FCC C2PC Test Report

FCC ID	:	**YAISB52**
Equipment	:	**Wireless SOM Module**
Model No.	:	**SB52**
Brand Name	:	**InnoComm**
Applicant	:	**InnoComm Mobile Technology Corporation**
Address	:	**3F,No. 6, Hsin Ann Rd., Hsinchu Science Park, Hsinchu 30078, Taiwan**
Standard	:	**47 CFR FCC Part 15.407**
Received Date	:	**Apr. 07, 2022**
Tested Date	:	**Apr. 08, 2022**

We, International Certification Corporation, would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:	**Approved by:**
Along Chen / Assistant Manager	**Gary Chang / Manager**

Table of Contents

Release Record

Report No.	Version	Description	Issued Date
FR031702-02AN	Rev. 01	Initial issue	May 10, 2022

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	AC Power Line Conducted Emissions	[dBuV]: 389.87MHz 39.55 (Margin -6.45dB) - PK	Pass
15.407(b) 15.209	Unwanted Emissions	[dBuV/m at 3m]: 26.418MHz 26.19 (Margin -23.81dB) - AV	Pass

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1 General Description

1.1 Information

This report is issued as a FCC Class II Permissive Change.

This report is issued as a supplementary report to original ICC report no. FR031702AN. The difference is modifying DC voltage function by adding DC/DC converter, relative components and circuit of non-RF section.

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	**IEEE Std. 802.11**	**Ch. Freq. (MHz)**	**Channel Number**	**Transmit Chains (N_{TX})**	**Data Rate**
5150-5250 5250-5350 5470-5725 5725-5850	a	5180-5240 5260-5320 5500-5700 5745-5825	36-48 [4] 52-64 [4] 100-140 [11] 149-165 [5]	2	6-54 Mbps
5150-5250 5250-5350 5470-5725 5725-5850	n (HT20)	5180-5240 5260-5320 5500-5700 5745-5825	36-48 [4] 52-64 [4] 100-140 [11] 149-165 [5]	2	MCS 0-15
5150-5250 5250-5350 5470-5725 5725-5850	n (HT40)	5190-5230 5270-5310 5510-5670 5755-5795	38-46 [2] 54-62 [2] 102-134 [5] 151-159 [2]	2	MCS 0-15
5150-5250 5250-5350 5470-5725 5725-5850	ac (VHT20)	5180-5240 5260-5320 5500-5700 5745-5825	36-48 [4] 52-64 [4] 100-140 [11] 149-165 [5]	2	MCS 0-9
5150-5250 5250-5350 5470-5725 5725-5850	ac (VHT40)	5190-5230 5270-5310 5510-5670 5755-5795	38-46 [2] 54-62 [2] 102-134 [5] 151-159 [2]	2	MCS 0-9
5150-5250 5250-5350 5470-5725 5725-5850	ac (VHT80)	5210 5290 5530-5610 5775	42 [1] 58 [1] 106-122 [2] 155 [1]	2	MCS 0-9
Note 1: RF output power specifies that Maximum Conducted Output Power. Note 2: 802.11a/n/ac uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.					

1.1.2 Antenna Details

Ant. No.	Model	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)				
				2400~2483.5	5150~5250	5250~5350	5470~5725	5725~5850
1	Wi-Fi ANT-1	Monopole	IPEX	1.87	1.22	2.19	2.39	3.14
2	Wi-Fi ANT-2	Monopole	IPEX	1.87	1.22	2.19	2.39	3.14

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	3.8 Vdc

1.1.4 Accessories

N/A

1.1.5 Channel List

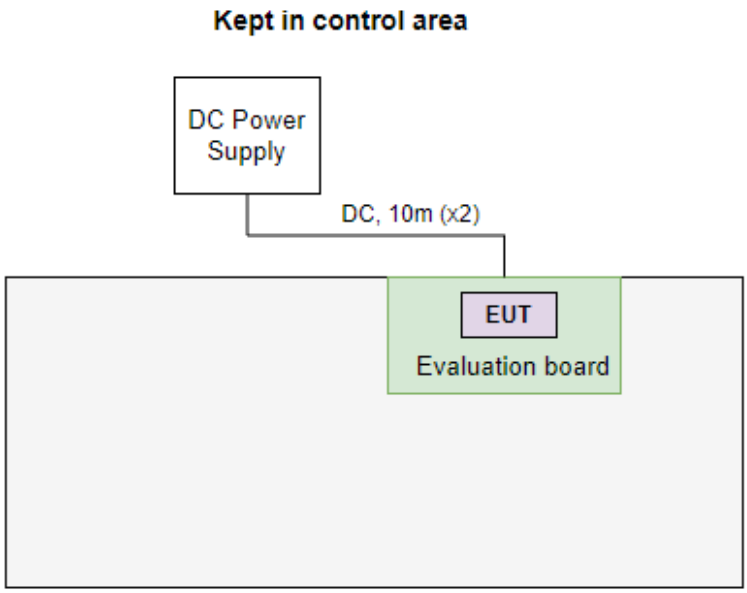
802.11 a / HT20 / VHT20		HT40 / VHT40	
Channel	**Frequency(MHz)**	**Channel**	**Frequency(MHz)**
36	5180	38	5190
40	5200	46	5230
44	5220	54	5270
48	5240	62	5310
52	5260	102	5510
56	5280	110	5550
60	5300	118	5590
64	5320	126	5630
100	5500	134	5670
104	5520	151	5755
108	5540	159	5795
112	5560	**VHT80**	
116	5580	42	5210
120	5600	58	5290
124	5620	106	5530
128	5640	122	5610
132	5660	155	5775
136	5680	---	---
140	5700	---	---
149	5745	---	---
153	5765	---	---
157	5785	---	---
161	5805	---	---
165	5825	---	---

