




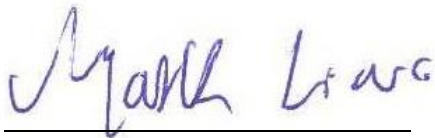
# FCC RADIO TEST REPORT

Applicant : Elo Touch Solutions, Inc.  
Address : 670 N. McCarthy Blvd., Suite 100 Milpitas,  
CA 95035 USA  
Equipment : Touch All-In-One Computer  
Model No. : ESY15I1D-C  
Trade Name : Elo or   
FCC ID : RBWESY15I1DC

**I HEREBY CERTIFY THAT :**

The sample was received on Jun. 28, 2021 and the testing was completed on Aug. 28, 2021 at CerpPASS Technology Corp. The test result refers exclusively to the test presented test model / sample. Without written approval of CerpPASS Technology Corp., the test report shall not be reproduced except in full.

Approved by:



Mark Liao / Supervisor

Laboratory Accreditation:

CerpPASS Technology Corporation Test Laboratory





CONTENTS

- 1. Summary of Test Procedure and Test Results ..... 5
  - 1.1. Applicable Standards .....5
- 2. Test Configuration of Equipment under Test ..... 6
  - 2.1. Feature of Equipment under Test.....6
  - 2.2. Carrier Frequency of Channels ..... 7
  - 2.3. Test Mode and Test Software .....9
  - 2.4. Description of Test System..... 10
  - 2.5. General Information of Test..... 11
  - 2.6. Measurement Uncertainty ..... 11
- 3. Test Equipment and Ancillaries Used for Tests ..... 12
- 4. Antenna Requirements ..... 14
  - 4.1. Standard Applicable ..... 14
  - 4.2. Antenna Construction and Directional Gain..... 15
- 5. Test of AC Power Line Conducted Emission ..... 16
  - 5.1. Test Limit ..... 16
  - 5.2. Test Procedures ..... 16
  - 5.3. Typical Test Setup ..... 17
  - 5.4. Test Result and Data..... 18
  - 5.5. Test Photographs ..... 20
- 6. Test of Spurious Emission (Radiated)..... 21
  - 6.1. Test Limit ..... 21
  - 6.2. Test Procedures ..... 22
  - 6.3. Typical Test Setup ..... 23
  - 6.4. Test Result and Data (9kHz ~ 30MHz)..... 24
  - 6.5. Test Result and Data (30MHz ~ 1GHz) ..... 24
  - 6.6. Test Result and Data (1GHz ~ 40GHz)..... 26
  - 6.7. Restricted Bands of Operation ..... 110
  - 6.8. Test Photographs (30MHz ~ 1GHz) ..... 111
  - 6.9. Test Photographs (1GHz ~ 40GHz) ..... 112
- 7. On Time, Duty Cycle and Measurement methods ..... 114
  - 7.1. Test Limit ..... 114
  - 7.2. Test Procedure ..... 114
  - 7.3. Test Setup Layout ..... 114
  - 7.4. Test Result and Data..... 115
  - 7.5. Measurement Methods ..... 115
- 8. 6dB Bandwidth & 99% Occupied Bandwidth ..... 117
  - 8.1. Test Limit ..... 117
  - 8.2. Test Procedure ..... 117
  - 8.3. Test Setup Layout ..... 117
  - 8.4. Test Result and Data..... 118
- 9. 26dB Bandwidth & 99% Occupied Bandwidth ..... 132
  - 9.1. Test Limit ..... 132



- 9.2. Test Procedure ..... 132
- 9.3. Test Setup Layout ..... 132
- 9.4. Test Result and Data ..... 133
- 10. Average Power ..... 159
  - 10.1. Test Limit ..... 159
  - 10.2. Test Procedure ..... 160
  - 10.3. Test Setup Layout ..... 160
  - 10.4. Test Result and Data ..... 161
- 11. Power Spectral Density ..... 168
  - 11.1. Test Limit ..... 168
  - 11.2. Test Procedure ..... 168
  - 11.3. Test Setup Layout ..... 168
  - 11.4. Test Result and Data ..... 169
- 12. Radio Frequency Exposure ..... 189
  - 12.1. Applicable Standards ..... 189
  - 12.2. EUT Specification ..... 189
  - 12.3. Test Results ..... 189
  - 12.4. Calculation ..... 190
  - 12.5. Maximum Permissible Exposure ..... 191



**History of this test report**

Report No.	Issue Date	Description
21050212-TRFCC04	Sep. 20, 2022	Original



# 1. Summary of Test Procedure and Test Results

## 1.1. Applicable Standards

**ANSI C63.10:2013**

**FCC Rules and Regulations Part 15 Subpart E §15.407**

**KDB 789033**

FCC Rule	Description of Test	Result
15.203	Antenna Requirement	PASS
15.207(a)	AC Power Line Conducted Emission	PASS
15.407(b) 15.209	Radiated Spurious Emission	PASS
15.407(a)	26 dB & Occupied Bandwidth	PASS
15.407	6 dB Bandwidth	PASS
15.407 (a) & (a)(3)	Average Power	PASS
15.407(a)	Power Spectral Density	PASS
2.1091	Radio Frequency Exposure	PASS

\*The lab has reduced the uncertainty risk factor from test equipment, environment and staff technicians which according to the standard on contract. Therefore, the test result will only be determined by standard requirement.

\*This EUT has been also tested and compiled with the requirement of FCC Part 15, Subpart B, recorded in a separate test report(21050212-TEFV01).



## 2. Test Configuration of Equipment under Test

### 2.1. Feature of Equipment under Test

Frequency Range	BT / BLE: 2402MHz~2480MHz 802.11b/g/n: 2412MHz~2462MHz 802.11a/n/ac: 5180MHz~5240MHz, 5260MHz~5320MHz, 5500MHz~5720MHz, 5745MHz~5825MHz
Modulation Type	BT: GFSK, $\pi/4$ -DQPSK, 8DPSK BLE: GFSK WLAN: 2.4GHz: 802.11b: CCK, DQPSK, DBPSK 802.11g/n: BPSK, QPSK, 16QAM, 64QAM 5GHz: 802.11n/a: BPSK, QPSK, 16QAM, 64QAM 802.11ac: BPSK, QPSK, 16QAM, 64QAM, 256QAM
Modulation Technology	DSSS, OFDM, FHSS, DTS
Data Rate	BT: GFSK: 1Mbps, $\pi/4$ -DQPSK: 2Mbps, 8DPSK: 3Mbps BLE: GFSK: 1Mbps WLAN: 2.4GHz: 802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS0 – MCS15, HT20/40 5GHz: 802.11a: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS0 – MCS15, HT20/40 802.11ac: MCS0 – MCS9, VHT20/40/80
Antenna Type	Slot Antenna
Antenna Gain	For BT / BLE: 2402-2480MHz: ANT A: 2.91dBi For WLAN: 2412MHz~2462MHz: ANT A: 2.91dBi, ANT B: 3.91dBi 5180MHz~5240MHz: ANT A: 2.52dBi, ANT B: 2.01dBi 5260MHz~5320MHz: ANT A: 2.52dBi, ANT B: 2.01dBi 5500MHz~5720MHz: ANT A: 2.68dBi, ANT B: 2.56dBi 5745MHz~5825MHz: ANT A: 1.97dBi, ANT B: 1.92dBi
Adapter	Brand: Delta Electronics Inc. Model: ADP-65JH HB
Power Cord	Brand: HONHLIN Model:HL-013+HL-052
I/O Hub	Brand: Elo Model: KIT, USBC-IO-DONGLE-POWER-BRICK
Firmware Number	SWEP_sdm660la302_01.061.02.p_01
Serial Number	KEX-DLCP07

Note:

1. EUT support TPC Function.
2. WLAN and BT can simultaneously transmission.
3. EUT support Client Mode without Radar Detection.
4. For more details, please refer to the User's manual of the EUT.



## 2.2. Carrier Frequency of Channels

Band: 5150MHz-5250MHz

802.11a, 802.11n HT20, 802.11ac VHT20,

Channel	Frequency(MHz)	Channel	Frequency(MHz)
<b>*36</b>	<b>5180</b>	44	5220
<b>*40</b>	<b>5200</b>	<b>*48</b>	<b>5240</b>

802.11n HT40, 802.11ac VHT40,

Channel	Frequency(MHz)	Channel	Frequency(MHz)
<b>*38</b>	<b>5190</b>	<b>*46</b>	<b>5230</b>

802.11ac VHT80 ,

Channel	Frequency(MHz)
<b>*42</b>	<b>5210</b>

Band: 5250MHz -5350MHz

802.11a, 802.11n HT20, 802.11ac VHT20,

Channel	Frequency(MHz)	Channel	Frequency(MHz)
<b>*52</b>	<b>5260</b>	<b>*60</b>	<b>5300</b>
56	5280	<b>*64</b>	<b>5320</b>

802.11n HT40, 802.11ac VHT40,

Channel	Frequency(MHz)	Channel	Frequency(MHz)
<b>*54</b>	<b>5270</b>	<b>*62</b>	<b>5310</b>

802.11ac VHT80,

Channel	Frequency(MHz)
<b>*58</b>	<b>5290</b>

Band: 5470MHz -5725MHz

802.11a, 802.11n HT20, 802.11ac VHT20,

Channel	Frequency(MHz)	Channel	Frequency(MHz)
<b>*100</b>	<b>5500</b>	124	5620
104	5520	128	5640
108	5540	132	5660
112	5560	136	5680
<b>*116</b>	<b>5580</b>	<b>*140</b>	<b>5700</b>
120	5600		

802.11n HT40, 802.11ac VHT40,

Channel	Frequency(MHz)	Channel	Frequency(MHz)
<b>*102</b>	<b>5510</b>	126	5630
<b>*110</b>	<b>5550</b>	<b>*134</b>	<b>5670</b>
*118	5590		

802.11ac VHT80,

Channel	Frequency(MHz)	Channel	Frequency(MHz)
<b>*106</b>	<b>5530</b>	<b>*122</b>	<b>5610</b>



Band 3: Straddle Channel

802.11a, 802.11n HT 20, 802.11ac VHT20,

Channel	Frequency(MHz)
<b>*144</b>	<b>5720</b>

802.11n HT40, 802.11ac VHT40,

Channel	Frequency(MHz)
<b>*142</b>	<b>5710</b>

802.11ac VHT80,

Channel	Frequency(MHz)
<b>*138</b>	<b>5690</b>

Band: 5725MHz -5850MHz

802.11a, 802.11n HT20, 802.11ac VHT20,

Channel	Frequency(MHz)	Channel	Frequency(MHz)
<b>*149</b>	<b>5745</b>	161	5805
153	5765	<b>*165</b>	<b>5825</b>
<b>*157</b>	<b>5785</b>		

802.11n HT40, 802.11ac VHT40,

Channel	Frequency(MHz)	Channel	Frequency(MHz)
<b>*151</b>	<b>5755</b>	<b>*159</b>	<b>5795</b>

802.11ac VHT80,

Channel	Frequency(MHz)
<b>*155</b>	<b>5775</b>

Note: Channels remarked \* are selected to perform test.





### 2.3. Test Mode and Test Software

- a. During testing, the interface cables and equipment positions were varied according to ANSI C63.10.
- b. The complete test system included remote workstation and EUT for RF test. The remote workstation included Notebook.
- c. An executive program, " QRCT Ver. 4.0.00129.0" under Windows OS system was executed to transmit and receive data via WLAN.
- d. The following test modes were performed for the test:

Conducted Emissions from the AC mains power ports	
Test Mode	Operating Description
1	802.11a (6Mbps)
2	802.11n HT20 (6.5Mbps)
3	802.11n HT40 (13.5Mbps)
4	802.11ac VHT20 (6.5Mbps)
5	802.11ac VHT40 (13.5Mbps)
6	802.11ac VHT80 (29.3Mbps)
caused "Test Mode 6" generated the worst case, it was reported as the final data.	
Radiation Emissions (9KHz ~30MHz & 30MHz ~ 1GHz)	
Test Mode	Operating Description
1	802.11a (6Mbps)
2	802.11ac VHT20 (6.5Mbps)
3	802.11ac VHT40 (13.5Mbps)
4	802.11ac VHT80 (29.3Mbps)
caused "Test Mode 4" generated the worst case, it was reported as the final data.	
Radiation Emissions (1GHz ~ 40GHz)	
Test Mode	Operating Description
1	802.11a (6Mbps)
2	802.11ac VHT20 (6.5Mbps)
3	802.11ac VHT40 (13.5Mbps)
4	802.11ac VHT80 (29.3Mbps)
caused "Test Mode 1~4" generated the worst case, they were reported as the final data.	

The EUT incorporates a MIMO function

Modulation Type	TX CONFIGURATION
802.11a	1TX Fix ANT A
802.11n HT20	2TX
802.11n HT40	2TX
802.11ac VHT20	2TX
802.11ac VHT40	2TX
802.11ac VHT80	2TX



### 2.4. Description of Test System

RF Conducted				
Equipment	Brand	Model	Length/Type	Power cord/Length/Type
Notebook	ASUS	P2430U	N/A	Adapter / 1.8m / NS
Micro USB Cable	kolin	EX-DLCP07	1m / NS	N/A

**2.5. General Information of Test**

Test Site	<b>Cerpass Technology Corporation Test Laboratory</b> Address: No.10, Ln. 2, Lianfu St., Luzhu Dist., Taoyuan City 33848, Taiwan (R.O.C.) Tel:+886-3-3226-888 Fax:+886-3-3226-881	
	FCC	TW1439, TW1079
	IC	4934E-1, 4934E-2
	VCCI	T-2205 for Telecommunication test C-4663 for Conducted emission test R-4218 for Radiated emission test G-10812, G-10813 for radiated disturbance above 1GHz
Frequency Range Investigated:	Conducted: from 150kHz to 30 MHz Radiation: from 30 MHz to 40,000MHz	
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.	

