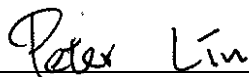


# FCC 15B Test Report

**FCC ID** : U4G-Q104G  
**IC** : 3862E-Q104G  
**Equipment** : Personal Digital Assistant  
**Model No.** : MEMOR 20 WWAN  
**Brand Name** : Datalogic  
**Applicant** : Datalogic S.r.l.  
**Address** : Via S. Vitalino, 13 40012, Lippo di Calderara di Reno (BO) ITALY  
**Standard** : FCC Part 15, Subpart B, Class B  
ICES-003 Issue 6, Class B  
ANSI C63.4:2014  
**Received Date** : Apr. 23, 2019  
**Tested Date** : May 15 ~ May 20, 2019

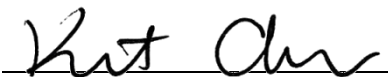
We, International Certification Corp., would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. It may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:



Peter Lin / Supervisor

Approved by:



Kent Chen / Assistant Manager



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## Release Record

Report No.	Version	Description	Issued Date
FD942301-01	Rev. 01	Initial issue	Dec. 09, 2019

## Summary of Test Results

FCC Part 15, Subpart B Emission Tests				
Ref. Std. Clause	Test Standard	Test Items	Measured	Result
15.107	FCC Part 15, Subpart B, Class B	Conducted Emissions	-6.63dB QP @ 0.641MHz.	Pass
15.109	FCC Part 15, Subpart B, Class B	Radiated Emissions	-3.66dB QP @ 44.55MHz.	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.

# 1 General Description

## 1.1 Information

The report is issued as a duplicate report to original ICC report no. FD942301. The modification is adding FCC ID & IC number to this report.

### 1.1.1 Feature of Equipment under Test (EUT)

<b>Power Supply Type</b>	5Vdc from adapter 3.85Vdc from battery
<b>Highest Frequency of the Internal Sources</b>	5825MHz

### 1.1.2 Accessories

Accessories		
No.	Equipment	Description
1	Adapter	Brand: DATALOGIC Model: 2ACP0183C Power Rating: I/P: 100-240Vac, 0.5A, 50/60Hz O/P: 5Vdc, 3A
2	Battery	Brand: DATALOGIC Model: BY-05 Rating: 3.85Vdc, 15Wh
3	USB type-C cable	1.2m shielded without core

## 1.2 The Equipment List

<b>Test Item</b>	Conducted Emission				
<b>Test Site</b>	Conduction room 1 / (CO01-WS)				
<b>Test Date</b>	May 20, 2019				
<b>Instrument</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Calibration Date</b>	<b>Calibration Until</b>
Receiver	R&S	ESR3	101657	Jan. 08, 2019	Jan. 07, 2020
LISN	R&S	ENV216	101579	Mar. 08, 2019	Mar. 07, 2020
LISN (Support Unit)	SCHWARZBECK	Schwarzbeck 8127	8127-666	Nov. 29, 2018	Nov. 28, 2019
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 23, 2018	Oct. 23, 2019
50 ohm terminal (Support Unit)	NA	50	04	May 22, 2018	May 21, 2019
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

<b>Test Item</b>	Radiated Emission below 1GHz				
<b>Test Site</b>	966 chamber 2 / (03CH02-WS)				
<b>Test Date</b>	May 15, 2019				
<b>Instrument</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Calibration Date</b>	<b>Calibration Until</b>
Receiver	Agilent	N9038A	MY53290044	Sep. 17, 2018	Sep. 16, 2019
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 09, 2018	Nov. 08, 2019
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-523	Dec. 03, 2018	Dec. 02, 2019
Preamplifier	EMC	EMC02325	980194	Sep. 18, 2018	Sep. 17, 2019
LF cable 1M	EMC	EMCCFD400-NM-N M-1000	160501	Oct. 22, 2018	Oct. 21, 2019
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-003	Oct. 22, 2018	Oct. 21, 2019
LF cable 10M	EMCC	CFD400-E	CFD400-001	Oct. 22, 2018	Oct. 21, 2019
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

<b>Test Item</b>	Radiated Emission above 1GHz				
<b>Test Site</b>	966 chamber 2 / (03CH02-WS)				
<b>Test Date</b>	May 16, 2019				
<b>Instrument</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Calibration Date</b>	<b>Calibration Until</b>
Spectrum Analyzer	Agilent	N9010A	MY53400091	Nov. 07, 2018	Nov. 06, 2019
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1095	Sep. 22, 2018	Sep. 21, 2019
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 15, 2018	Nov. 14, 2019
Preamplifier	Agilent	83017A	MY39501309	Sep. 25, 2018	Sep. 24, 2019
Preamplifier	EMC	EMC184045B	980192	Aug. 09, 2018	Aug. 08, 2019
RF Cable	EMC	EMC105-SM-SM-8000	180512	Oct. 22, 2018	Oct. 21, 2019
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16018/4	Oct. 22, 2018	Oct. 21, 2019
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

### 1.3 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

FCC Part 15, Subpart B, Class B  
ICES-003 Issue 6, Class B  
ANSI C63.4:2014

### 1.4 Deviation from Test Standard and Measurement Procedure

None

### 1.5 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor ( $k=2$ )).

Measurement Uncertainty		
Test Item	Frequency	Uncertainty
Conducted Emissions	150kHz ~ 30MHz	$\pm 2.92$ dB
Radiated Emissions	30MHz ~ 1GHz	$\pm 4.32$ dB
	Above 1GHz	$\pm 4.9$ dB

Note: The results of measurements of emissions shall reference the measurement uncertainty considerations contained in CISPR 16-4-2.

## 2 Test Configuration

### 2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	21°C / 59%	Alex Tsai
Radiated Emissions	03CH02-WS	23°C / 62%	Brad Wu Alex Tsai

- FCC Designation No.: TW1073
- FCC site registration No.: 933633

### 2.2 The Worst Case Measurement Configuration

Radiation Pretest Mode	
Pretest Mode	Operating Description
1	WiFi 2.4G & 2G Link, GNSS Rx, Front/Rear Cam, EMMC R/W, 2nd display, NFC R/W, EUT Standalone
2	WiFi 5G & 3G & BT Link, GNSS Rx, VLC play video, with Adapter
3	Data + IrDa transfer, Barcode scan, USB connection with Notebook
4	LTE & BT Link, GNSS Rx, VLC play video, Wireless charging with cradle
For <b>Pretest Mode 4</b> is the worst case and only its data was record in this test report.	

