

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Limit – Result

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCS 30	830245/006	2017-12-11	2018-12-11
Unknown	Coaxial Cable	C-NJNJ-50	C-0200-01	2017-09-05	2018-09-05
R&S	Test Software	EMC32	Version8.53.0	N/A	N/A
R&S	Two-line V-network	ENV 216	101614	2017-12-08	2018-12-08

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data

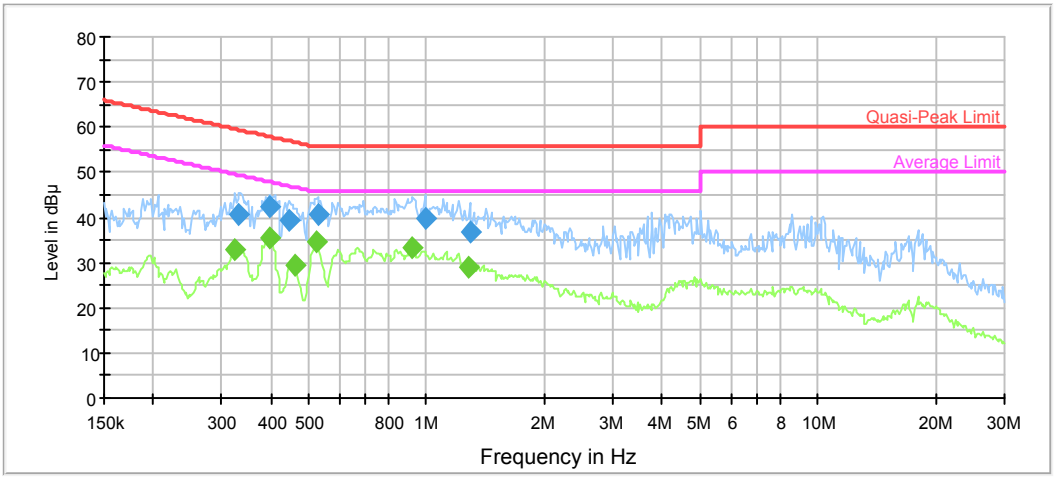
Environmental Conditions

Temperature:	27.6 °C
Relative Humidity:	58 %
ATM Pressure:	99.8 kPa

The testing was performed by Sider Huang on 2018-07-18.

Test Mode: Operating

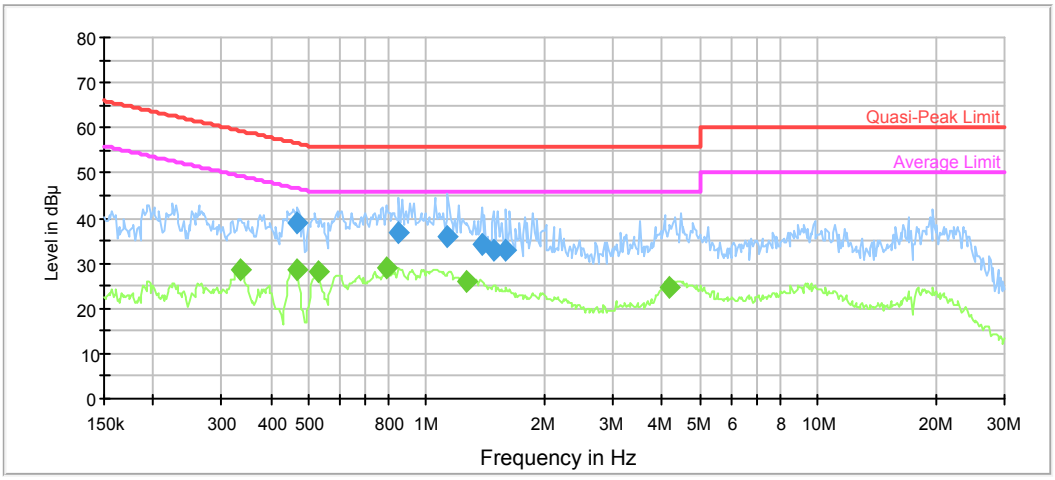
AC120 V, 60 Hz, Line:



Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.332770	40.7	9.000	L1	10.1	18.7	59.4	Compliance
0.399703	42.5	9.000	L1	10.0	15.4	57.9	Compliance
0.446873	39.5	9.000	L1	9.9	17.4	56.9	Compliance
0.528270	40.7	9.000	L1	9.9	15.3	56.0	Compliance
0.991374	39.8	9.000	L1	9.8	16.2	56.0	Compliance
1.289541	36.8	9.000	L1	9.8	19.2	56.0	Compliance

Frequency (MHz)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.324910	32.7	9.000	L1	10.1	16.9	49.6	Compliance
0.396530	35.4	9.000	L1	10.0	12.5	47.9	Compliance
0.461346	29.2	9.000	L1	9.9	17.5	46.7	Compliance
0.524077	34.8	9.000	L1	9.9	11.2	46.0	Compliance
0.915445	33.3	9.000	L1	9.8	12.7	46.0	Compliance
1.279307	29.2	9.000	L1	9.8	16.8	46.0	Compliance

AC120 V, 60 Hz, Neutral:



