



Project No.: TM-2512000051P
Report No.: TMWK2512005516KR

FCC ID: P4Q-N702
Ref. No.: TMWK2508003541KR

Page: 1 / 29
Rev.: 01

FCC 47 CFR PART 15 SUBPART C (CLASS II PERMISSIVE CHANGE)

TEST REPORT

For

Connected Digital Recorder

Model No.: N702, N702B, CAMPro US, SafetyCam Pro

**Brand Name: MiTAC, Mio, MAGELLAN, Navman, SMARTER AI,
Webfleet, Azuga, Geotab, Surecam**

Issued to

Mitac Digital Technology Corporation
4F., No. 1, R&D Road 2, Hsinchu Science Park, Hsinchu 30076 Taiwan

Issued by

Compliance Certification Services Inc.
Wugu Laboratory
No.11, Wugong 6th Rd., Wugu Dist.,
New Taipei City, Taiwan.
Issued Date: March 18, 2026

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com.tw/Terms-and-Conditions> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	February 6, 2026	Initial Issue	ALL	Peggy Tsai
01	March 18, 2026	See the following Note Rev.(01)	ALL	Peggy Tsai

Rev. (01)

1. Remove IC regulatory requirements.

TABLE OF CONTENTS

1. TEST RESULT CERTIFICATION	4
2. EUT DESCRIPTION	5
2.1 EUT INFORMATION	5
2.2 ANTENNA INFORMATION	6
3. TEST METHODOLOGY	7
3.1 EUT CONFIGURATION	7
3.2 FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS	8
3.3 DESCRIPTION OF TEST MODES	9
4. TEST SUMMARY	10
5. INSTRUMENT CALIBRATION	11
5.1 MEASURING INSTRUMENT CALIBRATION	11
5.2 MEASUREMENT EQUIPMENT USED	11
5.3 MEASUREMENT UNCERTAINTY	12
5.4 FACILITIES AND TEST LOCATION	12
6. SETUP OF EQUIPMENT UNDER TEST	13
6.1 SUPPORT EQUIPMENT	13
6.2 TEST SETUP DIAGRAM	13
6.3 TEST PROGRAM	13
7. FCC PART 15.225 REQUIREMENTS	14
7.1 OCCUPIED BANDWIDTH(99%) AND 20 DB BANDWIDTH	14
7.2 FUNDAMENTAL AND RADIATED EMISSIONS	16
7.3 FREQUENCY STABILITY	25
7.4 AC POWERLINE CONDUCTED EMISSIONS	29
APPENDIX A PHOTOGRAPHS OF TEST SETUP	A-1



Project No.: TM-2512000051P

Report No.: TMWK2512005516KR

Ref. No.: TMWK2508003541KR

Page: 4 / 29

Rev.: 01

1. TEST RESULT CERTIFICATION

Applicant: Mitac Digital Technology Corporation
4F., No. 1, R&D Road 2, Hsinchu Science Park, Hsinchu 30076
Taiwan

Manufacturer: MITAC COMPUTER (KUNSHAN) CO., LTD.
No. 269, 2nd Avenue, District A, Comprehensive Free Trade
Zone, Kunshan, Jiangsu, P.R. China

Equipment Under Test: Connected Digital Recorder

Brand Name: MiTAC, Mio, MAGELLAN, Navman, SMARTER AI, Webfleet,
Azuga, Geotab, Surecam

Model No.: N702, N702B, CAMPro US, SafetyCam Pro

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
FCC 47 CFR Part 15 Subpart C	Compliance
Statements of Conformity	
Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.	

We hereby certify that:

The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10-2020 and the energy emitted by the sample tested as described in this report is in compliance with the requirements of FCC Rules Part 15.225.

The test results of this report relate only to the tested sample identified in this report.

Approved by:

Sehni Hu
Supervisor

2. EUT DESCRIPTION

2.1 EUT INFORMATION

Equipment	Connected Digital Recorder
Model Name	N702, N702B, CAMPro US, SafetyCam Pro
Model Discrepancy	Difference of the those model number / trademarks (list on this report) are just for marketing purpose only.
Brand Name	MiTAC, Mio, MAGELLAN, Navman, SMARTER AI, Webfleet, Azuga, Geotab, Surecam
Received Date	December 10, 2025
Date of Test	January 13 ~ 21, 2026
Power Supply	Power from power supply. (DC 12~24V)
Frequency Range	13.56MHz
Modulation Technique	ASK
Number of Channels	1 Channel
EUT Serial #	L1225460001
HW Version	R03
SW Version	R01
Class II Permissive Change	1. Added brand name: Surecam. 2. The NFC chip IC is changed from NXP NQ310 to NQ410, with the same brand, model series, and specifications as the original.

Remark:

- For more details, please refer to the User's manual of the EUT.
- Disclaimer: Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received.
- Disclaimer: Variant information between/among model numbers / trademarks is provided by the applicant, test results of this report are applicable to the sample EUT received of main test model name.

2.2 ANTENNA INFORMATION

Antenna Specification	☐ PIFA ☐ PCB ☐ Dipole ☐ Coils ☒ FPC
Antenna Gain	Gain: N/A dBi
Antenna connector	MHF

Notes:

1.The antenna(s) of the EUT are permanently attached and there are no provisions for connection to an external antenna. So the EUT complies with the requirements of §15.203.

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2020 and FCC CFR 47 Part 15.207, 15.209, 15.225.

3.1 EUT CONFIGURATION

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

3.2 FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 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 -	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.52525	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	156.7 - 156.9	3260 - 3267	23.6 - 24.0
12.29 - 12.293	162.0125 - 167.17	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	167.72 - 173.2	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	240 - 285	3600 - 4400	(²)
13.36 - 13.41	322 - 335.4		

¹ Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

² Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

3.3 DESCRIPTION OF TEST MODES

The EUT had been tested under engineering test mode condition and the EUT staying in continuous transmitting mode.

All modes and data rates were investigated and it was determined that ISO 14443A/B, ISO 18092 Type y and ISO 15693 reader and FeliCa™ reader.

The frequency 13.56 MHz. The default channel to test, where it is the only manipulative channel as this application supports.

All data rates were investigated. Therefore, all testing was performed in ISO14443A and 106 Kbps mode was considered worst-case.

