

NCC RADIO TEST REPORT

Product name	智慧投影機 Smart projector
Applicant	展雋創意股份有限公司 Ovomedia Creative Inc. 深圳市投美科技有限公司
Manufacture	SHENZHEN TOUMEI TECHNOLOGY CO., LTD.
Rating(s)	DC12V from Adapter or DC7.4V from battery
Trademark	Warpple
Model and/or type reference	SP1e,SP1
Standard	LP0002:2020
Test Result	PASS

Date of receipt : 06-28-2021

Date of Issue : 07-21-2021

signature :



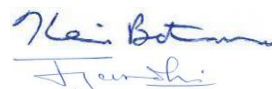
NCC RADIO TEST REPORT

Report Reference No.: M210721N3-04

Compiled by (+ signature)..... Kevin Bothmann

Approved by (+ signature)..... Jay Gandhi

Date of issue: 2021-07-21



Applicant's name.....: 展雋創意股份有限公司
Ovomeia Creative Inc.

Address.....: 台北市大同區延平北路二段 202 號 4 樓
4F., No202, Sec.2, Yanping N. Rd., Datong Dist., Taipei City, Taiwan
(R.O.C)

Manufacture's Name.....: 深圳市投美科技有限公司
SHENZHEN TOUMEI TECHNOLOGY CO., LTD.

Address.....: 深圳市龍華區觀湖街道樟坑徑社區上圍工業區 00082 棟金昌達 I 棟
601
Building 601, JinChangda Building, Building 00082, Shangwei
Industrial Zone, Yukeng Trail Community, Guanhu Street, Longhua
District, Shenzhen, China

Test specification:

Standard.....: LP0002:2020

Test procedure.....: EIA 603、ANSI、FCC/47 CFR/2.1046、2.1047、2.1049、2.1051、
2.1053 and 2.1055

Non-standard testmethod.....: N/A

Test item description

Product name: 智慧投影機 Smart projector

Trademark.....: Warpple

Model and/or type reference: SP1e, SP1

Rating(s): DC12V from Adapter or DC7.4V from battery

Testing Laboratory information:

Testing Laboratory Name: Electro Magnetic Test, Inc.

Address: 1547 Plymouth Street, Mountain View, CA 94043

CAB Identifier Number.....: US0036

Tel.....: (650) 965-4000

Fax.....: (650) 965-3000

E-mail.....: jgandhi@emtlabs.com

Testing

Date of receipt of test item.....: Jun. 28, 2021

Date (s) of performance of tests.....: Jun. 28~ Jul.14, 2021

Date of Issue: Jul. 21, 2021

Test Result.....: **Pass**

GENERAL REPORT SUMMARY

This electromagnetic emission test report is generated by Electro Magnetic Test, Inc., which is an independent testing and consulting firm. The test report is based on testing performed Electro Magnetic Test, Inc. personnel according to the measurement procedure described in the test specification given below and in the "Test Procedures" section of this report.

The measurement data and conclusions appearing herein relate only to the sample tested and this report may not be reproduced in any form unless done so in full.

This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Federal Government.

Electro Magnetic Test, Inc. is recognized by the following agencies for performing EMI/EMC testing:

COUNTRY	AGENCY	IDENTIFYING #
USA	Federal Communications Commission (FCC) (EMT's test site is recognized by the FCC)	Registration Number: 90576
USA, Canada, Taiwan, Australia/New Zealand, European Community	National Voluntary Lab Accreditation Program (NVLAP) (EMT is accredited by NVLAP. A copy of the NVLAP Scope Of Accreditation is available upon request.)	Lab Code: 200147-0
Canada	Industry Canada	File No.: IC 2804
Japan	Voluntary Control Council For Interference (VCCI)	A-0118
	Open Field Test Site "A"	-
	Mains Conducted Emissions Test Site "A"	-
	Telecom Conducted Emissions Test Site "A"	-
	3 Meter Semi-Anechoic Chamber Site "E"	-
	3 Meter Semi-Anechoic Chamber Site "E" (1GHz – 6GHz)	-
	Mains Conducted Emissions Test Site "E"	-
	Telecom Conducted Emissions Test Site "E"	-
Korea	Ministry of Information and Communication's Radio Research Laboratory (RRL) under the Asia Pacific Economic Cooperation (APEC) Mutual Recognition Arrangement (A copy of the Scope Of Accreditation is available upon request)	US0036
Taiwan	Bureau Of Standards, Metrology and Inspection (BSMI)	Reference Number: SL2-IN-E-1024
Australia / New Zealand	Australian Communications Authority (AUSTEL)	*

***THESE AGENCIES DO NOT ISSUE AN IDENTIFYING NUMBER TO TEST LABS.**

Table of Contents	Page
GENERAL REPORT SUMMARY	3
1. SUMMARY OF TEST RESULTS	6
1.1 MEASUREMENT UNCERTAINTY	7
2. GENERAL INFORMATION	8
2.1 GENERAL DESCRIPTION OF EUT	8
2.2 DESCRIPTION OF TEST MODES	10
2.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING	10
2.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	11
2.5 DESCRIPTION OF SUPPORT UNITS	14
2.6. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS	17
2.6.1 LIMITS	17
2.6.2 ON TIME AND DUTY CYCLE RESULTS	17
3. EMC EMISSION TEST	21
3.1 CONDUCTED EMISSION MEASUREMENT	21
3.1.1 POWER LINE CONDUCTED EMISSION LIMITS	21
3.1.2 TEST PROCEDURE	22
3.1.3 DEVIATION FROM TEST STANDARD	22
3.1.4 TEST SETUP	22
3.1.5 TEST RESULTS	23
3.2 RADIATED EMISSION MEASUREMENT	27
3.2.1 RADIATED EMISSION LIMITS	27
3.2.2 TEST PROCEDURE	28
2 TEST SETUP	28
3 EUT OPERATING CONDITIONS	29
3.2.4 TEST RESULTS	30
3.2.5 TEST RESULTS (ABOVE 1000 MHZ)	37
3.2.6 TEST RESULTS (RESTRICTED BANDS REQUIREMENTS)	77
4 OCCUPIED BANDWIDTH TEST	94
4.1 26DB BANDWIDTH TEST	94
4.2 TEST PROCEDURE	94
4.3 DEVIATION FROM STANDARD	94
4.4 TEST SETUP	94
4.5 TEST RESULTS	95
5 PEAK POWER DENSITY	104
5.1 APPLIED PROCEDURES / LIMIT	104
5.2 TEST PROCEDURE	104
5.3 DEVIATION FROM STANDARD	104

Table of Contents	Page
5.4 TEST RESULTS	105
6 MAXIMUMPEAK OUTPUT POWER	114
6.1 APPLIED PROCEDURES / LIMIT	114
6.2 TEST PROCEDURE	114
6.3 DEVIATION FROM STANDARD	114
6.4 TEST SETUP	114
6.5 TEST RESULTS	115
7. EUT TEST PHOTO	116
8. APPENDIX-Photographs of EUT Constructional Details	

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

LP0002:2020			
Standard Section	Test Item	Judgment	Remark
5.7.3.4(2)	26 dB Emissions Bandwidth	PASS	None
5.7.3.1	Peak Transmit Power	PASS	None
5.7.3.1	Peak Power Spectral Density	PASS	None
5.7.4.5/3.3	AC Power Line Emissions	PASS	None
5.7.4/3.6	Radiated Emissions	PASS	None
5.7.4/3.6	Band Edge	PASS	None

NOTE:

(1) "N/A" denotes test is not applicable in this Test Report.

(2) Reference to the KDB-789033 and KDB-662911.

1.1 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	Conducted Emission Test	1.38dB
2	Radiated Emission Test	3.17dB
3	RF power,conducted	0.16dB
4	Spurious emissions,conducted	0.21dB
5	All emissions,radiated(<1G)	4.68dB
6	All emissions,radiated(>1G)	4.89dB

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	智慧投影機 Smart projector	
Trade Name	Warpple	
Model Name	SP1e, SP1	
Serial Model Name	N/A	
Product Description	The EUT is a 智慧投影機	
	Operation Frequency:	5.18GHz-5.24GHz
	Modulation Type:	IEEE for 802.11a: OFDM (BPSK/QPSK/16QAM/64QAM) IEEE for 802.11n: OFDM (BPSK/QPSK/16QAM/64QAM) IEEE for 802.11ac:OFDM (QPSK/BPSK/16QAM/64QAM/256 QAM)
	Number Of Channel	Please see Note 2.
	Antenna Designation:	Please see Note 3.
	Antenna Gain(Peak)	Antenna 1: 0 dBi Antenna 2: 0 dBi
	Output Power:	802.11a: 17.75dBm 802.11n 20: 18.94dBm 802.11ac 20: 18.24dBm 802.11n 40: 17.55dBm 802.11ac 40: 18.25dBm 802.11ac 80: 16.96dBm
Channel List	Please refer to the Note 2.	
Power Rating	DC12V from Adapter or DC7.4V from battery	
Adapter Manufacturer /Model No.	N/A	
Connecting I/O Port(s)	Please refer to the User's Manual	
Products Covered	N/A	
EUT Modification(s)	N/A	
Model difference	N/A	

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.

Channel List							
802.11a/n/ac (20MHz) (5.15-5.25GHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	40	5200	44	5220	48	5240
38	5190	42	5210	46	5230	-	-
802.11n/ac (40MHz) (5.15-5.25GHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	42	5210	46	5230	-	-
40	5200	44	5220	-	-	-	-
802.11ac (80MHz) (5.15-5.25GHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	-	-	-	-	-	-

3.

Table for Filed Antenna

Ant	Trade Name	Model Name	Antenna Type	Connector	Gain (dBi)
ANT 1	深圳市投美科技有限公司	SP1e	PCB Antenna	N/A	2.4G/5G WIFI: 0 dBi
ANT2	深圳市投美科技有限公司	SP1e	PCB Antenna	N/A	2.4G/5G WIFI:0 dBi
ANT 3	深圳市投美科技有限公司	SP1e	PCB Antenna	N/A	BLE/BT: 0 dBi

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	802.11a : All Rate
Mode 2	802.11n(20/40 MHz) : All Rate
Mode 3	802.11ac(20/40 MHz) : All Rate
Mode 4	802.11ac(80 MHz) : All Rate
Mode 5	RX Mode
Mode 6	HDMI Input Mode

For Conducted Emission	
Final Test Mode	Description
Mode 1	TX Mode (802.11a CH48 worst case)

For Radiated Emission	
Final Test Mode	Description
Mode 1	802.11a
Mode 2	802.11n(20/40MHz)
Mode 3	802.11ac(20/40MHz)
Mode 4	802.11ac(80MHz)
Mode 5	RX Mode

Note:

- (1) The measurements are performed at the highest, middle, lowest available channels.
- (2) This product can be powered by adapter, have pretested powered by adapter, found to be the worst case is powered by the adapter, and recorded the data in the report.

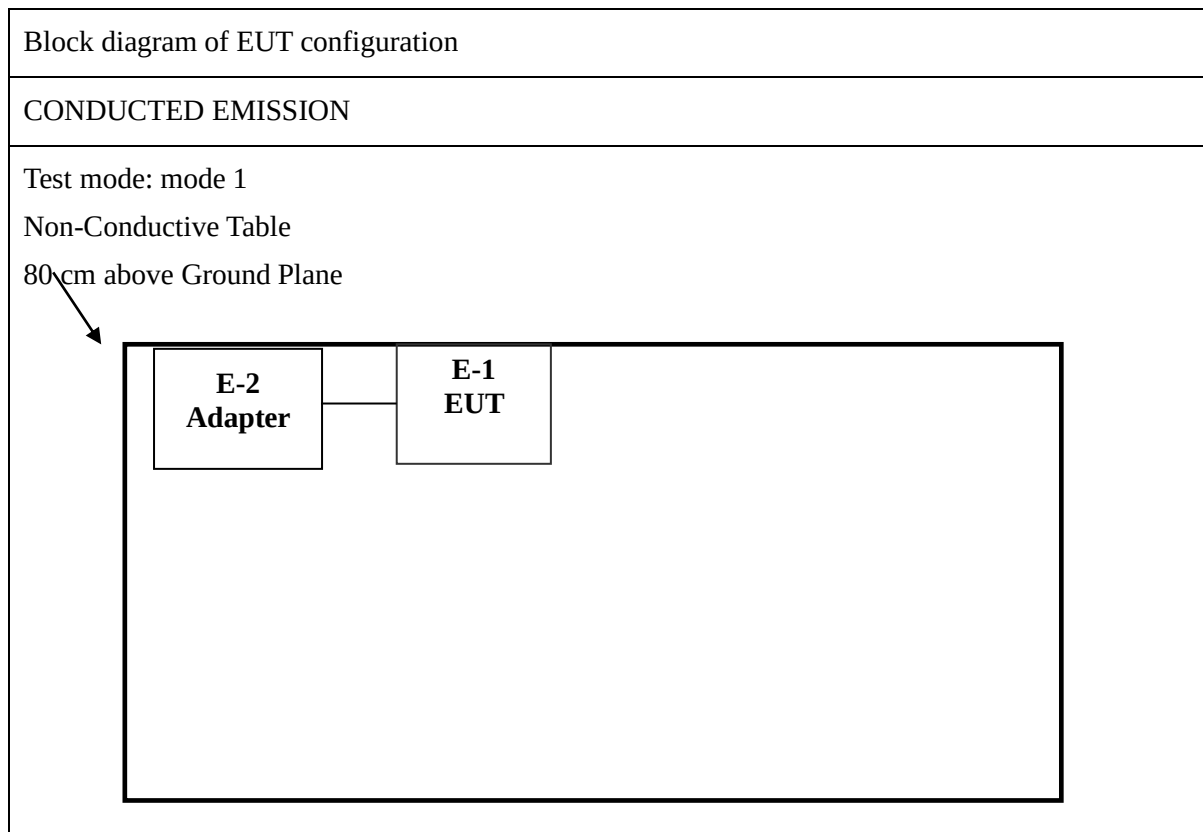
2.3 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters.

Test software Version	0.0.1.94	Test program:	MT7668 QA
Frequency	5180 MHz	5220 MHz	5240 MHz
Frequency	5190 MHz	5230 MHz	-
Frequency	5210 MHz	5290 MHz	-
Mode		Power setting	
802.11 a/n/ac		16	

1. Connect the EUT to the computer with USB port ;
2. Open the "MT7668 QA" test software after the connection, select the relevant parameters to start the test.

2.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



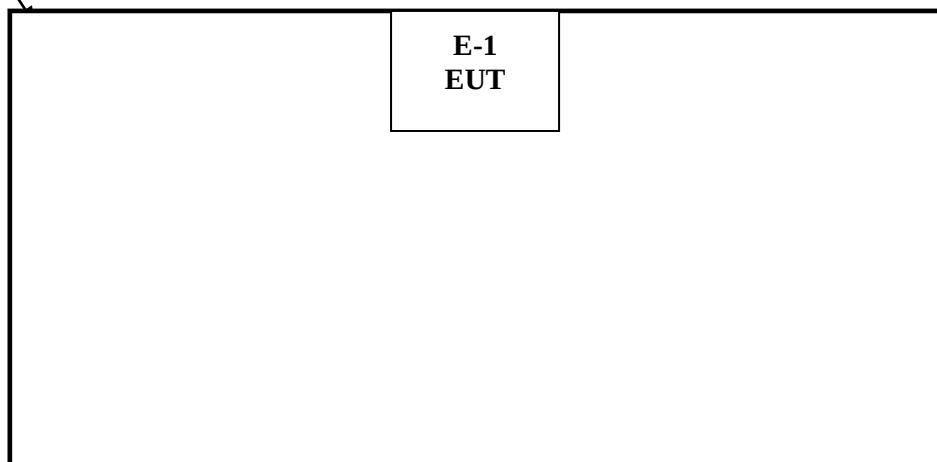
Block diagram of EUT configuration

RADIATED EMISSION

Test mode: mode1, 5

Non-Conductive Table

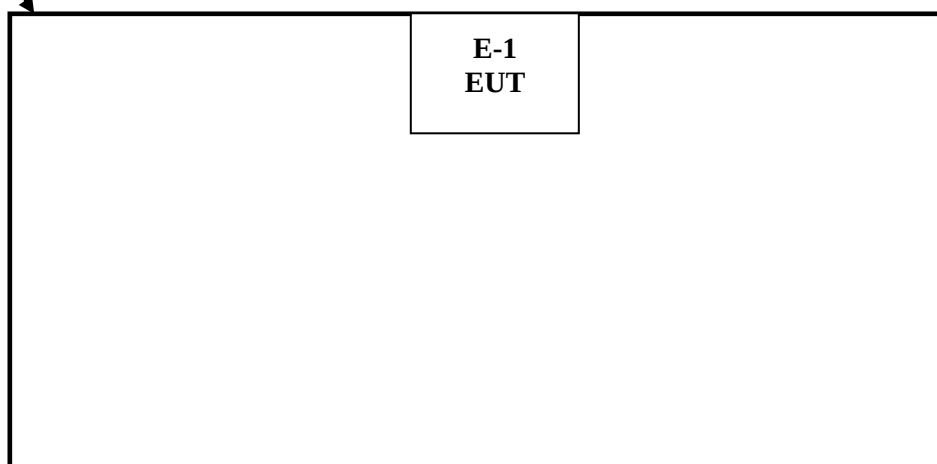
80 cm above Ground Plane



Test mode: mode1, 2, 3,4,5

Non-Conductive Table

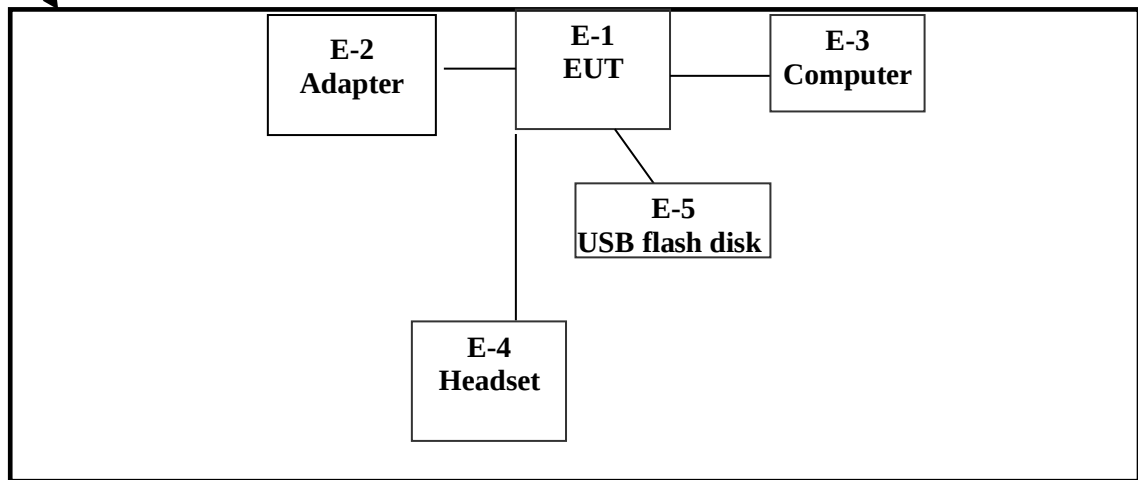
150 cm above Ground Plane



Test mode: mode 6

Non-Conductive Table

80 cm above Ground Plane



2.5 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.	Note
E-1	智慧投影機	Warpple	SP1e, SP1	N/A	N/A	EUT
E-2	Adapter	TEKA	TEKA-TD120200TW	N/A	N/A	EUT

Item	Equipment	Mfr/Brand	Model/Type No.	Note
1	HDMI Line	Warpple	HDMI01	EUT
2	遙控器	Warpple	RC01	EUT
3	Rechargeable Li-ion Battery	深圳市恒訊能源科技有限公司	18650-2S1P	EUT

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (3) “YES” means “shielded” or “with ferrite core”,”NO” means “unshielded” or”without ferrite core”
- (4) “*”:In this report, the applicant did not provide the accompanying accessories with the equipment. The accessories were provided by the laboratory (or the applicant) and inspected simultaneously.

EQUIPMENTS LIST FOR ALL TEST ITEMS

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE
Spectrum Analyzer	Keysight	N9020A	MY53300466	April 29, 2021	1 Year
RF Preselector	Hewlett Packard	85685A	3010A01157	April 29, 2021	1 Year
Quasi-Peak Adapter	Hewlett Packard	85650	2521A00584	April 29, 2021	1 Year
Preamplifier	Com Power	PA-102	1482	April 29, 2021	1 Year
RF Attenuator	Mini-Circuits	CAT-10	Asset #1000	December 08, 2020	1 Year
LISN	Com Power	LI-200	12012	September 09, 2020	1 Year
LISN	Com Power	LI-200	12214	September 09, 2020	1 Year
LISN	Com Power	LI-200	1767	September 09, 2020	1 Year
LISN	Com Power	LI-200	1768	September 09, 2020	1 Year
Biconical Antenna	Com Power	AB-100	01557	December 29, 2020	1 Year
Log Periodic Antenna	Com Power	AL-100	16037	December 22, 2020	1 Year
Horn Antenna	Com Power	AHA-118	711054	December 22, 2020	1 Year
Antenna Mast	Com Power	AM-400	N/A	N/A	N/A
Turntable	Com Power	TT-100	N/A	N/A	N/A
Computer	Dell, Inc.	DHS	DNSV641	N/A	N/A

EMI Test Equipment (Continued)

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE
EMI Receiver	Rohde & Schwarz	ESU40	100127	June 12, 2021	1 Year
BiConiLog Antenna	ETS-Lindgren	3142D	00102183	August 13, 2020	1 Year
Horn Antenna (1GHz-18GHz)	ETS-Lindgren	3117	00109294	May 6, 2021	1 Year
Horn Antenna (15GHz-40GHz)	SCHWARZBECK	BBHA 9170	BBHA9170242	May 6, 2021	1 Year
Preamplifier	Rohde & Schwarz	TS-PR18	100056	June 12, 2021	1 Year
Pre-Amplifier	Agilent	8449B	3008A00409	June 12, 2021	1 Year
Antenna Mast	ETS-Lindgren	2175	00095727	N/A	N/A
Turntable	ETS-Lindgren	2187-3.0	00118231	N/A	N/A
Computer	Acer	Aspire 8930	85100050123	N/A	N/A
Multi-Function Controller	ETS-Lindgren	2090	00102270	N/A	N/A
Loop Antenna	ARA	PLA-1030/B	1029	May 19, 2021	1 Year

2.6. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

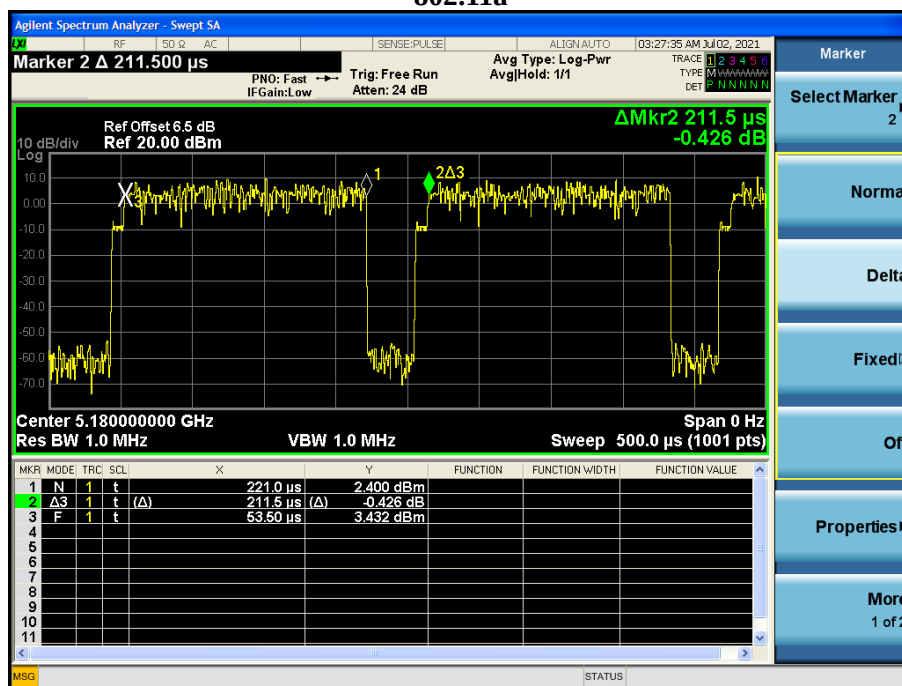
2.6.1 LIMITS

None; for reporting purposes only.

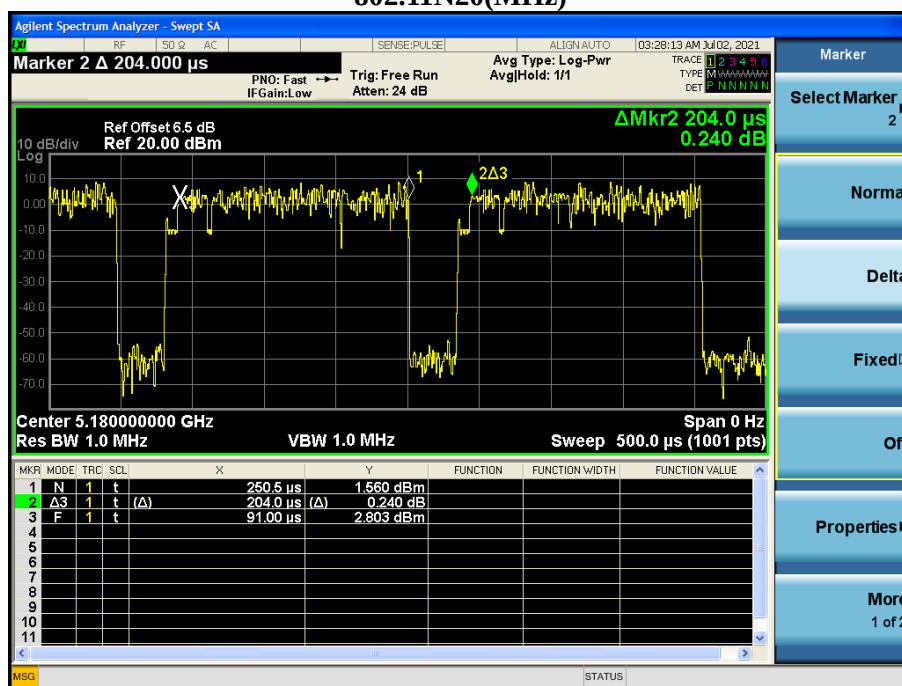
2.6.2 ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	10log(1/x)Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
802.11a	0.168	0.212	0.792	79.20%	1.013	5.970
802.11N20(MHz)	0.160	0.204	0.782	78.19%	1.068	6.270
802.11AC20(MHz)	0.137	0.184	0.744	74.39%	1.285	7.326
802.11N40(MHz)	0.103	0.139	0.738	73.78%	1.321	9.737
802.11AC40(MHz)	0.087	0.123	0.710	70.99%	1.488	11.481
802.11AC80(MHz)	0.064	0.100	0.646	64.56%	1.900	15.552

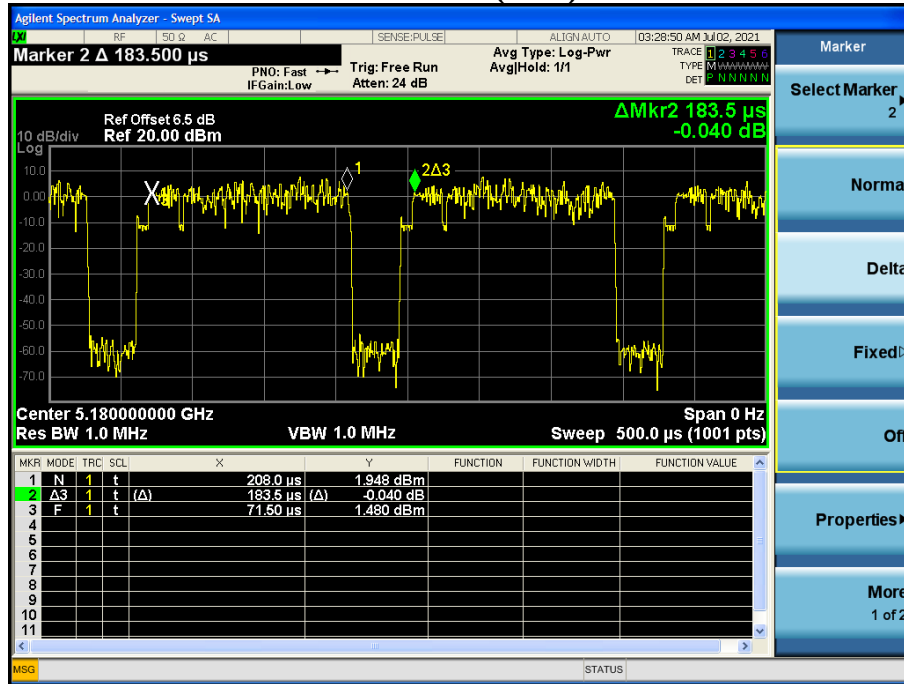
802.11a



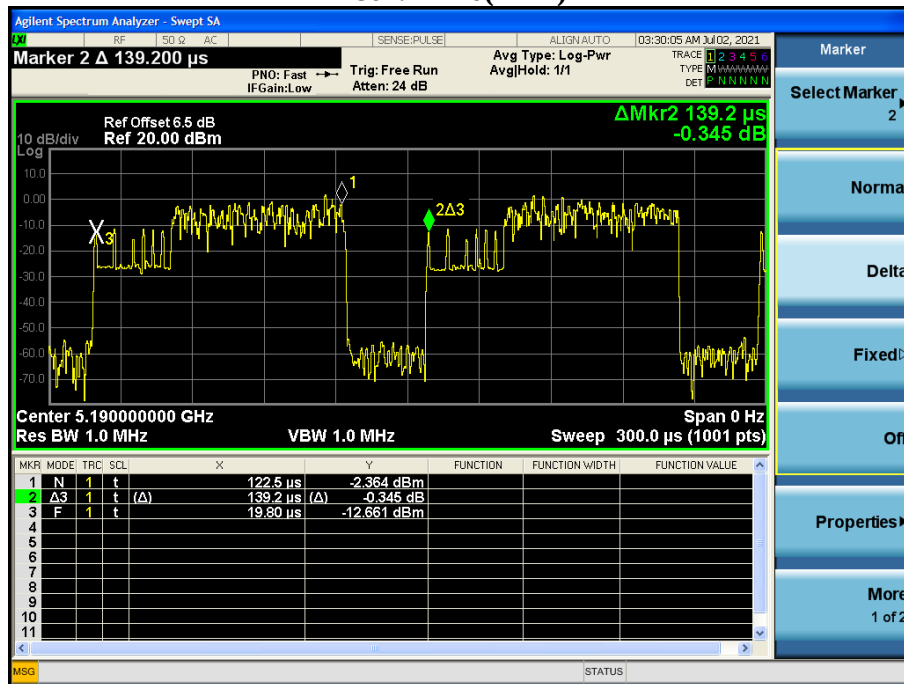
802.11N20(MHz)



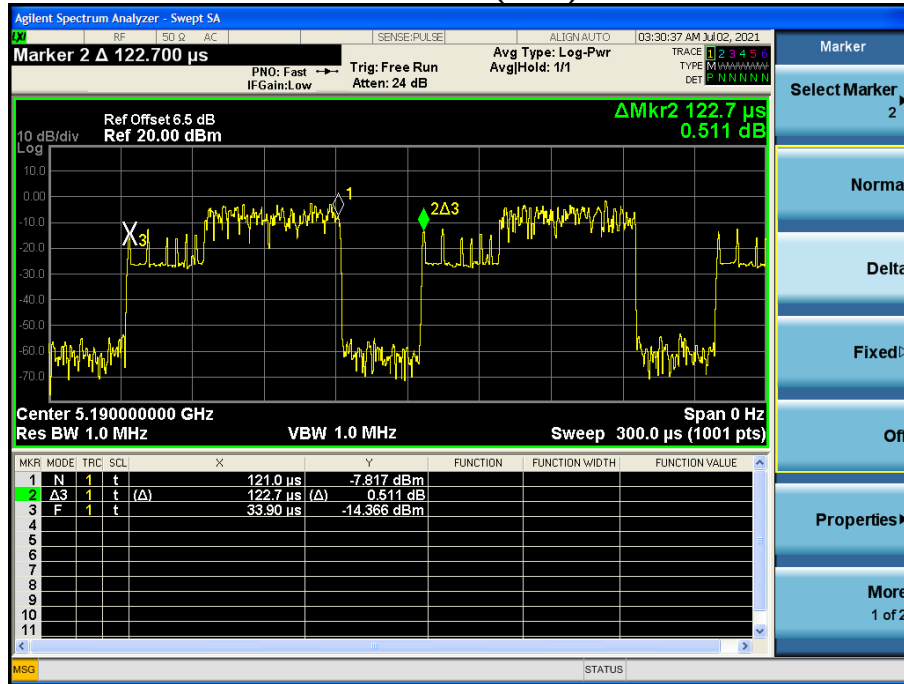
802.11AC20(MHz)



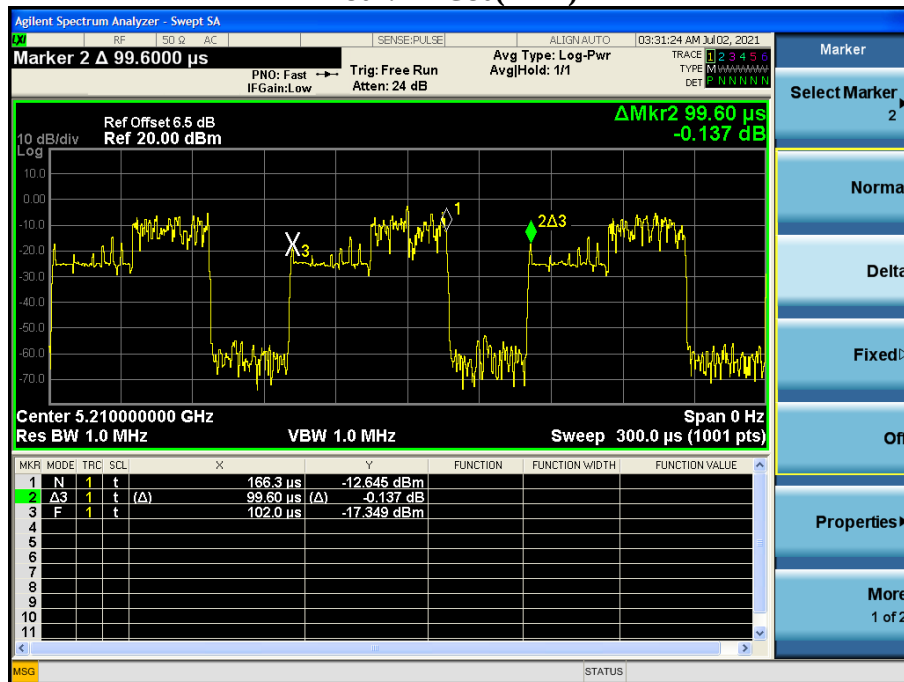
802.11N40(MHz)



802.11AC40(MHz)



802.11AC80(MHz)



3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION LIMITS (Frequency Range 150kHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)		Standard
	Quasi-peak	Average	Quasi-peak	Average	
0.15 -0.5			66 - 56 *	56 - 46 *	CISPR
0.50 -5.0			56.00	46.00	
5.0 -30.0			60.00	50.00	

0.15 -0.5			66 - 56 *	56 - 46 *	Section 15.407 (b)
0.50 -5.0			56.00	46.00	
5.0 -30.0			60.00	50.00	

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

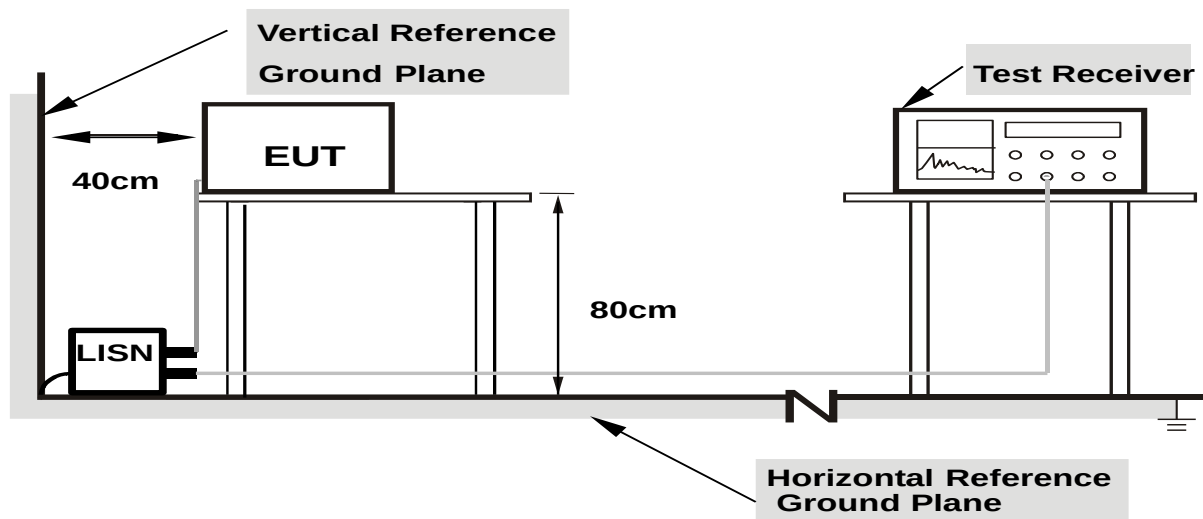
3.1.2 TEST PROCEDURE

- The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN at least 80 cm from nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 DEVIATION FROM TEST STANDARD

No deviation

3.1.4 TEST SETUP

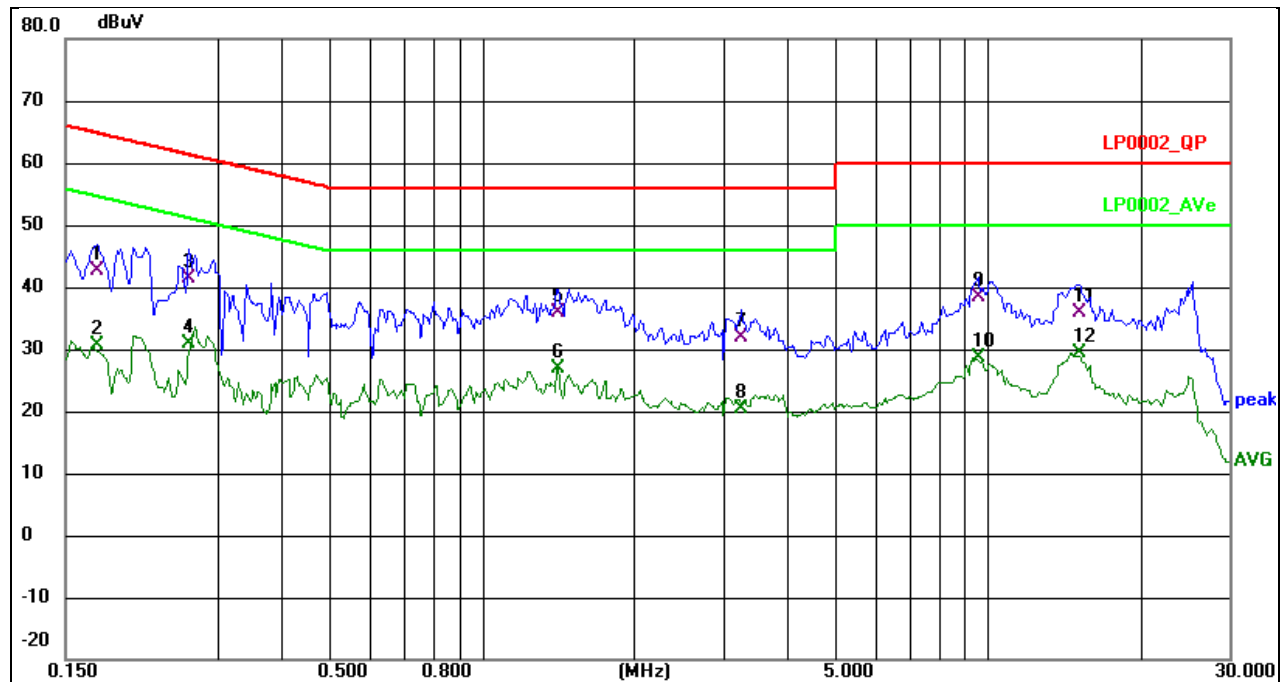


Note: 1.Support units were connected to second LISN.

