FCC RADIO TEST REPORT

Prepared For	Dongguan LangJiangAiCai Technology Co.,Ltd
Product Name:	Intelligent control switch
Trade Name:	LJAC
Model Name :	L-R01, L-GW01,L-GW02,L-Y01,L-Y02, L-Y03, L-Y04
FCC ID:	2AEVAL-R01
Prepared By	DongGuan Precise Testing Service Co.,Ltd.
	Building D, Baoding Technology Park, Guangming Road 2, Guangming Community, Dongcheng District, Dongguan, Guangdong, China
Report No.	PTS1505208141F
Test Date:	Jun. 15, 2015 ~ Jun.20, 2015
Date of Report :	Jun.20, 2015

VERIFICATION OF COMPLIANCE

Applicant:	Dongguan LangJiangAiCai Technology Co.,Ltd
Address	Building B 4F, XinAn Road 1,XinAn,ChangAn, Dongguan, Guangdong, China
Manufacturer Name:	Dongguan LangJiangAiCai Technology Co.,Ltd
Address:	Building B 4F, XinAn Road 1,XinAn,ChangAn, Dongguan, Guangdong, China
Product Description:	Intelligent control switch
Brand Name:	LJAC
Model Name:	L-R01, L-GW01,L-GW02,L-Y01,L-Y02, L-Y03, L-Y04
Test procedure	ANSI C63.10:2013
Standards	FCC PART15.249

Prepared by : Jones Song /Assistant

Reviewer : David liu /Supervisor

Approved & Authorized Signer : Jacky Ou/Manager

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1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15, Subpart C (15.249)			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	N/A	
15.203	Antenna Requirement	Pass	
15.249	Radiated Spurious Emission	Pass	
15.205	Band Edge Emission	Pass	
15.249	Occupied Bandwidth	Pass	

1.1 TEST FACILITY

FCC Registration No.: 371540, IC Registration No.: 12191A-1

Dongguan Precise Testing Service Co., Ltd.

Add.: Building D,Baoding Technology Park,Guangming Road2,Dongcheng District, Dongguan, Guangdong, China

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y** ± **U**，where expended 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	RF power,conducted	±0.16dB
3	Spurious emissions,conducted	±0.21dB
4	All emissions,radiated(<1G)	±4.68dB
5	All emissions,radiated(>1G)	±4.89dB
6	Temperature	±0.5°C
7	Humidity	±2%

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Intelligent control switch
Trade Name	LJAC
Model Name	L-R01
Model Difference	Just different model name
Product Description	The EUT is a Intelligent control switch Operation Frequency: 2402MHz,2418MHz,2434MHz, 2450MHz,2466 MHz Channel: 5 Modulation Type: FSK Antenna Designation: PCB Antenna Antenna Gain(Peak): 0.92dBi Field strength: 80.40dbuv/m@3m(Peak) Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.
Rating	AC120V/50Hz
Adapter	N/A

Note:

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

2

Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	N/A	N/A	PCB Antenna	N/A	0.92	Antenna

2.2 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	CH1(2402MHz)
Mode 2	CH3(2434MHz)
Mode 3	CH5(2466MHz)
Mode 4	Normal

For Conducted Emission	
Final Test Mode	Description
Mode 4	Normal

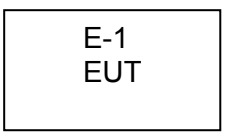
For Radiated Emission	
Final Test Mode	Description
Mode 1	CH1(2402MHz)
Mode 2	CH3(2434MHz)
Mode 3	CH5(2466MHz)
Mode 4	Normal

Note:

(1) The measurements are performed at the highest, middle, lowest available channels. The worest data will reported.

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious Emission Test



2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

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.	Series No.	Note
E-1	Intelligent control switch	LJAC	L-R01	N/A	EUT

Item	Shielded Type	Ferrite Core	Length	Note

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.

2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

FOR RADIATED EMISSION TEST (BELOW 1GHZ)

Name of Equipment	Manufacturer	Model	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESCI	101417	July 4, 2014	July 3, 2015
Trilog Broadband Antenna (25M-1GHz)	SCHWARZBECK	VULB9160	9160-3355	July 4, 2014	July 3, 2015
Signal Amplifier	SCHWARZBECK	BBV 9475	9745-0013	July 4, 2014	July 3, 2015
RF Cable	SCHWARZBECK	AK9515E	96221	July 4, 2014	July 3, 2015
3m Anechoic Chamber	CHENGYU	966	PTS-001	June 6, 2015	June 5, 2016
MULTI-DEVICE Positioning Controller	Max-Full	MF-7802	MF780208339	N/A	N/A
Active loop antenna (9K-30MHz)	Schwarzbeck	FMZB1519	1519-038	June 6, 2015	June 5, 2016
Spectrum analyzer	Agilent	E4407B	MY46185649	June 6, 2015	June 5, 2016

For radiated emission test (1GHz above)

Name of Equipment	Manufacturer	Model	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESCI	101417	July 4, 2014	July 3, 2015
Horn Antenna (1G-18GHz)	SCHWARZBECK	BBHA9120D	9120D-1246	July 11, 2014	July 10, 2015
Spectrum Analyzer	Agilent	E4411B	MY4511453	July 4, 2014	July 3, 2015
Signal Amplifier	SCHWARZBECK	BBV 9718	9718-269	July 7, 2014	July 6, 2015
RF Cable	SCHWARZBECK	AK9515H	96220	July 8, 2014	July 7, 2015
3m Anechoic Chamber	CHENGYU	966	PTS-001	June 6, 2015	June 5, 2016
MULTI-DEVICE Positioning Controller	Max-Full	MF-7802	MF780208339	N/A	N/A
Horn Ant (18G-40GHz)	Schwarzbeck	BBHA 9170	9170-181	June 6, 2015	June 5, 2016

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA and NIM/CHINA
2. N/A = No Calibration Request.

FOR CONDUCTED EMISSION TEST:

Name of Equipment	Manufacturer	Model	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESCI	101417	July 4, 2014	July 3, 2015
Artificial Mains Network	Narda	L2-16B	000WX31025	July 8, 2014	July 7, 2015
Artificial Mains Network (AUX)	Narda	L2-16B	000WX31026	July 8, 2014	July 7, 2015
RF Cable	SCHWARZBECK	AK9515E	96222	July 4, 2014	July 3, 2015
Shielded Room	CHENGYU	843	PTS-002	June 6, 2015	June 5, 2016

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA and NIM/CHINA

3. ANTENNA REQUIREMENT

3.1 STANDARD REQUIREMENT

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

3.2 EUT ANTENNA

The EUT antenna is PCB Antenna. It comply with the standard requirement.

3.3 CONDUCTED EMISSION MEASUREMENT

3.3.1 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 *	LP002.
0.50 -5.0			56.00	46.00	LP002.
5.0 -30.0			60.00	50.00	LP002.

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

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

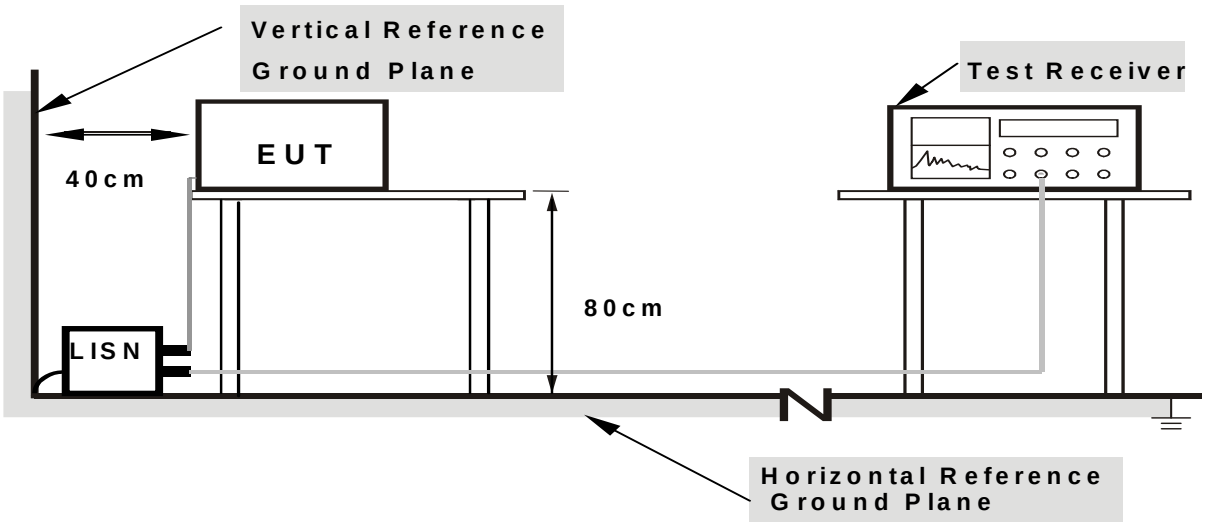
3.3.2 TEST PROCEDURE

a. 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.
b. 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.
c. 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.
d. LISN at least 80 cm from nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.3.3 DEVIATION FROM TEST STANDARD