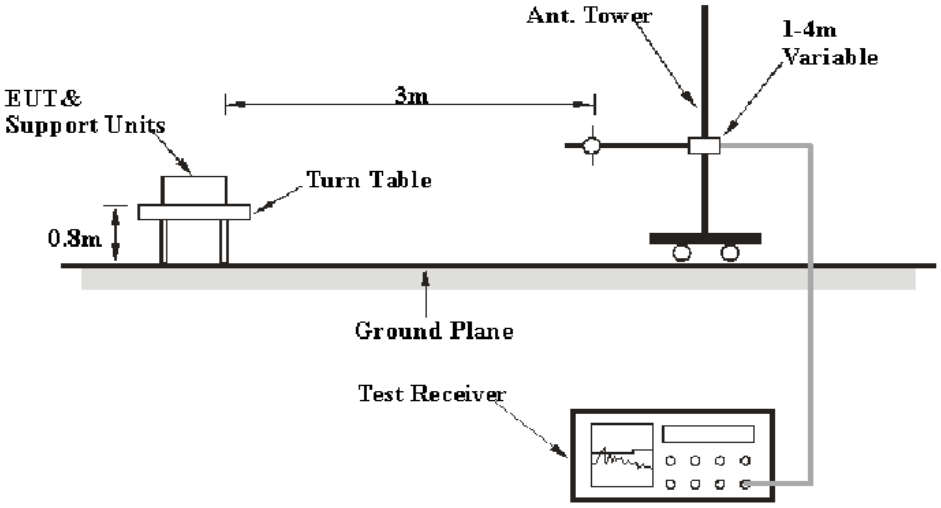
Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.468757	38.7	9.000	N	9.9	17.8	56.5	Compliance
0.852094	36.9	9.000	N	9.8	19.1	56.0	Compliance
1.135185	35.8	9.000	N	9.8	20.2	56.0	Compliance
1.385415	34.1	9.000	N	9.7	21.9	56.0	Compliance
1.488418	32.7	9.000	N	9.7	23.3	56.0	Compliance
1.599078	32.8	9.000	N	9.7	23.2	56.0	Compliance

Frequency (MHz)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.335433	28.4	9.000	N	10.1	20.9	49.3	Compliance
0.465037	28.4	9.000	N	9.9	18.2	46.6	Compliance
0.528270	28.1	9.000	N	9.9	17.9	46.0	Compliance
0.793127	28.9	9.000	N	9.8	17.1	46.0	Compliance
1.269154	25.9	9.000	N	9.8	20.1	46.0	Compliance
4.193667	24.9	9.000	N	9.8	21.1	46.0	Compliance

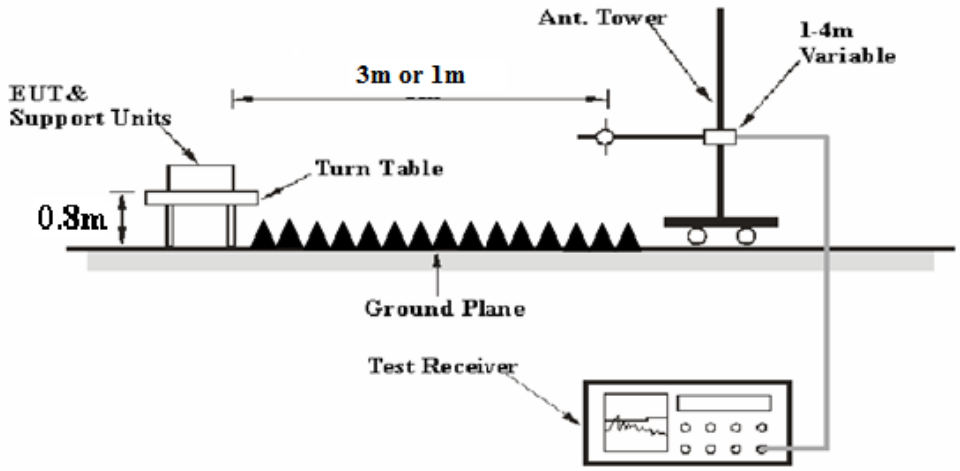
FCC PART 15B §15.109-RADIATED EMISSIONS

EUT Setup

Below 1GHz:



Above 1GHz:



The radiated emission tests were performed at the 3 meters Test Site A and B, 1GHz-26.5GHz were performed at the 3 m distance and 26.5-40GHz was performed at 1 m distance, using the setup accordance with the ANSI C63.4-2014. The specification used was the FCC Part 15.109 Class B limits.

EMI Test Receiver Setup

The system was investigated from 30 MHz to 40 GHz.

During the radiated emission test, the EMI test receiver was set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
30 MHz – 1000 MHz	120 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	Peak
	1 MHz	10Hz	/	AVG

Test Procedure

During the radiated emissions, the adapter of laptop was connected to the first AC floor outlet and the other support equipments were connected to the second AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

The data was recorded in the Quasi-peak detection mode for below 1 GHz, peak and average detection mode above 1 GHz.