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

3.1.5 TEST RESULTS

EUT :	智慧投影機	Model Name. :	SP1e
Temperature :	26°C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2021-07-12
Test Mode :	TX(802.11a CH48 worst case)	Phase :	L
Test Voltage :	AC 110V/60Hz for Adapter		

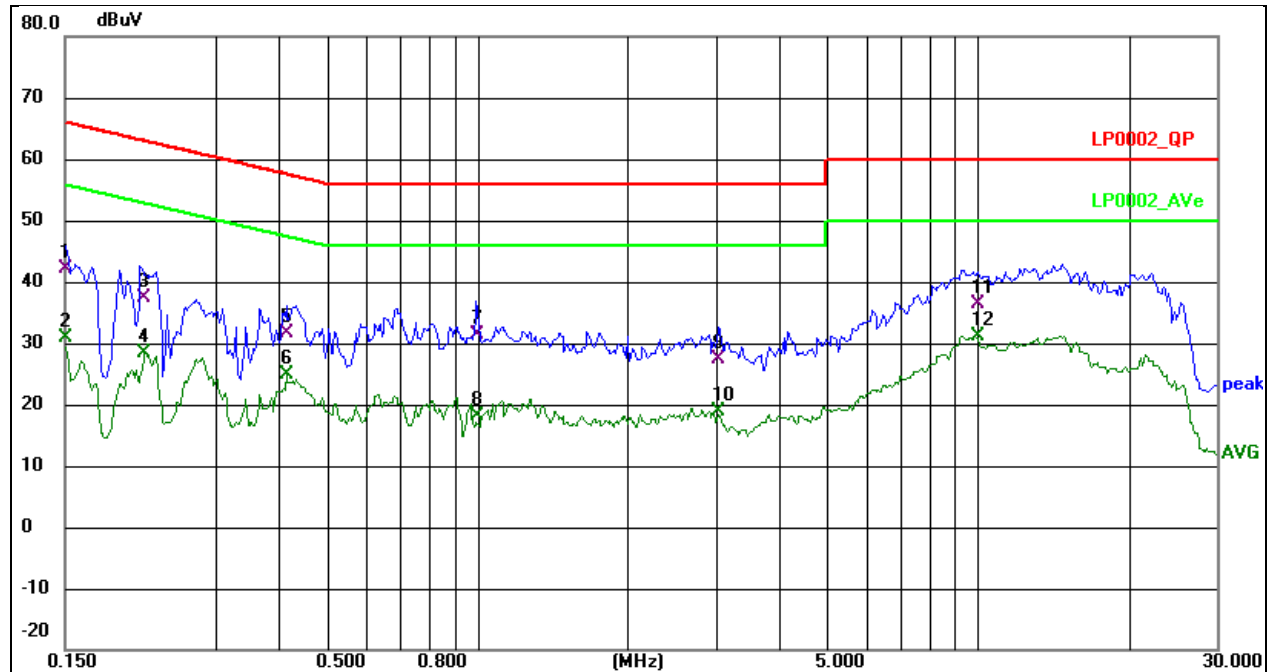


Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss + Pulse limit.
3. '*' means the worst case

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1733	32.81	9.77	42.58	64.80	-22.22	QP	P
2	0.1733	20.75	9.77	30.52	54.80	-24.28	AVG	P
3	0.2631	31.64	9.75	41.39	61.33	-19.94	QP	P
4	0.2631	21.11	9.75	30.86	51.33	-20.47	AVG	P
5	1.4095	26.08	9.79	35.87	56.00	-20.13	QP	P
6 *	1.4095	17.13	9.79	26.92	46.00	-19.08	AVG	P
7	3.2573	22.04	9.85	31.89	56.00	-24.11	QP	P
8	3.2573	10.59	9.85	20.44	46.00	-25.56	AVG	P
9	9.5715	18.71	19.71	38.42	60.00	-21.58	QP	P
10	9.5715	8.95	19.71	28.66	50.00	-21.34	AVG	P
11	15.1524	10.30	25.54	35.84	60.00	-24.16	QP	P
12	15.1524	3.95	25.54	29.49	50.00	-20.51	AVG	P

EUT :	智慧投影機	Model Name. :	SP1e
Temperature :	26°C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2021-07-12
Test Mode :	TX(802.11a CH48 worst case)	Phase :	N
Test Voltage :	AC 110V/60Hz for Adapter		

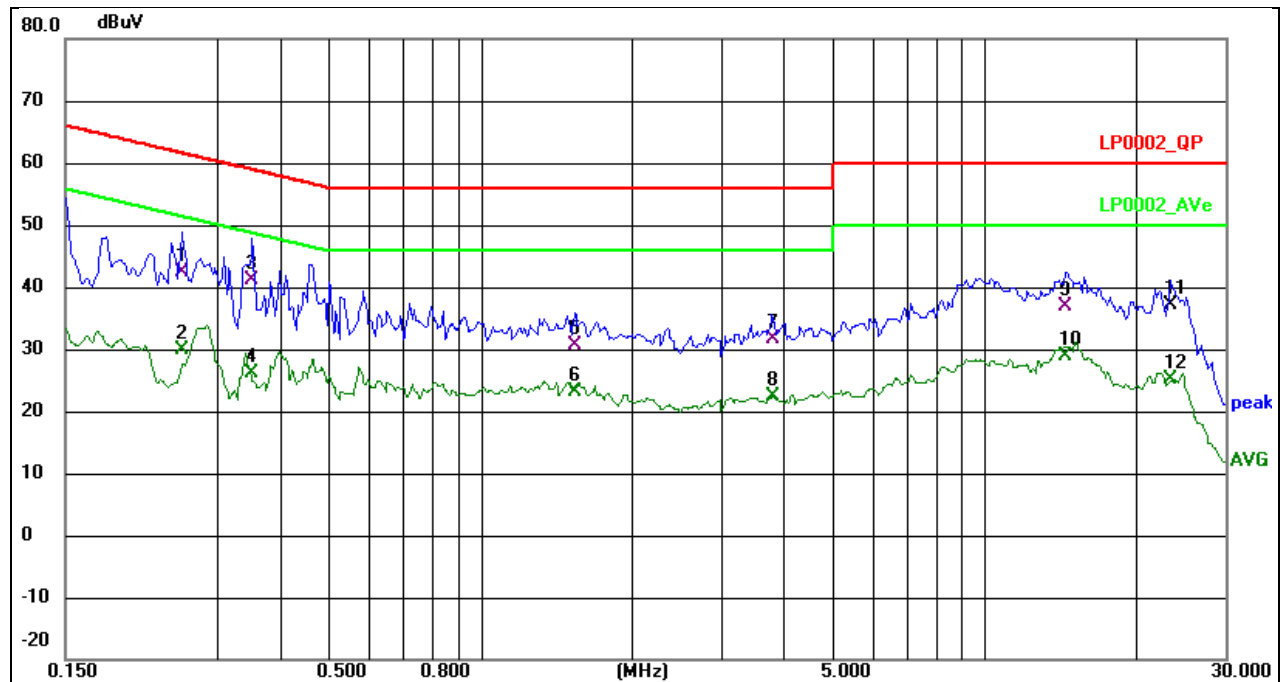


Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss + Pulse limit.
3. '*' means the worst case

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1500	32.39	9.79	42.18	66.00	-23.82	QP	P
2	0.1500	21.03	9.79	30.82	56.00	-25.18	AVG	P
3	0.2162	27.74	9.75	37.49	62.96	-25.47	QP	P
4	0.2162	18.69	9.75	28.44	52.96	-24.52	AVG	P
5	0.4152	21.99	9.76	31.75	57.54	-25.79	QP	P
6	0.4152	15.00	9.76	24.76	47.54	-22.78	AVG	P
7	0.9961	21.70	9.79	31.49	56.00	-24.51	QP	P
8	0.9961	8.42	9.79	18.21	46.00	-27.79	AVG	P
9	3.0390	17.61	9.84	27.45	56.00	-28.55	QP	P
10	3.0390	9.04	9.84	18.88	46.00	-27.12	AVG	P
11	9.9966	26.26	10.16	36.42	60.00	-23.58	QP	P
12 *	9.9966	20.86	10.16	31.02	50.00	-18.98	AVG	P

EUT :	智慧投影機	Model Name. :	SP1e
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2021-07-12
Test Mode :	Mode 6	Phase :	L
Test Voltage :	AC 110V/60Hz for Adapter		

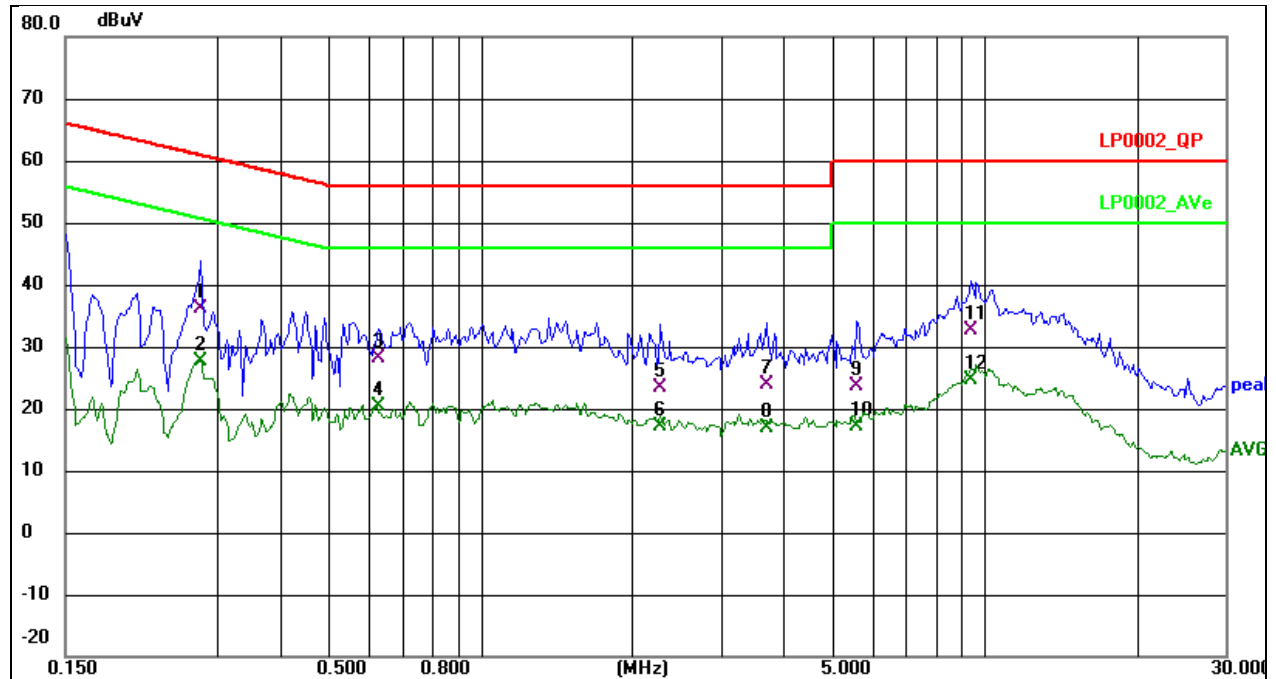


Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss + Pulse limit.
3. '*' means the worst case

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.2553	32.51	9.75	42.26	61.58	-19.32	QP	P
2	0.2553	20.06	9.75	29.81	51.58	-21.77	AVG	P
3 *	0.3528	31.47	9.76	41.23	58.90	-17.67	QP	P
4	0.3528	16.34	9.76	26.10	48.90	-22.80	AVG	P
5	1.5423	20.85	9.80	30.65	56.00	-25.35	QP	P
6	1.5423	13.43	9.80	23.23	46.00	-22.77	AVG	P
7	3.7878	21.63	9.88	31.51	56.00	-24.49	QP	P
8	3.7878	12.49	9.88	22.37	46.00	-23.63	AVG	P
9	14.5128	26.51	10.36	36.87	60.00	-23.13	QP	P
10	14.5128	18.56	10.36	28.92	50.00	-21.08	AVG	P
11	23.3697	26.14	10.89	37.03	60.00	-22.97	QP	P
12	23.3697	14.12	10.89	25.01	50.00	-24.99	AVG	P

EUT :	智慧投影機	Model Name. :	SP1e
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2021-07-12
Test Mode :	Mode 6	Phase :	N
Test Voltage :	AC 110V/60Hz for Adapter		



Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss + Pulse limit.
3. '*' means the worst case

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.2787	26.39	9.76	36.15	60.85	-24.70	QP	P
2 *	0.2787	17.80	9.76	27.56	50.85	-23.29	AVG	P
3	0.6297	18.43	9.78	28.21	56.00	-27.79	QP	P
4	0.6297	10.71	9.78	20.49	46.00	-25.51	AVG	P
5	2.2716	13.68	9.81	23.49	56.00	-32.51	QP	P
6	2.2716	7.37	9.81	17.18	46.00	-28.82	AVG	P
7	3.6942	13.96	9.87	23.83	56.00	-32.17	QP	P
8	3.6942	7.05	9.87	16.92	46.00	-29.08	AVG	P
9	5.5857	13.62	9.95	23.57	60.00	-36.43	QP	P
10	5.5857	7.07	9.95	17.02	50.00	-32.98	AVG	P
11	9.3999	22.62	10.13	32.75	60.00	-27.25	QP	P
12	9.3999	14.40	10.13	24.53	50.00	-25.47	AVG	P

3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS

LIMITS OF RADIATED EMISSION MEASUREMENT (Frequency Range 9kHz-1000MHz)

Frequencies (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Class B (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

- (1) The tighter limit applies at the band edges.
- (2) Emission level (dBuV/m)=20log Emission level (uV/m).

FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

Frequency measurement range:

1 The spectrum shall be measured from the lowest radio frequency signal generated in the device (without going below 9 kHz), and the upper limit of the measurement range shall be decided according to the maximum operating frequency.

1.1 Maximum operating frequency less than 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

1.2 Maximum operating frequency between 10 GHz~30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.

1.3 Maximum operating frequency over 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower.

2 Particular attention should be paid to harmonics and subharmonics of the carrier frequency as well as to those frequencies removed from the carrier by multiples of the oscillator frequency. Radiation at the frequencies of multiplier stages should also be checked.

Spectrum Parameter		Setting	
Attenuation		Auto	
Start Frequency		1000 MHz	
Stop Frequency		10th carrier harmonic	
Measurement	Duty cycle	RBW	Video B/W
PK	Any	1MHz	3MHz
AV	$\geq 98\%$	1MHz	10Hz
	$< 98\%$	1MHz	1/T

NOTE: KDB 558074 Zero-Span Spectrum Analyzer Method

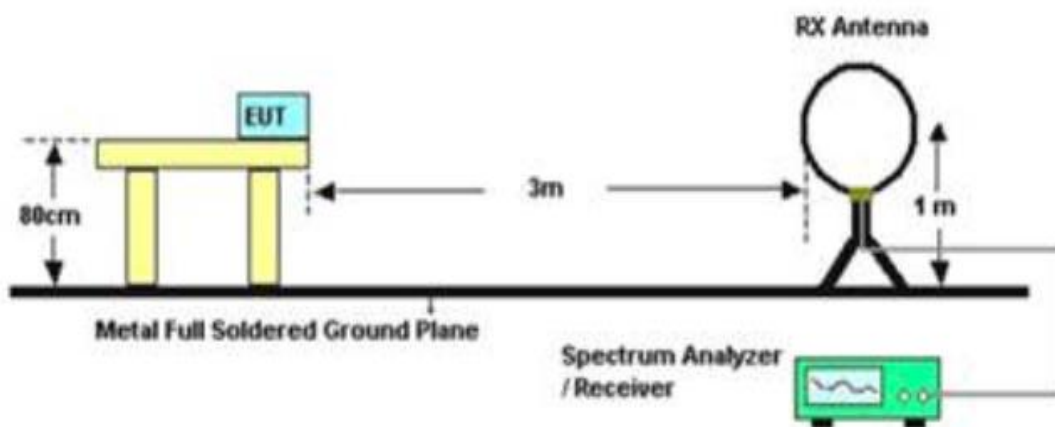
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

3.2.2 TEST PROCEDURE

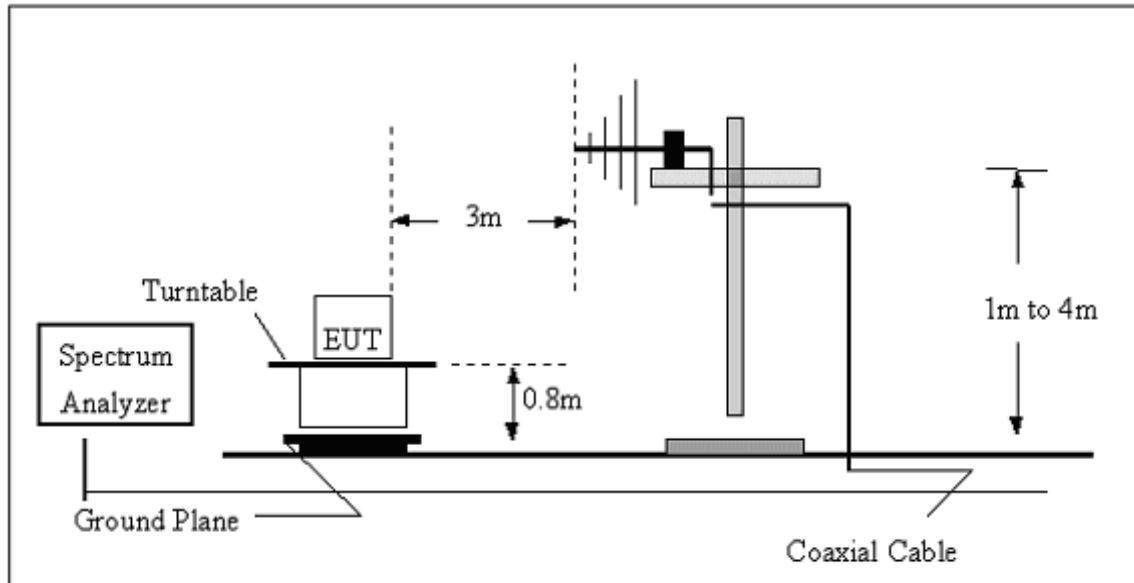
- The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the Antenna 1#re set to make the measurement.
- The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then QuasiPeak detector mode re-measured.
- If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

2 TEST SETUP

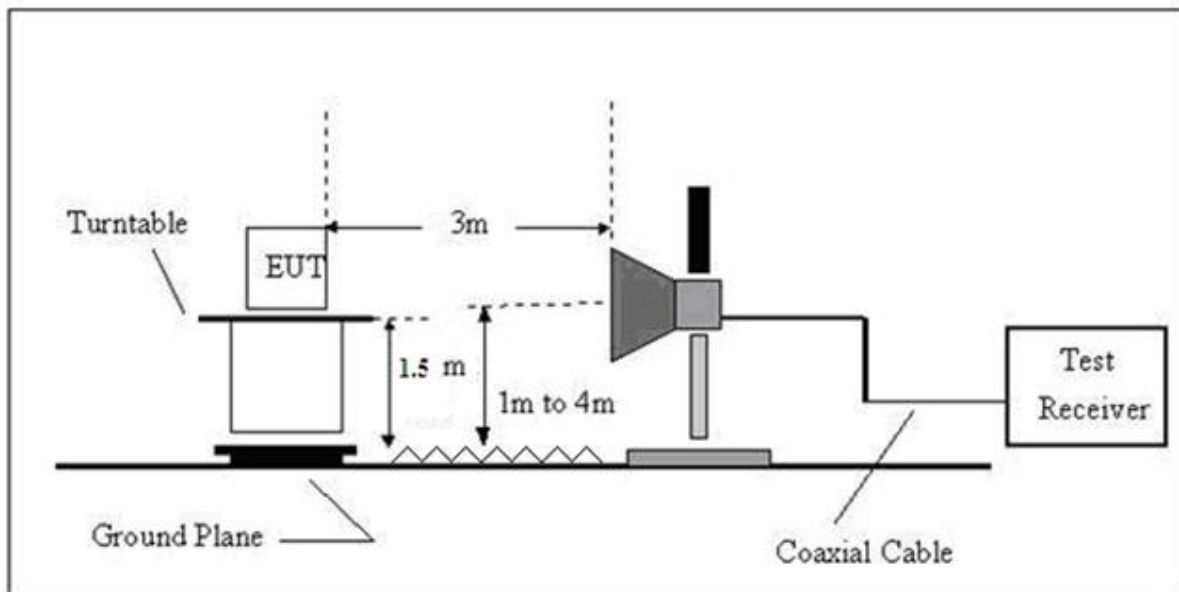
(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz



3EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

3.2.4 TEST RESULTS

Between 9KHz – 30 MHz

EUT :	智慧投影機	Model Name. :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode:	TX(802.11a CH48 worst case)	Polarization:	--

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	N/A
--	--	--	--	N/A

NOTE:

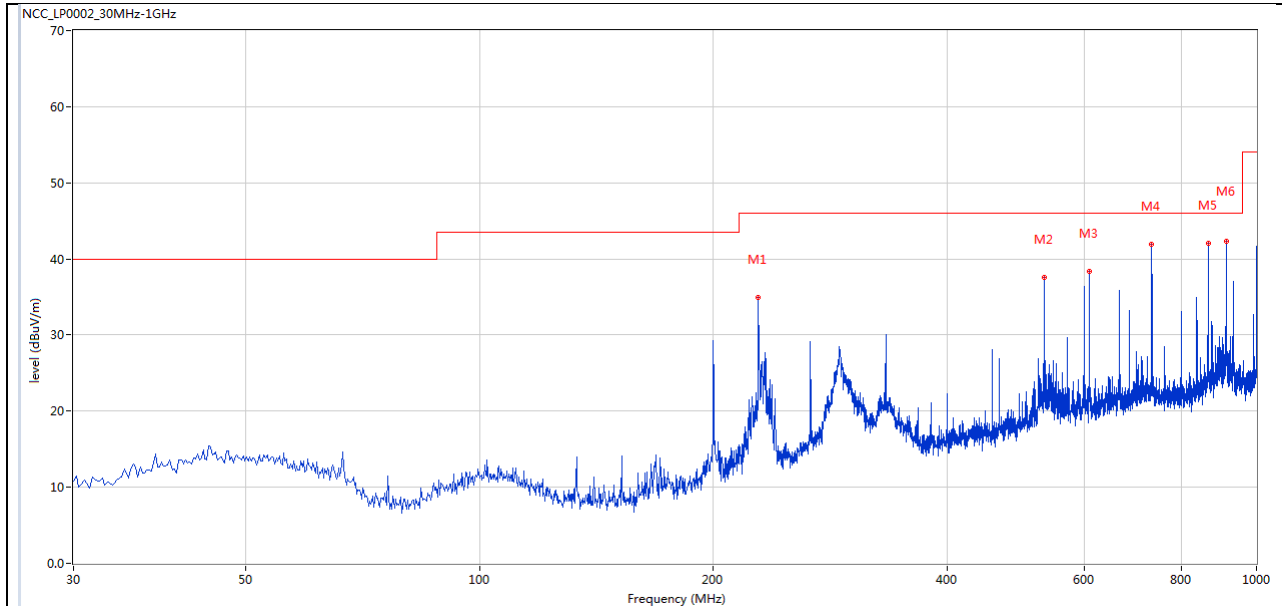
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor = $40 \log (\text{specific distance/test distance})$ (dB);

Limit line = specific limits(dBuv) + distance extrapolation factor.

BETWEEN 30 – 1000 MHZ

EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	TX(802.11a CH48 worst case)	Polarization :	Horizontal
Test Power :	DC7.4V from battery		

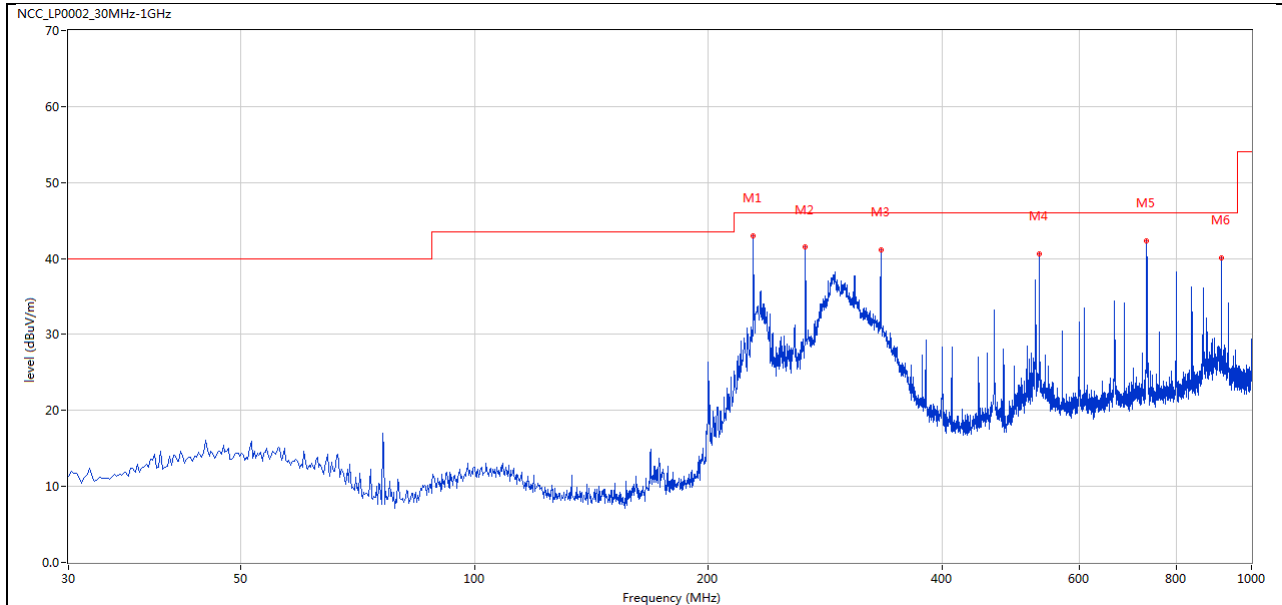


Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	ANT	Verdict
1	228.558	34.96	-12.74	46.0	-11.04	Peak	Horizontal	Pass
2	533.304	37.59	-6.43	46.0	-8.41	Peak	Horizontal	Pass
3	609.430	38.33	-5.02	46.0	-7.67	Peak	Horizontal	Pass
4	733.317	41.93	-3.61	46.0	-4.07	Peak	Horizontal	Pass
5	866.658	42.10	-2.38	46.0	-3.90	Peak	Horizontal	Pass
6	914.176	42.23	-1.75	46.0	-3.77	Peak	Horizontal	Pass

EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	TX(802.11a CH48 worst case)	Polarization :	Vertical
Test Power :	DC7.4V from battery		

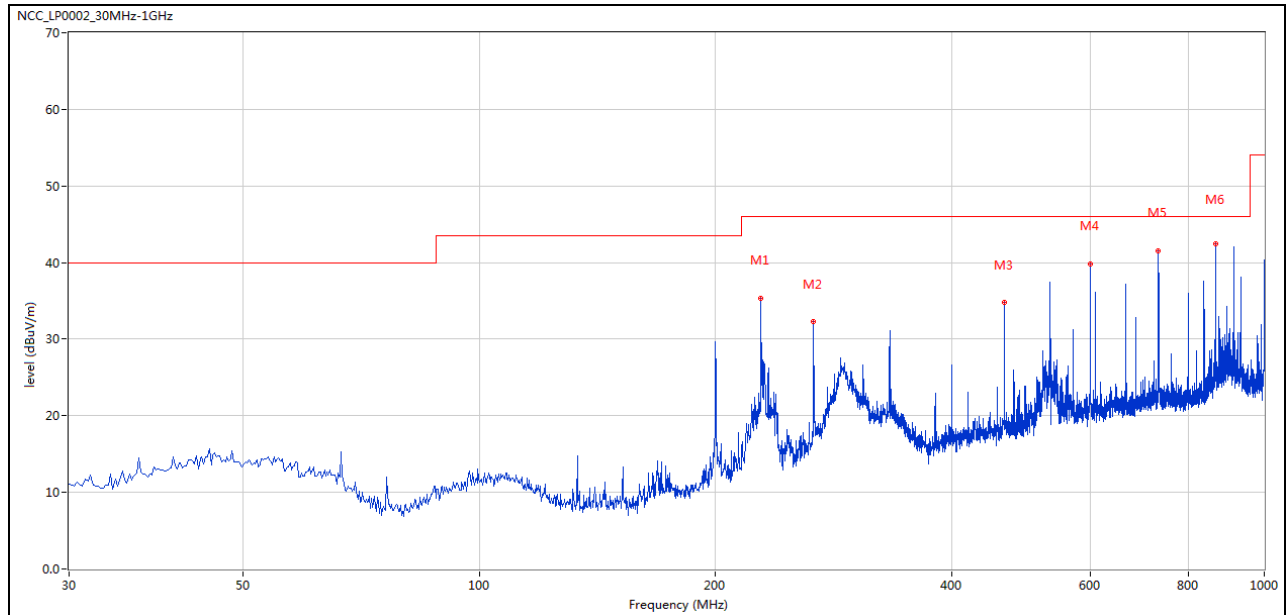


Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	ANT	Verdict
1	228.558	42.99	-12.74	46.0	-3.01	Peak	Vertical	Pass
2	266.621	41.46	-11.77	46.0	-4.54	Peak	Vertical	Pass
3	333.292	41.19	-10.07	46.0	-4.81	Peak	Vertical	Pass
4	533.304	40.59	-6.43	46.0	-5.41	Peak	Vertical	Pass
5	733.317	42.34	-3.61	46.0	-3.66	Peak	Vertical	Pass
6	914.176	40.04	-1.75	46.0	-5.96	Peak	Vertical	Pass

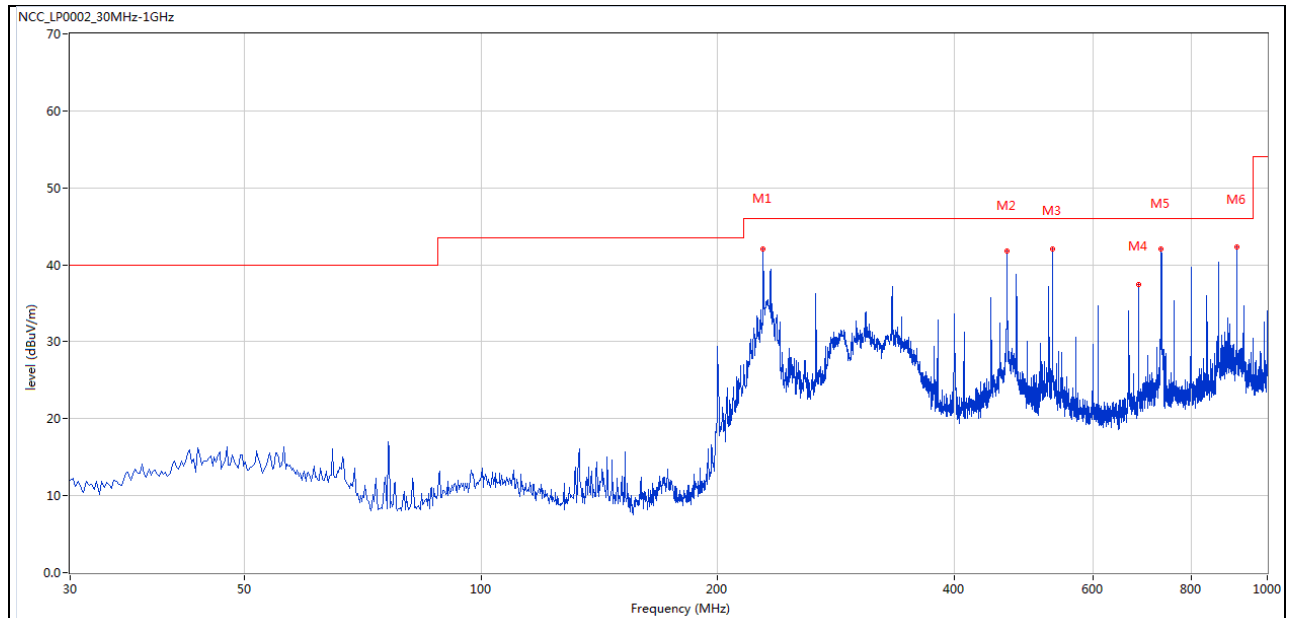
EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	RX	Polarization :	Horizontal
Test Power :	DC7.4V from battery		



Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	ANT	Verdict
1	228.558	35.33	-12.74	46.0	-10.67	Peak	Horizontal	Pass
2	266.621	32.24	-11.77	46.0	-13.76	Peak	Horizontal	Pass
3	466.633	34.74	-7.74	46.0	-11.26	Peak	Horizontal	Pass
4	599.975	39.83	-4.95	46.0	-6.17	Peak	Horizontal	Pass
5	733.317	41.57	-3.61	46.0	-4.43	Peak	Horizontal	Pass
6	866.658	42.58	-2.38	46.0	-3.42	Peak	Horizontal	Pass

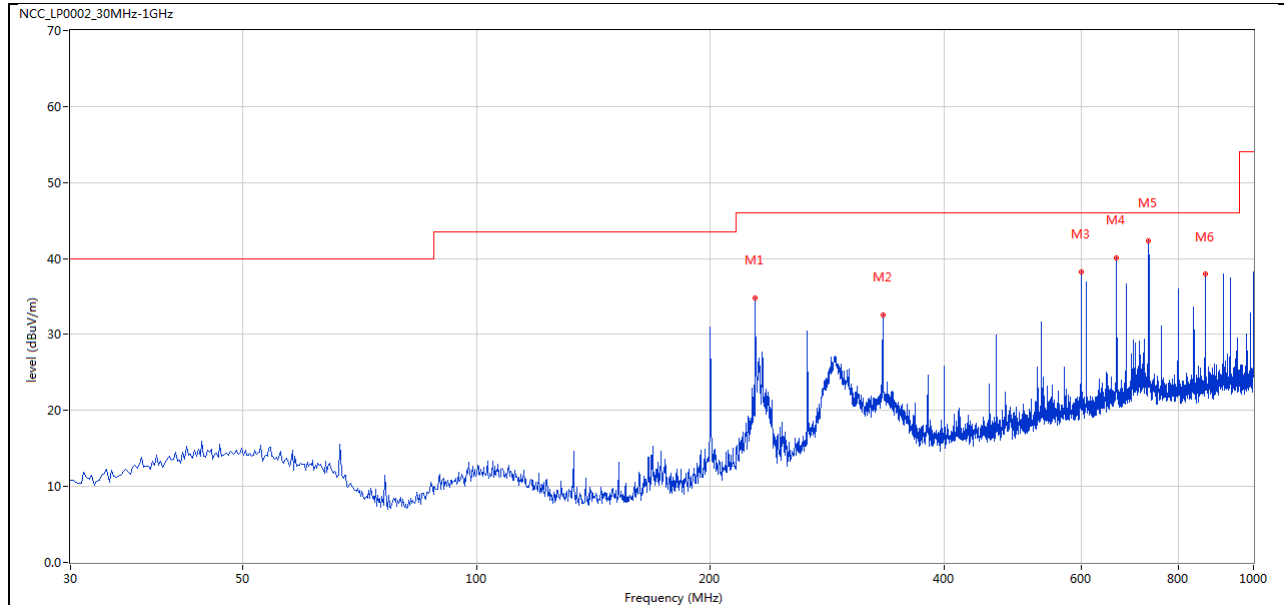
EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	RX	Polarization :	Vertical
Test Power :	DC7.4V from battery		



Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	ANT	Verdict
1	228.558	42.25	-12.74	46.0	-3.75	Peak	Vertical	Pass
2	466.633	42.02	-7.74	46.0	-3.98	Peak	Vertical	Pass
3	533.304	42.11	-6.43	46.0	-3.89	Peak	Vertical	Pass
4	685.556	37.43	-4.33	46.0	-8.57	Peak	Vertical	Pass
5	733.317	42.16	-3.61	46.0	-3.84	Peak	Vertical	Pass
6	914.176	42.21	-1.75	46.0	-3.79	Peak	Vertical	Pass

EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	Mode 6	Polarization :	Horizontal
Test Power :	DC12V from Adapter		

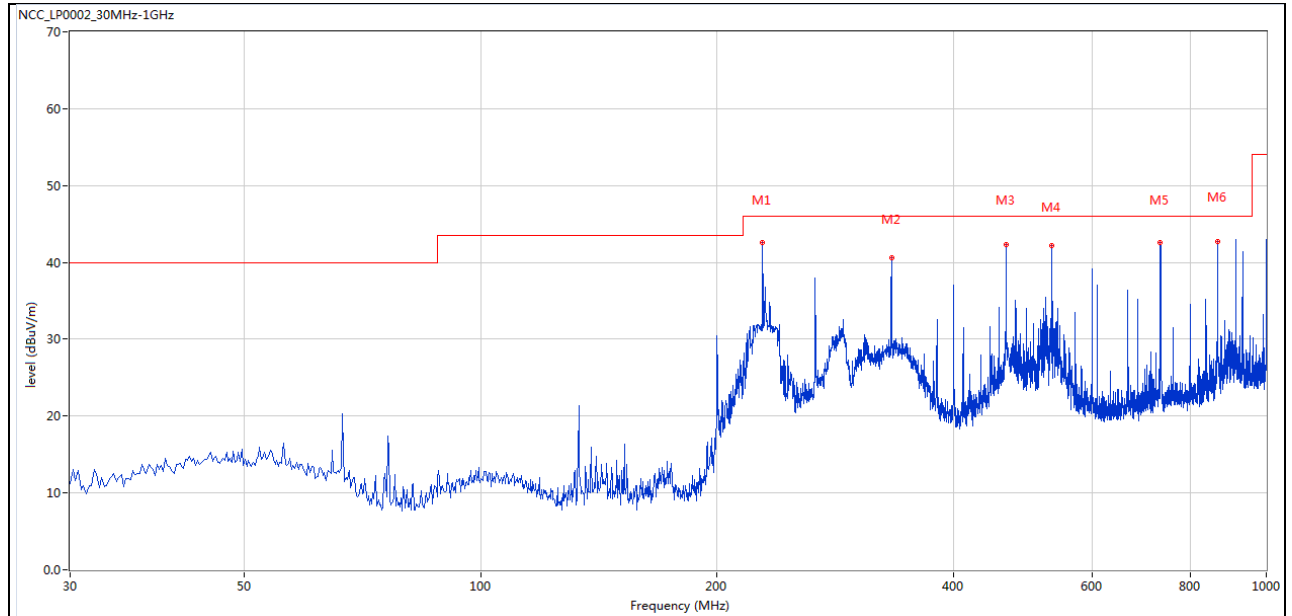


Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	ANT	Verdict
1	228.558	34.81	-12.74	46.0	-11.19	Peak	Horizontal	Pass
2	333.292	32.51	-10.07	46.0	-13.49	Peak	Horizontal	Pass
3	599.975	38.24	-4.95	46.0	-7.76	Peak	Horizontal	Pass
4	666.646	40.03	-4.50	46.0	-5.97	Peak	Horizontal	Pass
5	733.317	42.26	-3.61	46.0	-3.74	Peak	Horizontal	Pass
6	866.658	37.90	-2.38	46.0	-8.10	Peak	Horizontal	Pass

EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	Mode 6	Polarization :	Vertical
Test Power :	DC12V from Adapter		



Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

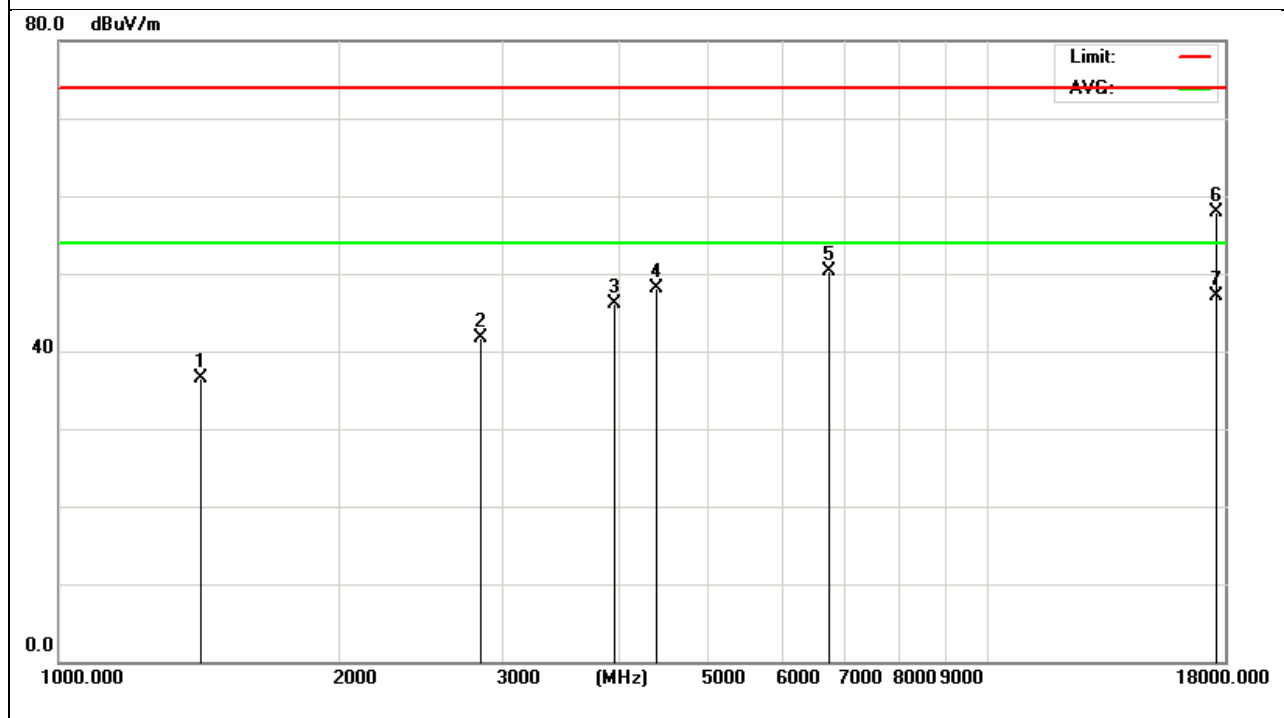
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	ANT	Verdict
1	228.558	42.43	-12.74	46.0	-3.57	Peak	Vertical	Pass
2	333.292	40.57	-10.07	46.0	-5.43	Peak	Vertical	Pass
3	466.633	42.33	-7.74	46.0	-3.67	Peak	Vertical	Pass
4	533.304	42.21	-6.43	46.0	-3.79	Peak	Vertical	Pass
5	733.317	42.58	-3.61	46.0	-3.42	Peak	Vertical	Pass
6	866.658	42.76	-2.38	46.0	-3.24	Peak	Vertical	Pass

3.2.5 TEST RESULTS (ABOVE 1000 MHZ)

EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11a Channel 36	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1436.725	47.28	-10.21	37.07	74	-36.93	peak
2847.114	44.58	-2.66	41.92	74	-32.08	peak
3950.247	42.93	3.45	46.38	74	-27.62	peak
4388.536	44.71	4.5	49.21	74	-24.79	peak
6753.007	44.35	6.02	50.37	74	-23.63	peak
17619.427	32.98	24.96	57.94	74	-16.06	peak
17619.427	22.59	24.96	47.55	54	-6.45	AVG

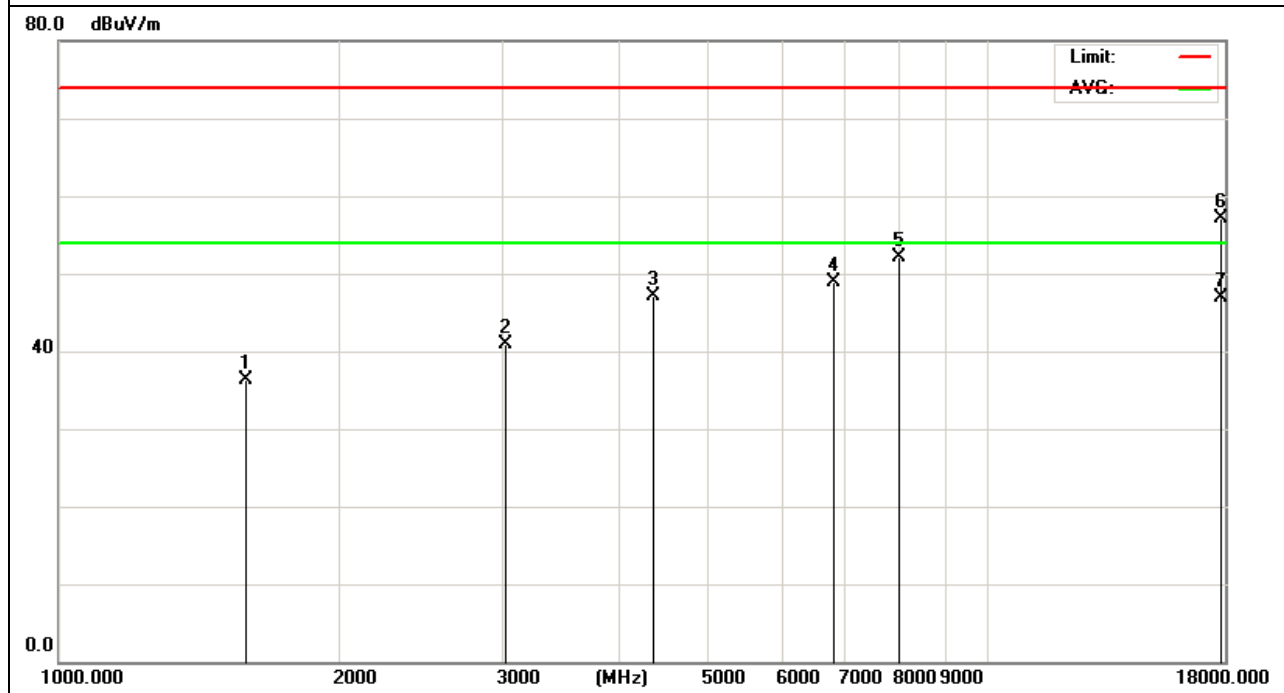
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11a Channel 36	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
1607.317	46.39	-9.89	36.50	74	-37.50	peak
3032.284	42.85	-1.62	41.23	74	-32.77	peak
4368.027	43.02	4.46	47.48	74	-26.52	peak
6834.064	43.66	6.07	49.73	74	-24.27	peak
8011.922	40.94	10.40	51.34	74	-22.66	peak
17806.806	31.58	24.82	56.4	74	-17.6	peak
17806.806	22.75	24.82	47.57	54	-6.43	AVG

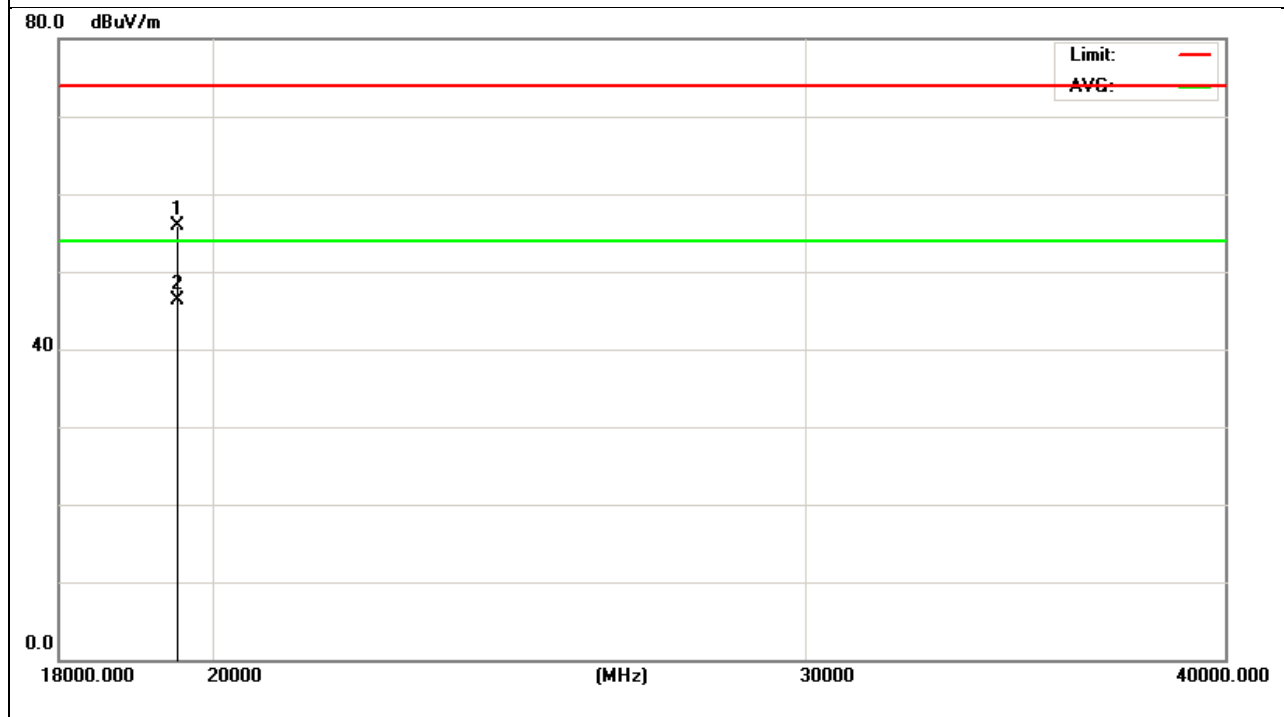
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11a Channel 36	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
19519.887	40.85	14.56	55.41	74	-18.59	peak
19519.887	31.34	14.56	45.90	54	-8.10	AVG

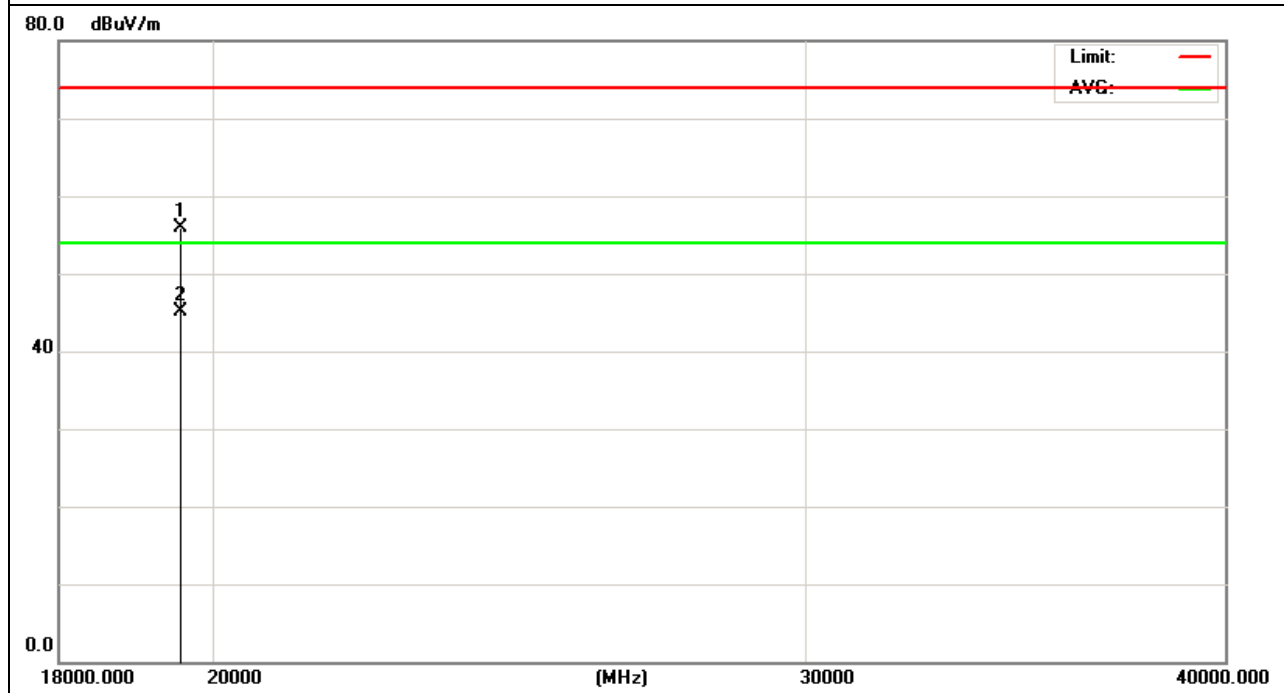
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11a Channel 36	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
19562.017	41.48	14.60	56.08	74	-17.92	peak
19562.017	30.92	14.60	45.52	54	-8.48	AVG

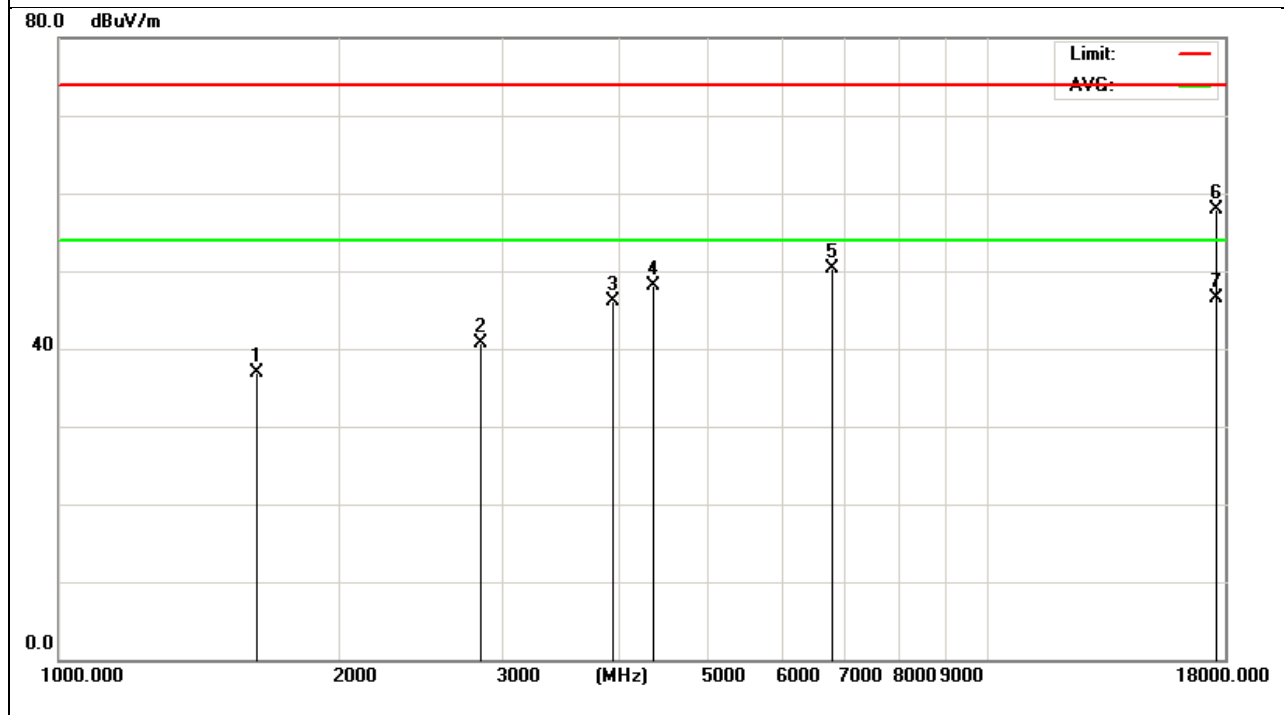
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11a Channel 40	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
1646.466	47.59	-9.81	37.78	74	-36.22	peak
2847.845	43.97	-2.65	41.32	74	-32.68	peak
3948.598	42.42	3.44	45.86	74	-28.14	peak
4364.590	44.75	4.46	49.21	74	-24.79	peak
6784.227	44.31	6.04	50.35	74	-23.65	peak
17589.385	33.02	24.97	57.99	74	-16.01	peak
17589.385	21.94	24.97	46.91	54	-7.09	AVG

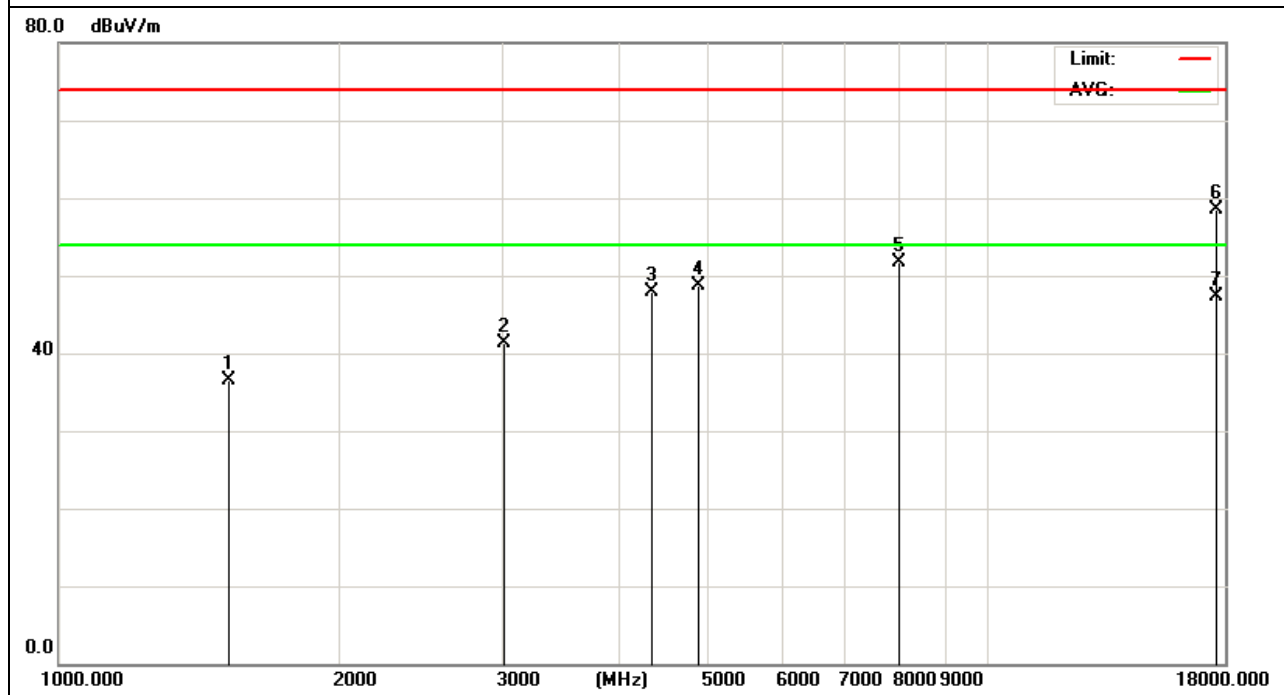
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11a Channel 40	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
1537.246	47.30	-9.86	37.44	74	-36.56	peak
3022.416	43.47	-1.65	41.82	74	-32.18	peak
4341.362	43.46	4.42	47.88	74	-26.12	peak
4889.786	44.62	5.15	49.77	74	-24.23	peak
8011.483	41.48	10.40	51.88	74	-22.12	peak
17599.236	33.64	24.97	58.61	74	-15.39	peak
17599.236	22.63	24.97	47.60	54	-6.40	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11a Channel 40	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
18653.132	42.25	13.26	55.51	74	-18.49	peak
18653.132	32.50	13.26	45.76	54	-8.24	AVG

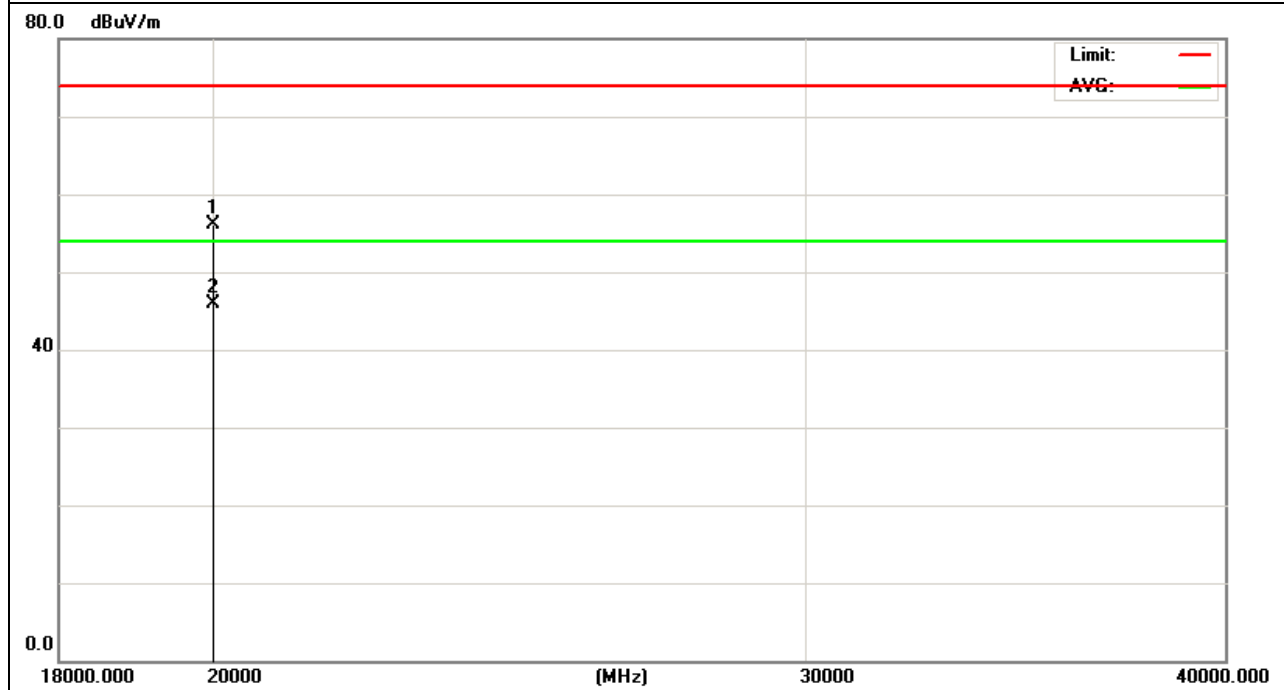
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11a Channel 40	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
20019.845	41.09	15.29	56.38	74	-17.62	peak
20019.845	31.86	15.29	47.15	54	-6.85	AVG

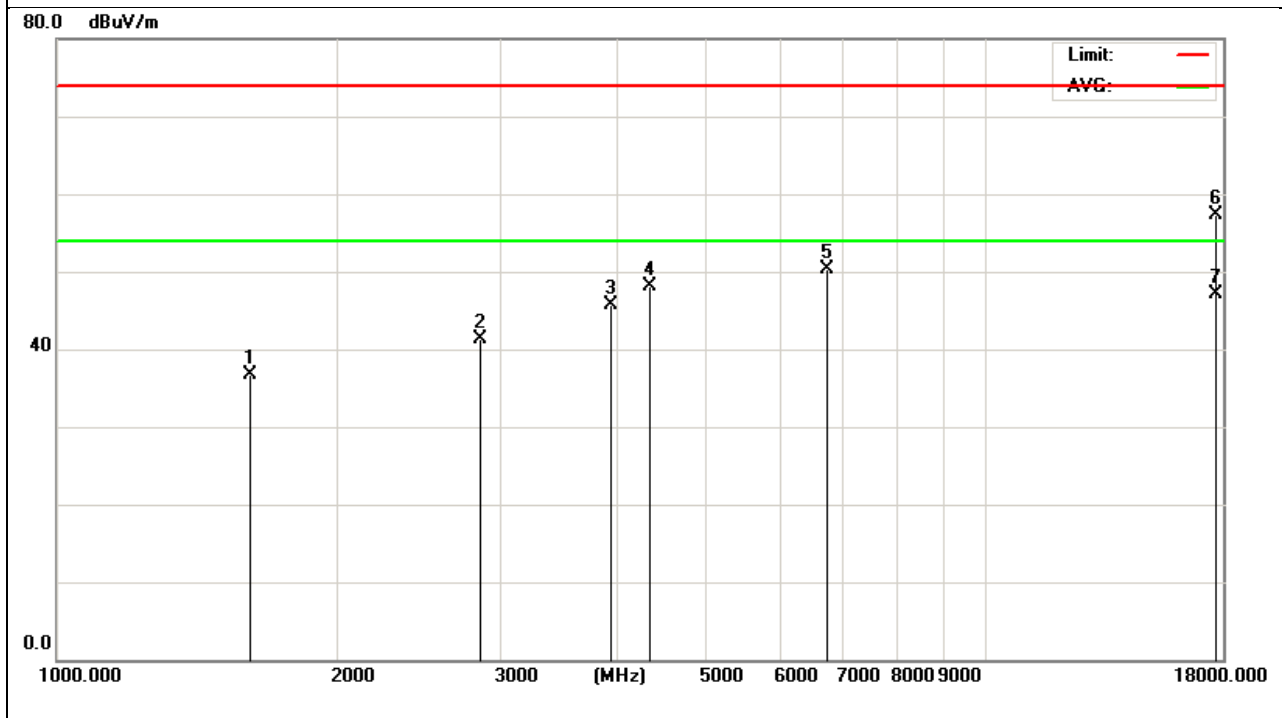
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11a Channel 48	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
1626.517	46.79	-9.86	36.93	74	-37.07	peak
2856.905	44.07	-2.61	41.46	74	-32.54	peak
3948.237	42.88	3.44	46.32	74	-27.68	peak
4338.012	44.42	4.40	48.82	74	-25.18	peak
6747.534	43.67	6.01	49.68	74	-24.32	peak
17693.295	31.80	24.90	56.7	74	-17.3	peak
17693.295	22.61	24.90	47.51	54	-6.49	AVG

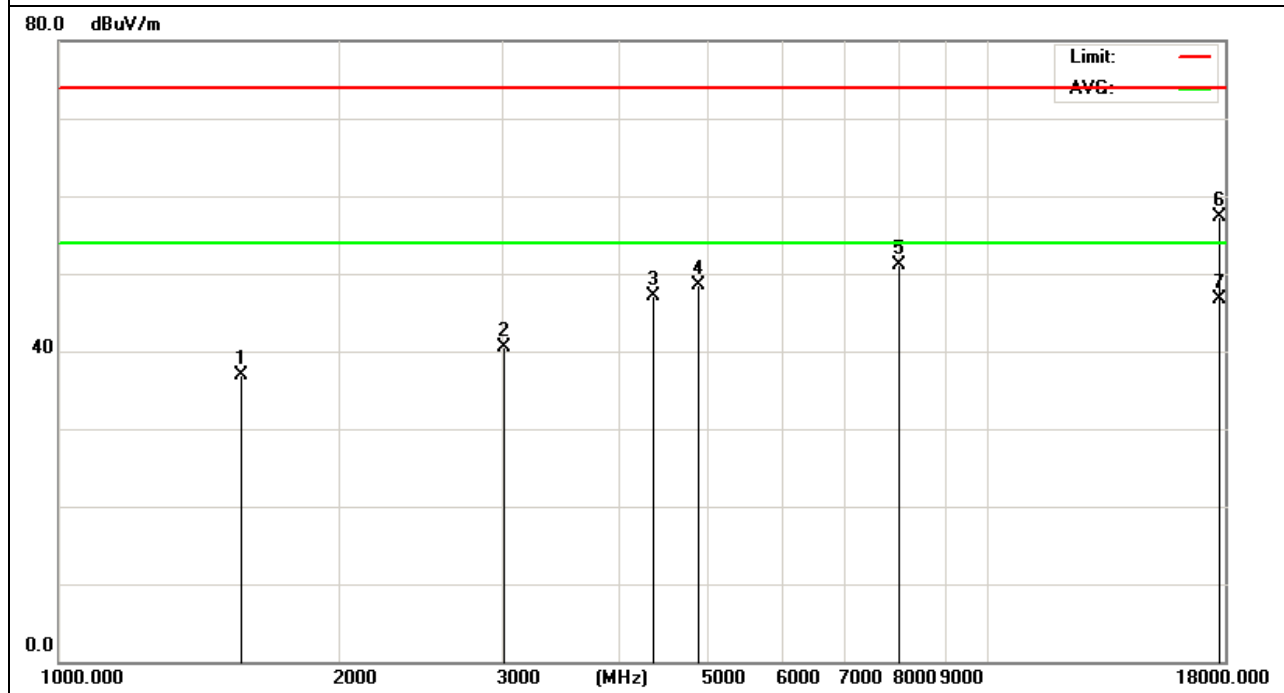
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11a Channel 48	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
1583.435	47.19	-9.88	37.31	74	-36.69	peak
3022.600	42.64	-1.65	40.99	74	-33.01	peak
4357.081	42.62	4.45	47.07	74	-26.93	peak
4868.836	44.71	5.13	49.84	74	-24.16	peak
8011.694	40.17	10.40	50.57	74	-23.43	peak
17700.369	32.57	24.89	57.46	74	-16.54	peak
17700.369	22.32	24.89	47.21	54	-6.79	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11a Channel 48	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
19244.698	40.89	14.15	55.04	74.00	-18.96	peak
19244.698	32.93	14.15	47.08	54.00	-6.92	AVG

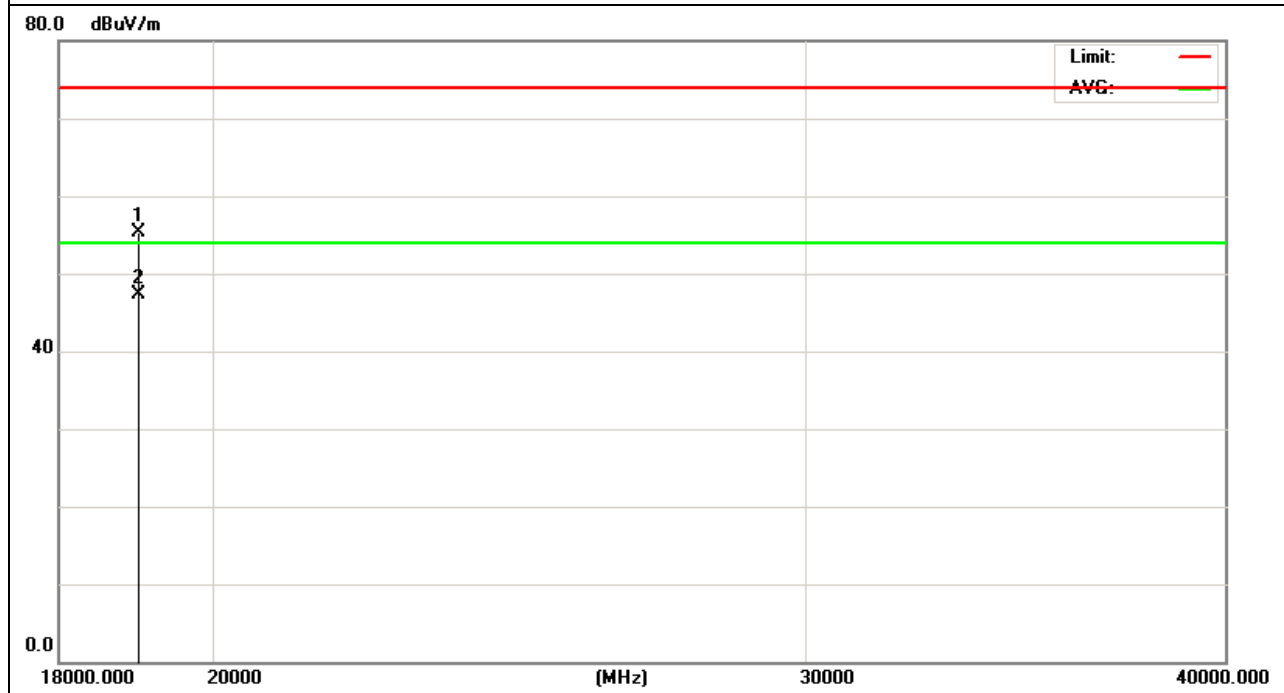
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11a Channel 48	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
19000.375	41.55	13.77	55.32	74	-18.68	peak
19000.375	34.28	13.77	48.05	54	-5.95	AVG

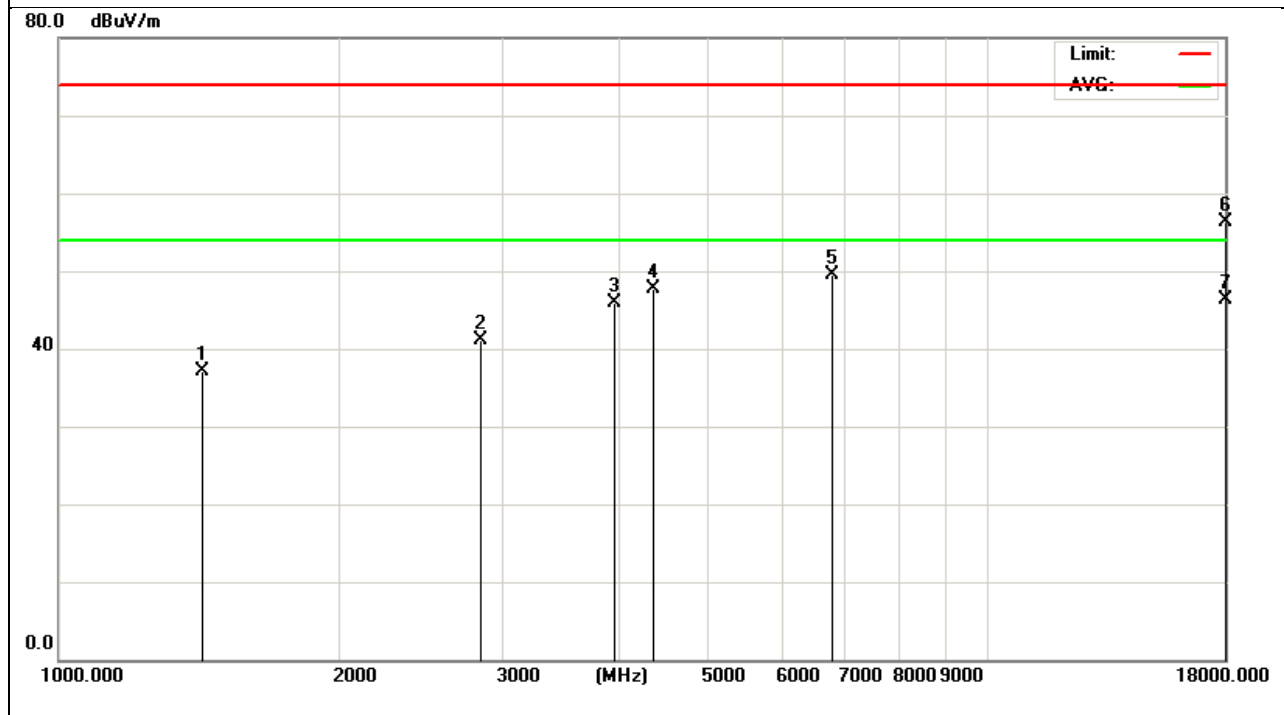
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n20 Channel 36	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
1438.328	48.43	-10.20	38.23	74	-35.77	peak
2853.558	44.43	-2.63	41.8	74	-32.2	peak
3951.730	42.04	3.47	45.51	74	-28.49	peak
4367.520	44.82	4.46	49.28	74	-24.72	peak
6784.590	43.02	6.04	49.06	74	-24.94	peak
17956.963	31.12	24.71	55.83	74	-18.17	peak
17956.963	22.02	24.71	46.73	54	-7.27	AVG

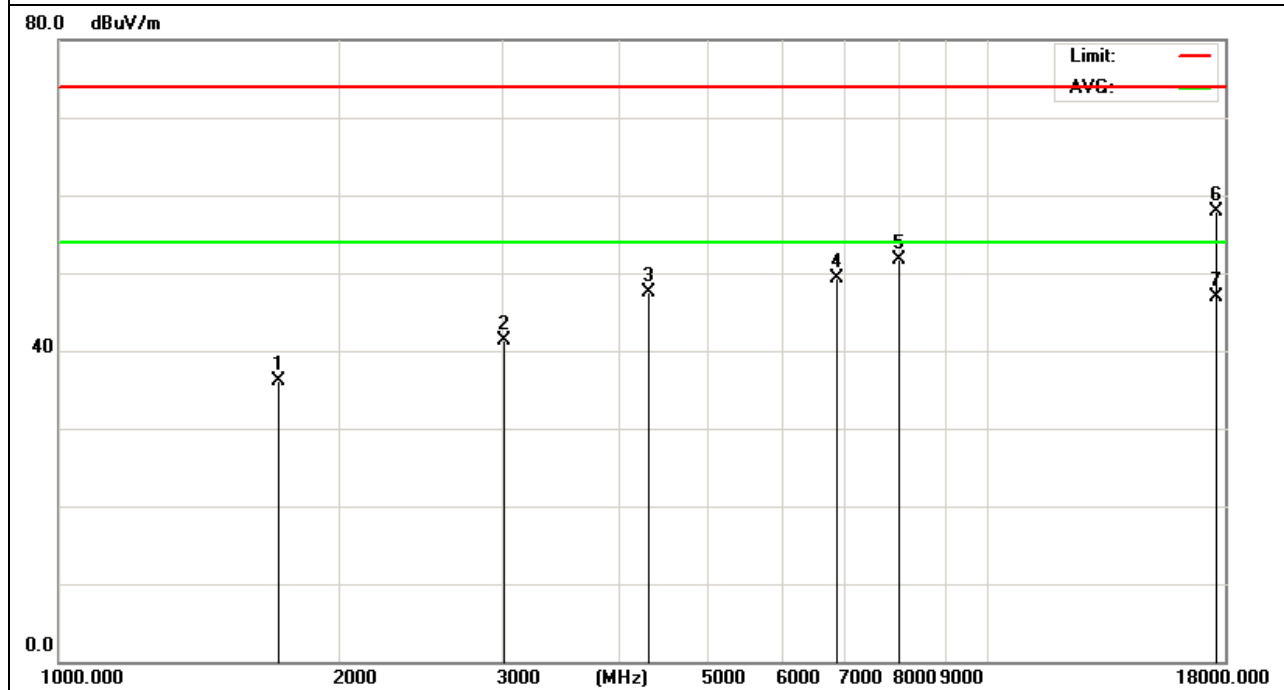
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n20 Channel 36	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
1735.816	46.33	-9.57	36.76	74	-37.24	peak
3021.219	43.70	-1.65	42.05	74	-31.95	peak
4317.148	43.01	4.36	47.37	74	-26.63	peak
6876.574	44.48	6.11	50.59	74	-23.41	peak
8015.417	41.45	10.40	51.85	74	-22.15	peak
17600.114	32.31	24.96	57.27	74	-16.73	peak
17600.114	22.41	24.96	47.37	54	-6.63	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n20 Channel 36	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
18548.165	42.47	13.11	55.58	74	-18.42	peak
18548.165	33.31	13.11	46.42	54	-7.58	AVG

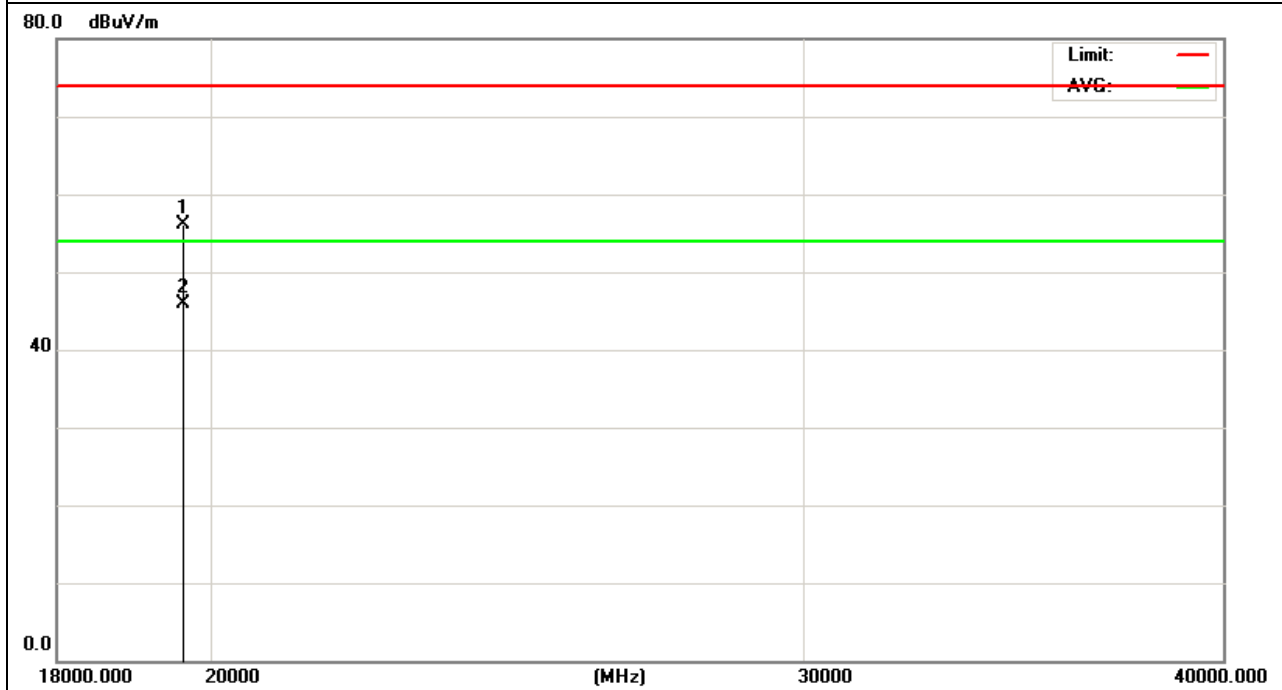
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n20 Channel 36	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
19635.000	41.32	14.72	56.04	74	-17.96	peak
19635.000	31.25	14.72	45.97	54	-8.03	AVG

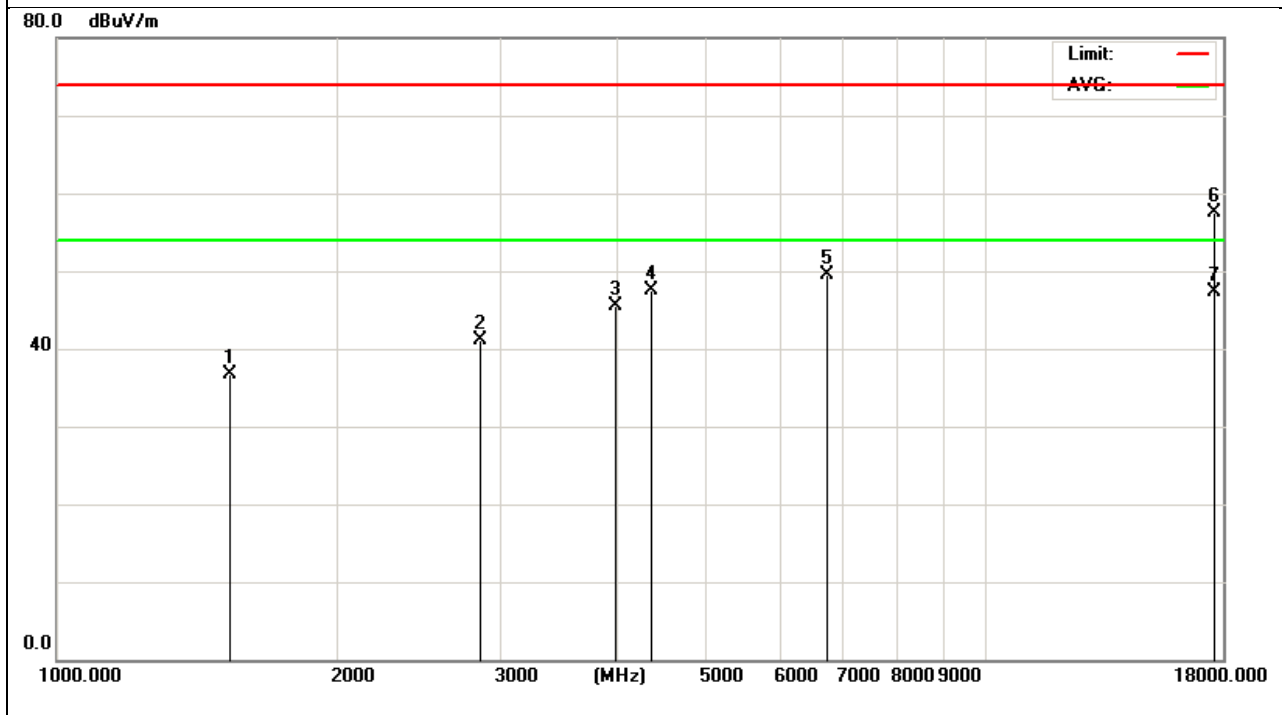
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n20 Channel 40	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
1547.239	47.46	-9.86	37.6	74	-36.4	peak
2854.986	43.61	-2.62	40.99	74	-33.01	peak
3987.498	42.10	3.74	45.84	74	-28.16	peak
4368.377	44.56	4.46	49.02	74	-24.98	peak
6748.820	43.69	6.01	49.7	74	-24.3	peak
17552.099	32.40	25.00	57.4	74	-16.6	peak
17552.099	23.38	25.00	48.38	54	-5.62	AVG