No deviation

3.3.4 TEST SETUP



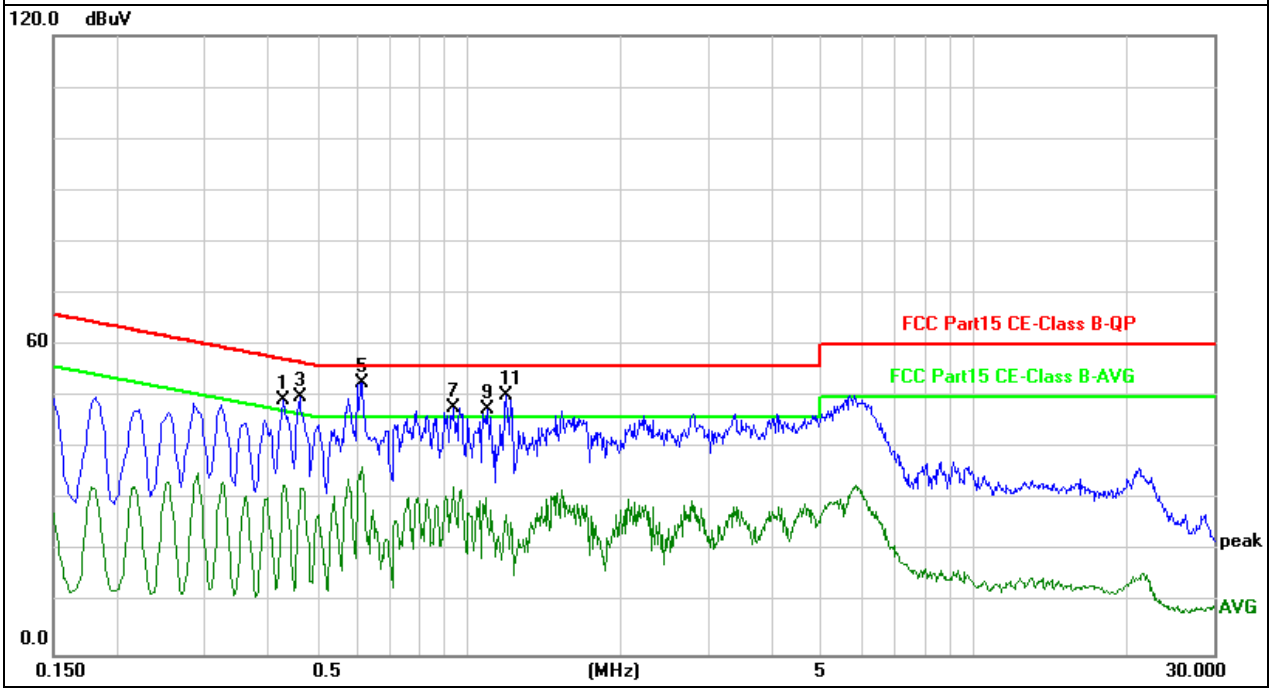
Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.2.5 TEST RESULT

EUT：	Intelligent control switch	Model Name. ：	L-R01
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Phase：	L
Test Voltage ：	AC120V	Test Mode：	Mode 4

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Detector Type
0.4300	39.33	10.11	49.44	57.25	-7.81	QP
0.4300	22.83	10.11	32.94	47.25	-14.31	AVG
0.4620	39.70	10.11	49.81	56.66	-6.85	QP
0.4620	22.20	10.11	32.31	46.66	-14.35	AVG
0.6140	42.53	10.13	52.66	56.00	-3.34	QP
0.6140	26.37	10.13	36.50	46.00	-9.50	AVG
0.9340	37.61	10.16	47.77	56.00	-8.23	QP
0.9340	22.36	10.16	32.52	46.00	-13.48	AVG
1.0900	37.48	10.17	47.65	56.00	-8.35	QP
1.0900	20.34	10.17	30.51	46.00	-15.49	AVG
1.1860	40.09	10.17	50.26	56.00	-5.74	QP
1.1860	17.03	10.17	27.20	46.00	-18.80	AVG

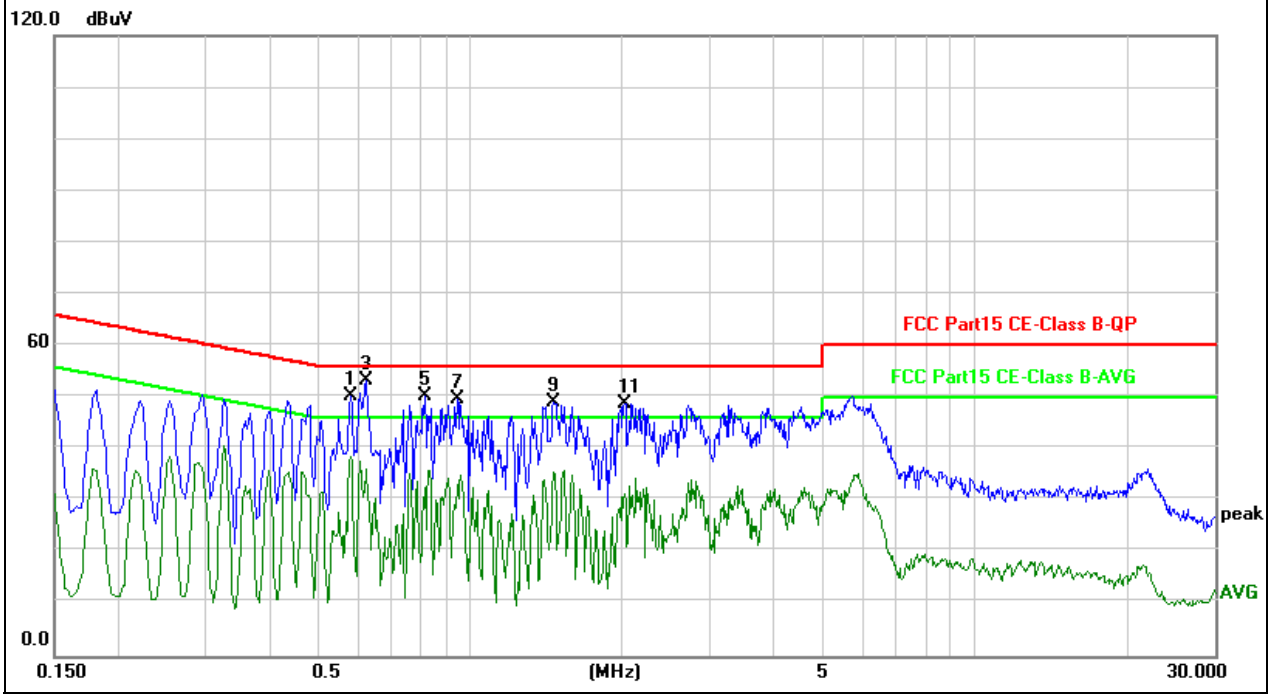
Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.



EUT：	Intelligent control switch	Model Name. ：	L-R01
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Phase：	N
Test Voltage ：	AC120V	Test Mode：	Mode 4

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Detector Type
0.5820	40.25	10.12	50.37	56.00	-5.63	QP
0.5820	28.42	10.12	38.54	46.00	-7.46	AVG
0.6220	43.18	10.13	53.31	56.00	-2.69	QP
0.6220	26.07	10.13	36.20	46.00	-9.80	AVG
0.8140	40.23	10.15	50.38	56.00	-5.62	QP
0.8140	25.83	10.15	35.98	46.00	-10.02	AVG
0.9460	39.46	10.16	49.62	56.00	-6.38	QP
0.9460	24.90	10.16	35.06	46.00	-10.94	AVG
1.4660	38.88	10.17	49.05	56.00	-6.95	QP
1.4660	25.46	10.17	35.63	46.00	-10.37	AVG
2.0300	38.62	10.18	48.80	56.00	-7.20	QP
2.0300	22.52	10.18	32.70	46.00	-13.30	AVG

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.



3.4 RADIATED EMISSION MEASUREMENT

3.4.1 Radiated Emission Limits (FCC 15.209)

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

Note:

(1) The tighter limit applies at the band edges.

(2) Emission level (dBuV/m)=20log Emission level (uV/m).

LIMITS OF RADIATED EMISSION MEASUREMENT (FCC 15.249)

Frequency of Emission (MHz)	Field Strength of fundamental ((millivolts /meter)	Field Strength of Harmonics (microvolts/meter)
2400 - 2483.5	50	500

Notes:

(1) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1MHz / 1MHz for Peak

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

3.4.2 TEST PROCEDURE

a. 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.
b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m meter open area test site for below 1GHz. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was place on the top of a roatating table 1.5 meters for above 1GHz.
c. 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.
d. 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.
e. 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.
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

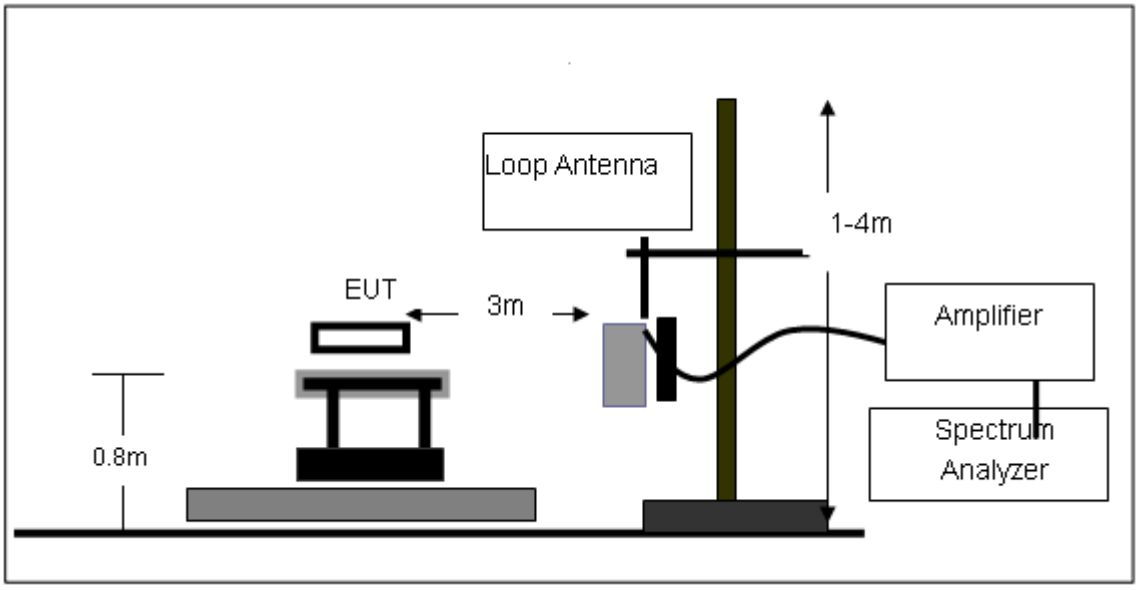
Both horizontal and vertical antenna polarities were tested
and performed pretest to three orthogonal axis. The worst case emissions were reported

