

S

T

S

L

A

B



RADIO TEST REPORT

Report No.: STS2109116W01

Issued for

TerreStar Corporation

344 Maple Avenue NW, #275 Vienna VA 22180 USA

Product Name:	Access Point
Brand Name:	N/A
Model Name:	AP1400A
Series Model:	N/A
FCC ID:	2A24SAP1400A
Test Standard:	47 CFR Part 2, 27

Any reproduction of this document must be done in full. No single part of this document may be reproduced without permission from STS, all test data presented in this report is only applicable to presented test sample.

Shenzhen STS Test Services Co., Ltd.
A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ,
Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China
TEL: +86-755 3688 6288 FAX: +86-755 3688 6277 E-mail: sts@stsapp.com





TEST RESULT CERTIFICATION

Applicant's Name: TerreStar Corporation
 Address: 344 Maple Avenue NW, #275 Vienna VA 22180 USA
Manufacturer's Name: TerreStar Corporation
 Address: 344 Maple Avenue NW, #275 Vienna VA 22180 USA

Product Description

Product Name: Access Point
 Brand Name: N/A
 Model Name: AP1400A
 Series Model: N/A
Test Standards.....: 47 CFR Part 2, 27
 Test Procedure: C63.26:2015

This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.
 This report shall not be reproduced except in full, without the written approval of STS, this document may be altered or revised by STS, personal only, and shall be noted in the revision of the document.

Date of Test.....:
 Date of receipt of test item.....: Sept. 14, 2021
 Date (s) of performance of tests.: Sept. 14, 2021~ Sept. 22, 2021
 Date of Issue: Sept. 22, 2021
 Test Result: Pass

Testing Engineer : *Chris Chen*

 (Chris Chen)

Technical Manager : *Sean She*

 (Sean she)

Authorized Signatory : *Vita Li*

 (Vita Li)





Table of Contents	Page
1. TEST FACTORY & MEASUREMENT UNCERTAINTY	5#
2. GENERAL INFORMATION	6#
3. PEAK OUTPUT POWER	11#
4. OCCUPIED BANDWIDTH	13#
5. CONDUCTED SPURIOUS EMISSION	15#
6. RADIATED SPURIOUS EMISSION	24#
7. FREQUENCY STABILITY	30#
APPENDIX-PHOTOS OF TEST SETUP	32#





Revision History

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	Sept. 22, 2021	STS2109116W01	ALL	Initial Issue





1. TEST FACTORY & MEASUREMENT UNCERTAINTY

1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	RF output power, conducted	$\pm 0.68\text{dB}$
2	Unwanted Emissions, conducted	$\pm 2.988\text{dB}$
3	All emissions, radiated 9K-30MHz	$\pm 2.84\text{dB}$
4	All emissions, radiated 30M-1GHz	$\pm 4.39\text{dB}$
5	All emissions, radiated 1G-6GHz	$\pm 5.10\text{dB}$
6	All emissions, radiated >6G	$\pm 5.48\text{dB}$



2. GENERAL INFORMATION

2.1 TECHNICAL SPECIFICATIONS AND REGULATIONS

2.1.1 PRODUCT DESCRIPTION

A major technical description of EUT is described as following:

Product Name	Access Point
Trade Name	N/A
Model Name	AP1400A
Series Model	N/A
Model Difference	N/A
Licensed frequency range	1390-1392 MHz,1392-1395 MHz,1432-1435 MHz
Operating frequency range	1390-1395 MHz; 1432-1435 MHz
Antenna	Rod antenna
Antenna gain	Antenna 1: 2 dBi Antenna 2: 2 dBi
Power input	PoE (minimum 44V DC and 350 mA) 15.4W
Extreme Vol. Limits	AC 108V to AC 132V (Nominal 120V from PoE input)
Operation temperature	0°C to +55°C
Test extreme Temp. Tolerance	-30°C to +50°C
Hardware version number	N/A
Software version number	N/A

Note:

1. The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report.
2. Antenna 1 and Antenna 2 do not support simultaneous transmission. Both antenna 1 and antenna 2 have been tested, and the worst case is antenna 1. This report only shows the worst case.



2.1.2 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD

Product Specification Subjective To This Standard		
Assigned frequency range	1390-1395 MHz	1432-1435 MHz
Bandwidth	1.6 MHz	1.6 MHz
Maximum Output Power	14.32 dBm	13.67 dBm
Type of Modulation	GFSK	GFSK

2.1.3 Channel list

Channel	Frequency
5	1391.65 MHz
6	1433.544 MHz

2.1.4 RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for filing to comply with the 47 CFR Part 2, 27.

2.1.5 SPECIAL ACCESSORIES

The charger, antenna supplied by the applicant were used as accessories and being tested with eut intended for fcc grant together.

2.1.6 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.1.7 EUT EXERCISE

The Transmitter was operated in the maximum output power mode through Communication Tester. The TX frequency was fixed which was for the purpose of the measurements.

2.1.8 CONFIGURATION OF EUT SYSTEM

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

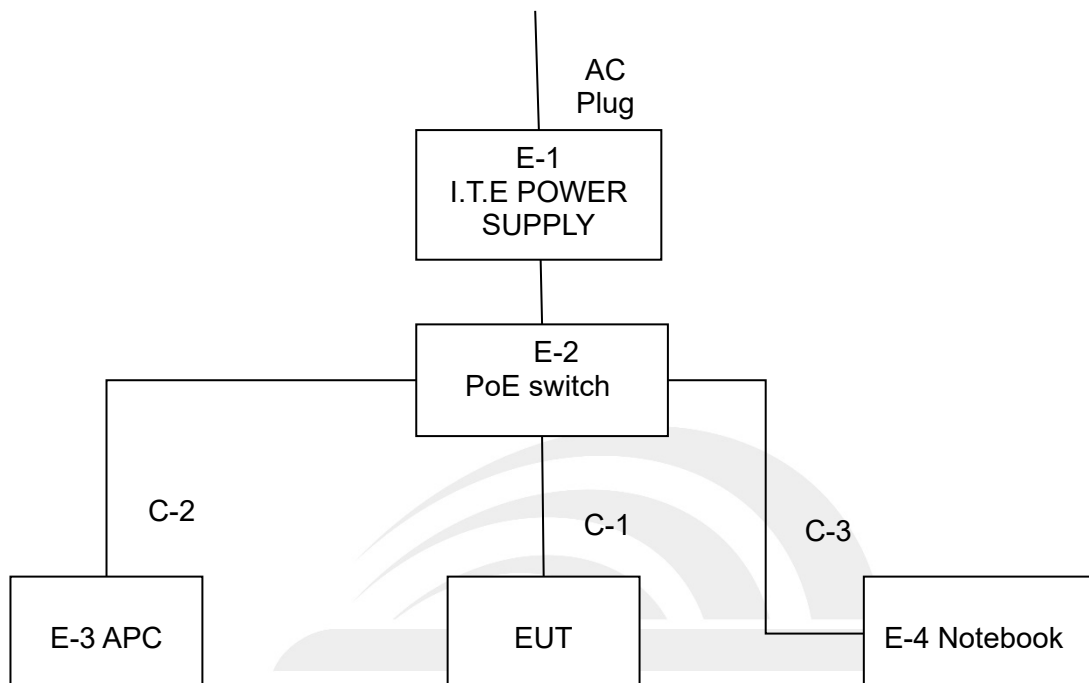




Table 2-1 Equipment Used in EUT System

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
E-4	Notebook	Lenovo	ThinkPad E470	N/A	Provided by lab
/	USB to RS-232 Cable	Ugreen	2725	150cm Shielded	Provided by lab
E-2	PoE switch	TP-LINK	TL-SG1008P	N/A	Provided by client
E-1	I.T.E POWER SUPPLY	TP-LINK	T480125-2-DT	N/A	
/	AC Cable	N/A	N/A	150cm	
E-3	APC	PHILIPS	85436 ITS3171A	N/A	
/	AC Cable	N/A	N/A	150cm	Provided by client
C-1	Ethernet cable	N/A	N/A	200cm Unshielded	
C-3	Ethernet cable	N/A	N/A	200cm Unshielded	
C-2	Ethernet cable	N/A	N/A	500cm Shielded	

Note:

- (1) For detachable type I/O cable should be specified the length in cm in 「Length」 column.
- (2) "YES" is means "with core"; "NO" is means "without core".



2.1.9 MEASUREMENT INSTRUMENTS

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2020.10.12	2021.10.11
Signal Analyzer	R&S	FSV 40-N	101823	2020.10.10	2021.10.09
Bilog Antenna	TESEQ	CBL6111D	34678	2020.10.12	2022.10.11
Horn Antenna	SCHWARZBECK	BBHA 9120D	02014	2019.10.15	2021.10.14
Bilog Antenna	TESEQ	CBL6111D	45873	2020.10.12	2022.10.11
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1343	2020.10.12	2022.10.11
Pre-Amplifier (0.1M-3GHz)	EM	EM330	060665	2020.10.12	2021.10.11
Pre-Amplifier (1G-18GHz)	SKET	LNPA-01018G-45	SK2018080901	2020.10.12	2021.10.11
Turn table	EM	SC100_1	60531	N/A	N/A
Antenna mast	EM	SC100	N/A	N/A	N/A
Temperature & Humidity	HH660	Mieo	N/A	2020.10.13	2021.10.12
Test SW	BULUN	BL410-E/18.905			

RF Connected Test

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Signal Analyzer	Agilent	N9020A	MY52440124	2021.03.04	2022.03.03
Temperature & Humidity test chamber	Safety test	AG80L	171200018	2021.03.04	2022.03.03
Programmable power supply	Agilent	E3642A	MY40002025	2020.10.12	2021.10.11
Temperature & Humidity	SW-108	SuWei	N/A	2021.03.04	2022.03.03
Test SW	FARAD	LZ-RF /LzRf-3A3			

2.1.10 MEASUREMENT RESULTS EXPLANATION EXAMPLE

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF Cable Loss + Attenuator Factor.