3.4.1 The worst mode of measurement

Radiated Emission Measurement Below 1G	
Test Condition	Radiated Emission Below 1G
Power supply Mode	Mode 1: EUT power by Power Supply
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Remark:

1. The worst mode was record in this test report.
2. EUT pre-scanned in three axis ,X,Y, Z and two polarity, for radiated measurement. The worst case(Z-Plane) were recorded in this report
3. The device supports 12V or 24V. The original ID has been fully evaluated as 12V as the worst mode. In this accessory combination, 12V is used as the worst mode evaluation.
4. Variations between models/brands are evaluated by laboratories and the test results reported here apply to the worst model: N702B.

4. TEST SUMMARY

FCC Standard Sec.	Chapter	Test Item	Result
15.203	2	Antenna Requirement	Pass
15.215	7.1	Occupied Bandwidth (99%) and 20dB Bandwidth	Pass
15.225 (a,b,c,d) 15.209 15.205	7.2	Radiated Emissions	Pass
15.255 (e)	7.3	Frequency Stability	Pass
15.207	7.4	AC Power-line Conducted Emission	Pass

5. INSTRUMENT CALIBRATION

5.1 MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

5.2 MEASUREMENT EQUIPMENT USED

Equipment Used for Emissions Measurement

Conducted_FCC/IC/NCC (All)					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Constant Temperature Humidity Chamber	TERCHY	MHG-150LF	930619	2025-10-14	2026-10-13
Loop Antenna	COM-POWER	AL-130	121051	2025-02-18	2026-02-17
PXA Signal Analyzer	Keysight	N9030B	MY62291089	2025-09-24	2026-09-23
DC Blocks	Marvelous Microwave	MVE6411	MVE-001	2025-08-06	2026-08-05
DC Power Source	GWINSTEK	GPC-3030D	8070184	2025-09-15	2026-09-14
Software	N/A				

966A_Radiated					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Signal Analyzer	KEYSIGHT	N9010A	MY52220817	2025-03-05	2026-03-04
Active Loop Antenna	COM-POWER	AL-130	121051	2025-02-18	2026-02-17
Thermo-Hygro Meter	HTC	HTC-1	HTC-D06	2025-05-26	2026-05-25
Bi-Log Antenna	Sunol Sciences	JB3	A030105&532	2025-06-26	2026-06-25
Preamplifier	EMEC	EM330	060609	2025-02-20	2026-02-19
Cable	Huber+Suhner	104PEA	20995+21000+182330	2025-08-06	2026-08-05
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Software	e3 V9-210616c				

Remark:

- Each piece of equipment is scheduled for calibration once a year.
- N.C.R. = No Calibration Required.

5.3 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	$\pm 2.37\text{dB}$
Channel Bandwidth	$\pm 2.85\text{dB}$
Frequency Stability	$\pm 2.74\text{dB}$
Radiated Emission_9kHz-30MHz	$\pm 2.750\text{ dB}$
Radiated Emission_30MHz-200MHz	$\pm 3.874\text{ dB}$
Radiated Emission_200MHz-1GHz	$\pm 4.065\text{ dB}$

Remark: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

5.4 FACILITIES AND TEST LOCATION

All measurement facilities used to collect the measurement data are located at No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan.
CAB identifier: TW1309

Test site	Test Engineer	Remark
AC Conduction Room	-	Not applicable, because EUT not connect to AC Main Source direct.
Radiation	Tony Chao	-
RF Conducted	Marco Chan	-

Remark: The lab has been recognized as the FCC accredited lab. under the KDB 974614 D01 and is listed in the FCC public Access Link (PAL) database, FCC Registration No. :444940, the FCC Designation No.:TW1309

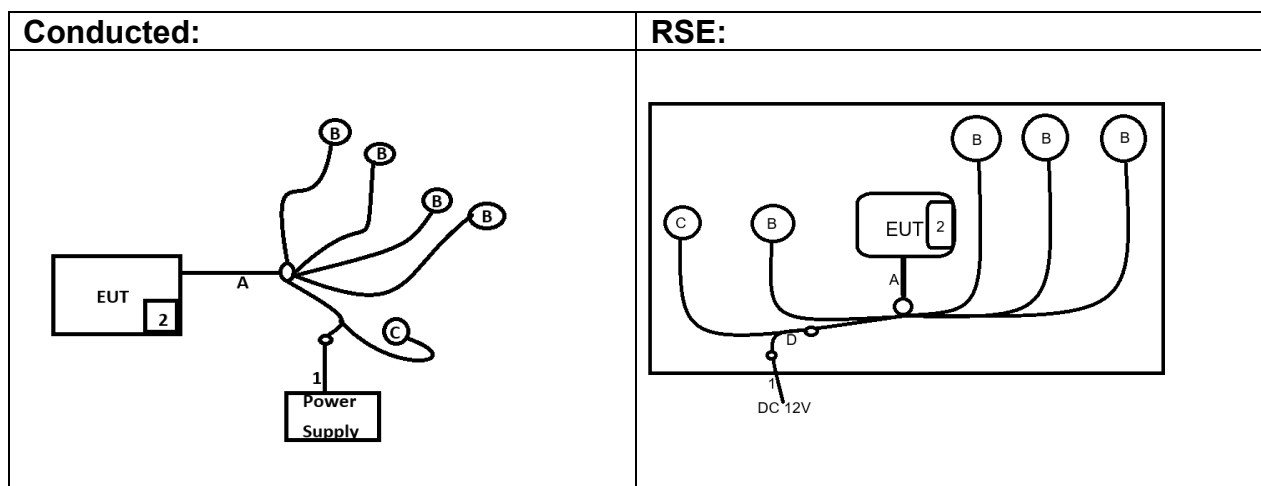
6. SETUP OF EQUIPMENT UNDER TEST

6.1 SUPPORT EQUIPMENT

EUT Accessories Equipment						
No.	Equipment	Brand	Model	Series No.	FCC ID	IC
	N/A					

Support Equipment (Conducted & RSE)						
No.	Equipment	Brand	Model	Series No.	FCC ID	IC
1	DC Power Cable	MISUMI	MCR3S-RE	N/A	N/A	N/A
2	NFC Card	HEROES LIMITED	NTAG213	N/A	N/A	N/A
A	1 to 4 Splitter Adapter	N/A	N/A	N/A	N/A	N/A
B	TVI camera	N/A	N/A	N/A	N/A	N/A
C	Panic button	N/A	N/A	N/A	N/A	N/A
D	Open Wire for 1 to 4 Splitter Adapter	N/A	N/A	N/A	N/A	N/A

6.2 TEST SETUP DIAGRAM



6.3 TEST PROGRAM

This EUT powered on and placing the card in the sensing area to set the frequency, modulation and power to allow continuous transmission of the sample.