3.4.3 DEVIATION FROM TEST STANDARD

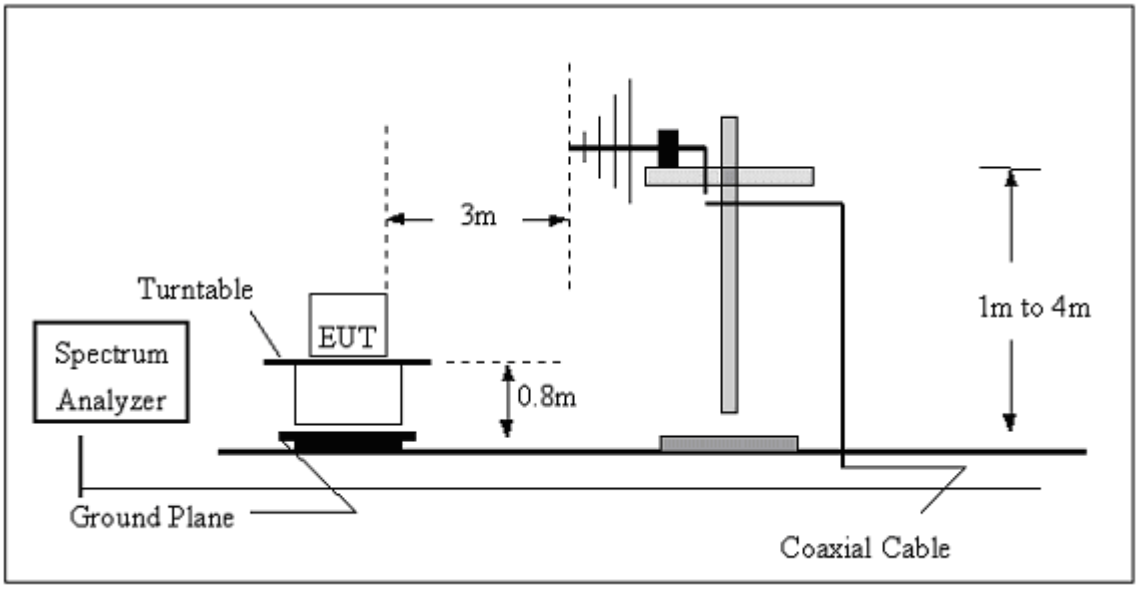
No deviation

3.4.4 TEST SETUP

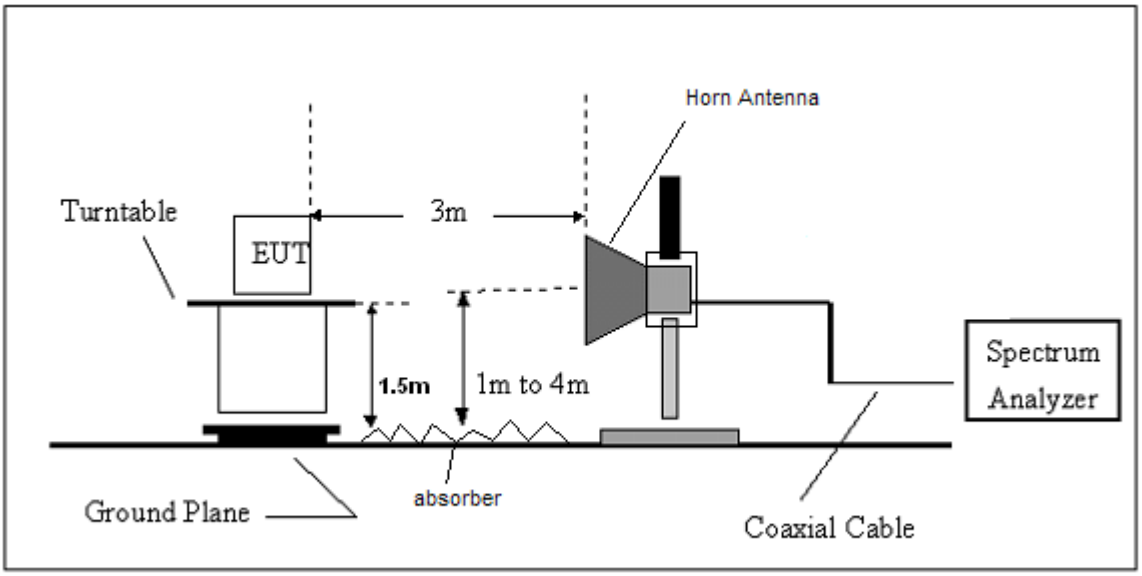
（A）Radiated Emission Test-Up Frequency Below 30MHz



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



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



3.4.5 TEST RESULTS (BLOW 30MHz)

EUT：	Intelligent control switch	Model Name. ：	L-R01
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage ：	AC 120V
Test Mode ：	TX	Polarization :	--

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

NOTE:

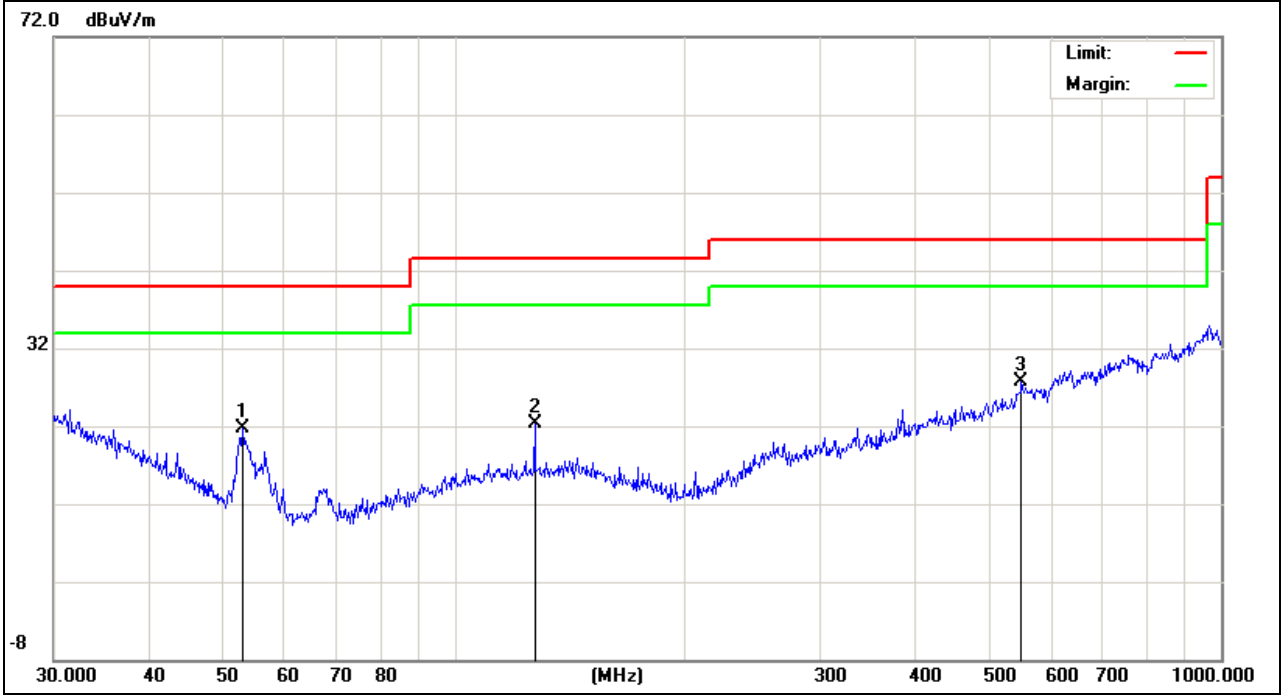
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
Distance extrapolation factor =40 log (specific distance/test distance)(dB);
Limit line = specific limits(dBuv) + distance extrapolation factor.

3.4.6 TEST RESULTS (BETWEEN 30 – 1000 MHZ)

EUT：	Intelligent control switch	Model Name ：	L-R01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	AC 120V
Test Mode ：	TX 2402MHz	Polarization：	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
52.9453	14.96	6.84	21.8	40	-18.2	QP
127.2176	10.46	11.91	22.37	43.5	-21.13	QP
549.0193	5.87	21.83	27.7	46	-18.3	QP

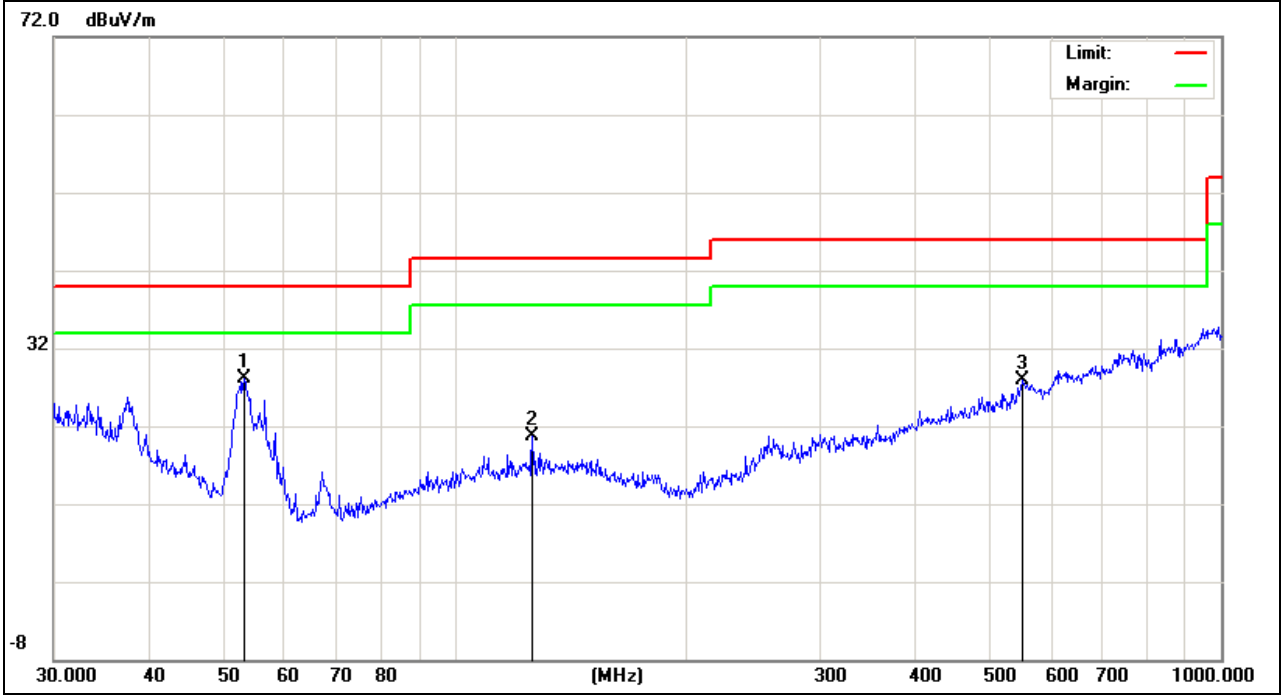
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	Intelligent control switch	Model Name ：	L-R01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	AC 120V
Test Mode ：	TX 2402MHz	Polarization：	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
53.1313	21.28	6.76	28.04	40	-11.96	QP
126.3285	8.76	11.9	20.66	43.5	-22.84	QP
550.9479	5.93	21.92	27.85	46	-18.15	QP

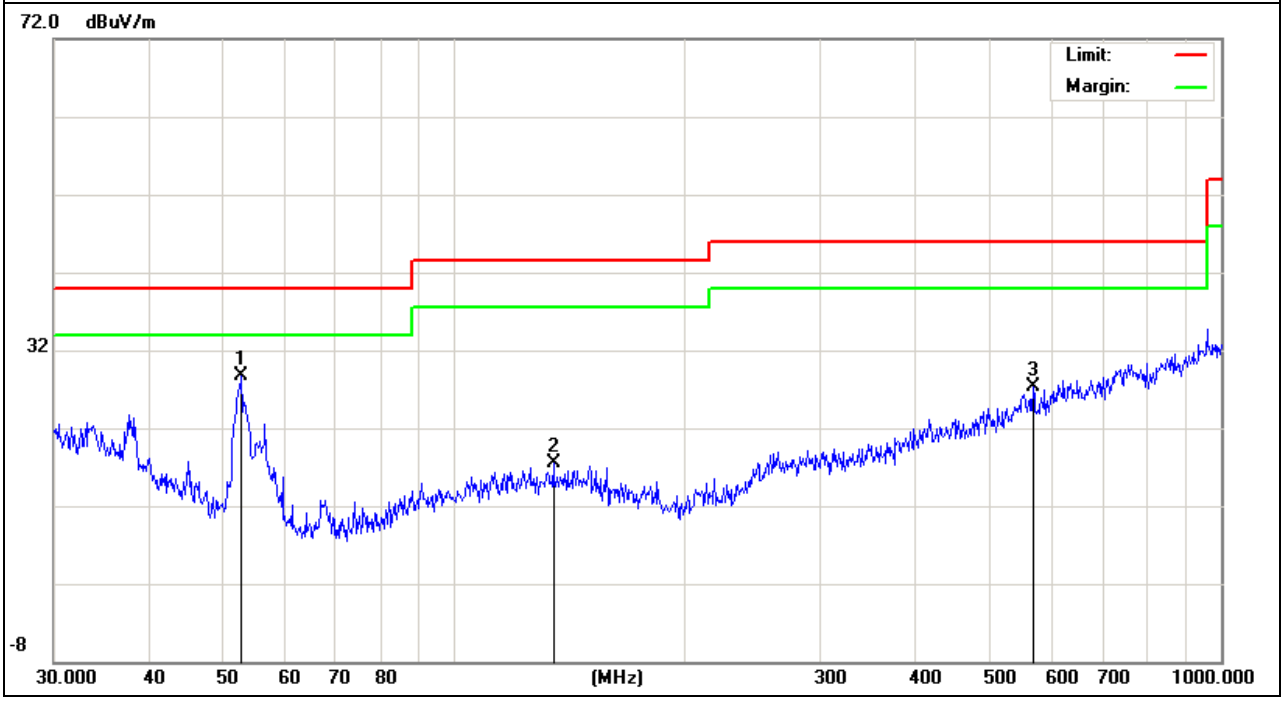
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	Intelligent control switch	Model Name ：	L-R01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	AC 120V
Test Mode ：	TX 2434MHz	Polarization：	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
52.7599	21.82	6.92	28.74	40	-11.26	QP
134.5592	5.45	11.98	17.43	43.5	-26.07	QP
568.6127	6.36	20.99	27.35	46	-18.65	QP

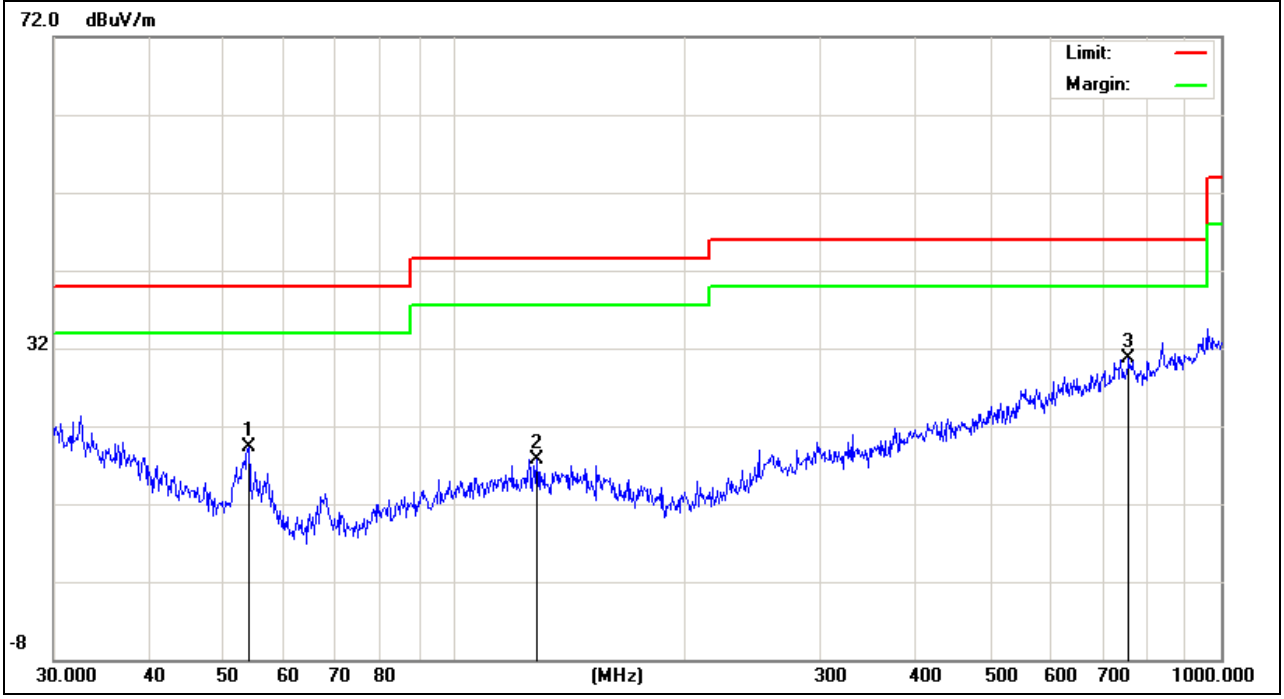
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	Intelligent control switch	Model Name ：	L-R01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	AC 120V
Test Mode ：	TX 2434MHz	Polarization：	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
53.8817	12.91	6.45	19.36	40	-20.64	QP
128.1127	5.87	11.91	17.78	43.5	-25.72	QP
758.0407	6.25	24.36	30.61	46	-15.39	QP