3. PEAK OUTPUT POWER

3.1 LIMIT

According to FCC PART 27.50 (e)

(1) Fixed stations transmitting in the 1390-1392 MHz and 1432-1435 MHz bands are limited to 2000 watts EIRP peak power. Fixed stations transmitting in the 1392-1395 MHz band are limited to 100 watts EIRP peak power.

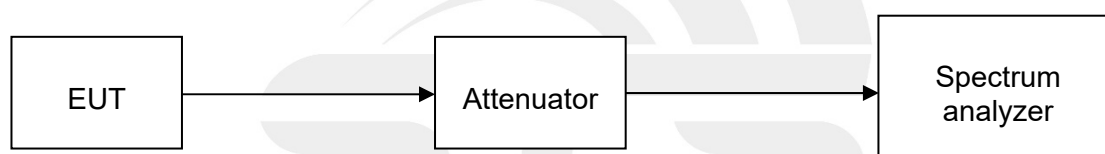
(2) Mobile stations transmitting in the 1390-1392 MHz and 1432-1435 MHz bands are limited to 4 watts EIRP peak power. Mobile stations transmitting in the 1392-1395 MHz band are limited to 1 watt EIRP peak power.

3.2 MEASUREMENT METHOD

A test PC was used to establish communication with the EUT. Its parameters were set to force the EUT transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

Configuration follows C63.26:2015 Section 5.2.

3.3 TEST SETUP



3.4 TEST PROCEDURES

1. The EUT transmitter output port was connected to spectrum analyzer through an attenuator.
2. Set EUT at maximum power level through the test PC.
3. Select lowest/middle/highest channels for each band and different modulation.
4. Measure and record the reading from the spectrum analyzer.
5. $EIRP = \text{Reading} + \text{Ant. Gain}$



3.5 TEST RESULTS

Antenna 1

Test Frequency (MHz)	Peak Output Power Reading (dBm)	Ant Gain (dBi)	Peak EIRP (dBm)	Peak EIRP (W)	Limits (W)	Verdict
1391.650	14.32	2.00	16.32	0.043	4	PASS
1433.544	13.67	2.00	15.67	0.037	4	PASS

Antenna 2

Test Frequency (MHz)	Peak Output Power Reading (dBm)	Ant Gain (dBi)	Peak EIRP (dBm)	Peak EIRP (W)	Limits (W)	Verdict
1391.650	14.27	2.00	16.27	0.042	4	PASS
1433.544	13.55	2.00	15.55	0.036	4	PASS





4. OCCUPIED BANDWIDTH

4.1 LIMIT

Reported only, no limit applied.

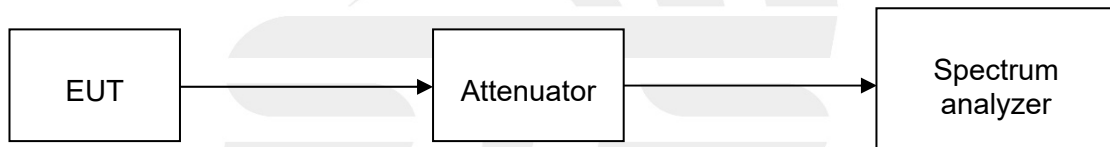
4.2 MEASUREMENT METHOD

1. The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

2. The 26 db emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 db below the maximum in-band spectral density of the modulated signal. spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

Configuration follows C63.26:2015 Section 5.4.

4.3 TEST SETUP



4.4 TEST PROCEDURES

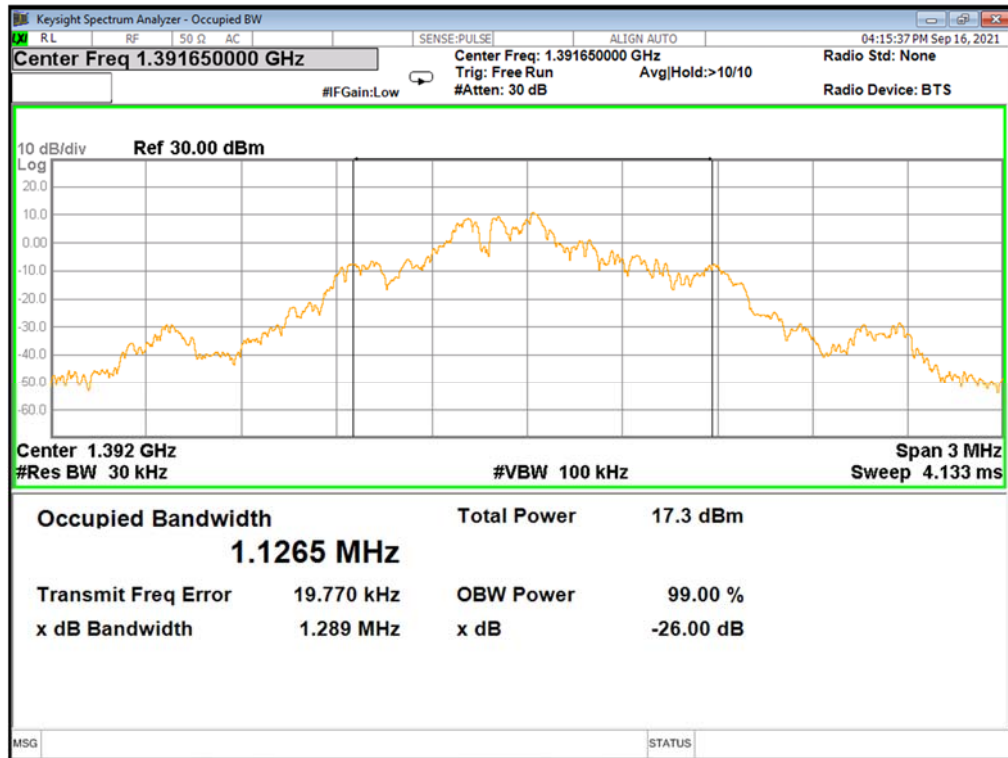
1. The testing follows C63.26:2015 Section 5.4.
2. The EUT transmitter output port was connected to spectrum analyzer through an attenuator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Set the test probe and measure the Occupied Bandwidth of the spectrum analyzer.
5. Measure and record the Occupied Bandwidth from the Spectrum Analyzer.



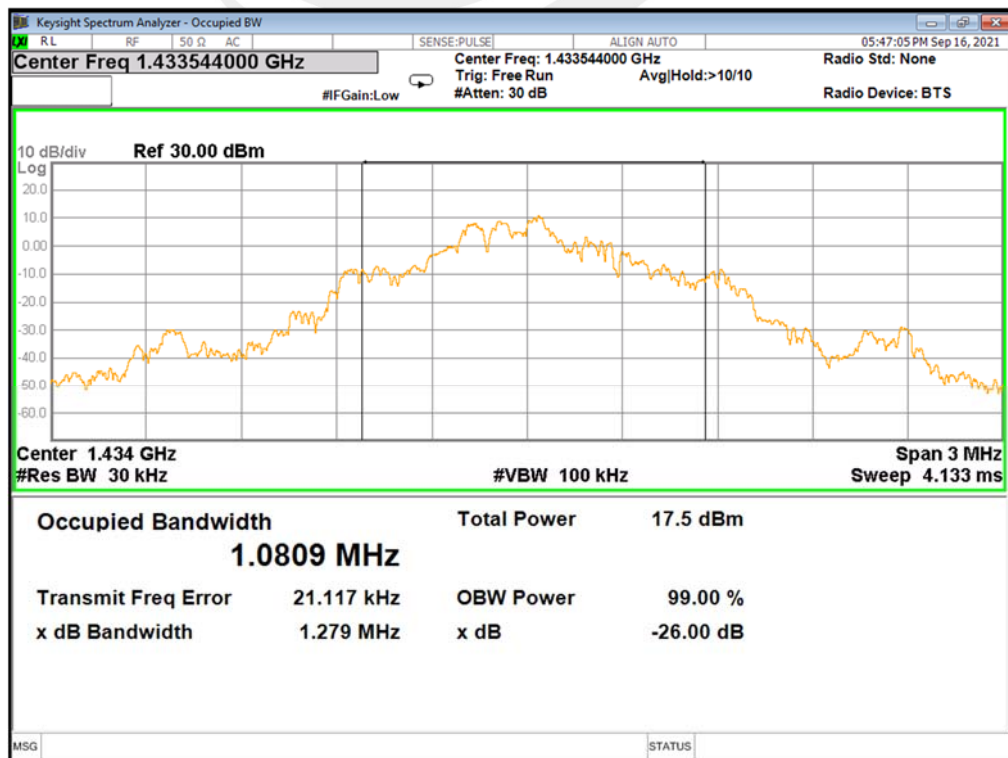
4.5 TEST RESULTS

Test Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
1391.650	1.1265	1.2890
1433.544	1.0809	1.2790

CH5



CH6



5. CONDUCTED SPURIOUS EMISSION

5.1 LIMIT

According to FCC PART 27.53 (j)

- (1) For operations in the unpaired 1390-1392 MHz band and the paired 1392-1395 MHz and 1432-1435 MHz bands, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) by at least $43 + 10 \log(P)$ dB.
- (2) In the 1390-1395 MHz and 1432-1435 MHz bands, licensees are encouraged to take all reasonable steps to ensure that unwanted emission power does not exceed the following levels in the band 1400-1427 MHz:
 - (i) For stations of point-to-point systems in the fixed service: -45 dBW/27 MHz.
 - (ii) For stations in the mobile service: -60 dBW/27 MHz.