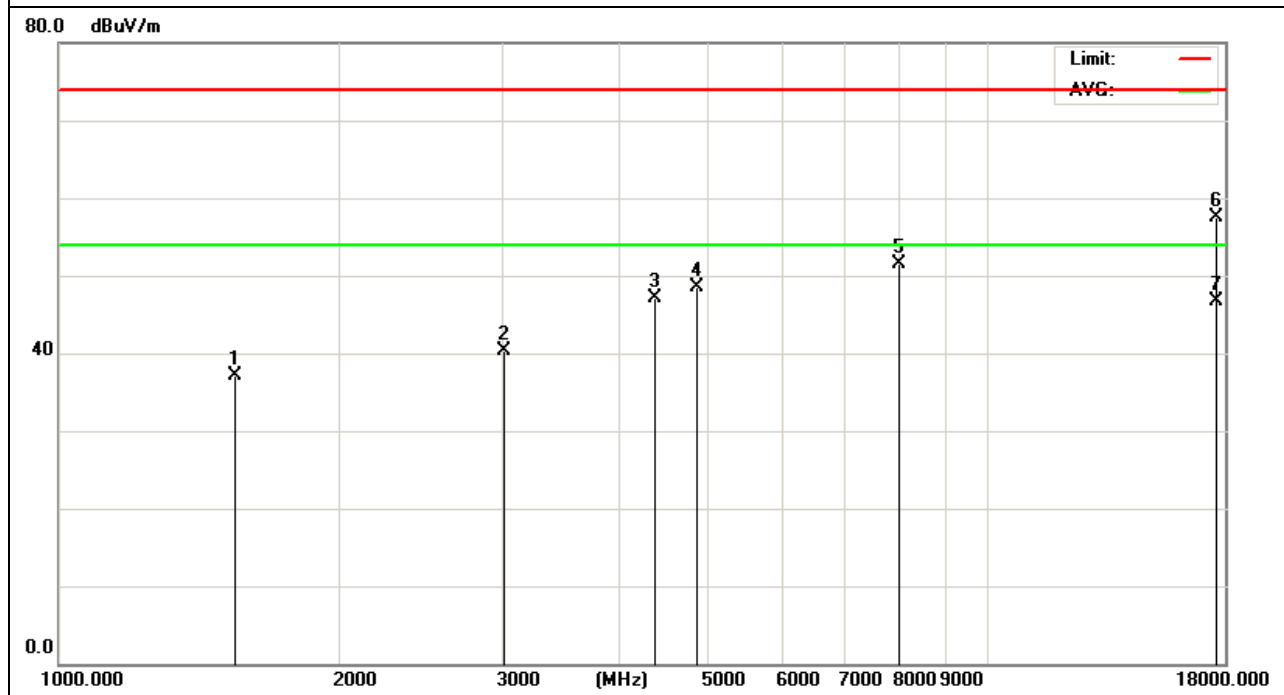
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n20 Channel 40	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
1557.891	48.13	-9.87	38.26	74	-35.74	peak
3021.894	42.11	-1.65	40.46	74	-33.54	peak
4370.914	42.20	4.47	46.67	74	-27.33	peak
4849.259	44.90	5.11	50.01	74	-23.99	peak
8013.326	41.19	10.40	51.59	74	-22.41	peak
17595.618	32.74	24.97	57.71	74	-16.29	peak
17595.618	22.21	24.97	47.18	54	-6.82	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n20 Channel40	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
20314.364	39.54	15.74	55.28	74	-18.72	peak
20314.364	30.48	15.74	46.22	54	-7.78	AVG

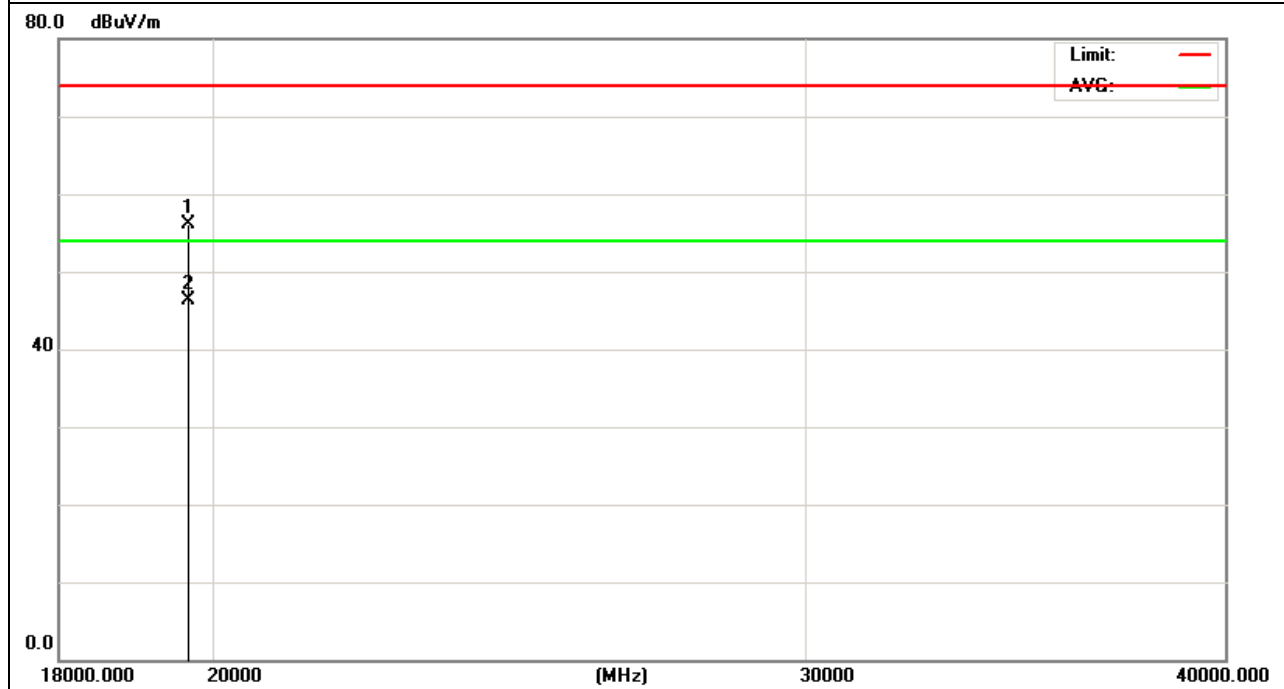
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n20 Channel 40	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
19667.056	41.24	14.77	56.01	74.00	-17.99	peak
19667.056	32.75	14.77	47.52	54.00	-6.48	AVG

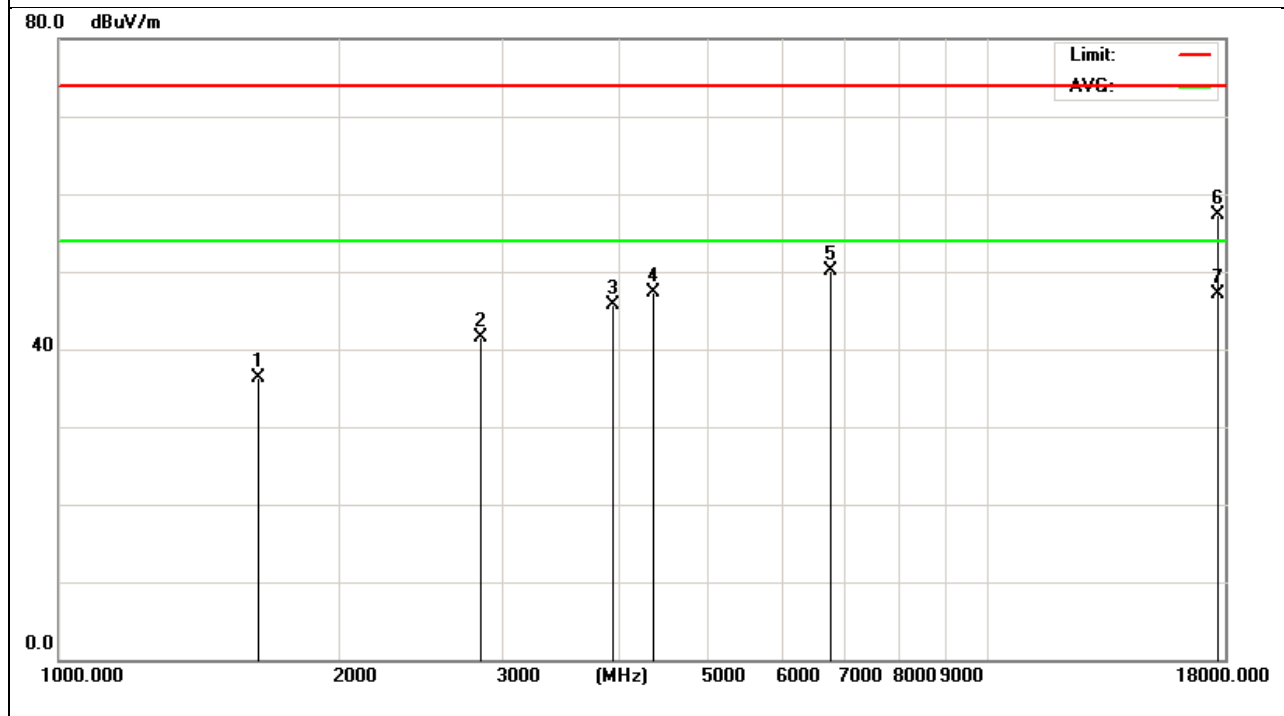
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n20 Channel 48	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
1650.095	46.53	-9.79	36.74	74	-37.26	peak
2853.120	44.36	-2.63	41.73	74	-32.27	peak
3948.663	42.79	3.44	46.23	74	-27.77	peak
4365.461	44.13	4.46	48.59	74	-25.41	peak
6775.113	44.18	6.03	50.21	74	-23.79	peak
17659.929	32.45	24.92	57.37	74	-16.63	peak
17659.929	22.96	24.92	47.88	54	-6.12	AVG

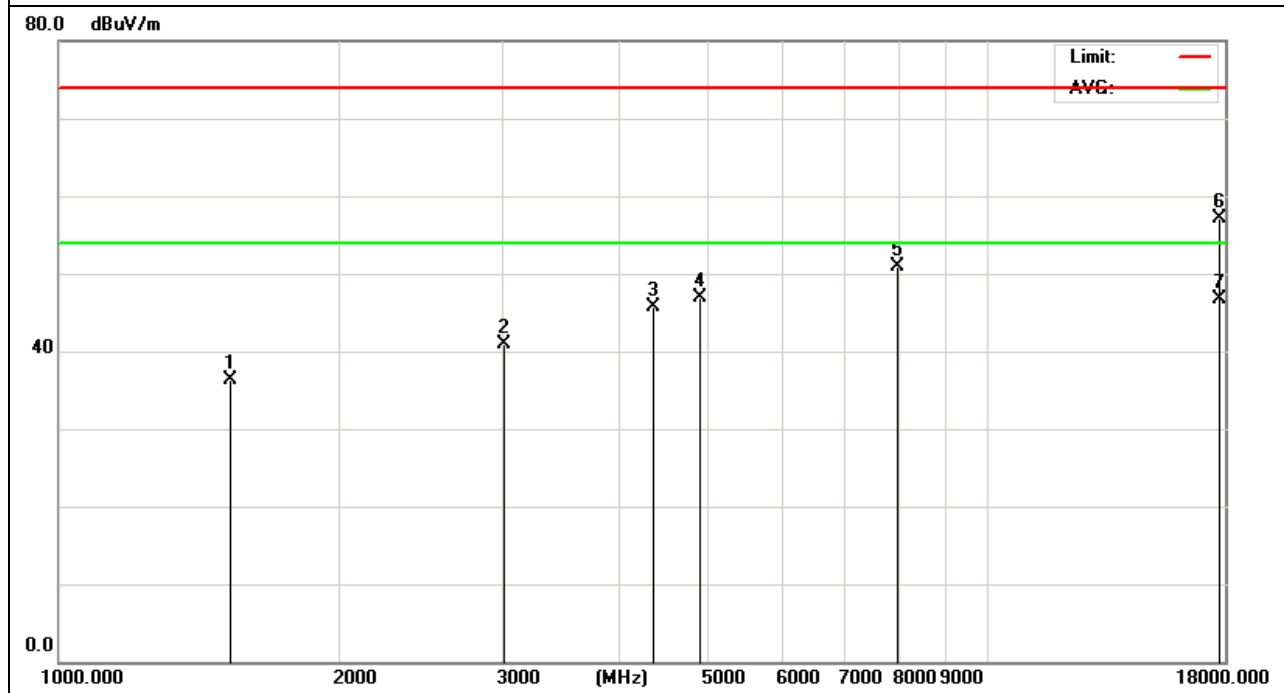
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n20 Channel 48	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
1542.844	47.21	-9.86	37.35	74	-36.65	peak
3022.811	43.19	-1.64	41.55	74	-32.45	peak
4366.914	41.41	4.46	45.87	74	-28.13	peak
4898.105	42.97	5.16	48.13	74	-25.87	peak
7983.259	40.09	10.32	50.41	74	-23.59	peak
17702.320	31.93	24.89	56.82	74	-17.18	peak
17702.320	22.25	24.89	47.14	54	-6.86	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n20 Channel 48	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
20029.719	40.40	15.31	55.71	74	-18.29	peak
20029.719	32.12	15.31	47.43	54	-6.57	AVG

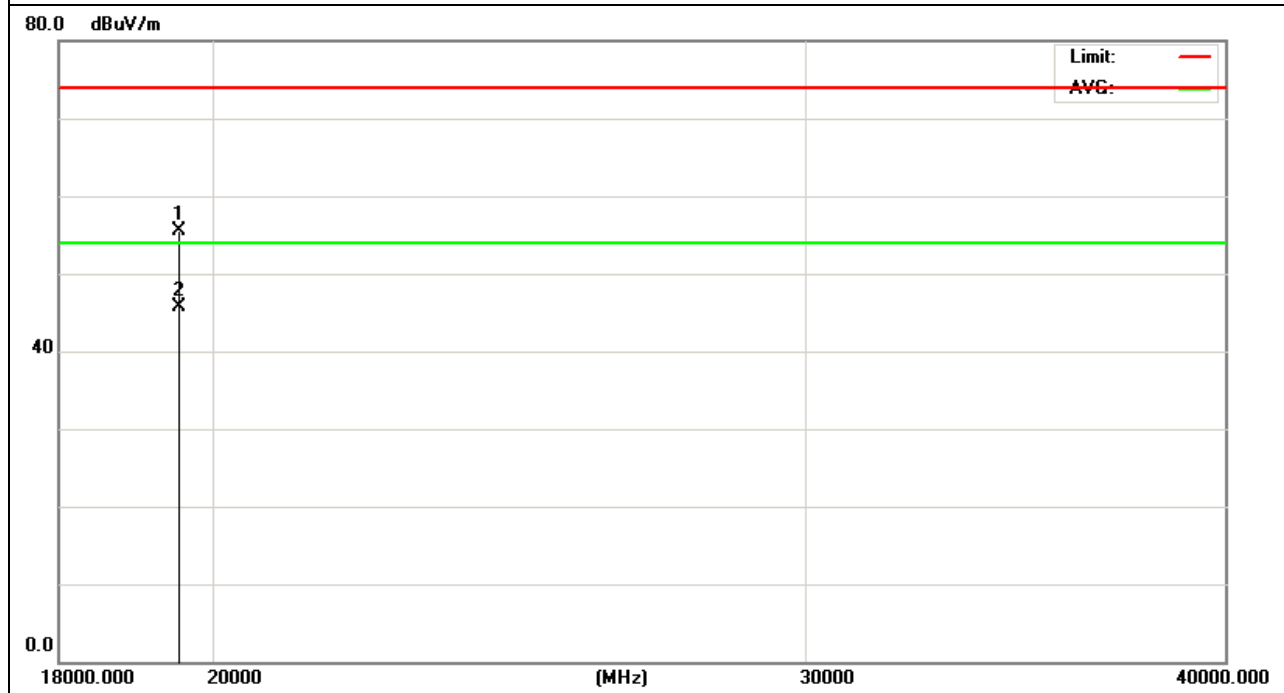
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n20 Channel 48	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
19527.533	40.95	14.56	55.51	74	-18.49	peak
19527.533	31.14	14.56	45.7	54	-8.3	AVG

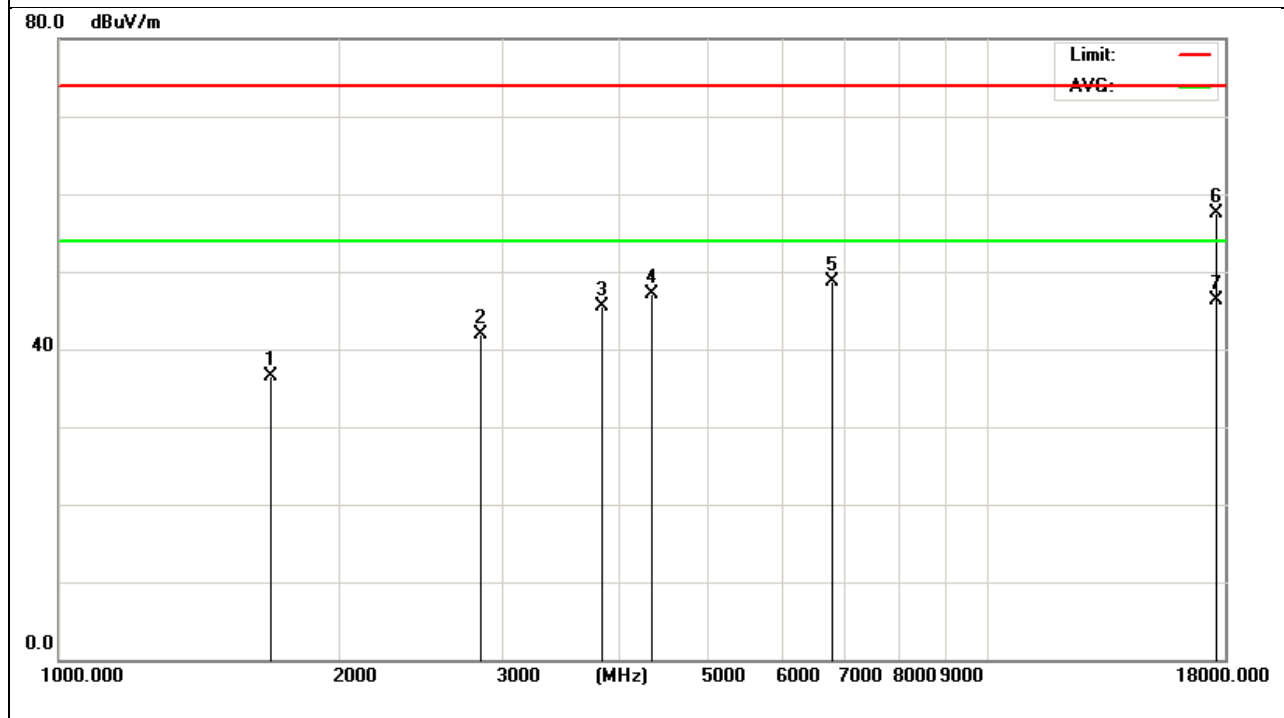
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n40 Channel 38	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1703.739	47.08	-9.66	37.42	74	-36.58	peak
2850.814	44.77	-2.65	42.12	74	-31.88	peak
3845.907	43.02	2.69	45.71	74	-28.29	peak
4332.621	43.51	4.39	47.9	74	-26.1	peak
6784.264	42.38	6.03	48.41	74	-25.59	peak
17632.166	32.54	24.94	57.48	74	-16.52	peak
17632.166	22.41	24.94	47.35	54	-6.65	AVG

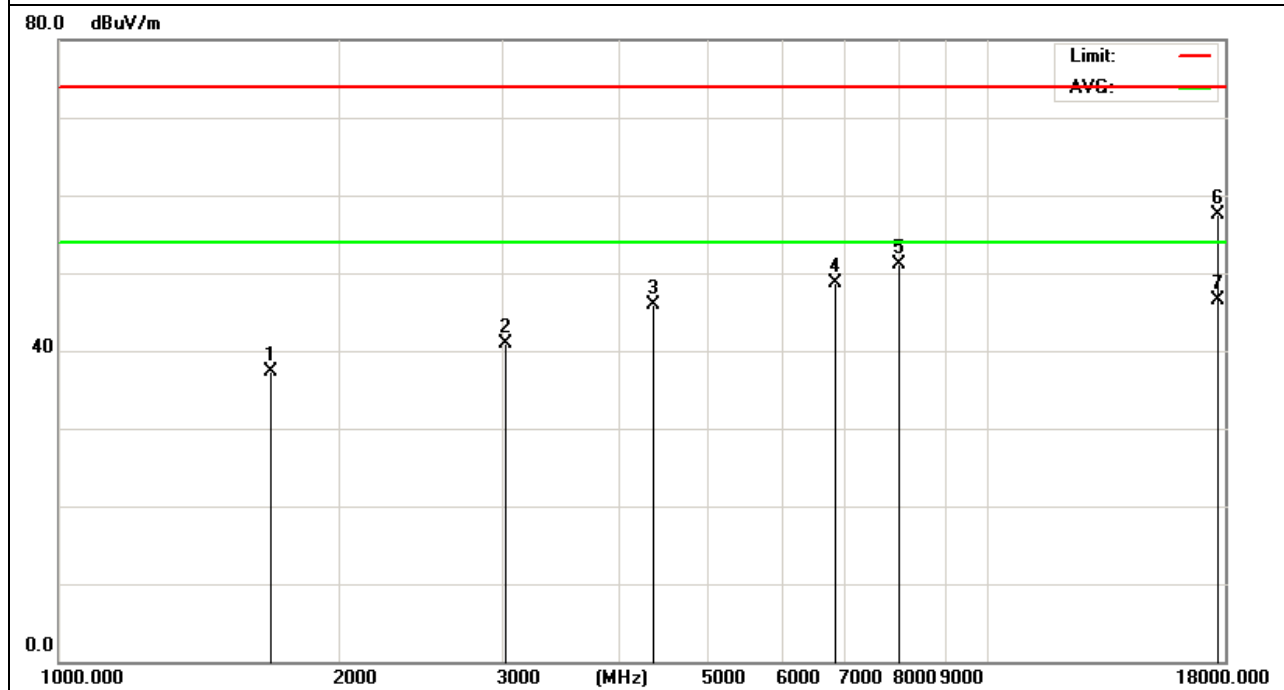
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n40 Channel 38	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
1707.121	47.15	-9.66	37.49	74	-36.51	peak
3024.906	43.03	-1.64	41.39	74	-32.61	peak
4367.187	41.19	4.46	45.65	74	-28.35	peak
6847.817	43.37	6.08	49.45	74	-24.55	peak
8015.111	40.87	10.40	51.27	74	-22.73	peak
17656.032	31.87	24.93	56.8	74	-17.2	peak
17656.032	22.70	24.93	47.63	54	-6.37	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n40 Channel 38	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
19659.080	41.38	14.76	56.14	74.00	-17.86	
19659.080	31.31	14.76	46.07	54.00	-7.93	AVG

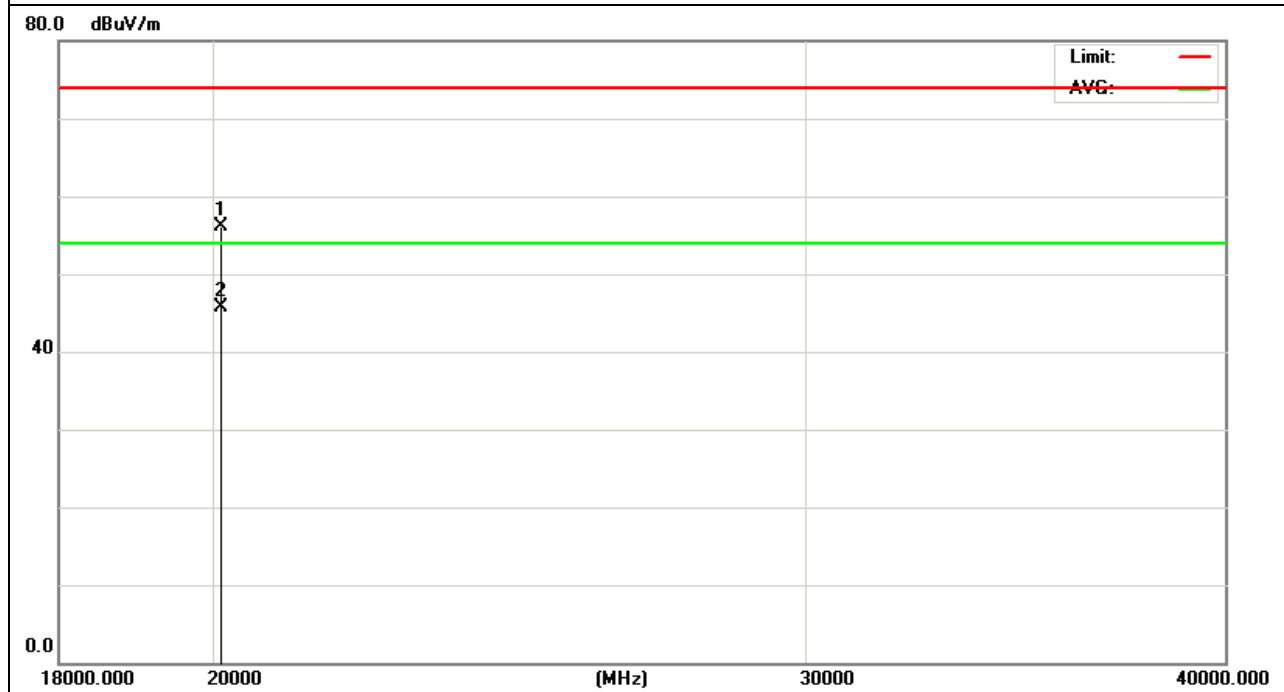
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n40 Channel 38	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
20106.894	40.42	15.42	55.84	74.00	-18.16	peak
20106.894	31.05	15.42	46.47	54.00	-7.53	AVG

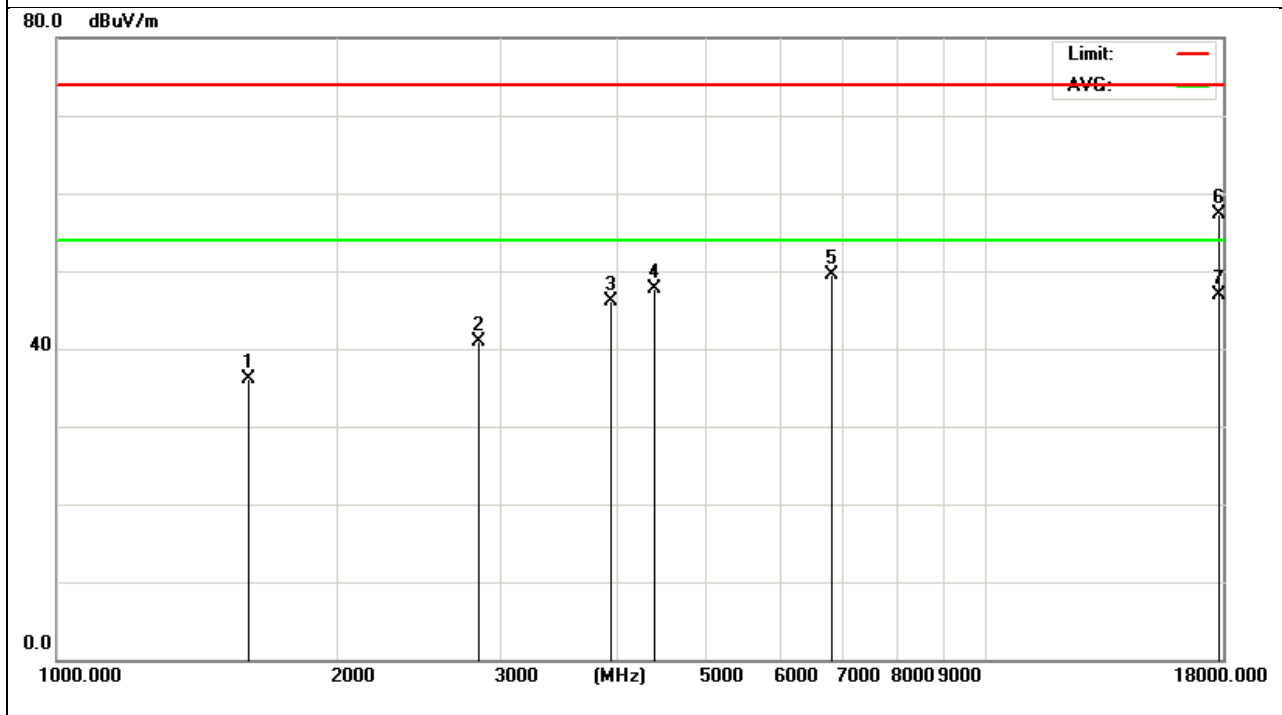
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n40 Channel 46	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
1617.159	46.99	-9.89	37.10	74	-36.90	peak
2850.739	43.81	-2.64	41.17	74	-32.83	peak
3947.004	43.04	3.43	46.47	74	-27.53	peak
4390.265	44.17	4.50	48.67	74	-25.33	peak
6831.894	43.30	6.08	49.38	74	-24.62	peak
17761.936	31.71	24.85	56.56	74	-17.44	peak
17761.936	22.91	24.85	47.76	54	-6.24	AVG

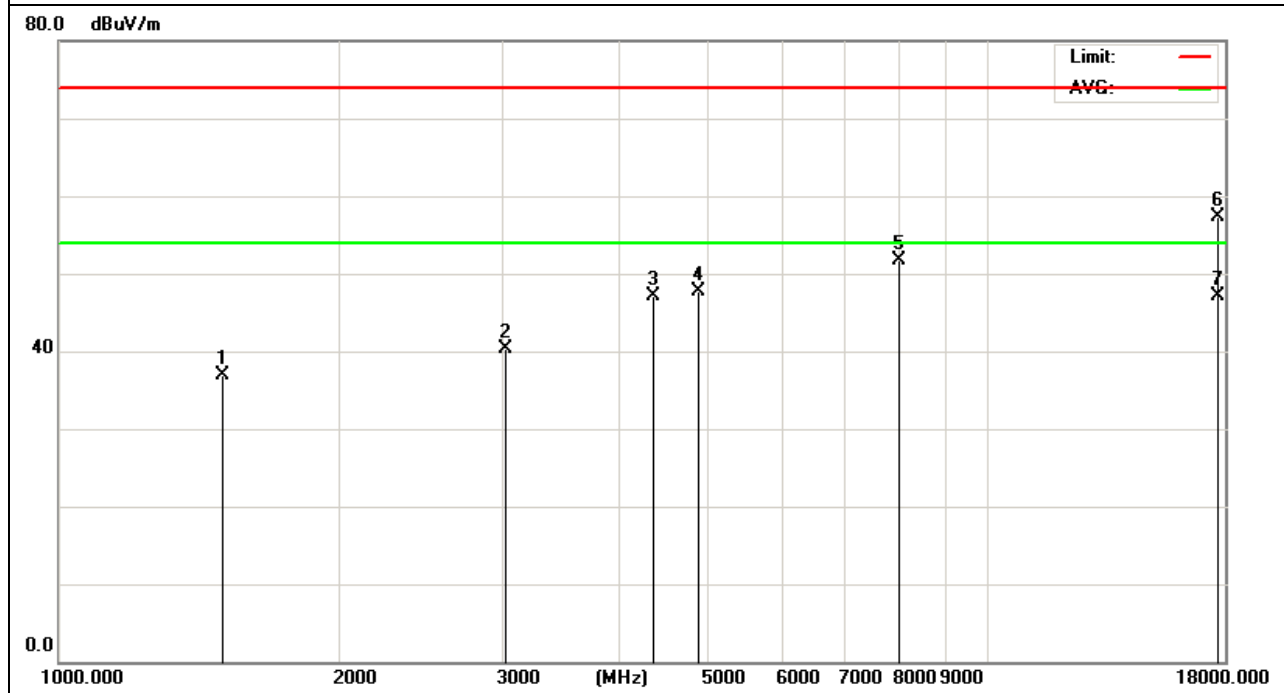
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n40 Channel 46	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1514.563	47.82	-9.85	37.97	74	-36.03	peak
3023.626	42.46	-1.64	40.82	74	-33.18	peak
4360.364	43.15	4.45	47.6	74	-26.4	peak
4865.168	44.01	5.13	49.14	74	-24.86	peak
8013.310	40.71	10.40	51.11	74	-22.89	peak
17664.928	31.99	24.92	56.91	74	-17.09	peak
17664.928	22.51	24.92	47.43	54	-6.57	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n40 Channel 46	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
18601.449	42.01	13.18	55.19	74	-18.81	peak
18601.449	33.00	13.18	46.18	54	-7.82	AVG

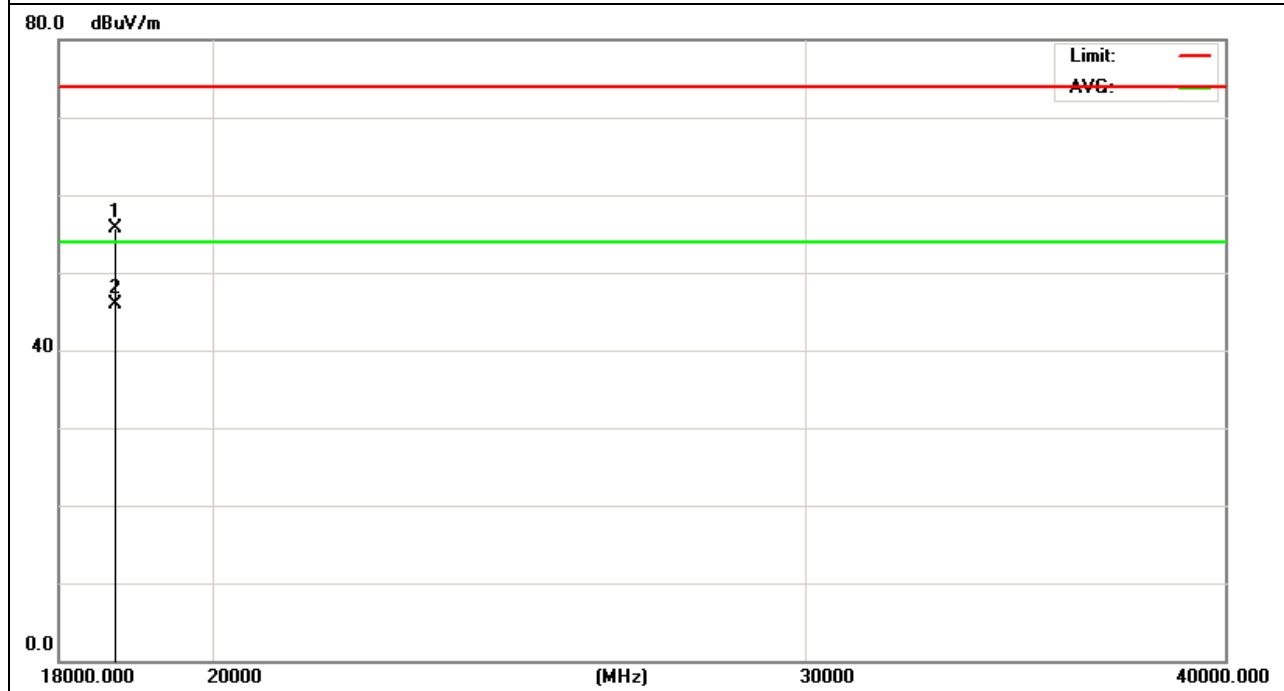
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11n40 Channel 46	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
18704.810	42.22	13.34	55.56	74	-18.44	peak
18704.810	32.80	13.34	46.14	54	-7.86	AVG

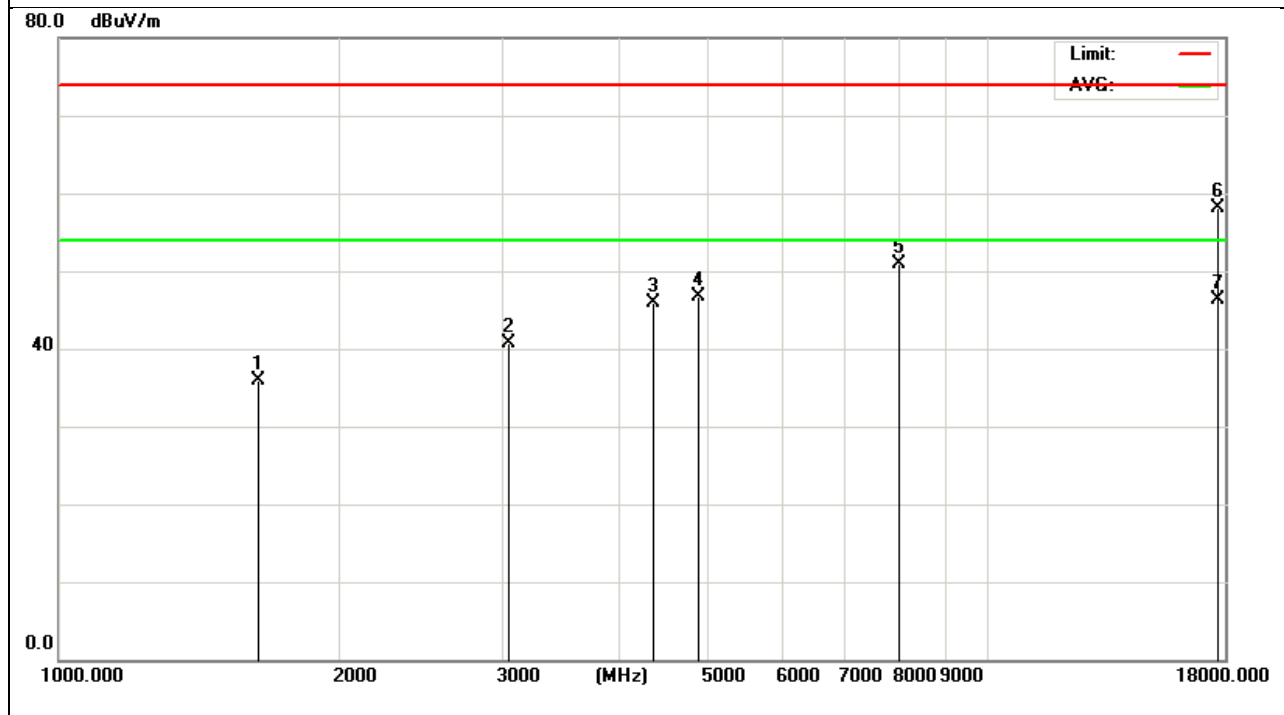
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11ac80 Channel 42	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
1653.061	46.29	-9.80	36.49	74	-37.51	peak
3053.661	42.11	-1.57	40.54	74	-33.46	peak
4369.403	41.18	4.46	45.64	74	-28.36	peak
4861.860	42.61	5.12	47.73	74	-26.27	peak
8015.181	40.22	10.40	50.62	74	-23.38	peak
17696.207	33.20	24.90	58.1	74	-15.9	peak
17696.207	22.03	24.90	46.93	54	-7.07	AVG

