Prüfbericht-Nr.: *Test report no.:*	CN23UGU9 (FCC-Colocated) 001	**Auftrags-Nr.:** *Order no.:*	48215914	
Kunden-Referenz-Nr.: *Client reference no.:*	N/A	**Auftragsdatum:** *Order date:*	2023-02-17	
Auftraggeber: *Client:*	Dot Origin Ltd Unit 7 Coopers Place, Combe Lane, Wormley, Godalming, GU8 5SZ, UK			
Prüfgegenstand: *Test item:*	VTAP200ESS			
Bezeichnung / Typ-Nr.: *Identification / Type no.:*	VTAP200ESS			
Auftrags-Inhalt: *Order content*:	Spot Checking Emissions (FCC)			
Prüfgrundlage: *Test specification:*	FCC 47CFR Part 15: Subpart C Section 15.247			

Wareneingangsdatum: *Date of sample receipt:*	2023-03-30
Prüfmuster-Nr.: *Test sample no:*	A003445985-001
Prüfzeitraum: *Testing period:*	2023-04-09 - 2023-04-12
Ort der Prüfung: *Place of testing:*	EMC/RF Taipei Testing Site
Prüflaboratorium: *Testing laboratory:*	Taipei Testing Laboratories
Prüfergebnis*: *Test result*:*	Pass

zusammengestellt von: *compiled by:*		**genehmigt von:** authorized by:	
Datum: *Date:* 2023-04-27	Ethan Shao	**Ausstellungsdatum:** *Issue date:* 2023-04-27	Brenda Chen
Stellung / *Position:*	Assistant Project Engineer	**Stellung** / *Position:*	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*

TEST SUMMARY

Report Section	FCC Clause	Test Item	Result
5.1.1	15.247(d)	Radiated Spurious Emissions and Band Edges	Pass
5.2.1	15.207	Mains Conducted Emission	Pass

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

Contents

HISTORY OF THIS TEST REPORT

Report No.	Description	Date Issued
CN23UGU9 (FCC-Colocated) 001	Original Release	2023-04-27

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 and Mains Conducted Emissions
Appendix SP - Photographs of Test Setup
Appendix EP - Photographs of EUT

Applied Standard and Test Levels

Radio
FCC CFR47 Part 15: Subpart C Section 15.247
FCC CFR47 Part 2: Subpart J Section 2.1091
FCC 47 CFR Part 90
ANSI C63.10:2013
KDB 558074 D01 15.247 Meas Guidance v05r02
KDB 996369 D04 Module Integration Guide v01

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
Radiated Emission (1 GHz ~ 18 GHz)	± 1.54 dB
Radiated Emission (18 GHz ~ 40 GHz)	± 2.52 dB
Mains Conducted Emission	± 1.65 dB

3. General Product Information

3.1 Product Function and Intended Use

The EUT is a ready-to-use 13.56 MHz NFC reader that is designed for use in many application and especially those where reading virtual card, tickets and passed from mobile phone wallet apps via NFC is a requirement.
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	VTAP200ESS
Type Identification	VTAP200ESS
FCC ID	2A282-VTAP200ESS

Technical Specification of EUT

Item	EUT information
Operating Frequency	WiFi: 2412 ~ 2472 MHz / 2422 ~2462MHz Bluetooth: 2402 ~ 2480 MHz NFC: 13.56 MHz
Operation Voltage	12 Vdc

Item	EUT information
Modulation	WiFi: DSSS (DBPSK, DQPSK, CCK) OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) Bluetooth: GFSK, π/4-DQPSK, 8DPSK NFC: ASK
Antenna Information	Refer to note as below

Note:
1. The antenna list is as below.

Type	Gain (dBi)		
	NFC	BT	WiFi 2.4GHz
PCB Antenna	-	3.4	3.4

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 Operaton Modes

4.1 Principle of Configuration Selection

The test modes were adapted accordingly in reference to the instructions for use.
During testing, Channel and Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output expected by the customer and is going to be fixed on the firmware of the final end product.

4.2 Test Operation and Test Software

Setup for testing: Test samples are provided with RF cable which makes it possible to control them through a base station simulator.

The samples were used as follows:
A003445985-001
Full test was applied on all test modes, but only worst case was shown.