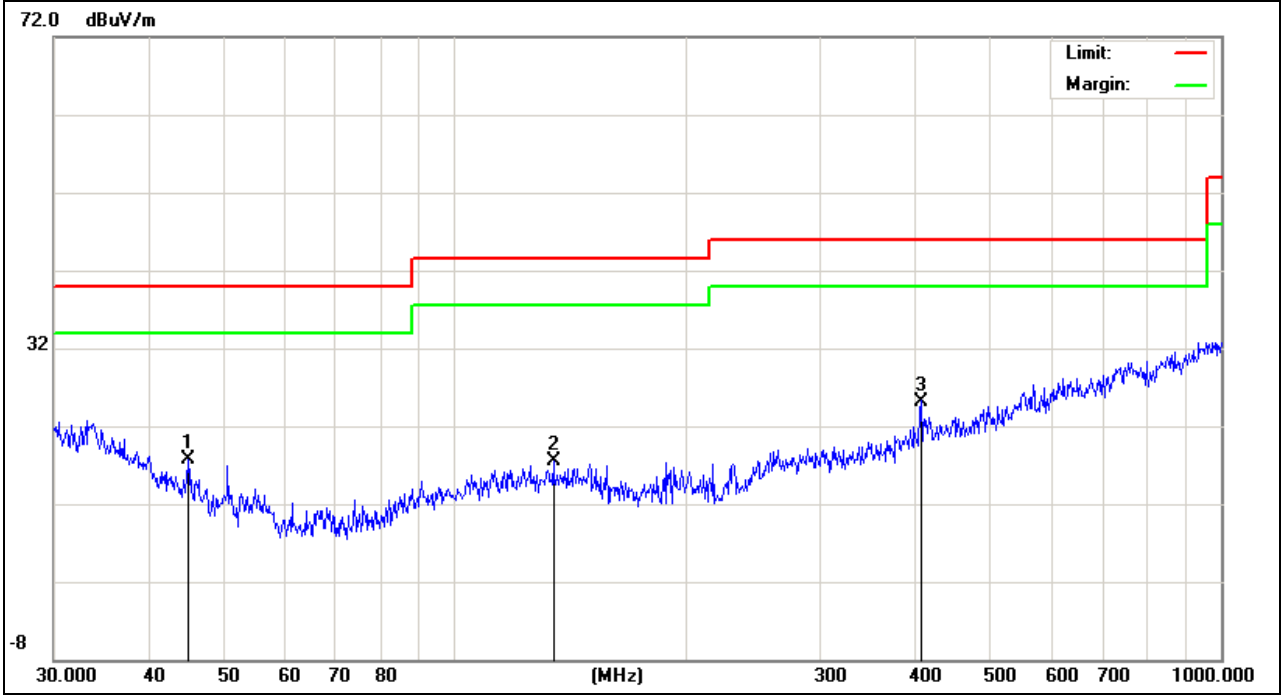
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	Intelligent control switch	Model Name ：	L-R01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	AC 120V
Test Mode ：	TX 2466MHz	Polarization：	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
44.9004	7.02	10.66	17.68	40	-22.32	QP
134.5592	5.45	11.98	17.43	43.5	-26.07	QP
406.088	7.72	17.48	25.2	46	-20.8	QP

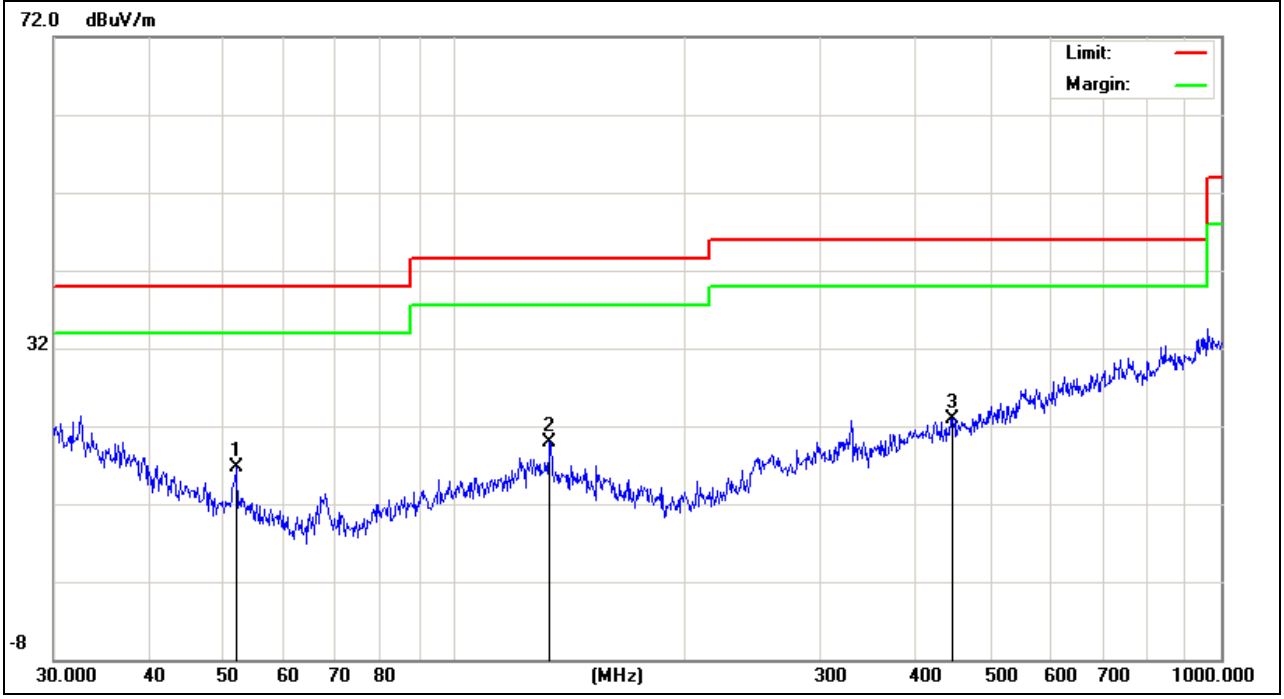
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	Intelligent control switch	Model Name ：	L-R01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	AC 120V
Test Mode ：	TX 2466MHz	Polarization：	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
51.843	9.43	7.31	16.74	40	-23.26	QP
133.1511	7.94	11.96	19.9	43.5	-23.6	QP
446.4141	4.87	18.13	23	46	-23	QP

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

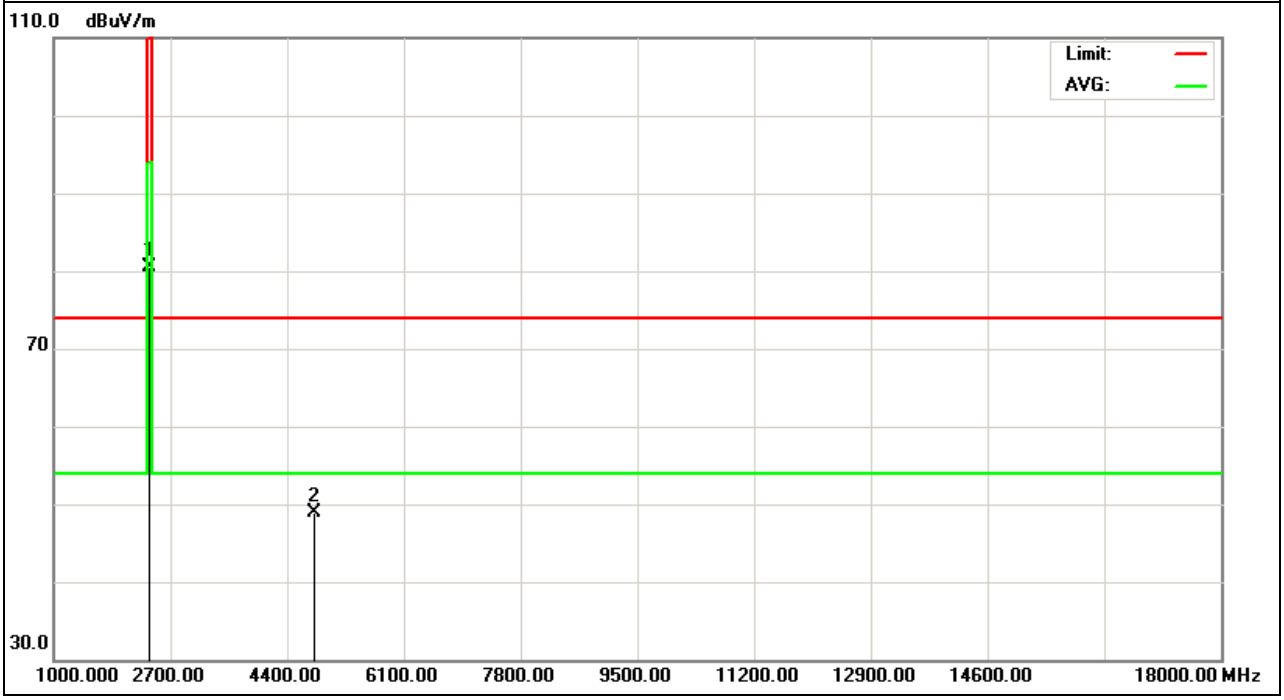


3.4.7 TEST RESULTS (ABOVE 1000 MHZ)

EUT：	Intelligent control switch	Model Name ：	L-R01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	AC 120V
Test Mode ：	TX /2402MHz	Polarization：	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2402	93.39	-12.99	80.4	114.0 0	-33.6	peak
4804	52.58	-3.64	48.94	74	-25.06	peak

