FCC PART 15B, CLASS B

TEST REPORT

For

TECNO MOBILE LIMITED

FLAT 39 8/F BLOCK D WAH LOK INDUSTRIAL CENTRE 31-35 SHAN MEI STREET
FOTAN NT Hong Kong

FCC ID: 2ADYY-CG6J

Report Type:	**Product Type:**
Class II Permissive Change	Mobile Phone

Test Engineer:	Cloud Qiu Dio Ding	Cloud Qiu Dio Ding
Report Number:	SZ1210901-45710E-EM-00A1	
Report Date:	2021-09-13	
Reviewed By:	Moon Liu EMC Engineer	Moon Liu
Prepared By:	Bay Area Compliance Laboratories Corp. (Shenzhen) 5F(B-West) , 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China Tel: +86-755-33320018 Fax: +86-755-33320008 www.baclcorp.com.cn	

Note: This report may contain data that are not covered by the A2LA accreditation and are marked with an asterisk "★".

BACL is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with an asterisk '*'. Customer model name, addresses, names, trademarks etc. are not considered data.

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	Mobile Phone
Tested Model	CG6j
Voltage Range	Rehargeable Li-ion polymer battery DC3.85V-4900mAh
Highest operating frequency	5825MHz
Date of Test	2021-09-06 to 2021-09-11
Sample number	SZ1210901-45710E-EMA1-S1(Assigned by BACL, Shenzhen)
Received date	2021-09-01
Sample/EUT Status	Good condition
Adapter information	Model: U180TSA Input: 100-240V, 50/60Hz, 0.6A Output: 5.0V-9.0V,2A,9.0V-12.0V,1.5A

Objective

This test report is in accordance with Part 2-Subpart J, Part 15-Subparts A, B of the Federal Communication Commissions rules.

The objective of the manufacturer is to determine the compliance of the EUT with FCC Part 15 B.

This is a CIIPC application of the device; the differences between the original device and the current one are as follows:

(1) Changing the antenna of EUT

(2) Changing the Carmera of EUT

Based on above difference listed, it's will affect the test items of "Radiated Disturbance", those items will be performed ,the other test data and the EUT photos Please refer to the original report: JYTSZB-R12-2100029, which under the FCC ID: 2ADYY-CG6J, tested and granted by JianYan Testing Group Shenzhen Co.,Ltd. and issued date is 20 Jan., 2021.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters. Each test item follows test standards and with no deviation.

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on CISPR 16-4-2:2011, the expended combined standard uncertainty of test at Bay Area Compliance Laboratories Corp. (Shenzhen) is shown as below. And the uncertainty will be taken into consideration for the test data recorded in the report

Item			Expanded Measurement uncertainty
Conducted Emissions	AC Mains	9KHz~150 KHz	2.96 dB (k=2, 95% level of confidence)
		150 KHz ~30MHz	2.88 dB (k=2, 95% level of confidence)
Radiated emission	30MHz~200MHz	Horizontal	4.46 dB (k=2, 95% level of confidence)
	30MHz~200MHz	Vertical	4.53dB (k=2, 95% level of confidence)
	200MHz~1000MHz	Horizontal	4.85dB (k=2, 95% level of confidence)
	200MHz~1000MHz	Vertical	4.76dB (k=2, 95% level of confidence)
	1GHz~6GHz		5.02 dB (k=2, 95% level of confidence)

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West) , 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No.: 342867, the FCC Designation No.: CN1221.

The test site has been registered with ISED Canada under ISED Canada Registration Number 3062B.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in a typical fashion (as normally used by a typical user).

Test Mode 1: charging& playing

Test Mode 2: downloading

EUT Exercise Software

No software was used in the test.

Equipment Modifications

No modification was made to the EUT.

