



FCC TEST REPORT (15.407)

REPORT NO.: RF130221E04B-1

MODEL NO.: CUS227

FCC ID: PPD-CUS227

IC: 4104A-CUS227

RECEIVED: Dec. 25, 2013

TESTED: Jan. 10 to 15, 2014

ISSUED: Feb. 06, 2014

APPLICANT: Qualcomm Atheros, Inc.

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ISSUED BY: Bureau Veritas Consumer Products Services (H.K.)
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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF130221E04B-1	Original release	Feb. 06, 2014

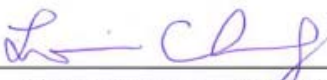


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1. CERTIFICATION

PRODUCT: 802.11a/b/g/n 2x2 WLAN card
BRAND NAME: Qualcomm Atheros
MODEL NO.: CUS227
TEST SAMPLE: ENGINEERING SAMPLE
APPLICANT: Qualcomm Atheros, Inc.
TESTED: Jan. 10 to 15, 2014
STANDARDS: FCC Part 15, Subpart E (Section 15.407)
ANSI C63.10-2009
Canada RSS-210 Issue 8 (2010-12)
Canada RSS-Gen Issue 3 (2010-12)

The above equipment (Model: CUS227) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and was in 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 :  , **DATE:** Feb. 06, 2014
(Lori Chung, Specialist)

APPROVED BY :  , **DATE:** Feb. 06, 2014
(May Chen, Manager)

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407) ; RSS-210; RSS-Gen				
STANDARD SECTION		TEST TYPE	RESULT	REMARK
FCC Part 15	RSS-210; RSS-Gen			
15.407(b/1/ 2/3) (b)(5)	RSS-210 A9.2	Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -3.5dB at 15600.00MHz.
15.407(a/1/ 2/3)	RSS-210 A9.2	Transmit Power	PASS	Meet the requirement of limit.
15.203	-	Antenna Requirement	PASS	Antenna connector is IPEX not a standard connector.

NOTE:

1. The EUT was operating in 2400 ~ 2483.5MHz, 5.15~5.35GHz, 5.47~5.6GHz & 5.65~5.725GHz and 5.725~5.850GHz frequencies band. This report was recorded the RF parameters including 2400 ~ 2483.5MHz and 5.725~5.850GHz. For the 5.15~5.35GHz, 5.47~5.6GHz & 5.65~5.725GHz RF parameters was recorded in another test report.
2. This report is prepared for FCC class II permissive change. Only spurious emission / transmit power were presented in this test report.

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:

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

Measurement	Value
Radiated emissions (30MHz-1GHz)	5.43 dB
Radiated emissions (1GHz -6GHz)	3.65 dB
Radiated emissions (6GHz -18GHz)	3.88 dB
Radiated emissions (18GHz -40GHz)	4.11 dB

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	802.11a/b/g/n 2x2 WLAN card
MODEL NO.	CUS227
POWER SUPPLY	DC 3.3V from host equipment
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b: up to 11Mbps 802.11a/g: up to 54Mbps 802.11n : up to 300Mbps
OPERATING FREQUENCY	For 15.407 5.18 ~ 5.24GHz, 5.26 ~ 5.32GHz, 5.5~5.58GHz & 5.66~5.7GHz
	For 15.247 2.4GHz: 2.412 ~ 2.462GHz 5GHz: 5.745 ~ 5.825GHz
NUMBER OF CHANNEL	For 15.407 16 for 802.11a, 802.11n (HT20) 7 for 802.11n (HT40)
	For 15.247(2.4GHz) 11 for 802.11b, 802.11g, 802.11n (HT20) 7 for 802.11n (HT40)
	For 15.247(5GHz) 5 for 802.11a, 802.11n (HT20) 2 for 802.11n (HT40)
MAXIMUM OUTPUT POWER	For 15.407 802.11a: 189.091mW 802.11n (HT20): 181.164mW 802.11n (HT40): 117.769mW For 15.247(2.4GHz) 802.11b: 118.995mW 802.11g: 238.795mW 802.11n (HT20): 234.005mW 802.11n (HT40): 118.170mW For 15.247(5GHz) 802.11a: 373.429mW 802.11n (HT20): 374.161mW 802.11n (HT40): 331.281mW



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ANTENNA TYPE	See item 3.2
ANTENNA CONNECTOR	See item 3.2
DATA CABLE	NA
I/O PORTS	NA
ASSOCIATED DEVICES	NA

NOTE:

1. This report is prepared for FCC Class II change. The difference compared with the Report No.: RF130221E04 design is as the following:

For internal antenna (Hardware version 041)

- ◆ Shielding shape change.
- ◆ Schematic change and BOM change to add test point and RF connectors (for manufacturing).
- ◆ PCB layout trace minor change but the PCB size and stack-up remains the same as original filing as well as main chip location.
- ◆ Main chip part number is changed from AR9344 to QCA4530.

For external antenna (Hardware version 241)

- ◆ BOM change from 041 to replace antenna connector with IPEX type.
- ◆ Support external antenna (PIFA, Dipole and Monopole).

Original - Internal antenna								
No.	Brand	Model	Antenna Type	Connector Type	Cable Loss (dB)	Antenna gain 2.4G(dBi)	Antenna gain 5G(dBi)	Cable Length (mm)
1	Qualcomm	CUS227 V03-2	Integrated PCB antenna	NA	NA	2	3	NA
Newly – External antenna								
No.	Brand	Model	Antenna Type	Connector Type	Freq. Range (MHz to MHz)	Cable Loss (dB)	Net Gain (dBi)	Cable Length (mm)
2	WNC	81EAAY15 .G05	PIFA	IPEX	2400~2483.5	-0.20	3.25	100
					5150~5250	-0.28	4.42	
					5250~5350	-0.28	4.27	
					5470~5725	-0.28	4.50	
3	WNC	81EAAY15 .G06	MONOPOLE	IPEX	2400~2483.5	-0.20	3.15	100
					5150~5250	-0.28	2.89	
					5250~5350	-0.28	3.46	
					5470~5725	-0.28	3.79	
4	WNC	81EAAY15 .G07	DIPOLE	IPEX	2400~2483.5	-0.20	3.14	100
					5150~5250	-0.28	3.95	
					5250~5350	-0.28	4.51	
					5470~5725	-0.28	4.98	
					5725~5850	-0.28	4.78	

2. According to above conditions, only spurious emission / transmit power need to be performed. And all data was verified to meet the requirements.

3. The EUT is 2 * 2 MIMO with 802.11n beam forming function.

MODULATION MODE	TX/RX FUNCTION
802.11b	2TX/2RX
802.11g	2TX/2RX
802.11a	2TX/2RX
802.11n (HT20)	2TX/2RX
802.11n (HT40)	2TX/2RX

The maximum compliance powers listed on the report are compliance with both Beam Forming and non-Beam Forming configurations.

4. 2.4GHz and 5GHz technology cannot transmit at same time.
5. In original report, the EUT was pre-tested under the following modes:

Test Mode	Data rate
Mode A	400ns GI
Mode B	800ns GI

From the above modes, the worst case was found in **Mode B**. Therefore only the test data of the mode was recorded in this report.

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

3.2 DESCRIPTION OF ANTENNA

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

Internal antenna								
No.	Brand	Model	Antenna Type	Connector Type	Cable Loss (dB)	Antenna gain 2.4G(dBi)	Antenna gain 5G(dBi)	Cable Length (mm)
1	Qualcomm	CUS227 V03-2	Integrated PCB antenna	NA	NA	2	3	NA
External antenna								
No.	Brand	Model	Antenna Type	Connector Type	Freq. Range (MHz to MHz)	Cable Loss (dB)	Net Gain (dBi)	Cable Length (mm)
2	WNC	81EAAY15.G05	PIFA	IPEX	2400~2483.5	-0.20	3.25	100
					5150~5250	-0.28	4.42	
					5250~5350	-0.28	4.27	
					5470~5725	-0.28	4.50	
3	WNC	81EAAY15.G06	MONOPOLE	IPEX	2400~2483.5	-0.20	3.15	100
					5150~5250	-0.28	2.89	
					5250~5350	-0.28	3.46	
					5470~5725	-0.28	3.79	
4	WNC	81EAAY15.G07	DIPOLE	IPEX	2400~2483.5	-0.20	3.14	100
					5150~5250	-0.28	3.95	
					5250~5350	-0.28	4.51	
					5470~5725	-0.28	4.98	
					5725~5850	-0.28	4.78	

3.3 DESCRIPTION OF TEST MODES

Operated in 5150MHz ~ 5350MHz bands:

8 channels are provided for 802.11a and 802.11n (HT20):

CHANNEL	FREQUENCY
36	5180 MHz
40	5200 MHz
44	5220 MHz
48	5240 MHz
52	5260 MHz
56	5280 MHz
60	5300 MHz
64	5320 MHz

4 channels are provided for 802.11n (HT40):

CHANNEL	FREQUENCY
38	5190 MHz
46	5230 MHz
54	5270 MHz
62	5310 MHz

Operated in 5470MHz ~ 5600MHz & 5650MHz ~ 5725MHz bands:

8 channels are provided for 802.11a and 802.11n (HT20):

CHANNEL	FREQUENCY
100	5500 MHz
104	5520 MHz
108	5540 MHz
112	5560 MHz
116	5580 MHz
132	5660 MHz
136	5680 MHz
140	5700 MHz

3 channels are provided for 802.11n (HT40):

CHANNEL	FREQUENCY
102	5510 MHz
110	5550 MHz
134	5670 MHz



3.3.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO			DESCRIPTION
	UE < 1G	UE ≥ 1G	APCM	
MODE 1	√	√	√	With Internal antenna
MODE 2	√	√	√	With External antenna

Where **PLC**: AC Power Line Conducted Emission **UE < 1G**: Unwanted Emission below 1GHz
UE ≥ 1G: Unwanted Emission above 1GHz **APCM**: Antenna Port Conducted Measurement

NOTE: The EUT's antenna had been pre-tested on the positioned of each 3 axis:

- ◆ For Integrated PCB antenna and PIFA antenna: the worst case was found when positioned on **X-plane**
- ◆ For External monopole antenna and Dipole antenna: the worst case was found when positioned on **Y-plane**.

UNWANTED EMISSION TEST (BELOW 1 GHz):

- Radiated versus Conducted Measurements
- 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	DATA RATE (Mbps)
802.11a	36 to 140	116	OFDM	6

UNWANTED EMISSION TEST (ABOVE 1 GHz):

- Radiated versus Conducted Measurements
- 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	DATA RATE (Mbps)
802.11a	36 to 140	36, 40, 48, 52, 60, 64, 100, 116, 132, 140	OFDM	6
For 5 GHz 802.11n (HT20)	36 to 140	36, 40, 48, 52, 60, 64, 100, 116, 132, 140	OFDM	6.5
For 5 GHz 802.11n (HT40)	38 to 134	38, 46, 54, 62, 102, 110, 134	OFDM	13.5



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ANTENNA PORT CONDUCTED MEASUREMENT:

- 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	DATA RATE (Mbps)
802.11a	36 to 140	36, 40, 48, 52, 60, 64, 100, 116, 132, 140	OFDM	6
For 5 GHz 802.11n (HT20)	36 to 140	36, 40, 48, 52, 60, 64, 100, 116, 132, 140	OFDM	6.5
For 5 GHz 802.11n (HT40)	38 to 134	38, 46, 54, 62, 102, 110, 134	OFDM	13.5

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
UE<1G	21deg. C, 73%RH	120Vac, 60Hz	Chilin Lee
UE≥1G	22deg. C, 63%RH	120Vac, 60Hz	Robert Cheng
APCM	25deg. C, 60%RH	120Vac, 60Hz	Robert Cheng

3.4 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 E (15.407)

Canada RSS-210 Issue 8 (2010-12)

Canada RSS-Gen Issue 3 (2010-12)

789033 D01 General UNII Test Procedures v01 r03

662911 D01 Multiple Transmitter Output v02

ANSI C63.10-2009

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

3.5 DUTY CYCLE OF TEST SIGNAL

Duty cycle of test signal is 100 %, duty factor is not required.





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3.6 DESCRIPTION OF SUPPORT UNITS

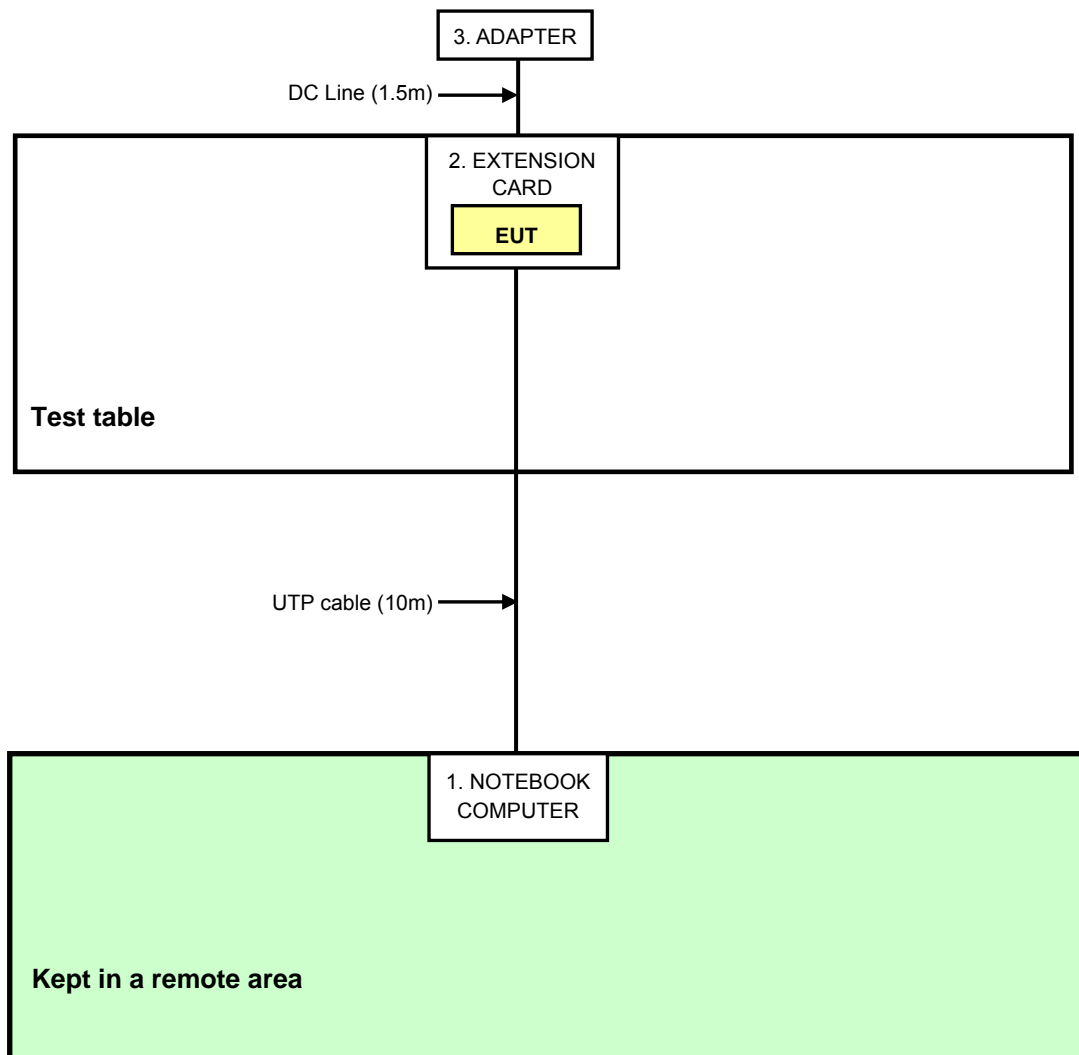
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Product	Brand	Model No.	Serial No.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP32LA	FSLB32S	FCC DoC
2	EXTENSION CARD	Qualcomm Atheros	NA	NA	NA
3	Adapter	JENTEC TECHNOLOGY CO.,LTD.	CF1205-B	795558	NA

No.	Signal cable description
1	UTP cable(10m)
2	NA
3	DC line (1.5m)

Note: The power cords of the above support units were unshielded (1.8m).

3.7 CONFIGURATION OF SYSTEM UNDER TEST



4. TEST TYPES AND RESULTS

4.1 TRANSMIT POWER MEASUREMENT

4.1.1 LIMITS OF OUTPUT TRANSMIT POWER MEASUREMENT

For FCC 15.407

Frequency Band	LIMIT
5.15 – 5.25GHz	The lesser of 50mW (17dBm) or 4dBm + 10logB
5.25 – 5.35GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.47 – 5.725GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.725 – 5.825GHz	The lesser of 1W (30dBm) or 17dBm + 10logB

NOTE: 1. Where B is the 26dB emission bandwidth in MHz for FCC 15.407.

For RSS-210 A9.2

FREQUENCY BAND	LIMIT
5.15 ~ 5.25GHz	EIRP shall not exceed 200 mW or $10 + 10 \log_{10} B$
5.25 ~ 5.35GHz	Conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$ EIRP shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm
5.47 ~ 5.725GHz	Conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$ EIRP shall not exceed 1.0 W or $17 + 10 \log_{10} B$

NOTE: 1. Where B is the 99% occupied bandwidth in MHz.

Per KDB 662911 D01 Multiple Transmitter Output v02 Method of conducted output power measurement on IEEE 802.11 devices,

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

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

Array Gain = $5 \log(NANT/NSS)$ dB or 3 dB, whichever is less for 20-MHz channel widths with $NANT \geq 5$.

For power measurements on all other devices: Array Gain = $10 \log(NANT/NSS)$ dB.



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4.1.2 TEST INSTRUMENTS

FOR POWER OUTPUT MEASUREMENT

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Power Meter Anritsu	ML2495A	0824006	May 20, 2013	May 19, 2014
Power Sensor Anritsu	MA2411B	0738172	May 20, 2013	May 19, 2014

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. Tested date : Jan. 10, 2014

FOR 26dB OCCUPIED BANDWIDTH / FOR 99% OCCUPIED BANDWIDTH

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S Spectrum Analyzer	FSP40	100037	Nov. 01, 2012	Oct. 31, 2013

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. Tested date : Apr. 11, 2013

* 26dB OCCUPIED BANDWIDTH / 99% OCCUPIED BANDWIDTH was copied from original report.

4.1.3 TEST PROCEDURE

FOR AVERAGE POWER MEASUREMENT

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

FOR 26dB BANDWIDTH

1. Set RBW = approximately 1% of the emission bandwidth.
2. Set the VBW > RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

FOR 99% OCCUPIED BANDWIDTH

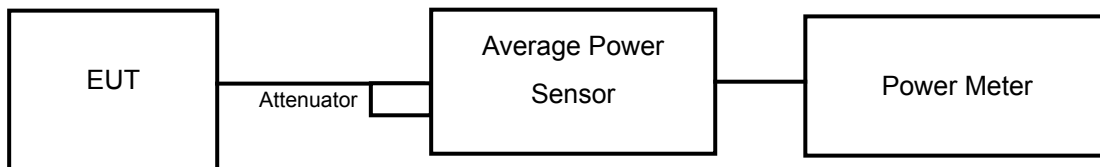
1. Set RBW \geq 1% of the emission bandwidth.
2. Set the VBW \geq 3 \times RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Record the 99% emission bandwidth.

4.1.4 DEVIATION FROM TEST STANDARD

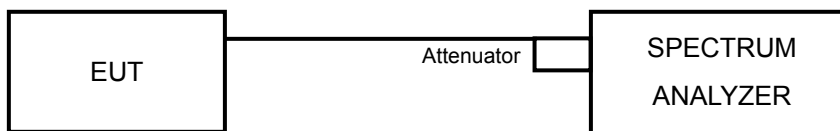
No deviation

4.1.5 TEST SETUP

FOR POWER OUTPUT MEASUREMENT



FOR 26dB OCCUPIED BANDWIDTH / FOR 99% OCCUPIED BANDWIDTH



4.1.6 EUT OPERATING CONDITIONS

The software (artgui.exe [art2 ver 4 4 2g CUS227]) provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.



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4.1.7 TEST RESULTS (MODE 1)

For FCC 15.407

802.11a

POWER OUTPUT

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	12.93	12.19	36.192	15.59	16.63	PASS
40	5200	12.61	12.64	36.604	15.64	16.62	PASS
48	5240	12.87	12.72	38.071	15.81	16.64	PASS
52	5260	19.73	19.66	186.442	22.71	23.99	PASS
60	5300	19.45	19.57	178.678	22.52	23.99	PASS
64	5320	16.05	16.04	80.451	19.06	23.61	PASS
100	5500	13.56	12.85	41.974	16.23	23.67	PASS
116	5580	19.43	20.06	189.091	22.77	23.99	PASS
132	5660	18.55	19.23	155.367	21.91	23.99	PASS
140	5700	14.55	14.51	56.759	17.54	23.60	PASS

- NOTE:**
1. 5150~5250MHz: Directional gain = $3.00\text{dBi} + 10\log(2) = 6.01\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $16.63-(6.01-6) = 16.62\text{dBm}$.
 2. 5250~5350MHz: Directional gain = $3.00\text{dBi} + 10\log(2) = 6.01\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $23.62-(6.01-6) = 23.61\text{dBm}$.
 3. 5470~5725MHz: Directional gain = $3.00\text{dBi} + 10\log(2) = 6.01\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $23.61-(6.01-6) = 23.60\text{dBm}$.

802.11a
26dB OCCUPIED BANDWIDTH

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	
		CHAIN 0	CHAIN 1
36	5180	18.49	18.40
40	5200	18.35	18.40
48	5240	18.60	18.45
52	5260	29.81	23.56
60	5300	22.32	28.38
64	5320	18.30	18.95
100	5500	18.58	18.55
116	5580	35.18	36.13
132	5660	31.32	26.01
140	5700	20.20	18.26

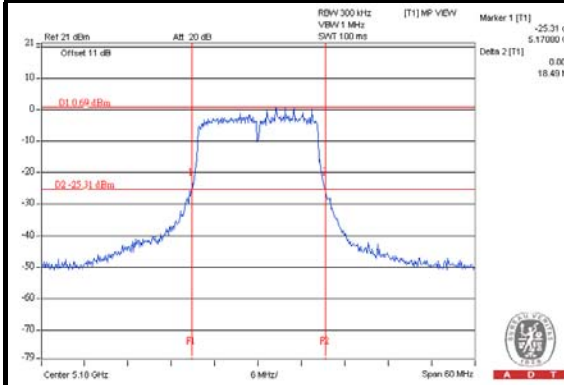
Note: For output power limitation is determined based on 26dBc bandwidth.

Power Limit = 4dBm + 10logB < UNII Band 1 >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
36	5180	18.40	16.64 < 17
40	5200	18.35	16.63 < 17
48	5240	18.45	16.65 < 17
Power Limit = 11dBm + 10logB < UNII Band 2~3 >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	23.56	24.72 > 24
60	5300	22.32	24.48 > 24
64	5320	18.30	23.62 < 24
100	5500	18.55	23.68 < 24
116	5580	35.18	26.46 > 24
132	5660	26.01	25.15 > 24
140	5700	18.26	23.61 < 24

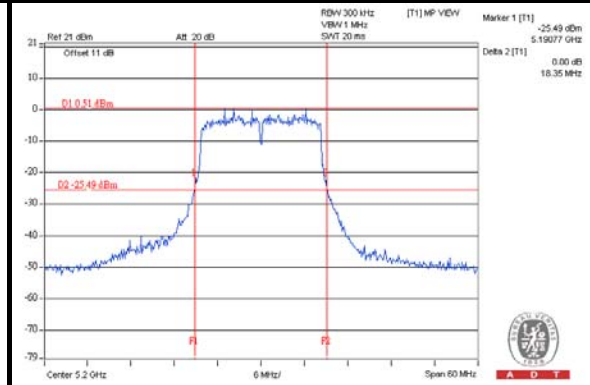


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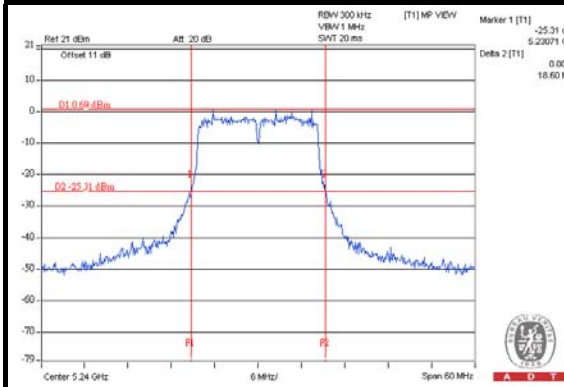
Chain(0) : CH36



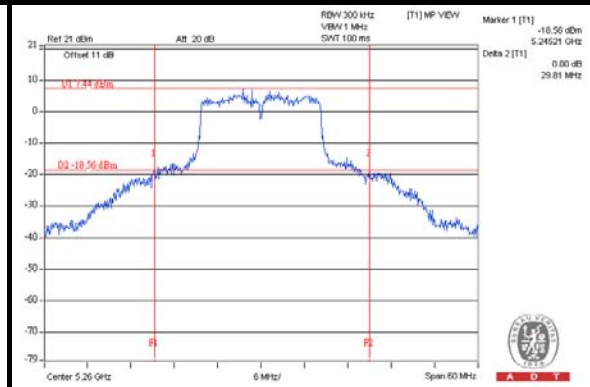
Chain(0) : CH40



Chain(0) : CH48



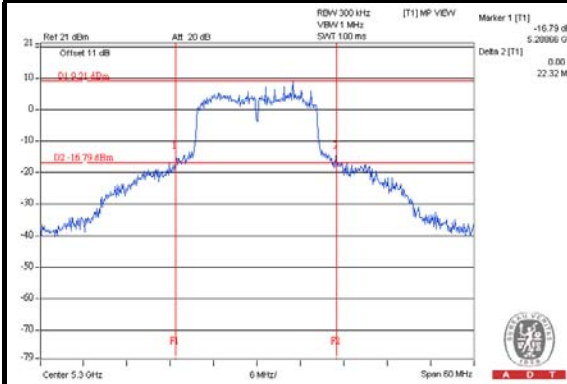
Chain(0) : CH52



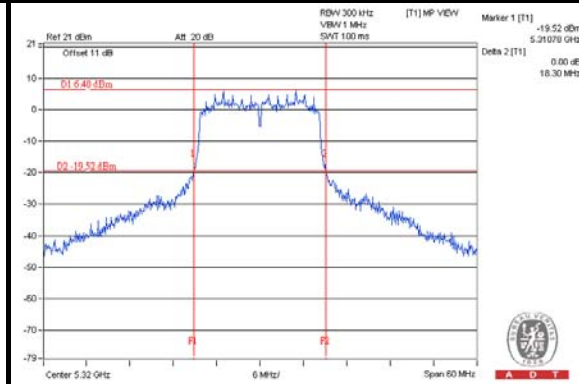


A D T

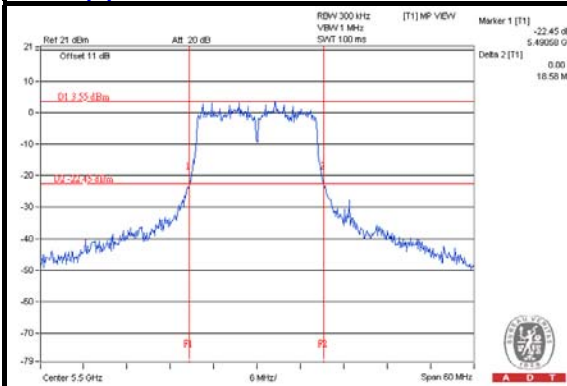
Chain(0) : CH60



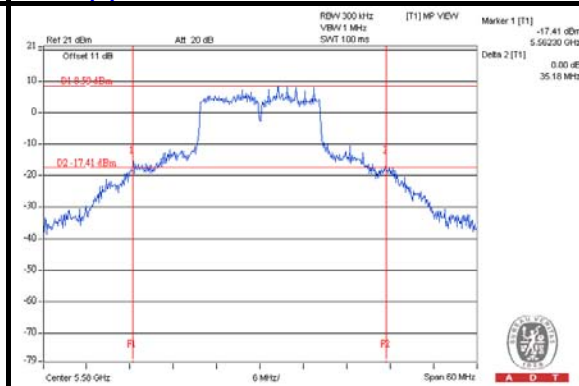
Chain(0) : CH64



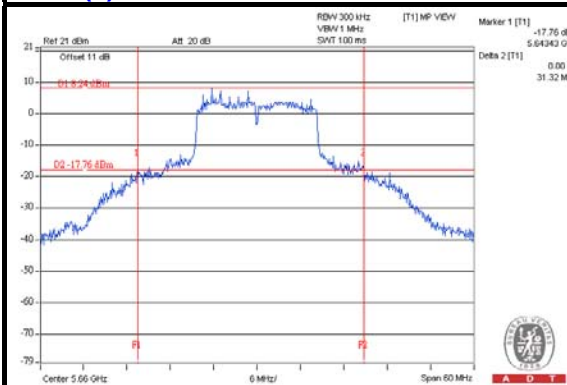
Chain(0) : CH100



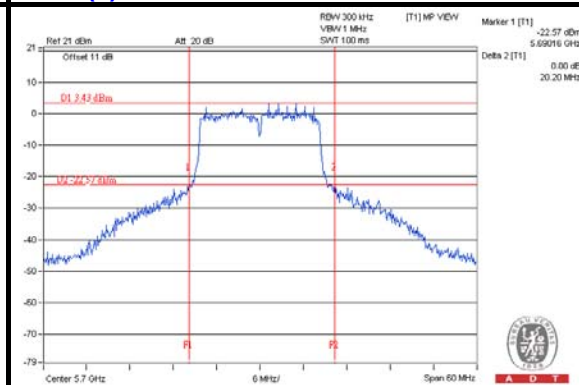
Chain(0) : CH116



Chain(0) : CH132



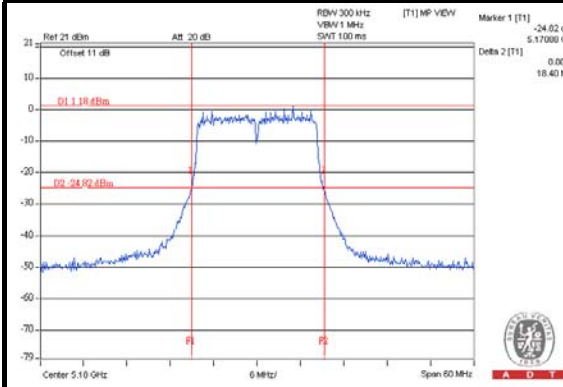
Chain(0) : CH140



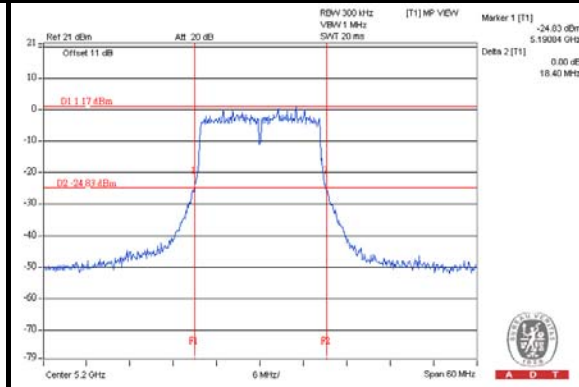


A D T

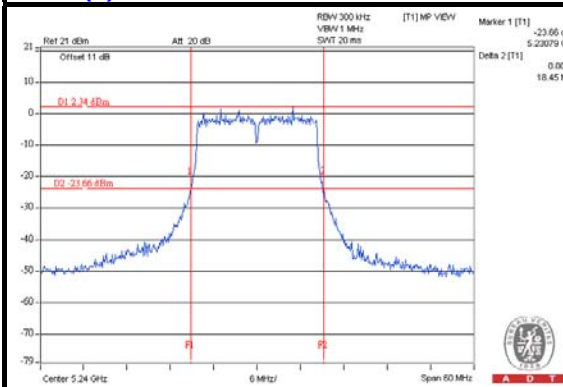
Chain(1) : CH36



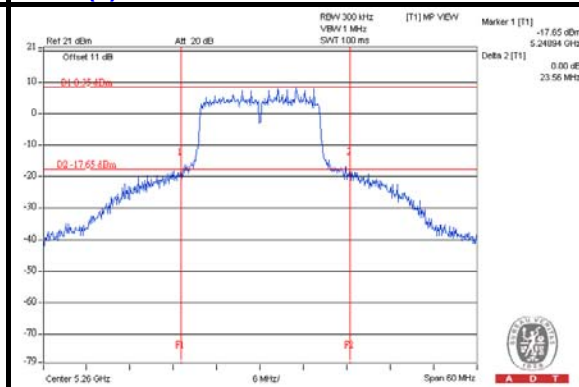
Chain(1) : CH40



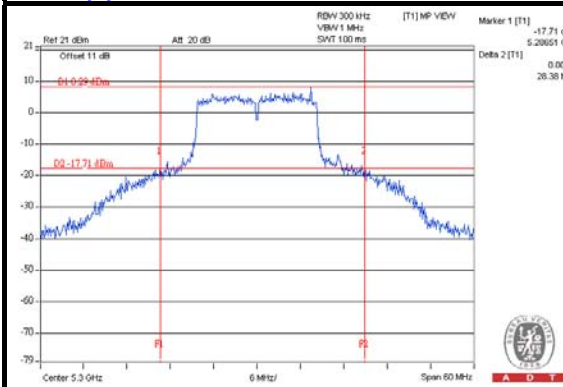
Chain(1) : CH48



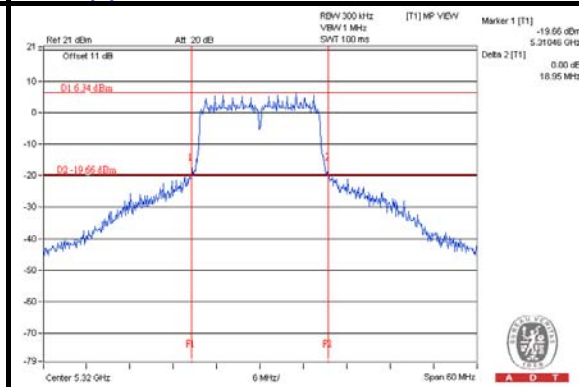
Chain(1) : CH52



Chain(1) : CH60



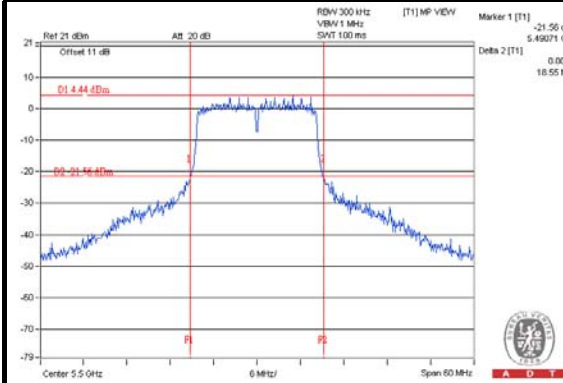
Chain(1) : CH64



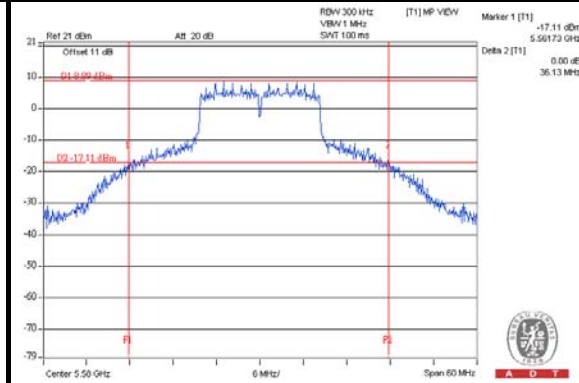


A D T

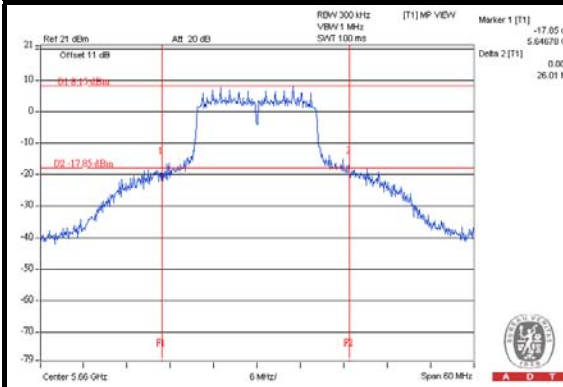
Chain(1) : CH100



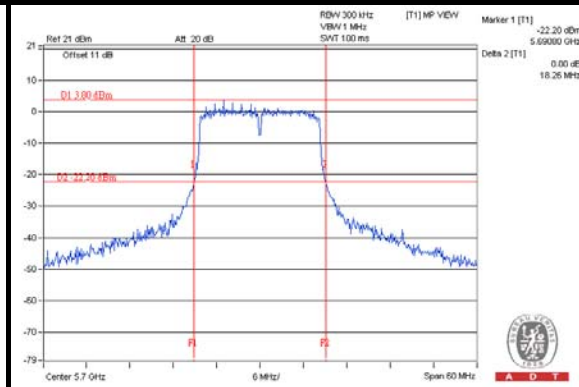
Chain(1) : CH116



Chain(1) : CH132



Chain(1) : CH140





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802.11n (HT20)
POWER OUTPUT

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	13.17	12.93	40.383	16.06	16.89	PASS
40	5200	13.28	12.33	38.381	15.84	16.85	PASS
48	5240	13.44	12.93	41.714	16.20	16.87	PASS
52	5260	19.10	19.46	169.591	22.29	23.99	PASS
60	5300	18.96	19.21	162.073	22.10	23.99	PASS
64	5320	16.33	16.34	86.007	19.35	23.94	PASS
100	5500	14.24	13.13	47.105	16.73	23.85	PASS
116	5580	19.31	19.57	175.883	22.45	23.99	PASS
132	5660	19.51	19.63	181.164	22.58	23.99	PASS
140	5700	13.64	13.21	44.062	16.44	23.89	PASS

- NOTE:**
1. 5150~5250MHz: Directional gain = $3.00\text{dBi} + 10\log(2) = 6.01\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $16.86-(6.01-6) = 16.85\text{dBm}$.
 2. 5250~5350MHz: Directional gain = $3.00\text{dBi} + 10\log(2) = 6.01\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $23.95-(6.01-6) = 23.94\text{dBm}$.
 3. 5470~5725MHz: Directional gain = $3.00\text{dBi} + 10\log(2) = 6.01\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $23.86-(6.01-6) = 23.85\text{dBm}$.

