



BUREAU
VERITAS

Test Report No.: RF190522N040



TEST REPORT

Applicant	SZ DJI Osmo Technology Co., Ltd.
Address	2F, Building 3, Binhai Mingzhu Industrial Park No. 291 Louming Road, Xinhua Street Guangming District, Shenzhen, China

Manufacturer or Supplier	SZ DJI Osmo Technology Co., Ltd.
Address	2F, Building 3, Binhai Mingzhu Industrial Park No. 291 Louming Road, Xinhua Street Guangming District, Shenzhen, China
Product	Osmo Mobile 3
Brand Name	DJI
Model	OF100
Additional Model & Model Difference	N/A
Date of tests	May 23, 2019 ~ June 06, 2019

the tests have been carried out according to the requirements of the following standard:

FCC Part 15, Subpart C, Section 15.247

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Tested by Evans He Project Engineer / EMC Department	Approved by David Huang Supervisor / EMC Department
	Date: June 10, 2019

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BUREAU
VERITAS

Test Report No.: RF190522N040

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF190522N040	Original release	June 10, 2019



1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART C (SECTION 15.247)			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	REMARK
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit.
15.205 15.209	Radiated Emission	PASS	Meet the requirement of limit.
15.247(d)	Out of band Emission Measurement	PASS	Meet the requirement of limit.
15.247(a)(2)	6dB bandwidth	PASS	Meet the requirement of limit.
15.247(b)	Conducted Output power	PASS	Meet the requirement of limit.
15.247(e)	Power Spectral Density	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	No antenna connector is used

Note: Test Lab Information:

Lab: Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch

Test Lab Address: Zone A, Floor 1, Building 2 Wan Ye Long Technology Park South Side of Zhoushi Road, Bao'an District Shenzhen, Guangdong, 518108, People's Republic of China

2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Uncertainty
Conducted emission	0.15MHz ~ 30MHz	+/- 2.70 dB
Radiated emissions	30MHz~1GHz	+/- 3.74 dB
	Above 1GHz	+/- 4.66 dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.



3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Osmo Mobile 3
MODEL NO.	OF100
ADDITIONAL MODELS	N/A
FCC ID	2ANDR-OF1001904
NOMINAL VOLTAGE	DC 7.2V 2450mAh from Li-ion or DC 5V from Adapter
MODULATION TECHNOLOGY	DTS
MODULATION TYPE	BT-LE(GFSK)
OPERATING FREQUENCY	2402-2480MHz
PEAK OUTPUT POWER	1.294dBm for BLE(1Mbps) 2.070dBm for BLE(2Mbps)
ANTENNA TYPE	PCB Antenna, 2dBi Gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	USB to Type C Line:1m

NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
3. Please refer to the EUT photo document (Reference No.: 190522N040) for detailed product photo.



3.2 DESCRIPTION OF TEST MODES

40 channels are provided to BT-LE

CHANNEL	FREQ. (MHZ)	CHANNEL	FREQ. (MHZ)	CHANNEL	FREQ. (MHZ)	CHANNEL	FREQ. (MHZ)
0	2402	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2426	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476
8	2418	18	2438	28	2458	38	2478
9	2420	19	2440	29	2460	39	2480

3.2.1. CONFIGURATION OF SYSTEM UNDER TEST

Please see section 5 photographs of the test configuration for reference.

3.2.2. TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports

The worst case was found when positioned on X axis for radiated emission. Following test modes were selected for the final test, and the final worst case is marked in boldface and recorded in the report:

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE<1G	RE≥1G	PLC	APCM	
A	-	-	-	√	Powered by Battery with BT link
B	√	√	√	-	Powered by Adapter with BT link

Where **RE<1G**: Radiated Emission below 1GHz
PLC: Power Line Conducted Emission

RE≥1G: Radiated Emission above 1GHz
APCM: Antenna Port Conducted Measurement



RADIATED EMISSION TEST (BELOW 1GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
BT-LE	0 to 39	39	DTS	BT-LE	1
BT-LE	0 to 39	39	DTS	BT-LE	2

For the test results, only the worst case was shown in test report.

RADIATED EMISSION TEST (ABOVE 1GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
BT-LE	0 to 39	0,19, 39	DTS	BT-LE	1
BT-LE	0 to 39	0,19, 39	DTS	BT-LE	2

ANTENNA PORT CONDUCTED MEASUREMENT:

- This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
BT-LE	0 to 39	0, 19, 39	DTS	BT-LE	1
BT-LE	0 to 39	0, 19, 39	DTS	BT-LE	2



TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	TEST VOLTAGE	TESTED BY
RE<1G	25deg. C, 55%RH	DC 5V from Adapter	Caden Lu
RE≥1G	25deg. C, 55%RH	DC 5V from Adapter	Caden Lu
PLC	25deg. C, 55%RH	DC 5V from Adapter	Caden Lu
APCM	25deg. C, 60%RH	DC 7.2V from Li-ion Battery	Aaron Liang



3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart C, Section 15.247

558074 D01 15.247 Meas Guidance v05r01

ANSI C63.10-2013

Note: All test items have been performed and recorded as per the above standards.

3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as a dependent unit together without any other necessary accessories or support units.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Adapter	TECNO	A8-501000	N/A	N/A

NO.	DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	-



4 TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBµV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

- NOTE:**
1. The lower limit shall apply at the transition frequencies.
 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.
 3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.1.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESCS30	8471241027	Apr. 04,19	Apr. 03,20
Artificial Mains Network	SCHWARZBECK	8127	8127713	Mar. 28,19	Mar. 27,20
ISN	Com-Power	ISN T800	34373	Mar. 28,19	Mar. 27,20
Test software	EZ-EMC	ICP-03A1	N/A	N/A	N/A

- NOTE:**
1. The test was performed in shielded room 843.
 2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.



4.1.3 TEST PROCEDURES

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) were not recorded.

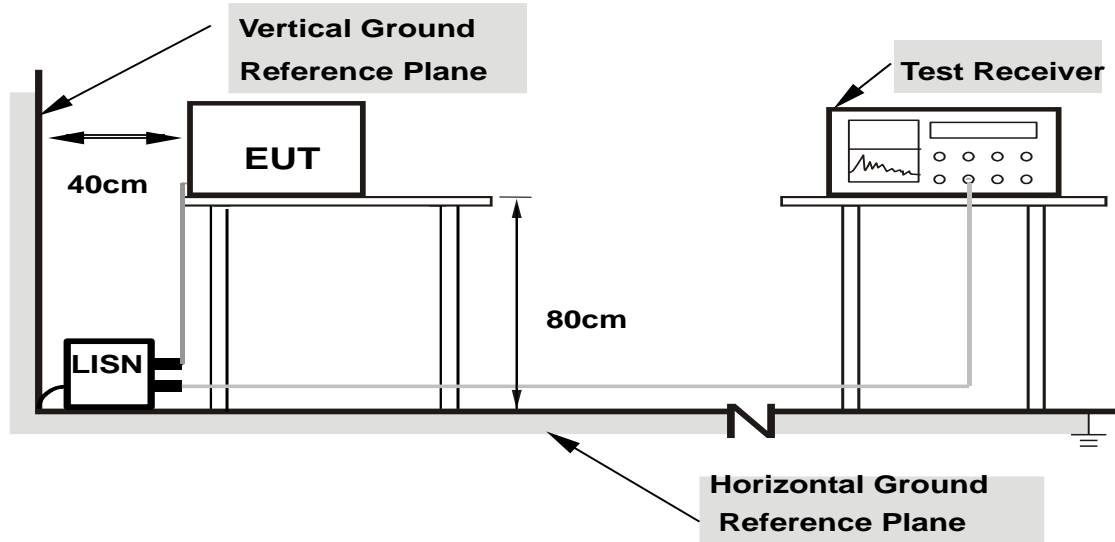
NOTE: All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation.



4.1.5 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

For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.6 EUT OPERATING CONDITIONS

- a. Turned on the power and connected of all equipment.
- b. EUT was operated according to the type used was description in manufacturer's specifications or the User's Manual.



