TESTREPORT

Applicant Name :	IntraNav GmbH
Address :	Frankfurter Str. 27, Eschborn, Germany 65760
Report Number:	SZNS220413-14011E-RF-00
FCC ID:	2AWK8IN6000

Test Standard (s)

FCC PART 15F

Sample Description

Product Type:	INTRANAV NODE
Model No.:	IN6000/10111013
Multiple Model(s) No.:	N/A
Trade Mark:	INTRANAV.
Date Received:	2022/04/13
Report Date:	2022/05/26

Test Result:	Pass*

* In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By:

Ting Lü

EMC Engineer

Approved By:

Candy Li

EMC Engineer

Note: This report may contain data that are not covered by the A2LA accreditation and are marked with an asterisk "★ ".
Shenzhen Accurate Technology Co., Ltd. is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with an asterisk '*'. Customer model name, addresses, names, trademarks etc. are not considered data.
This report cannot be reproduced except in full, without prior written approval of the Company. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

TABLE OF CONTENTS

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Frequency Range	Channel 5: 6489.6MHz
Antenna Specification*	3.7 dBi (It is provided by the applicant)
Voltage Range	DC48V from POE
Sample serial number	SZNS220413-14011E-RF-S1(Assigned by ATC)
Sample/EUT Status	Good condition

Objective

This report is prepared on behalf in accordance with Part 2-Subpart J, Part 15-Subparts A and F of the Federal Communication Commission's rules.

Test Methodology

All tests and measurements indicated in this document were performed in accordance ANSI C63.10-2013.

All emissions measurement was performed at Shenzhen Accurate Technology Co., Ltd. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Each test item follows test standards and with no deviation.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		5%
RF Frequency		$0.082*10^{-7}$
RF output power, conducted		0.73dB
Unwanted Emission, conducted		1.6dB
AC Power Lines Conducted Emissions		2.72dB
Emissions, Radiated	9kHz - 30MHz	2.66dB
	30MHz - 1GHz	4.28dB
	1GHz - 18GHz	4.98dB
	18GHz -26.5GHz	5.06dB
	26.5GHz -40GHz	4.72dB
Temperature		1℃
Humidity		6%
Supply voltages		0.4%

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

Test Facility

The test site used by Shenzhen Accurate Technology Co., Ltd. to collect test data is located on the 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No.: 708358,the FCC Designation No.: CN1189.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0016.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing by manufacturer.

Equipment Modifications

No modification was made to the EUT tested.

EUT Exercise Software

EUT configured in test mode by manufacturer and power level is default*。The power level was provided by the applicant.

Support Equipment List and Details

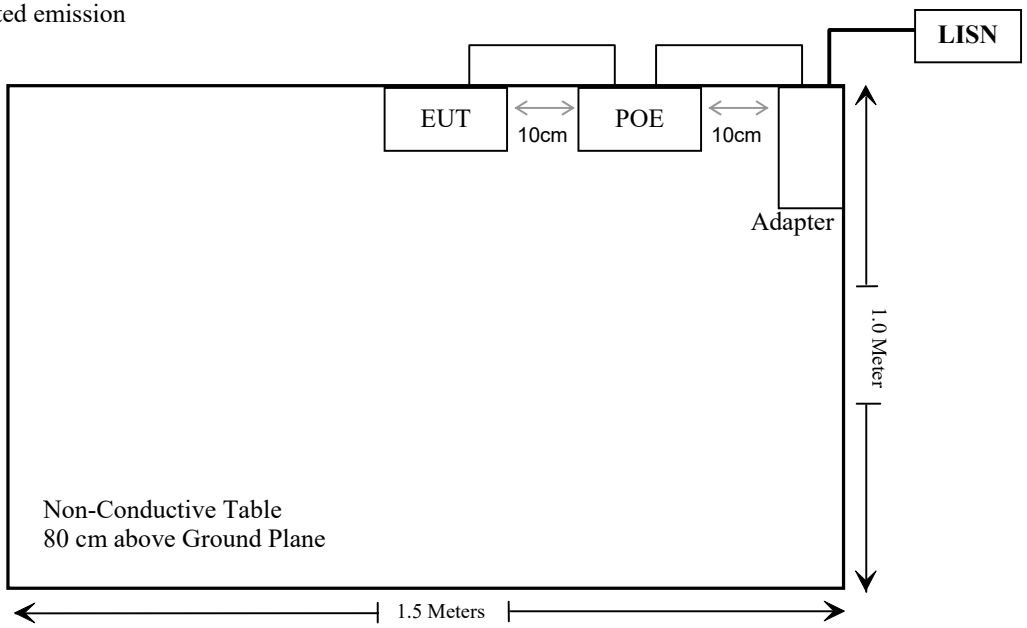
Manufacturer	Description	Model	Serial Number
Netgear Inc.	Adapter	DSA-0421S-50 1	330-10142-01
Netgear Inc.	POE	GS108P	26V1323A5140E

External I/O Cable

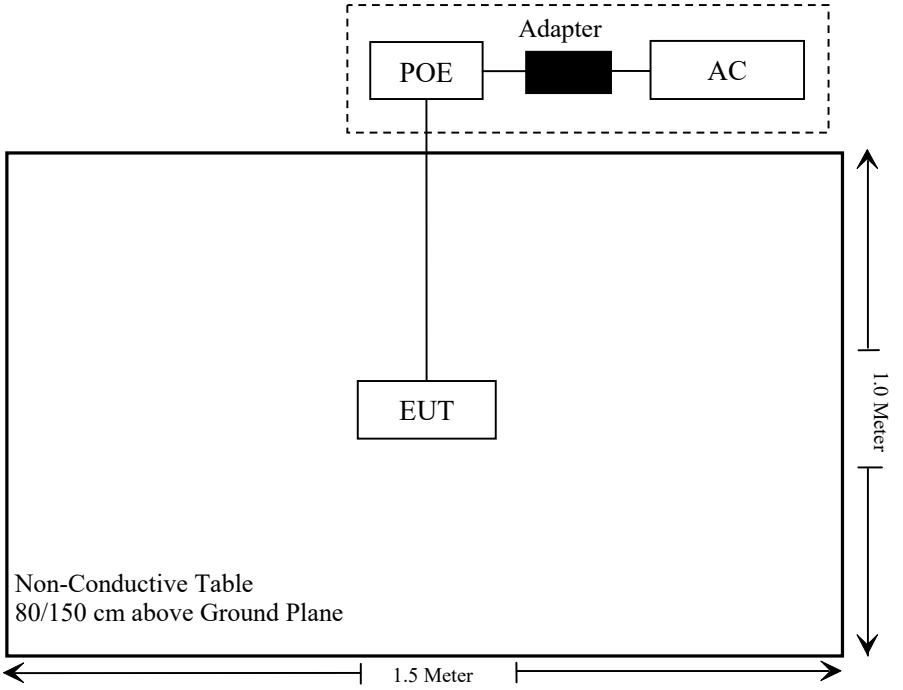
Cable Description	Length (m)	From/Port	To
Un-Shielded Un-Detachable AC Cable	1.2	LISN	Adapter
Un-Shielded Un-Detachable DC Cable	1.2	Adapter	POE
Un-Shielded Un-Detachable DC-RJ45 Cable	0.5	POE	EUT

Block Diagram of Test Setup

For conducted emission



For Radiated Emissions



SUMMARY OF TEST RESULTS

Items	Description of Test	Result
§1.1310&§2.1093	RF Exposure	Compliant
§15.517(a)	General Requirement	Compliant
§15.203, §15.517(a)(3)	Antenna Requirement	Compliant
§15.207(a)	AC Line Conducted Emissions	Compliant
§15.503 (a)(d), §15.517(b)	UWB Operation bandwidth	Compliant
§15.209,§15.517(c)(d)	Radiated Emissions	Compliant
§15.517(e)	Peak Emission in a 50 MHz bandwidth	Compliant

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Emissions Test					
Rohde& Schwarz	EMI Test Receiver	ESCI	100784	2021/12/13	2022/12/12
Rohde & Schwarz	L.I.S.N.	ENV216	101314	2021/12/13	2022/12/12
Anritsu Corp	50 Coaxial Switch	MP59B	6100237248	2021/12/13	2022/12/12
Unknown	RF Coaxial Cable	No.17	N0350	2021/12/14	2022/12/13
Conducted Emission Test Software: e3 19821b (V9)					
Radiated Emissions Test					
Rohde& Schwarz	Test Receiver	ESR	102725	2021/12/13	2022/12/12
Rohde&Schwarz	Spectrum Analyzer	FSV40	101949	2021/12/13	2022/12/12
SONOMA INSTRUMENT	Amplifier	310 N	186131	2021/11/09	2022/11/08
A.H. Systems, inc.	Preamplifier	PAM-0118P	135	2021/11/09	2022/11/08
Quinstar	Amplifier	QLW-184055 36-J0	15964001002	2021/11/11	2022/11/10
Schwarzbeck	Bilog Antenna	VULB9163	9163-323	2021/07/06	2024/07/05
Schwarzbeck	Horn Antenna	BBHA9120D	9120D-1067	2020/01/05	2023/01/04
Schwarzbeck	HORN ANTENNA	BBHA9170	9170-359	2020/01/05	2023/01/04
Radiated Emission Test Software: e3 19821b (V9)					
Unknown	RF Coaxial Cable	No.10	N050	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.11	N1000	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.12	N040	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.13	N300	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.15	N600	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.16	N650	2021/12/14	2022/12/13