802.11n (HT20)
26dB OCCUPIED BANDWIDTH

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	
		CHAIN 0	CHAIN 1
36	5180	19.63	19.50
40	5200	19.80	19.33
48	5240	19.45	19.42
52	5260	25.24	23.54
60	5300	30.77	27.35
64	5320	19.80	19.76
100	5500	19.32	19.46
116	5580	33.48	37.61
132	5660	35.80	32.55
140	5700	20.59	19.54

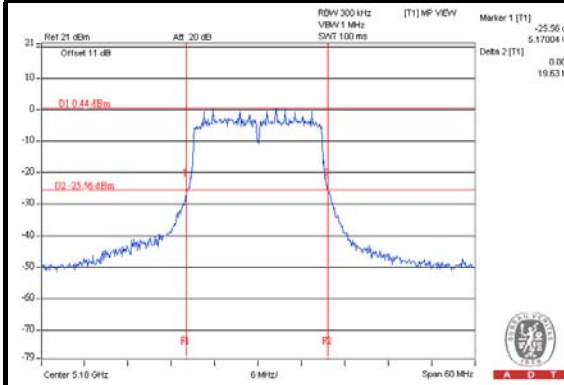
Note: For output power limitation is determined based on 26dBc bandwidth.

Power Limit = 4dBm + 10logB < UNII Band 1 >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
36	5180	19.50	16.90 < 17
40	5200	19.33	16.86 < 17
48	5240	19.42	16.88 < 17
Power Limit = 11dBm + 10logB < UNII Band 2~3 >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	23.54	24.71 > 24
60	5300	27.35	25.36 > 24
64	5320	19.76	23.95 < 24
100	5500	19.32	23.86 < 24
116	5580	33.48	26.24 > 24
132	5660	32.55	26.12 > 24
140	5700	19.54	23.90 < 24

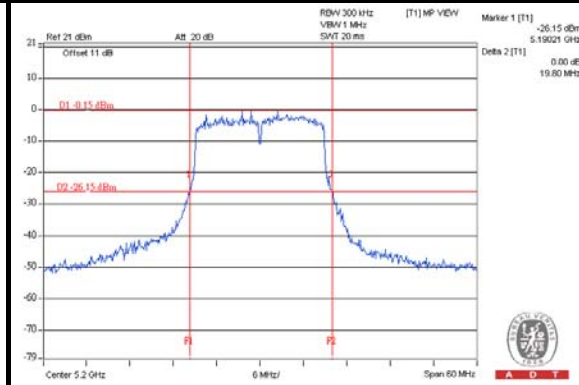


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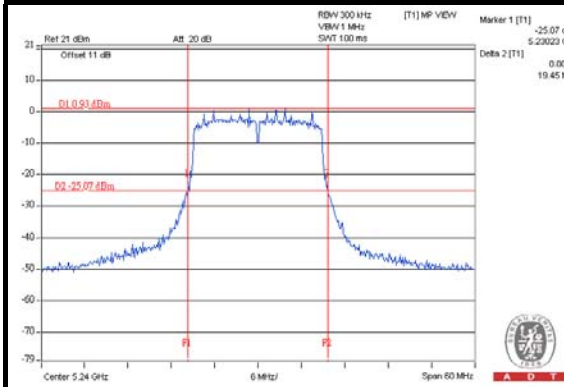
Chain(0) : CH36



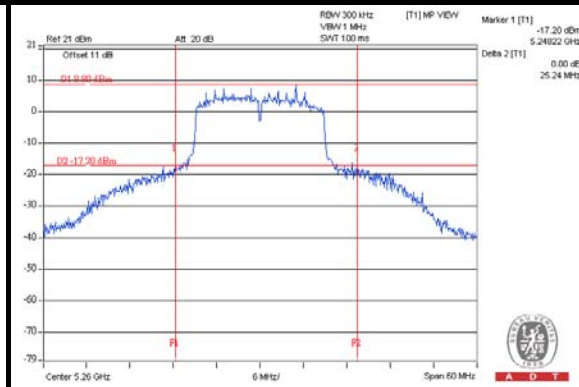
Chain(0) : CH40



Chain(0) : CH48



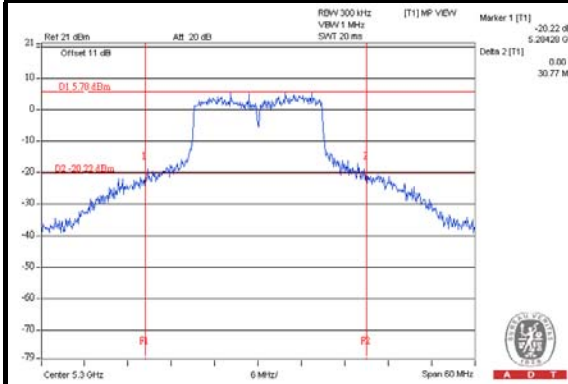
Chain(0) : CH52



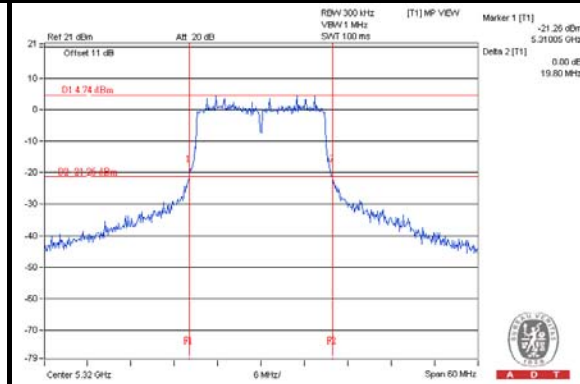


A D T

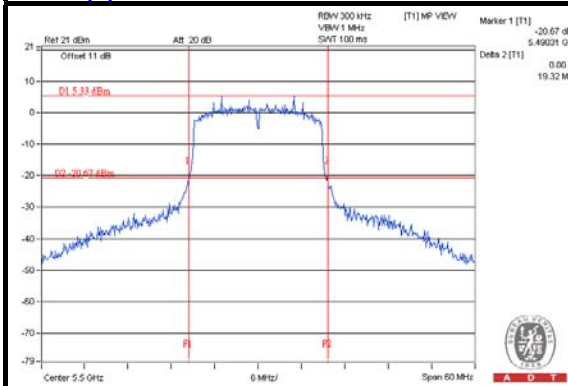
Chain(0) : CH60



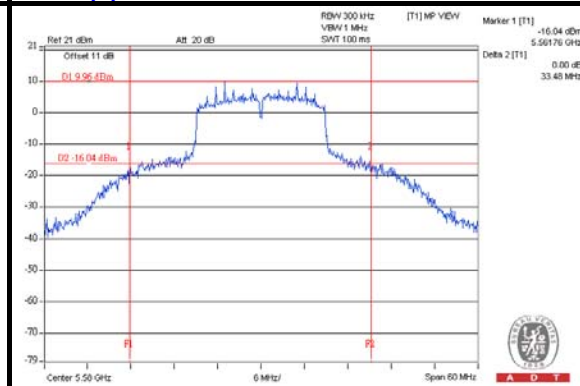
Chain(0) : CH64



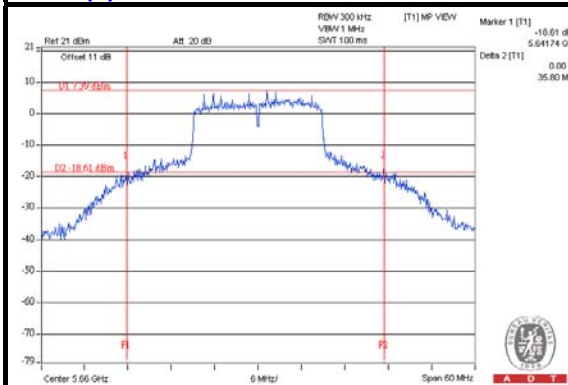
Chain(0) : CH100



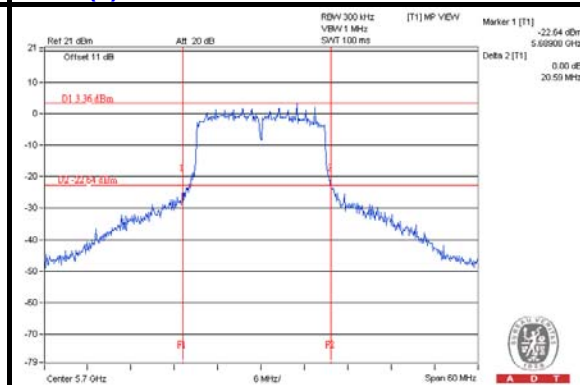
Chain(0) : CH116



Chain(0) : CH132



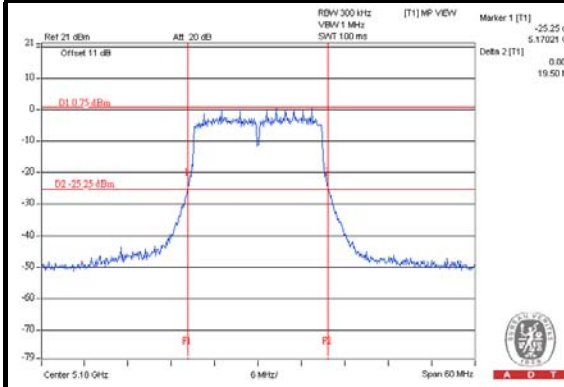
Chain(0) : CH140



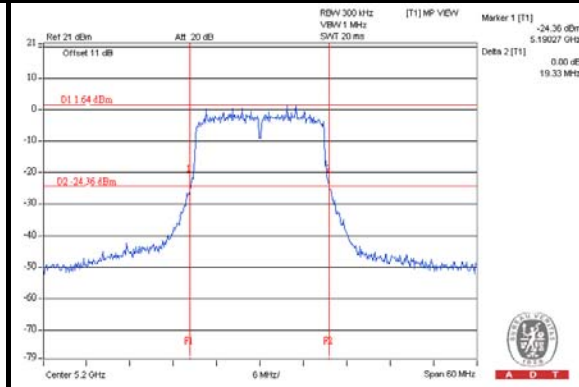


A D T

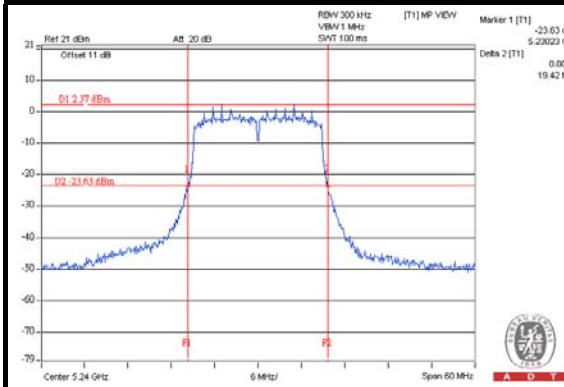
Chain(1) : CH36



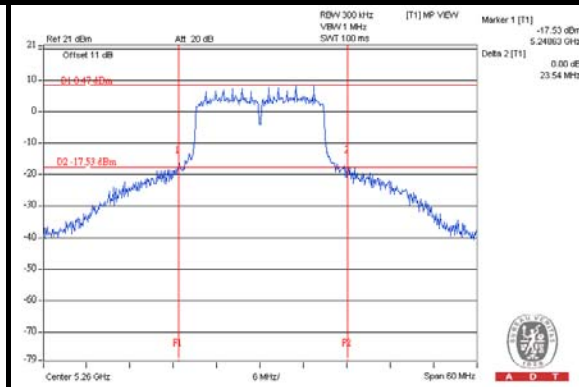
Chain(1) : CH40



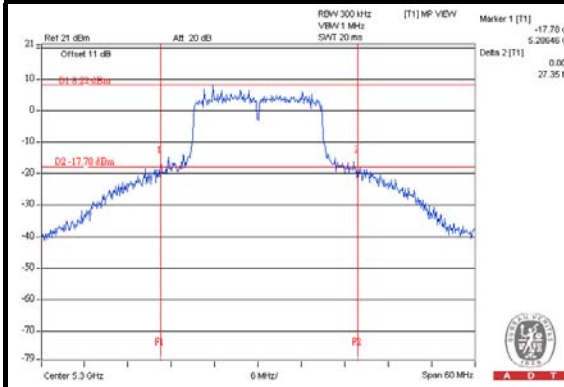
Chain(1) : CH48



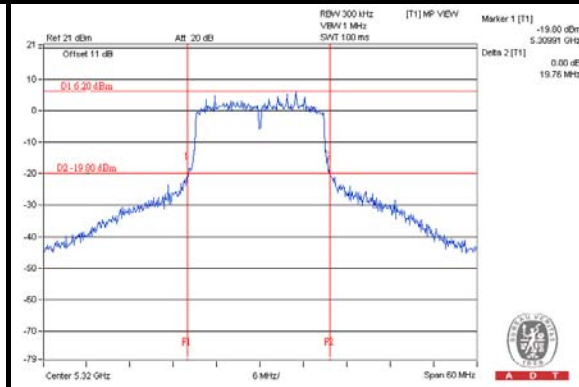
Chain(1) : CH52



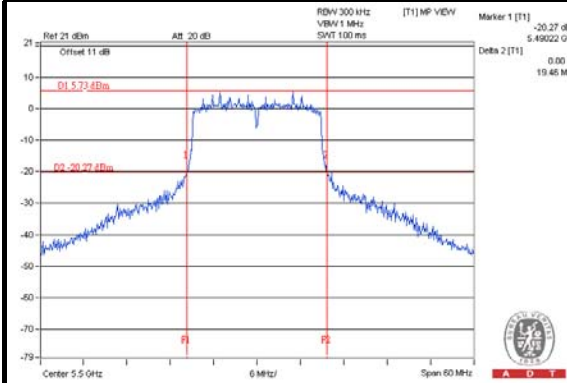
Chain(1) : CH60



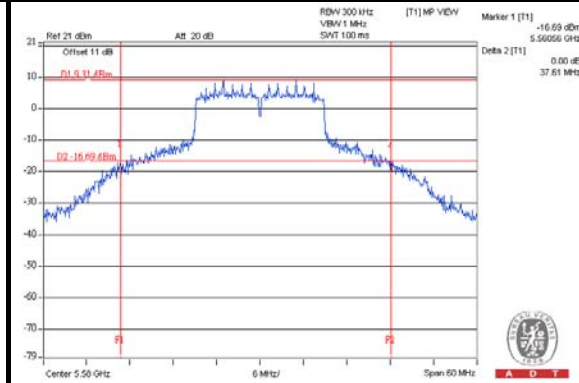
Chain(1) : CH64



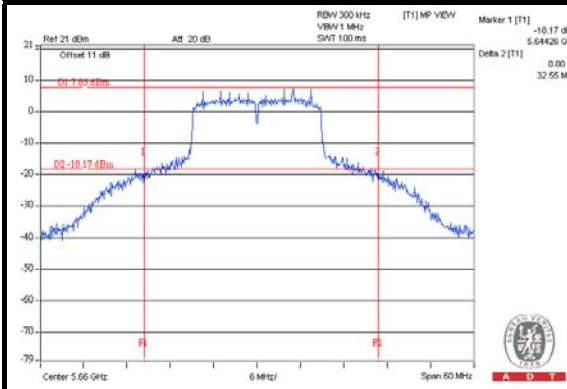
Chain(1) : CH100



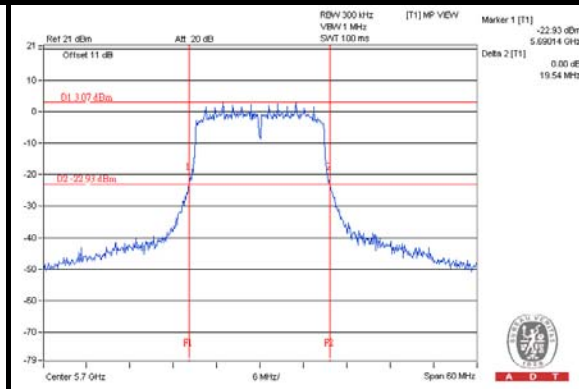
Chain(1) : CH116



Chain(1) : CH132



Chain(1) : CH140





A D T

802.11n (HT40)

POWER OUTPUT

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
38	5190	13.80	13.53	46.530	16.68	16.99	PASS
46	5230	13.78	13.68	47.213	16.74	16.99	PASS
54	5270	17.00	17.02	100.469	20.02	23.99	PASS
62	5310	13.13	13.45	42.690	16.30	23.99	PASS
102	5510	13.77	13.15	44.477	16.48	23.99	PASS
110	5550	17.71	17.69	117.769	20.71	23.99	PASS
134	5670	15.91	16.16	80.299	19.05	23.99	PASS

- NOTE:**
1. 5150~5250MHz: Directional gain = $3.00\text{dBi} + 10\log(2) = 6.01\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $17-(6.01-6) = 16.99\text{dBm}$.
 2. 5250~5350MHz: Directional gain = $3.00\text{dBi} + 10\log(2) = 6.01\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24-(6.01-6) = 23.99\text{dBm}$.
 3. 5470~5725MHz: Directional gain = $3.00\text{dBi} + 10\log(2) = 6.01\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24-(6.01-6) = 23.99\text{dBm}$.

802.11n (HT40)
26dB OCCUPIED BANDWIDTH

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	
		CHAIN 0	CHAIN 1
38	5190	41.71	41.89
46	5230	41.86	41.79
54	5270	48.82	45.08
62	5310	42.03	41.45
102	5510	41.55	41.79
110	5550	53.14	72.66
134	5670	55.36	42.71

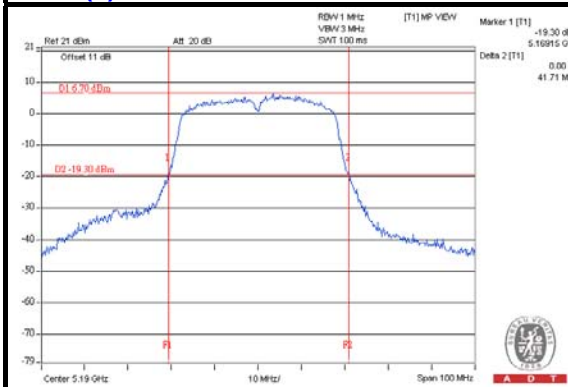
Note: For output power limitation is determined based on 26dBc bandwidth.

Power Limit = 4dBm + 10logB < UNII Band 1 >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
38	5190	41.71	20.20 > 17
46	5230	41.79	20.21 > 17
Power Limit = 11dBm + 10logB < UNII Band 2~3 >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	45.08	27.53 > 24
62	5310	41.45	27.17 > 24
102	5510	41.55	27.18 > 24
110	5550	53.14	28.25 > 24
134	5670	42.71	27.30 > 24

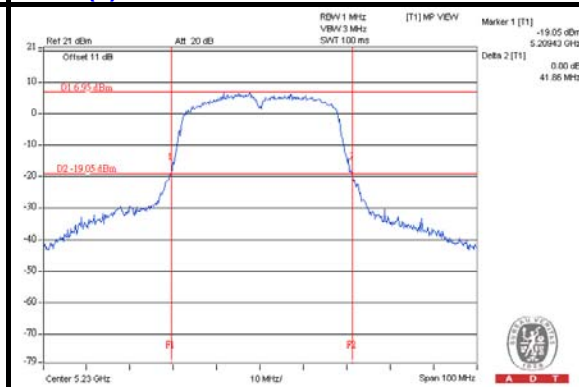


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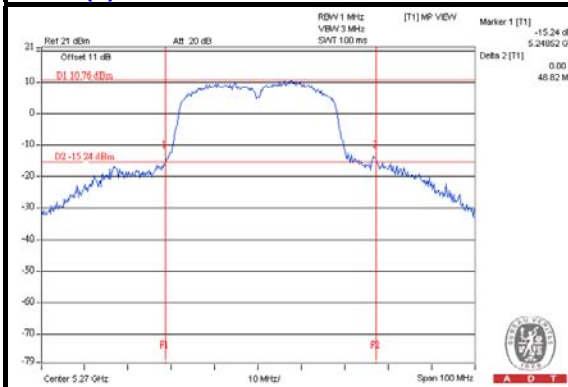
Chain(0) : CH38



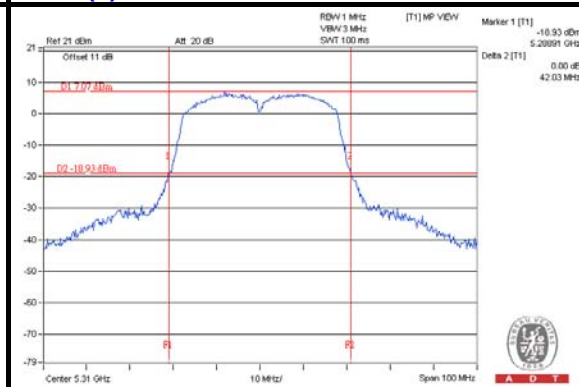
Chain(0) : CH46



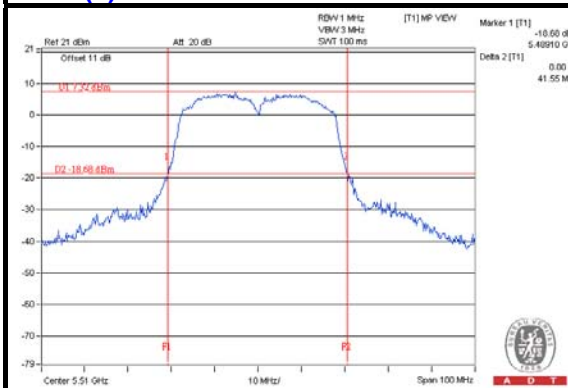
Chain(0) : CH54



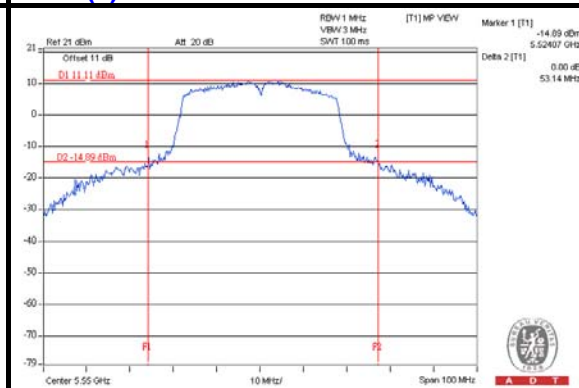
Chain(0) : CH62



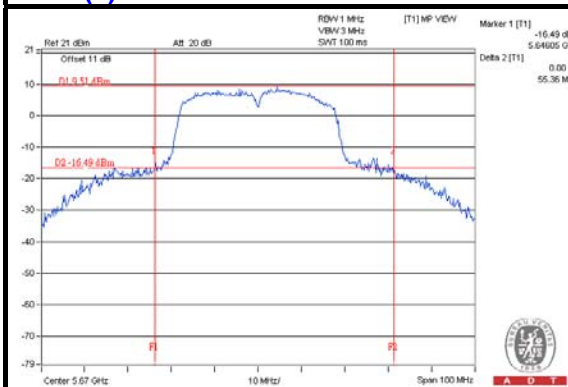
Chain(0) : CH102



Chain(0) : CH110



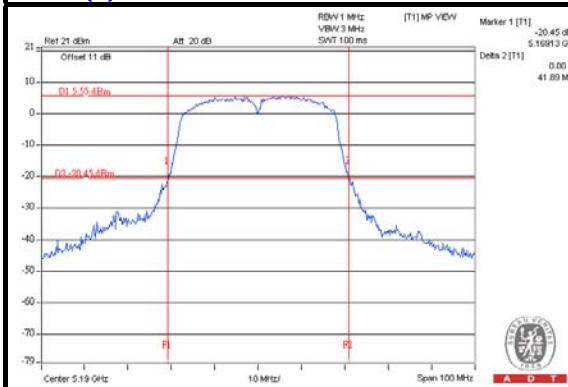
Chain(0) : CH134



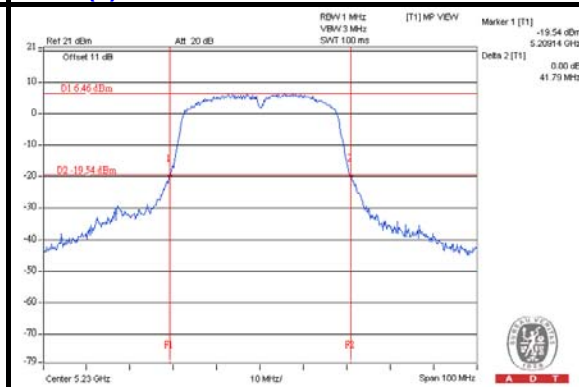


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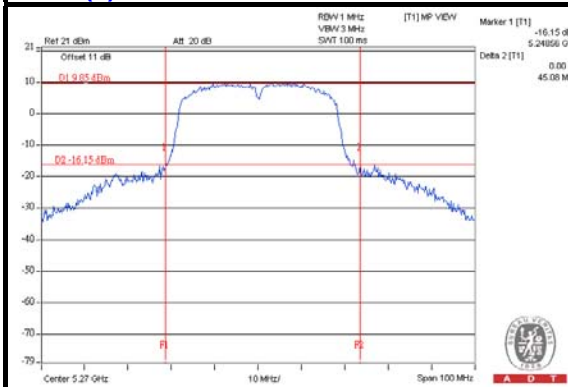
Chain(1) : CH38



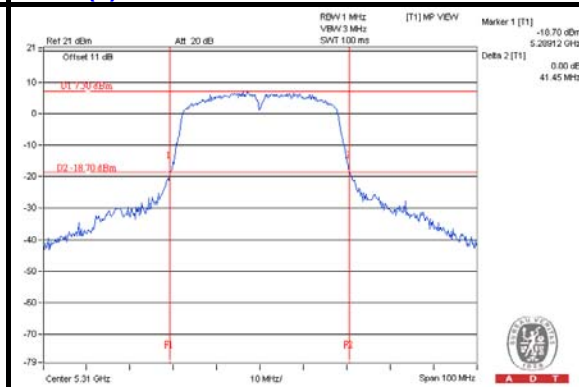
Chain(1) : CH46



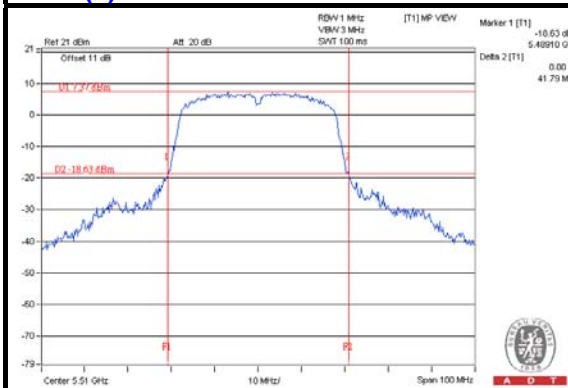
Chain(1) : CH54



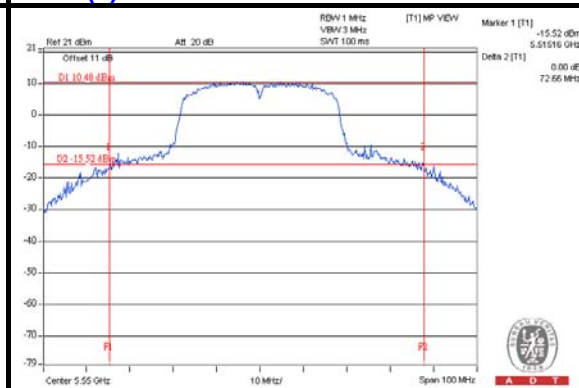
Chain(1) : CH62



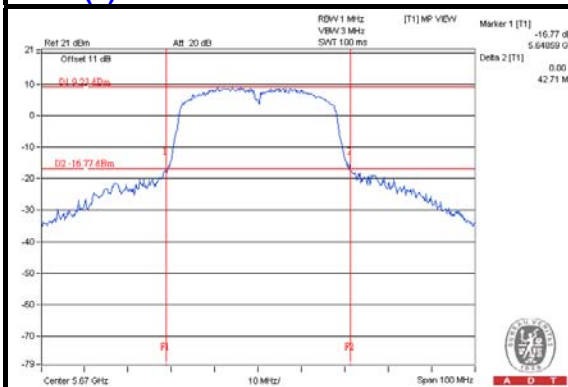
Chain(1) : CH102



Chain(1) : CH110



Chain(1) : CH134





A D T

For RSS-210 A9.2

5.18~5.24GHz

802.11a

CONDUCTED POWER:

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)
		CHAIN 0	CHAIN 1		
36	5180	12.93	12.19	36.192	15.59
40	5200	12.61	12.64	36.604	15.64
48	5240	12.87	12.72	38.071	15.81

EIRP POWER:

CHAN.	CHAN. FREQ. (MHz)	TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
36	5180	144.415	21.60	22.12	PASS
40	5200	146.059	21.65	22.12	PASS
48	5240	151.913	21.82	22.12	PASS

802.11a

99% OCCUPIED BANDWIDTH

CHANNEL	CHANNEL FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHz)	
		CHAIN 0	CHAIN 1
36	5180	16.44	16.32
40	5200	16.32	16.32
48	5240	16.32	16.32

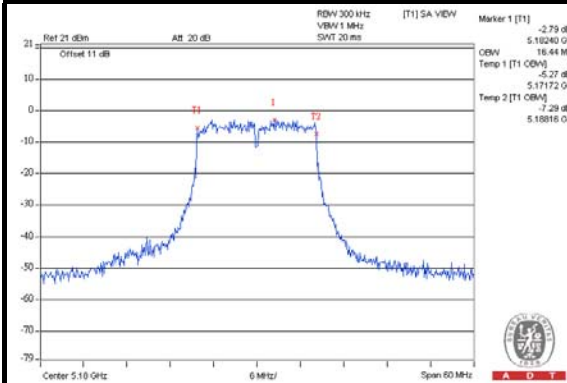
Note: For output power limitation is determined based on 99% bandwidth.

Power Limit = 10dBm + 10logB < UNII Band 1 >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined EIRP Limit (dBm)
36	5180	16.32	22.12 < 23
40	5200	16.32	22.12 < 23
48	5240	16.32	22.12 < 23

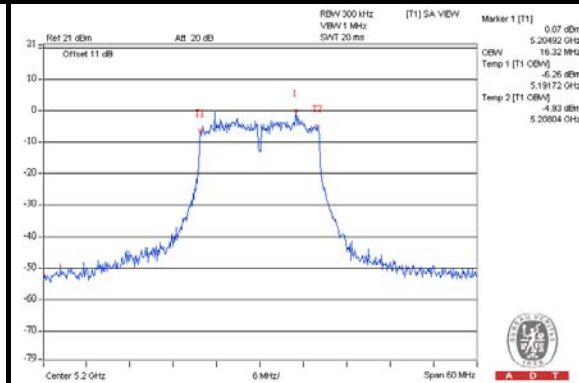


A D T

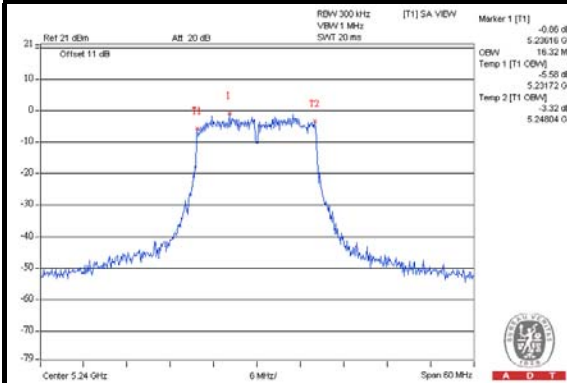
Chain(0) : CH36



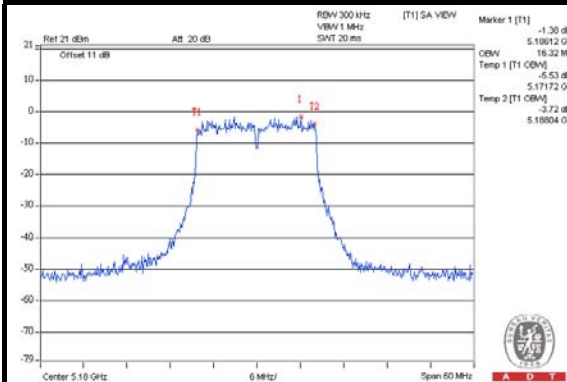
Chain(0) : CH40



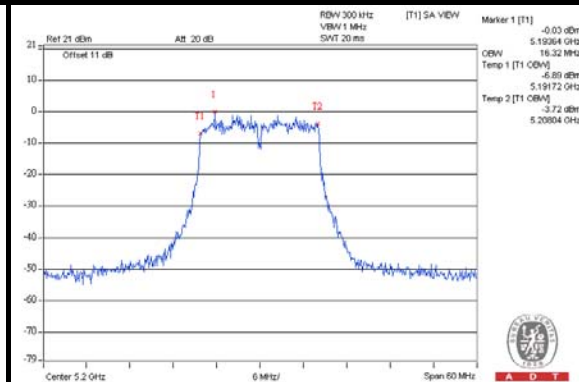
Chain(0) : CH48



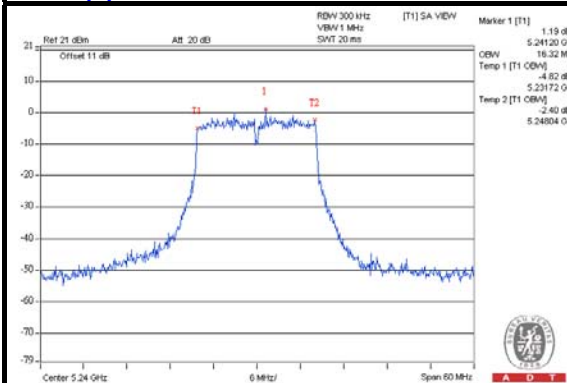
Chain(1) : CH36



Chain(1) : CH40



Chain(1) : CH48





A D T

5.26~5.32GHz, 5.50~5.58GHz & 5.66GHz~5.70GHz

802.11a

CONDUCTED POWER:

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
52	5260	19.73	19.66	186.442	22.71	23.18	PASS
60	5300	19.45	19.57	178.678	22.52	23.18	PASS
64	5320	16.05	16.04	80.451	19.06	23.11	PASS
100	5500	13.56	12.85	41.974	16.23	23.14	PASS
116	5580	19.43	20.06	189.091	22.77	23.82	PASS
132	5660	18.55	19.23	155.367	21.91	23.18	PASS
140	5700	14.55	14.51	56.759	17.54	23.11	PASS

- NOTE:**
1. 5250~5350MHz: Directional gain = $3.00\text{dBi} + 10\log(2) = 6.01\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $23.12 - (6.01 - 6) = 23.11\text{dBm}$.
 2. 5470~5725MHz: Directional gain = $3.00\text{dBi} + 10\log(2) = 6.01\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $23.12 - (6.01 - 6) = 23.11\text{dBm}$.

EIRP POWER:

CHAN.	CHAN. FREQ. (MHz)	TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
52	5260	743.950	28.72	29.19	PASS
60	5300	712.970	28.53	29.19	PASS
64	5320	321.020	25.07	29.12	PASS
100	5500	167.487	22.24	29.15	PASS
116	5580	754.520	28.78	29.83	PASS
132	5660	619.953	27.92	29.19	PASS
140	5700	226.483	23.55	29.12	PASS



A D T

802.11a

99% OCCUPIED BANDWIDTH

CHANNEL	CHANNEL FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHz)	
		CHAIN 0	CHAIN 1
52	5260	16.56	16.56
60	5300	16.56	16.56
64	5320	16.32	16.44
100	5500	16.56	16.44
116	5580	19.20	21.12
132	5660	17.04	16.56
140	5700	16.56	16.32

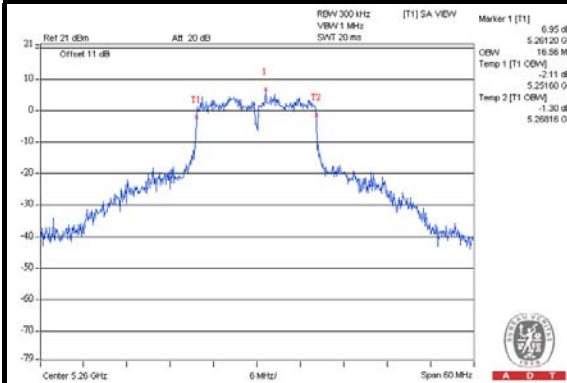
Note: For output power limitation is determined based on 99% bandwidth.

