Report No: DDT-RE140696

Issued Date: Oct. 22, 2014

FCC CERTIFICATION TEST REPORT

FOR

Applicant	:	ABUS USA LLC
Address	:	23910N.19th Ave., Unit#56 Phoenix, AZ 850851850, USA
Equipment under Test	:	WLAN Pan/Tilt Camera&App
Model No	:	TVAC19000C
FCC ID	:	2AB47TVAC19000C
Manufacturer	:	ABUS USA LLC
Address	:	23910N.19th Ave., Unit#56 Phoenix, AZ 850851850, USA

Issued By: Dongguan Dongdian Testing Service Co., Ltd.

Add: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808

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REPORT

TABLE OF CONTENTS

Test report declares....4
1. Summary of test results....5
2. General test information....6
2.1. Description of EUT....6
2.2. Accessories of EUT....6
2.3. Assistant equipment used for test....6
2.4. Block diagram of EUT configuration for test....7
2.5. Test environment conditions....7
2.6. Test laboratory....7
2.7. Measurement uncertainty....8
3. 6dB Bandwidth and 99% Bandwidth....9
3.1. Test equipment....9
3.2. Block diagram of test setup....9
3.3. Limits....9
3.4. Test Procedure....9
3.5. Test Result....10
3.6. Original test data....10
4. Maximum Peak Output Power....22
4.1. Test equipment....22
4.2. Block diagram of test setup....22
4.3. Limits....22
4.4. Test Procedure....23
4.5. Test Result....23
5. Power Spectral Density....23
5.1. Test equipment....23
5.2. Block diagram of test setup....23
5.3. Limits....23
5.4. Test Procedure....23
5.5. Test Result....24
5.6. Original test data....24
6. Emissions in non-restricted frequency bands....31
6.1. Test equipment....31
6.2. Block diagram of test setup....31
6.3. Limits....31
6.4. Test Procedure....31
6.5. Test Result....32

6.6. Original test data 32
7. Emissions in restricted frequency bands 55
7.1. Test equipment 55
7.2. Block diagram of test setup 55
7.3. Limit 57
7.4. Test Procedure 58
7.5. Test result 59
8. Band Edge Compliance 136
8.1. Test equipment 136
8.2. Block diagram of test setup 136
8.3. Limit 136
8.4. Test Procedure 137
8.5. Test result 137
9. Power Line Conducted Emission 154
9.1. Test equipment 154
9.2. Block diagram of test setup 154
9.3. Power Line Conducted Emission Limits(Class B) 154
9.4. Test Procedure 154
9.5. Test Result 155
10. Antenna Requirements 160
10.1. Limit 160
10.2. Result 160
11. Test setup photograph 161
12. Photos of the EUT 162

TEST REPORT DECLARE

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FCC ID	:	2AB47TVAC19000C
Manufacturer	:	ABUS USA LLC
Address	:	23910N.19th Ave., Unit#56 Phoenix, AZ 850851850, USA

Test Standard Used: FCC Rules and Regulations Part 15 Subpart C: 2012

Test procedure used: ANSI C63.10:2009, ANSI C63.4:2003, KDB558074 D01 DTS Meas Guidance V03r02.

We Declare:

The equipment described above is tested by Dongguan Dongdian Testing Service Co., Ltd and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Dongguan Dongdian Testing Service Co., Ltd is assumed of full responsibility for the accuracy and completeness of these tests.

After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above FCC standards.

Report No:	DDT-RE140696		
Date of Test:	Oct. 18, 2014~Oct. 21, 2014	**Date of Report**:	Oct. 22, 2014

Prepared By: ***Approved By:***

Leo Liu/Engineer ***Jamy Yu/EMC Manager***

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Dongguan Dongdian Testing Service Co., Ltd.

1. Summary of test results

The EUT have been tested according to the applicable standards as referenced below.		
Description of Test Item	**Standard**	**Results**
6dB Bandwidth and 99% Bandwidth	FCC Part 15: 15.247 KDB558074	PASS
Peak Output Power	FCC Part 15: 15.247 KDB558074	PASS
Power Spectral Density	FCC Part 15: 15.247 KDB558074	PASS
Emissions in non-restricted frequency bands	FCC Part 15: 15.247 KDB558074	PASS
Emissions in restricted frequency bands	FCC Part 15: 15.209 FCC Part 15: 15.247 ANSI C63.10: 2009 ANSI C63.4:2003 KDB558074	PASS
Band Edge Compliance	FCC Part 15: 15.209 FCC Part 15: 15.247 ANSI C63.10: 2009 ANSI C63.4:2003 KDB558074	PASS
Power Line Conducted Emission	FCC Part 15: 15.207 ANSI C63.10: 2009 ANSI C63.4:2003	PASS
Antenna requirement	FCC Part 15: 15.203	PASS
Note: Equipment under Test: WLAN Pan/Tilt Camera&App, Model No: TVAC19000C, FCC ID: 2AB47TVAC19000C and Equipment under Test: 720p Outdoor WIFI Camera, Model No: APPCAM26PT, FCC ID: LE2APPCAM26PT are electrically identical except name and model No., So all test data are from original report DDT-RE140691 of FCC ID: LE2APPCAM56PT.		

2. General test information

2.1. Description of EUT

EUT* Name	:	WLAN Pan/Tilt Camera&App
Model Number	:	TVAC19000C
EUT function description	:	Please reference user manual of this device
Power supply	:	DC 5V from adapter
Radio Technology	:	IEEE802.11b/g/n
FCC Operation frequency	:	IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE 802.11n HT20: 2412MHz—2462MHz IEEE 802.11n HT40: 2422MHz—2452MHz
Modulation	:	IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM, QPSK,BPSK)
Antenna Type	:	Dipole antenna, maximum PK gain:2dBi
Date of Receipt	:	2014/10/18
Sample Type	:	Series production

Note1: EUT is the ab.of equipment under test.

Channle information							
CH	Frequency	CH	Frequency	CH	Frequency	CH	Frequency
1	2412	5	2432	9	2452	/	/
2	2417	6	2437	10	2457	/	/
3	2422	7	2442	11	2462	/	/
4	2427	8	2447	/	/	/	/

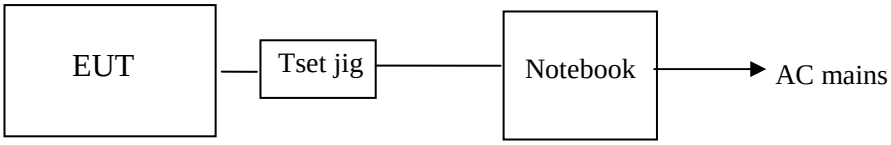
2.2. Accessories of EUT

Description of Accessories	Manufacturer	Model number or Type	Output.
AC/AD ADAPTOR	Kuantech (Beihai) Co., Ltd.(Ktec)	KSAS7R50500150HU	5V/1.5A
AC ADAPTOR	Chou Sen Electronics (shenzhen) Co., Ltd(Csec)	CS9C050150FUF	5V/1.5A

2.3. Assistant equipment used for test

Description of Assistant equipment	Manufacturer	Model number or Type	EMC Compliance	SN
Notebook	DELL	Latitude D610	FCC DOC	00045-534-136-300

2.4. Block diagram of EUT configuration for test



EUT was connected to control to a special test jig provided by manufacturer which has a standard RSS-232 connector to connect to Notebook, and the Notebook will run a special test software "MP_Kit_RTL11n_8188EUS_USB" provided by manufacturer to control EUT work in Continuous TX mode (>98% duty cycle), and select test channel, wireless mode and data rate.

Tested mode, channel, and data rate information			
Mode	data rate (Mpbs) (see Note)	Channel	Frequency (MHz)
IEEE 802.11b	11	Low :CH1	2412
	11	Middle: CH6	2437
	11	High: CH11	2462
IEEE 802.11g	6	Low :CH1	2412
	6	Middle: CH6	2437
	6	High: CH11	2462
IEEE 802.11n HT20	MCS 0	Low :CH1	2412
	MCS 0	Middle: CH6	2437
	MCS 0	High: CH11	2462
IEEE 802.11n HT40	MCS 0	Low :CH3	2422
	MCS 0	Middle: CH6	2437
	MCS 0	High: CH9	2452
Note: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.			

2.5. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	21-25℃
Humidity range:	40-75%
Pressure range:	86-106kPa

2.6. Test laboratory

Dongguan Dongdian Testing Service Co., Ltd

Add: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808 Tel: +86-0769-22891499 http://www.dgddt.com

FCC Registration Number: 270092 Industry Canada site registration number: 10288A-1

2.7. Measurement uncertainty

Test Item	Uncertainty
Occupied Channel Bandwidth	±1%
Uncertainty for radio frequency	1×10^{-9}
RF Output power, conducted	±0.6dB
Power Spectral Density, Conducted	±1.2dB
Unwanted Emissions, Conducted	±0.6dB
Temperature	±0.2℃
Humidity	±1%
DC and Low frequency voltage	±0.5%
Time	±1%
Duty Cycle	±1%
Uncertainty for Radiation Emission test (30MHz-1GHz)	3.14 dB (Polarize: V)
	3.16 dB (Polarize: H)
Uncertainty for Radiation Emission test (1GHz to 25GHz)	2.08dB(Polarize: V)
	2.56dB (Polarize: H)
Uncertainty for Conduction emission test(150KHz-30MHz)	2.44dB
Uncertainty for Radiation Emission test (9KHz-150KHz)	3.89dB
Uncertainty for Radiation Emission test (150KHz-30MHz)	3.21dB

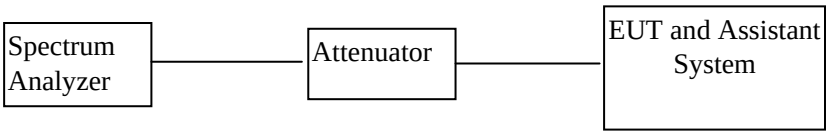
Note：This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

3. 6dB Bandwidth and 99% Bandwidth

3.1. Test equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum analyzer	R&S	FSU	1166.1660.26	2013/11/13	1 Year
2	Attenuator	Mini-Circuits	BW-S10W2	101109	2013/11/13	1 Year
3	RF Cable	Micable	C10-01-01-1	100309	2013/11/13	1 Year

3.2. Block diagram of test setup



3.3. Limits

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500 KHz

3.4. Test Procedure

(1) Configure EUT and assistant system according clause 2.4 and 3.2

(2) Connect EUT's antenna output to spectrum analyzer by RF cable.

(3) Configure EUT work in test mode as stated in clause 2.4.

(4) Set the spectrum analyzer as follows:

RBW:	100KHz
VBW:	300KHz
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

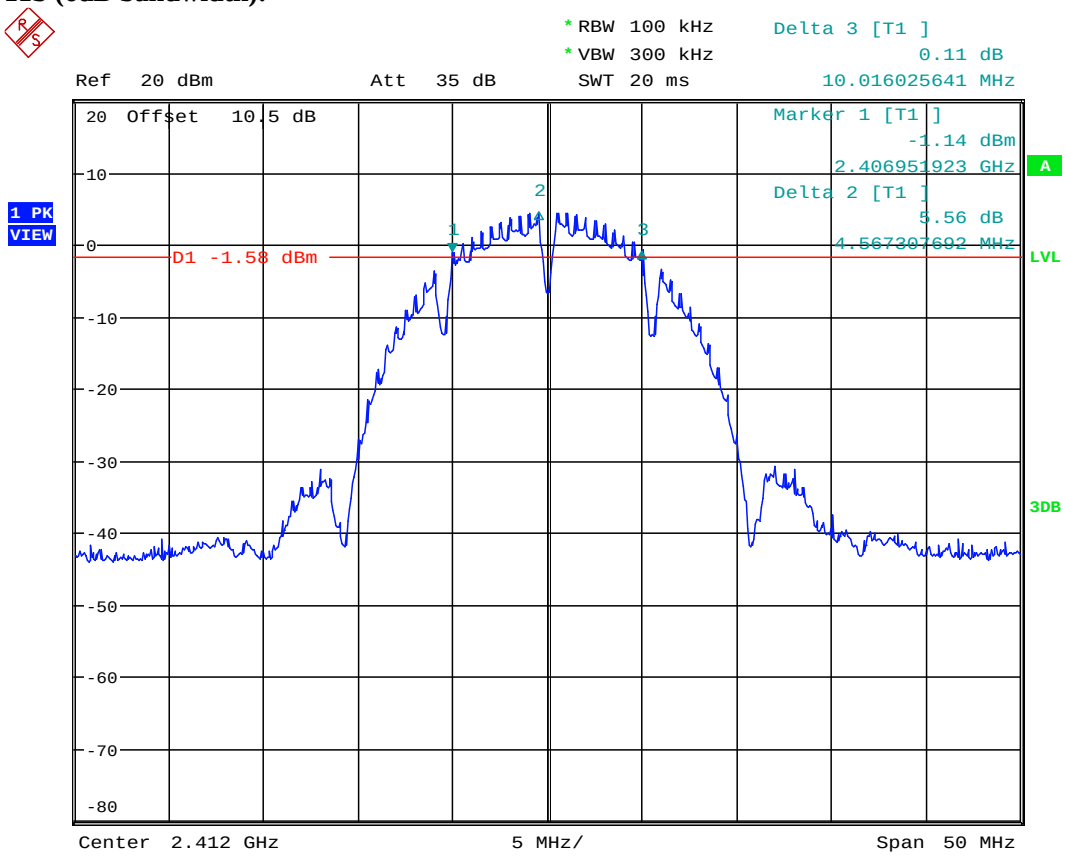
(5) Allow the trace to stabilize, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

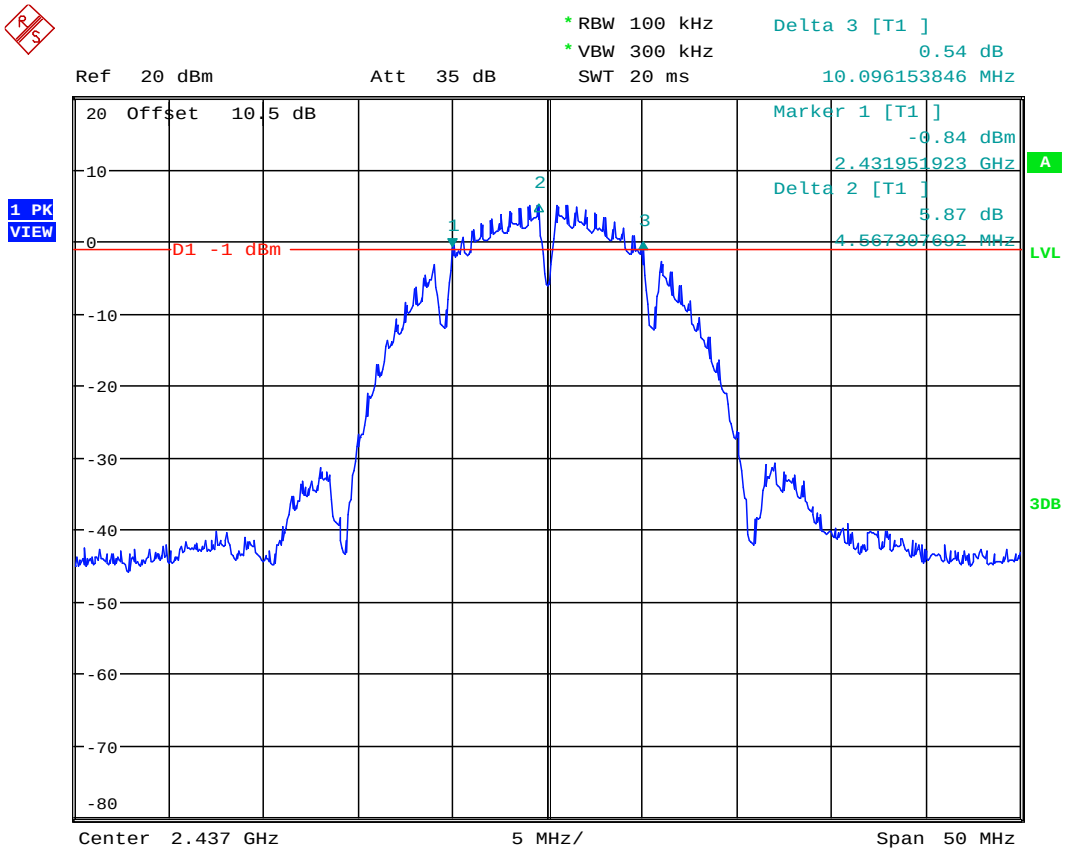
3.5. Test Result

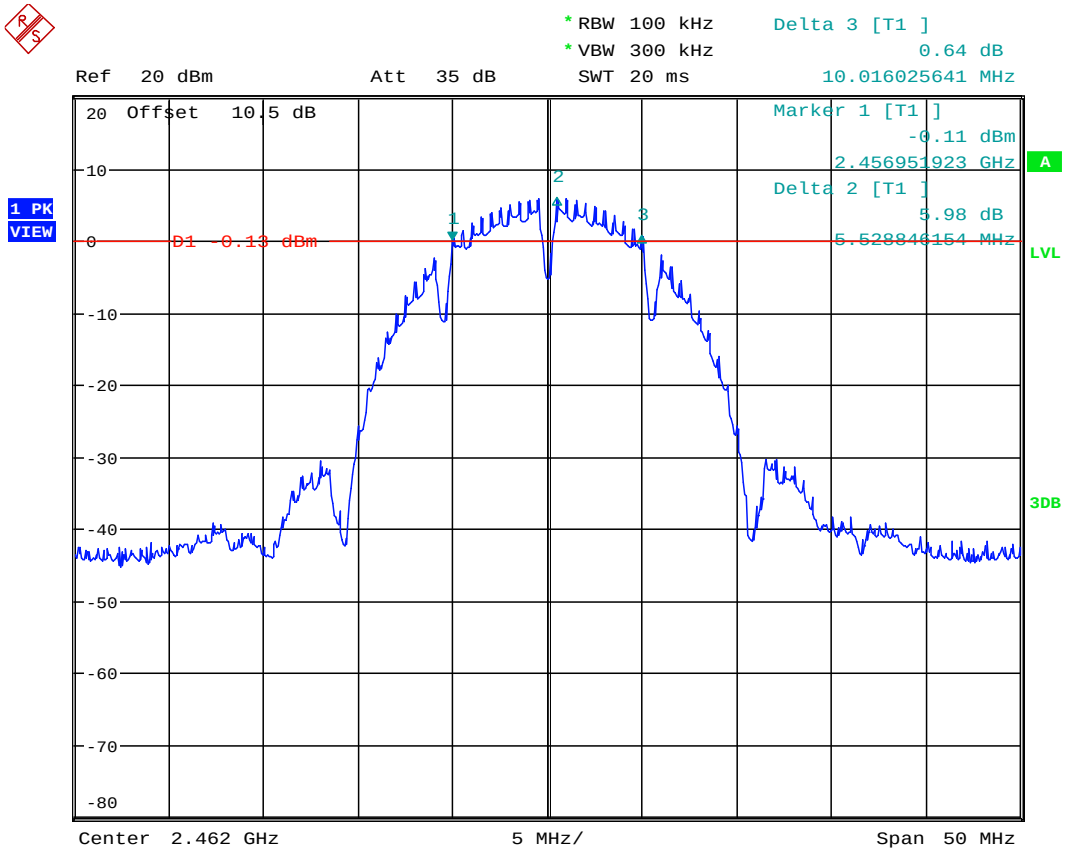
EUT: WLAN Pan/Tilt Camera&App M/N: TVAC19000C			
EUT Set Mode	CH or Frequency	6 dB bandwidth	99% dB bandwidth
		Result (MHz)	Result (MHz)
11b	CH1	10.016	14.984
	CH6	10.096	14.984
	CH11	10.016	14.984
11g	CH1	16.667	16.667
	CH6	16.667	16.667
	CH11	16.667	17.147
11n HT 20	CH1	17.949	17.869
	CH6	17.949	18.189
	CH11	17.869	17.869
11n HT 40	CH3	36.538	36.378
	CH6	36.603	36.218
	CH9	36.538	36.218
Limit: >500KHz			Conclusion: PASS
Test Date : 2014/10/20			Test Engineer : Leo

3.6. Original test data

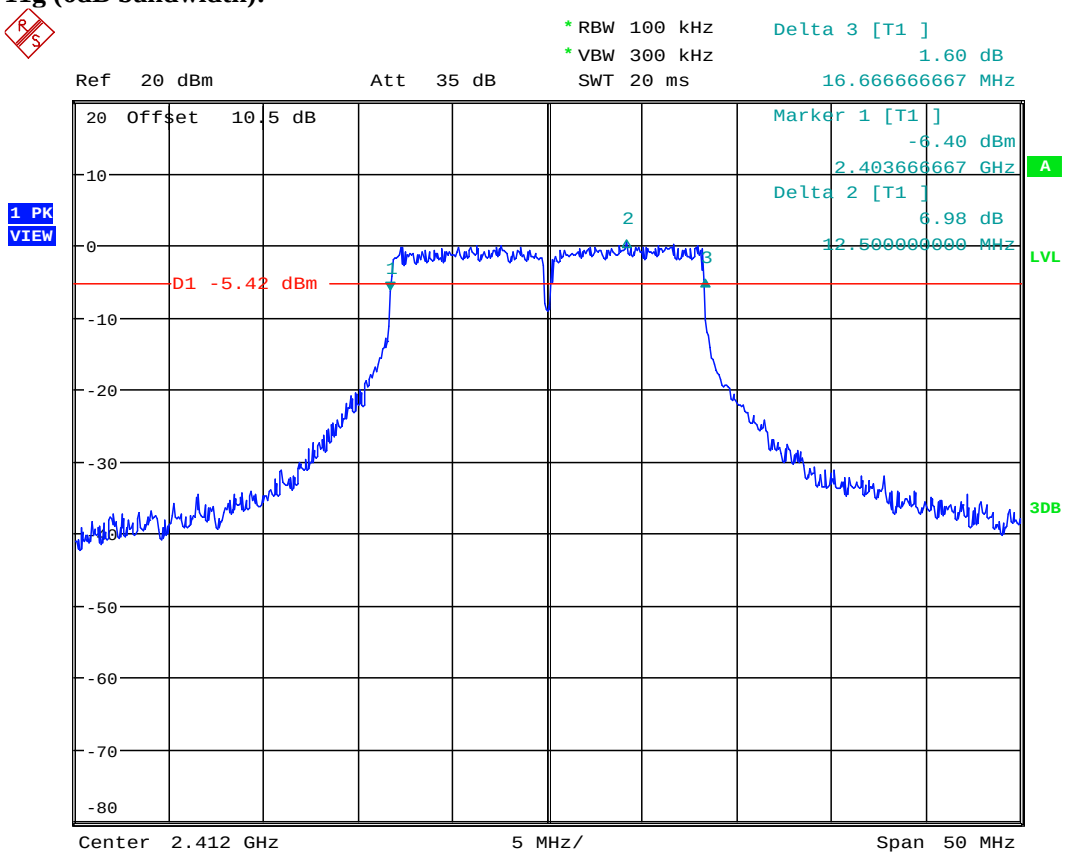
11b (6dB bandwidth):

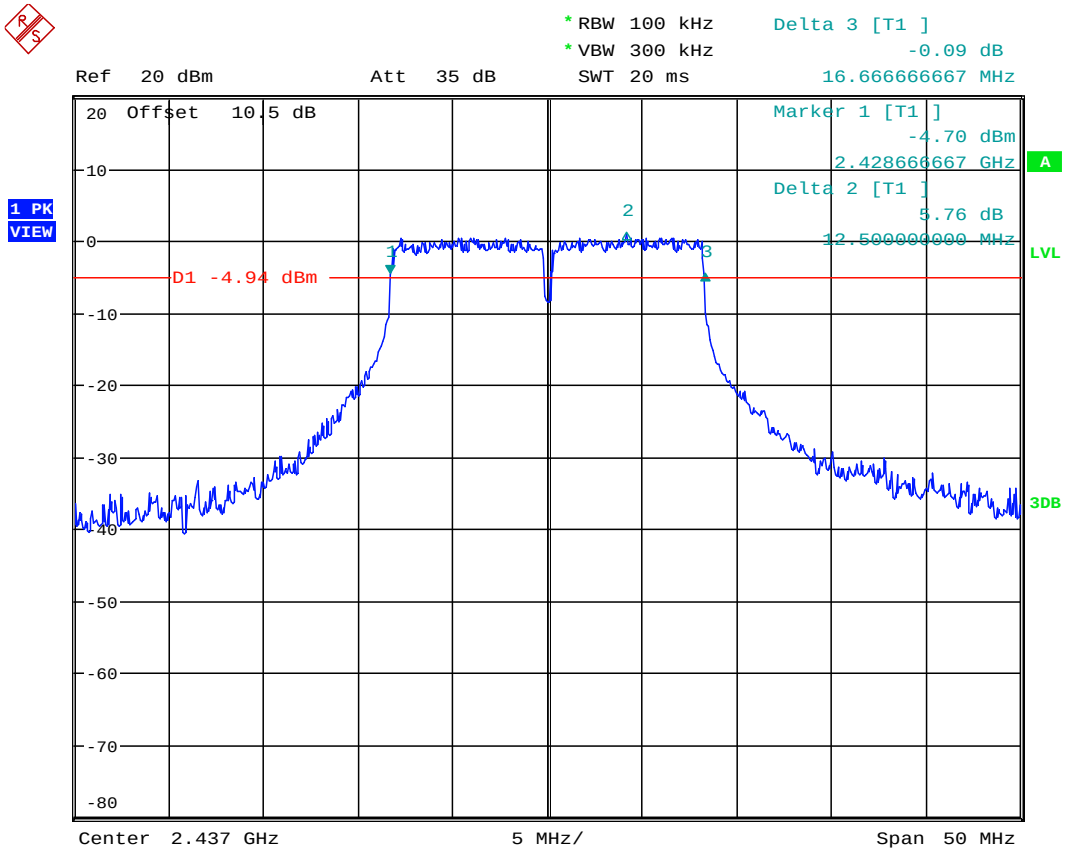


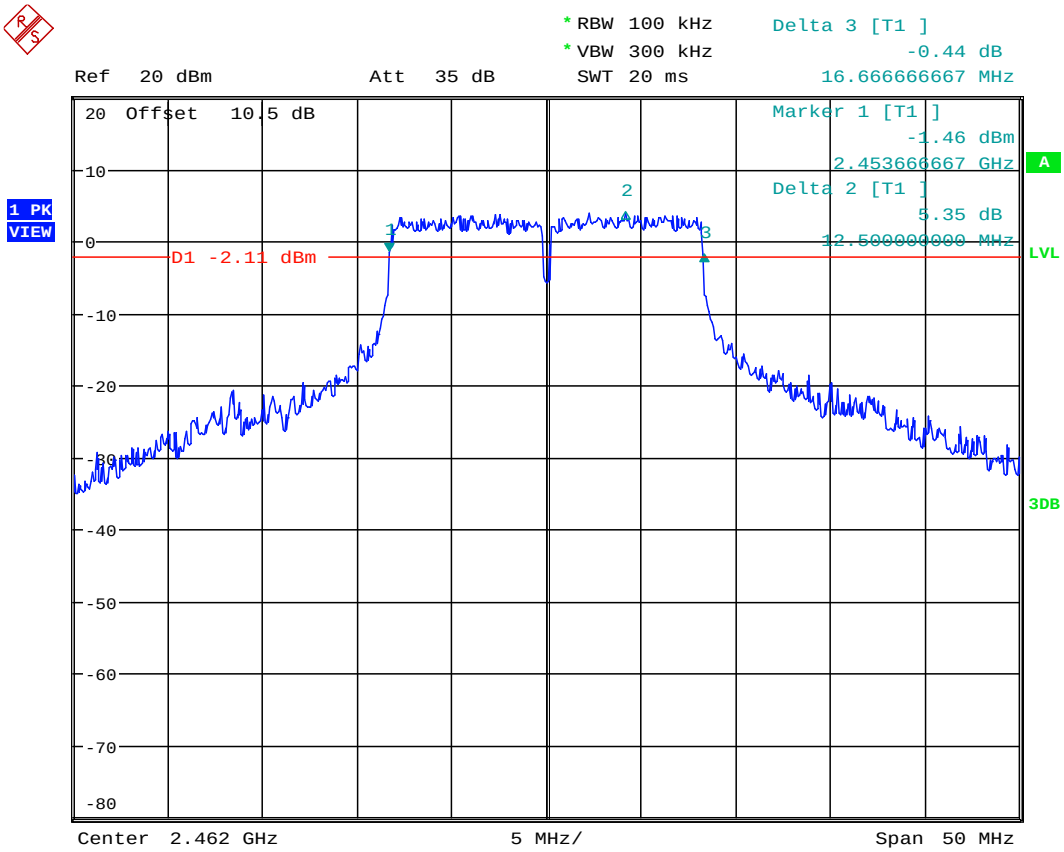

* RBW 100 kHz
* VBW 300 kHz
SWT 20 ms
Delta 3 [T1]
0.54 dB
10.096153846 MHz
Ref 20 dBm
Att 35 dB
20 Offset 10.5 dB
Marker 1 [T1]
-0.84 dBm
2.431951923 GHz
Delta 2 [T1]
5.87 dB
4.567307692 MHz
1 PK
VIEW
A
LVL
3DB
D1 -1 dBm
Center 2.437 GHz
5 MHz/
Span 50 MHz


* RBW 100 kHz
* VBW 300 kHz
SWT 20 ms
Delta 3 [T1]
0.64 dB
10.016025641 MHz
Ref 20 dBm
Att 35 dB
20 Offset 10.5 dB
Marker 1 [T1]
-0.11 dBm
2.456951923 GHz
Delta 2 [T1]
5.98 dB
5.528846154 MHz
1 PK
VIEW
A
LVL
3DB
D1 -0.13 dBm
Center 2.462 GHz
5 MHz/
Span 50 MHz

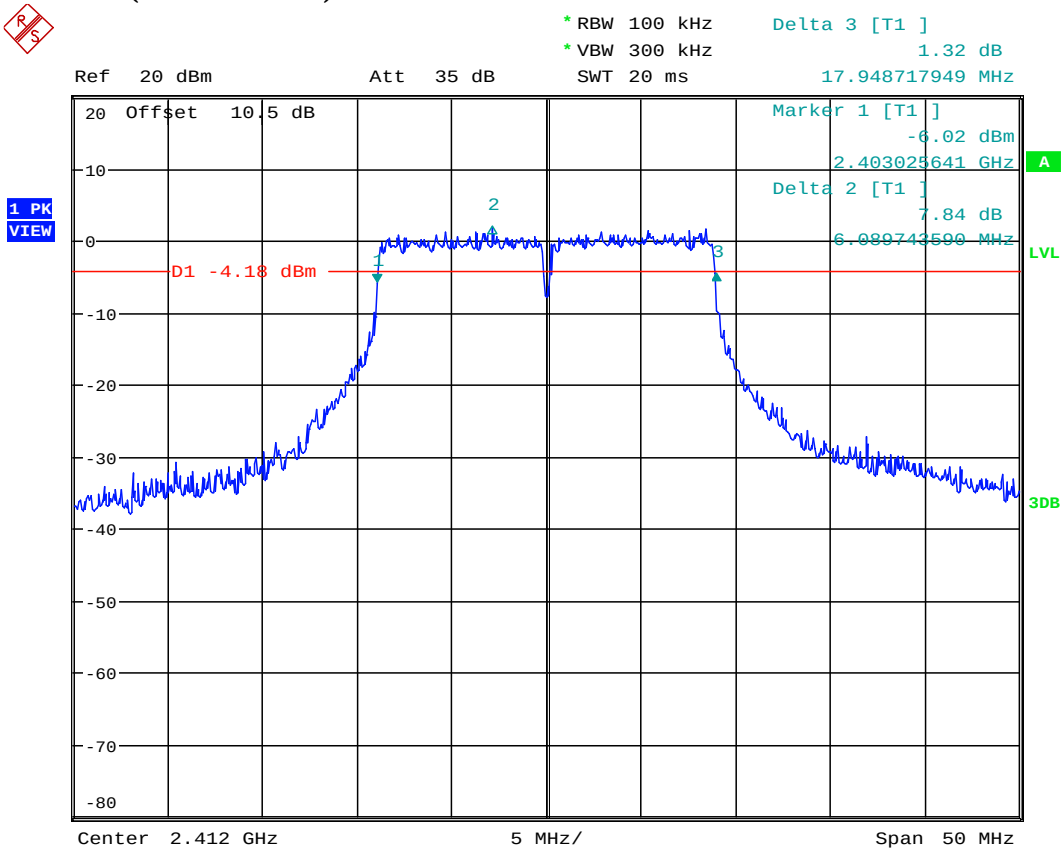
11g (6dB bandwidth):

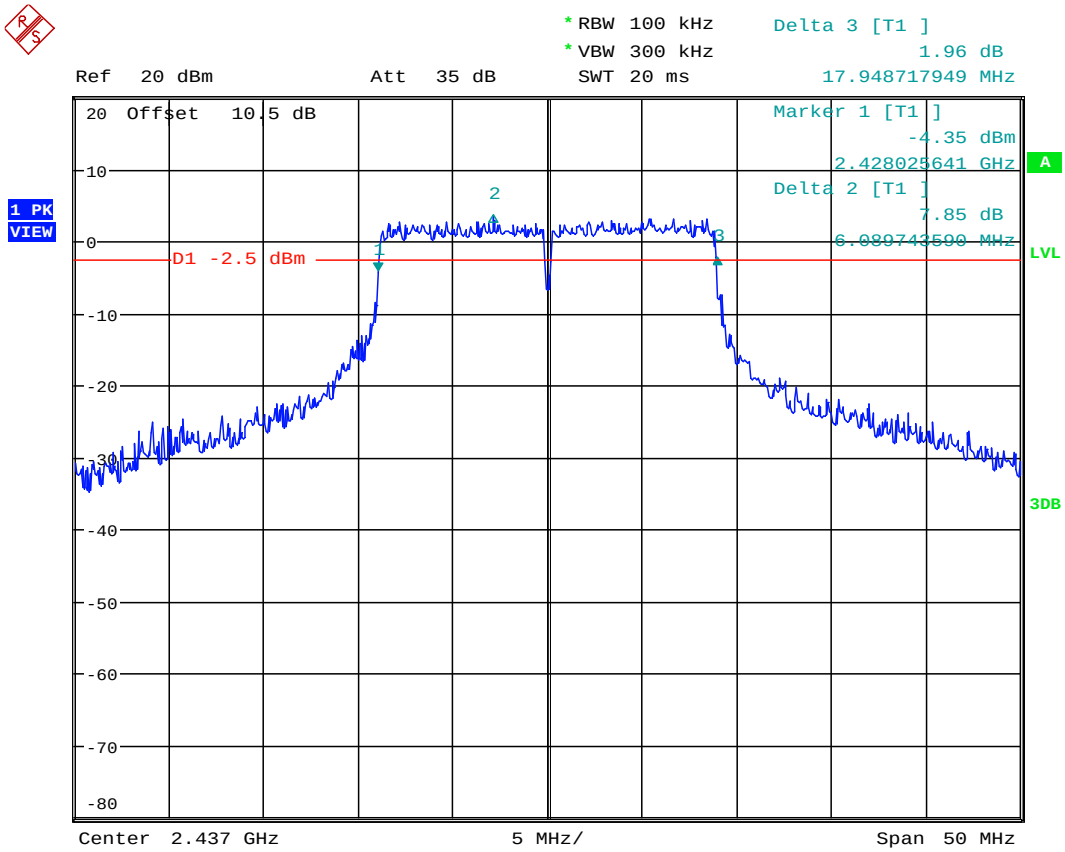


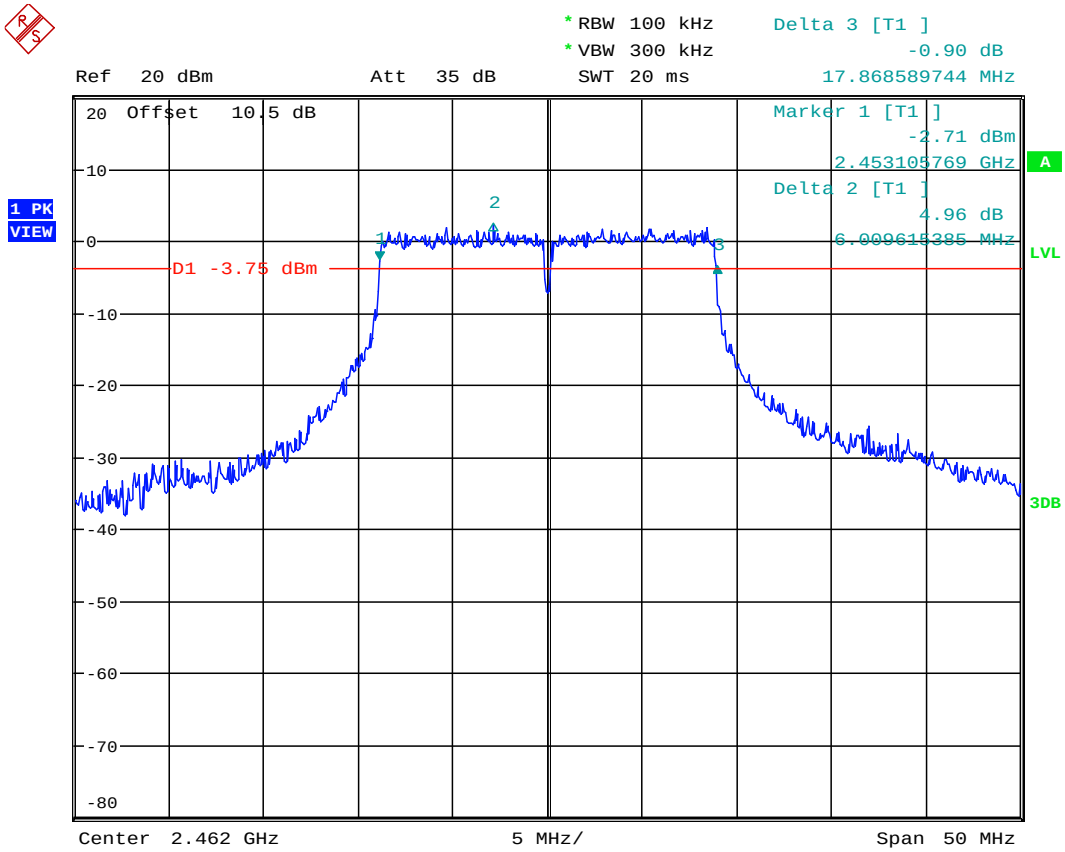




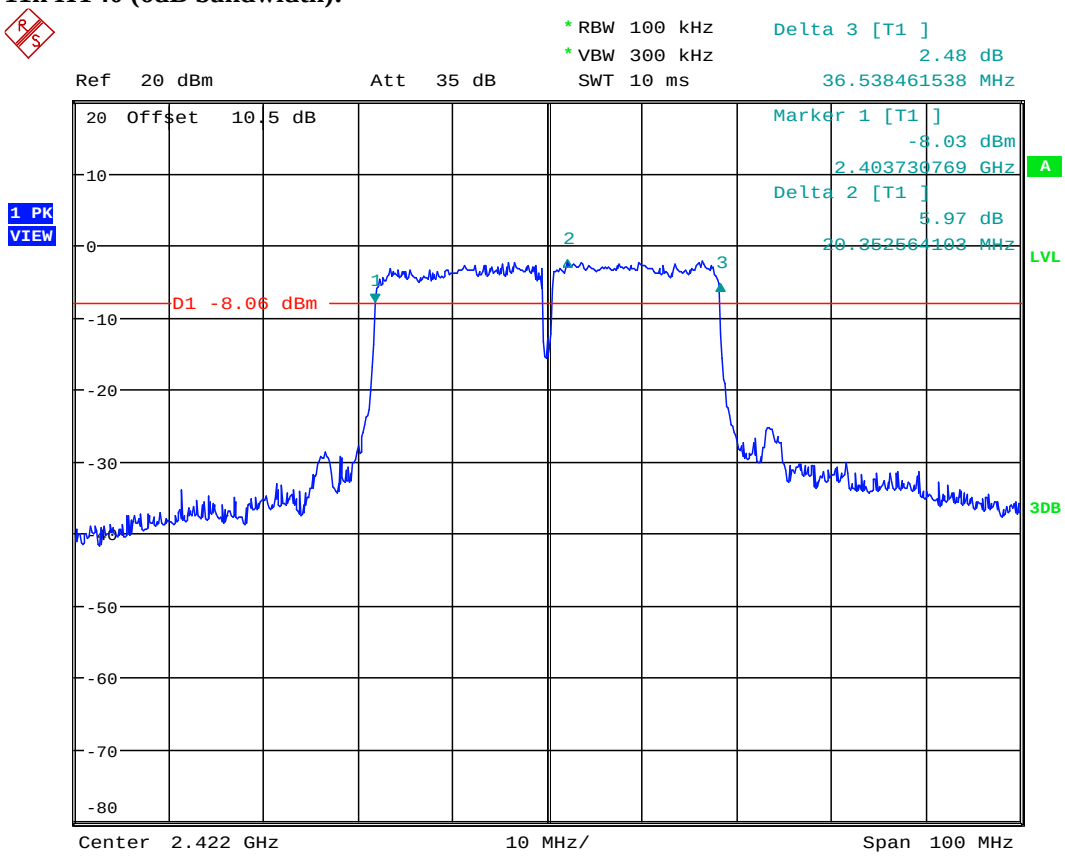
11n HT20 (6dB bandwidth):

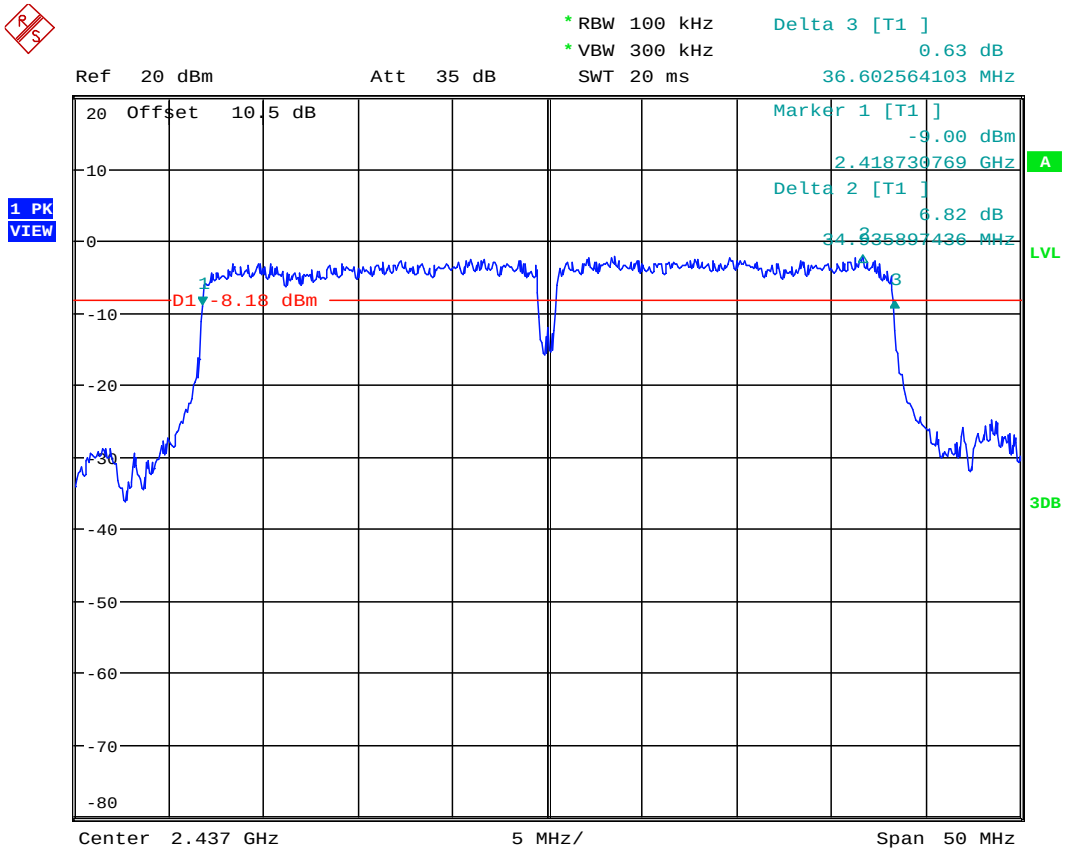


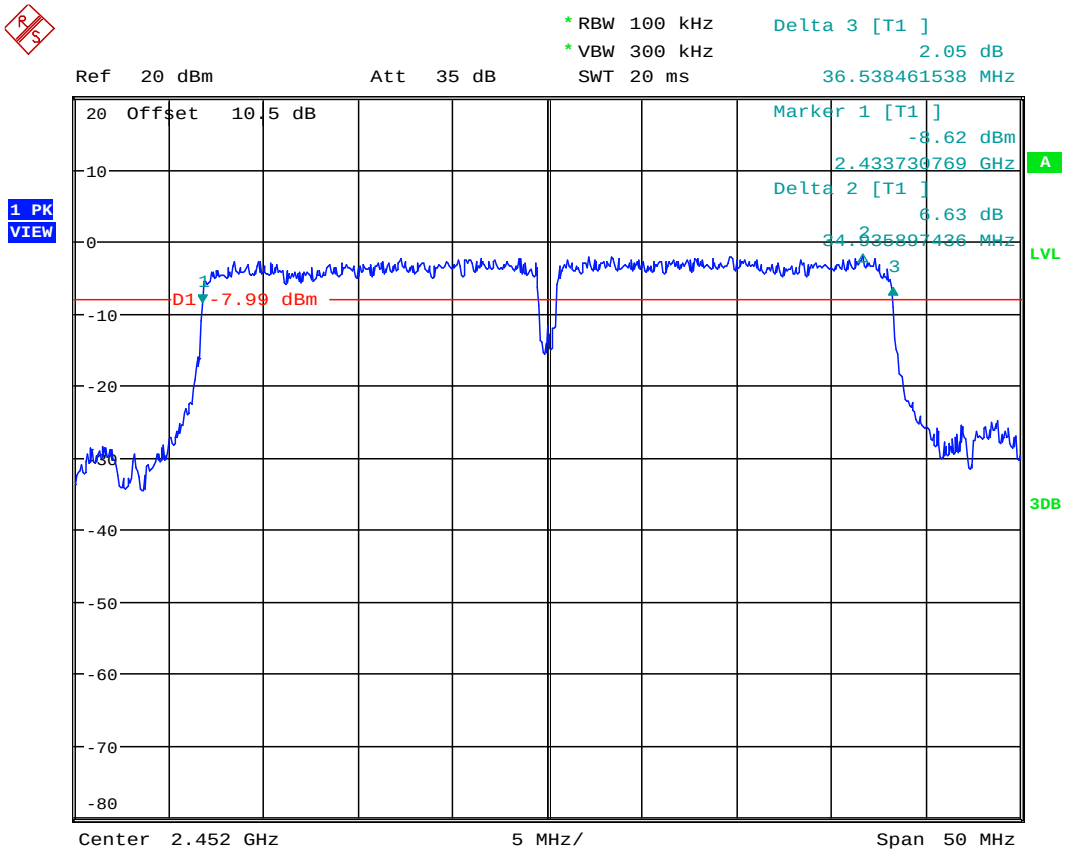

* RBW 100 kHz
* VBW 300 kHz
SWT 20 ms
Delta 3 [T1]
1.96 dB
17.948717949 MHz
Ref 20 dBm
Att 35 dB
20 Offset 10.5 dB
Marker 1 [T1]
-4.35 dBm
2.428025641 GHz
Delta 2 [T1]
7.85 dB
6.089743590 MHz
1 PK
VIEW
A
LVL
3DB
D1 -2.5 dBm
Center 2.437 GHz
5 MHz/
Span 50 MHz


* RBW 100 kHz
* VBW 300 kHz
SWT 20 ms
Delta 3 [T1]
-0.90 dB
17.868589744 MHz
Ref 20 dBm
Att 35 dB
20 Offset 10.5 dB
Marker 1 [T1]
-2.71 dBm
2.453105769 GHz
Delta 2 [T1]
4.96 dB
6.009615385 MHz
1 PK
VIEW
A
LVL
3DB
D1 -3.75 dBm
Center 2.462 GHz
5 MHz/
Span 50 MHz

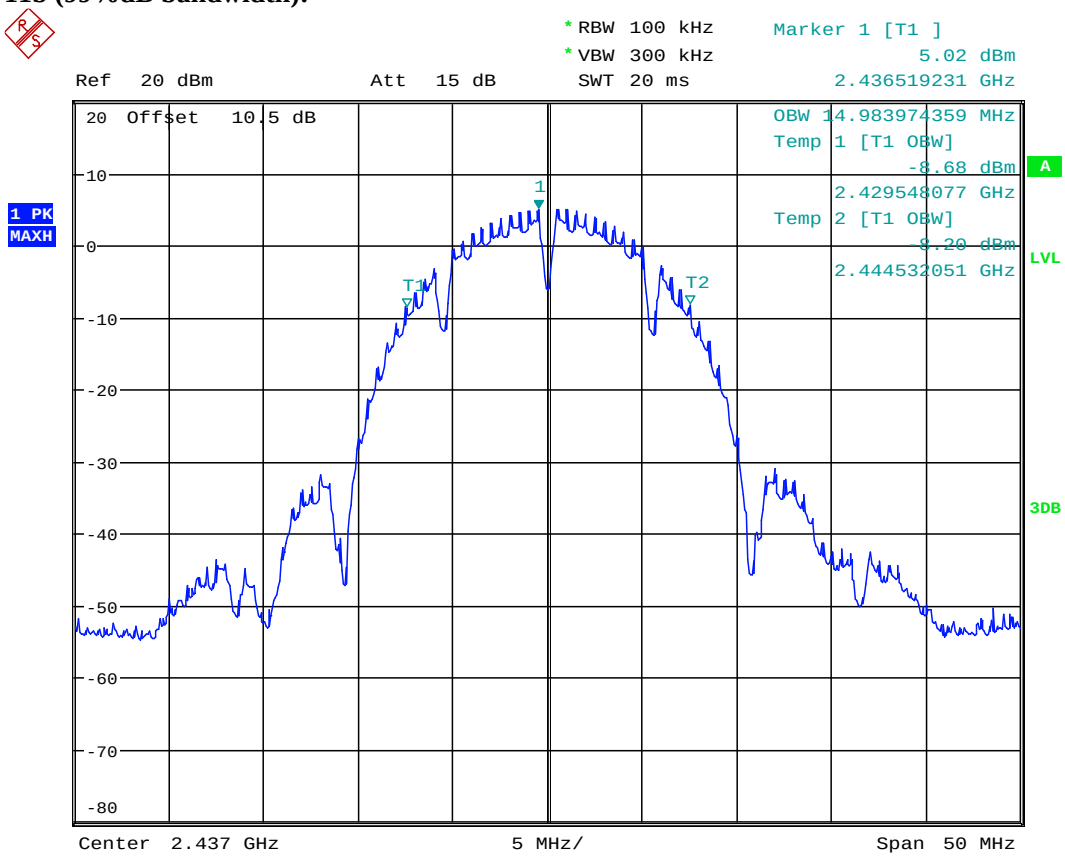
11n HT40 (6dB bandwidth):

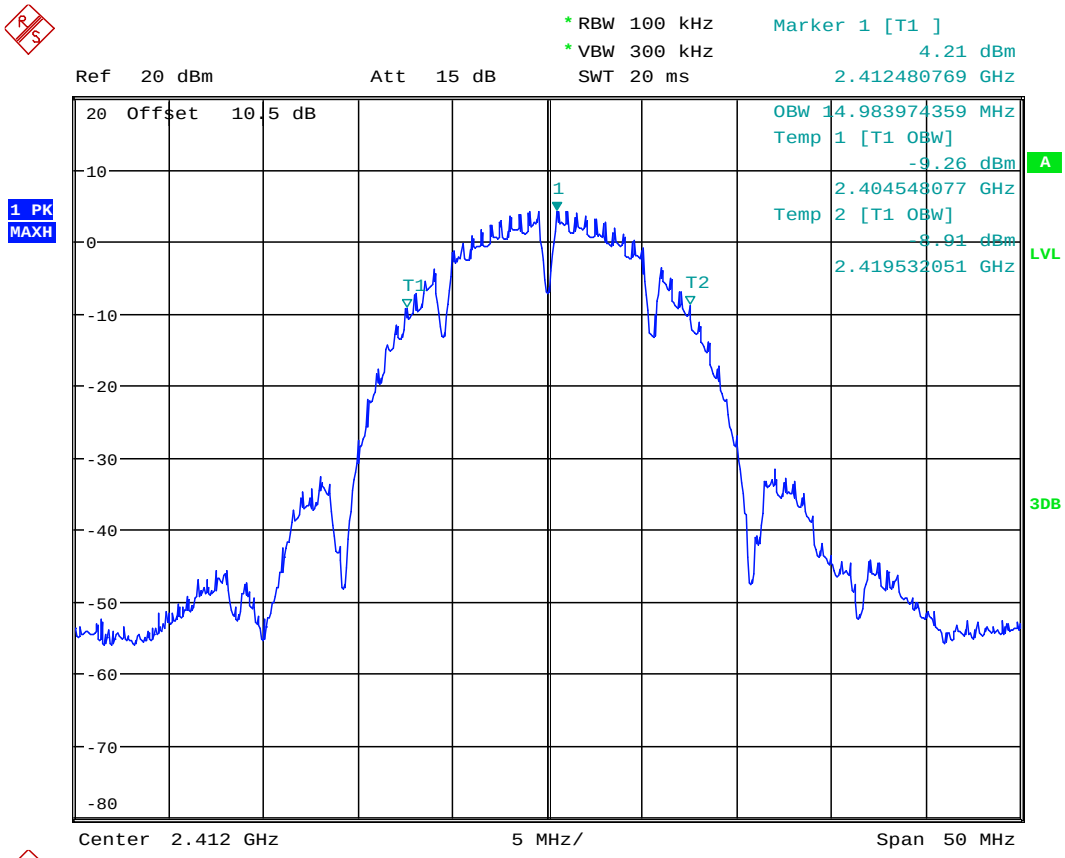


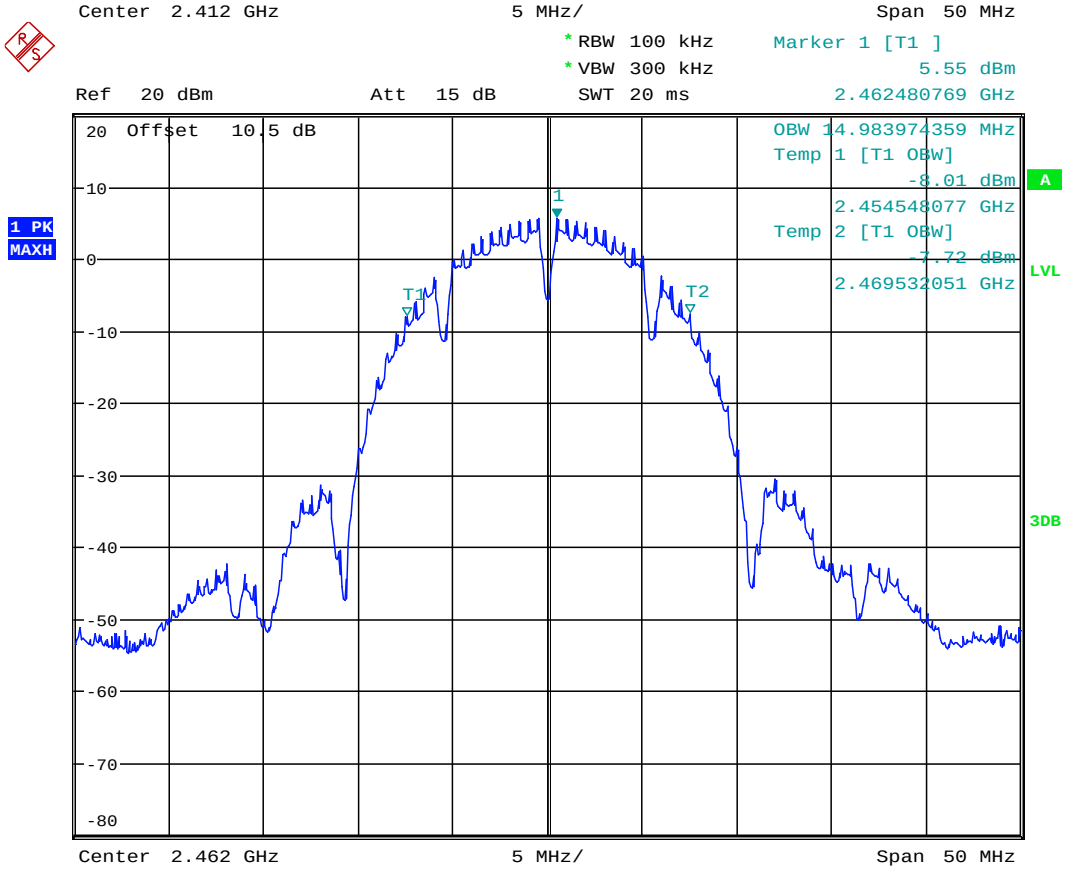




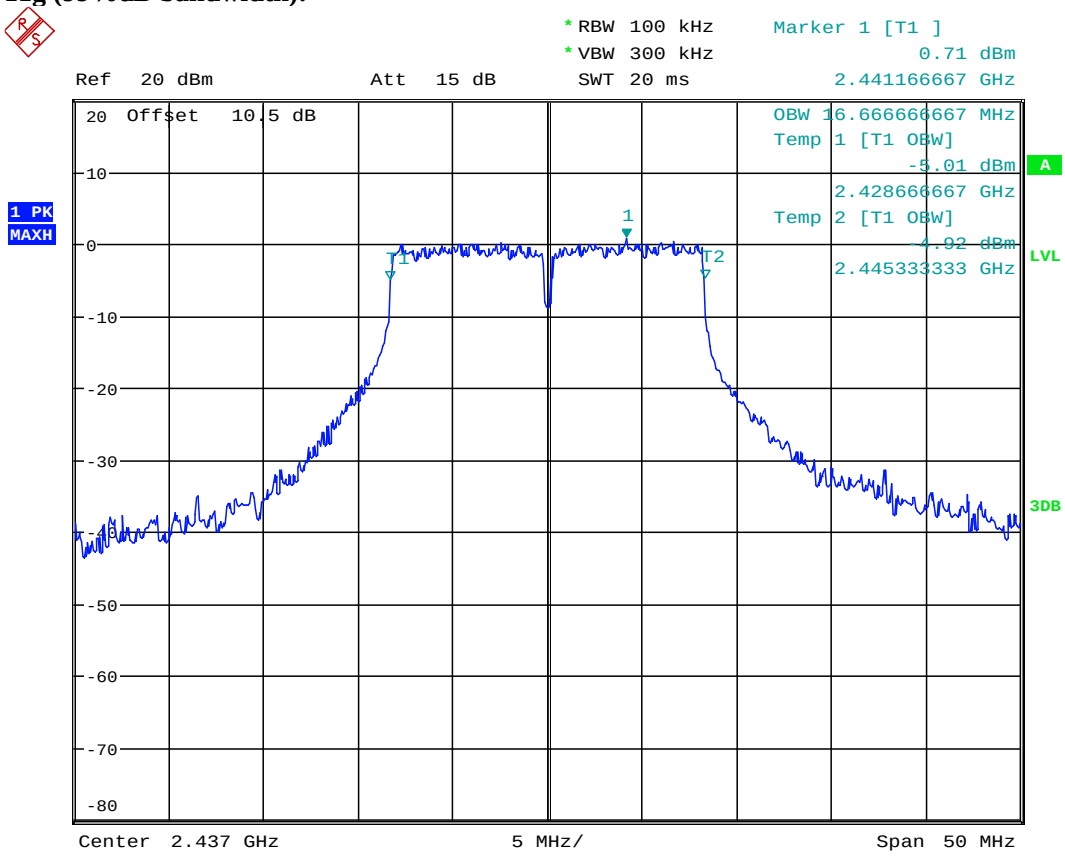
11b (99%dB bandwidth):

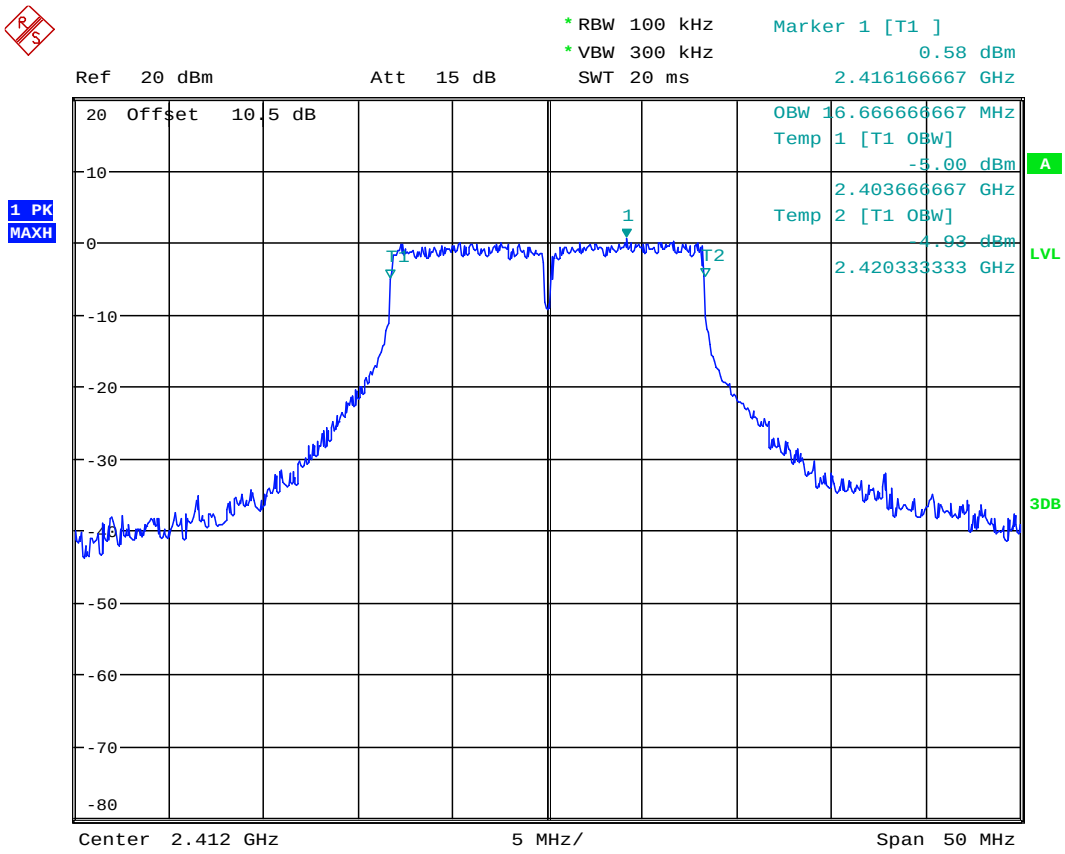


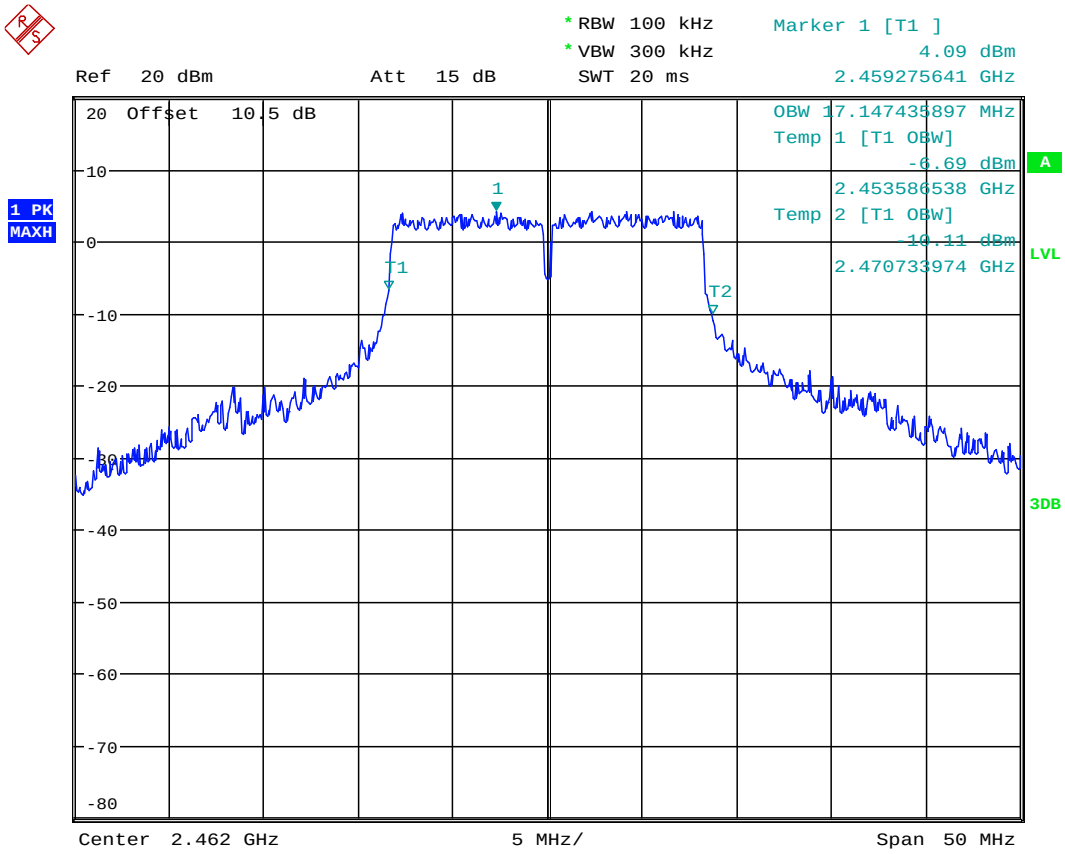

* RBW 100 kHz
* VBW 300 kHz
SWT 20 ms
Marker 1 [T1]
4.21 dBm
2.412480769 GHz
Ref 20 dBm
Att 15 dB
20 Offset 10.5 dB
OBW 14.983974359 MHz
Temp 1 [T1 OBW]
-9.26 dBm
2.404548077 GHz
Temp 2 [T1 OBW]
-8.91 dBm
2.419532051 GHz
1 PK
MAXH
A
LVL
3DB
T1
T2
Center 2.412 GHz
5 MHz/
Span 50 MHz


* RBW 100 kHz
* VBW 300 kHz
SWT 20 ms
Marker 1 [T1]
5.55 dBm
2.462480769 GHz
Ref 20 dBm
Att 15 dB
20 Offset 10.5 dB
OBW 14.983974359 MHz
Temp 1 [T1 OBW]
-8.01 dBm
2.454548077 GHz
Temp 2 [T1 OBW]
-7.72 dBm
2.469532051 GHz
1 PK
MAXH
A
LVL
3DB
T1
T2
Center 2.462 GHz
5 MHz/
Span 50 MHz

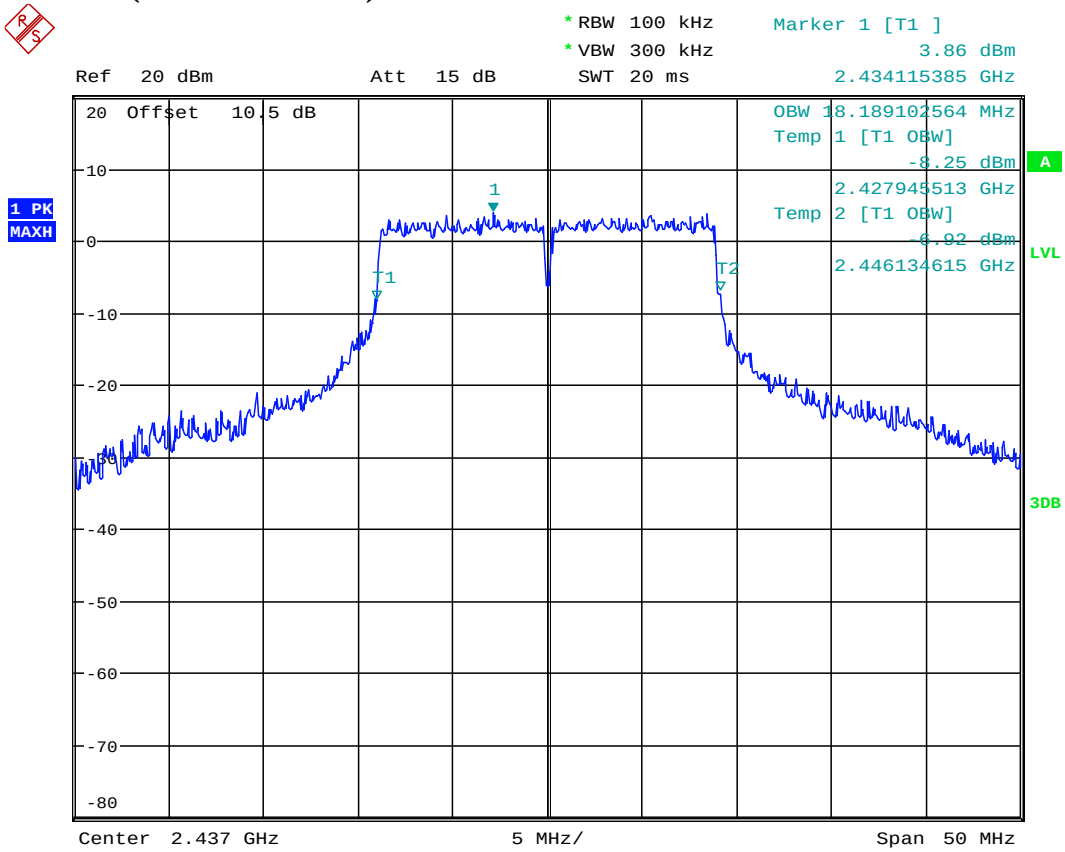
11g (99%dB bandwidth):