7. FCC PART 15.225 REQUIREMENTS

7.1 OCCUPIED BANDWIDTH(99%) AND 20 DB BANDWIDTH TEST CONFIGURATION

Refer to section 6.2.

TEST PROCEDURE

1. Place the EUT on the table and set it in the transmitting mode.
2. Set the spectrum analyzer as RBW & VBW (RBW) shall be in the range of 1% to 5% of the actual occupied / x dB bandwidth (VBW) shall not be smaller than three times the RBW value.
3. Record bandwidth-related parameters.

TEST RESULTS

Compliance

Temperature: 21.5 ~ 24.3°C

Test Date: January 13 ~ 21, 2026

Humidity: 50 ~ 62% RH

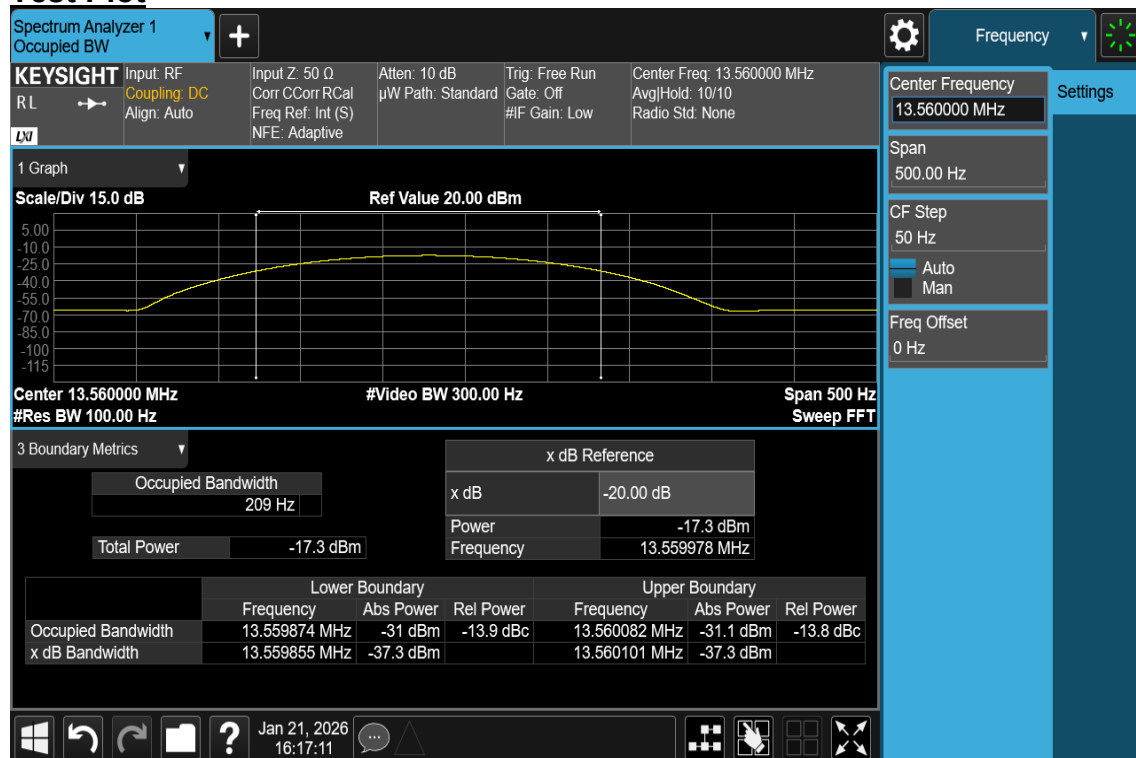
Tested by: Marco Chan

NFC					
Frequency (MHz)	20dB BW (kHz)	Operation range	Frequency (MHz)	Limit (MHz)	99% BW (kHz)
13.56	0.246	Low	13.559874	>13.11	0.209
		High	13.560082	<14.01	

Remark:

Because the measured signal adjusting the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW.

Test Plot



7.2 FUNDAMENTAL AND RADIATED EMISSIONS

LIMIT

According to §15.225

- (a) The field strength of any emissions within the band 13.553 – 13.567 MHz shall not exceed 15,848 microvolts / meter at 30 meters.
- (b) Within the bands 13.410 – 13.553 MHz and 13.567 -13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts / meter at 30 meters.
- (c) Within the bands 13.110 – 13.410 MHz and 13.710 – 14.010 MHz the field strength of any emissions shall not exceed 106 microvolts / meter at 30 meters.
- (d) The field strength of any emissions appearing outside of the 13.110 – 14.010 MHz and shall not exceed the general radiated emission limits in §15.209.

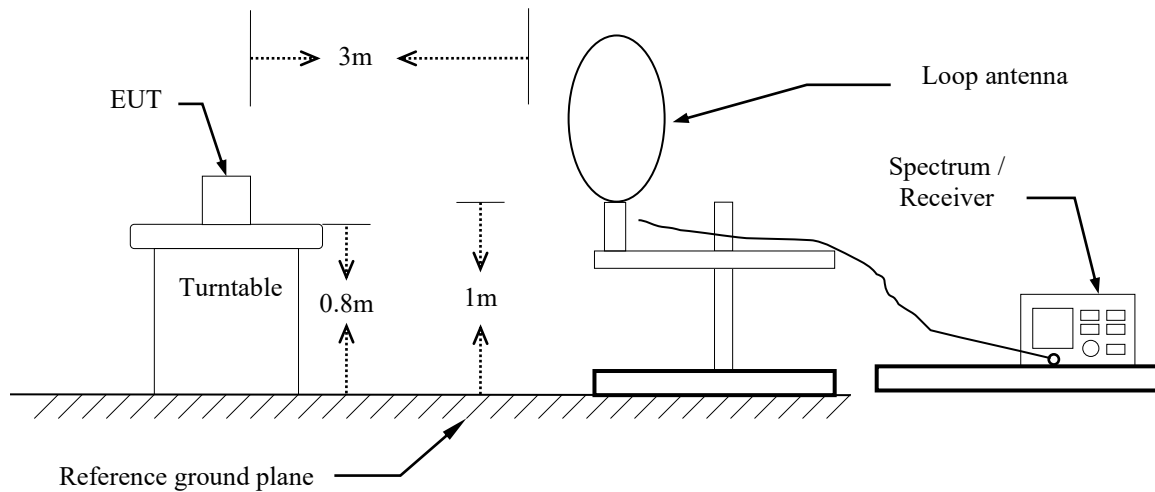
According to §15.225, except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (µV/m at meter)	Measurement Distance (meter)
0.009 – 0.490	2400 / F (kHz)	300
0.490 – 1.705	24000 / F (kHz)	30
1.705 – 30.0	30	30
30 - 88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