Power Limit = $11\text{dBm} + 10\log B < \text{UNII Band 2~3}>$				
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)	Determined EIRP Limit (dBm)
52	5260	16.56	23.19 < 24	29.19 < 30
60	5300	16.56	23.19 < 24	29.19 < 30
64	5320	16.32	23.12 < 24	29.12 < 30
100	5500	16.44	23.15 < 24	29.15 < 30
116	5580	19.20	23.83 < 24	29.83 < 30
132	5660	16.56	23.19 < 24	29.19 < 30
140	5700	16.32	23.12 < 24	29.12 < 30

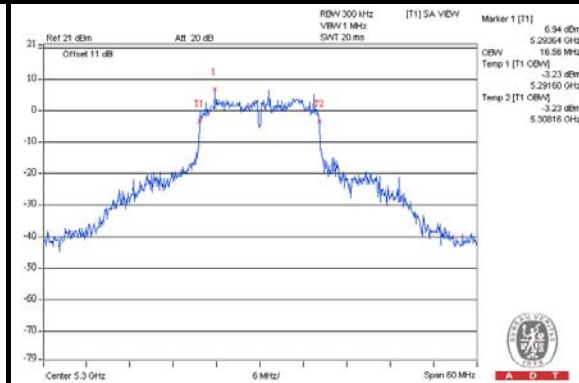


A D T

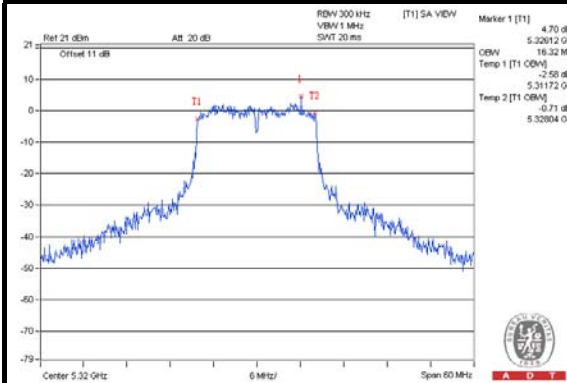
Chain(0) : CH52



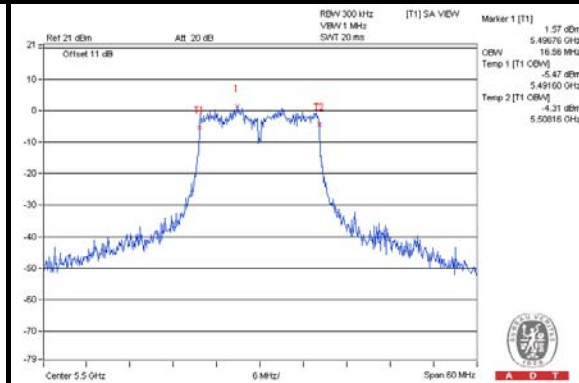
Chain(0) : CH60



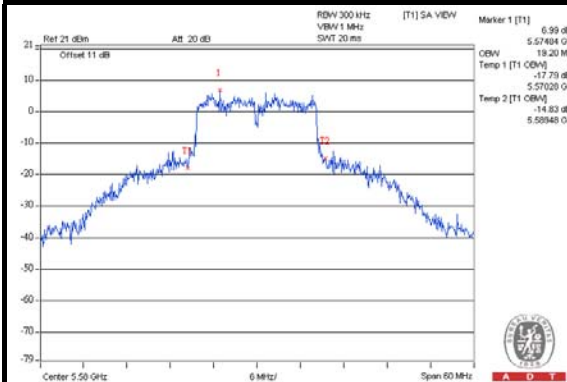
Chain(0) : CH64



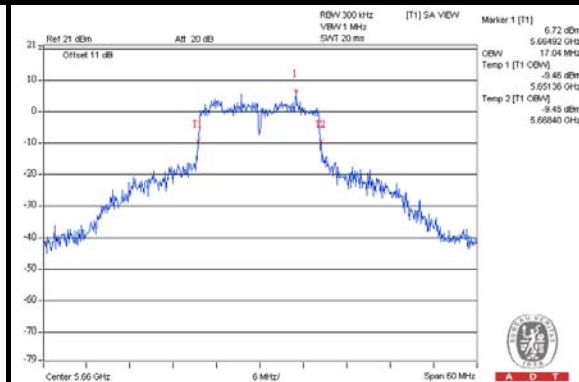
Chain(0) : CH100



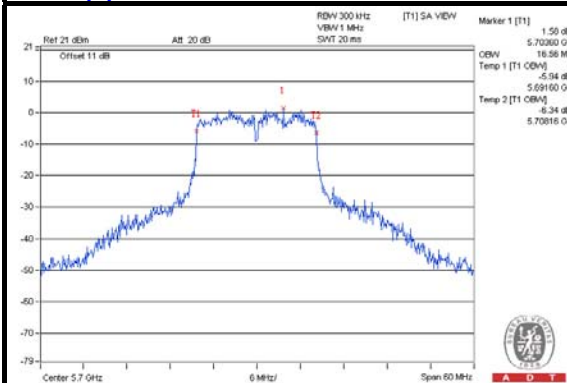
Chain(0) : CH116



Chain(0) : CH132



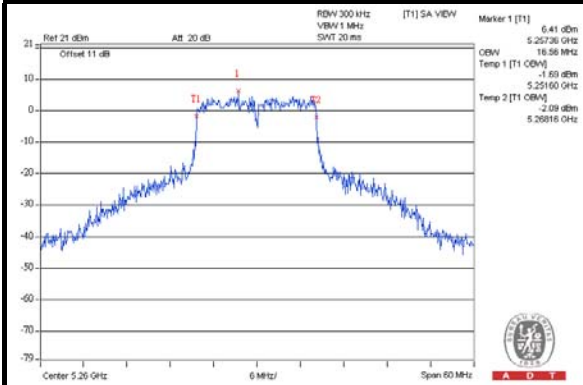
Chain(0) : CH140



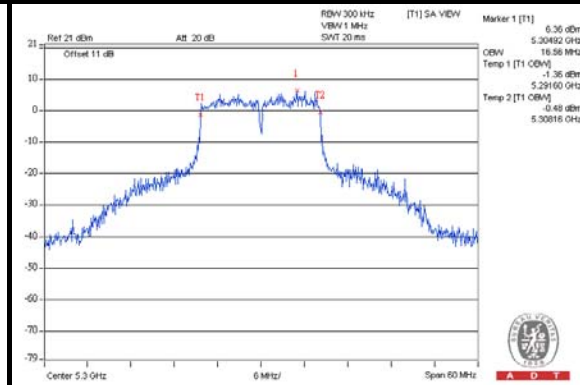


A D T

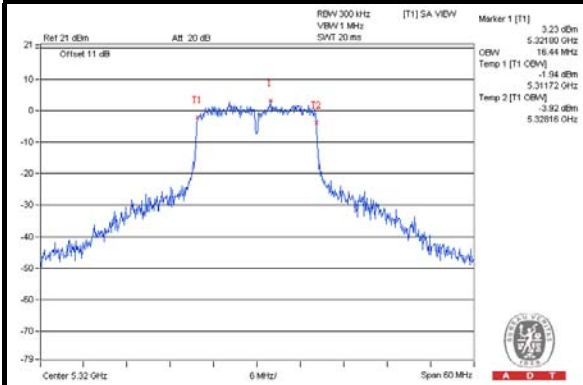
Chain(1) : CH52



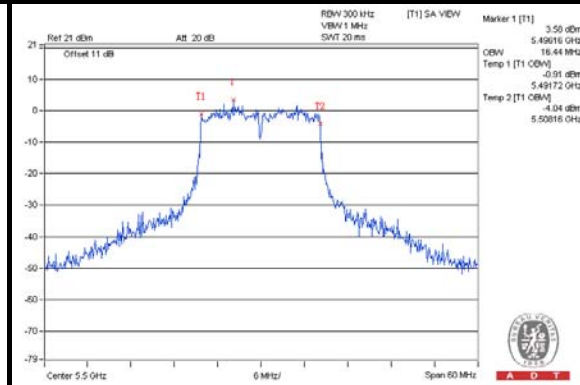
Chain(1) : CH60



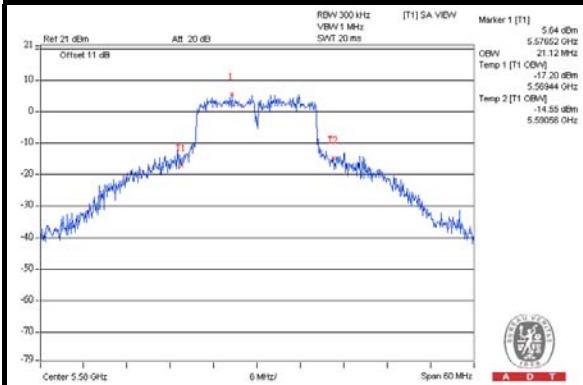
Chain(1) : CH64



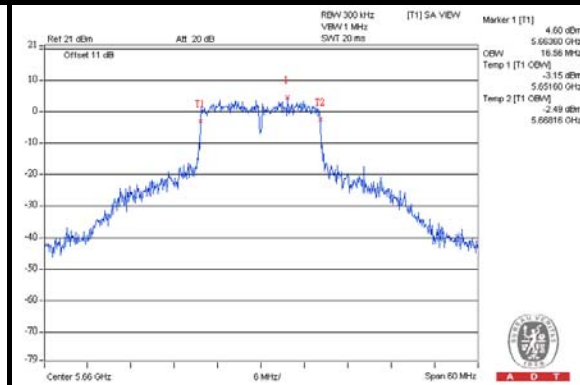
Chain(1) : CH100



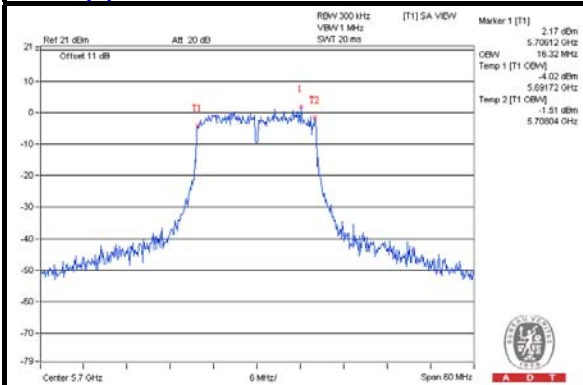
Chain(1) : CH116



Chain(1) : CH132



Chain(1) : CH140





A D T

5.18~5.24GHz

802.11n (HT20)

CONDUCTED POWER:

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)
		CHAIN 0	CHAIN 1		
36	5180	13.17	12.93	40.383	16.06
40	5200	13.28	12.33	38.381	15.84
48	5240	13.44	12.93	41.714	16.20

EIRP POWER:

CHAN.	CHAN. FREQ. (MHz)	TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
36	5180	161.138	22.07	22.43	PASS
40	5200	153.150	21.85	22.43	PASS
48	5240	166.449	22.21	22.43	PASS

802.11n (HT20)

99% OCCUPIED BANDWIDTH

CHANNEL	CHANNEL FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHz)	
		CHAIN 0	CHAIN 1
36	5180	17.52	17.52
40	5200	17.64	17.52
48	5240	17.52	17.52

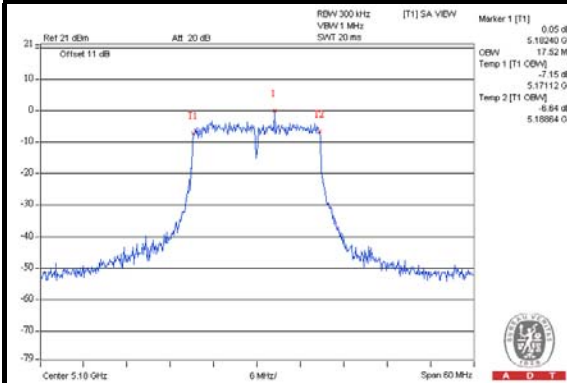
Note: For output power limitation is determined based on 99% bandwidth.

Power Limit = 10dBm + 10logB < UNII Band 1 >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined EIRP Limit (dBm)
36	5180	17.52	22.43 < 23
40	5200	17.52	22.43 < 23
48	5240	17.52	22.43 < 23

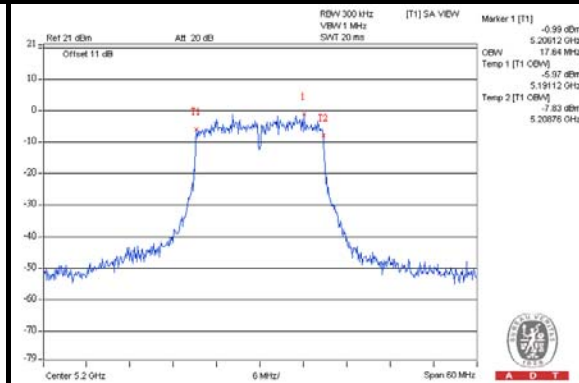


A D T

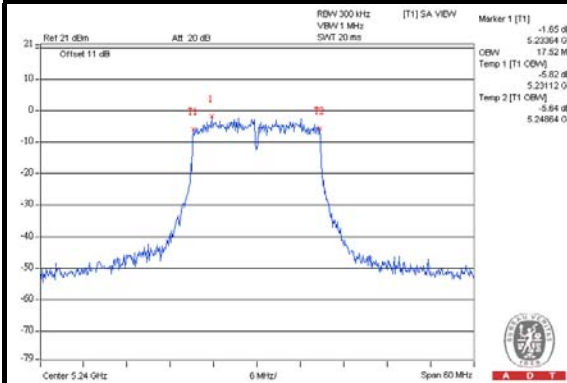
Chain(0) : CH36



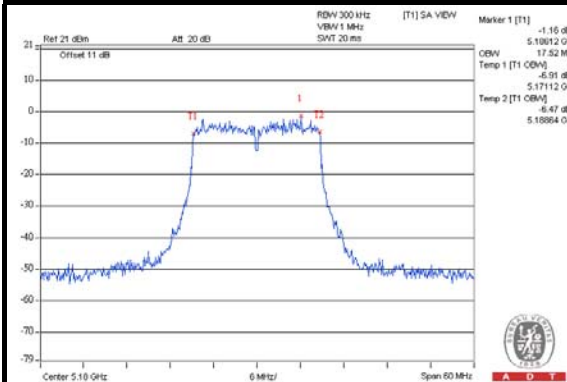
Chain(0) : CH40



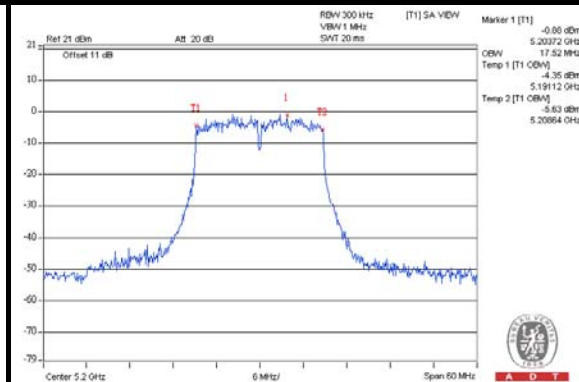
Chain(0) : CH48



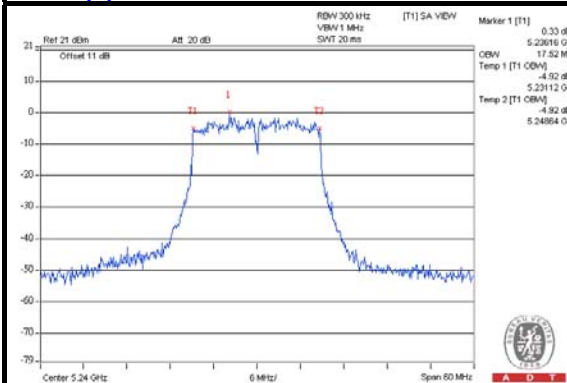
Chain(1) : CH36



Chain(1) : CH40



Chain(1) : CH48





A D T

5.26~5.32GHz, 5.50~5.58GHz & 5.66GHz~5.70GHz

802.11n (HT20)

CONDUCTED POWER:

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
52	5260	19.10	19.46	169.591	22.29	23.48	PASS
60	5300	18.96	19.21	162.073	22.10	23.48	PASS
64	5320	16.33	16.34	86.007	19.35	23.42	PASS
100	5500	14.24	13.13	47.105	16.73	23.42	PASS
116	5580	19.31	19.57	175.883	22.45	23.54	PASS
132	5660	19.51	19.63	181.164	22.58	23.48	PASS
140	5700	13.64	13.21	44.062	16.44	23.42	PASS

- NOTE:**
1. 5250~5350MHz: Directional gain = 3.00dBi + 10log(2) = 6.01dBi > 6dBi , so the power limit shall be reduced to 23.43-(6.01-6) = 23.42dBm.
 2. 5470~5725MHz: Directional gain = 3.00dBi + 10log(2) = 6.01dBi > 6dBi , so the power limit shall be reduced to 23.43-(6.01-6) = 23.42dBm.

EIRP POWER:

CHAN.	CHAN. FREQ. (MHz)	TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
52	5260	676.710	28.30	29.49	PASS
60	5300	646.712	28.11	29.49	PASS
64	5320	343.189	25.36	29.43	PASS
100	5500	187.961	22.74	29.43	PASS
116	5580	701.817	28.46	29.55	PASS
132	5660	722.889	28.59	29.49	PASS
140	5700	175.818	22.45	29.43	PASS

802.11n (HT20)

99% OCCUPIED BANDWIDTH

CHANNEL	CHANNEL FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHz)	
		CHAIN 0	CHAIN 1
52	5260	17.76	17.76
60	5300	17.76	17.76
64	5320	17.64	17.52
100	5500	17.52	17.52
116	5580	18.00	22.32
132	5660	18.72	17.76
140	5700	17.52	17.52

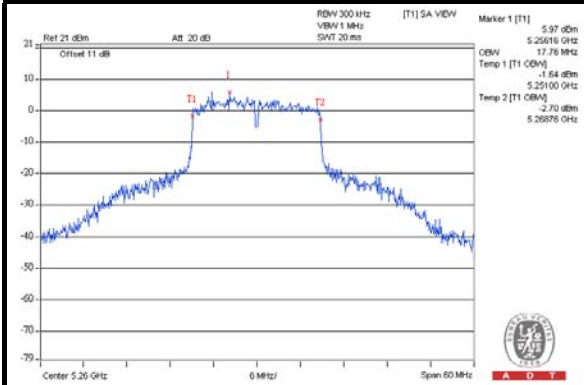
Note: For output power limitation is determined based on 99% bandwidth.

Power Limit = 11dBm + 10logB < UNII Band 2~3>				
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)	Determined EIRP Limit (dBm)
52	5260	17.76	23.49 < 24	29.49 < 30
60	5300	17.76	23.49 < 24	29.49 < 30
64	5320	17.52	23.43 < 24	29.43 < 30
100	5500	17.52	23.43 < 24	29.43 < 30
116	5580	18.00	23.55 < 24	29.55 < 30
132	5660	17.76	23.49 < 24	29.49 < 30
140	5700	17.52	23.43 < 24	29.43 < 30

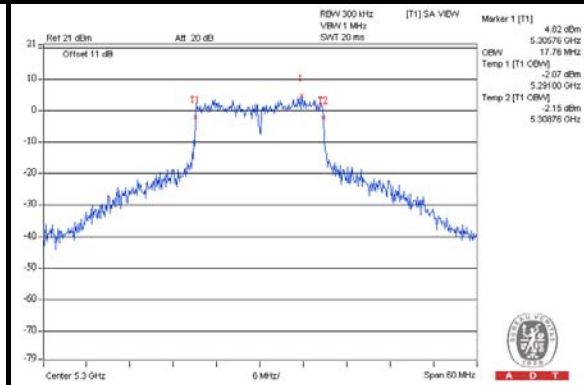


A D T

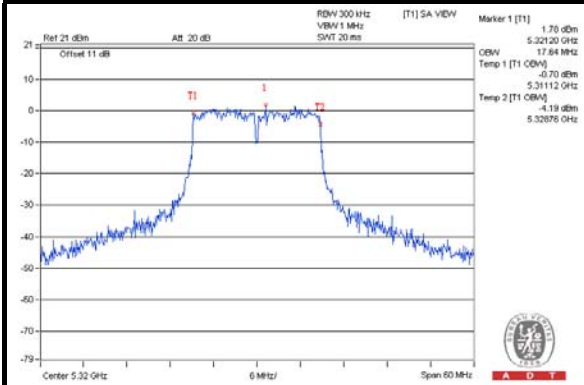
Chain(0) : CH52



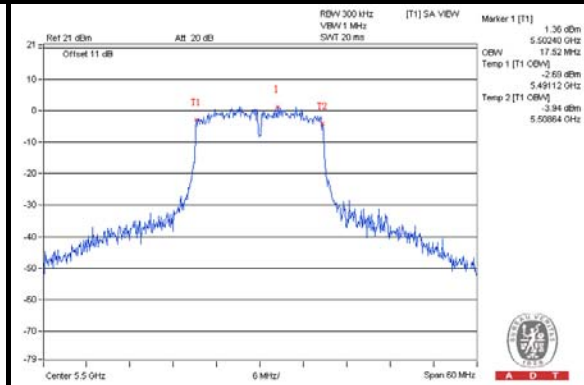
Chain(0) : CH60



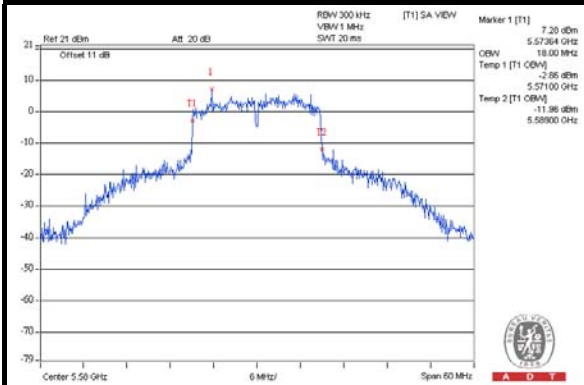
Chain(0) : CH64



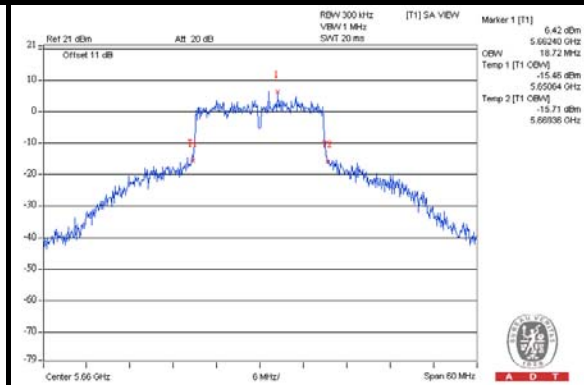
Chain(0) : CH100



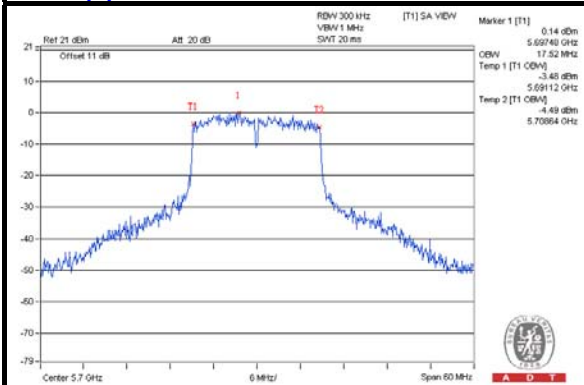
Chain(0) : CH116



Chain(0) : CH132



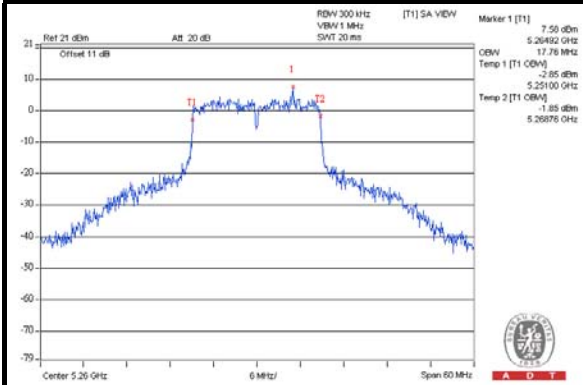
Chain(0) : CH140



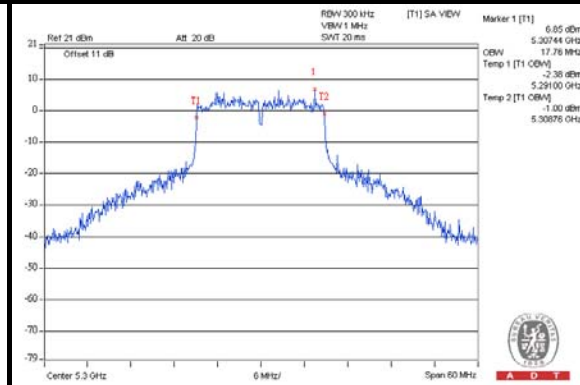


A D T

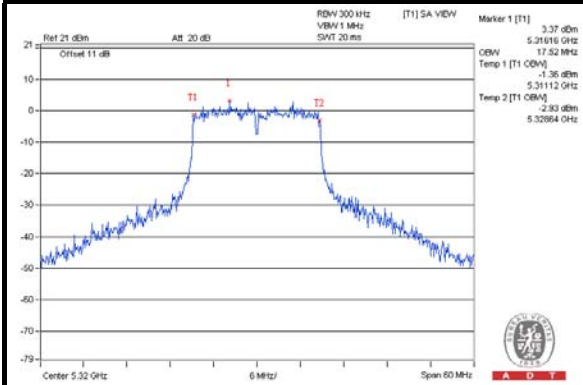
Chain(1) : CH52



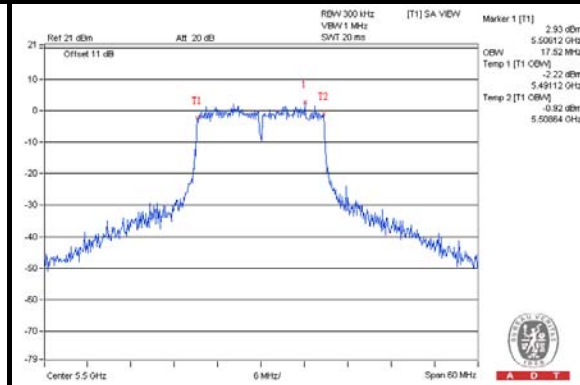
Chain(1) : CH60



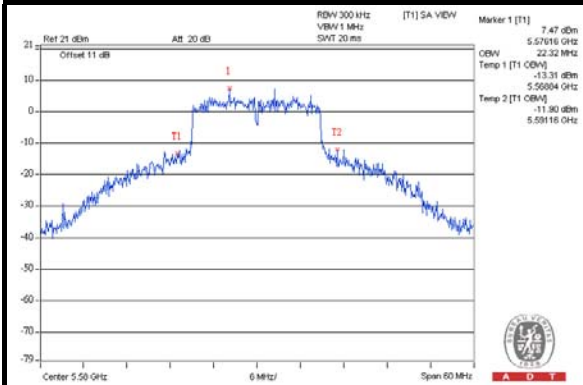
Chain(1) : CH64



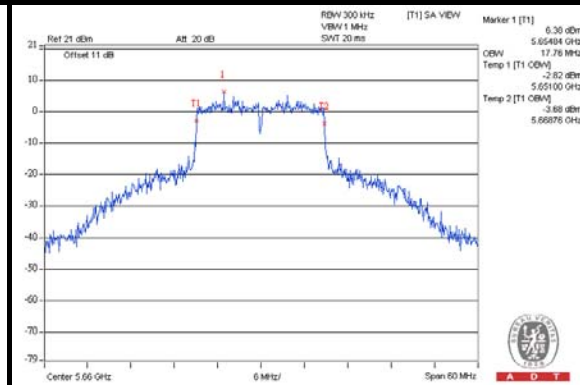
Chain(1) : CH100



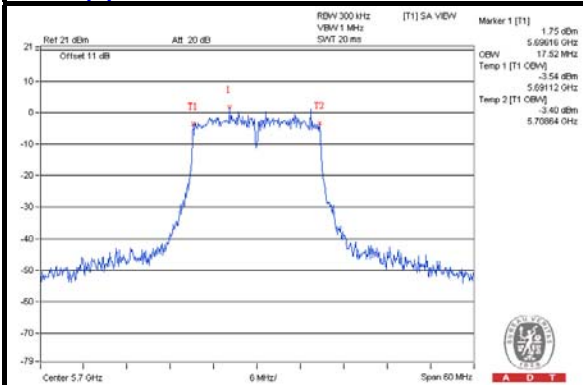
Chain(1) : CH116



Chain(1) : CH132



Chain(1) : CH140





A D T

5.18~5.24GHz

802.11n (HT40)

CONDUCTED POWER:

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)
		CHAIN 0	CHAIN 1		
38	5190	13.80	13.53	46.530	16.68
46	5230	13.78	13.68	47.213	16.74

EIRP POWER:

CHAN.	CHAN. FREQ. (MHz)	TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
38	5190	185.666	22.69	23.00	PASS
46	5230	188.392	22.75	23.00	PASS

802.11n (HT40)

99% OCCUPIED BANDWIDTH

CHANNEL	CHANNEL FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHz)	
		CHAIN 0	CHAIN 1
38	5190	35.80	35.80
46	5230	35.80	35.80

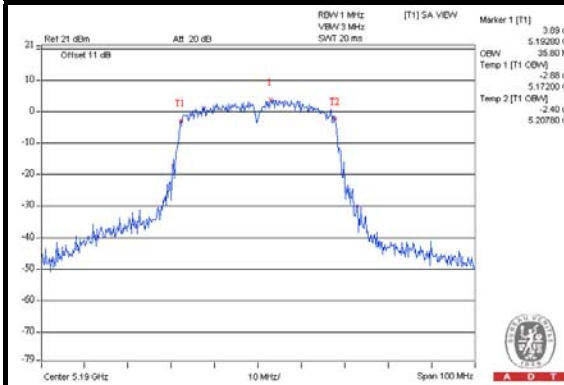
Note: For output power limitation is determined based on 99% bandwidth.

Power Limit = 10dBm + 10logB < UNII Band 1 >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined EIRP Limit (dBm)
38	5190	35.80	25.53 > 23
46	5230	35.80	25.53 > 23

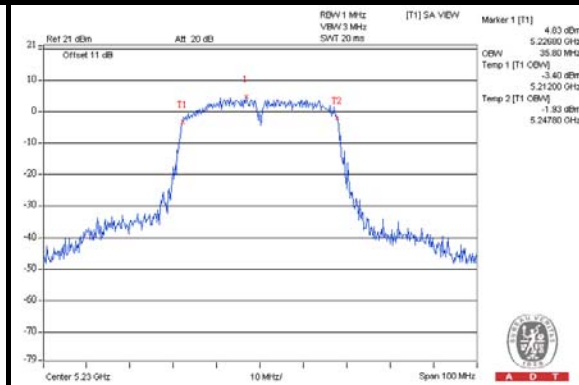


A D T

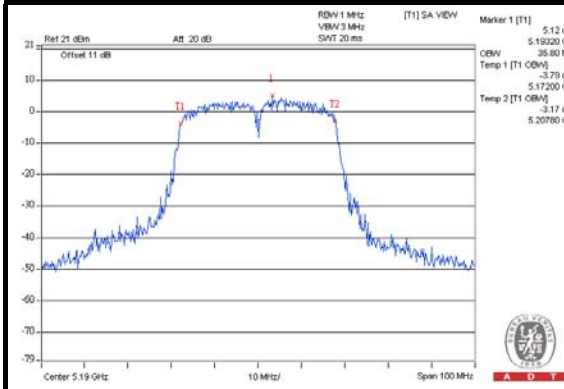
Chain(0) : CH38



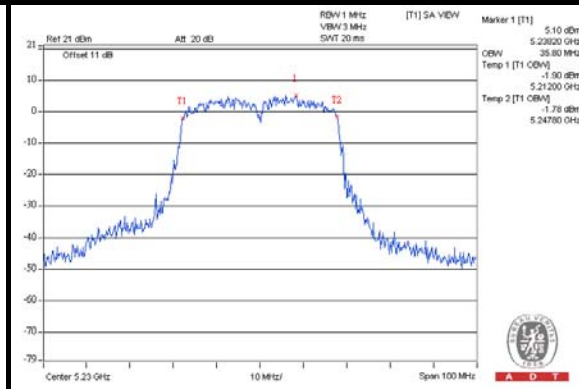
Chain(0) : CH46



Chain(1) : CH38



Chain(1) : CH46





A D T

5.26~5.32GHz, 5.50~5.58GHz & 5.66GHz~5.70GHz

802.11n (HT40)

CONDUCTED POWER:

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
54	5270	17.00	17.02	100.469	20.02	23.99	PASS
62	5310	13.13	13.45	42.690	16.30	23.99	PASS
102	5510	13.77	13.15	44.477	16.48	23.99	PASS
110	5550	17.71	17.69	117.769	20.71	23.99	PASS
134	5670	15.91	16.16	80.299	19.05	23.99	PASS

- NOTE:**
1. 5250~5350MHz: Directional gain = $3.00\text{dBi} + 10\log(2) = 6.01\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (6.01 - 6) = 23.99\text{dBm}$.
 2. 5470~5725MHz: Directional gain = $3.00\text{dBi} + 10\log(2) = 6.01\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (6.01 - 6) = 23.99\text{dBm}$.

EIRP POWER:

CHAN.	CHAN. FREQ. (MHz)	TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
54	5270	400.896	26.03	29.99	PASS
62	5310	170.344	22.31	29.99	PASS
102	5510	177.474	22.49	29.99	PASS
110	5550	469.928	26.72	29.99	PASS
134	5670	320.413	25.06	29.99	PASS



A D T

802.11n (HT40)
99% OCCUPIED BANDWIDTH

CHANNEL	CHANNEL FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHz)	
		CHAIN 0	CHAIN 1
54	5270	36.00	35.80
62	5310	35.60	36.00
102	5510	35.60	35.80
110	5550	36.00	36.20
134	5670	36.00	35.60

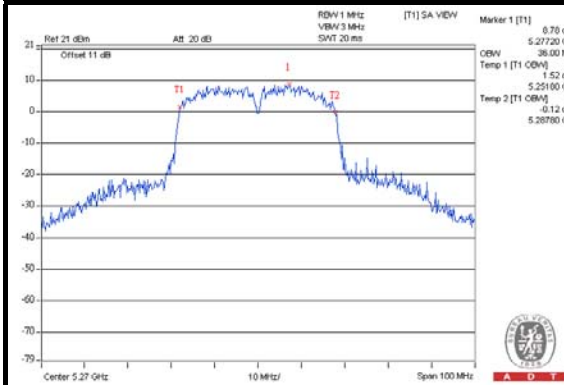
Note: For output power limitation is determined based on 99% bandwidth.

