TEST REPORT

Applicant	SHENZHEN MAIKESEN TECHNOLOGY CO., LTD
Address	F4-F5, Yinzhuling Park, No. 7, Xiangyin Rd, Nanlian Community, Longgang Dist.,

Manufacturer or Supplier	SHENZHEN MAIKESEN TECHNOLOGY CO., LTD
Address	F4-F5, Yinzhuling Park, No. 7, Xiangyin Rd, Nanlian Community, Longgang Dist.,
Product	Wireless Speaker
Brand Name	KODAK
Customer Model	DKBS-900 Aqua Bullet
Factory Model	YM-X8
Additional Model & Model Difference	N/A
Date of tests	March 20 to July 06, 2018

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

☒ **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
Evans He	David Huang
	Date: July 06, 2018

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF180621N046	Original release	July 06,2018

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C			
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**	**REMARK**
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit.
15.247(a)(1)(iii)	Number of Hopping Frequency Used	PASS	Meet the requirement of limit.
15.247(a)(1)(iii)	Dwell Time on Each Channel	PASS	Meet the requirement of limit.
15.247(a)(1)	1. Hopping Channel Separation 2. Spectrum Bandwidth of a Frequency Hopping Sequence Spread Spectrum System	PASS	Meet the requirement of limit.
15.247(b)	Maximum Peak Output Power	PASS	Meet the requirement of limit.
15.247(d)& 15.209	Transmitter Radiated Emission	PASS	Meet the requirement of limit.
15.247(d)	Out of band Emission Measurement	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	No antenna connector is used.

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 emissions	9kHz~30MHz	3.11dB
Radiated emissions	9KHz ~ 30MHz	3.11dB
	30MHz ~ 1GMHz	5.12dB
	1GHz ~ 18GHz	5.34dB
	18GHz ~ 40GHz	5.34dB

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	Wireless Speaker
CUSTOMER MODEL NO.	DKBS-900 Aqua Bullet
FACTORY MODEL NO.	YM-X8
ADDITIONAL MODEL	N/A
FCC ID	2ANKR-YM-X8
POWER SUPPLY	DC 5V from adapter DC 3.7V from battery
MODULATION TECHNOLOGY	FHSS
MODULATION TYPE	GFSK, π/4 DQPSK
OPERATING FREQUENCY	2402MHz~2480MHz
NUMBER OF CHANNEL	79
PEAK OUTPUT POWER	0.545mW (Max. Measured)
ANTENNA TYPE	PIFA Antenna, -0.68dBi Gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	AC Cable: Unshielded, Non-detachable, 50cm

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.: 180621N046) for detailed product photo.

3.2 DESCRIPTION OF TEST MODES

79 channels are provided to this EUT:

CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)
0	2402	20	2422	40	2442	60	2462
1	2403	21	2423	41	2443	61	2463
2	2404	22	2424	42	2444	62	2464
3	2405	23	2425	43	2445	63	2465
4	2406	24	2426	44	2446	64	2466
5	2407	25	2427	45	2447	65	2467
6	2408	26	2428	46	2448	66	2468
7	2409	27	2429	47	2449	67	2469
8	2410	28	2430	48	2450	68	2470
9	2411	29	2431	49	2451	69	2471
10	2412	30	2432	50	2452	70	2472
11	2413	31	2433	51	2453	71	2473
12	2414	32	2434	52	2454	72	2474
13	2415	33	2435	53	2455	73	2475
14	2416	34	2436	54	2456	74	2476
15	2417	35	2437	55	2457	75	2477
16	2418	36	2438	56	2458	76	2478
17	2419	37	2439	57	2459	77	2479
18	2420	38	2440	58	2460	78	2480
19	2421	39	2441	59	2461		

3.2.1. CONFIGURATION OF SYSTEM UNDER TEST

Please see section 5 photograph 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 channel(s) was (were) selected for the final test as listed below:

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE<1G	RE≥1G	PLC	APCM	
A	√	√	√	√	Powered By AC 120V

Where **RE<1G:** Radiated Emission below 1GHz **RE≥1G:** Radiated Emission above 1GHz
PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

RADIATED EMISSION TEST (BELOW 1 GHz):

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

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	PACKET TYPE
0 to 78	39	FHSS	GFSK	DH5

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

RADIATED EMISSION TEST (ABOVE 1 GHz):

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

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	PACKET TYPE
0 to 78	0, 39, 78	FHSS	GFSK	DH5
0 to 78	0, 39, 78	FHSS	π/4 DQPSK	2DH5

POWER LINE CONDUCTED EMISSION TEST:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, antenna ports (if EUT with antenna diversity architecture), and packet types.

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	PACKET TYPE
A	0 to 78	Hopping	FHSS	GFSK	DH5

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, antenna ports (if EUT with antenna diversity architecture), and packet types.

☒ Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	PACKET TYPE
0 to 78	0, 39, 78	FHSS	GFSK	DH5
0 to 78	0, 39, 78	FHSS	π/4 DQPSK	2DH5

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	TEST VOLTAGE (SYSTEM)	TESTED BY
RE<1G	25deg. C, 52%RH	DC 5V	Evans He
RE≥1G	25deg. C, 52%RH	DC 5V	Evans He
PLC	25deg. C, 54%RH	DC 5V	Evans He
APCM	22deg. C, 54%RH	DC 5V	Evans He

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
ANSI C63.10-2013

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 an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

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, 2	DC Line: Unshielded, Detachable 50cm

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

Instrument	Model	Serial #	Cal Date	Cal Due
EMI test receiver	ESCS30	8471241027	Jan. 05, 18	Jan. 04, 19
Line Impedance Stabilization Network	LI-125A	191106	Dec. 08, 17	Dec. 07, 18
Line Impedance Stabilization Network	LI-125A	191107	Dec. 08, 17	Dec. 07, 18
Test Software	EZ-EMC	ver.Icp-03A1	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.

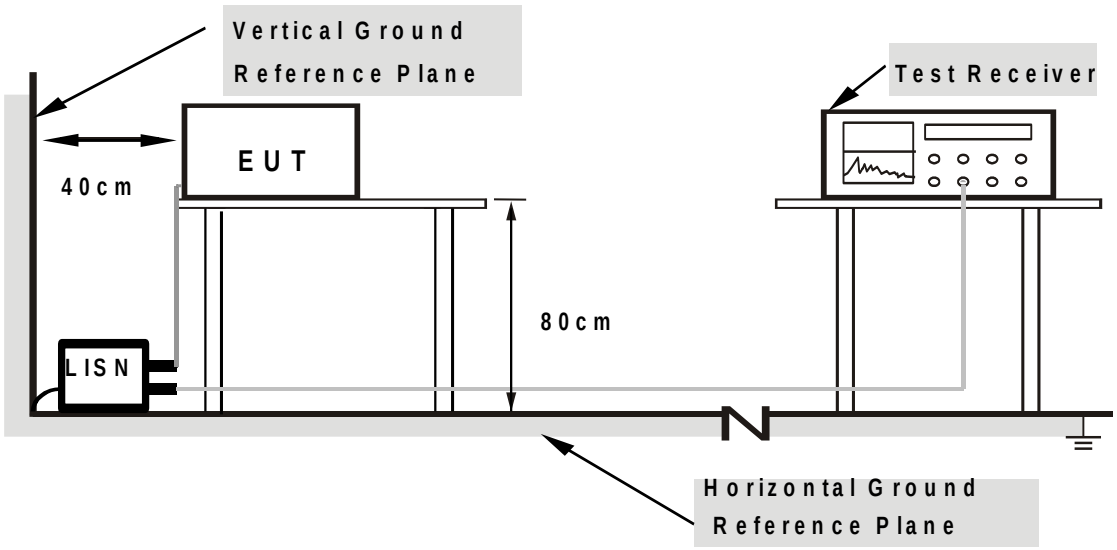
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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.

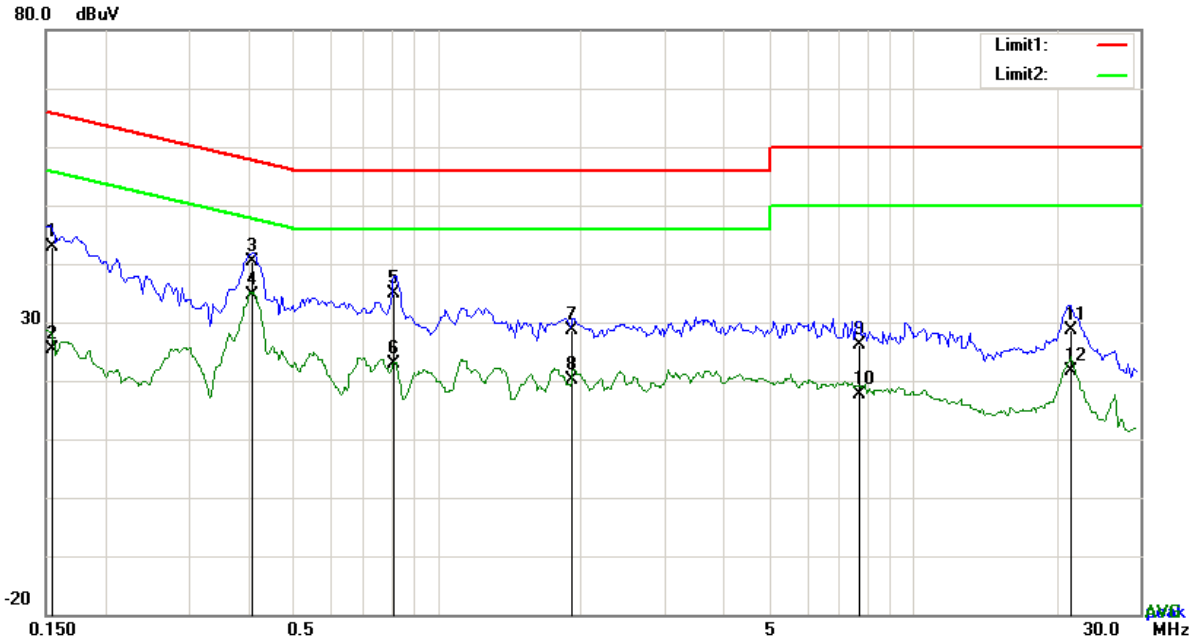
4.1.7 TEST RESULTS

CONDUCTED WORST-CASE DATA: GFSK CH39

PHASE	Line	6dB BANDWIDTH	9kHz

No.	P/L	Frequency (MHz)	Reading (dBuV)	Detector	Corrected (dB}	Result (dBuV)	Limit (dBuV)	Margin (dB)
1	L1	0.1548	32.81	QP	10.03	42.84	65.74	-22.90
2	L1	0.1548	15.43	AVG	10.03	25.46	55.74	-30.28
3	L1	0.4074	30.25	QP	10.03	40.28	57.70	-17.42
4	L1	0.4074	24.71	AVG	10.03	34.74	47.70	-12.96
5	L1	0.8130	24.90	QP	10.03	34.93	56.00	-21.07
6	L1	0.8130	12.88	AVG	10.03	22.91	46.00	-23.09
7	L1	1.9206	18.53	QP	10.04	28.57	56.00	-27.43
8	L1	1.9206	10.06	AVG	10.04	20.10	46.00	-25.90
9	L1	7.7112	15.91	QP	10.12	26.03	60.00	-33.97
10	L1	7.7112	7.50	AVG	10.12	17.62	50.00	-32.38
11	L1	21.4782	18.30	QP	10.33	28.63	60.00	-31.37
12	L1	21.4782	11.26	AVG	10.33	21.59	50.00	-28.41

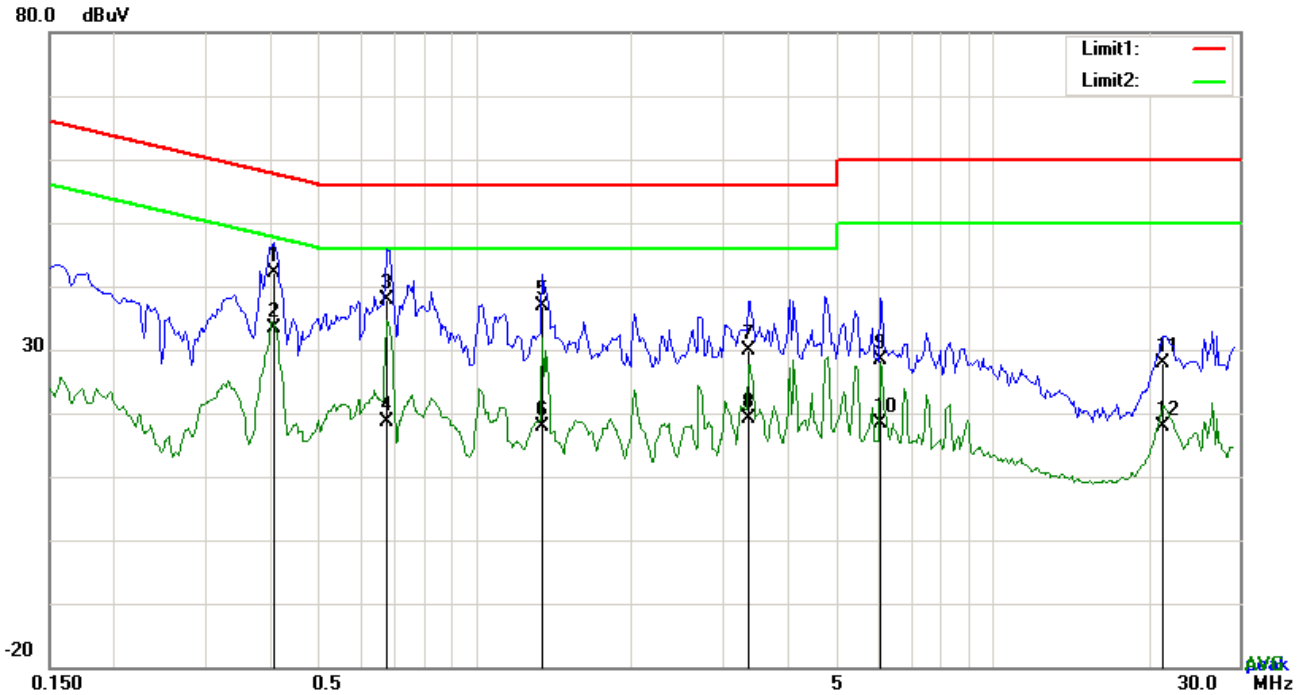
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Reading Value (dBuV) + Correction Factor (dB/m).
6. Emission Level = Correction Factor + Reading Value.