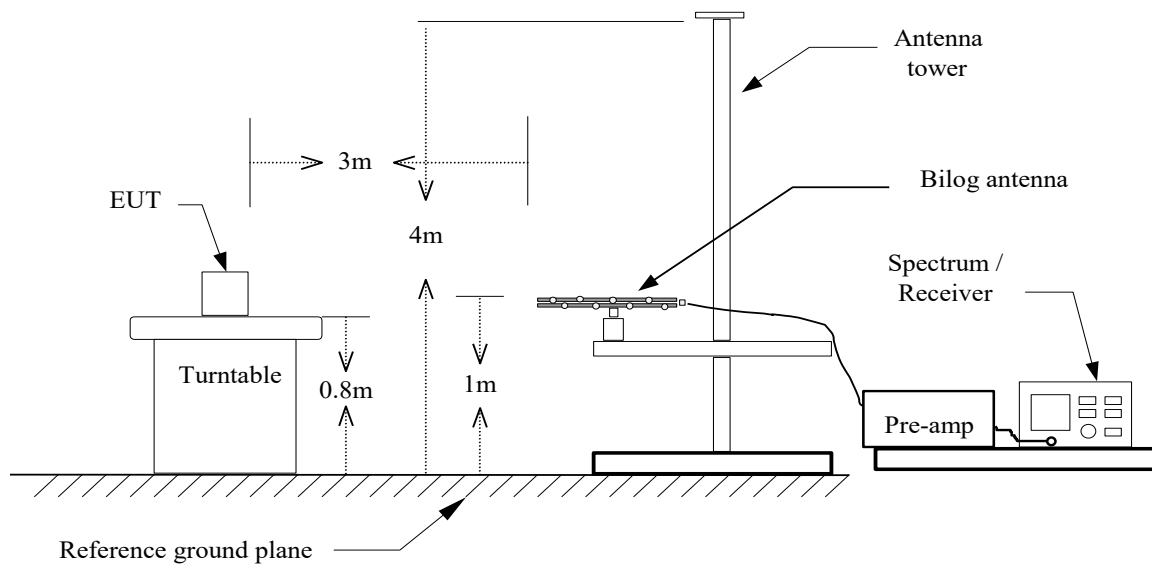
** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

Test Configuration

9kHz ~ 30MHz



30MHz ~ 1GHz



TEST PROCEDURE

For 9kHz ~ 30MHz

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, The lower edge of the loop shall be 1 m above the ground then to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. Set the spectrum analyzer in the following setting as:
9KHz-490KHz : RBW=200Hz / VBW=1kHz / Sweep=AUTO
490KHz-30MHz : RBW=10kHz / VBW=30kHz / Sweep=AUTO
6. Repeat above procedures until the measurements for all frequencies are complete.

For 30MHz ~ 1GHz

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Set the spectrum analyzer in the following setting as:
RBW=100kHz / VBW=300kHz / Sweep=AUTO
7. Repeat above procedures until the measurements for all frequencies are complete.

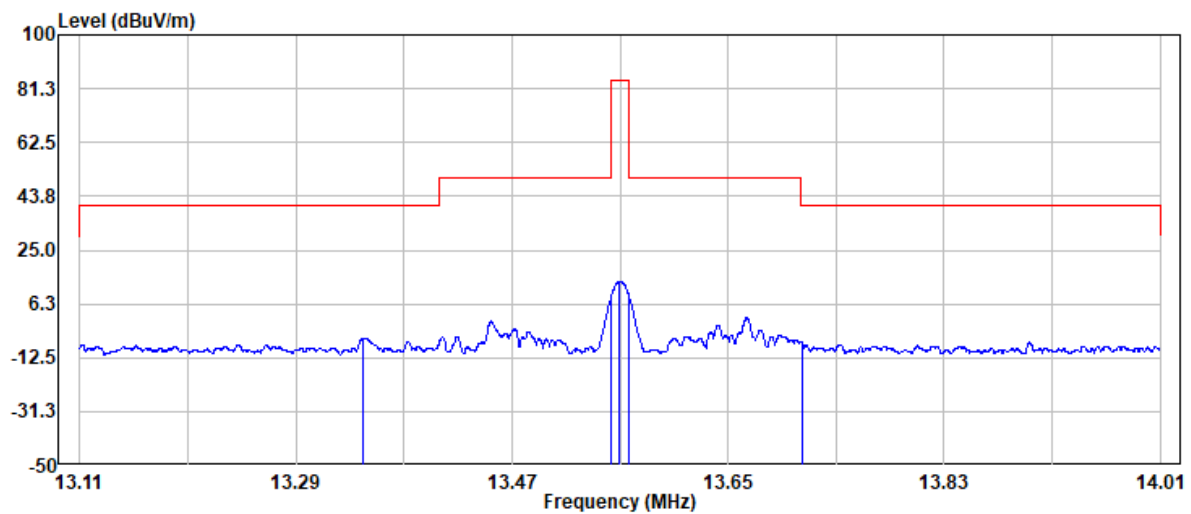
Remark:

1. Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open area test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.

