

**Report No.:** RF190807E06

**FCC ID:** KA2CS8000LHV2A1

**Test Model:** DCS-8000LHV2

**Received Date:** Aug. 08, 2019

**Test Date:** Aug. 23 to 26, 2019

**Issued Date:** Oct. 04, 2019

**Applicant:** D-Link Corporation

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**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
Hsin Chu Laboratory

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**Test Location:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,  
Taiwan

**FCC Registration /  
Designation Number:** 723255/TW2022



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### Release Control Record

Issue No.	Description	Date Issued
RF190807E06	Original release.	Oct. 04, 2019

## 1 Certificate of Conformity

**Product:** Mini Full HD Wi-Fi Camera

**Brand:** D-Link

**Test Model:** DCS-8000LHV2

**Sample Status:** ENGINEERING SAMPLE

**Applicant:** D-Link Corporation

**Test Date:** Aug. 23 to 26, 2019

**Standards:** 47 CFR FCC Part 15, Subpart C (Section 15.247)  
ANSI C63.10: 2013

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**Prepared by :** Wendy Wu , **Date:** Oct. 04, 2019  
Wendy Wu / Specialist

**Approved by :** May Chen , **Date:** Oct. 04, 2019  
May Chen / Manager

## 2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -17.19dB at 0.49766MHz.
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -0.2dB at 2483.50MHz.
15.247(d)	Antenna Port Emission	PASS	Meet the requirement of limit.
15.247(a)(2)	6dB bandwidth	PASS	Meet the requirement of limit.
15.247(b)	Conducted power	PASS	Meet the requirement of limit.
15.247(e)	Power Spectral Density	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	No antenna connector is used.

### Note:

Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

### 2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.8 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.1 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	5.1 dB
	6GHz ~ 18GHz	5.0 dB
	18GHz ~ 40GHz	5.2 dB

### 2.2 Modification Record

There were no modifications required for compliance.

### 3 General Information

#### 3.1 General Description of EUT (WLAN)

Product	Mini Full HD Wi-Fi Camera
Brand	D-Link
Test Model	DCS-8000LHV2
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	5Vdc from power adapter
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	DSSS, OFDM
Transfer Rate	802.11b: up to 11Mbps 802.11g: up to 54Mbps 802.11n: up to 150Mbps
Operating Frequency	2.412MHz ~ 2.462MHz
Number of Channel	802.11b, 802.11g, 802.11n (HT20): 11 802.11n (HT40): 7
Output Power	296.483mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter x 1
Data Cable Supplied	NA

Note:

1. There are WLAN, Bluetooth used for the EUT.
2. WLAN and Bluetooth technology can't transmit simultaneously.
3. The EUT must be supplied with a power adapter as following table:

No.	Brand	Model No.	Spec.
1	D-Link	AMS195-0501000FU	AC Input: 100-240Vac, 0.3A, 50/60Hz DC Output: 5V, 1.0A DC Output Cable: 1.5m, Unshielded
2	D-Link	AMS66-0501000FU	AC Input: 100-240Vac, 0.2A, 50/60Hz DC Output: 5V, 1.0A DC Output Cable: 1.5m, Unshielded

Note: From the above modes, the worst case was found in **Adapter 2**. Therefore only the test data of the mode was recorded in this report.

4. The antenna provided to the EUT, please refer to the following table:

Antenna No.	Brand	Model No.	Antenna Net Gain (dBi)	Frequency range (GHz)	Antenna Type	Connector Type	Cable Length (mm)
WLAN+BT	REALTEK	RTS3904N	3.0	2.4~2.4835	Printed antenna	NA	NA

5. The EUT incorporates a SISO function:

MODULATION MODE	TX & RX CONFIGURATION	
<b>802.11b</b>	1TX	1RX
<b>802.11g</b>	1TX	1RX
<b>802.11n (HT20)</b>	1TX	1RX
<b>802.11n (HT40)</b>	1TX	1RX

6. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

### 3.2 Description of Test Modes

11 channels are provided for 802.11b, 802.11g and 802.11n (HT20):

Channel	Frequency	Channel	Frequency
1	2412MHz	7	2442MHz
2	2417MHz	8	2447MHz
3	2422MHz	9	2452MHz
4	2427MHz	10	2457MHz
5	2432MHz	11	2462MHz
6	2437MHz		

7 channels are provided for 802.11n (HT40):

Channel	Frequency	Channel	Frequency
3	2422MHz	7	2442MHz
4	2427MHz	8	2447MHz
5	2432MHz	9	2452MHz
6	2437MHz		

### 3.2.1 Test Mode Applicability and Tested Channel Detail

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE $\geq$ 1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where **RE $\geq$ 1G**: Radiated Emission above 1GHz & Bandedge Measurement  
**RE<1G**: Radiated Emission below 1GHz  
**PLC**: Power Line Conducted Emission  
**APCM**: Antenna Port Conducted Measurement

**NOTE:** The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Y-plane** (for below 1GHz) and **X-plane** (above 1GHz).

#### **Radiated Emission Test (Above 1GHz):**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
802.11n (HT40)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

#### **Radiated Emission Test (Below 1GHz):**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11g	1 to 11	1	OFDM	BPSK	6

#### **Power Line Conducted Emission Test:**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11g	1 to 11	1	OFDM	BPSK	6

**Antenna Port Conducted Measurement:**

- This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
802.11n (HT40)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

**Test Condition:**

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE $\geq$ 1G	22deg. C, 68%RH	120Vac, 60Hz	Weiwei Lo
RE $<$ 1G	22deg. C, 68%RH	120Vac, 60Hz	Ryan Du
PLC	25deg. C, 60%RH	120Vac, 60Hz	Robert Cheng
APCM	23deg. C, 75%RH	120Vac, 60Hz	Andy Ho

### 3.3 Duty Cycle of Test Signal

If duty cycle of test signal is  $\geq 98\%$ , duty factor is not required.

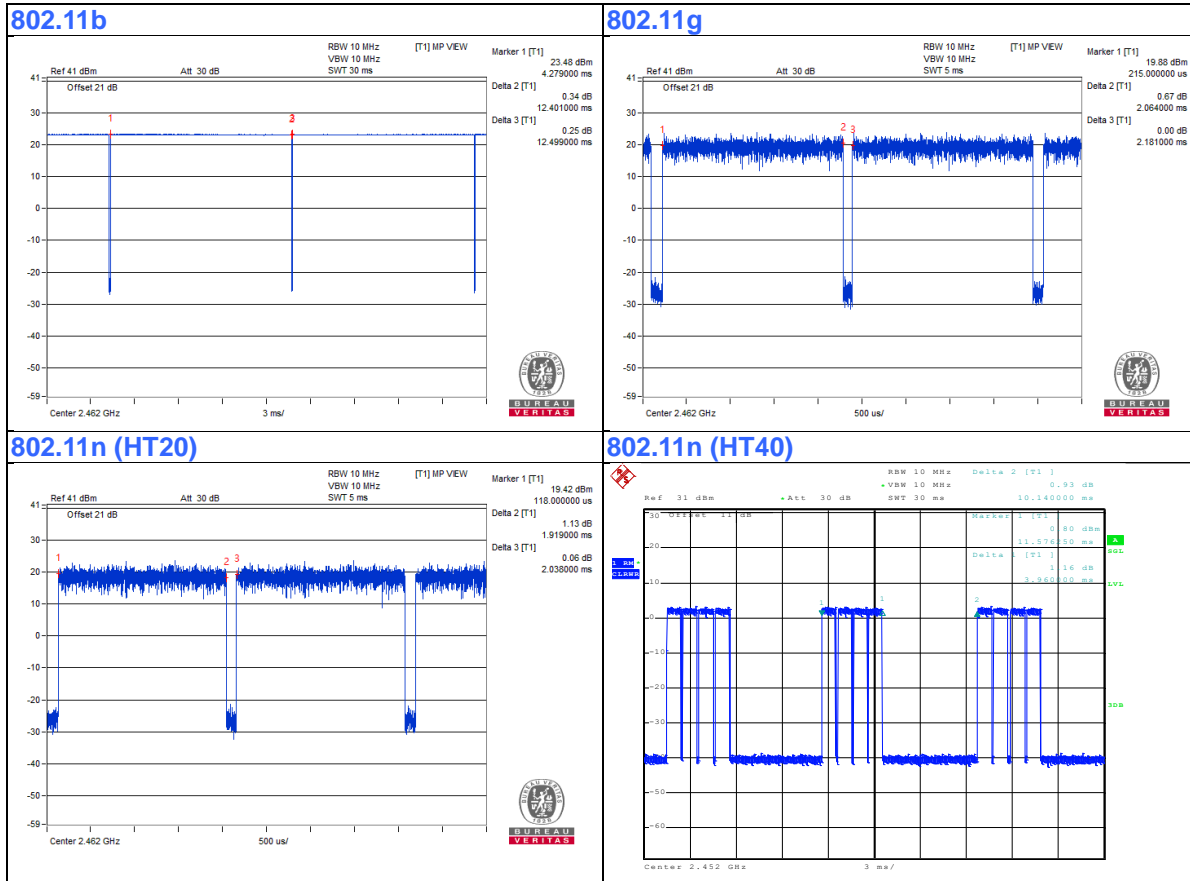
If duty cycle of test signal is  $< 98\%$ , duty factor shall be considered.

**802.11b:** Duty cycle =  $12.401 \text{ ms} / 12.499 \text{ ms} = 0.992$

**802.11g:** Duty cycle =  $2.064 \text{ ms} / 2.181 \text{ ms} = 0.946$ , Duty factor =  $10 * \log(1/\text{Duty cycle}) = 0.24$

**802.11n (HT20):** Duty cycle =  $1.919 \text{ ms} / 2.038 \text{ ms} = 0.942$ , Duty factor =  $10 * \log(1/\text{Duty cycle}) = 0.26$

**802.11n (HT40):** Duty cycle =  $3.96 \text{ ms} / 10.14 \text{ ms} = 0.391$ , Duty factor =  $10 * \log(1/\text{Duty cycle}) = 4.08$

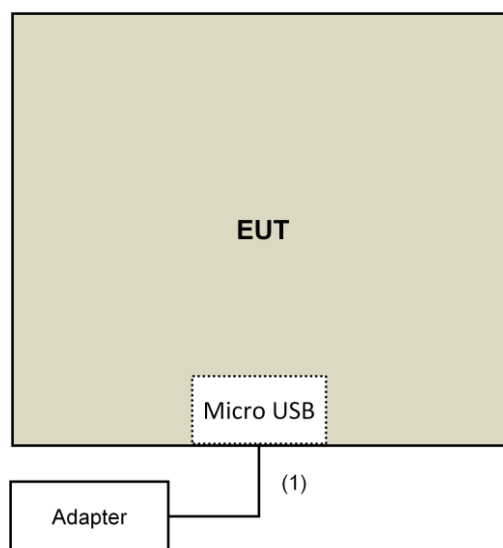


### 3.4 Description of Support Units

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	DC Cable	1	1.5	No	0	Supplied by client

#### 3.4.1 Configuration of System under Test



### 3.5 General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

**FCC Part 15, Subpart C (15.247)**  
**KDB 558074 D01 15.247 Meas Guidance v05r02**  
**ANSI C63.10-2013**

All test items have been performed and recorded as per the above standards.

## 4 Test Types and Results

### 4.1 Radiated Emission and Bandedge Measurement

#### 4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power:

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

**NOTE:**

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

## 4.1.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY50010156	July 17, 2019	July 16, 2020
Pre-Amplifier EMCI	EMC001340	980142	May 30, 2019	May 29, 2020
Loop Antenna Electro-Metrics	EM-6879	264	Jan. 22, 2019	Jan. 21, 2020
RF Cable	NA	LOOPCAB-001	Jan. 14, 2019	Jan. 13, 2020
RF Cable	NA	LOOPCAB-002	Jan. 14, 2019	Jan. 13, 2020
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-05	Apr. 30, 2019	Apr. 29, 2020
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Nov. 22, 2018	Nov. 21, 2019
RF Cable	8D	966-3-1	Mar. 18, 2019	Mar. 17, 2020
RF Cable	8D	966-3-2	Mar. 18, 2019	Mar. 17, 2020
RF Cable	8D	966-3-3	Mar. 18, 2019	Mar. 17, 2020
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-3-01	Sep. 27, 2018	Sep. 26, 2019
Horn_Antenna SCHWARZBECK	BBHA9120-D	9120D-406	Nov. 25, 2018	Nov. 24, 2019
Pre-Amplifier EMCI	EMC12630SE	980384	Jan. 28, 2019	Jan. 27, 2020
RF Cable	EMC104-SM-SM-1200	160922	Jan. 28, 2019	Jan. 27, 2020
RF Cable	EMC104-SM-SM-2000	180601	June 10, 2019	June 09, 2020
RF Cable	EMC104-SM-SM-6000	180602	June 10, 2019	June 09, 2020
Spectrum Analyzer Keysight	N9030A	MY54490679	July 17, 2019	July 16, 2020
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 28, 2019	Jan. 27, 2020
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 25, 2018	Nov. 24, 2019
RF Cable	EMC102-KM-KM-1200	160924	Jan. 28, 2019	Jan. 27, 2020
RF Cable	EMC102-KM-KM-1200	160925	Jan. 28, 2019	Jan. 27, 2020
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Spectrum Analyzer R&S	FSV40	100964	June 04, 2019	June 03, 2020
Power meter Anritsu	ML2495A	1014008	May 13, 2019	May 12, 2020
Power sensor Anritsu	MA2411B	0917122	May 13, 2019	May 12, 2020
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 15, 2019	Apr. 14, 2020

**NOTE:**

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 3.
3. Loop antenna was used for all emissions below 30 MHz.
4. Tested Date: Aug. 23 to 26, 2019

#### 4.1.3 Test Procedures

##### **For Radiated emission below 30MHz**

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

##### **NOTE:**

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

##### **For Radiated emission above 30MHz**

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

##### **Note:**

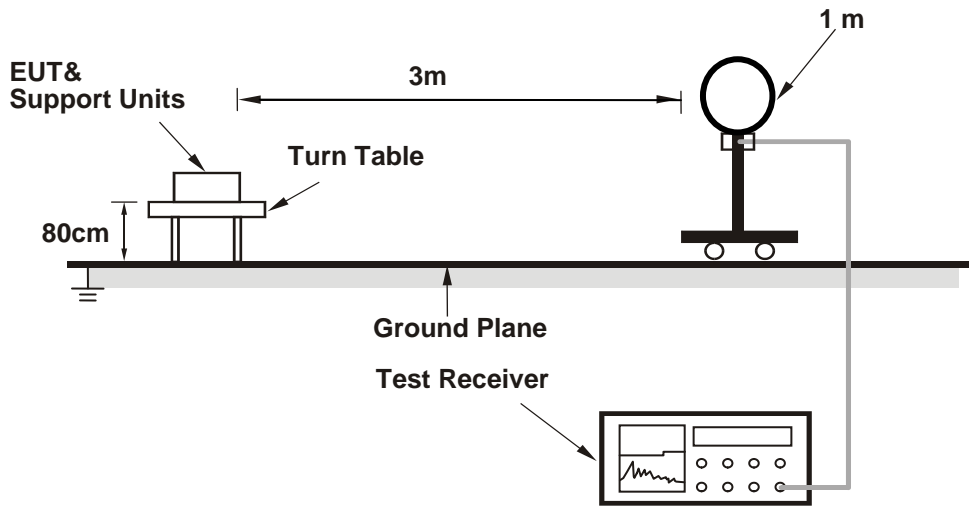
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is  $\geq 1/T$  (Duty cycle < 98%) or 10Hz (Duty cycle  $\geq 98\%$ ) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

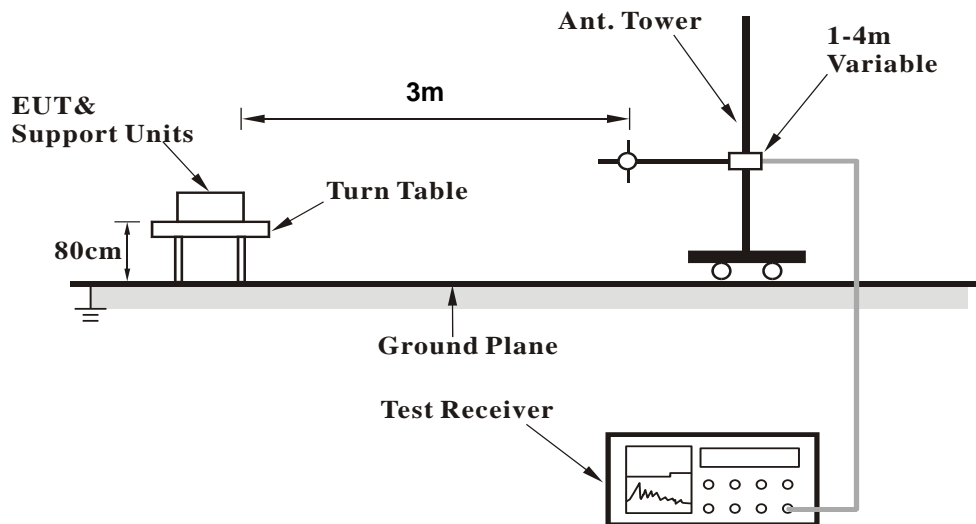
No deviation.

4.1.5 Test Setup

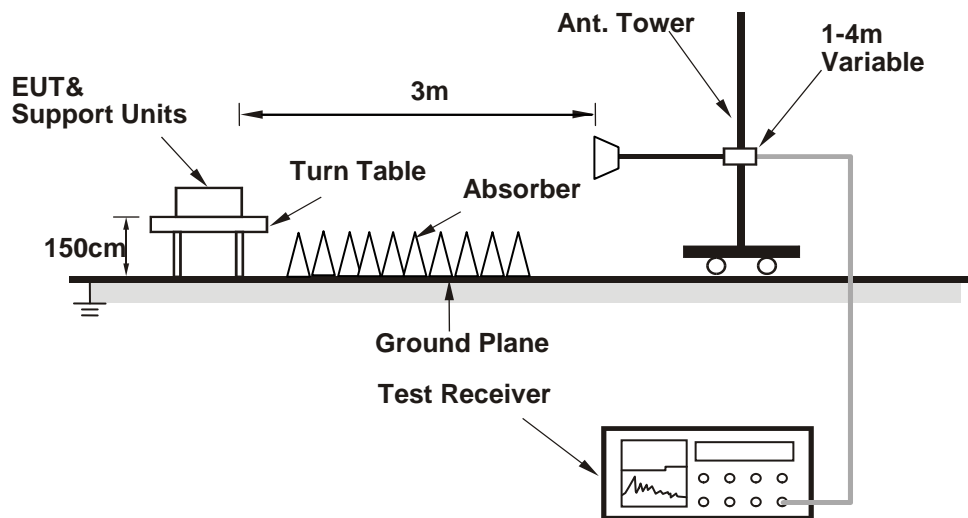
**For Radiated emission below 30MHz**



**For Radiated emission 30MHz to 1GHz**



### For Radiated emission above 1GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

#### 4.1.6 EUT Operating Conditions

- a. Placed the EUT on the testing table.
- b. Controlling software (Hyper Terminal paste WIFI Command.txt) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

#### 4.1.7 Test Results

#### Above 1GHz Data :

#### 802.11b

<b>CHANNEL</b>	TX Channel 1	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 25GHz		Average (AV)

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	56.5 PK	74.0	-17.5	2.19 H	144	58.5	-2.0
2	2390.00	46.1 AV	54.0	-7.9	2.19 H	144	48.1	-2.0
3	*2412.00	101.8 PK			2.19 H	144	103.8	-2.0
4	*2412.00	98.7 AV			2.19 H	144	100.7	-2.0
5	4824.00	50.0 PK	74.0	-24.0	1.28 H	37	47.7	2.3
6	4824.00	47.2 AV	54.0	-6.8	1.28 H	37	44.9	2.3

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	58.1 PK	74.0	-15.9	1.54 V	114	60.1	-2.0
2	2390.00	48.5 AV	54.0	-5.5	1.54 V	114	50.5	-2.0
3	*2412.00	107.0 PK			1.54 V	114	109.0	-2.0
4	*2412.00	104.0 AV			1.54 V	114	106.0	-2.0
5	4824.00	50.0 PK	74.0	-24.0	2.80 V	0	47.7	2.3
6	4824.00	47.8 AV	54.0	-6.2	2.80 V	0	45.5	2.3

#### REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency.

<b>CHANNEL</b>	TX Channel 6	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 25GHz		Average (AV)

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	53.1 PK	74.0	-20.9	2.15 H	155	55.1	-2.0
2	2390.00	43.1 AV	54.0	-10.9	2.15 H	155	45.1	-2.0
3	*2437.00	102.3 PK			2.15 H	155	104.4	-2.1
4	*2437.00	98.0 AV			2.15 H	155	100.1	-2.1
5	2483.50	56.0 PK	74.0	-18.0	2.15 H	155	58.2	-2.2
6	2483.50	45.8 AV	54.0	-8.2	2.15 H	155	48.0	-2.2
7	4874.00	49.6 PK	74.0	-24.4	1.28 H	28	47.3	2.3
8	4874.00	46.9 AV	54.0	-7.1	1.28 H	28	44.6	2.3
9	7311.00	46.8 PK	74.0	-27.2	1.24 H	66	38.5	8.3
10	7311.00	38.2 AV	54.0	-15.8	1.24 H	66	29.9	8.3

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	59.0 PK	74.0	-15.0	2.61 V	114	61.0	-2.0
2	2390.00	42.3 AV	54.0	-11.7	2.61 V	114	44.3	-2.0
3	*2437.00	107.0 PK			2.61 V	114	109.1	-2.1
4	*2437.00	102.8 AV			2.61 V	114	104.9	-2.1
5	2483.50	55.6 PK	74.0	-18.4	2.61 V	114	57.8	-2.2
6	2483.50	43.2 AV	54.0	-10.8	2.61 V	114	45.4	-2.2
7	4874.00	50.2 PK	74.0	-23.8	2.76 V	9	47.9	2.3
8	4874.00	48.1 AV	54.0	-5.9	2.76 V	9	45.8	2.3
9	7311.00	48.1 PK	74.0	-25.9	1.42 V	23	39.8	8.3
10	7311.00	40.7 AV	54.0	-13.3	1.42 V	23	32.4	8.3

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency.

<b>CHANNEL</b>	TX Channel 11	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 25GHz		Average (AV)

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	103.3 PK			2.12 H	145	105.5	-2.2
2	*2462.00	100.4 AV			2.12 H	145	102.6	-2.2
3	2483.50	52.8 PK	74.0	-21.2	2.12 H	145	55.0	-2.2
4	2483.50	42.9 AV	54.0	-11.1	2.12 H	145	45.1	-2.2
5	2484.00	56.0 PK	74.0	-18.0	2.12 H	145	58.2	-2.2
6	2484.00	45.5 AV	54.0	-8.5	2.12 H	145	47.7	-2.2
7	4924.00	49.3 PK	74.0	-24.7	1.30 H	28	46.8	2.5
8	4924.00	46.7 AV	54.0	-7.3	1.30 H	28	44.2	2.5
9	7386.00	47.0 PK	74.0	-27.0	1.24 H	54	38.7	8.3
10	7386.00	38.5 AV	54.0	-15.5	1.24 H	54	30.2	8.3

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	108.5 PK			2.66 V	90	110.7	-2.2
2	*2462.00	105.5 AV			2.66 V	90	107.7	-2.2
3	2483.50	54.9 PK	74.0	-19.1	2.66 V	90	57.1	-2.2
4	2483.50	46.7 AV	54.0	-7.3	2.66 V	90	48.9	-2.2
5	2484.00	60.3 PK	74.0	-13.7	2.66 V	90	62.5	-2.2
6	2484.00	52.0 AV	54.0	-2.0	2.66 V	90	54.2	-2.2
7	4924.00	50.5 PK	74.0	-23.5	2.81 V	19	48.0	2.5
8	4924.00	48.6 AV	54.0	-5.4	2.81 V	19	46.1	2.5
9	7386.00	47.6 PK	74.0	-26.4	1.42 V	8	39.3	8.3
10	7386.00	40.4 AV	54.0	-13.6	1.42 V	8	32.1	8.3

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency.

**802.11g**

<b>CHANNEL</b>	TX Channel 1	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 25GHz		Average (AV)

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	64.5 PK	74.0	-9.5	2.16 H	131	66.5	-2.0
2	2390.00	46.2 AV	54.0	-7.8	2.16 H	131	48.2	-2.0
3	*2412.00	102.9 PK			2.16 H	131	104.9	-2.0
4	*2412.00	94.6 AV			2.16 H	131	96.6	-2.0
5	4824.00	41.8 PK	74.0	-32.2	1.29 H	20	39.5	2.3
6	4824.00	28.9 AV	54.0	-25.1	1.29 H	20	26.6	2.3

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	70.2 PK	74.0	-3.8	1.65 V	91	72.2	-2.0
2	2390.00	52.4 AV	54.0	-1.6	1.65 V	91	54.4	-2.0
3	*2412.00	107.7 PK			1.65 V	91	109.7	-2.0
4	*2412.00	99.5 AV			1.65 V	91	101.5	-2.0
5	4824.00	42.4 PK	74.0	-31.6	2.83 V	21	40.1	2.3
6	4824.00	29.3 AV	54.0	-24.7	2.83 V	21	27.0	2.3

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency.

<b>CHANNEL</b>	TX Channel 6	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 25GHz		Average (AV)

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	55.3 PK	74.0	-18.7	2.15 H	139	57.3	-2.0
2	2390.00	43.1 AV	54.0	-10.9	2.15 H	139	45.1	-2.0
3	*2437.00	102.7 PK			2.15 H	139	104.8	-2.1
4	*2437.00	94.5 AV			2.15 H	139	96.6	-2.1
5	2483.50	55.2 PK	74.0	-18.8	2.15 H	139	57.4	-2.2
6	2483.50	43.0 AV	54.0	-11.0	2.15 H	139	45.2	-2.2
7	4874.00	41.6 PK	74.0	-32.4	1.24 H	32	39.3	2.3
8	4874.00	28.5 AV	54.0	-25.5	1.24 H	32	26.2	2.3
9	7311.00	43.2 PK	74.0	-30.8	1.23 H	50	34.9	8.3
10	7311.00	31.5 AV	54.0	-22.5	1.23 H	50	23.2	8.3

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	55.9 PK	74.0	-18.1	1.57 V	116	57.9	-2.0
2	2390.00	43.9 AV	54.0	-10.1	1.57 V	116	45.9	-2.0
3	*2437.00	107.5 PK			1.57 V	116	109.6	-2.1
4	*2437.00	98.2 AV			1.57 V	116	100.3	-2.1
5	2483.50	56.5 PK	74.0	-17.5	1.57 V	116	58.7	-2.2
6	2483.50	43.7 AV	54.0	-10.3	1.57 V	116	45.9	-2.2
7	4874.00	41.7 PK	74.0	-32.3	2.58 V	38	39.4	2.3
8	4874.00	28.9 AV	54.0	-25.1	2.58 V	38	26.6	2.3
9	7311.00	43.0 PK	74.0	-31.0	2.36 V	20	34.7	8.3
10	7311.00	31.4 AV	54.0	-22.6	2.36 V	20	23.1	8.3

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency.

<b>CHANNEL</b>	TX Channel 11	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 25GHz		Average (AV)

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	102.5 PK			2.14 H	147	104.7	-2.2
2	*2462.00	94.3 AV			2.14 H	147	96.5	-2.2
3	2483.50	66.3 PK	74.0	-7.7	2.14 H	147	68.5	-2.2
4	2483.50	49.5 AV	54.0	-4.5	2.14 H	147	51.7	-2.2
5	4924.00	41.3 PK	74.0	-32.7	1.20 H	44	38.8	2.5
6	4924.00	28.4 AV	54.0	-25.6	1.20 H	44	25.9	2.5
7	7386.00	43.5 PK	74.0	-30.5	1.19 H	51	35.2	8.3
8	7386.00	31.8 AV	54.0	-22.2	1.19 H	51	23.5	8.3

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	109.0 PK			2.61 V	99	111.2	-2.2
2	*2462.00	99.0 AV			2.61 V	99	101.2	-2.2
3	2483.50	70.5 PK	74.0	-3.5	2.61 V	99	72.7	-2.2
<b>4</b>	<b>2483.50</b>	<b>53.8 AV</b>	<b>54.0</b>	<b>-0.2</b>	<b>2.61 V</b>	<b>99</b>	<b>56.0</b>	<b>-2.2</b>
5	4924.00	41.8 PK	74.0	-32.2	2.59 V	45	39.3	2.5
6	4924.00	29.0 AV	54.0	-25.0	2.59 V	45	26.5	2.5
7	7386.00	43.4 PK	74.0	-30.6	2.30 V	6	35.1	8.3
8	7386.00	31.7 AV	54.0	-22.3	2.30 V	6	23.4	8.3

**REMARKS:**

- Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
- Margin value = Emission Level – Limit value
- The other emission levels were very low against the limit.
- " \* ": Fundamental frequency.

**802.11n (HT20)**

<b>CHANNEL</b>	TX Channel 1	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 25GHz		Average (AV)

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	64.0 PK	74.0	-10.0	2.10 H	146	66.0	-2.0
2	2390.00	49.8 AV	54.0	-4.2	2.10 H	146	51.8	-2.0
3	*2412.00	104.6 PK			2.10 H	146	106.6	-2.0
4	*2412.00	94.2 AV			2.10 H	146	96.2	-2.0
5	4824.00	41.0 PK	74.0	-33.0	1.16 H	57	38.7	2.3
6	4824.00	27.9 AV	54.0	-26.1	1.16 H	57	25.6	2.3

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	67.7 PK	74.0	-6.3	1.51 V	89	69.7	-2.0
2	2390.00	53.6 AV	54.0	-0.4	1.51 V	89	55.6	-2.0
3	*2412.00	108.5 PK			1.51 V	89	110.5	-2.0
4	*2412.00	98.2 AV			1.51 V	89	100.2	-2.0
5	4824.00	41.7 PK	74.0	-32.3	2.56 V	31	39.4	2.3
6	4824.00	29.0 AV	54.0	-25.0	2.56 V	31	26.7	2.3

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency.

<b>CHANNEL</b>	TX Channel 6	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 25GHz		Average (AV)

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	56.6 PK	74.0	-17.4	2.08 H	153	58.6	-2.0
2	2390.00	43.5 AV	54.0	-10.5	2.08 H	153	45.5	-2.0
3	*2437.00	104.3 PK			2.08 H	153	106.4	-2.1
4	*2437.00	95.0 AV			2.08 H	153	97.1	-2.1
5	2483.50	58.7 PK	74.0	-15.3	2.08 H	153	60.9	-2.2
6	2483.50	44.3 AV	54.0	-9.7	2.08 H	153	46.5	-2.2
7	4874.00	40.9 PK	74.0	-33.1	1.23 H	42	38.6	2.3
8	4874.00	28.0 AV	54.0	-26.0	1.23 H	42	25.7	2.3
9	7311.00	43.2 PK	74.0	-30.8	1.18 H	36	34.9	8.3
10	7311.00	31.7 AV	54.0	-22.3	1.18 H	36	23.4	8.3

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	56.9 PK	74.0	-17.1	2.56 V	87	58.9	-2.0
2	2390.00	43.9 AV	54.0	-10.1	2.56 V	87	45.9	-2.0
3	*2437.00	108.0 PK			2.56 V	87	110.1	-2.1
4	*2437.00	98.8 AV			2.56 V	87	100.9	-2.1
5	2483.50	59.2 PK	74.0	-14.8	2.56 V	87	61.4	-2.2
6	2483.50	44.9 AV	54.0	-9.1	2.56 V	87	47.1	-2.2
7	4874.00	42.0 PK	74.0	-32.0	2.60 V	30	39.7	2.3
8	4874.00	29.0 AV	54.0	-25.0	2.60 V	30	26.7	2.3
9	7311.00	43.8 PK	74.0	-30.2	2.32 V	20	35.5	8.3
10	7311.00	31.9 AV	54.0	-22.1	2.32 V	20	23.6	8.3

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency.

<b>CHANNEL</b>	TX Channel 11	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 25GHz		Average (AV)

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	104.8 PK			2.12 H	154	107.0	-2.2
2	*2462.00	94.4 AV			2.12 H	154	96.6	-2.2
3	2483.50	67.5 PK	74.0	-6.5	2.12 H	154	69.7	-2.2
4	2483.50	50.3 AV	54.0	-3.7	2.12 H	154	52.5	-2.2
5	4924.00	40.7 PK	74.0	-33.3	1.21 H	34	38.2	2.5
6	4924.00	27.9 AV	54.0	-26.1	1.21 H	34	25.4	2.5
7	7386.00	42.7 PK	74.0	-31.3	1.18 H	48	34.4	8.3
8	7386.00	31.3 AV	54.0	-22.7	1.18 H	48	23.0	8.3

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	107.6 PK			1.00 V	116	109.8	-2.2
2	*2462.00	98.2 AV			1.00 V	116	100.4	-2.2
3	2483.50	71.9 PK	74.0	-2.1	1.00 V	116	74.1	-2.2
4	2483.50	53.7 AV	54.0	-0.3	1.00 V	116	55.9	-2.2
5	4924.00	41.4 PK	74.0	-32.6	2.54 V	22	38.9	2.5
6	4924.00	28.5 AV	54.0	-25.5	2.54 V	22	26.0	2.5
7	7386.00	43.8 PK	74.0	-30.2	2.29 V	14	35.5	8.3
8	7386.00	31.9 AV	54.0	-22.1	2.29 V	14	23.6	8.3

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency.

**802.11n (HT40)**

<b>CHANNEL</b>	TX Channel 3	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 25GHz		Average (AV)

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	62.3 PK	74.0	-11.7	2.11 H	139	64.3	-2.0
2	2390.00	50.4 AV	54.0	-3.6	2.11 H	139	52.4	-2.0
3	*2422.00	100.2 PK			2.11 H	139	102.2	-2.0
4	*2422.00	92.6 AV			2.11 H	139	94.6	-2.0
5	4844.00	40.2 PK	74.0	-33.8	1.23 H	44	37.9	2.3
6	4844.00	27.7 AV	54.0	-26.3	1.23 H	44	25.4	2.3
7	7266.00	43.1 PK	74.0	-30.9	1.15 H	48	34.7	8.4
8	7266.00	31.5 AV	54.0	-22.5	1.15 H	48	23.1	8.4

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	65.1 PK	74.0	-8.9	1.49 V	107	67.1	-2.0
2	2390.00	53.4 AV	54.0	-0.6	1.49 V	107	55.4	-2.0
3	*2422.00	104.3 PK			1.49 V	107	106.3	-2.0
4	*2422.00	96.8 AV			1.49 V	107	98.8	-2.0
5	4844.00	41.0 PK	74.0	-33.0	2.49 V	22	38.7	2.3
6	4844.00	28.1 AV	54.0	-25.9	2.49 V	22	25.8	2.3
7	7266.00	43.9 PK	74.0	-30.1	2.29 V	26	35.5	8.4
8	7266.00	32.0 AV	54.0	-22.0	2.29 V	26	23.6	8.4

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency.

<b>CHANNEL</b>	TX Channel 6	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 25GHz		Average (AV)

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	57.5 PK	74.0	-16.5	2.12 H	136	59.5	-2.0
2	2390.00	44.8 AV	54.0	-9.2	2.12 H	136	46.8	-2.0
3	*2437.00	101.2 PK			2.12 H	136	103.3	-2.1
4	*2437.00	94.5 AV			2.12 H	136	96.6	-2.1
5	2483.50	63.7 PK	74.0	-10.3	2.12 H	136	65.9	-2.2
6	2483.50	52.0 AV	54.0	-2.0	2.12 H	136	54.2	-2.2
7	4874.00	40.0 PK	74.0	-34.0	1.20 H	51	37.7	2.3
8	4874.00	27.5 AV	54.0	-26.5	1.20 H	51	25.2	2.3
9	7311.00	43.0 PK	74.0	-31.0	1.18 H	42	34.7	8.3
10	7311.00	31.3 AV	54.0	-22.7	1.18 H	42	23.0	8.3

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	59.0 PK	74.0	-15.0	1.72 V	115	61.0	-2.0
2	2390.00	46.6 AV	54.0	-7.4	1.72 V	115	48.6	-2.0
3	*2437.00	105.0 PK			1.72 V	115	107.1	-2.1
4	*2437.00	98.4 AV			1.72 V	115	100.5	-2.1
5	2483.50	65.5 PK	74.0	-8.5	1.72 V	115	67.7	-2.2
6	2483.50	53.7 AV	54.0	-0.3	1.72 V	115	55.9	-2.2
7	4874.00	41.3 PK	74.0	-32.7	2.48 V	29	39.0	2.3
8	4874.00	28.1 AV	54.0	-25.9	2.48 V	29	25.8	2.3
9	7311.00	43.7 PK	74.0	-30.3	2.29 V	28	35.4	8.3
10	7311.00	31.9 AV	54.0	-22.1	2.29 V	28	23.6	8.3

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency.

<b>CHANNEL</b>	TX Channel 9	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 25GHz		Average (AV)

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	100.0 PK			2.10 H	144	102.2	-2.2
2	*2452.00	94.3 AV			2.10 H	144	96.5	-2.2
3	2483.50	65.4 PK	74.0	-8.6	2.10 H	144	67.6	-2.2
4	2483.50	51.8 AV	54.0	-2.2	2.10 H	144	54.0	-2.2
5	4904.00	39.8 PK	74.0	-34.2	1.25 H	55	37.4	2.4
6	4904.00	27.5 AV	54.0	-26.5	1.25 H	55	25.1	2.4
7	7356.00	43.2 PK	74.0	-30.8	1.23 H	28	35.0	8.2
8	7356.00	31.3 AV	54.0	-22.7	1.23 H	28	23.1	8.2

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	104.0 PK			1.59 V	86	106.2	-2.2
2	*2452.00	95.5 AV			1.59 V	86	97.7	-2.2
3	2483.50	67.0 PK	74.0	-7.0	1.59 V	86	69.2	-2.2
4	2483.50	53.5 AV	54.0	-0.5	1.59 V	86	55.7	-2.2
5	4904.00	42.0 PK	74.0	-32.0	2.49 V	39	39.6	2.4
6	4904.00	28.6 AV	54.0	-25.4	2.49 V	39	26.2	2.4
7	7356.00	44.1 PK	74.0	-29.9	2.34 V	20	35.9	8.2
8	7356.00	32.1 AV	54.0	-21.9	2.34 V	20	23.9	8.2

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency.

Below 1GHz Data:

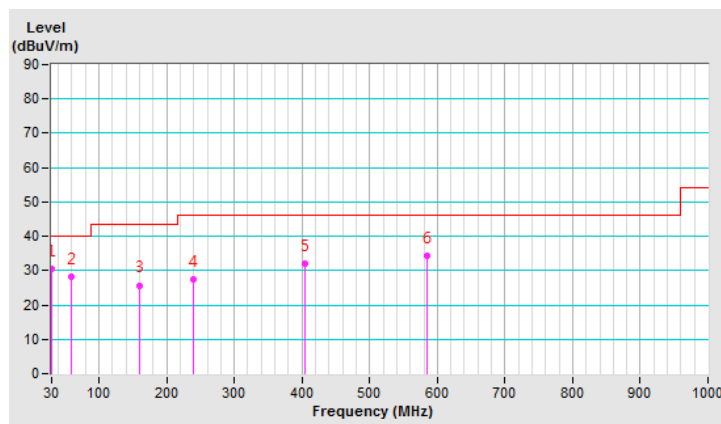
802.11g

<b>CHANNEL</b>	TX Channel 1	<b>DETECTOR FUNCTION</b>	Quasi-Peak (QP)
<b>FREQUENCY RANGE</b>	9KHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.34	30.4 QP	40.0	-9.6	1.50 H	229	39.7	-9.3
2	59.61	28.3 QP	40.0	-11.7	1.50 H	56	37.0	-8.7
3	159.49	25.7 QP	43.5	-17.8	1.50 H	13	33.6	-7.9
4	238.66	27.6 QP	46.0	-18.4	1.00 H	249	36.4	-8.8
5	405.08	32.1 QP	46.0	-13.9	1.50 H	85	36.1	-4.0
6	585.00	34.4 QP	46.0	-11.6	1.50 H	199	33.9	0.5

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



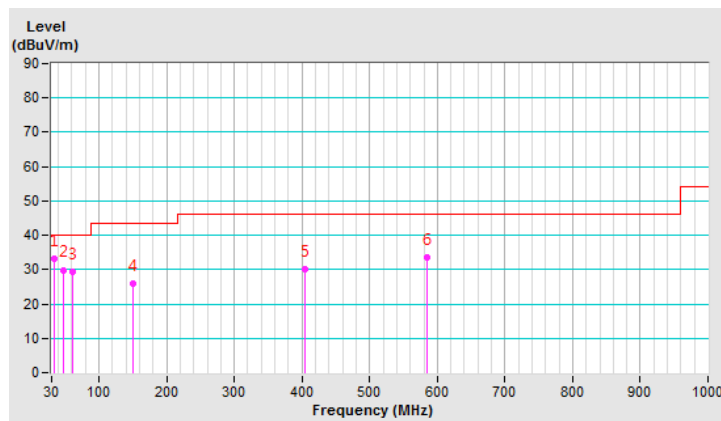
<b>CHANNEL</b>	TX Channel 1	<b>DETECTOR FUNCTION</b>	Quasi-Peak (QP)
<b>FREQUENCY RANGE</b>	30MHz ~ 1GHz		

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	34.46	33.1 QP	40.0	-6.9	2.00 V	315	42.5	-9.4
2	48.09	29.9 QP	40.0	-10.1	2.00 V	249	38.5	-8.6
3	60.46	29.4 QP	40.0	-10.6	1.00 V	75	38.3	-8.9
4	151.03	25.9 QP	43.5	-17.6	2.00 V	227	33.5	-7.6
5	405.03	30.2 QP	46.0	-15.8	1.50 V	237	34.2	-4.0
6	584.99	33.6 QP	46.0	-12.4	1.00 V	106	33.1	0.5

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



## 4.2 Conducted Emission Measurement

### 4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

### 4.2.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	847124/029	Oct. 24, 2018	Oct. 23, 2019
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Oct. 22, 2018	Oct. 21, 2019
Line-Impedance Stabilization Network (for Peripheral) R&S	ESH3-Z5	835239/001	Mar. 17, 2019	Mar. 16, 2020
50 ohms Terminator	N/A	3	Oct. 22, 2018	Oct. 21, 2019
RF Cable	5D-FB	COCCAB-001	Sep. 28, 2018	Sep. 27, 2019
Fixed attenuator EMCI	STI02-2200-10	003	Mar. 14, 2019	Mar. 13, 2020
Software BVADT	BVADT_Cond_ V7.3.7.4	NA	NA	NA

#### NOTE:

1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Conduction 1.
3. Tested Date: Aug. 26, 2019

#### 4.2.3 Test Procedures

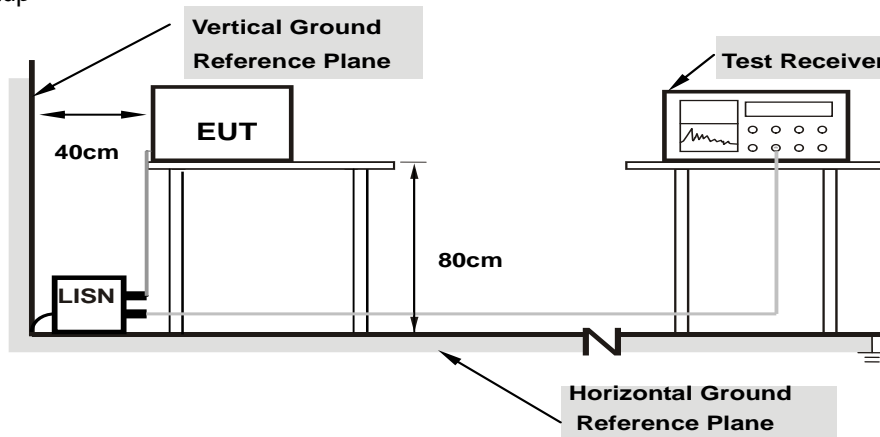
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

**NOTE:** The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

#### 4.2.4 Deviation from Test Standard

No deviation.

#### 4.2.5 Test Setup



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

For the actual test configuration, please refer to the attached file (Test Setup Photo).

#### 4.2.6 EUT Operating Conditions

Same as 4.1.6.

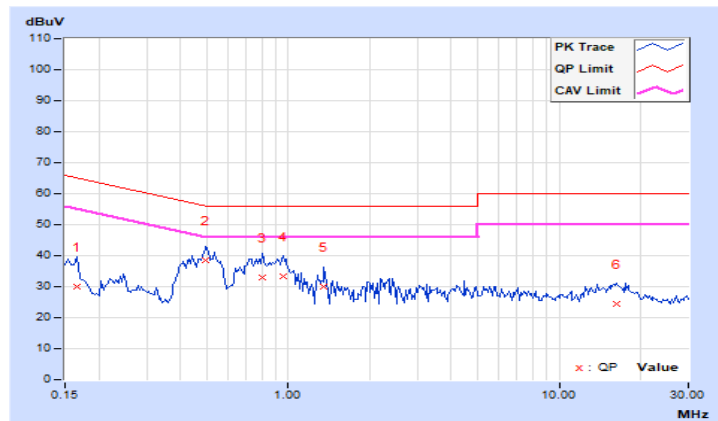
#### 4.2.7 Test Results

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16562	9.97	20.16	8.03	30.13	18.00	65.18	55.18	-35.05	-37.18
<b>2</b>	<b>0.49766</b>	<b>9.99</b>	<b>28.56</b>	<b>18.86</b>	<b>38.55</b>	<b>28.85</b>	<b>56.04</b>	<b>46.04</b>	<b>-17.49</b>	<b>-17.19</b>
3	0.80625	10.01	23.06	12.62	33.07	22.63	56.00	46.00	-22.93	-23.37
4	0.95469	10.03	23.12	10.98	33.15	21.01	56.00	46.00	-22.85	-24.99
5	1.35547	10.06	19.99	10.20	30.05	20.26	56.00	46.00	-25.95	-25.74
6	16.24609	11.09	13.51	3.91	24.60	15.00	60.00	50.00	-35.40	-35.00

#### Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

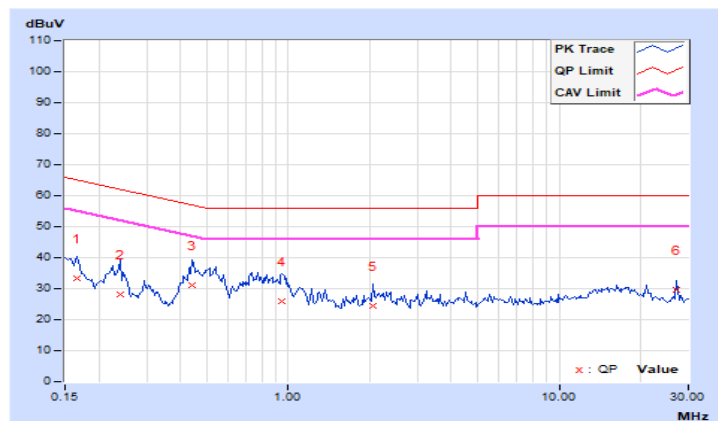


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16562	9.95	23.50	9.33	33.45	19.28	65.18	55.18	-31.73	-35.90
2	0.23984	9.95	18.28	6.18	28.23	16.13	62.10	52.10	-33.87	-35.97
3	0.43906	9.97	21.08	11.21	31.05	21.18	57.08	47.08	-26.03	-25.90
4	0.94688	10.01	15.81	6.02	25.82	16.03	56.00	46.00	-30.18	-29.97
5	2.06250	10.09	14.52	4.50	24.61	14.59	56.00	46.00	-31.39	-31.41
6	27.00000	11.23	18.44	10.36	29.67	21.59	60.00	50.00	-30.33	-28.41

**Remarks:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

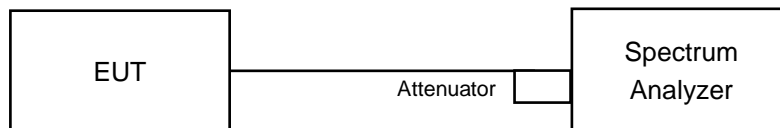


### 4.3 6dB Bandwidth Measurement

#### 4.3.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

#### 4.3.2 Test Setup



#### 4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

#### 4.3.4 Test Procedure

- a. Set resolution bandwidth (RBW) = 100kHz
- b. Set the video bandwidth (VBW)  $\geq 3 \times$  RBW, Detector = Peak.
- c. Trace mode = max hold.
- d. Detector = peak.
- e. Sweep = auto couple.
- f. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

#### 4.3.5 Deviation from Test Standard

No deviation.

#### 4.3.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

#### 4.3.7 Test Result

##### 802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	10.11	0.5	PASS
6	2437	10.12	0.5	PASS
11	2462	10.11	0.5	PASS

##### 802.11g

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	16.42	0.5	PASS
6	2437	16.41	0.5	PASS
11	2462	16.39	0.5	PASS

##### 802.11n (HT20)

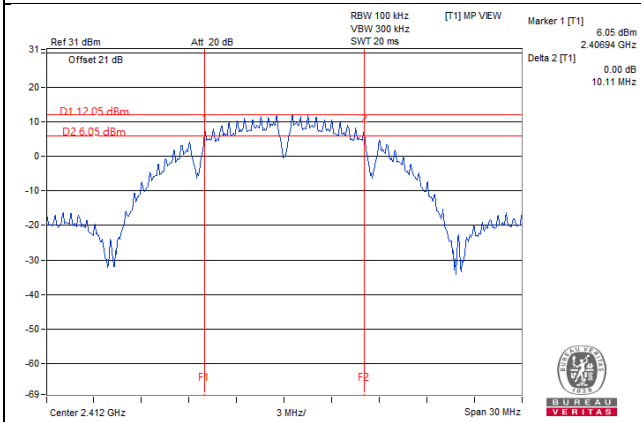
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	17.65	0.5	Pass
6	2437	17.65	0.5	Pass
11	2462	17.65	0.5	Pass

##### 802.11n (HT40)

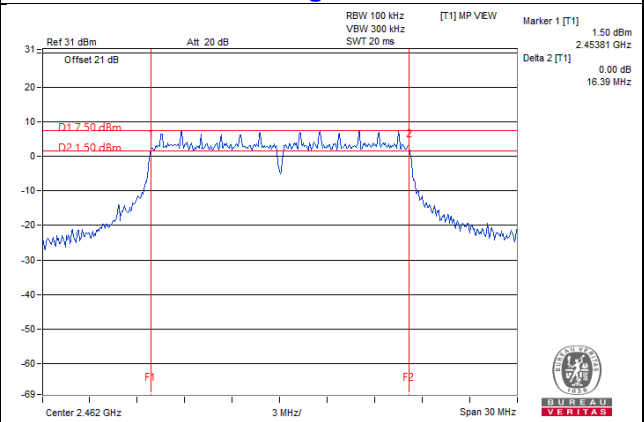
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
3	2422	35.29	0.5	Pass
6	2437	35.34	0.5	Pass
9	2452	35.56	0.5	Pass

Spectrum Plot of Worst Value

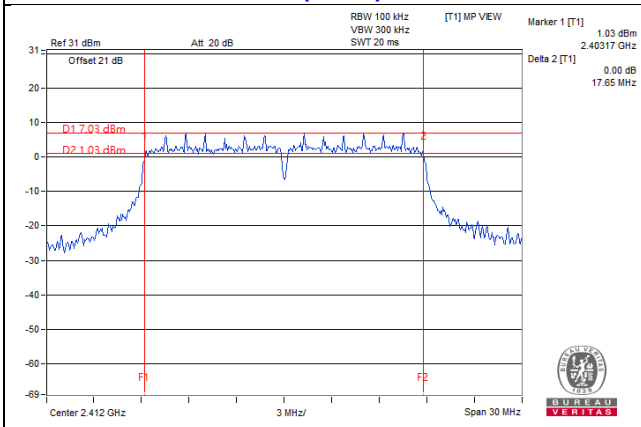
802.11b : CH1



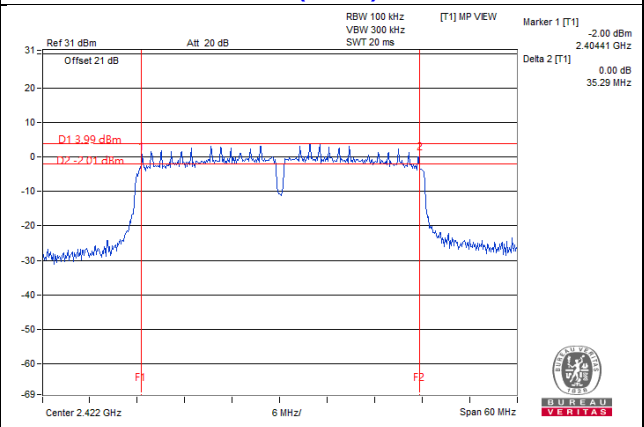
802.11g : CH11



802.11n (HT20): CH1



802.11n (HT40): CH3

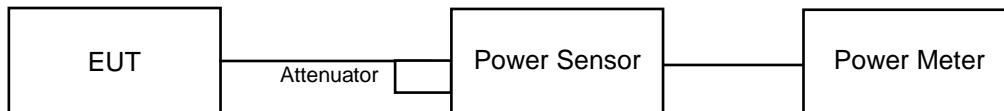


## 4.4 Conducted Output Power Measurement

### 4.4.1 Limits of Conducted Output Power Measurement

For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

### 4.4.2 Test Setup



### 4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

### 4.4.4 Test Procedures

A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor. Record the power level.

Average power sensor was used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value..

### 4.4.5 Deviation from Test Standard

No deviation.

### 4.4.6 EUT Operating Conditions

Same as Item 4.3.6.

#### 4.4.7 Test Results

#### FOR PEAK POWER

##### 802.11b

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass/Fail
1	2412	164.816	22.17	30	Pass
6	2437	168.267	22.26	30	Pass
11	2462	173.78	22.40	30	Pass

##### 802.11g

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass/Fail
1	2412	296.483	24.72	30	Pass
6	2437	281.838	24.50	30	Pass
11	2462	256.448	24.09	30	Pass

##### 802.11n (HT20)

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass/Fail
1	2412	266.073	24.25	30	Pass
6	2437	295.801	24.71	30	Pass
11	2462	244.906	23.89	30	Pass

##### 802.11n (HT40)

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass/Fail
3	2422	202.302	23.06	30	Pass
6	2437	249.459	23.97	30	Pass
9	2452	194.984	22.90	30	Pass

## FOR AVERAGE POWER

### 802.11b

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	2412	117.761	20.71
6	2437	122.18	20.87
11	2462	123.31	20.91

### 802.11g

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	2412	73.79	18.68
6	2437	77.446	18.89
11	2462	64.863	18.12

### 802.11n (HT20)

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	2412	58.21	17.65
6	2437	82.035	19.14
11	2462	57.28	17.58

### 802.11n (HT40)

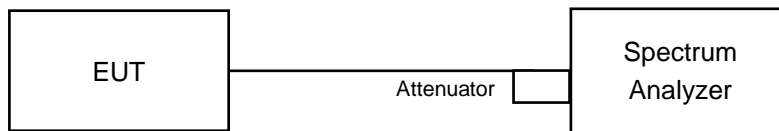
Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
3	2422	55.081	17.41
6	2437	62.087	17.93
9	2452	42.756	16.31

## 4.5 Power Spectral Density Measurement

### 4.5.1 Limits of Power Spectral Density Measurement

The Maximum of Power Spectral Density Measurement is 8dBm in any 3 kHz.

### 4.5.2 Test Setup



### 4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

### 4.5.4 Test Procedure

- Set analyzer center frequency to DTS channel center frequency.
- Set the span to 1.5 times the DTS bandwidth.
- Set the RBW to:  $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$ .
- Set the VBW  $\geq 3 \times \text{RBW}$ .
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum amplitude level within the RBW.

### 4.5.5 Deviation from Test Standard

No deviation.

### 4.5.6 EUT Operating Condition

Same as Item 4.3.6

#### 4.5.7 Test Results

##### 802.11b

Channel	Freq. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2412	-1.65	8	Pass
6	2437	-3.19	8	Pass
11	2462	-1.35	8	Pass

##### 802.11g

Channel	Freq. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2412	-6.30	8	Pass
6	2437	-5.93	8	Pass
11	2462	-7.62	8	Pass

##### 802.11n (HT20)

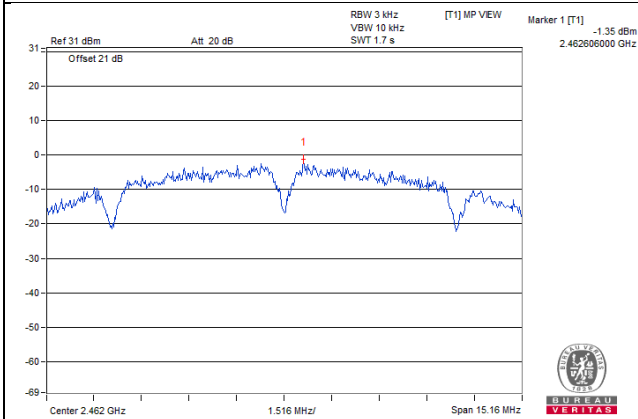
Channel	Freq. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2412	-8.21	8	Pass
6	2437	-5.86	8	Pass
11	2462	-8.41	8	Pass

##### 802.11n (HT40)

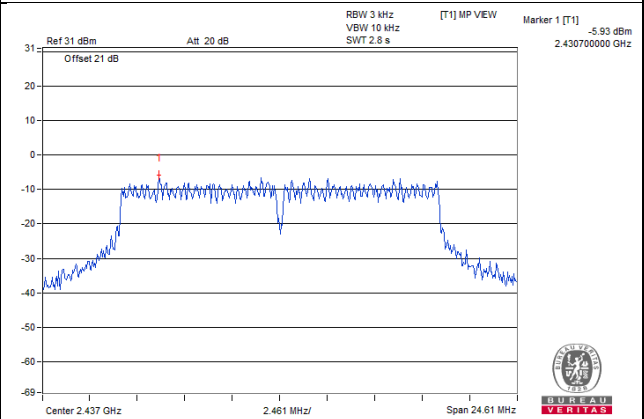
Channel	Freq. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
3	2422	-10.96	8	Pass
6	2437	-10.18	8	Pass
9	2452	-11.50	8	Pass

**Spectrum Plot of Worst Value**

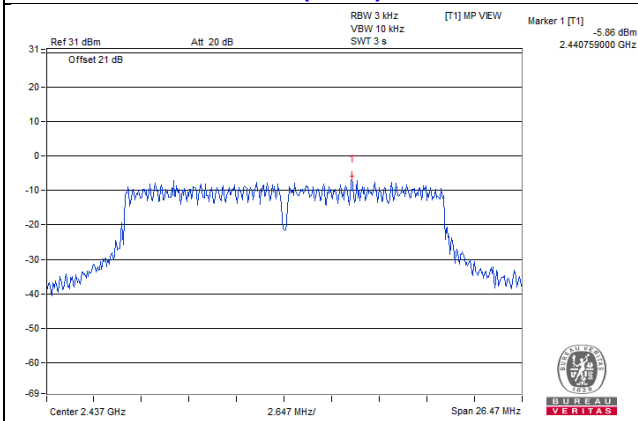
**802.11b : CH11**



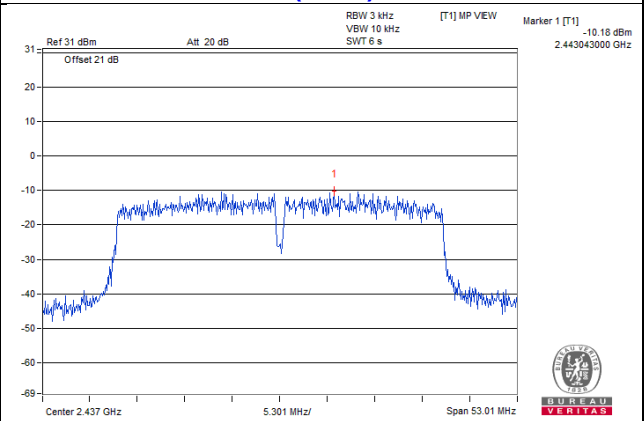
**802.11g : CH6**



**802.11n (HT20): CH6**



**802.11n (HT40): CH6**

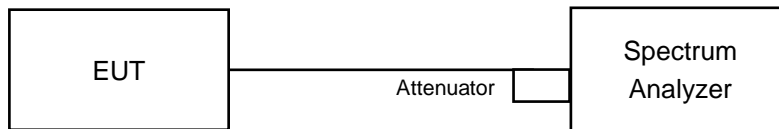


## 4.6 Conducted Out of Band Emission Measurement

### 4.6.1 Limits of Conducted Out of Band Emission Measurement

Below 20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

### 4.6.2 Test Setup



### 4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

### 4.6.4 Test Procedure

#### MEASUREMENT PROCEDURE REF

1. Set the RBW = 100 kHz.
2. Set the VBW  $\geq$  300 kHz.
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

#### MEASUREMENT PROCEDURE OOB

1. Set RBW = 100 kHz.
2. Set VBW  $\geq$  300 kHz.
3. Detector = peak.
4. Sweep = auto couple.
5. Trace Mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum amplitude level.

### 4.6.5 Deviation from Test Standard

No deviation.

### 4.6.6 EUT Operating Condition

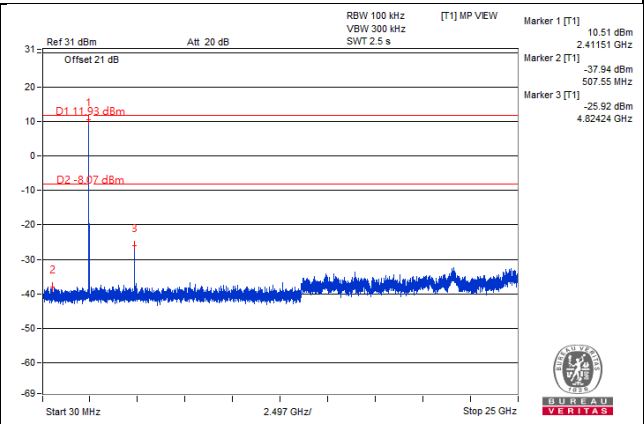
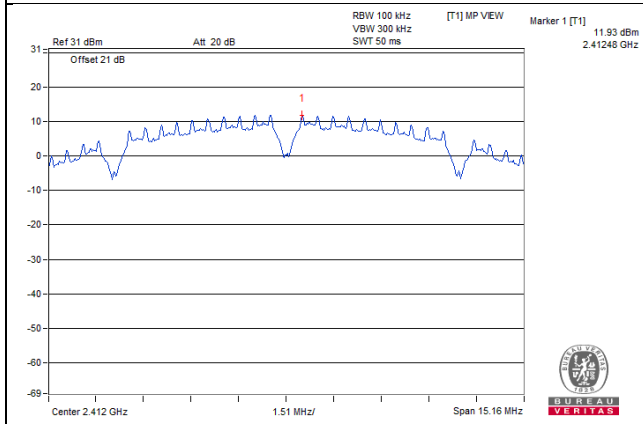
Same as Item 4.3.6

### 4.6.7 Test Results

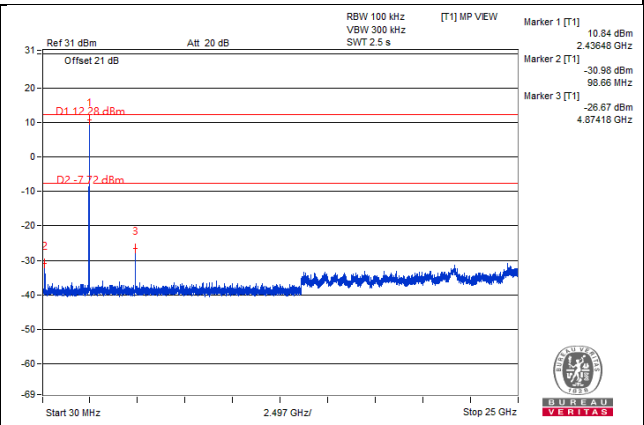
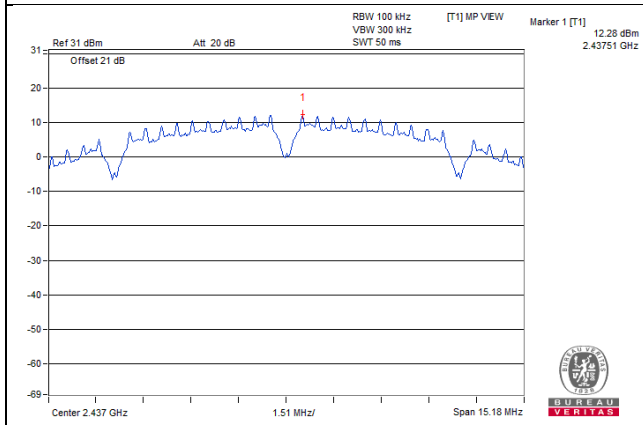
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dBoffset below D1. It shows compliance with the requirement.

# 802.11b

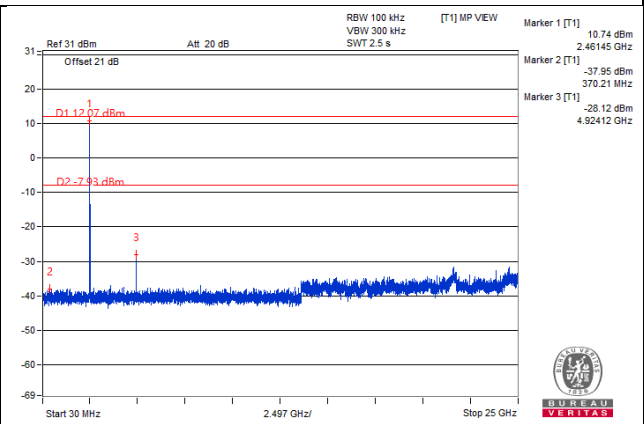
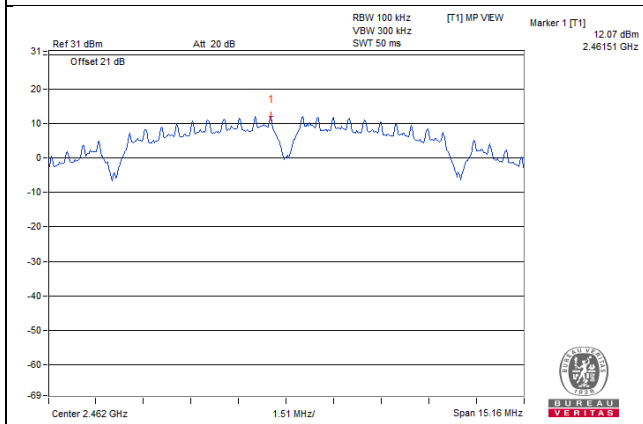
## CH 1



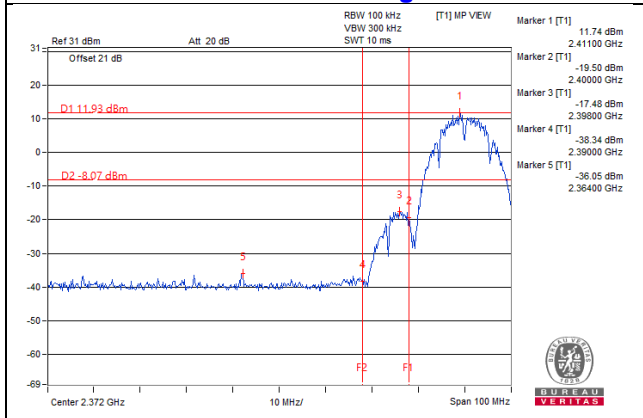
## CH 6



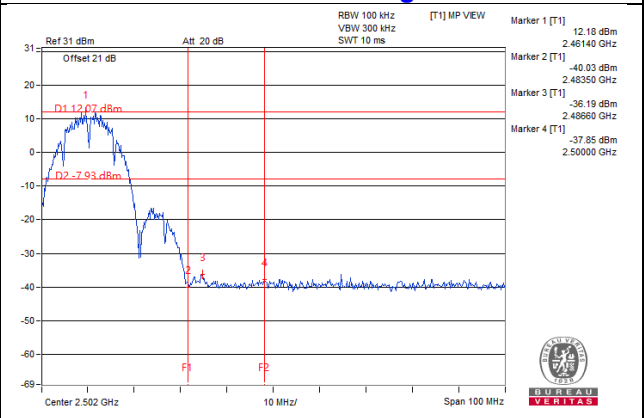
## CH 11



## CH 1 Band edge

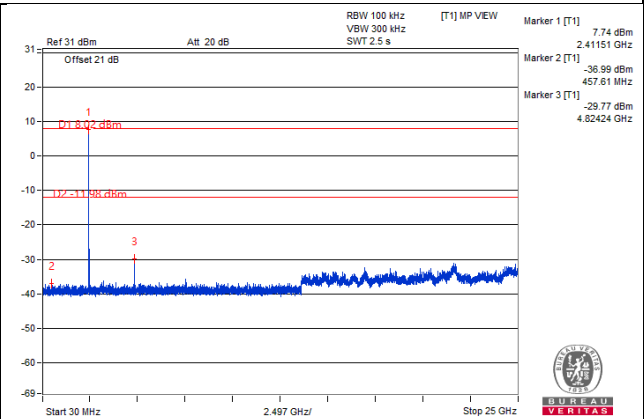
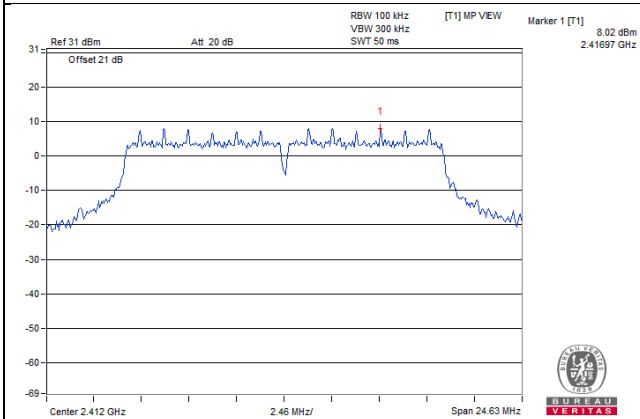


## CH 11 Band edge

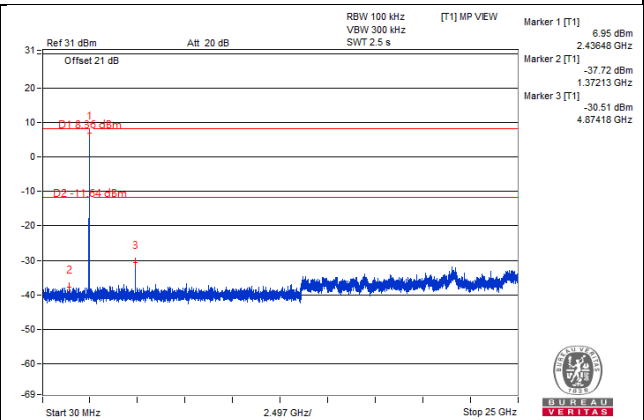
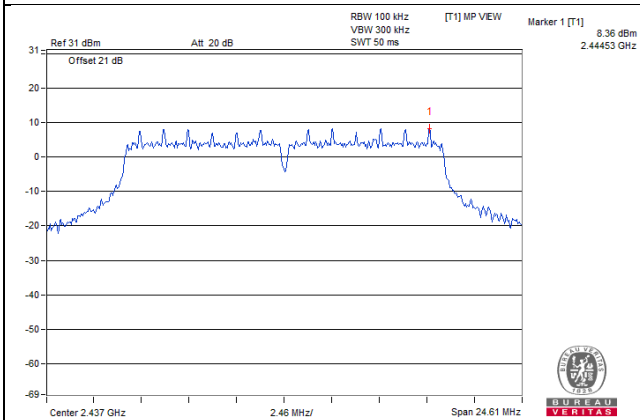


# 802.11g

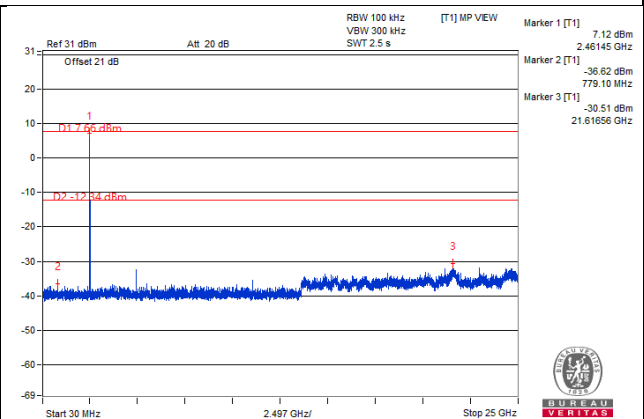
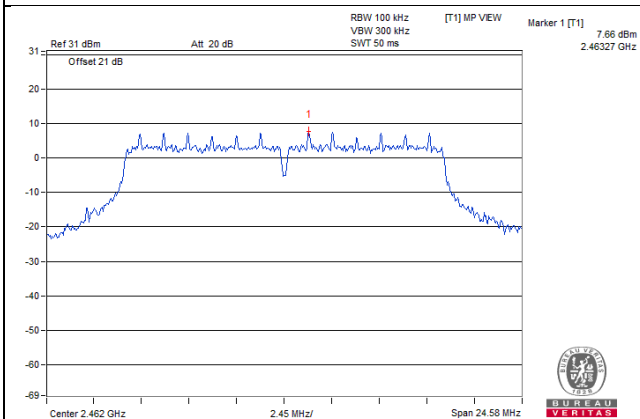
## CH 1



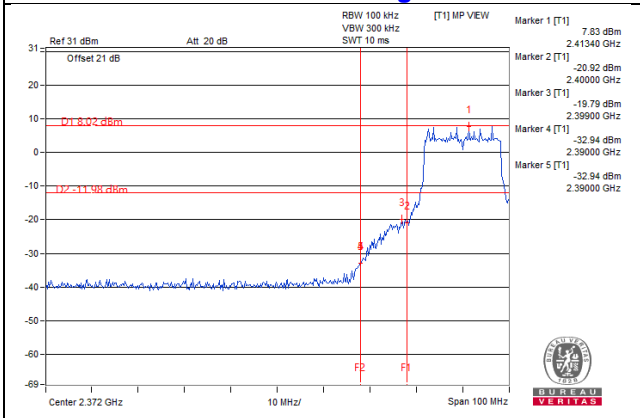
## CH 6



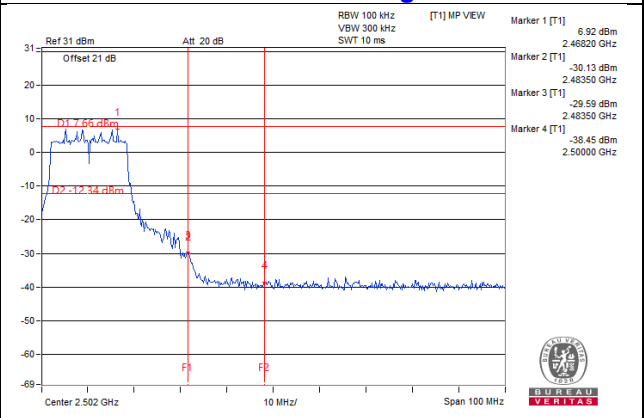
## CH 11



### CH 1 Band edge

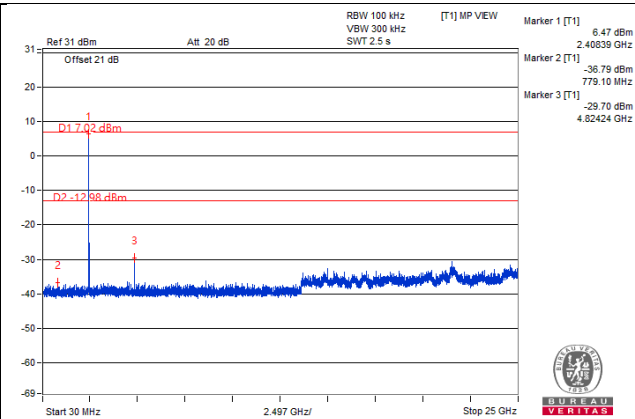
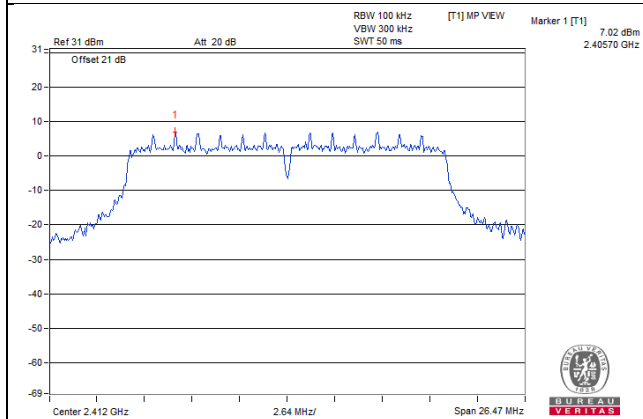


### CH 11 Band edge

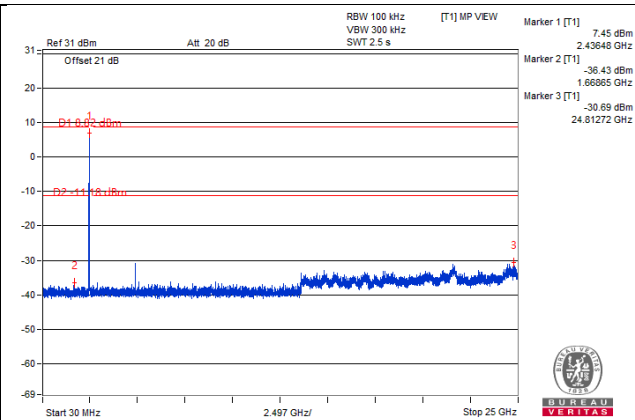
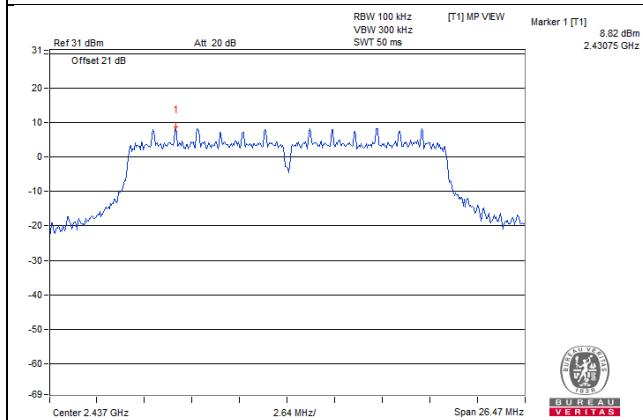