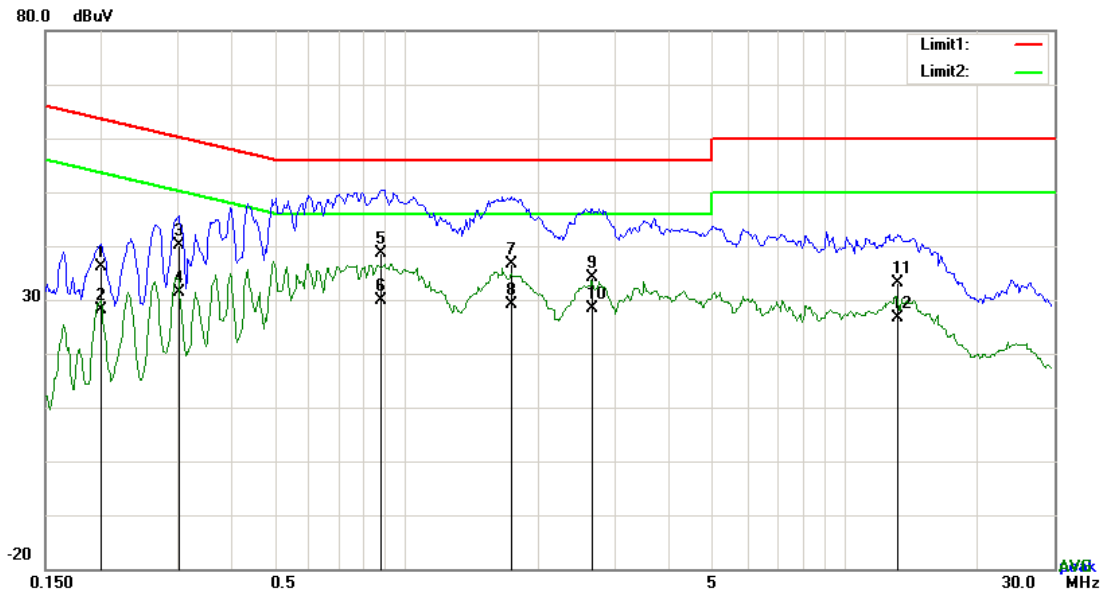
4.1.7 TEST RESULTS

CONDUCTED WORST-CASE DATA: 2Mbps

PHASE	Line	6dB BANDWIDTH	9kHz
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No.	P/L	Frequency (MHz)	Reading (dBUV)	Detector	Corrected (dB}	Result (dBUV)	Limit (dBUV)	Margin (dB)
1	L1	0.2007	26.22	QP	10.03	36.25	63.58	-27.33
2	L1	0.2007	17.99	AVG	10.03	28.02	53.58	-25.56
3	L1	0.3021	29.99	QP	10.03	40.02	60.18	-20.16
4	L1	0.3021	21.23	AVG	10.03	31.26	50.18	-18.92
5	L1	0.8754	28.71	QP	10.03	38.74	56.00	-17.26
6	L1	0.8754	19.92	AVG	10.03	29.95	46.00	-16.05
7	L1	1.7345	26.54	QP	10.04	36.58	56.00	-19.42
8	L1	1.7345	19.10	AVG	10.04	29.14	46.00	-16.86
9	L1	2.6500	24.10	QP	10.05	34.15	56.00	-21.85
10	L1	2.6500	18.39	AVG	10.05	28.44	46.00	-17.56
11	L1	13.1966	22.82	QP	10.20	33.02	60.00	-26.98
12	L1	13.1966	16.33	AVG	10.20	26.53	50.00	-23.47

REMARK: The emission levels of other frequencies were very low against the limit.

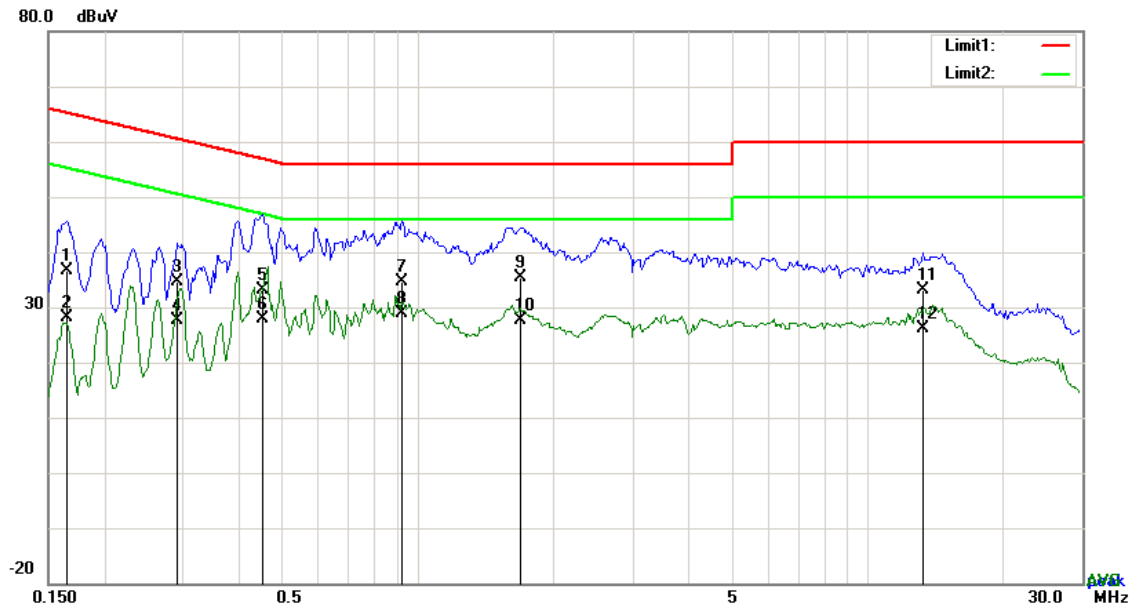




PHASE	Neutral	6dB BANDWIDTH	9kHz
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No.	P/L	Frequency (MHz)	Reading (dBuV)	Detector	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)
1	N	0.1656	26.50	QP	10.02	36.52	65.18	-28.66
2	N	0.1656	18.10	AVG	10.02	28.12	55.18	-27.06
3	N	0.2904	24.49	QP	10.02	34.51	60.51	-26.00
4	N	0.2904	17.49	AVG	10.02	27.51	50.51	-23.00
5	N	0.4503	23.04	QP	10.02	33.06	56.87	-23.81
6	N	0.4503	17.85	AVG	10.02	27.87	46.87	-19.00
7	N	0.9222	24.71	QP	10.03	34.74	56.00	-21.26
8	N	0.9222	18.92	AVG	10.03	28.95	46.00	-17.05
9	N	1.6827	25.24	QP	10.04	35.28	56.00	-20.72
10	N	1.6827	17.61	AVG	10.04	27.65	46.00	-18.35
11	N	13.2921	23.07	QP	10.18	33.25	60.00	-26.75
12	N	13.2921	16.03	AVG	10.18	26.21	50.00	-23.79

REMARK: The emission levels of other frequencies were very low against the limit.





4.2 RADIATED EMISSION MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
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

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.



4.1.2 TEST INSTRUMENTS

FREQUENCY RANGE BELOW 1GHz

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESL6	1300.5001K06-100262-eQ	Apr. 04, 19	Apr. 03, 20
Bilog Antenna	Sunol Sciences	JB6	A110712	Apr. 08, 19	Apr. 07, 20
Active Antenna	CMO-POWER	AL-130	121031	Mar. 27, 19	Mar. 26, 20
Signal Amplifier	HP	8447E	443008	Mar. 28, 19	Mar. 27, 20
3m Semi-anechoic Chamber	SAEMC	9m*6m*6m	N/A	Oct. 18,18	Oct. 17,21
Test Software	EZ-EMC	ICP-03A1	N/A	N/A	N/A

- NOTES:** 1. The test was performed in 3m Chamber.
 2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA(Except 3m Semi-anechoic Chamber).

FREQUENCY RANGE ABOVE 1GHz

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Spectrum	Agilent	E4446A	MY46180622	May 08, 19	May 07, 20
MXA signal analyzer	Agilent	N9020A	MY49100060	Mar. 28, 19	Mar. 27, 20
Horn Antenna	COM-POWER	HAH-118	71259	Mar. 22, 19	Mar. 21, 20
Horn Antenna	COM-POWER	HAH-118	71283	Mar. 20, 19	Mar. 19, 20
SHF-EHF Horn	Schwarzbeck	BBHA9170	BBHA9170147	Jun. 30, 19	Jun. 29, 20
SHF-EHF Horn	Schwarzbeck	BBHA9170	BBHA9170242	Jun. 30, 19	Jun. 29, 20
AMPLIFIER	EM Electornic Corporation	EM01G26G	60613	Mar. 28, 19	Mar. 27, 20
AMPLIFIER	Emc Instruments Corporation	Emc012645	980077	Jan. 04, 19	Jan. 03,20
3m Semi-anechoic Chamber	SAEMC	9m*6m*6m	N/A	Oct. 18,18	Oct. 17,21
Test Software	EZ-EMC	ICP-03A1	N/A	N/A	N/A

- NOTES:** 1. The test was performed in 3m Chamber.
 2. The calibration interval of the above test instruments is 12months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA(Except 3m Semi-anechoic Chamber).



4.1.3 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 1.5 meters (above 1GHz) and 0.8 meters (below 1GHz) above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. For below 1GHz was used bilog antenna, and above 1GHz was used horn antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. For below 30MHz, a loop antenna with its vertical plane is place 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1m above the ground.
- g. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, For battery operated equipment, the equipment tests shall be perform using fresh batteries. The turntable was rotated to maximize the emission level.

NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98%) or 10Hz(Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
- 4.All modes of operation were investigated and the worst-case emissions are reported.
- 5.The testing of the EUT was performed on all 3 orthogonal axes; the worst-case test configuration was reported on the file test setup photo.

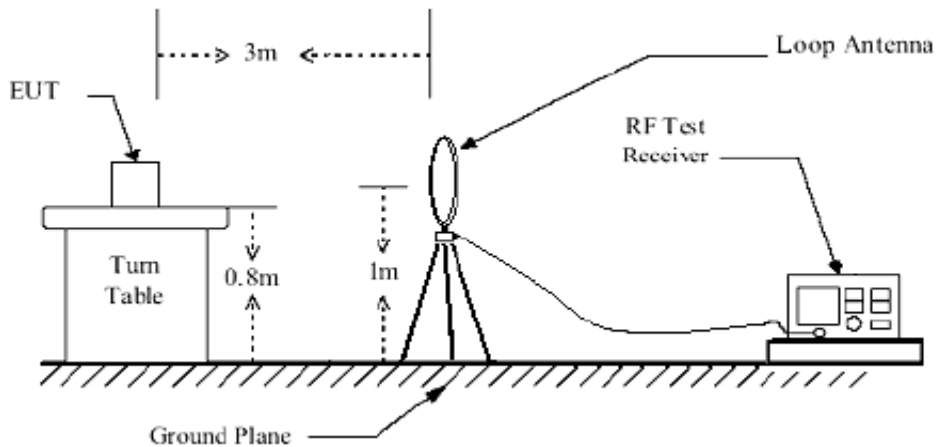


4.1.4 DEVIATION FROM TEST STANDARD

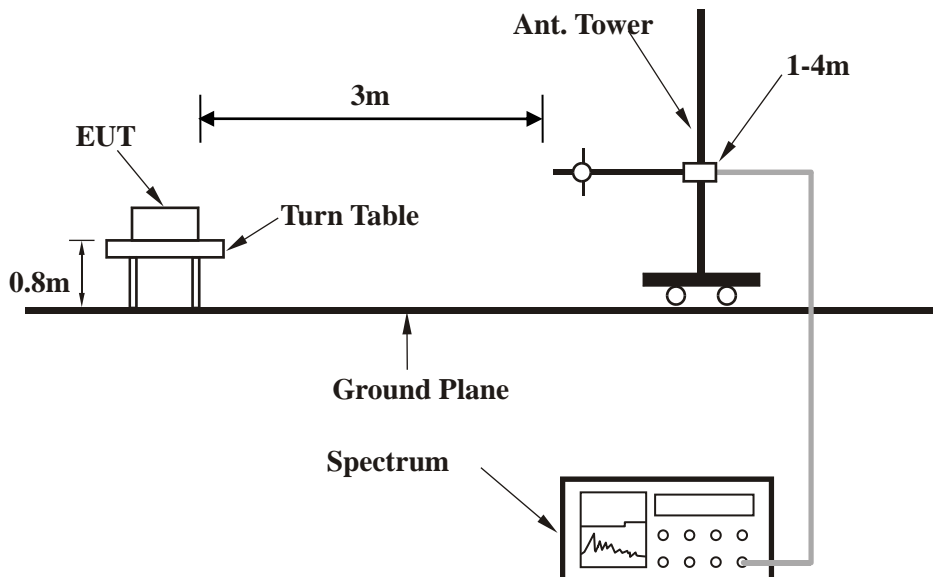
No deviation.