PHASE	Neutral	6dB BANDWIDTH	9kHz

No.	P/L	Frequency (MHz)	Reading (dBuV)	Detector	Corrected (dB}	Result (dBuV)	Limit (dBuV)	Margin (dB)
1	N	0.4074	32.13	QP	10.02	42.15	57.70	-15.55
2	N	0.4074	23.43	AVG	10.02	33.45	47.70	-14.25
3	N	0.6726	27.85	QP	10.02	37.87	56.00	-18.13
4	N	0.6726	8.50	AVG	10.02	18.52	46.00	-27.48
5	N	1.3512	26.76	QP	10.03	36.79	56.00	-19.21
6	N	1.3512	7.81	AVG	10.03	17.84	46.00	-28.16
7	N	3.3783	19.75	QP	10.05	29.80	56.00	-26.20
8	N	3.3783	9.19	AVG	10.05	19.24	46.00	-26.76
9	N	6.0849	18.31	QP	10.09	28.40	60.00	-31.60
10	N	6.0849	8.38	AVG	10.09	18.47	50.00	-31.53
11	N	21.3027	17.50	QP	10.28	27.78	60.00	-32.22
12	N	21.3027	7.66	AVG	10.28	17.94	50.00	-32.06

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Reading Value (dBuV) + Correction Factor (dB/m).
6. Emission Level = Correction Factor + Reading Value.



4.2. RADIATED EMISSION AND BANDEDGE MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION AND BANDEDGE 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). Other emissions shall be at least 20dB below the highest level of the desired power.

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.

4.2.2 TEST INSTRUMENTS

Instrument	Model	Serial #	Cal Date	Cal Due
Agilent ESA-E SERIES SPECTRUM ANALYZER	E4407B	MY45108319	Feb 11, 18	Feb. 10, 19
EMI test receiver	ESL6	1300.5001K06-100262-eQ	Jan, 05, 18	Jan. 04, 19
SYNTHESIZED SIGNAL GENERATOR	8665B	3744A01293	Jan, 05, 18	Jan. 04, 19
Bilog Antenna (30MHz~6GHz)	JB6	A110712	Feb 08, 18	Feb. 07, 19
Bilog Antenna (30MHz~2GHz)	JB1	A112017	Jan 26, 18	Jan. 25, 19
A-INFOMW Horn Antenna (1~18GHz)	AH-118	71259	Jan 26, 18	Jan. 25, 19
Pre-Amplifier (100MHz-26.5GHz)	EMC 012645	980077	May 18, 18	May 17, 19
Pre-Amplifier (18GHz-40GHz)	EMC 184045	980102	Nov. 08,17	Nov. 07,18
EMCO Horn Antenna (1~18GHz)	AH-118	71283	Feb 02, 18	Feb. 01, 19
OPT 010 AMPLIFIER (0.1~1300MHz)	8447E	2727A02430	Dec. 09, 17	Dec. 08, 18
Horn Antenna	BBHA 9170	BBHA9170147	Mar. 14, 18	Mar. 13, 19
Microwave Preamplifier (0.5 ~ 18GHz)	PAM-118	443008	Dec. 09, 17	Dec. 08, 18
Large Loop Antenna	RF300	Rf300	Dec. 09, 17	Dec. 08, 18
Universal Radio Communication Tester	CMU200	121393	Feb 11, 18	Feb. 10, 19
Positioning Controller	UC3000	MF780208282	Dec. 09, 17	Dec. 08, 18
Test Software	EZ-EMC	ver.Icp-03A1	N/A	N/A

NOTE:

1. The test was performed in 966 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.
3. The horn antenna is used only for the measurement of emission frequency above1GHz if tested.
4. The FCC Site Registration No. is 535293.

4.2.3 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:

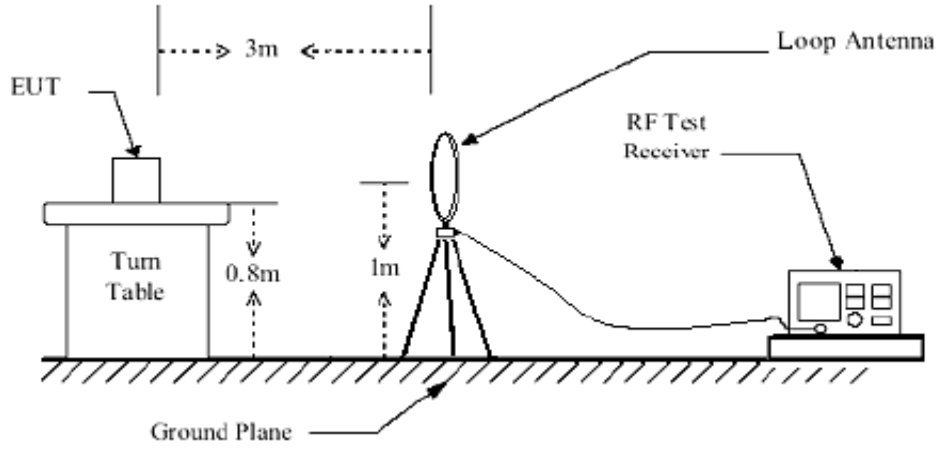
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. Bluetooth duty factor correction is not correct as it is based on 79 channels, worst case would be with AFH enabled and device using the minimum of 20 channels. Channel hop rate = 800 hops/second (AFH Mode), Adjusted channel hop rate for DH5 mode = 133.33 hops/second, Time per channel hop = 1 / 133.33 hops/second = 7.5 ms, Time to cycle through all channels = 7.5 x 20 channels = 150 ms, Number of times transmitter hits on one channel = 100 ms / 150 ms = 1 time(s), Worst case dwell time = 7.5 ms, Duty cycle connection factor = 20log10(7.5ms / 100ms) = -22.5 dB. Average value = peak reading + 20log(duty cycle).
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.

4.2.4 DEVIATION FROM TEST STANDARD

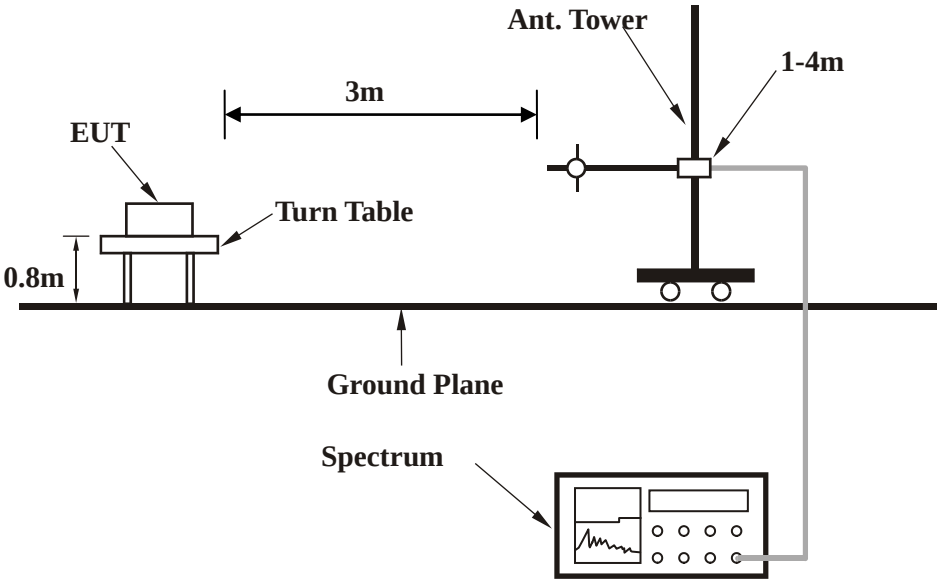
No deviation.

4.2.5 TEST SETUP

Below 30MHz test setup

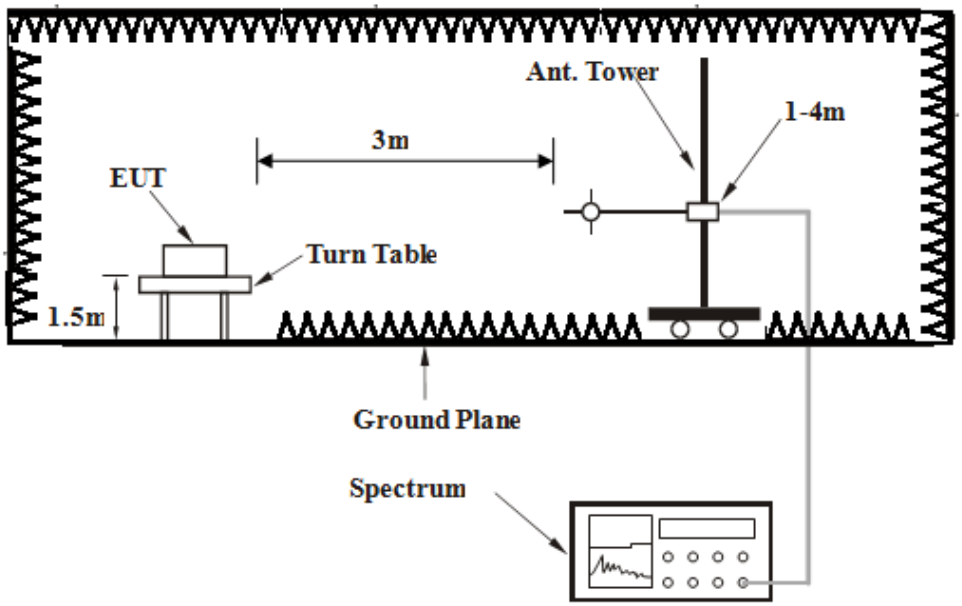


Below 1GHz test setup



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).

4.2.6 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.

4.2.7 TEST RESULTS

BELOW 1GHz WORST-CASE DATA:

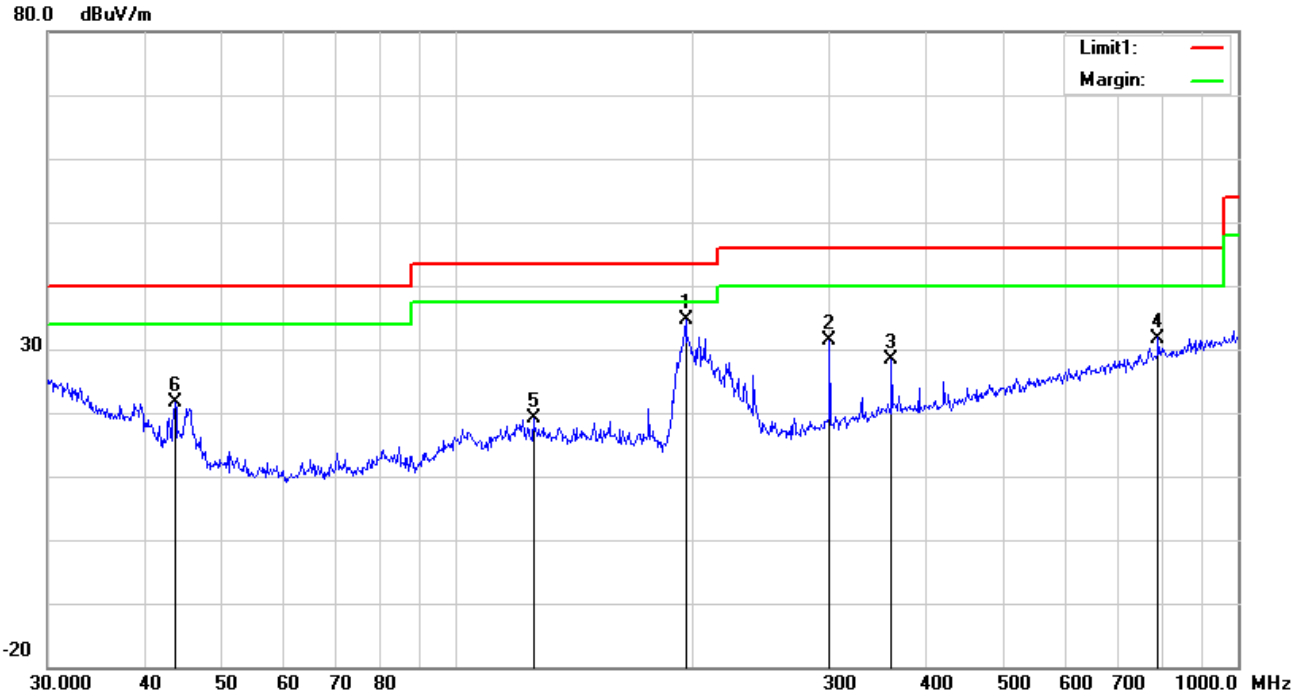
GFSK DH5

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

ANTENNA POLARITY & test distance: HORIZONTAL at 3 m											
No.	Frequency	Reading	Detector	Ant_F	PA_G	Cab_L	Result	Limit	Margin	Height	Degree
	(MHz)	(dBuV/m)		(dB/m)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(°)
1	196.5098	43.44	peak	11.91	22.36	1.54	34.53	43.50	-8.97	100	149
2	300.3673	38.21	peak	13.61	22.29	1.79	31.32	46.00	-14.68	100	182
3	360.4477	33.51	peak	14.87	22.12	2.03	28.29	46.00	-17.71	100	95
4	790.6188	28.69	peak	21.29	21.17	2.94	31.75	46.00	-14.25	100	18
5	125.4457	26.68	peak	13.55	22.37	1.18	19.04	43.50	-24.46	100	200
6	43.6585	31.62	peak	11.49	22.29	0.76	21.58	40.00	-18.42	100	139

