

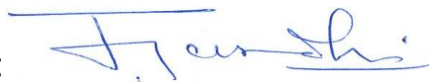
NCC RADIO TEST REPORT

Product name	智慧投影機 Smart projector
Applicant	展雋創意股份有限公司 Ovomedia Creative Inc.
Manufacture	深圳市投美科技有限公司 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 :



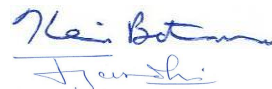
NCC RADIO TEST REPORT

Report Reference No.: M210721N3-03

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

Ovomedia 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 test method: 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)	See Below
	Open Field Test Site "A"	R-589
	Mains Conducted Emissions Test Site "A"	C-604
	Telecom Conducted Emissions Test Site "A"	T-1655
	3 Meter Semi-Anechoic Chamber Site "E"	R-3227
	3 Meter Semi-Anechoic Chamber Site "E" (1GHz – 6GHz)	G-219
	Mains Conducted Emissions Test Site "E"	C-35793
	Telecom Conducted Emissions Test Site "E"	T-1715
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.**

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1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

LP0002 : 2020			
Standard Section	Test Item	Judgment	Remark
3.3	Conducted Emission	PASS	None
4.10.1.5/3.6	Radiated Spurious Emission	PASS	None
4.10.1.2	Peak Output Power	PASS	None
4.10.1.6	6dB Occupied Bandwidth	PASS	None
4.10.1.6	Power Density	PASS	None
4.10.1.5/3.6	Restricted Bands	PASS	None
4.10.1.5/3.6	ANTENNA CONDUCTED SPURIOUS EMISSION	PASS	None
4.10.1.3	Antenna Requirement	PASS	None
4.10.1.5/3.3/3.6	Receiver Emissions	PASS	None

NOTE:

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

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	Warpplle	
Model Name	SP1e, SP1	
Serial Model Name	N/A	
Product Description	The EUT is a 智慧投影機	
	Operation Frequency:	2412~2462MHz@802.11b/g/n20 2422~2452 MHz@802.11n40
	Modulation Type:	BPSK/QPSK16-QAM/64-QAM
	Bit Rate of Transmitter	802.11b: 1/2/5.5/11Mbps 802.11g: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 150Mbps
	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:	802.11b: 21.84dBm 802.11g: 21.12dBm 802.11n20: 23.41dBm 802.11n40: 23.02dBm
Channel List	Please refer to the Note 2.	
Power Rating	DC12V from Adapter or DC7.4V from battery	
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							
802.11b/ g/ n(20MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	05	2432	09	2452	/	/
02	2417	06	2437	10	2457	/	/
03	2422	07	2442	11	2462	/	/
04	2427	08	2447	/	/	/	/

Channel List							
802.11n(40MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	7	2442	/	/	/	/
4	2427	8	2447	/	/	/	/
5	2432	9	2452	/	/	/	/
6	2437	/	/	/	/	/	/

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

2.1.1 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible 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	802.11b: All Rate
Mode 2	802.11g: All Rate
Mode 3	802.11n(20MHz): All Rate
Mode 4	802.11n(40MHz): All Rate
Mode 5	RX
Mode 6	HDMI Input Mode

For Conducted Emission	
Final Test Mode	Description
Mode 1	TX(worst case)
Mode 6	HDMI Input Mode

For Radiated Emission	
Final Test Mode	Description
Mode 1	802.11b: Rate 1Mbps
Mode 2	802.11g: Rate 6Mbps
Mode 3	802.11n(20MHz) : Rate 6.5Mbps
Mode 4	802.11n(40MHz) : Rate 13.5Mbps
Mode 5	RX(worst case)
Mode 6	HDMI Input Mode

Note:

- (1) The measurements are performed at the highest, middle, lowest available channels.
- (2) For all tests the worst-case was selected as the table above, the data of the worst-case is shown in the report.

2.2 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

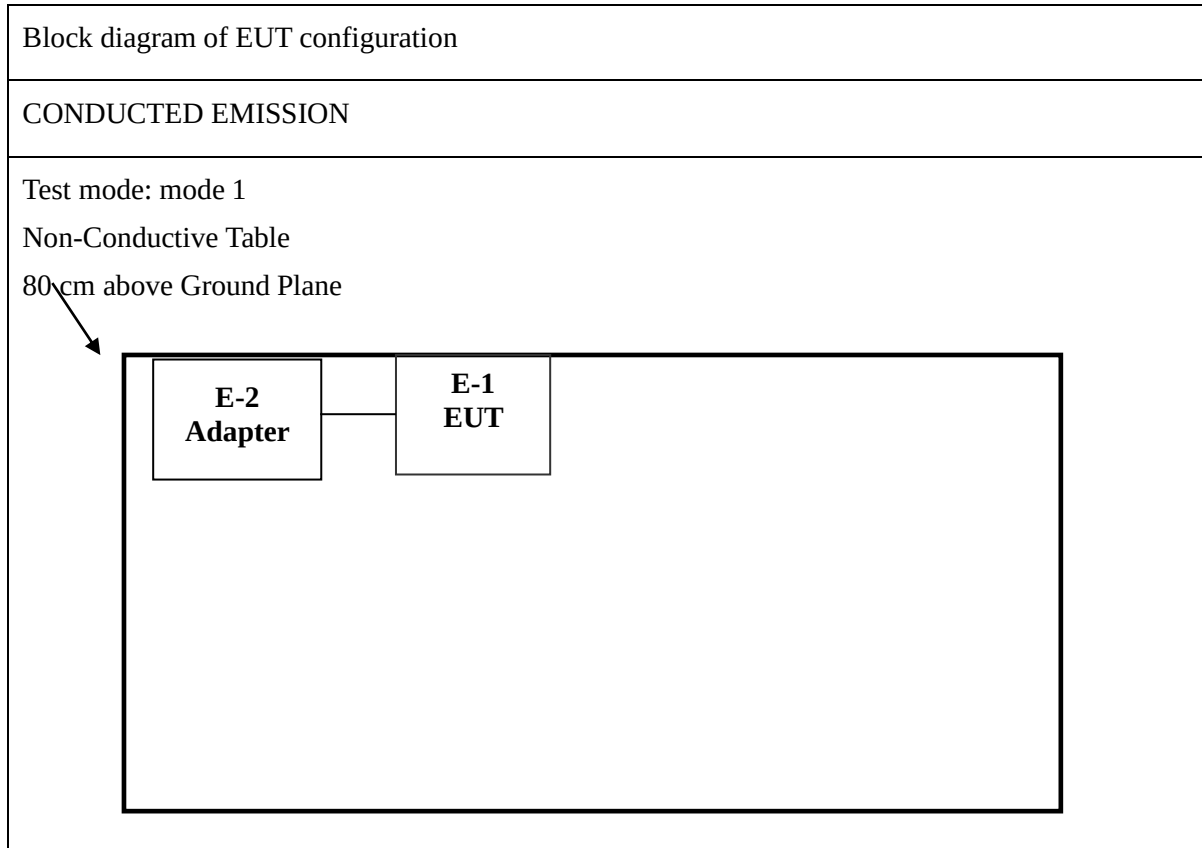
During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final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

Test software Version	0.0.1.94	Test program:	MT7668 QA
Frequency	2412 MHz	2437 MHz	2462 MHz
Frequency	2422 MHz	2437 MHz	2452 MHz

Mode	Power setting
802.11 b/g/n	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.

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



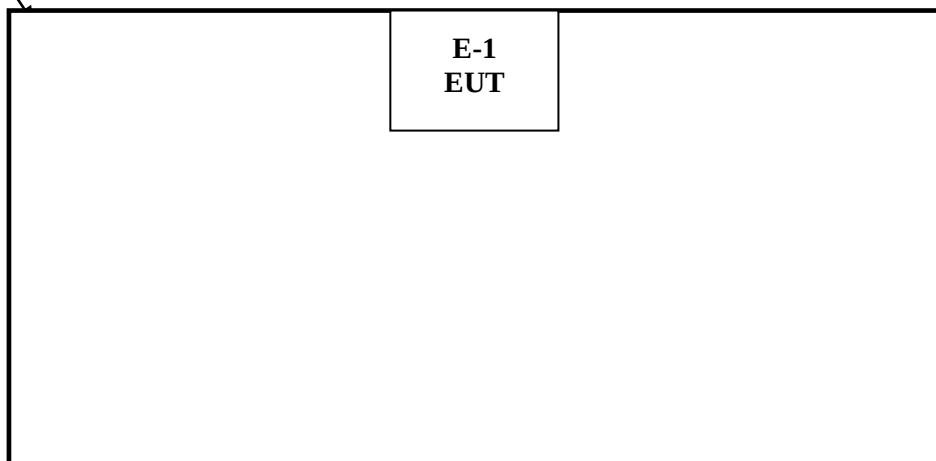
Block diagram of EUT configuration

RADIATED EMISSION

Test mode: mode1, 5

Non-Conductive Table

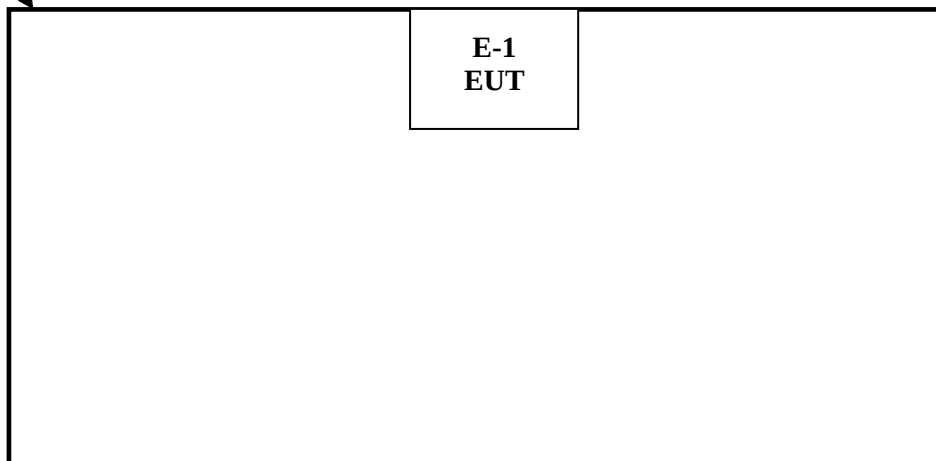
80 cm above Ground Plane



Test mode: mode 1, 2, 3 ,4,5

Non-Conductive Table

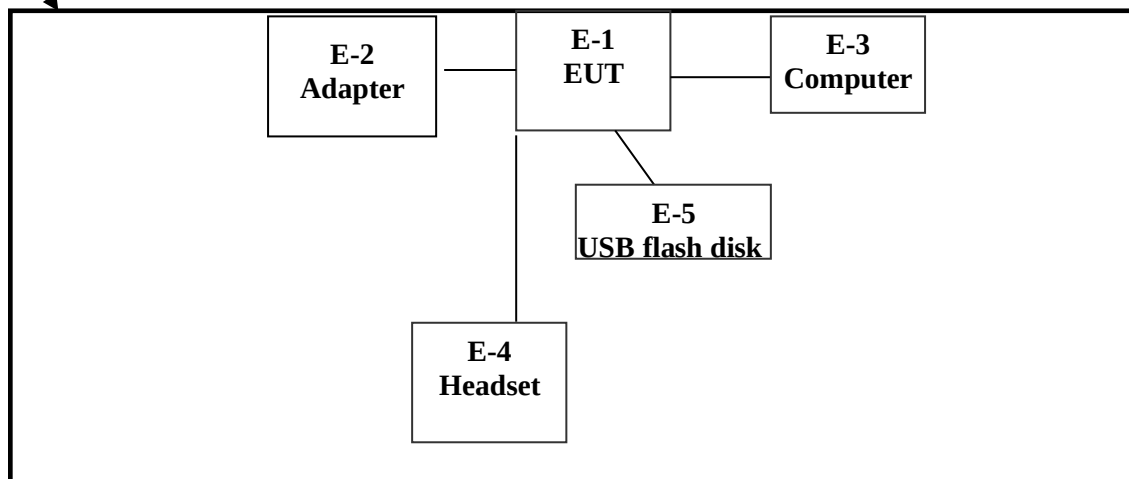
150 cm above Ground Plane



Test mode: mode 6

Non-Conductive Table

80 cm above Ground Plane



2.4 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.

2.4.1 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

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

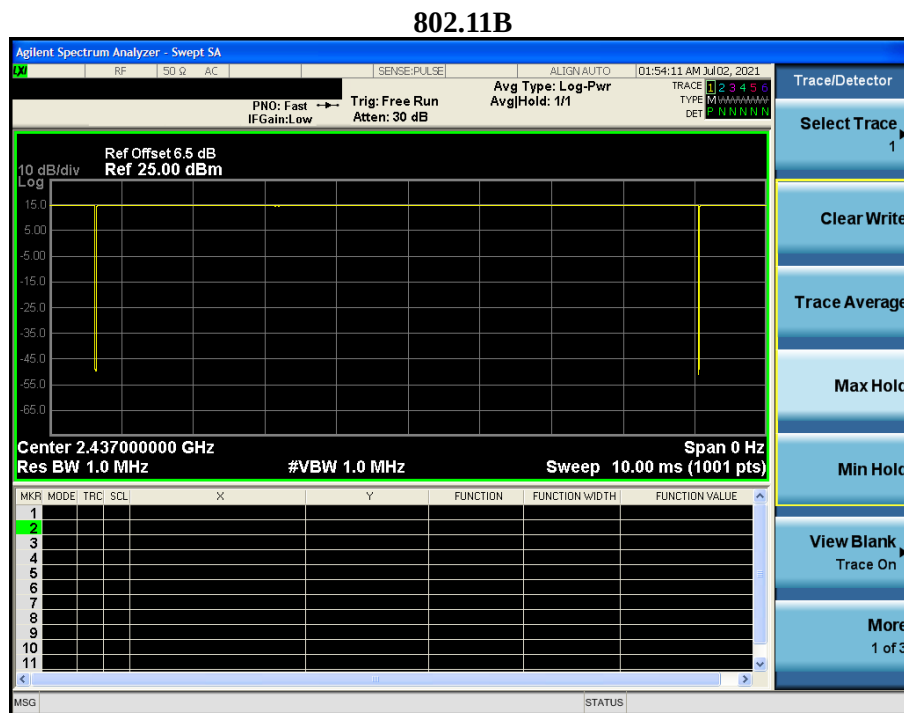
3. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

3.1 LIMITS

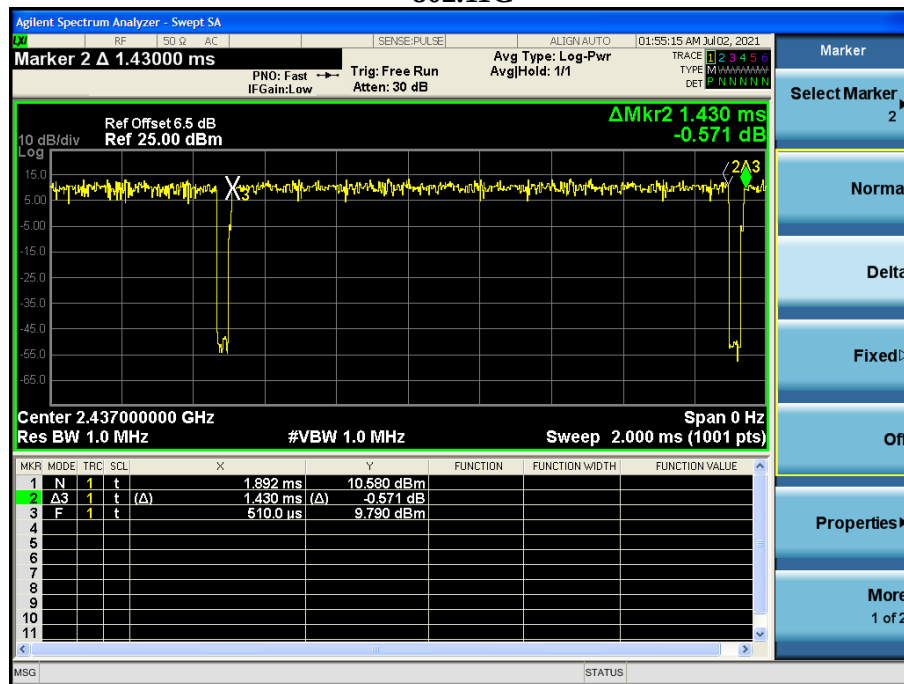
None; for reporting purposes only.

3.2 ON TIME AND DUTY CYCLE RESULTS

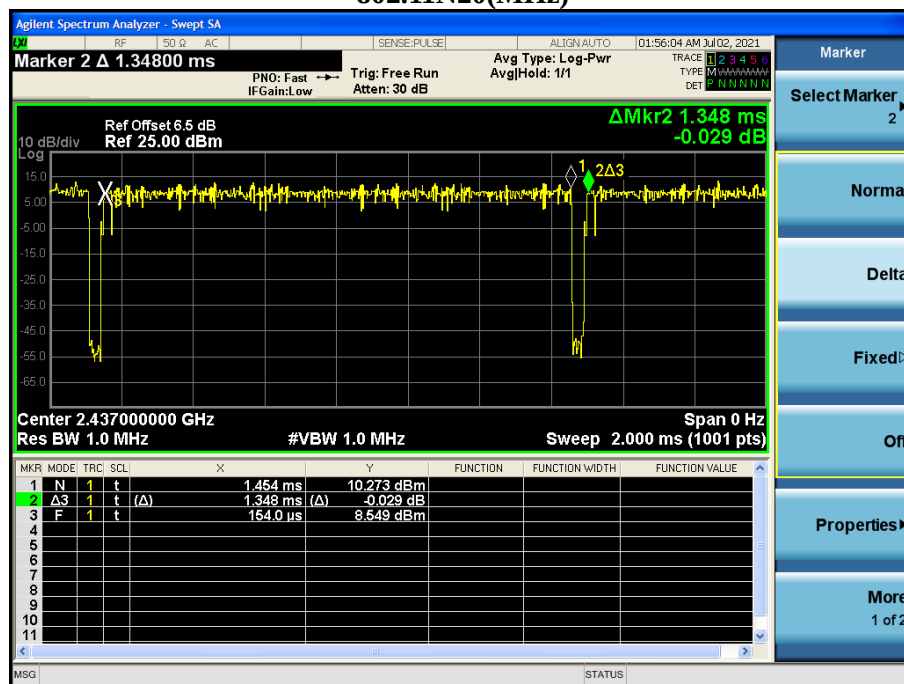
Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	10log(1/x)Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
802.11B	/	/	≥ 0.98	$\geq 98\%$ 1	/	/
802.11G	1.382	1.430	0.966	96.64	0.148	0.724
802.11N20(MHz)	1.300	1.348	0.964	96.44	0.157	0.769
802.11N40(MHz)	0.619	0.689	0.898	89.84	0.465	1.616



802.11G



802.11N20(MHz)



Agilent Spectrum Analyzer - Swept SA

RF 50 Ω AC SENSE:PULSE ALIGN AUTO 01:57:08 AM Jul 02, 2021

Marker 2 Δ 689.000 μ s PNO: Fast IFGain:Low Trig: Free Run Avg Type: Log-Pwr Avg/Hold: 1/1

TRACE 1 2 3 4 5 6 TYPE MAXIMUM DET NNNNN

Ref Offset 6.5 dB Ref 25.00 dBm

Δ Mkr2 689.0 μ s 4.735 dB

Center 2.437000000 GHz Span 0 Hz
Res BW 1.0 MHz #VBW 1.0 MHz Sweep 1.000 ms (1001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	733.0 μ s	1.268 dBm			
2	Δ 3	1	t	689.0 μ s (Δ)	4.735 dB			
3	F	1	t	114.0 μ s	-4.747 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Marker

Select Marker

Normal

Delta

Fixed

Off

Properties

More

1 of 2

4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 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	CISPR
5.0 -30.0			60.00	50.00	CISPR

0.15 -0.5			66 - 56 *	56 - 46 *	LP0002
0.50 -5.0			56.00	46.00	LP0002
5.0 -30.0			60.00	50.00	LP0002

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

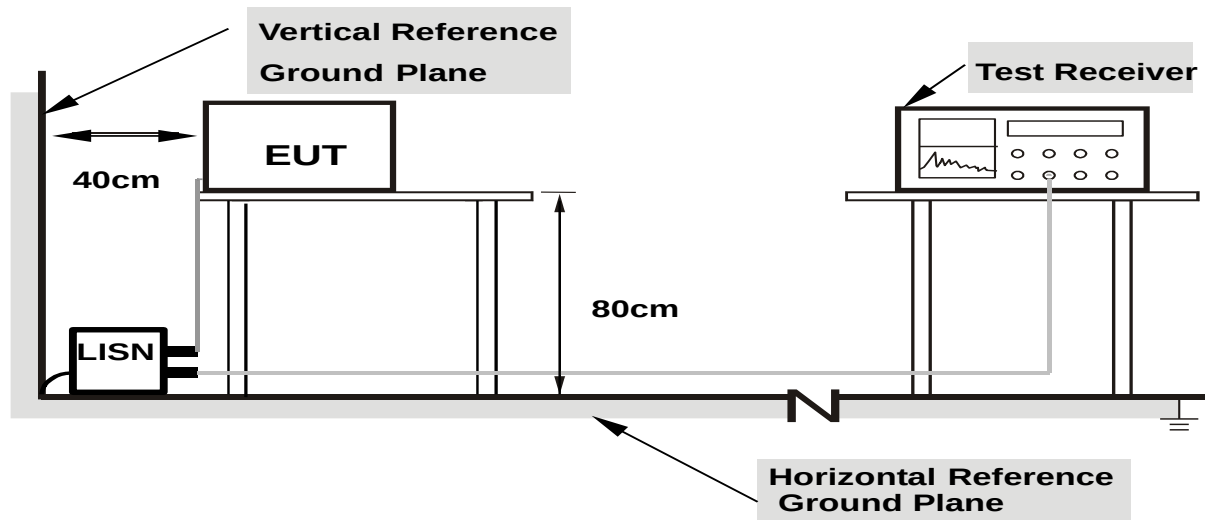
4.1.2 TEST PROCEDURE

- 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.

4.1.3 DEVIATION FROM TEST STANDARD

No deviation

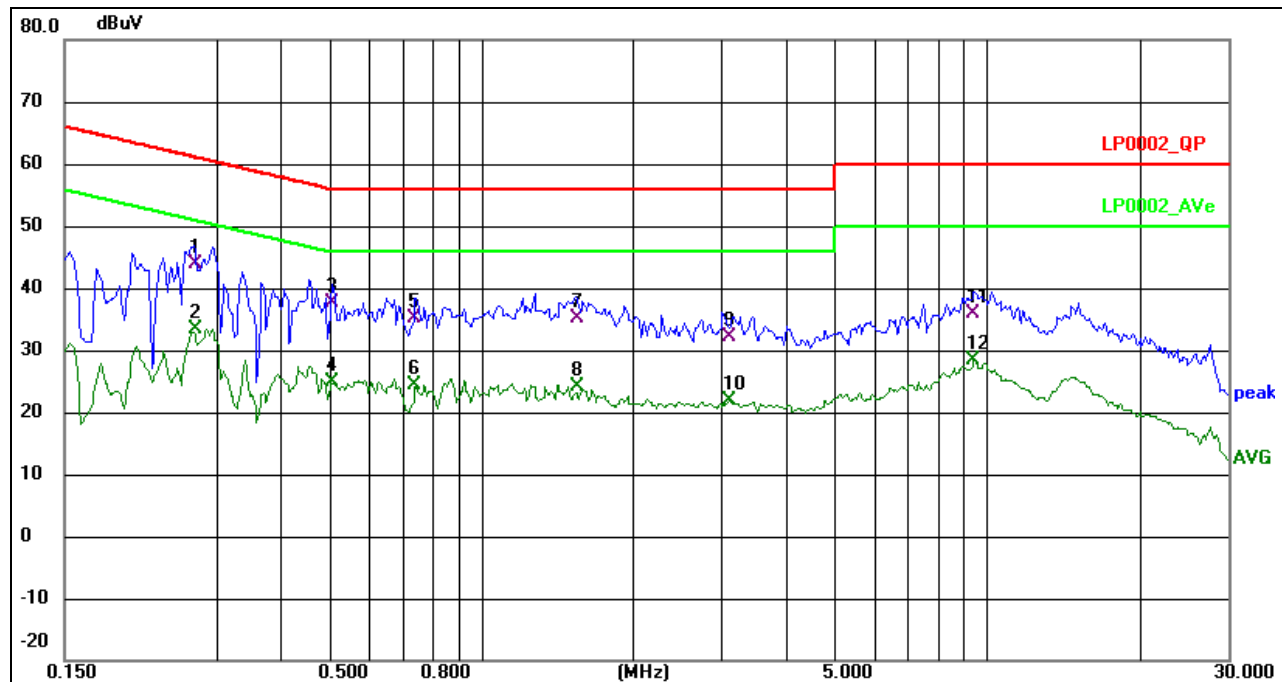
4.1.4 TEST SETUP



- 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

4.1.5 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(worst case)	Phase :	L
Test Voltage :	AC 110V/60Hz for Adapter		

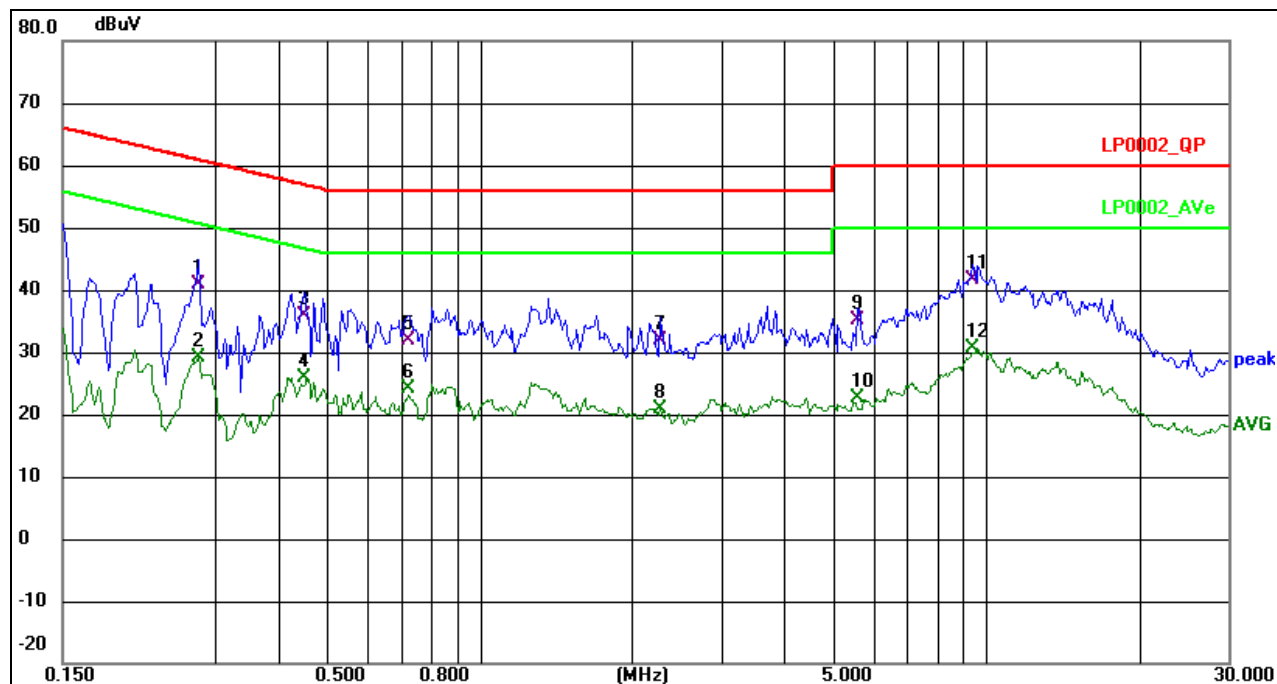


Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = LISN factor + Cable Loss + Pulse limiter.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1 *	0.2709	34.05	9.75	43.80	61.09	-17.29	QP	P
2	0.2709	23.75	9.75	33.50	51.09	-17.59	AVG	P
3	0.5088	27.77	9.77	37.54	56.00	-18.46	QP	P
4	0.5088	15.18	9.77	24.95	46.00	-21.05	AVG	P
5	0.7428	25.33	9.78	35.11	56.00	-20.89	QP	P
6	0.7428	14.49	9.78	24.27	46.00	-21.73	AVG	P
7	1.5384	25.34	9.80	35.14	56.00	-20.86	QP	P
8	1.5384	14.25	9.80	24.05	46.00	-21.95	AVG	P
9	3.0975	22.33	9.85	32.18	56.00	-23.82	QP	P
10	3.0975	12.04	9.85	21.89	46.00	-24.11	AVG	P
11	9.4389	16.21	19.57	35.78	60.00	-24.22	QP	P
12	9.4389	8.83	19.57	28.40	50.00	-21.60	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(worst case)	Phase :	N
Test Voltage :	AC 110V/60Hz for Adapter		

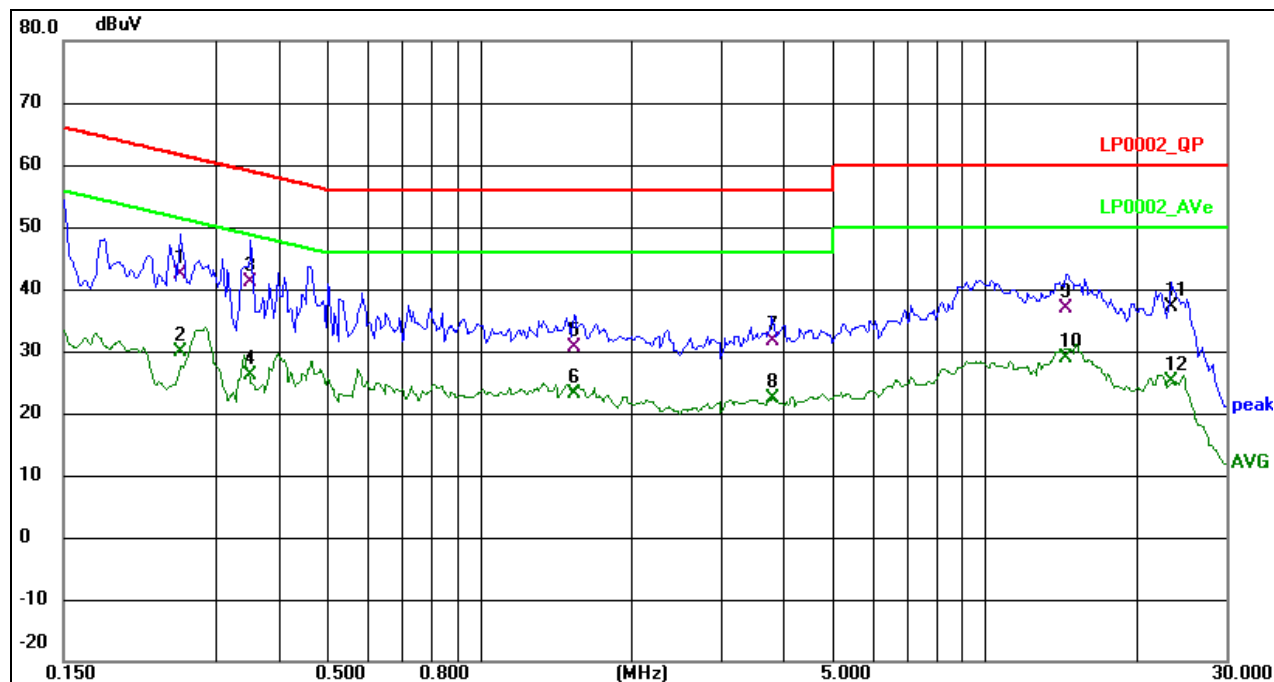


Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = LISN factor + Cable Loss + Pulse limiter.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.2787	31.11	9.76	40.87	60.85	-19.98	QP	P
2	0.2787	19.39	9.76	29.15	50.85	-21.70	AVG	P
3	0.4501	26.12	9.77	35.89	56.87	-20.98	QP	P
4	0.4501	16.22	9.77	25.99	46.87	-20.88	AVG	P
5	0.7233	22.09	9.78	31.87	56.00	-24.13	QP	P
6	0.7233	14.29	9.78	24.07	46.00	-21.93	AVG	P
7	2.2715	22.11	9.81	31.92	56.00	-24.08	QP	P
8	2.2715	11.10	9.81	20.91	46.00	-25.09	AVG	P
9	5.5857	25.09	9.95	35.04	60.00	-24.96	QP	P
10	5.5857	12.67	9.95	22.62	50.00	-27.38	AVG	P
11 *	9.4000	22.04	19.53	41.57	60.00	-18.43	QP	P
12	9.4000	11.06	19.53	30.59	50.00	-19.41	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		

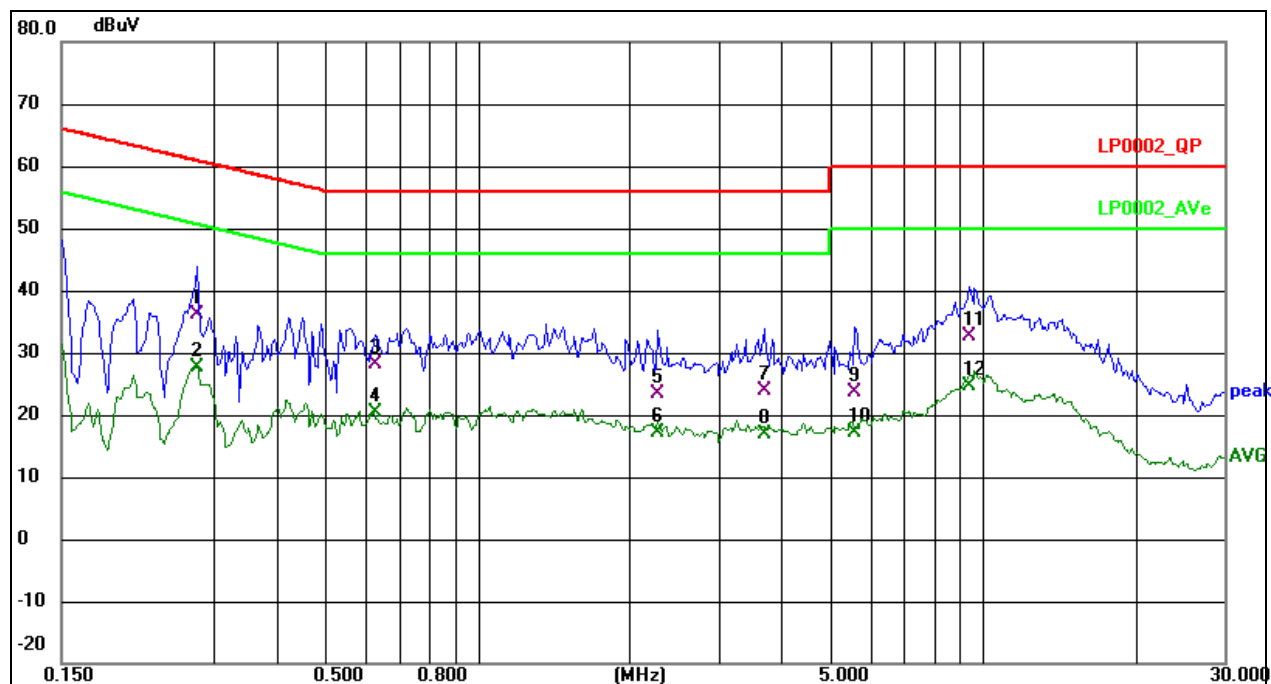


Remark:

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

4.2 RADIATED EMISSION MEASUREMENT

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

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 3.5, then the 3.6 limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/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 limit for radiated test was performed according to LP0002.
- (2) The tighter limit applies at the band edges.
- (3) 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 BW
PK	Any	1MHz	3MHz
AV	$\geq 98\%$	1MHz	10Hz
	$< 98\%$	1MHz	1/T

KDB 558074 Zero-Span Spectrum Analyzer Method

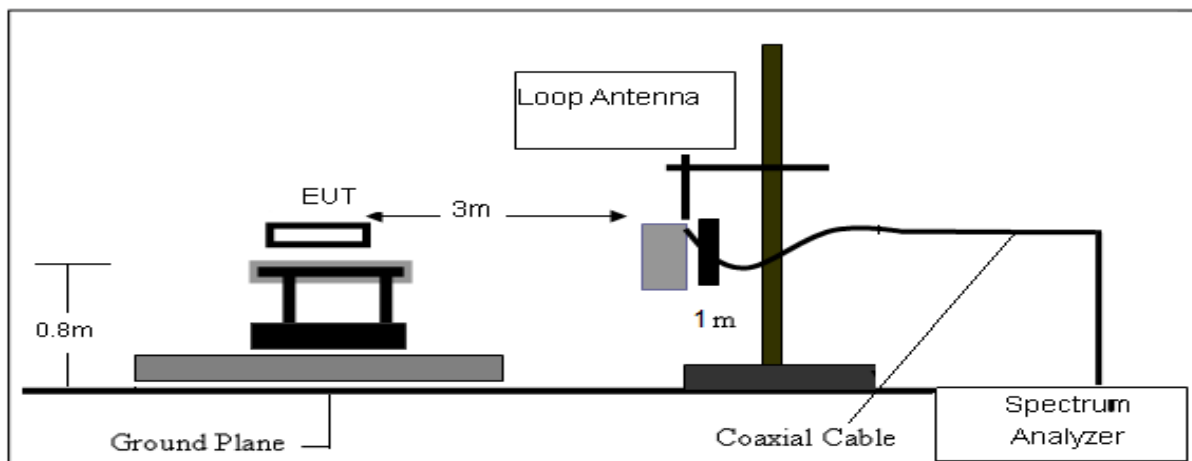
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

4.2.2 TEST PROCEDURE

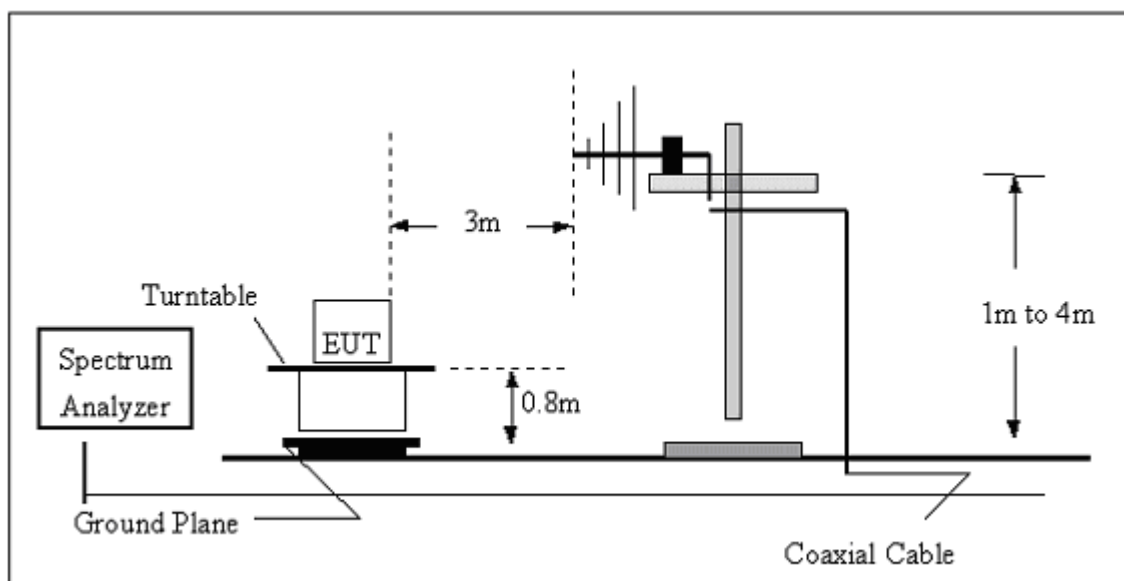
- The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 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 are 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 Quasi Peak 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.