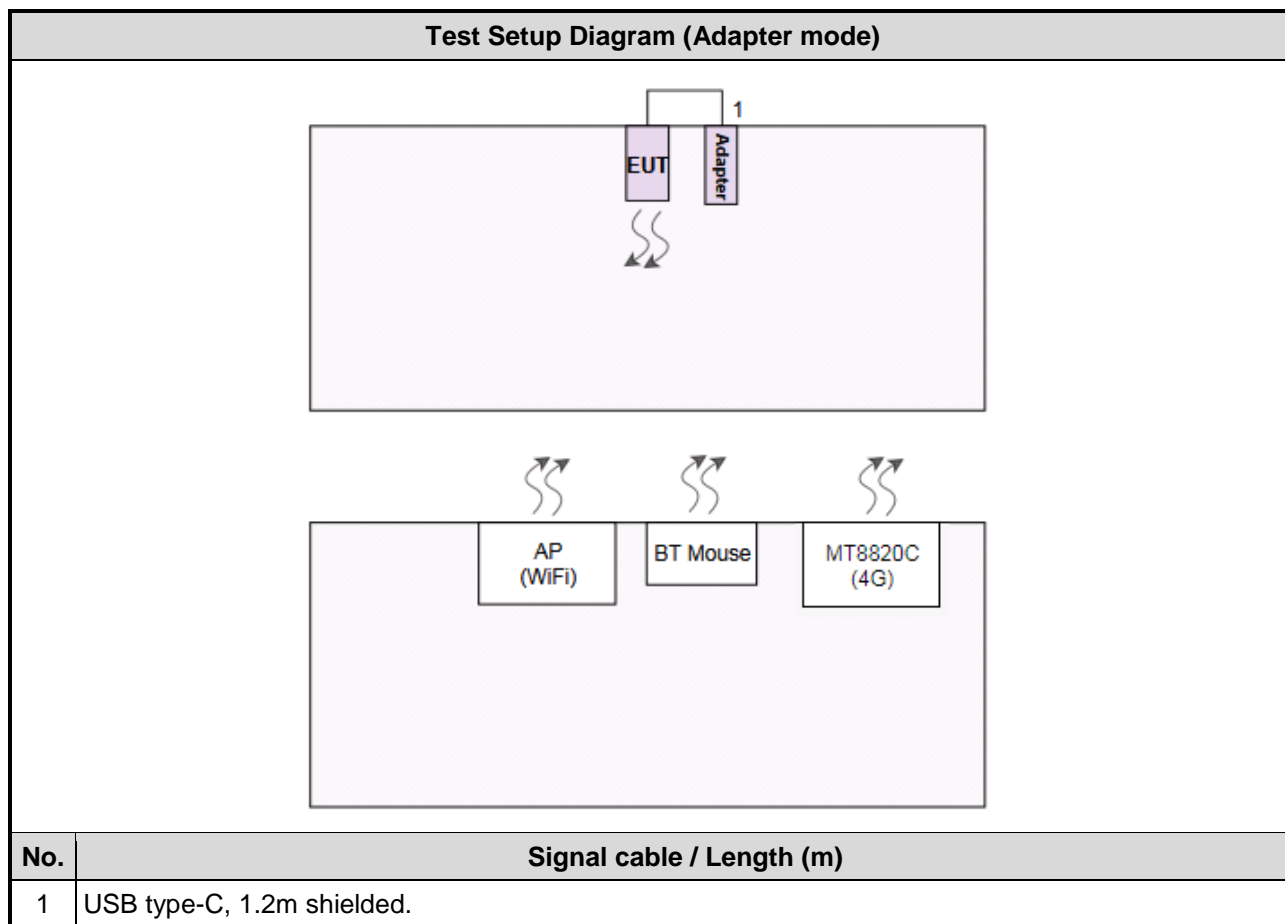
The Determined Worst Case Configurations	
Conducted Emissions	
Test Mode	Operating Description
1	WiFi 5G & 3G & BT Link, GNSS Rx, VLC play video, with Adapter (Battery 40%)
2	Data + IrDa transfer, Barcode scan, USB connection with Notebook (Battery 48%) -
3	LTE & BT Link, GNSS Rx, VLC play video, Wireless charging with cradle (Battery 42%)
Radiated Emissions	
Test Mode ≤ 1GHz	Operating Description
1	LTE & BT Link, GNSS Rx, VLC play video, Wireless charging with cradle (Battery 45%)
Test Mode > 1GHz	Operating Description
1	LTE & BT Link, GNSS Rx, VLC play video, Wireless charging with cradle (Battery 45%)



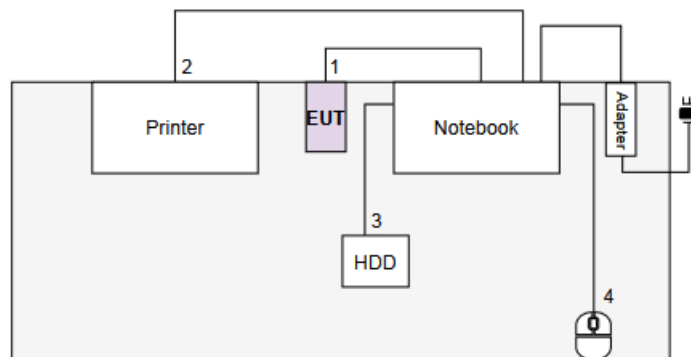
## 2.3 Local Support Equipment List

Support Equipment List					
No.	Equipment	Brand	Model	S/N	Remarks
1	Wireless AP	D-LINK	DIR-850L	RZ1Q4G6000261	---
2	Mouse	Logitech	M337	1602LZ0P89V8	---
3	Notebook	DELL	Latitude E6440	8VXMD12	---
4	Printer	EPSON	XP-30	QSDK002461	---
5	USB 3.0 HDD	WD	WDBKXH5000 ABK	WX31AB210213	---
6	Mouse	DELL	MS111-L	2C3-00N9	---
7	Cradle	DATALOGIC	SSDL	---	Provided by applicant.
8	Radio Communication Analyzer	ANRITSU	MT8820C	6201240341	---

## 2.4 Test Setup Chart

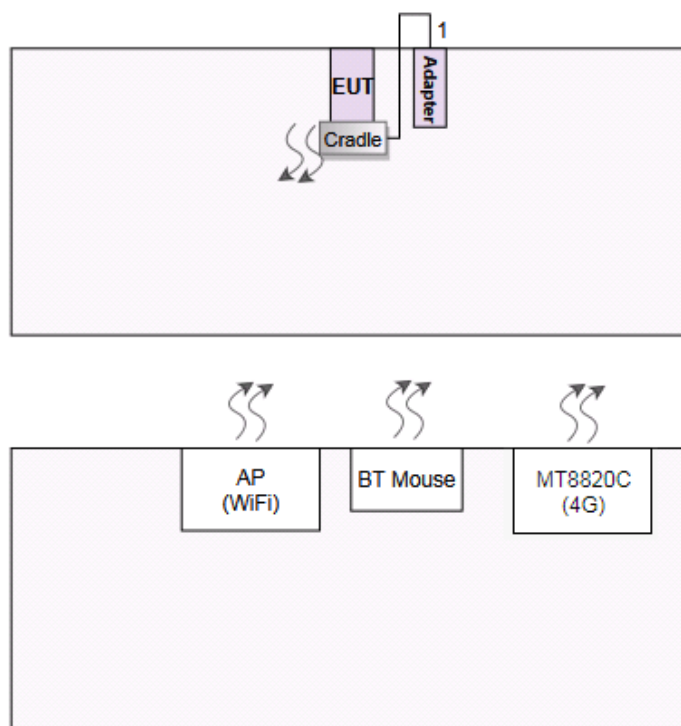


**Test Setup Diagram (USB mode)**



No.	Signal cable / Length (m)
1	USB type-C, 1.2m shielded.
2	USB, 1.8m shielded.
3	USB, 0.5m shielded.
4	USB, 1.8m shielded.