EUT Configure Mode	Applicable To	Description
	Radiated Spurious Emissions	
-	√	-

Note:
1. "-" 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	Description
-	NFC+Bluetooth
-	NFC+WiFi 2.4GHz

Test Condition

Test Item	Ambient Temperature	Relative Humidity	Tested by
Radiated Spurious Emissions	23.4-24.9 °C	61-63 %	Ray Huang

4.3 Special Accessories and Auxiliary Equipment

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

Accessory of EUT

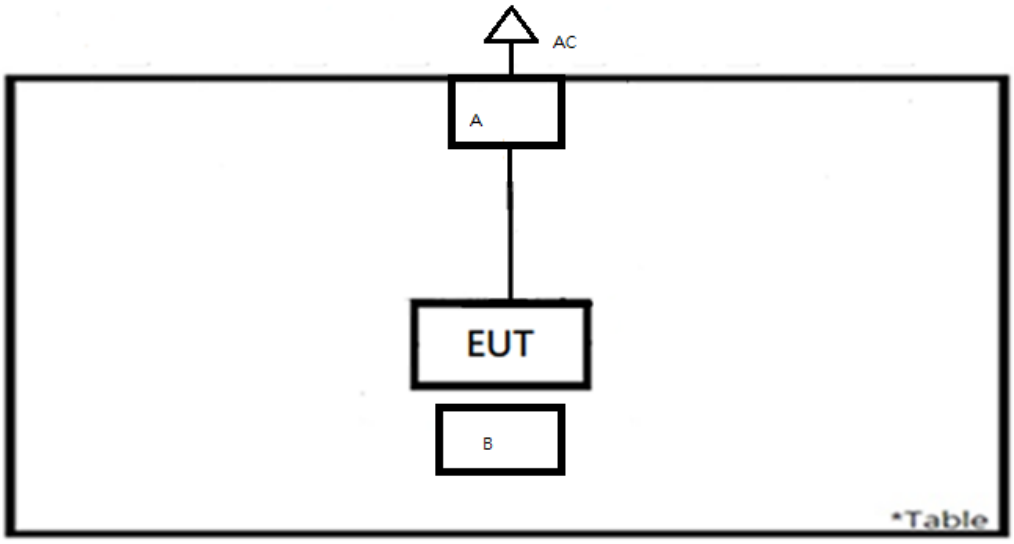
None.

Support Unit

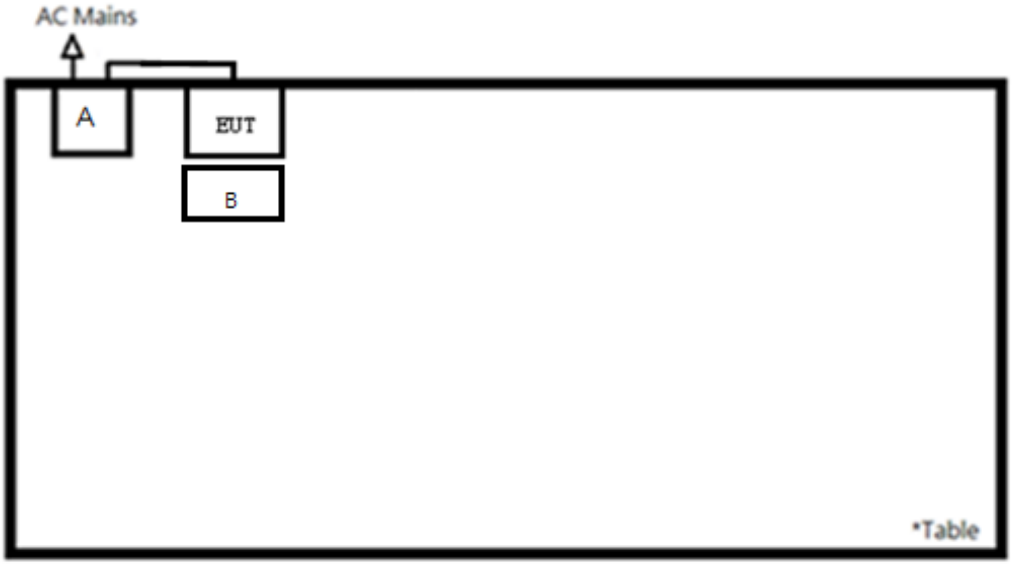
Radiated and Mains Conducted Tests				
No.	Description	Brand	Model	Remark
A	Switching Adapter	multicomp[pro]	DSA-12PFU-12	I/P: 100-240 Vac, 50/60 Hz, 0.5 A O/P: 12 Vdc, 1.0 A 150 cm non-shielded cable with core
				A003424337-008
B	NFC Card	Generic	Dot Origin-01	A003424337-003

4.4 Test Setup Diagram

<Radiated Spurious Emissions Mode>



<Mains Conducted Emission Mode>



5. Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Radiated Spurious Emissions