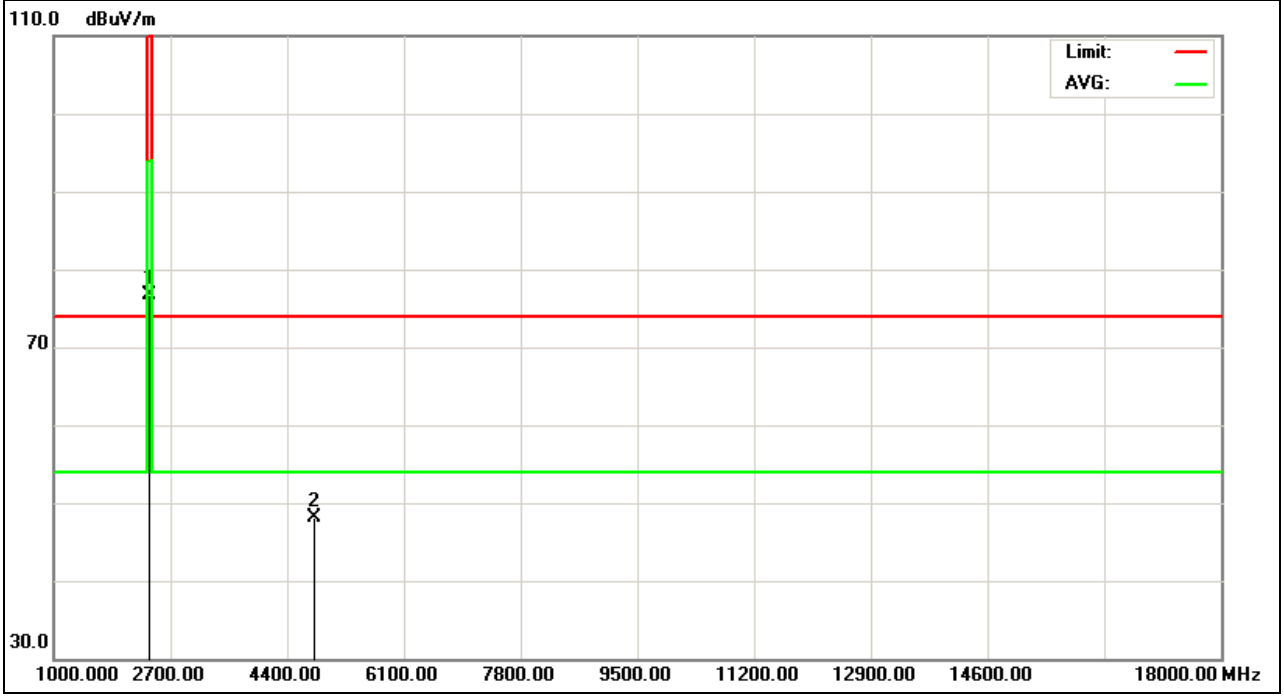
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
No emission detected in 18GHz~25GHz.



EUT：	Intelligent control switch	Model Name ：	L-R01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	AC 120V
Test Mode ：	TX /2402MHz	Polarization：	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2402	89.69	-12.99	76.7	114.0 0	-37.3	peak
4804	51.73	-3.64	48.09	74	-25.91	peak

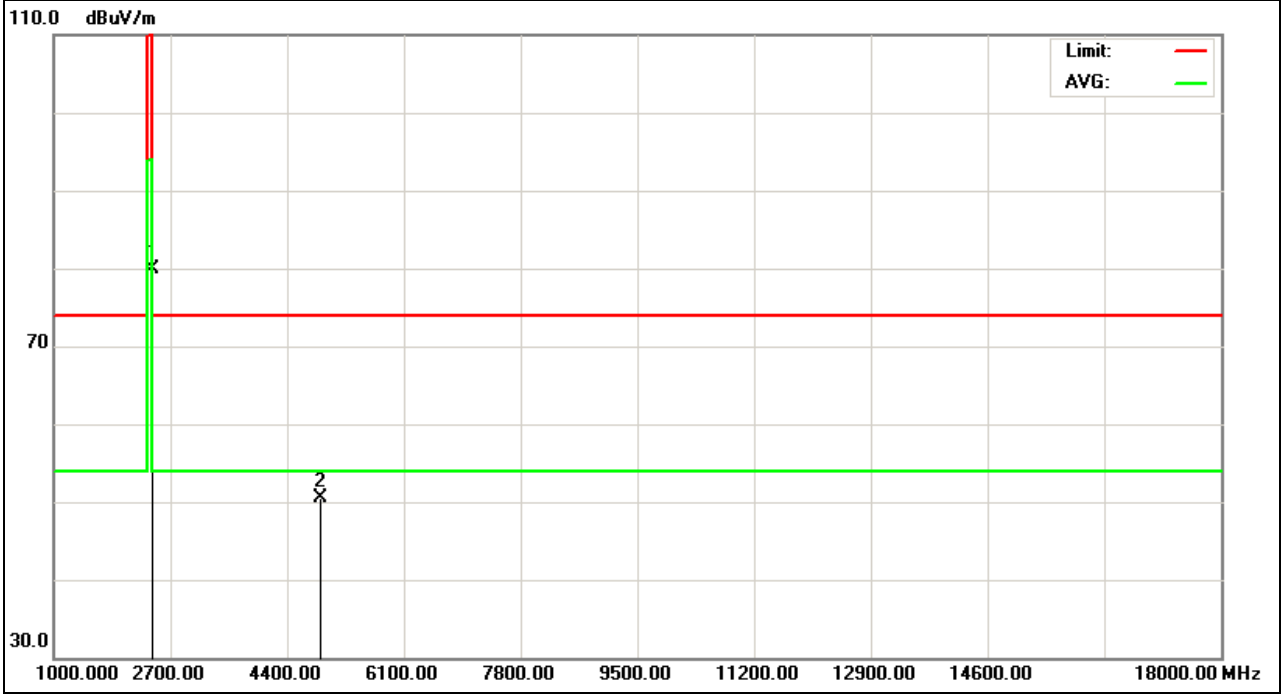
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
No emission detected in 18GHz~25GHz.



EUT：	Intelligent control switch	Model Name ：	L-R01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	AC 120V
Test Mode ：	TX /2434MHz	Polarization：	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2434	92.77	-12.92	79.85	114.0 0	-34.15	peak
4868	54.22	-3.75	50.47	74	-23.53	peak

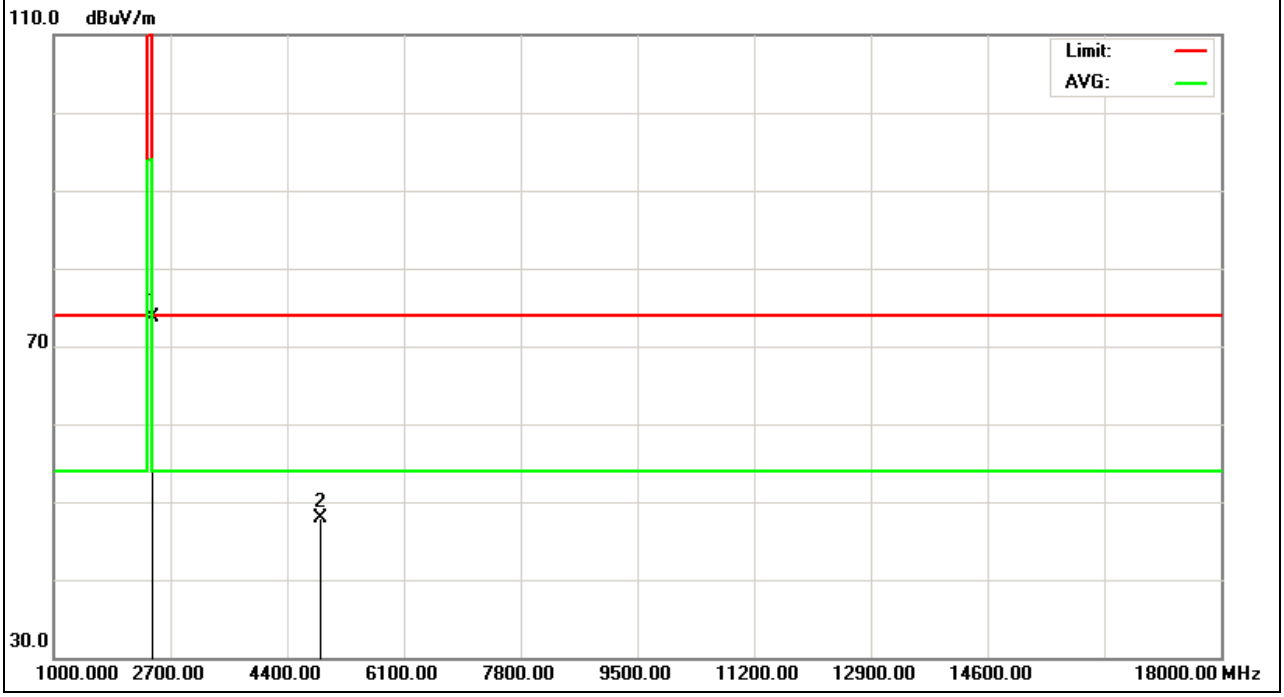
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
No emission detected in 18GHz~25GHz.



EUT：	Intelligent control switch	Model Name ：	L-R01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	AC 120V
Test Mode ：	TX /2448MHz	Polarization：	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2434	86.57	-12.92	73.65	114.0 0	-40.35	peak
4868	51.65	-3.75	47.9	74	-26.1	peak

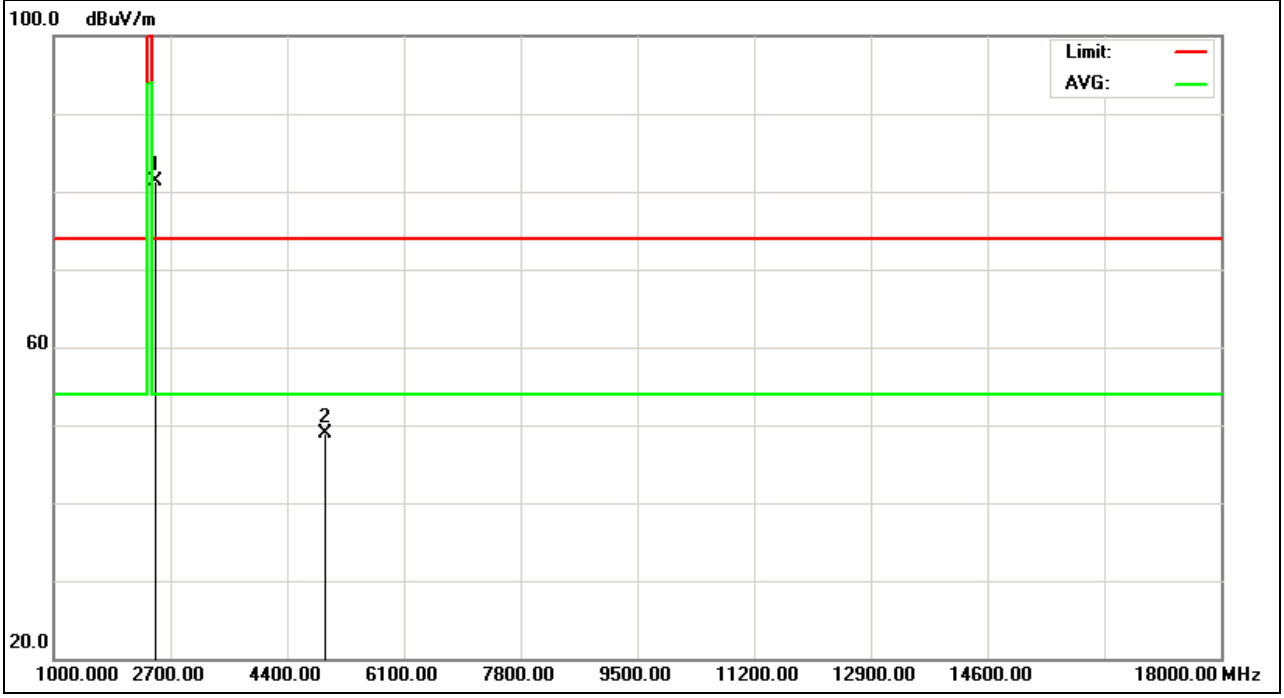
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
No emission detected in 18GHz~25GHz.