4.1.5 TEST SETUP

Below 30MHz test setup



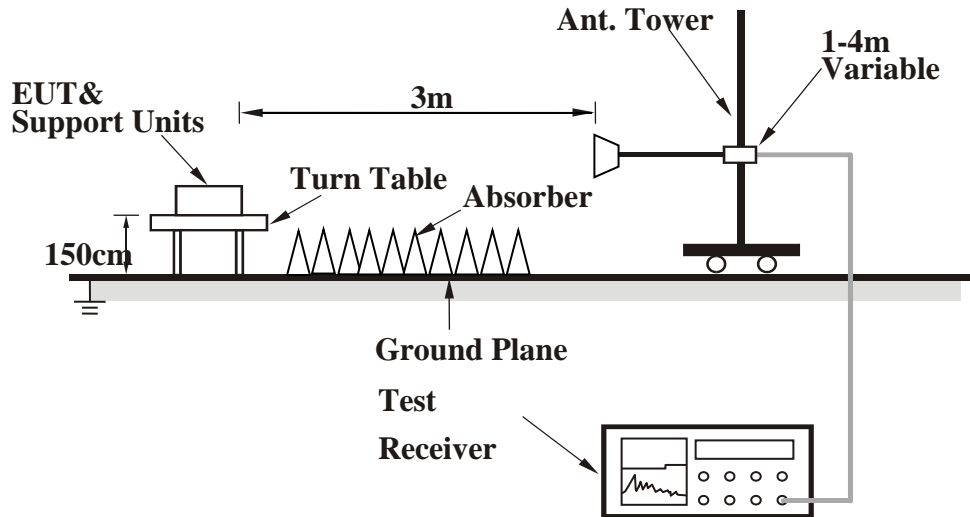
Below 1GHz test setup



Note: For the actual test configuration, please refer to the attached file (Test Setup Photo).



Above 1GHz test setup



Note: For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.6 EUT OPERATING CONDITIONS

- a. Set the EUT under full load condition and placed them on a testing table.
- b. Set the transmitter part of EUT under transmission condition continuously at specific channel frequency.
- c. The necessary accessories enable the EUT in full functions.



4.1.7 TEST RESULTS

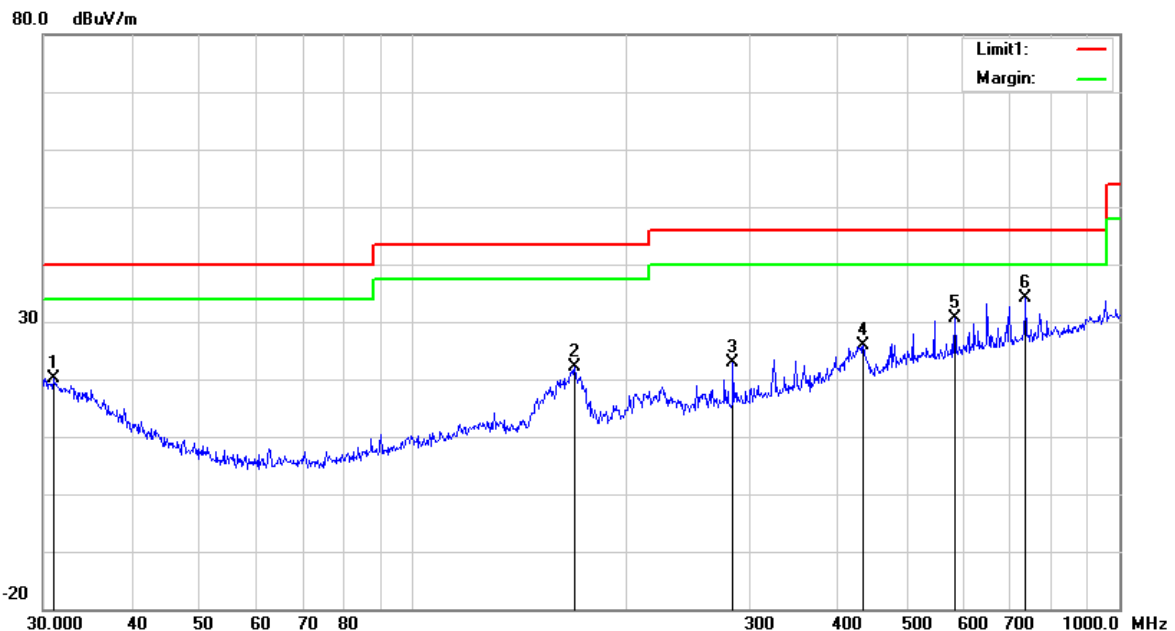
BELOW 1GHz WORST-CASE DATA:

BT-LE (1Mbps)

CHANNEL	TX Channel 39	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9KHz ~ 1GHz		

ANTENNA POLARITY & test distance: HORIZONTAL at 3m										
No.	Frequency (MHz)	Reading (dBuV/m)	Ant_F (dB/m)	PA_G (dB)	Cab_L (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)
1	31.0706	22.83	19.41	22.27	0.14	20.11	40.00	-19.89	100	83
2	169.5990	31.93	11.14	22.26	1.39	22.20	43.50	-21.30	100	162
3	283.9792	30.14	13.32	22.29	1.68	22.85	46.00	-23.15	100	33
4	434.0651	28.97	16.97	21.94	1.98	25.98	46.00	-20.02	100	33
5	584.7895	29.77	20.18	21.61	2.30	30.64	46.00	-15.36	200	264
6	737.0714	31.22	21.70	21.28	2.46	34.10	46.00	-11.90	100	324

- REMARK:**
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
 2. Negative sign (-) in the margin column signify levels below the limit.
 3. Frequency range scanned: 30MHz to 1000MHz.
 4. Only emissions significantly above equipment noise floor are reported.

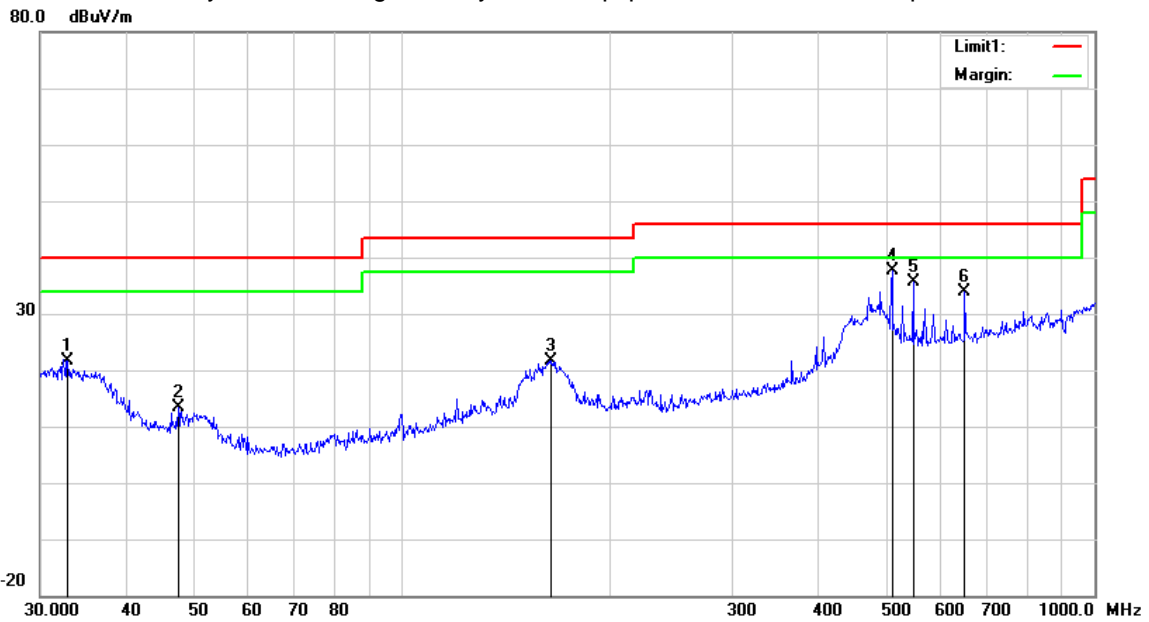




CHANNEL	TX Channel 39	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9KHz ~ 1GHz		

ANTENNA POLARITY & test distance: VERTICAL at 3m										
No.	Frequency (MHz)	Reading (dBuV/m)	Ant_F (dB/m)	PA_G (dB)	Cab_L (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)
1	32.8637	25.49	18.27	22.26	0.14	21.64	40.00	-18.36	200	215
2	47.4918	26.76	8.65	22.33	0.22	13.30	40.00	-26.70	100	306
3	164.3302	31.47	11.07	22.27	1.35	21.62	43.50	-21.88	100	360
4	510.0436	38.44	18.90	21.79	2.16	37.71	46.00	-8.29	100	246
5	547.0977	35.69	19.29	21.70	2.26	35.54	46.00	-10.46	100	326
6	649.6597	32.23	20.79	21.47	2.36	33.91	46.00	-12.09	100	234

- REMARK:**
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
 2. Negative sign (-) in the margin column signify levels below the limit.
 3. Frequency range scanned: 30MHz to 1000MHz.
 4. Only emissions significantly above equipment noise floor are reported.





