

FCC Test Report

Report No.: RF190211C09

FCC ID: 2AHBN-AP43

Test Model: AP43E, AP43

Received Date: Feb. 11, 2019

Test Date: Feb. 21 ~ May 21, 2019

Issued Date: Jun. 05, 2019

Applicant: Mist Systems, Inc.

Address: 1601 South De Anza Blvd. Suite 248 Cupertino California United States 95014

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

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C.)

Test Location: No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)

FCC Registration / Designation Number: 788550 / TW0003



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Release Control Record

Issue No.	Description	Date Issued
RF190211C09	Original release	Jun. 05, 2019

1 Certificate of Conformity

Product: Premium 802.11ax WiFi and BLE AP

Brand: Mist

Test Model: AP43E, AP43

Sample Status: Engineering sample

Applicant: Mist Systems, Inc.

Test Date: Feb. 21 ~ May 21, 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 RF characteristics under the conditions specified in this report.

Prepared by : Celine Chou, **Date:** Jun. 05, 2019

Celine Chou / Senior Specialist

Approved by : Bruce Chen, **Date:** Jun. 05, 2019

Bruce Chen / Project Engineer

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 -5.44dB at 0.34560MHz.
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -0.1dB at 2483.50MHz & 2390.00MHz.
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	Antenna connector are IPEX and RPSMA not a standard connector.

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	2.94 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.04 dB
	30MHz ~ 200MHz	3.63 dB
	200MHz ~ 1000MHz	3.64 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Premium 802.11ax WiFi and BLE AP
Brand	Mist
Test Model	AP43E, AP43
Power Supply rating	Refer to note
Sample Status	Engineering sample
Power Supply Rating	12Vdc from adapter 55Vdc from POE
Modulation Type	CCK, DQPSK, DBPSK for DSSS 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM for OFDMA
Modulation Technology	DSSS, OFDM
Transfer Rate	802.11b:11/5.5/2/1Mbps 802.11g: 54/48/36/24/18/12/9/6Mbps 802.11n: up to 600Mbps 802.11ac: up to 800Mbps 802.11ax: up to 1148Mbps
Operating Frequency	2412 ~ 2462MHz
Number of Channel	802.11b, 802.11g, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 11 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 7
Output Power	Test Mode A (Internal antenna + Eth7 Radio) CDD Mode: 153.509mW Test Mode C (Internal antenna + Eth8 Radio) CDD Mode: 350.273mW Beamforming Mode: 323.727mW Test Mode E (External antenna + Eth7 Radio) CDD Mode: 154.328mW Test Mode G (External antenna + Eth8 Radio) CDD Mode: 350.273mW Beamforming Mode: 323.727mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	N/A
Cable Supplied	N/A

Note:

1. All models are listed as below. Model AP43 is the representative for final test.

Brand	Model	Difference
Mist	AP43E	For External Antenna
	AP43	For Internal Antenna

2. The EUT consumes power from the following adapter and PoE.

Adapter (support unit only)	
Brand	Channel Well Technology
Model	2ABN036F
Input	100-240Vac, 50-60Hz 1.7A
Output	12.0Vdc, 3.0A, 36W
Power Line	1.5m DC cable with one core attached on adapter

PoE (support unit only)	
Brand	Microsemi
Model	PD9001GR
Input Power	100-240Vac, 50/60Hz 0.67A
Output Power	55Vdc, 0.6A

3. The EUT incorporates a MIMO function. Physically, the EUT provides 4 completed transmitter and 4 receivers.

Radio: Eth7

Modulation Mode	TX Function	Beamforming
802.11b	2TX	Not Support
802.11g	2TX	Not Support
802.11n (HT20)	2TX	Not Support
802.11n (HT40)	2TX	Not Support
802.11ac (VHT20)	2TX	Not Support
802.11ac (VHT40)	2TX	Not Support
802.11ax (HE20)	2TX	Not Support
802.11ax (HE40)	2TX	Not Support

* The bandwidth and modulation are similar for HT20/HT40 on 802.11n mode and VHT20/VHT40 on 802.11ac mode and HE20/HE40 on 802.11ax mode. Therefore the investigated worst case is the representative mode in test report. (Final test mode refer section 3.2.1)

Radio: Eth8

Modulation Mode	TX Function	Beamforming
802.11b	4TX	Not Support
802.11g	4TX	Not Support
802.11n (HT20)	4TX	Support
802.11n (HT40)	4TX	Support
802.11ac (VHT20)	4TX	Support
802.11ac (VHT40)	4TX	Support
802.11ax (HE20)	4TX	Support
802.11ax (HE40)	4TX	Support

* The bandwidth and modulation are similar for HT20/HT40 on 802.11n mode and VHT20/VHT40 on 802.11ac mode and HE20/HE40 on 802.11ax mode. Therefore the investigated worst case is the representative mode in test report. (Final test mode refer section 3.2.1)

* For 802.11n, CDD mode and Beamforming mode are presented in power output test item. For other test items, CDD mode is the worst case for final tests after pretesting.

4. There are four radios for the EUT.

Radio	Brand	Model	Function		TX/RX Function
			Internal Antenna	External Antenna	
Eth6	Broadcom	BCM43694	WLAN 5G B1, 4	WLAN 5G B1, 4	4x4
Eth7	Broadcom	BCM43694	WLAN 2.4G, 5G B1, 4	WLAN 2.4G, 5G B1, 4	2x2
Eth8	Broadcom	BCM43694	WLAN 2.4G, 5G B4	WLAN 2.4G	4x4
BT LE	Nordic	NRF52832	BT LE	-	1X1

5. The following antennas were provided to the EUT.

For Internal Antenna

Antenna Type	PIFA					
Antenna Connector	IPEX					
Gain (dBi)	Radio: Eth6		Radio: Eth7		Radio: Eth8	
	2.4GHz	5GHz	2.4GHz	5GHz	2.4GHz	5GHz
Int. WIFI Ant. 1	-	4.8	-	-	1.8	4.8
Int. WIFI Ant. 2	-	5.4	-	-	3.1	5.6
Int. WIFI Ant. 3	-	5.9	-	-	4.0	5.0
Int. WIFI Ant. 4	-	5.6	-	-	4.3	4.3
Scanning Radio Ant. 1	-	-	2.7	5.6	-	-
Scanning Radio Ant. 2	-	-	2.3	5.3	-	-
BT-Omni Ant.	0.1					
BT-Directional Ant.	4.5					

For External Antenna (support unit only)

Antenna Type	Patch	
Antenna Connector	RPSMA	
Part Number	ATS-OO-245-46-4RPSP-36	
Gain (dBi)	Frequency	
	2.4GHz	5GHz
Ext. WIFI Ant. 1	4	6

3.2 Description of Test Modes

11 channels are provided for 802.11b, 802.11g, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

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), 802.11ac (VHT40), 802.11ax (HE40):

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≥1G	RE<1G	PLC	APCM	
A	√	√	√	√	AP43 (Internal antenna) + Eth7 Radio + POE
B	-	√	√	-	AP43 (Internal antenna) + Eth7 Radio + Adapter
C	√	√	√	√	AP43 (Internal antenna) + Eth8 Radio + POE
D	-	√	√	-	AP43 (Internal antenna) + Eth8 Radio + Adapter
E	√	√	√	√	AP43E (External antenna) + Eth7 Radio + POE
F	-	√	√	-	AP43E (External antenna) + Eth7 Radio + Adapter
G	√	√	√	√	AP43E (External antenna) + Eth8 Radio + POE
H	-	√	√	-	AP43E (External antenna) + Eth8 Radio + Adapter

Where RE≥1G: Radiated Emission above 1GHz & Bandedge RE<1G: Radiated Emission below 1GHz

Measurement

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 **X-plane**.

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.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)	TX Function
A, E	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0	2TX
C, G							4TX
A, E	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0	2TX
C, G							4TX
A, E	802.11ax (HE20)	1 to 11	1, 6, 11	OFDMA	BPSK	MCS0	2TX
C, G							4TX
A, E	802.11ax (HE40)	3 to 9	3, 6, 9	OFDMA	BPSK	MCS0	2TX
C, G							4TX

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.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)	TX Function
A, B, E, F	802.11b	1 to 11	1	DSSS	DBPSK	1.0	2TX
C, D, G, H							4TX

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.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)	TX Function
A, B, E, F	802.11b	1 to 11	1	DSSS	DBPSK	1.0	2TX
C, D, G, H							4TX

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.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)	TX Function
A, E	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0	2TX
C, G							4TX
A, E	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0	2TX
C, G							4TX
A, E	802.11ax (HE20)	1 to 11	1, 6, 11	OFDMA	BPSK	MCS0	2TX
C, G							4TX
A, E	802.11ax (HE40)	3 to 9	3, 6, 9	OFDMA	BPSK	MCS0	2TX
C, G							4TX

Test Condition:

Applicable to	Environmental Conditions	Input Power	Tested by
RE≥1G	25 deg. C, 70% RH 25 deg. C, 71% RH	55Vdc	Luis Lee Noah Chang
RE<1G	25 deg. C, 70% RH	120Vac, 60Hz 55Vdc	Luis Lee
PLC	25 deg. C, 75% RH 22 deg. C, 66% RH	120Vac, 60Hz 55Vdc	Noah Chang Adair Peng
APCM	25 deg. C, 60% RH	55Vdc	Frank Liu

3.3 Duty Cycle of Test Signal

Test Mode A (Internal antenna + Eth7 Radio)

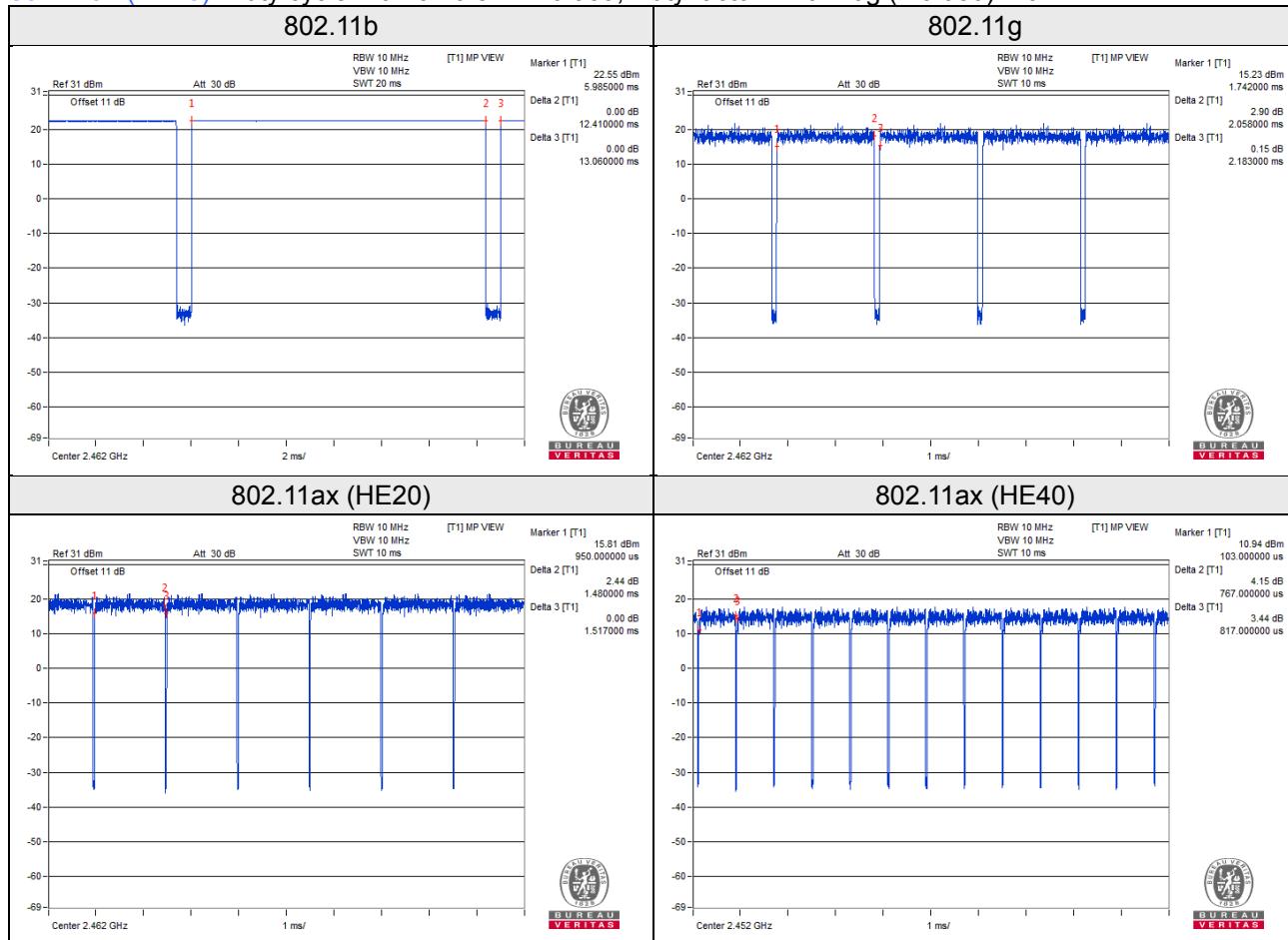
Duty cycle of test signal is < 98%, duty factor is required.

802.11b: Duty cycle = $12.410/13.060 = 0.950$, Duty factor = $10 * \log(1/0.950) = 0.22$

802.11g: Duty cycle = $2.058/2.183 = 0.943$, Duty factor = $10 * \log(1/0.943) = 0.26$

802.11ax (HE20): Duty cycle = $1.480/1.517 = 0.976$, Duty factor = $10 * \log(1/0.976) = 0.11$

802.11ax (HE40): Duty cycle = $0.767/0.817 = 0.939$, Duty factor = $10 * \log(1/0.939) = 0.27$



Test Mode C (Internal antenna + Eth8 Radio)

Duty cycle of test signal is < 98%, duty factor is required.

802.11b: Duty cycle = $12.387/13.049 = 0.949$, Duty factor = $10 * \log(1/0.949) = 0.23$

802.11g: Duty cycle = $2.063/2.183 = 0.945$, Duty factor = $10 * \log(1/0.945) = 0.25$

802.11ax (HE20): Duty cycle = $1.487/1.527 = 0.974$, Duty factor = $10 * \log(1/0.974) = 0.12$

802.11ax (HE40): Duty cycle = $0.762/0.809 = 0.942$, Duty factor = $10 * \log(1/0.942) = 0.26$



Test Mode E (External antenna + Eth7 Radio)

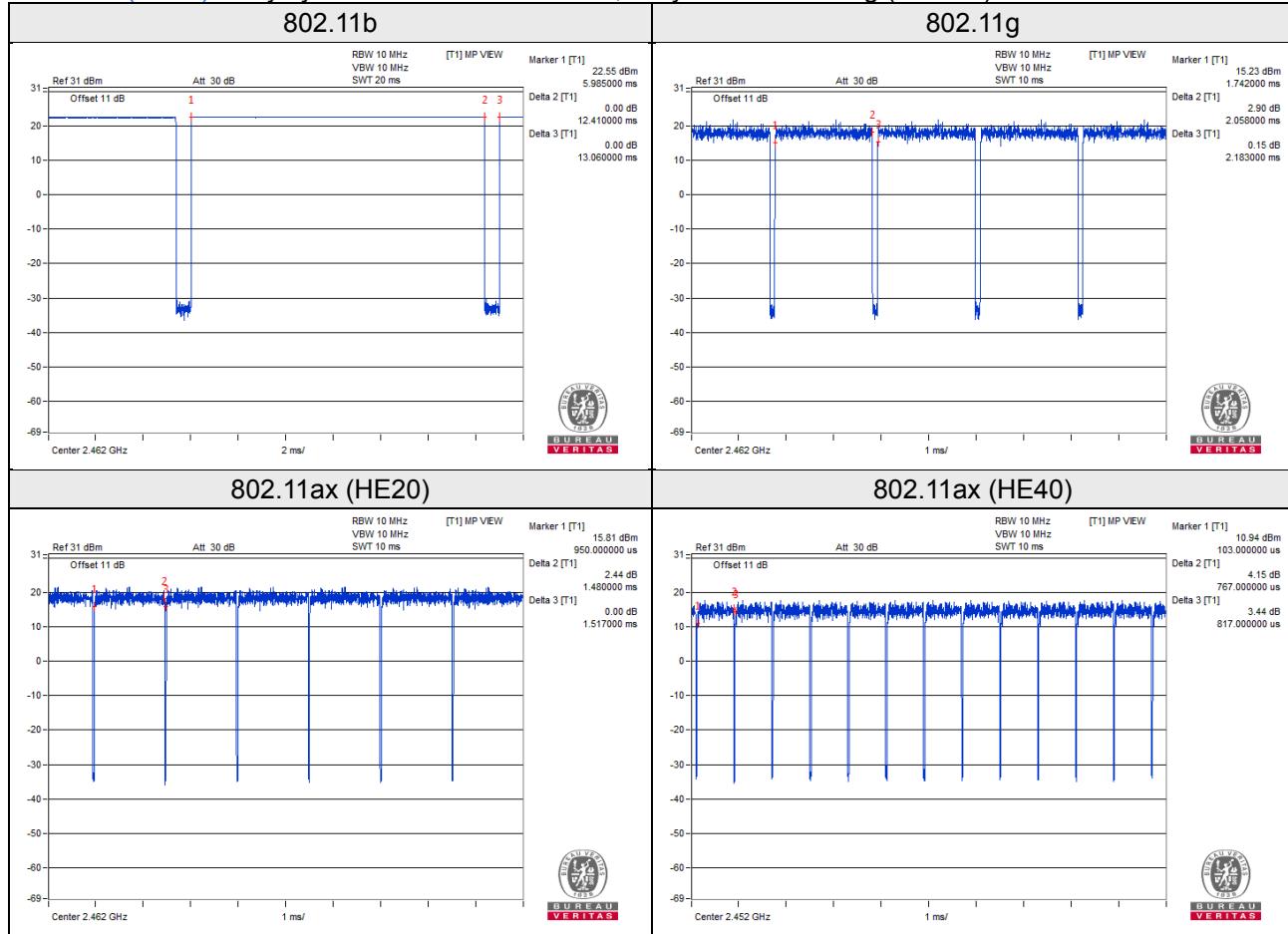
Duty cycle of test signal is < 98%, duty factor is required.

802.11b: Duty cycle = $12.410/13.060 = 0.950$, Duty factor = $10 * \log(1/0.950) = 0.22$

802.11g: Duty cycle = $2.058/2.183 = 0.943$, Duty factor = $10 * \log(1/0.943) = 0.26$

802.11ax (HE20): Duty cycle = $1.480/1.517 = 0.976$, Duty factor = $10 * \log(1/0.976) = 0.11$

802.11ax (HE40): Duty cycle = $0.767/0.817 = 0.939$, Duty factor = $10 * \log(1/0.939) = 0.27$



Test Mode G (External antenna + Eth8 Radio)

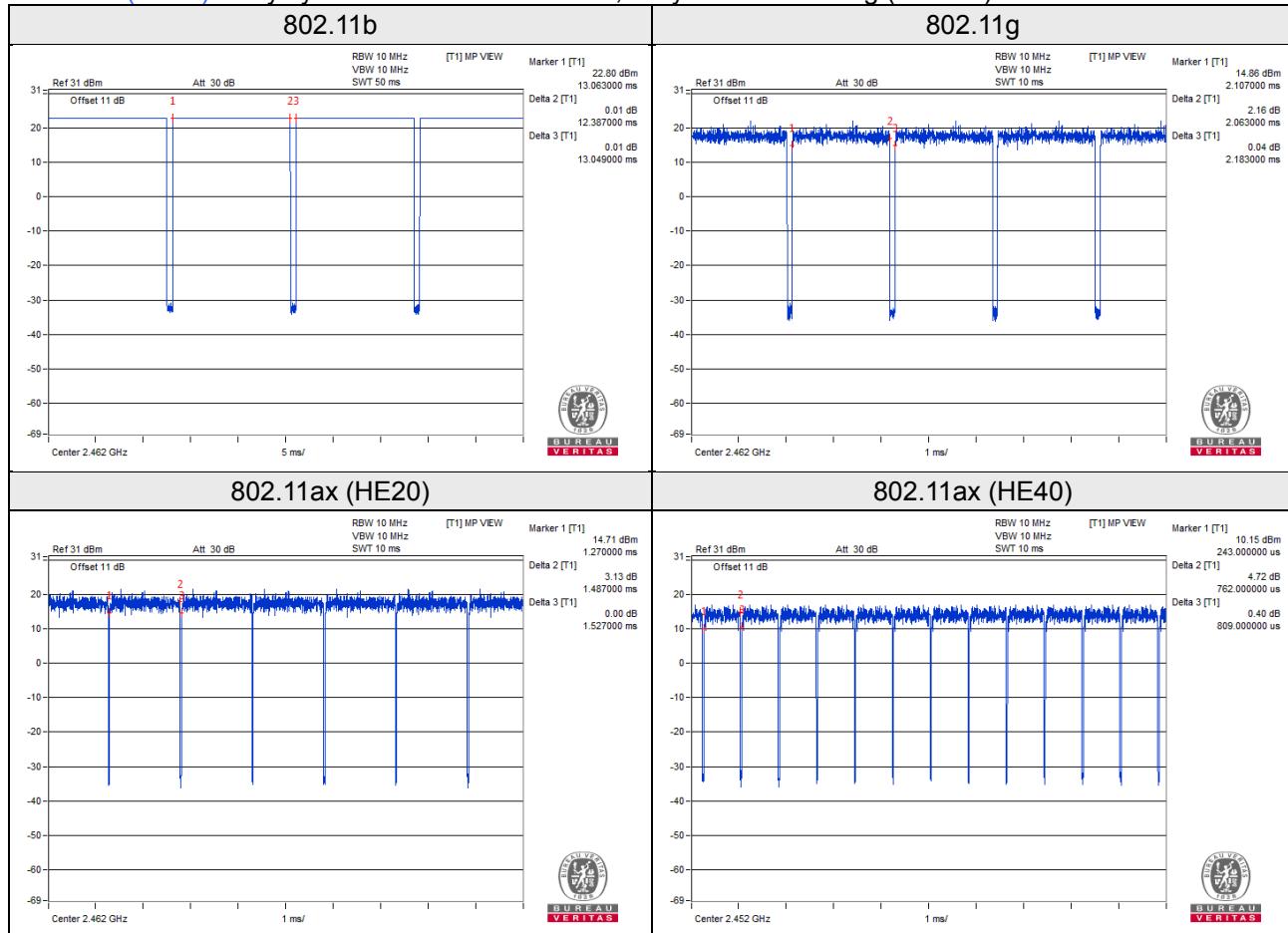
Duty cycle of test signal is < 98%, duty factor is required.

802.11b: Duty cycle = $12.387/13.049 = 0.949$, Duty factor = $10 * \log(1/0.949) = 0.23$

802.11g: Duty cycle = $2.063/2.183 = 0.945$, Duty factor = $10 * \log(1/0.945) = 0.25$

802.11ax (HE20): Duty cycle = $1.487/1.527 = 0.974$, Duty factor = $10 * \log(1/0.974) = 0.12$

802.11ax (HE40): Duty cycle = $0.762/0.809 = 0.942$, Duty factor = $10 * \log(1/0.942) = 0.26$



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	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	DELL	E5410	1HC2XM1	FCC DoC Approved	-
B.	Adapter	Channel Well Technology	2ABN036F	NA	NA	Provided by manufacturer
C.	POE	Microsemi	PD9001GR	NA	NA	Provided by manufacturer

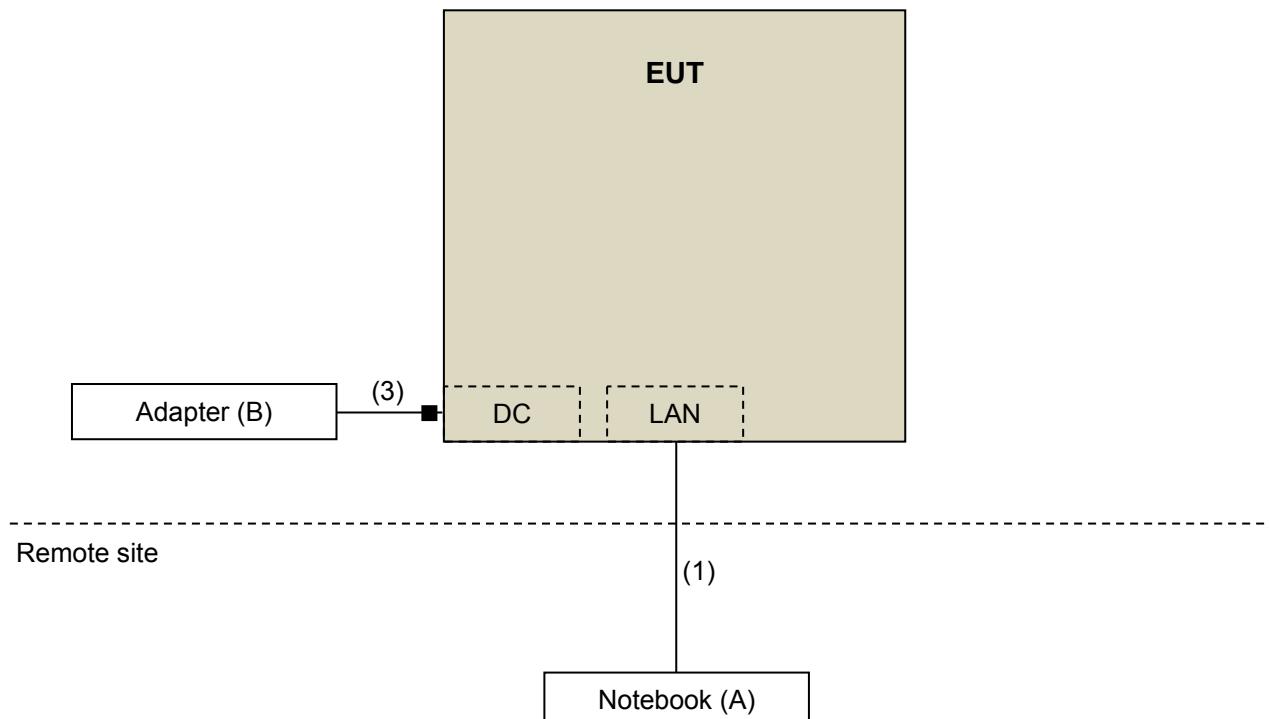
Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item A acted as a communication partner to transfer data.

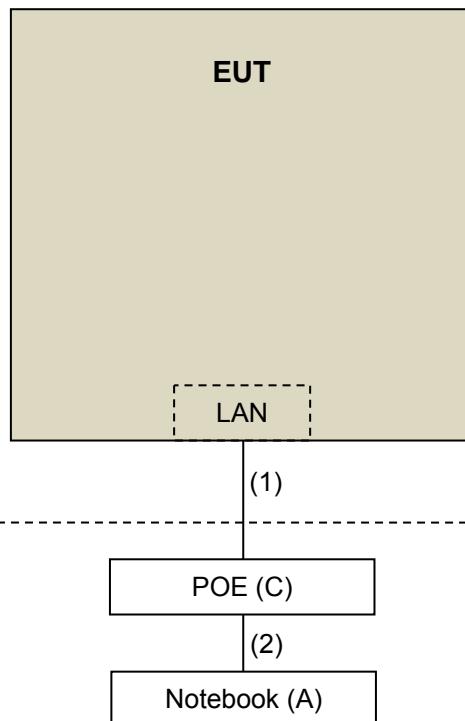
ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	RJ45 cable	1	6	N	0	Cat5e
2.	RJ45 cable	1	1.5	N	0	Cat5e
3.	DC cable	1	1.5	-	1	Provided by manufacturer

3.4.1 Configuration of System under Test

Adapter Mode



POE Mode



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

KDB 662911 D01 Multiple Transmitter Output v02r01

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 30dB 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 (dB_{UV}/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.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCI	100424	Jan. 03, 2019	Jan. 02, 2020
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Sep. 25, 2018	Sep. 24, 2019
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Nov. 21, 2018	Nov. 20, 2019
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-1170	Nov. 25, 2018	Nov. 24, 2019
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 25, 2018	Nov. 24, 2019
Loop Antenna TESEQ	HLA 6121	45745	Jun. 14, 2018	Jun. 13, 2019
Preamplifier Agilent (Below 1GHz)	8447D	2944A10631	Aug. 08, 2018	Aug. 07, 2019
Preamplifier KEYSIGHT (Above 1GHz)	83017A	MY53270295	Jul. 02, 2018	Jul. 01, 2019
RF signal cable HUBER+SUHNER	SUCOFLEX 104	MY 13380+295012/04	Aug. 08, 2018	Aug. 07, 2019
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH4-03 (250724)	Aug. 08, 2018	Aug. 07, 2019
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021703	NA	NA
Turn Table BV ADT	TT100	TT93021703	NA	NA
Turn Table Controller BV ADT	SC100	SC93021703	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Pre-amplifier (18GHz-40GHz) EMC	EMC184045B	980175	Nov. 14, 2018	Nov. 13, 2019
USB Wideband Power Sensor KEYSIGHT	U2021XA	MY55050005/MY5519000 4/MY55190007/MY55210 005	Jul. 17, 2018	Jul. 16, 2019

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 HwaYa Chamber 4.

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 detect 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:

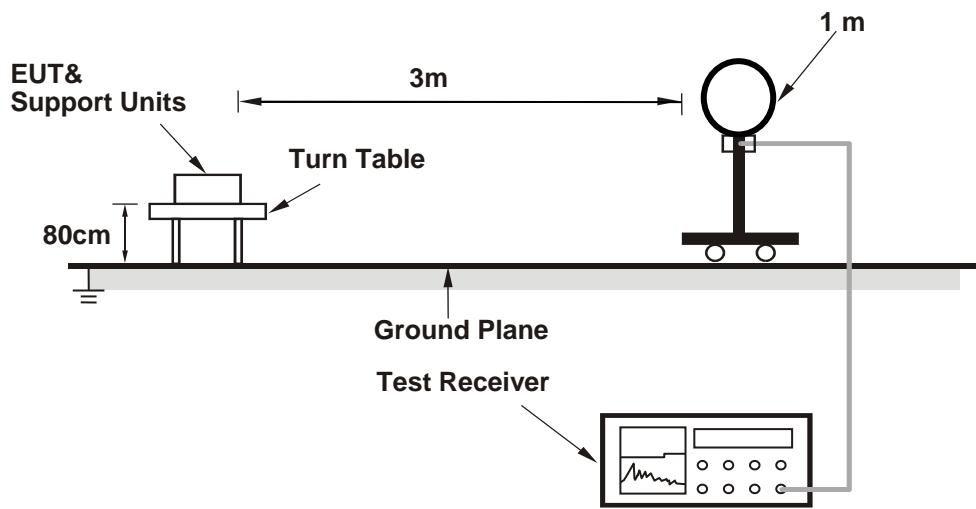
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
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

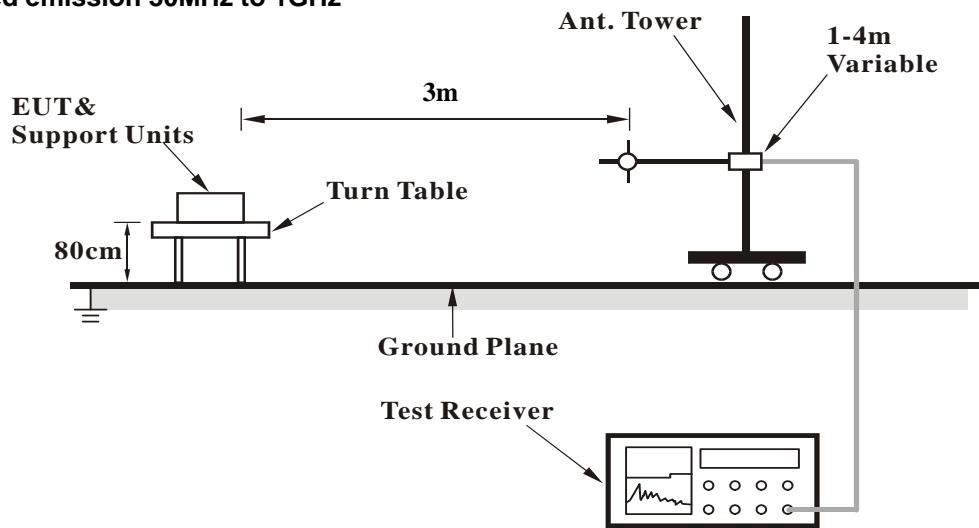
No deviation.

4.1.5 Test Setup

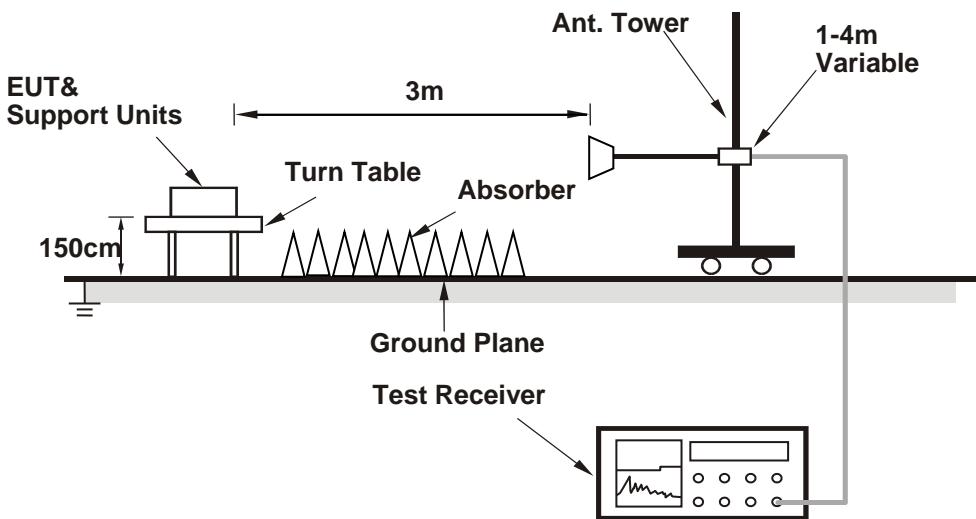
For Radiated emission below 30MHz



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

- Placed the EUT on the testing table.
- Prepared a notebook to act as a communication partner and placed it outside of testing area.
- The communication partner connected with EUT via a RJ45 cable and ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
- The communication partner sent data to EUT by command "PING".

4.1.7 Test Results

Above 1GHz Data:

Test Mode A (Internal antenna + Eth7 Radio)

802.11b

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	58.3 PK	74.0	-15.7	1.05 H	329	24.5	33.8
2	2390.00	46.7 AV	54.0	-7.3	1.05 H	329	12.9	33.8
3	*2412.00	107.5 PK			1.00 H	332	73.7	33.8
4	*2412.00	104.1 AV			1.00 H	332	70.3	33.8
5	4824.00	50.1 PK	74.0	-23.9	3.25 H	360	36.9	13.2
6	4824.00	38.5 AV	54.0	-15.5	3.25 H	360	25.3	13.2
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	2390.00	60.6 PK	74.0	-13.4	2.70 V	68	26.8	33.8
2	2390.00	52.0 AV	54.0	-2.0	2.70 V	68	18.2	33.8
3	*2412.00	113.8 PK			2.31 V	193	80.0	33.8
4	*2412.00	110.2 AV			2.31 V	193	76.4	33.8
5	4824.00	50.4 PK	74.0	-23.6	2.99 V	174	37.2	13.2
6	4824.00	38.8 AV	54.0	-15.2	2.99 V	174	25.6	13.2

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.

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

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	*2437.00	109.0 PK			1.05 H	330	75.2	33.8
2	*2437.00	105.4 AV			1.05 H	330	71.6	33.8
3	4874.00	52.4 PK	74.0	-21.6	3.26 H	253	39.2	13.2
4	4874.00	38.6 AV	54.0	-15.4	3.26 H	253	25.4	13.2
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	*2437.00	115.0 PK			2.32 V	307	81.2	33.8
2	*2437.00	111.4 AV			2.32 V	307	77.6	33.8
3	4874.00	52.7 PK	74.0	-21.3	1.85 V	266	39.5	13.2
4	4874.00	38.9 AV	54.0	-15.1	1.85 V	266	25.7	13.2

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.

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

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	107.3 PK			1.05 H	333	73.4	33.9
2	*2462.00	103.8 AV			1.05 H	333	69.9	33.9
3	2483.50	58.7 PK	74.0	-15.3	1.00 H	339	24.8	33.9
4	2483.50	46.1 AV	54.0	-7.9	1.00 H	339	12.2	33.9
5	4924.00	52.1 PK	74.0	-21.9	4.00 H	214	38.8	13.3
6	4924.00	39.2 AV	54.0	-14.8	4.00 H	214	25.9	13.3
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	113.3 PK			3.07 V	114	79.4	33.9
2	*2462.00	109.8 AV			3.07 V	114	75.9	33.9
3	2483.50	60.1 PK	74.0	-13.9	2.44 V	85	26.2	33.9
4	2483.50	49.8 AV	54.0	-4.2	2.44 V	85	15.9	33.9
5	4924.00	52.2 PK	74.0	-21.8	2.55 V	178	38.9	13.3
6	4924.00	39.4 AV	54.0	-14.6	2.55 V	178	26.1	13.3

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

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	57.7 PK	74.0	-16.3	1.44 H	331	23.9	33.8
2	2390.00	45.8 AV	54.0	-8.2	1.44 H	331	12.0	33.8
3	*2412.00	96.5 PK			1.12 H	332	62.7	33.8
4	*2412.00	86.4 AV			1.12 H	332	52.6	33.8
5	4824.00	52.3 PK	74.0	-21.7	2.11 H	155	39.1	13.2
6	4824.00	37.7 AV	54.0	-16.3	2.11 H	155	24.5	13.2
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	2390.00	57.8 PK	74.0	-16.2	1.66 V	121	24.0	33.8
2	2390.00	46.1 AV	54.0	-7.9	1.66 V	121	12.3	33.8
3	*2412.00	100.5 PK			1.00 V	163	66.7	33.8
4	*2412.00	90.4 AV			1.00 V	163	56.6	33.8
5	4824.00	51.6 PK	74.0	-22.4	1.25 V	233	38.4	13.2
6	4824.00	37.9 AV	54.0	-16.1	1.25 V	233	24.7	13.2

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.

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

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	*2437.00	100.2 PK			1.20 H	339	66.4	33.8
2	*2437.00	91.2 AV			1.20 H	339	57.4	33.8
3	4874.00	51.4 PK	74.0	-22.6	3.00 H	311	38.2	13.2
4	4874.00	38.2 AV	54.0	-15.8	3.00 H	311	25.0	13.2
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	*2437.00	104.2 PK			1.29 V	159	70.4	33.8
2	*2437.00	95.2 AV			1.29 V	159	61.4	33.8
3	4874.00	51.8 PK	74.0	-22.2	2.62 V	233	38.6	13.2
4	4874.00	38.5 AV	54.0	-15.5	2.62 V	233	25.3	13.2

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.

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

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	96.1 PK			1.30 H	342	62.2	33.9
2	*2462.00	87.0 AV			1.30 H	342	53.1	33.9
3	2483.50	65.9 PK	74.0	-8.1	1.39 H	344	32.0	33.9
4	2483.50	46.0 AV	54.0	-8.0	1.39 H	344	12.1	33.9
5	4924.00	51.4 PK	74.0	-22.6	2.55 H	263	38.1	13.3
6	4924.00	38.3 AV	54.0	-15.7	2.55 H	263	25.0	13.3
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	100.1 PK			1.28 V	160	66.2	33.9
2	*2462.00	91.0 AV			1.28 V	160	57.1	33.9
3	2483.50	66.5 PK	74.0	-7.5	1.35 V	122	32.6	33.9
4	2483.50	46.5 AV	54.0	-7.5	1.35 V	122	12.6	33.9
5	4924.00	51.6 PK	74.0	-22.4	2.69 V	251	38.3	13.3
6	4924.00	38.4 AV	54.0	-15.6	2.69 V	251	25.1	13.3

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.

802.11ax (HE20)

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	62.0 PK	74.0	-12.0	1.31 H	344	28.2	33.8
2	2390.00	46.4 AV	54.0	-7.6	1.31 H	344	12.6	33.8
3	*2412.00	98.4 PK			1.33 H	345	64.6	33.8
4	*2412.00	87.4 AV			1.33 H	345	53.6	33.8
5	4824.00	51.0 PK	74.0	-23.0	2.11 H	155	37.8	13.2
6	4824.00	38.0 AV	54.0	-16.0	2.11 H	155	24.8	13.2
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	2390.00	66.0 PK	74.0	-8.0	1.42 V	122	32.2	33.8
2	2390.00	49.0 AV	54.0	-5.0	1.42 V	122	15.2	33.8
3	*2412.00	102.4 PK			1.33 V	161	68.6	33.8
4	*2412.00	91.4 AV			1.33 V	161	57.6	33.8
5	4824.00	51.7 PK	74.0	-22.3	2.15 V	211	38.5	13.2
6	4824.00	38.5 AV	54.0	-15.5	2.15 V	211	25.3	13.2

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.

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

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	*2437.00	102.0 PK			1.39 H	345	68.2	33.8
2	*2437.00	90.2 AV			1.39 H	345	56.4	33.8
3	4874.00	51.0 PK	74.0	-23.0	2.52 H	74	37.8	13.2
4	4874.00	39.0 AV	54.0	-15.0	2.52 H	74	25.8	13.2
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	*2437.00	106.0 PK			1.30 V	162	72.2	33.8
2	*2437.00	94.2 AV			1.30 V	162	60.4	33.8
3	4874.00	51.4 PK	74.0	-22.6	2.63 V	288	38.2	13.2
4	4874.00	39.5 AV	54.0	-14.5	2.63 V	288	26.3	13.2

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.

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

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	98.8 PK			1.31 H	344	64.9	33.9
2	*2462.00	86.3 AV			1.31 H	344	52.4	33.9
3	2483.50	64.3 PK	74.0	-9.7	1.33 H	345	30.4	33.9
4	2483.50	46.6 AV	54.0	-7.4	1.33 H	345	12.7	33.9
5	4924.00	51.4 PK	74.0	-22.6	2.99 H	263	38.1	13.3
6	4924.00	39.1 AV	54.0	-14.9	2.99 H	263	25.8	13.3
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	101.5 PK			1.29 V	162	67.6	33.9
2	*2462.00	90.8 AV			1.29 V	162	56.9	33.9
3	2483.50	70.0 PK	74.0	-4.0	1.32 V	126	36.1	33.9
4	2483.50	48.2 AV	54.0	-5.8	1.32 V	126	14.3	33.9
5	4924.00	52.0 PK	74.0	-22.0	2.62 V	285	38.7	13.3
6	4924.00	39.6 AV	54.0	-14.4	2.62 V	285	26.3	13.3

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.

802.11ax (HE40)

CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	58.3 PK	74.0	-15.7	1.33 H	300	24.5	33.8
2	2390.00	45.9 AV	54.0	-8.1	1.33 H	300	12.1	33.8
3	*2422.00	94.2 PK			1.39 H	346	60.4	33.8
4	*2422.00	83.5 AV			1.39 H	346	49.7	33.8
5	2483.50	56.9 PK	74.0	-17.1	1.52 H	346	23.0	33.9
6	2483.50	46.0 AV	54.0	-8.0	1.52 H	346	12.1	33.9
7	4844.00	50.7 PK	74.0	-23.3	3.00 H	322	37.5	13.2
8	4844.00	38.5 AV	54.0	-15.5	3.00 H	322	25.3	13.2
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	2390.00	63.0 PK	74.0	-11.0	1.55 V	143	29.2	33.8
2	2390.00	49.1 AV	54.0	-4.9	1.55 V	143	15.3	33.8
3	*2422.00	98.2 PK			1.34 V	159	64.4	33.8
4	*2422.00	87.5 AV			1.34 V	159	53.7	33.8
5	2483.50	57.1 PK	74.0	-16.9	1.33 V	151	23.2	33.9
6	2483.50	46.4 AV	54.0	-7.6	1.33 V	151	12.5	33.9
7	4844.00	51.0 PK	74.0	-23.0	2.96 V	321	37.8	13.2
8	4844.00	38.8 AV	54.0	-15.2	2.96 V	321	25.6	13.2

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.

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

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	*2437.00	96.7 PK			1.29 H	345	62.9	33.8
2	*2437.00	84.7 AV			1.29 H	345	50.9	33.8
3	4874.00	50.7 PK	74.0	-23.3	2.22 H	333	37.5	13.2
4	4874.00	38.9 AV	54.0	-15.1	2.22 H	333	25.7	13.2
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	*2437.00	100.7 PK			1.20 V	162	66.9	33.8
2	*2437.00	88.7 AV			1.20 V	162	54.9	33.8
3	4874.00	51.1 PK	74.0	-22.9	2.66 V	233	37.9	13.2
4	4874.00	39.2 AV	54.0	-14.8	2.66 V	233	26.0	13.2

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.

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

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	57.7 PK	74.0	-16.3	1.39 H	349	23.9	33.8
2	2390.00	45.8 AV	54.0	-8.2	1.39 H	349	12.0	33.8
3	*2452.00	95.0 PK			1.20 H	341	61.2	33.8
4	*2452.00	83.5 AV			1.20 H	341	49.7	33.8
5	2483.50	62.8 PK	74.0	-11.2	1.75 H	345	28.9	33.9
6	2483.50	46.5 AV	54.0	-7.5	1.75 H	345	12.6	33.9
7	4904.00	50.8 PK	74.0	-23.2	2.55 H	15	37.4	13.4
8	4904.00	39.3 AV	54.0	-14.7	2.55 H	15	25.9	13.4

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	57.9 PK	74.0	-16.1	1.33 V	152	24.1	33.8
2	2390.00	46.0 AV	54.0	-8.0	1.33 V	152	12.2	33.8
3	*2452.00	99.0 PK			1.29 V	161	65.2	33.8
4	*2452.00	87.5 AV			1.29 V	161	53.7	33.8
5	2483.50	66.1 PK	74.0	-7.9	1.36 V	160	32.2	33.9
6	2483.50	49.0 AV	54.0	-5.0	1.36 V	160	15.1	33.9
7	4904.00	51.2 PK	74.0	-22.8	2.69 V	62	37.8	13.4
8	4904.00	39.7 AV	54.0	-14.3	2.69 V	62	26.3	13.4

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.

Test Mode C (Internal antenna + Eth8 Radio)
802.11b

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	57.6 PK	74.0	-16.4	1.53 H	72	23.8	33.8
2	2390.00	46.7 AV	54.0	-7.3	1.53 H	72	12.9	33.8
3	*2412.00	112.6 PK			1.47 H	66	78.8	33.8
4	*2412.00	108.5 AV			1.47 H	66	74.7	33.8
5	4824.00	53.4 PK	74.0	-20.6	2.59 H	37	40.2	13.2
6	4824.00	48.1 AV	54.0	-5.9	2.59 H	37	34.9	13.2
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	2390.00	62.3 PK	74.0	-11.7	2.52 V	150	27.3	35.0
2	2390.00	52.7 AV	54.0	-1.3	2.52 V	150	17.7	35.0
3	*2412.00	119.2 PK			2.52 V	58	84.3	34.9
4	*2412.00	114.4 AV			2.52 V	58	79.5	34.9
5	4824.00	54.8 PK	74.0	-19.2	3.09 V	109	43.2	11.6
6	4824.00	49.6 AV	54.0	-4.4	3.09 V	109	38.0	11.6

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.

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

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	*2437.00	114.7 PK			1.50 H	73	80.9	33.8
2	*2437.00	110.3 AV			1.50 H	73	76.5	33.8
3	4874.00	52.7 PK	74.0	-21.3	1.69 H	225	39.5	13.2
4	4874.00	47.4 AV	54.0	-6.6	1.69 H	225	34.2	13.2
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	*2437.00	119.9 PK			2.31 V	353	85.0	34.9
2	*2437.00	116.2 AV			2.31 V	353	81.3	34.9
3	4874.00	55.1 PK	74.0	-18.9	3.10 V	116	43.5	11.6
4	4874.00	50.2 AV	54.0	-3.8	3.10 V	116	38.6	11.6

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.

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

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	112.1 PK			1.62 H	59	78.2	33.9
2	*2462.00	109.0 AV			1.62 H	59	75.1	33.9
3	2483.50	59.0 PK	74.0	-15.0	1.36 H	81	25.1	33.9
4	2483.50	48.8 AV	54.0	-5.2	1.36 H	81	14.9	33.9
5	4924.00	53.4 PK	74.0	-20.6	2.51 H	184	40.1	13.3
6	4924.00	47.8 AV	54.0	-6.2	2.51 H	184	34.5	13.3
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	117.5 PK			1.99 V	333	82.5	35.0
2	*2462.00	114.3 AV			1.99 V	333	79.3	35.0
3	2483.50	61.5 PK	74.0	-12.5	2.43 V	204	26.5	35.0
4	2483.50	52.5 AV	54.0	-1.5	2.43 V	204	17.5	35.0
5	4924.00	55.0 PK	74.0	-19.0	2.98 V	132	43.2	11.8
6	4924.00	49.7 AV	54.0	-4.3	2.98 V	132	37.9	11.8

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

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	66.5 PK	74.0	-7.5	1.58 H	146	32.7	33.8
2	2390.00	47.0 AV	54.0	-7.0	1.58 H	146	13.2	33.8
3	*2412.00	107.1 PK			1.42 H	139	73.3	33.8
4	*2412.00	98.8 AV			1.42 H	139	65.0	33.8
5	4824.00	51.4 PK	74.0	-22.6	1.69 H	310	38.2	13.2
6	4824.00	38.2 AV	54.0	-15.8	1.69 H	310	25.0	13.2
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	2390.00	73.5 PK	74.0	-0.5	2.05 V	25	39.7	33.8
2	2390.00	50.3 AV	54.0	-3.7	2.05 V	25	16.5	33.8
3	*2412.00	114.4 PK			2.05 V	127	80.6	33.8
4	*2412.00	106.8 AV			2.05 V	127	73.0	33.8
5	4824.00	51.5 PK	74.0	-22.5	2.48 V	225	38.3	13.2
6	4824.00	38.3 AV	54.0	-15.7	2.48 V	225	25.1	13.2

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.

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

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	66.9 PK	74.0	-7.1	1.42 H	128	33.1	33.8
2	2390.00	47.2 AV	54.0	-6.8	1.42 H	128	13.4	33.8
3	*2437.00	109.8 PK			1.40 H	136	76.0	33.8
4	*2437.00	100.0 AV			1.40 H	136	66.2	33.8
5	4874.00	51.3 PK	74.0	-22.7	2.31 H	165	38.1	13.2
6	4874.00	38.5 AV	54.0	-15.5	2.31 H	165	25.3	13.2
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	2390.00	69.2 PK	74.0	-4.8	2.81 V	131	35.4	33.8
2	2390.00	50.7 AV	54.0	-3.3	2.81 V	131	16.9	33.8
3	*2437.00	116.9 PK			2.81 V	74	83.1	33.8
4	*2437.00	107.2 AV			2.81 V	74	73.4	33.8
5	4874.00	51.6 PK	74.0	-22.4	2.61 V	146	38.4	13.2
6	4874.00	38.6 AV	54.0	-15.4	2.61 V	146	25.4	13.2

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.

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

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	105.2 PK			1.39 H	151	71.3	33.9
2	*2462.00	95.4 AV			1.39 H	151	61.5	33.9
3	2483.50	66.5 PK	74.0	-7.5	1.35 H	141	32.6	33.9
4	2483.50	47.0 AV	54.0	-7.0	1.35 H	141	13.1	33.9
5	4924.00	51.2 PK	74.0	-22.8	2.33 H	192	37.9	13.3
6	4924.00	38.4 AV	54.0	-15.6	2.33 H	192	25.1	13.3
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	110.9 PK			2.73 V	76	77.0	33.9
2	*2462.00	101.5 AV			2.73 V	76	67.6	33.9
3	2483.50	73.2 PK	74.0	-0.8	1.99 V	57	39.3	33.9
4	2483.50	48.4 AV	54.0	-5.6	1.99 V	57	14.5	33.9
5	4924.00	52.2 PK	74.0	-21.8	2.66 V	215	38.9	13.3
6	4924.00	38.5 AV	54.0	-15.5	2.66 V	215	25.2	13.3

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.

802.11ax (HE20)

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	67.1 PK	74.0	-6.9	1.15 H	70	33.3	33.8
2	2390.00	47.1 AV	54.0	-6.9	1.15 H	70	13.3	33.8
3	*2412.00	107.7 PK			1.03 H	63	73.9	33.8
4	*2412.00	96.5 AV			1.03 H	63	62.7	33.8
5	4824.00	51.6 PK	74.0	-22.4	2.20 H	157	38.4	13.2
6	4824.00	38.5 AV	54.0	-15.5	2.20 H	157	25.3	13.2
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	2390.00	73.4 PK	74.0	-0.6	2.68 V	111	39.6	33.8
2	2390.00	50.2 AV	54.0	-3.8	2.68 V	111	16.4	33.8
3	*2412.00	113.4 PK			2.66 V	25	79.6	33.8
4	*2412.00	101.2 AV			2.66 V	25	67.4	33.8
5	4824.00	51.8 PK	74.0	-22.2	1.35 V	199	38.6	13.2
6	4824.00	38.3 AV	54.0	-15.7	1.35 V	199	25.1	13.2

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.

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

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	65.9 PK	74.0	-8.1	1.03 H	54	32.1	33.8
2	2390.00	48.3 AV	54.0	-5.7	1.03 H	54	14.5	33.8
3	*2437.00	113.0 PK			1.05 H	58	79.2	33.8
4	*2437.00	101.1 AV			1.05 H	58	67.3	33.8
5	2483.50	64.9 PK	74.0	-9.1	1.09 H	61	31.0	33.9
6	2483.50	48.1 AV	54.0	-5.9	1.09 H	61	14.2	33.9
7	4874.00	53.0 PK	74.0	-21.0	2.55 H	184	39.8	13.2
8	4874.00	40.3 AV	54.0	-13.7	2.55 H	184	27.1	13.2
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	2390.00	72.4 PK	74.0	-1.6	2.66 V	69	38.6	33.8
2	2390.00	52.3 AV	54.0	-1.7	2.66 V	69	18.5	33.8
3	*2437.00	118.5 PK			2.72 V	19	84.7	33.8
4	*2437.00	106.7 AV			2.72 V	19	72.9	33.8
5	2483.50	71.8 PK	74.0	-2.2	2.69 V	185	37.9	33.9
6	2483.50	53.6 AV	54.0	-0.4	2.69 V	185	19.7	33.9
7	4874.00	55.9 PK	74.0	-18.1	2.78 V	19	42.7	13.2
8	4874.00	42.6 AV	54.0	-11.4	2.78 V	19	29.4	13.2

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.

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

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	105.2 PK			1.03 H	54	71.3	33.9
2	*2462.00	93.1 AV			1.03 H	54	59.2	33.9
3	2483.50	66.7 PK	74.0	-7.3	1.16 H	67	32.8	33.9
4	2483.50	46.8 AV	54.0	-7.2	1.16 H	67	12.9	33.9
5	4924.00	53.4 PK	74.0	-20.6	2.35 H	187	40.1	13.3
6	4924.00	39.8 AV	54.0	-14.2	2.35 H	187	26.5	13.3
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	111.7 PK			2.70 V	59	77.8	33.9
2	*2462.00	100.5 AV			2.70 V	59	66.6	33.9
3	2483.50	73.9 PK	74.0	-0.1	2.71 V	122	40.0	33.9
4	2483.50	49.3 AV	54.0	-4.7	2.71 V	122	15.4	33.9
5	4924.00	52.5 PK	74.0	-21.5	2.96 V	200	39.2	13.3
6	4924.00	38.6 AV	54.0	-15.4	2.96 V	200	25.3	13.3

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.

802.11ax (HE40)

CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	60.5 PK	74.0	-13.5	1.42 H	60	26.7	33.8
2	2390.00	47.4 AV	54.0	-6.6	1.42 H	60	13.6	33.8
3	*2422.00	104.7 PK			1.34 H	53	70.9	33.8
4	*2422.00	93.5 AV			1.34 H	53	59.7	33.8
5	4844.00	51.7 PK	74.0	-22.3	2.84 H	172	38.5	13.2
6	4844.00	39.3 AV	54.0	-14.7	2.84 H	172	26.1	13.2
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	2390.00	66.2 PK	74.0	-7.8	2.63 V	42	32.4	33.8
2	2390.00	52.0 AV	54.0	-2.0	2.63 V	42	18.2	33.8
3	*2422.00	109.5 PK			2.66 V	26	75.7	33.8
4	*2422.00	98.5 AV			2.66 V	26	64.7	33.8
5	4844.00	52.4 PK	74.0	-21.6	2.07 V	154	39.2	13.2
6	4844.00	40.1 AV	54.0	-13.9	2.07 V	154	26.9	13.2

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.

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

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	*2437.00	105.3 PK			1.40 H	55	71.5	33.8
2	*2437.00	93.9 AV			1.40 H	55	60.1	33.8
3	4874.00	51.8 PK	74.0	-22.2	1.75 H	231	38.6	13.2
4	4874.00	39.3 AV	54.0	-14.7	1.75 H	231	26.1	13.2
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	2390.00	60.6 PK	74.0	-13.4	2.44 V	16	26.8	33.8
2	2390.00	48.0 AV	54.0	-6.0	2.44 V	16	14.2	33.8
3	*2437.00	110.7 PK			2.59 V	21	76.9	33.8
4	*2437.00	99.0 AV			2.59 V	21	65.2	33.8
5	4874.00	52.5 PK	74.0	-21.5	1.74 V	182	39.3	13.2
6	4874.00	39.7 AV	54.0	-14.3	1.74 V	182	26.5	13.2

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.

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

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	105.0 PK			1.33 H	56	71.2	33.8
2	*2452.00	94.1 AV			1.33 H	56	60.3	33.8
3	2483.50	67.0 PK	74.0	-7.0	1.33 H	49	33.1	33.9
4	2483.50	48.2 AV	54.0	-5.8	1.33 H	49	14.3	33.9
5	4904.00	52.0 PK	74.0	-22.0	2.55 H	178	38.6	13.4
6	4904.00	38.5 AV	54.0	-15.5	2.55 H	178	25.1	13.4
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	59.1 PK	74.0	-14.9	2.55 V	99	25.3	33.8
2	2390.00	46.8 AV	54.0	-7.2	2.55 V	99	13.0	33.8
3	*2452.00	108.1 PK			2.70 V	27	74.3	33.8
4	*2452.00	97.7 AV			2.70 V	27	63.9	33.8
5	2483.50	73.7 PK	74.0	-0.3	2.70 V	82	39.8	33.9
6	2483.50	51.8 AV	54.0	-2.2	2.70 V	82	17.9	33.9
7	4904.00	52.2 PK	74.0	-21.8	3.26 V	299	38.8	13.4
8	4904.00	39.3 AV	54.0	-14.7	3.26 V	299	25.9	13.4

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.

Test Mode E (External antenna + Eth7 Radio)
802.11b

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	58.5 PK	74.0	-15.5	1.24 H	308	24.7	33.8
2	2390.00	47.5 AV	54.0	-6.5	1.24 H	308	13.7	33.8
3	*2412.00	109.5 PK			1.39 H	324	75.7	33.8
4	*2412.00	104.7 AV			1.39 H	324	70.9	33.8
5	4824.00	51.7 PK	74.0	-22.3	2.93 H	114	38.5	13.2
6	4824.00	41.4 AV	54.0	-12.6	2.93 H	114	28.2	13.2
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	2390.00	61.6 PK	74.0	-12.4	1.26 V	40	27.8	33.8
2	2390.00	52.9 AV	54.0	-1.1	1.26 V	40	19.1	33.8
3	*2412.00	117.7 PK			1.25 V	43	83.9	33.8
4	*2412.00	111.5 AV			1.25 V	43	77.7	33.8
5	4824.00	51.8 PK	74.0	-22.2	1.96 V	219	38.6	13.2
6	4824.00	41.9 AV	54.0	-12.1	1.96 V	219	28.7	13.2

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.

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

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	*2437.00	103.8 PK			1.33 H	291	70.0	33.8
2	*2437.00	100.3 AV			1.33 H	291	66.5	33.8
3	4874.00	51.5 PK	74.0	-22.5	1.65 H	117	38.3	13.2
4	4874.00	40.9 AV	54.0	-13.1	1.65 H	117	27.7	13.2
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	*2437.00	111.9 PK			1.18 V	336	78.1	33.8
2	*2437.00	108.7 AV			1.18 V	336	74.9	33.8
3	4874.00	53.4 PK	74.0	-20.6	1.79 V	45	40.2	13.2
4	4874.00	45.6 AV	54.0	-8.4	1.79 V	45	32.4	13.2

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.

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

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	106.1 PK			1.33 H	315	72.2	33.9
2	*2462.00	103.0 AV			1.33 H	315	69.1	33.9
3	2483.50	59.6 PK	74.0	-14.4	1.25 H	301	25.7	33.9
4	2483.50	47.8 AV	54.0	-6.2	1.25 H	301	13.9	33.9
5	4924.00	51.9 PK	74.0	-22.1	2.74 H	128	38.6	13.3
6	4924.00	41.2 AV	54.0	-12.8	2.74 H	128	27.9	13.3
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	114.5 PK			2.66 V	50	80.6	33.9
2	*2462.00	110.8 AV			2.66 V	50	76.9	33.9
3	2483.50	61.5 PK	74.0	-12.5	2.03 V	35	27.6	33.9
4	2483.50	52.9 AV	54.0	-1.1	2.03 V	35	19.0	33.9
5	4924.00	53.5 PK	74.0	-20.5	2.56 V	129	40.2	13.3
6	4924.00	44.2 AV	54.0	-9.8	2.56 V	129	30.9	13.3

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

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	62.6 PK	74.0	-11.4	1.42 H	85	28.8	33.8
2	2390.00	46.9 AV	54.0	-7.1	1.42 H	85	13.1	33.8
3	*2412.00	103.2 PK			1.31 H	71	69.4	33.8
4	*2412.00	93.9 AV			1.31 H	71	60.1	33.8
5	4824.00	51.4 PK	74.0	-22.6	2.05 H	172	38.2	13.2
6	4824.00	39.6 AV	54.0	-14.4	2.05 H	172	26.4	13.2
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	2390.00	72.5 PK	74.0	-1.5	2.22 V	49	38.7	33.8
2	2390.00	49.1 AV	54.0	-4.9	2.22 V	49	15.3	33.8
3	*2412.00	109.8 PK			2.64 V	51	76.0	33.8
4	*2412.00	100.5 AV			2.64 V	51	66.7	33.8
5	4824.00	52.4 PK	74.0	-21.6	1.47 V	251	39.2	13.2
6	4824.00	39.9 AV	54.0	-14.1	1.47 V	251	26.7	13.2

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.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	*2437.00	107.3 PK			1.28 H	64	73.5	33.8
2	*2437.00	97.9 AV			1.28 H	64	64.1	33.8
3	2483.50	63.2 PK	74.0	-10.8	1.49 H	86	29.3	33.9
4	2483.50	47.4 AV	54.0	-6.6	1.49 H	86	13.5	33.9
5	4874.00	51.9 PK	74.0	-22.1	2.16 H	185	38.7	13.2
6	4874.00	39.1 AV	54.0	-14.9	2.16 H	185	25.9	13.2
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	*2437.00	113.7 PK			2.28 V	50	79.9	33.8
2	*2437.00	104.2 AV			2.28 V	50	70.4	33.8
3	2485.70	73.5 PK	74.0	-0.5	1.50 V	322	39.6	33.9
4	2485.70	51.2 AV	54.0	-2.8	1.50 V	322	17.3	33.9
5	4874.00	52.4 PK	74.0	-21.6	3.07 V	254	39.2	13.2
6	4874.00	39.3 AV	54.0	-14.7	3.07 V	254	26.1	13.2

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.

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

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	102.3 PK			1.55 H	92	68.4	33.9
2	*2462.00	93.1 AV			1.55 H	92	59.2	33.9
3	2483.50	62.6 PK	74.0	-11.4	1.40 H	76	28.7	33.9
4	2483.50	47.1 AV	54.0	-6.9	1.40 H	76	13.2	33.9
5	4924.00	51.3 PK	74.0	-22.7	1.96 H	284	38.0	13.3
6	4924.00	40.0 AV	54.0	-14.0	1.96 H	284	26.7	13.3
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	108.7 PK			2.03 V	53	74.8	33.9
2	*2462.00	99.1 AV			2.03 V	53	65.2	33.9
3	2483.50	70.9 PK	74.0	-3.1	2.01 V	60	37.0	33.9
4	2483.50	47.4 AV	54.0	-6.6	2.01 V	60	13.5	33.9
5	4924.00	52.3 PK	74.0	-21.7	1.42 V	261	39.0	13.3
6	4924.00	40.2 AV	54.0	-13.8	1.42 V	261	26.9	13.3

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.

802.11ax (HE20)

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	62.7 PK	74.0	-11.3	1.62 H	89	28.9	33.8
2	2390.00	47.2 AV	54.0	-6.8	1.62 H	89	13.4	33.8
3	*2412.00	103.3 PK			1.29 H	72	69.5	33.8
4	*2412.00	93.9 AV			1.29 H	72	60.1	33.8
5	4824.00	51.2 PK	74.0	-22.8	1.54 H	111	38.0	13.2
6	4824.00	39.5 AV	54.0	-14.5	1.54 H	111	26.3	13.2
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	2390.00	72.5 PK	74.0	-1.5	2.14 V	46	38.7	33.8
2	2390.00	53.0 AV	54.0	-1.0	2.14 V	46	19.2	33.8
3	*2412.00	109.7 PK			2.02 V	49	75.9	33.8
4	*2412.00	100.1 AV			2.02 V	49	66.3	33.8
5	4824.00	52.3 PK	74.0	-21.7	1.96 V	225	39.1	13.2
6	4824.00	41.1 AV	54.0	-12.9	1.96 V	225	27.9	13.2

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.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	*2437.00	107.6 PK			1.29 H	75	73.8	33.8
2	*2437.00	97.3 AV			1.29 H	75	63.5	33.8
3	2483.50	63.4 PK	74.0	-10.6	1.58 H	93	29.5	33.9
4	2483.50	47.5 AV	54.0	-6.5	1.58 H	93	13.6	33.9
5	4874.00	51.8 PK	74.0	-22.2	2.96 H	174	38.6	13.2
6	4874.00	39.5 AV	54.0	-14.5	2.96 H	174	26.3	13.2
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	*2437.00	114.0 PK			1.61 V	48	80.2	33.8
2	*2437.00	104.0 AV			1.61 V	48	70.2	33.8
3	2483.50	72.7 PK	74.0	-1.3	2.05 V	54	38.8	33.9
4	2483.50	52.6 AV	54.0	-1.4	2.05 V	54	18.7	33.9
5	4874.00	52.1 PK	74.0	-21.9	2.36 V	174	38.9	13.2
6	4874.00	40.0 AV	54.0	-14.0	2.36 V	174	26.8	13.2

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.

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

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	102.4 PK			1.16 H	80	68.5	33.9
2	*2462.00	92.5 AV			1.16 H	80	58.6	33.9
3	2483.50	64.0 PK	74.0	-10.0	1.78 H	205	30.1	33.9
4	2483.50	47.4 AV	54.0	-6.6	1.78 H	205	13.5	33.9
5	4924.00	51.5 PK	74.0	-22.5	3.45 H	152	38.2	13.3
6	4924.00	40.0 AV	54.0	-14.0	3.45 H	152	26.7	13.3
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			2.27 V	53	74.6	33.9
2	*2462.00	99.1 AV			2.27 V	53	65.2	33.9
3	2483.50	72.8 PK	74.0	-1.2	1.61 V	53	38.9	33.9
4	2483.50	51.0 AV	54.0	-3.0	1.61 V	53	17.1	33.9
5	4924.00	52.1 PK	74.0	-21.9	1.55 V	209	38.8	13.3
6	4924.00	40.3 AV	54.0	-13.7	1.55 V	209	27.0	13.3

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.

802.11ax (HE40)

CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	62.7 PK	74.0	-11.3	1.52 H	43	28.9	33.8
2	2390.00	47.3 AV	54.0	-6.7	1.52 H	43	13.5	33.8
3	*2422.00	99.5 PK			1.52 H	63	65.7	33.8
4	*2422.00	89.7 AV			1.52 H	63	55.9	33.8
5	4844.00	51.3 PK	74.0	-22.7	2.51 H	194	38.1	13.2
6	4844.00	41.1 AV	54.0	-12.9	2.51 H	194	27.9	13.2
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	2390.00	72.4 PK	74.0	-1.6	2.15 V	43	38.6	33.8
2	2390.00	52.1 AV	54.0	-1.9	2.15 V	43	18.3	33.8
3	*2422.00	105.8 PK			2.18 V	48	72.0	33.8
4	*2422.00	96.2 AV			2.18 V	48	62.4	33.8
5	4844.00	52.2 PK	74.0	-21.8	1.18 V	210	39.0	13.2
6	4844.00	40.8 AV	54.0	-13.2	1.18 V	210	27.6	13.2

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.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	*2437.00	101.0 PK			1.56 H	86	67.2	33.8
2	*2437.00	91.6 AV			1.56 H	86	57.8	33.8
3	2483.50	63.8 PK	74.0	-10.2	1.33 H	84	29.9	33.9
4	2483.50	47.5 AV	54.0	-6.5	1.33 H	84	13.6	33.9
5	4874.00	51.8 PK	74.0	-22.2	2.76 H	184	38.6	13.2
6	4874.00	39.8 AV	54.0	-14.2	2.76 H	184	26.6	13.2
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	*2437.00	107.3 PK			2.37 V	51	73.5	33.8
2	*2437.00	97.9 AV			2.37 V	51	64.1	33.8
3	2483.50	70.6 PK	74.0	-3.4	2.18 V	54	36.7	33.9
4	2483.50	52.4 AV	54.0	-1.6	2.18 V	54	18.5	33.9
5	4874.00	51.9 PK	74.0	-22.1	1.93 V	225	38.7	13.2
6	4874.00	40.1 AV	54.0	-13.9	1.93 V	225	26.9	13.2

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.

CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	99.0 PK			1.44 H	76	65.2	33.8
2	*2452.00	90.7 AV			1.44 H	76	56.9	33.8
3	2483.50	63.5 PK	74.0	-10.5	1.27 H	89	29.6	33.9
4	2483.50	47.6 AV	54.0	-6.4	1.27 H	89	13.7	33.9
5	4904.00	51.6 PK	74.0	-22.4	2.54 H	188	38.2	13.4
6	4904.00	40.2 AV	54.0	-13.8	2.54 H	188	26.8	13.4
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	*2452.00	105.6 PK			2.39 V	53	71.8	33.8
2	*2452.00	96.8 AV			2.39 V	53	63.0	33.8
3	2483.50	72.9 PK	74.0	-1.1	2.54 V	70	39.0	33.9
4	2483.50	52.0 AV	54.0	-2.0	2.54 V	70	18.1	33.9
5	4904.00	51.7 PK	74.0	-22.3	1.69 V	224	38.3	13.4
6	4904.00	39.9 AV	54.0	-14.1	1.69 V	224	26.5	13.4

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.

Test Mode G (External antenna + Eth8 Radio)
802.11b

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	57.6 PK	74.0	-16.4	2.09 H	181	23.8	33.8
2	2390.00	47.2 AV	54.0	-6.8	2.09 H	181	13.4	33.8
3	*2412.00	109.2 PK			2.00 H	188	75.4	33.8
4	*2412.00	103.9 AV			2.00 H	188	70.1	33.8
5	4824.00	61.0 PK	74.0	-13.0	2.31 H	226	47.8	13.2
6	4824.00	41.5 AV	54.0	-12.5	2.31 H	226	28.3	13.2
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	2390.00	60.0 PK	74.0	-14.0	2.68 V	204	26.2	33.8
2	2390.00	52.5 AV	54.0	-1.5	2.68 V	204	18.7	33.8
3	*2412.00	117.2 PK			2.54 V	203	83.4	33.8
4	*2412.00	111.9 AV			2.54 V	203	78.1	33.8
5	4824.00	61.2 PK	74.0	-12.8	2.51 V	183	48.0	13.2
6	4824.00	43.7 AV	54.0	-10.3	2.51 V	183	30.5	13.2

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.

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

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	*2437.00	113.7 PK			2.29 H	189	79.9	33.8
2	*2437.00	110.2 AV			2.29 H	189	76.4	33.8
3	4874.00	60.4 PK	74.0	-13.6	2.11 H	199	47.2	13.2
4	4874.00	43.7 AV	54.0	-10.3	2.11 H	199	30.5	13.2
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	*2437.00	121.7 PK			2.20 V	192	87.9	33.8
2	*2437.00	118.2 AV			2.20 V	192	84.4	33.8
3	4874.00	59.9 PK	74.0	-14.1	2.22 V	15	46.7	13.2
4	4874.00	45.4 AV	54.0	-8.6	2.22 V	15	32.2	13.2

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.

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

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	109.6 PK			2.09 H	188	75.7	33.9
2	*2462.00	105.9 AV			2.09 H	188	72.0	33.9
3	2483.50	57.6 PK	74.0	-16.4	2.22 H	200	23.7	33.9
4	2483.50	47.1 AV	54.0	-6.9	2.22 H	200	13.2	33.9
5	4924.00	61.2 PK	74.0	-12.8	4.00 H	325	47.9	13.3
6	4924.00	42.1 AV	54.0	-11.9	4.00 H	325	28.8	13.3
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	117.6 PK			3.40 V	117	83.7	33.9
2	*2462.00	113.9 AV			3.40 V	117	80.0	33.9
3	2483.50	61.8 PK	74.0	-12.2	2.60 V	217	27.9	33.9
4	2483.50	52.8 AV	54.0	-1.2	2.60 V	217	18.9	33.9
5	4924.00	61.6 PK	74.0	-12.4	2.55 V	188	48.3	13.3
6	4924.00	44.2 AV	54.0	-9.8	2.55 V	188	30.9	13.3

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

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	61.8 PK	74.0	-12.2	2.02 H	177	28.0	33.8
2	2390.00	46.1 AV	54.0	-7.9	2.02 H	177	12.3	33.8
3	*2412.00	105.1 PK			2.02 H	189	71.3	33.8
4	*2412.00	95.8 AV			2.02 H	189	62.0	33.8
5	4824.00	56.4 PK	74.0	-17.6	2.22 H	193	43.2	13.2
6	4824.00	41.0 AV	54.0	-13.0	2.22 H	193	27.8	13.2
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	2390.00	73.5 PK	74.0	-0.5	2.69 V	260	39.7	33.8
2	2390.00	51.0 AV	54.0	-3.0	2.69 V	260	17.2	33.8
3	*2412.00	113.9 PK			2.69 V	223	80.1	33.8
4	*2412.00	104.6 AV			2.69 V	223	70.8	33.8
5	4824.00	55.4 PK	74.0	-18.6	2.62 V	110	42.2	13.2
6	4824.00	40.2 AV	54.0	-13.8	2.62 V	110	27.0	13.2

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.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	*2437.00	109.2 PK			2.02 H	188	75.4	33.8
2	*2437.00	99.5 AV			2.02 H	188	65.7	33.8
3	2483.50	62.3 PK	74.0	-11.7	2.05 H	179	28.4	33.9
4	2483.50	45.9 AV	54.0	-8.1	2.05 H	179	12.0	33.9
5	4874.00	61.4 PK	74.0	-12.6	2.12 H	163	48.2	13.2
6	4874.00	41.5 AV	54.0	-12.5	2.12 H	163	28.3	13.2
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	*2437.00	117.2 PK			2.63 V	229	83.4	33.8
2	*2437.00	107.5 AV			2.63 V	229	73.7	33.8
3	2483.50	72.7 PK	74.0	-1.3	2.63 V	225	38.8	33.9
4	2483.50	50.2 AV	54.0	-3.8	2.63 V	225	16.3	33.9
5	4874.00	61.1 PK	74.0	-12.9	2.21 V	26	47.9	13.2
6	4874.00	40.8 AV	54.0	-13.2	2.21 V	26	27.6	13.2

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.

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

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	102.3 PK			2.06 H	300	68.4	33.9
2	*2462.00	93.0 AV			2.06 H	300	59.1	33.9
3	2483.50	62.5 PK	74.0	-11.5	2.06 H	321	28.6	33.9
4	2483.50	46.1 AV	54.0	-7.9	2.06 H	321	12.2	33.9
5	4924.00	57.3 PK	74.0	-16.7	2.02 H	176	44.0	13.3
6	4924.00	44.8 AV	54.0	-9.2	2.02 H	176	31.5	13.3
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	111.8 PK			2.54 V	229	77.9	33.9
2	*2462.00	102.6 AV			2.54 V	229	68.7	33.9
3	2483.50	73.8 PK	74.0	-0.2	2.89 V	155	39.9	33.9
4	2483.50	50.0 AV	54.0	-4.0	2.89 V	155	16.1	33.9
5	4924.00	55.3 PK	74.0	-18.7	2.22 V	100	42.0	13.3
6	4924.00	42.5 AV	54.0	-11.5	2.22 V	100	29.2	13.3

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.

802.11ax (HE20)

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	62.2 PK	74.0	-11.8	2.06 H	177	28.4	33.8
2	2390.00	46.1 AV	54.0	-7.9	2.06 H	177	12.3	33.8
3	*2412.00	105.2 PK			2.09 H	188	71.4	33.8
4	*2412.00	94.9 AV			2.09 H	188	61.1	33.8
5	4824.00	51.3 PK	74.0	-22.7	3.86 H	21	38.1	13.2
6	4824.00	37.7 AV	54.0	-16.3	3.86 H	21	24.5	13.2
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	2390.00	73.7 PK	74.0	-0.3	2.91 V	118	39.9	33.8
2	2390.00	53.9 AV	54.0	-0.1	2.91 V	118	20.1	33.8
3	*2412.00	113.7 PK			2.91 V	223	79.9	33.8
4	*2412.00	103.4 AV			2.91 V	223	69.6	33.8
5	4824.00	53.4 PK	74.0	-20.6	2.15 V	222	40.2	13.2
6	4824.00	37.5 AV	54.0	-16.5	2.15 V	222	24.3	13.2

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.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	*2437.00	110.0 PK			2.06 H	210	76.2	33.8
2	*2437.00	100.5 AV			2.06 H	210	66.7	33.8
3	2483.50	64.0 PK	74.0	-10.0	2.15 H	177	30.1	33.9
4	2483.50	46.1 AV	54.0	-7.9	2.15 H	177	12.2	33.9
5	4874.00	50.4 PK	74.0	-23.6	1.08 H	321	37.2	13.2
6	4874.00	38.2 AV	54.0	-15.8	1.08 H	321	25.0	13.2
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	*2437.00	118.0 PK			2.51 V	180	84.2	33.8
2	*2437.00	108.5 AV			2.51 V	180	74.7	33.8
3	2483.50	72.7 PK	74.0	-1.3	2.47 V	178	38.8	33.9
4	2483.50	53.0 AV	54.0	-1.0	2.47 V	178	19.1	33.9
5	4874.00	51.6 PK	74.0	-22.4	3.31 V	153	38.4	13.2
6	4874.00	38.4 AV	54.0	-15.6	3.31 V	153	25.2	13.2

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.

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

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	102.9 PK			2.06 H	177	69.0	33.9
2	*2462.00	93.7 AV			2.06 H	177	59.8	33.9
3	2483.50	63.7 PK	74.0	-10.3	2.07 H	102	29.8	33.9
4	2483.50	46.4 AV	54.0	-7.6	2.07 H	102	12.5	33.9
5	4924.00	51.8 PK	74.0	-22.2	2.99 H	360	38.5	13.3
6	4924.00	38.2 AV	54.0	-15.8	2.99 H	360	24.9	13.3
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	111.8 PK			2.51 V	254	77.9	33.9
2	*2462.00	101.5 AV			2.51 V	254	67.6	33.9
3	2483.50	73.6 PK	74.0	-0.4	2.62 V	254	39.7	33.9
4	2483.50	49.1 AV	54.0	-4.9	2.62 V	254	15.2	33.9
5	4924.00	53.5 PK	74.0	-20.5	1.02 V	300	40.2	13.3
6	4924.00	39.6 AV	54.0	-14.4	1.02 V	300	26.3	13.3

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.

802.11ax (HE40)

CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	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	59.0 PK	74.0	-15.0	1.20 H	289	25.2	33.8
2	2390.00	47.1 AV	54.0	-6.9	1.20 H	289	13.3	33.8
3	*2422.00	101.4 PK			1.25 H	299	67.6	33.8
4	*2422.00	91.5 AV			1.25 H	299	57.7	33.8
5	2483.50	58.0 PK	74.0	-16.0	2.00 H	298	24.1	33.9
6	2483.50	45.7 AV	54.0	-8.3	2.00 H	298	11.8	33.9
7	4844.00	53.0 PK	74.0	-21.0	3.22 H	25	39.8	13.2
8	4844.00	37.7 AV	54.0	-16.3	3.22 H	25	24.5	13.2
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	2390.00	67.0 PK	74.0	-7.0	2.57 V	238	33.2	33.8
2	2390.00	53.6 AV	54.0	-0.4	2.57 V	238	19.8	33.8
3	*2422.00	110.5 PK			2.52 V	233	76.7	33.8
4	*2422.00	100.6 AV			2.52 V	233	66.8	33.8
5	2483.50	58.1 PK	74.0	-15.9	2.00 V	232	24.2	33.9
6	2483.50	46.8 AV	54.0	-7.2	2.00 V	232	12.9	33.9
7	4844.00	54.0 PK	74.0	-20.0	1.22 V	152	40.8	13.2
8	4844.00	38.8 AV	54.0	-15.2	1.22 V	152	25.6	13.2

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.

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

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	59.4 PK	74.0	-14.6	1.23 H	298	25.6	33.8
2	2390.00	46.0 AV	54.0	-8.0	1.23 H	298	12.2	33.8
3	*2437.00	101.8 PK			1.13 H	295	68.0	33.8
4	*2437.00	92.5 AV			1.13 H	295	58.7	33.8
5	2483.50	60.1 PK	74.0	-13.9	1.20 H	284	26.2	33.9
6	2483.50	46.4 AV	54.0	-7.6	1.20 H	284	12.5	33.9
7	4874.00	53.3 PK	74.0	-20.7	2.52 H	122	40.1	13.2
8	4874.00	38.0 AV	54.0	-16.0	2.52 H	122	24.8	13.2
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	2390.00	69.7 PK	74.0	-4.3	2.58 V	346	35.9	33.8
2	2390.00	53.5 AV	54.0	-0.5	2.58 V	346	19.7	33.8
3	*2437.00	111.0 PK			2.55 V	329	77.2	33.8
4	*2437.00	100.5 AV			2.55 V	329	66.7	33.8
5	2483.50	64.4 PK	74.0	-9.6	2.50 V	323	30.5	33.9
6	2483.50	49.8 AV	54.0	-4.2	2.50 V	323	15.9	33.9
7	4874.00	53.8 PK	74.0	-20.2	2.33 V	100	40.6	13.2
8	4874.00	39.5 AV	54.0	-14.5	2.33 V	100	26.3	13.2

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.

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

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	57.0 PK	74.0	-17.0	1.52 H	288	23.2	33.8
2	2390.00	45.8 AV	54.0	-8.2	1.52 H	288	12.0	33.8
3	*2452.00	101.5 PK			1.20 H	293	67.7	33.8
4	*2452.00	90.5 AV			1.20 H	293	56.7	33.8
5	2483.50	64.9 PK	74.0	-9.1	1.16 H	293	31.0	33.9
6	2483.50	46.9 AV	54.0	-7.1	1.16 H	293	13.0	33.9
7	4904.00	53.6 PK	74.0	-20.4	3.25 H	321	40.2	13.4
8	4904.00	38.6 AV	54.0	-15.4	3.25 H	321	25.2	13.4
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	58.3 PK	74.0	-15.7	2.77 V	223	24.5	33.8
2	2390.00	47.6 AV	54.0	-6.4	2.77 V	223	13.8	33.8
3	*2452.00	110.7 PK			2.79 V	269	76.9	33.8
4	*2452.00	99.6 AV			2.79 V	269	65.8	33.8
5	2483.50	73.5 PK	74.0	-0.5	2.74 V	109	39.6	33.9
6	2483.50	53.3 AV	54.0	-0.7	2.74 V	109	19.4	33.9
7	4904.00	54.3 PK	74.0	-19.7	3.22 V	55	40.9	13.4
8	4904.00	39.6 AV	54.0	-14.4	3.22 V	55	26.2	13.4

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.

Below 1GHz worst-case data:

Test Mode A (Internal antenna + Eth7 Radio)

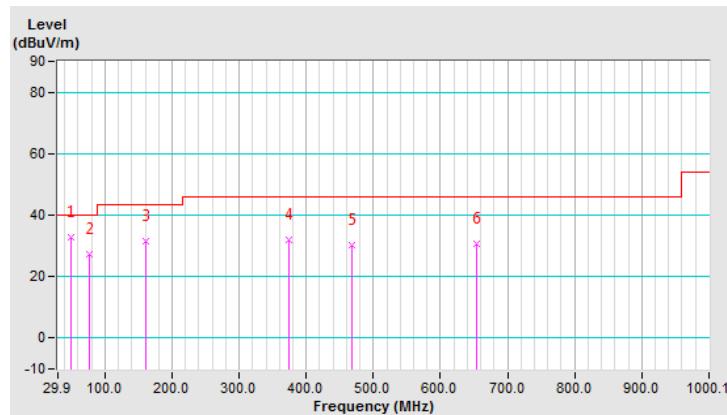
802.11b

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	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	49.34	32.9 QP	40.0	-7.1	1.50 H	111	41.8	-8.9
2	76.56	27.5 QP	40.0	-12.5	1.00 H	175	40.1	-12.6
3	160.17	31.7 QP	43.5	-11.8	1.50 H	284	40.6	-8.9
4	374.04	32.1 QP	46.0	-13.9	1.00 H	241	39.0	-6.9
5	467.36	30.1 QP	46.0	-15.9	1.00 H	94	35.5	-5.4
6	654.02	30.6 QP	46.0	-15.4	1.00 H	175	32.2	-1.6

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

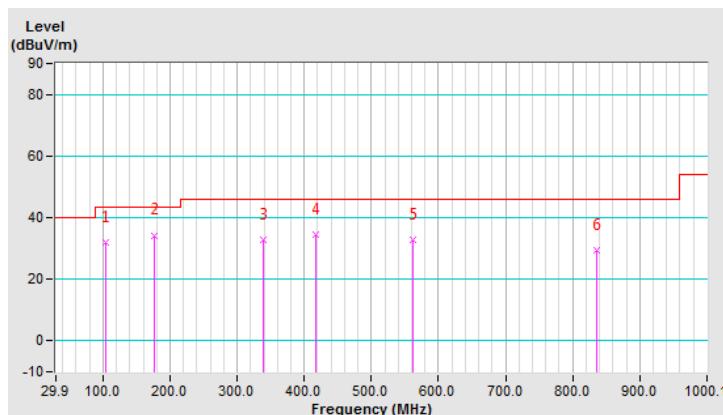


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	103.78	31.8 QP	43.5	-11.7	1.50 V	292	44.5	-12.7
2	175.72	34.3 QP	43.5	-9.2	1.00 V	237	44.1	-9.8
3	339.04	32.8 QP	46.0	-13.2	1.00 V	116	40.3	-7.5
4	416.81	34.6 QP	46.0	-11.4	2.00 V	277	40.9	-6.3
5	562.64	33.0 QP	46.0	-13.0	1.00 V	100	37.0	-4.0
6	834.84	29.5 QP	46.0	-16.5	1.00 V	196	27.2	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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.



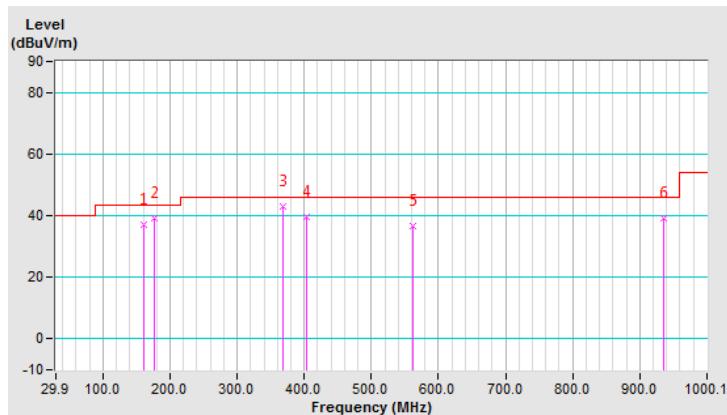
Test Mode B (Internal antenna + Eth7 Radio)
802.11b

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	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	160.17	37.2 QP	43.5	-6.3	1.50 H	65	46.1	-8.9
2	175.72	39.3 QP	43.5	-4.2	1.50 H	80	49.1	-9.8
3	368.21	42.9 QP	46.0	-3.1	1.00 H	107	49.9	-7.0
4	403.20	39.4 QP	46.0	-6.6	1.00 H	211	46.0	-6.6
5	562.64	36.5 QP	46.0	-9.5	1.50 H	346	40.5	-4.0
6	935.94	39.1 QP	46.0	-6.9	1.50 H	4	35.1	4.0

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

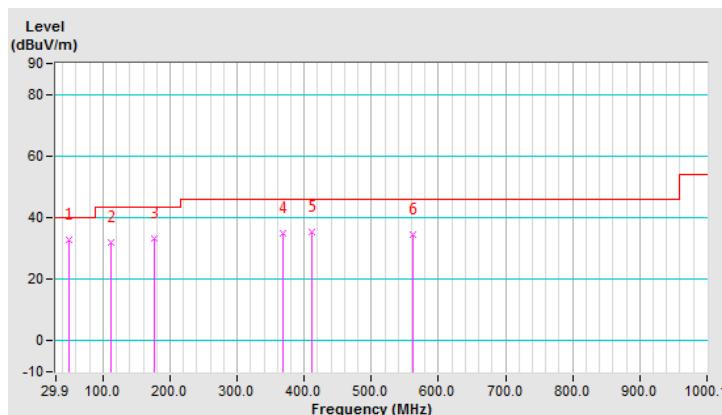


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	49.34	32.6 QP	40.0	-7.4	1.00 V	19	41.5	-8.9
2	111.56	31.8 QP	43.5	-11.7	1.00 V	313	43.7	-11.9
3	175.72	33.4 QP	43.5	-10.1	1.00 V	239	43.2	-9.8
4	368.21	34.8 QP	46.0	-11.2	1.50 V	204	41.8	-7.0
5	410.98	35.3 QP	46.0	-10.7	1.00 V	269	41.7	-6.4
6	562.64	34.5 QP	46.0	-11.5	1.00 V	100	38.5	-4.0

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.



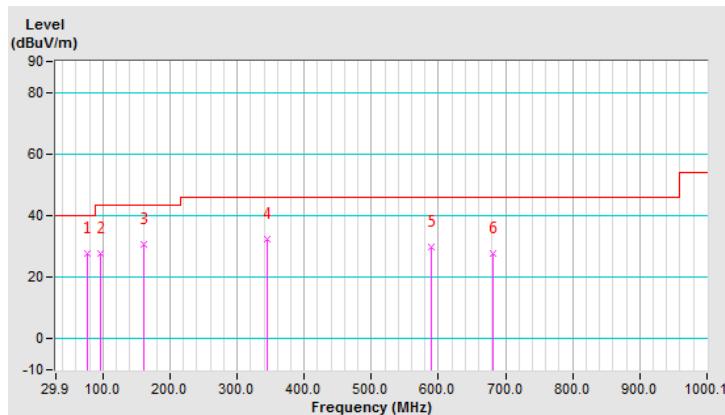
Test Mode C (Internal antenna + Eth8 Radio)
802.11b

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	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	76.56	27.7 QP	40.0	-12.3	1.50 H	286	40.3	-12.6
2	96.01	27.9 QP	43.5	-15.6	1.00 H	129	41.6	-13.7
3	160.17	30.8 QP	43.5	-12.7	1.00 H	270	39.7	-8.9
4	344.87	32.5 QP	46.0	-13.5	1.50 H	99	39.9	-7.4
5	589.86	30.0 QP	46.0	-16.0	1.00 H	209	33.0	-3.0
6	681.24	27.8 QP	46.0	-18.2	1.00 H	10	28.8	-1.0

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

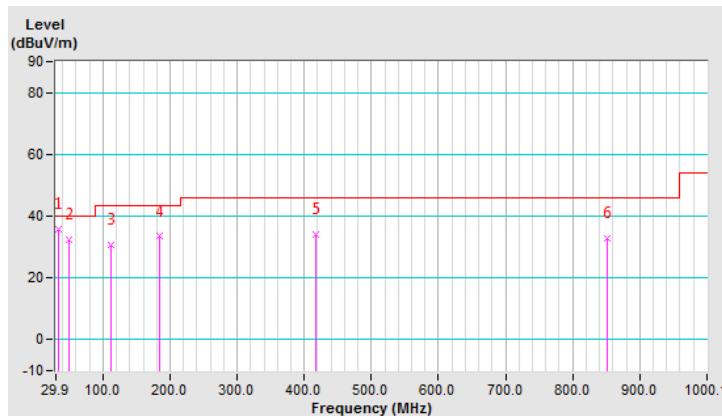


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	33.79	35.6 QP	40.0	-4.4	1.00 V	334	46.2	-10.6
2	49.34	32.2 QP	40.0	-7.8	1.00 V	95	41.1	-8.9
3	111.56	30.6 QP	43.5	-12.9	2.00 V	321	42.5	-11.9
4	183.50	33.4 QP	43.5	-10.1	1.00 V	239	44.0	-10.6
5	416.81	34.2 QP	46.0	-11.8	1.00 V	263	40.5	-6.3
6	852.33	32.9 QP	46.0	-13.1	1.00 V	196	30.3	2.6

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.



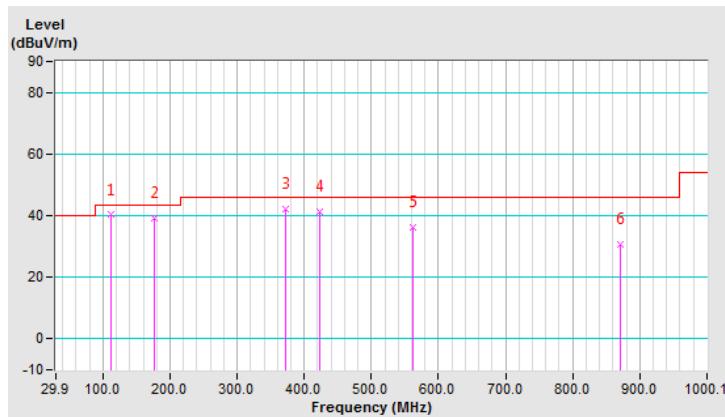
Test Mode D (Internal antenna + Eth8 Radio)
802.11b

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	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	111.56	40.2 QP	43.5	-3.3	1.50 H	71	52.1	-11.9
2	175.72	39.3 QP	43.5	-4.2	1.50 H	78	49.1	-9.8
3	372.09	42.2 QP	46.0	-3.8	1.00 H	108	49.2	-7.0
4	422.65	41.2 QP	46.0	-4.8	1.00 H	258	47.4	-6.2
5	562.64	36.3 QP	46.0	-9.7	1.50 H	109	40.3	-4.0
6	871.78	30.8 QP	46.0	-15.2	1.50 H	213	28.0	2.8

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

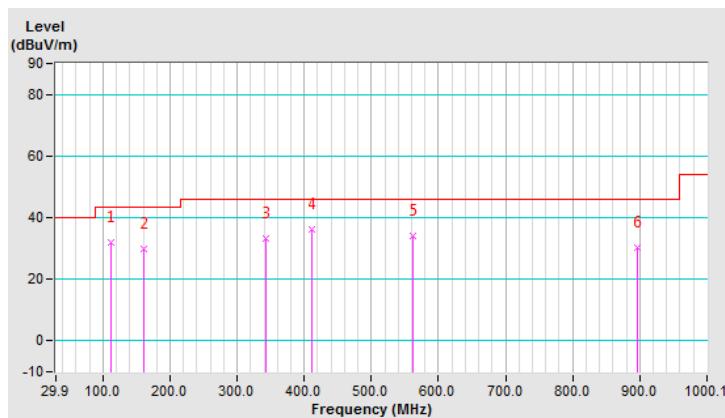


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	111.56	31.8 QP	43.5	-11.7	1.00 V	279	43.7	-11.9
2	160.17	29.7 QP	43.5	-13.8	1.00 V	259	38.6	-8.9
3	342.93	33.3 QP	46.0	-12.7	1.00 V	106	40.7	-7.4
4	410.98	36.1 QP	46.0	-9.9	1.00 V	266	42.5	-6.4
5	562.64	33.9 QP	46.0	-12.1	1.00 V	98	37.9	-4.0
6	897.05	30.3 QP	46.0	-15.7	1.00 V	340	27.0	3.3

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.



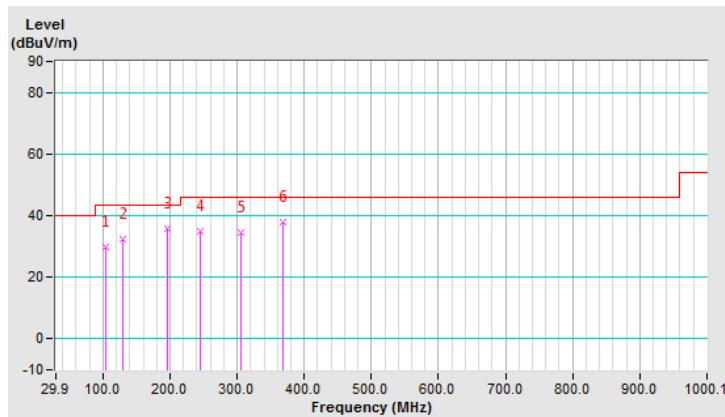
Test Mode E (External antenna + Eth7 Radio)
802.11b

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	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	103.64	29.9 QP	43.5	-13.6	1.00 H	312	42.6	-12.7
2	128.86	32.4 QP	43.5	-11.1	1.00 H	312	42.8	-10.4
3	196.77	35.8 QP	43.5	-7.7	1.00 H	118	47.1	-11.3
4	245.28	35.0 QP	46.0	-11.0	1.00 H	211	44.5	-9.5
5	305.44	34.6 QP	46.0	-11.4	1.00 H	85	42.5	-7.9
6	367.53	37.7 QP	46.0	-8.3	1.00 H	292	44.7	-7.0

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

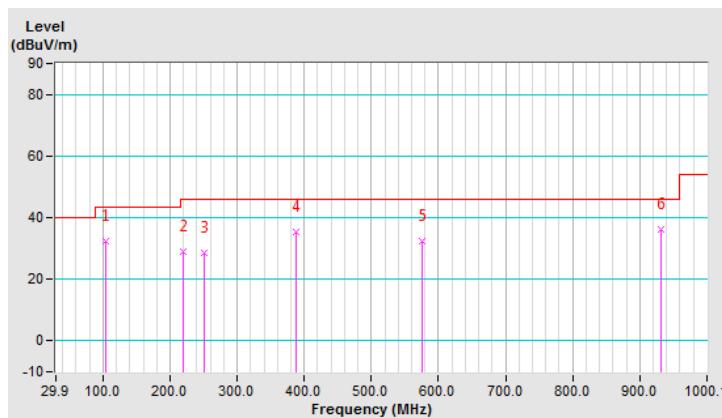


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	103.64	32.2 QP	43.5	-11.3	1.00 V	168	44.9	-12.7
2	220.06	28.9 QP	46.0	-17.1	1.00 V	339	39.9	-11.0
3	251.11	28.6 QP	46.0	-17.4	1.00 V	143	38.0	-9.4
4	386.93	35.5 QP	46.0	-10.5	1.00 V	293	42.2	-6.7
5	575.15	32.4 QP	46.0	-13.6	1.00 V	160	35.8	-3.4
6	932.19	36.0 QP	46.0	-10.0	1.00 V	267	32.0	4.0

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.



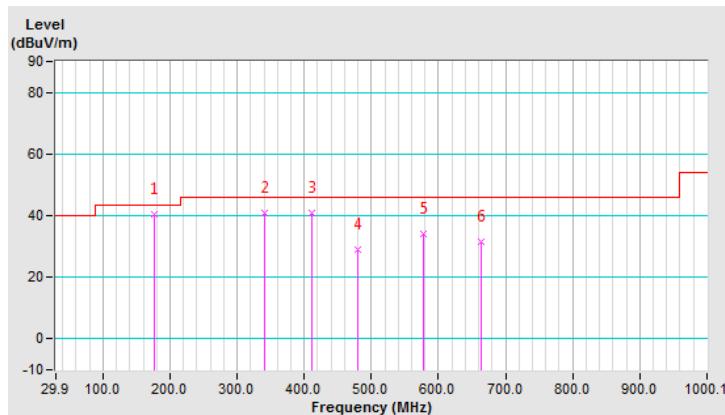
Test Mode F (External antenna + Eth7 Radio)
802.11b

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	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	175.72	40.4 QP	43.5	-3.1	2.00 H	246	50.2	-9.8
2	340.99	40.9 QP	46.0	-5.1	1.00 H	169	48.3	-7.4
3	410.98	40.8 QP	46.0	-5.2	1.00 H	192	47.2	-6.4
4	479.03	29.1 QP	46.0	-16.9	2.00 H	13	34.4	-5.3
5	578.19	34.2 QP	46.0	-11.8	1.00 H	13	37.6	-3.4
6	663.74	31.5 QP	46.0	-14.5	2.00 H	98	32.8	-1.3

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

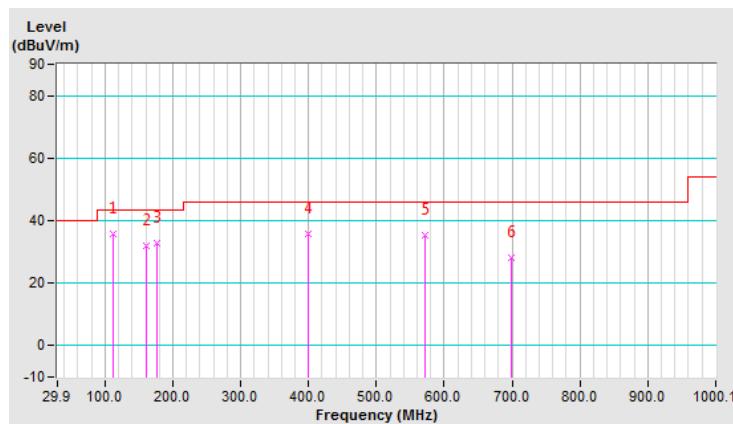


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	111.56	35.6 QP	43.5	-7.9	1.00 V	274	47.5	-11.9
2	160.17	31.9 QP	43.5	-11.6	1.00 V	60	40.8	-8.9
3	175.72	32.9 QP	43.5	-10.6	2.00 V	146	42.7	-9.8
4	399.31	35.9 QP	46.0	-10.1	1.00 V	288	42.5	-6.6
5	572.36	35.2 QP	46.0	-10.8	1.00 V	91	38.8	-3.6
6	698.74	28.3 QP	46.0	-17.7	2.00 V	13	28.9	-0.6

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.



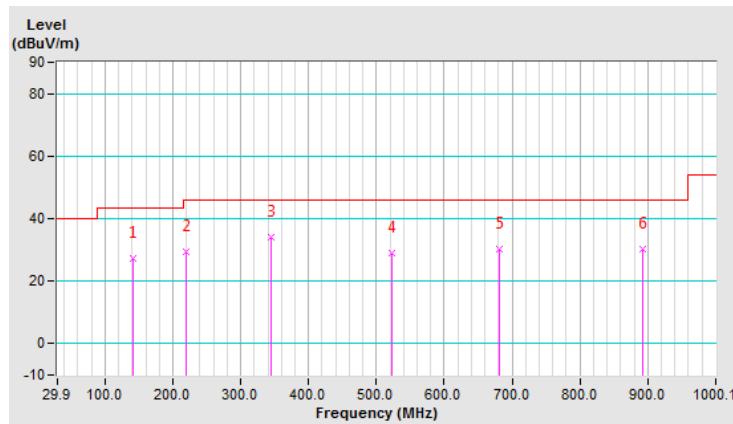
Test Mode G (External antenna + Eth8 Radio)
802.11b

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	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	140.50	27.4 QP	43.5	-16.1	1.00 H	34	36.7	-9.3
2	220.06	29.5 QP	46.0	-16.5	1.00 H	9	40.5	-11.0
3	344.24	34.0 QP	46.0	-12.0	1.00 H	179	41.4	-7.4
4	522.76	29.1 QP	46.0	-16.9	1.00 H	63	33.6	-4.5
5	681.87	30.3 QP	46.0	-15.7	1.00 H	9	31.3	-1.0
6	893.38	30.1 QP	46.0	-15.9	1.00 H	9	26.8	3.3

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

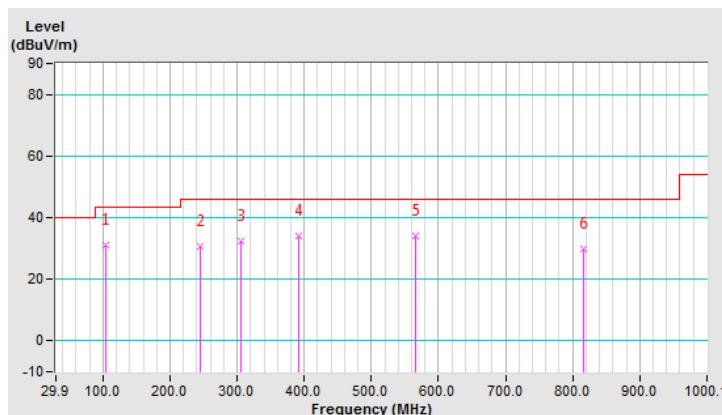


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	103.64	31.0 QP	43.5	-12.5	1.50 V	192	43.7	-12.7
2	245.28	30.6 QP	46.0	-15.4	2.00 V	160	40.1	-9.5
3	305.44	32.4 QP	46.0	-13.6	1.00 V	262	40.3	-7.9
4	390.81	33.9 QP	46.0	-12.1	1.00 V	179	40.6	-6.7
5	565.45	34.1 QP	46.0	-11.9	1.00 V	167	37.9	-3.8
6	815.76	29.9 QP	46.0	-16.1	1.00 V	9	27.9	2.0

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.



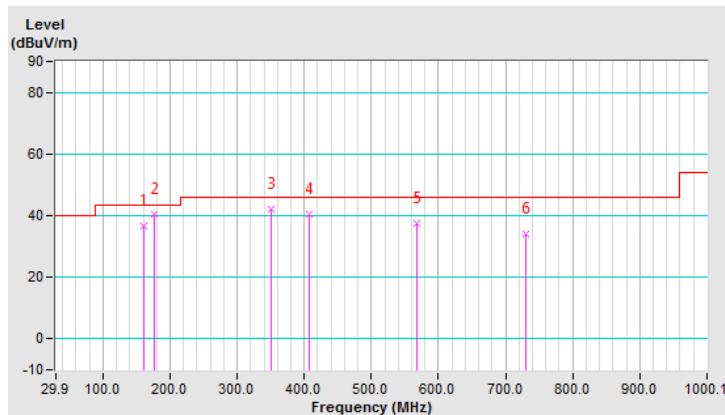
Test Mode H (External antenna + Eth8 Radio)
802.11b

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	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	160.17	36.8 QP	43.5	-6.7	1.49 H	58	45.7	-8.9
2	175.72	40.4 QP	43.5	-3.1	1.49 H	238	50.2	-9.8
3	350.71	42.1 QP	46.0	-3.9	1.00 H	143	49.4	-7.3
4	407.09	40.6 QP	46.0	-5.4	1.00 H	196	47.1	-6.5
5	568.47	37.4 QP	46.0	-8.6	1.49 H	7	41.2	-3.8
6	729.84	34.0 QP	46.0	-12.0	1.00 H	298	33.7	0.3

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

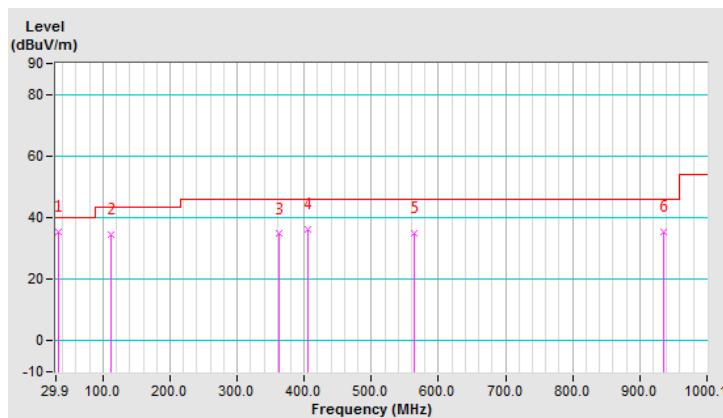


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	33.79	35.2 QP	40.0	-4.8	1.00 V	154	45.8	-10.6
2	111.56	34.6 QP	43.5	-8.9	1.00 V	280	46.5	-11.9
3	362.37	34.7 QP	46.0	-11.3	1.00 V	150	41.9	-7.2
4	405.15	36.2 QP	46.0	-9.8	1.00 V	287	42.7	-6.5
5	564.58	34.9 QP	46.0	-11.1	1.00 V	108	38.8	-3.9
6	935.94	35.5 QP	46.0	-10.5	1.49 V	240	31.5	4.0

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCS 30	100288	Jan. 03, 2019	Jan. 02, 2020
RF signal cable Woken	5D-FB	Cable-cond1-01	Sep. 05, 2018	Sep. 04, 2019
LISN ROHDE & SCHWARZ (EUT)	ENV216	101826	Feb. 21, 2019	Feb. 20, 2020
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Aug. 19, 2018	Aug. 18, 2019
Software ADT	BV ADT_Cond_ V7.3.7.4	NA	NA	NA

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 HwaYa Shielded Room 1.
 3. The VCCI Site Registration No. is C-12040.

4.2.3 Test Procedures

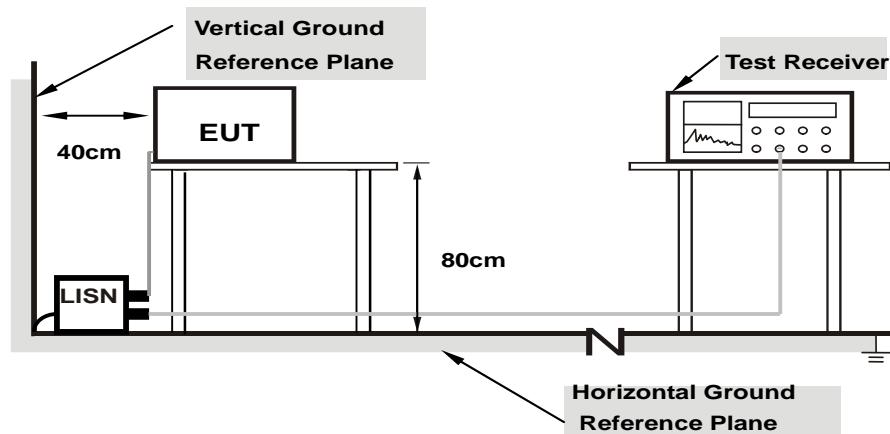
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling 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

Worst-case data:

Test Mode A (Internal antenna + Eth7 Radio)

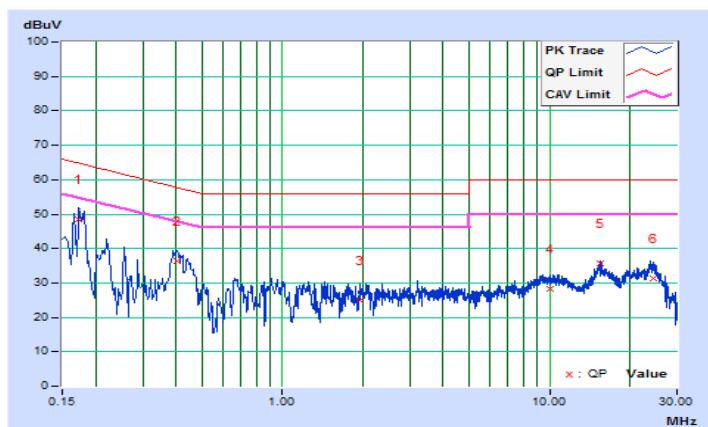
802.11b

Phase		Line (L)		Detector Function		Quasi-Peak (QP) / Average (AV)	
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			(dB)							
1	0.17346	9.66	38.96	25.27	48.62	34.93	64.79	54.79	-16.17	-19.86
2	0.40160	9.65	26.79	15.27	36.44	24.92	57.82	47.82	-21.38	-22.90
3	1.95642	9.66	15.35	7.17	25.01	16.83	56.00	46.00	-30.99	-29.17
4	10.01884	9.83	18.62	13.21	28.45	23.04	60.00	50.00	-31.55	-26.96
5	15.45765	9.86	25.69	22.05	35.55	31.91	60.00	50.00	-24.45	-18.09
6	24.56404	9.88	21.31	16.10	31.19	25.98	60.00	50.00	-28.81	-24.02

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.

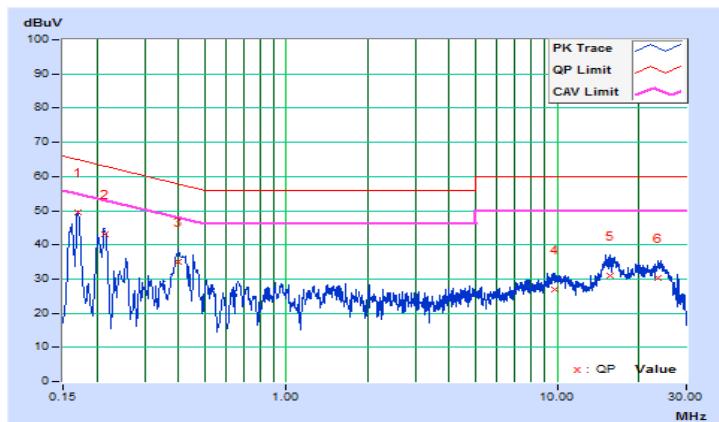


Phase	Neutral (N)		Detector Function		Quasi-Peak (QP) / Average (AV)	
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16967	9.66	39.87	28.15	49.53	37.81	64.98	54.98	-15.45	-17.17
2	0.21282	9.66	33.36	21.56	43.02	31.22	63.09	53.09	-20.07	-21.87
3	0.40024	9.65	25.32	13.26	34.97	22.91	57.85	47.85	-22.88	-24.94
4	9.76078	9.83	17.16	11.55	26.99	21.38	60.00	50.00	-33.01	-28.62
5	15.73917	9.90	21.19	15.68	31.09	25.58	60.00	50.00	-28.91	-24.42
6	23.67647	9.96	20.18	14.83	30.14	24.79	60.00	50.00	-29.86	-25.21

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.



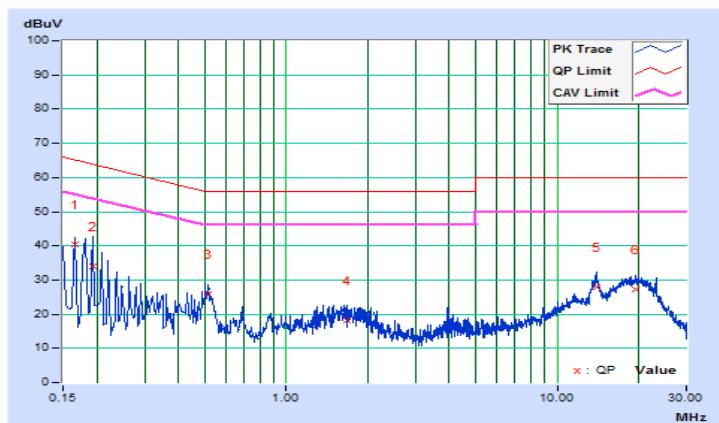
Test Mode B (Internal antenna + Eth7 Radio)
802.11b

Phase		Line (L)		Detector Function		Quasi-Peak (QP) / Average (AV)	
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
	1	0.16569	9.66	30.76	9.86	40.42	19.52	65.17	55.17	-24.75
2	0.19301	9.66	24.44	5.36	34.10	15.02	63.91	53.91	-29.81	-38.89
3	0.51754	9.65	16.13	7.52	25.78	17.17	56.00	46.00	-30.22	-28.83
4	1.66708	9.65	8.54	2.80	18.19	12.45	56.00	46.00	-37.81	-33.55
5	13.92493	9.85	18.21	12.04	28.06	21.89	60.00	50.00	-31.94	-28.11
6	19.59052	9.87	17.50	11.71	27.37	21.58	60.00	50.00	-32.63	-28.42

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.

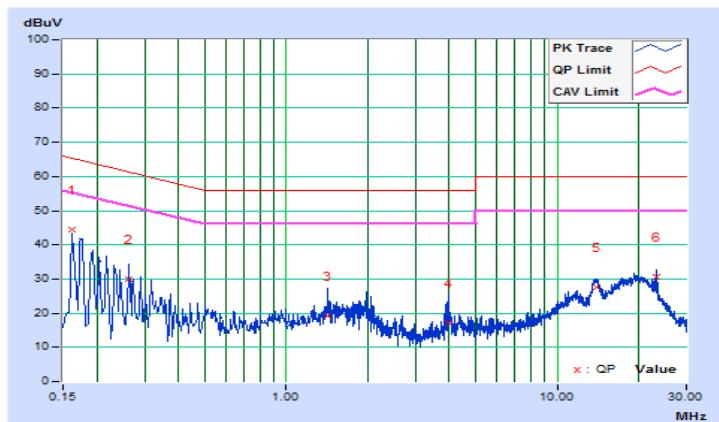


Phase	Neutral (N)		Detector Function		Quasi-Peak (QP) / Average (AV)	
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
	0.16173	9.66	34.73	19.07	44.39	28.73	65.37	55.37	-20.98	-26.64
2	0.26339	9.66	20.45	6.83	30.11	16.49	61.32	51.32	-31.21	-34.83
3	1.41684	9.64	9.71	4.13	19.35	13.77	56.00	46.00	-36.65	-32.23
4	3.97007	9.71	7.57	0.14	17.28	9.85	56.00	46.00	-38.72	-36.15
5	13.93666	9.88	17.74	11.64	27.62	21.52	60.00	50.00	-32.38	-28.48
6	23.12907	9.96	20.68	16.88	30.64	26.84	60.00	50.00	-29.36	-23.16

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.



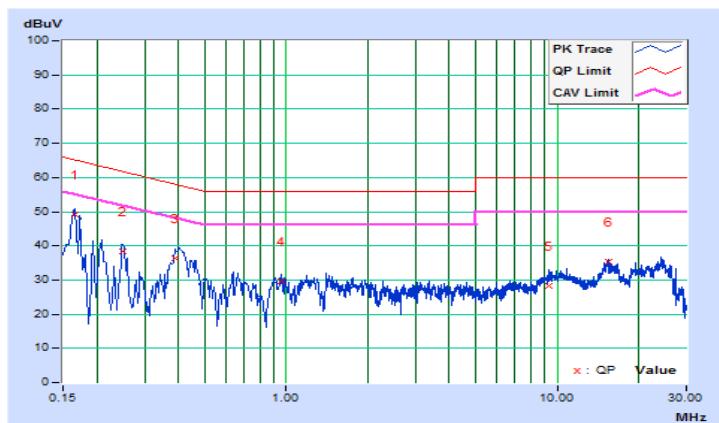
Test Mode C (Internal antenna + Eth8 Radio)
802.11b

Phase		Line (L)		Detector Function		Quasi-Peak (QP) / Average (AV)	
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
	1	0.16526	9.66	39.63	27.54	49.29	37.20	65.20	55.20	-15.91
2	0.24796	9.66	28.60	17.64	38.26	27.30	61.83	51.83	-23.57	-24.53
3	0.38910	9.65	26.55	13.73	36.20	23.38	58.08	48.08	-21.88	-24.70
4	0.95937	9.64	20.04	12.97	29.68	22.61	56.00	46.00	-26.32	-23.39
5	9.30331	9.82	18.32	12.65	28.14	22.47	60.00	50.00	-31.86	-27.53
6	15.45374	9.86	25.57	22.09	35.43	31.95	60.00	50.00	-24.57	-18.05

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.

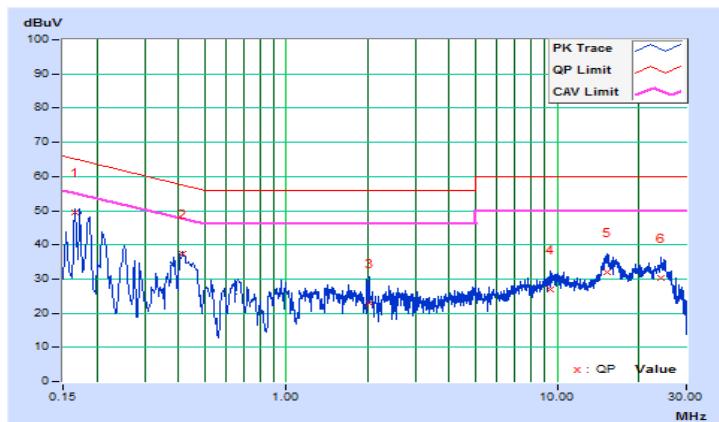


Phase	Neutral (N)		Detector Function		Quasi-Peak (QP) / Average (AV)	
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16569	9.66	39.70	27.27	49.36	36.93	65.17	55.17	-15.81	-18.24
2	0.41560	9.65	27.63	21.02	37.28	30.67	57.54	47.54	-20.26	-16.87
3	2.03071	9.66	13.37	4.98	23.03	14.64	56.00	46.00	-32.97	-31.36
4	9.48317	9.83	17.16	11.33	26.99	21.16	60.00	50.00	-33.01	-28.84
5	15.22305	9.90	22.12	16.60	32.02	26.50	60.00	50.00	-27.98	-23.50
6	24.25515	9.97	20.50	15.23	30.47	25.20	60.00	50.00	-29.53	-24.80

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.



Test Mode D (Internal antenna + Eth8 Radio)

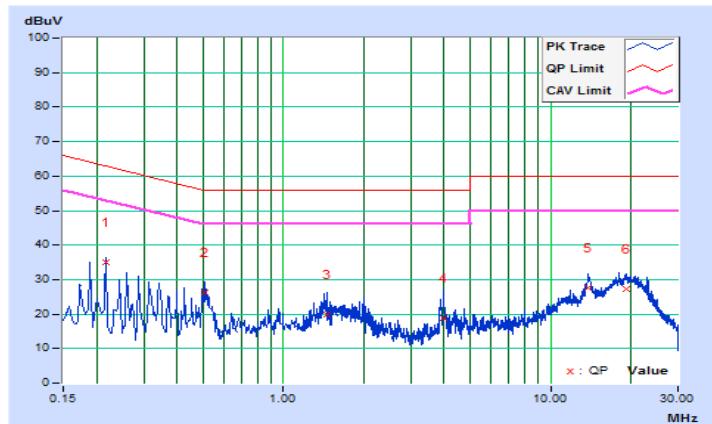
802.11b

Phase		Line (L)		Detector Function		Quasi-Peak (QP) / Average (AV)	
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No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.21647	9.66	25.43	9.50	35.09	19.16	62.95	52.95	-27.86	-33.79
2	0.50972	9.65	16.66	7.58	26.31	17.23	56.00	46.00	-29.69	-28.77
3	1.45594	9.65	10.12	3.56	19.77	13.21	56.00	46.00	-36.23	-32.79
4	3.96616	9.71	9.07	0.38	18.78	10.09	56.00	46.00	-37.22	-35.91
5	13.76071	9.85	17.61	11.28	27.46	21.13	60.00	50.00	-32.54	-28.87
6	19.20734	9.87	17.27	11.52	27.14	21.39	60.00	50.00	-32.86	-28.61

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.

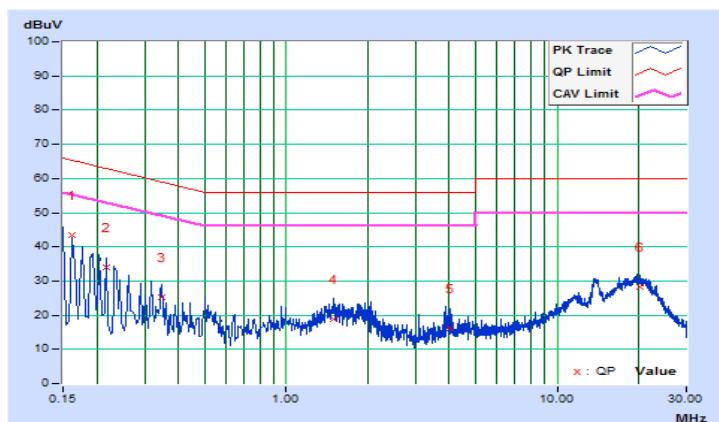


Phase	Neutral (N)		Detector Function		Quasi-Peak (QP) / Average (AV)	
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No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16173	9.66	33.83	17.65	43.49	27.31	65.37	55.37	-21.88	-28.06
2	0.21647	9.66	24.25	7.72	33.91	17.38	62.95	52.95	-29.04	-35.57
3	0.34550	9.65	15.57	11.78	25.22	21.43	59.07	49.07	-33.85	-27.64
4	1.49504	9.64	9.34	3.61	18.98	13.25	56.00	46.00	-37.02	-32.75
5	4.02090	9.71	6.32	1.24	16.03	10.95	56.00	46.00	-39.97	-35.05
6	20.31778	9.94	18.24	12.61	28.18	22.55	60.00	50.00	-31.82	-27.45

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.



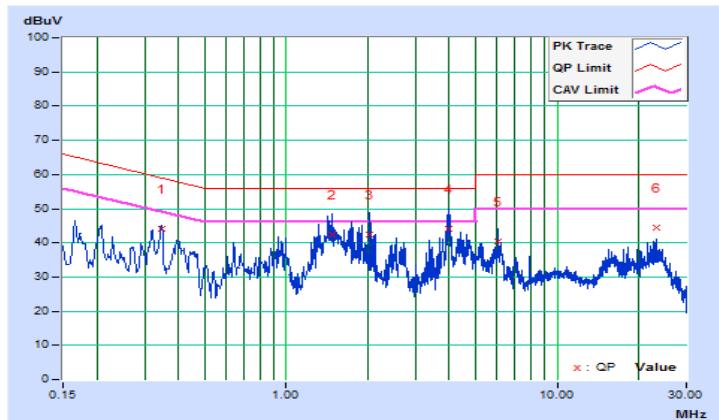
Test Mode E (External antenna + Eth7 Radio)
802.11b

Phase		Line (L)		Detector Function		Quasi-Peak (QP) / Average (AV)	
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
	0.34560	9.65	34.33	33.98	43.98	43.63	59.07	49.07	-15.09	-5.44
1	1.47158	9.65	32.71	25.46	42.36	35.11	56.00	46.00	-13.64	-10.89
2	2.02680	9.66	32.87	19.43	42.53	29.09	56.00	46.00	-13.47	-16.91
3	3.97007	9.71	34.37	24.68	44.08	34.39	56.00	46.00	-11.92	-11.61
4	6.07756	9.75	30.64	27.65	40.39	37.40	60.00	50.00	-19.61	-12.60
5	23.12907	9.88	34.55	31.31	44.43	41.19	60.00	50.00	-15.57	-8.81

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.

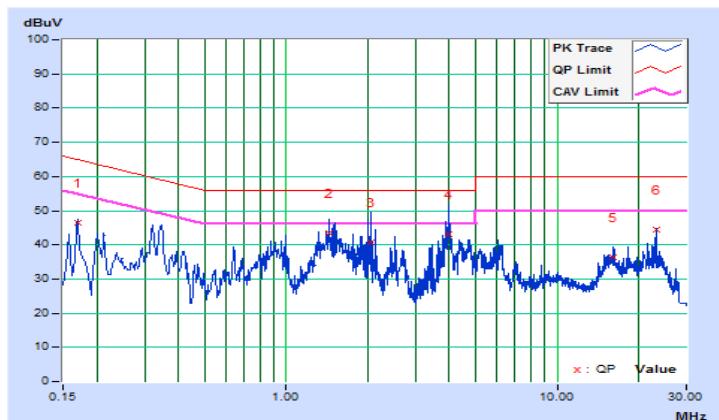


Phase	Neutral (N)		Detector Function		Quasi-Peak (QP) / Average (AV)	
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16955	9.66	36.71	26.58	46.37	36.24	64.98	54.98	-18.61	-18.74
2	1.44030	9.64	33.76	26.41	43.40	36.05	56.00	46.00	-12.60	-9.95
3	2.05417	9.66	31.17	18.25	40.83	27.91	56.00	46.00	-15.17	-18.09
4	3.95834	9.71	33.44	24.22	43.15	33.93	56.00	46.00	-12.85	-12.07
5	16.16536	9.91	26.37	21.29	36.28	31.20	60.00	50.00	-23.72	-18.80
6	23.12907	9.96	34.50	31.11	44.46	41.07	60.00	50.00	-15.54	-8.93

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.



Test Mode F (External antenna + Eth7 Radio)

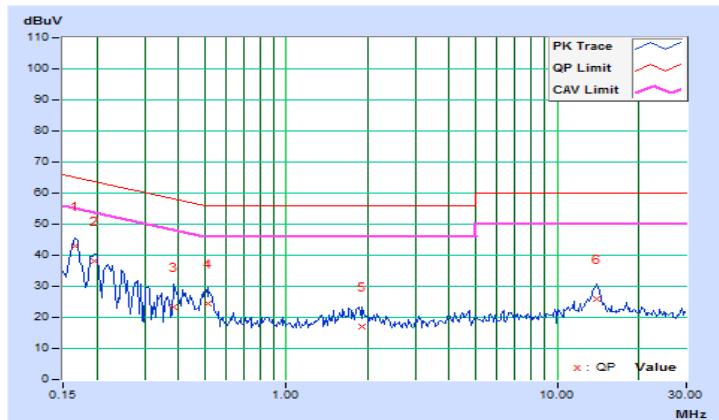
802.11b

Phase		Line (L)		Detector Function		Quasi-Peak (QP) / Average (AV)	
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
	0.16562	9.69	33.32	19.17	43.01	28.86	65.18	55.18	-22.17	-26.32
2	0.19687	9.68	28.58	16.19	38.26	25.87	63.74	53.74	-25.48	-27.87
3	0.38438	9.68	13.56	1.25	23.24	10.93	58.18	48.18	-34.94	-37.25
4	0.51328	9.68	14.64	4.33	24.32	14.01	56.00	46.00	-31.68	-31.99
5	1.91016	9.70	7.28	1.39	16.98	11.09	56.00	46.00	-39.02	-34.91
6	13.92578	9.90	15.86	9.94	25.76	19.84	60.00	50.00	-34.24	-30.16

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.

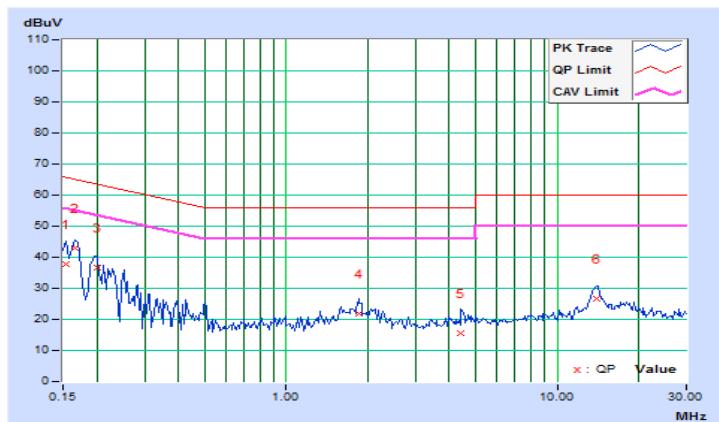


Phase	Neutral (N)		Detector Function		Quasi-Peak (QP) / Average (AV)	
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	9.66	28.15	2.73	37.81	12.39	65.79	55.79	-27.98	-43.40
2	0.16562	9.66	33.44	18.83	43.10	28.49	65.18	55.18	-22.08	-26.69
3	0.20078	9.66	26.98	12.93	36.64	22.59	63.58	53.58	-26.94	-30.99
4	1.85547	9.67	12.20	5.62	21.87	15.29	56.00	46.00	-34.13	-30.71
5	4.41406	9.73	5.85	1.66	15.58	11.39	56.00	46.00	-40.42	-34.61
6	14.01563	9.91	16.83	10.96	26.74	20.87	60.00	50.00	-33.26	-29.13

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.



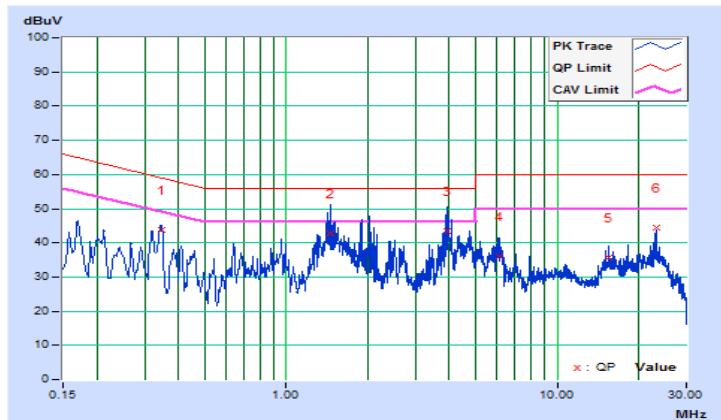
Test Mode G (External antenna + Eth8 Radio)
802.11b

Phase		Line (L)		Detector Function		Quasi-Peak (QP) / Average (AV)	
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
	1	0.34560	9.65	34.21	33.89	43.86	43.54	59.07	49.07	-15.21
2	1.45594	9.65	33.05	25.66	42.70	35.31	56.00	46.00	-13.30	-10.69
3	3.94270	9.71	33.74	23.74	43.45	33.45	56.00	46.00	-12.55	-12.55
4	6.15185	9.75	26.16	19.88	35.91	29.63	60.00	50.00	-24.09	-20.37
5	15.43419	9.86	25.79	21.08	35.65	30.94	60.00	50.00	-24.35	-19.06
6	23.12907	9.88	34.47	31.36	44.35	41.24	60.00	50.00	-15.65	-8.76

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.

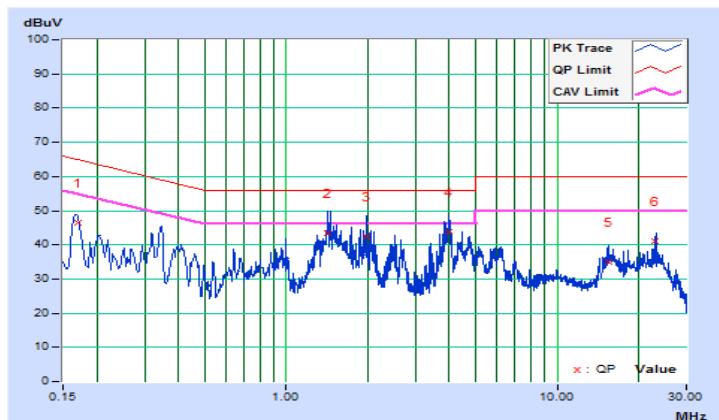


Phase	Neutral (N)		Detector Function		Quasi-Peak (QP) / Average (AV)	
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16955	9.66	36.75	26.59	46.41	36.25	64.98	54.98	-18.57	-18.73
2	1.42466	9.64	33.72	26.63	43.36	36.27	56.00	46.00	-12.64	-9.73
3	1.97597	9.66	32.60	19.53	42.26	29.19	56.00	46.00	-13.74	-16.81
4	3.96616	9.71	34.08	24.65	43.79	34.36	56.00	46.00	-12.21	-11.64
5	15.43810	9.90	25.03	21.29	34.93	31.19	60.00	50.00	-25.07	-18.81
6	23.06651	9.96	30.99	27.62	40.95	37.58	60.00	50.00	-19.05	-12.42

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.



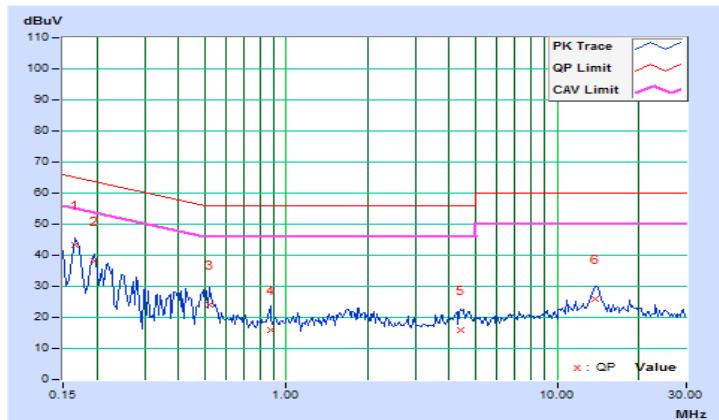
Test Mode H (External antenna + Eth8 Radio)
802.11b

Phase		Line (L)		Detector Function		Quasi-Peak (QP) / Average (AV)	
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
	0.16562	9.69	33.46	19.66	43.15	29.35	65.18	55.18	-22.03	-25.83
2	0.19687	9.68	28.34	15.56	38.02	25.24	63.74	53.74	-25.72	-28.50
3	0.52109	9.68	14.36	4.78	24.04	14.46	56.00	46.00	-31.96	-31.54
4	0.87266	9.67	6.31	1.93	15.98	11.60	56.00	46.00	-40.02	-34.40
5	4.41016	9.76	6.29	1.55	16.05	11.31	56.00	46.00	-39.95	-34.69
6	13.90234	9.90	16.15	10.12	26.05	20.02	60.00	50.00	-33.95	-29.98

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.

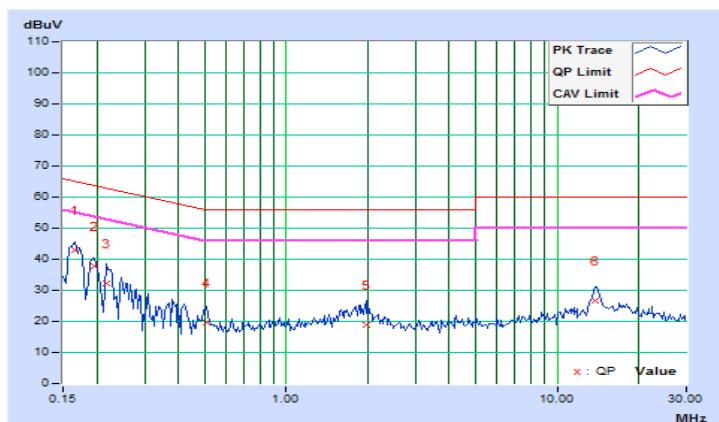


Phase	Neutral (N)		Detector Function		Quasi-Peak (QP) / Average (AV)	
-------	-------------	--	-------------------	--	--------------------------------	--

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16562	9.66	33.22	18.58	42.88	28.24	65.18	55.18	-22.30	-26.94
2	0.19687	9.66	28.22	14.50	37.88	24.16	63.74	53.74	-25.86	-29.58
3	0.21641	9.66	22.44	5.40	32.10	15.06	62.96	52.96	-30.86	-37.90
4	0.50938	9.65	9.80	1.98	19.45	11.63	56.00	46.00	-36.55	-34.37
5	1.98047	9.67	9.19	2.47	18.86	12.14	56.00	46.00	-37.14	-33.86
6	13.88281	9.91	16.72	11.17	26.63	21.08	60.00	50.00	-33.37	-28.92

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. Sweep = auto couple.
- e. 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

Test Mode A (Internal antenna + Eth7 Radio)

802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	7.09	7.10	0.5	Pass
6	2437	7.11	7.08	0.5	Pass
11	2462	7.08	7.07	0.5	Pass

802.11g

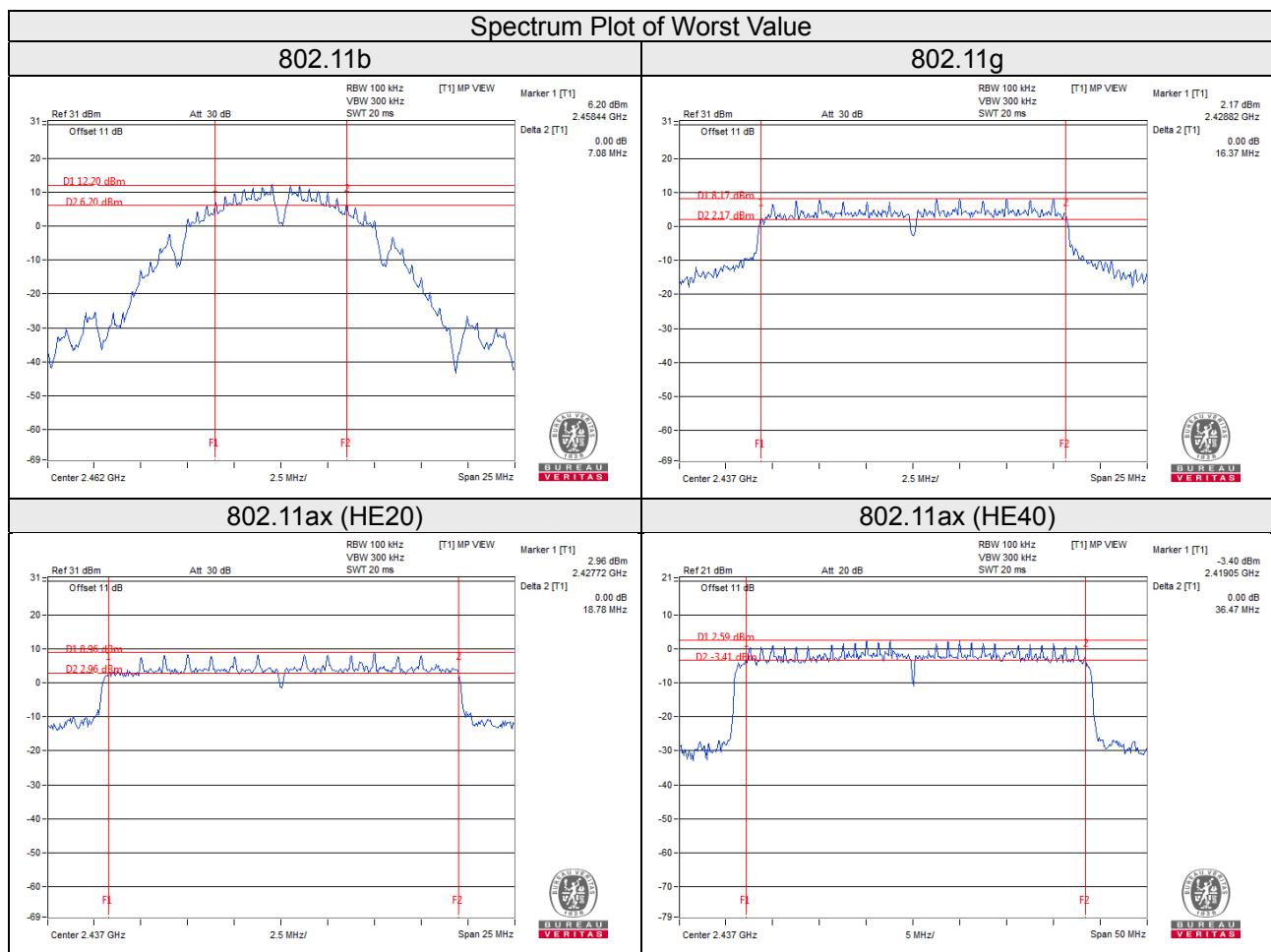
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	16.42	16.40	0.5	Pass
6	2437	16.37	16.39	0.5	Pass
11	2462	16.40	16.42	0.5	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	19.02	18.99	0.5	Pass
6	2437	18.98	18.78	0.5	Pass
11	2462	18.89	19.05	0.5	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
3	2422	37.74	36.53	0.5	Pass
6	2437	37.62	36.47	0.5	Pass
9	2452	37.42	37.34	0.5	Pass



Test Mode C (Internal antenna + Eth8 Radio)
802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	6.60	7.08	7.07	7.07	0.5	Pass
6	2437	7.08	7.10	7.08	6.61	0.5	Pass
11	2462	7.10	7.08	7.08	6.61	0.5	Pass

802.11g

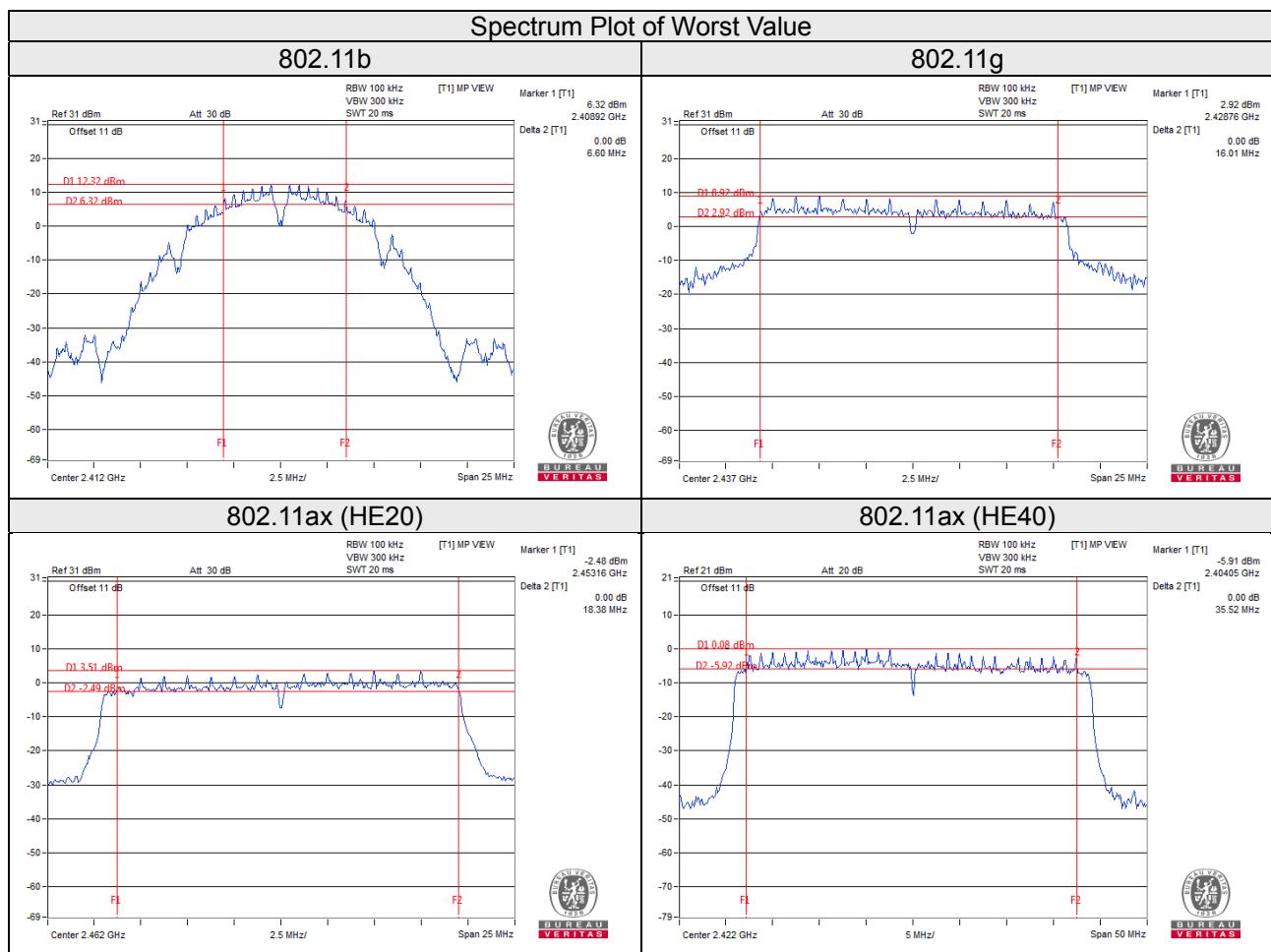
Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	16.10	16.39	16.40	16.39	0.5	Pass
6	2437	16.01	16.39	16.39	16.42	0.5	Pass
11	2462	16.40	16.41	16.42	16.40	0.5	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	18.70	19.02	18.82	18.81	0.5	Pass
6	2437	18.85	18.82	18.93	18.99	0.5	Pass
11	2462	18.95	19.05	19.01	18.38	0.5	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
3	2422	35.69	37.79	37.42	35.52	0.5	Pass
6	2437	37.46	36.84	37.33	37.87	0.5	Pass
9	2452	37.74	36.73	37.46	36.83	0.5	Pass



Test Mode E (External antenna + Eth7 Radio)
802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	7.09	7.10	0.5	Pass
6	2437	7.11	7.08	0.5	Pass
11	2462	7.08	7.07	0.5	Pass

802.11g

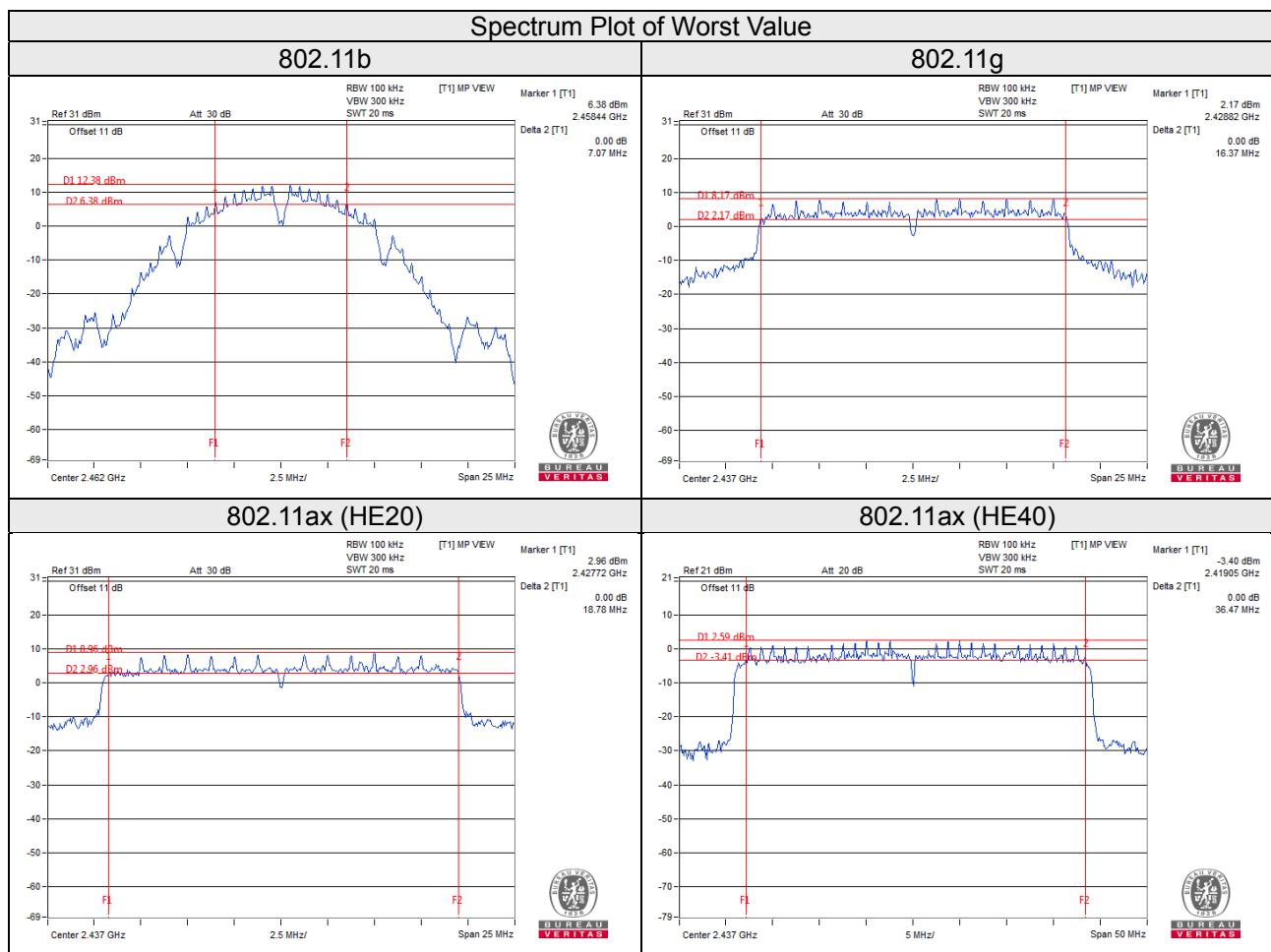
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	16.42	16.40	0.5	Pass
6	2437	16.37	16.39	0.5	Pass
11	2462	16.40	16.42	0.5	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	19.02	18.99	0.5	Pass
6	2437	18.98	18.78	0.5	Pass
11	2462	18.89	19.05	0.5	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
3	2422	37.74	36.53	0.5	Pass
6	2437	37.62	36.47	0.5	Pass
9	2452	37.42	37.34	0.5	Pass



Test Mode G (External antenna + Eth8 Radio)
802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	6.60	7.08	7.07	7.07	0.5	Pass
6	2437	7.08	7.10	7.08	6.61	0.5	Pass
11	2462	7.10	7.08	7.08	6.61	0.5	Pass

802.11g

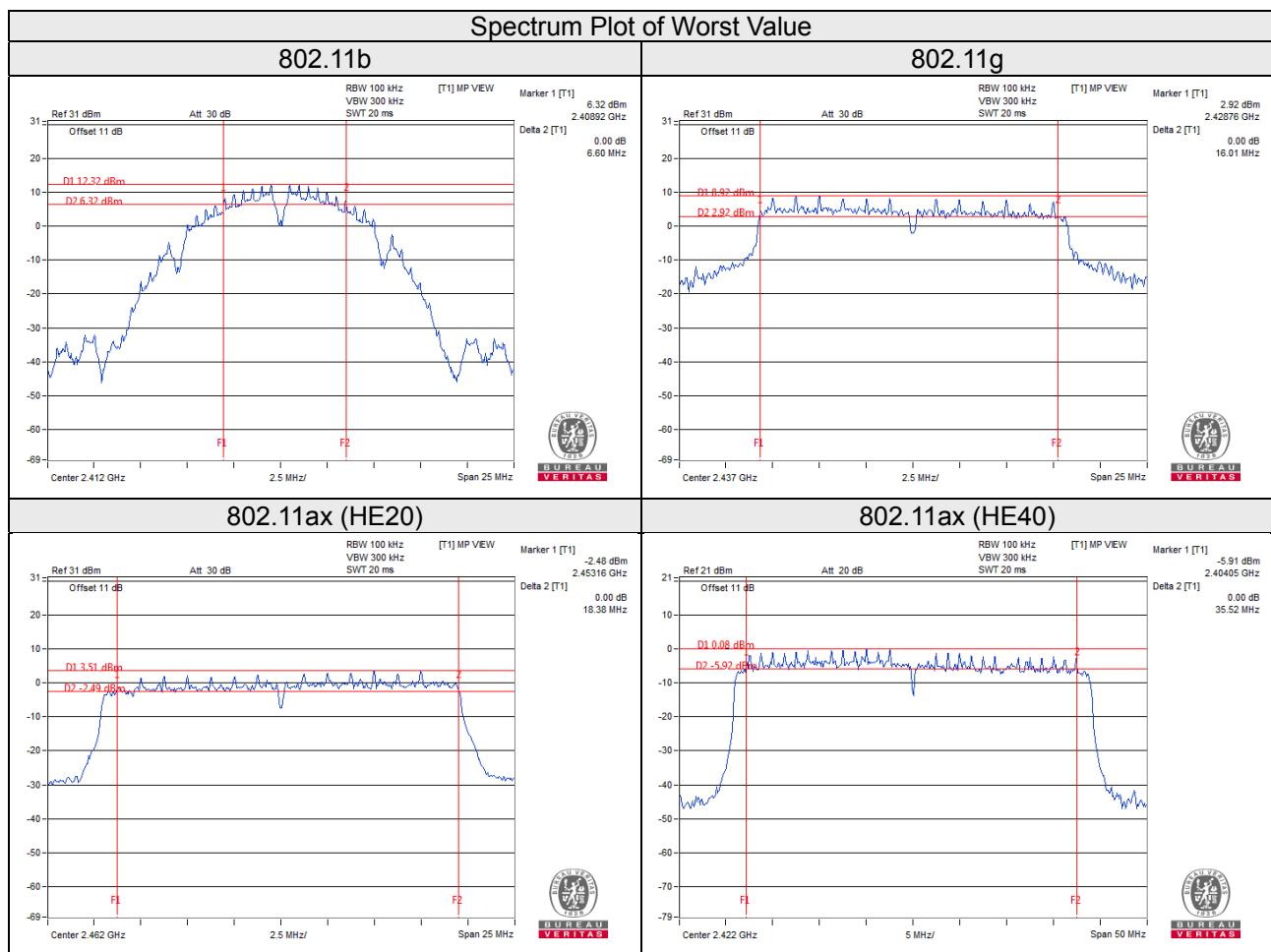
Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	16.10	16.39	16.40	16.39	0.5	Pass
6	2437	16.01	16.39	16.39	16.42	0.5	Pass
11	2462	16.40	16.41	16.42	16.40	0.5	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	18.70	19.02	18.82	18.81	0.5	Pass
6	2437	18.85	18.82	18.93	18.99	0.5	Pass
11	2462	18.95	19.05	19.01	18.38	0.5	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
3	2422	35.69	37.79	37.42	35.52	0.5	Pass
6	2437	37.46	36.84	37.33	37.87	0.5	Pass
9	2452	37.74	36.73	37.46	36.83	0.5	Pass



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)

Per KDB 662911 D01 Multiple Transmitter Output Method of conducted output power measurement on IEEE 802.11 devices,

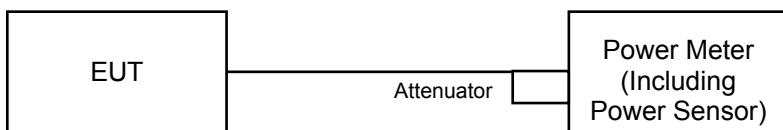
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

Array Gain = $5 \log(N_{ANT}/N_{SS})$ dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

For power measurements on all other devices: Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

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

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

Test Mode A (Internal antenna + Eth7 Radio)

802.11b

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	19.07	18.36	149.273	21.74	30.00	Pass
6	2437	19.18	18.26	149.782	21.75	30.00	Pass
11	2462	19.08	18.06	144.883	21.61	30.00	Pass

802.11g

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	14.42	13.85	51.935	17.15	30.00	Pass
6	2437	18.75	18.36	143.538	21.57	30.00	Pass
11	2462	13.93	14.11	50.480	17.03	30.00	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	14.93	14.58	59.825	17.77	30.00	Pass
6	2437	19.15	18.53	153.509	21.86	30.00	Pass
11	2462	14.80	14.21	56.563	17.53	30.00	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	14.30	13.83	51.070	17.08	30.00	Pass
6	2437	15.95	15.77	77.112	18.87	30.00	Pass
9	2452	14.03	13.33	46.821	16.70	30.00	Pass

Test Mode C (Internal antenna + Eth8 Radio)

CDD Mode

802.11b

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	19.22	19.63	18.91	19.41	340.494	25.32	30.00	Pass
6	2437	19.23	19.70	19.12	19.40	345.832	25.39	30.00	Pass
11	2462	19.32	19.69	19.23	19.44	350.273	25.44	30.00	Pass

802.11g

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	15.10	15.44	14.99	15.88	137.630	21.39	30.00	Pass
6	2437	18.93	19.38	18.97	19.35	329.844	25.18	30.00	Pass
11	2462	14.51	14.66	14.01	14.99	114.218	20.58	30.00	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	15.29	15.39	14.44	15.36	130.553	21.16	30.00	Pass
6	2437	19.23	18.88	18.92	19.28	323.727	25.10	30.00	Pass
11	2462	13.61	13.94	13.47	14.47	97.958	19.91	30.00	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	14.21	13.66	13.90	13.88	98.571	19.94	30.00	Pass
6	2437	15.15	15.48	15.78	15.74	143.393	21.57	30.00	Pass
9	2452	13.99	14.40	14.39	14.52	108.396	20.35	30.00	Pass

Beamforming Mode

802.11ax (HE20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	15.29	15.39	14.44	15.36	130.553	21.16	26.63	Pass
6	2437	19.23	18.88	18.92	19.28	323.727	25.10	26.63	Pass
11	2462	13.61	13.94	13.47	14.47	97.958	19.91	26.63	Pass

Note: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/4]$ = 9.37dBi > 6dBi , so the power limit shall be reduced to 30-(9.37-6) = 26.63dBm.

802.11ax (HE40)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	14.21	13.66	13.90	13.88	98.571	19.94	26.63	Pass
6	2437	15.15	15.48	15.78	15.74	143.393	21.57	26.63	Pass
9	2452	13.99	14.40	14.39	14.52	108.396	20.35	26.63	Pass

Note: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/4]$ = 9.37dBi > 6dBi , so the power limit shall be reduced to 30-(9.37-6) = 26.63dBm.

Test Mode E (External antenna + Eth7 Radio)

802.11b

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	19.07	18.36	149.273	21.74	30.00	Pass
6	2437	19.18	18.26	149.782	21.75	30.00	Pass
11	2462	19.08	18.06	144.883	21.61	30.00	Pass

802.11g

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	14.42	13.85	51.935	17.15	30.00	Pass
6	2437	19.06	18.68	154.328	21.88	30.00	Pass
11	2462	13.93	14.11	50.480	17.03	30.00	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	14.93	14.58	59.825	17.77	30.00	Pass
6	2437	19.15	18.53	153.509	21.86	30.00	Pass
11	2462	14.80	14.21	56.563	17.53	30.00	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	14.30	13.83	51.070	17.08	30.00	Pass
6	2437	15.95	15.77	77.112	18.87	30.00	Pass
9	2452	14.03	13.33	46.821	16.70	30.00	Pass

Test Mode G (External antenna + Eth8 Radio)

CDD Mode

802.11b

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	19.22	19.63	18.91	19.41	340.494	25.32	30.00	Pass
6	2437	19.23	19.70	19.12	19.40	345.832	25.39	30.00	Pass
11	2462	19.32	19.69	19.23	19.44	350.273	25.44	30.00	Pass

802.11g

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	15.10	15.44	14.99	15.88	137.630	21.39	30.00	Pass
6	2437	18.93	19.38	18.97	19.35	329.844	25.18	30.00	Pass
11	2462	14.51	14.66	14.01	14.99	114.218	20.58	30.00	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	15.29	15.39	14.44	15.36	130.553	21.16	30.00	Pass
6	2437	19.23	18.88	18.92	19.28	323.727	25.10	30.00	Pass
11	2462	13.61	13.94	13.47	14.47	97.958	19.91	30.00	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	14.21	13.66	13.90	13.88	98.571	19.94	30.00	Pass
6	2437	15.15	15.48	15.78	15.74	143.393	21.57	30.00	Pass
9	2452	13.99	14.40	14.39	14.52	108.396	20.35	30.00	Pass

Beamforming Mode

802.11ax (HE20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	15.29	15.39	14.44	15.36	130.553	21.16	25.98	Pass
6	2437	19.23	18.88	18.92	19.28	323.727	25.10	25.98	Pass
11	2462	13.61	13.94	13.47	14.47	97.958	19.91	25.98	Pass

Note: Directional gain = $4\text{dBi} + 10\log(4) = 10.02\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30 - (10.02 - 6) = 25.98\text{dBm}$.

802.11ax (HE40)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	14.21	13.66	13.90	13.88	98.571	19.94	25.98	Pass
6	2437	15.15	15.48	15.78	15.74	143.393	21.57	25.98	Pass
9	2452	13.99	14.40	14.39	14.52	108.396	20.35	25.98	Pass

Note: Directional gain = $4\text{dBi} + 10\log(4) = 10.02\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30 - (10.02 - 6) = 25.98\text{dBm}$.

4.5 Power Spectral Density Measurement

4.5.1 Limits of Power Spectral Density Measurement

The Maximum of Power Spectral Density Measurement is 8dBm.

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

- a. Measure the duty cycle (x).
- b. Set instrument center frequency to DTS channel center frequency.
- c. Set span to at least 1.5 times the OBW.
- d. Set RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- e. Set VBW $\geq 3 \times \text{RBW}$.
- f. Detector = power averaging (RMS) or sample detector (when RMS not available).
- g. Ensure that the number of measurement points in the sweep $\geq 2 \times \text{span/RBW}$.
- h. Sweep time = auto couple.
- i. Do not use sweep triggering. Allow sweep to “free run”.
- j. Employ trace averaging (RMS) mode over a minimum of 100 traces.
- k. Use the peak marker function to determine the maximum amplitude level.
- l. Add $10 \log(1/x)$, where x is the duty cycle measured in step (a), to the measured PSD to compute the average PSD during the actual transmission time.

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

Test Mode A (Internal antenna + Eth7 Radio)

802.11b

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/10kHz)	10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-8.76	3.01	0.22	-5.53	8.00	Pass
	6	2437	-9.01	3.01	0.22	-5.78	8.00	Pass
	11	2462	-7.83	3.01	0.22	-4.60	8.00	Pass
1	1	2412	-8.98	3.01	0.22	-5.75	8.00	Pass
	6	2437	-8.40	3.01	0.22	-5.17	8.00	Pass
	11	2462	-7.97	3.01	0.22	-4.74	8.00	Pass

Note:

- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 5.51 \text{dBi} < 6 \text{dBi}$, so the power density limit no need to reduced.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11g

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/10kHz)	10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-15.35	3.01	0.26	-12.08	8.00	Pass
	6	2437	-11.04	3.01	0.26	-7.77	8.00	Pass
	11	2462	-16.02	3.01	0.26	-12.75	8.00	Pass
1	1	2412	-16.07	3.01	0.26	-12.80	8.00	Pass
	6	2437	-11.41	3.01	0.26	-8.14	8.00	Pass
	11	2462	-16.40	3.01	0.26	-13.13	8.00	Pass

Note:

- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 5.51 \text{dBi} < 6 \text{dBi}$, so the power density limit no need to reduced.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/10kHz)	10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-15.28	3.01	0.11	-12.16	8.00	Pass
	6	2437	-10.50	3.01	0.11	-7.38	8.00	Pass
	11	2462	-16.09	3.01	0.11	-12.97	8.00	Pass
1	1	2412	-16.15	3.01	0.11	-13.03	8.00	Pass
	6	2437	-11.18	3.01	0.11	-8.06	8.00	Pass
	11	2462	-16.00	3.01	0.11	-12.88	8.00	Pass

Note:

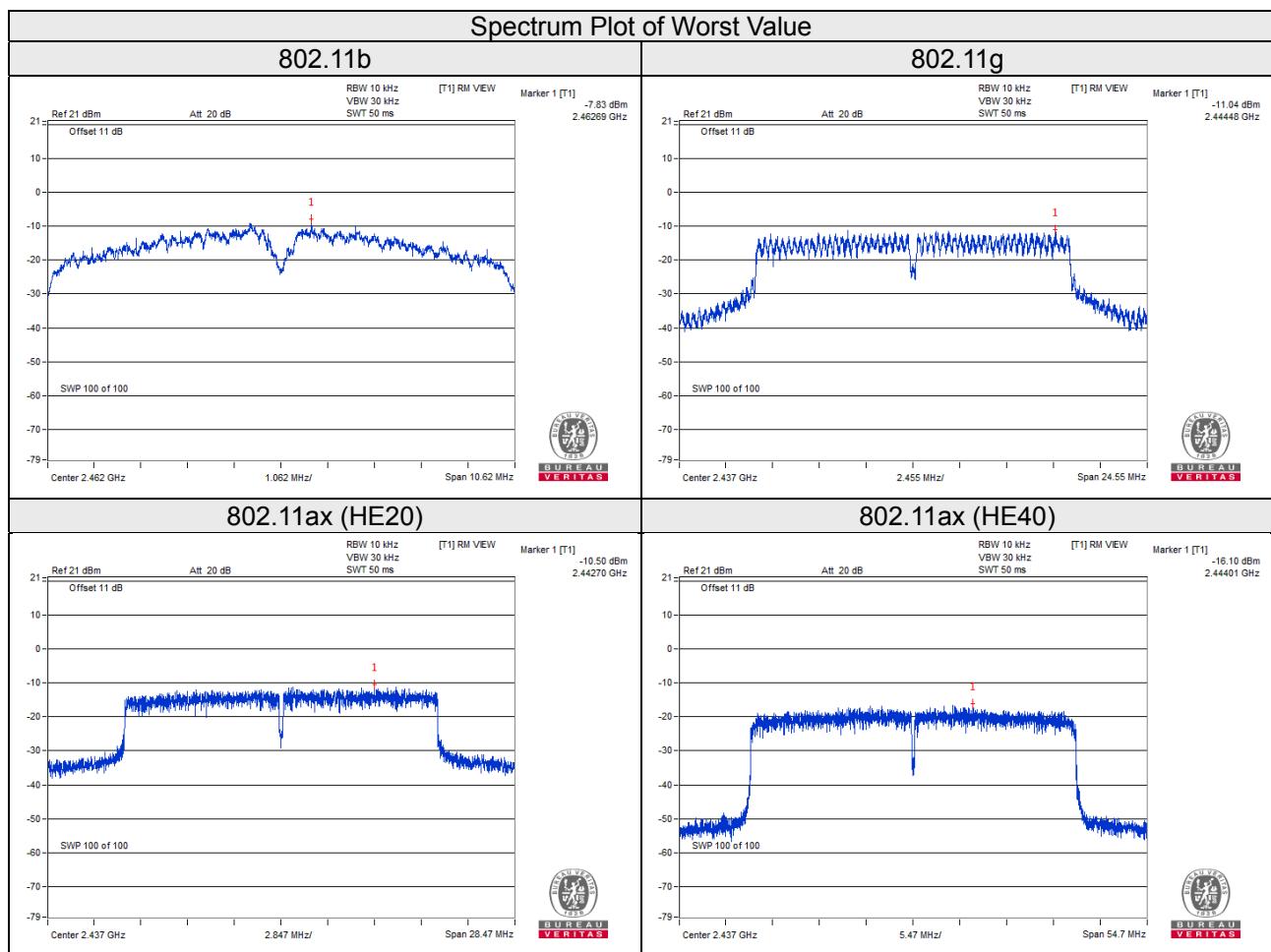
- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 5.51 \text{dBi} < 6 \text{dBi}$, so the power density limit no need to reduced.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/10kHz)	10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	3	2422	-18.71	3.01	0.27	-15.43	8.00	Pass
	6	2437	-16.72	3.01	0.27	-13.44	8.00	Pass
	9	2452	-18.99	3.01	0.27	-15.71	8.00	Pass
1	3	2422	-18.10	3.01	0.27	-14.82	8.00	Pass
	6	2437	-16.10	3.01	0.27	-12.82	8.00	Pass
	9	2452	-18.56	3.01	0.27	-15.28	8.00	Pass

Note:

- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 5.51 \text{dBi} < 6 \text{dBi}$, so the power density limit no need to reduced.
- Refer to section 3.3 for duty cycle spectrum plot.



Test Mode C (Internal antenna + Eth8 Radio)
802.11b

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/10kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-8.34	6.02	0.23	-2.09	4.63	Pass
	6	2437	-8.70	6.02	0.23	-2.45	4.63	Pass
	11	2462	-8.73	6.02	0.23	-2.48	4.63	Pass
1	1	2412	-8.00	6.02	0.23	-1.75	4.63	Pass
	6	2437	-8.81	6.02	0.23	-2.56	4.63	Pass
	11	2462	-7.71	6.02	0.23	-1.46	4.63	Pass
2	1	2412	-8.09	6.02	0.23	-1.84	4.63	Pass
	6	2437	-7.51	6.02	0.23	-1.26	4.63	Pass
	11	2462	-8.00	6.02	0.23	-1.75	4.63	Pass
3	1	2412	-7.91	6.02	0.23	-1.66	4.63	Pass
	6	2437	-8.93	6.02	0.23	-2.68	4.63	Pass
	11	2462	-8.22	6.02	0.23	-1.97	4.63	Pass

Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/4] = 9.37 \text{dBi} > 6 \text{dBi}$, so the power density limit shall be reduced to $8 - (9.37 - 6) = 4.63 \text{dBm}$.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11g

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/10kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-14.91	6.02	0.25	-8.64	4.63	Pass
	6	2437	-9.49	6.02	0.25	-3.22	4.63	Pass
	11	2462	-16.59	6.02	0.25	-10.32	4.63	Pass
1	1	2412	-15.00	6.02	0.25	-8.73	4.63	Pass
	6	2437	-10.19	6.02	0.25	-3.92	4.63	Pass
	11	2462	-15.60	6.02	0.25	-9.33	4.63	Pass
2	1	2412	-15.67	6.02	0.25	-9.40	4.63	Pass
	6	2437	-9.30	6.02	0.25	-3.03	4.63	Pass
	11	2462	-16.55	6.02	0.25	-10.28	4.63	Pass
3	1	2412	-14.79	6.02	0.25	-8.52	4.63	Pass
	6	2437	-10.28	6.02	0.25	-4.01	4.63	Pass
	11	2462	-16.20	6.02	0.25	-9.93	4.63	Pass

Note:

- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/4] = 9.37 \text{dBi} > 6 \text{dBi}$, so the power density limit shall be reduced to $8 - (9.37 - 6) = 4.63 \text{dBm}$.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/10kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-14.30	6.02	0.12	-8.16	4.63	Pass
	6	2437	-10.95	6.02	0.12	-4.81	4.63	Pass
	11	2462	-16.80	6.02	0.12	-10.66	4.63	Pass
1	1	2412	-15.43	6.02	0.12	-9.29	4.63	Pass
	6	2437	-10.26	6.02	0.12	-4.12	4.63	Pass
	11	2462	-16.73	6.02	0.12	-10.59	4.63	Pass
2	1	2412	-15.85	6.02	0.12	-9.71	4.63	Pass
	6	2437	-11.16	6.02	0.12	-5.02	4.63	Pass
	11	2462	-17.17	6.02	0.12	-11.03	4.63	Pass
3	1	2412	-15.20	6.02	0.12	-9.06	4.63	Pass
	6	2437	-10.71	6.02	0.12	-4.57	4.63	Pass
	11	2462	-15.08	6.02	0.12	-8.94	4.63	Pass

Note:

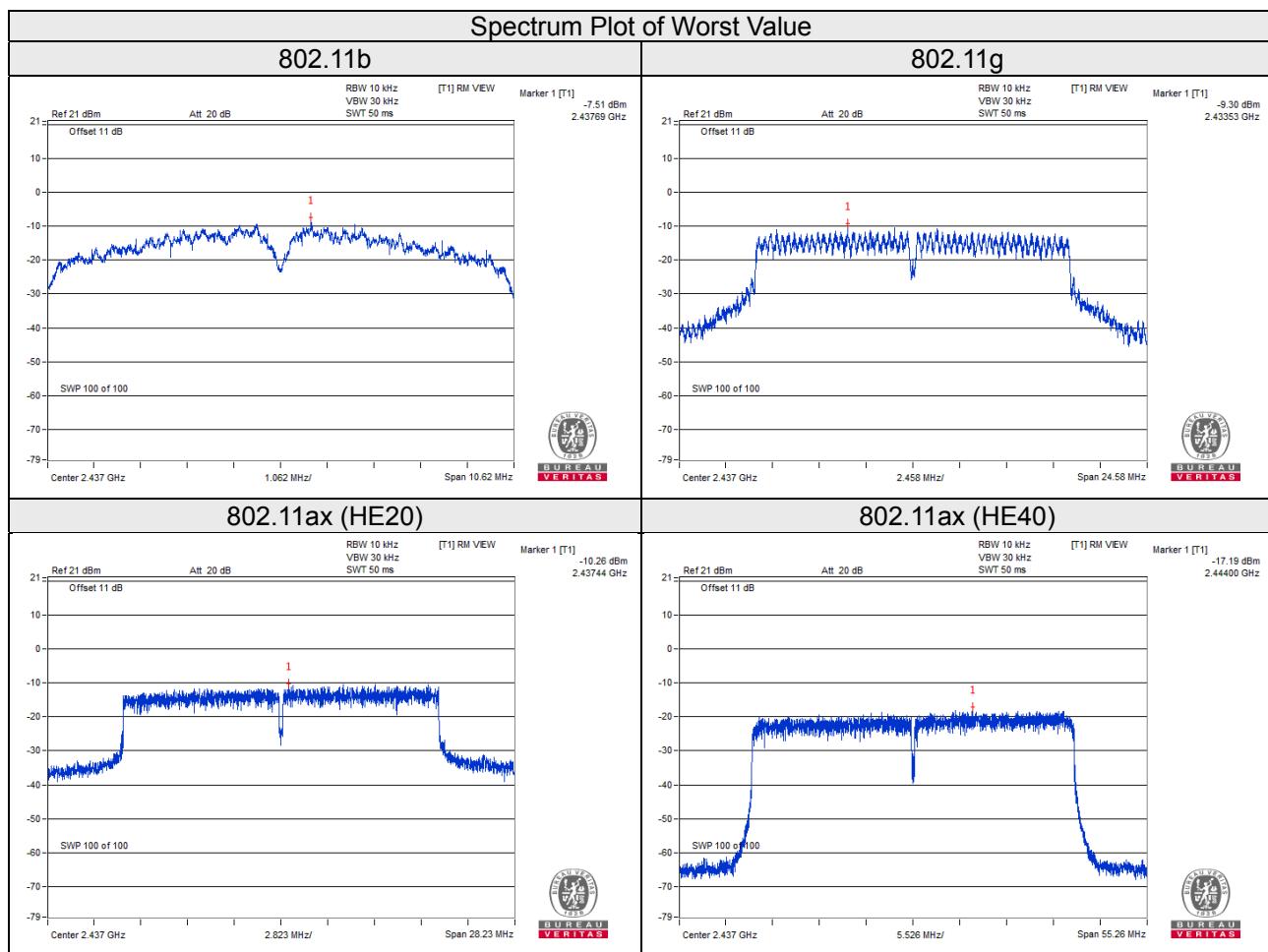
- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/4] = 9.37 \text{dBi} > 6 \text{dBi}$, so the power density limit shall be reduced to $8 - (9.37 - 6) = 4.63 \text{dBm}$.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/10kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	3	2422	-18.96	6.02	0.26	-12.68	4.63	Pass
	6	2437	-18.48	6.02	0.26	-12.20	4.63	Pass
	9	2452	-19.36	6.02	0.26	-13.08	4.63	Pass
1	3	2422	-19.91	6.02	0.26	-13.63	4.63	Pass
	6	2437	-17.19	6.02	0.26	-10.91	4.63	Pass
	9	2452	-18.24	6.02	0.26	-11.96	4.63	Pass
2	3	2422	-18.97	6.02	0.26	-12.69	4.63	Pass
	6	2437	-17.22	6.02	0.26	-10.94	4.63	Pass
	9	2452	-18.61	6.02	0.26	-12.33	4.63	Pass
3	3	2422	-18.99	6.02	0.26	-12.71	4.63	Pass
	6	2437	-17.95	6.02	0.26	-11.67	4.63	Pass
	9	2452	-18.17	6.02	0.26	-11.89	4.63	Pass

Note:

- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/4] = 9.37 \text{dBi} > 6 \text{dBi}$, so the power density limit shall be reduced to $8 - (9.37 - 6) = 4.63 \text{dBm}$.
- Refer to section 3.3 for duty cycle spectrum plot.



Test Mode E (External antenna + Eth7 Radio)

802.11b

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/10kHz)	10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-8.76	3.01	0.22	-5.53	6.99	Pass
	6	2437	-9.01	3.01	0.22	-5.78	6.99	Pass
	11	2462	-7.83	3.01	0.22	-4.60	6.99	Pass
1	1	2412	-8.98	3.01	0.22	-5.75	6.99	Pass
	6	2437	-8.40	3.01	0.22	-5.17	6.99	Pass
	11	2462	-7.97	3.01	0.22	-4.74	6.99	Pass

Note:

- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $4\text{dBi} + 10\log(2) = 7.01\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $8-(7.01-6) = 6.99\text{dBm}$.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11g

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/10kHz)	10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-15.35	3.01	0.26	-12.08	6.99	Pass
	6	2437	-11.04	3.01	0.26	-7.77	6.99	Pass
	11	2462	-16.02	3.01	0.26	-12.75	6.99	Pass
1	1	2412	-16.07	3.01	0.26	-12.80	6.99	Pass
	6	2437	-11.41	3.01	0.26	-8.14	6.99	Pass
	11	2462	-16.40	3.01	0.26	-13.13	6.99	Pass

Note:

- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $4\text{dBi} + 10\log(2) = 7.01\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $8-(7.01-6) = 6.99\text{dBm}$.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/10kHz)	10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-15.28	3.01	0.11	-12.16	6.99	Pass
	6	2437	-10.50	3.01	0.11	-7.38	6.99	Pass
	11	2462	-16.09	3.01	0.11	-12.97	6.99	Pass
1	1	2412	-16.15	3.01	0.11	-13.03	6.99	Pass
	6	2437	-11.18	3.01	0.11	-8.06	6.99	Pass
	11	2462	-16.00	3.01	0.11	-12.88	6.99	Pass

Note:

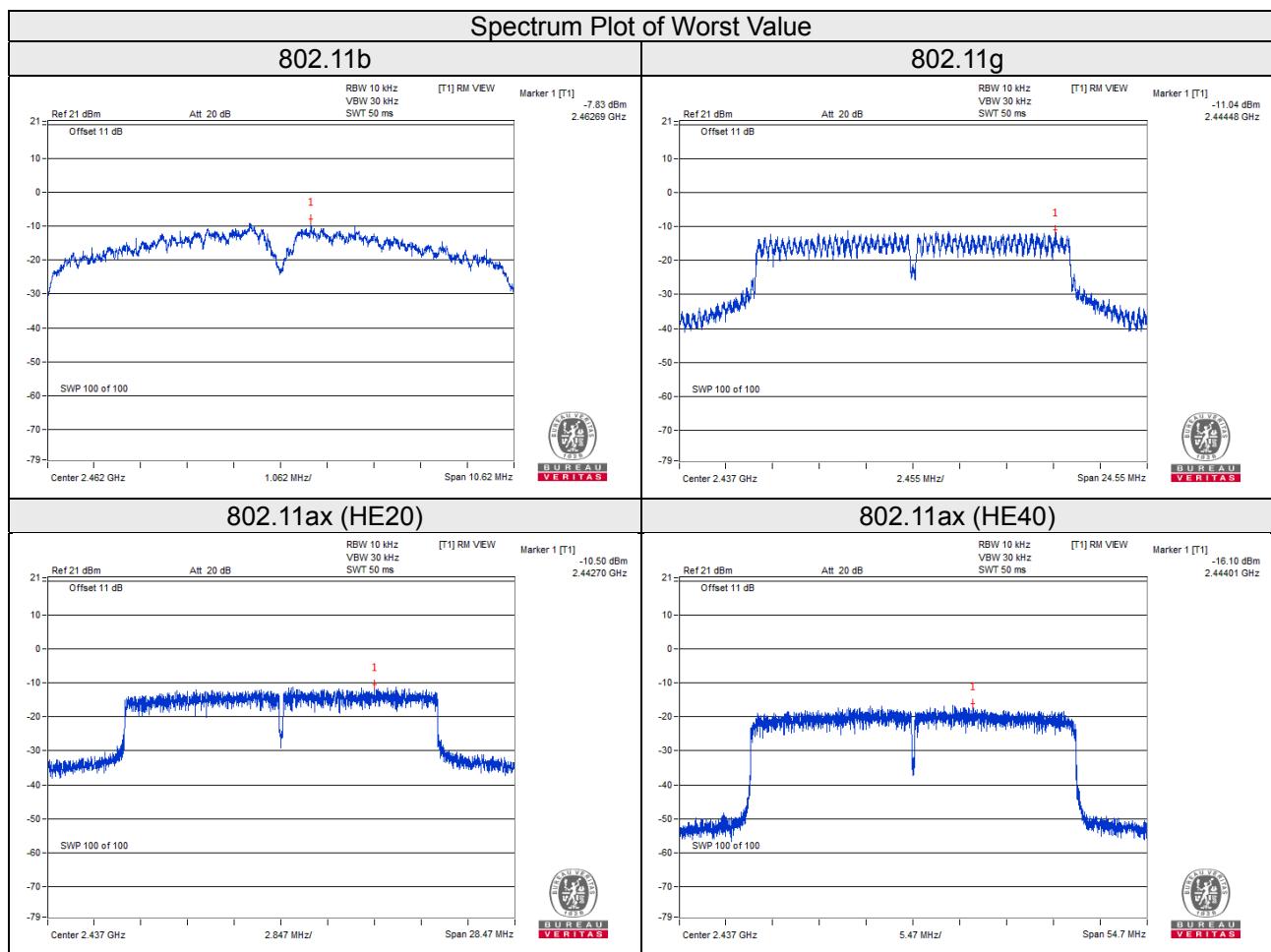
- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $4\text{dBi} + 10\log(2) = 7.01\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $8-(7.01-6) = 6.99\text{dBm}$.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/10kHz)	10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	3	2422	-18.71	3.01	0.27	-15.43	6.99	Pass
	6	2437	-16.72	3.01	0.27	-13.44	6.99	Pass
	9	2452	-18.99	3.01	0.27	-15.71	6.99	Pass
1	3	2422	-18.10	3.01	0.27	-14.82	6.99	Pass
	6	2437	-16.10	3.01	0.27	-12.82	6.99	Pass
	9	2452	-18.56	3.01	0.27	-15.28	6.99	Pass

Note:

- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $4\text{dBi} + 10\log(2) = 7.01\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $8-(7.01-6) = 6.99\text{dBm}$.
- Refer to section 3.3 for duty cycle spectrum plot.



Test Mode G (External antenna + Eth8 Radio)
802.11b

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/10kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-8.34	6.02	0.23	-2.09	3.98	Pass
	6	2437	-8.70	6.02	0.23	-2.45	3.98	Pass
	11	2462	-8.73	6.02	0.23	-2.48	3.98	Pass
1	1	2412	-8.00	6.02	0.23	-1.75	3.98	Pass
	6	2437	-8.81	6.02	0.23	-2.56	3.98	Pass
	11	2462	-7.71	6.02	0.23	-1.46	3.98	Pass
2	1	2412	-8.09	6.02	0.23	-1.84	3.98	Pass
	6	2437	-7.51	6.02	0.23	-1.26	3.98	Pass
	11	2462	-8.00	6.02	0.23	-1.75	3.98	Pass
3	1	2412	-7.91	6.02	0.23	-1.66	3.98	Pass
	6	2437	-8.93	6.02	0.23	-2.68	3.98	Pass
	11	2462	-8.22	6.02	0.23	-1.97	3.98	Pass

Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = $4\text{dBi} + 10\log(4) = 10.02\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $8 - (10.02 - 6) = 3.98\text{dBm}$.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11g

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/10kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-14.91	6.02	0.25	-8.64	3.98	Pass
	6	2437	-9.49	6.02	0.25	-3.22	3.98	Pass
	11	2462	-16.59	6.02	0.25	-10.32	3.98	Pass
1	1	2412	-15.00	6.02	0.25	-8.73	3.98	Pass
	6	2437	-10.19	6.02	0.25	-3.92	3.98	Pass
	11	2462	-15.60	6.02	0.25	-9.33	3.98	Pass
2	1	2412	-15.67	6.02	0.25	-9.40	3.98	Pass
	6	2437	-9.30	6.02	0.25	-3.03	3.98	Pass
	11	2462	-16.55	6.02	0.25	-10.28	3.98	Pass
3	1	2412	-14.79	6.02	0.25	-8.52	3.98	Pass
	6	2437	-10.28	6.02	0.25	-4.01	3.98	Pass
	11	2462	-16.20	6.02	0.25	-9.93	3.98	Pass

Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = $4\text{dBi} + 10\log(4) = 10.02\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $8-(10.02-6) = 3.98\text{dBm}$.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/10kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-14.30	6.02	0.12	-8.16	3.98	Pass
	6	2437	-10.95	6.02	0.12	-4.81	3.98	Pass
	11	2462	-16.80	6.02	0.12	-10.66	3.98	Pass
1	1	2412	-15.43	6.02	0.12	-9.29	3.98	Pass
	6	2437	-10.26	6.02	0.12	-4.12	3.98	Pass
	11	2462	-16.73	6.02	0.12	-10.59	3.98	Pass
2	1	2412	-15.85	6.02	0.12	-9.71	3.98	Pass
	6	2437	-11.16	6.02	0.12	-5.02	3.98	Pass
	11	2462	-17.17	6.02	0.12	-11.03	3.98	Pass
3	1	2412	-15.20	6.02	0.12	-9.06	3.98	Pass
	6	2437	-10.71	6.02	0.12	-4.57	3.98	Pass
	11	2462	-15.08	6.02	0.12	-8.94	3.98	Pass

Note:

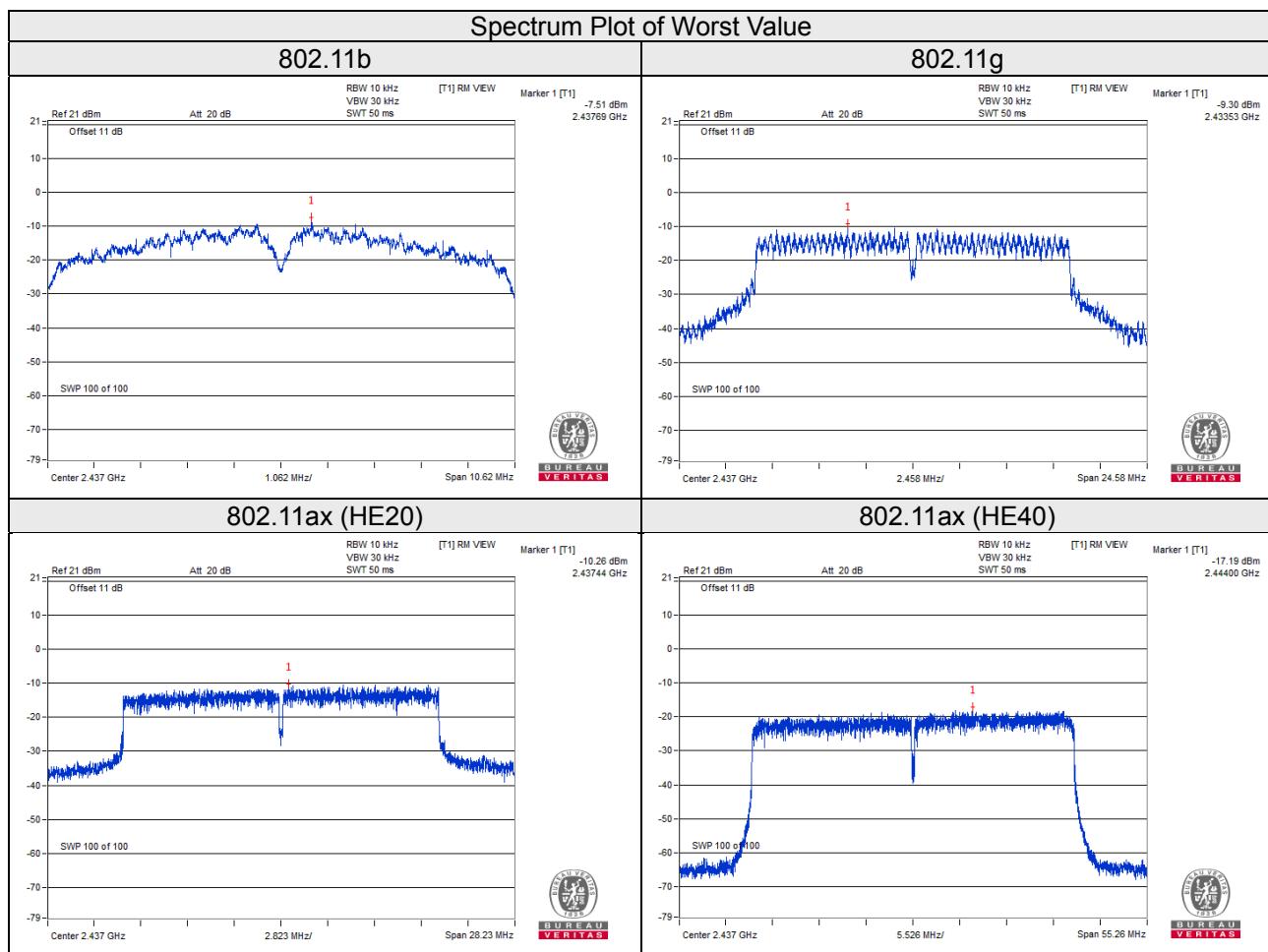
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = $4\text{dBi} + 10\log(4) = 10.02\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $8-(10.02-6) = 3.98\text{dBm}$.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/10kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	3	2422	-18.96	6.02	0.26	-12.68	3.98	Pass
	6	2437	-18.48	6.02	0.26	-12.20	3.98	Pass
	9	2452	-19.36	6.02	0.26	-13.08	3.98	Pass
1	3	2422	-19.91	6.02	0.26	-13.63	3.98	Pass
	6	2437	-17.19	6.02	0.26	-10.91	3.98	Pass
	9	2452	-18.24	6.02	0.26	-11.96	3.98	Pass
2	3	2422	-18.97	6.02	0.26	-12.69	3.98	Pass
	6	2437	-17.22	6.02	0.26	-10.94	3.98	Pass
	9	2452	-18.61	6.02	0.26	-12.33	3.98	Pass
3	3	2422	-18.99	6.02	0.26	-12.71	3.98	Pass
	6	2437	-17.95	6.02	0.26	-11.67	3.98	Pass
	9	2452	-18.17	6.02	0.26	-11.89	3.98	Pass

Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = $4\text{dBi} + 10\log(4) = 10.02\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $8-(10.02-6) = 3.98\text{dBm}$.
3. Refer to section 3.3 for duty cycle spectrum plot.

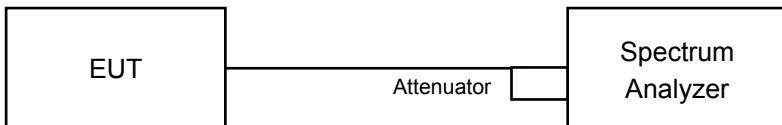


4.6 Conducted Out of Band Emission Measurement

4.6.1 Limits of Conducted Out of Band Emission Measurement

Below -30dB 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

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

MEASUREMENT PROCEDURE OOB

- Set RBW = 100 kHz.
- Set VBW \geq 300 kHz.
- Detector = peak.
- Sweep = auto couple.
- Trace Mode = max hold.
- Allow trace to fully stabilize.
- 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

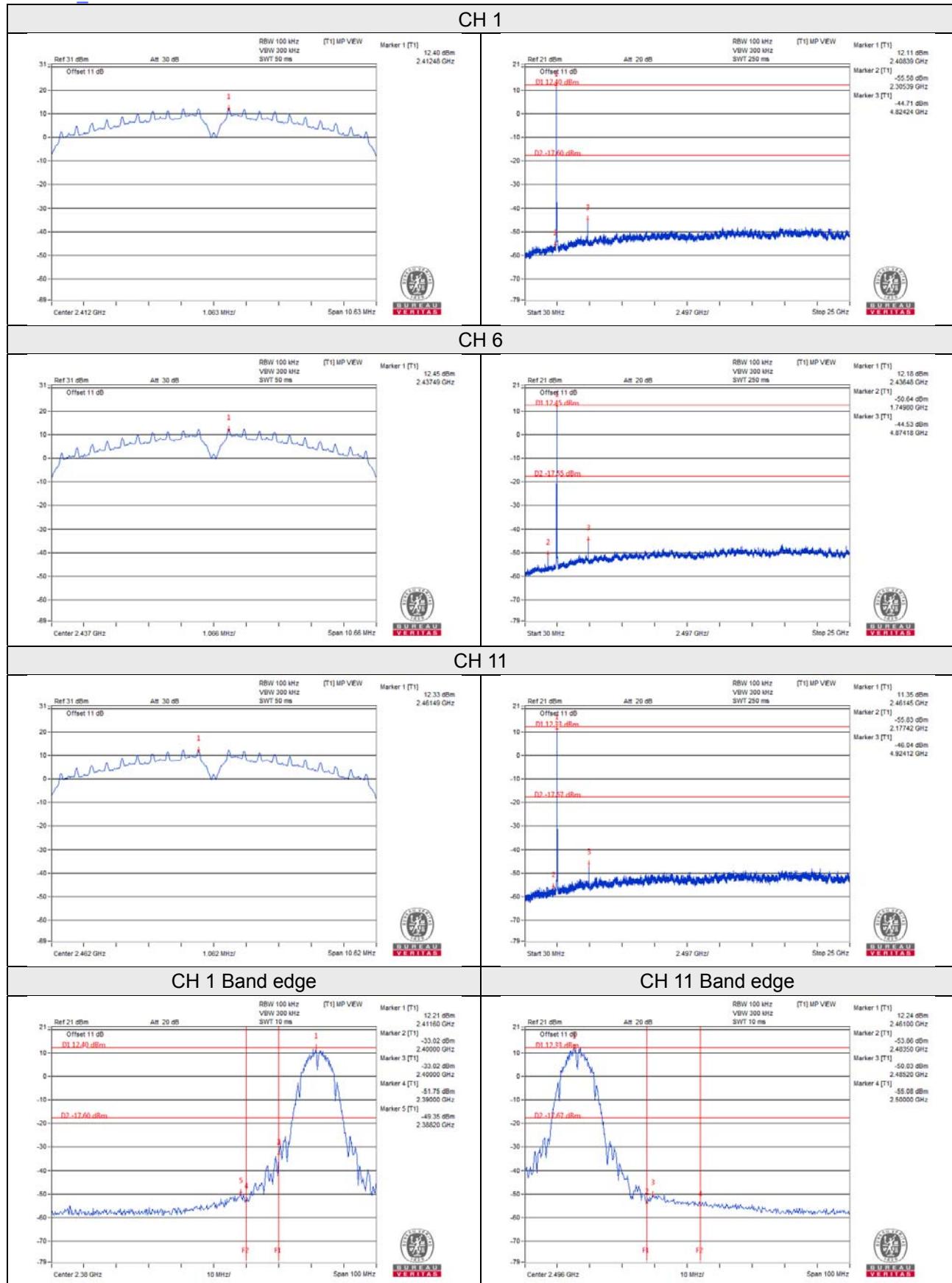
4.6.7 Test Results

The conducted emission test is performed on each TX port of operating mode without summing or adding $10\log(N)$ since the limit is relative emission limit.

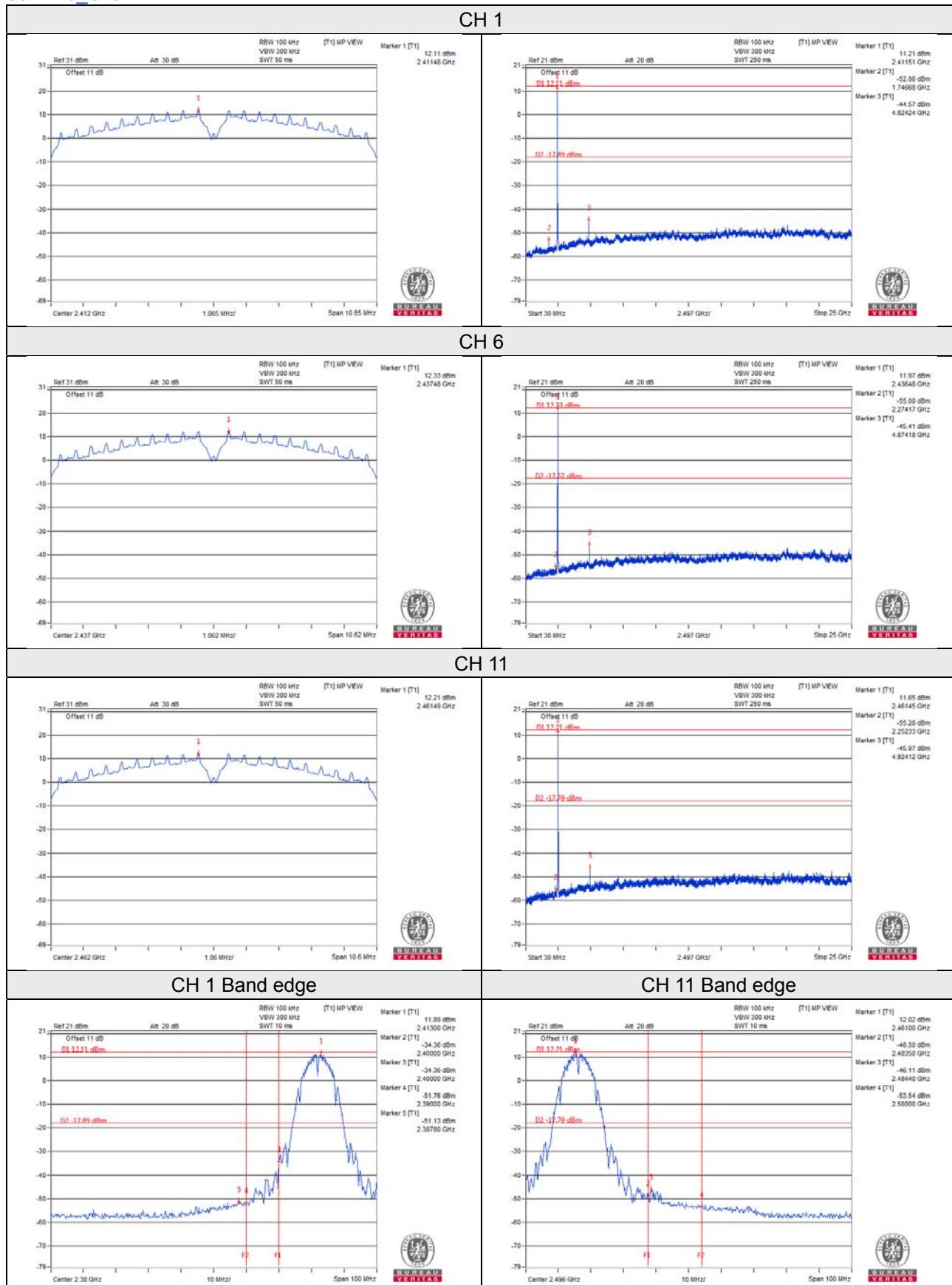
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 30dB offset below D1. It shows compliance with the requirement.

Test Mode A (Internal antenna + Eth7 Radio)

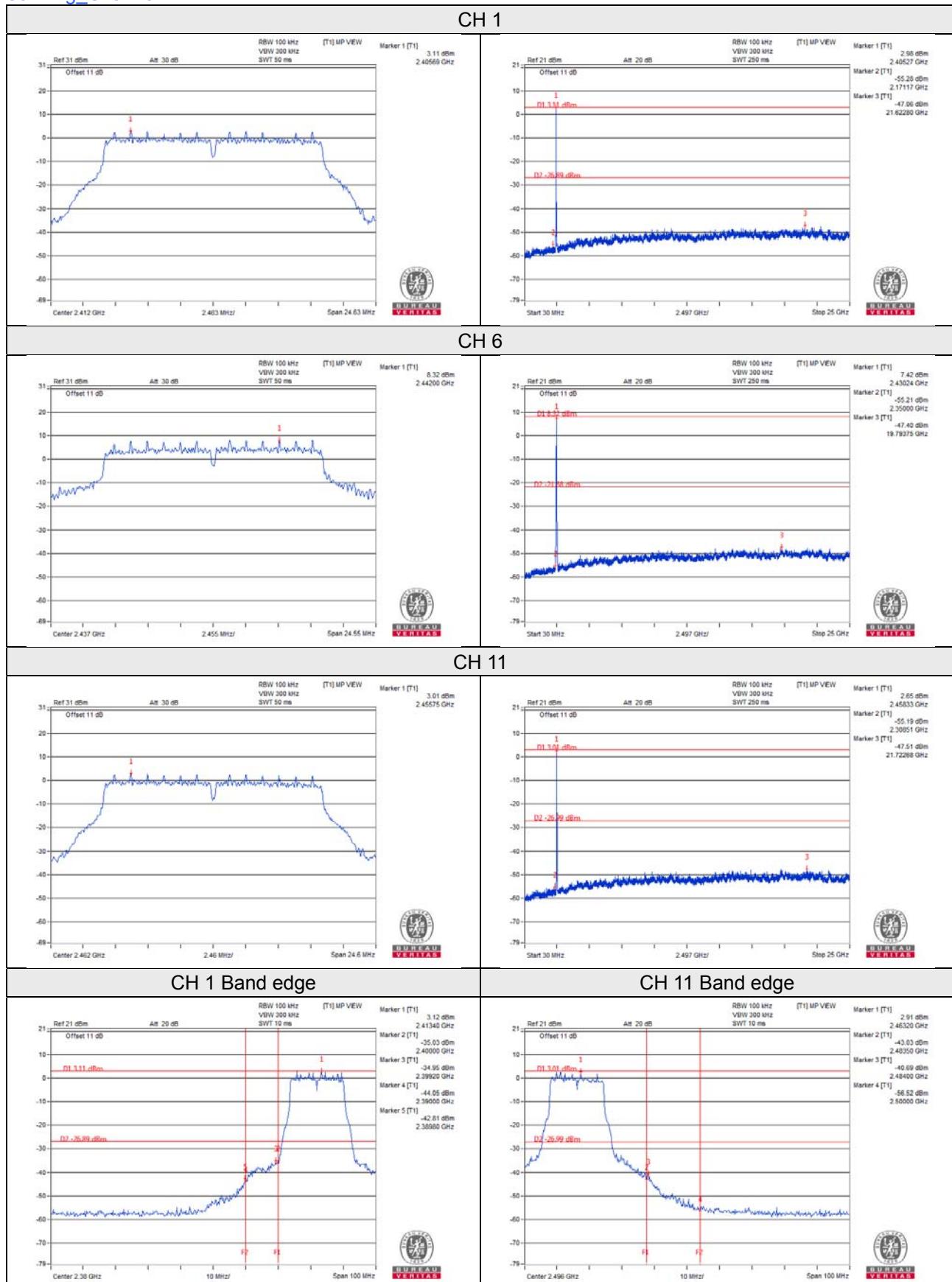
802.11b_Chain 0



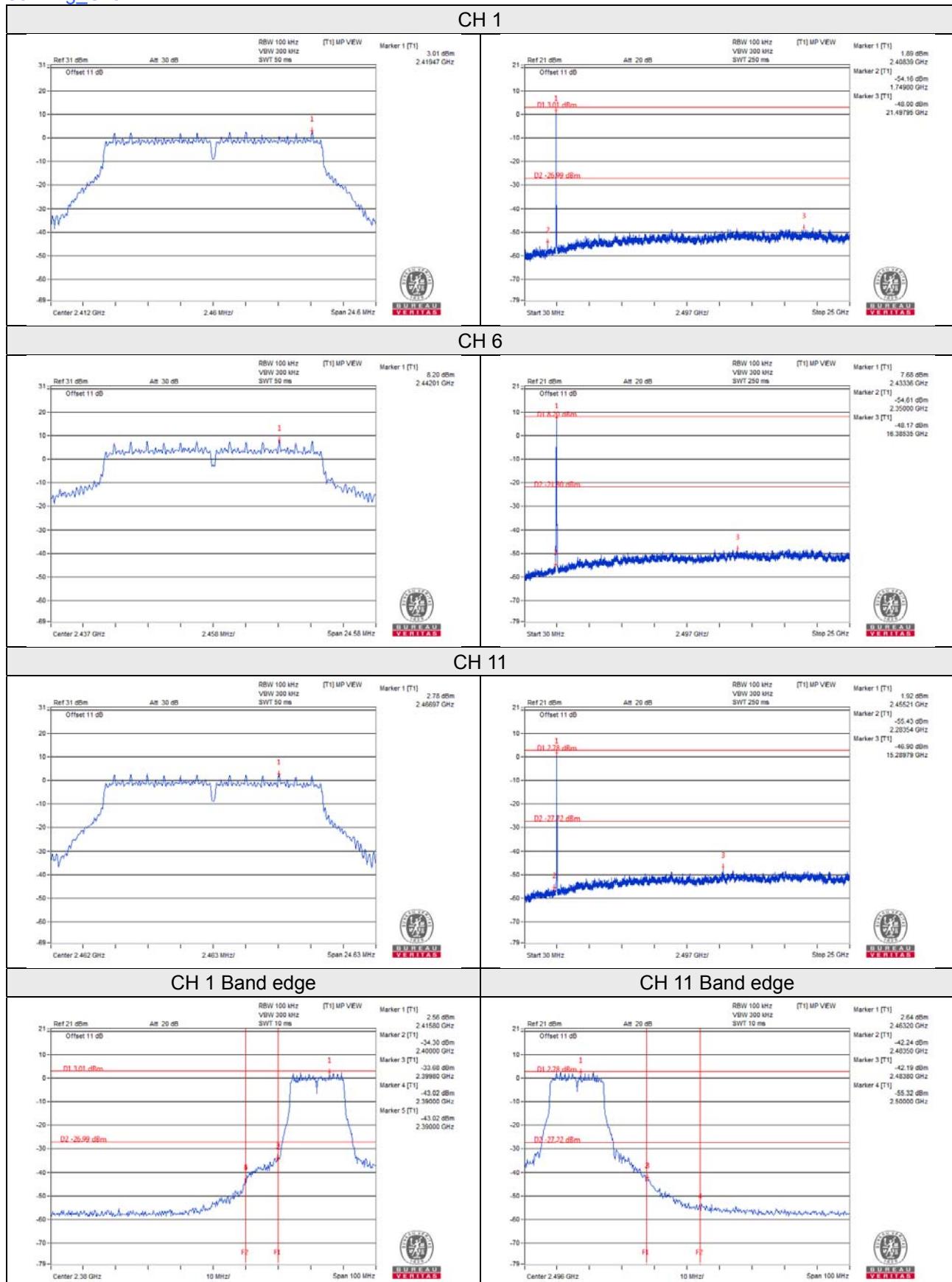
802.11b_Chain 1



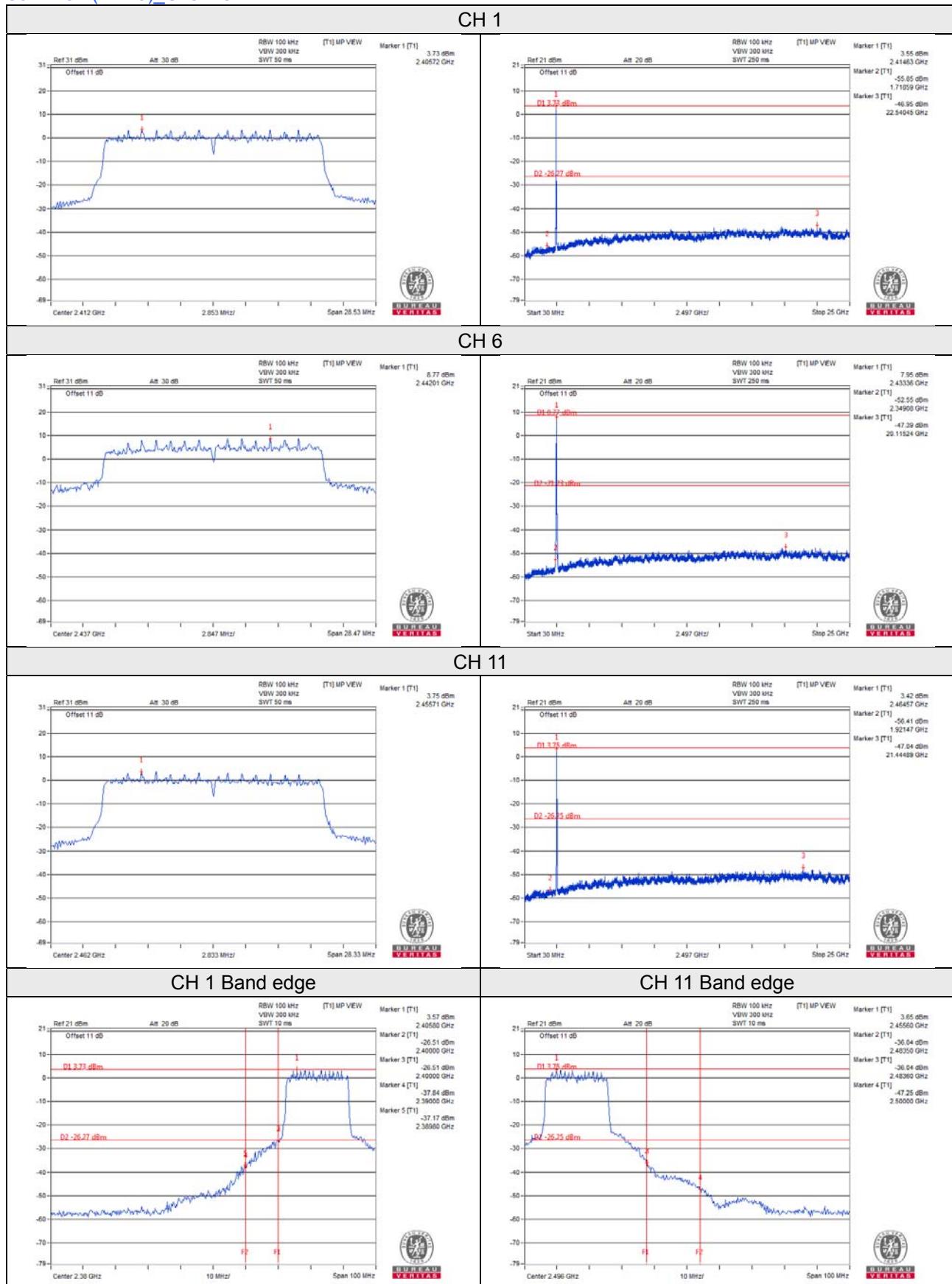
802.11g_Chain 0



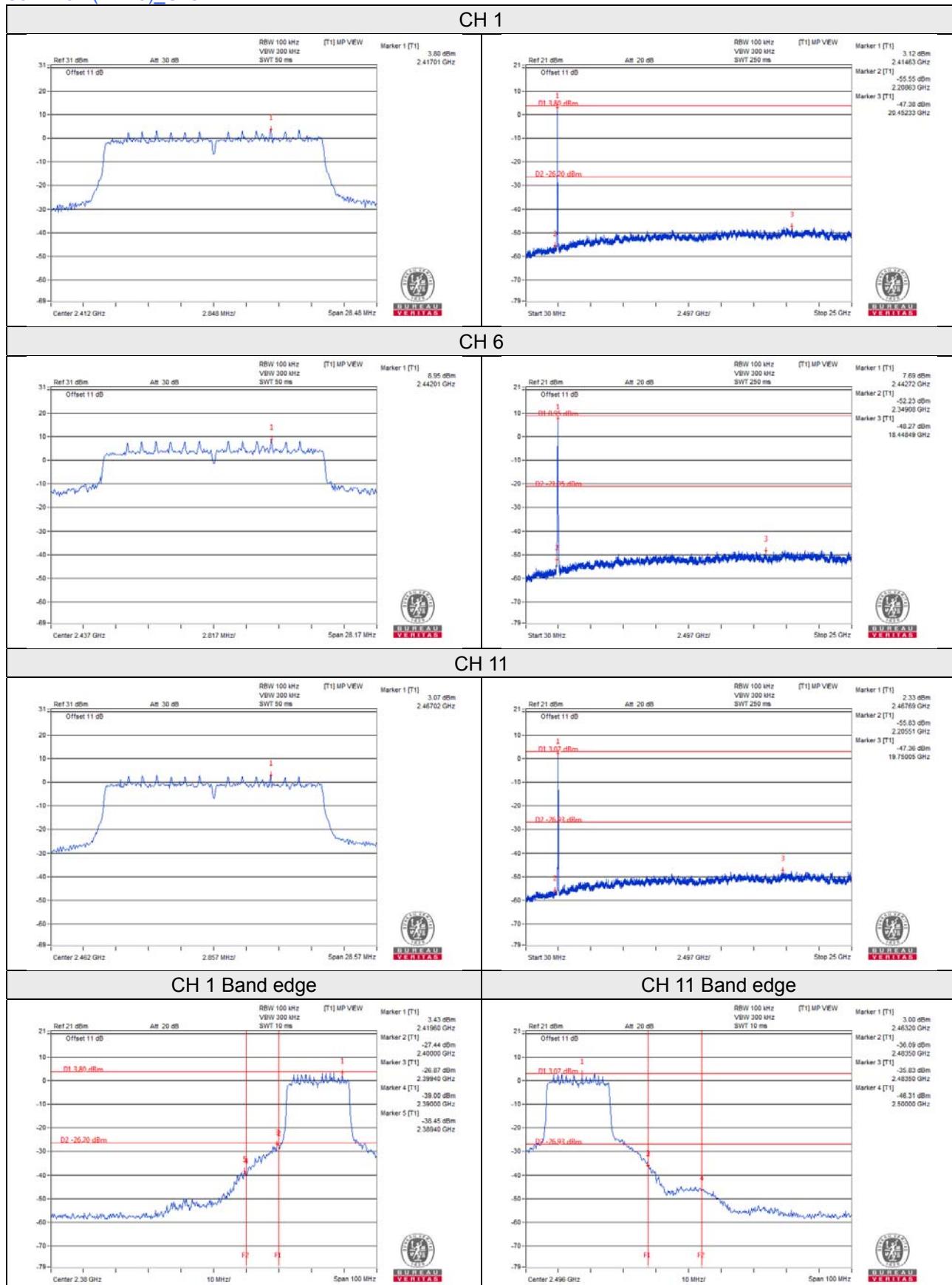
802.11g_Chain 1



802.11ax (HE20)_Chain 0

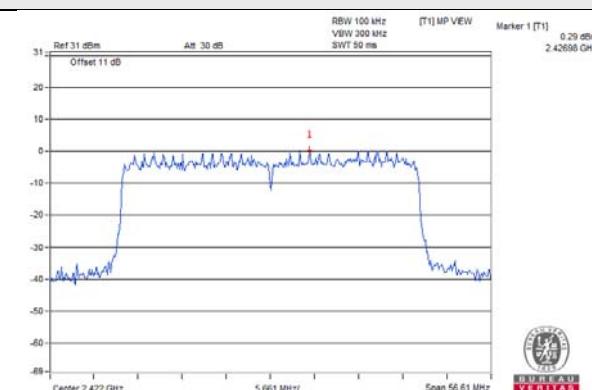


802.11ax (HE20)_Chain 1

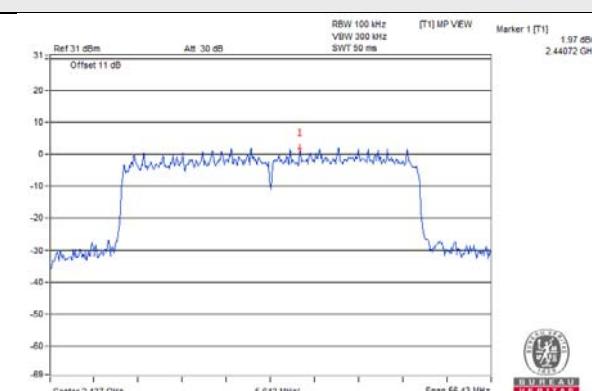


802.11ax (HE40)_Chain 0

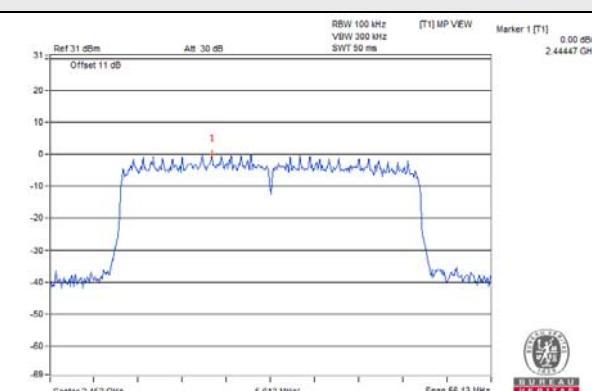
CH 3



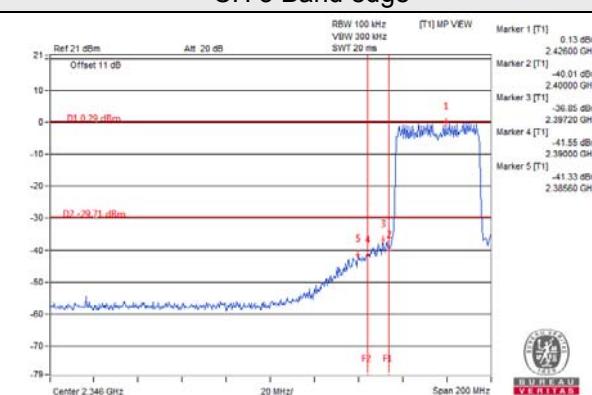
CH 6



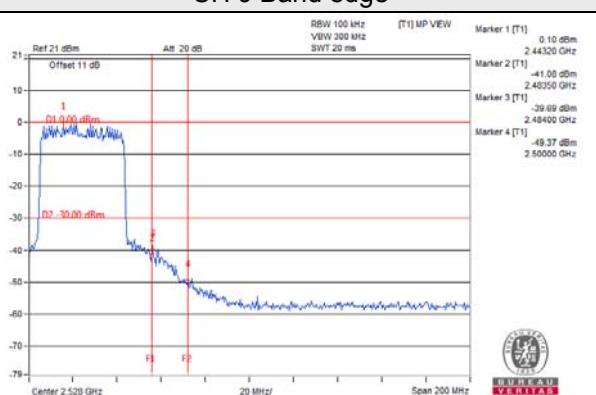
CH 9



CH 3 Band edge

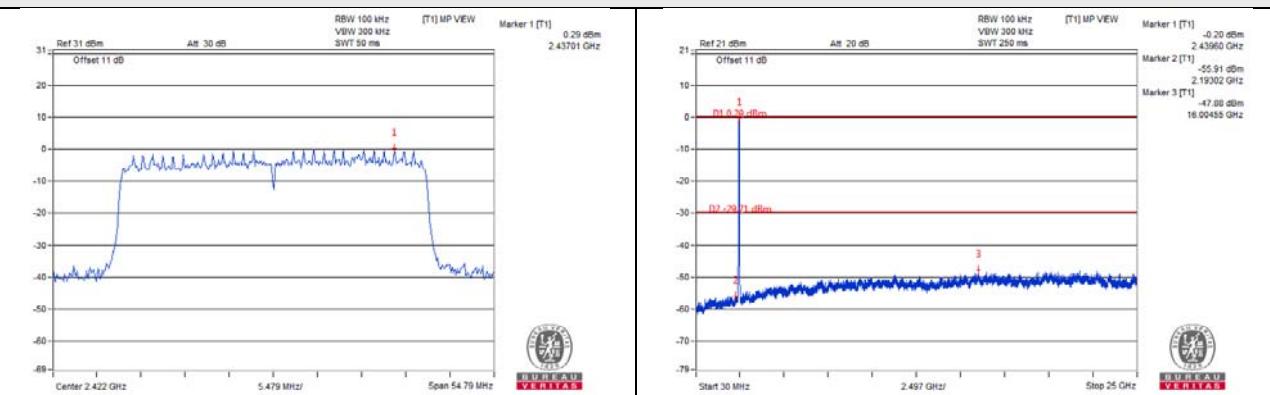


CH 9 Band edge

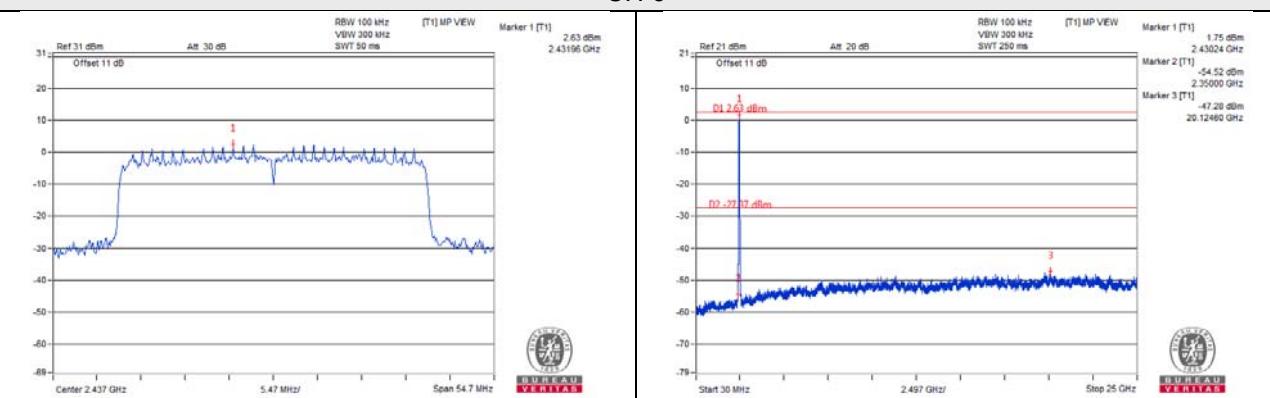


802.11ax (HE40)_Chain 1

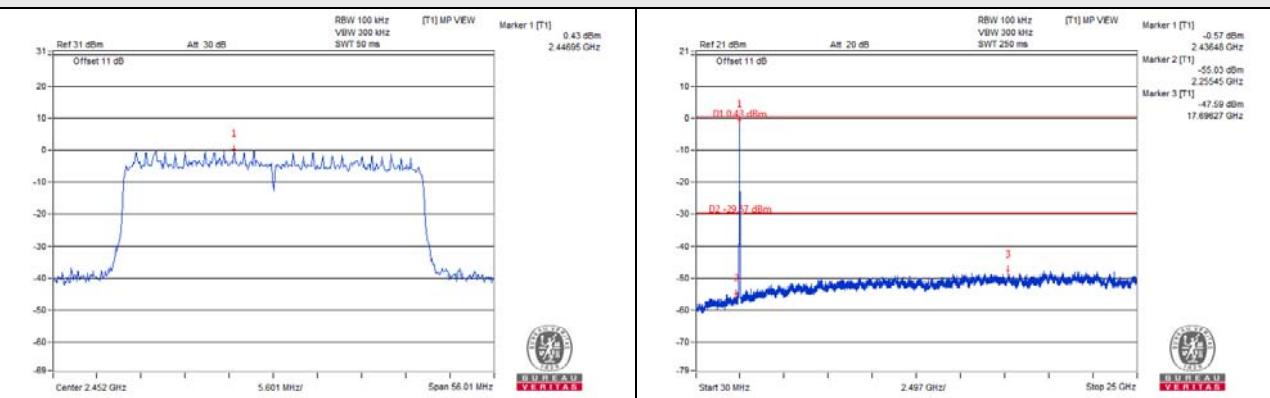
CH 3



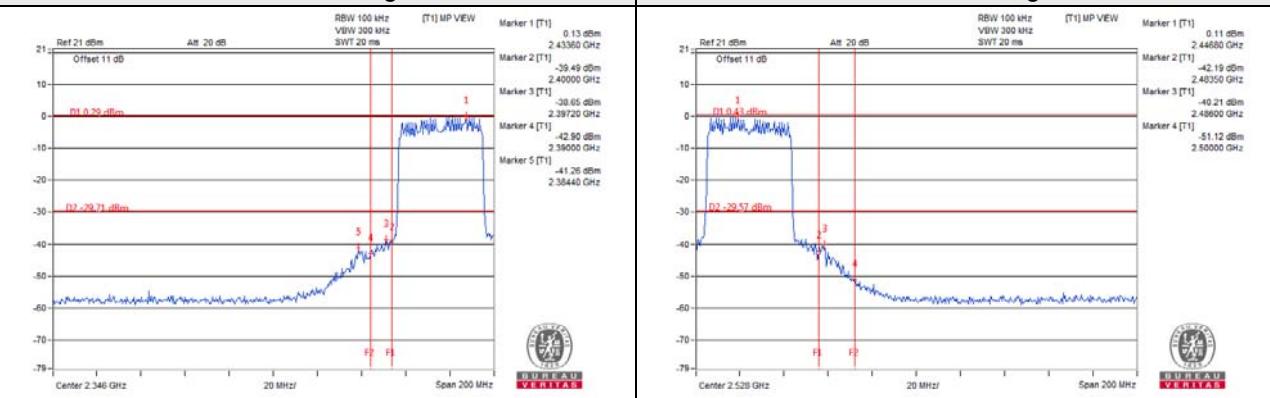
CH 6



CH 9

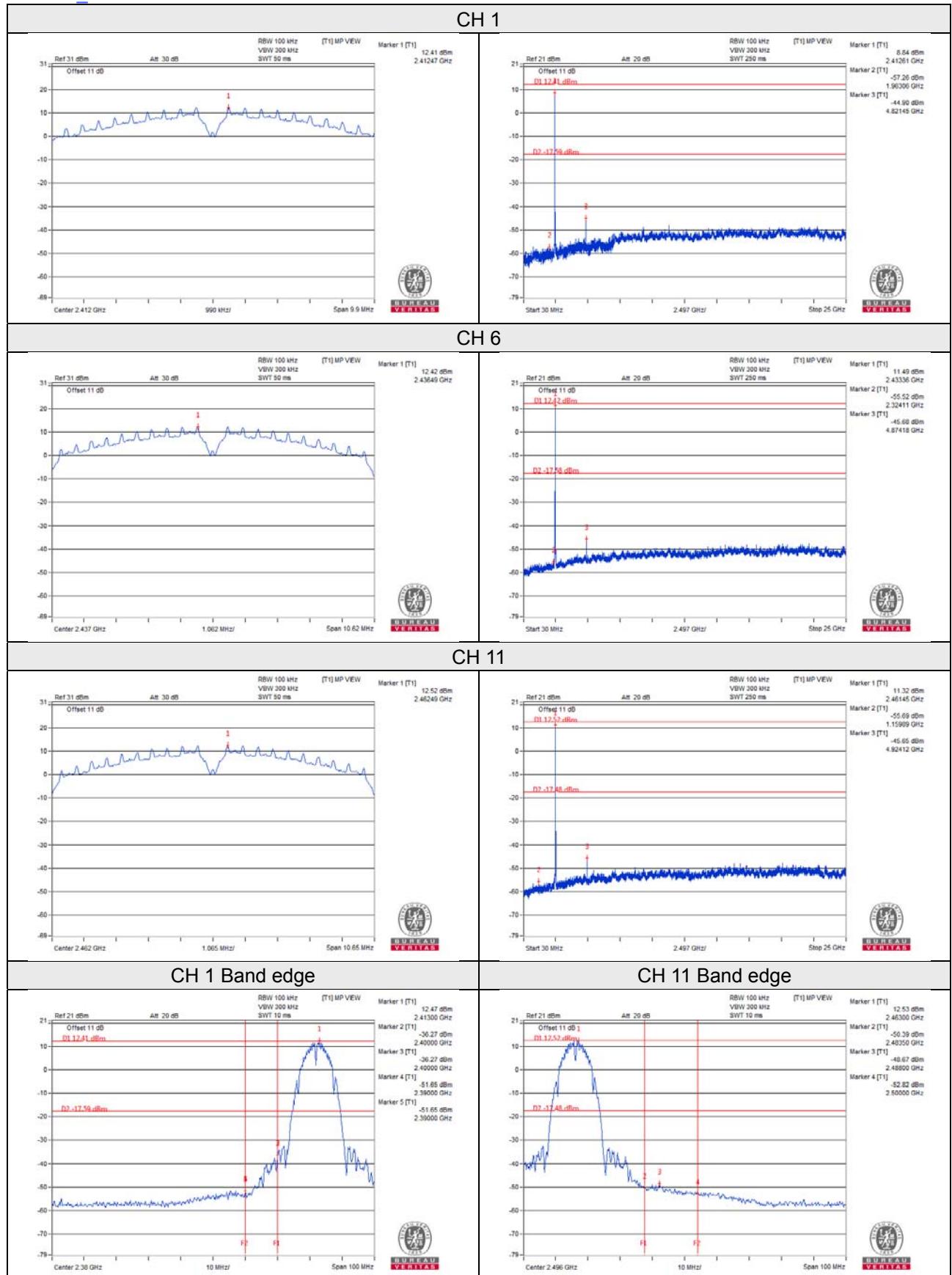


CH 3 Band edge

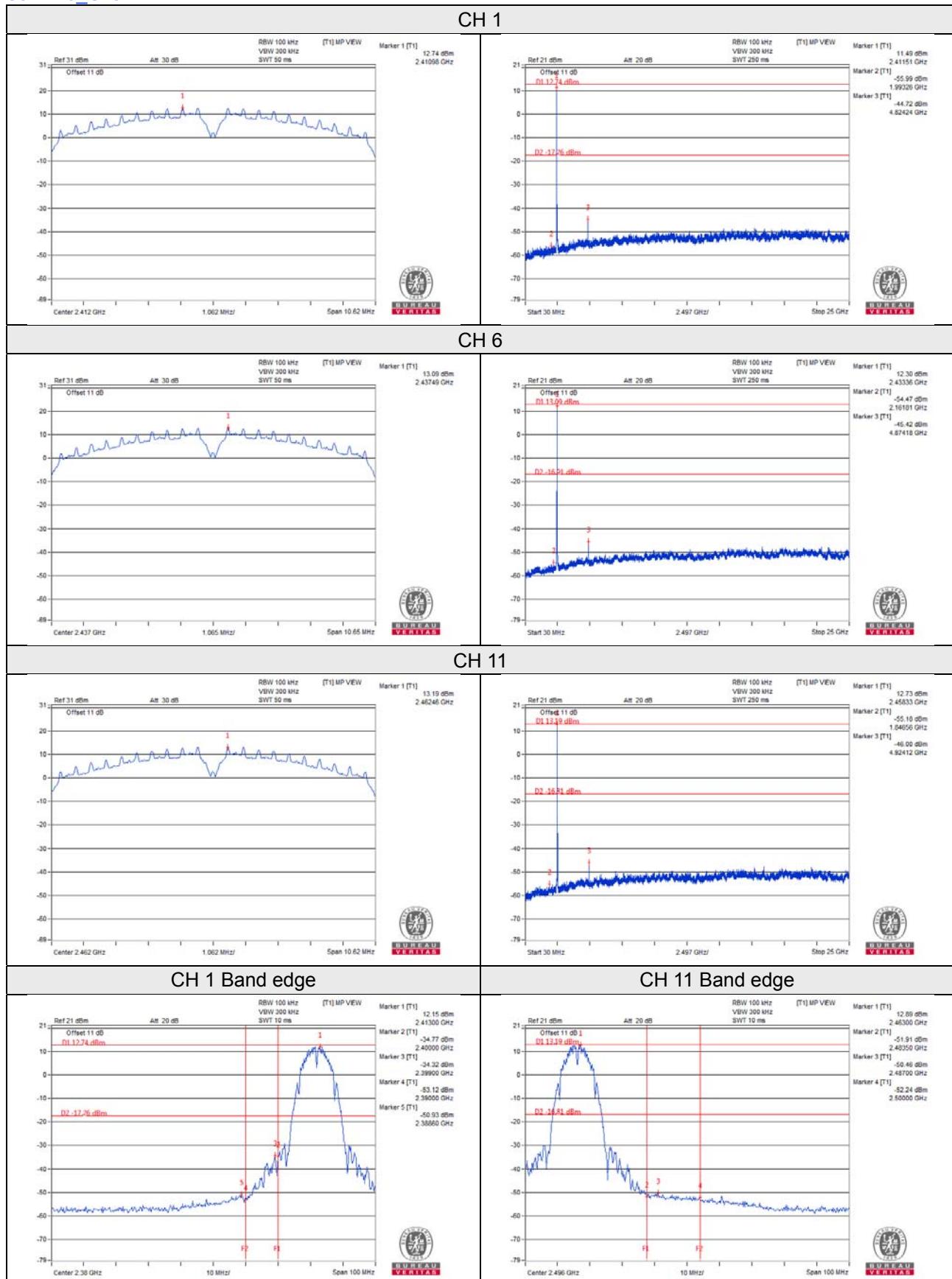


Test Mode C (Internal antenna + Eth8 Radio)

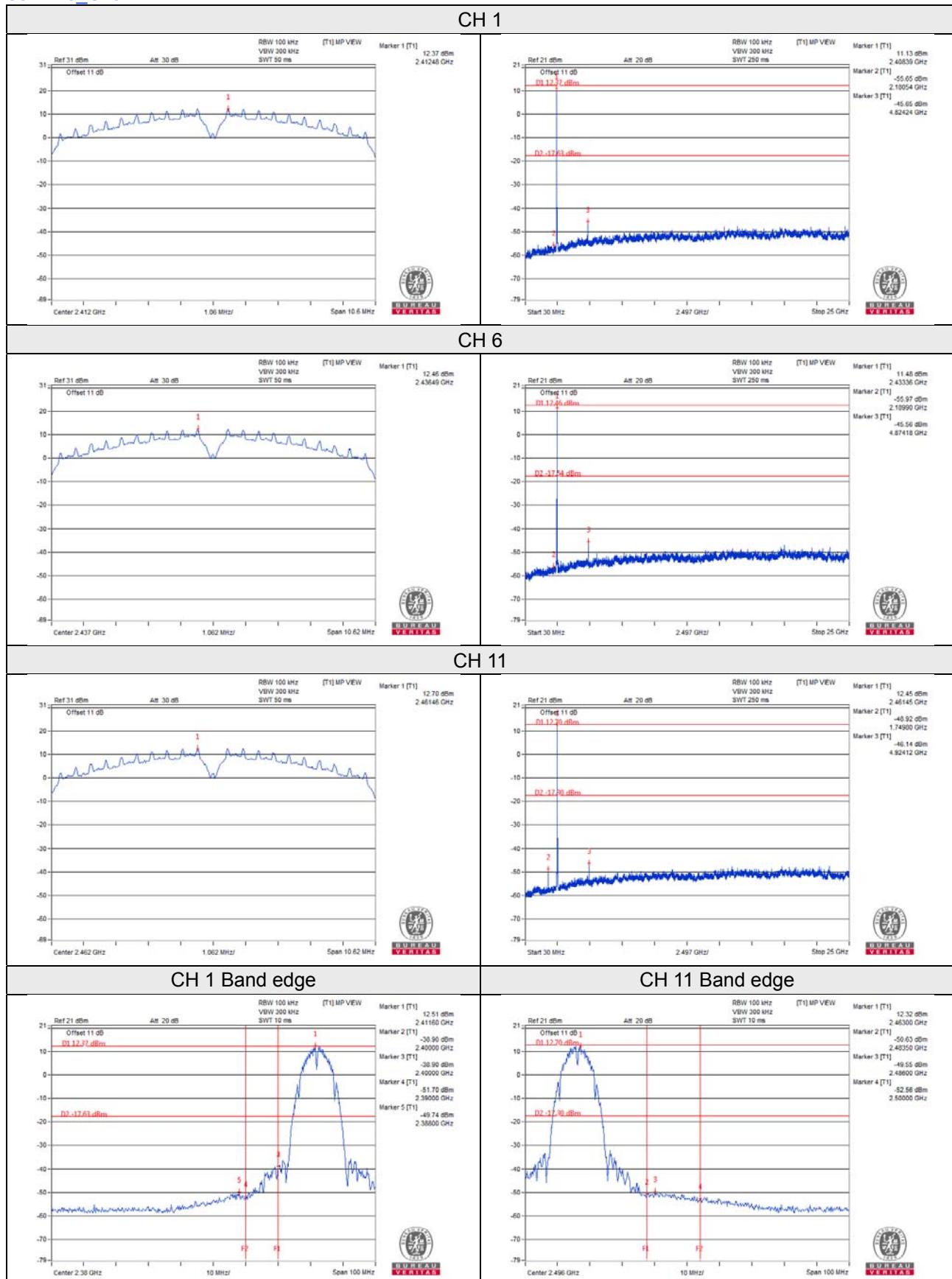
802.11b_Chain 0



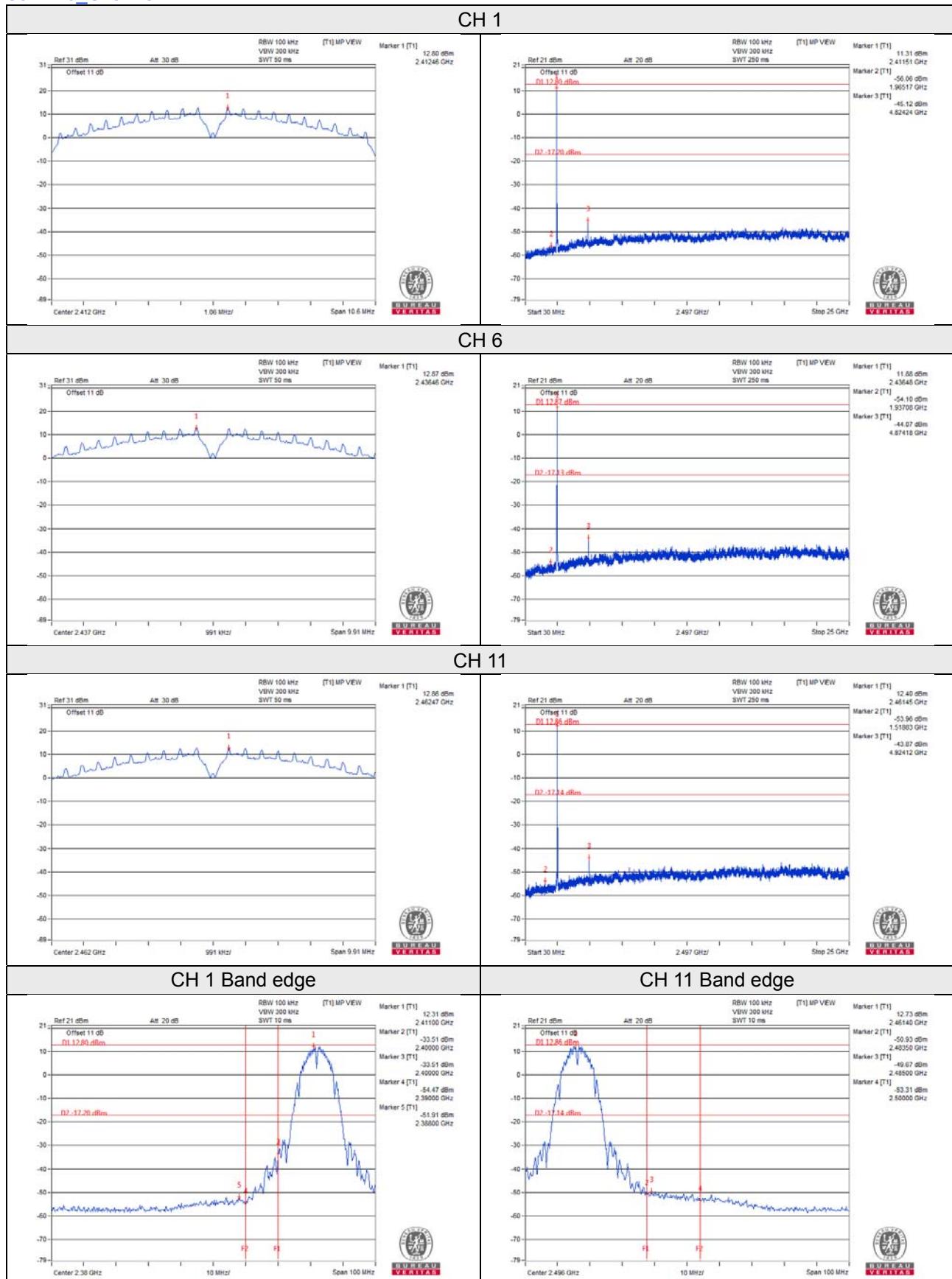
802.11b_Chain 1



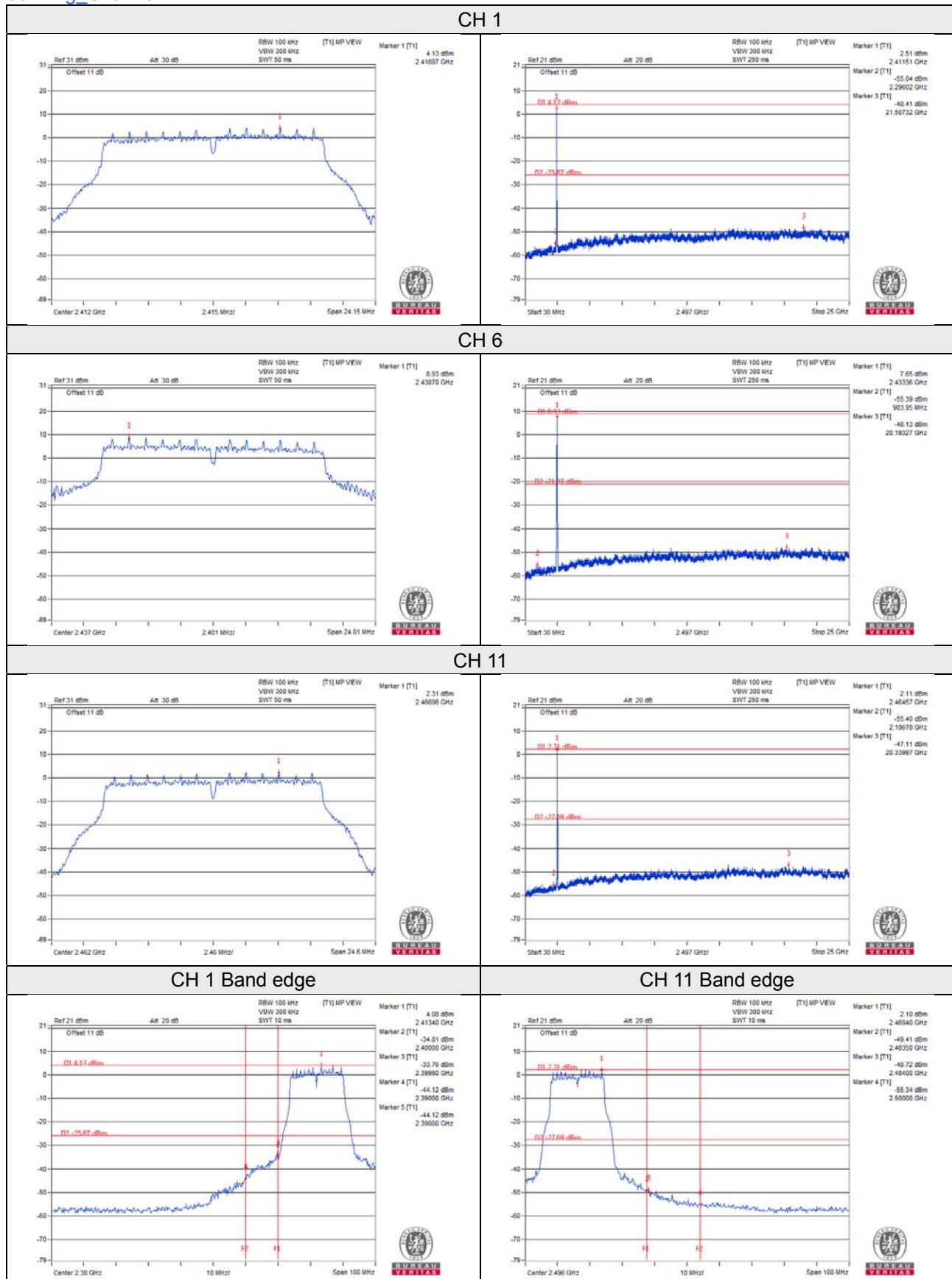
802.11b_Chain 2



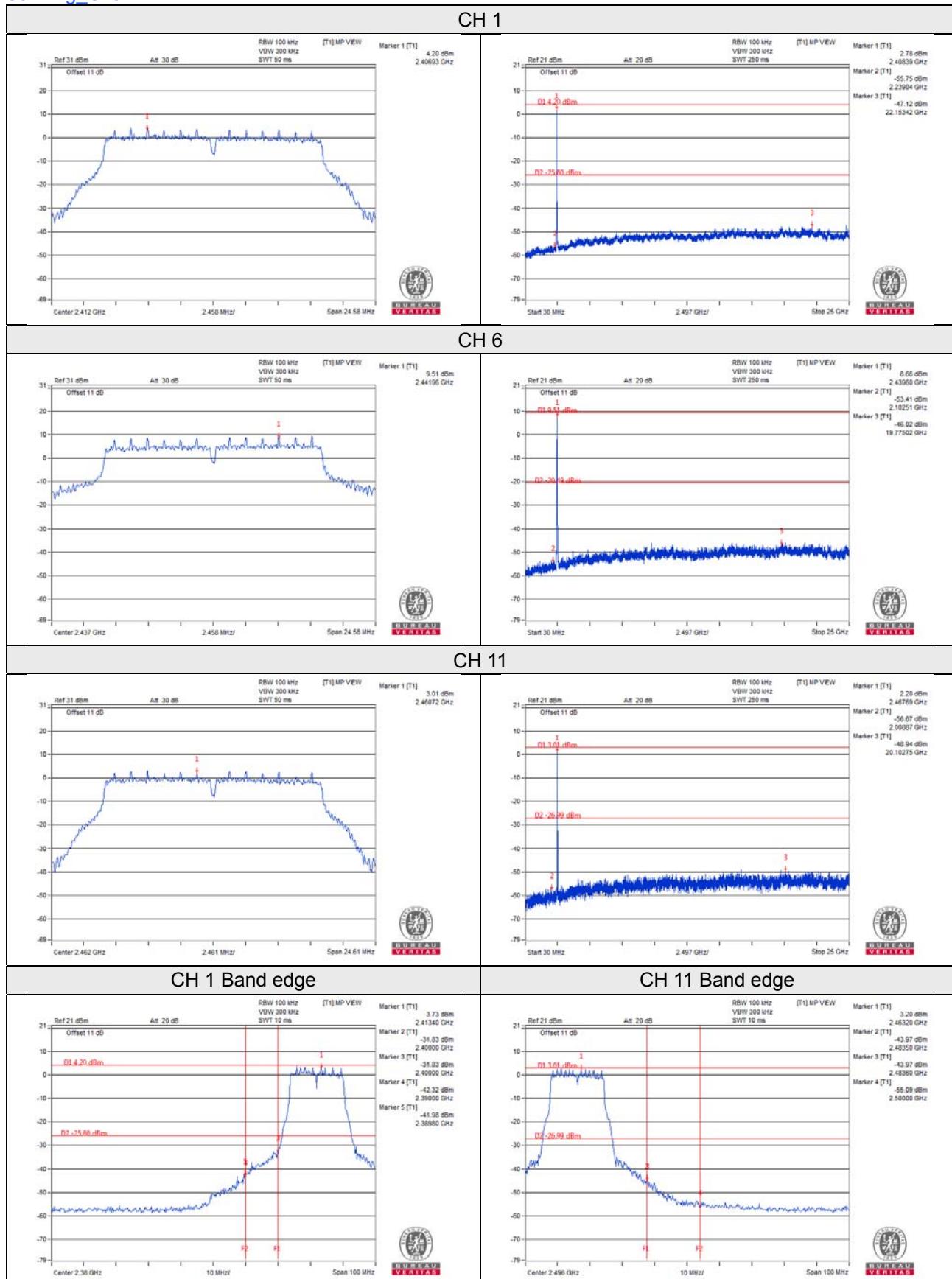
802.11b_Chain 3



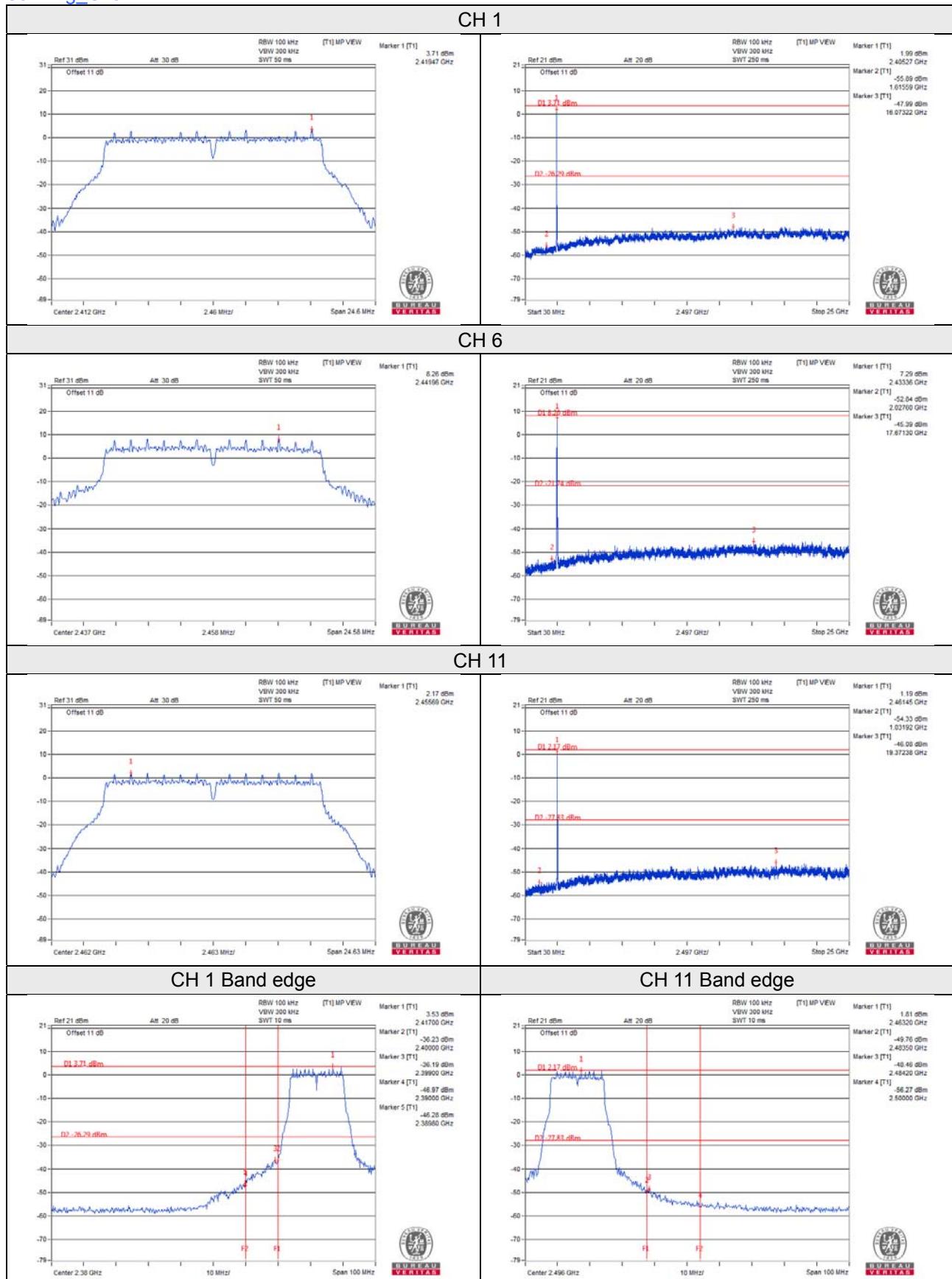
802.11g_Chain 0



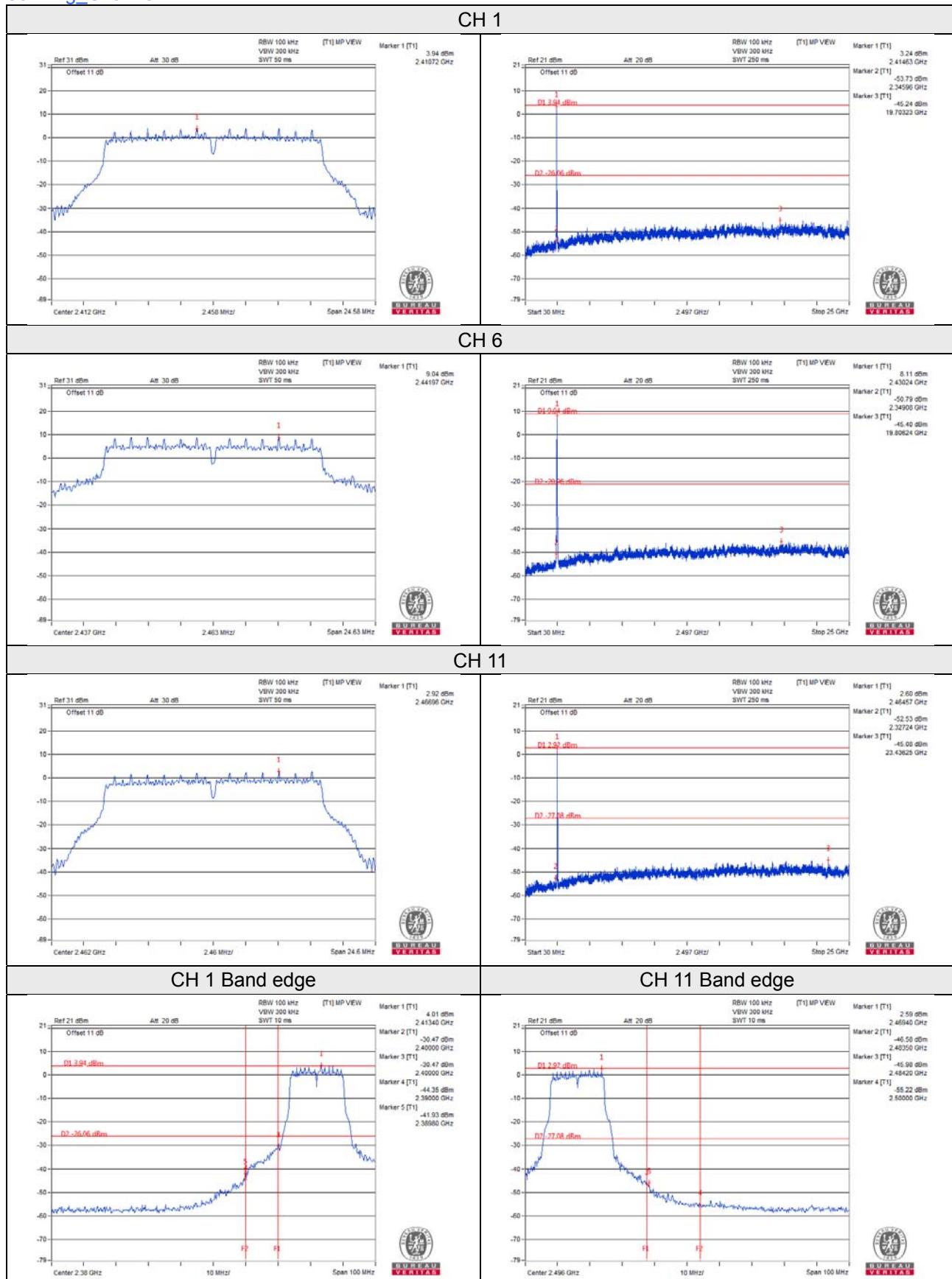
802.11g_Chain 1



802.11g_Chain 2

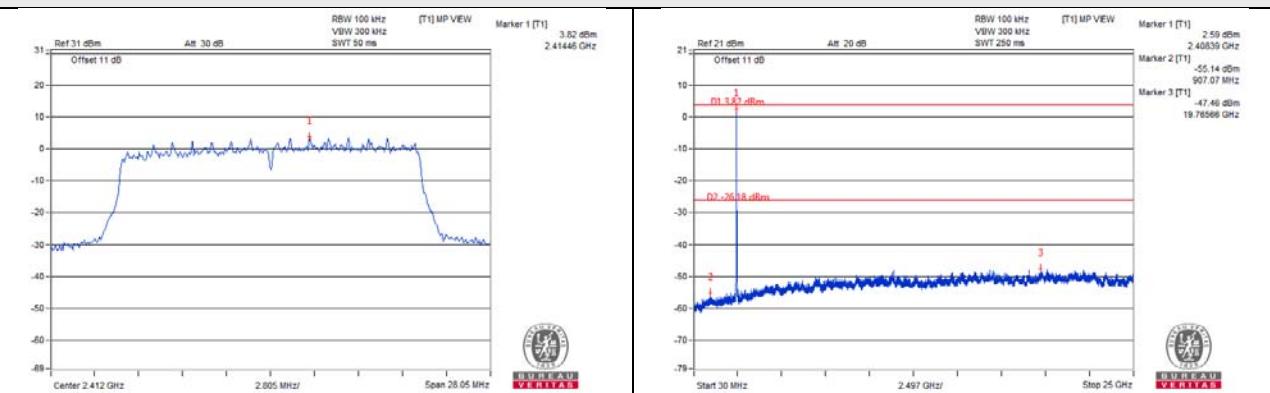


802.11g_Chain 3

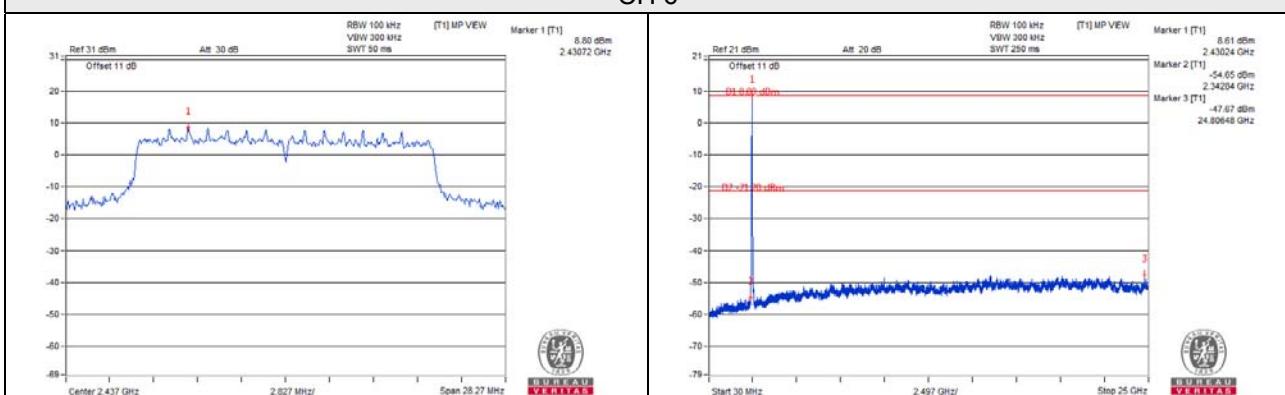


802.11ax (HE20)_Chain 0

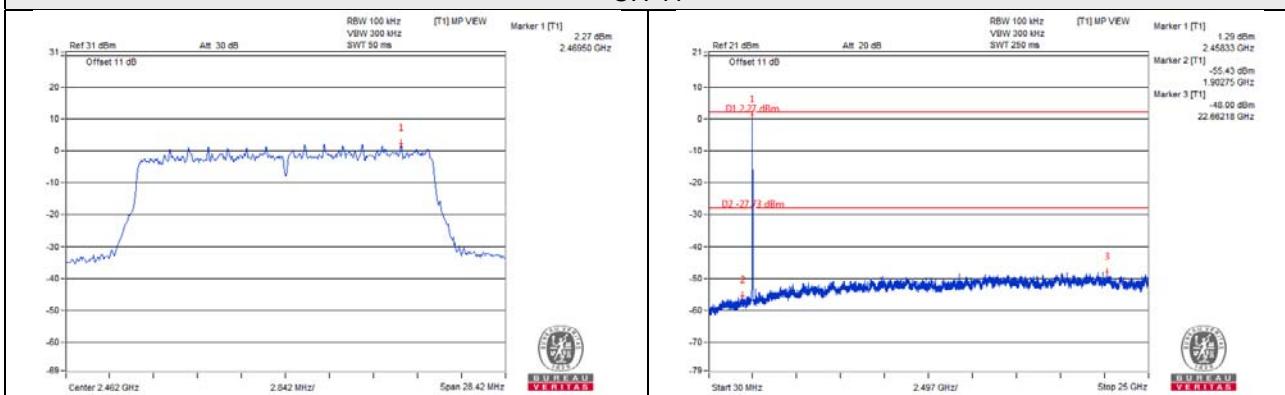
CH 1



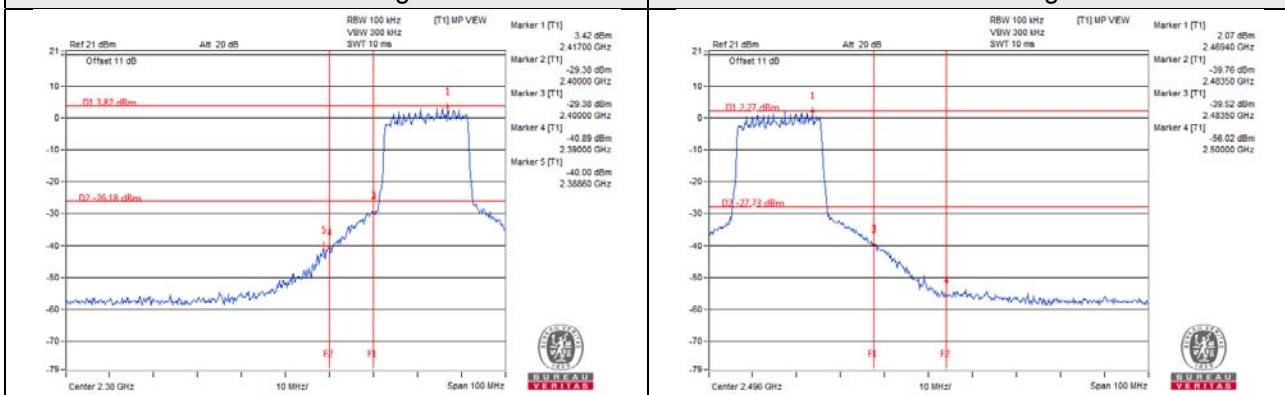
CH 6



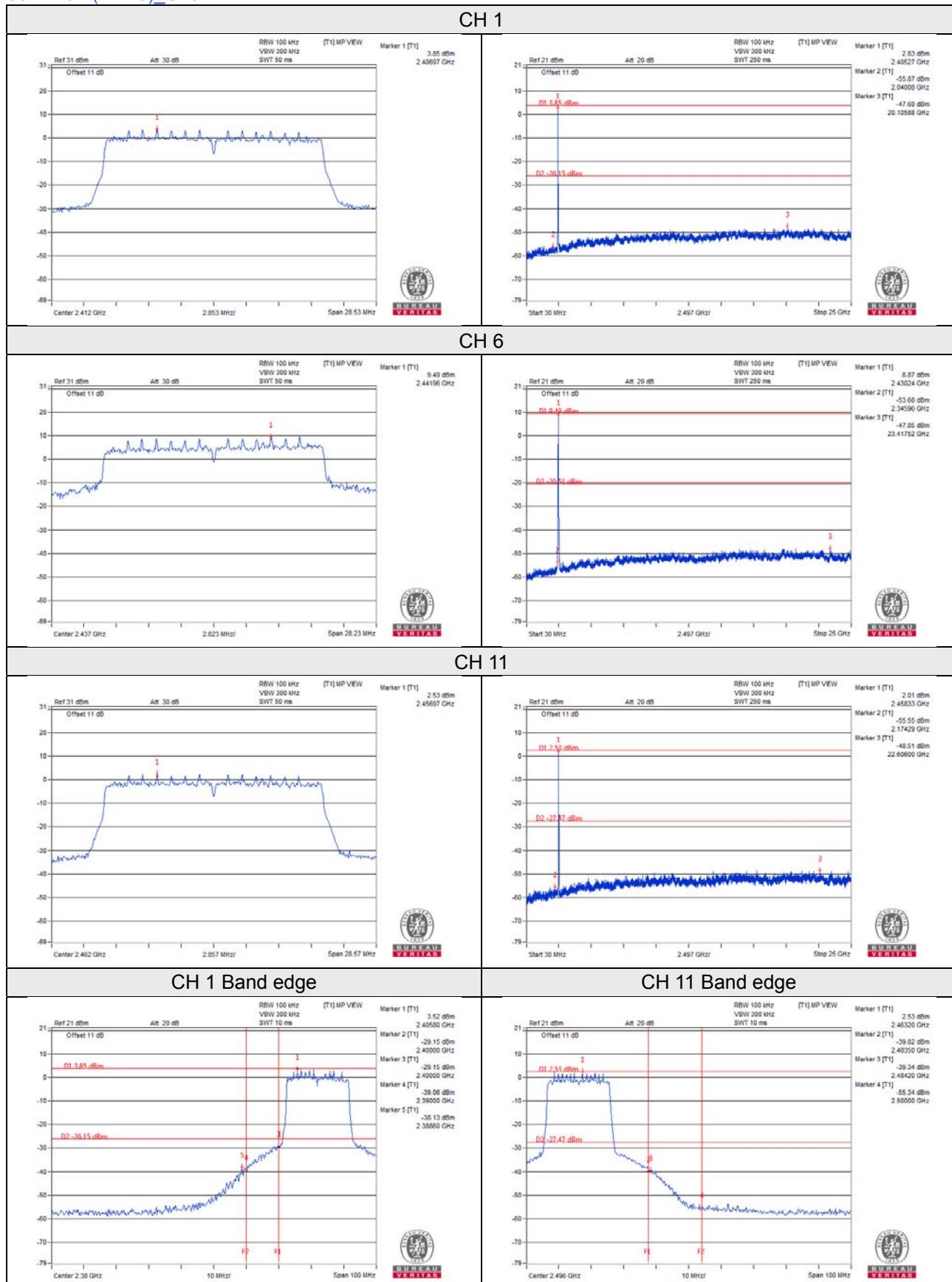
CH 11



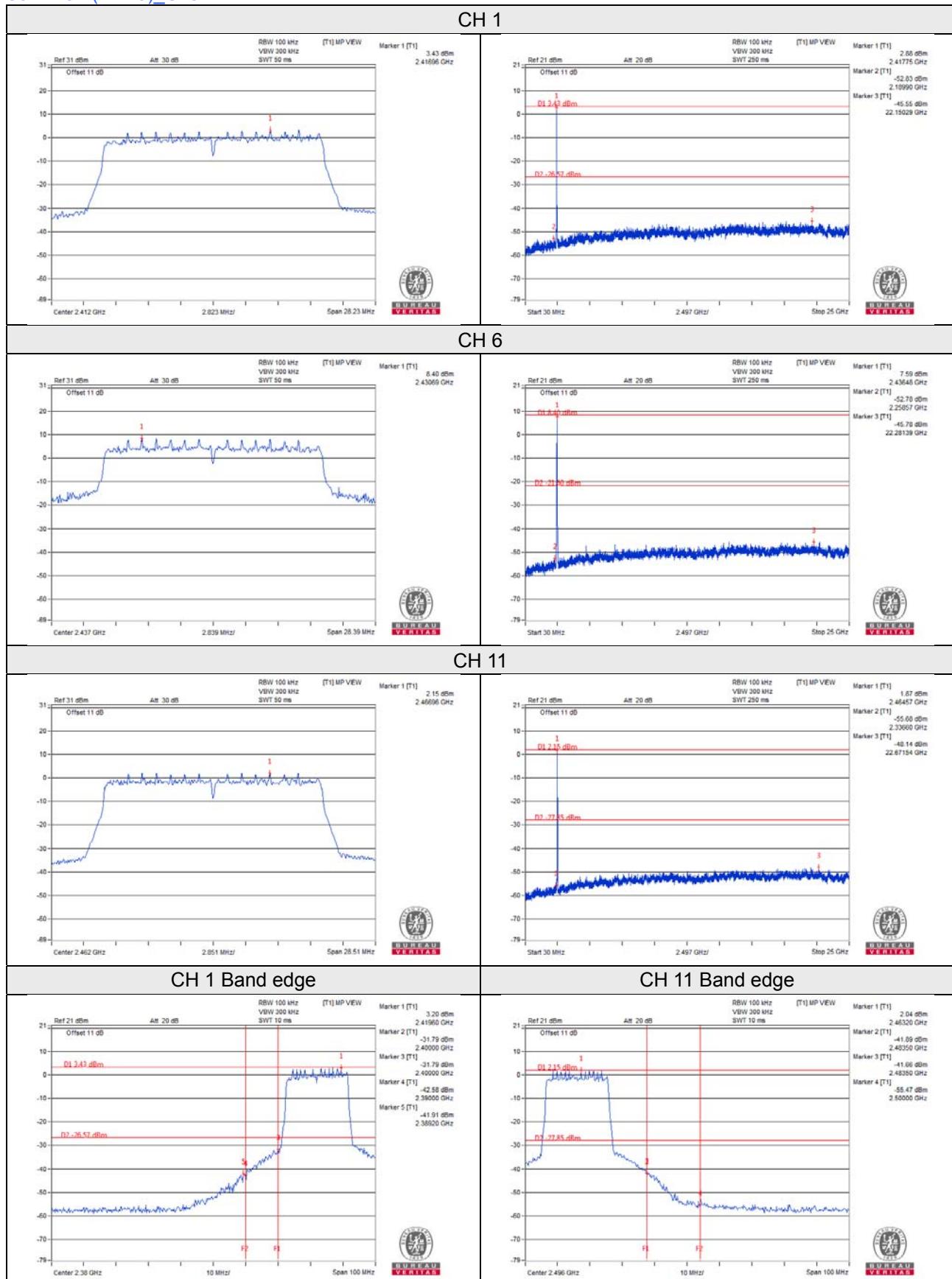
CH 1 Band edge



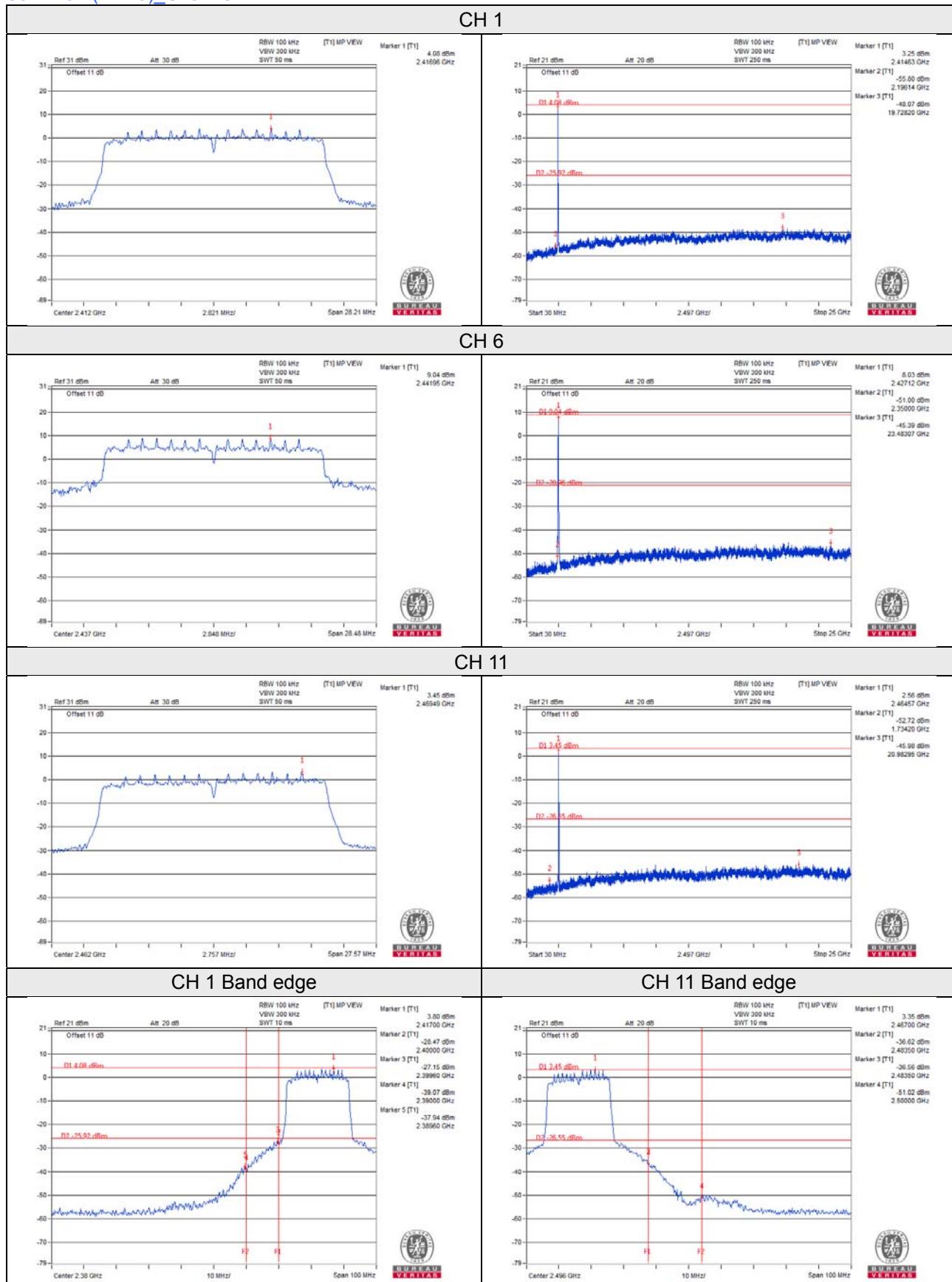
802.11ax (HE20)_Chain 1



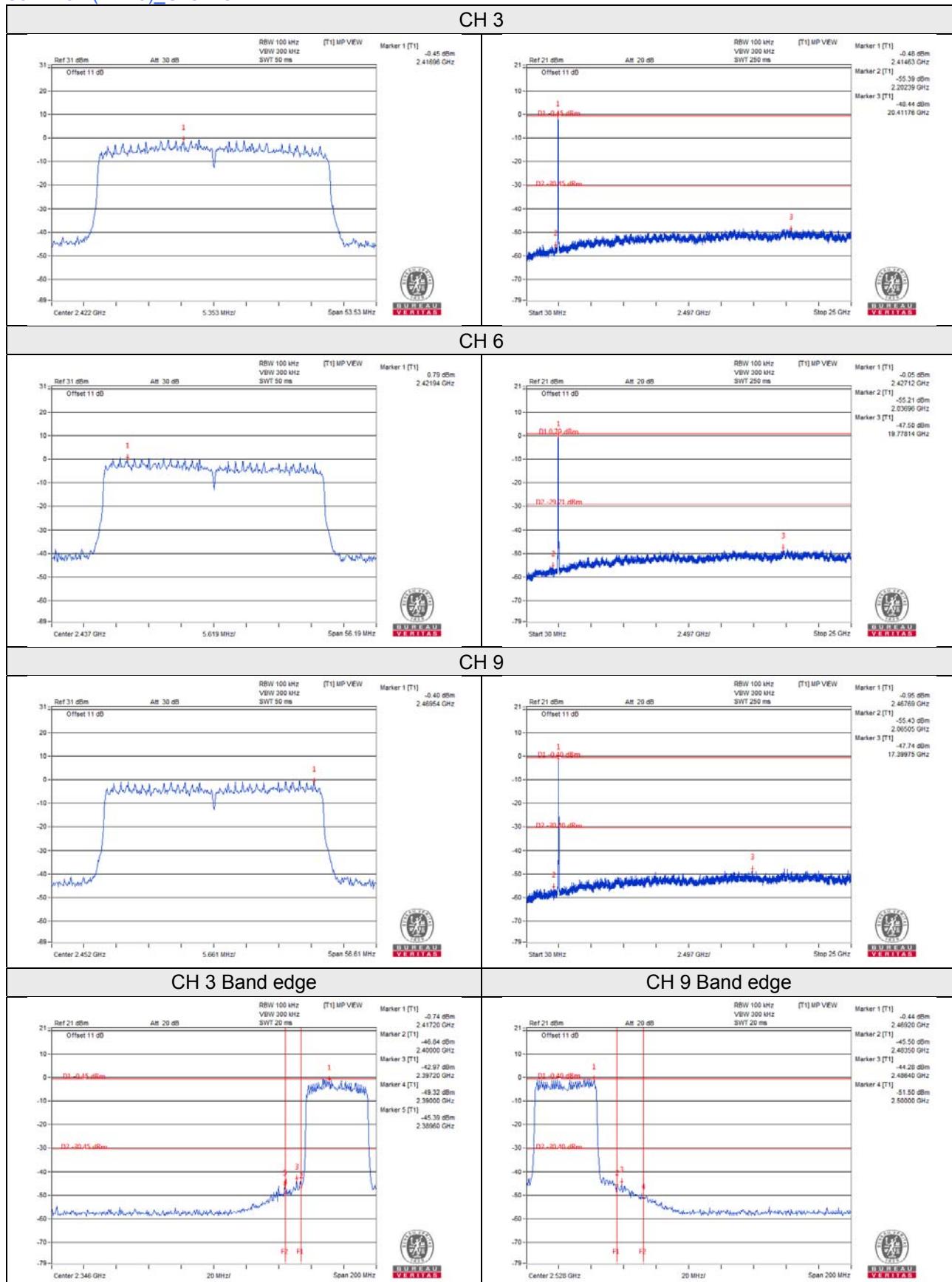
802.11ax (HE20)_Chain 2



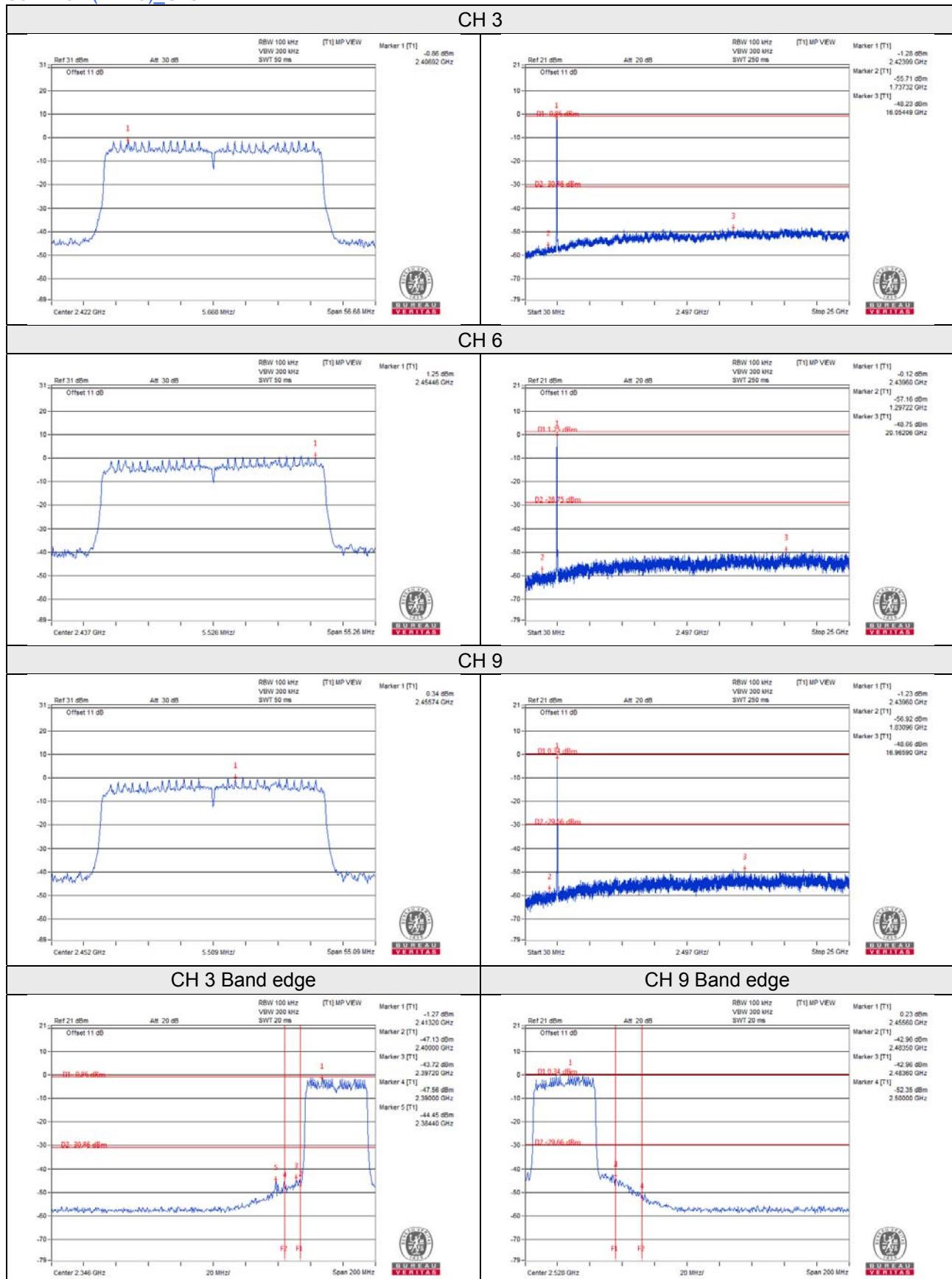
802.11ax (HE20)_Chain 3



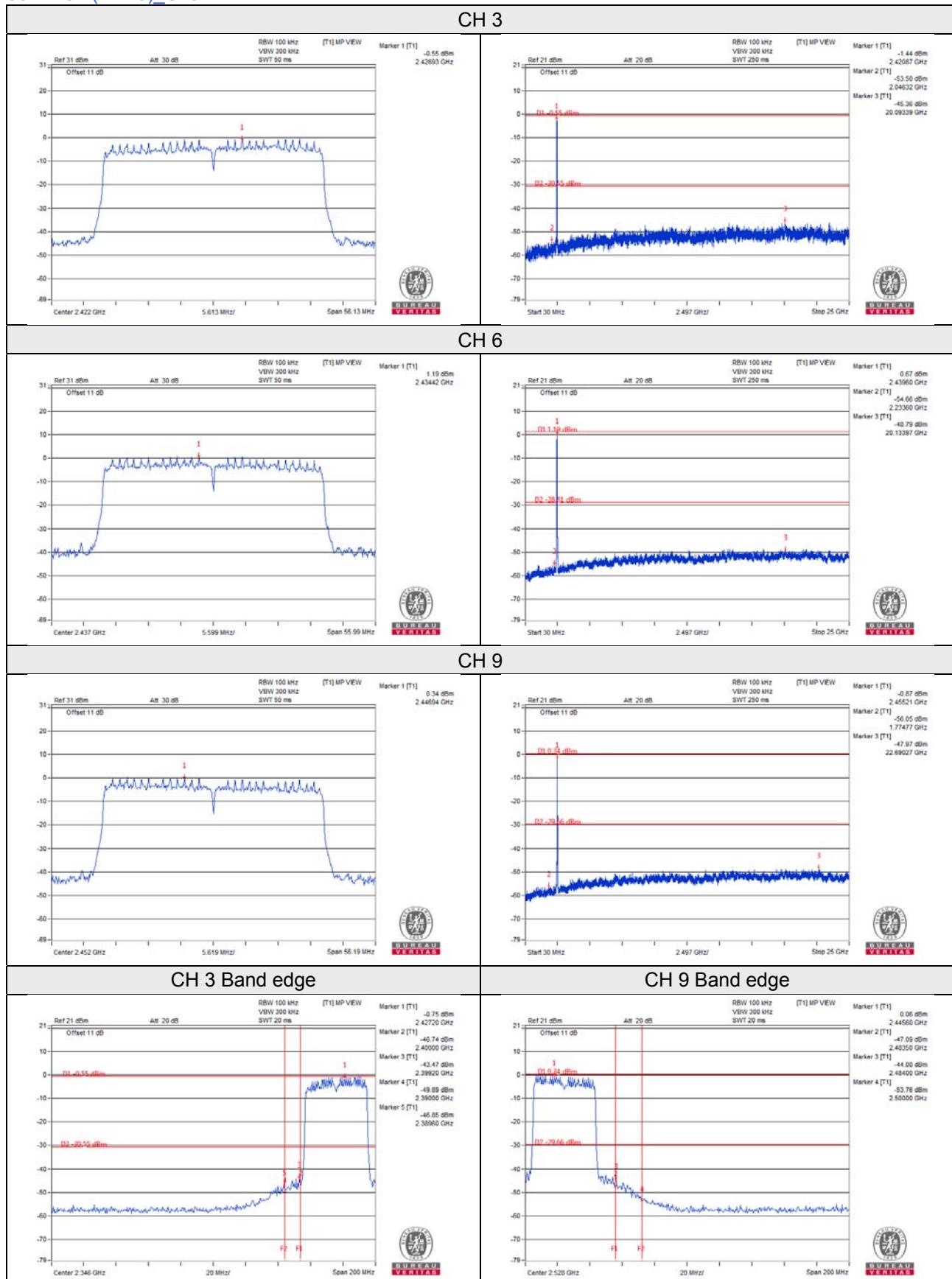
802.11ax (HE40)_Chain 0



802.11ax (HE40)_Chain 1

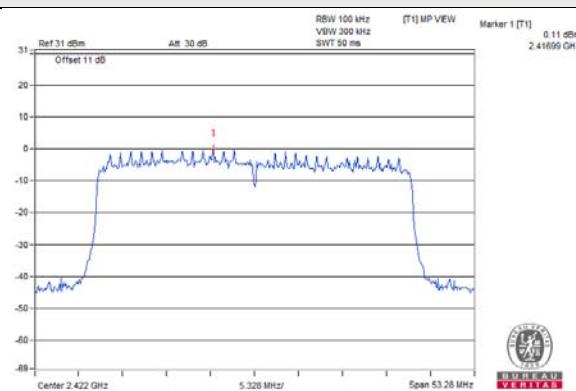


802.11ax (HE40)_Chain 2

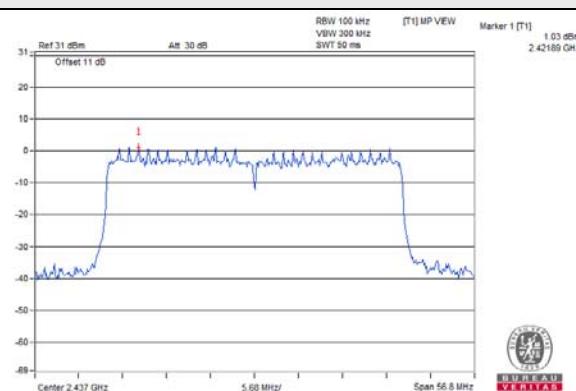


802.11ax (HE40)_Chain 3

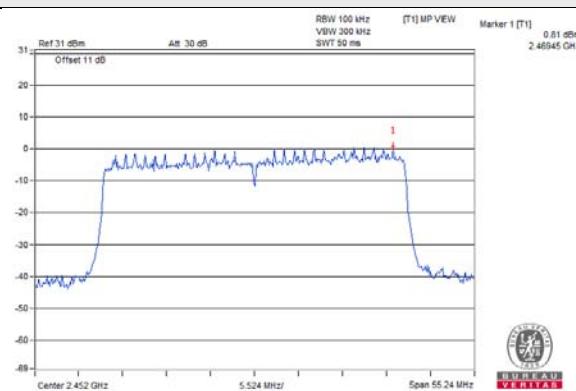
CH 3



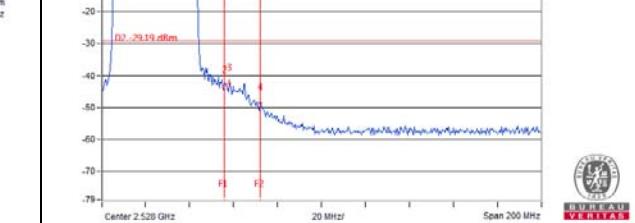
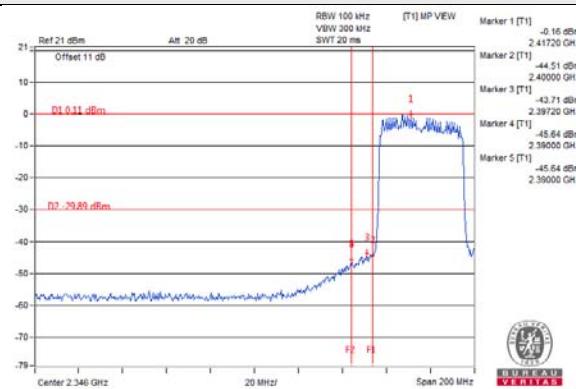
CH 6



CH 9

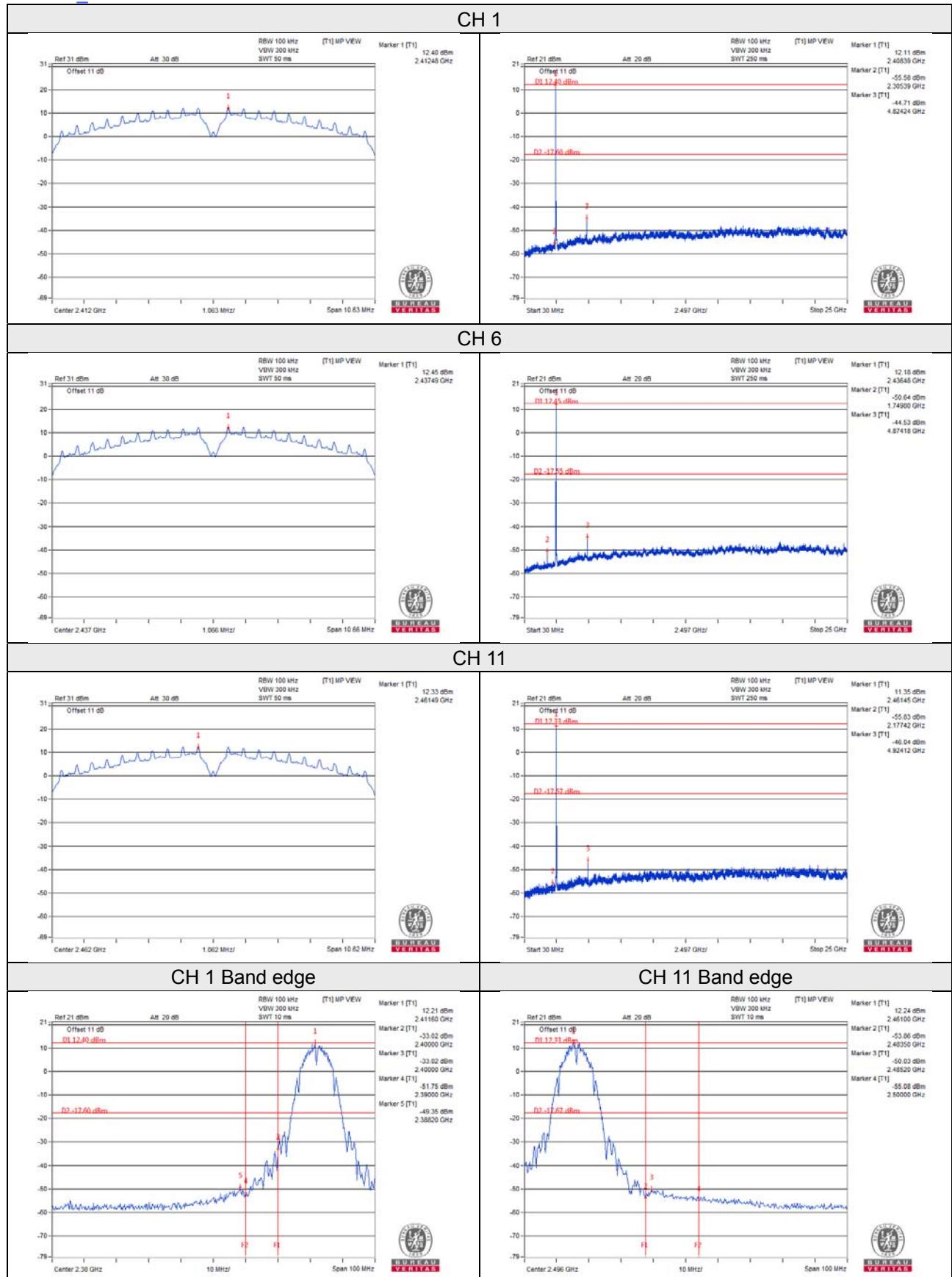


CH 3 Band edge

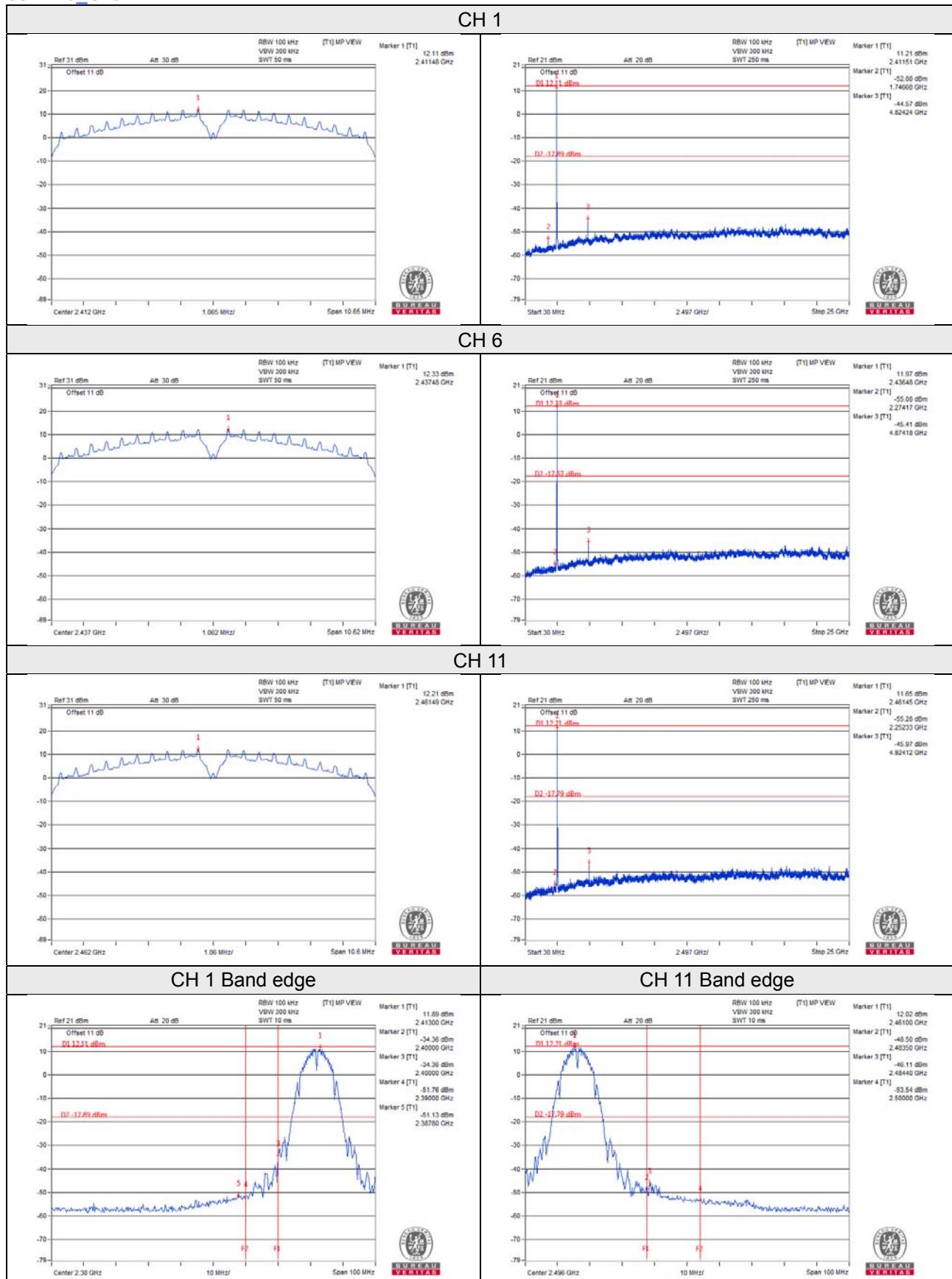


Test Mode E (External antenna + Eth7 Radio)

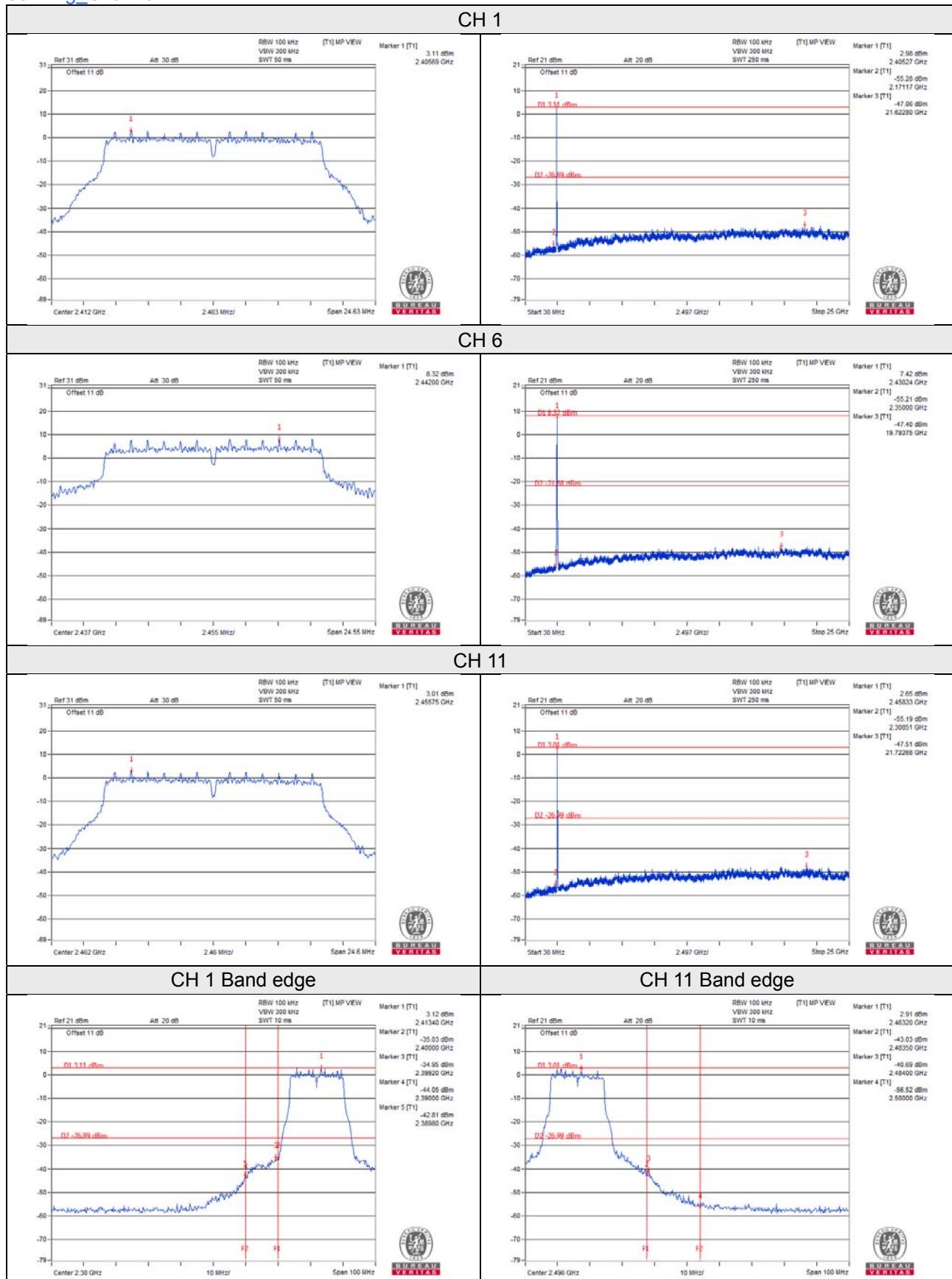
802.11b_Chain 0



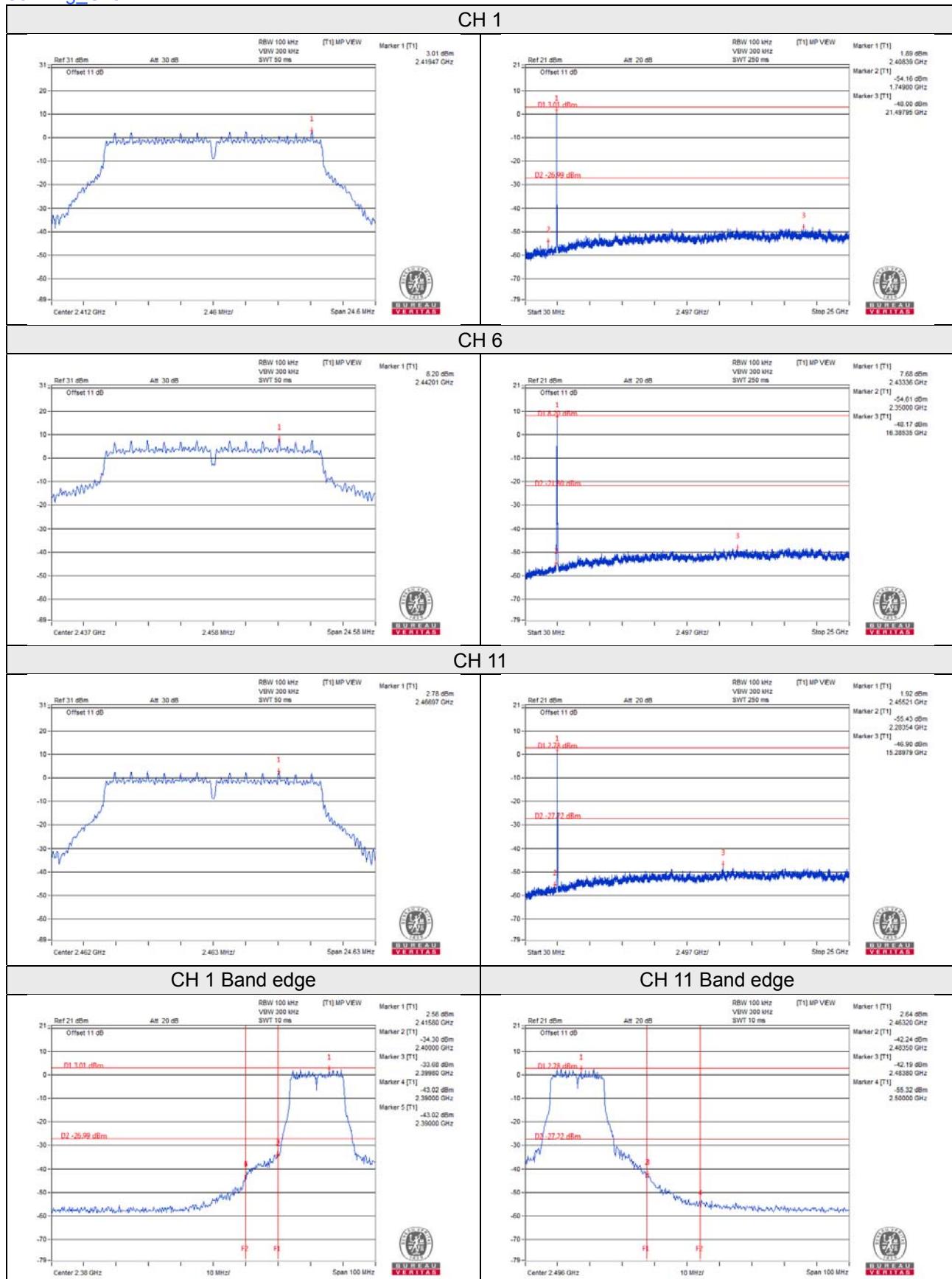
802.11b_Chain 1



802.11g_Chain 0

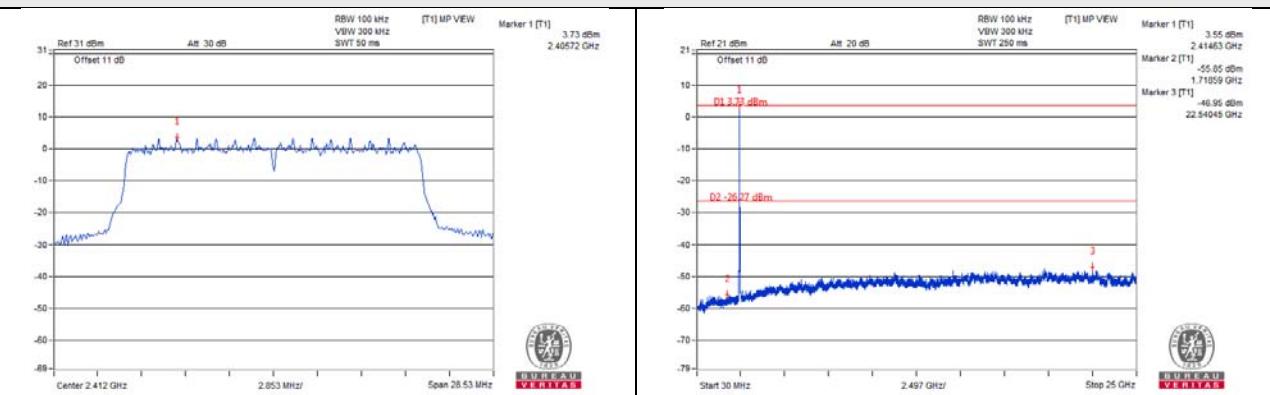


802.11g_Chain 1

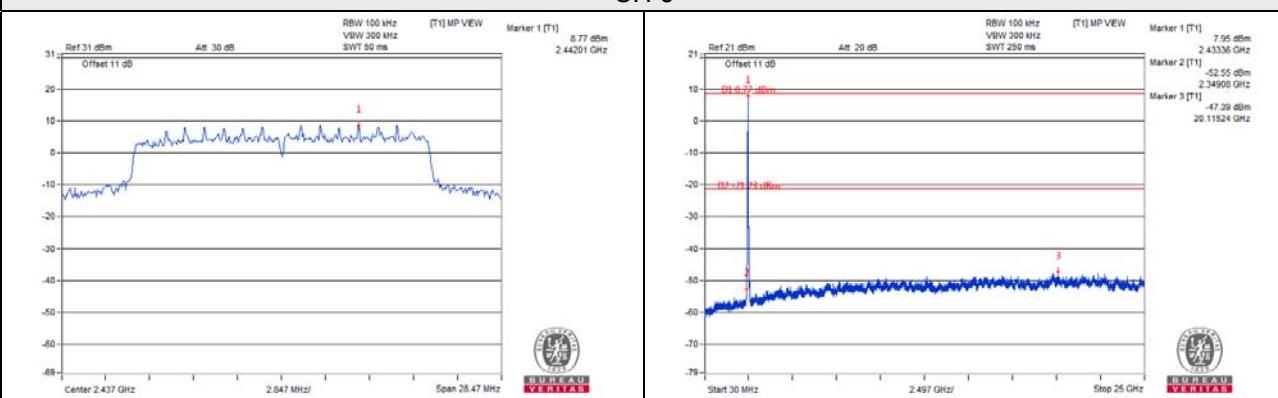


802.11ax (HE20)_Chain 0

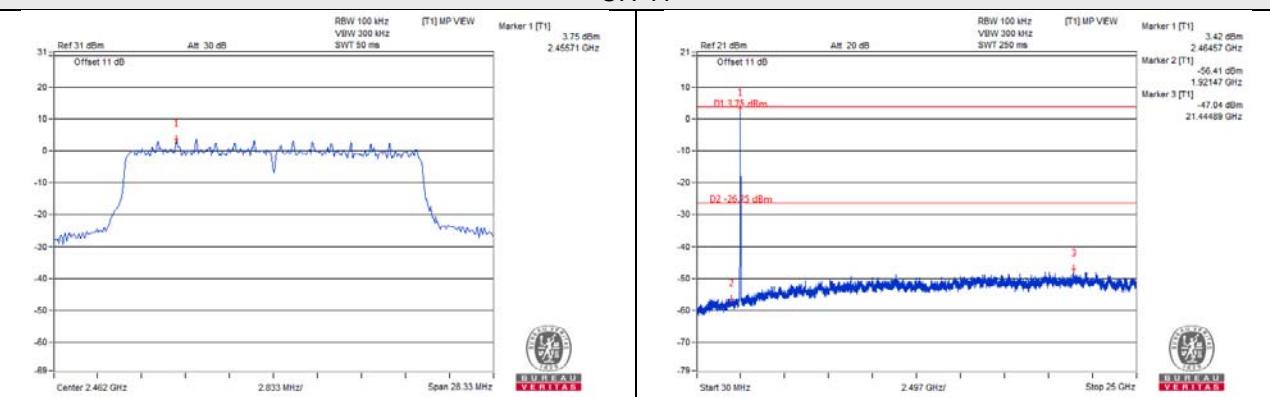
CH 1



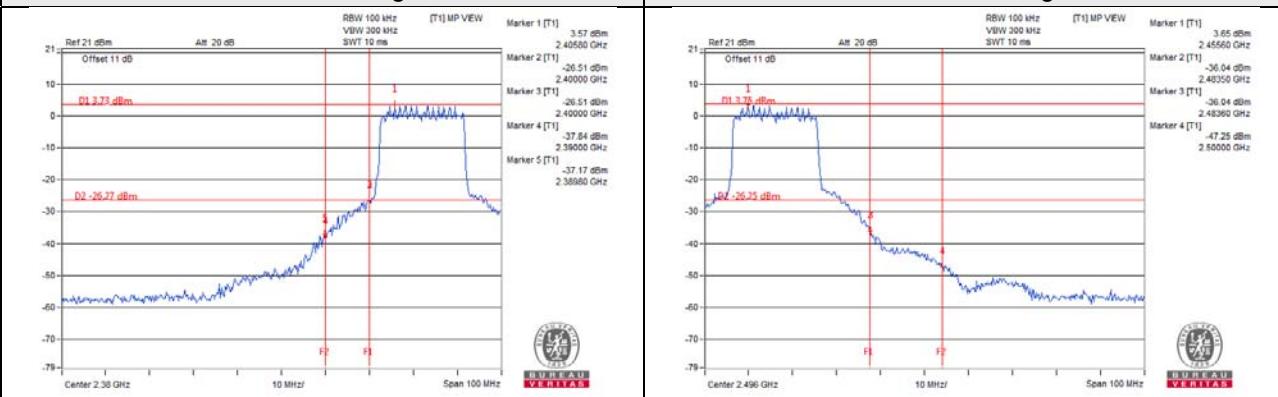
CH 6



CH 11

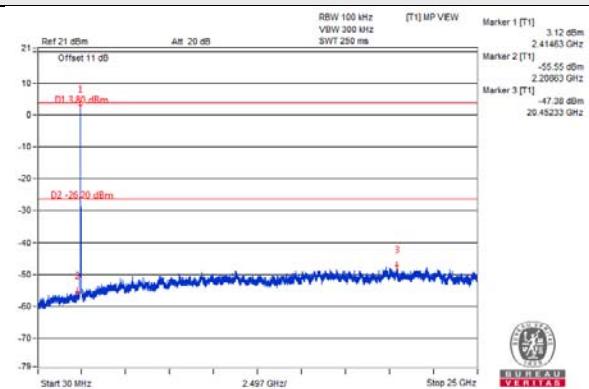
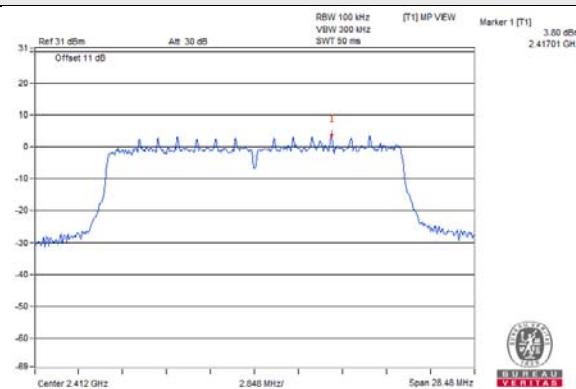


CH 1 Band edge

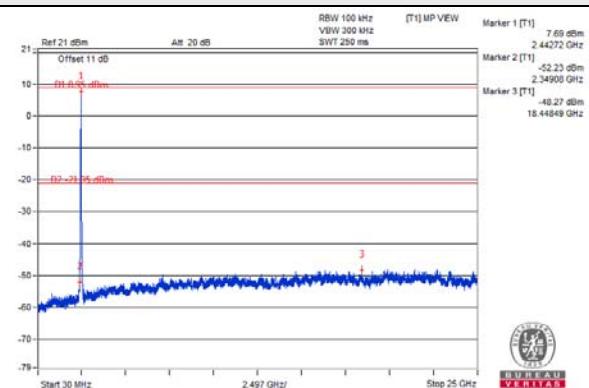
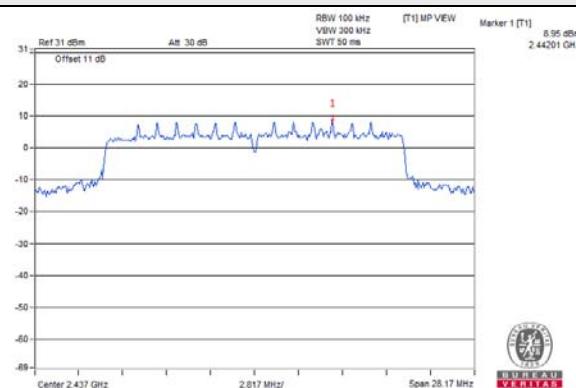


802.11ax (HE20)_Chain 1

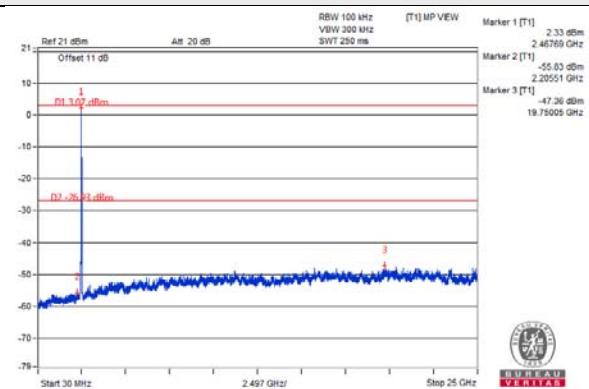
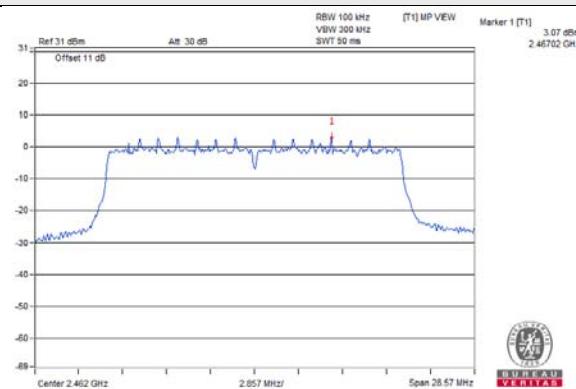
CH 1



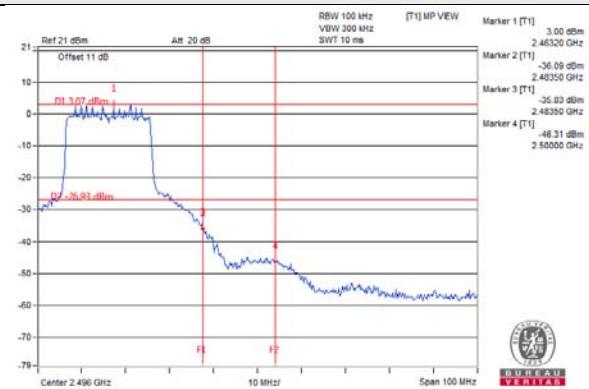
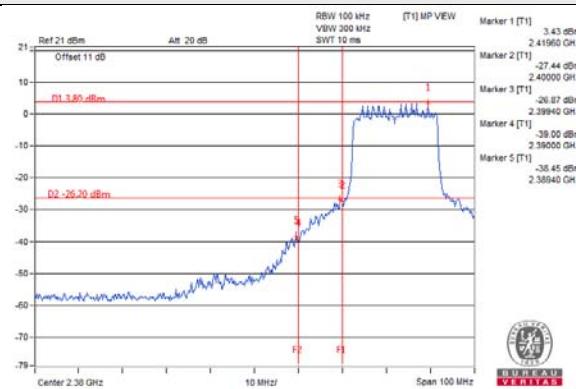
CH 6



CH 11

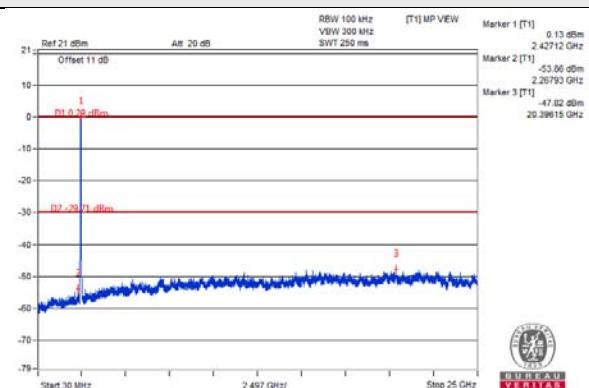
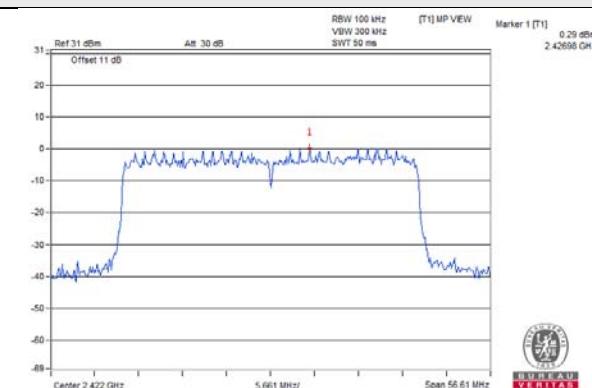


CH 1 Band edge

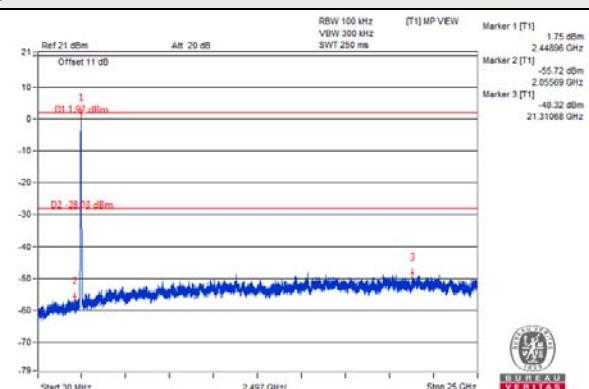
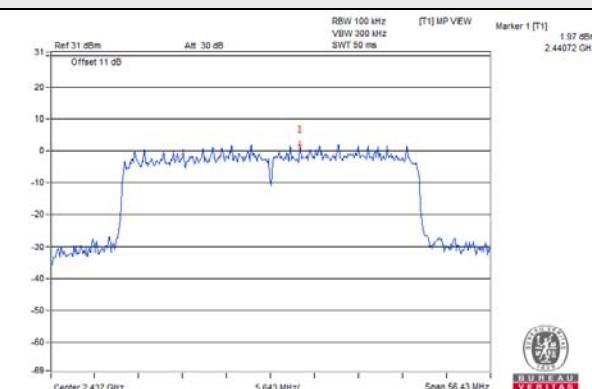


802.11ax (HE40)_Chain 0

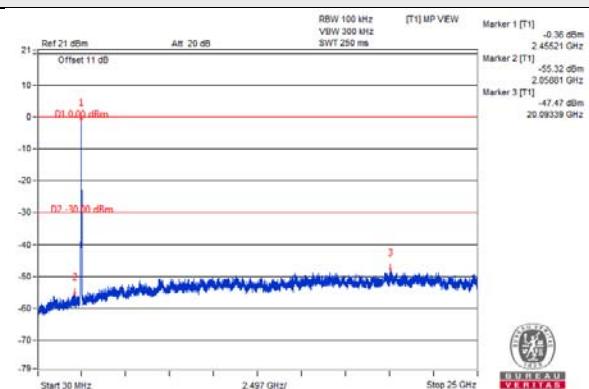
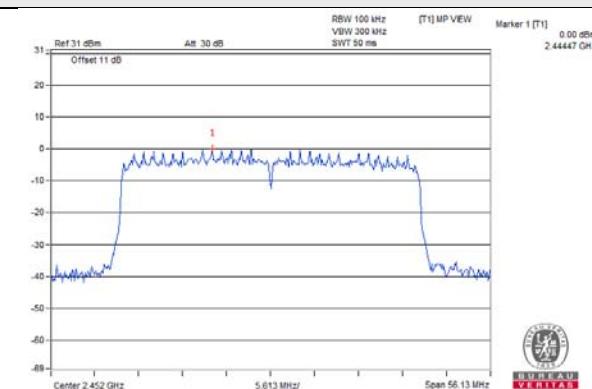
CH 3



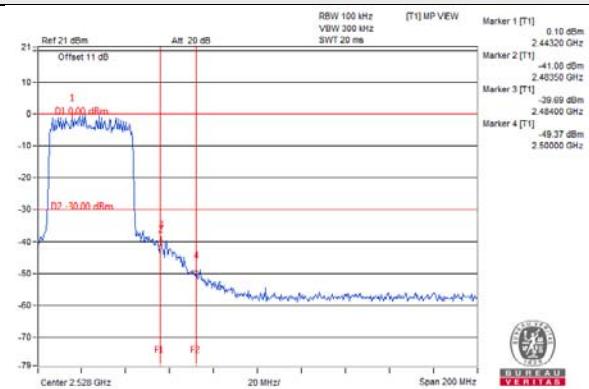
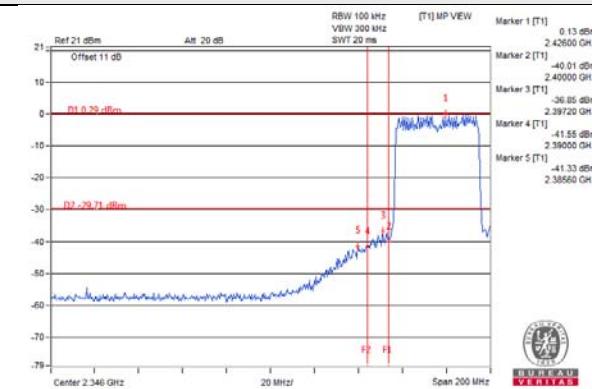
CH 6



CH 9

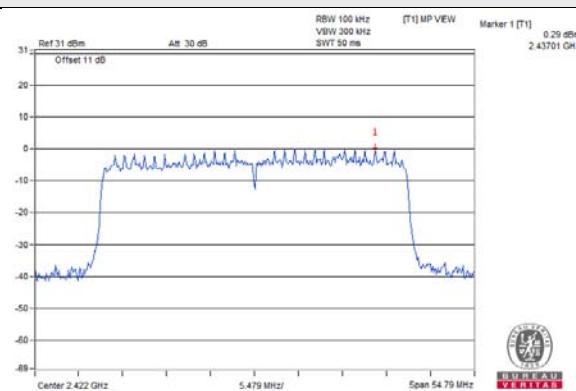


CH 3 Band edge

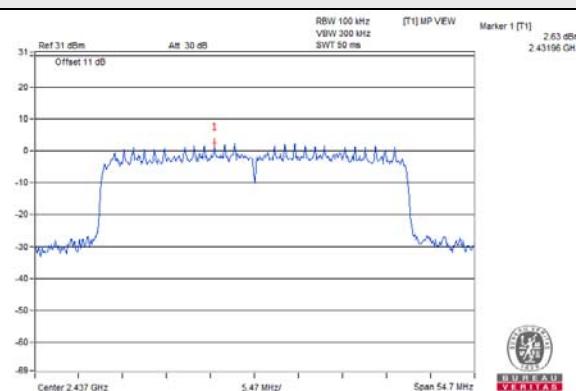


802.11ax (HE40)_Chain 1

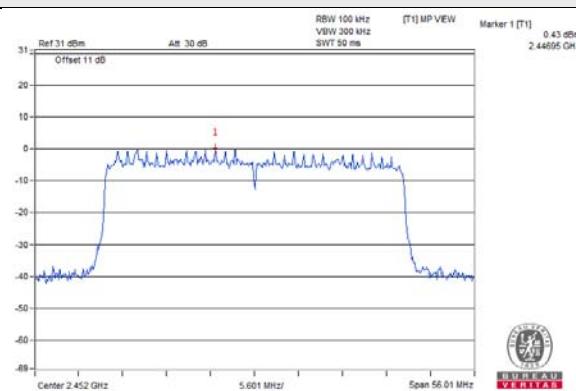
CH 3



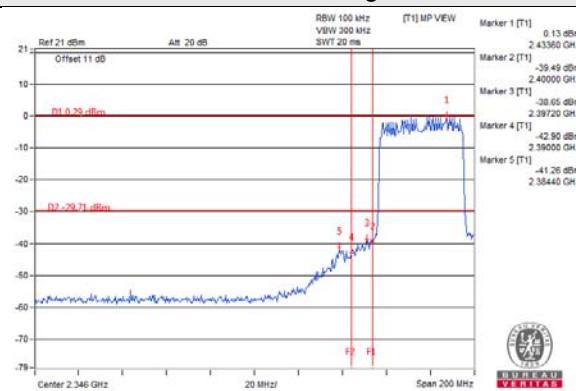
CH 6



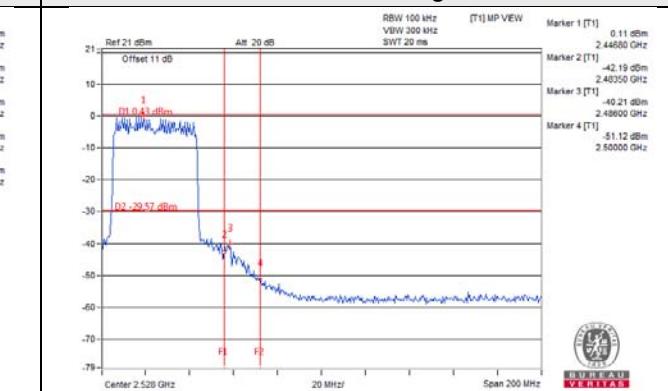
CH 9



CH 3 Band edge

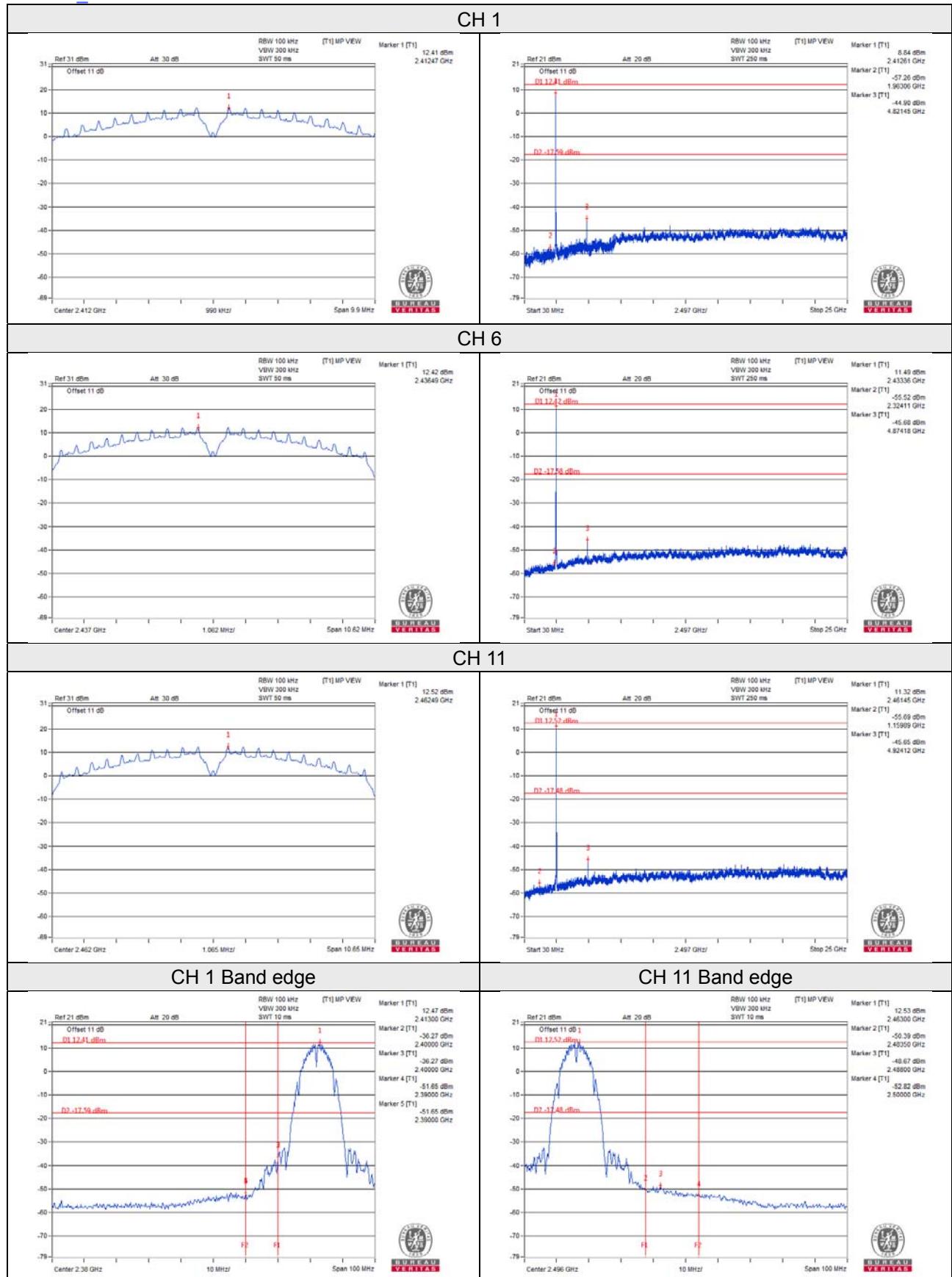


CH 9 Band edge

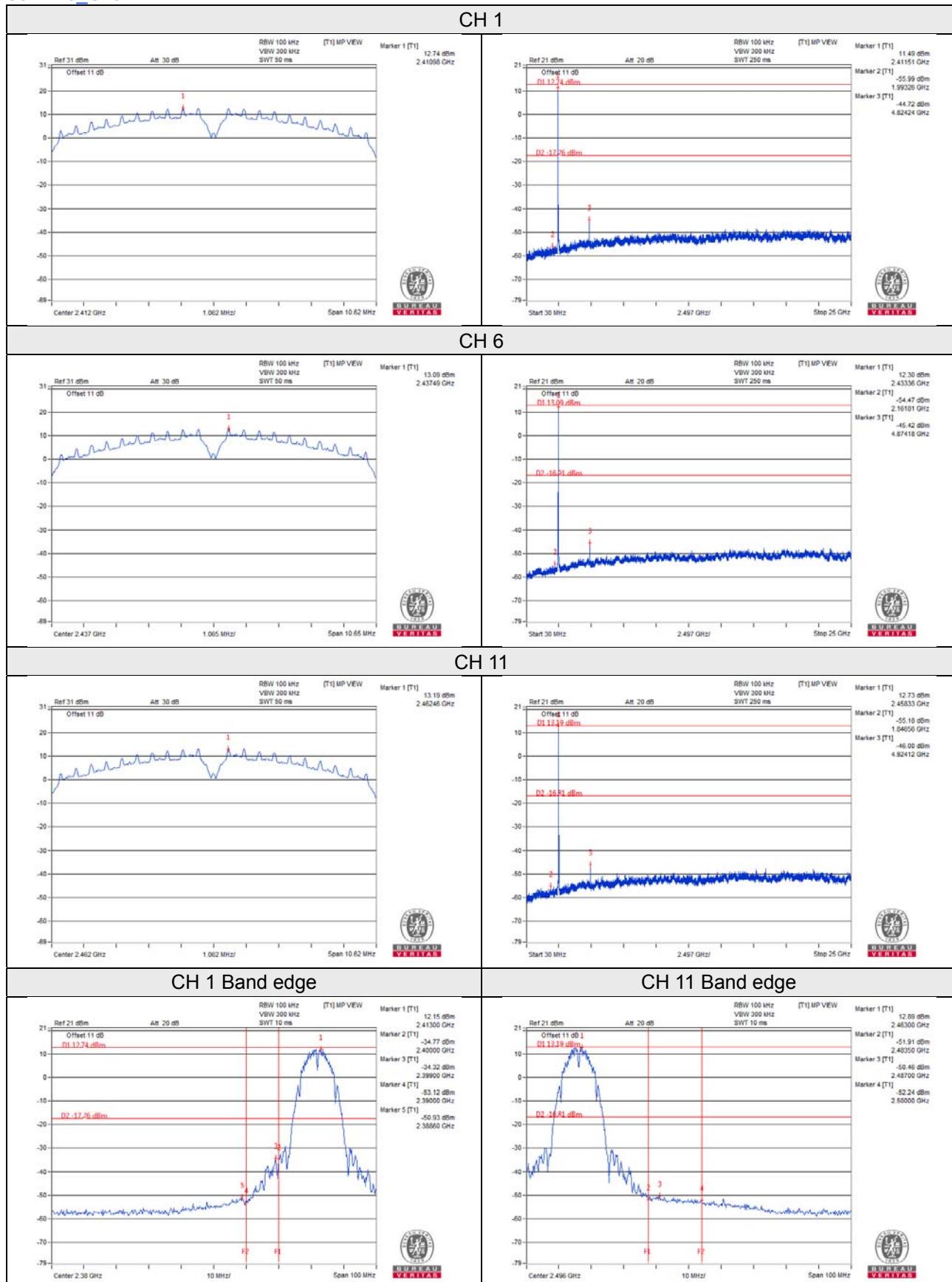


Test Mode G (External antenna + Eth8 Radio)

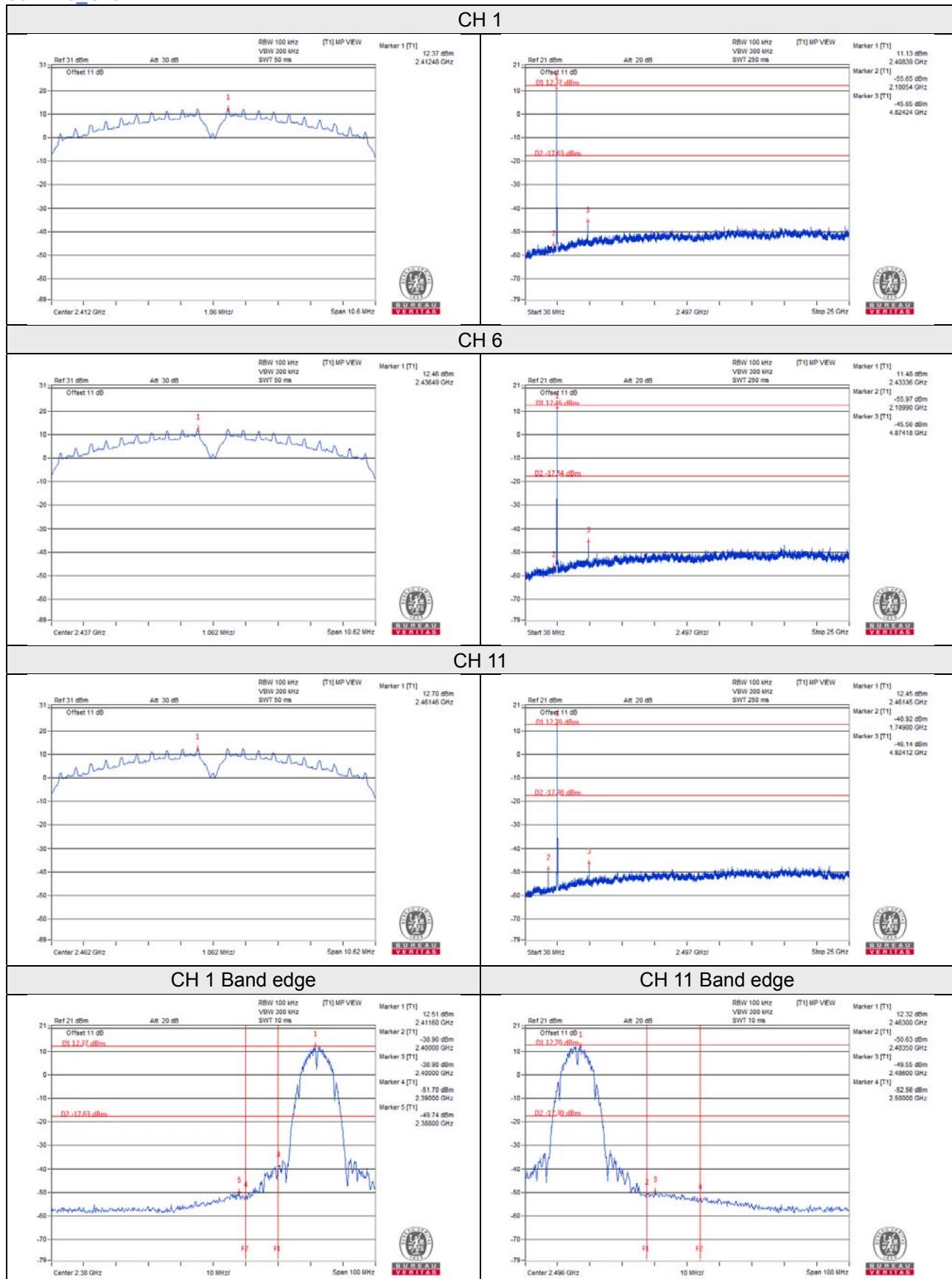
802.11b_Chain 0



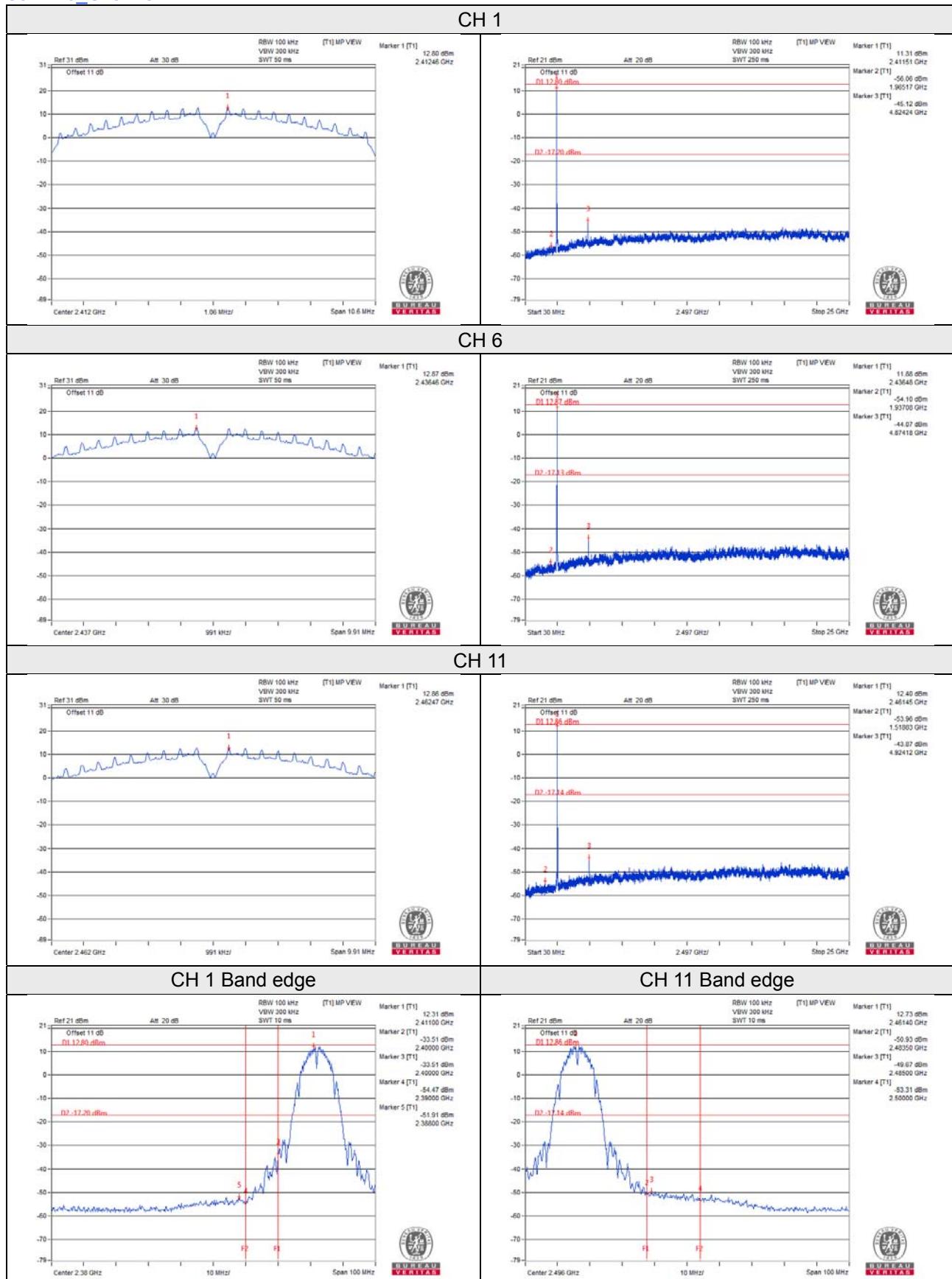
802.11b_Chain 1



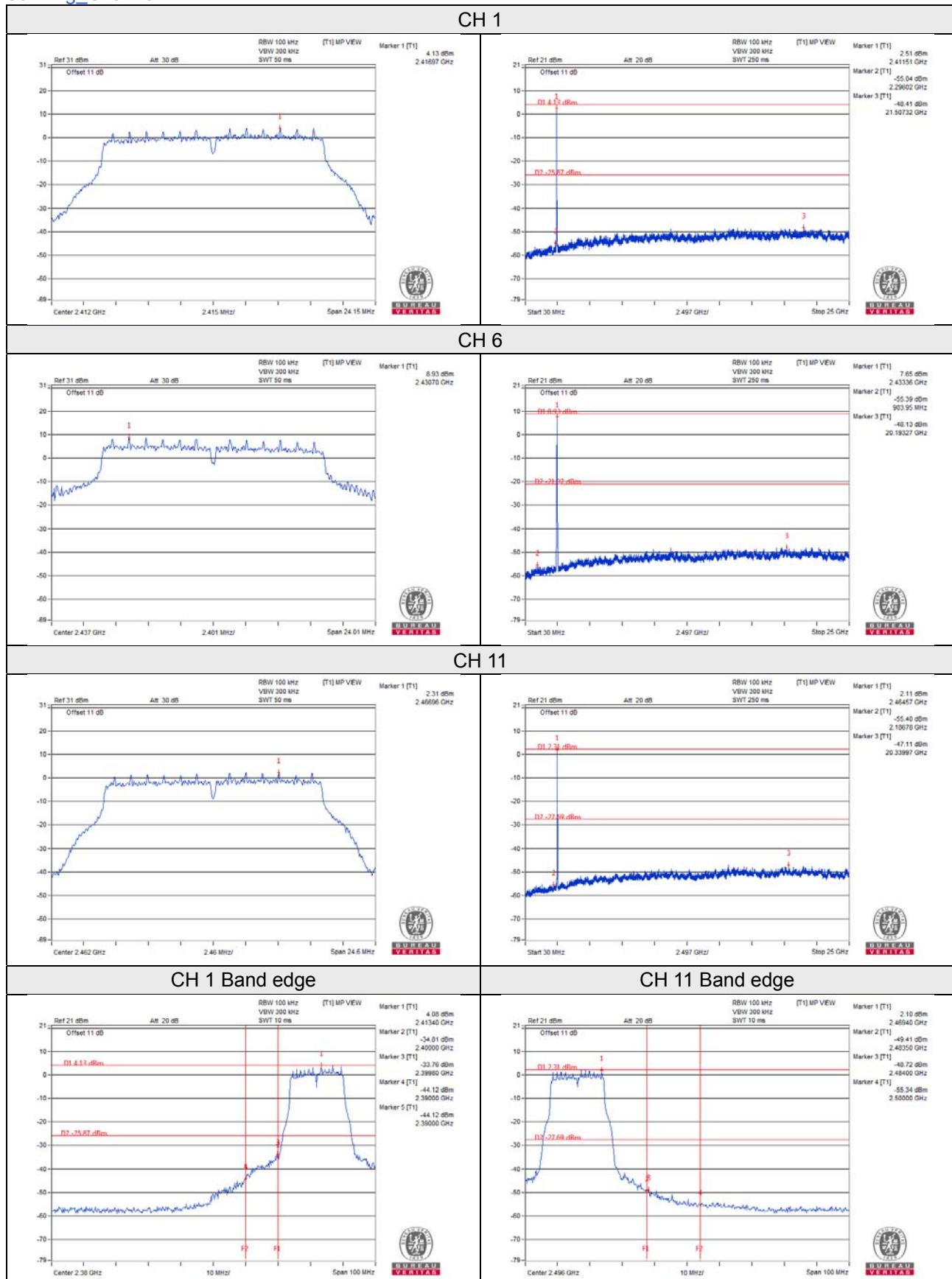
802.11b_Chain 2



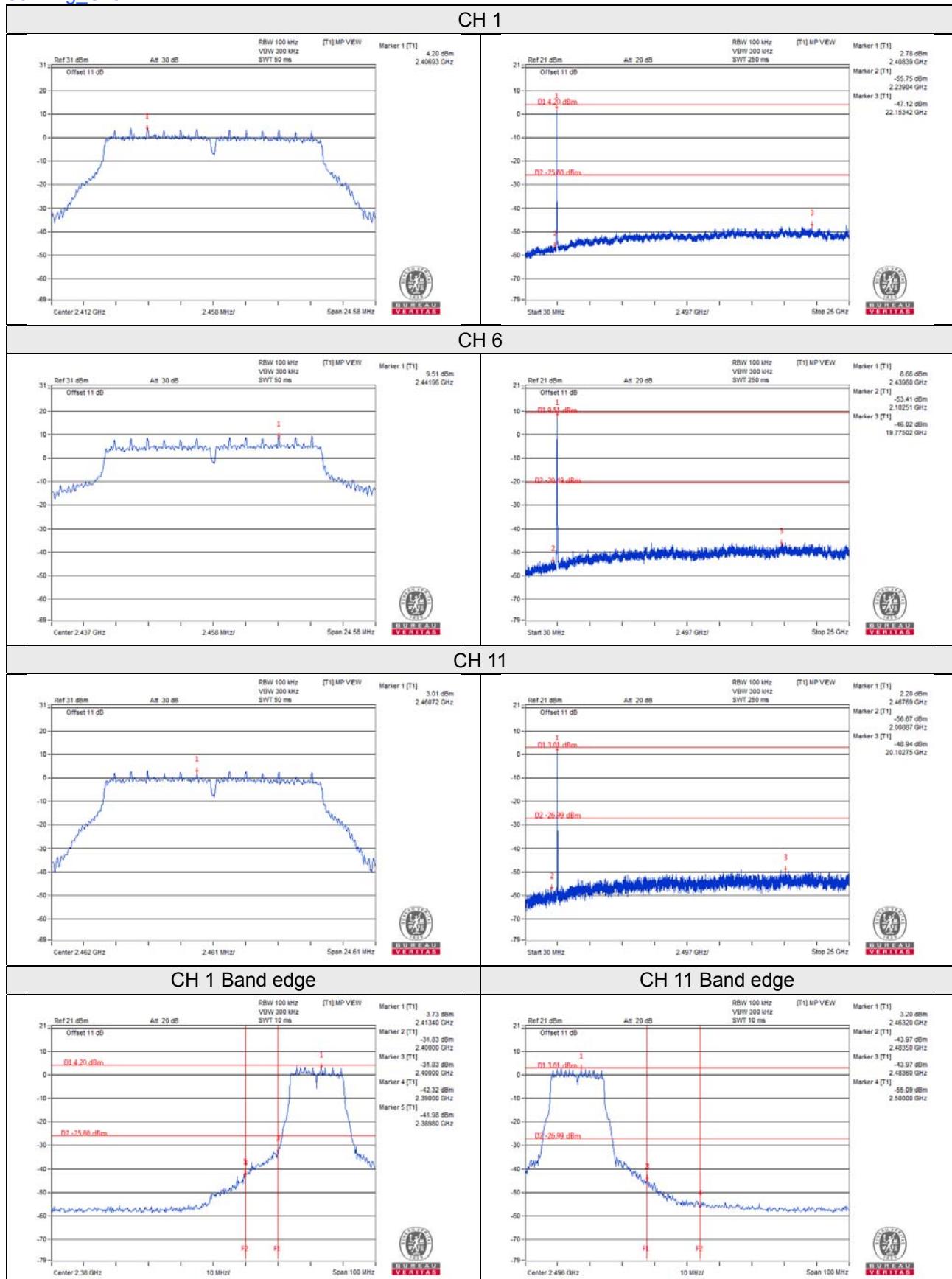
802.11b_Chain 3



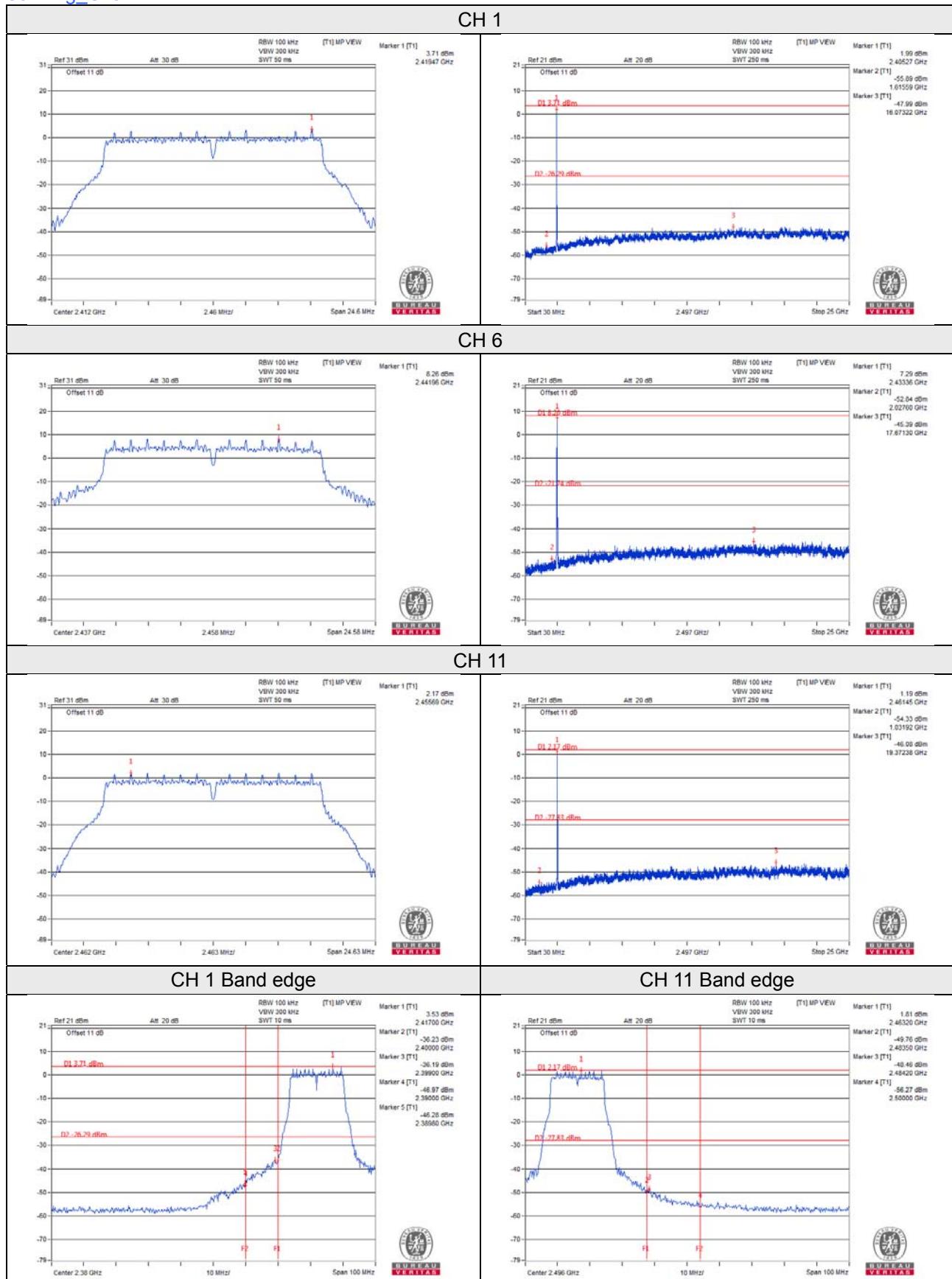
802.11g_Chain 0



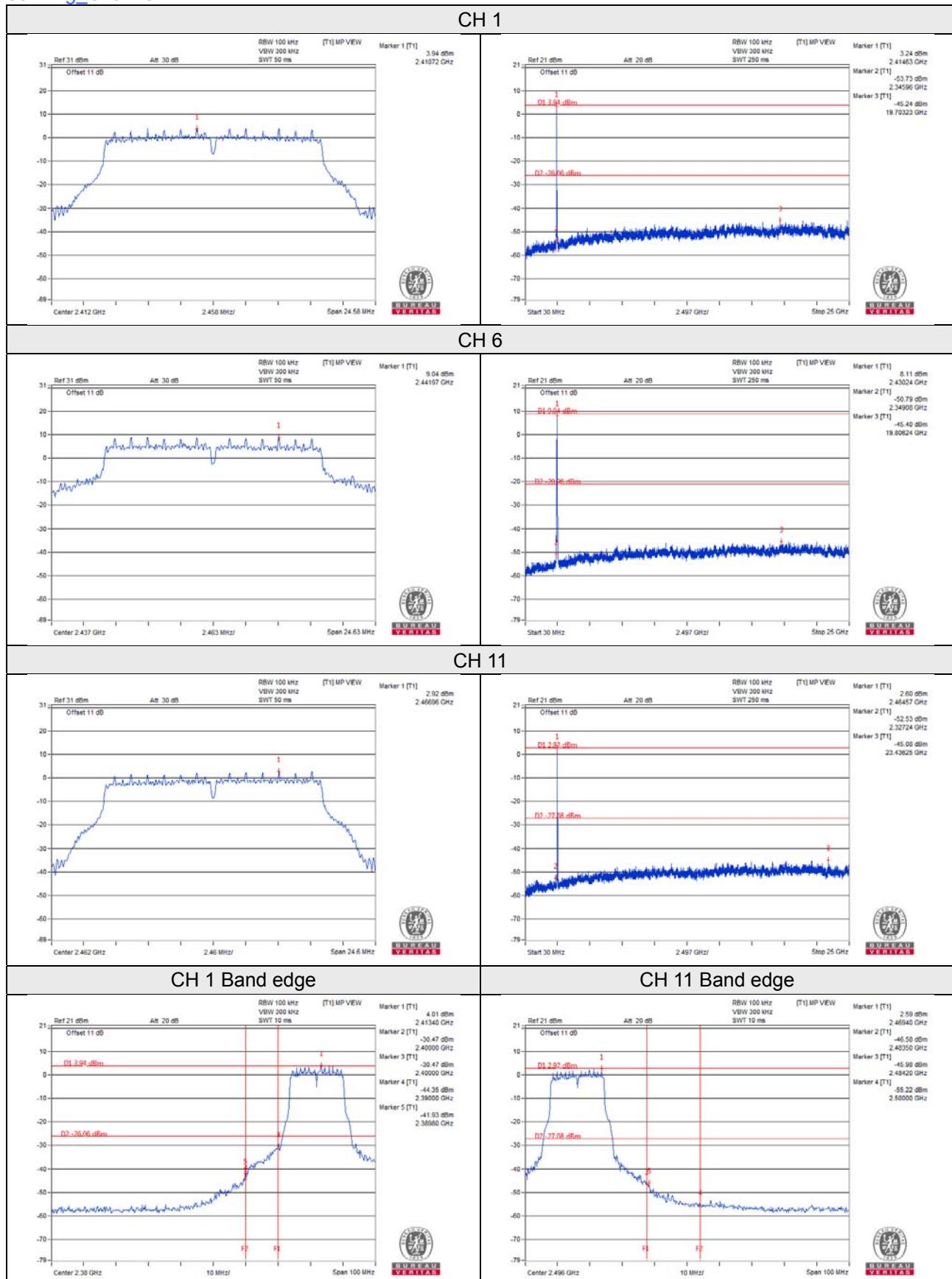
802.11g_Chain 1



802.11g_Chain 2

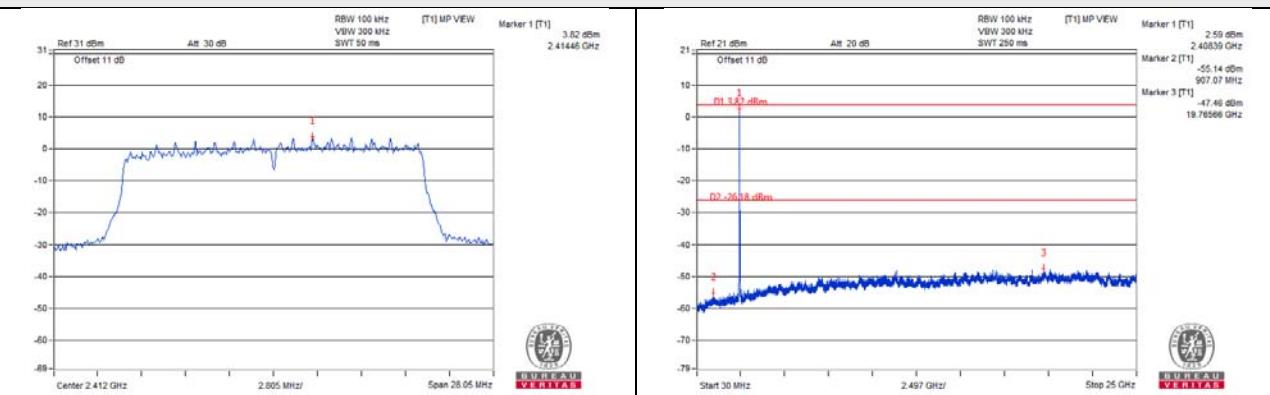


802.11g_Chain 3

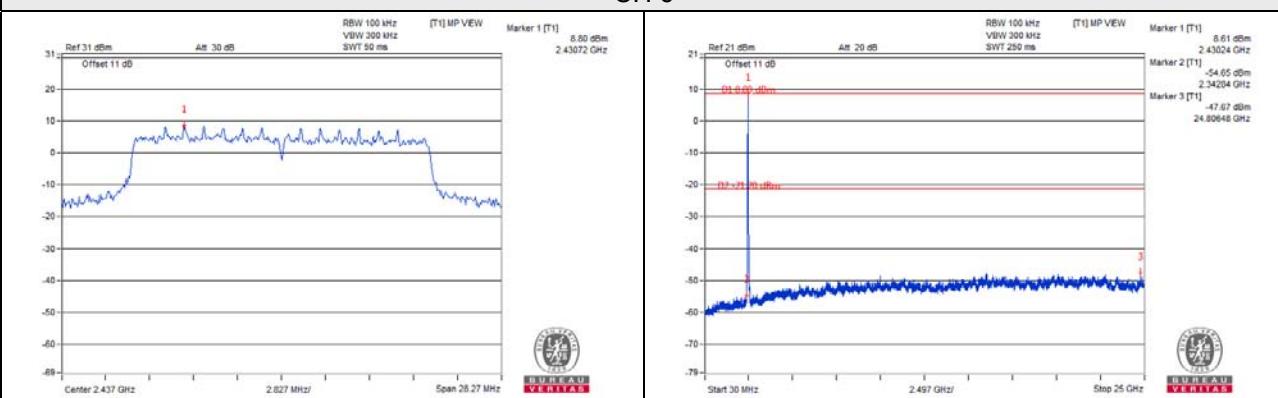


802.11ax (HE20)_Chain 0

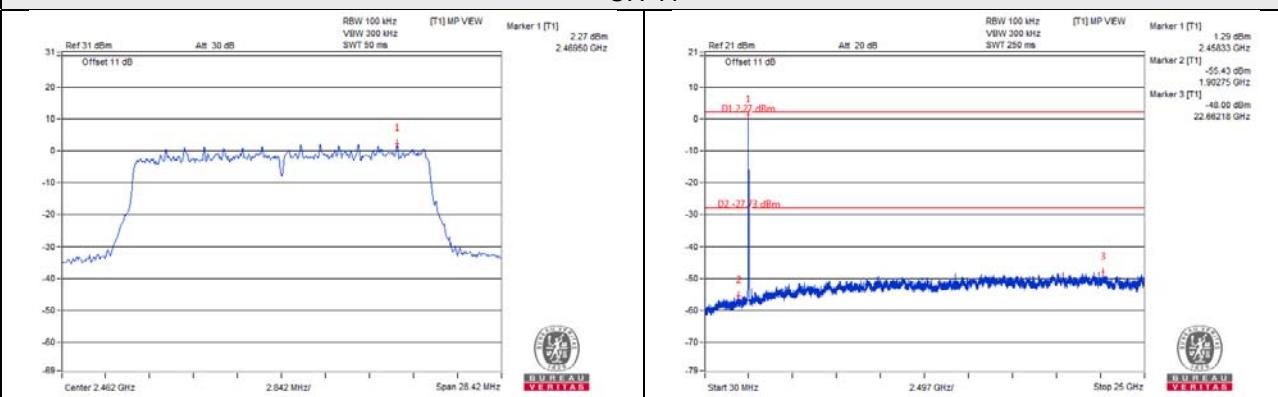
CH 1



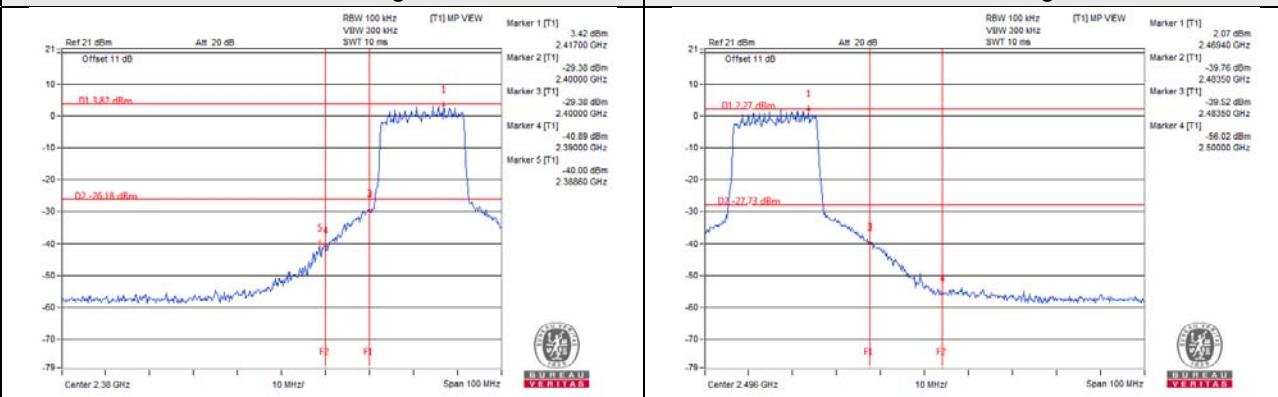
CH 6



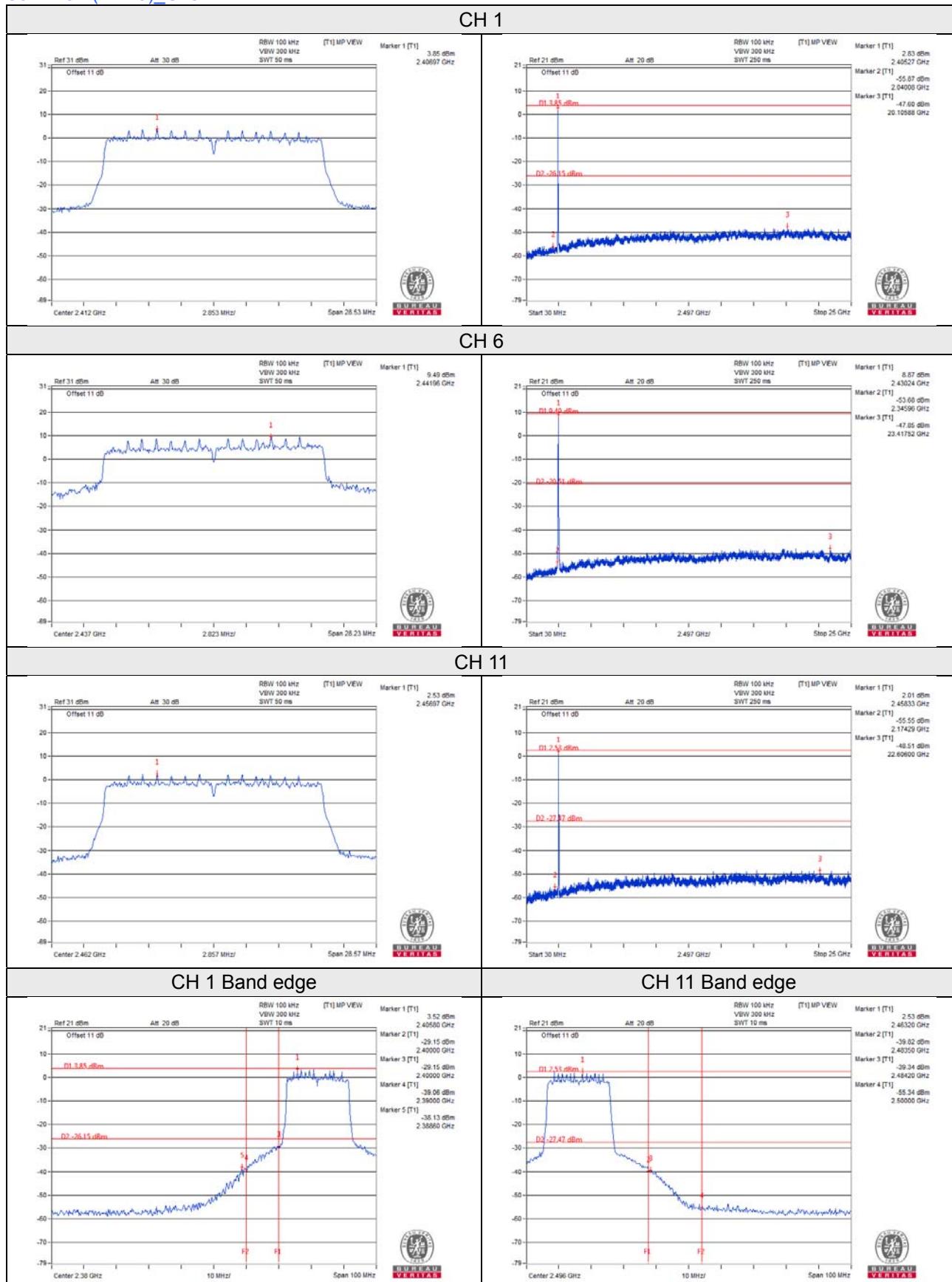
CH 11



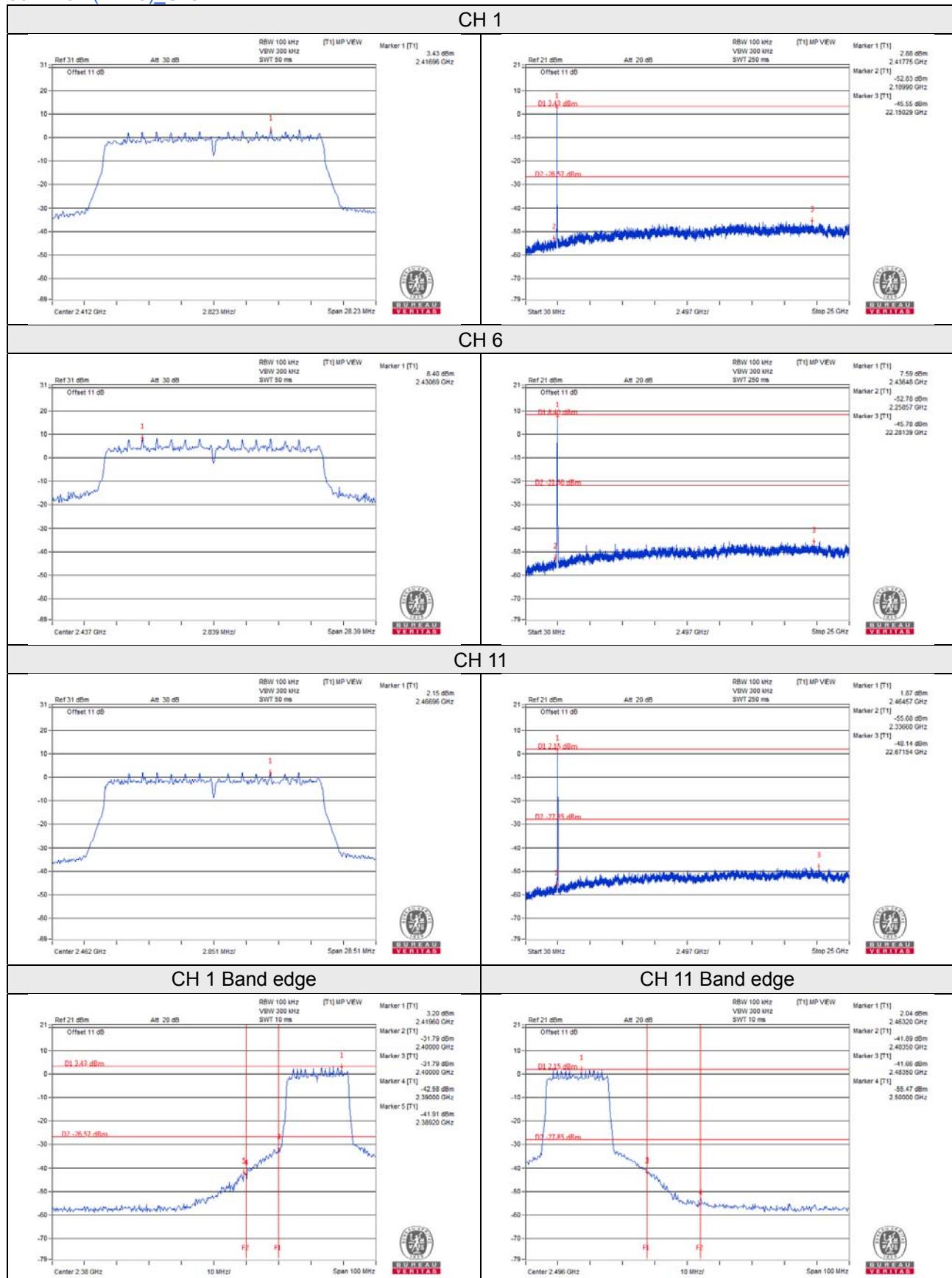
CH 1 Band edge



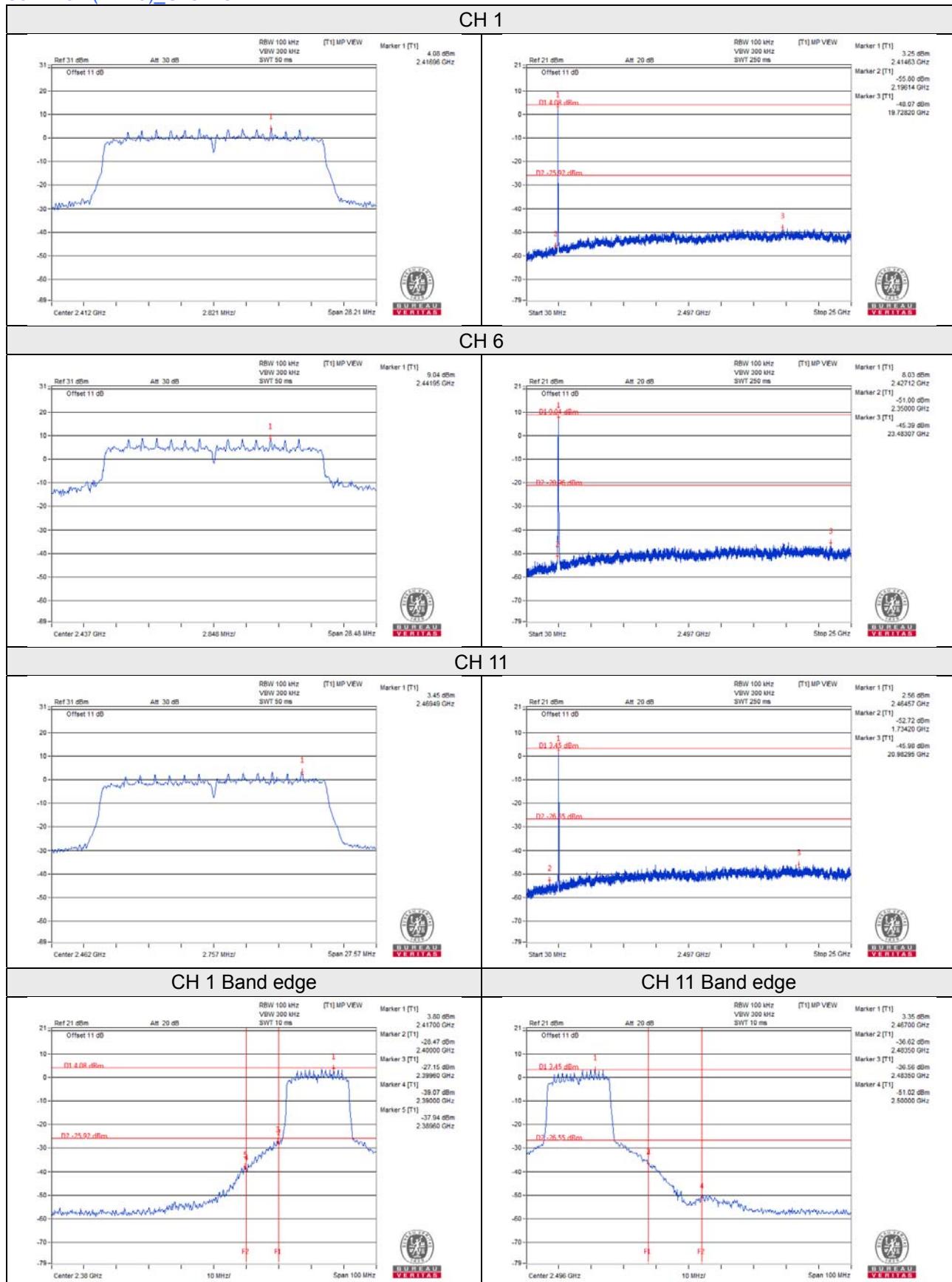
802.11ax (HE20)_Chain 1



802.11ax (HE20)_Chain 2

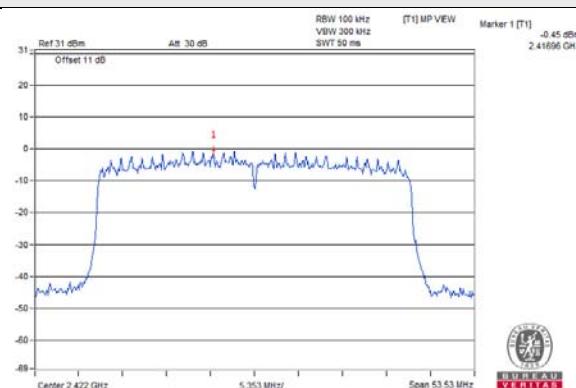


802.11ax (HE20)_Chain 3

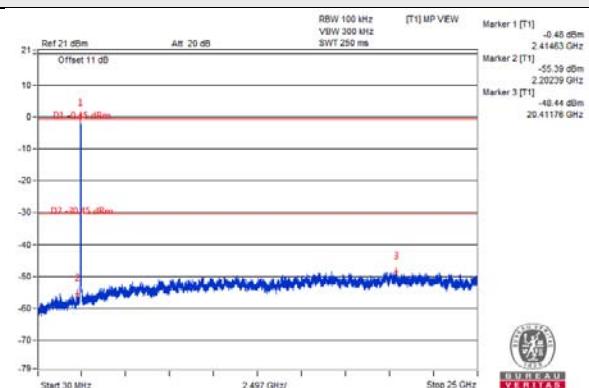


802.11ax (HE40)_Chain 0

CH 3

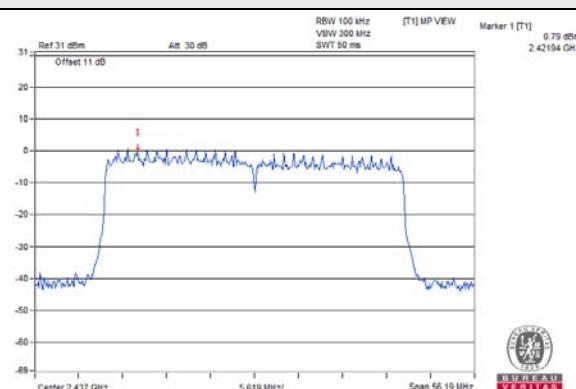



BUREAU
VERITAS

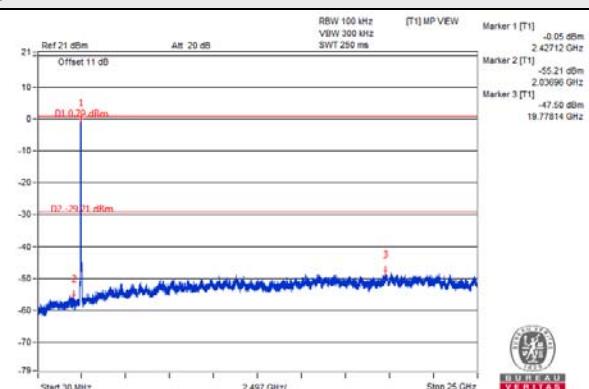



BUREAU
VERITAS

CH 6

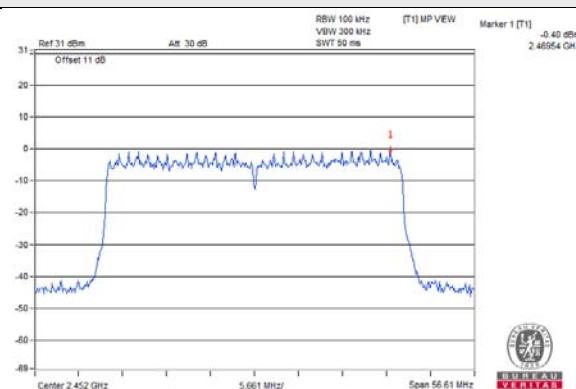



BUREAU
VERITAS

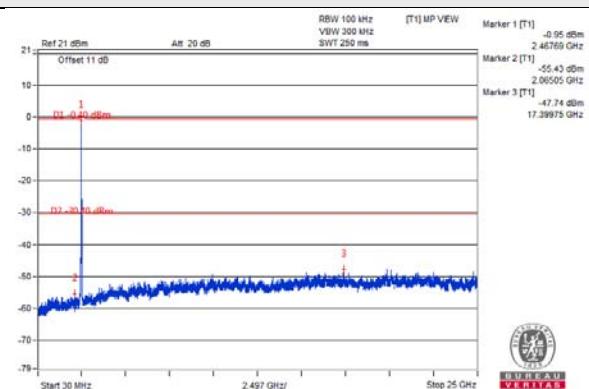



BUREAU
VERITAS

CH 9

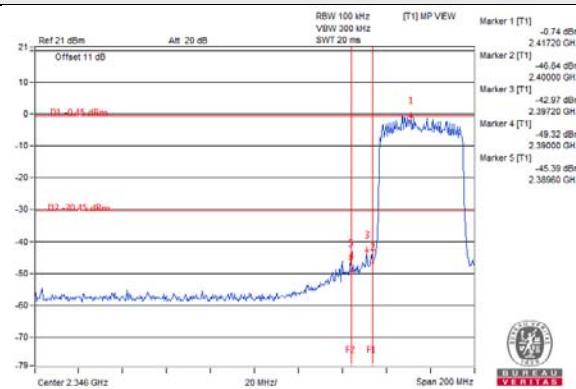



BUREAU
VERITAS

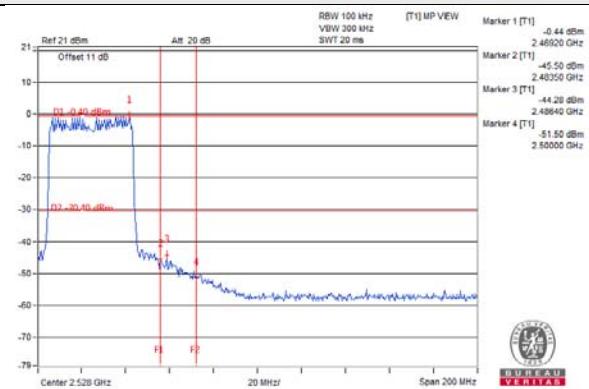



BUREAU
VERITAS

CH 3 Band edge

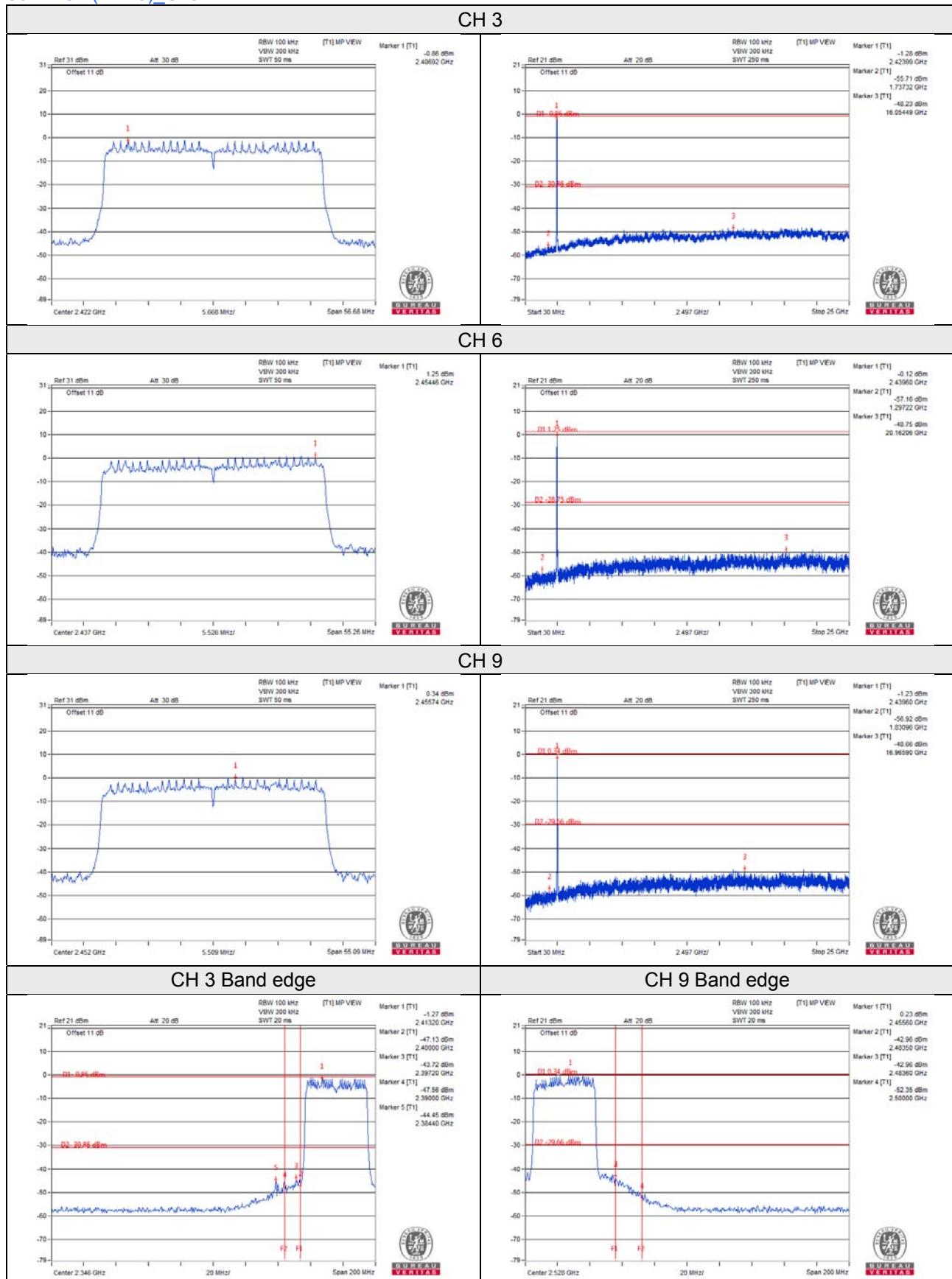



BUREAU
VERITAS

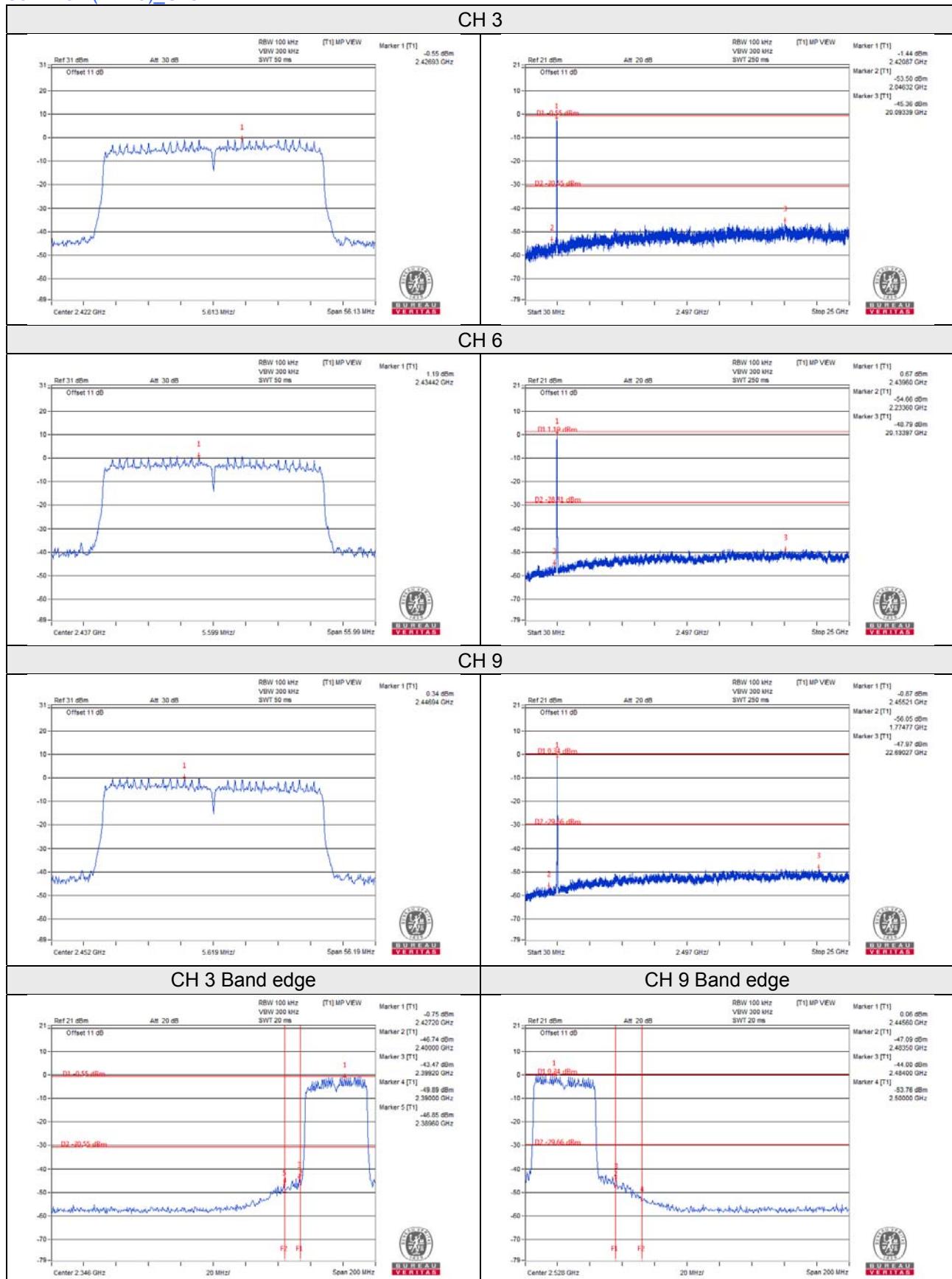



BUREAU
VERITAS

802.11ax (HE40)_Chain 1

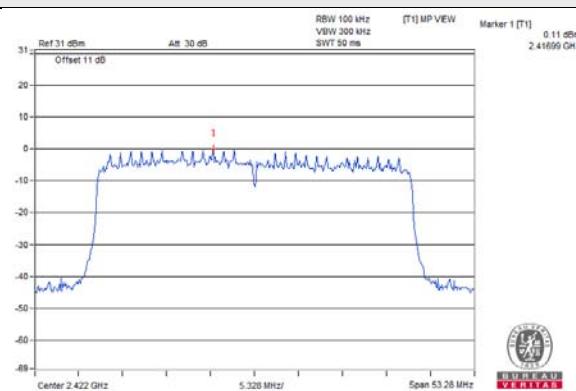


802.11ax (HE40)_Chain 2

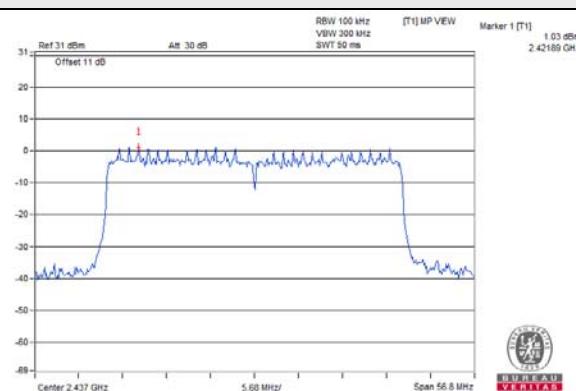


802.11ax (HE40)_Chain 3

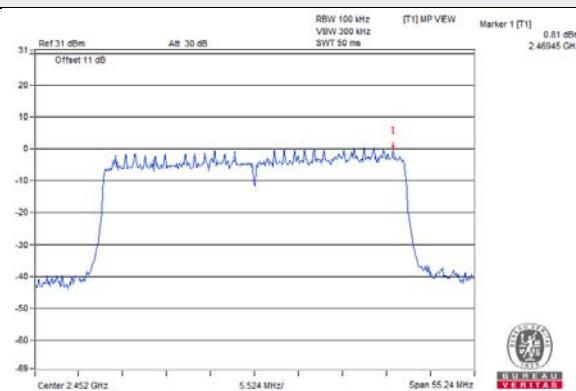
CH 3



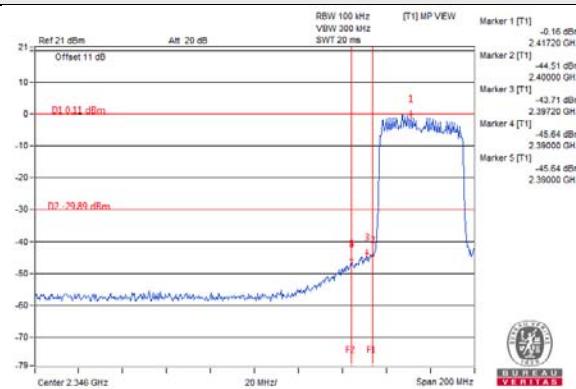
CH 6



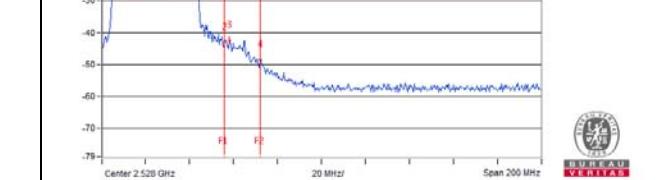
CH 9



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 and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Lin Kou EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: 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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