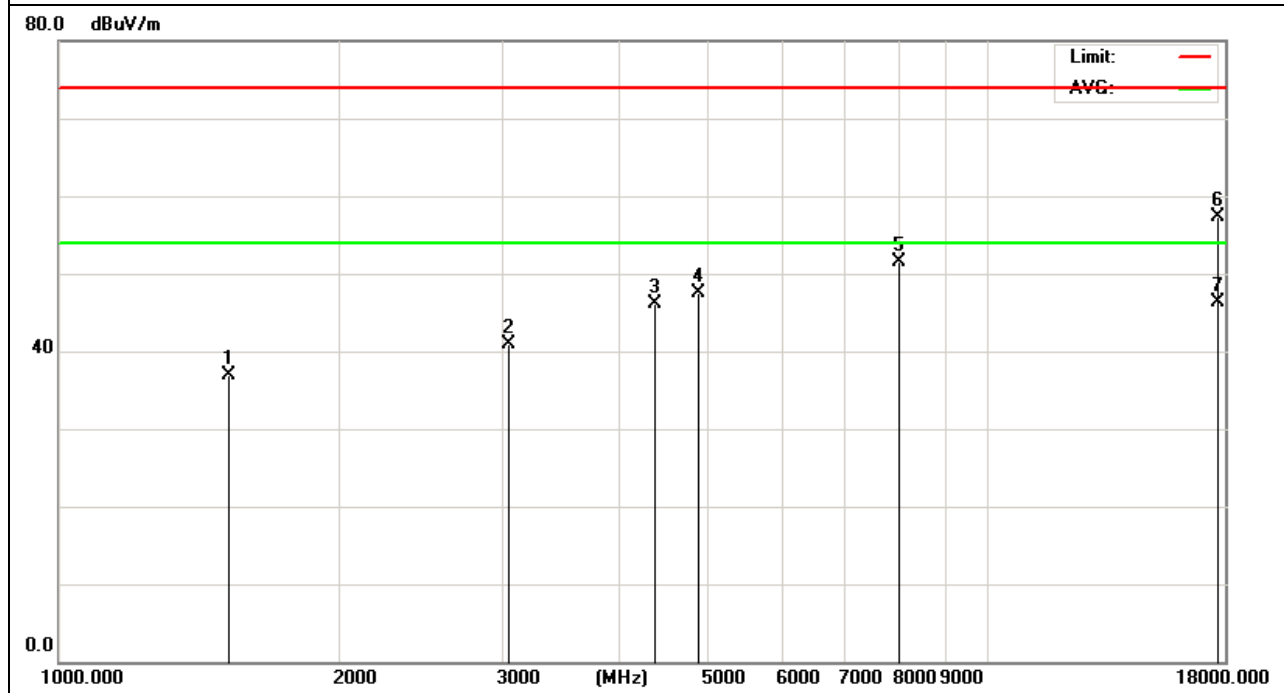
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11 ac80 Channel 42	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1536.461	47.38	-9.86	37.52	74	-36.48	peak
3052.458	42.85	-1.57	41.28	74	-32.72	peak
4371.698	41.88	4.47	46.35	74	-27.65	peak
4868.325	43.29	5.13	48.42	74	-25.58	peak
8013.498	41.03	10.40	51.43	74	-22.57	peak
17694.899	32.39	24.90	57.29	74	-16.71	peak
17694.899	22.62	24.90	47.52	54	-6.48	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11ac80 Channel 42	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
19230.103	40.70	14.11	54.81	74	-19.19	peak
19230.103	33.35	14.11	47.46	54	-6.54	AVG

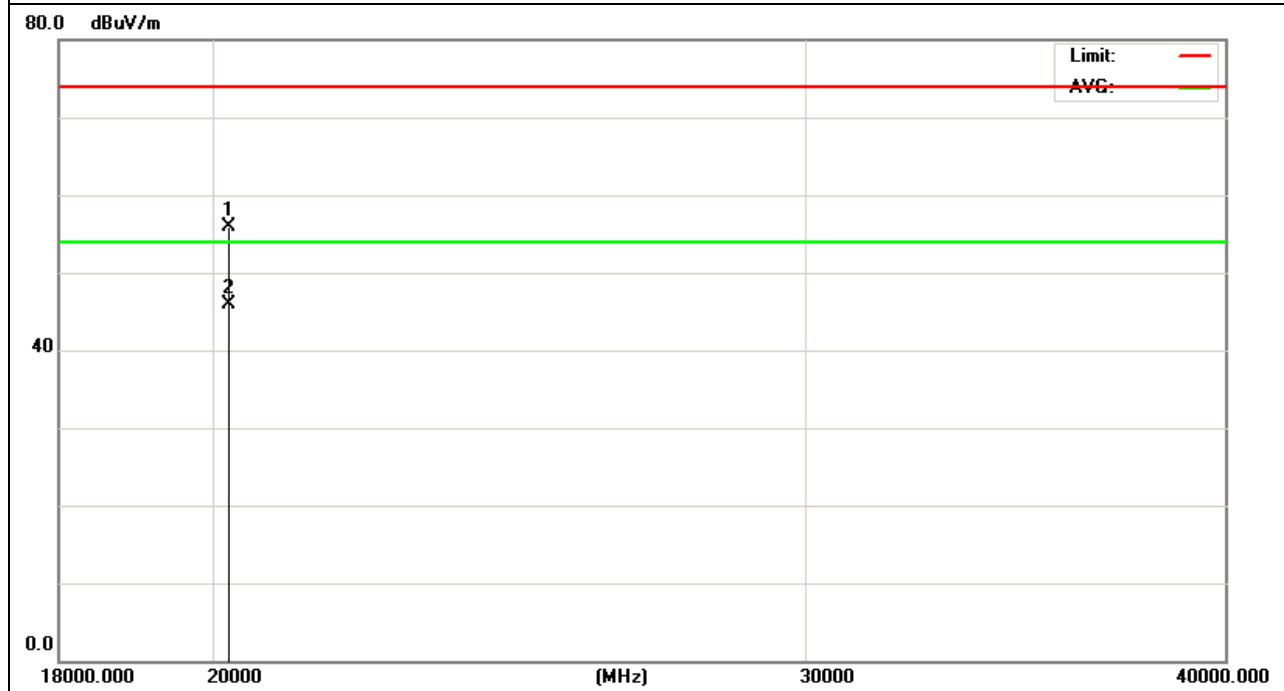
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	802.11 ac80 Channel 42	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
20211.450	40.54	15.58	56.12	74.00	-17.88	peak
20211.450	30.59	15.58	46.17	54.00	-7.83	AVG

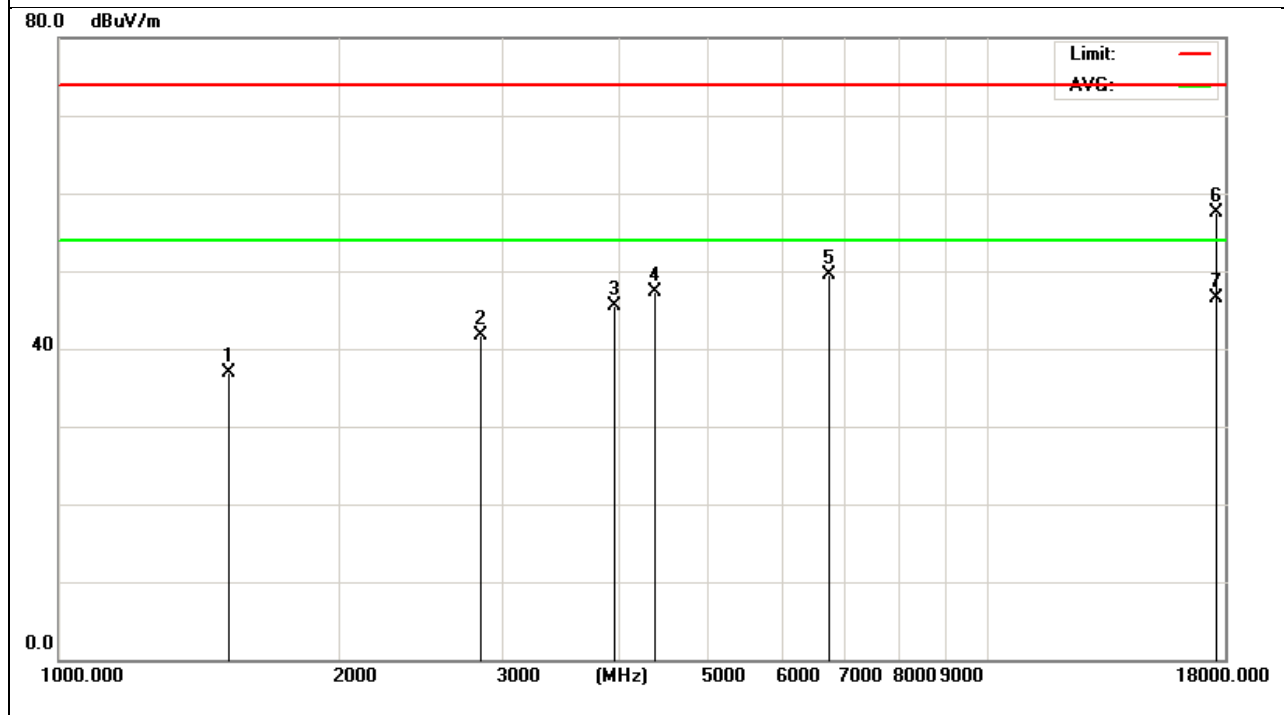
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	RX	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
1536.535	47.34	-9.86	37.48	74	-36.52	peak
2849.885	45.00	-2.64	42.36	74	-31.64	peak
3950.734	41.91	3.46	45.37	74	-28.63	peak
4368.977	44.11	4.46	48.57	74	-25.43	peak
6748.782	43.69	6.01	49.70	74	-24.30	peak
17602.284	32.06	24.97	57.03	74	-16.97	peak
17602.284	22.85	24.97	47.82	54	-6.18	AVG

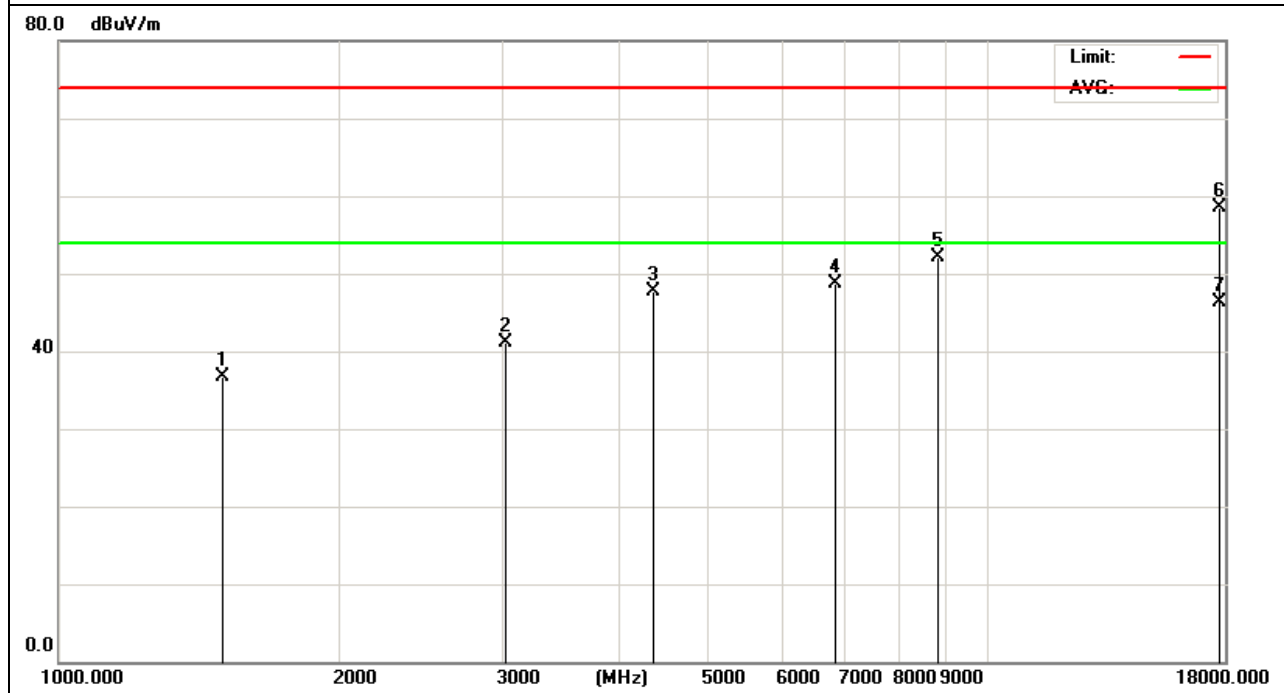
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	RX	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1511.578	46.95	-9.86	37.09	74	-36.91	peak
3025.875	42.65	-1.64	41.01	74	-32.99	peak
4364.035	43.34	4.46	47.80	74	-26.20	peak
6844.696	43.76	6.08	49.84	74	-24.16	peak
8825.714	41.28	10.62	51.90	74	-22.10	peak
17697.298	33.16	24.90	58.06	74	-15.94	peak
17697.298	21.87	24.90	46.77	54	-7.23	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	RX	Polarization :	Horizontal
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
20045.976	40.25	15.31	55.56	74.00	-18.44	peak
20045.976	30.71	15.31	46.02	54.00	-7.98	AVG

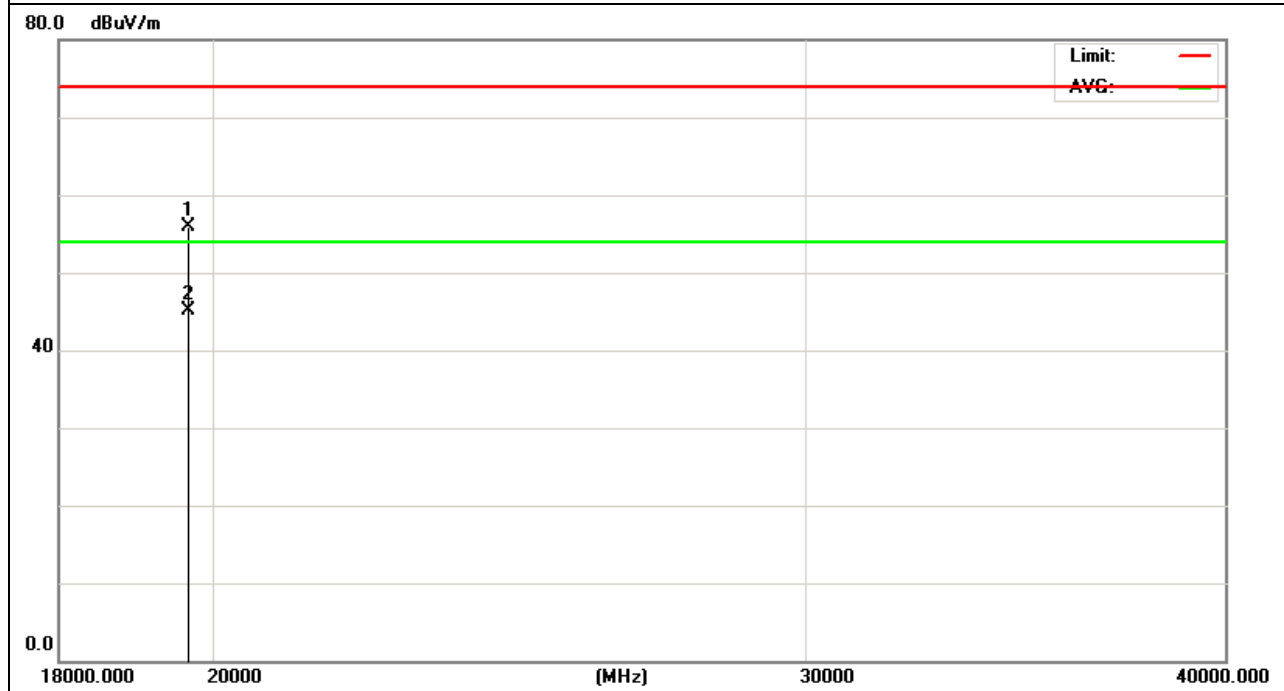
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	RX	Polarization :	Vertical
Measurement Distance	3 m	Frequency Range	1GHz to 40GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
19663.722	41.13	14.76	55.89	74.00	-18.11	peak
19663.722	31.28	14.76	46.04	54.00	-7.96	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



No any other emissions level which are attenuated less than 20dB below the limit. No recording in the test report.

3.2.6 TEST RESULTS (RESTRICTED BANDS REQUIREMENTS)

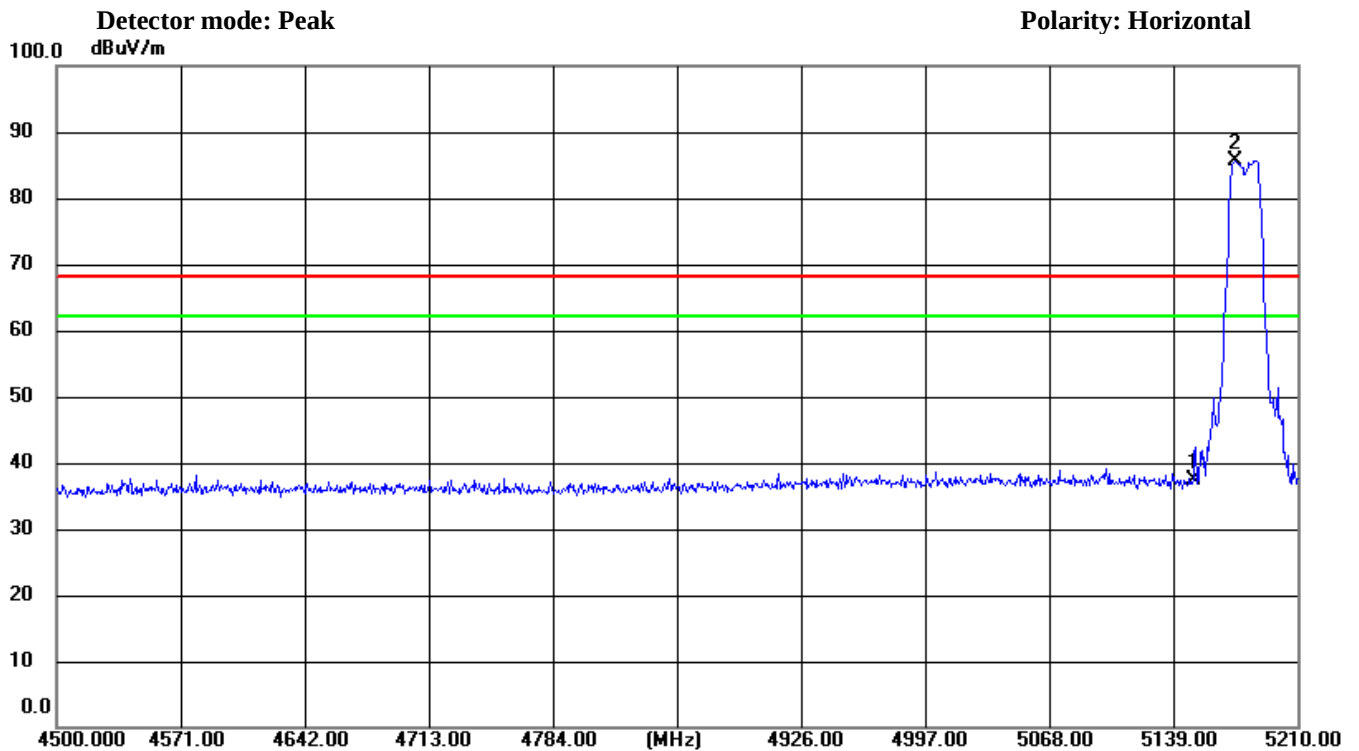
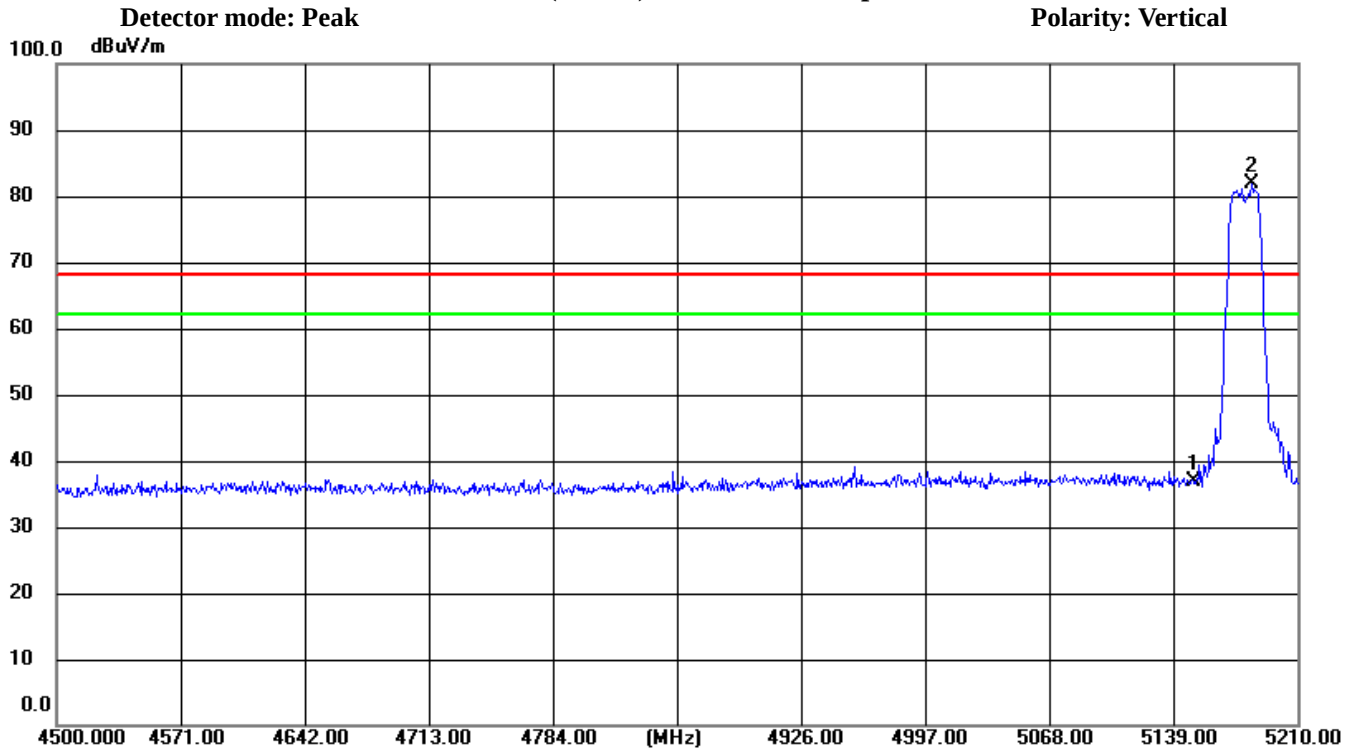
EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24°C	Relative Humidity :	51%
Pressure :	1010 hPa	Test Power :	DC7.4V from battery
Test Mode :	802.11a		
Test Date :	2021-07-12		
Note :	1. The transmitter was setup to transmit at the lowest channel (CH36). Then the field strength was measured at 4500-5150 MHz. 2. The transmitter was setup to transmit at the highest channel (CH48). Then the field strength was measured at 5190-5410 MHz. 3. The data of 5150MHz and 5350MHz was the worst.		

Freq. (MHz) (Peak)	Ant.Pol. H/V	Reading	Ant/CF	Act	Limit	Note
		Peak (dBuv)	Peak (dB)	Peak (dBuv/m)	Peak (dBuv/m)	
5150.00	V	32.10	4.78	36.88	68.20	CH36
5183.73	V	77.25	4.67	---	---	CH36
5150.00	H	32.65	4.78	37.43	68.20	CH36
5174.50	H	80.97	4.71	---	---	CH36
5244.78	V	78.71	4.52	---	---	CH48
5350.00	V	31.65	4.30	35.95	68.20	CH48
5242.58	H	80.74	4.52	---	---	CH48
5350.00	H	32.30	4.30	36.60	68.20	CH48

Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (2) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna
- (3) Corr.Factor = Antenna Factor + Cable Loss – Pre-amplifier.

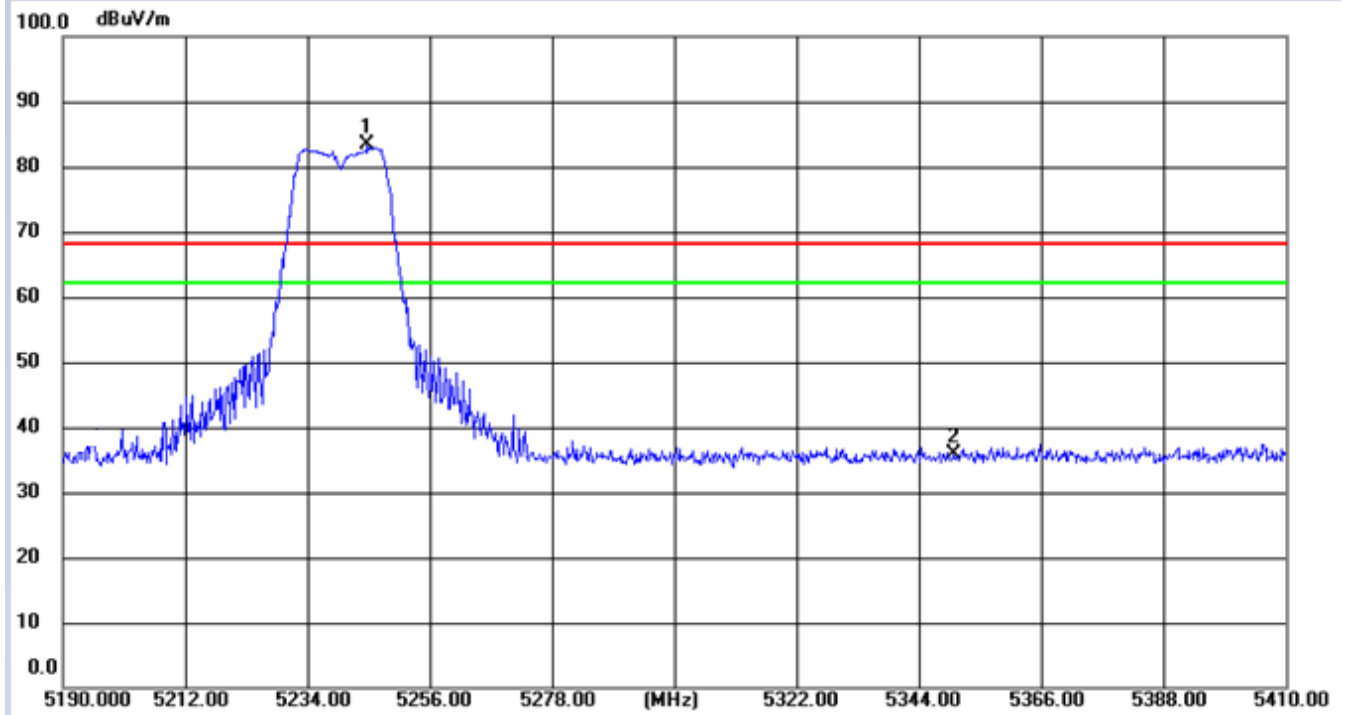
802.11a (5.15GHz-5.25GHz) CH 36 (Lower) Data rate 6Mbps



802.11a (5.15GHz-5.25GHz)
CH 48 (Upper) Data rate 6Mbps

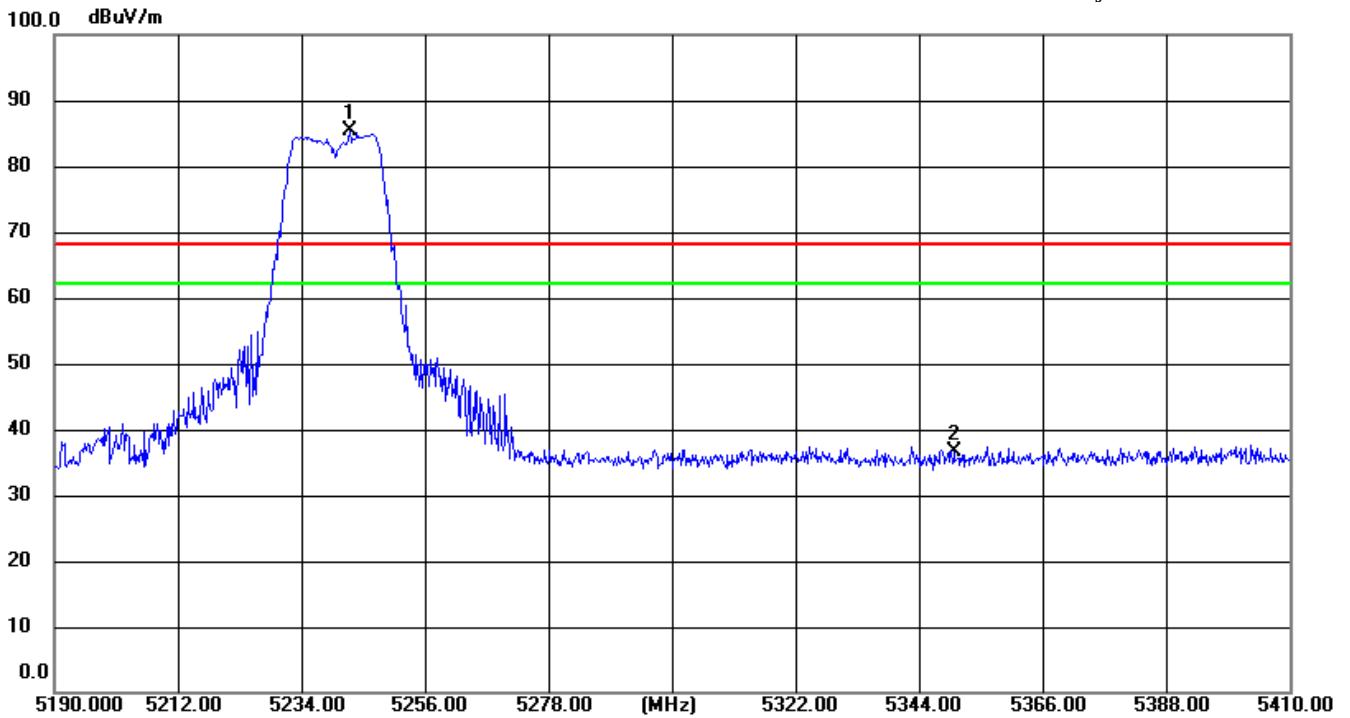
Detector mode: Peak

Polarity: Vertical



Detector mode: Peak

Polarity: Horizontal



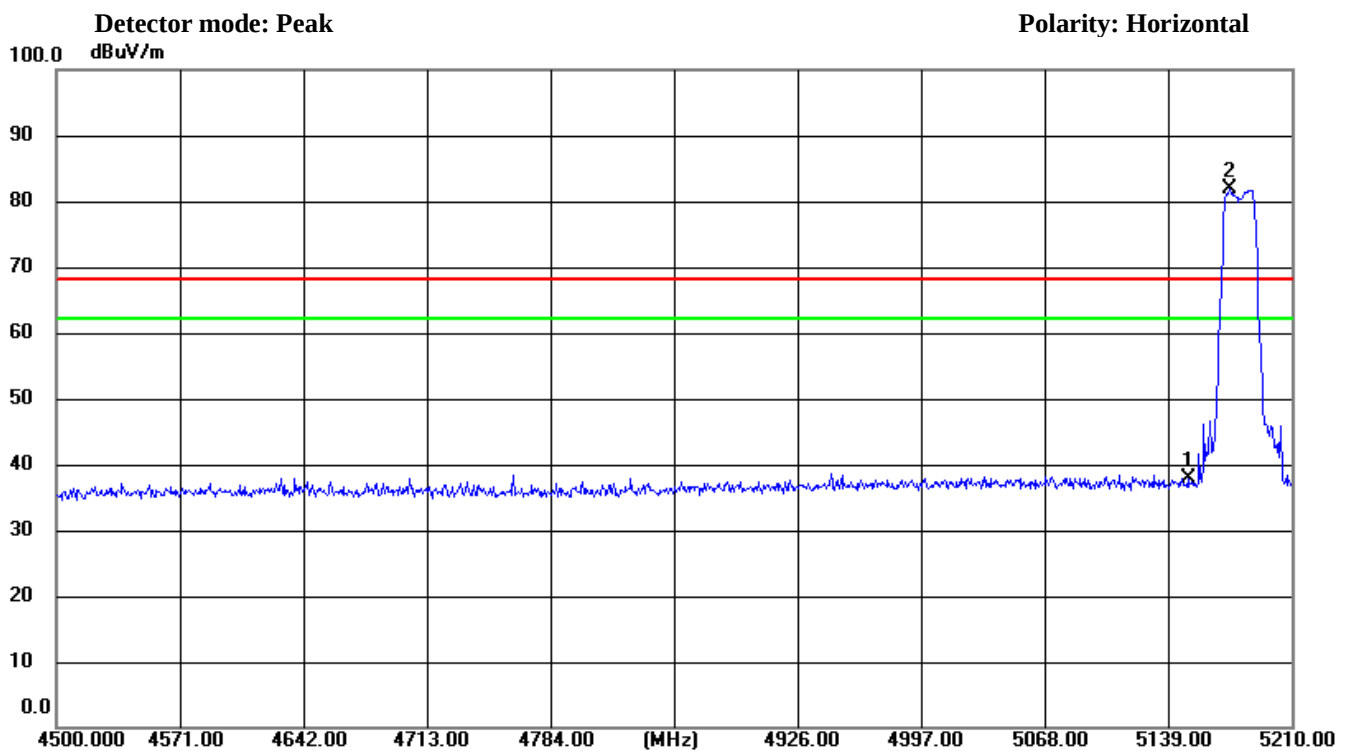
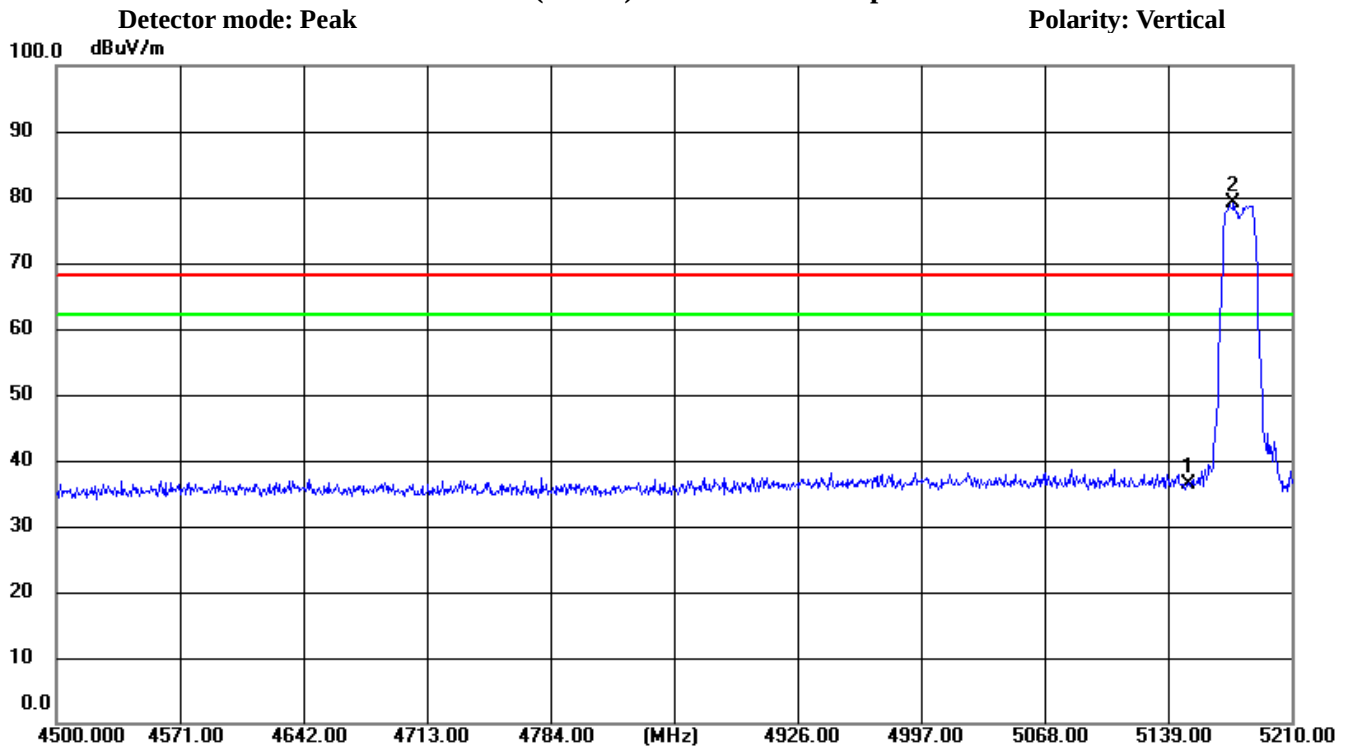
EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24°C	Relative Humidity :	51%
Pressure :	1010 hPa	Test Power :	DC7.4V from battery
Test Mode :	802.11n BW20MHz		
Test Date :	2021-07-12		
Note :	1. The transmitter was setup to transmit at the lowest channel (CH36). Then the field strength was measured at 4500-5150 MHz. 2. The transmitter was setup to transmit at the highest channel (CH48). Then the field strength was measured at 5190-5410 MHz. 3. The data of 5150MHz and 5350MHz was the worst.		

Freq. (MHz) (Peak)	Ant.Pol. H/V	Reading	Ant/CF	Act	Limit	Note
		Peak (dBuv)	Peak (dB)	Peak (dBuv/m)	Peak (dBuv/m)	
5150.00	V	31.61	4.78	36.39	68.20	CH36
5176.63	V	74.28	4.70	---	---	CH36
5150.00	V	32.96	4.78	37.74	68.20	CH36
5174.50	V	77.11	4.71	---	---	CH36
5235.76	V	78.38	4.54	---	---	CH48
5350.00	V	31.61	4.30	35.91	68.20	CH48
5235.76	H	81.27	4.54	---	---	CH48
5350.00	H	30.35	4.30	34.65	68.20	CH48

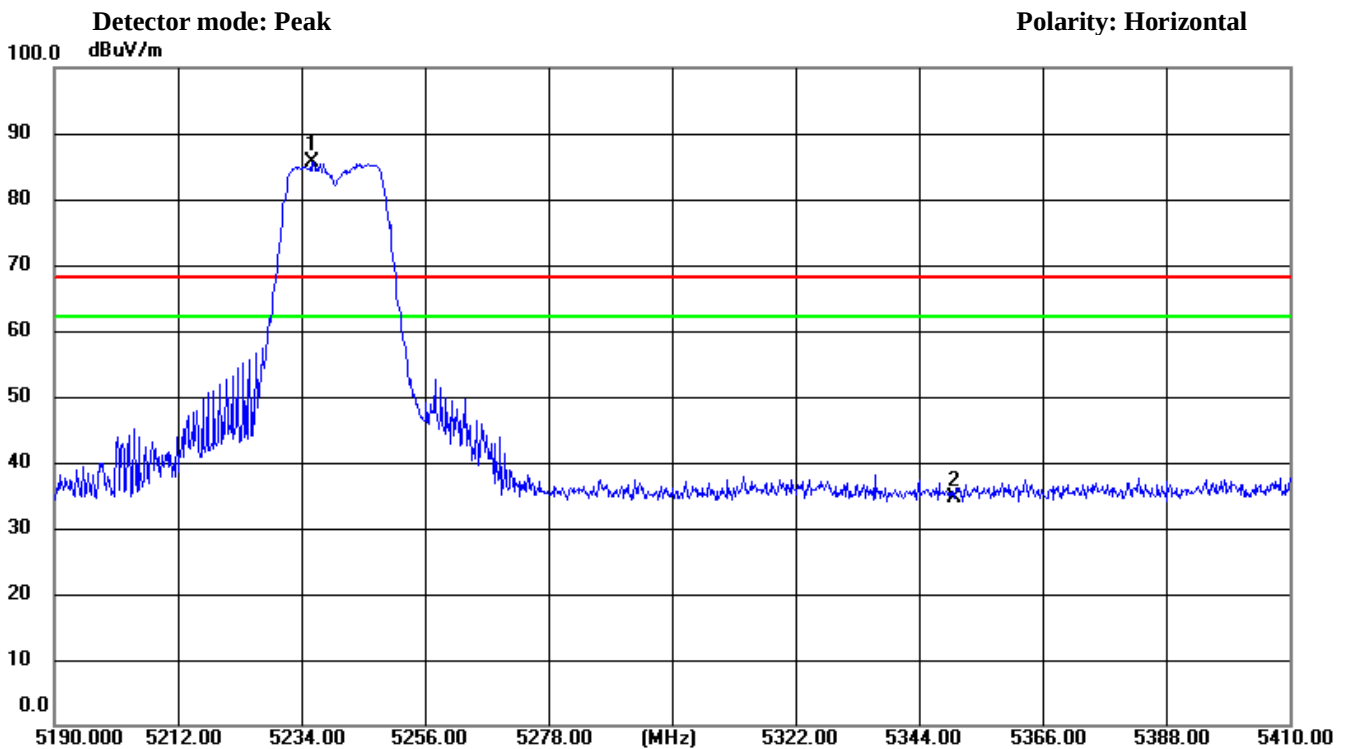
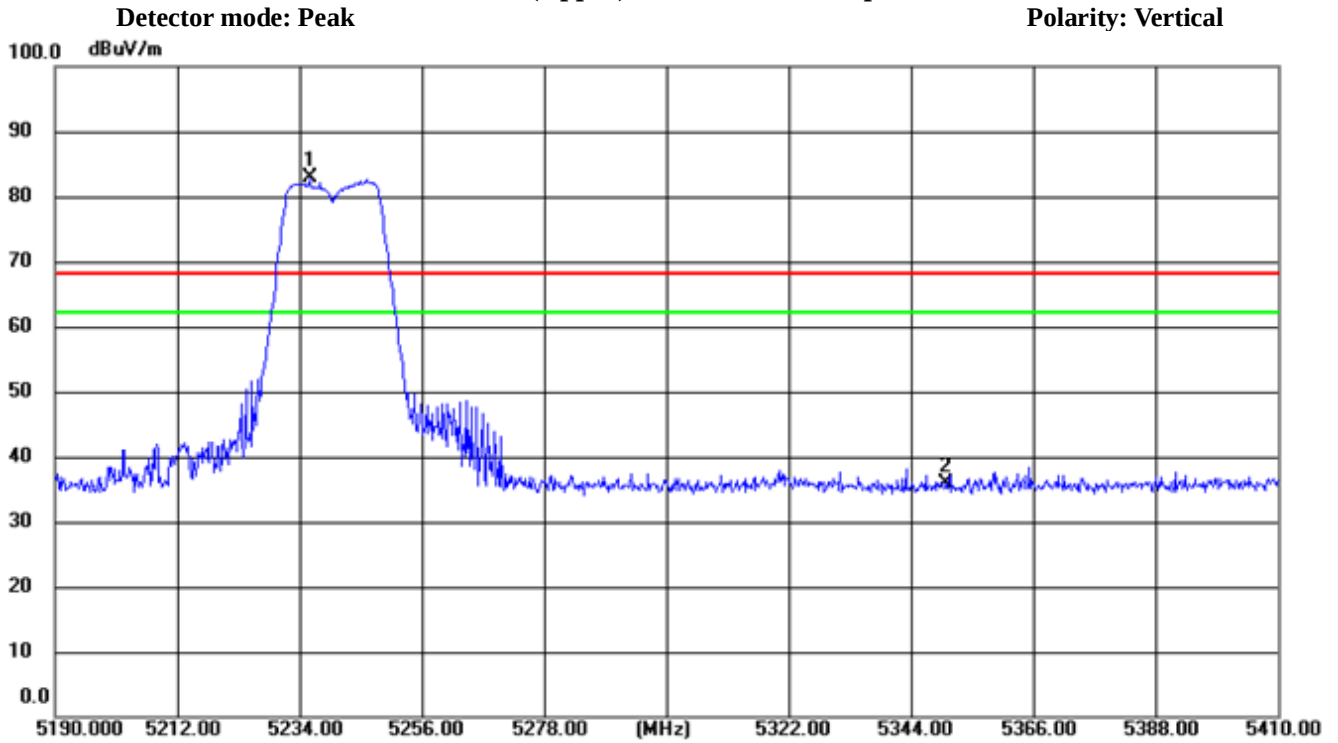
Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (2) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna
- (3) Corr.Factor = Antenna Factor + Cable Loss – Pre-amplifier.

802.11n(20M) (5.15GHz-5.25GHz)
CH 36 (Lower) Data rate 7.2Mbps



802.11n(20M) (5.15GHz-5.25GHz)
CH 48(Upper) Data rate 7.2Mbps



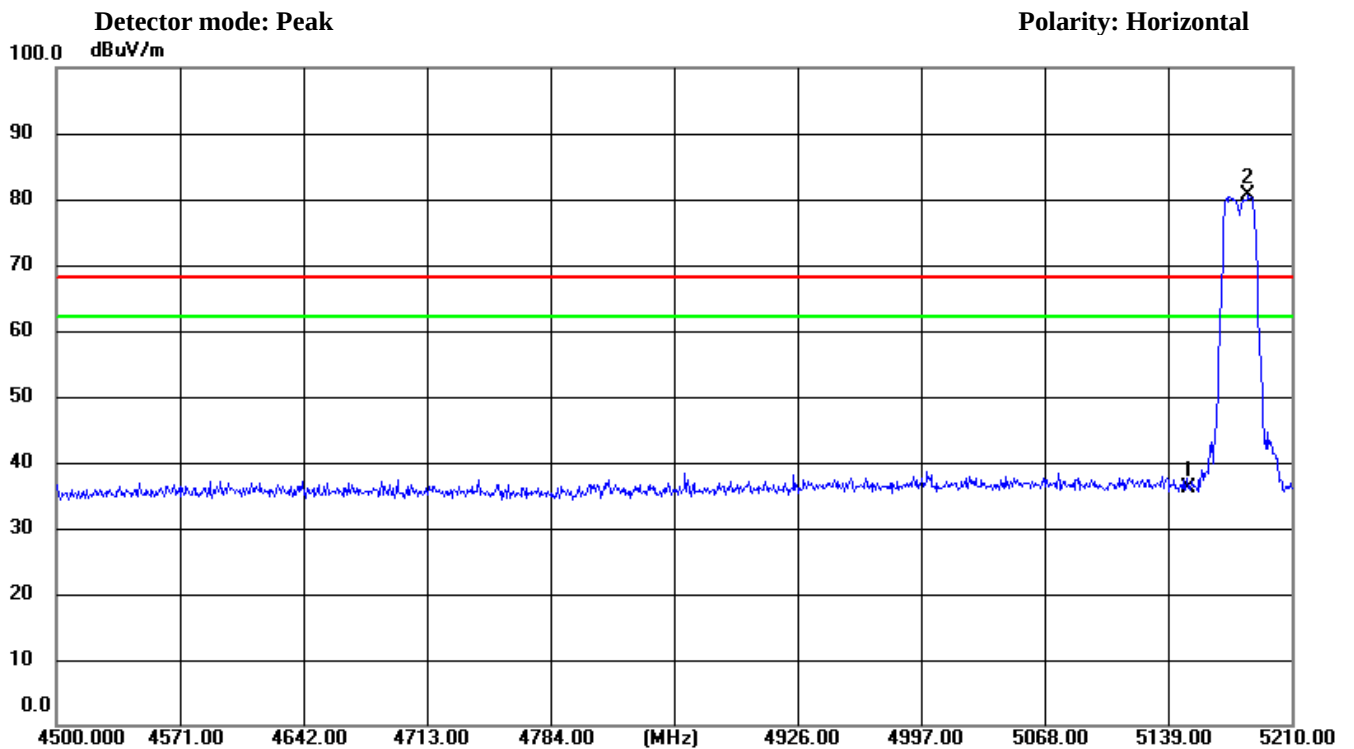
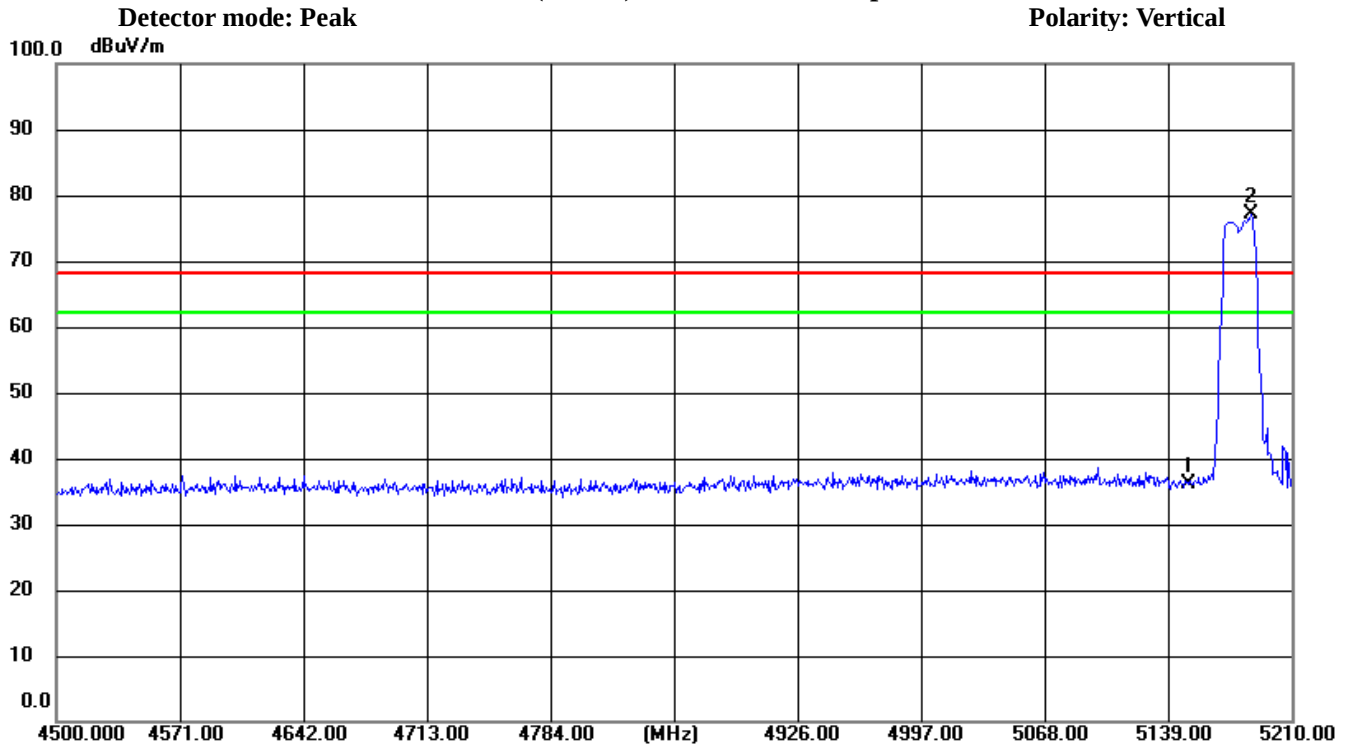
EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24°C	Relative Humidity :	51%
Pressure :	1010 hPa	Test Power :	DC7.4V from battery
Test Mode :	802.11ac BW20MHz		
Test Date :	2021-07-12		
Note :	1. The transmitter was setup to transmit at the lowest channel (CH36). Then the field strength was measured at 4500-5150 MHz. 2. The transmitter was setup to transmit at the highest channel (CH48). Then the field strength was measured at 5190-5410 MHz. 3. The data of 5150MHz and 5350MHz was the worst.		

Freq. (MHz) (Peak)	Ant.Pol. H/V	Reading	Ant/CF	Act	Limit	Note
		Peak (dBuv)	Peak (dB)	Peak (dBuv/m)	Peak (dBuv/m)	
5150.00	V	31.36	4.78	36.14	68.20	CH36
5186.57	V	72.31	4.66	---	---	CH36
5150.00	H	31.33	4.78	36.11	68.20	CH36
5185.15	H	75.87	4.67	---	---	CH36
5234.88	V	76.11	4.54	---	---	CH48
5350.00	V	31.95	4.30	36.25	68.20	CH48
5235.10	H	79.23	4.54	---	---	CH48
5350.00	H	31.26	4.30	35.56	68.20	CH48

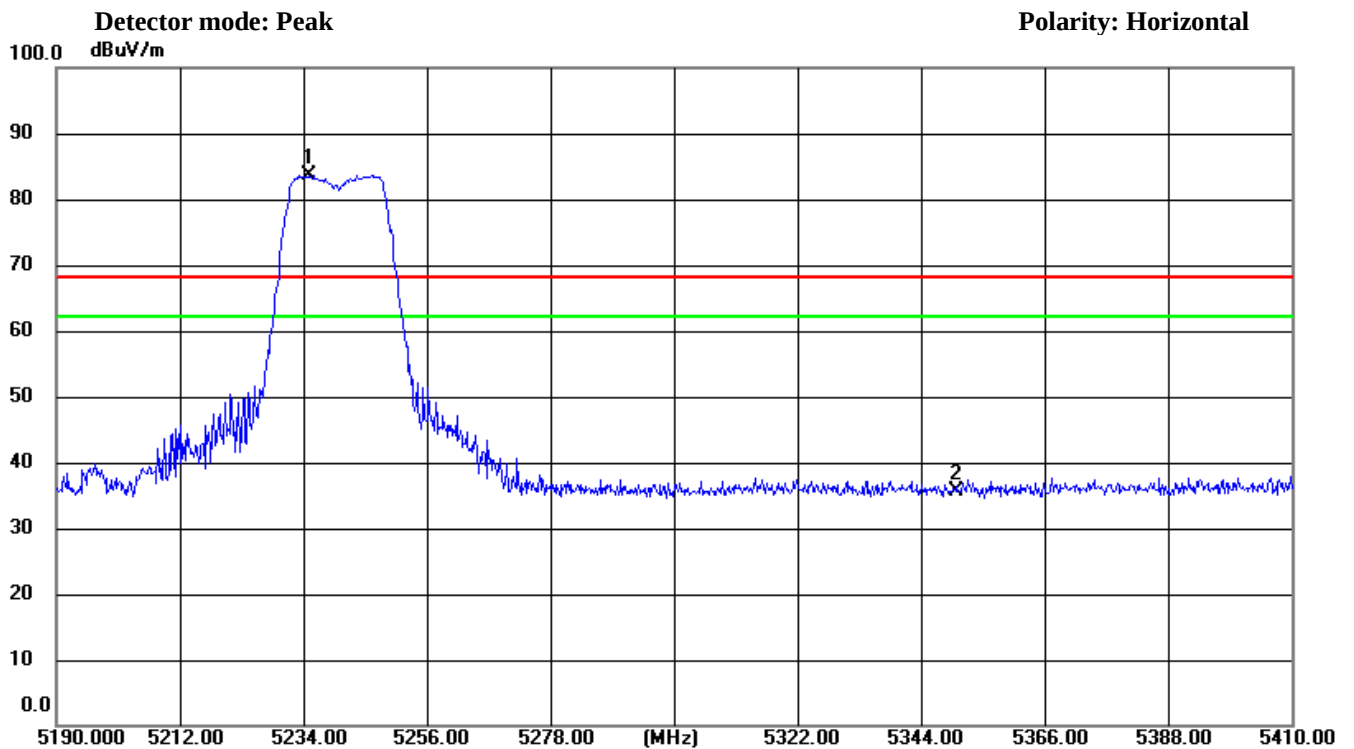
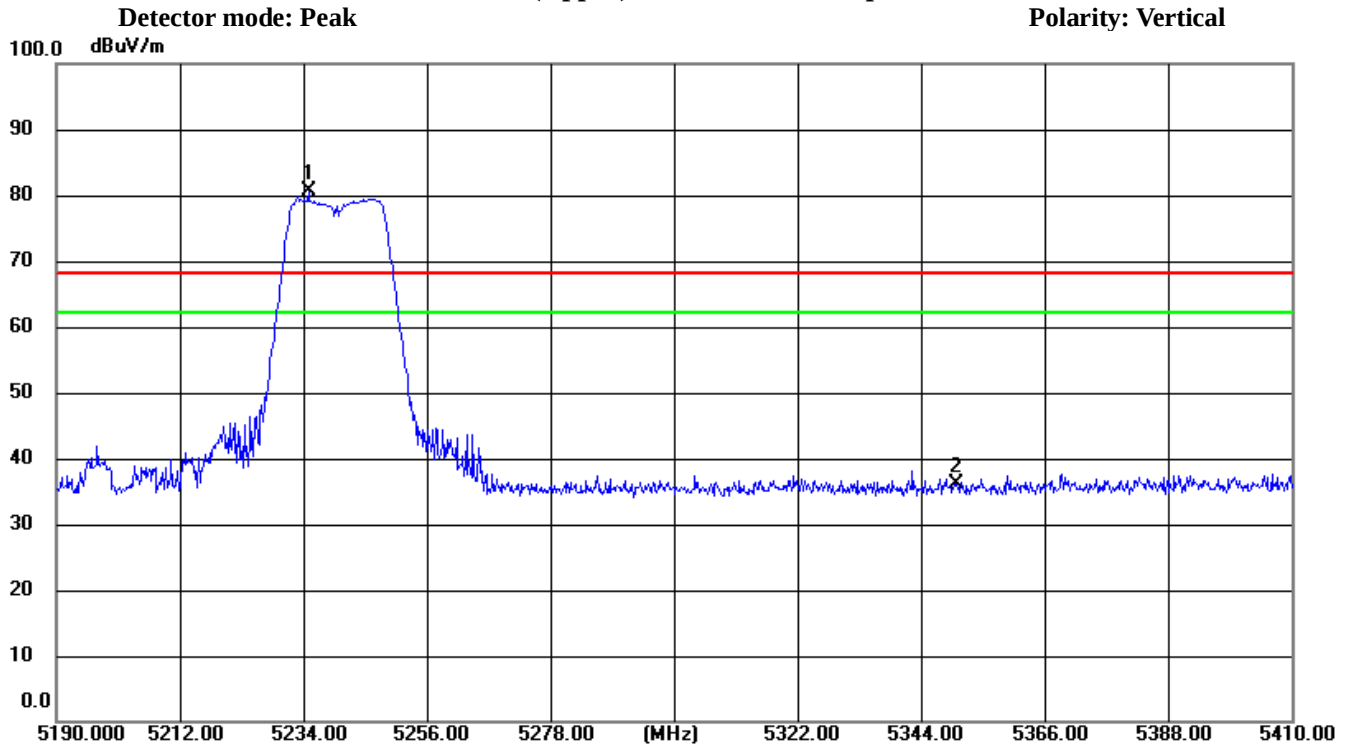
Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (2) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna
- (3) Corr.Factor = Antenna Factor + Cable Loss – Pre-amplifier.

802.11ac(20M) (5.15GHz-5.25GHz)
CH 36 (Lower) Data rate 7.2Mbps



802.11 ac(20M) (5.15GHz-5.25GHz)
CH 48(Upper) Data rate 7.2Mbps



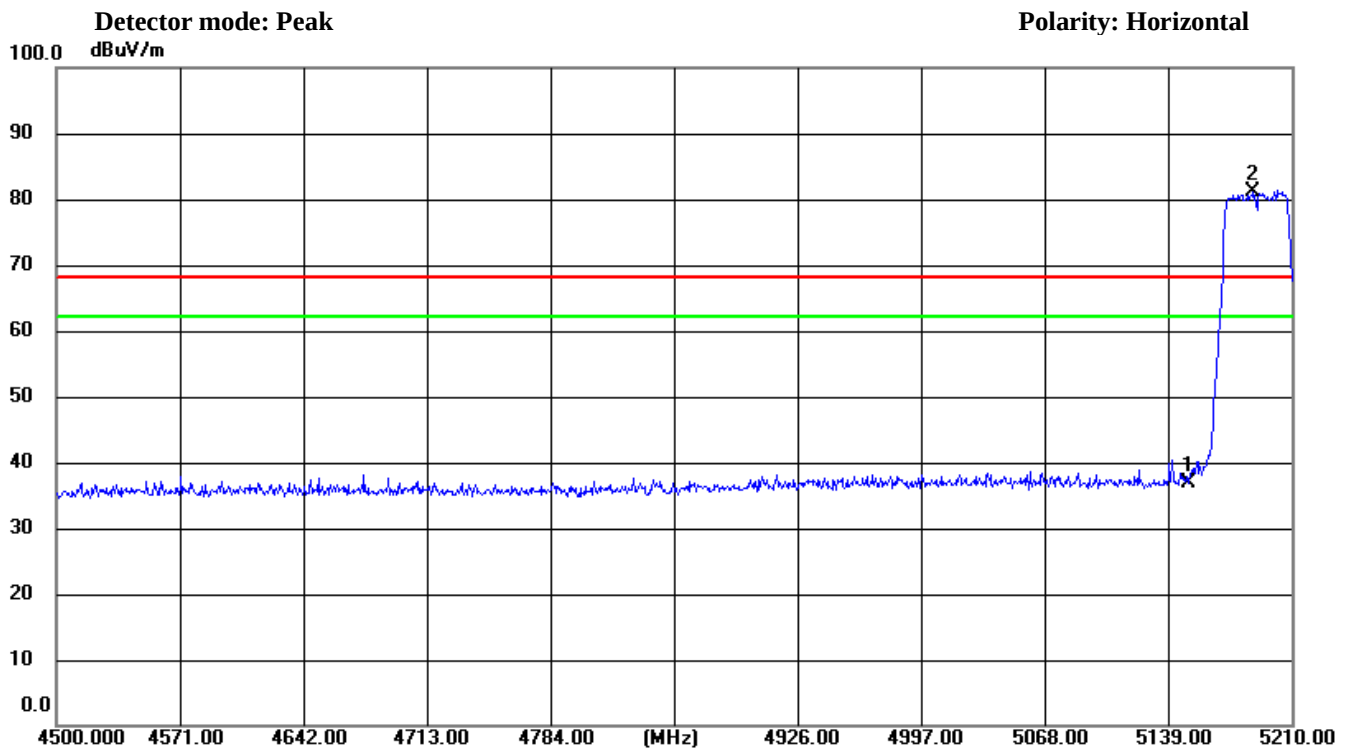
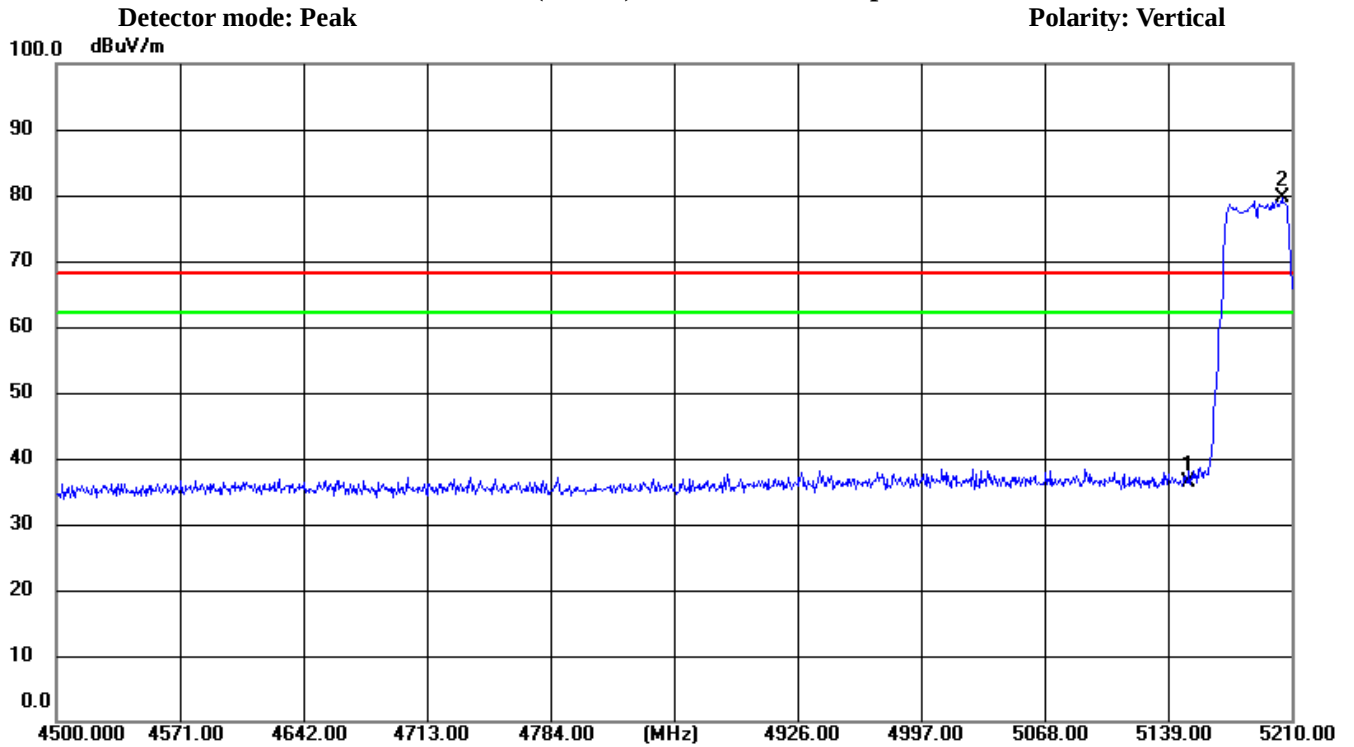
EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24°C	Relative Humidity :	51%
Pressure :	1010 hPa	Test Power :	DC7.4V from battery
Test Mode :	802.11n BW40MHz		
Test Date :	2021-07-12		
Note :	1. The transmitter was setup to transmit at the lowest channel (CH38). Then the field strength was measured at 4500-5150 MHz. 2. The transmitter was setup to transmit at the highest channel (CH46). Then the field strength was measured at 5190-5410 MHz. 3. The data of 5150MHz and 5350MHz was the worst.		

Freq. (MHz) (Peak)	Ant.Pol. H/V	Reading	Ant/CF	Act	Limit	Note
		Peak (dBuv)	Peak (dB)	Peak (dBuv/m)	Peak (dBuv/m)	
5150.00	V	31.43	4.78	36.21	68.20	CH38
5204.32	V	74.95	4.60	---	---	CH38
5150.00	H	32.10	4.78	36.88	68.20	CH38
5187.99	H	76.31	4.66	---	---	CH38
5231.80	V	73.47	4.55	---	---	CH46
5350.00	V	31.34	4.30	35.64	68.20	CH46
5231.58	H	76.26	4.55	---	---	CH46
5350.00	H	31.49	4.30	35.79	68.20	CH46

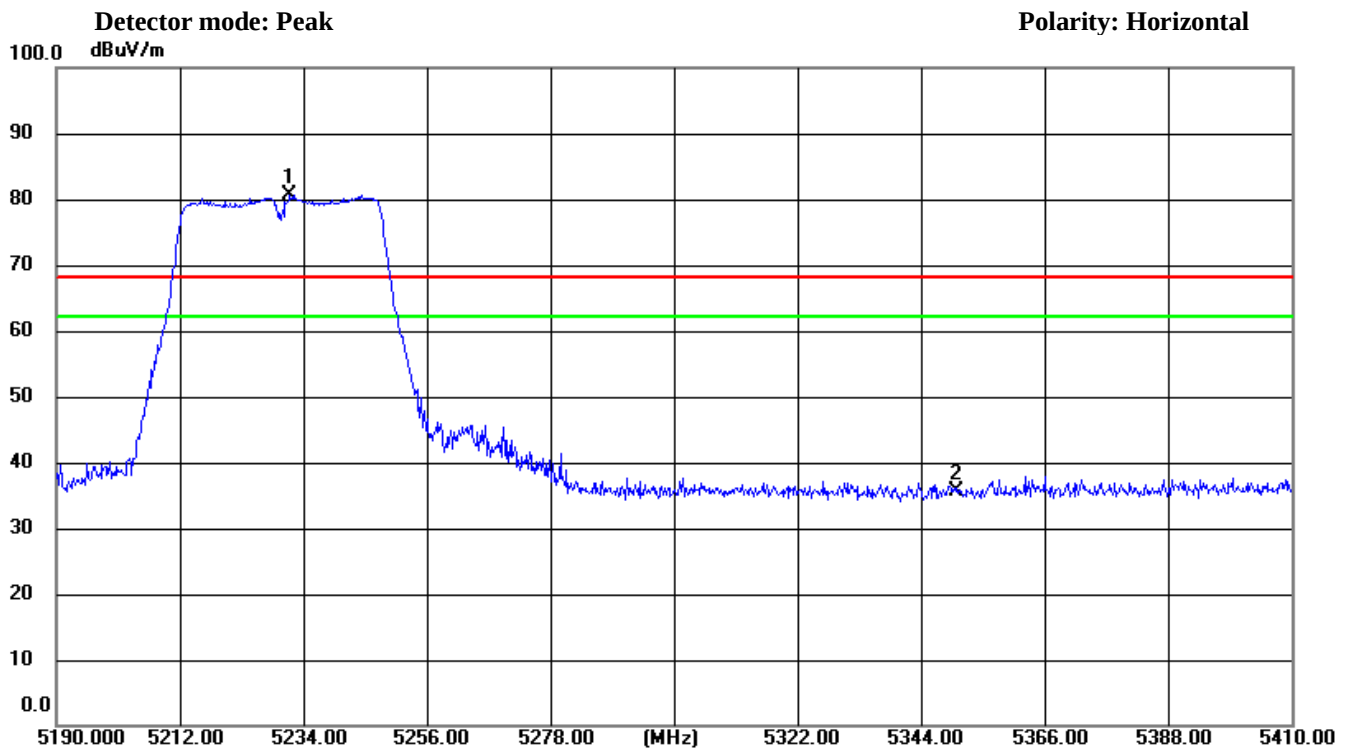
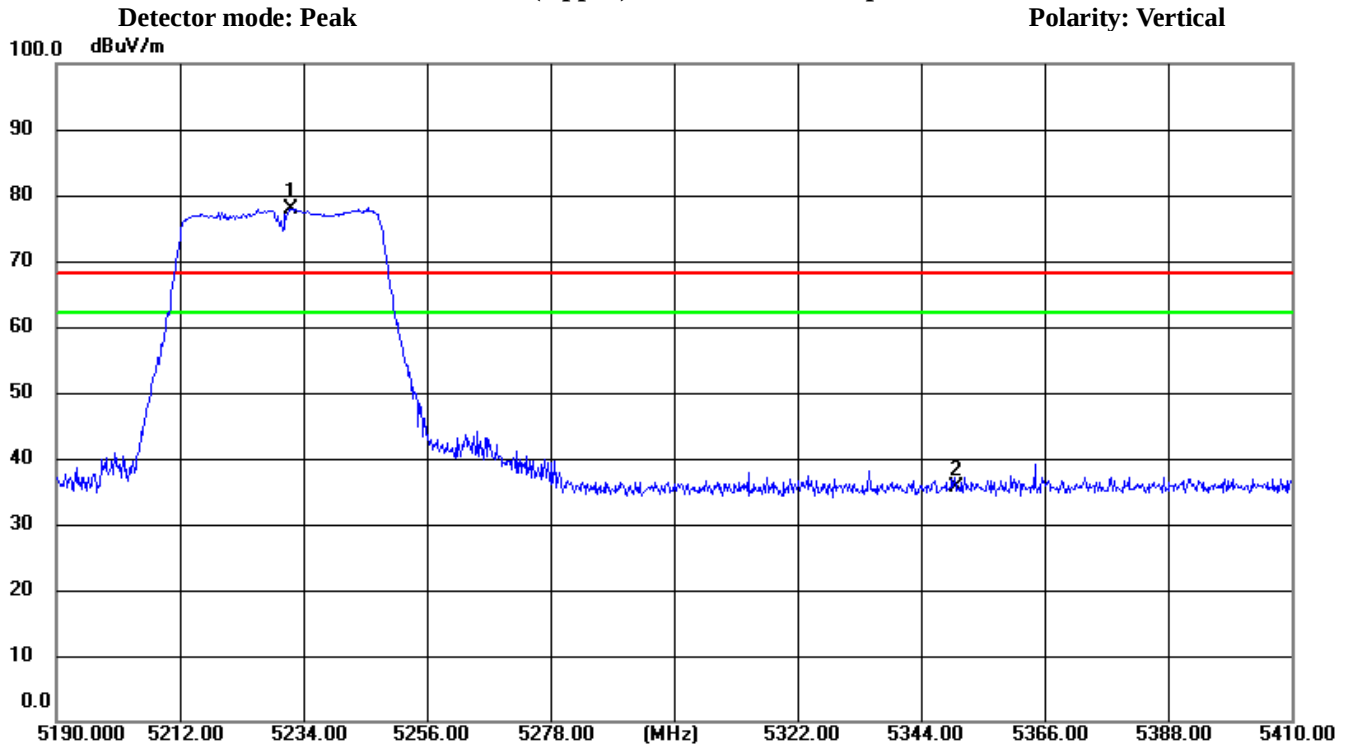
Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (2) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna
- (3) Corr.Factor = Antenna Factor + Cable Loss – Pre-amplifier.

802.11n(40M) (5.15GHz-5.25GHz)
CH 38 (Lower) Data rate 7.2Mbps



802.11n(40M) (5.15GHz-5.25GHz)
CH 46(Upper) Data rate 7.2Mbps



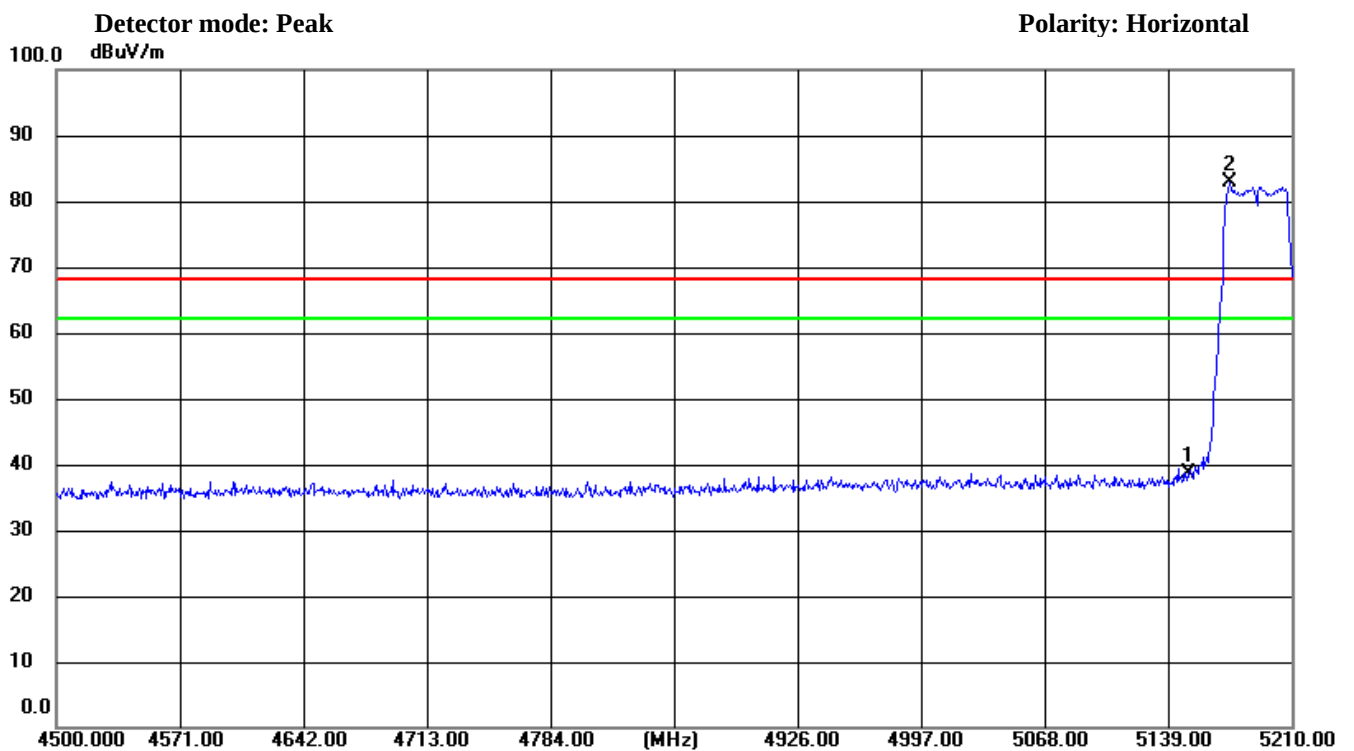
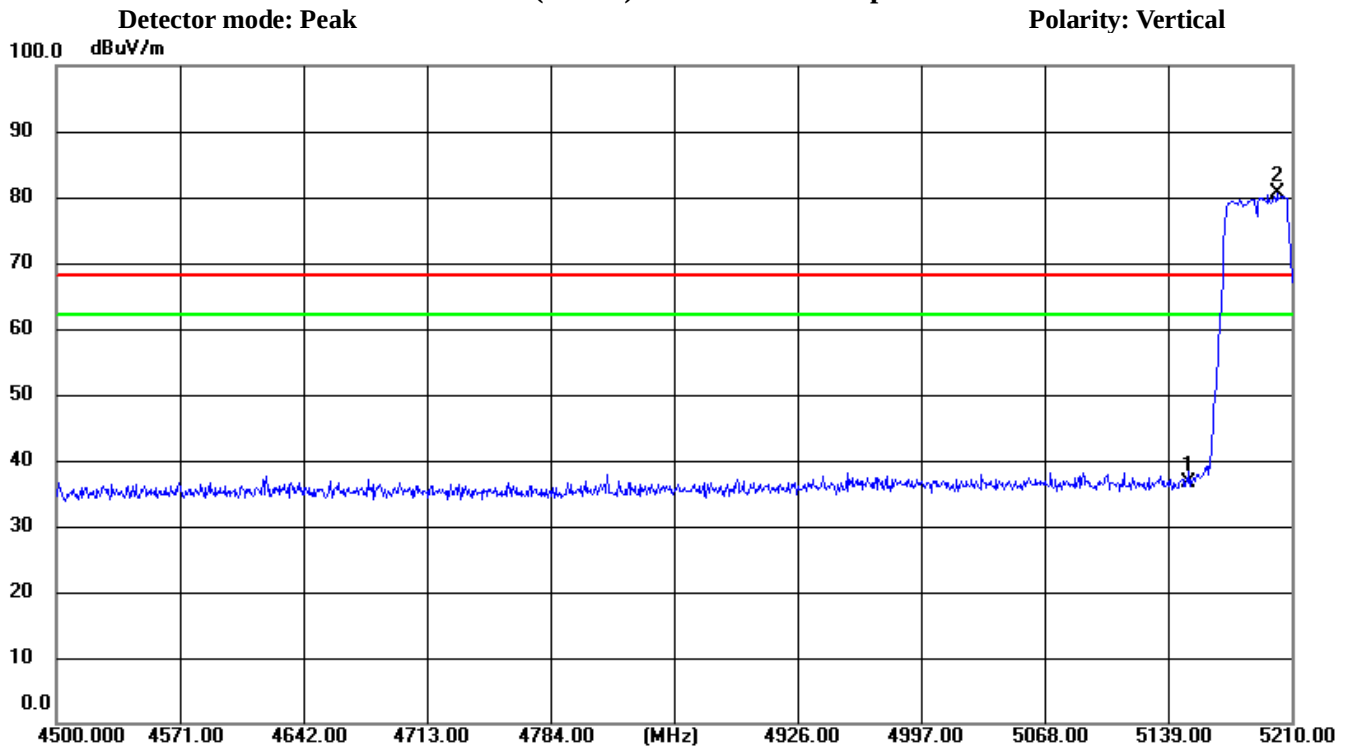
EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24°C	Relative Humidity :	51%
Pressure :	1010 hPa	Test Power :	DC7.4V from battery
Test Mode :	802.11ac BW40MHz		
Test Date :	2021-07-12		
Note :	1. The transmitter was setup to transmit at the lowest channel (CH38). Then the field strength was measured at 4500-5150 MHz. 2. The transmitter was setup to transmit at the highest channel (CH46). Then the field strength was measured at 5190-5410 MHz. 3. The data of 5150MHz and 5350MHz was the worst.		

Freq. (MHz) (Peak)	Ant.Pol. H/V	Reading	Ant/CF	Act	Limit	Note
		Peak (dBuv)	Peak (dB)	Peak (dBuv/m)	Peak (dBuv/m)	
5150.00	V	31.83	4.78	36.61	68.20	CH38
5201.48	V	75.99	4.61	---	---	CH38
5150.00	H	33.87	4.78	38.65	68.20	CH38
5174.50	H	78.12	4.71	---	---	CH38
5244.34	V	73.53	4.52	---	---	CH46
5350.00	V	31.17	4.30	35.47	68.20	CH46
5234.44	H	76.15	4.54	---	---	CH46
5350.00	H	30.87	4.30	35.17	68.20	CH46

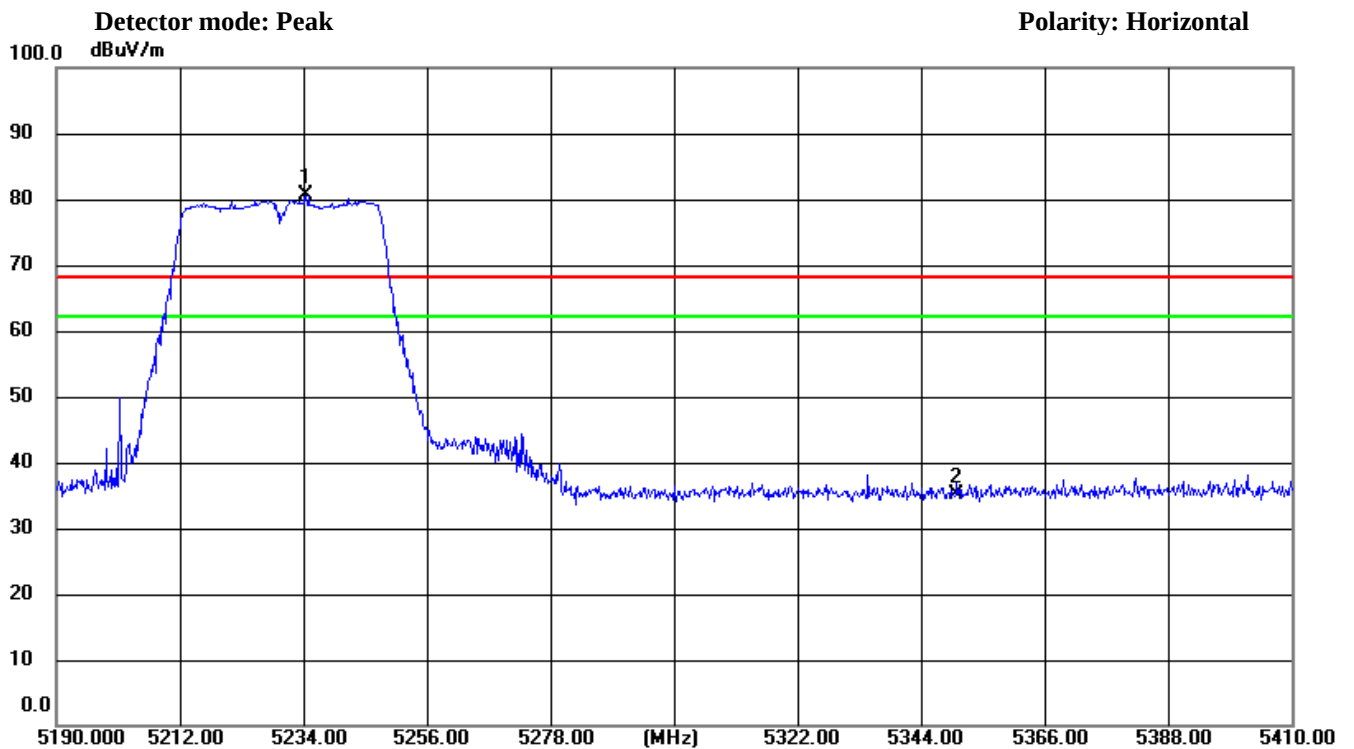
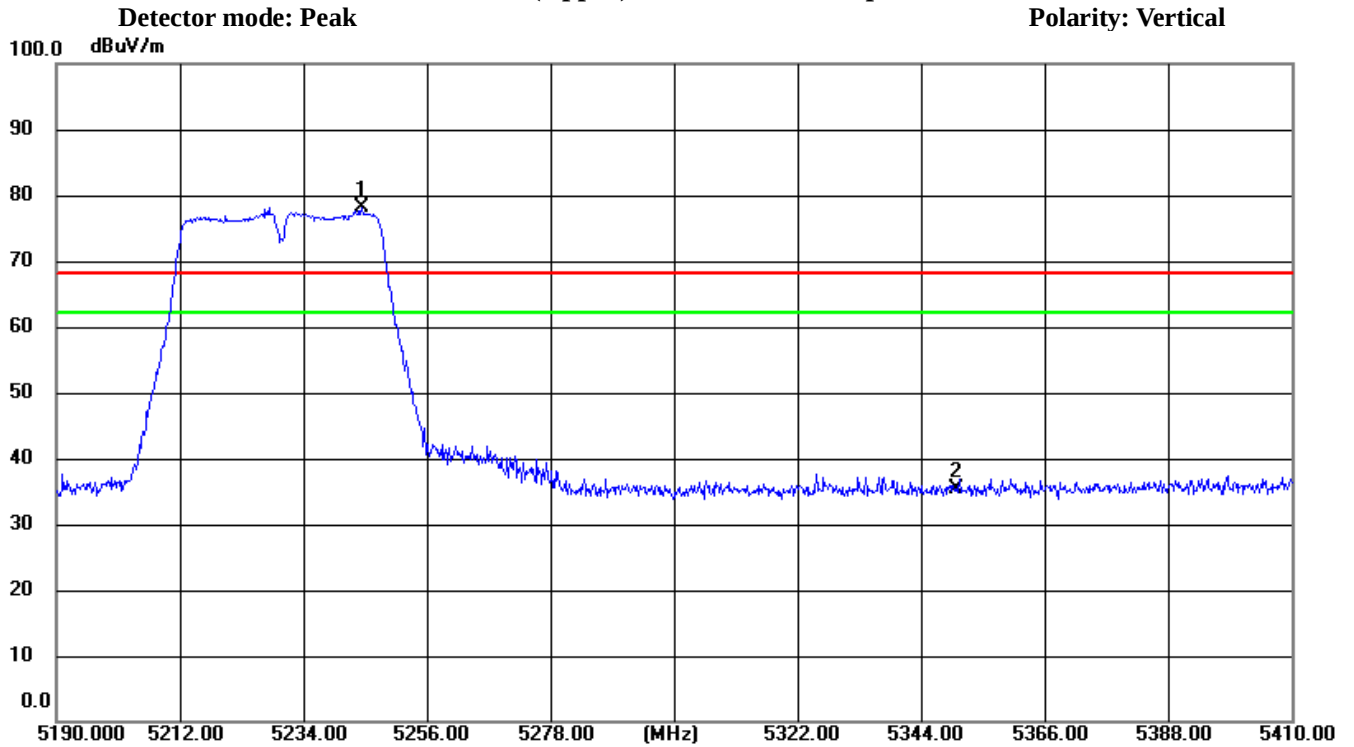
Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (2) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna
- (3) Corr.Factor = Antenna Factor + Cable Loss – Pre-amplifier.