Test Data: Main

Project No : TM-2512000051P
Operation Band : NFC
Frequency : 13.56 MHz
Operation Mode : Main
EUT Pol : H
Setting :

Test Date : 2026-01-15
Temp./Humi. : 25.3/54
Antenna Pol. : HORIZONTAL
Engineer : Tony.Chao
Test Chamber : 966A



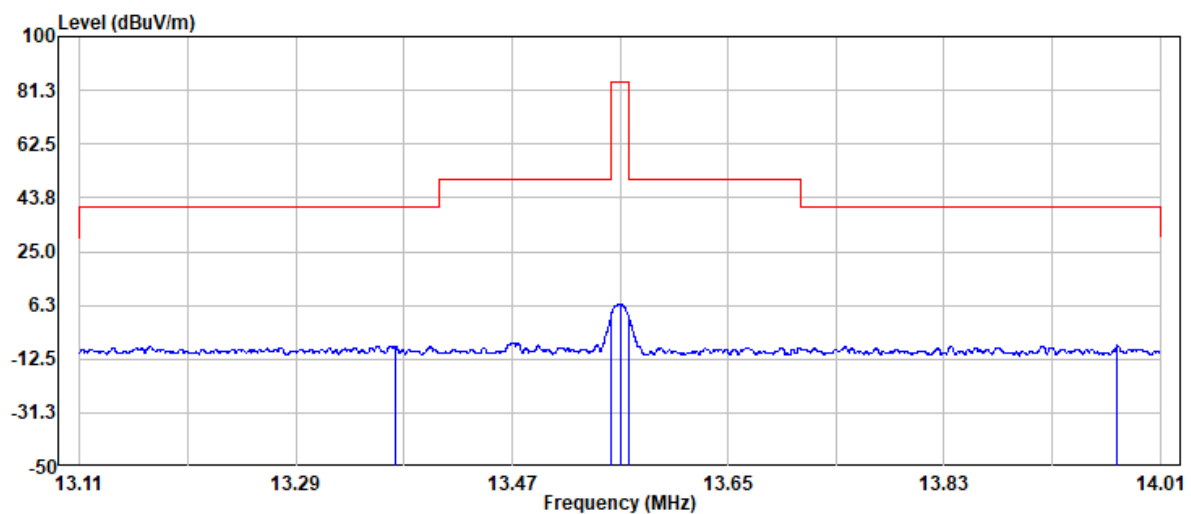
Freq	Read Level @3m	Factor @3m	Actual @3m	Factor @300m	Actual @300m	Limit	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV/m	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
13.35	18.26	16.08	34.34	-40.00	-5.66	40.51	-46.17	Peak
13.55	33.38	16.04	49.42	-40.00	9.42	50.47	-41.05	Peak
13.56	38.04	16.04	54.08	-40.00	14.08	84.00	-69.92	Peak
13.57	33.76	16.03	49.80	-40.00	9.80	50.47	-40.67	Peak
13.71	16.83	16.01	32.84	-40.00	-7.16	40.51	-47.67	Peak

Remark:

1. Radiated emissions measured were made with an instrument using peak/quasi-peak/average detector mode.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Margin (dB) = Result (dBuV/m) – Limit (dBuV/m).
4. Result=Read level+Factor@3m+Distance factor
5. Distance factor=40log(3m/30m)
6. Factor=antenna factor+cable loss

Project No : TM-2512000051P
Operation Band : NFC
Frequency : 13.56 MHz
Operation Mode : Main
EUT Pol : H
Setting :

Test Date : 2026-01-15
Temp./Humi. : 25.3/54
Antenna Pol. : VERTICAL
Engineer : Tony.Chao
Test Chamber : 966A



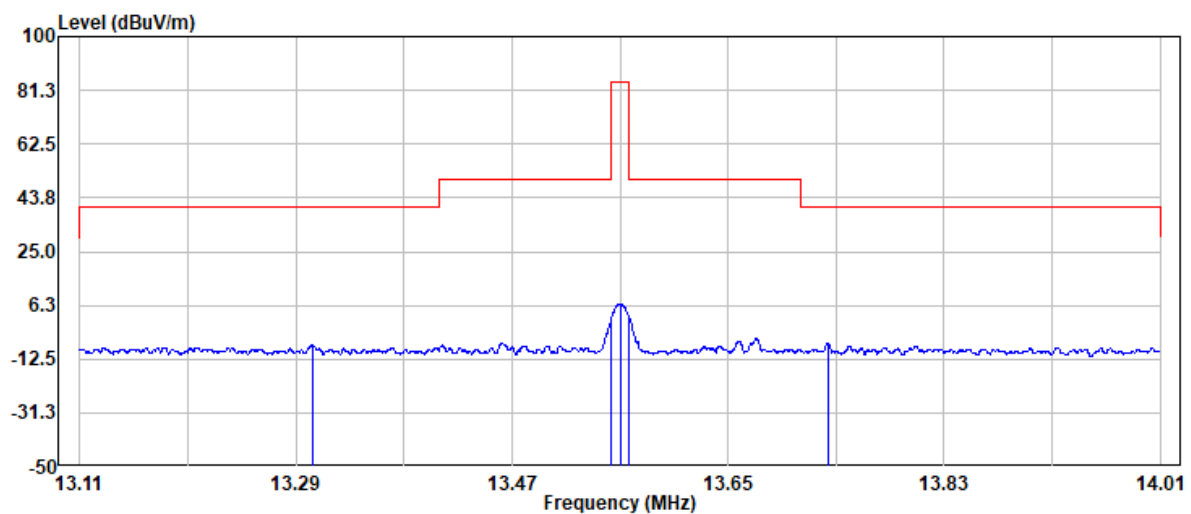
Freq	Read Level	Factor	Actual	Factor	Actual	Limit	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV/m	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
13.37	16.02	16.07	32.10	-40.00	-7.90	40.51	-48.41	Peak
13.55	27.58	16.04	43.62	-40.00	3.62	50.47	-46.85	Peak
13.56	30.79	16.04	46.83	-40.00	6.83	84.00	-77.17	Peak
13.57	26.73	16.03	42.77	-40.00	2.77	50.47	-47.70	Peak
13.97	16.21	15.96	32.17	-40.00	-7.83	40.51	-48.34	Peak

Remark:

1. Radiated emissions measured were made with an instrument using peak/quasi-peak/average detector mode.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Margin (dB) = Result (dBuV/m) – Limit (dBuV/m).
4. Result=Read level+Factor@3m+Distance factor
5. Distance factor=40log(3m/30m)
6. Factor=antenna factor+cable loss

Project No : TM-2512000051P
Operation Band : NFC
Frequency : 13.56 MHz
Operation Mode : Main
EUT Pol : H
Setting :

Test Date : 2026-01-15
Temp./Humi. : 25.3/54
Antenna Pol. : Ground
Engineer : Tony.Chao
Test Chamber : 966A



Freq	Read Level	Factor	Actual	Factor	Actual	Limit	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV/m	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
13.30	16.18	16.08	32.27	-40.00	-7.73	40.51	-48.24	Peak
13.55	26.16	16.04	42.20	-40.00	2.20	50.47	-48.27	Peak
13.56	30.61	16.04	46.65	-40.00	6.65	84.00	-77.35	Peak
13.57	26.77	16.03	42.81	-40.00	2.81	50.47	-47.66	Peak
13.73	16.78	16.00	32.78	-40.00	-7.22	40.51	-47.73	Peak

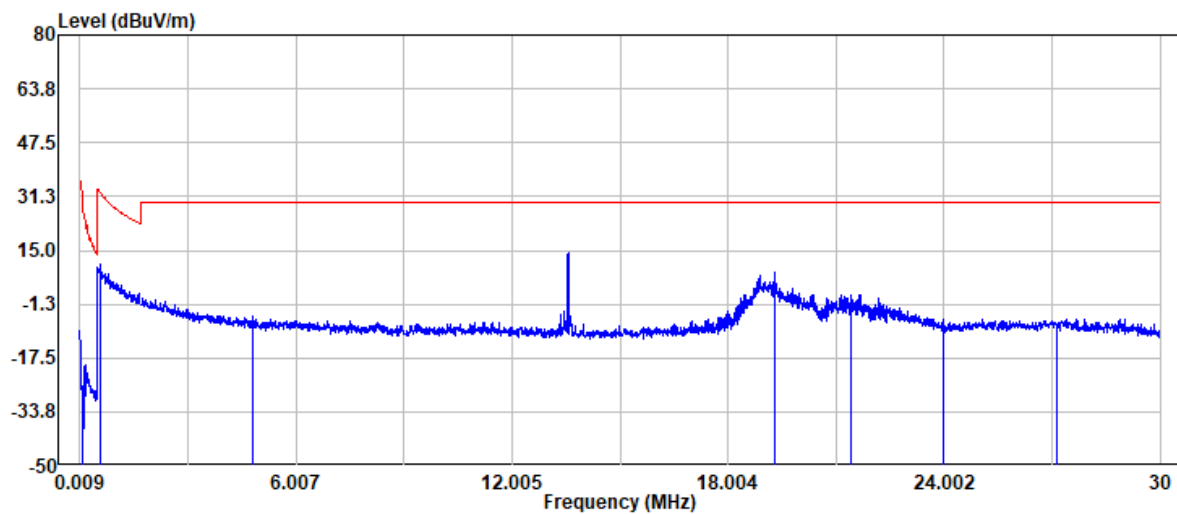
Remark:

1. Radiated emissions measured were made with an instrument using peak/quasi-peak/average detector mode.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Margin (dB) = Result (dBuV/m) – Limit (dBuV/m).
4. Result=Read level+Factor@3m+Distance factor
5. Distance factor=40log(3m/30m)
6. Factor=antenna factor+cable loss

Test Data: 9kHz ~ 30MHz

Project No : TM-2512000051P
Operation Band : NFC
Frequency : 13.56 MHz
Operation Mode : TX
EUT Pol : H
Setting :

Test Date : 2026-01-15
Temp./Humi. : 25.3/54
Antenna Pol. : HORIZONTAL
Engineer : Tony.Chao
Test Chamber : 966A



Freq	Read Level @3m	Factor @3m	Actual @3m	Factor @30m @300m	Actual @30m @300m	Limit	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV/m	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
0.06	40.74	13.37	54.11	-80.00	-25.89	31.44	-57.33	Peak
0.59	37.13	13.81	50.94	-40.00	10.94	32.22	-21.28	Peak
4.82	20.42	14.93	35.35	-40.00	-4.65	29.54	-34.19	Peak
19.29	31.25	17.20	48.45	-40.00	8.45	29.54	-21.09	Peak
21.43	24.74	16.93	41.67	-40.00	1.67	29.54	-27.87	Peak
23.97	17.04	17.22	34.26	-40.00	-5.74	29.54	-35.28	Peak
27.12	13.78	18.24	32.02	-40.00	-7.98	29.54	-37.52	Peak

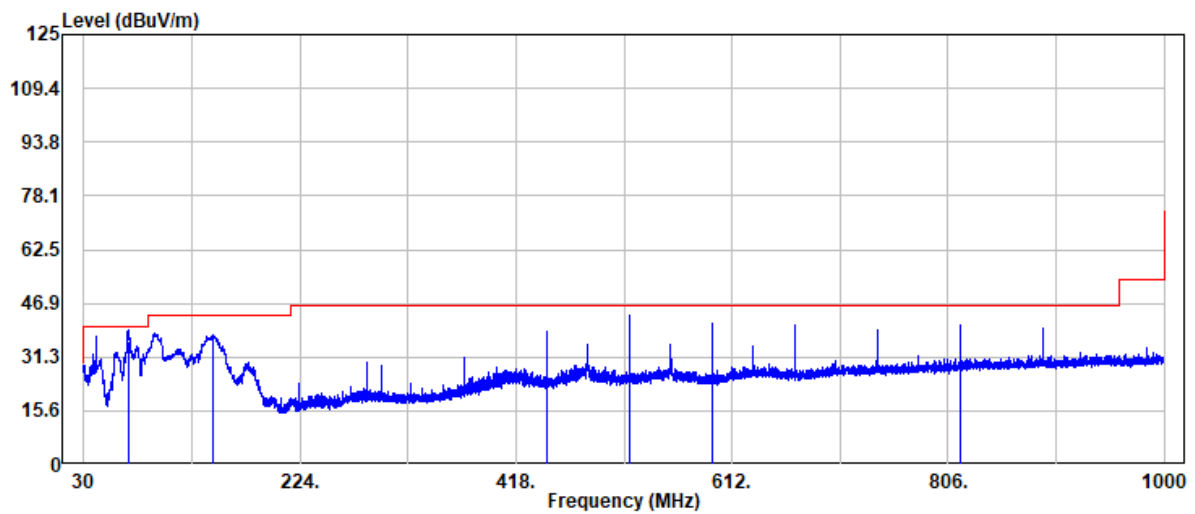
Remark:

- 9kHz to 490kHz Limit(@3m) = 2400(F/kHz)
490kHz to 1.705MHz Limit (@3m) = 2400(F/kHz)
1.705MHz to 30MHz Limit (@3m) = 29.54
- Distance factor=40log(3m/300m)@9-490kHz ; 40log(3m/30m)@490kHz-30MHz
- Result=Read level+Factor@3m+Distance factor
- After pre-scanning the main wave, only the worst polarization is evaluated and recorded in the report.