4.2.3 TEST SETUP

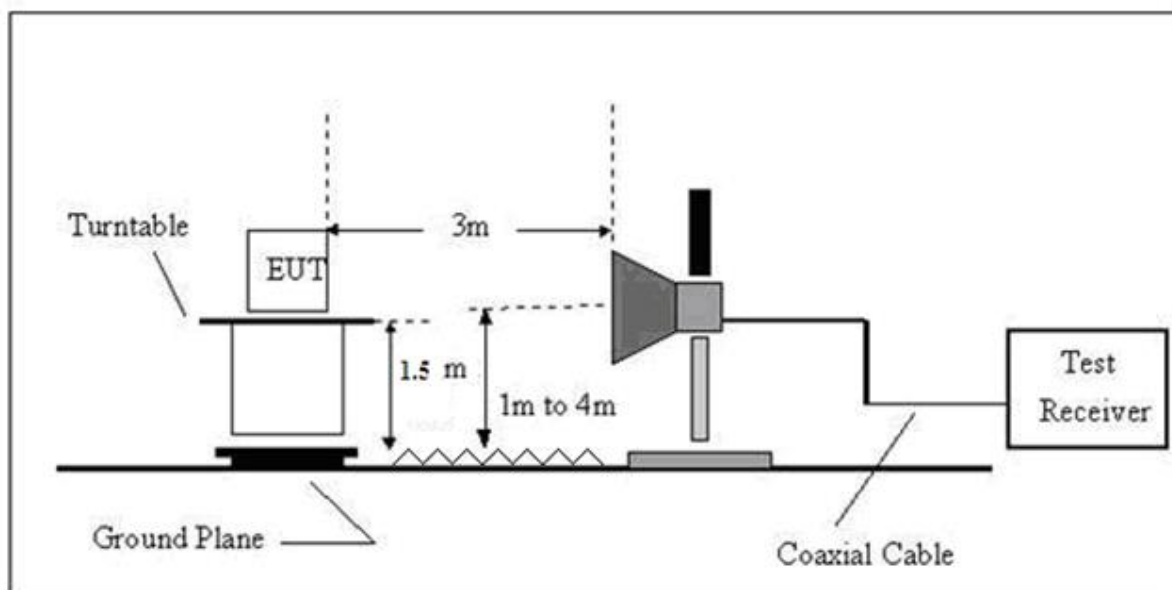
(A) Radiated Emission Test-Up Frequency Below 30MHz



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



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



4.2.4 EUT 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.

4.2.5 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	Polarization :	--

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

NOTE:

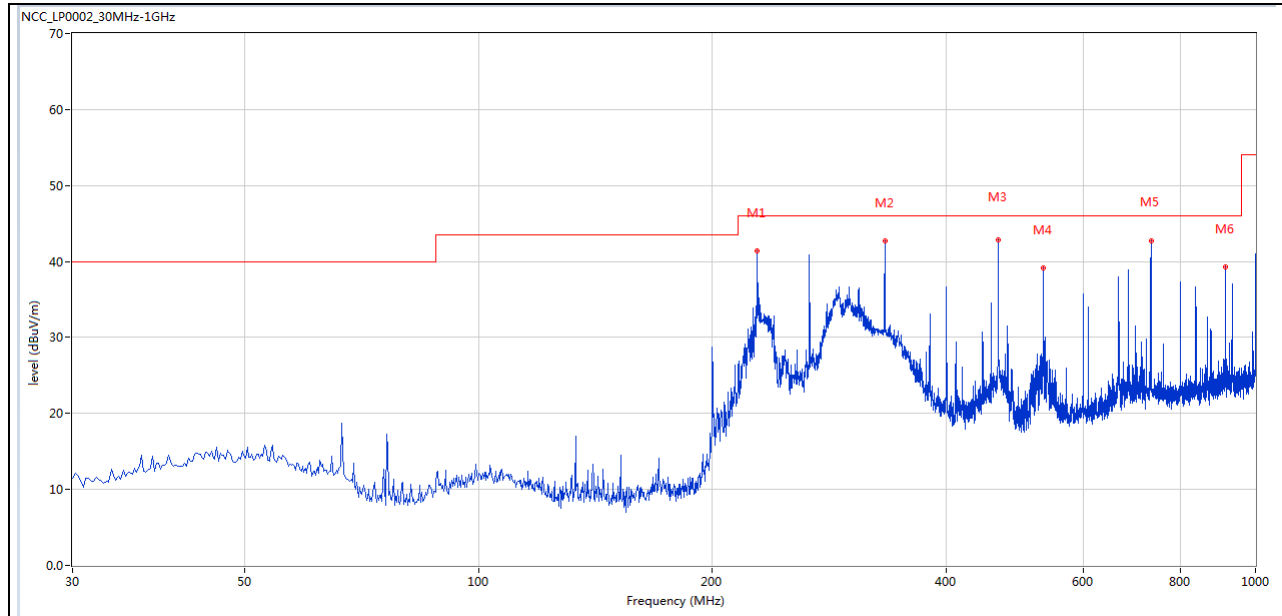
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

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

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

BETWEEN30 – 1000 MHZ

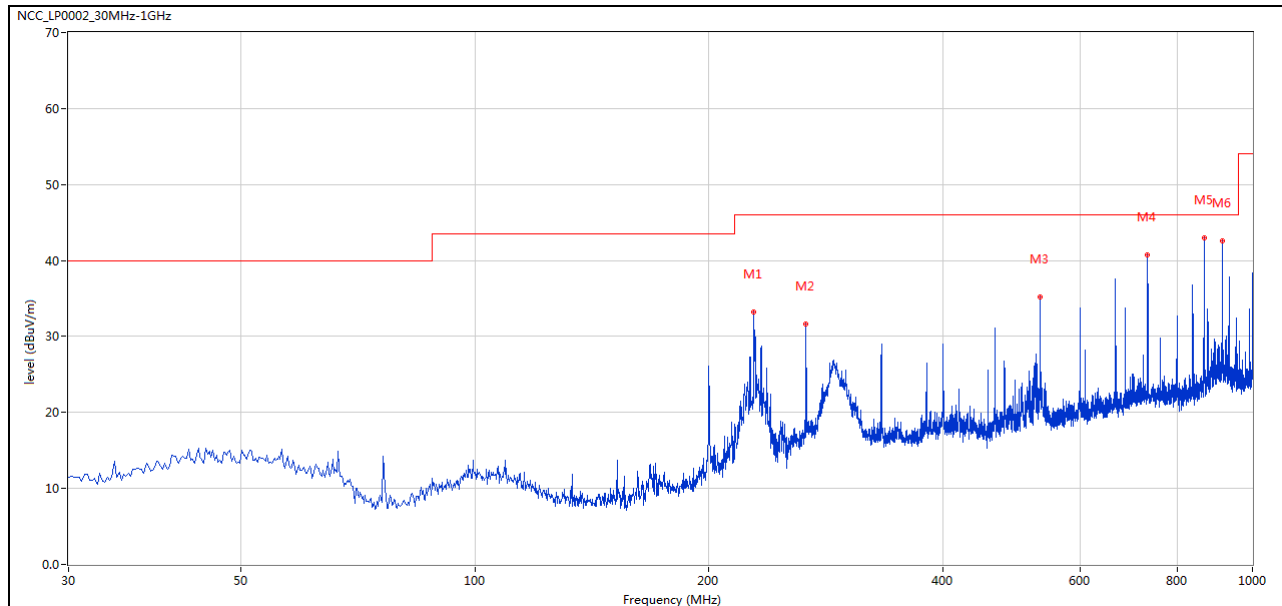
EUT :	智慧投影機	Model Name. :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	TX 802.11b :Rate 1Mbps (worst case)	Polarization :	Vertical
Test Power :	DC7.4V from battery		



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	41.35	-12.74	46.0	-4.65	Peak	Vertical	Pass
2	333.292	42.68	-10.07	46.0	-3.32	Peak	Vertical	Pass
3	466.633	42.77	-7.74	46.0	-3.23	Peak	Vertical	Pass
4	533.304	39.17	-6.43	46.0	-6.83	Peak	Vertical	Pass
5	733.317	42.63	-3.61	46.0	-3.37	Peak	Vertical	Pass
6	914.176	39.30	-1.75	46.0	-6.70	Peak	Vertical	Pass

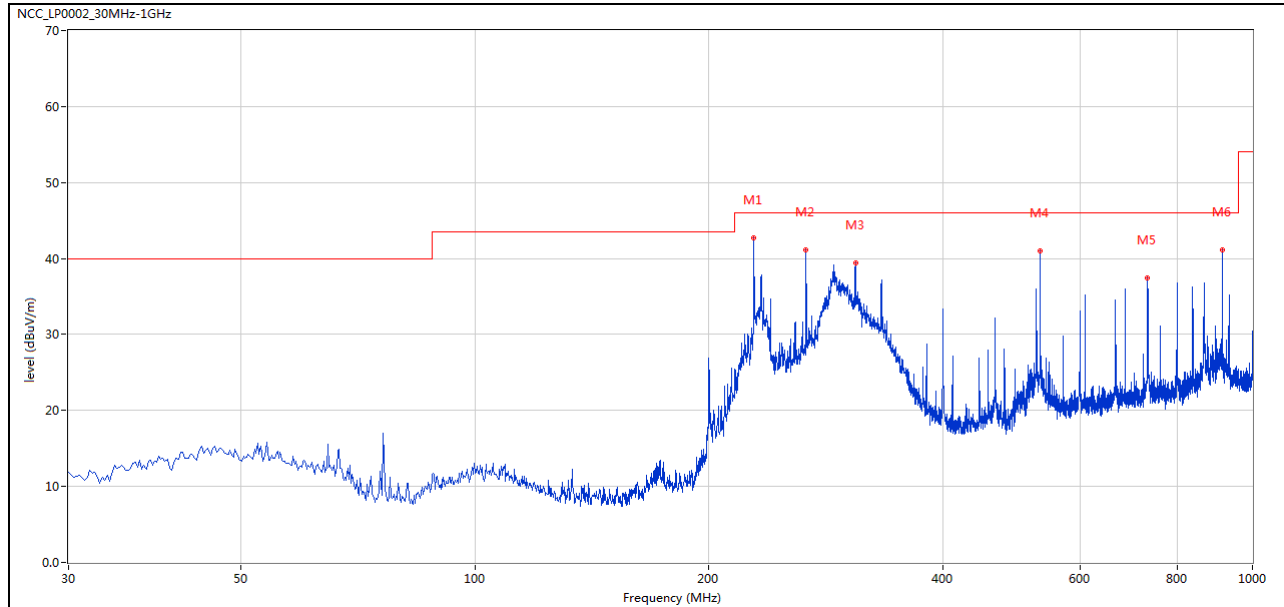
EUT :	智慧投影機	Model Name. :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	TX 802.11b :Rate 1Mbps (worst case)	Polarization :	Horizontal
Test Power :	DC7.4V from battery		



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	33.21	-12.74	46.0	-12.79	Peak	Horizontal	Pass
2	266.621	31.59	-11.77	46.0	-14.41	Peak	Horizontal	Pass
3	533.304	35.20	-6.43	46.0	-10.80	Peak	Horizontal	Pass
4	733.317	40.68	-3.61	46.0	-5.32	Peak	Horizontal	Pass
5	866.658	42.93	-2.38	46.0	-3.07	Peak	Horizontal	Pass
6	914.176	42.86	-1.75	46.0	-3.14	Peak	Horizontal	Pass

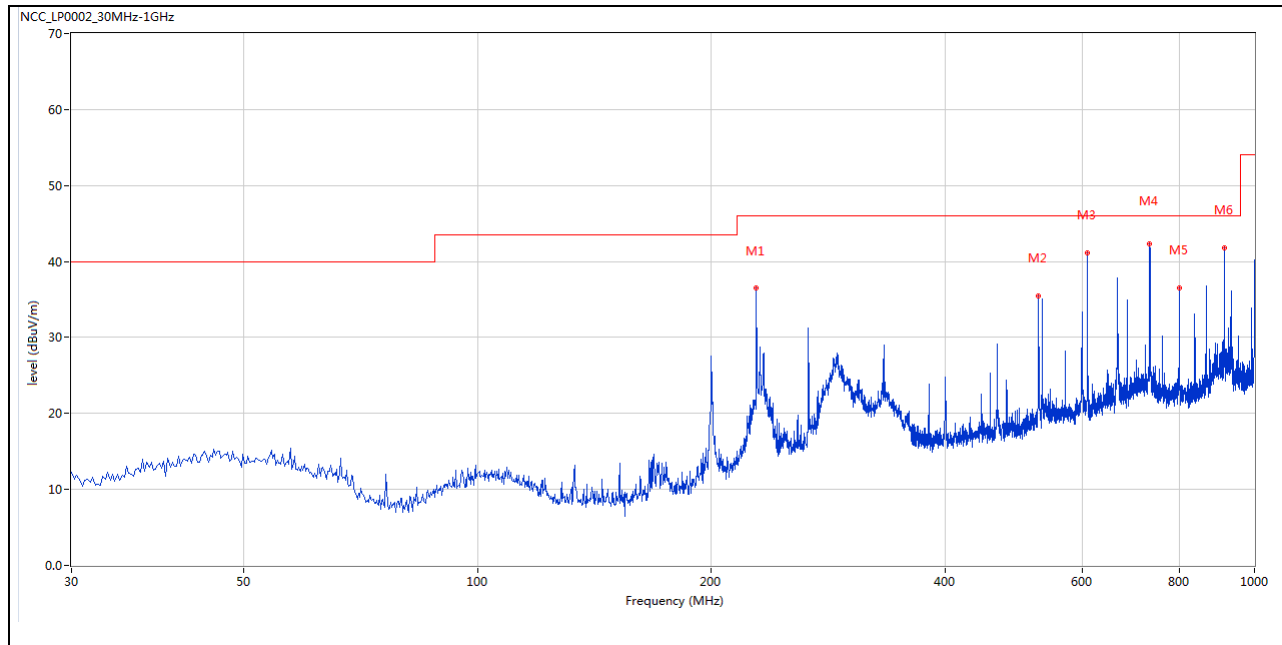
EUT :	智慧投影機	Model Name. :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	RX	Polarization :	Vertical
Test Power :	DC7.4V from battery		



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	42.73	-12.74	46.0	-3.27	Peak	Vertical	Pass
2	266.621	41.17	-11.77	46.0	-4.83	Peak	Vertical	Pass
3	308.563	39.46	-10.88	46.0	-6.54	Peak	Vertical	Pass
4	533.304	40.99	-6.43	46.0	-5.01	Peak	Vertical	Pass
5	733.317	37.43	-3.61	46.0	-8.57	Peak	Vertical	Pass
6	914.176	41.08	-1.75	46.0	-4.92	Peak	Vertical	Pass

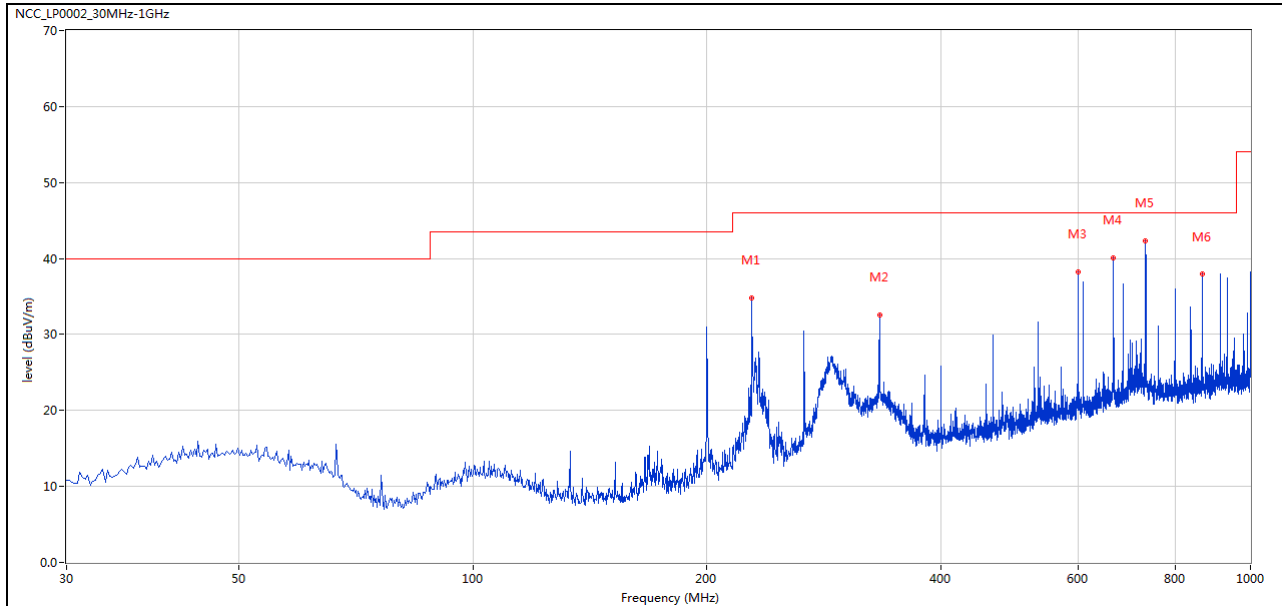
EUT :	智慧投影機	Model Name. :	SP1e
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	RX	Polarization :	Horizontal
Test Power :	DC7.4V from battery		



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	36.45	-12.74	46.0	-9.55	Peak	Horizontal	Pass
2	527.486	35.51	-6.59	46.0	-10.49	Peak	Horizontal	Pass
3	609.430	41.10	-5.02	46.0	-4.90	Peak	Horizontal	Pass
4	733.317	42.98	-3.61	46.0	-3.02	Peak	Horizontal	Pass
5	799.988	36.54	-2.96	46.0	-9.46	Peak	Horizontal	Pass
6	914.176	41.80	-1.75	46.0	-4.20	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 :	Horizontal
Test Power :	DC12V from Adapter		

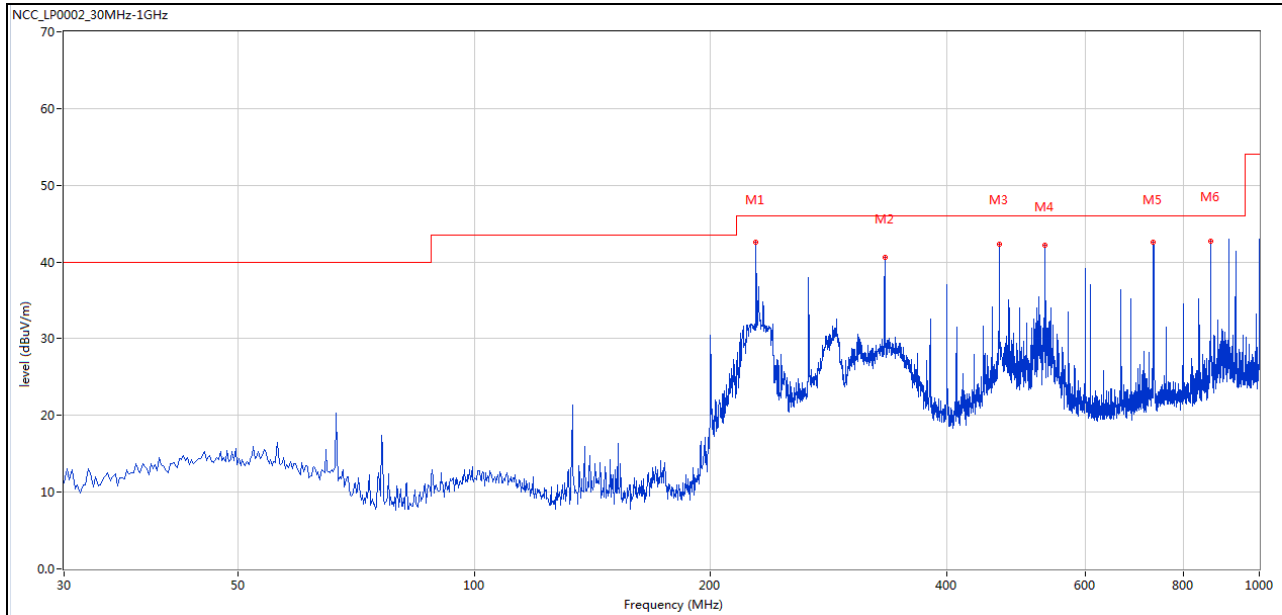


Remark:

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.

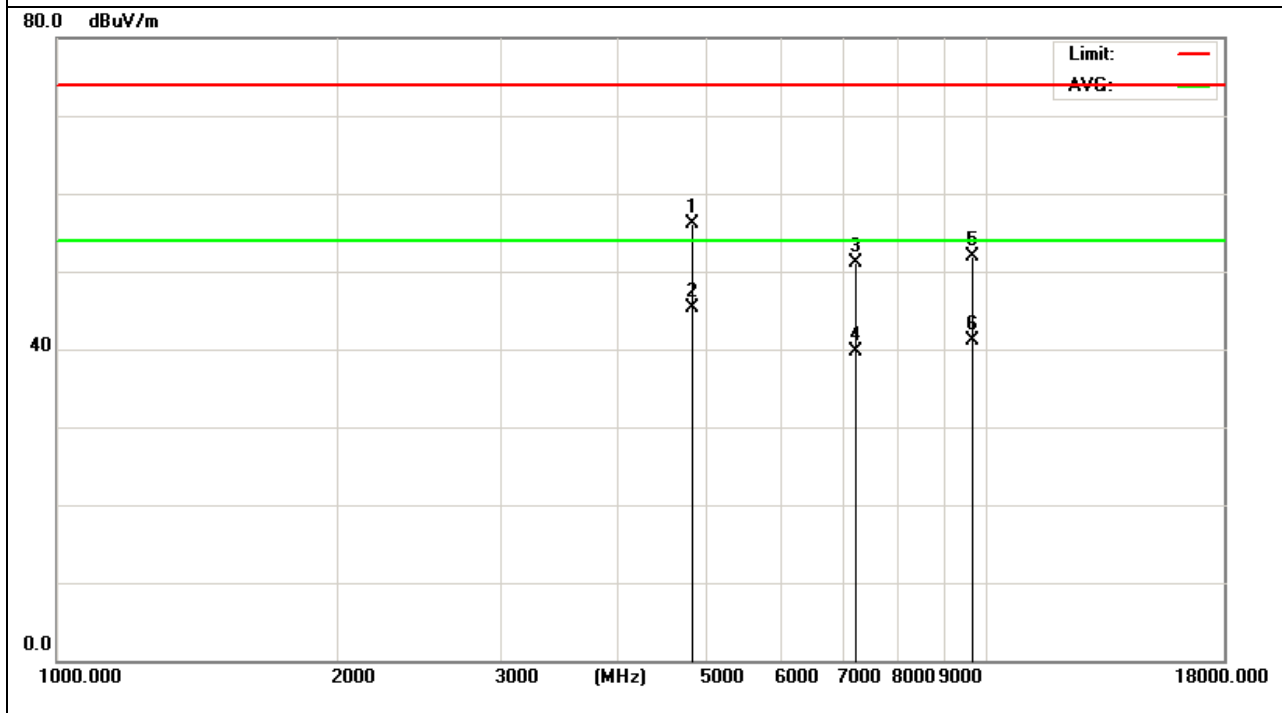
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	ANT	Verdict
1	228.558	42.43	-12.74	46.0	-3.57	Peak	Vertical	Pass
2	333.292	40.57	-10.07	46.0	-5.43	Peak	Vertical	Pass
3	466.633	42.33	-7.74	46.0	-3.67	Peak	Vertical	Pass
4	533.304	42.21	-6.43	46.0	-3.79	Peak	Vertical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

4.2.6 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 :	TX CH01 (802.11b :Rate 1Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4824.0000	51.47	5.08	56.55	74.00	-17.45	peak
4824.0000	40.91	5.08	45.99	54.00	-8.01	AVG
7236.0000	44.22	7.16	51.38	74.00	-22.62	peak
7236.0000	32.73	7.16	39.89	54.00	-14.11	AVG
9648.0000	41.31	10.82	52.13	74.00	-21.87	peak
9648.0000	30.76	10.82	41.58	54.00	-12.42	AVG

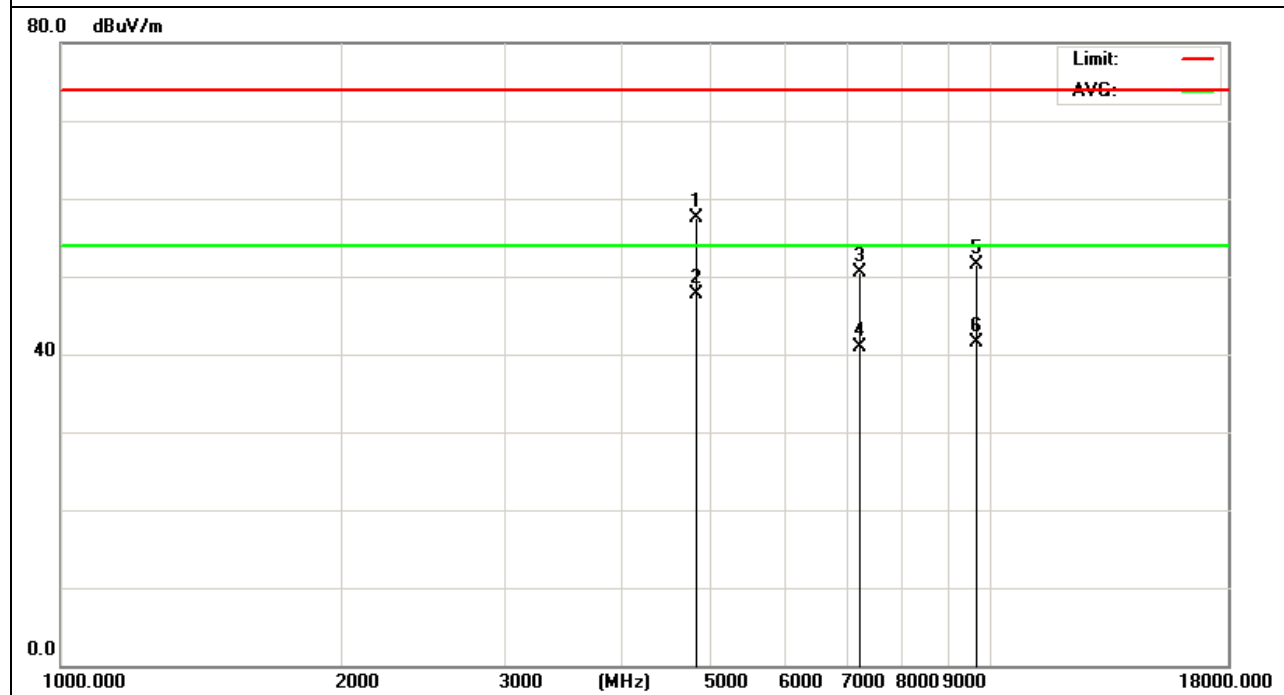
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH01 (802.11b :Rate 1Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4824.000	53.88	5.08	58.96	74.00	-15.04	peak
4824.000	43.91	5.08	48.99	54.00	-5.01	AVG
7236.000	43.75	7.16	50.91	74.00	-23.09	peak
7236.000	33.69	7.16	40.85	54.00	-13.15	AVG
9648.000	40.52	10.82	51.34	74.00	-22.66	peak
9648.000	32.15	10.82	42.97	54.00	-11.03	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 :	TX CH01 (802.11b :Rate 1Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
19489.000	40.15	16.5	56.65	74.00	-17.35	peak
19489.000	30.63	16.5	47.13	54.00	-6.87	AVG

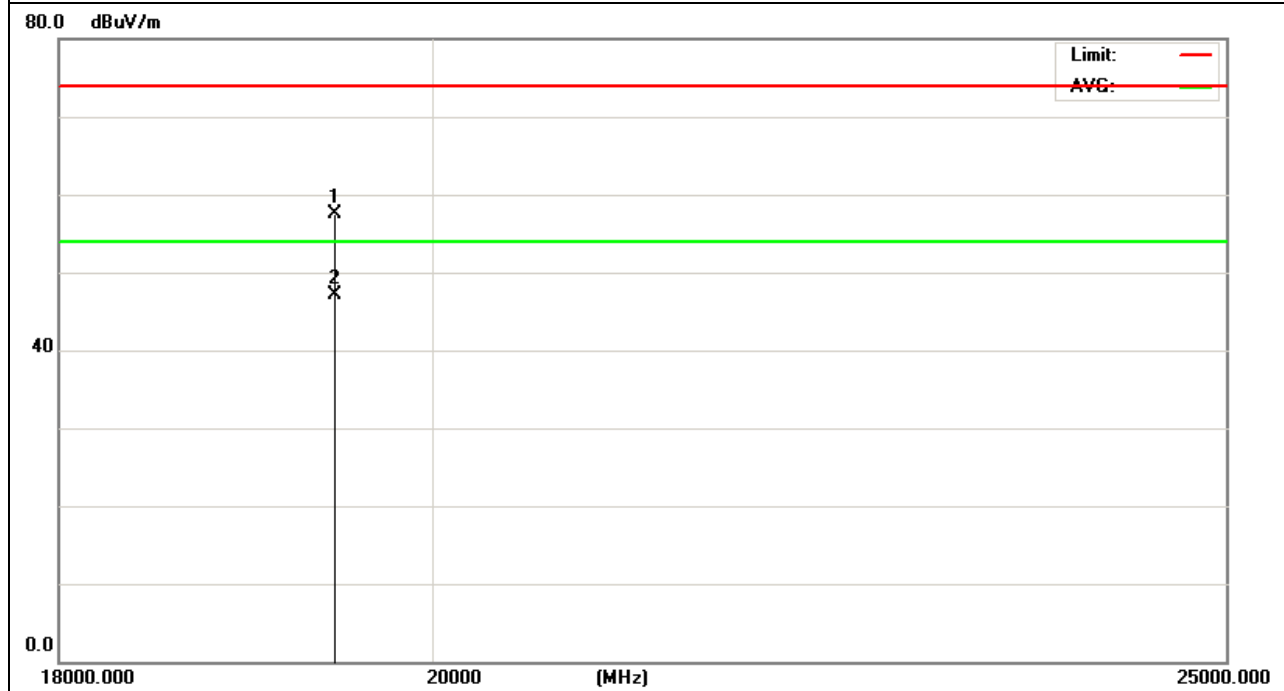
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH01 (802.11b :Rate 1Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
19459.00	41.82	16.5	58.32	74.00	-15.68	peak
19459.00	31.19	16.5	47.69	54.00	-6.31	AVG

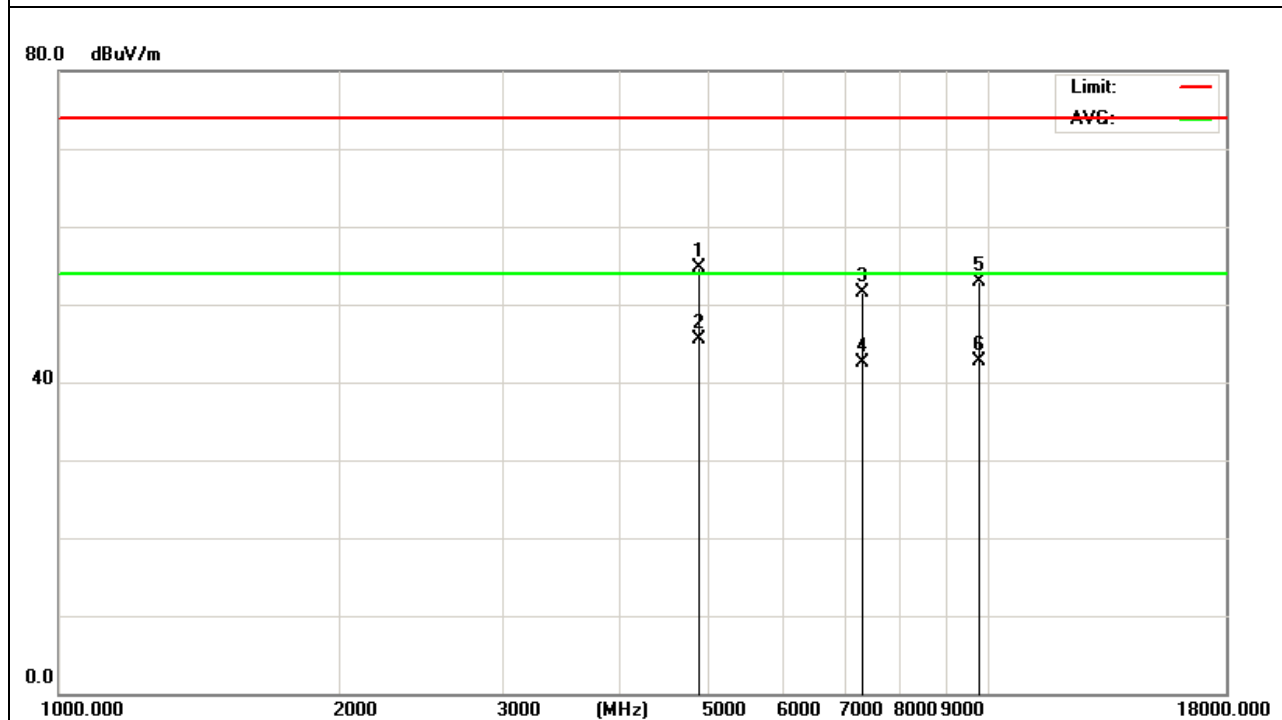
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH06 (802.11b :Rate 1Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874.0000	49.69	5.13	54.82	74.00	-19.18	peak
4874.0000	40.87	5.13	46.00	54.00	-8.00	AVG
7311.0000	44.36	7.49	51.85	74.00	-22.15	peak
7311.0000	35.41	7.49	42.90	54.00	-11.10	AVG
9748.0000	42.55	11.3	53.85	74.00	-20.15	peak
9748.0000	31.79	11.3	43.09	54.00	-10.91	AVG

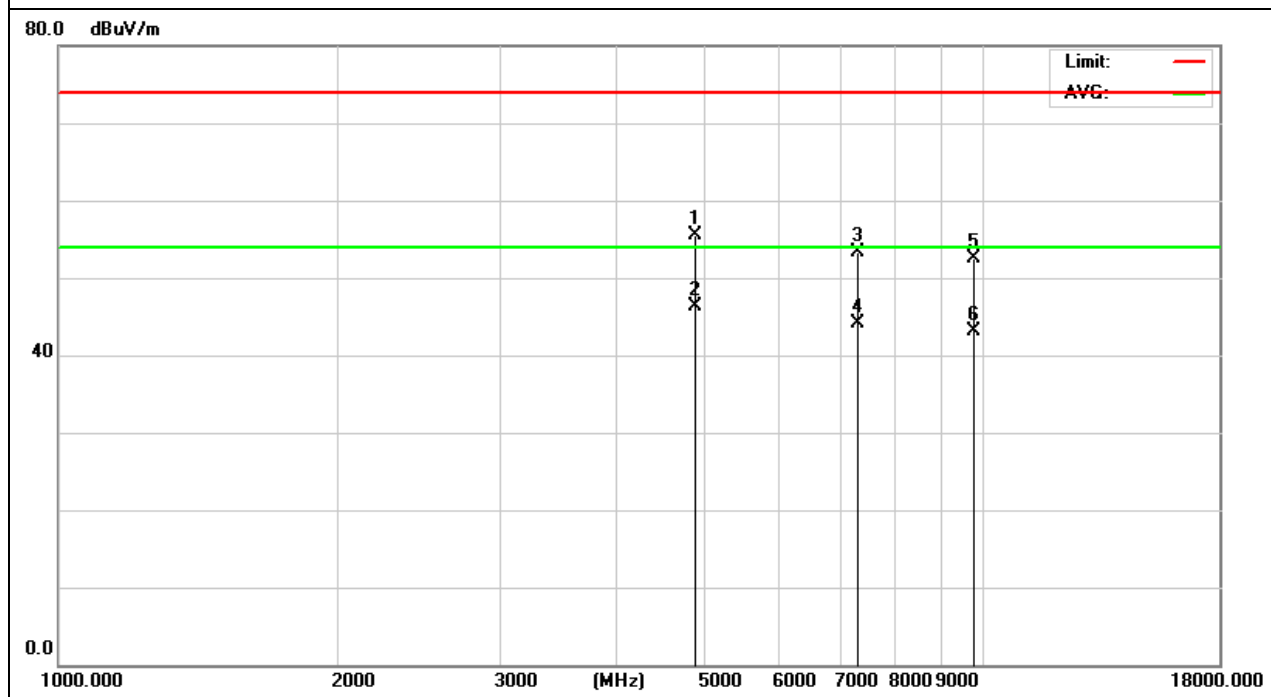
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH06 (802.11b :Rate 1Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4874.0000	50.56	5.13	55.69	74.00	-18.31	peak
4874.0000	41.64	5.13	46.77	54.00	-7.23	AVG
7311.0000	45.97	7.49	53.46	74.00	-20.54	peak
7311.0000	36.79	7.49	44.28	54.00	-9.72	AVG
9748.0000	41.42	11.3	52.72	74.00	-21.28	peak
9748.0000	31.85	11.3	43.15	54.00	-10.85	AVG

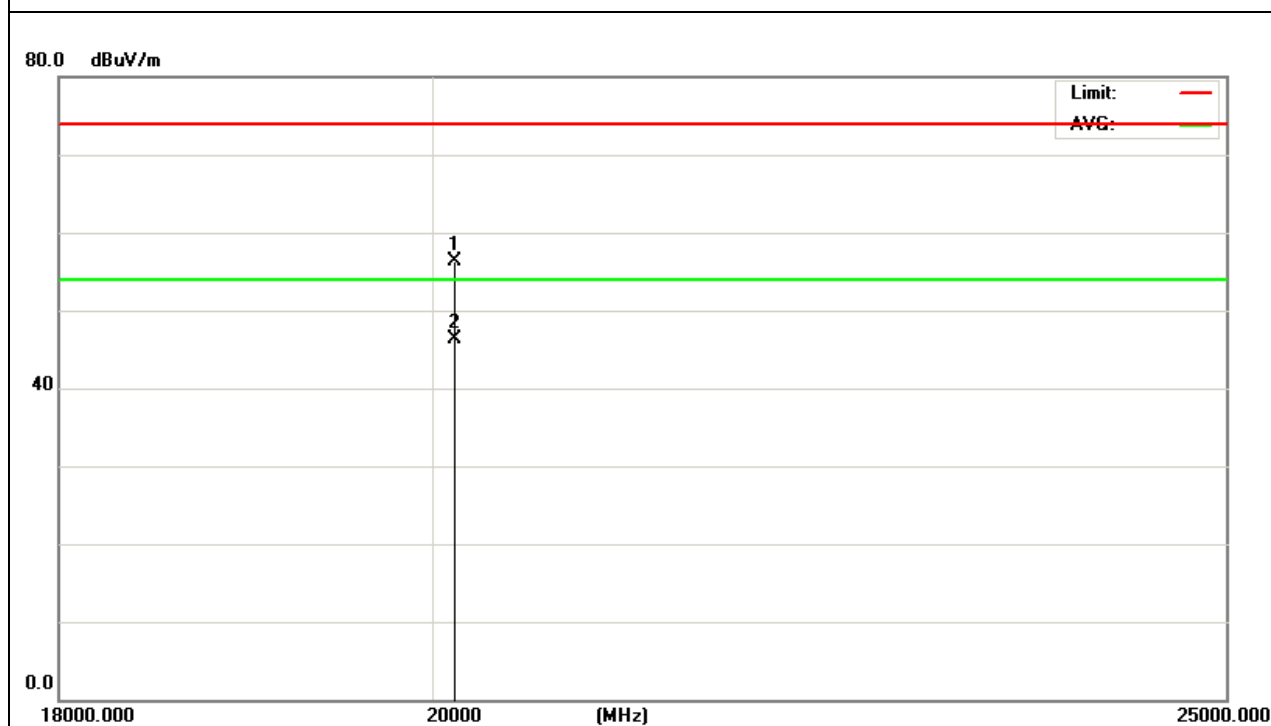
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH06 (802.11b :Rate 1Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
20119.000	39.98	16.63	56.61	74.00	-17.39	peak
20119.000	30.11	16.63	46.74	54.00	-7.26	AVG

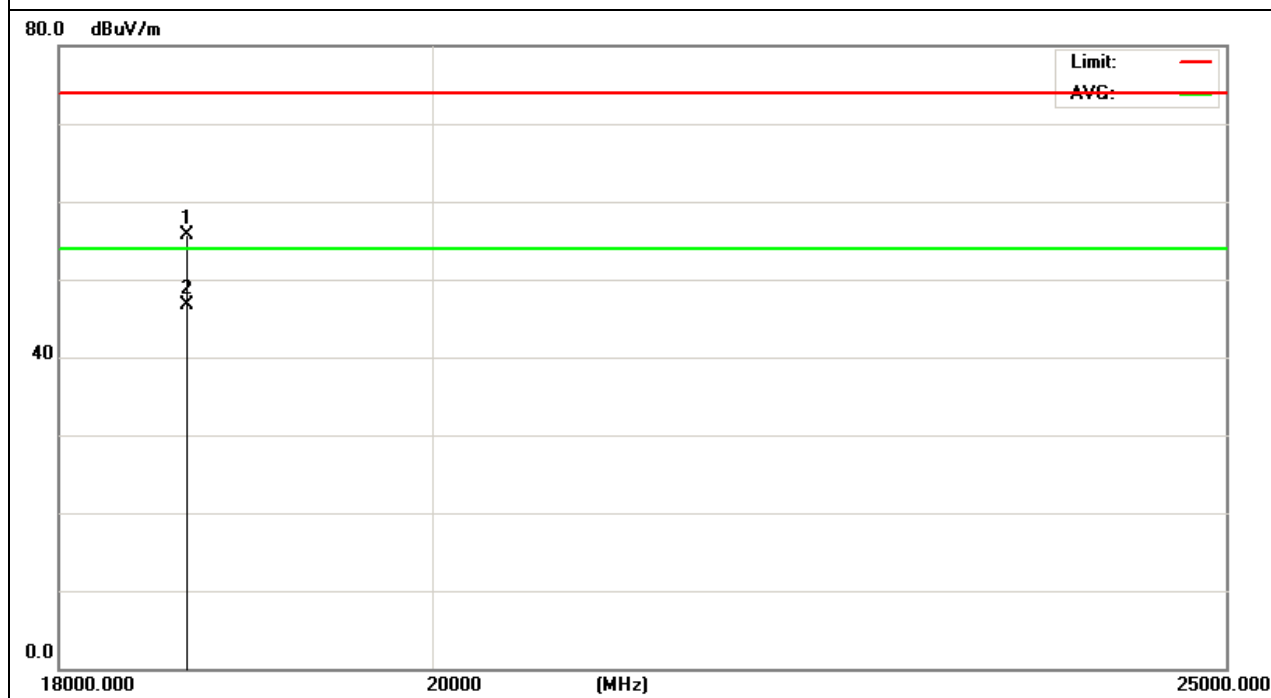
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH06 (802.11b :Rate 1Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
18666.00	39.51	16.06	55.57	74.00	-18.43	peak
18666.00	30.89	16.06	46.95	54.00	-7.05	AVG

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

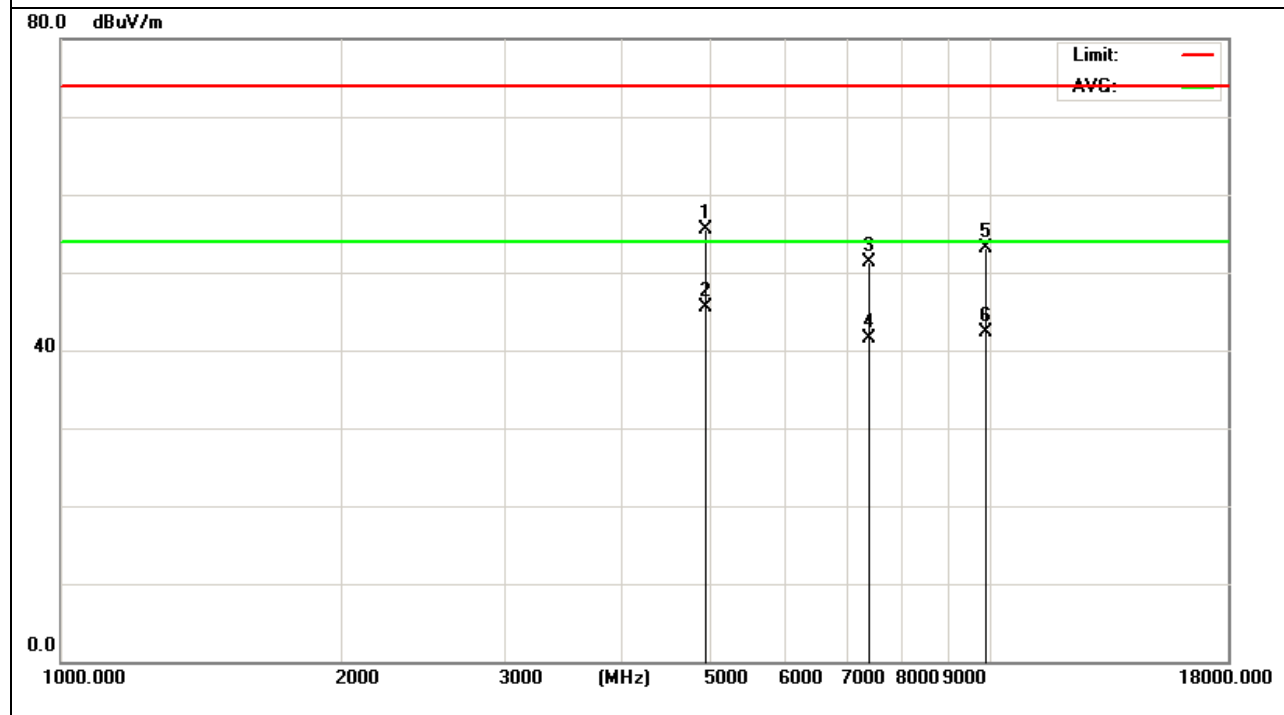


EUT :	智慧投影機	Model Name :	SP1e
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Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2021-07-12
Test Mode :	TX CH11 (802.11b :Rate 1Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4924.0000	50.81	5.18	55.99	74.00	-18.01	peak
4924.0000	41.16	5.18	46.34	54.00	-7.66	AVG
7386.0000	43.57	7.82	51.39	74.00	-22.61	peak
7386.0000	33.49	7.82	41.31	54.00	-12.69	AVG
9848.0000	41.33	11.79	53.12	74.00	-20.88	peak
9848.0000	30.57	11.79	42.36	54.00	-11.64	AVG

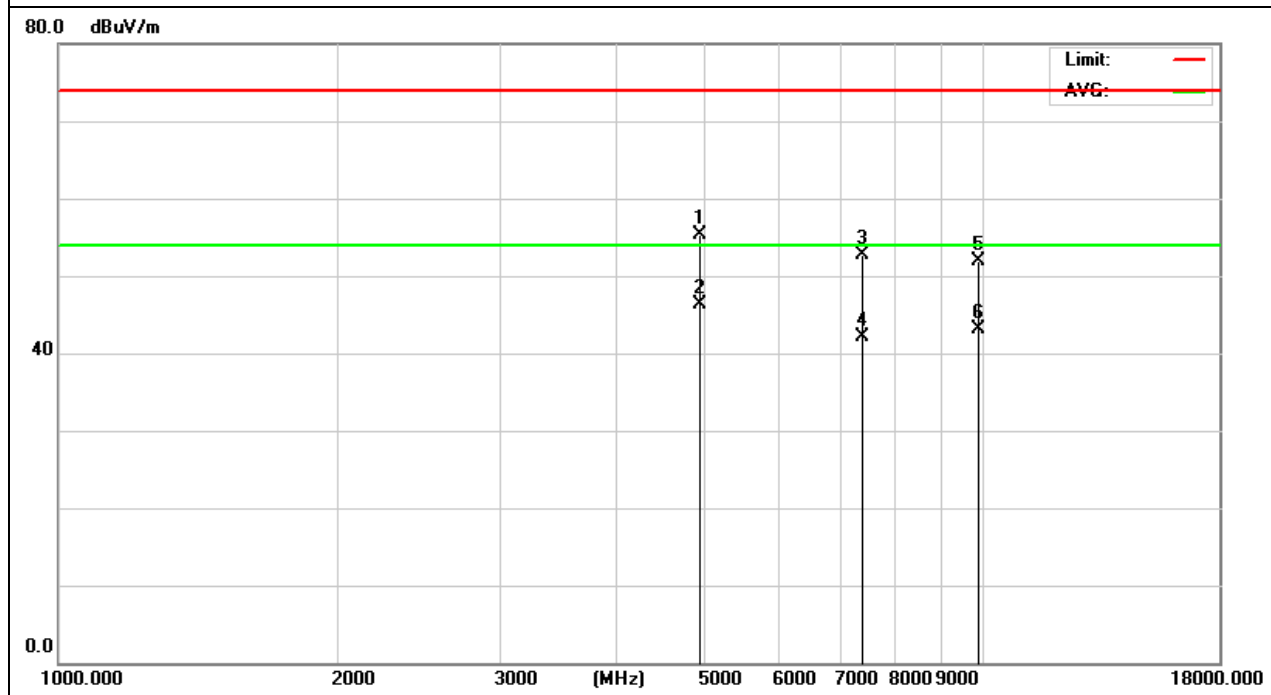
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH11 (802.11b :Rate 1Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4924.0000	50.35	5.18	55.53	74.00	-18.47	peak
4924.0000	41.17	5.18	46.35	54.00	-7.65	AVG
7386.0000	44.97	7.82	52.79	74.00	-21.21	peak
7386.0000	34.25	7.82	42.07	54.00	-11.93	AVG
9848.0000	40.14	11.79	51.93	74.00	-22.07	peak
9848.0000	31.36	11.79	43.15	54.00	-10.85	AVG

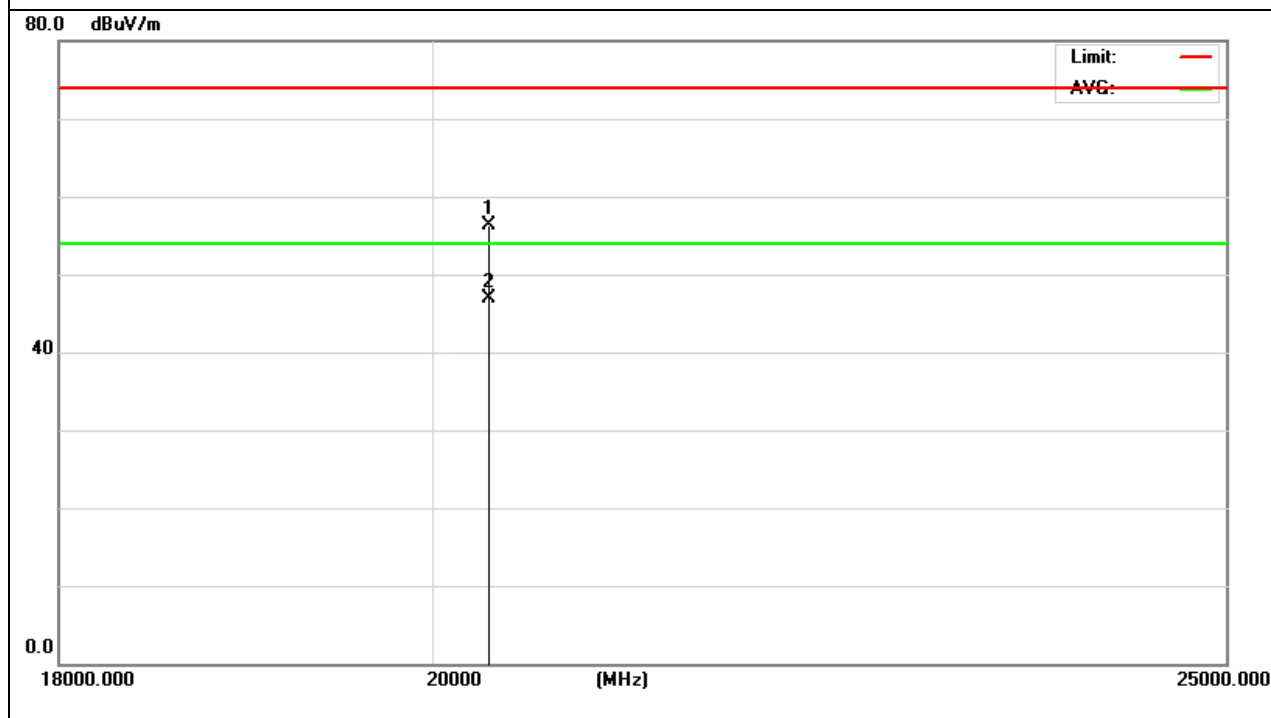
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH11 (802.11b :Rate 1Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
20315.00	39.63	16.67	56.30	74.00	-17.70	peak
20315.00	29.58	16.67	46.25	54.00	-7.75	AVG

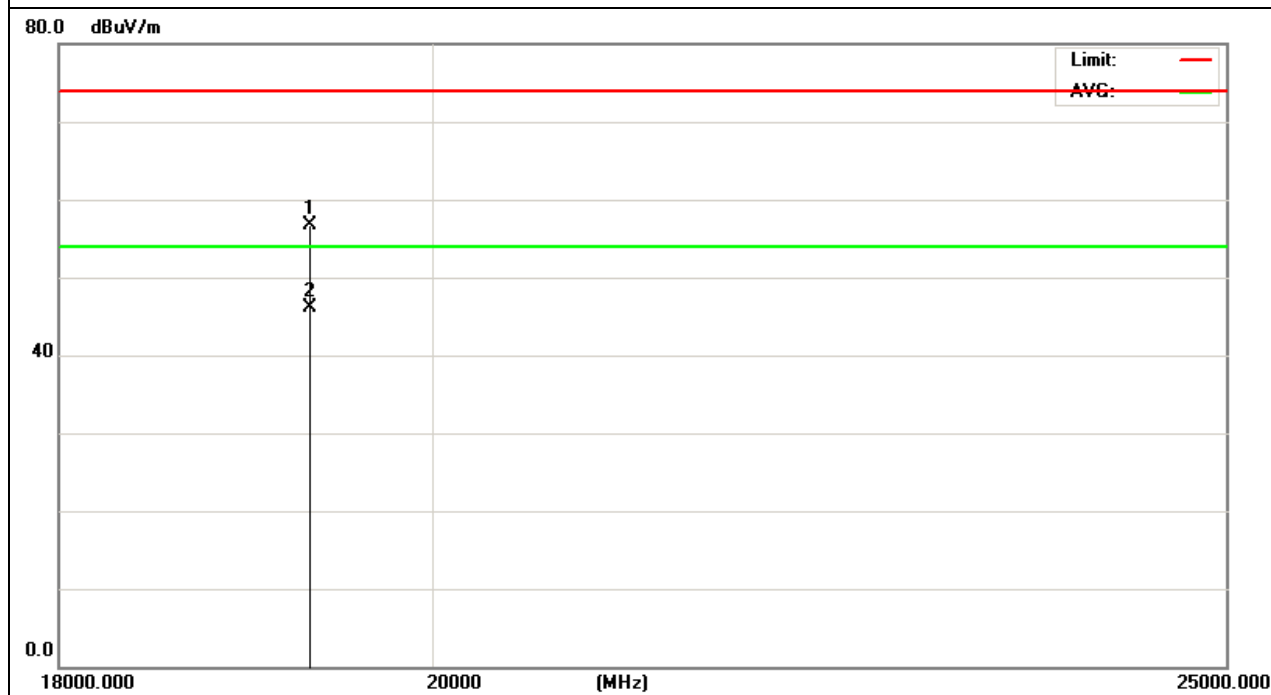
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH11 (802.11b :Rate 1Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
19320.000	40.39	16.46	56.85	74.00	-17.15	peak
19320.000	30.12	16.46	46.58	54.00	-7.42	AVG

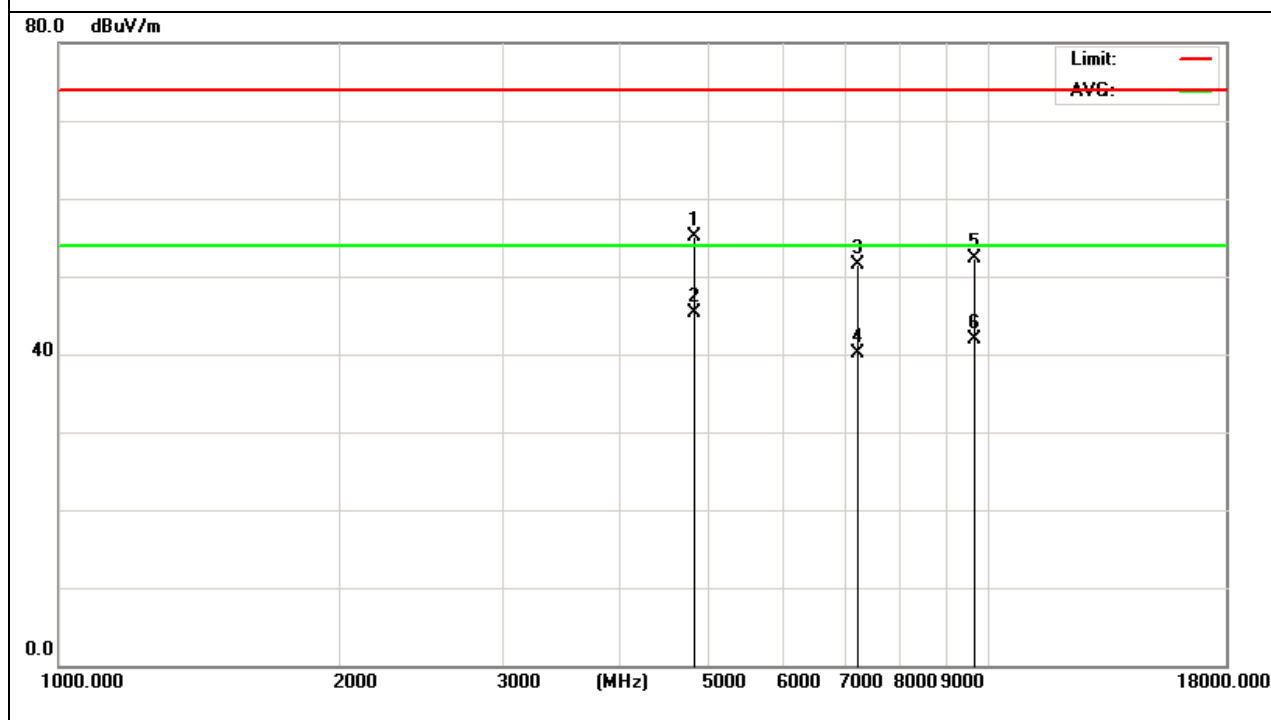
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH01 (802.11g: Rate 6Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4824.0000	50.26	5.08	55.34	74.00	-18.66	peak
4824.0000	40.44	5.08	45.52	54.00	-8.48	AVG
7236.0000	44.53	7.16	51.69	74.00	-22.31	peak
7236.0000	32.95	7.16	40.11	54.00	-13.89	AVG
9648.0000	41.26	10.82	52.08	74.00	-21.92	peak
9648.0000	31.41	10.82	42.23	54.00	-11.77	AVG

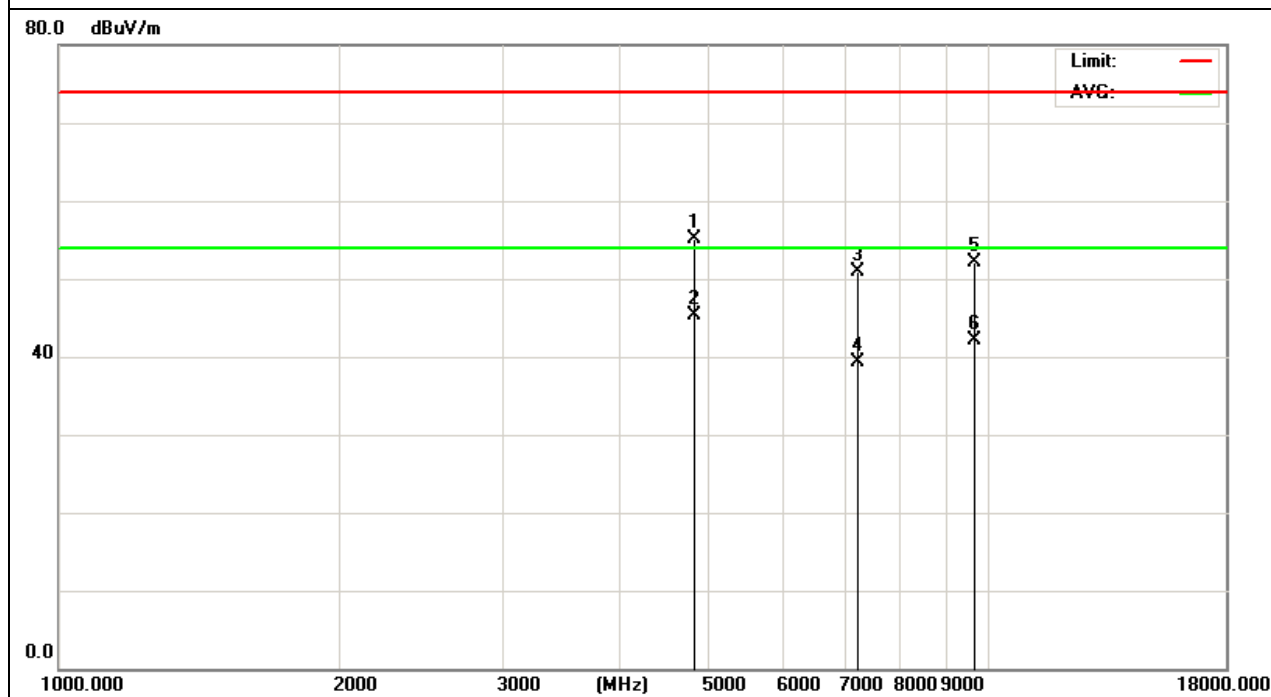
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH01 (802.11g: Rate 6Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4824.0000	49.84	5.08	54.92	74.00	-19.08	peak
4824.0000	40.91	5.08	45.99	54.00	-8.01	AVG
7236.0000	43.66	7.16	50.82	74.00	-23.18	peak
7236.0000	32.47	7.16	39.63	54.00	-14.37	AVG
9648.0000	41.59	10.82	52.41	74.00	-21.59	peak
9648.0000	31.42	10.82	42.24	54.00	-11.76	AVG

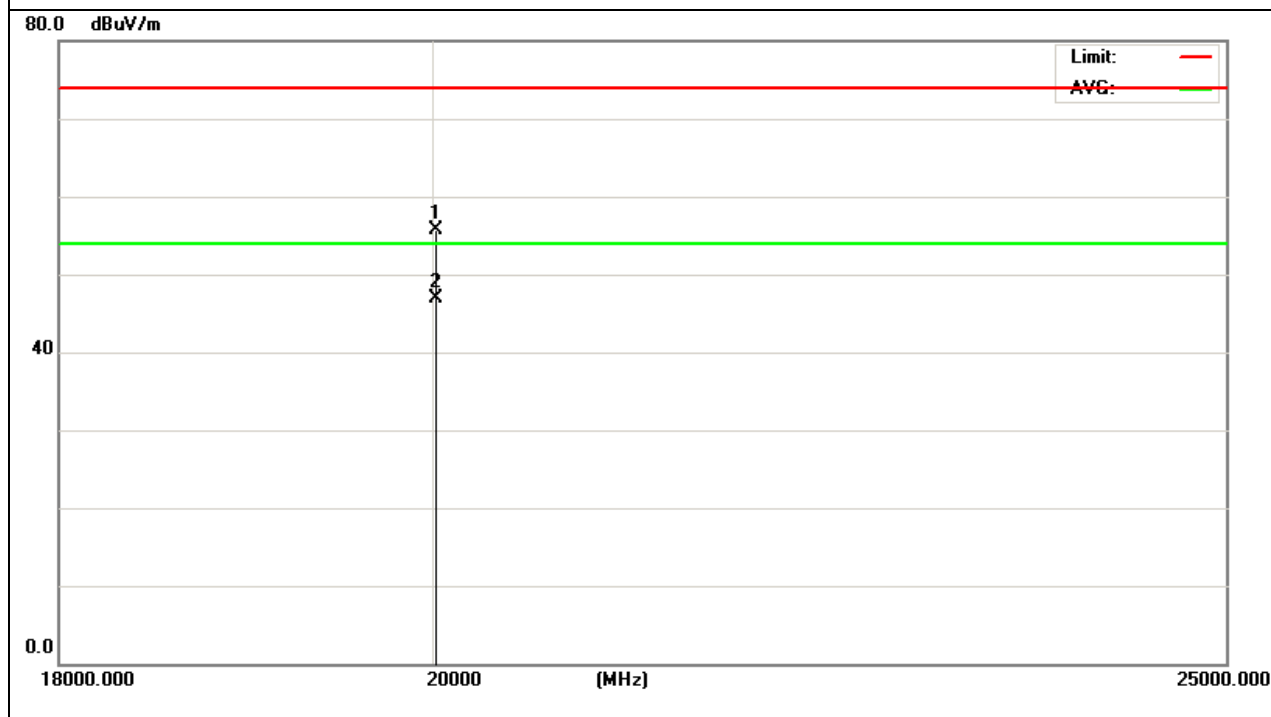
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH01 (802.11g: Rate 6Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
20016.00	39.67	16.61	56.28	74.00	-17.72	peak
20016.00	30.77	16.61	47.38	54.00	-6.62	AVG

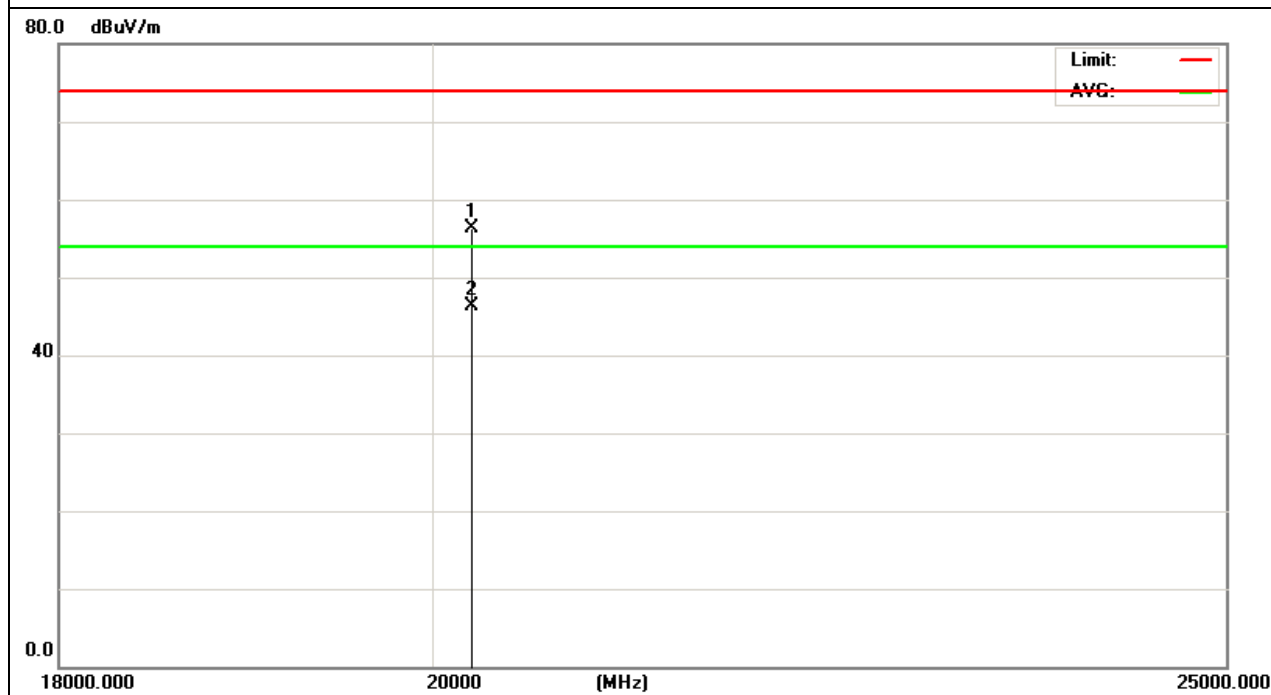
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH01 (802.11g: Rate 6Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
20224.00	40.02	16.64	56.66	74.00	-17.34	peak
20224.00	29.89	16.64	46.53	54.00	-7.47	AVG

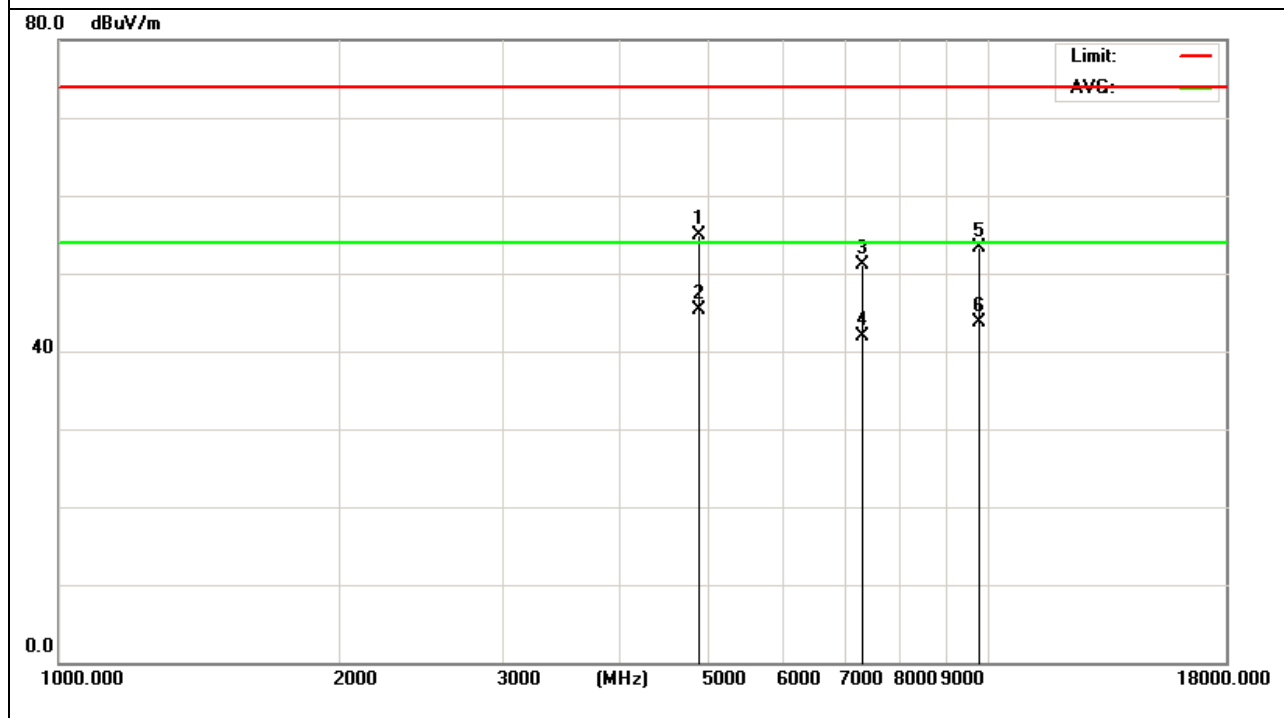
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH06 (802.11g: Rate 6Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4874.000	49.65	5.13	54.78	74.00	-19.22	peak
4874.000	40.81	5.13	45.94	54.00	-8.06	AVG
7311.000	43.85	7.49	51.34	74.00	-22.66	peak
7311.000	34.47	7.49	41.96	54.00	-12.04	AVG
9748.000	42.49	11.30	53.79	74.00	-20.21	peak
9748.000	32.71	11.30	44.01	54.00	-9.99	AVG

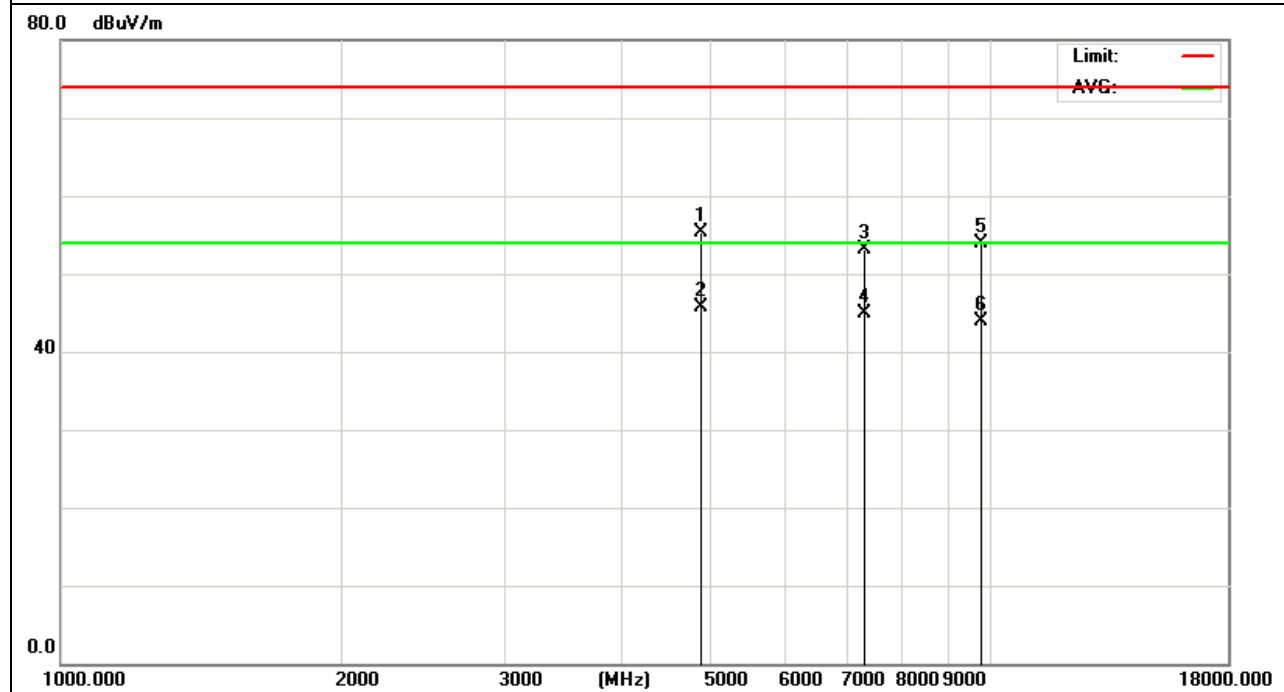
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH06 (802.11g: Rate 6Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874.000	50.16	5.13	55.29	74.00	-18.71	peak
4874.000	41.09	5.13	46.22	54.00	-7.78	AVG
7311.000	45.94	7.49	53.43	74.00	-20.57	peak
7311.000	37.22	7.49	44.71	54.00	-9.29	AVG
9748.000	42.69	11.30	53.99	74.00	-20.01	peak
9748.000	32.41	11.30	43.71	54.00	-10.29	AVG

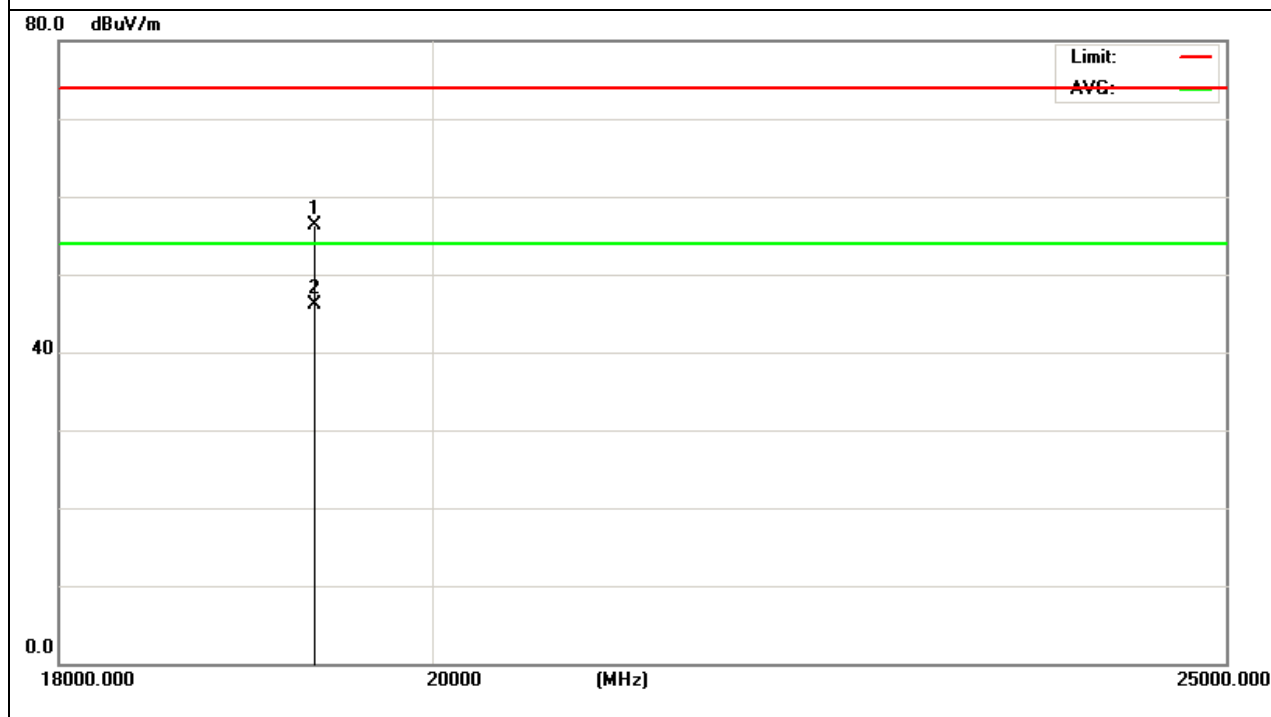
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH06 (802.11g: Rate 6Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
19339.000	39.94	16.47	56.41	74.00	-17.59	peak
19339.000	29.71	16.47	46.18	54.00	-7.82	AVG

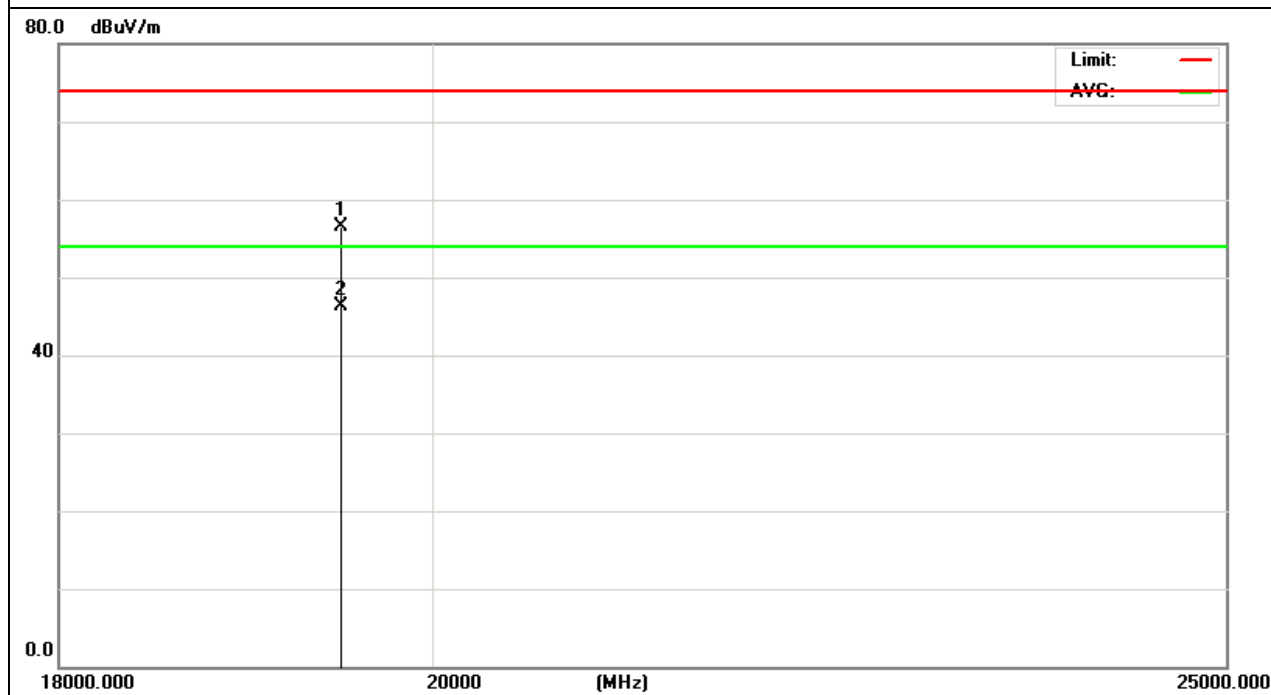
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH06 (802.11g: Rate 6Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
19488.000	40.16	16.50	56.66	74.00	-17.34	peak
19488.000	30.41	16.50	46.91	54.00	-7.09	AVG

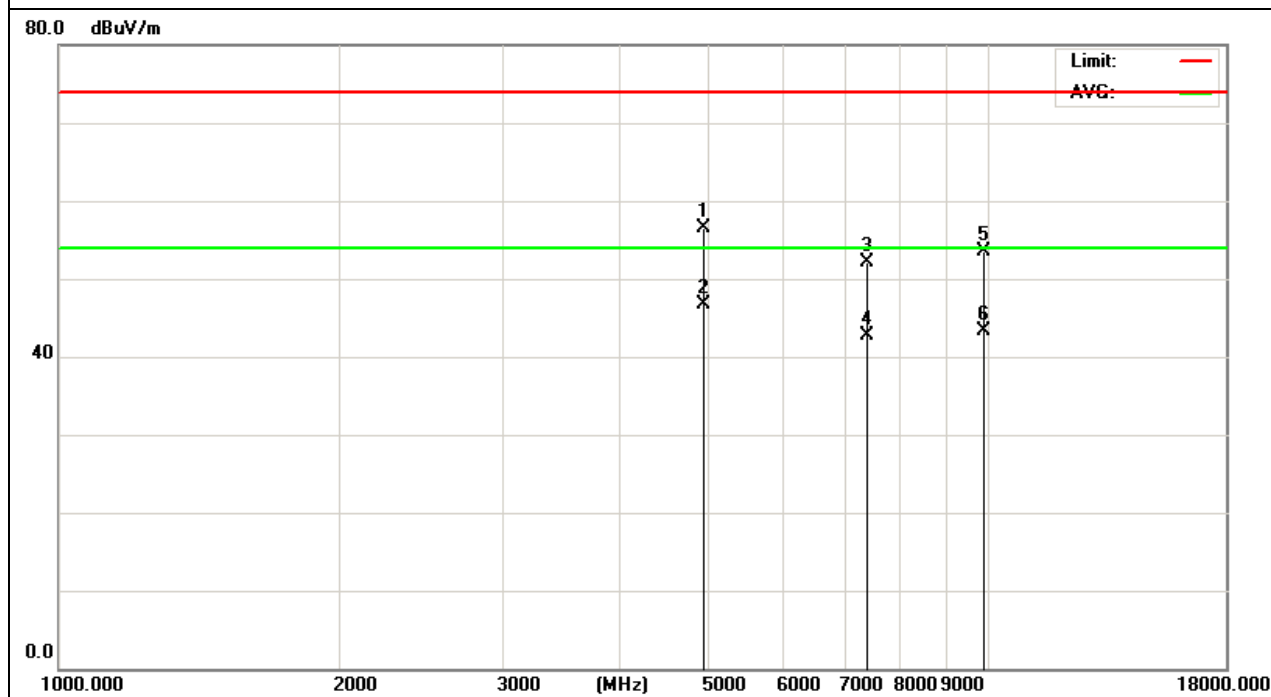
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH11 (802.11g; Rate 6Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4924.0000	52.74	5.18	57.92	74.00	-16.08	peak
4924.0000	42.36	5.18	47.54	54.00	-6.46	AVG
7386.0000	45.66	7.82	53.48	74.00	-20.52	peak
7386.0000	36.01	7.82	43.83	54.00	-10.17	AVG
9848.0000	41.65	11.79	53.44	74.00	-20.56	peak
9848.0000	32.85	11.79	44.64	54.00	-9.36	AVG

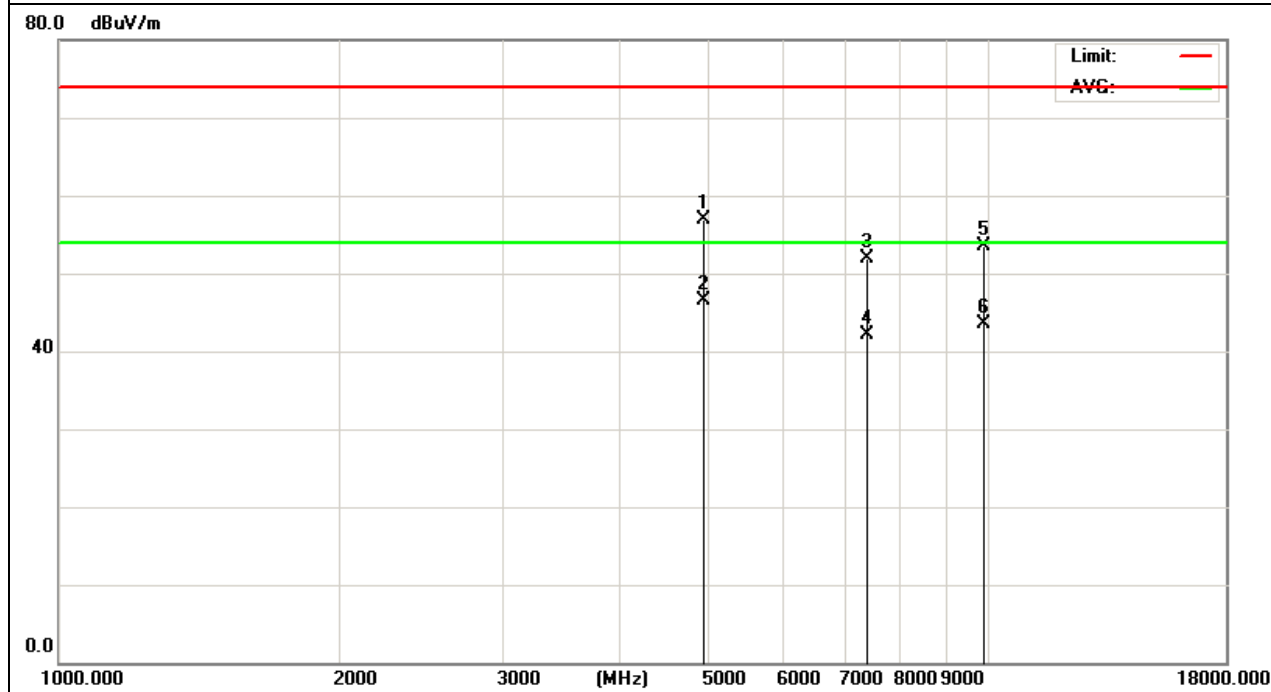
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH11 (802.11g; Rate 6Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4924.0000	51.84	5.18	57.02	74.00	-16.98	peak
4924.0000	42.37	5.18	47.55	54.00	-6.45	AVG
7386.0000	45.24	7.82	53.06	74.00	-20.94	peak
7386.0000	34.41	7.82	42.23	54.00	-11.77	AVG
9848.0000	42.29	11.79	54.08	74.00	-19.92	peak
9848.0000	32.16	11.79	43.95	54.00	-10.05	AVG

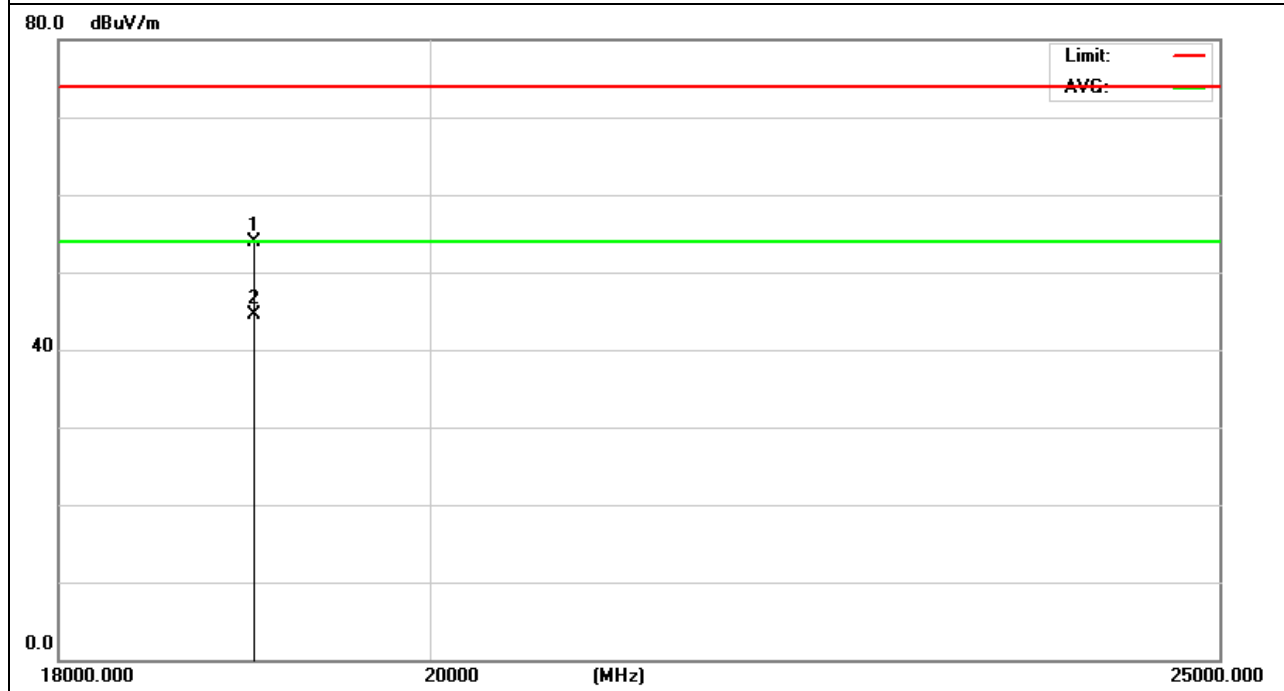
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH11 (802.11g; Rate 6Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
19016.00	37.54	16.41	53.95	74.00	-20.05	peak
19016.00	28.05	16.41	44.46	54.00	-9.54	AVG

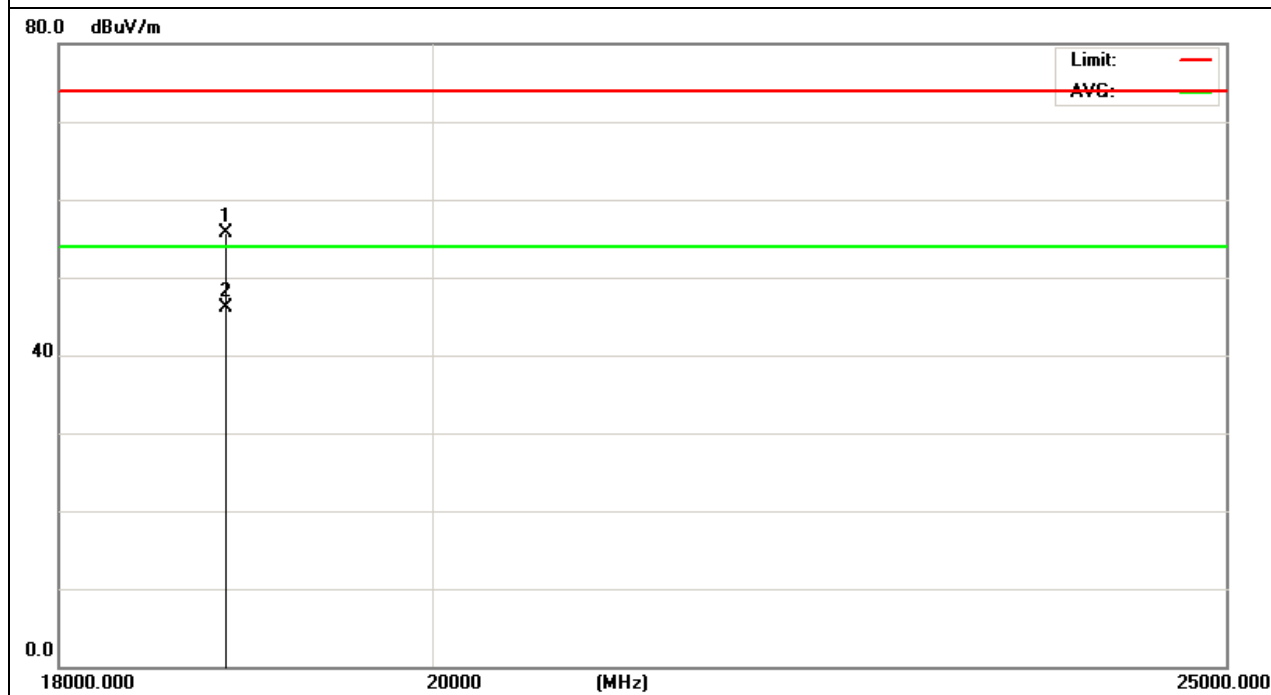
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH11 (802.11g; Rate 6Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
19668.000	39.59	16.53	56.12	74.00	-17.88	peak
19668.000	30.13	16.53	46.66	54.00	-7.34	AVG

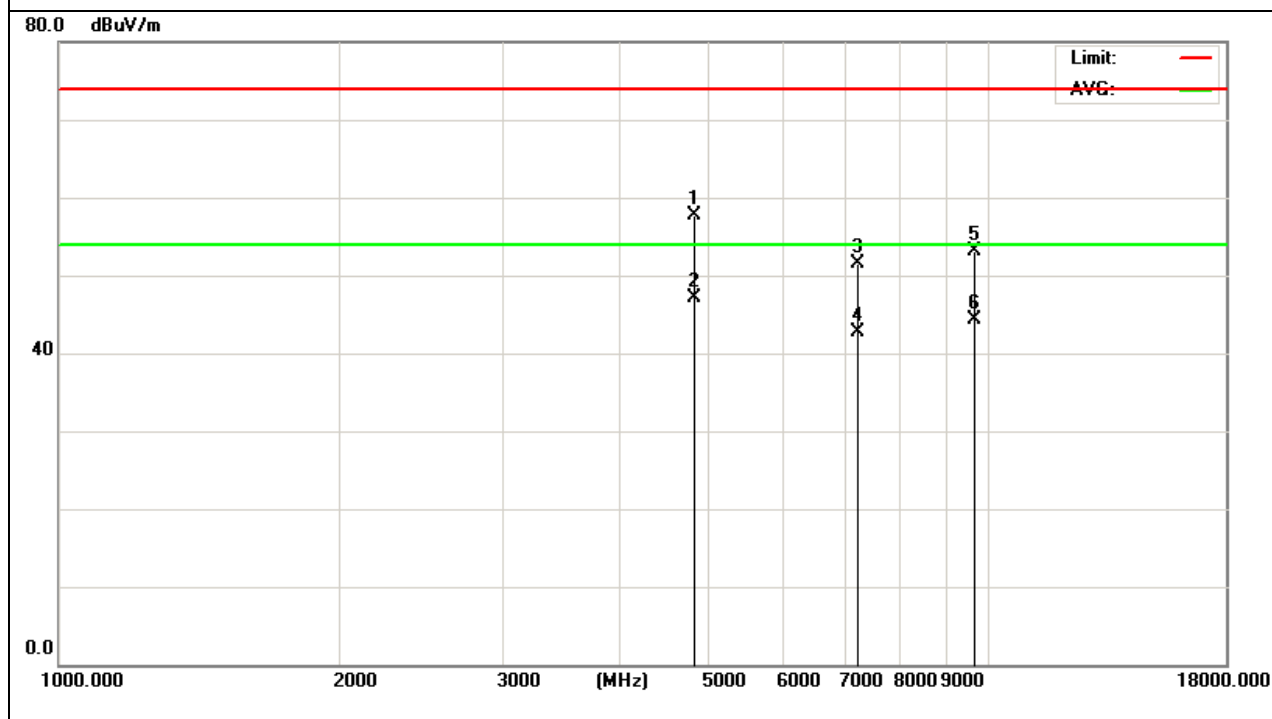
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH01 (802.11n20 : Rate 6.5Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4824.0000	53.24	5.08	58.32	74.00	-15.68	peak
4824.0000	41.94	5.08	47.02	54.00	-6.98	AVG
7236.0000	44.52	7.16	51.68	74.00	-22.32	peak
7236.0000	36.46	7.16	43.62	54.00	-10.38	AVG
9648.0000	42.55	10.82	53.37	74.00	-20.63	peak
9648.0000	34.71	10.82	45.53	54.00	-8.47	AVG

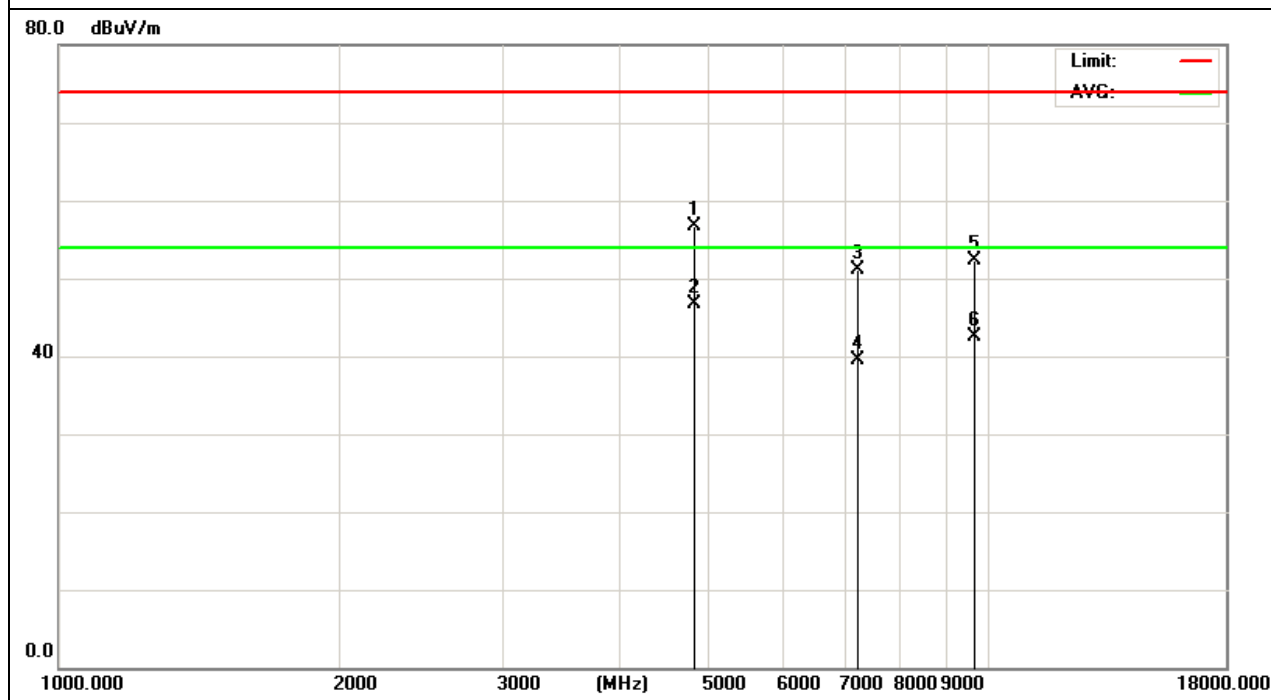
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH01 (802.11n20 : Rate 6.5Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4824.0000	52.03	5.08	57.11	74.00	-16.89	peak
4824.0000	42.46	5.08	47.54	54.00	-6.46	AVG
7236.0000	44.85	7.16	52.01	74.00	-21.99	peak
7236.0000	32.81	7.16	39.97	54.00	-14.03	AVG
9648.0000	42.01	10.82	52.83	74.00	-21.17	peak
9648.0000	31.47	10.82	42.29	54.00	-11.71	AVG

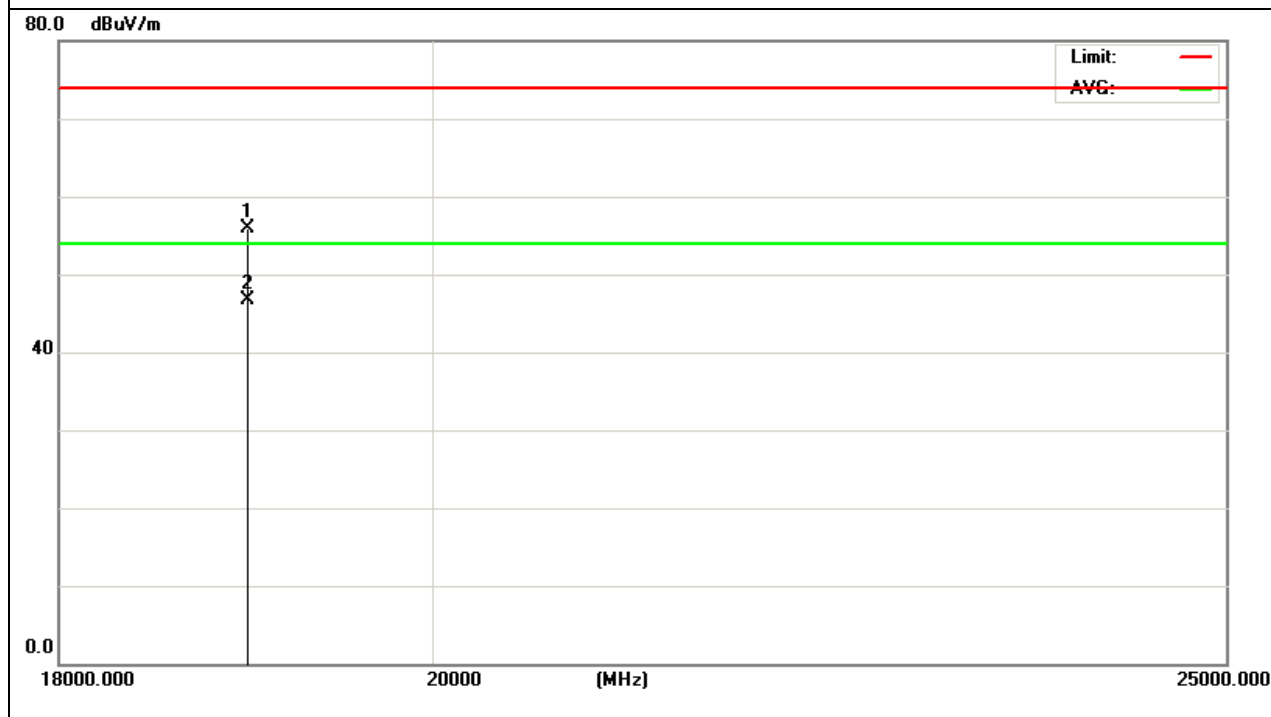
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH01 (802.11n20 : Rate 6.5Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
18986.000	39.73	16.40	56.13	74.00	-17.87	peak
18986.000	30.62	16.40	47.02	54.00	-6.98	AVG

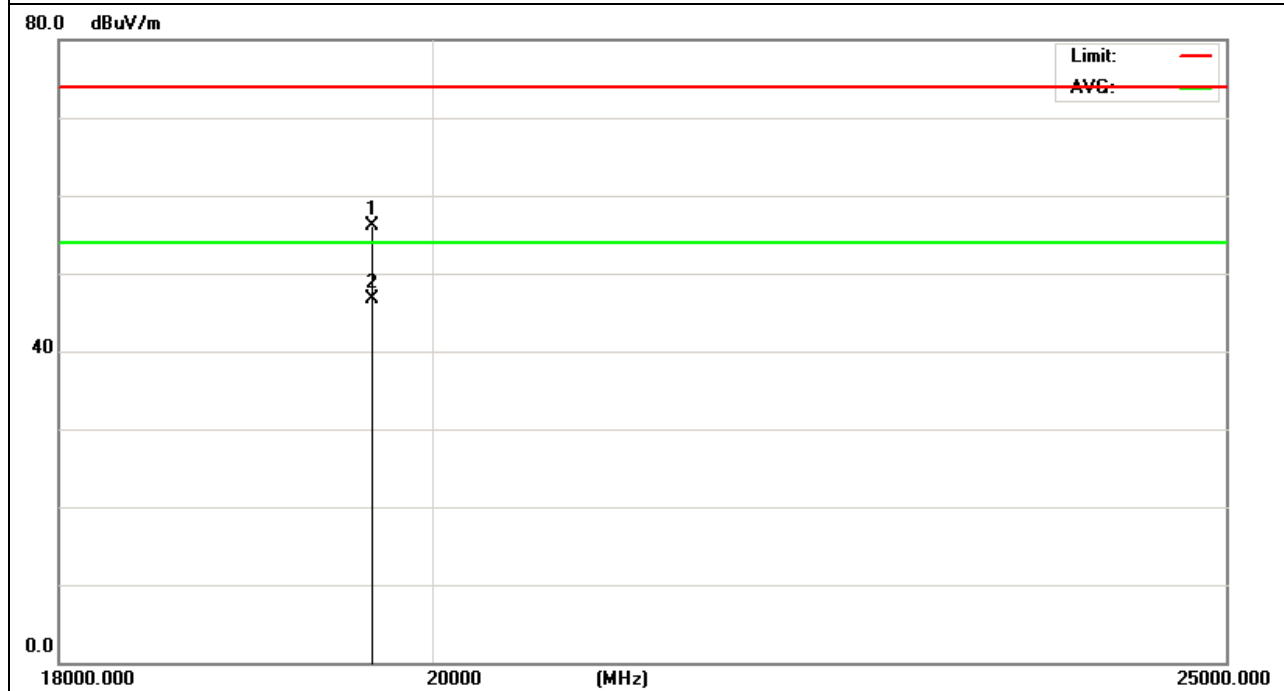
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH01 (802.11n20 : Rate 6.5Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
19653.000	39.73	16.53	56.26	74.00	-17.74	peak
19653.000	30.89	16.53	47.42	54.00	-6.58	AVG

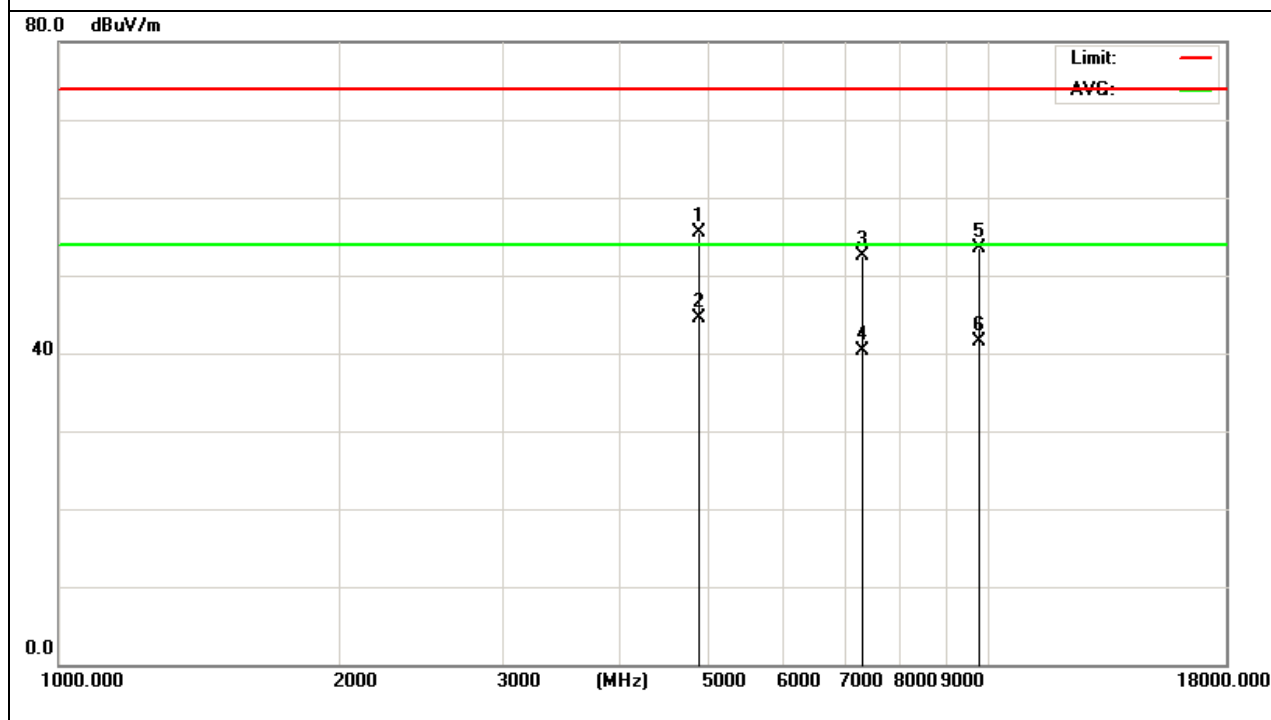
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH06 (802.11n20 : Rate 6.5Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874.0000	50.13	5.13	55.26	74.00	-18.74	peak
4874.0000	39.48	5.13	44.61	54.00	-9.39	AVG
7311.0000	45.12	7.49	52.61	74.00	-21.39	peak
7311.0000	32.84	7.49	40.33	54.00	-13.67	AVG
9748.0000	42.31	11.30	53.61	74.00	-20.39	peak
9748.0000	30.19	11.30	41.49	54.00	-12.51	AVG

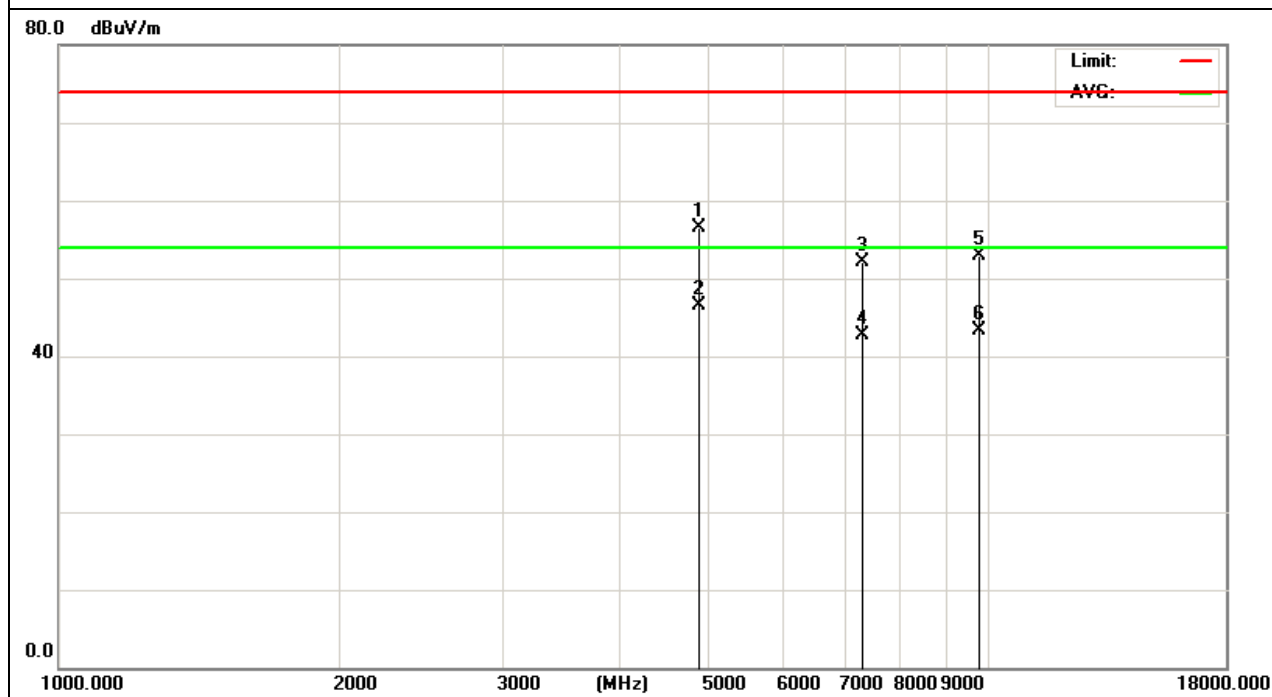
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH06 (802.11n20 : Rate 6.5Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874.0000	52.56	5.13	57.69	74.00	-16.31	peak
4874.0000	41.38	5.13	46.51	54.00	-7.49	AVG
7311.0000	45.74	7.49	53.23	74.00	-20.77	peak
7311.0000	36.15	7.49	43.64	54.00	-10.36	AVG
9748.0000	42.22	11.30	53.52	74.00	-20.48	peak
9748.0000	32.28	11.30	43.58	54.00	-10.42	AVG

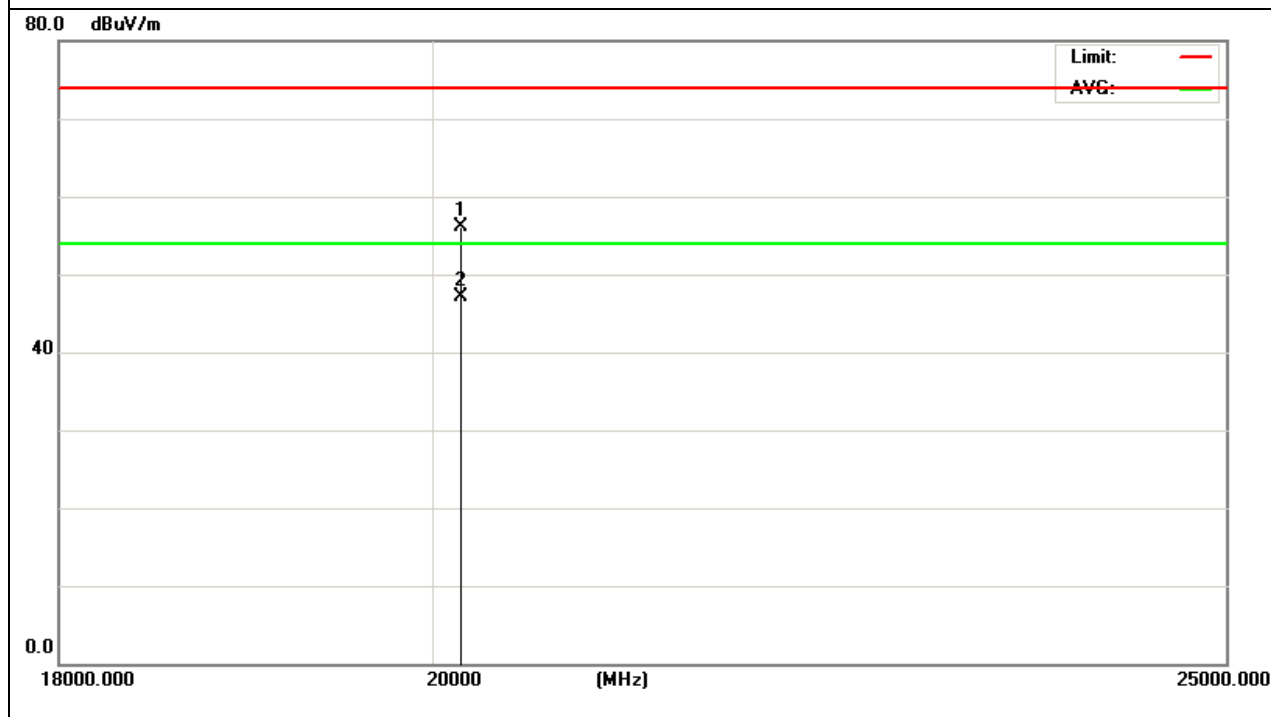
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH06 (802.11n20 : Rate 6.5Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
20163.000	39.58	16.63	56.21	74.00	-17.79	peak
20163.000	30.75	16.63	47.38	54.00	-6.62	AVG

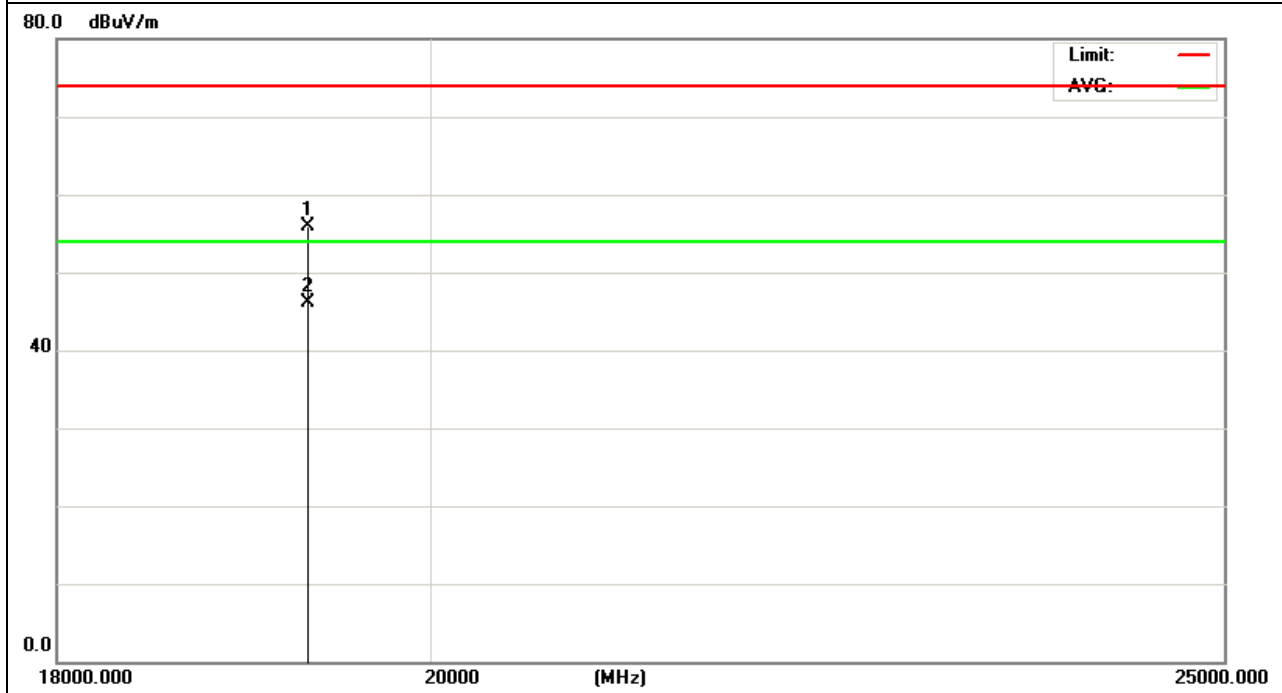
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH06 (802.11n20 : Rate 6.5Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
19320.000	39.83	16.46	56.29	74.00	-17.71	peak
19320.000	30.16	16.46	46.62	54.00	-7.38	AVG

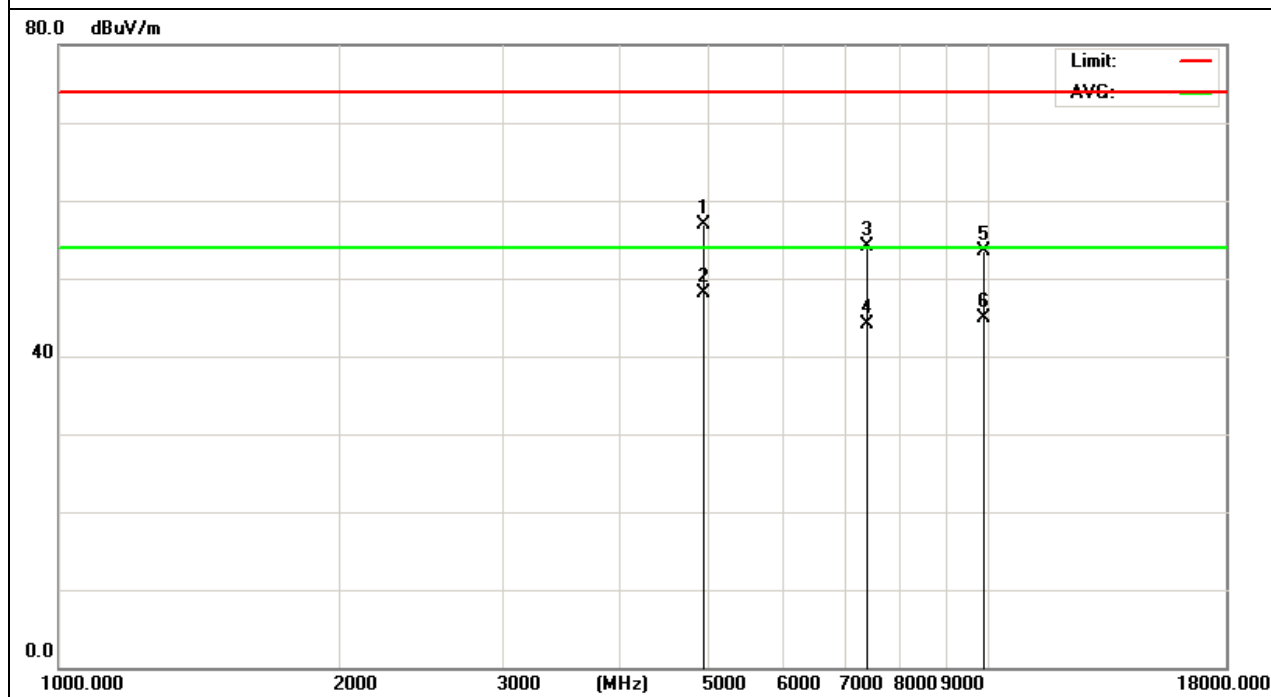
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH11 (802.11n20 : Rate 6.5Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4924.0000	53.29	5.18	58.47	74.00	-15.53	peak
4924.0000	43.96	5.18	49.14	54.00	-4.86	AVG
7386.0000	47.01	7.82	54.83	74.00	-19.17	peak
7386.0000	37.23	7.82	45.05	54.00	-8.95	AVG
9848.0000	42.28	11.79	54.07	74.00	-19.93	peak
9848.0000	35.11	11.79	46.90	54.00	-7.10	AVG

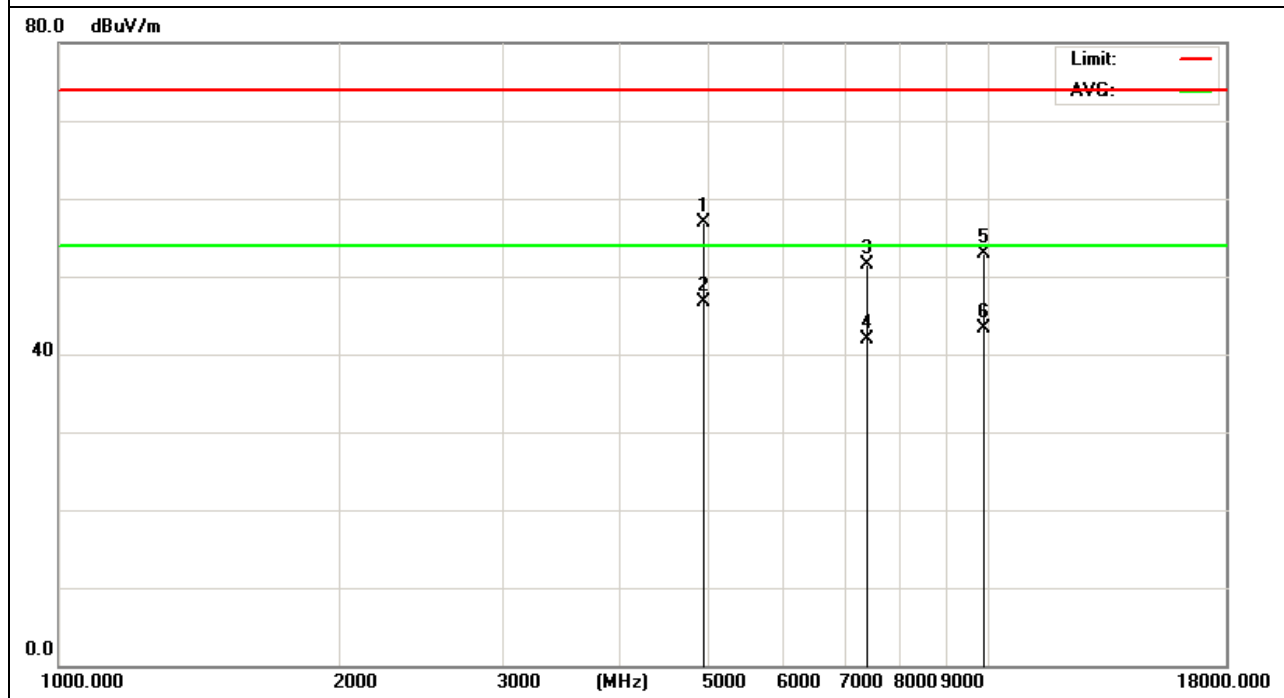
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH11 (802.11n20 : Rate 6.5Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4924.0000	52.88	5.18	58.06	74.00	-15.94	peak
4924.0000	41.71	5.18	46.89	54.00	-7.11	AVG
7386.0000	44.51	7.82	52.33	74.00	-21.67	peak
7386.0000	34.86	7.82	42.68	54.00	-11.32	AVG
9848.0000	41.37	11.79	53.16	74.00	-20.84	peak
9848.0000	32.89	11.79	44.68	54.00	-9.32	AVG

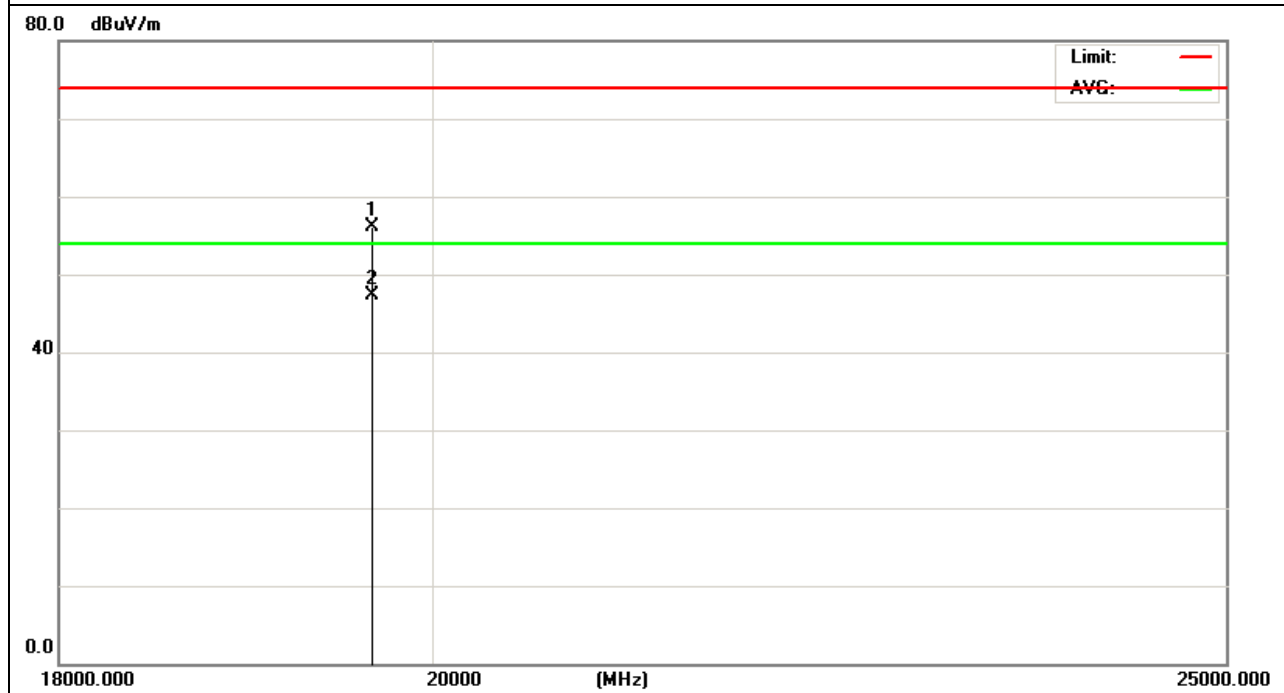
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH11 (802.11n20 : Rate 6.5Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
19661.000	39.77	16.53	56.30	74.00	-17.70	peak
19661.000	30.89	16.53	47.42	54.00	-6.58	AVG

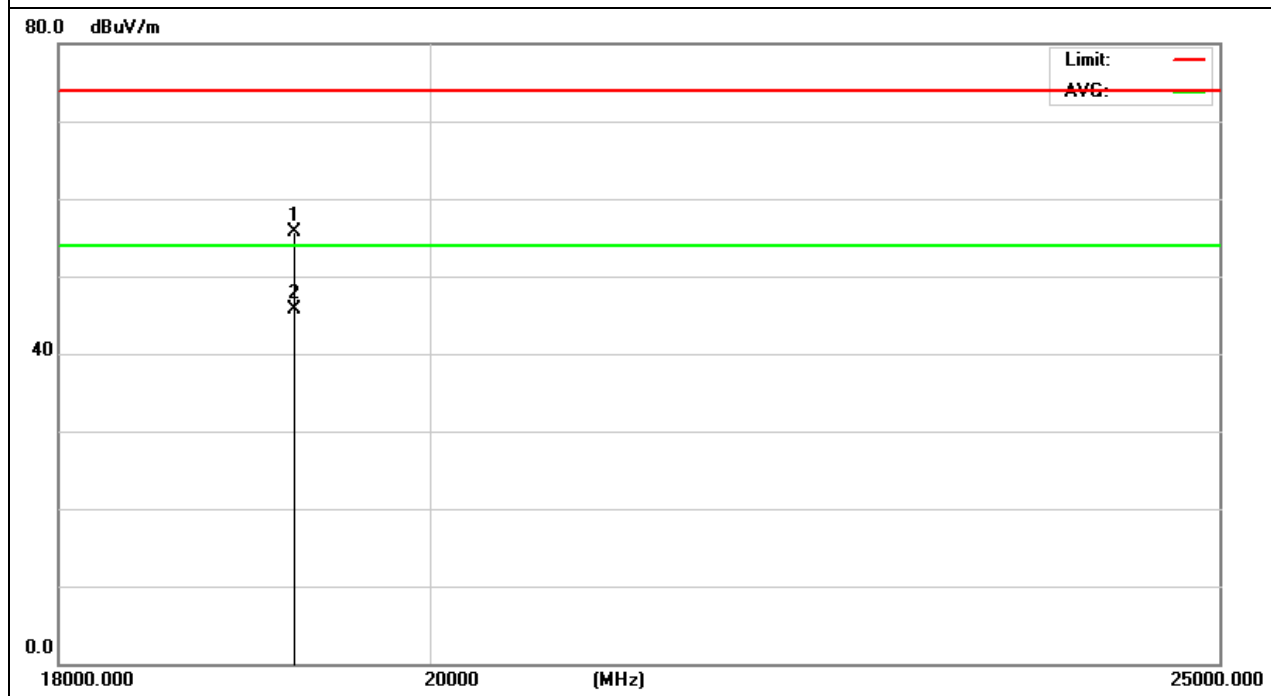
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH11 (802.11n20 : Rate 6.5Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
19244.00	39.31	16.45	55.76	74.00	-18.24	peak
19244.00	29.37	16.45	45.82	54.00	-8.18	AVG

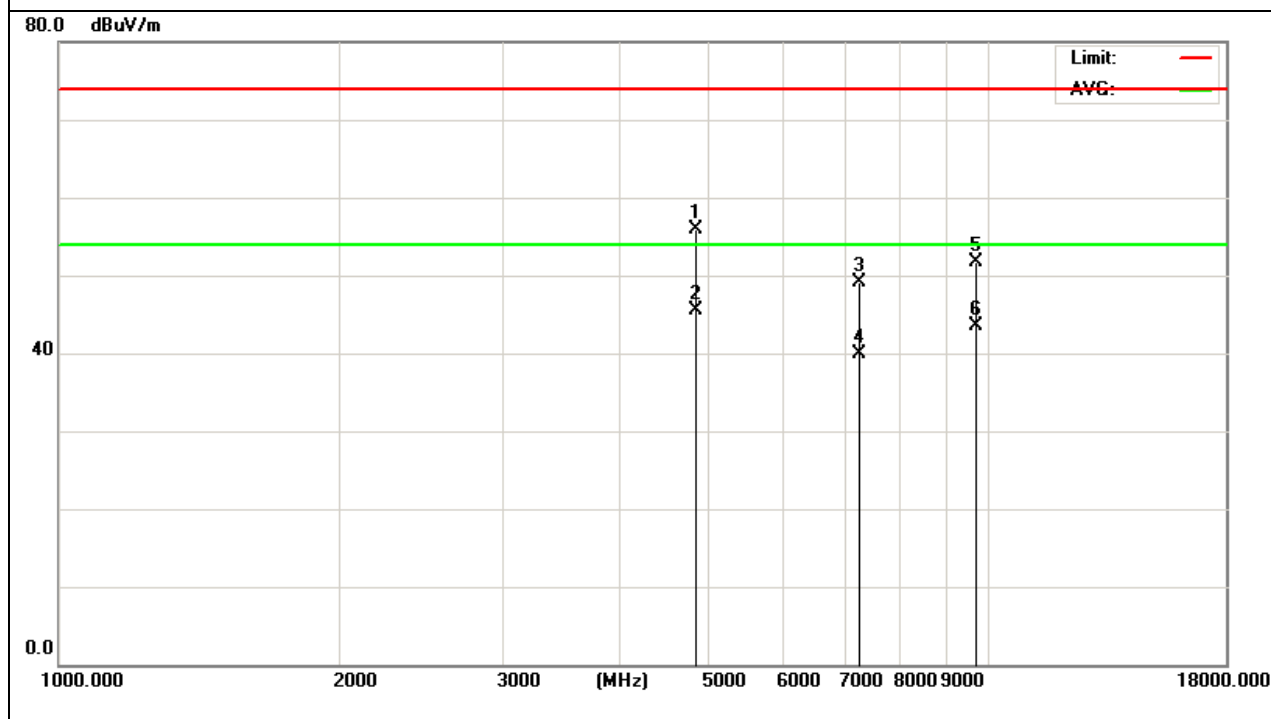
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH03 (802.11n40 : Rate 13.5Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4844.000	50.92	5.11	56.03	74.00	-17.97	peak
4844.000	40.51	5.11	45.62	54.00	-8.38	AVG
7266.000	41.83	7.28	49.11	74.00	-24.89	peak
7266.000	32.54	7.28	39.82	54.00	-14.18	AVG
9688.000	40.77	11	51.77	74.00	-22.23	peak
9688.000	32.51	11	43.51	54.00	-10.49	AVG

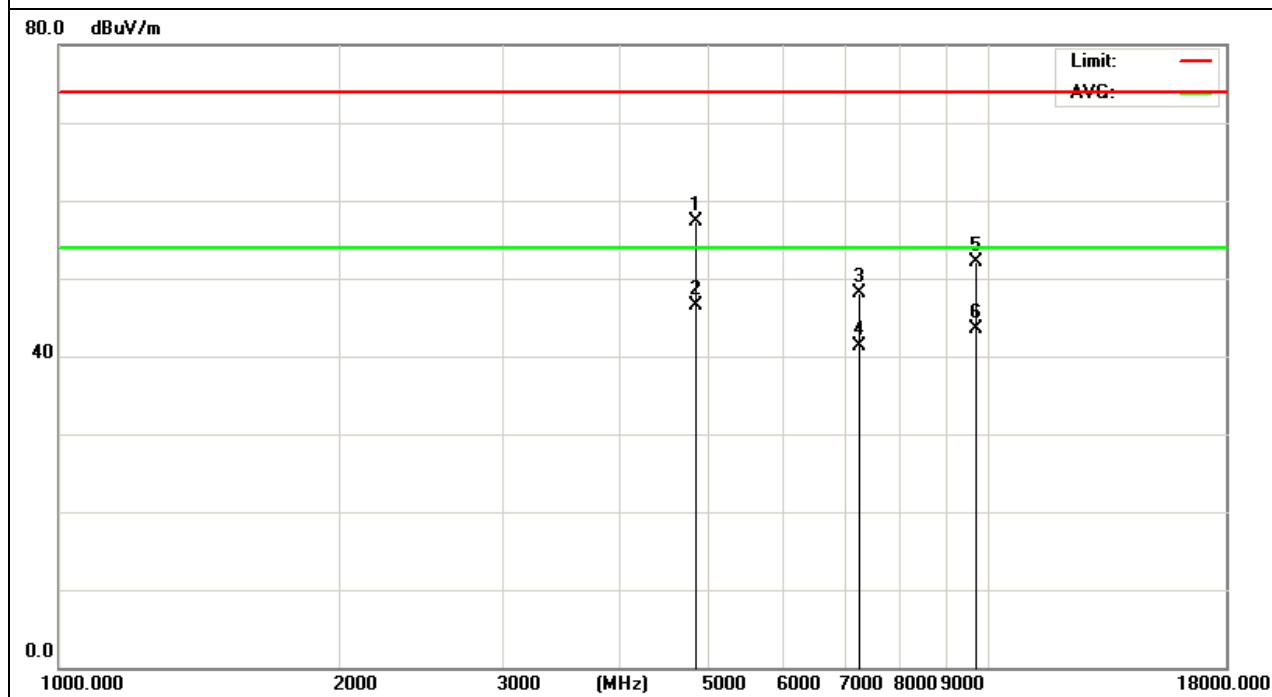
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH03 (802.11n40 : Rate 13.5Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4844.000	52.31	5.11	57.42	74.00	-16.58	peak
4844.000	41.82	5.11	46.93	54.00	-7.07	AVG
7266.000	40.97	7.28	48.25	74.00	-25.75	peak
7266.000	34.18	7.28	41.46	54.00	-12.54	AVG
9688.000	41.12	11	52.12	74.00	-21.88	peak
9688.000	32.59	11	43.59	54.00	-10.41	AVG

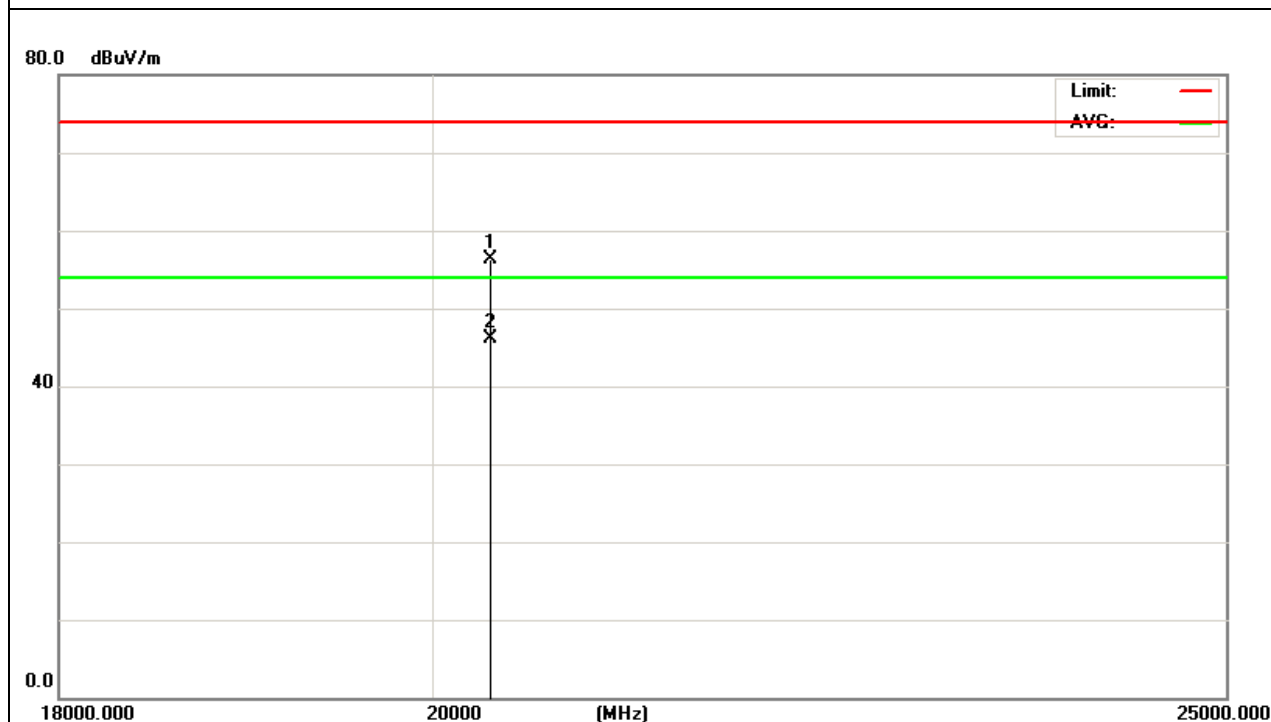
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH03 (802.11n40 : Rate 13.5Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
20331.000	39.75	16.67	56.42	74.00	-17.58	peak
20331.000	29.99	16.67	46.66	54.00	-7.34	AVG

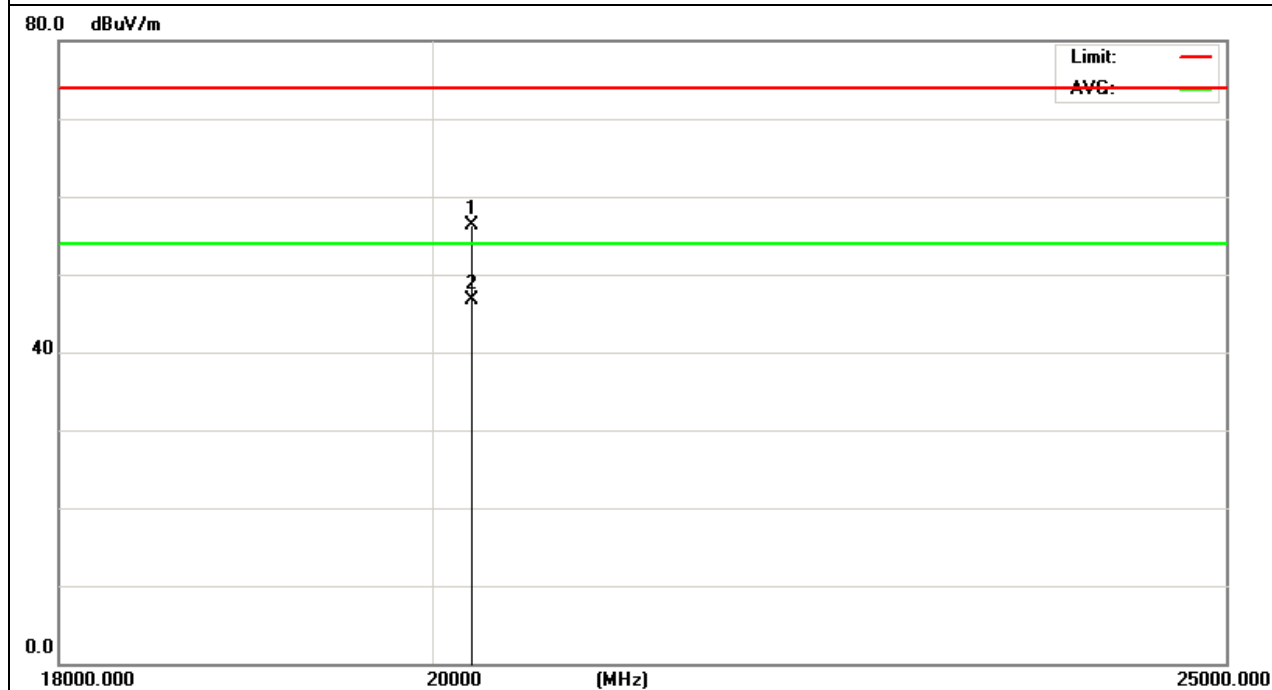
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH03 (802.11n40 : Rate 13.5Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
20219.000	39.62	16.64	56.26	74.00	-17.74	peak
20219.000	30.23	16.64	46.87	54.00	-7.13	AVG