Test Item	Test Site	Test Period	Environmental Conditions	Tested By
RF Conducted	RFCON01-NK	2021/07/27~2021/08/23	28°C / 57%	Nick Guan
Radiated Emissions	3M02-NK	2021/07/22~2021/08/21	22~26°C / 42~49%	Nick Guan
AC Power Line Conducted Emission	CON01-NK	2021/08/28	27°C / 49%	Nick Guan

**2.6. Measurement Uncertainty**

Measurement Item	Uncertainty
AC Power Line Conduction(150K~30MHz)	±3.63dB
Radiated Spurious Emission(9KHz~30MHz)	±3.4dB
Radiated Spurious Emission(30MHz~1GHz)	±5.6dB
Radiated Spurious Emission(1GHz~40GHz)	±6.6dB
6dB Bandwidth	±4.4%
26dB Bandwidth	±4.4%
Occupied Bandwidth	±4.4%
Peak Output Power(Conducted Power Meter)	±1.1dB
Power Spectral Density	±1.8dB
Duty Cycle	±1.5%
Frequency Stability	±0.26KHz



### 3. Test Equipment and Ancillaries Used for Tests

Test Item	Radiated Emissions				
Test Site	Semi Anechoic Room(3M02-NK)				
Instrument	Manufacturer	Model No	Serial No	Calibration Date	Valid Date
Bilog Antenna	Schwarzbeck	VULB9168	369	2021/04/26	2022/04/25
Active Loop Antenna	EMCO	6507	40855	2021/06/10	2022/06/09
Horn Antenna	EMCO	3115	31601	2020/10/16	2021/10/15
Horn Antenna	EMCO	3116	31974	2020/09/24	2021/09/23
EMI Receiver	ROHDE & SCHWARZ	ESCI	101423	2021/06/30	2022/06/29
Spectrum Analyzer	ROHDE & SCHWARZ	FSV 40-N	102151	2021/07/14	2022/07/13
Preamplifier	EM Electronics corp.	EM330	60658	2020/10/20	2021/10/19
Preamplifier	EM Electronics corp.	EM330	60660	2021/03/18	2022/03/17
Preamplifier	Agilent	8449B	3008A01954	2021/03/22	2022/03/21
Preamplifier	EMC INSTRUMENTS	EMC184045	980065	2020/11/06	2021/11/05
Bluetooth Tester	ROHDE & SCHWARZ	CBT	101133	2021/04/19	2022/04/18
Cable-3in1(30M-1G)	HARBOUR INDUSTRIES	LL142	CCE1315	2021/04/12	2022/04/11
Cable-0.5m(1G-18G)	EMEC	EM104-SMSM-0.5M	CCE1354	2021/05/06	2022/05/05
Cable-3m(1G-18G)	EMEC	EM104-SMSM-3M	CCE1355	2021/05/06	2022/05/05
Cable-8m(1G-18G)	EMEC	EM104-SMSM-8M	CCE1356	2021/05/06	2022/05/05
Cable-0.5m(30M-40G)	HUBER SUHNER	SUCOFLEX 102	28420/2	2021/04/03	2022/04/02
Cable-3m(30M-40G)	HUBER SUHNER	SUCOFLEX 102	MY2608/2	2021/04/09	2022/04/08
Cable-0.5m(1G-40G)	Rapidtek	40GHZ 50CM	38MS-38MS50314	2021/04/08	2022/04/07
Cable-6m(9k~300M)	NA	EMC5D-BM-BM-6	130605	2020/09/18	2021/09/17
E3	AUDIX	v8.2014-8-6	RK-000529	NA	NA

Test Item	RF Conducted				
Test Site	RFCON01-NK				
Instrument	Manufacturer	Model No	Serial No	Calibration Date	Valid Date
Spectrum Analyzer	ROHDE & SCHWARZ	FSV 40-N	102151	2021/07/14	2022/07/13
Bluetooth Tester	ROHDE & SCHWARZ	CBT	101133	2021/04/19	2022/04/18
CAX Signal Analyzer	KEYSIGHT	N9000B	MY57100339	2020/12/25	2021/12/24
Attenuator	KEYSIGHT	8491B	MY39250703	2021/04/09	2022/04/08
Power Meter	Anritsu	ML2495A	1224005	2021/04/14	2022/04/13
Power Sensor	Anritsu	MA2411B	1207295	2021/04/14	2022/04/13



Test Item	AC Power Line Conducted Emission				
Test Site	CON01-NK				
<b>Instrument</b>	<b>Manufacturer</b>	<b>Model No</b>	<b>Serial No</b>	<b>Calibration Date</b>	<b>Valid Date</b>
EMI Receiver	ROHDE & SCHWARZ	ESCI	100821	2020/09/11	2021/09/10
Line Impedance Stabilization Network	Schwarzbeck	NSLK 8127	8127-516	2020/09/26	2021/09/25
Pulse Limiter	ROHDE & SCHWARZ	ESH3-Z2	101933	2020/09/17	2021/09/16
Cable-6m(9k~300M)	NA	EMC5D-BM-BM-6	130605	2020/09/18	2021/09/17
E3	AUDIX	v8.2014-8-6	RK-000531	NA	NA



## 4. Antenna Requirements

### 4.1. Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.407 (a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.



**4.2. Antenna Construction and Directional Gain**

Antenna Type	Slot Antenna
Antenna Gain	5180MHz~5240MHz: ANT A: 2.52dBi, ANT B: 2.01dBi 5260MHz~5320MHz: ANT A: 2.52dBi, ANT B: 2.01dBi 5500MHz~5720MHz: ANT A: 2.68dBi, ANT B: 2.56dBi 5745MHz~5825MHz: ANT A: 1.97dBi, ANT B: 1.92dBi

For 11a

5180MHz~5240MHz
For Power directional gain= $G_{ant}=2.52$ dBi For PSD directional gain = $G_{ant}=2.52$ dBi
5260MHz~5320MHz
For Power directional gain= $G_{ant}=2.52$ dBi For PSD directional gain = $G_{ant}=2.52$ dBi
5500MHz~5720MHz
For Power directional gain= $G_{ant}= 2.68$ dBi For PSD directional gain = $G_{ant}= 2.68$ dBi
5745MHz~5825MHz
For Power directional gain= $G_{ant}= 1.97$ dBi For PSD directional gain = $G_{ant}= 1.97$ dBi

For 11n/11ac

5180MHz~5240MHz
For Power directional gain= $G_{ant}=2.52$ dBi For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}]$ = 5.28 (dBi)
5260MHz~5320MHz
For Power directional gain= $G_{ant}= 2.52$ dBi For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}]$ = 5.28 (dBi)
5500MHz~5720MHz
For Power directional gain= $G_{ant}= 2.68$ dBi For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}]$ = 5.63 (dBi)
5745MHz~5825MHz
For Power directional gain= $10 \log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}] = 1.97$ (dBi) For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}]$ = 4.96 (dBi)

\*MIMO type: Cyclic Delay Diversity (CDD) mode.



## 5. Test of AC Power Line Conducted Emission

### 5.1. Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz, according to the methods defined in ANSI C63.4-2014. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

Frequency (MHz)	Quasi Peak (dB $\mu$ V)	Average (dB $\mu$ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

\*Decreases with the logarithm of the frequency.

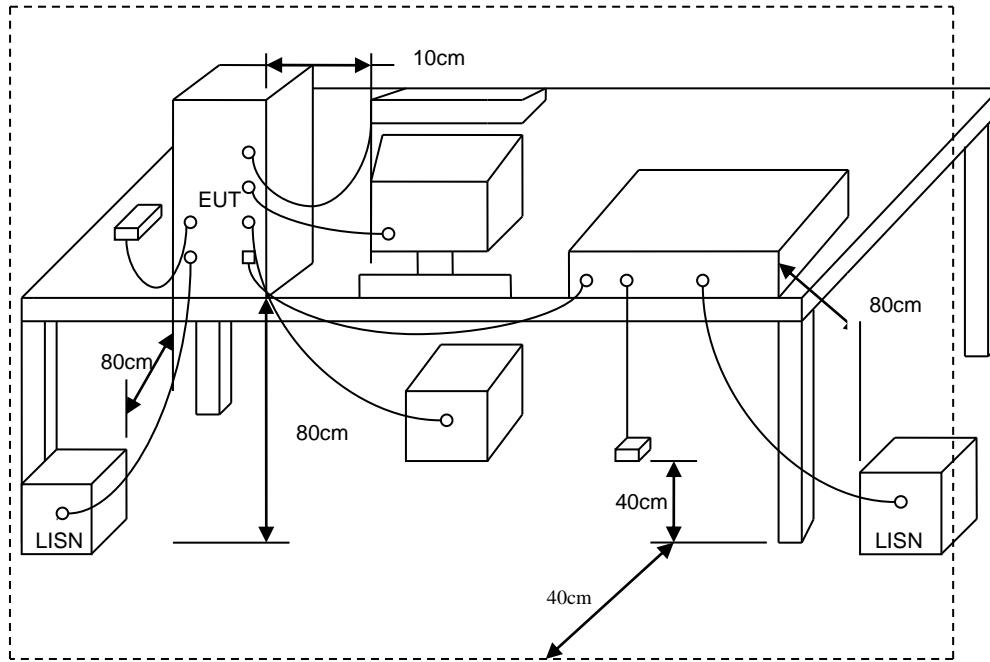
### 5.2. Test Procedures

- The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- Connect EUT to the power mains through a line impedance stabilization network (LISN).
- All the support units are connecting to the other LISN.
- The LISN provides 50 ohm coupling impedance for the measuring instrument.
- The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
- Both sides of AC line were checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz was searched.
- Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.





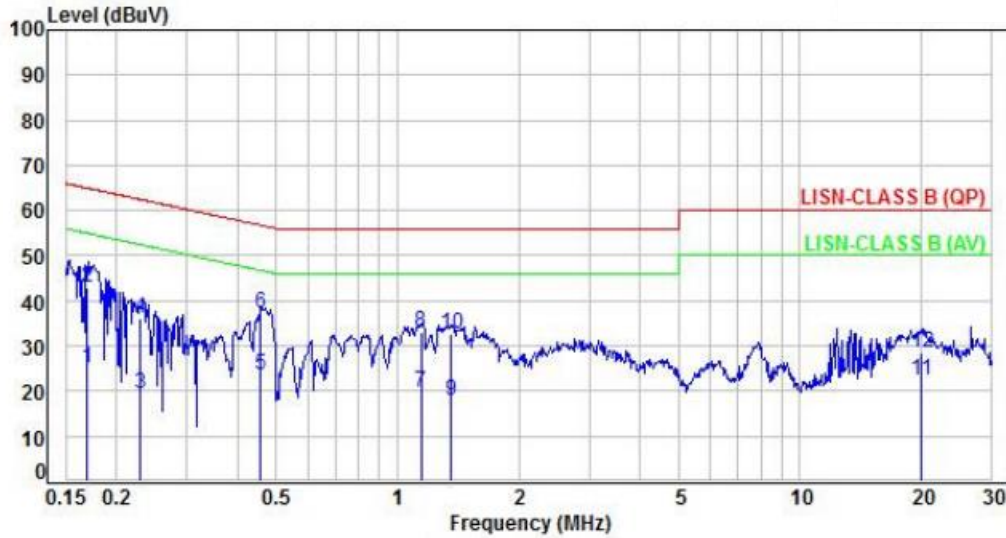
### 5.3. Typical Test Setup





5.4. Test Result and Data

Power	: AC 120V / 60Hz	Pol/Phase	: LINE
Test Mode	: Mode 6		:

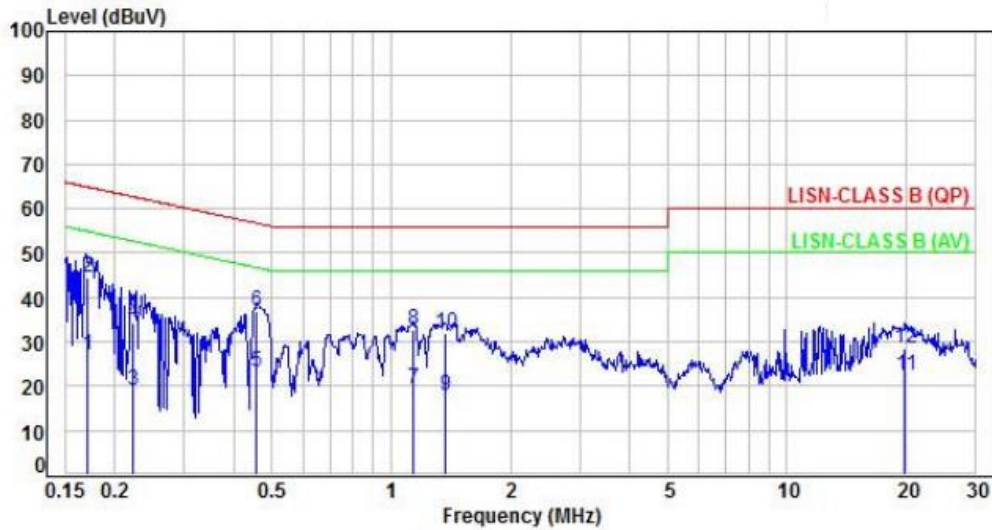


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.17	9.96	15.14	25.10	54.98	-29.88	Average	P
2	0.17	9.96	33.09	43.05	64.98	-21.93	QP	P
3	0.23	9.96	9.31	19.27	52.50	-33.23	Average	P
4	0.23	9.96	26.24	36.20	62.50	-26.30	QP	P
5	0.46	9.97	13.79	23.76	46.75	-22.99	Average	P
6	0.46	9.97	27.11	37.08	56.75	-19.67	QP	P
7	1.14	10.05	9.61	19.66	46.00	-26.34	Average	P
8	1.14	10.05	23.01	33.06	56.00	-22.94	QP	P
9	1.36	10.06	7.81	17.87	46.00	-28.13	Average	P
10	1.36	10.06	22.55	32.61	56.00	-23.39	QP	P
11	20.00	11.29	11.24	22.53	50.00	-27.47	Average	P
12	20.00	11.29	17.23	28.52	60.00	-31.48	QP	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=(LISN or ISN or Current Probe)Factor + Cable Loss



Power	: AC 120V / 60Hz	Pol/Phase	: NEUTRAL
Test Mode	: Mode 6		



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.17	9.97	16.84	26.81	54.96	-28.15	Average	P
2	0.17	9.97	34.68	44.65	64.96	-20.31	QP	P
3	0.22	9.97	9.11	19.08	52.72	-33.64	Average	P
4	0.22	9.97	24.32	34.29	62.72	-28.43	QP	P
5	0.46	9.98	13.28	23.26	46.76	-23.50	Average	P
6	0.46	9.98	26.94	36.92	56.76	-19.84	QP	P
7	1.14	10.04	9.30	19.34	46.00	-26.66	Average	P
8	1.14	10.04	22.71	32.75	56.00	-23.25	QP	P
9	1.37	10.05	7.97	18.02	46.00	-27.98	Average	P
10	1.37	10.05	22.01	32.06	56.00	-23.94	QP	P
11	19.89	11.10	11.17	22.27	50.00	-27.73	Average	P
12	19.89	11.10	17.27	28.37	60.00	-31.63	QP	P

Note: Level=Reading+Factor  
Margin=Level-Limit  
Factor=(LISN or ISN or Current Probe)Factor + Cable Loss



## 6. Test of Spurious Emission (Radiated)

### 6.1. Test Limit

Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of  $-27$  dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of  $-27$  dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of  $-27$  dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band:  
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 25MHz 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 27dBm/MHz at the band edge.
- (5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
- (6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.
- (7) The provisions of §15.205 apply to intentional radiators operating under this section.
- (8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.