Power Limit = 11dBm + 10logB < UNII Band 2~3>				
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)	Determined EIRP Limit (dBm)
54	5270	35.80	26.53 > 24	32.53 > 30
62	5310	35.60	26.51 > 24	32.51 > 30
102	5510	35.60	26.51 > 24	32.51 > 30
110	5550	36.00	26.56 > 24	32.56 > 30
134	5670	35.60	26.51 > 24	32.51 > 30

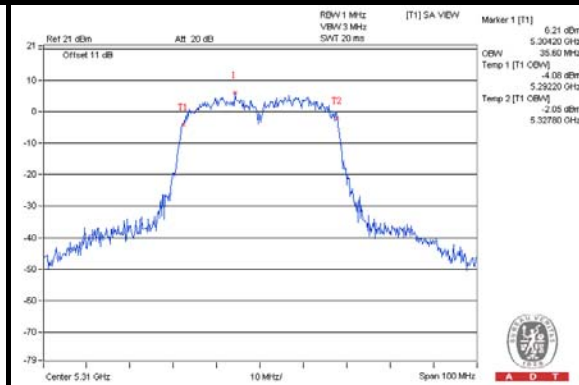


A D T

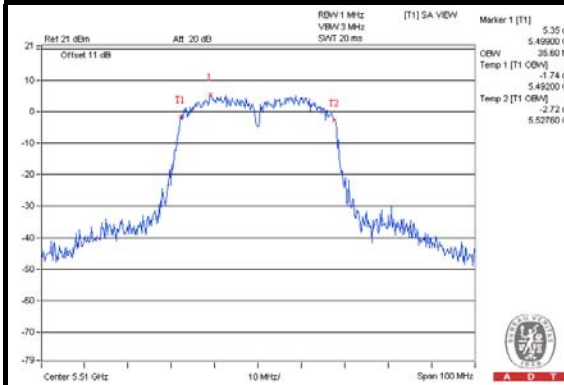
Chain(0) : CH54



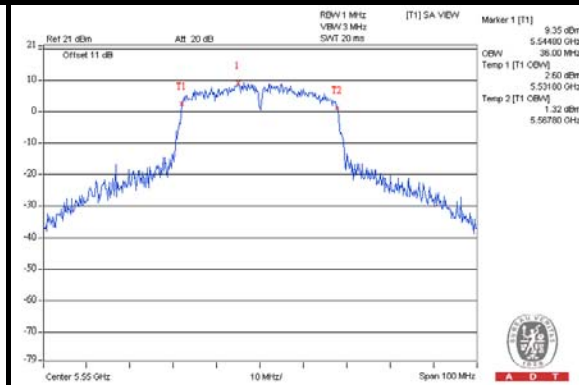
Chain(0) : CH62



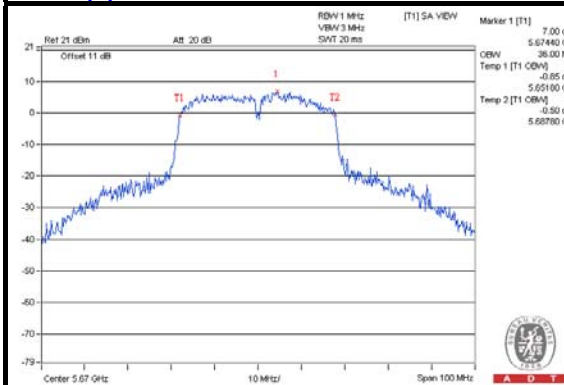
Chain(0) : CH102



Chain(0) : CH110



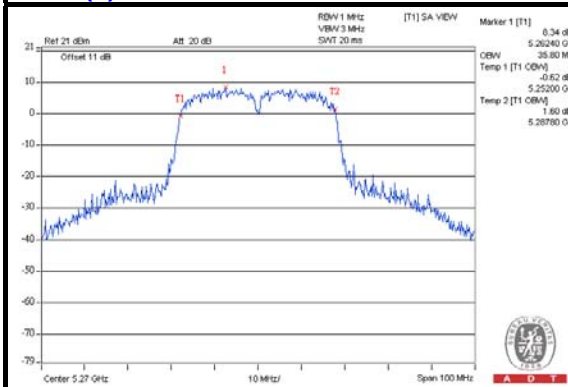
Chain(0) : CH134



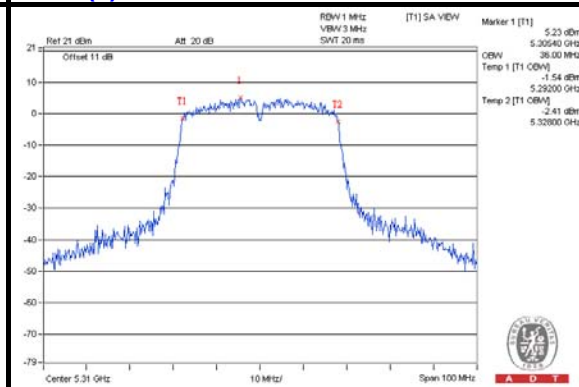


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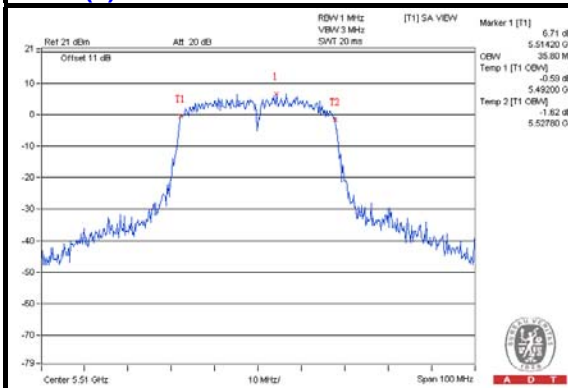
Chain(1) : CH54



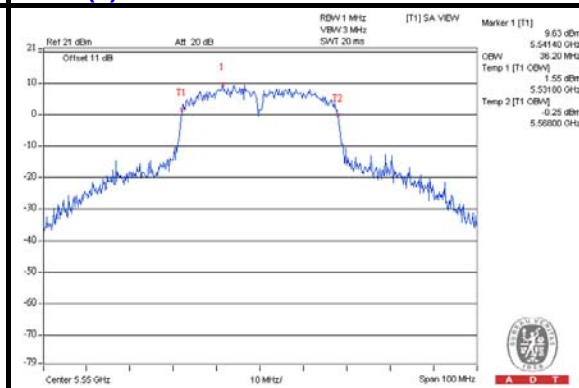
Chain(1) : CH62



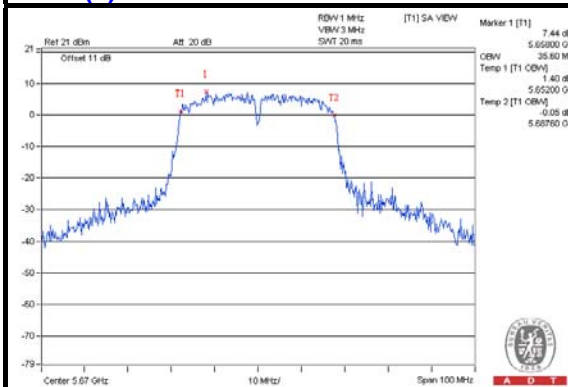
Chain(1) : CH102



Chain(1) : CH110



Chain(1) : CH134





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4.1.8 TEST RESULTS (MODE 2)

For FCC 15.407

802.11a

POWER OUTPUT

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	11.87	11.22	28.625	14.57	15.21	PASS
40	5200	11.53	11.61	28.711	14.58	15.20	PASS
48	5240	11.59	11.48	28.481	14.55	15.22	PASS
52	5260	18.29	18.25	134.287	21.28	22.48	PASS
60	5300	15.64	15.72	73.969	18.69	22.48	PASS
64	5320	16.05	16.04	80.451	19.06	22.10	PASS
100	5500	11.51	10.93	26.546	14.24	21.69	PASS
116	5580	18.13	18.65	138.295	21.41	22.01	PASS
132	5660	17.63	18.24	124.624	20.96	22.01	PASS
140	5700	14.55	14.51	56.759	17.54	21.62	PASS

- NOTE:**
1. 5150~5250MHz: Directional gain = $4.42\text{dBi} + 10\log(2) = 7.43\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $16.63 - (7.43 - 6) = 15.20\text{dBm}$.
 2. 5250~5350MHz: Directional gain = $4.51\text{dBi} + 10\log(2) = 7.52\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $23.62 - (7.52 - 6) = 22.10\text{dBm}$.
 3. 5470~5725MHz: Directional gain = $4.98\text{dBi} + 10\log(2) = 7.99\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $23.61 - (7.99 - 6) = 21.62\text{dBm}$.

802.11a
26dB OCCUPIED BANDWIDTH

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	
		CHAIN 0	CHAIN 1
36	5180	18.49	18.40
40	5200	18.35	18.40
48	5240	18.60	18.45
52	5260	29.81	23.56
60	5300	22.32	28.38
64	5320	18.30	18.95
100	5500	18.58	18.55
116	5580	35.18	36.13
132	5660	31.32	26.01
140	5700	20.20	18.26

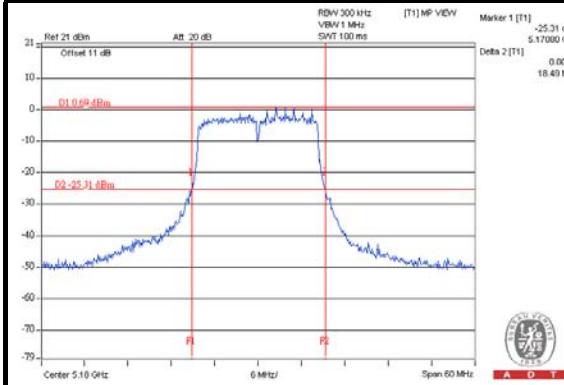
Note: For output power limitation is determined based on 26dBc bandwidth.

Power Limit = 4dBm + 10logB < UNII Band 1 >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
36	5180	18.40	16.64 < 17
40	5200	18.35	16.63 < 17
48	5240	18.45	16.65 < 17
Power Limit = 11dBm + 10logB < UNII Band 2~3 >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	23.56	24.72 > 24
60	5300	22.32	24.48 > 24
64	5320	18.30	23.62 < 24
100	5500	18.55	23.68 < 24
116	5580	35.18	26.46 > 24
132	5660	26.01	25.15 > 24
140	5700	18.26	23.61 < 24

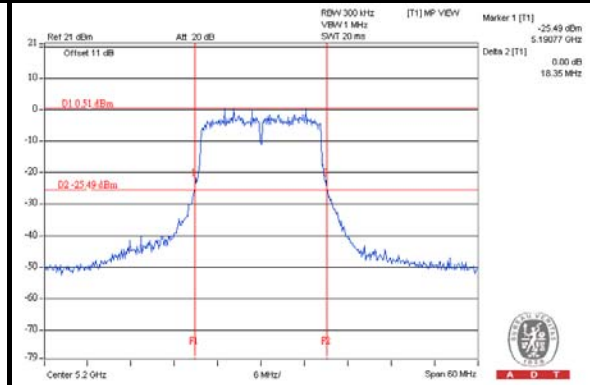


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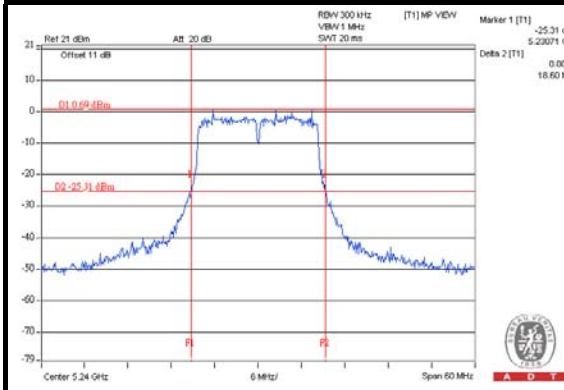
Chain(0) : CH36



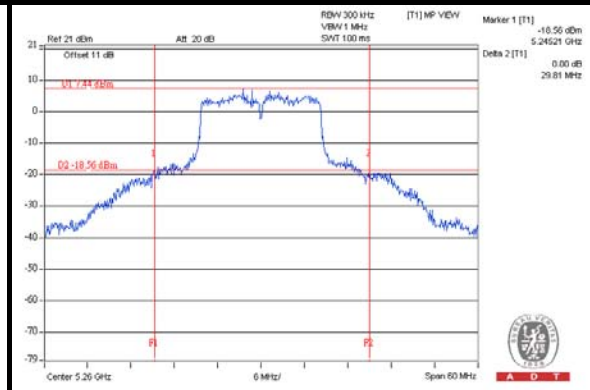
Chain(0) : CH40



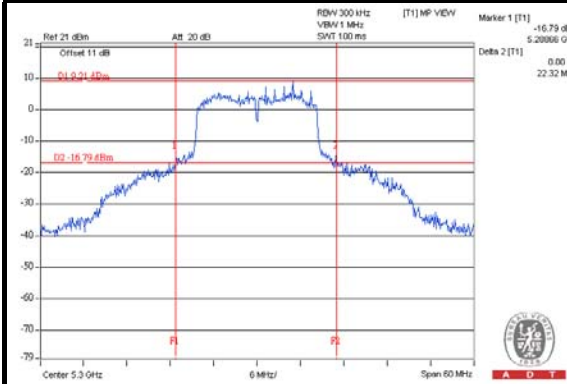
Chain(0) : CH48



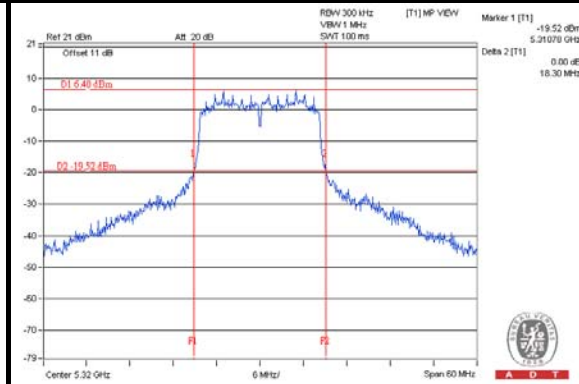
Chain(0) : CH52



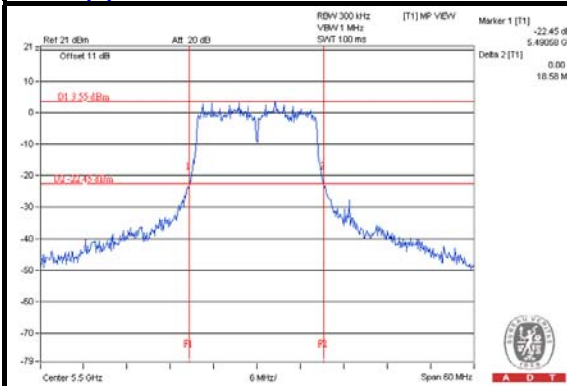
Chain(0) : CH60



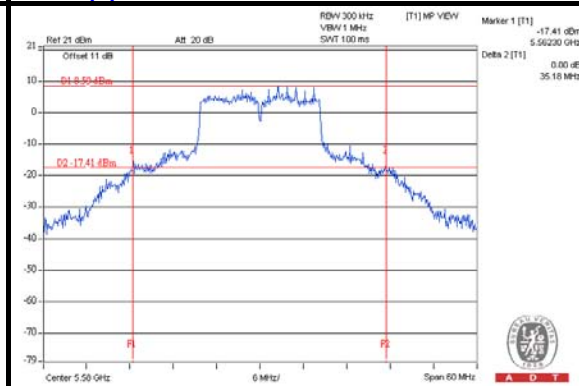
Chain(0) : CH64



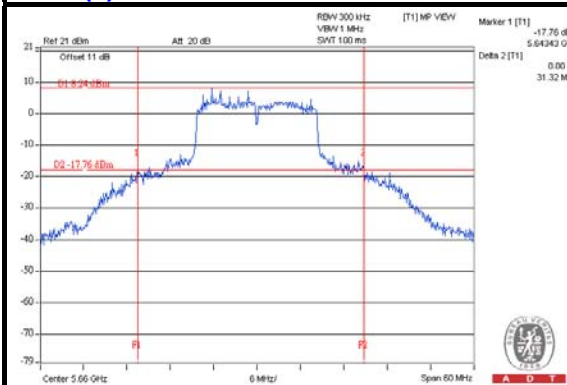
Chain(0) : CH100



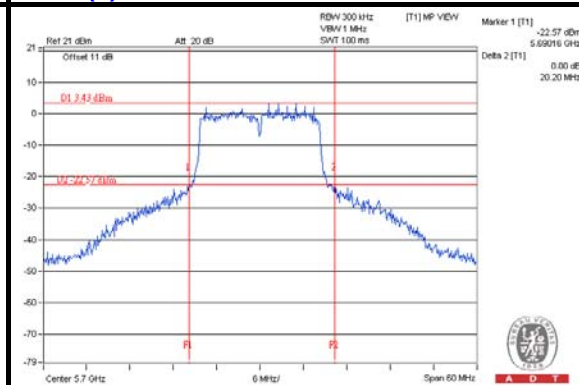
Chain(0) : CH116



Chain(0) : CH132



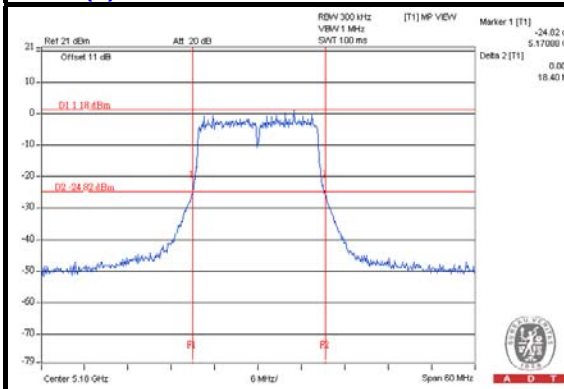
Chain(0) : CH140



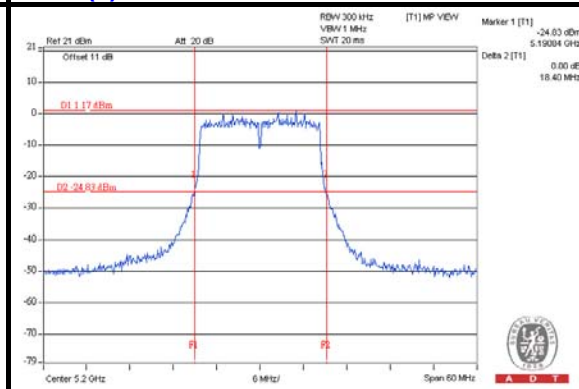


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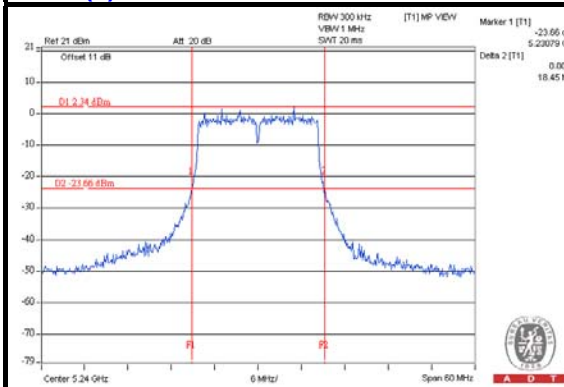
Chain(1) : CH36



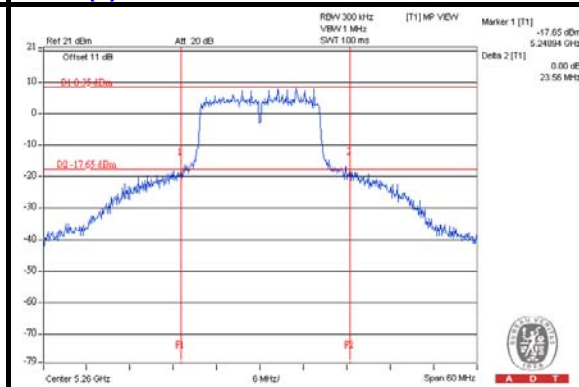
Chain(1) : CH40



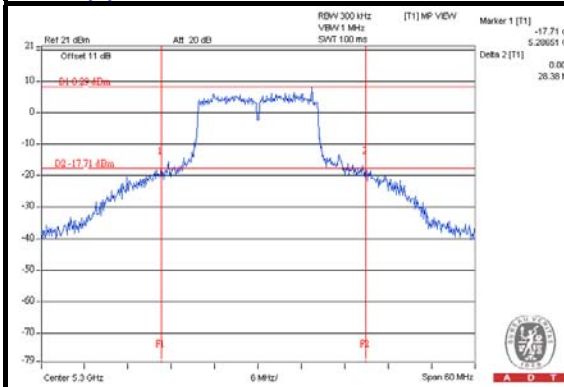
Chain(1) : CH48



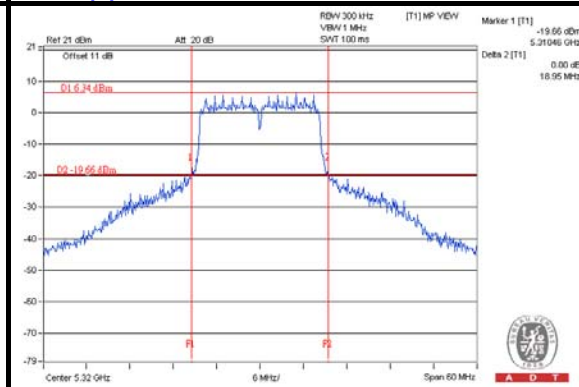
Chain(1) : CH52



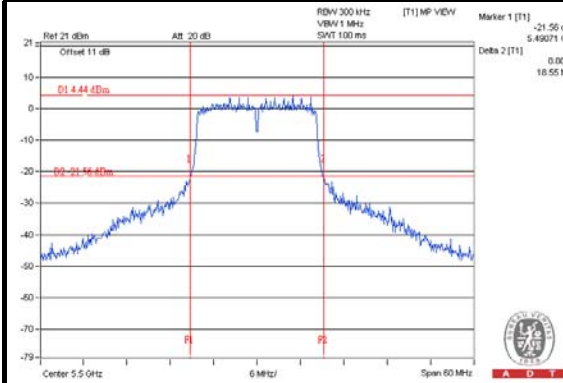
Chain(1) : CH60



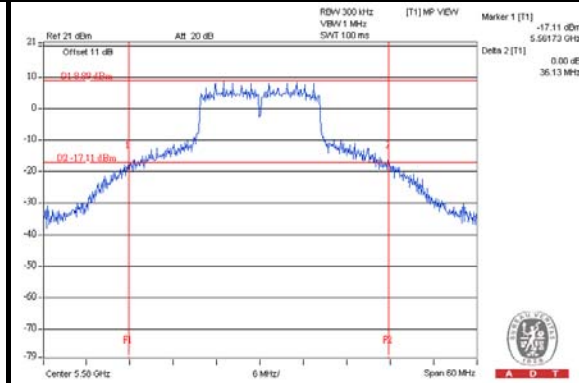
Chain(1) : CH64



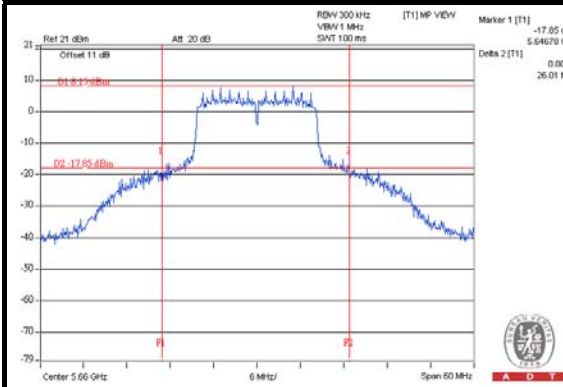
Chain(1) : CH100



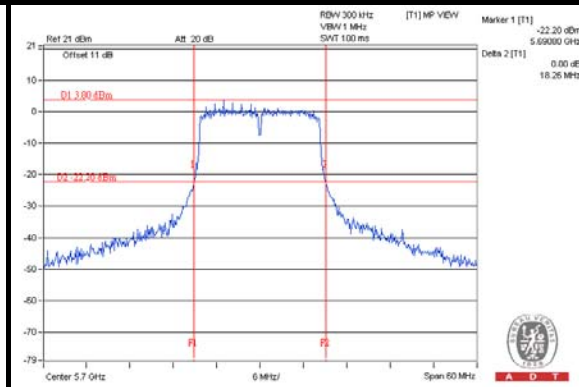
Chain(1) : CH116



Chain(1) : CH132



Chain(1) : CH140





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802.11n (HT20)
POWER OUTPUT

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	12.02	11.84	31.198	14.94	15.47	PASS
40	5200	12.31	11.39	30.794	14.88	15.43	PASS
48	5240	11.94	11.63	30.186	14.80	15.45	PASS
52	5260	18.61	18.98	151.679	21.81	22.48	PASS
60	5300	15.02	15.13	64.353	18.09	22.48	PASS
64	5320	16.33	16.34	86.007	19.35	22.43	PASS
100	5500	11.48	10.99	26.620	14.25	21.87	PASS
116	5580	18.31	18.57	139.709	21.45	22.01	PASS
132	5660	18.42	18.48	139.971	21.46	22.01	PASS
140	5700	13.64	13.21	44.062	16.44	21.91	PASS

- NOTE:**
1. 5150~5250MHz: Directional gain = $4.42\text{dBi} + 10\log(2) = 7.43\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $16.86-(7.43-6) = 15.43\text{dBm}$.
 2. 5250~5350MHz: Directional gain = $4.51\text{dBi} + 10\log(2) = 7.52\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $23.95-(7.52-6) = 22.43\text{dBm}$.
 3. 5470~5725MHz: Directional gain = $4.98\text{dBi} + 10\log(2) = 7.99\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $23.86-(7.99-6) = 21.87\text{dBm}$.

802.11n (HT20)
26dB OCCUPIED BANDWIDTH

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	
		CHAIN 0	CHAIN 1
36	5180	19.63	19.50
40	5200	19.80	19.33
48	5240	19.45	19.42
52	5260	25.24	23.54
60	5300	30.77	27.35
64	5320	19.80	19.76
100	5500	19.32	19.46
116	5580	33.48	37.61
132	5660	35.80	32.55
140	5700	20.59	19.54

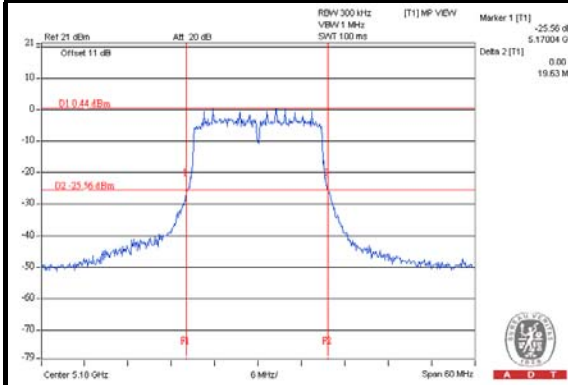
Note: For output power limitation is determined based on 26dBc bandwidth.

Power Limit = 4dBm + 10logB < UNII Band 1 >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
36	5180	19.50	16.90 < 17
40	5200	19.33	16.86 < 17
48	5240	19.42	16.88 < 17
Power Limit = 11dBm + 10logB < UNII Band 2~3 >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	23.54	24.71 > 24
60	5300	27.35	25.36 > 24
64	5320	19.76	23.95 < 24
100	5500	19.32	23.86 < 24
116	5580	33.48	26.24 > 24
132	5660	32.55	26.12 > 24
140	5700	19.54	23.90 < 24

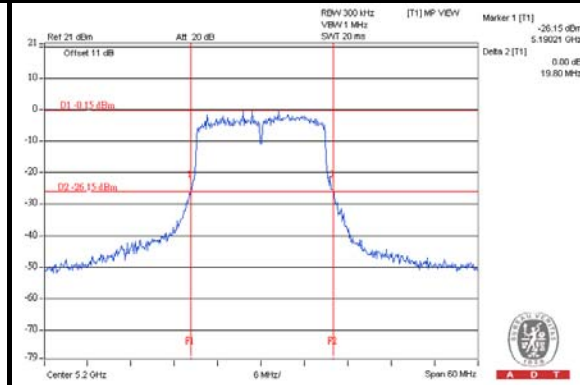


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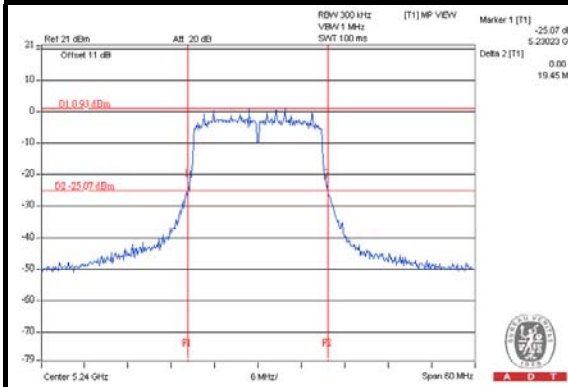
Chain(0) : CH36



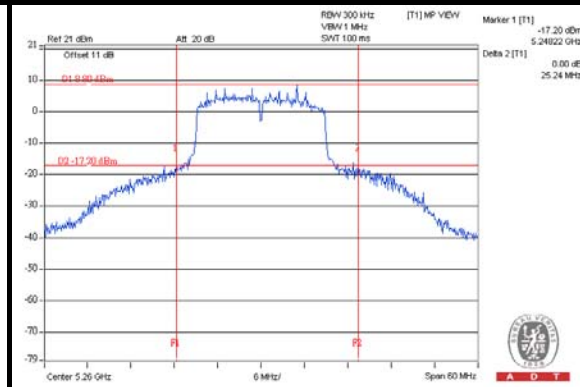
Chain(0) : CH40



Chain(0) : CH48



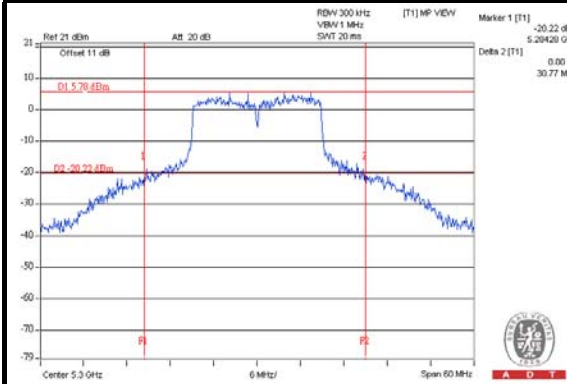
Chain(0) : CH52



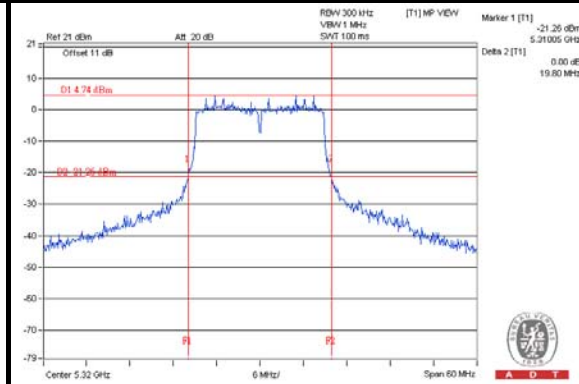


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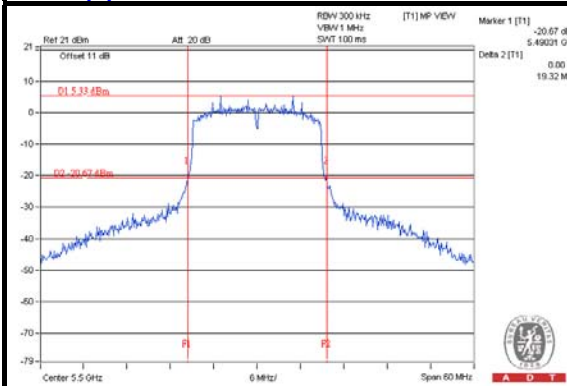
Chain(0) : CH60



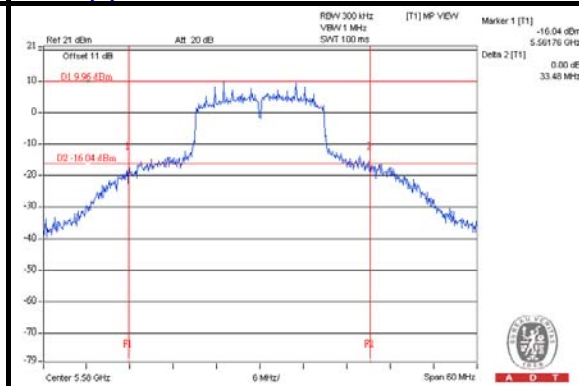
Chain(0) : CH64



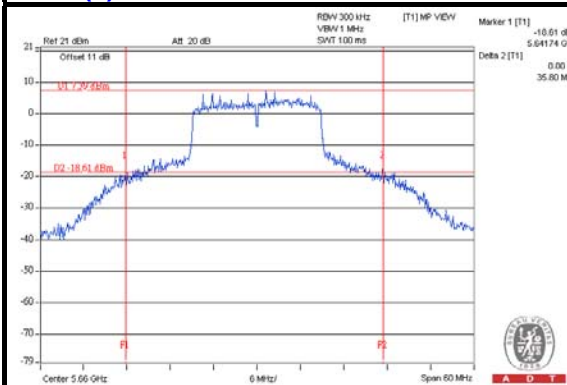
Chain(0) : CH100



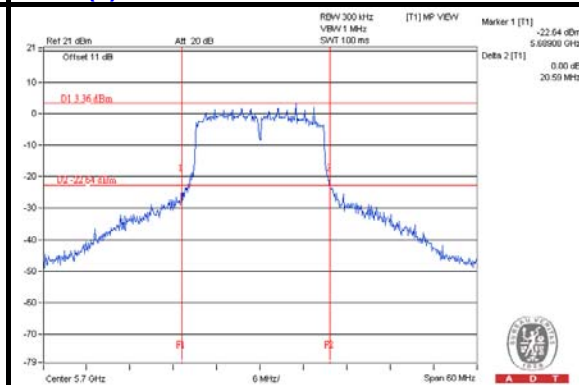
Chain(0) : CH116



Chain(0) : CH132



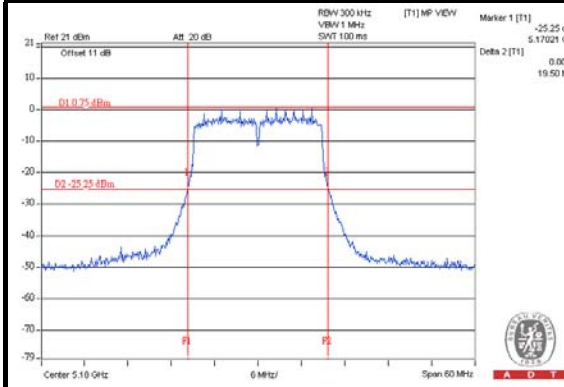
Chain(0) : CH140



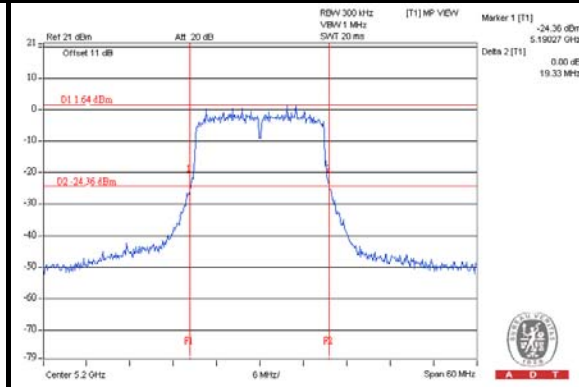


A D T

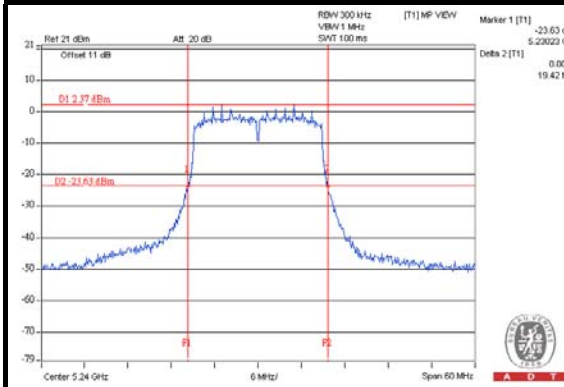
Chain(1) : CH36



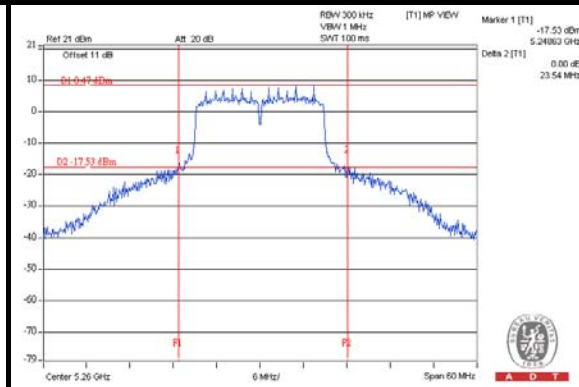
Chain(1) : CH40



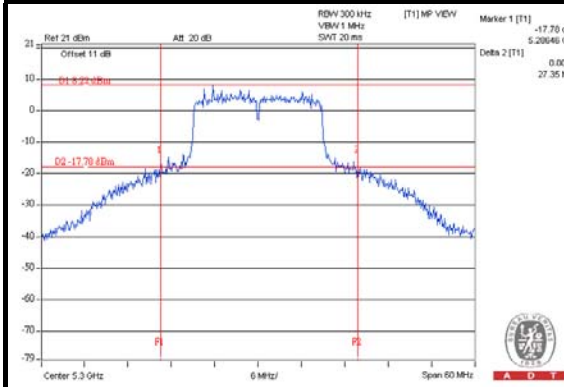
Chain(1) : CH48



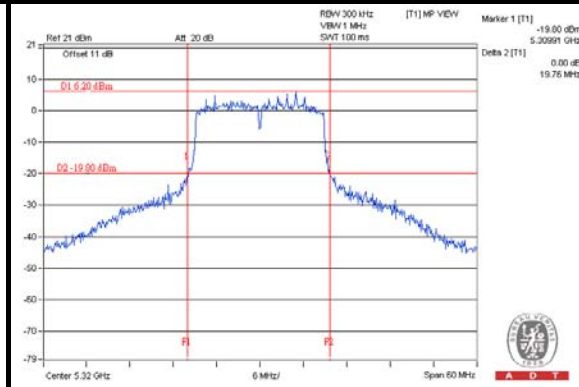
Chain(1) : CH52



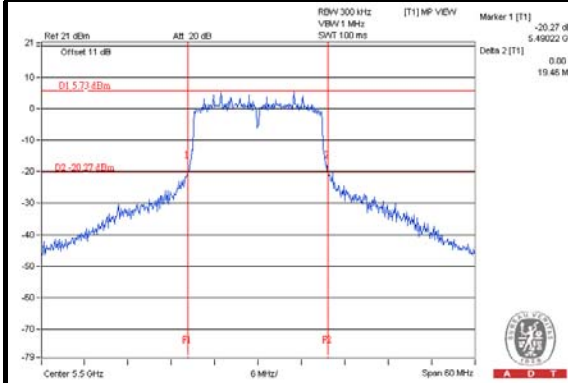
Chain(1) : CH60



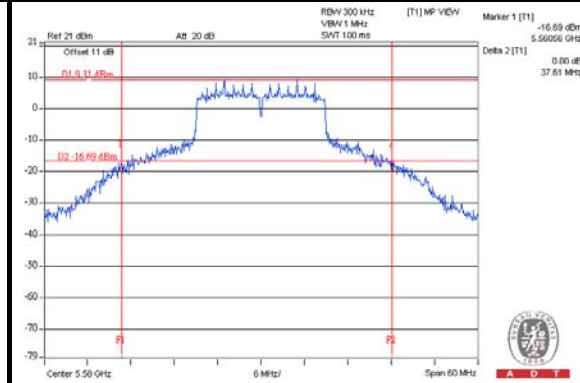
Chain(1) : CH64



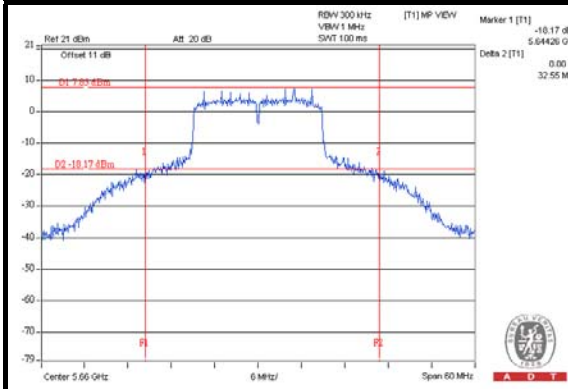
Chain(1) : CH100



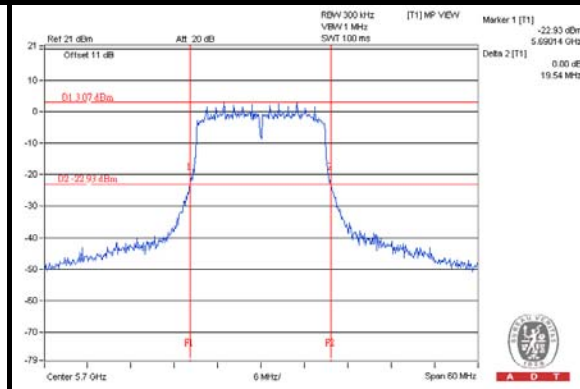
Chain(1) : CH116



Chain(1) : CH132



Chain(1) : CH140





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802.11n (HT40)

POWER OUTPUT

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
38	5190	12.61	12.45	35.818	15.54	15.57	PASS
46	5230	12.48	12.34	34.841	15.42	15.57	PASS
54	5270	16.61	16.53	90.792	19.58	22.48	PASS
62	5310	13.13	13.45	42.690	16.30	22.48	PASS
102	5510	13.77	13.15	44.477	16.48	22.01	PASS
110	5550	17.02	16.83	98.545	19.94	22.01	PASS
134	5670	14.93	15.21	64.306	18.08	22.01	PASS

- NOTE:**
1. 5150~5250MHz: Directional gain = $4.42\text{dBi} + 10\log(2) = 7.43\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $17-(7.43-6) = 15.57\text{dBm}$.
 2. 5250~5350MHz: Directional gain = $4.51\text{dBi} + 10\log(2) = 7.52\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24-(7.52-6) = 22.48\text{dBm}$.
 3. 5470~5725MHz: Directional gain = $4.98\text{dBi} + 10\log(2) = 7.99\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24-(7.99-6) = 22.01\text{dBm}$.