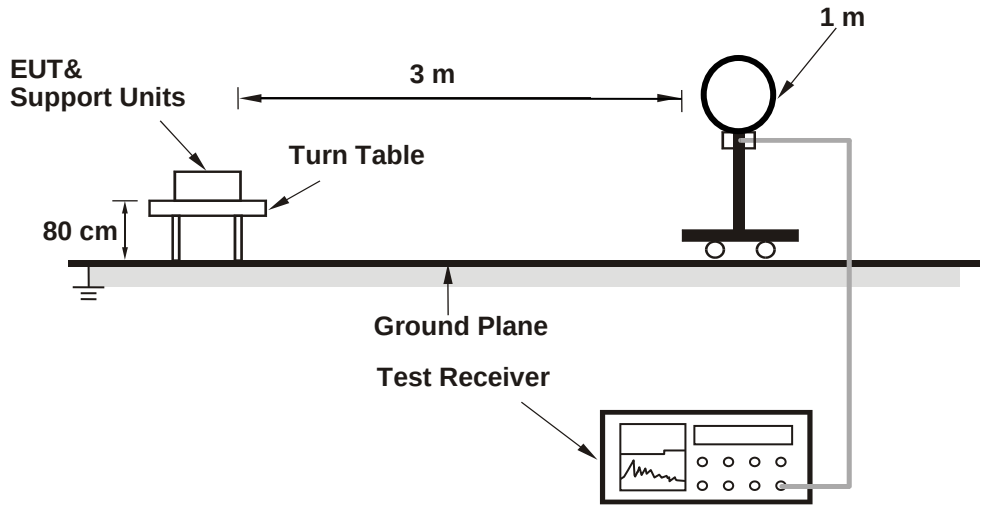
Limit

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

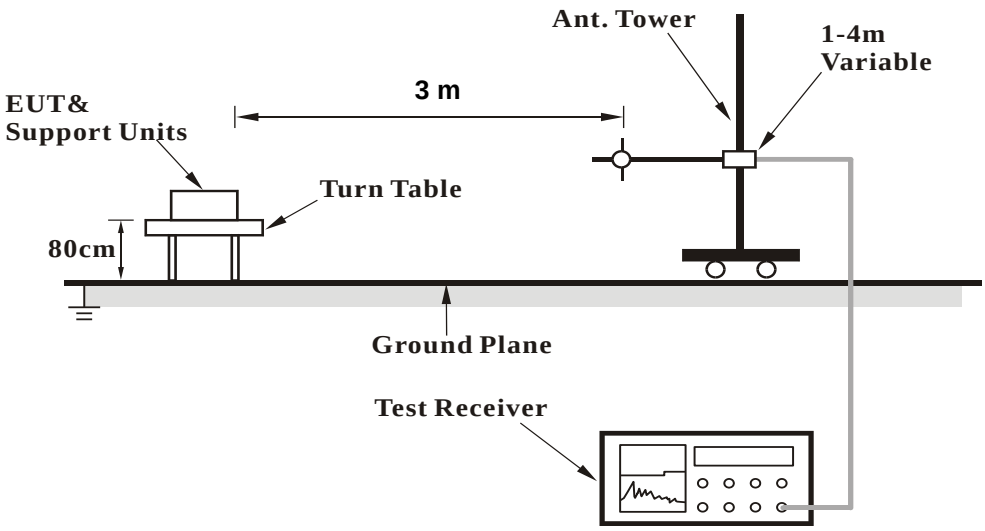
Kind of Test Site 3m Semi-Anechoic Chamber

Test Setup

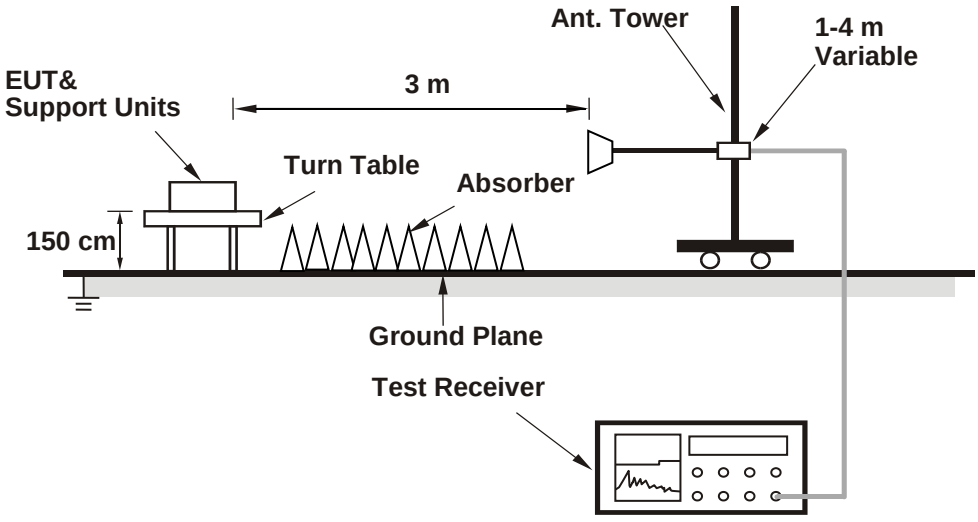
<Radiated Emissions below 30 MHz>



<Radiated Emissions 30 MHz to 1 GHz>



<Radiated Emissions above 1 GHz>



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

Test Instruments

Test Date: 2023/4/9

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date
Above 1GHz					
Signal Analyzer	R&S	FSV40	101509	2022/4/22	2023/4/21
Horn Antenna	ETS-Lindgren	3117	00218929	2022/12/8	2023/12/7
HF-AMP + AC source	EMCI	EMC051845SE	980633	2023/2/22	2024/2/21
HF-AMP + AC source	EMCI	EMC184045SE	980657	2023/2/16	2024/2/15
Horn Antenna	SCHWARZBECK	BBHA 9170	00890	2022/5/6	2023/5/5
30MHz-1GHz					
Receiver	R&S	ESR7	102109	2023/2/24	2024/2/23
Bilog Antenna	SCHWARZBECK	VULB-9168	00949	2022/5/29	2023/5/28
LF-AMP	Agilent	8447D	2944A107722	2023/3/22	2024/3/20
Below 1GHz					
Receiver	R&S	ESR7	102109	2023/2/24	2024/2/23
Loop Antenna	SCHWARZBECK	FMZB 1519B	00215	2023/1/4	2024/1/3