*** Statement of Traceability:** Shenzhen Accurate Technology Co., Ltd. attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC§1.1310&§2.1093- RF EXPOSURE

Applicable Standard

RF Exposure for devices that operate above 6GHz (§ 1.1310)

According to subpart 2.1093(d): Portable devices that transmit at frequencies above 6GHz shall be evaluated in terms of the MPE limits specified in table 1 to 47 CFR 1.1310. A minimum separation distance applicable to the operating configurations and exposure conditions of the device shall be used for the evaluation. Measurements and calculations to demonstrate compliance with MPE field strength or power density limits for device operating above 6GHz should be made at a minimum distance of 0.5cm from the radiating source.

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (V/m)**	**Magnetic Field Strength (A/m)**	**Power Density (mW/cm^2)**	**Averaging Time (Minutes)**
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*($180/f^2$)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz
* = Plane-wave equivalent power density

Result

Calculated Formulary:

Predication of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

S = power density (in appropriate units, e.g. mW/cm^2)
P = power input to the antenna (in appropriate units, e.g., mW).
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

Frequency (MHz)	**Tune up EIRP**		**Evaluation Distance (cm)**	**Power Density (mW/cm^2)**	**MPE Limit (mW/cm^2)**
	(dBm)	**(mW)**			
6489.6	-6.0	0.25	20	0.00005	1

Note: To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 20cm from nearby persons.

Result: Compliance

FCC §15.517 (A) - GENERAL REQUIREMENT

Applicable Standard

According to § 15.517(A): Operation under the provisions of this section is limited to UWB transmitters employed solely for indoor operation.

(1) Indoor UWB devices, by the nature of their design, must be capable of operation only indoors. The necessity to operate with a fixed indoor infrastructure, e.g., a transmitter that must be connected to the AC power lines, may be considered sufficient to demonstrate this.

(2) The emissions from equipment operated under this section shall not be intentionally directed outside of the building in which the equipment is located, such as through a window or a doorway, to perform an outside function, such as the detection of persons about to enter a building.

(3) The use of outdoor mounted antennas, e.g., antennas mounted on the outside of a building or on a telephone pole, or any other outdoors infrastructure is prohibited.

(4) Field disturbance sensors installed inside of metal or underground storage tanks are considered to operate indoors provided the emissions are directed towards the ground.

(5) A communications system shall transmit only when the intentional radiator is sending information to an associated receiver.

Result

(1) Compliance, EUT was only for indoor used, it was powered by POE which connected to the AC power lines, detail please refer to user manual.

(2) Compliance, EUT was only for indoor positioning, detail please refer to user manual.

(3) Compliance, the device with internal antenna and will never use the outdoor mounted antennas, please refer to EUT photo.

(4) EUT is not a field disturbance sensor.

(5) The EUT send information to the receiver only when the associated receiver is turn on, and will not set information when the associated receiver is turn off.

FCC §15.203& §15.517 (A)(3) - ANTENNA REQUIREMENT

Applicable Standard

According to § 15.203, 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 user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

a. Antenna must be permanently attached to the unit.
b. Antenna must use a unique type of connector to attach to the EUT.

Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.
And according to FCC 47 CFR section 15.517 (A)(3), The use of outdoor mounted antennas, e.g., antennas mounted on the outside of a building or on a telephone pole, or any other outdoors infrastructure is prohibited.

Antenna Connector Construction

The EUT has one internal antenna which permanently attached to the unit, fulfill the requirement of this section. The antenna gain is 3.7dBi. Please refer to the EUT photos.

Antenna	Type	Antenna Gain	Impedance
	PCB	3.7dBi	50 Ω

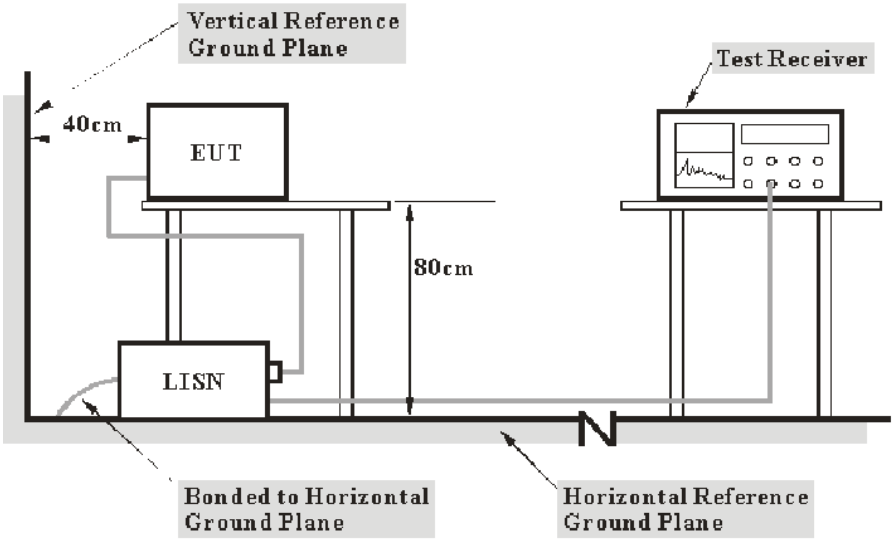
Result: Compliant.

FCC §15.207 (a) -AC POWER LINE CONDUCTED EMISSIONS

Applicable Standard

FCC§15.207(a)

EUT Setup



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

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

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

EMI Test Receiver Setup

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

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

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

Test Procedure

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

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

Test Results Summary

According to the EUT complied with the FCC 15.207.

Transd Factor & Margin Calculation

The Transd factor is calculated by adding LISN VDF (Voltage Division Factor) and Cable Loss. The basic equation is as follows:

Transd Factor = LISN VDF + Cable Loss

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

Over limit = Level - Limit
Level= Reading level+Transd Factor

Test Data

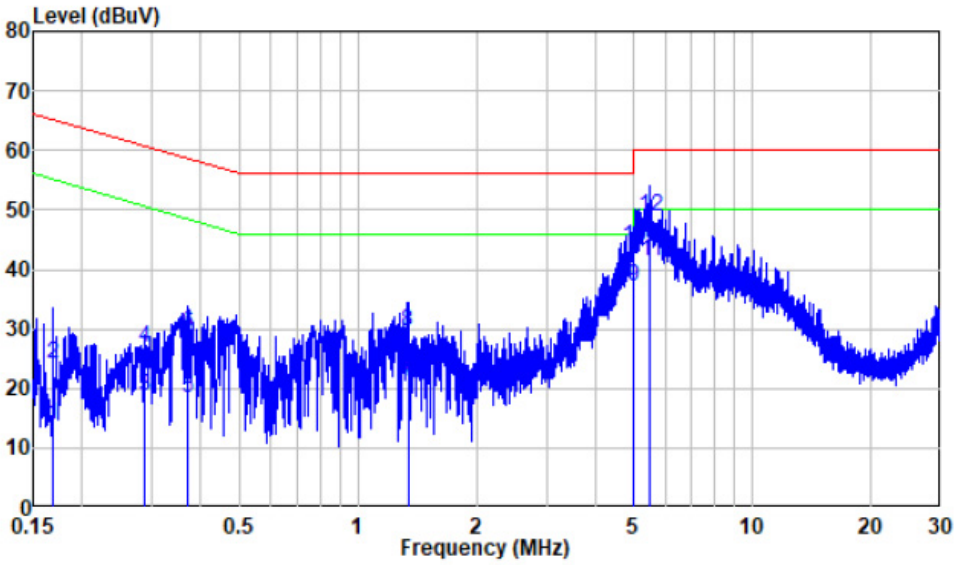
Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	48 %
ATM Pressure:	101.0 kPa

The testing was performed by Jason Liu on 2022-05-19.