Test Data: 30MHz ~ 1GHz

Project No : TM-2512000051P
Operation Band : NFC
Frequency : 13.56 MHz
Operation Mode : TX
EUT Pol : H
Setting :

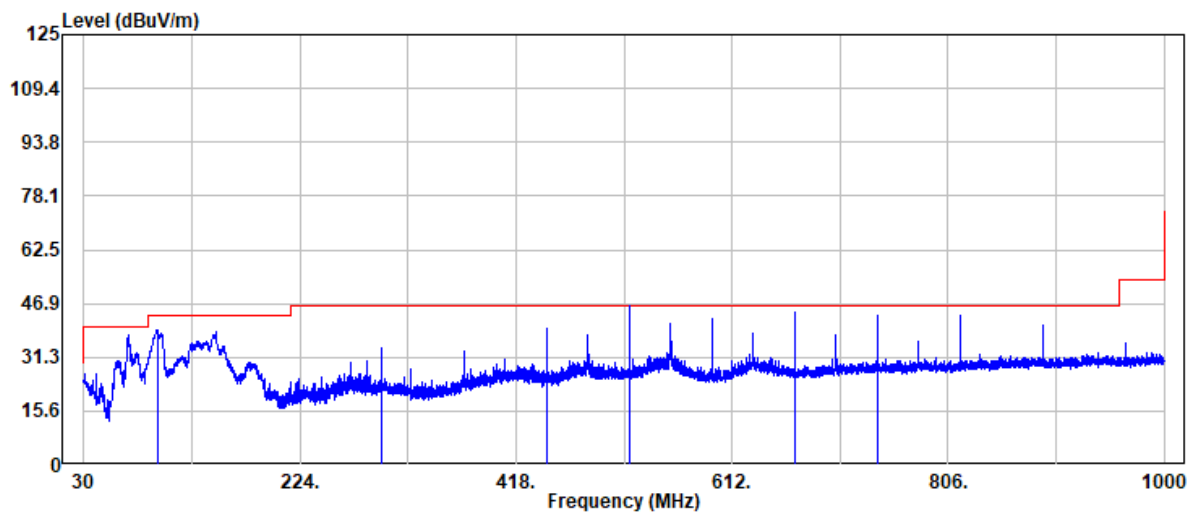
Test Date : 2026-01-15
Temp./Humi. : 25.3/54
Antenna Pol. : VERTICAL
Engineer : Tony.Chao
Test Chamber : 966A



Freq	Read Level	Factor	Actual FS	Limit @3m	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
69.80	51.86	-15.81	36.05	40.00	-3.95	QP
146.30	48.71	-10.83	37.88	43.50	-5.62	Peak
445.50	44.29	-5.41	38.88	46.00	-7.12	Peak
519.80	47.49	-4.26	43.23	46.00	-2.77	Peak
594.00	44.70	-3.51	41.19	46.00	-4.81	Peak
816.80	39.81	0.63	40.44	46.00	-5.56	Peak

Project No : TM-2512000051P
Operation Band : NFC
Frequency : 13.56 MHz
Operation Mode : TX
EUT Pol : H
Setting :

Test Date : 2026-01-15
Temp./Humi. : 25.3/54
Antenna Pol. : HORIZONTAL
Engineer : Tony.Chao
Test Chamber : 966A



Freq	Read Level	Factor	Actual FS	Limit @3m	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	PK/QP/AV
96.40	53.63	-14.36	39.27	43.50	-4.23	Peak
297.00	43.16	-9.35	33.81	46.00	-12.19	Peak
445.50	45.23	-5.41	39.82	46.00	-6.18	Peak
519.80	49.30	-4.26	45.04	46.00	-0.96	QP
668.30	46.00	-1.75	44.25	46.00	-1.75	Peak
742.50	43.81	-0.46	43.35	46.00	-2.65	Peak

7.3 FREQUENCY STABILITY

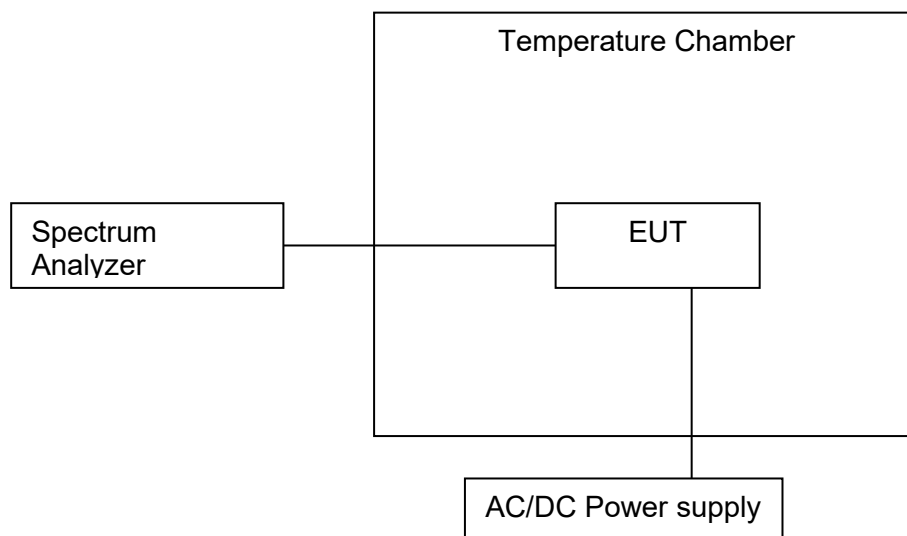
LIMIT

According to §15.225(e),

The frequency tolerance of the carrier signal shall be maintained within $\pm 0.01\%$ of the operating frequency over a temperature variation of -20 degrees to $+50$ degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

