FCC Test Report (WLAN)

Report No.:	RF180611E01
FCC ID:	2ABLK-GS2026
Test Model:	GS2026E
Received Date:	June 08, 2018
Test Date:	June 16 to 28, 2018
Issued Date:	July 12, 2018
Applicant:	Calix Inc.
Address:	1035 N. McDowell Blvd. Petaluma, CA 94954 U.S.A.
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
Test Location:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
FCC Registration / Designation Number:	723255 / TW2022

Testing Laboratory
2022

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Release Control Record

Issue No.	Description	Date Issued
RF180611E01	Original release.	July 12, 2018

1 Certificate of Conformity

Product:	GigaSpire
Brand:	Calix
Test Model:	GS2026E
Sample Status:	MASS-PRODUCTION
Applicant:	Calix Inc.
Test Date:	June 16 to 28, 2018
Standards:	47 CFR FCC Part 15, Subpart C (Section 15.247) ANSI C63.10: 2013

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

Prepared by : Mary Ko , **Date:** July 12, 2018

Mary Ko / Specialist

Approved by : , **Date:** July 12, 2018

May Chen / Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -12.52dB at 0.42344MHz.
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 2390MHz, 2483.5MHz, 4874.00MHz, 4904.00MHz, 4914.00MHz
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 is i-pex(MHF) not a standard connector.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.84 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.33 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	5.10 dB
	6GHz ~ 18GHz	4.85 dB
	18GHz ~ 40GHz	5.24 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT (WLAN)

Product	GigaSpire
Brand	Calix
Test Model	GS2026E
Status of EUT	MASS-PRODUCTION
Power Supply Rating	12Vdc from adapter
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode and VHT (20/40) mode in 2.4GHz 1024QAM for OFDMA in 11ax HE mode
Modulation Technology	DSSS,OFDM,OFDMA
Transfer Rate	802.11b: up to 11Mbps 802.11a/g: up to 54Mbps 802.11n: up to 600Mbps 802.11ac: up to 1733.3Mbps 802.11ax: up to 4803.9Mbps
Operating Frequency	**2.4GHz:** 2.412 ~ 2.462GHz **5GHz:** 5.18GHz ~ 5.24GHz, 5.745GHz ~ 5.825GHz
Number of Channel	**2.4GHz:** 802.11b, 802.11g, 802.11n (HT20), VHT20, 802.11ax (HE20): 11 802.11n (HT40), VHT40, 802.11ax (HE40): 7 **5GHz:** 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 9 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 4 802.11ac (VHT80), 802.11ax (HE80): 2 802.11ac (VHT80+80), 802.11ax (HE80+80): 1 set
Output Power	**2.4GHz:** 777.345mW **5.18 ~ 5.24GHz:** 421.247mW **5.745 ~ 5.825GHz:** 367.716mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter x 1
Data Cable Supplied	NA

Note:

1. There are WLAN, Bluetooth, Zigbee and Z-wave technology used for the EUT. The EUT has below radios as following table:

Radio 1	Radio 2	Radio 3	Radio 4	Radio 5
WLAN - 4TX (2.4GHz+5GHz)	WLAN - 4TX (5GHz)	Bluetooth	Zigbee	Z-wave
Note: For WLAN- 5GHz based on Radio 1 + 2 operating at same time.				

2. Simultaneously transmission condition.

Condition	Technology				
1	WLAN 2.4GHz	WLAN 5GHz	Bluetooth	Zigbee	Z-wave
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.					

3. The EUT must be supplied with a power adapter as following table:

Brand	Model No.	Spec.
Frecom	F60-120500SPA	Input: 100-240Vac, 1.6A, 50/60Hz AC intput cable: Unshielded, 1.0m Output: 12V, 5A DC output cable: Unshielded, 1.5m
		Input: 100-240Vac, 1.6A, 50/60Hz AC intput cable: Unshielded, 1.5m Output: 12V, 5A DC output cable: Unshielded, 1.5m
Note: From the above spec., the radiated emissions worse case was found in **AC input cable: Unshielded, 1.0m**. Therefore only the test data of the mode was recorded in this report.		

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

WLAN Directional gain table			
Frequency range (GHz)	Directional Antenna Gain (dBi)	Antenna Type	Antenna Connector
2.4 ~ 2.4835	7.41	Dipole	i-pex(MHF)
5.18 ~ 5.24	9.7		
5.26 ~ 5.32	9.9		
5.50 ~ 5.70	9.83		
5.745 ~ 5.825	10.27		
Bluetooth antenna spec.			
Antenna Net Gain (dBi)	Frequency range (GHz)	Antenna Type	Antenna Connector
3.04	2.4~2.5	PIFA	None
Zigbee antenna spec.			
Antenna Net Gain (dBi)	Frequency range (GHz)	Antenna Type	Antenna Connector
3.29	2.4~2.5	MONOPOLE	None
Z-wave antenna spec.			
Antenna Net Gain (dBi)	Frequency range (MHz)	Antenna Type	Antenna Connector
2.76	850~920	PIFA	None
Note: More detailed information, please refer to opearating description.			

5. The EUT incorporates a MIMO function:

2.4GHz Band			
MODULATION MODE	**DATA RATE (MCS)**	**TX & RX CONFIGURATION**	
802.11b	1 ~ 11Mbps	4TX	4RX
802.11g	6 ~ 54Mbps	4TX	4RX
802.11n (HT20)	MCS 0~7	4TX	4RX
	MCS 8~15	4TX	4RX
	MCS 16~23	4TX	4RX
	MCS 24~31	4TX	4RX
802.11n (HT40)	MCS 0~7	4TX	4RX
	MCS 8~15	4TX	4RX
	MCS 16~23	4TX	4RX
	MCS 24~31	4TX	4RX
VHT20	MCS0~8 Nss=1	4TX	4RX
	MCS0~8 Nss=2	4TX	4RX
	MCS0~9 Nss=3	4TX	4RX
	MCS0~8 Nss=4	4TX	4RX
VHT40	MCS0~9 Nss=1	4TX	4RX
	MCS0~9 Nss=2	4TX	4RX
	MCS0~9 Nss=3	4TX	4RX
	MCS0~9 Nss=4	4TX	4RX
802.11ax (HE20)	MCS0~11 Nss=1	4TX	4RX
	MCS0~11 Nss=2	4TX	4RX
	MCS0~11 Nss=3	4TX	4RX
	MCS0~11 Nss=4	4TX	4RX
802.11 ax (HE40)	MCS0~11 Nss=1	4TX	4RX
	MCS0~11 Nss=2	4TX	4RX
	MCS0~11 Nss=3	4TX	4RX
	MCS0~11 Nss=4	4TX	4RX

5GHz Band (Radio 1 + 2)			
MODULATION MODE	**DATA RATE (MCS)**	**TX & RX CONFIGURATION**	
802.11a	6 ~ 54Mbps	8TX	8RX
802.11n (HT20)	MCS 0~7	8TX	8RX
	MCS 8~15	8TX	8RX
	MCS 16~23	8TX	8RX
	MCS 24~31	8TX	8RX
802.11n (HT40)	MCS 0~7	8TX	8RX
	MCS 8~15	8TX	8RX
	MCS 16~23	8TX	8RX
	MCS 24~31	8TX	8RX
802.11ac (VHT20)	MCS0~8 Nss=1	8TX	8RX
	MCS0~8 Nss=2	8TX	8RX
	MCS0~9 Nss=3	8TX	8RX
	MCS0~8 Nss=4	8TX	8RX
	MCS0~8 Nss=5	8TX	8RX
	MCS0~9 Nss=6	8TX	8RX
	MCS0~8 Nss=7	8TX	8RX
	MCS0~8 Nss=8	8TX	8RX
802.11ac (VHT40)	MCS0~9 Nss=1	8TX	8RX
	MCS0~9 Nss=2	8TX	8RX
	MCS0~9 Nss=3	8TX	8RX
	MCS0~9 Nss=4	8TX	8RX
	MCS0~9 Nss=5	8TX	8RX
	MCS0~9 Nss=6	8TX	8RX
	MCS0~9 Nss=7	8TX	8RX
	MCS0~9 Nss=8	8TX	8RX
802.11ac (VHT80)	MCS0~9 Nss=1	8TX	8RX
	MCS0~9 Nss=2	8TX	8RX
	MCS0~5 / 7~9 Nss=3	8TX	8RX
	MCS0~9 Nss=4	8TX	8RX
	MCS0~9 Nss=5	8TX	8RX
	MCS0~8 Nss=6	8TX	8RX
	MCS 0~5 / 7~9 Nss=7	8TX	8RX
	MCS0~9 Nss=8	8TX	8RX

802.11ac (VHT80+80)	MCS0~9 Nss=1	8TX	8RX
	MCS0~9 Nss=2	8TX	8RX
	MCS0~8 Nss=3	8TX	8RX
	MCS0~9 Nss=4	8TX	8RX
	MCS0~9 Nss=5	8TX	8RX
	MCS0~9 Nss=6	8TX	8RX
	MCS0~9 Nss=7	8TX	8RX
	MCS0~9 Nss=8	8TX	8RX
802.11ax (HE20)	MCS0~11 Nss=1	8TX	8RX
	MCS0~11 Nss=2	8TX	8RX
	MCS0~11 Nss=3	8TX	8RX
	MCS0~11 Nss=4	8TX	8RX
	MCS0~11 Nss=5	8TX	8RX
	MCS0~11 Nss=6	8TX	8RX
	MCS0~11 Nss=7	8TX	8RX
	MCS0~11 Nss=8	8TX	8RX
802.11ax (HE40)	MCS0~11 Nss=1	8TX	8RX
	MCS0~11 Nss=2	8TX	8RX
	MCS0~11 Nss=3	8TX	8RX
	MCS0~11 Nss=4	8TX	8RX
	MCS0~11 Nss=5	8TX	8RX
	MCS0~11 Nss=6	8TX	8RX
	MCS0~11 Nss=7	8TX	8RX
	MCS0~11 Nss=8	8TX	8RX
802.11ax (HE80)	MCS0~11 Nss=1	8TX	8RX
	MCS0~11 Nss=2	8TX	8RX
	MCS0~11 Nss=3	8TX	8RX
	MCS0~11 Nss=4	8TX	8RX
	MCS0~11 Nss=5	8TX	8RX
	MCS0~11 Nss=6	8TX	8RX
	MCS0~11 Nss=7	8TX	8RX
	MCS0~11 Nss=8	8TX	8RX
802.11ax (HE80+80)	MCS0~11 Nss=1	8TX	8RX
	MCS0~11 Nss=2	8TX	8RX
	MCS0~11 Nss=3	8TX	8RX
	MCS0~11 Nss=4	8TX	8RX
	MCS0~11 Nss=5	8TX	8RX
	MCS0~11 Nss=6	8TX	8RX
	MCS0~11 Nss=7	8TX	8RX
	MCS0~11 Nss=8	8TX	8RX

Note:

1. All of modulation mode support beamforming function except 2.4GHz & 802.11a/ax modulation mode.
2. The EUT support Beamforming and non-beamforming mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
3. The modulation and bandwidth are similar for 802.11n mode for 20MHz (40MHz) and 802.11ac mode for 20MHz (40MHz), therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

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

3.2 Description of Test Modes

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

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

PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

Radiated Emission Test (Above 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	Data Rate Parameter
802.11b	1 to 11	1, 6, 9, 10, 11	DSSS	DBPSK	1Mb/s
802.11g	1 to 11	1, 2, 3, 4, 6, 9, 10, 11	OFDM	BPSK	6Mb/s
VHT20	1 to 11	1, 2, 3, 4, 6, 10, 11	OFDM	BPSK	MCS0
VHT40	3 to 9	3, 6, 9	OFDM	BPSK	MCS0
802.11ax (HE20)	1 to 11	1, 2, 6, 10, 11	OFDMA	BPSK	MCS0
802.11ax (HE40)	3 to 9	3, 6, 9	OFDMA	BPSK	MCS0

Radiated Emission Test (Below 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	Data Rate Parameter
802.11ax (HE20)	1 to 11	6	OFDMA	BPSK	MCS0

Power Line Conducted Emission Test:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	Data Rate Parameter
802.11ax (HE20)	1 to 11	6	OFDMA	BPSK	MCS0

Antenna Port Conducted Measurement:

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	Data Rate Parameter
802.11b	1 to 11	1, 6, 9, 10, 11	DSSS	DBPSK	1Mb/s
802.11g	1 to 11	1, 2, 3, 4, 6, 9, 10, 11	OFDM	BPSK	6Mb/s
VHT20	1 to 11	1, 2, 3, 4, 6, 10, 11	OFDM	BPSK	MCS0
VHT40	3 to 9	3, 6, 9	OFDM	BPSK	MCS0
802.11ax (HE20)	1 to 11	1, 2, 6, 10, 11	OFDMA	BPSK	MCS0
802.11ax (HE40)	3 to 9	3, 6, 9	OFDMA	BPSK	MCS0

Test Condition:

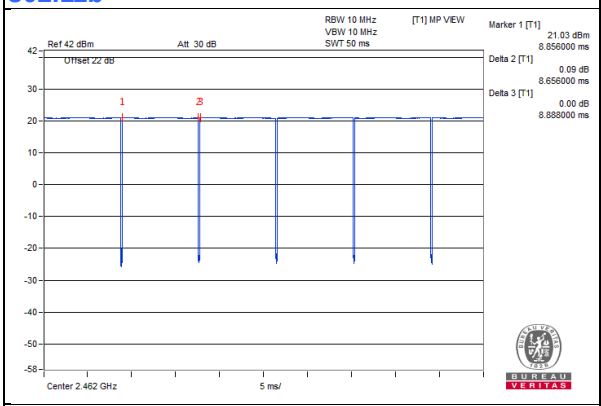
APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	23deg. C, 67%RH	120Vac, 60Hz	Eason Tseng
RE<1G	21deg. C, 64%RH	120Vac, 60Hz	Robert Cheng
PLC	23deg. C, 75%RH	120Vac, 60Hz	Andy Ho
APCM	25deg. C, 60%RH	120Vac, 60Hz	Jyunchun Lin

3.3 Duty Cycle of Test Signal

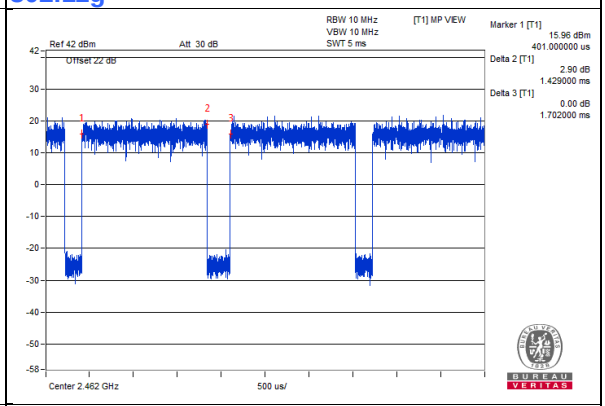
If duty cycle of test signal is < 98%, duty factor shall be considered.

802.11b: Duty cycle = 8.656/8.888 = 0.974, Duty factor = 10 * log(1/0.974) = 0.11
802.11g: Duty cycle = 1.429/1.702 = 0.84, Duty factor = 10 * log(1/0.84) = 0.76
VHT20: Duty cycle = 5.42/5.625 = 0.964, Duty factor = 10 * log(1/0.964) = 0.16
VHT40: Duty cycle = 5.421/5.633 = 0.962, Duty factor = 10 * log(1/0.962) = 0.17
802.11ax (HE20): Duty cycle = 5.445/5.653 = 0.963, Duty factor = 10 * log(1/0.963) = 0.16
802.11ax (HE40): Duty cycle = 5.45/5.652 = 0.964, Duty factor = 10 * log(1/0.964) = 0.16

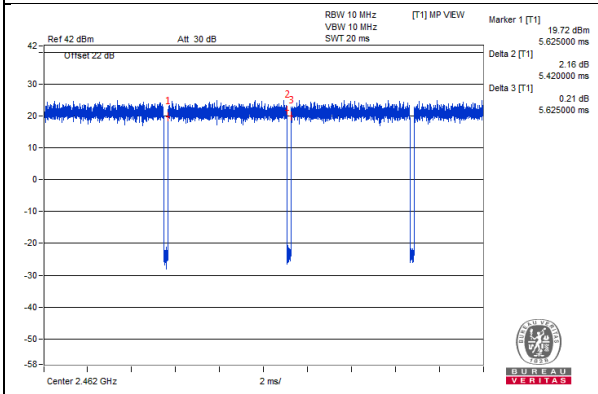
802.11b



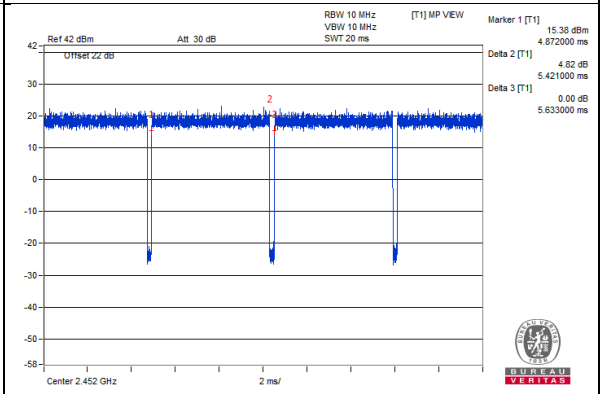
802.11g



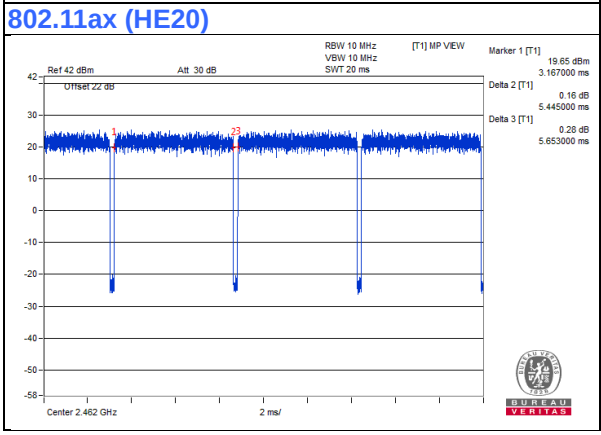
VHT20



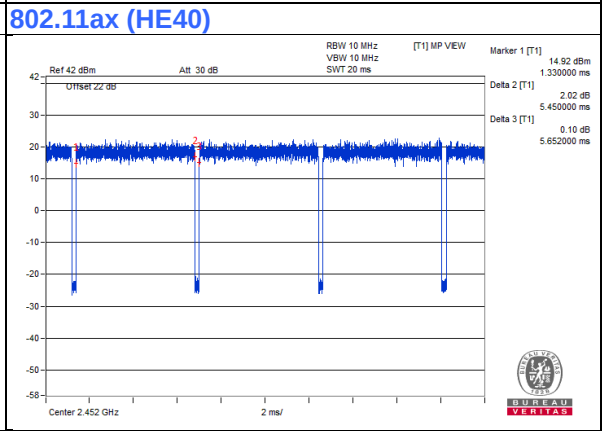
VHT40



802.11ax (HE20)



802.11ax (HE40)



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.

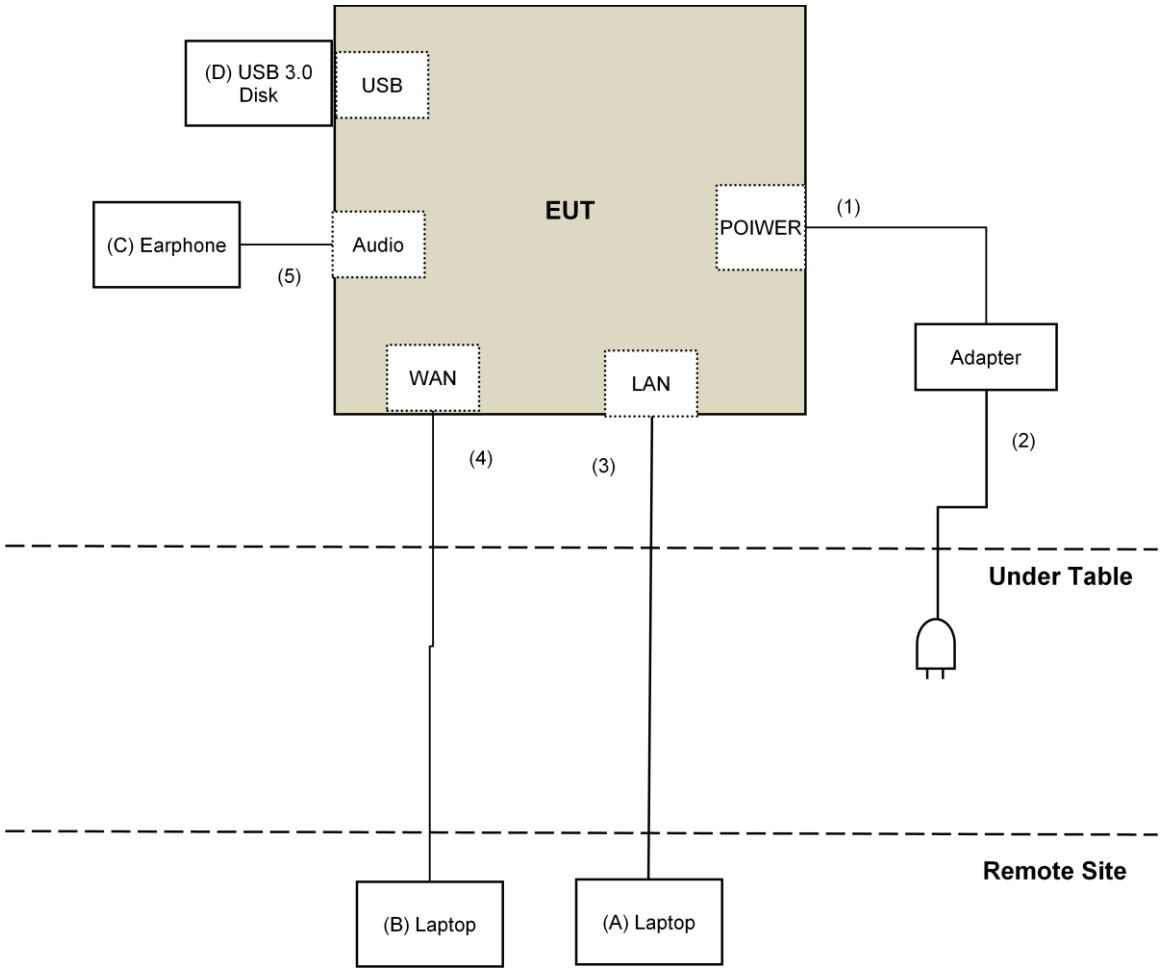
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Laptop	DELL	E5430	HYV4VY1	FCC DoC	Provided by Lab
B.	Laptop	DELL	E6420	B92T3R1	FCC DoC	Provided by Lab
C.	Earphone	Apple	NA	NA	NA	Provided by Lab
D.	USB 3.0 Disk	Transcend	16GB	NA	NA	Provided by Lab

Note:

1. All power cords of the above support units are non-shielded (1.8m).

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	DC Cable	1	1.5	No	0	Supplied by client
2.	AC Cable	1	1.0	No	0	Supplied by client
3.	RJ-45 Cable	1	10	No	0	Provided by Lab
4.	RJ-45 Cable	1	10	No	0	Provided by Lab
5.	Audio Cable	1	1.2	No	0	Provided by Lab

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards

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

FCC Part 15, Subpart C (15.247)
KDB 558074 D01 DTS Meas Guidance v04
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 (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.1.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Keysight	N9038A	MY54450088	July 08, 2017	July 07, 2018
Pre-Amplifier EMCI	EMC001340	980142	Feb. 09, 2018	Feb. 08, 2019
Loop Antenna(*) Electro-Metrics	EM-6879	264	Dec. 16, 2016	Dec. 15, 2018
RF Cable	NA	LOOPCAB-001 LOOPCAB-002	Jan. 15, 2018	Jan. 14, 2019
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-01	Nov. 09, 2017	Nov. 08, 2018
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-406	Nov. 29, 2017	Nov. 28, 2018
RF Cable	8D	966-4-1 966-4-2 966-4-3	Mar. 21, 2018	Mar. 20, 2019
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-4-01	Oct. 03, 2017	Oct. 02, 2018
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Dec. 12, 2017	Dec. 11, 2018
Pre-Amplifier EMCI	EMC12630SE	980385	Jan. 29, 2018	Jan. 28, 2019
RF Cable	EMC104-SM-SM-1200 EMC104-SM-SM-2000 EMC104-SM-SM-5000	160923 150318 150321	Jan. 29, 2018	Jan. 28, 2019
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 29, 2018	Jan. 28, 2019
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170608	Dec. 14, 2017	Dec. 13, 2018
RF Cable	EMC102-KM-KM-1200	160925	Jan. 29, 2018	Jan. 28, 2019
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA
Spectrum Analyzer R&S	FSV40	100964	June 20, 2018	June 19, 2019
Power meter Anritsu	ML2495A	1014008	May 09, 2018	May 08, 2019
Power sensor Anritsu	MA2411B	0917122	May 09, 2018	May 08, 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 calibration interval of the above test instruments is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The test was performed in 966 Chamber No. 4.
4. The CANADA Site Registration No. is 20331-2
5. Loop antenna was used for all emissions below 30 MHz.
6. Tested Date: June 21 to 28, 2018

4.1.3 Test Procedures

For Radiated emission below 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

NOTE:

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

For Radiated emission above 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f. The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

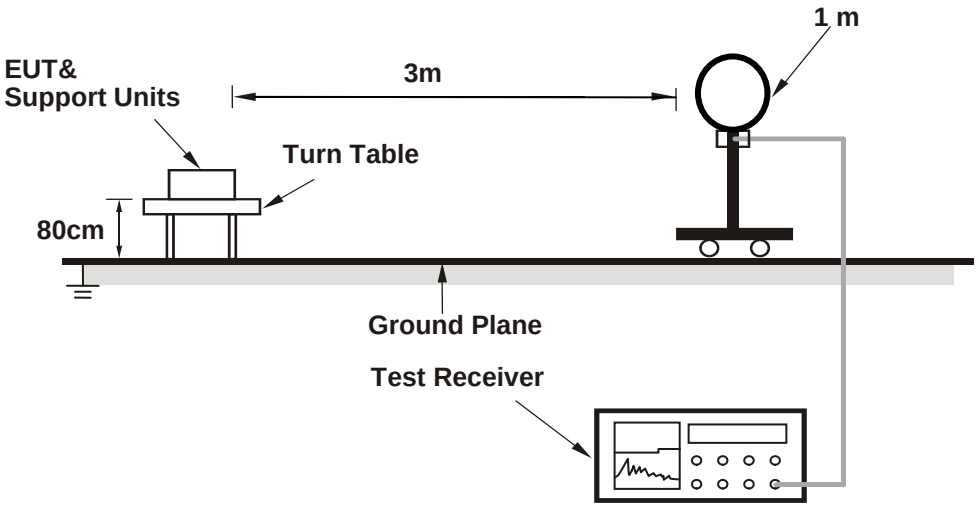
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

4.1.4 Deviation from Test Standard

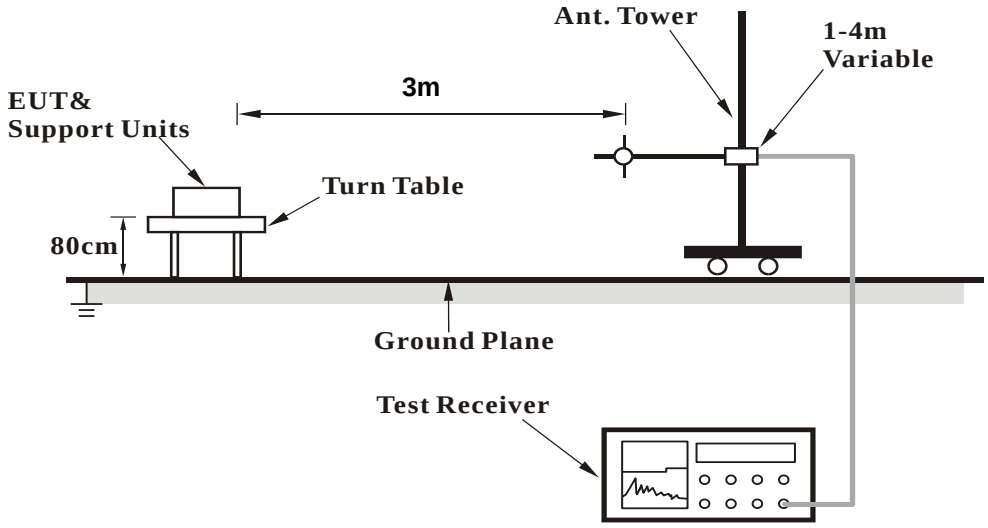
No deviation.

4.1.5 Test Setup

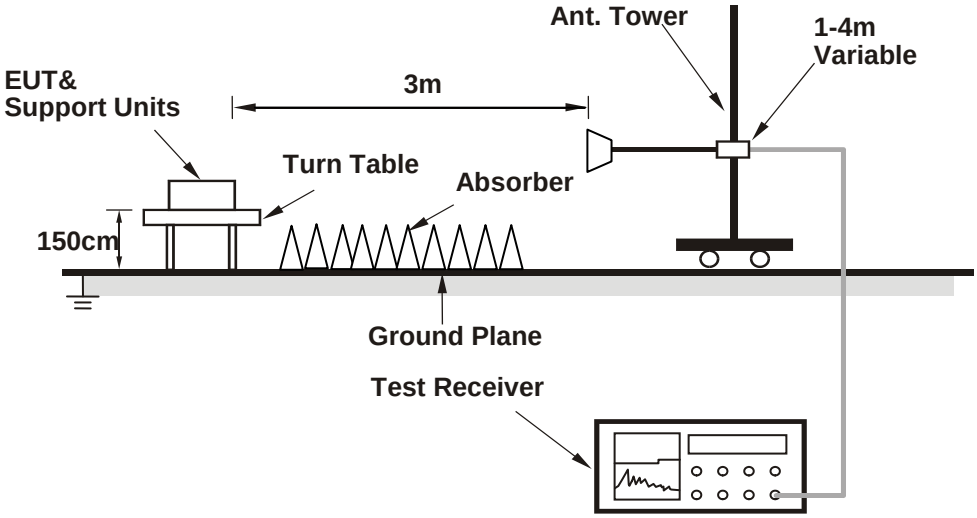
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Conditions

a. Connected the EUT with the Notebook Computer which is placed on remote site.
b. Controlling software (QSPR (5.0-00148)) has been activated to set the EUT on specific status.

4.1.7 Test Results

Above 1GHz Data：

802.11b

CHANNEL	TX Channel 1	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	2386.20	59.9 PK	74.0	-14.1	3.24 H	27	62.1	-2.2
2	2386.20	49.3 AV	54.0	-4.7	3.24 H	27	51.5	-2.2
3	*2412.00	114.2 PK			3.24 H	27	116.6	-2.4
4	*2412.00	111.9 AV			3.24 H	27	114.3	-2.4
5	4824.00	51.8 PK	74.0	-22.2	2.30 H	70	50.0	1.8
6	4824.00	50.1 AV	54.0	-3.9	2.30 H	70	48.3	1.8
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	2386.20	63.3 PK	74.0	-10.7	1.42 V	41	65.5	-2.2
2	2386.20	53.2 AV	54.0	-0.8	1.42 V	41	55.4	-2.2
3	*2412.00	115.2 PK			1.42 V	41	117.6	-2.4
4	*2412.00	113.3 AV			1.42 V	41	115.7	-2.4
5	4824.00	50.6 PK	74.0	-23.4	1.67 V	95	48.8	1.8
6	4824.00	47.1 AV	54.0	-6.9	1.67 V	95	45.3	1.8

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.
4. Margin value = Emission Level – Limit value
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			3.24 H	33	116.3	-2.6
2	*2437.00	111.6 AV			3.24 H	33	114.2	-2.6
3	4874.00	55.8 PK	74.0	-18.2	2.04 H	68	53.8	2.0
4	**4874.00**	**53.9 AV**	**54.0**	**-0.1**	**2.04 H**	**68**	**51.9**	**2.0**
5	7311.00	49.3 PK	74.0	-24.7	3.45 H	98	40.9	8.4
6	7311.00	36.0 AV	54.0	-18.0	3.45 H	98	27.6	8.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	115.6 PK			1.62 V	45	118.2	-2.6
2	*2437.00	112.8 AV			1.62 V	45	115.4	-2.6
3	4874.00	53.2 PK	74.0	-20.8	1.63 V	95	51.2	2.0
4	4874.00	50.4 AV	54.0	-3.6	1.63 V	95	48.4	2.0
5	7311.00	49.8 PK	74.0	-24.2	2.05 V	100	41.4	8.4
6	7311.00	36.3 AV	54.0	-17.7	2.05 V	100	27.9	8.4

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	111.3 PK			3.24 H	32	113.9	-2.6
2	*2452.00	109.1 AV			3.24 H	32	111.7	-2.6
3	4904.00	55.8 PK	74.0	-18.2	1.26 H	76	53.8	2.0
4	**4904.00**	**53.9 AV**	**54.0**	**-0.1**	**1.26 H**	**76**	**51.9**	**2.0**
5	7356.00	49.2 PK	74.0	-24.8	3.44 H	109	40.6	8.6
6	7356.00	36.0 AV	54.0	-18.0	3.44 H	109	27.4	8.6
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	112.7 PK			1.38 V	27	115.3	-2.6
2	*2452.00	110.4 AV			1.38 V	27	113.0	-2.6
3	4904.00	53.7 PK	74.0	-20.3	1.63 V	85	51.7	2.0
4	4904.00	50.6 AV	54.0	-3.4	1.63 V	85	48.6	2.0
5	7356.00	50.3 PK	74.0	-23.7	2.05 V	100	41.7	8.6
6	7356.00	36.6 AV	54.0	-17.4	2.05 V	100	28.0	8.6

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.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 10	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	*2457.00	110.5 PK			3.35 H	33	113.1	-2.6
2	*2457.00	108.2 AV			3.35 H	33	110.8	-2.6
3	2483.50	56.5 PK	74.0	-17.5	3.35 H	33	58.9	-2.4
4	2483.50	44.3 AV	54.0	-9.7	3.35 H	33	46.7	-2.4
5	4914.00	55.4 PK	74.0	-18.6	1.20 H	76	53.4	2.0
6	**4914.00**	**53.9 AV**	**54.0**	**-0.1**	**1.20 H**	**76**	**51.9**	**2.0**
7	7371.00	50.2 PK	74.0	-23.8	3.46 H	107	41.6	8.6
8	7371.00	36.7 AV	54.0	-17.3	3.46 H	107	28.1	8.6
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	*2457.00	111.7 PK			1.38 V	53	114.3	-2.6
2	*2457.00	109.3 AV			1.38 V	53	111.9	-2.6
3	2483.50	58.1 PK	74.0	-15.9	1.38 V	53	60.5	-2.4
4	2483.50	46.4 AV	54.0	-7.6	1.38 V	53	48.8	-2.4
5	4914.00	53.6 PK	74.0	-20.4	1.60 V	74	51.6	2.0
6	4914.00	50.7 AV	54.0	-3.3	1.60 V	74	48.7	2.0
7	7371.00	50.6 PK	74.0	-23.4	2.01 V	112	42.0	8.6
8	7371.00	37.1 AV	54.0	-16.9	2.01 V	112	28.5	8.6

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.
4. Margin value = Emission Level – Limit value
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	110.2 PK			3.29 H	21	112.8	-2.6
2	*2462.00	107.8 AV			3.29 H	21	110.4	-2.6
3	2483.50	61.3 PK	74.0	-12.7	3.29 H	21	63.7	-2.4
4	2483.50	49.2 AV	54.0	-4.8	3.29 H	21	51.6	-2.4
5	4924.00	55.8 PK	74.0	-18.2	1.67 H	192	53.8	2.0
6	4924.00	53.8 AV	54.0	-0.2	1.67 H	192	51.8	2.0
7	7386.00	49.8 PK	74.0	-24.2	3.47 H	99	41.2	8.6
8	7386.00	36.4 AV	54.0	-17.6	3.47 H	99	27.8	8.6
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	112.1 PK			1.40 V	49	114.7	-2.6
2	*2462.00	109.1 AV			1.40 V	49	111.7	-2.6
3	2483.50	62.3 PK	74.0	-11.7	1.40 V	49	64.7	-2.4
4	2483.50	50.1 AV	54.0	-3.9	1.40 V	49	52.5	-2.4
5	4924.00	53.7 PK	74.0	-20.3	1.65 V	88	51.7	2.0
6	4924.00	50.7 AV	54.0	-3.3	1.65 V	88	48.7	2.0
7	7386.00	50.1 PK	74.0	-23.9	2.05 V	100	41.5	8.6
8	7386.00	36.6 AV	54.0	-17.4	2.05 V	100	28.0	8.6

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.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

802.11g

CHANNEL	TX Channel 1	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	67.2 PK	74.0	-6.8	3.24 H	28	69.4	-2.2
2	2390.00	45.1 AV	54.0	-8.9	3.24 H	28	47.3	-2.2
3	*2412.00	108.5 PK			3.24 H	28	110.9	-2.4
4	*2412.00	99.9 AV			3.24 H	28	102.3	-2.4
5	4824.00	50.5 PK	74.0	-23.5	1.73 H	119	48.7	1.8
6	4824.00	37.8 AV	54.0	-16.2	1.73 H	119	36.0	1.8
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	73.8 PK	74.0	-0.2	1.63 V	186	76.0	-2.2
2	2390.00	48.5 AV	54.0	-5.5	1.63 V	186	50.7	-2.2
3	*2412.00	110.2 PK			1.63 V	186	112.6	-2.4
4	*2412.00	101.3 AV			1.63 V	186	103.7	-2.4
5	4824.00	49.3 PK	74.0	-24.7	1.73 V	110	47.5	1.8
6	4824.00	36.2 AV	54.0	-17.8	1.73 V	110	34.4	1.8

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.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 2	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	67.2 PK	74.0	-6.8	3.22 H	16	69.4	-2.2
2	2390.00	45.3 AV	54.0	-8.7	3.22 H	16	47.5	-2.2
3	*2417.00	109.6 PK			3.22 H	16	112.0	-2.4
4	*2417.00	100.7 AV			3.22 H	16	103.1	-2.4
5	4834.00	50.6 PK	74.0	-23.4	1.70 H	118	48.8	1.8
6	4834.00	38.1 AV	54.0	-15.9	1.70 H	118	36.3	1.8
7	7251.00	50.3 PK	74.0	-23.7	3.43 H	115	42.2	8.1
8	7251.00	37.2 AV	54.0	-16.8	3.43 H	115	29.1	8.1
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**	**73.9 PK**	**74.0**	**-0.1**	**1.62 V**	**186**	**76.1**	**-2.2**
2	2390.00	48.6 AV	54.0	-5.4	1.62 V	186	50.8	-2.2
3	*2417.00	112.0 PK			1.62 V	186	114.4	-2.4
4	*2417.00	102.4 AV			1.62 V	186	104.8	-2.4
5	4834.00	49.5 PK	74.0	-24.5	1.73 V	103	47.7	1.8
6	4834.00	37.0 AV	54.0	-17.0	1.73 V	103	35.2	1.8
7	7251.00	50.4 PK	74.0	-23.6	1.95 V	88	42.3	8.1
8	7251.00	36.9 AV	54.0	-17.1	1.95 V	88	28.8	8.1

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.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 3	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	67.2 PK	74.0	-6.8	3.21 H	32	69.4	-2.2
2	2390.00	45.0 AV	54.0	-9.0	3.21 H	32	47.2	-2.2
3	*2422.00	110.4 PK			3.21 H	32	112.9	-2.5
4	*2422.00	101.8 AV			3.21 H	32	104.3	-2.5
5	4844.00	51.7 PK	74.0	-22.3	1.67 H	131	49.9	1.8
6	4844.00	39.8 AV	54.0	-14.2	1.67 H	131	38.0	1.8
7	7266.00	50.3 PK	74.0	-23.7	3.45 H	121	42.1	8.2
8	7266.00	37.0 AV	54.0	-17.0	3.45 H	121	28.8	8.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	73.8 PK	74.0	-0.2	1.63 V	186	76.0	-2.2
2	2390.00	49.6 AV	54.0	-4.4	1.63 V	186	51.8	-2.2
3	*2422.00	112.9 PK			1.63 V	186	115.4	-2.5
4	*2422.00	103.1 AV			1.63 V	186	105.6	-2.5
5	4844.00	51.1 PK	74.0	-22.9	1.69 V	107	49.3	1.8
6	4844.00	39.2 AV	54.0	-14.8	1.69 V	107	37.4	1.8
7	7266.00	50.2 PK	74.0	-23.8	2.00 V	79	42.0	8.2
8	7266.00	36.5 AV	54.0	-17.5	2.00 V	79	28.3	8.2

REMARKS:

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

CHANNEL	TX Channel 4	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	67.2 PK	74.0	-6.8	3.25 H	21	69.4	-2.2
2	2390.00	45.0 AV	54.0	-9.0	3.25 H	21	47.2	-2.2
3	*2427.00	111.7 PK			3.25 H	21	114.2	-2.5
4	*2427.00	103.4 AV			3.25 H	21	105.9	-2.5
5	4854.00	53.9 PK	74.0	-20.1	1.74 H	111	52.0	1.9
6	4854.00	42.1 AV	54.0	-11.9	1.74 H	111	40.2	1.9
7	7281.00	50.6 PK	74.0	-23.4	3.48 H	126	42.3	8.3
8	7281.00	37.6 AV	54.0	-16.4	3.48 H	126	29.3	8.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	73.2 PK	74.0	-0.8	2.14 V	150	75.4	-2.2
2	2390.00	49.9 AV	54.0	-4.1	2.14 V	150	52.1	-2.2
3	*2427.00	114.2 PK			2.14 V	150	116.7	-2.5
4	*2427.00	104.9 AV			2.14 V	150	107.4	-2.5
5	4854.00	53.4 PK	74.0	-20.6	1.77 V	107	51.5	1.9
6	4854.00	41.4 AV	54.0	-12.6	1.77 V	107	39.5	1.9
7	7281.00	50.5 PK	74.0	-23.5	2.01 V	100	42.2	8.3
8	7281.00	37.1 AV	54.0	-16.9	2.01 V	100	28.8	8.3

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	67.2 PK	74.0	-6.8	3.21 H	28	69.4	-2.2
2	2390.00	44.8 AV	54.0	-9.2	3.21 H	28	47.0	-2.2
3	*2437.00	114.5 PK			3.21 H	28	117.1	-2.6
4	*2437.00	106.3 AV			3.21 H	28	108.9	-2.6
5	2483.50	67.3 PK	74.0	-6.7	3.21 H	28	69.7	-2.4
6	2483.50	45.1 AV	54.0	-8.9	3.21 H	28	47.5	-2.4
7	4874.00	59.2 PK	74.0	-14.8	1.70 H	188	57.2	2.0
8	4874.00	47.1 AV	54.0	-6.9	1.70 H	188	45.1	2.0
9	7311.00	50.4 PK	74.0	-23.6	3.49 H	97	42.0	8.4
10	7311.00	36.8 AV	54.0	-17.2	3.49 H	97	28.4	8.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	73.8 PK	74.0	-0.2	1.64 V	186	76.0	-2.2
2	2390.00	50.0 AV	54.0	-4.0	1.64 V	186	52.2	-2.2
3	*2437.00	116.8 PK			1.64 V	186	119.4	-2.6
4	*2437.00	107.9 AV			1.64 V	186	110.5	-2.6
5	2483.50	72.9 PK	74.0	-1.1	1.64 V	186	75.3	-2.4
6	2483.50	49.5 AV	54.0	-4.5	1.64 V	186	51.9	-2.4
7	4874.00	58.3 PK	74.0	-15.7	1.64 V	93	56.3	2.0
8	4874.00	45.5 AV	54.0	-8.5	1.64 V	93	43.5	2.0
9	7311.00	50.6 PK	74.0	-23.4	2.00 V	93	42.2	8.4
10	7311.00	37.0 AV	54.0	-17.0	2.00 V	93	28.6	8.4

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	113.0 PK			3.27 H	43	115.6	-2.6
2	*2452.00	104.8 AV			3.27 H	43	107.4	-2.6
3	2483.50	67.2 PK	74.0	-6.8	3.27 H	43	69.6	-2.4
4	2483.50	44.9 AV	54.0	-9.1	3.27 H	43	47.3	-2.4
5	4904.00	59.1 PK	74.0	-14.9	1.69 H	109	57.1	2.0
6	4904.00	46.5 AV	54.0	-7.5	1.69 H	109	44.5	2.0
7	7356.00	50.8 PK	74.0	-23.2	3.49 H	100	42.2	8.6
8	7356.00	37.6 AV	54.0	-16.4	3.49 H	100	29.0	8.6
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	115.1 PK			1.78 V	195	117.7	-2.6
2	*2452.00	106.2 AV			1.78 V	195	108.8	-2.6
3	2483.50	73.6 PK	74.0	-0.4	1.78 V	195	76.0	-2.4
4	2483.50	49.0 AV	54.0	-5.0	1.78 V	195	51.4	-2.4
5	4904.00	58.5 PK	74.0	-15.5	1.67 V	85	56.5	2.0
6	4904.00	45.5 AV	54.0	-8.5	1.67 V	85	43.5	2.0
7	7356.00	50.3 PK	74.0	-23.7	2.02 V	101	41.7	8.6
8	7356.00	36.7 AV	54.0	-17.3	2.02 V	101	28.1	8.6

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.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 10	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	*2457.00	111.1 PK			3.20 H	13	113.7	-2.6
2	*2457.00	102.9 AV			3.20 H	13	105.5	-2.6
3	2483.50	67.9 PK	74.0	-6.1	3.20 H	13	70.3	-2.4
4	2483.50	46.0 AV	54.0	-8.0	3.20 H	13	48.4	-2.4
5	4914.00	58.1 PK	74.0	-15.9	1.69 H	107	56.1	2.0
6	4914.00	44.8 AV	54.0	-9.2	1.69 H	107	42.8	2.0
7	7371.00	50.3 PK	74.0	-23.7	3.42 H	114	41.7	8.6
8	7371.00	37.4 AV	54.0	-16.6	3.42 H	114	28.8	8.6
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	*2457.00	113.1 PK			1.63 V	202	115.7	-2.6
2	*2457.00	104.4 AV			1.63 V	202	107.0	-2.6
3	2483.50	73.5 PK	74.0	-0.5	1.63 V	202	75.9	-2.4
4	2483.50	49.2 AV	54.0	-4.8	1.63 V	202	51.6	-2.4
5	4914.00	55.9 PK	74.0	-18.1	1.62 V	94	53.9	2.0
6	4914.00	43.1 AV	54.0	-10.9	1.62 V	94	41.1	2.0
7	7371.00	51.0 PK	74.0	-23.0	1.98 V	100	42.4	8.6
8	7371.00	37.3 AV	54.0	-16.7	1.98 V	100	28.7	8.6

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.
4. Margin value = Emission Level – Limit value
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	108.2 PK			3.18 H	24	110.8	-2.6
2	*2462.00	99.9 AV			3.18 H	24	102.5	-2.6
3	2483.50	67.2 PK	74.0	-6.8	3.18 H	24	69.6	-2.4
4	2483.50	45.0 AV	54.0	-9.0	3.18 H	24	47.4	-2.4
5	4924.00	50.6 PK	74.0	-23.4	1.67 H	103	48.6	2.0
6	4924.00	39.6 AV	54.0	-14.4	1.67 H	103	37.6	2.0
7	7386.00	49.6 PK	74.0	-24.4	3.45 H	105	41.0	8.6
8	7386.00	36.8 AV	54.0	-17.2	3.45 H	105	28.2	8.6
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	110.1 PK			1.35 V	198	112.7	-2.6
2	*2462.00	101.0 AV			1.35 V	198	103.6	-2.6
3	2483.50	73.8 PK	74.0	-0.2	1.35 V	198	76.2	-2.4
4	2483.50	48.4 AV	54.0	-5.6	1.35 V	198	50.8	-2.4
5	4924.00	51.1 PK	74.0	-22.9	1.79 V	114	49.1	2.0
6	4924.00	38.3 AV	54.0	-15.7	1.79 V	114	36.3	2.0
7	7386.00	51.0 PK	74.0	-23.0	2.02 V	110	42.4	8.6
8	7386.00	37.5 AV	54.0	-16.5	2.02 V	110	28.9	8.6

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.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

VHT20

CHANNEL	TX Channel 1	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	67.3 PK	74.0	-6.7	3.28 H	42	69.5	-2.2
2	2390.00	45.7 AV	54.0	-8.3	3.28 H	42	47.9	-2.2
3	*2412.00	112.2 PK			3.28 H	42	114.6	-2.4
4	*2412.00	102.0 AV			3.28 H	42	104.4	-2.4
5	4824.00	50.8 PK	74.0	-23.2	1.75 H	133	49.0	1.8
6	4824.00	38.1 AV	54.0	-15.9	1.75 H	133	36.3	1.8
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	73.6 PK	74.0	-0.4	1.39 V	43	75.8	-2.2
2	2390.00	50.1 AV	54.0	-3.9	1.39 V	43	52.3	-2.2
3	*2412.00	113.7 PK			1.39 V	43	116.1	-2.4
4	*2412.00	103.5 AV			1.39 V	43	105.9	-2.4
5	4824.00	49.7 PK	74.0	-24.3	1.78 V	121	47.9	1.8
6	4824.00	36.6 AV	54.0	-17.4	1.78 V	121	34.8	1.8

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.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 2	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	67.6 PK	74.0	-6.4	3.21 H	32	69.8	-2.2
2	2390.00	45.8 AV	54.0	-8.2	3.21 H	32	48.0	-2.2
3	*2417.00	112.4 PK			3.21 H	32	114.8	-2.4
4	*2417.00	102.2 AV			3.21 H	32	104.6	-2.4
5	4834.00	52.3 PK	74.0	-21.7	1.70 H	126	50.5	1.8
6	4834.00	40.2 AV	54.0	-13.8	1.70 H	126	38.4	1.8
7	7251.00	50.2 PK	74.0	-23.8	3.49 H	128	42.1	8.1
8	7251.00	37.2 AV	54.0	-16.8	3.49 H	128	29.1	8.1
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	73.8 PK	74.0	-0.2	1.45 V	45	76.0	-2.2
2	2390.00	48.5 AV	54.0	-5.5	1.45 V	45	50.7	-2.2
3	*2417.00	113.2 PK			1.45 V	45	115.6	-2.4
4	*2417.00	103.1 AV			1.45 V	45	105.5	-2.4
5	4834.00	51.7 PK	74.0	-22.3	1.72 V	119	49.9	1.8
6	4834.00	39.6 AV	54.0	-14.4	1.72 V	119	37.8	1.8
7	7251.00	50.1 PK	74.0	-23.9	1.96 V	87	42.0	8.1
8	7251.00	36.5 AV	54.0	-17.5	1.96 V	87	28.4	8.1

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.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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	67.4 PK	74.0	-6.6	3.28 H	20	69.6	-2.2
2	2390.00	45.8 AV	54.0	-8.2	3.28 H	20	48.0	-2.2
3	*2422.00	113.6 PK			3.28 H	20	116.1	-2.5
4	*2422.00	103.4 AV			3.28 H	20	105.9	-2.5
5	4844.00	55.4 PK	74.0	-18.6	1.70 H	105	53.6	1.8
6	4844.00	43.1 AV	54.0	-10.9	1.70 H	105	41.3	1.8
7	7266.00	49.8 PK	74.0	-24.2	3.48 H	112	41.6	8.2
8	7266.00	36.8 AV	54.0	-17.2	3.48 H	112	28.6	8.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	73.5 PK	74.0	-0.5	1.44 V	45	75.7	-2.2
2	2390.00	48.9 AV	54.0	-5.1	1.44 V	45	51.1	-2.2
3	*2422.00	114.2 PK			1.44 V	45	116.7	-2.5
4	*2422.00	104.4 AV			1.44 V	45	106.9	-2.5
5	4844.00	53.5 PK	74.0	-20.5	1.75 V	114	51.7	1.8
6	4844.00	41.6 AV	54.0	-12.4	1.75 V	114	39.8	1.8
7	7266.00	50.2 PK	74.0	-23.8	2.00 V	109	42.0	8.2
8	7266.00	37.0 AV	54.0	-17.0	2.00 V	109	28.8	8.2

REMARKS:

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

CHANNEL	TX Channel 4	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	67.5 PK	74.0	-6.5	3.24 H	15	69.7	-2.2
2	2390.00	45.7 AV	54.0	-8.3	3.24 H	15	47.9	-2.2
3	*2427.00	113.7 PK			3.24 H	15	116.2	-2.5
4	*2427.00	103.9 AV			3.24 H	15	106.4	-2.5
5	4854.00	55.8 PK	74.0	-18.2	1.70 H	132	53.9	1.9
6	4854.00	43.8 AV	54.0	-10.2	1.70 H	132	41.9	1.9
7	7281.00	50.3 PK	74.0	-23.7	3.45 H	126	42.0	8.3
8	7281.00	37.3 AV	54.0	-16.7	3.45 H	126	29.0	8.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	73.5 PK	74.0	-0.5	1.42 V	360	75.7	-2.2
2	2390.00	46.2 AV	54.0	-7.8	1.42 V	360	48.4	-2.2
3	*2427.00	115.2 PK			1.44 V	45	117.7	-2.5
4	*2427.00	105.3 AV			1.44 V	45	107.8	-2.5
5	4854.00	54.4 PK	74.0	-19.6	1.82 V	117	52.5	1.9
6	4854.00	42.8 AV	54.0	-11.2	1.82 V	117	40.9	1.9
7	7281.00	50.6 PK	74.0	-23.4	2.01 V	90	42.3	8.3
8	7281.00	37.2 AV	54.0	-16.8	2.01 V	90	28.9	8.3

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	2390.00	67.0 PK	74.0	-7.0	3.28 H	18	69.2	-2.2
2	2390.00	45.3 AV	54.0	-8.7	3.28 H	18	47.5	-2.2
3	*2437.00	116.1 PK			3.28 H	18	118.7	-2.6
4	*2437.00	106.7 AV			3.28 H	18	109.3	-2.6
5	2483.50	67.5 PK	74.0	-6.5	3.28 H	18	69.9	-2.4
6	2483.50	45.1 AV	54.0	-8.9	3.28 H	18	47.5	-2.4
7	4874.00	59.6 PK	74.0	-14.4	1.65 H	194	57.6	2.0
8	4874.00	47.6 AV	54.0	-6.4	1.65 H	194	45.6	2.0
9	7311.00	50.9 PK	74.0	-23.1	3.47 H	112	42.5	8.4
10	7311.00	37.1 AV	54.0	-16.9	3.47 H	112	28.7	8.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	73.8 PK	74.0	-0.2	1.51 V	45	76.0	-2.2
2	2390.00	50.1 AV	54.0	-3.9	1.51 V	45	52.3	-2.2
3	*2437.00	117.8 PK			1.51 V	45	120.4	-2.6
4	*2437.00	107.8 AV			1.51 V	45	110.4	-2.6
5	**2483.50**	**73.9 PK**	**74.0**	**-0.1**	**1.51 V**	**45**	**76.3**	**-2.4**
6	2483.50	49.1 AV	54.0	-4.9	1.51 V	45	51.5	-2.4
7	4874.00	58.4 PK	74.0	-15.6	1.70 V	95	56.4	2.0
8	4874.00	45.7 AV	54.0	-8.3	1.70 V	95	43.7	2.0
9	7311.00	50.5 PK	74.0	-23.5	1.98 V	102	42.1	8.4
10	7311.00	37.2 AV	54.0	-16.8	1.98 V	102	28.8	8.4

REMARKS:

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

CHANNEL	TX Channel 10	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	*2457.00	114.0 PK			3.28 H	20	116.6	-2.6
2	*2457.00	103.6 AV			3.28 H	20	106.2	-2.6
3	2483.50	68.2 PK	74.0	-5.8	3.28 H	20	70.6	-2.4
4	2483.50	46.3 AV	54.0	-7.7	3.28 H	20	48.7	-2.4
5	4914.00	56.1 PK	74.0	-17.9	1.69 H	107	54.1	2.0
6	4914.00	42.3 AV	54.0	-11.7	1.69 H	107	40.3	2.0
7	7371.00	51.0 PK	74.0	-23.0	3.47 H	127	42.4	8.6
8	7371.00	37.7 AV	54.0	-16.3	3.47 H	127	29.1	8.6
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	*2457.00	115.6 PK			1.41 V	44	118.2	-2.6
2	*2457.00	105.4 AV			1.41 V	44	108.0	-2.6
3	2483.50	73.8 PK	74.0	-0.2	1.41 V	44	76.2	-2.4
4	2483.50	50.1 AV	54.0	-3.9	1.41 V	44	52.5	-2.4
5	4914.00	55.2 PK	74.0	-18.8	1.60 V	107	53.2	2.0
6	4914.00	41.5 AV	54.0	-12.5	1.60 V	107	39.5	2.0
7	7371.00	50.8 PK	74.0	-23.2	1.96 V	96	42.2	8.6
8	7371.00	37.3 AV	54.0	-16.7	1.96 V	96	28.7	8.6

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.
4. Margin value = Emission Level – Limit value
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	113.1 PK			3.20 H	17	115.7	-2.6
2	*2462.00	102.9 AV			3.20 H	17	105.5	-2.6
3	2483.50	67.8 PK	74.0	-6.2	3.20 H	17	70.2	-2.4
4	2483.50	46.1 AV	54.0	-7.9	3.20 H	17	48.5	-2.4
5	4924.00	54.3 PK	74.0	-19.7	1.65 H	194	52.3	2.0
6	4924.00	42.7 AV	54.0	-11.3	1.65 H	194	40.7	2.0
7	7386.00	51.4 PK	74.0	-22.6	3.46 H	98	42.8	8.6
8	7386.00	37.5 AV	54.0	-16.5	3.46 H	98	28.9	8.6
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	114.8 PK			1.39 V	47	117.4	-2.6
2	*2462.00	104.5 AV			1.39 V	47	107.1	-2.6
3	2483.50	73.6 PK	74.0	-0.4	1.39 V	47	76.0	-2.4
4	2483.50	50.0 AV	54.0	-4.0	1.39 V	47	52.4	-2.4
5	4924.00	53.1 PK	74.0	-20.9	1.76 V	104	51.1	2.0
6	4924.00	40.1 AV	54.0	-13.9	1.76 V	104	38.1	2.0
7	7386.00	50.4 PK	74.0	-23.6	2.00 V	104	41.8	8.6
8	7386.00	37.2 AV	54.0	-16.8	2.00 V	104	28.6	8.6

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.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

VHT40

CHANNEL	TX Channel 3	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	68.1 PK	74.0	-5.9	3.55 H	43	70.3	-2.2
2	2390.00	50.5 AV	54.0	-3.5	3.55 H	43	52.7	-2.2
3	*2422.00	109.2 PK			3.55 H	43	111.7	-2.5
4	*2422.00	98.0 AV			3.55 H	43	100.5	-2.5
5	4844.00	49.1 PK	74.0	-24.9	1.75 H	108	47.3	1.8
6	4844.00	36.3 AV	54.0	-17.7	1.75 H	108	34.5	1.8
7	7266.00	50.6 PK	74.0	-23.4	3.46 H	116	42.4	8.2
8	7266.00	37.4 AV	54.0	-16.6	3.46 H	116	29.2	8.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	72.2 PK	74.0	-1.8	1.40 V	46	74.4	-2.2
2	2390.00	53.8 AV	54.0	-0.2	1.40 V	46	56.0	-2.2
3	*2422.00	111.0 PK			1.40 V	46	113.5	-2.5
4	*2422.00	99.9 AV			1.40 V	46	102.4	-2.5
5	4844.00	49.0 PK	74.0	-25.0	1.77 V	125	47.2	1.8
6	4844.00	36.0 AV	54.0	-18.0	1.77 V	125	34.2	1.8
7	7266.00	50.5 PK	74.0	-23.5	2.04 V	86	42.3	8.2
8	7266.00	37.0 AV	54.0	-17.0	2.04 V	86	28.8	8.2

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	2390.00	68.8 PK	74.0	-5.2	3.26 H	17	71.0	-2.2
2	2390.00	50.4 AV	54.0	-3.6	3.26 H	17	52.6	-2.2
3	*2437.00	110.6 PK			3.26 H	17	113.2	-2.6
4	*2437.00	99.5 AV			3.26 H	17	102.1	-2.6
5	2483.50	67.9 PK	74.0	-6.1	3.26 H	17	70.3	-2.4
6	2483.50	47.9 AV	54.0	-6.1	3.26 H	17	50.3	-2.4
7	4874.00	49.4 PK	74.0	-24.6	1.75 H	93	47.4	2.0
8	4874.00	36.4 AV	54.0	-17.6	1.75 H	93	34.4	2.0
9	7311.00	50.6 PK	74.0	-23.4	3.46 H	119	42.2	8.4
10	7311.00	37.5 AV	54.0	-16.5	3.46 H	119	29.1	8.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	73.5 PK	74.0	-0.5	1.38 V	45	75.7	-2.2
2	**2390.00**	**53.9 AV**	**54.0**	**-0.1**	**1.38 V**	**45**	**56.1**	**-2.2**
3	*2437.00	112.8 PK			1.38 V	45	115.4	-2.6
4	*2437.00	101.3 AV			1.38 V	45	103.9	-2.6
5	2483.50	73.4 PK	74.0	-0.6	1.38 V	45	75.8	-2.4
6	2483.50	51.8 AV	54.0	-2.2	1.38 V	45	54.2	-2.4
7	4874.00	48.9 PK	74.0	-25.1	1.74 V	122	46.9	2.0
8	4874.00	35.8 AV	54.0	-18.2	1.74 V	122	33.8	2.0
9	7311.00	50.4 PK	74.0	-23.6	1.96 V	86	42.0	8.4
10	7311.00	36.9 AV	54.0	-17.1	1.96 V	86	28.5	8.4

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	110.1 PK			3.24 H	14	112.7	-2.6
2	*2452.00	98.1 AV			3.24 H	14	100.7	-2.6
3	2483.50	67.5 PK	74.0	-6.5	3.24 H	14	69.9	-2.4
4	2483.50	47.7 AV	54.0	-6.3	3.24 H	14	50.1	-2.4
5	4904.00	49.7 PK	74.0	-24.3	1.72 H	97	47.7	2.0
6	4904.00	36.7 AV	54.0	-17.3	1.72 H	97	34.7	2.0
7	7356.00	51.0 PK	74.0	-23.0	3.48 H	124	42.4	8.6
8	7356.00	37.5 AV	54.0	-16.5	3.48 H	124	28.9	8.6
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	111.7 PK			1.39 V	46	114.3	-2.6
2	*2452.00	100.7 AV			1.39 V	46	103.3	-2.6
3	**2483.50**	**73.9 PK**	**74.0**	**-0.1**	**1.39 V**	**46**	**76.3**	**-2.4**
4	2483.50	51.9 AV	54.0	-2.1	1.39 V	46	54.3	-2.4
5	4904.00	48.9 PK	74.0	-25.1	1.73 V	107	46.9	2.0
6	4904.00	36.0 AV	54.0	-18.0	1.73 V	107	34.0	2.0
7	7356.00	50.5 PK	74.0	-23.5	2.04 V	85	41.9	8.6
8	7356.00	37.3 AV	54.0	-16.7	2.04 V	85	28.7	8.6

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.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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CHANNEL	TX Channel 1	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	66.8 PK	74.0	-7.2	3.24 H	35	69.0	-2.2
2	2390.00	47.3 AV	54.0	-6.7	3.24 H	35	49.5	-2.2
3	*2412.00	115.1 PK			3.24 H	35	117.5	-2.4
4	*2412.00	102.9 AV			3.24 H	35	105.3	-2.4
5	4824.00	50.3 PK	74.0	-23.7	1.75 H	127	48.5	1.8
6	4824.00	37.7 AV	54.0	-16.3	1.75 H	127	35.9	1.8
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	1.37 V	43	75.9	-2.2
2	2390.00	51.6 AV	54.0	-2.4	1.37 V	43	53.8	-2.2
3	*2412.00	117.6 PK			1.37 V	43	120.0	-2.4
4	*2412.00	104.8 AV			1.37 V	43	107.2	-2.4
5	4824.00	49.4 PK	74.0	-24.6	1.74 V	106	47.6	1.8
6	4824.00	36.3 AV	54.0	-17.7	1.74 V	106	34.5	1.8

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.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 2	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	66.8 PK	74.0	-7.2	3.19 H	43	69.0	-2.2
2	2390.00	47.4 AV	54.0	-6.6	3.19 H	43	49.6	-2.2
3	*2417.00	116.9 PK			3.19 H	43	119.3	-2.4
4	*2417.00	104.6 AV			3.19 H	43	107.0	-2.4
5	4834.00	54.1 PK	74.0	-19.9	1.71 H	118	52.3	1.8
6	4834.00	42.5 AV	54.0	-11.5	1.71 H	118	40.7	1.8
7	7251.00	50.3 PK	74.0	-23.7	3.48 H	120	42.2	8.1
8	7251.00	36.9 AV	54.0	-17.1	3.48 H	120	28.8	8.1
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	73.8 PK	74.0	-0.2	1.48 V	45	76.0	-2.2
2	2390.00	51.3 AV	54.0	-2.7	1.48 V	45	53.5	-2.2
3	*2417.00	119.5 PK			1.48 V	45	121.9	-2.4
4	*2417.00	106.6 AV			1.48 V	45	109.0	-2.4
5	4834.00	53.4 PK	74.0	-20.6	1.73 V	108	51.6	1.8
6	4834.00	40.2 AV	54.0	-13.8	1.73 V	108	38.4	1.8
7	7251.00	50.6 PK	74.0	-23.4	1.96 V	107	42.5	8.1
8	7251.00	37.2 AV	54.0	-16.8	1.96 V	107	29.1	8.1

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.
4. Margin value = Emission Level – Limit value
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	2390.00	67.1 PK	74.0	-6.9	3.22 H	36	69.3	-2.2
2	2390.00	47.7 AV	54.0	-6.3	3.22 H	36	49.9	-2.2
3	*2437.00	121.5 PK			3.22 H	36	124.1	-2.6
4	*2437.00	108.8 AV			3.22 H	36	111.4	-2.6
5	2483.50	66.4 PK	74.0	-7.6	3.22 H	36	68.8	-2.4
6	2483.50	47.0 AV	54.0	-7.0	3.22 H	36	49.4	-2.4
7	4874.00	59.0 PK	74.0	-15.0	1.76 H	129	57.0	2.0
8	4874.00	47.3 AV	54.0	-6.7	1.76 H	129	45.3	2.0
9	7311.00	50.6 PK	74.0	-23.4	3.53 H	128	42.2	8.4
10	7311.00	36.8 AV	54.0	-17.2	3.53 H	128	28.4	8.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	73.8 PK	74.0	-0.2	1.52 V	43	76.0	-2.2
2	2390.00	51.7 AV	54.0	-2.3	1.52 V	43	53.9	-2.2
3	*2437.00	123.8 PK			1.52 V	43	126.4	-2.6
4	*2437.00	110.6 AV			1.52 V	43	113.2	-2.6
5	2483.50	71.0 PK	74.0	-3.0	1.52 V	43	73.4	-2.4
6	2483.50	50.6 AV	54.0	-3.4	1.52 V	43	53.0	-2.4
7	4874.00	57.6 PK	74.0	-16.4	1.72 V	106	55.6	2.0
8	4874.00	45.2 AV	54.0	-8.8	1.72 V	106	43.2	2.0
9	7311.00	50.3 PK	74.0	-23.7	1.96 V	115	41.9	8.4
10	7311.00	37.1 AV	54.0	-16.9	1.96 V	115	28.7	8.4

REMARKS:

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

CHANNEL	TX Channel 10	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	*2457.00	115.8 PK			3.20 H	38	118.4	-2.6
2	*2457.00	105.7 AV			3.20 H	38	108.3	-2.6
3	2483.50	67.2 PK	74.0	-6.8	3.20 H	38	69.6	-2.4
4	2483.50	48.4 AV	54.0	-5.6	3.20 H	38	50.8	-2.4
5	4914.00	57.5 PK	74.0	-16.5	1.77 H	129	55.5	2.0
6	4914.00	46.0 AV	54.0	-8.0	1.77 H	129	44.0	2.0
7	7371.00	50.3 PK	74.0	-23.7	3.46 H	128	41.7	8.6
8	7371.00	36.7 AV	54.0	-17.3	3.46 H	128	28.1	8.6
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	*2457.00	117.4 PK			1.41 V	44	120.0	-2.6
2	*2457.00	107.1 AV			1.41 V	44	109.7	-2.6
3	2483.50	73.8 PK	74.0	-0.2	1.41 V	44	76.2	-2.4
4	2483.50	52.2 AV	54.0	-1.8	1.41 V	44	54.6	-2.4
5	4914.00	57.1 PK	74.0	-16.9	1.65 V	98	55.1	2.0
6	4914.00	44.7 AV	54.0	-9.3	1.65 V	98	42.7	2.0
7	7371.00	50.3 PK	74.0	-23.7	1.99 V	105	41.7	8.6
8	7371.00	37.3 AV	54.0	-16.7	1.99 V	105	28.7	8.6

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.
4. Margin value = Emission Level – Limit value
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	115.2 PK			3.20 H	47	117.8	-2.6
2	*2462.00	103.4 AV			3.20 H	47	106.0	-2.6
3	2483.50	68.0 PK	74.0	-6.0	3.20 H	47	70.4	-2.4
4	2483.50	48.9 AV	54.0	-5.1	3.20 H	47	51.3	-2.4
5	4924.00	56.2 PK	74.0	-17.8	1.68 H	110	54.2	2.0
6	4924.00	44.9 AV	54.0	-9.1	1.68 H	110	42.9	2.0
7	7386.00	50.0 PK	74.0	-24.0	3.51 H	133	41.4	8.6
8	7386.00	36.8 AV	54.0	-17.2	3.51 H	133	28.2	8.6
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	118.6 PK			1.40 V	46	121.2	-2.6
2	*2462.00	105.7 AV			1.40 V	46	108.3	-2.6
3	2483.50	72.5 PK	74.0	-1.5	1.40 V	46	74.9	-2.4
4	2483.50	52.5 AV	54.0	-1.5	1.40 V	46	54.9	-2.4
5	4924.00	56.0 PK	74.0	-18.0	1.71 V	82	54.0	2.0
6	4924.00	43.8 AV	54.0	-10.2	1.71 V	82	41.8	2.0
7	7386.00	50.2 PK	74.0	-23.8	2.04 V	90	41.6	8.6
8	7386.00	36.8 AV	54.0	-17.2	2.04 V	90	28.2	8.6

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.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

802.11ax (HE40)

CHANNEL	TX Channel 3	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	68.1 PK	74.0	-5.9	3.55 H	43	70.3	-2.2
2	2390.00	50.5 AV	54.0	-3.5	3.55 H	43	52.7	-2.2
3	*2422.00	109.2 PK			3.55 H	43	111.7	-2.5
4	*2422.00	98.0 AV			3.55 H	43	100.5	-2.5
5	4844.00	49.8 PK	74.0	-24.2	1.81 H	97	48.0	1.8
6	4844.00	36.9 AV	54.0	-17.1	1.81 H	97	35.1	1.8
7	7266.00	50.2 PK	74.0	-23.8	3.46 H	113	42.0	8.2
8	7266.00	37.1 AV	54.0	-16.9	3.46 H	113	28.9	8.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	72.2 PK	74.0	-1.8	1.40 V	46	74.4	-2.2
2	2390.00	53.8 AV	54.0	-0.2	1.40 V	46	56.0	-2.2
3	*2422.00	111.0 PK			1.40 V	46	113.5	-2.5
4	*2422.00	99.9 AV			1.40 V	46	102.4	-2.5
5	4844.00	49.0 PK	74.0	-25.0	1.74 V	123	47.2	1.8
6	4844.00	36.3 AV	54.0	-17.7	1.74 V	123	34.5	1.8
7	7266.00	50.7 PK	74.0	-23.3	2.00 V	98	42.5	8.2
8	7266.00	37.3 AV	54.0	-16.7	2.00 V	98	29.1	8.2

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	2390.00	68.9 PK	74.0	-5.1	3.14 H	59	71.1	-2.2
2	2390.00	49.4 AV	54.0	-4.6	3.14 H	59	51.6	-2.2
3	*2437.00	110.8 PK			3.14 H	59	113.4	-2.6
4	*2437.00	99.6 AV			3.14 H	59	102.2	-2.6
5	2483.50	67.7 PK	74.0	-6.3	3.14 H	59	70.1	-2.4
6	2483.50	48.1 AV	54.0	-5.9	3.14 H	59	50.5	-2.4
7	4874.00	49.7 PK	74.0	-24.3	1.66 H	90	47.7	2.0
8	4874.00	36.4 AV	54.0	-17.6	1.66 H	90	34.4	2.0
9	7311.00	50.3 PK	74.0	-23.7	3.51 H	108	41.9	8.4
10	7311.00	36.8 AV	54.0	-17.2	3.51 H	108	28.4	8.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	73.5 PK	74.0	-0.5	1.38 V	45	75.7	-2.2
2	**2390.00**	**53.9 AV**	**54.0**	**-0.1**	**1.38 V**	**45**	**56.1**	**-2.2**
3	*2437.00	112.8 PK			1.38 V	45	115.4	-2.6
4	*2437.00	101.3 AV			1.38 V	45	103.9	-2.6
5	2483.50	73.4 PK	74.0	-0.6	1.38 V	45	75.8	-2.4
6	2483.50	51.8 AV	54.0	-2.2	1.38 V	45	54.2	-2.4
7	4874.00	48.9 PK	74.0	-25.1	1.72 V	98	46.9	2.0
8	4874.00	36.2 AV	54.0	-17.8	1.72 V	98	34.2	2.0
9	7311.00	49.8 PK	74.0	-24.2	2.09 V	90	41.4	8.4
10	7311.00	36.9 AV	54.0	-17.1	2.09 V	90	28.5	8.4

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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	109.9 PK			3.25 H	30	112.5	-2.6
2	*2452.00	98.9 AV			3.25 H	30	101.5	-2.6
3	2483.50	68.1 PK	74.0	-5.9	3.25 H	30	70.5	-2.4
4	2483.50	48.0 AV	54.0	-6.0	3.25 H	30	50.4	-2.4
5	4904.00	49.7 PK	74.0	-24.3	1.77 H	91	47.7	2.0
6	4904.00	36.5 AV	54.0	-17.5	1.77 H	91	34.5	2.0
7	7356.00	50.3 PK	74.0	-23.7	3.49 H	107	41.7	8.6
8	7356.00	37.1 AV	54.0	-16.9	3.49 H	107	28.5	8.6
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	111.7 PK			1.39 V	46	114.3	-2.6
2	*2452.00	100.7 AV			1.39 V	46	103.3	-2.6
3	**2483.50**	**73.9 PK**	**74.0**	**-0.1**	**1.39 V**	**46**	**76.3**	**-2.4**
4	2483.50	51.9 AV	54.0	-2.1	1.39 V	46	54.3	-2.4
5	4904.00	49.1 PK	74.0	-24.9	1.73 V	114	47.1	2.0
6	4904.00	35.9 AV	54.0	-18.1	1.73 V	114	33.9	2.0
7	7356.00	50.7 PK	74.0	-23.3	2.08 V	86	42.1	8.6
8	7356.00	37.6 AV	54.0	-16.4	2.08 V	86	29.0	8.6

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.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

Below 1GHz Data:

802.11ax (HE20)

CHANNEL	TX Channel 6	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	72.14	33.7 QP	40.0	-6.3	1.54 H	301	49.2	-15.5
2	187.46	33.5 QP	43.5	-10.0	1.45 H	302	48.8	-15.3
3	237.93	39.9 QP	46.0	-6.1	1.00 H	312	54.4	-14.5
4	296.75	39.1 QP	46.0	-6.9	1.00 H	122	51.3	-12.2
5	315.58	37.6 QP	46.0	-8.4	1.50 H	360	49.1	-11.5
6	692.51	35.8 QP	46.0	-10.2	1.50 H	360	39.0	-3.2
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	37.37	35.9 QP	40.0	-4.1	1.00 V	95	49.4	-13.5
2	76.22	35.7 QP	40.0	-4.3	1.50 V	360	52.1	-16.4
3	315.29	41.3 QP	46.0	-4.7	1.50 V	241	52.8	-11.5
4	419.57	38.4 QP	46.0	-7.6	1.00 V	172	47.2	-8.8
5	443.87	37.4 QP	46.0	-8.6	1.00 V	279	45.2	-7.8
6	750.02	36.8 QP	46.0	-9.2	1.50 V	360	38.5	-1.7

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.
4. Margin value = Emission Level – Limit value

4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

Note: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	847124/029	Nov. 01, 2017	Oct. 31, 2018
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Nov. 15, 2017	Nov. 14, 2018
Line-Impedance Stabilization Network (for Peripheral) R&S	ENV216	100072	June 04, 2018	June 03, 2019
50 ohms Terminator	N/A	EMC-02	Sep. 22, 2017	Sep. 21, 2018
RF Cable	5D-FB	COCCAB-001	Sep. 29, 2017	Sep. 28, 2018
Fixed attenuator EMCI	STI02-2200-10	003	Mar. 16, 2018	Mar. 15, 2019
Software BVADT	BVADT_Cond_ V7.3.7.4	NA	NA	NA

Note:
1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Conduction 1.
3. Tested Date: June 16, 2018

4.2.3 Test Procedures

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

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

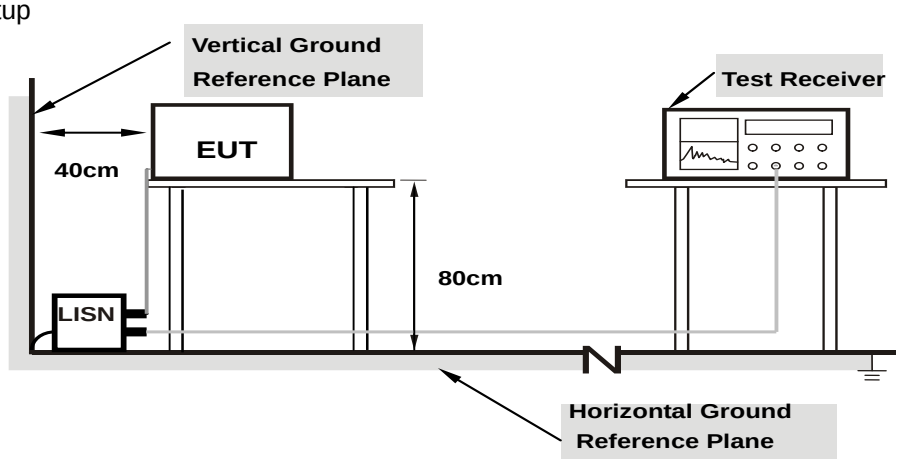
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



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

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

4.2.6 EUT Operating Conditions

Same as 4.1.6.

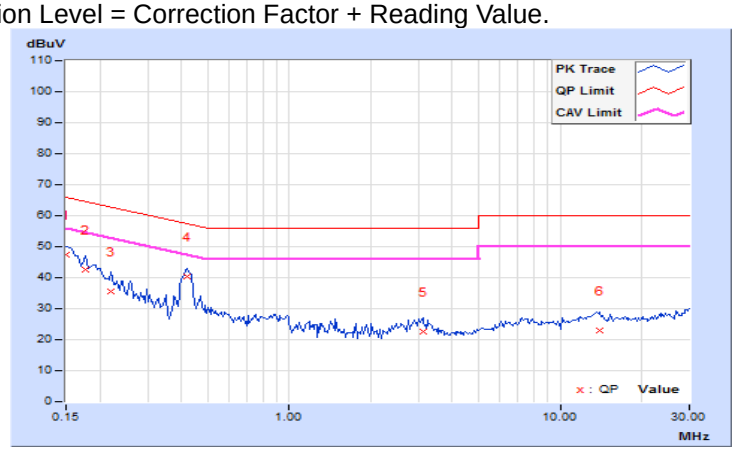
4.2.7 Test Results

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.03	37.23	20.85	47.26	30.88	66.00	56.00	-18.74	-25.12
2	0.17734	10.05	32.70	16.48	42.75	26.53	64.61	54.61	-21.86	-28.08
3	0.22031	10.07	25.59	10.84	35.66	20.91	62.81	52.81	-27.15	-31.90
4	0.41953	10.11	30.35	24.40	40.46	34.51	57.46	47.46	-17.00	-12.95
5	3.10938	10.23	12.53	2.35	22.76	12.58	56.00	46.00	-33.24	-33.42
6	14.01563	10.77	12.26	4.62	23.03	15.39	60.00	50.00	-36.97	-34.61

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.

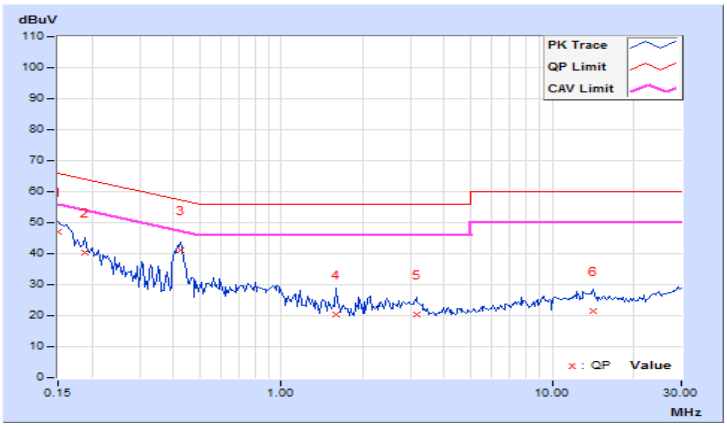


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.94	37.25	21.31	47.19	31.25	66.00	56.00	-18.81	-24.75
2	0.18906	9.96	30.51	15.14	40.47	25.10	64.08	54.08	-23.61	-28.98
3	**0.42344**	**10.00**	**30.93**	**24.86**	**40.93**	**34.86**	**57.38**	**47.38**	**-16.45**	**-12.52**
4	1.60156	10.05	10.46	0.04	20.51	10.09	56.00	46.00	-35.49	-35.91
5	3.15625	10.11	10.13	0.37	20.24	10.48	56.00	46.00	-35.76	-35.52
6	14.20313	10.61	10.70	2.96	21.31	13.57	60.00	50.00	-38.69	-36.43

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.

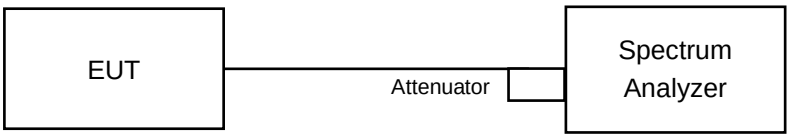


4.3 6dB Bandwidth Measurement

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) ≥ 3 x 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 fromTest Standard

No deviation.

4.3.6 EUT Operating Conditions

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

4.3.7 Test Result

802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	12.20	12.20	11.68	11.20	0.5	Pass
6	2437	12.20	12.20	12.14	13.13	0.5	Pass
9	2452	12.14	12.17	12.14	12.20	0.5	Pass
10	2457	12.19	12.12	12.22	12.13	0.5	Pass
11	2462	12.60	12.19	12.19	12.19	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	16.46	16.46	16.45	16.46	0.5	Pass
2	2417	16.44	16.45	16.42	16.44	0.5	Pass
3	2422	16.41	16.43	16.42	16.43	0.5	Pass
4	2427	16.42	16.42	16.42	16.43	0.5	Pass
6	2437	16.42	16.42	16.42	16.43	0.5	Pass
9	2452	16.42	16.44	16.42	16.43	0.5	Pass
10	2457	16.42	16.41	16.41	16.42	0.5	Pass
11	2462	16.41	16.41	16.40	16.42	0.5	Pass

VHT20

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	17.64	17.67	17.70	17.68	0.5	Pass
2	2417	17.65	17.67	17.68	17.68	0.5	Pass
3	2422	17.67	17.71	17.60	17.65	0.5	Pass
4	2427	17.64	17.71	17.64	17.70	0.5	Pass
6	2437	17.68	17.67	17.68	17.70	0.5	Pass
10	2457	17.77	17.72	17.68	17.66	0.5	Pass
11	2462	17.68	17.69	17.70	17.68	0.5	Pass

VHT40

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
3	2422	36.48	36.52	36.52	36.52	0.5	Pass
6	2437	36.48	36.54	36.55	36.45	0.5	Pass
9	2452	36.15	36.48	36.54	36.55	0.5	Pass

802.11ax (HE20)

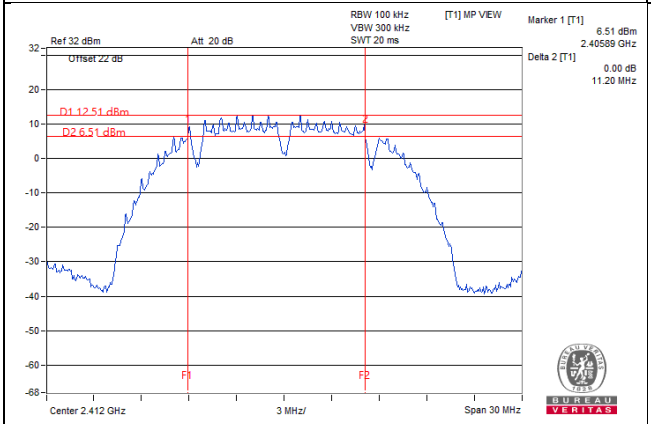
Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	19.12	19.12	19.11	19.12	0.5	Pass
2	2417	19.09	19.13	19.13	19.13	0.5	Pass
6	2437	19.10	19.09	19.17	19.11	0.5	Pass
10	2457	19.08	19.05	19.11	19.09	0.5	Pass
11	2462	19.10	19.09	19.11	19.15	0.5	Pass

802.11ax (HE40)

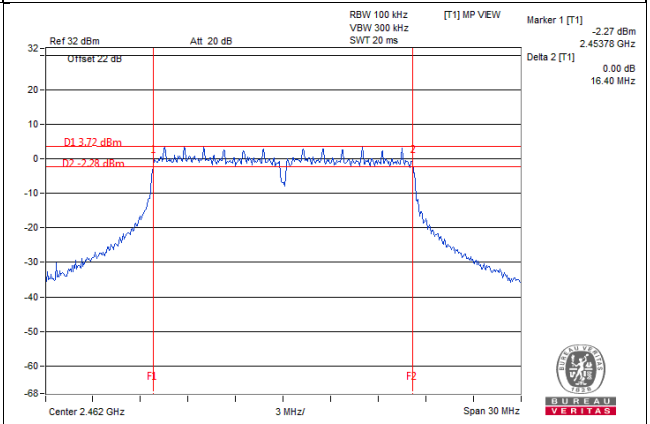
Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
3	2422	38.26	38.40	38.36	38.44	0.5	Pass
6	2437	38.18	38.35	38.40	38.29	0.5	Pass
9	2452	38.34	38.39	38.33	38.42	0.5	Pass

Spectrum Plot of Worst Value

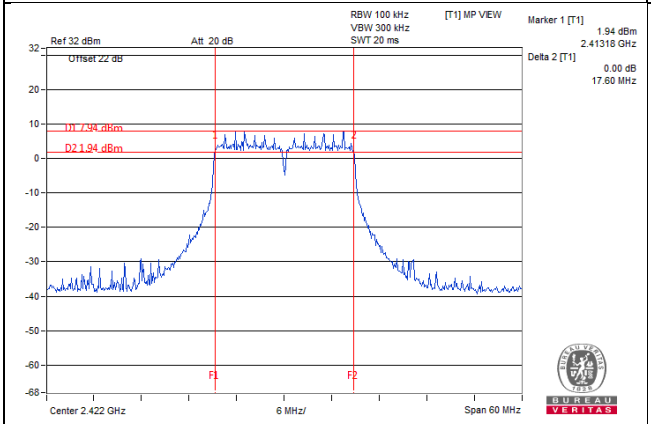
802.11b / Chain 3 : CH1



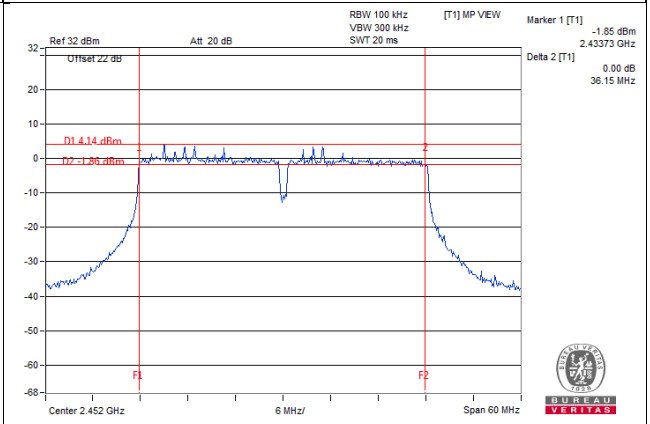
802.11g / Chain 2 : CH11



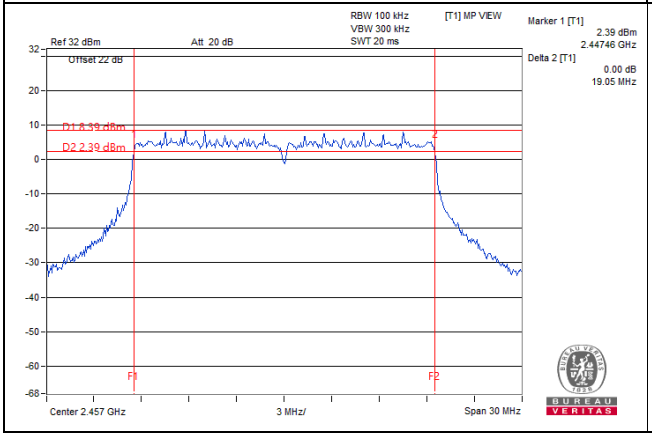
VHT20 / Chain 2 : CH3



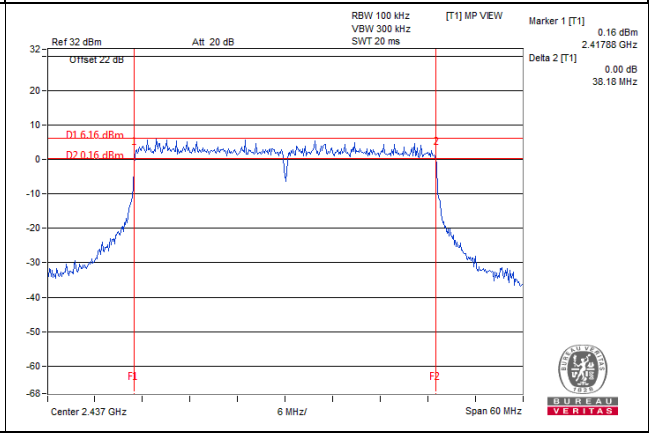
VHT40 / Chain 0 : CH9



802.11ax (HE20) / Chain 1 : CH10



802.11ax (HE40) / Chain 0 : CH6



4.4 Conducted Output Power Measurement

4.4.1 Limits of Conducted Output Power Measurement

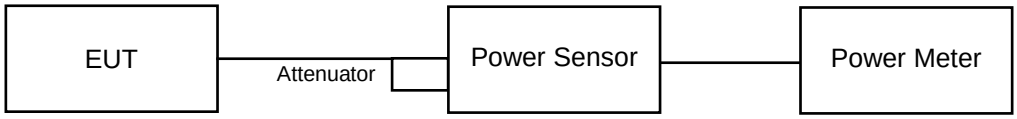
For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

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

802.11b

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	22.01	22.26	22.68	22.07	673.54	28.28	30.00	Pass
6	2437	22.31	22.29	23.01	22.55	719.523	28.57	30.00	Pass
9	2452	19.71	19.79	20.49	19.94	399.393	26.01	30.00	Pass
10	2457	18.74	18.82	19.37	18.89	314.968	24.98	30.00	Pass
11	2462	18.11	18.22	18.74	18.22	272.279	24.35	30.00	Pass

Note: 1. Max. gain = 5.78dBi < 6dBi, so the power limit shall not be reduced.

802.11g

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	13.92	13.84	14.07	13.72	97.947	19.91	30.00	Pass
2	2417	14.94	14.79	15.05	14.73	123.025	20.90	30.00	Pass
3	2422	15.66	15.48	16.11	15.75	150.547	21.78	30.00	Pass
4	2427	18.21	17.02	17.63	17.31	228.342	23.59	30.00	Pass
6	2437	20.03	19.53	20.47	20.19	406.337	26.09	30.00	Pass
9	2452	18.01	17.49	18.25	18.16	251.644	24.01	30.00	Pass
10	2457	15.91	15.46	16.22	16.10	156.767	21.95	30.00	Pass
11	2462	13.74	13.39	14.36	13.80	96.764	19.86	30.00	Pass

Note: 1. Max. gain = 5.78dBi < 6dBi, so the power limit shall not be reduced.

VHT20

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	16.63	16.90	17.46	16.85	199.14	22.99	30.00	Pass
2	2417	16.61	16.92	17.45	16.83	198.803	22.98	30.00	Pass
3	2422	17.94	17.95	18.75	18.30	267.2	24.27	30.00	Pass
4	2427	18.98	19.01	19.74	19.17	335.477	25.26	30.00	Pass
6	2437	20.83	20.57	21.83	21.09	516.019	27.13	30.00	Pass
10	2457	18.06	17.95	19.16	18.54	280.21	24.47	30.00	Pass
11	2462	16.95	16.74	17.97	17.45	215.002	23.32	30.00	Pass

Note: 1. Max. gain = 5.78dBi < 6dBi, so the power limit shall not be reduced.

VHT40

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	16.98	16.92	17.88	17.38	215.17	23.33	30.00	Pass
6	2437	19.34	19.02	20.38	19.79	370.124	25.68	30.00	Pass
9	2452	17.54	17.24	18.87	18.48	257.279	24.10	30.00	Pass

Note: 1. Max. gain = 5.78dBi < 6dBi, so the power limit shall not be reduced.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	18.13	18.30	18.92	18.21	276.826	24.42	30.00	Pass
2	2417	19.02	19.28	19.87	19.18	344.367	25.37	30.00	Pass
6	2437	22.67	22.46	23.56	22.77	777.345	28.91	30.00	Pass
10	2457	20.01	19.86	21.21	20.45	440.106	26.44	30.00	Pass
11	2462	17.86	17.61	18.91	18.38	265.44	24.24	30.00	Pass

Note: 1. Max. gain = 5.78dBi < 6dBi, so the power limit shall not be reduced.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	17.24	17.23	18.14	17.70	229.858	23.61	30.00	Pass
6	2437	19.62	19.31	20.63	20.17	396.535	25.98	30.00	Pass
9	2452	17.94	17.67	19.12	18.45	272.351	24.35	30.00	Pass

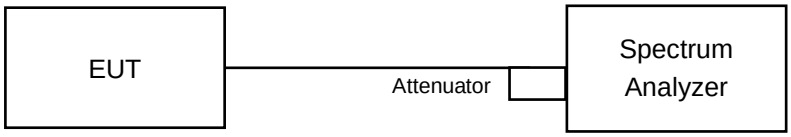
Note: 1. Max. gain = 5.78dBi < 6dBi, so the power limit shall not be reduced.

4.5 Power Spectral Density Measurement

4.5.1 Limits of Power Spectral Density Measurement

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

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

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 kHz ≤ RBW ≤ 100 kHz..
e) Set VBW ≥3 x RBW.
f) Detector = power averaging (RMS) or sample detector (when RMS not available).
g) Ensure that the number of measurement points in the sweep ≥ 2 x 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

802.11b

TX chain	Channel	Freq. (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	-7.36	6.02	0.11	-1.23	6.59	Pass
	6	2437	-7.89	6.02	0.11	-1.76	6.59	Pass
	9	2452	-10.66	6.02	0.11	-4.53	6.59	Pass
	10	2457	-11.80	6.02	0.11	-5.67	6.59	Pass
	11	2462	-11.67	6.02	0.11	-5.54	6.59	Pass
1	1	2412	-8.14	6.02	0.11	-2.01	6.59	Pass
	6	2437	-8.55	6.02	0.11	-2.42	6.59	Pass
	9	2452	-10.73	6.02	0.11	-4.60	6.59	Pass
	10	2457	-11.88	6.02	0.11	-5.75	6.59	Pass
	11	2462	-12.09	6.02	0.11	-5.96	6.59	Pass
2	1	2412	-7.70	6.02	0.11	-1.57	6.59	Pass
	6	2437	-6.70	6.02	0.11	-0.57	6.59	Pass
	9	2452	-10.41	6.02	0.11	-4.28	6.59	Pass
	10	2457	-10.91	6.02	0.11	-4.78	6.59	Pass
	11	2462	-11.16	6.02	0.11	-5.03	6.59	Pass
3	1	2412	-7.68	6.02	0.11	-1.55	6.59	Pass
	6	2437	-7.34	6.02	0.11	-1.21	6.59	Pass
	9	2452	-10.64	6.02	0.11	-4.51	6.59	Pass
	10	2457	-11.43	6.02	0.11	-5.30	6.59	Pass
	11	2462	-11.61	6.02	0.11	-5.48	6.59	Pass

Note: 1. Directional gain = 7.41dBi > 6dBi, so the power density limit shall be reduced to 8-(7.41-6) = 6.59dBm.

2. Refer to section 3.3 for duty cycle spectrum plot.

802.11g

TX chain	Channel	Freq. (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	-17.33	6.02	0.76	-10.55	6.59	Pass
	2	2417	-16.29	6.02	0.76	-9.51	6.59	Pass
	3	2422	-16.23	6.02	0.76	-9.45	6.59	Pass
	4	2427	-14.39	6.02	0.76	-7.61	6.59	Pass
	6	2437	-11.65	6.02	0.76	-4.87	6.59	Pass
	9	2452	-14.01	6.02	0.76	-7.23	6.59	Pass
	10	2457	-15.74	6.02	0.76	-8.96	6.59	Pass
	11	2462	-17.68	6.02	0.76	-10.90	6.59	Pass
1	1	2412	-19.03	6.02	0.76	-12.25	6.59	Pass
	2	2417	-17.00	6.02	0.76	-10.22	6.59	Pass
	3	2422	-16.78	6.02	0.76	-10.00	6.59	Pass
	4	2427	-15.79	6.02	0.76	-9.01	6.59	Pass
	6	2437	-11.99	6.02	0.76	-5.21	6.59	Pass
	9	2452	-15.20	6.02	0.76	-8.42	6.59	Pass
	10	2457	-16.94	6.02	0.76	-10.16	6.59	Pass
	11	2462	-19.02	6.02	0.76	-12.24	6.59	Pass
2	1	2412	-18.46	6.02	0.76	-11.68	6.59	Pass
	2	2417	-16.21	6.02	0.76	-9.43	6.59	Pass
	3	2422	-16.35	6.02	0.76	-9.57	6.59	Pass
	4	2427	-15.05	6.02	0.76	-8.27	6.59	Pass
	6	2437	-11.87	6.02	0.76	-5.09	6.59	Pass
	9	2452	-13.75	6.02	0.76	-6.97	6.59	Pass
	10	2457	-15.62	6.02	0.76	-8.84	6.59	Pass
	11	2462	-18.44	6.02	0.76	-11.66	6.59	Pass
3	1	2412	-18.43	6.02	0.76	-11.65	6.59	Pass
	2	2417	-17.56	6.02	0.76	-10.78	6.59	Pass
	3	2422	-16.41	6.02	0.76	-9.63	6.59	Pass
	4	2427	-15.70	6.02	0.76	-8.92	6.59	Pass
	6	2437	-11.77	6.02	0.76	-4.99	6.59	Pass
	9	2452	-14.68	6.02	0.76	-7.90	6.59	Pass
	10	2457	-16.27	6.02	0.76	-9.49	6.59	Pass
	11	2462	-18.15	6.02	0.76	-11.37	6.59	Pass

Note: 1. Directional gain = 7.41dBi > 6dBi, so the power density limit shall be reduced to 8-(7.41-6) = 6.59dBm.

2. Refer to section 3.3 for duty cycle spectrum plot.

VHT20

TX chain	Channel	Freq. (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	-15.80	6.02	0.16	-9.62	6.59	Pass
	2	2417	-15.98	6.02	0.16	-9.80	6.59	Pass
	3	2422	-14.32	6.02	0.16	-8.14	6.59	Pass
	4	2427	-13.30	6.02	0.16	-7.12	6.59	Pass
	6	2437	-11.29	6.02	0.16	-5.11	6.59	Pass
	10	2457	-13.82	6.02	0.16	-7.64	6.59	Pass
	11	2462	-14.68	6.02	0.16	-8.50	6.59	Pass
1	1	2412	-15.79	6.02	0.16	-9.61	6.59	Pass
	2	2417	-15.56	6.02	0.16	-9.38	6.59	Pass
	3	2422	-14.06	6.02	0.16	-7.88	6.59	Pass
	4	2427	-13.16	6.02	0.16	-6.98	6.59	Pass
	6	2437	-12.62	6.02	0.16	-6.44	6.59	Pass
	10	2457	-14.15	6.02	0.16	-7.97	6.59	Pass
	11	2462	-15.82	6.02	0.16	-9.64	6.59	Pass
2	1	2412	-14.48	6.02	0.16	-8.30	6.59	Pass
	2	2417	-14.77	6.02	0.16	-8.59	6.59	Pass
	3	2422	-13.87	6.02	0.16	-7.69	6.59	Pass
	4	2427	-12.16	6.02	0.16	-5.98	6.59	Pass
	6	2437	-10.42	6.02	0.16	-4.24	6.59	Pass
	10	2457	-13.88	6.02	0.16	-7.70	6.59	Pass
	11	2462	-13.86	6.02	0.16	-7.68	6.59	Pass
3	1	2412	-15.12	6.02	0.16	-8.94	6.59	Pass
	2	2417	-15.04	6.02	0.16	-8.86	6.59	Pass
	3	2422	-14.32	6.02	0.16	-8.14	6.59	Pass
	4	2427	-13.41	6.02	0.16	-7.23	6.59	Pass
	6	2437	-10.98	6.02	0.16	-4.80	6.59	Pass
	10	2457	-12.94	6.02	0.16	-6.76	6.59	Pass
	11	2462	-14.69	6.02	0.16	-8.51	6.59	Pass

Note: 1. Directional gain = 7.41dBi > 6dBi, so the power density limit shall be reduced to 8-(7.41-6) = 6.59dBm.

2. Refer to section 3.3 for duty cycle spectrum plot.

VHT40

TX chain	Channel	Freq. (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	-17.92	6.02	0.17	-11.73	6.59	Pass
	6	2437	-16.27	6.02	0.17	-10.08	6.59	Pass
	9	2452	-18.15	6.02	0.17	-11.96	6.59	Pass
1	3	2422	-18.70	6.02	0.17	-12.51	6.59	Pass
	6	2437	-17.10	6.02	0.17	-10.91	6.59	Pass
	9	2452	-18.36	6.02	0.17	-12.17	6.59	Pass
2	3	2422	-17.15	6.02	0.17	-10.96	6.59	Pass
	6	2437	-14.66	6.02	0.17	-8.47	6.59	Pass
	9	2452	-16.46	6.02	0.17	-10.27	6.59	Pass
3	3	2422	-17.53	6.02	0.17	-11.34	6.59	Pass
	6	2437	-15.22	6.02	0.17	-9.03	6.59	Pass
	9	2452	-16.72	6.02	0.17	-10.53	6.59	Pass

Note: 1. Directional gain = 7.41dBi > 6dBi, so the power density limit shall be reduced to 8-(7.41-6) = 6.59dBm.

2. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

TX chain	Channel	Freq. (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	-15.64	6.02	0.16	-9.46	6.59	Pass
	2	2417	-14.69	6.02	0.16	-8.51	6.59	Pass
	6	2437	-10.53	6.02	0.16	-4.35	6.59	Pass
	10	2457	-13.43	6.02	0.16	-7.25	6.59	Pass
	11	2462	-15.33	6.02	0.16	-9.15	6.59	Pass
1	1	2412	-15.86	6.02	0.16	-9.68	6.59	Pass
	2	2417	-15.16	6.02	0.16	-8.98	6.59	Pass
	6	2437	-11.57	6.02	0.16	-5.39	6.59	Pass
	10	2457	-14.10	6.02	0.16	-7.92	6.59	Pass
	11	2462	-17.28	6.02	0.16	-11.10	6.59	Pass
2	1	2412	-14.89	6.02	0.16	-8.71	6.59	Pass
	2	2417	-13.42	6.02	0.16	-7.24	6.59	Pass
	6	2437	-8.83	6.02	0.16	-2.65	6.59	Pass
	10	2457	-12.92	6.02	0.16	-6.74	6.59	Pass
	11	2462	-15.17	6.02	0.16	-8.99	6.59	Pass
3	1	2412	-14.90	6.02	0.16	-8.72	6.59	Pass
	2	2417	-14.58	6.02	0.16	-8.40	6.59	Pass
	6	2437	-10.82	6.02	0.16	-4.64	6.59	Pass
	10	2457	-13.65	6.02	0.16	-7.47	6.59	Pass
	11	2462	-13.83	6.02	0.16	-7.65	6.59	Pass

Note: 1. Directional gain = 7.41dBi > 6dBi, so the power density limit shall be reduced to 8-(7.41-6) = 6.59dBm.

2. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

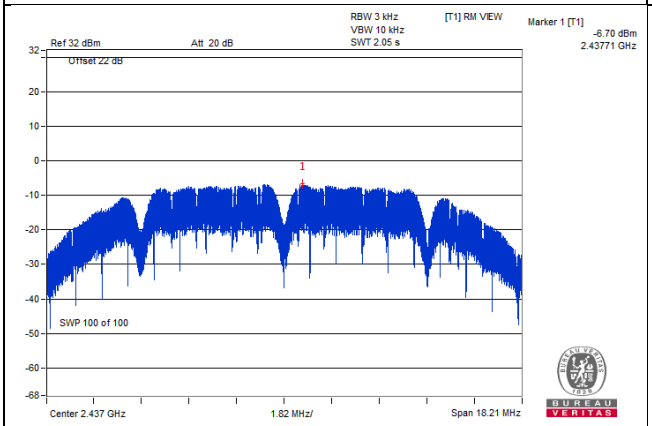
TX chain	Channel	Freq. (MHz)	PSD W/O Duty Factor (dBm/10kHz)	10 log (N=4) dB	Duty Factor (dB)	TOTAL PSD With Duty Factor (dBm/10kHz)	Limit (dBm/3kHz)	Pass /Fail
0	3	2422	-18.50	6.02	0.16	-12.32	6.59	Pass
	6	2437	-16.45	6.02	0.16	-10.27	6.59	Pass
	9	2452	-18.05	6.02	0.16	-11.87	6.59	Pass
1	3	2422	-19.01	6.02	0.16	-12.83	6.59	Pass
	6	2437	-17.59	6.02	0.16	-11.41	6.59	Pass
	9	2452	-18.86	6.02	0.16	-12.68	6.59	Pass
2	3	2422	-18.19	6.02	0.16	-12.01	6.59	Pass
	6	2437	-15.11	6.02	0.16	-8.93	6.59	Pass
	9	2452	-17.84	6.02	0.16	-11.66	6.59	Pass
3	3	2422	-18.74	6.02	0.16	-12.56	6.59	Pass
	6	2437	-15.29	6.02	0.16	-9.11	6.59	Pass
	9	2452	-17.54	6.02	0.16	-11.36	6.59	Pass

Note: 1. Directional gain = 7.41dBi > 6dBi, so the power density limit shall be reduced to 8-(7.41-6) = 6.59dBm.

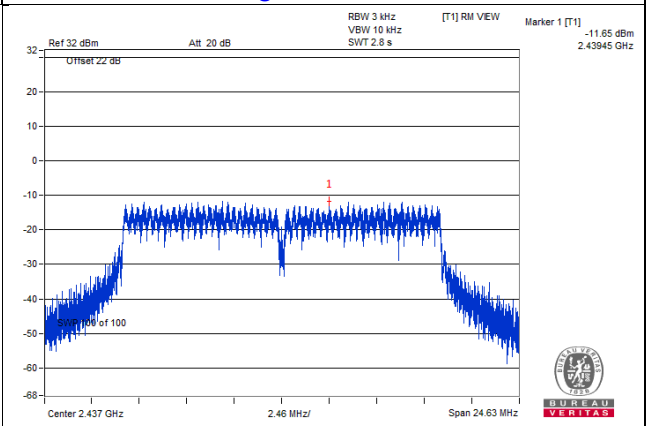
2. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

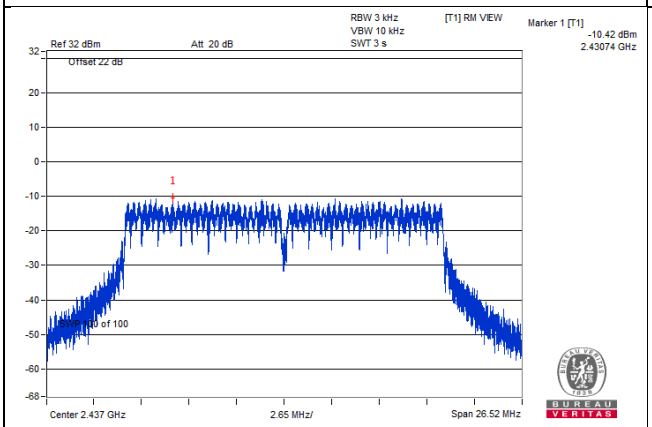
802.11b / Chain 2 : CH6



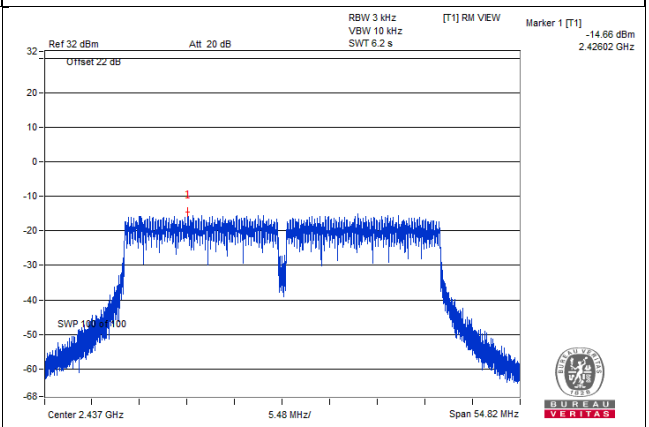
802.11g / Chain 0 : CH6



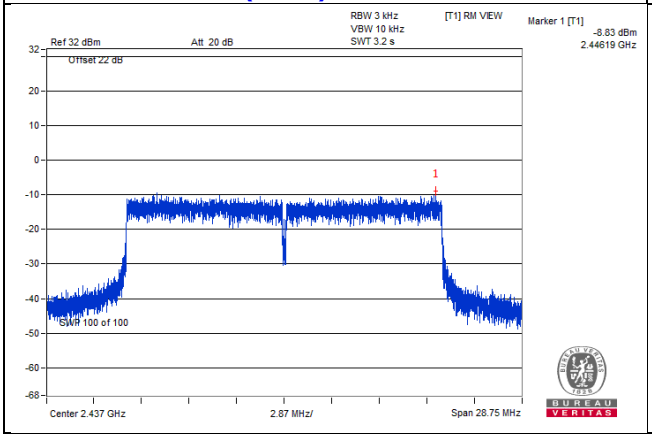
VHT20 / Chain 2 : CH6



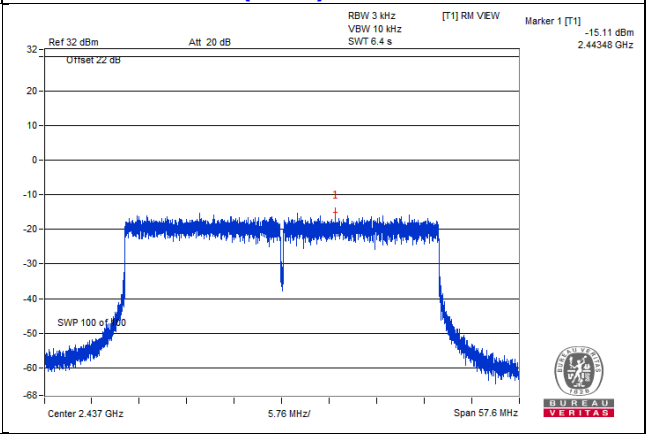
VHT40 / Chain 2 : CH6



802.11ax (HE20) / Chain 2 : CH6



802.11ax (HE40) / Chain 2 : CH6

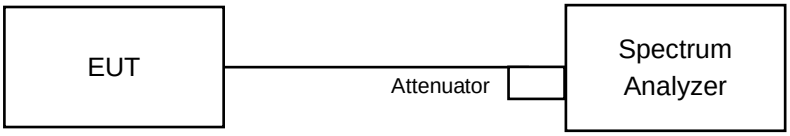


4.6 Conducted Out of Band Emission Measurement

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

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

MEASUREMENT PROCEDURE OOBE

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

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

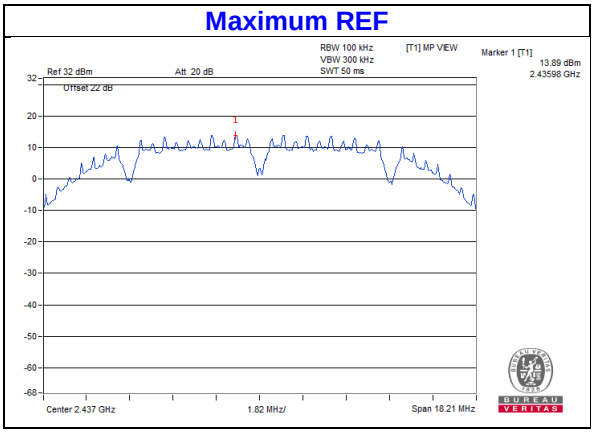
Same as Item 4.3.6

4.6.7 Test Results

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

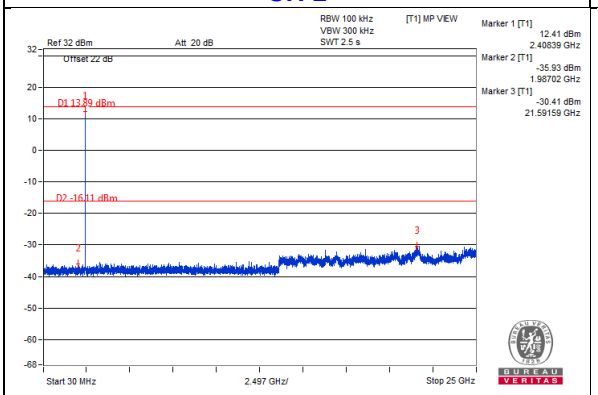
802.11b

Maximum REF

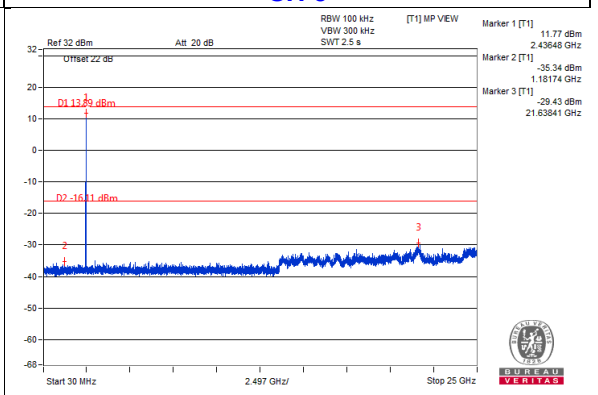


Chain 0

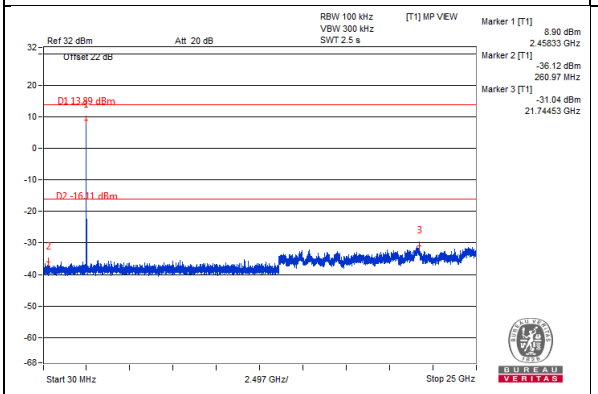
CH 1



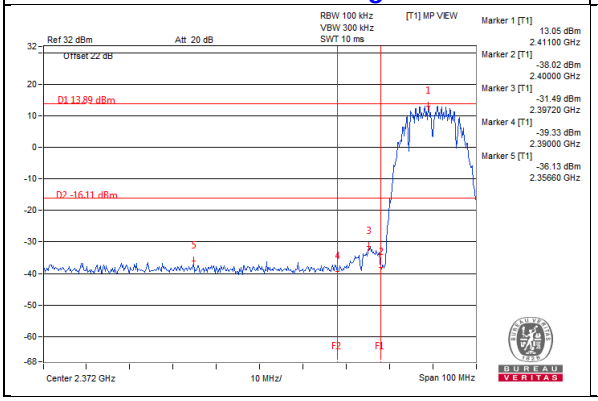
CH 6



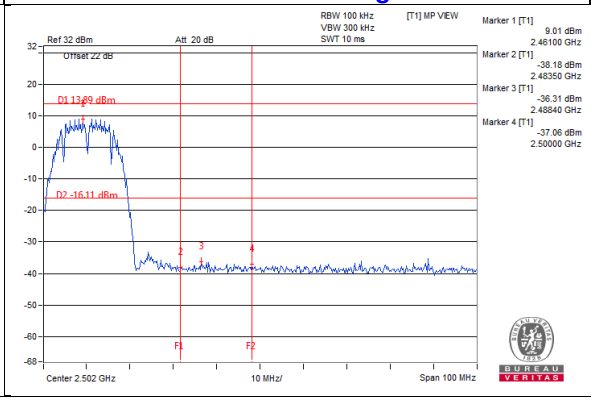
CH 11



CH 1 Band edge

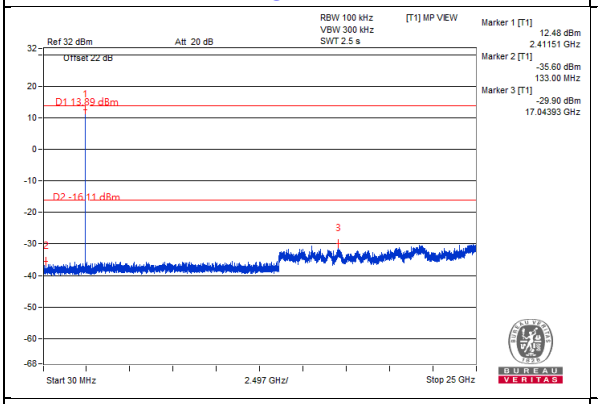


CH 11 Band edge

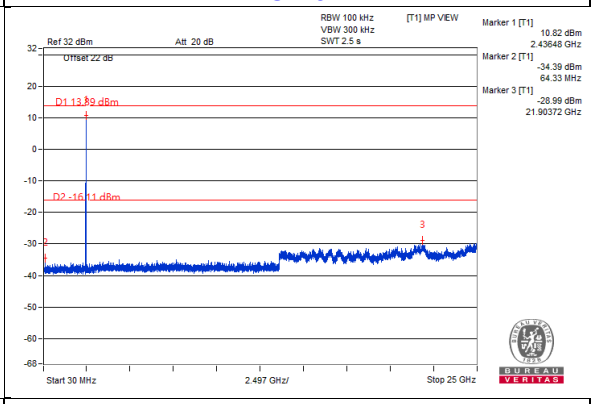


Chain 1

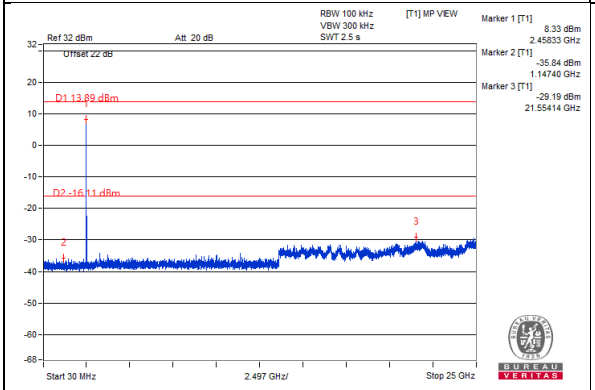
CH 1



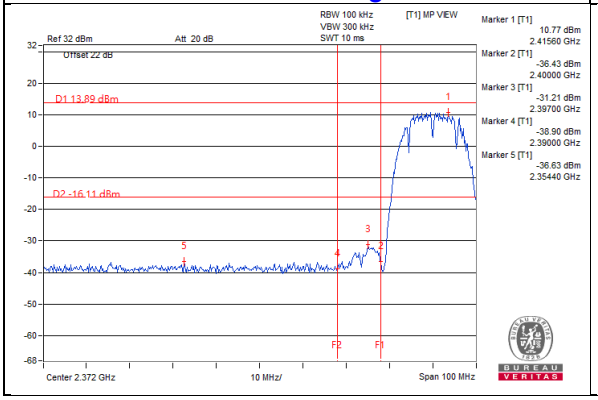
CH 6



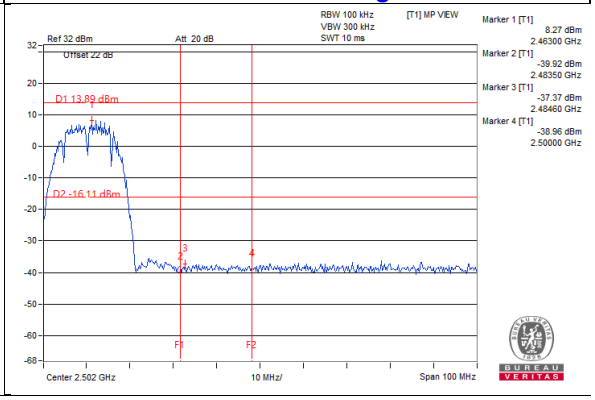
CH 11



CH 1 Band edge

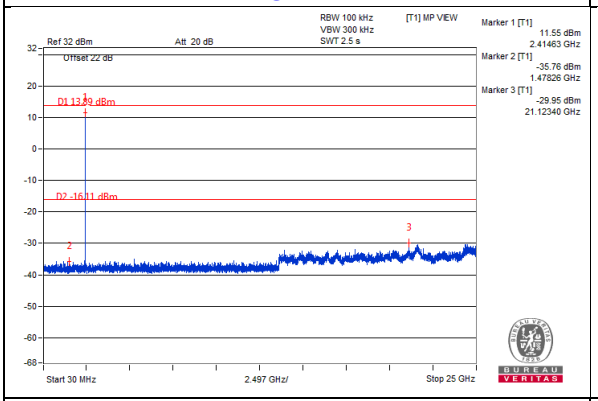


CH 11 Band edge

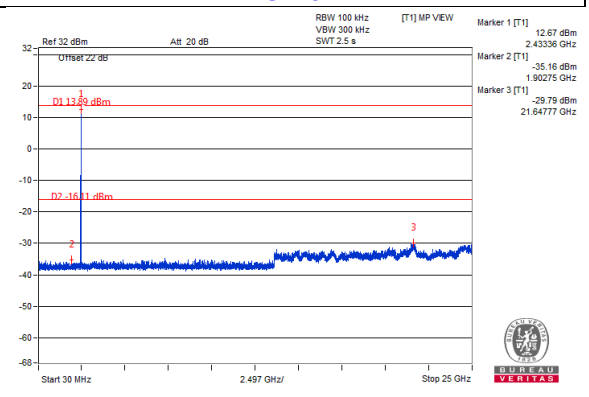


Chain 2

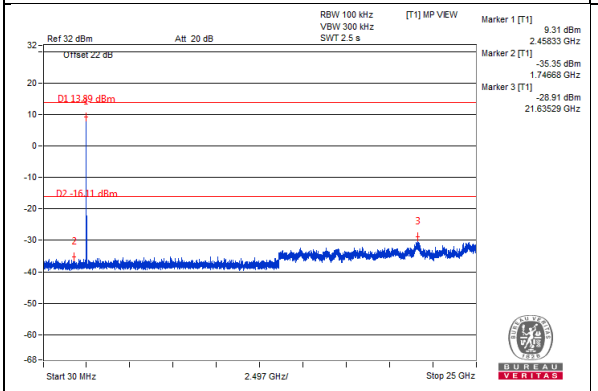
CH 1



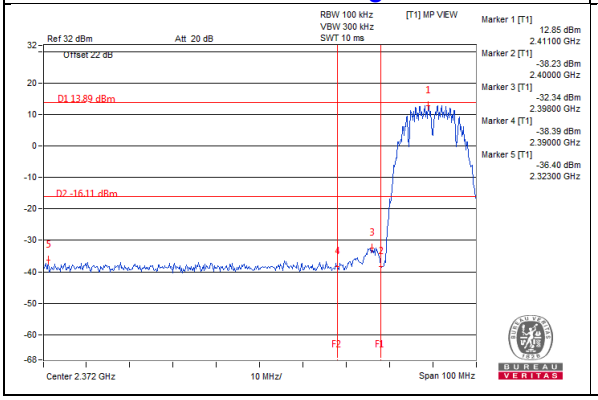
CH 6



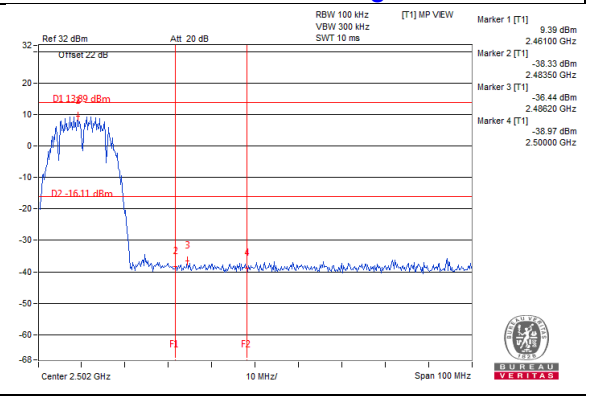
CH 11



CH 1 Band edge

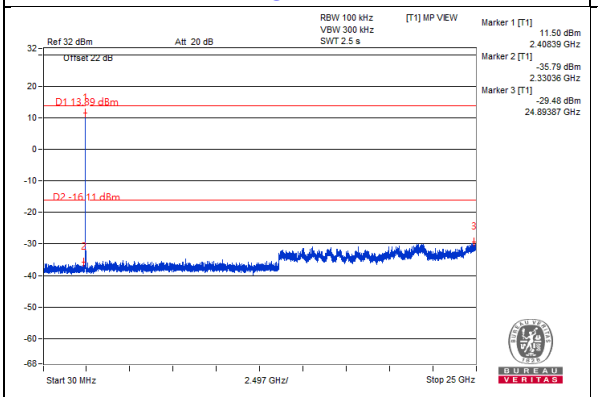


CH 11 Band edge

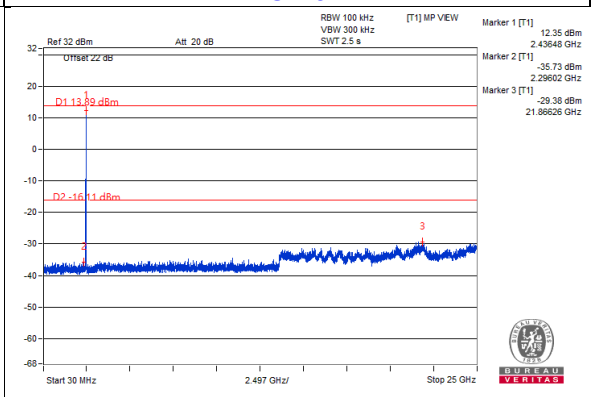


Chain 3

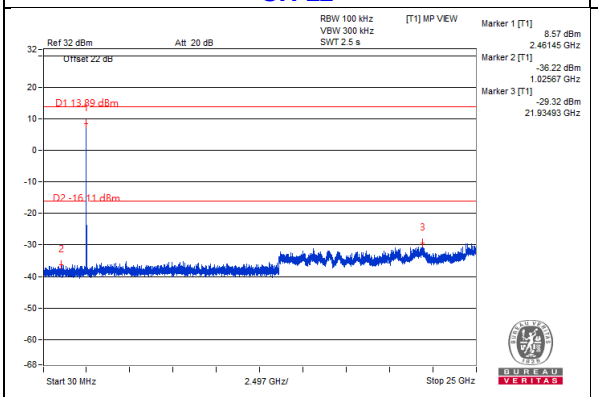
CH 1



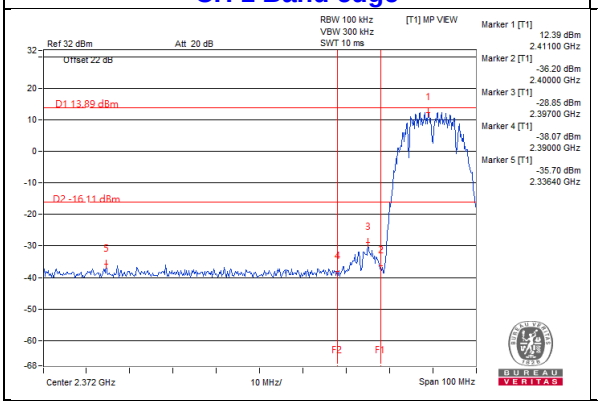
CH 6



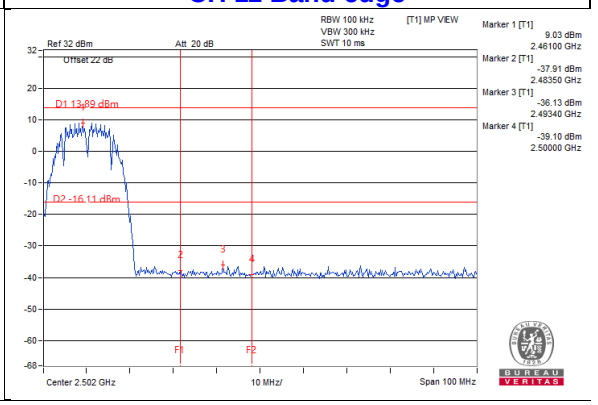
CH 11



CH 1 Band edge

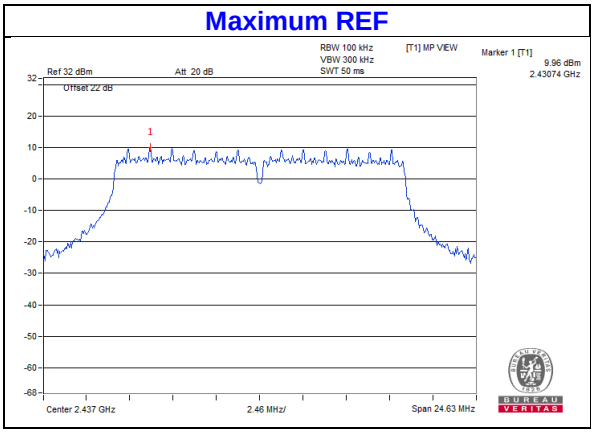


CH 11 Band edge



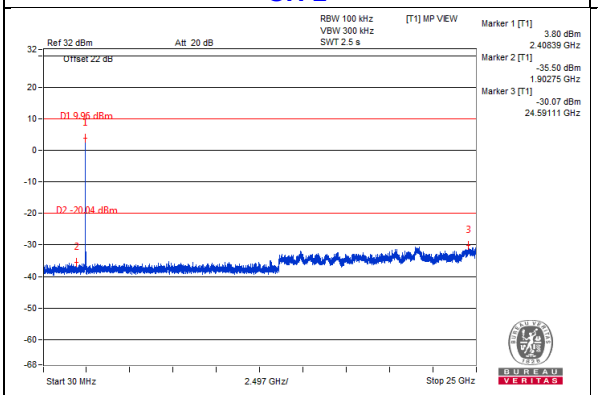
802.11g

Maximum REF

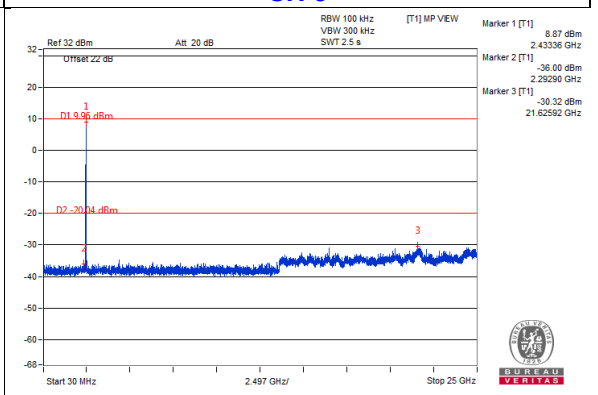


Chain 0

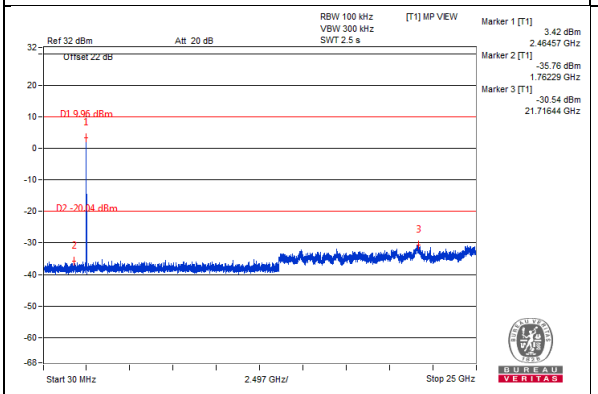
CH 1



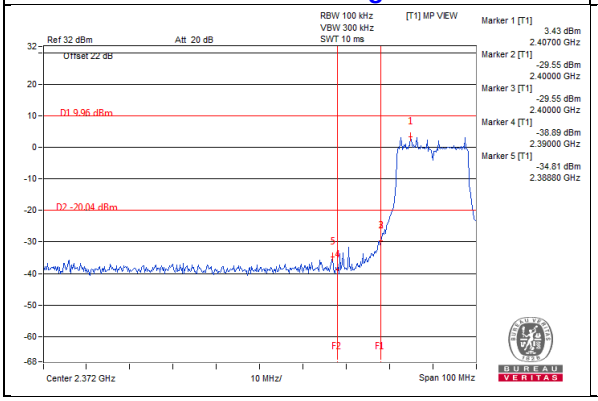
CH 6



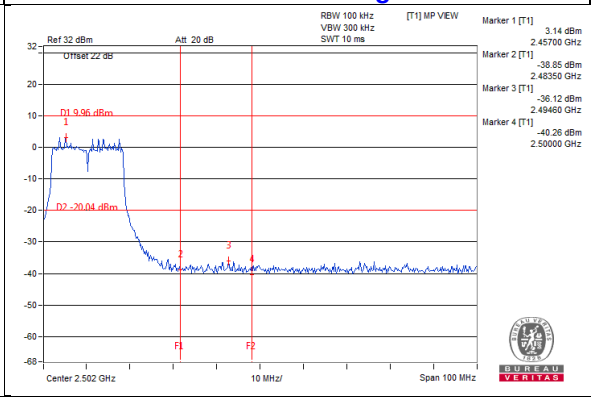
CH 11



CH 1 Band edge

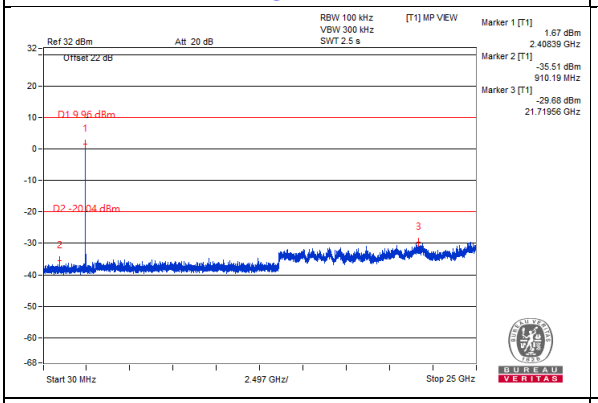


CH 11 Band edge



Chain 1

CH 1



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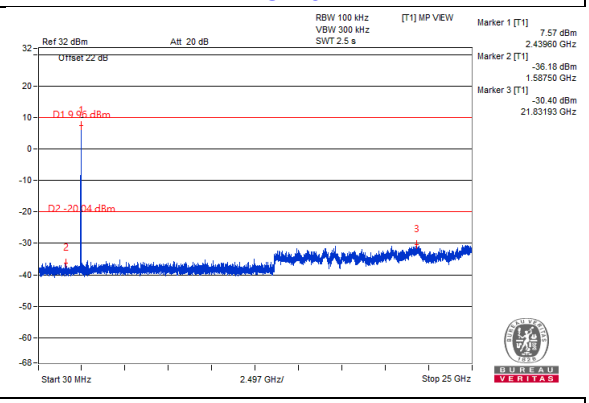

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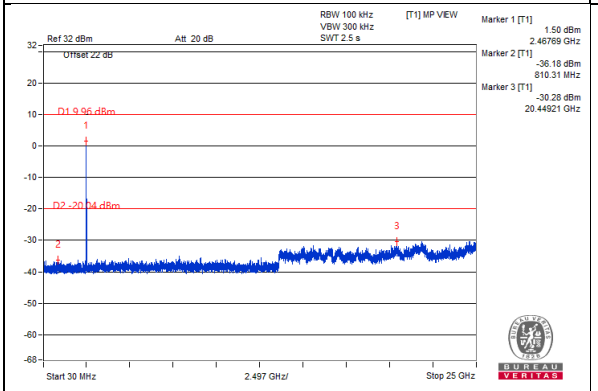

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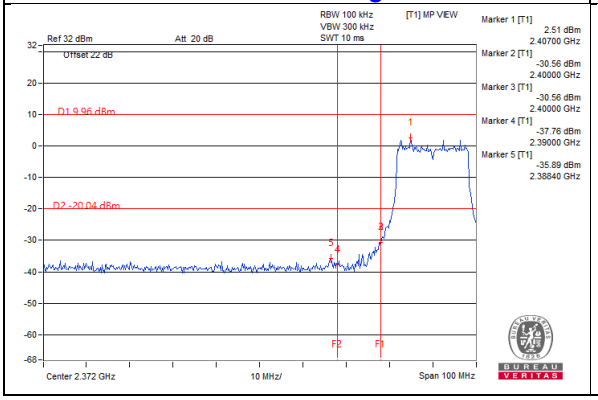

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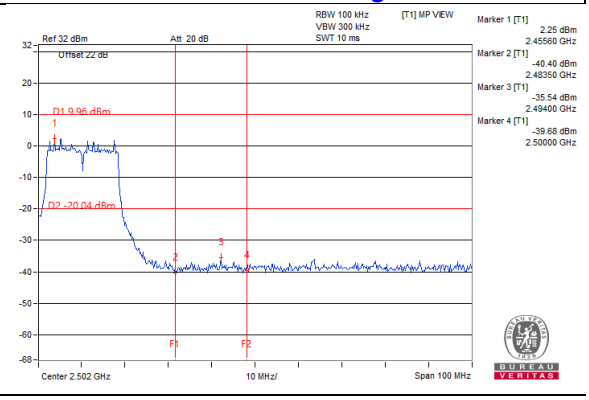
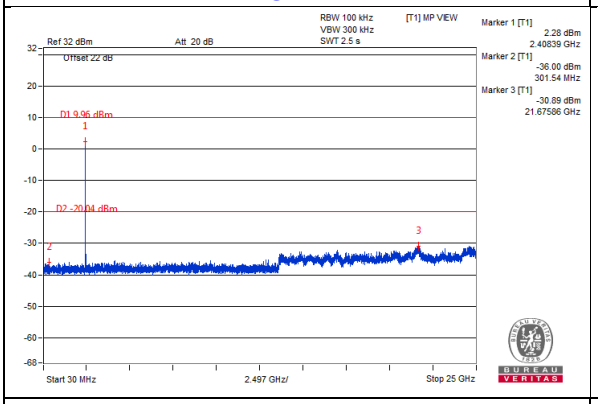


Chain 2

CH 1



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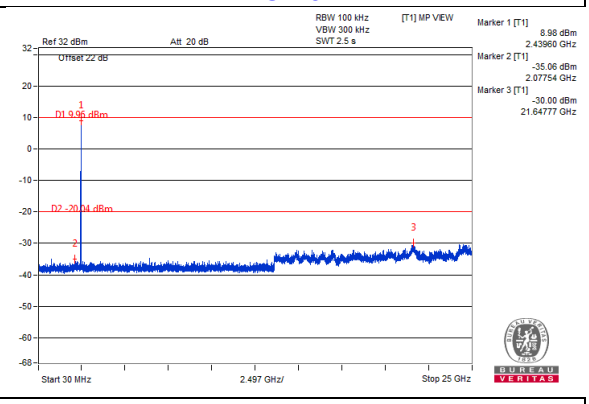

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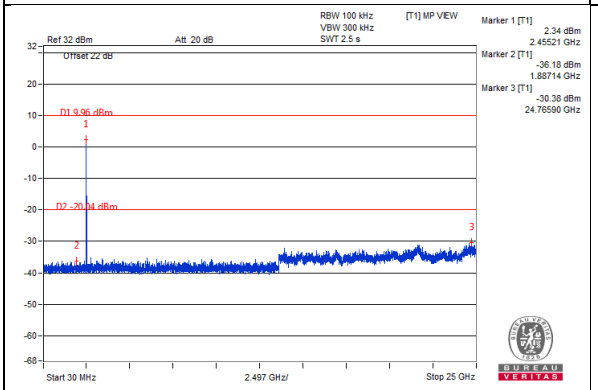

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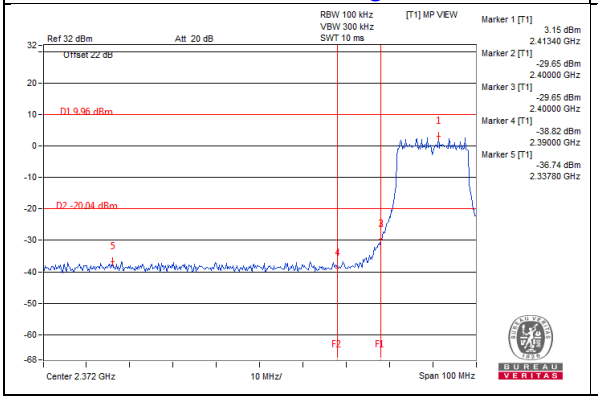

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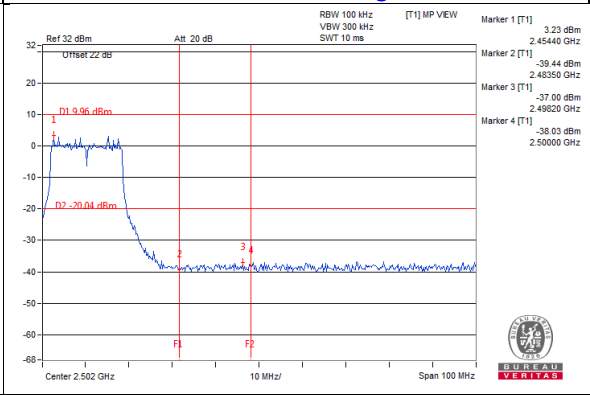
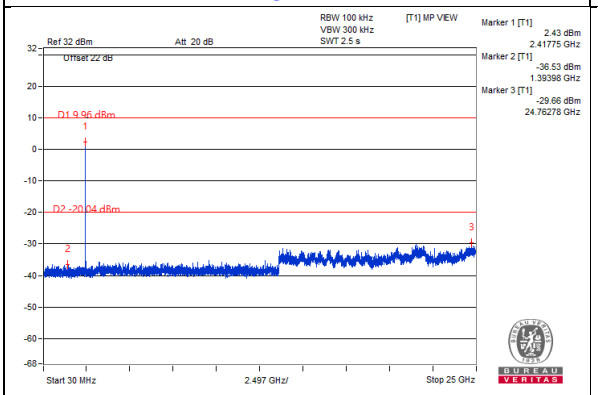
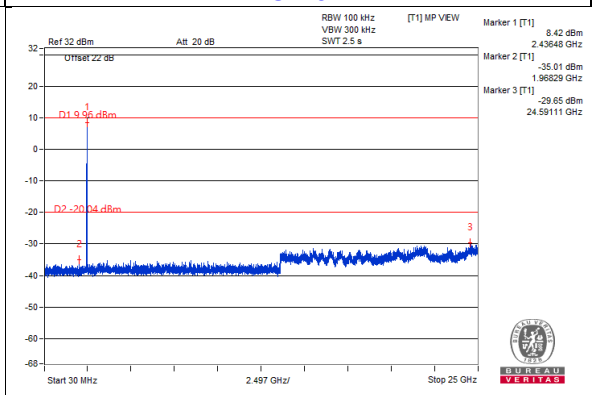


Chain 3

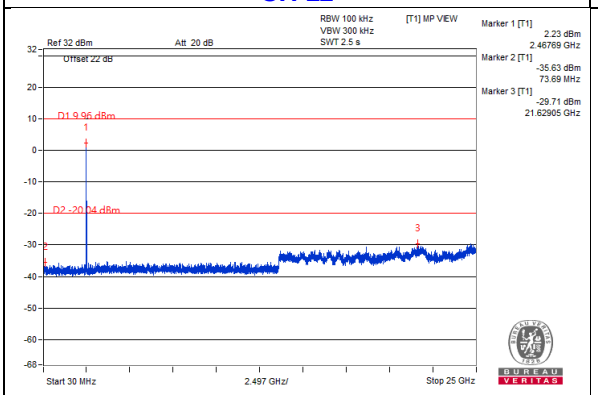
CH 1



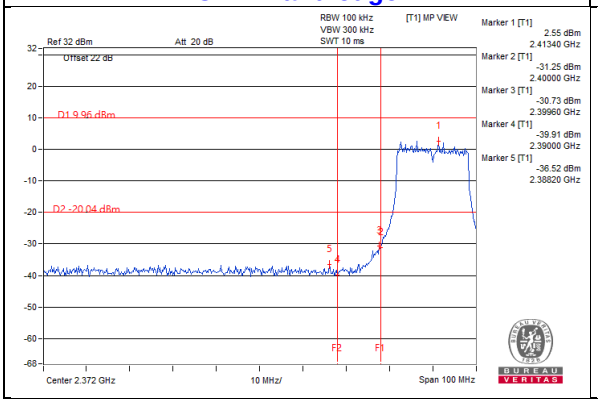
CH 6



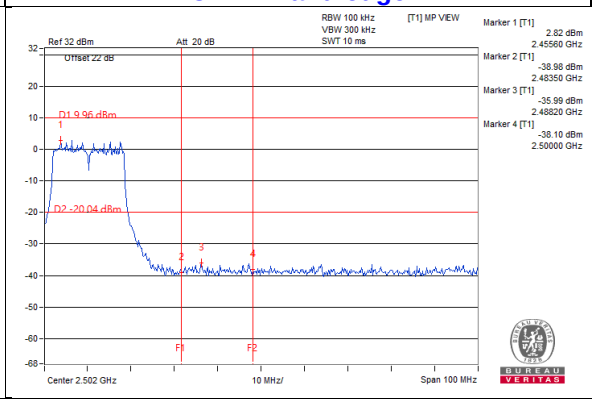
CH 11



CH 1 Band edge

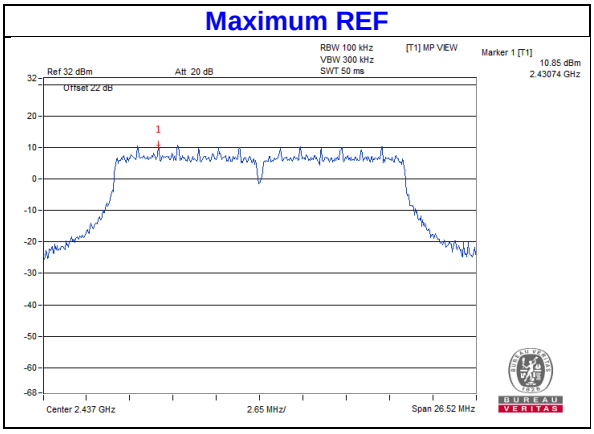


CH 11 Band edge



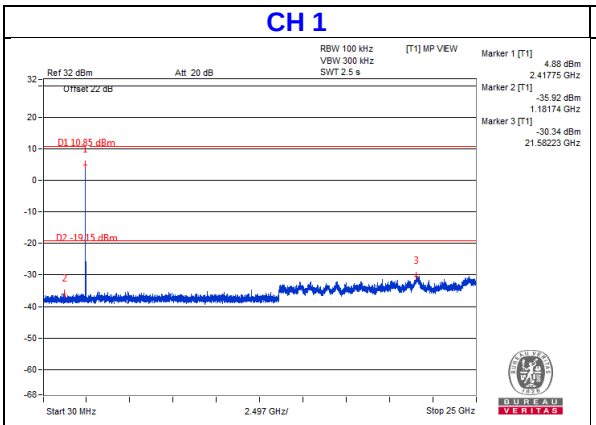
VHT20

Maximum REF

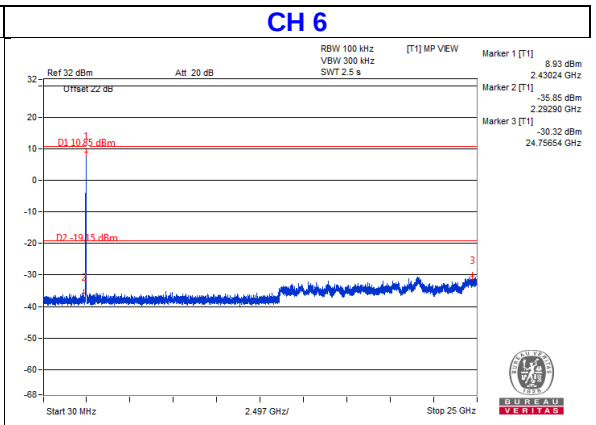


Chain 0

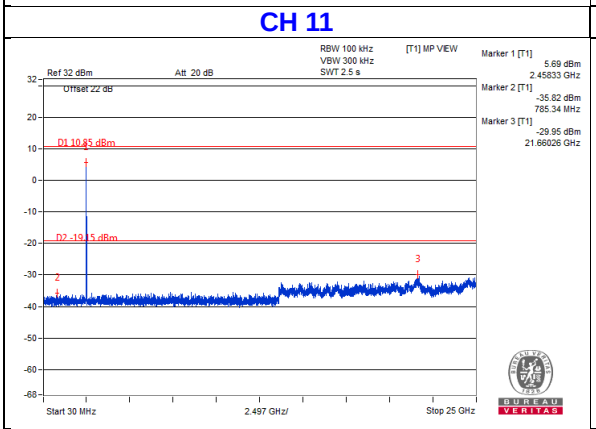
CH 1



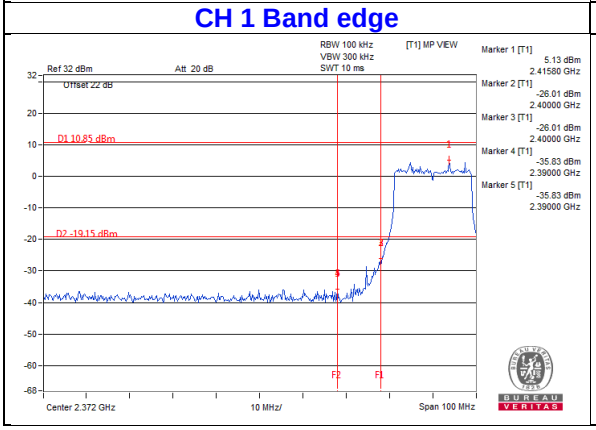
CH 6



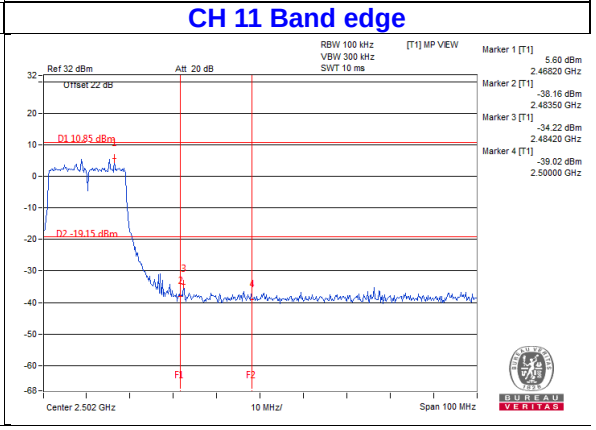
CH 11



CH 1 Band edge

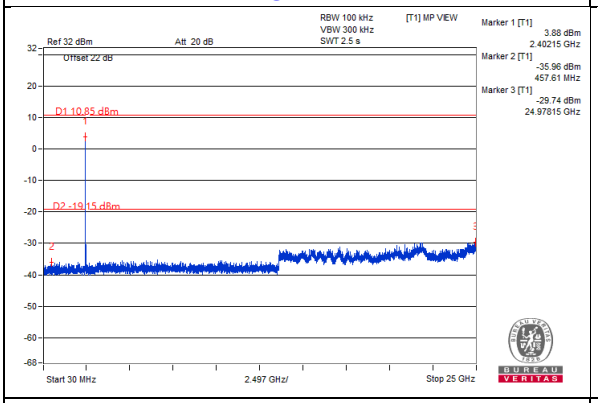


CH 11 Band edge

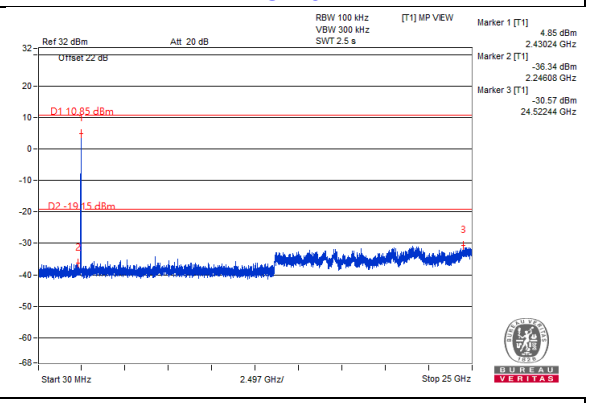


Chain 1

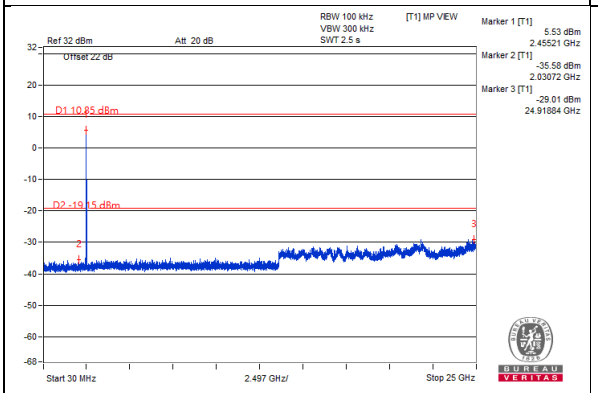
CH 1



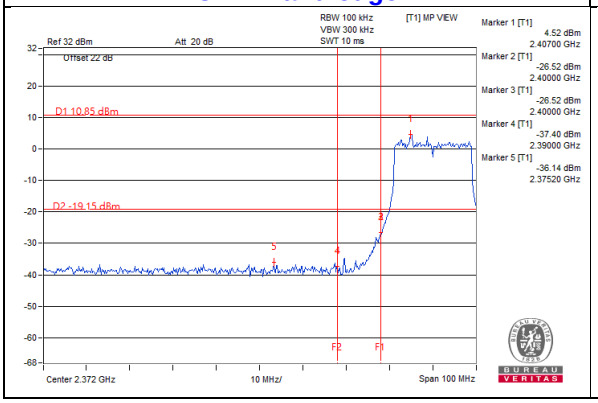
CH 6



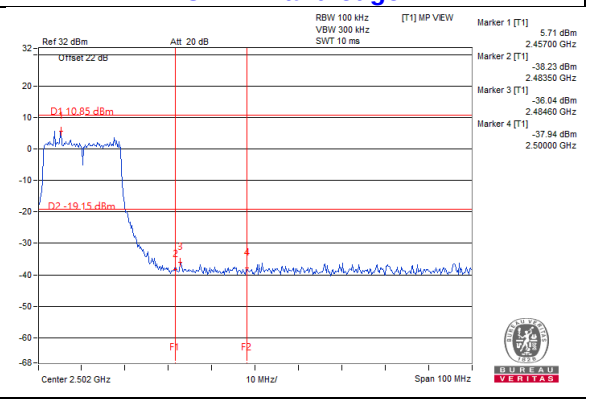
CH 11



CH 1 Band edge

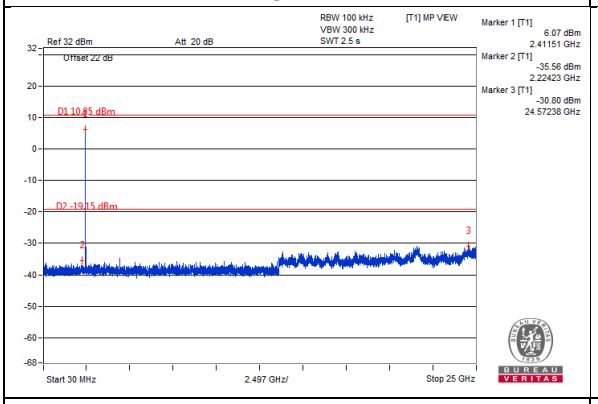


CH 11 Band edge

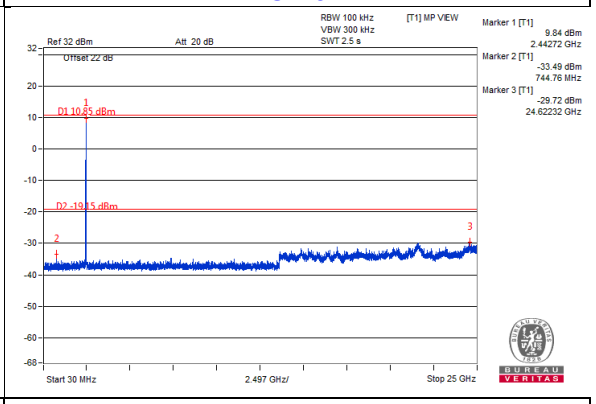


Chain 2

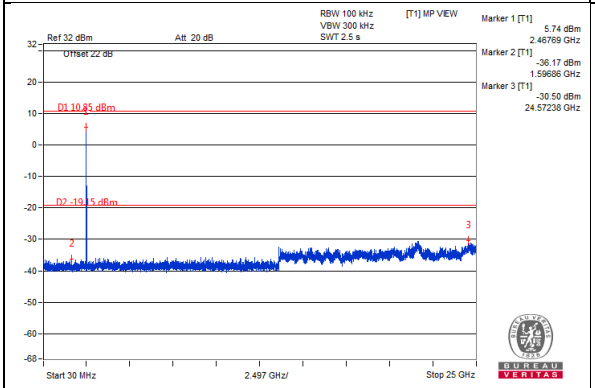
CH 1



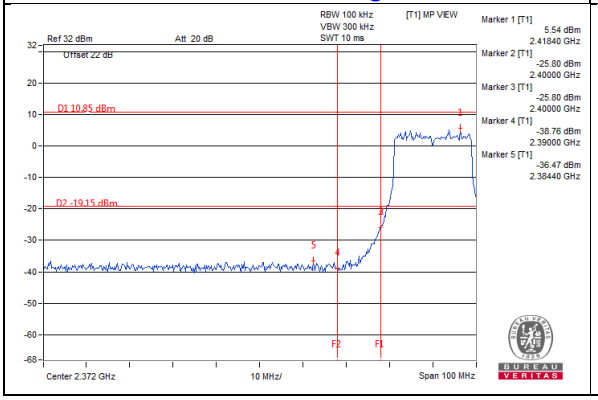
CH 6



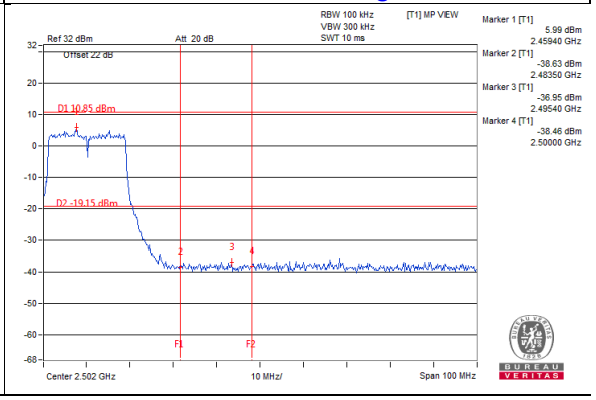
CH 11



CH 1 Band edge

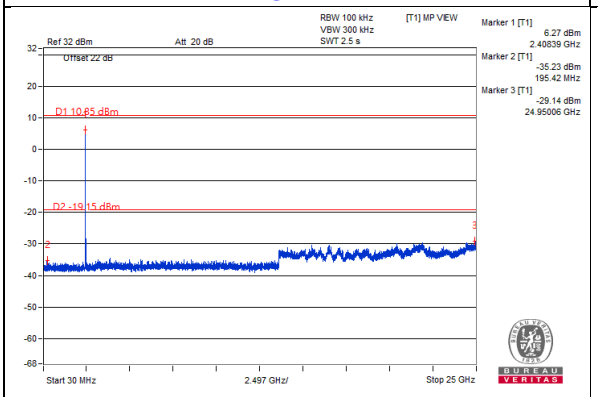


CH 11 Band edge

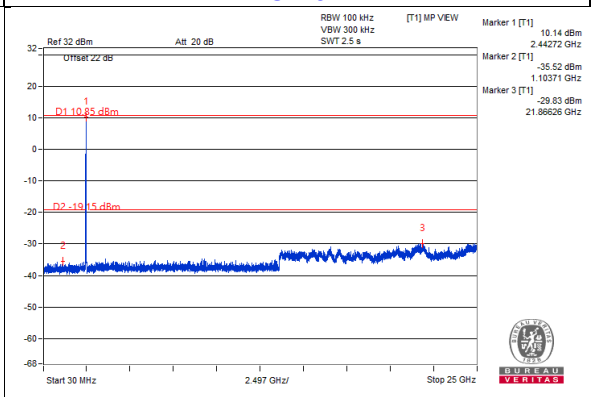


Chain 3

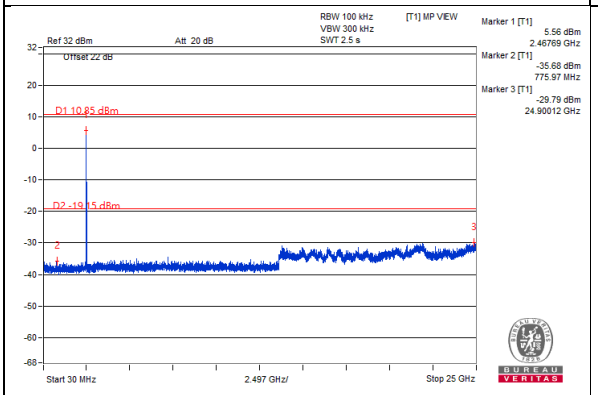
CH 1



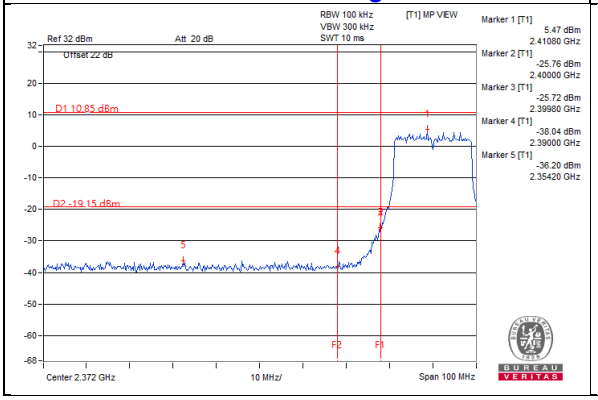
CH 6



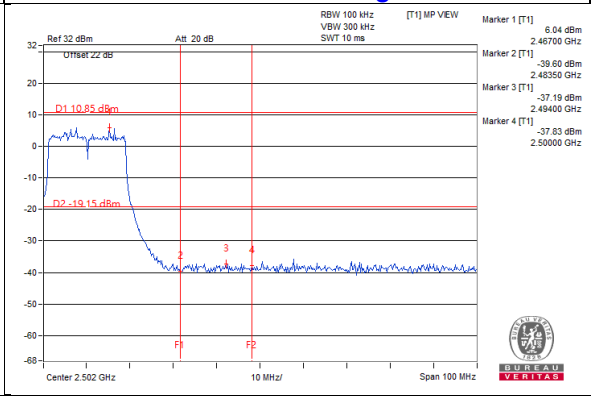
CH 11



CH 1 Band edge

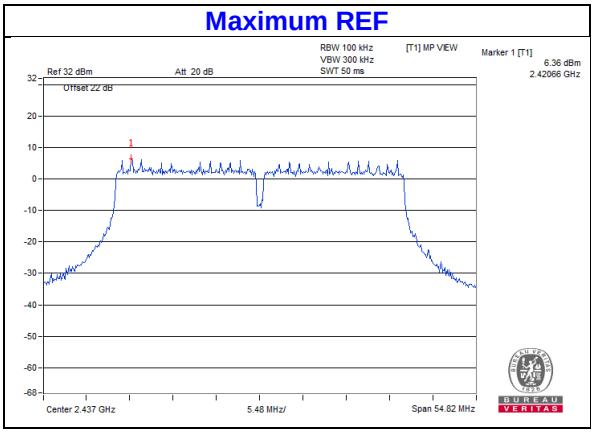


CH 11 Band edge



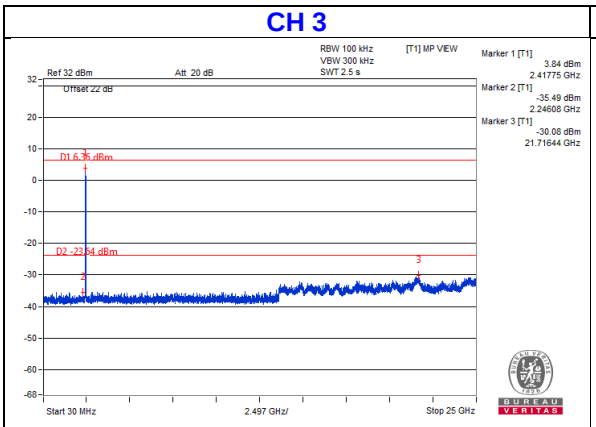
VHT40

Maximum REF

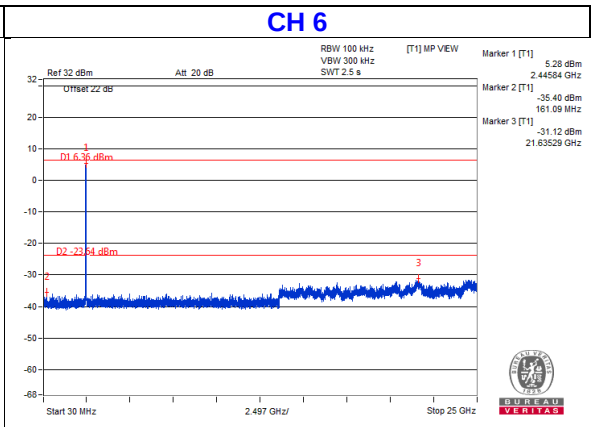


Chain 0

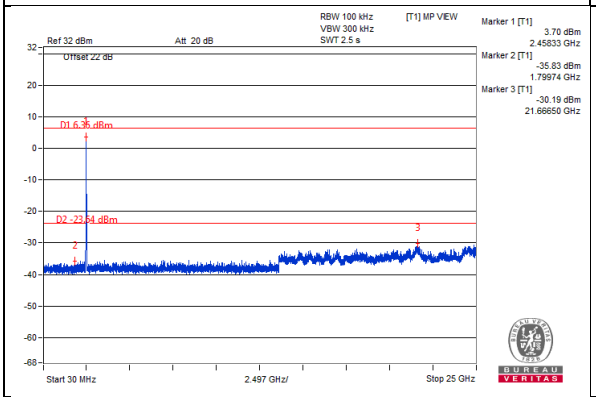
CH 3



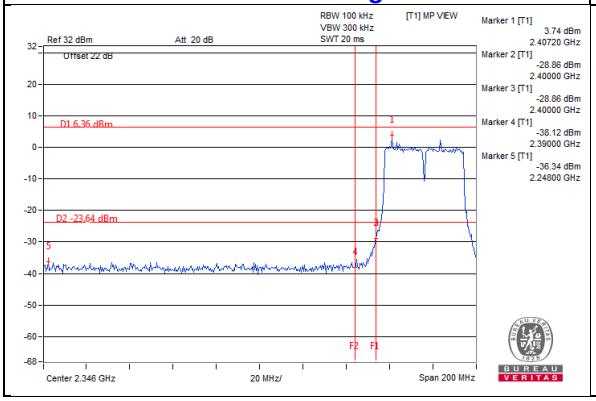
CH 6



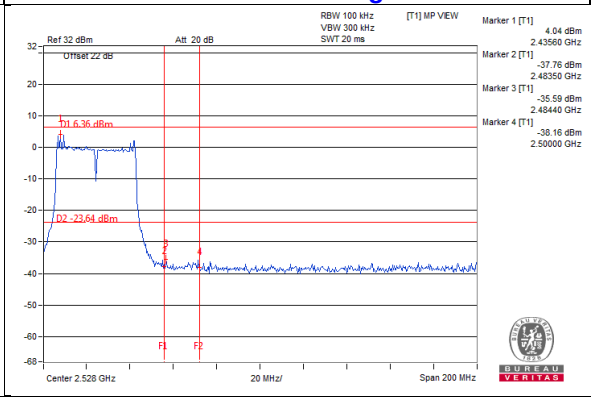
CH 9



CH 3 Band edge

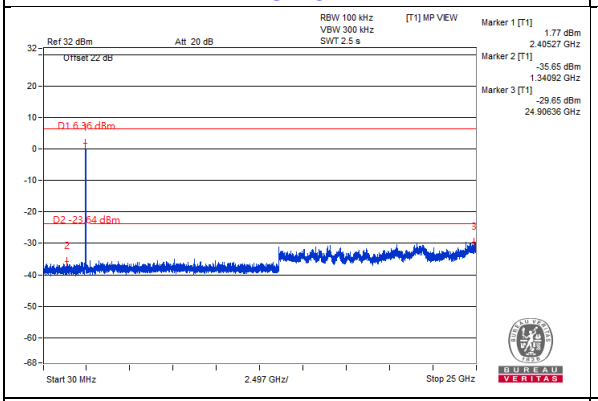


CH 9 Band edge

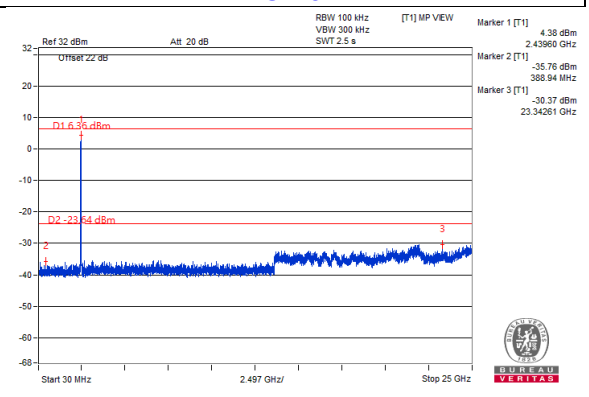


Chain 1

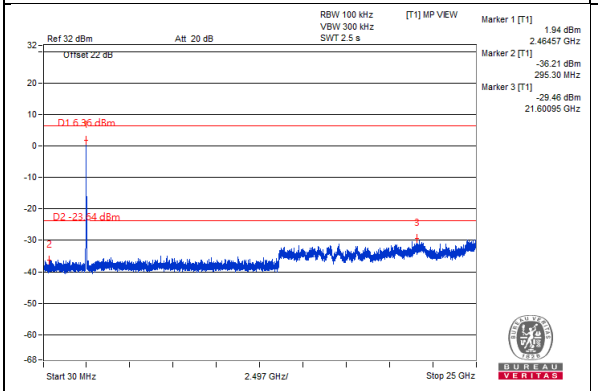
CH 3



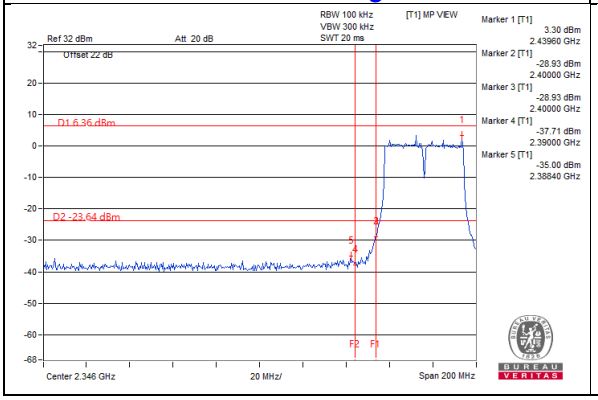
CH 6



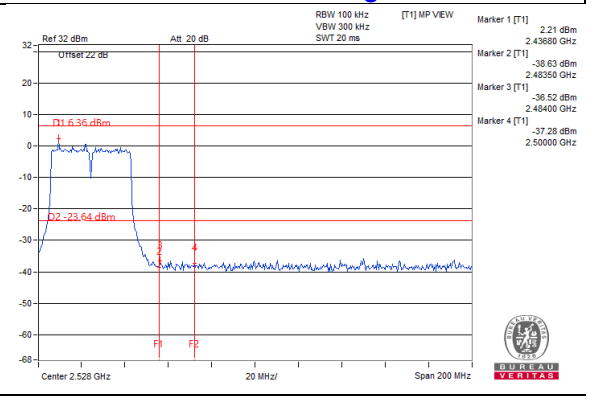
CH 9



CH 3 Band edge

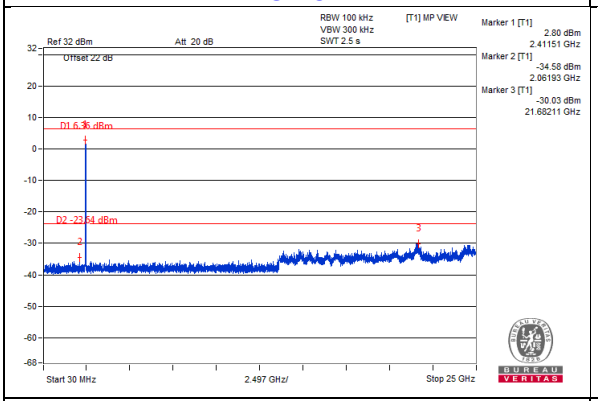


CH 9 Band edge

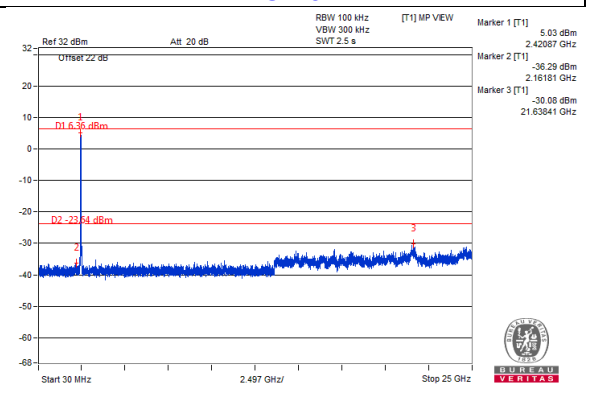


Chain 2

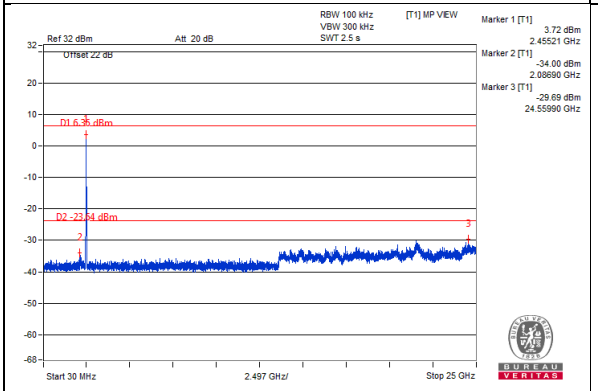
CH 3



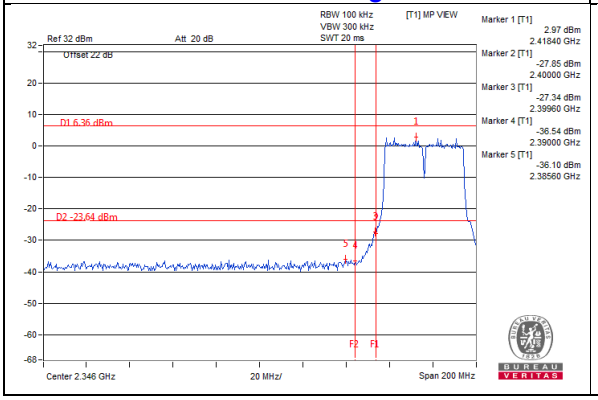
CH 6



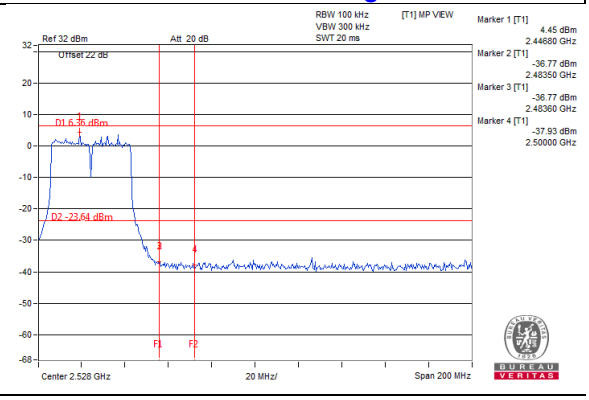
CH 9



CH 3 Band edge

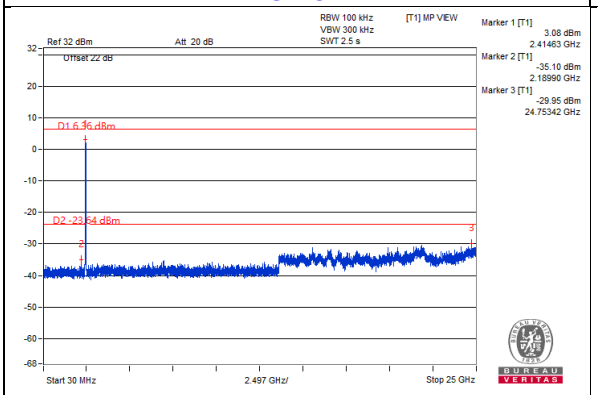


CH 9 Band edge



Chain 3

CH 3



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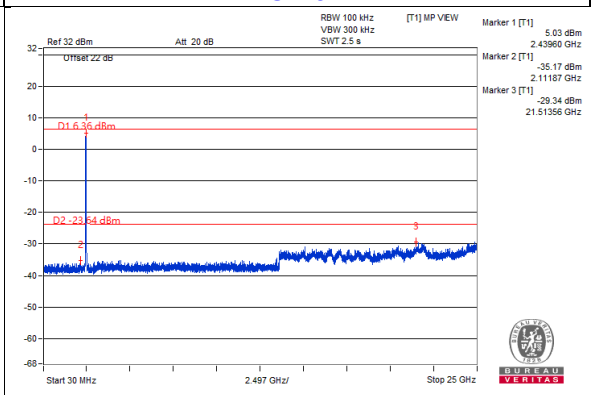

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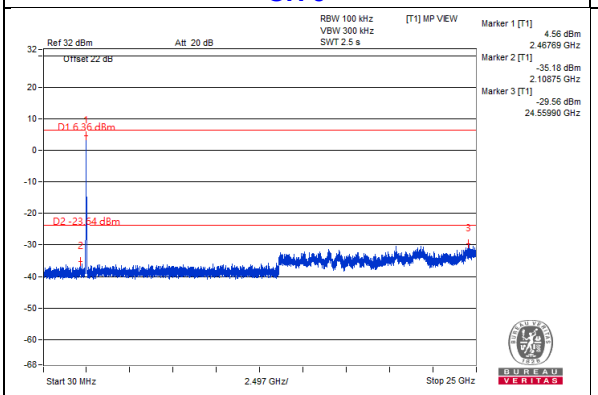

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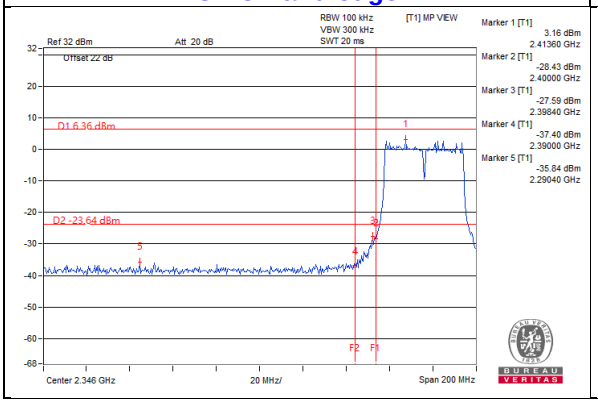

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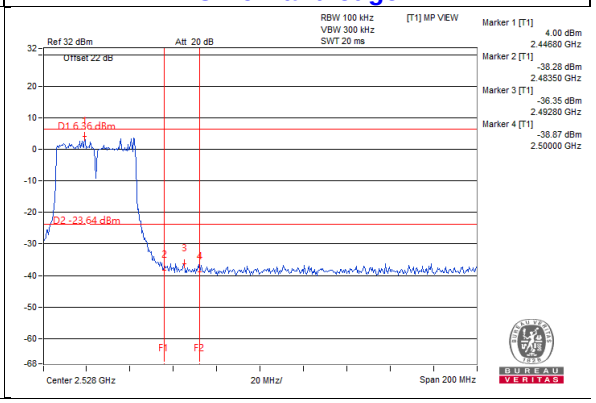
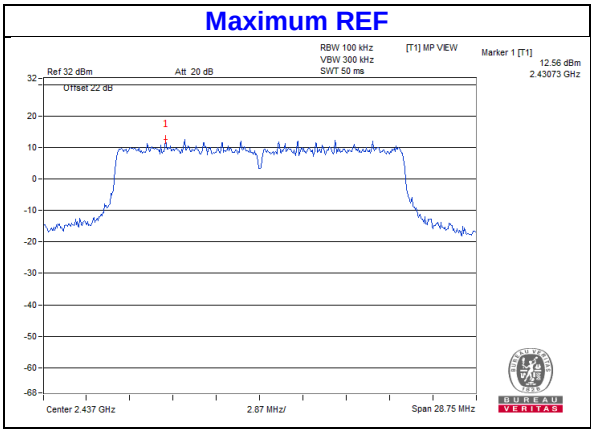


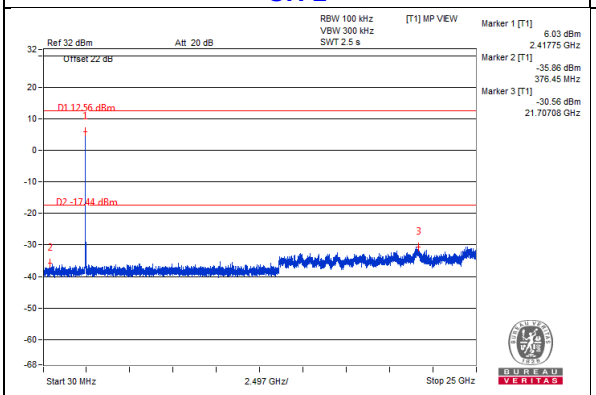
802.11ax (HE20)

Maximum REF

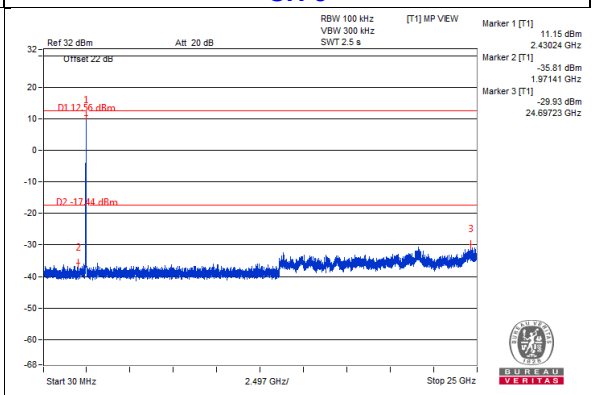


Chain 0

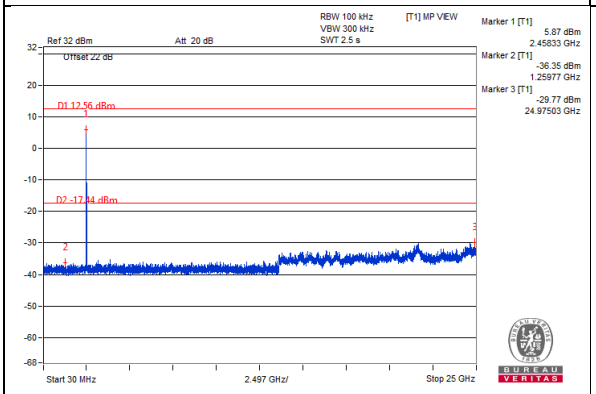
CH 1



CH 6



CH 11



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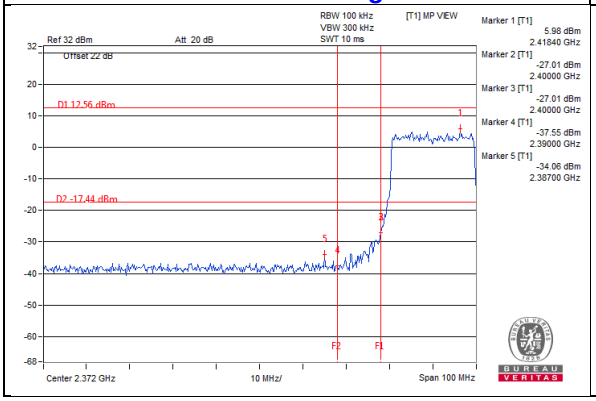

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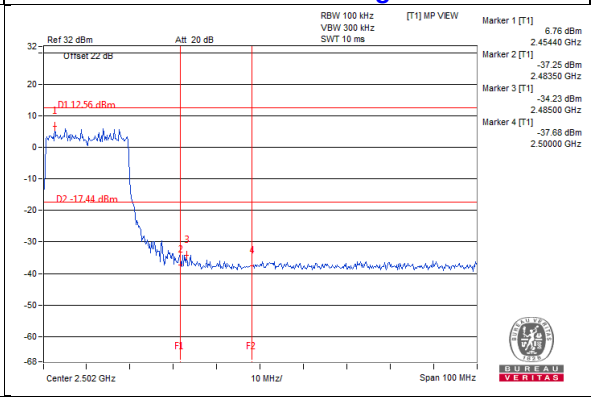
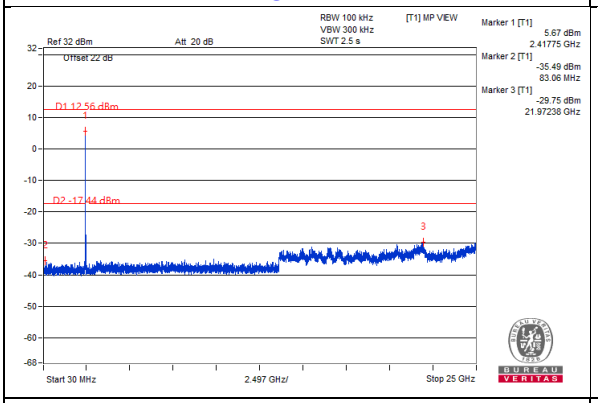
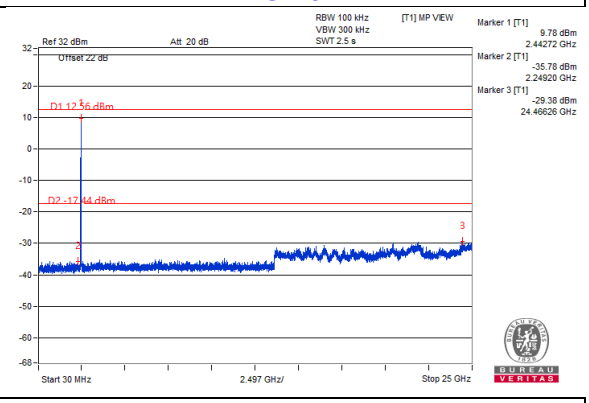


Chain 1

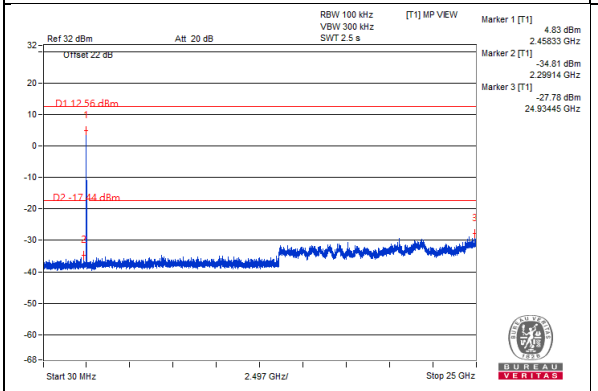
CH 1



CH 6



CH 11



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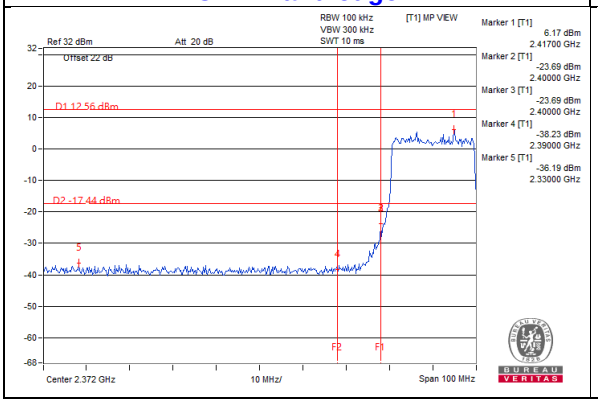

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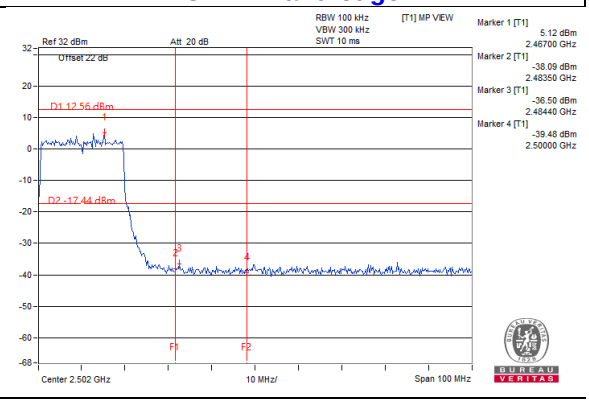
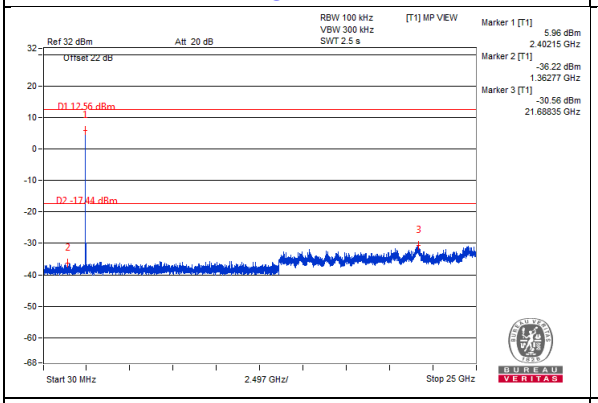
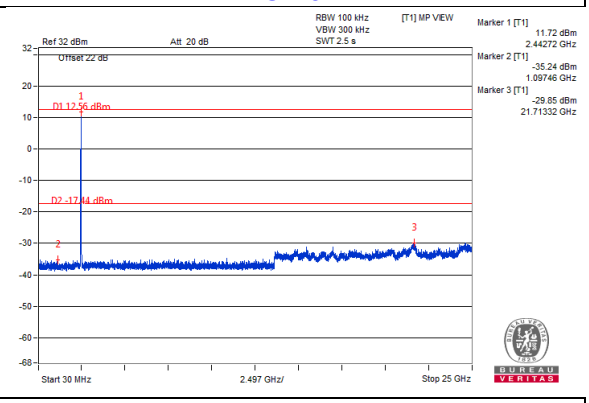


Chain 2

CH 1



CH 6



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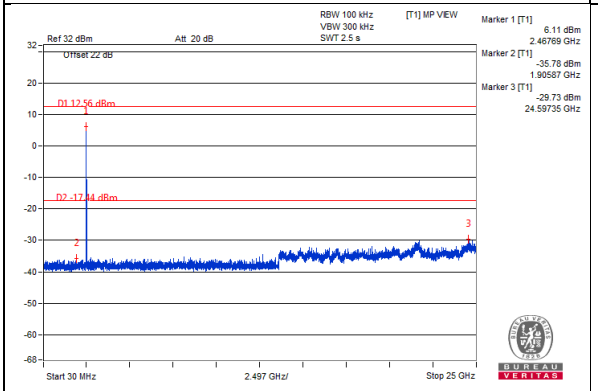

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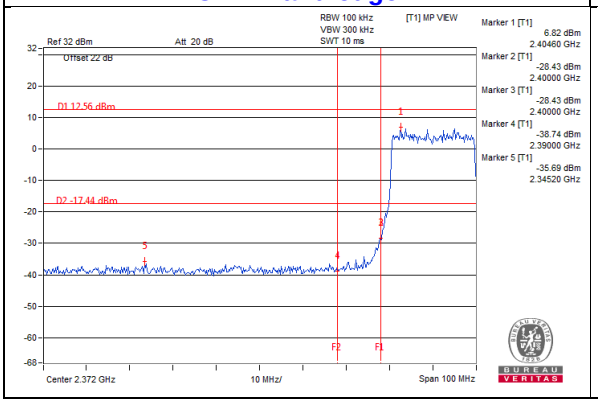
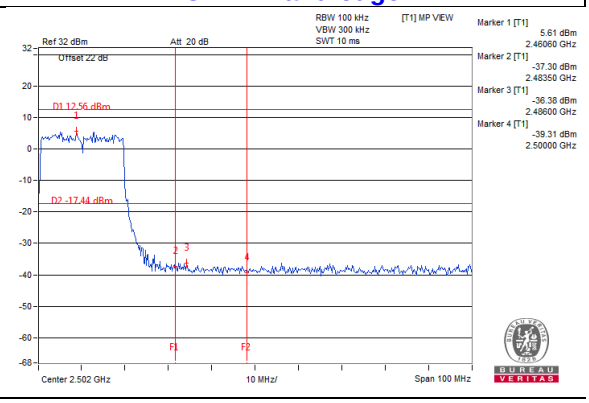
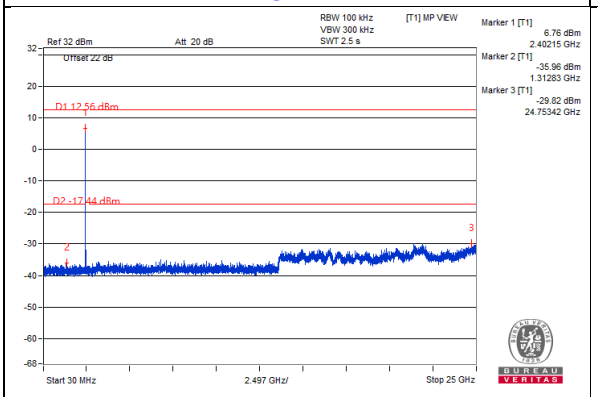


CH 11 Band edge

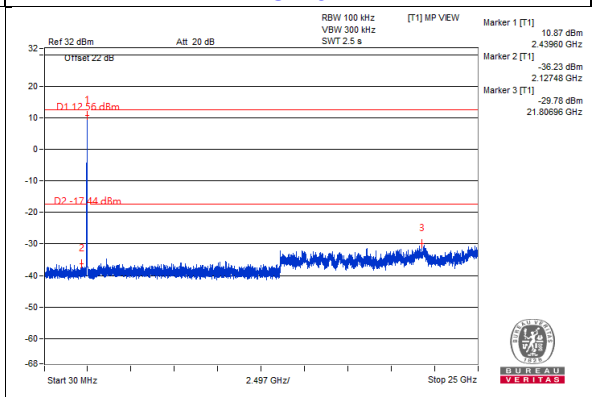


Chain 3

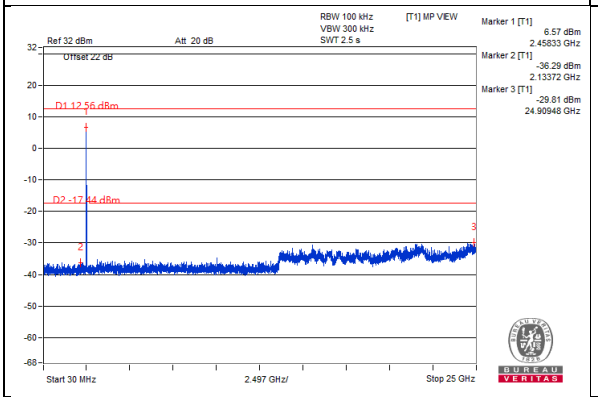
CH 1



CH 6



CH 11



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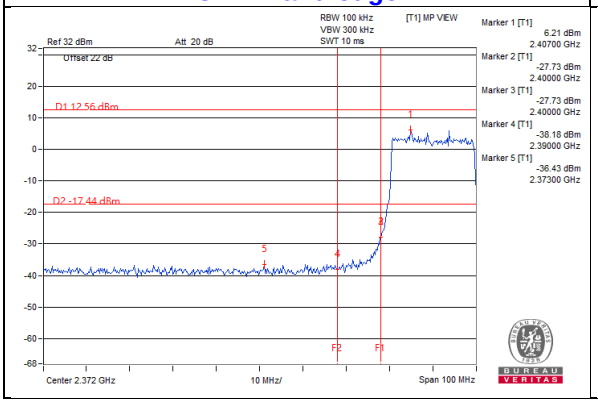

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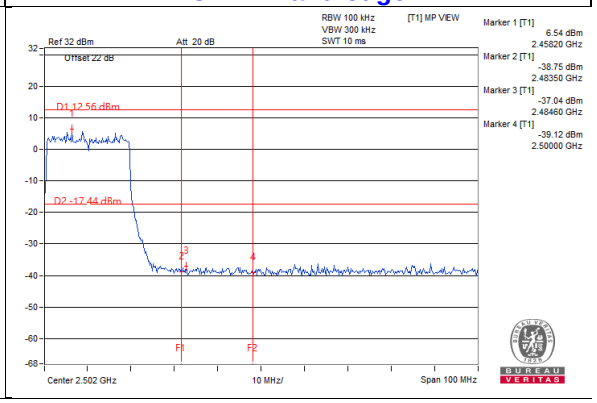
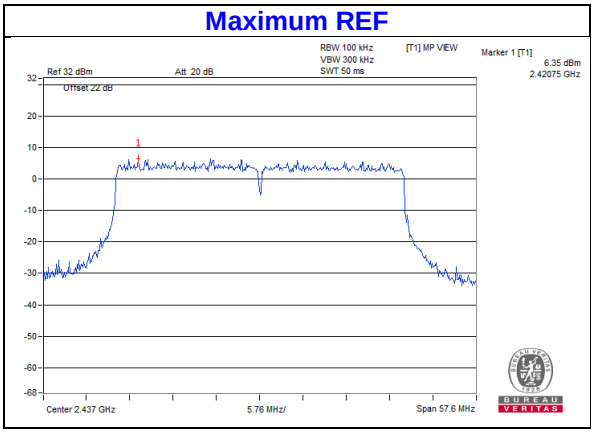


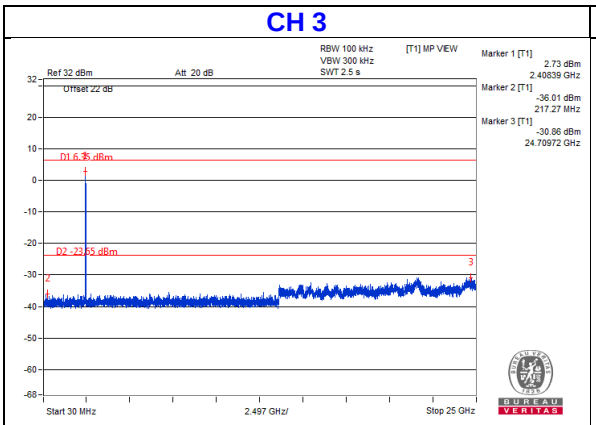
VHT40

Maximum REF

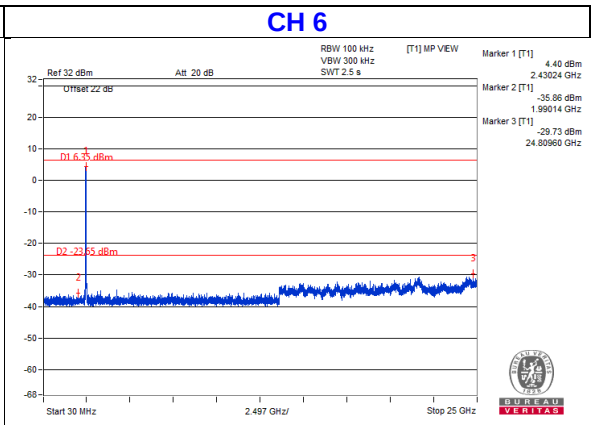


Chain 0

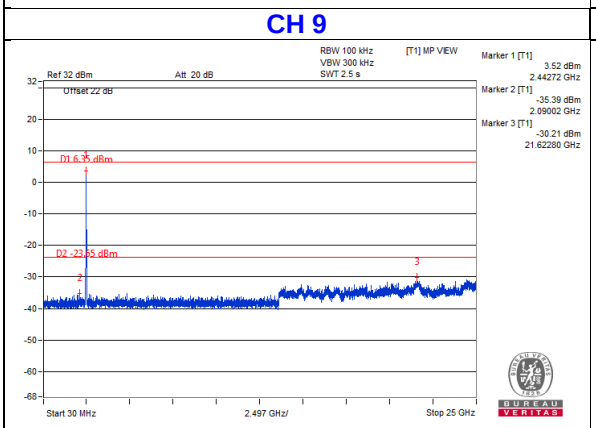
CH 3



CH 6



CH 9



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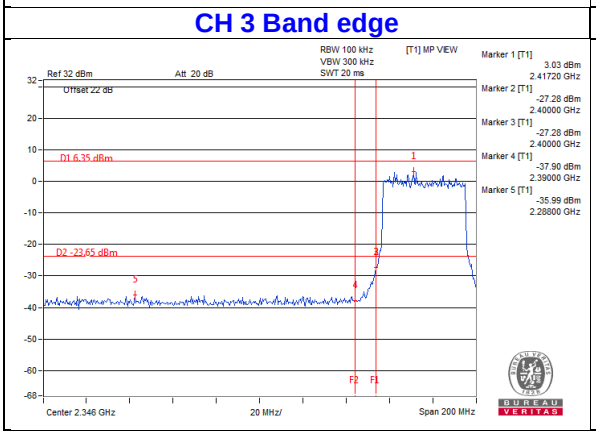

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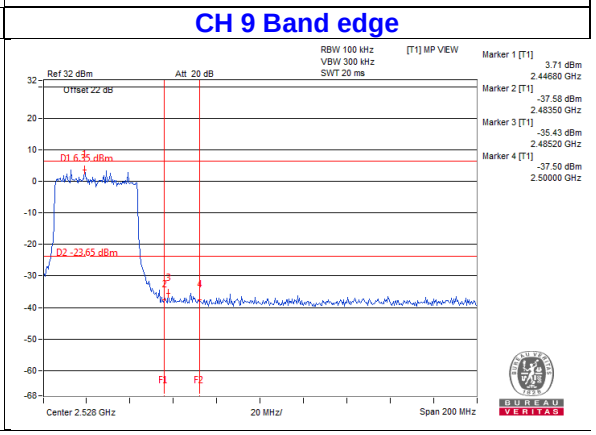
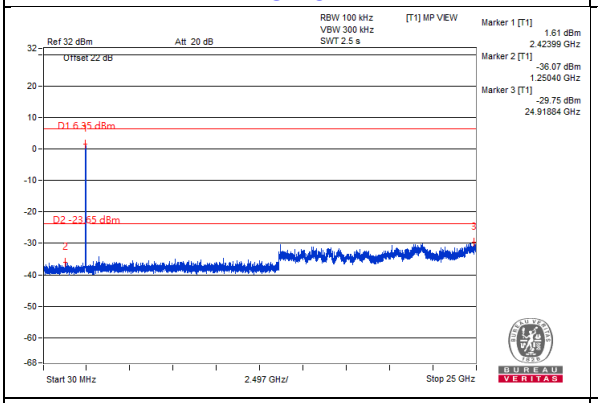


Chain 1

CH 3



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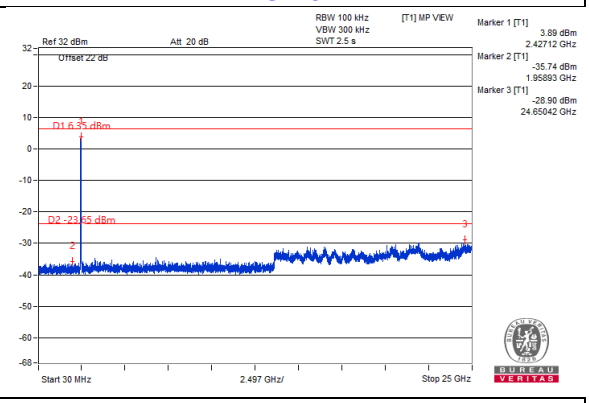

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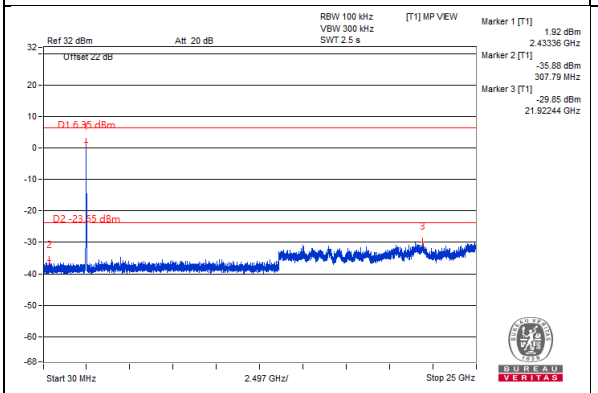
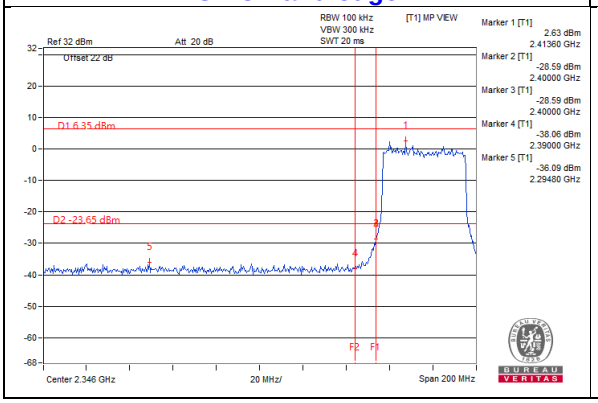
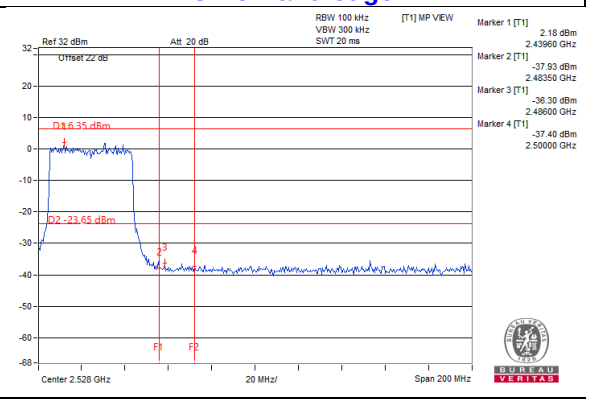


CH 3 Band edge

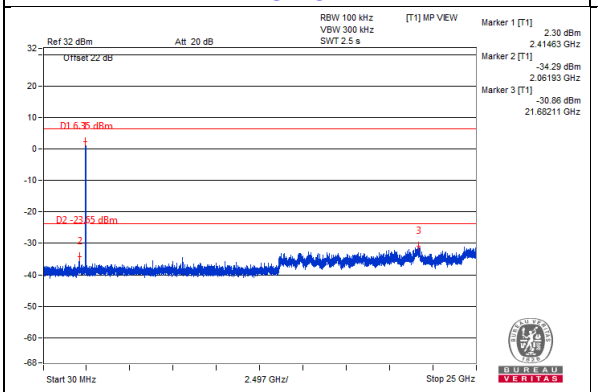


CH 9 Band edge

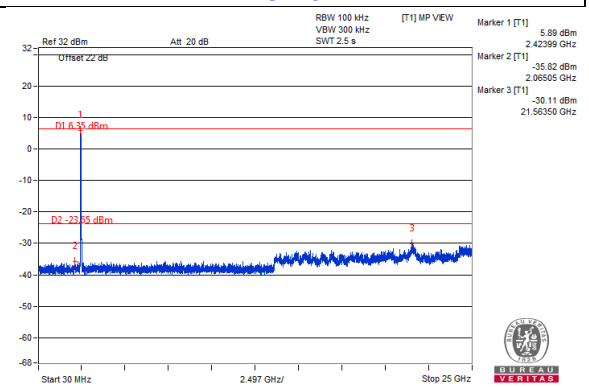


Chain 2

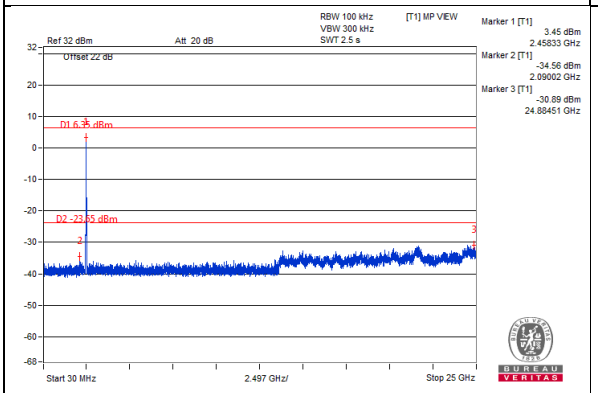
CH 3



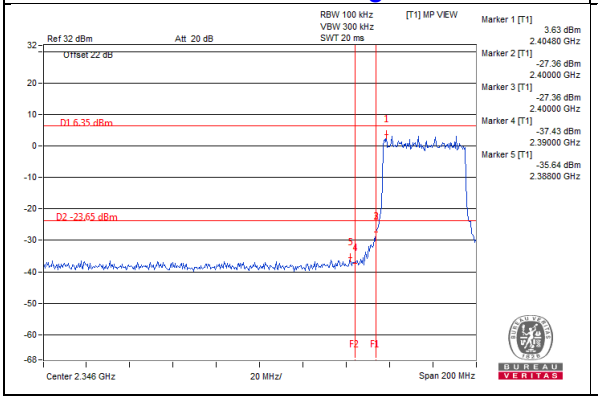
CH 6



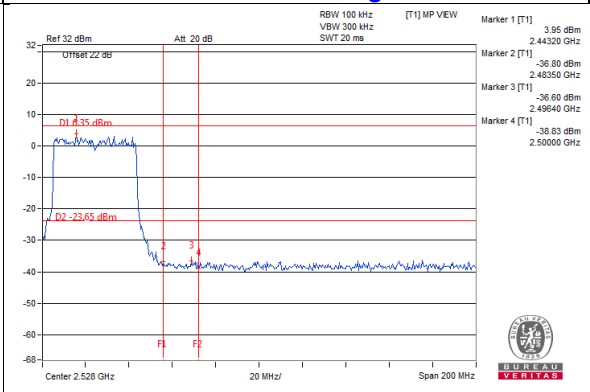
CH 9



CH 3 Band edge

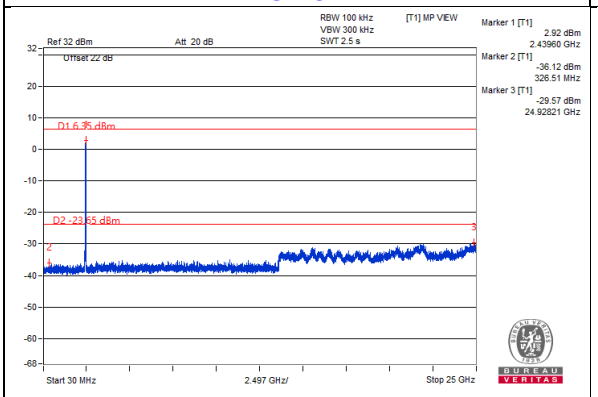


CH 9 Band edge

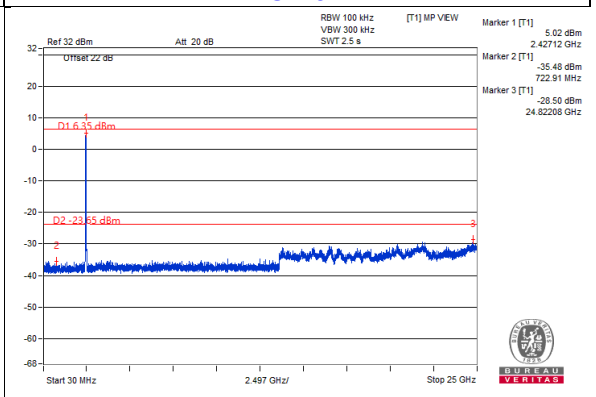


Chain 3

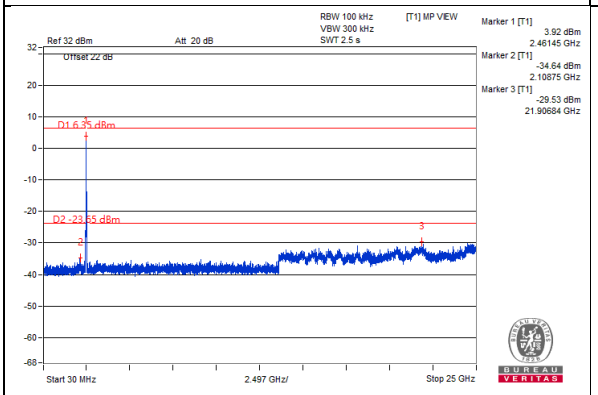
CH 3



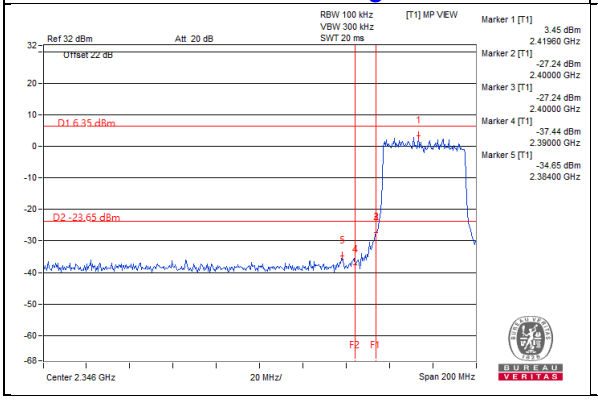
CH 6



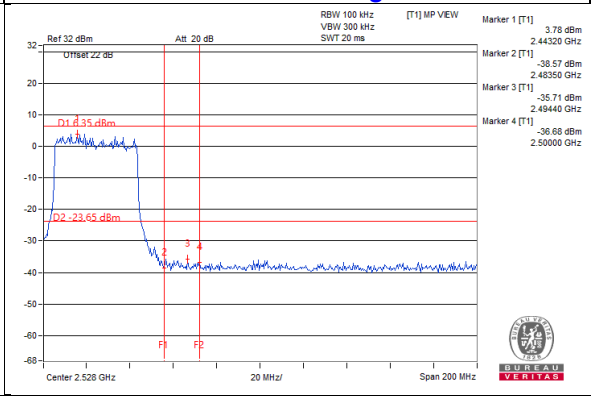
CH 9



CH 3 Band edge



CH 9 Band edge



5 Pictures of Test Arrangements

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

Appendix – Information on the Testing Laboratories

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

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

Linkou 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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