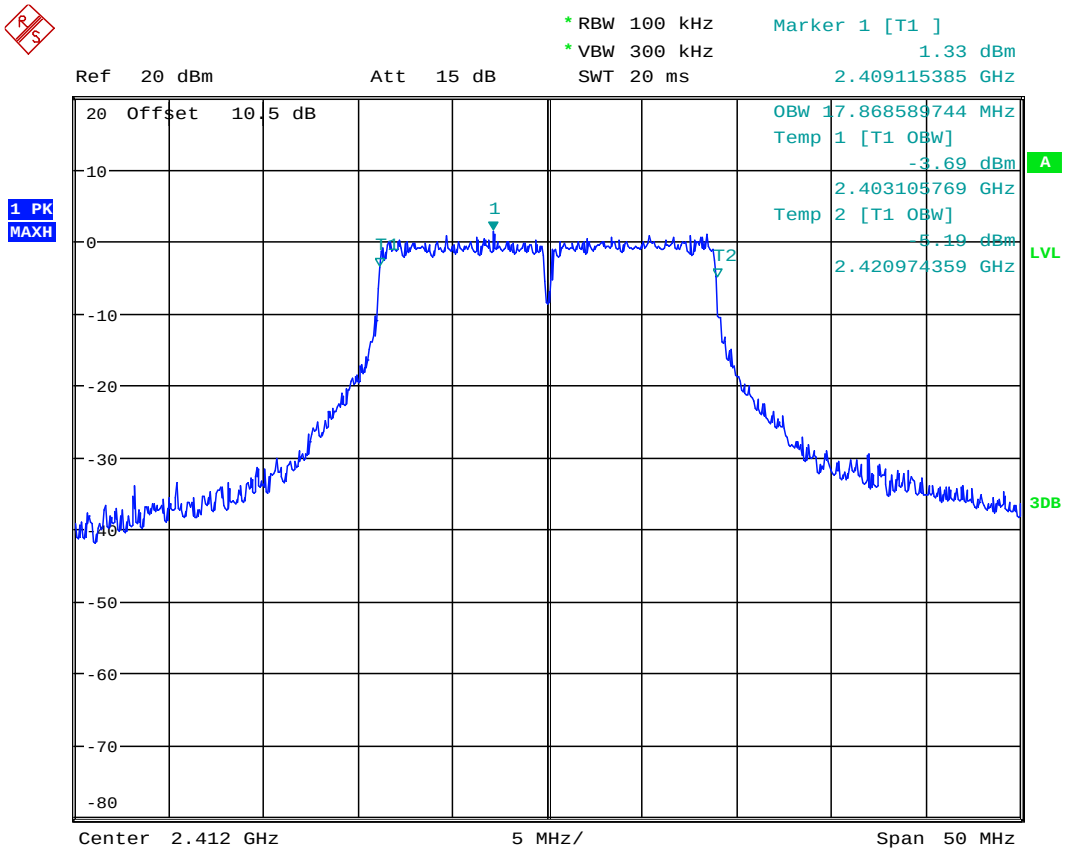


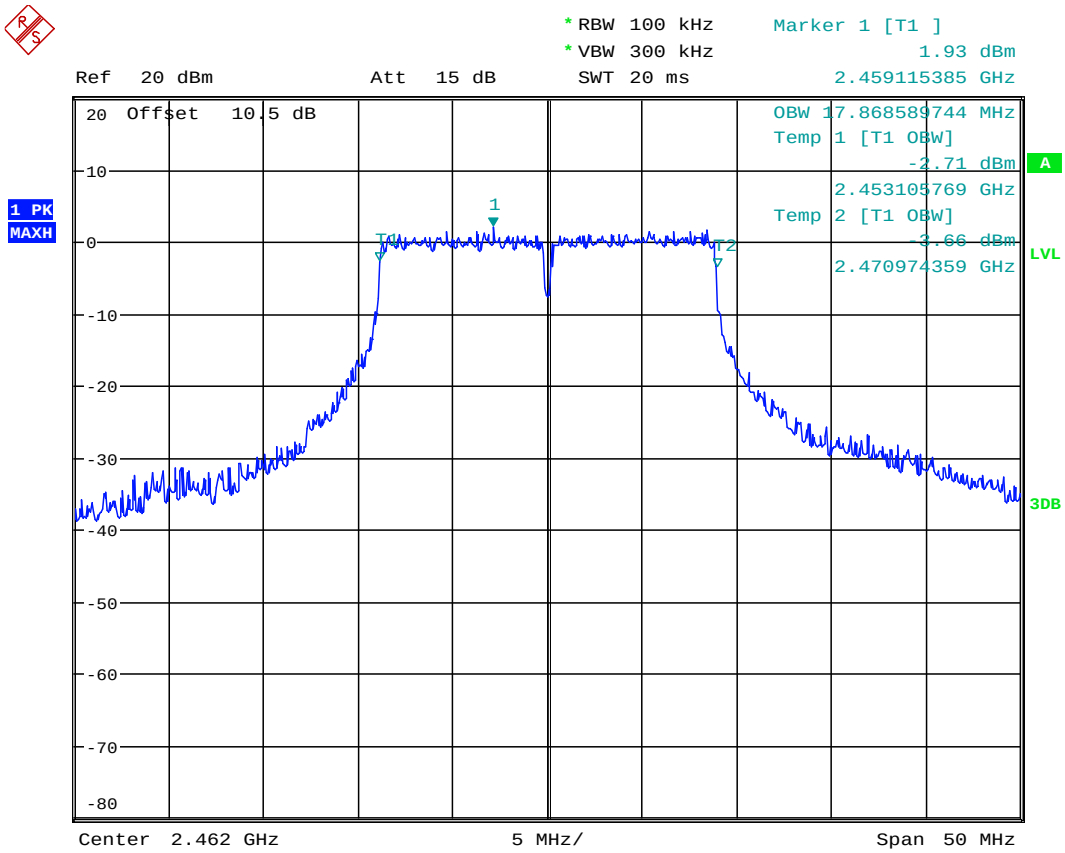




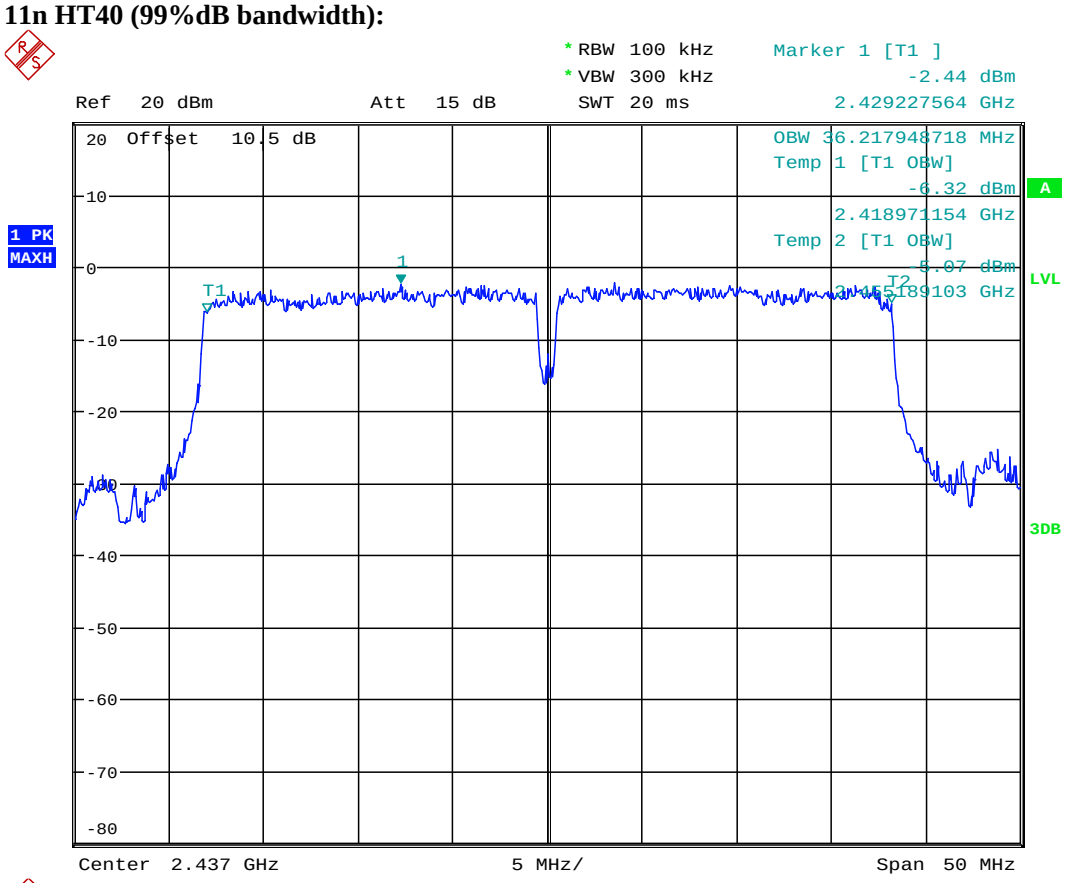
11n HT20 (99%dB bandwidth):

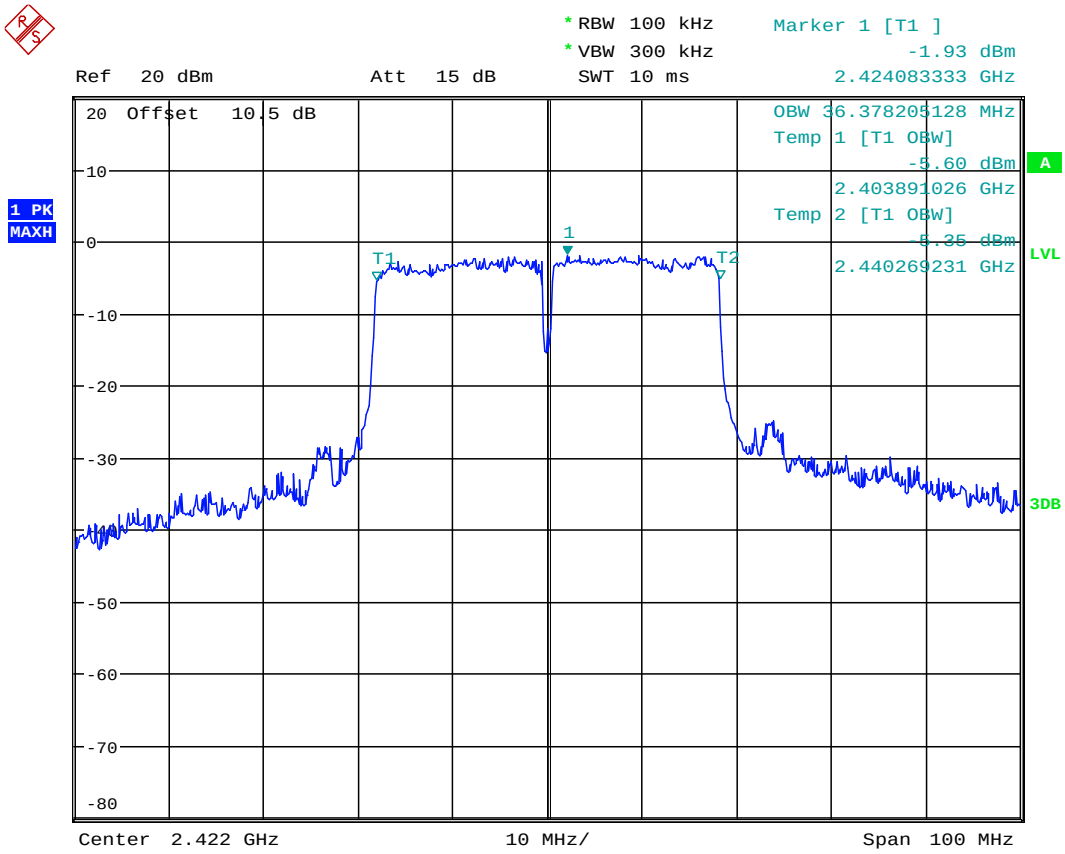


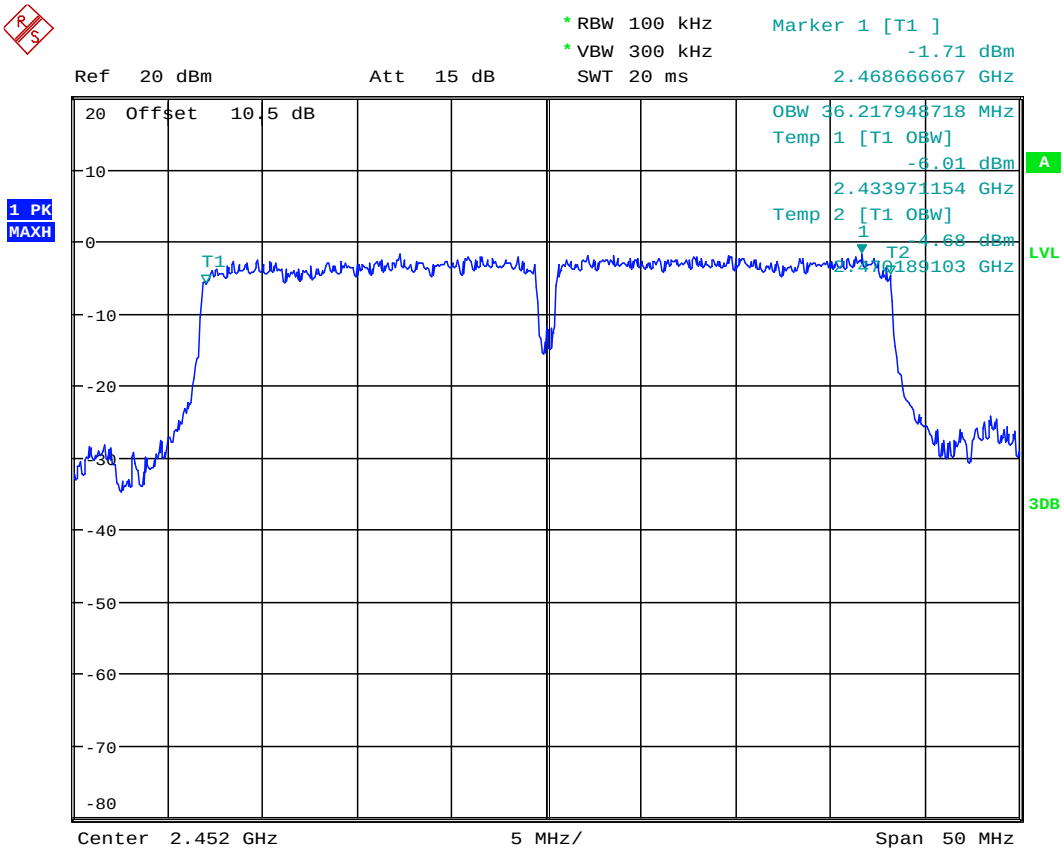

* RBW 100 kHz
* VBW 300 kHz
SWT 20 ms
Marker 1 [T1]
1.33 dBm
2.409115385 GHz
Ref 20 dBm
Att 15 dB
20 Offset 10.5 dB
OBW 17.868589744 MHz
Temp 1 [T1 OBW]
-3.69 dBm
2.403105769 GHz
Temp 2 [T1 OBW]
-5.19 dBm
2.420974359 GHz
1 PK
MAXH
A
LVL
3DB
Center 2.412 GHz
5 MHz/
Span 50 MHz


* RBW 100 kHz
* VBW 300 kHz
SWT 20 ms
Marker 1 [T1]
1.93 dBm
2.459115385 GHz
Ref 20 dBm
Att 15 dB
20 Offset 10.5 dB
OBW 17.868589744 MHz
Temp 1 [T1 OBW]
-2.71 dBm
2.453105769 GHz
Temp 2 [T1 OBW]
-3.66 dBm
2.470974359 GHz
1 PK
MAXH
A
LVL
3DB
Center 2.462 GHz
5 MHz/
Span 50 MHz

11n HT40 (99%dB bandwidth):





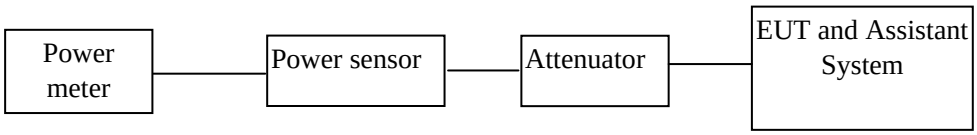


4. Maximum Peak Output Power

4.1. Test equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Power meter	Anritsu	ML2495A	1203234	2013/11/13	1 Year
2	Power sensor	Anritsu	MA2411B	1243433	2013/11/13	1 Year
3	Attenuator	Mini-Circuits	BW-S10W2	101109	2013/11/13	1 Year
4	RF Cable	Micable	C10-01-01-1	100309	2013/11/13	1 Year

4.2. Block diagram of test setup



4.3. Limits

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values as appropriate, by the amount in dB

that the directional gain of the antenna exceeds 6 dBi.

4.4. Test Procedure

(6) Configure EUT and assistant system according clause 2.4 and 4.2

(7) Connect each EUT's antenna output to power sensor by RF cable and attenuator

(8) Configure EUT work in test mode as stated in clause 2.4.

(9) Measure out the Average and PK output power of each antenna port by power meter.

4.5. Test Result

EUT: WLAN Pan/Tilt Camera&App M/N: TVAC19000C				
EUT Set Mode	Soft power set	Data Rate (Mbp/s)	CH	Result(dBm)
				Peak
11b	53	11	CH1	20.14
			CH6	20.45
			CH11	20.22
11g	53	6	CH1	20.51
			CH6	20.52
			CH11	20.13
11n HT20	53	MCS 0	CH1	20.21
			CH6	20.63
			CH11	20.23
11n HT40	53	MCS0	CH3	20.61
			CH6	20.13
			CH9	20.73
Limit: 30dBm (PK power)			Conclusion: PASS	
Test Date : 2014/10/20			Test Engineer : Leo	

5. Power Spectral Density

5.1. Test equipment

Same with 3.1

5.2. Block diagram of test setup

Same with 3.2

5.3. Limits

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission.

5.4. Test Procedure

(1) Configure EUT and assistant system according clause 2.4 and 5.2

(2) Connect EUT's antenna output to spectrum analyzer by RF cable.

(3) Configure EUT work in test mode as stated in clause 2.4.

(4) Set the spectrum analyzer as follows:

Center frequency	DTS Channel center frequency
RBW:	3 kHz ≤ RBW ≤ 100 kHz
VBW:	≥ 3RBW
Span	1.5times the DTS bandwidth
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

(5) Allow the trace to stabilize, use the peak marker function to determine the maximum amplitude level within the RBW.

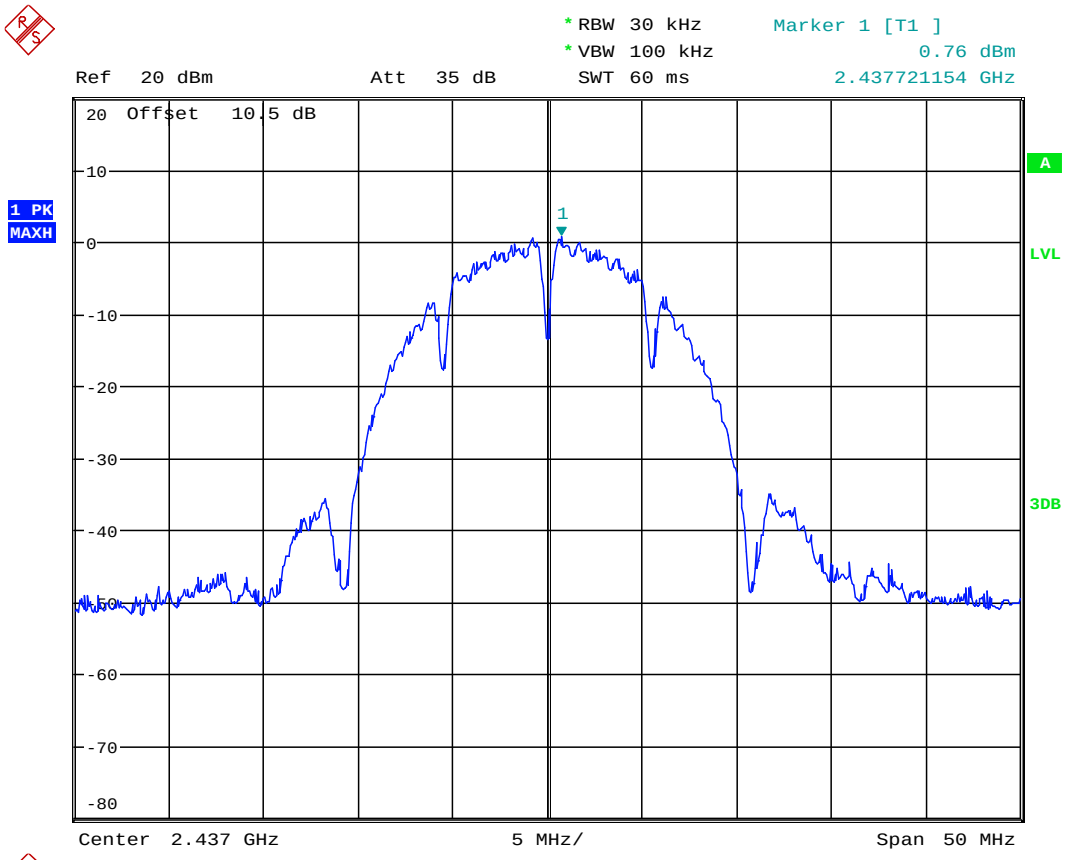
(6) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

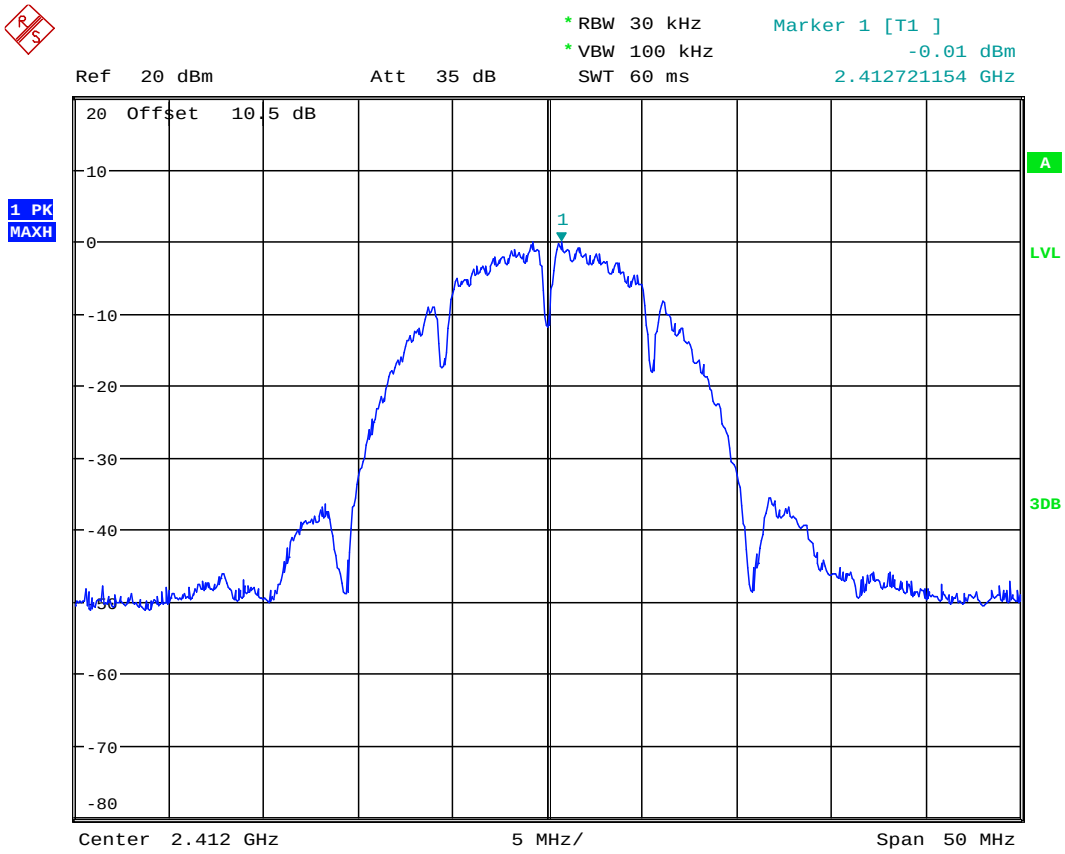
5.5. Test Result

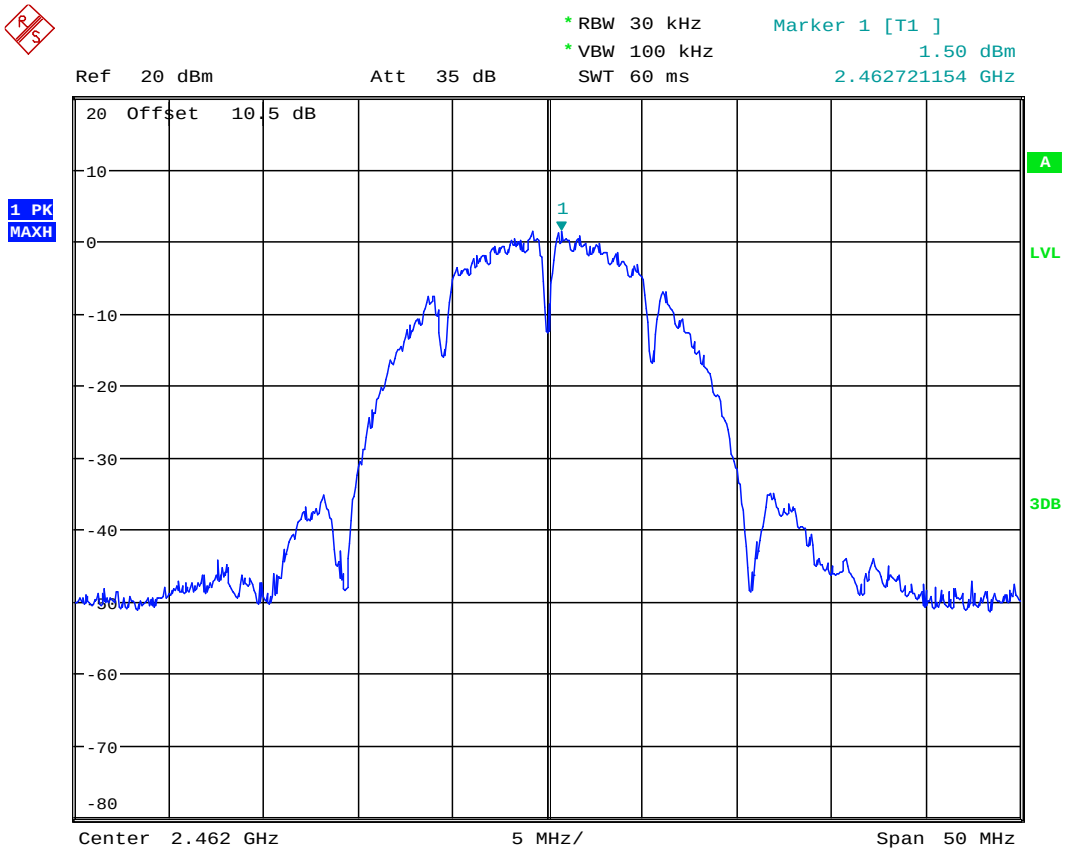
EUT: WLAN Pan/Tilt Camera&App M/N: TVAC19000C					
EUT Set Mode	CH or Frequency	Result	EUT Set Mode	CH or Frequency	Result
11b	CH1	-0.01dBm/30KHz	11n HT 20	CH1	-0.92dBm/30KHz
	CH6	0.76dBm/30KHz		CH6	-0.75dBm/30KHz
	CH11	1.50dBm/30KHz		CH11	-0.36dBm/30KHz
11g	CH1	-1.57dBm/30KHz	11n HT 40	CH3	-3.89dBm/30KHz
	CH6	-1.63dBm/30KHz		CH6	-4.33dBm/30KHz
	CH11	-1.57dBm/30KHz		CH9	-4.17dBm/30KHz
Limit: <8dBm/3KHz			Conclusion: PASS		
Test Date : 2014/10/20			Test Engineer : Leo		

5.6. Original test data

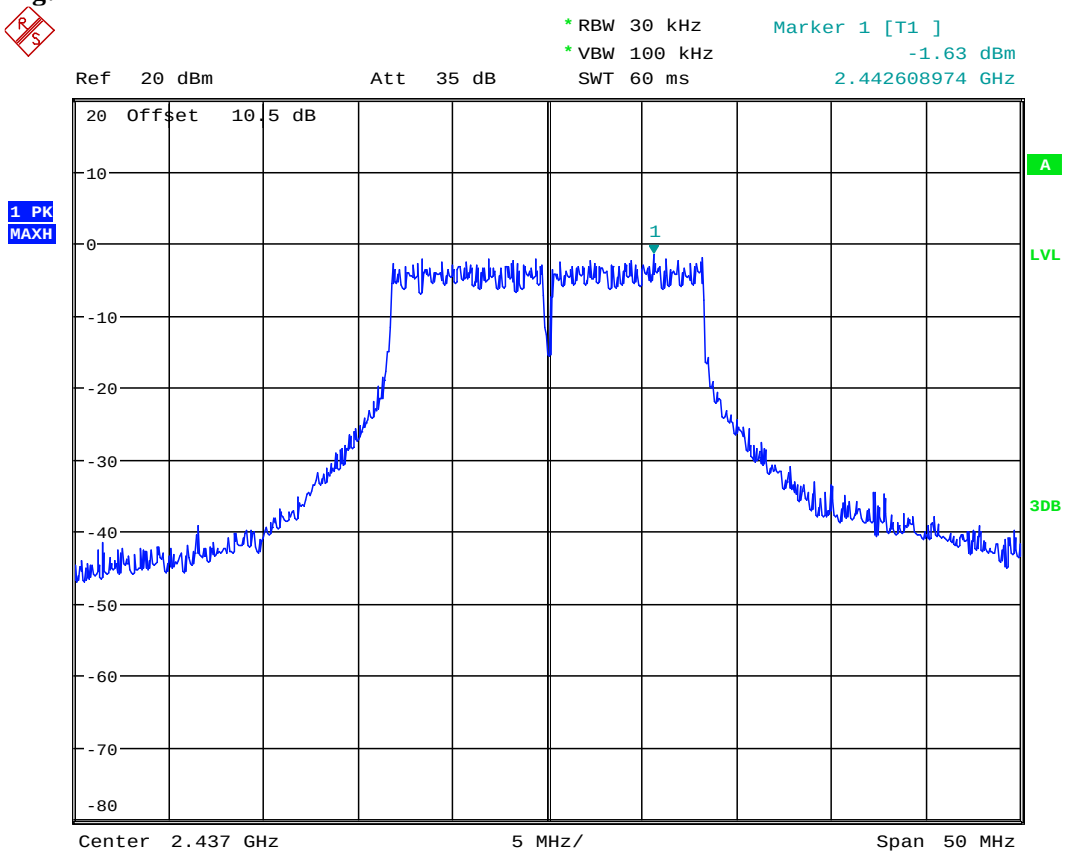
11b:

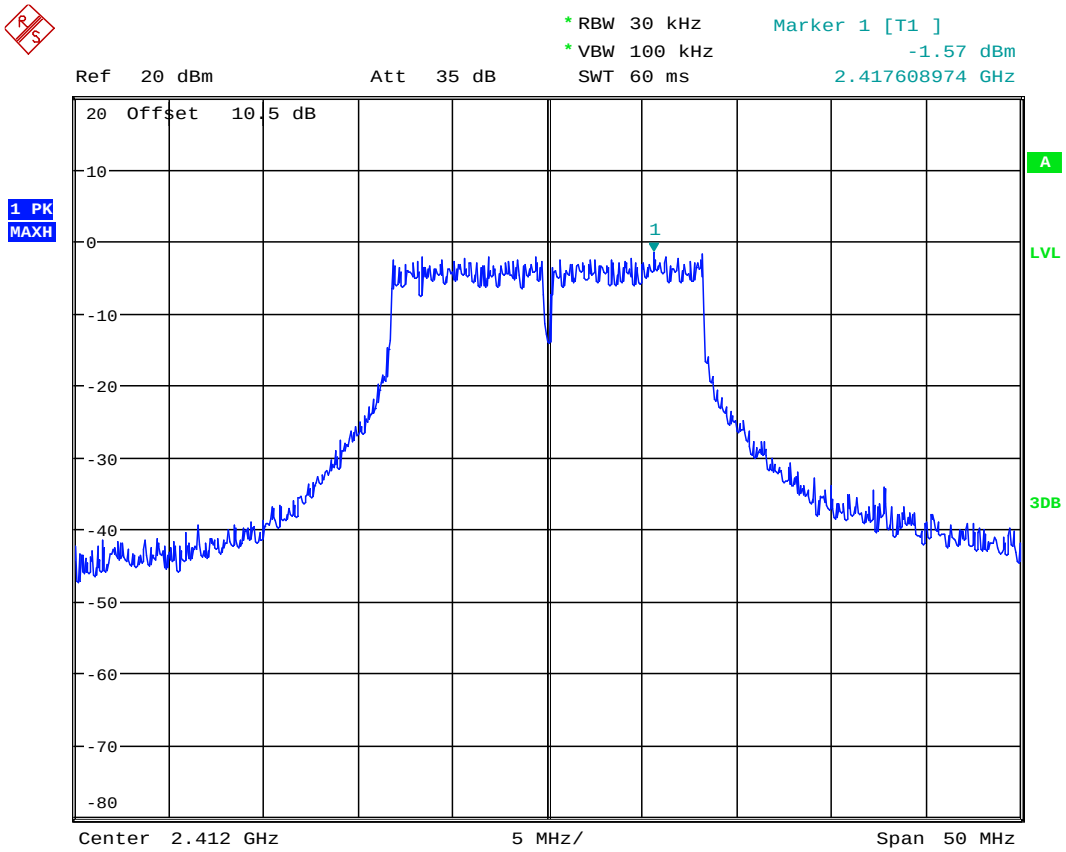

* RBW 30 kHz
* VBW 100 kHz
SWT 60 ms
Marker 1 [T1]
0.76 dBm
2.437721154 GHz
Ref 20 dBm
Att 35 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
Center 2.437 GHz
5 MHz/
Span 50 MHz

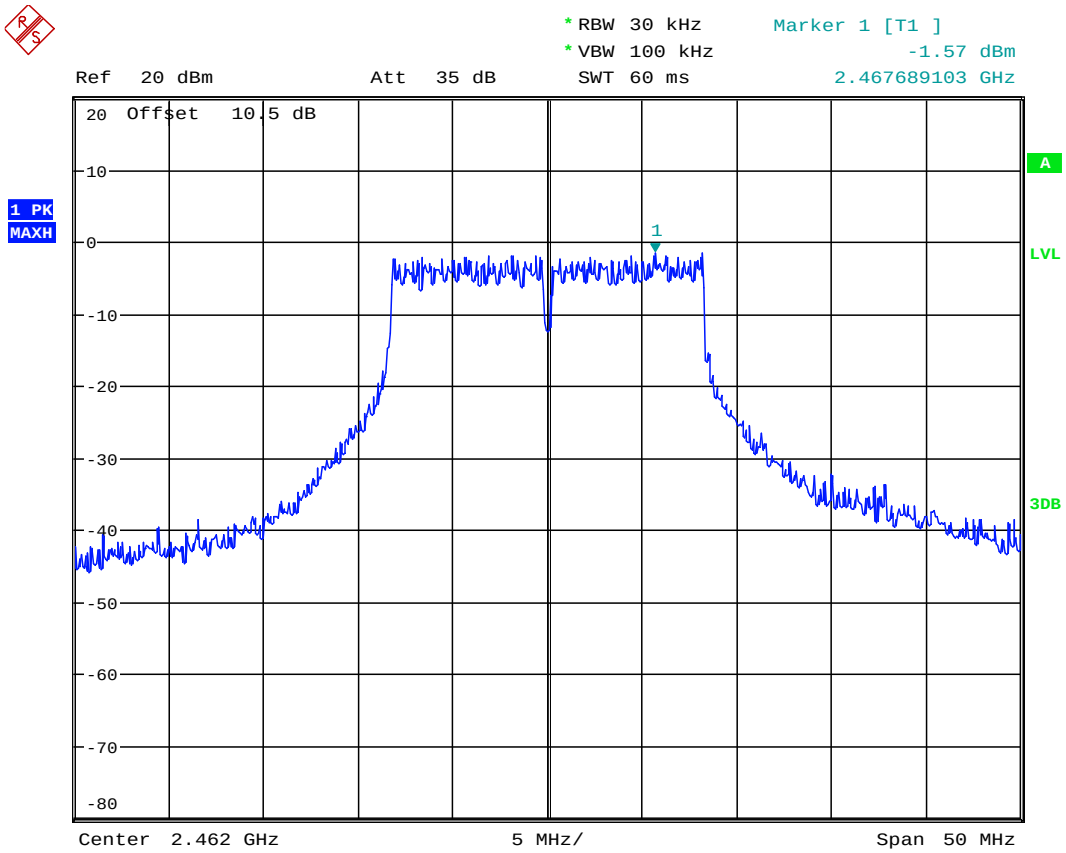

* RBW 30 kHz
* VBW 100 kHz
SWT 60 ms
Marker 1 [T1]
-0.01 dBm
2.412721154 GHz
Ref 20 dBm
Att 35 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
Center 2.412 GHz
5 MHz/
Span 50 MHz


* RBW 30 kHz
* VBW 100 kHz
SWT 60 ms
Marker 1 [T1]
1.50 dBm
2.462721154 GHz
Ref 20 dBm
Att 35 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
Center 2.462 GHz
5 MHz/
Span 50 MHz

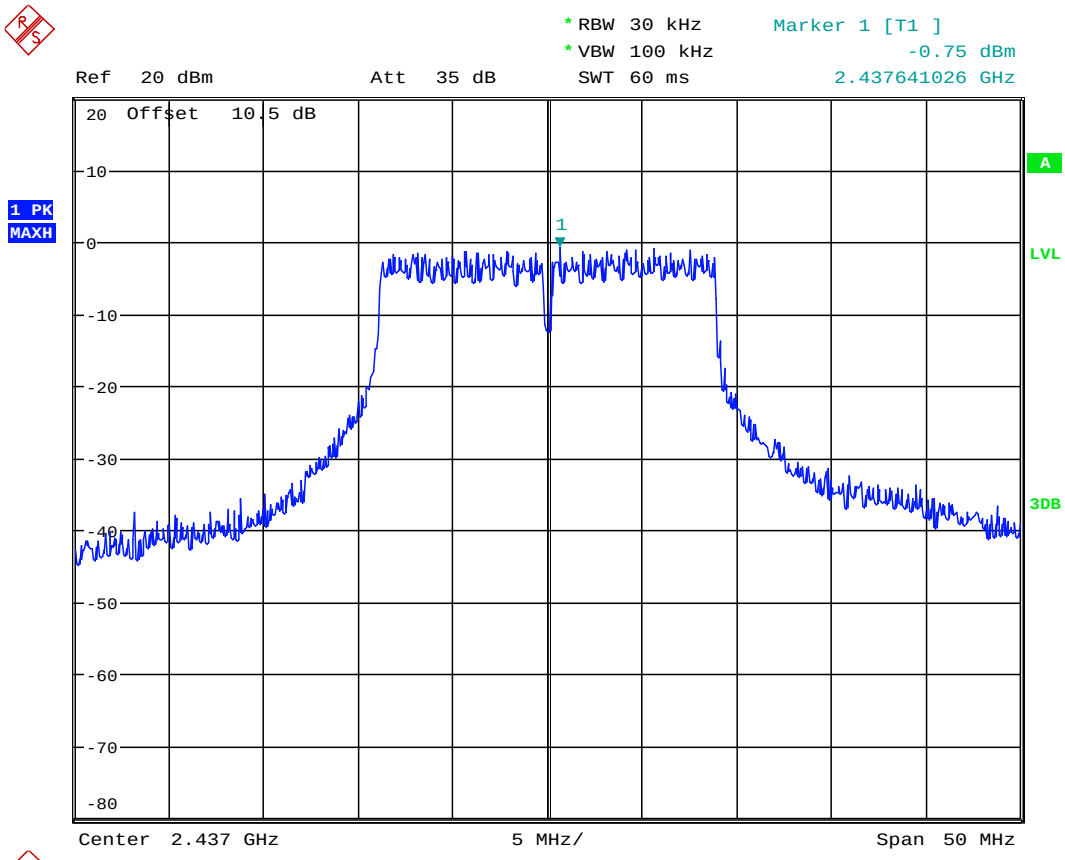
11g:

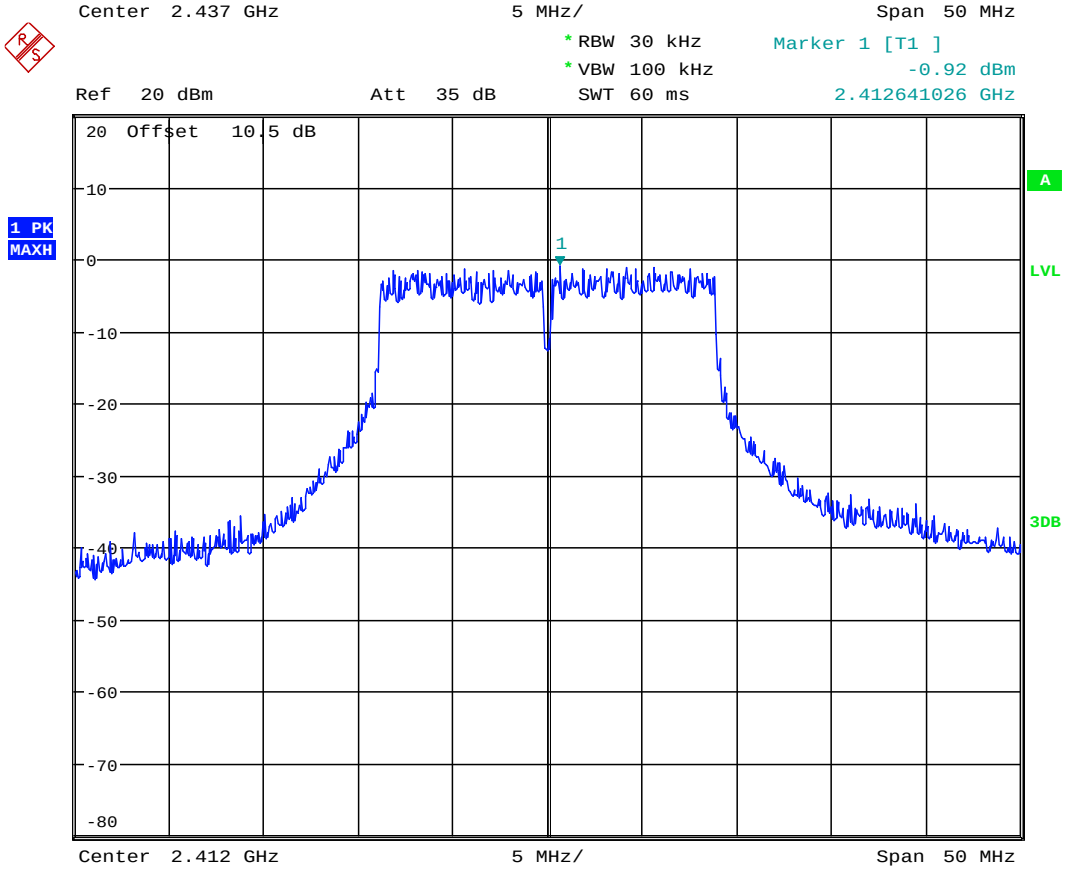

* RBW 30 kHz
* VBW 100 kHz
SWT 60 ms
Marker 1 [T1]
-1.63 dBm
2.442608974 GHz
Ref 20 dBm
Att 35 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
Center 2.437 GHz
5 MHz/
Span 50 MHz

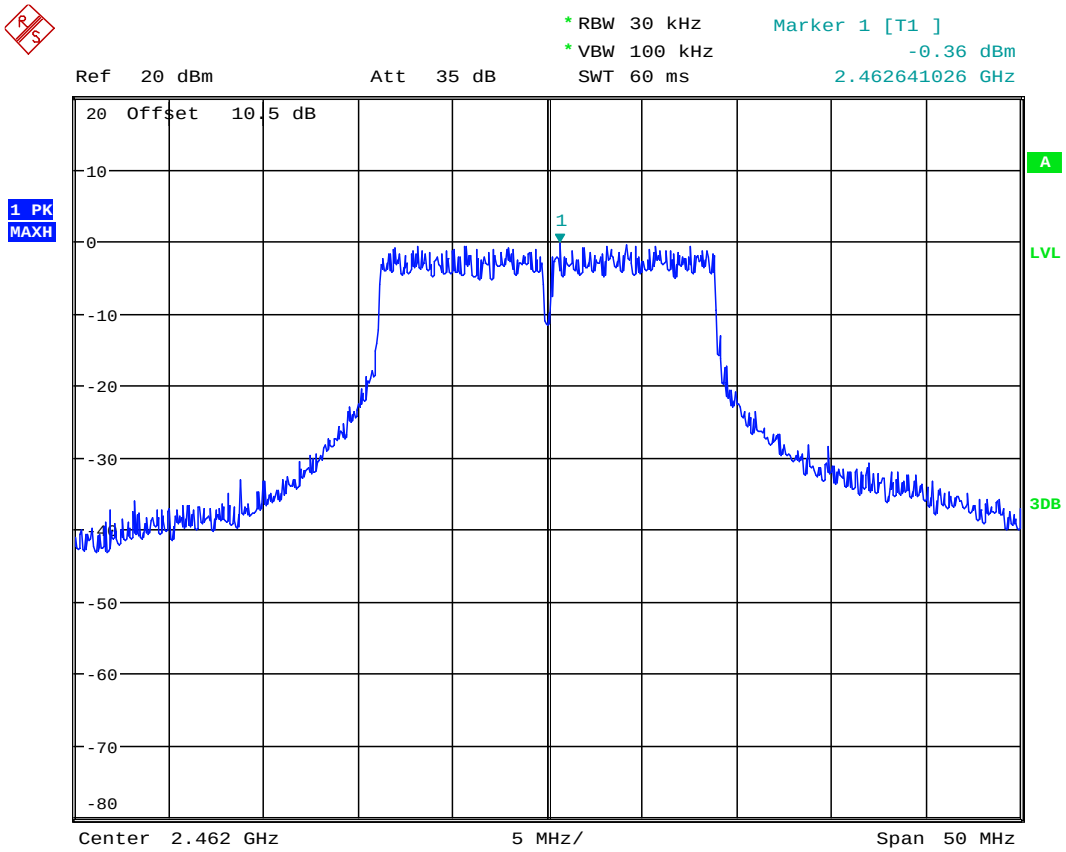

* RBW 30 kHz
* VBW 100 kHz
SWT 60 ms
Marker 1 [T1]
-1.57 dBm
2.417608974 GHz
Ref 20 dBm
Att 35 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
Center 2.412 GHz
5 MHz/
Span 50 MHz


* RBW 30 kHz
* VBW 100 kHz
SWT 60 ms
Marker 1 [T1]
-1.57 dBm
2.467689103 GHz
Ref 20 dBm
Att 35 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
Center 2.462 GHz
5 MHz/
Span 50 MHz

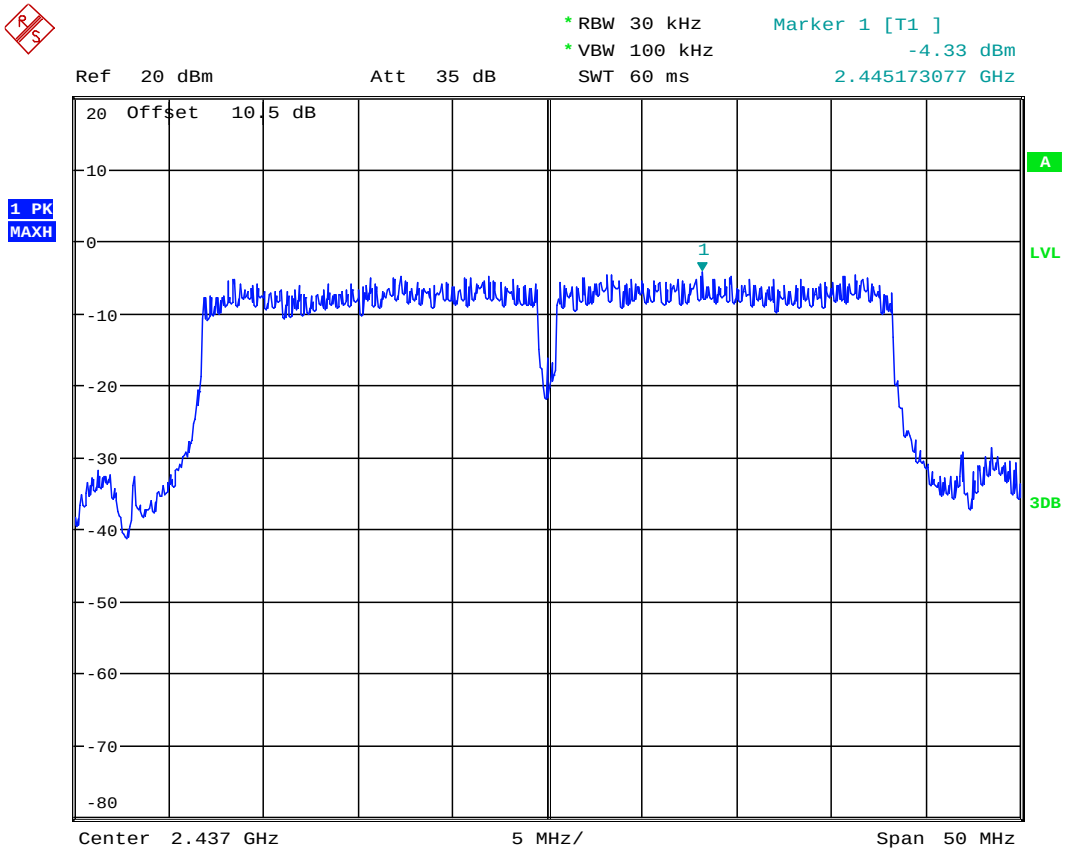
11n HT20:

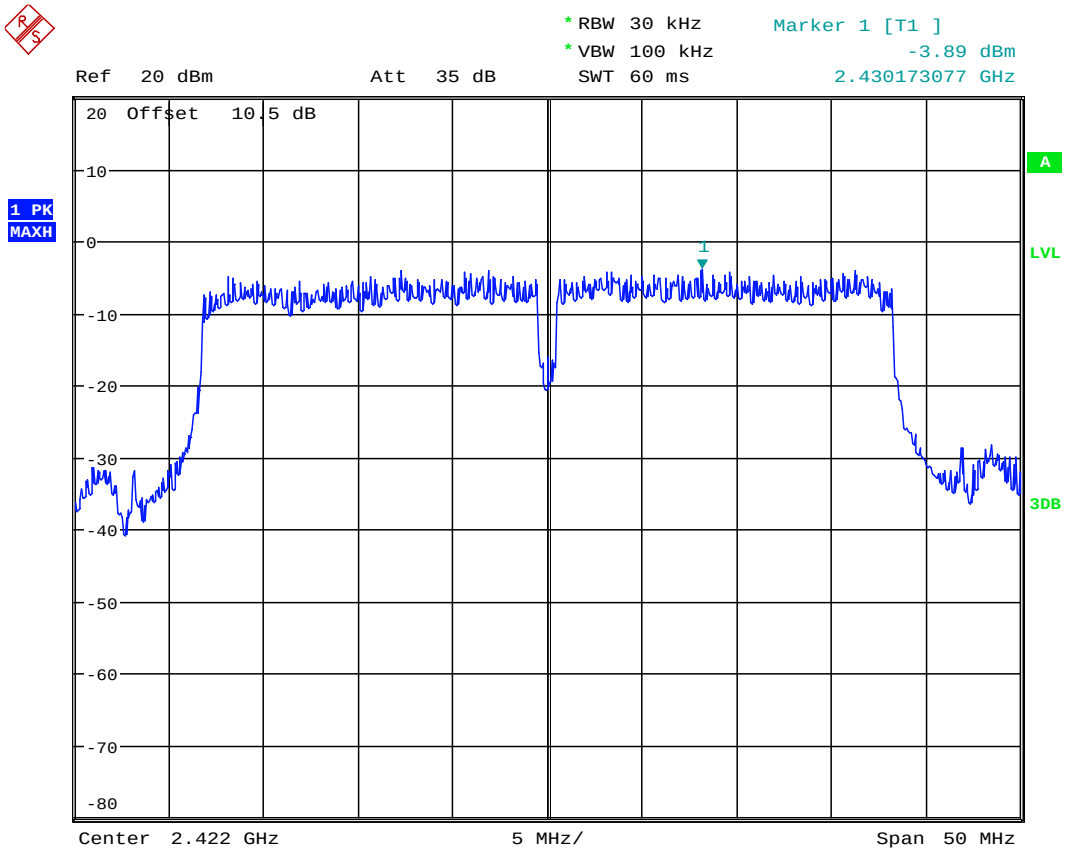

* RBW 30 kHz
* VBW 100 kHz
SWT 60 ms
Marker 1 [T1]
-0.75 dBm
2.437641026 GHz
Ref 20 dBm
Att 35 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
Center 2.437 GHz
5 MHz/
Span 50 MHz

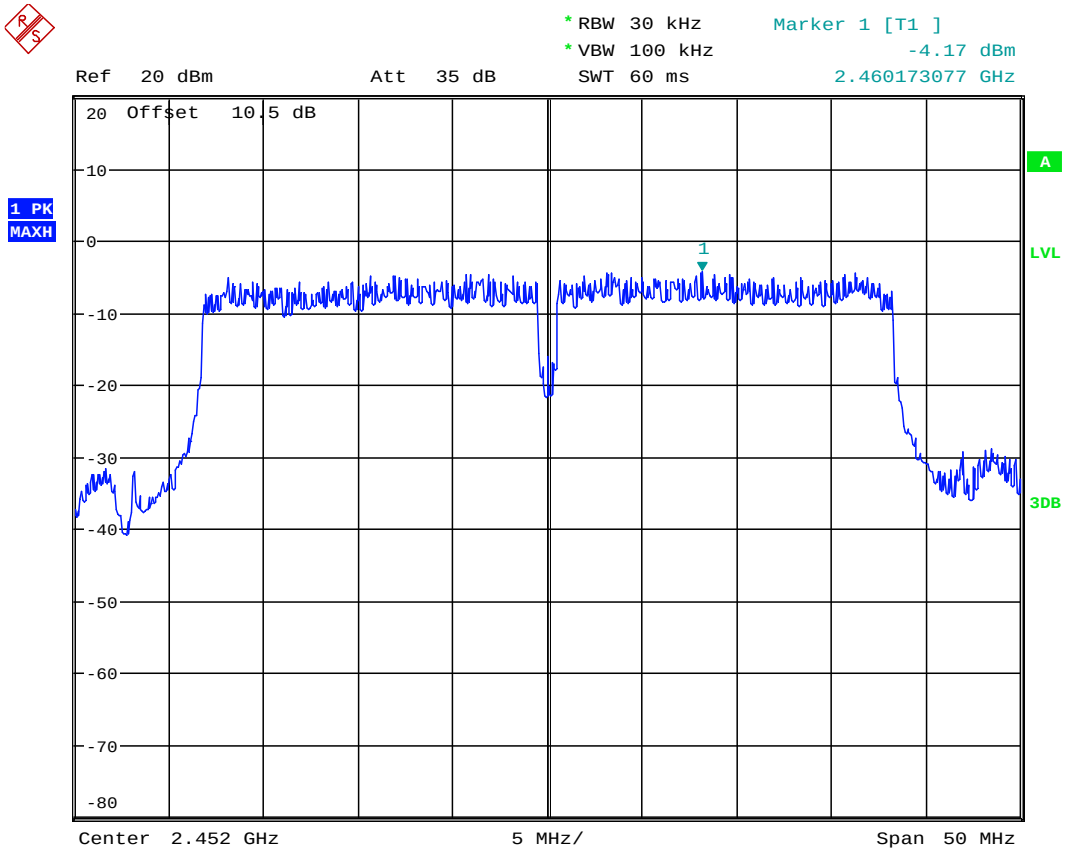

* RBW 30 kHz
* VBW 100 kHz
SWT 60 ms
Marker 1 [T1]
-0.92 dBm
2.412641026 GHz
Ref 20 dBm
Att 35 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
Center 2.412 GHz
5 MHz/
Span 50 MHz


RBW 30 kHz
VBW 100 kHz
SWT 60 ms
Marker 1 [T1]
-0.36 dBm
2.462641026 GHz
Ref 20 dBm
Att 35 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
Center 2.462 GHz
5 MHz/
Span 50 MHz

11n HT40:


RBW 30 kHz
VBW 100 kHz
SWT 60 ms
Marker 1 [T1]
-4.33 dBm
2.445173077 GHz
Ref 20 dBm
Att 35 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
Center 2.437 GHz
5 MHz/
Span 50 MHz


* RBW 30 kHz
* VBW 100 kHz
SWT 60 ms
Marker 1 [T1]
-3.89 dBm
2.430173077 GHz
Ref 20 dBm
Att 35 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
Center 2.422 GHz
5 MHz/
Span 50 MHz


* RBW 30 kHz
* VBW 100 kHz
SWT 60 ms
Marker 1 [T1]
-4.17 dBm
2.460173077 GHz
Ref 20 dBm
Att 35 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
Center 2.452 GHz
5 MHz/
Span 50 MHz

6. Emissions in non-restricted frequency bands

6.1. Test equipment

Same with 3.1

6.2. Block diagram of test setup

Same with 3.2

6.3. Limits

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.

6.4. Test Procedure

(1) Configure EUT and assistant system according clause 2.4 and 6.2

(2) Connect EUT's antenna output to spectrum analyzer by RF cable.

(3) Configure EUT work in test mode as stated in clause 2.4.

(4) Establish a reference level by using the following procedure:

Center frequency	DTS Channel center frequency
RBW:	100KHz
VBW:	300KHz
Span	1.5times the DTS bandwidth
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

(5) Allow the trace to stabilize, use the peak marker function to determine the maximum peak power level to establish the reference level.

(6) Set the spectrum analyzer as follows:

RBW:	100KHz
VBW:	300KHz
Span	Encompass frequency range to be measured
Number of measurement points	⩾ span/RBW
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

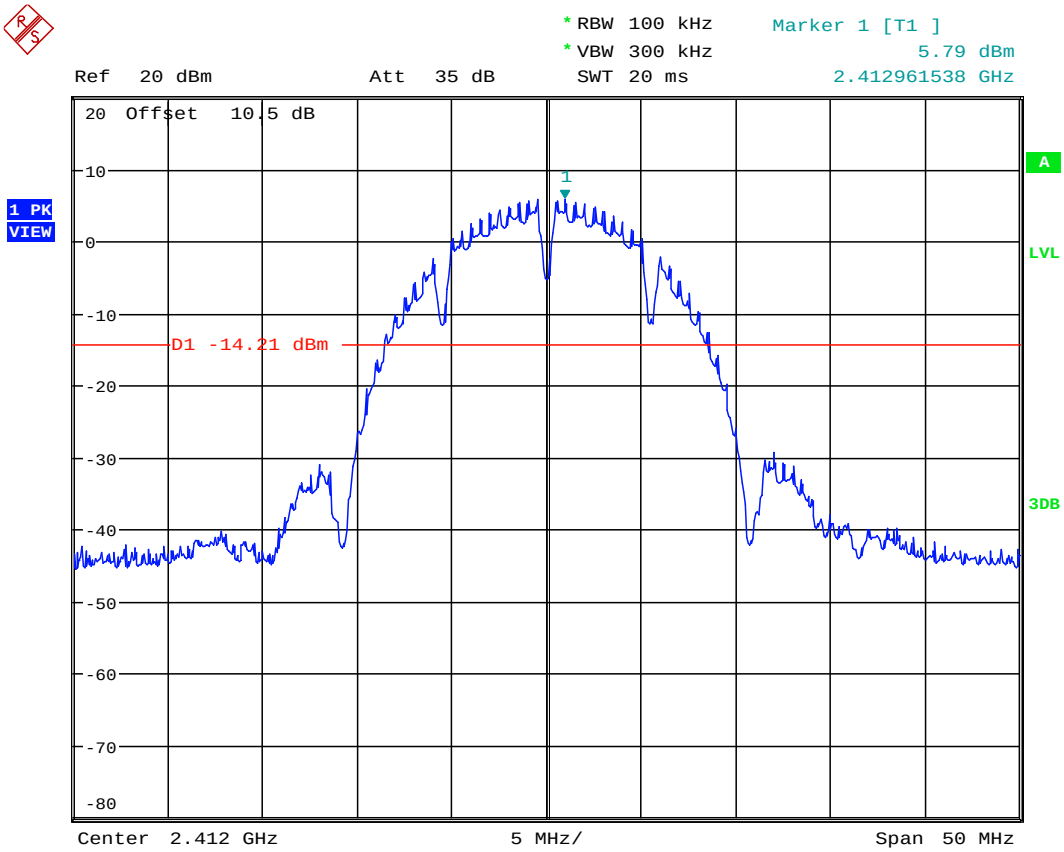
(7) Allow the trace to stabilize, use the peak marker function to determine the maximum amplitude of all unwanted emissions outside of the authorized frequency band

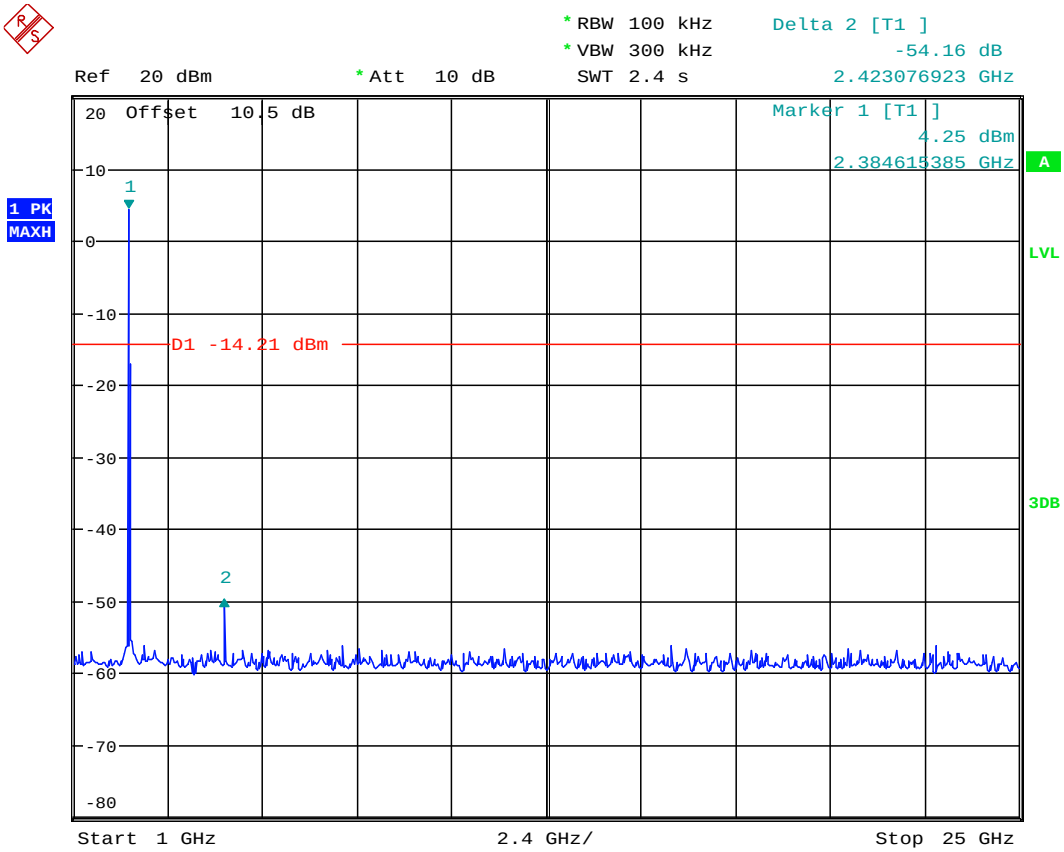
6.5. Test Result

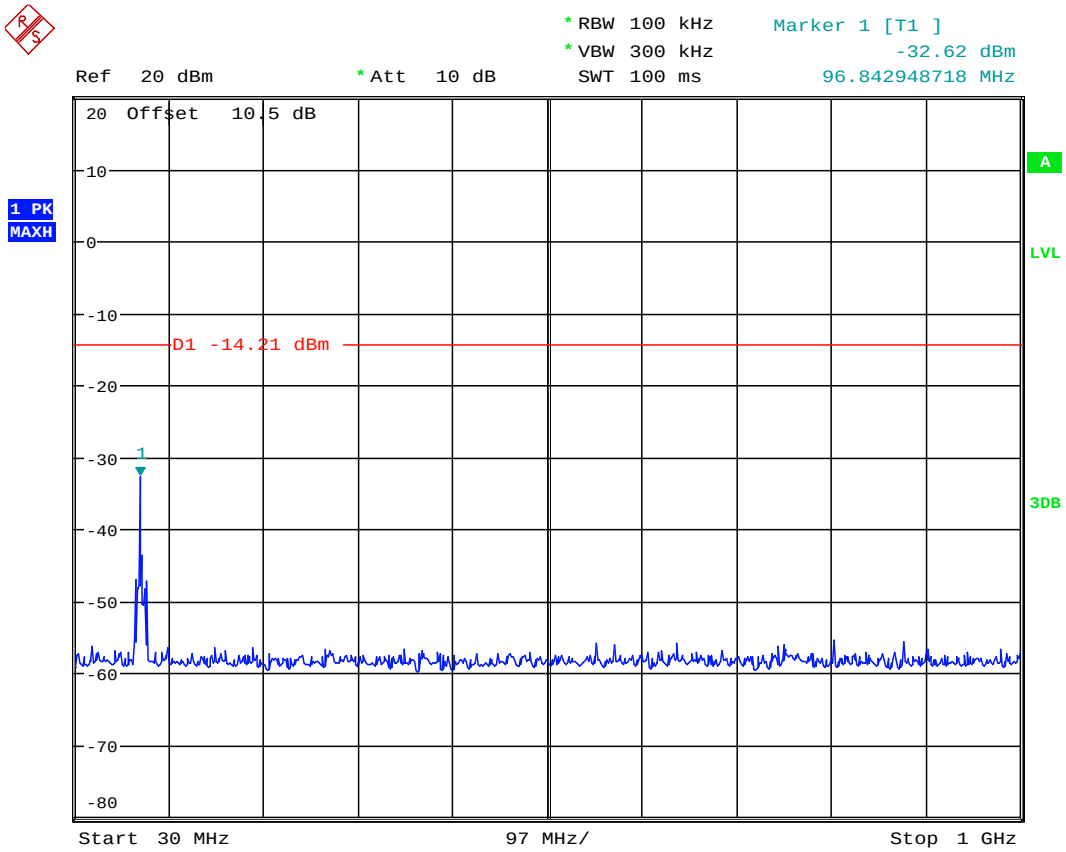
EUT: WLAN Pan/Tilt Camera&App M/N: TVAC19000C							
EUT Set Mode	CH or Frequency	Measured Range	Result (dBm)	EUT Set Mode	CH or Frequency	Measured Range	Result (dBm)
11b	CH1	30MHz-1GHz	PASS	11n HT 20	CH1	30MHz-1GHz	PASS
		1GHz-25GHz	PASS			1GHz-25GHz	PASS
		2.3GHz-2.43GHz	PASS			2.3GHz-2.43GHz	PASS
	CH6	30MHz-1GHz	PASS		CH6	30MHz-1GHz	PASS
		1GHz-25GHz	PASS			1GHz-25GHz	PASS
	CH11	30MHz-1GHz	PASS		CH11	30MHz-1GHz	PASS
		1GHz-25GHz	PASS			1GHz-25GHz	PASS
		2.45GHz-2.6GHz	PASS			2.45GHz-2.6GHz	PASS
11g	CH1	30MHz-1GHz	PASS	11n HT 40	CH3	30MHz-1GHz	PASS
		1GHz-25GHz	PASS			1GHz-25GHz	PASS
		2.3GHz-2.43GHz	PASS			2.3GHz-2.43GHz	PASS
	CH6	30MHz-1GHz	PASS		CH6	30MHz-1GHz	PASS
		1GHz-25GHz	PASS			1GHz-25GHz	PASS
	CH11	30MHz-1GHz	PASS		CH9	30MHz-1GHz	PASS
		1GHz-25GHz	PASS			1GHz-25GHz	PASS
		2.45GHz-2.6GHz	PASS			2.43-2.6GHz	PASS
Test Date : 2014/10/20				Test Engineer : Leo			

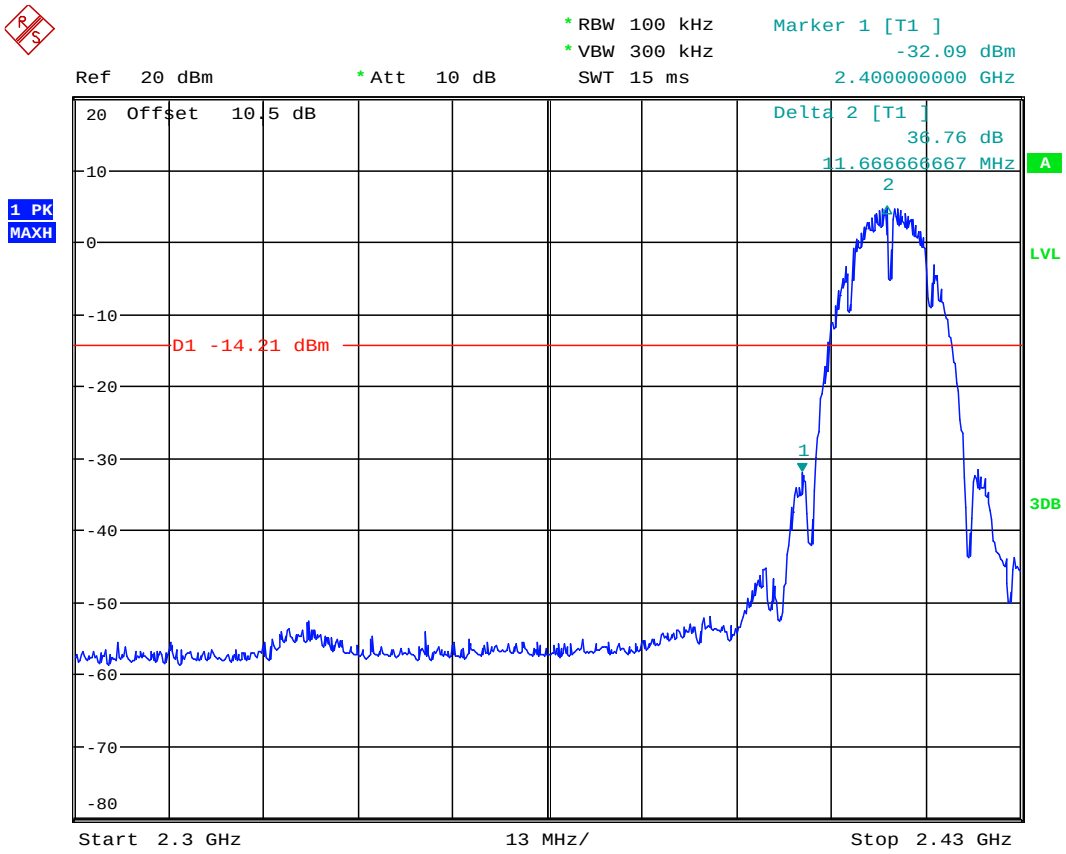
6.6. Original test data

11b CH1:

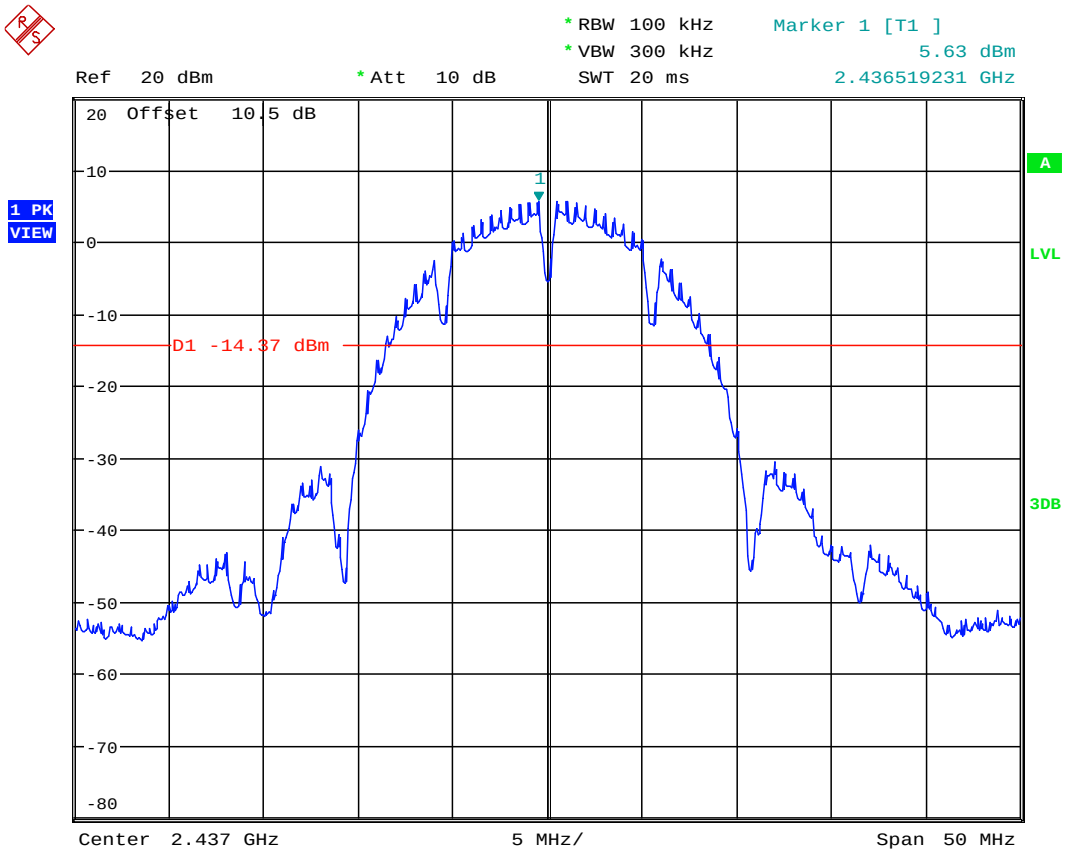

* RBW 100 kHz
* VBW 300 kHz
SWT 20 ms
Marker 1 [T1]
5.79 dBm
2.412961538 GHz
Ref 20 dBm
Att 35 dB
20 Offset 10.5 dB
1 PK
VIEW
A
LVL
3DB
D1 -14.21 dBm
Center 2.412 GHz
5 MHz/
Span 50 MHz

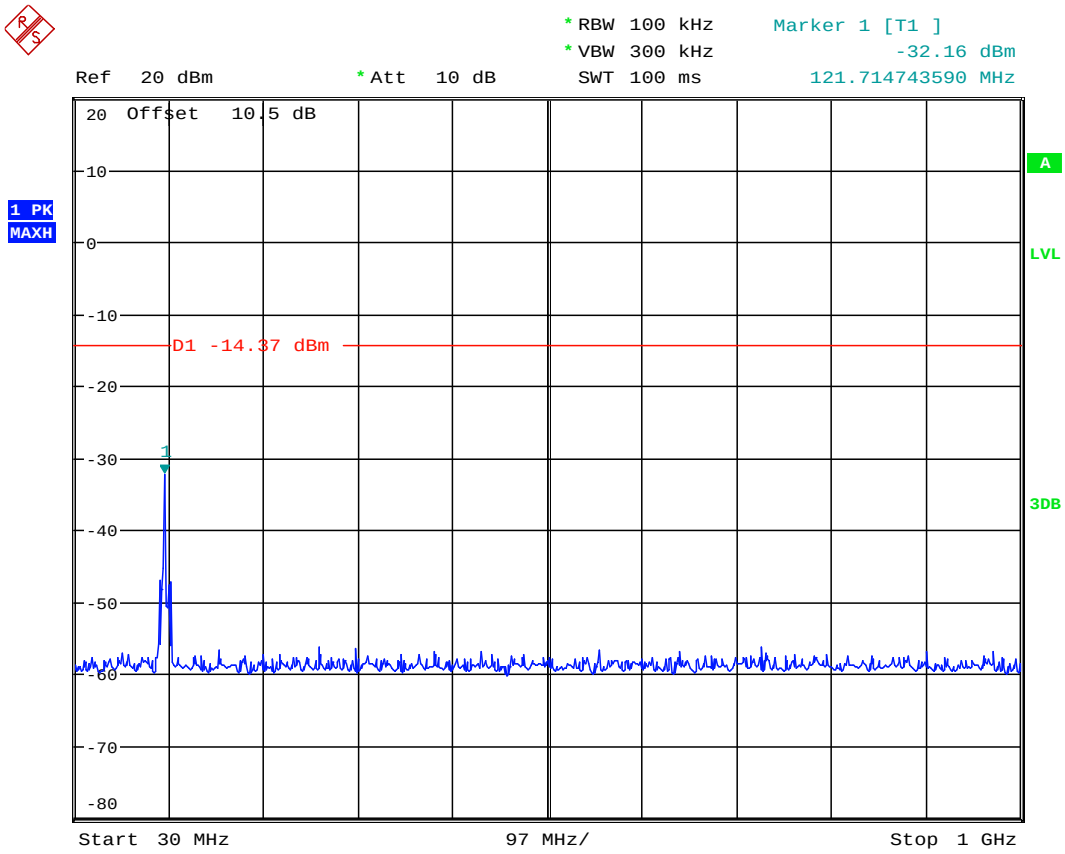

* RBW 100 kHz
* VBW 300 kHz
SWT 2.4 s
Delta 2 [T1]
-54.16 dB
2.423076923 GHz
Ref 20 dBm
* Att 10 dB
20 Offset 10.5 dB
Marker 1 [T1]
4.25 dBm
2.384615385 GHz
1 PK
MAXH
A
LVL
3DB
D1 -14.21 dBm
Start 1 GHz
2.4 GHz/
Stop 25 GHz

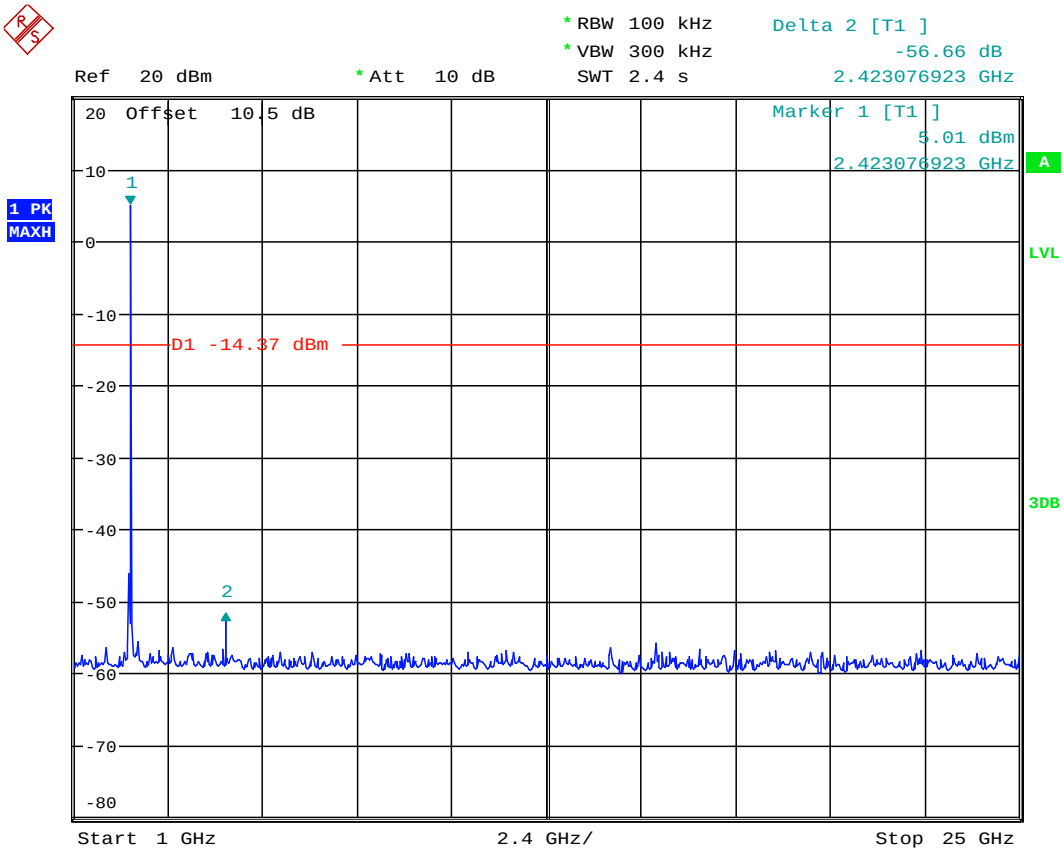

RBW 100 kHz
VBW 300 kHz
SWT 100 ms
Marker 1 [T1]
-32.62 dBm
96.842948718 MHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
D1 -14.21 dBm
Start 30 MHz
97 MHz/
Stop 1 GHz


RBW 100 kHz
VBW 300 kHz
SWT 15 ms
Marker 1 [T1]
-32.09 dBm
2.400000000 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
Delta 2 [T1]
36.76 dB
11.666666667 MHz
1 PK
MAXH
A
LVL
3DB
D1 -14.21 dBm
Start 2.3 GHz
13 MHz/
Stop 2.43 GHz

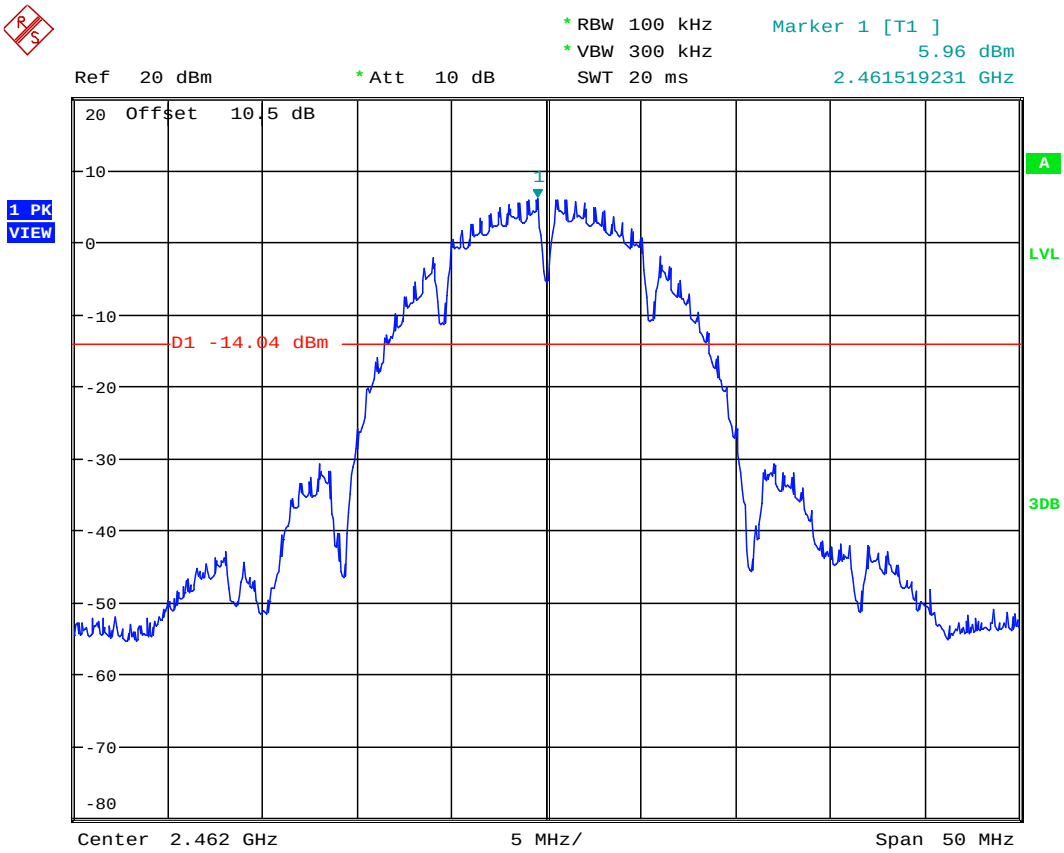
11b CH6:

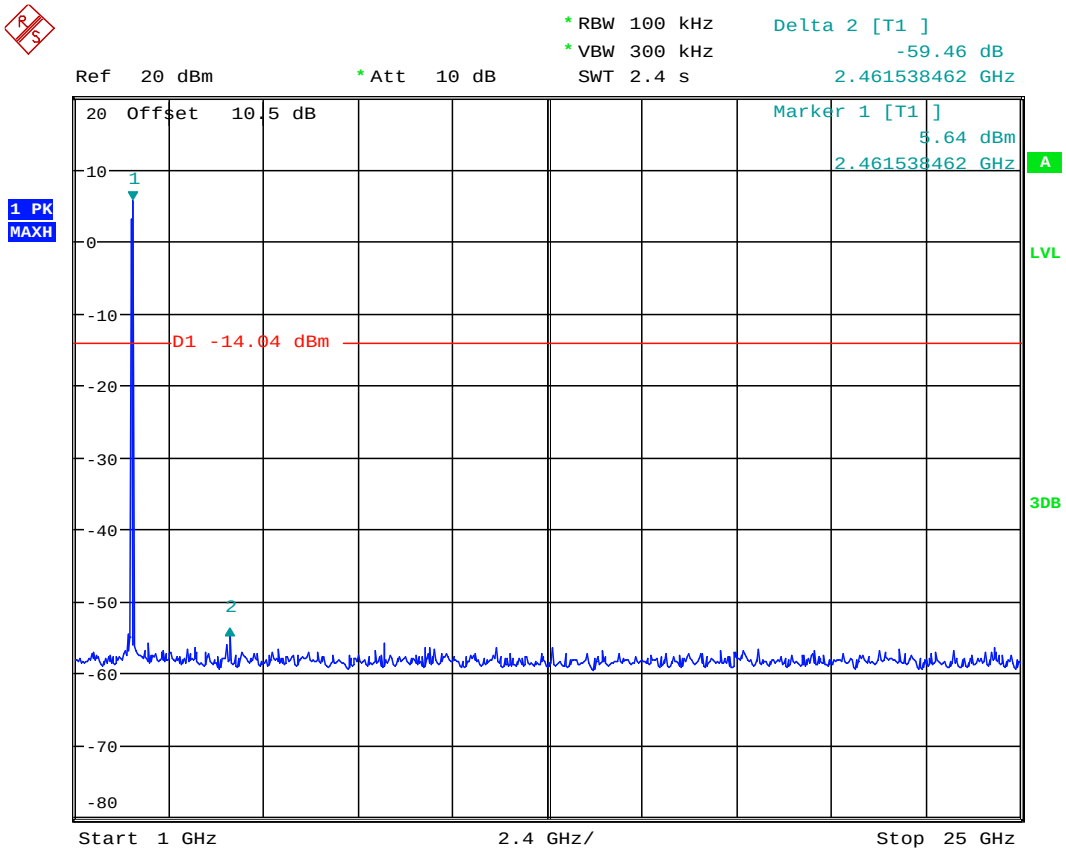

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
Marker 1 [T1]
5.63 dBm
2.436519231 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
VIEW
A
LVL
3DB
D1 -14.37 dBm
Center 2.437 GHz
5 MHz/
Span 50 MHz

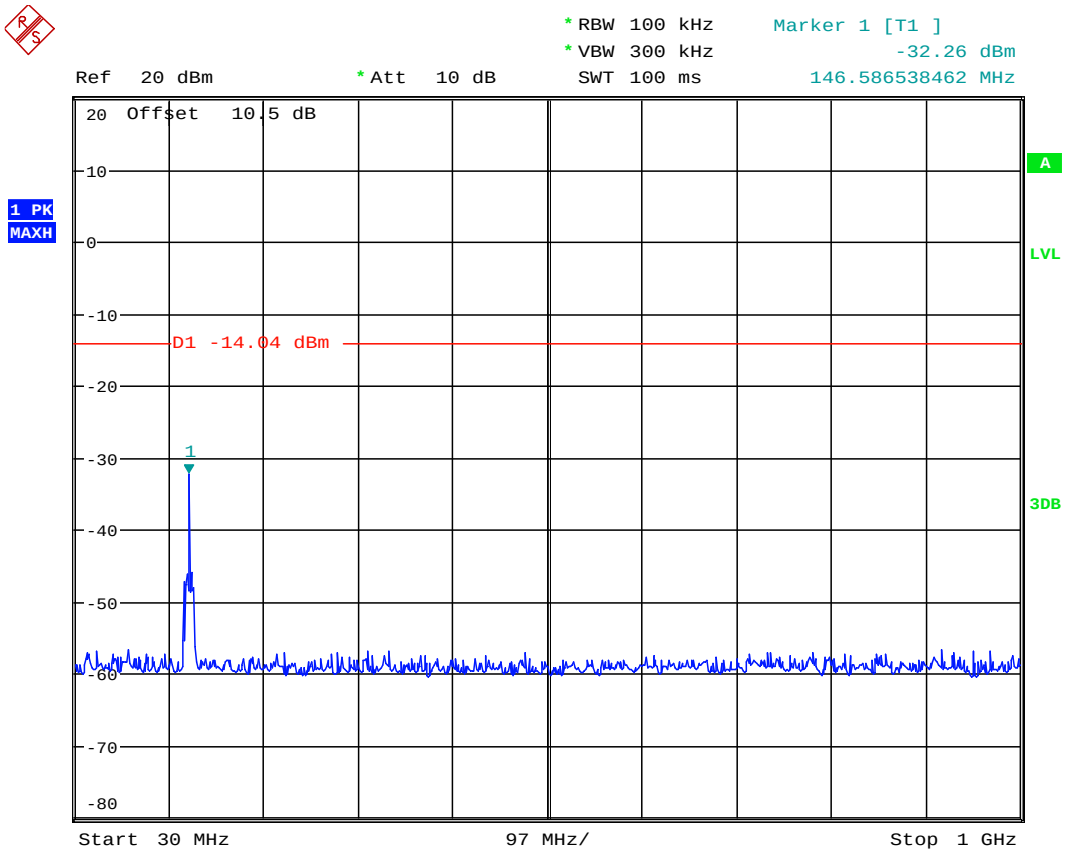

RBW 100 kHz
VBW 300 kHz
SWT 100 ms
Marker 1 [T1]
-32.16 dBm
121.714743590 MHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
D1 -14.37 dBm
Start 30 MHz
97 MHz/
Stop 1 GHz

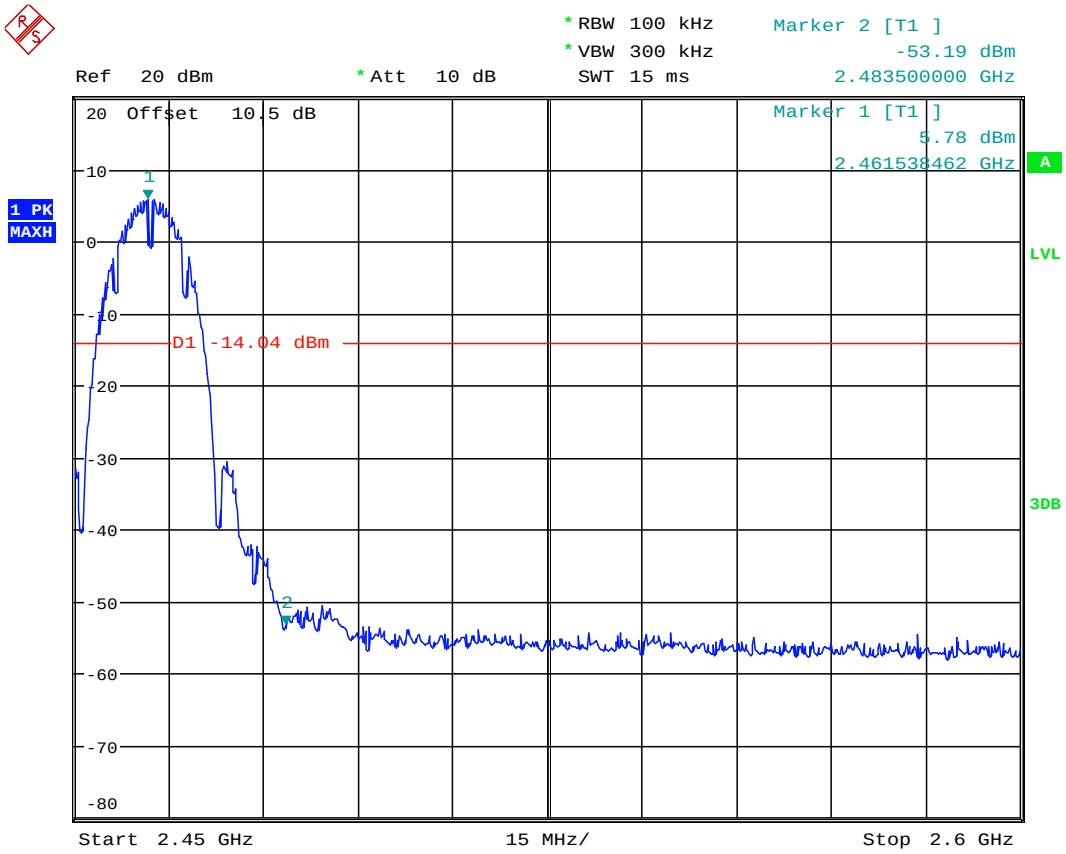

RBW 100 kHz
VBW 300 kHz
SWT 2.4 s
Delta 2 [T1]
-56.66 dB
2.423076923 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
Marker 1 [T1]
5.01 dBm
2.423076923 GHz
1 PK
MAXH
A
LVL
3DB
D1 -14.37 dBm
Start 1 GHz
2.4 GHz/
Stop 25 GHz

11b CH11:

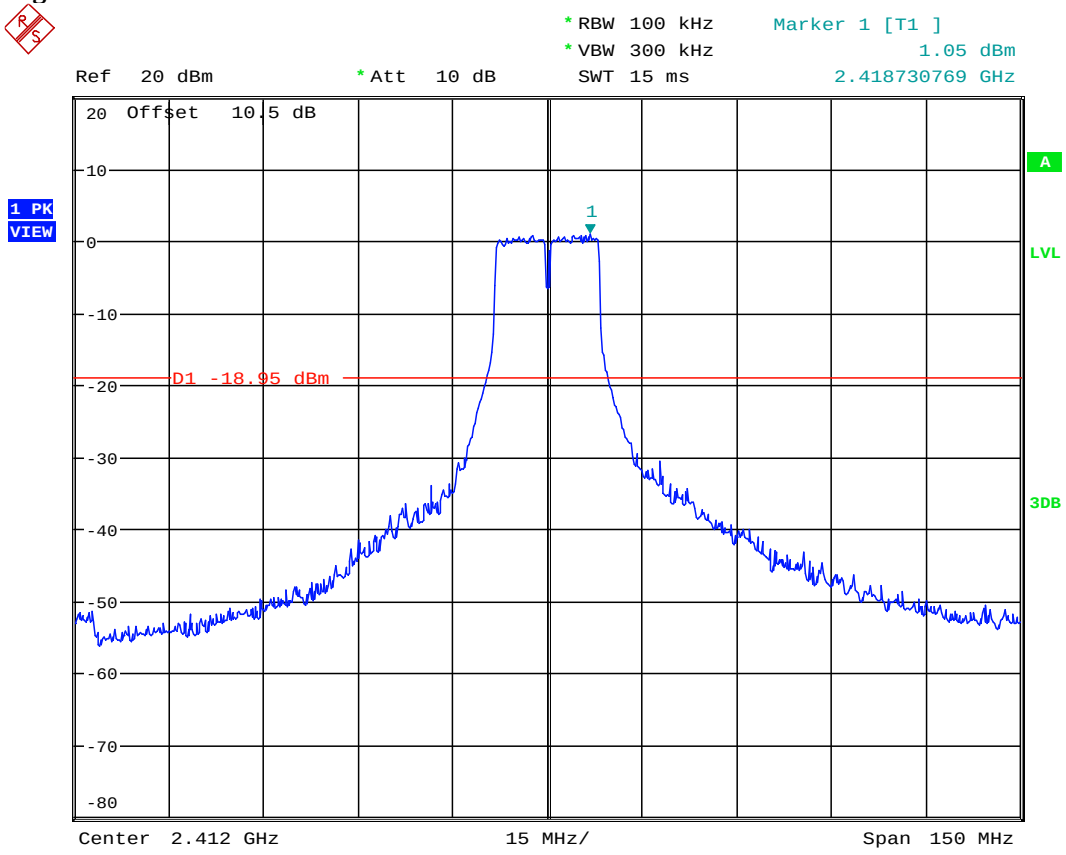

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
Marker 1 [T1]
5.96 dBm
2.461519231 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
VIEW
A
LVL
3DB
D1 -14.04 dBm
Center 2.462 GHz
5 MHz/
Span 50 MHz

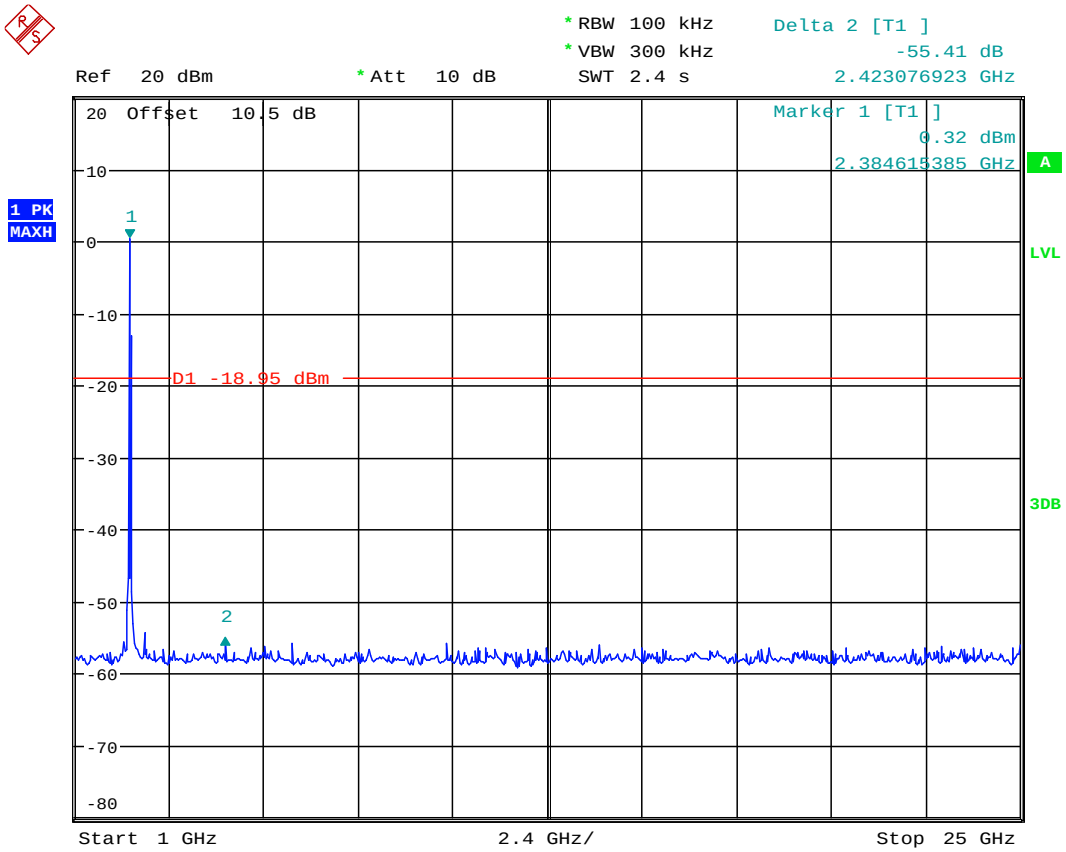

RBW 100 kHz
VBW 300 kHz
SWT 2.4 s
Delta 2 [T1]
-59.46 dB
2.461538462 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
Marker 1 [T1]
5.64 dBm
2.461538462 GHz
1 PK
MAXH
A
LVL
3DB
D1 -14.04 dBm
Start 1 GHz
2.4 GHz/
Stop 25 GHz

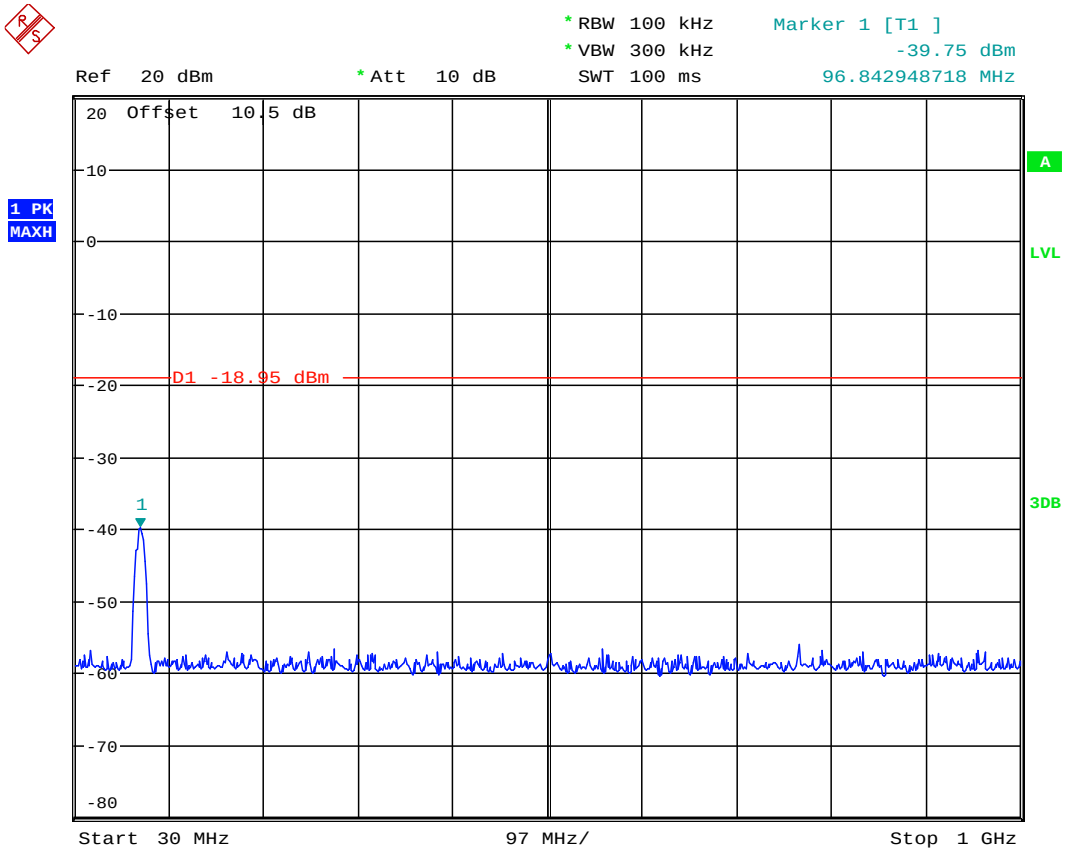

RBW 100 kHz
VBW 300 kHz
SWT 100 ms
Marker 1 [T1]
-32.26 dBm
146.586538462 MHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
D1 -14.04 dBm
Start 30 MHz
97 MHz/
Stop 1 GHz

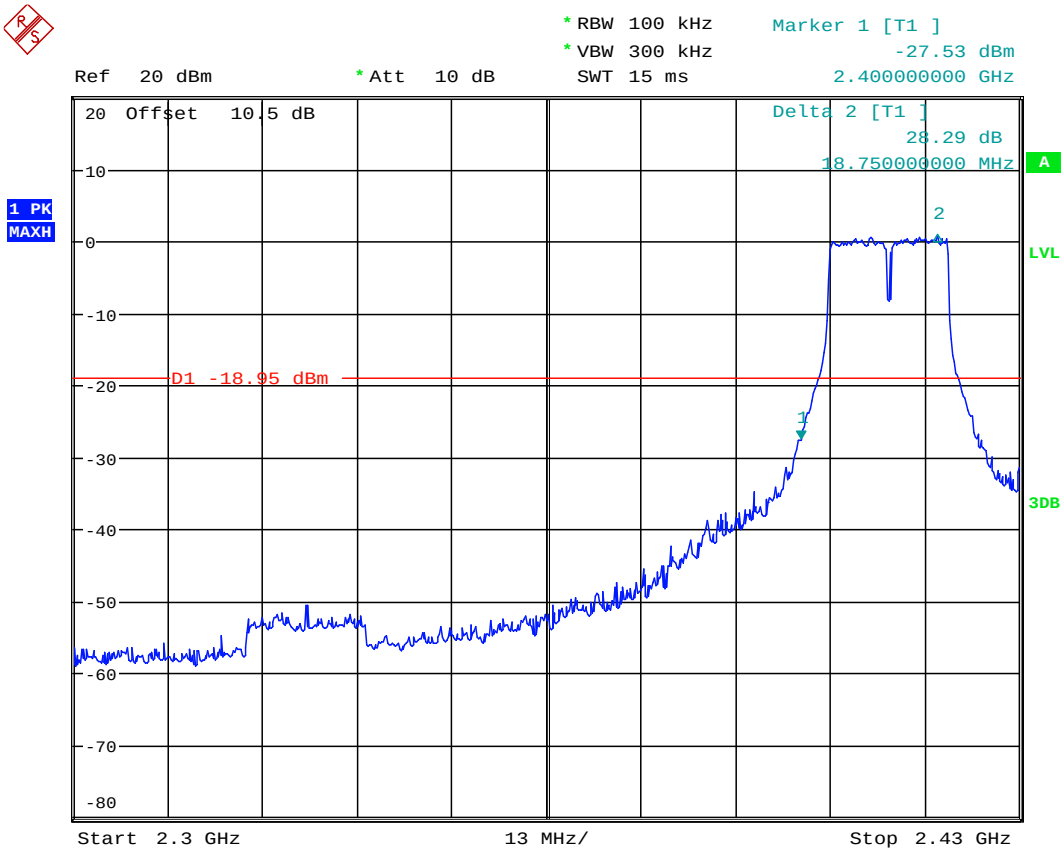

RBW 100 kHz
VBW 300 kHz
SWT 15 ms
Marker 2 [T1]
-53.19 dBm
2.483500000 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
Marker 1 [T1]
5.78 dBm
2.461538462 GHz
1 PK
MAXH
A
LVL
3DB
D1 -14.04 dBm
Start 2.45 GHz
15 MHz/
Stop 2.6 GHz

11g CH1:

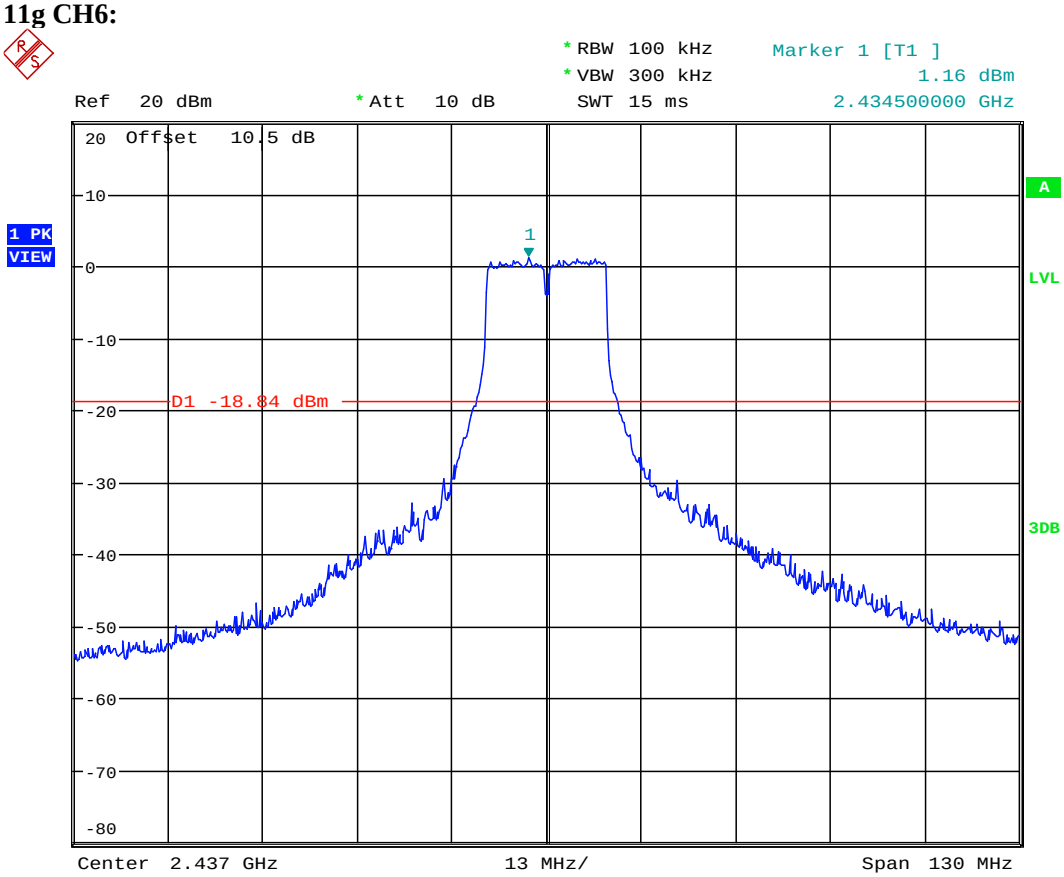

RBW 100 kHz
VBW 300 kHz
SWT 15 ms
Marker 1 [T1]
1.05 dBm
2.418730769 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
VIEW
A
LVL
3DB
D1 -18.95 dBm
Center 2.412 GHz
15 MHz/
Span 150 MHz

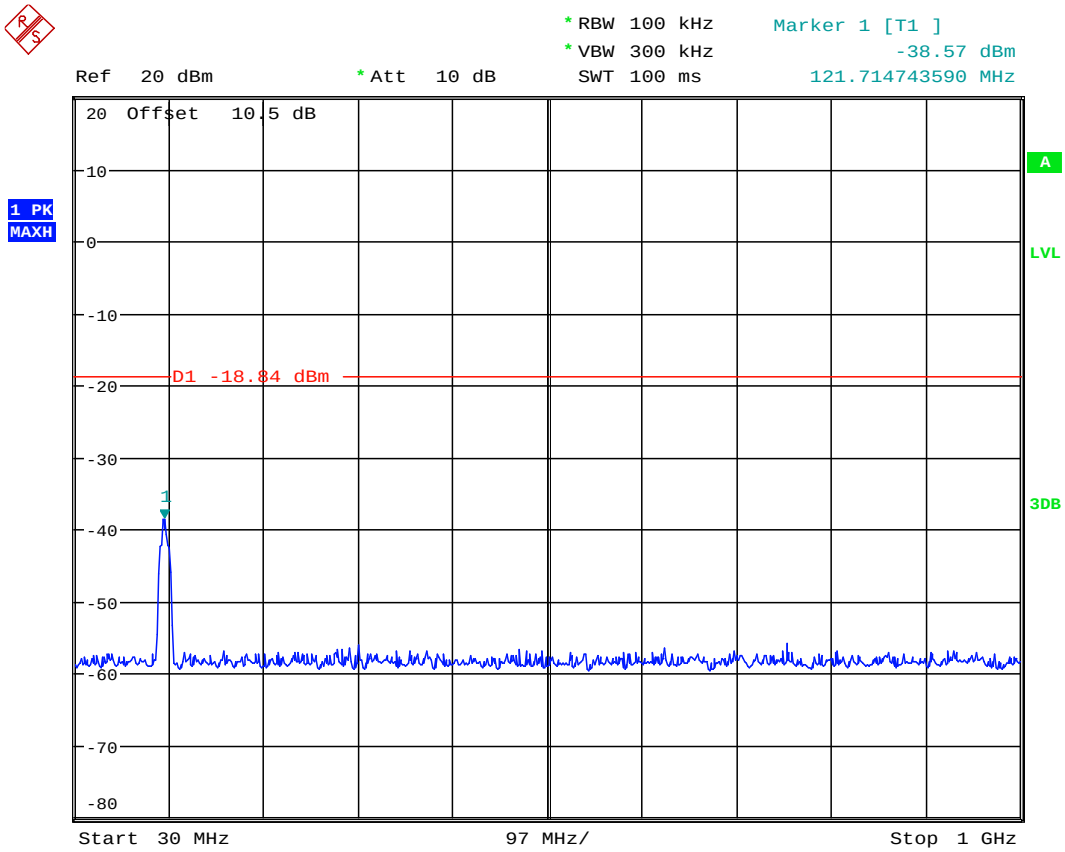

RBW 100 kHz
VBW 300 kHz
SWT 2.4 s
Delta 2 [T1]
-55.41 dB
2.423076923 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
Marker 1 [T1]
0.32 dBm
2.384615385 GHz
1 PK
MAXH
A
LVL
3DB
D1 -18.95 dBm
Start 1 GHz
2.4 GHz/
Stop 25 GHz

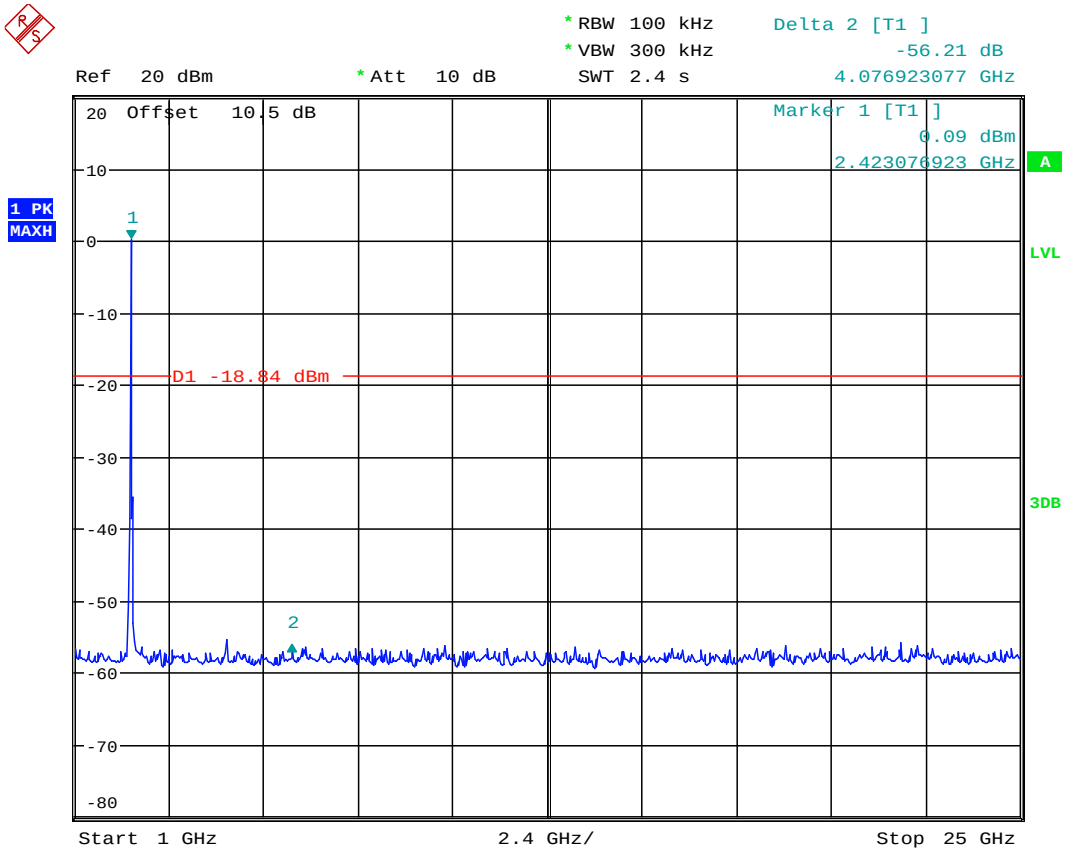

RBW 100 kHz
VBW 300 kHz
SWT 100 ms
Marker 1 [T1]
-39.75 dBm
96.842948718 MHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
D1 -18.95 dBm
Start 30 MHz
97 MHz/
Stop 1 GHz


RBW 100 kHz
VBW 300 kHz
SWT 15 ms
Marker 1 [T1]
-27.53 dBm
2.400000000 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
Delta 2 [T1]
28.29 dB
18.750000000 MHz
1 PK
MAXH
A
LVL
3DB
D1 -18.95 dBm
Start 2.3 GHz
13 MHz/
Stop 2.43 GHz

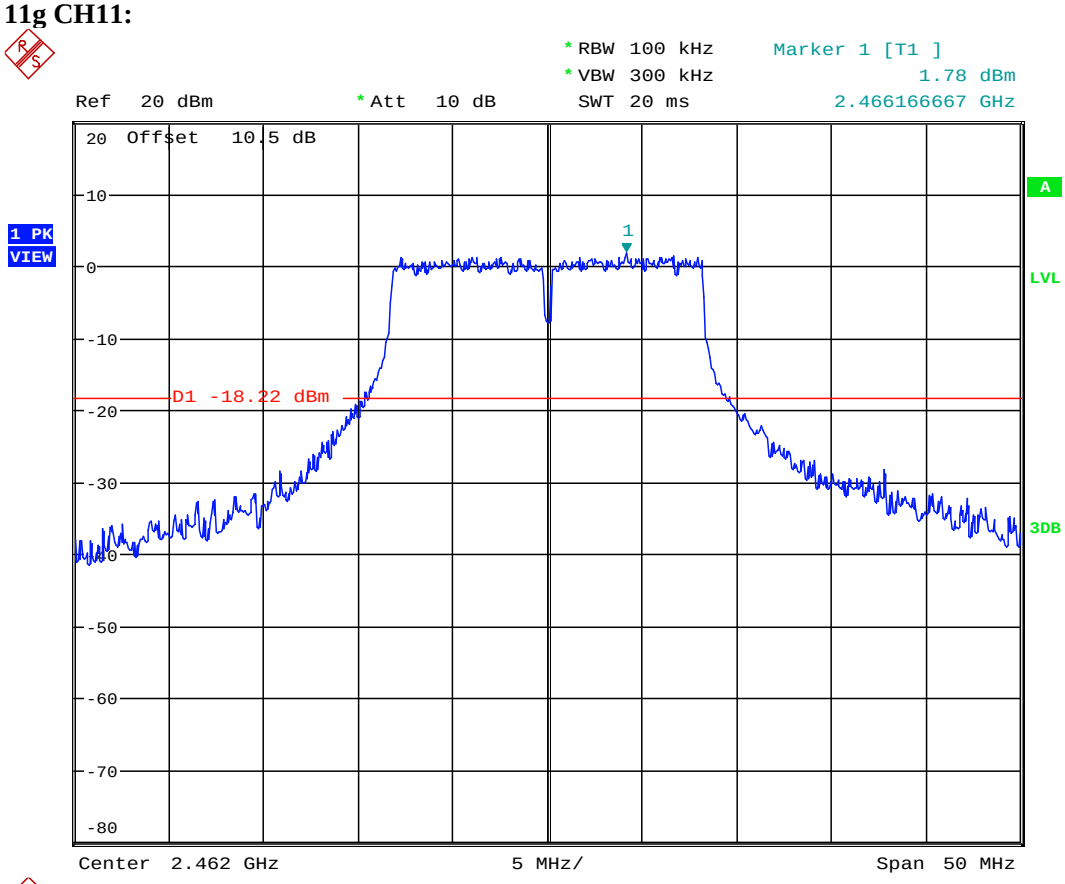
11g CH6:

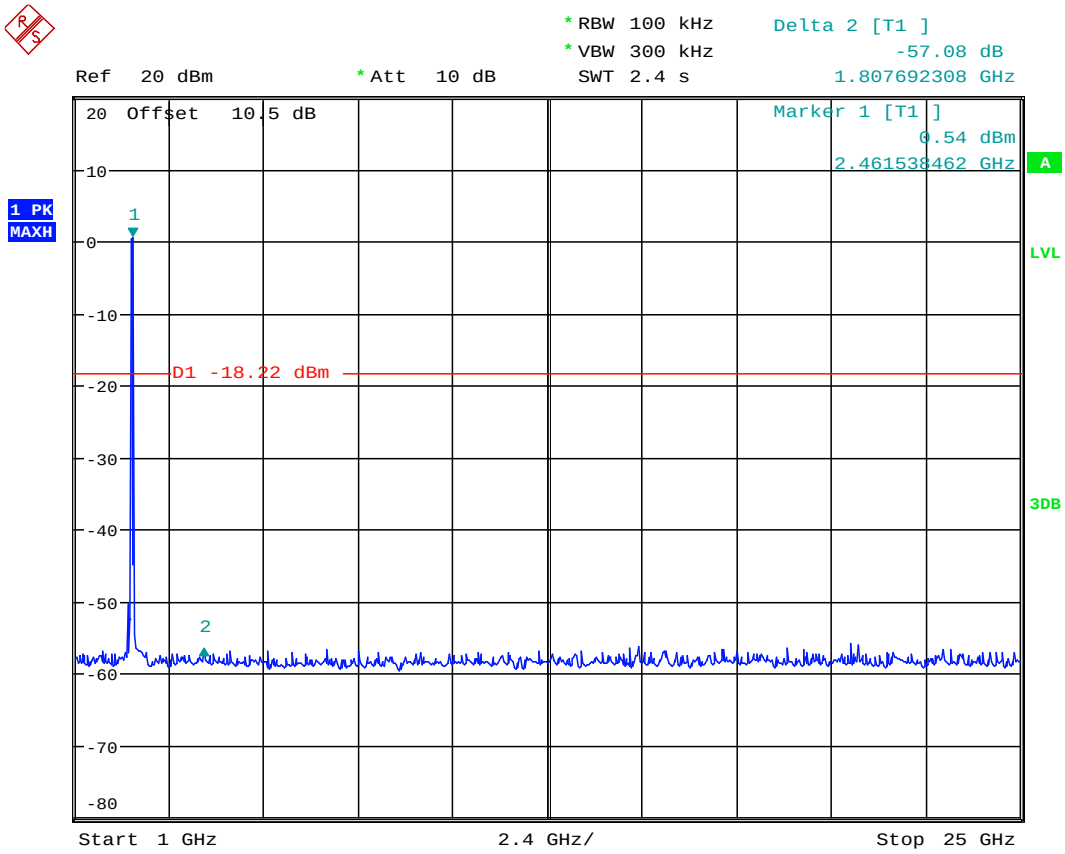

RBW 100 kHz
VBW 300 kHz
SWT 15 ms
Marker 1 [T1]
1.16 dBm
2.434500000 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
VIEW
A
LVL
3DB
D1 -18.84 dBm
Center 2.437 GHz
13 MHz/
Span 130 MHz

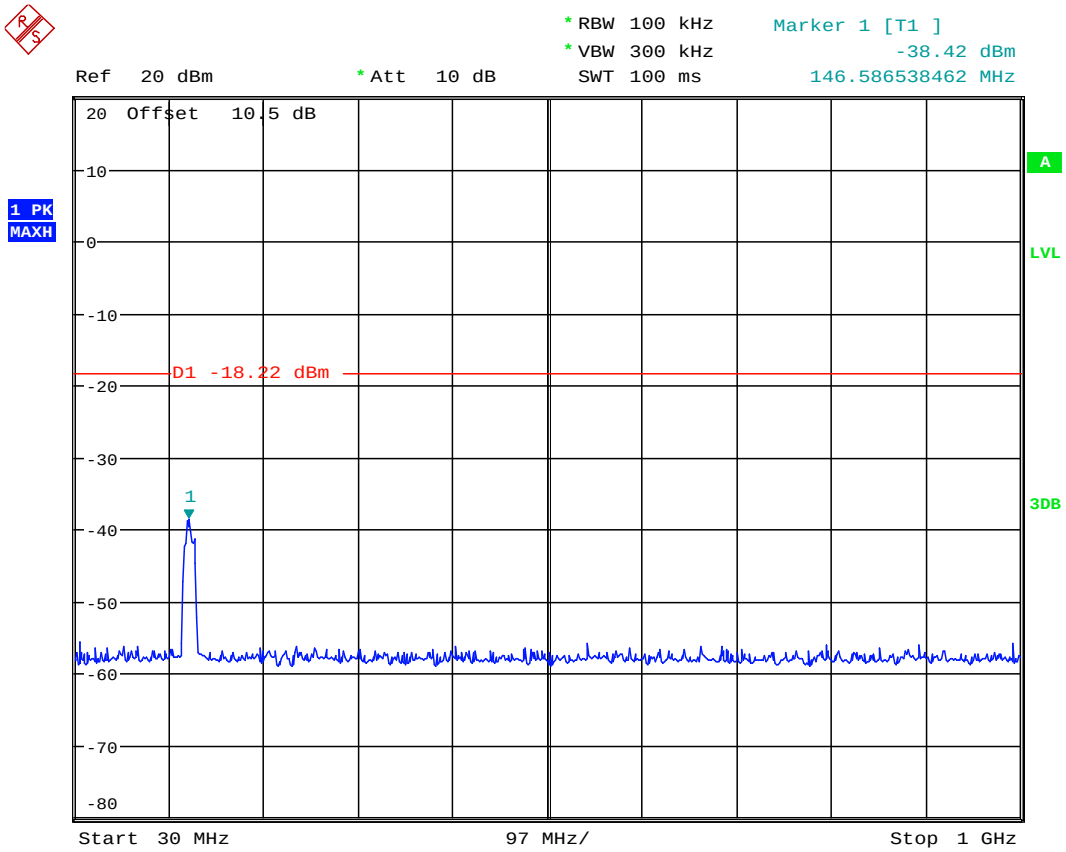

RBW 100 kHz
VBW 300 kHz
SWT 100 ms
Marker 1 [T1]
-38.57 dBm
121.714743590 MHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
D1 -18.84 dBm
Start 30 MHz
97 MHz/
Stop 1 GHz

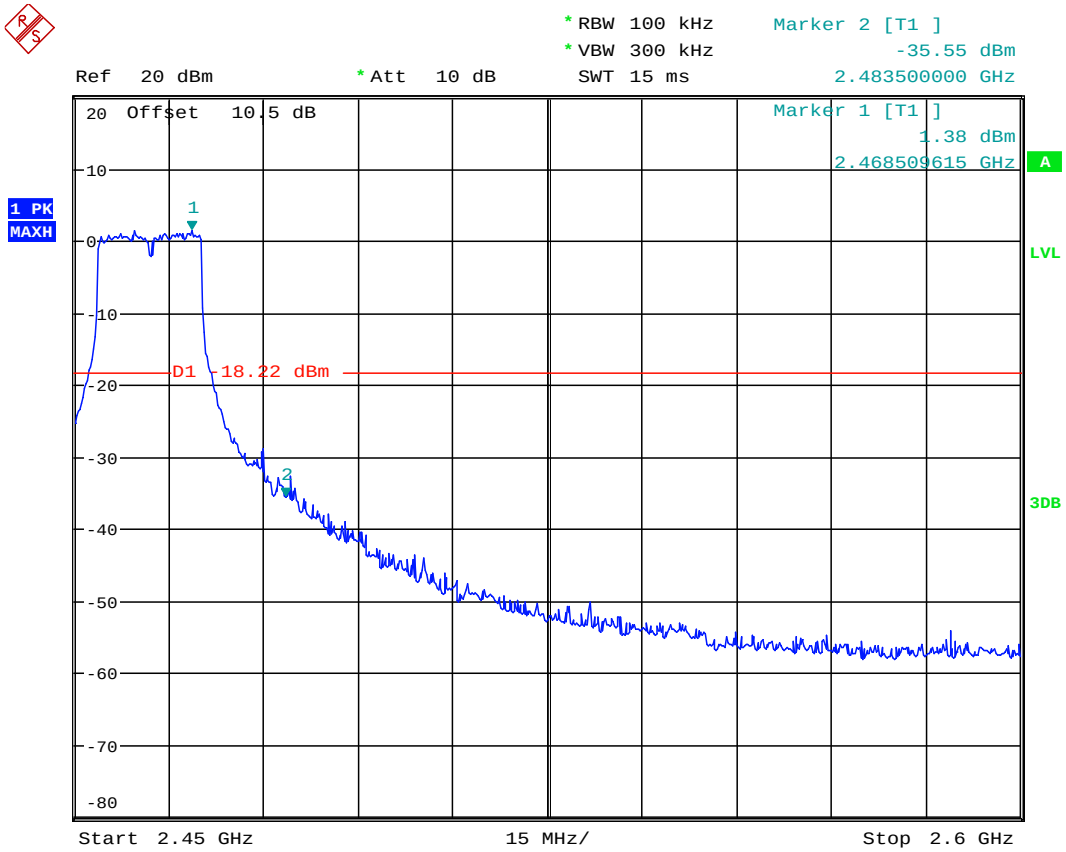

RBW 100 kHz
VBW 300 kHz
SWT 2.4 s
Delta 2 [T1]
-56.21 dB
4.076923077 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
Marker 1 [T1]
0.09 dBm
2.423076923 GHz
1 PK
MAXH
A
LVL
3DB
D1 -18.84 dBm
Start 1 GHz
2.4 GHz/
Stop 25 GHz

11g CH11:

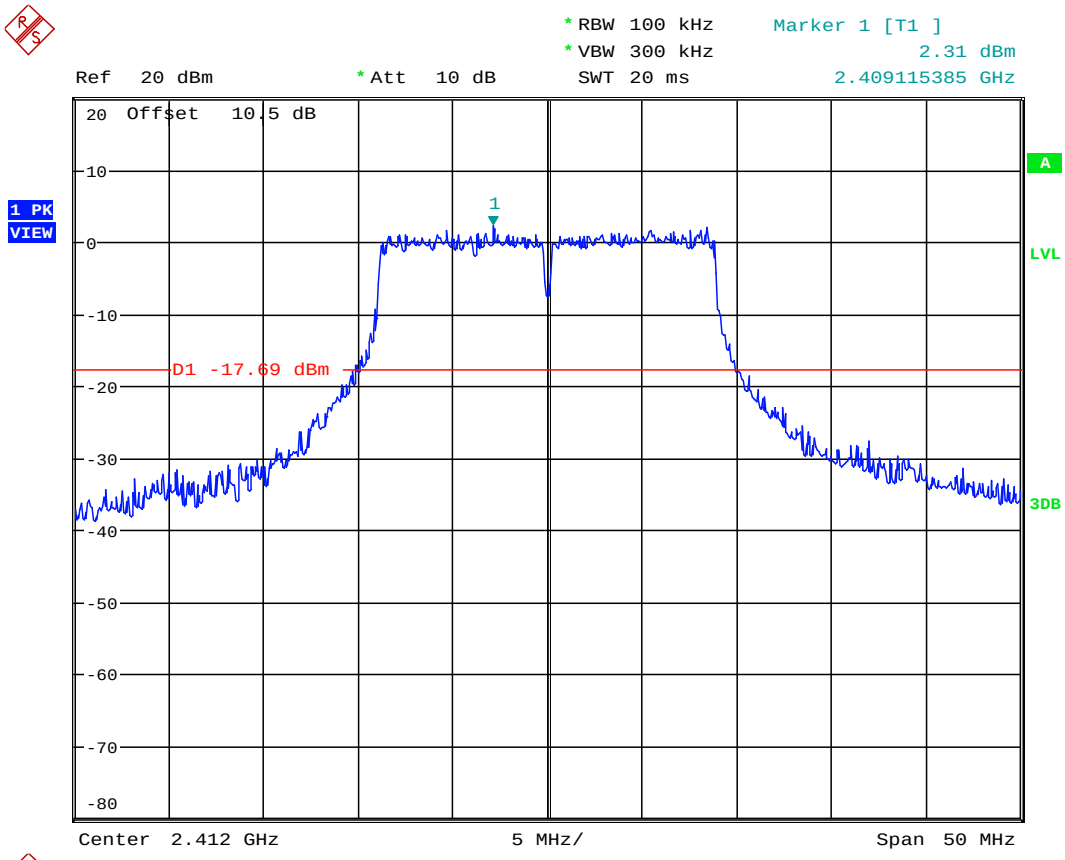

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
Marker 1 [T1]
1.78 dBm
2.466166667 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
VIEW
A
LVL
3DB
D1 -18.22 dBm
Center 2.462 GHz
5 MHz/
Span 50 MHz

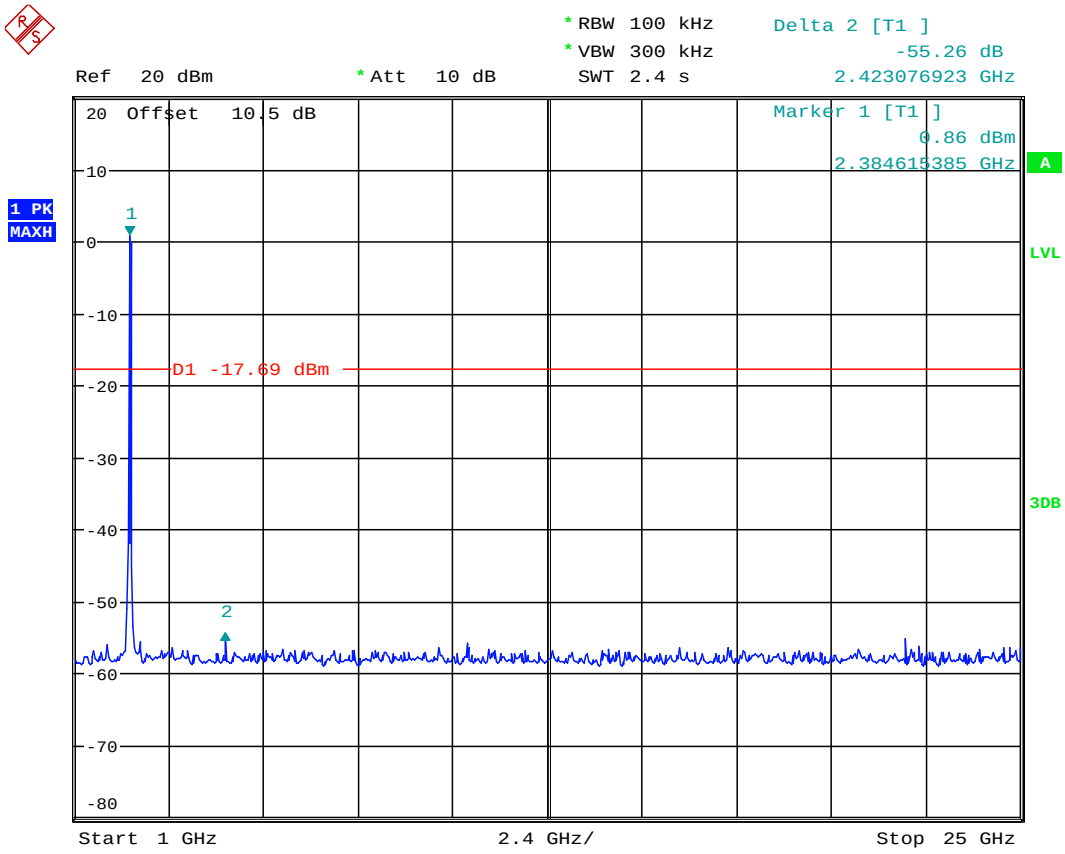

RBW 100 kHz
VBW 300 kHz
SWT 2.4 s
Delta 2 [T1]
-57.08 dB
1.807692308 GHz
Marker 1 [T1]
0.54 dBm
2.461538462 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
D1 -18.22 dBm
Start 1 GHz
2.4 GHz/
Stop 25 GHz

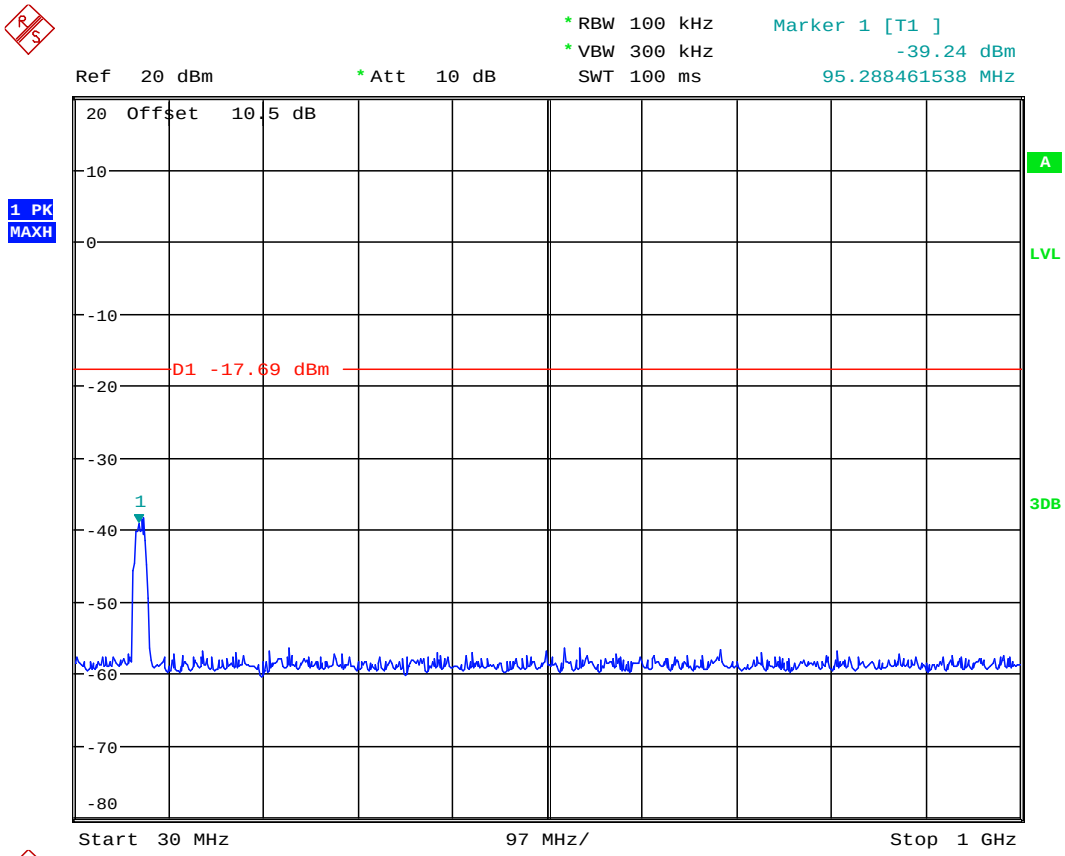

RBW 100 kHz
VBW 300 kHz
SWT 100 ms
Marker 1 [T1]
-38.42 dBm
146.586538462 MHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
D1 -18.22 dBm
Start 30 MHz
97 MHz/
Stop 1 GHz

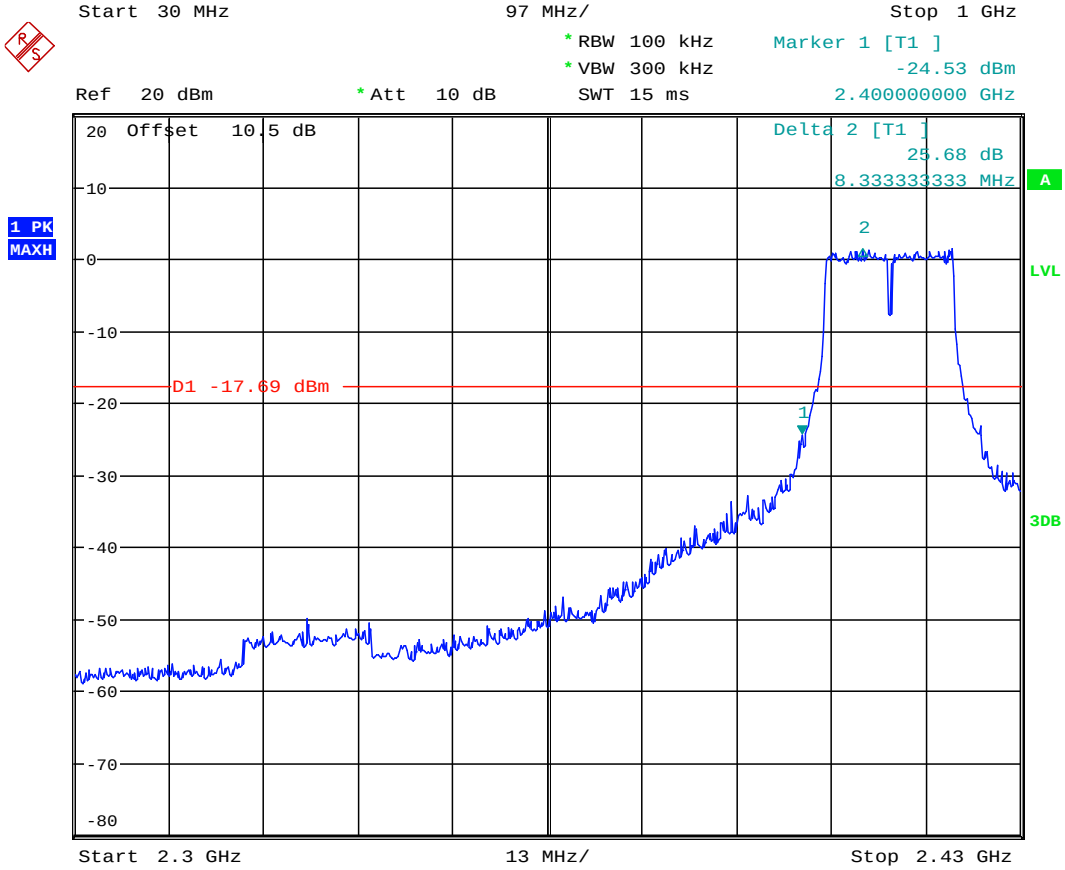

RBW 100 kHz
VBW 300 kHz
SWT 15 ms
Marker 2 [T1]
-35.55 dBm
2.483500000 GHz
Marker 1 [T1]
1.38 dBm
2.468509615 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
D1 -18.22 dBm
Start 2.45 GHz
15 MHz/
Stop 2.6 GHz

11n HT20 CH1:

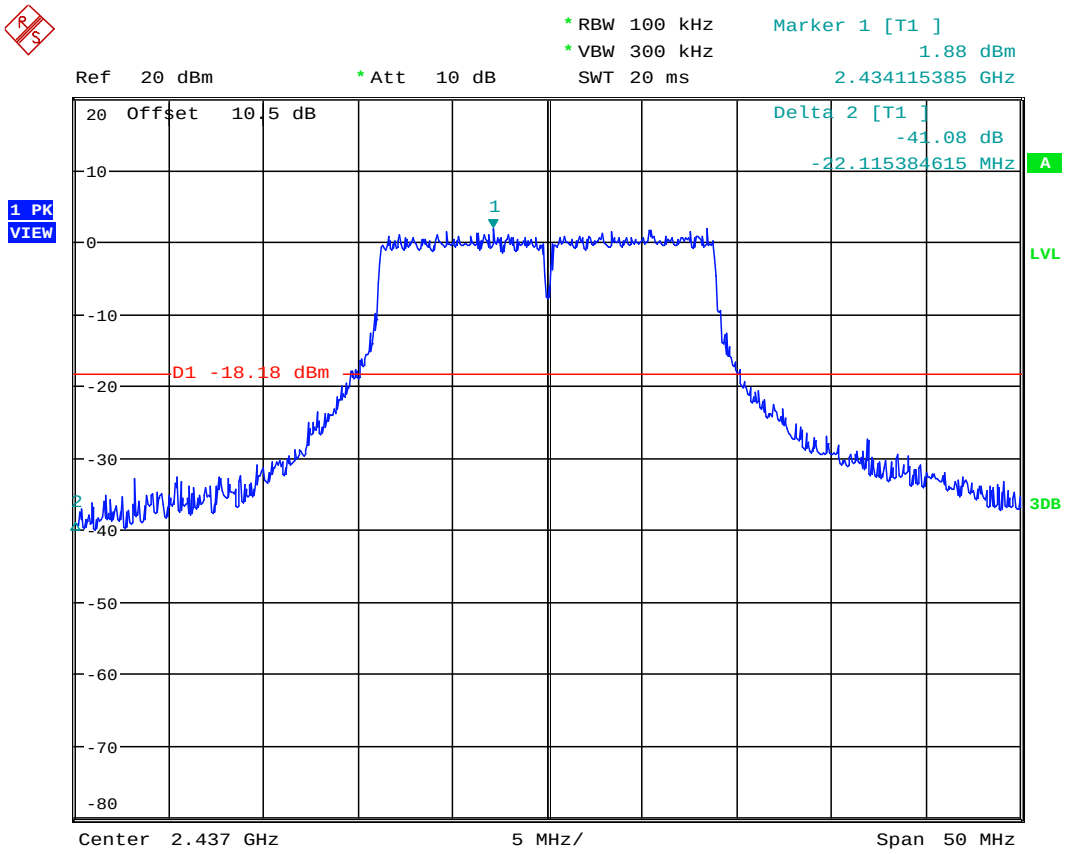

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
Marker 1 [T1]
2.31 dBm
2.409115385 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
VIEW
A
LVL
3DB
D1 -17.69 dBm
Center 2.412 GHz
5 MHz/
Span 50 MHz

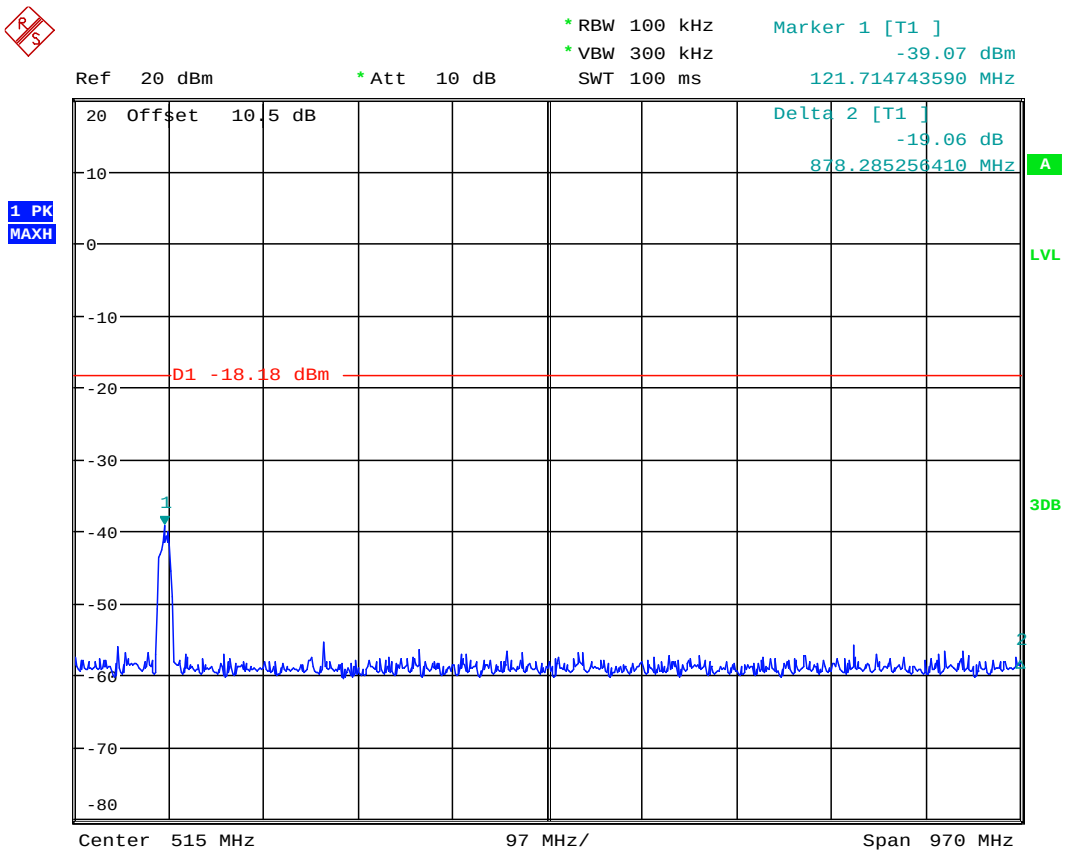

RBW 100 kHz
VBW 300 kHz
SWT 2.4 s
Delta 2 [T1]
-55.26 dB
2.423076923 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
Marker 1 [T1]
0.86 dBm
2.384615385 GHz
1 PK
MAXH
A
LVL
3DB
D1 -17.69 dBm
Start 1 GHz
2.4 GHz/
Stop 25 GHz

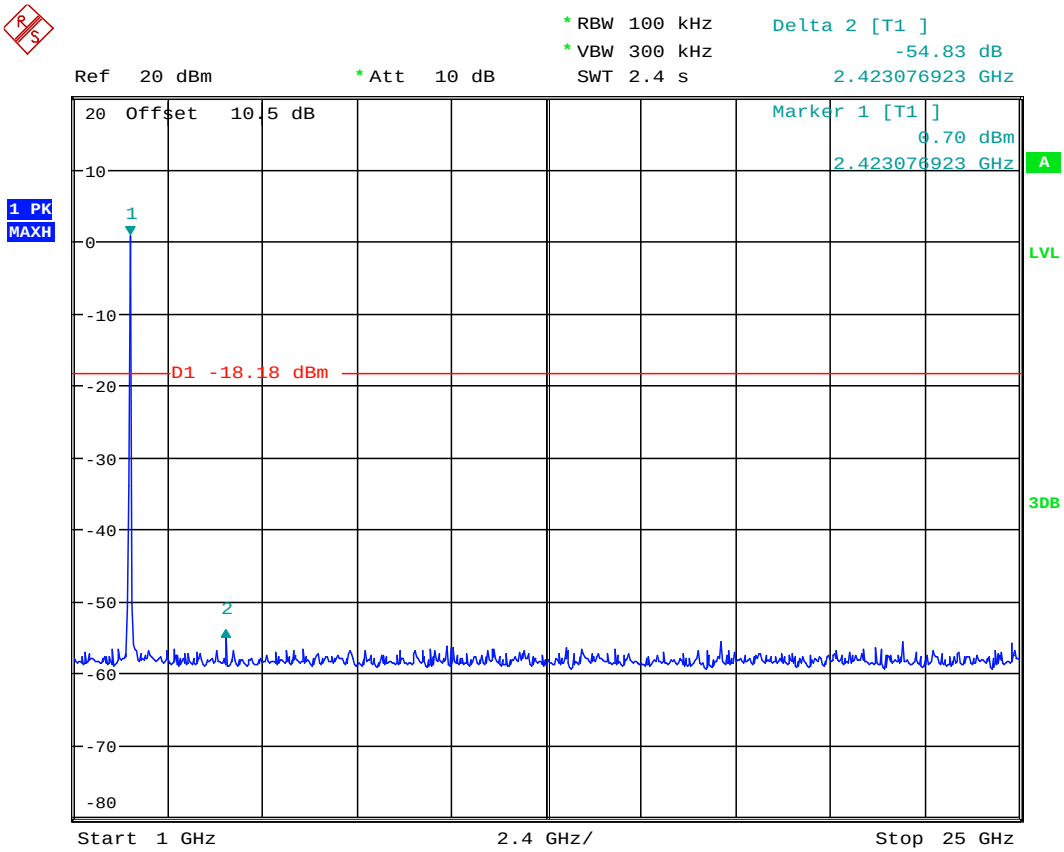

RBW 100 kHz
VBW 300 kHz
SWT 100 ms
Marker 1 [T1]
-39.24 dBm
95.288461538 MHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
D1 -17.69 dBm
Start 30 MHz
97 MHz/
Stop 1 GHz


RBW 100 kHz
VBW 300 kHz
SWT 15 ms
Marker 1 [T1]
-24.53 dBm
2.400000000 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
Delta 2 [T1]
25.68 dB
8.333333333 MHz
1 PK
MAXH
A
LVL
3DB
D1 -17.69 dBm
Start 2.3 GHz
13 MHz/
Stop 2.43 GHz

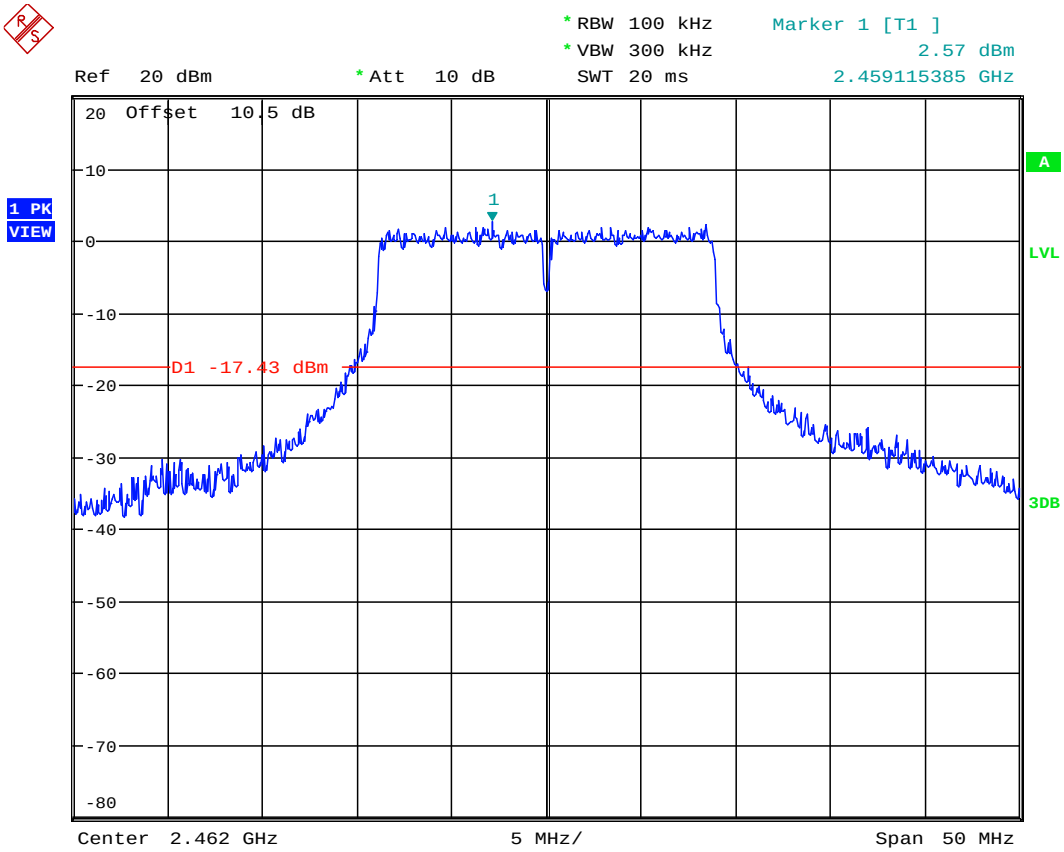
11n HT20 CH6:

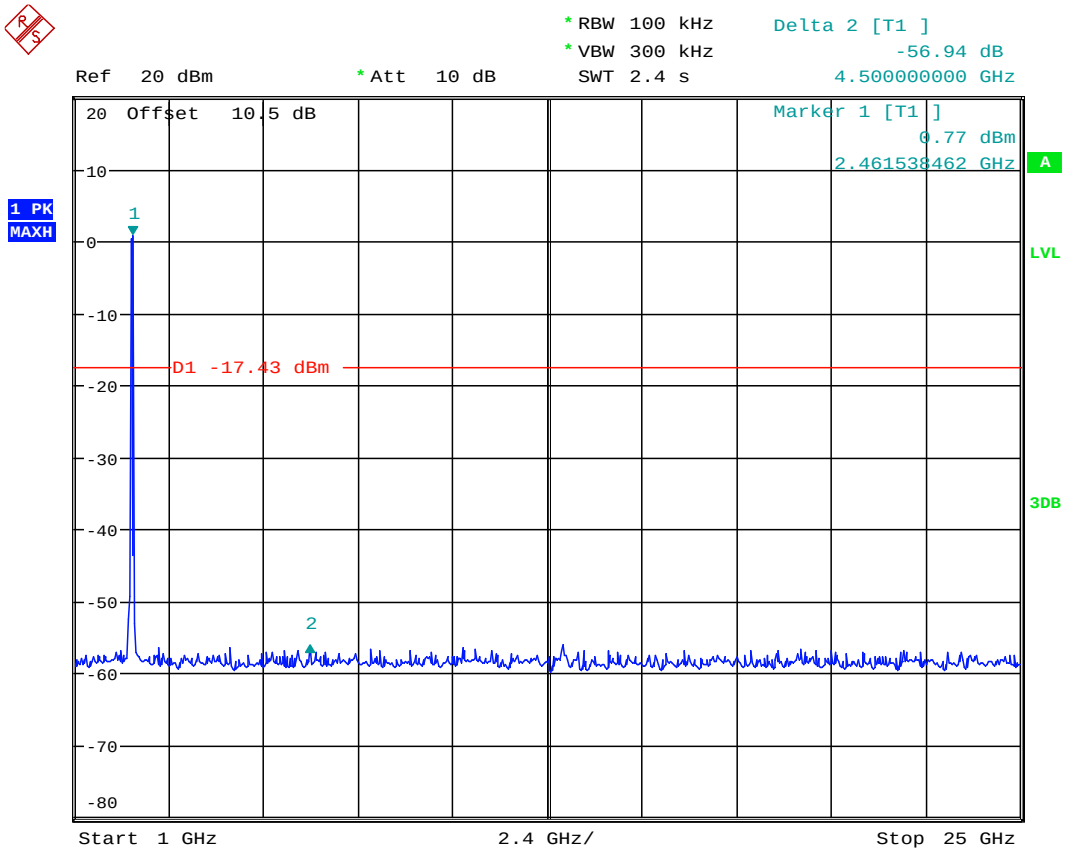

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
Marker 1 [T1]
1.88 dBm
2.434115385 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
Delta 2 [T1]
-41.08 dB
-22.115384615 MHz
1 PK
VIEW
A
LVL
3DB
D1 -18.18 dBm
Center 2.437 GHz
5 MHz/
Span 50 MHz

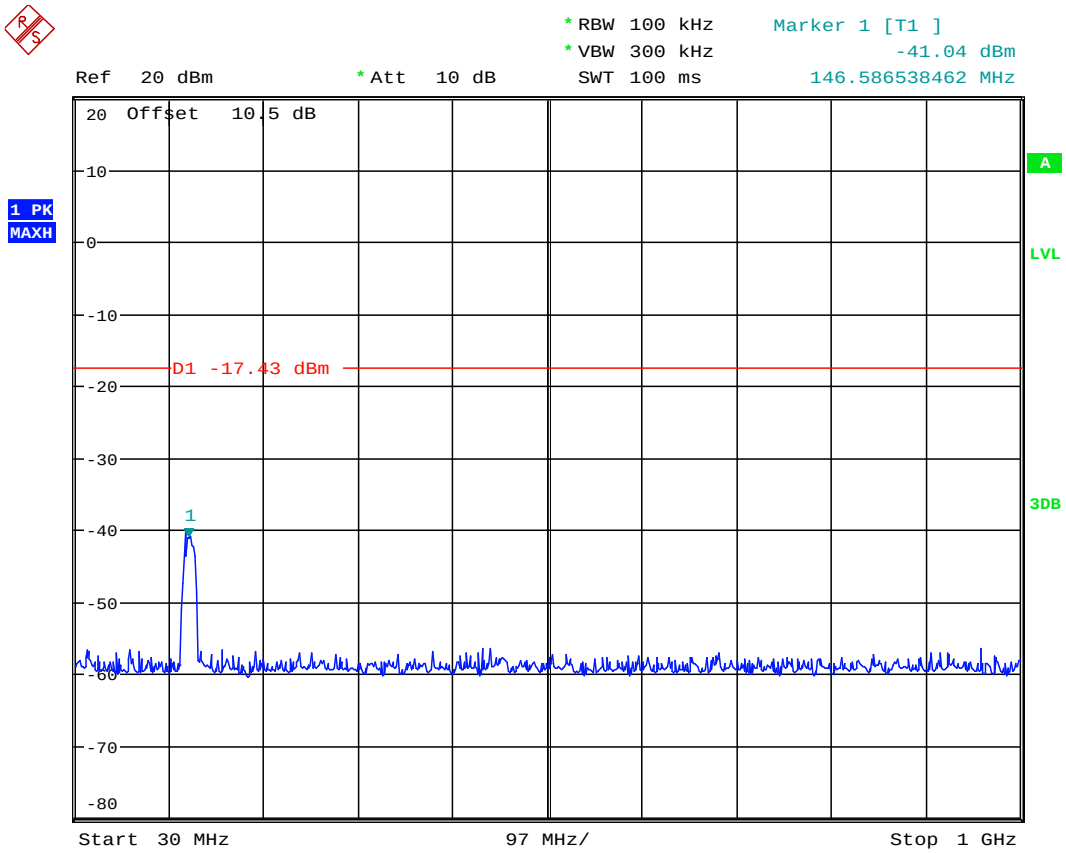

RBW 100 kHz
VBW 300 kHz
SWT 100 ms
Marker 1 [T1]
-39.07 dBm
121.714743590 MHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
Delta 2 [T1]
-19.06 dB
878.285256410 MHz
1 PK
MAXH
A
LVL
3DB
D1 -18.18 dBm
Center 515 MHz
97 MHz/
Span 970 MHz

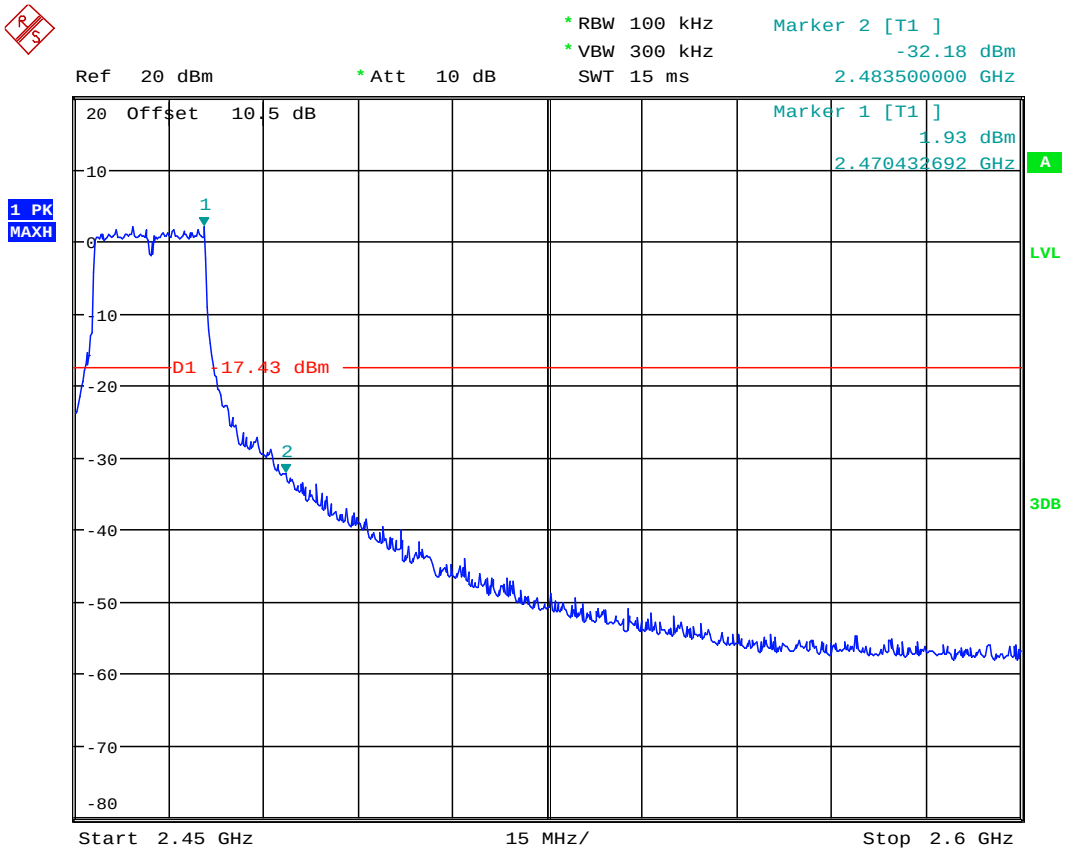


11n HT20 CH11:

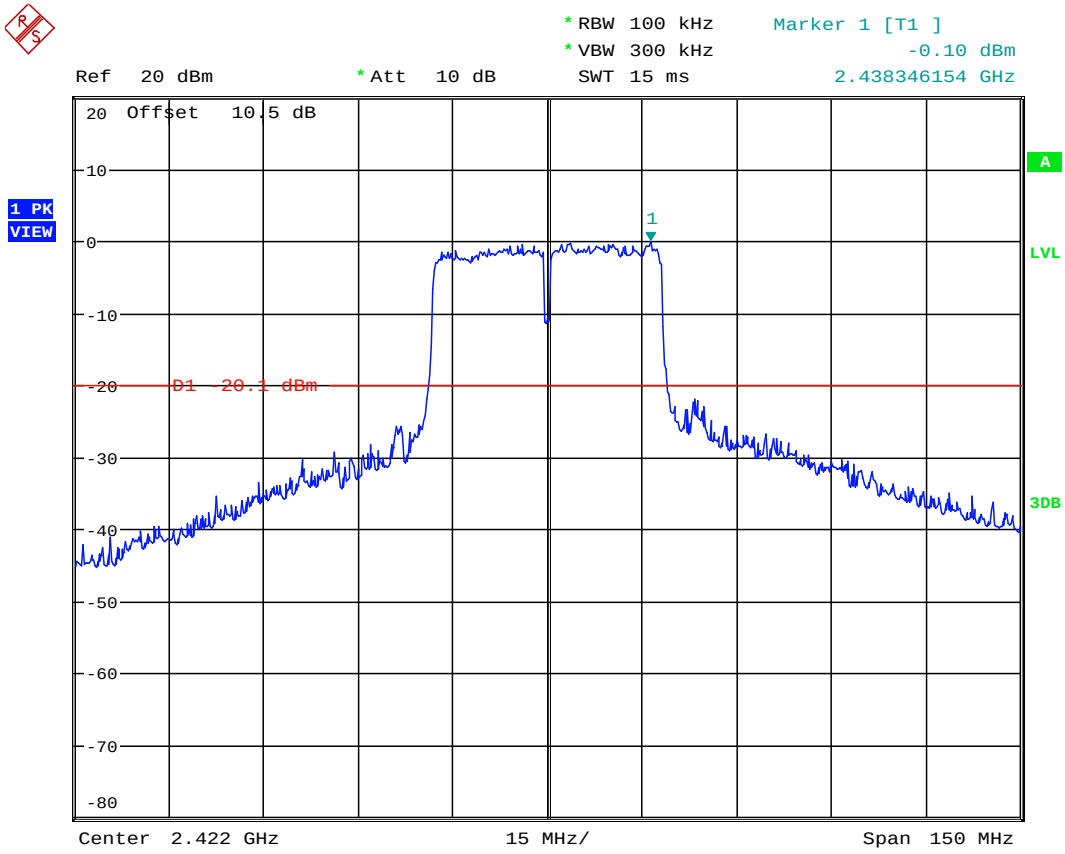


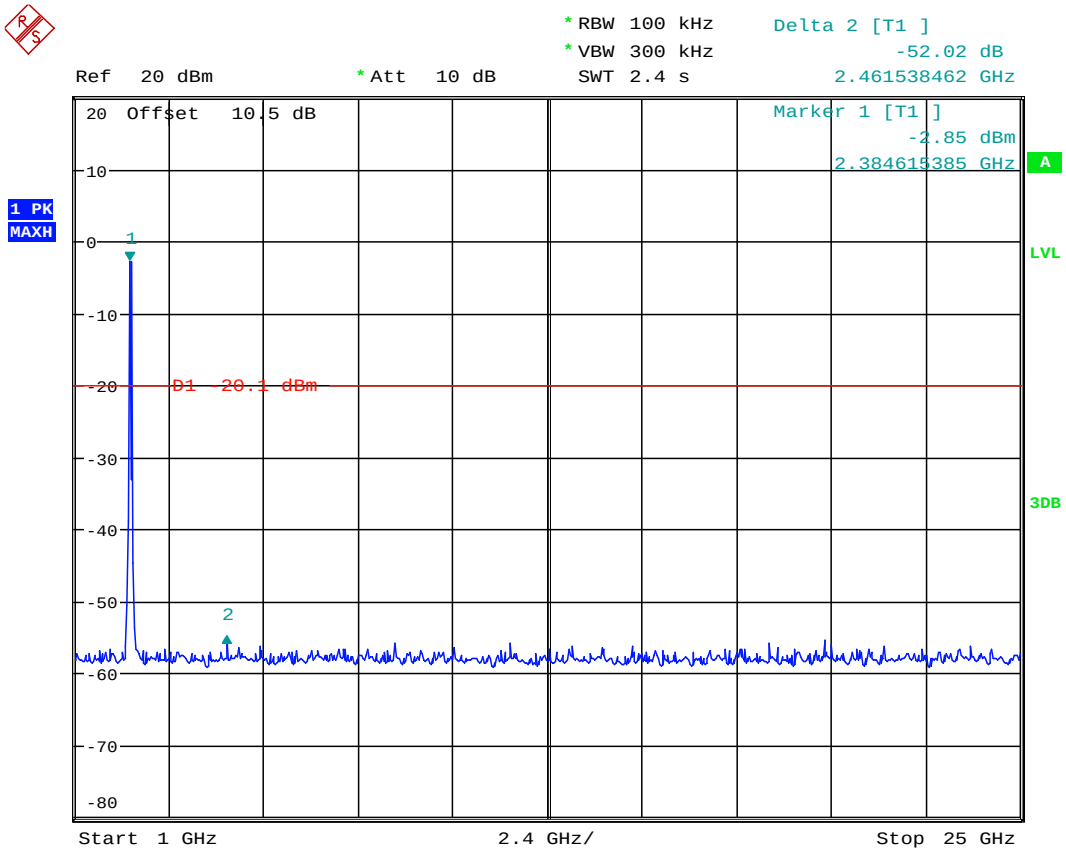

RBW 100 kHz
VBW 300 kHz
SWT 2.4 s
Delta 2 [T1]
-56.94 dB
4.500000000 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
Marker 1 [T1]
0.77 dBm
2.461538462 GHz
1 PK
MAXH
A
LVL
3DB
D1 -17.43 dBm
Start 1 GHz
2.4 GHz/
Stop 25 GHz

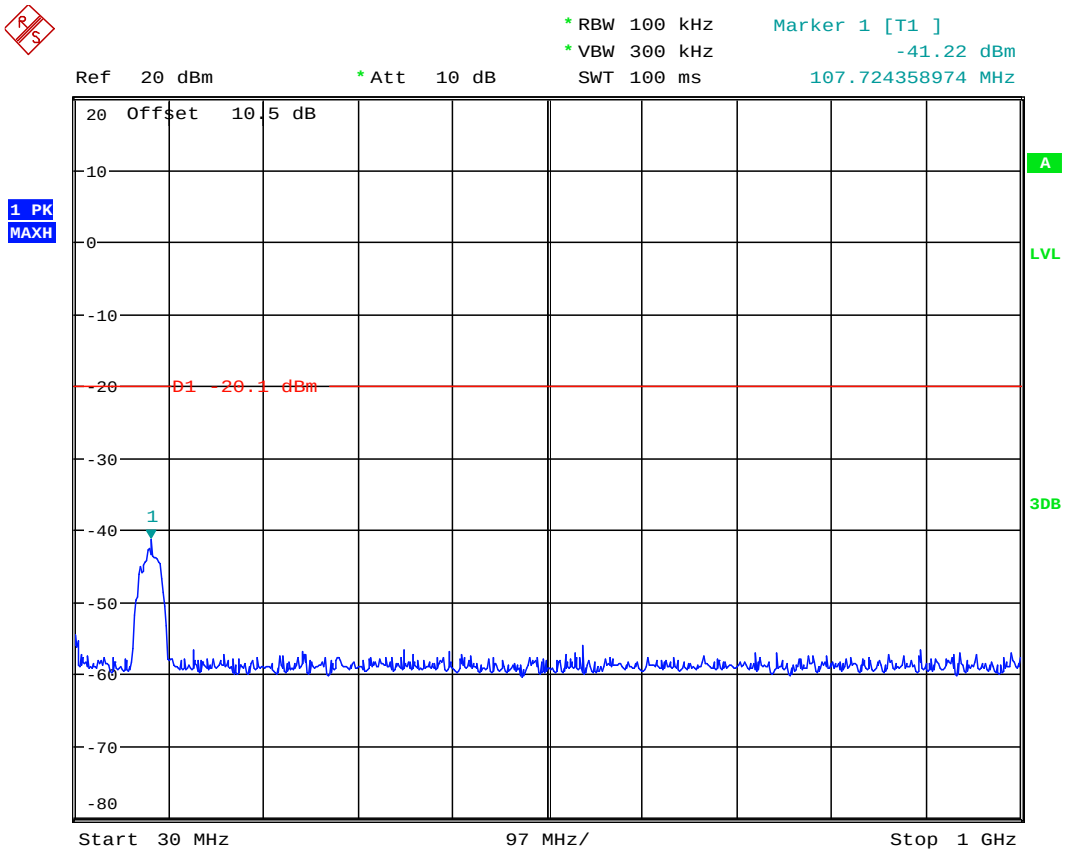

RBW 100 kHz
VBW 300 kHz
SWT 100 ms
Marker 1 [T1]
-41.04 dBm
146.586538462 MHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
D1 -17.43 dBm
Start 30 MHz
97 MHz/
Stop 1 GHz

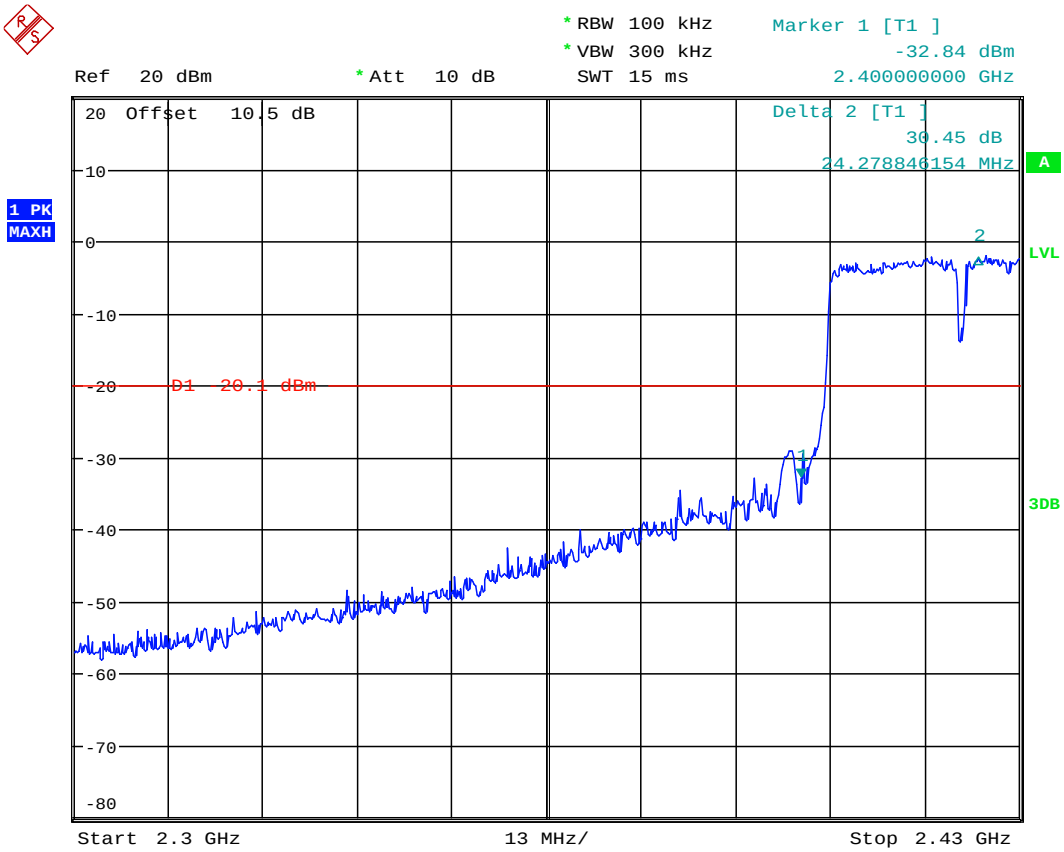

RBW 100 kHz
VBW 300 kHz
SWT 15 ms
Marker 2 [T1]
-32.18 dBm
2.483500000 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
Marker 1 [T1]
1.93 dBm
2.470432692 GHz
1 PK
MAXH
A
LVL
3DB
D1 -17.43 dBm
Start 2.45 GHz
15 MHz/
Stop 2.6 GHz

11n HT40 CH3:

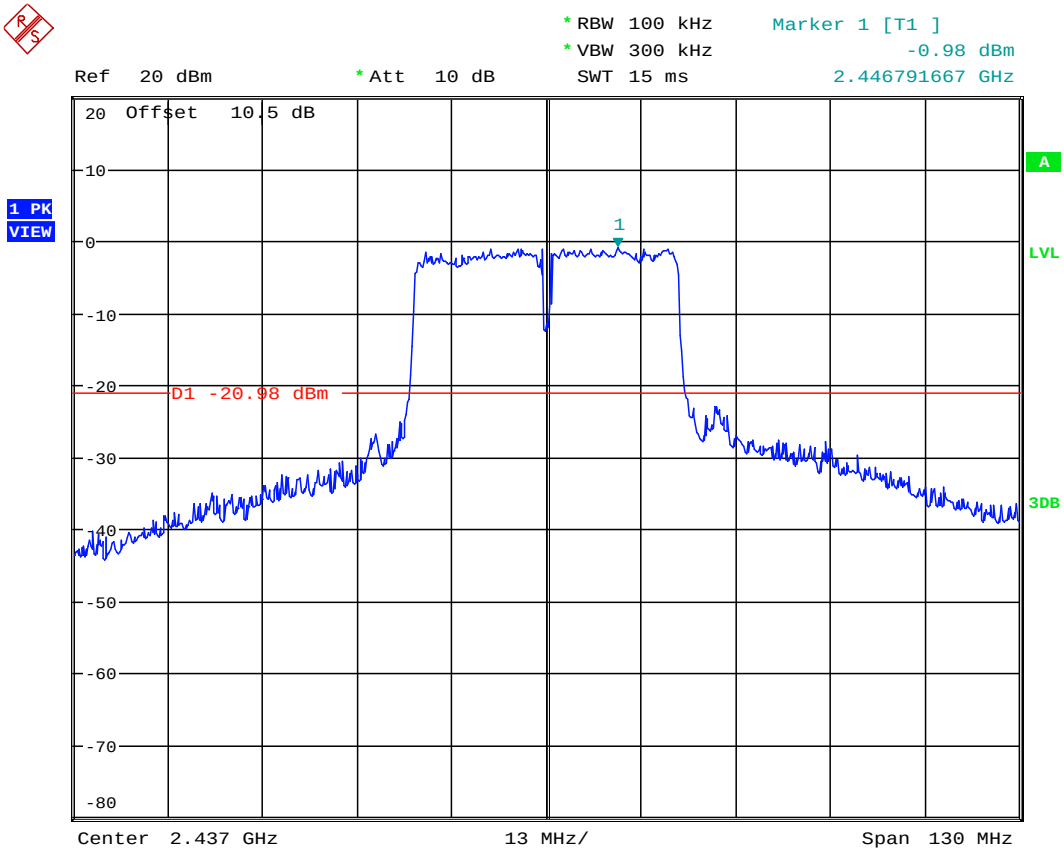

RBW 100 kHz
VBW 300 kHz
SWT 15 ms
Marker 1 [T1]
-0.10 dBm
2.438346154 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
VIEW
A
LVL
3DB
D1 -20.1 dBm
Center 2.422 GHz
15 MHz/
Span 150 MHz

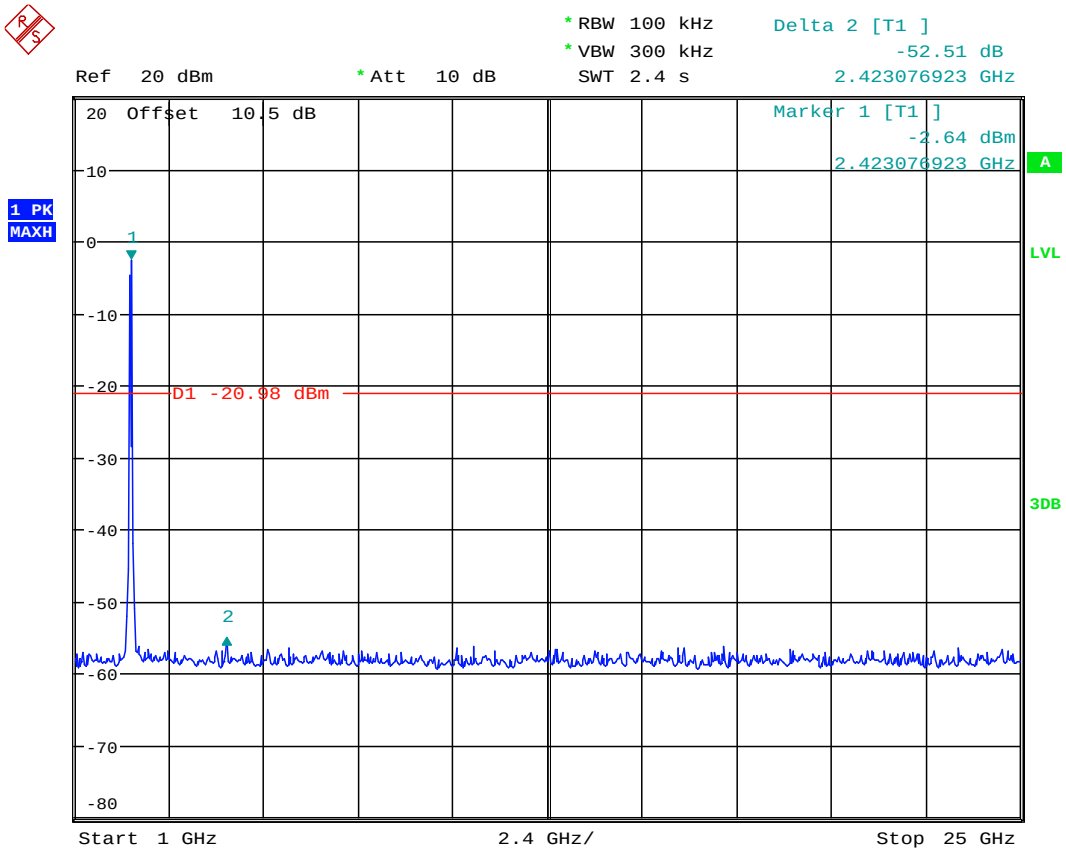

RBW 100 kHz
VBW 300 kHz
SWT 2.4 s
Delta 2 [T1]
-52.02 dB
2.461538462 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
Marker 1 [T1]
-2.85 dBm
2.384615385 GHz
1 PK
MAXH
A
LVL
3DB
D1 -20.1 dBm
Start 1 GHz
2.4 GHz/
Stop 25 GHz

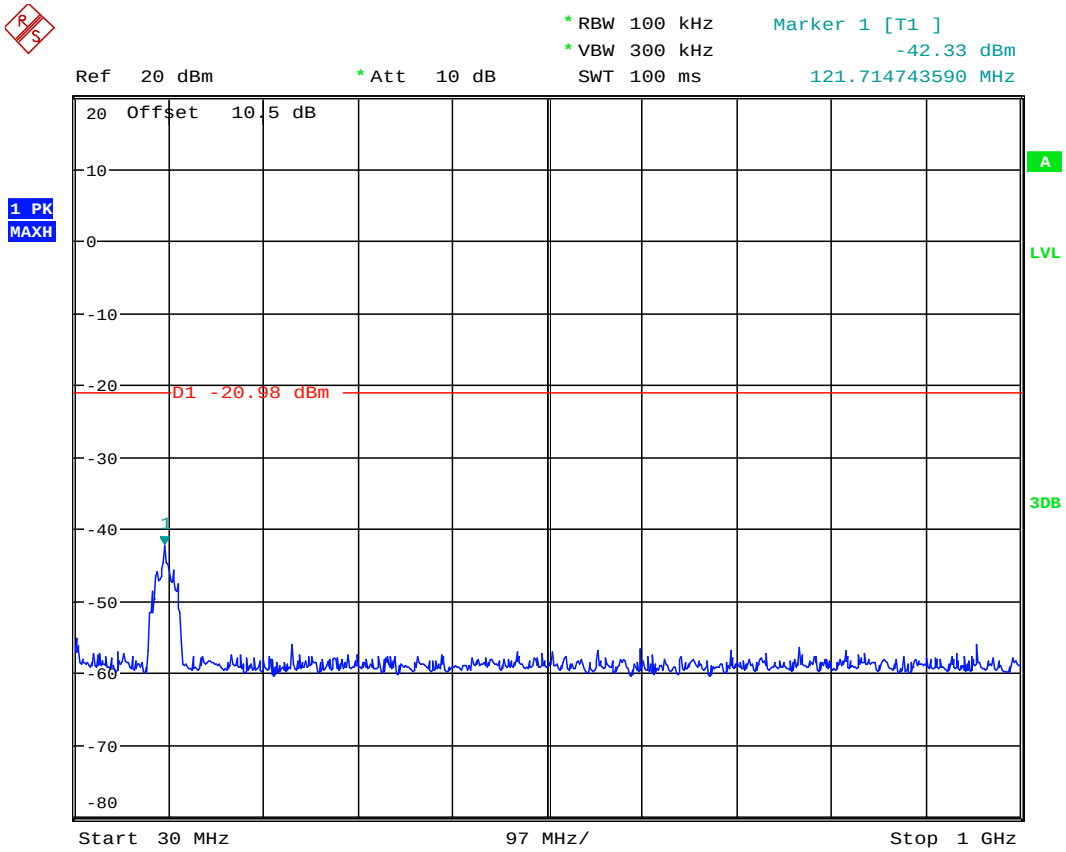

RBW 100 kHz
VBW 300 kHz
SWT 100 ms
Marker 1 [T1]
-41.22 dBm
107.724358974 MHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
D1 -20.1 dBm
Start 30 MHz
97 MHz/
Stop 1 GHz


RBW 100 kHz
VBW 300 kHz
SWT 15 ms
Marker 1 [T1]
-32.84 dBm
2.400000000 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
Delta 2 [T1]
30.45 dB
24.278846154 MHz
1 PK
MAXH
A
LVL
3DB
D1 -20.1 dBm
Start 2.3 GHz
13 MHz/
Stop 2.43 GHz

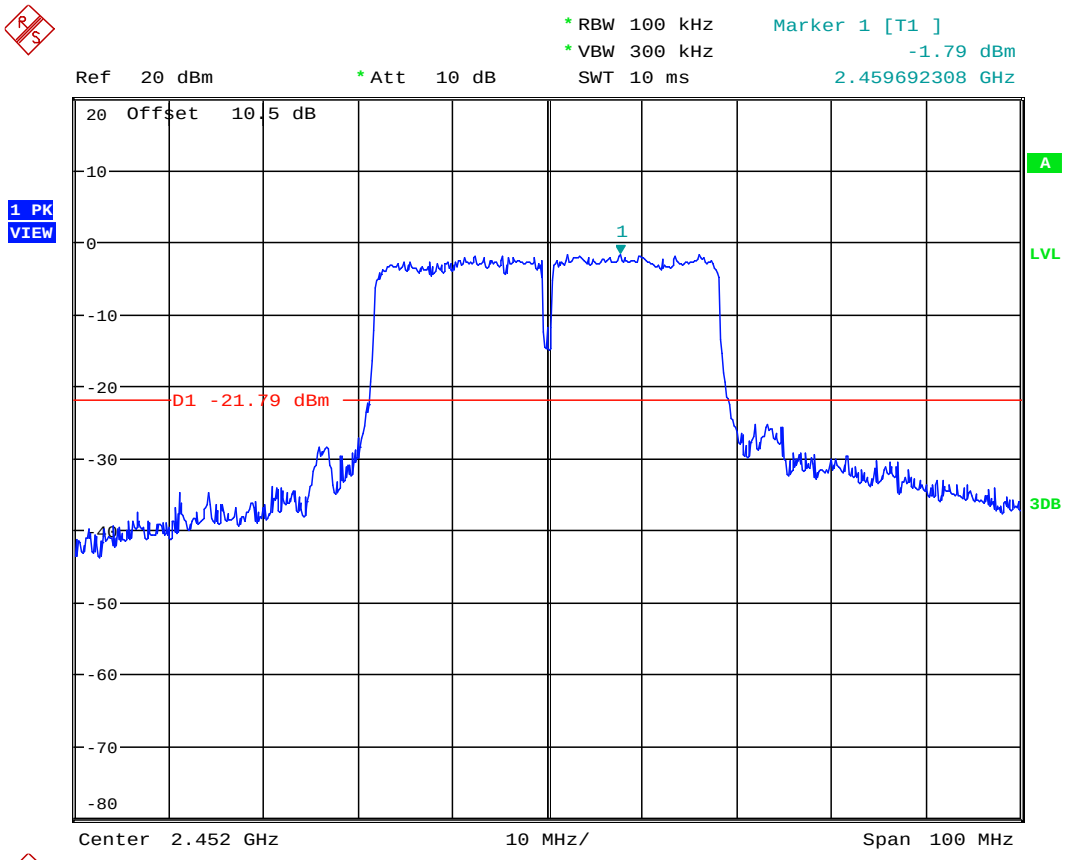
11n HT40 CH6:

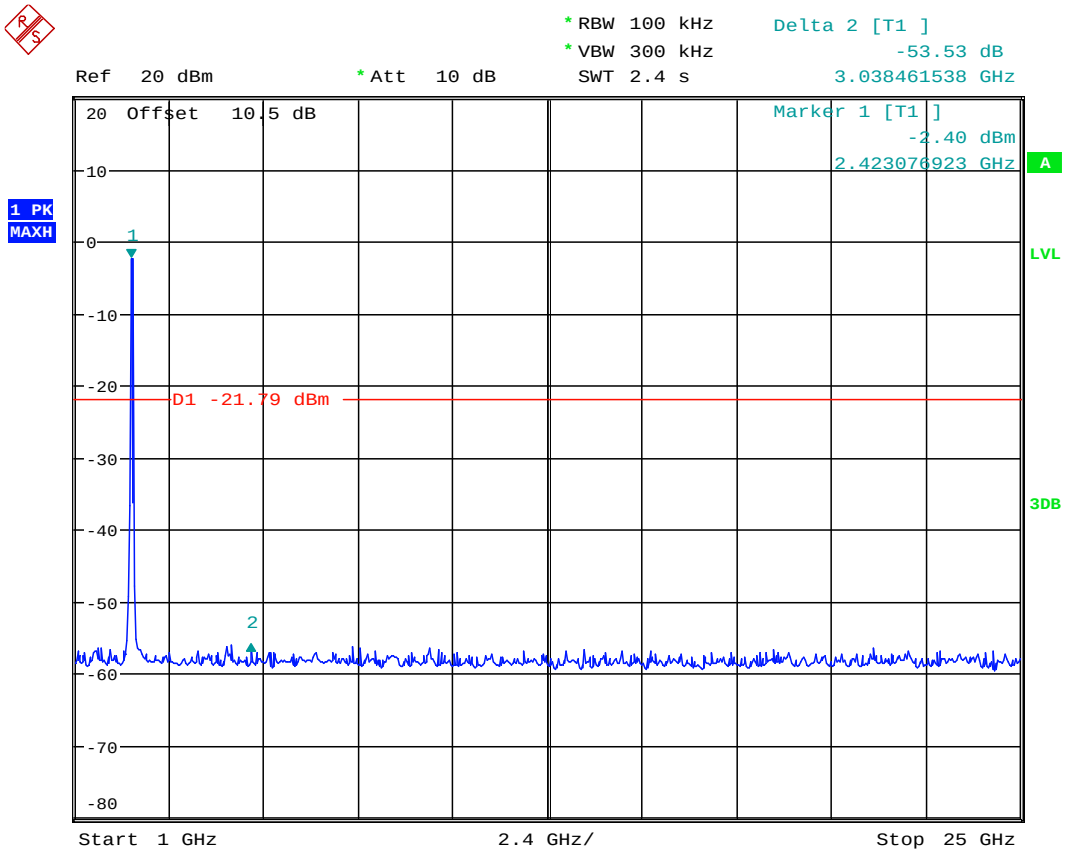

RBW 100 kHz
VBW 300 kHz
SWT 15 ms
Marker 1 [T1]
-0.98 dBm
2.446791667 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
VIEW
A
LVL
3DB
D1 -20.98 dBm
Center 2.437 GHz
13 MHz/
Span 130 MHz

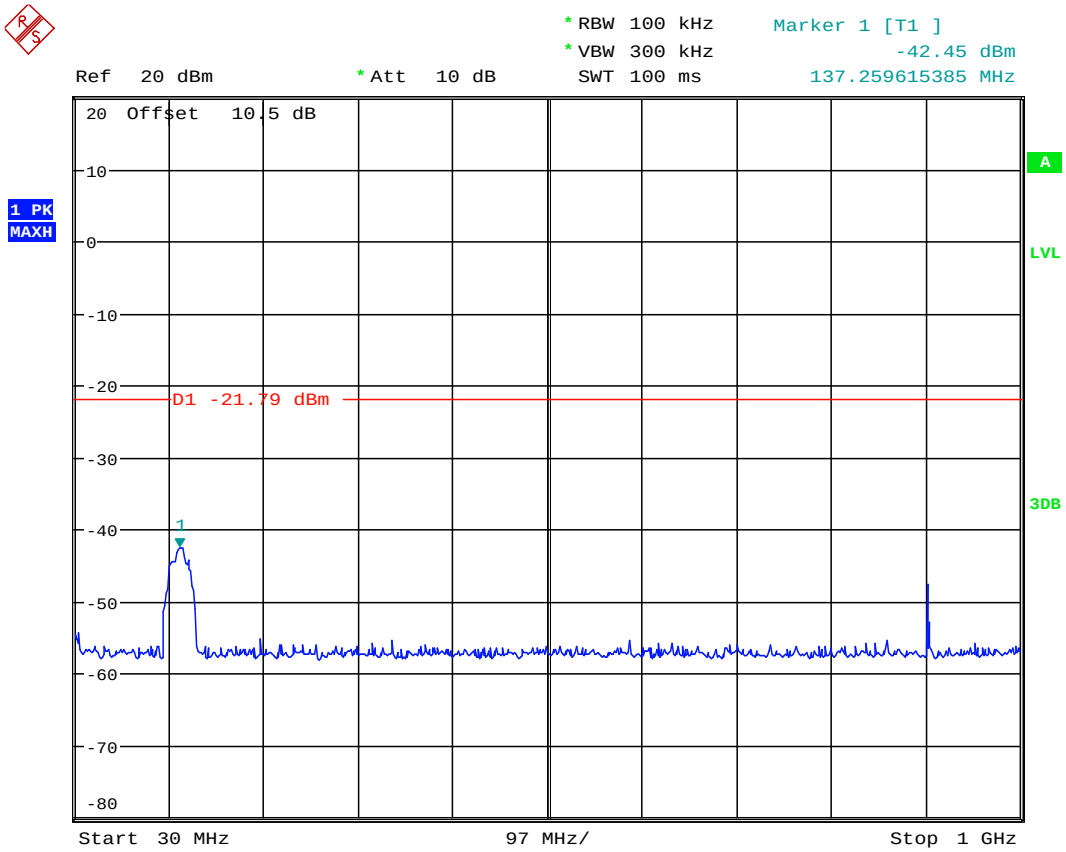

RBW 100 kHz
VBW 300 kHz
SWT 2.4 s
Delta 2 [T1]
-52.51 dB
2.423076923 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
Marker 1 [T1]
-2.64 dBm
2.423076923 GHz
1 PK
MAXH
A
LVL
3DB
D1 -20.98 dBm
Start 1 GHz
2.4 GHz/
Stop 25 GHz

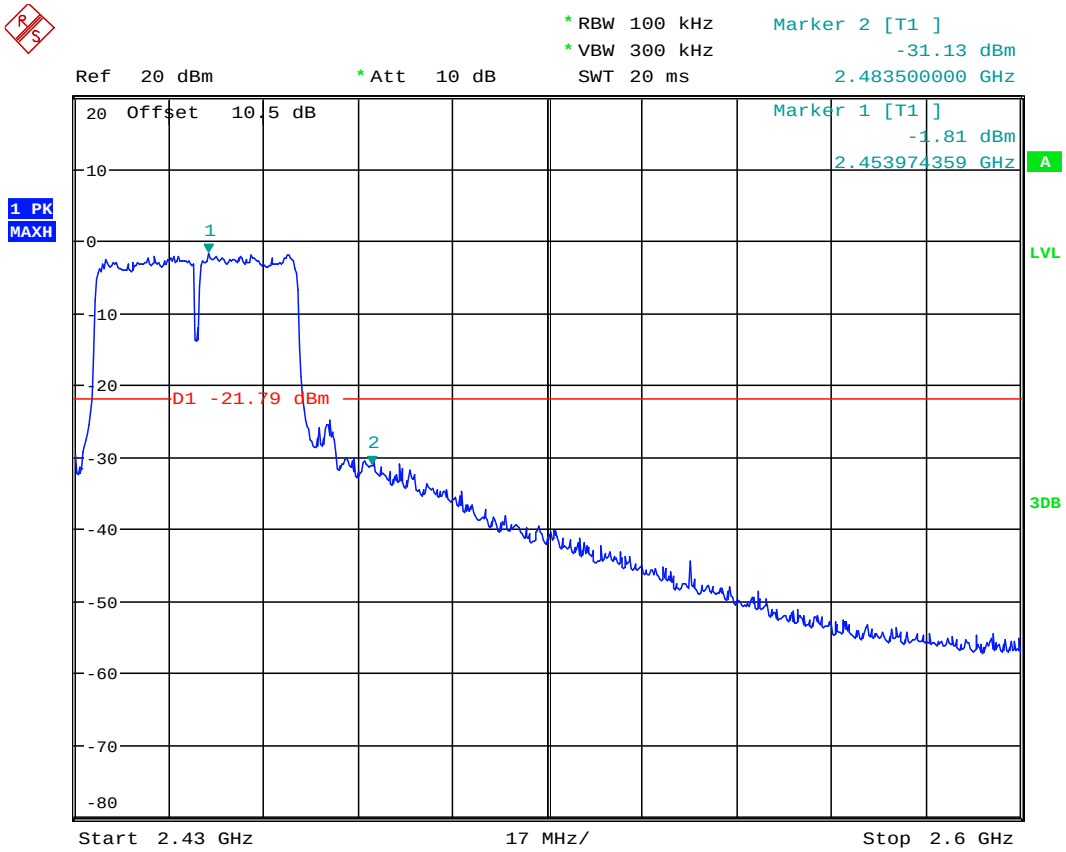

RBW 100 kHz
VBW 300 kHz
SWT 100 ms
Marker 1 [T1]
-42.33 dBm
121.714743590 MHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
D1 -20.98 dBm
Start 30 MHz
97 MHz/
Stop 1 GHz

11n HT40 CH9:


RBW 100 kHz
VBW 300 kHz
SWT 10 ms
Marker 1 [T1]
-1.79 dBm
2.459692308 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
VIEW
A
LVL
3DB
D1 -21.79 dBm
Center 2.452 GHz
10 MHz/
Span 100 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.4 s
Delta 2 [T1]
-53.53 dB
3.038461538 GHz
Marker 1 [T1]
-2.40 dBm
2.423076923 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
D1 -21.79 dBm
Start 1 GHz
2.4 GHz/
Stop 25 GHz


RBW 100 kHz
VBW 300 kHz
SWT 100 ms
Marker 1 [T1]
-42.45 dBm
137.259615385 MHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
D1 -21.79 dBm
Start 30 MHz
97 MHz/
Stop 1 GHz


RBW 100 kHz
VBW 300 kHz
SWT 20 ms
Marker 2 [T1]
-31.13 dBm
2.483500000 GHz
Marker 1 [T1]
-1.81 dBm
2.453974359 GHz
Ref 20 dBm
Att 10 dB
20 Offset 10.5 dB
1 PK
MAXH
A
LVL
3DB
D1 -21.79 dBm
Start 2.43 GHz
17 MHz/
Stop 2.6 GHz

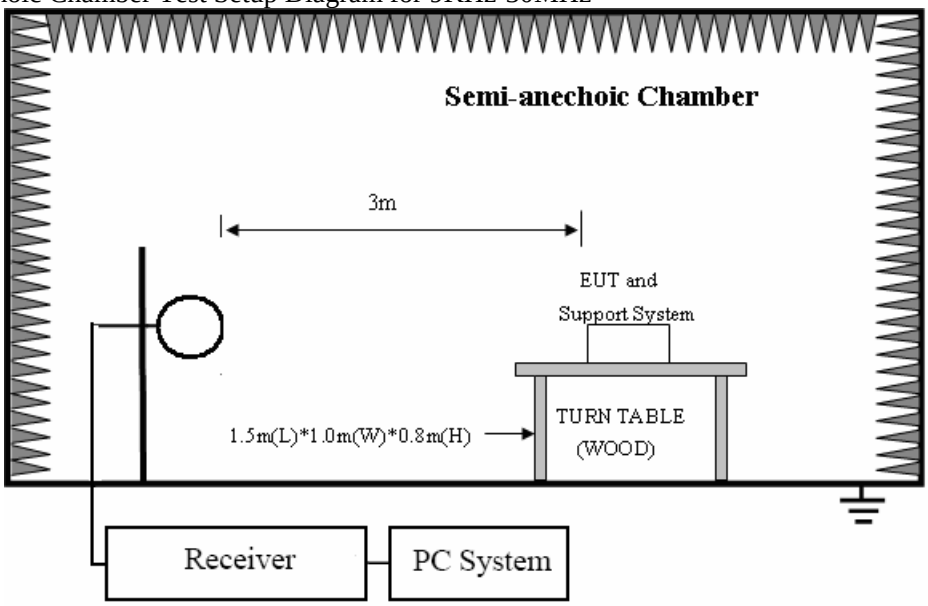
7. Emissions in restricted frequency bands

7.1. Test equipment

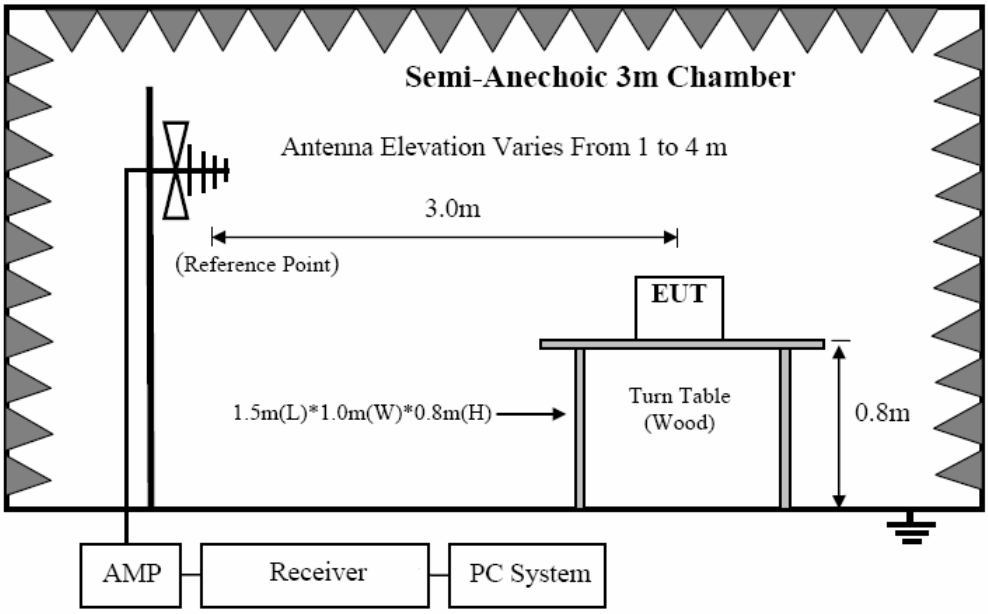
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	EMI Test Receiver	R&S	ESU8	100316	2013/11/13	1 Year
2	Spectrum analyzer	R&S	FSU	1166.1660.26	2013/11/13	1 Year
3	Loop antenna	TESEQ	HLA6120	20129	2013/11/16	1 Year
4	Trilog Broadband Antenna	Schwarzbeck	VULB9163	9163-462	2013/11/16	1 Year
5	Double Ridged Horn Antenna	R&S	HF907	100276	2013/11/16	1 Year
6	Horn Antenna	EMCO	3116	00060095	2013/11/16	1 Year
7	Pre-amplifier	A.H.	PAM-1840VH	562	2013/11/13	1 Year
8	RF Cable	R&S	R01	10403	2013/11/13	1 Year
9	RF Cable	R&S	R02	10512	2013/11/13	1 Year

7.2. Block diagram of test setup

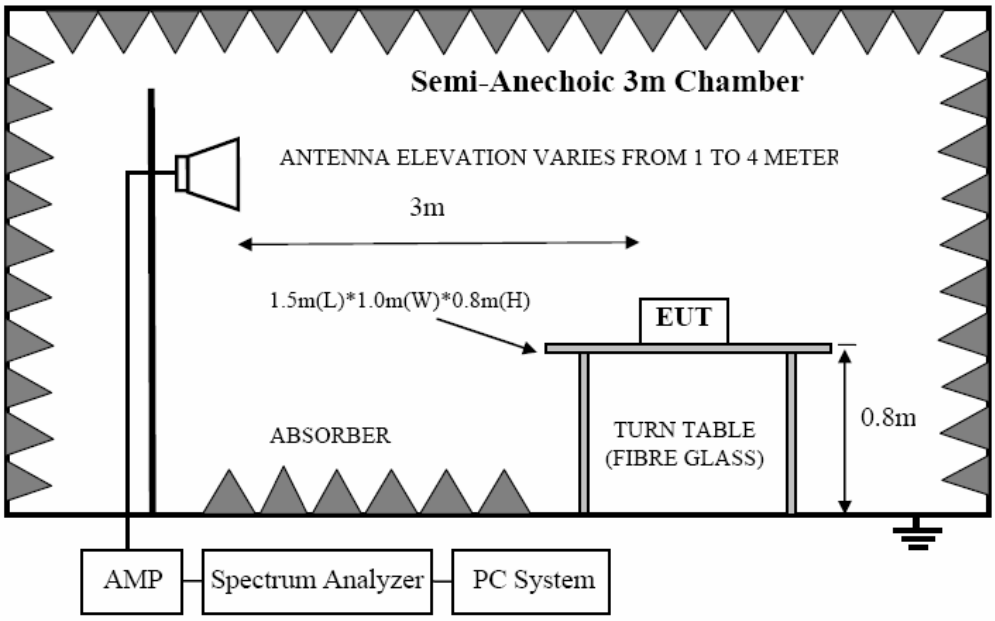
In 3m Anechoic Chamber Test Setup Diagram for 9KHz-30MHz



In 3m Anechoic Chamber Test Setup Diagram for 30MHz-1GHz



In 3m Anechoic Chamber Test Setup Diagram for frequency above 1GHz



Note: For harmonic emissions test a appropriate high pass filter was inserted in the input port of AMP.

7.3. Limit

8.3.1 FCC 15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])

8.3.2 FCC 15.209 Limit.

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
0.009 ~ 0.490	300	2400/F(KHz)	67.6-20log(F)
0.490 ~ 1.705	30	24000/F(KHz)	87.6-20log(F)
1.705 ~ 30.0	30	30	29.54
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

Note: (1)The emission limits shown in the above table are based on measurements employing a CISPR QP detector except for the frequency bands 9-90KHz, 110-490KHz and above 1000MHz.Radiated emissions limits in these three bands are based on measurements employing an average detector.

(2) At frequencies below 30MHz, measurement may be performed at a distance closer then that specified, and the limit at closer measurement distance can be extrapolated by below formula:

$$Limit_{3m}(dBuV/m)= Limit_{30m}(dBuV/m) + 40Log(30m/3m)$$

8.3.3 Limit for this EUT

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

7.4. Test Procedure

(1) EUT was placed on a non-metallic table, 80 cm above the ground plane inside a semi-anechoic chamber.

(2) Setup EUT and assistant system according clause 2.4 and 7.2

(3) Test antenna was located 3m from the EUT on an adjustable mast, and the antenna used as below table.

Test frequency range	Test antenna used
9KHz-30MHz	Active Loop antenna
30MHz-1GHz	Trilog Broadband Antenna
1GHz-18GHz	Double Ridged Horn Antenna(1GHz-18GHz)
18GHz-40GHz	Horn Antenna(18GHz-40GHz)

According ANSI C63.10:2009 clause 6.4.4.2 and 6,5.3, for measurements below 30 MHz, the loop antenna was positioned with its plane vertical from the EUT and rotated about its vertical axis for maximum response at each azimuth position around the EUT. And the loop antenna also be positioned with its plane horizontal at the specified distance from the EUT. The center of the loop is 1 m above the ground. for measurement above 30MHz, the Trilog Broadband Antenna or Horn Antenna was located 3m from EUT, Measurements were made with the antenna positioned in both the horizontal and vertical planes of Polarization, and the measurement antenna was varied from 1 m to 4 m. in height above the reference ground plane to obtain the maximum signal strength.

(4) Below pre-scan procedure was first performed in order to find prominent frequency spectrum radiated emissions from 9KHz to 25GHz:

(a) Scanning the peak frequency spectrum with the antenna specified in step (3), and the EUT was rotated 360 degree, the antenna height was varied from 1m to 4m(Except loop antenna, it’s fixed 1m above ground.)

(b) Change work frequency or channel of device if practicable.

(c) Change modulation type of device if practicable.

(d) Change power supply range from 85% to 115% of the rated supply voltage

(e) Rotated EUT though three orthogonal axes to determine the attitude of EUT arrangement produces highest emissions.

Spectrum frequency from 9KHz to 25GHz (tenth harmonic of fundamental frequency) was investigated, and no any obvious emission were detected from 18GHz to 25GHz, so below final test was performed with frequency range from 9KHz to 18GHz.

(5) For final emissions measurements at each frequency of interest, the EUT was rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10 2009 on Radiated Emission test.

(6) The emissions from 9KHz to 1GHz were measured based on CISPR QP detector except for the

frequency bands 9-90KHz, 110-490KHz, for emissions from 9KHz-90KHz,110KHz-490KHz and above 1GHz were measured based on average detector, for emissions above 1GHz, peak emissions also be measured and need comply with Peak limit.

(7) The emissions from 9KHz to 1GHz, QP or average values were measured with EMI receiver with below RBW

Frequency band	RBW
9KHz-150KHz	200Hz
150KHz-30MHz	9KHz
30MHz-1GHz	120KHz

(8) For emissions above 1GHz, both Peak and Average level were measured with Spectrum Analyzer, and the RBW is set at 1MHz, VBW is set at 3MHz for Peak measure; RMS detector RBW 1MHz VBW 3MHz for Average measure(according ANSI C63.10:2009 clause 4.2.3.2.3 procedure for average measure).

7.5. Test result

PASS. (See below detailed test result)

All the emissions except fundamental emission from 9KHz to 25GHz were comply with 15.209 limit.

Note1: According exploratory test no any obvious emission were detected from 9KHz to 30MHz and 18GHz to 25GHz, so the final test was performed with frequency range from 30MHz to 18GHz and recorded in below.

Note2: For emissions below 1GHz, according exploratory explorer test, when change Tx mode and channel, have no distinct influence on emissions level, so for emissions below 1GHz, the final test was only performed with EUT working in 11b, Tx CH6 mode.

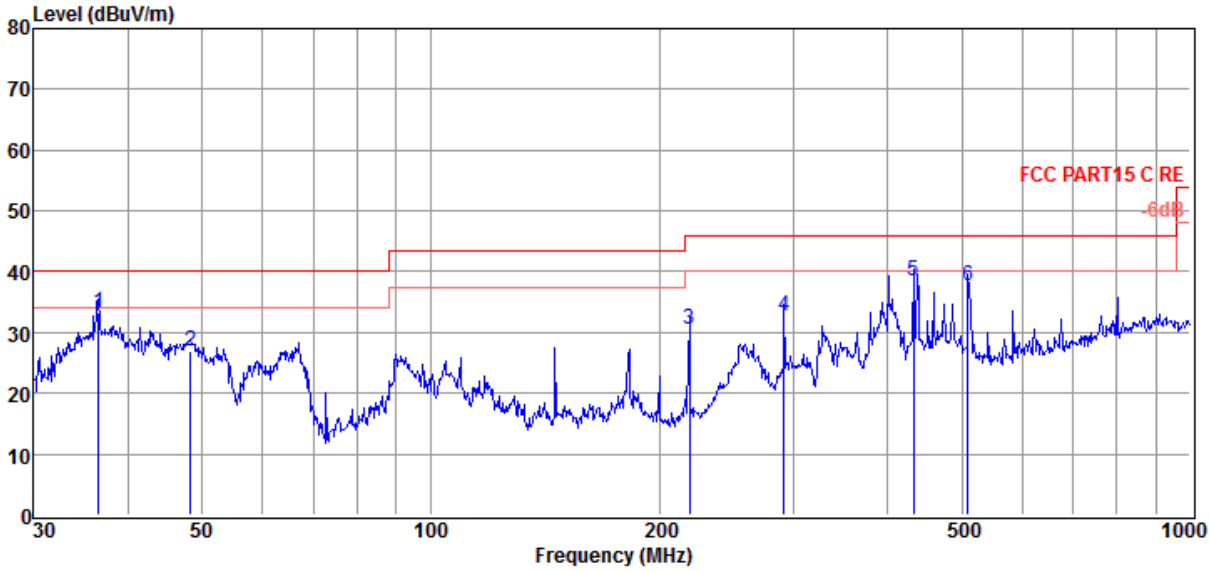
Note3: For emissions above 1GHz. according exploratory explorer test, when change adapter no distinct influence on emissions level, so for emissions above 1GHz, the final test was only performed with EUT working in adapter (Ktec). If peak results comply with AV limit, AV Result is deemed to comply with AV limit.

Note4: For below test data, when the limit tabular marked “/” means this frequency point is the fundamental emission and no need comply with this limit.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RE.EM6	
Test Date	: 2014-10-19	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: VULB 9163 2014-05/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 1



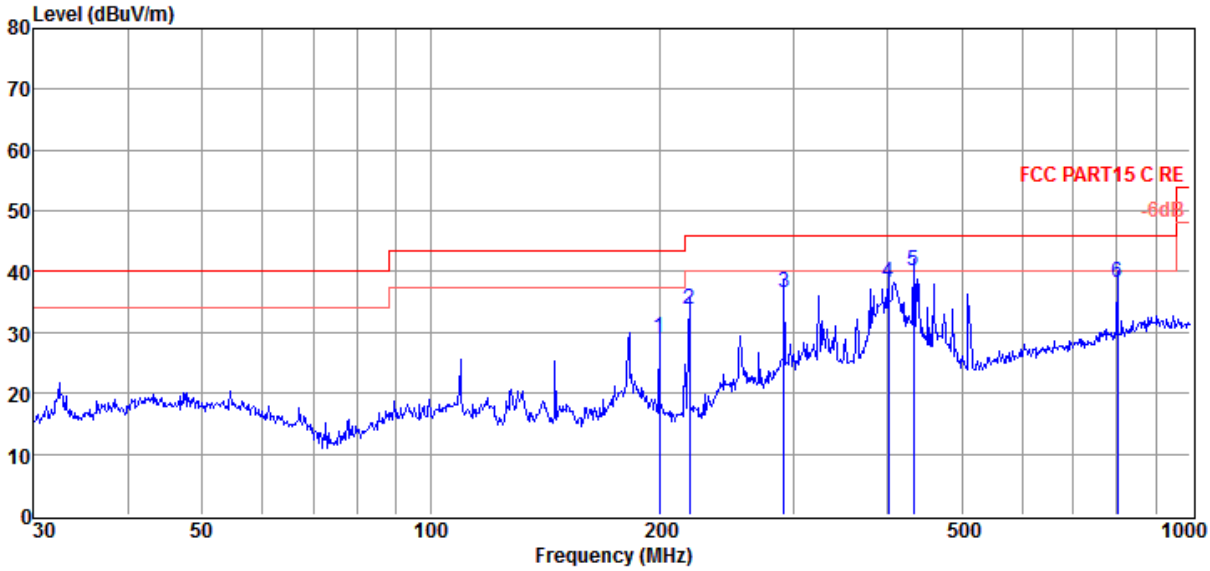
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	36.51	19.25	13.15	0.96	33.36	40.00	-6.64	QP	VERTICAL
2	48.33	11.42	14.50	1.06	26.98	40.00	-13.02	QP	VERTICAL
3	219.08	17.36	10.90	2.21	30.47	46.00	-15.53	QP	VERTICAL
4	292.06	15.25	14.70	2.68	32.63	46.00	-13.37	QP	VERTICAL
5	432.55	19.17	15.93	3.33	38.43	46.00	-7.57	QP	VERTICAL
6	510.04	17.90	16.13	3.69	37.72	46.00	-8.28	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RE.EM6	
Test Date	: 2014-10-19	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: VULB 9163 2014-05/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 2



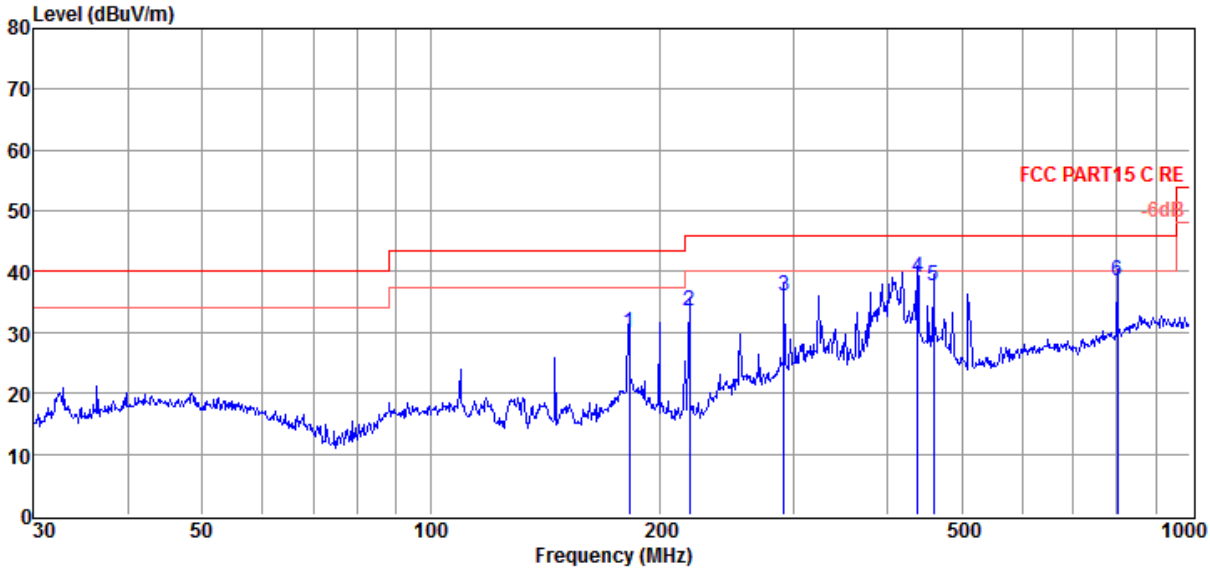
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	199.99	17.30	9.80	2.15	29.25	43.50	-14.25	QP	HORIZONTAL
2	219.08	20.67	10.90	2.21	33.78	46.00	-12.22	QP	HORIZONTAL
3	292.06	19.29	14.70	2.68	36.67	46.00	-9.33	QP	HORIZONTAL
4	400.43	19.00	15.90	3.23	38.13	46.00	-7.87	QP	HORIZONTAL
5	432.55	20.77	15.93	3.33	40.03	46.00	-5.97	QP	HORIZONTAL
6	801.79	13.14	20.40	4.69	38.23	46.00	-7.77	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RE.EM6	
Test Date	: 2014-10-19	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: VULB 9163 2014-05/3m/HORIZONTAL
Memo	: adapter(Csec)		

Data: 3



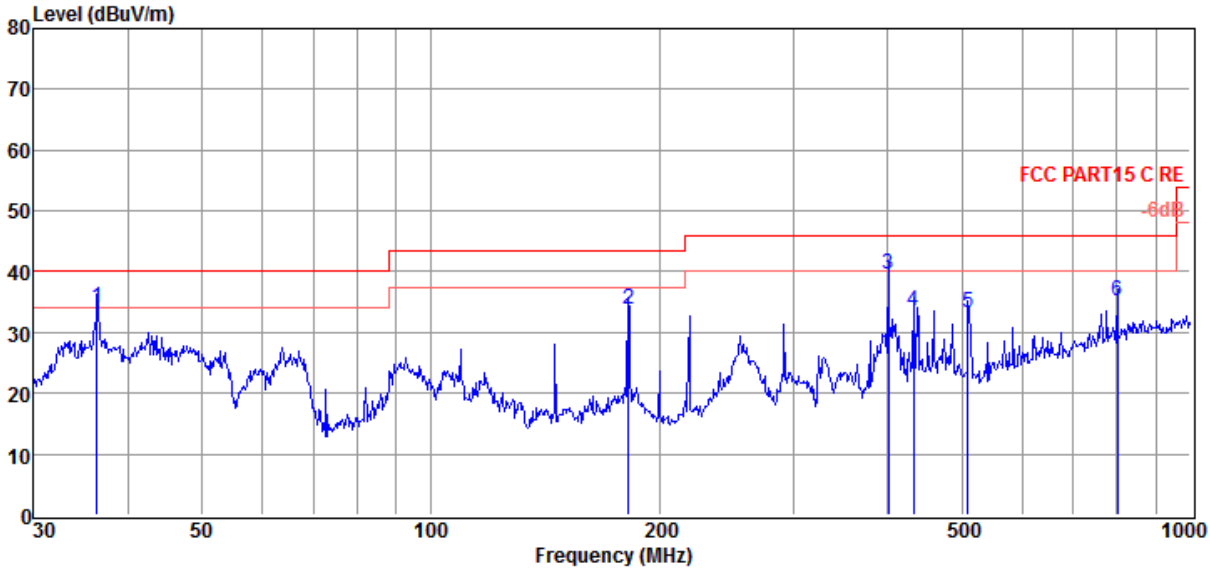
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	182.56	17.70	10.23	2.09	30.02	43.50	-13.48	QP	HORIZONTAL
2	219.08	20.50	10.90	2.21	33.61	46.00	-12.39	QP	HORIZONTAL
3	292.06	18.66	14.70	2.68	36.04	46.00	-9.96	QP	HORIZONTAL
4	437.12	19.75	15.93	3.35	39.03	46.00	-6.97	QP	HORIZONTAL
5	459.11	18.23	15.96	3.53	37.72	46.00	-8.28	QP	HORIZONTAL
6	801.79	13.29	20.40	4.69	38.38	46.00	-7.62	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RE.EM6	
Test Date	: 2014-10-19	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: VULB 9163 2014-05/3m/VERTICAL
Memo	: adapter(Csec)		

Data: 4



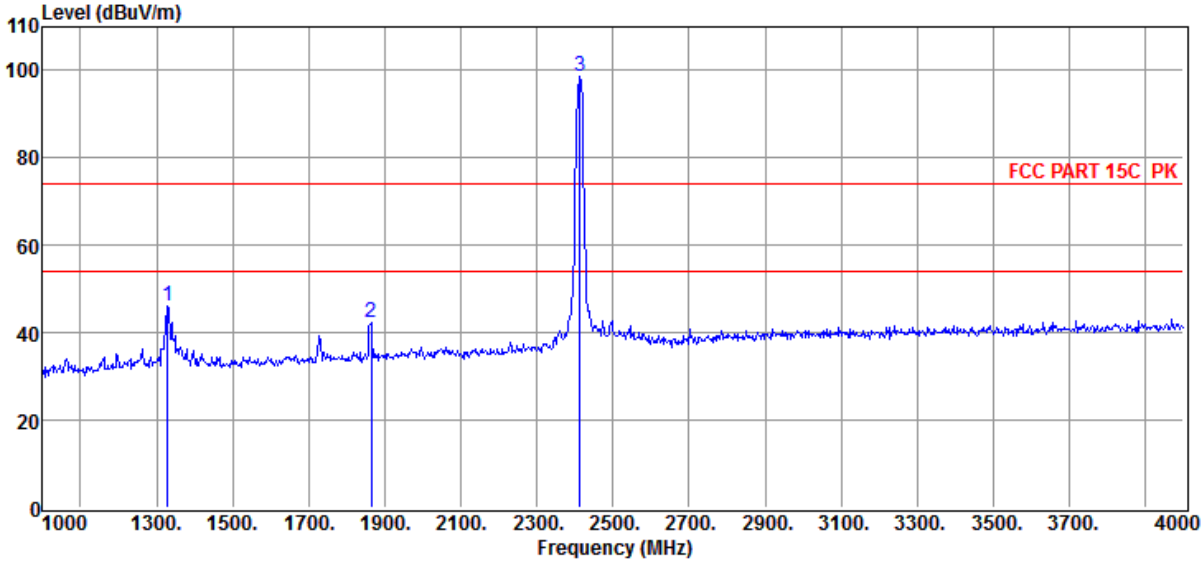
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	36.38	20.93	12.30	0.95	34.18	40.00	-5.82	QP	VERTICAL
2	181.92	21.89	9.90	2.08	33.87	43.50	-9.63	QP	VERTICAL
3	400.43	20.46	15.90	3.23	39.59	46.00	-6.41	QP	VERTICAL
4	432.55	14.37	15.93	3.33	33.63	46.00	-12.37	QP	VERTICAL
5	510.04	13.40	16.13	3.69	33.22	46.00	-12.78	QP	VERTICAL
6	801.79	10.09	20.40	4.69	35.18	46.00	-10.82	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 1



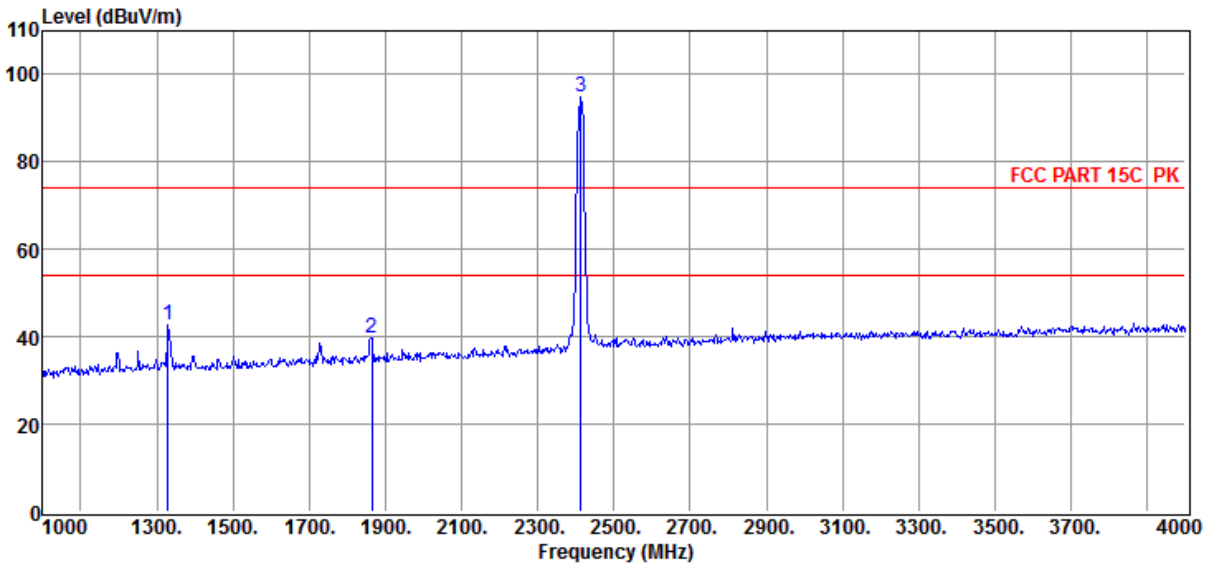
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1330.00	57.79	25.71	43.53	6.27	46.24	74.00	-27.76	Peak	VERTICAL
2	1864.00	50.31	28.13	43.60	7.35	42.19	74.00	-31.81	Peak	VERTICAL
3	2413.00	104.31	30.04	43.85	8.35	98.85	/	/	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 2



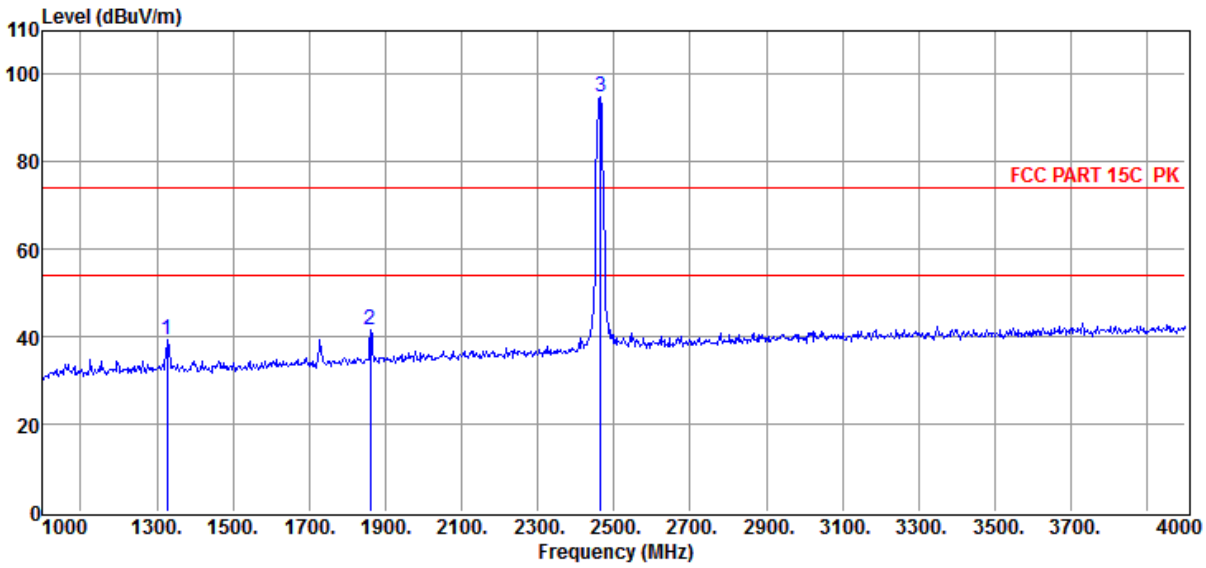
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1330.00	54.10	25.71	43.53	6.27	42.55	74.00	-31.45	Peak	HORIZONTAL
2	1864.00	47.98	28.13	43.60	7.35	39.86	74.00	-34.14	Peak	HORIZONTAL
3	2413.00	100.23	30.04	43.85	8.35	94.77	/	/	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 7



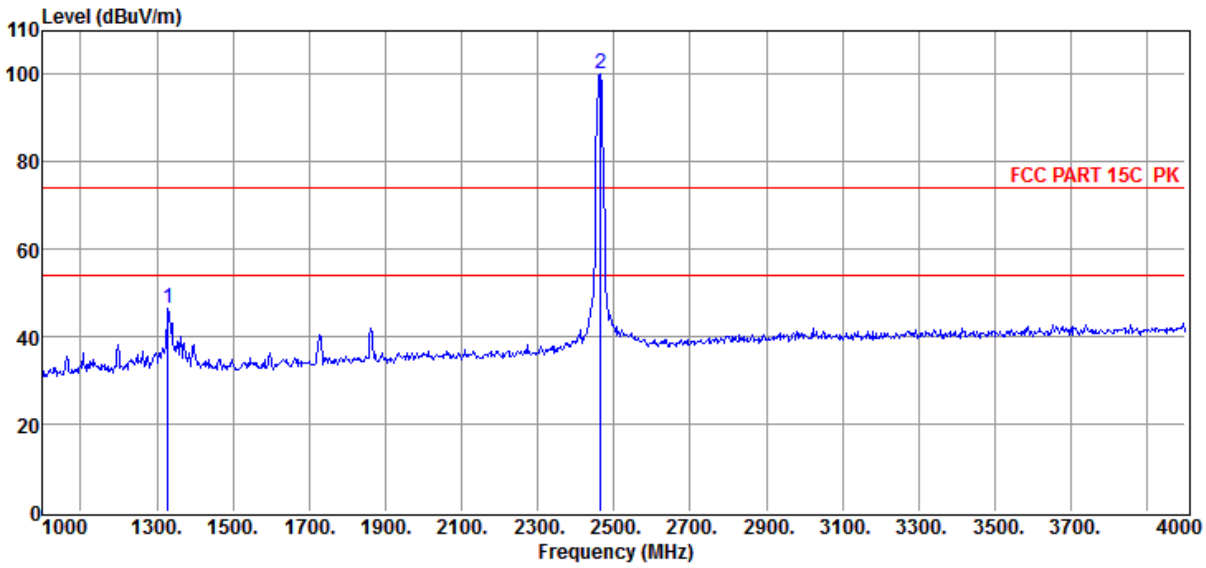
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1327.00	50.75	25.71	43.53	6.24	39.17	74.00	-34.83	Peak	HORIZONTAL
2	1861.00	49.88	28.13	43.60	7.35	41.76	74.00	-32.24	Peak	HORIZONTAL
3	2464.00	100.14	30.20	43.88	8.45	94.91	/	/	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 8



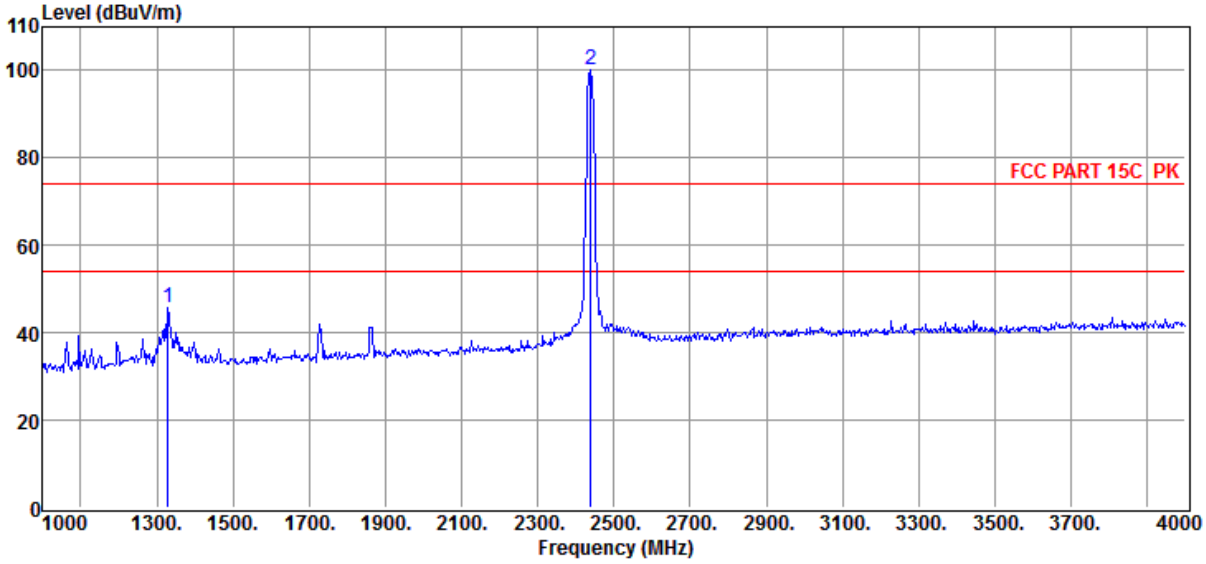
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1330.00	57.95	25.71	43.53	6.27	46.40	74.00	-27.60	Peak	VERTICAL
2	2464.00	105.40	30.20	43.88	8.45	100.17	/	/	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 9



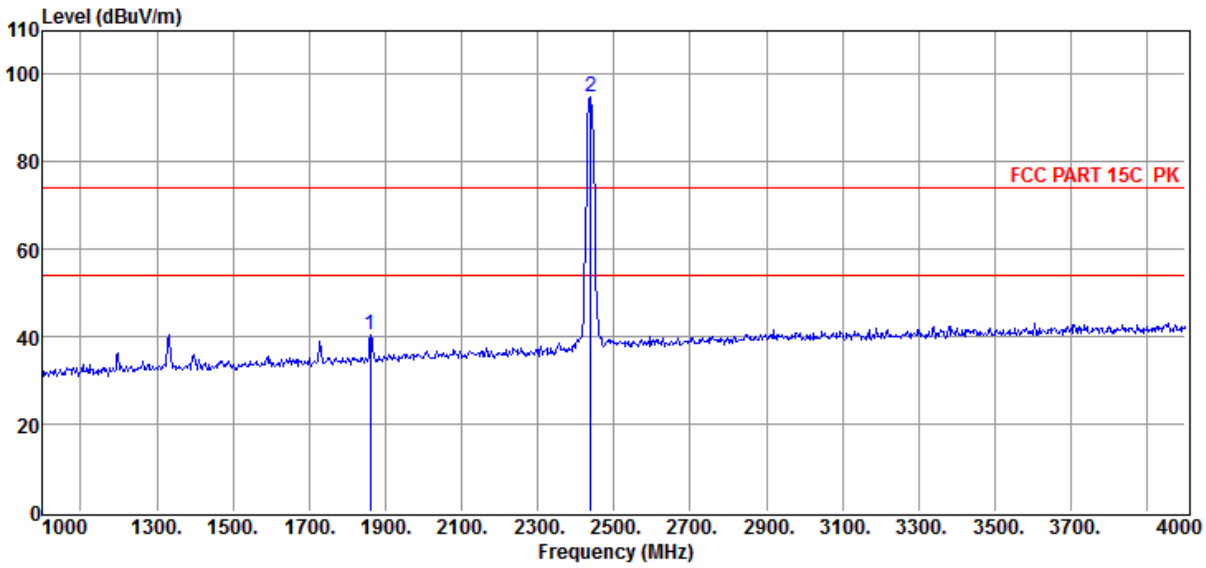
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1330.00	57.41	25.71	43.53	6.27	45.86	74.00	-28.14	Peak	VERTICAL
2	2440.00	105.41	30.14	43.87	8.40	100.08	/	/	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 10



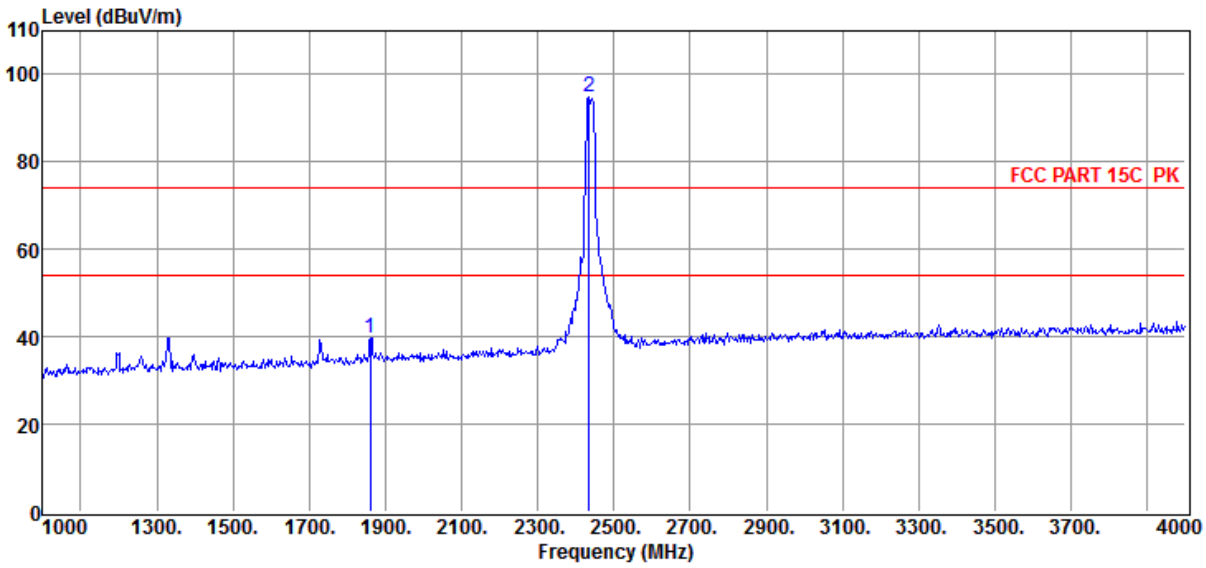
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1861.00	48.69	28.13	43.60	7.35	40.57	74.00	-33.43	Peak	HORIZONTAL
2	2440.00	100.32	30.14	43.87	8.40	94.99	/	/	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 11



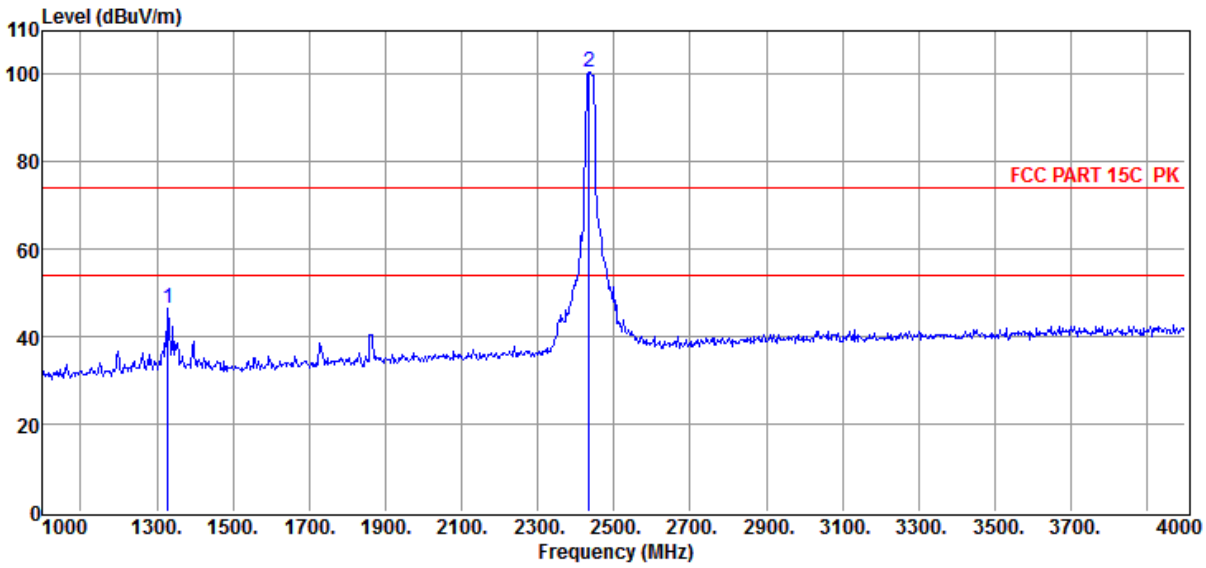
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1861.00	47.92	28.13	43.60	7.35	39.80	74.00	-34.20	Peak	HORIZONTAL
2	2434.00	100.12	30.09	43.86	8.40	94.75	/	/	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 12



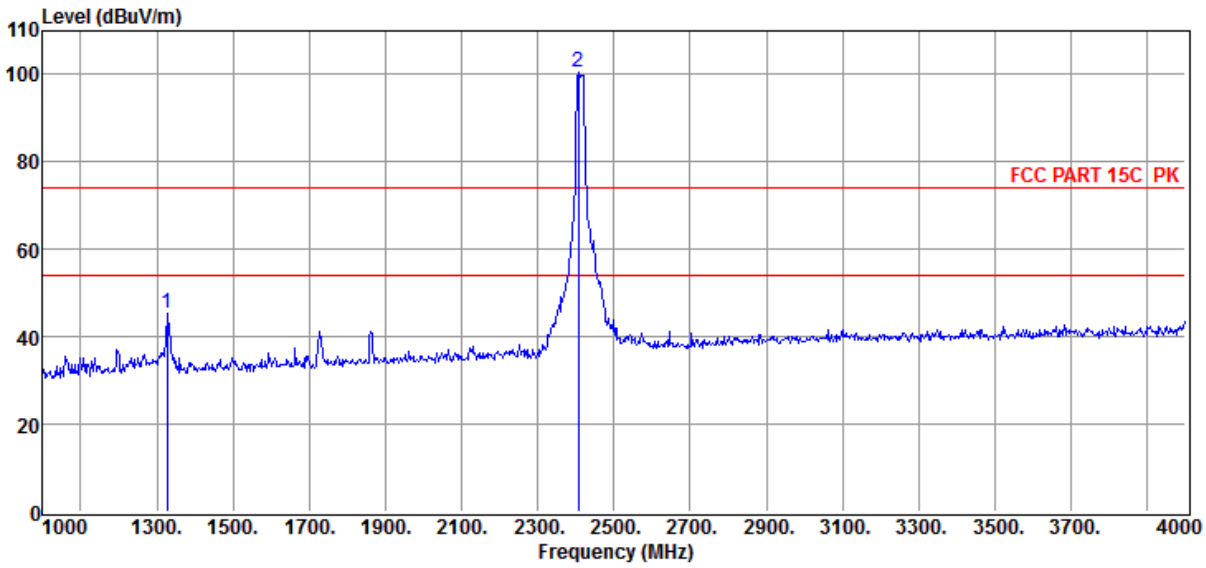
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1330.00	58.13	25.71	43.53	6.27	46.58	74.00	-27.42	Peak	VERTICAL
2	2434.00	106.10	30.09	43.86	8.40	100.73	/	/	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 13



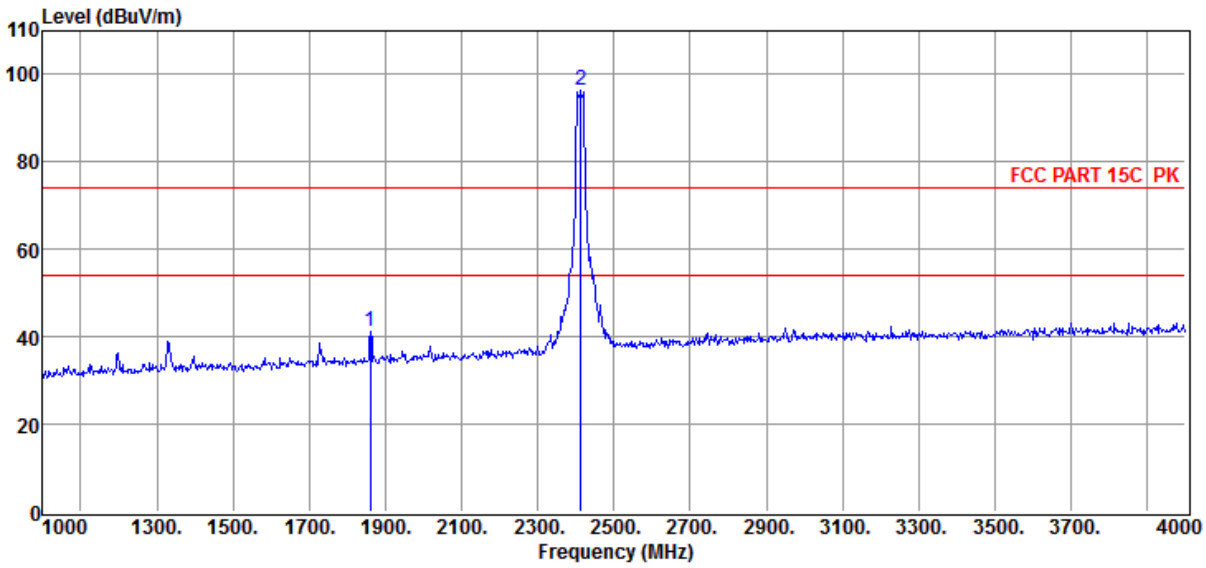
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1327.00	56.76	25.71	43.53	6.24	45.18	74.00	-28.82	Peak	VERTICAL
2	2407.00	106.13	30.04	43.85	8.35	100.67	/	/	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 14



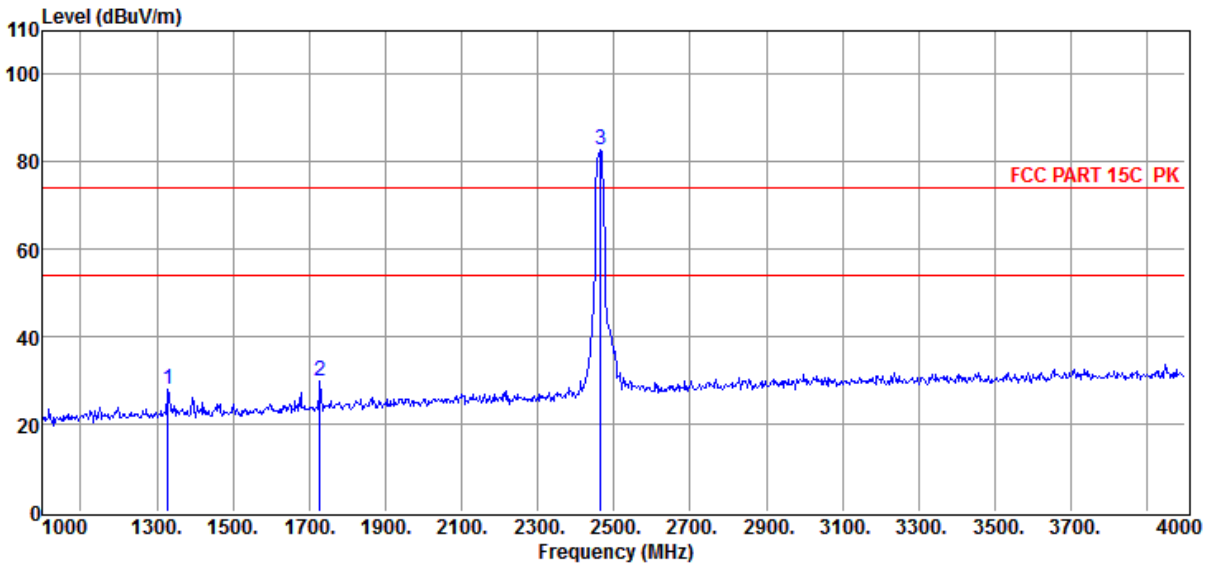
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1861.00	49.15	28.13	43.60	7.35	41.03	74.00	-32.97	Peak	HORIZONTAL
2	2413.00	101.82	30.04	43.85	8.35	96.36	/	/	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 19



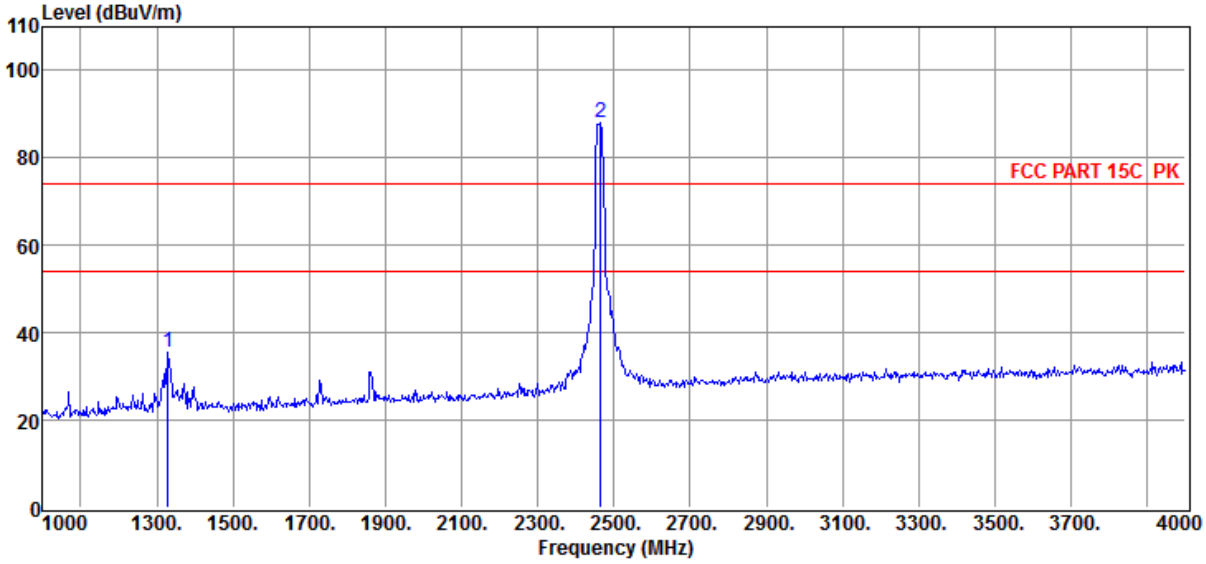
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1330.00	39.52	25.71	43.53	6.27	27.97	74.00	-46.03	Peak	HORIZONTAL
2	1729.00	38.89	27.47	43.60	7.10	29.86	74.00	-44.14	Peak	HORIZONTAL
3	2464.00	88.03	30.20	43.88	8.45	82.80	/	/	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 20



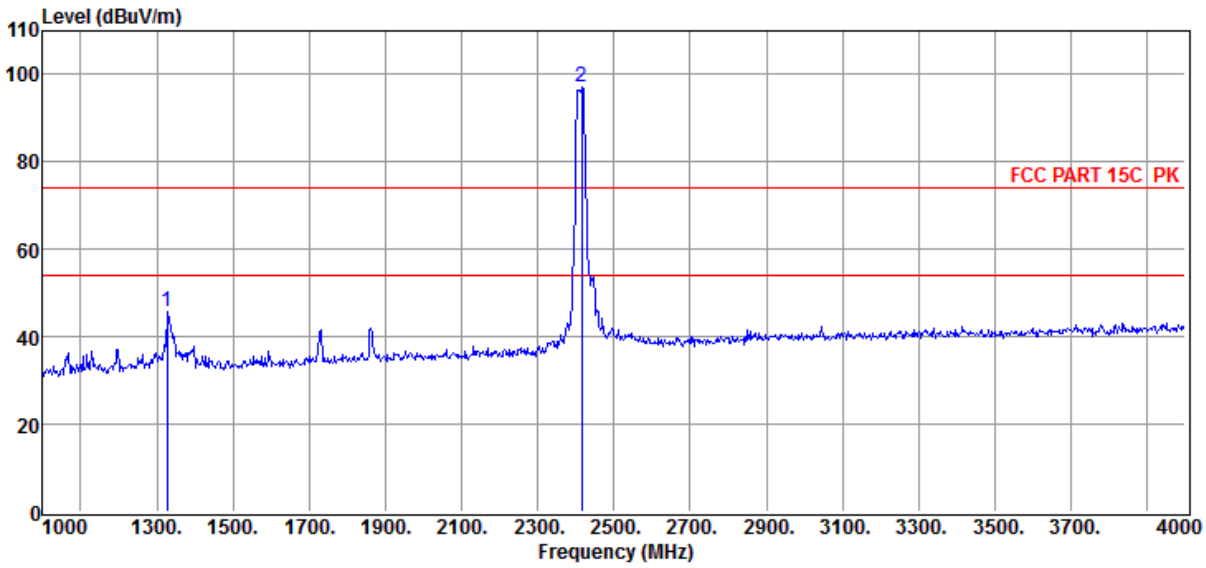
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1330.00	46.97	25.71	43.53	6.27	35.42	74.00	-38.58	Peak	VERTICAL
2	2464.00	93.18	30.20	43.88	8.45	87.95	/	/	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 21



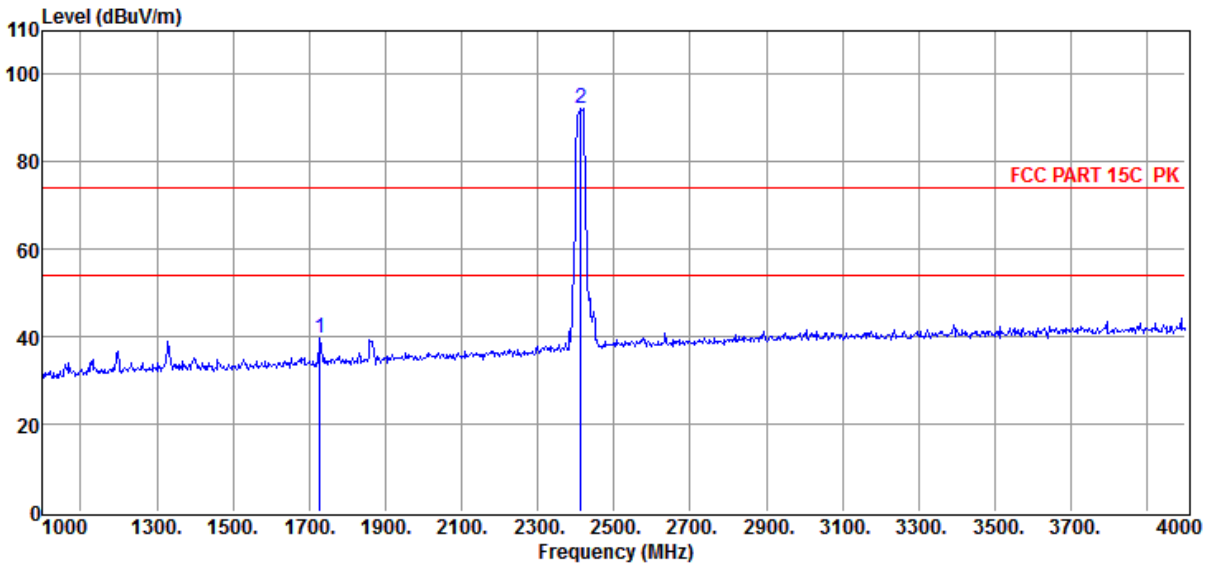
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1327.00	57.17	25.71	43.53	6.24	45.59	74.00	-28.41	Peak	VERTICAL
2	2416.00	102.54	30.04	43.85	8.35	97.08	/	/	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 22



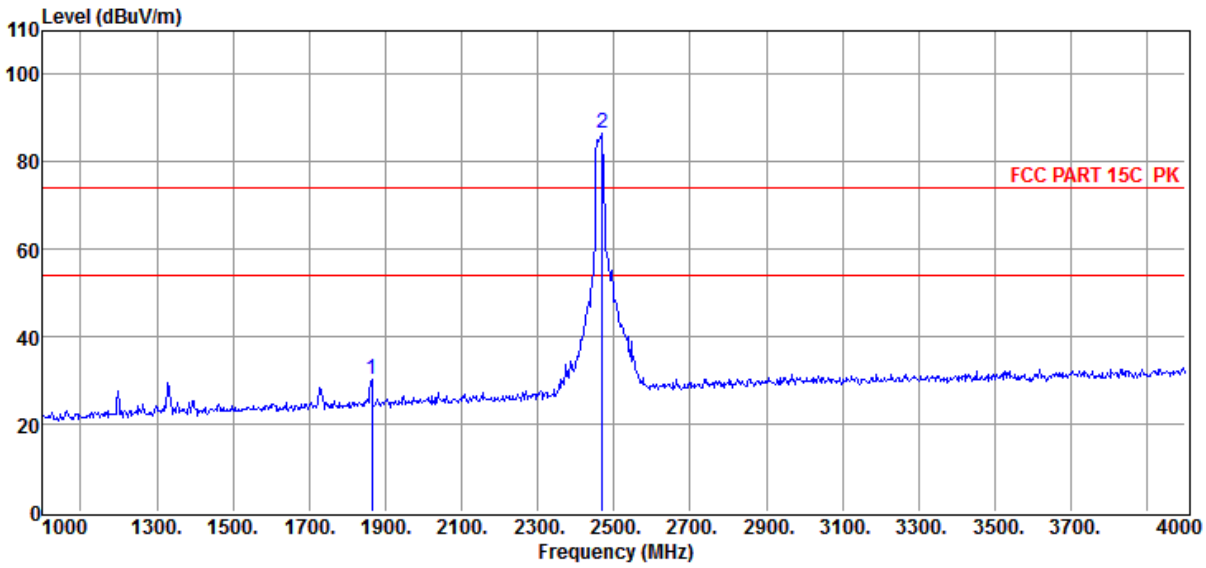
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1729.00	48.89	27.47	43.60	7.10	39.86	74.00	-34.14	Peak	HORIZONTAL
2	2413.00	97.88	30.04	43.85	8.35	92.42	/	/	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 27



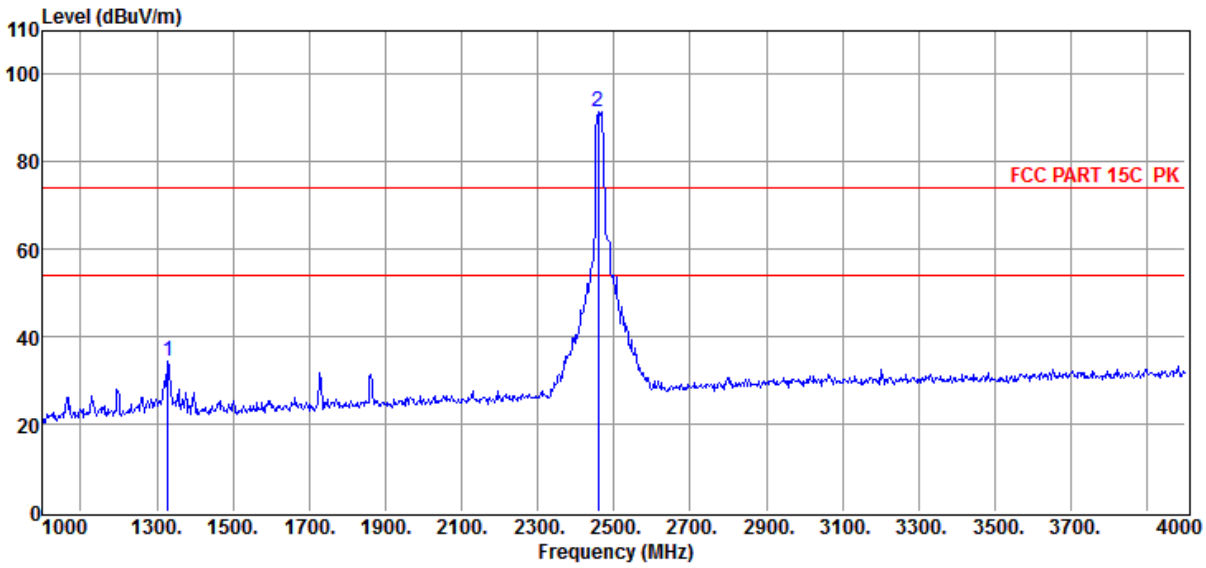
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1864.00	38.26	28.13	43.60	7.35	30.14	74.00	-43.86	Peak	HORIZONTAL
2	2470.00	91.78	30.20	43.88	8.45	86.55	/	/	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 28



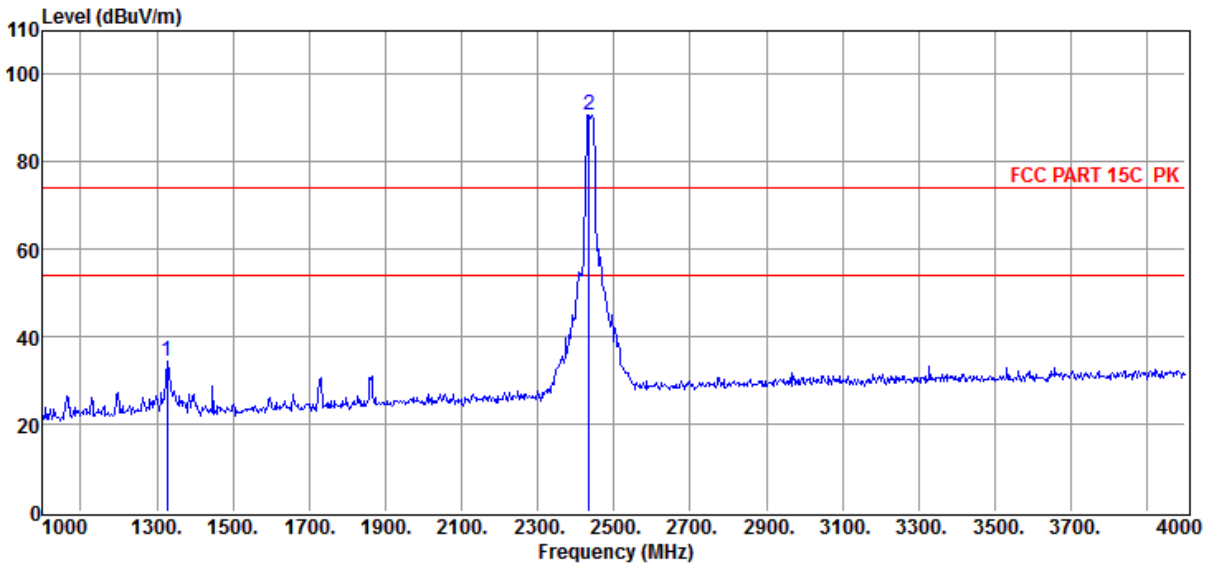
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1330.00	45.84	25.71	43.53	6.27	34.29	74.00	-39.71	Peak	VERTICAL
2	2458.00	96.57	30.20	43.88	8.45	91.34	/	/	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 29



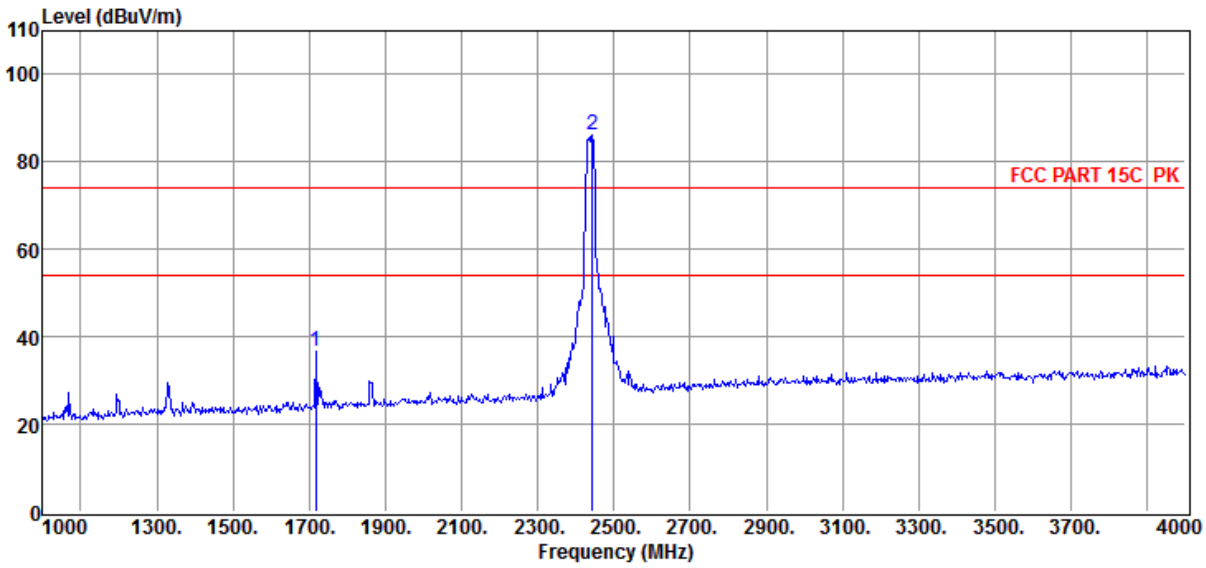
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1327.00	45.89	25.71	43.53	6.24	34.31	74.00	-39.69	Peak	VERTICAL
2	2434.00	96.18	30.09	43.86	8.40	90.81	/	/	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 30



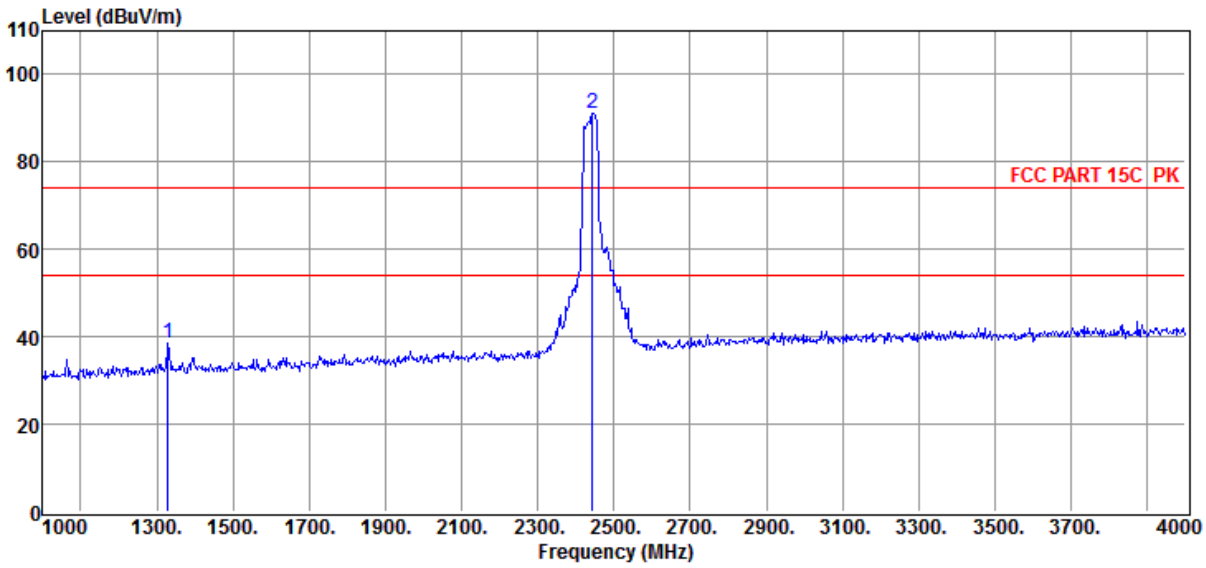
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1717.00	45.82	27.38	43.60	7.06	36.66	74.00	-37.34	Peak	HORIZONTAL
2	2443.00	91.66	30.14	43.87	8.40	86.33	/	/	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 31



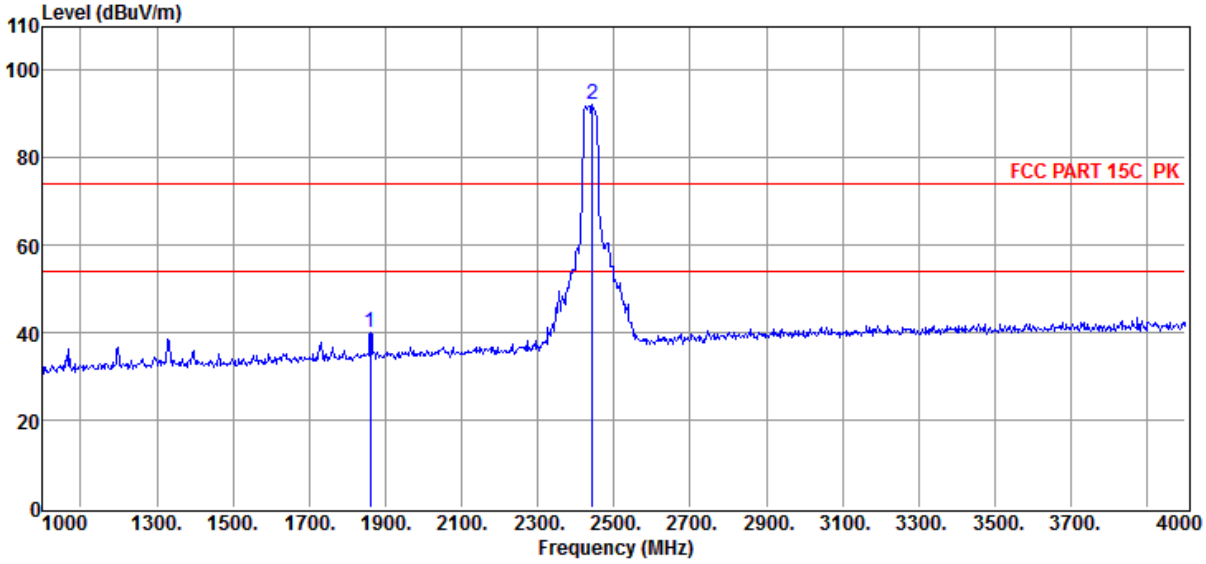
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1330.00	49.94	25.71	43.53	6.27	38.39	74.00	-35.61	Peak	HORIZONTAL
2	2443.00	96.41	30.14	43.87	8.40	91.08	/	/	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 32