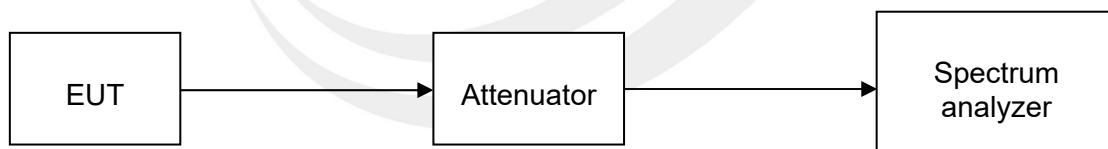
5.2 MEASUREMENT METHOD

1. §22.917(a)

Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the channel blocks at 2305, 2310, 2315, 2320, 2345, 2350, 2355, and 2360 MHz, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (*i.e.*, 1 MHz). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

Configuration follows C63.26:2015 Section 5.7.

5.3 TEST SETUP



5.4 TEST PROCEDURES

1. The testing follows C63.26:2015 Section 5.7.
2. The EUT transmitter output port was connected to spectrum analyzer through an attenuator.
3. The band edges of low and high channels for the highest RF powers were measured. Set RBW $\geq 1\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge.
4. Set spectrum analyzer with RMS/PEAK detector.
5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
6. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)]$ (dB)
 $= [30 + 10\log(P)]$ (dBm) - $[43 + 10\log(P)]$ (dB)
 $= -13$ dBm.