ABOVE 1GHz TEST DATA:

BT-LE (1Mbps)

CHANNEL	TX Channel 0	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (mm)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2383.55	53.99PK	74	-20.01	150	220	67.64	-13.65
2	2383.55	40.72AV	54	-13.28	150	163	54.37	-13.65
3	*2402	92.25PK			150	159	106.22	-13.97
4	*2402	91.32AV			150	69	105.29	-13.97
5	4804	44.74PK	74	-29.26	150	353	50.77	-6.03
6	4804	35.12AV	54	-18.88	150	193	41.15	-6.03
7	#7206	56.17PK	74	-17.83	150	245	56.75	-0.58
8	#7206	42.68AV	54	-11.32	150	186	43.26	-0.58
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (mm)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390	52.14PK	74	-21.86	150	95	12.3	-13.65
2	2390	40.56AV	54	-13.44	150	185	54.21	-13.65
3	*2402	95.35PK			150	119	109.32	-13.97
4	*2402	94.39AV			150	274	108.36	-13.97
5	4804	43.65PK	74	-30.35	150	102	49.68	-6.03
6	4804	30.19AV	54	-23.81	150	246	36.22	-6.03
7	#7206	55.89PK	74	-18.11	150	113	56.47	-0.58
8	#7206	42.47AV	54	-11.53	150	28	43.05	-0.58

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 19	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (mm)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2440	92.14PK			150	231	105.16	-13.02
2	*2440	91.59AV			150	304	104.61	-13.02
3	4880	45.1PK	74	-28.9	150	7	51.13	-6.03
4	4880	35.53AV	54	-18.47	150	216	41.56	-6.03
5	7320	56.37PK	74	-17.63	150	224	56.95	-0.58
6	7320	42.47AV	54	-11.53	150	84	43.05	-0.58
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (mm)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2440	95.68PK			150	77	108.7	-13.02
2	*2440	94.32AV			150	320	107.34	-13.02
3	4880	44.84PK	74	-29.16	150	34	50.87	-6.03
4	4880	35.1AV	54	-18.9	150	311	41.13	-6.03
5	7320	55.94PK	74	-18.06	150	358	56.52	-0.58
6	7320	42.31AV	54	-11.69	150	338	42.89	-0.58

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.



CHANNEL	TX Channel 39	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2483.5	60.84PK	74	-13.16	150	25	74.49	-13.65
2	2483.5	42.04AV	54	-11.96	150	267	55.69	-13.65
3	*2480	92.37PK			150	13	106.34	-13.97
4	*2480	92.01AV			150	291	105.98	-13.97
5	4960	45.23PK	74	-28.77	150	28	51.26	-6.03
6	4960	35.3AV	54	-18.7	150	18	41.33	-6.03
7	7440	56.3PK	74	-17.7	150	299	56.88	-0.58
8	7440	43.32AV	54	-10.68	150	233	43.9	-0.58
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2483.6	54.32PK	74	-19.68	150	339	67.97	-13.65
2	2483.6	41.12AV	54	-12.88	150	137	54.77	-13.65
3	*2480	90.83PK			150	27	104.8	-13.97
4	*2480	90.03AV			150	150	104	-13.97
5	4960	44.76PK	74	-29.24	150	62	50.79	-6.03
6	4960	35.03AV	54	-18.97	150	100	41.06	-6.03
7	7440	55.87PK	74	-18.13	150	136	56.45	-0.58
8	7440	42.27AV	54	-11.73	150	139	42.85	-0.58

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * " : Fundamental frequency.



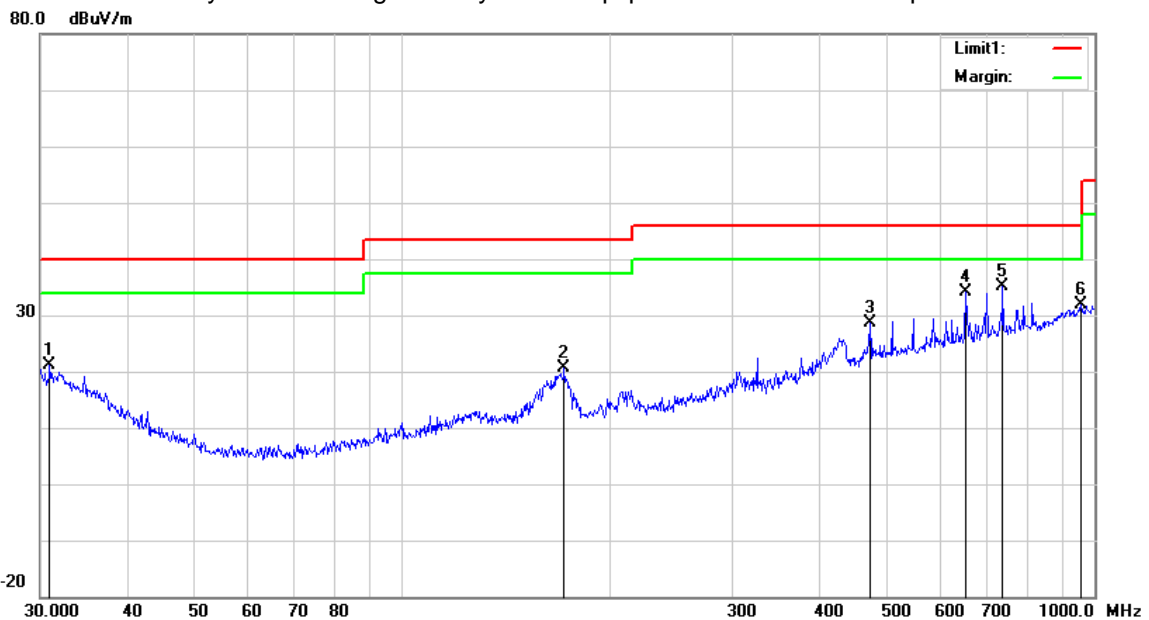
BELOW 1GHz WORST-CASE DATA:

BT-LE (2Mbps)

CHANNEL	TX Channel 39	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9KHz ~ 1GHz		

ANTENNA POLARITY & test distance: HORIZONTAL at 3m										
No.	Frequency (MHz)	Reading (dBuV/m)	Ant_F (dB/m)	PA_G (dB)	Cab_L (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)
1	30.9619	23.67	19.48	22.27	0.13	21.01	40.00	-18.99	100	167
2	171.3926	30.34	11.16	22.26	1.40	20.64	43.50	-22.86	100	350
3	473.8347	30.10	18.34	21.86	2.07	28.65	46.00	-17.35	100	116
4	651.9417	32.49	20.78	21.47	2.36	34.16	46.00	-11.84	100	56
5	737.0714	32.17	21.70	21.28	2.46	35.05	46.00	-10.95	100	347
6	955.4381	26.20	23.70	20.77	2.71	31.84	46.00	-14.16	100	339

- REMARK:**
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
 2. Negative sign (-) in the margin column signify levels below the limit.
 3. Frequency range scanned: 30MHz to 1000MHz.
 4. Only emissions significantly above equipment noise floor are reported.

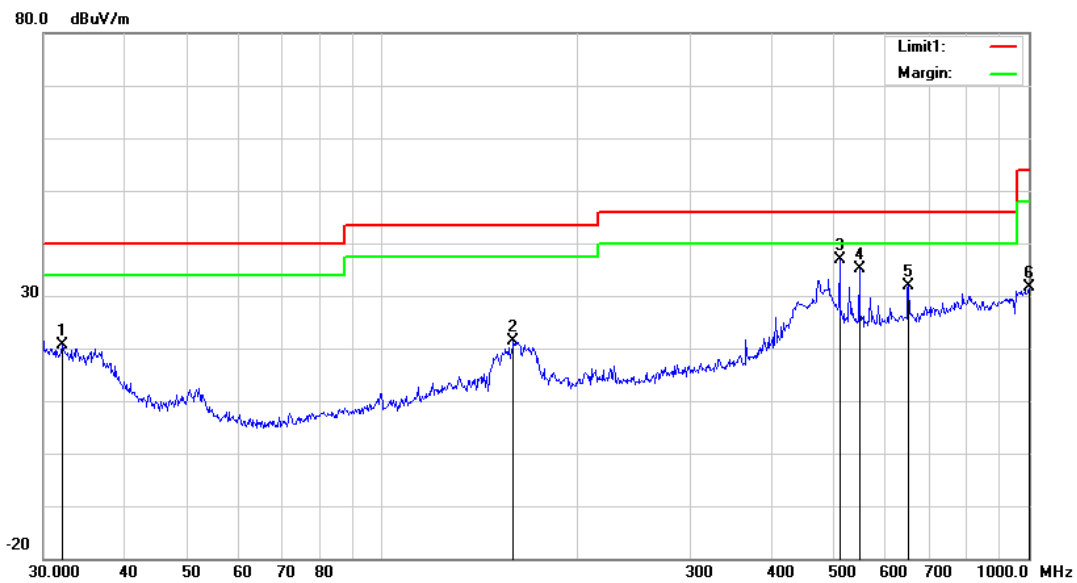




CHANNEL	TX Channel 39	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9KHz ~ 1GHz		

ANTENNA POLARITY & test distance: VERTICAL at 3m										
No.	Frequency (MHz)	Reading (dBuV/m)	Ant_F (dB/m)	PA_G (dB)	Cab_L (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)
1	32.0668	23.91	18.78	22.27	0.14	20.56	40.00	-19.44	100	35
2	159.7844	31.29	11.02	22.27	1.32	21.36	43.50	-22.14	100	100
3	510.0436	37.72	18.90	21.79	2.16	36.99	46.00	-9.01	100	350
4	547.0977	35.17	19.29	21.70	2.26	35.02	46.00	-10.98	200	137
5	651.9417	30.10	20.78	21.47	2.36	31.77	46.00	-14.23	100	35
6	1000.0000	25.23	24.40	20.69	2.76	31.70	54.00	-22.30	100	132

- REMARK:** 1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
 2. Negative sign (-) in the margin column signify levels below the limit.
 3. Frequency range scanned: 30MHz to 1000MHz.
 4. Only emissions significantly above equipment noise floor are reported.