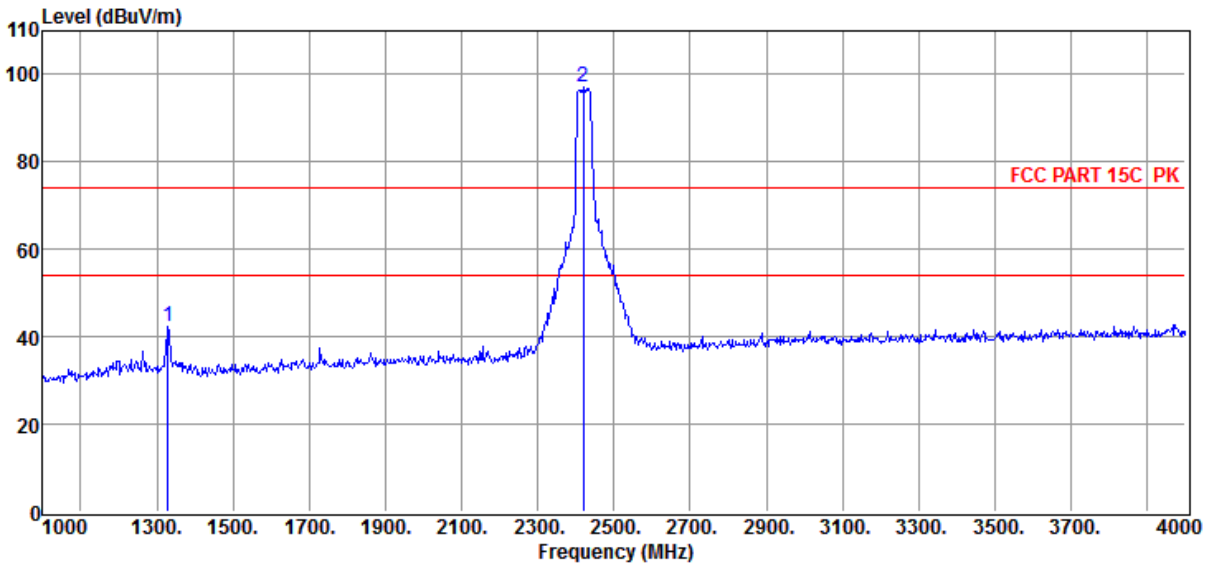
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1861.00	48.27	28.13	43.60	7.35	40.15	74.00	-33.85	Peak	VERTICAL
2	2443.00	97.54	30.14	43.87	8.40	92.21	/	/	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH3
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 33



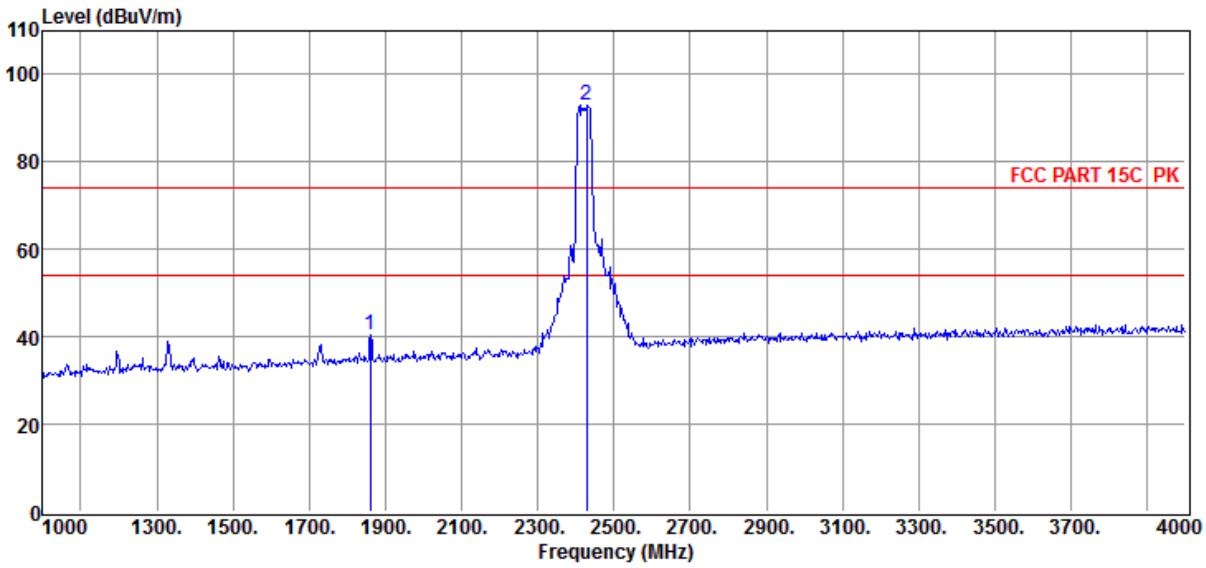
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1330.00	53.91	25.71	43.53	6.27	42.36	74.00	-31.64	Peak	VERTICAL
2	2419.00	102.50	30.04	43.85	8.40	97.09	/	/	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH3
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 34



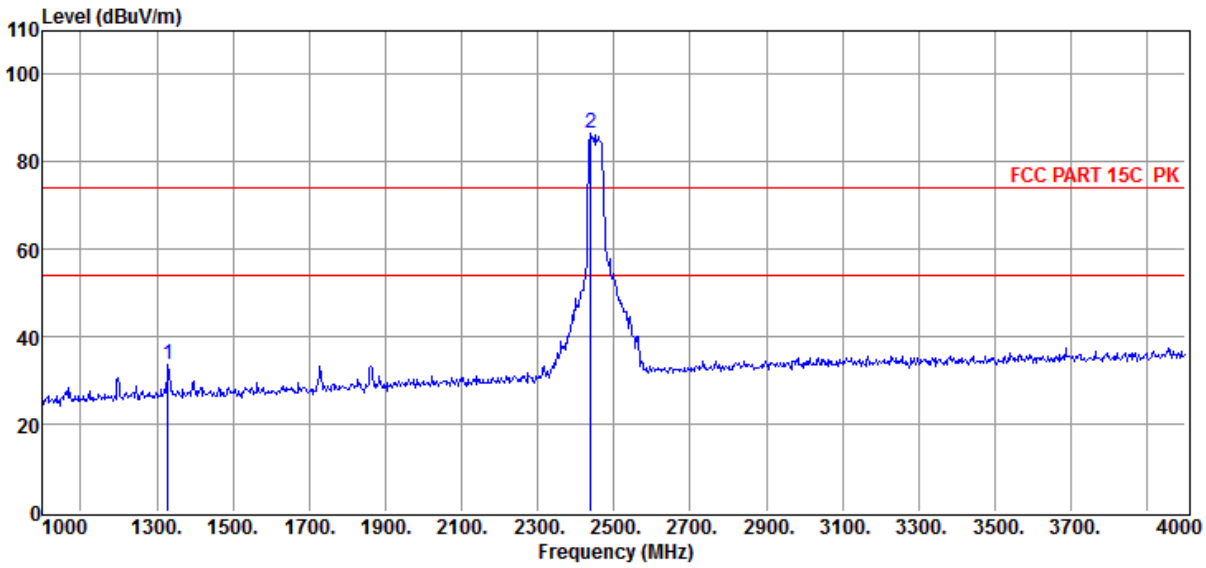
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1861.00	48.71	28.13	43.60	7.35	40.59	74.00	-33.41	Peak	HORIZONTAL
2	2428.00	98.50	30.09	43.86	8.40	93.13	/	/	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH9
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 39



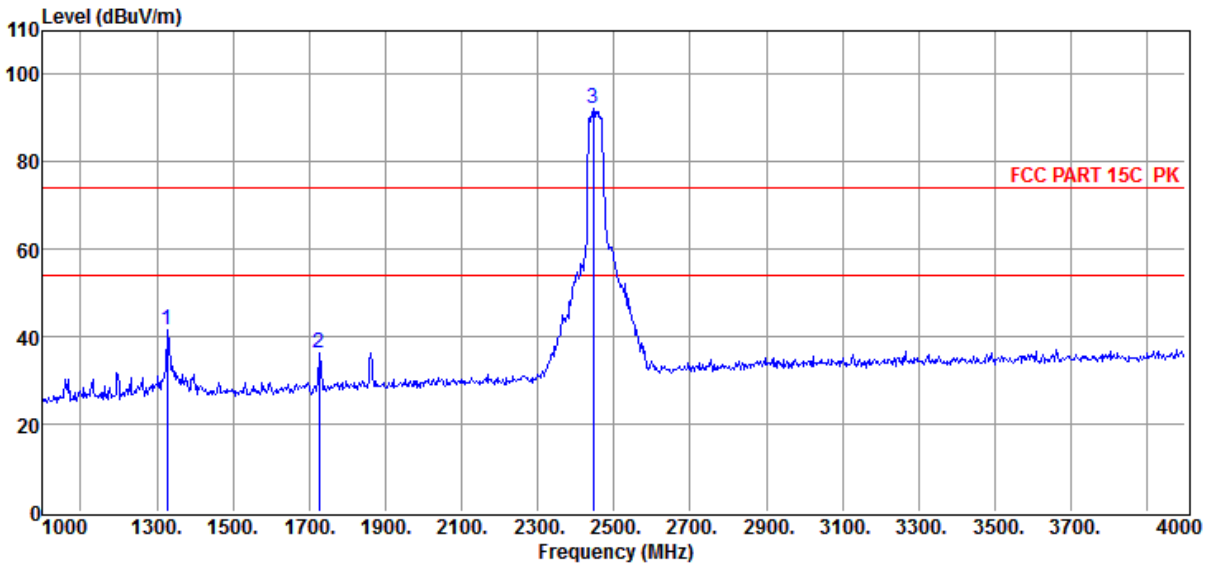
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1330.00	45.01	25.71	43.53	6.27	33.46	74.00	-40.54	Peak	HORIZONTAL
2	2440.00	91.73	30.14	43.87	8.40	86.40	/	/	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH9
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 40



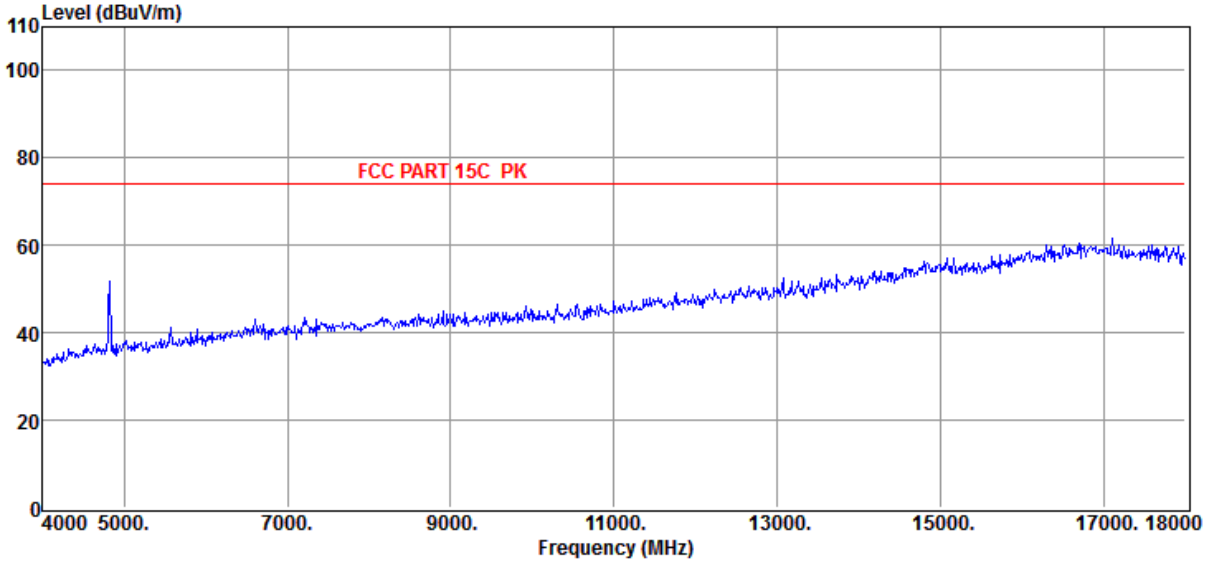
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1327.00	53.19	25.71	43.53	6.24	41.61	74.00	-32.39	Peak	VERTICAL
2	1726.00	45.48	27.47	43.60	7.10	36.45	74.00	-37.55	Peak	VERTICAL
3	2446.00	97.47	30.14	43.87	8.40	92.14	/	/	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 41



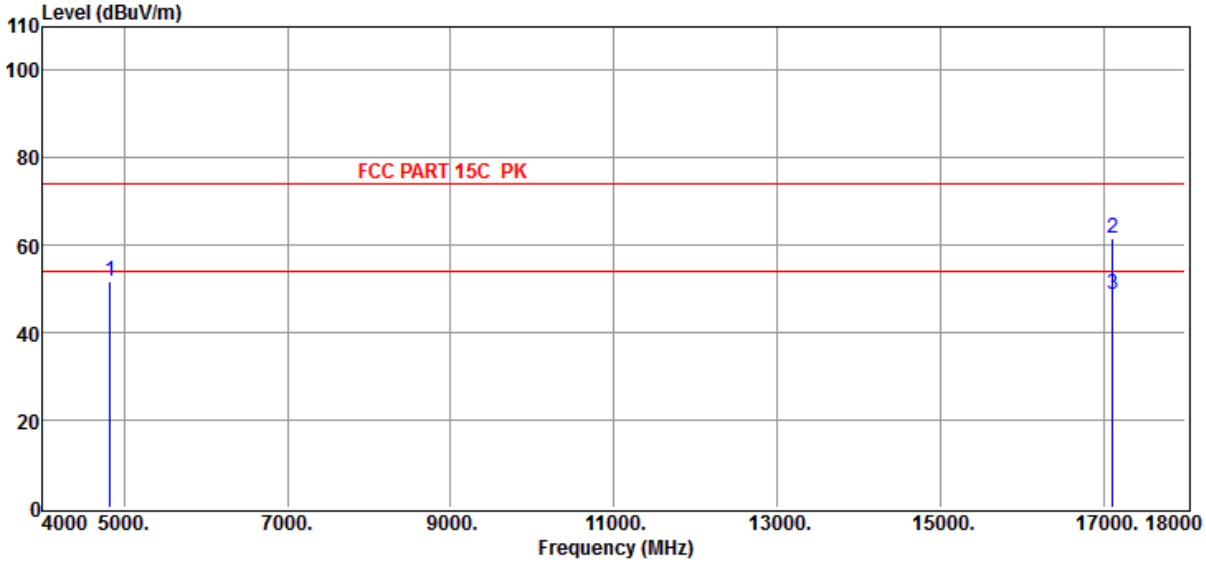
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 42



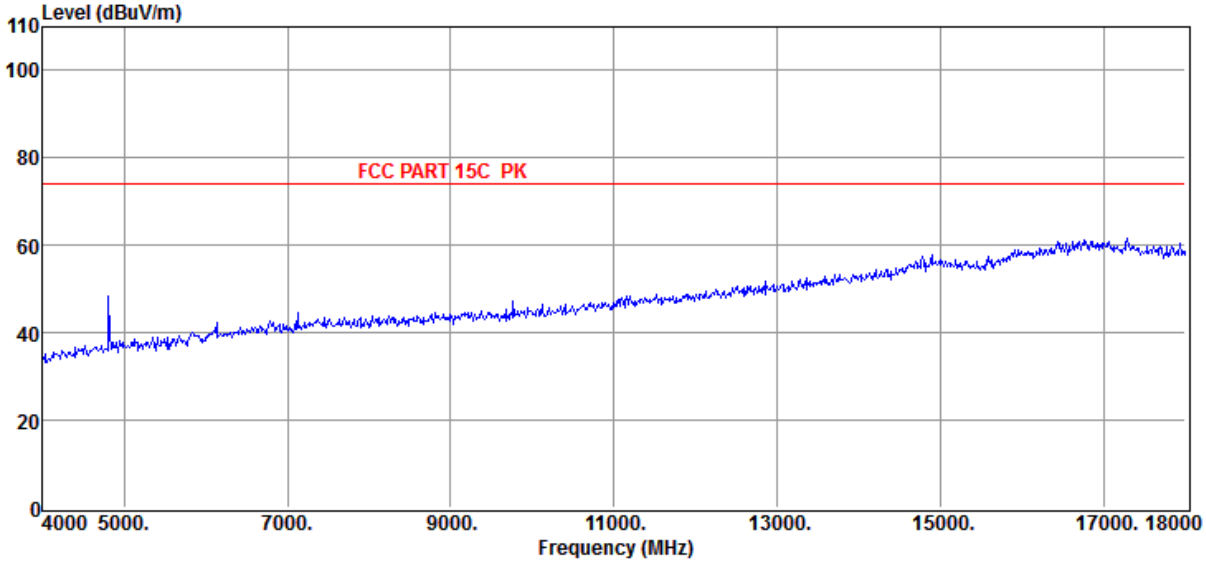
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4824.00	48.67	35.42	44.37	12.07	51.79	74.00	-22.21	Peak	VERTICAL
2	17104.00	32.97	43.44	40.44	25.47	61.44	74.00	-12.56	Peak	VERTICAL
3	17104.00	20.34	43.44	40.44	25.47	48.81	54.00	-5.19	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 43



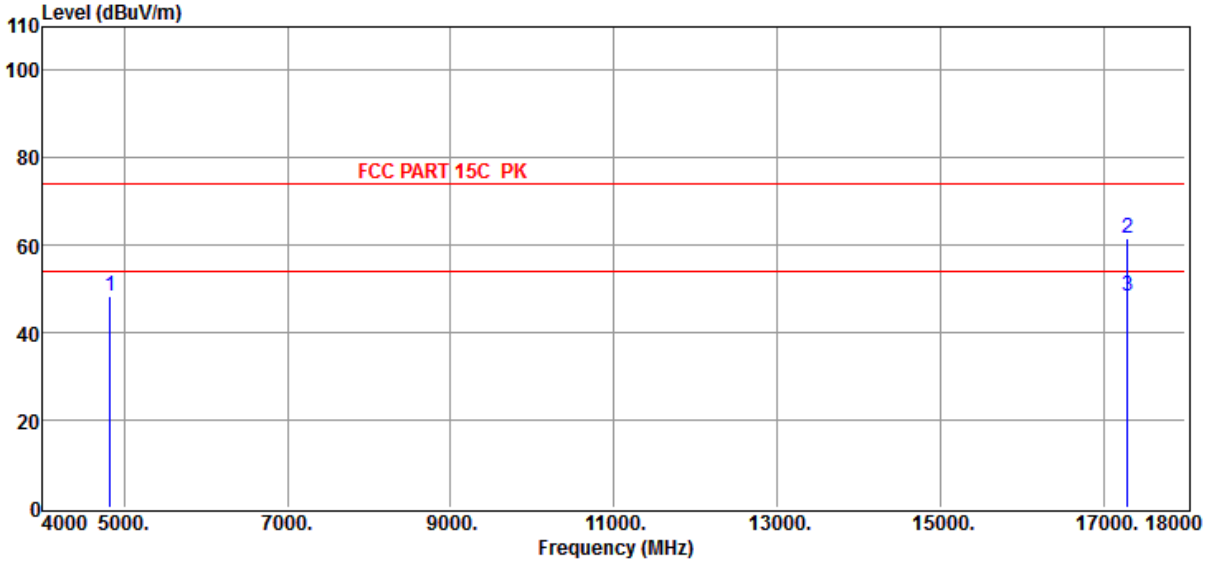
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 44



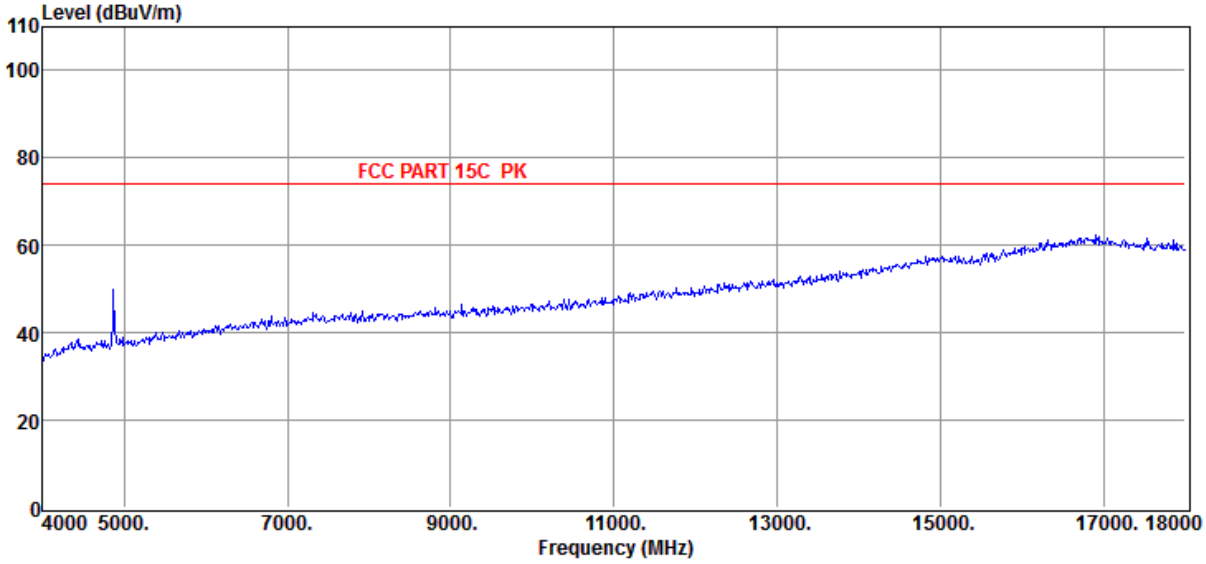
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4824.00	45.34	35.42	44.37	12.07	48.46	74.00	-25.54	Peak	HORIZONTAL
2	17286.00	33.50	43.15	40.51	25.33	61.47	74.00	-12.53	Peak	HORIZONTAL
3	17286.00	20.50	43.15	40.51	25.33	48.47	54.00	-5.53	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 45



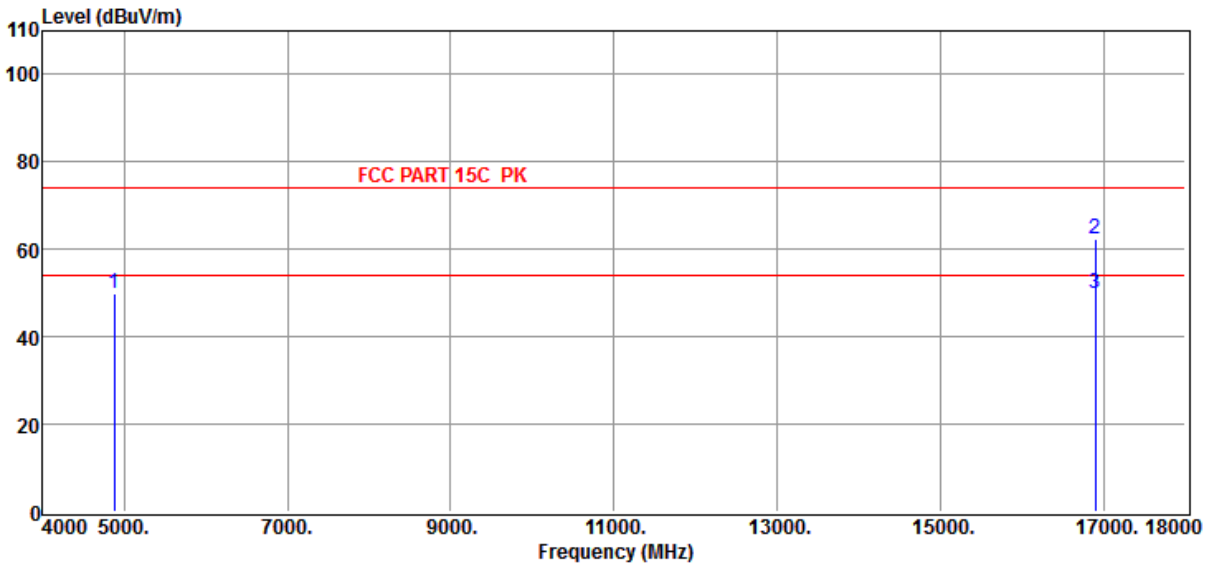
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 46



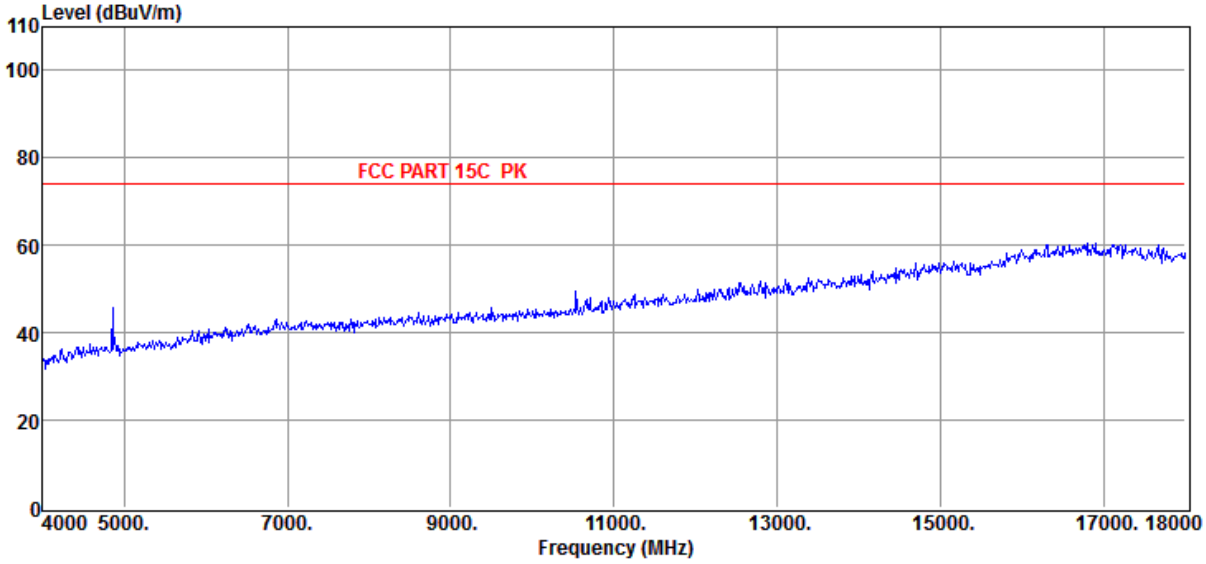
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4874.00	46.74	35.51	44.35	12.04	49.94	74.00	-24.06	Peak	HORIZONTAL
2	16894.00	33.53	43.62	40.36	25.60	62.39	74.00	-11.61	Peak	HORIZONTAL
3	16894.00	21.04	43.62	40.36	25.60	49.90	54.00	-4.10	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 47



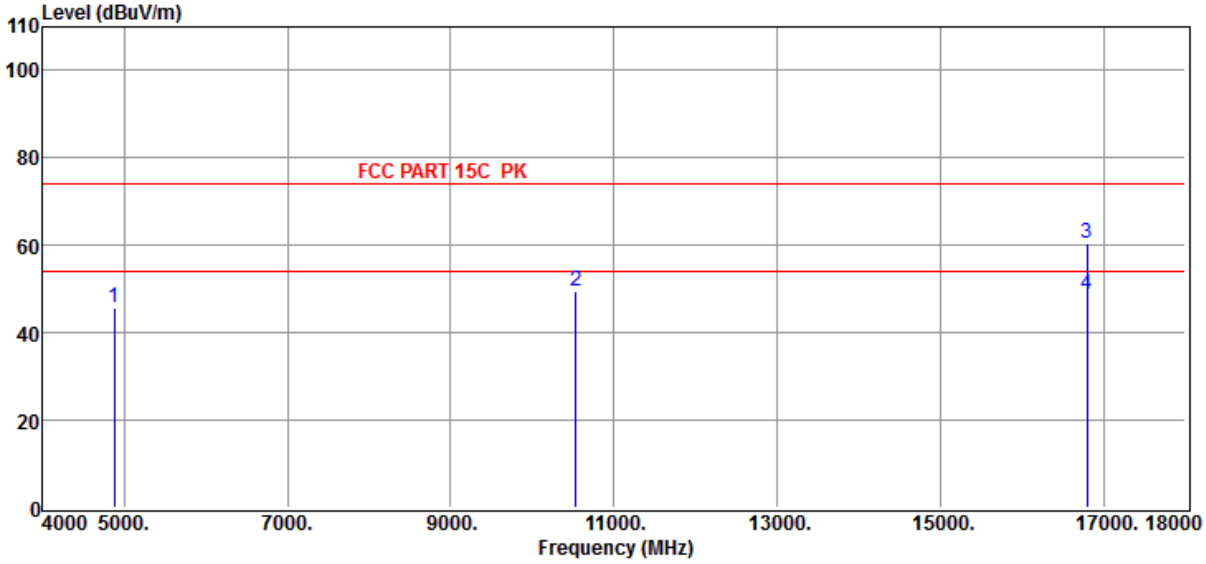
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 48



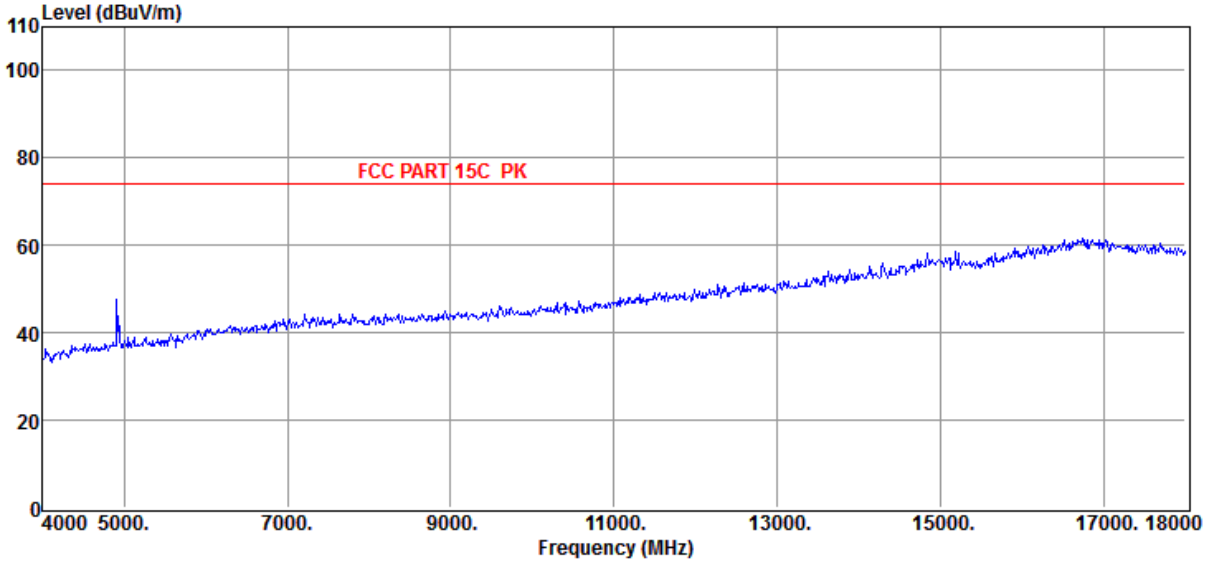
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4874.00	42.71	35.51	44.35	12.04	45.91	74.00	-28.09	Peak	VERTICAL
2	10538.00	35.52	38.62	43.59	18.80	49.35	74.00	-24.65	Peak	VERTICAL
3	16796.00	32.32	43.64	40.32	25.00	60.64	74.00	-13.36	Peak	VERTICAL
4	16796.00	20.36	43.64	40.32	25.00	48.68	54.00	-5.32	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 49



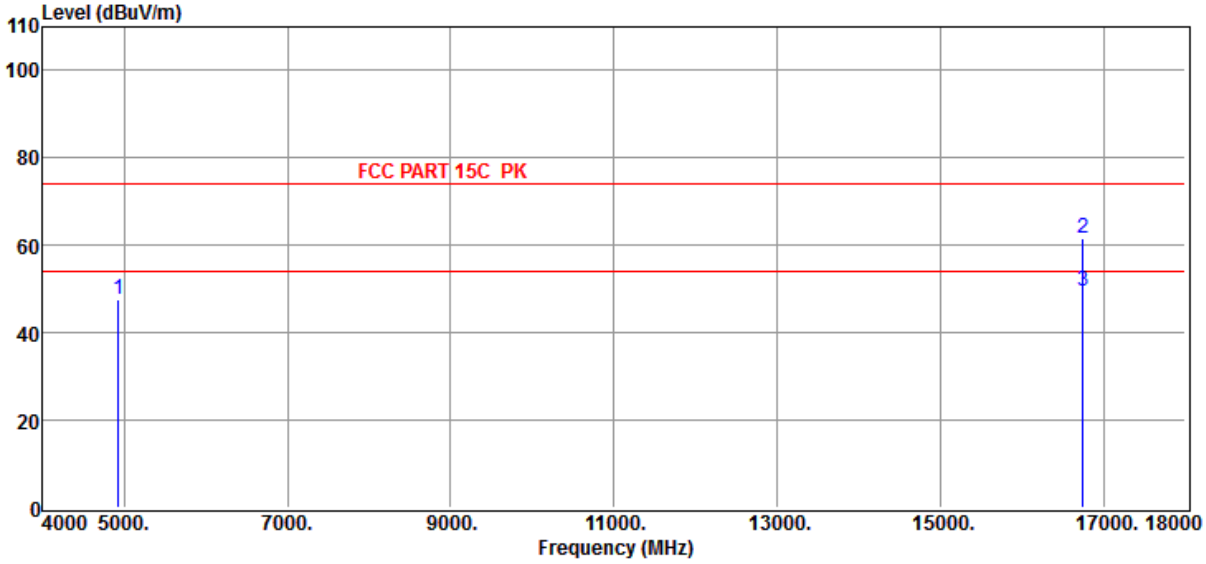
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 50



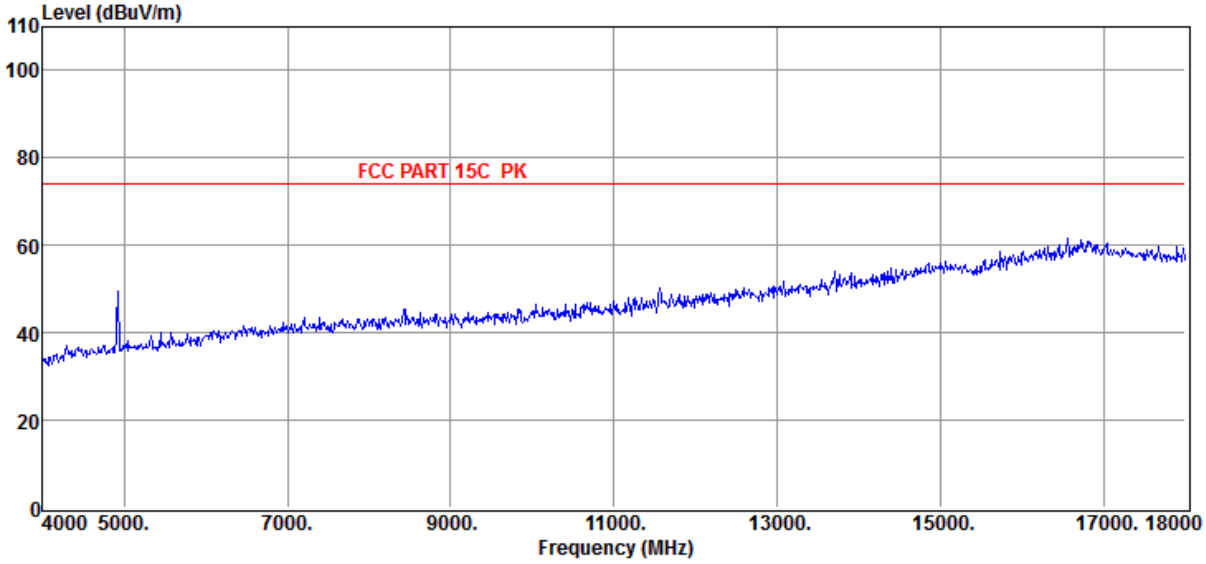
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4924.00	44.50	35.59	44.33	12.02	47.78	74.00	-26.22	Peak	VERTICAL
2	16740.00	33.27	43.65	40.30	25.00	61.62	74.00	-12.38	Peak	VERTICAL
3	16740.00	21.07	43.65	40.30	25.00	49.42	54.00	-4.58	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 51



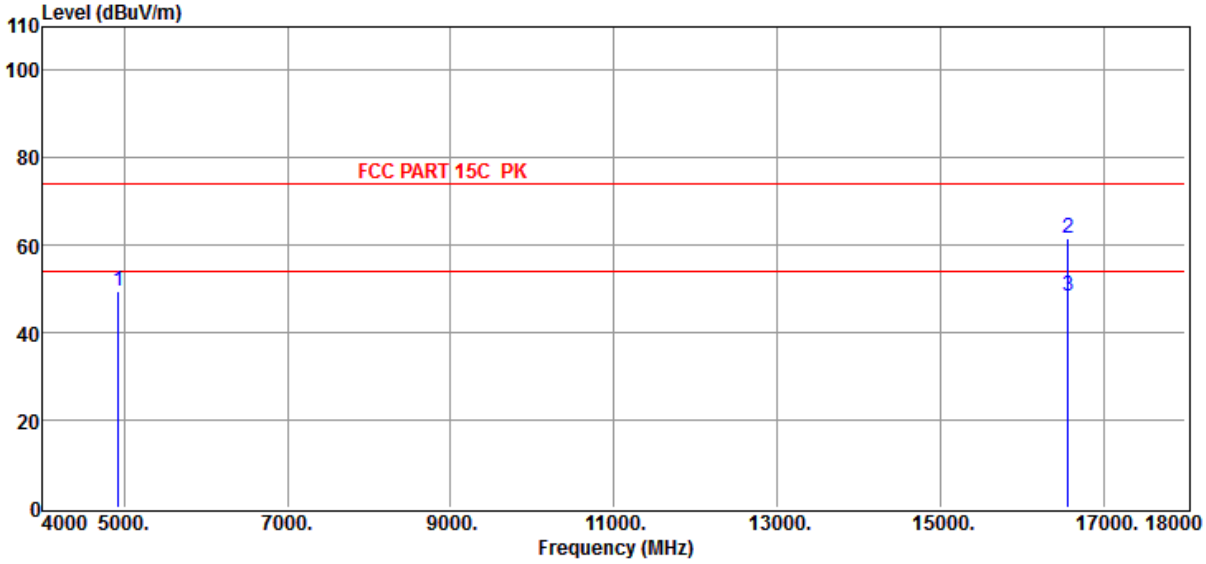
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 52



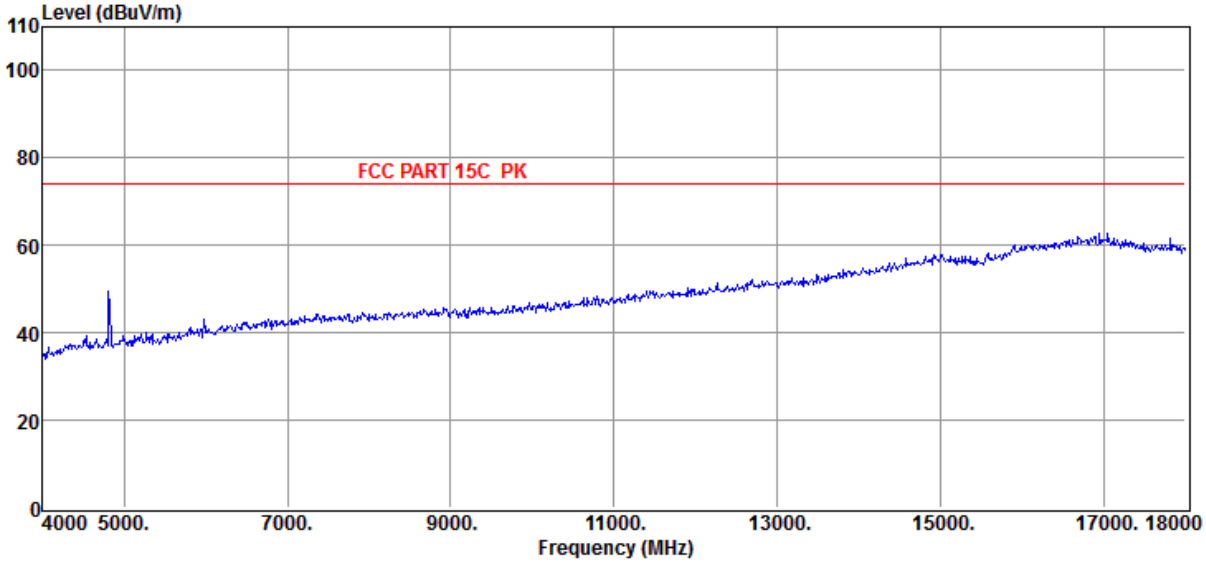
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4924.00	46.23	35.59	44.33	12.02	49.51	74.00	-24.49	Peak	HORIZONTAL
2	16558.00	33.74	43.69	40.22	24.40	61.61	74.00	-12.39	Peak	HORIZONTAL
3	16558.00	20.48	43.69	40.22	24.40	48.35	54.00	-5.65	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 53



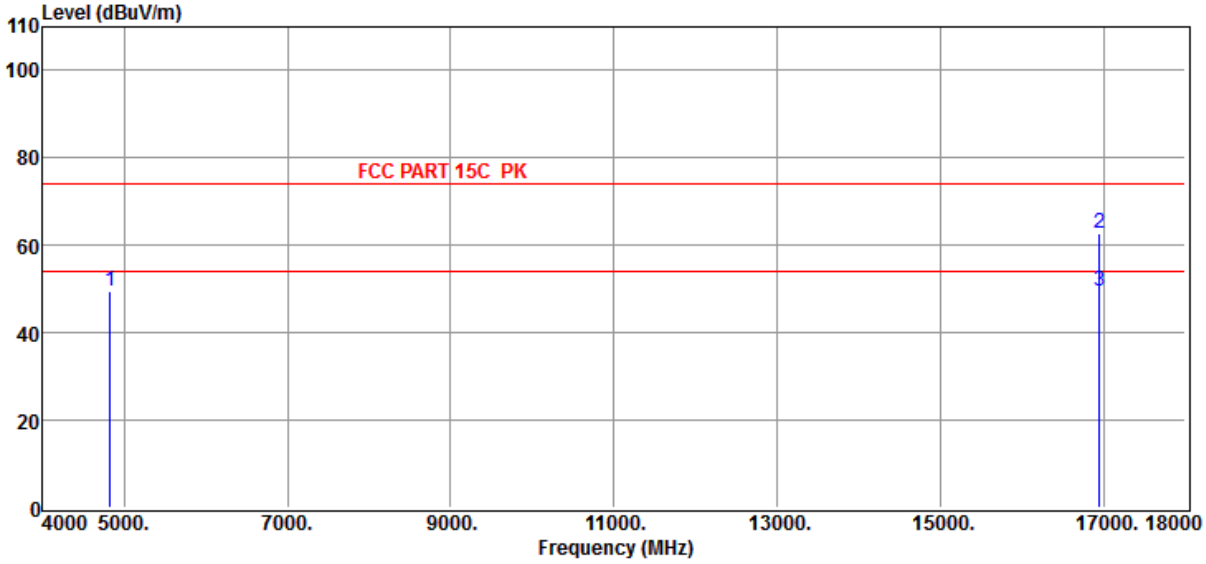
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 54



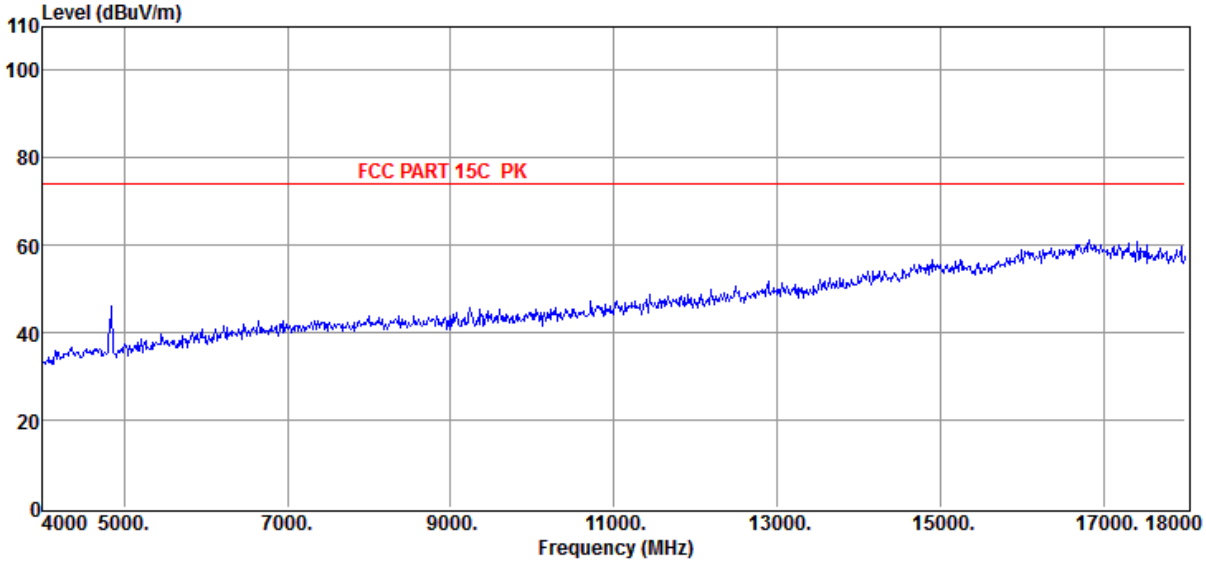
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4824.00	46.48	35.42	44.37	12.07	49.60	74.00	-24.40	Peak	HORIZONTAL
2	16950.00	34.01	43.61	40.39	25.60	62.83	74.00	-11.17	Peak	HORIZONTAL
3	16950.00	20.69	43.61	40.39	25.60	49.51	54.00	-4.49	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 55



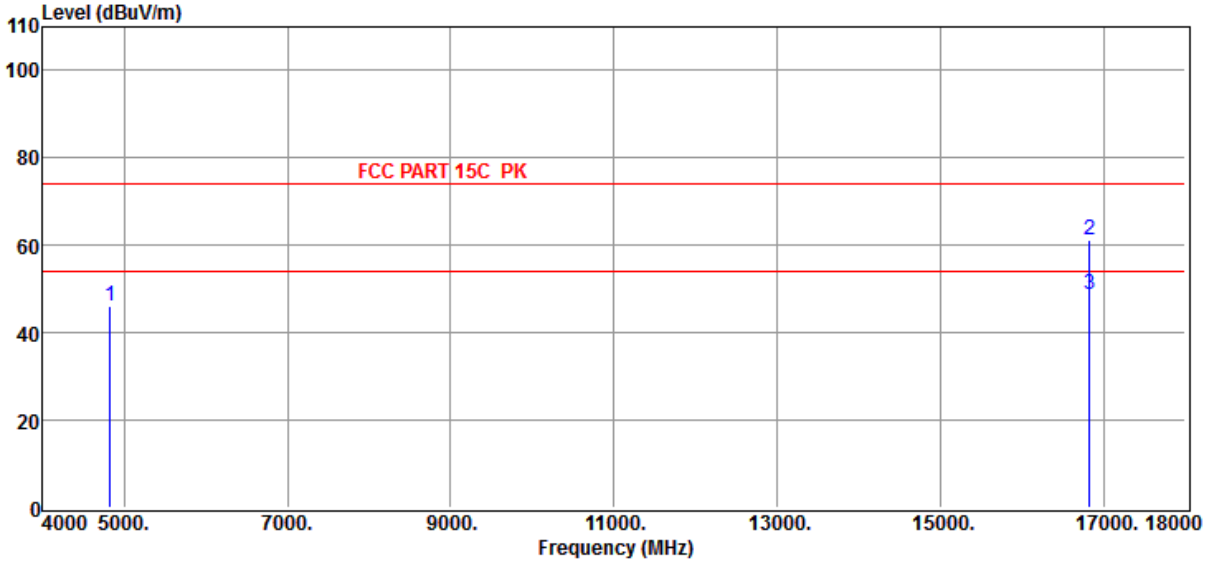
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 56



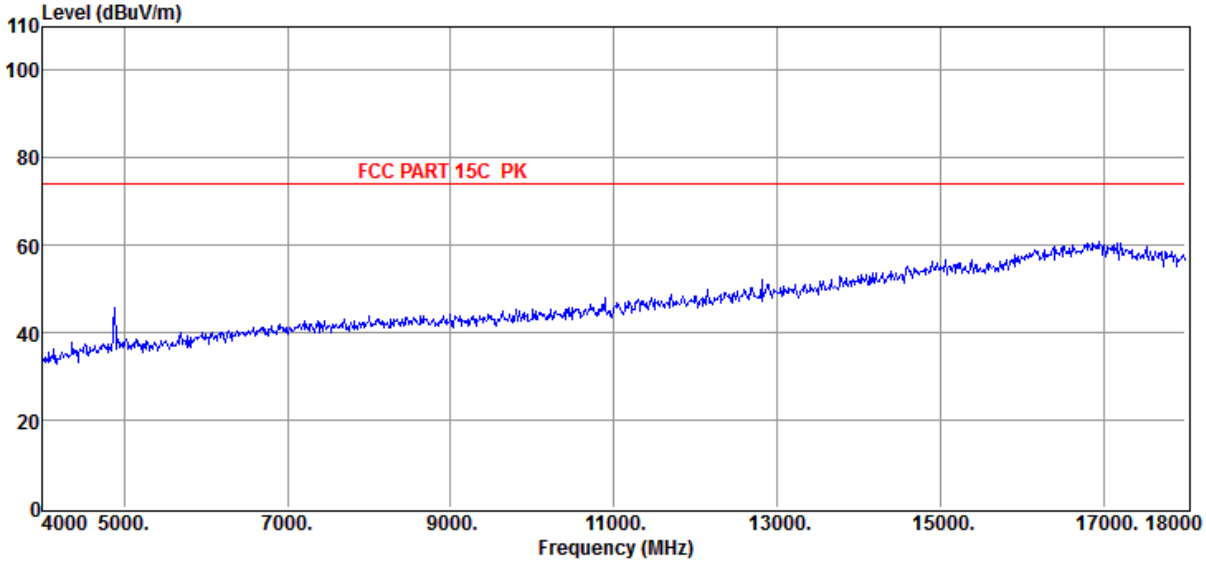
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4824.00	43.01	35.42	44.37	12.07	46.13	74.00	-27.87	Peak	VERTICAL
2	16824.00	32.79	43.63	40.33	25.00	61.09	74.00	-12.91	Peak	VERTICAL
3	16824.00	20.34	43.63	40.33	25.00	48.64	54.00	-5.36	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 57



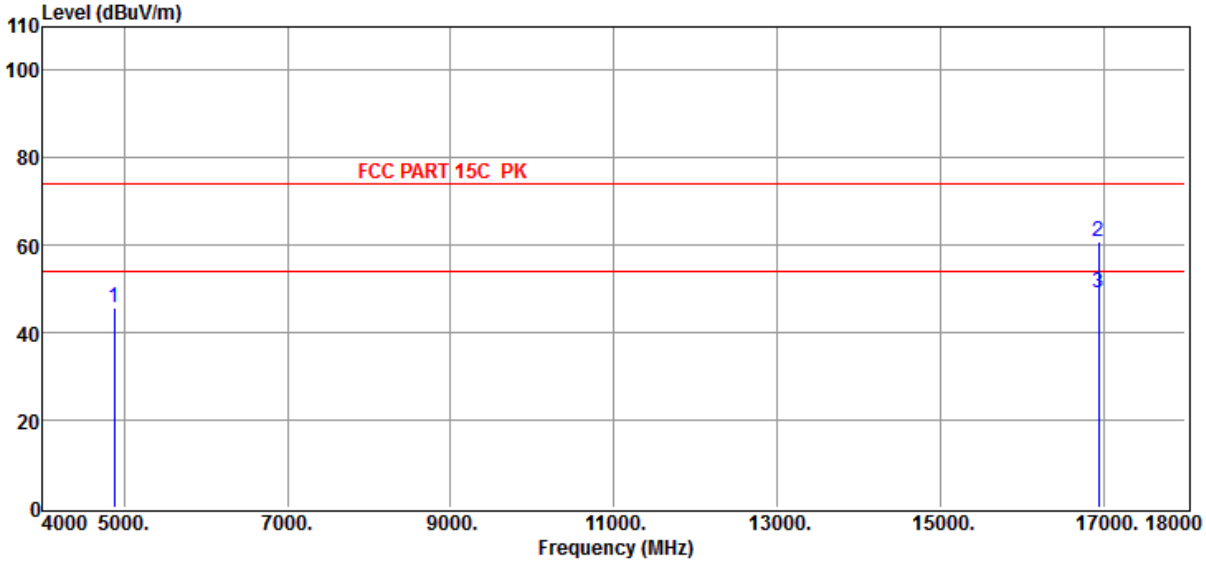
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 58



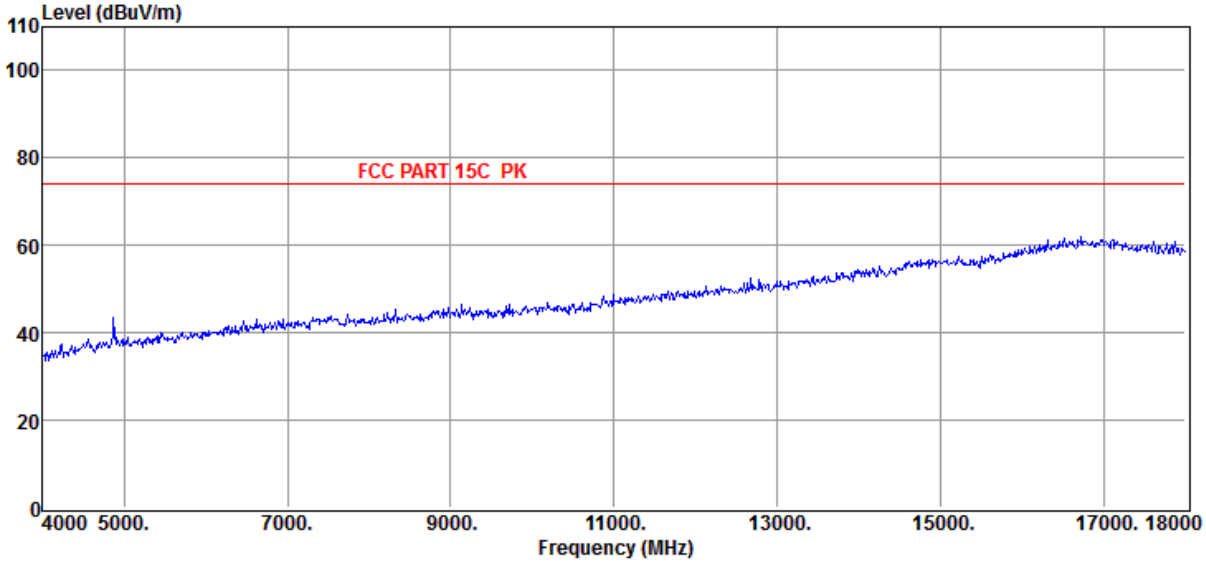
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4874.00	42.37	35.51	44.35	12.04	45.57	74.00	-28.43	Peak	VERTICAL
2	16936.00	31.96	43.61	40.38	25.60	60.79	74.00	-13.21	Peak	VERTICAL
3	16936.00	20.17	43.61	40.38	25.60	49.00	54.00	-5.00	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 59



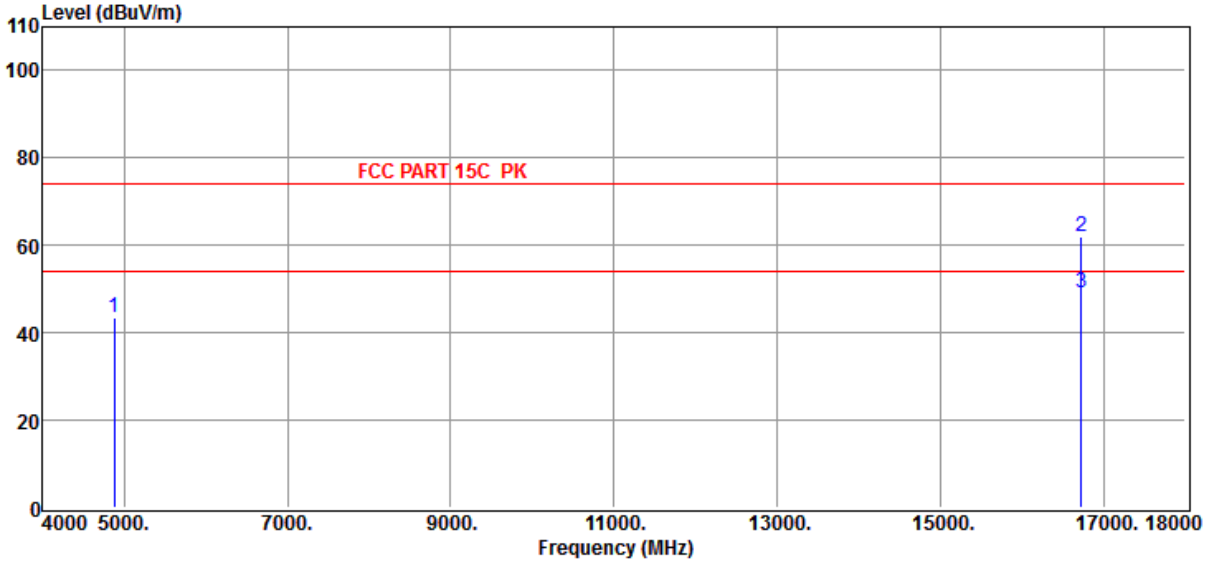
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 60



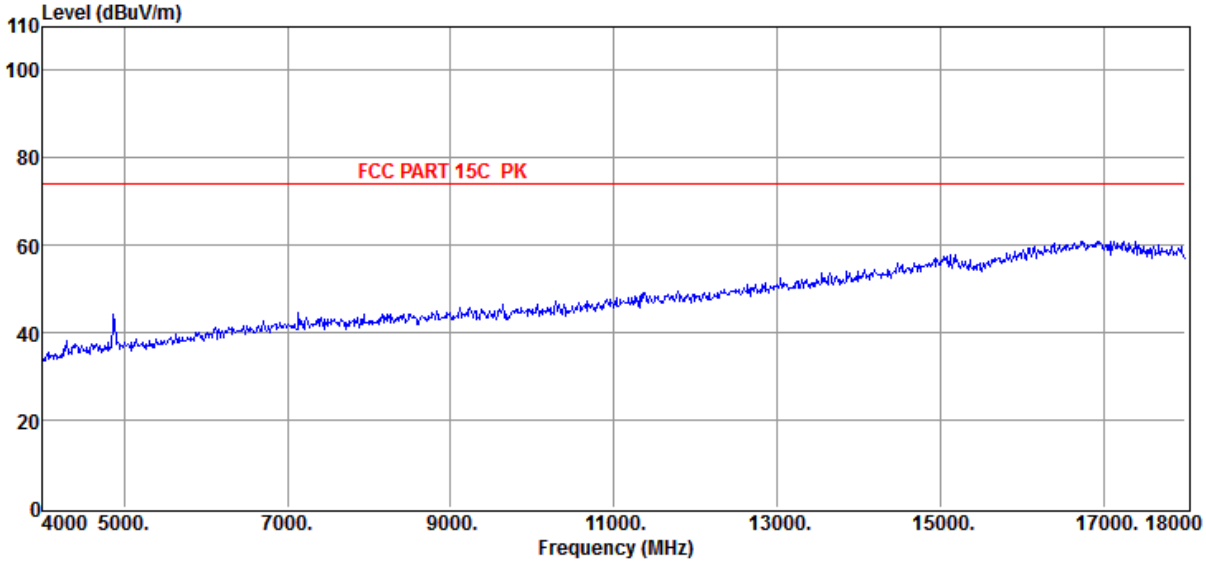
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4874.00	40.37	35.51	44.35	12.04	43.57	74.00	-30.43	Peak	HORIZONTAL
2	16726.00	33.52	43.66	40.29	25.00	61.89	74.00	-12.11	Peak	HORIZONTAL
3	16726.00	20.78	43.66	40.29	25.00	49.15	54.00	-4.85	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 61



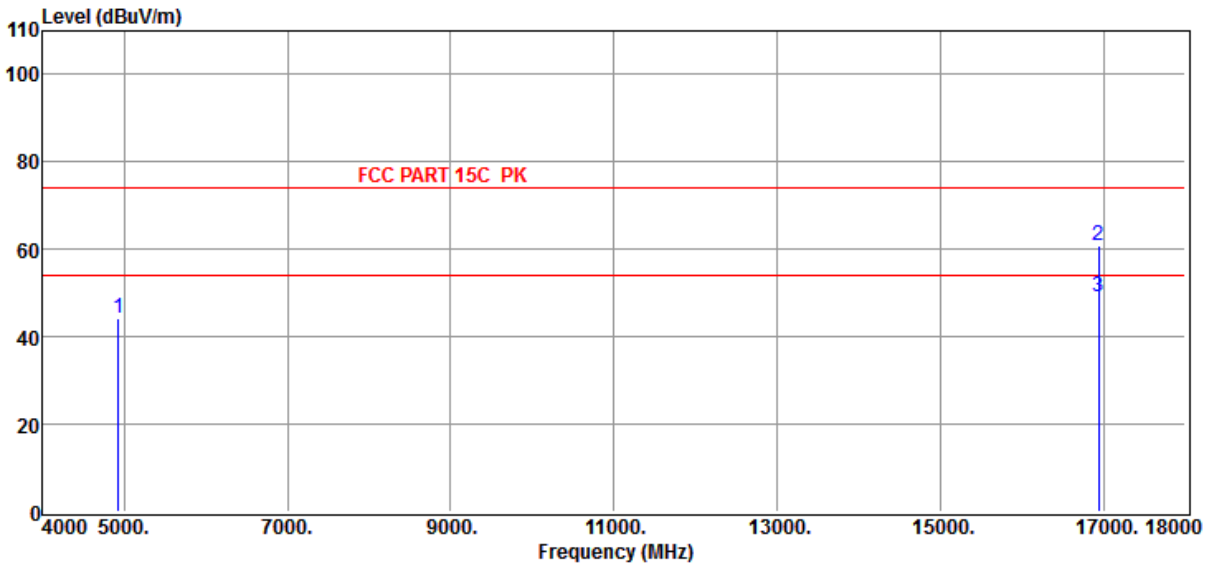
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 62



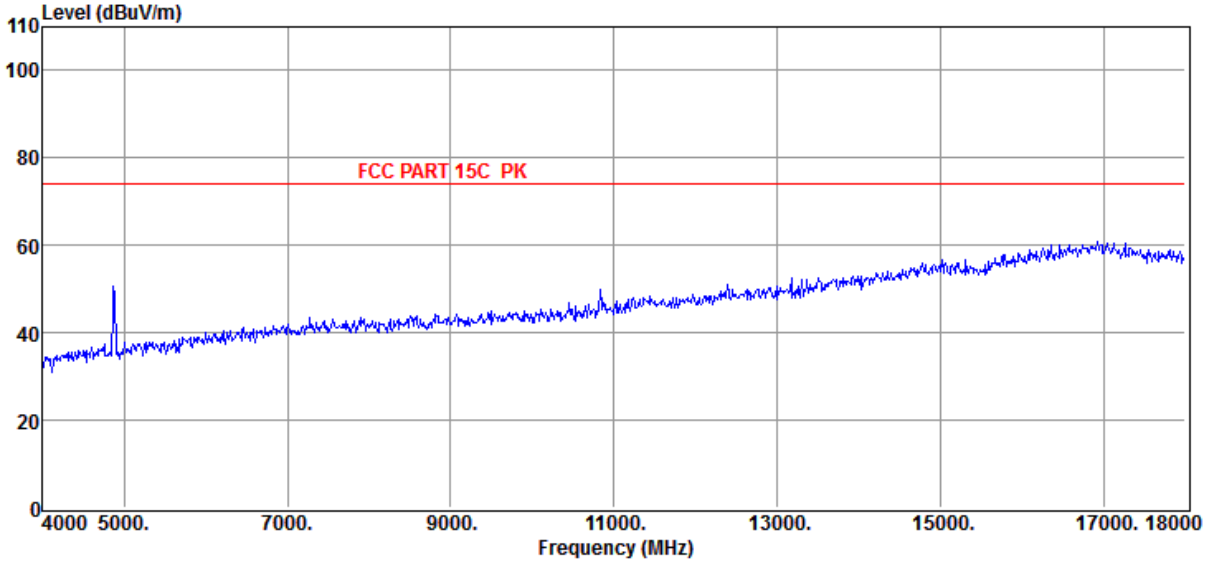
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4924.00	41.03	35.59	44.33	12.02	44.31	74.00	-29.69	Peak	HORIZONTAL
2	16936.00	32.03	43.61	40.38	25.60	60.86	74.00	-13.14	Peak	HORIZONTAL
3	16936.00	20.26	43.61	40.38	25.60	49.09	54.00	-4.91	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 63



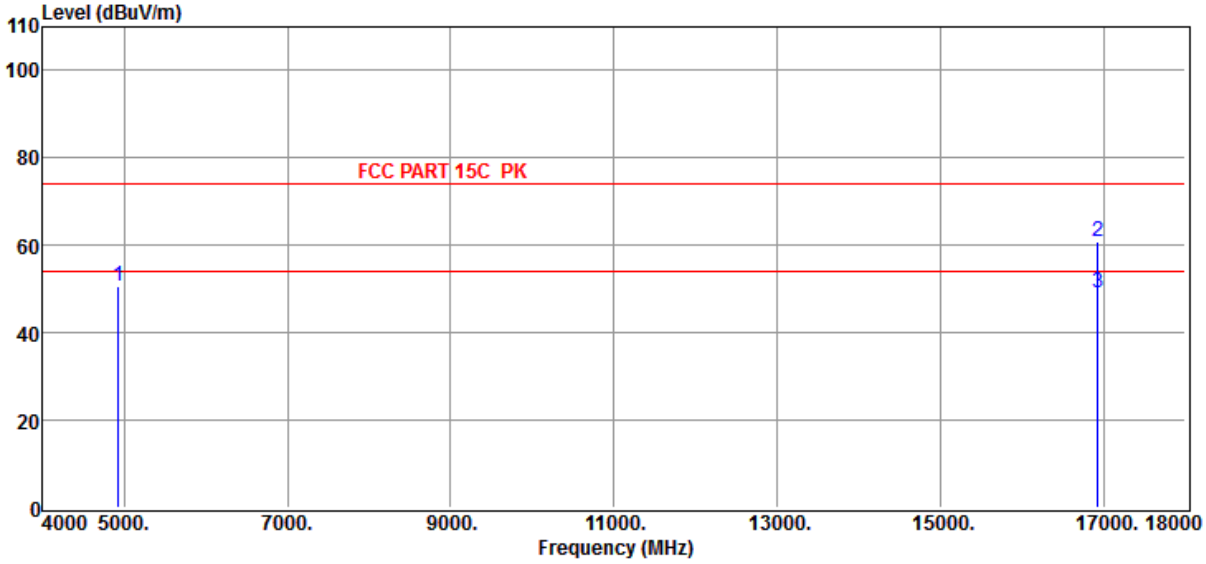
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 64



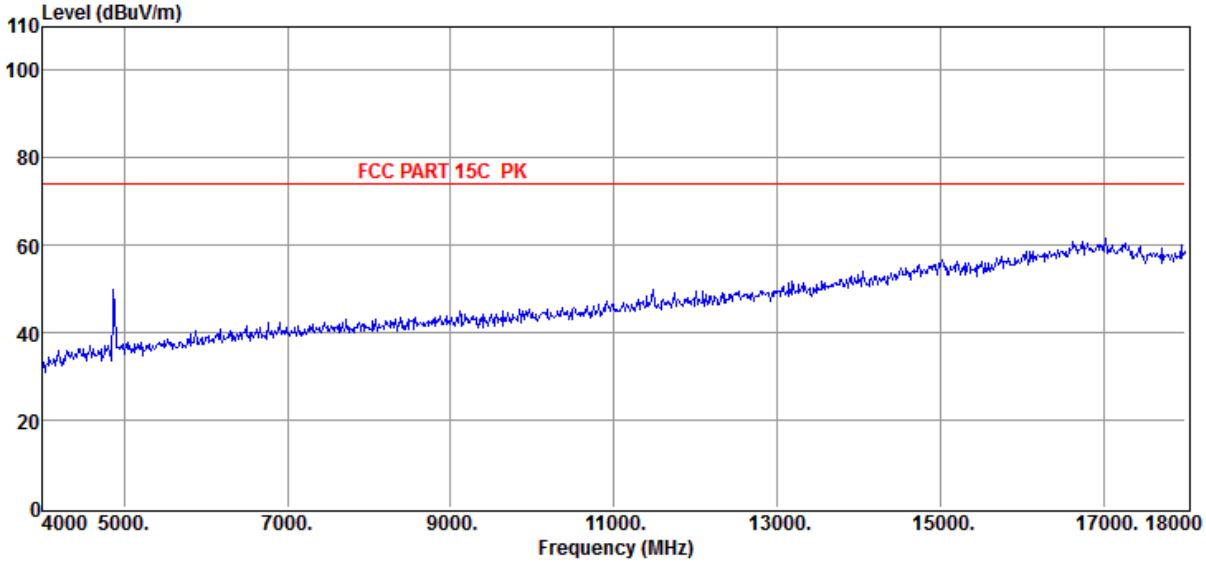
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4924.00	47.53	35.59	44.33	12.02	50.81	74.00	-23.19	Peak	VERTICAL
2	16922.00	31.95	43.61	40.37	25.60	60.79	74.00	-13.21	Peak	VERTICAL
3	16922.00	20.43	43.61	40.37	25.60	49.27	54.00	-4.73	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 65