802.11n (HT40)
26dB OCCUPIED BANDWIDTH

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	
		CHAIN 0	CHAIN 1
38	5190	41.71	41.89
46	5230	41.86	41.79
54	5270	48.82	45.08
62	5310	42.03	41.45
102	5510	41.55	41.79
110	5550	53.14	72.66
134	5670	55.36	42.71

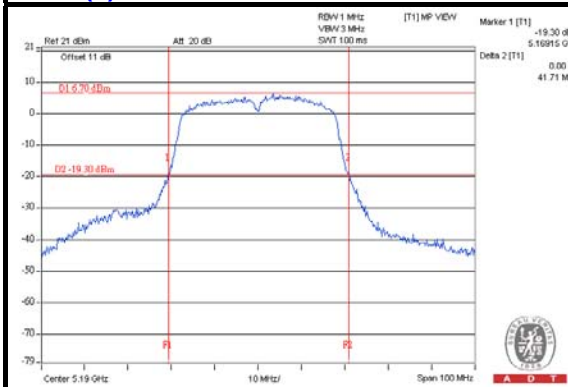
Note: For output power limitation is determined based on 26dBc bandwidth.

Power Limit = 4dBm + 10logB < UNII Band 1 >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
38	5190	41.71	20.20 > 17
46	5230	41.79	20.21 > 17
Power Limit = 11dBm + 10logB < UNII Band 2~3 >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	45.08	27.53 > 24
62	5310	41.45	27.17 > 24
102	5510	41.55	27.18 > 24
110	5550	53.14	28.25 > 24
134	5670	42.71	27.30 > 24

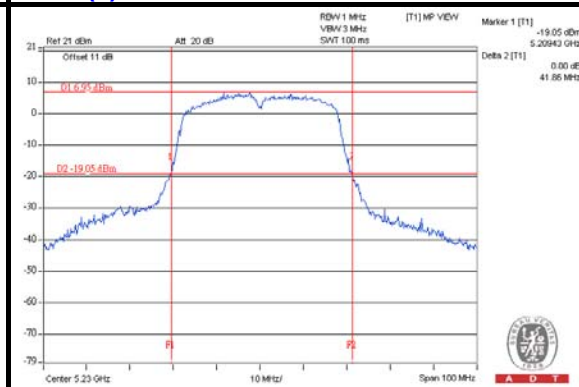


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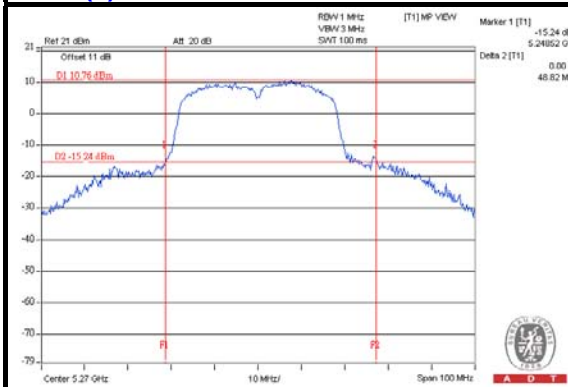
Chain(0) : CH38



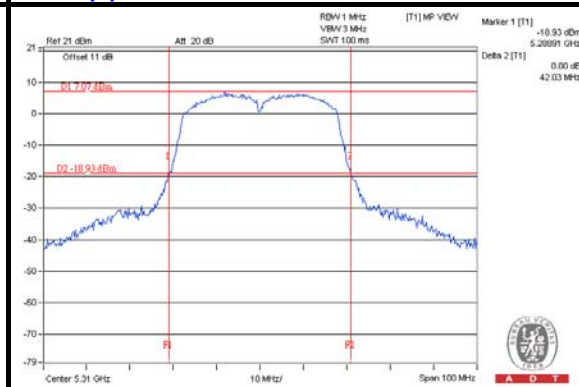
Chain(0) : CH46



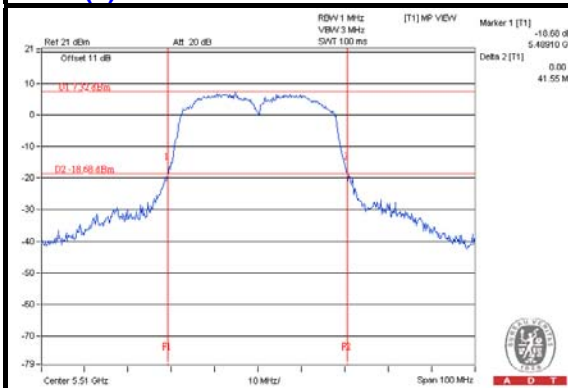
Chain(0) : CH54



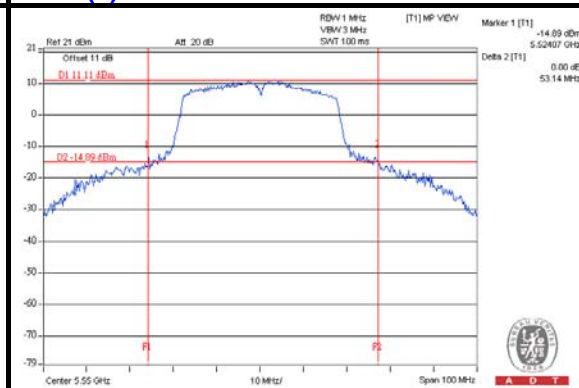
Chain(0) : CH62



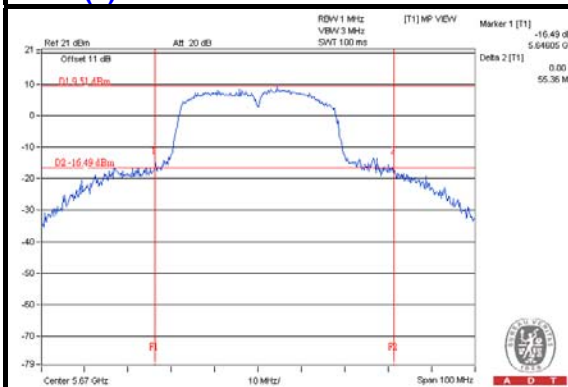
Chain(0) : CH102



Chain(0) : CH110



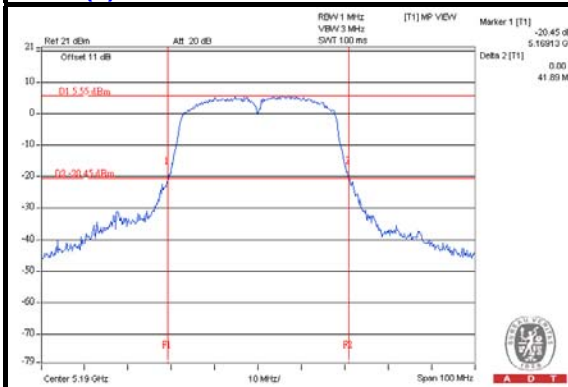
Chain(0) : CH134



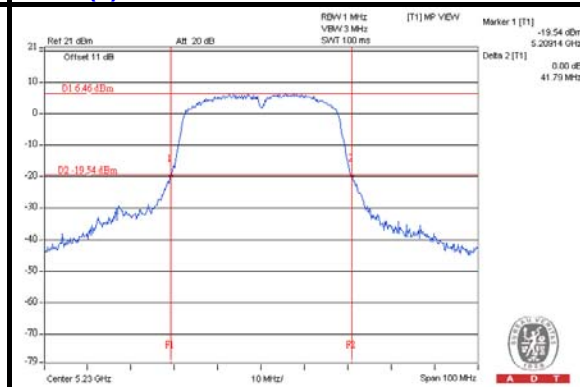


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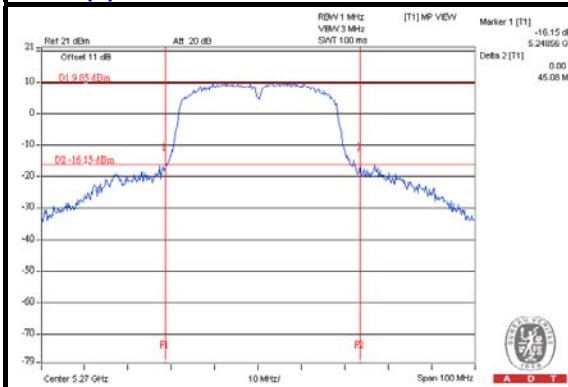
Chain(1) : CH38



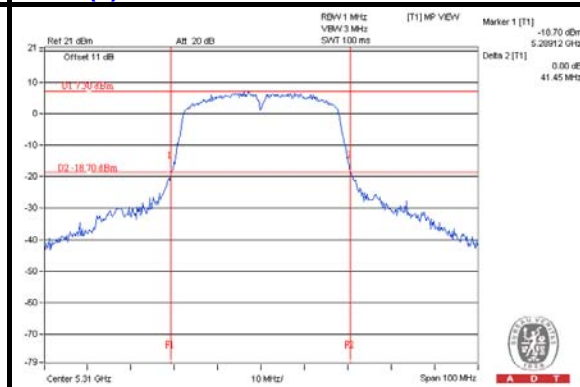
Chain(1) : CH46



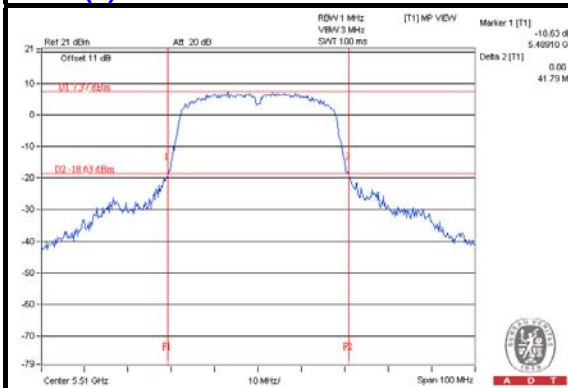
Chain(1) : CH54



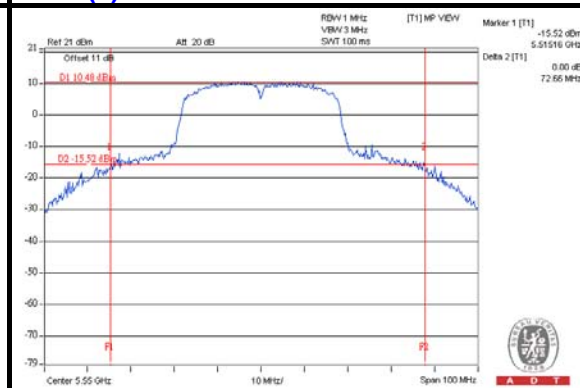
Chain(1) : CH62



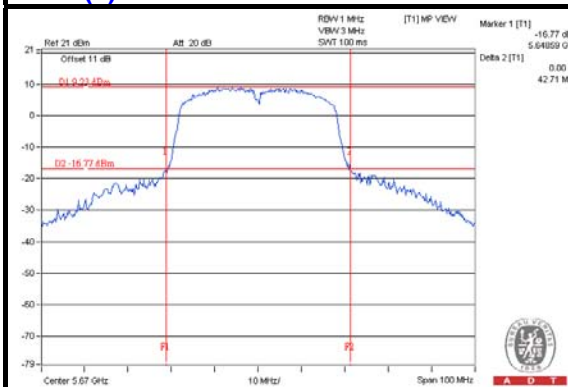
Chain(1) : CH102



Chain(1) : CH110



Chain(1) : CH134





A D T

For RSS-210 A9.2

5.18~5.24GHz

802.11a

CONDUCTED POWER:

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)
		CHAIN 0	CHAIN 1		
36	5180	11.87	11.22	28.625	14.57
40	5200	11.53	11.61	28.711	14.58
48	5240	11.59	11.48	28.481	14.55

EIRP POWER:

CHAN.	CHAN. FREQ. (MHz)	TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
36	5180	158.396	22.00	22.12	PASS
40	5200	158.872	22.01	22.12	PASS
48	5240	157.600	21.98	22.12	PASS

802.11a

99% OCCUPIED BANDWIDTH

CHANNEL	CHANNEL FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHz)	
		CHAIN 0	CHAIN 1
36	5180	16.44	16.32
40	5200	16.32	16.32
48	5240	16.32	16.32

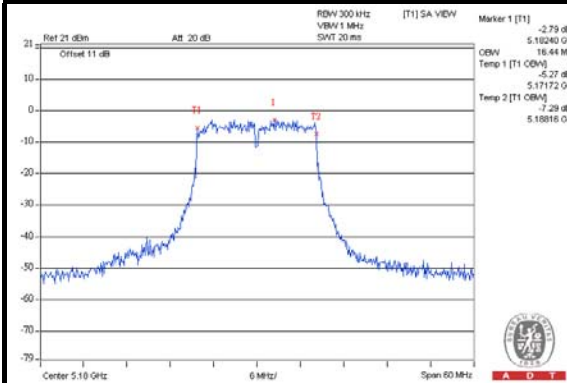
Note: For output power limitation is determined based on 99% bandwidth.

Power Limit = 10dBm + 10logB < UNII Band 1 >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined EIRP Limit (dBm)
36	5180	16.32	22.12 < 23
40	5200	16.32	22.12 < 23
48	5240	16.32	22.12 < 23

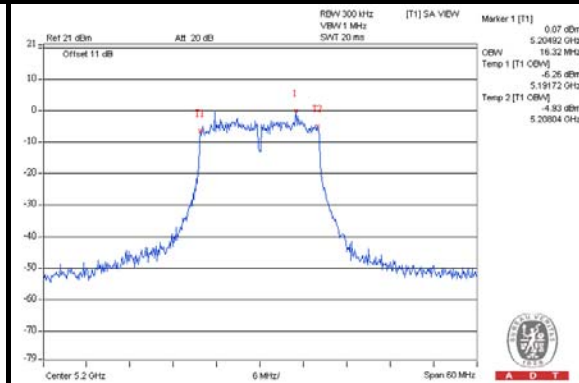


A D T

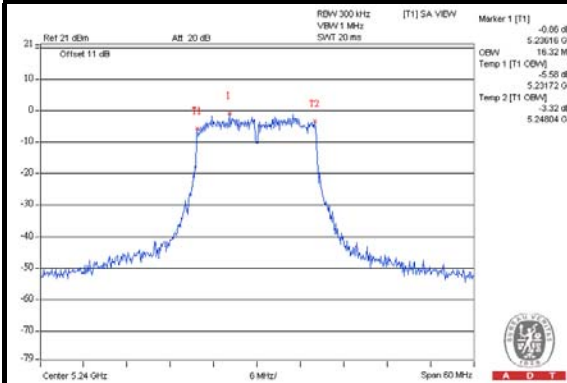
Chain(0) : CH36



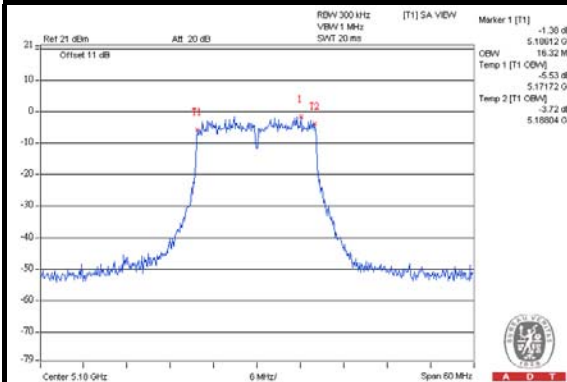
Chain(0) : CH40



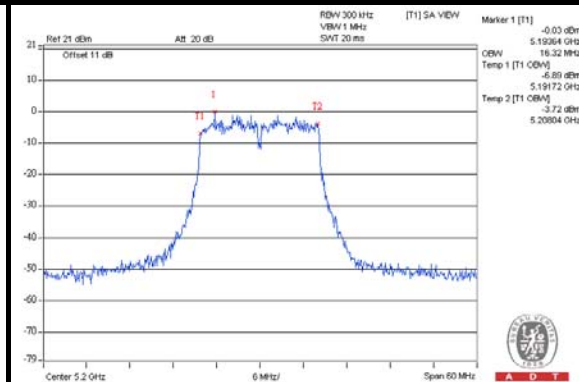
Chain(0) : CH48



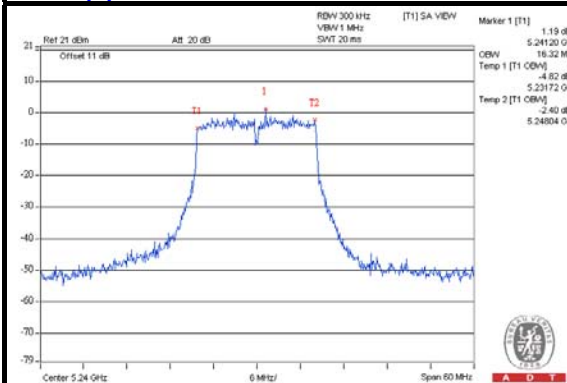
Chain(1) : CH36



Chain(1) : CH40



Chain(1) : CH48





A D T

5.26~5.32GHz, 5.50~5.58GHz & 5.66GHz~5.70GHz

802.11a

CONDUCTED POWER:

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
52	5260	18.29	18.25	134.287	21.28	21.67	PASS
60	5300	15.64	15.72	73.969	18.69	21.67	PASS
64	5320	16.05	16.04	80.451	19.06	21.60	PASS
100	5500	11.51	10.93	26.546	14.24	21.16	PASS
116	5580	18.13	18.65	138.295	21.41	21.84	PASS
132	5660	17.63	18.24	124.624	20.96	21.20	PASS
140	5700	14.55	14.51	56.759	17.54	21.13	PASS

- NOTE:**
1. 5250~5350MHz: Directional gain = 4.51dBi + 10log(2) = 7.52dBi > 6dBi , so the power limit shall be reduced to 23.12-(7.52-6) =21.60dBm.
 2. 5470~5725MHz: Directional gain = 4.98dBi + 10log(2) = 7.99dBi > 6dBi , so the power limit shall be reduced to 23.12-(7.99-6) = 21.13dBm.

EIRP POWER:

CHAN.	CHAN. FREQ. (MHz)	TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
52	5260	758.637	28.80	29.19	PASS
60	5300	417.878	26.21	29.19	PASS
64	5320	454.497	26.58	29.12	PASS
100	5500	167.109	22.23	29.15	PASS
116	5580	870.576	29.40	29.83	PASS
132	5660	784.516	28.95	29.19	PASS
140	5700	357.301	25.53	29.12	PASS

802.11a
99% OCCUPIED BANDWIDTH

CHANNEL	CHANNEL FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHz)	
		CHAIN 0	CHAIN 1
52	5260	16.56	16.56
60	5300	16.56	16.56
64	5320	16.32	16.44
100	5500	16.56	16.44
116	5580	19.20	21.12
132	5660	17.04	16.56
140	5700	16.56	16.32

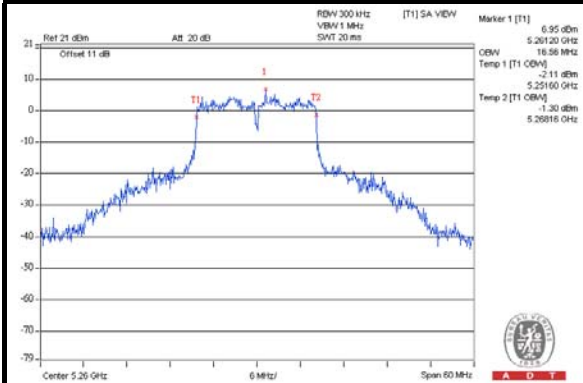
Note: For output power limitation is determined based on 99% bandwidth.

Power Limit = 11dBm + 10logB < UNII Band 2~3>				
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)	Determined EIRP Limit (dBm)
52	5260	16.56	23.19 < 24	29.19 < 30
60	5300	16.56	23.19 < 24	29.19 < 30
64	5320	16.32	23.12 < 24	29.12 < 30
100	5500	16.44	23.15 < 24	29.15 < 30
116	5580	19.20	23.83 < 24	29.83 < 30
132	5660	16.56	23.19 < 24	29.19 < 30
140	5700	16.32	23.12 < 24	29.12 < 30

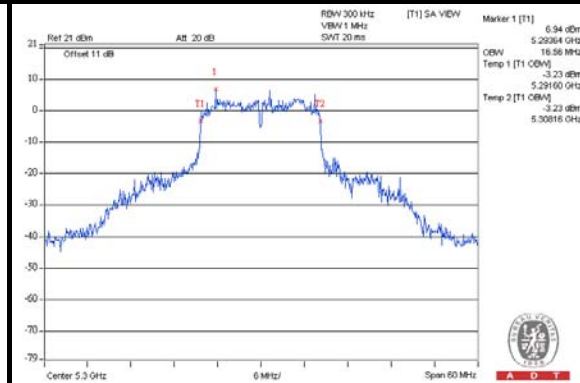


A D T

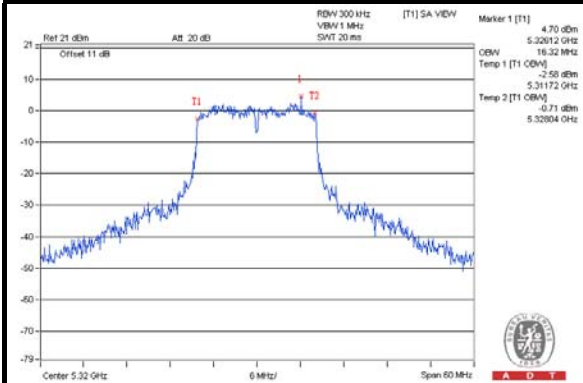
Chain(0) : CH52



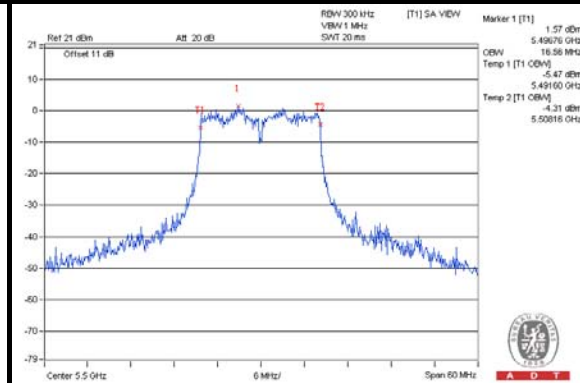
Chain(0) : CH60



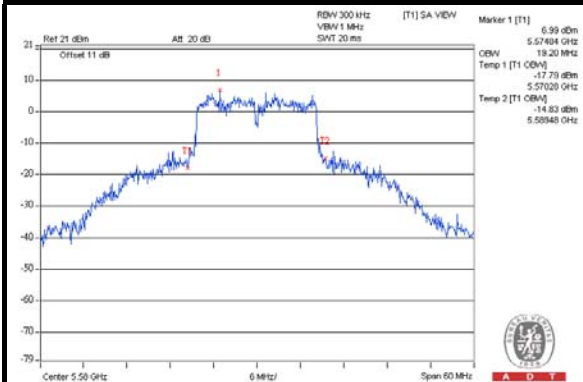
Chain(0) : CH64



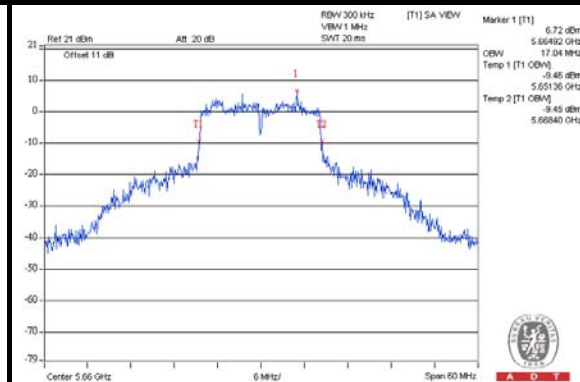
Chain(0) : CH100



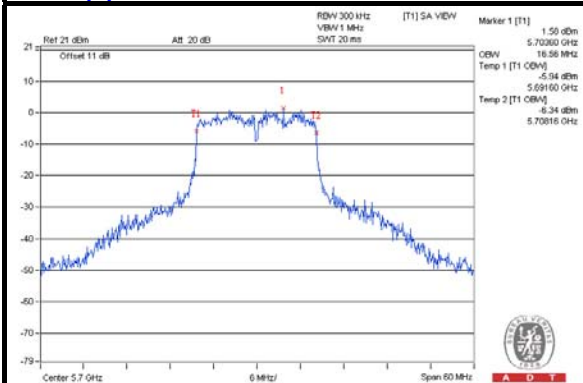
Chain(0) : CH116



Chain(0) : CH132



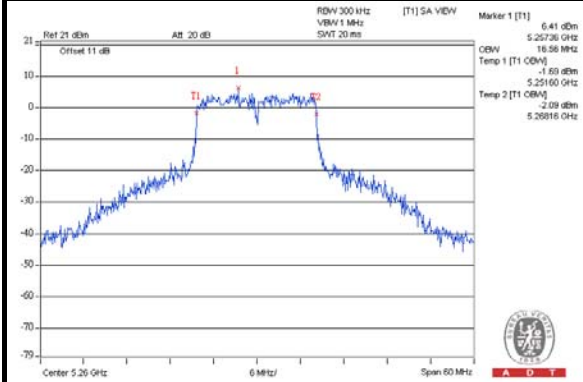
Chain(0) : CH140



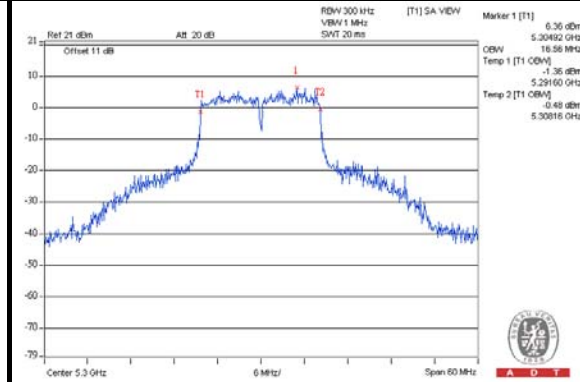


A D T

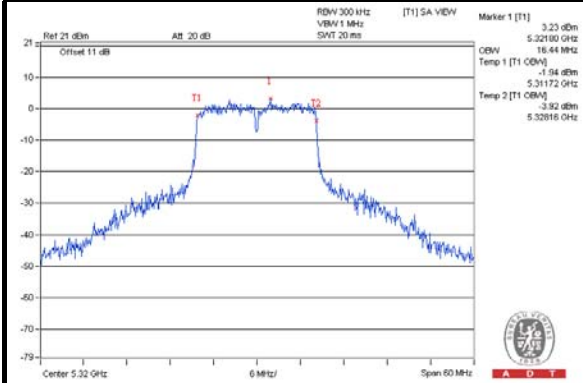
Chain(1) : CH52



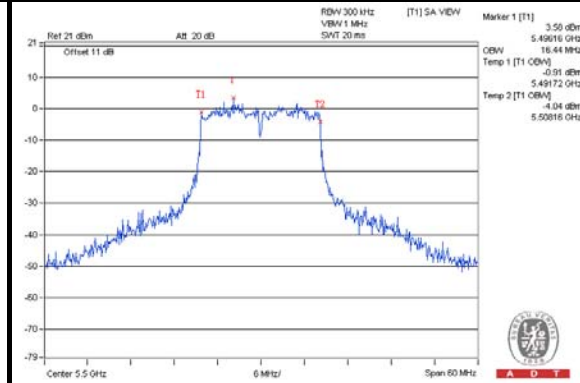
Chain(1) : CH60



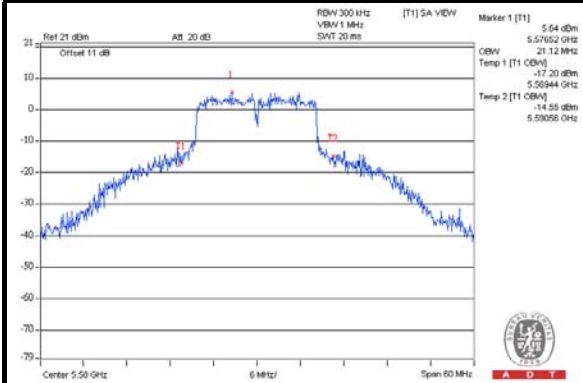
Chain(1) : CH64



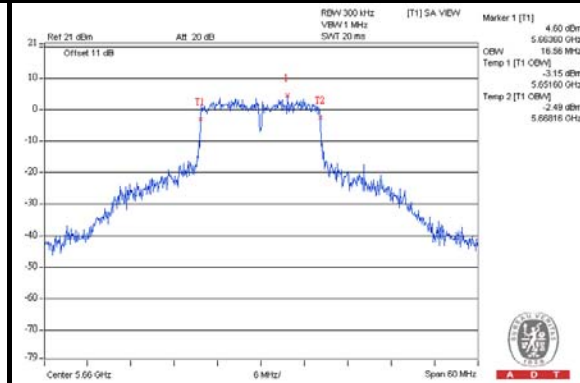
Chain(1) : CH100



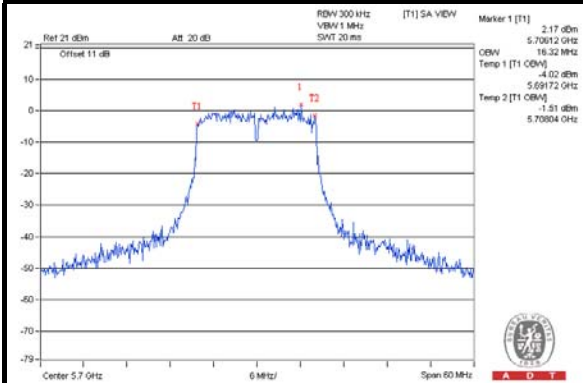
Chain(1) : CH116



Chain(1) : CH132



Chain(1) : CH140





A D T

5.18~5.24GHz

802.11n (HT20)

CONDUCTED POWER:

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)
		CHAIN 0	CHAIN 1		
36	5180	12.02	11.84	31.198	14.94
40	5200	12.31	11.39	30.794	14.88
48	5240	11.94	11.63	30.186	14.80

EIRP POWER:

CHAN.	CHAN. FREQ. (MHz)	TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
36	5180	172.634	22.37	22.43	PASS
40	5200	170.399	22.31	22.43	PASS
48	5240	167.034	22.23	22.43	PASS

802.11n (HT20)

99% OCCUPIED BANDWIDTH

CHANNEL	CHANNEL FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHz)	
		CHAIN 0	CHAIN 1
36	5180	17.52	17.52
40	5200	17.64	17.52
48	5240	17.52	17.52

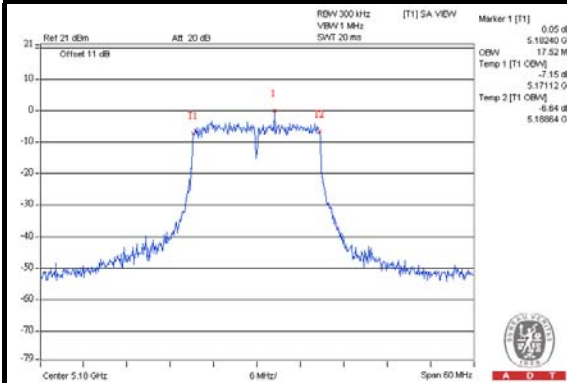
Note: For output power limitation is determined based on 99% bandwidth.

Power Limit = 10dBm + 10logB < UNII Band 1 >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined EIRP Limit (dBm)
36	5180	17.52	22.43 < 23
40	5200	17.52	22.43 < 23
48	5240	17.52	22.43 < 23

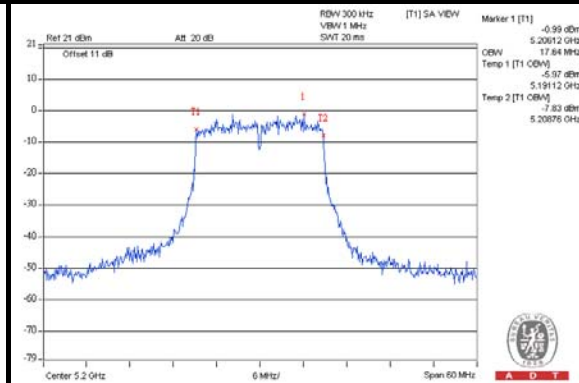


A D T

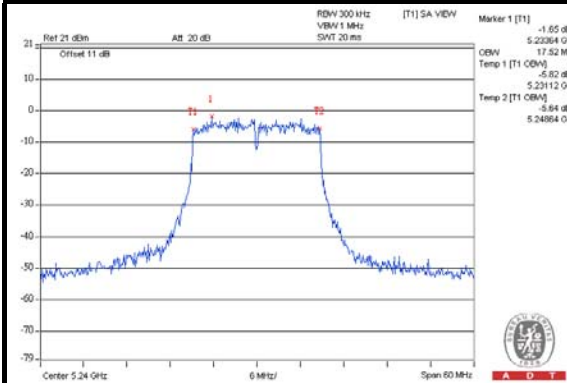
Chain(0) : CH36



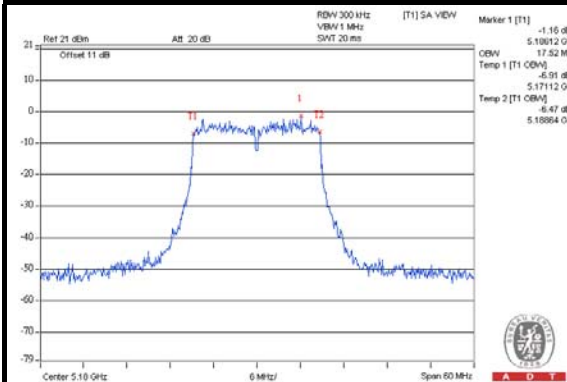
Chain(0) : CH40



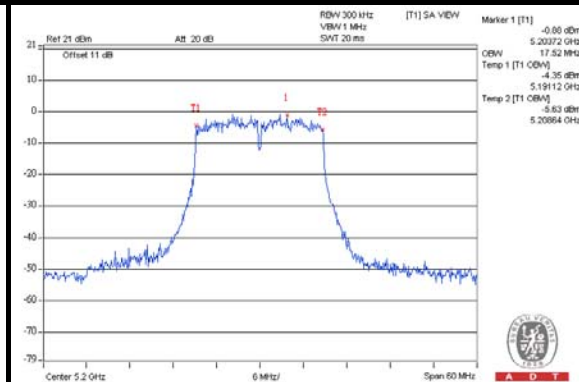
Chain(0) : CH48



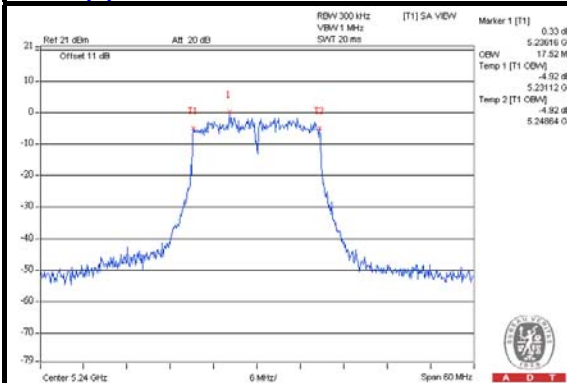
Chain(1) : CH36



Chain(1) : CH40



Chain(1) : CH48





A D T

5.26~5.32GHz, 5.50~5.58GHz & 5.66GHz~5.70GHz

802.11n (HT20)

CONDUCTED POWER:

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
52	5260	18.61	18.98	151.679	21.81	21.97	PASS
60	5300	15.02	15.13	64.353	18.09	21.97	PASS
64	5320	16.33	16.34	86.007	19.35	21.91	PASS
100	5500	11.48	10.99	26.620	14.25	21.44	PASS
116	5580	18.31	18.57	139.709	21.45	21.56	PASS
132	5660	18.42	18.48	139.971	21.46	21.50	PASS
140	5700	13.64	13.21	44.062	16.44	21.44	PASS

- NOTE:**
1. 5250~5350MHz: Directional gain = 4.51dBi + 10log(2) = 7.52dBi > 6dBi , so the power limit shall be reduced to 23.43-(7.52-6) =21.91dBm.
 2. 5470~5725MHz: Directional gain = 4.98dBi + 10log(2) = 7.99dBi > 6dBi , so the power limit shall be reduced to 23.43-(7.99-6) = 21.44dBm.