ABOVE 1GHz TEST DATA:

BT-LTE (2Mbps)

CHANNEL	TX Channel 0	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (mm)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390	51.42PK	74	-22.58	150	355	65.07	-13.65
2	2390	43.03AV	54	-10.97	150	70	56.68	-13.65
3	*2402	87.72PK			150	176	101.69	-13.97
4	*2402	86.70AV			150	276	100.67	-13.97
5	4804	44.69PK	74	-29.31	150	173	50.72	-6.03
6	4804	36.78AV	54	-17.22	150	149	42.81	-6.03
7	#7206	54.26PK	74	-19.74	150	23	54.84	-0.58
8	#7206	44.68AV	54	-9.32	150	265	45.26	-0.58
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (mm)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390	51.26PK	74	-22.74	150	177	64.91	-13.65
2	2390	42.89AV	54	-11.11	150	56	56.54	-13.65
3	*2402	86.51PK			150	91	100.48	-13.97
4	*2402	85.32AV			150	316	99.29	-13.97
5	4804	43.26PK	74	-30.74	150	102	49.29	-6.03
6	4804	36.55AV	54	-17.45	150	115	42.58	-6.03
7	#7206	54.62PK	74	-19.38	150	289	55.2	-0.58
8	#7206	44.11AV	54	-9.89	150	231	44.69	-0.58

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 19	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (mm)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2440	91.05PK			150	30	104.07	-13.02
2	*2440	89.95AV			150	349	102.97	-13.02
3	4880	45.69PK	74	-28.31	150	1	51.72	-6.03
4	4880	36.36AV	54	-17.64	150	185	42.39	-6.03
5	7320	54.14PK	74	-19.86	150	78	54.72	-0.58
6	7320	45.36AV	54	-8.64	150	170	45.94	-0.58
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (mm)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2440	89.65PK			150	260	102.67	-13.02
2	*2440	88.24AV			150	47	101.26	-13.02
3	4880	45.42PK	74	-28.58	150	228	51.45	-6.03
4	4880	36.06AV	54	-17.94	150	96	42.09	-6.03
5	7320	53.36PK	74	-20.64	150	28	53.94	-0.58
6	7320	44.10AV	54	-9.9	150	75	44.68	-0.58

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.



CHANNEL	TX Channel 39	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (mm)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2483.5	58.58PK	74	-15.42	150	26	72.23	-13.65
2	2483.5	45.05AV	54	-8.95	150	32	58.7	-13.65
3	*2480	90.68PK			150	16	104.65	-13.97
4	*2480	89.71AV			150	160	103.68	-13.97
5	4960	42.46PK	74	-31.54	150	352	48.49	-6.03
6	4960	37.15AV	54	-16.85	150	271	43.18	-6.03
7	7440	55.47PK	74	-18.53	150	171	56.05	-0.58
8	7440	45.96AV	54	-8.04	150	360	46.54	-0.58
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (mm)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2483.6	55.14PK	74	-18.86	150	23	68.79	-13.65
2	2483.6	43.31AV	54	-10.69	150	172	56.96	-13.65
3	*2480	89.24PK			150	56	103.21	-13.97
4	*2480	88.13AV			150	261	102.1	-13.97
5	4960	43.69PK	74	-30.31	150	64	49.72	-6.03
6	4960	36.56AV	54	-17.44	150	102	42.59	-6.03
7	7440	54.21PK	74	-19.79	150	19	54.79	-0.58
8	7440	44.16AV	54	-9.84	150	279	44.74	-0.58

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * " : Fundamental frequency.



4.3 6dB BANDWIDTH MEASUREMENT

4.2.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.2.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Wireless Connectivity Tester	R&S	CMW270	1201.0002K75	Nov. 29, 18	Nov. 28, 19
MXA VEXTOR SIGNAL	Agilent	n5182a	MY50140530	Mar. 28, 19	Mar. 27, 20
MXA signal analyzer	Agilent	n9020a	MY49100060	Mar. 28, 19	Mar. 27, 20
RF Control Unit	Tonscend	JS0806-2	188060112	Mar. 28, 19	Mar. 27, 20
Signal Generation	Agilent	E4421B	US40051152	Nov. 29, 18	Nov. 28, 19
DC Power Supply	Agilent	E3640A	MY40004013	Mar. 28, 19	Mar. 27, 20
Programmable Temperature & Humidity Chamber	Hongjin	HYC-TH-225 DH	DG-180746	Mar. 28, 19	Mar. 27, 20
Test System	Tonscend	JS 1120-3	N/A	N/A	N/A

NOTE:

1. The test was performed in RF Oven room.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA



4.2.3 TEST PROCEDURE

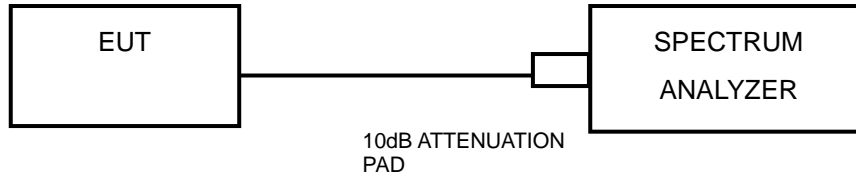
1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation.



4.2.5 TEST SETUP



4.2.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

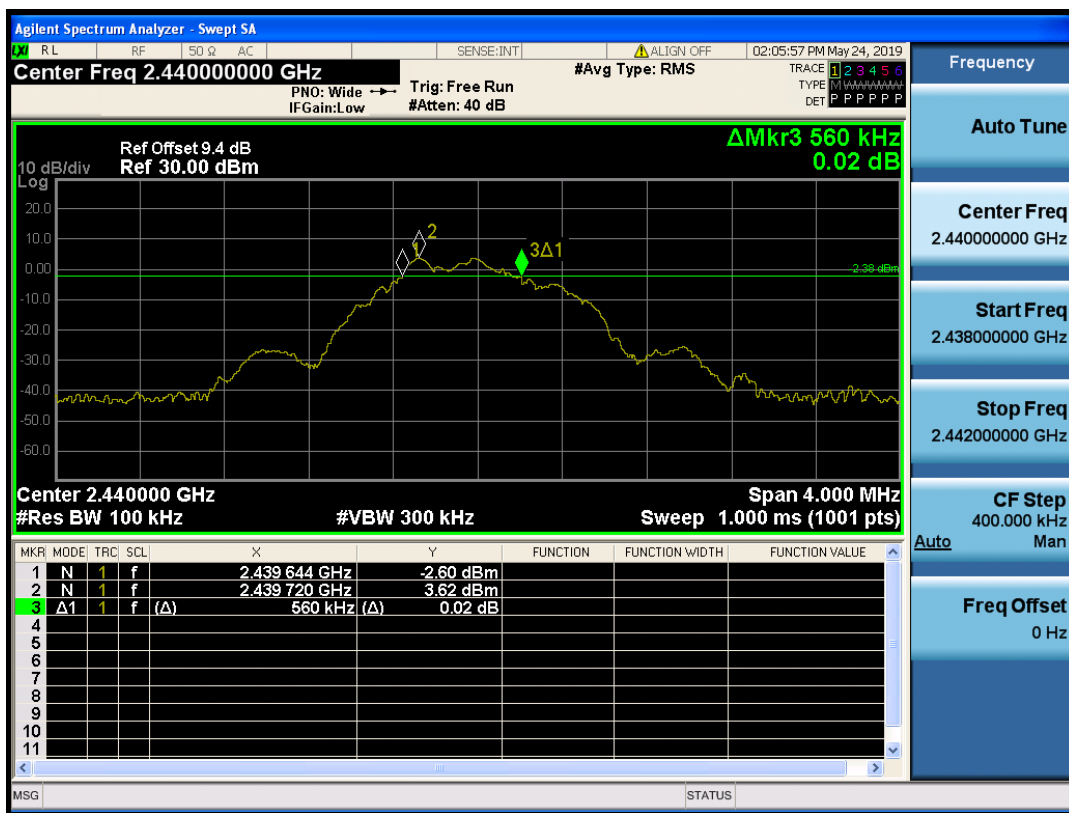


4.2.7 TEST RESULTS

BT-LE (1Mbps)

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
0	2402	0.516	0.5	PASS
19	2440	0.560	0.5	PASS
39	2480	0.520	0.5	PASS