REMARKS:

1. Emission level (dBuV/m) = Reading Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Ant Factor (dB/m) + Cab Factor (dB) - PA Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Result level – Limit value

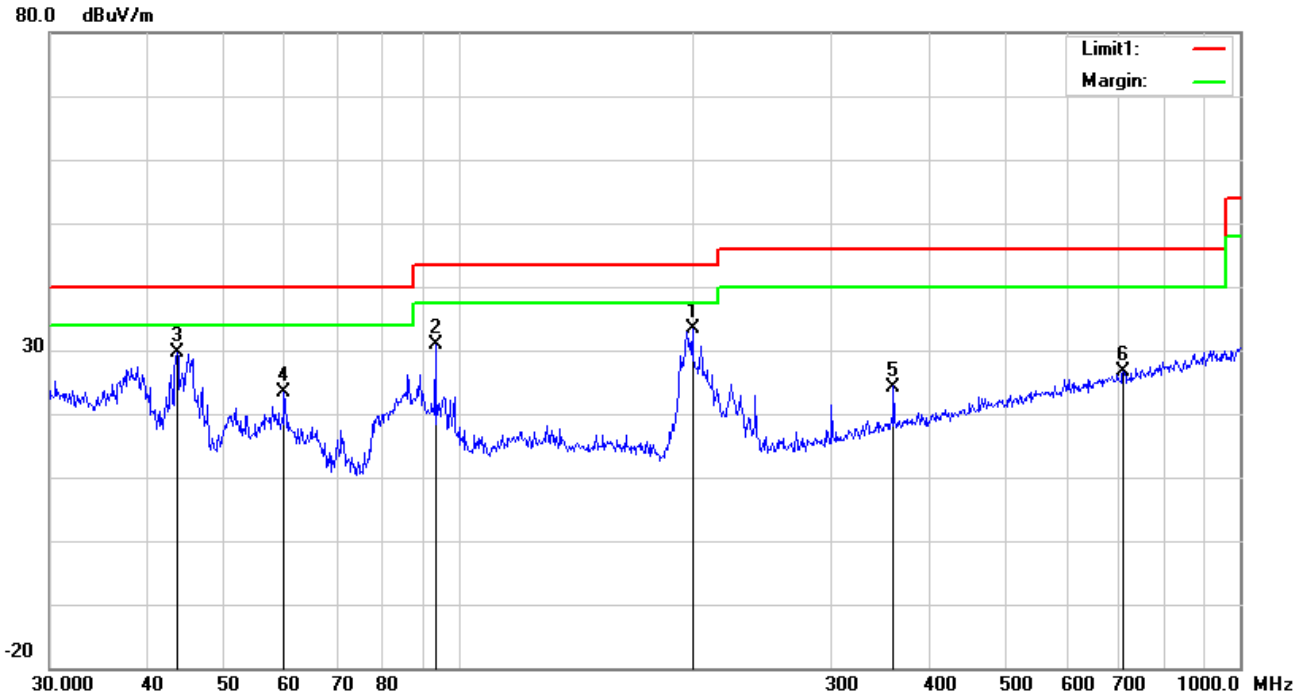


CHANNEL	Channel 39	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9KHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M											
No.	Frequency	Reading	Detector	Ant_F	PA_G	Cab_L	Result	Limit	Margin	Height	Degree
	(MHz)	(dBuV/m)		(dB/m)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(°)
1	199.2855	42.17	peak	12.06	22.38	1.54	33.39	43.50	-10.11	100	50
2	93.4402	43.28	peak	8.83	22.32	0.98	30.77	43.50	-12.73	100	227
3	43.6585	39.68	peak	11.49	22.29	0.76	29.64	40.00	-10.36	200	238
4	59.8588	37.62	peak	7.32	22.41	0.75	23.28	40.00	-16.72	100	316
5	360.4477	29.47	peak	14.87	22.12	2.03	24.25	46.00	-21.75	100	230
6	709.1823	24.95	peak	20.31	21.34	2.60	26.52	46.00	-19.48	100	81

REMARKS:

1. Emission level (dBuV/m) = Reading Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Ant Factor (dB/m) + Cab Factor (dB) - PA Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Result level – Limit value



ABOVE 1GHz DATA

BT

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

Low Channel (2402 MHz)

Frequency (MHz)	S.A. Reading (dBμV)	Detector (PK/AV)	Polarity (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
4804	45.64	AV	V	33.39	7.22	48.46	37.79	54	-16.21
4804	43.48	AV	H	33.39	7.22	48.46	35.63	54	-18.37
4804	70.27	PK	V	33.39	7.22	48.46	62.42	74	-11.58
4804	66	PK	H	33.39	7.22	48.46	58.15	74	-15.85
10619	26.9	AV	V	40.81	12.7	46.14	34.27	54	-19.73
10619	26.15	AV	H	40.81	12.7	46.14	33.52	54	-20.48
10619	44.28	PK	V	40.81	12.7	46.14	51.65	74	-22.35
10619	46.68	PK	H	40.81	12.7	46.14	54.05	74	-19.95

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

Middle Channel (2441 MHz)

Frequency (MHz)	S.A. Reading (dBμV)	Detector (PK/AV)	Polarity (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
4882	46.23	AV	V	33.62	7.53	48.36	39.02	54	-14.98
4882	47.98	AV	H	33.62	7.53	48.36	40.77	54	-13.23
4882	68.37	PK	V	33.62	7.53	48.36	61.16	74	-12.84
4882	66.27	PK	H	33.62	7.53	48.36	59.06	74	-14.94
11927	25.65	AV	V	40.17	13.29	46.23	32.88	54	-21.12
11927	25.36	AV	H	40.17	13.29	46.23	32.59	54	-21.41
11927	44.04	PK	V	40.17	13.29	46.23	51.27	74	-22.73
11927	46.07	PK	H	40.17	13.29	46.23	53.3	74	-20.7

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

High Channel (2480 MHz)

Frequency (MHz)	S.A. Reading (dBμV)	Detector (PK/AV)	Polarity (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
4960	43.37	AV	V	33.89	7.86	48.31	36.81	54	-17.19
4960	49.95	AV	H	33.89	7.86	48.31	43.39	54	-10.61
4960	65.36	PK	V	33.89	7.86	48.31	58.8	74	-15.2
4960	68.43	PK	H	33.89	7.86	48.31	61.87	74	-12.13
17857	20.67	AV	V	42.28	16.96	45.64	34.27	54	-19.73
17857	19.16	AV	H	42.28	16.96	45.64	32.76	54	-21.24
17857	41.25	PK	V	42.28	16.96	45.64	54.85	74	-19.15
17857	42.31	PK	H	42.28	16.96	45.64	55.91	74	-18.09

REMARKS:

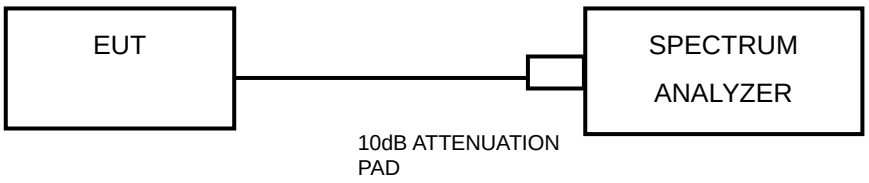
1. Field strength value(AV) (dBuV/m) = Field strength value(PK) (dBuV/m) + Average Factor (dB).
2. Margin value = Field strength value – Limit value..
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. . " * ": Fundamental frequency.

4.3 NUMBER OF HOPPING FREQUENCY USED

4.3.1 LIMIT OF HOPPING FREQUENCY USED

At least 15 channels frequencies, and should be equally spaced.

4.3.2 TEST SETUP



4.3.3 TEST INSTRUMENTS

Instrument	Model	Serial #	Cal Date	Cal Due
Power Sensor	Dare RPR3006C/P/W	N/A	Jan. 05, 18	Jan. 04, 19
Power Sensor	Dare RPR3006C/P/W	N/A	Jan. 05, 18	Jan. 04, 19
Agilent ESA-E SERIES SPECTRUM ANALYZER	E4407B	MY45108319	Feb. 11, 18	Feb. 10, 19
EMI test receiver	ESL6	1300.5001K06-100262-eQ	Jan. 05, 18	Jan. 04, 19
Power Splitter	1#	1#	Dec. 09, 17	Dec. 08, 18
SYNTHESIZED SIGNAL GENERATOR	8665B	3744A01293	Jan. 05, 18	Jan. 04, 19
DC Power Supply	E3640A	MY40004013	Jan. 05, 18	Jan. 04, 19
Bilog Antenna (30MHz~6GHz)	JB6	A110712	Feb. 08, 18	Feb. 07, 19
Bilog Antenna (30MHz~2GHz)	JB1	A112017	Jan. 26, 18	Jan. 25, 19
A-INFOMW Horn Antenna (1~18GHz)	AH-118	71259	Jan. 26, 18	Jan. 25, 19
Pre-Amplifier (100MHz-26.5GHz)	EMC 012645	980077	May 18, 18	May 17, 19
Pre-Amplifier (18GHz-40GHz)	EMC 184045	980102	Nov. 08, 17	Nov. 07, 18
EMCO Horn Antenna (1~18GHz)	AH-118	71283	Feb. 02, 18	Feb. 01, 19
OPT 010 AMPLIFIER (0.1~1300MHz)	8447E	2727A02430	Dec. 09, 17	Dec. 08, 18
Horn Antenna	BBHA 9170	BBHA9170147	Mar. 14, 18	Mar. 13, 19

Microwave Preamplifier (0.5 ~ 18GHz)	PAM-118	443008	Dec. 09, 17	Dec. 08, 18
Attenuator	MINI	N/A	Dec. 09, 17	Dec. 08, 18
Test Software	EZ-EMC	ver.Icp-03A1	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. Check the calibration of the measuring instrument (SA) using either an internal calibrator or a known signal from an external generator.

b. Turn on the EUT and connect its antenna terminal to measurement via a low loss cable. Then set it to any one measured frequency within its operating range and make sure the instrument is operated in its linear range.

c. Set the SA on MaxHold Mode, and then keep the EUT in hopping mode. Record all the signals from each channel until each one has been recorded.

d. Set the SA on View mode and then plot the result on SA screen.

e. Repeat above procedures until all frequencies measured were completed.

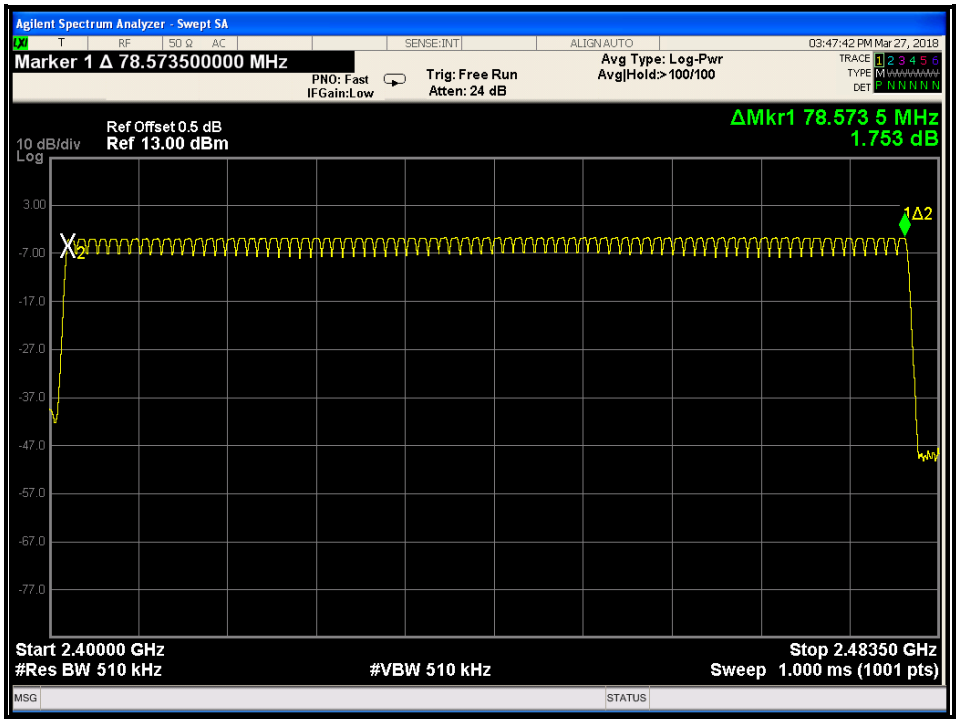
4.3.5 DEVIATION FROM TEST STANDARD

No deviation.

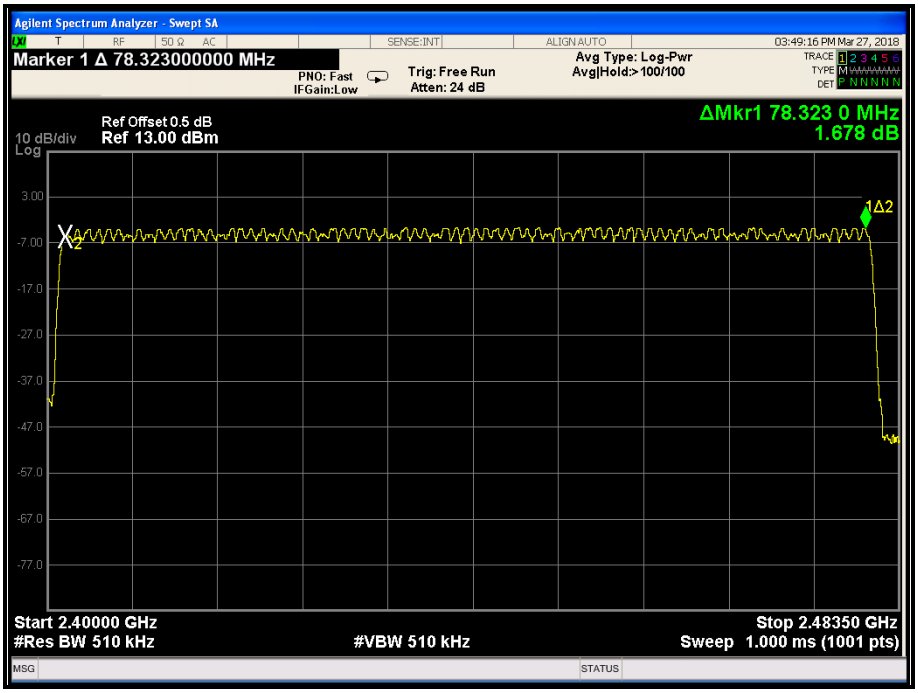
4.3.6 TEST RESULTS

There are 79 hopping frequencies in the hopping mode. Please refer to next two pages for the test result. On the plots, it shows that the hopping frequencies are equally spaced.

GFSK



π/4 DQPSK

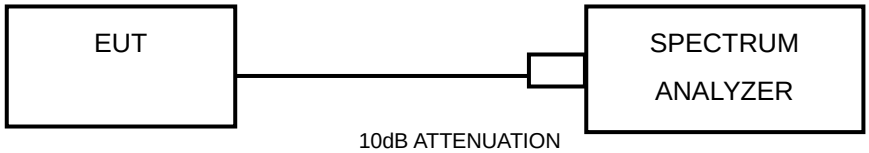


4.4 DWELL TIME ON EACH CHANNEL

4.4.1 LIMIT OF DWELL TIME USED

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

4.4.2 TEST SETUP



10dB ATTENUATION PAD

4.4.3 TEST INSTRUMENTS

Refer to section 4.3.3 to get information of above instrument.

4.4.4 TEST PROCEDURES

a. Check the calibration of the measuring instrument (SA) using either an internal calibrator or a known signal from an external generator.

b. Turn on the EUT and connect its antenna terminal to measurement via a low loss cable. Then set it to any one measured frequency within its operating range and make sure the instrument is operated in its linear range.

c. Adjust the center frequency of SA on any frequency be measured and set SA to zero span mode. And then, set RBW and VBW of spectrum analyzer to proper value.

d. Measure the time duration of one transmission on the measured frequency. And then plot the result with time difference of this time duration.

e. Repeat above procedures until all different time-slot modes have been completed.

4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

4.4.6 TEST RESULTS

GFSK

Mode	Number of Hopping Channel	Number of transmission in a period(channel number*0.4 sec)				Length of transmission time (msec)	Result (msec)	Limit (msec)	PASS / FAIL
		period (sec)	sweep time (sec)	times in a sweep	times in a period				
DH1	79	31.6	4	13	102.7	0.57	58.539	400	PASS
DH3	79	31.6	4	8	63.2	1.82	115.024	400	PASS
DH5	79	31.6	4	7	55.3	2.86	158.158	400	PASS

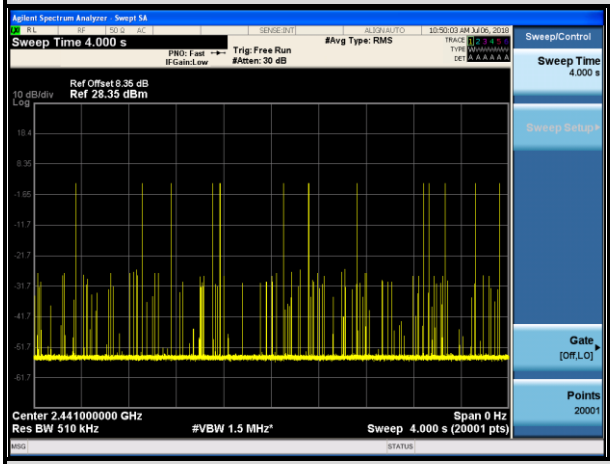
π/4 DQPSK

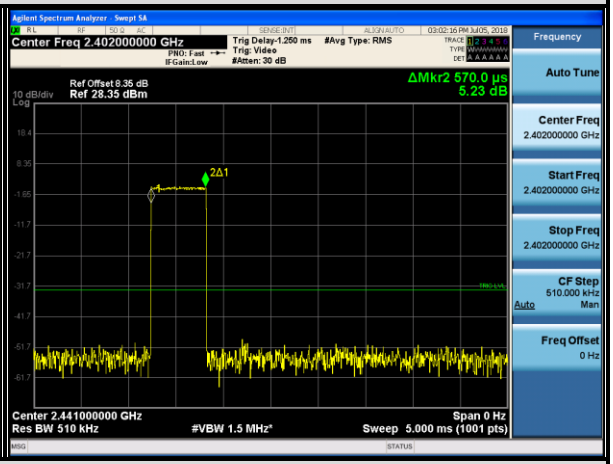
Mode	Number of Hopping Channel	Number of transmission in a period(channel number*0.4 sec)				Length of transmission time (msec)	Result (msec)	Limit (msec)	PASS / FAIL
		period (sec)	sweep time (sec)	times in a sweep	times in a period				
DH1	79	31.6	4	12	94.8	0.57	54.036	400	PASS
DH3	79	31.6	4	10	79	1.82	143.78	400	PASS
DH5	79	31.6	4	8	63.2	2.876	181.7632	400	PASS

NOTE: Test plots of the transmitting time slot are shown on next page.

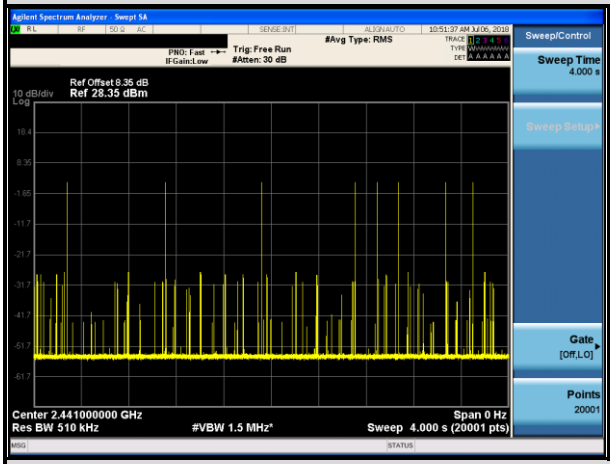
GFSK

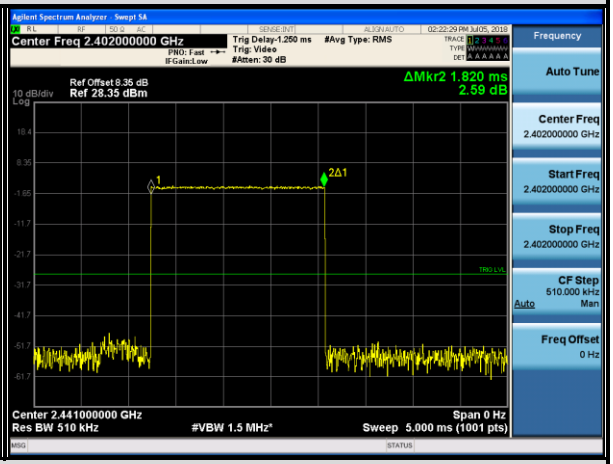
DH1



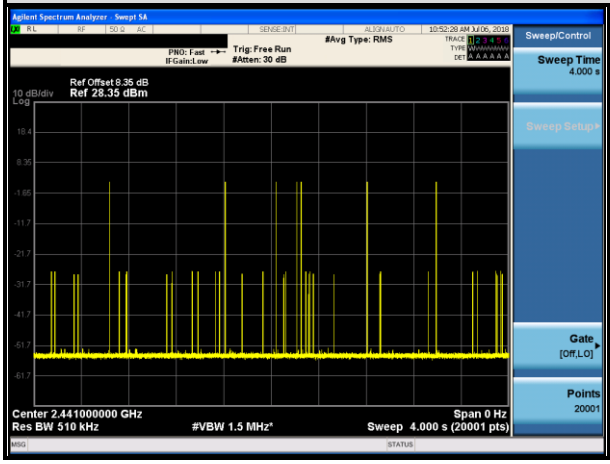


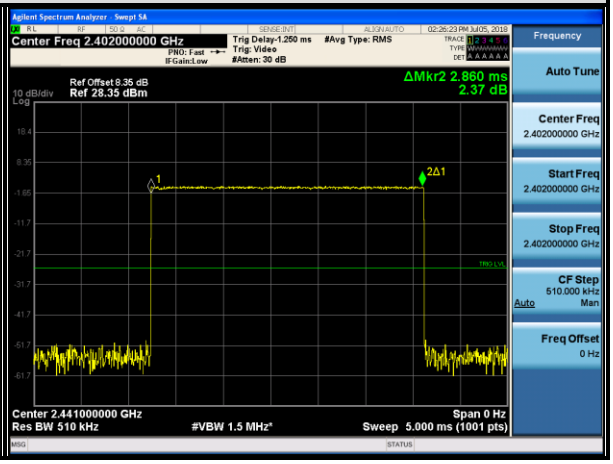
DH3





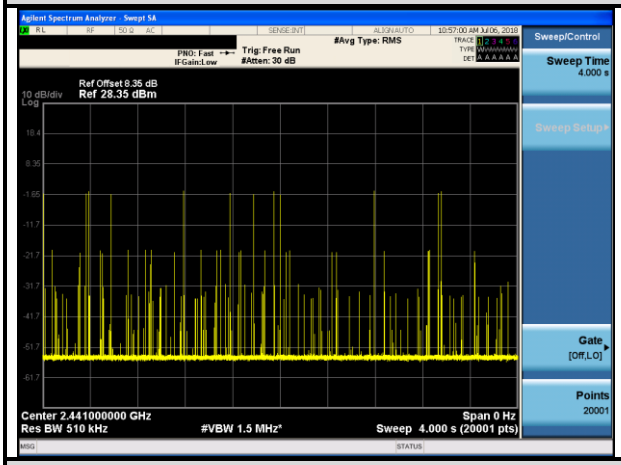
DH5

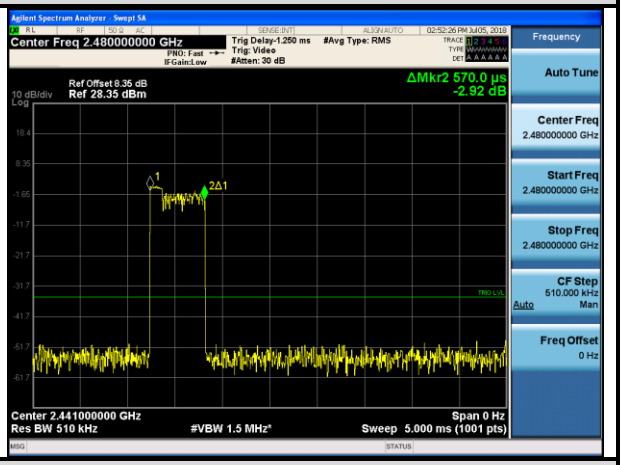




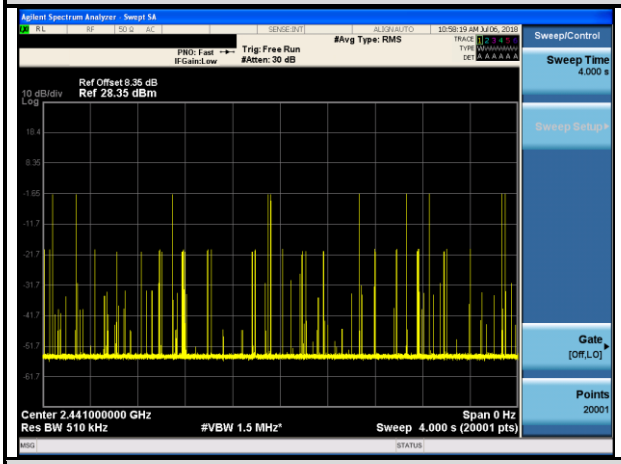
π/4 DQPSK

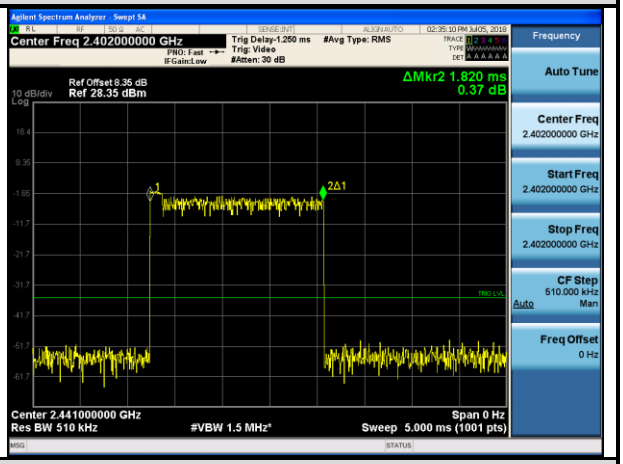
3DH1



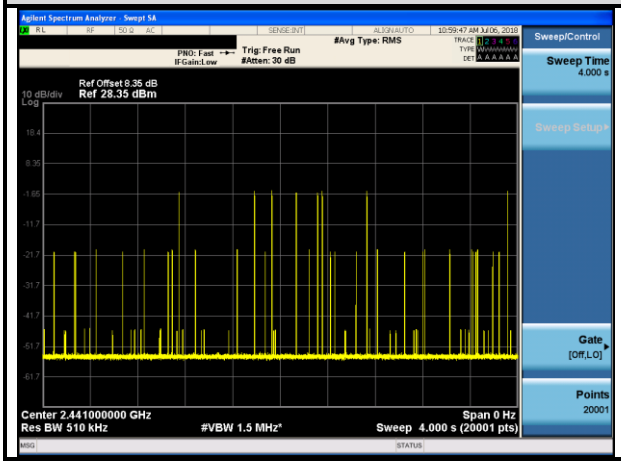


3DH3





3DH5

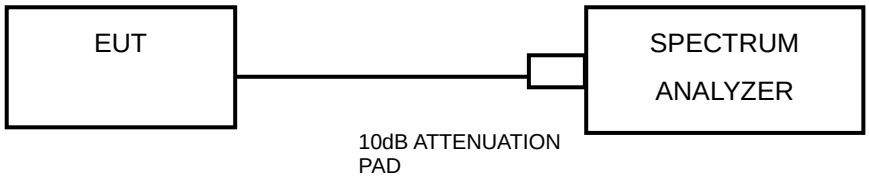


4.5 CHANNEL BANDWIDTH

4.5.1 LIMITS OF CHANNEL BANDWIDTH

For frequency hopping system operating in the 2400-2483.5MHz, If the 20dB bandwidth of hopping channel is greater than 25kHz, two-thirds 20dBbandwidth of hopping channel shell be a minimum limit for the hopping channel separation.

4.5.2 TEST SETUP



4.5.3 TEST INSTRUMENTS

Refer to section 4.3.3 to get information of above instrument.

4.5.4 TEST PROCEDURE

a. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.

b. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.

c. Measure the frequency difference of two frequencies that were attenuated 20dB from the reference level. Record the frequency difference as the emission bandwidth.

d. Repeat above procedures until all frequencies measured were complete.

4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

4.5.6 EUT OPERATING CONDITION

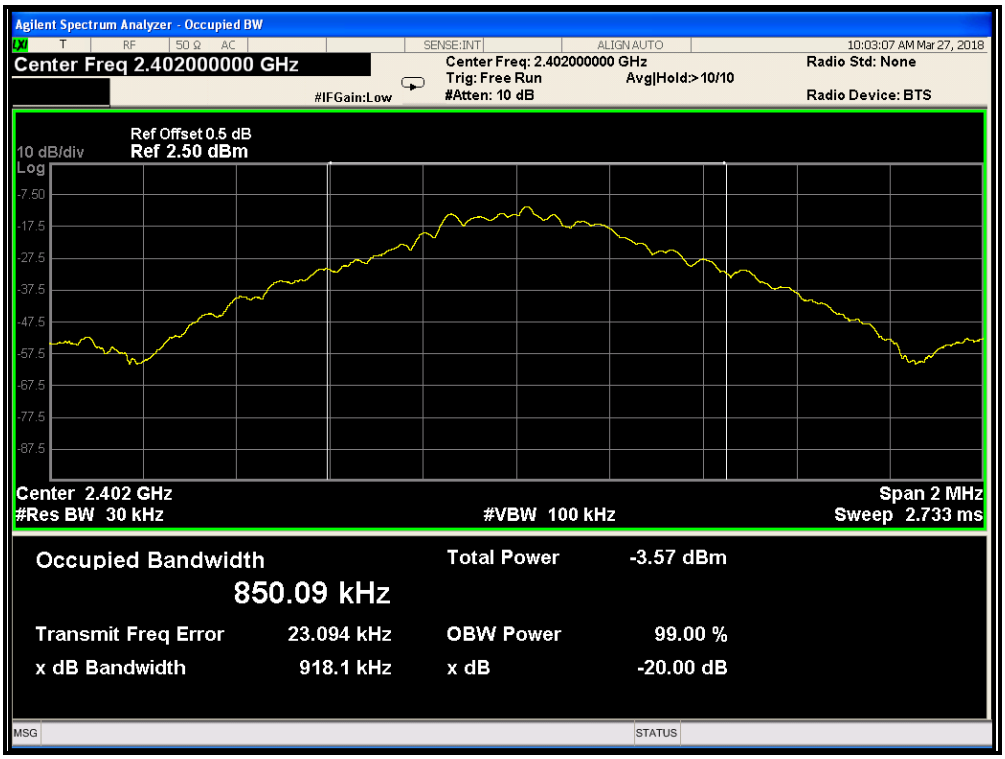
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.5.7 TEST RESULTS

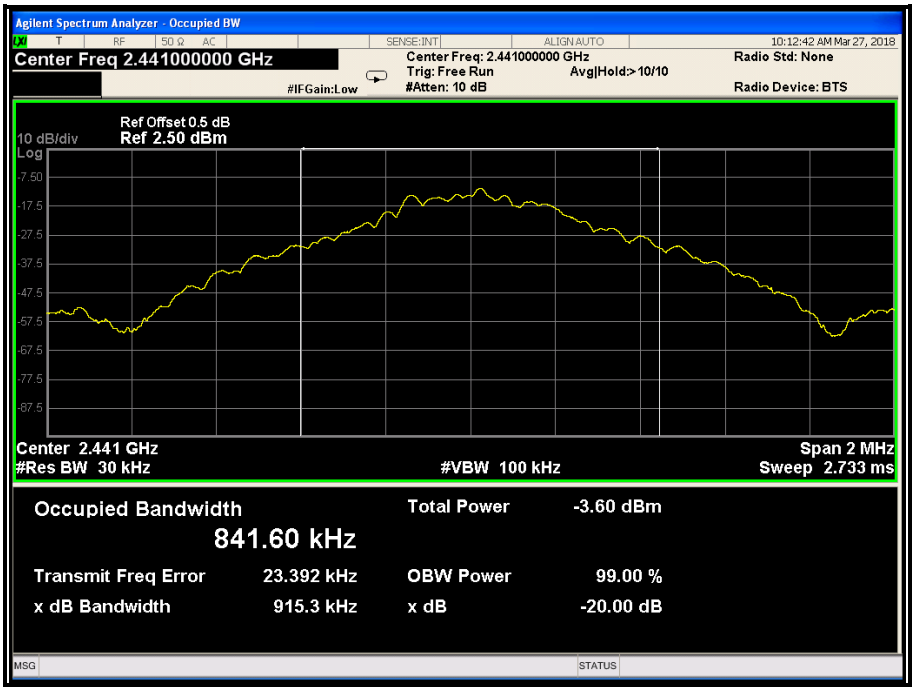
GFSK

CHANNEL	CHANNEL FREQUENCY (MHz)	20dB BANDWIDTH (MHz)
0	2402	0.918
39	2441	0.915
78	2480	0.857

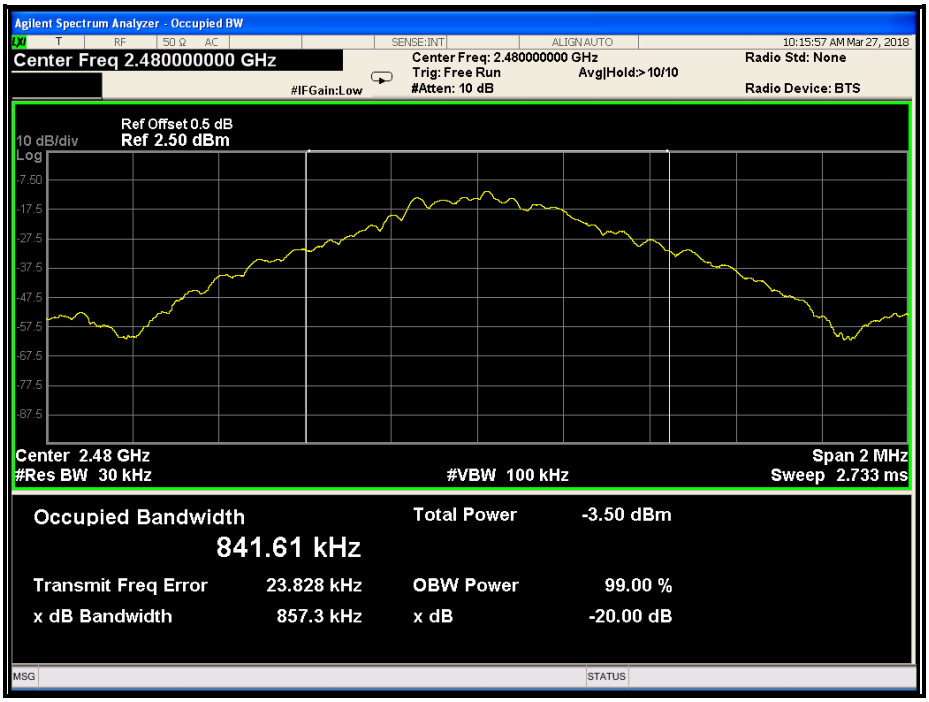
CH 0



CH 39


Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.441000000 GHz
Center Freq: 2.441000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 10 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
10:12:42 AM Mar 27, 2018
Ref Offset 0.5 dB
10 dB/div
Ref 2.50 dBm
Log
Center 2.441 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 2 MHz
Sweep 2.733 ms
Occupied Bandwidth
841.60 kHz
Total Power -3.60 dBm
Transmit Freq Error 23.392 kHz
OBW Power 99.00 %
x dB Bandwidth 915.3 kHz
x dB -20.00 dB
MSG
STATUS

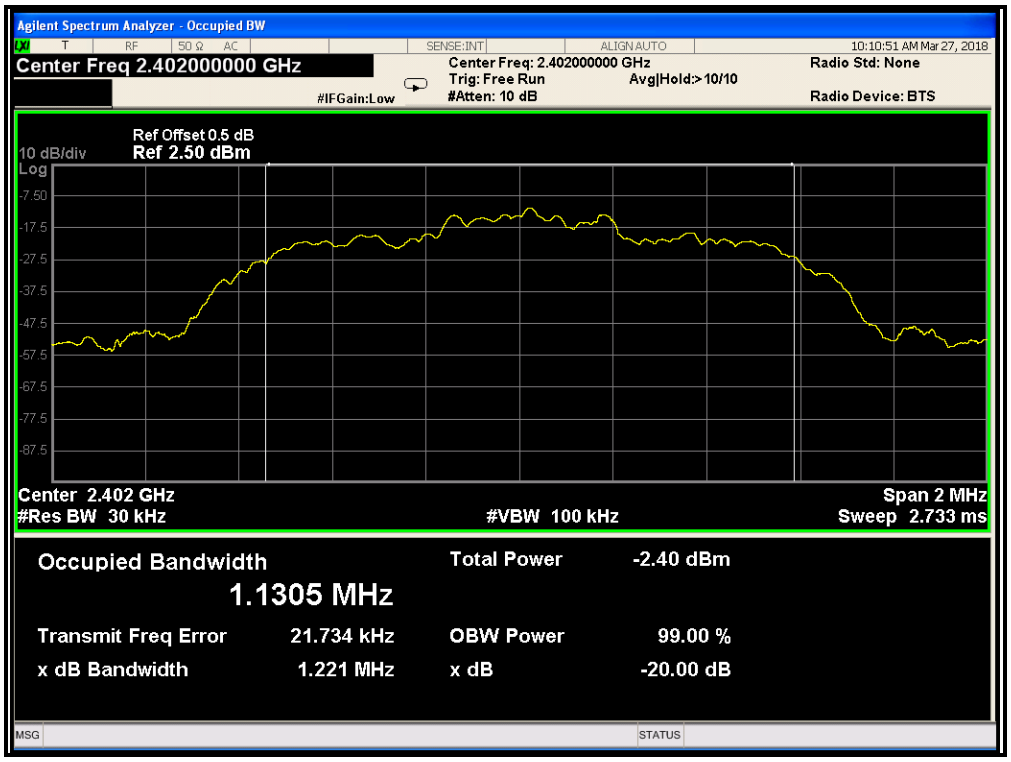
CH 78


Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.480000000 GHz
Center Freq: 2.480000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 10 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
10:15:57 AM Mar 27, 2018
Ref Offset 0.5 dB
10 dB/div
Ref 2.50 dBm
Log
Center 2.48 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 2 MHz
Sweep 2.733 ms
Occupied Bandwidth
841.61 kHz
Total Power -3.50 dBm
Transmit Freq Error 23.828 kHz
OBW Power 99.00 %
x dB Bandwidth 857.3 kHz
x dB -20.00 dB
MSG
STATUS