# 802.11n (HT20)

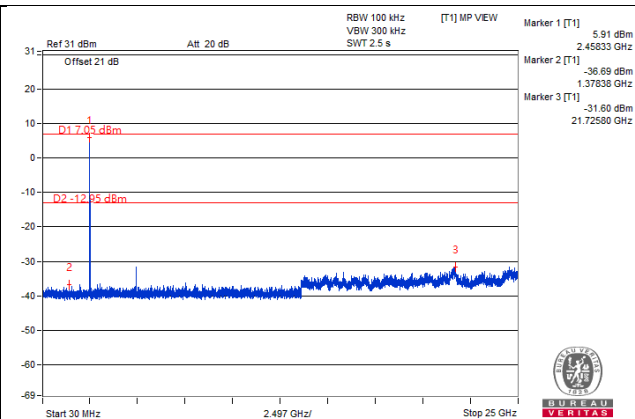
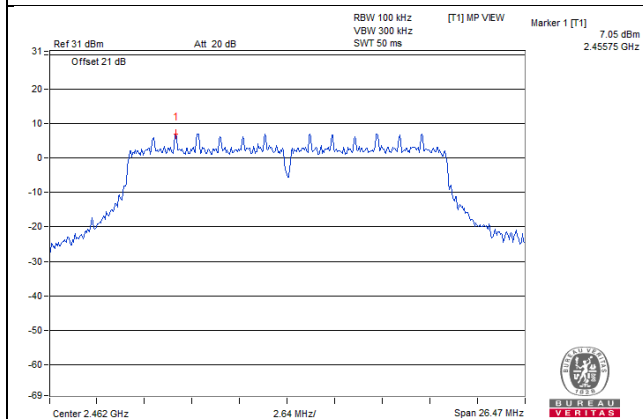
## CH 1



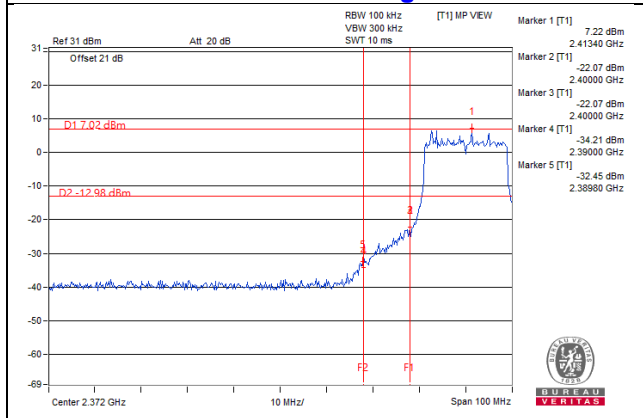
## CH 6



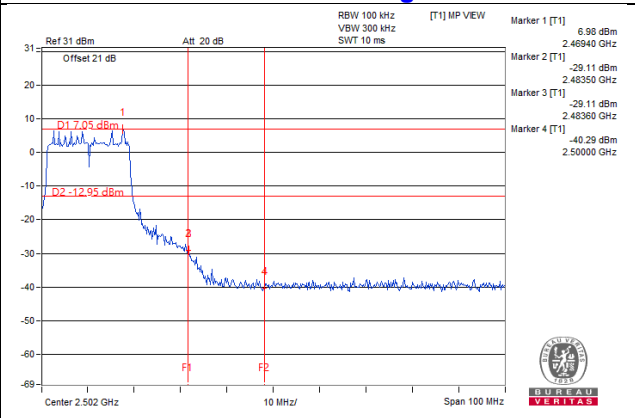
## CH 11



## CH 1 Band edge

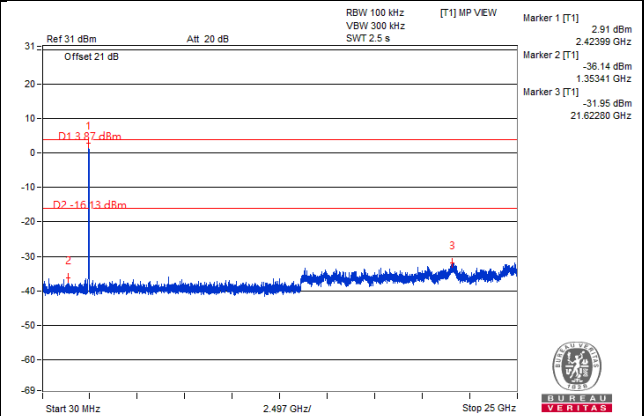
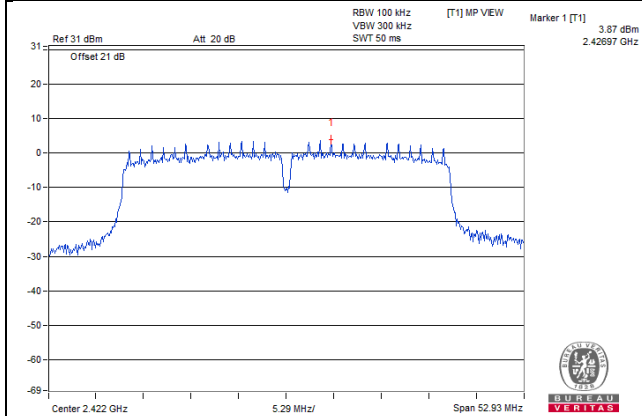


## CH 11 Band edge

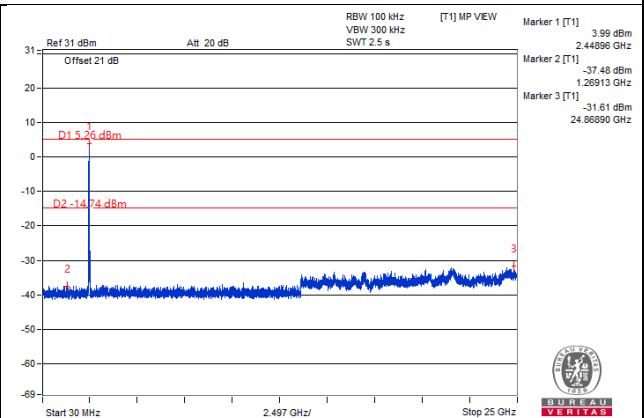
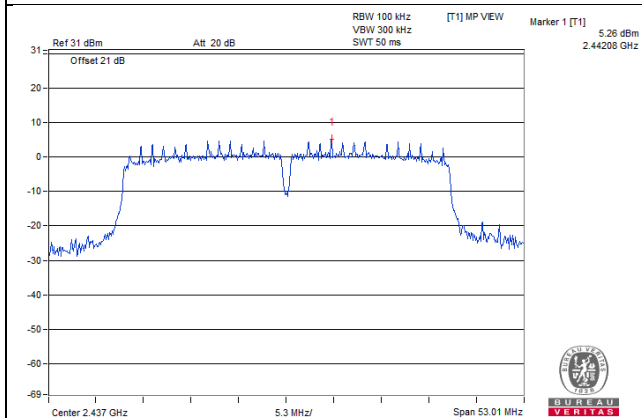


802.11n (HT40)

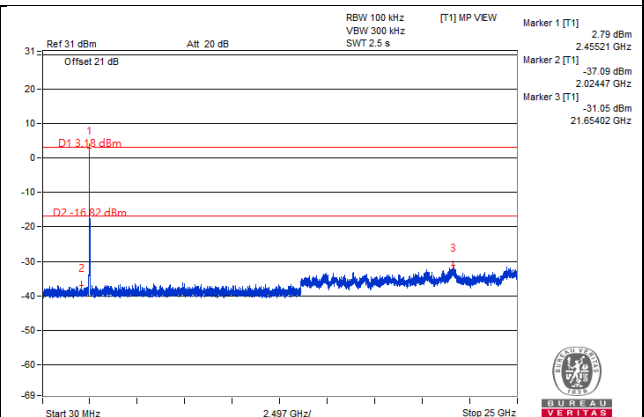
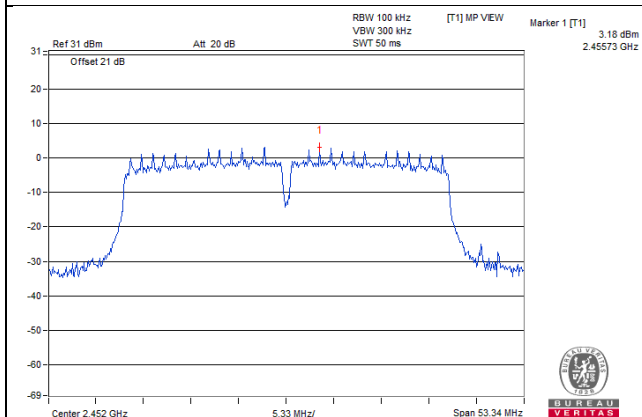
CH 3



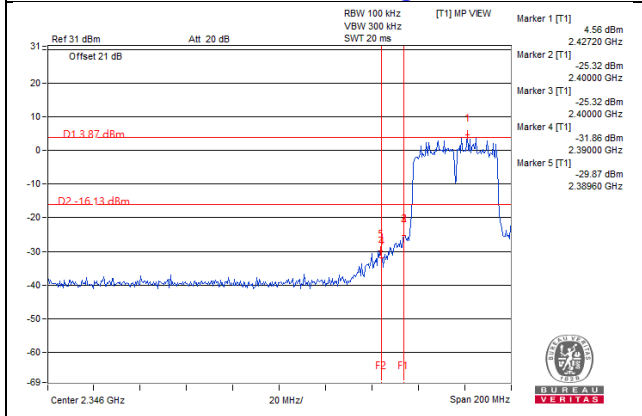
CH 6



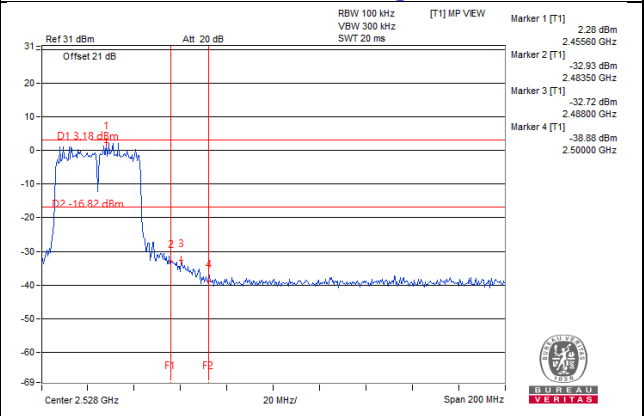
CH 9



CH 3 Band edge



CH 9 Band edge



## 5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

## Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

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**Web Site:** [www.bureauveritas-adt.com](http://www.bureauveritas-adt.com)

The address and road map of all our labs can be found in our web site also.

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