NVLAP TESTING
LABORATORY CODE 600341-0

BACL Bay Area Compliance Labs Corp.

TEST REPORT

Applicant: HONG KONG IPRO TECHNOLOGY CO.,LIMITED

Address: 12/F., San Toi Building137-139 Connaught Road Central HK

Product Name: Mobile Phone

FCC ID: PQ4IPROK5

Standard(s): 47 CFR Part 15, Subpart C(15.247)
ANSI C63.10-2013
KDB 558074 D01 15.247 Meas Guidance v05r02

Report Number: 2402S60968E-RF-00B

Report Date: 2024/5/10

The above device has been tested and found compliant with the requirement of the relative standards by Bay Area Compliance Laboratories Corp. (Dongguan).

Reviewed By: Gavin Xu	**Approved By:** Ivan Cao
Title: RF Engineer	Title: EMC Manager

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	2402S60968E-RF-00B	Class II permissive change report	2024/5/10

1. GENERAL INFORMATION

1.1 General Description of Equipment under Test

EUT Name:	Mobile Phone
EUT Model:	K5
Multiple Model:	K3,K6,K7,K8,K9,I318MSA4
Operation Frequency:	2402-2480 MHz
Maximum Peak Output Power (Conducted):	-0.81dBm
Modulation Type:	GFSK, π/4-DQPSK, 8DPSK
Rated Input Voltage:	DC 3.7V from battery or DC 5V from adapter
Serial Number:	2KKE-1
EUT Received Date:	2024/4/26
EUT Received Status:	Good
Note: the Multiple models are electrically identical with the test model. Please refer to the declaration letter for more detail, which was provided by manufacturer.	

1.2 Accessory Information

Accessory Description	Manufacturer	Model	Parameters
Adapter	unknown	NTR-05	Input: 100-240Vac 50/60Hz 150 mA Output: 5.0Vdc 500mA

1.3 Antenna Information Detail▲

Antenna Manufacturer	Antenna Type	input impedance (Ohm)	Frequency Range	Antenna Gain
Henyuan Xunwei Communication Technology Co. Ltd	Wire	50	2.4~2.5GHz	-1.02 dBi
The design of compliance with §15.203:				
☒ Unit uses a permanently attached antenna.				
☐ Unit uses a unique coupling to the intentional radiator.				
☐ Unit was professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.				

1.4 Equipment Modifications

No modifications are made to the EUT during all test items.

2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
FCC §15.207(a)	AC Line Conducted Emissions	Compliant
FCC §15.205, §15.209, §15.247(d)	Radiated Spurious Emissions	Compliant
FCC §15.247(a)(1)	20 dB Emission Bandwidth	Note*
FCC §15.247(a)(1)	Channel Separation	Note*
FCC §15.247(a)(1)(iii)	Number Of Hopping Frequency	Note*
FCC §15.247(a)(1)(iii)	Time Of Occupancy (dwell time)	Note*
FCC §15.247(b)(1)	Maximum Conducted Output Power	Note*
FCC §15.247(d)	100 kHz Bandwidth Of Frequency Band Edge	Note*
FCC §15.203	Antenna Requirement	Note*
Note 1: For AC line conducted emissions, the maximum output power mode and channel was tested. Note 2: For Radiated Spurious Emissions 9kHz~ 1GHz, the maximum output power mode and channel was tested.		

This is **Class II permissive change** application based on the original device, FCC ID: PQ4IPROK5, because of the **Spurious Emissions are degraded** more than 3dB from the original authorization according to the test result.

The change between the original equipment and the current equipment is stated and guaranteed by the applicant, as following:

1. Added one adapter.

2. Added the multiple model **I318MSA4**

Based on the changes above, RF output power/Spurious emission above 1GHz was spot check and AC line conducted emission/spurious emission below 1GHz was tested.

Note*: Base on the changes above, the changes not affect these test items, please refer to the original test report: CR230635016-00B, which was issued by China Certification ICT Co., Ltd (Dongguan). Bay Area Compliance Laboratories Corp. (Dongguan) is responsible for all the information provided in this report, except when information is provided by the customer as identified in this report.

3. DESCRIPTION OF TEST CONFIGURATION

3.1 Operation Frequency Detail

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	**2402**	40	2442
1	2403	41	2443
…	…	…	…
…	…	…	…
…	…	78	**2480**
39	**2441**	/	/

3.2 EUT Operation Condition

The EUT was configured for testing in Engineering Mode, which was provided by the manufacturer.
The EUT configuration as below:

EUT Exercise Software:	Engineering mode		
The software was provided by manufacturer. The maximum power was configured as below, that was provided by the manufacturer▲:			
Test Modes	Power Level Setting		
	Lowest	Middle	Highest
GFSK	5	5	5
π/4-DQPSK	5	5	5
8DPSK	5	5	5

3.3 Support Equipment List and Details

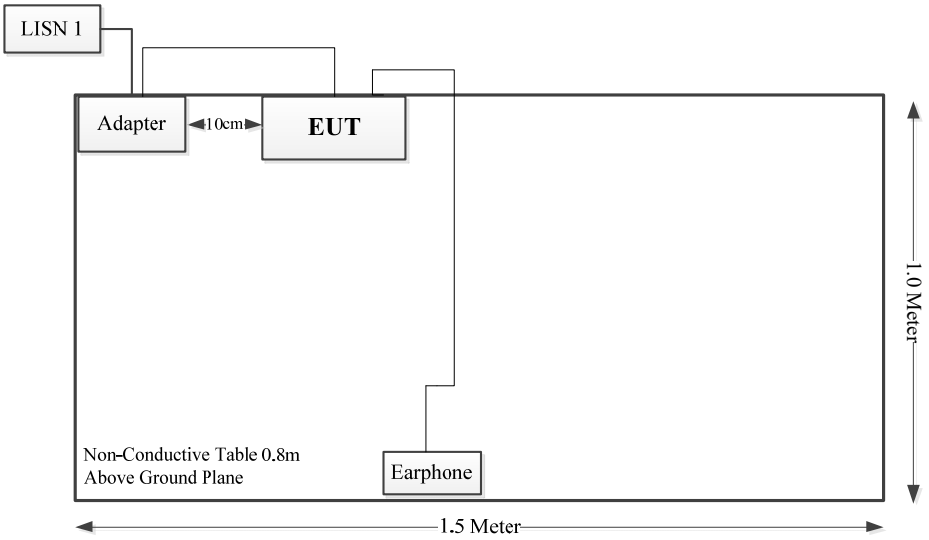
Manufacturer	Description	Model	Serial Number
IPRO	Earphone	Phonenix 5.0s	Phonenix 5.0s

3.4 Support Cable List and Details

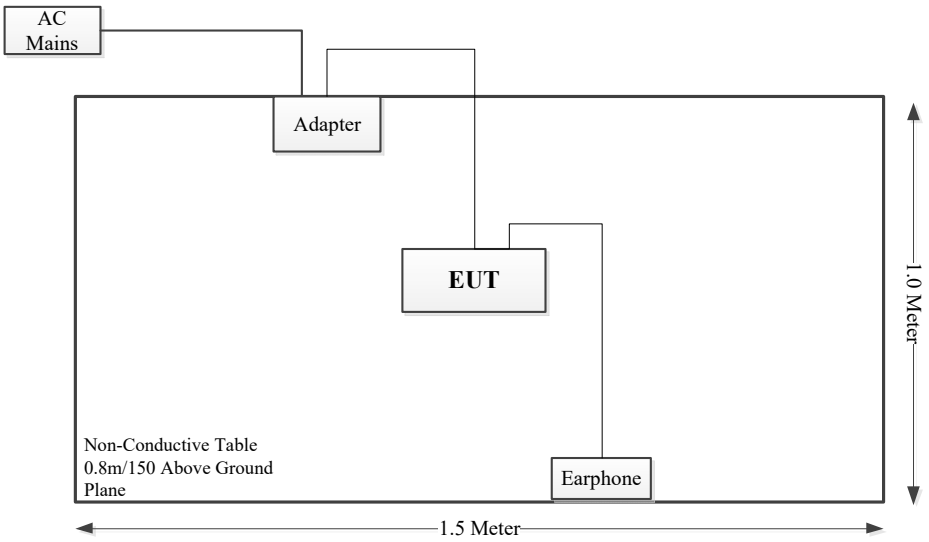
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
USB Cable	No	No	0.8	Adapter	EUT
Earphone	No	No	1.2	EUT	Earphone

3.5 Block Diagram of Test Setup

AC Power Lines Conducted Emission:



Radiated Spurious Emissions:



3.6 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 829273, the FCC Designation No. : CN5044.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0022.

3.7 Measurement Uncertainty

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Power Spectral Density, conducted	±0.61 dB
Unwanted Emissions, radiated	9kHz~30MHz: 3.3dB, 30MHz~200MHz: 4.55 dB, 200MHz~1GHz: 5.92 dB, 1GHz~6GHz: 4.98 dB, 6GHz~18GHz: 5.89 dB, 18GHz~26.5GHz:5.47 dB, 26.5GHz~40GHz:5.63 dB
Unwanted Emissions, conducted	±2.47 dB
Temperature	±1℃
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	3.11 dB (150 kHz to 30 MHz)

4. REQUIREMENTS AND TEST PROCEDURES

4.1 AC Line Conducted Emissions

4.1.1 Applicable Standard

FCC§15.207(a).

(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

	Conducted limit (dBμV)	
Frequency of emission (MHz)	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

(b) The limit shown in paragraph (a) of this section shall not apply to carrier current systems operating as intentional radiators on frequencies below 30 MHz. In lieu thereof, these carrier current systems shall be subject to the following standards:

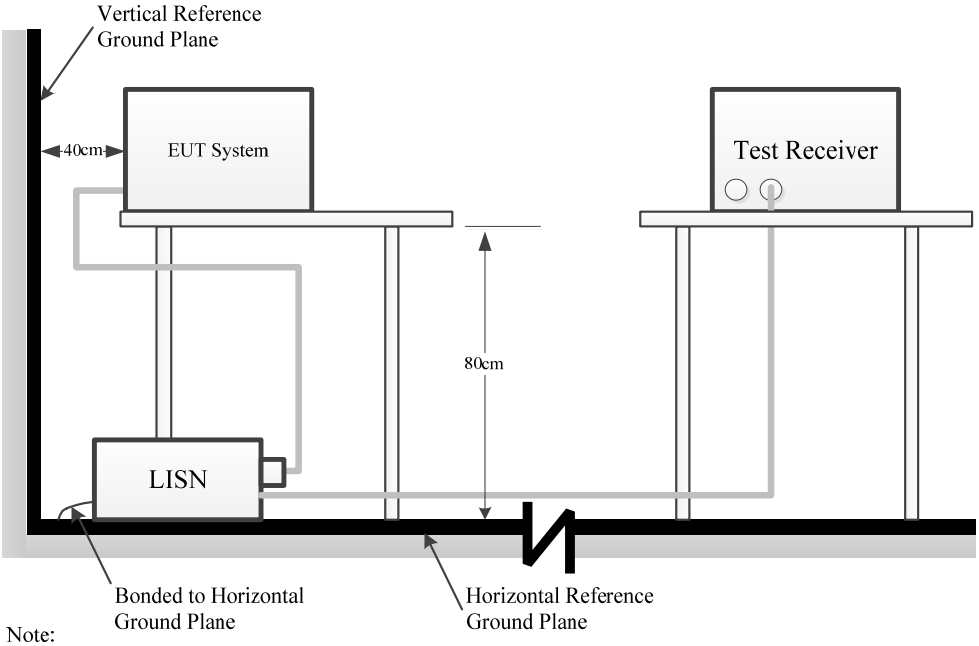
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000 μV within the frequency band 535-1705 kHz, as measured using a 50 μH/50 ohms LISN.

(3) Carrier current systems operating below 30 MHz are also subject to the radiated emission limits in §15.205, §15.209, §15.221, §15.223, or §15.227, as appropriate.

(c) Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines. Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, AC adapters or battery eliminators or that connect to the AC power lines indirectly, obtainig their power through another device which is connected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

4.1.2 EUT Setup



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

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

The adapter or EUT was connected to the main LISN with a 120 V/60 Hz AC power source.

4.1.3 EMI Test Receiver Setup

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

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

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

4.1.4 Test Procedure

The frequency and amplitude of the six highest ac power-line conducted emissions relative to the limit, measured over all the current-carrying conductors of the EUT power cords, and the operating frequency or frequency to which the EUT is tuned (if appropriate), should be reported, unless such emissions are more than 20 dB below the limit. AC power-line conducted emissions measurements are to be separately carried out only on each of the phase ("hot") line(s) and (if used) on the neutral line(s), but not on the ground [protective earth] line(s). If less than six emission frequencies are within 20 dB of the limit, then the noise level of the measuring instrument at representative frequencies should be reported. The specific conductor of the power-line cord for each of the reported emissions should be identified. Measure the six highest emissions with respect to the limit on each current-carrying conductor of each power cord associated with the EUT (but not the power cords of associated or peripheral equipment that are part of the test configuration). Then, report the six highest emissions with respect to the limit from among all the measurements identifying the frequency and specific current-carrying conductor identified with the emission. The six highest emissions should be reported for each of the current-carrying conductors, or the six highest emissions may be reported over all the current-carrying conductors.

4.1.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor
Factor = attenuation caused by cable loss + voltage division factor of AMN

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

4.1.6 Test Result

Serial Number:	2KKE-1	Test Date:	2024/5/6
Test Site:	CE	Test Mode:	Transmitting
Tester:	Wright Lai	Test Result:	Pass

Environmental Conditions:

Temperature: (℃)	25.3	Relative Humidity: (%)	70	ATM Pressure: (kPa)	100.5

Test Equipment List and Details:

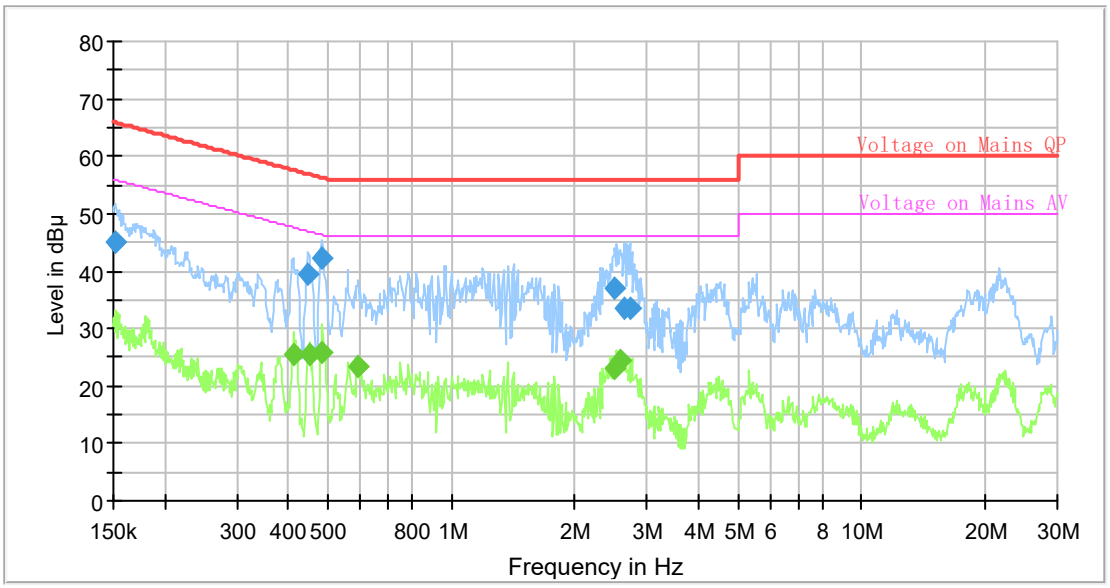
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101614	2023/10/18	2024/10/17
MICRO-COAX	Coaxial Cable	C-NJNJ-50	C-0200-01	2023/9/5	2024/9/4
R&S	EMI Test Receiver	ESCI	100035	2023/8/18	2024/8/17

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

Test Data:

Note: the maximum output power channel was tested.

