Prüfbericht-Nr.: *Test report no.:*	CN24S66O 001	**Auftrags-Nr.:** *Order no.*:	48243231
Kunden-Referenz-Nr.: *Client reference no.:*	N/A	**Auftragsdatum:** *Order date:*	2024-01-23
Auftraggeber: *Client:*	SINOX COMPANY LTD. 3F, No. 2, Lane 93, Chien-1 Rd., Chung-Ho Dist., New Taipei City 235602, Taiwan		
Prüfgegenstand: *Test item:*	Electronic Cabinet Lock		
Bezeichnung / Typ-Nr.: *Identification / Type no.:*	AL7005		
Auftrags-Inhalt: *Order content*:	FCC Part 15C Test report (RFID)		
Prüfgrundlage: *Test specification:*	FCC 47CFR Part 15: Subpart C Section 15.225		

Wareneingangsdatum: *Date of sample receipt:*	2024-01-19
Prüfmuster-Nr.: *Test sample no:*	A003647057-015 A003647057-001
Prüfzeitraum: *Testing period:*	2024-04-30 - 2024-05-03
Ort der Prüfung: *Place of testing:*	EMC/RF Taipei Testing Site
Prüflaboratorium: *Testing laboratory:*	Taipei Testing Laboratories
Prüfergebnis*: *Test result*:*	Pass

überprüft von: *compiled by:*		**genehmigt von:** authorized by:	
Datum: *Date:* 2024-05-09		**Ausstellungsdatum:** *Issue date:* 2024-05-09	
Stellung / *Position:*	Ryan Chen Senior Project Manager	**Stellung** / *Position:*	Brenda Chen Senior Project Manager

Sonstiges / *Other:*

Zustand des Prüfgegenstandes bei Anlieferung: Prüfmuster vollständig und unbeschädigt
Condition of the test item at delivery: *Test item complete and undamaged*

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhaft
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
** Legend:*	*1 = very good*	*2 = good*	*3 = satisfactory*	*4 = sufficient*	*5 = poor*
	P(ass) = passed a.m. test specification(s)		*F(ail) = failed a.m. test specification(s)*	*N/A = not applicable*	*N/T = not tested*

Anmerkungen
Remarks

1	Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben. Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden. *The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.*
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3	Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt. *Test clauses with remark of * are subcontracted to qualified subcontractors and descripted under the respective test clause in the report.* *Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.*
4	Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnisen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezueglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019. *The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.*

TEST SUMMARY

Report Section	FCC Clause	Test Item	Result
5.1.1	15.203	Antenna Requirement	Pass
5.1.2	15.225 (a)(b)(c)	Field Strength of Fundamental Emissions	Pass
5.1.3	15.225 (d)	Radiated Spurious Emissions	Pass
5.1.4	15.225 (e)	Frequency Stability	Pass
5.1.5	15.215 (c)	20 dB Bandwidth	Pass
5.1.5	2.1049	99% Occupied Bandwidth	Pass
-	15.207	Mains Conducted Emission	N/A

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

Contents

HISTORY OF THIS TEST REPORT

Revision	Description	Date Issued
R01	Original Release	2024-05-09

1. General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:
Appendix A - Test Result of Radiated Emissions
Appendix SP - Photographs of Test Setup
Appendix EP - Photographs of EUT

Applied Standard and Test Levels

Radio
FCC 47CFR Part 15: Subpart C Section 15.225
FCC 47CFR Part 2: Subpart J Section 2.1049
ANSI C63.10:2013

1.2 Decision Rule of Conformity

The decision rule of conformity of this test report is following the requirements of the requested standard in the quotation, and agreed among testing laboratory and manufacturer (applicant) to exclude the consideration of Measurement Uncertainty, unless it is required by the specific standard.

2. Test Sites

2.1 Test Laboratory

Taipei Testing Laboratories

11F. No.758, Sec. 4, Bade Rd., Songshan Dist.
Taipei City 105
Taiwan (R.O.C.)