According to C63.4, the above 1G test result shall be extrapolated to the specified distance using an extrapolation factor of 20dB/decade from 3m to 1 m
Distance extrapolation factor =20 log (specific distance [3m]/test distance [1m]) dB= 9.54 dB

All emissions under the average limit and under the noise floor have not recorded in the report.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCI	100224	2017-12-11	2018-12-11
Farad	Test Software	EZ-EMC	V1.1.4.2	N/A	N/A
Sunol Sciences	Antenna	JB3	A060611-1	2017-11-10	2020-11-10
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-01	2017-09-05	2018-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-0075-01	2017-09-05	2018-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2017-09-05	2018-09-05
HP	Amplifier	8447D	2727A05902	2017-09-05	2018-09-05
Agilent	Spectrum Analyzer	E4440A	SG43360054	2018-01-04	2019-01-04
R&S	Spectrum Analyzer	FSP 38	100478	2017-12-08	2018-12-08
ETS-Lindgren	Horn Antenna	3115	000 527 35	2016-01-05	2019-01-04
Ducommun Technolagies	Horn Antenna	ARH-4223-02	1007726-01 1304	2016-11-18	2019-11-18
Ducommun Technolagies	Horn Antenna	ARH-2823-02	1007726-01 1302	2016-11-18	2019-11-18
Unknown	Coaxial Cable	C-SJSJ-50	C-0800-01	2017-09-05	2018-09-05
Unknown	Coaxial Cable	C-2.4J2.4J-50	C-0700-02	2018-06-27	2019-06-27
MITEQ	Amplifier	AFS42-00101800-25-S-42	2001271	2017-09-05	2018-09-05
Quinstar	Amplifier	QLW-18405536-JO	15964001001	2018-06-27	2019-06-27
Sinoscite	Bandstop Filters	BSF5150-5850MN-0899-003	0899003	2018-05-06	2019-05-06
E-Microwave	Band-stop Filters	OBSF-2400-2483.5-S	OE01601525	2018-06-16	2019-06-16

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Meter Reading+ Corrected

Note:
Corrected = Antenna Factor + Cable Loss - Amplifier Gain
or
Corrected = Antenna Factor + Cable Loss- Amplifier Gain+ Distance extrapolation factor

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7 dB means the emission is 7 dB below the limit. The equation for margin calculation is as follows:

Margin = Limit – Result

Test Data

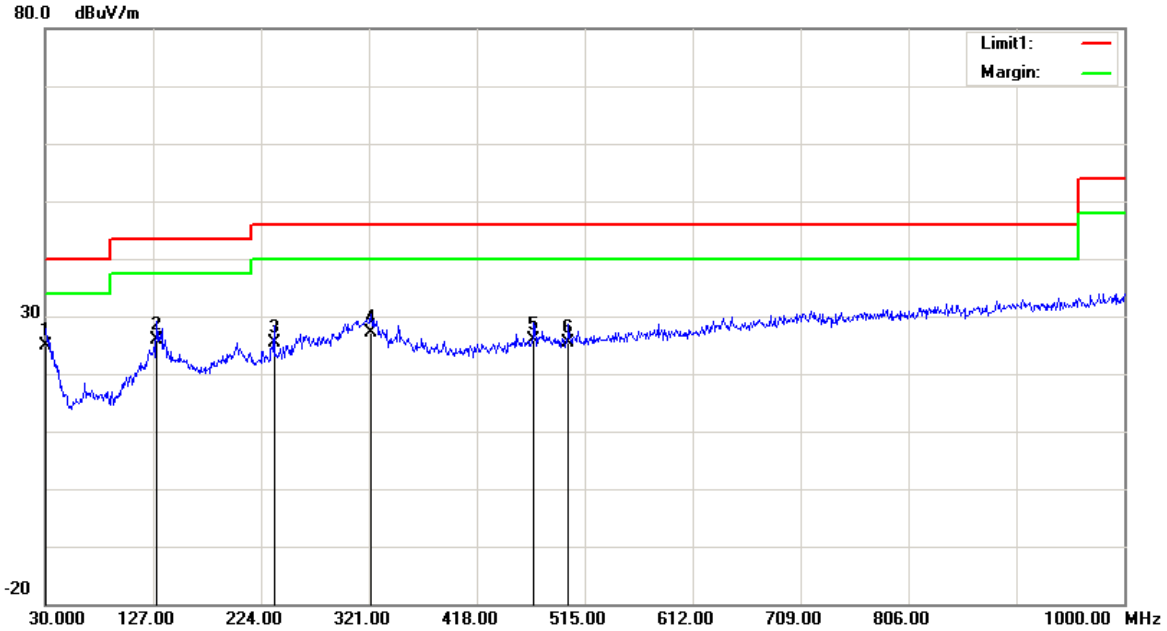
Environmental Conditions

Temperature:	26.8 °C
Relative Humidity:	41 %
ATM Pressure:	100.2 kPa

** The testing was performed by Tyler Pan & Sunny Cen on 2018-07-09.*

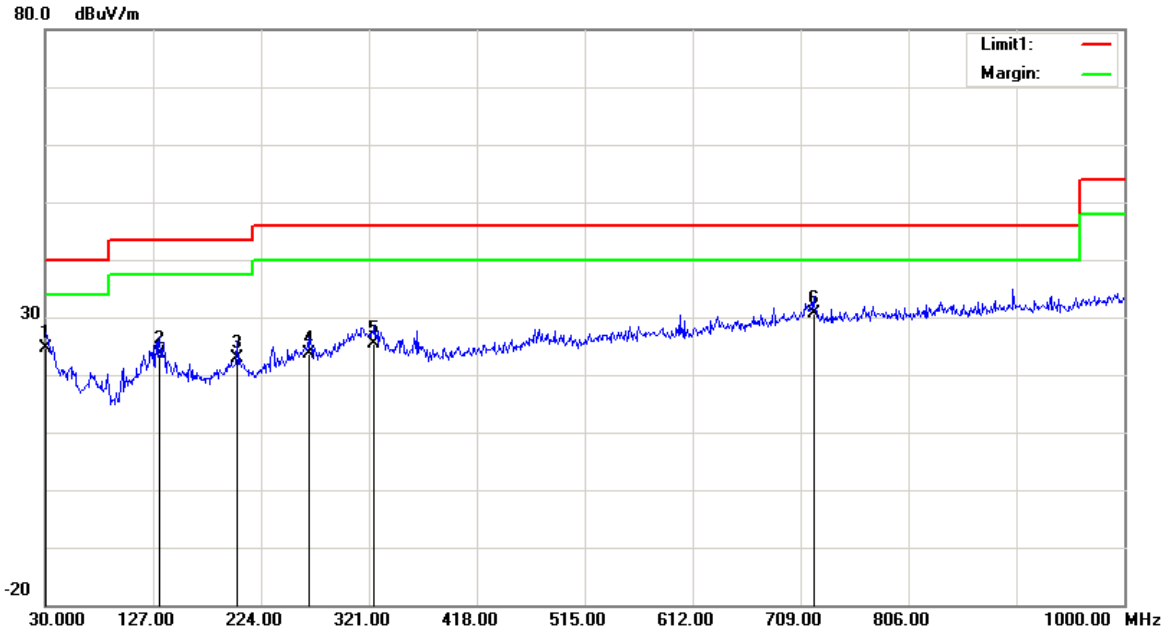
Please refer to following table and plots:

Condition:	**FCC Class B 3M Radiation**	**Polarization:**	**Horizontal**
EUT:	**OSMO POCKET WIRELESS MODULE**	**Power:**	**AC 120V/60Hz**
Model:	**OT-112**	**Distance:**	**3m**
Test Mode:	**Operating**		



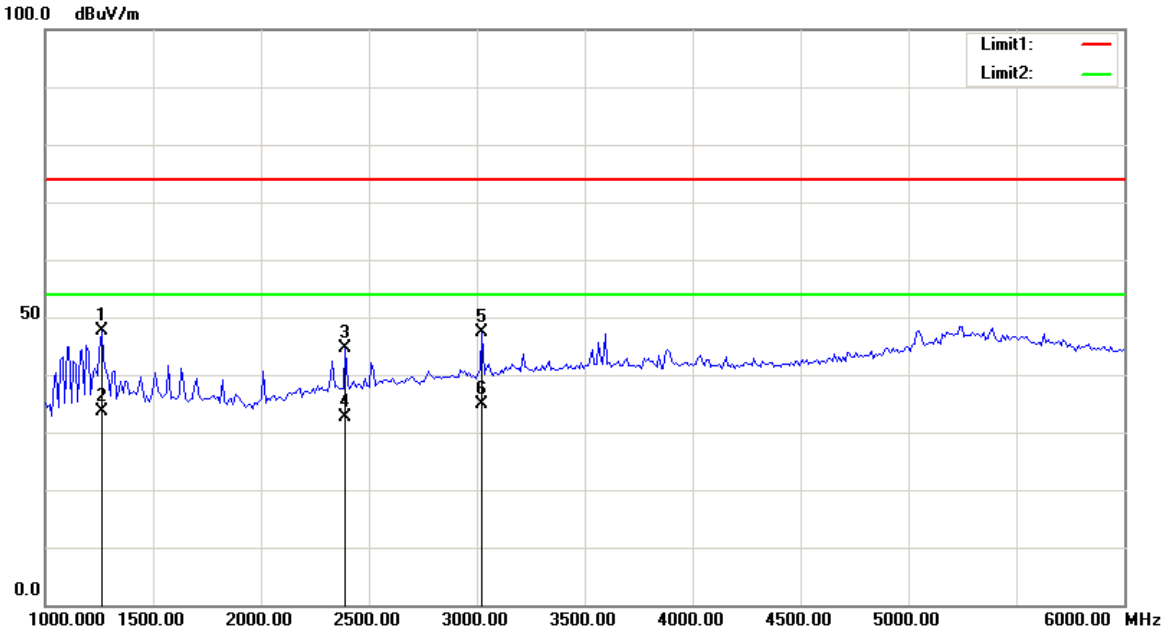
No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1	30.9700	23.98	QP	0.82	24.80	40.00	15.20
2	129.9100	30.94	QP	-4.94	26.00	43.50	17.50
3	235.6400	31.77	QP	-6.37	25.40	46.00	20.60
4	322.9400	30.74	QP	-3.54	27.20	46.00	18.80
5	469.4100	26.47	QP	-0.47	26.00	46.00	20.00
6	500.4500	25.81	QP	-0.31	25.50	46.00	20.50

Condition:	**FCC Class B 3M Radiation**	**Polarization:**	**Vertical**
EUT:	**OSMO POCKET WIRELESS MODULE**	**Power:**	**AC 120V/60Hz**
Model:	**OT-112**	**Distance:**	**3m**
Test Mode:	**Operating**		