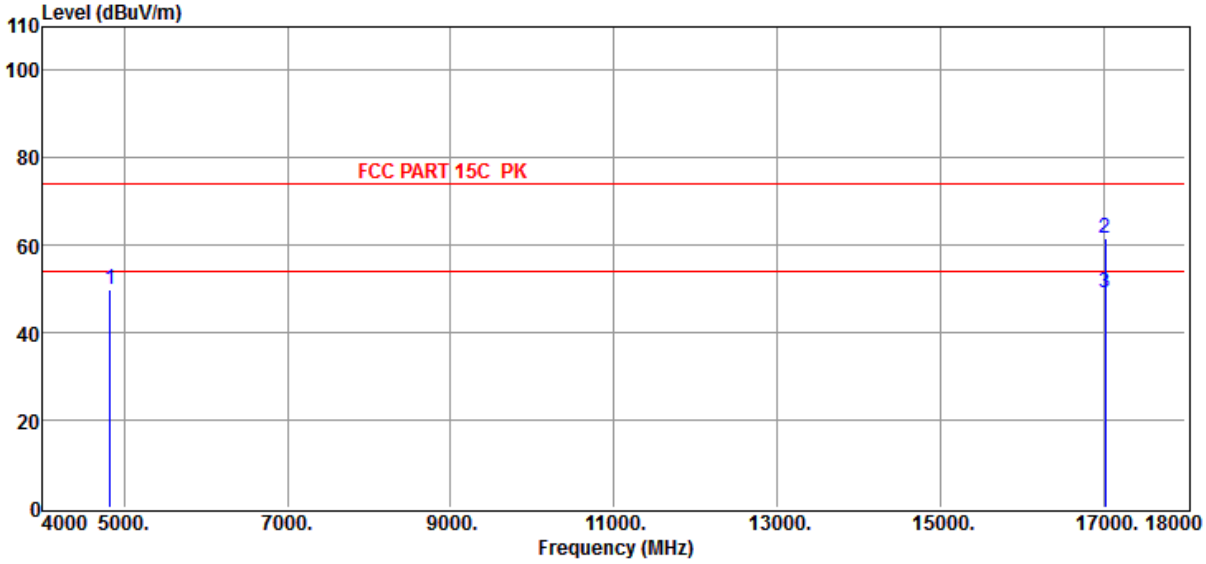
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 66



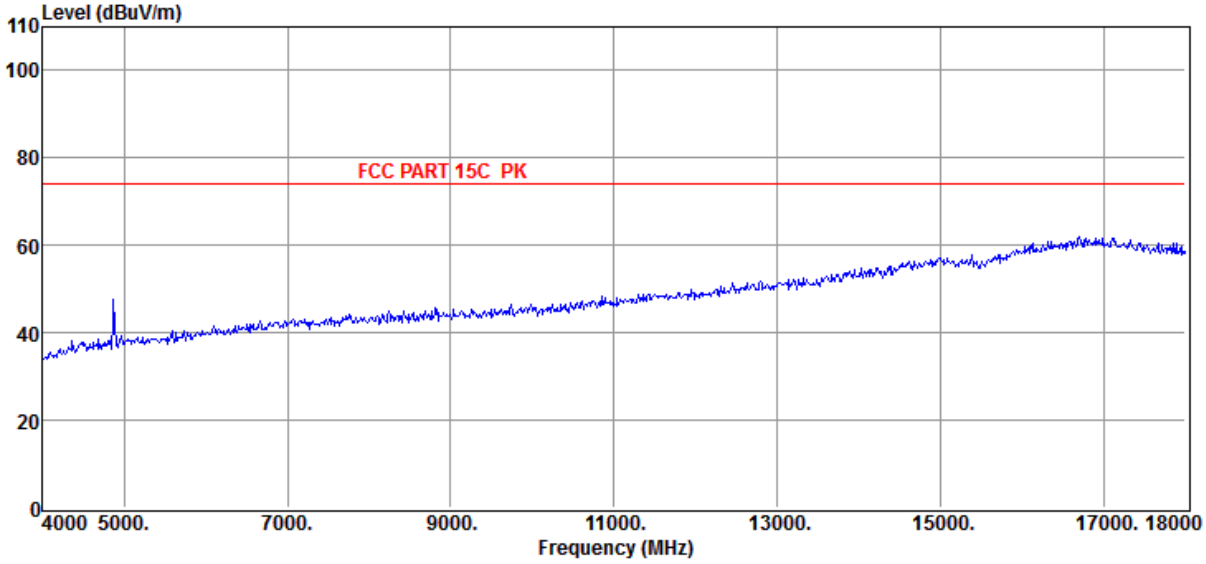
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4824.00	46.59	35.42	44.37	12.07	49.71	74.00	-24.29	Peak	VERTICAL
2	17020.00	32.75	43.57	40.41	25.60	61.51	74.00	-12.49	Peak	VERTICAL
3	17020.00	20.35	43.57	40.41	25.60	49.11	54.00	-4.89	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 67



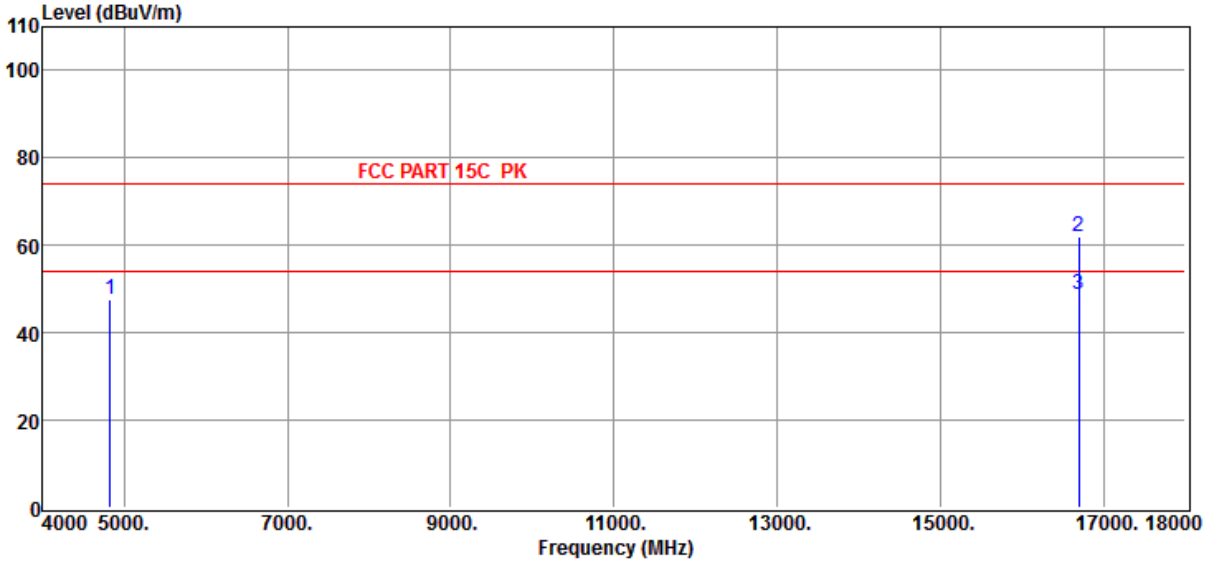
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 68



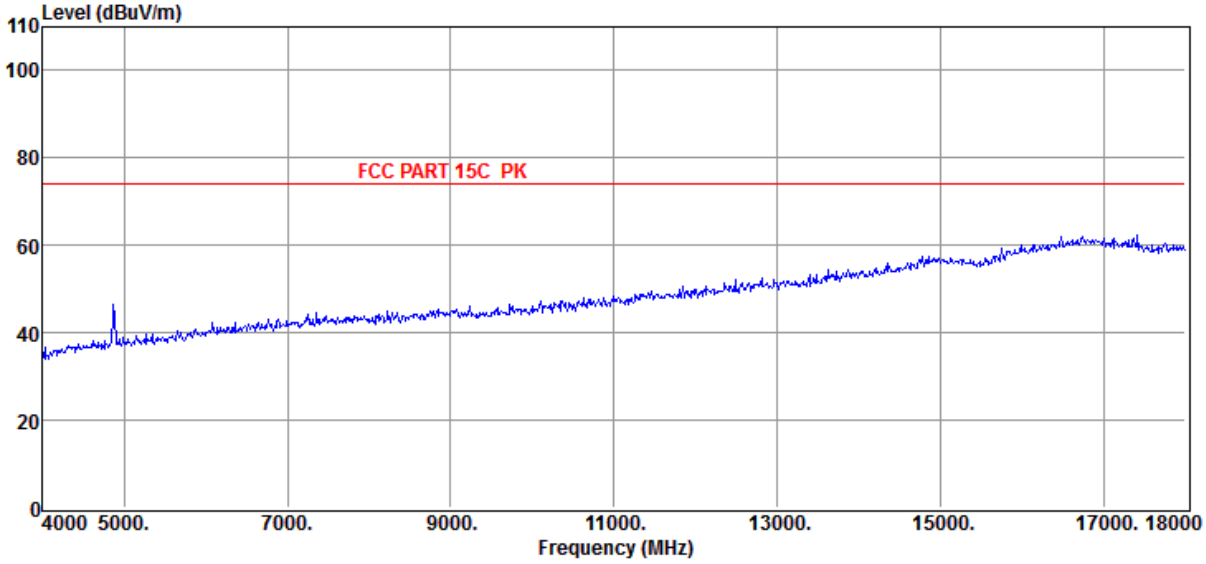
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4824.00	44.34	35.42	44.37	12.07	47.46	74.00	-26.54	Peak	HORIZONTAL
2	16698.00	33.54	43.66	40.28	25.00	61.92	74.00	-12.08	Peak	HORIZONTAL
3	16698.00	20.31	43.66	40.28	25.00	48.69	54.00	-5.31	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 69



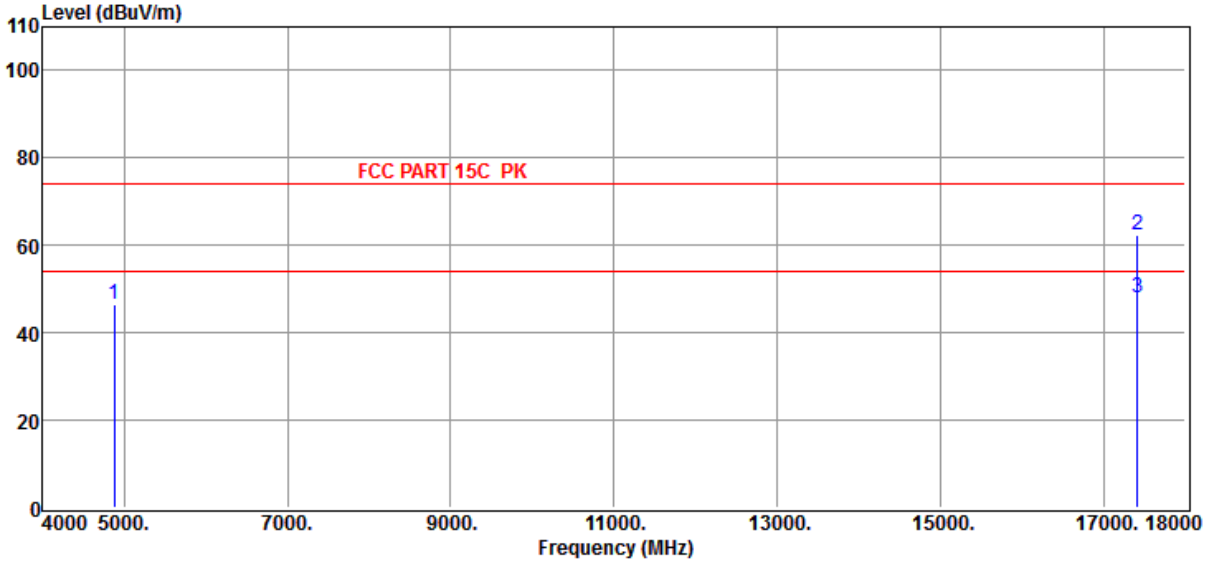
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 70



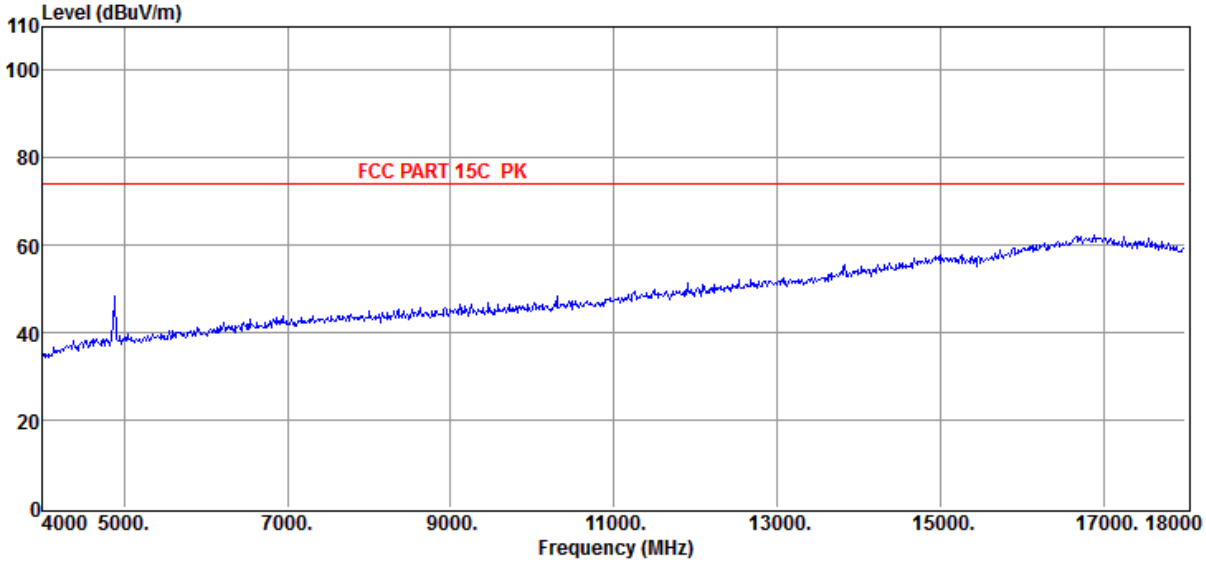
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4874.00	43.27	35.51	44.35	12.04	46.47	74.00	-27.53	Peak	HORIZONTAL
2	17412.00	34.70	42.96	40.56	25.33	62.43	74.00	-11.57	Peak	HORIZONTAL
3	17412.00	20.45	42.96	40.56	25.33	48.18	54.00	-5.82	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 71



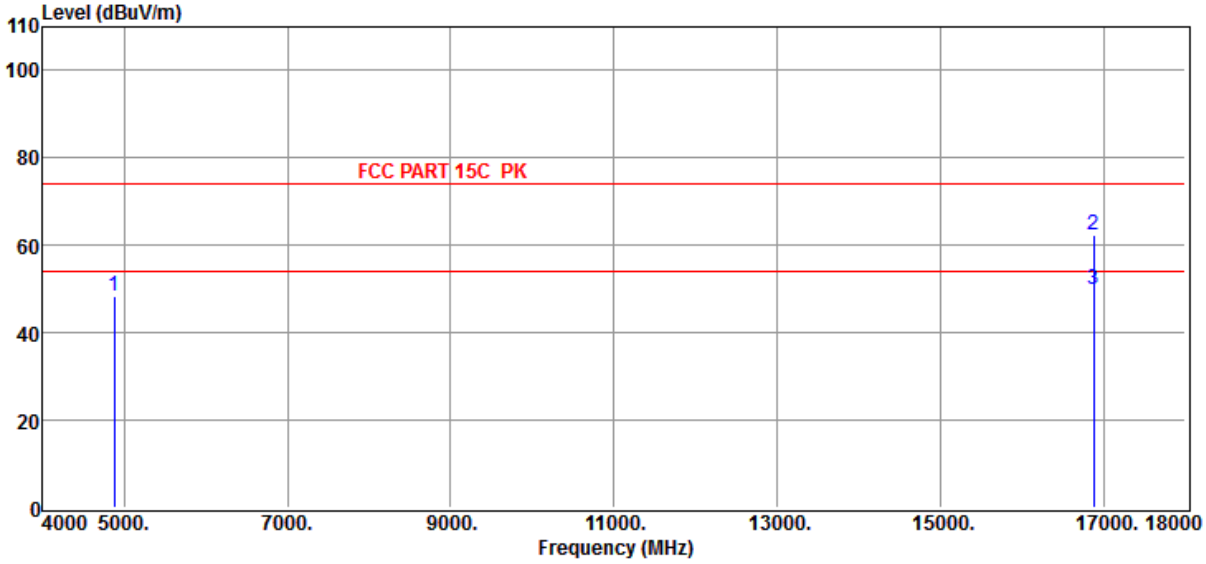
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 72



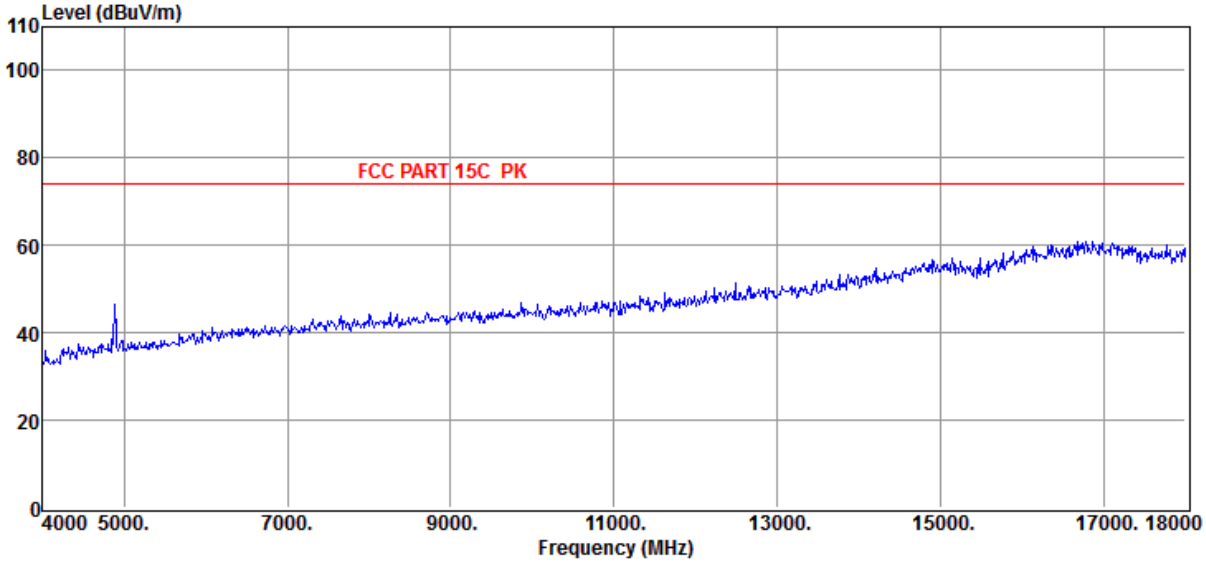
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4874.00	45.23	35.51	44.35	12.04	48.43	74.00	-25.57	Peak	VERTICAL
2	16880.00	33.68	43.62	40.36	25.60	62.54	74.00	-11.46	Peak	VERTICAL
3	16880.00	21.04	43.62	40.36	25.60	49.90	54.00	-4.10	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 73



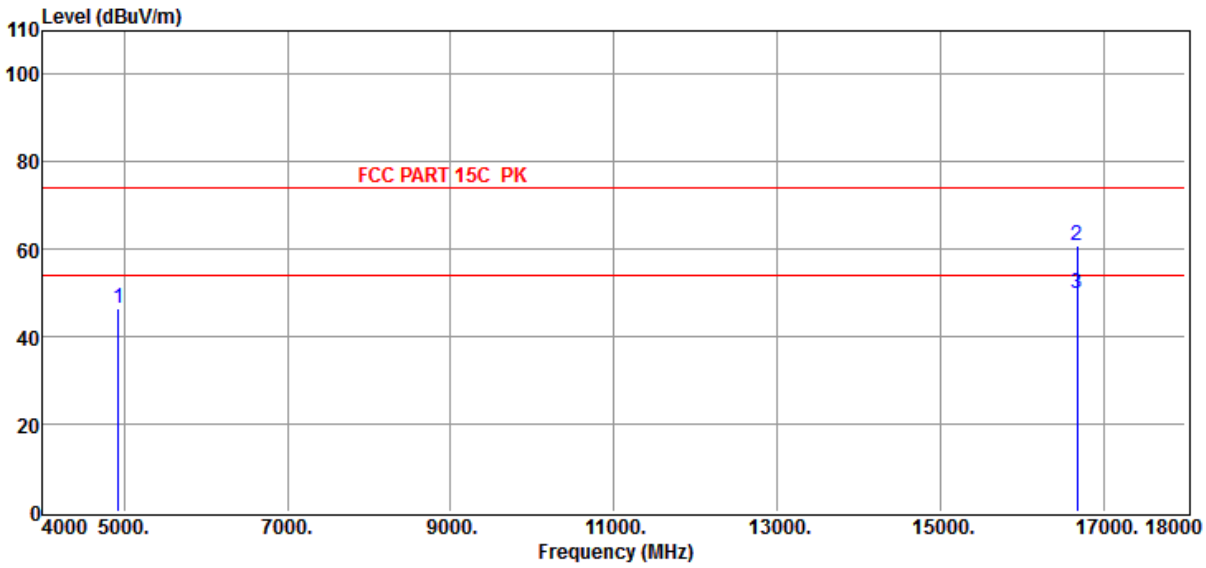
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 74



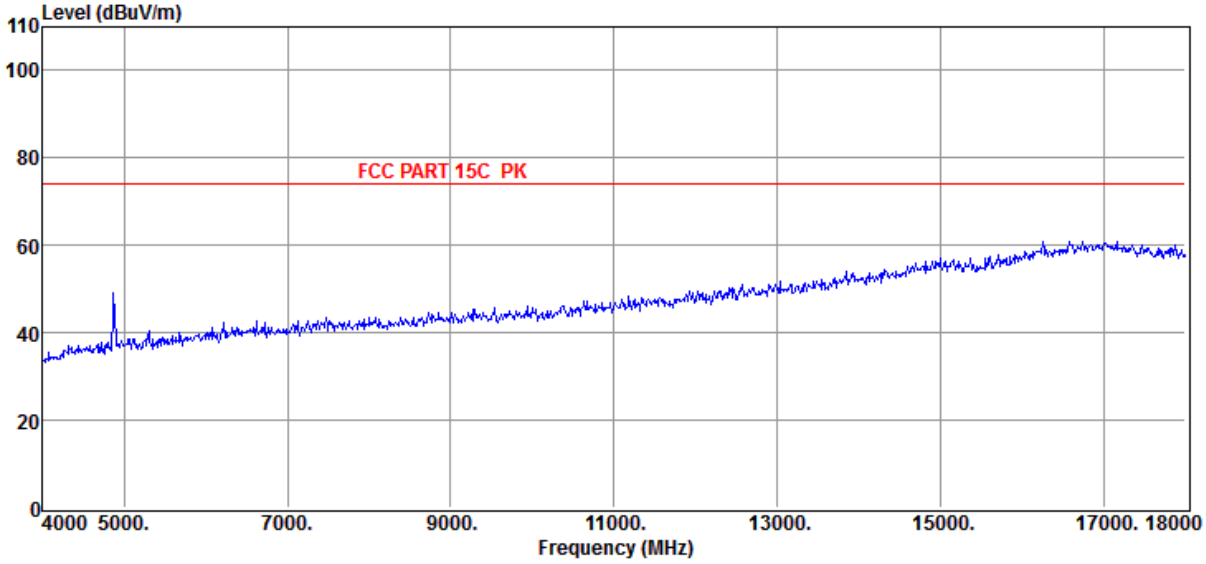
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4924.00	43.22	35.59	44.33	12.02	46.50	74.00	-27.50	Peak	VERTICAL
2	16670.00	32.36	43.67	40.27	25.00	60.76	74.00	-13.24	Peak	VERTICAL
3	16670.00	21.31	43.67	40.27	25.00	49.71	54.00	-4.29	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 75



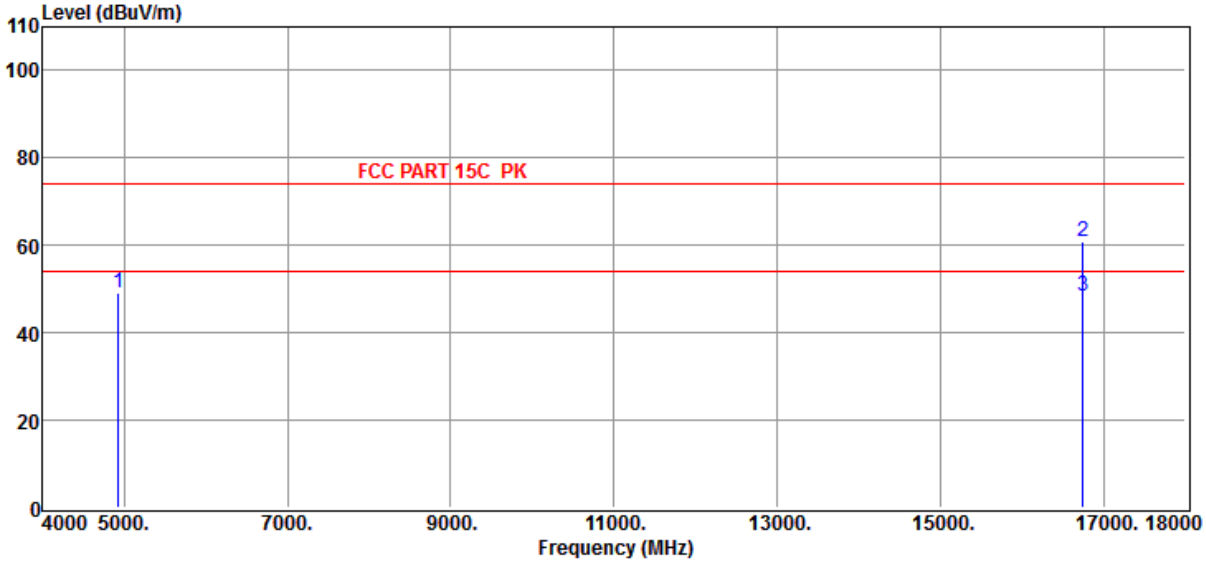
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 76



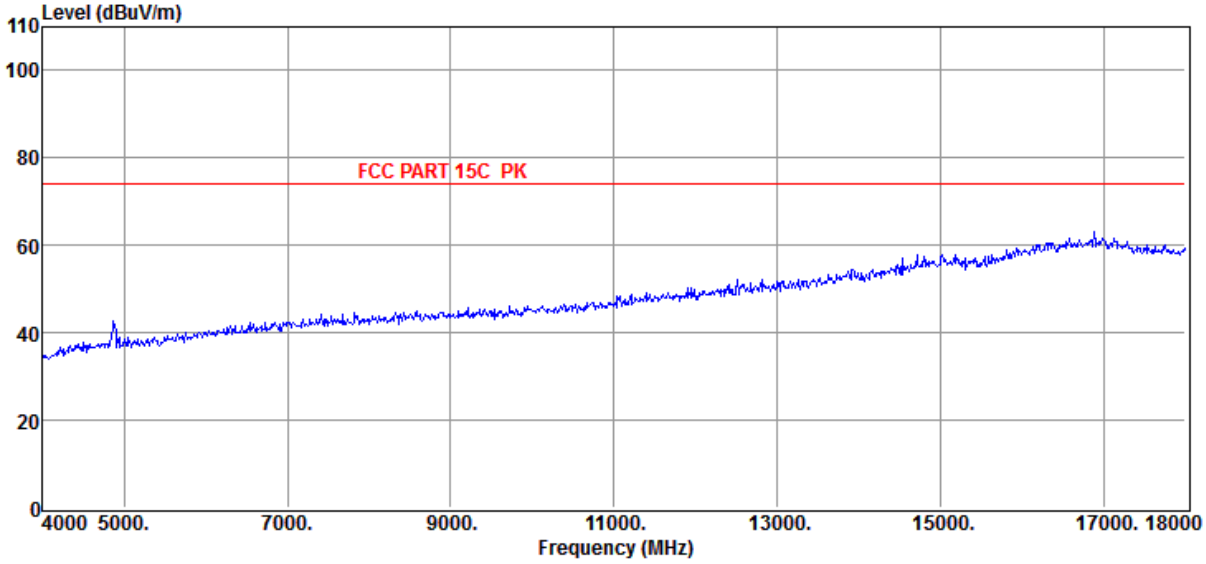
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4924.00	45.68	35.59	44.33	12.02	48.96	74.00	-25.04	Peak	HORIZONTAL
2	16740.00	32.57	43.65	40.30	25.00	60.92	74.00	-13.08	Peak	HORIZONTAL
3	16740.00	20.09	43.65	40.30	25.00	48.44	54.00	-5.56	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH3
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 77



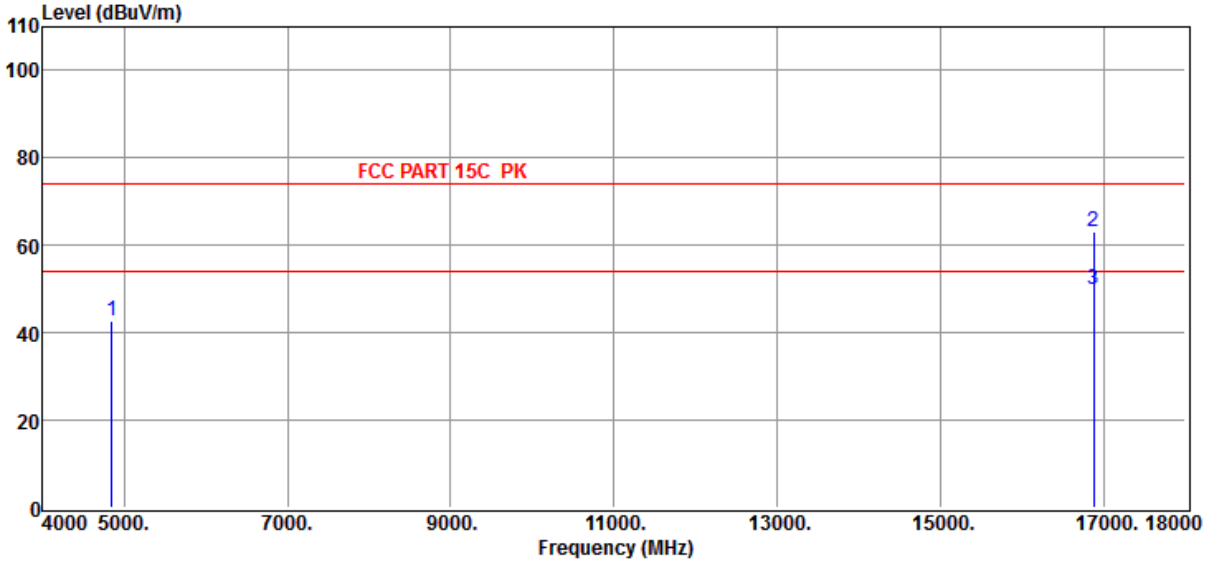
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH3
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 78



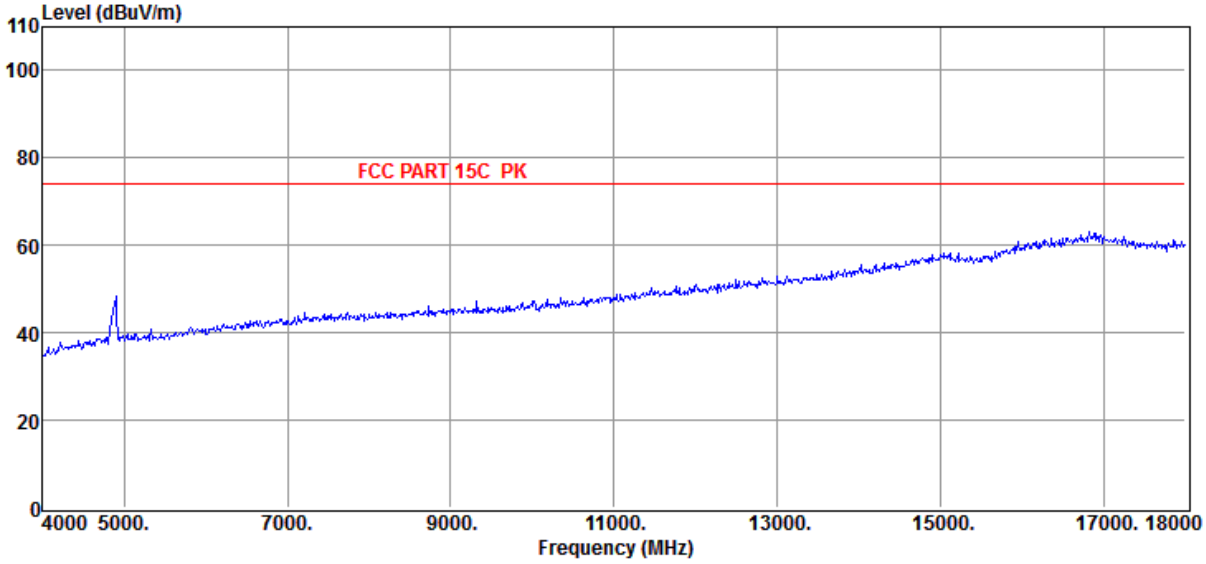
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4844.00	39.40	35.45	44.36	12.07	42.56	74.00	-31.44	Peak	HORIZONTAL
2	16880.00	34.40	43.62	40.36	25.60	63.26	74.00	-10.74	Peak	HORIZONTAL
3	16880.00	21.04	43.62	40.36	25.60	49.90	54.00	-4.10	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH3
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 79



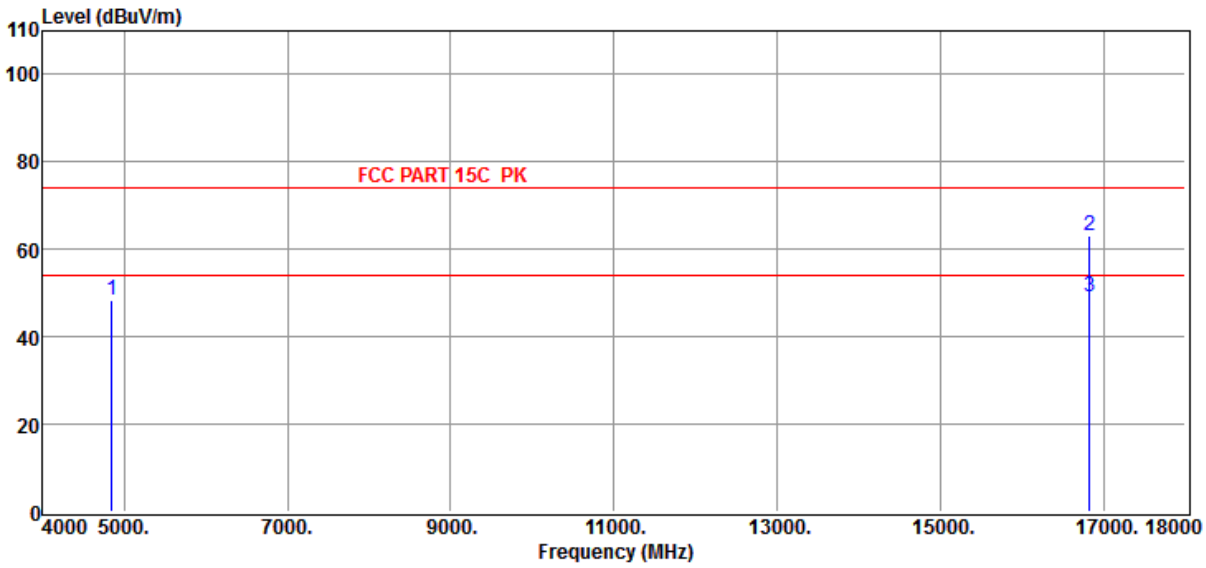
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH3
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 80



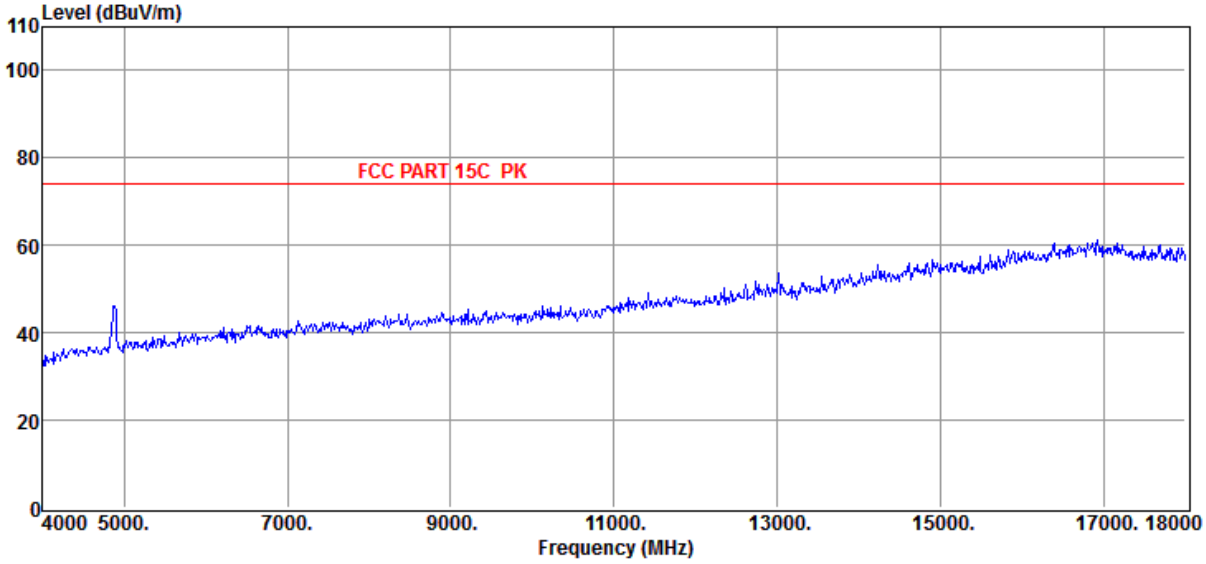
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4844.00	45.23	35.45	44.36	12.07	48.39	74.00	-25.61	Peak	VERTICAL
2	16824.00	34.70	43.63	40.33	25.00	63.00	74.00	-11.00	Peak	VERTICAL
3	16824.00	20.98	43.63	40.33	25.00	49.28	54.00	-4.72	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 81



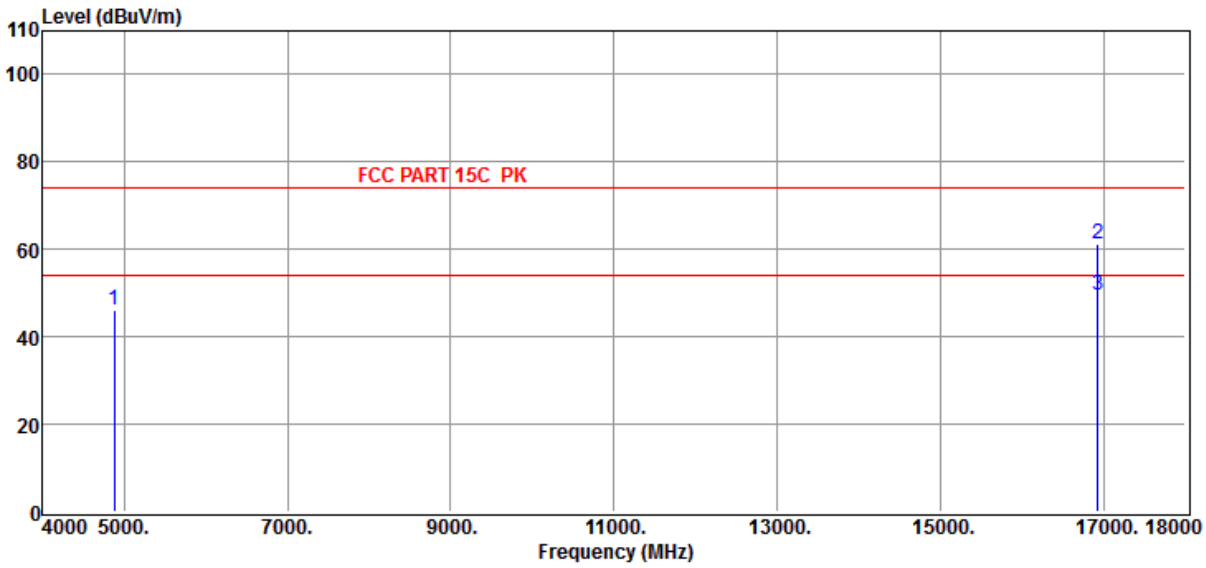
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 82



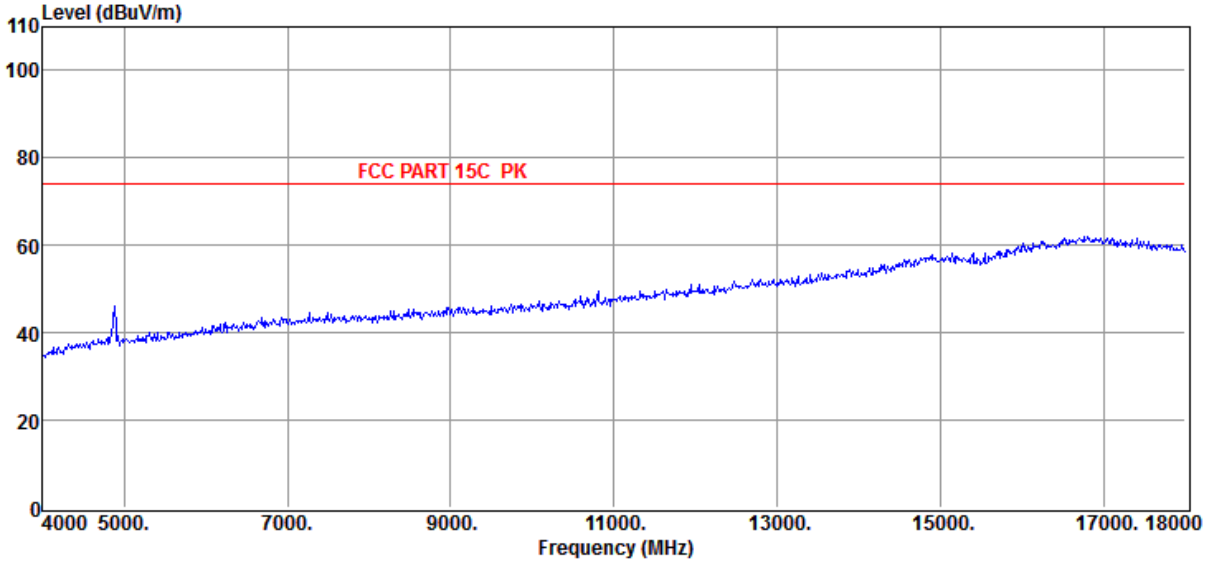
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4874.00	42.98	35.51	44.35	12.04	46.18	74.00	-27.82	Peak	VERTICAL
2	16922.00	32.27	43.61	40.37	25.60	61.11	74.00	-12.89	Peak	VERTICAL
3	16922.00	20.65	43.61	40.37	25.60	49.49	54.00	-4.51	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 83



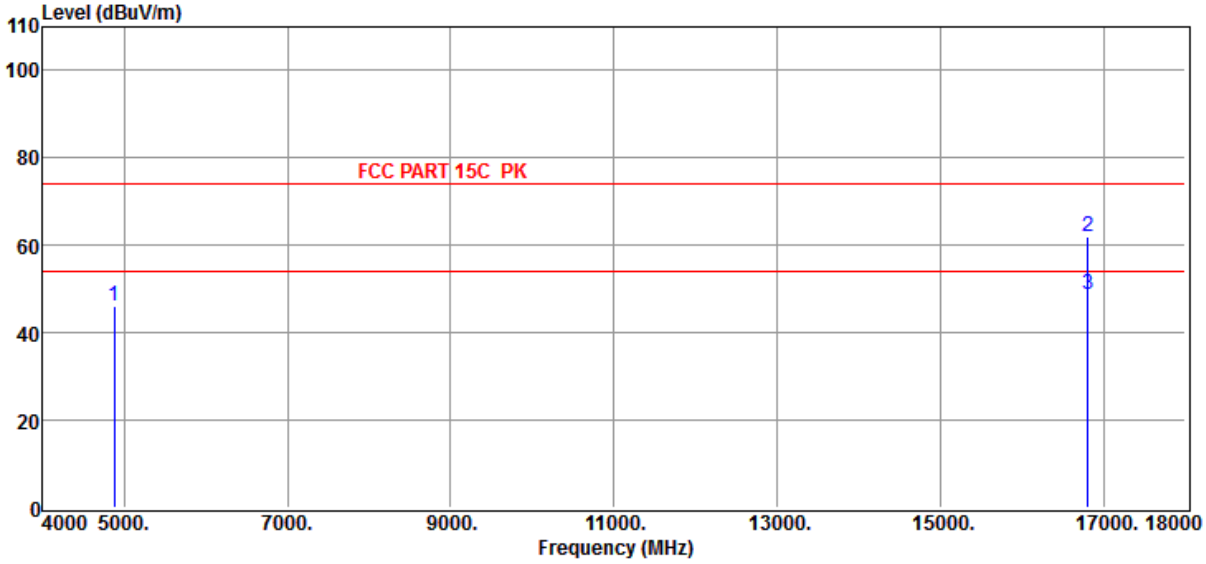
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH6
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 84



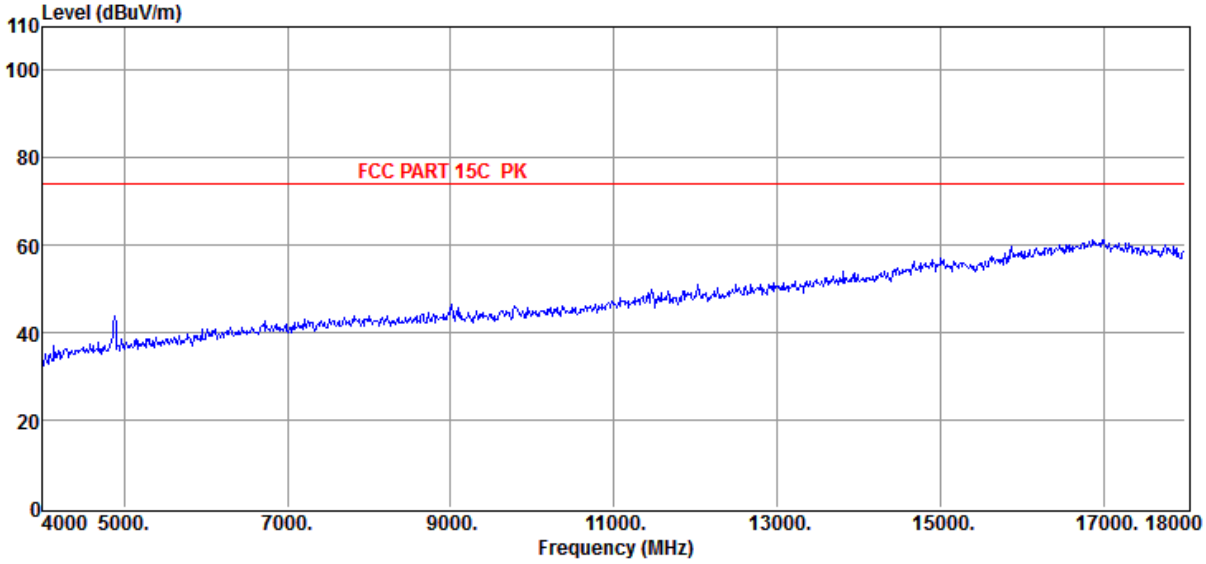
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4874.00	42.75	35.51	44.35	12.04	45.95	74.00	-28.05	Peak	HORIZONTAL
2	16810.00	33.76	43.64	40.33	25.00	62.07	74.00	-11.93	Peak	HORIZONTAL
3	16810.00	20.38	43.64	40.33	25.00	48.69	54.00	-5.31	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH9
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 85



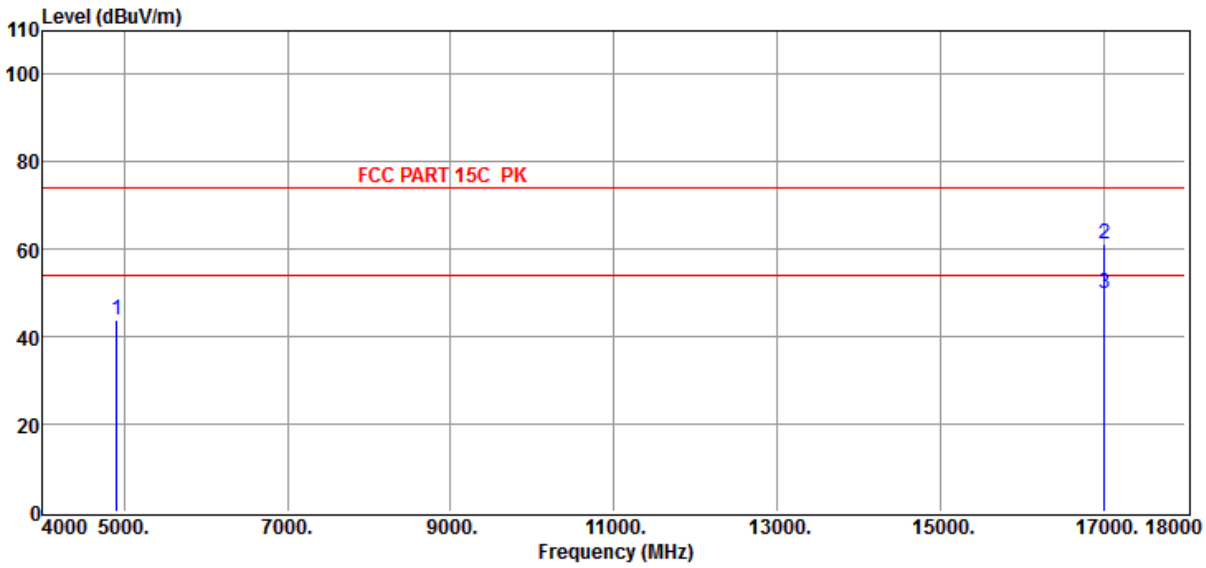
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH9
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 86



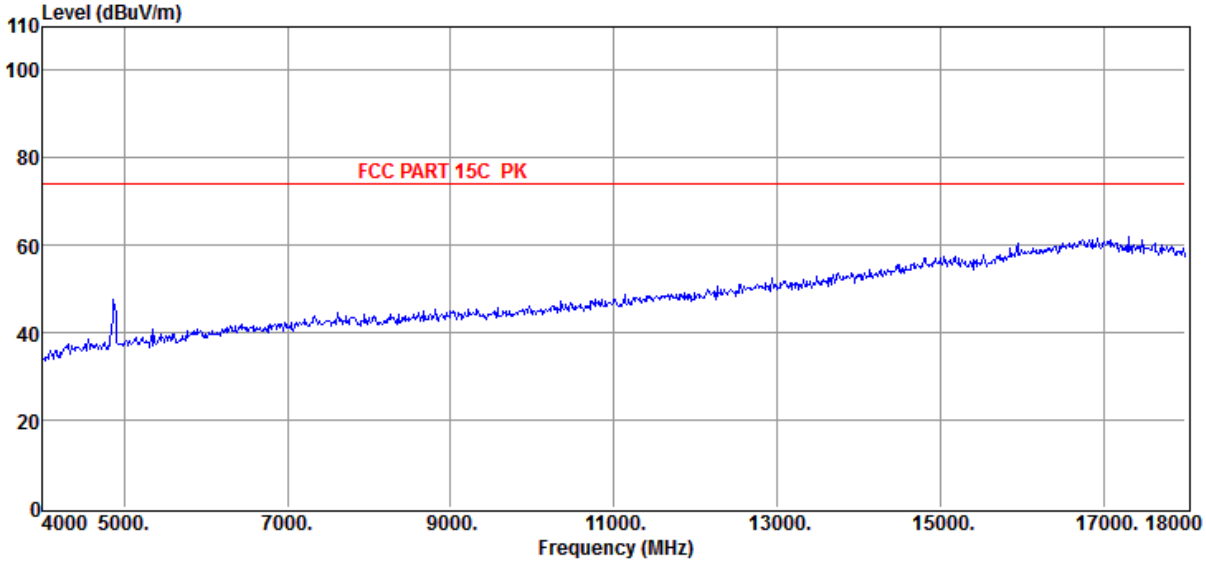
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4904.00	40.77	35.56	44.34	12.04	44.03	74.00	-29.97	Peak	HORIZONTAL
2	17006.00	32.59	43.57	40.41	25.60	61.35	74.00	-12.65	Peak	HORIZONTAL
3	17006.00	21.09	43.57	40.41	25.60	49.85	54.00	-4.15	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH9
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 87



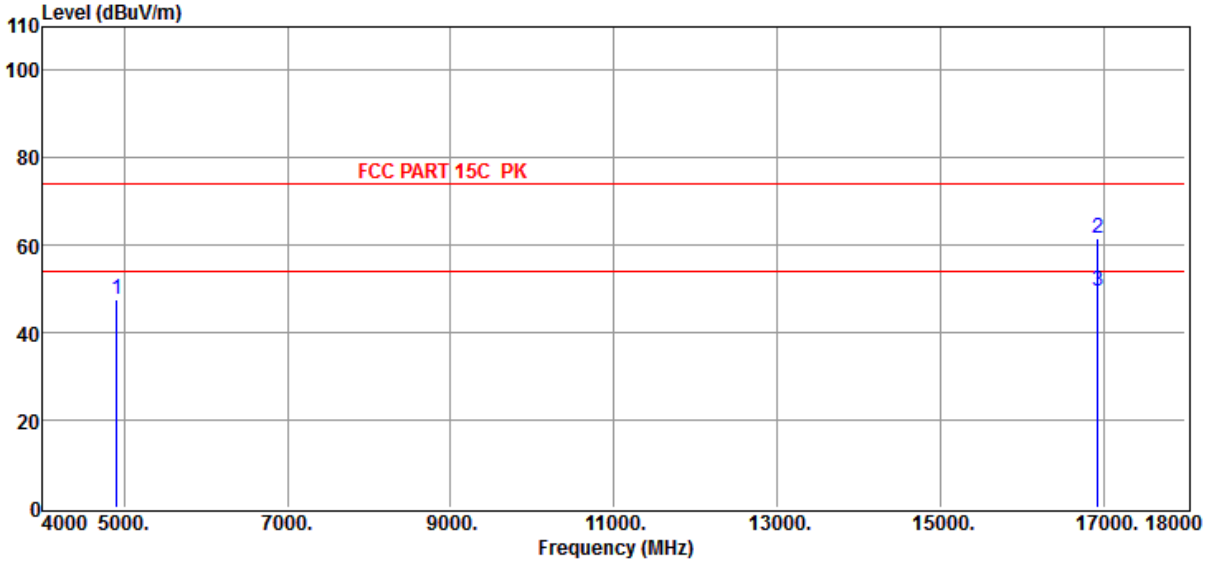
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH9
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 88



Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	4904.00	44.45	35.56	44.34	12.04	47.71	74.00	-26.29	Peak	VERTICAL
2	16922.00	32.77	43.61	40.37	25.60	61.61	74.00	-12.39	Peak	VERTICAL
3	16922.00	20.53	43.61	40.37	25.60	49.37	54.00	-4.63	Average	VERTICAL

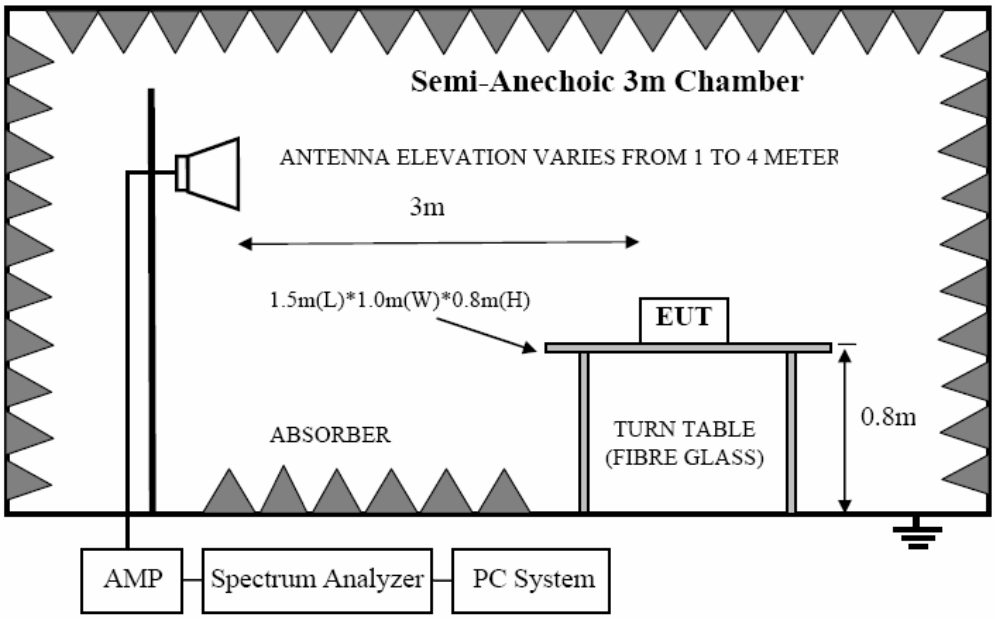
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

8. Band Edge Compliance

8.1. Test equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	EMI Test Receiver	R&S	ESU8	100316	2013/11/13	1 Year
2	Spectrum analyzer	R&S	FSU	1166.1660.26	2013/11/13	1 Year
3	Trilog Broadband Antenna	Schwarzbeck	VULB9163	9163-462	2013/11/16	1 Year
4	Double Ridged Horn Antenna	R&S	HF907	100276	2013/11/16	1 Year
5	Pre-amplifier	A.H.	PAM0-0118	360	2013/11/13	1 Year
6	RF Cable	R&S	R01	10403	2013/11/13	1 Year
7	RF Cable	R&S	R02	10512	2013/11/13	1 Year

8.2. Block diagram of test setup



8.3. Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

8.4. Test Procedure

Same with clause 8.4 except change investigated frequency range from 2100MHz to 2450MHz and 2450MHz to 2500MHz.

Remark: All restriction band have been tested, and only the worse case is shown in report.

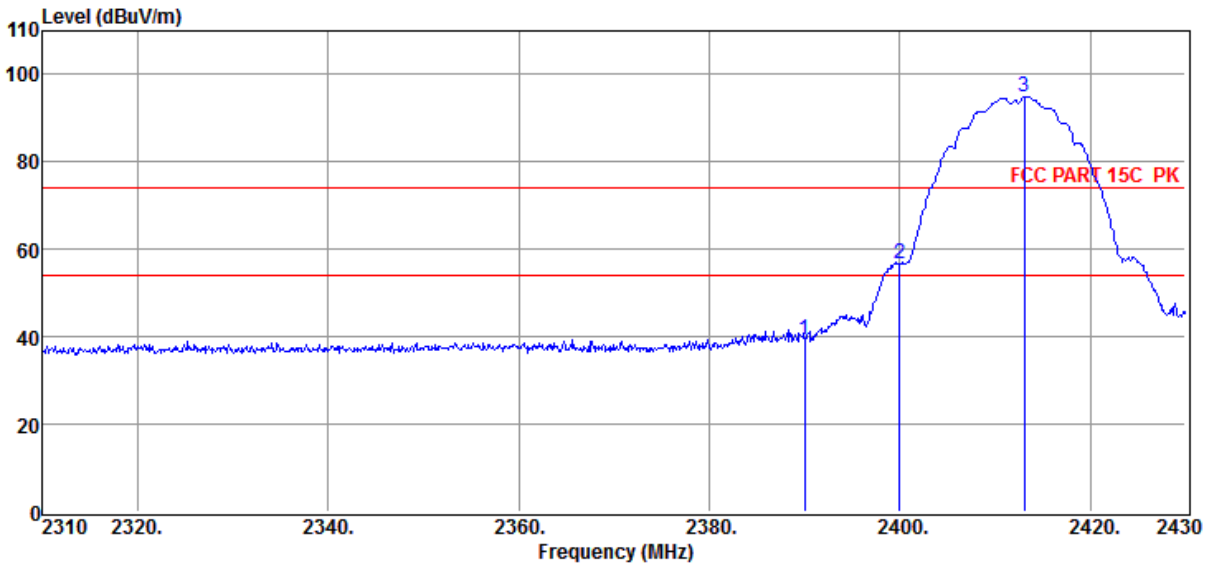
8.5. Test result

PASS. (See below detailed test result)

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 3



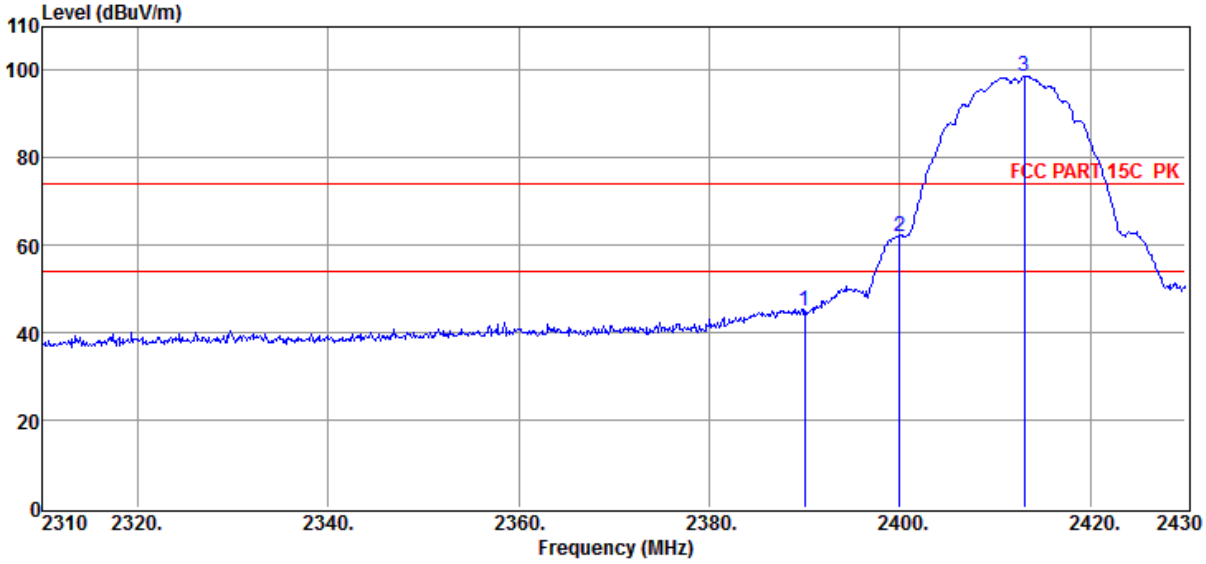
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2390.00	44.97	29.99	43.84	8.35	39.47	74.00	-34.53	Peak	HORIZONTAL
2	2400.00	62.35	29.99	43.84	8.35	56.85	74.00	-17.15	Peak	HORIZONTAL
3	2413.08	100.39	30.04	43.85	8.35	94.93	/	/	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 4



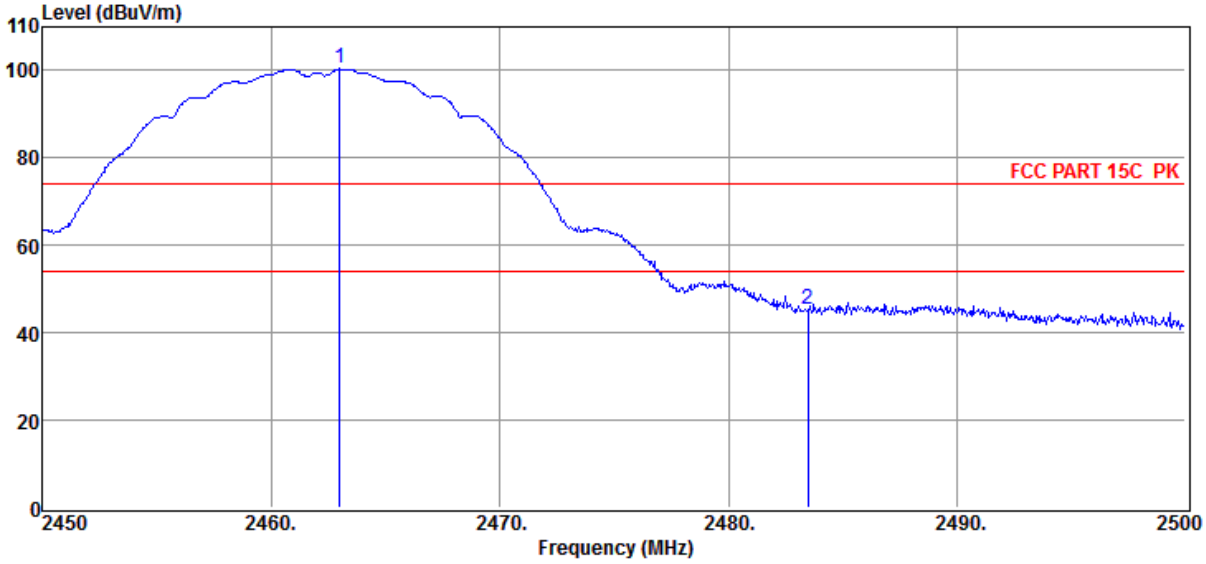
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2390.00	50.67	29.99	43.84	8.35	45.17	74.00	-28.83	Peak	VERTICAL
2	2400.00	67.61	29.99	43.84	8.35	62.11	74.00	-11.89	Peak	VERTICAL
3	2413.08	104.30	30.04	43.85	8.35	98.84	/	/	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 5



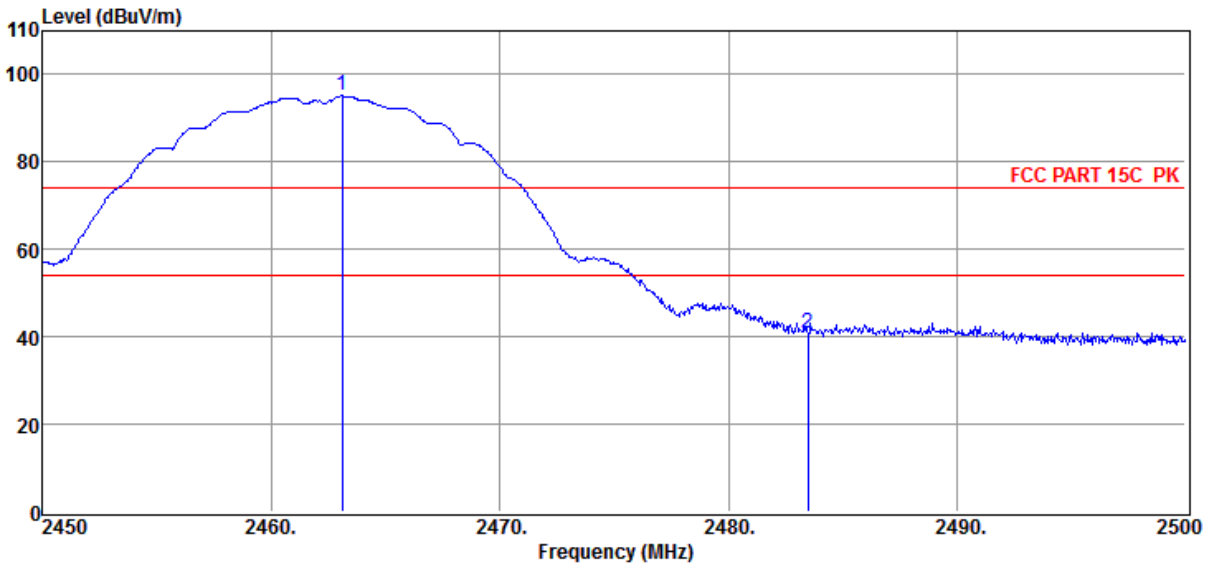
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2463.00	105.61	30.20	43.88	8.45	100.38	/	/	Peak	VERTICAL
2	2483.50	50.62	30.25	43.89	8.50	45.48	74.00	-28.52	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11b CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 6