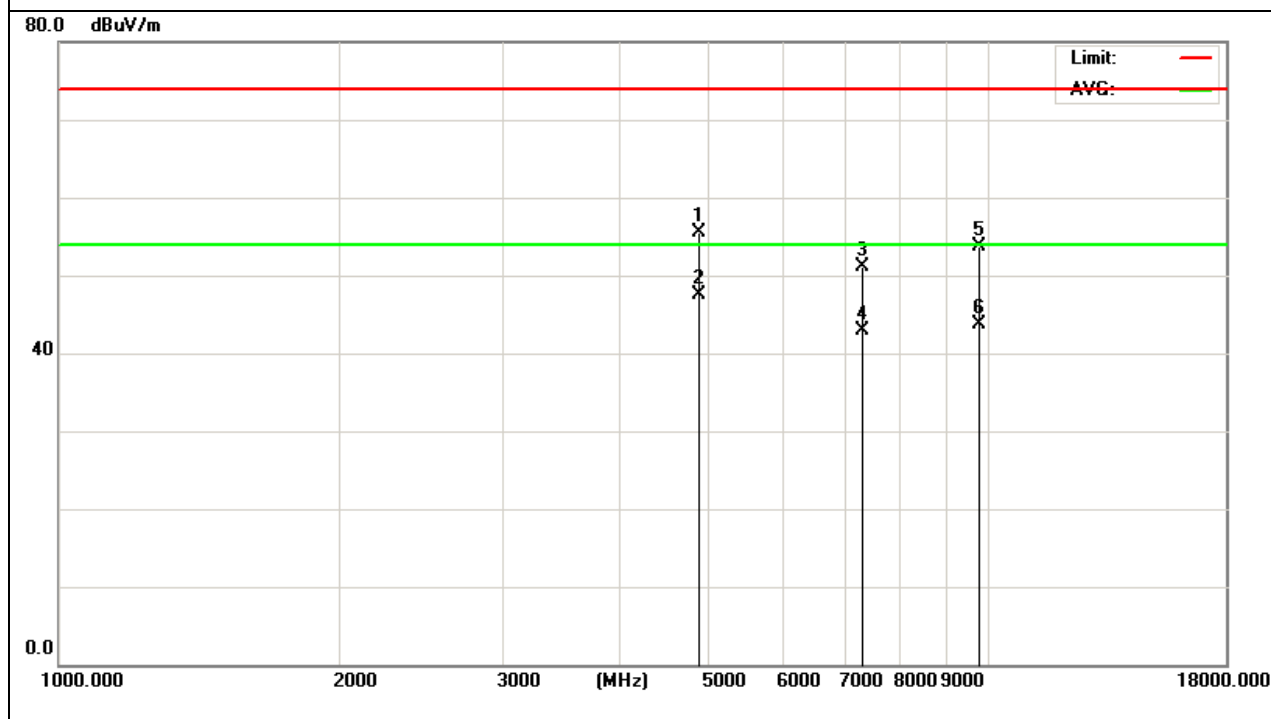
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH06 (802.11n40 : Rate 13.5Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874.000	50.47	5.13	55.60	74.00	-18.40	peak
4874.000	42.41	5.13	47.54	54.00	-6.46	AVG
7311.000	43.55	7.49	51.04	74.00	-22.96	peak
7311.000	35.52	7.49	43.01	54.00	-10.99	AVG
9748.000	42.41	11.3	53.71	74.00	-20.29	peak
9748.000	32.52	11.3	43.82	54.00	-10.18	AVG

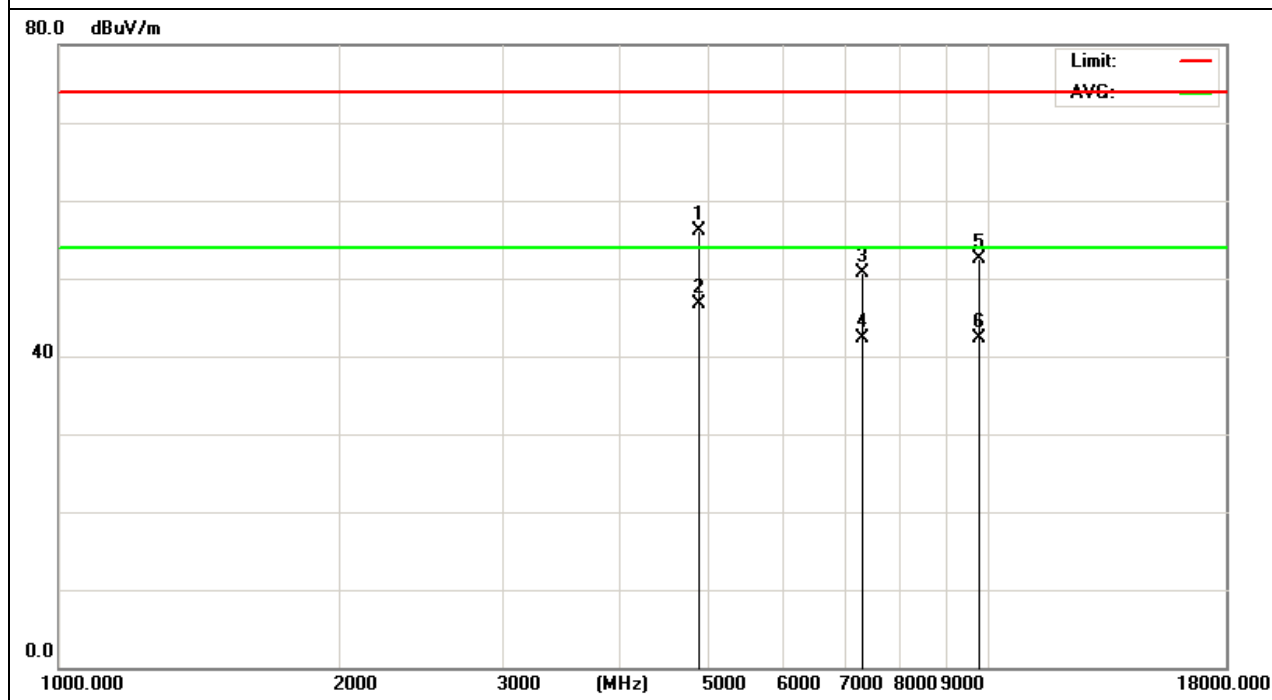
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH06 (802.11n40 : Rate 13.5Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874.000	50.79	5.13	55.92	74.00	-18.08	peak
4874.000	41.88	5.13	47.01	54.00	-6.99	AVG
7311.000	43.26	7.49	50.75	74.00	-23.25	peak
7311.000	34.93	7.49	42.42	54.00	-11.58	AVG
9748.000	41.37	11.3	52.67	74.00	-21.33	peak
9748.000	31.25	11.3	42.55	54.00	-11.45	AVG

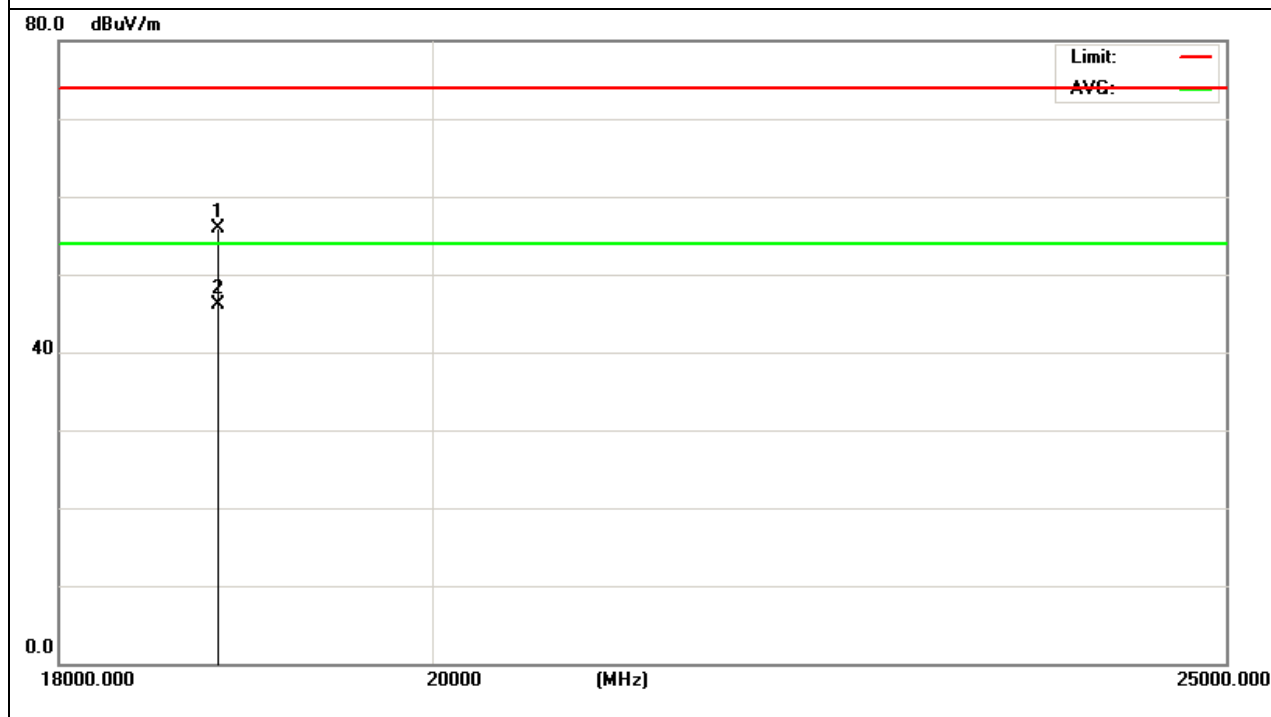
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH06 (802.11n40 : Rate 13.5Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
18833.000	39.25	16.24	55.49	74.00	-18.51	peak
18833.000	30.11	16.24	46.35	54.00	-7.65	AVG

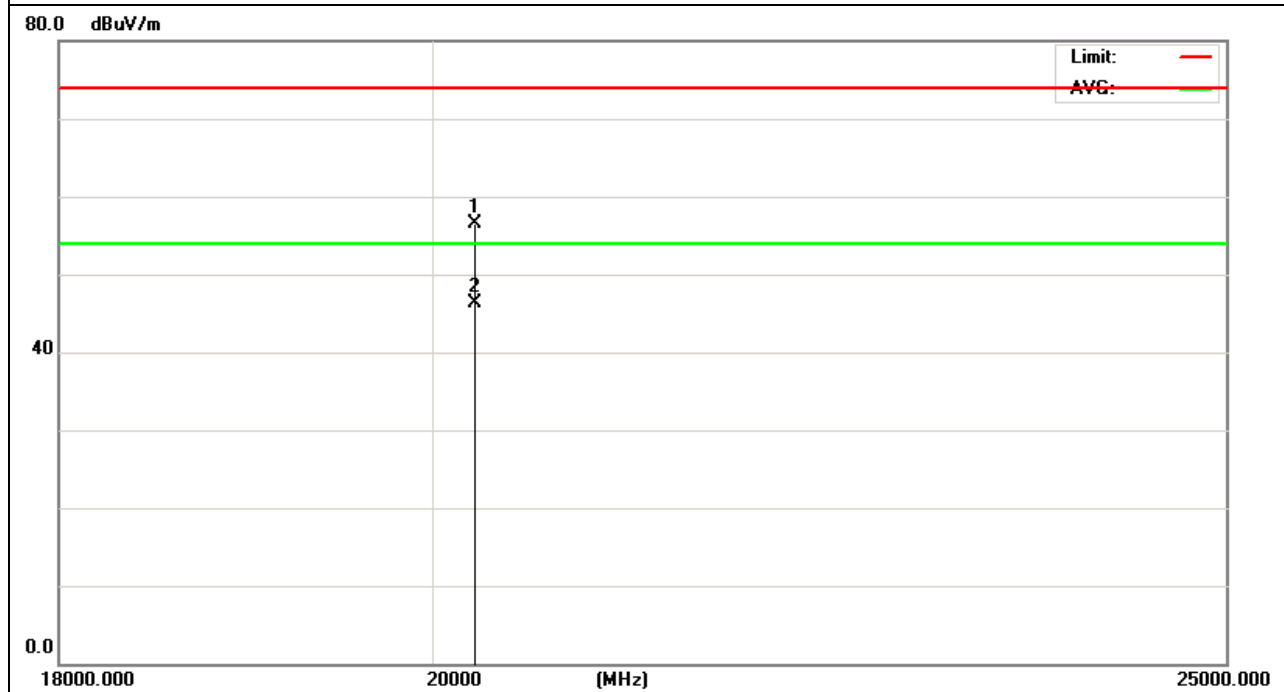
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH06 (802.11n40 : Rate 13.5Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
20238.000	39.88	16.65	56.53	74.00	-17.47	peak
20238.000	29.74	16.65	46.39	54.00	-7.61	AVG

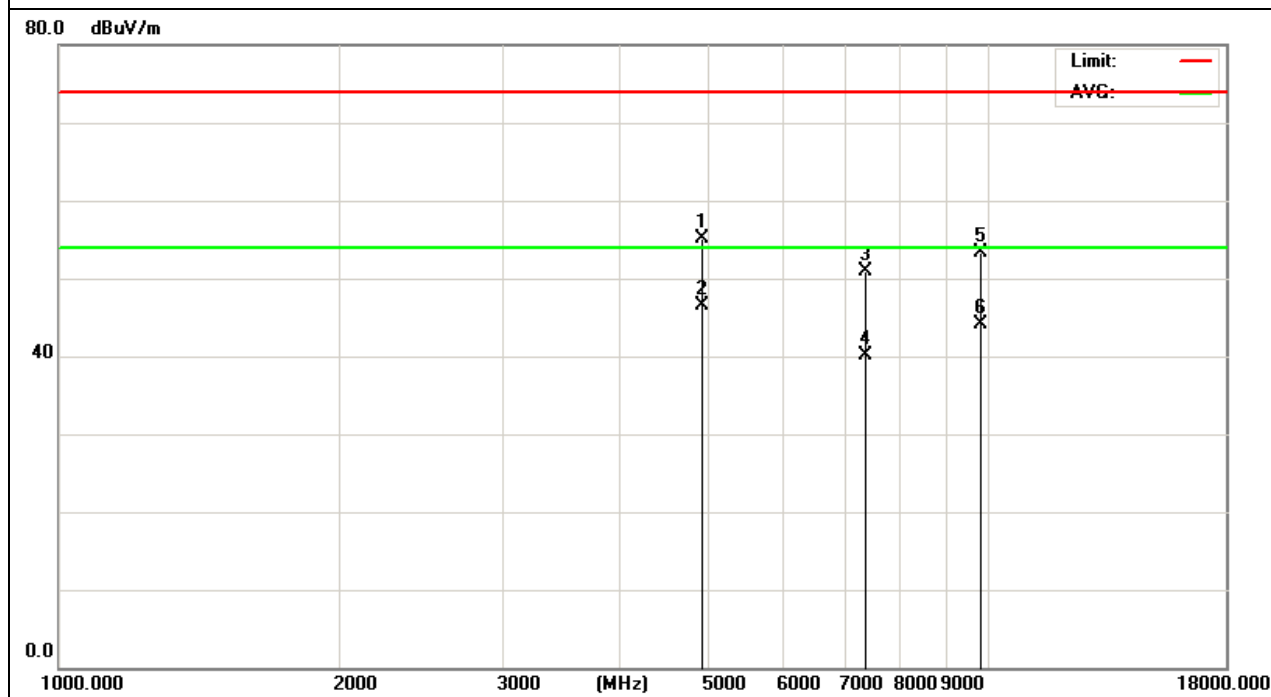
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH09 (802.11n40 : Rate 13.5Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4904.000	49.89	5.16	55.05	74.00	-18.95	peak
4904.000	41.57	5.16	46.73	54.00	-7.27	AVG
7356.000	43.19	7.69	50.88	74.00	-23.12	peak
7356.000	32.54	7.69	40.23	54.00	-13.77	AVG
9808.000	41.92	11.6	53.52	74.00	-20.48	peak
9808.000	32.59	11.6	44.19	54.00	-9.81	AVG

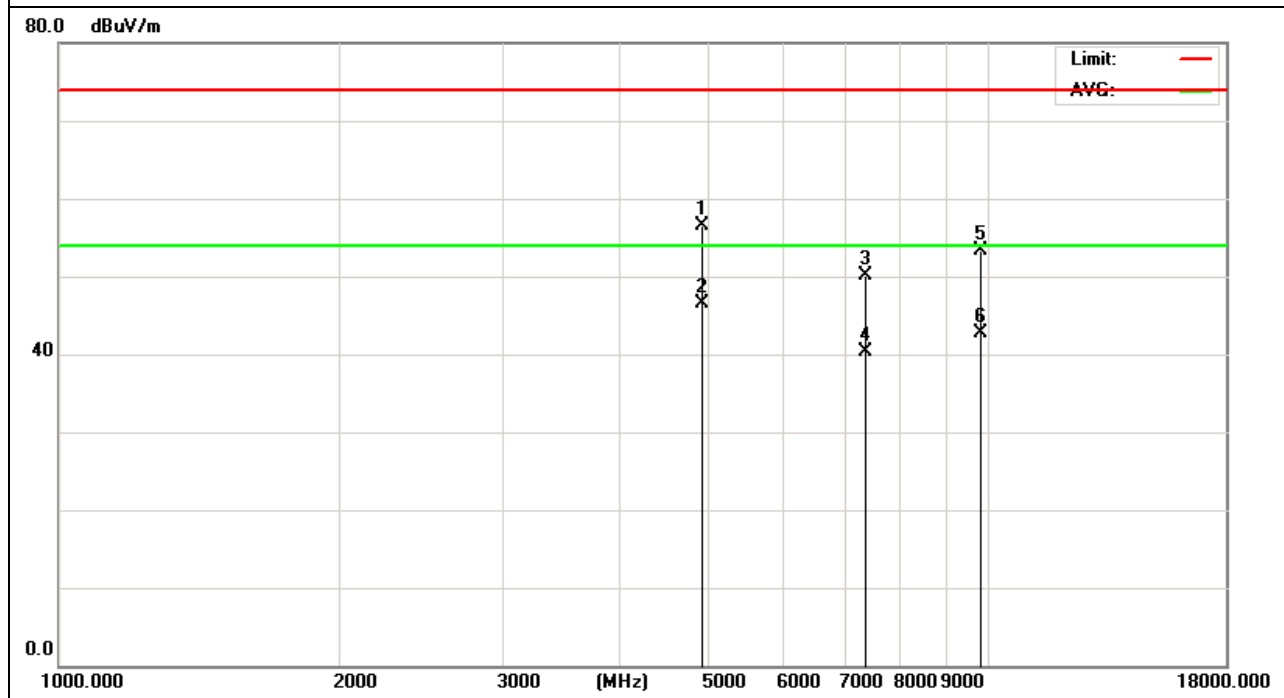
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH09 (802.11n40 : Rate 13.5Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4904.000	51.41	5.16	56.57	74.00	-17.43	peak
4904.000	41.91	5.16	47.07	54.00	-6.93	AVG
7356.000	42.47	7.69	50.16	74.00	-23.84	peak
7356.000	32.75	7.69	40.44	54.00	-13.56	AVG
9808.000	41.63	11.6	53.23	74.00	-20.77	peak
9808.000	31.17	11.6	42.77	54.00	-11.23	AVG

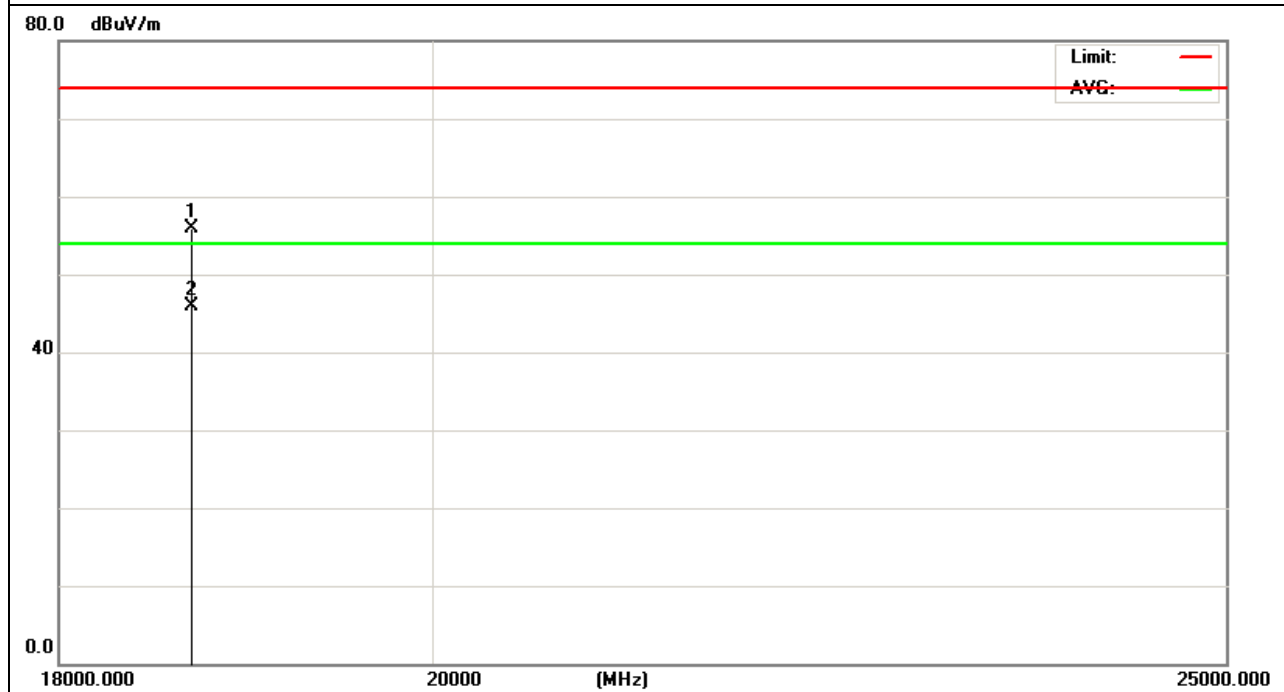
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH09 (802.11n40 : Rate 13.5Mbps)	Polarization :	Horizontal
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
18692.000	39.81	16.09	55.90	74.00	-18.10	peak
18692.000	29.96	16.09	46.05	54.00	-7.95	AVG

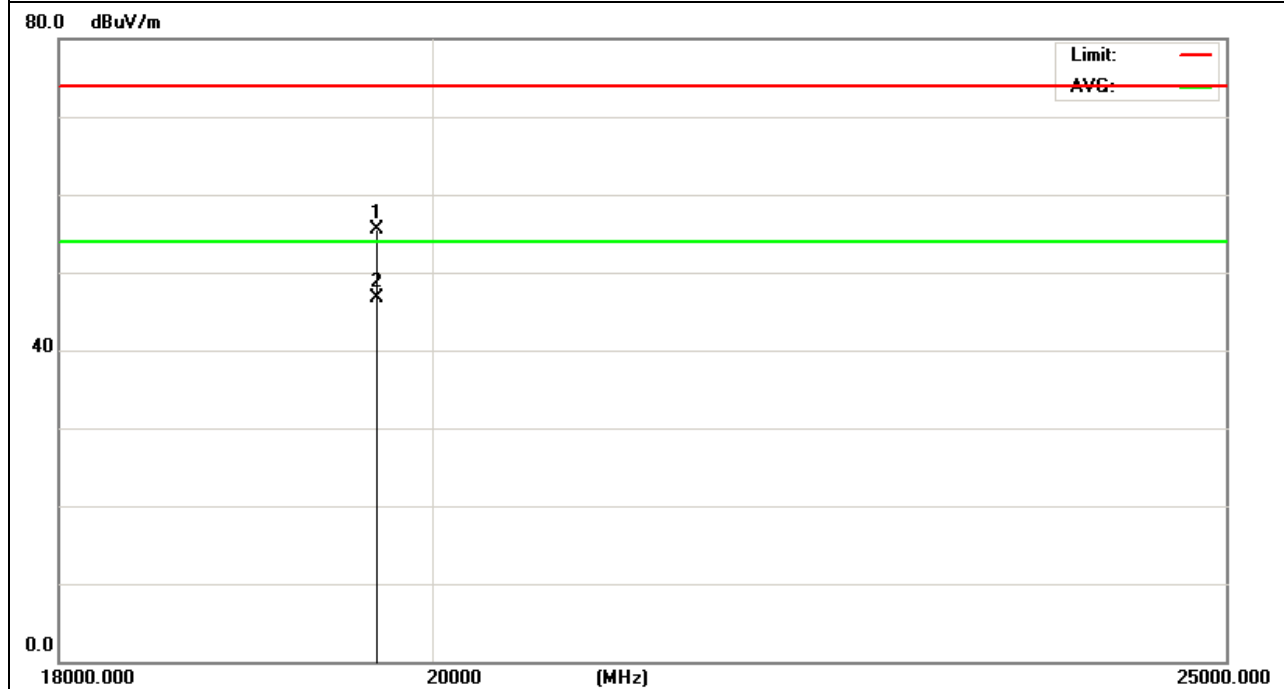
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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 :	TX CH09 (802.11n40 : Rate 13.5Mbps)	Polarization :	Vertical
Measurement Distance	3 m	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
19686.000	38.89	16.53	55.42	74.00	-18.58	peak
19686.000	30.17	16.53	46.70	54.00	-7.30	AVG

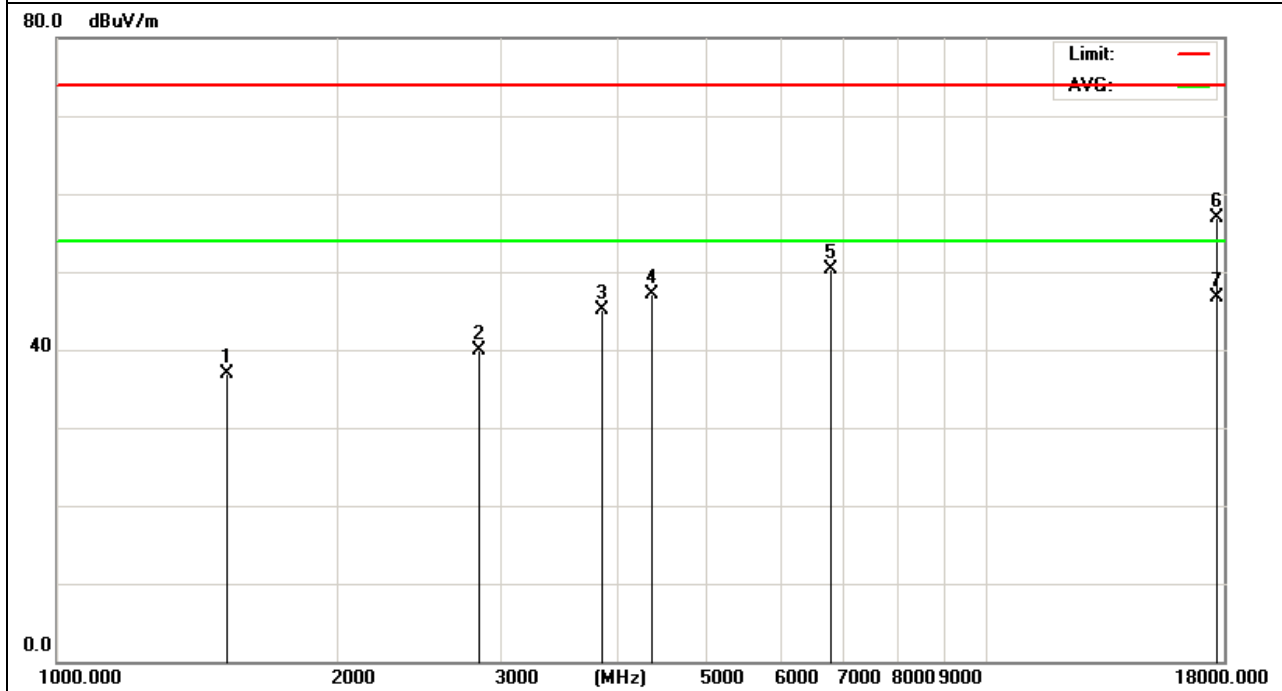
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
1525.555	48.42	-9.86	38.56	74.00	-35.44	peak
2839.752	42.77	-2.65	40.12	74.00	-33.88	peak
3846.475	43.63	2.71	46.34	74.00	-27.66	peak
4361.032	43.61	4.46	48.07	74.00	-25.93	peak
6792.446	44.36	6.05	50.41	74.00	-23.59	peak
17653.232	33.57	24.93	58.50	74.00	-15.50	peak
17653.232	22.31	24.93	47.24	54.00	-6.76	AVG

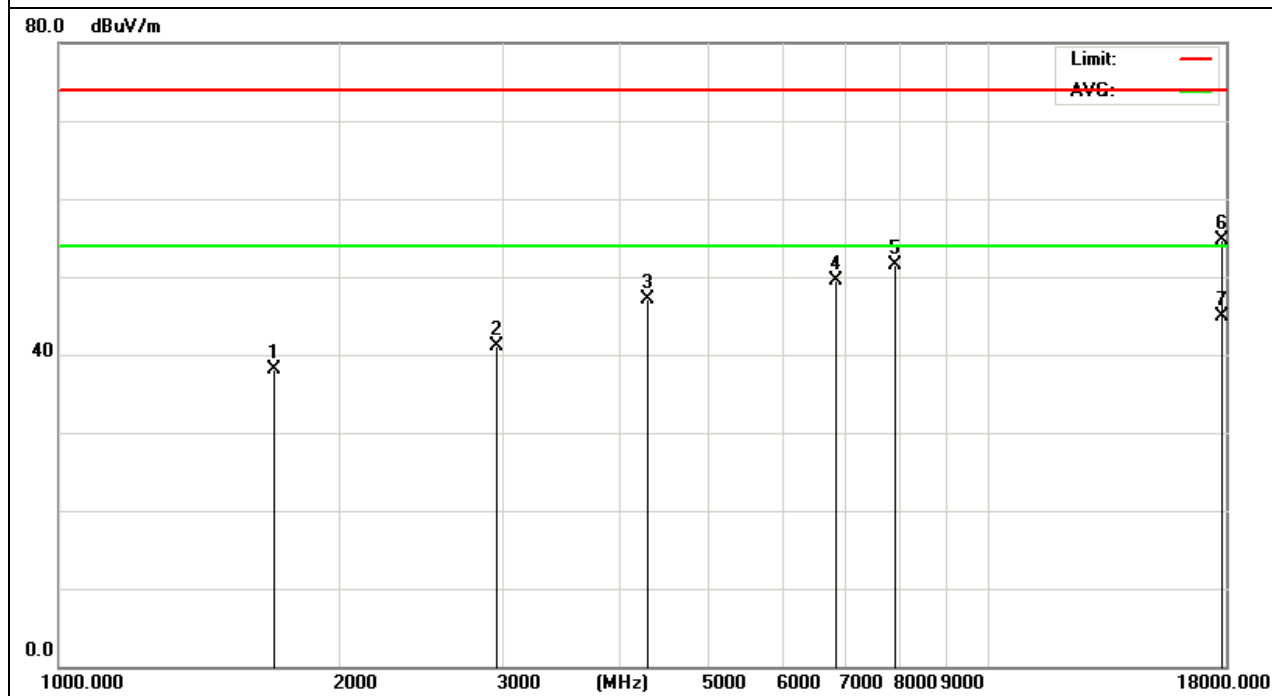
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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	Frenqucy Range	1GHz to 18GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
1701.113	47.99	-9.63	38.36	74.00	-35.64	peak
2952.256	43.05	-2.02	41.03	74.00	-32.97	peak
4300.147	42.93	4.34	47.27	74.00	-26.73	peak
6844.245	43.53	6.08	49.61	74.00	-24.39	peak
7902.257	41.97	9.97	51.94	74.00	-22.06	peak
17786.023	30.24	24.83	55.07	74.00	-18.93	peak
17786.023	20.78	24.83	45.61	54.00	-8.39	AVG

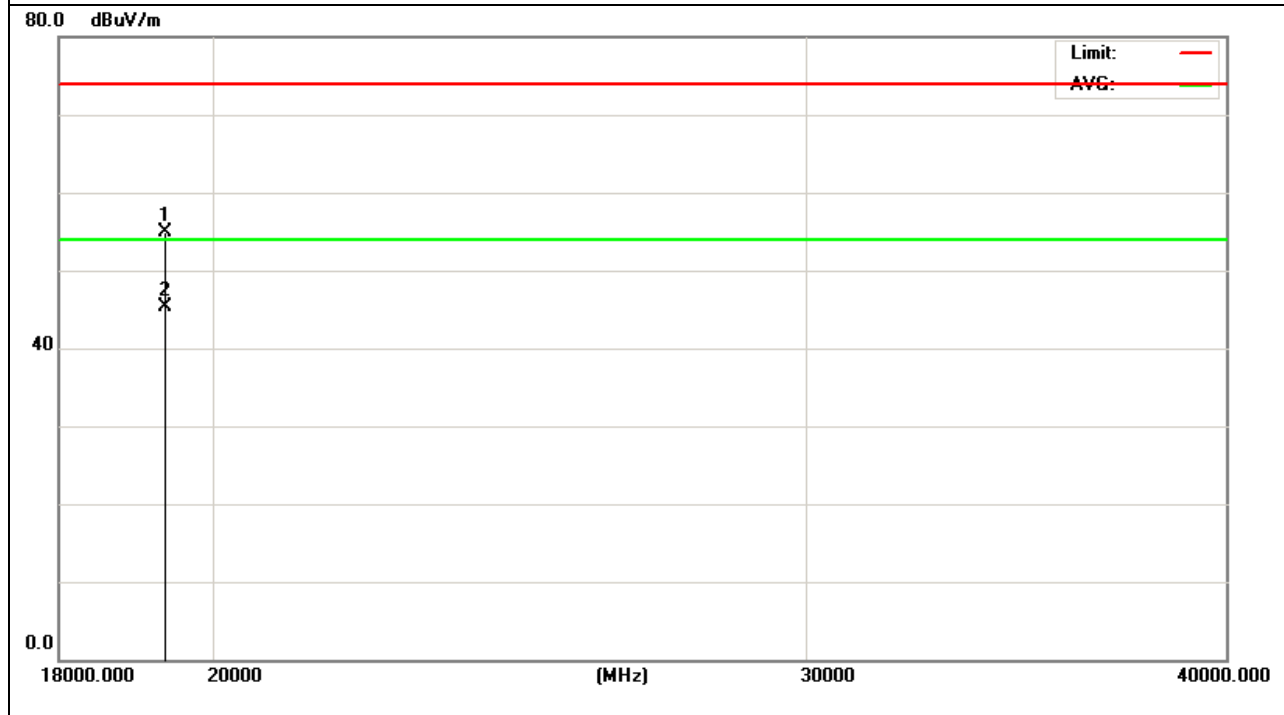
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
19351.000	40.51	14.3	54.81	74.00	-19.19	peak
19351.000	31.53	14.3	45.83	54.00	-8.17	AVG

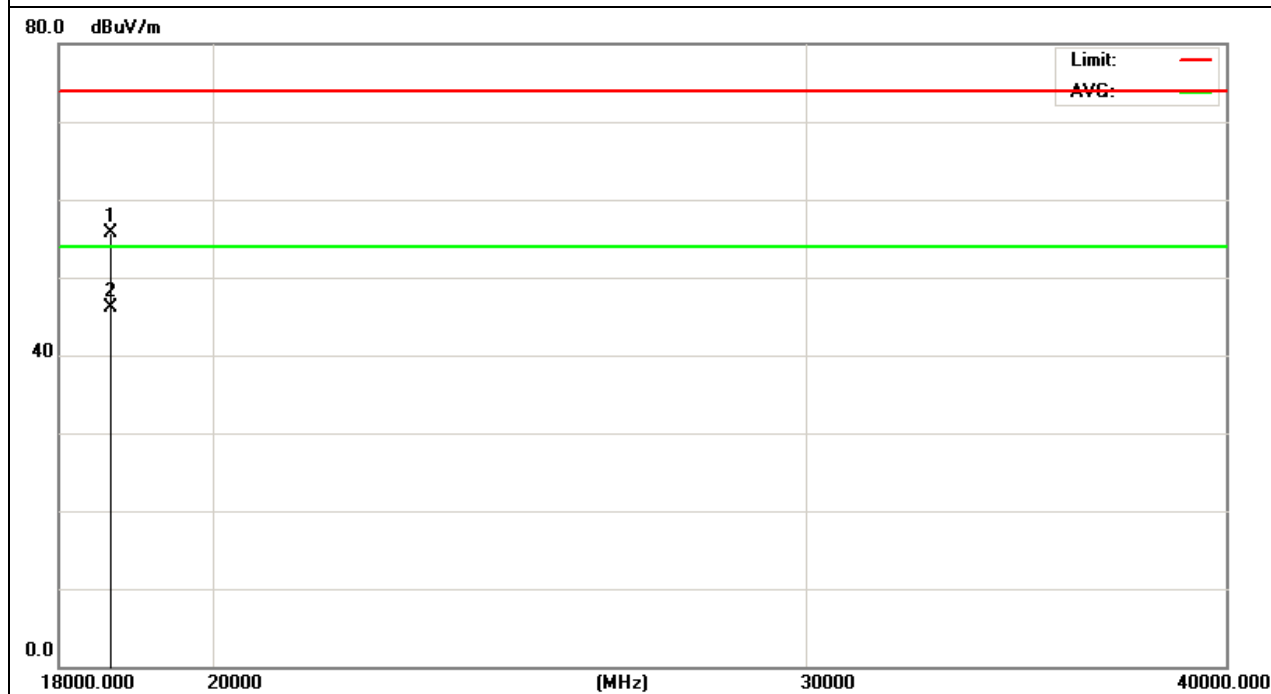
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



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	Frenqucy Range	18GHz to 25GHz
Test Power :	DC7.4V from battery		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
18639.000	42.11	13.25	55.36	74.00	-18.64	peak
18639.000	33.17	13.25	46.42	54.00	-7.58	AVG

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



4.2.7 TEST RESULTS (RESTRICTED BANDS REQUIREMENTS)

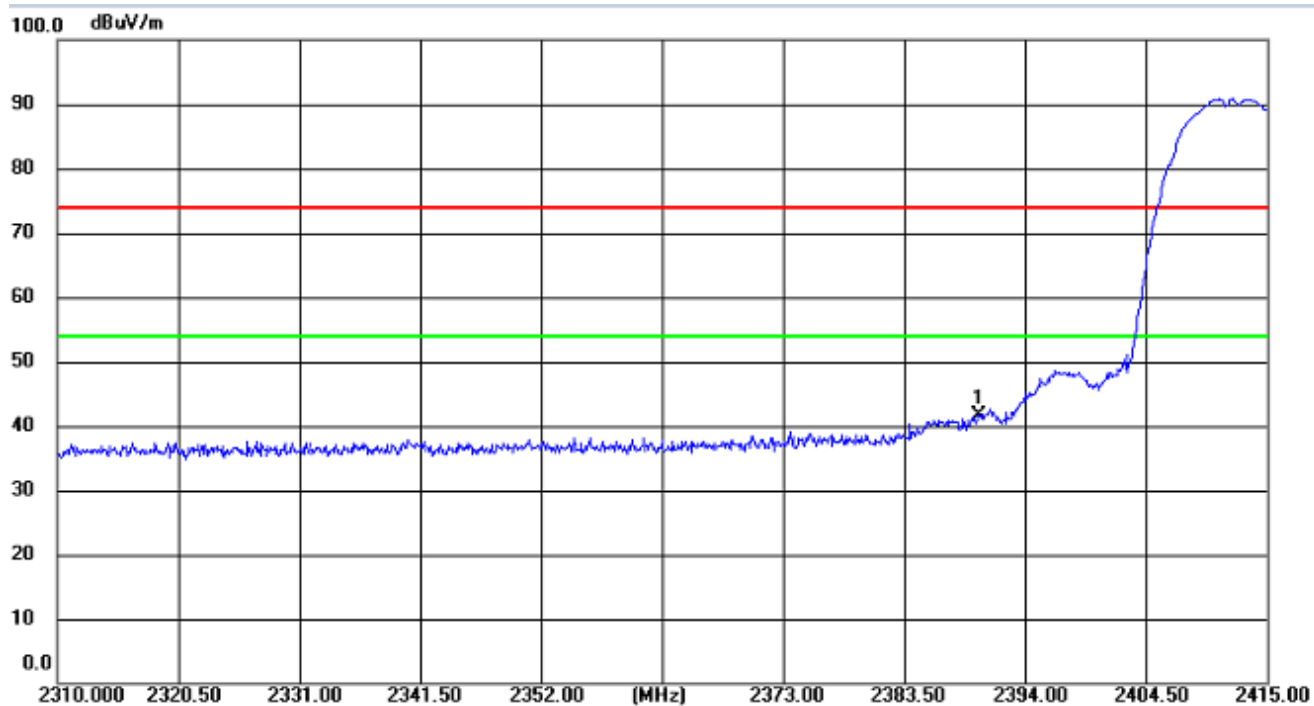
EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	51%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Date :	2021-07-12		
Test Mode :	802.11b Data rate 1Mbps		
Note :	1. The transmitter was setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. 3. The data of 2390MHz and 2483.5MHz was the worst.		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant/CF CF(dB)	Act		Limit		Note
		Peak (dBuv)	AV (dBuv)		Peak (dBuv/m)	AV (dBuv/m)	Peak (dBuv/m)	AV (dBuv/m)	
2390.00	H	47.34	--	-5.79	41.55	--	74.00	54.00	CH01
2390.00	V	44.93	--	-5.79	39.14	--	74.00	54.00	CH01
2483.50	H	47.67	--	-4.98	42.69	--	74.00	54.00	CH11
2483.50	V	43.99	--	-4.98	39.01	--	74.00	54.00	CH11

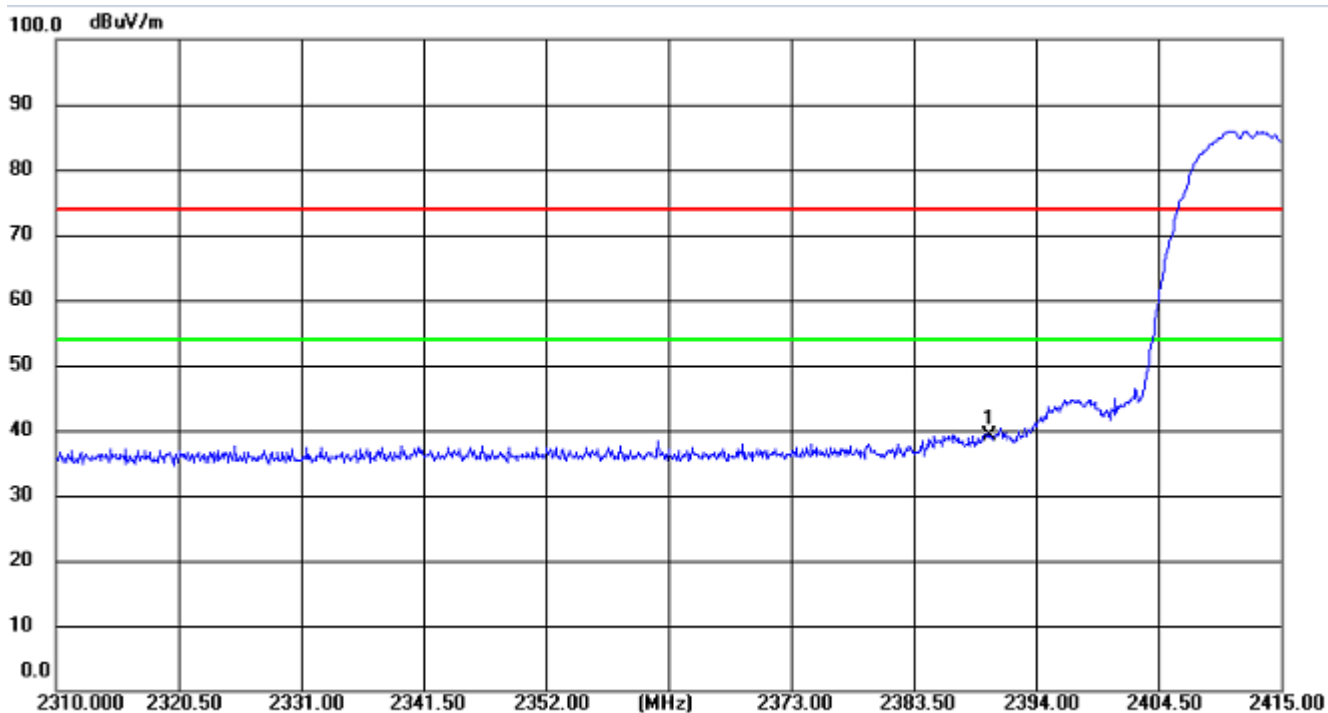
Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (2) EUT Orthogonal Axis :
 "X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (3) 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
- (4) Corr.Factor = Antenna Factor + Cable Loss – Pre-amplifier.

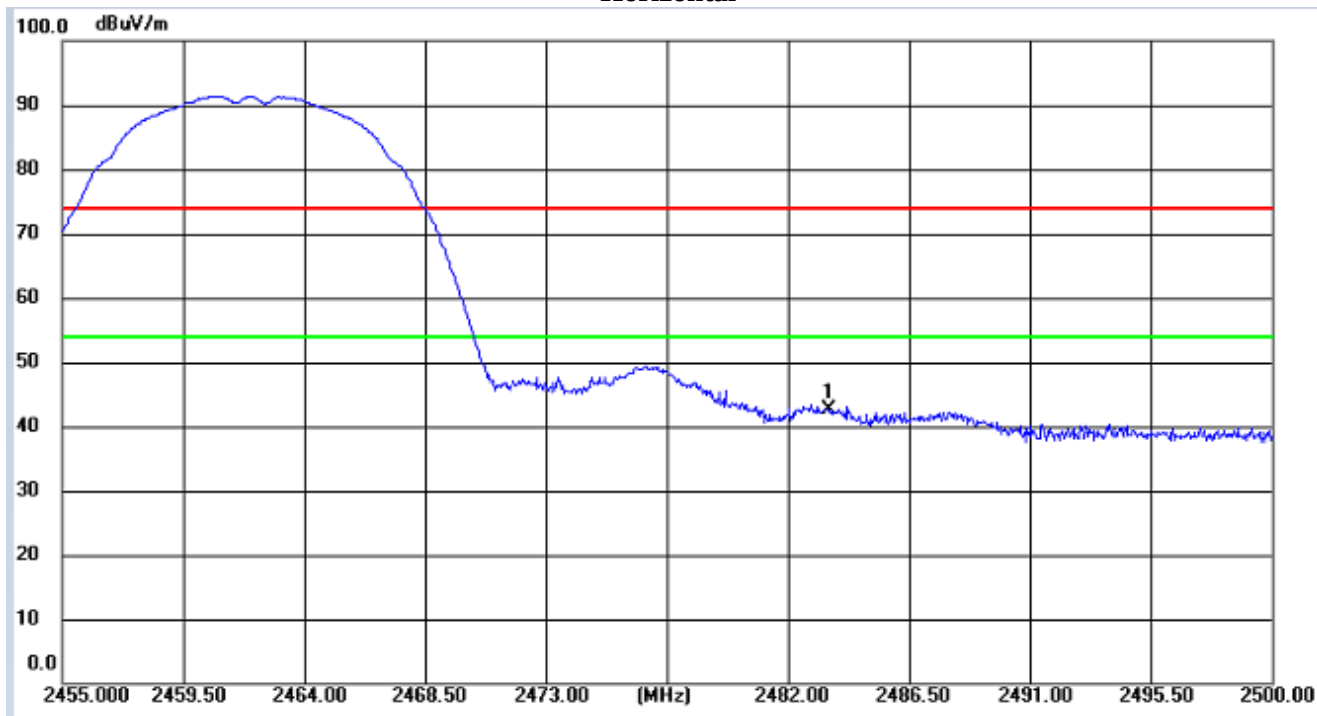
Horizontal



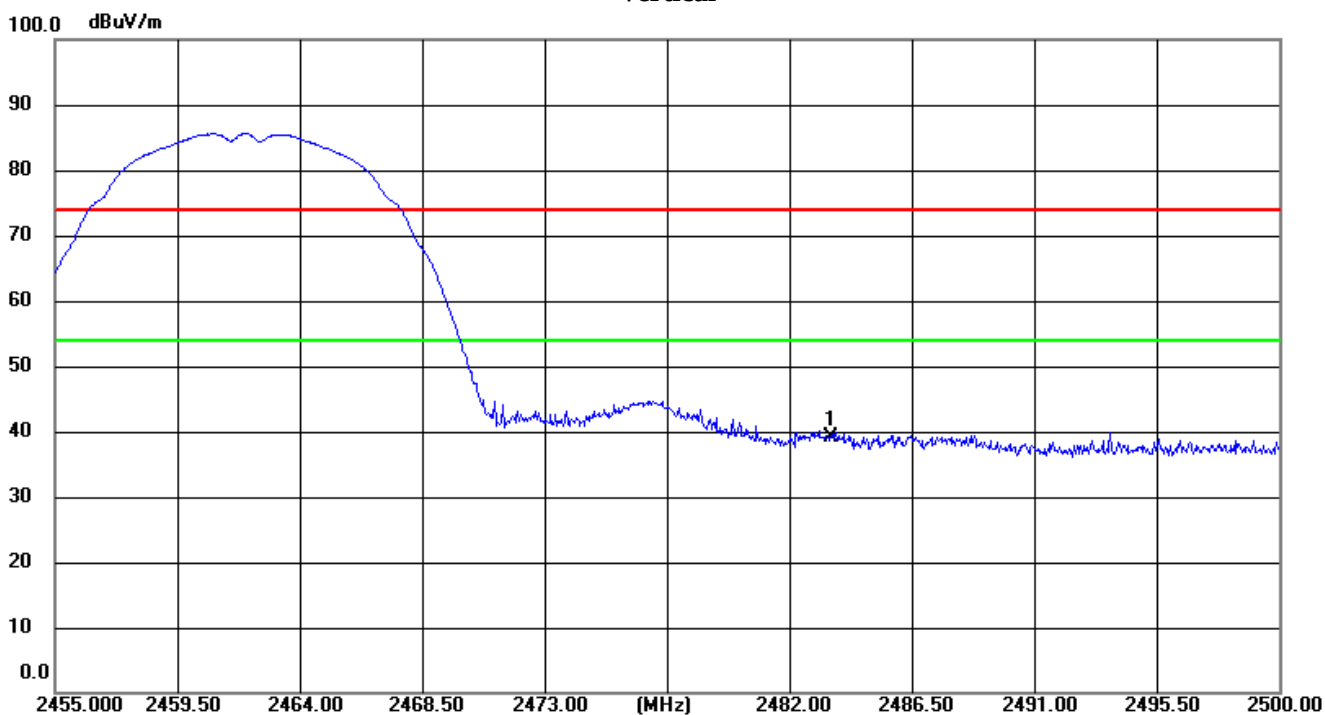
Vertical



Horizontal



Vertical



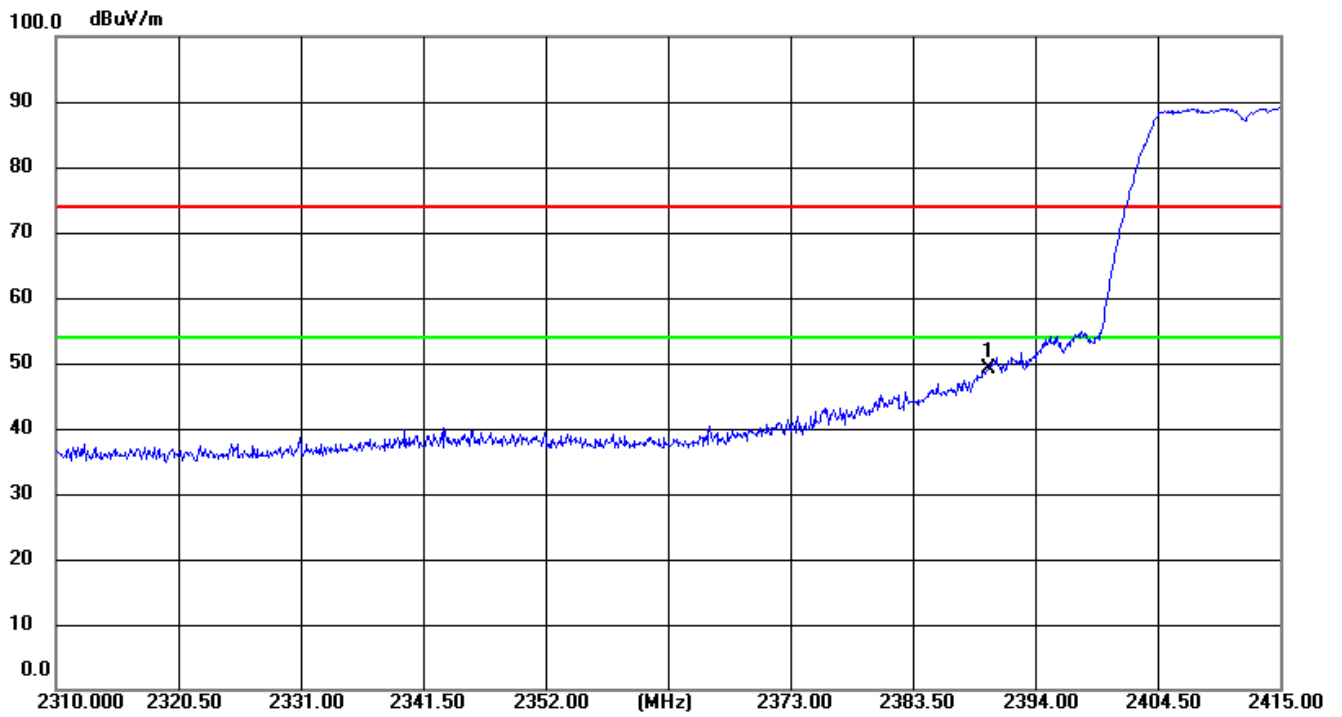
EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	51%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Date :	2021-07-12		
Test Mode :	802.11g Data rate 6Mbps		
Note :	1. The transmitter was setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. 3. The data of 2390MHz and 2483.5MHz was the worst.		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant/CF CF(dB)	Act		Limit		Note
		Peak (dBuv)	AV (dBuv)		Peak (dBuv/m)	AV (dBuv/m)	Peak (dBuv/m)	AV (dBuv/m)	
2390.00	H	55.08	--	-5.79	49.29	--	74.00	54.00	CH01
2390.00	V	49.20	--	-5.79	43.41	--	74.00	54.00	CH01
2483.50	H	54.73	--	-4.98	49.75	--	74.00	54.00	CH11
2483.50	V	50.79	--	-4.98	45.81	--	74.00	54.00	CH11

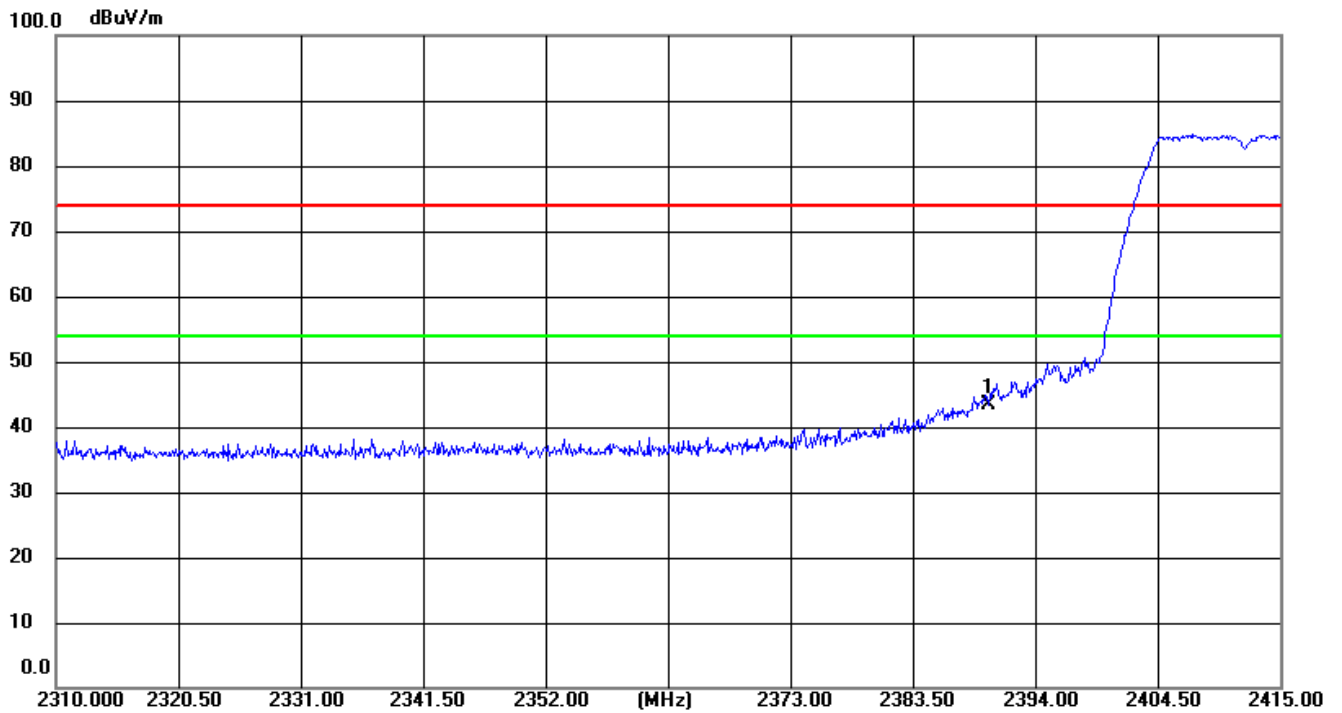
Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (2) EUT Orthogonal Axis :
“X” - denotes Laid on Table ; ”Y” - denotes Vertical Stand ; ”Z” - denotes Side Stand
- (3) 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
- (4) Corr.Factor = Antenna Factor + Cable Loss – Pre-amplifier.

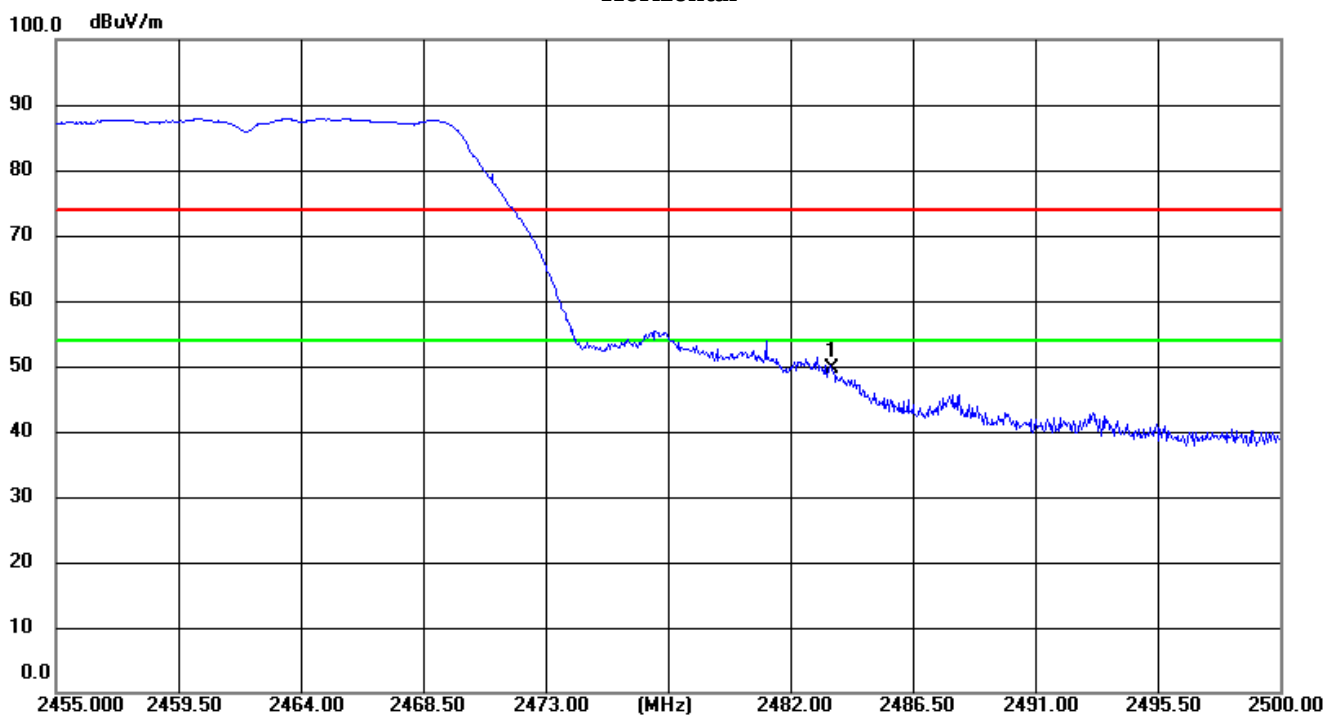
Horizontal



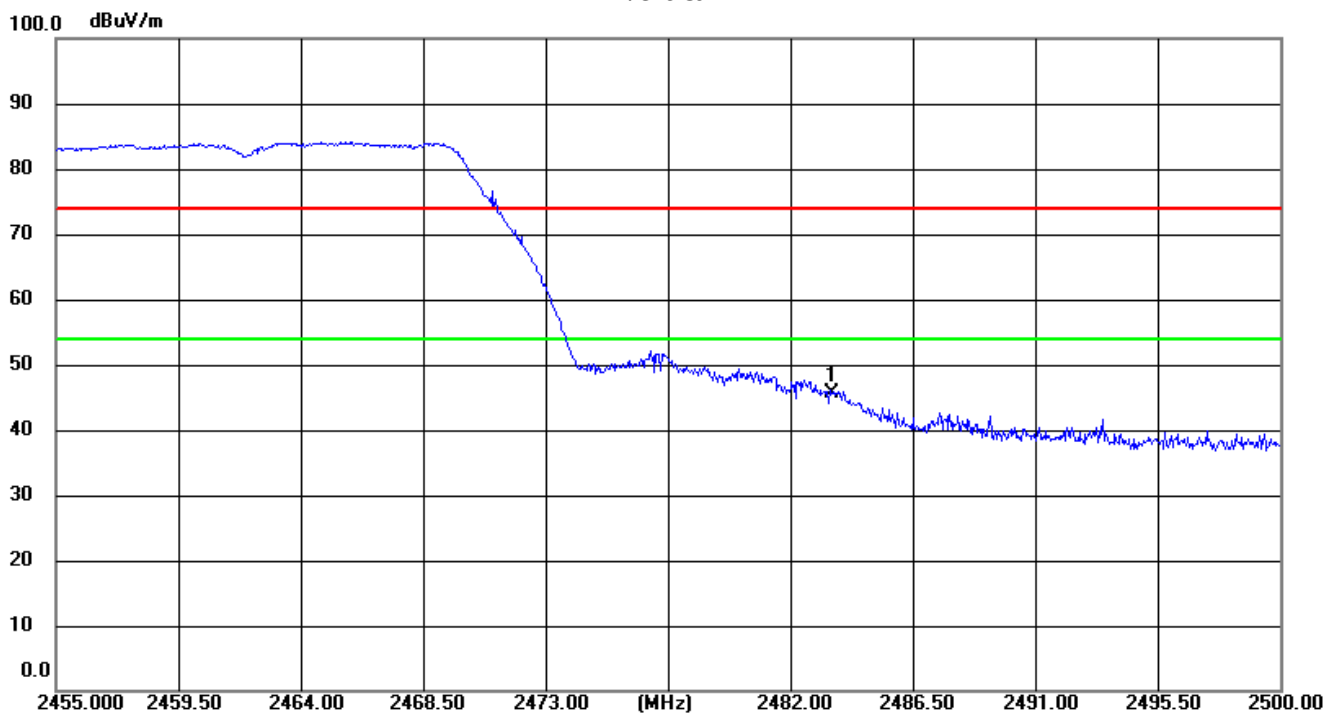
Vertical



Horizontal



Vertical



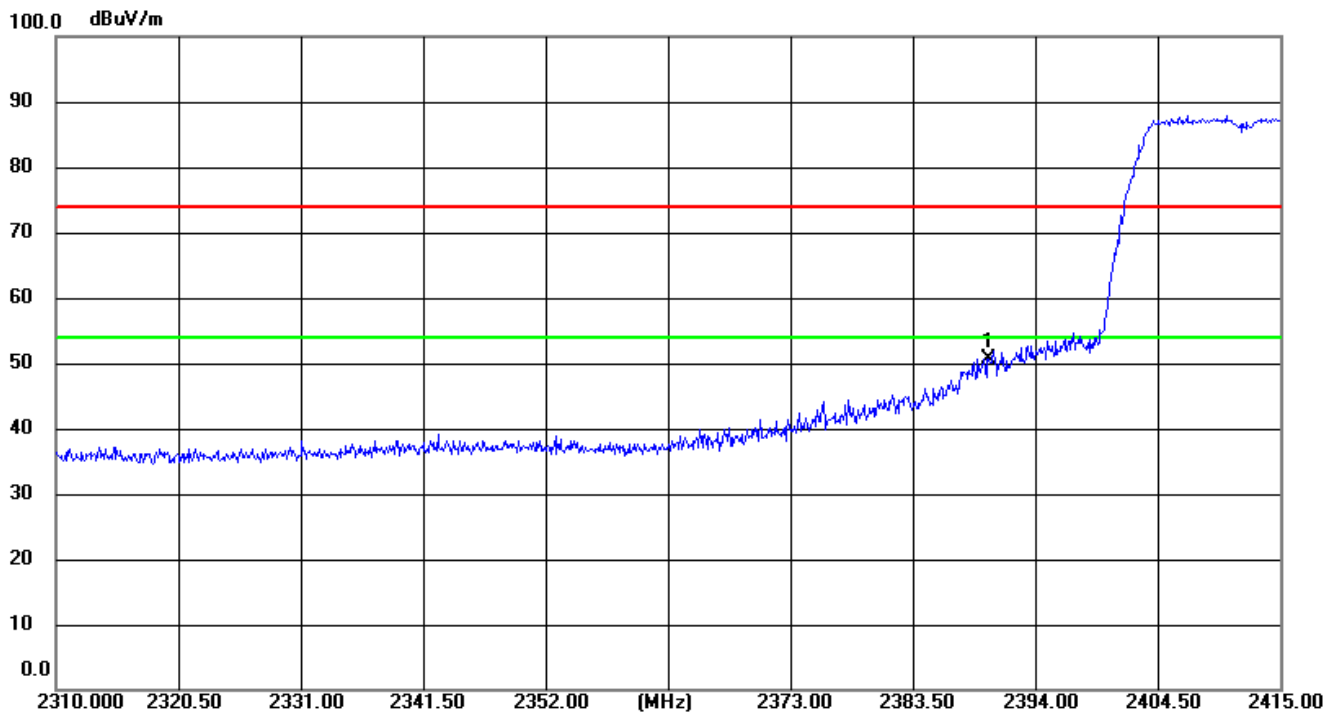
EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	51%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Date :	2021-07-12		
Test Mode :	802.11n20 Data rate 6.5Mbps		
Note :	1. The transmitter was setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. 3. The data of 2390MHz and 2483.5MHz was the worst.		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant/CF CF(dB)	Act		Limit		Note
		Peak (dBuv)	AV (dBuv)		Peak (dBuv/m)	AV (dBuv/m)	Peak (dBuv/m)	AV (dBuv/m)	
2390.00	H	56.63	--	-5.79	50.84	--	74.00	54.00	CH01
2390.00	V	51.57	--	-5.79	45.78	--	74.00	54.00	CH01
2483.50	H	55.14	--	-4.98	50.16	--	74.00	54.00	CH11
2483.50	V	51.82	--	-4.98	46.84	--	74.00	54.00	CH11

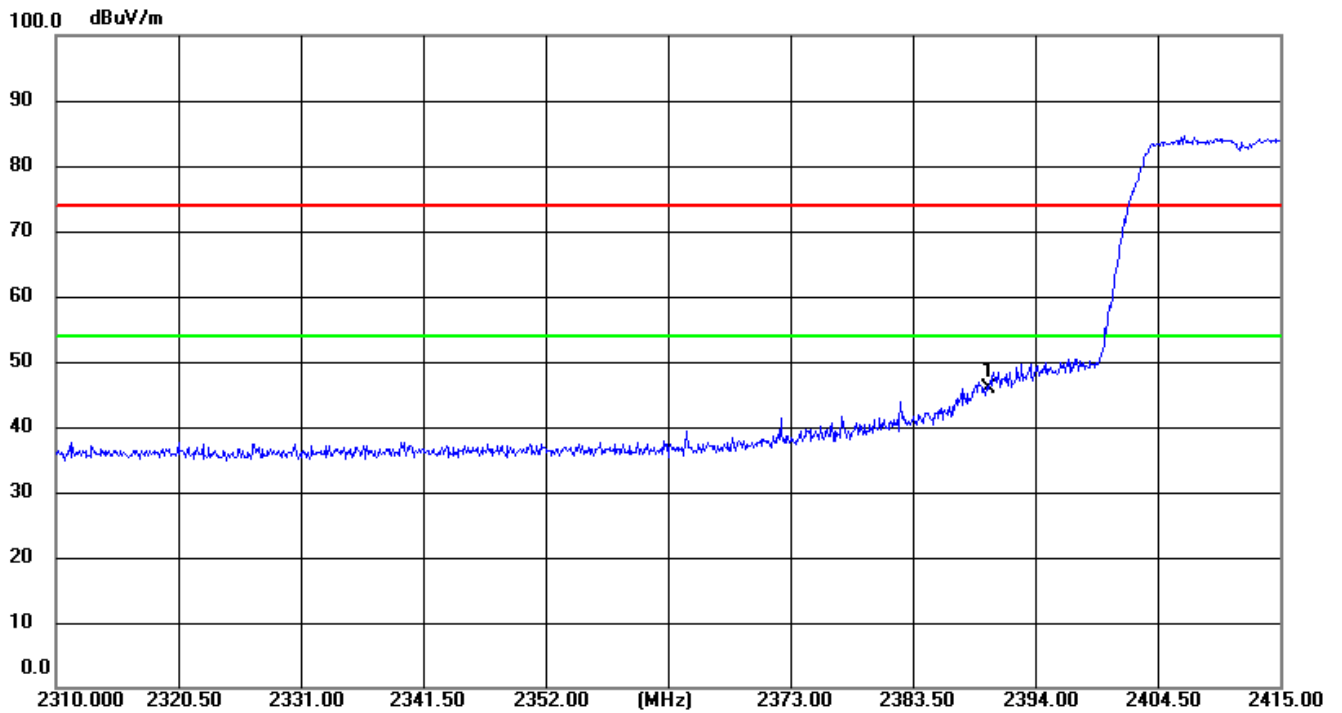
Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (2) EUT Orthogonal Axis :
“X” - denotes Laid on Table ; ”Y” - denotes Vertical Stand ; ”Z” - denotes Side Stand
- (3) 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
- (4) Corr.Factor = Antenna Factor + Cable Loss – Pre-amplifier.

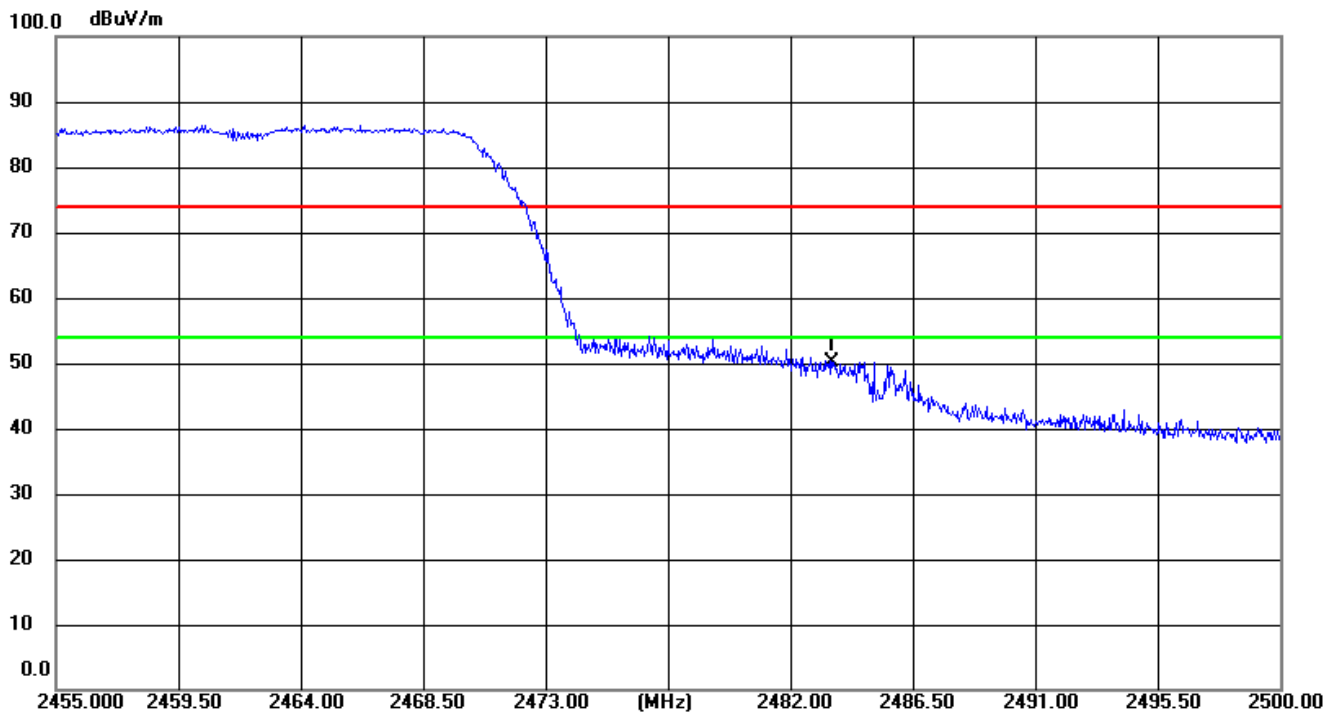
Horizontal



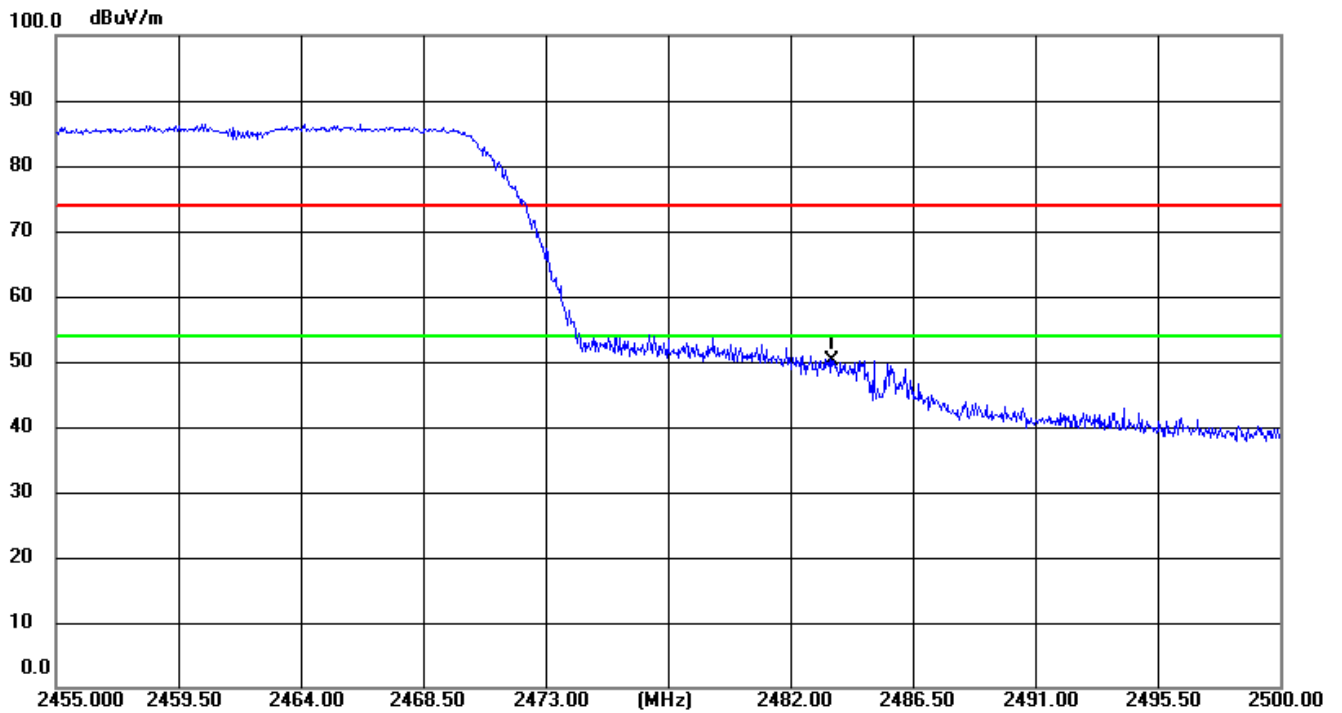
Vertical



Horizontal



Vertical



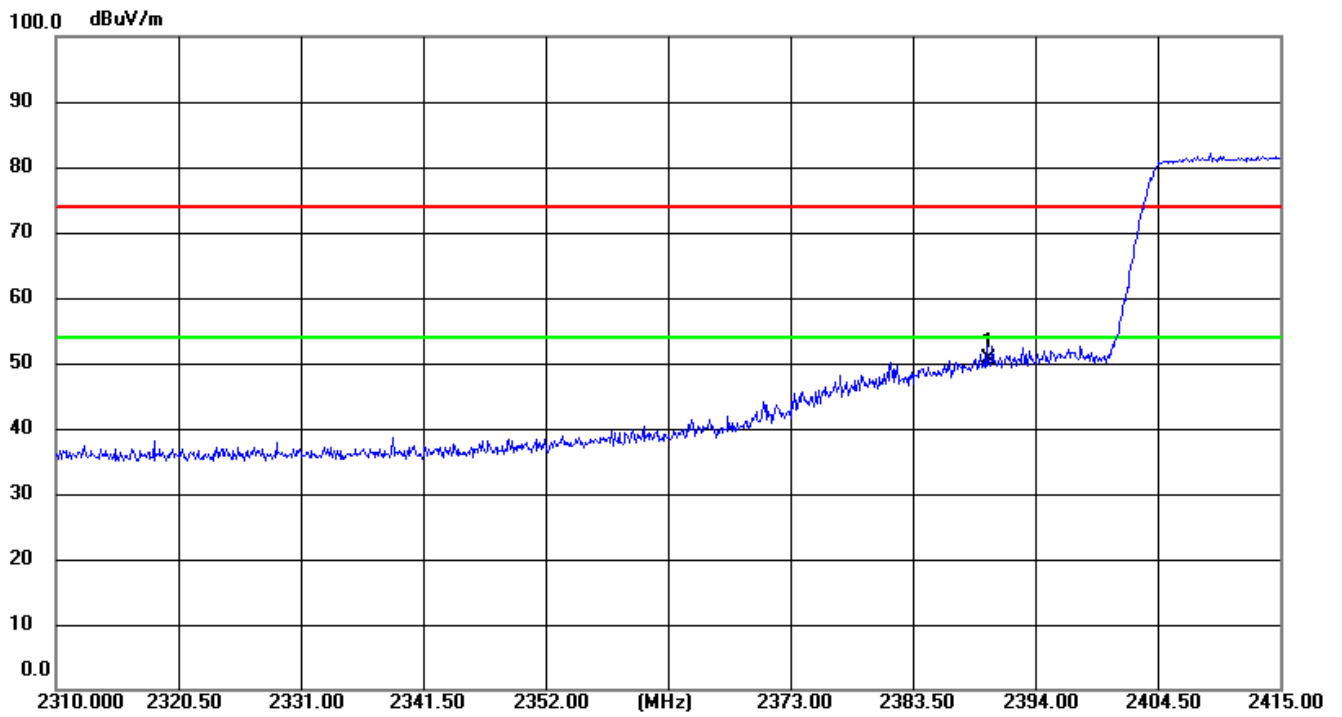
EUT :	智慧投影機	Model Name :	SP1e
Temperature :	24 °C	Relative Humidity :	51%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Mode :	802.11n40 Data rate 13.5Mbps		
Test Date :	2021-07-12		
Note :	1. The transmitter was setup to transmit at the lowest channel (CH03). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was setup to transmit at the highest channel (CH09). Then the field strength was measured at 2483.5-2500 MHz. 3. The data of 2390MHz and 2483.5MHz was the worst.		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant/CF CF(dB)	Act		Limit		Note
		Peak (dBuv)	AV (dBuv)		Peak (dBuv/m)	AV (dBuv/m)	Peak (dBuv/m)	AV (dBuv/m)	
2390.00	H	56.54	--	-5.79	50.75	--	74.00	54.00	CH03
2390.00	V	53.42	--	-5.79	47.63	--	74.00	54.00	CH03
2483.50	H	51.60	--	-4.98	46.62	--	74.00	54.00	CH09
2483.50	V	50.33	--	-4.98	45.35	--	74.00	54.00	CH09

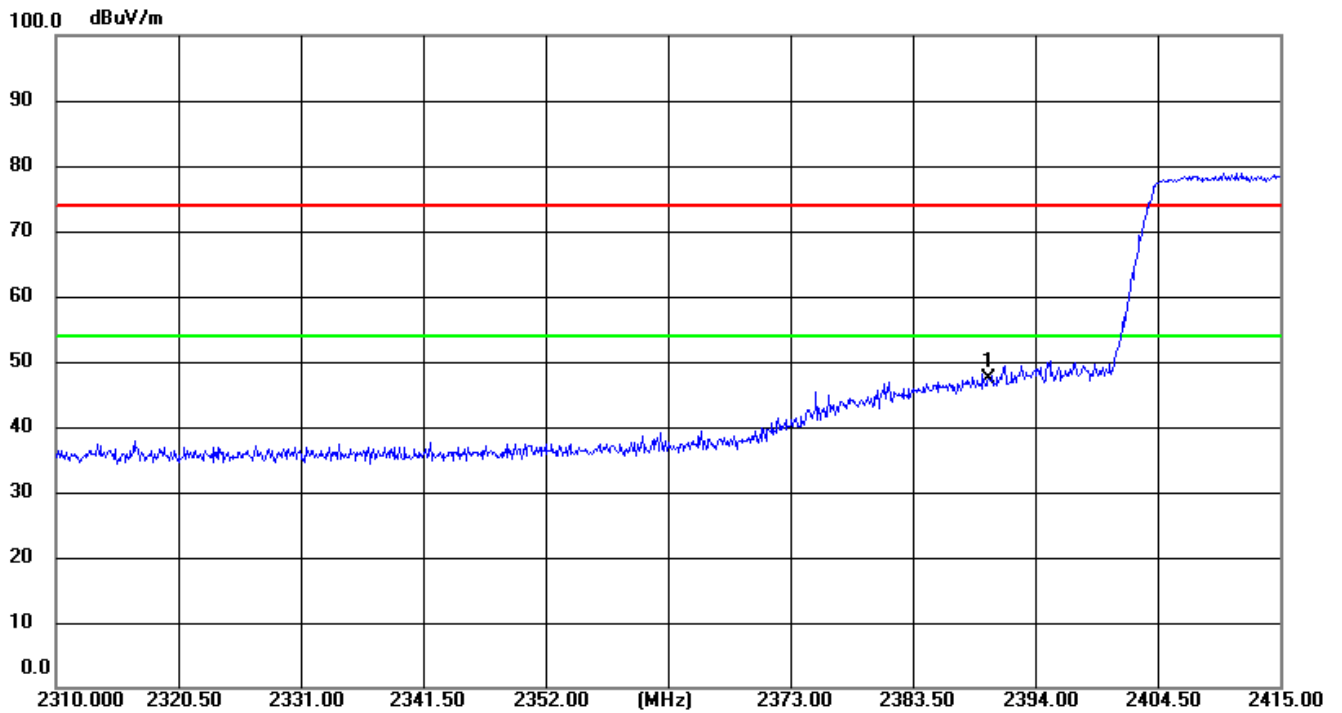
Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (2) EUT Orthogonal Axis :
“X” - denotes Laid on Table ; ”Y” - denotes Vertical Stand ; ”Z” - denotes Side Stand
- (3) 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
- (4) Corr.Factor = Antenna Factor + Cable Loss – Pre-amplifier.

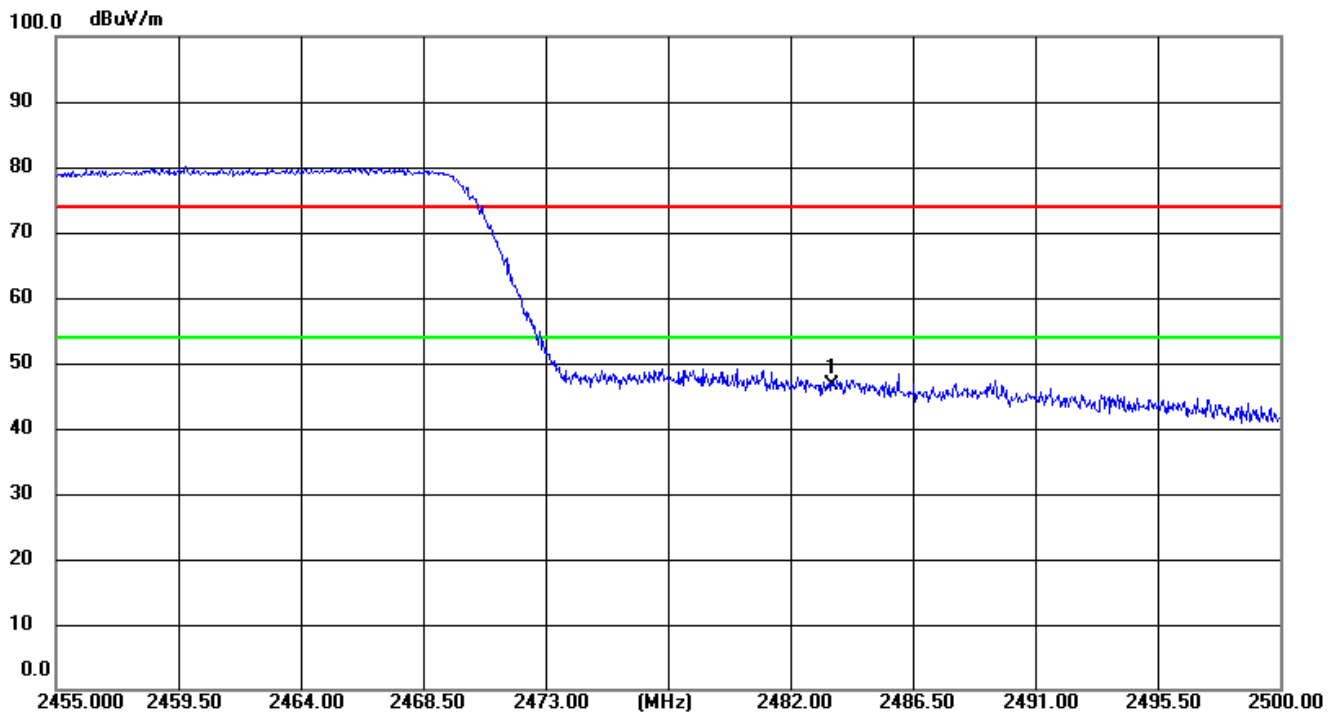
Horizontal



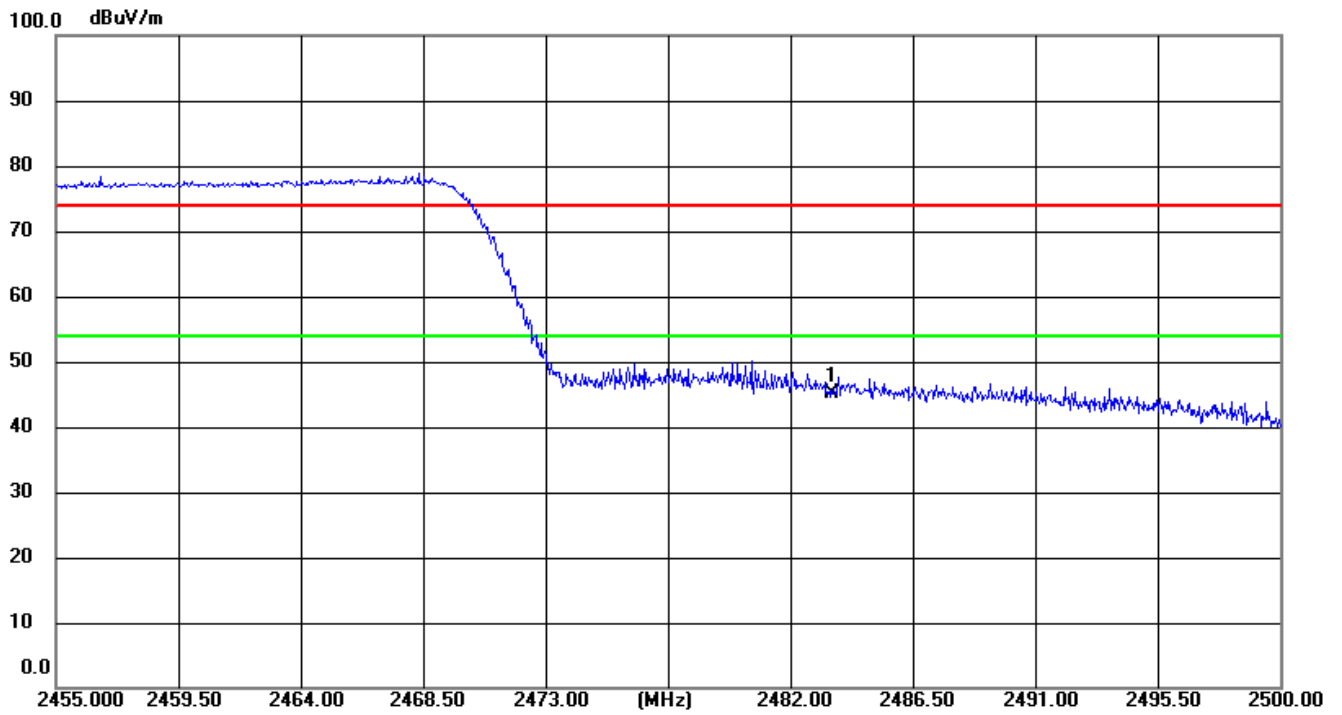
Vertical



Horizontal



Vertical



5. OCCUPIED BANDWIDTH TEST

5.1 APPLIED PROCEDURES / LIMIT

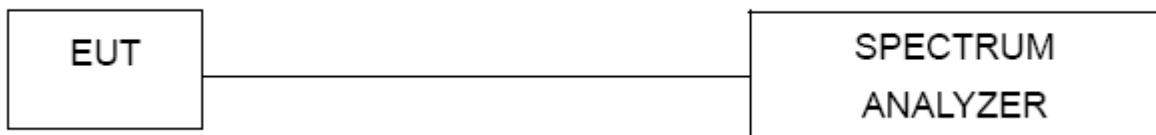
LP0002				
Section	Test Item	Limit	Frequency Range (MHz)	Result
4.10.1(6.2.1)	Bandwidth	$\geq 500\text{kHz}$ (6dB bandwidth)	2400-2483.5	PASS

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	$>$ Measurement Bandwidth or Channel Separation
RB	100 kHz
VB	300 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

5.1.1 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting : RBW= 100kHz, VBW=300kHz, Sweep time = Auto.

5.1.2 TEST SETUP



5.1.3 EUT OPERATION 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.

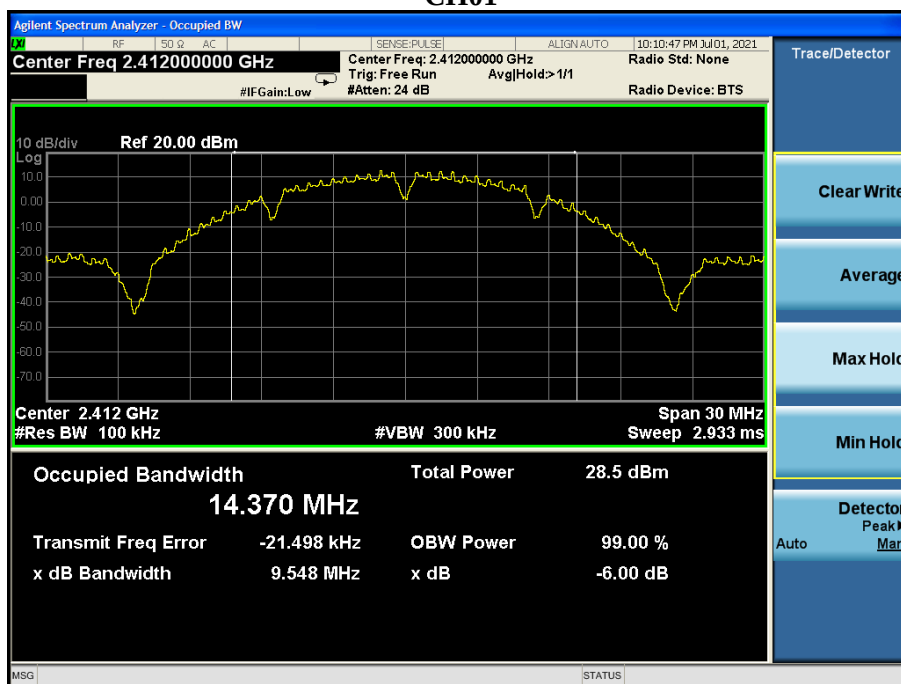
5.1.4 TEST RESULTS

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

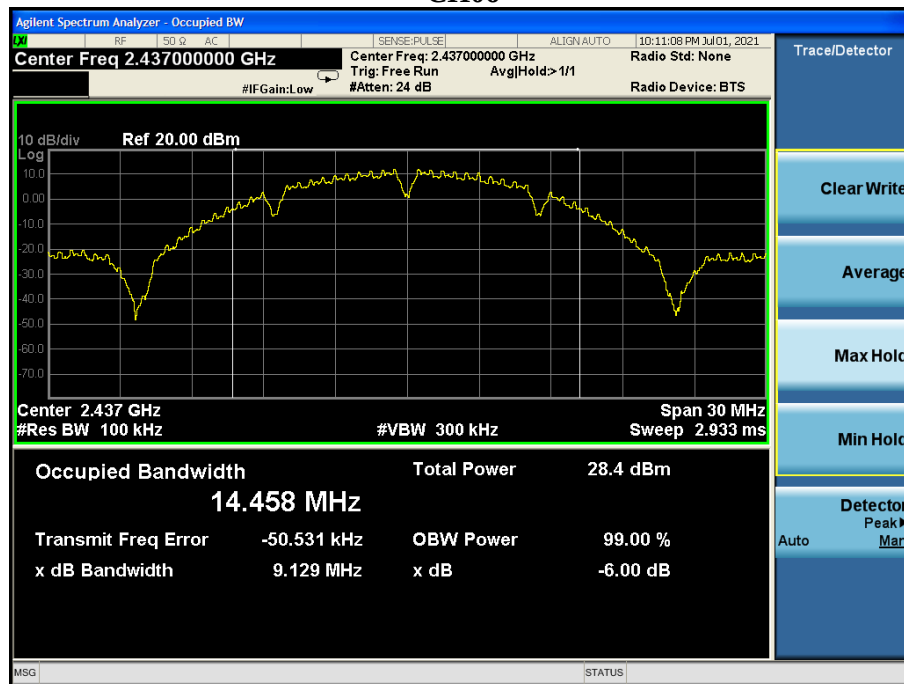
EUT :	智慧投影機	Model Name :	SP1e
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Mode :	CH01 / CH06 /CH11(802.11b Data rate 1Mbps)		
Test Date :	2021-07-01		

Frequency	6dB Bandwidth (MHz)ANT 1	6dB Bandwidth (MHz) ANT 2	Limit (kHz)	Result
2412 MHz	9.548	9.125	≥ 500	Pass
2437 MHz	9.129	8.978	≥ 500	Pass
2462 MHz	9.111	8.894	≥ 500	Pass

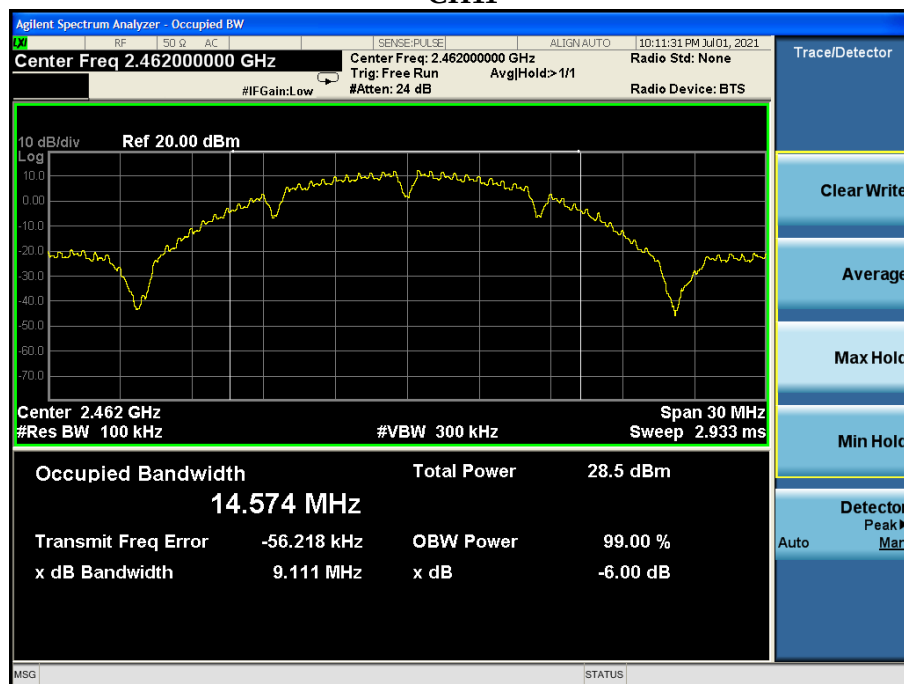
CH01



CH06



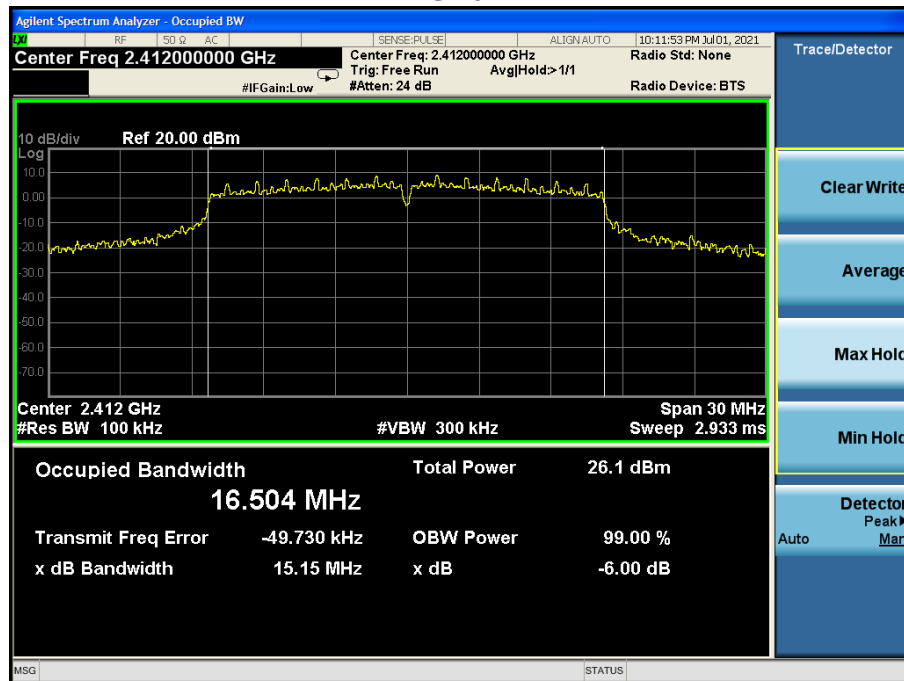
CH11



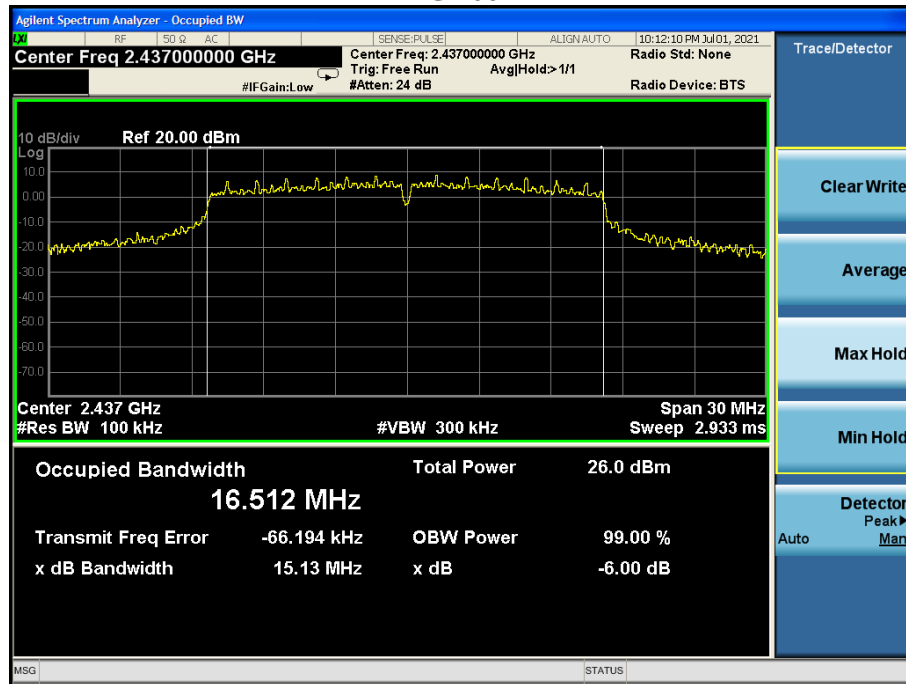
EUT :	智慧投影機	Model Name :	SP1e
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Mode :	CH01 / CH06 / CH11(802.11g Data rate 6Mbps)		
Test Date :	2021-07-01		

Frequency	6dB Bandwidth (MHz)ANT 1	6dB Bandwidth (MHz) ANT 2	Limit (kHz)	Result
2412 MHz	15.15	15.07	≥ 500	Pass
2437 MHz	15.13	15.03	≥ 500	Pass
2462 MHz	15.15	15.09	≥ 500	Pass

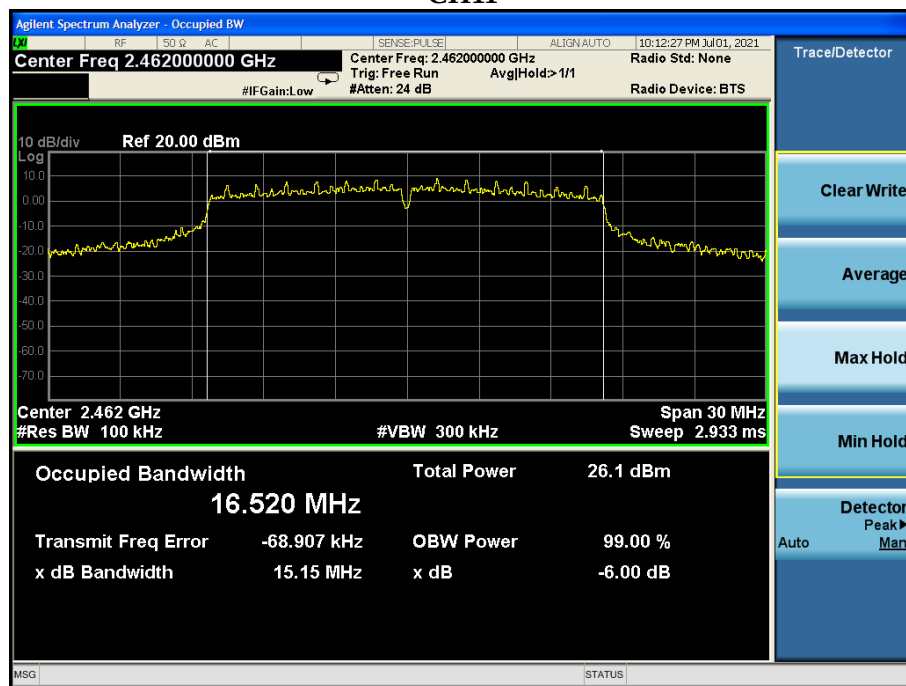
CH01



CH06



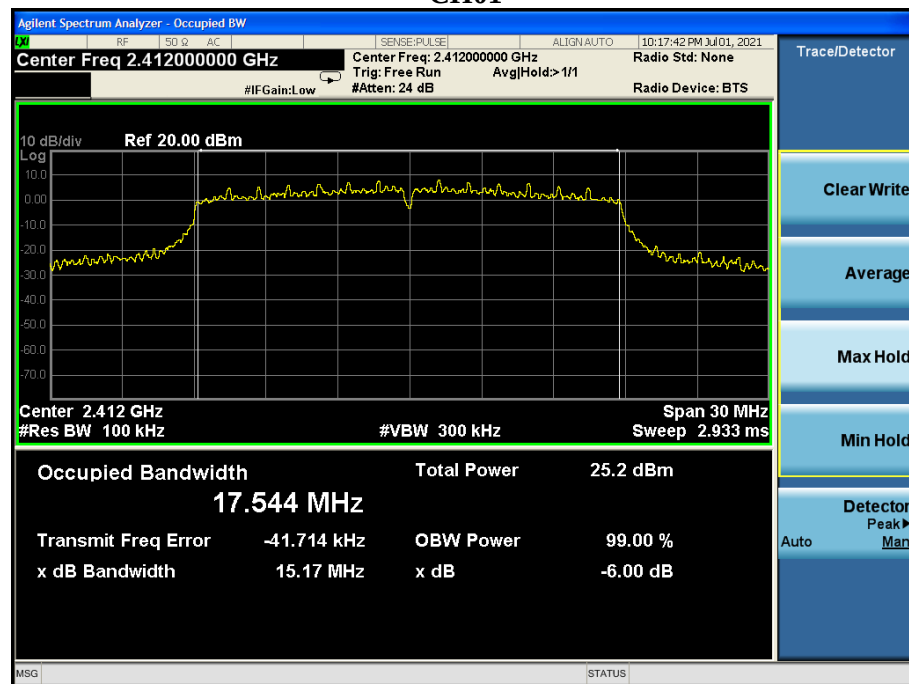
CH11



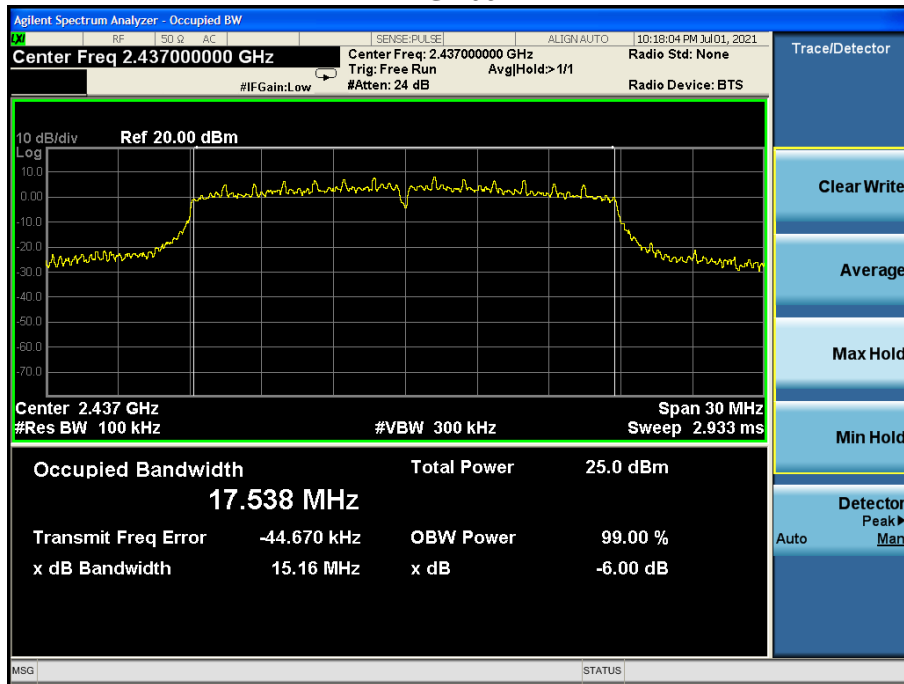
EUT :	智慧投影機	Model Name :	SP1e
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Mode :	CH01 / CH06/ CH11(802.11n20 Data rate 6.5Mbps)		
Test Date :	2021-07-01		

Frequency	6dB Bandwidth (MHz)ANT 1	6dB Bandwidth (MHz)ANT 2	Limit (kHz)	Result
2412 MHz	15.17	15.02	≥ 500	Pass
2437 MHz	15.16	15.03	≥ 500	Pass
2462 MHz	15.17	15.00	≥ 500	Pass

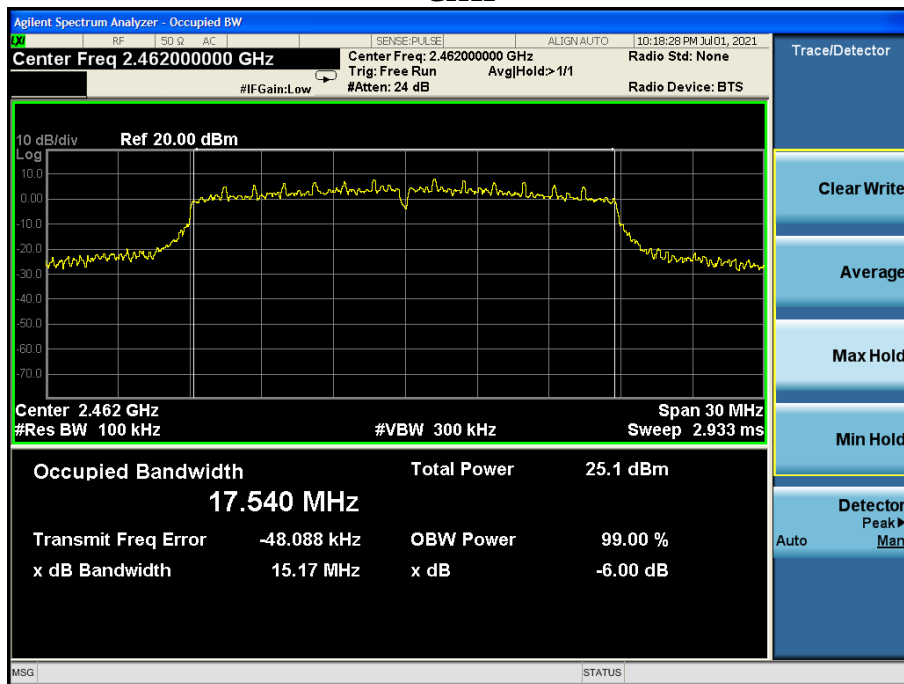
CH01



CH06



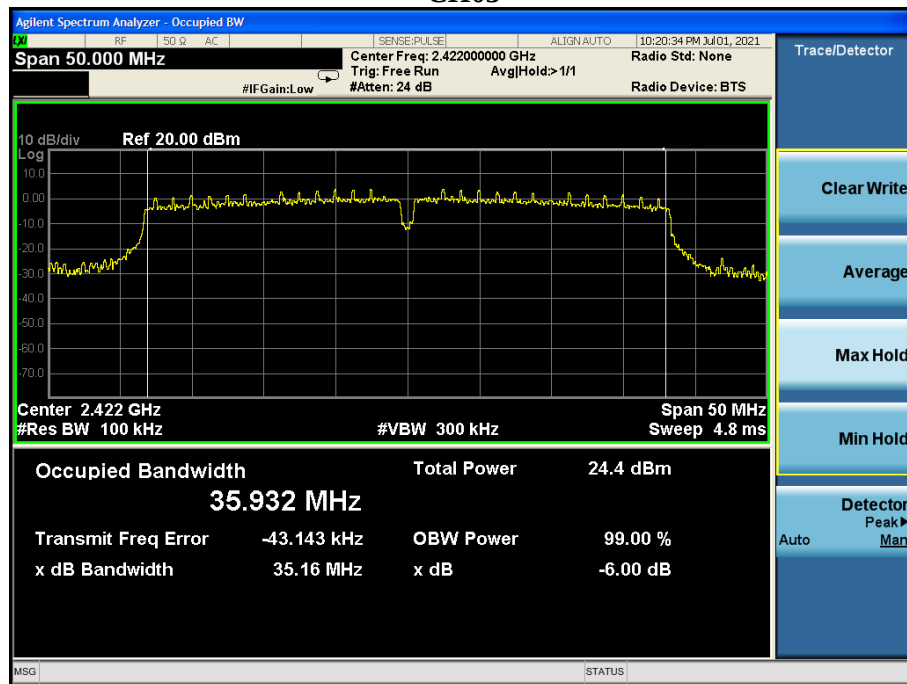
CH11



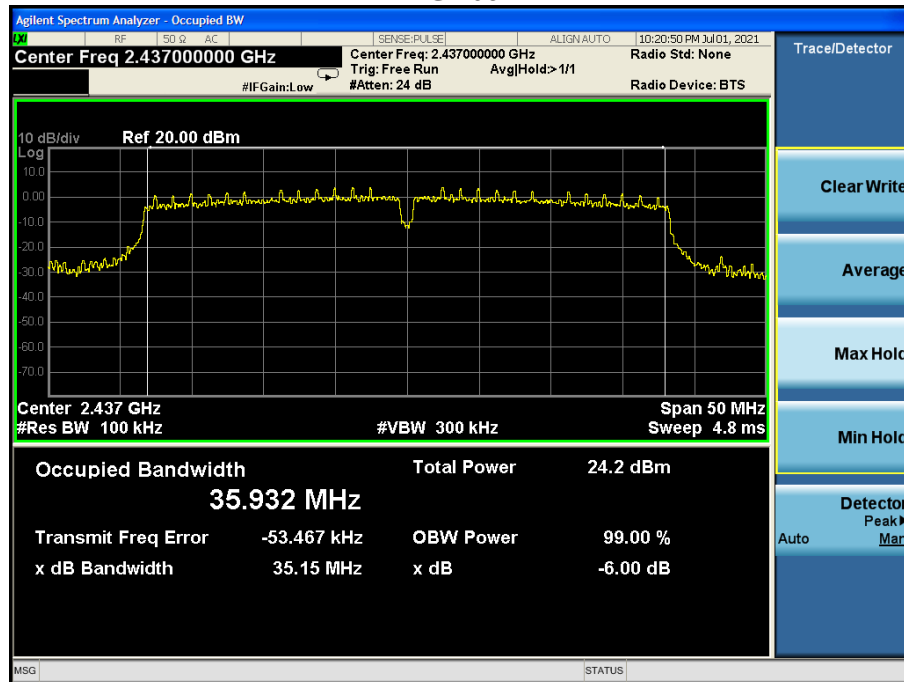
EUT :	智慧投影機	Model Name :	SP1e
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Mode :	CH03 / CH06/ CH09(802.11n40 Data rate 13.5Mbps)		
Test Date :	2021-07-01		

Frequency	6dB Bandwidth (MHz)ANT 1	6dB Bandwidth (MHz)ANT 2	Limit (kHz)	Result
2422 MHz	35.16	35.02	≥ 500	Pass
2437 MHz	35.15	35.06	≥ 500	Pass
2452 MHz	35.16	35.11	≥ 500	Pass

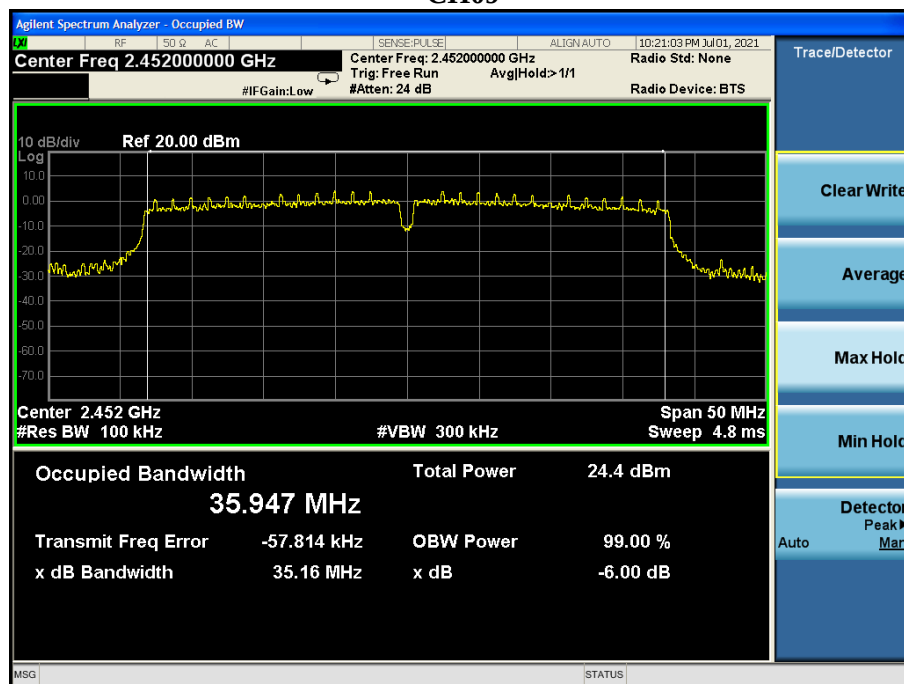
CH03



CH06



CH09



6. POWER DENSITY

6.1 APPLIED PROCEDURES / LIMIT

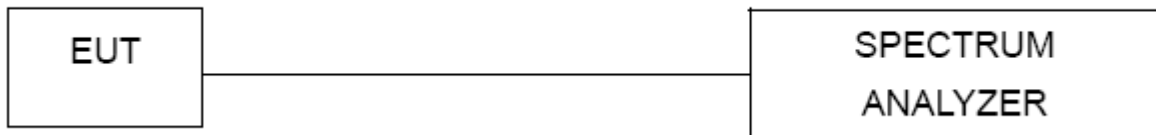
LP0002				
Section	Test Item	Limit	Frequency Range (MHz)	Result
4.10.1(6.2.2)	Power density	8dBm	2400-2483.5	PASS

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	Set the span to 1.5 times the DTS bandwidth.
RB	3 kHz
VB	10 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

6.1.1 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting : RBW= 3kHz, VBW=10kHz, Detector = Peak, Trace = Max Hold.

6.1.2 TEST SETUP



6.1.3 EUT OPERATION 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.

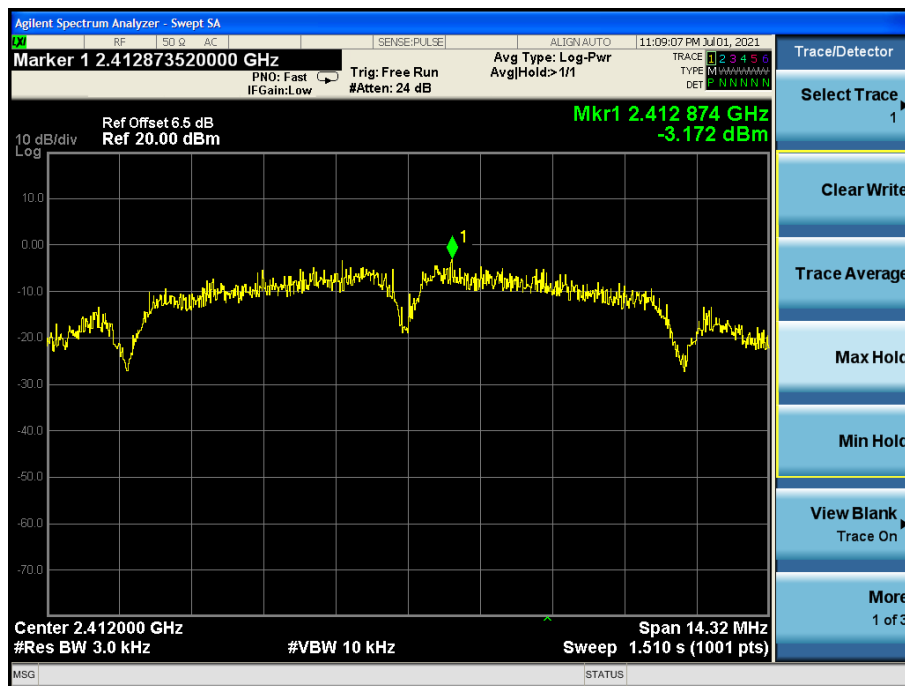
6.1.4 TEST RESULTS

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

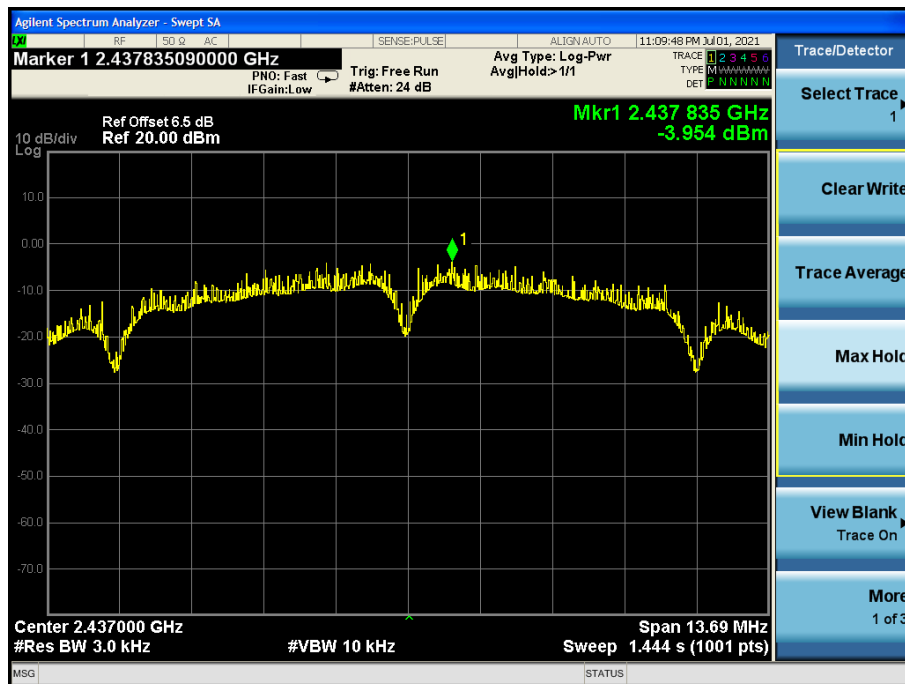
EUT :	智慧投影機	Model Name :	SP1e
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Mode :	CH01 /CH06 /CH11 (802.11b Data rate 1Mbps)		
Test Date :	2021-07-01		

Test Channel	Frequency (MHz)	Power Density (dBm)ANT 1	Power Density (dBm)ANT 2	Total Power Density (dBm)	LIMIT (dBm)
CH01	2412 MHz	-3.172	-4.252	--	8
CH06	2437 MHz	-3.954	-4.165	--	8
CH11	2462 MHz	-3.132	-4.523	--	8

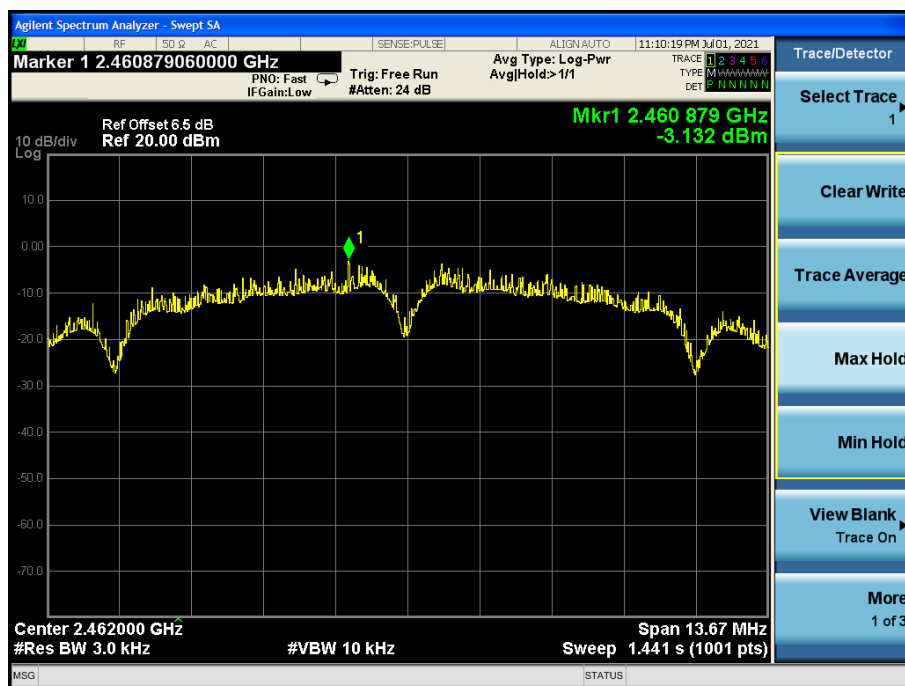
CH01



CH06



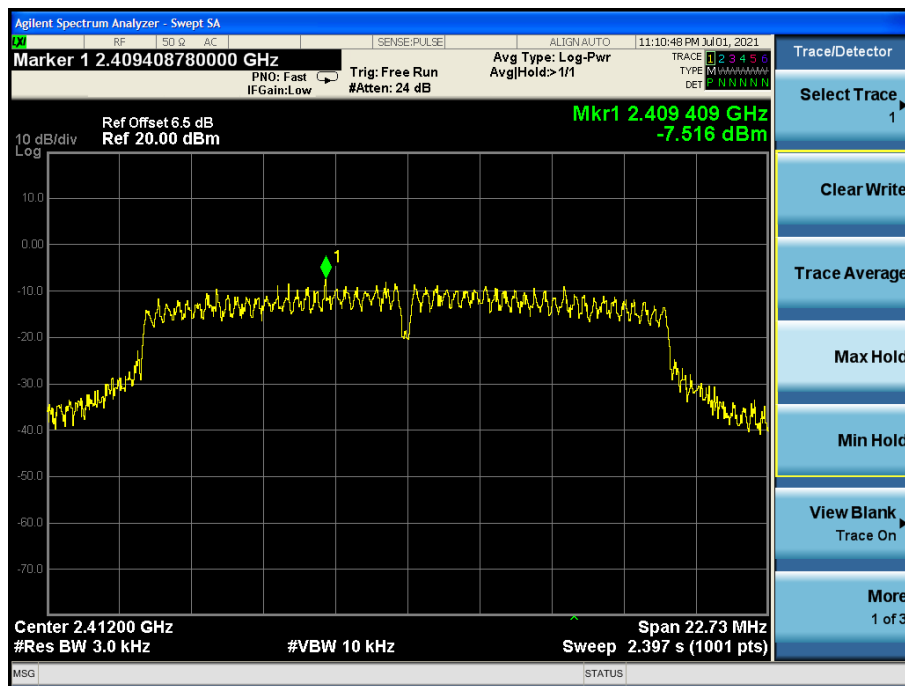
CH11



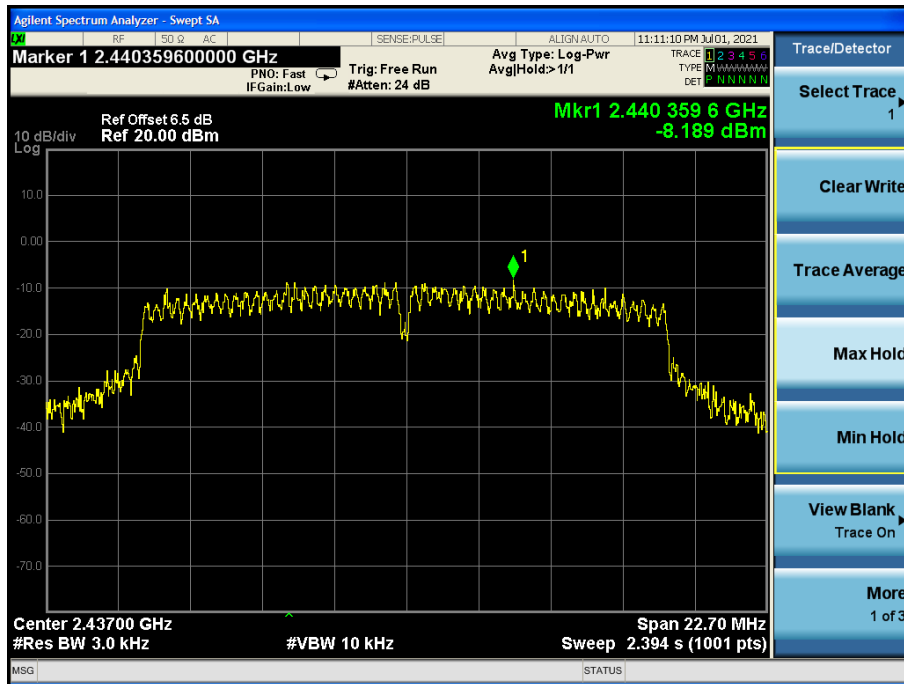
EUT :	智慧投影機	Model Name :	SP1e
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Mode :	CH01 / CH06/CH11 (802.11g Data rate 6Mbps)		
Test Date :	2021-07-01		

Test Channel	Frequency (MHz)	Power Density (dBm)ANT 1	Power Density (dBm)ANT 2	Total Power Density (dBm)	LIMIT (dBm)
CH01	2412 MHz	-7.516	-8.426	--	8
CH06	2437 MHz	-8.189	-8.994	--	8
CH11	2462 MHz	-5.404	-8.724	--	8

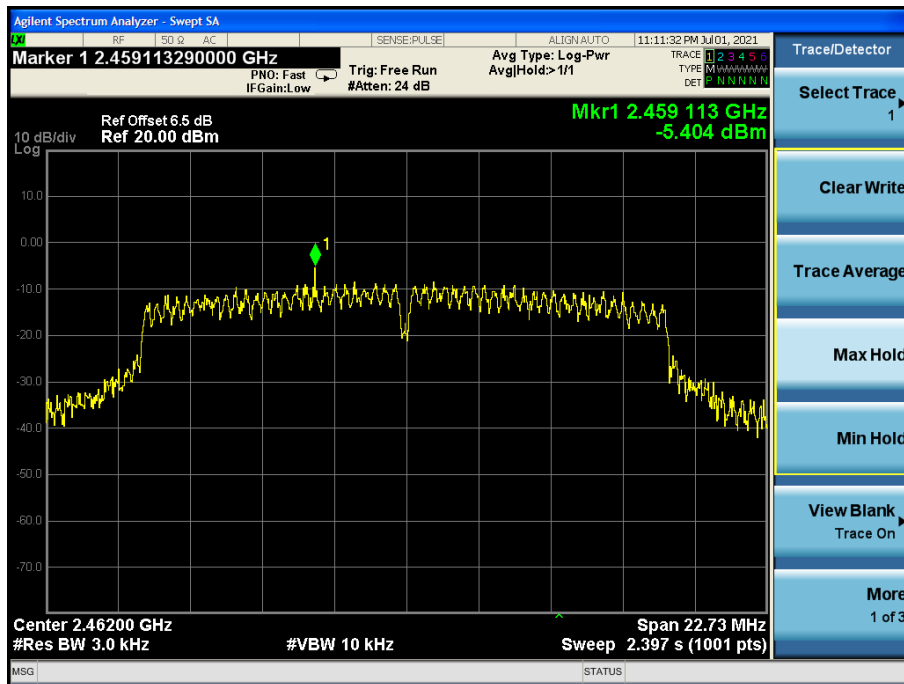
CH01



CH06



CH11

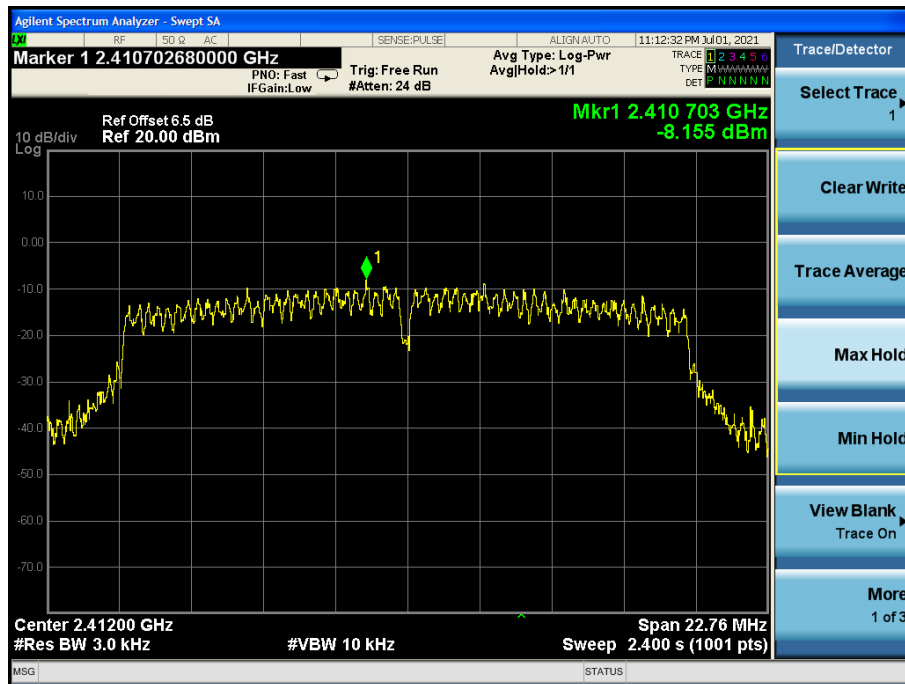


EUT :	智慧投影機	Model Name :	SP1e
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Mode :	CH01 / CH06/ CH11 (802.11n20 Data rate 6.5Mbps)		
Test Date :	2021-07-01		

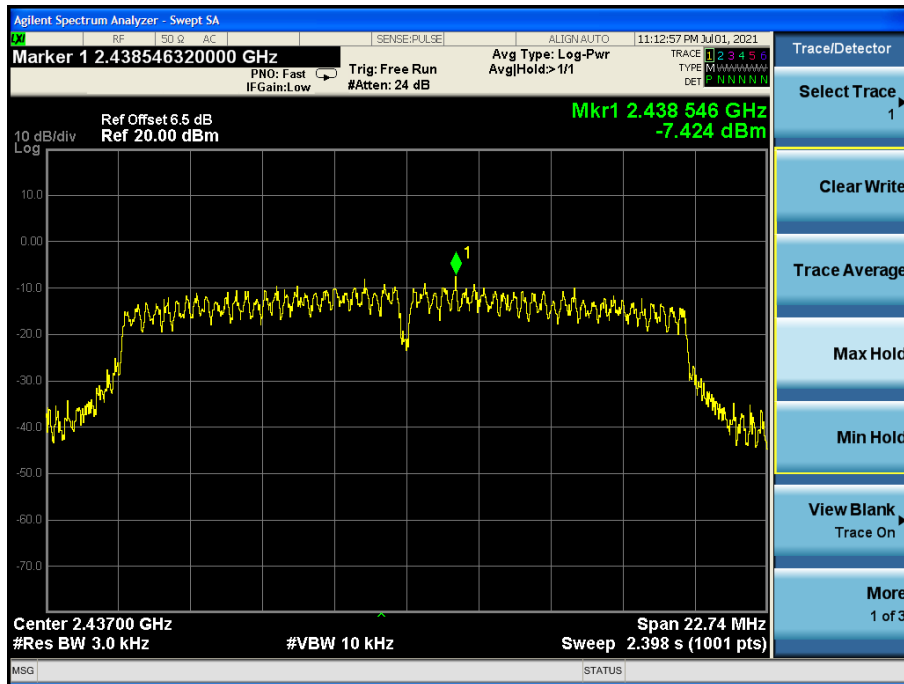
Test Channel	Frequency (MHz)	Power Density (dBm)ANT 1	Power Density (dBm)ANT 2	Total Power Density (dBm)	LIMIT (dBm)
CH01	2412 MHz	-8.155	-8.957	-5.53	8
CH06	2437 MHz	-7.424	-9.032	-5.14	8
CH11	2462 MHz	-8.582	-9.114	-5.83	8