2.2 Test Facility

Taipei Testing Laboratories

No.458-18, Sec. 2, Fenliao Rd., Linkou Dist.,
New Taipei City 244
Taiwan (R.O.C.)
FCC Registration No.: 180491
ISED Registration No.: 25563

2.3 Traceability

All measurement equipment calibrations are traceable to NML(Taiwan)/NIST(USA) or where calibration is performed outside Taiwan, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically in a suitably accredited Calibration Lab. Additionally all equipment is verified for proper performance on a regular basics using in house standards or comparisons.

2.5 Measurement Uncertainty

All measurement uncertainty values are shown with a coverage factor of k=2 to indicate a 95% level of confidence.

Emission Measurement Uncertainty

Parameter	Uncertainty
Radiated Emission (9 kHz ~ 30 MHz)	± 1.15 dB
Radiated Emission (30 MHz ~ 200 MHz)	± 1.30 dB
Radiated Emission (200 MHz ~ 1 GHz)	± 1.30 dB
Mains Conducted Emission	± 1.65 dB

3. General Product Information

3.1 Product Function and Intended Use

The EUT is a Electronic Cabinet Lock working at 13.56 MHz with RFID function.
For details refer to the User Guide, Data Sheet and Circuit Diagram.

3.2 System Details and Ratings

Basic Information of EUT

Item	EUT information
Kind of Equipment/Test Item	Electronic Cabinet Lock
Type Identification	AL7005
FCC ID	2BEXWAL7005

Technical Specification of EUT

Item	EUT information
Operating Frequency	13.56 MHz
Operation Voltage	3 Vdc (1.5 V * 2)
Modulation	ASK
Antenna Information	Refer to 5.1.1
Accessory Device	Refer to 4.3

3.3 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

3.4 Submitted Documents

- Circuit Diagram
- Instruction Manual
- Rating Label
- Technical Description

4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum emission level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Setup for testing: The EUT has a modified firmware which makes it possible to read data from the RFID reader. The RFID reader is permanently on.

The samples were used as follows:
A003647057-015
A003647057-001
Full test was applied on all test modes, but only worst case was shown.

EUT Configure Mode	Applicable To				Description
	Radiated Spurious Emissions	Frequency Stability	20 dB Bandwidth	Mains Conducted Emission	
-	√	√	√	-	-

Note:
1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when position on **Y-plane**.
2. "-" means no effect.

Radiated Spurious Emissions

☒ Pre-Scan full test was applied on all test modes, but only worst case was shown.
☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Available Frequency (MHz)	Tested Frequency (MHz)
-	13.56	13.56

Frequency Stability

☒ Pre-Scan full test was applied on all test modes, but only worst case was shown.
☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Available Frequency (MHz)	Tested Frequency (MHz)
-	13.56	13.56

20 dB Bandwidth

☒ Pre-Scan full test was applied on all test modes, but only worst case was shown.
☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Available Frequency (MHz)	Tested Frequency (MHz)
-	13.56	13.56

Test Condition

Test Item	Ambient Temperature	Relative Humidity	Tested by
Radiated Spurious Emissions	24.6-25.3 °C	54-56 %	Ivan Chiang
Frequency Stability	24-25.1 °C	51.5-63.1 %	Andy Chen
20 dB Bandwidth	24-25.1 °C	51.5-63.1 %	Andy Chen

4.3 Special Accessories and Auxiliary Equipment

The product has been tested together with the following additional accessories:

Accessory of EUT

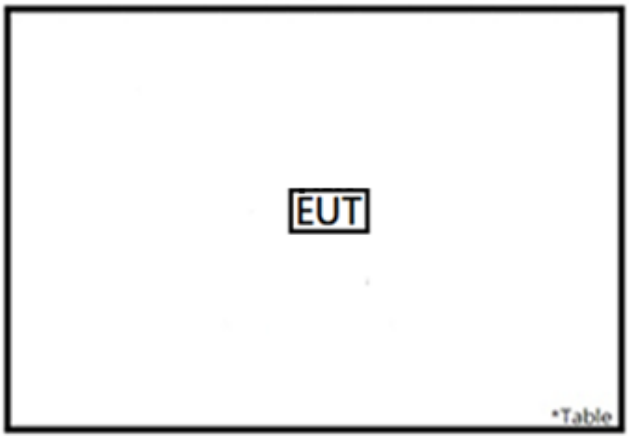
None

Support Unit

Support Unit					
No.	Description	Brand	Model	S/N	Remark
-	Power Supply	GWINSTEK	GPS-3303	GEU915620	--