**Test Setup Diagram (Cradle mode)**



No.	Signal cable / Length (m)
1	USB type-C, 1.2m shielded.

## 2.5 Test Software and Operating Condition

### <Adapter mode>

- a. The EUT consumes power from adapter.
- b. The EUT backlight set up to 100%.
- c. The EUT links with AP by WiFi.
- d. The EUT links with Mouse by BT.
- e. The EUT links with MT8820C by LTE.
- f. The EUT executes "VLC" application for playing "colorbar" video.

### <USB mode>

- a. The EUT consumes power from support notebook via USB type-C cable.
- b. The EUT backlight set up to 100%.
- c. The support notebook executes "WinEMC.exe" to send "H" patterns to its monitor and the monitor displayed them.
- d. The support notebook executes "WinEMC.exe" to send "H" patterns to the printer.
- e. The support notebook executes "WinEMC.exe" to read and write data from USB 3.0 HDD.
- f. The support notebook copies files to EUT via USB type-C cable.
- g. The support notebook executes "scan engine.bat" for barcode auto scan in USB mode.
- h. The support notebook executes "IrDA\_Receive.bat" & "IrDA\_Send.bat" for data transferring in USB mode.

### <Cradle mode>

- a. The EUT consumes power from wireless charging cradle.
- b. The EUT backlight set up to 100%.
- c. The EUT links with AP by WiFi.
- d. The EUT links with Mouse by BT.
- e. The EUT links with MT8820C by LTE.
- f. The EUT executes "VLC" application for playing "colorbar" video.

### 3 Emission Tests Results

#### 3.1 Conducted Emissions

##### 3.1.1 Limit of Conducted Emissions

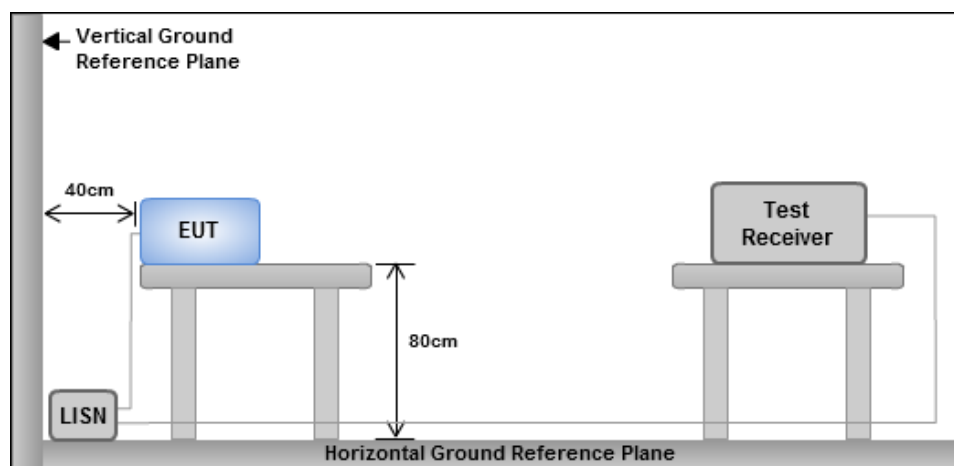
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0,15 to 0,5	66 - 56 *	56 - 46 *
0,5 to 5	56	46
5 to 30	60	50

Note 1: \* Decreases with the logarithm of the frequency.

##### 3.1.2 Test Procedures

- 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.
- 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  $\Omega$  LISN port.
- AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.

##### 3.1.3 Test Setup

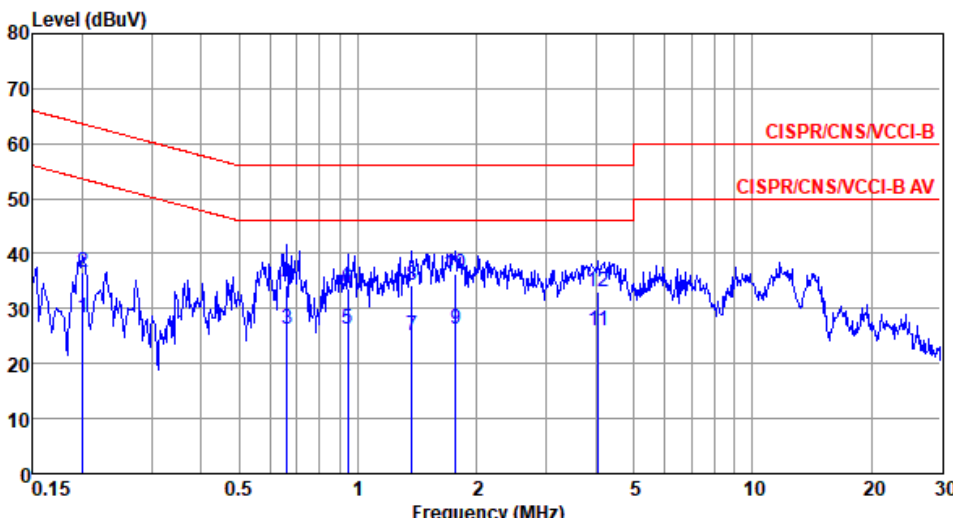


- Note: 1. Support units were connected to second LISN.  
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

### 3.1.4 Test Result of Conducted Emissions

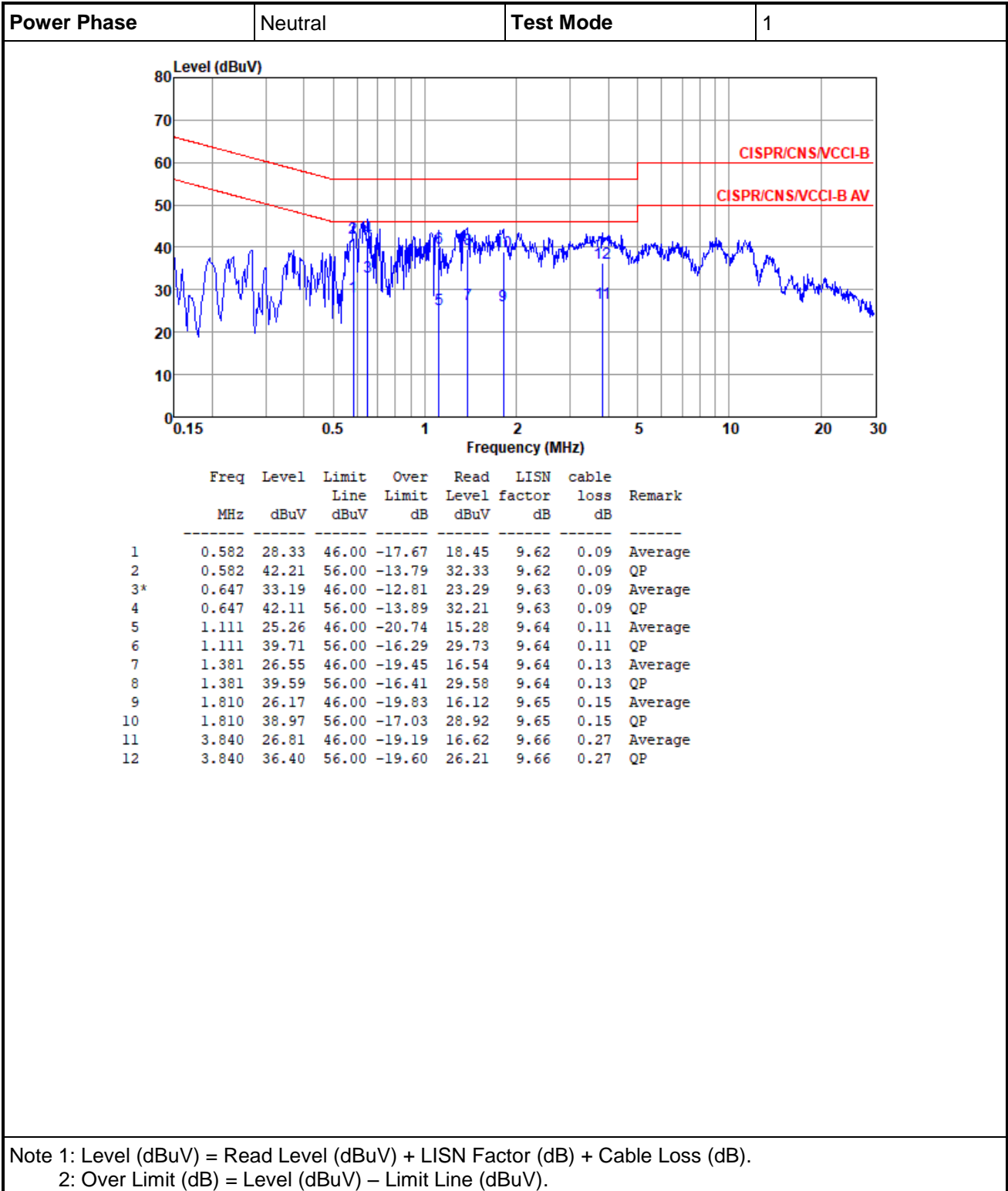
Power Phase	Line	Test Mode	1
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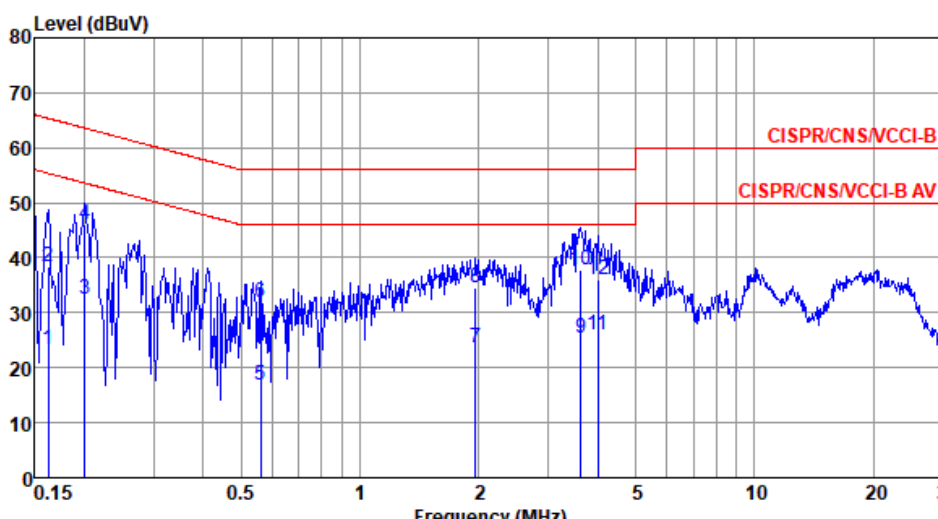


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.201	28.29	53.58	-25.29	18.49	9.54	0.07	Average
2	0.201	36.65	63.58	-26.93	26.85	9.54	0.07	QP
3	0.661	26.32	46.00	-19.68	16.36	9.59	0.09	Average
4	0.661	34.23	56.00	-21.77	24.27	9.59	0.09	QP
5	0.943	26.13	46.00	-19.87	16.13	9.60	0.10	Average
6	0.943	33.69	56.00	-22.31	23.69	9.60	0.10	QP
7	1.367	25.07	46.00	-20.93	15.01	9.60	0.13	Average
8	1.367	34.31	56.00	-21.69	24.25	9.60	0.13	QP
9	1.772	26.22	46.00	-19.78	16.12	9.60	0.15	Average
10*	1.772	36.41	56.00	-19.59	26.31	9.60	0.15	QP
11	4.070	25.90	46.00	-20.10	15.63	9.61	0.28	Average
12	4.070	33.04	56.00	-22.96	22.77	9.61	0.28	QP

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



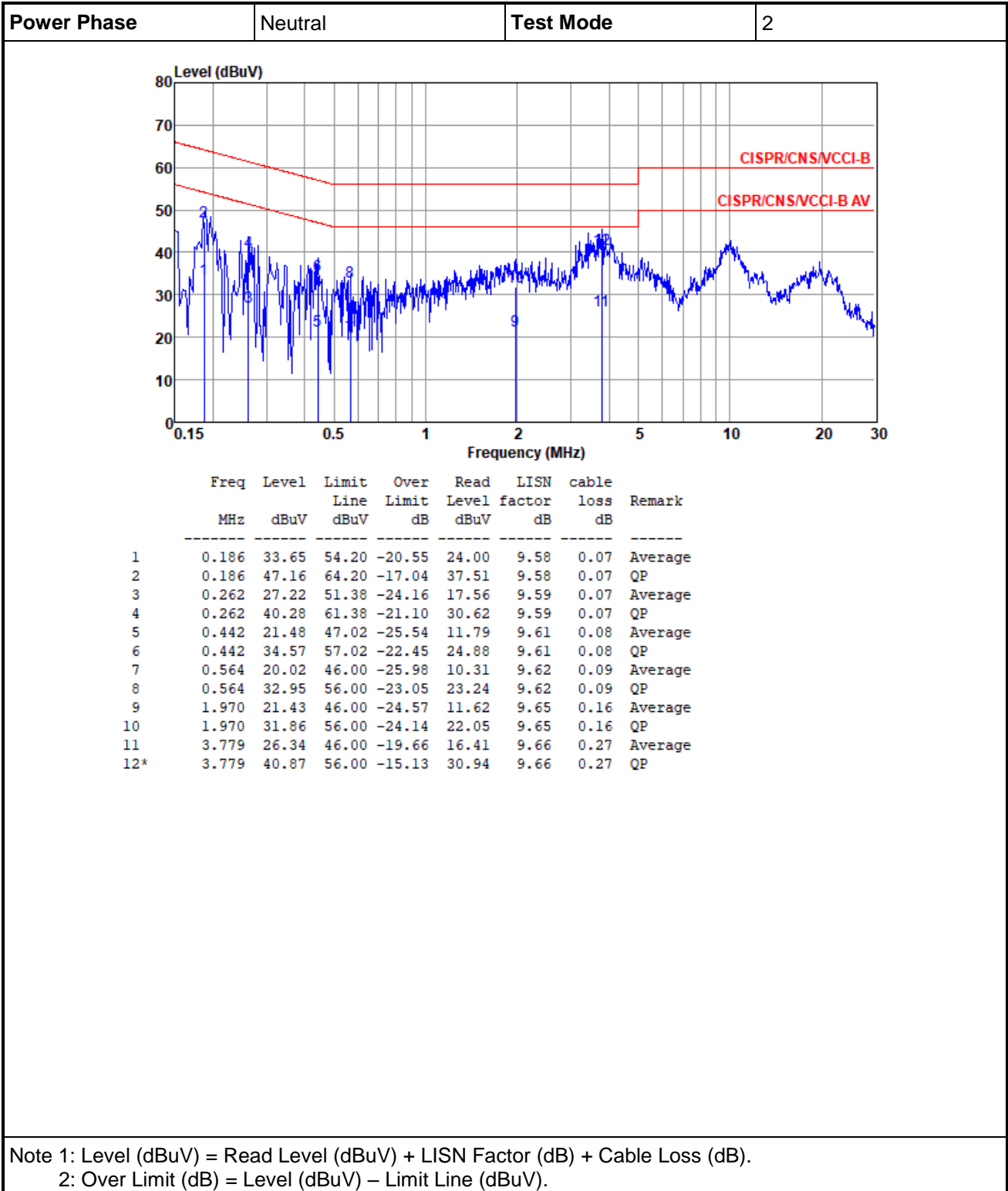
Power Phase	Line	Test Mode	2
-------------	------	-----------	---



	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
1	0.162	23.36	55.34	-31.98	13.77	9.53	0.06	Average
2	0.162	38.44	65.34	-26.90	28.85	9.53	0.06	QP
3	0.201	32.56	53.58	-21.02	22.95	9.54	0.07	Average
4*	0.201	46.15	63.58	-17.43	36.54	9.54	0.07	QP
5	0.561	16.87	46.00	-29.13	7.20	9.58	0.09	Average
6	0.561	31.78	56.00	-24.22	22.11	9.58	0.09	QP
7	1.959	23.72	46.00	-22.28	13.96	9.60	0.16	Average
8	1.959	34.40	56.00	-21.60	24.64	9.60	0.16	QP
9	3.623	25.52	46.00	-20.48	15.65	9.61	0.26	Average
10	3.623	37.66	56.00	-18.34	27.79	9.61	0.26	QP
11	4.006	25.91	46.00	-20.09	16.02	9.61	0.28	Average
12	4.006	36.00	56.00	-20.00	26.11	9.61	0.28	QP

Note 1: Level (dBUV) = Read Level (dBUV) + LISN Factor (dB) + Cable Loss (dB).

2: Over Limit (dB) = Level (dBUV) – Limit Line (dBUV).



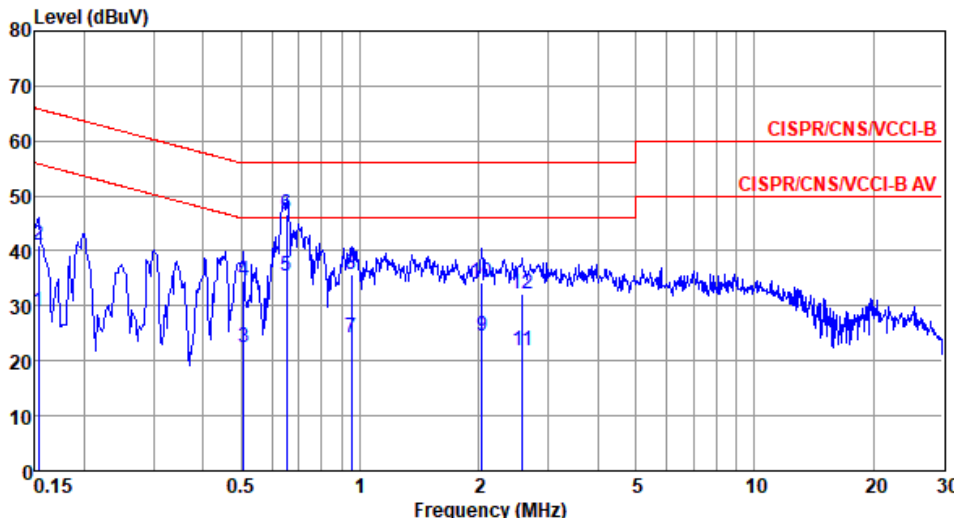


Power Phase

Line

Test Mode

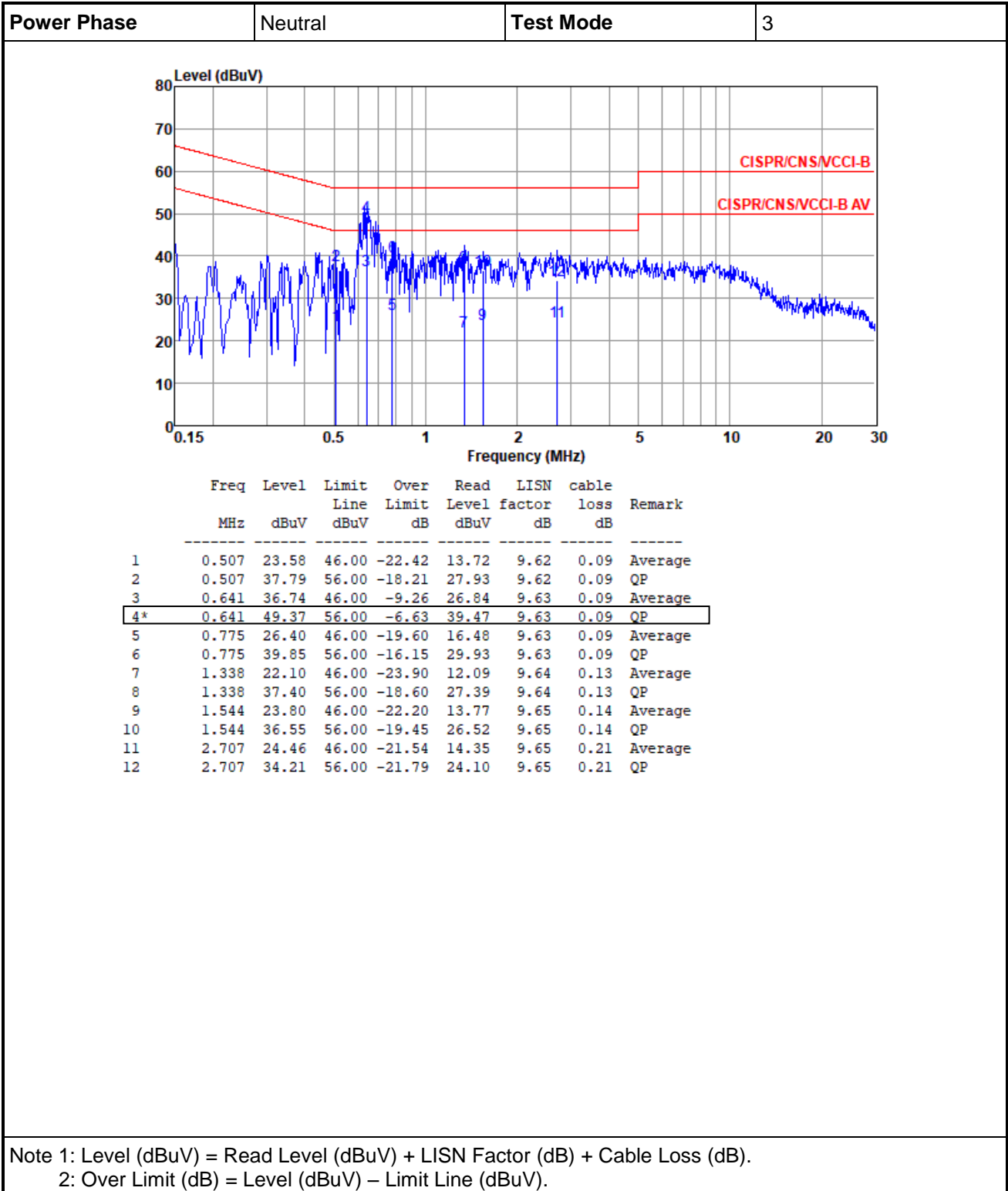
3



	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
1	0.153	28.79	55.82	-27.03	19.08	9.53	0.05	Average
2	0.153	41.12	65.82	-24.70	31.41	9.53	0.05	QP
3	0.507	22.45	46.00	-23.55	12.51	9.58	0.09	Average
4	0.507	34.60	56.00	-21.40	24.66	9.58	0.09	QP
5	0.651	35.34	46.00	-10.66	25.38	9.59	0.09	Average
6*	0.651	46.69	56.00	-9.31	36.73	9.59	0.09	QP
7	0.953	24.07	46.00	-21.93	14.07	9.60	0.10	Average
8	0.953	35.59	56.00	-20.41	25.59	9.60	0.10	QP
9	2.033	24.60	46.00	-21.40	14.48	9.60	0.16	Average
10	2.033	34.38	56.00	-21.62	24.26	9.60	0.16	QP
11	2.581	21.84	46.00	-24.16	11.67	9.60	0.20	Average
12	2.581	32.04	56.00	-23.96	21.87	9.60	0.20	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).

Note 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).



## 3.2 Radiated Emissions

### 3.2.1 Limit of Radiated Emissions

According to FCC Part 15, Subpart B §15.109, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency of Emission (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
30 - 88	100	40	3
88 - 216	150	43.5	3
216 - 960	200	46	3
Above 960	500	54	3

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705-108	1000
108-500	2000
500-1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

Note: According to FCC Part 15, Subpart B §15.33: For an unintentional radiator is shown in the table above.

### 3.2.2 Test Procedures

#### Measuring below 1 GHz:

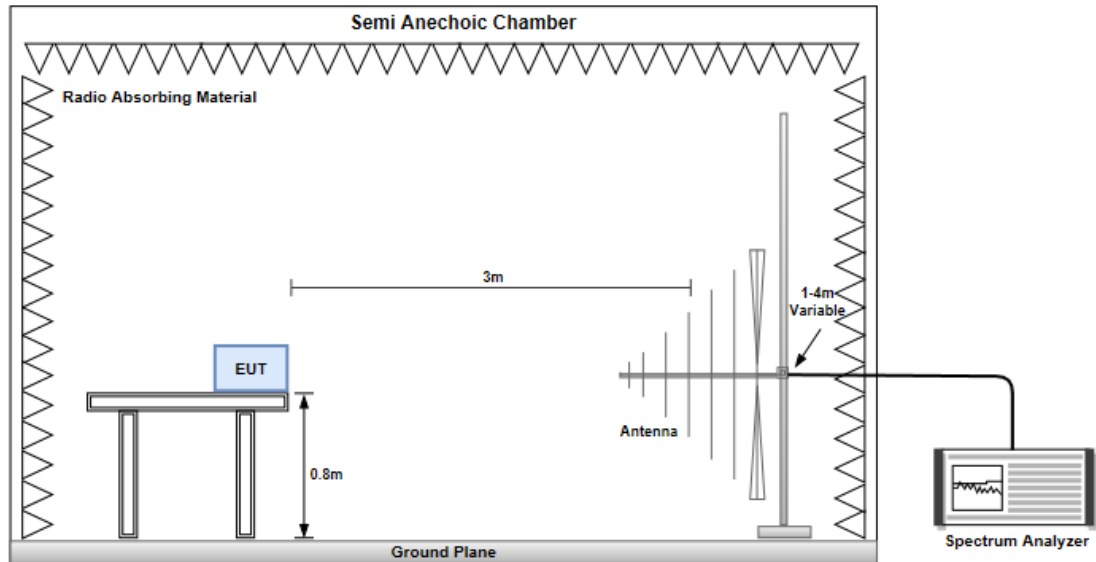
- a. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at a height of 0.8 m test table above the ground plane.
- b. 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.
- c. 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.

#### Measuring above 1 GHz:

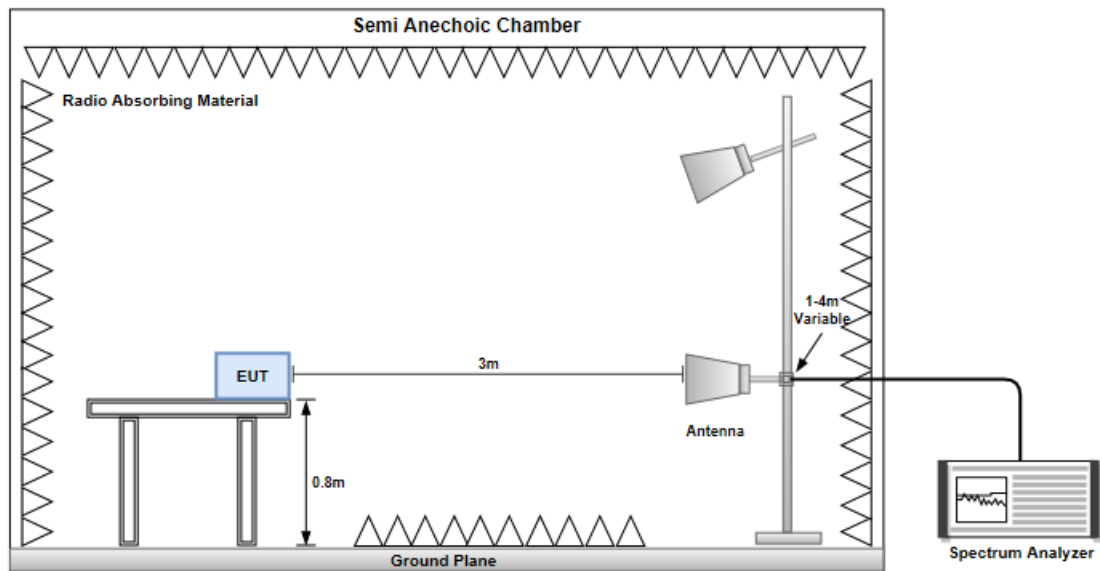
- a. Same test set up as below 1GHz radiated testing.
- b. The EUT was set 3 meters from the interference-receiving antenna which was mounted on the top of a variable height antenna tower.
- c. There should be absorber placed between the EUT and Antenna and its located size should let the test site meet CISPR16-1-4 requirement.
- d. The table was rotated 360 degrees to determine the position of the highest radiation.
- e. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.
- f. Set the Horn Antenna at 1m height, then run the turn table to get the maximum noise reading from Horizontal and Vertical polarity separately.
- g. When EUT locating on the turn-table, the Horn Antenna must be raised up and descended down, then turning around the turn-table to get the maximum noise reading of the Horizontal and Vertical polarity separately. Note the maximum raise up height is same as the top of EUT.
- h. If emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

### 3.2.3 Test Setup

#### Radiated Emissions below 1 GHz



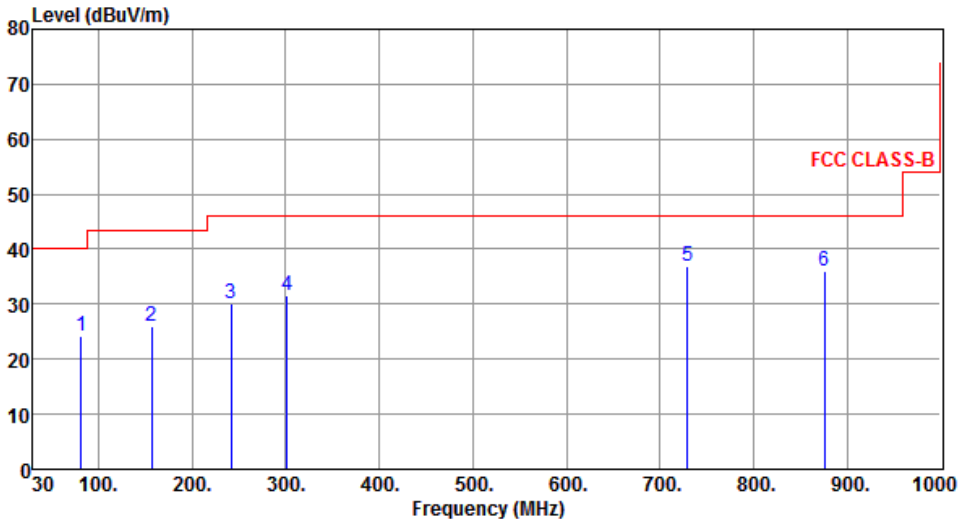
#### Radiated Emissions above 1 GHz



### 3.2.4 Radiated Emissions (Below 1GHz)

Polarization	Horizontal			Test Mode			1		
--------------	------------	--	--	-----------	--	--	---	--	--



The graph shows the radiated emission levels in dBuV/m across a frequency range from 30 MHz to 1000 MHz. A red line indicates the FCC CLASS-B limit, which is 40 dBuV/m from 30 to 100 MHz, 45 dBuV/m from 100 to 300 MHz, and 55 dBuV/m from 300 to 1000 MHz. Six blue vertical lines represent measured peaks at the following frequencies: 81.41 MHz, 157.07 MHz, 241.46 MHz, 301.60 MHz, 729.37 MHz, and 875.84 MHz. The emission levels for these peaks are 24.20, 26.02, 30.13, 31.71, 36.95, and 35.90 dBuV/m, respectively. The margins relative to the limit are -15.80, -17.48, -15.87, -14.29, -9.05, and -10.10 dB.

	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	81.41	24.20	40.00	-15.80	36.75	-12.55	Peak	---	---
2	157.07	26.02	43.50	-17.48	33.44	-7.42	Peak	---	---
3	241.46	30.13	46.00	-15.87	38.60	-8.47	Peak	---	---
4	301.60	31.71	46.00	-14.29	38.59	-6.88	Peak	---	---
5	729.37	36.95	46.00	-9.05	34.52	2.43	Peak	---	---
6	875.84	35.90	46.00	-10.10	30.86	5.04	Peak	---	---

Note 1: Emission level (dBuV/m) = SA reading (dBuV) + Factor (dB)

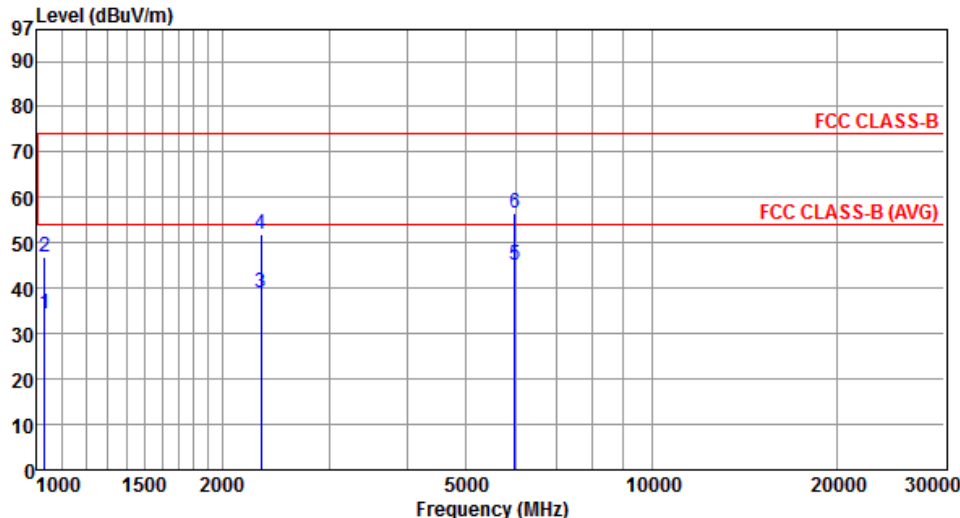
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m)

Polarization	Vertical				Test Mode			1		
<div><div><div>Level (dBuV/m)</div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div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### 3.2.5 Radiated Emissions (Above 1GHz)

Polarization	Horizontal			Test Mode		1			
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	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1030.00	34.36	54.00	-19.64	44.44	-10.08	Average	101	92
2	1030.00	46.82	74.00	-27.18	56.90	-10.08	Peak	101	92
3	2314.00	39.15	54.00	-14.85	41.75	-2.60	Average	116	241
4	2314.00	51.86	74.00	-22.14	54.46	-2.60	Peak	116	241
5	5996.00	45.26	54.00	-8.74	39.24	6.02	Average	100	113
6	5996.00	56.48	74.00	-17.52	50.46	6.02	Peak	100	113

Note 1: Emission level (dBuV/m) = SA reading (dBuV) + Factor (dB)

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m)



Polarization	Vertical	Test Mode	1																																																																												
<div><div><div>Level (dBUV/m)</div><div><div><div><div><div><div>97</div><div>90</div><div>80</div><div>70</div><div>60</div><div>50</div><div>40</div><div>30</div><div>20</div><div>10</div><div>0</div></div><div><div><div><div><div>1000</div><div>1500</div><div>2000</div><div>3000</div><div>4000</div><div>5000</div><div>6000</div><div>7000</div><div>8000</div><div>9000</div><div>10000</div><div>15000</div><div>20000</div><div>30000</div></div><div>Frequency (MHz)</div></div></div><div><div><div><div><div><div>2</div><div>4</div><div>6</div><div>5</div></div><div><div><div><div><div>1020.00</div><div>2066.00</div><div>4615.00</div></div><div><div><div><div><div>34.22</div><div>50.02</div><div>42.83</div></div><div><div><div><div><div>54.00</div><div>74.00</div><div>54.00</div></div><div><div><div><div><div>-19.78</div><div>-23.98</div><div>-11.17</div></div><div><div><div><div><div>44.39</div><div>54.21</div><div>39.15</div></div><div><div><div><div><div>-10.17</div><div>-4.19</div><div>3.68</div></div><div><div><div><div><div>Average</div><div>Peak</div><div>Average</div></div><div><div><div><div><div>100</div><div>113</div><div>105</div></div><div><div><div><div><div>214</div><div>58</div><div>99</div></div></div></div></div></div></div><div><div><div><div><div><div>FCC CLASS-B</div><div>FCC CLASS-B (AVG)</div></div></div></div></div></div></div></div><table><tr><th></th><th>Freq. MHz</th><th>Emission level dBUV/m</th><th>Limit dBUV/m</th><th>Margin dB</th><th>SA reading dBUV</th><th>Factor dB</th><th>Remark</th><th>ANT High cm</th><th>Turn Table deg</th></tr><tr><td>1</td><td>1020.00</td><td>34.22</td><td>54.00</td><td>-19.78</td><td>44.39</td><td>-10.17</td><td>Average</td><td>100</td><td>214</td></tr><tr><td>2</td><td>1020.00</td><td>46.21</td><td>74.00</td><td>-27.79</td><td>56.38</td><td>-10.17</td><td>Peak</td><td>100</td><td>214</td></tr><tr><td>3</td><td>2066.00</td><td>37.69</td><td>54.00</td><td>-16.31</td><td>41.88</td><td>-4.19</td><td>Average</td><td>113</td><td>58</td></tr><tr><td>4</td><td>2066.00</td><td>50.02</td><td>74.00</td><td>-23.98</td><td>54.21</td><td>-4.19</td><td>Peak</td><td>113</td><td>58</td></tr><tr><td>5</td><td>4615.00</td><td>42.83</td><td>54.00</td><td>-11.17</td><td>39.15</td><td>3.68</td><td>Average</td><td>105</td><td>99</td></tr><tr><td>6</td><td>4615.00</td><td>53.94</td><td>74.00</td><td>-20.06</td><td>50.26</td><td>3.68</td><td>Peak</td><td>105</td><td>99</td></tr></table></div><div>Note 1: Emission level (dBUV/m) = SA reading (dBUV) + Factor (dB) 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m)</div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div>											Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg	1	1020.00	34.22	54.00	-19.78	44.39	-10.17	Average	100	214	2	1020.00	46.21	74.00	-27.79	56.38	-10.17	Peak	100	214	3	2066.00	37.69	54.00	-16.31	41.88	-4.19	Average	113	58	4	2066.00	50.02	74.00	-23.98	54.21	-4.19	Peak	113	58	5	4615.00	42.83	54.00	-11.17	39.15	3.68	Average	105	99	6	4615.00	53.94	74.00	-20.06	50.26	3.68	Peak	105	99
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																						
1	1020.00	34.22	54.00	-19.78	44.39	-10.17	Average	100	214																																																																						
2	1020.00	46.21	74.00	-27.79	56.38	-10.17	Peak	100	214																																																																						
3	2066.00	37.69	54.00	-16.31	41.88	-4.19	Average	113	58																																																																						
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5	4615.00	42.83	54.00	-11.17	39.15	3.68	Average	105	99																																																																						
6	4615.00	53.94	74.00	-20.06	50.26	3.68	Peak	105	99																																																																						

## 5 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 Corp (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  
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R.O.C.

### **Kwei Shan**

Tel: 886-3-271-8666

No. 3-1, Lane 6, Wen San 3rd  
St., Kwei Shan District, Tao Yuan  
City 333, Taiwan, R.O.C.

### **Kwei Shan Site II**

Tel: 886-3-271-8640

No. 14-1, Lane 19, Wen San 3rd  
St., Kwei Shan District, 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: 886-3-318-0155

Email: ICC\_Service@icertifi.com.tw

==END==