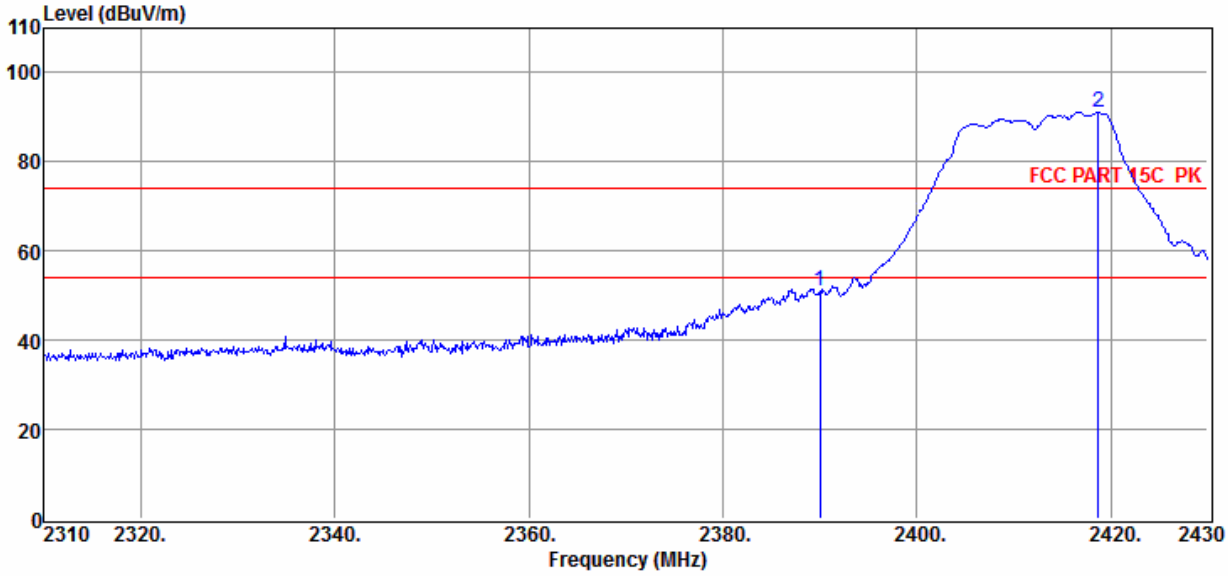
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2463.10	100.33	30.20	43.88	8.45	95.10	/	/	Peak	HORIZONTAL
2	2483.50	45.82	30.25	43.89	8.50	40.68	74.00	-33.32	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 15



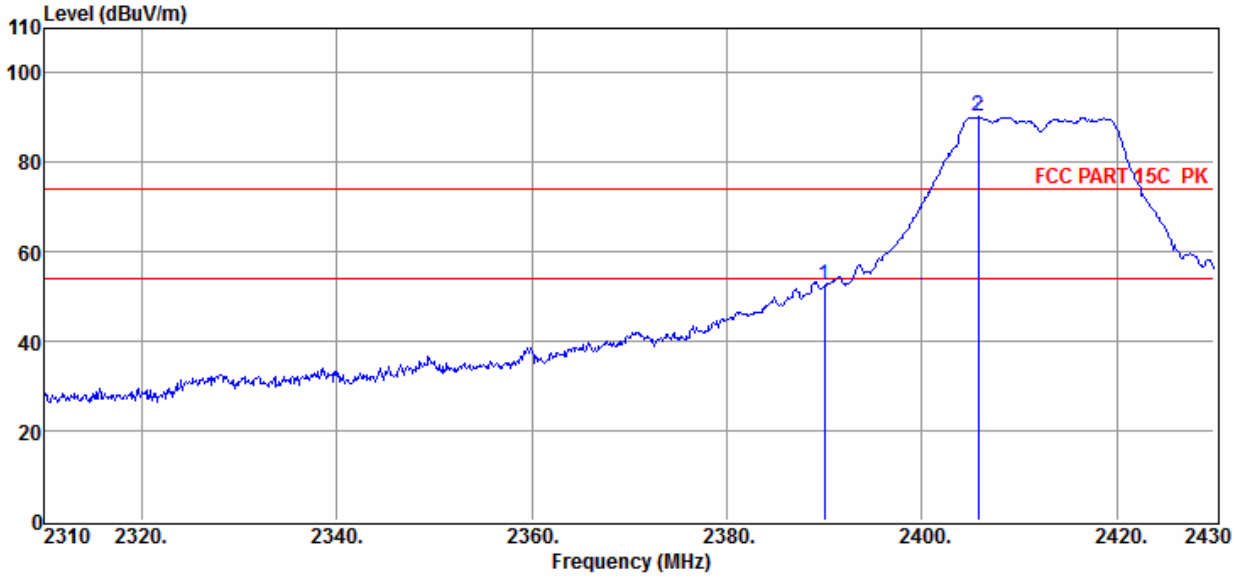
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2390.00	56.44	29.99	43.84	8.35	50.94	74.00	-23.06	Peak	HORIZONTAL
2	2418.60	96.48	30.04	43.85	8.40	91.07	/	/	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 16



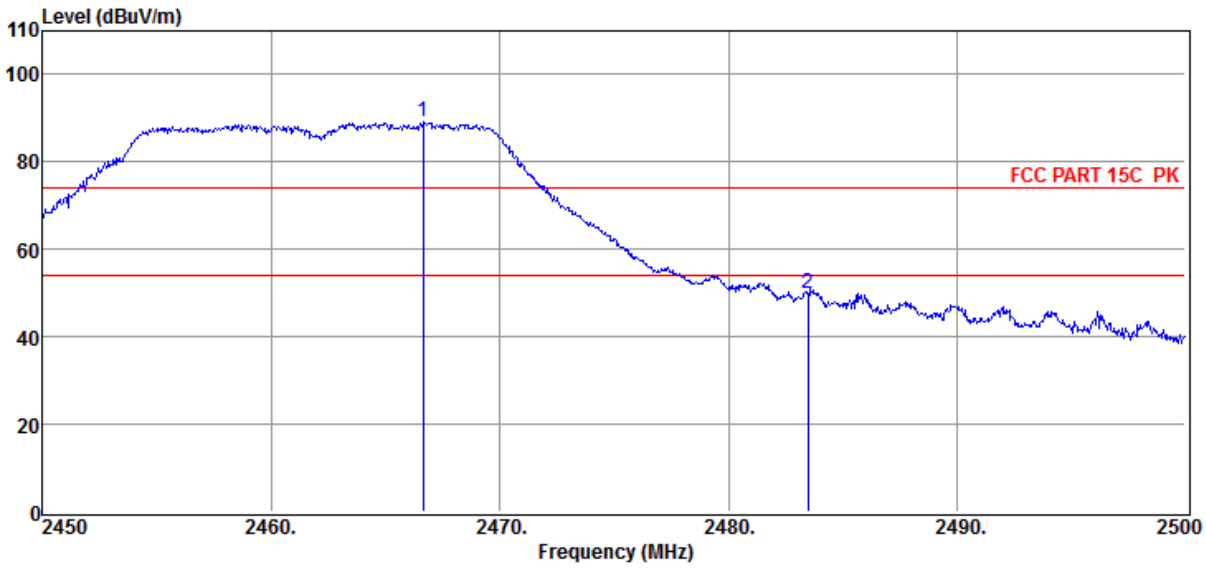
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2390.00	58.22	29.99	43.84	8.35	52.72	74.00	-21.28	Peak	VERTICAL
2	2405.76	95.64	30.04	43.85	8.35	90.18	/	/	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 17



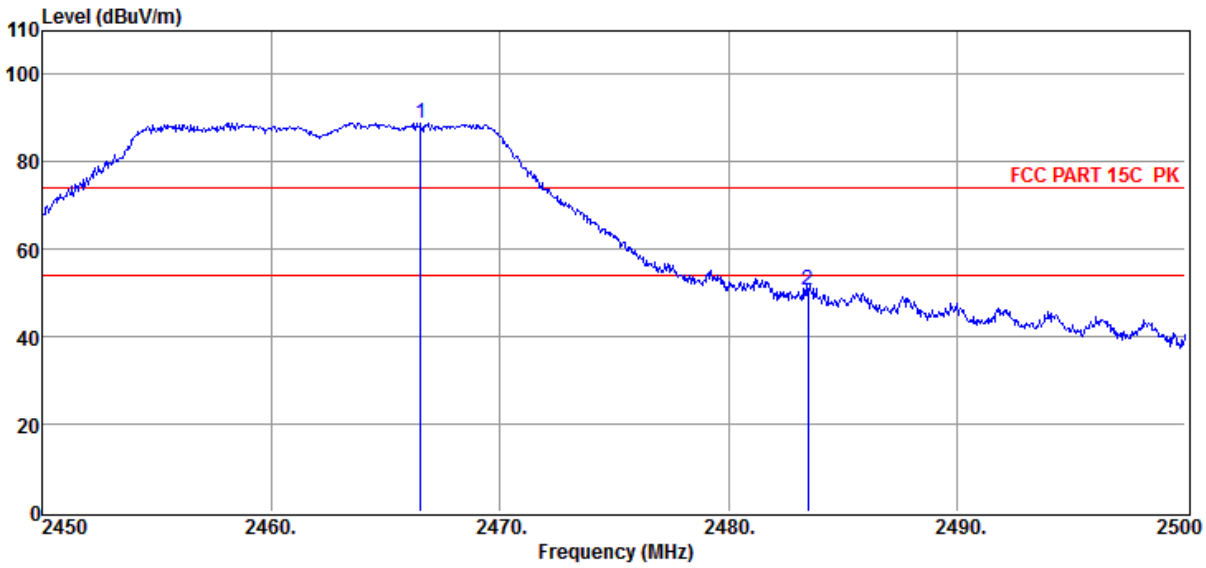
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2466.65	94.26	30.20	43.88	8.45	89.03	/	/	Peak	VERTICAL
2	2483.50	55.09	30.25	43.89	8.50	49.95	74.00	-24.05	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11g CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 18



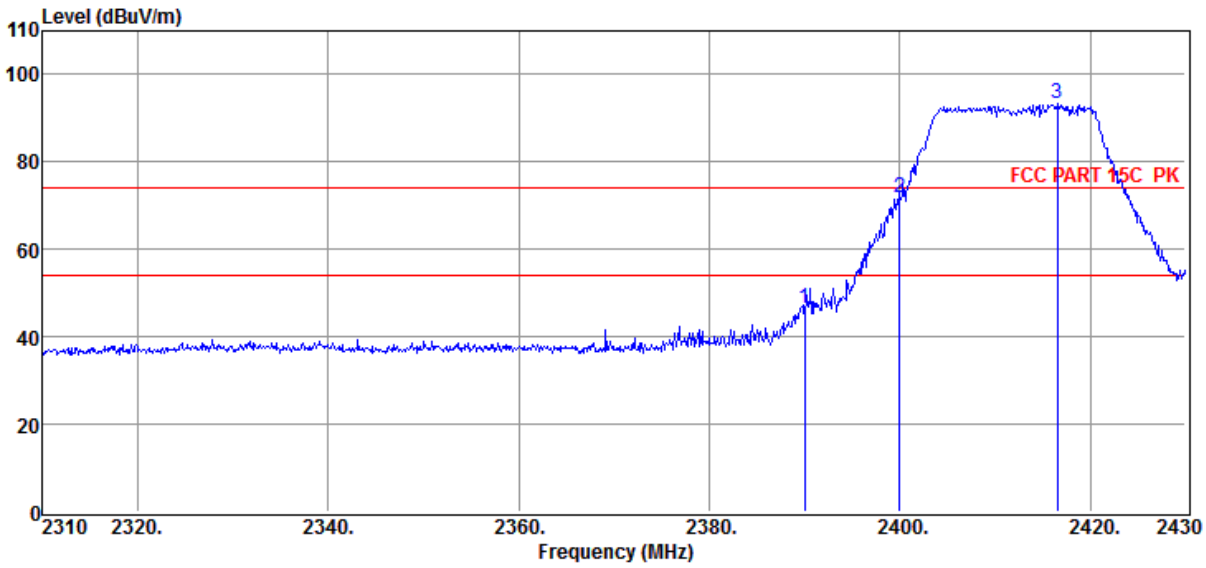
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2466.55	93.97	30.20	43.88	8.45	88.74	/	/	Peak	HORIZONTAL
2	2483.50	55.82	30.25	43.89	8.50	50.68	74.00	-23.32	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 23



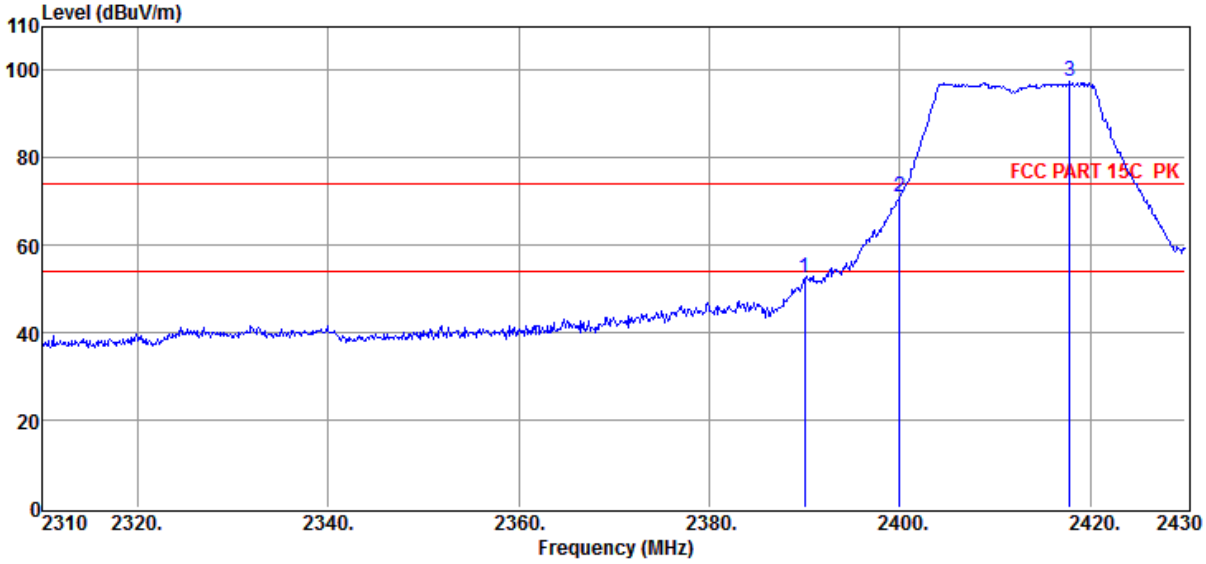
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2390.00	51.98	29.99	43.84	8.35	46.48	74.00	-27.52	Peak	HORIZONTAL
2	2400.00	77.49	29.99	43.84	8.35	71.99	74.00	-2.01	Peak	HORIZONTAL
3	2416.56	98.85	30.04	43.85	8.35	93.39	/	/	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH1
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 24



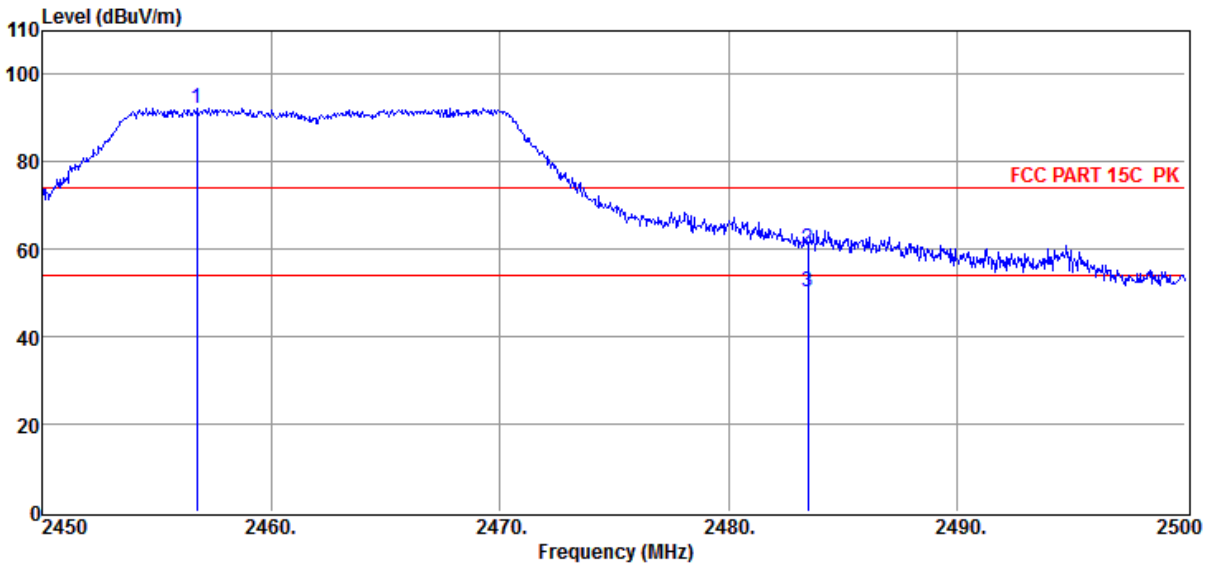
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2390.00	58.05	29.99	43.84	8.35	52.55	74.00	-21.45	Peak	VERTICAL
2	2400.00	76.66	29.99	43.84	8.35	71.16	74.00	-2.84	Peak	VERTICAL
3	2417.88	102.85	30.04	43.85	8.40	97.44	/	/	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 25



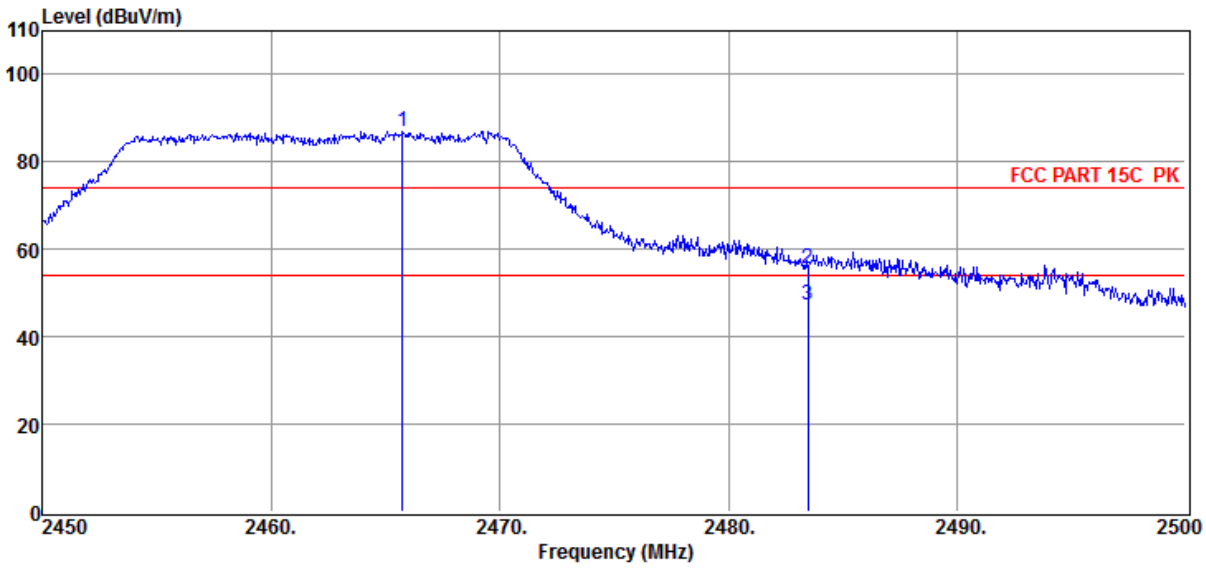
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2456.75	97.60	30.20	43.88	8.45	92.37	/	/	Peak	VERTICAL
2	2483.50	65.42	30.25	43.89	8.50	60.28	74.00	-13.72	Peak	VERTICAL
3	2483.50	55.36	30.25	43.89	8.50	50.22	54.00	-3.78	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT20 CH11
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 26



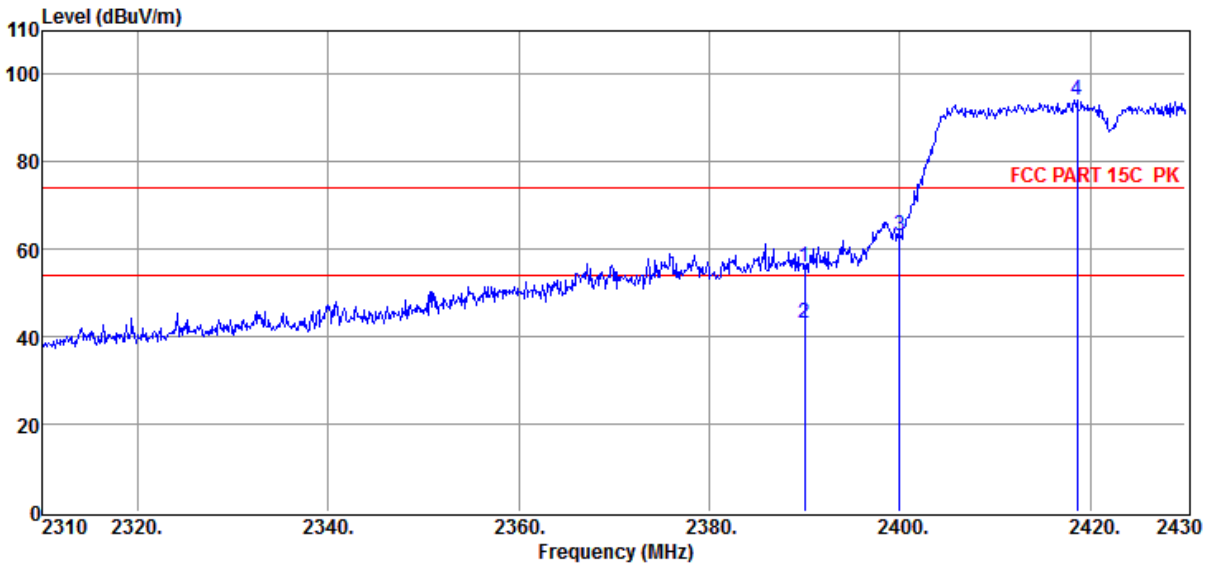
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2465.75	92.13	30.20	43.88	8.45	86.90	/	/	Peak	HORIZONTAL
2	2483.50	60.64	30.25	43.89	8.50	55.50	74.00	-18.50	Peak	HORIZONTAL
3	2483.50	52.36	30.25	43.89	8.50	47.22	54.00	-6.78	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH3
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 35



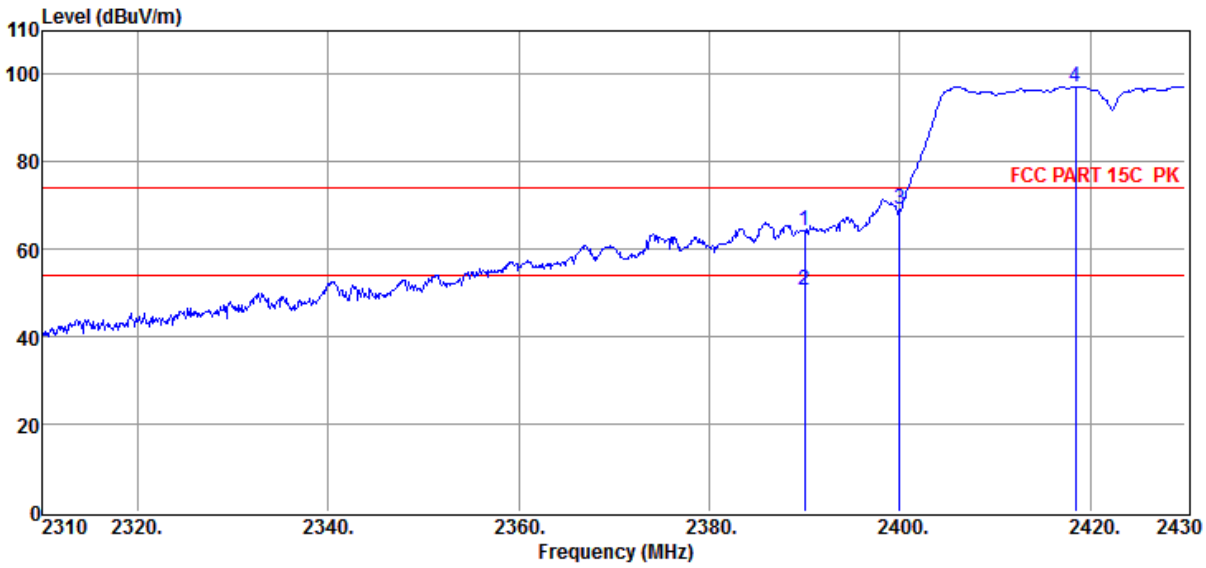
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2390.00	61.31	29.99	43.84	8.35	55.81	74.00	-18.19	Peak	HORIZONTAL
2	2390.00	48.68	29.99	43.84	8.35	43.18	54.00	-10.82	Average	HORIZONTAL
3	2400.00	68.47	29.99	43.84	8.35	62.97	74.00	-11.03	Peak	HORIZONTAL
4	2418.60	99.48	30.04	43.85	8.40	94.07	/	/	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH3
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 36



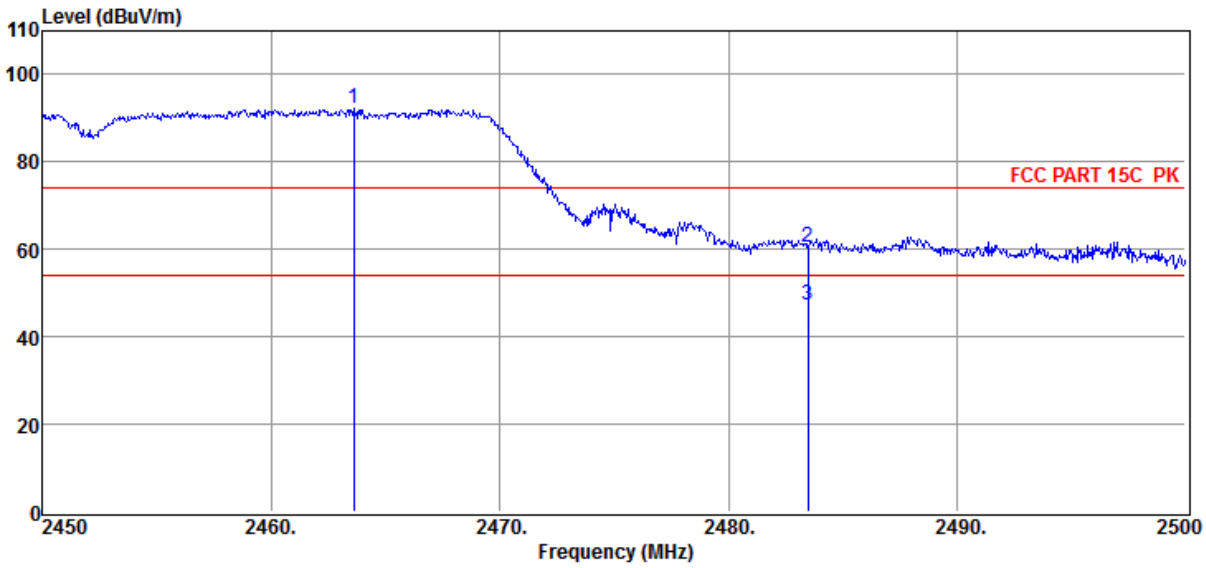
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2390.00	69.83	29.99	43.84	8.35	64.33	74.00	-9.67	Peak	VERTICAL
2	2390.00	56.25	29.99	43.84	8.35	50.75	54.00	-3.25	Average	VERTICAL
3	2400.00	74.51	29.99	43.84	8.35	69.01	74.00	-4.99	Peak	VERTICAL
4	2418.48	102.73	30.04	43.85	8.40	97.32	/	/	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH9
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/VERTICAL
Memo	: adapter(Ktec)		

Data: 37



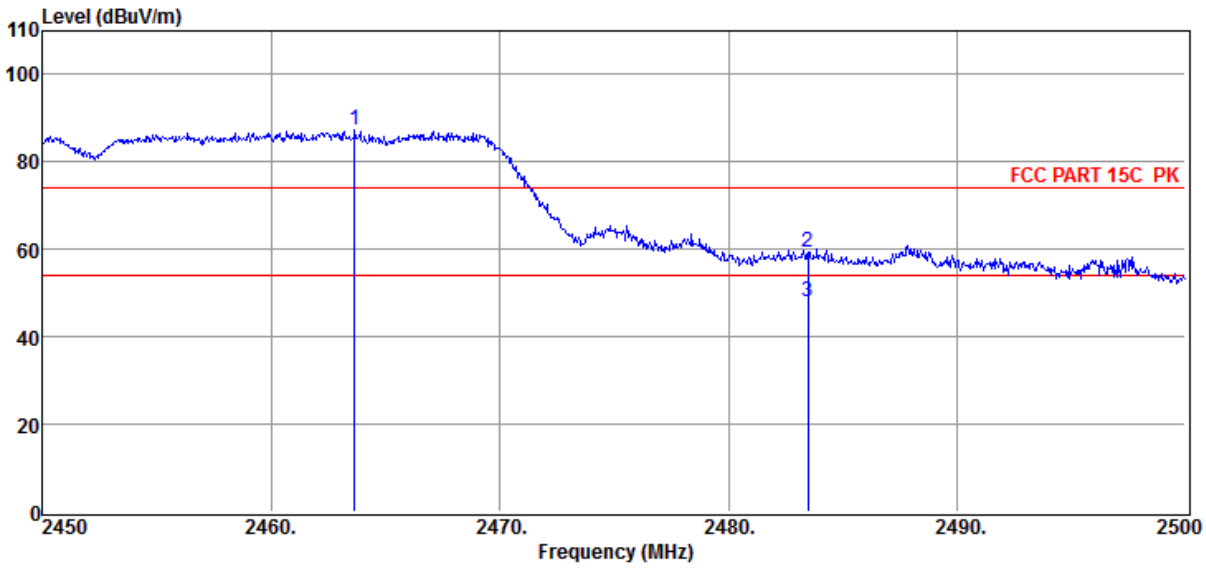
Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2463.60	97.36	30.20	43.88	8.45	92.13	/	/	Peak	VERTICAL
2	2483.50	65.75	30.25	43.89	8.50	60.61	74.00	-13.39	Peak	VERTICAL
3	2483.50	52.36	30.25	43.89	8.50	47.22	54.00	-6.78	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber	E:\2014 Report Data\QD140396\RF.EM6	
Test Date	: 2014-10-21	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: 11n HT40 CH9
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2013 HF907/3m/HORIZONTAL
Memo	: adapter(Ktec)		

Data: 38



Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2463.65	92.37	30.20	43.88	8.45	87.14	/	/	Peak	HORIZONTAL
2	2483.50	64.44	30.25	43.89	8.50	59.30	74.00	-14.70	Peak	HORIZONTAL
3	2483.50	53.26	30.25	43.89	8.50	48.12	54.00	-5.88	Average	HORIZONTAL

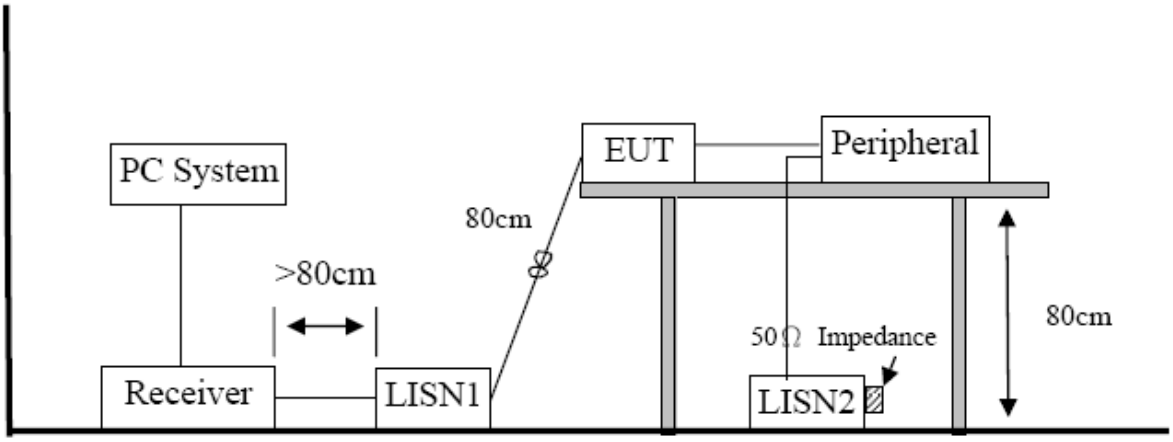
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

9. Power Line Conducted Emission

9.1. Test equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Test Receiver	R&S	ESU8	100316	2013/11/13	1 Year
2	LISN 1	R&S	ENV216	101109	2013/11/13	1 Year
. 3	LISN 2	R&S	ESH2-Z5	100309	2013/11/13	1 Year
. 4	Pulse Limiter	R&S	ESH3-Z2	101242	2013/11/13	1 Year

9.2. Block diagram of test setup



9.3. Power Line Conducted Emission Limits(Class B)

Frequency	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Note 1: * Decreasing linearly with logarithm of frequency.

Note 2: The lower limit shall apply at the transition frequencies.

9.4. Test Procedure

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.

Configuration EUT to simulate typical usage as described in clause 2.4 and test equipment as described in clause 10.2 of this report.

All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.

All support equipment power received from a second LISN.

Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in clause 2.4 were scanned during the preliminary test.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were recorded for reference of the final test.

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Neutral and Line, recording at least the six highest emissions.

Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

The bandwidth of test receiver is set at 9 KHz.

9.5. Test Result

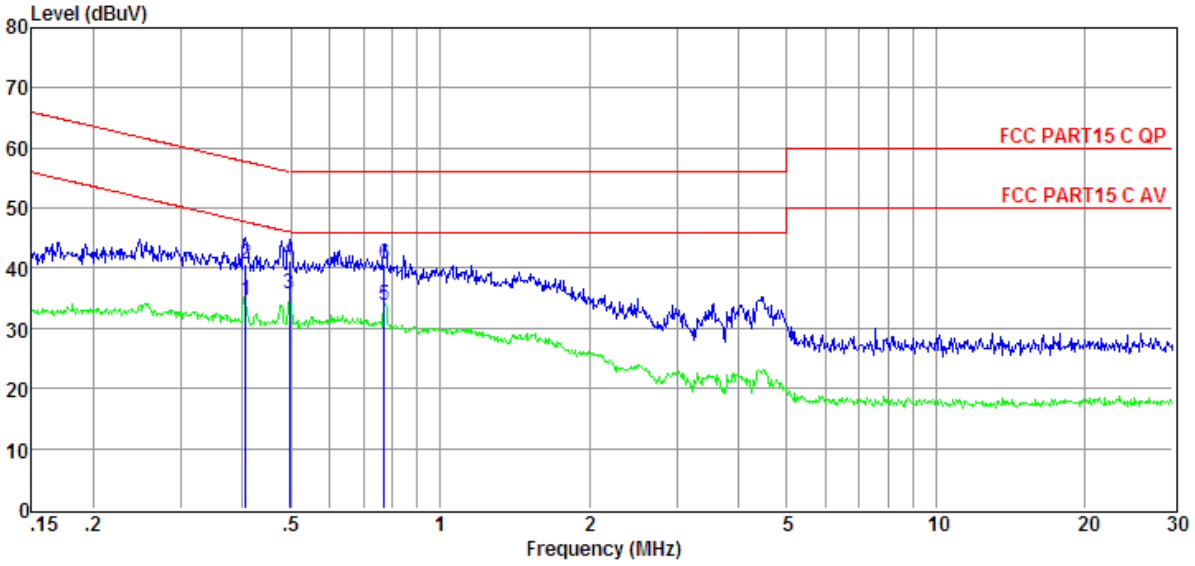
PASS. (See below detailed test result)

Note1: All emissions not reported below are too low against the prescribed limits.
Note2: "-----" means peak detection; "-----" mans average detection

TR-4-E-010 Conducted Emission Test Result

Test Site	: DDT 1# Shield Room	E:\2014 report data\QD140396\CE.EM6	
Test Date	: 2014-10-19	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**LISN**	: 2013 ENV216/NEUTRAL
Memo	: adapter(Ktec)		

Data: 2



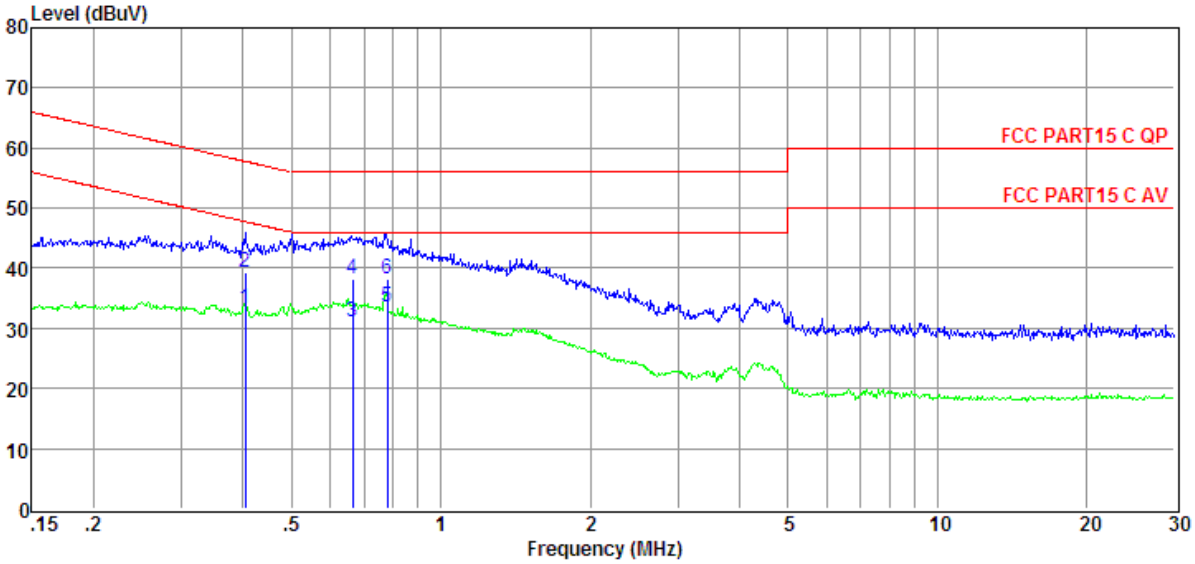
Item (Mark)	Freq (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.41	15.15	9.61	0.03	9.86	34.65	47.73	-13.08	Average	NEUTRAL
2	0.41	21.29	9.61	0.03	9.86	40.79	57.73	-16.94	QP	NEUTRAL
3	0.50	16.19	9.61	0.03	9.87	35.70	46.05	-10.35	Average	NEUTRAL
4	0.50	21.69	9.61	0.03	9.87	41.20	56.05	-14.85	QP	NEUTRAL
5	0.77	14.22	9.61	0.08	9.86	33.77	46.00	-12.23	Average	NEUTRAL
6	0.77	21.26	9.61	0.08	9.86	40.81	56.00	-15.19	QP	NEUTRAL

Note: 1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz), Step size: 4 kHz, Scan time: auto.

TR-4-E-010 Conducted Emission Test Result

Test Site	: DDT 1# Shield Room	E:\2014 report data\QD140396\CE.EM6	
Test Date	: 2014-10-19	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**LISN**	: 2013 ENV216/LINE
Memo	: adapter(Ktec)		

Data: 4



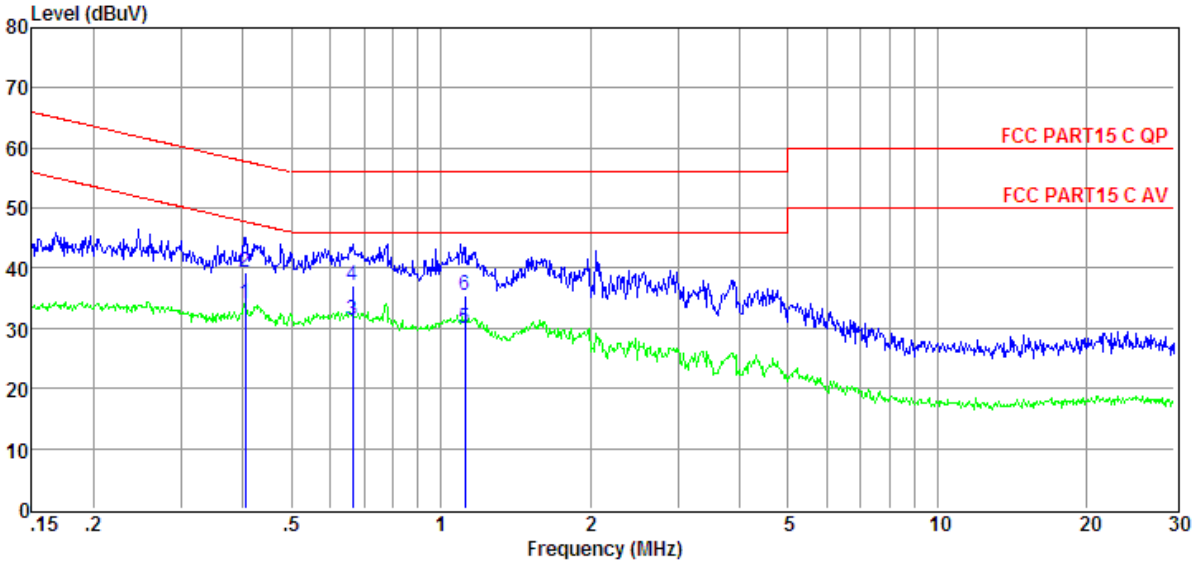
Item (Mark)	Freq (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.40	13.71	9.63	0.03	9.86	33.23	47.77	-14.54	Average	LINE
2	0.40	19.82	9.63	0.03	9.86	39.34	57.77	-18.43	QP	LINE
3	0.66	11.53	9.62	0.06	9.85	31.06	46.00	-14.94	Average	LINE
4	0.66	18.62	9.62	0.06	9.85	38.15	56.00	-17.85	QP	LINE
5	0.78	14.03	9.62	0.08	9.86	33.59	46.00	-12.41	Average	LINE
6	0.78	18.53	9.62	0.08	9.86	38.09	56.00	-17.91	QP	LINE

Note: 1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz), Step size: 4 kHz, Scan time: auto.

TR-4-E-010 Conducted Emission Test Result

Test Site	: DDT 1# Shield Room	E:\2014 report data\QD140396\CE.EM6	
Test Date	: 2014-10-19	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**LISN**	: 2013 ENV216/LINE
Memo	: adapter(Csec)		

Data: 6



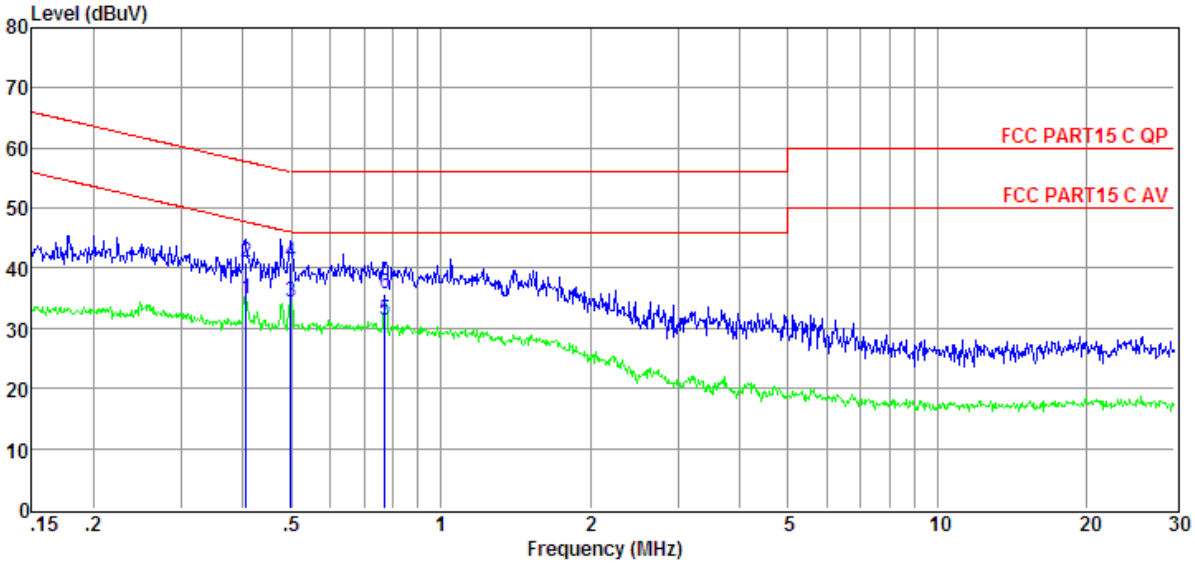
Item (Mark)	Freq (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.40	14.61	9.63	0.03	9.86	34.13	47.77	-13.64	Average	LINE
2	0.40	19.78	9.63	0.03	9.86	39.30	57.77	-18.47	QP	LINE
3	0.66	11.83	9.62	0.06	9.85	31.36	46.00	-14.64	Average	LINE
4	0.66	17.58	9.62	0.06	9.85	37.11	56.00	-18.89	QP	LINE
5	1.12	10.44	9.62	0.04	9.87	29.97	46.00	-16.03	Average	LINE
6	1.12	15.87	9.62	0.04	9.87	35.40	56.00	-20.60	QP	LINE

Note: 1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz), Step size: 4 kHz, Scan time: auto.

TR-4-E-010 Conducted Emission Test Result

Test Site	: DDT 1# Shield Room	E:\2014 report data\QD140396\CE.EM6	
Test Date	: 2014-10-19	**Tested By**	: Leo
EUT	: WLAN Pan/Tilt Camera&App	**Model Number**	: TVAC19000C
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**LISN**	: 2013 ENV216/NEUTRAL
Memo	: adapter(Csec)		

Data: 8



Item (Mark)	Freq (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.41	15.38	9.61	0.03	9.86	34.88	47.73	-12.85	Average	NEUTRAL
2	0.41	21.53	9.61	0.03	9.86	41.03	57.73	-16.70	QP	NEUTRAL
3	0.50	14.78	9.61	0.03	9.87	34.29	46.01	-11.72	Average	NEUTRAL
4	0.50	21.38	9.61	0.03	9.87	40.89	56.01	-15.12	QP	NEUTRAL
5	0.77	11.73	9.61	0.08	9.86	31.28	46.00	-14.72	Average	NEUTRAL
6	0.77	16.26	9.61	0.08	9.86	35.81	56.00	-20.19	QP	NEUTRAL

Note: 1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz), Step size: 4 kHz, Scan time: auto.

10. Antenna Requirements

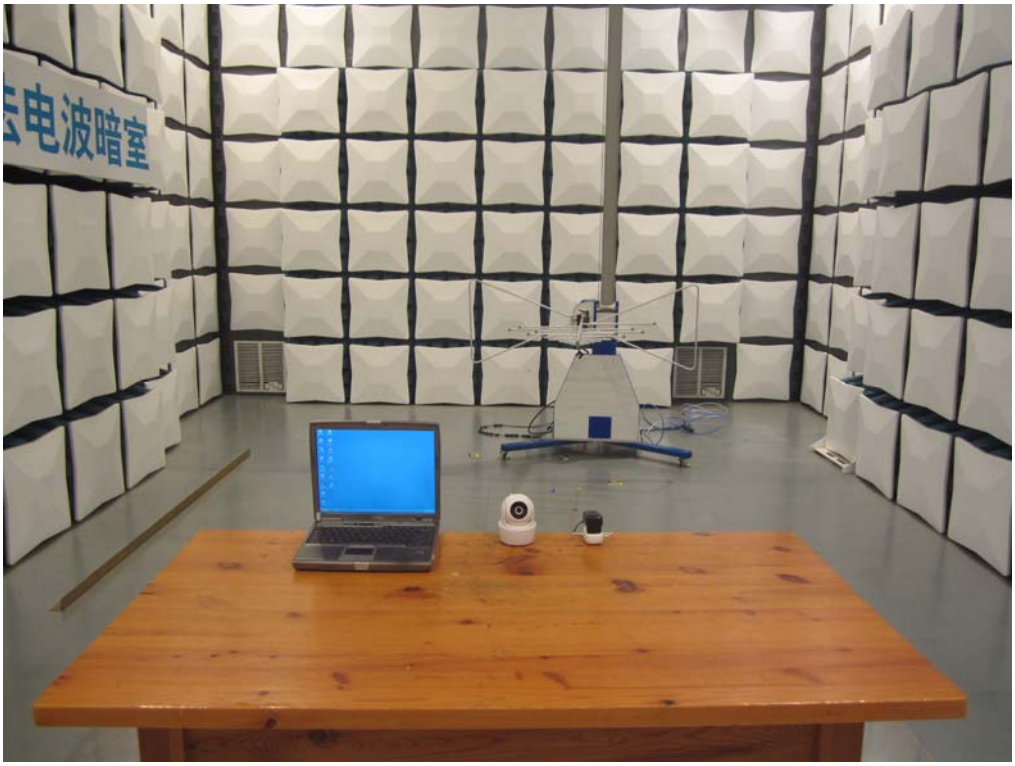
10.1. Limit

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

10.2. Result

The antennas used for this product are dipole antenna and other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is only 2dBi.

11. Test setup photograph



12. Photos of the EUT

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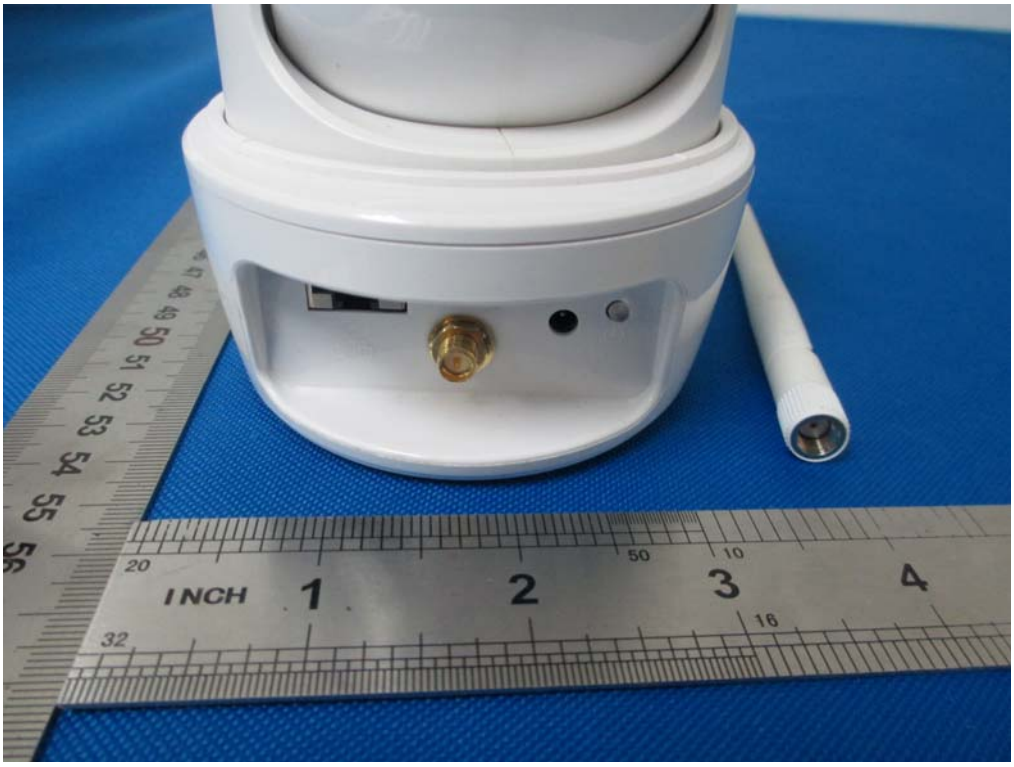
INCH

INCH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Ktec
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MADE IN CHINA
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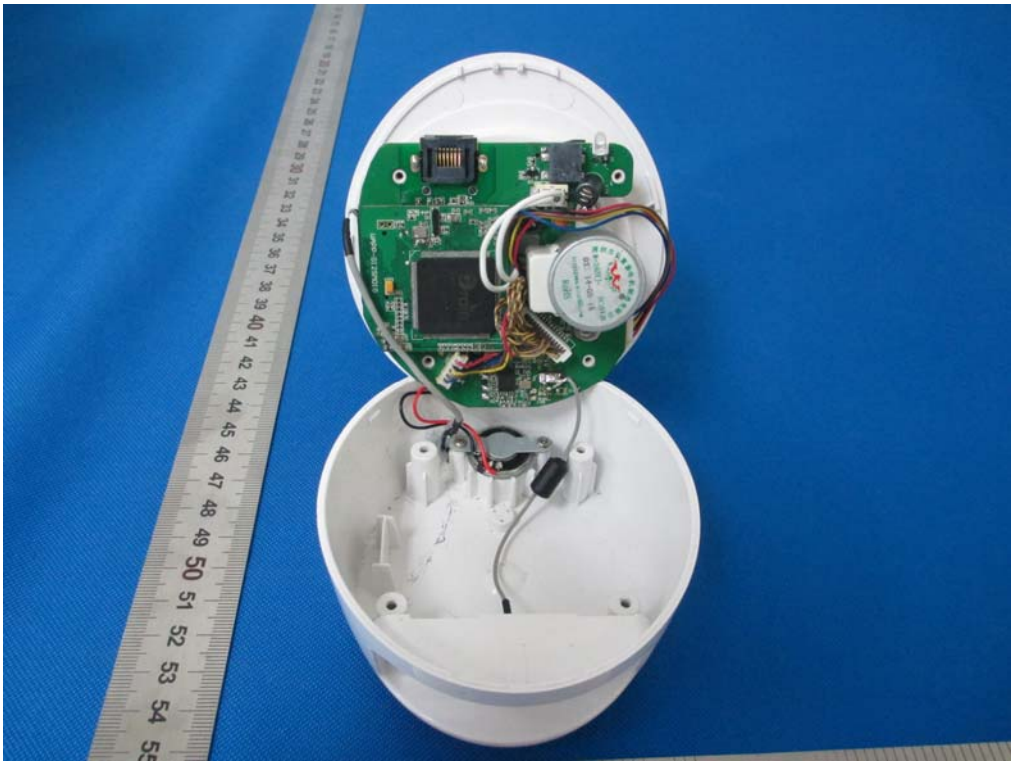

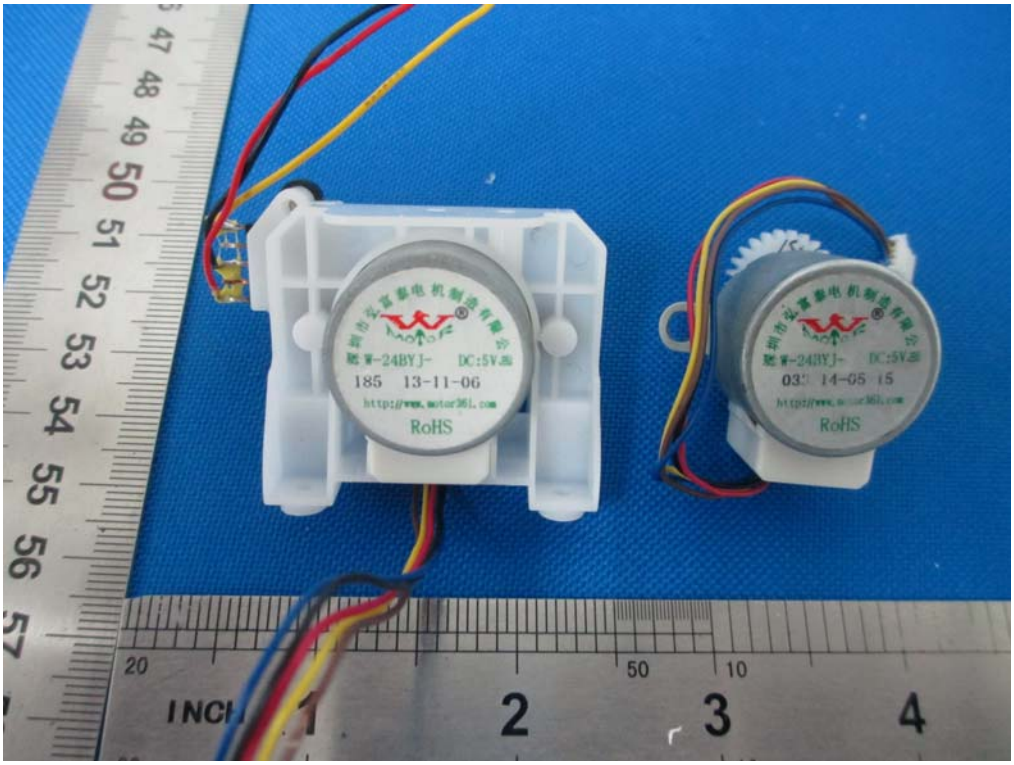
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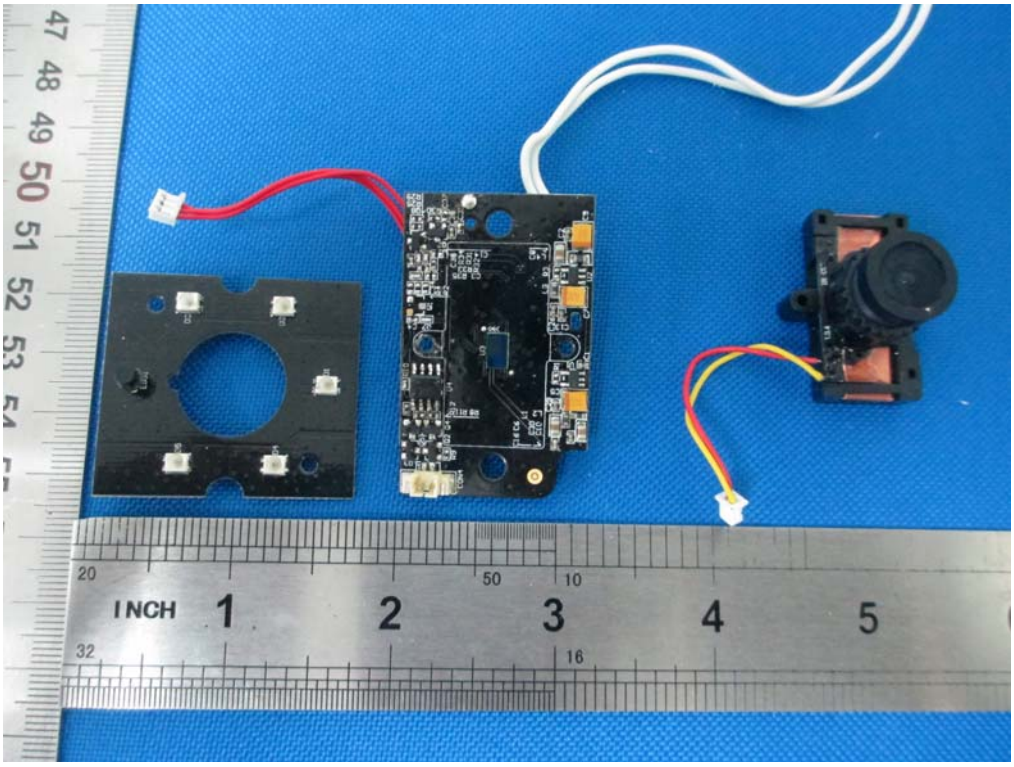
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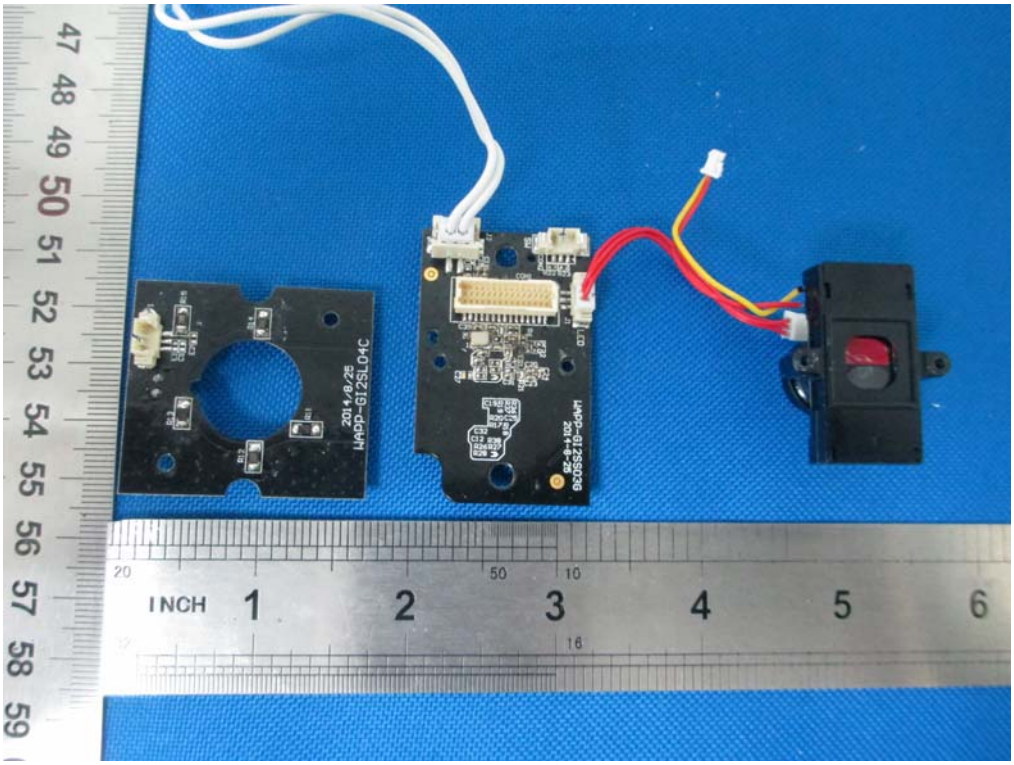
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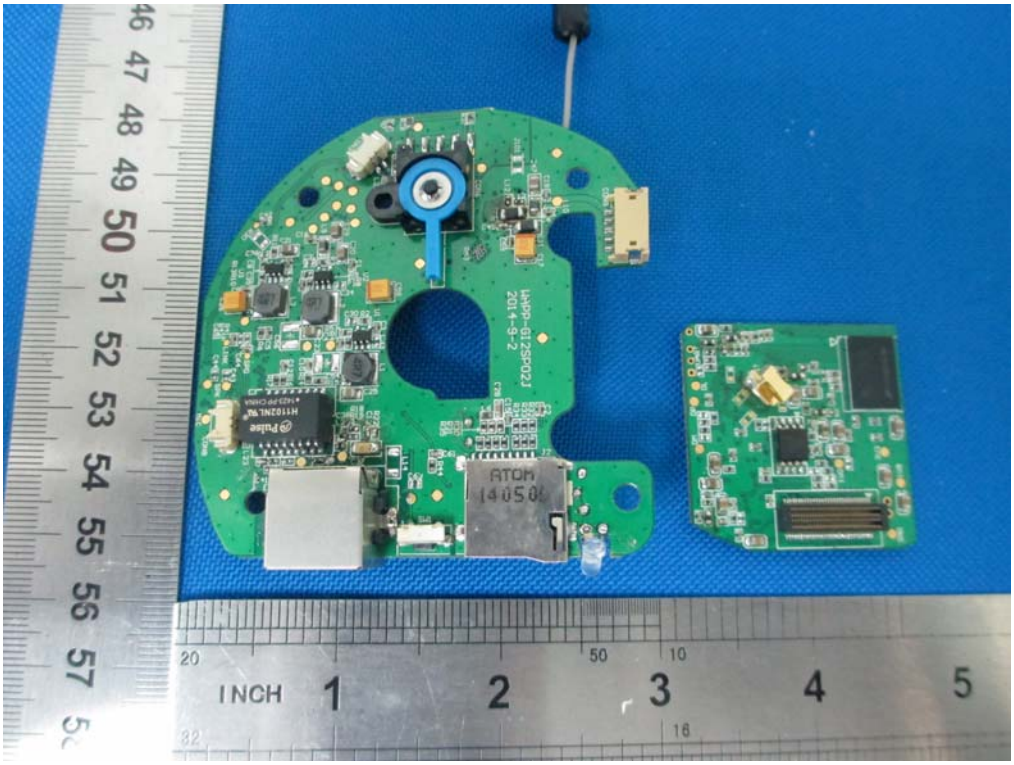
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ATOM
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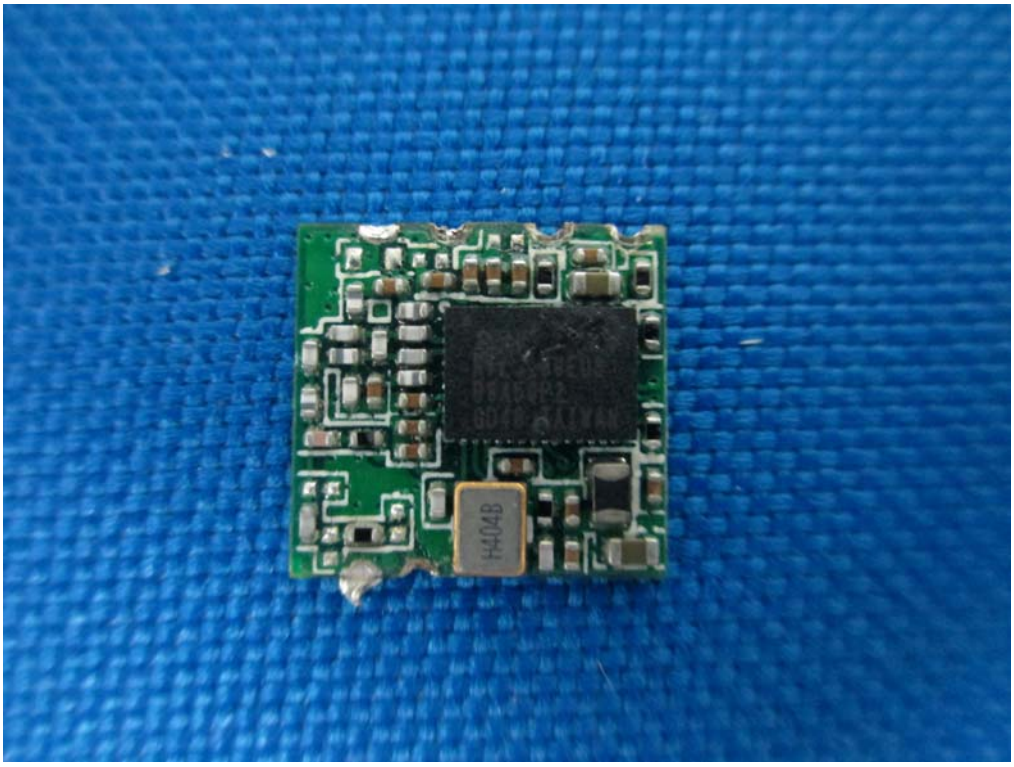
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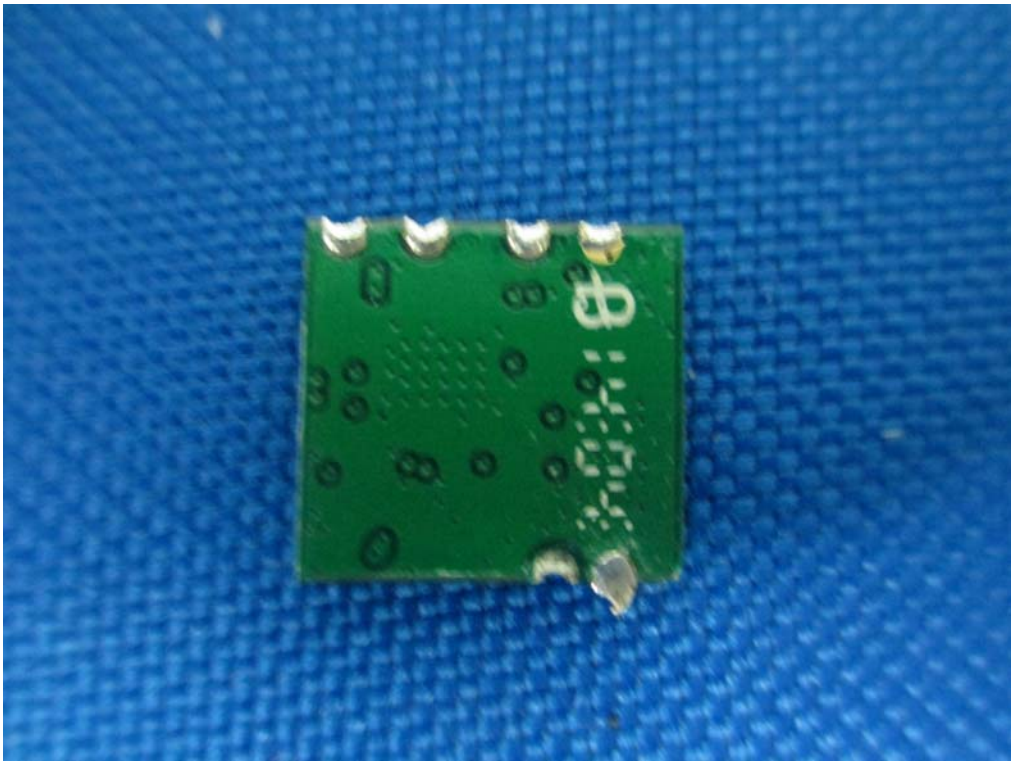

END OF REPORT