Test Procedures

a. In the semi-anechoic chamber, EUT placed on the 0.8m(below or equal 1GHz) and/or 1.5m(above 1GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
b. 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.
c. Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP/ERP level.
d. Following C63.26 section 5.5 and 5.2.7
EIRP (dBm) = E (dB μ V/m) + 20log(D) - 104.8; where D is the measurement distance (in the far field region) in m.
ERP (dBm) = E (dB μ V/m) + 20log(D) - 104.8 - 2.15; where D is the measurement distance (in the far field region) in m.

Note:
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.
2. Testing was carried out within frequency range 30 MHz to the tenth harmonic.
3. All modes of operation were investigated and the worst-case emissions are reported.
4. 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.

Test Results

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

Please refer to Appendix A.

5.2 Mains Emission

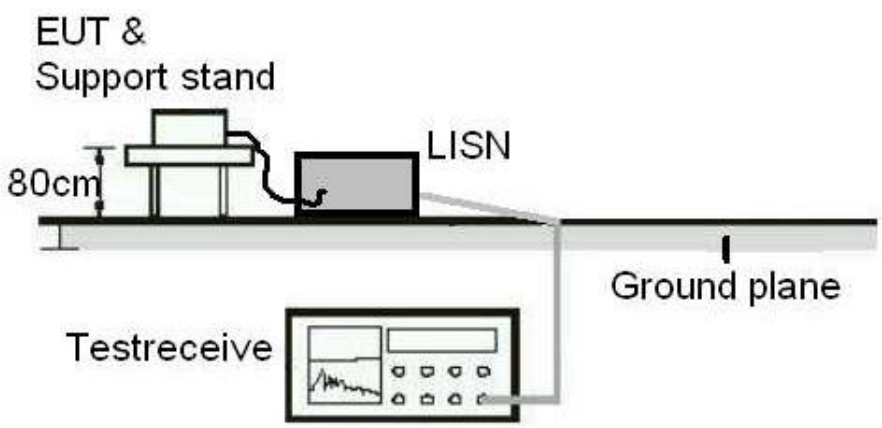
5.2.1 Mains Conducted Emission

Limit

Mains Conducted emissions as defined in §15.207 must comply with the mains conducted emission limits.

Kind of Test Site Shielded room

Test Setup



Test Instruments

Test Date: 2023/4/12

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date
Two-Line V-Network	Rohde & Schwarz	ENV216	101938	2022/9/22	2023/9/21
EMI Test Receiver	R&S	ESCI	100797	2022/6/19	2023/6/18

Test Procedures

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/50 uH of coupling impedance for the measuring instrument.
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

Note: The resolution bandwidth and video bandwidth of test receiver is 9 kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15 MHz – 30 MHz.

Test Results

Please refer to Appendix A.

Appendix A: Test Results of Radiated Spurious Emissions

Spurious Emissions, Tx Mode, 9kHz ~ 30MHz

NFC+8DPSK

9kHz~150kHz(Open)

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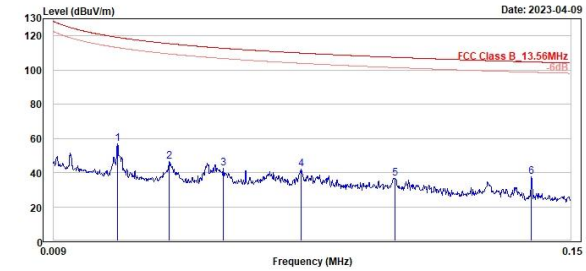
Tel:+886-2172-1000 Fax:+886-2172-1322



	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	0.026	56.88	37.93	18.95	119.13	-62.25	100	220	Peak	Open	
2	0.040	46.41	27.25	19.16	115.46	-69.05	100	43	Peak	Open	
3	0.055	42.71	23.73	18.98	112.75	-70.04	100	73	Peak	Open	
4	0.076	41.98	23.50	18.48	109.93	-67.95	100	191	Peak	Open	
5	0.102	36.79	18.86	17.93	107.41	-70.62	100	160	Peak	Open	
6	0.139	37.38	19.30	18.08	104.72	-67.34	100	133	Peak	Open	

150kHz~30MHz(Open)

