



Test report No:
1932207R-RF-US-P06V01

TEST REPORT

FCC Rules&Regulations 47 CFR Chapter I - Part 15

Product Name	TRK230;TRK210;MOBIAM
Trademark	Accent Systems
Model and /or type reference	TRK230;TRK210;MOBIAM
Applicant's name / address	Accent Advanced Systems Terra Alta 1-3 Castellar del Valles, Barcelona
Test method requested, standard	FCC CFR Title 47 Part 15 Subpart C Section 15.247 ANSI C63.10: 2013 KD558074 D01 15.247 Meas Guidance v05r02
Verdict Summary	IN COMPLIANCE
Documented By	Kathy Feng/Project Assistant 
Tested by (name / position & signature)	Frank He/ Technical Supervisor 
Approved by (name / position & signature)	Jack Zhang/ Supervisor 
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COMPETENCES AND GUARANTEES

DEKRA is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

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GENERAL CONDITIONS

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or Competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of DEKRA.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA.

ENVIRONMENTAL CONDITIONS

The climatic conditions during the tests are within the limits specified by the manufacturer for the operation of the EUT and the test equipment. The climatic conditions during the tests were within the following limits:

Ambient temperature	15 °C – 35 °C
Relative Humidity air	30% - 60%

If explicitly required in the basic standard or applied product / product family standard the climatic values are recorded and documented separately in this test report.

POSSIBLE TEST CASE VERDICTS

Test case does not apply to test object	N/A
Test object does meet requirement	P (Pass) / PASS
Test object does not meet requirement	F (Fail) / FAIL
Not measured	N/M

ABBREVIATIONS

For the purposes of the present document, the following abbreviations apply:

EUT	: Equipment Under Test
QP	: Quasi-Peak
CAV	: CISPR Average
AV	: Average
CDN	: Coupling Decoupling Network
SAC	: Semi-Anechoic Chamber
OATS	: Open Area Test Site
BW	: Bandwidth
AM	: Amplitude Modulation
PM	: Pulse Modulation
HCP	: Horizontal Coupling Plane
VCP	: Vertical Coupling Plane
U_N	: Nominal voltage
T_x	: Transmitter
R_x	: Receiver
N/A	: Not Applicable
N/M	: Not Measured

DOCUMENT HISTORY

Report No.	Version	Description	Issued Date
1932207R-RF-US-P06V01	V1.0	Initial issue of report.	2019-06-25
1932207R-RF-US-P06V01	V1.1	Page 54, updated the PSD test data.	2019-09-11

REMARKS AND COMMENTS

1. The equipment under test (EUT) does meet the essential requirements of the stated standard(s)/test(s).
2. These test results on a sample of the device are for the purpose of demonstrating Compliance with Part 15 Subpart C Paragraph 15.247.
3. The measurement result is considered in conformance with the requirement if it is within the prescribed limit, It is not necessary to account the uncertainty associated with the measurement result, unless the specification, standard or customer have special requirements.
4. The test results presented in this report relate only to the object tested.
5. The test results relate only to the samples tested.
6. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification (Suzhou) Co., Ltd.
7. This report will not be used for social proof function in China market.

USED EQUIPMENT

AC Power Line Conducted Emission / TR1

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
EMI Test Receiver	R&S	ESCI	100906	2019.03.04	2020.03.04
Two-Line V-Network	R&S	ENV216	101190	2019.06.09	2020.06.09
Two-Line V-Network	R&S	ENV216	101044	2019.06.15	2020.06.15
Current Probe	R&S	EZ-17	100678	2019.03.07	2020.03.07
50ohm Termination	SHX	TF2	07081402	2018.09.08	2019.09.08
50ohm Termination	SHX	TF2	07081403	2018.09.08	2019.09.08
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	N/A	N/A
Temperature/Humidity Meter	RTS	RTS-8S	TR1-TH	2019.01.09	2020.01.09
Coaxial Cable	Suhner	RG 223	TR1-C1	2018.09.11	2019.09.11
Coaxial Cable	Suhner	RG 223	TR1-C2	2018.09.11	2019.09.11
Dekra test software	Dekra	-	-	-	-

Emissions in non-restricted frequency bands/ Occupied Bandwidth/ Fundamental emission output power Power Spectral Density / TR8

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2017.02.04	2018.02.03
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2017.04.09	2018.04.08
MXA Signal Analyzer	Keysight	N9020A	MY56060147	2017.04.09	2018.04.08
Wideband Peak Power Meter	Anritsu	ML2495A	0905006	2017.10.14	2018.10.13
Power Sensor	Anritsu	MA2411B	0846014	2017.10.14	2018.10.13
Coaxial Cable	Woken	SFL402	F02-150410-044	2019.01.01	2019.12.31
Dekra test software	Dekra	-	-	-	-

Radiated Emission(30MHz-1GHz) / AC2

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
EMI Test Receiver	R&S	ESCI	100573	2019.03.04	2020.03.04
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2019.06.09	2020.06.09
Temperature/Humidity Meter	RTS	RTS-8S	AC2-TH	2019.01.09	2020.01.09
Coaxial Cable	Huber+Suhner	RG 214	AC2-C	2019.02.28	2020.02.28
Dekra test software	Dekra	-	-	-	-

Radiated Emission / AC5(1GHz-40GHz)(Chamber details)

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2019.01.04	2020.01.03
Preamplifier	Miteq	NSP1800-25	1364185	2019.05.06	2020.05.05
Preamplifier	QuieTek	AP-040G	CHM-0906001	2019.05.06	2020.05.05
DRG Horn	ETS-Lindgren	3117	00123988	2019.01.22	2020.01.21
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2019.01.04	2020.01.03
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2019.03.02	2020.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2019.03.02	2020.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2019.03.02	2020.03.01
Dekra test software	Dekra	-	-	-	-

UNCERTAINTY

Uncertainties have been calculated according to the DEKRA internal document L-TRD-01. The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%

Test item	Uncertainty
AC Power Line Conducted Emission	9kHz~150kHz: 2.80dB 150kHz~30MHz: 2.40dB
Peak Power Output	± 1.27 dB
Radiated Emission(30MHz~1GHz)	Horizontal: 30MHz~200MHz: 3.50 dB 300MHz~1GHz: 3.60 dB Vertical: 30MHz~200MHz: 3.60 dB 300MHz~1GHz: 3.50 dB
Radiated Emission(1GHz~26.5GHz)	Horizontal: 1GHz~18GHz: 5.00 dB Vertical: 1GHz~18GHz: 4.80 dB
RF antenna conducted test	± 1.27dB
Radiated Emission Band Edge	± 3.9 dB
DTS Bandwidth	±150Hz
Occupied Bandwidth	±1kHz
Power Density	±1.27dB

1 GENERAL INFORMATION

1.1 General Description of the Item(s)

Product Name	TRK230;TRK210;MOBIAM
Model No.....	TRK230;TRK210;MOBIAM
Trademark.....	Accent Systems
Manufacturer	Accent Advanced Systems SLU
Manufacturer Address.....	Terra Alta 1-3 Castellar del Valles, Barcelona

Wireless specification	Bluetooth
Operating frequency range(s)	2400~2483.5MHz
Type of Modulation	GFSK
Number of channel.....	40

Models differences.....	TRK210 and TRK230 device. Both devices use the same pcb, but the TRK210 is powered by non rechargeable lithium thionyl batteries and TRK230 uses lithium polymer battery. The TRK230 PCB contains a battery charger IC and the TRK210 no. TRK230, Same PCB of TRK230 different mechanics and different battery,and TRK230 and MOBIAM also same the PCB, only the battery size and shell size are different.
Models test(Worst).....	We evaluated all models, shown in the report is TRK230 test data.

Rated power supply	Voltage and Frequency	
	<input type="checkbox"/>	AC: 220 – 240 V, 50/60 Hz
	<input type="checkbox"/>	AC: 100 – 240 V, 50/60 Hz
	<input type="checkbox"/>	DC: 15~24Vdc
	<input checked="" type="checkbox"/>	Battery:
Mounting position.....	<input checked="" type="checkbox"/>	Table top equipment
	<input checked="" type="checkbox"/>	Wall/Ceiling mounted equipment
	<input type="checkbox"/>	Floor standing equipment
	<input type="checkbox"/>	Hand-held equipment
	<input type="checkbox"/>	Other:

1.2 Antenna Information

Antenna model / type number..... :	SWRA117D			
Antenna serial number..... :	N/A			
Antenna Delivery	<input checked="" type="checkbox"/>	1TX + 1RX		
	<input type="checkbox"/>	2TX + 2RX		
	<input type="checkbox"/>	Others:.....		
Antenna technology	<input checked="" type="checkbox"/>	SISO		
	<input type="checkbox"/>	MIMO	<input type="checkbox"/>	CDD
			<input type="checkbox"/>	Beam-forming
Antenna Type..... :	<input type="checkbox"/>	External	<input type="checkbox"/>	Dipole
			<input type="checkbox"/>	Sectorized
			<input checked="" type="checkbox"/>	Internal
	<input checked="" type="checkbox"/>	Internal	<input type="checkbox"/>	PIFA
			<input checked="" type="checkbox"/>	PCB
<input type="checkbox"/>		<input type="checkbox"/>	Others.....	
Antenna Gain	5.3dBi			

1.3 Channel List

Bluetooth Working Frequency of Each Channel: (For V4.2)							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
00	2402 MHz	01	2404 MHz	02	2406 MHz	03	2408 MHz
04	2410 MHz	05	2412 MHz	06	2414 MHz	07	2416 MHz
08	2418 MHz	09	2420 MHz	10	2422 MHz	11	2424 MHz
12	2426 MHz	13	2428 MHz	14	2430 MHz	15	2432 MHz
16	2434 MHz	17	2436 MHz	18	2438 MHz	19	2440 MHz
20	2442 MHz	21	2444 MHz	22	2446 MHz	23	2448 MHz
24	2450 MHz	25	2452 MHz	26	2454 MHz	27	2456 MHz
28	2458 MHz	29	2460 MHz	30	2462 MHz	31	2464 MHz
32	2466 MHz	33	2468 MHz	34	2470 MHz	35	2472 MHz
36	2474 MHz	37	2476 MHz	38	2478 MHz	39	2480 MHz

2 DESCRIPTION OF TEST SETUP

2.1 Operating mode(s) used for tests

During the tests the following operating mode(s) has(have) been used.

Test Mode	Mode 1: Mode 1: Transmit-1Mbps(GFSK_LE 1M)
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2.2 Accessories Information

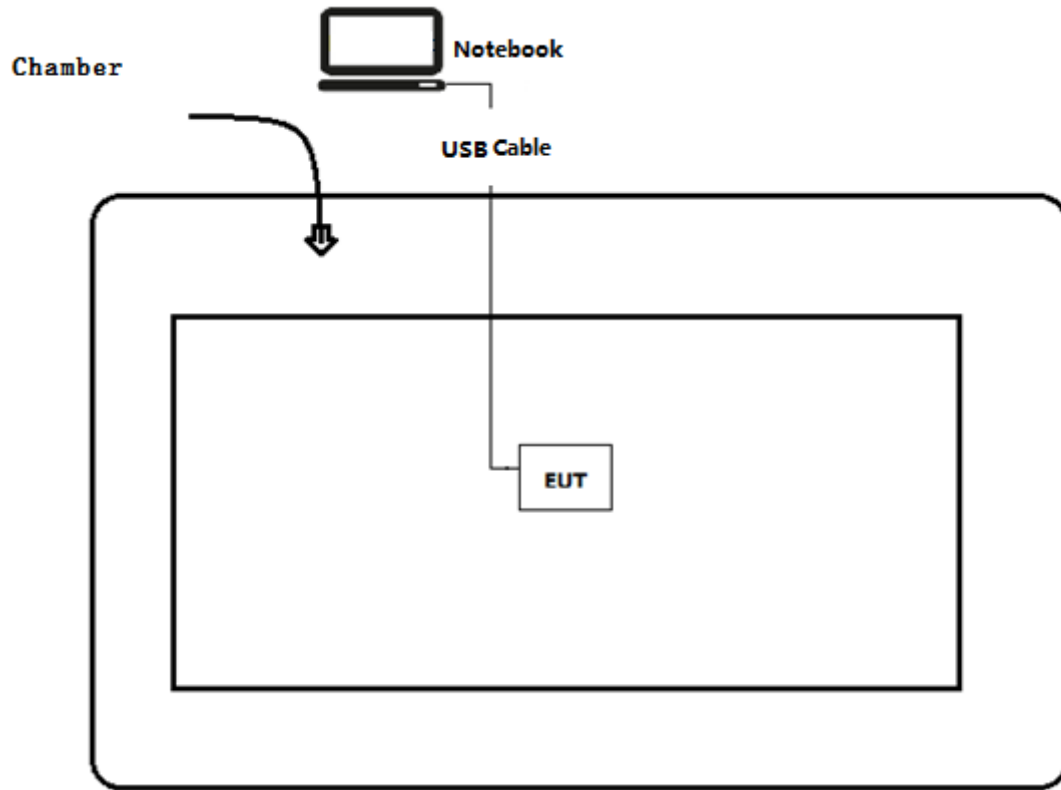
Accessories Information	Brand/model name	Cable		
		Length used during test [m]	Attached during test	Shielded
USB cable	USB Cable	1.8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>

2.3 Auxiliary equipment / Test software for the EUT

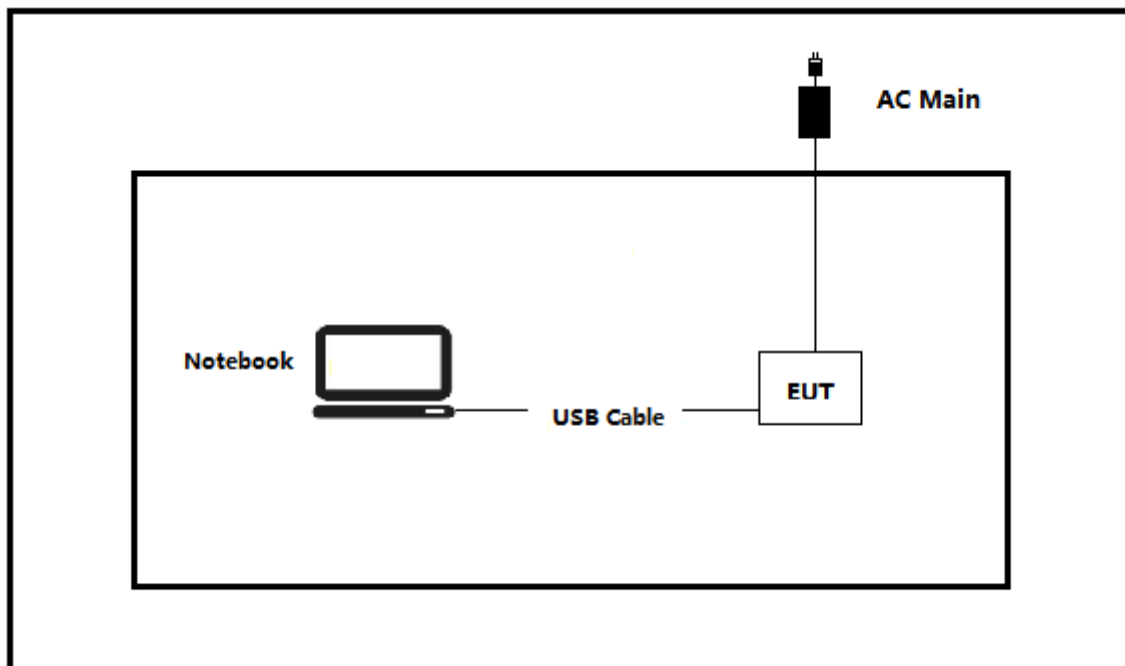
Auxiliary equipment	Type / Version	Manufacturer	Supplied by
Notebook	Think pad x220	Lenovo	Adapter
software	Type / Version	Manufacturer	Supplied by
nRFGO	1.21.2.10	Nordic	---

2.4 Test Configuration / Block diagram used for tests

Test setup Diagram- AC Line Conducted Emission Test



Test setup Diagram- Conducted test



2.5 Testing process

1	Setup the EUT as shown in Section 2.4.
2	Execute the nRFG on the EUT
3	Configure the test mode, the test channel, and the data rate.
4	Press "OK" to start the continuous Transmitter.
5	Verify that the EUT works properly.