802.11ac(40M) (5.15GHz-5.25GHz)
CH 38 (Lower) Data rate 7.2Mbps



802.11ac(40M) (5.15GHz-5.25GHz)
CH 46(Upper) Data rate 7.2Mbps



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24°C	Relative Humidity :	51%
Pressure :	1010 hPa	Test Power :	DC7.4V from battery
Test Mode :	802.11ac BW80MHz		
Test Date :	2021-07-12		
Note :	1. The transmitter was setup to transmit at the lowest channel (CH42). Then the field strength was measured at 4960-5460 MHz. 2. The data of 5150MHz and 5350MHz was the worst.		

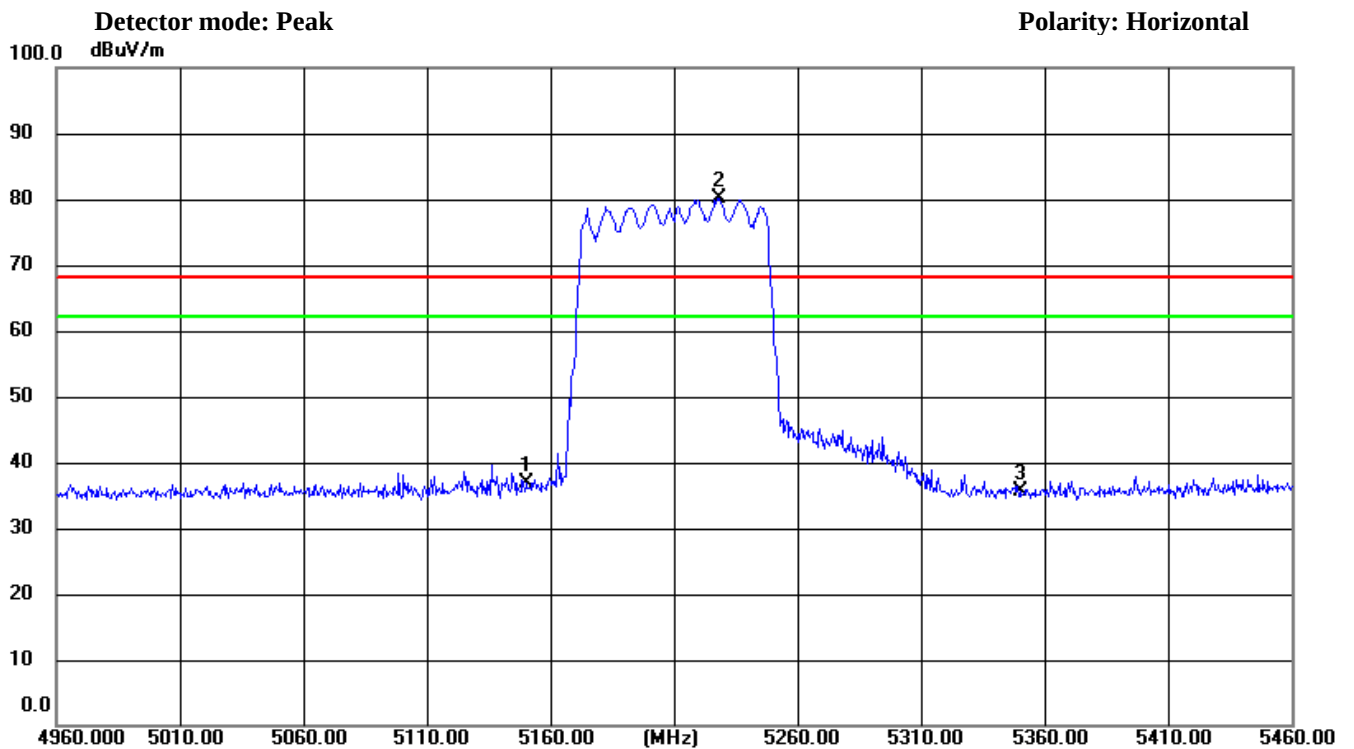
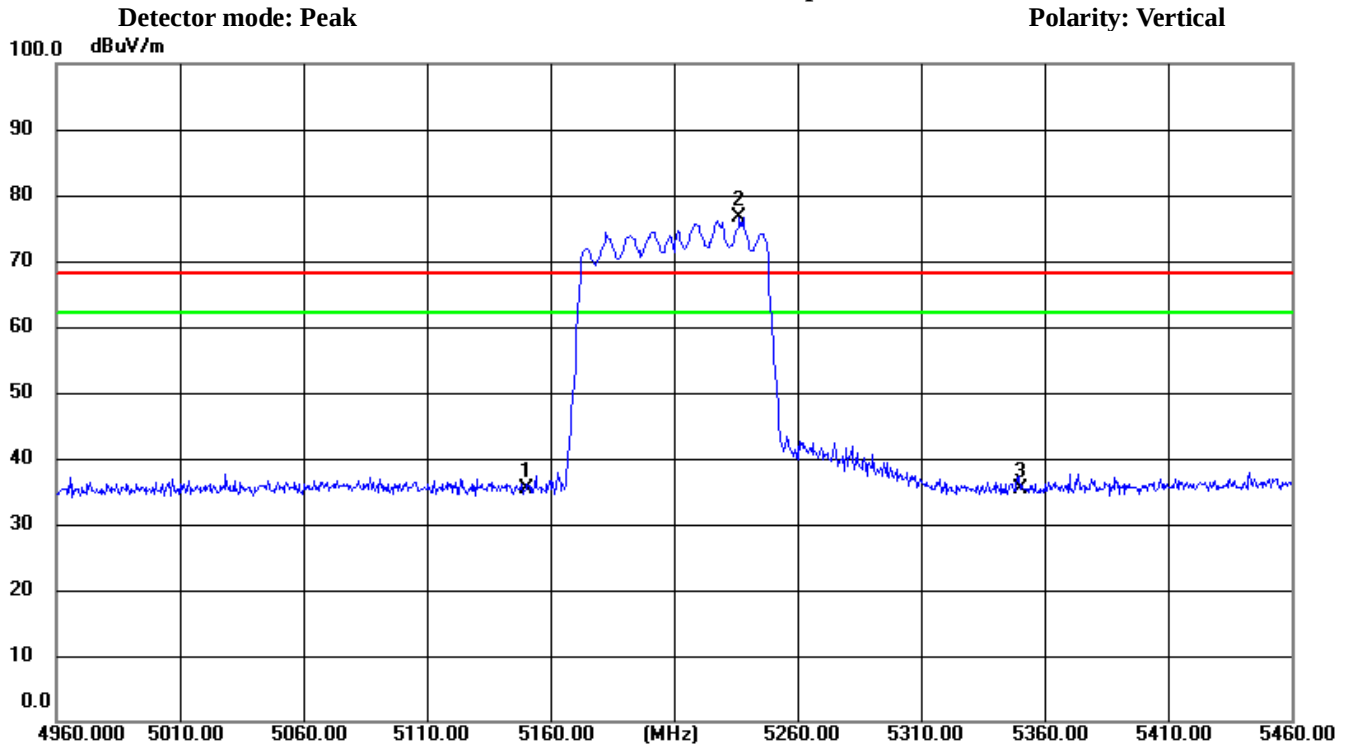
Freq. (MHz) (Peak)	Ant.Pol. H/V	Reading	Ant/CF	Act	Limit	Note
		Peak (dBuv)	Peak (dB)	Peak (dBuv/m)	Peak (dBuv/m)	
5150.00	V	30.63	4.78	35.41	68.20	CH42
5236.50	V	72.17	4.53	---	---	CH42
5350.00	V	31.18	4.30	35.48	68.20	CH42
5150.00	H	32.14	4.78	36.92	68.20	CH42
5228.00	H	75.55	4.56	---	---	CH42
5350.00	H	31.39	4.30	35.69	68.20	CH42

Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (2) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna
- (3) Corr.Factor = Antenna Factor + Cable Loss – Pre-amplifier.

802.11ac(80M) (5.15GHz-5.25GHz)

CH 42 Data rate 7.2Mbps



4 OCCUPIED BANDWIDTH TEST

4.1 26DB BANDWIDTH TEST

According to §15.303(c), for purposes of this subpart the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier. Compliance with the emissions limits is based on the use of measurement instrumentation employing a peak detector function with an instrument resolutions bandwidth approximately equal to 1.0 percent of the emission bandwidth of the device under measurement.

4.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting: RBW= 300kHz(802.11a/n20/ac20), RBW=510kHz(802.11n40/ac40), RBW=1MHz(802.11ac80), VBW $\geq$ RBW, Sweep time = Auto.

4.3 DEVIATION FROM STANDARD

No deviation.

4.4 TEST SETUP



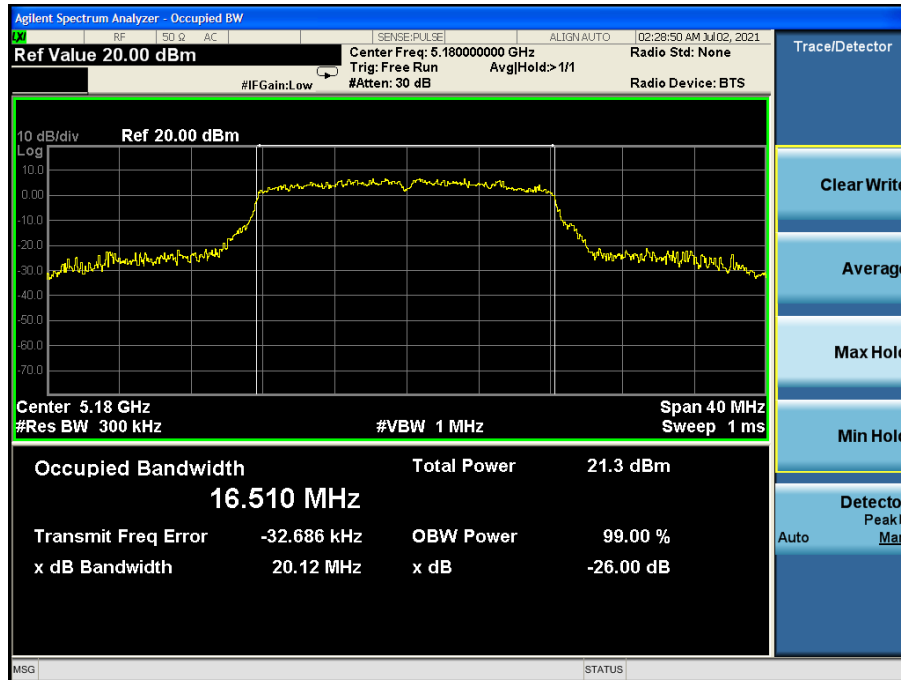
4.5 TEST RESULTS

ANT 1(2) Represent the value of antenna 1 and 2,The worst data is 1 Antenna a ,only shown Antenna 1 Plot

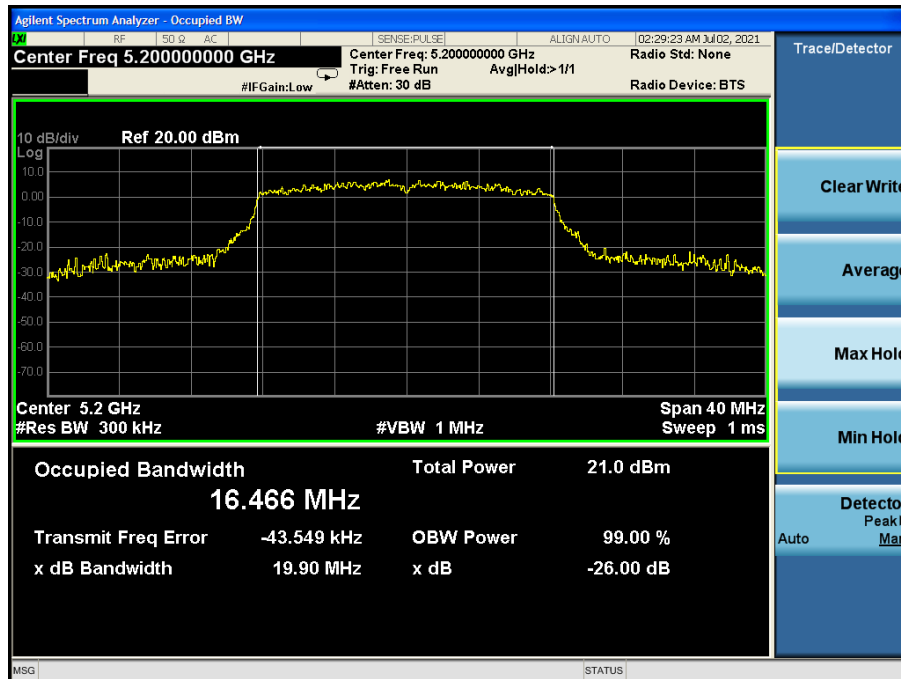
EUT :	智慧投影機	Model Name :	SP1e
Temperature :	26℃	Relative Humidity:	53%
Pressure :	1010 hPa	Test Power :	DC7.4V from battery
Test Mode :	802.11a/n20/ac20/n40/ac40/ac 80 (worst case)		
Test Date :	2021-07-02		

Test Mode	Test Channel	Frequency (MHz)	26 dB Bandwidth (MHz)ANT 1	26 dB Bandwidth (MHz)ANT 2
802.11a (5.15GHz-5.25GHz) Data rate 6Mbps	CH36	5180	20.12	19.79
	CH40	5200	19.90	19.66
	CH48	5240	19.83	19.45
802.11n(20M) (5.15GHz-5.25GHz) Data rate 13Mbps	CH36	5180	20.11	19.87
	CH40	5200	20.09	19.86
	CH48	5240	20.21	19.74
802.11ac(20M) (5.15GHz-5.25GHz) Data rate 13Mbps	CH36	5180	20.06	19.48
	CH40	5200	20.06	19.81
	CH48	5240	20.13	19.62
802.11n(40M) (5.15GHz-5.25GHz) Data rate 27Mbps	CH38	5190	40.62	39.58
	CH46	5230	40.20	39.74
802.11ac(40M) (5.15GHz-5.25GHz) Data rate 27Mbps	CH38	5190	40.41	39.62
	CH46	5230	40.72	39.87
802.11ac(80M) (5.15GHz-5.25GHz) Data rate 58.6Mbps	CH42	5210	81.06	80.55

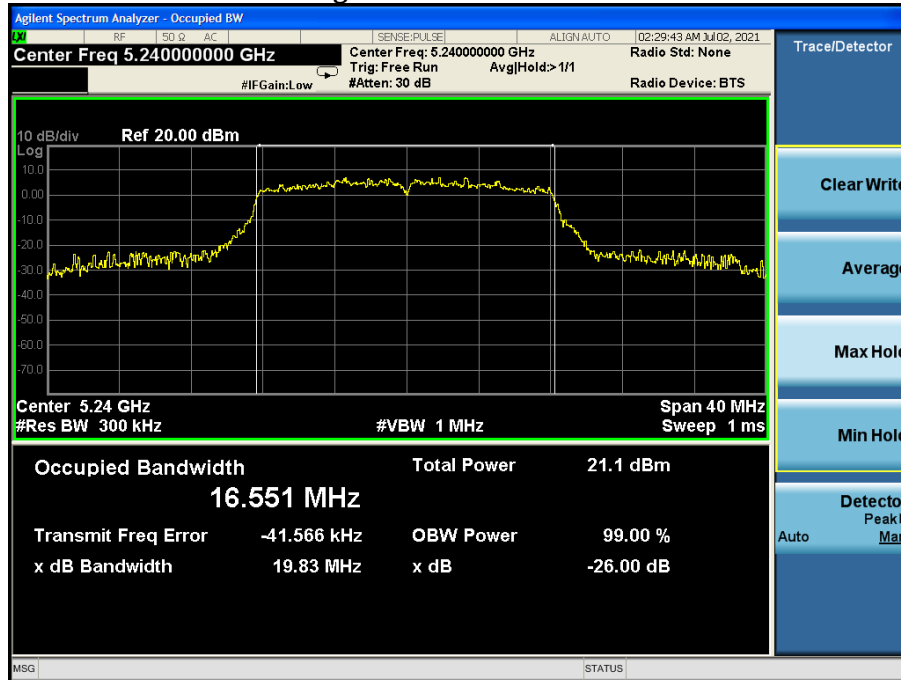
802.11a (5.15GHz-5.25GHz) The Low Channel 36: 5180MHz



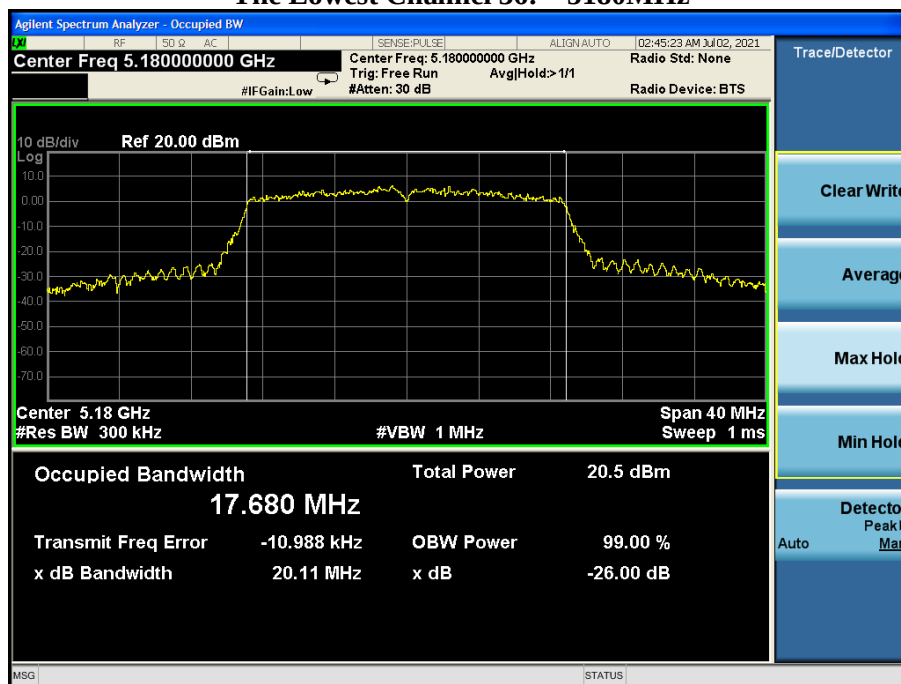
802.11a (5.15GHz-5.25GHz) The Middle Channel 40: 5200MHz



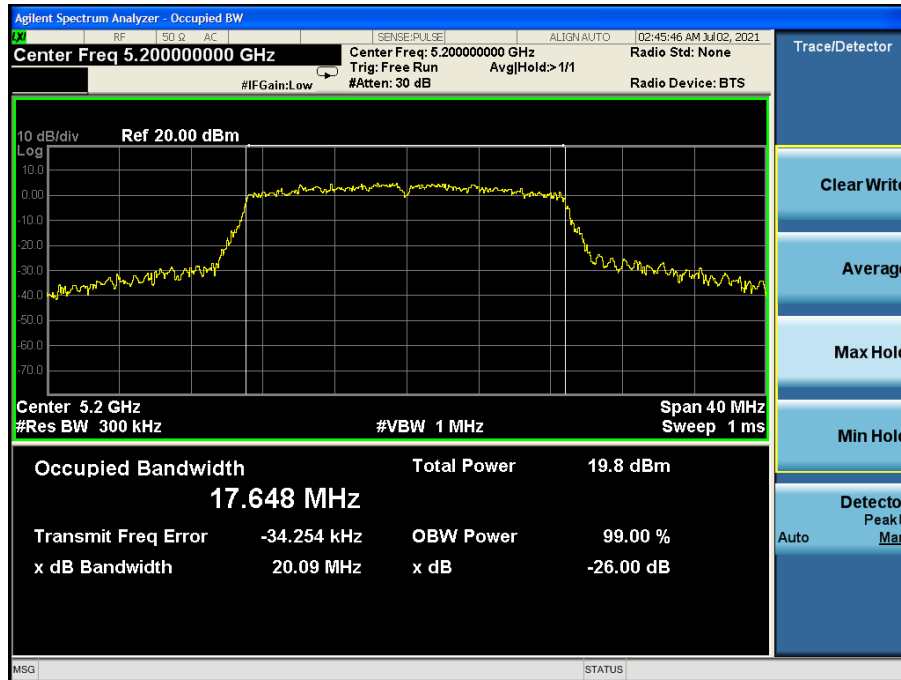
802.11a (5.15GHz-5.25GHz)
The High Channel 48: 5240MHz



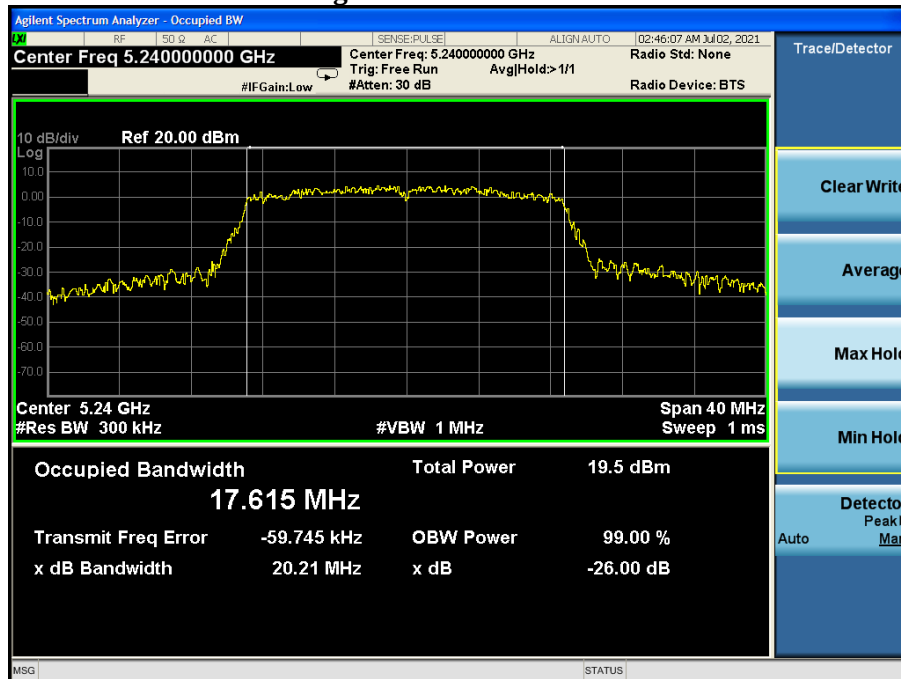
802.11n(20M) (5.15GHz-5.25GHz)
The Lowest Channel 36: 5180MHz



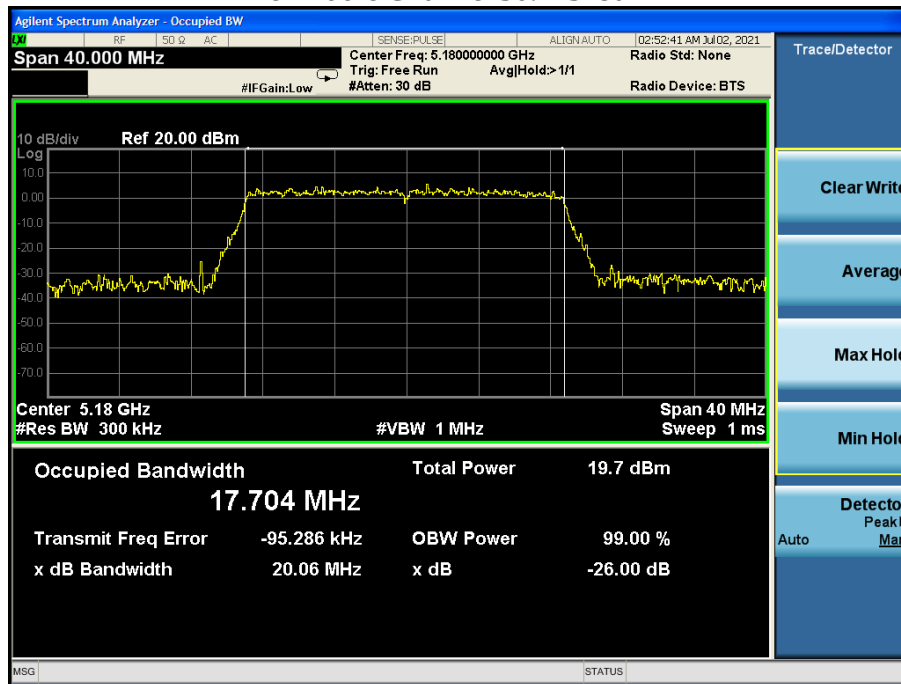
802.11n(20M) (5.15GHz-5.25GHz) The Middle Channel 40: 5200MHz



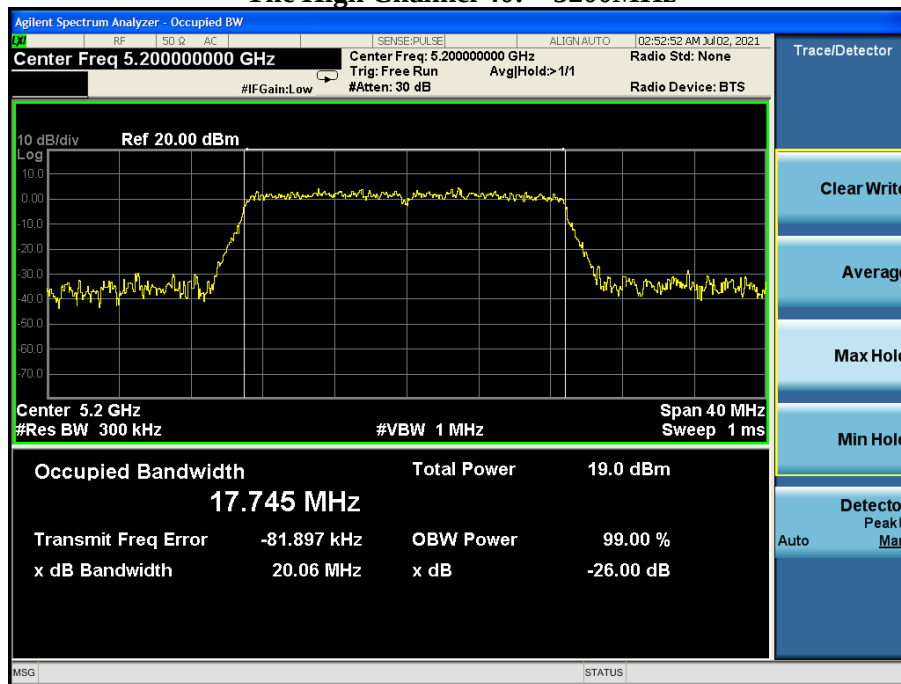
802.11n(20M) (5.15GHz-5.25GHz) The High Channel 48: 5240MHz



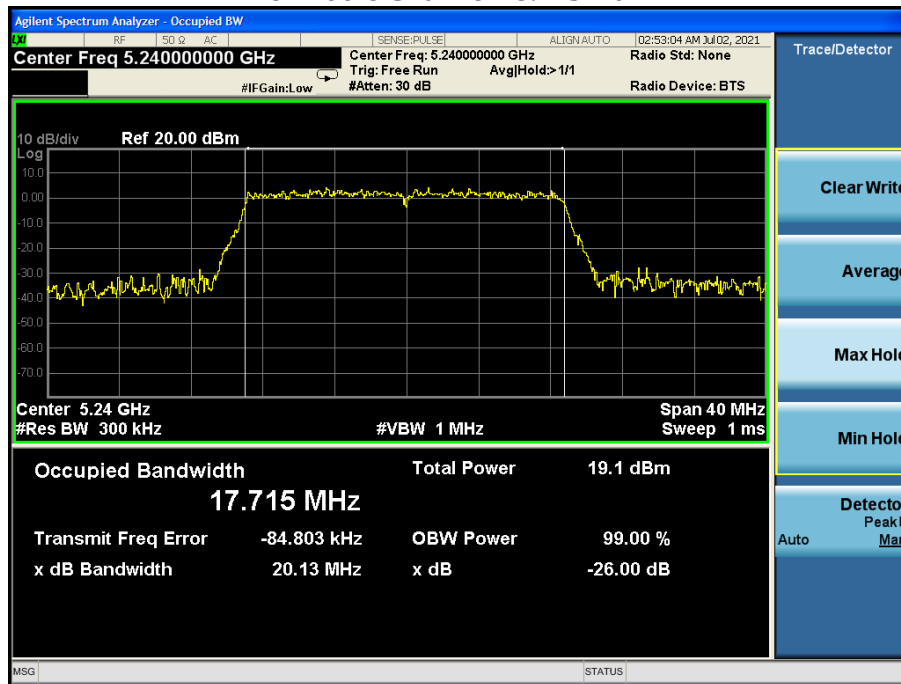
802.11ac(20M) (5.15GHz-5.25GHz) The Middle Channel 36: 5180MHz



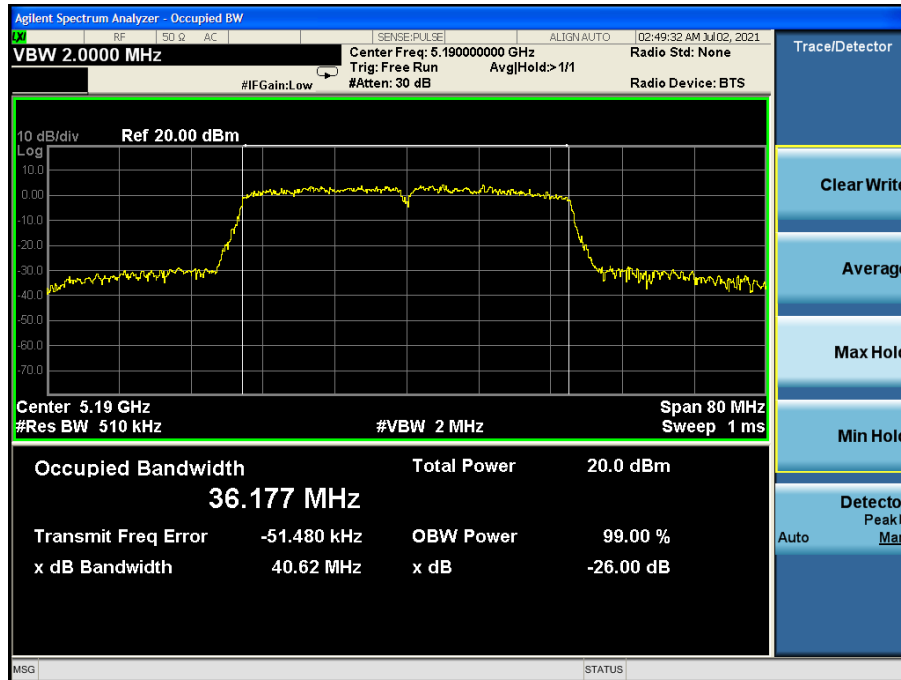
802.11n(20M) (5.15GHz-5.25GHz) The High Channel 40: 5200MHz



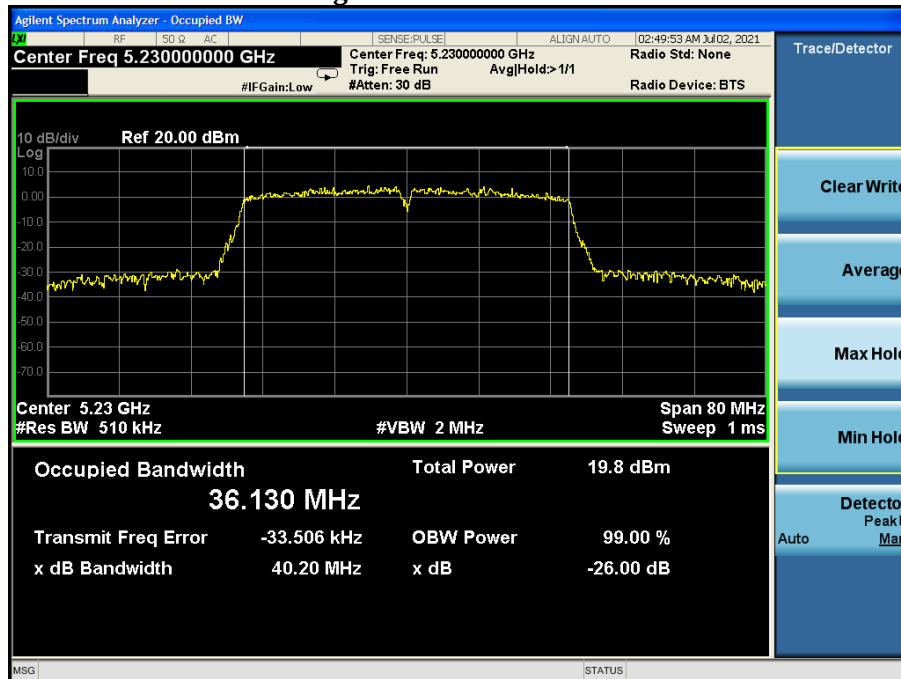
802.11ac(20M) (5.15GHz-5.25GHz)
The Middle Channel 48: 5240MHz



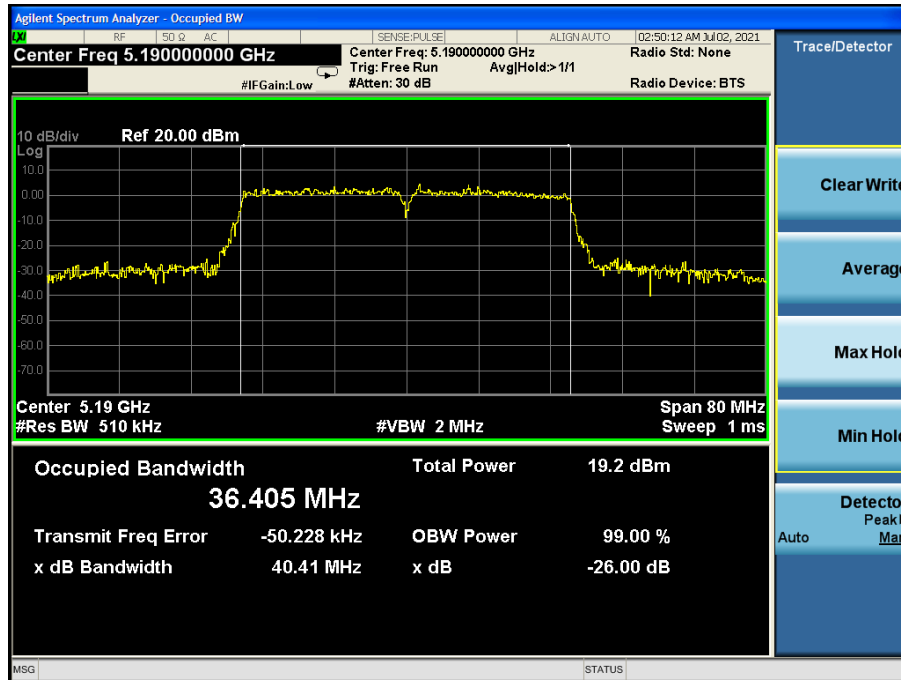
802.11n(40M) (5.15GHz-5.25GHz)
The Lowest Channel 38: 5190MHz



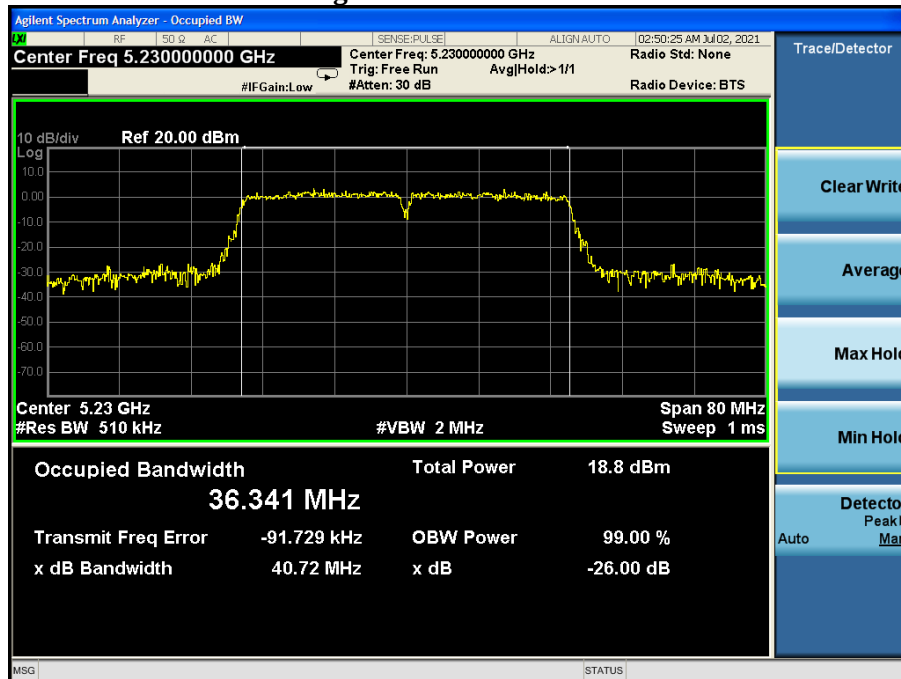
802.11n(40M) (5.15GHz-5.25GHz)
The High Channel 46: 5230MHz



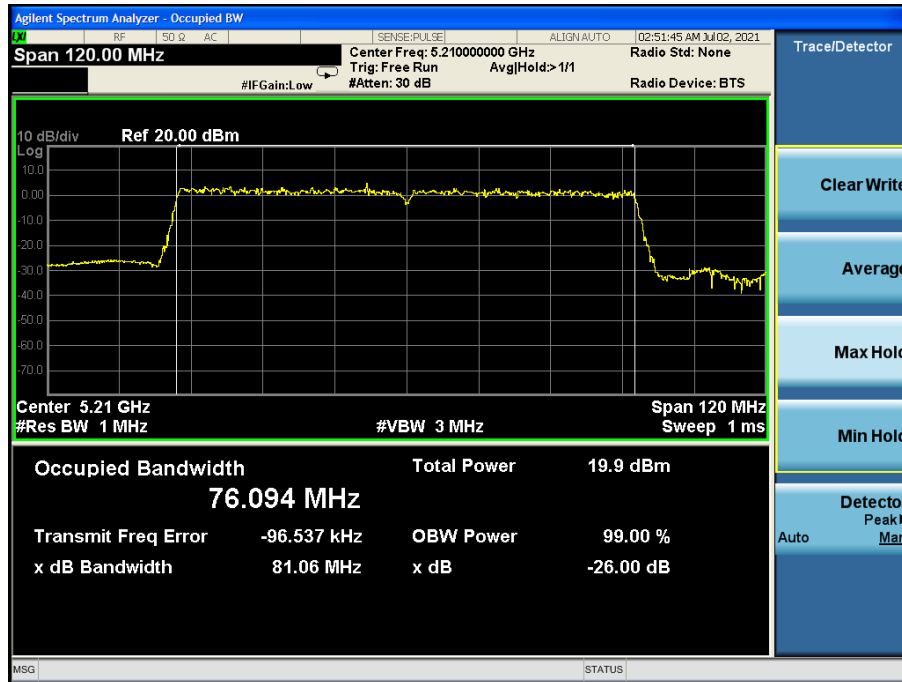
802.11ac(40M) (5.15GHz-5.25GHz)
The Lowest Channel 38: 5190MHz



802.11ac(40M) (5.15GHz-5.25GHz)
The High Channel 46: 5230MHz



802.11ac(80M) (5.15GHz-5.25GHz) The Lowest Channel 42: 5210MHz



5 PEAK POWER DENSITY

5.1 APPLIED PROCEDURES / LIMIT

15.407(a) For UNII Device in the 5.15-5.25GHz, 5.25-5.35 GHz and 5.47-5.725GHz bands; peak power Density as follow.