Support Equipment List and Details

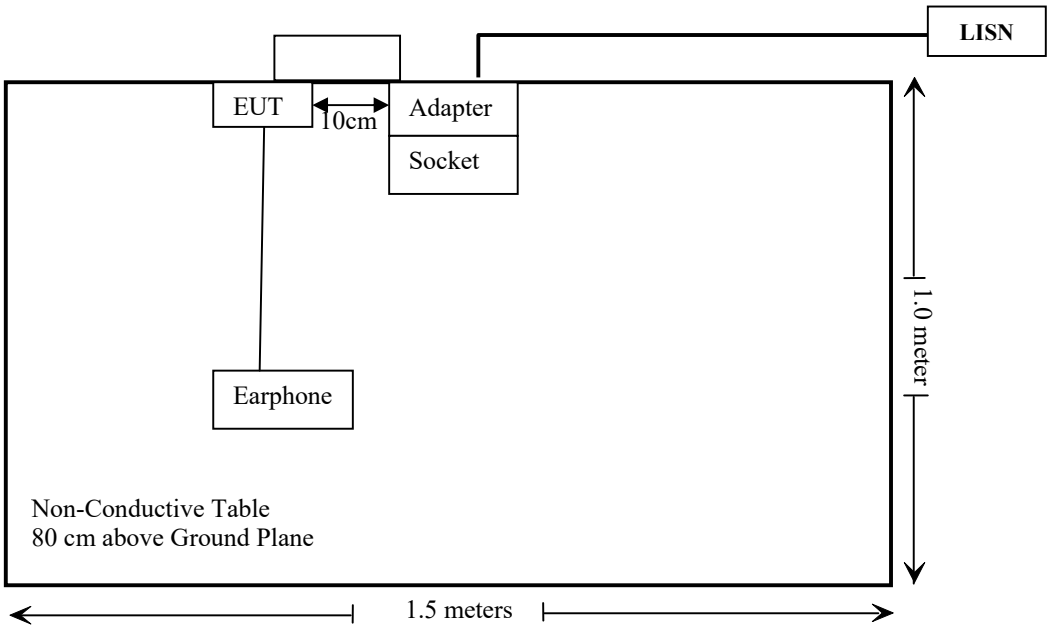
Manufacturer	Description	Model	Serial Number
DELL	PC	Latitude E6520	DL0ZCS1
DELL	PC	Latitude E5570	GNDLKC2
DELL	Adapter	DA130PE1-00	CN-0JU012-68219-18B-JEYY-A04

External I/O Cable

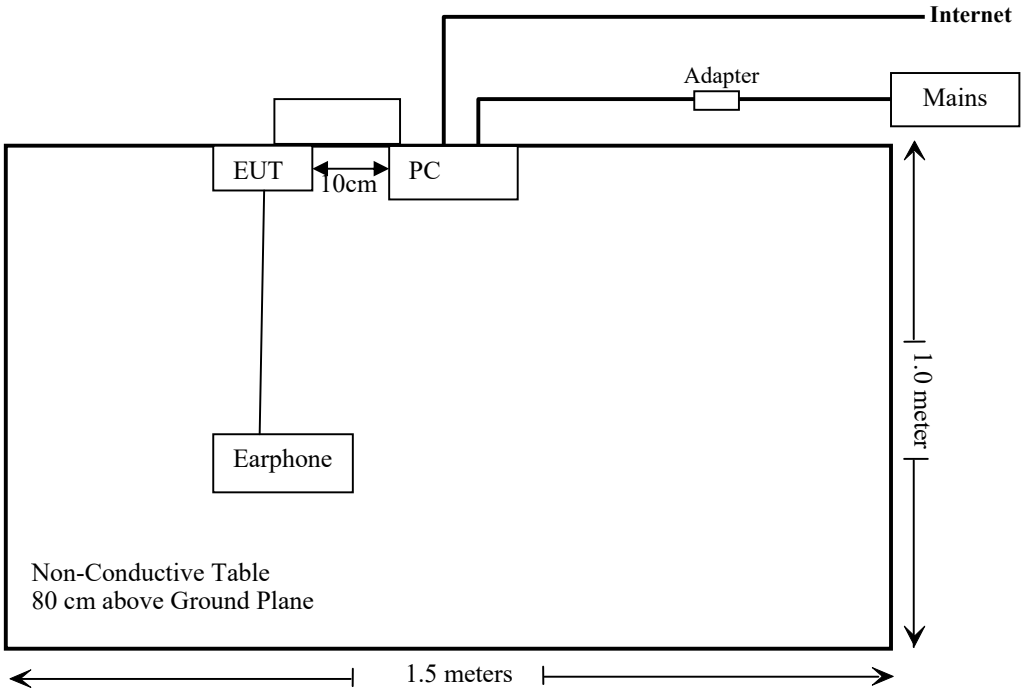
Cable Description	Length (m)	From/Port	To
Un-shielded Un-detachable AC Cable	1.0	Socket	Mains
Shielded Detachable USB Cable	1.0	EUT	Adapter
Shielded Un-detachable earphone Cable	1.2	EUT	Earphone
Shielded Detachable USB Cable	1.0	EUT	PC
Un-shielded Detachable RJ45 Cable	8.0	PC	Internet
Un-shielded Un-detachable AC Cable	1.2	PC	Adapter
Un-shielded Detachable DC Cable	1.4	Adapter	Mains