Test Configuration

Temperature and Voltage Measurement (under normal and extreme test conditions)



TEST PROCEDURE

1. Turn the EUT off, and place it inside the environmental temperature chamber.
2. Set the temperature control on the chamber to the highest specified in the regulatory requirements for the type of device and allow the oscillator heater and the chamber temperature to stabilize.
3. Set the spectrum analyzer as RBW=1kHz, VBW = RBW, Span = 200kHz, Sweep = auto.
4. Turn the EUT on and record the operating frequency at startup and two, five, and ten minutes after the EUT is energized.
5. Switch off the EUT and Lower the chamber temperature by not more than 10 °C and allow the temperature inside the chamber to stabilize.
6. Mark the peak frequency and measure the frequency tolerance using frequency counter function.
7. Repeat step 4 through step 6 down to the specified temperature.

TEST RESULTS

Compliance

Temperature: 21.5°C

Test Date: January 13, 2026

Humidity: 53% RH

Tested by: Marco Chan

TEST DATA

Startup				
A. Temperature Variation				
Power Supply	Environment	Frequency	Delta (kHz)	Limit (kHz)
Vdc	Temperature (°C)	(MHz)		
12	-20	13.5599737	-0.02630	+/- 1.356
12	-10	13.5599731	-0.02690	+/- 1.356
12	0	13.5599685	-0.03150	+/- 1.356
12	10	13.5599635	-0.03650	+/- 1.356
12	20	13.5599640	-0.03600	+/- 1.356
12	30	13.5599708	-0.02920	+/- 1.356
12	40	13.5599637	-0.03630	+/- 1.356
12	50	13.5599665	-0.03350	+/- 1.356
12	60	13.5599652	-0.03480	+/- 1.357
B. Supply Voltage Variation				
Power Supply	Environment	Frequency	Delta (kHz)	Limit (kHz)
Vdc	Temperature (°C)	(MHz)		
13.8	20	13.5599712	-0.02880	+/- 1.356
12	20	13.5599640	-0.03600	+/- 1.356
10.2	20	13.5599596	-0.04040	+/- 1.356

Note: Extreme temperatures are declared by the manufacturer

2 minutes				
A. Temperature Variation				
Power Supply	Environment	Frequency	Delta (kHz)	Limit (kHz)
Vdc	Temperature (°C)	(MHz)		
12	-20	13.5599604	-0.03960	+/- 1.356
12	-10	13.5599674	-0.03260	+/- 1.356
12	0	13.5599548	-0.04520	+/- 1.356
12	10	13.5599662	-0.03380	+/- 1.356
12	20	13.5599640	-0.03600	+/- 1.356
12	30	13.5599672	-0.03280	+/- 1.356
12	40	13.5599675	-0.03250	+/- 1.356
12	50	13.5599685	-0.03150	+/- 1.356
12	60	13.5599712	-0.02880	+/- 1.357
B. Supply Voltage Variation				
Power Supply	Environment	Frequency	Delta (kHz)	Limit (kHz)
Vdc	Temperature (°C)	(MHz)		
13.8	20	13.5599707	-0.02930	+/- 1.356
12	20	13.5599640	-0.03600	+/- 1.356
10.2	20	13.5599729	-0.02710	+/- 1.356

Note: Extreme temperatures are declared by the manufacturer

5 minutes				
A. Temperature Variation				
Power Supply	Environment	Frequency	Delta (kHz)	Limit (kHz)
Vdc	Temperature (°C)	(MHz)		
12	-20	13.5599564	-0.04360	+/- 1.356
12	-10	13.5599631	-0.03690	+/- 1.356
12	0	13.5599726	-0.02740	+/- 1.356
12	10	13.5599664	-0.03360	+/- 1.356
12	20	13.5599587	-0.04130	+/- 1.356
12	30	13.5599599	-0.04010	+/- 1.356
12	40	13.5599736	-0.02640	+/- 1.356
12	50	13.5599650	-0.03500	+/- 1.356
12	60	13.5599717	-0.02830	+/- 1.357
B. Supply Voltage Variation				
Power Supply	Environment	Frequency	Delta (kHz)	Limit (kHz)
Vdc	Temperature (°C)	(MHz)		
13.8	20	13.5599645	-0.03550	+/- 1.356
12	20	13.5599587	-0.04130	+/- 1.356
10.2	20	13.5599698	-0.03020	+/- 1.356

Note: Extreme temperatures are declared by the manufacturer

10 minutes				
A. Temperature Variation				
Power Supply	Environment	Frequency	Delta (kHz)	Limit (kHz)
Vdc	Temperature (°C)	(MHz)		
12	-20	13.5599577	-0.04230	+/- 1.356
12	-10	13.5599732	-0.02680	+/- 1.356
12	0	13.5599619	-0.03810	+/- 1.356
12	10	13.5599604	-0.03960	+/- 1.356
12	20	13.5599573	-0.04270	+/- 1.356
12	30	13.5599698	-0.03020	+/- 1.356
12	40	13.5599696	-0.03040	+/- 1.356
12	50	13.5599684	-0.03160	+/- 1.356
12	60	13.5599548	-0.04520	+/- 1.357
B. Supply Voltage Variation				
Power Supply	Environment	Frequency	Delta (kHz)	Limit (kHz)
Vdc	Temperature (°C)	(MHz)		
13.8	20	13.5599580	-0.04200	+/- 1.356
12	20	13.5599573	-0.04270	+/- 1.356
10.2	20	13.5599698	-0.03020	+/- 1.356

Note: Extreme temperatures are declared by the manufacturer

7.4 AC POWERLINE CONDUCTED EMISSIONS

LIMIT

According to §15.207(a) for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency Range (MHz)	Limits (dB μ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

1. The EUT was placed on a table, which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.

TEST RESULTS

Not applicable, because EUT not connect to AC Main Source direct.

- End of Test Report -