4.4 Test Setup Diagram

<Radiated Spurious Emissions mode>



5. Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

Requirement Use of approved antennas only

The antenna is a loop antenna with no possibility of replacement with a non-approved antenna by the end-user. Therefore, the EUT is considered to comply with this provision.
Refer to EUT photo for details.

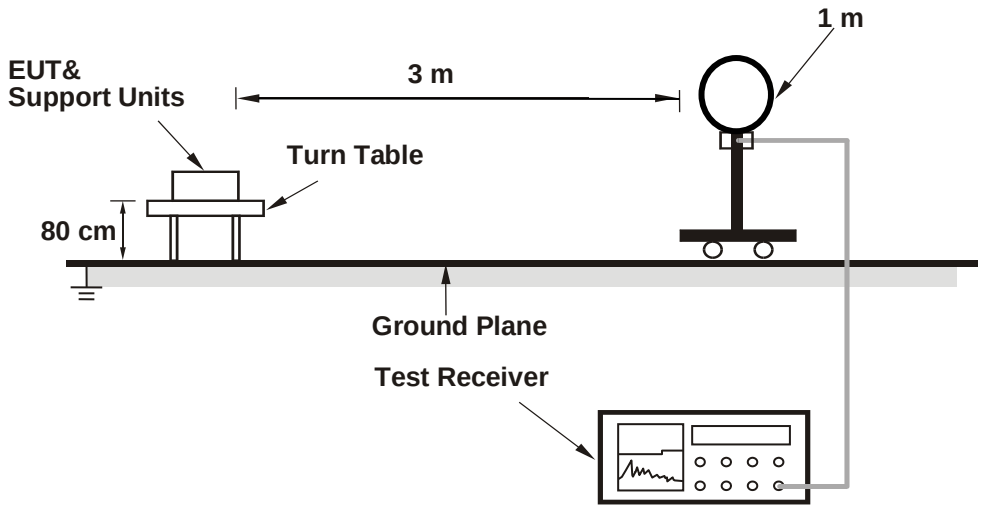
5.1.2 Field Strength of Fundamental Emissions

Limit

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.

Kind of Test Site 3m Semi-Anechoic Chamber

Test Setup



For the actual test configuration, please refer to the attached file (Test Setup Photo).

Test Instruments

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date
30 MHz ~ 1 GHz					
Receiver	R&S	ESR7	102108	2023/7/5	2024/7/3
Bilog Antenna	SCHWARZBECK	VULB-9168	00951	2024/3/21	2025/3/20
LF-AMP	Agilent	8447D	2944A107722	2024/3/21	2025/3/20
Test Software	Audix E3	15914a_20191106 tuv	PK-001087	N/A	N/A
Below 30 MHz					
Receiver	R&S	ESR7	102108	2023/7/5	2024/7/3
Loop Antenna	SCHWARZBECK	FMZB 1519B	00215	2024/1/4	2025/1/3
Test Software	Audix E3	15914a_20191106 tuv	PK-001087	N/A	N/A

Test Procedures

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. Parallel (OPEN), perpendicular (CLOSE), and ground-parallel (GROUND) orientations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz at frequency below 30 MHz.

Test Results

Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) – Amplifier (dB)
Level (dBuV/m) = Reading (dBuV) + Factor (dB/m)
Limit at 30m = 15848 (uV/m)
**Limit at 3m = 20*log(15848)+40log(30m/3m) (dBuV/m)
= 84+40 (dBuV/m)
= 124 (dBuV/m)

Please refer to Appendix A.

5.1.3 Radiated Spurious Emissions

Limit

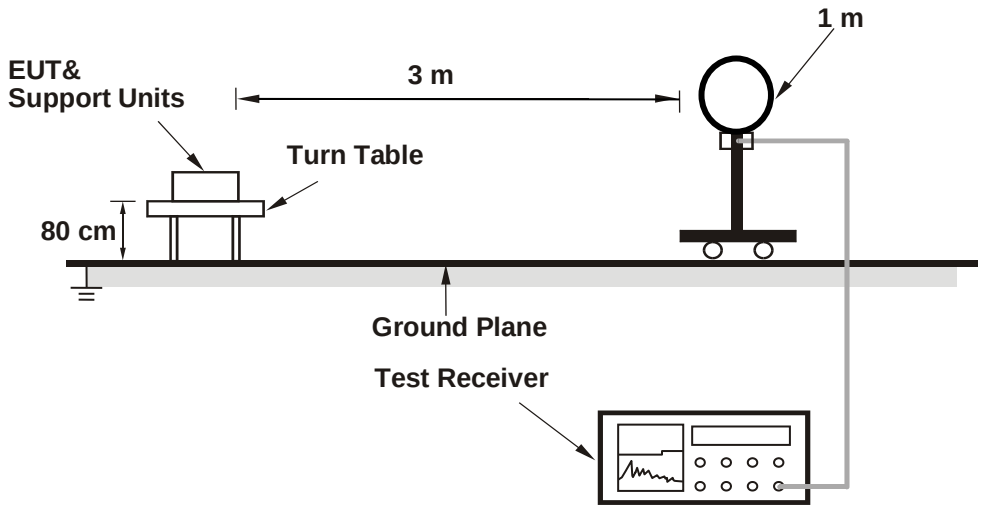
The field strength of any emissions appearing outside of the 13.110-14.010 MHz band shall not exceed the general radiated emission limits in §15.209 as below table:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
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

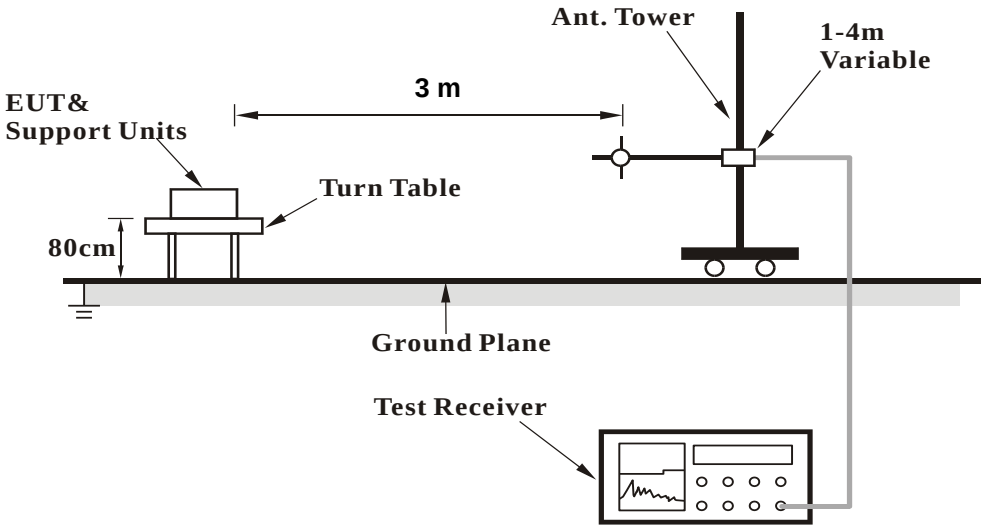
Kind of Test Site 3m Semi-Anechoic Chamber

Test Setup

<Radiated Emissions below 30 MHz>



<Radiated Emissions 30 MHz to 1 GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

Test Instruments

Please refer to 5.1.2 Instruments

Test Procedures

For Radiated Emissions below 30 MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. Parallel (OPEN), perpendicular (CLOSE), and ground-parallel (GROUND) orientations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz at frequency below 30 MHz.
2. All modes of operation were investigated and the worst-case emissions are reported.

For Radiated Emissions above 30 MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30 MHz ~ 1 GHz) / 1.5 meters (for above 1 GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
f. The test-receiver system was set to peak and average detected function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) or Peak detection (PK) at frequency below 1 GHz.
2. All modes of operation were investigated and the worst-case emissions are reported.
3. The Radiated Emissions testing was performed in the X(E1), Y(H) and Z(E2) axis orientation. The worst-case Axis orientation is recorded in this test report.
4. The emission levels of other frequencies (including the 10th harmonic of the highest fundamental frequency) are very lower than the limit and are not shown in the test report.

Test Results

Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) – Amplifier (dB)
Level (dBuV/m) = Reading (dBuV) + Factor (dB/m)

Please refer to Appendix A.

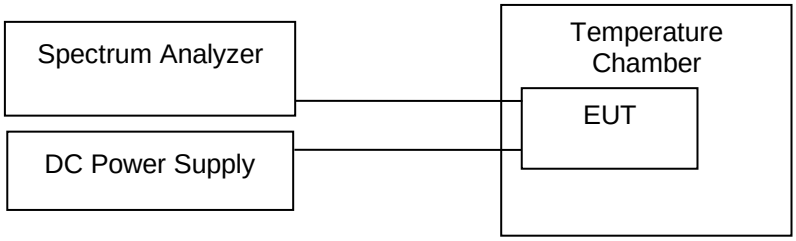
5.1.4 Frequency Stability

Limit

The frequency tolerance of the carrier signal shall be maintained within ±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.

Kind of Test Site Shielded room

Test Setup



Test Instruments

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date	Test Date	
						From	Until
Spectrum Analyzer	R&S	FSV	101512	2024/02/22	2025/02/20	2024/5/3	2024/5/3
Thermal Chamber	Giant Force	GHT-150-40-CP-SD	MAA1902-011	2024/04/12	2025/04/12	2024/5/3	2024/5/3

Test Procedures

a. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
b. Turned the EUT on and coupled its output to a spectrum analyzer.
c. Turned the EUT off and set the chamber to the highest temperature specified.
d. Allowed sufficient time (approximately 30 min) for the temperature of the chamber to stabilize then turned the EUT on and measured the operating frequency after 2, 5, and 10 minutes.
e. Repeated step b and c with the temperature chamber set to the lowest temperature.
f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85 % to 115 % and the frequency record. For battery operated only device, supplying the EUT primary voltage at the battery operating end point that is specified by the manufacturer and recorded the frequency.

Test Result

Voltage (Vdc)	
V_{normal}	3

Frequency (MHz)		13.56							
Condition		Test Time				Frequency Error (ppm)			
Extreme	Modulation Mode	0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min
$T_{60°C}V_{nom}$	CW	13.560941	13.560941	13.560941	13.560941	69.40	69.40	69.40	69.40
$T_{50°C}V_{nom}$	CW	13.560941	13.560941	13.560941	13.560941	69.40	69.40	69.40	69.40
$T_{40°C}V_{nom}$	CW	13.560941	13.560941	13.560941	13.560941	69.40	69.40	69.40	69.40
$T_{30°C}V_{nom}$	CW	13.561013	13.561013	13.561013	13.561013	74.71	74.71	74.71	74.71
$T_{20°C}V_{nom}$	CW	13.561013	13.561013	13.561013	13.561013	74.71	74.71	74.71	74.71
$T_{10°C}V_{nom}$	CW	13.561013	13.561013	13.561013	13.561013	74.71	74.71	74.71	74.71
$T_{0°C}V_{nom}$	CW	13.561013	13.561013	13.561013	13.561013	74.71	74.71	74.71	74.71
$T_{-10°C}V_{nom}$	CW	13.561013	13.561013	13.561013	13.561013	74.71	74.71	74.71	74.71
$T_{-20°C}V_{nom}$	CW	13.561013	13.561013	13.561013	13.561013	74.71	74.71	74.71	74.71
Limit (ppm)		-				100			
Result		Pass							

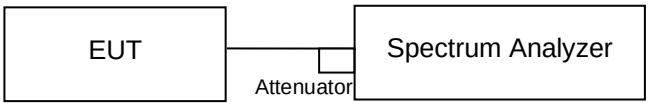
5.1.5 20 dB Bandwidth and 99% Occupied Bandwidth

Limit

The 20 dB bandwidth shall be specified in operating frequency band.

Kind of Test Site Shielded room

Test Setup



Test Instruments

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date	Test Date	
						From	Until
Spectrum Analyzer	R&S	FSV	101512	2024/02/22	2025/02/20	2024/5/3	2024/5/3
Thermal Chamber	Giant Force	GHT-150-40-CP-SD	MAA1902-011	2024/04/12	2025/04/12	2024/5/3	2024/5/3

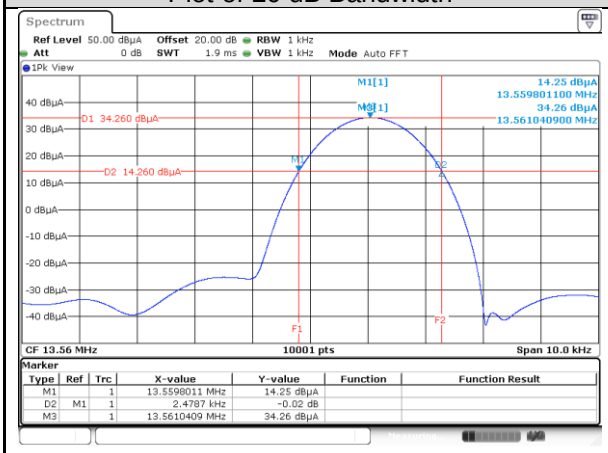
Test Procedure

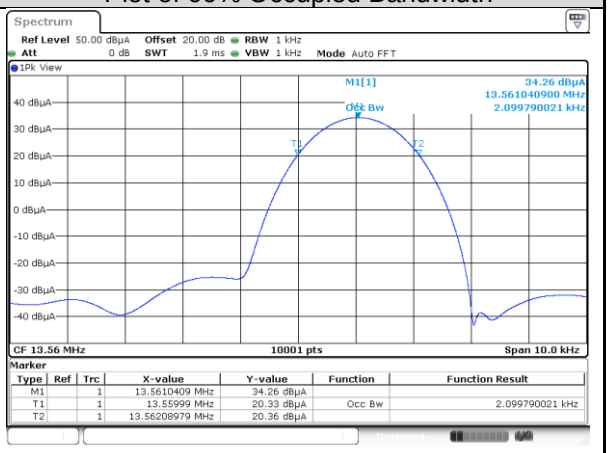
<20 dB Bandwidth>
The bandwidth of the fundamental frequency was measured by spectrum analyzer with 1 kHz RBW and 3 kHz VBW. The 20 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20 dB.

<99% Occupied Bandwidth>
The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1 % to 5 % of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to Sampling. 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 power of a given emission.

Test Results

Plot of 20 dB Bandwidth	Plot of 99% Occupied Bandwidth



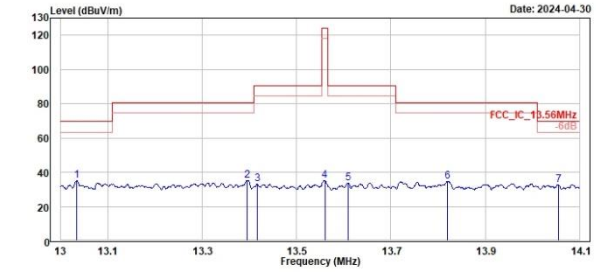


Appendix A: Test Results of Radiated Spurious Emissions

Fundamental Emissions, 13.553MHz ~ 13.567MHz

Open

TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao., Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	13.03	35.01	13.65	21.36	69.50	-34.49	100	24	Peak	Open	
2	13.40	35.31	13.90	21.41	80.50	-45.19	100	258	Peak	Open	
3	13.42	32.92	11.51	21.41	90.50	-57.58	100	328	Peak	Open	
4	13.56	35.08	13.65	21.43	124.00	-88.92	100	14	Peak	Open	
5	13.61	33.62	12.19	21.43	90.50	-56.88	100	20	Peak	Open	
6	13.82	34.56	13.10	21.46	80.50	-45.94	100	317	Peak	Open	
7	14.05	32.82	11.33	21.49	69.50	-36.68	100	318	Peak	Open	