EIRP POWER:

CHAN.	CHAN. FREQ. (MHz)	TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
52	5260	676.710	28.30	29.49	PASS
60	5300	646.712	28.11	29.49	PASS
64	5320	343.189	25.36	29.43	PASS
100	5500	187.961	22.74	29.43	PASS
116	5580	701.817	28.46	29.55	PASS
132	5660	722.889	28.59	29.49	PASS
140	5700	175.818	22.45	29.43	PASS



A D T

802.11n (HT20)

99% OCCUPIED BANDWIDTH

CHANNEL	CHANNEL FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHz)	
		CHAIN 0	CHAIN 1
52	5260	17.76	17.76
60	5300	17.76	17.76
64	5320	17.64	17.52
100	5500	17.52	17.52
116	5580	18.00	22.32
132	5660	18.72	17.76
140	5700	17.52	17.52

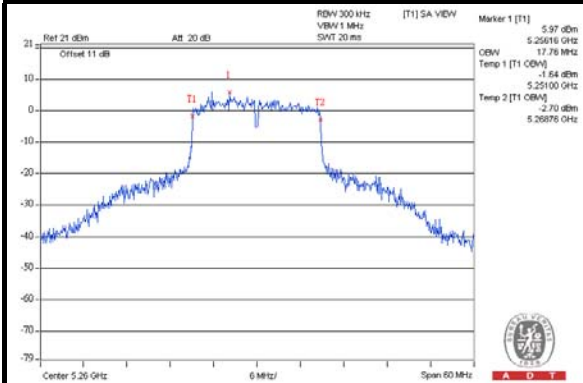
Note: For output power limitation is determined based on 99% bandwidth.

Power Limit = 11dBm + 10logB < UNII Band 2~3>				
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)	Determined EIRP Limit (dBm)
52	5260	17.76	23.49 < 24	29.49 < 30
60	5300	17.76	23.49 < 24	29.49 < 30
64	5320	17.52	23.43 < 24	29.43 < 30
100	5500	17.52	23.43 < 24	29.43 < 30
116	5580	18.00	23.55 < 24	29.55 < 30
132	5660	17.76	23.49 < 24	29.49 < 30
140	5700	17.52	23.43 < 24	29.43 < 30

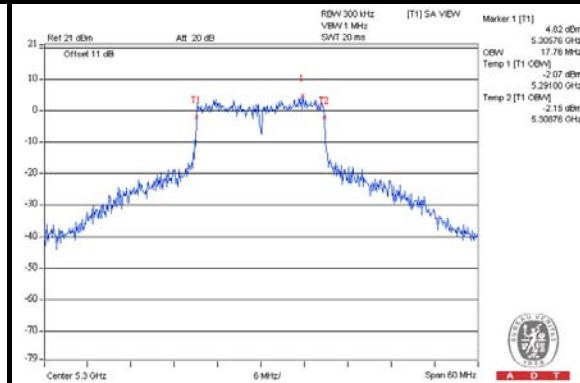


A D T

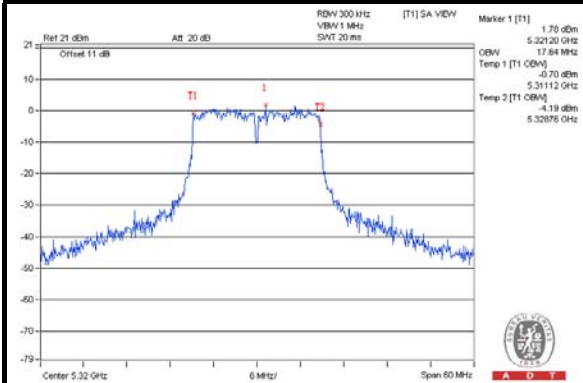
Chain(0) : CH52



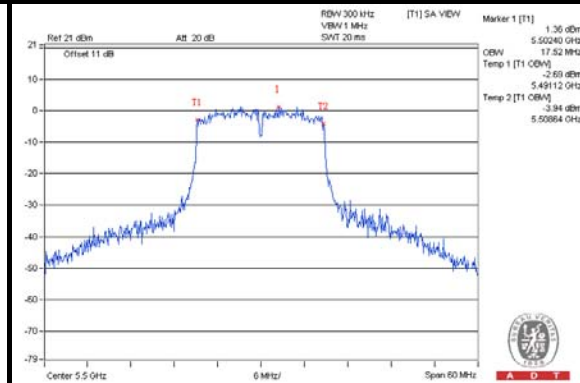
Chain(0) : CH60



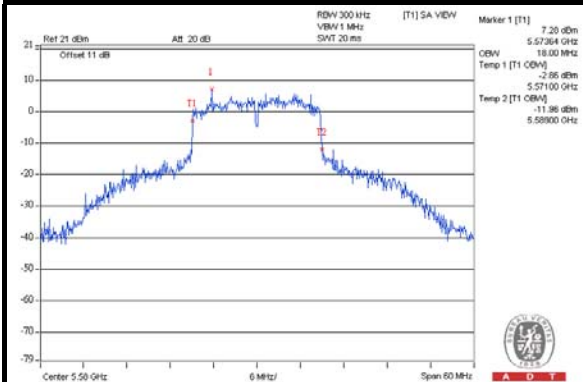
Chain(0) : CH64



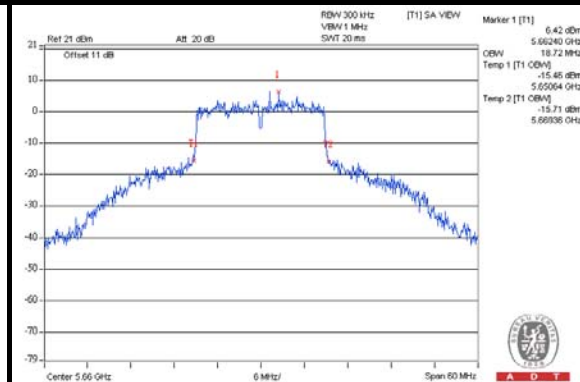
Chain(0) : CH100



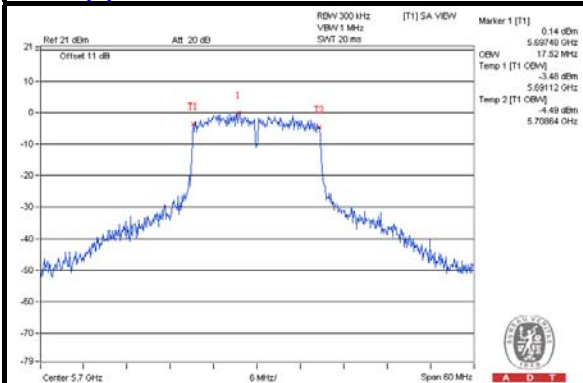
Chain(0) : CH116



Chain(0) : CH132



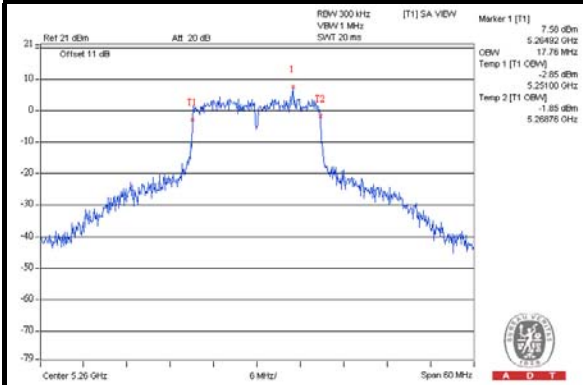
Chain(0) : CH140



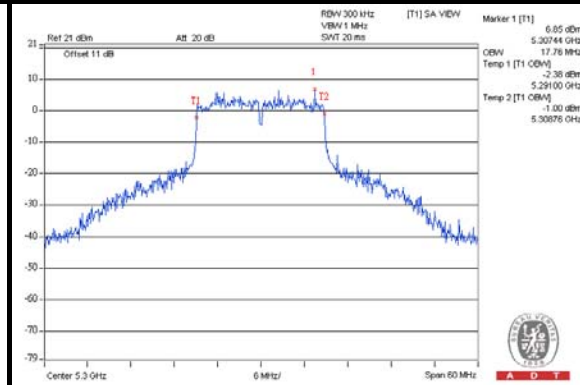


A D T

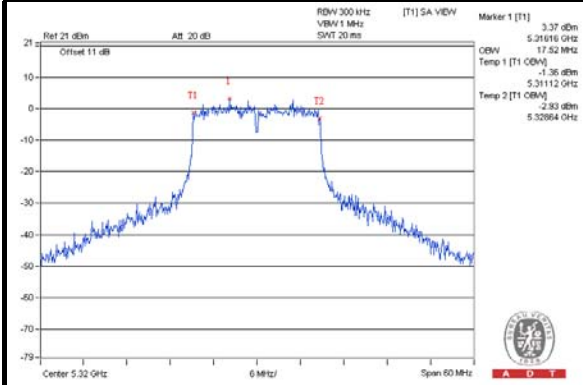
Chain(1) : CH52



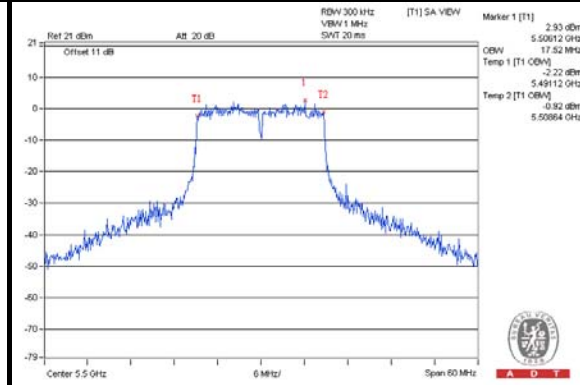
Chain(1) : CH60



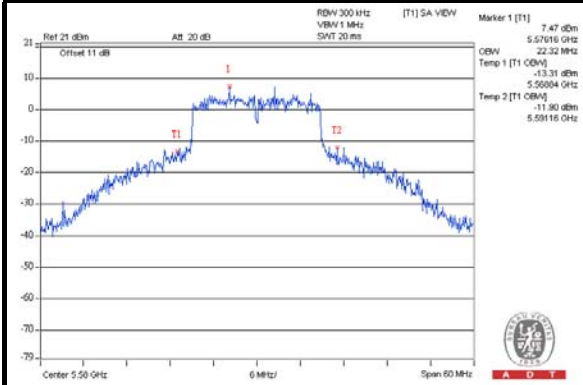
Chain(1) : CH64



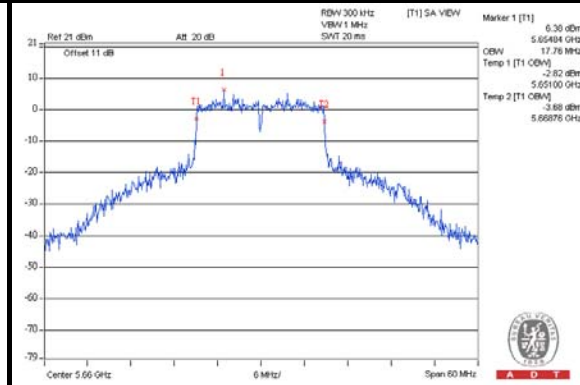
Chain(1) : CH100



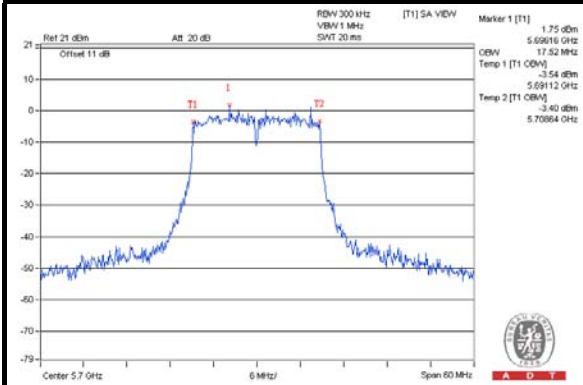
Chain(1) : CH116



Chain(1) : CH132



Chain(1) : CH140





A D T

5.18~5.24GHz

802.11n (HT40)

CONDUCTED POWER:

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)
		CHAIN 0	CHAIN 1		
38	5190	12.61	12.45	35.818	15.54
46	5230	12.48	12.34	34.841	15.42

EIRP POWER:

CHAN.	CHAN. FREQ. (MHz)	TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
38	5190	198.199	22.97	23.00	PASS
46	5230	192.793	22.85	23.00	PASS

802.11n (HT40)

99% OCCUPIED BANDWIDTH

CHANNEL	CHANNEL FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHz)	
		CHAIN 0	CHAIN 1
38	5190	35.80	35.80
46	5230	35.80	35.80

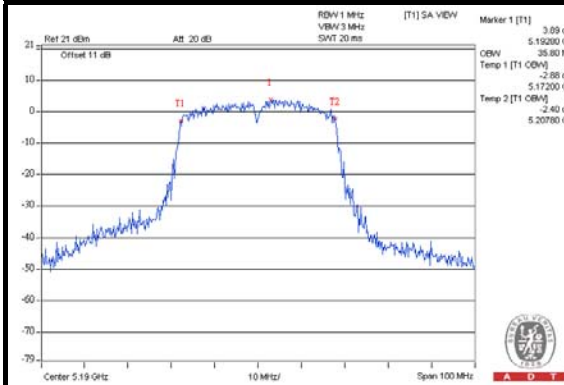
Note: For output power limitation is determined based on 99% bandwidth.

Power Limit = 10dBm + 10logB < UNII Band 1 >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined EIRP Limit (dBm)
38	5190	35.80	25.53 > 23
46	5230	35.80	25.53 > 23

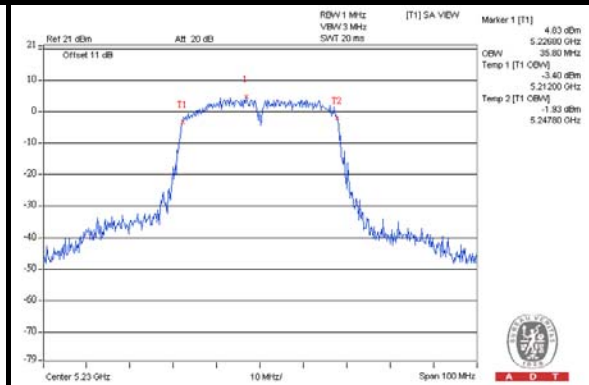


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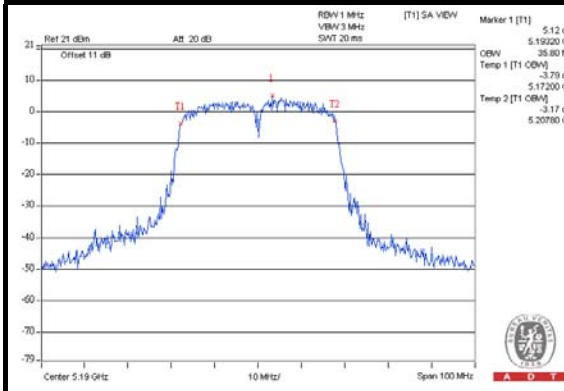
Chain(0) : CH38



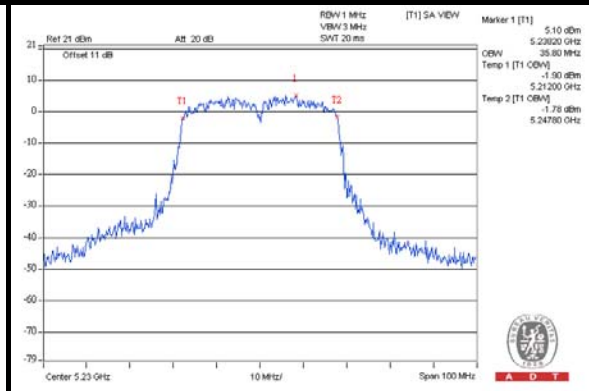
Chain(0) : CH46



Chain(1) : CH38



Chain(1) : CH46





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5.26~5.32GHz, 5.50~5.58GHz & 5.66GHz~5.70GHz

802.11n (HT40)

CONDUCTED POWER:

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
54	5270	16.61	16.53	90.792	19.58	22.48	PASS
62	5310	13.13	13.45	42.690	16.30	22.48	PASS
102	5510	13.77	13.15	44.477	16.48	22.01	PASS
110	5550	17.02	16.83	98.545	19.94	22.01	PASS
134	5670	14.93	15.21	64.306	18.08	22.01	PASS

- NOTE:**
1. 5250~5350MHz: Directional gain = $4.51\text{dBi} + 10\log(2) = 7.52\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (7.52 - 6) = 22.48\text{dBm}$.
 2. 5470~5725MHz: Directional gain = $4.98\text{dBi} + 10\log(2) = 7.99\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (7.99 - 6) = 22.01\text{dBm}$.

EIRP POWER:

CHAN.	CHAN. FREQ. (MHz)	TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
54	5270	512.918	27.10	28.48	PASS
62	5310	241.172	23.82	28.48	PASS
102	5510	279.985	24.47	28.01	PASS
110	5550	620.347	27.93	28.01	PASS
134	5670	404.810	26.07	28.01	PASS

802.11n (HT40)
99% OCCUPIED BANDWIDTH

CHANNEL	CHANNEL FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHz)	
		CHAIN 0	CHAIN 1
54	5270	36.00	35.80
62	5310	35.60	36.00
102	5510	35.60	35.80
110	5550	36.00	36.20
134	5670	36.00	35.60

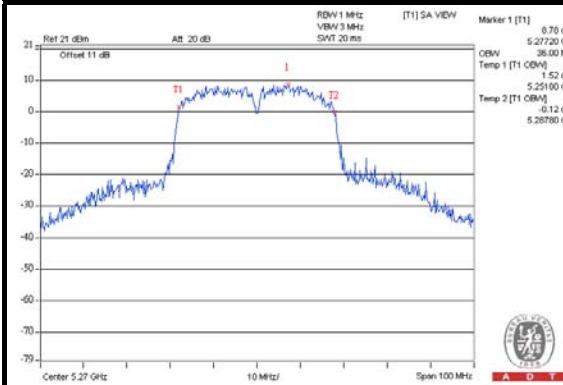
Note: For output power limitation is determined based on 99% bandwidth.

Power Limit = 11dBm + 10logB < UNII Band 2~3>				
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)	Determined EIRP Limit (dBm)
54	5270	35.80	26.53 > 24	32.53 > 30
62	5310	35.60	26.51 > 24	32.51 > 30
102	5510	35.60	26.51 > 24	32.51 > 30
110	5550	36.00	26.56 > 24	32.56 > 30
134	5670	35.60	26.51 > 24	32.51 > 30

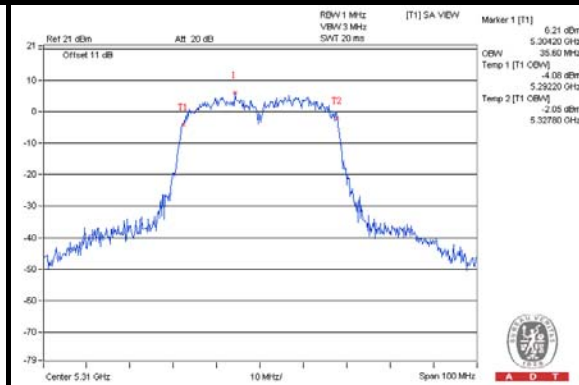


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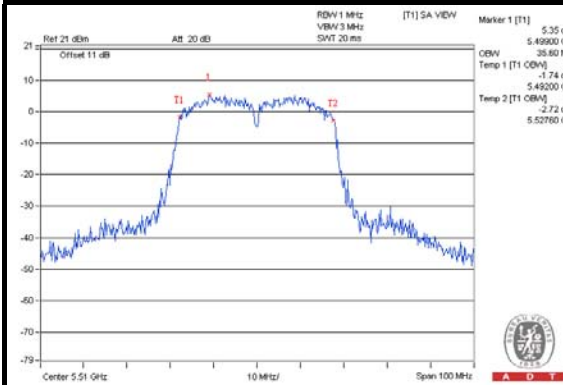
Chain(0) : CH54



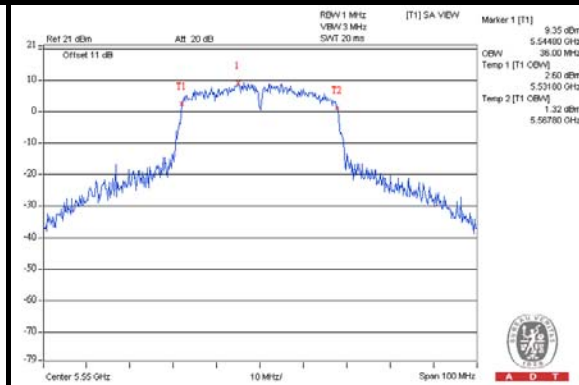
Chain(0) : CH62



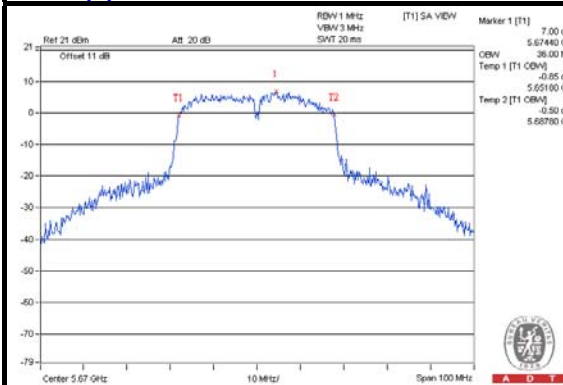
Chain(0) : CH102



Chain(0) : CH110



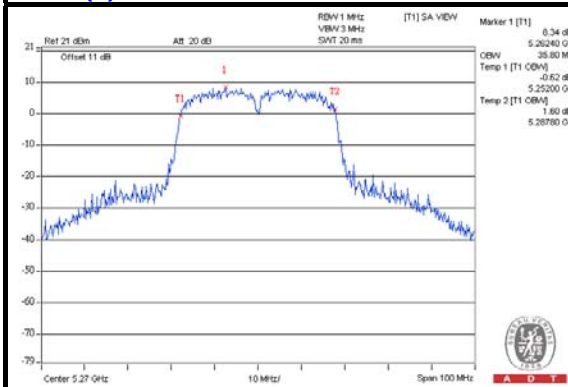
Chain(0) : CH134



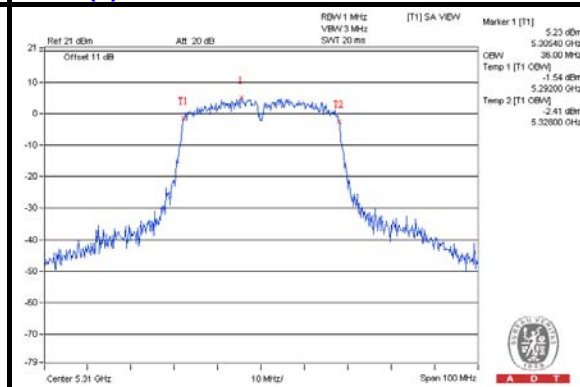


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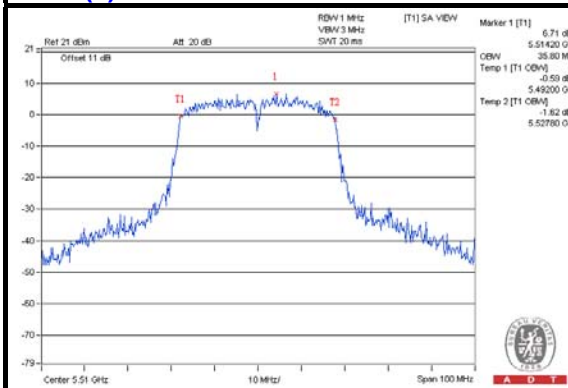
Chain(1) : CH54



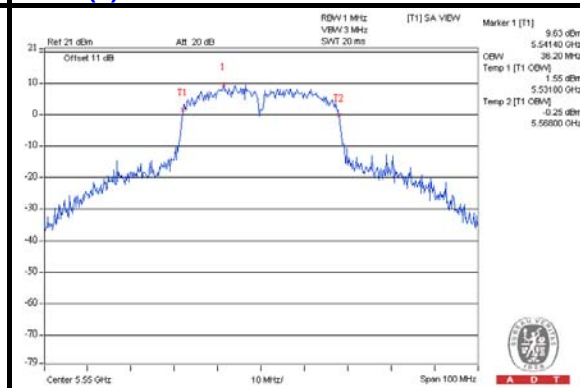
Chain(1) : CH62



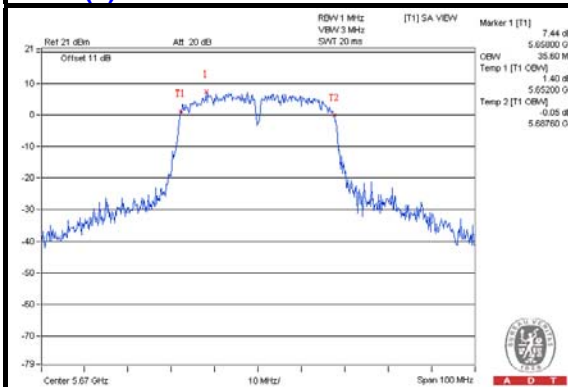
Chain(1) : CH102



Chain(1) : CH110



Chain(1) : CH134





4.2 UNWANTED EMISSION MEASUREMENT (RADIATED VERSUS CONDUCTED)

4.2.1 LIMITS OF UNWANTED EMISSION MEASUREMENT

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table:

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.

4.2.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

APPLICABLE TO	LIMIT	
√	FIELD STRENGTH AT 3m (dBµV/m)	
	PK	AV
	74	54
	EIRP LIMIT (dBm)	EQUIVALENT FIELD STRENGTH AT 3m (dBµV/m)
	PK	PK
	-27	68.3

NOTE:

1. The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3} \mu\text{V/m, where P is the eirp (Watts).}$$



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4.2.3 TEST INSTRUMENTS

Below 1GHz test

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
MXE EMI Receiver Agilent	N9038A	MY50010156	Jan. 16, 2013	Jan. 15, 2014
Pre-Amplifier Mini-Circuits	ZFL-1000VH2 B	AMP-ZFL-04	Nov. 13, 2013	Nov. 12, 2014
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Mar. 25, 2013	Mar. 24, 2014
RF Cable	NA	CHHCAB_001	Oct. 06, 2013	Oct. 05, 2014
Spectrum Analyzer R&S	FSV40	100964	July 15, 2013	July 14, 2014
Horn_Antenna AISI	AIH.8018	0000220091110	Dec. 06, 2013	Dec. 05, 2014
Pre-Amplifier Agilent	8449B	3008A01923	Oct. 29, 2013	Oct. 28, 2014
RF Cable	NA	RF104-205 RF104-207 RF104-202	Dec. 12, 2013	Dec. 11, 2014
Spectrum Analyzer Agilent	E4446A	MY48250253	Aug. 28, 2013	Aug. 27, 2014
Pre-Amplifier SPACEK LABS	SLKKa-48-6	9K16	Nov. 13, 2013	Nov. 12, 2014
Horn_Antenna SCHWARZBECK	BBHA 9170	9170-424	Oct. 08, 2013	Oct. 07, 2014
Software	ADT_Radiated _V8.7.07	NA	NA	NA
Antenna Tower & Turn Table CT	NA	NA	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
- 3 The test was performed in 966 Chamber No. H.
4. The FCC Site Registration No. is 797305.
- 5 The CANADA Site Registration No. is IC 7450H-3.
- 6 Tested Date: Jan. 15, 2014



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Above 1GHz test

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
MXE EMI Receiver Agilent	N9038A	MY51210105	Jan. 29, 2013	Jan. 28, 2014
Pre-Amplifier Mini-Circuits	ZFL-1000VH2 B	AMP-ZFL-03	Nov. 13, 2013	Nov. 12, 2014
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-360	Mar. 19, 2013	Mar. 18, 2014
RF Cable	NA	CHGCAB_001	Oct. 05, 2013	Oct. 04, 2014
Spectrum Analyzer R&S	FSV40	100964	July 15, 2013	July 14, 2014
Horn_Antenna AISI	AIH.8018	0000320091110	Nov. 18, 2013	Nov. 17, 2014
Pre-Amplifier Agilent	8449B	3008A02578	June 25, 2013	June 24, 2014
RF Cable	NA	RF104-201 RF104-203 RF104-204	Dec. 12, 2013	Dec. 11, 2014
Spectrum Analyzer Agilent	E4446A	MY48250253	Aug. 28, 2013	Aug. 27, 2014
Pre-Amplifier SPACEK LABS	SLKKa-48-6	9K16	Nov. 13, 2013	Nov. 12, 2014
Horn_Antenna SCHWARZBECK	BBHA 9170	9170-424	Oct. 08, 2013	Oct. 07, 2014
Software	ADT_Radiated _V8.7.07	NA	NA	NA
Antenna Tower & Turn Table CT	NA	NA	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
- 3 The test was performed in 966 Chamber No. G.
4. The FCC Site Registration No. is 966073.
- 5 The VCCI Site Registration No. is G-137.
- 6 The CANADA Site Registration No. is IC 7450H-2.
- 7 Tested Date: Jan. 14, 2014

4.2.4 TEST PROCEDURES

Following FCC KDB 789033 D01 General UNII Test Procedures:

Radiated versus Conducted Measurements.

The unwanted emission limits in both the restricted and non-restricted bands are based on antenna-port conducted measurements in conjunction with cabinet emissions tests are permitted to demonstrate compliance.

The following steps was performed:

- a. Cabinet emissions measurements. Radiated measurement was performed to ensure that cabinet emissions are below the emission limits. For the cabinet-emission measurements the antenna was replaced by a termination matching the nominal impedance of the antenna.
- b. Conducted tests was performed using equipment that matches the nominal impedance of the antenna assembly used with the EUT
- c. EIRP calculation. A value representative of an upper bound on out-of-band antenna gain (in dBi) shall be added to the measured antenna-port conducted emission power to compute EIRP within the specified measurement bandwidth. (For emissions in the restricted bands, additional calculations are required to convert EIRP to field strength at the specified distance.) The upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands or 2 dBi, whichever is greater
- d. EIRP adjustments for multiple outputs. (Follow the procedures specified in FCC KDB Publication 662911)
- e. For all of Radiation emission test
 - e-1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
 - e-2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
 - e-3. 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.
 - e-4. 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-5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
 - e-6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

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 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

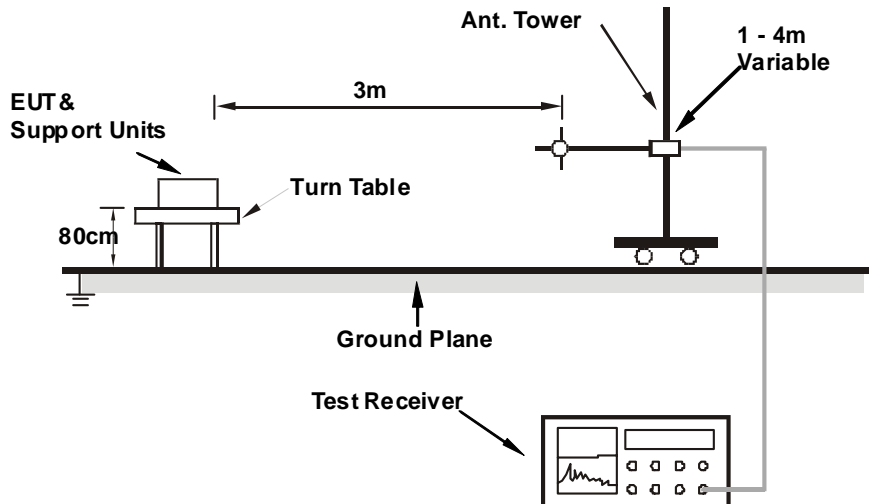
4.2.5 DEVIATION FROM TEST STANDARD

No deviation

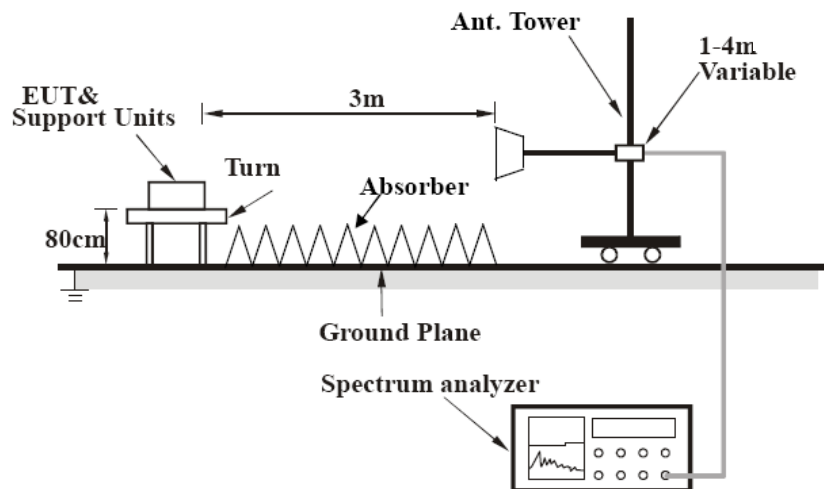
4.2.6 TEST SETUP

Radiation configuration:

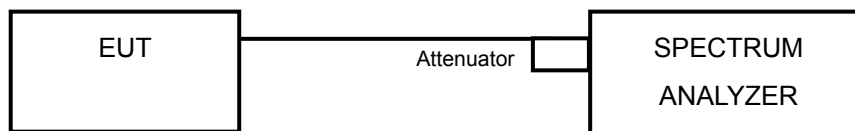
<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



Conducted configuration:



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.2.7 EUT OPERATING CONDITION

1. Connect the EUT with the support unit 1 (Notebook Computer) which is placed on a testing table.
2. The communication partner run test program “artgui.exe [art2 ver 4 4 2g CUS227]” to enable EUT under transmission/receiving condition continuously at specific channel frequency.

4.2.8 TEST RESULTS (RADIATED MEASUREMENT)

Radiated versus Conducted Measurement	
<input type="checkbox"/> Conducted measurement	<input checked="" type="checkbox"/> Radiated measurement
<p><u>For Radiated measurement:</u> The level of unwanted emissions was measured when radiated by the cabinet or structure of the equipment with the antenna connector(s) terminated by a specified load (cabinet radiation)</p> <p><u>For Conducted measurement:</u> The level of unwanted emissions was measured as their power in a specified load (conducted spurious emissions).</p>	



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MODE 1

BELOW 1GHz WORST-CASE DATA

802.11a

CHANNEL	TX Channel 60	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	Below 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	65.11	32.2 QP	40.0	-7.8	1.50 H	68	46.36	-14.19
2	201.99	34.8 QP	43.5	-8.7	1.50 H	58	50.81	-15.98
3	624.86	38.1 QP	46.0	-7.9	1.50 H	319	42.18	-4.07
4	750.13	41.2 QP	46.0	-4.8	1.00 H	33	42.91	-1.68
5	875.72	41.6 QP	46.0	-4.4	1.50 H	42	41.59	0.03
6	1000.00	38.8 QP	54.0	-15.2	1.50 H	39	36.69	2.14

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	37.60	34.0 QP	40.0	-6.0	1.00 V	14	47.47	-13.50
2	104.02	32.7 QP	43.5	-10.8	1.00 V	152	49.06	-16.35
3	625.17	37.9 QP	46.0	-8.1	1.50 V	328	41.97	-4.06
4	750.18	40.3 QP	46.0	-5.7	1.50 V	344	41.98	-1.67
5	874.92	40.5 QP	46.0	-5.5	1.00 V	23	40.49	0.04
6	1000.00	39.3 QP	54.0	-14.7	1.50 V	9	37.19	2.14

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



ABOVE 1GHz DATA

802.11a

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	#10360.00	58.5 PK	74.0	-15.5	1.46 H	41	44.10	14.40
2	#10360.00	47.3 AV	54.0	-6.7	1.46 H	41	32.90	14.40
3	15540.00	61.7 PK	74.0	-12.3	1.00 H	192	41.50	20.20
4	15540.00	49.6 AV	54.0	-4.4	1.00 H	192	29.40	20.20

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	#10360.00	61.3 PK	74.0	-12.7	1.00 V	54	46.90	14.40
2	#10360.00	48.7 AV	54.0	-5.3	1.00 V	54	34.30	14.40
3	15540.00	60.2 PK	74.0	-13.8	1.00 V	60	40.00	20.20
4	15540.00	50.1 AV	54.0	-3.9	1.00 V	60	29.90	20.20

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. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 40	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	#10400.00	58.1 PK	74.0	-15.9	1.40 H	48	43.40	14.70
2	#10400.00	47.3 AV	54.0	-6.7	1.40 H	48	32.60	14.70
3	15600.00	62.2 PK	74.0	-11.8	1.00 H	178	42.10	20.10
4	15600.00	50.1 AV	54.0	-3.9	1.00 H	178	30.00	20.10

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	#10400.00	61.7 PK	74.0	-12.3	1.01 V	48	47.00	14.70
2	#10400.00	49.1 AV	54.0	-4.9	1.01 V	48	34.40	14.70
3	15600.00	60.4 PK	74.0	-13.6	1.00 V	58	40.30	20.10
4	15600.00	50.5 AV	54.0	-3.5	1.00 V	58	30.40	20.10

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. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 48	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	#10480.00	57.7 PK	74.0	-16.3	1.45 H	32	43.10	14.60
2	#10480.00	46.9 AV	54.0	-7.1	1.45 H	32	32.30	14.60
3	15720.00	62.4 PK	74.0	-11.6	1.02 H	183	42.40	20.00
4	15720.00	50.2 AV	54.0	-3.8	1.02 H	183	30.20	20.00

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	#10480.00	60.9 PK	74.0	-13.1	1.00 V	70	46.30	14.60
2	#10480.00	48.2 AV	54.0	-5.8	1.00 V	70	33.60	14.60
3	15720.00	60.1 PK	74.0	-13.9	1.00 V	48	40.10	20.00
4	15720.00	49.8 AV	54.0	-4.2	1.00 V	48	29.80	20.00

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. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	#10520.00	57.9 PK	74.0	-16.1	1.37 H	30	43.30	14.60
2	#10520.00	47.0 AV	54.0	-7.0	1.37 H	30	32.40	14.60
3	15780.00	62.0 PK	74.0	-12.0	1.00 H	189	42.00	20.00
4	15780.00	49.7 AV	54.0	-4.3	1.00 H	189	29.70	20.00

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	#10520.00	61.1 PK	74.0	-12.9	1.00 V	67	46.50	14.60
2	#10520.00	48.4 AV	54.0	-5.6	1.00 V	67	33.80	14.60
3	15780.00	60.0 PK	74.0	-14.0	1.00 V	44	40.00	20.00
4	15780.00	49.8 AV	54.0	-4.2	1.00 V	44	29.80	20.00

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. "#": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 60	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	10600.00	57.5 PK	74.0	-16.5	1.37 H	32	42.70	14.80
2	10600.00	46.7 AV	54.0	-7.3	1.37 H	32	31.90	14.80
3	15900.00	62.1 PK	74.0	-11.9	1.03 H	192	41.50	20.60
4	15900.00	50.0 AV	54.0	-4.0	1.03 H	192	29.40	20.60

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	10600.00	61.5 PK	74.0	-12.5	1.00 V	51	46.70	14.80
2	10600.00	49.1 AV	54.0	-4.9	1.00 V	51	34.30	14.80
3	15900.00	59.9 PK	74.0	-14.1	1.00 V	64	39.30	20.60
4	15900.00	49.9 AV	54.0	-4.1	1.00 V	64	29.30	20.60

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

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	10640.00	58.3 PK	74.0	-15.7	1.45 H	44	43.50	14.80
2	10640.00	47.2 AV	54.0	-6.8	1.45 H	44	32.40	14.80
3	15960.00	61.8 PK	74.0	-12.2	1.03 H	197	41.70	20.10
4	15960.00	49.8 AV	54.0	-4.2	1.03 H	197	29.70	20.10

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	10640.00	61.0 PK	74.0	-13.0	1.00 V	59	46.20	14.80
2	10640.00	48.5 AV	54.0	-5.5	1.00 V	59	33.70	14.80
3	15960.00	60.4 PK	74.0	-13.6	1.00 V	65	40.30	20.10
4	15960.00	50.4 AV	54.0	-3.6	1.00 V	65	30.30	20.10

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

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	11000.00	57.9 PK	74.0	-16.1	1.38 H	34	41.70	16.20
2	11000.00	47.1 AV	54.0	-6.9	1.38 H	34	30.90	16.20
3	#16500.00	61.9 PK	74.0	-12.1	1.01 H	188	39.50	22.40
4	#16500.00	49.6 AV	54.0	-4.4	1.01 H	188	27.20	22.40

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	11000.00	61.1 PK	74.0	-12.9	1.00 V	65	44.90	16.20
2	11000.00	48.6 AV	54.0	-5.4	1.00 V	65	32.40	16.20
3	#16500.00	60.3 PK	74.0	-13.7	1.00 V	74	37.90	22.40
4	#16500.00	50.2 AV	54.0	-3.8	1.00 V	74	27.80	22.40

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. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	11160.00	58.1 PK	74.0	-15.9	1.45 H	51	42.50	15.60
2	11160.00	47.1 AV	54.0	-6.9	1.45 H	51	31.50	15.60
3	#16740.00	62.3 PK	74.0	-11.7	1.00 H	181	39.50	22.80
4	#16740.00	49.9 AV	54.0	-4.1	1.00 H	181	27.10	22.80

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	11160.00	61.5 PK	74.0	-12.5	1.02 V	62	45.90	15.60
2	11160.00	48.9 AV	54.0	-5.1	1.02 V	62	33.30	15.60
3	#16740.00	59.8 PK	74.0	-14.2	1.00 V	73	37.00	22.80
4	#16740.00	49.7 AV	54.0	-4.3	1.00 V	73	26.90	22.80

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. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 132	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	11320.00	57.6 PK	74.0	-16.4	1.45 H	56	41.40	16.20
2	11320.00	46.7 AV	54.0	-7.3	1.45 H	56	30.50	16.20
3	#16980.00	62.8 PK	74.0	-11.2	1.06 H	169	39.50	23.30
4	#16980.00	50.4 AV	54.0	-3.6	1.06 H	169	27.10	23.30

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	11320.00	62.0 PK	74.0	-12.0	1.00 V	60	45.80	16.20
2	11320.00	49.2 AV	54.0	-4.8	1.00 V	60	33.00	16.20
3	#16980.00	60.2 PK	74.0	-13.8	1.00 V	70	36.90	23.30
4	#16980.00	49.8 AV	54.0	-4.2	1.00 V	70	26.50	23.30

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. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 140	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	11400.00	57.7 PK	74.0	-16.3	1.37 H	43	41.60	16.10
2	11400.00	46.9 AV	54.0	-7.1	1.37 H	43	30.80	16.10
3	#17100.00	61.5 PK	74.0	-12.5	1.07 H	169	37.40	24.10
4	#17100.00	49.6 AV	54.0	-4.4	1.07 H	169	25.50	24.10

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	11400.00	61.3 PK	74.0	-12.7	1.06 V	76	45.20	16.10
2	11400.00	48.8 AV	54.0	-5.2	1.06 V	76	32.70	16.10
3	#17100.00	60.4 PK	74.0	-13.6	1.00 V	78	36.30	24.10
4	#17100.00	50.1 AV	54.0	-3.9	1.00 V	78	26.00	24.10

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. " # ": The radiated frequency is out of the restricted band.



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CHANNEL	TX Channel 36	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	#10360.00	58.0 PK	74.0	-16.0	1.37 H	54	43.60	14.40
2	#10360.00	46.7 AV	54.0	-7.3	1.37 H	54	32.30	14.40
3	15540.00	61.9 PK	74.0	-12.1	1.07 H	175	41.70	20.20
4	15540.00	49.8 AV	54.0	-4.2	1.07 H	175	29.60	20.20

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	#10360.00	61.1 PK	74.0	-12.9	1.08 V	75	46.70	14.40
2	#10360.00	48.7 AV	54.0	-5.3	1.08 V	75	34.30	14.40
3	15540.00	59.8 PK	74.0	-14.2	1.01 V	66	39.60	20.20
4	15540.00	49.9 AV	54.0	-4.1	1.01 V	66	29.70	20.20

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. "#": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 40	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	#10400.00	57.6 PK	74.0	-16.4	1.38 H	30	42.90	14.70
2	#10400.00	46.4 AV	54.0	-7.6	1.38 H	30	31.70	14.70
3	15600.00	62.4 PK	74.0	-11.6	1.00 H	199	42.30	20.10
4	15600.00	50.3 AV	54.0	-3.7	1.00 H	199	30.20	20.10

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	#10400.00	61.7 PK	74.0	-12.3	1.02 V	68	47.00	14.70
2	#10400.00	49.1 AV	54.0	-4.9	1.02 V	68	34.40	14.70
3	15600.00	60.1 PK	74.0	-13.9	1.00 V	74	40.00	20.10
4	15600.00	50.1 AV	54.0	-3.9	1.00 V	74	30.00	20.10

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. "#": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 48	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	#10480.00	58.0 PK	74.0	-16.0	1.35 H	29	43.40	14.60
2	#10480.00	47.0 AV	54.0	-7.0	1.35 H	29	32.40	14.60
3	15720.00	62.3 PK	74.0	-11.7	1.00 H	177	42.30	20.00
4	15720.00	50.3 AV	54.0	-3.7	1.00 H	177	30.30	20.00

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	#10480.00	62.0 PK	74.0	-12.0	1.00 V	63	47.40	14.60
2	#10480.00	49.2 AV	54.0	-4.8	1.00 V	63	34.60	14.60
3	15720.00	59.8 PK	74.0	-14.2	1.00 V	63	39.80	20.00
4	15720.00	49.8 AV	54.0	-4.2	1.00 V	63	29.80	20.00

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. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	#10520.00	58.0 PK	74.0	-16.0	1.43 H	40	43.40	14.60
2	#10520.00	46.9 AV	54.0	-7.1	1.43 H	40	32.30	14.60
3	15780.00	62.5 PK	74.0	-11.5	1.06 H	171	42.50	20.00
4	15780.00	50.2 AV	54.0	-3.8	1.06 H	171	30.20	20.00

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	#10520.00	61.8 PK	74.0	-12.2	1.00 V	53	47.20	14.60
2	#10520.00	49.2 AV	54.0	-4.8	1.00 V	53	34.60	14.60
3	15780.00	60.1 PK	74.0	-13.9	1.00 V	85	40.10	20.00
4	15780.00	50.0 AV	54.0	-4.0	1.00 V	85	30.00	20.00

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. "#": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 60	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	10600.00	58.0 PK	74.0	-16.0	1.42 H	49	43.20	14.80
2	10600.00	47.3 AV	54.0	-6.7	1.42 H	49	32.50	14.80
3	15900.00	62.5 PK	74.0	-11.5	1.05 H	169	41.90	20.60
4	15900.00	50.2 AV	54.0	-3.8	1.05 H	169	29.60	20.60

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	10600.00	61.6 PK	74.0	-12.4	1.01 V	58	46.80	14.80
2	10600.00	49.0 AV	54.0	-5.0	1.01 V	58	34.20	14.80
3	15900.00	60.0 PK	74.0	-14.0	1.01 V	66	39.40	20.60
4	15900.00	50.0 AV	54.0	-4.0	1.01 V	66	29.40	20.60

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

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	10640.00	57.7 PK	74.0	-16.3	1.37 H	33	42.90	14.80
2	10640.00	46.5 AV	54.0	-7.5	1.37 H	33	31.70	14.80
3	15960.00	62.4 PK	74.0	-11.6	1.05 H	175	42.30	20.10
4	15960.00	50.2 AV	54.0	-3.8	1.05 H	175	30.10	20.10

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	10640.00	61.8 PK	74.0	-12.2	1.05 V	50	47.00	14.80
2	10640.00	49.3 AV	54.0	-4.7	1.05 V	50	34.50	14.80
3	15960.00	59.7 PK	74.0	-14.3	1.01 V	62	39.60	20.10
4	15960.00	49.4 AV	54.0	-4.6	1.01 V	62	29.30	20.10

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

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	11000.00	57.9 PK	74.0	-16.1	1.37 H	40	41.70	16.20
2	11000.00	46.8 AV	54.0	-7.2	1.37 H	40	30.60	16.20
3	#16500.00	62.0 PK	74.0	-12.0	1.00 H	170	39.60	22.40
4	#16500.00	50.1 AV	54.0	-3.9	1.00 H	170	27.70	22.40

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	11000.00	61.5 PK	74.0	-12.5	1.00 V	63	45.30	16.20
2	11000.00	49.0 AV	54.0	-5.0	1.00 V	63	32.80	16.20
3	#16500.00	60.0 PK	74.0	-14.0	1.02 V	57	37.60	22.40
4	#16500.00	49.7 AV	54.0	-4.3	1.02 V	57	27.30	22.40

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. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	11160.00	57.9 PK	74.0	-16.1	1.39 H	34	42.30	15.60
2	11160.00	47.0 AV	54.0	-7.0	1.39 H	34	31.40	15.60
3	#16740.00	61.6 PK	74.0	-12.4	1.00 H	190	38.80	22.80
4	#16740.00	49.6 AV	54.0	-4.4	1.00 H	190	26.80	22.80

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	11160.00	60.8 PK	74.0	-13.2	1.05 V	60	45.20	15.60
2	11160.00	48.4 AV	54.0	-5.6	1.05 V	60	32.80	15.60
3	#16740.00	59.5 PK	74.0	-14.5	1.00 V	67	36.70	22.80
4	#16740.00	49.4 AV	54.0	-4.6	1.00 V	67	26.60	22.80

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. "#": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 132	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	11320.00	57.3 PK	74.0	-16.7	1.37 H	40	41.10	16.20
2	11320.00	46.4 AV	54.0	-7.6	1.37 H	40	30.20	16.20
3	#16980.00	61.8 PK	74.0	-12.2	1.00 H	178	38.50	23.30
4	#16980.00	49.4 AV	54.0	-4.6	1.00 H	178	26.10	23.30

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	11320.00	61.3 PK	74.0	-12.7	1.06 V	49	45.10	16.20
2	11320.00	48.7 AV	54.0	-5.3	1.06 V	49	32.50	16.20
3	#16980.00	59.3 PK	74.0	-14.7	1.00 V	64	36.00	23.30
4	#16980.00	49.5 AV	54.0	-4.5	1.00 V	64	26.20	23.30

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. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 140	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	11400.00	57.5 PK	74.0	-16.5	1.40 H	47	41.40	16.10
2	11400.00	46.7 AV	54.0	-7.3	1.40 H	47	30.60	16.10
3	#17100.00	62.0 PK	74.0	-12.0	1.02 H	186	37.90	24.10
4	#17100.00	50.0 AV	54.0	-4.0	1.02 H	186	25.90	24.10

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	11400.00	61.6 PK	74.0	-12.4	1.00 V	46	45.50	16.10
2	11400.00	49.0 AV	54.0	-5.0	1.00 V	46	32.90	16.10
3	#17100.00	59.3 PK	74.0	-14.7	1.00 V	82	35.20	24.10
4	#17100.00	49.4 AV	54.0	-4.6	1.00 V	82	25.30	24.10

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. " # ": The radiated frequency is out of the restricted band.



802.11n (HT40)

CHANNEL	TX Channel 38	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	#10380.00	57.6 PK	74.0	-16.4	1.38 H	44	43.00	14.60
2	#10380.00	46.7 AV	54.0	-7.3	1.38 H	44	32.10	14.60
3	15570.00	62.1 PK	74.0	-11.9	1.07 H	194	42.00	20.10
4	15570.00	50.1 AV	54.0	-3.9	1.07 H	194	30.00	20.10

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	#10380.00	61.5 PK	74.0	-12.5	1.05 V	72	46.90	14.60
2	#10380.00	48.9 AV	54.0	-5.1	1.05 V	72	34.30	14.60
3	15570.00	60.1 PK	74.0	-13.9	1.00 V	75	40.00	20.10
4	15570.00	50.1 AV	54.0	-3.9	1.00 V	75	30.00	20.10

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. "#": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 46	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	#10460.00	58.2 PK	74.0	-15.8	1.42 H	47	43.50	14.70
2	#10460.00	47.2 AV	54.0	-6.8	1.42 H	47	32.50	14.70
3	15690.00	62.0 PK	74.0	-12.0	1.00 H	178	42.00	20.00
4	15690.00	50.0 AV	54.0	-4.0	1.00 H	178	30.00	20.00

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	#10460.00	61.4 PK	74.0	-12.6	1.02 V	68	46.70	14.70
2	#10460.00	48.6 AV	54.0	-5.4	1.02 V	68	33.90	14.70
3	15690.00	60.1 PK	74.0	-13.9	1.00 V	83	40.10	20.00
4	15690.00	49.9 AV	54.0	-4.1	1.00 V	83	29.90	20.00

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. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 54	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	#10540.00	58.1 PK	74.0	-15.9	1.39 H	41	43.50	14.60
2	#10540.00	47.1 AV	54.0	-6.9	1.39 H	41	32.50	14.60
3	15810.00	62.0 PK	74.0	-12.0	1.05 H	170	42.00	20.00
4	15810.00	49.5 AV	54.0	-4.5	1.05 H	170	29.50	20.00

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	#10540.00	61.4 PK	74.0	-12.6	1.00 V	63	46.80	14.60
2	#10540.00	48.7 AV	54.0	-5.3	1.00 V	63	34.10	14.60
3	15810.00	59.9 PK	74.0	-14.1	1.00 V	87	39.90	20.00
4	15810.00	49.8 AV	54.0	-4.2	1.00 V	87	29.80	20.00

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. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 62	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	10620.00	58.2 PK	74.0	-15.8	1.36 H	36	43.40	14.80
2	10620.00	47.2 AV	54.0	-6.8	1.36 H	36	32.40	14.80
3	15930.00	61.9 PK	74.0	-12.1	1.08 H	178	41.60	20.30
4	15930.00	50.0 AV	54.0	-4.0	1.08 H	178	29.70	20.30

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	10620.00	61.2 PK	74.0	-12.8	1.05 V	68	46.40	14.80
2	10620.00	48.7 AV	54.0	-5.3	1.05 V	68	33.90	14.80
3	15930.00	59.5 PK	74.0	-14.5	1.00 V	75	39.20	20.30
4	15930.00	49.7 AV	54.0	-4.3	1.00 V	75	29.40	20.30

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

CHANNEL	TX Channel 102	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	11020.00	58.5 PK	74.0	-15.5	1.40 H	45	42.50	16.00
2	11020.00	47.4 AV	54.0	-6.6	1.40 H	45	31.40	16.00
3	#16530.00	62.5 PK	74.0	-11.5	1.03 H	183	40.00	22.50
4	#16530.00	50.1 AV	54.0	-3.9	1.03 H	183	27.60	22.50

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	11020.00	62.1 PK	74.0	-11.9	1.00 V	58	46.10	16.00
2	11020.00	49.3 AV	54.0	-4.7	1.00 V	58	33.30	16.00
3	#16530.00	59.1 PK	74.0	-14.9	1.00 V	68	36.60	22.50
4	#16530.00	49.3 AV	54.0	-4.7	1.00 V	68	26.80	22.50

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. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 110	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	11100.00	58.0 PK	74.0	-16.0	1.36 H	29	42.30	15.70
2	11100.00	47.0 AV	54.0	-7.0	1.36 H	29	31.30	15.70
3	#16650.00	61.6 PK	74.0	-12.4	1.00 H	189	38.90	22.70
4	#16650.00	49.7 AV	54.0	-4.3	1.00 H	189	27.00	22.70

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	11100.00	61.2 PK	74.0	-12.8	1.02 V	63	45.50	15.70
2	11100.00	48.5 AV	54.0	-5.5	1.02 V	63	32.80	15.70
3	#16650.00	59.6 PK	74.0	-14.4	1.00 V	65	36.90	22.70
4	#16650.00	49.5 AV	54.0	-4.5	1.00 V	65	26.80	22.70

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. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 134	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		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	11340.00	58.7 PK	74.0	-15.3	1.42 H	56	42.50	16.20
2	11340.00	47.4 AV	54.0	-6.6	1.42 H	56	31.20	16.20
3	#17010.00	61.7 PK	74.0	-12.3	1.00 H	175	38.40	23.30
4	#17010.00	49.5 AV	54.0	-4.5	1.00 H	175	26.20	23.30

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	11340.00	61.3 PK	74.0	-12.7	1.04 V	53	45.10	16.20
2	11340.00	48.8 AV	54.0	-5.2	1.04 V	53	32.60	16.20
3	#17010.00	59.7 PK	74.0	-14.3	1.00 V	73	36.40	23.30
4	#17010.00	49.4 AV	54.0	-4.6	1.00 V	73	26.10	23.30

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. " # ": The radiated frequency is out of the restricted band.

4.2.9 TEST RESULTS (CONDUCTED MEASUREMENT)

Radiated versus Conducted Measurement	
<input checked="" type="checkbox"/> Conducted measurement	<input type="checkbox"/> Radiated measurement
<p><u>For Radiated measurement:</u></p> <p>The level of unwanted emissions was measured when radiated by the cabinet or structure of the equipment with the antenna connector(s) terminated by a specified load (cabinet radiation)</p> <p><u>For Conducted measurement:</u></p> <p>The level of unwanted emissions was measured as their power in a specified load (conducted spurious emissions).</p>	

Conducted Measurement Factor
<p>a. The composite gain will be used when signal support the correlated signal. (MODE 1: Composite gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 6.01\text{dBi}$) (MODE 2: Composite gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.43\text{dBi}$ Composite gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.52\text{dBi}$ Composite gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.99\text{dBi}$</p> <p>b. For the out of band spurious the gain for the specific band may have been used rather than the highest gain across all bands.</p> <p>c. For the band edge the gain for the specific band may have been used.</p> <p>d. In restricted bands below 1000 MHz, add upper bound on ground plane reflection: For $f = 30 - 1000$ MHz, add 4.7 dB.</p> <p>Note: The conducted emission test was considered some factor to compute test result.</p>

MODE 1

BELOW 1GHz WORST-CASE DATA

802.11a – Channel 116

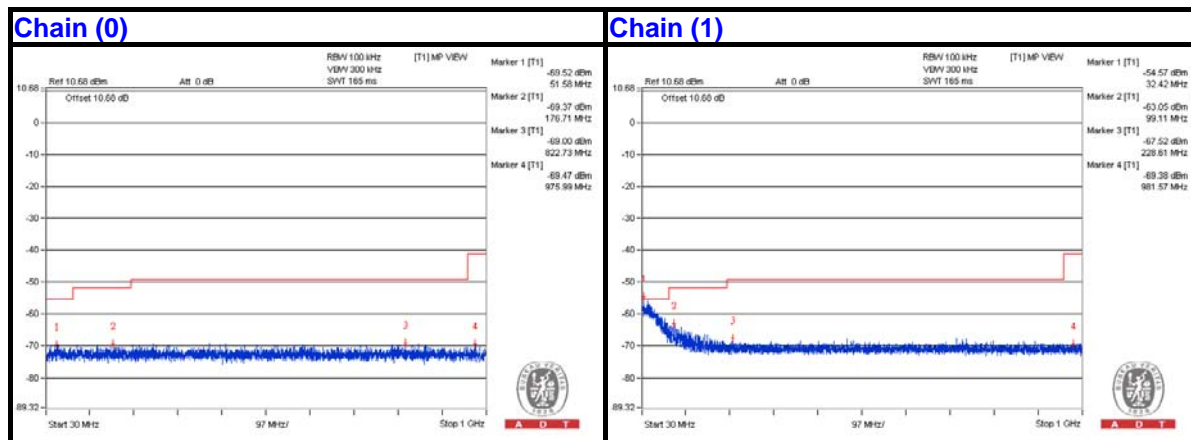
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)		Correction Factor (dB)	EIRP Level (dBm)
					Chain0	Chain1		
1	99.1125	38.66	43.5	-4.84	-72.81	-63.05	6.01	-56.6
2	115.1175	37.63	43.5	-5.87	-73.23	-64.14	6.01	-57.63
3	228.6075	34.87	46	-11.13	-72.85	-67.52	6.01	-60.39
4	481.05	34.96	46	-11.04	-71.72	-67.78	6.01	-60.3
5	736.8875	35.06	46	-10.94	-70.8	-68.07	6.01	-60.2
6	871.7175	34.5	46	-11.5	-71.53	-68.54	6.01	-60.76

Note :

$$\text{Emission Level (dBuV/m)} = \text{EIRP Level (dBm)} - 20\log(d) + 104.8$$

d = measurement distance in 3 meters.





A D T

ABOVE 1GHz DATA
802.11a – Channel 36

Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)		Correction Factor (dB)	EIRP Level (dBm)
					Chain0	Chain1		
1	3453.125 PK	57.95	74	-16.05	-45.95	-46.75	6.01	-37.31
2	3453.125 AV	47.44	54	-6.56	-55.97	-57.93	6.01	-47.82
3	6903.125 PK	58.9	74	-15.1	-44.64	-46.27	6.01	-36.36
4	6906.25 AV	48.05	54	-5.95	-55.72	-56.8	6.01	-47.21
5	10353.125 PK	57.1	74	-16.9	-46.88	-47.51	6.01	-38.16
6	10356.25 AV	46.68	54	-7.32	-57.85	-57.37	6.01	-48.58
7	15532.625 PK	57.12	74	-16.88	-46.85	-47.49	6.01	-38.14
8	15538.375 AV	46.5	54	-7.5	-57.88	-57.68	6.01	-48.76

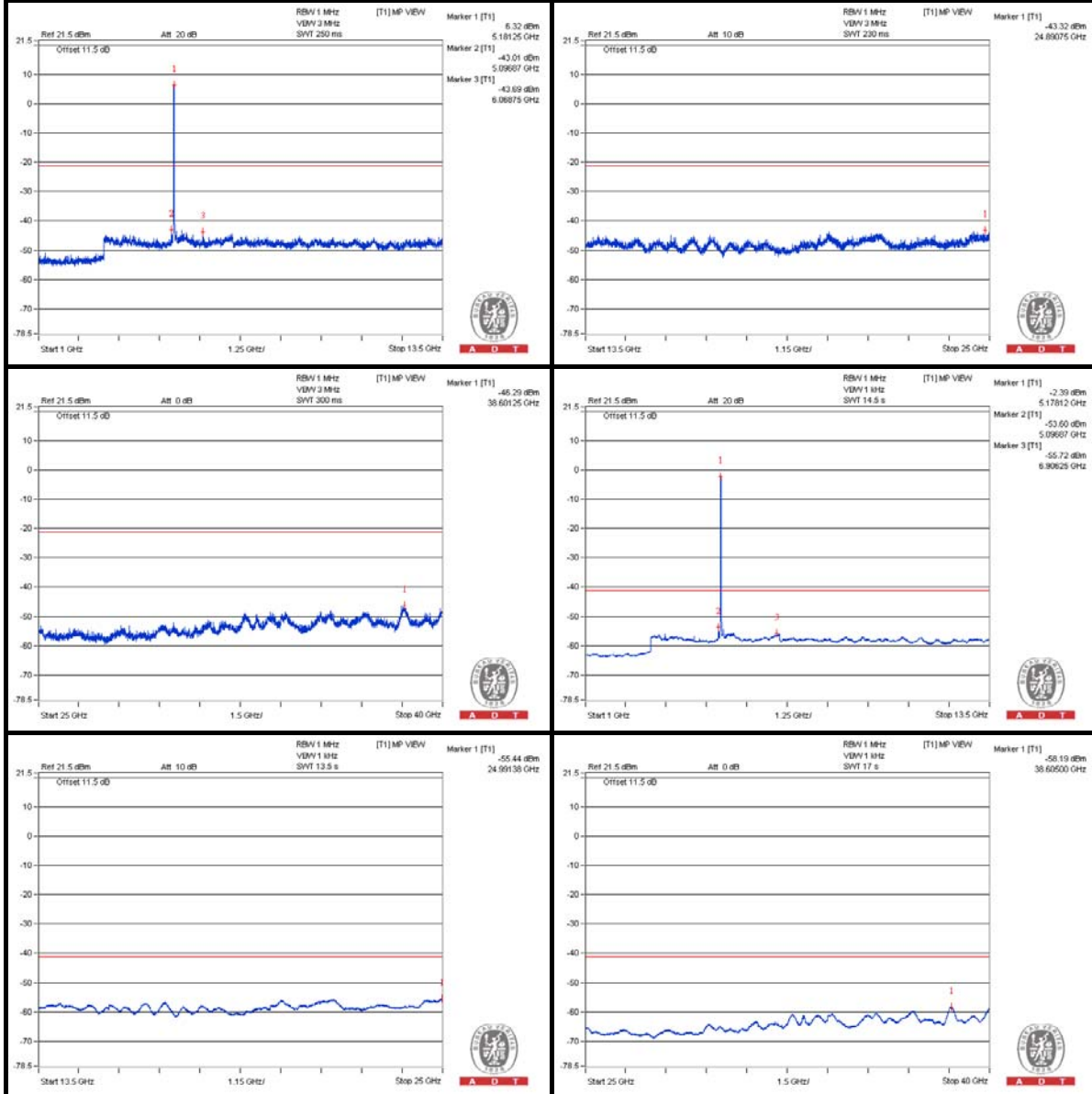
Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8
d = measurement distance in 3 meters.



A D T

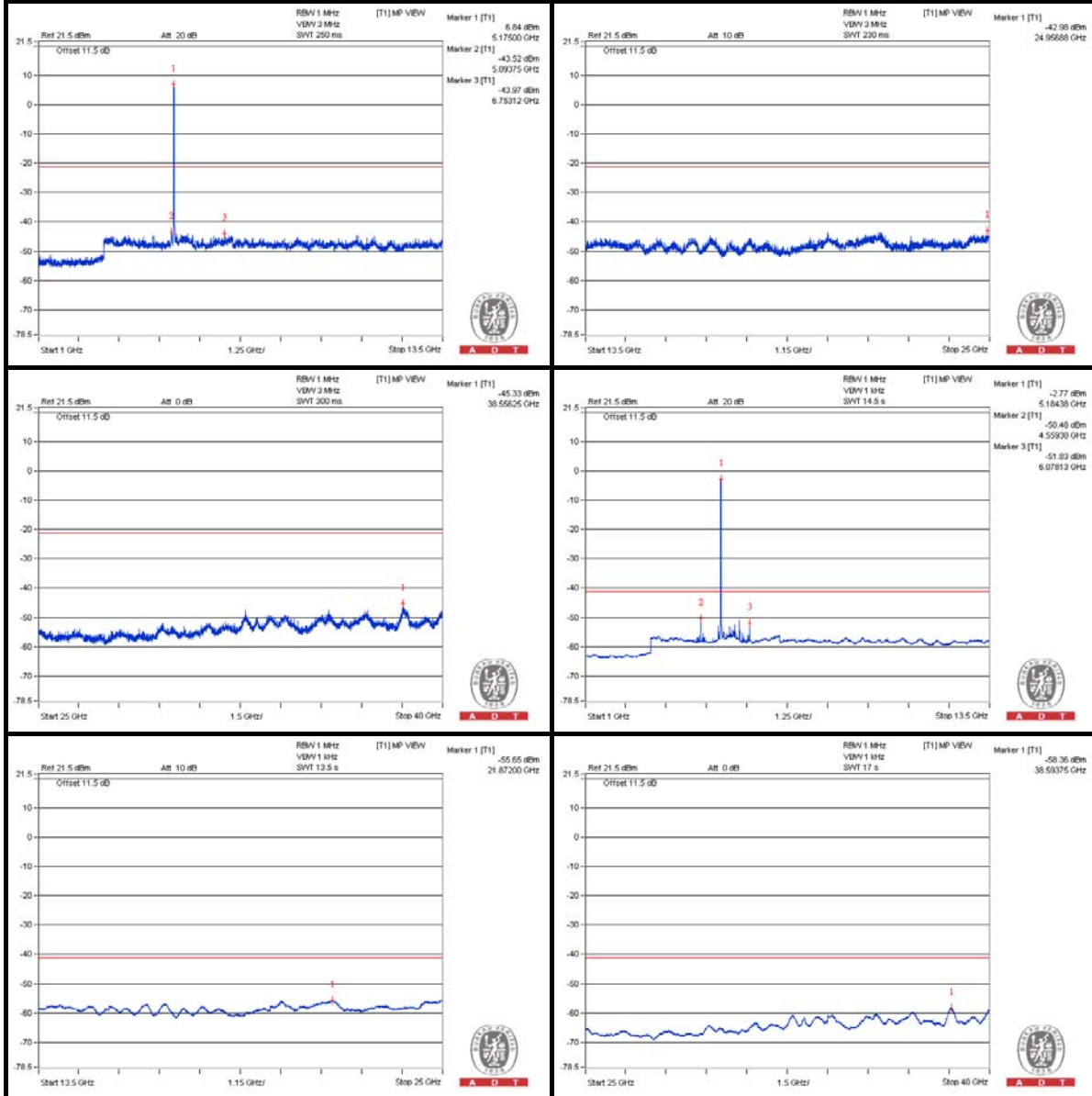
Chain (0)





A D T

Chain (1)



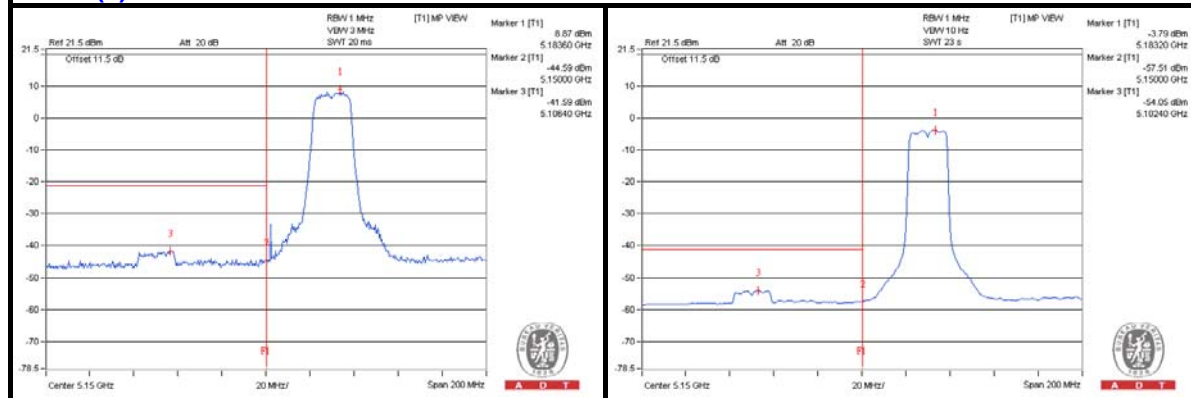
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)		Correction Factor (dB)	EIRP Level (dBm)
					Chain0	Chain1		
1	5106.4 PK	62.35	74	-11.65	-41.59	-42.31	6.01	-32.91
2	5103.6 AV	50.52	54	-3.48	-54.36	-53.24	6.01	-44.74

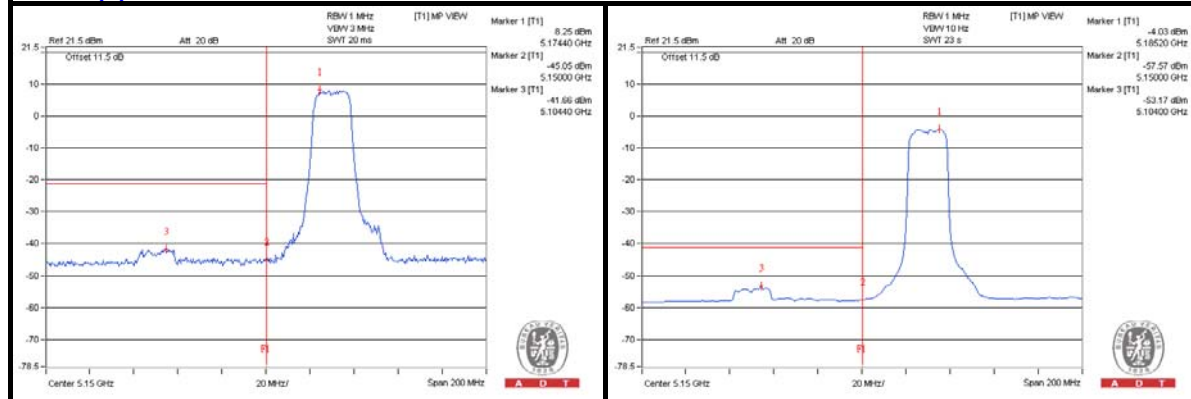
Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8
d = measurement distance in 3 meters.