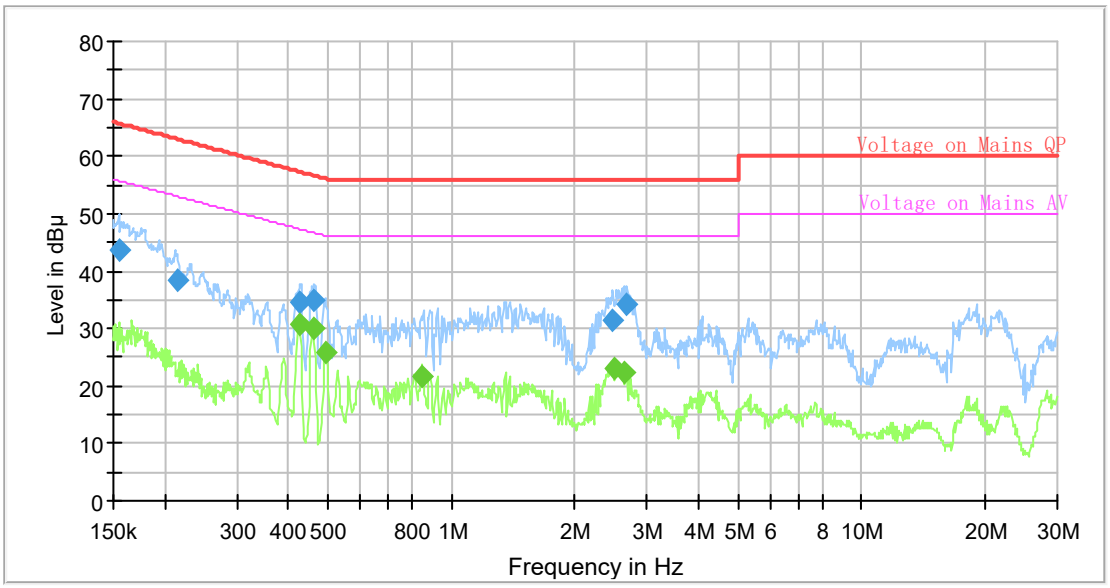
Project No:	2402S60968E-RF-A1
Test Engineer:	Wright Lai
Test Date:	2024-5-6
Port:	L
Test Mode:	Transmitting
Power Source:	AC 120V/60Hz
Note:	8DPSK Low Channel



Final_Result

Frequency (MHz)	QuasiPeak (dB µ V)	Average (dB µ V)	Limit (dB µ V)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.151504	45.02	---	65.92	20.90	9.000	L1	10.8
0.412859	---	25.39	47.59	22.20	9.000	L1	10.8
0.447156	39.43	---	56.93	17.50	9.000	L1	10.8
0.449391	---	25.34	46.89	21.55	9.000	L1	10.8
0.484301	42.19	---	56.26	14.07	9.000	L1	10.8
0.484301	---	25.73	46.26	20.53	9.000	L1	10.8
0.594189	---	23.30	46.00	22.70	9.000	L1	10.8
2.486475	---	22.89	46.00	23.11	9.000	L1	10.8
2.498907	36.89	---	56.00	19.11	9.000	L1	10.8
2.574818	---	24.56	46.00	21.44	9.000	L1	10.8
2.653034	33.45	---	56.00	22.55	9.000	L1	10.8
2.720027	33.45	---	56.00	22.55	9.000	L1	10.8

Project No:	2402S60968E-RF-A1
Test Engineer:	Wright Lai
Test Date:	2024-5-6
Port:	N
Test Mode:	Transmitting
Power Source:	AC 120V/60Hz
Note:	8DPSK Low Channel



Final_Result

Frequency (MHz)	QuasiPeak (dB µ V)	Average (dB µ V)	Limit (dB µ V)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.154557	43.58	---	65.75	22.17	9.000	N	10.9
0.214807	38.47	---	63.02	24.55	9.000	N	10.8
0.425401	---	30.79	47.34	16.55	9.000	N	10.8
0.427528	34.42	---	57.30	22.88	9.000	N	10.8
0.460739	---	30.15	46.68	16.53	9.000	N	10.8
0.463043	34.94	---	56.64	21.70	9.000	N	10.8
0.494060	---	25.79	46.10	20.31	9.000	N	10.7
0.846671	---	21.50	46.00	24.50	9.000	N	10.8
2.474104	31.58	---	56.00	24.42	9.000	N	10.9
2.498907	---	22.96	46.00	23.04	9.000	N	10.9
2.639835	---	22.22	46.00	23.78	9.000	N	10.9
2.679631	34.10	---	56.00	21.90	9.000	N	10.9

4.2 Radiated Spurious Emissions

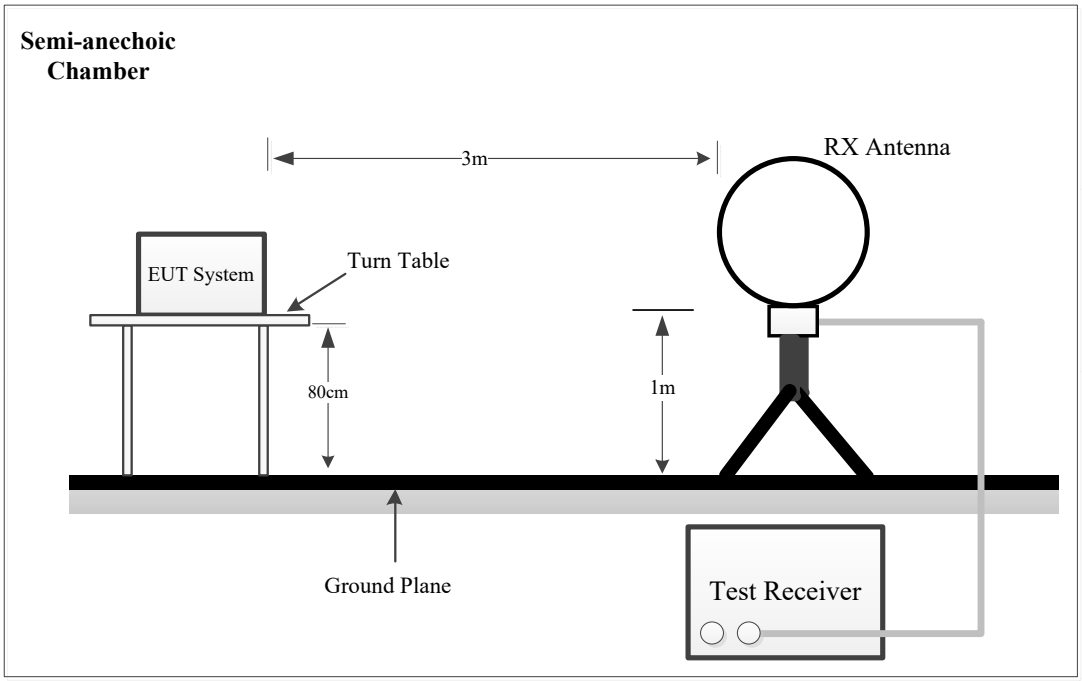
4.2.1 Applicable Standard

FCC §15.247 (d);

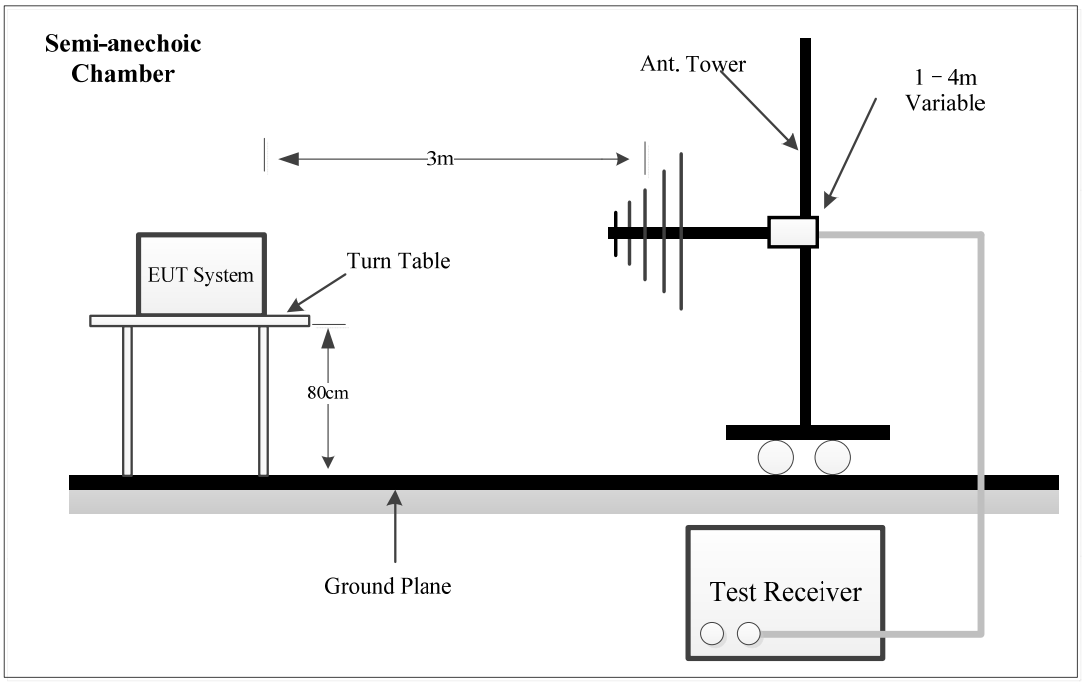
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

4.2.2 EUT Setup

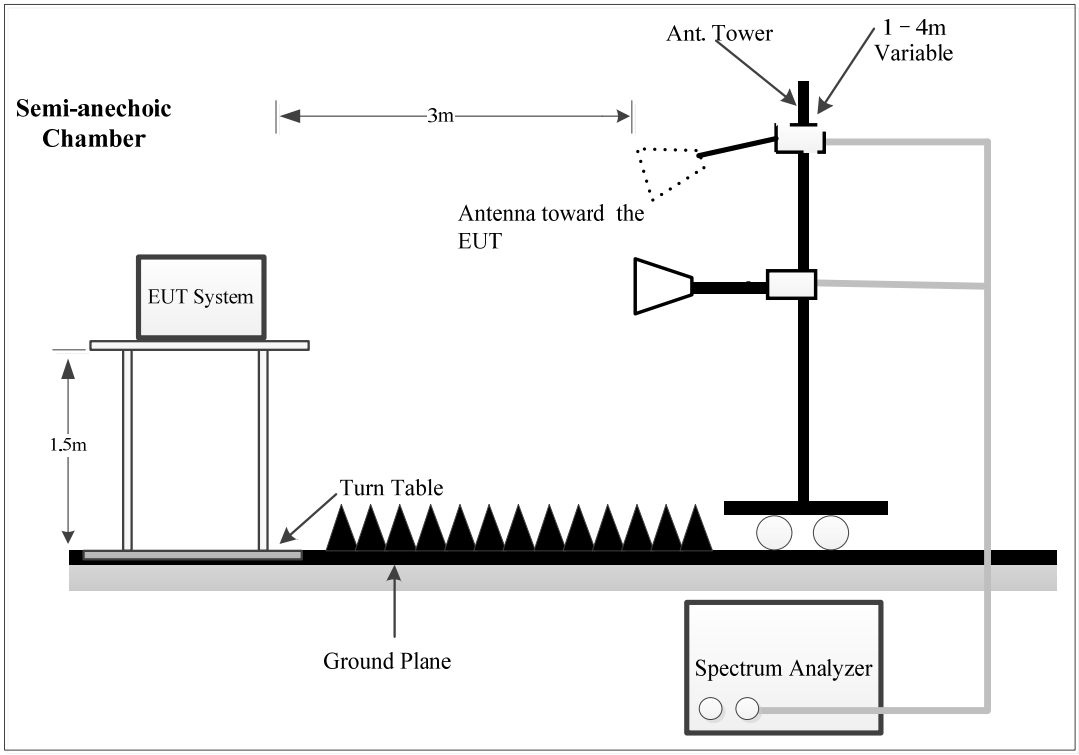
9kHz~30MHz:



30MHz~1GHz:



Above 1GHz:



The radiated emissions were performed in the 3 meters distance, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.247 limits.

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

The spacing between the peripherals was 10 cm.

For 9kHz-30MHz test, the lowest height of the magnetic antenna shall be 1 m above the ground and three antenna orientations (parallel, perpendicular, and ground-parallel) shall be measured.

4.2.3 EMI Test Receiver & Spectrum Analyzer Setup

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
9 kHz – 150 kHz	200 Hz	1 kHz	200 Hz	QP/AV
150 kHz – 30 MHz	9 kHz	30 kHz	9 kHz	QP/AV
30 MHz – 1000 MHz	100 kHz	300 kHz	/	PK
	/	/	120 kHz	QP
1 GHz-25GHx	1MHz	3 MHz	/	PK
	1MHz	10 Hz	/	AV

If the maximized peak measured value complies with under the QP limit more than 6dB, then it is unnecessary to perform an QP measurement.

If the maximized peak measured value complies with under the Average limit, then it is unnecessary to perform an Average measurement.

4.2.4 Test Procedure

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

Data was recorded in Quasi-peak detection mode for frequency range of 9 kHz-1 GHz except 9-90 kHz, 110-490 kHz, employing an average detector, peak and Average detection modes for frequencies above 1 GHz.

4.2.5 Corrected Result & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor
Factor = Antenna Factor + Cable Loss- Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

4.2.6 Test Result

Serial Number:	2KKE-1	Test Date:	Below 1GHz: 2024/5/7 Above 1GHz: 2024/5/10
Test Site:	Chamber 10m, Chamber B	Test Mode:	Transmitting
Tester:	Leesin Xiang, Leo Xiao	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	24.4~25.1	Relative Humidity: (%)	50~60	ATM Pressure: (kPa)	100.7~100.9

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
9kHz~1000MHz					
EMCO	Passive Loop Antenna	6512	9706-1206	2023/10/21	2026/10/20
Sunol Sciences	Hybrid Antenna	JB3	A060611-1	2023/9/6	2026/9/5
Narda	Coaxial Attenuator	779-6dB	04269	2023/9/6	2026/9/5
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2023/8/1	2024/7/31
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-04	2023/8/1	2024/7/31
Unknown	Coaxial Cable	C-NJNJ-50	C-0530-01	2023/8/1	2024/7/31
Sonoma	Amplifier	310N	185914	2023/8/1	2024/7/31
R&S	EMI Test Receiver	ESCI	100224	2023/8/18	2024/8/17
Farad	Test Software	EZ-EMC	V1.1.4.2	N/A	N/A
Above 1GHz					
ETS-Lindgren	Horn Antenna	3115	000 527 35	2023/9/7	2024/9/6
R&S	Spectrum Analyzer	FSV40	101944	2023/10/18	2024/10/17
Xinhang Macrowave	Coaxial Cable	XH750A-N/J-SMA/J-10M	20231117004 #0001	2023/11/17	2024/11/16
Audix	Test Software	E3	191218 (V9)	N/A	N/A
AH	Preamplifier	PAM-0118P	469	2023/8/19	2024/8/18
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-03 1304	2023/2/22	2026/2/21
Xinhang Macrowave	Coaxial Cable	XH360A-2.92/J-2.92/J-6M-A	20231208001 #0001	2023/12/11	2024/12/10
AH	Preamplifier	PAM-1840VH	191	2023/9/7	2024/9/6
E-Microwave	Band Rejection Filter	OBSF-2400-2483.5-S	OE01601525	2024/2/21	2025/2/20
Micro-tronics	High Pass Filter	HPM50111	G217	2023/12/1	2024/11/30

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

Test Data:

Please refer to the below table and plots.

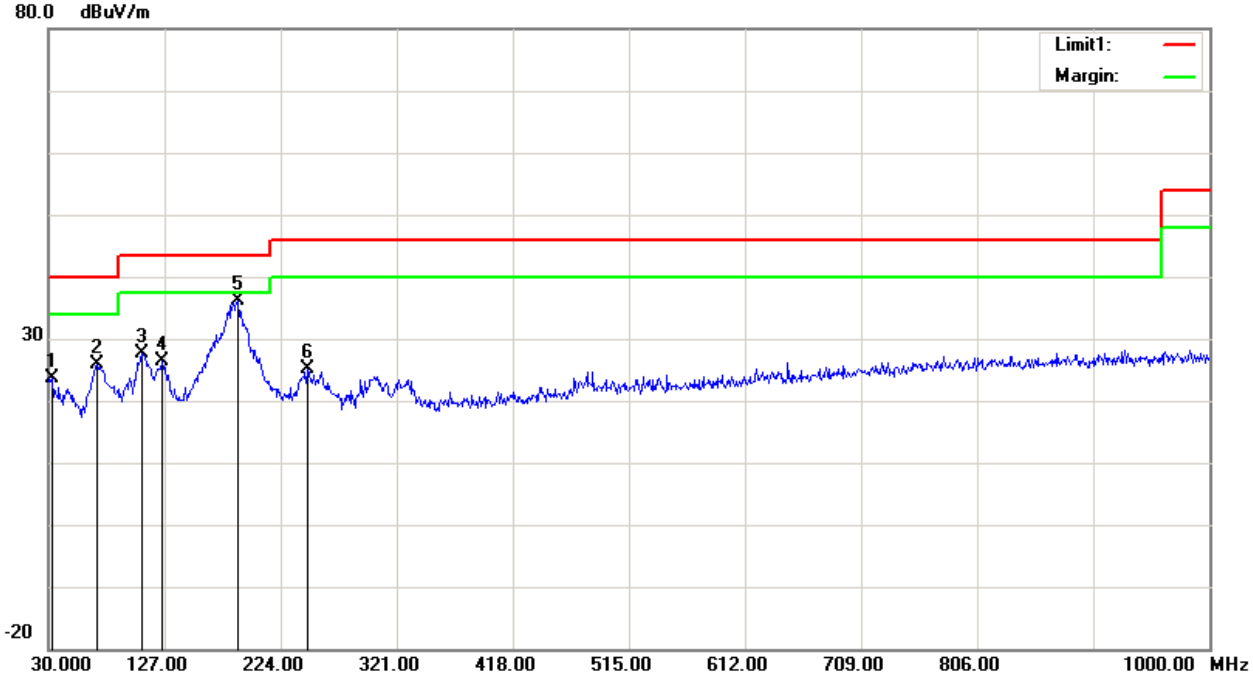
After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

1) 9kHz~30MHz

The 3EDR Low channel was tested. The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

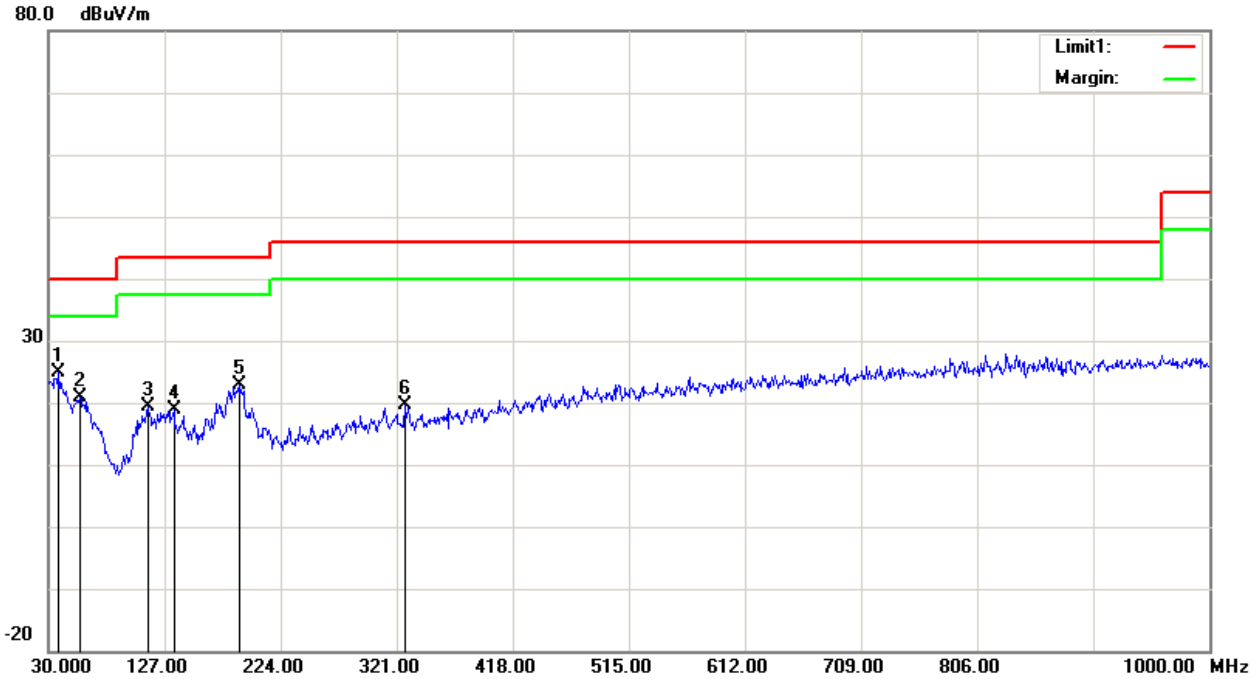
2) 30MHz-1GHz

Project No:	2402S60968E-RF-A1
Test Engineer:	Leesin Xiang
Test Date:	2024-5-7
Polarization:	Horizontal
Test Mode:	Transmitting
Power Source:	AC 120V/60Hz
Note:	8DPSK Low Channel



No.	Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	32.9100	29.16	peak	-5.47	23.69	40.00	16.31
2	70.7400	42.03	peak	-16.27	25.76	40.00	14.24
3	107.6000	39.65	peak	-12.01	27.64	43.50	15.86
4	125.0600	36.02	peak	-9.61	26.41	43.50	17.09
5	188.1100	48.44	peak	-12.24	36.20	43.50	7.30
6	246.3100	36.59	peak	-11.55	25.04	46.00	20.96

Project No:	2402S60968E-RF-A1
Test Engineer:	Leesin Xiang
Test Date:	2024-5-7
Polarization:	Vertical
Test Mode:	Transmitting
Power Source:	AC 120V/60Hz
Note:	8DPSK Low Channel



No.	Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	38.7300	34.77	peak	-9.97	24.80	40.00	15.20
2	56.1900	37.71	peak	-16.79	20.92	40.00	19.08
3	113.4200	30.10	peak	-10.77	19.33	43.50	24.17
4	134.7600	28.92	peak	-10.05	18.87	43.50	24.63
5	190.0500	34.89	peak	-12.12	22.77	43.50	20.73
6	327.7900	28.51	peak	-8.90	19.61	46.00	26.39

Spot Check with Radiated Spurious 1-25GHz:
BDR, Low Channel 2402MHz:

Frequency	Reading	Detector	Polar	Factor	Corrected Amplitude	Limit	Margin
MHz	dBµV	PK/QP/AV	H/V	dB/m	dBµV/m	dBµV/m	dB
4804.00	60.32	PK	H	-10.12	50.20	74.00	23.80
4804.00	48.98	AV	H	-10.12	38.86	54.00	15.14
4804.00	58.62	PK	V	-10.12	48.50	74.00	25.50
4804.00	46.55	AV	V	-10.12	36.43	54.00	17.57
7206.00	46.32	PK	H	-5.52	40.80	74.00	33.20
7206.00	34.95	AV	H	-5.52	29.43	54.00	24.57
7206.00	46.28	PK	V	-5.52	40.76	74.00	33.24
7206.00	34.19	AV	V	-5.52	28.67	54.00	25.33

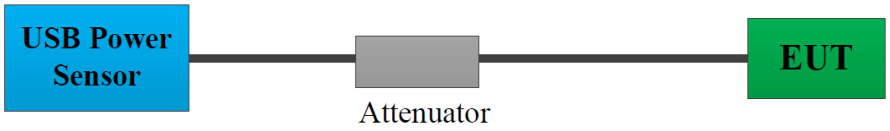
4.3 Maximum Conducted Output Power

4.3.1 Applicable Standard

FCC §15.247 (b)(1)

For frequency hopping systems operating in the 2400–2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400–2483.5 MHz band: 0.125 watts

4.3.2 EUT Setup



A short RF cable with low cable loss connected to the EUT antenna port, which was provided by manufacturer. The cable loss of this RF cable was offset into the setting of test equipment, which was provided by manufacturer▲.

4.3.3 Test Procedure

According to ANSI C63.10-2013 Section 7.8.5
This is an RF-conducted test to evaluate maximum peak output power. Use a direct connection between the antenna port of the unlicensed wireless device and the spectrum analyzer, through suitable attenuation, Offset the Insertion loss of the RF cable, DC Block/ Attenuator into the spectrum analyzer. The hopping shall be disabled for this test:

a) Use the following spectrum analyzer settings:
1) Span: Approximately five times the 20 dB bandwidth, centered on a hopping channel.
2) RBW > 20 dB bandwidth of the emission being measured.
3) VBW ≥ RBW.
4) Sweep: Auto.
5) Detector function: Peak.
6) Trace: Max hold.
b) Allow trace to stabilize.
c) Use the marker-to-peak function to set the marker to the peak of the emission.
d) The indicated level is the peak output power, after any corrections for external attenuators and cables.
e) A plot of the test results and setup description shall be included in the test report.

NOTE—A peak responding power meter may be used, where the power meter and sensor system video bandwidth is greater than the occupied bandwidth of the unlicensed wireless device, rather than a spectrum analyzer.

4.3.4 Test Result

Serial No.:	2KKE-1	**Test Date:**	2024/05/10
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Alice Tan	**Test Result:**	Pass

Environmental Conditions:

Temperature: (°C)	25.1	**Relative Humidity: (%)**	49	**ATM Pressure: (kPa)**	101.4

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	USB Wideband Power Sensor	U2022XA	MY54170006	2023/10/18	2024/10/17
E-Microwave	Coaxial Attenuators	EMCA10-5RN-6	OE01203239	2023/9/1	2024/8/31

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

Test Data:

Mode	Value (dBm)	Limit (dBm)	Result
GFSK_Low_DH1	-2.48	21.00	Pass
GFSK_ Middle_DH1	-3.83	21.00	Pass
GFSK_High_DH1	-4.02	21.00	Pass
π/4-DQPSK_Low_2DH1	-1.38	21.00	Pass
π/4-DQPSK_ Middle_2DH1	-2.56	21.00	Pass
π/4-DQPSK_High_2DH1	-2.72	21.00	Pass
8DPSK_Low_3DH1	**-1.02**	21.00	Pass
8DPSK_ Middle_3DH1	-1.96	21.00	Pass
8DPSK_High_3DH1	-2.3	21.00	Pass

Spot Check Result: the test result identical with the original report.

APPENDIX A - EUT PHOTOGRAPHS

Please refer to the attachment 2402S60968E-RF-EXP EUT external photographs.

APPENDIX B - TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2402S60968E-RF-00B-TSP test setup photographs.

APPENDIX C - RF EXPOSURE EVALUATION

Applicable Standard

According to§15.247(i) and §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

According to KDB447498 D01 General RF Exposure Guidance v06:

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

Measurement Result

The max conducted power including tune-up tolerance is -0.5 dBm (0.89 mW).
[(max. power of channel, mW)/(min. test separation distance, mm)][√f(GHz)]
=0.89/5*(√2.480) = 0.3< 3.0

Note: the max conducted power including tune-up tolerance was declared by manufacturer.
Result: Compliant. The stand-alone SAR evaluation is not necessary.

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