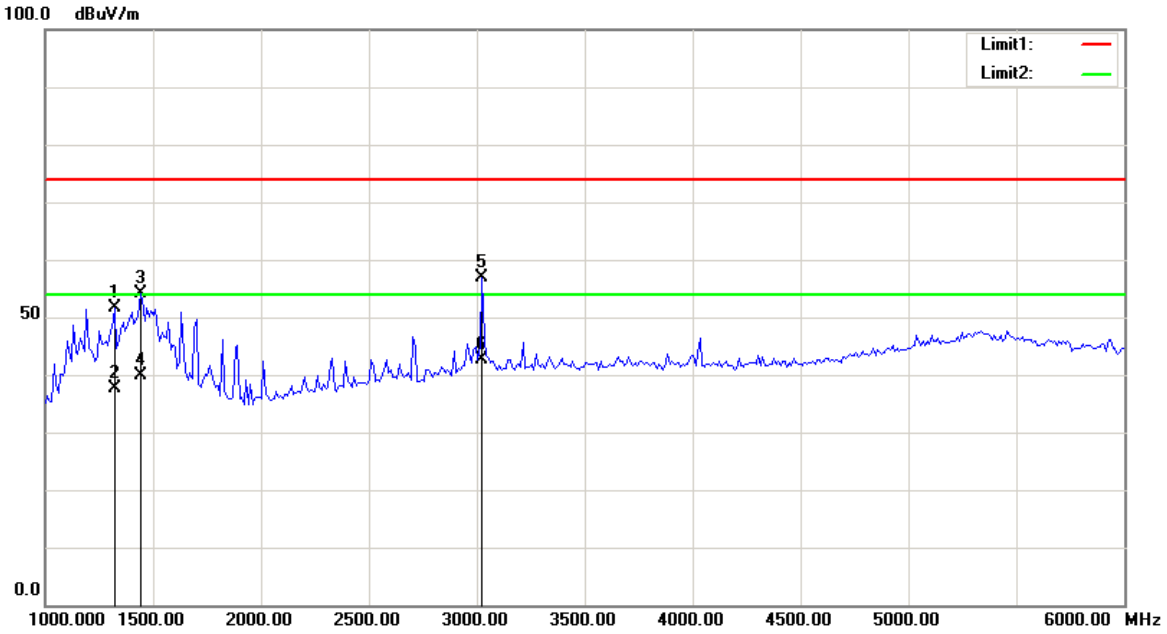
No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1	30.0000	23.05	QP	1.55	24.60	40.00	15.40
2	132.8200	28.69	QP	-5.09	23.60	43.50	19.90
3	202.6600	28.94	QP	-6.14	22.80	43.50	20.70
4	266.6800	28.18	QP	-4.48	23.70	46.00	22.30
5	325.8500	28.97	QP	-3.47	25.50	46.00	20.50
6	720.6400	27.24	QP	3.46	30.70	46.00	15.30

Condition:	**FCC Part 15 Class B**	**Polarization:**	**Horizontal**
EUT:	**OSMO POCKET WIRELESS MODULE**	**Power:**	**AC 120V/60Hz**
Model:	**OT-112**	**Distance:**	**3m**
Test Mode:	**Operating**		



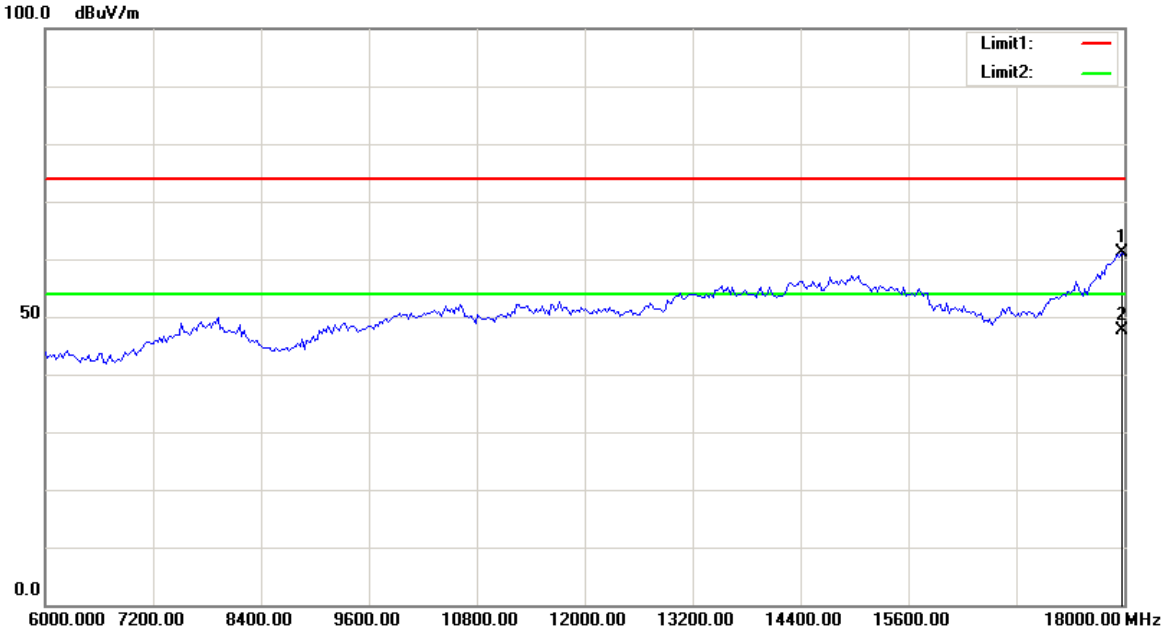
No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1	1260.521	57.45	peak	-9.90	47.55	74.00	26.45
2	1260.521	43.65	AVG	-9.90	33.75	54.00	20.25
3	2392.786	51.12	peak	-6.53	44.59	74.00	29.41
4	2392.786	39.22	AVG	-6.53	32.69	54.00	21.31
5	3024.048	51.98	peak	-4.72	47.26	74.00	26.74
6	3024.048	39.56	AVG	-4.72	34.84	54.00	19.16