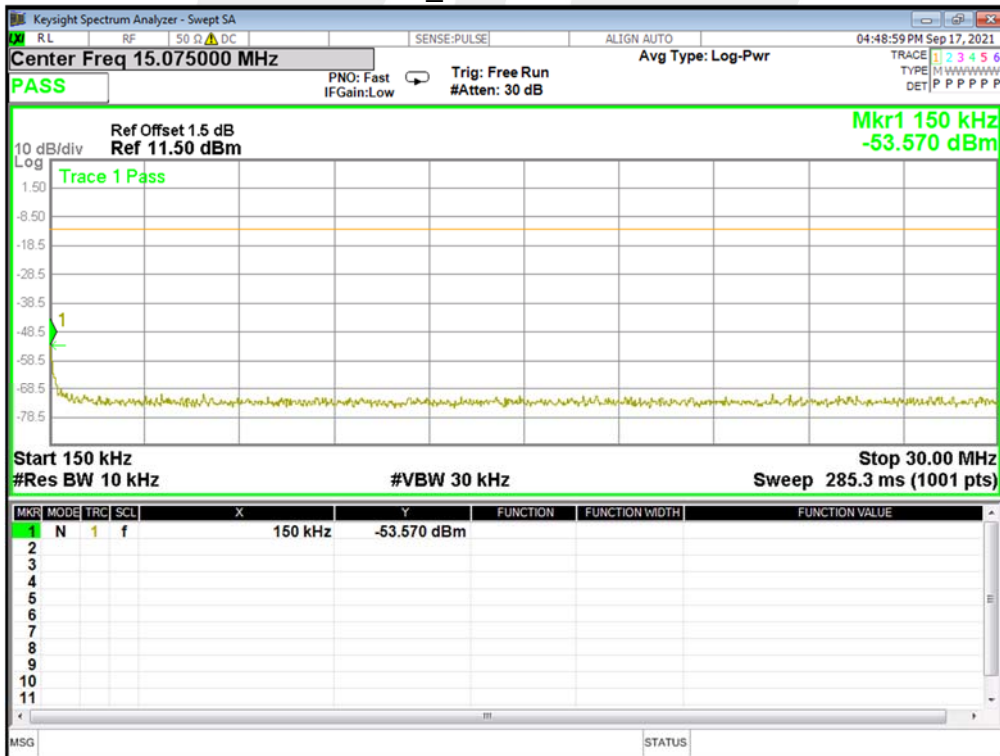


5.5 TEST RESULTS

CH5_9kHz-150kHz

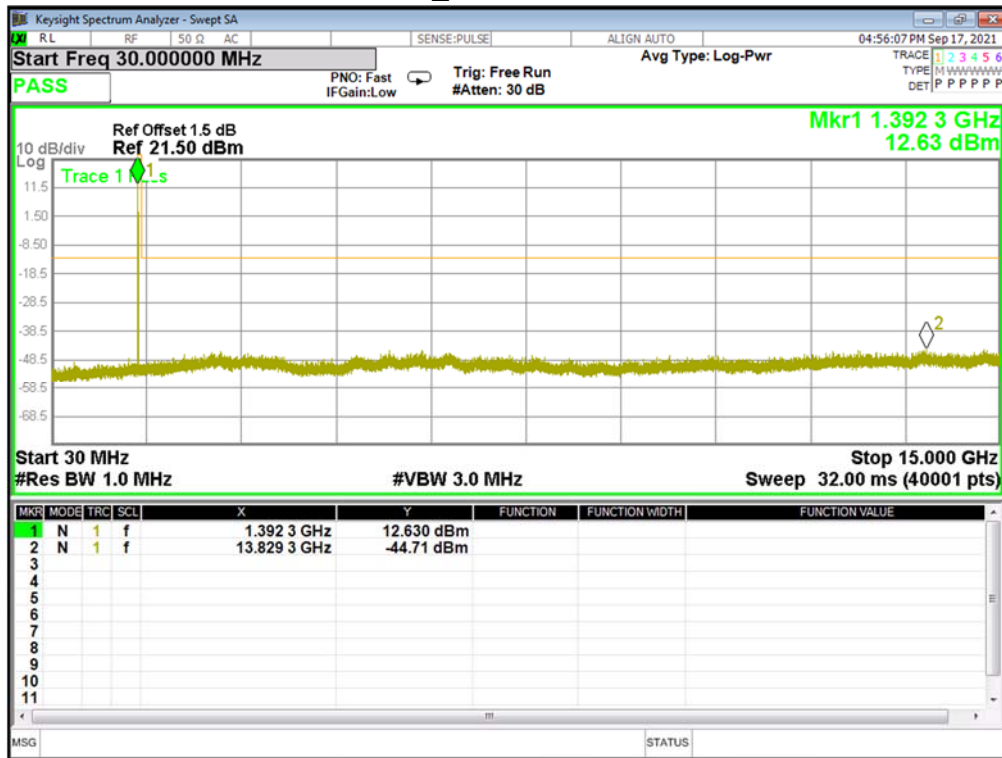


CH5_150kHz-30MHz

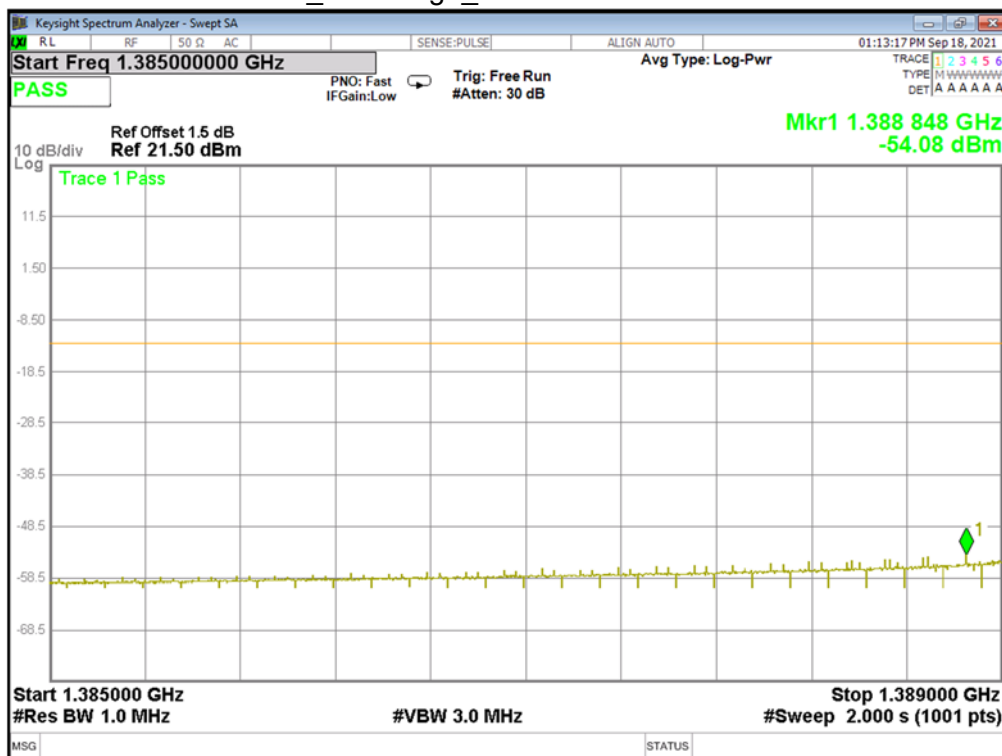




CH5_30MHz-15GHz

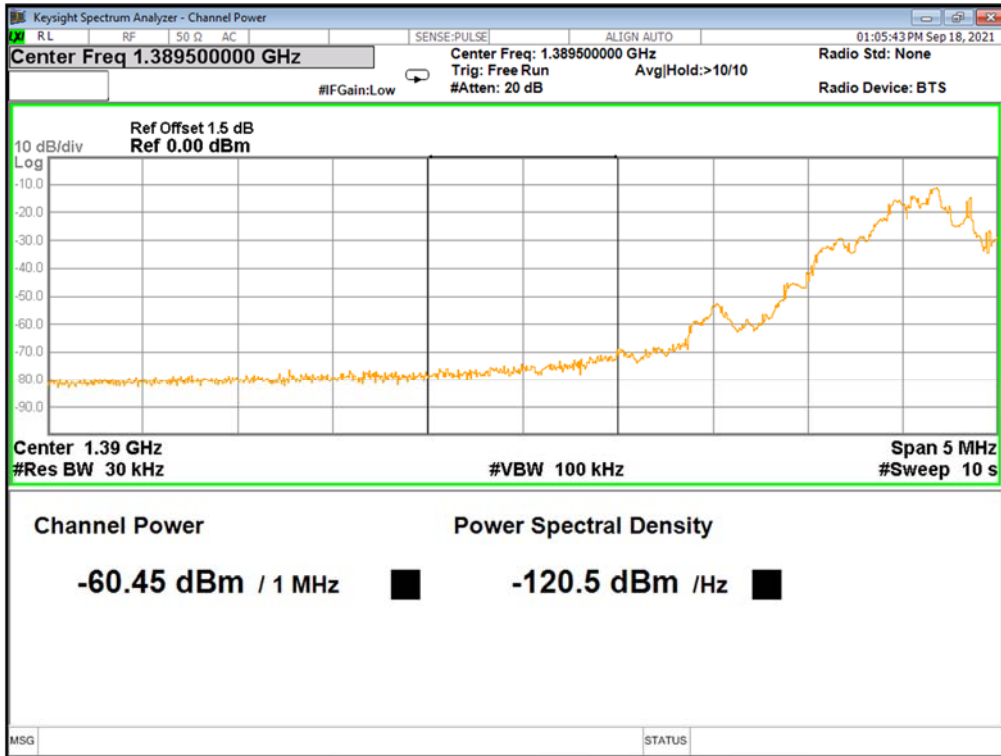


CH5_band edge_1.385 GHz-1.389 GHz

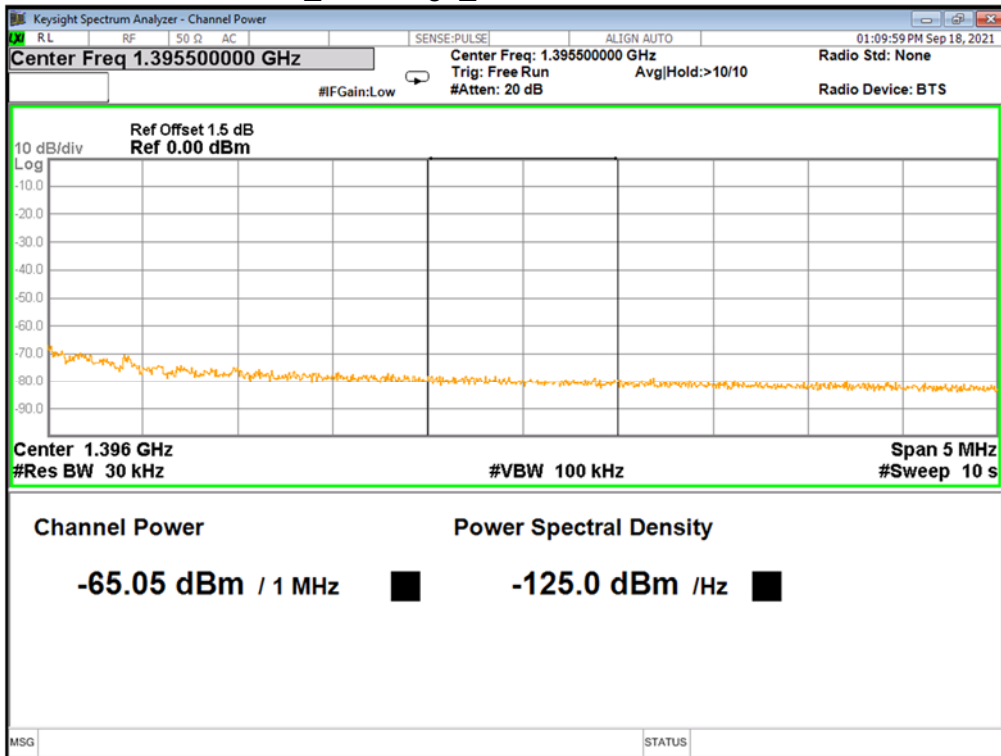




CH5_band edge_1.389 GHz-1.390 GHz

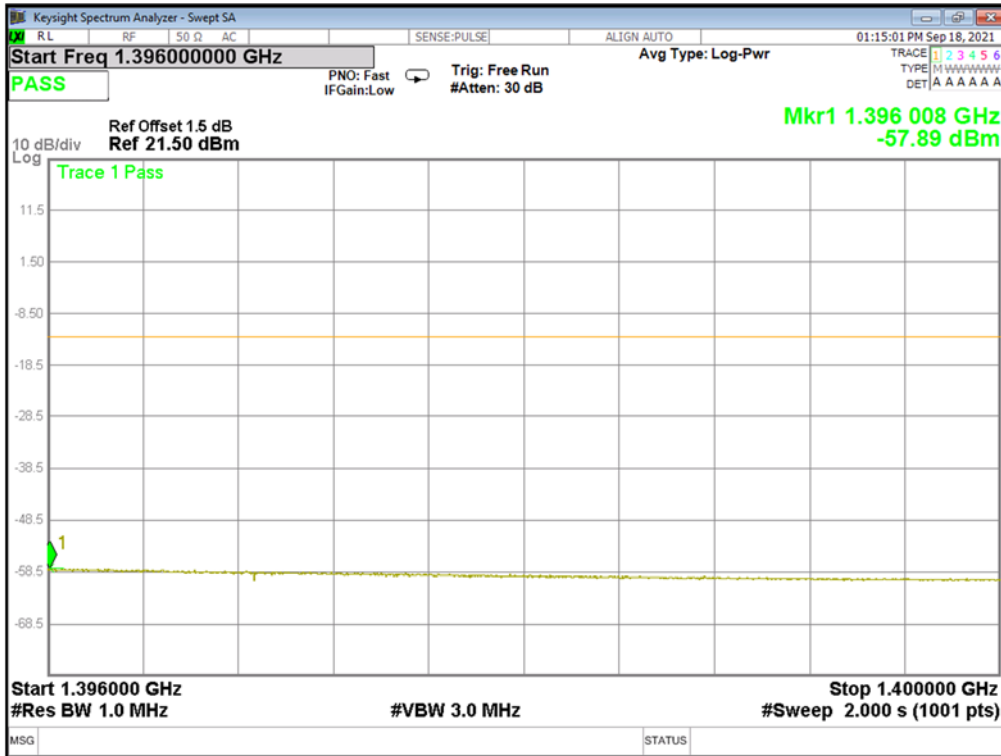


CH5_band edge_1.395 GHz-1.396 GHz

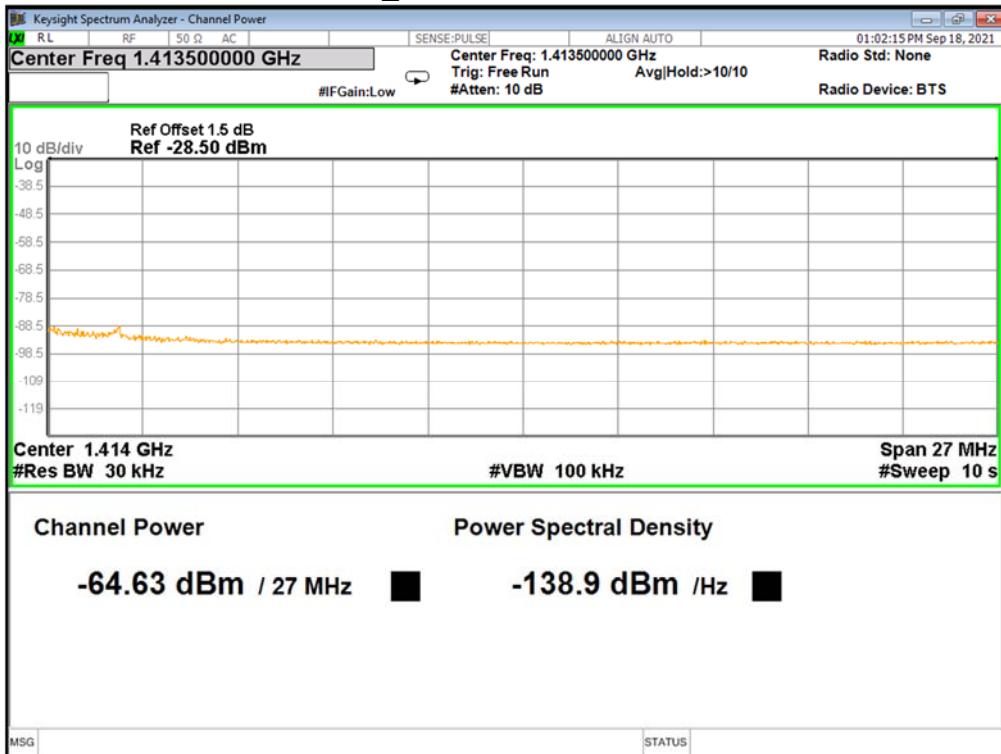




CH5_band edge_1.396 GHz-1.400 GHz



CH5_1.400 GHz-1.427 GHz





CH6_9kHz-150kHz

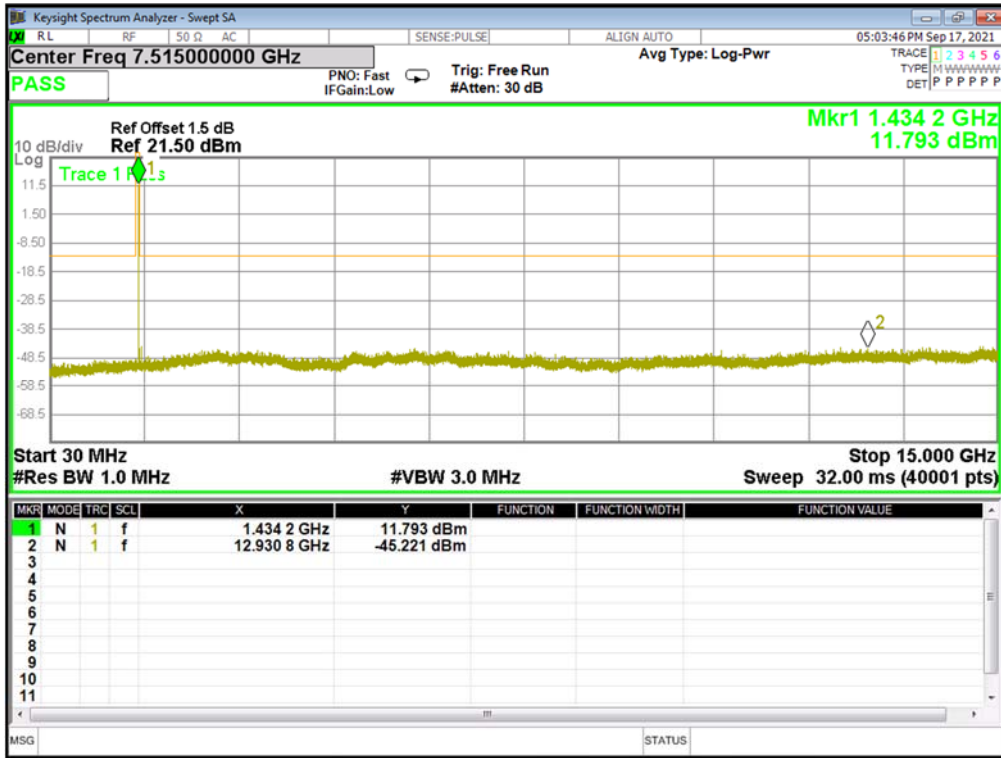


CH6_150kHz-30MHz

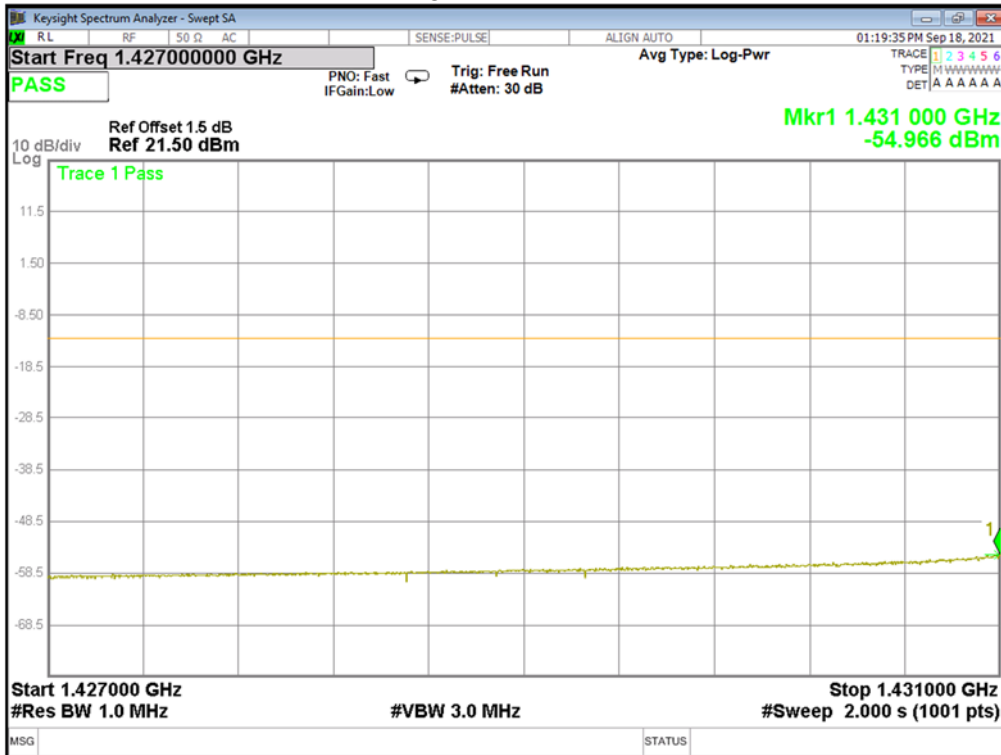




CH6_30MHz-15GHz

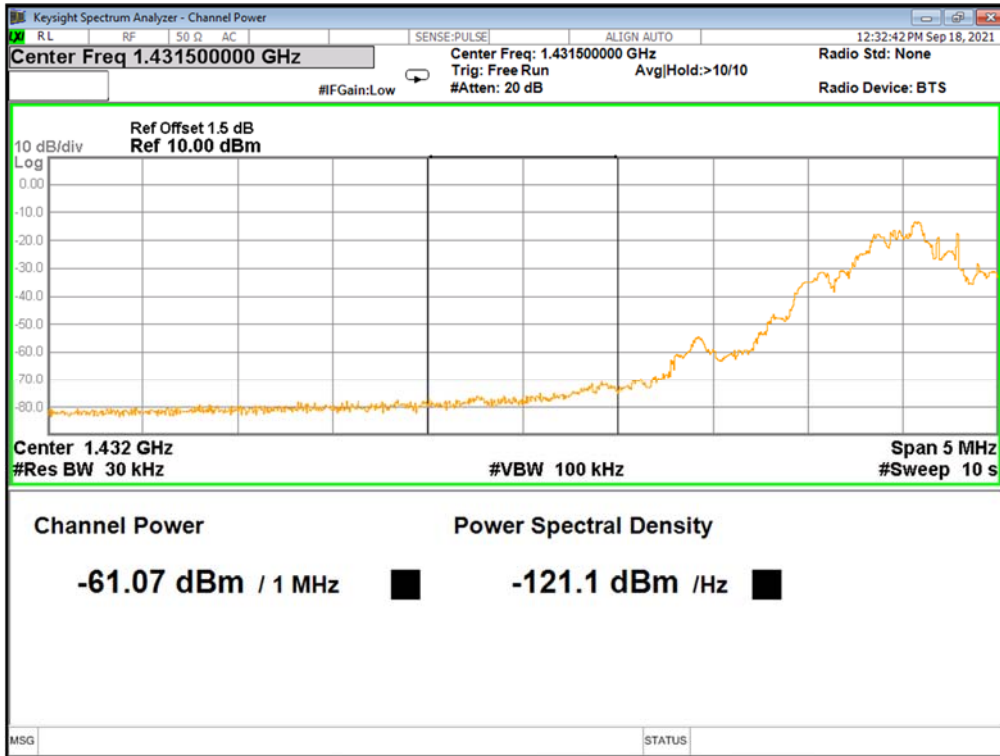


CH6_band edge_1.427 GHz-1.431 GHz

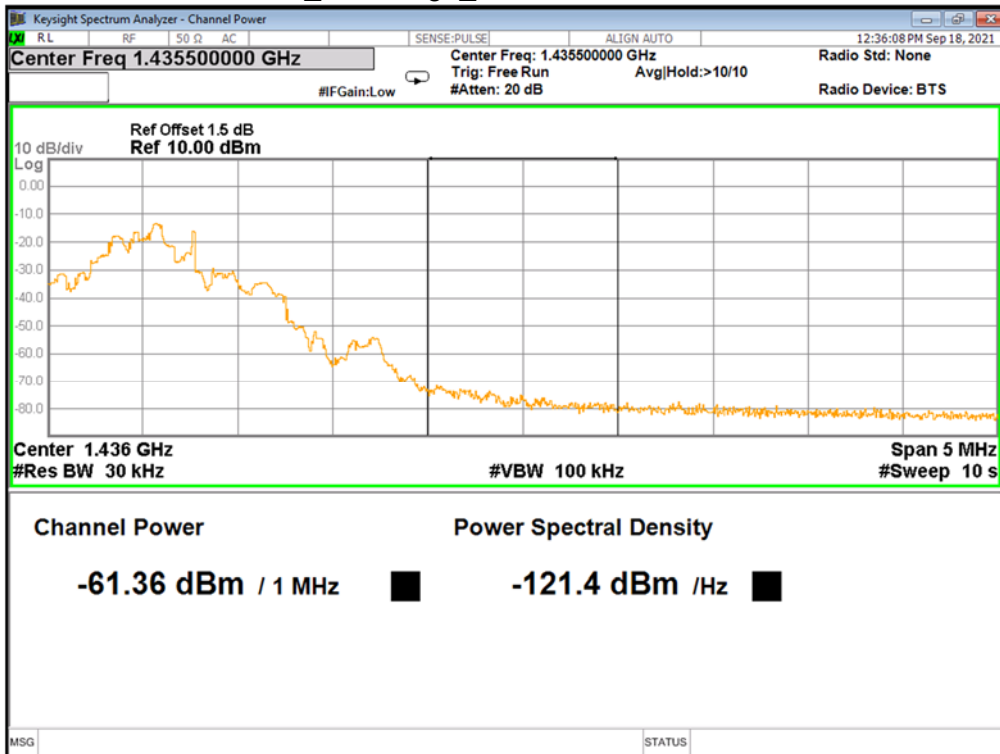




CH6_band edge_1.431 GHz-1.432 GHz

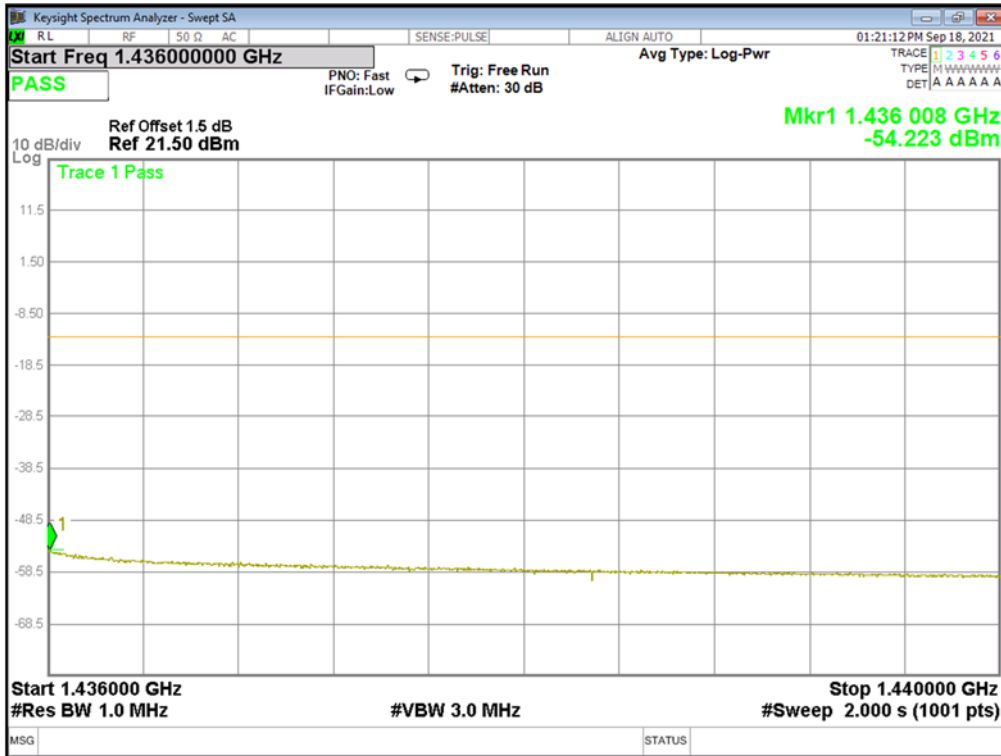


CH6_band edge_1.435 GHz-1.436 GHz





CH6_band edge_1.436 GHz-1.440 GHz