## 6.2. Test Procedures

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- 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. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
- e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
- h. For testing above 1GHz, the 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.
- i. "Cone of radiation" has been considered to be 3dB bandwidth of the measurement antenna.

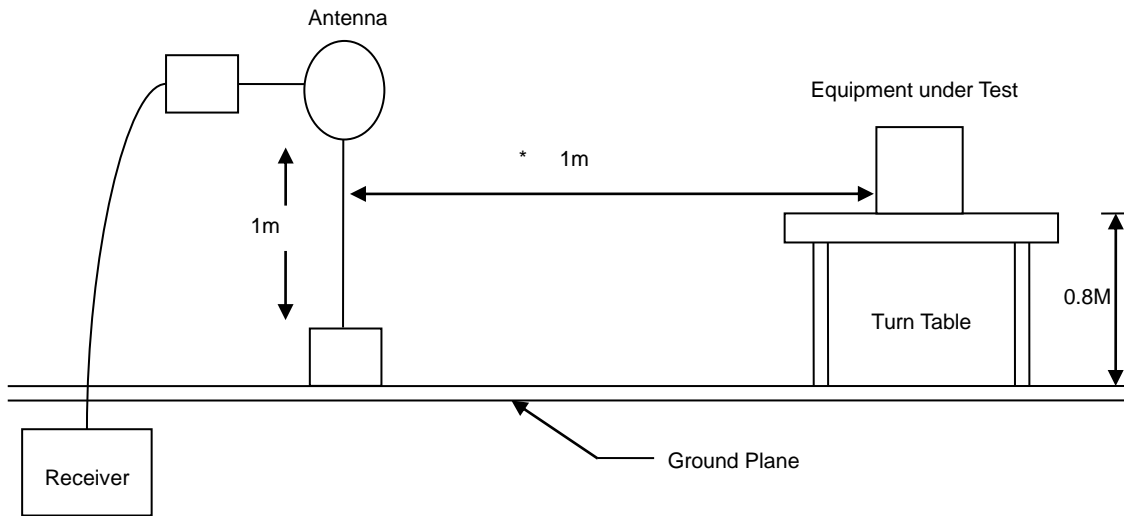
Note:

- 1.The supporting fixture shall permit orientation of the EUT in each of three orthogonal axis positions such that emissions from the EUT are maximized.  
(Y-AXIS is the worst.)
- 2.Due to the test software function limit the operation band setting(200dBuV/m). There's no corresponding limitation in the actual test item.

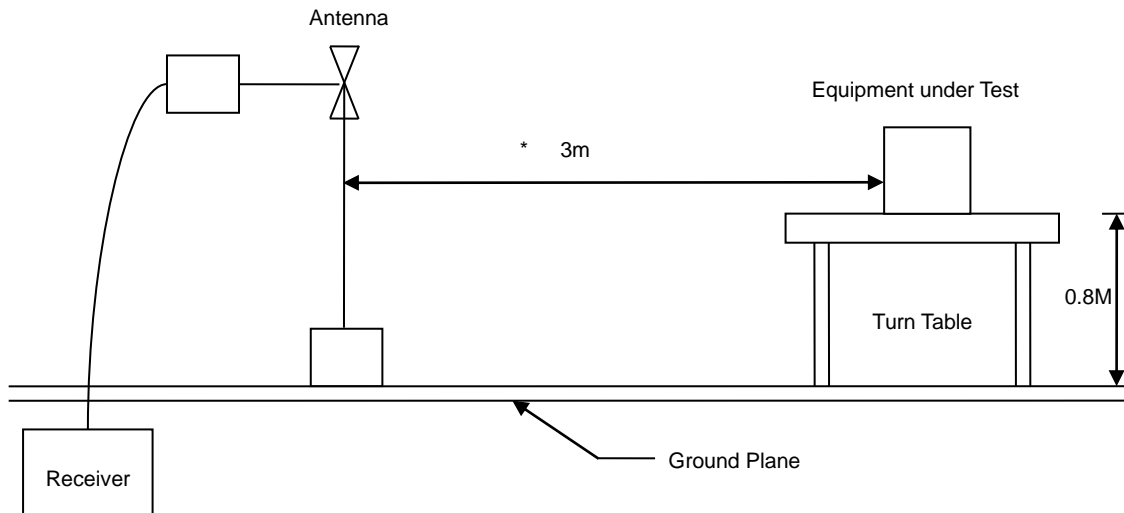


### 6.3. Typical Test Setup

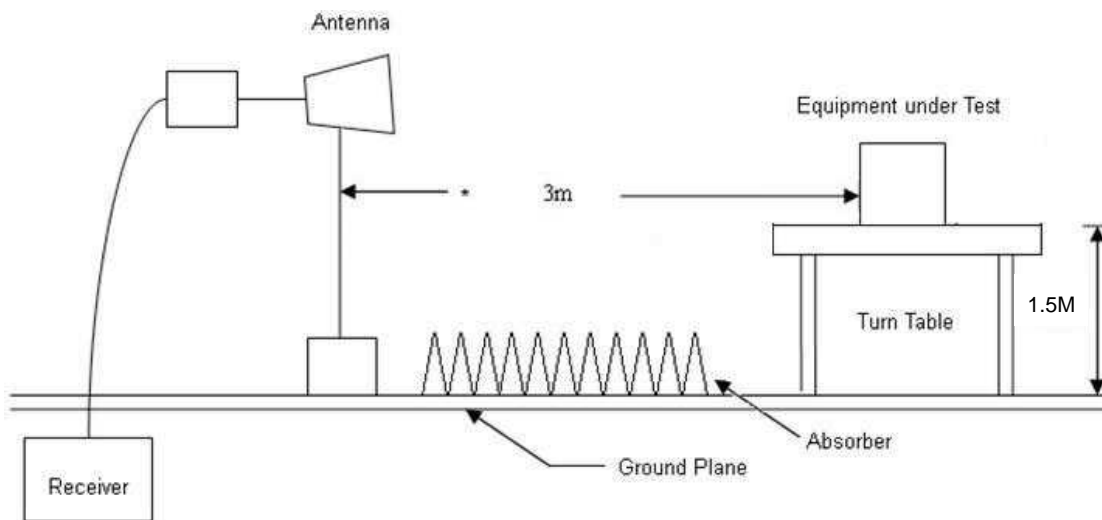
Below 30MHz test setup



30MHz- 1GHz Test Setup



Above 1GHz Test Setup



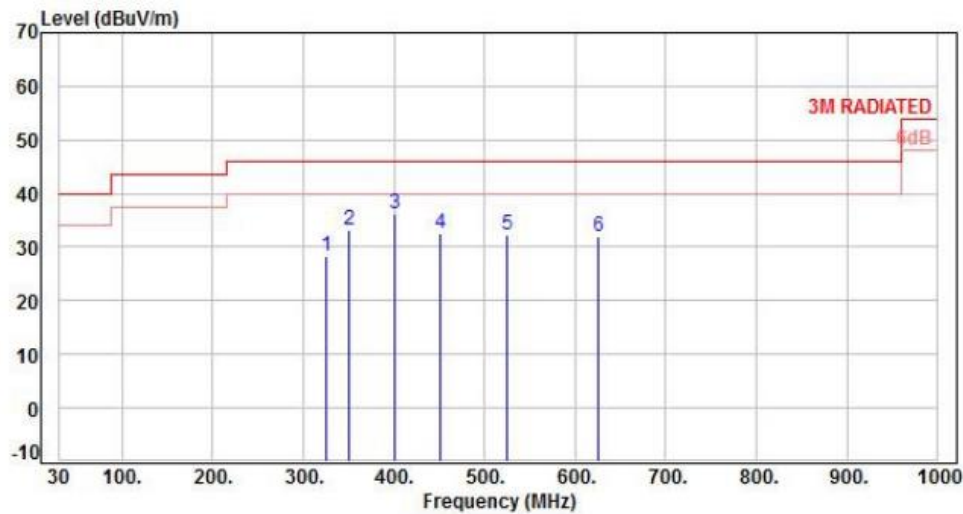


### 6.4. Test Result and Data (9kHz ~ 30MHz)

The 9kHz - 30MHz spurious emission is under limit 20dB more.

### 6.5. Test Result and Data (30MHz ~ 1GHz)

Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 6		:

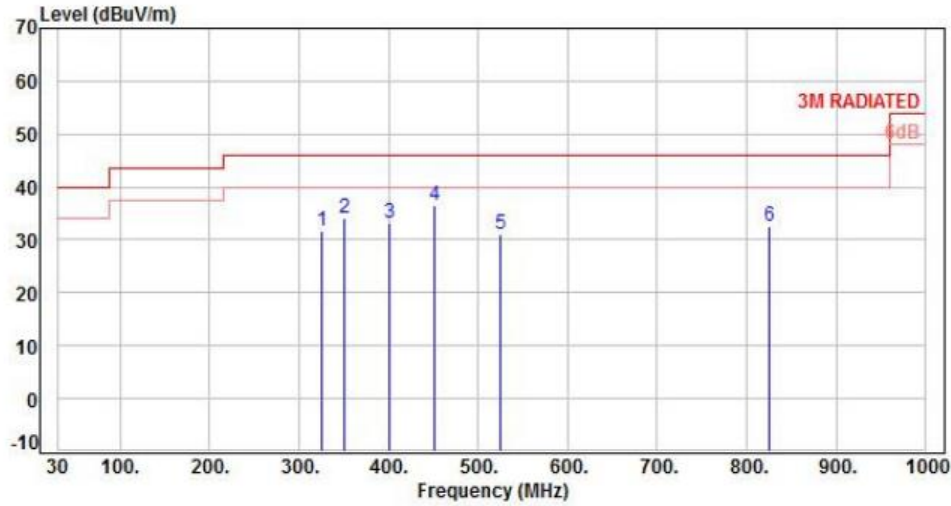


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	324.88	-9.00	37.19	28.19	46.00	-17.81	Peak	400	0	P
2	350.10	-8.42	41.73	33.31	46.00	-12.69	Peak	400	0	P
3	400.54	-7.05	43.38	36.33	46.00	-9.67	Peak	400	0	P
4	450.98	-5.78	38.24	32.46	46.00	-13.54	Peak	400	0	P
5	524.70	-4.10	36.50	32.40	46.00	-13.60	Peak	400	0	P
6	625.58	-2.03	33.93	31.90	46.00	-14.10	Peak	400	0	P

Note: Level=Reading+Factor  
Margin=Level-Limit  
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 6		:



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	324.88	-9.00	40.59	31.59	46.00	-14.41	Peak	400	360	P
2	350.10	-8.42	42.46	34.04	46.00	-11.96	Peak	400	360	P
3	400.54	-7.05	40.17	33.12	46.00	-12.88	Peak	400	360	P
4	450.98	-5.78	42.19	36.41	46.00	-9.59	Peak	400	360	P
5	524.70	-4.10	35.10	31.00	46.00	-15.00	Peak	400	360	P
6	825.40	1.02	31.55	32.57	46.00	-13.43	Peak	400	360	P

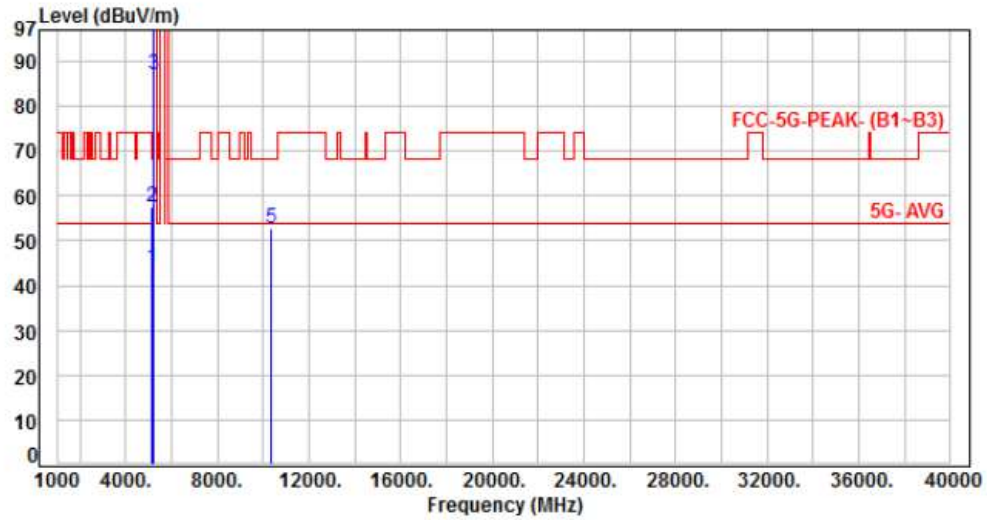
Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor





6.6. Test Result and Data (1GHz ~ 40GHz)

Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, Band 1, CH36		:

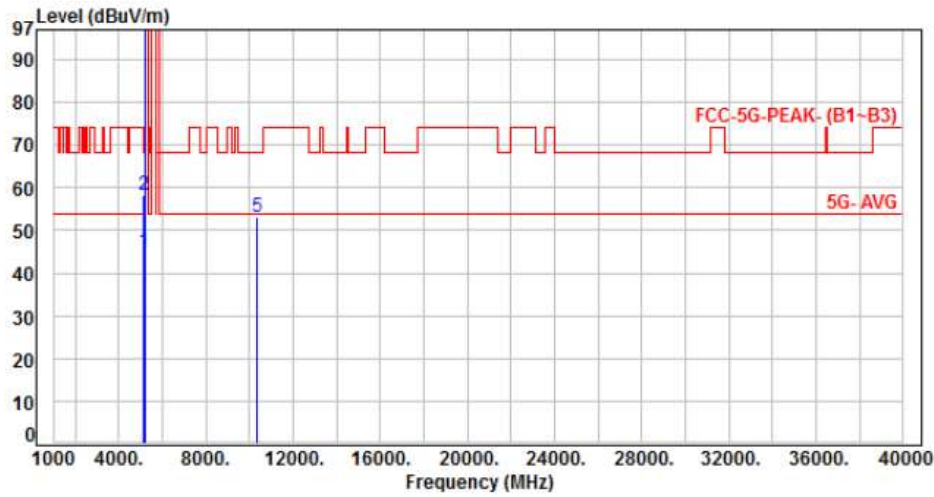


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	4.69	39.36	44.05	54.00	-9.95	Average	120	302	P
2	5150.00	4.69	52.77	57.46	74.00	-16.54	Peak	120	302	P
3	5180.00	4.66	82.33	86.99	200.00	-113.01	Average	120	302	P
4	5180.00	4.66	93.55	98.21	200.00	-101.79	Peak	120	302	P
5	10360.00	11.51	41.15	52.66	68.20	-15.54	Peak	100	336	P