Condition:	**FCC Part 15 Class B**	**Polarization:**	**Vertical**
EUT:	**OSMO POCKET WIRELESS MODULE**	**Power:**	**AC 120V/60Hz**
Model:	**OT-112**	**Distance:**	**3m**
Test Mode:	**Operating**		



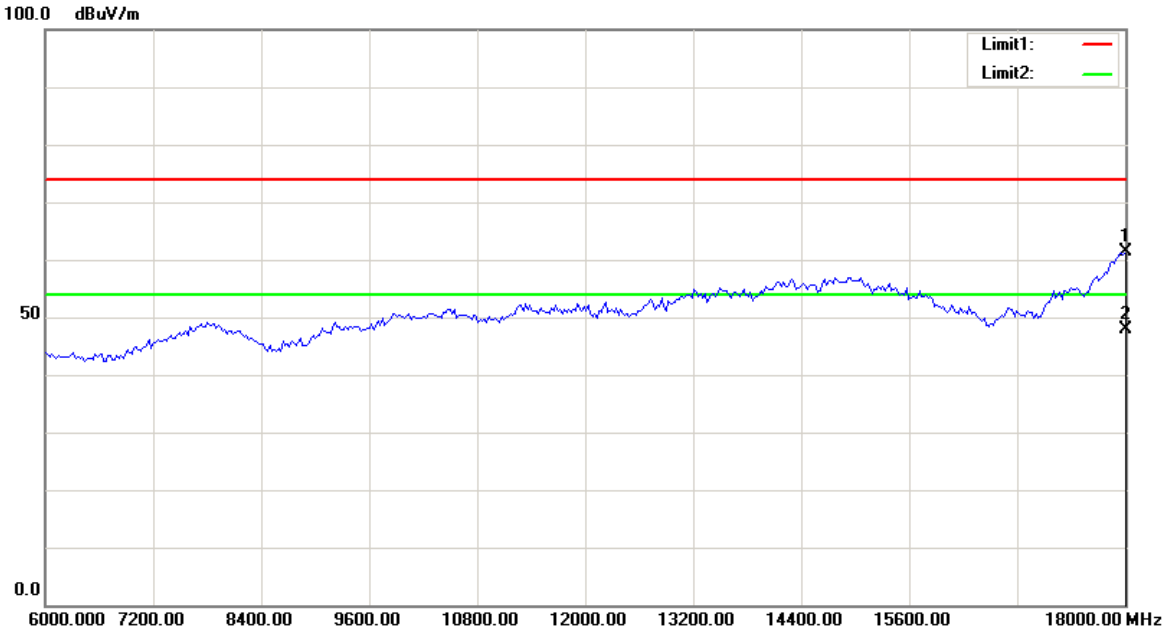
No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1	1320.641	61.49	peak	-9.79	51.70	74.00	22.30
2	1320.641	47.30	AVG	-9.79	37.51	54.00	16.49
3	1440.882	63.42	peak	-9.36	54.06	74.00	19.94
4	1440.882	49.22	AVG	-9.36	39.86	54.00	14.14
5	3024.048	61.57	peak	-4.72	56.85	74.00	17.15
6	3024.048	47.32	AVG	-4.72	42.60	54.00	11.40

Condition:	**FCC Part 15 Class B**	**Polarization:**	**Horizontal**
EUT:	**OSMO POCKET WIRELESS MODULE**	**Power:**	**AC 120V/60Hz**
Model:	**OT-112**	**Distance:**	**3m**
Test Mode:	**Operating**		



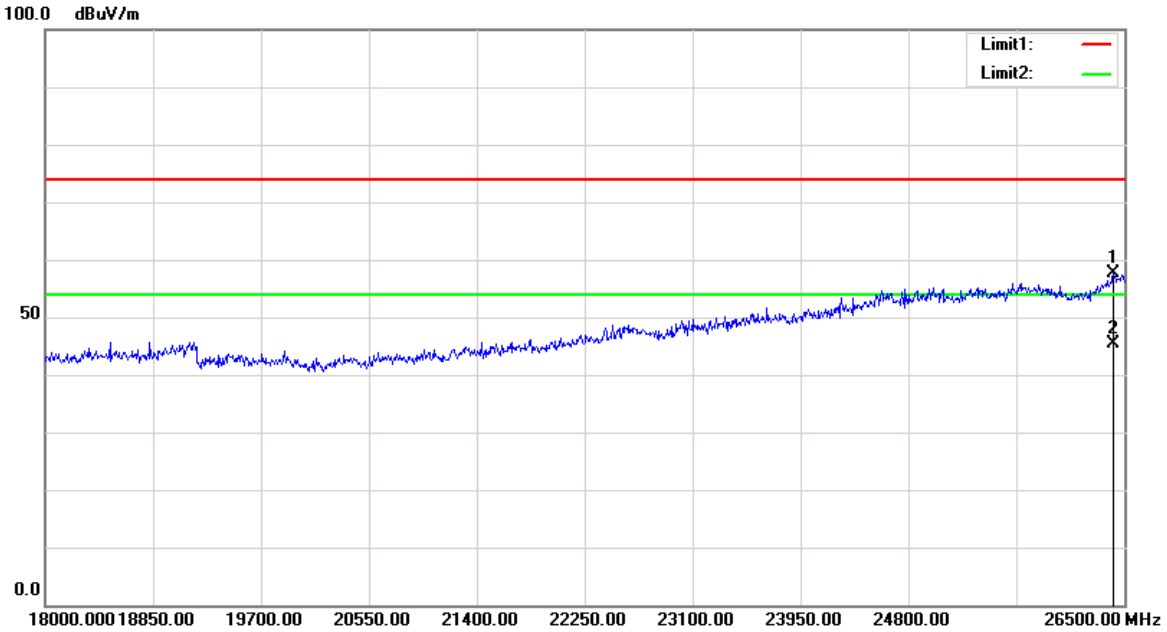
No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1	17975.952	44.03	peak	16.98	61.01	74.00	12.99
2	17975.952	30.58	AVG	16.98	47.56	54.00	6.44