CH6_1.400 GHz-1.427 GHz



6. RADIATED SPURIOUS EMISSION

6.1 LIMIT

According to FCC PART 27.53 (j)

(1) For operations in the unpaired 1390-1392 MHz band and the paired 1392-1395 MHz and 1432-1435 MHz bands, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) by at least $43 + 10 \log (P)$ dB.

6.2 MEASUREMENT METHOD

The radiated spurious emission was measured by substitution method according to ANSI C63.26 2015. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB.

6.3 TEST SETUP

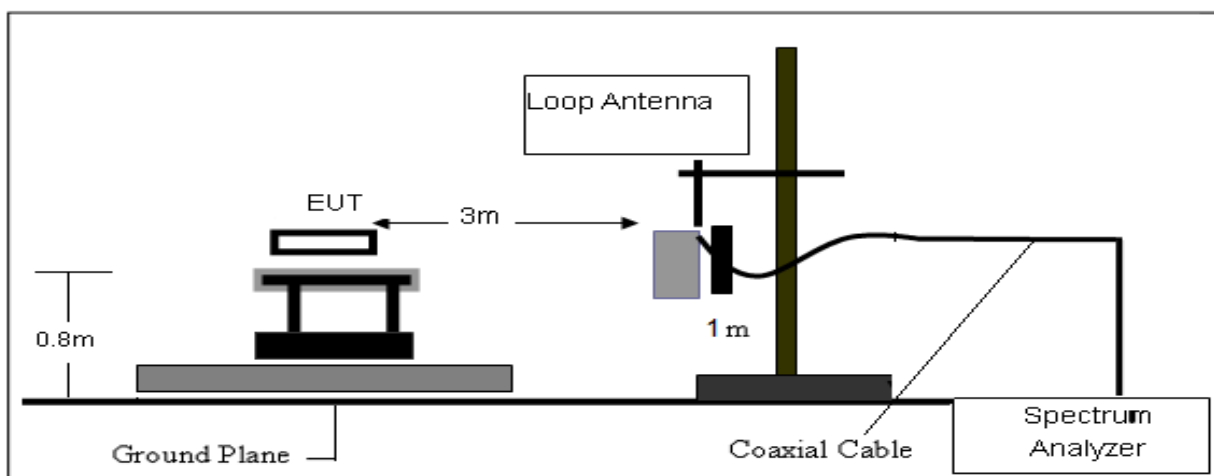
The procedure of radiated spurious emissions is as follows:

a) Pre-calibration With pre-calibration method, the Radiated Spurious Emissions (RSE) is calculated as, $RSE = Rx(dBuV) + CL(dB) + SA(dB) + Gain(dBi) - 95.2(dBuV/m \text{ to } dBm)$ The SA is calibrated using following setup.

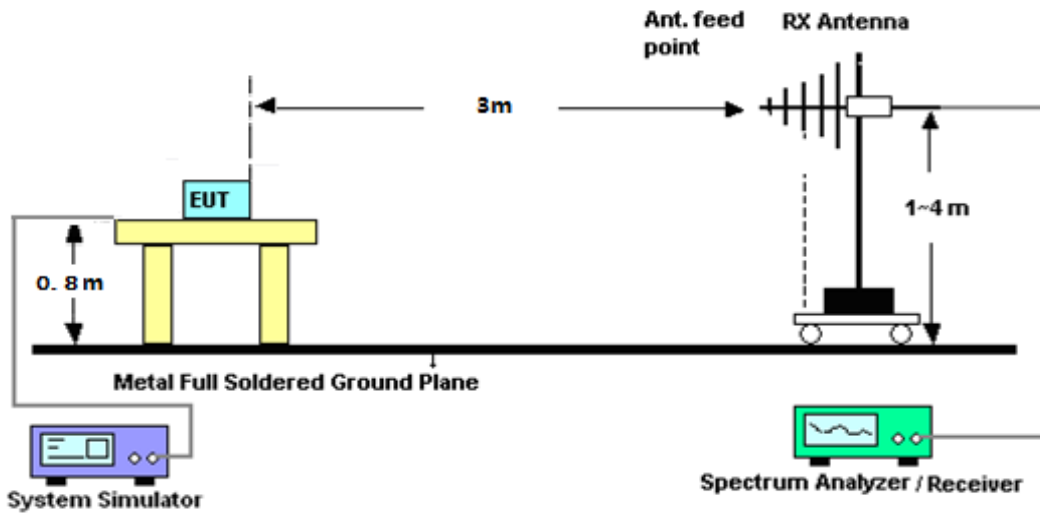
b) EUT was placed on 1.5 m non-conductive stand at a 3 m test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 m from the test item for emission measurements. The height of receiving antenna is 0.8m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the test item and adjusting the receiving antenna polarization. The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 10th harmonic measured with peak detector and 1MHz bandwidth.

Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of any band into any of the other blocks.

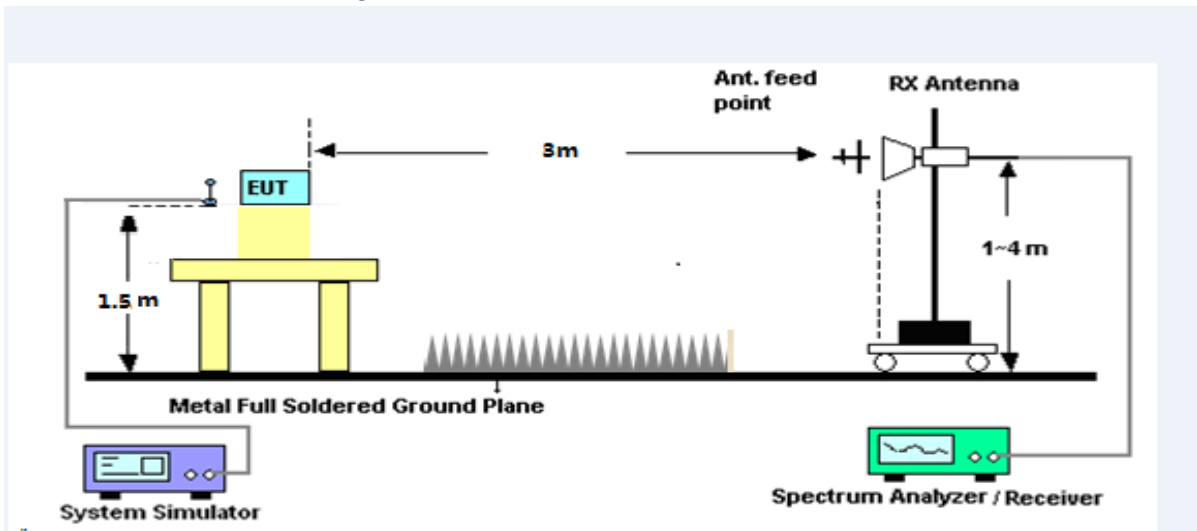
For radiated test from below 30MHz



For radiated test from 30MHz to 1GHz



For radiated test from above 1GHz



6.4 TEST PROCEDURES

1. The testing follows C63.26:2015 Section 5.5.
2. The EUT was placed on a rotatable wooden table with 1.5 meter above ground.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations
6. Repeat step 2 to step 5 for another polarization.
7. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)]$ (dB)
 $= [30 + 10\log(P)]$ (dBm) - $[43 + 10\log(P)]$ (dB)
 $= -13$ dBm



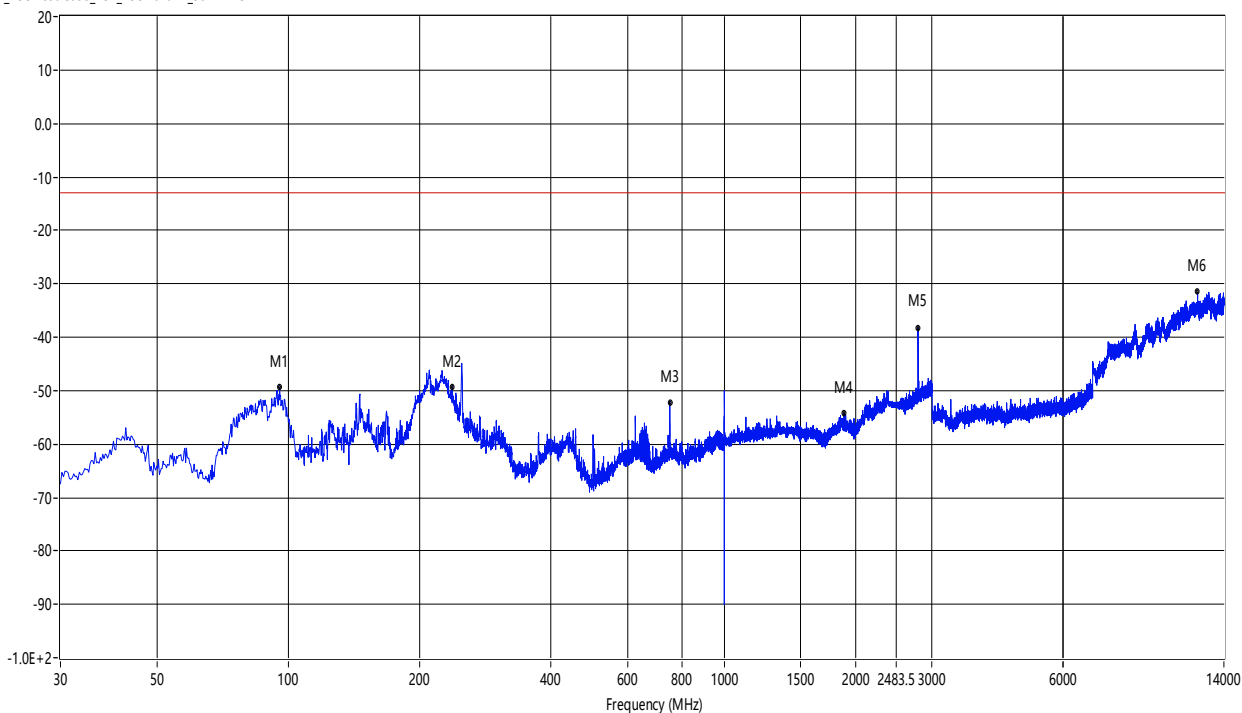
6.5 TEST RESULTS

Note:

1. 9KHz-30MHz amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
2. Test is divided into three directions, X/Y/Z. X pattern is the worst.

CH5_ Horizontal

RSE_FCC Test Case_RSE_FCC Part 27_30M-14G H

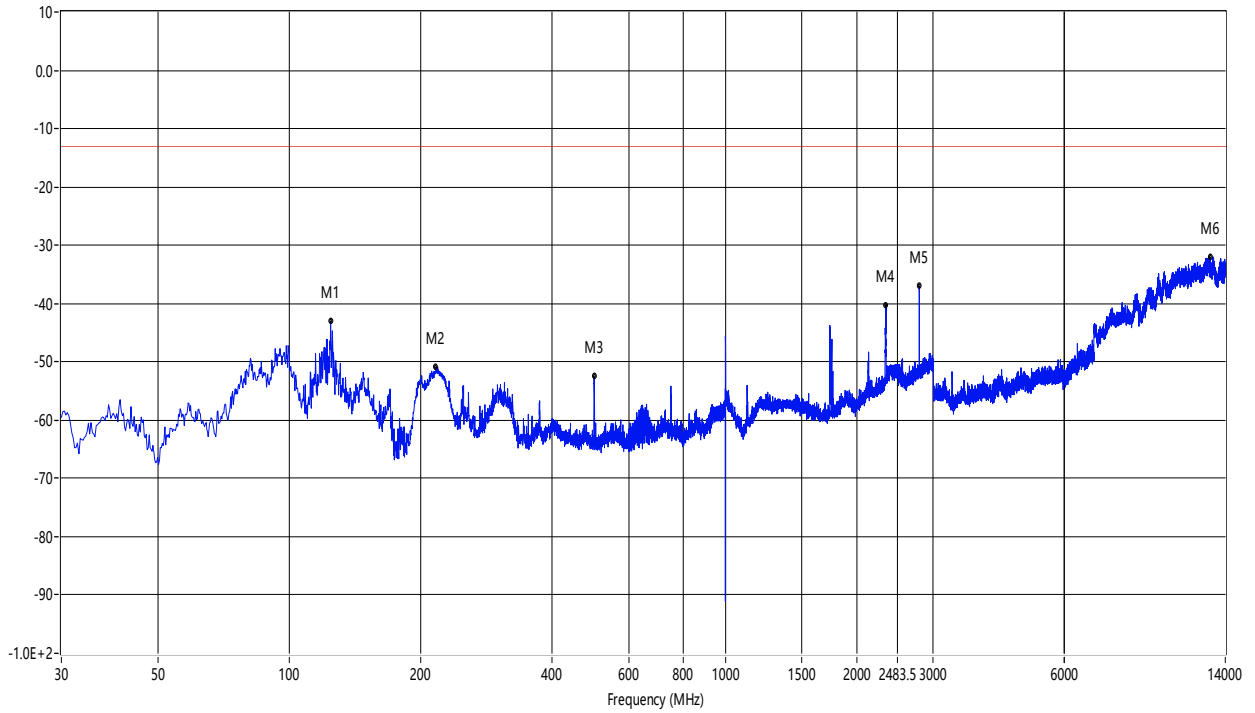


Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
95.475	-49.38	-14.16	-13.0	-36.38	343.50	Horizontal	Vertical	Pass
237.822	-49.29	-2.69	-13.0	-36.29	201.90	Horizontal	Vertical	Pass
750.225	-52.16	7.17	-13.0	-39.16	279.50	Horizontal	Vertical	Pass
1881.500	-54.18	14.53	-13.0	-41.18	60.70	Horizontal	Vertical	Pass
2783.000	-38.25	20.20	-13.0	-25.25	30.90	Horizontal	Vertical	Pass
12185.250	-31.55	23.93	-13.0	-18.55	214.50	Horizontal	Vertical	Pass



CH5_Vertical

RSE_FCC Test Case_RSE_FCC Part 27_30M-14G V

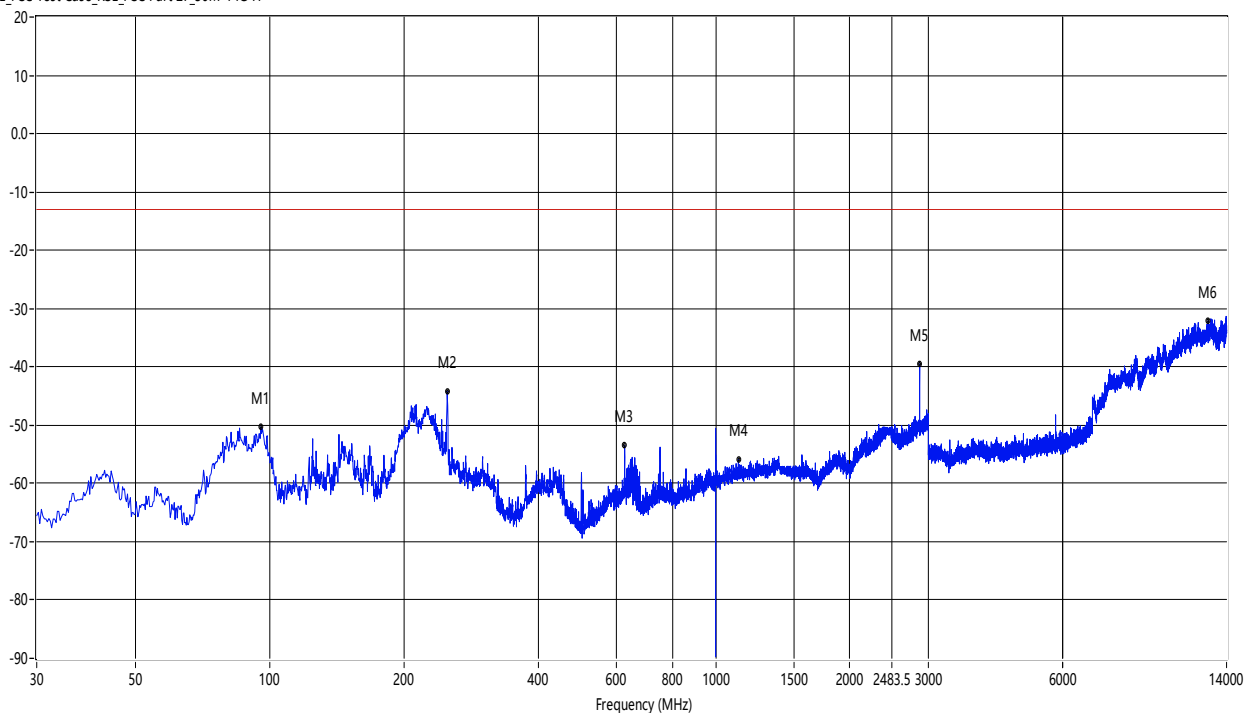


Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
124.332	-43.07	-3.62	-13.0	-30.07	277.40	Vertical	Vertical	Pass
216.725	-50.85	-11.45	-13.0	-37.85	226.70	Vertical	Vertical	Pass
499.965	-52.49	4.61	-13.0	-39.49	311.50	Vertical	Vertical	Pass
2334.000	-40.24	17.82	-13.0	-27.24	175.80	Vertical	Vertical	Pass
2784.000	-36.96	19.37	-13.0	-23.96	358.00	Vertical	Vertical	Pass
12927.250	-32.06	25.07	-13.0	-19.06	237.20	Vertical	Vertical	Pass



CH6_Horizontal

RSE_FCC Test Case_RSE_FCC Part 27_30M-14G H

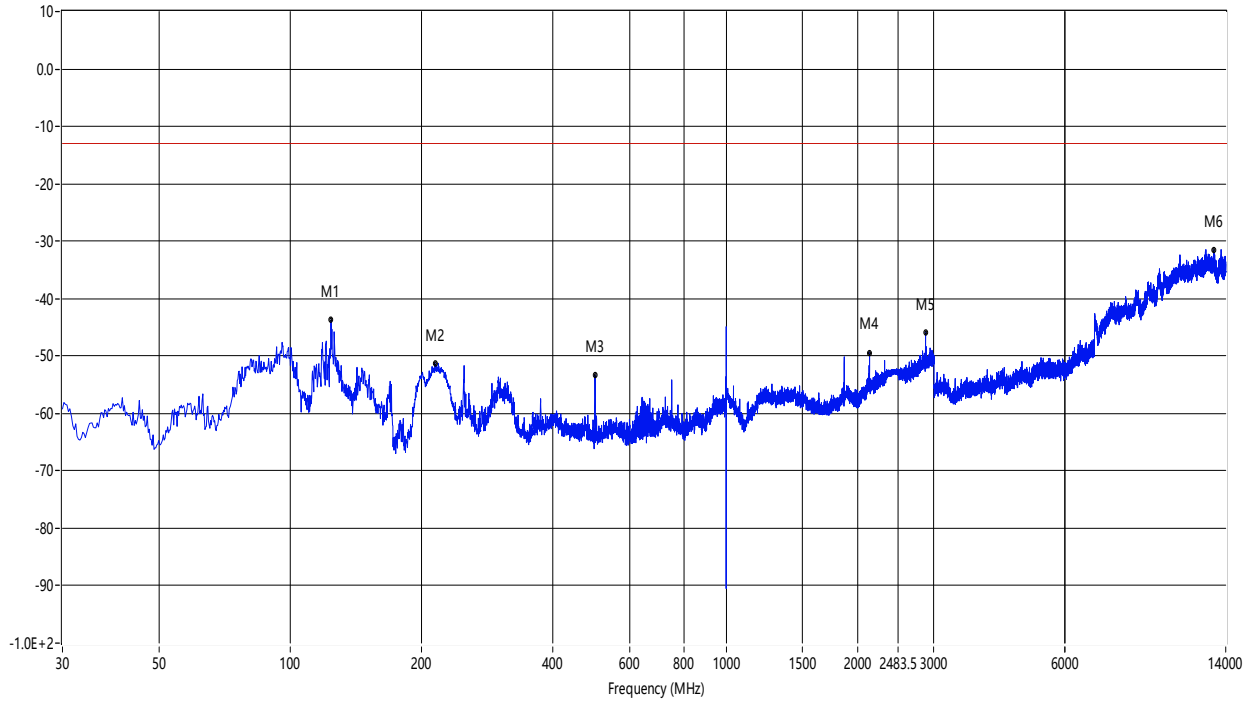


Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
95.475	-50.29	-14.16	-13.0	-37.29	189.90	Horizontal	Vertical	Pass
249.947	-44.17	-2.29	-13.0	-31.17	153.30	Horizontal	Vertical	Pass
625.095	-53.47	7.27	-13.0	-40.47	280.80	Horizontal	Vertical	Pass
1124.500	-55.92	12.29	-13.0	-42.92	69.10	Horizontal	Vertical	Pass
2867.500	-39.50	20.68	-13.0	-26.50	339.20	Horizontal	Vertical	Pass
12726.000	-32.11	24.52	-13.0	-19.11	186.20	Horizontal	Vertical	Pass



CH6_Vertical

RSE_FCC Test Case_RSE_FCC Part 27_30M-14G V



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
124.090	-43.69	-3.63	-13.0	-30.69	262.70	Vertical	Vertical	Pass
214.785	-51.27	-11.57	-13.0	-38.27	255.80	Vertical	Vertical	Pass
500.207	-53.28	4.61	-13.0	-40.28	313.40	Vertical	Vertical	Pass
2132.500	-49.48	15.26	-13.0	-36.48	78.40	Vertical	Vertical	Pass
2867.500	-45.85	20.10	-13.0	-32.85	212.90	Vertical	Vertical	Pass
13135.500	-31.53	24.50	-13.0	-18.53	286.30	Vertical	Vertical	Pass

7. FREQUENCY STABILITY

7.1 LIMIT

Assigned frequency: 1390 – 1395 MHz; 1432 – 1435 MHz

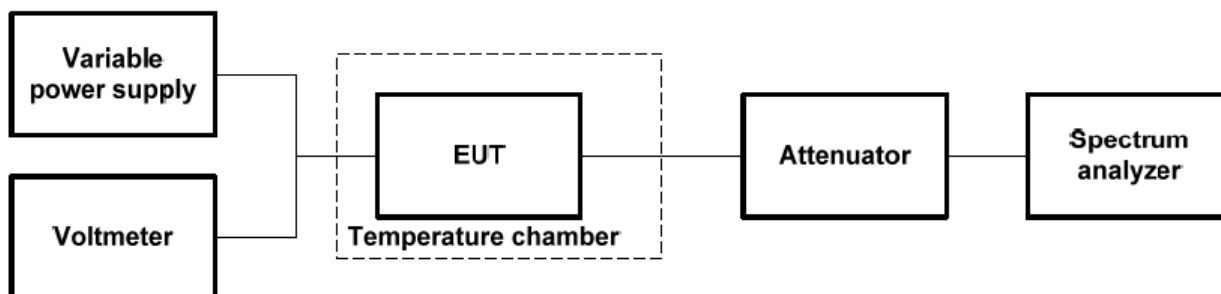
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

7.2 MEASUREMENT METHOD

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency band.

Configuration follows C63.26:2015 Section 5.6.

7.3 TEST SETUP



7.4 TEST PROCEDURES FOR TEMPERATURE VARIATION

1. The EUT was set up in the thermal chamber and connected to spectrum analyzer through an attenuator.
2. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
3. With power OFF, the temperature was raised in 10°C step up to 50°C . The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

7.5 TEST PROCEDURES FOR VOLTAGE VARIATION

1. The EUT was placed in a temperature chamber at $25\pm 5^{\circ}\text{C}$ and connected with the system simulator.
2. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case.



7.6 TEST RESULTS

CH5

Test Frequency (MHz)	Temperature (°C)	Voltage (V)	FL	FH	FC	Tolerance (Hz)	Tolerance (ppm)	Verdict
1391.650	50	Normal Voltage	1391.0228	1392.2537	1391.63824	-11760	-8.450	PASS
	40		1391.0242	1392.2549	1391.63951	-10490	-7.538	PASS
	30		1391.0250	1392.2531	1391.63905	-10955	-7.872	PASS
	20		1391.0245	1392.2553	1391.63989	-10110	-7.265	PASS
	10		1391.0242	1392.2531	1391.63864	-11360	-8.163	PASS
	0		1391.0233	1392.2532	1391.63826	-11745	-8.440	PASS
	-10		1391.0243	1392.2545	1391.63937	-10630	-7.638	PASS
	-20		1391.0238	1392.2536	1391.63868	-11325	-8.138	PASS
	-30		1391.0244	1392.2531	1391.63872	-11280	-8.105	PASS
	20	15%	1391.0235	1392.2537	1391.63858	-11425	-8.210	PASS
	20	-15%	1391.0241	1392.2542	1391.63914	-10865	-7.807	PASS

CH6

Test Frequency (MHz)	Temperature (°C)	Voltage (V)	FL	FH	FC	Tolerance (Hz)	Tolerance (ppm)	Verdict
1433.544	50	Normal Voltage	1432.9889	1434.1683	1433.57862	34620	24.150	PASS
	40		1432.9879	1434.1681	1433.57801	34010	23.724	PASS
	30		1432.9883	1434.1693	1433.57876	34755	24.244	PASS
	20		1432.9884	1434.1686	1433.57847	34470	24.045	PASS
	10		1432.9873	1434.1697	1433.57848	34475	24.049	PASS
	0		1432.9878	1434.1694	1433.57860	34595	24.132	PASS
	-10		1432.9886	1434.1681	1433.57832	34315	23.937	PASS
	-20		1432.9872	1434.1682	1433.57768	33675	23.491	PASS
	-30		1432.9873	1434.1681	1433.57771	33705	23.512	PASS
	20	15%	1432.9875	1434.1680	1433.57778	33780	23.564	PASS
	20	-15%	1432.9873	1434.1691	1433.57819	34185	23.846	PASS