Frequency Band	Limit
5.15 – 5.25 GHz	11dBm
5.25– 5.35GHz	11dBm
5.47 – 5.725 GHz	11dBm

5.2 TEST PROCEDURE

- a. The Transmitter output of EUT was connected to the spectrum analyzer.

Equipment mode: Spectrum analyzer

Detector function: Peak mode

SPAN: 40MHz/80MHz/120MHz

RBW: 1MHz

VBW: 3MHz

Center frequency: fundamental frequency tested.

Sweep time= 1msec.

- b. Using Peak Search to read the peak power after Maximum Hold function is completed.

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST RESULTS

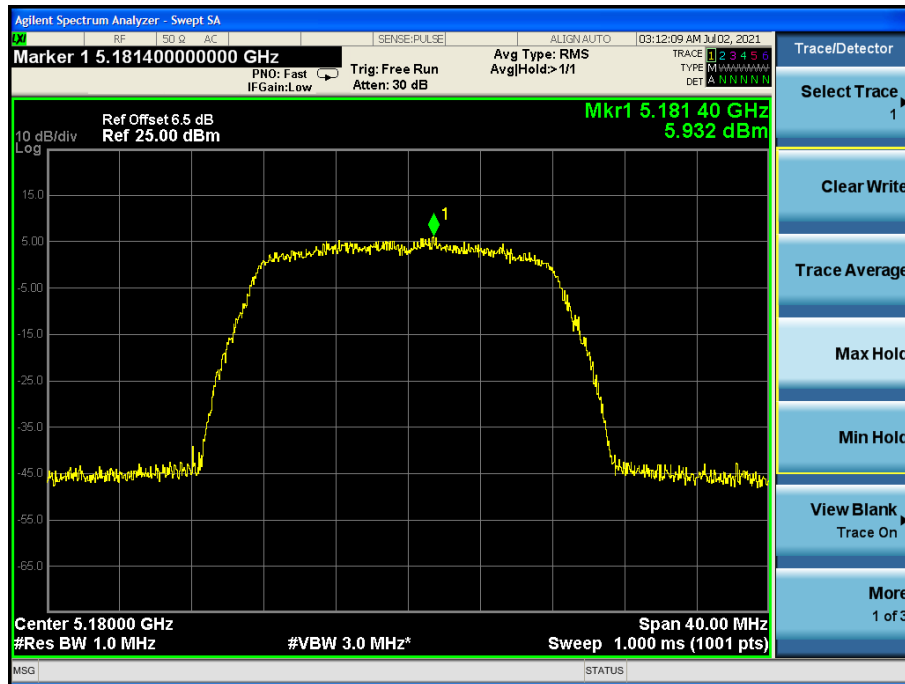
ANT 1(2) Represent the value of antenna 1 and 2, The worst data is 1 Antenna a ,only shown Antenna 1 Plot

EUT :	智慧投影機	Model Name :	SP1e
Temperature :	22℃	Relative Humidity :	53%
Pressure :	1010 hPa	Test Power :	DC7.4V from battery
Test Mode :	802.11a/n20/ac20/n40/ac40/ac80		
Test Date :	2021-07-02		

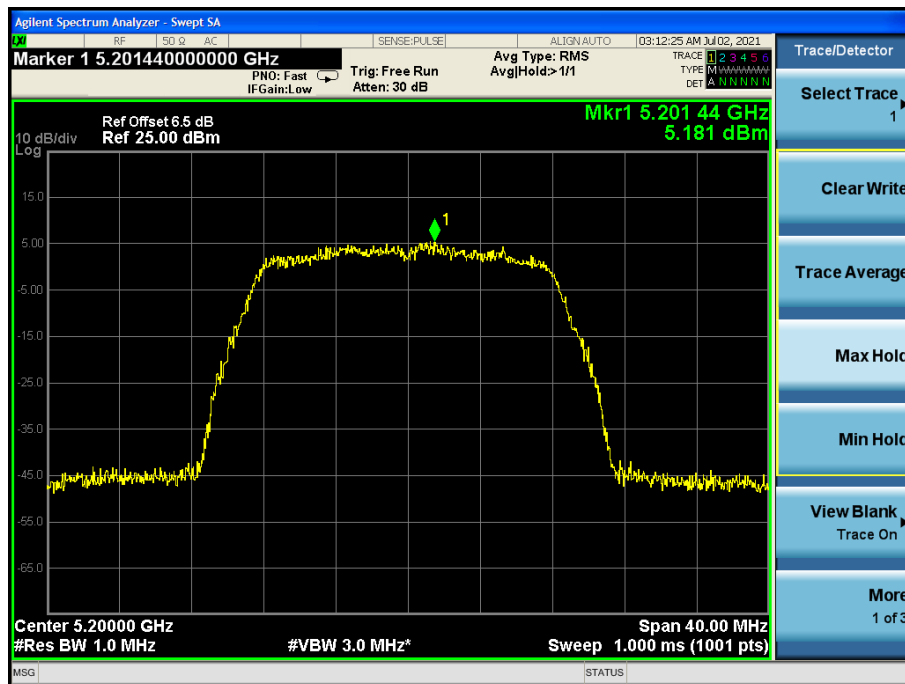
Test Mode	Channel	Channel Frequency (MHz)	Power Density (MHz) ANT 1	Power Density (MHz) ANT 2	Total Power Density (MHz)	Limit (dBm)	Result
802.11a (5.15GHz-5.25GHz) Data rate 6Mbps	Low	5180	5.932	4.779	--	11	Pass
	Middle	5200	5.181	4.651	--	11	Pass
	Highest	5240	5.548	4.852	--	11	Pass
802.11n(20M) (5.15GHz-5.25GHz) Data rate 13Mbps	Low	5180	4.060	2.074	6.19	11	Pass
	Middle	5200	2.674	2.116	5.41	11	Pass
	Highest	5240	3.596	2.589	6.13	11	Pass
802.11ac(20M) (5.15GHz-5.25GHz) Data rate 13Mbps	Low	5180	2.148	1.124	4.68	11	Pass
	Middle	5200	2.377	1.203	4.84	11	Pass
	Highest	5240	1.602	1.038	4.34	11	Pass
802.11n(40M) (5.15GHz-5.25GHz) Data rate 27Mbps	Low	5190	-0.641	-1.035	2.18	11	Pass
	Highest	5230	-0.045	-1.157	2.44	11	Pass
802.11ac(40M) (5.15GHz-5.25GHz) Data rate 27Mbps	Low	5190	-0.760	-1.554	1.87	11	Pass
	Highest	5230	-0.064	-1.332	2.36	11	Pass
802.11ac(80M) (5.15GHz-5.25GHz) Data rate 58.6Mbps	---	5210	-4.149	-5.447	-1.74	11	Pass

Note: For MIMO mode: Directional gain=GANT +10log(N)dBi =3.01dBi <6dBi.

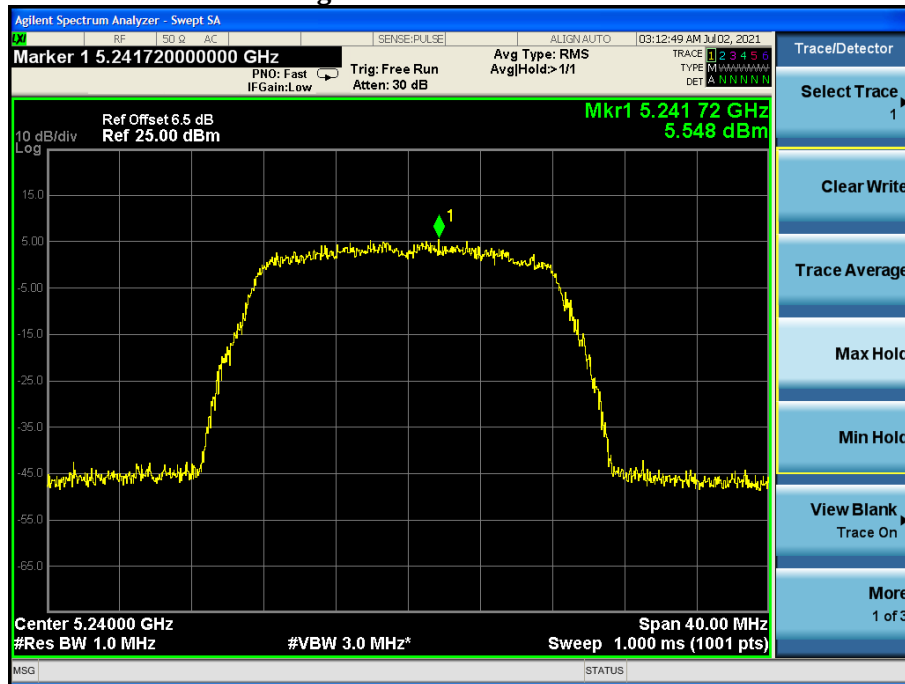
802.11a (5.15GHz-5.25GHz) The Lowest Channel 36: 5180MHz



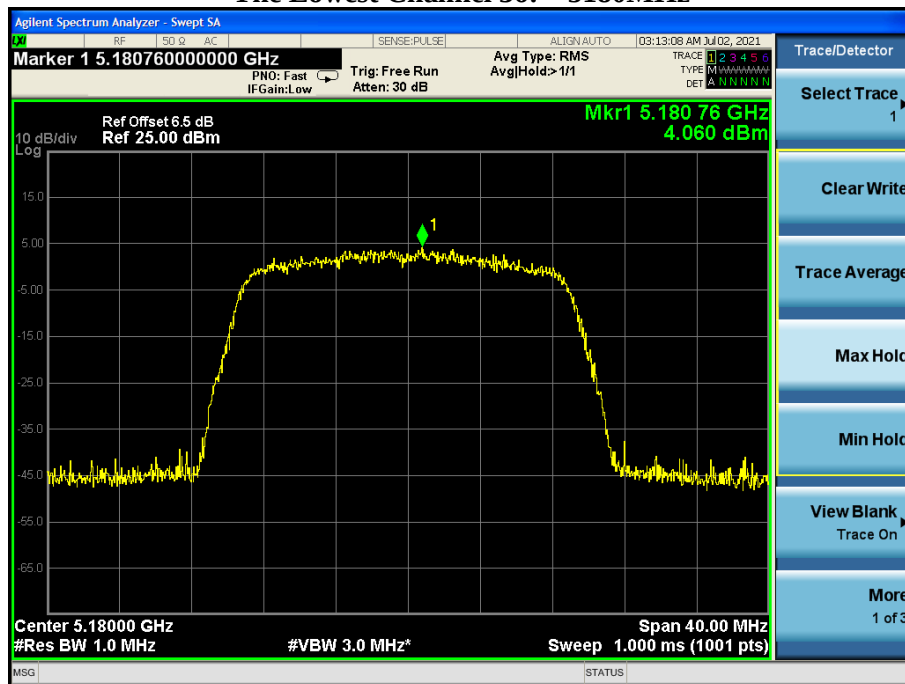
802.11a (5.15GHz-5.25GHz) The Middle Channel 40: 5200MHz



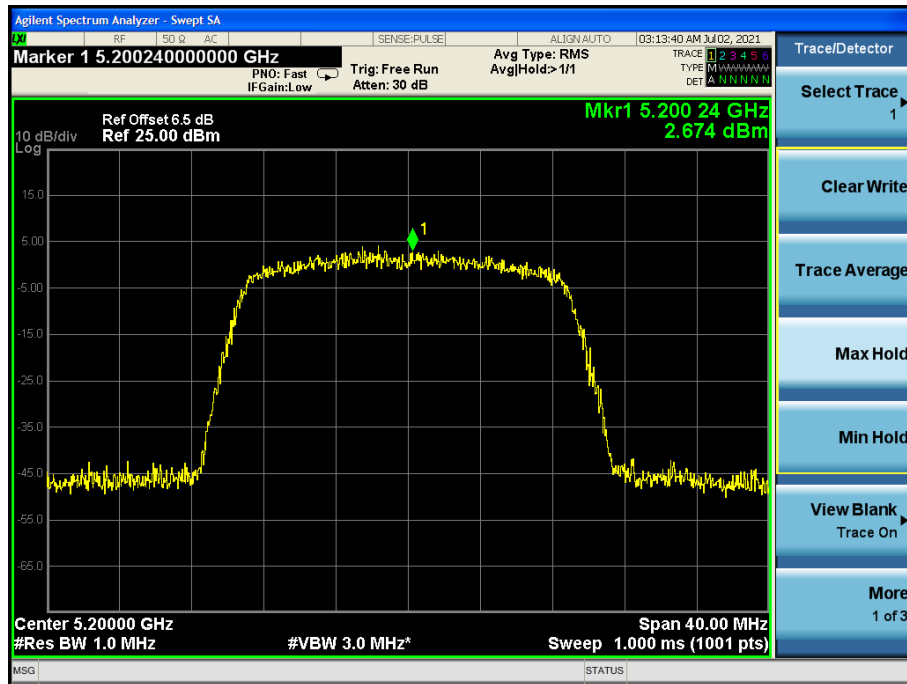
802.11a (5.15GHz-5.25GHz) The Highest Channel 48: 5240MHz



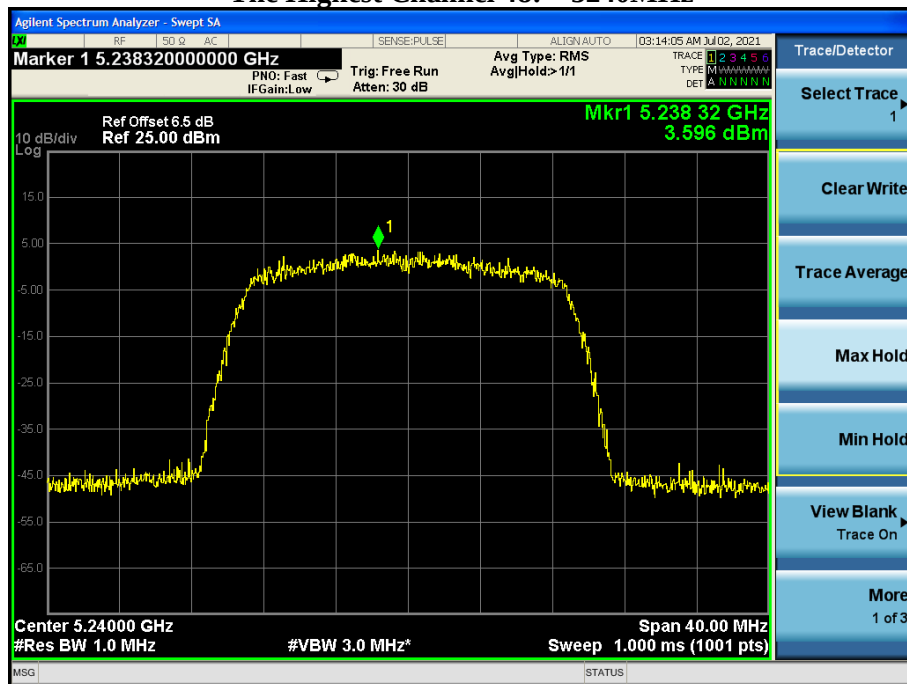
802.11n(20M) (5.15GHz-5.25GHz) The Lowest Channel 36: 5180MHz



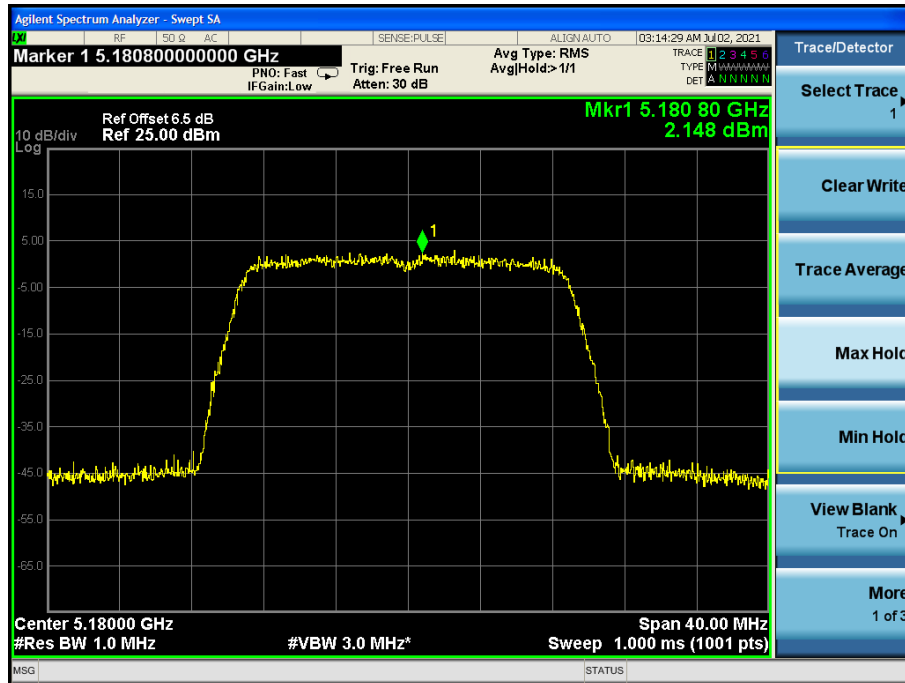
802.11n(20M) (5.15GHz-5.25GHz) The Middle Channel 40: 5200MHz



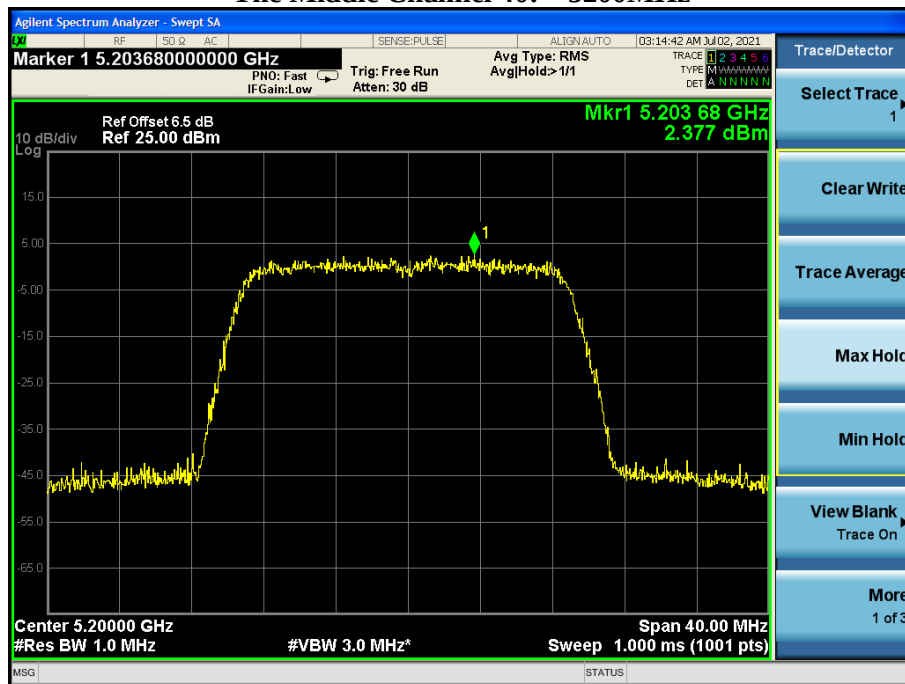
802.11n(20M) (5.15GHz-5.25GHz) The Highest Channel 48: 5240MHz



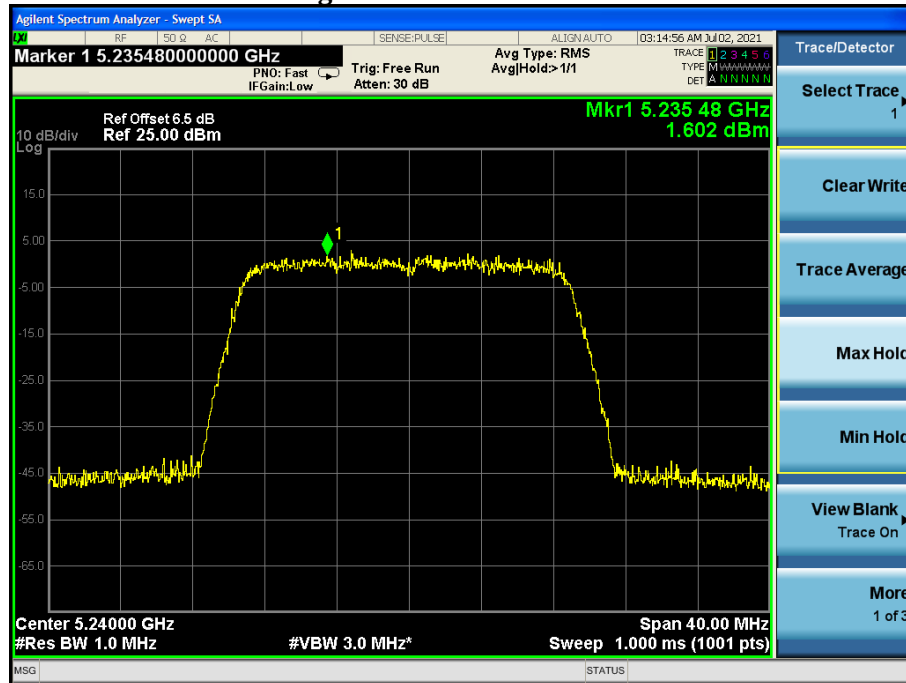
802.11ac (5.15GHz-5.25GHz) The Lowest Channel 36: 5180MHz



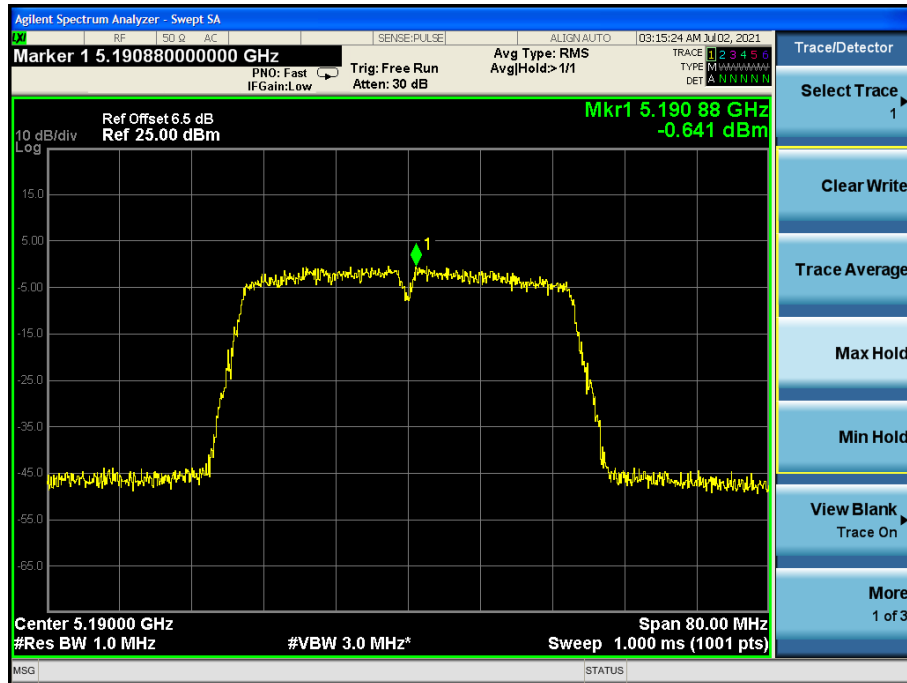
802.11ac (5.15GHz-5.25GHz) The Middle Channel 40: 5200MHz



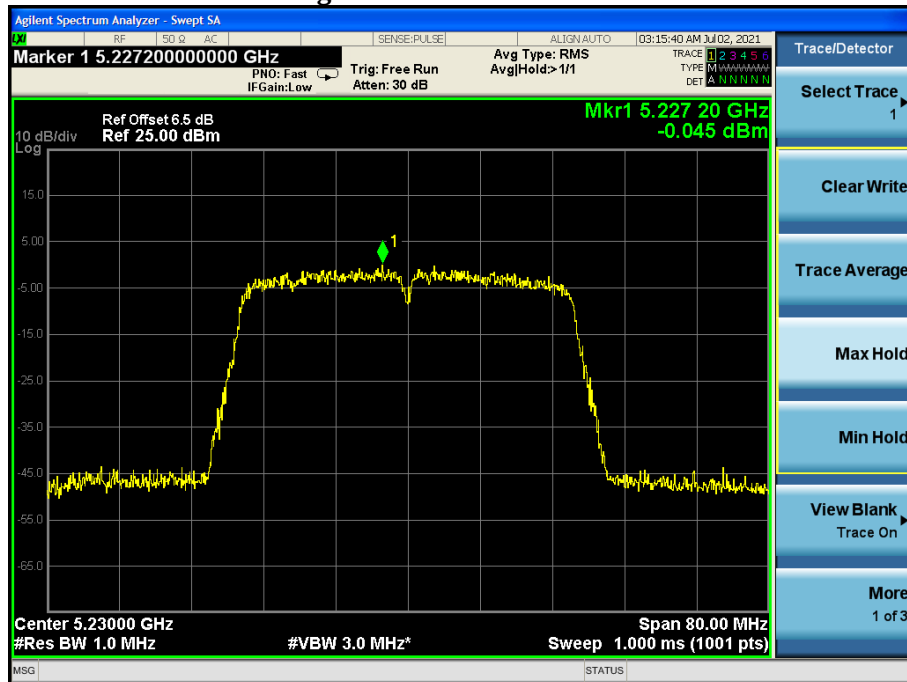
802.11ac (5.15GHz-5.25GHz)
The Highest Channel 48: 5240MHz



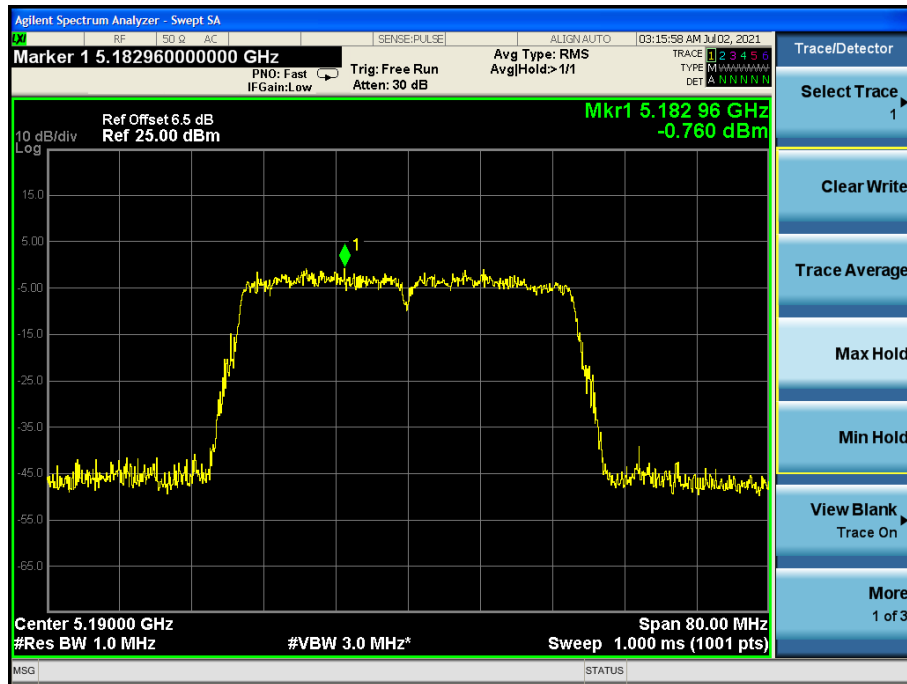
802.11n(40M) (5.15GHz-5.25GHz) The Lowest Channel 38: 5190MHz



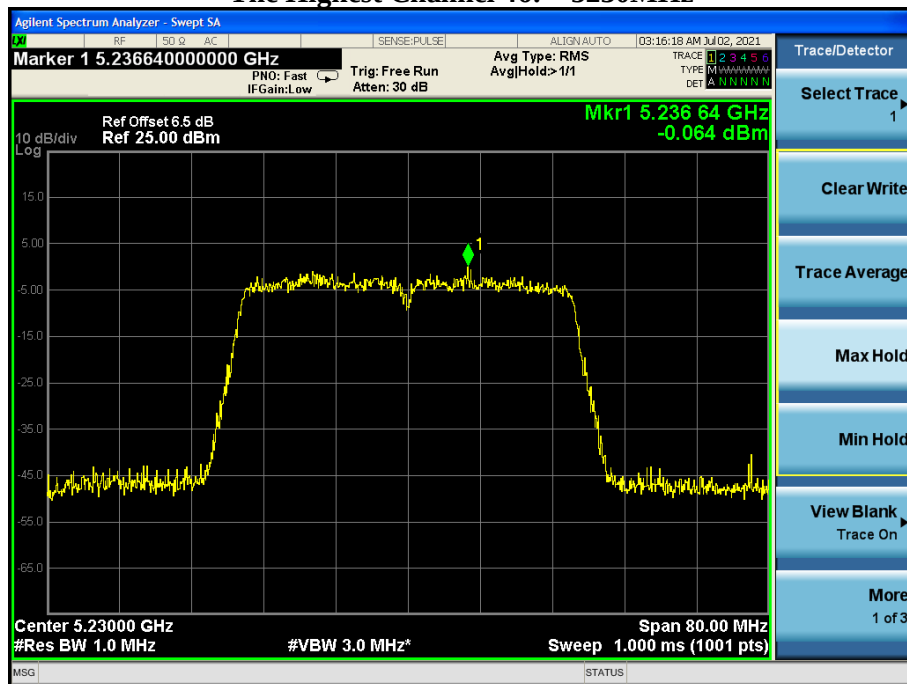
802.11n(40M) (5.15GHz-5.25GHz) The Highest Channel 46: 5230MHz



802.11ac(40M) (5.15GHz-5.25GHz) The Lowest Channel 38: 5190MHz



802.11ac(40M) (5.15GHz-5.25GHz) The Highest Channel 46: 5230MHz



802.11ac(80M) (5.15GHz-5.25GHz) The Lowest Channel 42: 5210MHz



6 MAXIMUM PEAK OUTPUT POWER

6.1 APPLIED PROCEDURES / LIMIT

For UNII Device in the 5.15-5.25 GHz, 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm +10 log (26 dB BW).

If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Frequency Band	Limit
5.15 – 5.25 GHz	24 dBm
5.25-5.35 GHz	24 dBm
5.47 – 5.725 GHz	24 dBm

6.2 TEST PROCEDURE

- The EUT was directly connected to the power meter and antenna output port as shown in the block diagram below.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP

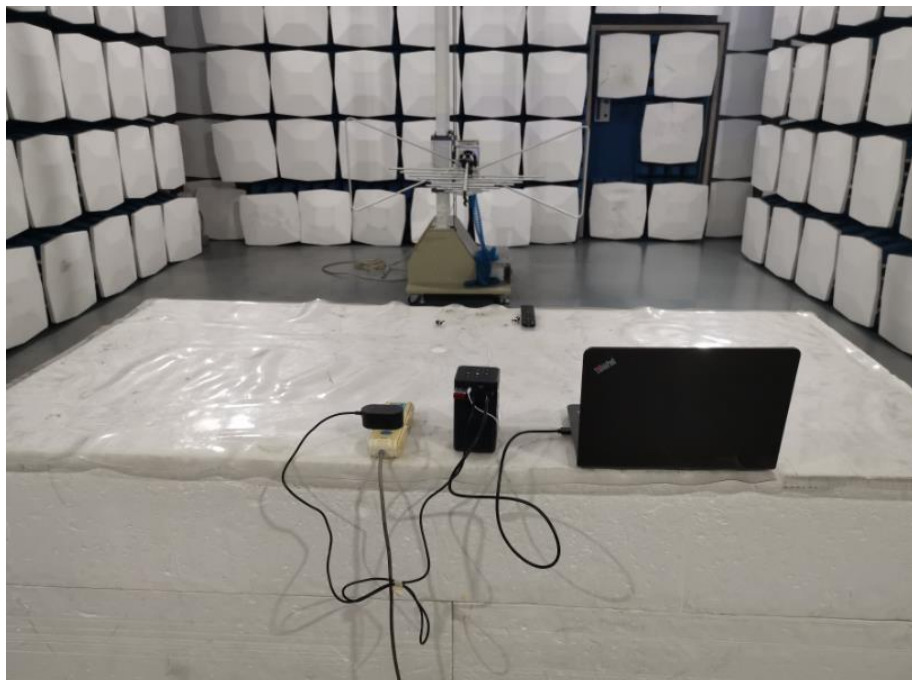
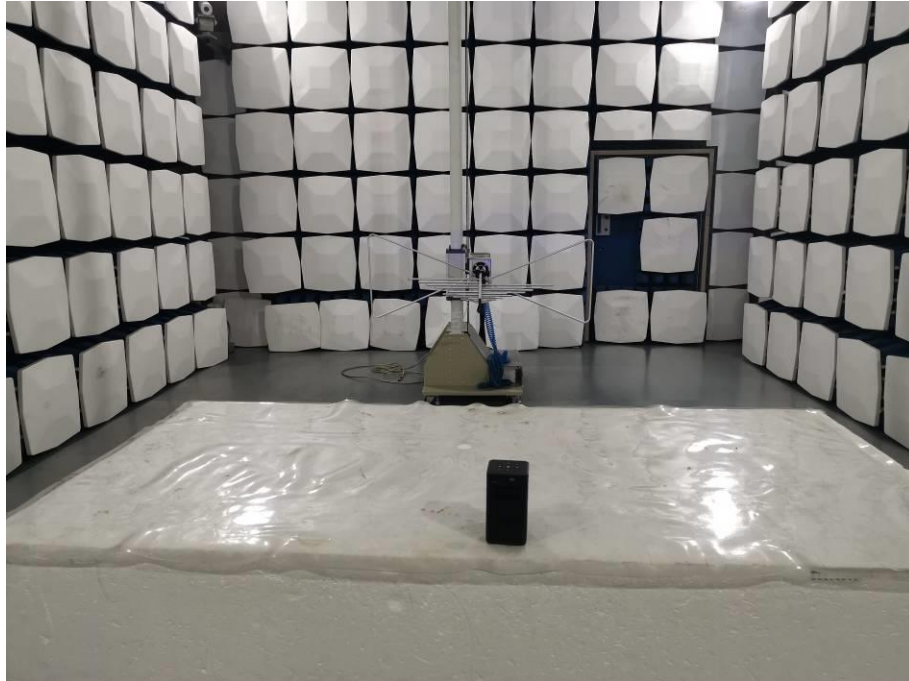


6.5 TEST RESULTS

EUT :	智慧投影機	Model Name :	SP1e
Temperature :	22℃	Relative Humidity :	60%
Pressure :	1010 hPa	Test Power :	DC7.4V from battery
Test Mode :	802.11a/n20/ac20/n40/ac40/ac80		
Test Date :	2021-07-02		

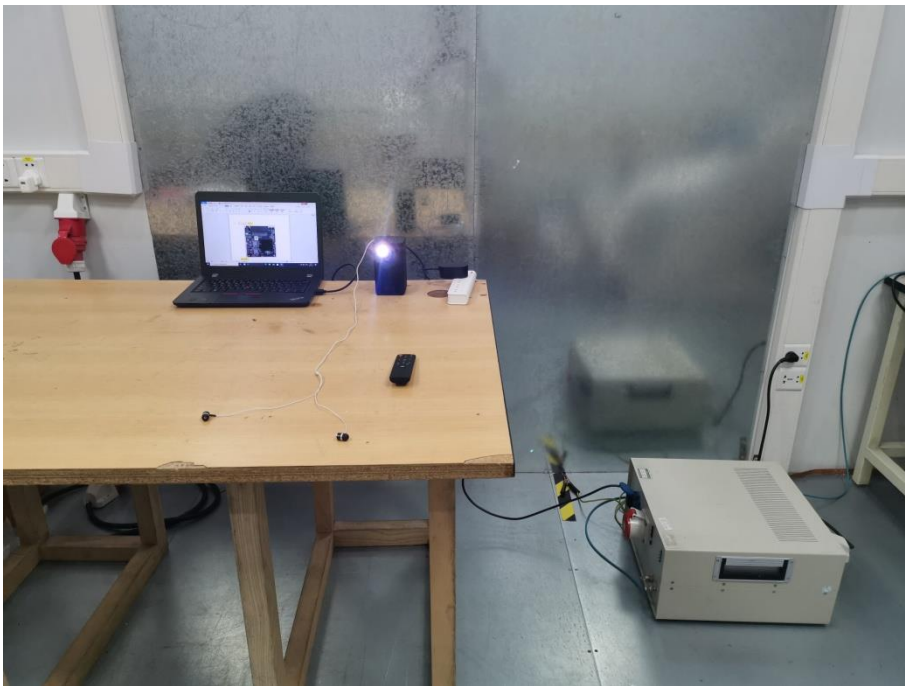
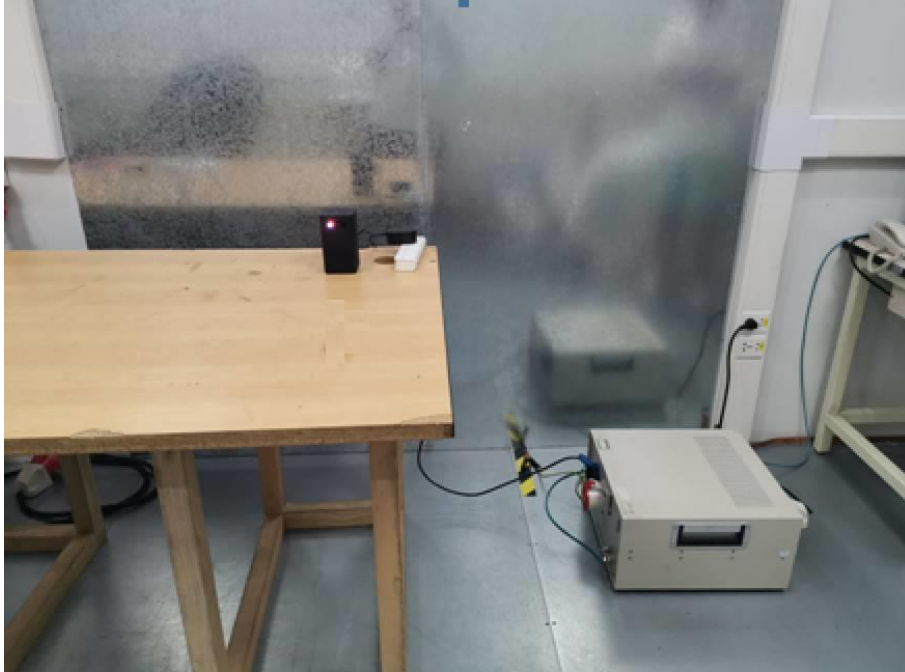
Test Mode	Channel	Channel Frequency (MHz)	Output Power A (dBm)	Output Power B (dBm)	Total Power (dBm)	Limit (dBm)	Result
802.11a (5.15GHz-5.25GHz) Data rate 6Mbps	CH36	5180	17.56	16.14	/	24	Pass
	CH40	5200	17.75	16.33	/	24	Pass
	CH48	5240	17.42	16.57	/	24	Pass
802.11n(20M) (5.15GHz-5.25GHz) Data rate 13Mbps	CH36	5180	16.02	15.10	18.59	24	Pass
	CH40	5200	16.11	15.24	18.71	24	Pass
	CH48	5240	16.43	15.37	18.94	24	Pass
802.11ac(20M) (5.15GHz-5.25GHz)	CH36	5180	15.78	14.61	18.24	24	Pass
	CH40	5200	15.42	14.35	17.93	24	Pass
	CH48	5240	15.15	14.47	17.83	24	Pass
802.11n(40M) (5.15GHz-5.25GHz) Data rate 27Mbps	CH38	5190	14.74	14.34	17.55	24	Pass
	CH46	5230	14.58	14.12	17.37	24	Pass
802.11ac(40M) (5.15GHz-5.25GHz) Data rate 27Mbps	CH38	5190	15.27	14.85	18.08	24	Pass
	CH46	5230	15.66	14.77	18.25	24	Pass
802.11ac(80M) (5.15GHz-5.25GHz) Data rate 58.6Mbps	CH42	5210	14.39	13.46	16.96	24	Pass

Note: For MIMO mode: Directional gain=GANT +10log(N)dBi =3.01dBi <6dBi.

7. EUT TEST PHOTO**Radiated Measurement Photos
30MHz-1GHz**

**Radiated Measurement Photos
Above 1GHz**



Conducted Measurement Photos**8. APPENDIX-Photographs of EUT Constructional Details**

Please refer to report APPENDIX.

**** End of Report ****