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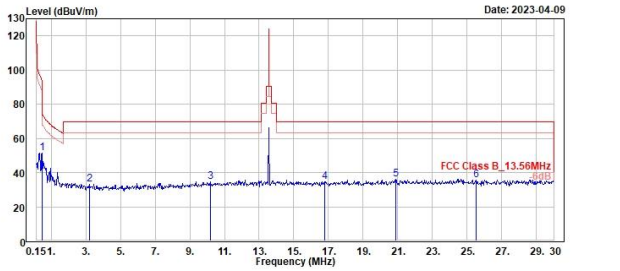

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	0.478	51.52	32.68	18.84	94.01	-42.49	100	43	Peak	Open	
2	3.195	33.32	13.71	19.61	69.50	-36.18	100	26	Peak	Open	
3	10.180	34.56	12.95	21.61	69.50	-34.94	100	206	Peak	Open	
4	16.776	34.60	12.52	22.08	69.50	-34.90	100	269	Peak	Open	
5	20.896	35.88	13.57	22.31	69.50	-33.62	100	250	Peak	Open	
6	25.523	35.83	13.45	22.38	69.50	-33.67	100	360	Peak	Open	

Spurious Emissions, Tx Mode, 30MHz ~ 1GHz

NFC+8DPSK

Horizontal

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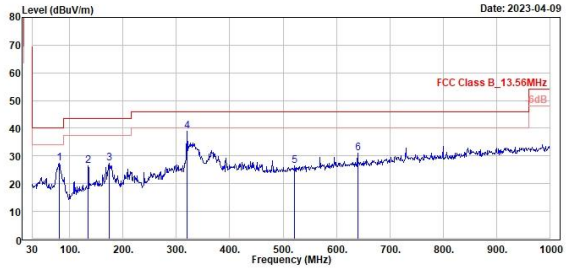

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	80.440	27.24	39.07	-11.83	40.00	-12.76	200	138	Peak	Horizontal	
2	134.760	26.41	34.50	-8.09	43.50	-17.09	200	193	Peak	Horizontal	
3	173.560	27.23	35.16	-7.93	43.50	-16.27	100	121	Peak	Horizontal	
4	320.030	38.87	44.74	-5.87	46.00	-7.13	100	16	Peak	Horizontal	
5	521.790	26.55	29.00	-2.45	46.00	-19.45	100	20	Peak	Horizontal	
6	640.130	31.18	31.91	-0.73	46.00	-14.82	100	111	Peak	Horizontal	

Vertical

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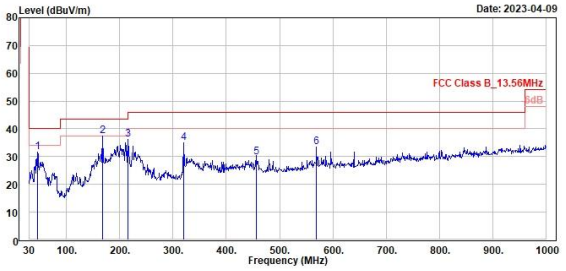

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	45.520	31.54	38.88	-7.34	40.00	-8.46	100	148	Peak	Vertical	
2	167.740	37.43	44.80	-7.37	43.50	-6.07	100	152	Peak	Vertical	
3	215.270	36.24	45.78	-9.54	43.50	-7.26	100	73	Peak	Vertical	
4	320.030	34.99	40.86	-5.87	46.00	-11.01	200	173	Peak	Vertical	
5	456.800	29.95	33.34	-3.39	46.00	-16.05	100	305	Peak	Vertical	
6	569.320	33.39	35.05	-1.66	46.00	-12.61	100	173	Peak	Vertical	

Spurious Emissions, Tx Mode, 1GHz ~ 26.5GHz

NFC+8DPSK

Horizontal

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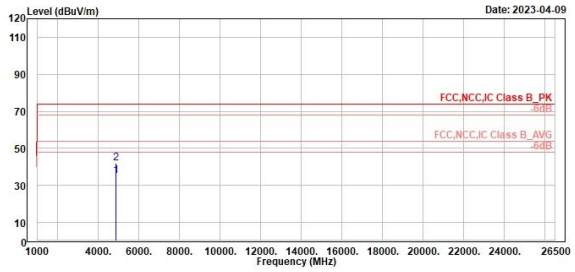

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4882.000	35.06	45.40	-10.34	54.00	-18.94	200	70	Average	Horizontal	
2	4882.000	41.98	52.32	-10.34	74.00	-32.02	200	70	Peak	Horizontal	

Vertical

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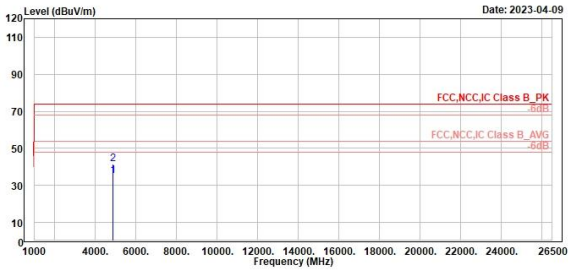

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4882.000	35.02	45.36	-10.34	54.00	-18.98	100	43	Average	Vertical	
2	4882.000	41.75	52.09	-10.34	74.00	-32.25	100	43	Peak	Vertical	

Mains Conducted Emission, Tx Mode, 150kHz ~ 30MHz

Worst Band for NFC+8DPSK

(Line)

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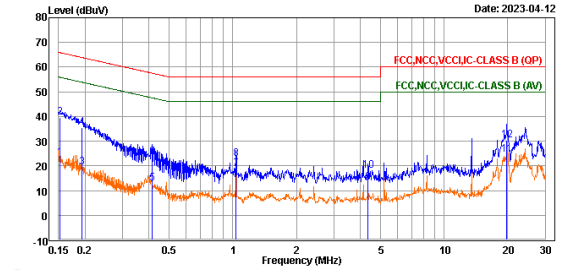

Trace: 1

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark	Pol/Phase	Note
	MHz	dBuV	dBuV	dB	dBuV	dB			
1	0.15	23.33	13.64	9.69	55.88	-32.55	Average	line1	
2	0.15	39.56	29.87	9.69	65.88	-26.32	QP	line1	
3	0.19	19.27	9.59	9.68	53.89	-34.62	Average	line1	
4	0.19	35.49	25.81	9.68	63.89	-28.40	QP	line1	
5	0.42	12.86	3.18	9.68	47.51	-34.65	Average	line1	
6	0.42	23.45	13.77	9.68	57.51	-34.06	QP	line1	
7	1.04	18.87	9.18	9.69	46.00	-27.13	Average	line1	
8	1.04	22.93	13.24	9.69	56.00	-33.07	QP	line1	
9	4.36	13.24	3.49	9.75	46.00	-32.76	Average	line1	
10	4.36	18.01	8.26	9.75	56.00	-37.99	QP	line1	
11	19.74	24.64	14.83	9.81	50.00	-25.36	Average	line1	
12	19.74	30.45	20.64	9.81	60.00	-29.55	QP	line1	

(Neutral)

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No. 458-18, Sec 2, Fenliao., Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
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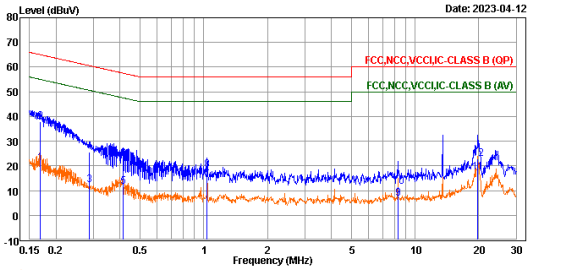

Trace: 1

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark	Pol/Phase	Note
	MHz	dBuV	dBuV	dB	dBuV	dB			
1	0.17	21.04	11.37	9.67	55.05	-34.01	Average	neutral	
2	0.17	37.88	28.21	9.67	65.05	-27.17	QP	neutral	
3	0.29	12.08	2.43	9.65	50.62	-38.54	Average	neutral	
4	0.29	25.71	16.06	9.65	60.62	-34.91	QP	neutral	
5	0.42	11.63	1.97	9.66	47.51	-35.88	Average	neutral	
6	0.42	22.96	13.30	9.66	57.51	-34.55	QP	neutral	
7	1.04	14.34	4.68	9.66	46.00	-31.66	Average	neutral	
8	1.04	18.32	8.66	9.66	56.00	-37.68	QP	neutral	
9	8.29	6.88	-2.89	9.77	50.00	-43.12	Average	neutral	
10	8.29	11.68	1.91	9.77	60.00	-48.32	QP	neutral	
11	19.74	17.26	7.39	9.87	50.00	-32.74	Average	neutral	
12	19.74	22.86	12.99	9.87	60.00	-37.14	QP	neutral	

Spurious Emissions, Tx Mode, 9kHz ~ 30MHz

NFC+802.11b_2412MHz

9kHz~150kHz(Open)

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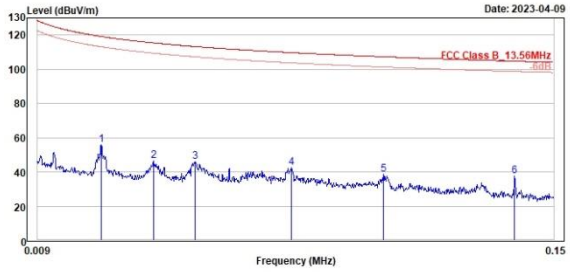

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	0.026	56.07	37.12	18.95	119.13	-63.06	100	42	Peak	Open	
2	0.041	46.38	27.22	19.16	115.39	-69.01	100	233	Peak	Open	
3	0.052	45.78	26.72	19.06	113.25	-67.47	100	188	Peak	Open	
4	0.078	42.37	23.94	18.43	109.71	-67.34	100	211	Peak	Open	
5	0.103	38.53	20.60	17.93	107.30	-68.77	100	147	Peak	Open	
6	0.139	37.50	19.42	18.08	104.72	-67.22	100	146	Peak	Open	

150kHz~30MHz(Open)

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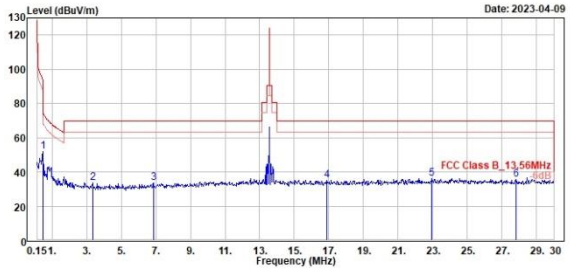
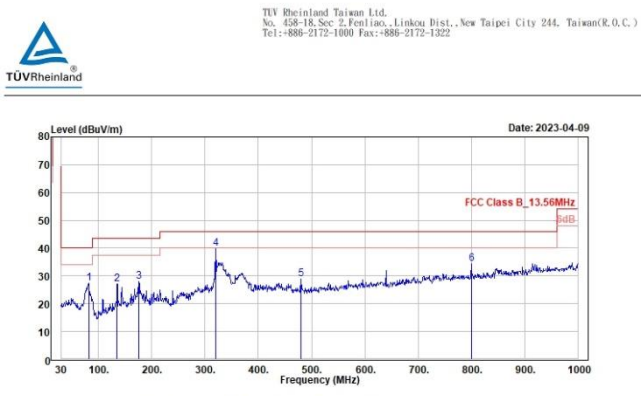


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	0.478	51.84	33.00	18.84	94.01	-42.17	100	201	Peak	Open	
2	3.344	33.58	13.98	19.60	69.50	-35.92	100	224	Peak	Open	
3	6.866	33.39	13.15	20.24	69.50	-36.11	100	199	Peak	Open	
4	16.866	34.88	12.80	22.08	69.50	-34.62	100	249	Peak	Open	
5	22.955	36.02	13.68	22.34	69.50	-33.48	100	335	Peak	Open	
6	27.821	35.34	12.92	22.42	69.50	-34.16	100	118	Peak	Open	

Spurious Emissions, Tx Mode, 30MHz ~ 1GHz

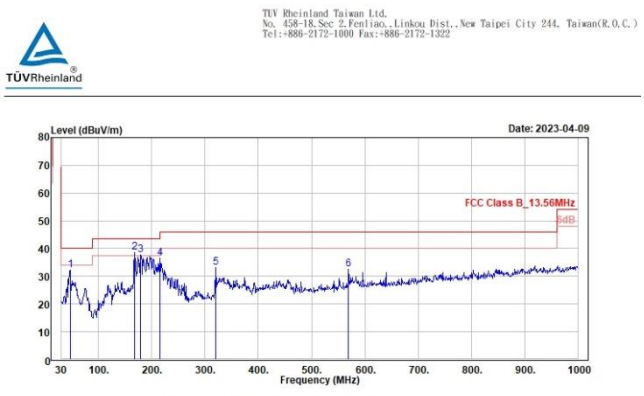
NFC+802.11b_2412MHz

Horizontal



	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	81.410	27.31	39.41	-12.10	40.00	-12.69	200	141	Peak	Horizontal	
2	134.760	27.19	35.28	-8.09	43.50	-16.31	200	211	Peak	Horizontal	
3	175.500	28.09	36.25	-8.16	43.50	-15.41	200	277	Peak	Horizontal	
4	320.030	39.73	45.60	-5.87	46.00	-6.27	100	66	Peak	Horizontal	
5	480.080	28.82	32.17	-3.35	46.00	-17.18	200	62	Peak	Horizontal	
6	800.180	34.36	32.18	2.18	46.00	-11.64	100	296	Peak	Horizontal	

Vertical



	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	46.490	32.09	39.31	-7.22	40.00	-7.91	100	139	Peak	Vertical	
2 !	167.740	38.55	45.92	-7.37	43.50	-4.95	100	220	Peak	Vertical	
3 !	179.380	37.72	46.38	-8.66	43.50	-5.78	100	220	Peak	Vertical	
4	215.270	36.60	46.14	-9.54	43.50	-6.90	100	147	Peak	Vertical	
5	320.030	33.05	38.92	-5.87	46.00	-12.95	200	148	Peak	Vertical	
6	569.320	32.61	34.27	-1.66	46.00	-13.39	100	292	Peak	Vertical	

Spurious Emissions, Tx Mode, 1GHz ~ 26.5GHz

NFC+802.11b_2412MHz

Horizontal

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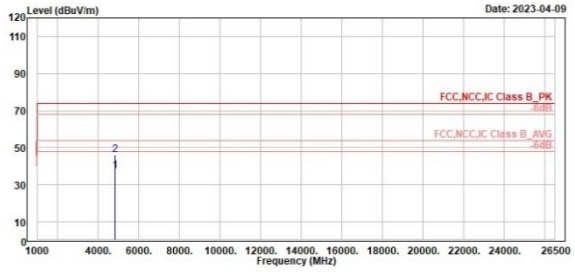

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4824.000	37.29	47.63	-10.34	54.00	-16.71	200	74	Average	Horizontal	
2	4824.000	45.96	56.30	-10.34	74.00	-28.04	200	74	Peak	Horizontal	

Vertical

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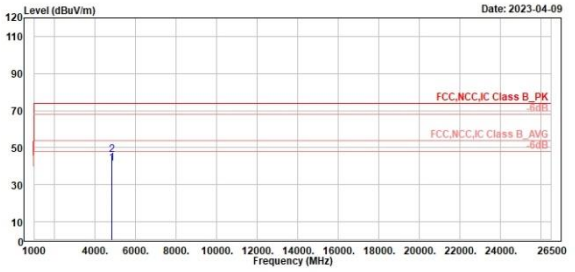

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4824.000	41.44	51.78	-10.34	54.00	-12.56	200	241	Average	Vertical	
2	4824.000	46.23	56.57	-10.34	74.00	-27.77	200	241	Peak	Vertical	

Mains Conducted Emission, Tx Mode, 150kHz ~ 30MHz

Worst Band for NFC+802.11b_2412MHz

(Line)

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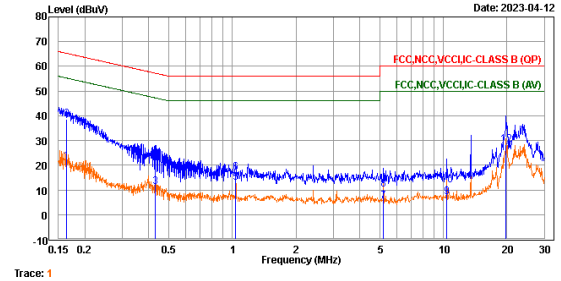

Trace: 1

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark	Pol/Phase	Note
	MHz	dBuV	dBuV	dB	dBuV	dB			
1	0.16	21.57	11.88	9.69	55.25	-33.68	Average	line1	
2	0.16	38.67	28.98	9.69	65.25	-26.58	QP	line1	
3	0.43	11.05	1.37	9.68	47.26	-36.21	Average	line1	
4	0.43	23.76	14.08	9.68	57.26	-33.50	QP	line1	
5	1.04	13.01	3.32	9.69	46.00	-32.99	Average	line1	
6	1.04	16.99	7.30	9.69	56.00	-39.01	QP	line1	
7	5.19	5.50	-4.26	9.76	50.00	-44.50	Average	line1	
8	5.19	10.34	0.58	9.76	60.00	-49.66	QP	line1	
9	10.38	7.05	-2.76	9.81	50.00	-42.95	Average	line1	
10	10.38	11.75	1.94	9.81	60.00	-48.25	QP	line1	
11	19.74	25.28	15.47	9.81	50.00	-24.72	Average	line1	
12	19.74	28.28	18.47	9.81	60.00	-31.72	QP	line1	

(Neutral)

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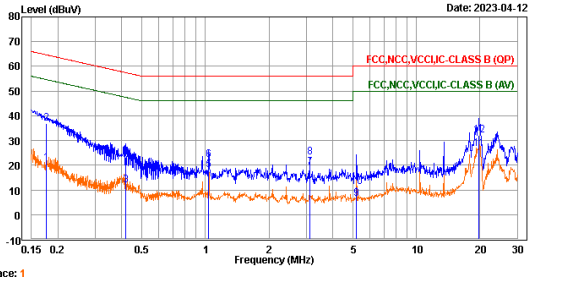

Trace: 1

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark	Pol/Phase	Note
	MHz	dBuV	dBuV	dB	dBuV	dB			
1	0.18	20.72	11.06	9.66	54.68	-33.96	Average	neutral	
2	0.18	36.80	27.14	9.66	64.68	-27.88	QP	neutral	
3	0.42	11.93	2.27	9.66	47.47	-35.54	Average	neutral	
4	0.42	23.06	13.40	9.66	57.47	-34.41	QP	neutral	
5	1.04	17.99	8.33	9.66	46.00	-28.01	Average	neutral	
6	1.04	22.11	12.45	9.66	56.00	-33.89	QP	neutral	
7	3.12	19.02	9.31	9.71	46.00	-26.98	Average	neutral	
8	3.12	23.13	13.42	9.71	56.00	-32.87	QP	neutral	
9	5.19	6.42	-3.32	9.74	50.00	-43.58	Average	neutral	
10	5.19	11.05	1.31	9.74	60.00	-48.95	QP	neutral	
11	19.74	26.76	16.89	9.87	50.00	-23.24	Average	neutral	
12	19.74	32.20	22.33	9.87	60.00	-27.80	QP	neutral	