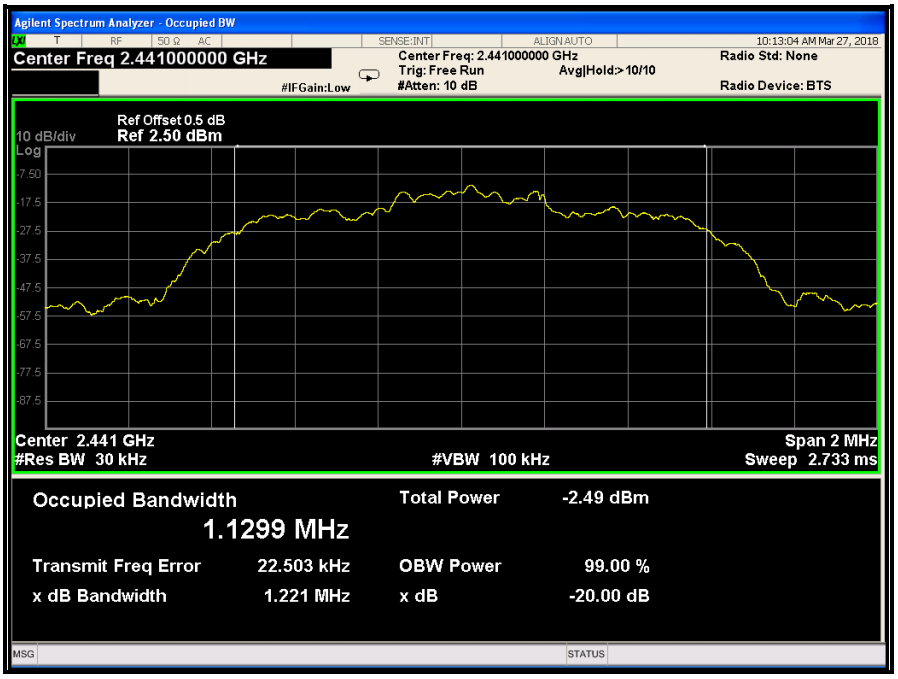
π/4 DQPSK

CHANNEL	CHANNEL FREQUENCY (MHz)	20dB BANDWIDTH (MHz)
0	2402	1.221
39	2441	1.221
78	2480	1.223

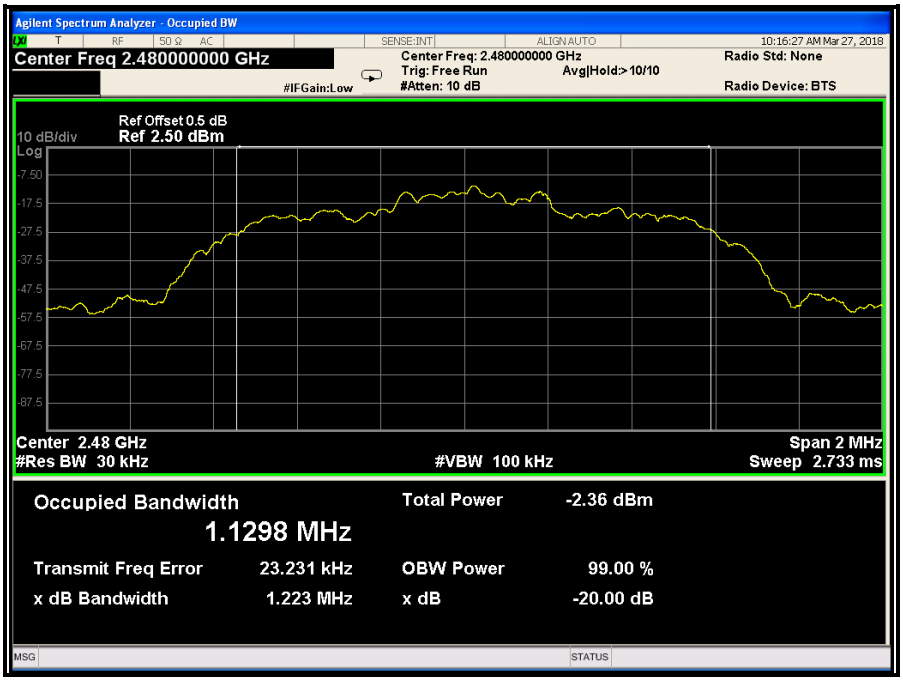
CH 0



CH 39


Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.441000000 GHz
Center Freq: 2.441000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 10 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
10:13:04 AM Mar 27, 2018
Ref Offset 0.5 dB
10 dB/div
Ref 2.50 dBm
Log
Center 2.441 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 2 MHz
Sweep 2.733 ms
Occupied Bandwidth
1.1299 MHz
Total Power
-2.49 dBm
Transmit Freq Error
22.503 kHz
OBW Power
99.00 %
x dB Bandwidth
1.221 MHz
x dB
-20.00 dB
MSG
STATUS

CH 78

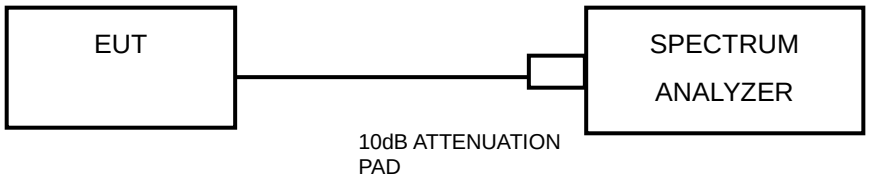

Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.480000000 GHz
Center Freq: 2.480000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 10 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
10:16:27 AM Mar 27, 2018
Ref Offset 0.5 dB
10 dB/div
Ref 2.50 dBm
Log
Center 2.48 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 2 MHz
Sweep 2.733 ms
Occupied Bandwidth
1.1298 MHz
Total Power
-2.36 dBm
Transmit Freq Error
23.231 kHz
OBW Power
99.00 %
x dB Bandwidth
1.223 MHz
x dB
-20.00 dB
MSG
STATUS

4.6 HOPPING CHANNEL SEPARATION

4.6.1 LIMIT OF HOPPING CHANNEL SEPARATION

At least 25kHz or two-third of 20dB hopping channel bandwidth (whichever is greater).

4.6.2 TEST SETUP



4.6.3 TEST INSTRUMENTS

Refer to section 4.3.3 to get information of above instrument.

4.6.4 TEST PROCEDURES

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range.
3. By using the MaxHold function record the separation of two adjacent channels.
4. Measure the frequency difference of these two adjacent channels by SA MARK function. And then plot the result on SA screen.
5. Repeat above procedures until all frequencies measured were complete.

4.6.5 DEVIATION FROM TEST STANDARD

No deviation.

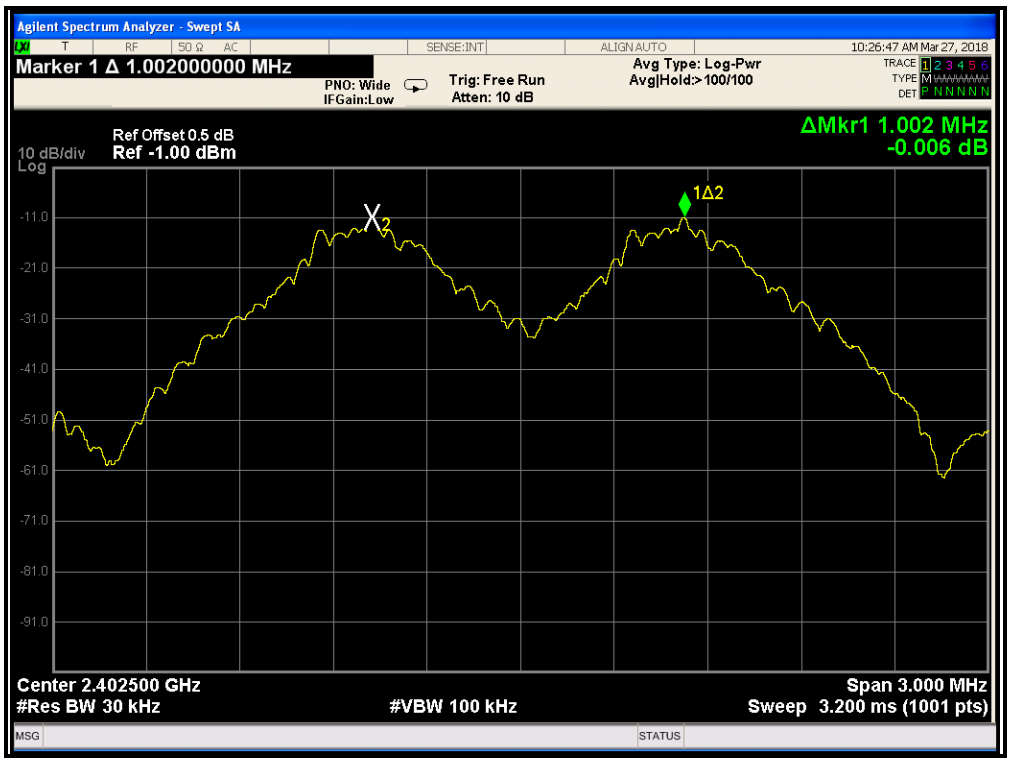
4.6.6 TEST RESULTS

GFSK

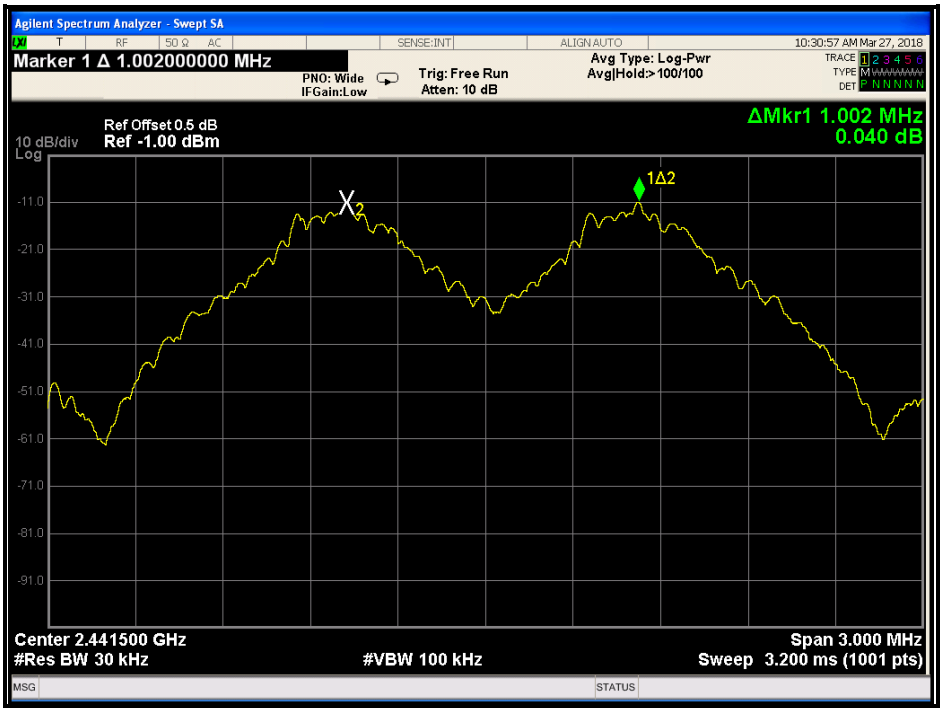
CHANNEL	FREQUENCY (MHz)	ADJACENT CHANNEL SEPARATION (MHz)	20dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
0	2402	1.002	0.918	0.918	PASS
39	2441	1.002	0.915	0.915	PASS
78	2480	1.002	0.857	0.857	PASS

NOTE: The minimum limit is two-third 20dB bandwidth.