Condition:	**FCC Part 15 Class B**	**Polarization:**	**Vertical**
EUT:	**OSMO POCKET WIRELESS MODULE**	**Power:**	**AC 120V/60Hz**
Model:	**OT-112**	**Distance:**	**3m**
Test Mode:	**Operating**		



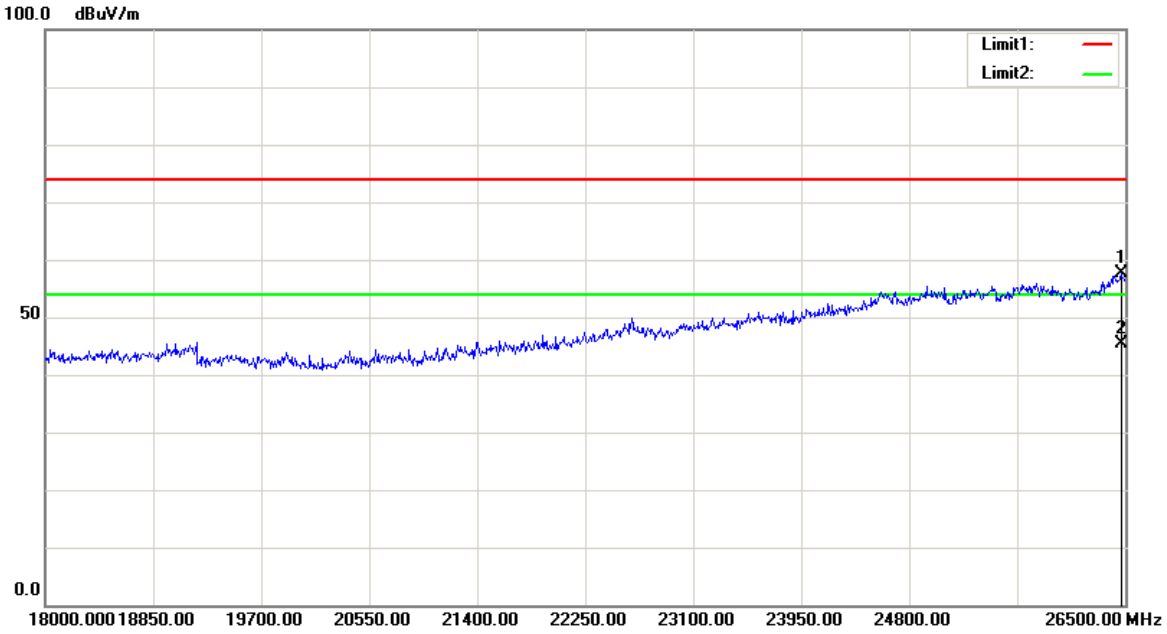
No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1	18000.000	44.18	peak	17.15	61.33	74.00	12.67
2	18000.000	30.64	AVG	17.15	47.79	54.00	6.21

Condition:	**FCC Part 15 Class B**	**Polarization:**	**Horizontal**
EUT:	**OSMO POCKET WIRELESS MODULE**	**Power:**	**AC 120V/60Hz**
Model:	**OT-112**	**Distance:**	**3m**
Test Mode:	**Operating**		