3 VERDICT SUMMARY SECTION

This chapter presents an overview of standards and results. Refer to the next chapters for details of measured test results and applied test levels.

3.1 Standards

Standard	Year	Description
FCC CFR Title 47 Part 15 Subpart C Section 15.247	2017	Operation within the bands 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz.
ANSI C63.10	2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
KDB 558074 D01V05	2017	Guidance for performing compliance measurements on Digital Transmission System (DTS) operating under section 15.247

3.2 Deviation(s) from the Standard(s) / Test Specification(s)

The following deviation(s) was / were made from the published requirements of the listed standards: N/A.

(Please define the deviations from the standard(s) if applicable)

3.3 Overview of results

Requirement – Test case	Basic standard(s)	Verdict	Remark
AC Power Line Conducted Emission	FCC 15.207	N/A	Powered by battery
Emissions in restricted frequency bands	FCC 15.247(b)(3)	PASS	---
Duty cycle	ANSI C63.10:2013	N/A	
Emissions in non-restricted frequency bands	FCC 15.247(d), FCC 15.209	PASS	---
Radiated Emission Band Edge	FCC 15.247(d)	PASS	---
Fundamental emission output power	FCC 15.247(d), FCC 15.209	PASS	---
DTS Bandwidth	FCC 15.247(a)(2)	PASS	---
Power Spectral Density	FCC 15.247(e)	PASS	---
Antenna Requirement	FCC 15.203	PASS	---
Supplementary information: The item of AC Power Line Conducted Emission does not test, because it is powered by battery.			

3.4 Test Matrix

Test item	Model / Type	
	1	2
AC Power Line Conducted Emission	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Emissions in restricted frequency bands	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Duty cycle	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Emissions in non-restricted frequency bands	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Radiated Emission Band Edge	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fundamental emission output power	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DTS Bandwidth	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Power Spectral Density	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Antenna Requirement	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Models differences..... :	TRK210 and TRK230 device. Both devices use the same pcb, but the TRK210 is powered by non rechargeable lithium thionyl batteries and TRK230 uses lithium polymer battery. The TRK230 PCB contains a battery charger IC and the TRK210 no. TRK230, Same PCB of TRK230 different mechanics and different battery, and TRK230 and MOBIAM also same the PCB, only the battery size and shell size are different.	
Models test(Worst)..... :	We evaluated all models, shown in the report is TRK230 test data.	

3.5 Test Facility

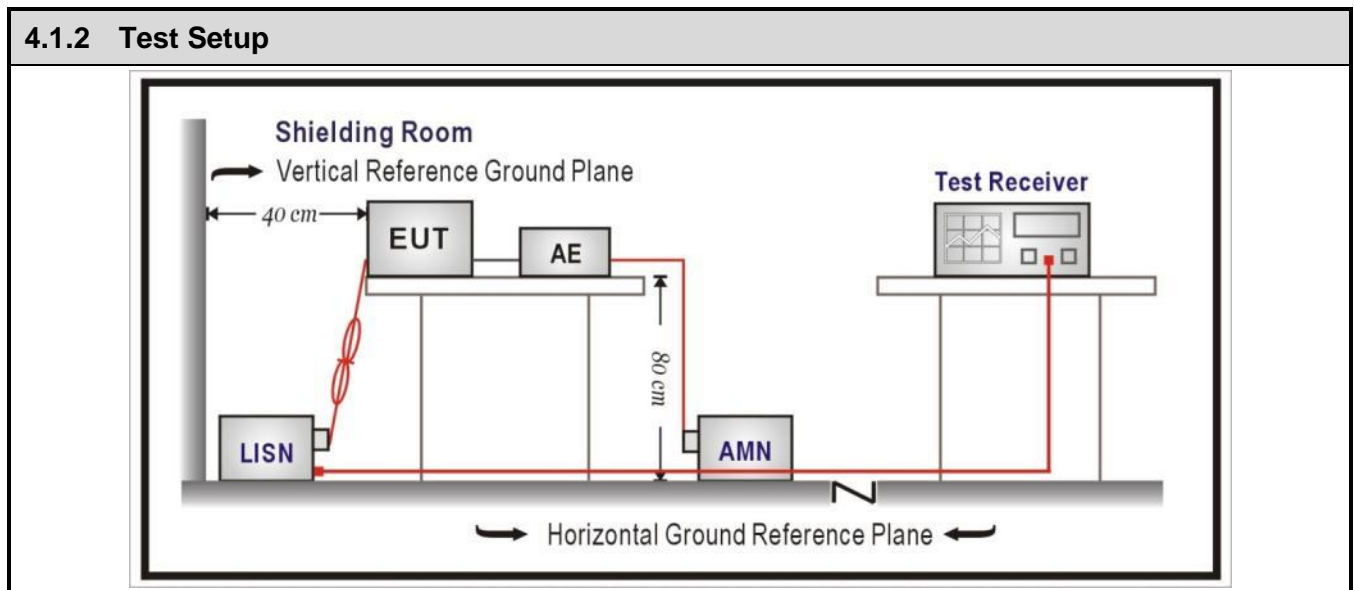
USA : FCC Designation Number: CN1199

4 TEST RESULTS

4.1 AC Power Line Conducted Emission	VERDICT: N/A
---	---------------------

4.1.1 Limit		
Standard	FCC Part 15 Subpart C Paragraph 15.207	
Frequency range [MHz]	Limit: QP [dB(μV) ¹⁾	Limit: AV [dB(μV) ¹⁾
0,15 - 0,50	66 - 56 ²⁾	56 - 46 ²⁾
0,50 - 5,0	56	46
5,0 - 30	60	50

¹⁾ At the transition frequency, the lower limit applies.
²⁾ The limit decreases linearly with the logarithm of the frequency.
NOTE 1: The exclusion band for transmitters shall be considered for transmitters operating at frequencies below 30 MHz.
NOTE 2: Where the AC output port is directly connected (or via a circuit breaker) to the AC power input port of the EUT the AC power output port need not to be tested.



4.1.3 Test Procedure

	References Rule	Chapter	Item
<input checked="" type="checkbox"/>	ANSI C63.10-2013	6.2	Standard test method for ac power-line conducted emissions from unlicensed wireless devices

4.1.4 Test Data	
Remark	The EUT is powered by battery, so this item does not test.

4.2 Emissions in restricted frequency bands	VERDICT: PASS
--	----------------------

4.2.1 Limit			
Standard	FCC Part 15 Subpart C Paragraph 15.207		
Restricted Bands of operation			
Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 – 0.110	16.42 – 16.423	399.9 – 410	4.5 – 5.15
0.495 – 0.505	16.69475 – 16.69525	608 – 614	5.35 – 5.46
2.1735 – 2.1905	16.80425 – 16.80475	960 – 1240	7.25 – 7.75
4.125 – 4.128	25.5 – 25.67	1300 – 1427	8.025 – 8.5
4.17725 – 4.17775	37.5 – 38.25	1435 – 1626.5	9.0 – 9.2
4.20725 – 4.20775	73 – 74.6	1645.5 – 1646.5	9.3 – 9.5
6.215 – 6.218	74.8 – 75.2	1660 – 1710	10.6 – 12.7
6.26775 – 6.26825	108 – 121.94	1718.8 – 1722.2	13.25 – 13.4
6.31175 – 6.31225	123 – 138	2200 – 2300	14.47 – 14.5
8.291 – 8.294	149.9 – 150.05	2310 – 2390	15.35 – 16.2
8.362 – 8.366	156.52475 – 156.52525	2483.5 – 2500	17.7 – 21.4
8.37625 – 8.38675	156.7 – 156.9	2690 – 2900	22.01 – 23.12
8.81425 – 8.81475	162.0125 – 167.17	3260 – 3267	23.6 – 24.0
12.29 – 12.293	167.72 – 173.2	3332 – 3339	31.2 – 31.8
12.51975 – 12.52025	240 – 285	3345.8 – 3358	36.43 – 36.5
12.57675 – 12.57725	322 – 335.4	3600 – 4400	
13.36 – 13.41			

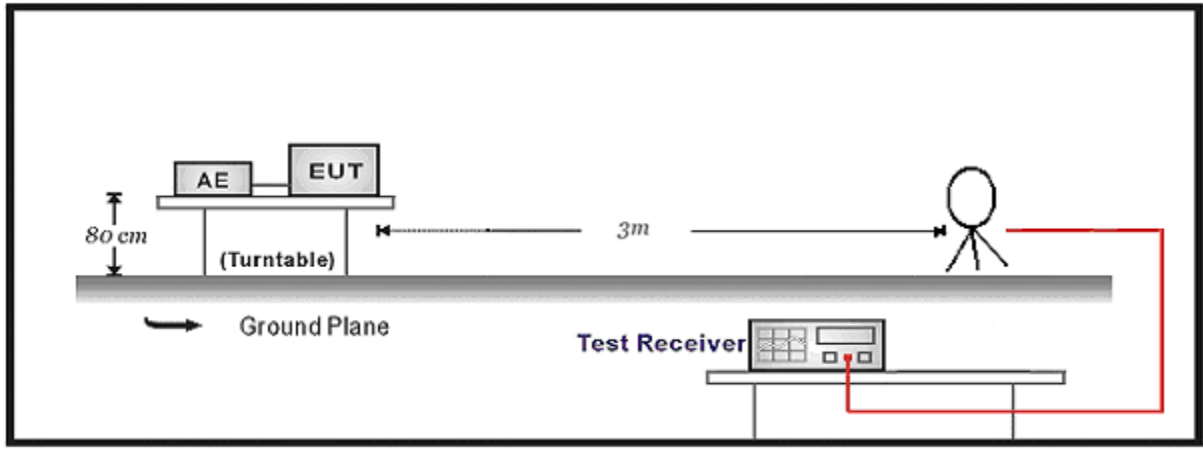
Restricted Band Emissions Limit			
Frequency (MHz)	Field strength ($\mu\text{V}/\text{m}$)	Field strength ($\text{dB}\mu\text{V}/\text{m}$)	Measurement distance (m)
0.009 - 0.49	2400/F(kHz)	48.5 – 13.8	300 _(Note 1)
0.49 - 1.705	24000/F(kHz)	33.8 - 23	30 _(Note 1)
1.705 - 30	30	29.5	30 _(Note 1)
30 - 88	100	40	3 _(Note 2)
88 - 216	150	43.5	3 _(Note 2)
216 - 960	200	46	3 _(Note 2)
Above 960	500	54	3 _(Note 2)

Note 1: At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade).

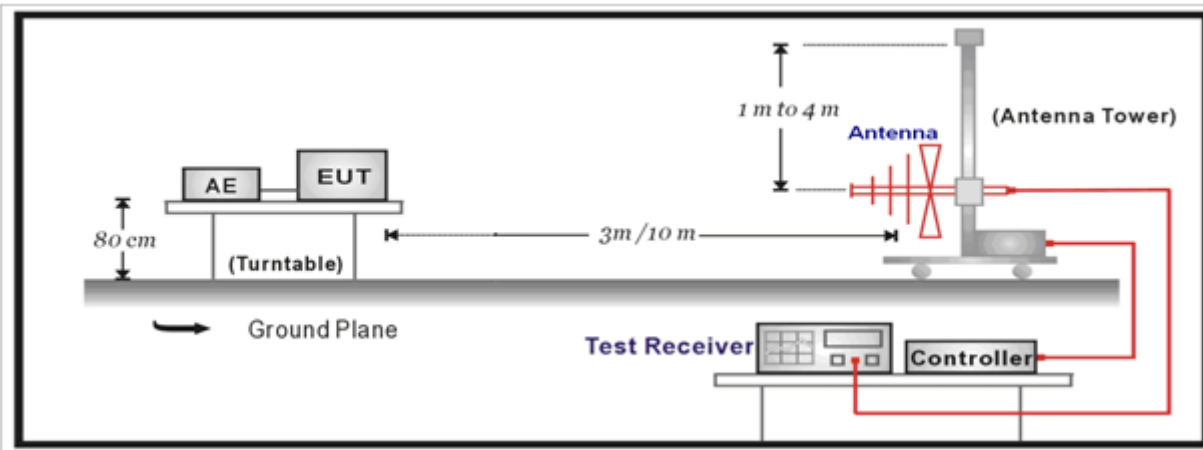
Note 2: At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

4.2.2 Test Setup

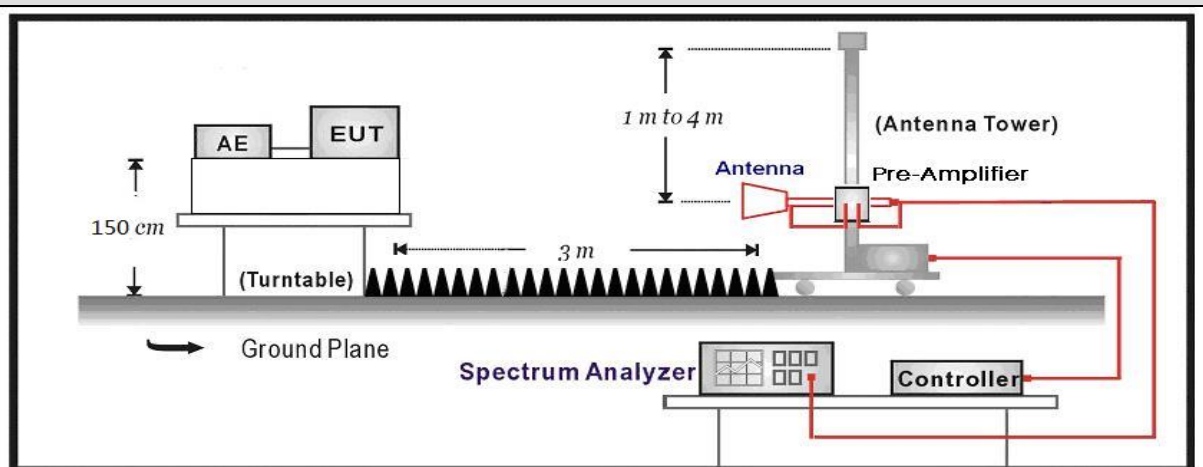
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



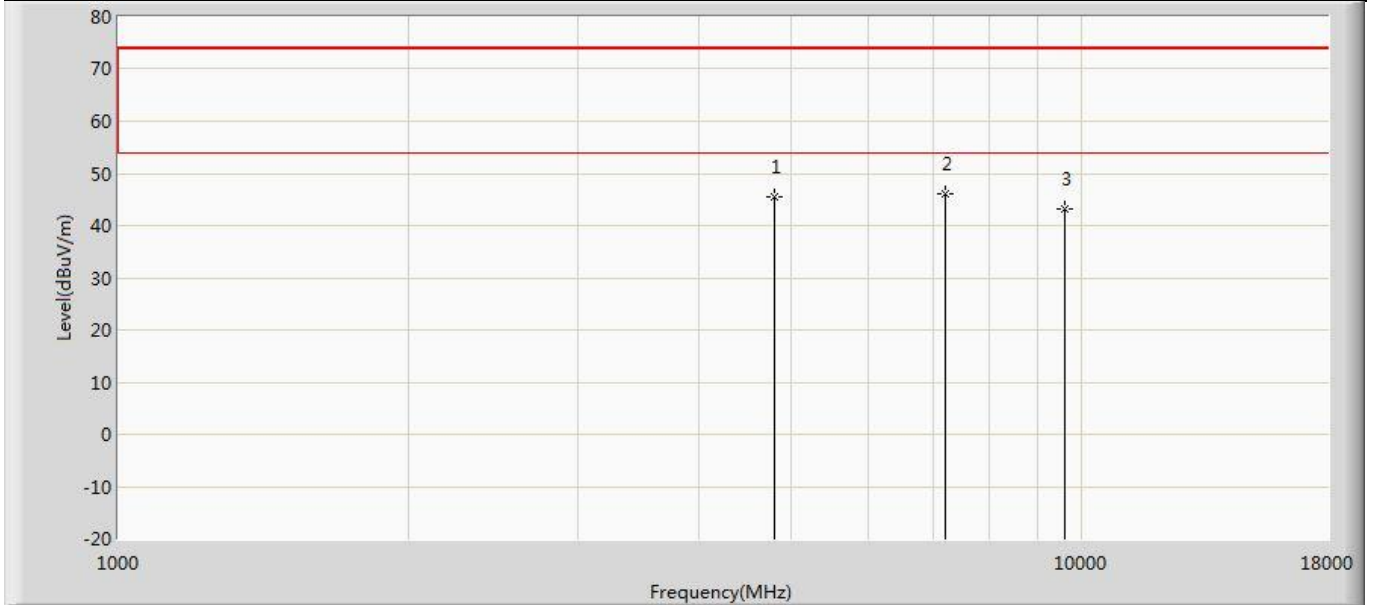
Above 1GHz Test Setup:



4.2.3 Test Procedure				
	References Rule	Chapter	Description	
<input checked="" type="checkbox"/>	ANSI C63.10	11.12	Emissions in restricted frequency bands	
	<input checked="" type="checkbox"/> ANSI C63.10	11.12.1	Radiated emission measurements	
	<input checked="" type="checkbox"/> ANSI C63.10	11.12.2.7	Radiated spurious emission test	
	<input checked="" type="checkbox"/> ANSI C63.10	6.4	Radiated emissions from unlicensed wireless devices below 30 MHz	
	<input checked="" type="checkbox"/> ANSI C63.10	6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz	
	<input checked="" type="checkbox"/> ANSI C63.10	6.6	Radiated emissions from unlicensed wireless devices above 1 GHz	

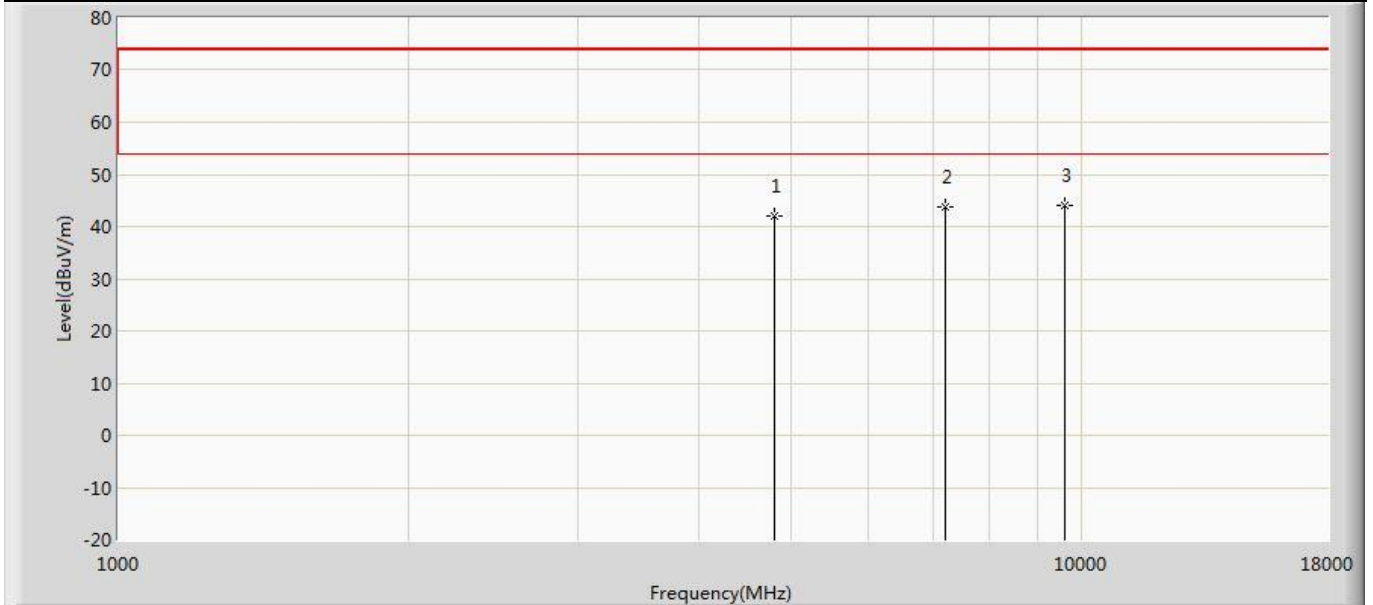
4.2.4 Test Data

Engineer: Pawn	
Site: AC5	Time: 2019/06/17 - 19:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: TRK230	Power: By Battery
Note: Mode1:Transmit at 2402MHz by BLE	



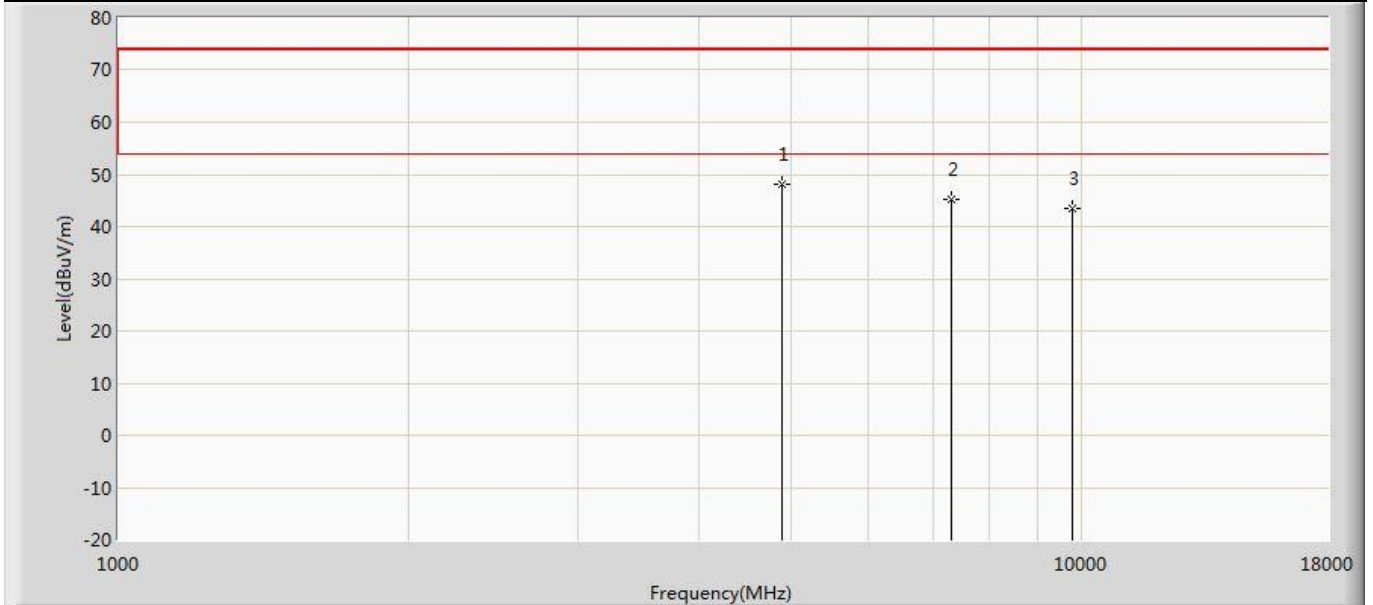
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	45.372	43.631	-28.628	74.000	1.741	PK
2	*	7206.000	45.952	40.697	-28.048	74.000	5.255	PK
3		9608.000	43.132	36.263	-30.868	74.000	6.869	PK

Engineer: Pawn	
Site: AC5	Time: 2019/06/17 - 19:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: TRK230	Power: By Battery
Note: Mode1:Transmit at 2402MHz by BLE	



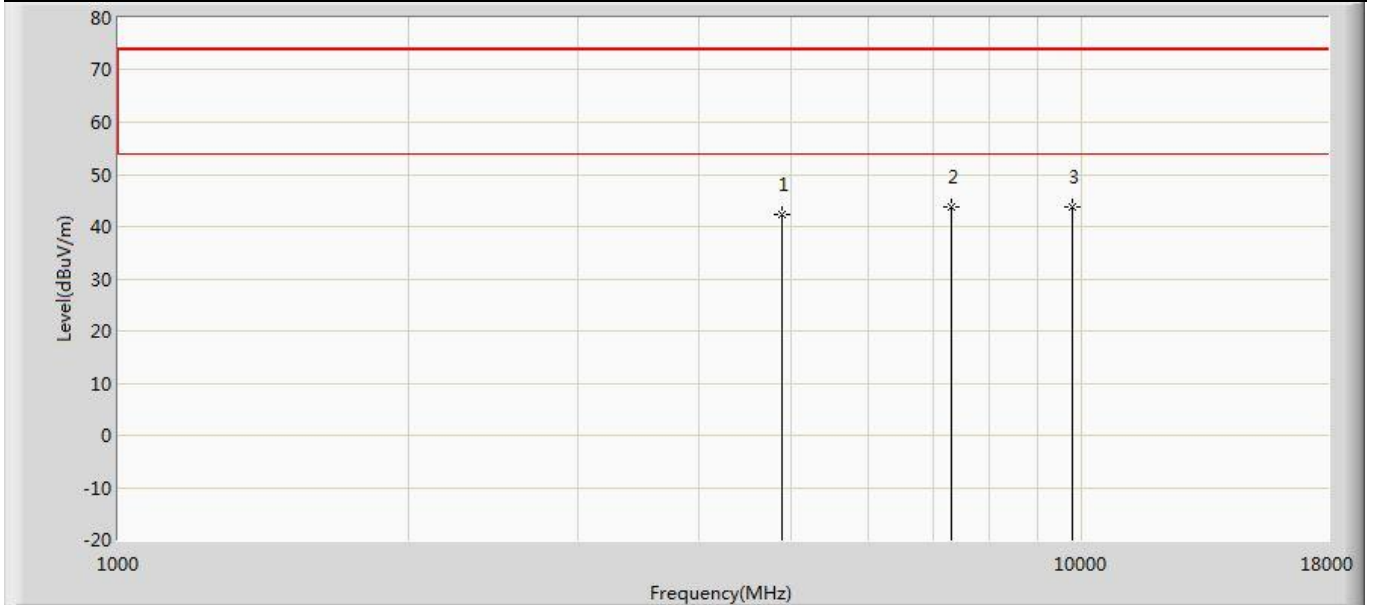
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.165	40.424	-31.835	74.000	1.741	PK
2		7206.000	43.833	38.578	-30.167	74.000	5.255	PK
3	*	9608.000	43.918	37.049	-30.082	74.000	6.869	PK

Engineer: Pawn	
Site: AC5	Time: 2019/06/17 - 19:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: TRK230	Power: By Battery
Note: Mode1:Transmit at 2440MHz by BLE	



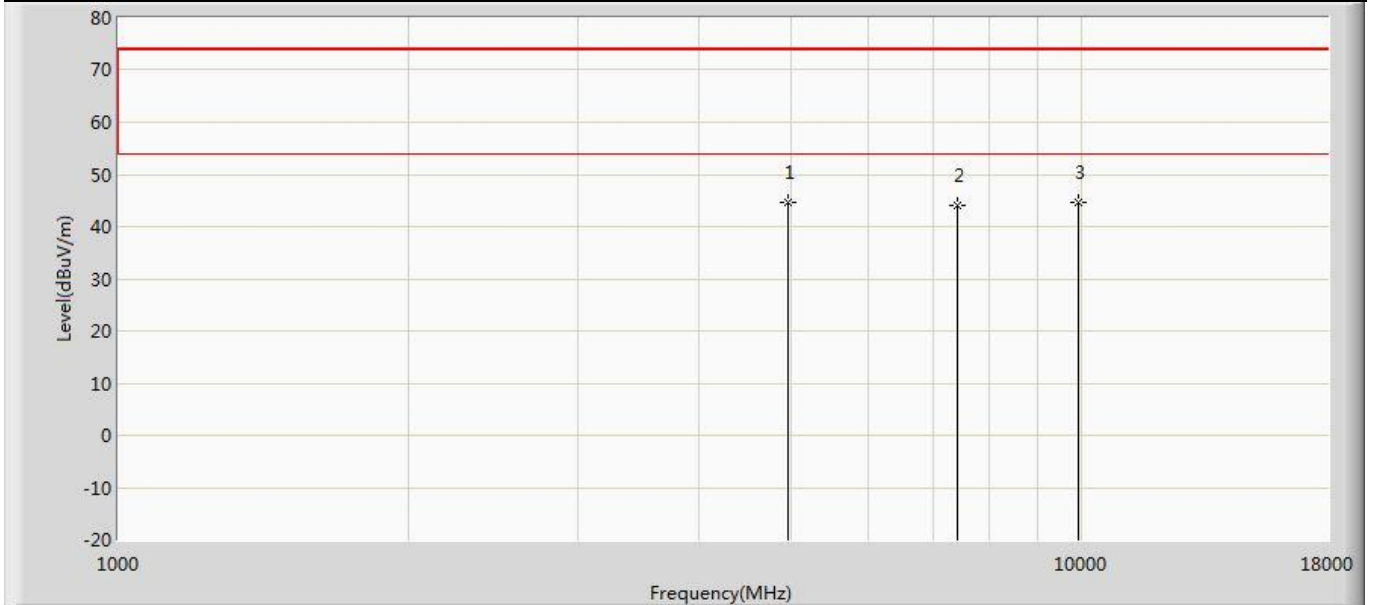
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4880.000	48.228	46.373	-25.772	74.000	1.855	PK
2		7320.000	45.074	39.532	-28.926	74.000	5.542	PK
3		9760.000	43.548	36.429	-30.452	74.000	7.120	PK

Engineer: Pawn	
Site: AC5	Time: 2019/06/17 - 19:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: TRK230	Power: By Battery
Note: Mode1:Transmit at 2440MHz by BLE	



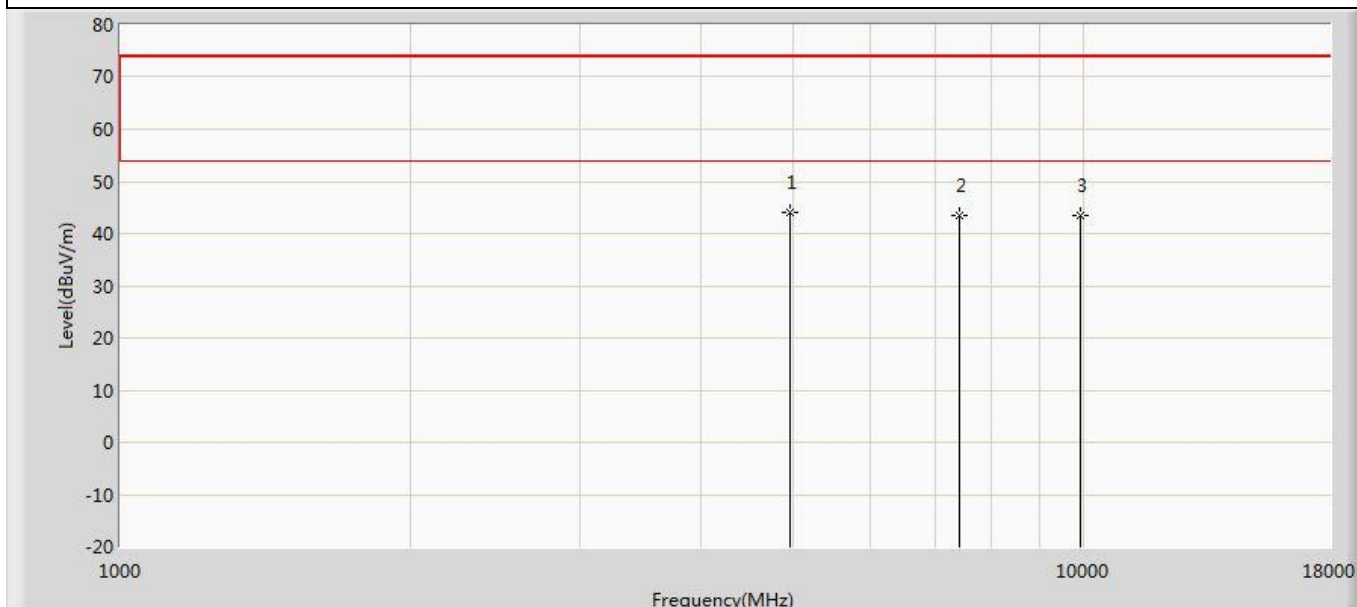
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	42.452	40.597	-31.548	74.000	1.855	PK
2		7320.000	43.726	38.184	-30.274	74.000	5.542	PK
3	*	9760.000	43.742	36.623	-30.258	74.000	7.120	PK

Engineer: Pawn	
Site: AC5	Time: 2019/06/17 - 19:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: TRK230	Power: By Battery
Note: Mode1:Transmit at 2480MHz by BLE	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4960.000	44.673	42.692	-29.327	74.000	1.981	PK
2		7440.000	43.965	38.624	-30.035	74.000	5.341	PK
3		9920.000	44.574	37.485	-29.426	74.000	7.088	PK

Engineer: Pawn	
Site: AC5	Time: 2019/06/17 - 19:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: TRK230	Power: By Battery
Note: Mode1:Transmit at 2480MHz by BLE	



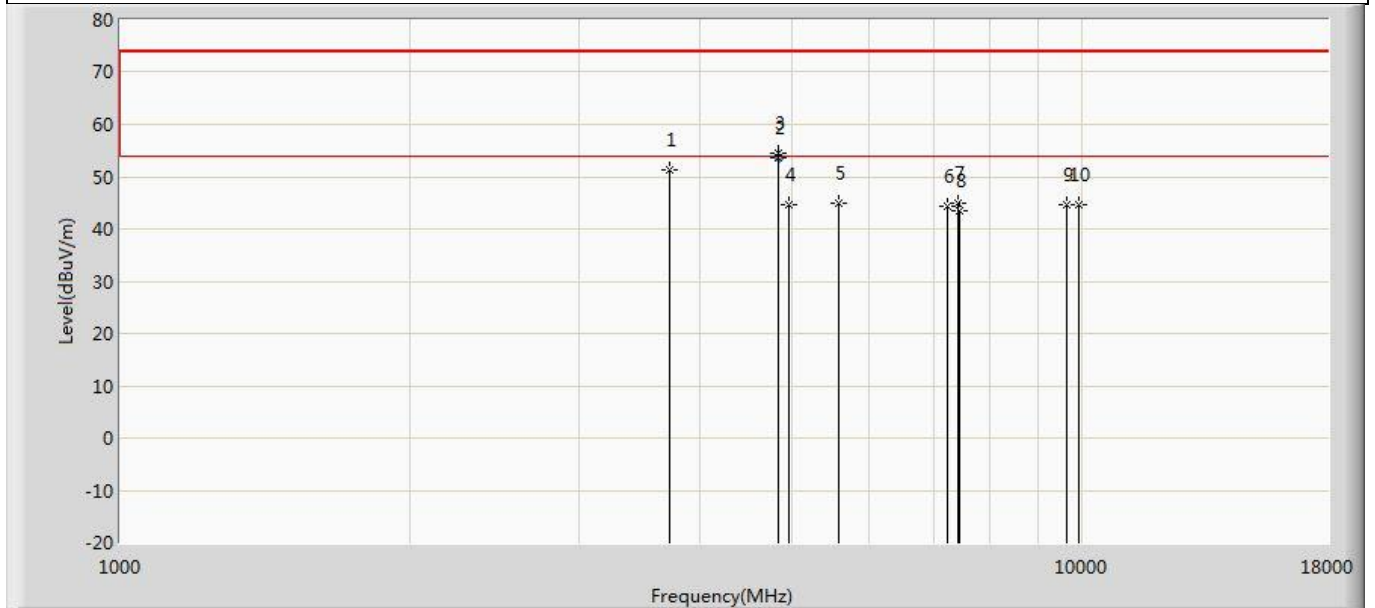
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4960.000	43.917	41.936	-30.083	74.000	1.981	PK
2		7440.000	43.410	38.069	-30.590	74.000	5.341	PK
3		9920.000	43.611	36.522	-30.389	74.000	7.088	PK

Note:

1. Measured Level = Reading Level + Factor.
2. The test frequency range, 9kHz~30MHz, 18GHz~26GHz, both of the worst case are at least 20dB below the limits, therefore no data appear in the report.
3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.
4. As the radiated emission was performed, so conducted emission was not tested.

The worst case of Simultaneous Radiated Emission:

Engineer: Pawn	
Site: AC5	Time: 2019/06/17 - 19:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: TRK230	Power: By Battery
Note: Mode2:Transmit at 2480MHz by BLE & 2412MHz by 802.11B & 2G	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		3720.000	51.446	50.896	-22.554	74.000	0.550	PK
2	*	4823.980	53.553	51.762	-0.447	54.000	1.792	AV
3		4825.000	54.595	52.798	-19.405	74.000	1.797	PK
4		4960.000	44.673	42.692	-29.327	74.000	1.981	PK
5		5580.000	44.982	41.952	-29.018	74.000	3.030	PK
6		7236.000	44.243	38.942	-29.757	74.000	5.301	PK
7		7440.000	44.887	39.546	-29.113	74.000	5.341	PK
8		7441.500	43.553	38.217	-30.447	74.000	5.336	PK
9		9648.000	44.727	37.825	-29.273	74.000	6.902	PK
10		9920.000	44.574	37.485	-29.426	74.000	7.088	PK

Engineer: Pawn	
Site: AC5	Time: 2019/06/17 - 19:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: TRK230	Power: By Battery
Note: Mode2:Transmit at 2480MHz by BLE & 2412MHz by 802.11B & 2G	



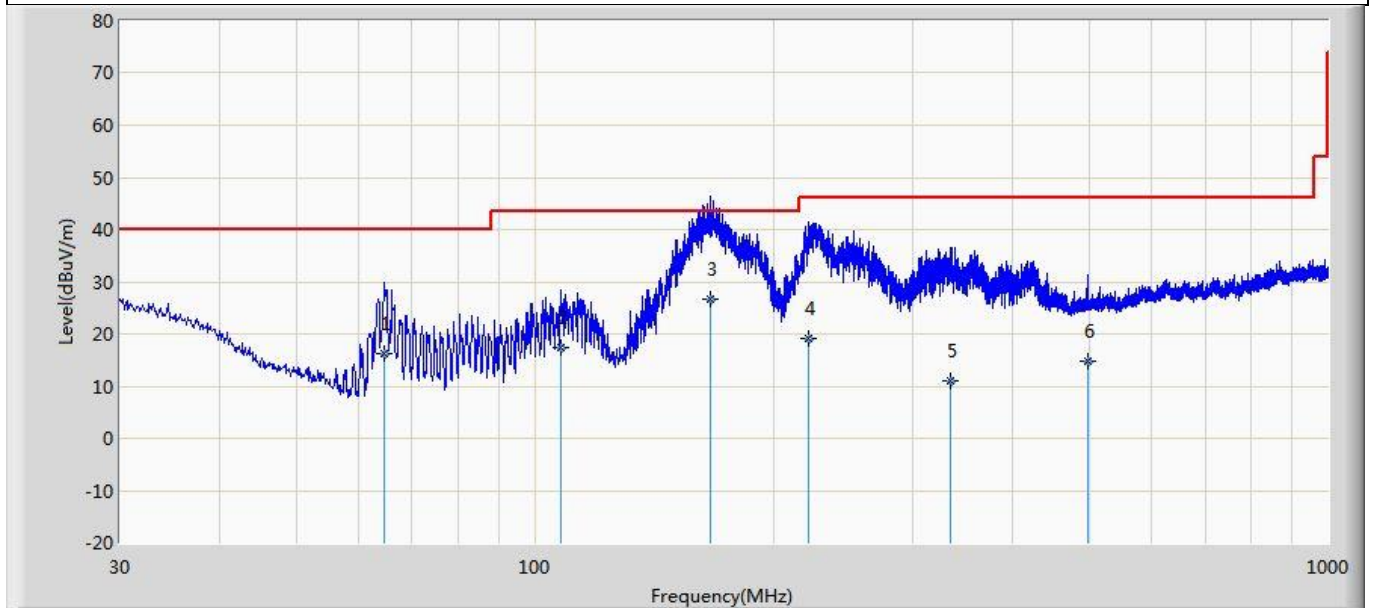
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		3720.000	50.113	49.563	-23.887	74.000	0.550	PK
2	*	4825.000	53.057	51.260	-20.943	74.000	1.797	PK
3		4960.000	43.917	41.936	-30.083	74.000	1.981	PK
4		5580.000	43.884	40.854	-30.116	74.000	3.030	PK
5		7236.000	43.145	37.844	-30.855	74.000	5.301	PK
6		7440.000	43.410	38.069	-30.590	74.000	5.341	PK
7		7441.660	43.632	38.297	-30.368	74.000	5.336	PK
8		9648.000	44.035	37.133	-29.965	74.000	6.902	PK
9		9920.000	43.611	36.522	-30.389	74.000	7.088	PK

Note:

1. Measured Level = Reading Level + Factor.
2. The test frequency range, 9kHz~30MHz, 18GHz~26GHz, both of the worst case are at least 20dB below the limits, therefore no data appear in the report.
3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.
4. As the radiated emission was performed, so conducted emission was not tested.
5. For the WWAN mode ,we evaluated all test mode(2G/NB-IOT/eMTC), show in the report is the worst data.

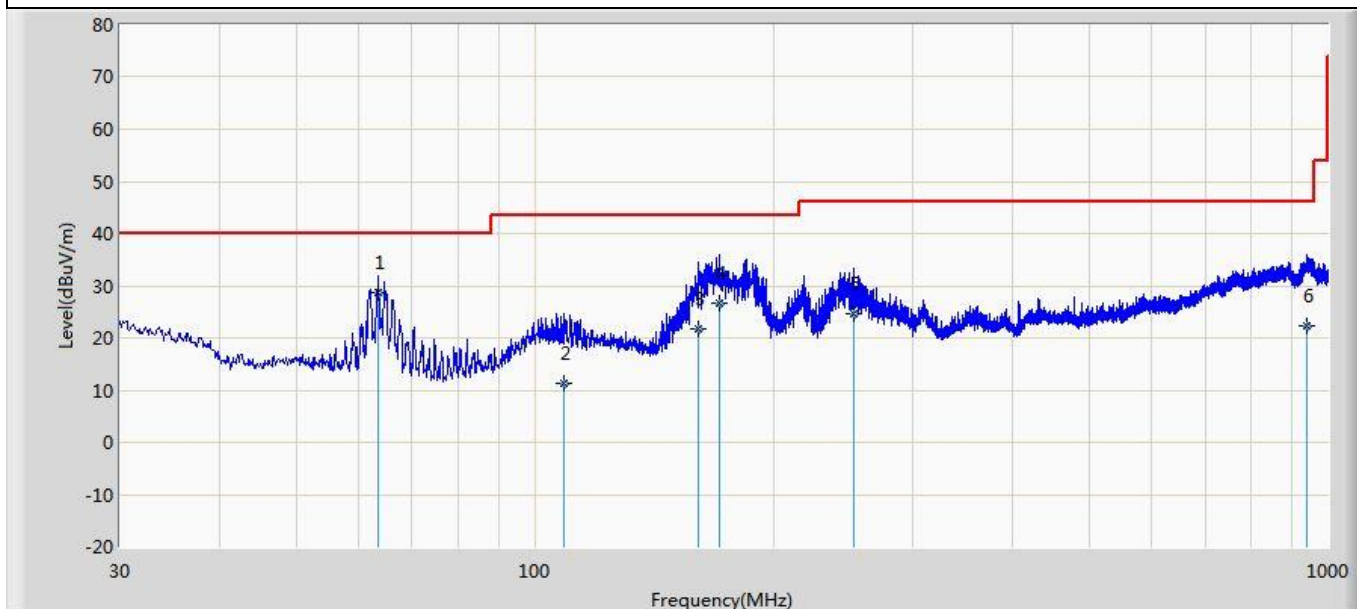
The worst case of Radiated Emission below 1GHz:

Engineer: Pawn	
Site: AC3	Time: 2019/06/17 - 20:00
Limit: FCC_Part15.109_RE(3m)	Margin: 0
Probe: AC3_3m (30-1000MHz)	Polarity: Horizontal
EUT: TRK230	Power: By Battery
Note: Mode1:Transmit by BLE & 2412MHz by 802.11B & 2G	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		64.677	16.334	6.510	-23.666	40.000	9.824	QP
2		107.721	17.443	1.380	-26.057	43.500	16.063	QP
3	*	166.649	26.653	9.170	-16.847	43.500	17.483	QP
4		221.454	19.049	0.886	-26.951	46.000	18.164	QP
5		334.823	11.117	-11.980	-34.883	46.000	23.097	QP
6		497.540	14.716	-12.100	-31.284	46.000	26.816	QP

Engineer: Pawn	
Site: AC3	Time: 2019/06/17 - 20:03
Limit: FCC_Part15.109_RE(3m)	Margin: 0
Probe: AC3_3m (30-1000MHz)	Polarity: Vertical
EUT: TRK230	Power: By Battery
Note: Mode1:Transmit by BLE & 2412MHz by 802.11B & 2G	



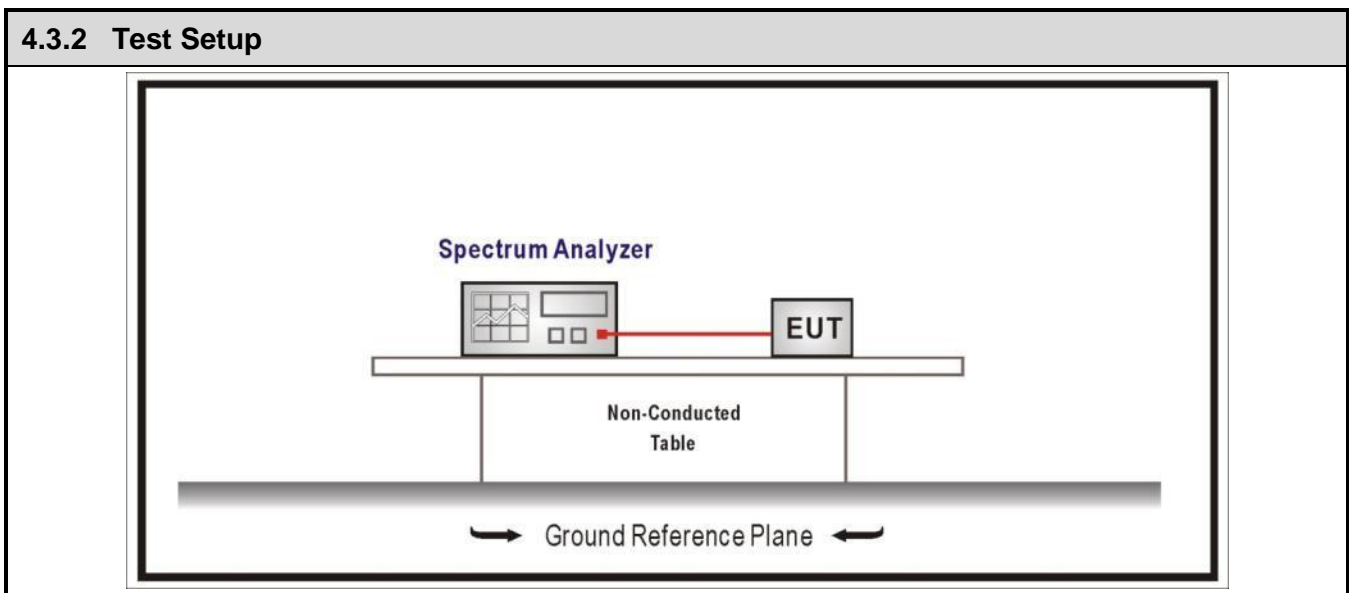
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	63.465	28.617	12.730	-11.383	40.000	15.887	QP
2		109.055	11.316	-10.220	-32.184	43.500	21.535	QP
3		160.829	21.877	3.250	-21.623	43.500	18.627	QP
4		170.893	26.648	8.710	-16.852	43.500	17.938	QP
5		252.736	24.600	1.380	-21.400	46.000	23.220	QP
6		942.164	22.213	-12.080	-23.787	46.000	34.293	QP

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).
3. For the WWAN mode ,we evaluated all test mode(2G/NB-IOT/eMTC), show in the report is the worst data.

4.3 Emissions in non-restricted frequency band	VERDICT: PASS
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4.3.1 Limit	
Standard	FCC Part 15 Subpart C Paragraph 15.247(d)
RF Output power (Detection methods)	Limit(dB)
RF Output power(Average detector)	30dBc(Note1)
RF Output power(PK detector)	20dBc(Note2)
<p>Note 1: If maximum conducted (average) output power was used to demonstrate compliance as described in 9.2, then the peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 30 dBc).</p> <p>Note 2: If the maximum peak conducted output power procedure was used, then the peak output power measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 20 dBc).</p>	



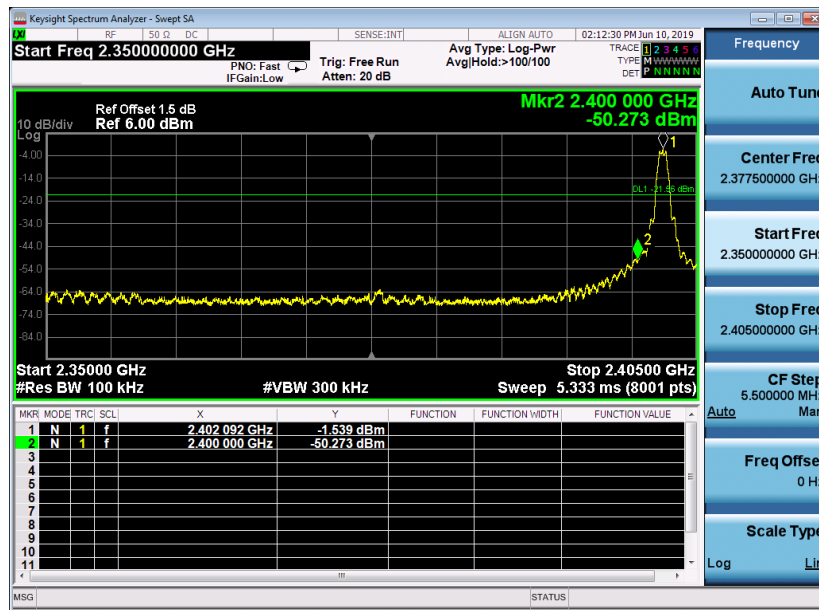
4.3.3 Test Procedure			
References Rule	Chapter	Description	
<input checked="" type="checkbox"/> ANSI C63.10	11.11	Emissions in non-restricted frequency bands	
<input checked="" type="checkbox"/>	ANSI C63.10	11.11.1	General
<input checked="" type="checkbox"/>	ANSI C63.10	11.11.2	Reference level measurement
<input checked="" type="checkbox"/>	ANSI C63.10	11.11.3	Emission level measurement

4.3.4 Test Data

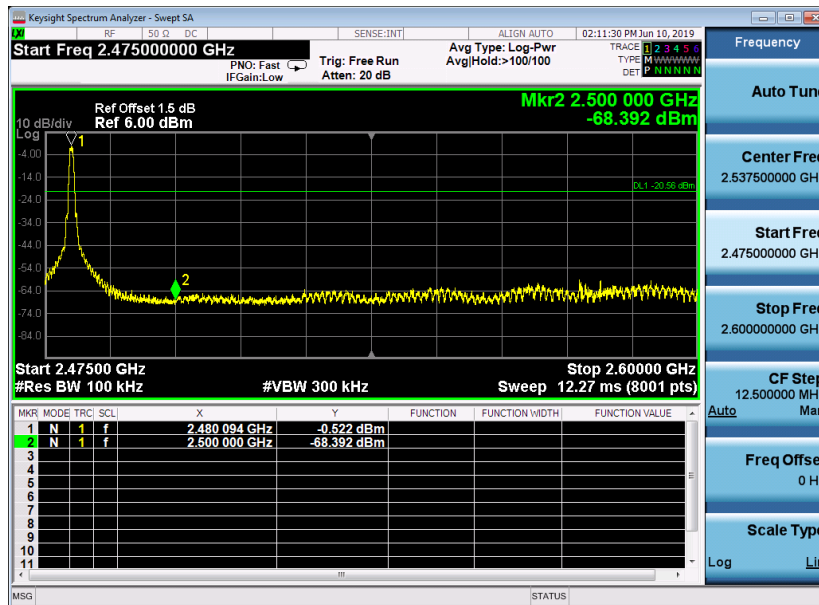
Mode	Channel	Test Frequency (MHz)	Maximum In-Band PSD[a] (dBm/100kHz)	Frequency (MHz)	Out-Band PSD[b] (dBm/100kHz)	[a]-[b] (dB)	Limit (dB)	Result
1	00	2402	-1.539	2399.995	-50.273	48.734	>20	Pass
	39	2480	-0.522	2503.681	-68.392	67.870	>20	Pass

Note: The worst case of emissions in non-restricted frequency bands as below:

Mode 1 CH00(2402MHz)

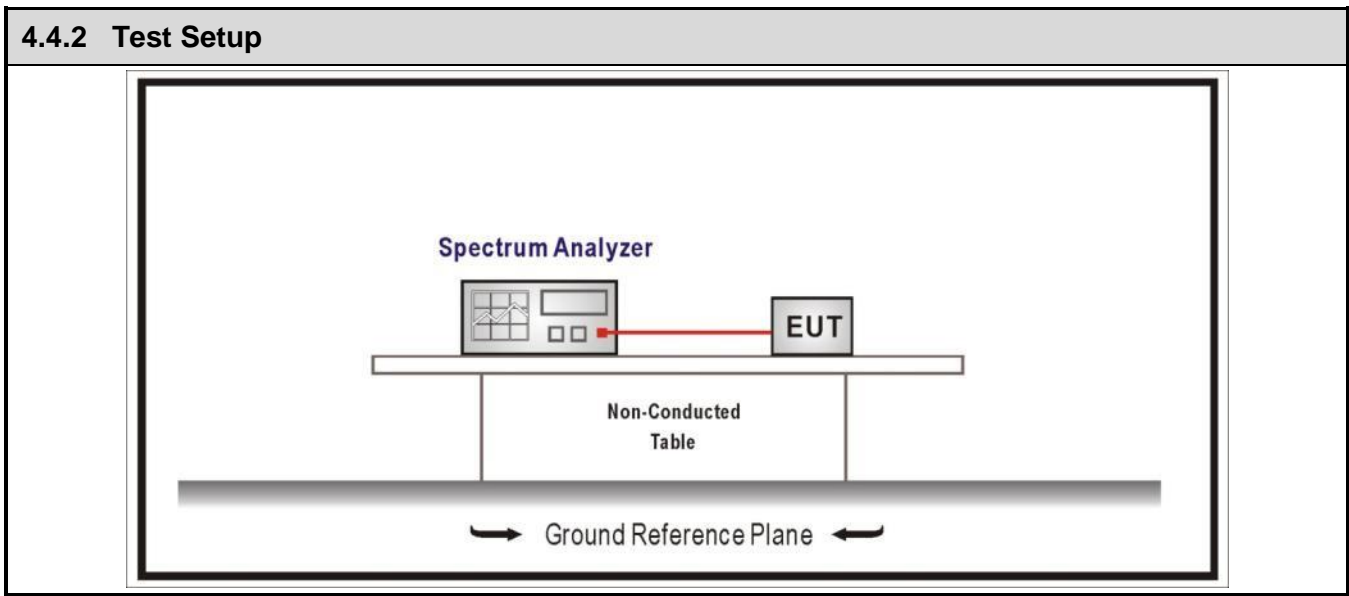


Mode 1 CH39(2480MHz)



4.4 Duty cycle	VERDICT: PASS
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4.4.1 Limit
N/A



4.4.3 Test Procedure			
	References Rule	Chapter	Description
<input checked="" type="checkbox"/>	ANSI C63.10	11.6	Duty cycle (D), transmission duration (T), and maximum power control level

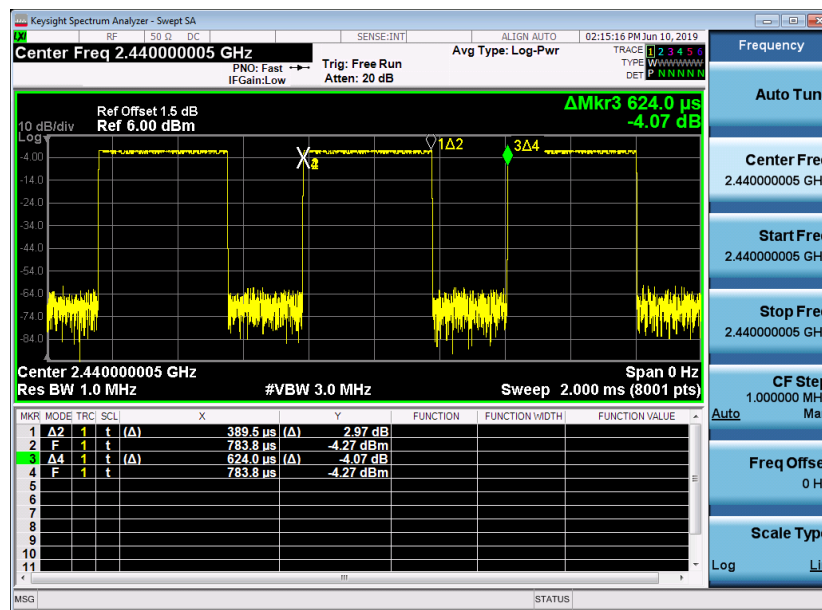
4.4.4 Test Data

Test Mode	Tx On (ms)	Tx Off (ms)	VBW	Tx On + Tx Off (ms)	Duty Cycle
1	0.3895	0.2345	2.7K	0.624	62.42%

Note 1: T means the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

Note 2: According to KDB 558074, when test for Radiated Emission Band Edge and Radiated Emission, for average detector set: $VBW \geq 1/T$ will be used.

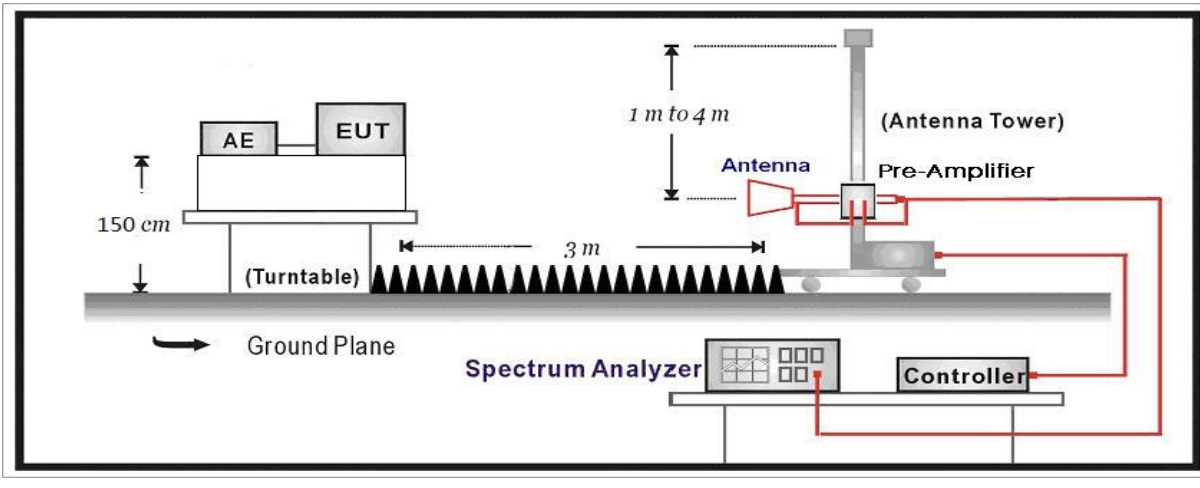
LE 1M



4.5 Radiated Emission Band Edge	VERDICT: PASS
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4.5.1 Limit				
Standard		FCC Part 15 Subpart C Paragraph 15.247(d) , 15.209		
Frequency bands (MHz)	Detector	Limit (dB μ V/m)	RBW (MHz)	Distance (m)
2310-2390 2483.5-2500	PK	74	1	3
	AV	54	1	3
Note: The field strength of emissions appearing within these frequency bands shall not exceed the limits.				

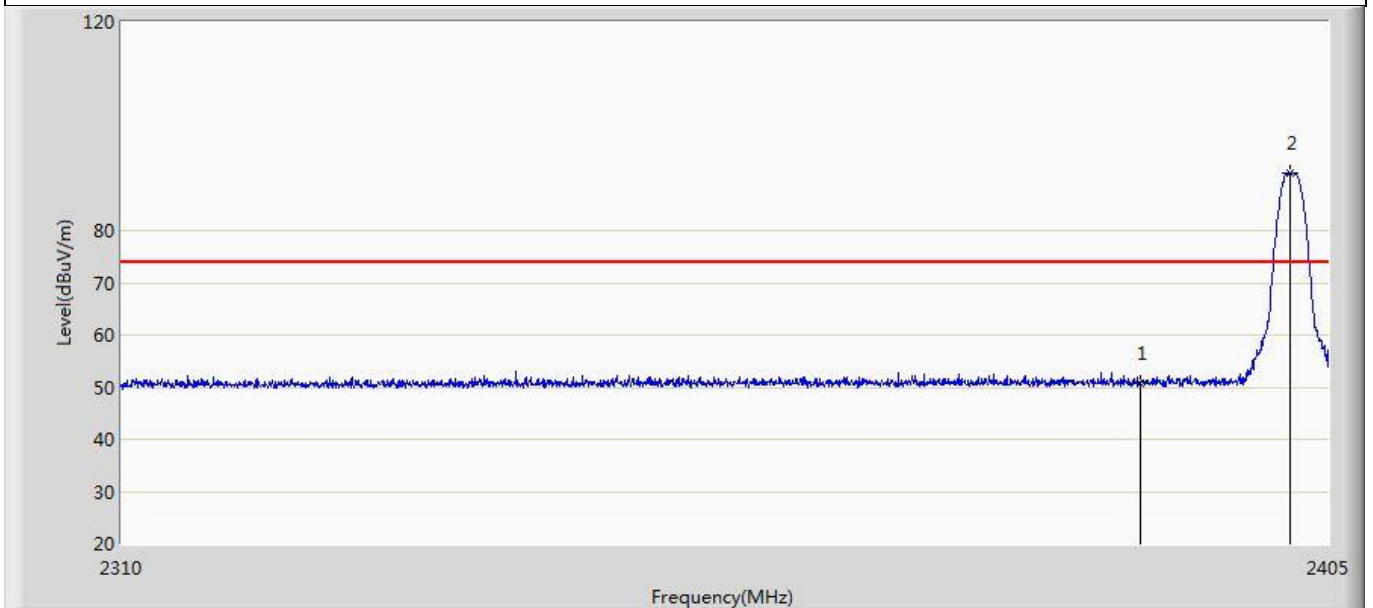
4.5.2 Test Setup
Above 1GHz Test Setup:



4.5.3 Test Procedure			
	References Rule	Chapter	Description
<input checked="" type="checkbox"/>	ANSI C63.10	6.10	Band-edge testing
	<input checked="" type="checkbox"/> ANSI C63.10	6.10.5	Restricted-band band-edge measurements
	<input type="checkbox"/> ANSI C63.10	6.10.6	Marker-delta method
<input checked="" type="checkbox"/>	ANSI C63.10	11.12	Emissions in restricted frequency bands
	<input checked="" type="checkbox"/> ANSI C63.10	11.12.1	Radiated emission measurements
	<input checked="" type="checkbox"/> ANSI C63.10	11.12.2.7	Radiated spurious emission test
<input type="checkbox"/>	ANSI C63.10	6.4	Radiated emissions from unlicensed wireless devices below 30 MHz
<input type="checkbox"/>	ANSI C63.10	6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz
<input checked="" type="checkbox"/>	ANSI C63.10	6.6	Radiated emissions from unlicensed wireless devices above 1 GHz
	<input type="checkbox"/> ANSI C63.10	11.12.2	Antenna-port conducted measurements
	<input type="checkbox"/> ANSI C63.10	11.12.2.3	Quasi-peak measurement procedure
	<input type="checkbox"/> ANSI C63.10	11.12.2.4	Peak power measurement procedure
	<input type="checkbox"/> ANSI C63.10	11.12.2.5	Average power measurement procedures
	<input type="checkbox"/> ANSI C63.10	11.12.2.5.1	Trace averaging with continuous EUT transmission at full power
	<input type="checkbox"/> ANSI C63.10	11.12.2.5.2	Trace averaging across ON and OFF times of the EUT transmissions followed by duty cycle correction
	<input type="checkbox"/> ANSI C63.10	11.12.2.5.3	Reduced VBW averaging across ON and OFF times of the EUT transmissions with max hold

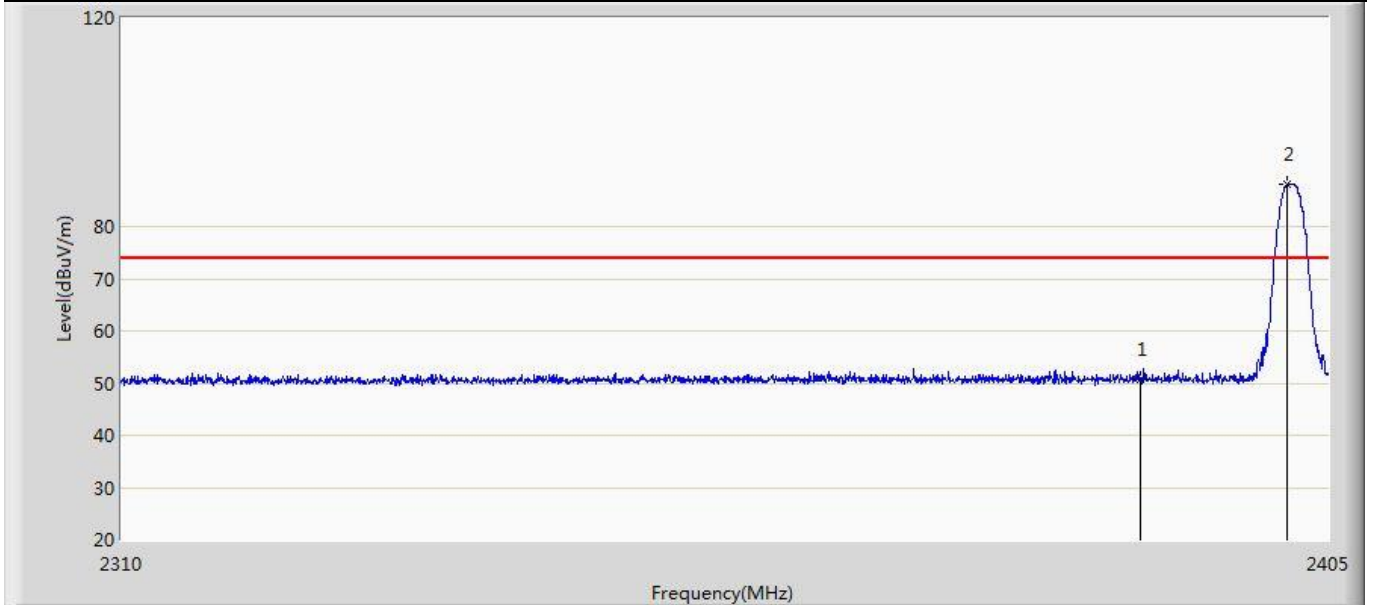
4.5.4 Test Data

Engineer: Pawn	
Site: AC5	Time: 2019/06/17 - 18:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: TRK230	Power: By Battery
Note: Mode1:Transmit at 2402MHz by BLE	



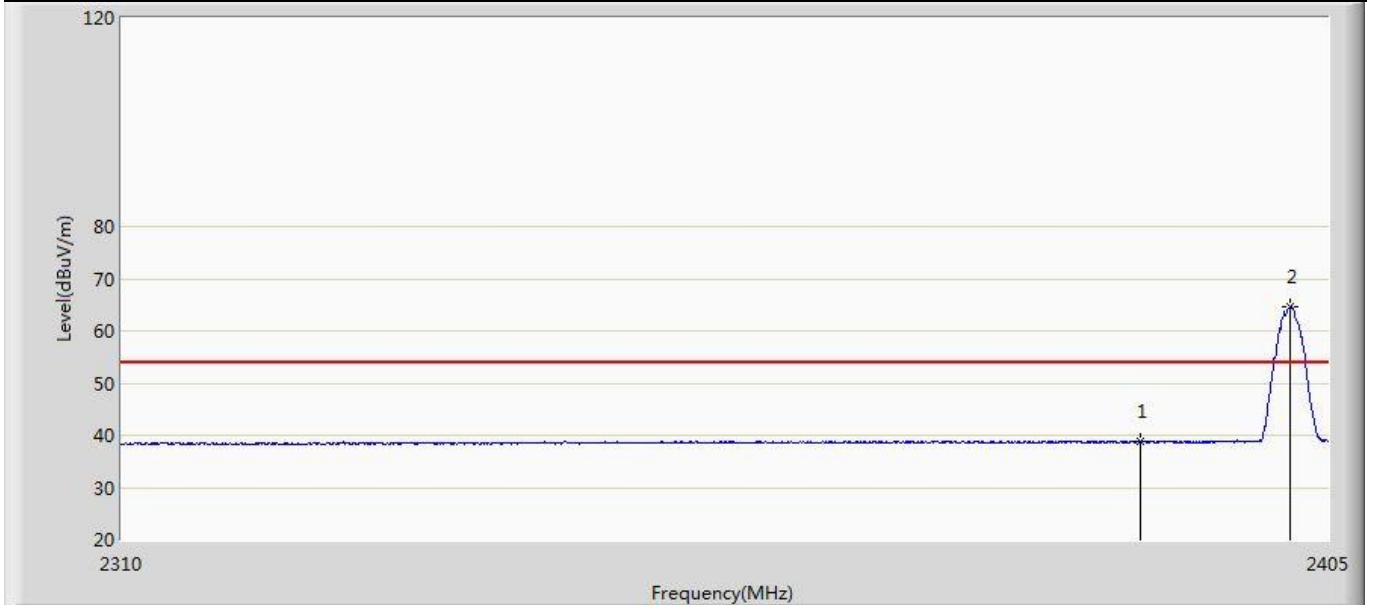
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.663	14.981	-23.337	74.000	35.682	PK
2	*	2401.960	91.085	55.372	N/A	N/A	35.712	PK

Engineer: Pawn	
Site: AC5	Time: 2019/06/17 - 18:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: TRK230	Power: By Battery
Note: Mode1:Transmit at 2402MHz by BLE	



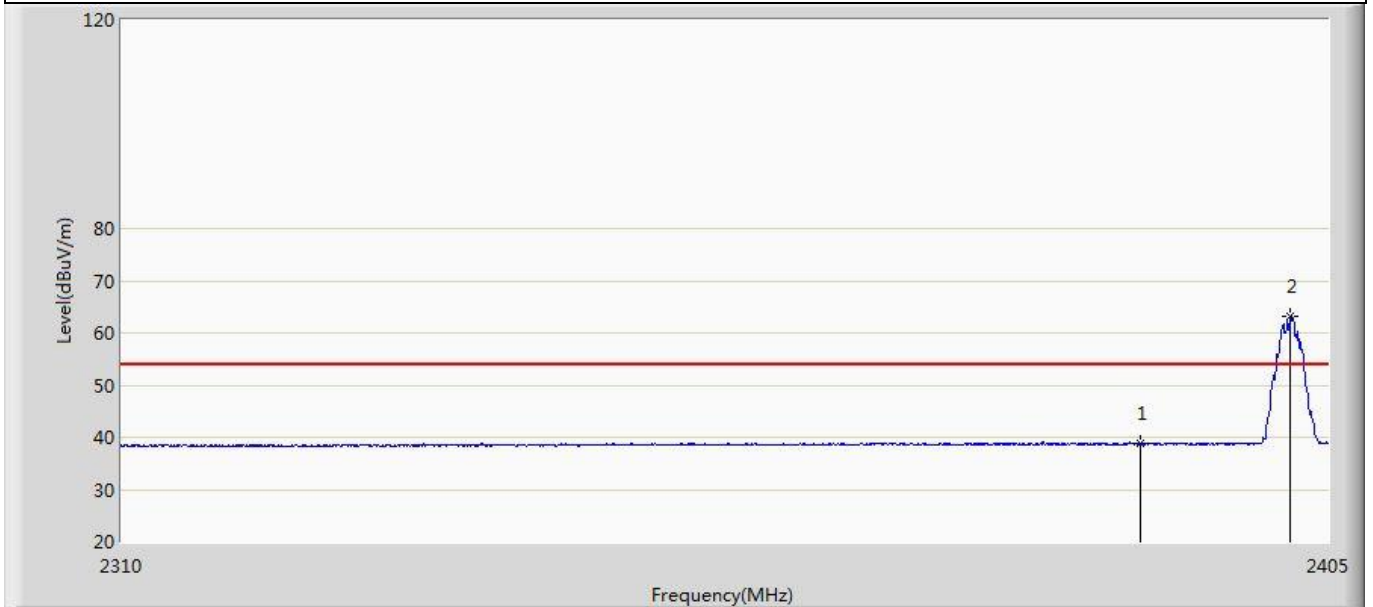
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.843	15.161	-23.157	74.000	35.682	PK
2	*	2401.770	88.180	52.468	N/A	N/A	35.712	PK

Engineer: Pawn	
Site: AC5	Time: 2019/06/17 - 18:45
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: TRK230	Power: By Battery
Note: Mode1:Transmit at 2402MHz by BLE	



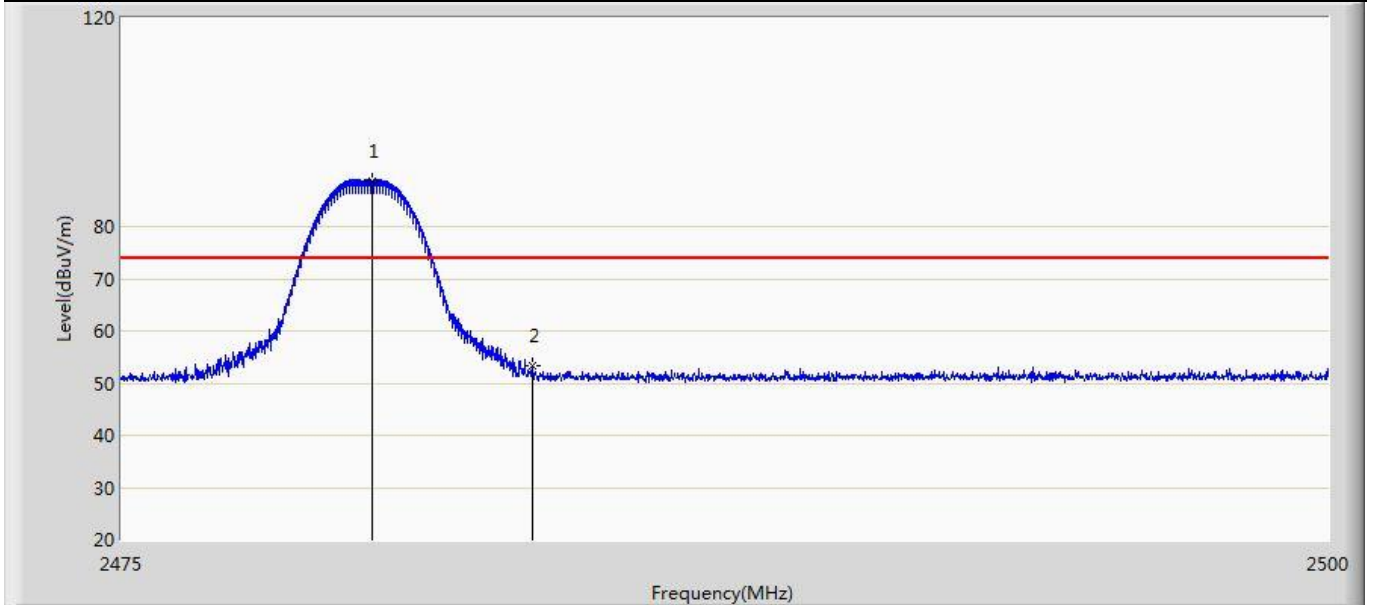
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.762	3.080	-15.238	54.000	35.682	AV
2	*	2401.913	64.612	28.900	N/A	N/A	35.712	AV

Engineer: Pawn	
Site: AC5	Time: 2019/06/17 - 18:47
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: TRK230	Power: By Battery
Note: Mode1:Transmit at 2402MHz by BLE	



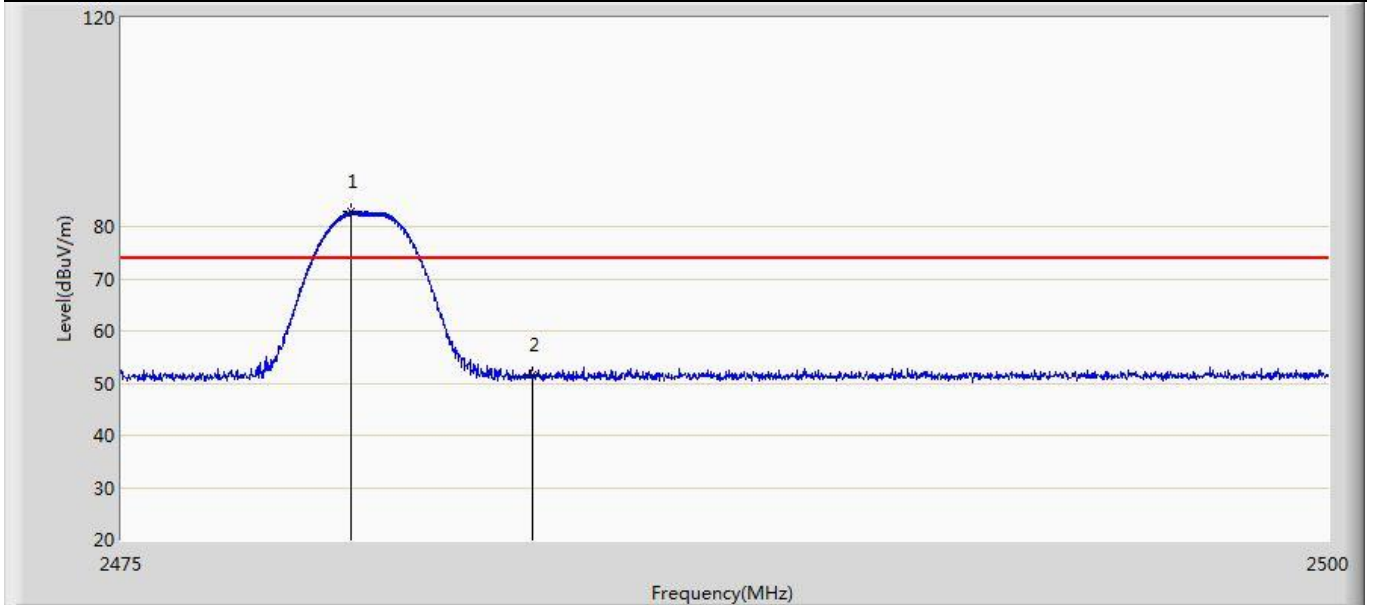
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.759	3.077	-15.241	54.000	35.682	AV
2	*	2402.008	63.282	27.569	N/A	N/A	35.712	AV

Engineer: Pawn	
Site: AC5	Time: 2019/06/17 - 18:50
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: TRK230	Power: By Battery
Note: Mode1:Transmit at 2480MHz by BLE	



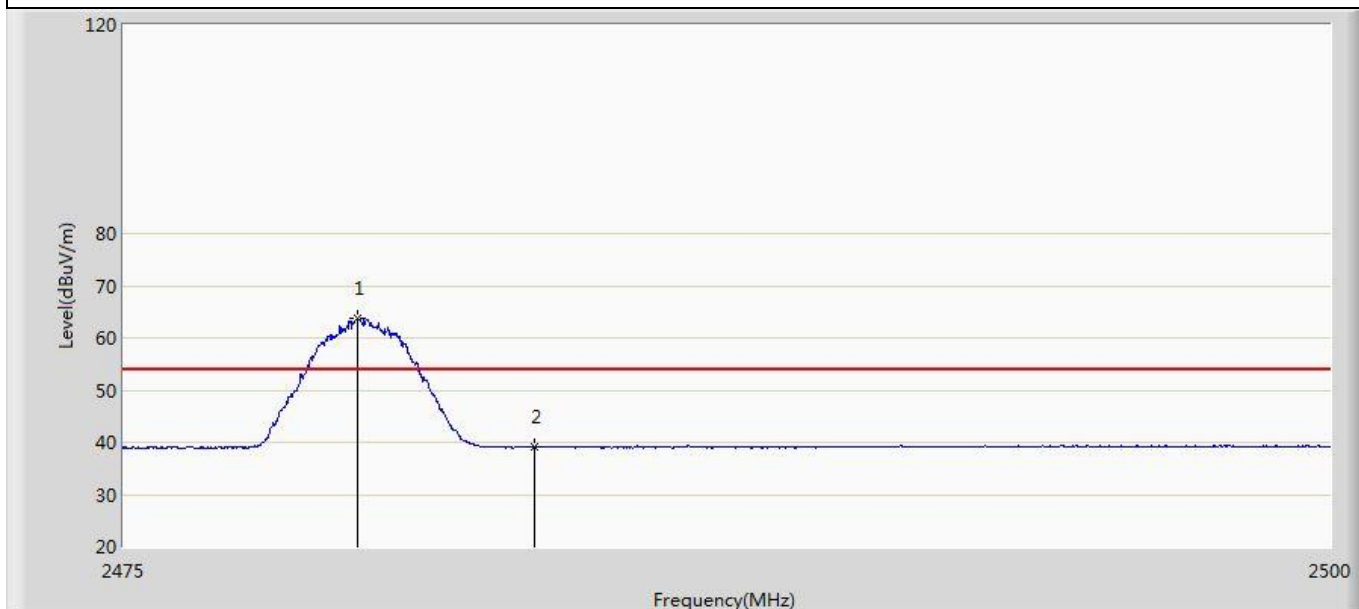
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2480.175	88.802	52.934	N/A	N/A	35.867	PK
2		2483.500	53.227	17.335	-20.773	74.000	35.891	PK

Engineer: Pawn	
Site: AC5	Time: 2019/06/17 - 18:54
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: TRK230	Power: By Battery
Note: Mode1:Transmit at 2480MHz by BLE	



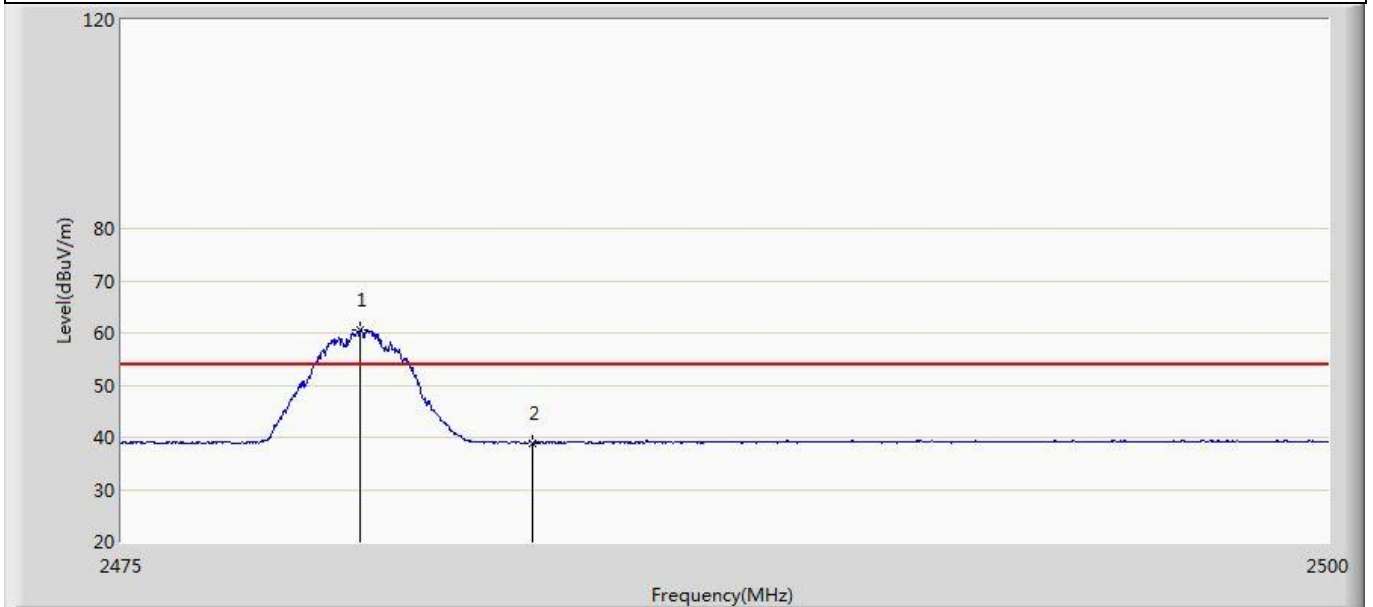
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.750	82.858	46.993	N/A	N/A	35.865	PK
2		2483.500	51.601	15.709	-22.399	74.000	35.891	PK

Engineer: Pawn	
Site: AC5	Time: 2019/06/17 - 18:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: TRK230	Power: By Battery
Note: Mode1:Transmit at 2480MHz by BLE	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.837	63.653	27.788	N/A	N/A	35.865	AV
2		2483.500	39.099	3.207	-14.901	54.000	35.891	AV

Engineer: Pawn	
Site: AC5	Time: 2019/06/17 - 18:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: TRK230	Power: By Battery
Note: Mode1:Transmit at 2480MHz by BLE	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.937	60.623	24.757	N/A	N/A	35.866	AV
2		2483.500	38.971	3.079	-15.029	54.000	35.891	AV

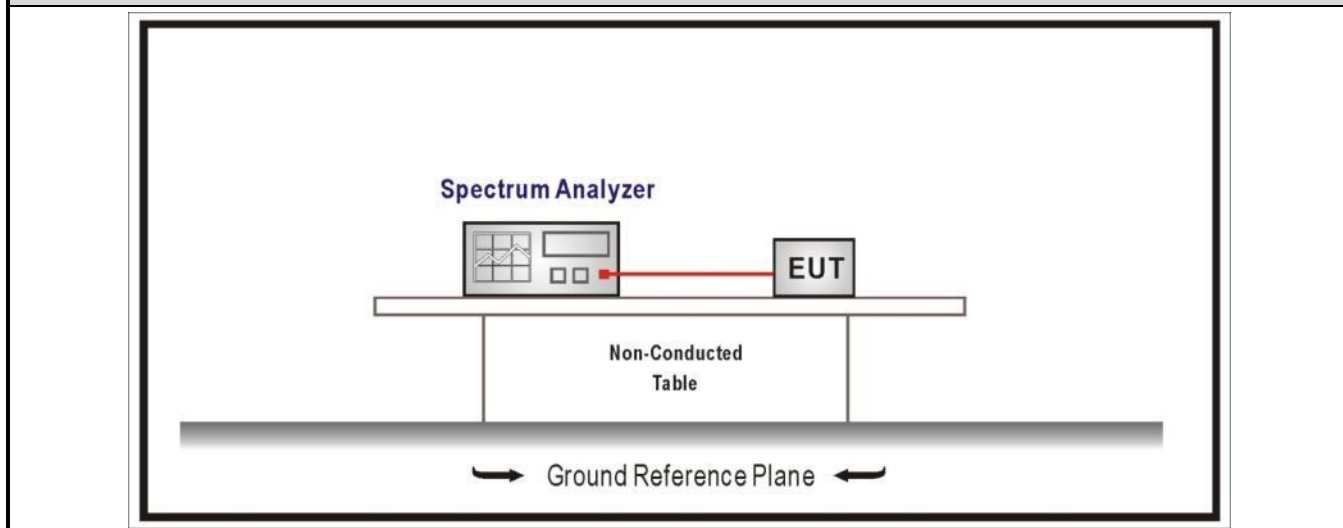
4.6 DTS Bandwidth	VERDICT: PASS
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4.6.1 Limit

Standard	FCC Part 15 Subpart C Paragraph 15.247 (a)(2)
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Systems using digital modulation techniques operate in the 2400-2483.5 MHz. The minimum 6 dB bandwidth shall be at least 500 kHz

4.6.2 Test Setup



4.6.3 Test Procedure

	Reference Rule	Chapter	Description
<input checked="" type="checkbox"/>	ANSI C63.10	11.8	DTS bandwidth
<input type="checkbox"/>	ANSI C63.10	11.8.1	Option 1
<input checked="" type="checkbox"/>	ANSI C63.10	11.8.2	Option 2

4.6.4 Test Data

Mode	CH.	Test Freq. (MHz)	6dB Occupied Bandwidth (MHz)	Limit (kHz)	Result
1	00	2402	697.8	>500	Pass
	19	2440	699.3	>500	Pass
	39	2480	703.5	>500	Pass

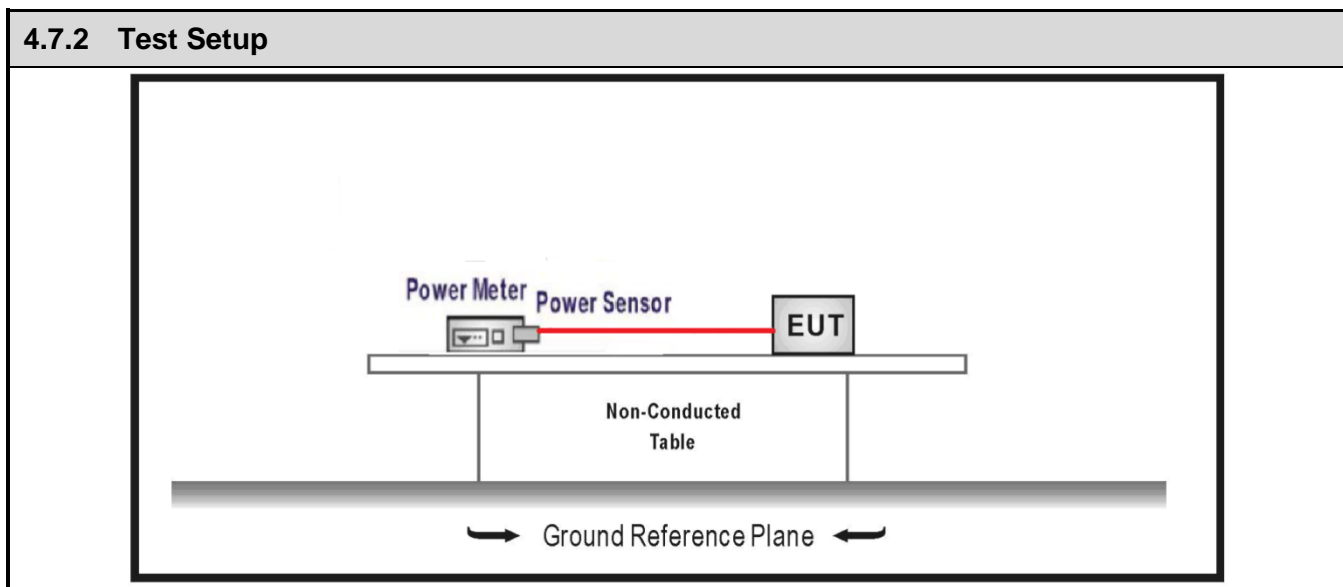
Note : The worst case of Occupied Bandwidth as below in next page:

Mode 1 CH00 (2412MHz)



4.7 Fundamental emission output power	VERDICT: PASS
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4.7.1 Limit			
Standard	FCC Part 15 Subpart C Paragraph 15.247 (b)(3)		
<input checked="" type="checkbox"/>	GTX < 6dBi		$P_{out} \leq 30\text{dBm}$
<input type="checkbox"/>	GTX > 6dBi		
<input type="checkbox"/>	Non-Fix point-point		$P_{out} \leq 30 - (GTX - 6)$
<input type="checkbox"/>	Fix point-point		$P_{out} \leq 30 - [(GTX - 6)]/3$
<input type="checkbox"/>	Point-to-multipoint		$P_{out} \leq 30 - (GTX - 6)$
<input type="checkbox"/>	Overlap Beams		$P_{out} \leq 30 - [(GTX - 6)]/3$
<input type="checkbox"/>	Aggregate power transmitted simultaneously on all beams		$P_{out} \leq 30 - [(GTX - 6)]/3$
<input type="checkbox"/>	single directional beam		$P_{out} \leq 30 - [(GTX - 6)]/3 + 8\text{dB}$
Note 1 : GTX directional gain of transmitting antennas.			
Note 2 : Pout is maximum peak conducted output power .			

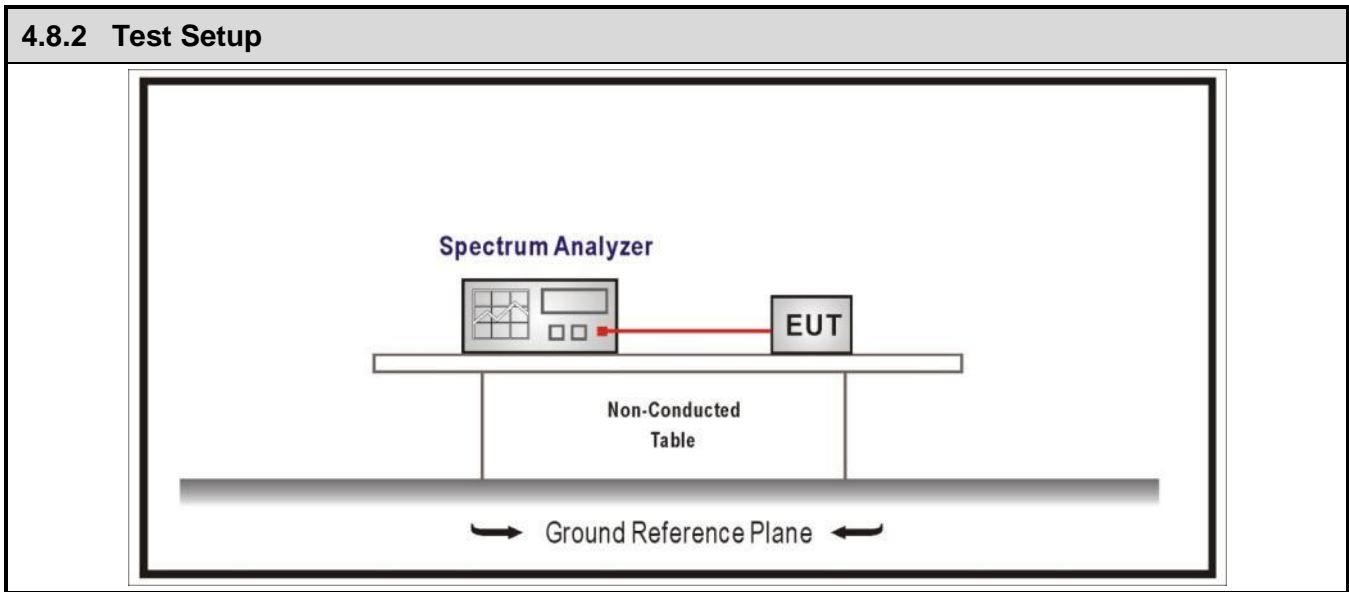


4.7.3 Test Procedure				
	References Rule		Chapter	Description
<input checked="" type="checkbox"/>	ANSI C63.10		11.9	Fundamental emission output power
<input checked="" type="checkbox"/>	ANSI C63.10		11.9.1	Maximum peak conducted output power
	<input type="checkbox"/>	ANSI C63.10	11.9.1.1	RBW \geq DTS bandwidth
	<input type="checkbox"/>	ANSI C63.10	11.9.1.2	Integrated band power method
	<input type="checkbox"/>	ANSI C63.10	11.9.1.3	PKPM1 Peak power meter method
<input type="checkbox"/>	ANSI C63.10		11.9.2	Maximum conducted (average) output power
	<input type="checkbox"/>	ANSI C63.10	11.9.2.2	Measurement using a spectrum analyzer (SA)
	<input type="checkbox"/>	ANSI C63.10	11.9.2.2.2	Method AVGSA-1(Duty cycle \geq 98%)
	<input type="checkbox"/>	ANSI C63.10	11.9.2.2.3	Method AVGSA-1A(Duty cycle \geq 98%)
	<input type="checkbox"/>	ANSI C63.10	11.9.2.2.4	Method AVGSA-2(Duty cycle \leq 98%)
	<input type="checkbox"/>	ANSI C63.10	11.9.2.2.5	Method AVGSA-2A(Duty cycle \leq 98%)
	<input type="checkbox"/>	ANSI C63.10	11.9.2.2.4	Method AVGSA-3
	<input type="checkbox"/>	ANSI C63.10	11.9.2.2.5	Method AVGSA-3A
<input checked="" type="checkbox"/>	ANSI C63.10		11.9.2.3	Measurement using a power meter (PM)
	<input checked="" type="checkbox"/>	ANSI C63.10	11.9.2.3.1	Method AVGPM
	<input type="checkbox"/>	ANSI C63.10	11.9.2.3.2	Method AVGPM-G

4.7.4 Test Data					
Mode	Channel	Test Frequency (MHz)	Power Output (dBm)	Limit (dBm)	Result
1	00	2402	-0.152	≤ 30	Pass
	19	2440	-1.202	≤ 30	Pass
	39	2480	-0.587	≤ 30	Pass

4.8 Power Density	VERDICT: PASS
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4.8.1 Limit:	
Standard	FCC Part 15 Subpart C Paragraph 15.247 (b)(3)
Power Spectral Density $\leq 8\text{dBm}/3\text{kHz}$	



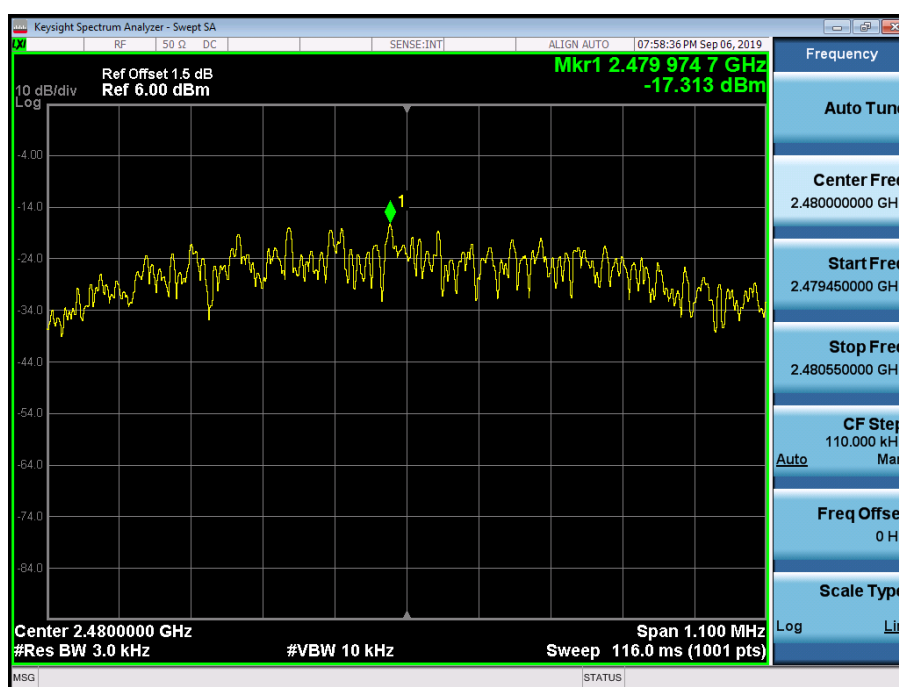
4.8.3 Test Procedure			
	References Rule	Chapter	Description
<input checked="" type="checkbox"/>	ANSI C63.10	11.10	Maximum power spectral density level in the fundamental emission
	<input checked="" type="checkbox"/> ANSI C63.10	11.10.2	Method PKPSD (peak PSD)
	<input type="checkbox"/> ANSI C63.10	11.10.3	Method AVGPSD-1(Duty cycle $\geq 98\%$)
	<input type="checkbox"/> ANSI C63.10	11.10.4	Method AVGPSD-1A(Duty cycle $\geq 98\%$)
	<input type="checkbox"/> ANSI C63.10	11.10.5	Method AVGPSD-2(Duty cycle $< 98\%$)
	<input type="checkbox"/> ANSI C63.10	11.10.6	Method AVGPSD-2A(Duty cycle $< 98\%$)
	<input type="checkbox"/> ANSI C63.10	11.10.7	Method AVGPSD-3
	<input type="checkbox"/> ANSI C63.10	11.10.8	Method AVGPSD-3A

4.8.4 Test Data

Mode	Channel	Test Frequency (MHz)	Measurement PSD (dBm/3kHz)	Total Measurement PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
1	00	2402	-17.930	-17.930	≤8	Pass
	19	2440	-17.844	-17.844	≤8	Pass
	39	2480	-17.313	-17.313	≤8	Pass

Remark: The worst data as below:

Mode 1 CH39(2480MHz)



4.9 Antenna Requirement	VERDICT: PASS
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4.9.1 Limit:	
Standard	FCC Part 15 Subpart C Paragraph 15.203
<p>An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.</p>	

4.9.2 Antenna Connector Construction:	
<input checked="" type="checkbox"/>	The use of a permanently attached antenna
<input type="checkbox"/>	The antenna use of a unique coupling to the intentional radiator
<input type="checkbox"/>	The use of a nonstandard antenna jack or electrical connector
Please refer to the attached document "Internal Photograph" to show the antenna connector.	

4.10 Test setup photo and EUT Photo

VERDICT: PASS

Remark: The test setup photo and EUT Photo please see appendix.

_____ The End _____