WORSE PLOT





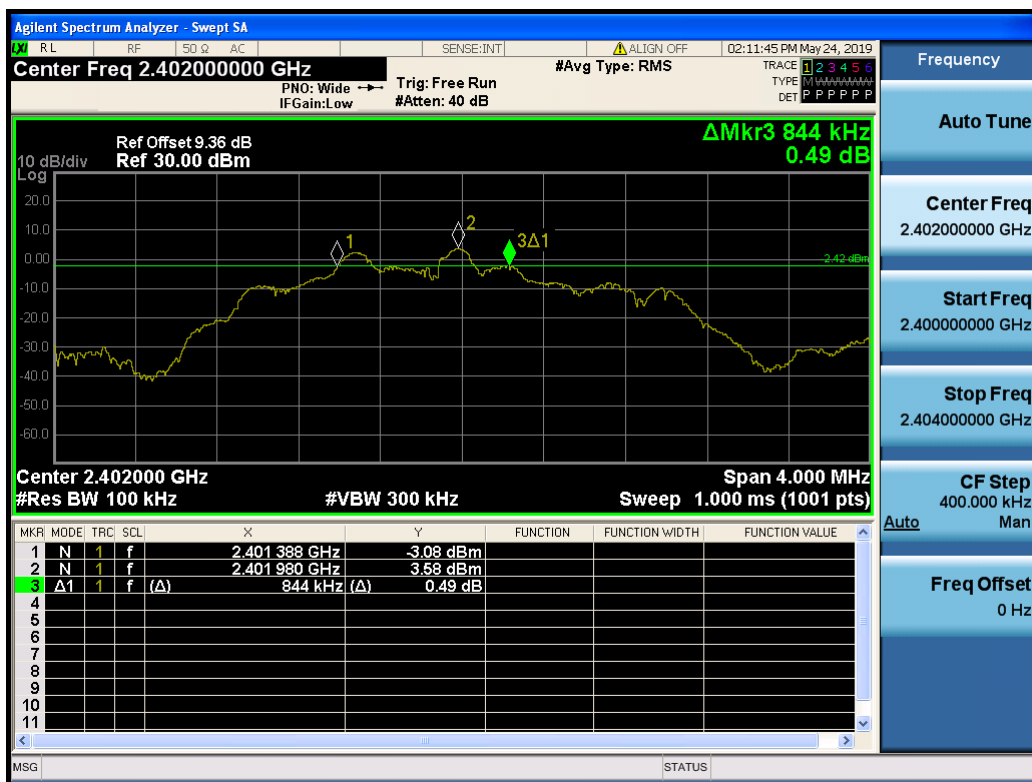
**BUREAU
VERITAS**

Test Report No.: RF190522N040

BT-LE (2Mbps)

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
0	2402	0.844	0.5	PASS
19	2440	0.844	0.5	PASS
39	2480	0.836	0.5	PASS

WORSE PLOT



Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch

No. 34, Chenwulu Section, Guantai Rd., Houjie
Town, Dongguan City,
Guangdong 523942, China

Tel: +86 769 8998 2098
Fax: +86 769 8593 1080
Email: customerservice_dg@cn.bureauveritas.com

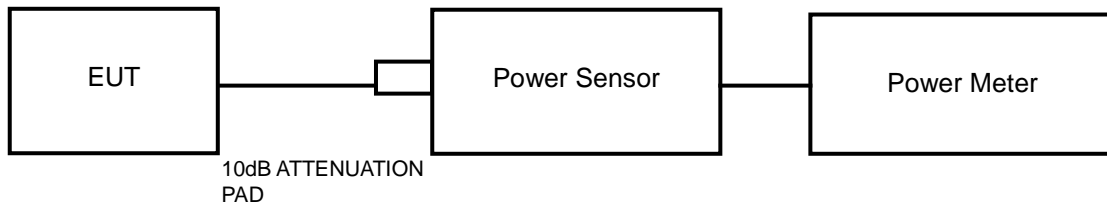


4.3 CONDUCTED OUTPUT POWER

4.3.1 LIMITS OF CONDUCTED OUTPUT POWER MEASUREMENT

For systems using digital modulation in the 2400–2483.5 MHz band: 1 Watt (30dBm)

4.3.2 TEST SETUP



4.3.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Wireless Connectivity Tester	R&S	CMW270	1201.0002K75	Nov. 29, 18	Nov. 28, 19
MXA VEXTOR SIGNAL	Agilent	n5182a	MY50140530	Mar. 28,19	Mar. 27,20
MXA signal analyzer	Agilent	n9020a	MY49100060	Mar. 28,19	Mar. 27,20
RF Control Unit	Tonscend	JS0806-2	188060112	Mar. 28,19	Mar. 27,20
Signal Generation	Agilent	E4421B	US40051152	Nov. 29, 18	Nov. 28, 19
DC Power Supply	Agilent	E3640A	MY40004013	Mar. 28,19	Mar. 27,20
Programmable Temperature & Humidity Chamber	Hongjin	HYC-TH-225 DH	DG-180746	Mar. 28,19	Mar. 27,20
Test System	Tonscend	JS 1120-3	N/A	N/A	N/A

NOTE:

1. The test was performed in RF Oven room.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA



4.3.4 TEST PROCEDURES

A peak sensor was used on the output port of the EUT. A peak power meter was used to read the response of the peak power sensor. Record the peak power level.

4.3.5 DEVIATION FROM TEST STANDARD

No deviation.

4.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.



4.3.7 TEST RESULTS

4.3.7.1 MAXIMUM PEAK OUTPUT POWER

BT-LE (1Mbps)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER (dBm)	PEAK POWER (mW)	PEAK POWER LIMIT (W)	PASS/FAIL
0	2402	0.91	1.233	1	PASS
19	2440	0.96	1.247	1	PASS
39	2480	1.12	1.294	1	PASS

BT-LE (2Mbps)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER (dBm)	PEAK POWER (mW)	PEAK POWER LIMIT (W)	PASS/FAIL
0	2402	2.99	1.991	1	PASS
19	2440	3.04	2.014	1	PASS
39	2480	3.16	2.070	1	PASS



4.3.7.2 AVERAGE OUTPUT POWER (FOR REFERENCE)

The average power sensor was used on the output port of the EUT. A power meter was used to read the response of the power sensor. Record the power level.

BT-LE (1Mbps)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)
0	2402	0.16
19	2440	0.11
39	2480	0.21

BT-LE (2Mbps)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)
0	2402	0.13
19	2440	0.10
39	2480	0.19

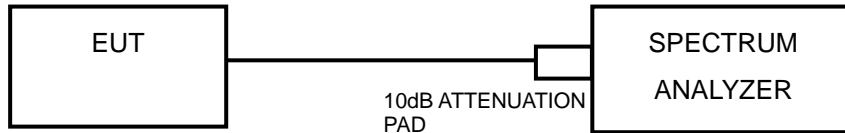


4.4 POWER SPECTRAL DENSITY MEASUREMENT

4.4.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm/3KHz.

4.4.2 TEST SETUP



4.4.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Wireless Connectivity Tester	R&S	CMW270	1201.0002K75	Nov. 29, 18	Nov. 28, 19
MXA VEXTOR SIGNAL	Agilent	n5182a	MY50140530	Mar. 28,19	Mar. 27,20
MXA signal analyzer	Agilent	n9020a	MY49100060	Mar. 28,19	Mar. 27,20
RF Control Unit	Tonscend	JS0806-2	188060112	Mar. 28,19	Mar. 27,20
Signal Generation	Agilent	E4421B	US40051152	Nov. 29, 18	Nov. 28, 19
DC Power Supply	Agilent	E3640A	MY40004013	Mar. 28,19	Mar. 27,20
Programmable Temperature & Humidity Chamber	Hongjin	HYC-TH-225 DH	DG-180746	Mar. 28,19	Mar. 27,20
Test System	Tonscend	JS 1120-3	N/A	N/A	N/A

NOTE:

1. The test was performed in RF Oven room.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA



4.4.4 TEST PROCEDURE

1. Set the span to 1.5 times the DTS bandwidth
2. Set the RBW = 3 kHz, VBW \geq 3 x RBW, Detector = peak.
3. Sweep time = auto couple, Trace mode = max hold, allow trace to fully stabilize.
4. Use the peak marker function to determine the maximum amplitude level.

4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

4.4.6 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

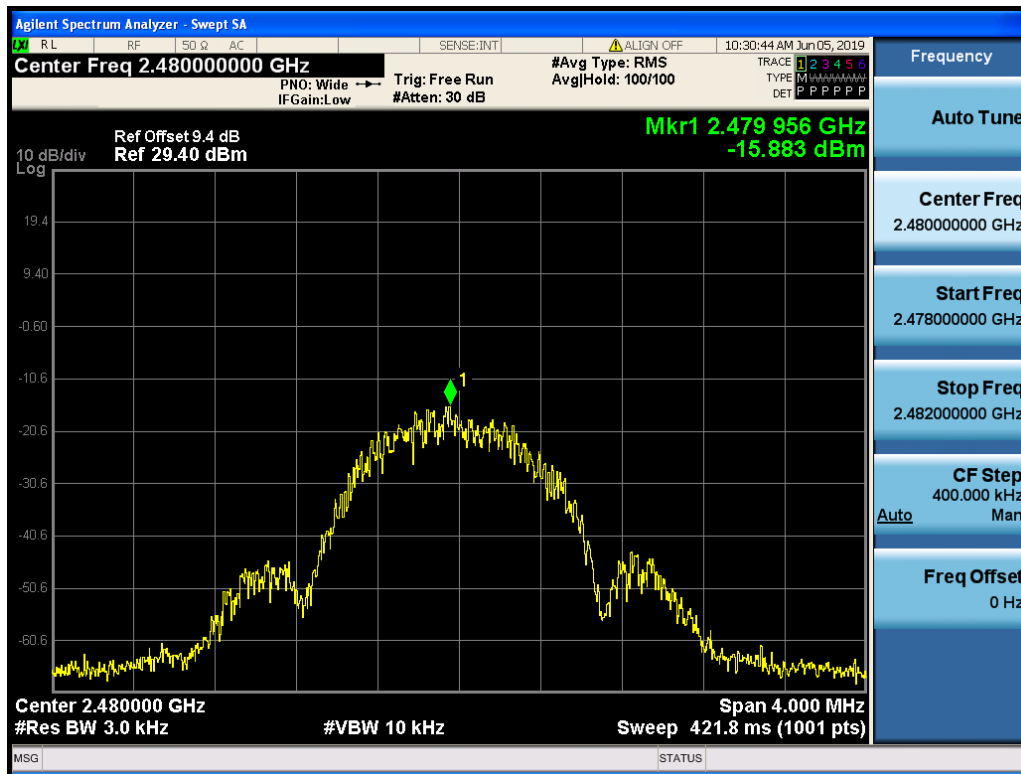


4.4.7 TEST RESULTS

BT-LE (1Mbps)