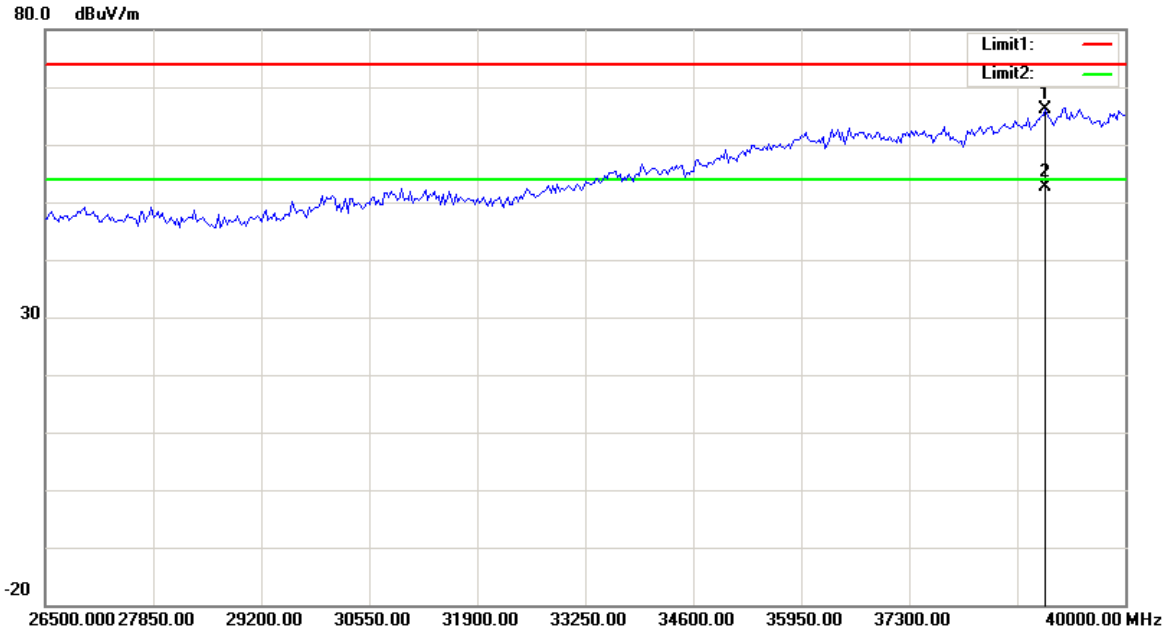
No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1	26419.250	36.16	peak	21.49	57.65	74.00	16.35
2	26419.250	23.78	AVG	21.49	45.27	54.00	8.73

Condition:	**FCC Part 15 Class B**	**Polarization:**	**Vertical**
EUT:	**OSMO POCKET WIRELESS MODULE**	**Power:**	**AC 120V/60Hz**
Model:	**OT-112**	**Distance:**	**3m**
Test Mode:	**Operating**		



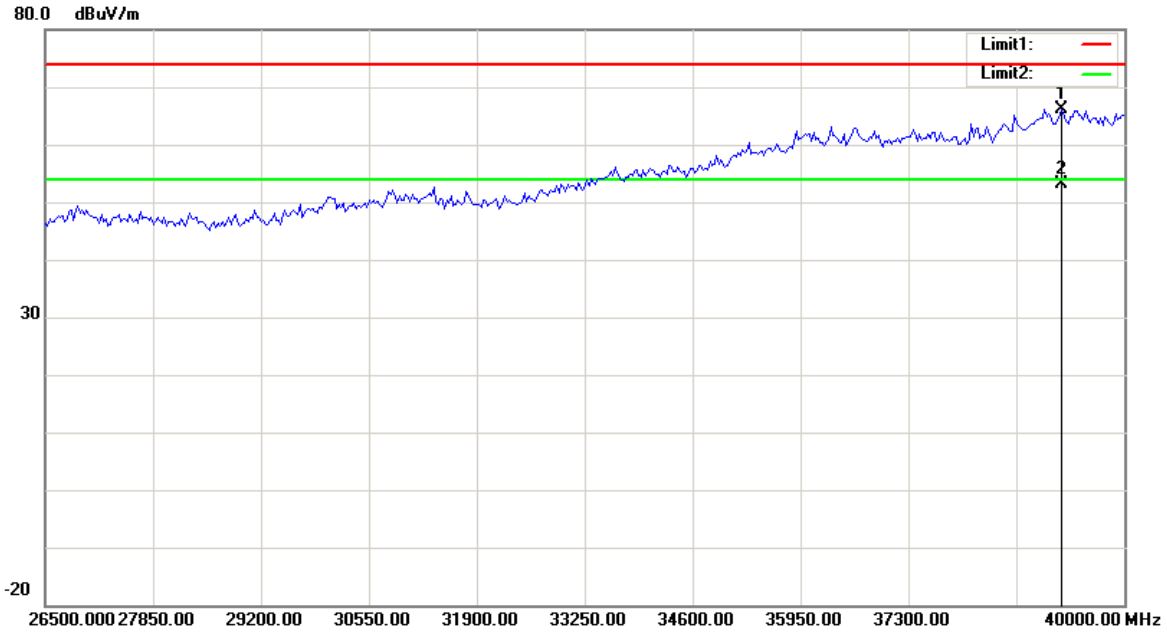
No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1	26466.000	35.96	peak	21.69	57.65	74.00	16.35
2	26466.000	23.64	AVG	21.69	45.33	54.00	8.67

Condition:	**FCC Part 15 Class B**	**Polarization:**	**Horizontal**
EUT:	**OSMO POCKET WIRELESS MODULE**	**Power:**	**AC 120V/60Hz**
Model:	**OT-112**	**Distance:**	**1m**
Test Mode:	**Operating**		



No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1	39001.000	49.98	peak	16.11	66.09	74.00	7.91
2	39001.000	36.58	AVG	16.11	52.69	54.00	1.31

Condition:	**FCC Part 15 Class B**	**Polarization:**	**Vertical**
EUT:	**OSMO POCKET WIRELESS MODULE**	**Power:**	**AC 120V/60Hz**
Model:	**OT-112**	**Distance:**	**1m**
Test Mode:	**Operating**		



No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1	39217.000	50.28	peak	15.94	66.22	74.00	7.78
2	39217.000	37.17	AVG	15.94	53.11	54.00	0.89

*******END OF REPORT*******