Note: Level=Reading+Factor  
Margin=Level-Limit  
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, Band 1, CH36		:

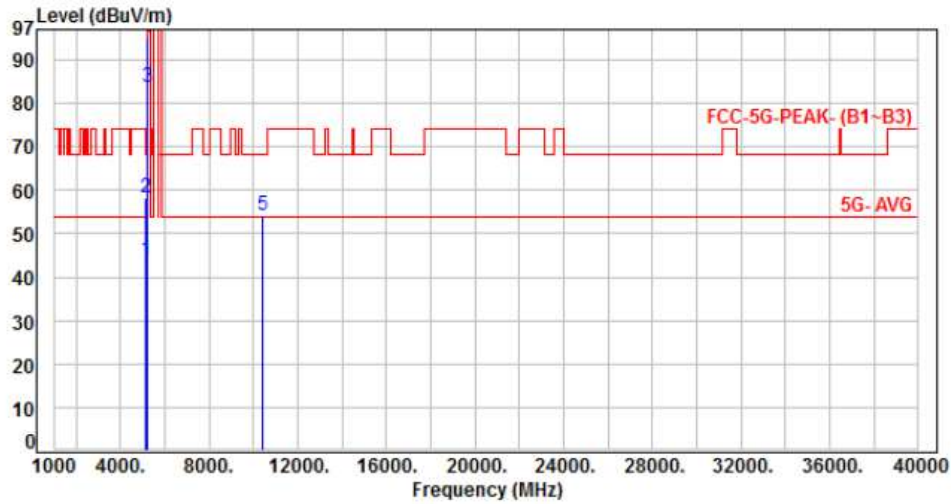


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	4.69	40.23	44.92	54.00	-9.08	Average	312	250	P
2	5150.00	4.69	53.49	58.18	74.00	-15.82	Peak	312	250	P
3	5180.00	4.66	91.86	96.52	200.00	-103.48	Average	312	250	P
4	5180.00	4.66	103.37	108.03	200.00	-91.97	Peak	312	250	P
5	10360.00	11.51	41.42	52.93	68.20	-15.27	Peak	100	257	P

Note: Level=Reading+Factor  
Margin=Level-Limit  
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, Band 1, CH40		:

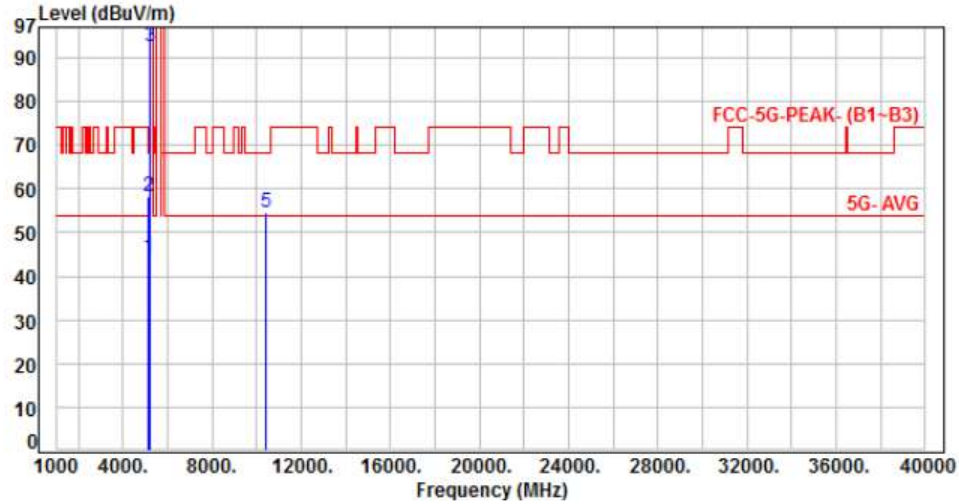


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	4.69	39.18	43.87	54.00	-10.13	Average	224	302	P
2	5150.00	4.69	53.56	58.25	74.00	-15.75	Peak	224	302	P
3	5200.00	4.63	79.09	83.72	200.00	-116.28	Average	224	302	P
4	5200.00	4.63	90.46	95.09	200.00	-104.91	Peak	224	302	P
5	10400.00	11.57	42.62	54.19	68.20	-14.01	Peak	100	349	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, Band 1, CH40		:

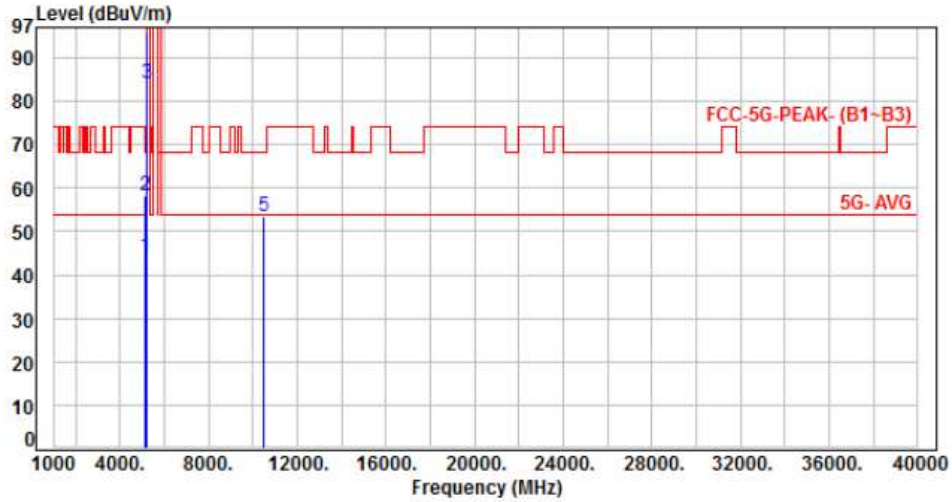


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	4.69	39.72	44.41	54.00	-9.59	Average	220	250	P
2	5150.00	4.69	53.72	58.41	74.00	-15.59	Peak	220	250	P
3	5200.00	4.63	88.10	92.73	200.00	-107.27	Average	220	250	P
4	5200.00	4.63	99.27	103.90	200.00	-96.10	Peak	220	250	P
5	10400.00	11.57	42.92	54.49	68.20	-13.71	Peak	100	222	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, Band 1, CH48		:

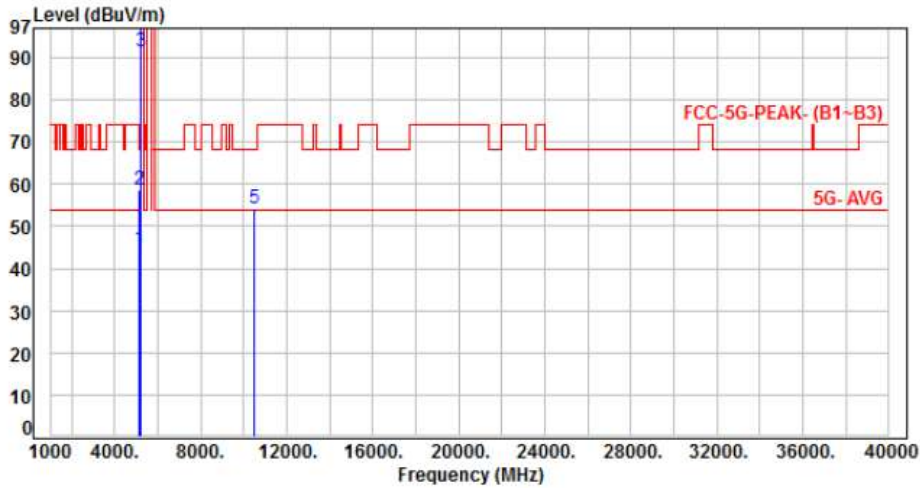


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	4.69	39.52	44.21	54.00	-9.79	Average	238	299	P
2	5150.00	4.69	53.53	58.22	74.00	-15.78	Peak	238	299	P
3	5240.00	4.73	79.51	84.24	200.00	-115.76	Average	238	299	P
4	5240.00	4.73	90.98	95.71	200.00	-104.29	Peak	238	299	P
5	10480.00	11.70	41.90	53.60	68.20	-14.60	Peak	100	331	P

Note: Level=Reading+Factor  
Margin=Level-Limit  
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, Band 1, CH48		:

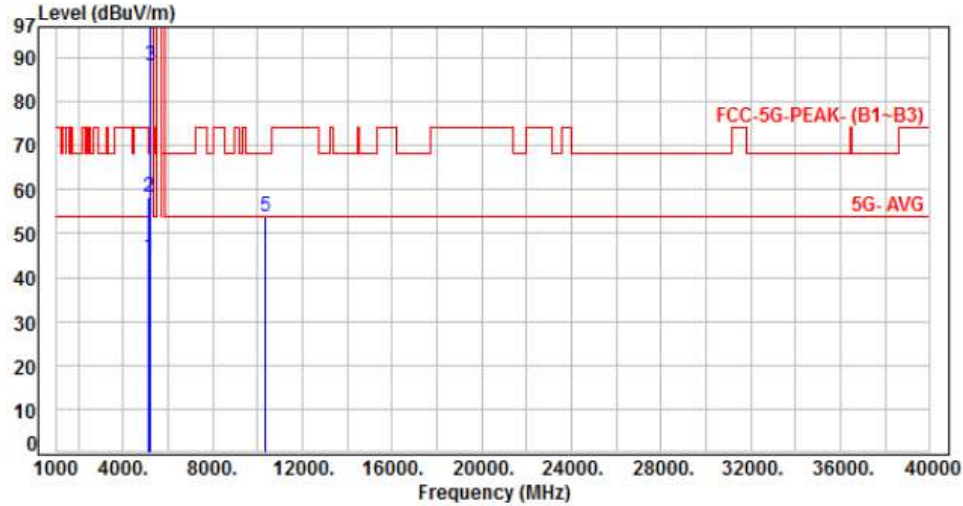


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	4.69	39.89	44.58	54.00	-9.42	Average	346	254	P
2	5150.00	4.69	54.06	58.75	74.00	-15.25	Peak	346	254	P
3	5240.00	4.73	86.90	91.63	200.00	-108.37	Average	346	254	P
4	5240.00	4.73	98.64	103.37	200.00	-96.63	Peak	346	254	P
5	10480.00	11.70	42.58	54.28	68.20	-13.92	Peak	100	252	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 2, Band 1, CH36		:



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	4.69	39.92	44.61	54.00	-9.39	Average	105	296	P
2	5150.00	4.69	53.59	58.28	74.00	-15.72	Peak	105	296	P
3	5180.00	4.66	83.52	88.18	200.00	-111.82	Average	105	296	P
4	5180.00	4.66	94.82	99.48	200.00	-100.52	Peak	105	296	P
5	10360.00	11.51	42.26	53.77	68.20	-14.43	Peak	100	322	P

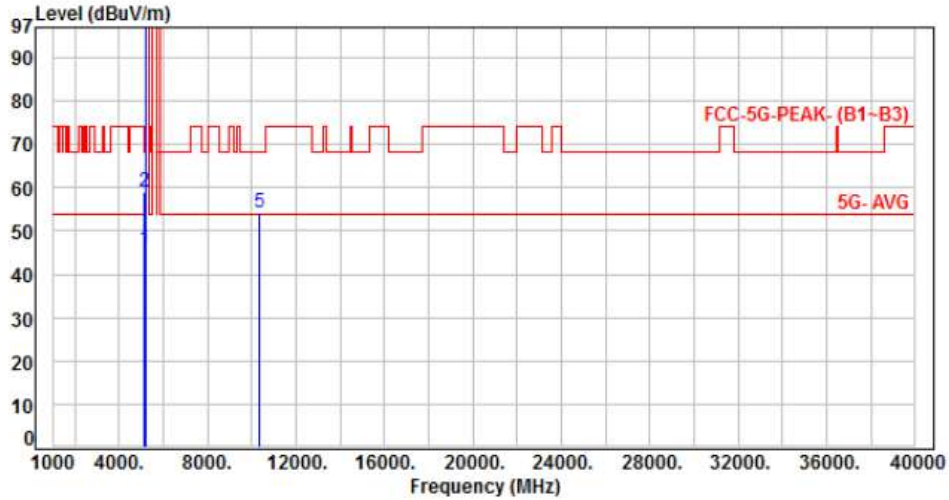
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 2, Band 1, CH36		:



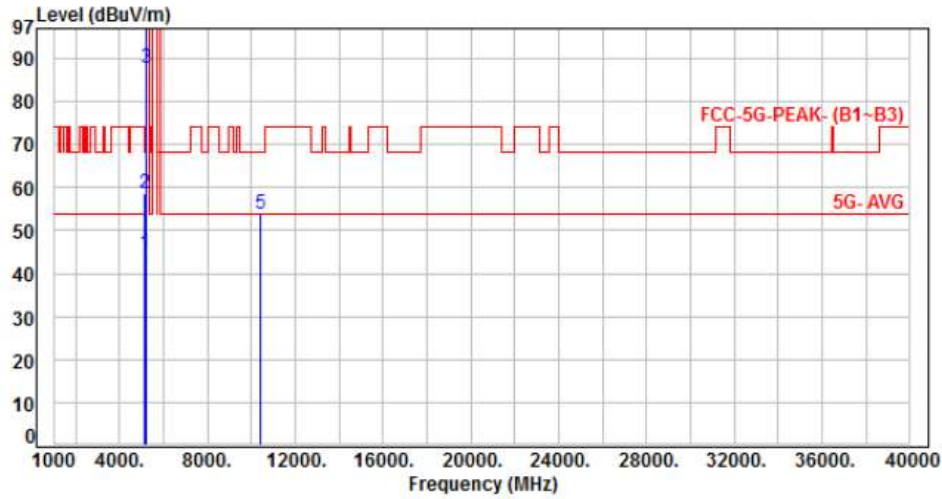
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	4.69	40.95	45.64	54.00	-8.36	Average	108	249	P
2	5150.00	4.69	54.17	58.86	74.00	-15.14	Peak	108	249	P
3	5180.00	4.66	93.49	98.15	200.00	-101.85	Average	108	249	P
4	5180.00	4.66	104.68	109.34	200.00	-90.66	Peak	108	249	P
5	10360.00	11.51	42.53	54.04	68.20	-14.16	Peak	100	232	P

Note: Level=Reading+Factor  
Margin=Level-Limit  
Factor=Antenna Factor + cable loss - Amplifier Factor





Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 2, Band 1, CH40		

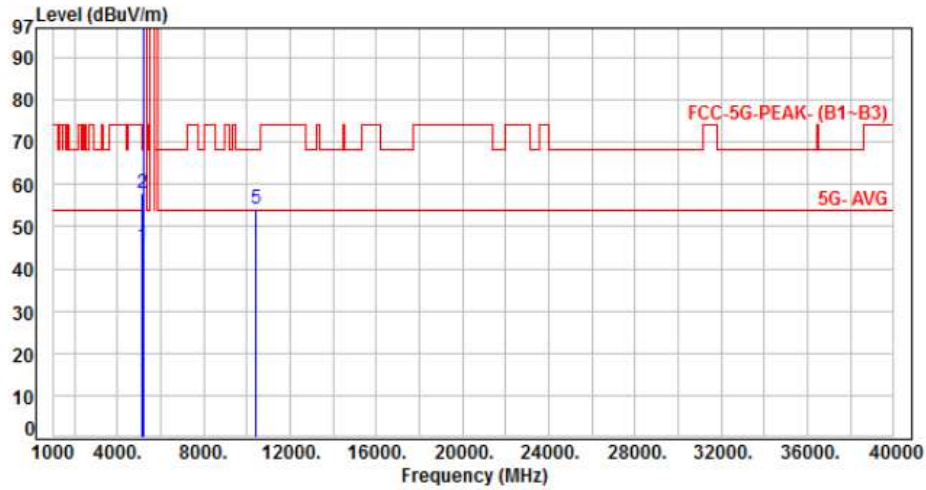


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	4.69	40.09	44.78	54.00	-9.22	Average	106	301	P
2	5150.00	4.69	53.81	58.50	74.00	-15.50	Peak	106	301	P
3	5200.00	4.63	83.20	87.83	200.00	-112.17	Average	106	301	P
4	5200.00	4.63	93.70	98.33	200.00	-101.67	Peak	106	301	P
5	10400.00	11.57	42.39	53.96	68.20	-14.24	Peak	100	318	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 2, Band 1, CH40		:

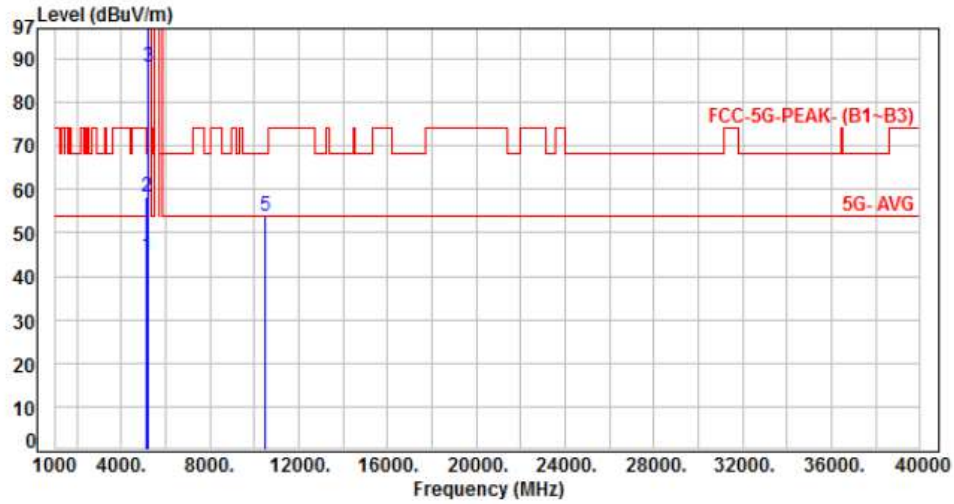


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	4.69	40.54	45.23	54.00	-8.77	Average	344	255	P
2	5150.00	4.69	53.30	57.99	74.00	-16.01	Peak	344	255	P
3	5200.00	4.63	92.64	97.27	200.00	-102.73	Average	344	255	P
4	5200.00	4.63	103.95	108.58	200.00	-91.42	Peak	344	255	P
5	10400.00	11.57	42.67	54.24	68.20	-13.96	Peak	100	241	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 2, Band 1, CH48		:

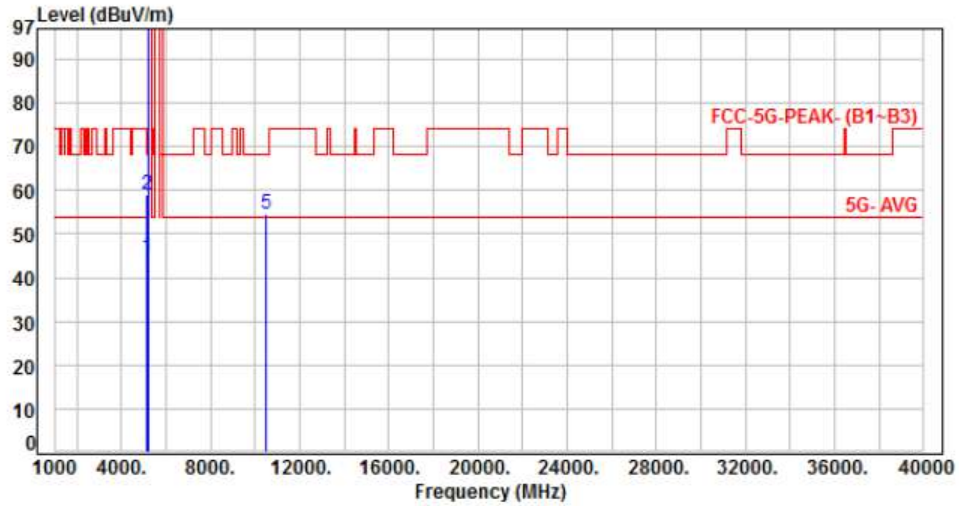


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	4.69	39.99	44.68	54.00	-9.32	Average	174	295	P
2	5150.00	4.69	53.59	58.28	74.00	-15.72	Peak	174	295	P
3	5240.00	4.73	83.27	88.00	200.00	-112.00	Average	174	295	P
4	5240.00	4.73	94.75	99.48	200.00	-100.52	Peak	174	295	P
5	10480.00	11.70	42.33	54.03	68.20	-14.17	Peak	100	332	P

Note: Level=Reading+Factor  
Margin=Level-Limit  
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 2, Band 1, CH48		:

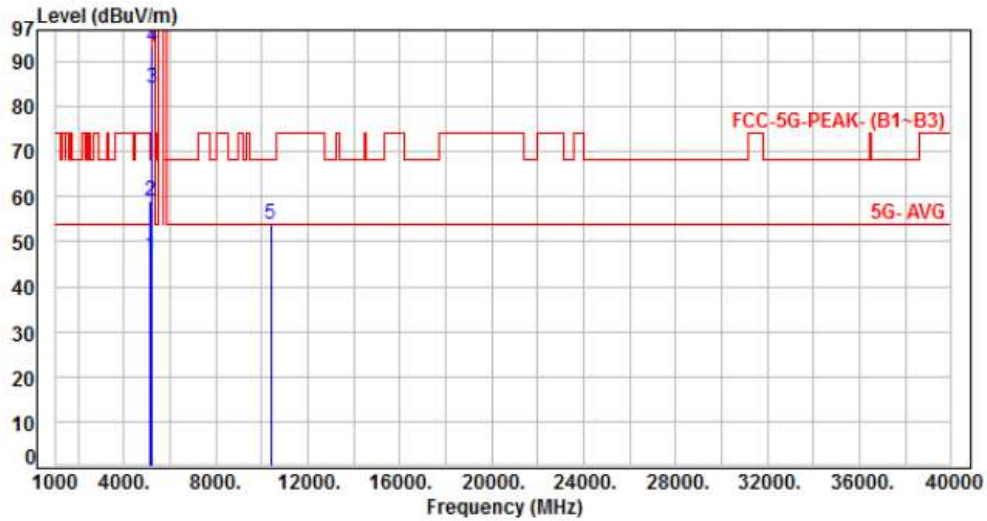


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	4.69	40.09	44.78	54.00	-9.22	Average	110	250	P
2	5150.00	4.69	54.19	58.88	74.00	-15.12	Peak	110	250	P
3	5240.00	4.73	92.88	97.61	200.00	-102.39	Average	110	250	P
4	5240.00	4.73	103.99	108.72	200.00	-91.28	Peak	110	250	P
5	10480.00	11.70	42.71	54.41	68.20	-13.79	Peak	100	228	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 3, Band 1, CH38		:

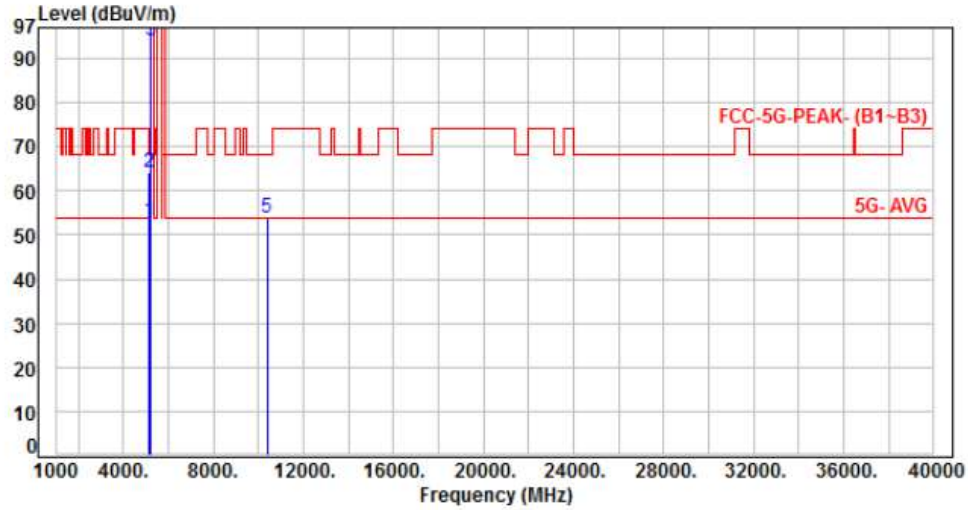


No.	Frequency (MHz)	Factor (dB)	Reading (dBUV)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	4.69	42.22	46.91	54.00	-7.09	Average	117	300	P
2	5150.00	4.69	54.23	58.92	74.00	-15.08	Peak	117	300	P
3	5190.00	4.64	79.51	84.15	200.00	-115.85	Average	117	300	P
4	5190.00	4.64	88.78	93.42	200.00	-106.58	Peak	117	300	P
5	10380.00	11.54	42.37	53.91	68.20	-14.29	Peak	100	315	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 3, Band 1, CH38		:

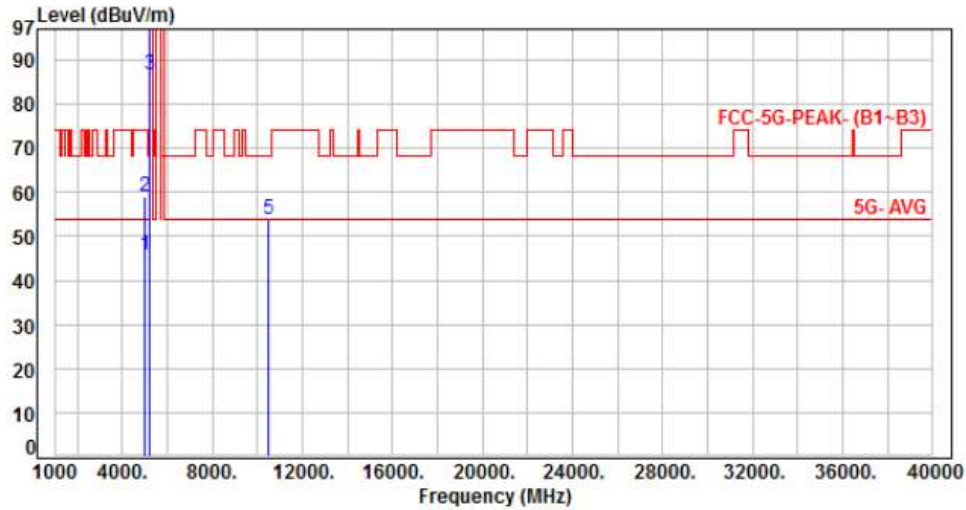


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	4.69	48.27	52.96	54.00	-1.04	Average	106	251	P
2	5150.00	4.69	59.62	64.31	74.00	-9.69	Peak	106	251	P
3	5190.00	4.64	89.32	93.96	200.00	-106.04	Average	106	251	P
4	5190.00	4.64	98.85	103.49	200.00	-96.51	Peak	106	251	P
5	10380.00	11.54	42.48	54.02	68.20	-14.18	Peak	100	244	P

Note: Level=Reading+Factor  
Margin=Level-Limit  
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 3, Band 1, CH46		:

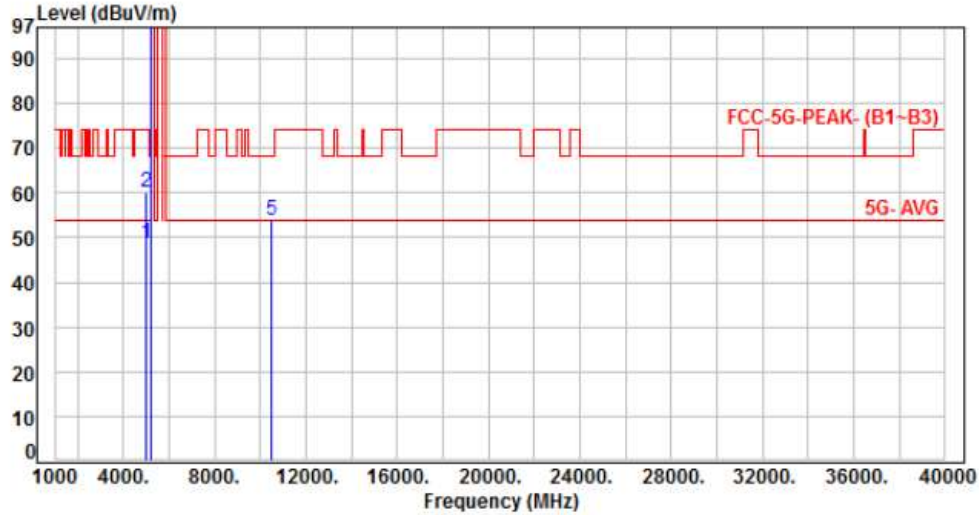


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5008.00	4.42	41.25	45.67	54.00	-8.33	Average	111	300	P
2	5008.00	4.42	54.43	58.85	74.00	-15.15	Peak	111	300	P
3	5230.00	4.70	82.09	86.79	200.00	-113.21	Average	111	300	P
4	5230.00	4.70	92.47	97.17	200.00	-102.83	Peak	111	300	P
5	10460.00	11.67	42.15	53.82	68.20	-14.38	Peak	100	339	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 3, Band 1, CH46		:



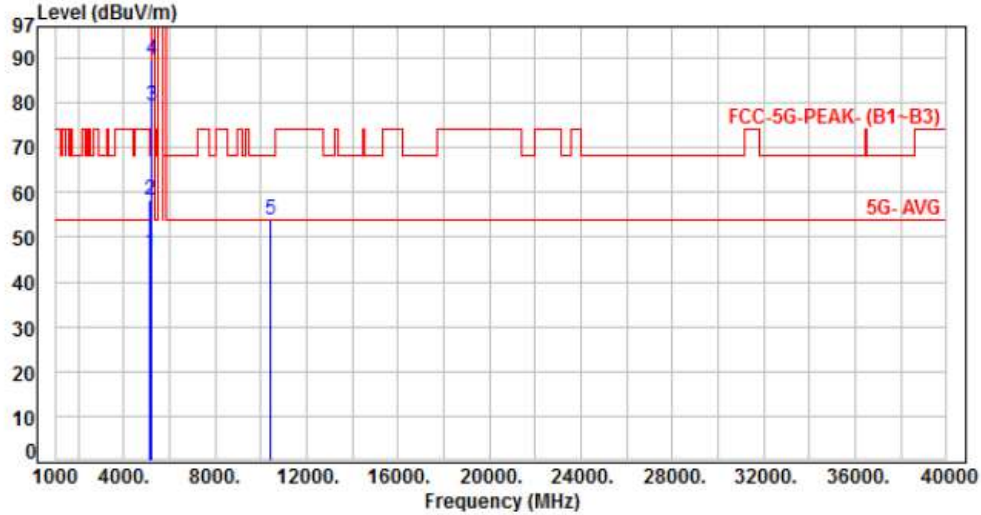
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5008.00	4.42	44.43	48.85	54.00	-5.15	Average	101	250	P
2	5008.00	4.42	55.75	60.17	74.00	-13.83	Peak	101	250	P
3	5230.00	4.70	91.90	96.60	200.00	-103.40	Average	101	250	P
4	5230.00	4.70	102.12	106.82	200.00	-93.18	Peak	101	250	P
5	10460.00	11.67	42.36	54.03	68.20	-14.17	Peak	100	243	P

Note: Level=Reading+Factor  
Margin=Level-Limit  
Factor=Antenna Factor + cable loss - Amplifier Factor





Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, Band 1, CH42		:

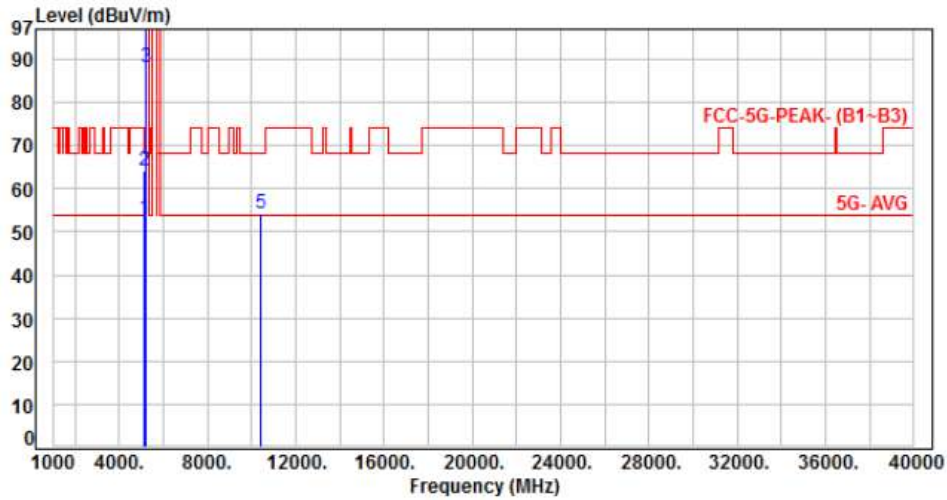


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	4.69	41.70	46.39	54.00	-7.61	Average	124	300	P
2	5150.00	4.69	53.50	58.19	74.00	-15.81	Peak	124	300	P
3	5210.00	4.65	74.54	79.19	200.00	-120.81	Average	124	300	P
4	5210.00	4.65	84.80	89.45	200.00	-110.55	Peak	124	300	P
5	10420.00	11.61	42.10	53.71	68.20	-14.49	Peak	100	313	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, Band 1, CH42		:

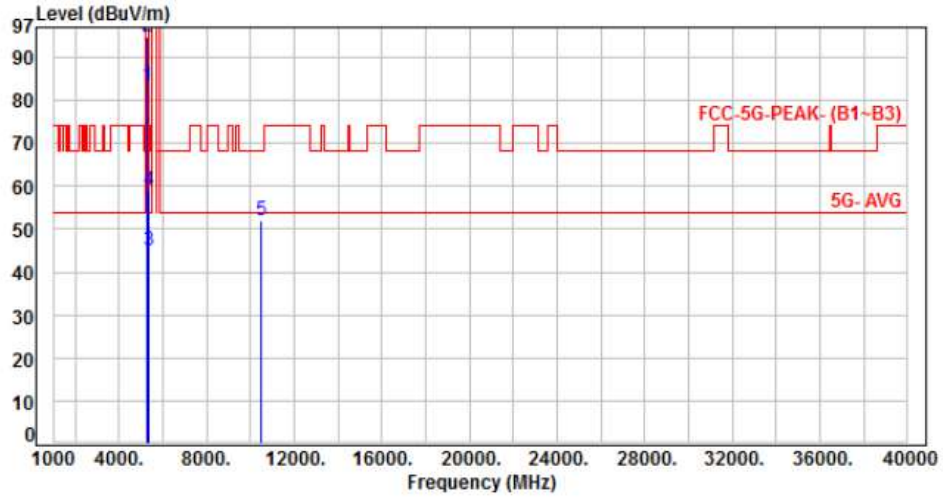


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	4.69	48.30	52.99	54.00	-1.01	Average	100	253	P
2	5150.00	4.69	59.36	64.05	74.00	-9.95	Peak	100	253	P
3	5210.00	4.65	83.43	88.08	200.00	-111.92	Average	100	253	P
4	5210.00	4.65	92.64	97.29	200.00	-102.71	Peak	100	253	P
5	10420.00	11.61	42.46	54.07	68.20	-14.13	Peak	100	239	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, Band 2, CH52		:

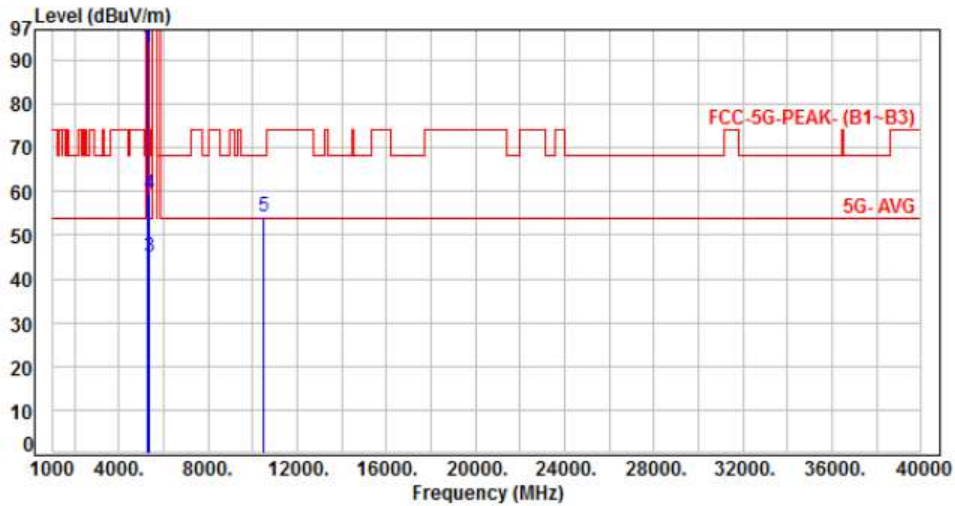


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5260.00	4.79	78.43	83.22	200.00	-116.78	Average	211	293	P
2	5260.00	4.79	89.94	94.73	200.00	-105.27	Peak	211	293	P
3	5350.00	5.02	39.81	44.83	54.00	-9.17	Average	211	293	P
4	5350.00	5.02	54.08	59.10	74.00	-14.90	Peak	211	293	P
5	10520.00	11.79	40.22	52.01	68.20	-16.19	Peak	100	299	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, Band 2, CH52		:

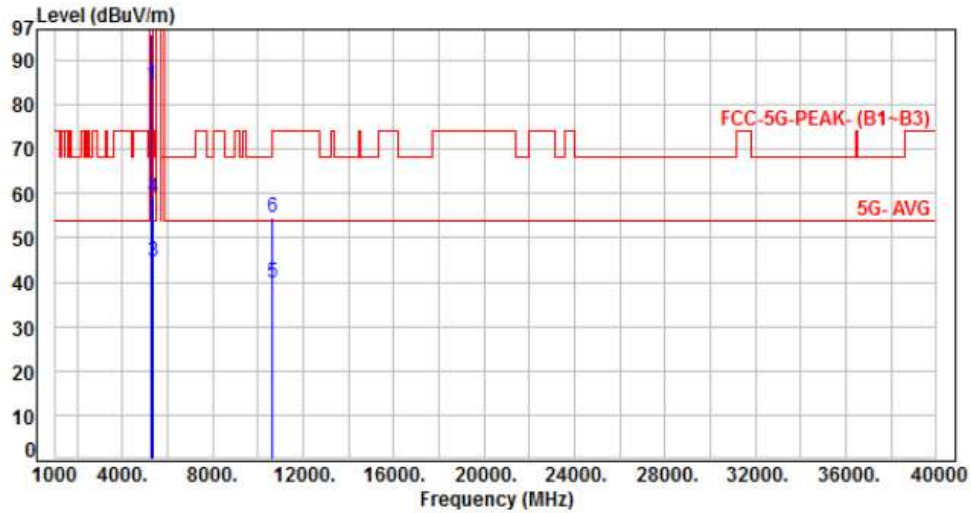


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5260.00	4.79	88.03	92.82	200.00	-107.18	Average	251	255	P
2	5260.00	4.79	99.78	104.57	200.00	-95.43	Peak	251	255	P
3	5350.00	5.02	39.92	44.94	54.00	-9.06	Average	251	255	P
4	5350.00	5.02	54.38	59.40	74.00	-14.60	Peak	251	255	P
5	10520.00	11.79	42.51	54.30	68.20	-13.90	Peak	100	231	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, Band 2, CH60		:

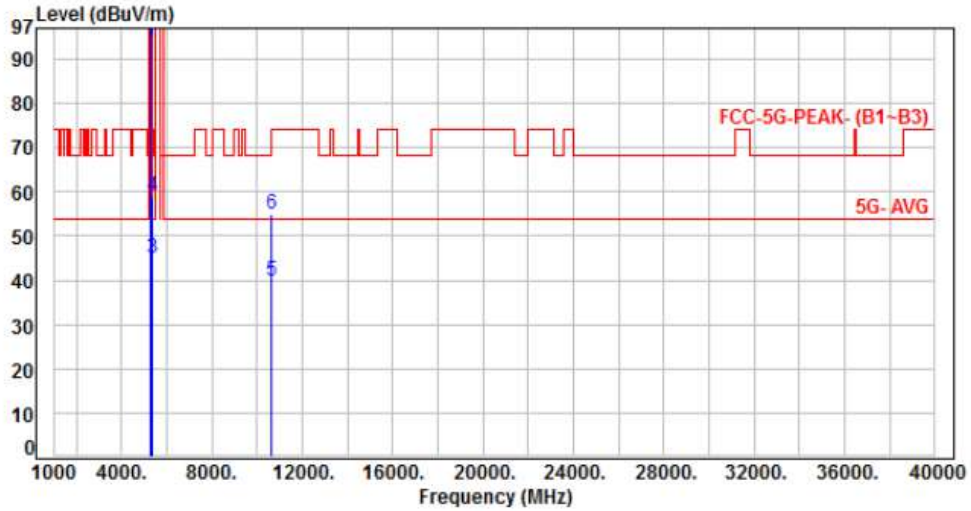


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5300.00	4.89	79.64	84.53	200.00	-115.47	Average	253	302	P
2	5300.00	4.89	90.83	95.72	200.00	-104.28	Peak	253	302	P
3	5350.00	5.02	39.61	44.63	54.00	-9.37	Average	253	302	P
4	5350.00	5.02	53.86	58.88	74.00	-15.12	Peak	253	302	P
5	10600.00	12.03	27.91	39.94	54.00	-14.06	Average	100	309	P
6	10600.00	12.03	42.67	54.70	74.00	-19.30	Peak	100	309	P

Note: Level=Reading+Factor  
Margin=Level-Limit  
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, Band 2, CH60		:

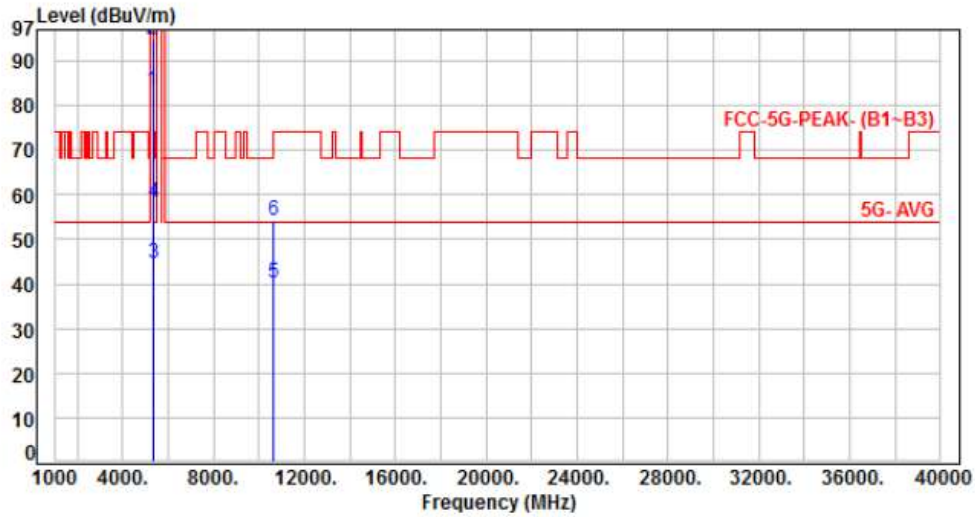


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5300.00	4.89	89.17	94.06	200.00	-105.94	Average	280	252	P
2	5300.00	4.89	101.10	105.99	200.00	-94.01	Peak	280	252	P
3	5350.00	5.02	39.88	44.90	54.00	-9.10	Average	280	252	P
4	5350.00	5.02	53.96	58.98	74.00	-15.02	Peak	280	252	P
5	10600.00	12.03	27.97	40.00	54.00	-14.00	Average	100	248	P
6	10600.00	12.03	43.00	55.03	74.00	-18.97	Peak	100	248	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, Band 2, CH64		:

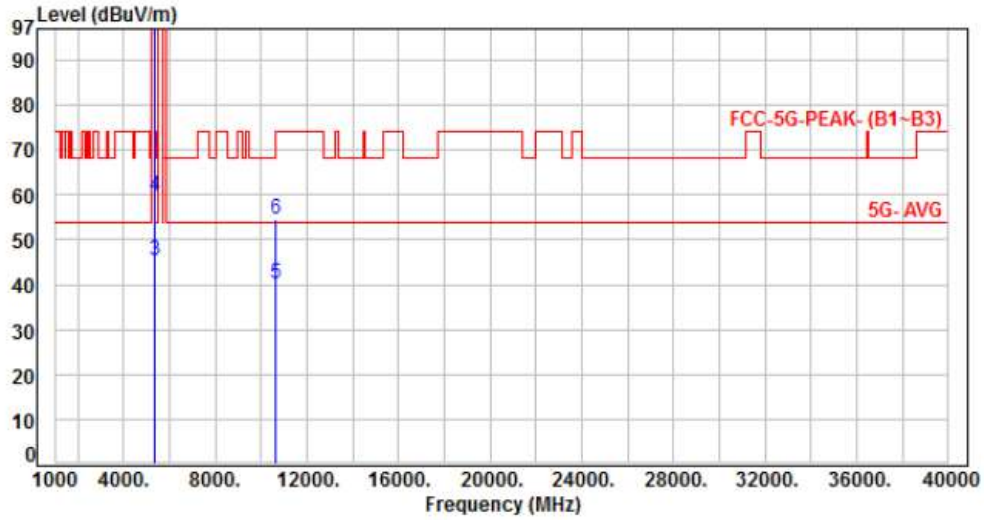


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5320.00	4.94	78.45	83.39	200.00	-116.61	Average	291	296	P
2	5320.00	4.94	89.80	94.74	200.00	-105.26	Peak	291	296	P
3	5350.00	5.02	39.59	44.61	54.00	-9.39	Average	291	296	P
4	5350.00	5.02	53.38	58.40	74.00	-15.60	Peak	291	296	P
5	10640.00	12.02	28.01	40.03	54.00	-13.97	Average	100	341	P
6	10640.00	12.02	42.23	54.25	74.00	-19.75	Peak	100	341	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, Band 2, CH64		:



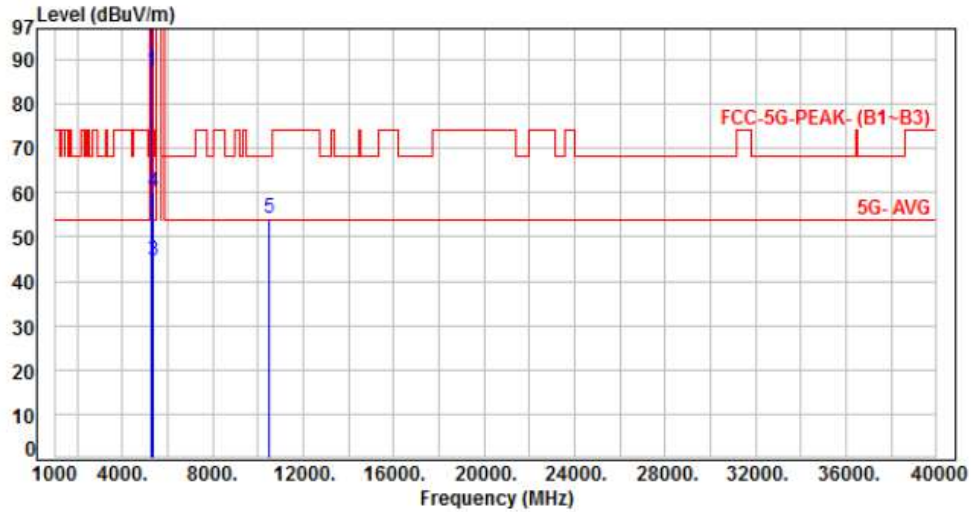
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5320.00	4.94	89.05	93.99	200.00	-106.01	Average	281	252	P
2	5320.00	4.94	100.44	105.38	200.00	-94.62	Peak	281	252	P
3	5350.00	5.02	40.36	45.38	54.00	-8.62	Average	281	252	P
4	5350.00	5.02	54.80	59.82	74.00	-14.18	Peak	281	252	P
5	10640.00	12.02	28.06	40.08	54.00	-13.92	Average	100	259	P
6	10640.00	12.02	42.55	54.57	74.00	-19.43	Peak	100	259	P

Note: Level=Reading+Factor  
Margin=Level-Limit  
Factor=Antenna Factor + cable loss - Amplifier Factor





Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 2, Band 2, CH52		:

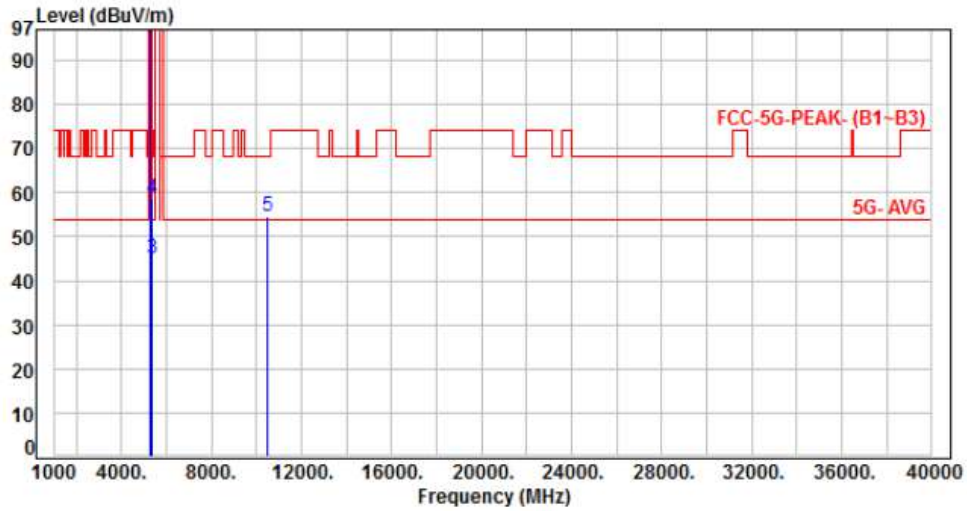


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5260.00	4.79	82.72	87.51	200.00	-112.49	Average	197	306	P
2	5260.00	4.79	94.15	98.94	200.00	-101.06	Peak	197	306	P
3	5350.00	5.02	39.71	44.73	54.00	-9.27	Average	197	306	P
4	5350.00	5.02	54.96	59.98	74.00	-14.02	Peak	197	306	P
5	10520.00	11.79	42.57	54.36	68.20	-13.84	Peak	100	336	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 2, Band 2, CH52		:

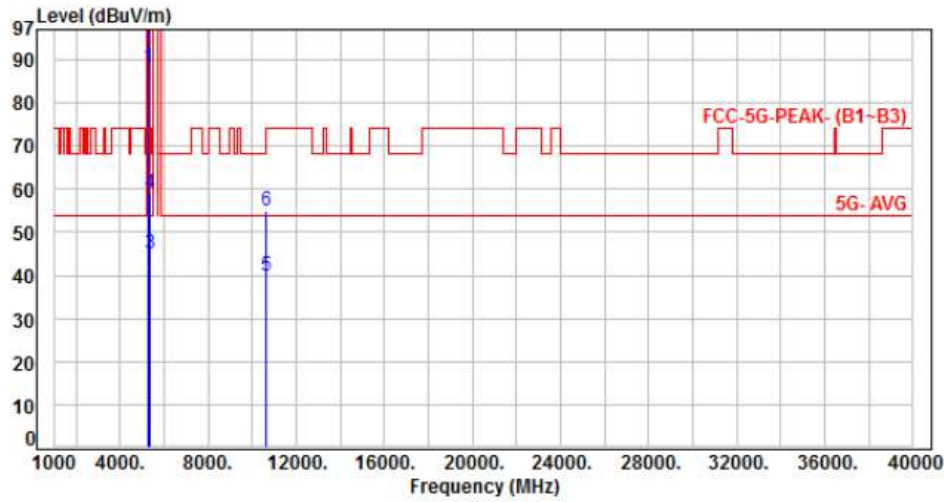


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5260.00	4.79	90.83	95.62	200.00	-104.38	Average	400	251	P
2	5260.00	4.79	102.04	106.83	200.00	-93.17	Peak	400	251	P
3	5350.00	5.02	39.97	44.99	54.00	-9.01	Average	400	251	P
4	5350.00	5.02	53.51	58.53	74.00	-15.47	Peak	400	251	P
5	10520.00	11.79	42.88	54.67	68.20	-13.53	Peak	100	244	P

Note: Level=Reading+Factor  
Margin=Level-Limit  
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 2, Band 2, CH60		

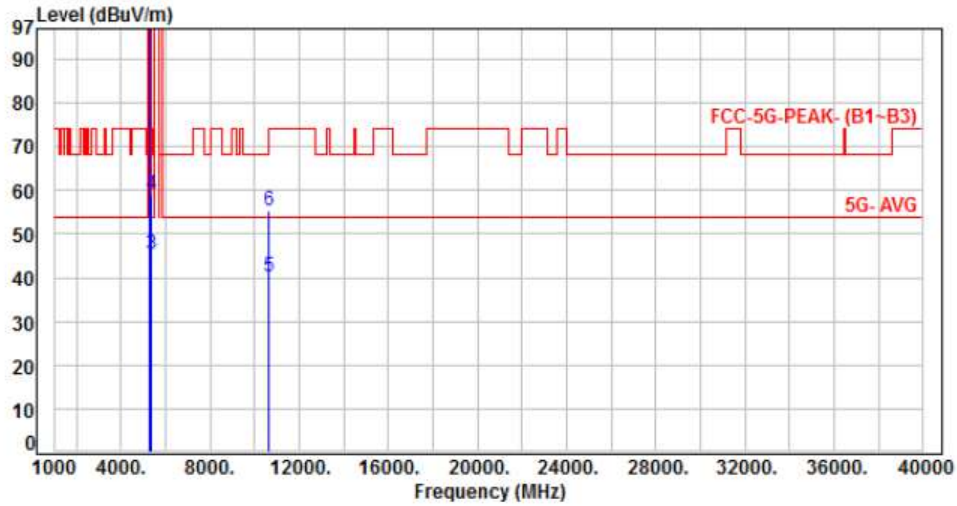


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5300.00	4.89	83.21	88.10	200.00	-111.90	Average	111	300	P
2	5300.00	4.89	94.70	99.59	200.00	-100.41	Peak	111	300	P
3	5350.00	5.02	39.82	44.84	54.00	-9.16	Average	111	300	P
4	5350.00	5.02	53.97	58.99	74.00	-15.01	Peak	111	300	P
5	10600.00	12.03	27.96	39.99	54.00	-14.01	Average	100	314	P
6	10600.00	12.03	42.88	54.91	74.00	-19.09	Peak	100	314	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 2, Band 2, CH60		:

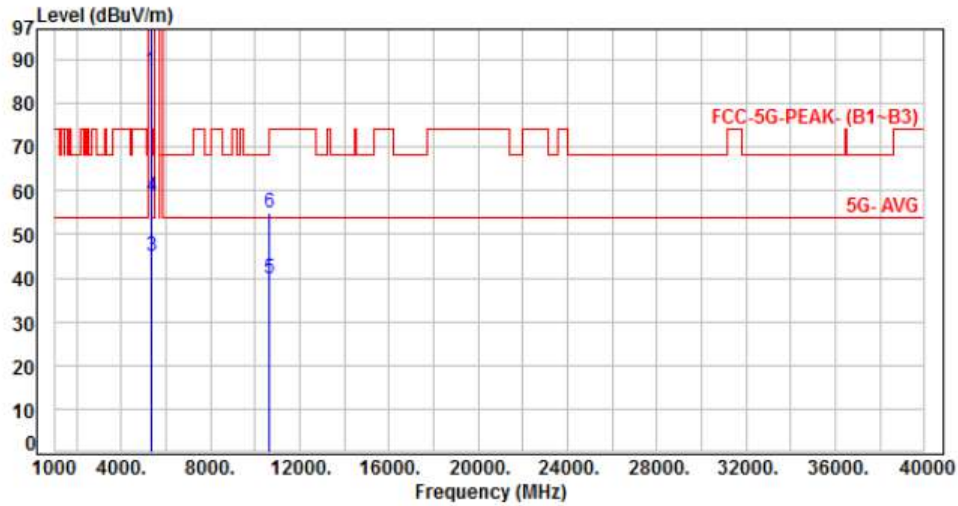


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5300.00	4.89	92.79	97.68	200.00	-102.32	Average	108	253	P
2	5300.00	4.89	104.03	108.92	200.00	-91.08	Peak	108	253	P
3	5350.00	5.02	40.31	45.33	54.00	-8.67	Average	108	253	P
4	5350.00	5.02	54.12	59.14	74.00	-14.86	Peak	108	253	P
5	10600.00	12.03	28.14	40.17	54.00	-13.83	Average	100	251	P
6	10600.00	12.03	43.15	55.18	74.00	-18.82	Peak	100	251	P

Note: Level=Reading+Factor  
Margin=Level-Limit  
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 2, Band 2, CH64		:

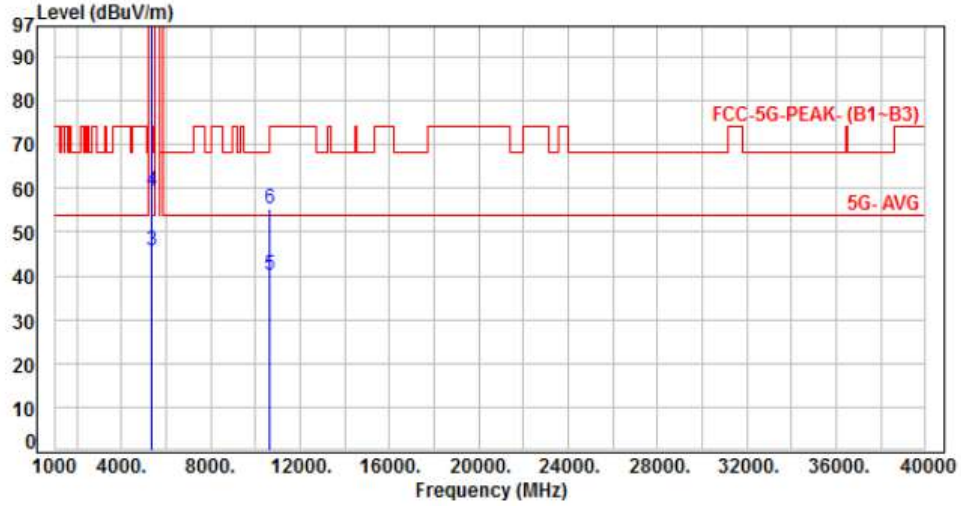


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5320.00	4.94	82.32	87.26	200.00	-112.74	Average	218	302	P
2	5320.00	4.94	93.33	98.27	200.00	-101.73	Peak	218	302	P
3	5350.00	5.02	40.06	45.08	54.00	-8.92	Average	218	302	P
4	5350.00	5.02	53.56	58.58	74.00	-15.42	Peak	218	302	P
5	10640.00	12.02	27.89	39.91	54.00	-14.09	Average	100	308	P
6	10640.00	12.02	42.78	54.80	74.00	-19.20	Peak	100	308	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 2, Band 2, CH64		:

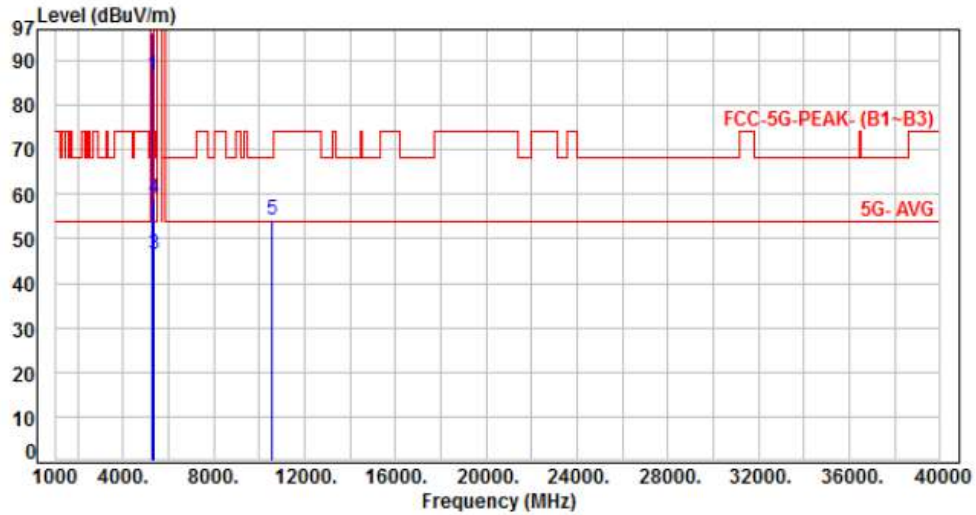


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5320.00	4.94	93.15	98.09	200.00	-101.91	Average	110	250	P
2	5320.00	4.94	104.72	109.66	200.00	-90.34	Peak	110	250	P
3	5350.00	5.02	40.77	45.79	54.00	-8.21	Average	110	250	P
4	5350.00	5.02	54.20	59.22	74.00	-14.78	Peak	110	250	P
5	10640.00	12.02	28.15	40.17	54.00	-13.83	Average	100	257	P
6	10640.00	12.02	43.23	55.25	74.00	-18.75	Peak	100	257	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 3, Band 2, CH54		:

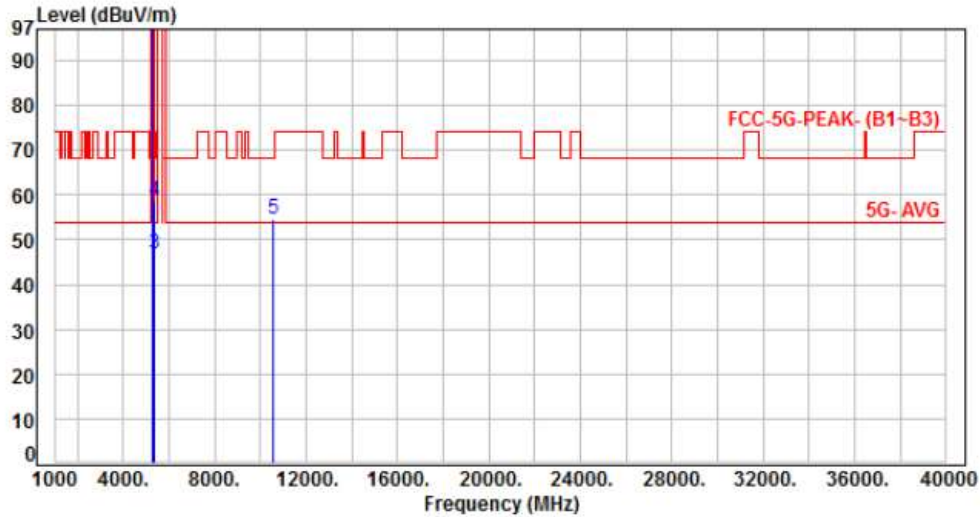


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5270.00	4.82	81.78	86.60	200.00	-113.40	Average	123	300	P
2	5270.00	4.82	91.53	96.35	200.00	-103.65	Peak	123	300	P
3	5350.00	5.02	41.33	46.35	54.00	-7.65	Average	123	300	P
4	5350.00	5.02	53.81	58.83	74.00	-15.17	Peak	123	300	P
5	10540.00	11.85	42.43	54.28	68.20	-13.92	Peak	100	321	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 3, Band 2, CH54		:



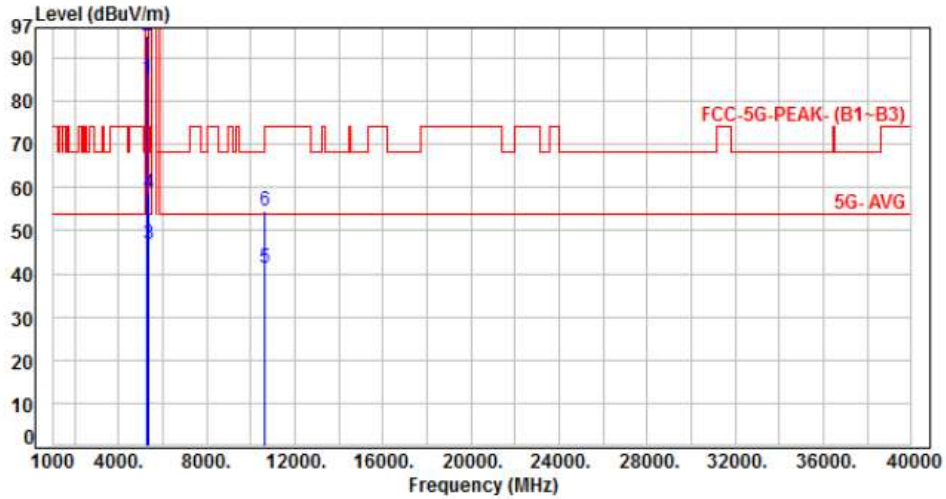
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5270.00	4.82	91.62	96.44	200.00	-103.56	Average	276	256	P
2	5270.00	4.82	101.93	106.75	200.00	-93.25	Peak	276	256	P
3	5350.00	5.02	41.87	46.89	54.00	-7.11	Average	276	256	P
4	5350.00	5.02	53.58	58.60	74.00	-15.40	Peak	276	256	P
5	10540.00	11.85	42.69	54.54	68.20	-13.66	Peak	100	245	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor





Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 3, Band 2, CH62		:

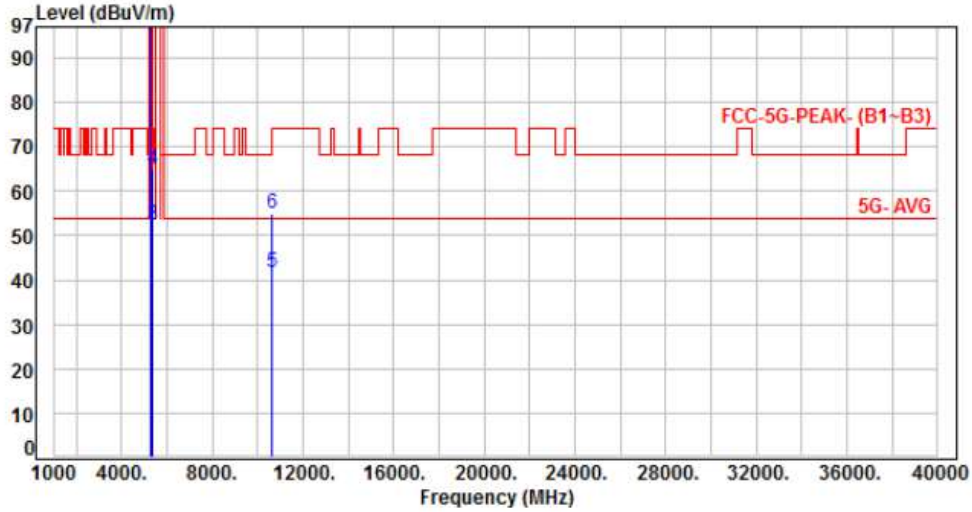


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5310.00	4.92	80.34	85.26	200.00	-114.74	Average	115	300	P
2	5310.00	4.92	90.23	95.15	200.00	-104.85	Peak	115	300	P
3	5350.00	5.02	41.81	46.83	54.00	-7.17	Average	115	300	P
4	5350.00	5.02	53.51	58.53	74.00	-15.47	Peak	115	300	P
5	10620.00	12.03	29.38	41.41	54.00	-12.59	Average	100	313	P
6	10620.00	12.03	42.48	54.51	74.00	-19.49	Peak	100	313	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 3, Band 2, CH62		:

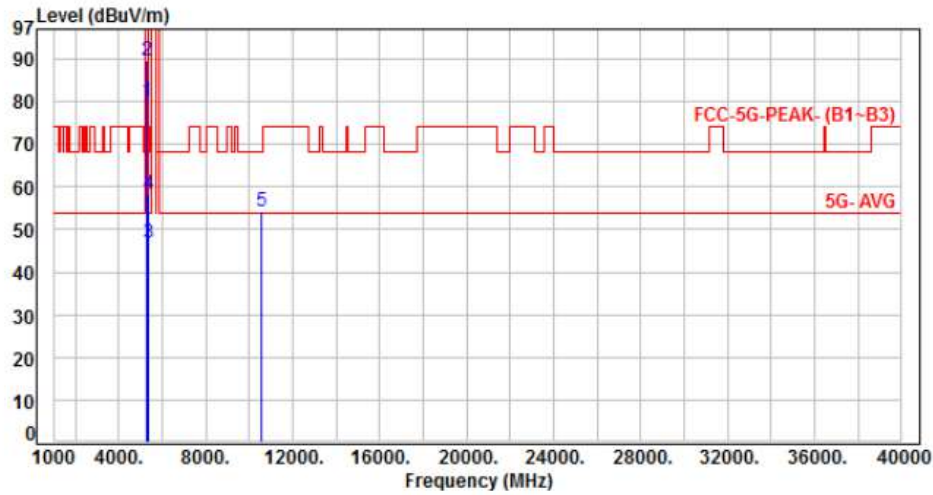


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5310.00	4.92	90.88	95.80	200.00	-104.20	Average	102	251	P
2	5310.00	4.92	101.21	106.13	200.00	-93.87	Peak	102	251	P
3	5350.00	5.02	47.52	52.54	54.00	-1.46	Average	102	251	P
4	5350.00	5.02	59.92	64.94	74.00	-9.06	Peak	102	251	P
5	10620.00	12.03	29.55	41.58	54.00	-12.42	Average	100	228	P
6	10620.00	12.03	42.97	55.00	74.00	-19.00	Peak	100	228	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, Band 2, CH58		:

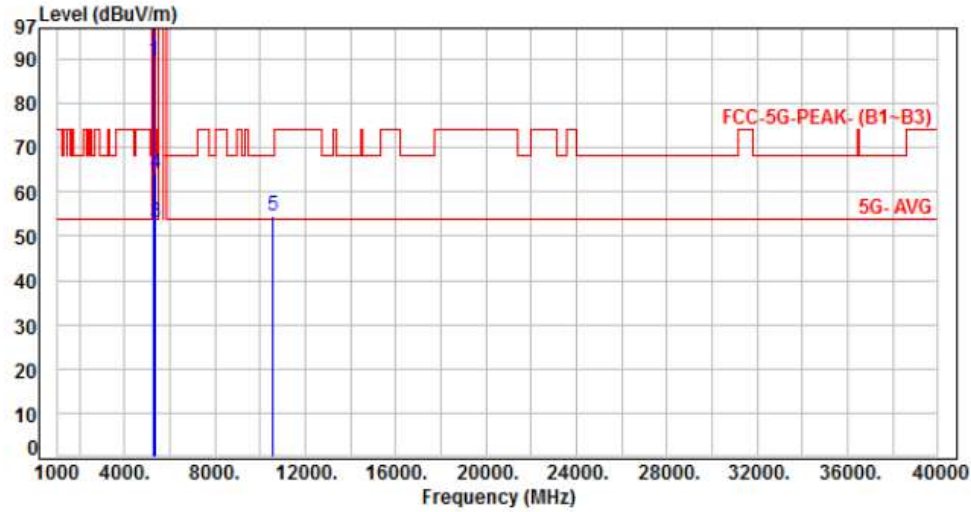


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5290.00	4.87	75.26	80.13	200.00	-119.87	Average	133	301	P
2	5290.00	4.87	84.79	89.66	200.00	-110.34	Peak	133	301	P
3	5350.00	5.02	41.90	46.92	54.00	-7.08	Average	133	301	P
4	5350.00	5.02	53.37	58.39	74.00	-15.61	Peak	133	301	P
5	10580.00	11.97	42.29	54.26	68.20	-13.94	Peak	100	318	P

Note: Level=Reading+Factor  
Margin=Level-Limit  
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, Band 2, CH58		:



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5290.00	4.87	84.74	89.61	200.00	-110.39	Average	105	253	P
2	5290.00	4.87	95.65	100.52	200.00	-99.48	Peak	105	253	P
3	5350.00	5.02	47.93	52.95	54.00	-1.05	Average	105	253	P
4	5350.00	5.02	59.26	64.28	74.00	-9.72	Peak	105	253	P
5	10580.00	11.97	42.67	54.64	68.20	-13.56	Peak	100	244	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor