ACCREDITED
TESTING LABORATORY
CERTIFICATE #4820.01

BACL
Bay Area Compliance Labs Corp.

FCC PART 15B

TEST REPORT

For

F&C Wireless Solution, Inc.

10883 NW 78th Terrace - Doral Florida 33178, USA

FCC ID: 2ALB7G7

Report Type:	**Product Type:**
Original Report	mobile phone

Report Number:	RDG180419005-00A
Report Date:	2018-05-14
Reviewed By:	Jerry Zhang EMC Manager Jerry Zhang
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Dongguan) No.69 Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, China Tel: +86-769-86858888 Fax: +86-769-86858891 www.baclcorp.com.cn

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

EUT Name:		mobile phone
EUT Model:		G7
FCC ID:		2ALB7G7
Rated Input Voltage:		DC3.7V from battery or DC5V from adapter
Adapter Information	**Input:**	100-240VAC, 50/60Hz
	Output:	DC 5.0V, 500mA±50mA
External Dimension:		Length (11.4 cm)*Width (4.8 cm)*High (1.5 cm)
Serial Number:		180419005
EUT Received Date:		2018-04-19

Objective

This report is prepared on behalf of ***F&C Wireless Solution, Inc.*** in accordance with FCC Part 15B Part 2, Part J, and Part 15, Subpart A and B of the Federal Communications Commission's rules.

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

Related Submittal(s)/Grant(s)

FCC Part 15C DSS submissions with FCC ID: 2ALB7G7.
FCC Part 22H, 24E PCE submissions with FCC ID: 2ALB7G7.

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.

Measurement Uncertainty

Parameter	Measurement Uncertainty
Unwanted Emissions, radiated	30M~200MHz: 4.55 dB,200M~1GHz: 5.92 dB,1G~6GHz: 4.98 dB, 6G~18GHz: 5.89 dB,18G~26.5G:5.47 dB,26.5G~40G:5.63 dB
Temperature	±1℃
Humidity	±5%
AC Power Lines Conducted Emission	3.12 dB (150 kHz to 30 MHz)

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, 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. : 897218,the FCC Designation No. : CN1220.

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

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in downloading mode.

Equipment Modifications

No modification was made to the EUT.

EUT Exercise Software

The software “winthrax.exe” was used during test.

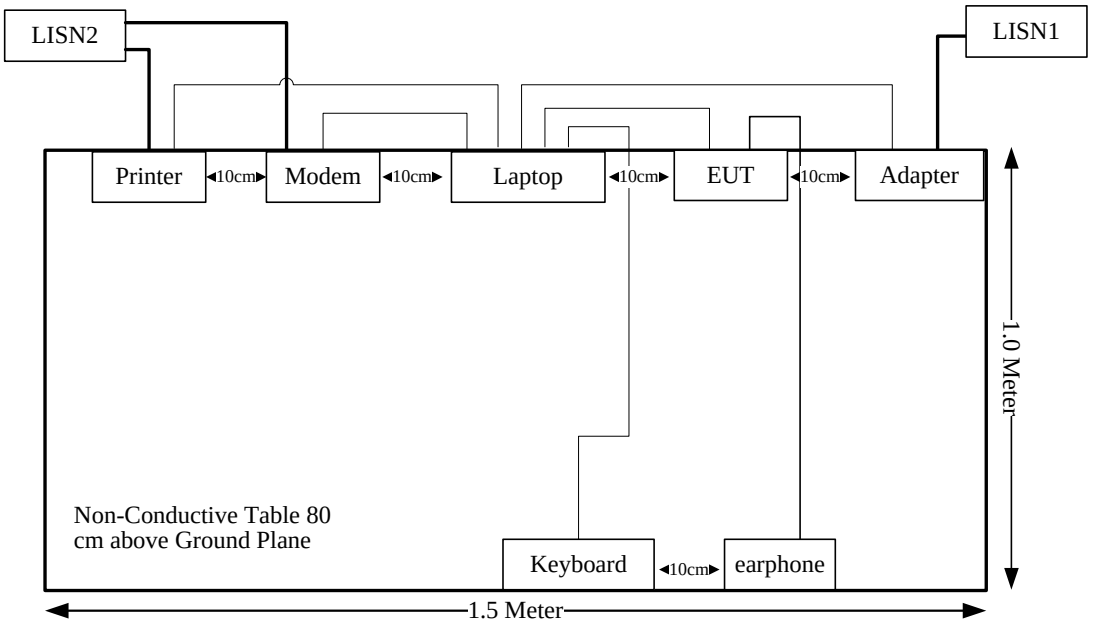
Local Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
DELL	Laptop	PP11L	QDS-BRCM1017
HP	Printer	C3941A	JPTVOB2337
DELL	Keyboard	L100	CNORH656658907BL05DC
SAST	Modem	AEM-2100	0293

Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
Serial Cable	yes	No	1.2	Serial Port of Laptop	Modem
Parallel Cable	yes	No	1.2	Parallel Port of Laptop	Printer
Keyboard Cable	yes	No	1.8	USB Port of Laptop	Keyboard
USB Cable	No	No	1.2	USB Port of Laptop	EUT
Earphone	No	No	0.95	EUT	Earphone

Block Diagram of Test Setup



Test Equipment List

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCS 30	830245/006	2017-12-11	2018-12-11
unknown	Coaxial Cable	C-NJNJ-50	C-0200-01	2017-09-05	2018-09-05
R&S	L.I.S.N	ESH2-Z5	892107/021	2017-09-25	2018-09-25
R&S	Test Software	EMC32	Version8.53.0	N/A	N/A
R&S	Two-line V-network	ENV 216	101614	2017-12-08	2018-12-08
Sunol Sciences	Antenna	JB3	A060611-1	2017-11-10	2020-11-10
R&S	EMI Test Receiver	ESCI	100224	2017-12-11	2018-12-11
HP	Amplifier	8447D	2727A05902	2017-09-05	2018-09-05
unknown	Coaxial Cable	C-NJNJ-50	C-0400-01	2017-09-05	2018-09-05
unknown	Coaxial Cable	C-NJNJ-50	C-0075-01	2017-09-05	2018-09-05
unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2017-09-05	2018-09-05
Farad	Test Software	EZ-EMC	V1.1.4.2	N/A	N/A
ETS-Lindgren	Horn Antenna	3115	000 527 35	2016-01-05	2019-01-04
Agilent	Spectrum Analyzer	E4440A	SG43360054	2018-01-04	2019-01-04
unknown	Coaxial Cable	C-SJSJ-50	C-0800-01	2017-09-05	2018-09-05
MITEQ	Amplifier	AFS42-00101800 -25-S-42	2001271	2017-09-05	2018-09-05

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

Environmental Conditions

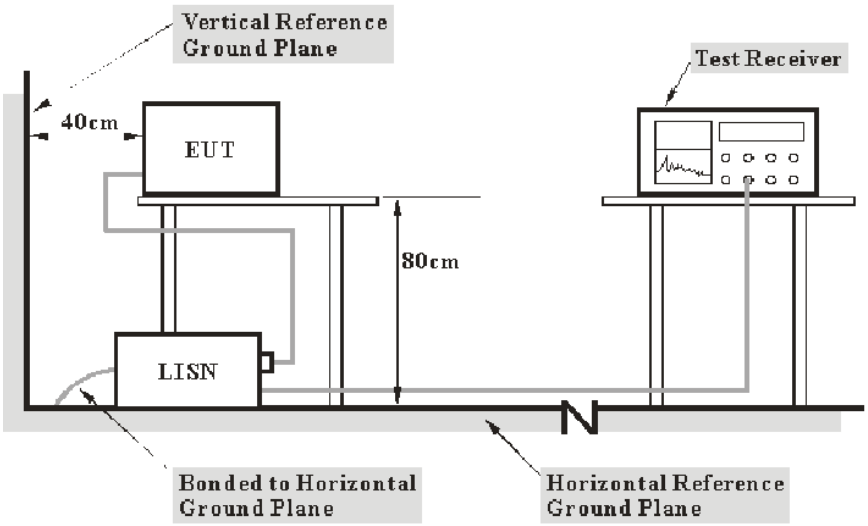
Temperature:	24.8~25.5 °C
Relative Humidity:	46~57%
ATM Pressure:	101.5~101.7kPa
Tester:	Sider Huang, Steven Zuo, Sunny Cen
Test Date:	2018-04-26~2018-05-11

SUMMARY OF TEST RESULTS

Rule and Clause	Description of Test	Test Result
FCC §15.107	Conducted emissions	Compliance
FCC §15.109	Radiated emissions	Compliance

CONDUCTED EMISSIONS

EUT Setup



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

The setup of EUT is according with per ANSI C63.4-2014 measurement procedure. The specification used was with the FCC Part 15 B Class B 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 adapter was connected to the Main LISN with 120V/60Hz AC power source.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

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

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

Test Procedure

During the conducted emission test, the PC was connected to the outlet of the first LISN and the other support equipments were connected to the outlet of the second LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result (QuasiPeak or Average) = Meter Reading + Corr.

Note:
Corr. = Cable loss + Factor of coupling device

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

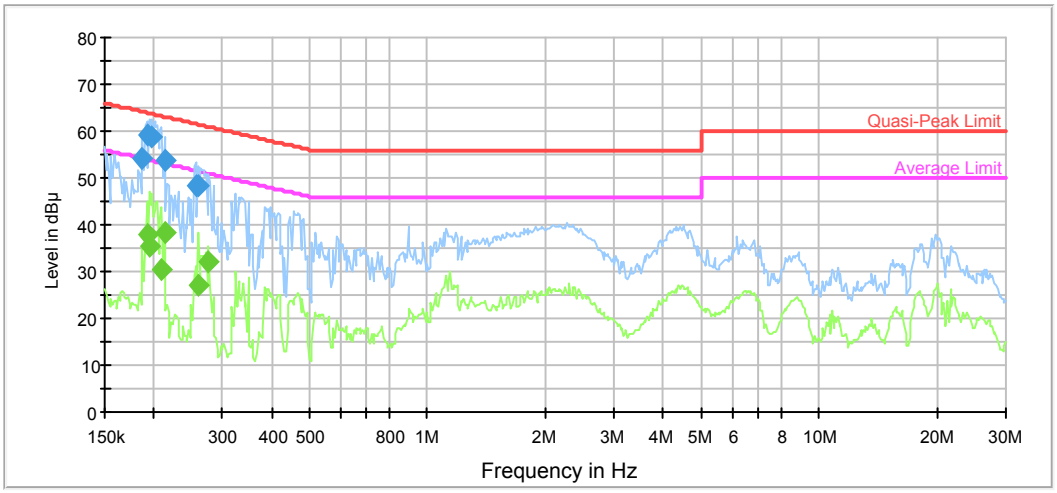
Margin = Limit – Result

Test Data

Please refer to following table and plots:

Test Mode: Downloading

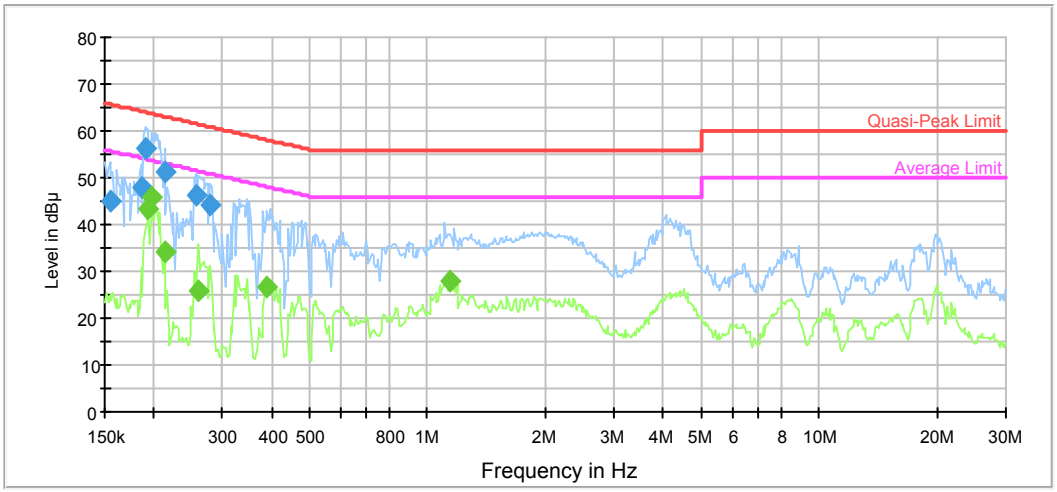
AC 120V/60Hz, Line:



Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.187494	54.2	9.000	L1	10.7	9.9	64.1	Compliance
0.192030	59.3	9.000	L1	10.7	4.6	63.9	Compliance
0.198249	58.7	9.000	L1	10.6	5.0	63.7	Compliance
0.212988	53.7	9.000	L1	10.5	9.4	63.1	Compliance
0.255827	48.3	9.000	L1	10.3	13.3	61.6	Compliance
0.259937	48.4	9.000	L1	10.3	13.0	61.4	Compliance

Frequency (MHz)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.192030	38.1	9.000	L1	10.7	15.8	53.9	Compliance
0.195114	35.4	9.000	L1	10.7	18.4	53.8	Compliance
0.209621	30.2	9.000	L1	10.6	23.0	53.2	Compliance
0.212988	38.4	9.000	L1	10.5	14.7	53.1	Compliance
0.259937	27.1	9.000	L1	10.3	24.3	51.4	Compliance
0.277046	32.0	9.000	L1	10.2	18.9	50.9	Compliance

AC 120V/60Hz, Neutral:



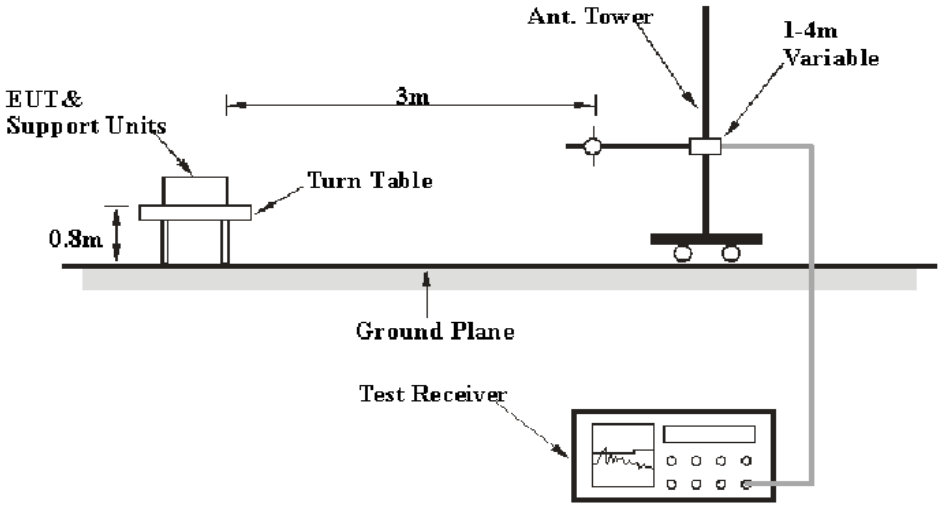
Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.154858	45.0	9.000	N	11.1	20.7	65.7	Compliance
0.186006	47.8	9.000	N	10.7	16.4	64.2	Compliance
0.190505	56.3	9.000	N	10.7	7.7	64.0	Compliance
0.212988	51.1	9.000	N	10.5	12.0	63.1	Compliance
0.255827	46.3	9.000	N	10.3	15.3	61.6	Compliance
0.279263	44.3	9.000	N	10.2	16.5	60.8	Compliance

Frequency (MHz)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.193566	43.5	9.000	N	10.7	10.4	53.9	Compliance
0.198249	45.8	9.000	N	10.6	7.9	53.7	Compliance
0.212988	34.2	9.000	N	10.5	18.9	53.1	Compliance
0.259937	25.8	9.000	N	10.3	25.6	51.4	Compliance
0.390261	26.6	9.000	N	10.0	21.5	48.1	Compliance
1.144267	28.0	9.000	N	9.8	18.0	46.0	Compliance

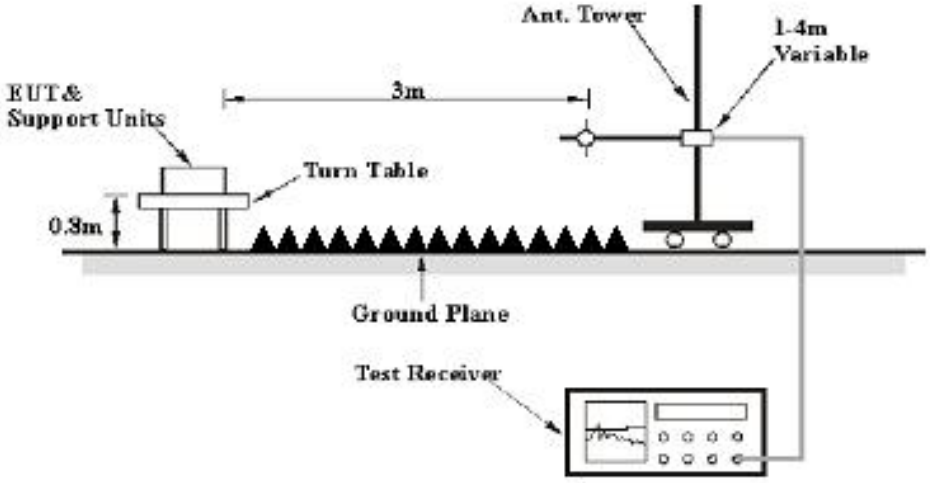
RADIATED EMISSIONS

EUT Setup

Below 1GHz:



Above 1GHz:



The radiated emission tests were performed in the 3 meters chamber test site A for the range 30MHz to 1GHz and the 3 meters chamber B test site for above 1GHz, using the setup accordance with the ANSI C63.4-2014. The specification used was the FCC Part 15.109 Class B limits.

EMI Test Receiver Setup

The system was investigated from 30 MHz to 13 GHz.

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

Frequency Range	RBW	Video B/W	IF B/W	Measurement
30 MHz – 1000 MHz	120 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	Peak
	1 MHz	10 Hz	/	AVG

Test Procedure

During the radiated emissions, the adapter of laptop was connected to the first AC floor outlet and the other support equipments were connected to the second AC floor outlet.

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

The data was recorded in the Quasi-peak detection mode for below 1 GHz, peak and average detection mode above 1 GHz.

Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Meter Reading+ Corrected

Note:
Corrected = Antenna Factor + Cable Loss - Amplifier Gain
or
Corrected = Antenna Factor + Cable Loss + Insertion loss of attenuator - 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 – Result

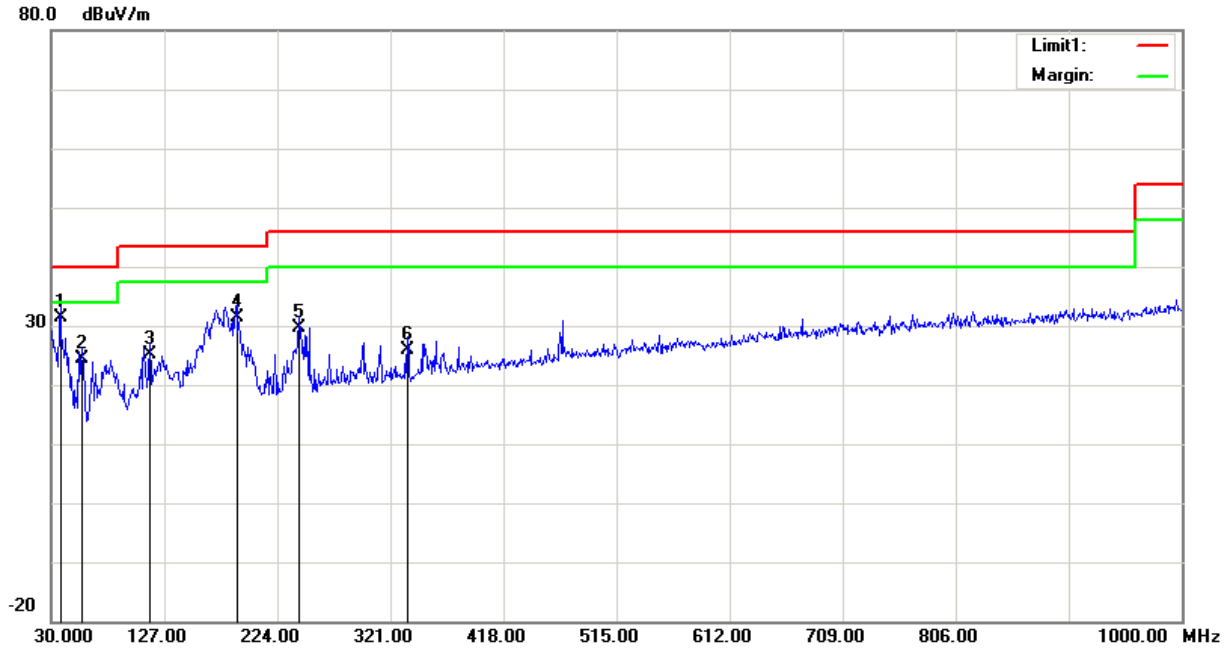
Test Data

Test Mode: Downloading

Please refer to following table and plots:

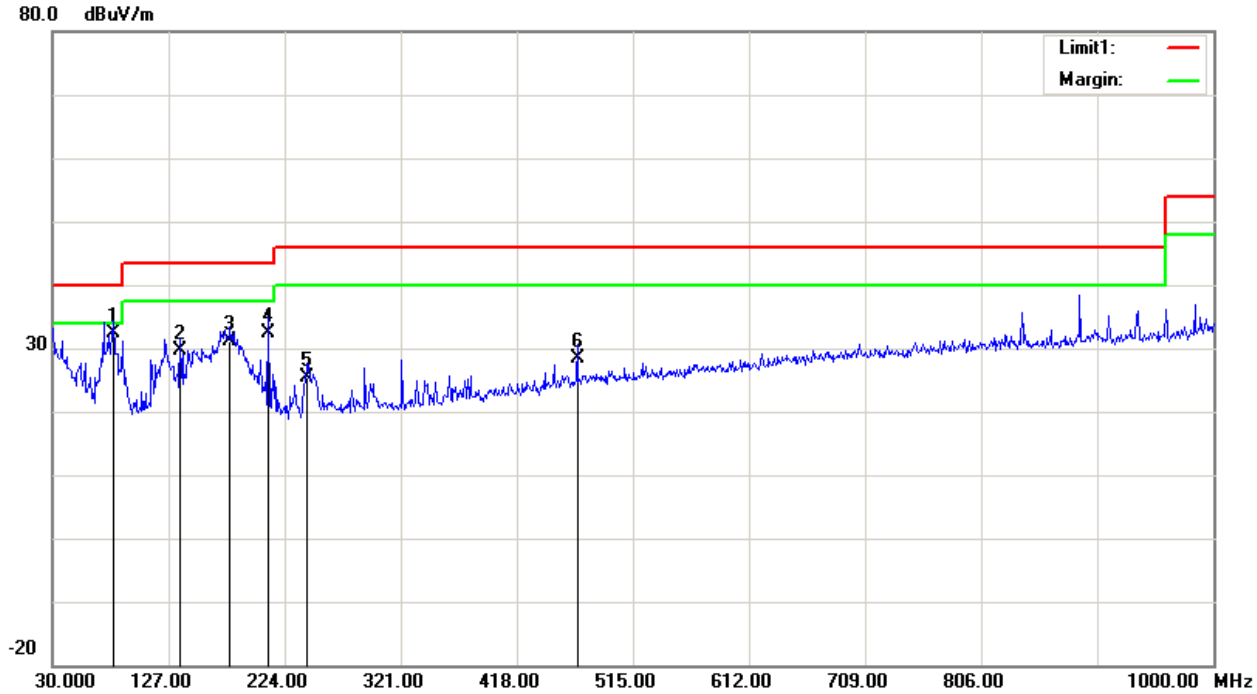
1) Below 1GHz:

Horizontal



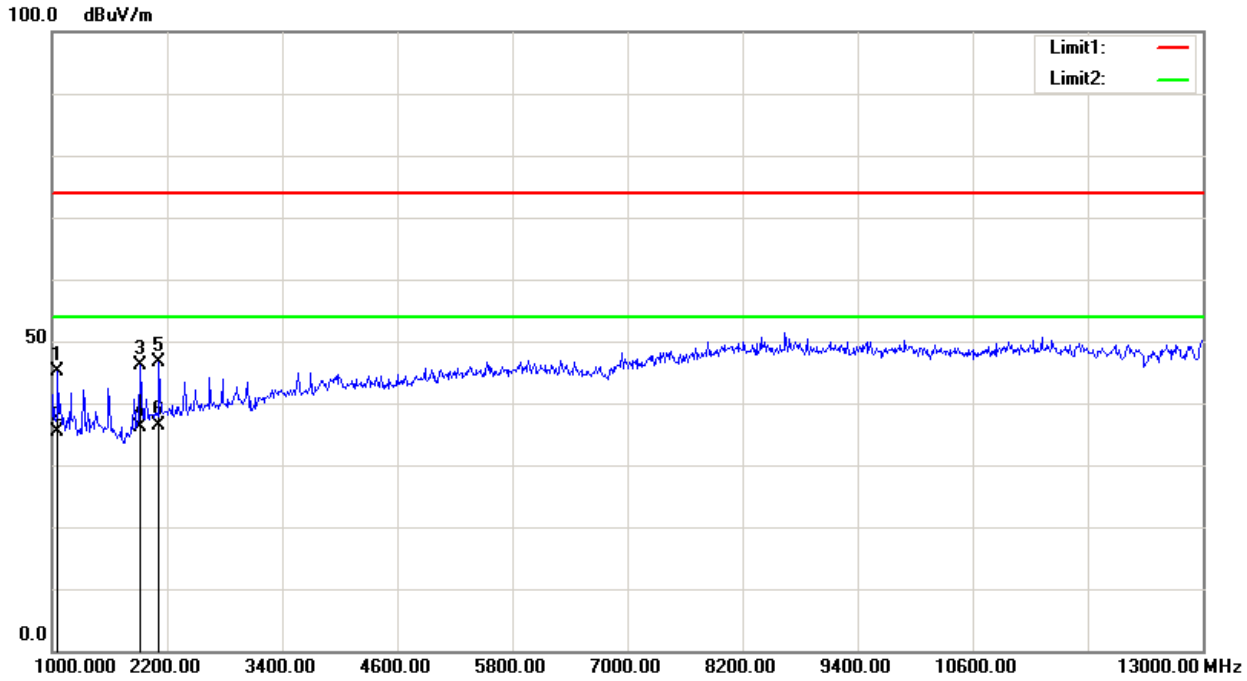
No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1	37.7600	35.61	QP	-4.21	31.40	40.00	8.60
2	56.1900	36.78	QP	-12.28	24.50	40.00	15.50
3	114.3900	30.72	QP	-5.52	25.20	43.50	18.30
4	189.0800	38.67	QP	-7.37	31.30	43.50	12.20
5	242.4300	35.72	QP	-6.12	29.60	46.00	16.40
6	335.5500	29.38	QP	-3.38	26.00	46.00	20.00