Channel	FREQ. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
0	2402	-15.992	8	PASS
19	2440	-16.048	8	PASS
39	2480	-15.883	8	PASS

WORSE PLOT





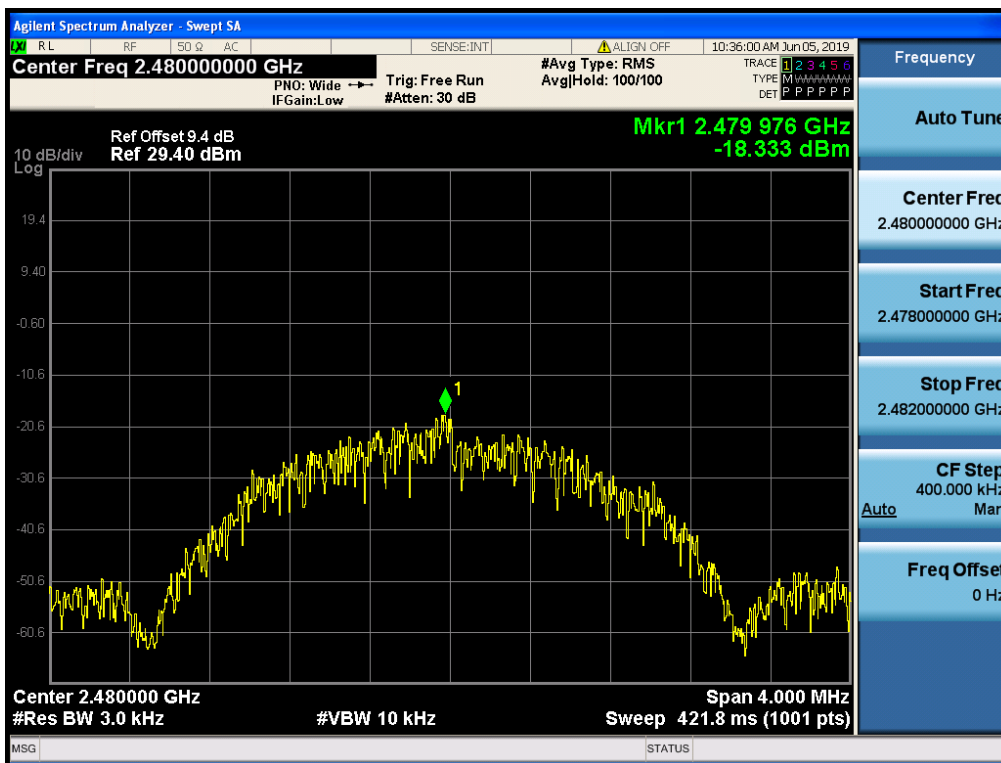
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BT-LE (2Mbps)

Channel	FREQ. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
0	2402	-18.502	8	PASS
19	2440	-18.569	8	PASS
39	2480	-18.333	8	PASS

WORSE PLOT



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No. 34, Chenwulu Section, Guantai Rd., Houjie
Town, Dongguan City,
Guangdong 523942, China

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Fax: +86 769 8593 1080
Email: customerservice.dg@cn.bureauveritas.com

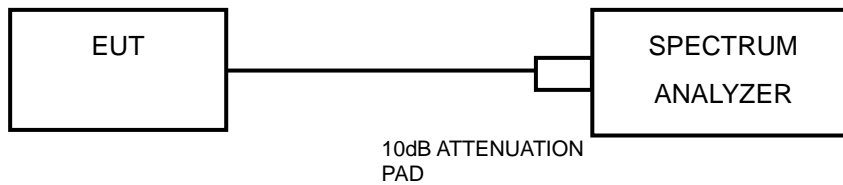


4.5 OUT OF BAND EMISSION MEASUREMENT

4.5.1 LIMITS OF OUT OF BAND EMISSION MEASUREMENT

Below -20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

4.5.2 TEST SETUP



4.5.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Wireless Connectivity Tester	R&S	CMW270	1201.0002K75	Nov. 29, 18	Nov. 28, 19
MXA VEXTOR SIGNAL	Agilent	n5182a	MY50140530	Mar. 28,19	Mar. 27,20
MXA signal analyzer	Agilent	n9020a	MY49100060	Mar. 28,19	Mar. 27,20
RF Control Unit	Tonscend	JS0806-2	188060112	Mar. 28,19	Mar. 27,20
Signal Generation	Agilent	E4421B	US40051152	Nov. 29, 18	Nov. 28, 19
DC Power Supply	Agilent	E3640A	MY40004013	Mar. 28,19	Mar. 27,20
Programmable Temperature & Humidity Chamber	Hongjin	HYC-TH-225 DH	DG-180746	Mar. 28,19	Mar. 27,20
Test System	Tonscend	JS 1120-3	N/A	N/A	N/A

NOTE:

1. The test was performed in RF Oven room.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA



4.5.4 TEST PROCEDURE

MEASUREMENT PROCEDURE REF

1. Set the RBW = 100 kHz.
2. Set the VBW \geq 300 kHz.
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOB

1. Set RBW = 100 kHz.
2. Set VBW \geq 300 kHz.
3. Set span to encompass the spectrum to be examined
4. Detector = peak.
5. Trace Mode = max hold.
6. Sweep = auto couple.

4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

4.5.6 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.



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4.5.7 TEST RESULTS

BT-LE (1Mbps)



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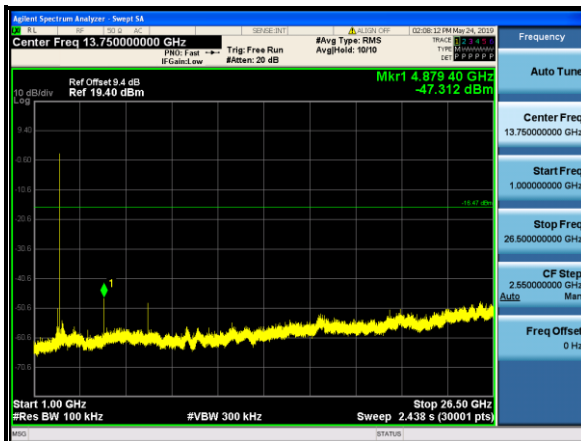
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Fax: +86 769 8593 1080
Email: customerservice_dg@cn.bureauveritas.com



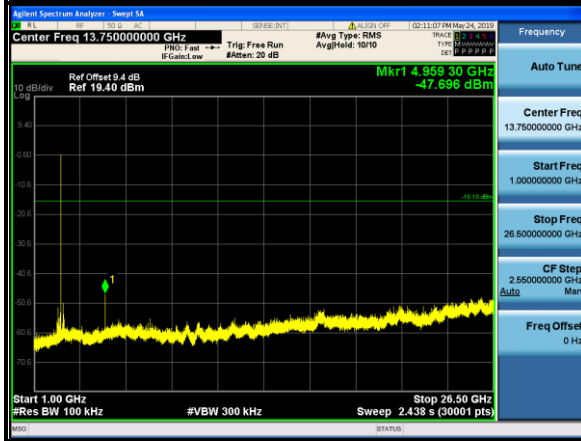
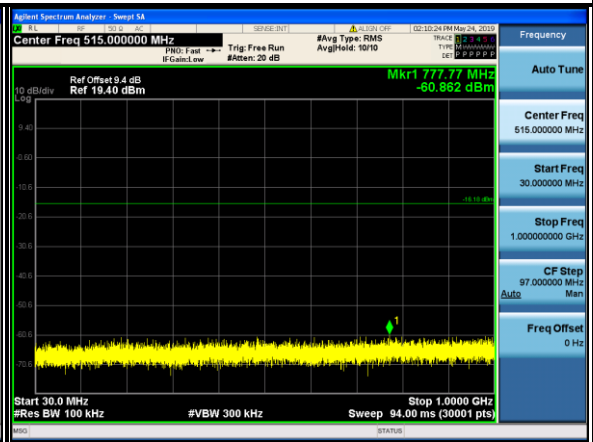
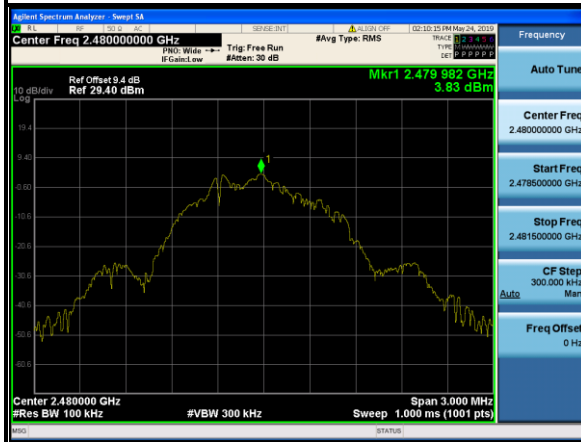
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Parameter	Value
Auto Tune	Auto Tune
Center Freq	13.75000000 GHz
Start Freq	1.000000000 GHz
Stop Freq	26.500000000 GHz
CF Step	2.550000000 GHz Auto Man
Freq Offset	0 Hz

CH 39



Parameter	Value
Auto Tune	Auto Tune
Center Freq	13.75000000 GHz
Start Freq	1.000000000 GHz
Stop Freq	26.500000000 GHz
CF Step	2.550000000 GHz Auto Man
Freq Offset	0 Hz

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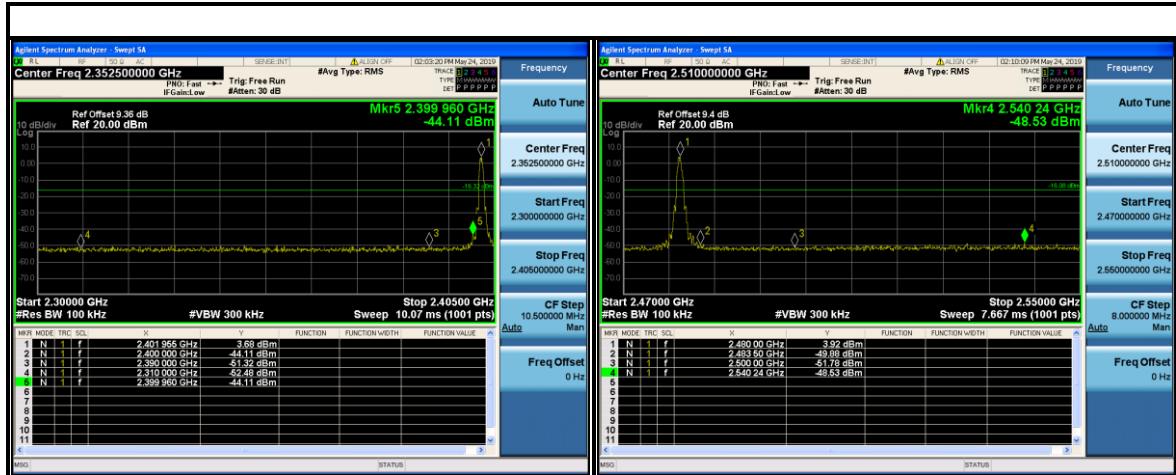
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Guangdong 523942, China

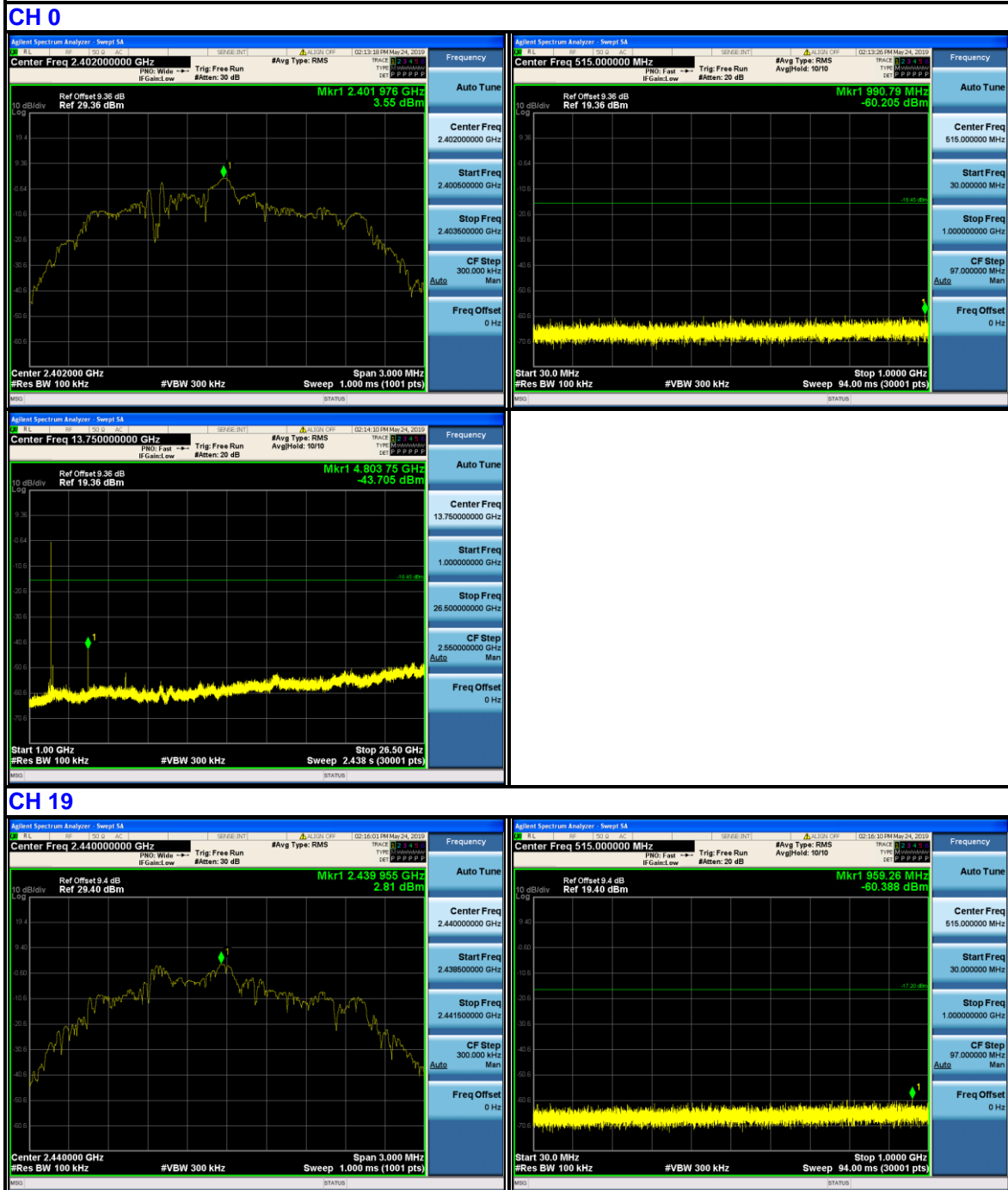
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BT-LE (2Mbps)



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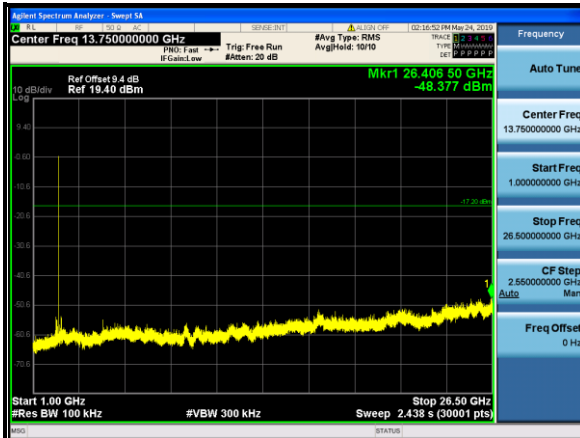
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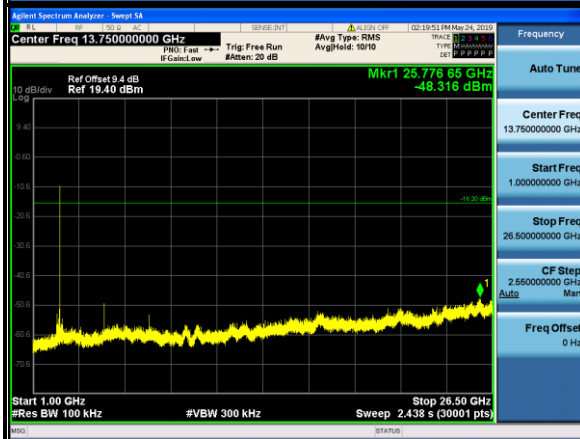
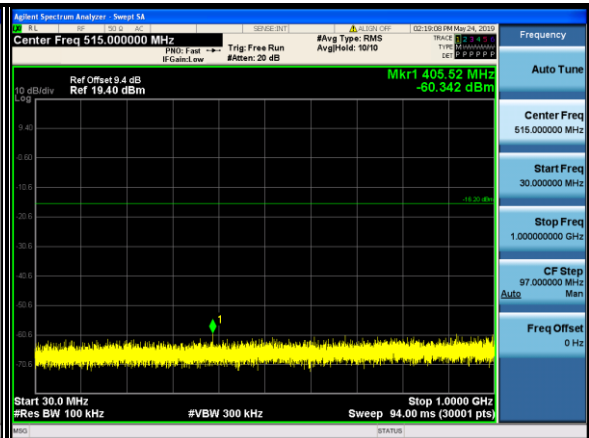


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Guangdong 523942, China

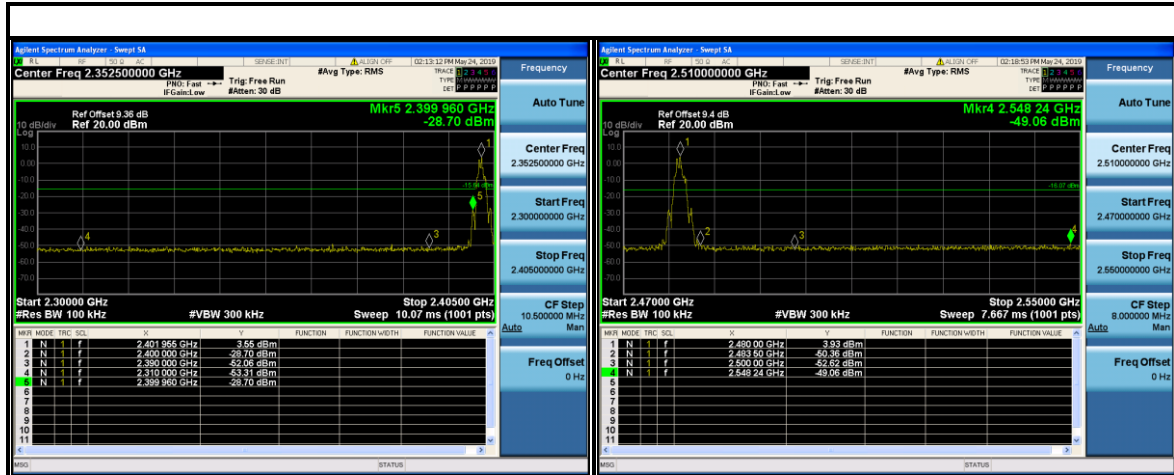
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Fax: +86 769 8593 1080
Email: customerservice.dg@cn.bureauveritas.com



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Dongguan Branch

No. 34, Chenwulu Section, Guantai Rd., Houjie
Town, Dongguan City,
Guangdong 523942, China

Tel: +86 769 8998 2098
Fax: +86 769 8593 1080
Email: customerservice_dg@cn.bureauveritas.com



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5 APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.

---END---