Chain (0)



Chain (1)





A D T

802.11a – Channel 40

Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Raw Value (dBm)		Correction Factor (dB)	EIRP Level (dBm)
					Chain0	Chain1		
1	3465.625 PK	57.23	74	-16.77	-46.56	-47.61	6.01	-38.03
2	3465.625 AV	47.48	54	-6.52	-56.08	-57.67	6.01	-47.78
3	6940.625 PK	58.94	74	-15.06	-45.29	-45.4	6.01	-36.32
4	6934.375 AV	47.98	54	-6.02	-56.15	-56.45	6.01	-47.28
5	10393.75 PK	56.98	74	-17.02	-47.84	-46.82	6.01	-38.28
6	10393.75 AV	46.43	54	-7.57	-58.01	-57.69	6.01	-48.83
7	15601.625 PK	57.03	74	-16.97	-46.82	-47.73	6.01	-38.23
8	15601.625 AV	46.18	54	-7.82	-58.08	-58.13	6.01	-49.08

Note :

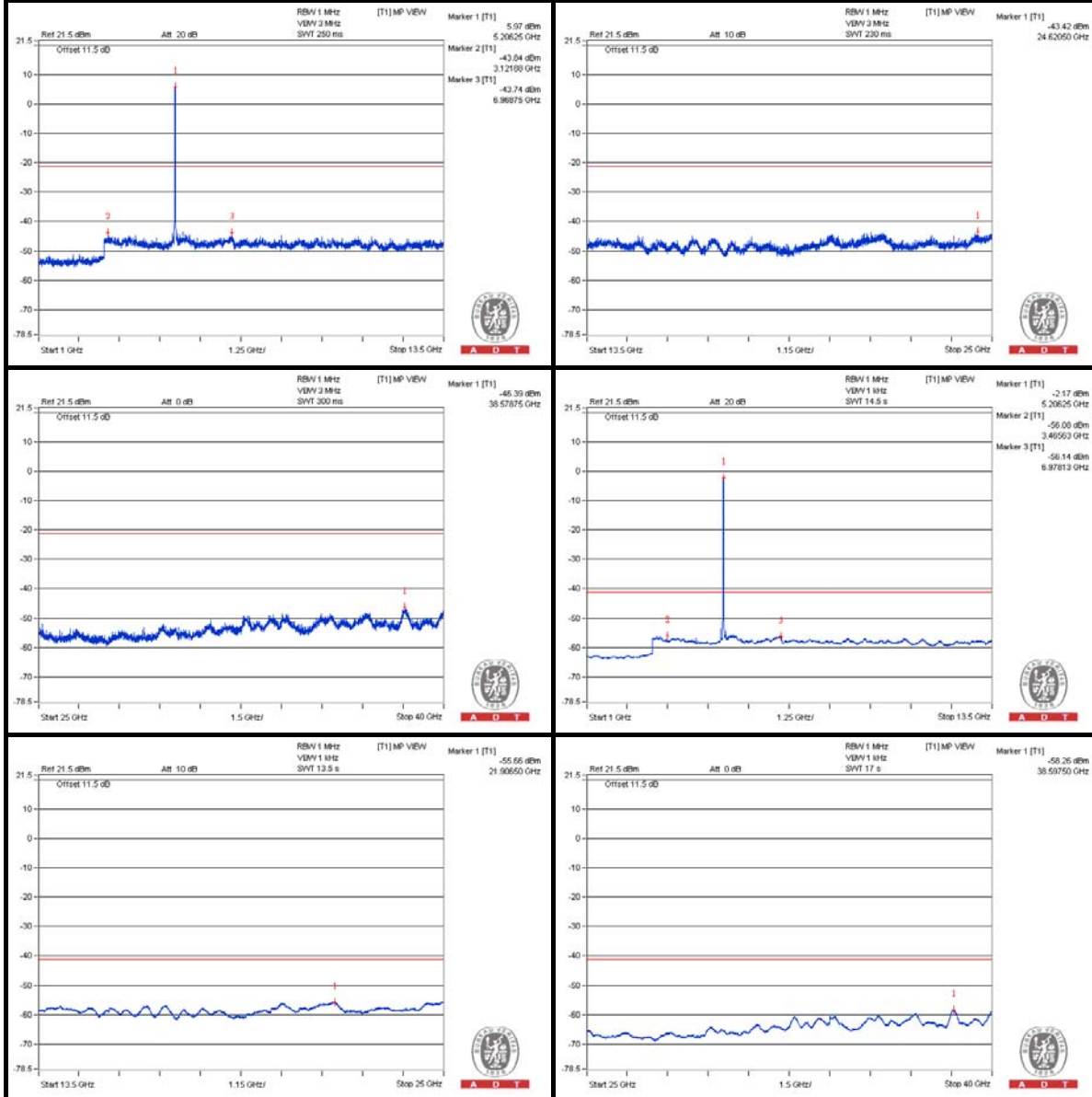
Emission Level (dBUV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



A D T

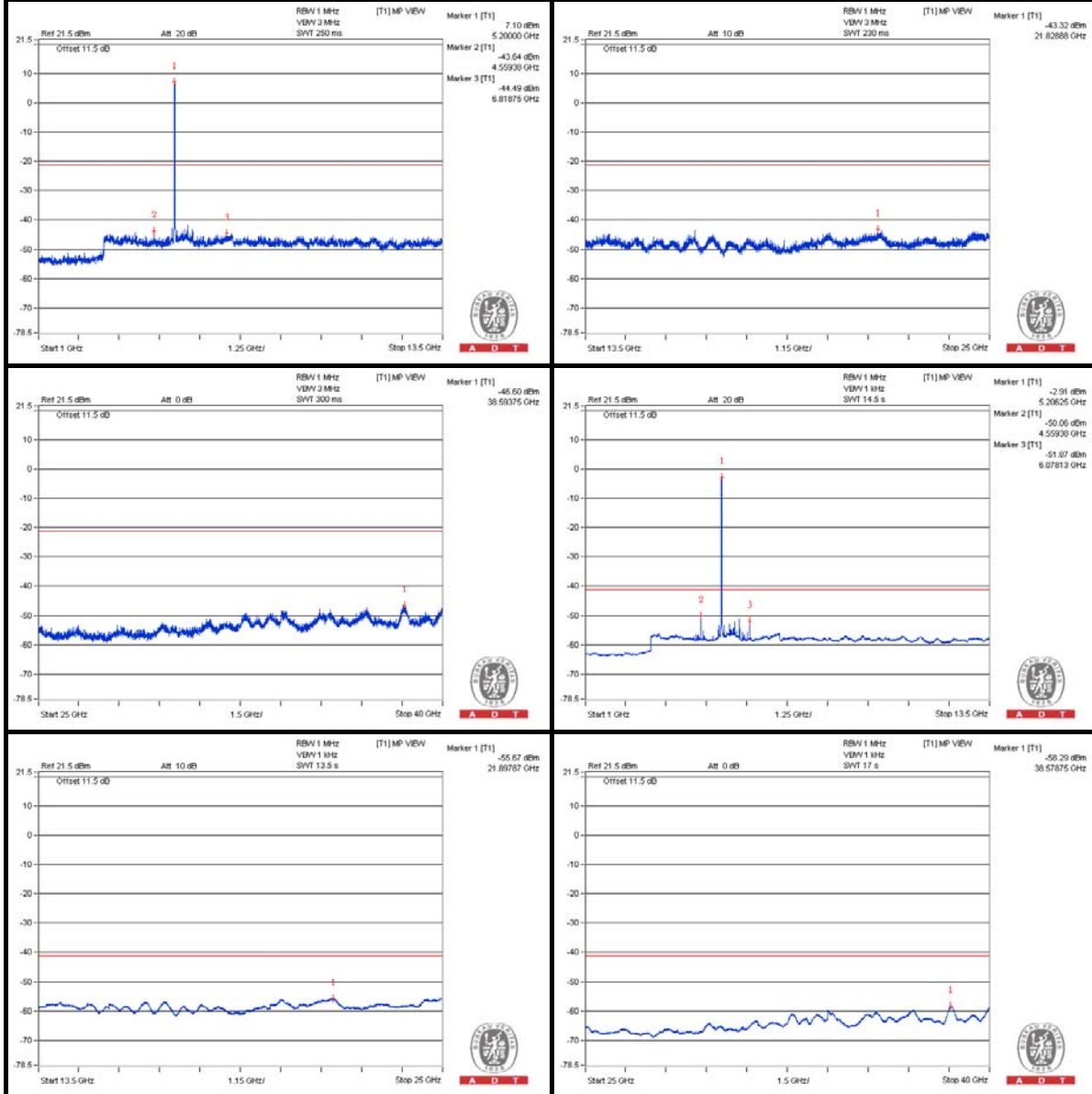
Chain (0)





A D T

Chain (1)





A D T

802.11a - Channel 48

Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)		Correction Factor (dB)	EIRP Level (dBm)
					Chain0	Chain1		
1	3487.5 PK	57.34	74	-16.66	-46.66	-47.25	6.01	-37.92
2	3493.75 AV	47.4	54	-6.6	-55.92	-58.12	6.01	-47.86
3	6987.5 PK	58.95	74	-15.05	-45.15	-45.52	6.01	-36.31
4	6990.625 AV	48.05	54	-5.95	-56.26	-56.2	6.01	-47.21
5	10487.5 PK	56.93	74	-17.07	-48.73	-46.31	6.01	-38.33
6	10484.375 AV	46.09	54	-7.91	-58.07	-58.32	6.01	-49.17
7	15722.375 PK	57.33	74	-16.67	-48.68	-45.72	6.01	-37.93
8	15710.875 AV	45.46	54	-8.54	-58.77	-58.87	6.01	-49.8

Note :

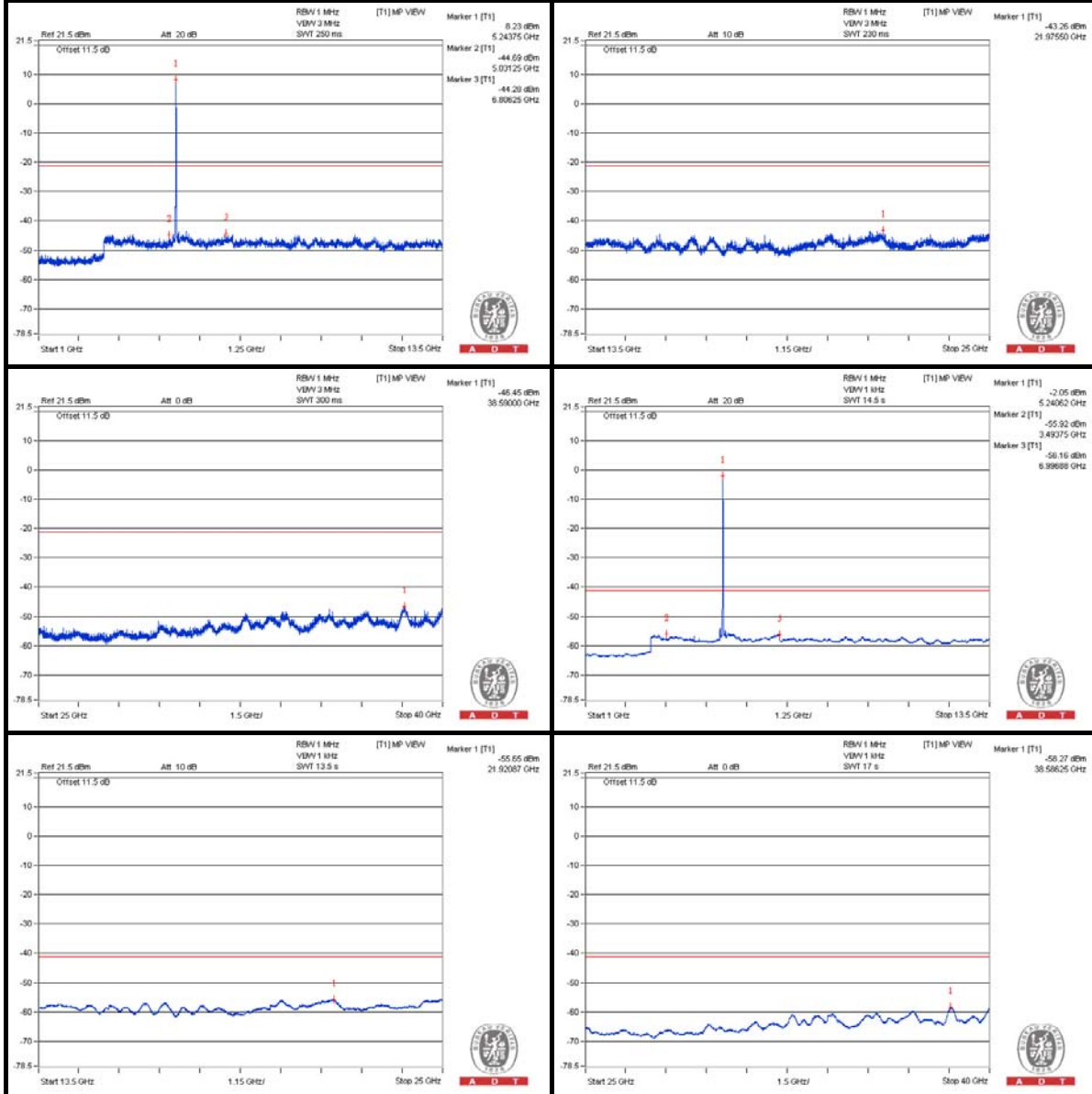
Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.

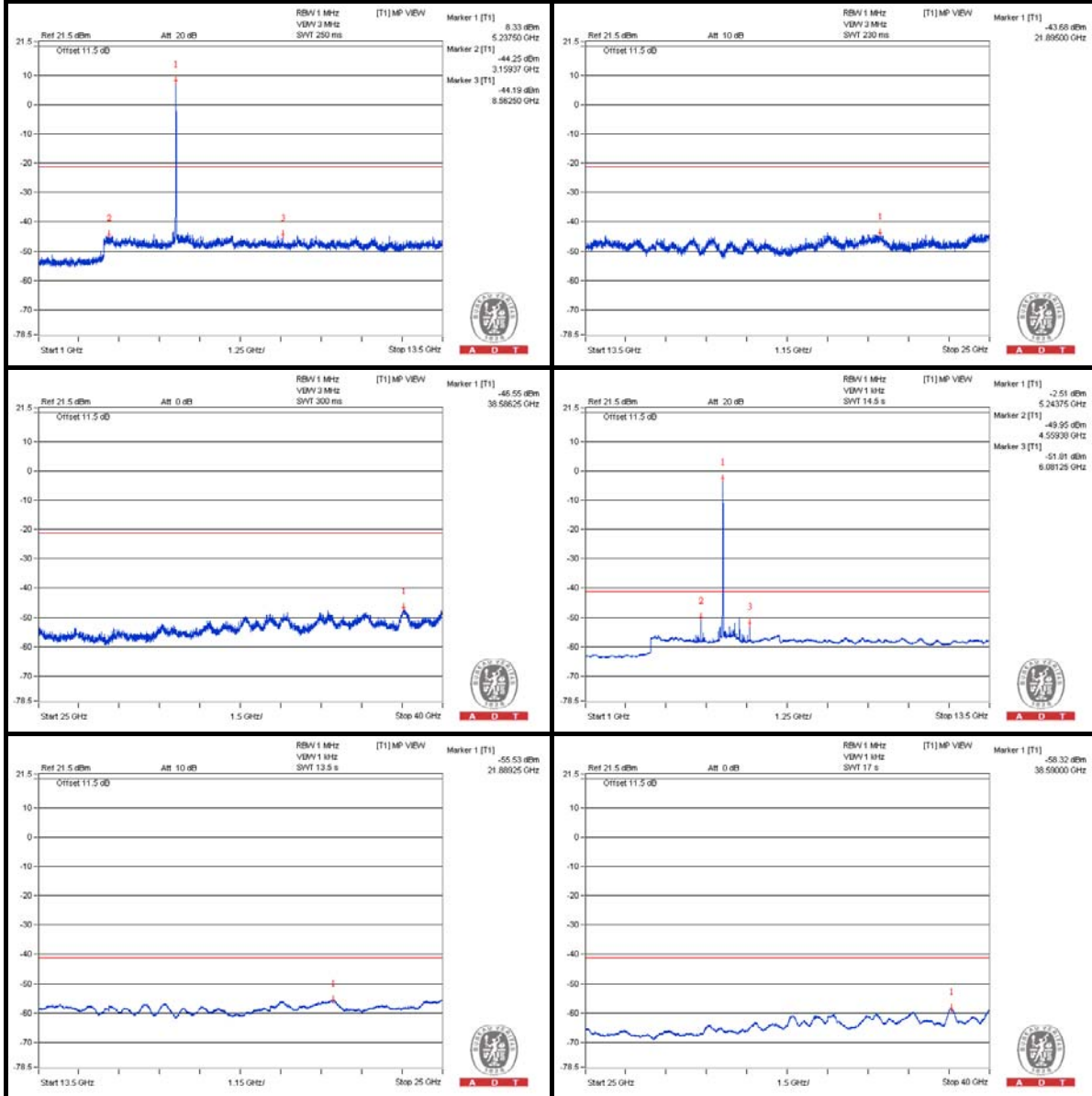


A D T

Chain (0)



Chain (1)





A D T

802.11a – Channel 52

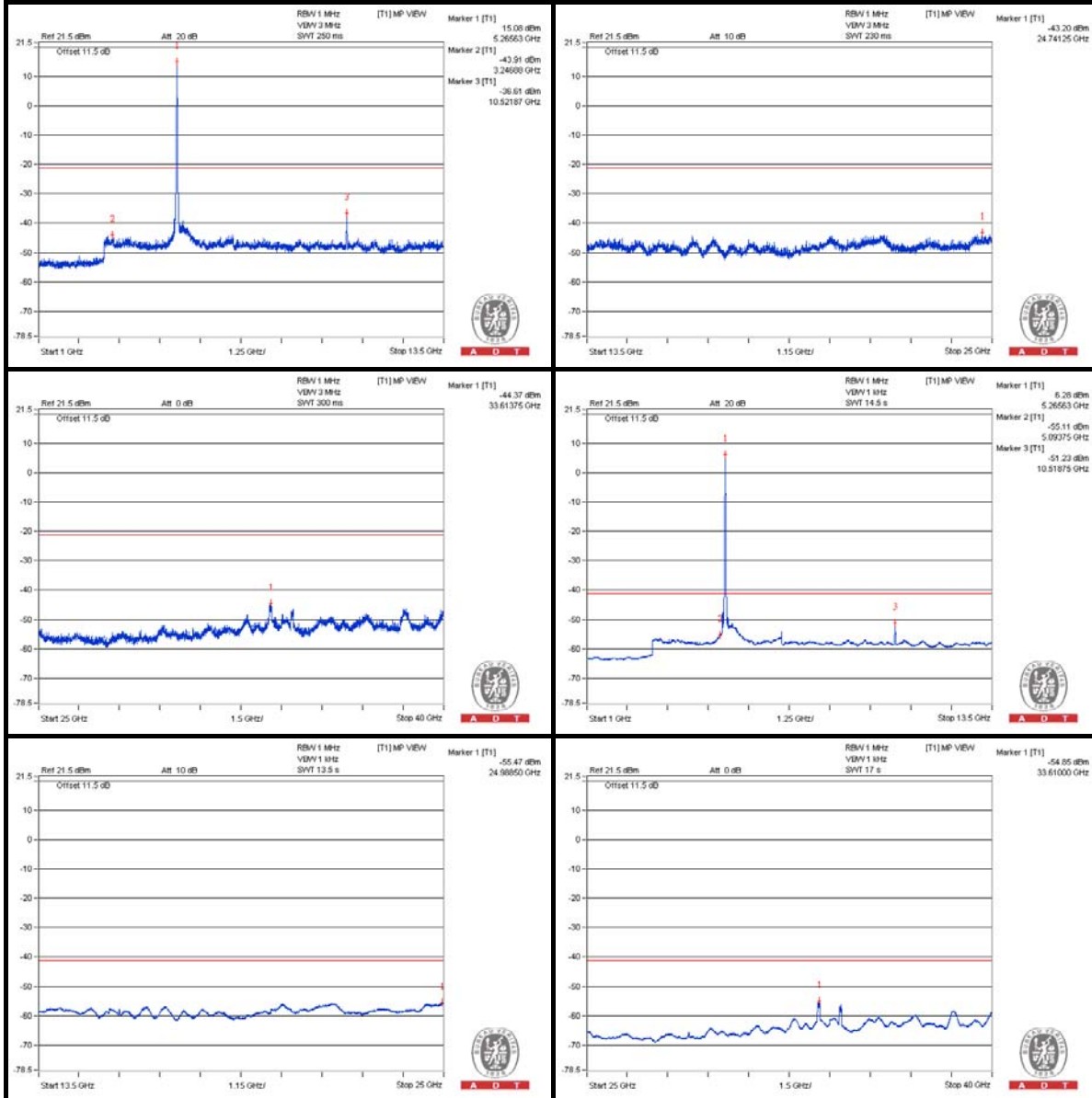
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)		Correction Factor (dB)	EIRP Level (dBm)
					Chain0	Chain1		
1	3506.25 PK	57.15	74	-16.85	-46.76	-47.53	6.01	-38.11
2	3506.25 AV	46.97	54	-7.03	-56.88	-57.79	6.01	-48.29
3	7012.5 PK	58.57	74	-15.43	-45.16	-46.35	6.01	-36.69
4	7012.5 AV	48.75	54	-5.25	-54.13	-57.62	6.01	-46.51
5	10521.875 PK	64.33	74	-9.67	-38.91	-41.33	6.01	-30.93
6	10518.75 AV	50.92	54	-3.08	-53.53	-53.19	6.01	-44.34
7	15779.875 PK	57.11	74	-16.89	-47.87	-46.56	6.01	-38.15
8	15779.875 AV	46.52	54	-7.48	-57.91	-57.61	6.01	-48.74

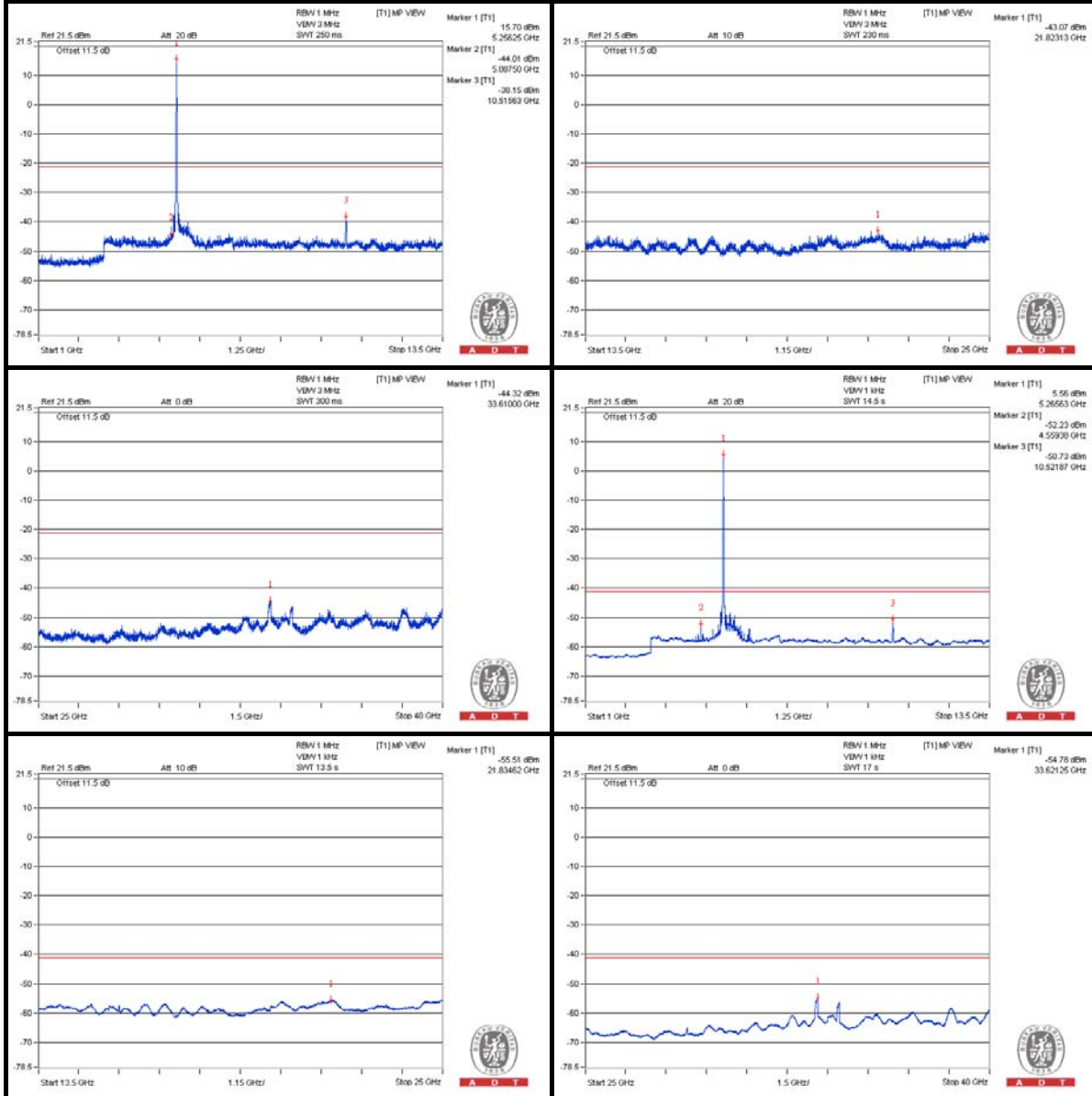
Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8
d = measurement distance in 3 meters.

Chain (0)



Chain (1)





A D T

802.11a – Channel 60

Conducted spurious emission table

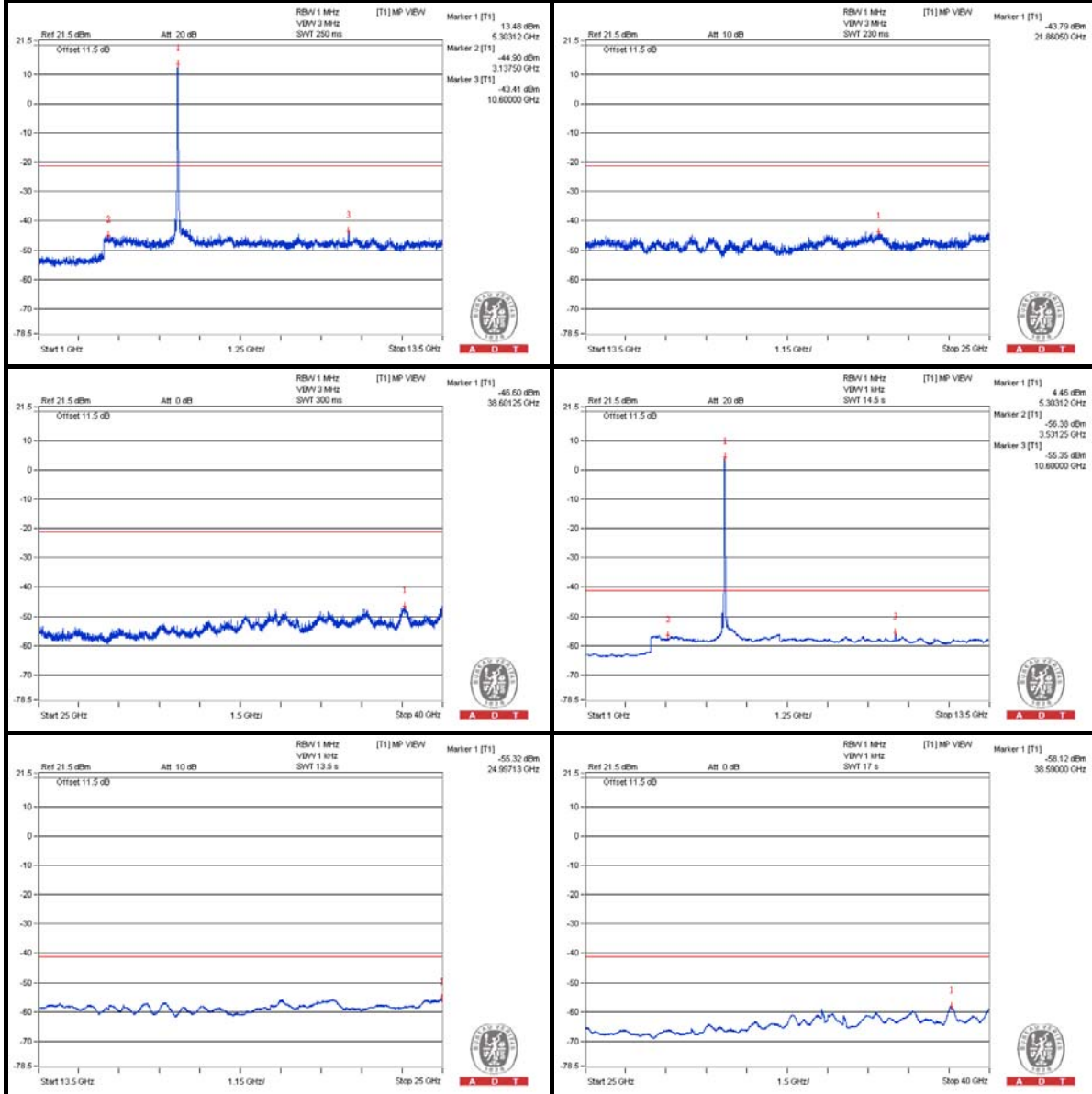
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)		Correction Factor (dB)	EIRP Level (dBm)
					Chain0	Chain1		
1	3531.25 PK	57.81	74	-16.19	-45.77	-47.3	6.01	-37.45
2	3531.25 AV	47.29	54	-6.71	-56.38	-57.71	6.01	-47.97
3	7075 PK	56.39	74	-17.61	-47.94	-47.85	6.01	-38.87
4	7075 AV	45.83	54	-8.17	-58.55	-58.36	6.01	-49.43
5	10600 PK	62.22	74	-11.78	-43.41	-41.03	6.01	-33.04
6	10600 AV	49.65	54	-4.35	-55.35	-54.01	6.01	-45.61
7	15900.625 PK	58.2	74	-15.8	-46.73	-45.51	6.01	-37.06
8	15897.75 AV	46.96	54	-7.04	-57.8	-56.88	6.01	-48.3

Note :

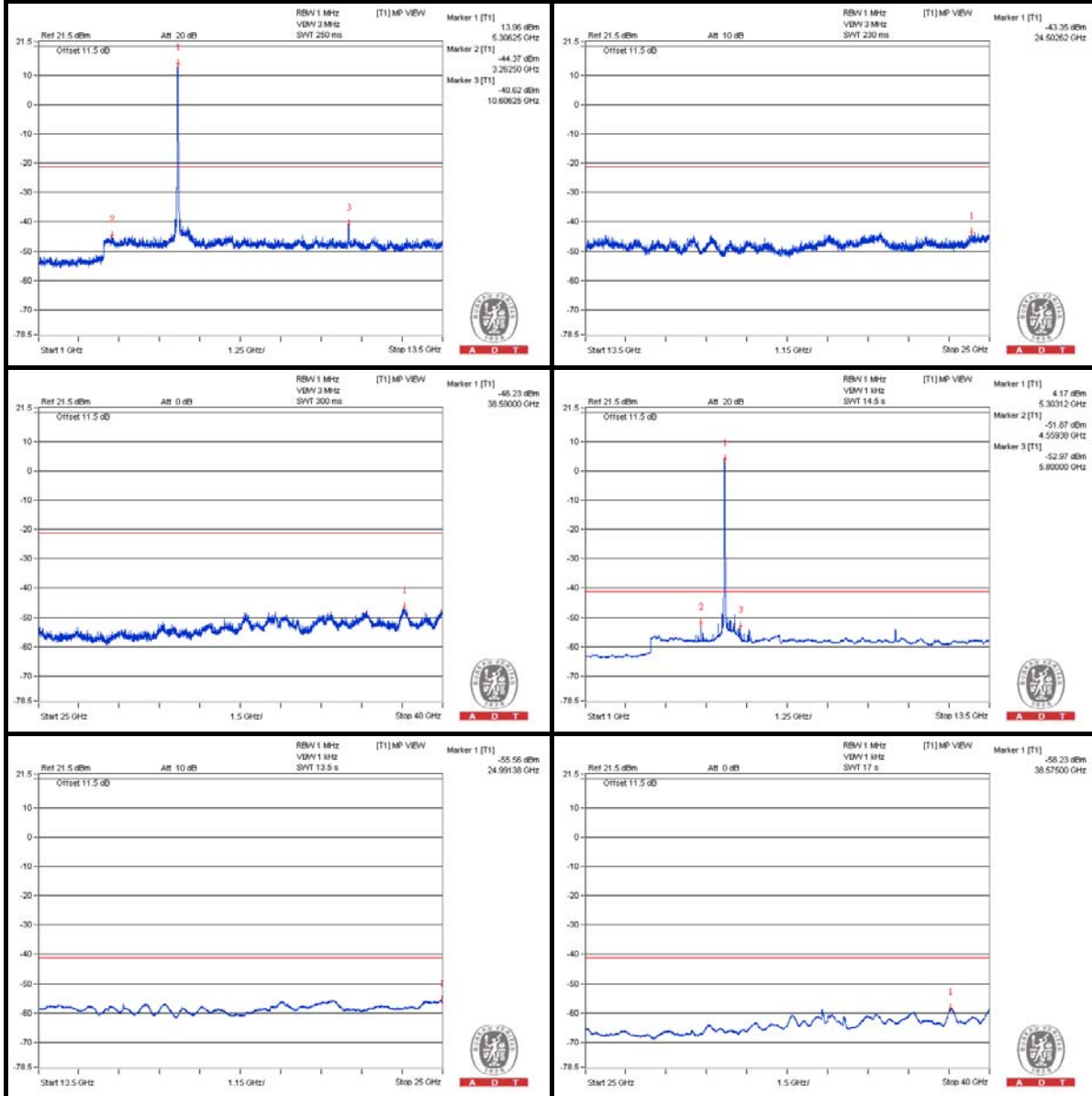
Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.

Chain (0)



Chain (1)





A D T

802.11a – Channel 64

Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)		Correction Factor (dB)	EIRP Level (dBm)
					Chain0	Chain1		
1	3546.875 PK	57.83	74	-16.17	-46.88	-46.06	6.01	-37.43
2	3546.875 AV	47.91	54	-6.09	-55.26	-57.87	6.01	-47.35
3	7096.875 PK	57.74	74	-16.26	-46.51	-46.57	6.01	-37.52
4	7096.875 AV	46.31	54	-7.69	-57.97	-57.97	6.01	-48.95
5	10640.625 PK	57.87	74	-16.13	-47.52	-45.53	6.01	-37.39
6	10640.625 AV	46.93	54	-7.07	-57.45	-57.26	6.01	-48.33
7	15969.625 PK	56.39	74	-17.61	-47.18	-48.73	6.01	-38.87
8	15955.25 AV	45.99	54	-8.01	-58.27	-58.32	6.01	-49.27

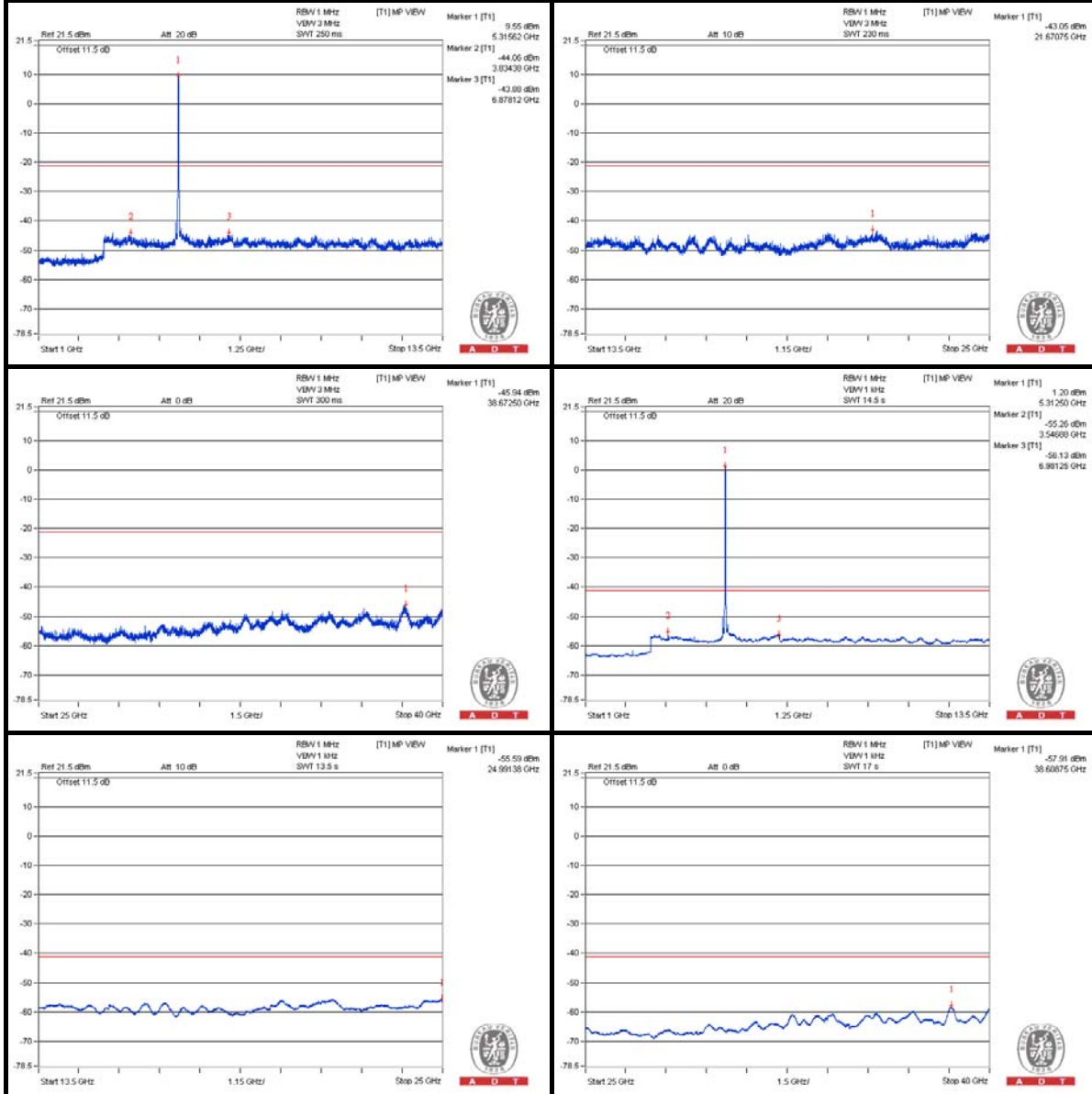
Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8
d = measurement distance in 3 meters.



A D T

Chain (0)



Chain (1)