1.2 Local Support Equipment List

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Remarks**
1	Notebook	DELL	Latitude E5470	DoC	---
2	DC Cable	ICC	DCC-10m-R	---	---
3	DC Cable	ICC	DCC-10m-B	---	---
4	DC Power Supply	GWINSTEK	GPC-60300	---	---
5	Evaluation board	---	---	---	Provided by applicant.

1.3 Test Setup Chart

Test Setup Diagram



Note: The notebook is disconnected from EUT and removed from test table when EUT is set to transmit continuously.

1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Apr. 08, 2022				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Receiver	R&S	ESR3	101658	Feb. 16, 2022	Feb. 15, 2023
LISN	R&S	ENV216	101295	Jan. 12, 2022	Jan. 11, 2023
LISN (Support Unit)	SCHWARZBECK	NSLK 8127	8127667	Jan .07, 2022	Jan .06, 2023
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 19, 2021	Oct. 18, 2022
50 ohm terminal (Support Unit)	NA	50	04	May 25, 2021	May 24, 2022
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber3 / (03CH03-WS)				
Tested Date	Apr. 08, 2022				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Receiver	R&S	ESR3	101657	Mar. 15, 2022	Mar. 14, 2023
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 08, 2021	Nov. 07, 2022
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-685	May 06, 2021	May 05, 2022
Preamplifier	EMC	EMC02325	980187	Jul. 26, 2021	Jul. 25, 2022
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 05, 2021	Oct. 04, 2022
LF cable-0.8M	EMC	EMC8D-NM-NM-800	EMC8D-NM-NM-800-001	Sep. 24, 2021	Sep. 23, 2022
LF cable-3M	EMC	EMC8D-NM-NM-3000	131103	Sep. 24, 2021	Sep. 23, 2022
LF cable-13M	EMC	EMC8D-NM-NM-13000	131104	Sep. 24, 2021	Sep. 23, 2022
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Test Standards

47 CFR FCC Part 15.407
ANSI C63.10-2013

1.6 Reference Guidance

FCC KDB 412172 D01 Determining ERP and EIRP v01r01
FCC KDB 662911 D01 Multiple Transmitter Output v02r01
FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01

1.7 Deviation from Test Standard and Measurement Procedure

None

1.8 Measurement Uncertainty

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

Measurement Uncertainty	
Parameters	**Uncertainty**
AC conducted emission	±2.92 dB
Unwanted Emission ≤ 1GHz	±3.96 dB
Time	±0.1%
Temperature	±0.4 °C

2 Test Configuration

2.1 Testing Facility

Test Laboratory	International Certification Corporation
Test Site	CO01-WS
Address of Test Site	No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)
Test Site	03CH03-WS
Address of Test Site	No.14-1, Lane 19, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 333, Taiwan (R.O.C.)

- FCC Designation No.: TW0009
- FCC site registration No.: 207696
- ISED#: 10807C
- CAB identifier: TW2732

2.2 The Worst Test Modes and Channel Details

Frequency band 5150~5350 MHz / 5470~5725 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate**	**Test Configuration**
AC Power Line Conducted Emissions	VHT20	5200	MCS 0	---
Unwanted Emissions ≤1GHz	VHT20	5200	MCS 0	---
Frequency band 5725-5850 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate**	**Test Configuration**
AC Power Line Conducted Emissions	VHT80	5775	MCS 0	---
Unwanted Emissions ≤1GHz	VHT80	5775	MCS 0	---

NOTE:

1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **X-plane** results were found as the worst case and were shown in this report.

3 Transmitter Test Results

3.1 Unwanted Emissions

3.1.1 Limit of Unwanted Emissions

Restricted Band Emissions Limit			
Frequency Range (MHz)	**Field Strength (uV/m)**	**Field Strength (dBuV/m)**	**Measure Distance (m)**
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1:
Qusai-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit
Note 2:
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

Un-restricted band emissions above 1GHz Limit	
Operating Band	**Limit**
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.850 GHz	All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).	