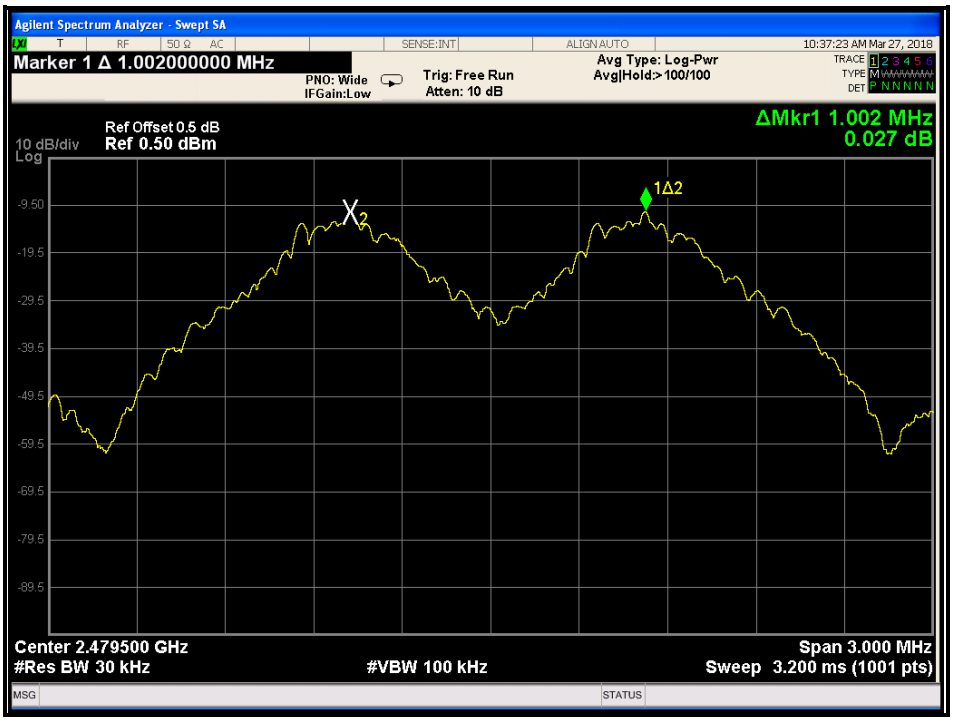
CH 0



CH 39


Agilent Spectrum Analyzer - Swept SA
Marker 1 Δ 1.002000000 MHz
PNO: Wide
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
10:30:57 AM Mar 27, 2018
Ref Offset 0.5 dB
10 dB/div
Log
Ref -1.00 dBm
ΔMkr1 1.002 MHz
0.040 dB
1Δ2
-11.0
-21.0
-31.0
-41.0
-51.0
-61.0
-71.0
-81.0
-91.0
Center 2.441500 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 3.000 MHz
Sweep 3.200 ms (1001 pts)
MSG
STATUS

CH 78

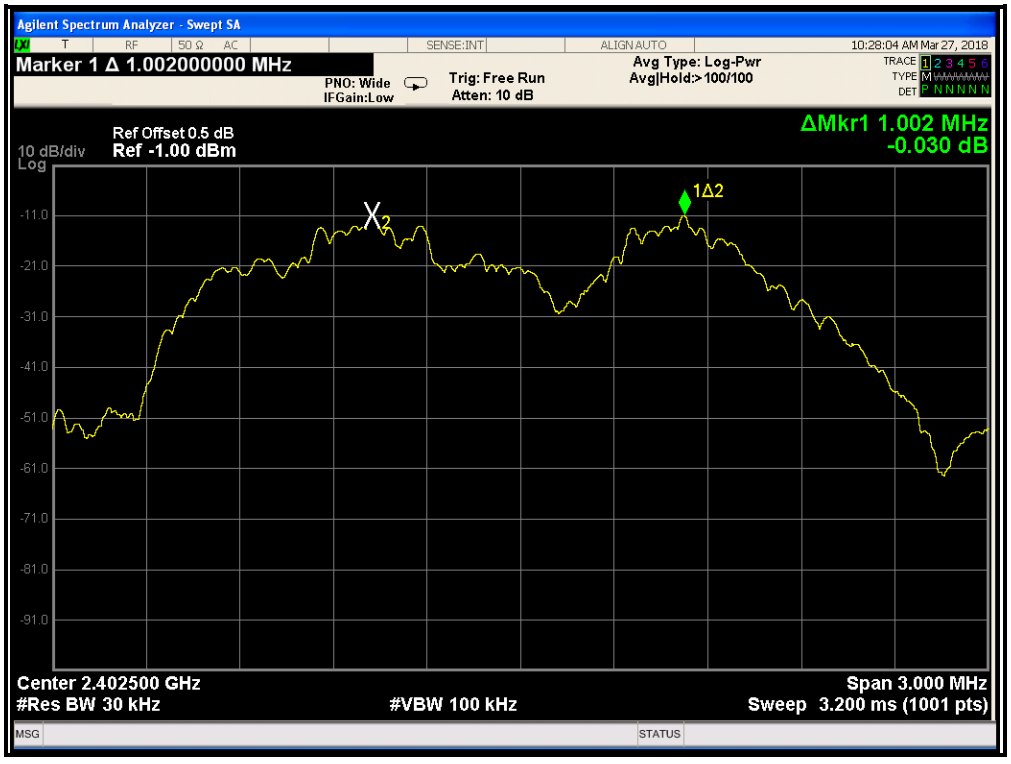

Agilent Spectrum Analyzer - Swept SA
Marker 1 Δ 1.002000000 MHz
PNO: Wide
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
10:37:23 AM Mar 27, 2018
Ref Offset 0.5 dB
10 dB/div
Log
Ref 0.50 dBm
ΔMkr1 1.002 MHz
0.027 dB
1Δ2
-9.50
-19.5
-29.5
-39.5
-49.5
-59.5
-69.5
-79.5
-89.5
Center 2.479500 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 3.000 MHz
Sweep 3.200 ms (1001 pts)
MSG
STATUS

8DPSK

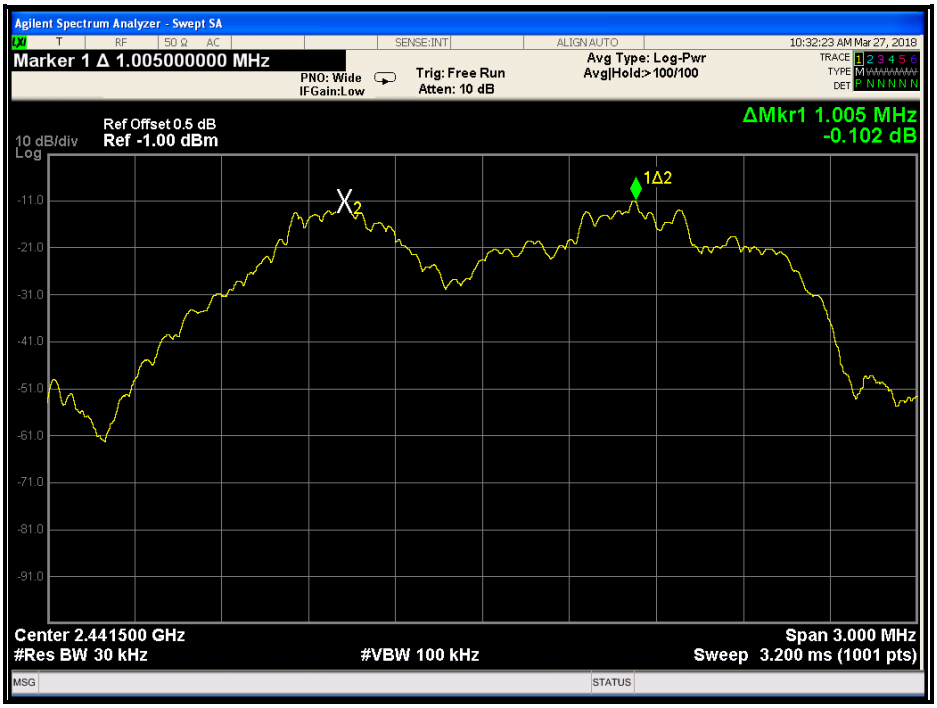
CHANNEL	FREQUENCY (MHz)	ADJACENT CHANNEL SEPARATION (MHz)	20dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
0	2402	1.002	1.221	0.814	PASS
39	2441	1.005	1.221	0.814	PASS
78	2480	1.002	1.223	0.815	PASS

NOTE: The minimum limit is two-third 20dB bandwidth.

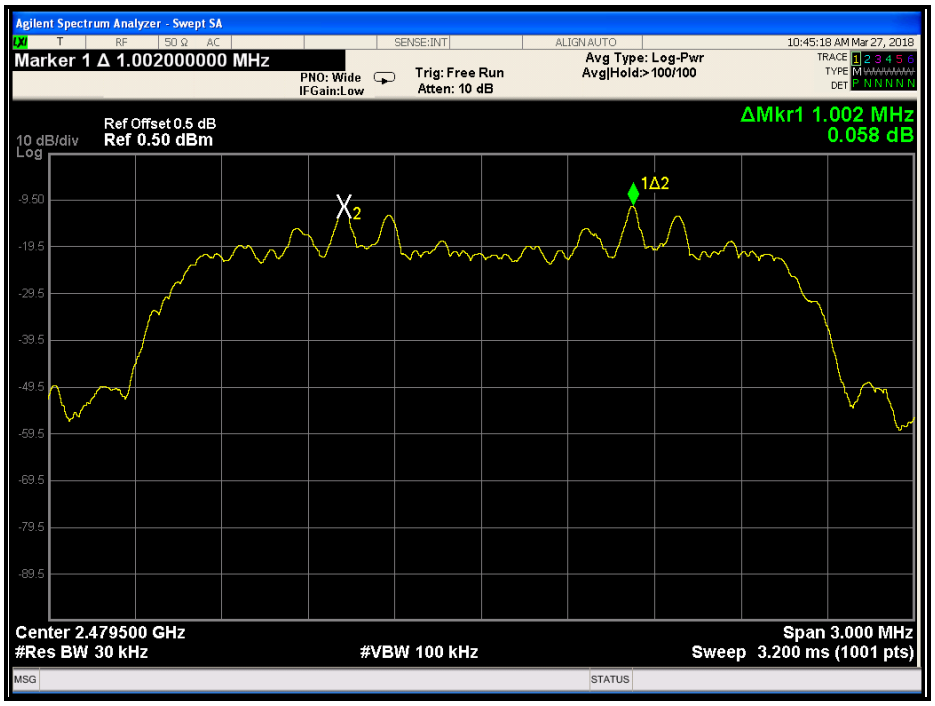
CH 0



CH 39


Agilent Spectrum Analyzer - Swept SA
Marker 1 Δ 1.005000000 MHz
PNO: Wide
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
10:32:23 AM Mar 27, 2018
Ref Offset 0.5 dB
10 dB/div
Log
Ref -1.00 dBm
ΔMkr1 1.005 MHz
-0.102 dB
1Δ2
-11.0
-21.0
-31.0
-41.0
-51.0
-61.0
-71.0
-81.0
-91.0
Center 2.441500 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 3.000 MHz
Sweep 3.200 ms (1001 pts)
MSG
STATUS

CH 78

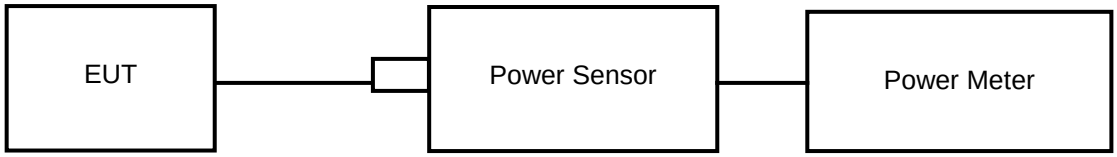

Agilent Spectrum Analyzer - Swept SA
Marker 1 Δ 1.002000000 MHz
PNO: Wide
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
10:45:18 AM Mar 27, 2018
Ref Offset 0.5 dB
10 dB/div
Log
Ref 0.50 dBm
ΔMkr1 1.002 MHz
0.058 dB
1Δ2
-9.50
-19.5
-29.5
-39.5
-49.5
-59.5
-69.5
-79.5
-89.5
Center 2.479500 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 3.000 MHz
Sweep 3.200 ms (1001 pts)
MSG
STATUS

4.7 CONDUCTED OUTPUT POWER

4.7.1 LIMITS OF CONDUCTED OUTPUT POWER MEASUREMENT

The Maximum Output Power Measurement is 125mW.

4.7.2 TEST SETUP



10dB ATTENUATION
PAD

4.7.3 TEST INSTRUMENTS

Refer to section 4.3.3 to get information of above instrument.

4.7.4 TEST PROCEDURES

A peak power 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.

4.7.5 DEVIATION FROM TEST STANDARD

No deviation.

4.7.6 EUT OPERATING CONDITION

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

4.7.7 TEST RESULTS

MAXIMUM PEAK OUTPUT POWER

GFSK

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER (dBm)	PEAK POWER (mW)	PEAK POWER LIMIT (mW)	PASS/FAIL
0	2402	-4.017	0.397	1000	PASS
39	2441	-3.938	0.404	1000	PASS
78	2480	-3.800	0.417	1000	PASS

π/4 DQPSK

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER (dBm)	PEAK POWER (mW)	PEAK POWER LIMIT (mW)	PASS/FAIL
0	2402	-2.918	0.511	125	PASS
39	2441	-2.737	0.532	125	PASS
78	2480	**-2.639**	**0.545**	125	PASS

AVERAGE OUTPUT POWER(FOR REFERENCE)

GFSK

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	AVERAGE POWER (mW)
0	2402	-6.5	0.224
39	2441	-5.9	0.257
78	2480	-5.4	0.288

π/4 DQPSK

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	AVERAGE POWER (mW)
0	2402	-7.8	0.178
39	2441	-7.2	0.166
78	2480	-6.7	0.214

4.8 OUT OF BAND EMISSION MEASUREMENT

4.8.1 LIMITS OF OUT OF BAND EMISSION MEASUREMENT

Below –20dB of the highest emission level of operating band (in 100KHz RBW).

4.8.2 TEST INSTRUMENTS

Refer to section 4.3.3 to get information of above instrument.

4.8.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low loss cable. of Spectrum Analyzer was set RBW to 100 kHz and VBW to 300 kHz with suitable frequency span including 100 MHz bandwidth from band edge. Detector = PEAK and Trace mode = Max Hold. The band edges was measured and recorded.

4.8.4 DEVIATION FROM TEST STANDARD

No deviation.