Block Diagram of Test Setup

Test mode 1:



Test mode 2:



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Results
§15.107	AC Line Conducted Emissions	Compliant*
§15.109	Radiated Emissions	Compliant

Compliant*: Please refer to the original report: JYTSZB-R12-2100029, which under the FCC ID: 2ADYY-CG6J, tested and granted by JianYan Testing Group Shenzhen Co., Ltd. and issued Date is 20 Jan.2021.

EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test					
R&S	EMI Test Receiver	ESR3	102455	2021/07/06	2022/07/05
Sonoma instrument	Pre-amplifier	310 N	186238	2021/08/03	2022/08/02
Sunol Sciences	Broadband Antenna	JB1	A040904-2	2020/12/22	2023/12/21
Unknown	Cable	Chamber Cable 1	F-03-EM236	2021/08/03	2022/08/02
Unknown	Cable	Chamber Cable 4	EC-007	2021/08/03	2022/08/02
Rohde & Schwarz	Auto test software	EMC 32	V9.10.00	NCR	NCR
Rohde & Schwarz	Spectrum Analyzer	FSV40-N	102259	2021/07/06	2022/07/05
COM-POWER	Pre-amplifier	PA-122	181919	2020/11/29	2021/11/28
Sunol Sciences	Horn Antenna	3115	9107-3694	2021/01/15	2024/01/14
Insulted Wire Inc.	RF Cable	SPS-2503-3150	02222010	2020/11/29	2021/11/28
Unknown	RF Cable	W1101-EQ1 OUT	F-19-EM005	2020/11/29	2021/11/28