3.1.2 Test Procedures

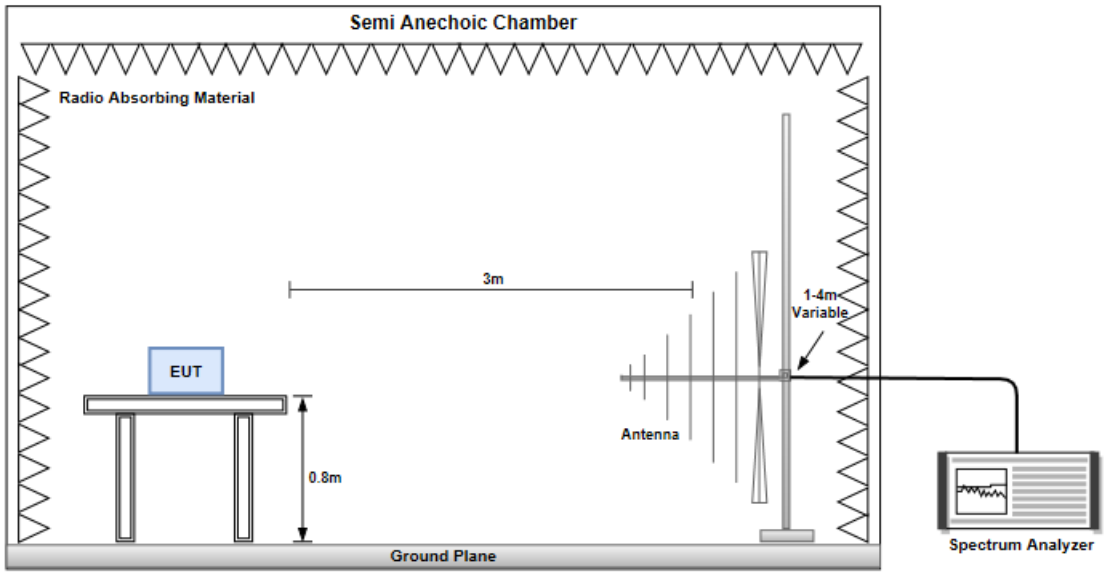
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at test table. For emissions testing at or below 1 GHz, the table height is 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height is 1.5 m
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

Note:

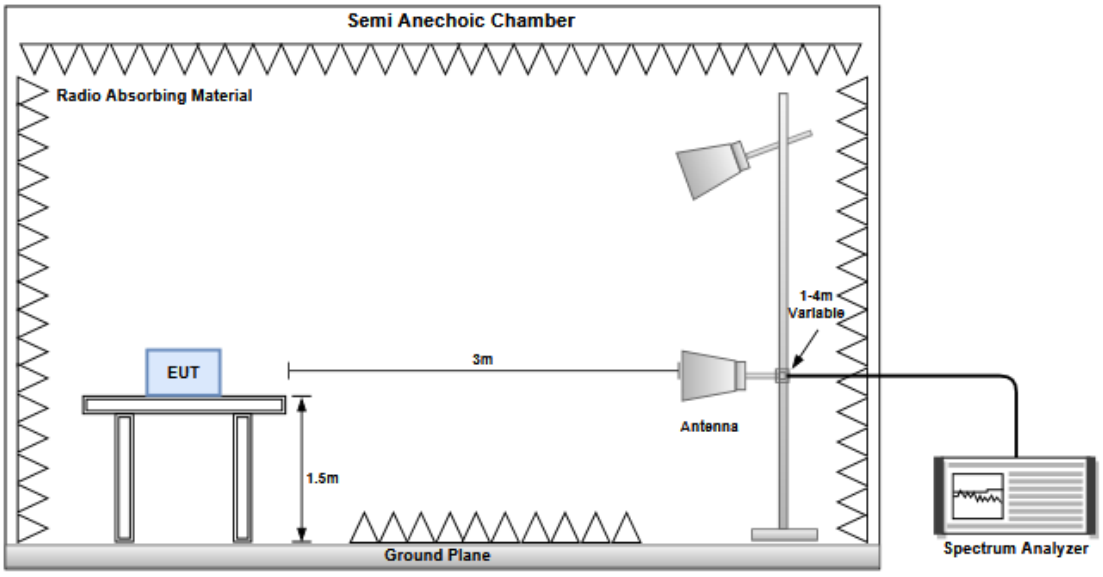
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above 1GHz.

3.1.3 Test Setup

Unwanted Emissions below 1 GHz



Unwanted Emissions above 1 GHz



3.1.4 Test Results

Refer to Appendix A.

3.2 AC Power Line Conducted Emissions

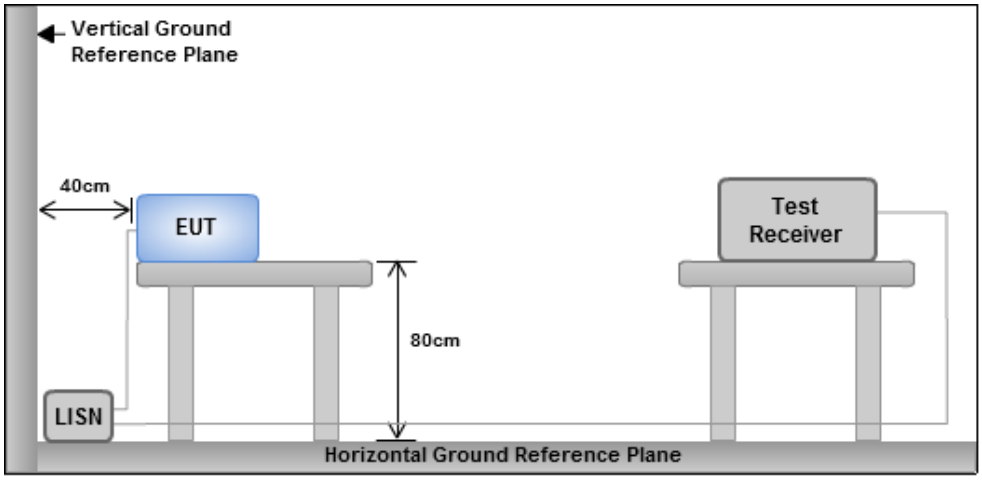
3.2.1 Limit of AC Power Line Conducted Emissions

Conducted Emissions Limit		
Frequency Emission (MHz)	**Quasi-Peak**	**Average**
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.2.2 Test Procedures

1. The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
2. The device is connected to line impedance stabilization network (LISN) and other accessories are connected to other LISN. Measured levels of AC power line conducted emission are across the 50 Ω LISN port.
3. AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.
4. This measurement was performed with AC 120V/60Hz

3.2.3 Test Setup



Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.2.4 Test Results

Refer to Appendix B.

4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corporation (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website http://www.icertifi.com.tw.

Linkou

Tel: 886-2-2601-1640

No.30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan (R.O.C.)

Kwei Shan

Tel: 886-3-271-8666

No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

No.2-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

Kwei Shan Site II

Tel: 886-3-271-8640

No.14-1, Lane 19, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 333, Taiwan (R.O.C.)

If you have any suggestion, please feel free to contact us as below information.

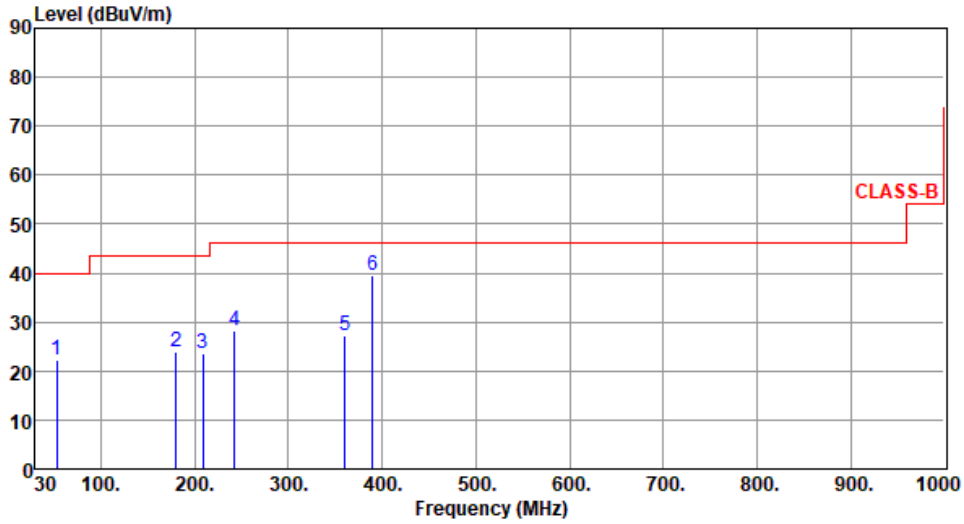
Tel: 886-3-271-8666
Fax: 886-3-318-0345
Email: ICC_Service@icertifi.com.tw

==END==

Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	VHT20	**Test Freq. (MHz)**	5200
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):24 Humidity(%):63

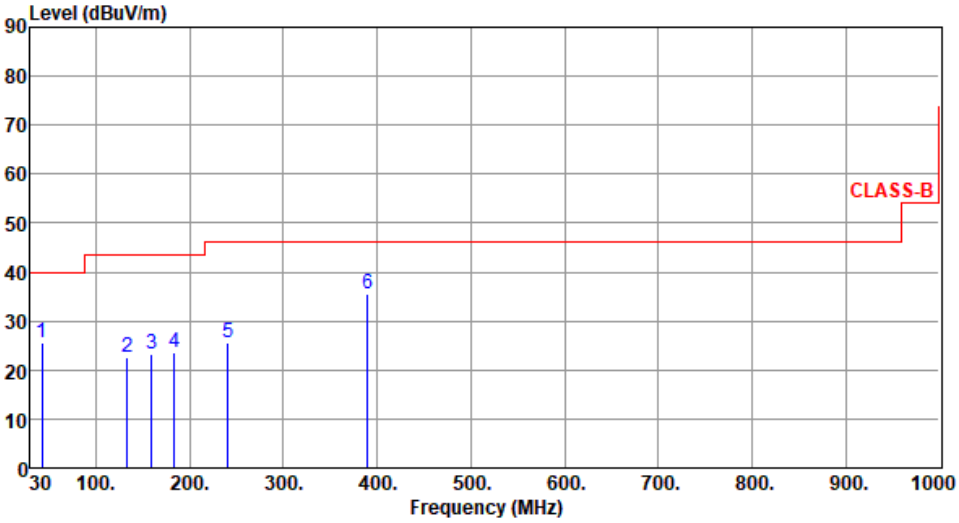


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	53.22	22.23	40.00	-17.77	31.58	-9.35	Peak	---	---
2	180.55	23.77	43.50	-19.73	33.90	-10.13	Peak	---	---
3	208.66	23.63	43.50	-19.87	35.32	-11.69	Peak	---	---
4	242.88	28.25	46.00	-17.75	38.33	-10.08	Peak	---	---
5	360.11	27.15	46.00	-18.85	33.81	-6.66	Peak	---	---
6	389.87	39.55	46.00	-6.45	45.29	-5.74	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation	VHT20	**Test Freq. (MHz)**	5200
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):24 Humidity(%):63

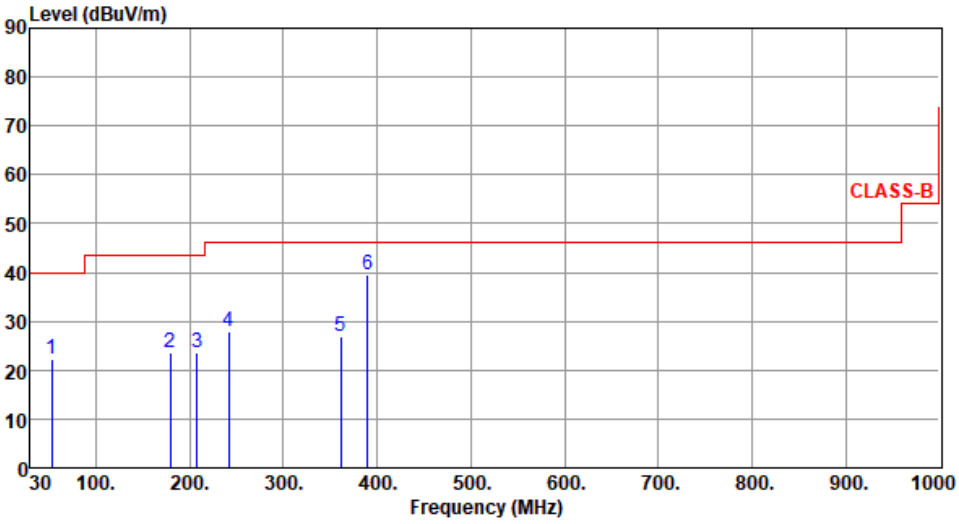


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	42.88	25.44	40.00	-14.56	34.37	-8.93	Peak	---	---
2	133.55	22.62	43.50	-20.88	32.15	-9.53	Peak	---	---
3	159.26	23.39	43.50	-20.11	31.78	-8.39	Peak	---	---
4	183.55	23.66	43.50	-19.84	34.13	-10.47	Peak	---	---
5	240.56	25.63	46.00	-20.37	35.81	-10.18	Peak	---	---
6	389.87	35.63	46.00	-10.37	41.37	-5.74	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation	VHT80	**Test Freq. (MHz)**	5775
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):24 Humidity(%):63

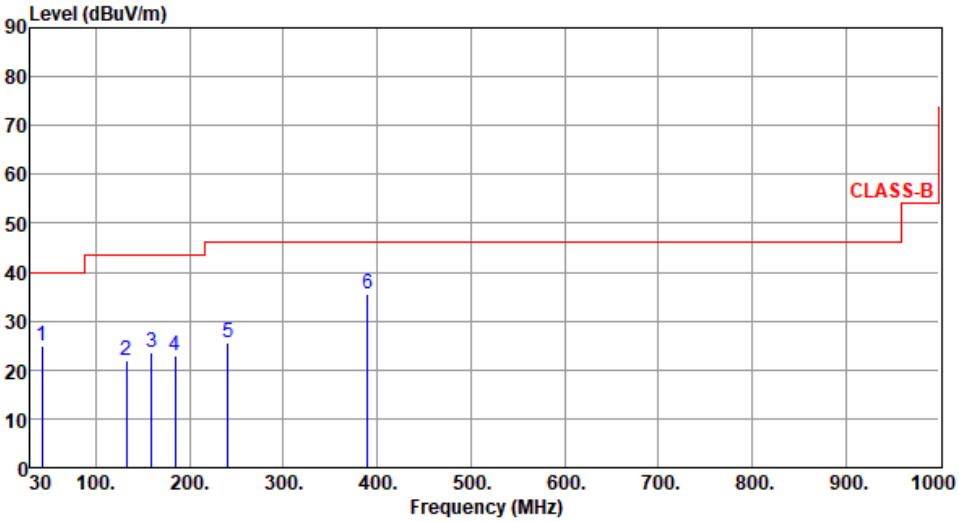


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	52.74	22.15	40.00	-17.85	31.44	-9.29	Peak	---	---
2	179.70	23.45	43.50	-20.05	33.44	-9.99	Peak	---	---
3	207.55	23.52	43.50	-19.98	35.21	-11.69	Peak	---	---
4	241.75	27.95	46.00	-18.05	38.08	-10.13	Peak	---	---
5	361.22	26.93	46.00	-19.07	33.56	-6.63	Peak	---	---
6	389.87	39.51	46.00	-6.49	45.25	-5.74	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation	VHT80	**Test Freq. (MHz)**	5775
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):24 Humidity(%):63

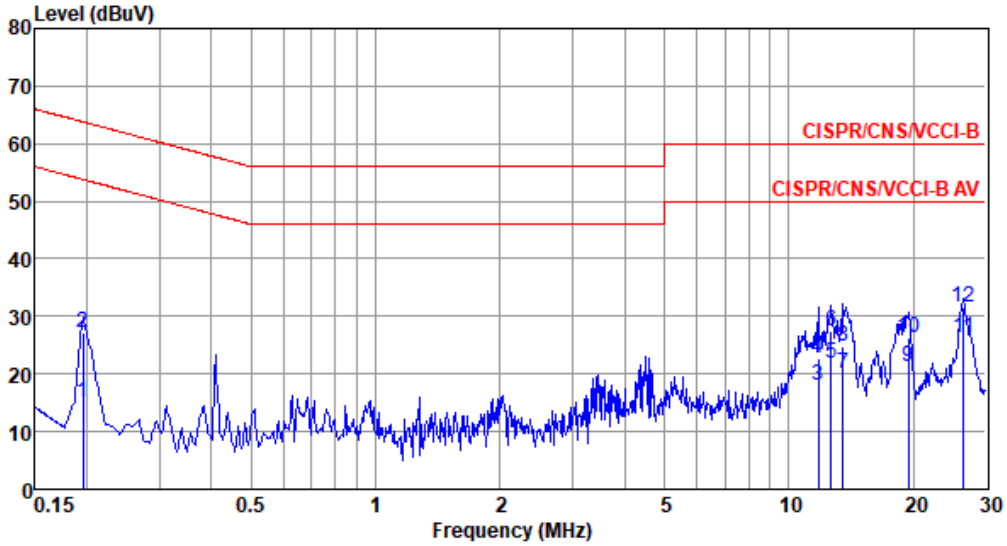


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	42.75	24.93	40.00	-15.07	33.85	-8.92	Peak	---	---
2	132.77	21.94	43.50	-21.56	31.62	-9.68	Peak	---	---
3	159.55	23.59	43.50	-19.91	31.98	-8.39	Peak	---	---
4	184.22	22.88	43.50	-20.62	33.42	-10.54	Peak	---	---
5	241.00	25.44	46.00	-20.56	35.60	-10.16	Peak	---	---
6	389.87	35.52	46.00	-10.48	41.26	-5.74	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation Mod	VHT20	**Test Freq. (MHz)**	5200
Power Phase	Line		

Test by : Joe Liao Temperature: 20°C Humidity: 60%

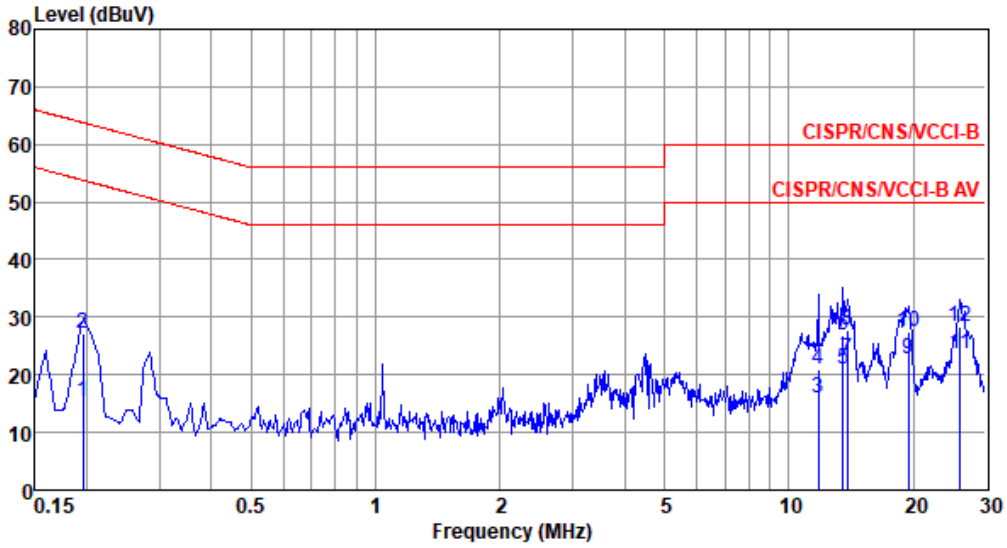


	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.195	15.08	53.80	-38.72	5.39	9.61	0.08	0.00	Average
2	0.195	27.06	63.80	-36.74	17.37	9.61	0.08	0.00	QP
3	11.807	18.02	50.00	-31.98	7.89	9.64	0.49	0.00	Average
4	11.807	22.61	60.00	-37.39	12.48	9.64	0.49	0.00	QP
5	12.649	21.87	50.00	-28.13	11.73	9.63	0.51	0.00	Average
6	12.649	27.41	60.00	-32.59	17.27	9.63	0.51	0.00	QP
7	13.551	20.02	50.00	-29.98	9.87	9.62	0.53	0.00	Average
8	13.551	24.74	60.00	-35.26	14.59	9.62	0.53	0.00	QP
9	19.428	21.30	50.00	-28.70	11.06	9.59	0.65	0.00	Average
10	19.428	26.30	60.00	-33.70	16.06	9.59	0.65	0.00	QP
11*	26.418	26.19	50.00	-23.81	15.98	9.49	0.72	0.00	Average
12	26.418	31.73	60.00	-28.27	21.52	9.49	0.72	0.00	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB) + Aux (dB).
2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

Modulation Mod	VHT20	**Test Freq. (MHz)**	5200
Power Phase	Neutral		

Test by : Joe Liao Temperature: 20°C Humidity: 60%

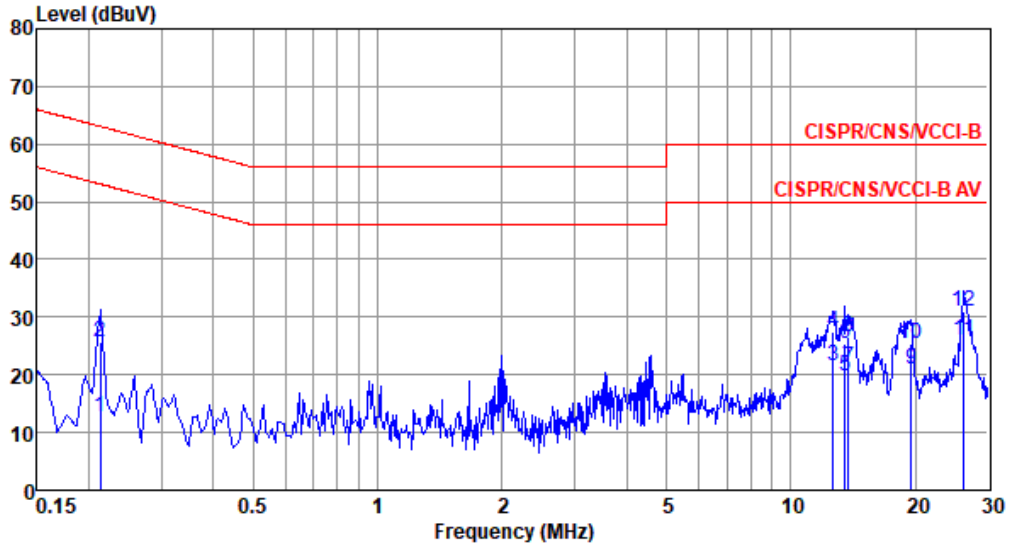


	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.195	15.27	53.80	-38.53	5.60	9.59	0.08	0.00	Average
2	0.195	27.25	63.80	-36.55	17.58	9.59	0.08	0.00	QP
3	11.807	16.03	50.00	-33.97	5.88	9.66	0.49	0.00	Average
4	11.807	20.89	60.00	-39.11	10.74	9.66	0.49	0.00	QP
5	13.551	21.06	50.00	-28.94	10.87	9.66	0.53	0.00	Average
6	13.551	26.89	60.00	-33.11	16.70	9.66	0.53	0.00	QP
7	13.841	22.69	50.00	-27.31	12.49	9.66	0.54	0.00	Average
8	13.841	27.72	60.00	-32.28	17.52	9.66	0.54	0.00	QP
9	19.428	22.59	50.00	-27.41	12.26	9.68	0.65	0.00	Average
10	19.428	27.51	60.00	-32.49	17.18	9.68	0.65	0.00	QP
11*	26.001	23.51	50.00	-26.49	13.15	9.65	0.71	0.00	Average
12	26.001	28.47	60.00	-31.53	18.11	9.65	0.71	0.00	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB) + Aux (dB).
2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

Modulation Mod	VHT80	**Test Freq. (MHz)**	5775
Power Phase	Line		

Test by : Joe Liao Temperature: 20°C Humidity: 60%

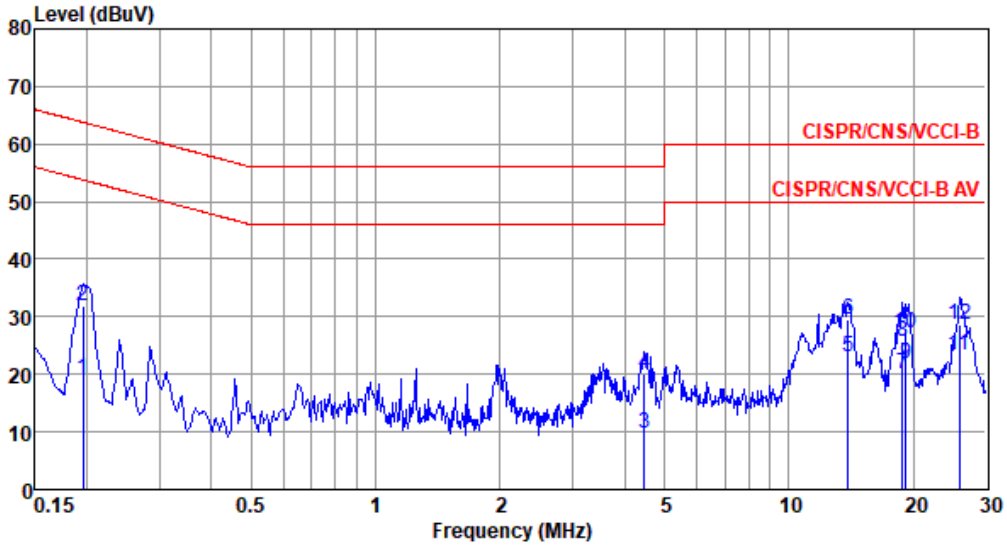


	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.213	12.62	53.10	-40.48	2.93	9.61	0.08	0.00	Average
2	0.213	25.64	63.10	-37.46	15.95	9.61	0.08	0.00	QP
3	12.649	21.42	50.00	-28.58	11.28	9.63	0.51	0.00	Average
4	12.649	27.58	60.00	-32.42	17.44	9.63	0.51	0.00	QP
5	13.551	19.84	50.00	-30.16	9.69	9.62	0.53	0.00	Average
6	13.551	25.50	60.00	-34.50	15.35	9.62	0.53	0.00	QP
7	13.768	21.25	50.00	-28.75	11.09	9.62	0.54	0.00	Average
8	13.768	26.72	60.00	-33.28	16.56	9.62	0.54	0.00	QP
9	19.532	21.04	50.00	-28.96	10.80	9.59	0.65	0.00	Average
10	19.532	25.48	60.00	-34.52	15.24	9.59	0.65	0.00	QP
11*	26.278	26.06	50.00	-23.94	15.84	9.50	0.72	0.00	Average
12	26.278	31.09	60.00	-28.91	20.87	9.50	0.72	0.00	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB) + Aux (dB).
2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

Modulation Mod	VHT80	**Test Freq. (MHz)**	5775
Power Phase	Neutral		

Test by : Joe Liao Temperature: 20°C Humidity: 60%



	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.195	19.09	53.80	-34.71	9.42	9.59	0.08	0.00	Average
2	0.195	31.98	63.80	-31.82	22.31	9.59	0.08	0.00	QP
3	4.478	9.76	46.00	-36.24	-0.09	9.61	0.24	0.00	Average
4	4.478	20.12	56.00	-35.88	10.27	9.61	0.24	0.00	QP
5	13.915	23.10	50.00	-26.90	12.90	9.66	0.54	0.00	Average
6	13.915	29.42	60.00	-30.58	19.22	9.66	0.54	0.00	QP
7	18.820	20.16	50.00	-29.84	9.84	9.68	0.64	0.00	Average
8	18.820	25.54	60.00	-34.46	15.22	9.68	0.64	0.00	QP
9	19.224	21.74	50.00	-28.26	11.41	9.68	0.65	0.00	Average
10	19.224	27.10	60.00	-32.90	16.77	9.68	0.65	0.00	QP
11*	25.864	23.37	50.00	-26.63	13.01	9.65	0.71	0.00	Average
12	25.864	28.67	60.00	-31.33	18.31	9.65	0.71	0.00	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB) + Aux (dB).
2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).