EUT：	Intelligent control switch	Model Name ：	L-R01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	AC 120V
Test Mode ：	TX /2466MHz	Polarization：	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2466	85.61	-12.79	72.82	114.0 0	-41.18	peak
4932	50.63	-3.59	47.04	74	-26.96	peak

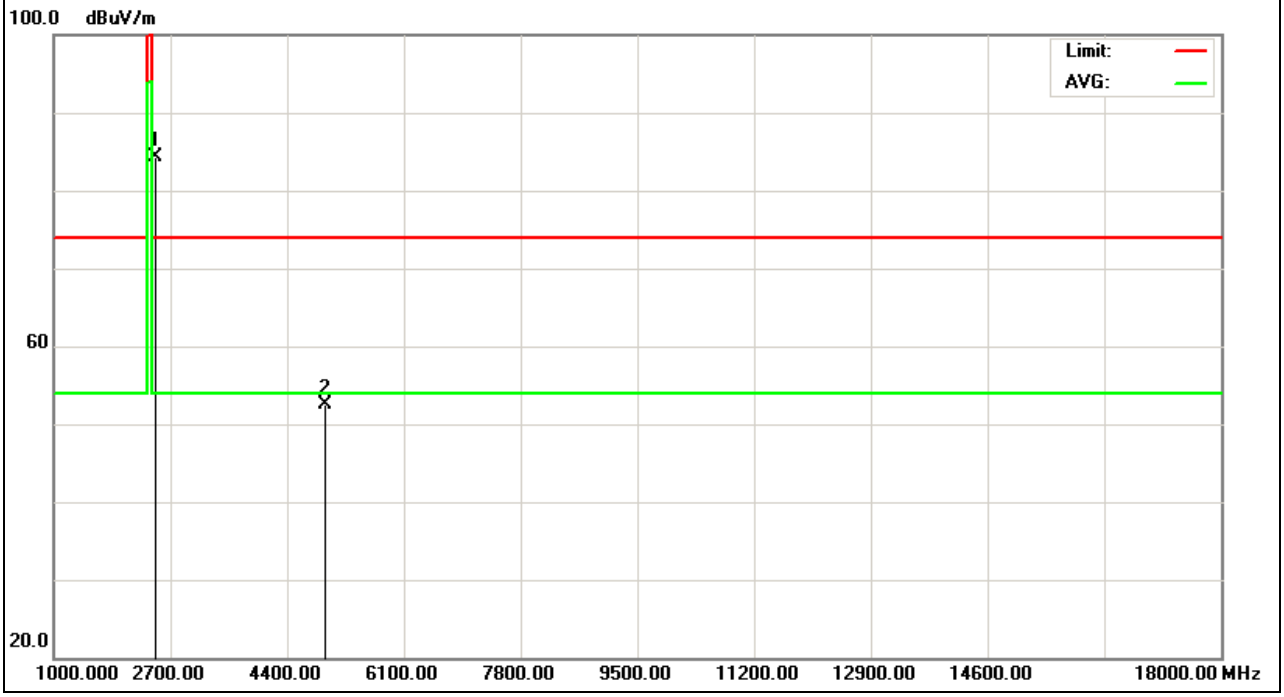
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
No emission detected in 18GHz~25GHz.



EUT：	Intelligent control switch	Model Name ：	L-R01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	AC 120V
Test Mode ：	TX /2466MHz	Polarization：	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2466	90.76	-12.79	77.97	114.0 0	-36.03	peak
4932	52.72	-3.59	49.13	74	-24.87	peak

Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
No emission detected in 18GHz~25GHz.



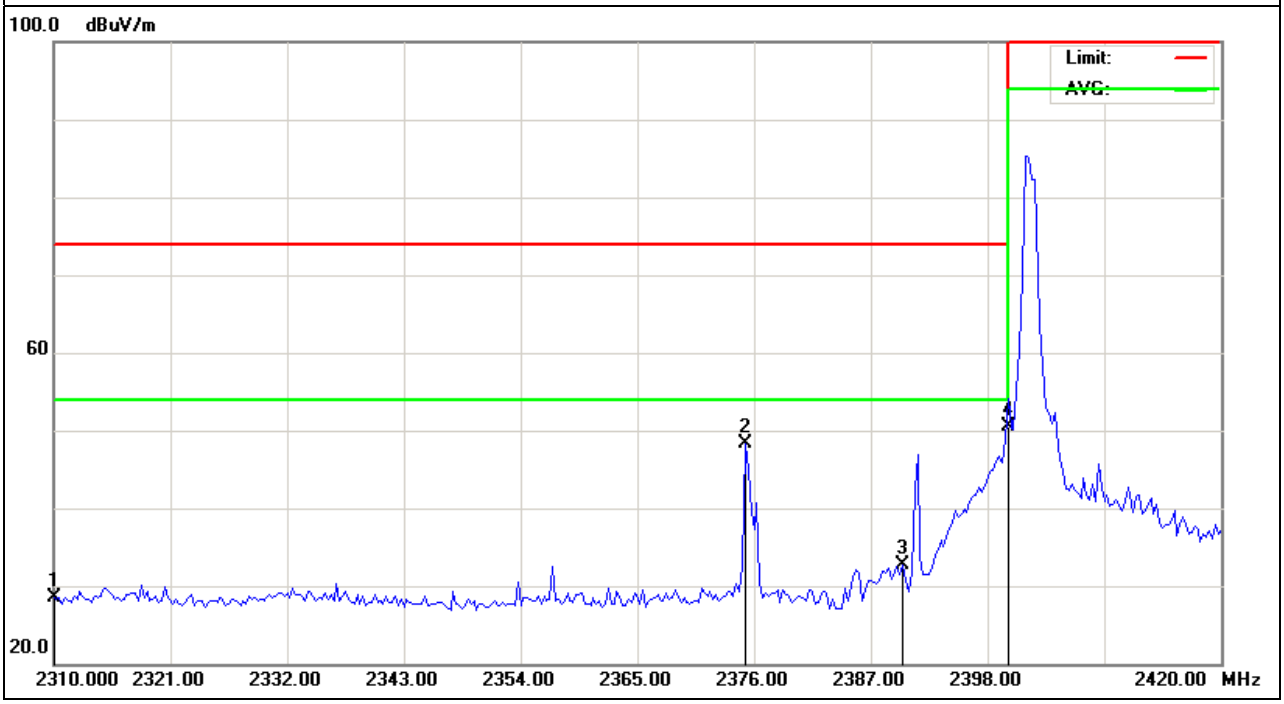
NOTE: If the PK measured value is less than AV limit already, the AV measurement is not required.

3.4.8 TEST RESULTS (RESTRICTED BANDS REQUIREMENTS)

EUT：	Intelligent control switch	Model Name ：	L-R01
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 3.0V
Test Mode ：	TX /2402MHz	Polarization：	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2310	41.39	-12.89	28.5	74	-45.5	peak
2375.175	61.49	-13.16	48.33	74	-25.67	peak
2390	45.81	-13.06	32.75	74	-41.25	peak
2400	63.51	-12.99	50.52	74	-23.48	peak

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



Band Edge Emission:
Due to the operating frequency of this EUT is 2402-2466MHz only, and In 2466MHz, its 20dB BW is 400.432KHz, the Band Edge is not required because the allowed frequency band is 2400-2483.5MHz.

4. BANDWIDTH TEST

4.1 TEST PROCEDURE

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

4.2 DEVIATION FROM STANDARD

No deviation.