4.8.5 EUT OPERATING CONDITION

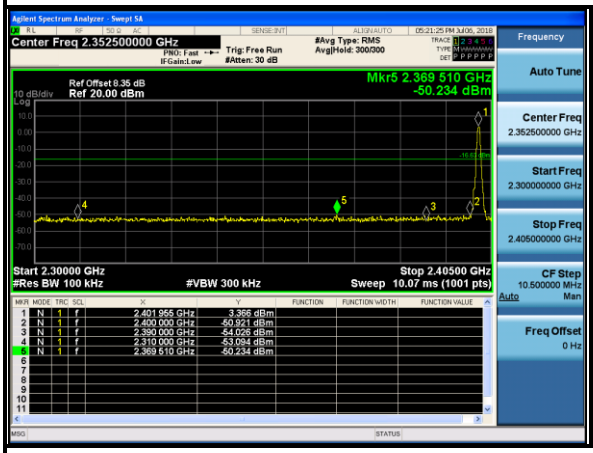
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

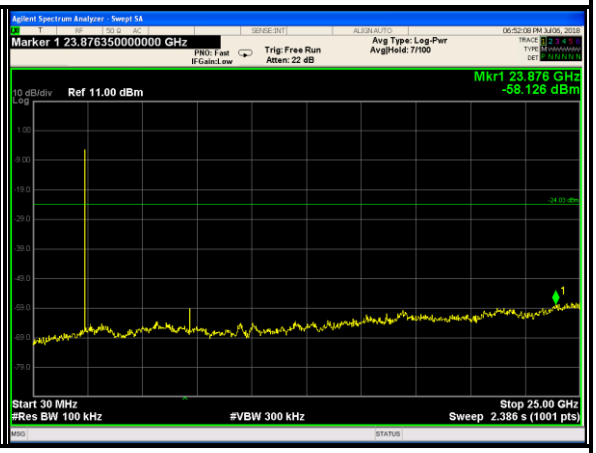
4.8.6 TEST RESULTS

The spectrum plots are attached on the following images. D1 line indicates the highest level. D2 line indicates the 20dB offset below D1. It shows compliance to the requirement.

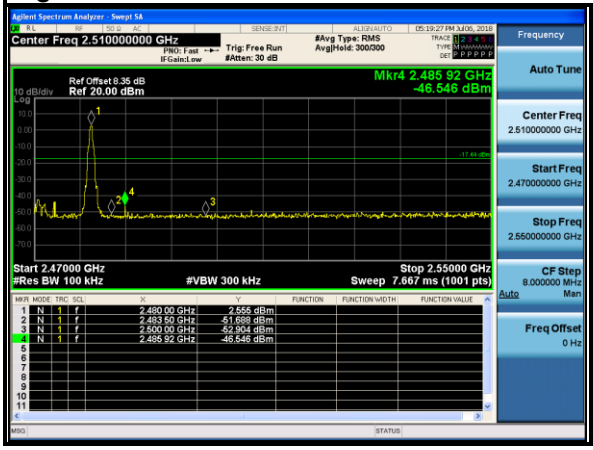
GFSK

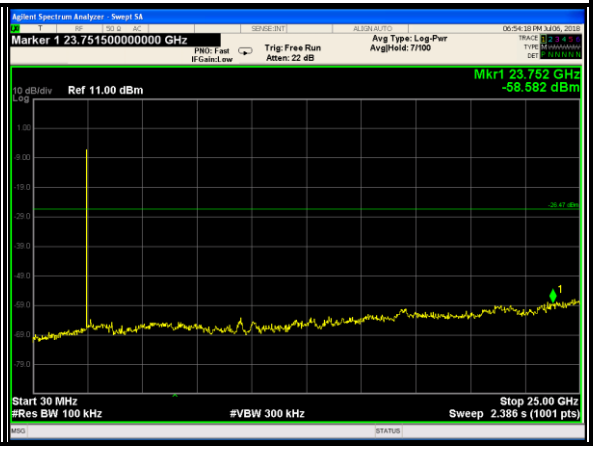
Low Channel





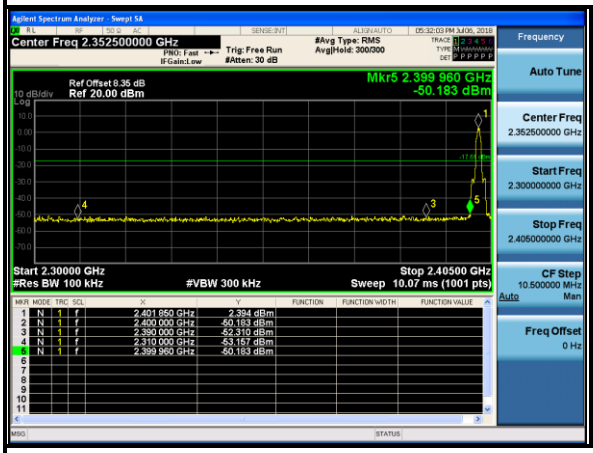
High Channel

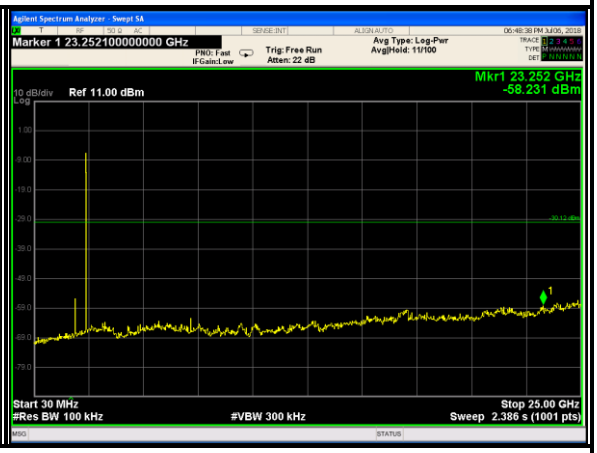




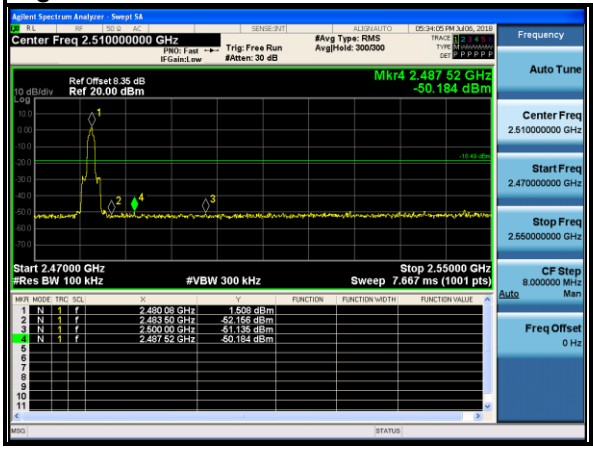
π/4 DQPSK

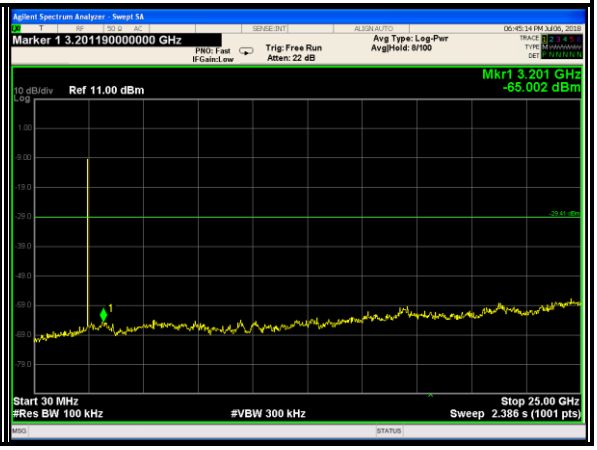
Low Channel





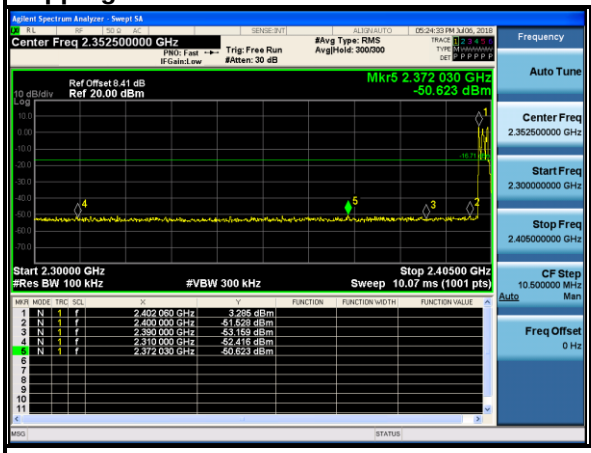
High Channel



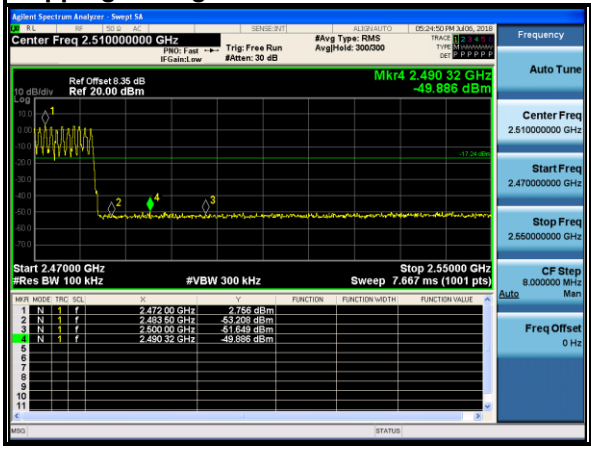


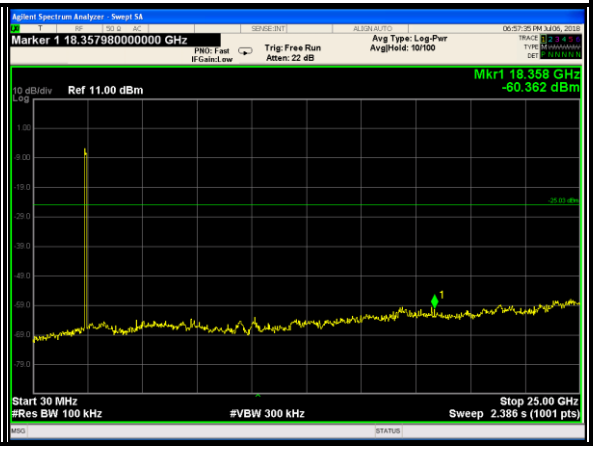
GFSK

Hopping on Low Channel



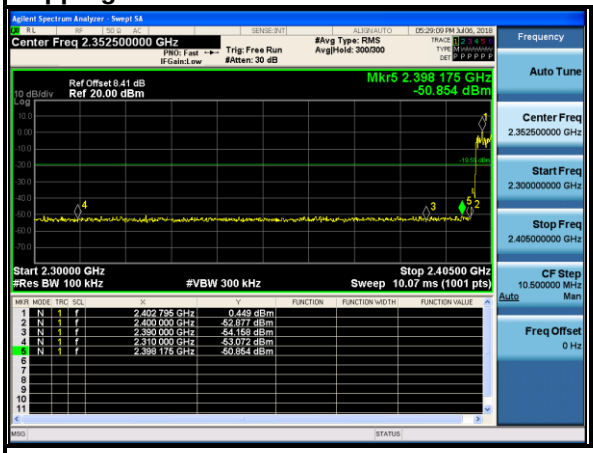
Hopping on High Channel

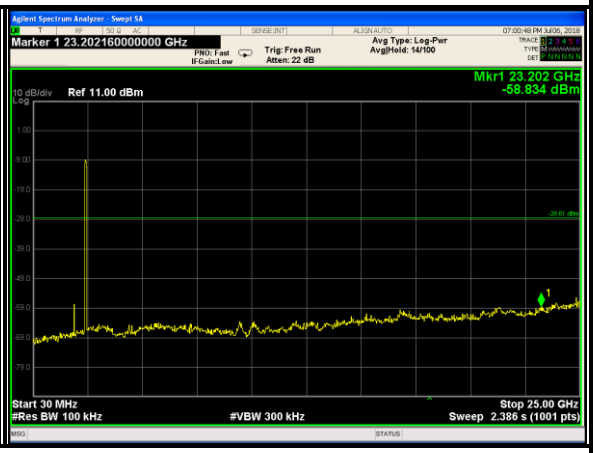




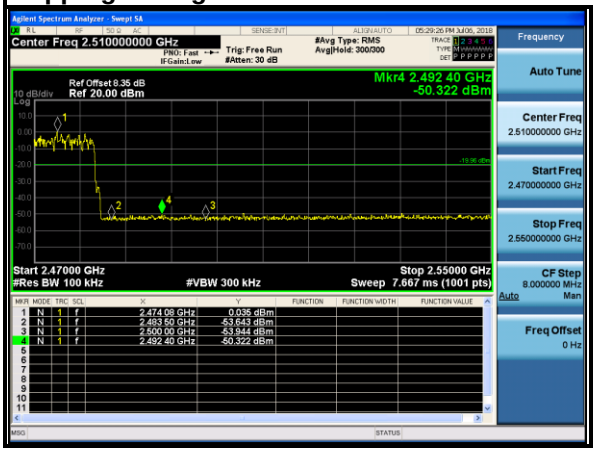
π/4 DQPSK

Hopping on Low Channel





Hopping on High Channel



5 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).

6 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---