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

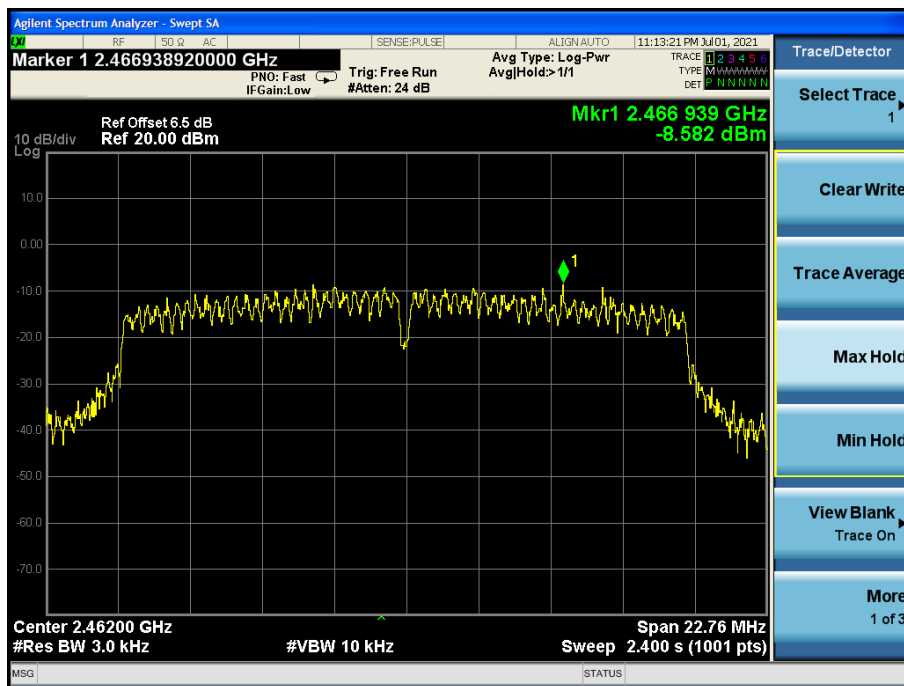
CH01



CH06



CH11

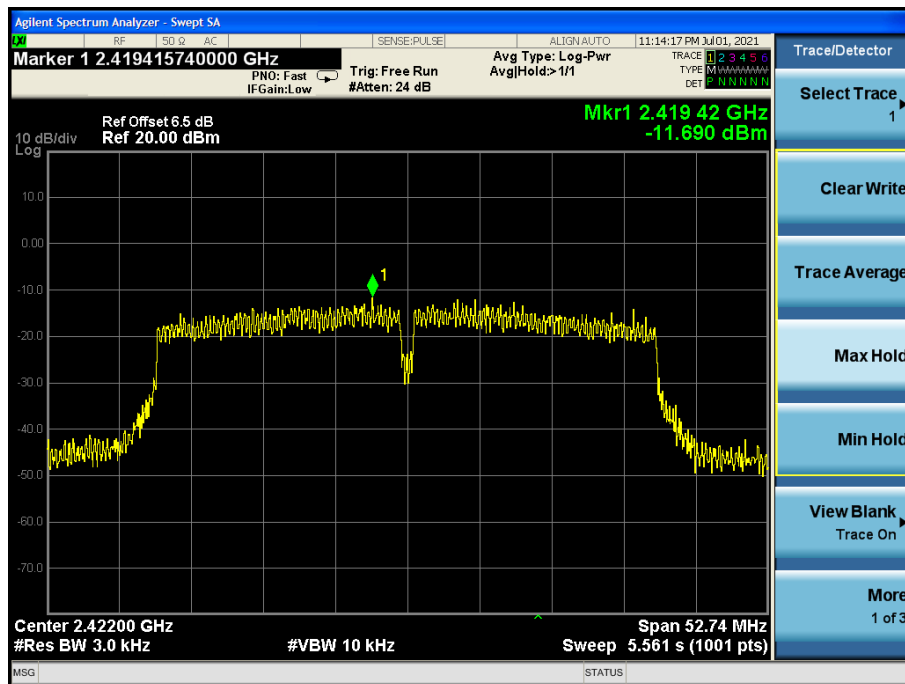


EUT :	智慧投影機	Model Name :	SP1e
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Mode :	CH03 / CH06/ CH09 (802.11n40 Data rate 13.5Mbps)		
Test Date :	2021-07-01		

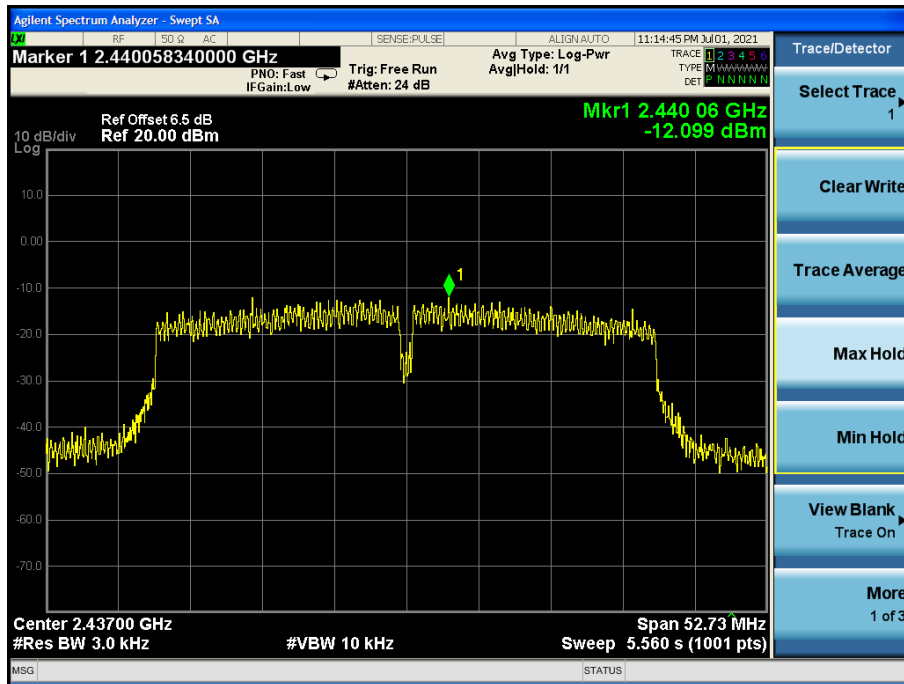
Test Channel	Frequency (MHz)	Power Density (dBm)ANT 1	Power Density (dBm)ANT 2	Total Power Density (dBm)	LIMIT (dBm)
CH03	2422 MHz	-11.690	-12.114	-8.89	8
CH06	2437 MHz	-12.099	-12.789	-9.42	8
CH09	2452 MHz	-11.339	-12.589	-8.91	8

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

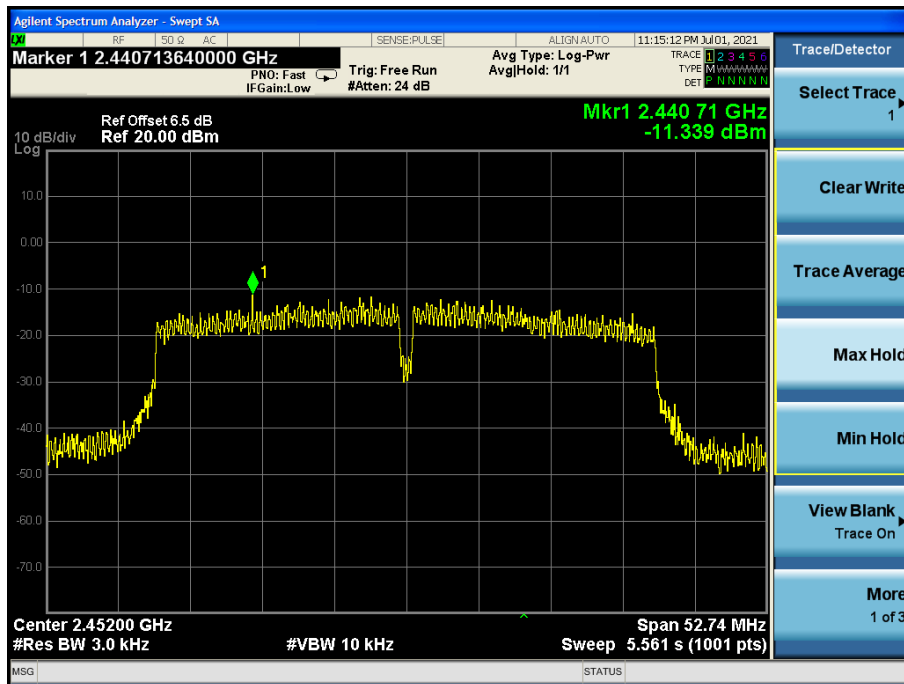
CH03



CH06



CH09



7. OUTPUT POWER TEST

7.1 APPLIED PROCEDURES / LIMIT

LP0002				
Section	Test Item	Limit	Frequency Range (MHz)	Result
4.10.1(2)	Peak Output Power	1 watt or 30dBm	2400-2483.5	PASS

7.1.1 TEST PROCEDURE

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

7.1.2 DEVIATION FROM STANDARD

No deviation.

7.1.3 TEST SETUP



7.1.4 EUT OPERATION 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.

7.1.5 TEST RESULTS

EUT :	智慧投影機	Model Name :	SP1e
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Mode :	CH01/ CH06 /CH11 (802.11b Data rate 1Mbps)		
Test Date :	2021-07-01		

Test Channel	Frequency (MHz)	Output Power (dBm)ANT 1	Output Power (dBm)ANT 2	LIMIT (dBm)	LIMIT (W)
CH01	2412 MHz	21.75	20.64	30	1
CH06	2437MHz	21.64	20.54	30	1
CH11	2462 MHz	21.84	20.77	30	1

EUT :	智慧投影機	Model Name :	SP1e
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Mode :	CH01/ CH06 /CH11 (802.11g Data rate 6Mbps)		
Test Date :	2021-07-01		

Test Channel	Frequency (MHz)	Output Power (dBm)ANT 1	Output Power (dBm)ANT 2	LIMIT (dBm)	LIMIT (W)
CH01	2412 MHz	20.96	20.55	30	1
CH06	2437MHz	21.12	20.17	30	1
CH11	2462 MHz	21.09	20.25	30	1

EUT :	智慧投影機	Model Name :	SP1e
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Mode :	CH01/ CH06 /CH11 (802.11n20 Data rate 6.5Mbps)		
Test Date :	2021-07-01		

Test Channel	Frequency (MHz)	Output Power (dBm)ANT 1	Output Power (dBm)ANT 2	Total Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412 MHz	20.88	19.85	23.41	30	1
CH06	2437MHz	20.74	19.65	23.24	30	1
CH11	2462 MHz	20.46	19.74	23.13	30	1

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

EUT :	智慧投影機	Model Name :	SP1e
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Mode :	CH03/ CH06 /CH09(802.11n40 Data rate 13.5Mbps)		
Test Date :	2021-07-01		

Test Channel	Frequency (MHz)	Output Power (dBm)ANT 1	Output Power (dBm)ANT 2	Total Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH03	2422 MHz	20.04	19.24	22.67	30	1
CH06	2437MHz	20.55	19.38	23.01	30	1
CH09	2452 MHz	20.33	19.67	23.02	30	1

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

8. ANTENNA CONDUCTED SPURIOUS EMISSION

8.1 APPLIED PROCEDURES / LIMIT

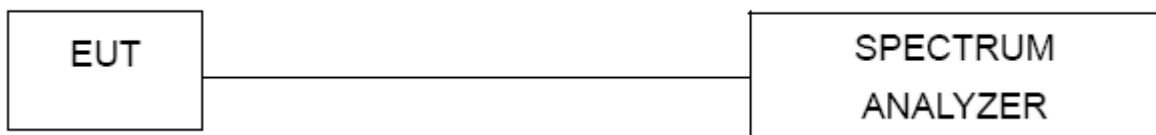
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the modulation products of the spreading sequence, the information sequence and the carrier frequency shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power or shall not exceed the general levels specified in Section 3.6.

Frequencies (MHz)	Field Strength (micorvolts/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

8.1.1 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting : RBW= 100kHz, VBW=300kHz, Sweep time = Auto.

8.1.2 TEST SETUP



8.1.3 EUT OPERATION 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.

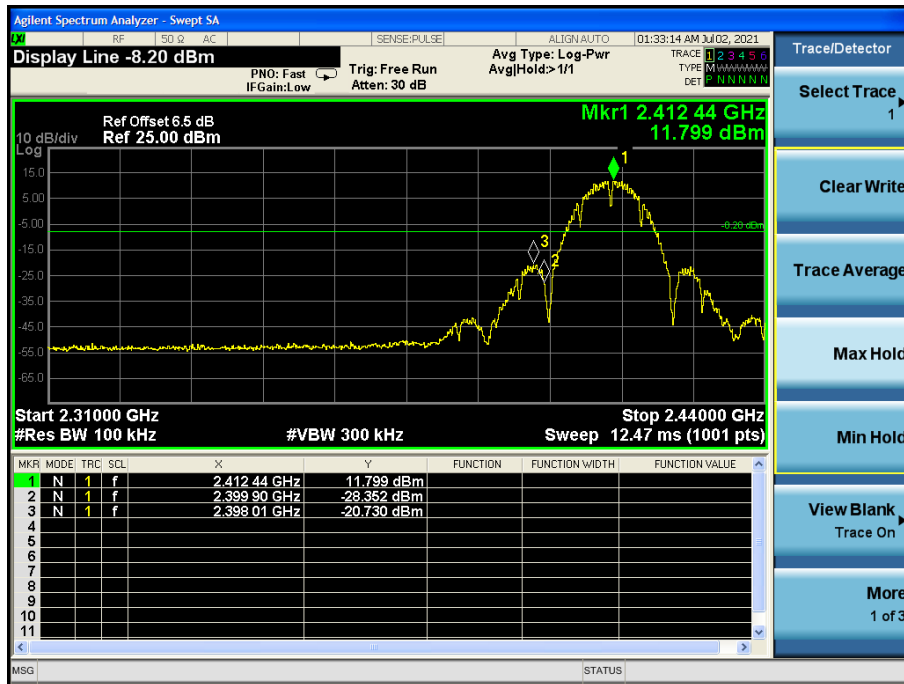
8.1.4 TEST RESULTS

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 :	25 °C	Relative Humidity :	60%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Mode :	CH01/ CH11 (802.11b Data rate 1Mbps)		
Test Date :	2021-07-02		

in any 100kHz bandwidth outside the low frequency band	in any 100 kHz bandwidth outside the high frequency band
Pass	Pass
Result	
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.	

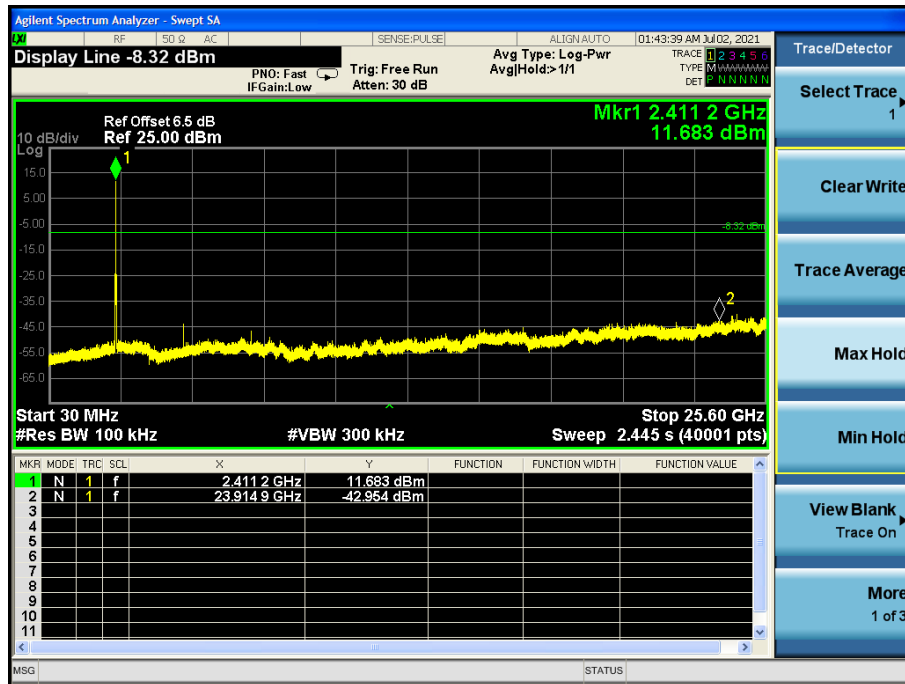
CH01 (Lower)



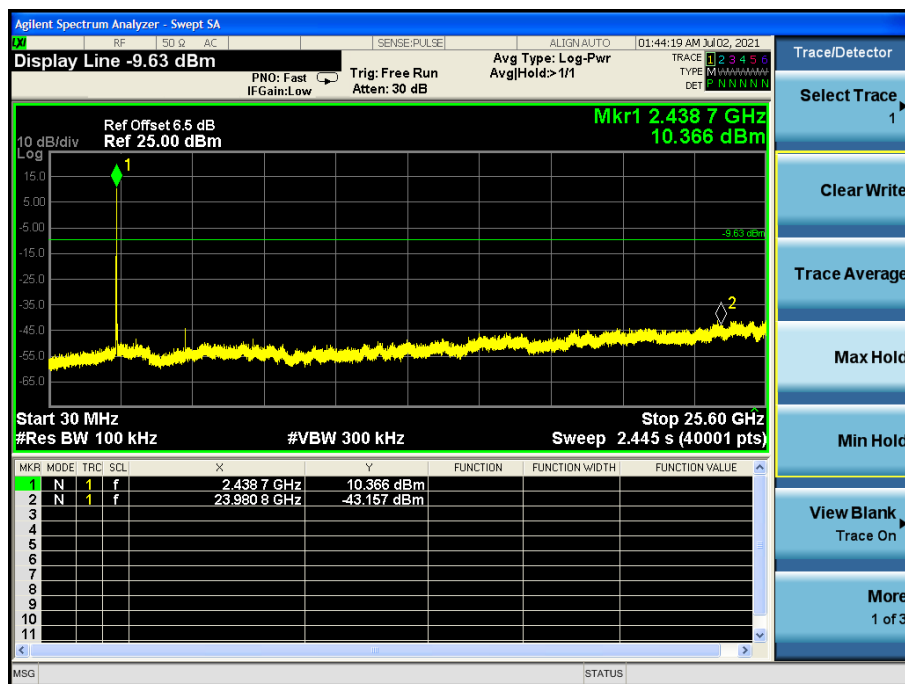
CH 11(Upper)



CH01



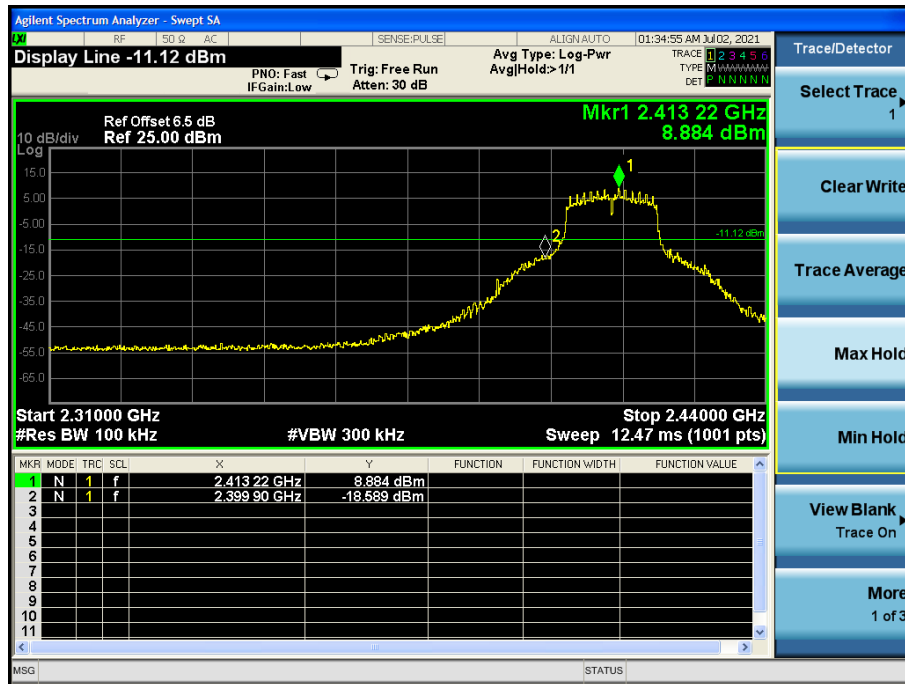
CH06

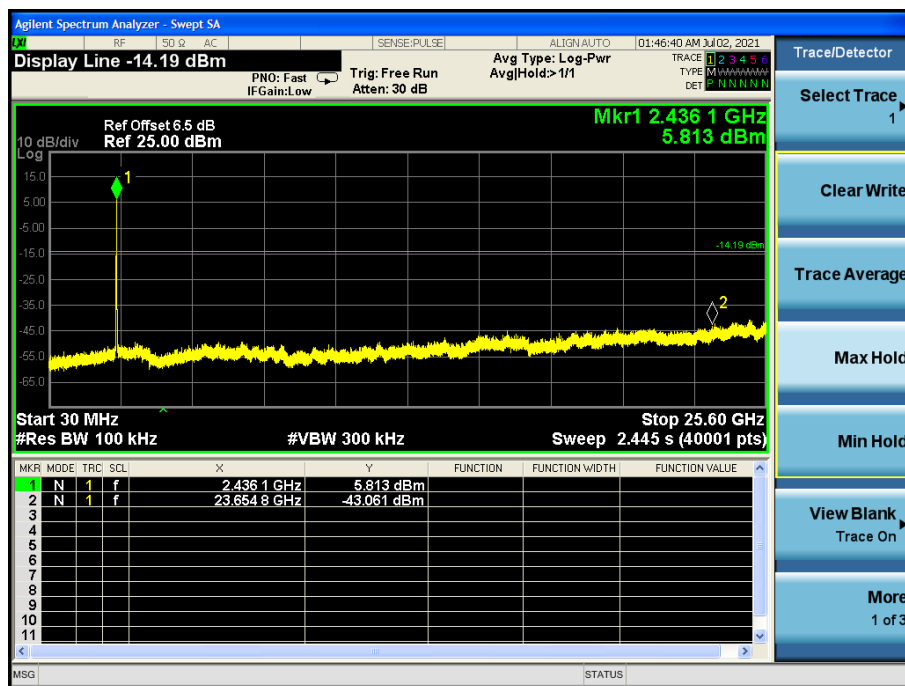


[illegible]

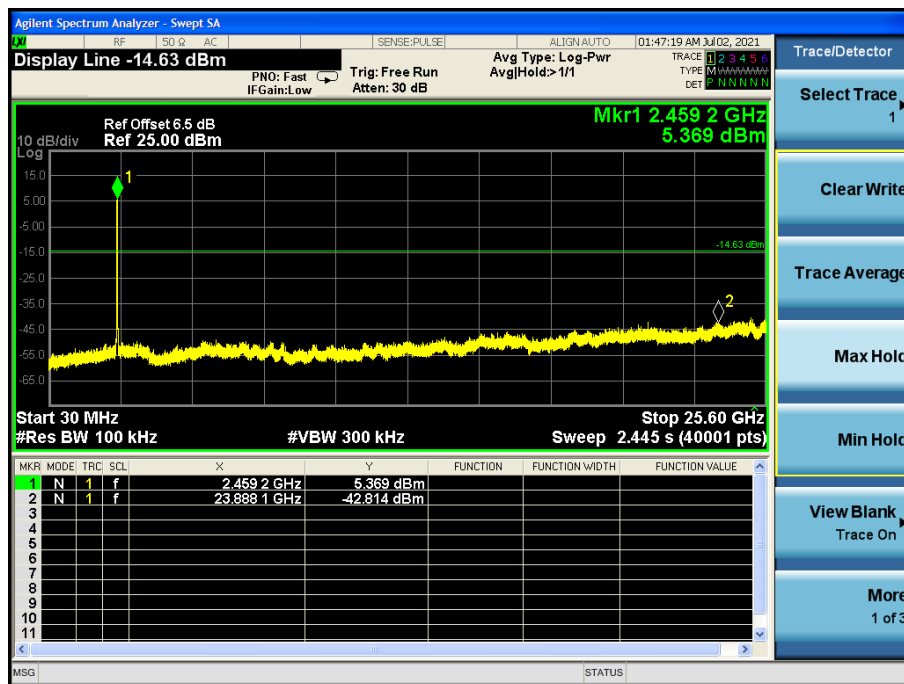
EUT :	智慧投影機	Model Name :	SP1e
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Mode :	CH01/ CH11 (802.11g Data rate 6Mbps)		
Test Date :	2021-07-02		

in any 100kHz bandwidth outside the low frequency band	in any 100 kHz bandwidth outside the high frequency band
Pass	Pass
Result	
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.	



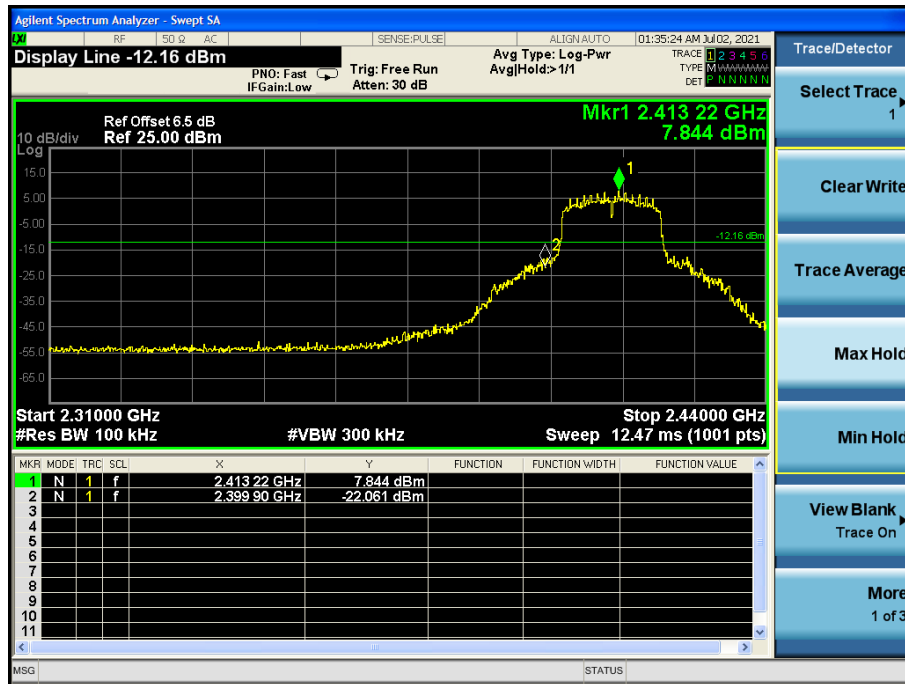


CH11

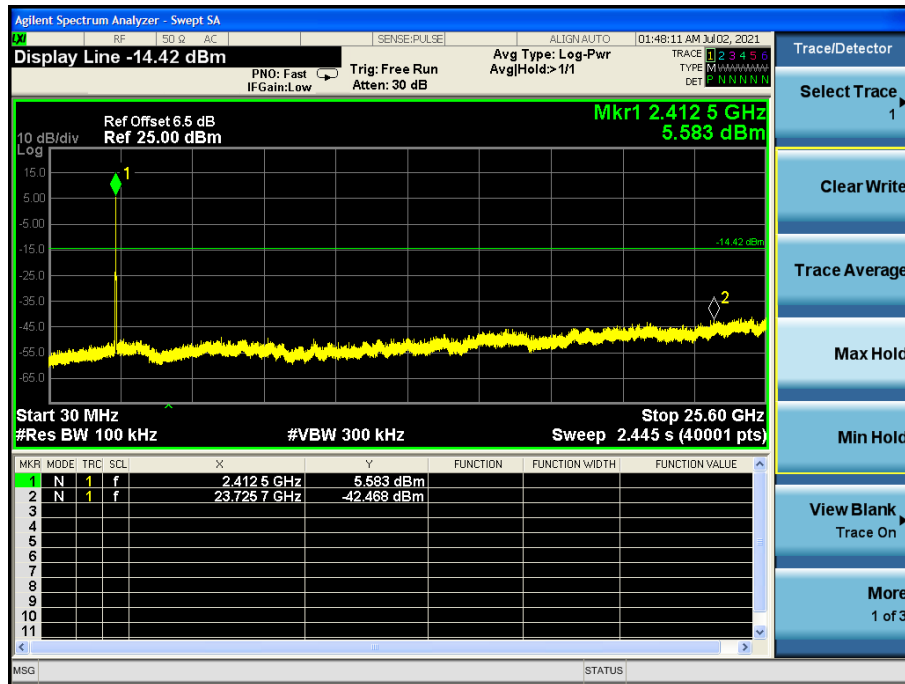


EUT :	智慧投影機	Model Name :	SP1e
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Mode :	CH01/ CH11 (802.11n20 Data rate 6.5Mbps)		
Test Date :	2021-07-02		

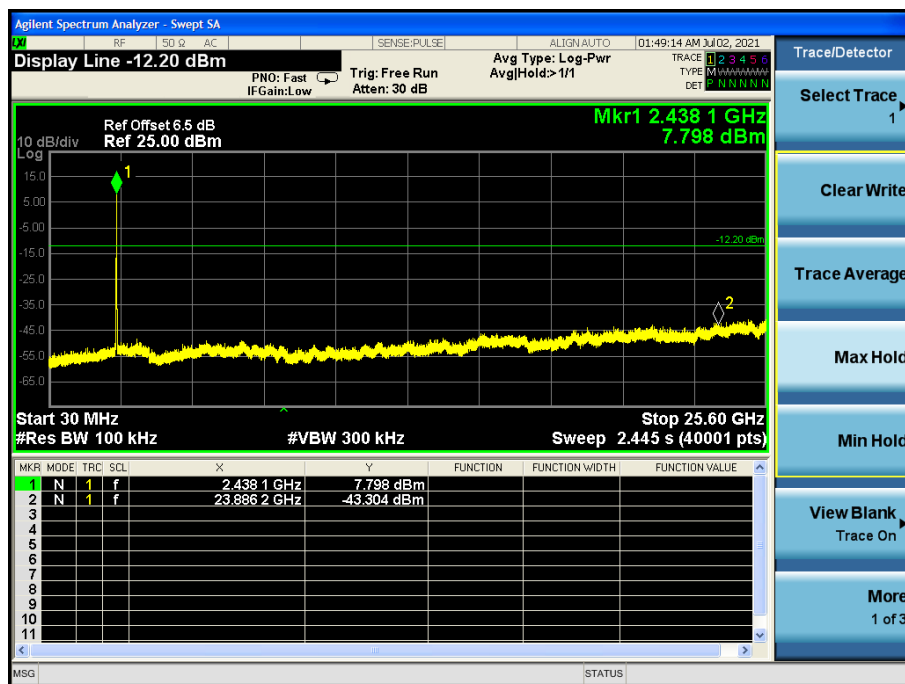
in any 100kHz bandwidth outside the low frequency band	in any 100 kHz bandwidth outside the high frequency band
Pass	Pass
Result	
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.	



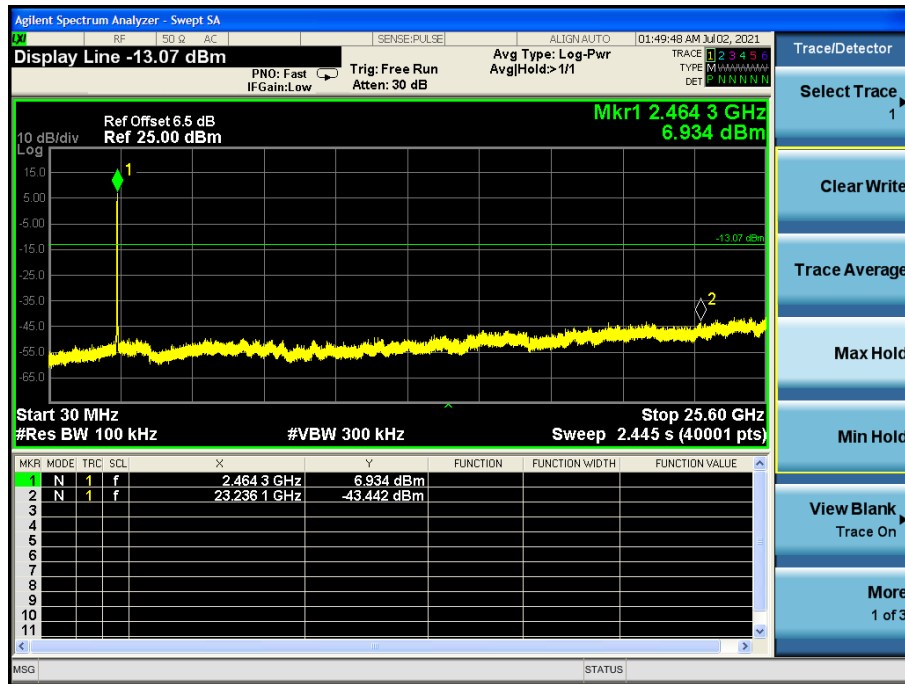
CH01



CH06



CH11



EUT :	智慧投影機	Model Name :	SP1e
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1010 hPa	Test Voltage :	DC7.4V from battery
Test Mode :	CH03/ CH09 (802.11n40 Data rate 13.5Mbps)		
Test Date :	2021-07-02		

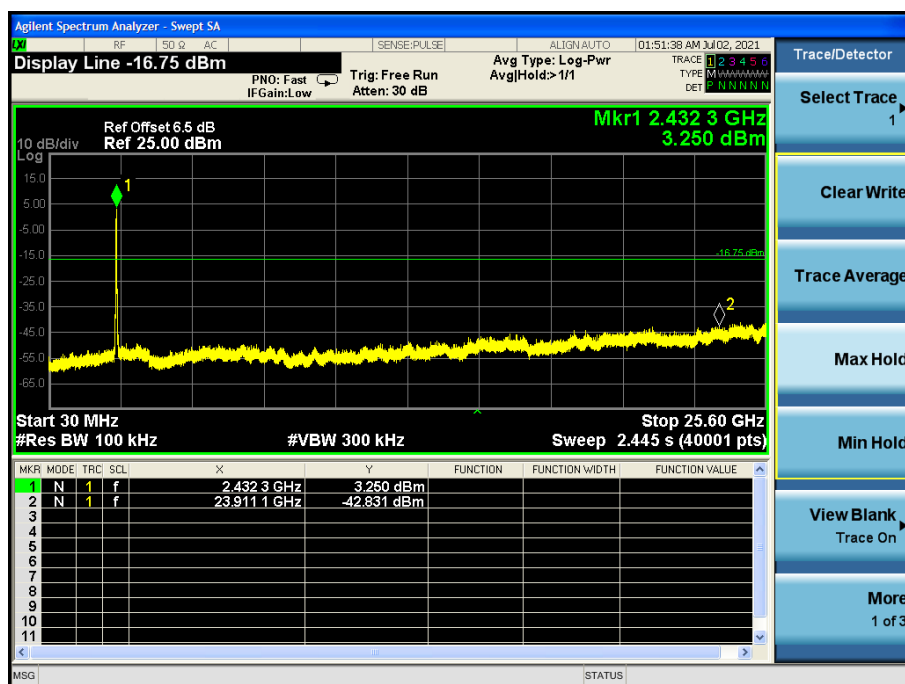
in any 100kHz bandwidth outside the low frequency band	in any 100 kHz bandwidth outside the high frequency band
Pass	Pass
Result	
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.	

CH03 (Lower)

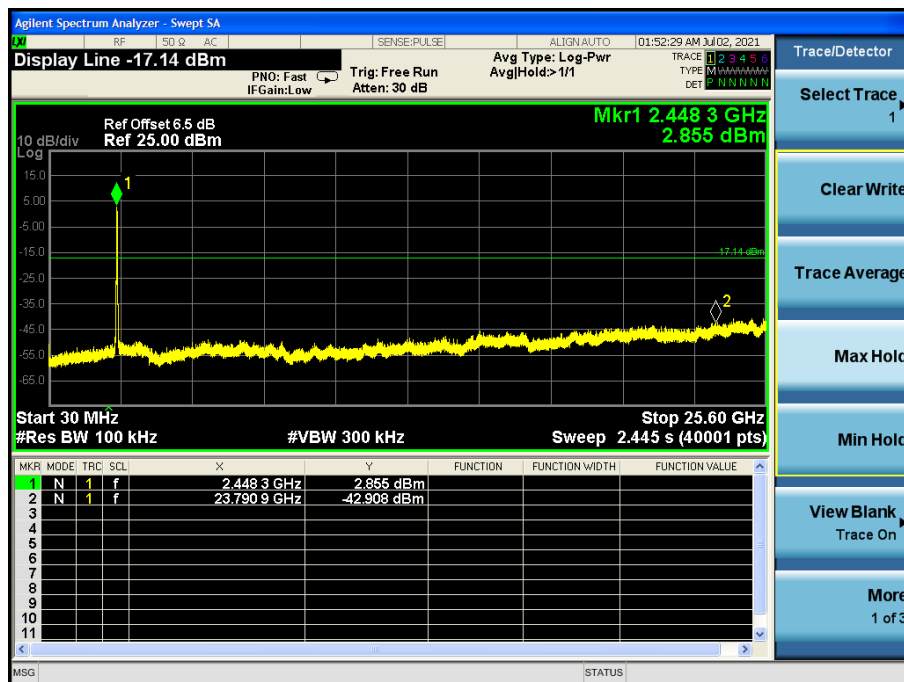


CH 09(Upper)





CH09



9. ANTENNA REQUIREMENT

9.1 STANDARD REQUIREMENT

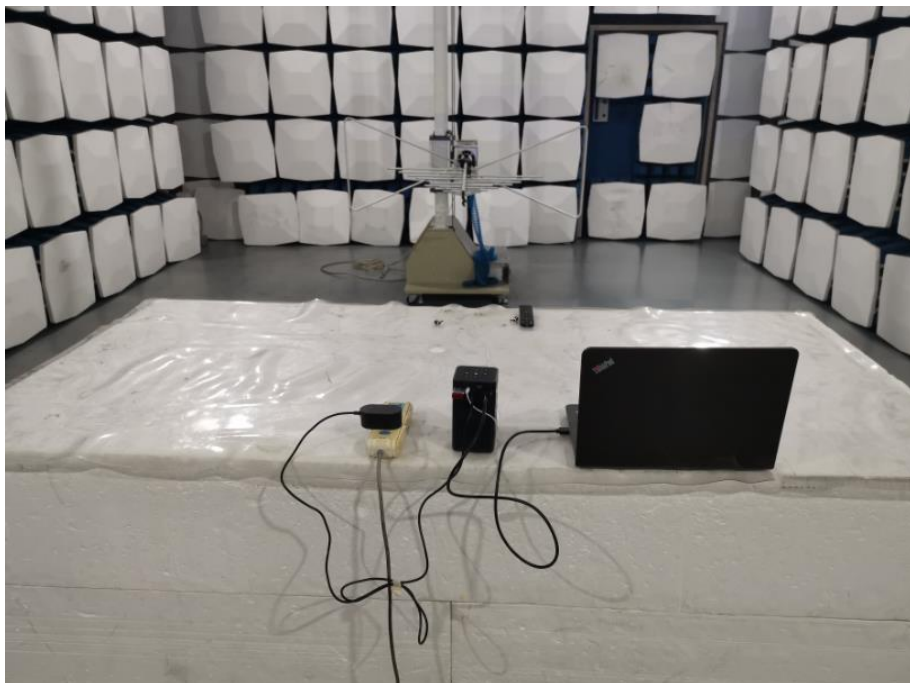
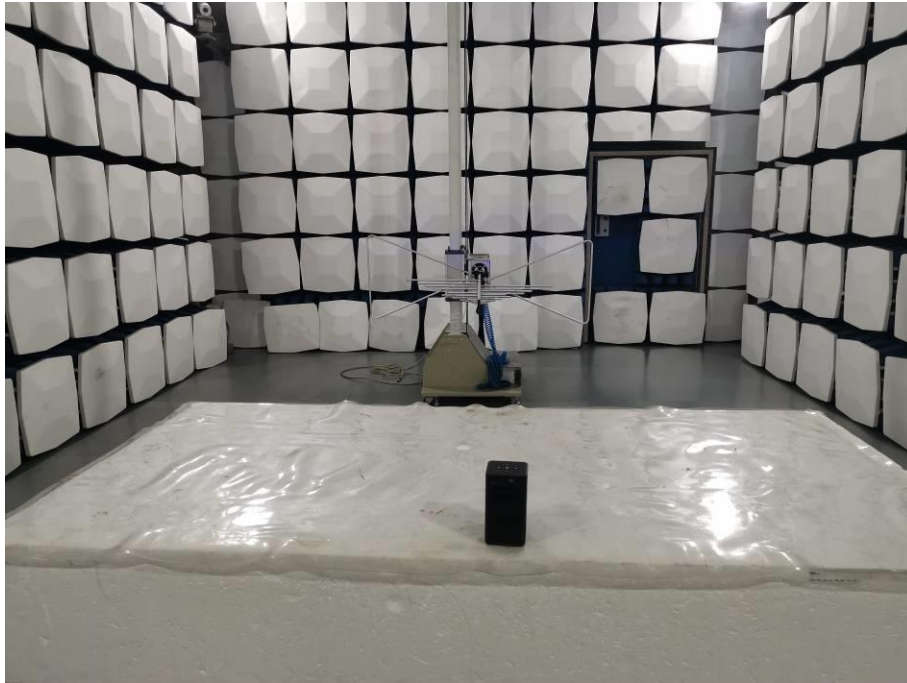
4.10.3.1.1 requirement: Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

9.2 EUT ANTENNA

The antenna is PCB antenna and no consideration of replacement. Antenna max gain refer to page 9.

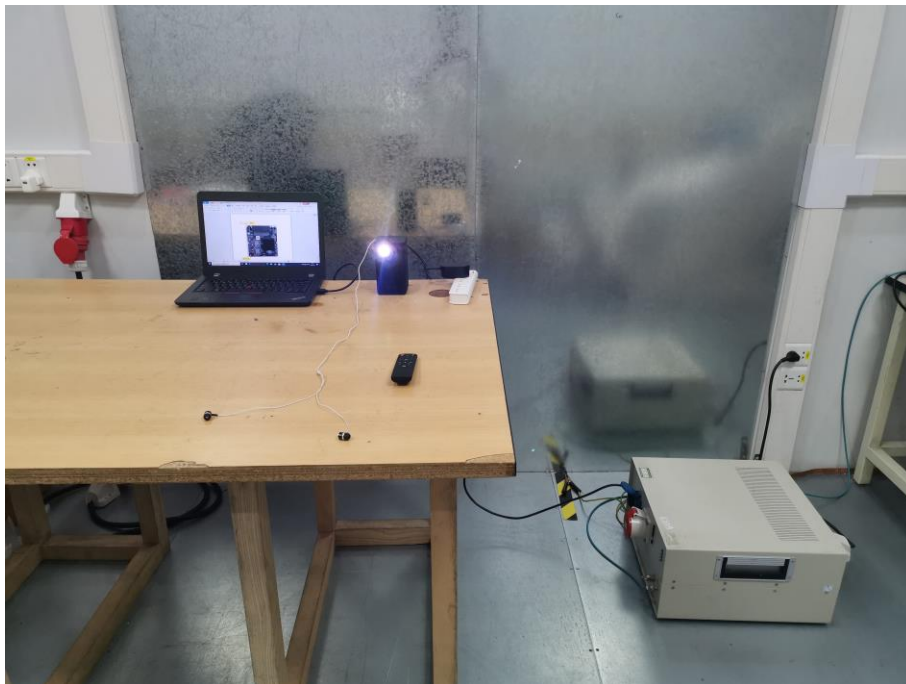
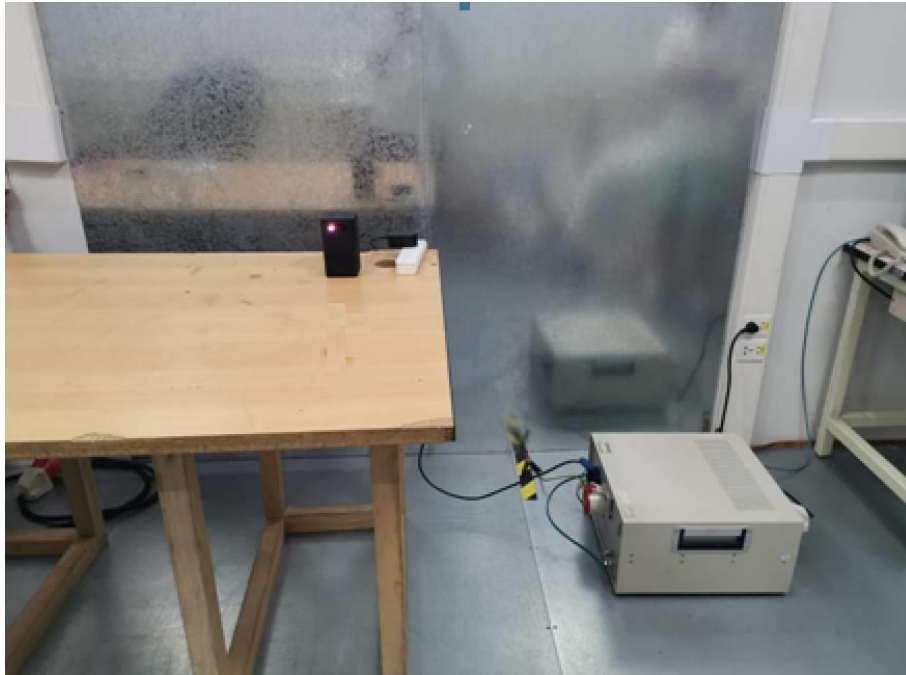
10. EUT TEST PHOTO

Radiated Measurement Photos 30MHz-1GHz



**Radiated Measurement Photos
Above 1GHz**



Conducted Measurement Photos**11. APPENDIX-Photographs of EUT Constructional Details**

Refer to Appendix-photographs.

****End of the report****