EUT operation mode: Transmitting (worst case)

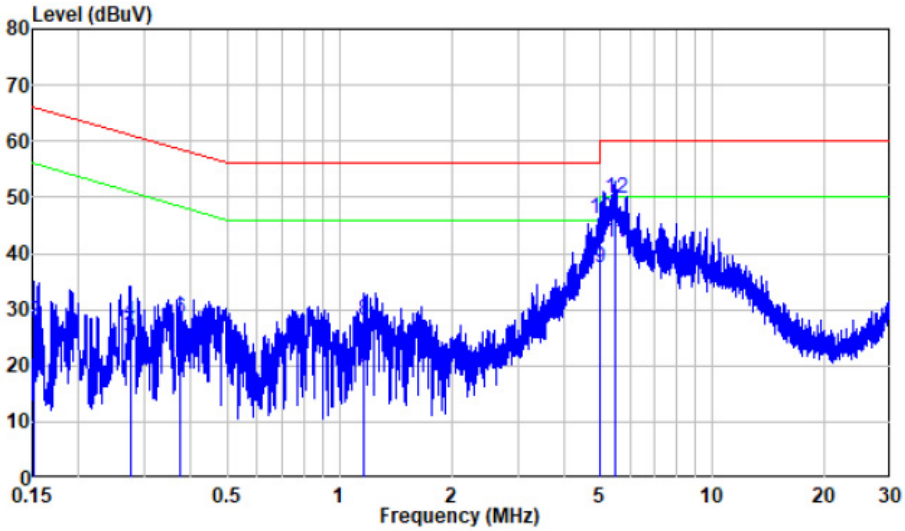
AC 120V/60 Hz, Line



Site : Shielding Room
Condition: Line
Job No. : SZNS220413-14011E-RF
Mode : Transmission
Power : AC 120V 60Hz

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.168	9.80	4.11	13.91	55.06	-41.15	Average
2	0.168	9.80	14.49	24.29	65.06	-40.77	QP
3	0.287	9.80	8.87	18.67	50.60	-31.93	Average
4	0.287	9.80	17.08	26.88	60.60	-33.72	QP
5	0.368	9.80	8.47	18.27	48.54	-30.27	Average
6	0.368	9.80	19.48	29.28	58.54	-29.26	QP
7	1.337	9.81	11.37	21.18	46.00	-24.82	Average
8	1.337	9.81	19.88	29.69	56.00	-26.31	QP
9	4.985	9.85	27.20	37.05	46.00	-8.95	Average
10	4.985	9.85	33.78	43.63	56.00	-12.37	QP
11	5.495	9.85	31.47	41.32	50.00	-8.68	Average
12	5.495	9.85	38.96	48.81	60.00	-11.19	QP

AC 120V/60 Hz, Neutral



Site : Shielding Room
Condition: Neutral
Job No. : SZNS220413-14011E-RF
Mode : Transmission
Power : AC 120V 60Hz

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.151	9.80	6.21	16.01	55.93	-39.92	Average
2	0.151	9.80	18.05	27.85	65.93	-38.08	QP
3	0.274	9.80	15.30	25.10	50.99	-25.89	Average
4	0.274	9.80	18.09	27.89	60.99	-33.10	QP
5	0.374	9.80	11.32	21.12	48.41	-27.29	Average
6	0.374	9.80	18.63	28.43	58.41	-29.98	QP
7	1.161	9.81	9.88	19.69	46.00	-26.31	Average
8	1.161	9.81	18.20	28.01	56.00	-27.99	QP
9	4.998	9.89	27.69	37.58	46.00	-8.42	Average
10	4.998	9.89	36.36	46.25	56.00	-9.75	QP
11	5.487	9.91	31.92	41.83	50.00	-8.17	Average
12	5.487	9.91	39.75	49.66	60.00	-10.34	QP

§15.503 (a)(d), §15.517(b) –UWB OPEARTION BANDWIDTH

Applicable Standard

(a) UWB bandwidth. For the purpose of this subpart, the UWB bandwidth is the frequency band bounded by the points that are 10 dB below the highest radiated emission, as based on the complete transmission system including the antenna. The upper boundary is designated fH and the lower boundary is designated fL. The frequency at which the highest radiated emission occurs is designated fM.

(d) Ultra-wideband (UWB) transmitter. An intentional radiator that, at any point in time, has a fractional bandwidth equal to or greater than 0.20 or has a UWB bandwidth equal to or greater than 500 MHz, regardless of the fractional bandwidth.

(b) The UWB bandwidth of a UWB system operating under the provisions of this section must be contained between 3100 MHz and 10,600 MHz.

Test Procedure

Refer to the C63.10 -2013 Section 10.1

Test Data

Environmental Conditions

Temperature:	26 ℃
Relative Humidity:	56 %
ATM Pressure:	101.0 kPa

The testing was performed by Nick Fang on 2022-05-17.

Test Result: Pass.

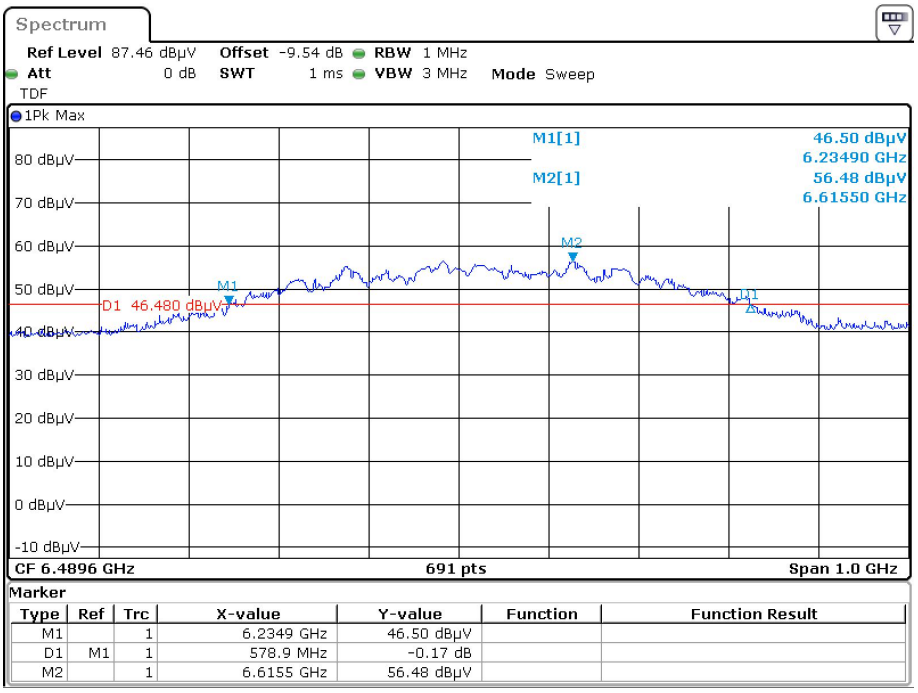
EUT operation mode: Transmitting

Please refer to the following table and plots.

Test distance is 1m.

Item		Result	Limit (MHz)
f_M(MHz)	The highest emission frequency	6615.5	/
f_L(MHz)	10dB below the lowest emission	6234.9	>3100
f_H(MHz)	10dB above the highest emission	6813.8	<10600
f_C(MHz)	$(f_H + f_L)/2$	6524.35	/
10dB bandwidth(MHz)	$f_H - f_L$	578.9	⩾500
Fractional bandwidth	$2(f_H - f_L)/(f_H + f_L)$	0.089	/

10dB Bandwidth



FCC §15.209, §15.517(c)(d)- SPURIOUS EMISSIONS

Applicable Standard

FCC §15.517(c)(d); §15.209

The radiated emissions at or below 960 MHz from a device operating under the provisions of this section shall not exceed the emission levels in § 15.209. The radiated emissions above 960 MHz from a device operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of 1 MHz:

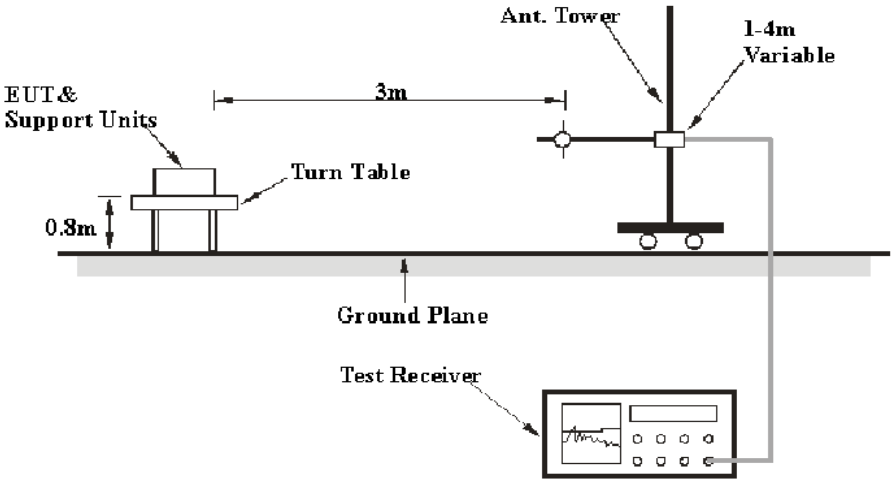
Frequency in MHz	EIRP in dBm
960-1610	-75.3
1610-1990	-53.3
1990-3100	-51.3
3100-10600	-41.3
Above 10600	-51.3

In addition to the radiated emission limits specified in the table in paragraph (c) of this section, UWB transmitters operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of no less than 1 kHz:

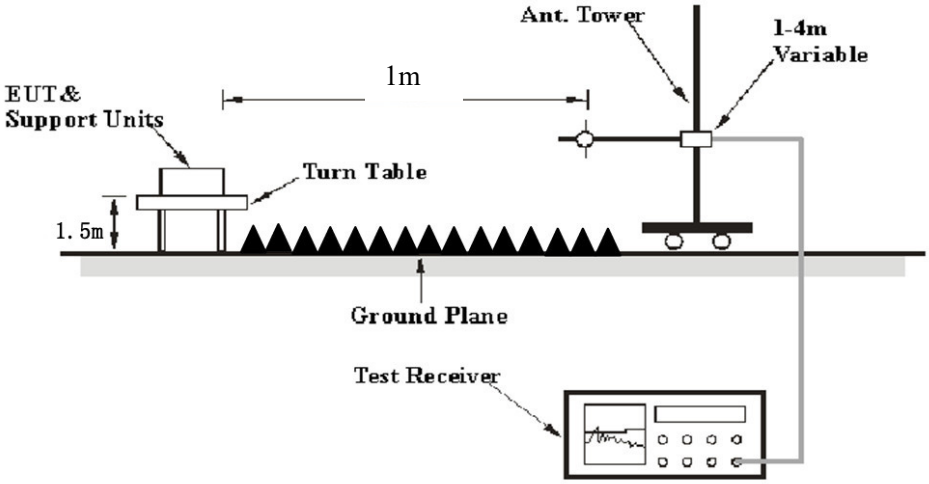
Frequency in MHz	EIRP in dBm
1164-1240	-85.3
1559-1610	-85.3

EUT Setup

Below 960MHz:



Above 960MHz:



The radiated emission tests were performed in the 3meters chamber, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.519 limits.

EMI Test Receiver& Spectrum Analyzer Setup

The system was investigated from 30 MHz to 40 GHz.

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
30MHz – 960 MHz	100 kHz	300 kHz	120kHz	QP
Above 960 MHz	1MHz	3 MHz	/	Average
	1kHz	3kHz	/	Average*

Note: * For the radiated spurious emission in the GPS band.

Test Procedure

Refer to the C63.10 -2013 Section 10.2 & 10.3

Corrected Factor& Margin Calculation

The Corrected Factor is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain. The basic equation is as follows:

Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

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

Over Limit = Level – Limit
Level = Meter Reading + Corrected Factor

Test Data

Environmental Conditions

Temperature:	26 ℃
Relative Humidity:	65 %
ATM Pressure:	101.0 kPa

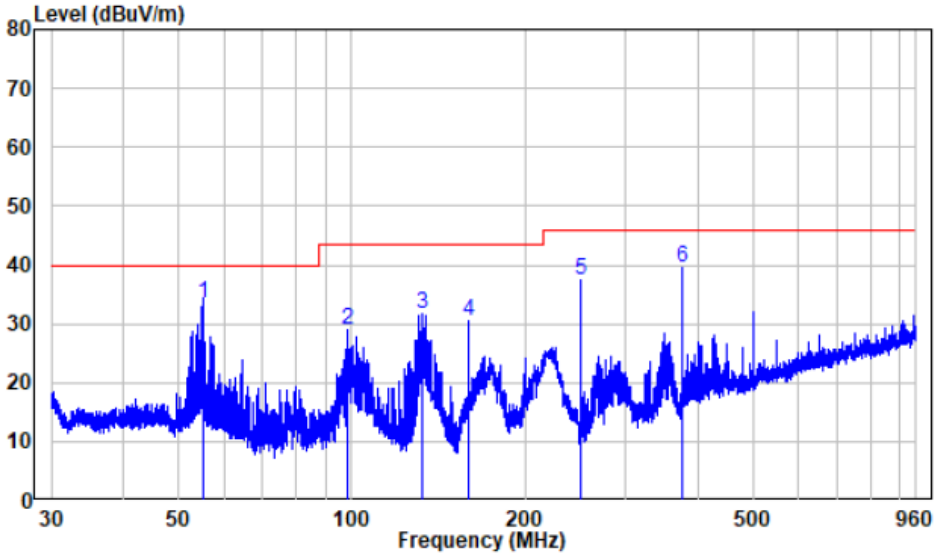
The testing was performed by Leo Li on 2022-05-22 for below 960MHz and Nick Fang on 2022-05-17 for above 960MHz.

EUT operation mode: Transmitting *(Pre-scan in the X,Y and Z axes of orientation, the worst case X-axis of orientation was recorded)*

30 MHz~960MHz: *(worst case)*

Note: When the result of peak less than the limit of QP more than 6dB, just peak value was recorded.

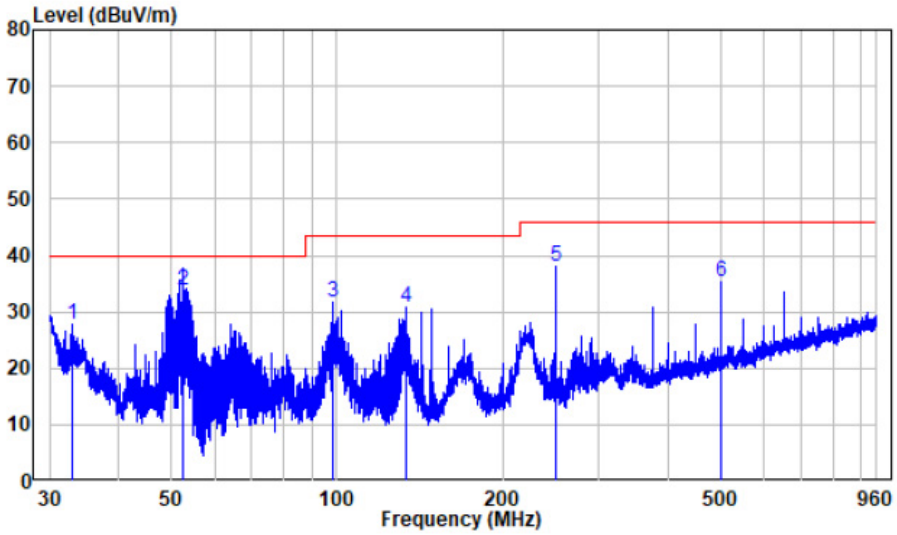
Horizontal



Site : chamber
Condition: 3m HORIZONTAL
Job No. : SZNS220413-14011E-RF
Test Mode: Transmission

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	55.076	-10.28	43.84	33.56	40.00	-6.44	QP
2	98.443	-12.15	41.16	29.01	43.50	-14.49	Peak
3	132.279	-14.98	46.79	31.81	43.50	-11.69	Peak
4	159.995	-14.19	44.55	30.36	43.50	-13.14	Peak
5	249.972	-10.74	48.13	37.39	46.00	-8.61	Peak
6	375.116	-7.28	46.70	39.42	46.00	-6.58	Peak

Vertical



Site : chamber
Condition: 3m VERTICAL
Job No. : SZNS220413-14011E-RF
Test Mode: Transmission

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	33.023	-12.02	39.81	27.79	40.00	-12.21	Peak
2	52.506	-10.07	43.92	33.85	40.00	-6.15	QP
3	98.400	-12.16	43.82	31.66	43.50	-11.84	Peak
4	133.912	-14.98	45.81	30.83	43.50	-12.67	Peak
5	249.972	-10.74	48.82	38.08	46.00	-7.92	Peak
6	500.082	-4.25	39.57	35.32	46.00	-10.68	Peak

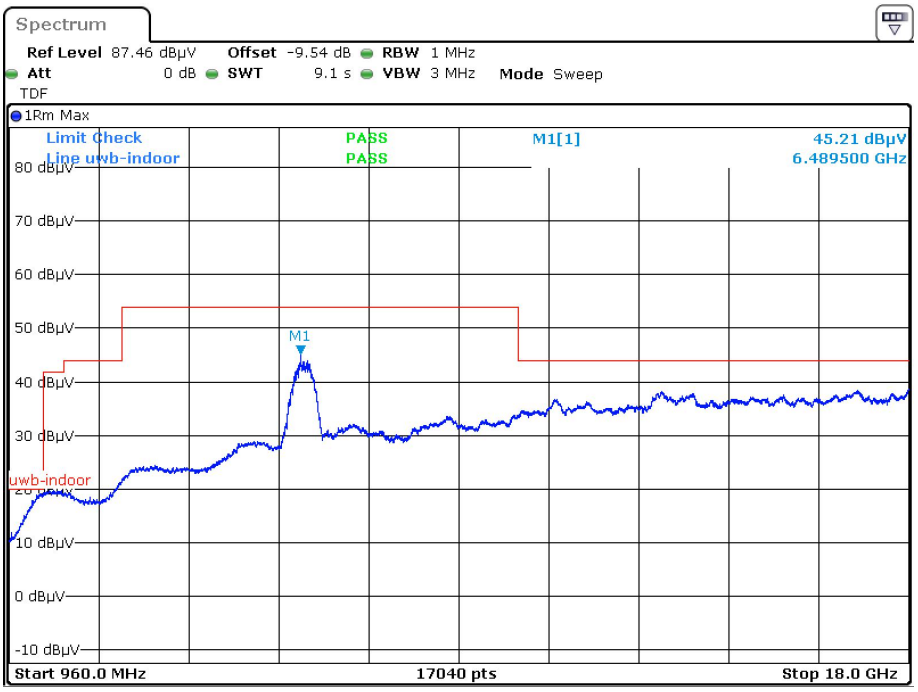
Above 960MHz:

Frequency	Corrected Amplitude (dBμV/m)	EIRP (dBm)	Detector	Turntable	Rx Antenna		Corrected Factor（dB/m）	Part 15F	
(MHz)				Degree	Height (m)	Polar (H / V)		EIRP Limit (dBm)	Margin (dB)
Emissions in non GPS band									
6489.5	45.21	-49.99	RMS	138	2.4	H	0.50	-41.3	-8.69
6489.5	42.08	-53.12	RMS	245	2.0	V	0.50	-41.3	-11.82
21187.5	40.28	-54.92	RMS	174	1.8	H	9.63	-51.3	-3.62
21166.5	40.16	-55.04	RMS	136	2.1	V	9.66	-51.3	-3.74
Emissions in GPS band									
1176.7805	-5.65	-100.85	RMS	191	1.5	H	-10.27	-85.3	-15.55
1185.3935	-4.90	-100.10	RMS	16	1.0	V	-10.26	-85.3	-14.80
1200.0745	-2.97	-98.17	RMS	345	1.7	H	-10.25	-85.3	-12.87
1200.0745	-2.74	-97.94	RMS	154	1.5	V	-10.25	-85.3	-12.64
1224.6895	-5.07	-100.27	RMS	227	2.2	H	-10.18	-85.3	-14.97
1231.0305	-4.52	-99.72	RMS	306	1.8	V	-10.16	-85.3	-14.42
1569.2125	-1.05	-96.25	RMS	63	2.4	H	-9.13	-85.3	-10.95
1561.3665	-0.70	-95.90	RMS	277	1.8	V	-9.16	-85.3	-10.60
1602.3595	-0.26	-95.46	RMS	153	2.2	H	-9.02	-85.3	-10.16
1603.5825	0.19	-95.01	RMS	205	2.2	V	-9.02	-85.3	-9.71

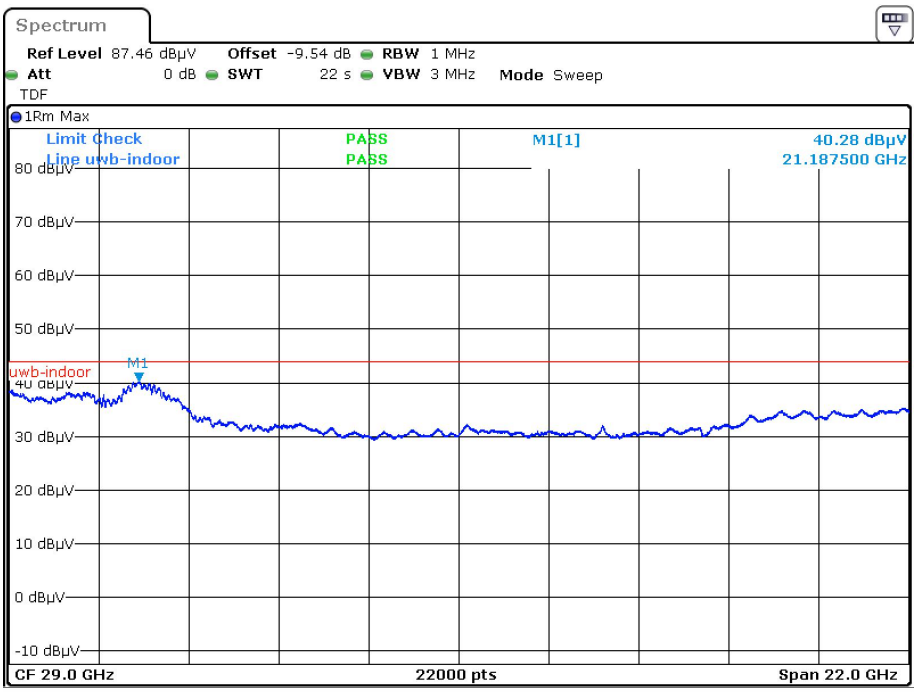
Note: 1. E [dBμV/m] = EIRP [dBm] + 95.2, for d = 3 meters.
2. The antenna factor, cable loss and preamplifier gain have been entered into the analyzer as the transducer factor.
3. The test distance is 1m, the correct factor from 1m to 3m is 20lg(1/3)= -9.54dB, which was added into the offset on the spectrum Analyzer.

Emissions in non GPS bands:

Horizontal

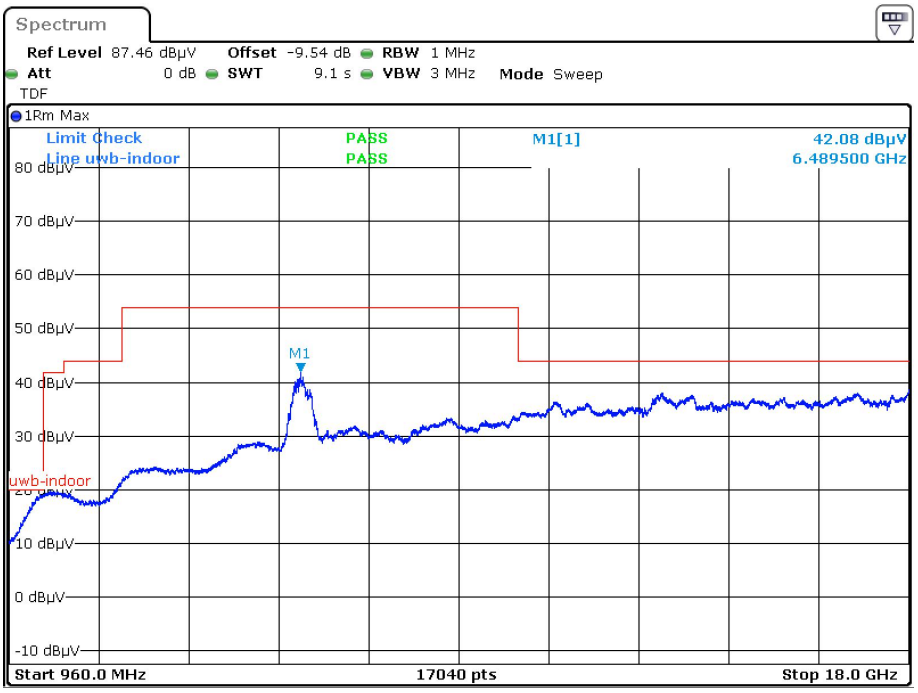


Date: 17.MAY.2022 11:18:22

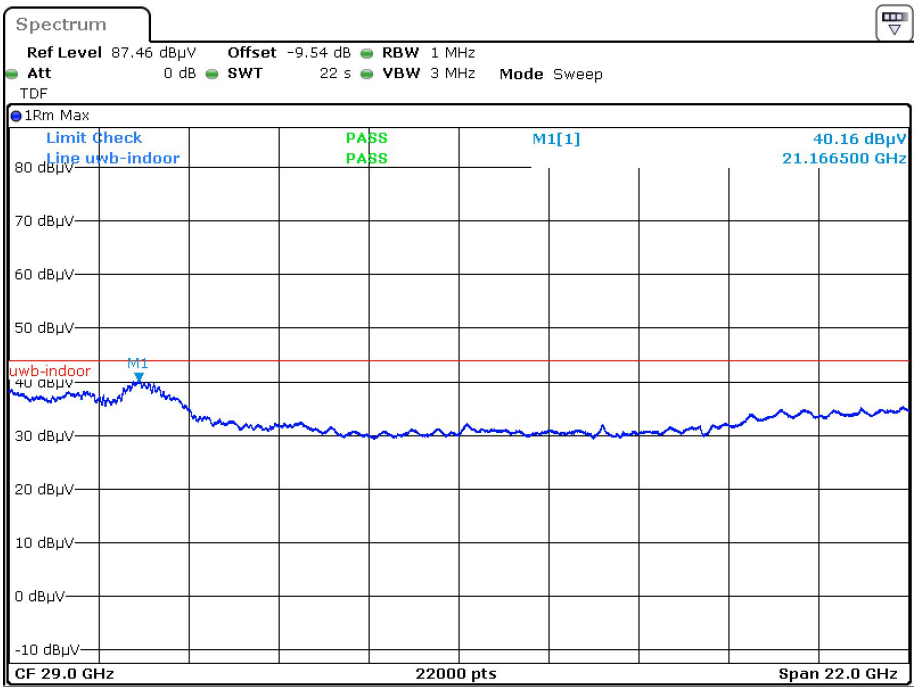


Date: 17.MAY.2022 11:32:24

Vertical



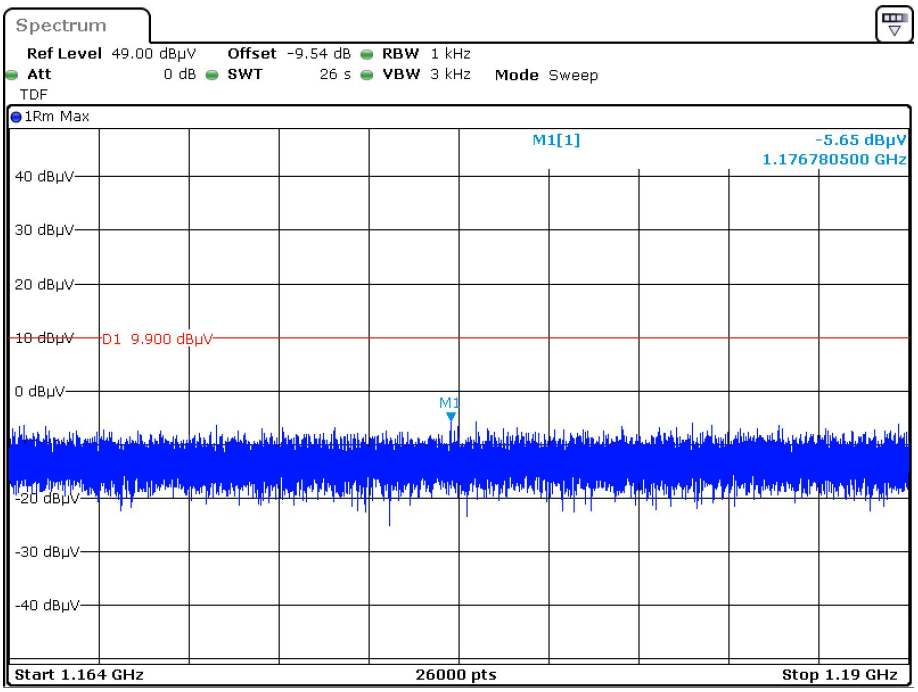
Date: 17.MAY.2022 11:41:06



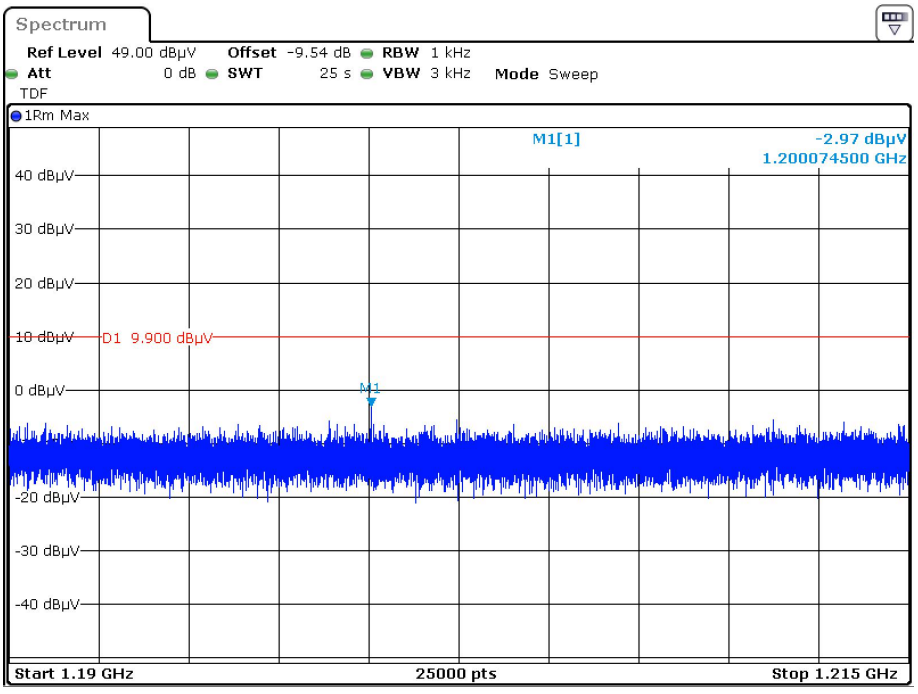
Date: 17.MAY.2022 11:38:27

Emissions in GPS bands:

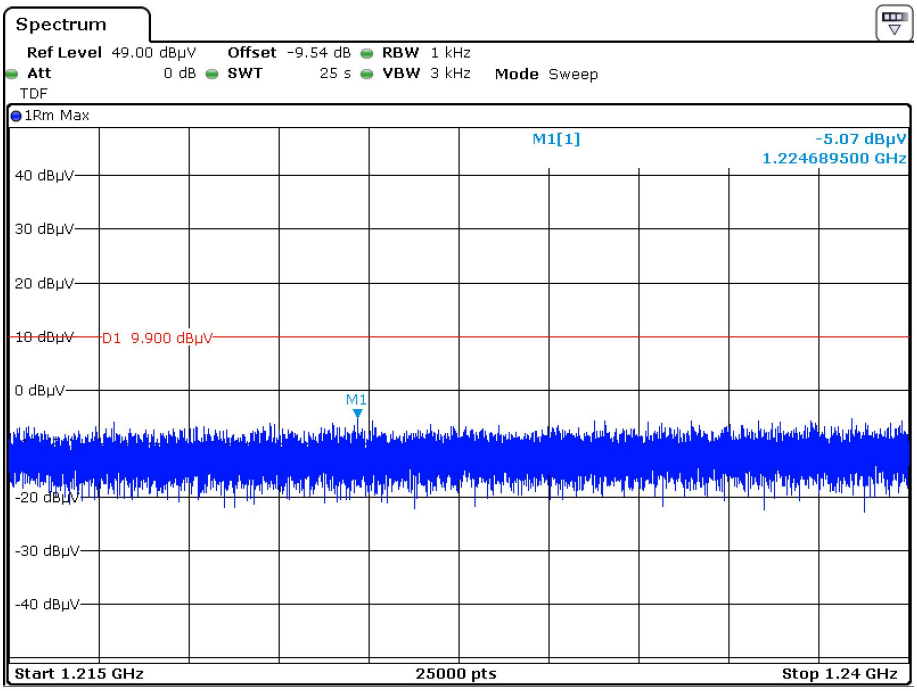
Horizontal



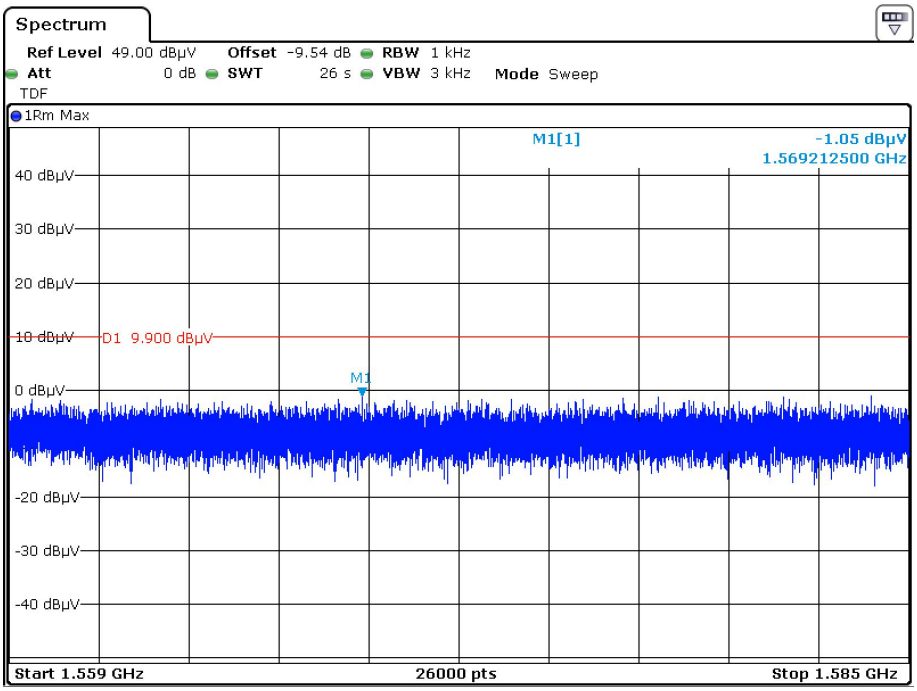
Date: 17.MAY.2022 11:51:48



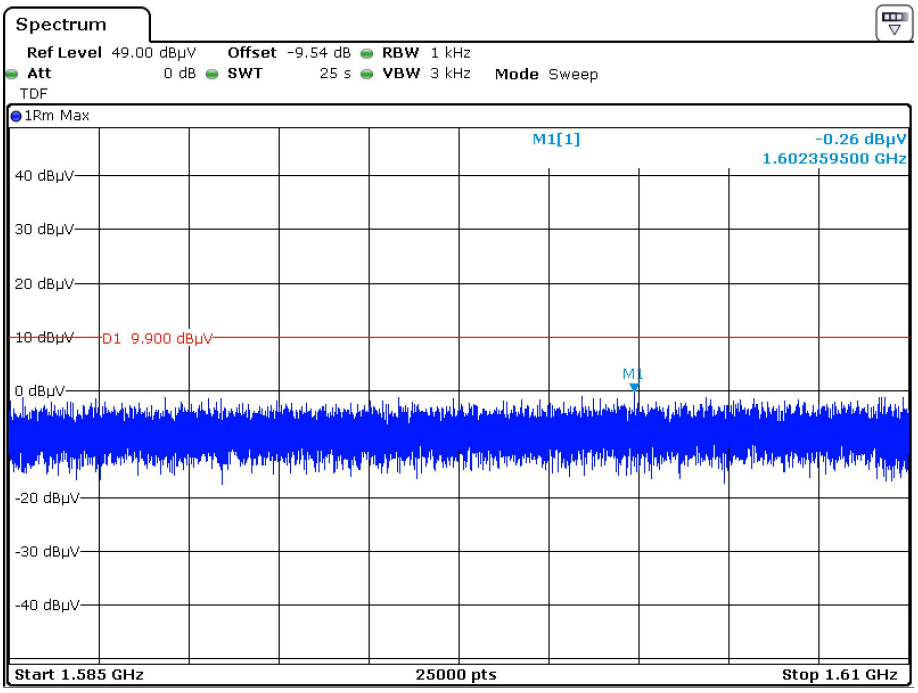
Date: 17.MAY.2022 11:55:50



Date: 17.MAY.2022 11:57:41

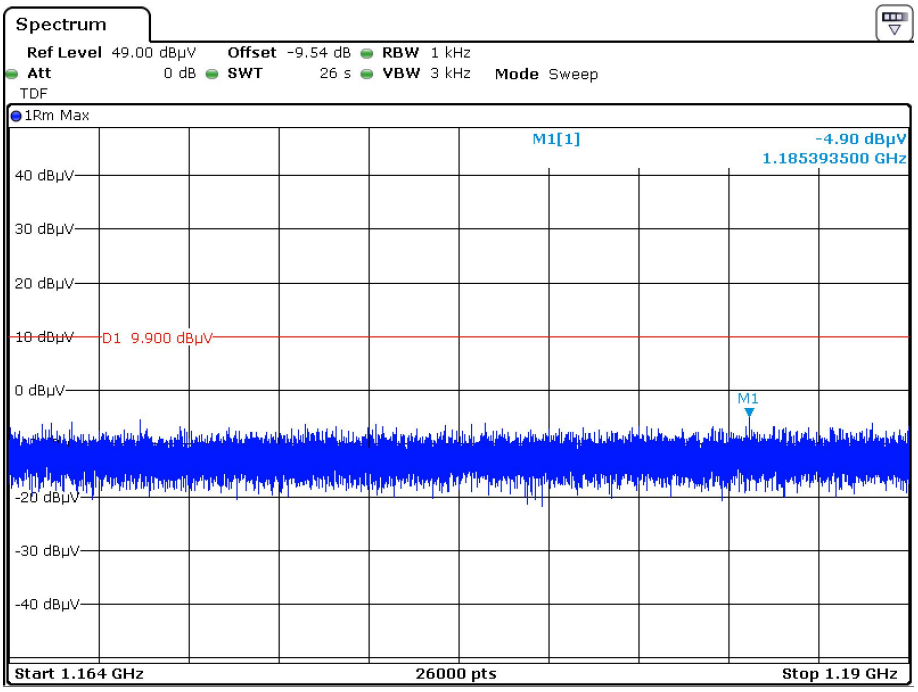


Date: 17.MAY.2022 13:11:05

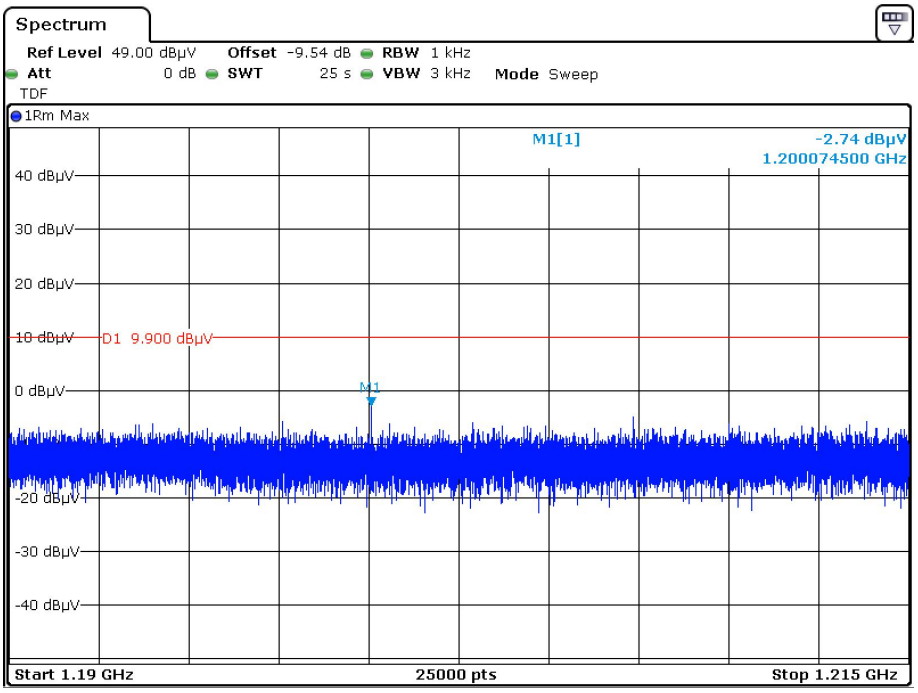


Date: 17.MAY.2022 13:13:03

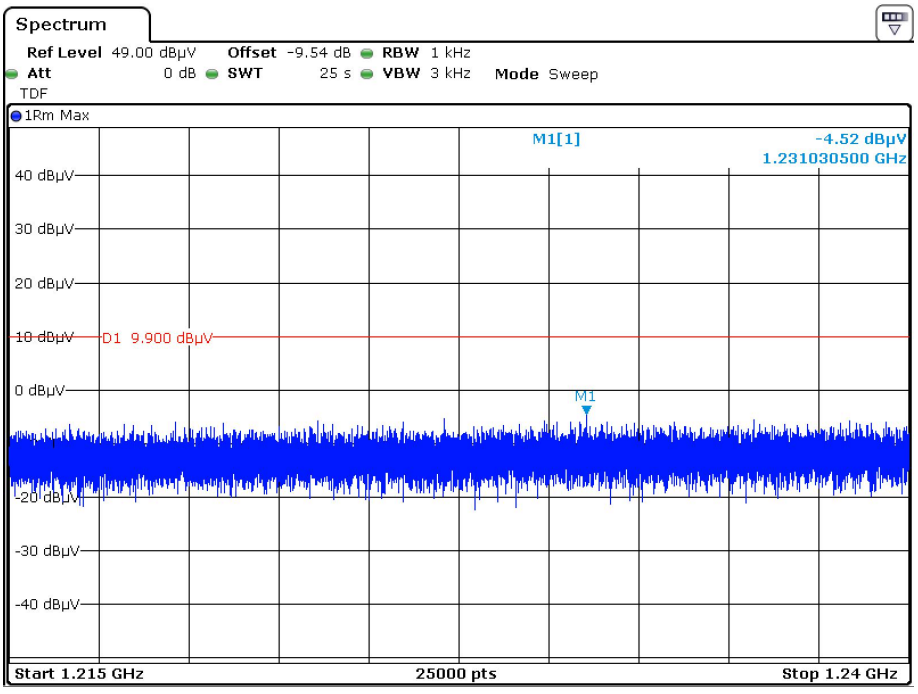
Vertical



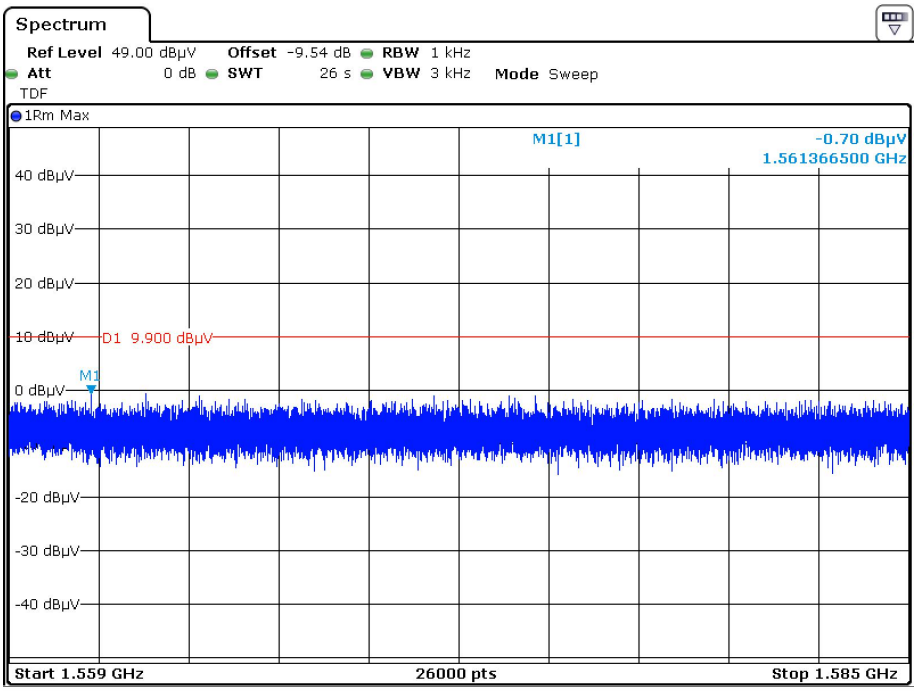
Date: 17.MAY.2022 13:17:04



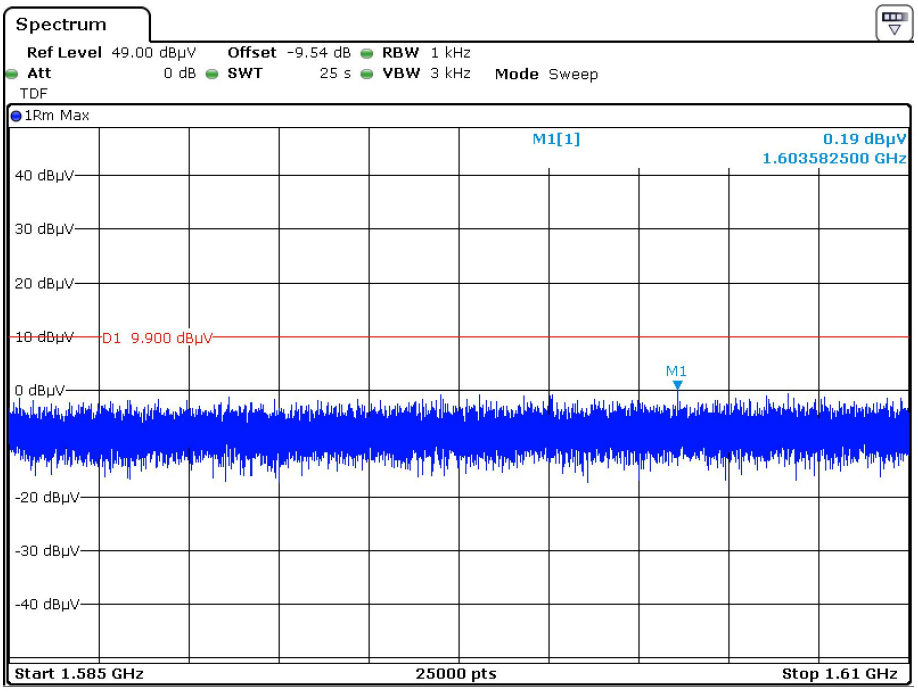
Date: 17.MAY.2022 13:19:00



Date: 17.MAY.2022 13:20:37



Date: 17.MAY.2022 13:22:50



Date: 17.MAY.2022 13:24:40

§15.517(e) -PEAK EMISSION IN A 50 MHZ BANDWIDTH

Applicable Standard

There is a limit on the peak level of the emissions contained within a 50 MHz bandwidth centered on the frequency at which the highest radiated emission occurs, f_M. That limit is 0 dBm EIRP. It is acceptable to employ a different resolution bandwidth, and a correspondingly different peak emission limit, following the procedures described in §15.521.

Test Procedure

Refer to the C63.10 -2013 Section 10.3.5.

Test Data

Environmental Conditions

Temperature:	26 ℃
Relative Humidity:	56 %
ATM Pressure:	101.0 kPa

The testing was performed by Nick Fang on 2022-05-17.

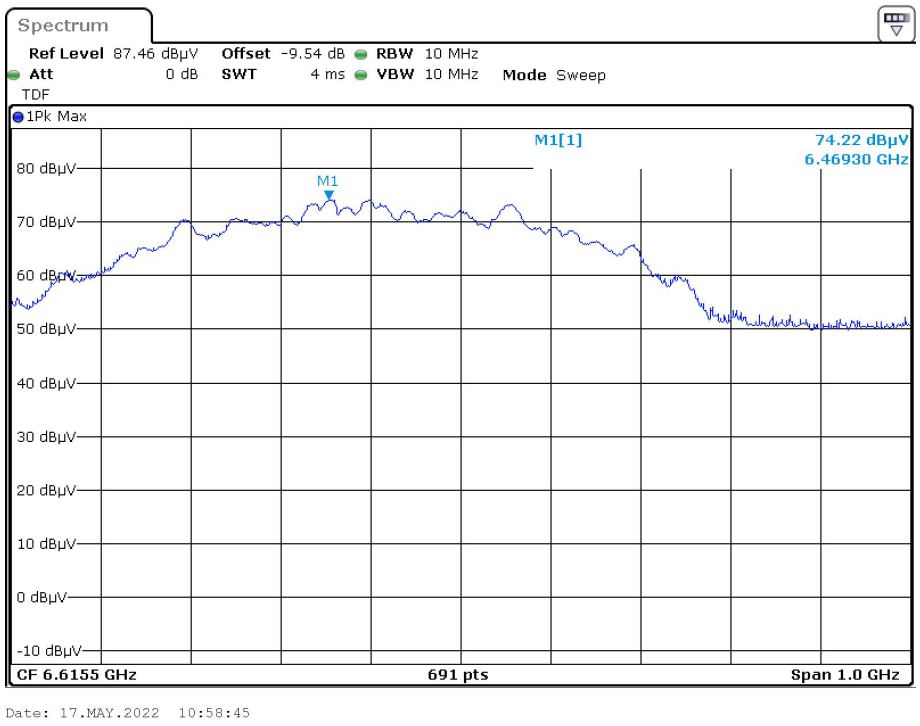
EUT operation mode: Transmitting

Test result: Pass.

Please refer to follow tables and plots:

Frequency (MHz)	Reading level (dBμV/m)	EIRP (dBm/10MHz)	EIRP (dBm/50MHz)	Limit
				dBm/50MHz
6615.5	74.22	-20.98	-7.00	0

Note: 1. E [dBμV/m] = EIRP [dBm] + 95.2, for d = 3 meters.
2. The antenna factor, cable loss and preamplifier gain have been entered into the analyzer as the transducer factor.
3. The test distance is 1m, the correct factor from 1m to 3m is 20lg(1/3)= -9.54dB, which was added into the offset on the spectrum Analyzer.
4. The correct factor of RBW 10MHz to 50MHz is 20 log (50MHz/10MHz) =13.98dB.



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