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

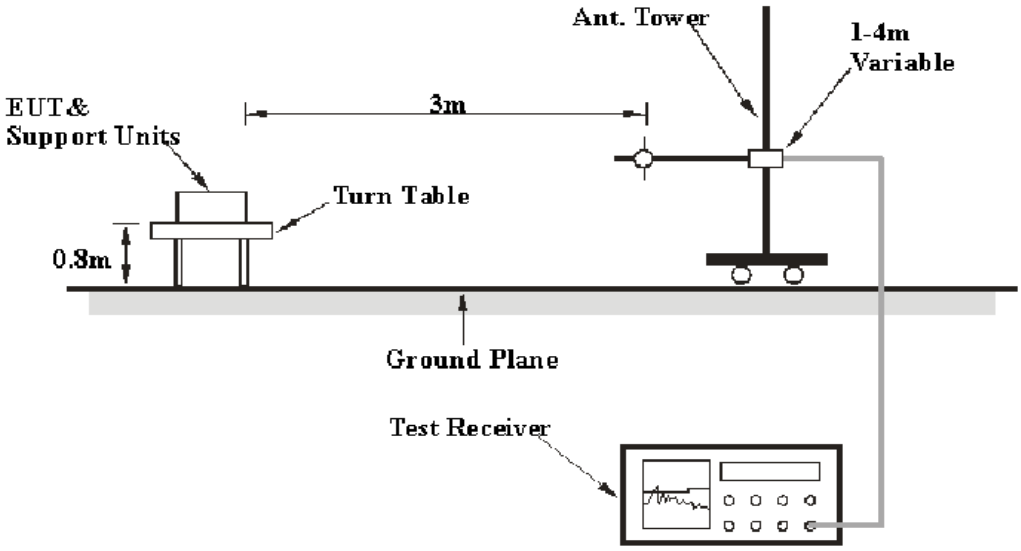
FCC §15.109 - RADIATED EMISSIONS

Applicable Standard

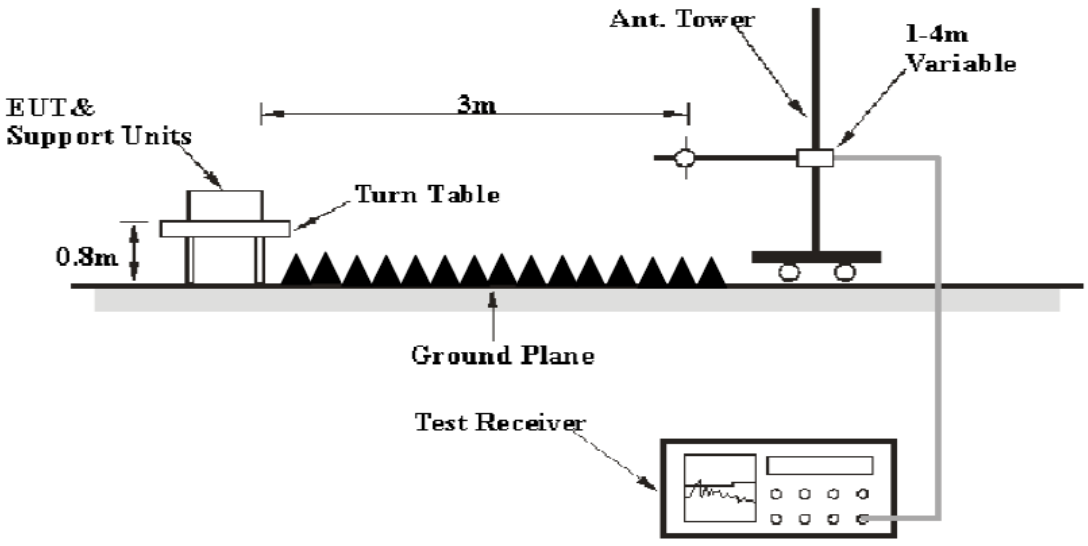
FCC §15.109

EUT Setup

Below 1GHz:



Above 1GHz:



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.4-2014. The specification used was the FCC Part 15.109 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

During the radiated emission test, the EMI test receiver was set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurment
30 MHz – 1000 MHz	100 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1MHz	3 MHz	/	PK
	1MHz	10 Hz	/	Ave.

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

All data was recorded in the Quasi-peak detector mode from 30 MHz to 1 GHz and PK and average detector modes for frequencies above 1 GHz.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7 dB means the emission is 7 dB below the limit. The equation for margin calculation is as follows:

Margin = Limit – Corrected Amplitude

Test Data

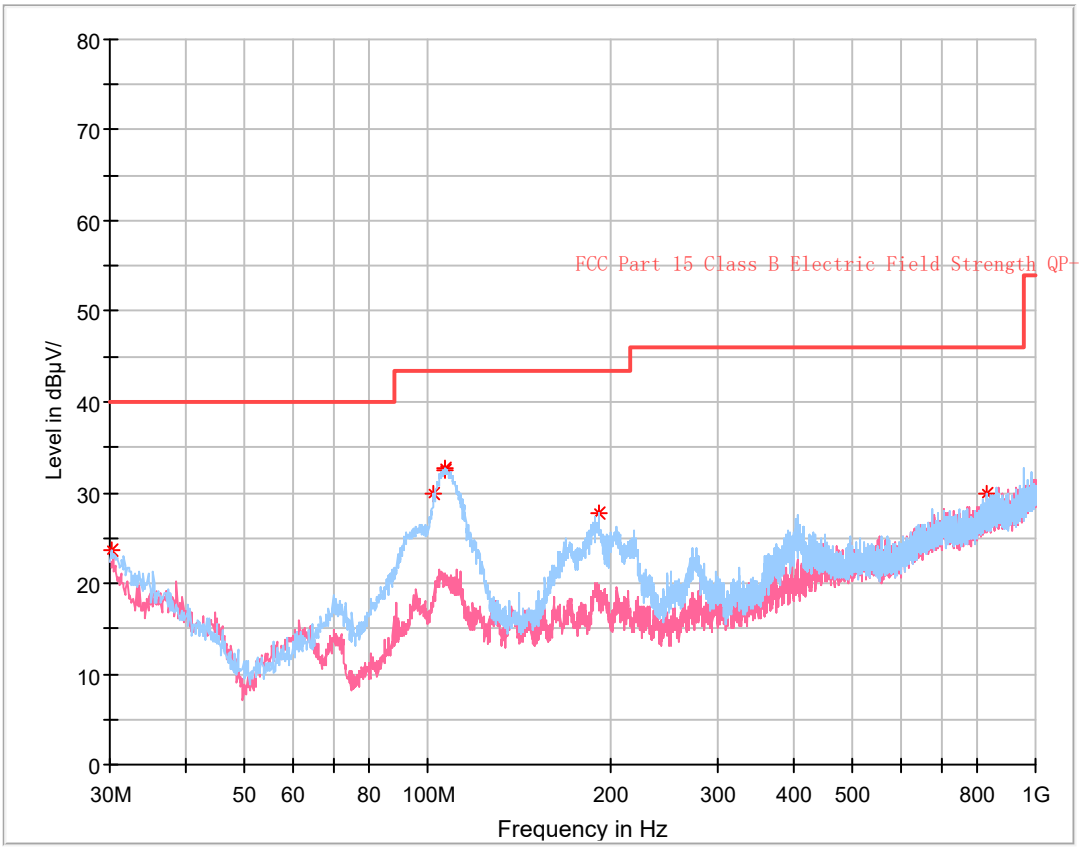
Environmental Conditions

Temperature:	26~28.4 ℃
Relative Humidity:	55~56 %
ATM Pressure:	101.0 kPa

The testing was performed by Cloud Qiu on 2021-09-06 for below 1GHz and Dio Ding on 2021-09-11 for above 1GHz.

EUT Operation Mode: charging& playing

30 MHz~1 GHz:



Critical_Freqs

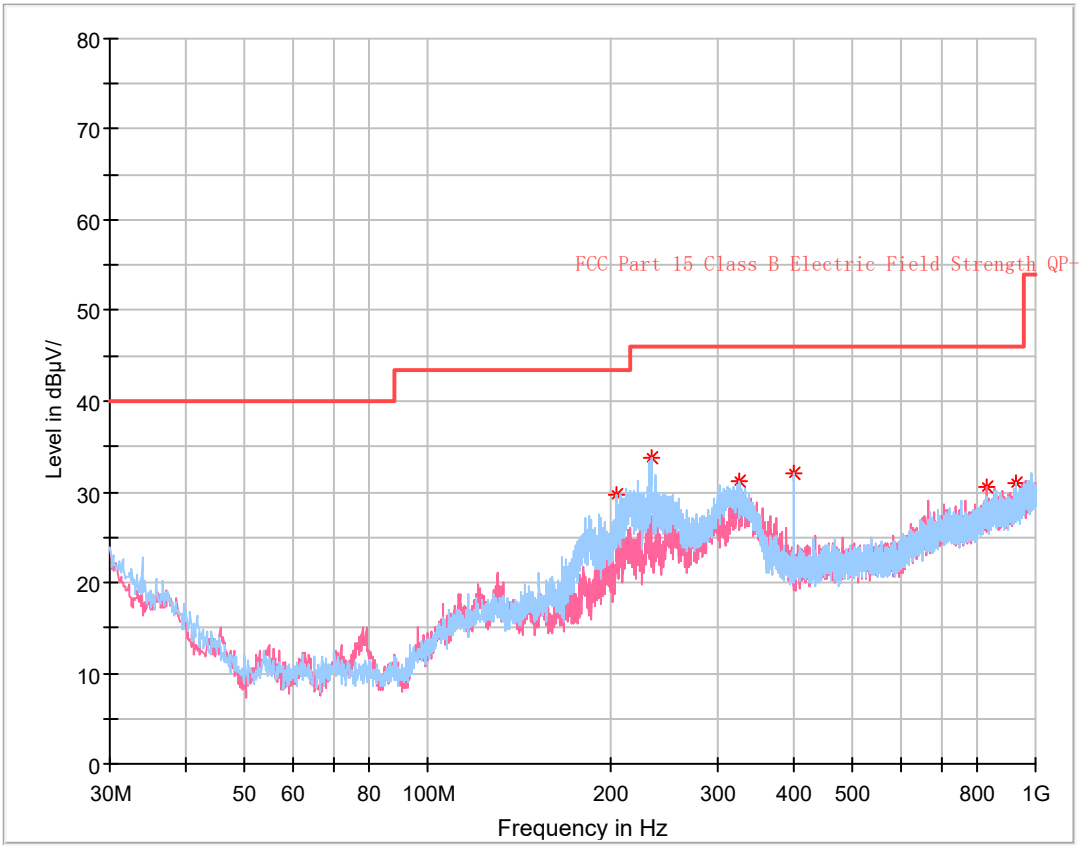
Frequency (MHz)	MaxPeak (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.121250	23.66	40.00	16.34	300.0	H	0.0	-3.6
102.265000	29.80	43.50	13.70	300.0	H	94.0	-13.1
106.993750	32.56	43.50	10.94	300.0	H	263.0	-11.9
107.115000	32.63	43.50	10.87	300.0	H	94.0	-11.9
191.020000	27.81	43.50	15.69	100.0	H	61.0	-12.2
834.251250	29.82	46.00	16.18	100.0	H	185.0	0.0