Close

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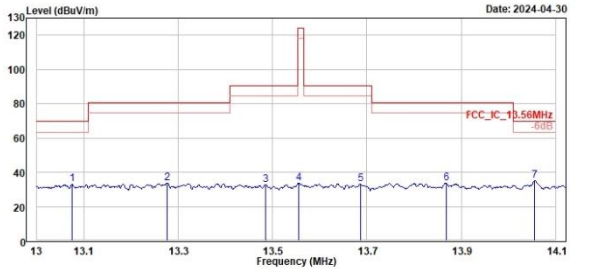

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	13.07	33.10	11.73	21.37	69.50	-36.40	100	323	Peak	Close	
2	13.28	33.69	12.30	21.39	80.50	-46.81	100	2	Peak	Close	
3	13.49	32.70	11.28	21.42	90.50	-57.80	100	131	Peak	Close	
4	13.56	33.49	12.06	21.43	124.00	-90.51	100	14	Peak	Close	
5	13.69	33.33	11.89	21.44	90.50	-57.17	100	150	Peak	Close	
6	13.87	33.55	12.09	21.46	80.50	-46.95	100	267	Peak	Close	
7	14.06	35.08	13.59	21.49	69.50	-34.42	100	254	Peak	Close	

Ground

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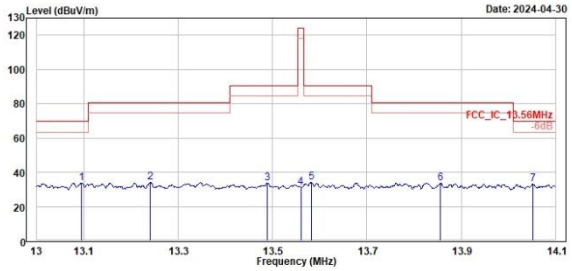

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	13.09	33.66	12.29	21.37	69.50	-35.84	100	76	Peak	Ground	
2	13.24	33.93	12.54	21.39	80.50	-46.57	100	50	Peak	Ground	
3	13.49	33.75	12.33	21.42	90.50	-56.75	100	166	Peak	Ground	
4	13.56	31.33	9.90	21.43	124.00	-92.67	100	266	Peak	Ground	
5	13.58	33.97	12.54	21.43	90.50	-56.53	100	129	Peak	Ground	
6	13.86	33.52	12.06	21.46	80.50	-46.98	100	90	Peak	Ground	
7	14.05	33.04	11.55	21.49	69.50	-36.46	100	83	Peak	Ground	

Spurious Emissions, Tx Mode, 9kHz ~ 30MHz

9kHz~150kHz(Open)

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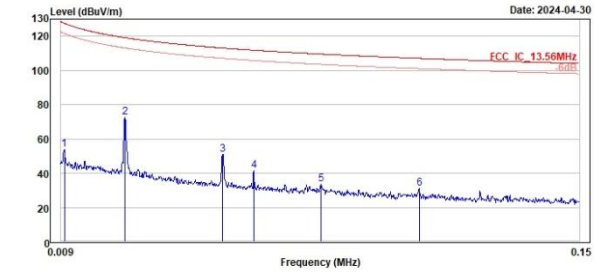

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	0.01	53.92	35.61	18.31	127.60	-73.68	100	357	Peak	Open	
2	0.03	72.51	52.96	19.55	119.13	-46.62	100	16	Peak	Open	
3	0.05	51.10	31.65	19.45	113.11	-62.01	100	78	Peak	Open	
4	0.06	41.33	22.04	19.29	111.82	-70.49	100	118	Peak	Open	
5	0.08	33.78	14.86	18.92	109.56	-75.78	100	78	Peak	Open	
6	0.11	31.19	12.65	18.54	107.06	-75.87	100	233	Peak	Open	

150kHz~30MHz(Open)

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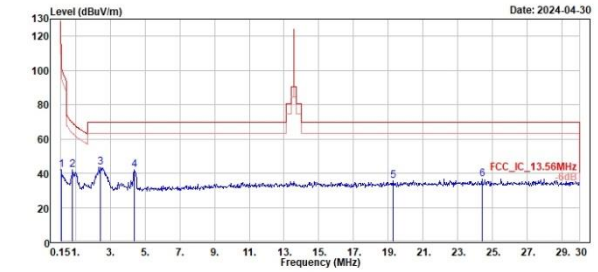

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	0.18	41.83	23.13	18.70	102.50	-60.67	100	162	Peak	Open	
2	0.84	41.91	22.88	19.03	69.15	-27.24	100	310	Peak	Open	
3	2.42	43.40	24.40	19.00	69.50	-26.10	100	126	Peak	Open	
4	4.39	41.98	22.63	19.35	69.50	-27.52	100	238	Peak	Open	
5	19.28	35.66	13.55	22.11	69.50	-33.84	100	91	Peak	Open	
6	24.39	36.38	14.05	22.33	69.50	-33.12	100	267	Peak	Open	

Spurious Emissions, Tx Mode, 30MHz ~ 1GHz

Horizontal

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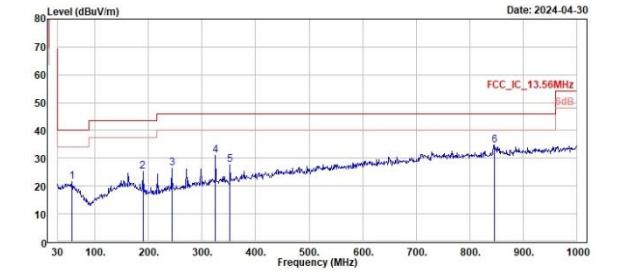

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	57.160	21.61	28.67	-7.06	40.00	-18.39	400	111	Peak	Horizontal	
2	189.080	25.36	34.30	-8.94	43.50	-18.14	100	298	Peak	Horizontal	
3	243.400	26.57	34.32	-7.75	46.00	-19.43	100	89	Peak	Horizontal	
4	324.880	30.94	36.50	-5.56	46.00	-15.06	100	118	Peak	Horizontal	
5	352.040	27.83	32.92	-5.09	46.00	-18.17	100	102	Peak	Horizontal	
6	846.740	34.78	30.53	4.25	46.00	-11.22	400	115	Peak	Horizontal	

Vertical

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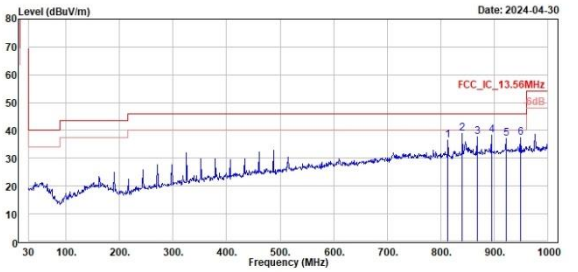

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	813.760	36.50	32.98	3.52	46.00	-9.50	200	276	Peak	Vertical	
2	840.920	39.04	34.92	4.12	46.00	-6.96	125	360	Peak	Vertical	
3	868.080	37.59	33.39	4.20	46.00	-8.41	100	195	Peak	Vertical	
4	895.240	38.18	33.28	4.90	46.00	-7.82	100	117	Peak	Vertical	
5	922.400	37.07	31.77	5.30	46.00	-8.93	100	264	Peak	Vertical	
6	949.560	37.32	31.83	5.49	46.00	-8.68	100	257	Peak	Vertical	