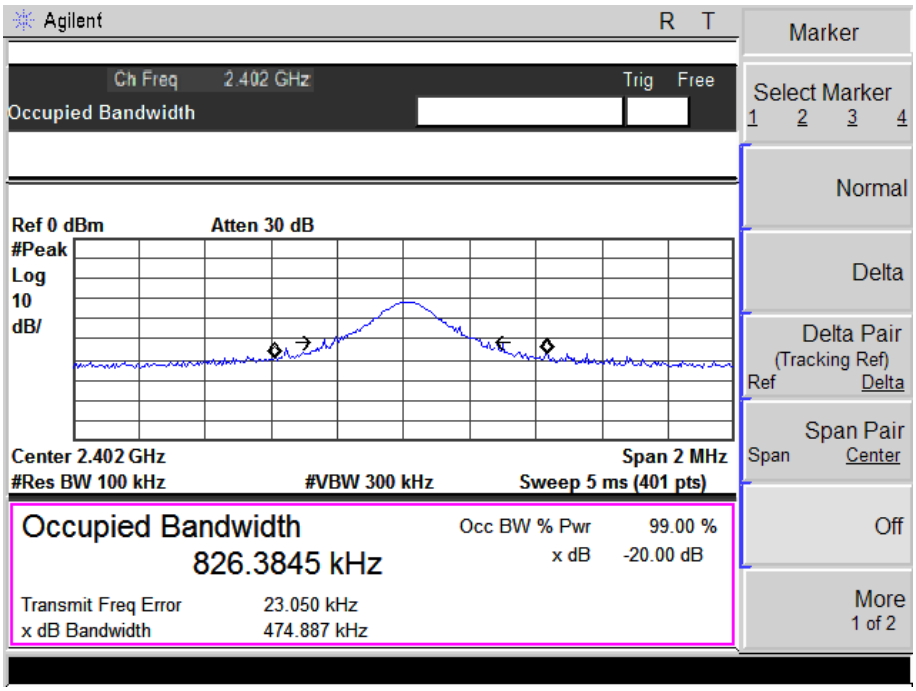
4.3 TEST SETUP

4.4 TEST RESULTS

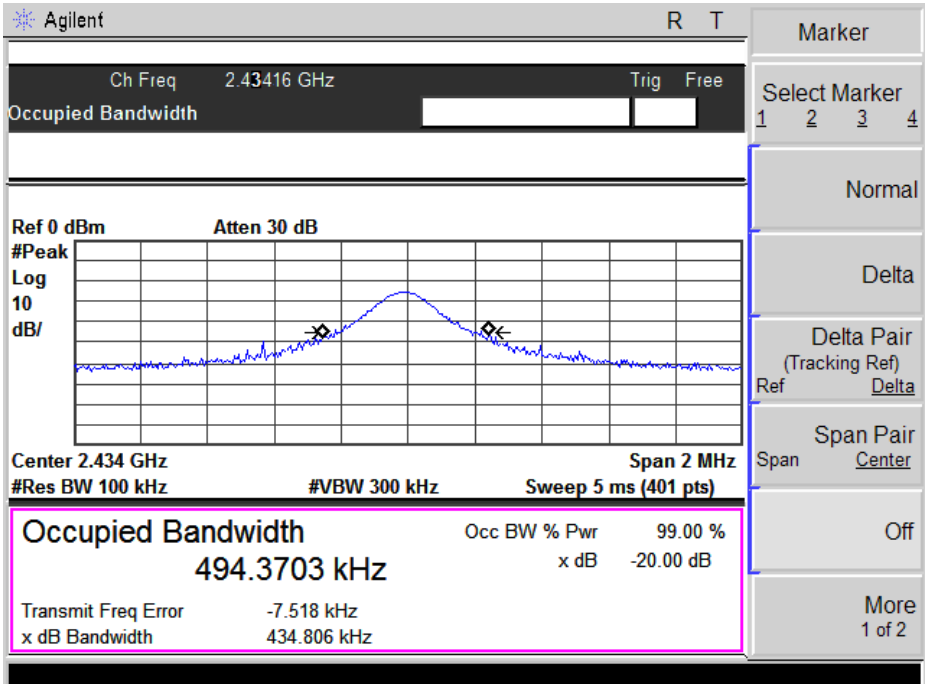
EUT：	Intelligent control switch	Model Name ：	L-R01
Temperature：	26 ℃	Relative Humidity：	53%
Pressure：	1020 hPa	Test Power ：	AC 120V
Test Mode ：	TX CH 1/3/5		

Test Channel	Frequency (MHz)	20 dBc Bandwidth (KHz)
CH1	2402	474.887
CH3	2434	434.806
CH5	2466	400.432

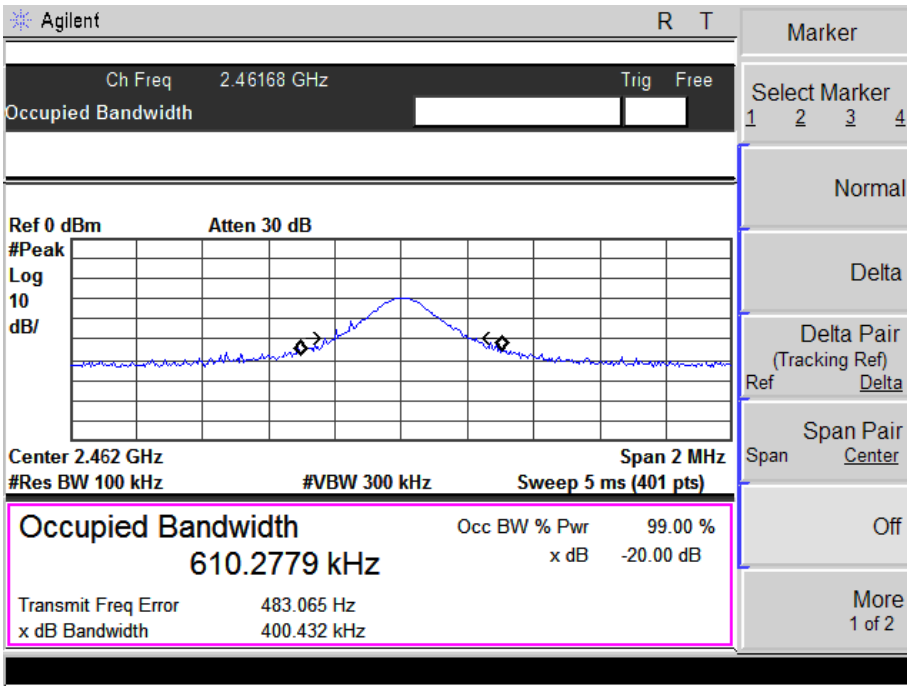
The Lowest Channel:2402MHz



The Middle Channel: 2434MHz

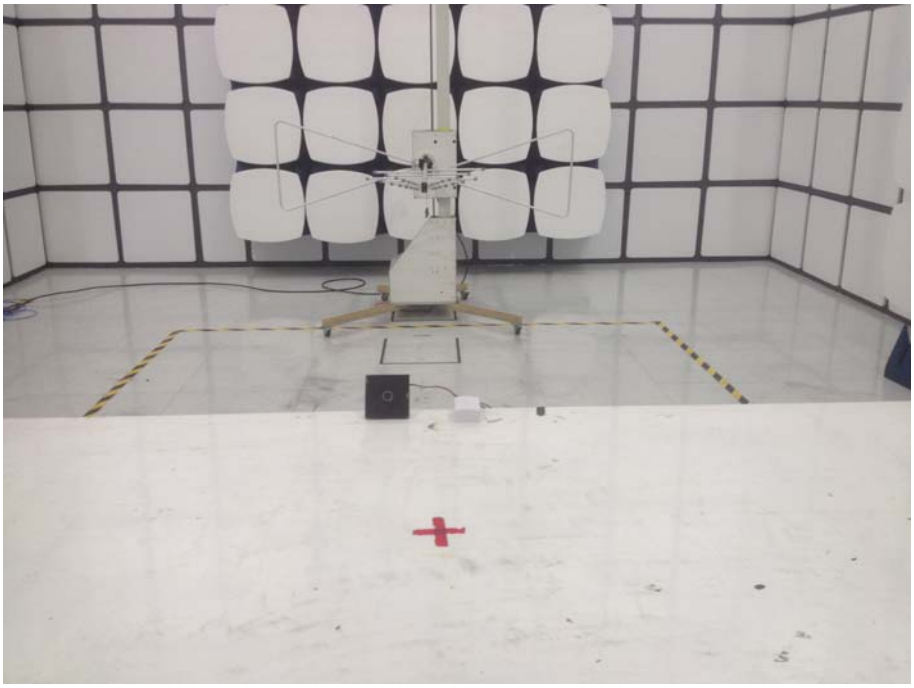


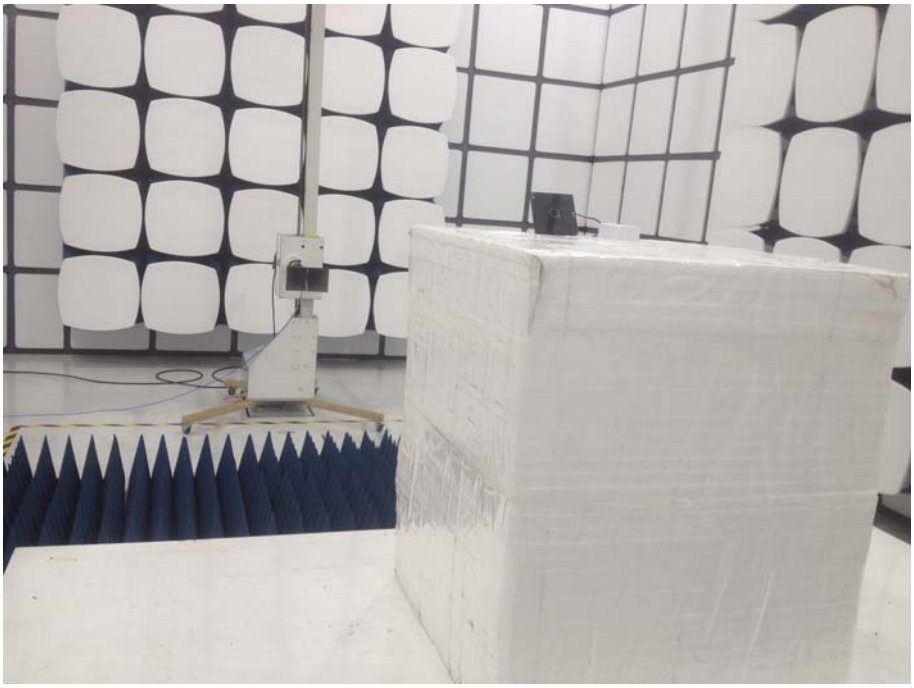
The High Channel:2466MHz



5. EUT TEST PHOTO

Radiated Measurement Photos





Conducted Measurement Photos