Vertical



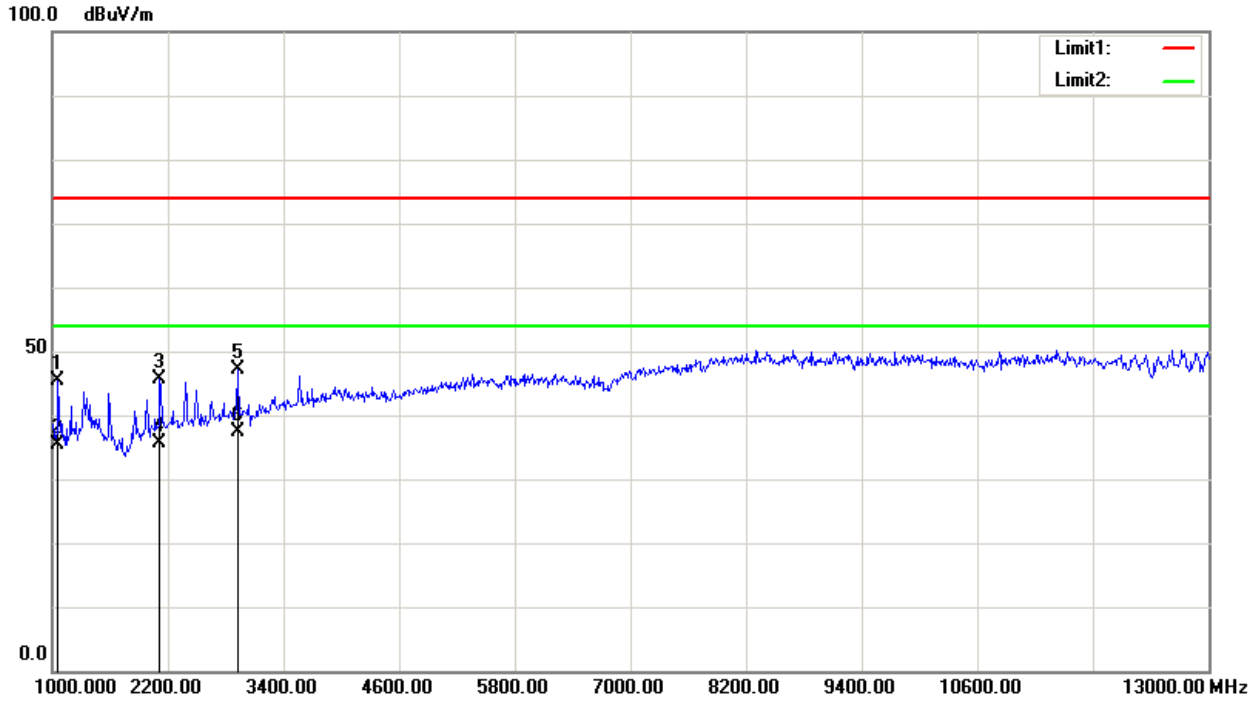
No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1	81.4100	43.78	QP	-11.38	32.40	40.00	7.60
2	136.7000	34.99	QP	-5.39	29.60	43.50	13.90
3	178.4100	38.54	QP	-7.34	31.20	43.50	12.30
4	210.4200	39.83	QP	-7.43	32.40	43.50	11.10
5	242.4300	31.62	QP	-6.12	25.50	46.00	20.50
6	468.4400	29.02	QP	-0.52	28.50	46.00	17.50

2) Above 1GHz:
Horizontal



No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1	1060.000	55.68	peak	-10.49	45.19	74.00	28.81
2	1060.000	45.76	AVG	-10.49	35.27	54.00	18.73
3	1924.000	53.48	peak	-7.45	46.03	74.00	27.97
4	1924.000	43.52	AVG	-7.45	36.07	54.00	17.93
5	2116.000	53.71	peak	-6.97	46.74	74.00	27.26
6	2116.000	43.46	AVG	-6.97	36.49	54.00	17.51

Vertical



No.	Frequency (MHz)	Reading (dBµV)	Detector	Corrected dB/m	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1	1066.000	55.72	peak	-10.45	45.27	74.00	28.73
2	1066.000	45.85	AVG	-10.45	35.40	54.00	18.60
3	2122.000	52.60	peak	-6.95	45.65	74.00	28.35
4	2122.000	42.63	AVG	-6.95	35.68	54.00	18.32
5	2926.000	52.28	peak	-5.13	47.15	74.00	26.85
6	2926.000	42.49	AVG	-5.13	37.36	54.00	16.64

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