1-30 GHz:

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBuV/m)	FCC Part 15B	
	Reading (dBµV)	PK/QP/Ave.		Height (m)	Polar (H / V)			Limit (dBuV/m)	Margin (dB)
1062.77	44.66	PK	141	1.8	H	-5.83	38.83	74	35.17
1062.77	28.78	Ave.	141	1.8	H	-5.83	22.95	54	31.05
1062.77	48.13	PK	50	1.4	V	-5.83	42.30	74	31.70
1062.77	30.63	Ave.	50	1.4	V	-5.83	24.80	54	29.20
2847.89	43.82	PK	226	2.3	H	1.03	44.85	74	29.15
2847.89	28.57	Ave.	226	2.3	H	1.03	29.60	54	24.40
2847.89	44.59	PK	28	1.0	V	1.03	45.62	74	28.38
2847.89	28.60	Ave.	28	1.0	V	1.03	29.63	54	24.37

EUT Operation Mode: Downloading

30 MHz~1 GHz:



Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
204.600000	29.58	43.50	13.92	100.0	H	218.0	-11.1
233.215000	33.83	46.00	12.17	100.0	H	239.0	-11.6
326.698750	31.20	46.00	14.80	100.0	H	147.0	-9.4
399.933750	32.00	46.00	14.00	100.0	H	63.0	-7.4
831.462500	30.63	46.00	15.37	300.0	V	271.0	-0.1
926.643750	31.03	46.00	14.97	300.0	V	250.0	1.3

1-30 GHz:

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBuV/m)	FCC Part 15B	
	Reading (dBµV)	PK/QP/Ave.		Height (m)	Polar (H / V)			Limit (dBuV/m)	Margin (dB)
1211.41	43.17	PK	357	2.2	H	-4.78	38.39	74	35.61
1211.41	28.55	Ave.	357	2.2	H	-4.78	23.77	54	30.23
1211.41	44.32	PK	105	1.8	V	-4.78	39.54	74	34.46
1211.41	29.03	Ave.	105	1.8	V	-4.78	24.25	54	29.75
2124.51	49.19	PK	202	2.2	H	-0.81	48.38	74	25.62
2124.51	29.53	Ave.	202	2.2	H	-0.81	28.72	54	25.28
2124.51	53.17	PK	8	1.2	V	-0.81	52.36	74	21.64
2124.51	29.96	Ave.	8	1.2	V	-0.81	29.15	54	24.85

******* END OF REPORT *******