FCC TEST REPORT (15.407)

REPORT NO.: RF980313H11-1

MODEL NO.: WUSB600N ver.2

RECEIVED: Mar. 11, 2009

TESTED: Mar. 24 to April 15, 2009

ISSUED: April 20, 2009

APPLICANT: Cisco-Linksys LLC

ADDRESS: 121 Theory Drive Irvine, CA 92617, USA

ISSUED BY: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory

ADDRESS: No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan

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1. CERTIFICATION

PRODUCT:	Wireless-N USB Network Adapter with Dual-Band
BRAND NAME:	Linksys
MODEL NO.:	WUSB600N ver.2
TEST SAMPLE:	R&D SAMPLE
TESTED:	Mar. 24 to April 15, 2009
APPLICANT:	Cisco-Linksys LLC
STANDARDS:	FCC Part 15, Subpart E (Section 15.407), ANSI C63.4-2003

The above equipment (Model: WUSB600N ver.2) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : _____ , **DATE:** April 20, 2009
(Midoli Peng, Specialist)

TECHNICAL ACCEPTANCE : _____ , **DATE:** April 20, 2009
Responsible for RF
(Hank Chung, Deputy Manager)

APPROVED BY : _____ , **DATE:** April 20, 2009
(May Chen, Deputy Manager)

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:
For 802.11a

APPLIED STANDARD: FCC Part 15, Subpart E (Section 15.407)			
Standard Section	**Test Type**	**Result**	**Remark**
15.407(b)(5)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is –15.75dB at 0.173MHz
15.407(b/1/2/3)(b)(5)	Electric Field Strength Spurious Emissions, 30MHz ~ 40000MHz	PASS	Meet the requirement of limit. Minimum passing margin is –1.4dB at 5470.0MHz
15.407(a/1/2/3)	Peak Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit.
15.407(a/1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.

NOTE:

1. The EUT was operating in 2400 ~ 2483.5MHz, 5.15~5.35GHz, 5.47~5.725GHz and 5.725~5.850GHz frequencies band. This report was recorded the RF parameters including 5.15~5.35GHz and 5.47~5.725GHz. For the 2400 ~ 2483.5MHz and 5.725~5.850GHz RF parameters was recorded in another 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
Conducted emissions	2.44 dB
Radiated emissions (30MHz-1GHz)	3.94 dB
Radiated emissions (1GHz -18GHz)	2.49 dB
Radiated emissions (18GHz -40GHz)	2.70 dB

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Wireless-N USB Network Adapter with Dual-Band
MODEL NO.	WUSB600N ver.2
FCC ID	Q87-WUSB600NV2
POWER SUPPLY	DC 5V from host equipment
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b: 11 / 5.5 / 2 / 1Mbps 802.11g: 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6Mbps 802.11a: 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6Mbps Draft 802.11n (20MHz): 144.4 / 130 / 115.6 / 86.7 / 72.2 / 65 / 57.8 / 43.3 / 28.9 / 21.7 / 14.4 / 7.2Mbps Draft 802.11n (40MHz): 300 / 270 / 240 / 180 / 150 / 135 / 120 / 90 / 60 / 45 / 30 / 15Mbps
FREQUENCY RANGE	For 15.407 802.11a: 5.18 ~ 5.32GHz, 5.50 ~ 5.70GHz
	For 15.247 802.11b & 802.11g: 2412 ~ 2462MHz 802.11a: 5.745 ~ 5.825GHz
NUMBER OF CHANNEL	**For 15.407** 19 for 802.11a, draft 802.11n (20MHz) 9 for draft 802.11n (40MHz)
	For 15.247(2.4GHz) 11 for 802.11b, 802.11g, draft 802.11n (20MHz) 7 for draft 802.11n (40MHz) **For 15.247(5GHz)** 5 for 802.11a, draft 802.11n (20MHz) 2 for draft 802.11n (40MHz)

MAXIMUM OUTPUT POWER	**For 15.407** 802.11a: 52.0mW draft 802.11n (20MHz): 91.960mW draft 802.11n (40MHz): 92.965mW **For 15.247(2.4GHz)** 802.11b: 190.546mW 802.11g: 287.078mW draft 802.11n (20MHz): 538.398mW draft 802.11n (40MHz): 563.826mW **For 15.247(5GHz)** 802.11a: 168.267mW draft 802.11n (20MHz): 301.009mW draft 802.11n (40MHz): 284.952mW
ANTENNA TYPE	Please see note 1
DATA CABLE	NA
INTERFACE	USB
ASSOCIATED DEVICES	NA

NOTE:

1. There are two antennas provided to this EUT, please refer to the following table:

No.	Antenna Type	For 2.4GHz Gain (dBi)	For 5GHz Gain (dBi)	Antenna Connector
CHAIN(0)	PCB Print	0.5	4	NA
CHAIN(1)	PCB Print	1.4	4	NA

2. The EUT incorporates a MIMO function with 802.11a, 802.11b, 802.11g, draft 802.11n. Physically, the EUT provides two completed transmit and two completed receivers.

3. The EUT is 2 * 2 spatial MIMO (2Tx & 2Rx) without beam forming function. The antenna configurations are two transmitter antennas and two receiver antennas, as there are 2 PCB Print antennas. Spatial multiplexing modes for simultaneous transmission using 2 antennas, and for simultaneous receiver using 2 antennas. The 11a and 11bg legacy mode is limited to single transmitter only.

4. When the EUT operating in draft 802.11n, the software operation, which is defined by manufacturer, MCS (Modulation and Coding Schemes) from 0 to 15.

5. The EUT complies with draft 802.11n standards and backwards compatible with 802. 11a, 802.11b, 802.11g products.

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 TEST MODES

Operated in 5150MHz ~ 5350MHz bands:

Eight channels are provided for 802.11a and draft 802.11n (20MHz):

CHANNEL	FREQUENCY
1	5180 MHz
2	5200 MHz
3	5220 MHz
4	5240 MHz
5	5260 MHz
6	5280 MHz
7	5300 MHz
8	5320 MHz

Four channels are provided for draft 802.11n (40MHz):

CHANNEL	FREQUENCY
1	5190 MHz
2	5230 MHz
3	5270 MHz
4	5310 MHz

Operated in 5470MHz ~ 5725MHz bands:

Eleven channels are provided for 802.11a and draft 802.11n (20MHz):

CHANNEL	FREQUENCY
9	5500 MHz
10	5520 MHz
11	5540 MHz
12	5560 MHz
13	5580 MHz
14	5600 MHz
15	5620 MHz
16	5640 MHz
17	5660 MHz
18	5680 MHz
19	5700 MHz

Five channels are provided for draft 802.11n (40MHz):

CHANNEL	FREQUENCY
5	5510 MHz
6	5550 MHz
7	5590 MHz
8	5630 MHz
9	5670 MHz

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL:

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	PLC	RE < 1G	RE ≥ 1G	APCM	
-	√	√	√	√	-

Where **PLC:** Power Line Conducted Emission **RE < 1G:** Radiated Emission below 1GHz

RE ≥ 1G: Radiated Emission above 1GHz **APCM:** Antenna Port Conducted Measurement

ANTENNA COMBINATION MODE:

COMBINATION MODE	OPERATION MODE	CHAIN(0) (TX)	CHAIN(1) (TX)
A	802.11a	√	
B	DRAFT 802.11n(20MHz)	√	√
C	DRAFT 802.11n(40MHz)	√	√

Note:
1. The above information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.
2. Antenna 1 and Antenna 2 are PCB Print antennas.

POWER LINE CONDUCTED EMISSION TEST:

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

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX COMBINATION
For 5 GHz Draft 802.11n (20MHz)	1 to 19	14	OFDM	BPSK	7.2	B

RADIATED EMISSION TEST (BELOW 1 GHz):

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

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX COMBINATION
For 5 GHz Draft 802.11n (20MHz)	1 to 19	14	OFDM	BPSK	7.2	B

RADIATED EMISSION TEST (ABOVE 1 GHz):

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

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX COMBINATION
802.11a	1 to 19	1, 2, 4, 5, 7, 8, 9, 14, 19	OFDM	BPSK	6	A
For 5 GHz Draft 802.11n (20MHz)	1 to 19	1, 2, 4, 5, 7, 8, 9, 14, 19	OFDM	BPSK	7.2	B
For 5 GHz Draft 802.11n (40MHz)	1 to 9	1, 2, 3, 4, 5, 7, 9	OFDM	BPSK	15	C

BANDEDGE 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	MODULATION TYPE	DATA RATE (Mbps)	TX COMBINATION
802.11a	1 to 19	1, 8, 9, 19	OFDM	BPSK	6	A
For 5 GHz Draft 802.11n (20MHz)	1 to 19	1, 8, 9, 19	OFDM	BPSK	7.2	B
For 5 GHz Draft 802.11n (40MHz)	1 to 9	1, 4, 5, 9	OFDM	BPSK	15	C

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	MODULATION TYPE	DATA RATE (Mbps)	TX COMBINATION
802.11a	1 to 19	1, 2, 4, 5, 7, 8, 9, 14, 19	OFDM	BPSK	6	A
For 5 GHz Draft 802.11n (20MHz)	1 to 19	1, 2, 4, 5, 7, 8, 9, 14, 19	OFDM	BPSK	14.4	B
For 5 GHz Draft 802.11n (40MHz)	1 to 9	1, 2, 3, 4, 5, 7, 9	OFDM	BPSK	30	C

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a Wireless-N USB Network Adapter with Dual-Band. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart E (15.407)

ANSI C63.4-2003

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

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

3.4 DESCRIPTION OF SUPPORT UNITS

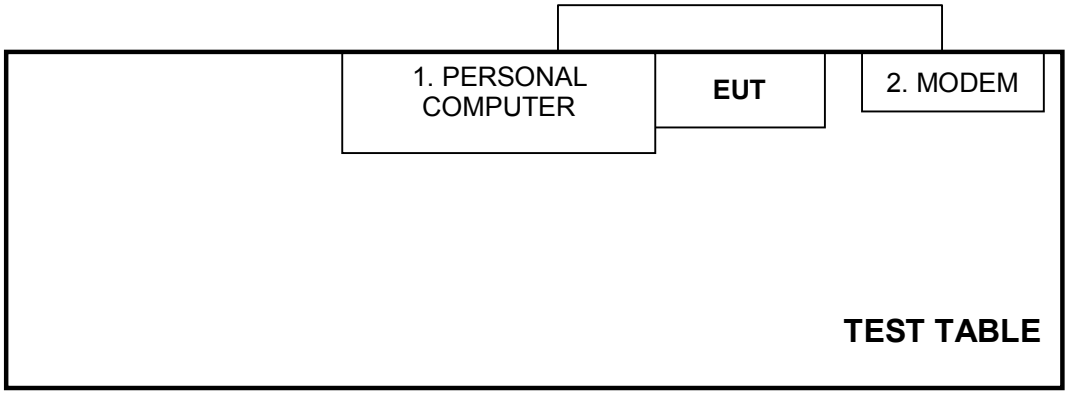
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP18L	6976685584	FCC DoC
2	MODEM	ACEEX	1414	0206026779	IFAXDM1414

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	1.0 m braid shielded wire, terminated with DB25 and DB9 connector via metallic frame, w/o core.

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

3.5 CONFIGURATION OF SYSTEM UNDER TEST



4.TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

NOTE: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver	ESCS 30	100375	Mar. 23, 2009	Mar. 22, 2010
Line-Impedance Stabilization Network (for EUT)	ENV-216	100071	Nov. 26, 2008	Nov. 25, 2009
Line-Impedance Stabilization Network (for Peripheral)	ESH3-Z5	848773/004	Nov. 05, 2008	Nov. 04, 2009
RF Cable (JYEBAO)	5DFB	COBCAB-001	Aug. 15, 2008	Aug. 14, 2009
50 ohms Terminator	50	3	Nov. 05, 2008	Nov. 04, 2009
Software	BV ADT_Cond_V7.3.7	NA	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Shielded Room No. B.
3 The VCCI Con B Registration No. is C-2193.

4.1.3 TEST PROCEDURES

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

b. provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

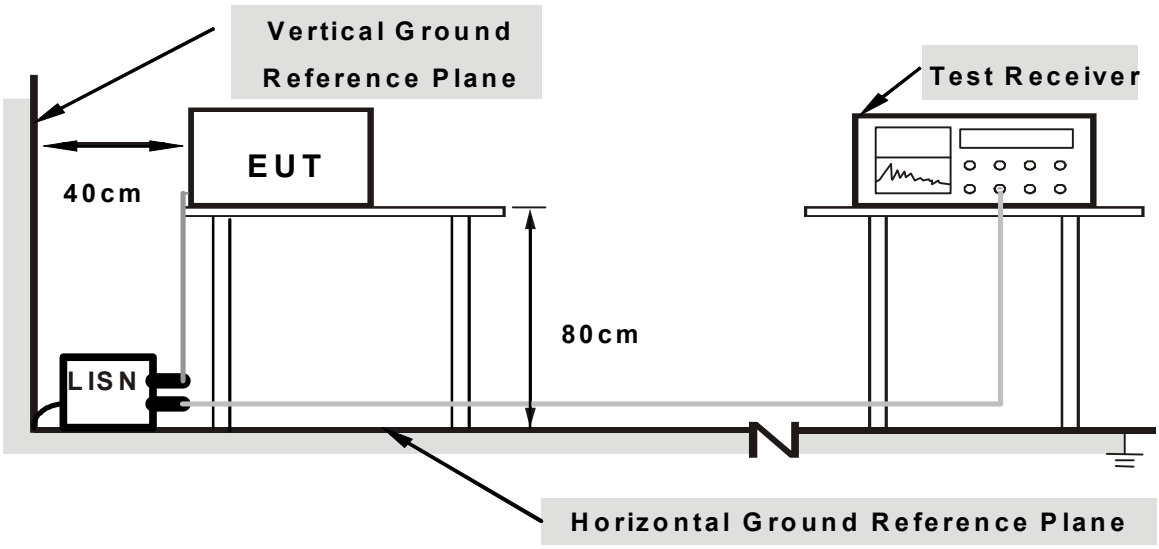
c. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

d. The frequency range from 150kHz to 30MHz was searched. Emission level under (Limit – 20dB) was not recorded.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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

4.1.6 EUT OPERATING CONDITIONS

a. Plug the EUT into the support unit 1 (Notebook computer) which placed on a testing table.

b. Support unit 1 (Notebook computer) run test program “QA RT3x7x V1.4.0.0” to enable EUT under transmission condition continuously at specific channel frequency.

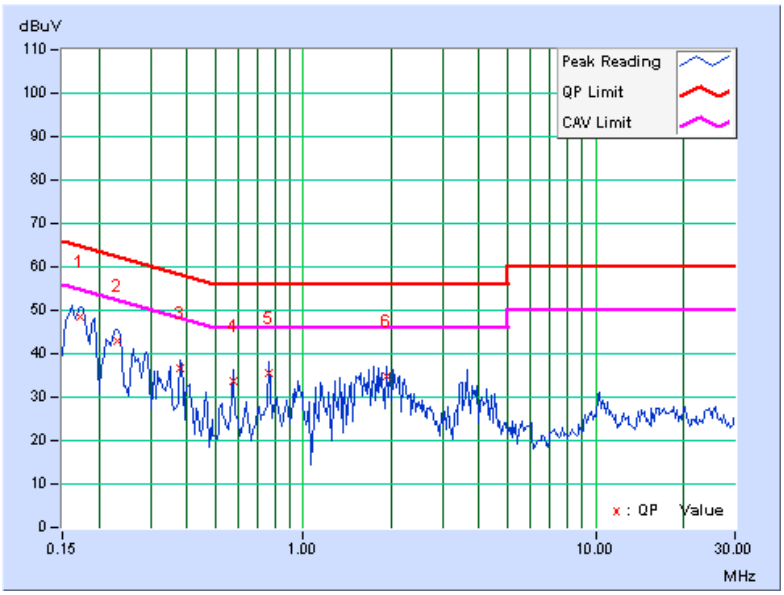
4.1.7 TEST RESULTS

DRAFT 802.11n (20MHz) OFDM MODULATION :

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 14	**PHASE**	Line (L)
MODULATION TYPE	BPSK	**6dB BANDWIDTH**	9 kHz
TRANSFER RATE	7.2Mbps	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 965hPa	**TESTED BY**	Kent Liu

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		**Factor**	**[dB (uV)]**		**[dB (uV)]**		**[dB (uV)]**		**(dB)**	
	[MHz]	**(dB)**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**
1	0.173	0.20	48.49	-	48.69	-	64.79	54.79	-16.10	-
2	0.232	0.26	42.81	-	43.07	-	62.38	52.38	-19.31	-
3	0.380	0.44	36.12	-	36.56	-	58.27	48.27	-21.71	-
4	0.576	0.41	33.20	-	33.61	-	56.00	46.00	-22.39	-
5	0.763	0.36	35.14	-	35.50	-	56.00	46.00	-20.50	-
6	1.918	0.40	34.57	-	34.97	-	56.00	46.00	-21.03	-

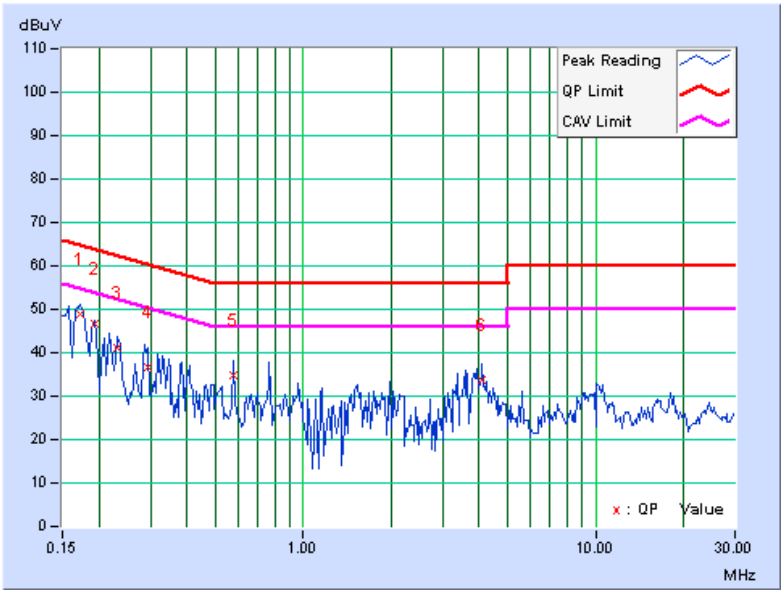
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 14	PHASE	Neutral (N)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	7.2Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 965hPa	TESTED BY	Kent Liu

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	**0.173**	**0.13**	**48.91**	**-**	**49.04**	**-**	**64.79**	**54.79**	**-15.75**	**-**
2	0.193	0.15	46.39	-	46.54	-	63.91	53.91	-17.37	-
3	0.232	0.19	40.87	-	41.06	-	62.38	52.38	-21.32	-
4	0.295	0.27	36.28	-	36.55	-	60.40	50.40	-23.85	-
5	0.576	0.34	34.34	-	34.68	-	56.00	46.00	-21.32	-
6	4.063	0.51	33.05	-	33.56	-	56.00	46.00	-22.44	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

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. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.2.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Frequencies (MHz)	**EIRP Limit (dBm)**	**Equivalent Field Strength at 3m (dBμV/m)** *note 3
5150~5250	-27	68.3
5250~5350	-27	68.3
5470~5725	-27	68.3
5725~5825	-27 *note 1	68.3
	-17 *note 2	78.3

NOTE:

1. For frequencies 10MHz or greater above or below the band edge.
2. All emissions within the frequency range from the band edge to 10MHz above or below the band edge.
3. The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength

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

4.2.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ROHDE & SCHWARZ Spectrum Analyzer	FSP40	100036	Dec. 9, 2008	Dec. 8, 2009
HP Pre_Amplifier	8449B	3008A01923	Nov. 10, 2008	Nov. 9, 2009
ROHDE & SCHWARZ Test Receiver	ESCS30	847124/029	Sep. 9, 2008	Sep. 8, 2009
SCHWARZBECK TRILOG Broadband Antenna	VULB 9168	138	April 30, 2008	April 29, 2009
Schwarzbeck Horn_Antenna	BBHA9120	D124	Dec. 09, 2008	Dec. 08, 2009
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA9170153	Jan. 22, 2009	Jan. 21, 2010
RF Switches	EMH-011	08009	Oct. 07, 2008	Oct. 06, 2009
RF CABLE (Chaintek)	Sucoflex 106	28077	Aug. 15, 2008	Aug. 14, 2009
RF Cable	8DFB	STCCAB-30M-1GHz	Oct. 07, 2008	Oct. 06, 2009
Software	ADT_Radiated_V7.6.15.9.2	NA	NA	NA
CT Antenna Tower & Turn Table	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, HP preamplifier (model: 8449B) and Spectrum Analyzer (model: FSP40) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in Open Site No. C.
4. The FCC Site Registration No. is 656396.
5. The VCCI Site Registration No. is R-1626.
6. The CANADA Site Registration No. is IC 7450G-3.

4.2.4 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.

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

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

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

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

f. 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.

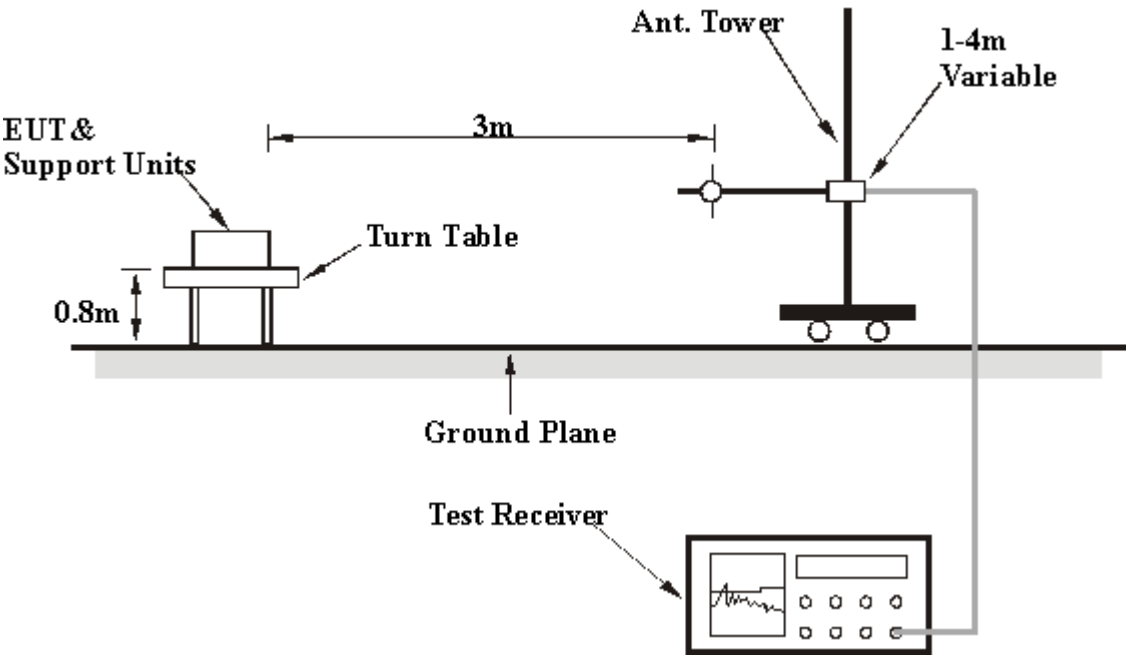
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and 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.

4.2.5 DEVIATION FROM TEST STANDARD

No deviation

4.2.6 TEST SETUP



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

4.2.7 EUT OPERATING CONDITION

Same as 4.1.6

Below 1GHz Test Data

4.2.8 TEST RESULTS

DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 14	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	20deg. C, 75%RH 972hPa	TESTED BY	Eric Lee

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	37.78	32.86 QP	40.00	-7.14	1.76 H	318	17.79	15.07
2	226.33	31.82 QP	46.00	-14.18	1.65 H	223	18.30	13.52
3	228.28	31.57 QP	46.00	-14.43	1.54 H	241	17.91	13.66
4	263.27	29.44 QP	46.00	-16.56	1.31 H	89	14.04	15.40
5	399.34	29.62 QP	46.00	-16.38	1.32 H	52	10.76	18.86
6	665.65	29.33 QP	46.00	-16.67	2.02 H	215	5.15	24.18
7	731.74	30.76 QP	46.00	-15.24	1.73 H	324	5.45	25.31
8	799.78	36.21 QP	46.00	-9.79	1.11 H	52	9.17	27.04
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	33.89	32.94 QP	40.00	-7.06	1.25 V	326	18.56	14.38
2	88.32	30.01 QP	43.50	-13.49	1.43 V	19	19.98	10.03
3	154.41	28.19 QP	43.50	-15.31	1.24 V	93	13.75	14.44
4	220.50	31.50 QP	46.00	-14.50	1.98 V	63	18.39	13.11
5	232.16	30.02 QP	46.00	-15.98	1.02 V	348	16.08	13.94
6	465.43	30.74 QP	46.00	-15.26	1.89 V	63	10.28	20.46
7	669.54	30.25 QP	46.00	-15.75	1.25 V	87	6.03	24.22
8	799.78	34.29 QP	46.00	-11.71	1.02 V	3	7.25	27.04

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.

Above 1GHz Test Data

4.2.9 TEST RESULTS

802.11a OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	5150.00	56.55 PK	74.00	-17.45	1.19 H	311	20.55	36.00
2	5150.00	44.84 AV	54.00	-9.16	1.19 H	311	8.84	36.00
3	*5180.00	100.50 PK			1.87 H	258	64.45	36.05
4	*5180.00	90.91 AV			1.87 H	258	54.86	36.05
5	#10360.00	56.73 PK	68.30	-11.57	1.41 H	273	10.81	45.92
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	5150.00	55.46 PK	74.00	-18.54	2.02 V	261	19.46	36.00
2	5150.00	42.34 AV	54.00	-11.66	2.02 V	261	6.34	36.00
3	*5180.00	101.58 PK			1.18 V	312	65.53	36.05
4	*5180.00	91.48 AV			1.18 V	312	55.43	36.05
5	#10360.00	56.43 PK	68.30	-11.87	1.18 V	359	10.51	45.92

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	*5200.00	99.48 PK			1.79 H	63	63.40	36.08
2	*5200.00	89.99 AV			1.79 H	63	53.91	36.08
3	#10400.00	56.38 PK	68.30	-11.92	1.48 H	298	10.39	45.99
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	*5200.00	102.19 PK			1.19 V	311	66.11	36.08
2	*5200.00	92.58 AV			1.19 V	311	56.50	36.08
3	#10400.00	56.11 PK	68.30	-12.19	1.29 V	340	10.12	45.99

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	*5240.00	100.69 PK			1.69 H	278	64.55	36.14
2	*5240.00	90.73 AV			1.69 H	278	54.59	36.14
3	#10480.00	57.48 PK	68.30	-10.82	1.51 H	304	11.36	46.12
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	*5240.00	101.74 PK			1.15 V	258	65.60	36.14
2	*5240.00	91.89 AV			1.15 V	258	55.75	36.14
3	#10480.00	57.09 PK	68.30	-11.21	1.23 V	348	10.97	46.12

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	*5260.00	100.98 PK			1.78 H	29	64.80	36.18
2	*5260.00	90.48 AV			1.78 H	29	54.30	36.18
3	#10520.00	56.37 PK	68.30	-11.93	1.43 H	89	10.18	46.19
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	*5260.00	102.55 PK			1.14 V	331	66.37	36.18
2	*5260.00	92.85 AV			1.14 V	331	56.67	36.18
3	#10520.00	56.29 PK	68.30	-12.01	1.17 V	333	10.10	46.19

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	*5300.00	100.47 PK			1.66 H	266	64.23	36.24
2	*5300.00	91.08 AV			1.66 H	266	54.84	36.24
3	10600.00	57.80 PK	74.00	-16.20	1.52 H	111	11.43	46.37
4	10600.00	43.87 AV	54.00	-10.13	1.52 H	111	-2.50	46.37
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	*5300.00	102.68 PK			1.16 V	0	66.44	36.24
2	*5300.00	92.91 AV			1.16 V	0	56.67	36.24
3	10600.00	57.43 PK	74.00	-16.57	1.18 V	342	11.06	46.37
4	10600.00	43.58 AV	54.00	-10.42	1.18 V	342	-2.79	46.37

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 8	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	*5320.00	100.79 PK			1.89 H	206	64.52	36.27
2	*5320.00	91.55 AV			1.89 H	206	55.28	36.27
3	5350.00	56.43 PK	74.00	-17.57	1.59 H	256	20.11	36.32
4	5350.00	43.37 AV	54.00	-10.63	1.59 H	256	7.05	36.32
5	10640.00	58.20 PK	74.00	-15.80	1.54 H	80	11.74	46.46
6	10640.00	44.89 AV	54.00	-9.11	1.54 H	80	-1.57	46.46
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	*5320.00	103.45 PK			1.55 V	302	67.18	36.27
2	*5320.00	91.14 AV			1.55 V	302	54.87	36.27
3	5372.00	57.76 PK	74.00	-16.24	1.50 V	303	21.40	36.36
4	5372.00	45.77 AV	54.00	-8.23	1.50 V	303	9.41	36.36
5	10640.00	57.78 PK	74.00	-16.22	1.38 V	78	11.32	46.46
6	10640.00	44.10 AV	54.00	-9.90	1.38 V	78	-2.36	46.46

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	5447.40	55.65 PK	74.00	-18.35	1.06 H	306	19.17	36.48
2	5447.40	43.56 AV	54.00	-10.44	1.06 H	306	7.08	36.48
3	#5470.00	57.95 PK	68.30	-10.35	1.68 H	211	21.44	36.51
4	*5500.00	99.95 PK			1.76 H	209	63.39	36.56
5	*5500.00	90.81 AV			1.76 H	209	54.25	36.56
6	11000.00	57.60 PK	74.00	-16.40	1.41 H	304	10.35	47.25
7	11000.00	44.89 AV	54.00	-9.11	1.41 H	304	-2.36	47.25
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	5447.60	57.31 PK	74.00	-16.69	1.50 V	300	20.83	36.48
2	5447.60	45.03 AV	54.00	-8.97	1.50 V	300	8.55	36.48
3	#5470.00	58.51 PK	68.30	-9.79	1.46 V	297	22.00	36.51
4	*5500.00	102.14 PK			1.50 V	300	65.58	36.56
5	*5500.00	92.53 AV			1.50 V	300	55.97	36.56
6	11000.00	57.92 PK	74.00	-16.08	1.39 V	69	10.67	47.25
7	11000.00	45.08 AV	54.00	-8.92	1.39 V	69	-2.17	47.25

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 14	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	*5600.00	95.11 PK			1.68 H	250	58.29	36.82
2	*5600.00	87.98 AV			1.68 H	250	51.16	36.82
3	11200.00	58.01 PK	74.00	-15.99	1.56 H	33	10.85	47.16
4	11200.00	44.84 AV	54.00	-9.16	1.56 H	33	-2.32	47.16
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	*5600.00	99.61 PK			1.48 V	290	62.79	36.82
2	*5600.00	90.39 AV			1.48 V	290	53.57	36.82
3	11200.00	58.43 PK	74.00	-15.57	1.43 V	84	11.27	47.16
4	11200.00	45.67 AV	54.00	-8.33	1.43 V	84	-1.49	47.16

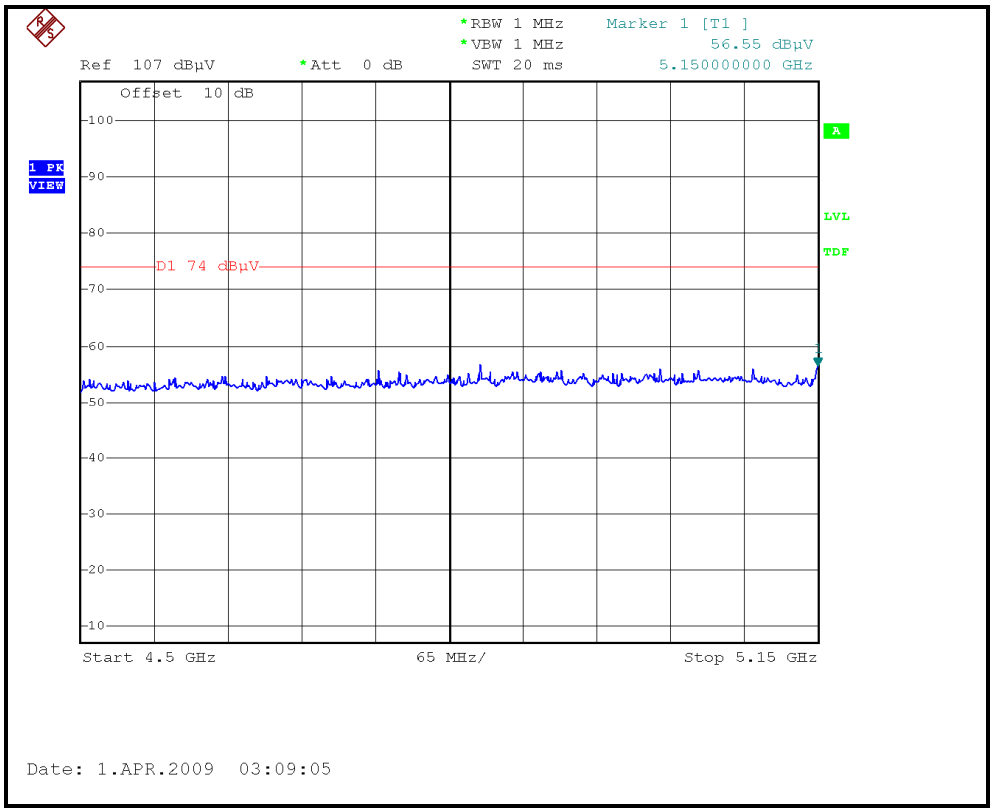
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

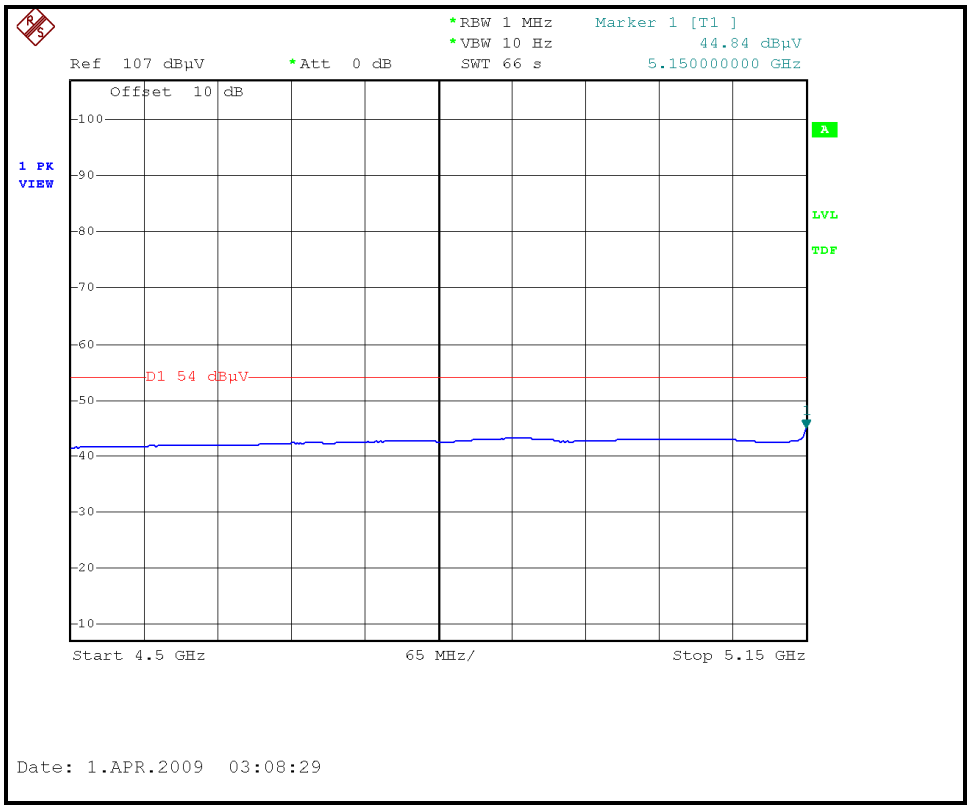
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 19	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	*5700.00	97.45 PK			1.72 H	54	60.36	37.09
2	*5700.00	87.92 AV			1.72 H	54	50.83	37.09
3	#5725.00	58.11 PK	68.30	-10.19	1.69 H	302	20.96	37.15
4	11400.00	58.29 PK	74.00	-15.71	1.17 H	65	11.22	47.07
5	11400.00	44.22 AV	54.00	-9.78	1.17 H	65	-2.85	47.07
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	*5700.00	97.71 PK			1.26 V	300	60.62	37.09
2	*5700.00	88.78 AV			1.26 V	300	51.69	37.09
3	#5725.00	58.65 PK	68.30	-9.65	1.59 V	301	21.50	37.15
4	11400.00	58.14 PK	74.00	-15.86	1.63 V	184	11.07	47.07
5	11400.00	44.48 AV	54.00	-9.52	1.63 V	184	-2.59	47.07

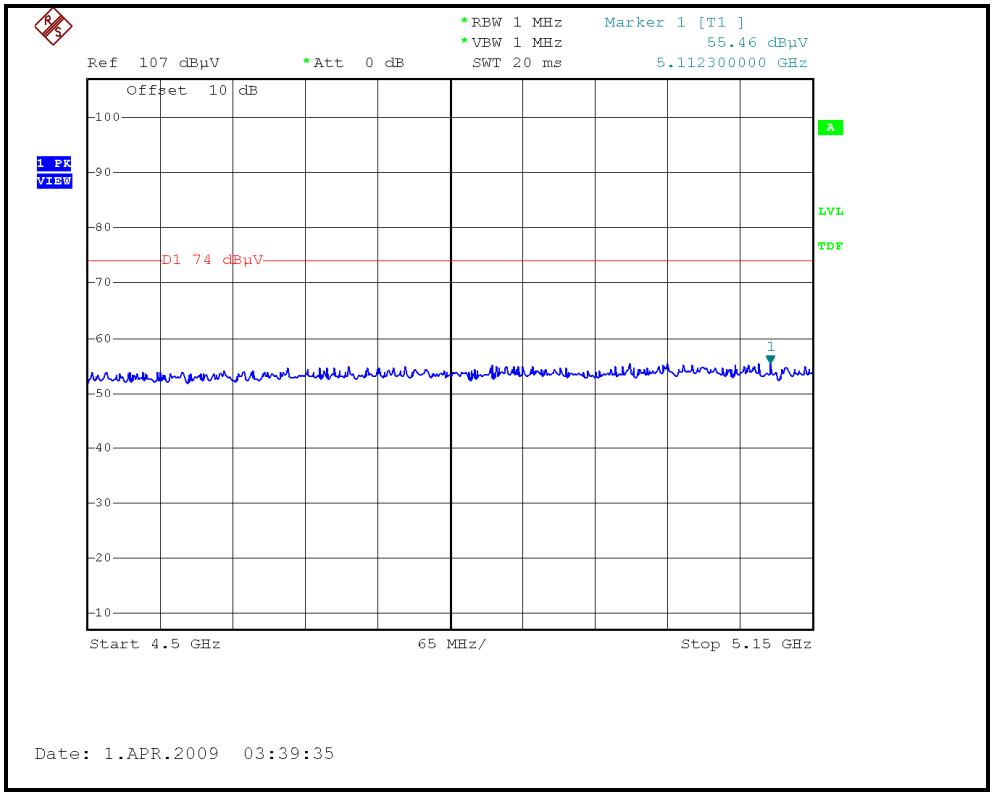
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

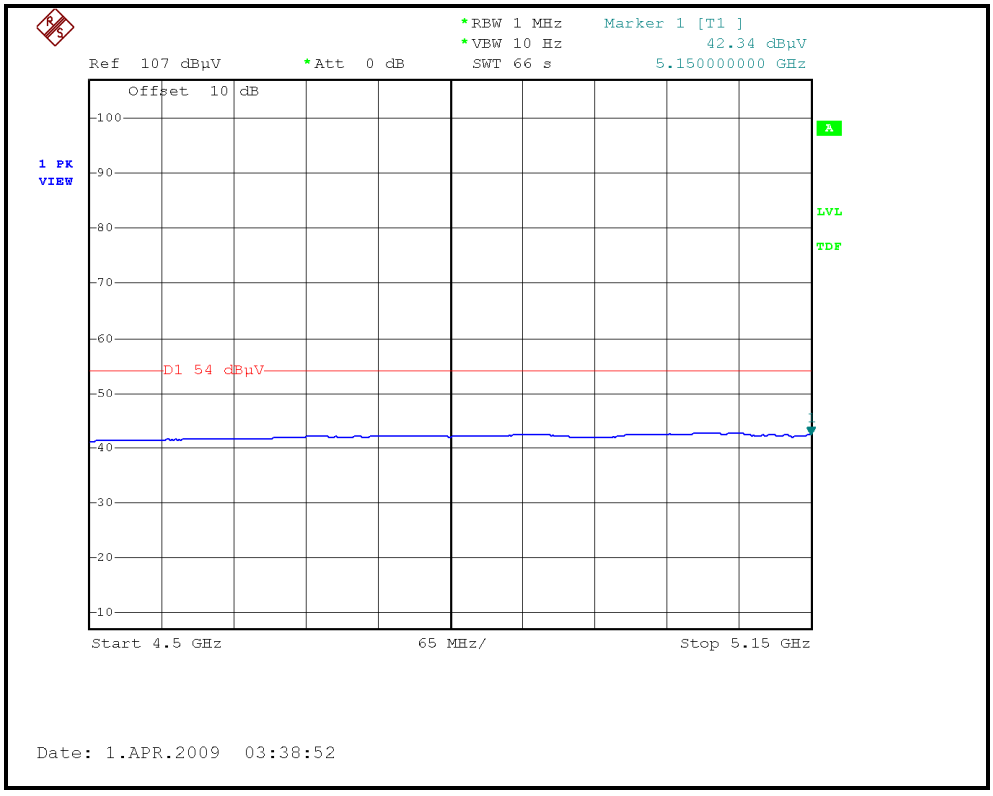
RESTRICTED BANDEDGE (802.11a MODE, CH1, HORIZONTAL)



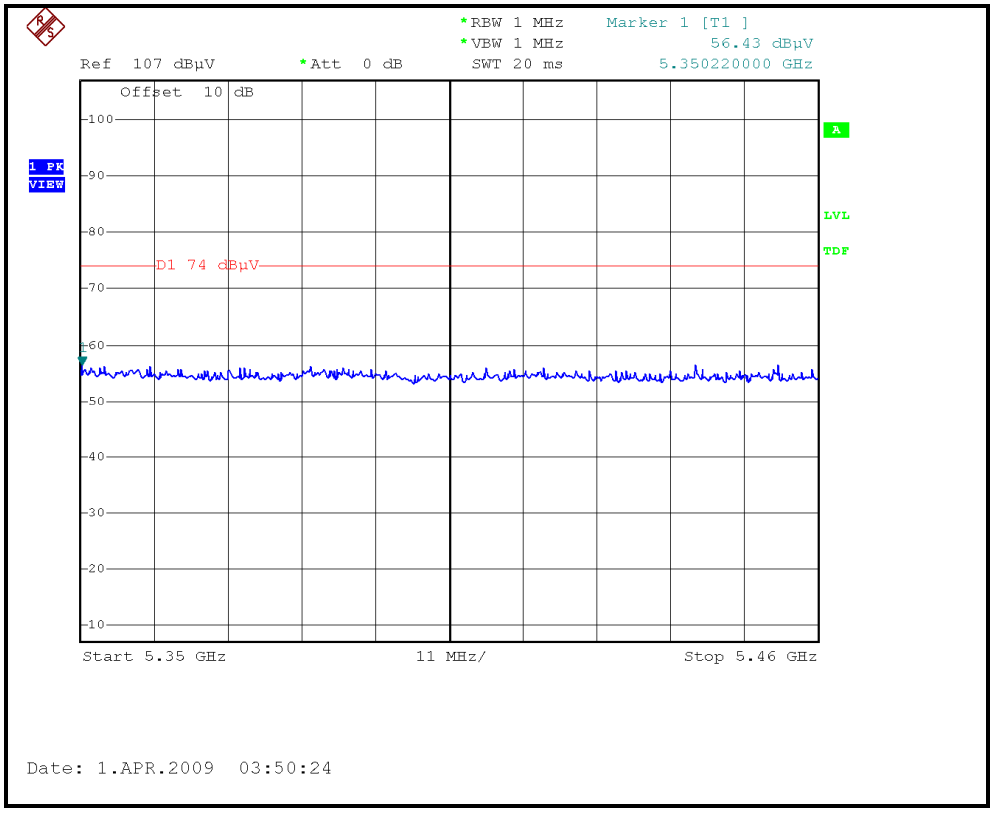


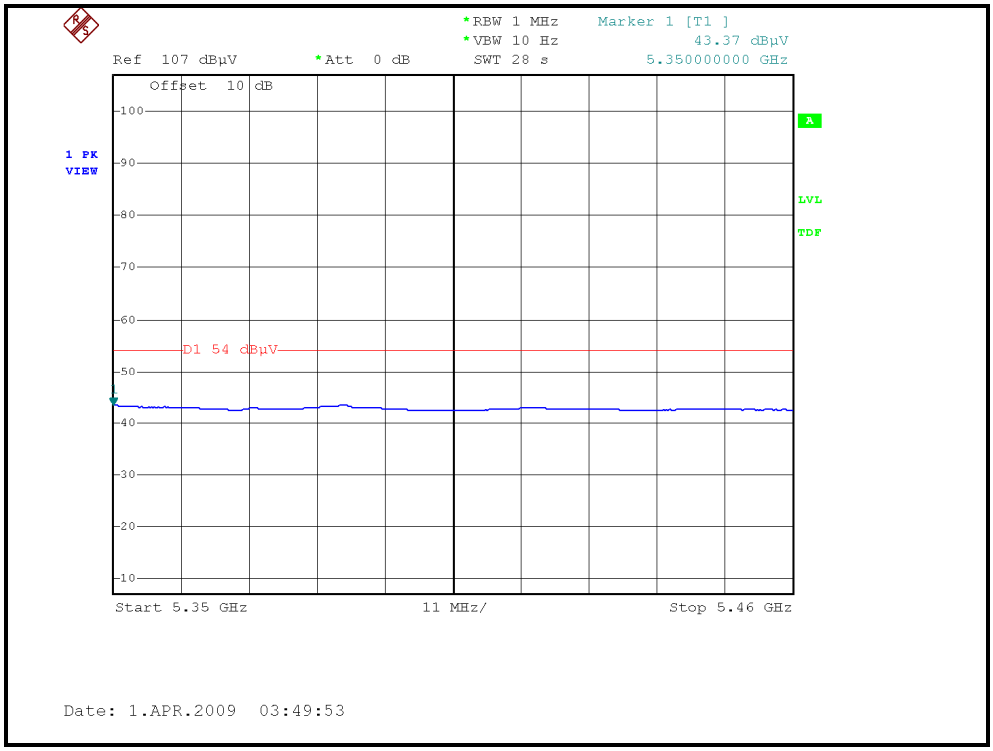
RESTRICTED BANDEDGE (802.11a MODE, CH1, VERTICAL)





RESTRICTED BANDEDGE (802.11a MODE, CH8, HORIZONTAL)





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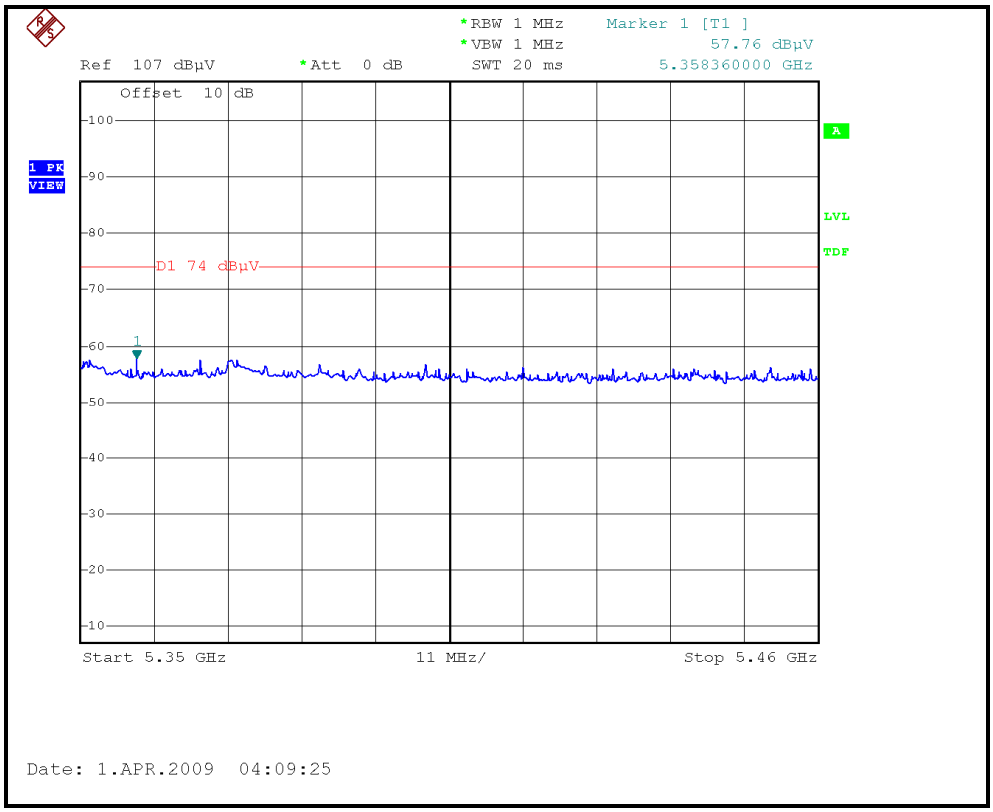
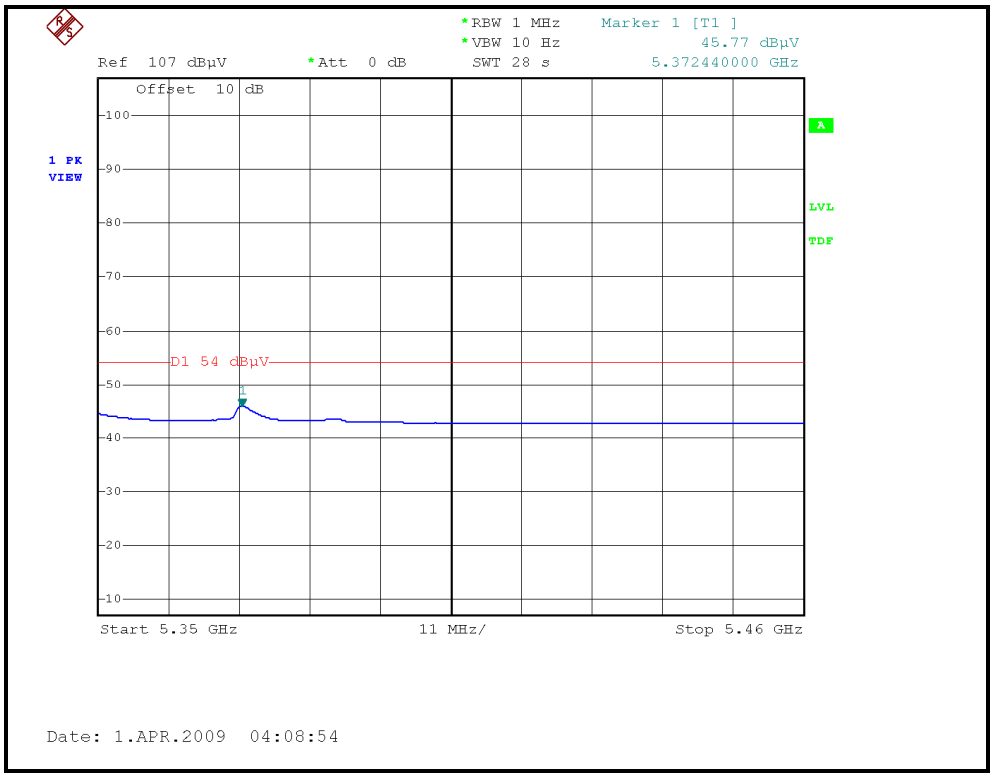
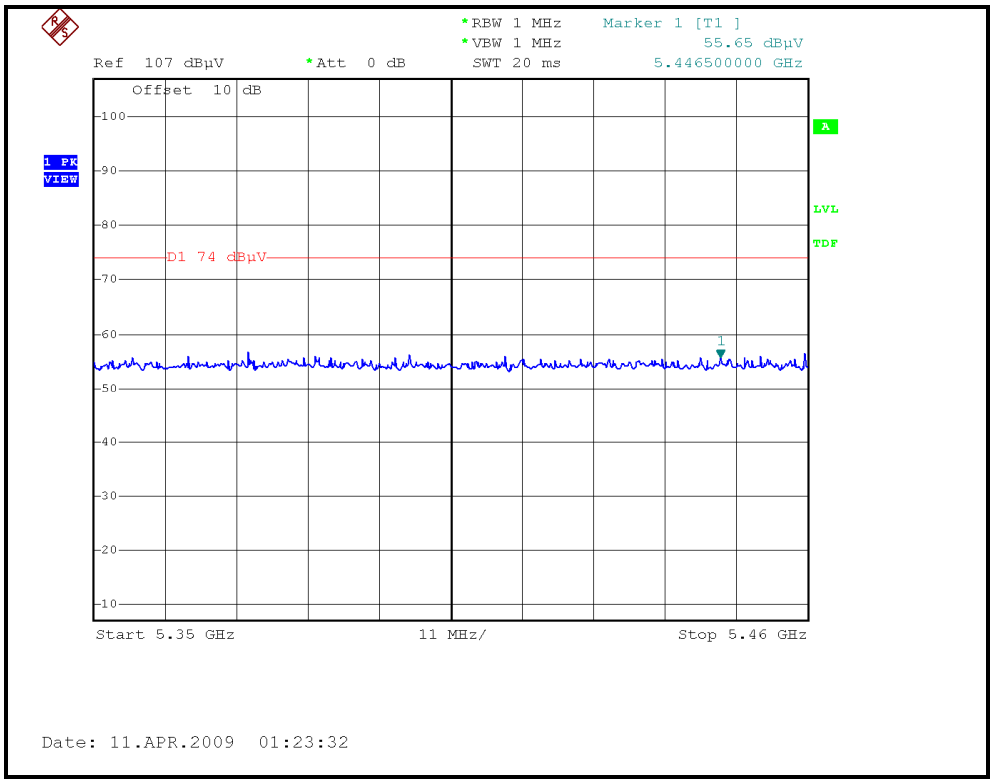
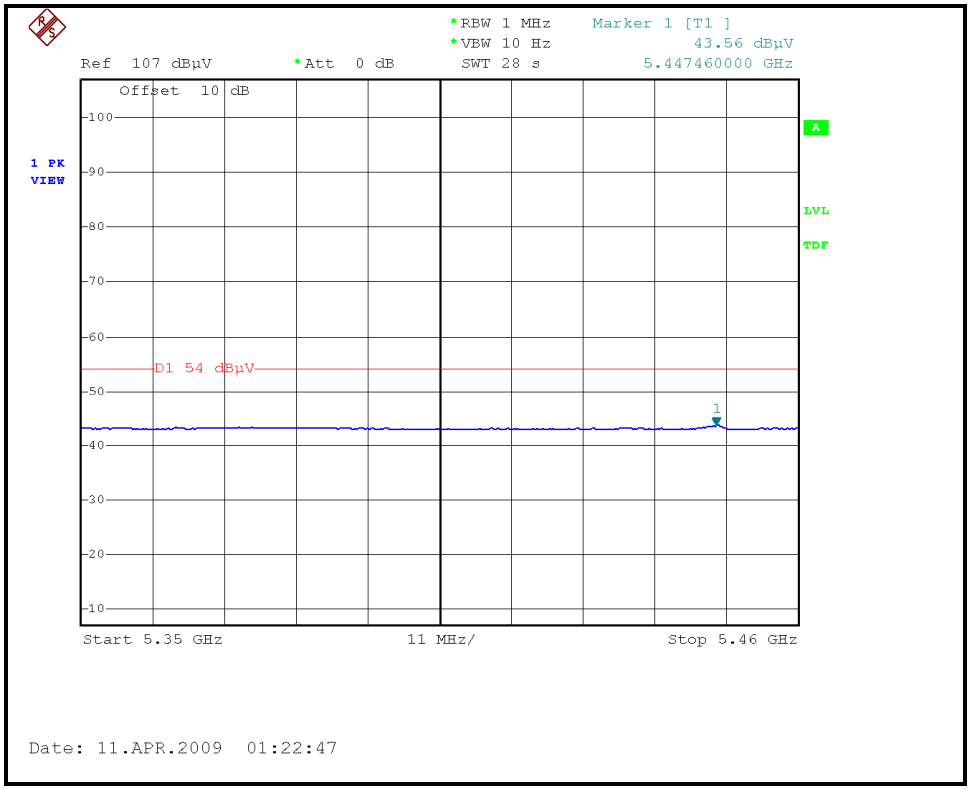


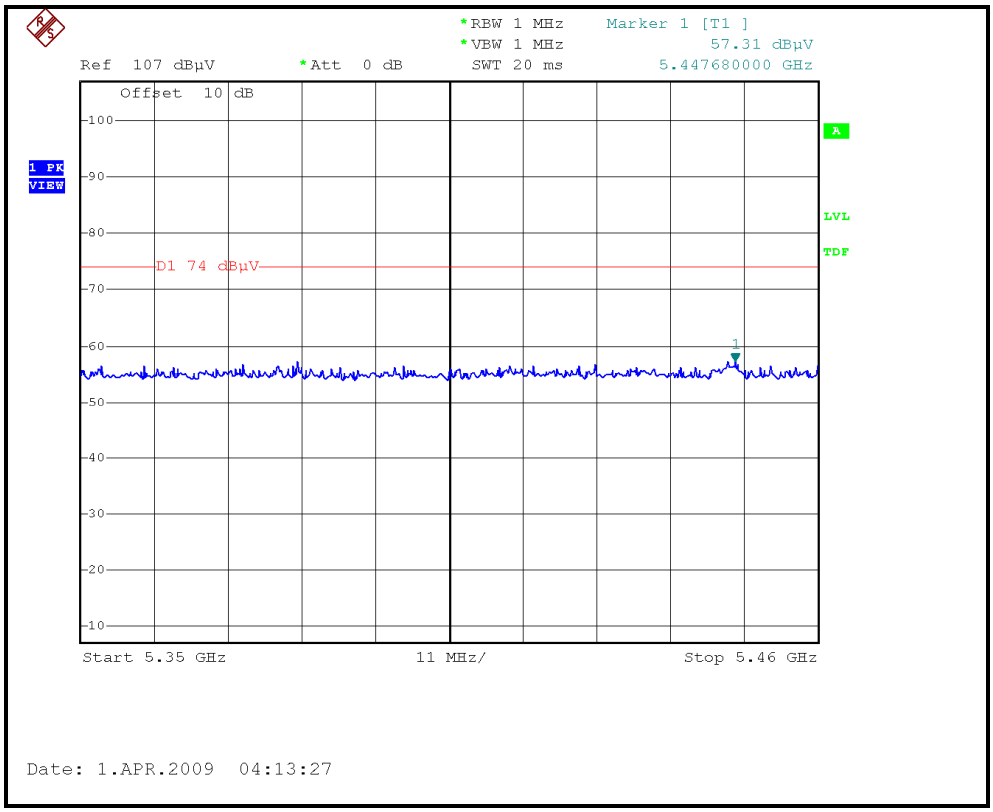


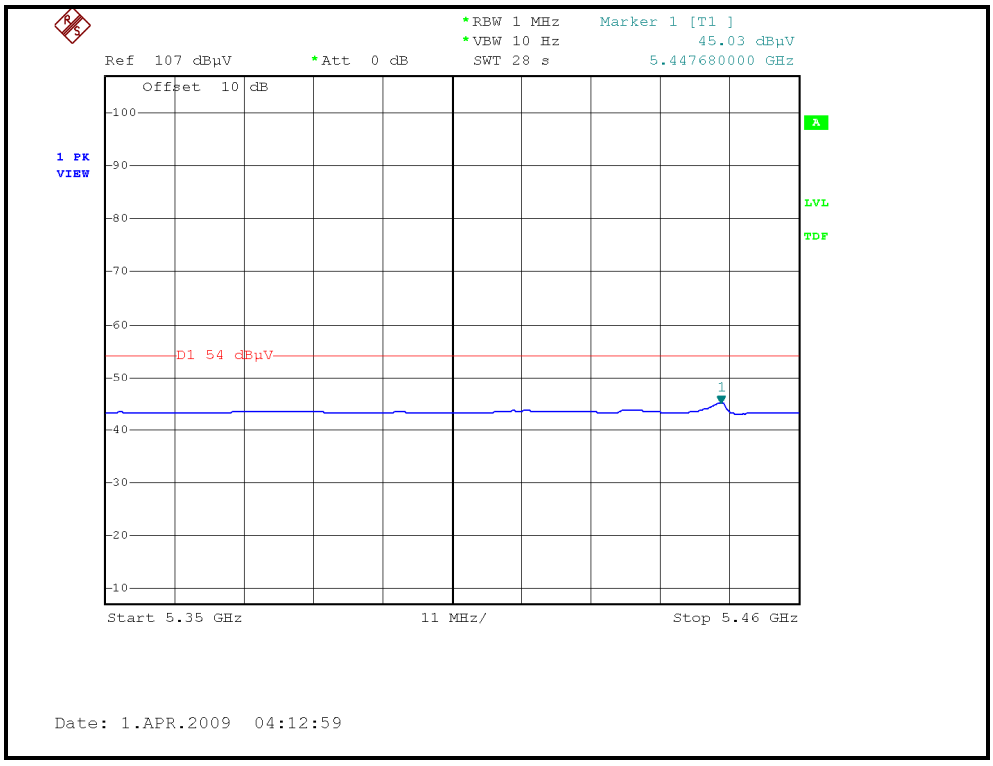
RESTRICTED BANDEDGE (802.11a MODE, CH9, HORIZONTAL)





RESTRICTED BANDEDGE (802.11a MODE, CH9, VERTICAL)





DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	5150.00	56.88 PK	74.00	-17.12	1.41 H	358	20.88	36.00
2	5150.00	43.29 AV	54.00	-10.71	1.41 H	358	7.29	36.00
3	*5180.00	99.66 PK			1.40 H	0	63.61	36.05
4	*5180.00	89.71 AV			1.40 H	0	53.66	36.05
5	#10360.00	57.04 PK	68.30	-11.26	1.48 H	29	11.12	45.92
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	5150.00	57.09 PK	74.00	-16.91	1.52 V	301	21.09	36.00
2	5150.00	45.76 AV	54.00	-8.24	1.52 V	301	9.76	36.00
3	*5180.00	102.64 PK			1.38 V	289	66.59	36.05
4	*5180.00	92.90 AV			1.38 V	289	56.85	36.05
5	#10360.00	56.58 PK	68.30	-11.72	1.49 V	101	10.66	45.92

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	*5200.00	101.56 PK			1.39 H	69	65.48	36.08
2	*5200.00	91.48 AV			1.39 H	69	55.40	36.08
3	#10400.00	57.09 PK	68.30	-11.21	1.47 H	30	11.10	45.99
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	*5200.00	103.40 PK			1.41 V	290	67.32	36.08
2	*5200.00	93.76 AV			1.41 V	290	57.68	36.08
3	#10400.00	56.73 PK	68.30	-11.57	1.48 V	140	10.74	45.99

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	*5240.00	101.99 PK			1.39 H	76	65.85	36.14
2	*5240.00	92.57 AV			1.39 H	76	56.43	36.14
3	#10480.00	57.65 PK	68.30	-10.65	1.50 H	251	11.53	46.12
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	*5240.00	104.84 PK			1.41 V	288	68.70	36.14
2	*5240.00	94.98 AV			1.41 V	288	58.84	36.14
3	#10480.00	57.00 PK	68.30	-11.30	1.51 V	162	10.88	46.12

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	*5260.00	105.23 PK			1.38 H	83	69.05	36.18
2	*5260.00	95.40 AV			1.38 H	83	59.22	36.18
3	#10520.00	58.34 PK	68.30	-9.96	1.39 H	241	12.15	46.19
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	*5260.00	106.94 PK			1.68 V	211	70.76	36.18
2	*5260.00	97.48 AV			1.68 V	211	61.30	36.18
3	#10520.00	57.20 PK	68.30	-11.10	1.40 V	78	11.01	46.19

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	*5300.00	104.70 PK			1.41 H	90	68.46	36.24
2	*5300.00	94.83 AV			1.41 H	90	58.59	36.24
3	10600.00	58.43 PK	74.00	-15.57	1.48 H	232	12.06	46.37
4	10600.00	44.29 AV	54.00	-9.71	1.48 H	232	-2.08	46.37
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	*5300.00	105.99 PK			1.09 V	209	69.75	36.24
2	*5300.00	96.01 AV			1.09 V	209	59.77	36.24
3	10600.00	57.02 PK	74.00	-16.98	1.38 V	72	10.65	46.37
4	10600.00	43.14 AV	54.00	-10.86	1.38 V	72	-3.23	46.37

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 8	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	*5320.00	104.89 PK			1.66 H	81	68.62	36.27
2	*5320.00	95.04 AV			1.66 H	81	58.77	36.27
3	5350.00	58.23 PK	74.00	-15.77	1.69 H	90	21.91	36.32
4	5350.00	44.30 AV	54.00	-9.70	1.69 H	90	7.98	36.32
5	10640.00	59.43 PK	74.00	-14.57	1.72 H	68	12.97	46.46
6	10640.00	44.87 AV	54.00	-9.13	1.72 H	68	-1.59	46.46
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	*5320.00	103.90 PK			1.50 V	303	67.63	36.27
2	*5320.00	93.36 AV			1.50 V	303	57.09	36.27
3	5372.00	58.48 PK	74.00	-15.52	1.52 V	303	22.12	36.36
4	5372.00	45.81 AV	54.00	-8.19	1.52 V	303	9.45	36.36
5	10640.00	58.61 PK	74.00	-15.39	1.59 V	304	12.15	46.46
6	10640.00	44.11 AV	54.00	-9.89	1.59 V	304	-2.35	46.46

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	5359.00	60.06 PK	74.00	-13.94	1.60 H	300	23.73	36.33
2	5359.00	46.69 AV	54.00	-7.31	1.60 H	300	10.36	36.33
3	#5470.00	63.90 PK	68.30	-4.40	1.49 H	208	27.39	36.51
4	*5500.00	102.65 PK			1.61 H	299	66.09	36.56
5	*5500.00	93.40 AV			1.61 H	299	56.84	36.56
6	11000.00	58.76 PK	74.00	-15.24	1.68 H	99	11.51	47.25
7	11000.00	44.71 AV	54.00	-9.29	1.68 H	99	-2.54	47.25
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	5440.00	56.37 PK	74.00	-17.63	1.04 V	301	19.91	36.46
2	5440.00	44.64 AV	54.00	-9.36	1.04 V	301	8.18	36.46
3	#5470.00	63.64 PK	68.30	-4.66	1.29 V	288	27.13	36.51
4	*5500.00	102.81 PK			1.04 V	297	66.25	36.56
5	*5500.00	92.61 AV			1.04 V	297	56.05	36.56
6	11000.00	57.52 PK	74.00	-16.48	1.48 V	50	10.27	47.25
7	11000.00	43.76 AV	54.00	-10.24	1.48 V	50	-3.49	47.25

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 14	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	*5600.00	101.94 PK			1.63 H	225	65.12	36.82
2	*5600.00	92.50 AV			1.63 H	225	55.68	36.82
3	11200.00	58.67 PK	74.00	-15.33	1.49 H	73	11.51	47.16
4	11200.00	44.58 AV	54.00	-9.42	1.49 H	73	-2.58	47.16
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	*5600.00	101.84 PK			1.05 V	301	65.02	36.82
2	*5600.00	91.99 AV			1.05 V	301	55.17	36.82
3	11200.00	57.92 PK	74.00	-16.08	1.38 V	318	10.76	47.16
4	11200.00	43.82 AV	54.00	-10.18	1.38 V	318	-3.34	47.16

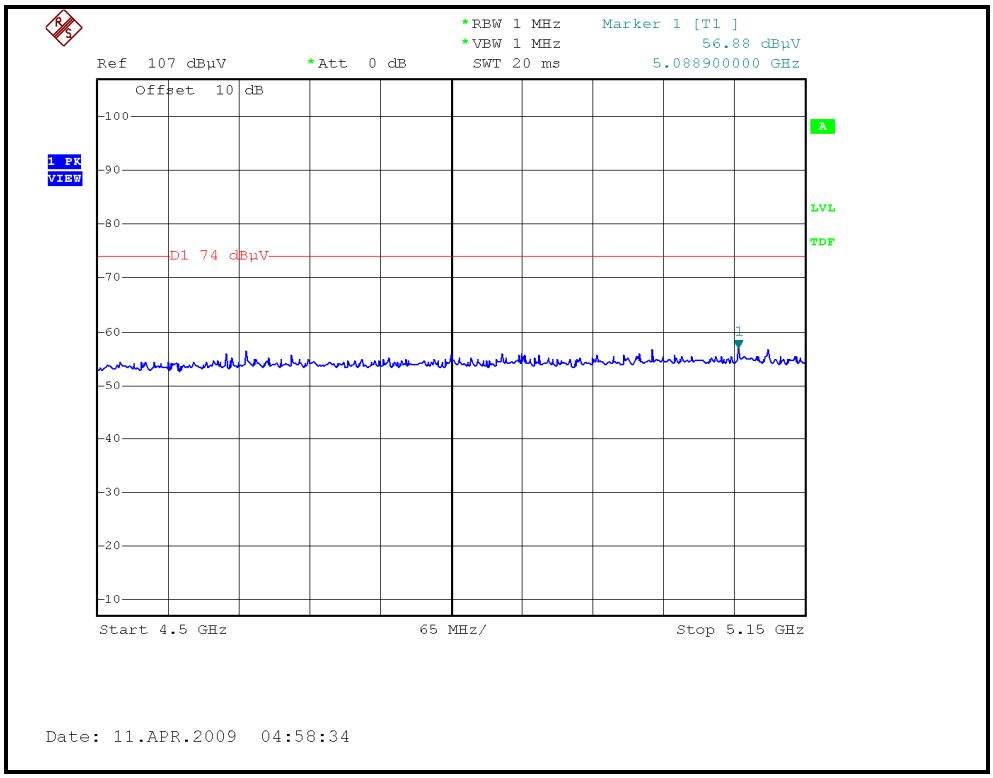
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

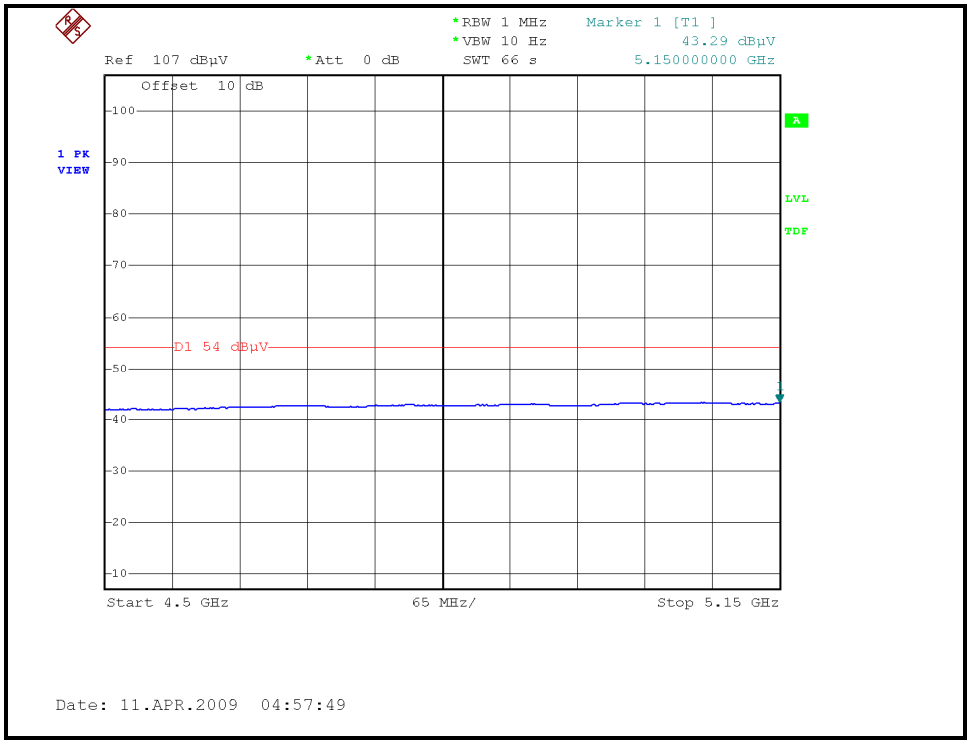
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 19	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	*5700.00	101.88 PK			1.59 H	238	64.79	37.09
2	*5700.00	92.28 AV			1.59 H	238	55.19	37.09
3	#5725.00	63.11 PK	68.30	-5.19	1.49 H	242	25.96	37.15
4	11400.00	58.19 PK	74.00	-15.81	1.40 H	69	11.12	47.07
5	11400.00	44.11 AV	54.00	-9.89	1.40 H	69	-2.96	47.07
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	*5700.00	101.29 PK			1.22 V	304	64.20	37.09
2	*5700.00	91.52 AV			1.22 V	304	54.43	37.09
3	#5725.00	65.09 PK	68.30	-3.21	1.31 V	300	27.94	37.15
4	11400.00	57.50 PK	74.00	-16.50	1.32 V	69	10.43	47.07
5	11400.00	43.27 AV	54.00	-10.73	1.32 V	69	-3.80	47.07

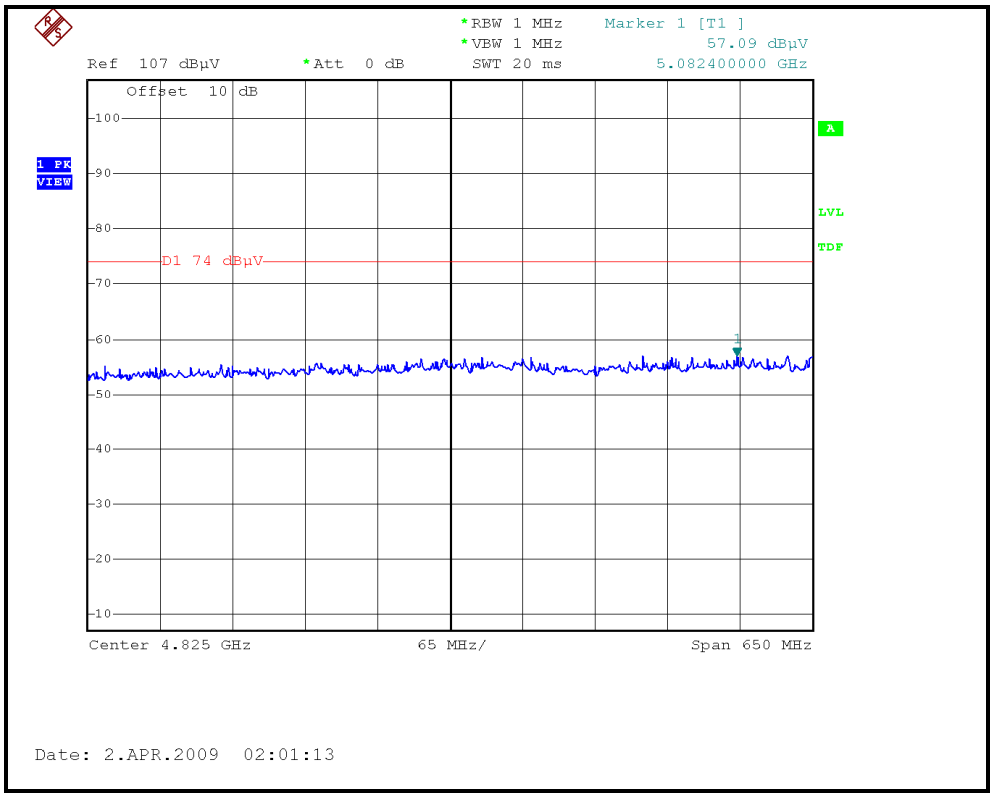
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

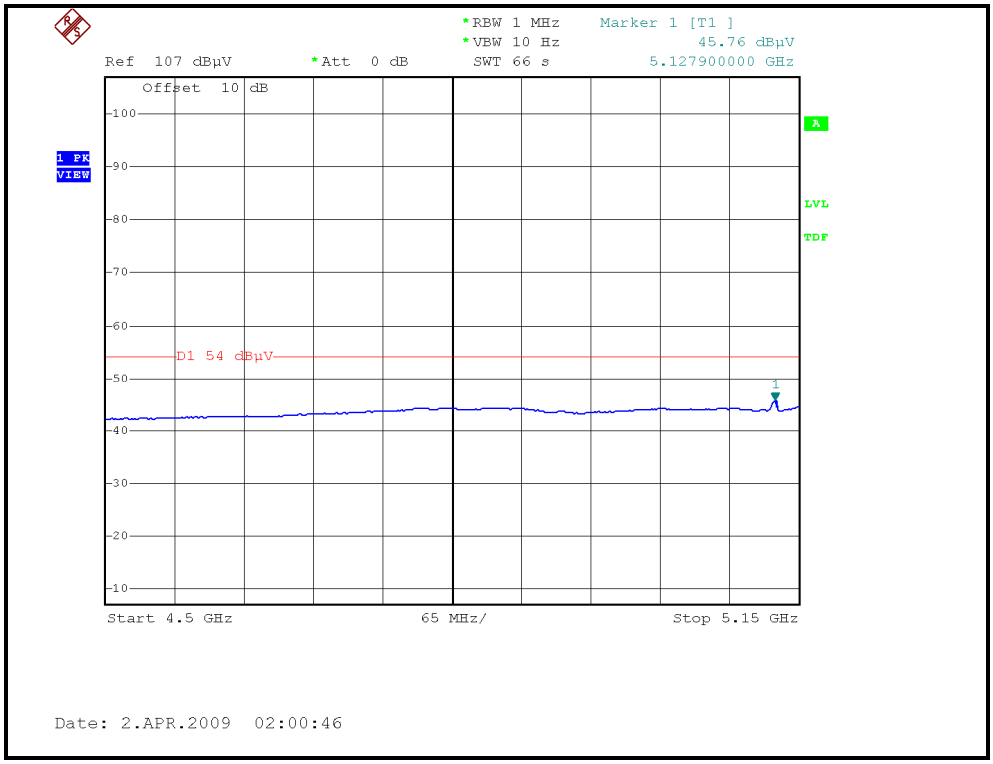
RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH1, HORIZONTAL)



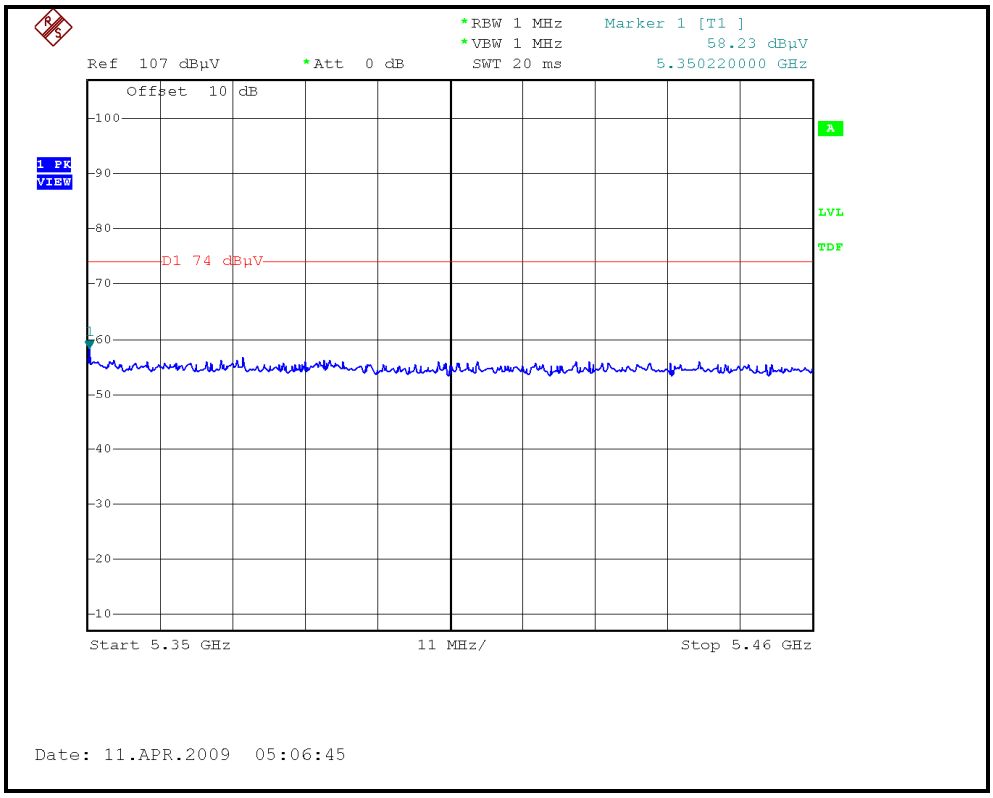


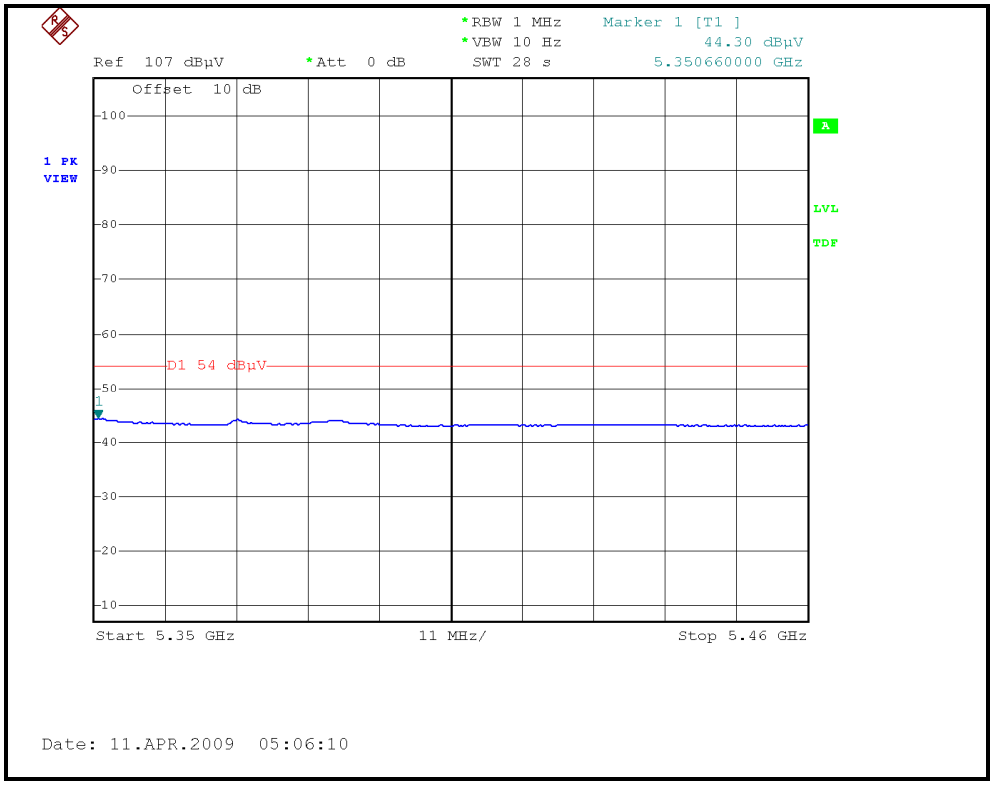
RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH1, VERTICAL)





RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH8, HORIZONTAL)





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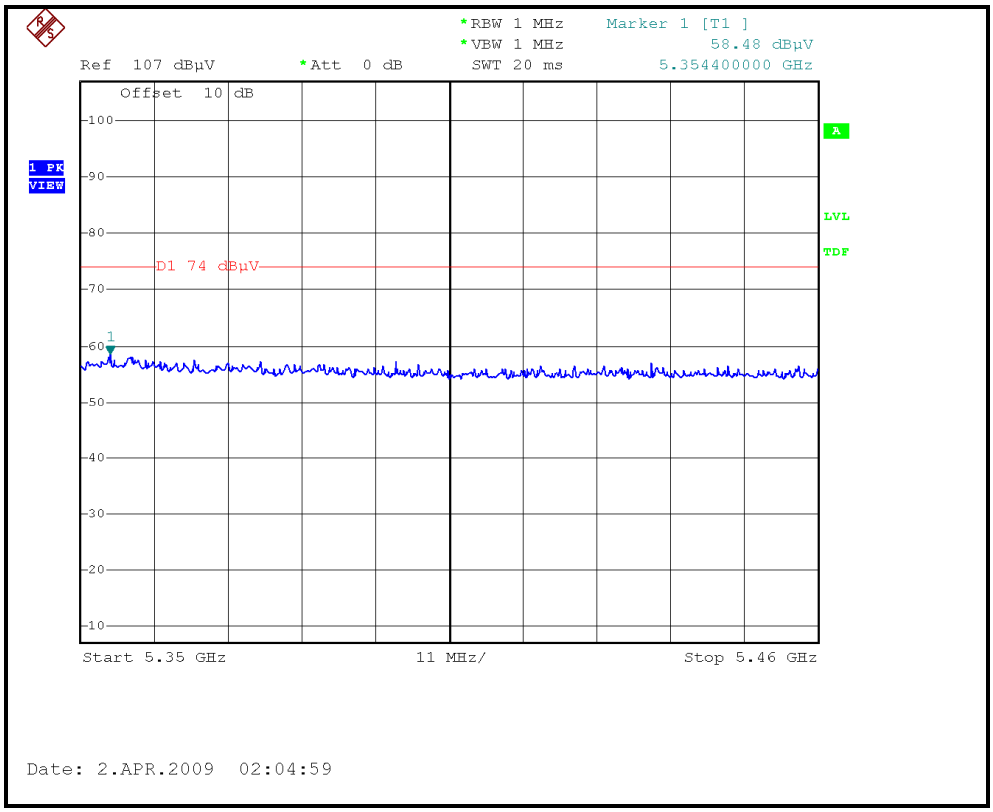
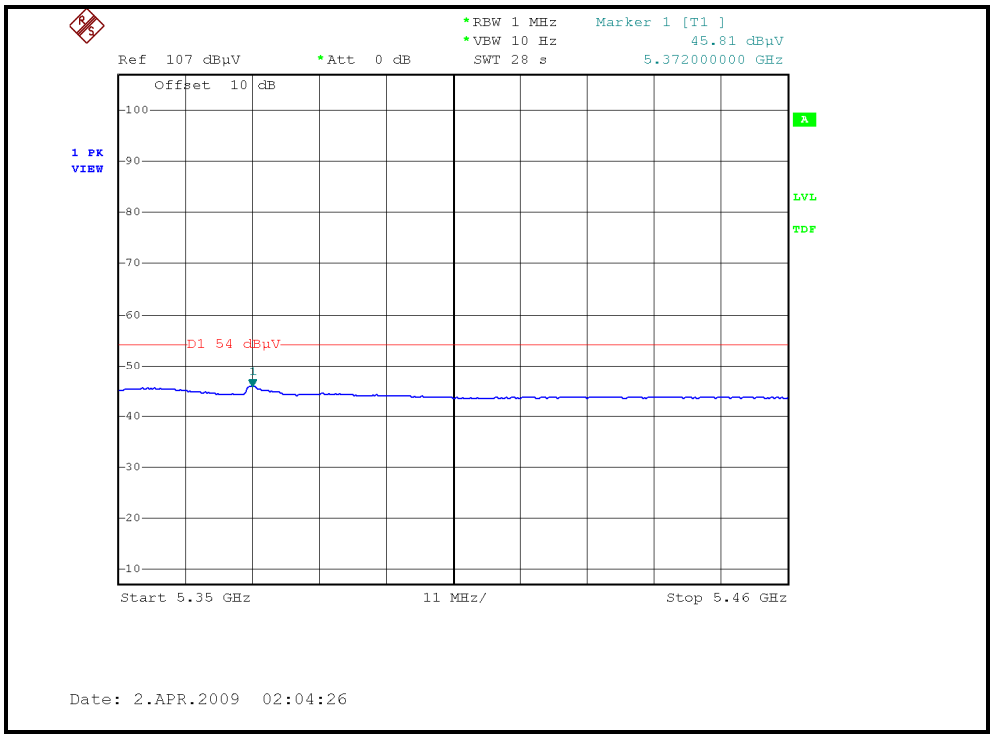
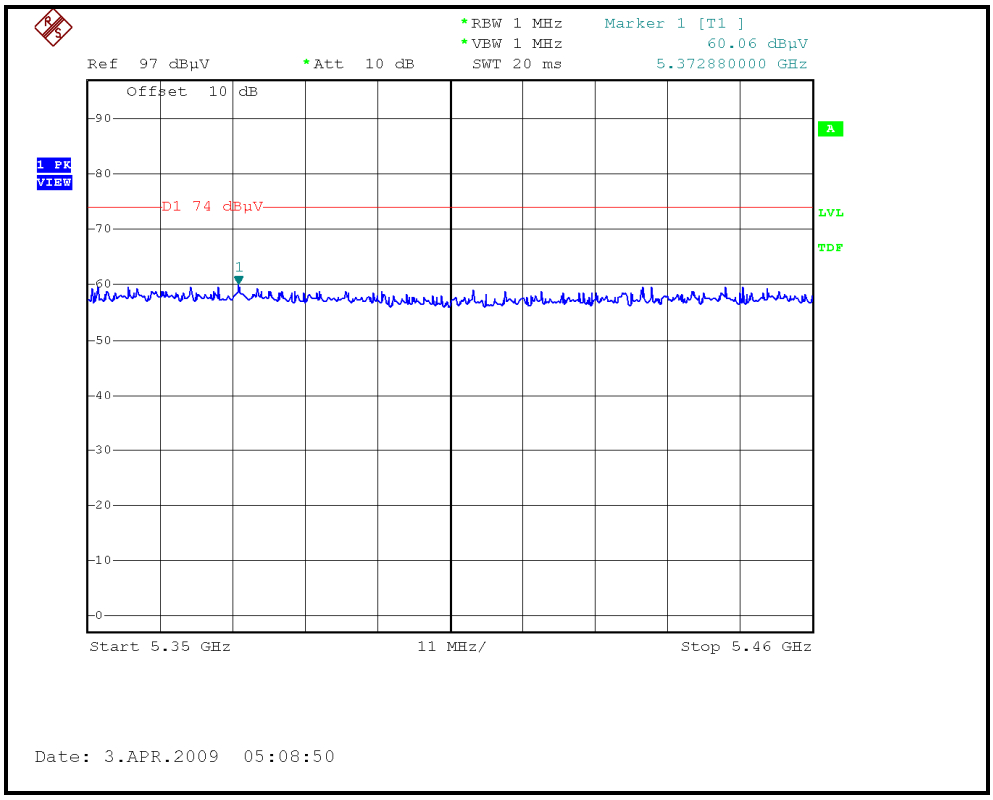
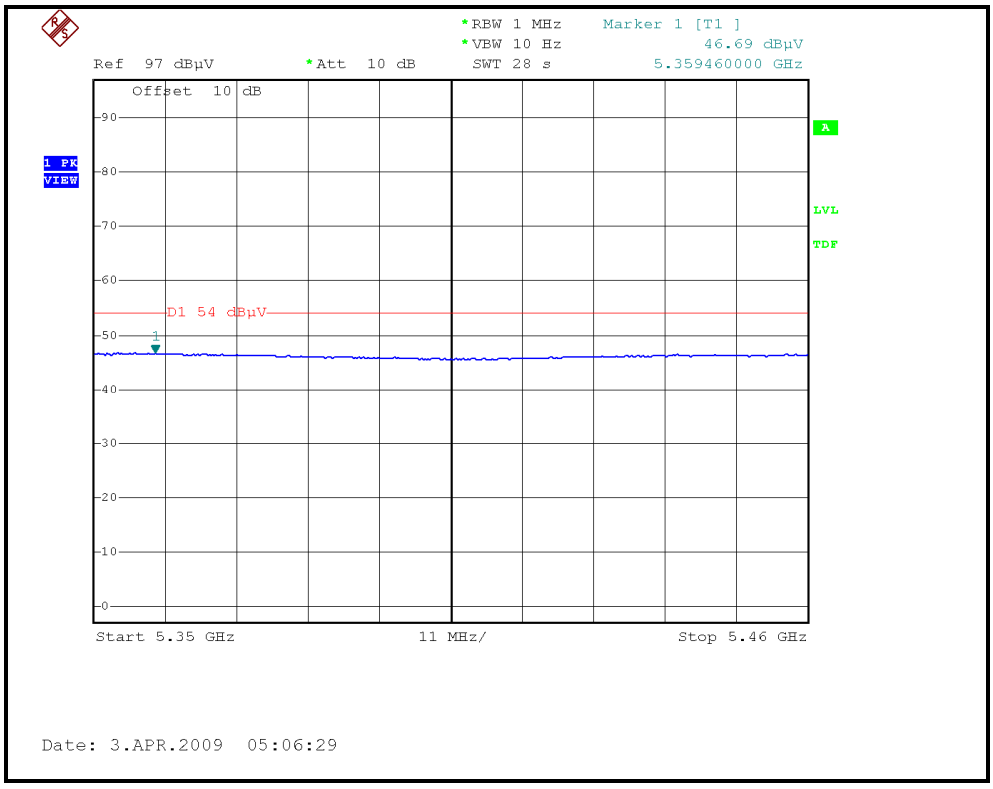


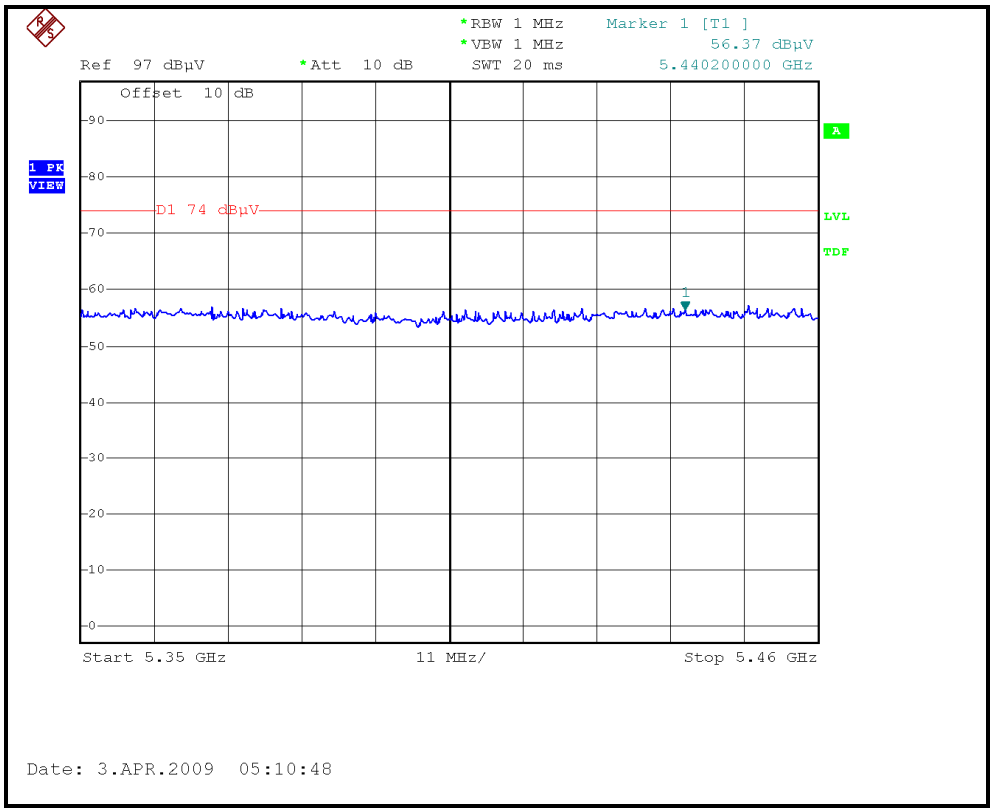


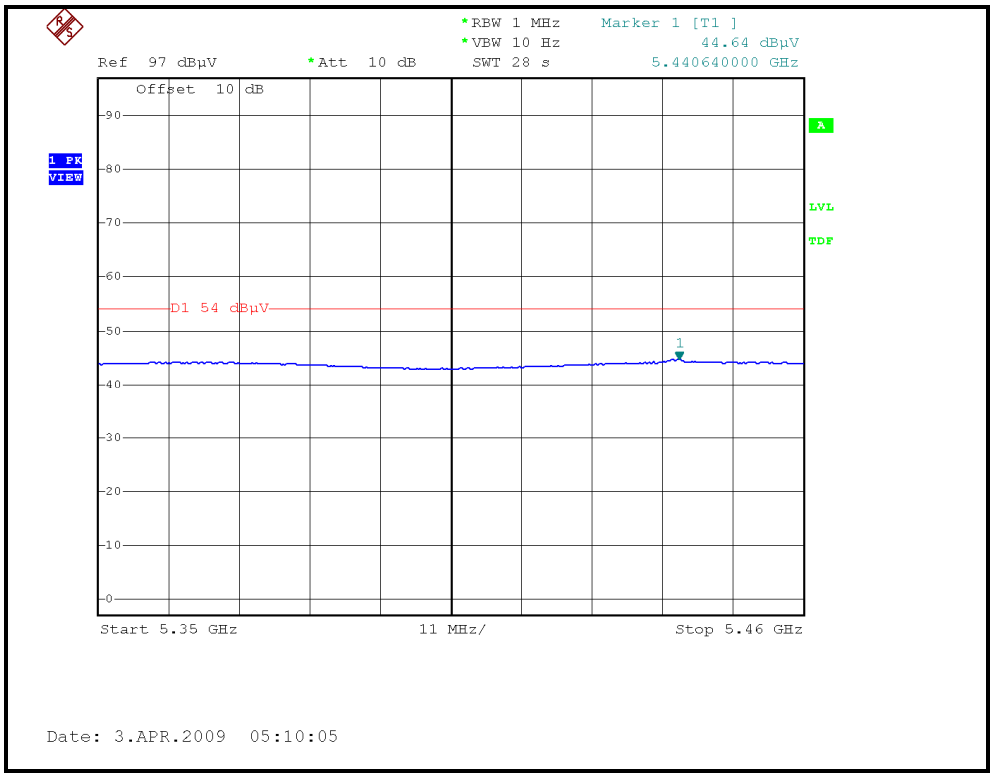
RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH9, HORIZONTAL)





RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH9, VERTICAL)





DRAFT 802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	5150.00	55.61 PK	74.00	-18.39	1.69 H	7	19.61	36.00
2	5150.00	45.06 AV	54.00	-8.94	1.69 H	7	9.06	36.00
3	*5190.00	96.58 PK			1.76 H	8	60.52	36.06
4	*5190.00	86.43 AV			1.76 H	8	50.37	36.06
5	#10380.00	56.07 PK	68.30	-12.23	1.48 H	69	10.11	45.96
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	5150.00	60.24 PK	74.00	-13.76	1.64 V	313	24.24	36.00
2	5150.00	49.13 AV	54.00	-4.87	1.64 V	313	13.13	36.00
3	*5190.00	100.00 PK			1.48 V	314	63.94	36.06
4	*5190.00	90.39 AV			1.48 V	314	54.33	36.06
5	#10380.00	56.80 PK	68.30	-11.50	1.43 V	86	10.84	45.96

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	*5230.00	96.58 PK			1.59 H	5	60.45	36.13
2	*5230.00	86.33 AV			1.59 H	5	50.20	36.13
3	#10460.00	58.09 PK	68.30	-10.21	1.60 H	73	12.00	46.09
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	*5230.00	99.44 PK			1.50 V	35	63.31	36.13
2	*5230.00	89.94 AV			1.50 V	35	53.81	36.13
3	#10460.00	57.29 PK	68.30	-11.01	1.21 V	39	11.20	46.09

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	*5270.00	98.71 PK			1.69 H	5	62.52	36.19
2	*5270.00	88.90 AV			1.69 H	5	52.71	36.19
3	#10540.00	57.44 PK	68.30	-10.86	1.63 H	84	11.20	46.24
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	*5270.00	104.01 PK			1.48 V	29	67.82	36.19
2	*5270.00	93.79 AV			1.48 V	29	57.60	36.19
3	#10540.00	57.50 PK	68.30	-10.80	1.19 V	357	11.26	46.24

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	*5310.00	99.43 PK			1.58 H	225	63.17	36.26
2	*5310.00	89.58 AV			1.58 H	225	53.32	36.26
3	5350.00	66.84 PK	74.00	-7.16	2.08 H	112	30.52	36.32
4	5350.00	50.54 AV	54.00	-3.46	2.08 H	112	14.22	36.32
5	10620.00	57.90 PK	74.00	-16.10	1.27 H	19	11.49	46.41
6	10620.00	44.10 AV	54.00	-9.90	1.27 H	19	-2.31	46.41
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	*5310.00	103.45 PK			1.21 V	308	67.19	36.26
2	*5310.00	93.75 AV			1.21 V	308	57.49	36.26
3	5350.00	63.53 PK	74.00	-10.47	1.22 V	2	27.21	36.32
4	5350.00	51.90 AV	54.00	-2.10	1.22 V	2	15.58	36.32
5	10620.00	58.99 PK	74.00	-15.01	1.66 V	89	12.58	46.41
6	10620.00	44.63 AV	54.00	-9.37	1.66 V	89	-1.78	46.41

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	5446.00	57.72 PK	74.00	-16.28	1.29 H	67	21.25	36.47
2	5446.00	43.21 AV	54.00	-10.79	1.29 H	67	6.74	36.47
3	#5470.00	59.81 PK	68.30	-8.49	1.48 H	29	23.30	36.51
4	*5510.00	99.74 PK			1.61 H	230	63.15	36.59
5	*5510.00	89.97 AV			1.61 H	230	53.38	36.59
6	11020.00	58.73 PK	74.00	-15.27	1.31 H	28	11.49	47.24
7	11020.00	44.21 AV	54.00	-9.79	1.31 H	28	-3.03	47.24
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	5460.00	55.62 PK	74.00	-18.38	1.36 V	258	19.12	36.50
2	5460.00	44.95 AV	54.00	-9.05	1.36 V	258	8.45	36.50
3	**#5470.00**	**66.90 PK**	**68.30**	**-1.40**	**1.01 V**	**5**	**30.39**	**36.51**
4	*5510.00	102.85 PK			1.26 V	294	66.26	36.59
5	*5510.00	93.58 AV			1.26 V	294	56.99	36.59
6	11020.00	57.50 PK	74.00	-16.50	1.48 V	129	10.26	47.24
7	11020.00	44.88 AV	54.00	-9.12	1.48 V	129	-2.36	47.24

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).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	*5590.00	97.43 PK			1.28 H	340	60.63	36.80
2	*5590.00	87.87 AV			1.28 H	340	51.07	36.80
3	11180.00	58.73 PK	74.00	-15.27	1.69 H	101	11.56	47.17
4	11180.00	44.29 AV	54.00	-9.71	1.69 H	101	-2.88	47.17
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	*5590.00	103.74 PK			1.28 V	288	66.94	36.80
2	*5590.00	93.94 AV			1.28 V	288	57.14	36.80
3	11180.00	58.62 PK	74.00	-15.38	1.51 V	38	11.45	47.17
4	11180.00	44.28 AV	54.00	-9.72	1.51 V	38	-2.89	47.17

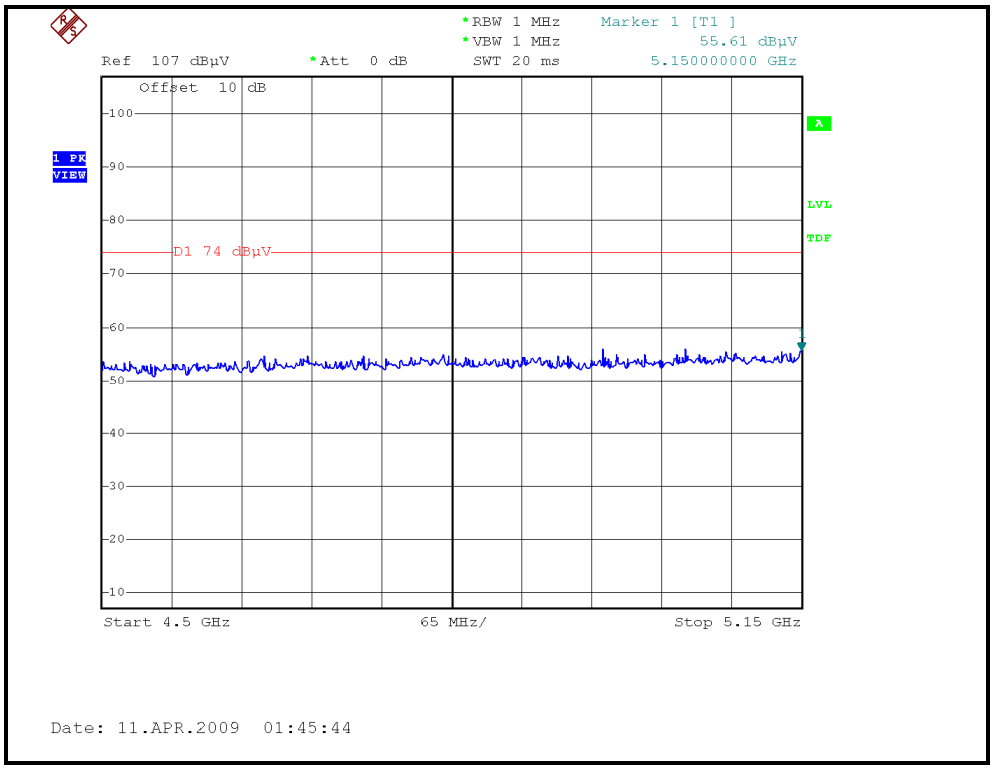
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

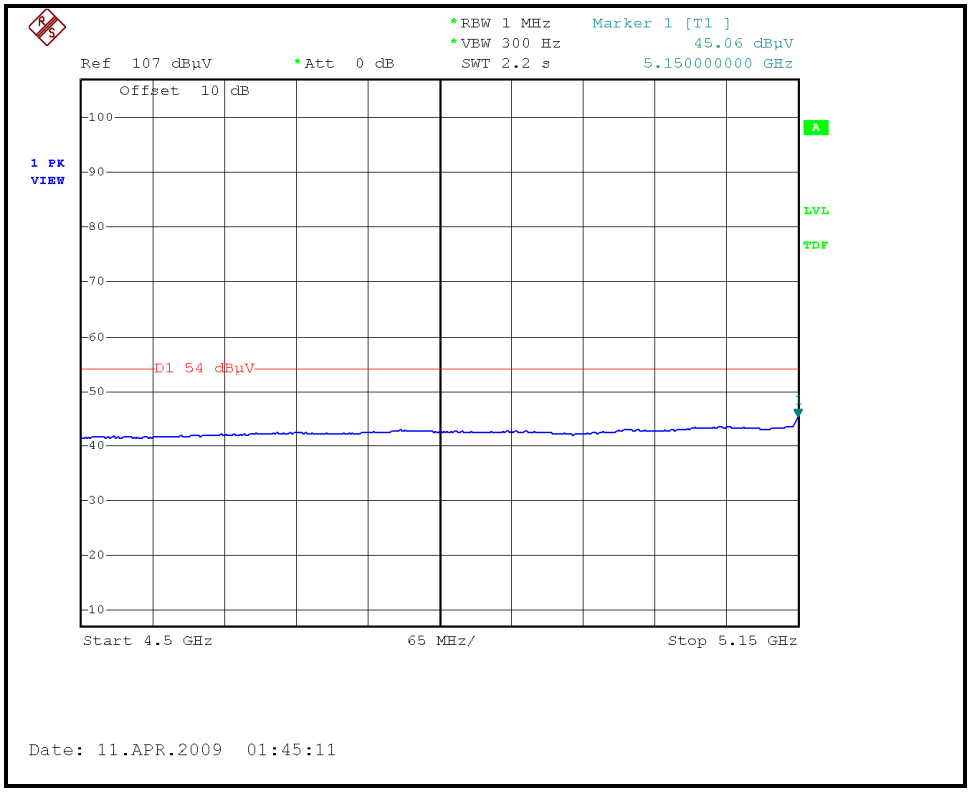
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 70%RH 972hPa	TESTED BY	Eric Lee

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	*5670.00	97.33 PK			1.21 H	352	60.32	37.01
2	*5670.00	87.57 AV			1.21 H	352	50.56	37.01
3	#5725.00	56.07 PK	68.30	-12.23	1.18 H	60	18.92	37.15
4	11340.00	57.84 PK	74.00	-16.16	1.48 H	29	10.74	47.10
5	11340.00	43.55 AV	54.00	-10.45	1.48 H	29	-3.55	47.10
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	*5670.00	101.71 PK			1.26 V	286	64.70	37.01
2	*5670.00	92.04 AV			1.26 V	286	55.03	37.01
3	#5725.00	60.43 PK	68.30	-7.87	1.11 V	150	23.28	37.15
4	11340.00	57.22 PK	74.00	-16.78	1.48 V	69	10.12	47.10
5	11340.00	42.85 AV	54.00	-11.15	1.48 V	69	-4.25	47.10

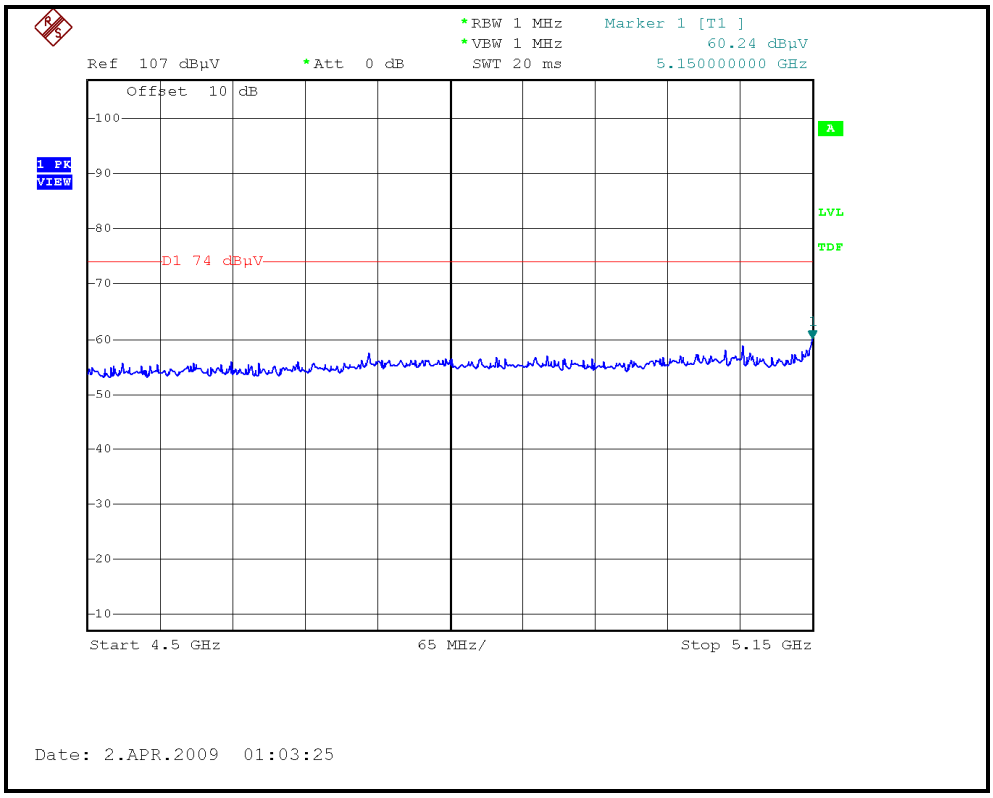
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

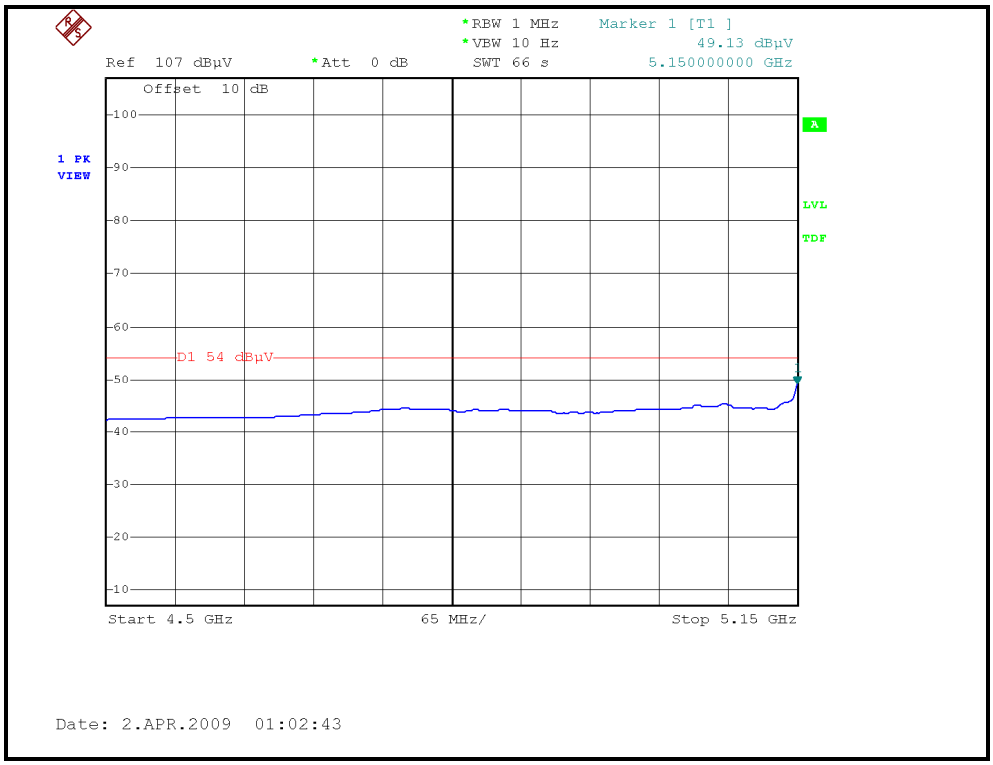
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH1, HORIZONTAL)



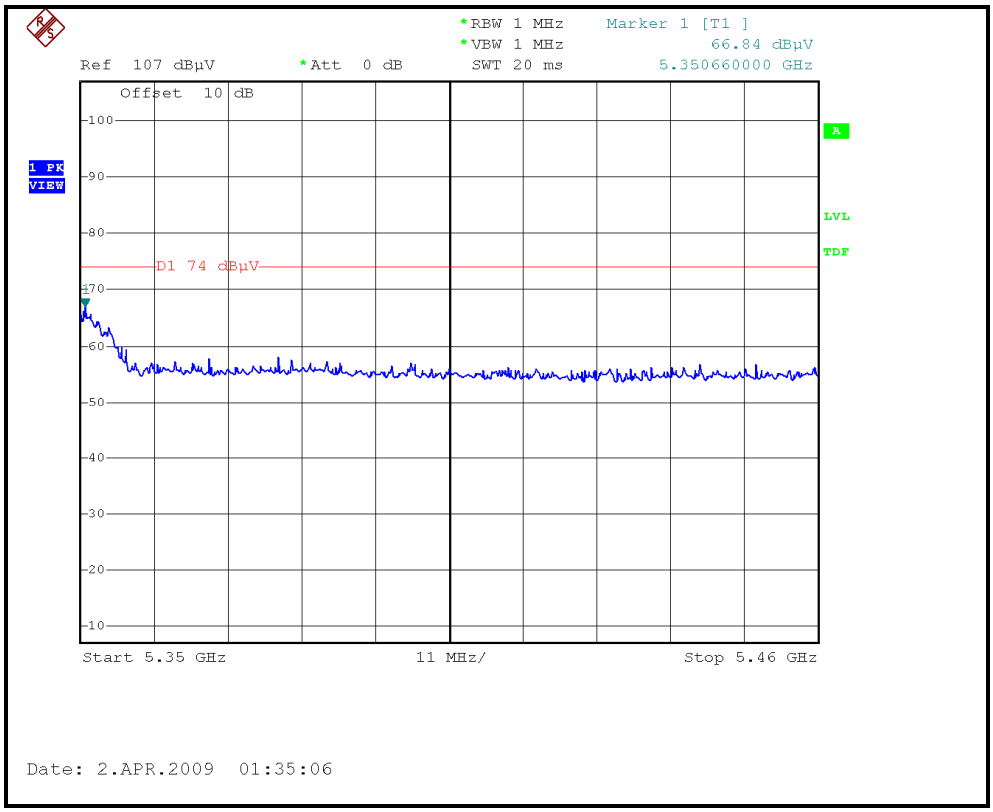


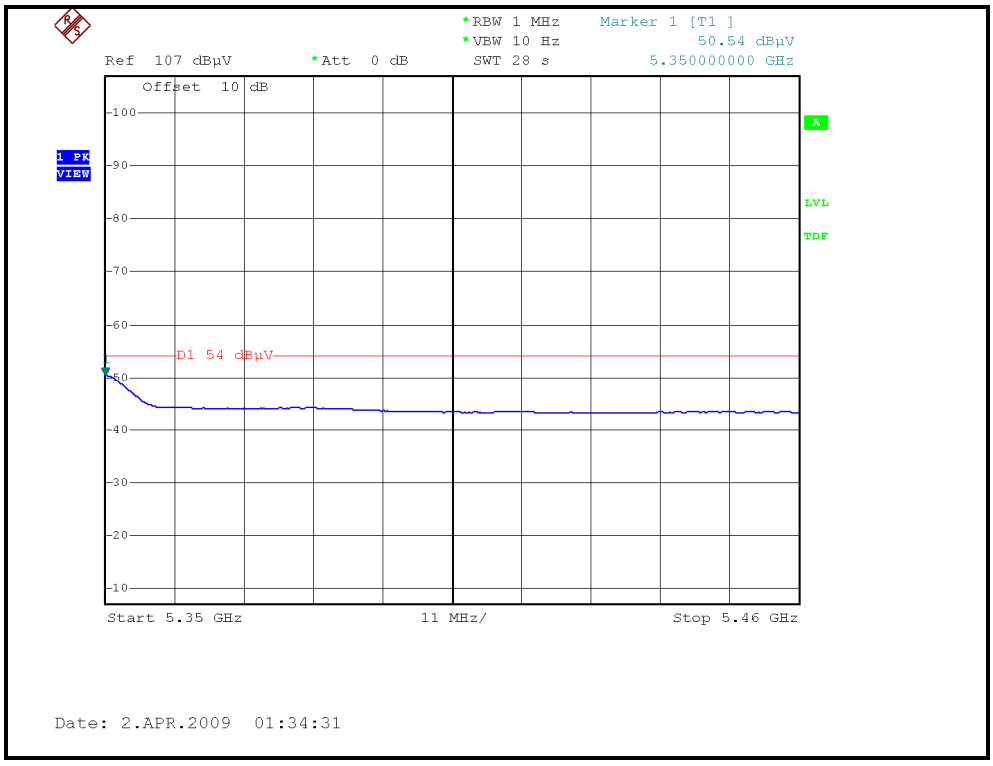
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE,CH1, VERTICAL)



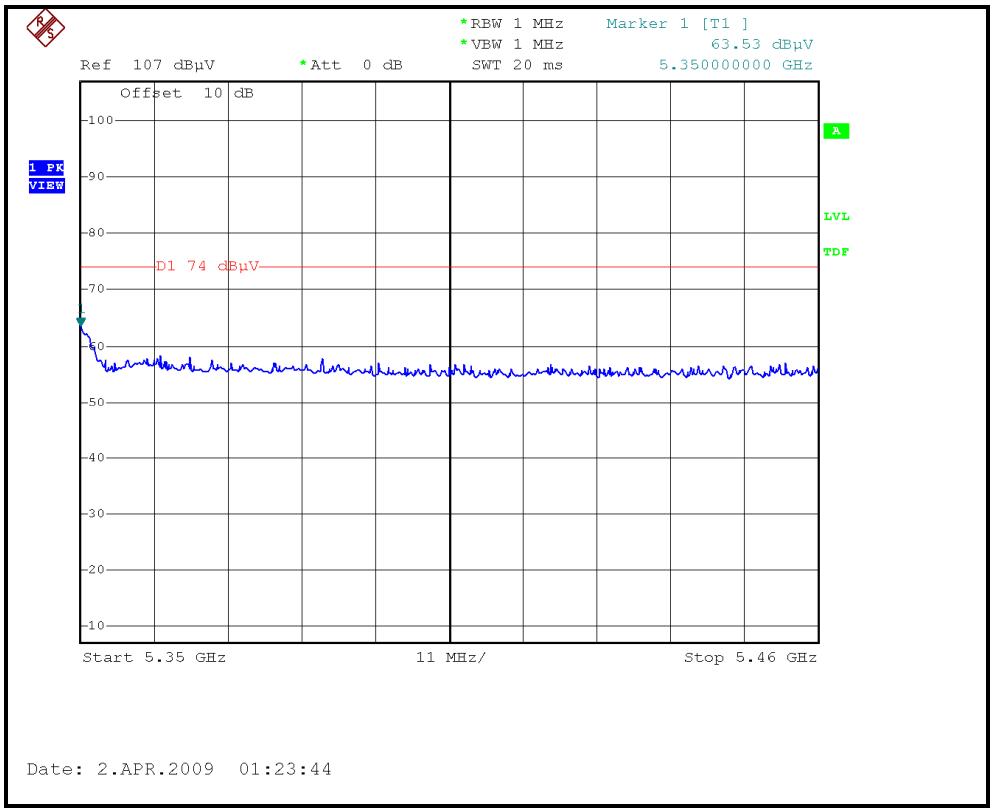


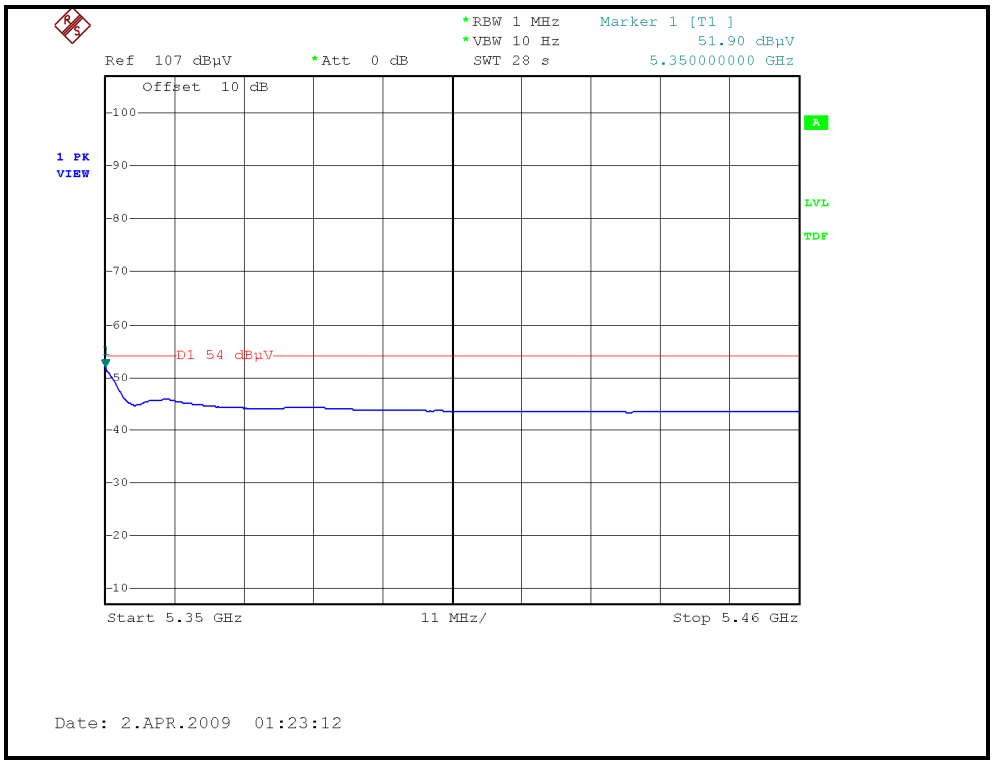
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH4, HORIZONTAL)



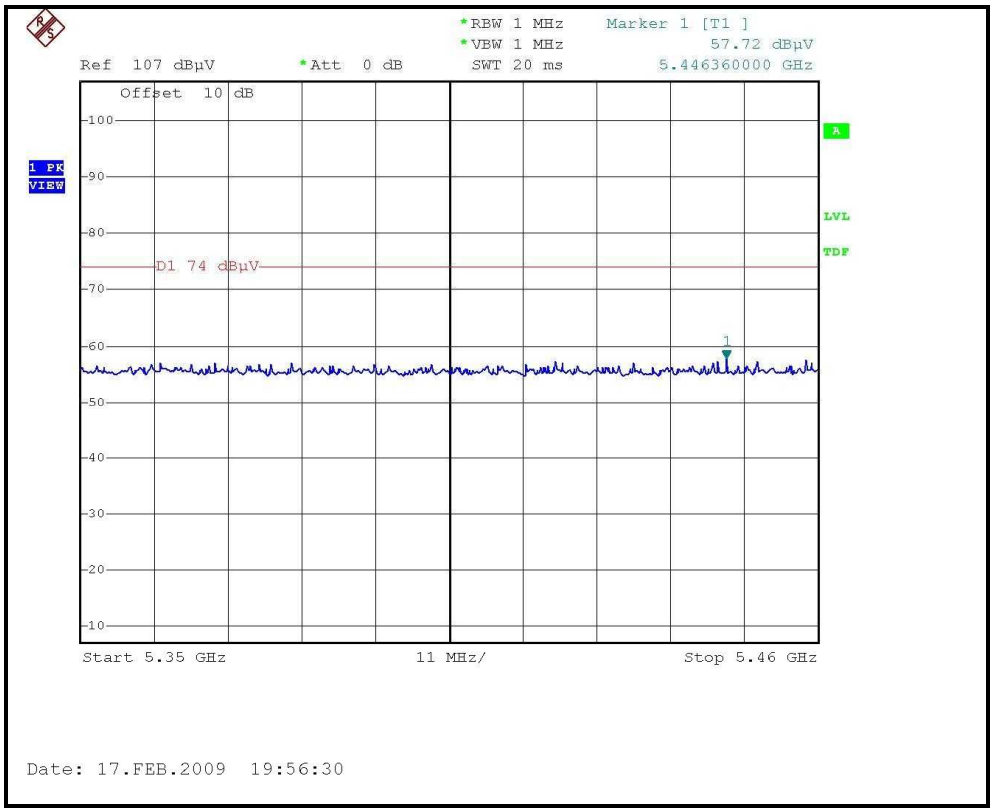


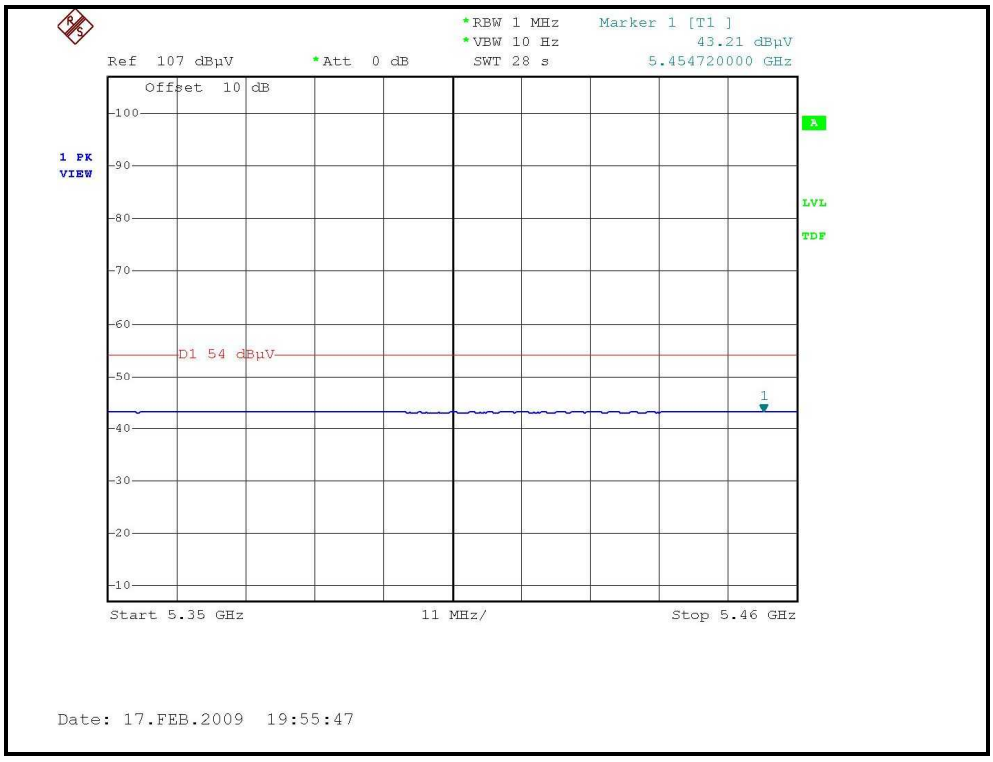
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH4, VERTICAL)



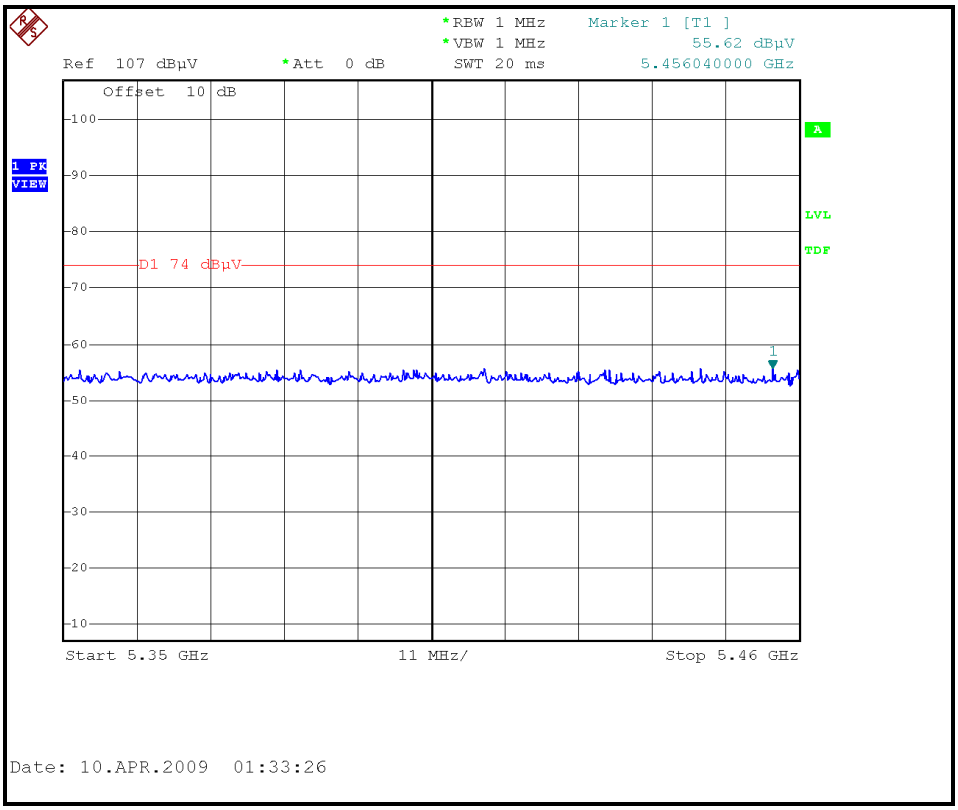


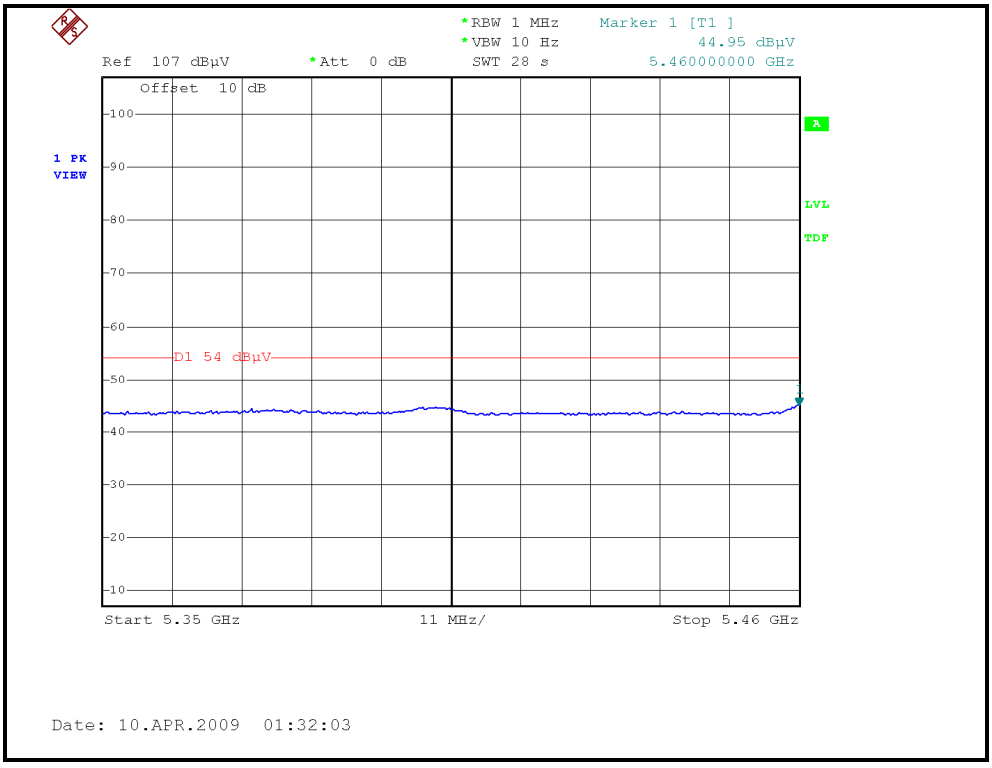
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH5, HORIZONTAL)





RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH5, VERTICAL)





4.3 PEAK TRANSMIT POWER MEASUREMENT

4.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

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: Where B is the 26dB emission bandwidth in MHz.

4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ADVANTEST SPECTRUM ANALYZER	U3772	160100280	July 26, 2008	July 25, 2009

NOTE:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.3.3 TEST PROCEDURE

1. The transmitter output was connected to the spectrum analyzer.
2. Set span to encompass the entire emission bandwidth of the signal.
3. Set RBW to 1MHz, VBW to 300kHz.
4. Using the spectrum analyzer's channel power measurement function to measure the output power.

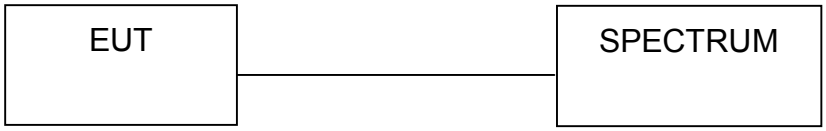
NOTE:
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

The transmitter output operates continuously therefore Method # 1 is used.

4.3.4 DEVIATION FROM TEST STANDARD

No deviation

4.3.5 TEST SETUP



4.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

4.3.7 TEST RESULTS

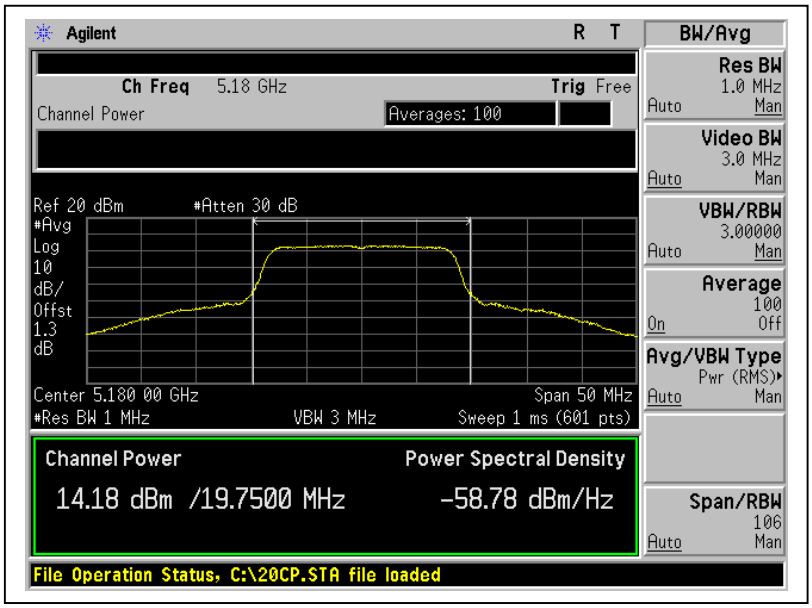
802.11a OFDM MODULATION:

MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	23deg.C, 54%RH, 965hPa
TESTED BY	Rex Huang		

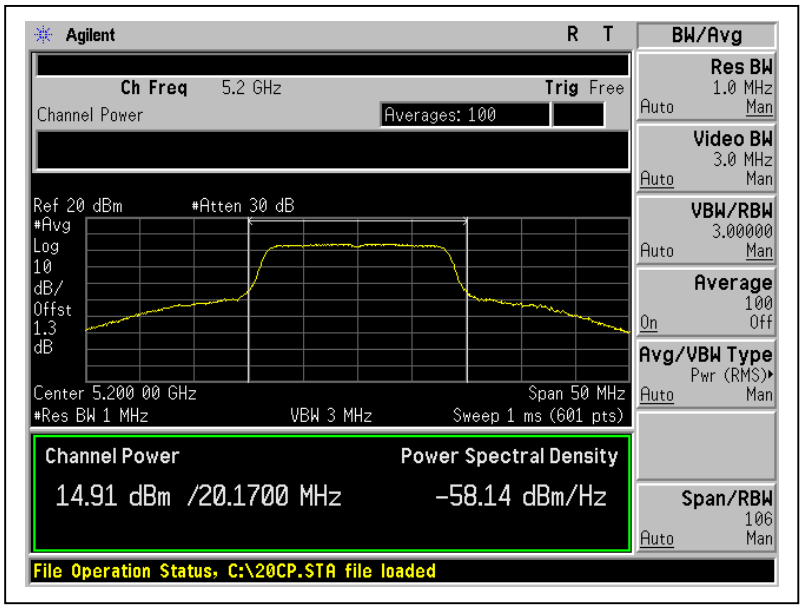
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER OUTPUT (mW)	PEAK POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)	PASS/FAIL
1	5180	14.18	26.182	17	19.75	PASS
2	5200	14.91	30.974	17	20.17	PASS
4	5240	14.35	27.227	17	19.83	PASS
5	5260	16.96	49.659	24	24.83	PASS
7	5300	16.65	46.238	24	24.33	PASS
8	5320	17.16	52.000	24	24.83	PASS
9	5500	16.19	41.591	24	24.75	PASS
14	5600	16.31	42.756	24	24.50	PASS
19	5700	16.85	48.417	24	24.75	PASS

NOTE: The 26dBc Occupied Bandwidth plot, please refer to the following pages.

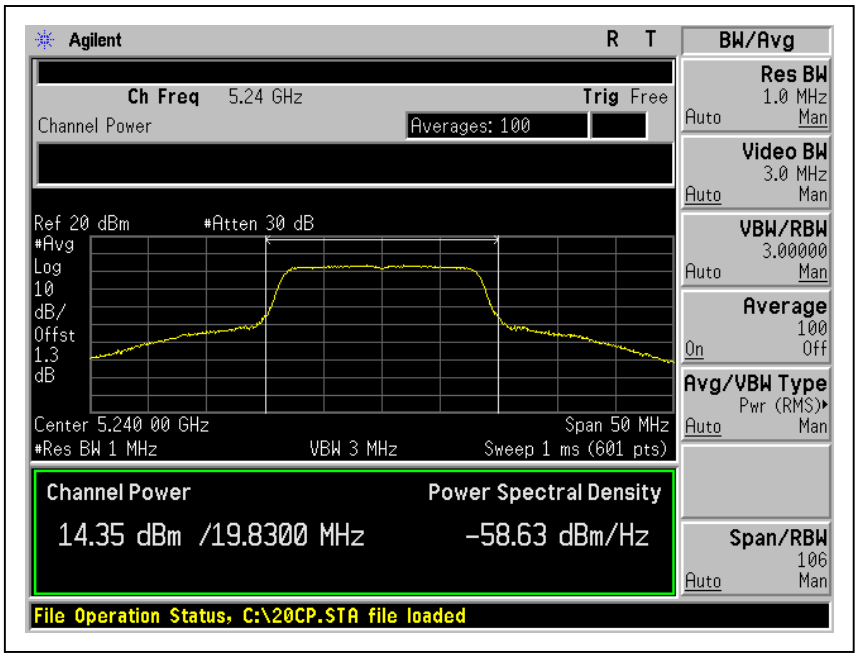
Peak Power Output:
CH1



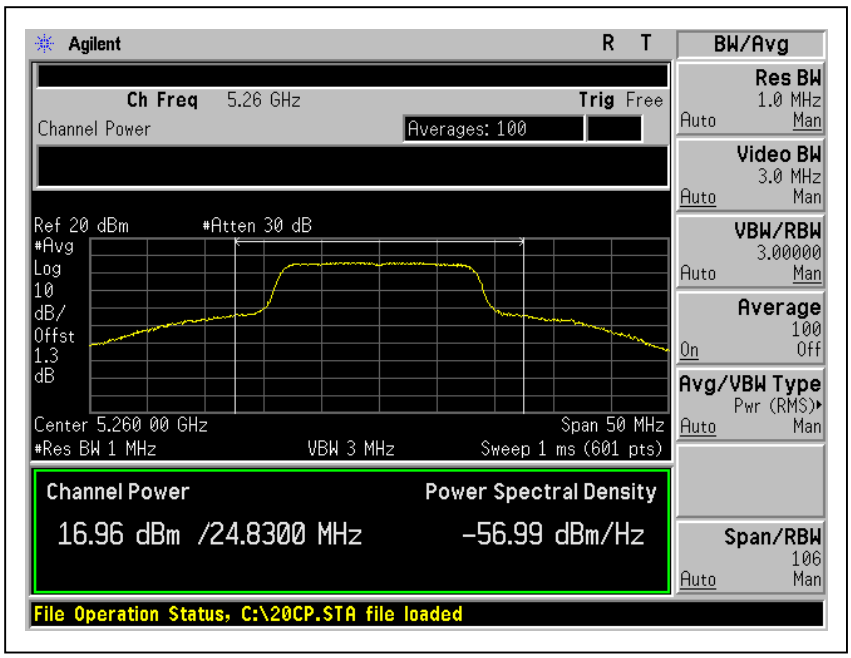
CH2



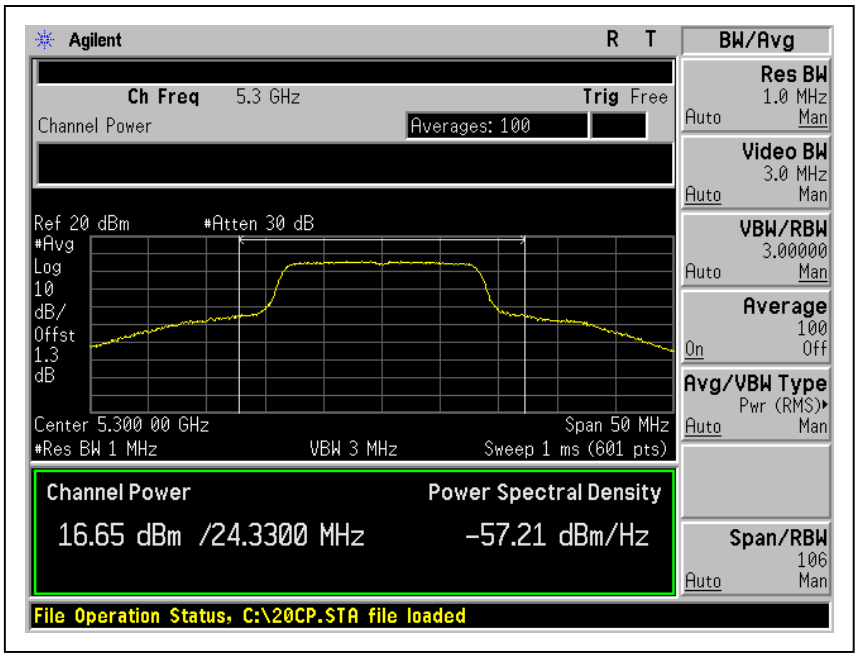
CH4


Agilent
R T
BW/Avg
Ch Freq 5.24 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.240 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
14.35 dBm /19.8300 MHz
Power Spectral Density
-58.63 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

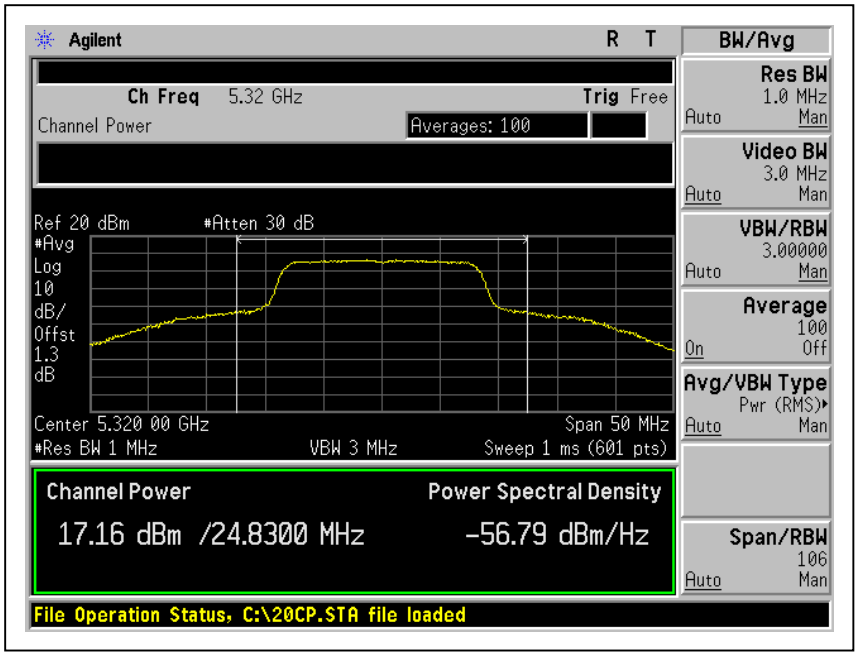
CH5


Agilent
R T
BW/Avg
Ch Freq 5.26 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.260 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
16.96 dBm /24.8300 MHz
Power Spectral Density
-56.99 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

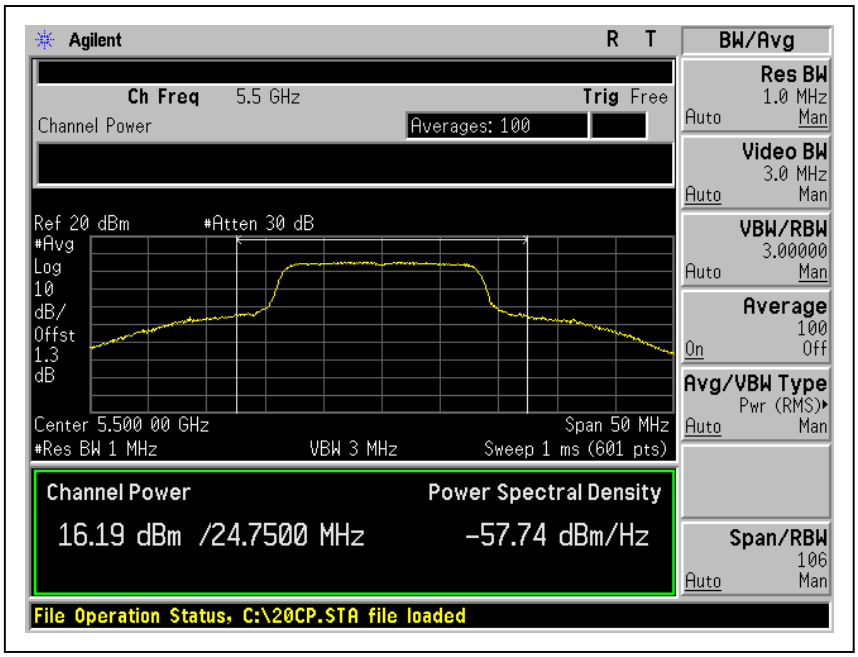
CH7


Agilent
R T
BW/Avg
Ch Freq 5.3 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.300 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
16.65 dBm /24.3300 MHz
Power Spectral Density
-57.21 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

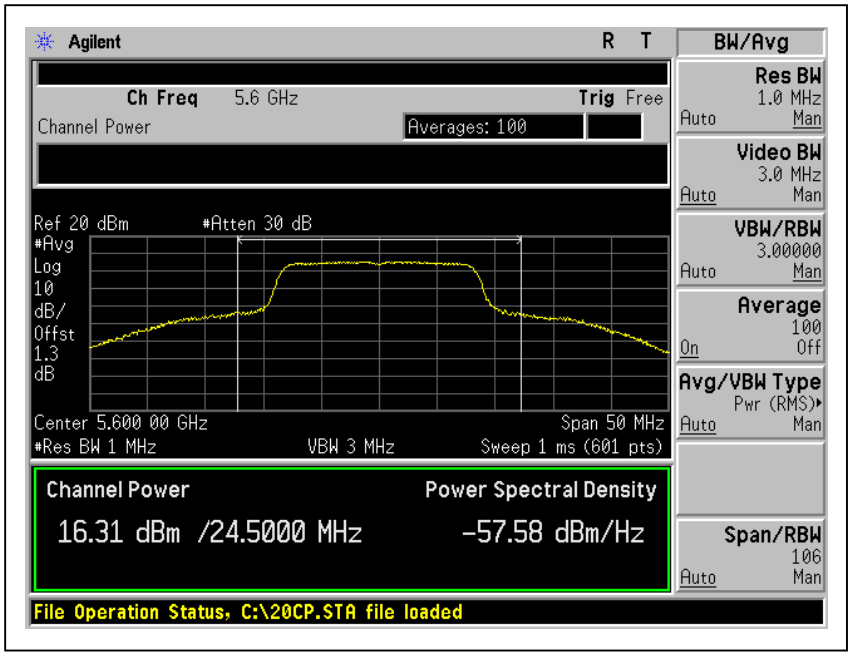
CH8


Agilent
R T
BW/Avg
Ch Freq 5.32 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.320 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
17.16 dBm /24.8300 MHz
Power Spectral Density
-56.79 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

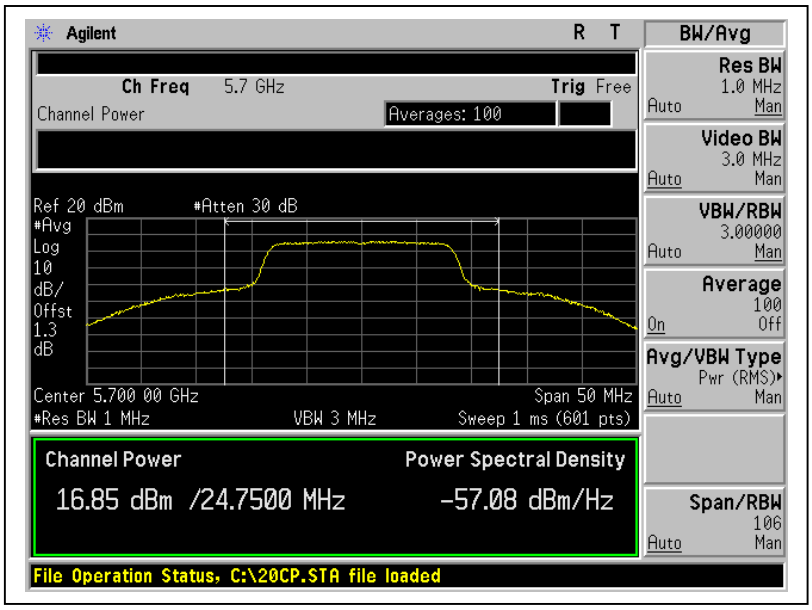
CH9


Agilent
R T
BW/Avg
Ch Freq 5.5 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.500 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
16.19 dBm /24.7500 MHz
Power Spectral Density
-57.74 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

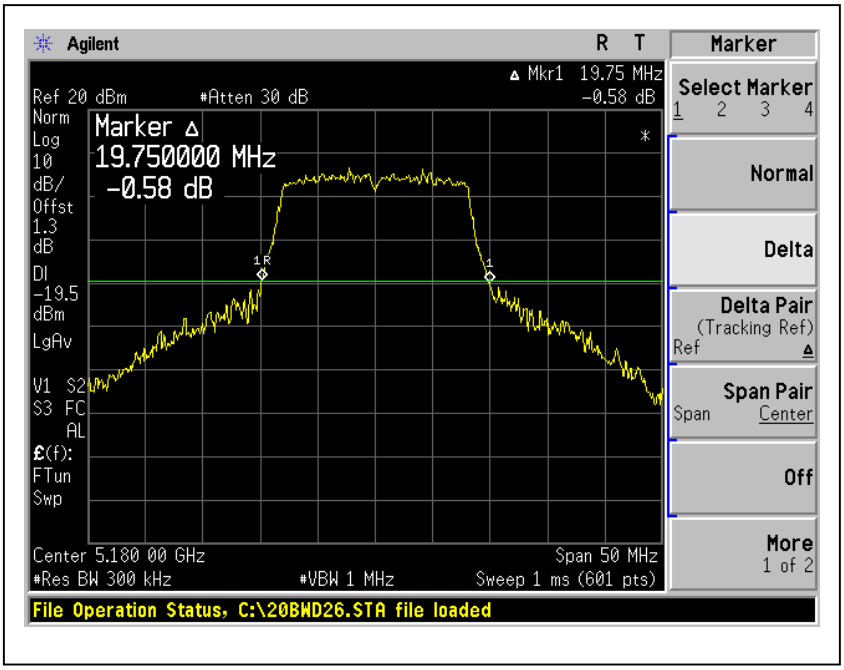
CH14


Agilent
R T
BW/Avg
Ch Freq 5.6 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.600 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
16.31 dBm /24.5000 MHz
Power Spectral Density
-57.58 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

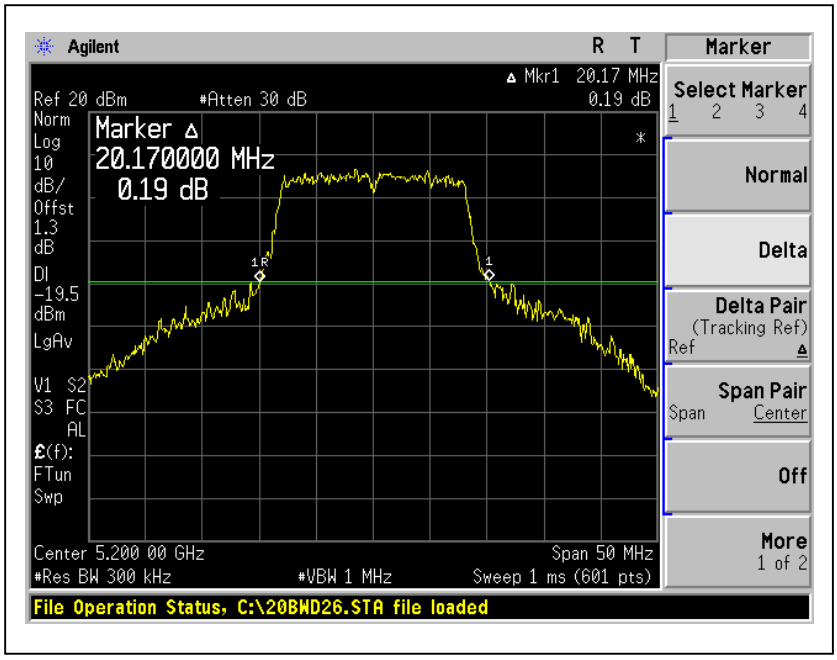
CH19


Agilent
R T
BW/Avg
Ch Freq 5.7 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
100
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.700 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
16.85 dBm /24.7500 MHz
Power Spectral Density
-57.08 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

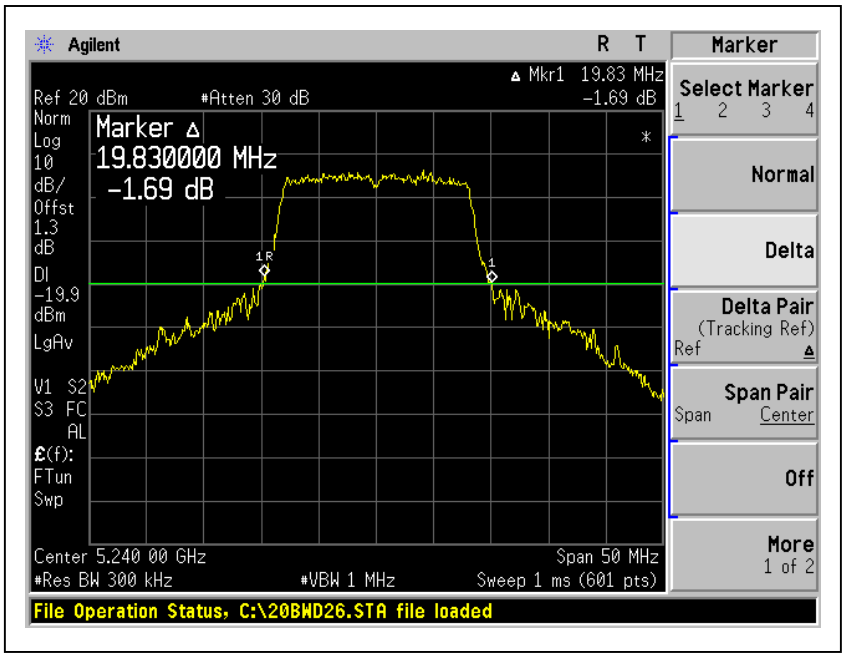
26dB Occupied Bandwidth:
CH1



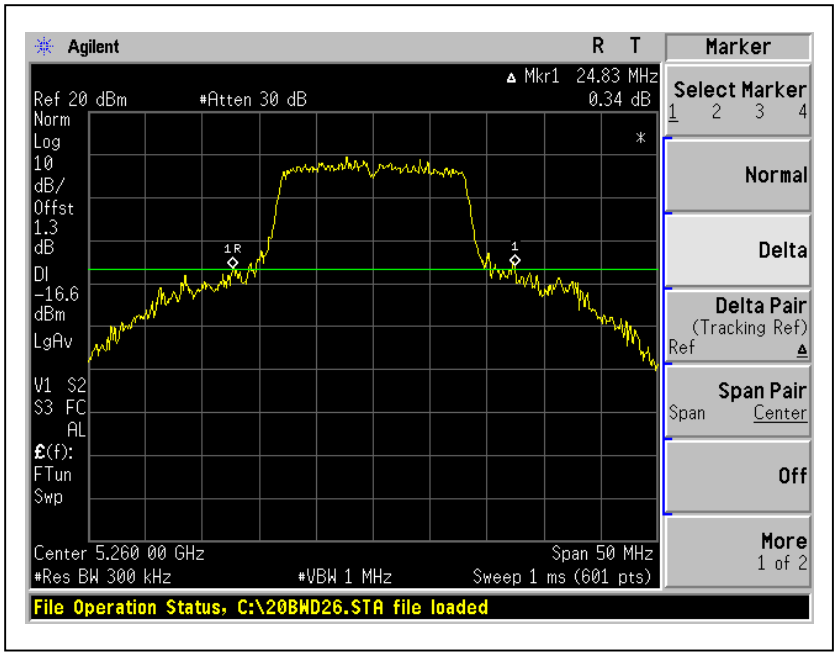
CH2



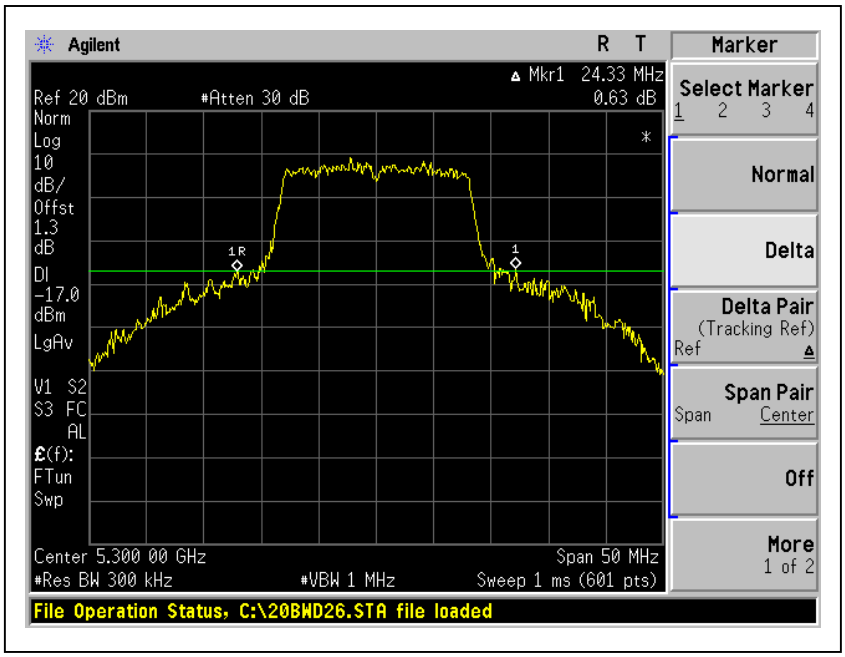
CH4


Agilent
R T
Marker
Mkr1 19.83 MHz
-1.69 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-19.9
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
19.830000 MHz
-1.69 dB
1R
1
Center 5.240 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 50 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\20BWD26.STA file loaded

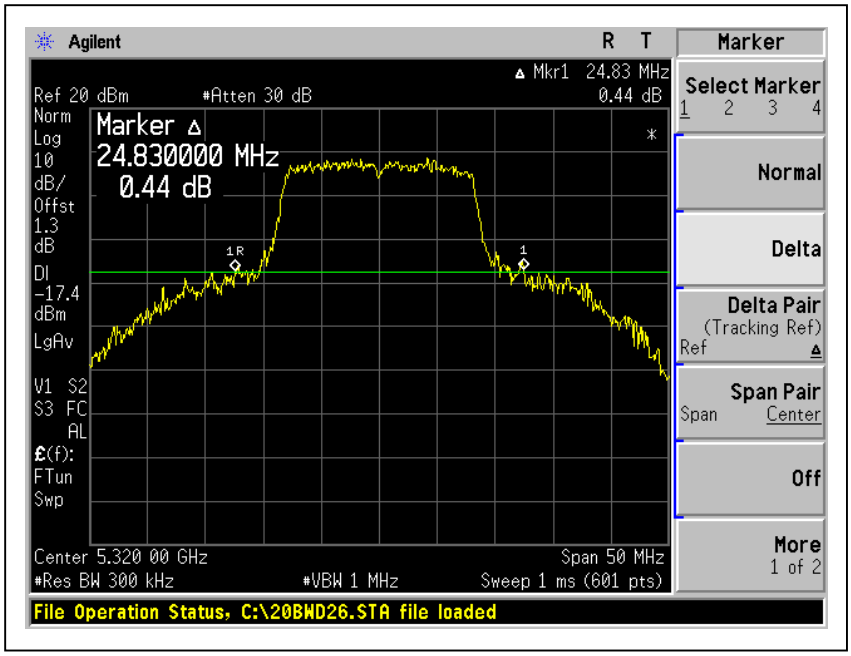
CH5


Agilent
R T
Marker
Mkr1 24.83 MHz
0.34 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-16.6
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
1R
1
Center 5.260 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 50 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\20BWD26.STA file loaded

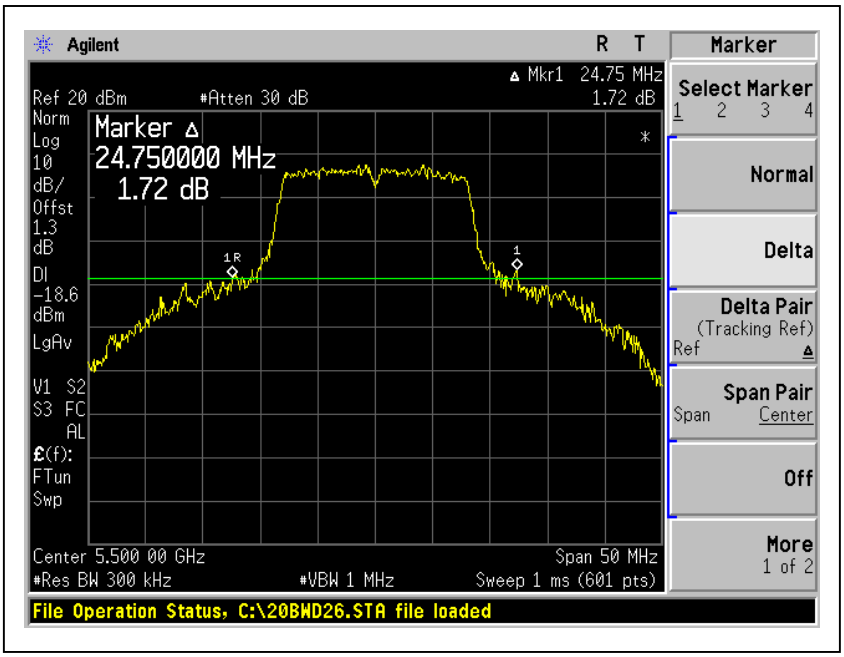
CH7


Agilent
R T
Marker
Mkr1 24.33 MHz
0.63 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-17.0
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
1R
1
Center 5.300 00 GHz
Span 50 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\20BWD26.STA file loaded

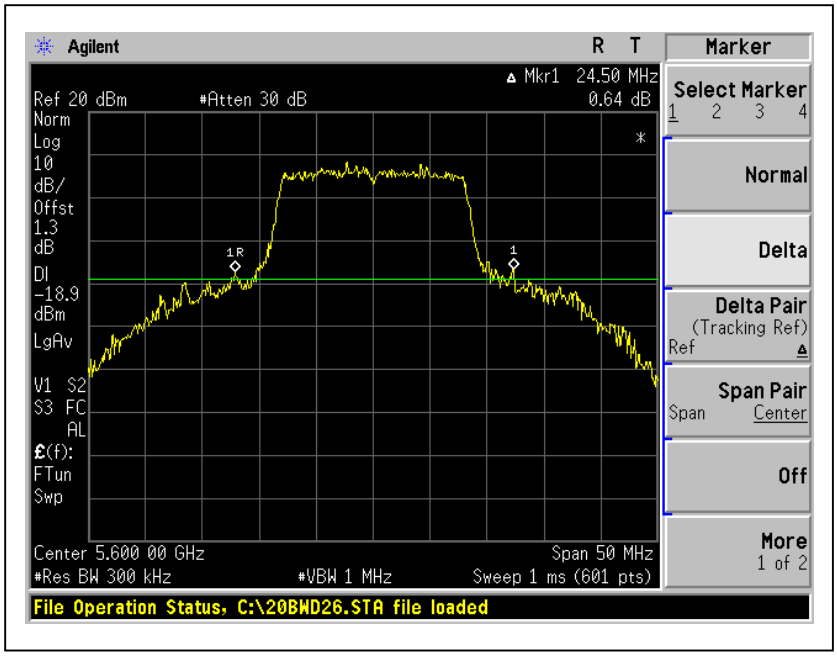
CH8


Agilent
R T
Marker
Mkr1 24.83 MHz
0.44 dB
Ref 20 dBm
#Atten 30 dB
Marker Δ
24.830000 MHz
0.44 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-17.4
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
1R
1
Center 5.320 00 GHz
Span 50 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\20BWD26.STA file loaded

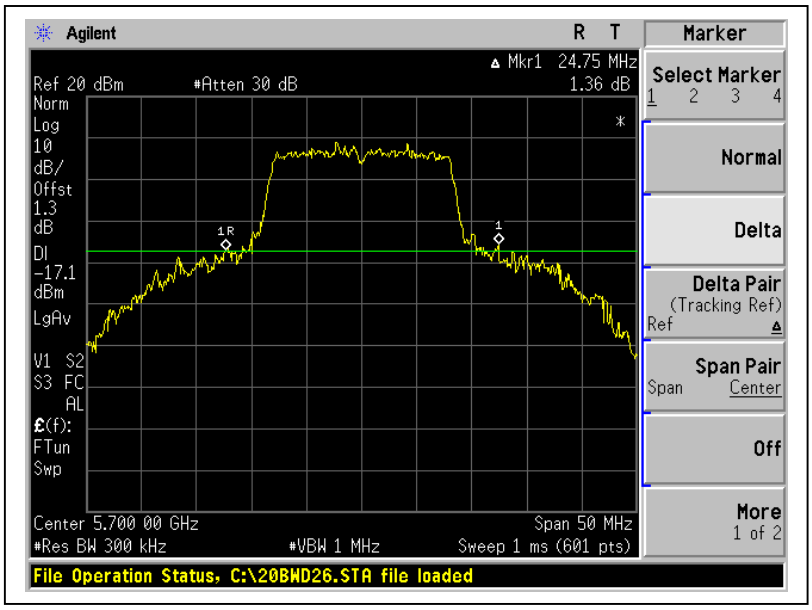
CH9


Agilent
R T
Marker
Mkr1 24.75 MHz
1.72 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-18.6
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
24.750000 MHz
1.72 dB
1R
1
Center 5.500 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 50 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\20BWD26.STA file loaded

CH14


Agilent
R T
Marker
Mkr1 24.50 MHz
0.64 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-18.9
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
1R
1
Center 5.600 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 50 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\20BWD26.STA file loaded

CH19


Agilent
R T
Marker
Mkr1 24.75 MHz
1.36 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-17.1
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
1R
1
Center 5.700 00 GHz
Span 50 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20BWD26.STA file loaded
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2

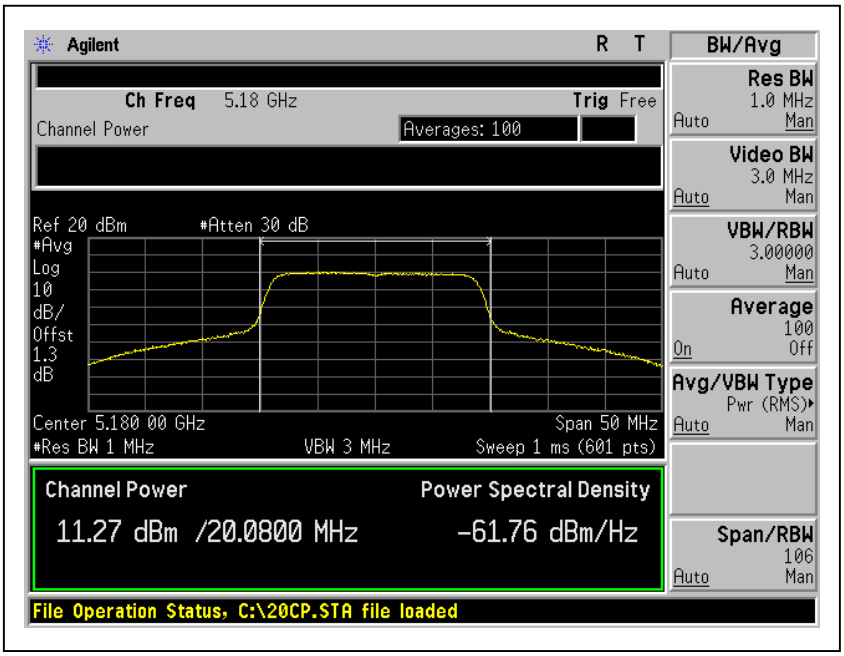
DRAFT 802.11n (20MHz) OFDM modulation:

MODULATION TYPE	BPSK	**TRANSFER RATE**	14.4Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	23deg.C, 54%RH, 965hPa
TESTED BY	Rex Huang		

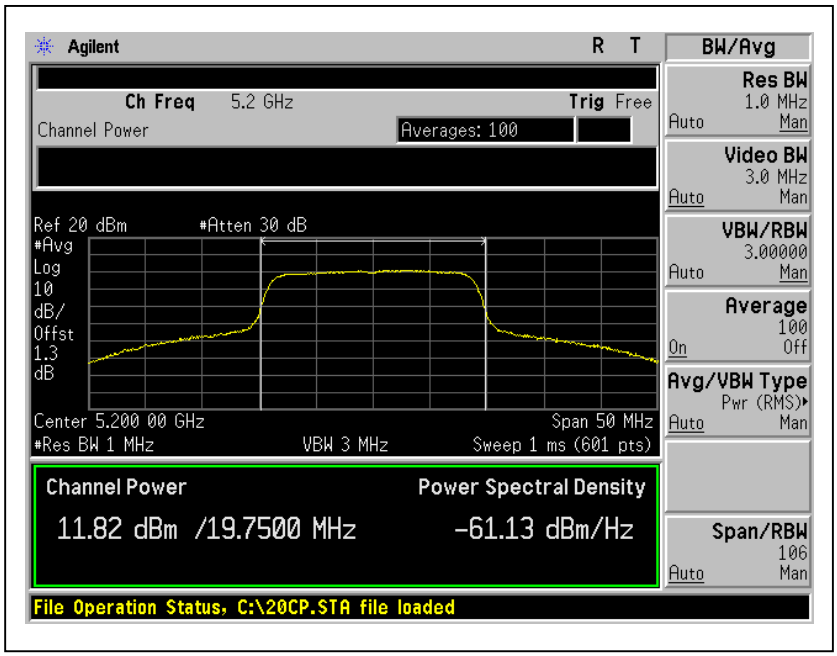
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)		PEAK POWER OUTPUT (mW)		TOTAL PEAK POWER (dBm)	TOTAL PEAK POWER (mW)	**PEAK POWER LIMIT (dBm)**	26dBc Occupied Bandwidth (MHz)		PASS/ FAIL
		Chain 0	Chain 1	Chain 0	Chain 1				Chain 0	Chain 1	
1	5180	11.27	11.07	13.397	12.794	14.18	26.191	17.00	20.08	19.58	PASS
2	5200	11.82	11.35	15.205	13.646	14.60	28.851	17.00	19.75	20.00	PASS
4	5240	11.84	11.10	15.276	12.882	14.50	28.158	17.00	19.83	20.00	PASS
5	5260	16.33	15.75	42.954	37.584	19.06	80.538	24.00	23.58	29.42	PASS
7	5300	16.81	16.31	47.973	42.756	19.58	90.729	24.00	20.83	24.0	PASS
8	5320	16.31	16.04	42.756	40.179	19.19	82.935	24.00	20.58	21.00	PASS
9	5500	16.28	16.16	42.462	41.305	19.23	83.767	24.00	25.75	26.25	PASS
14	5600	15.96	15.88	39.446	38.726	18.93	78.172	24.00	31.83	25.25	PASS
19	5700	16.70	16.55	46.774	45.186	19.64	91.960	24.00	30.83	31.25	PASS

NOTE: The 26dBc Occupied Bandwidth plot, please refer to the following pages.

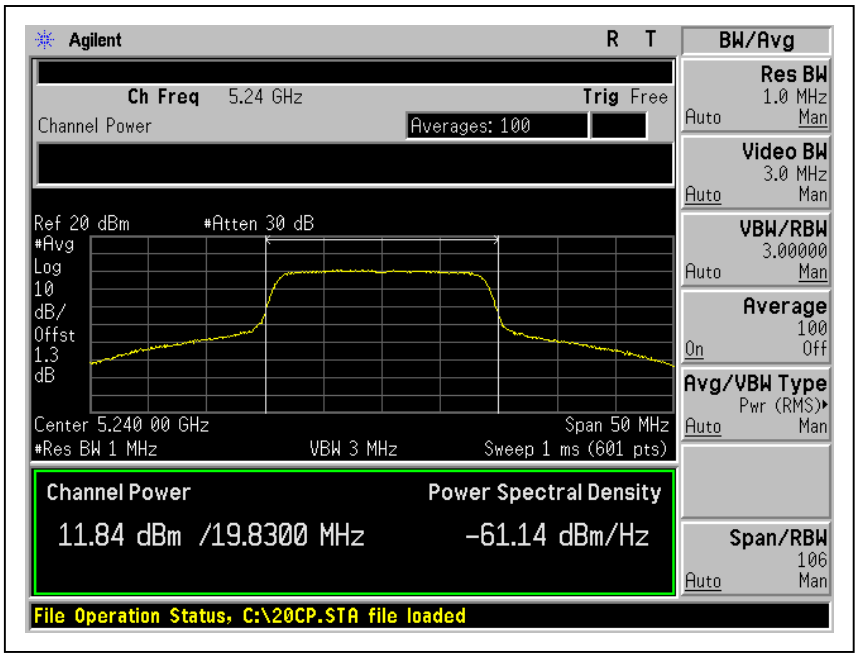
Peak Power Output:
For Chain (0) :CH1



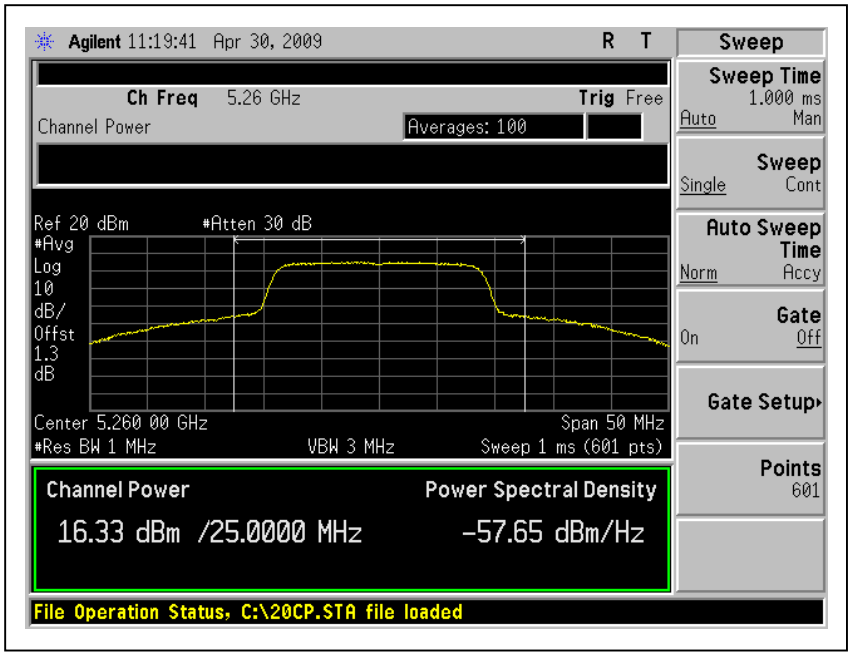
CH2



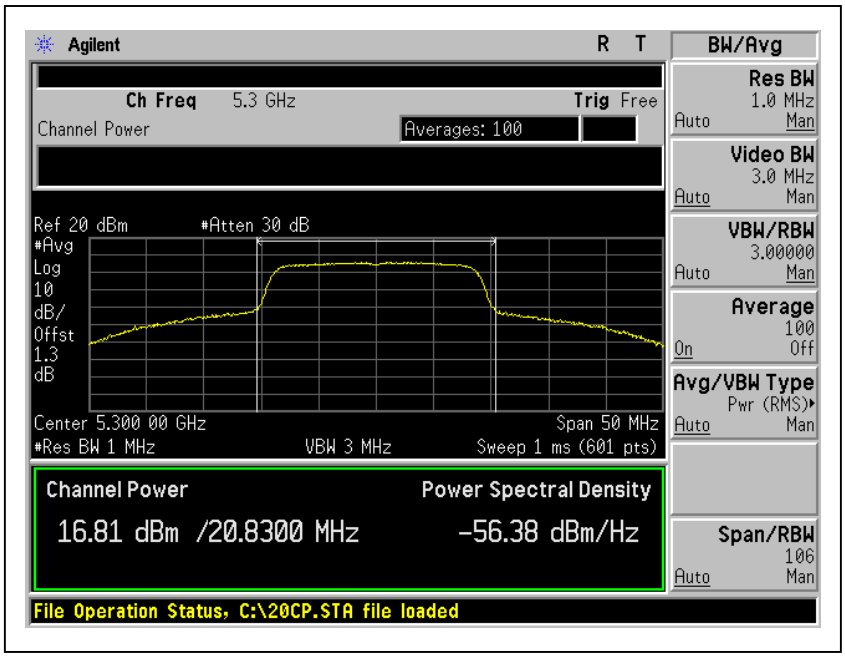
CH4


Agilent
R T
BW/Avg
Ch Freq 5.24 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.240 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
Power Spectral Density
11.84 dBm /19.8300 MHz
-61.14 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

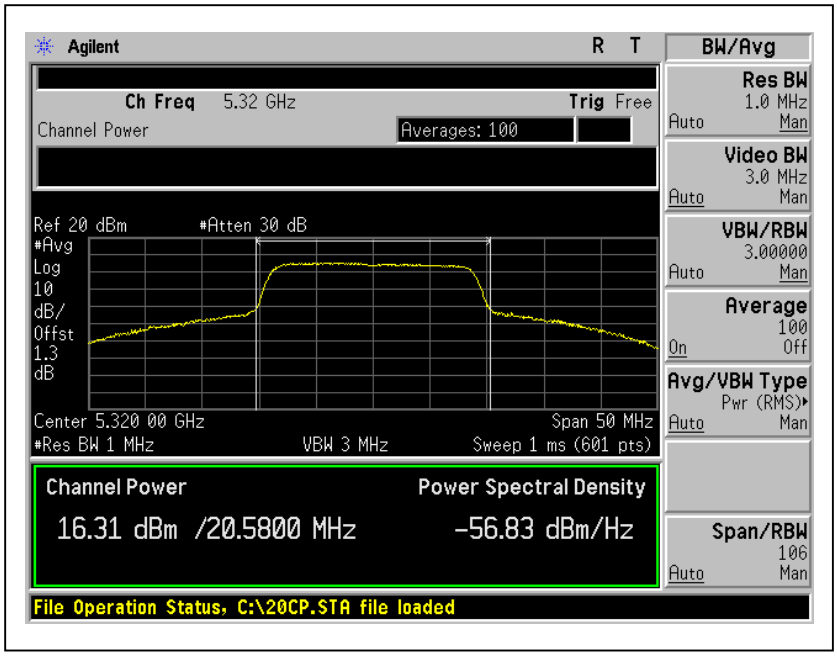
CH5


Agilent 11:19:41 Apr 30, 2009
R T
Sweep
Ch Freq 5.26 GHz
Trig Free
Channel Power
Averages: 100
Sweep Time
1.000 ms
Auto Man
Sweep
Single Cont
Auto Sweep Time
Norm Accy
Gate
On Off
Gate Setup
Points
601
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.260 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
Power Spectral Density
16.33 dBm /25.0000 MHz
-57.65 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

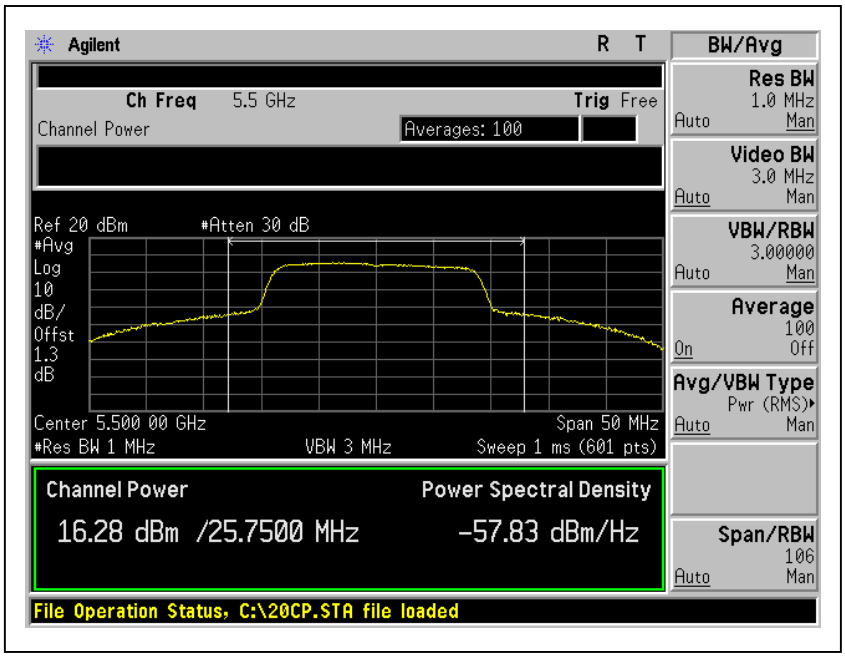
CH7


Agilent
R T
BW/Avg
Ch Freq 5.3 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.300 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
16.81 dBm /20.8300 MHz
Power Spectral Density
-56.38 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

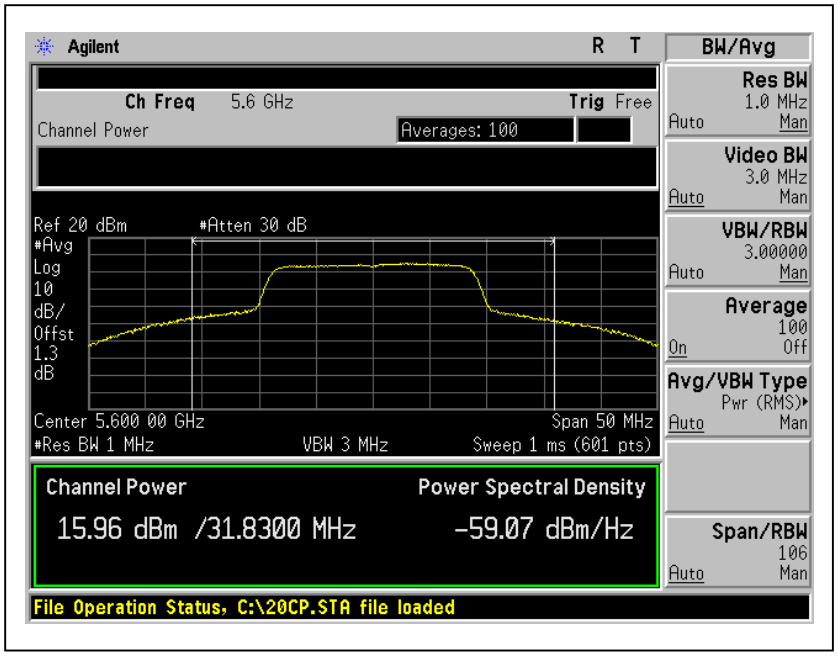
CH8


Agilent
R T
BW/Avg
Ch Freq 5.32 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.320 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
16.31 dBm /20.5800 MHz
Power Spectral Density
-56.83 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

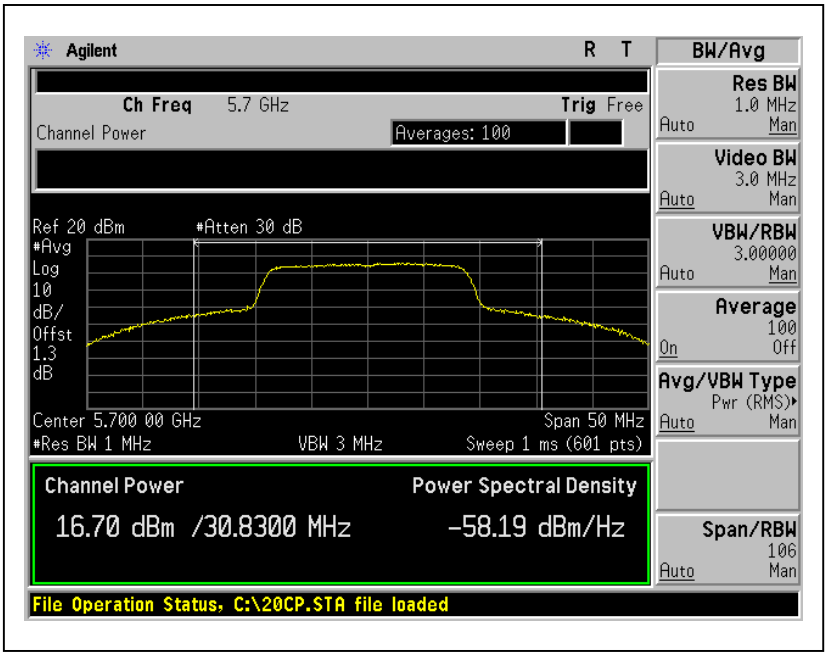
CH9


Agilent
R T
BW/Avg
Ch Freq 5.5 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.500 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
16.28 dBm /25.7500 MHz
Power Spectral Density
-57.83 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

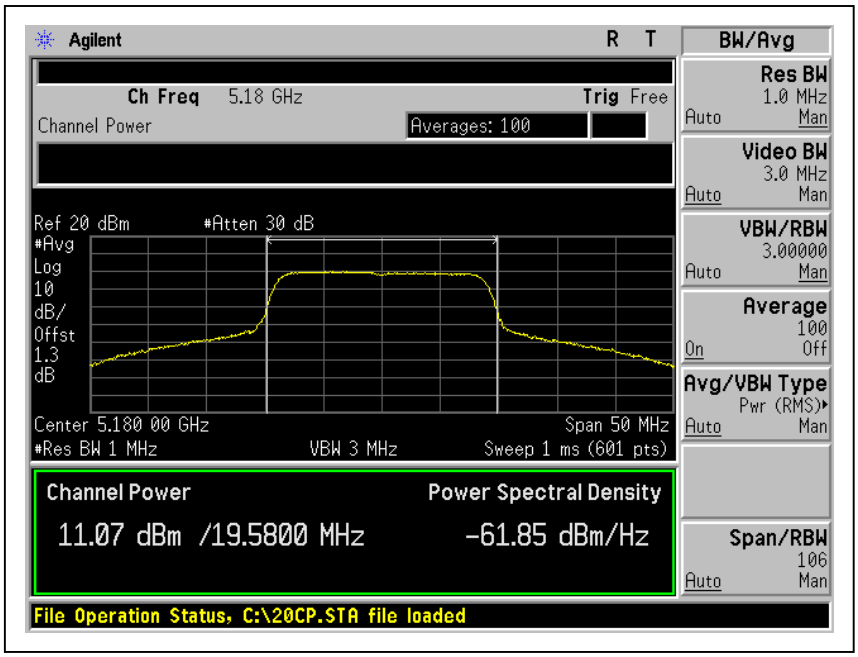
CH14


Agilent
R T
BW/Avg
Ch Freq 5.6 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.600 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
15.96 dBm /31.8300 MHz
Power Spectral Density
-59.07 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

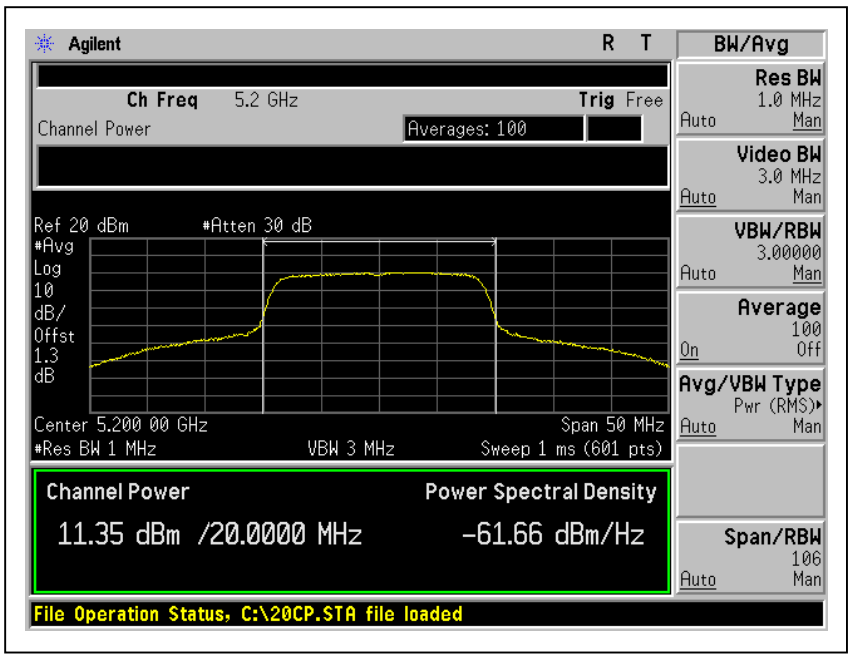
CH19


Agilent
R T
BW/Avg
Ch Freq 5.7 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.700 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
16.70 dBm /30.8300 MHz
Power Spectral Density
-58.19 dBm/Hz
File Operation Status. C:\20CP.STA file loaded

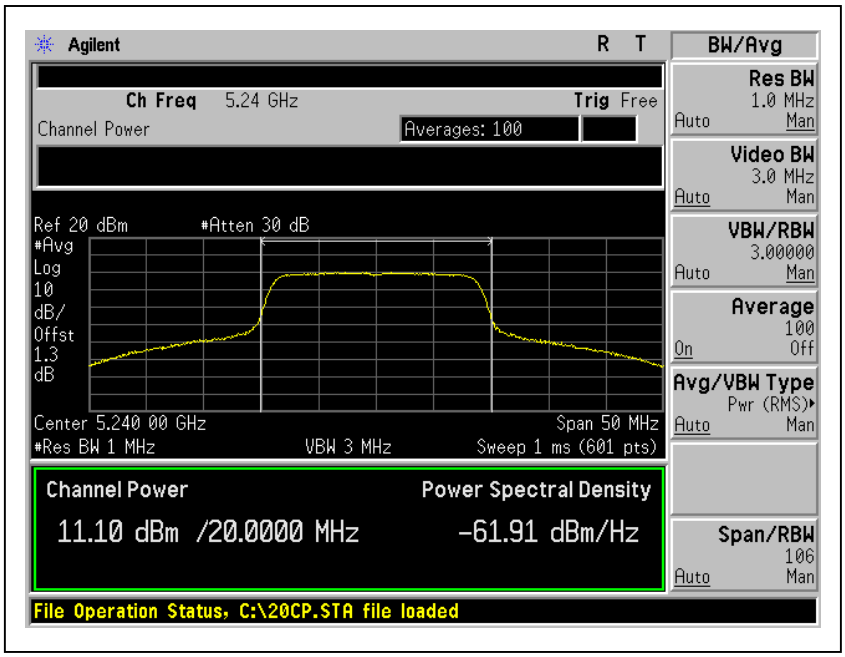
For Chain (1) :CH1



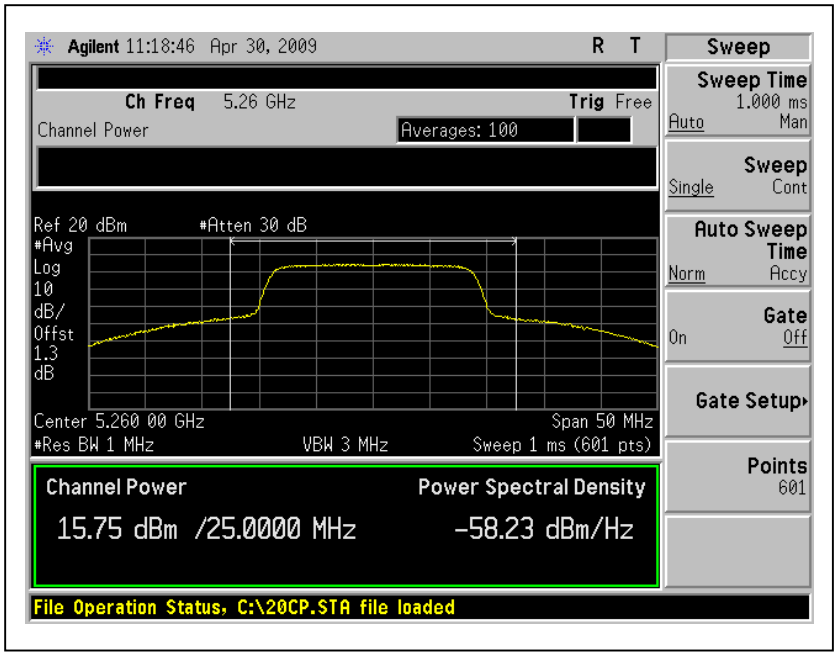
CH2



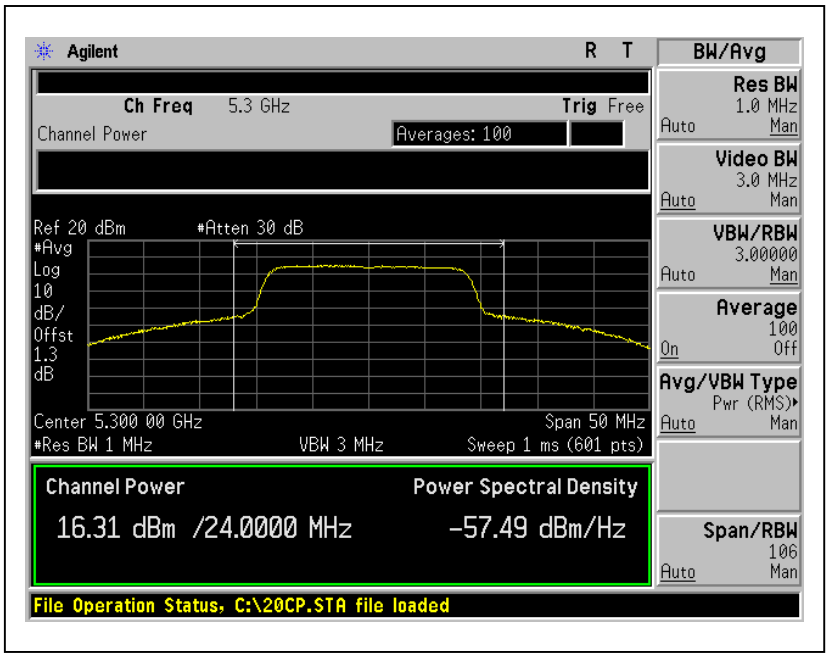
CH4


Agilent
R T
BW/Avg
Ch Freq 5.24 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.240 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
11.10 dBm /20.0000 MHz
Power Spectral Density
-61.91 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

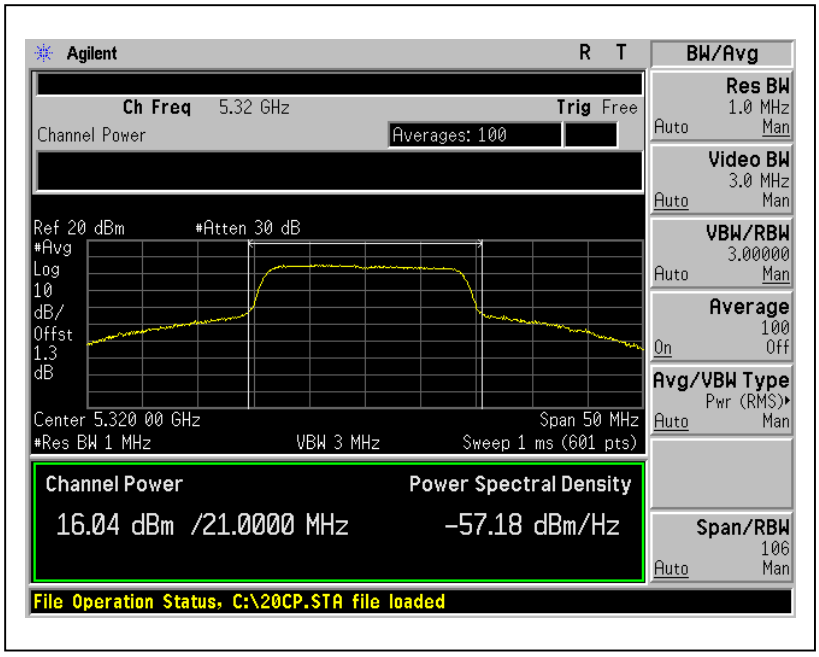
CH5


Agilent 11:18:46 Apr 30, 2009
R T
Sweep
Ch Freq 5.26 GHz
Trig Free
Channel Power
Averages: 100
Sweep Time
1.000 ms
Auto Man
Sweep
Single Cont
Auto Sweep Time
Norm Accy
Gate
On Off
Gate Setup
Points
601
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.260 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
15.75 dBm /25.0000 MHz
Power Spectral Density
-58.23 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

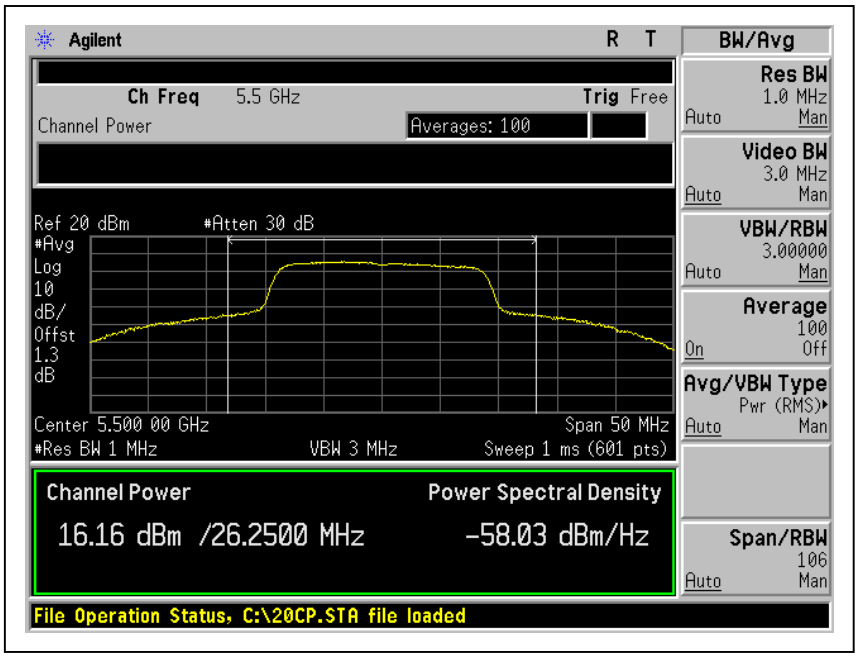
CH7


Agilent
R T
BW/Avg
Ch Freq 5.3 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.300 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
16.31 dBm /24.0000 MHz
Power Spectral Density
-57.49 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

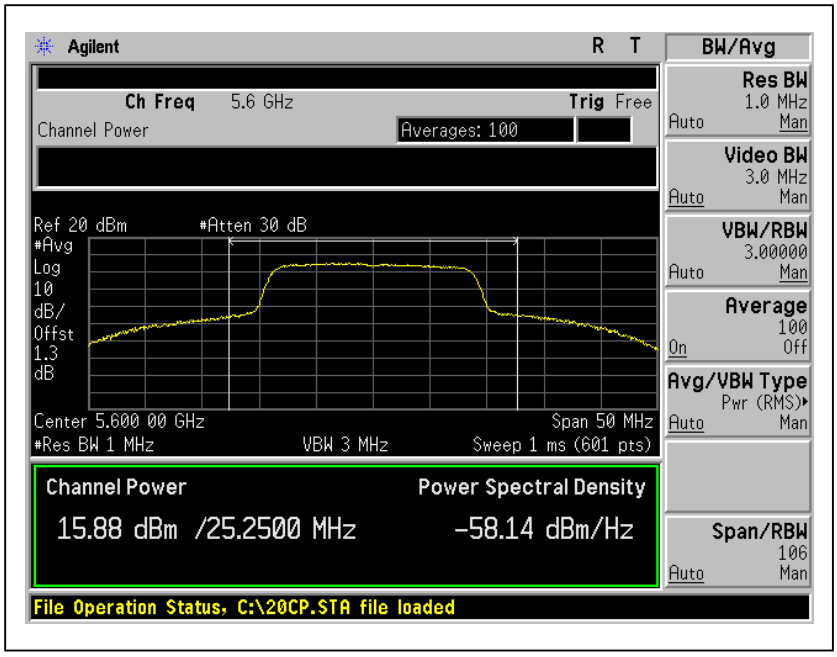
CH8


Agilent
R T
BW/Avg
Ch Freq 5.32 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.320 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
16.04 dBm /21.0000 MHz
Power Spectral Density
-57.18 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

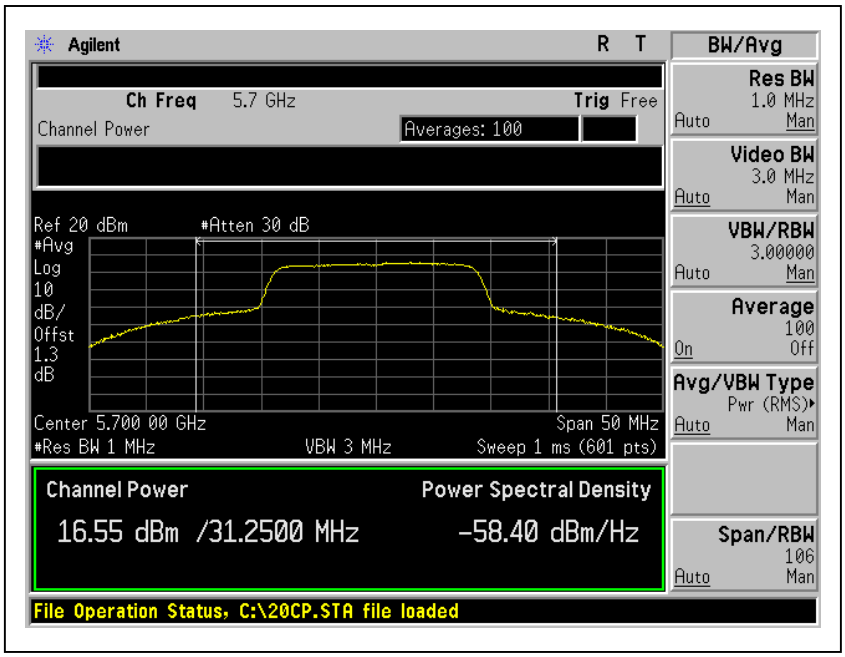
CH9


Agilent
R T
BW/Avg
Ch Freq 5.5 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.500 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
16.16 dBm /26.2500 MHz
Power Spectral Density
-58.03 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

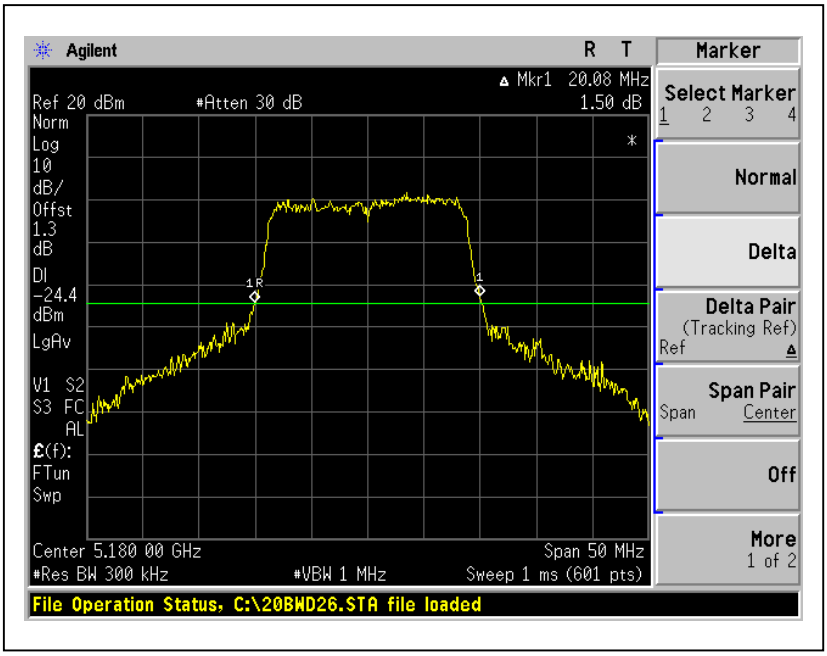
CH14


Agilent
R T
BW/Avg
Ch Freq 5.6 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.600 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
15.88 dBm /25.2500 MHz
Power Spectral Density
-58.14 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

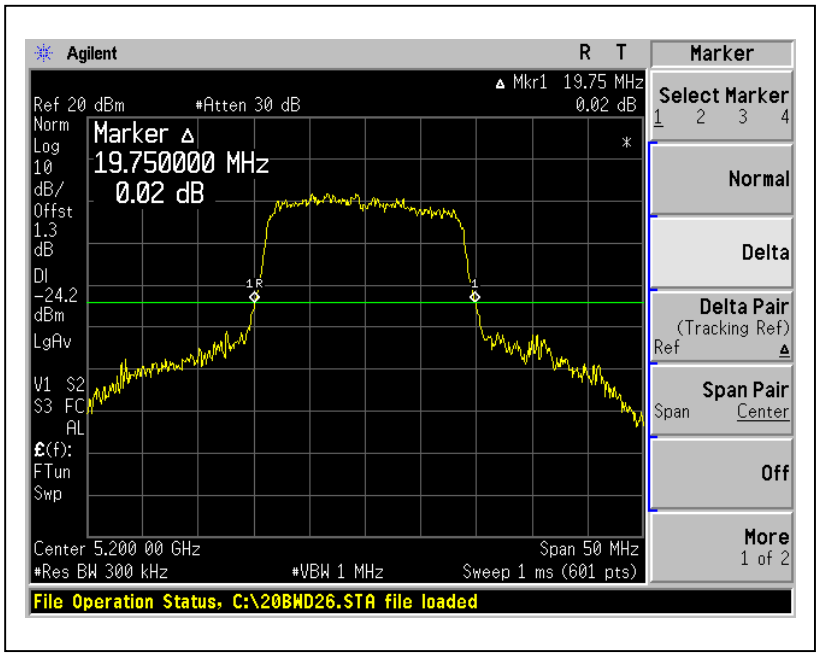
CH19


Agilent
R T
BW/Avg
Ch Freq 5.7 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.700 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
16.55 dBm /31.2500 MHz
Power Spectral Density
-58.40 dBm/Hz
Span/RBW
106
Auto Man
File Operation Status, C:\20CP.STA file loaded

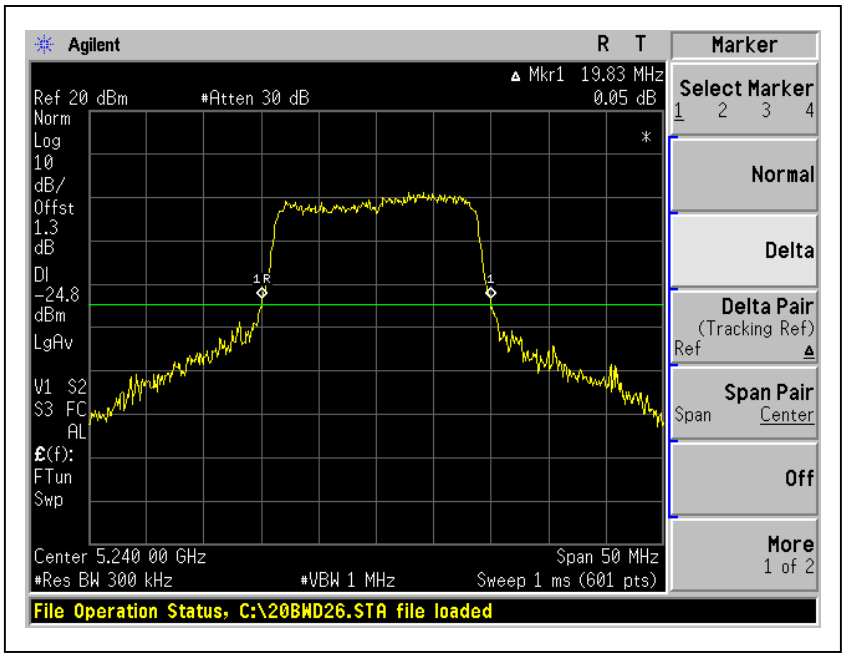
26dB Occupied Bandwidth:
For Chain (0) :CH1



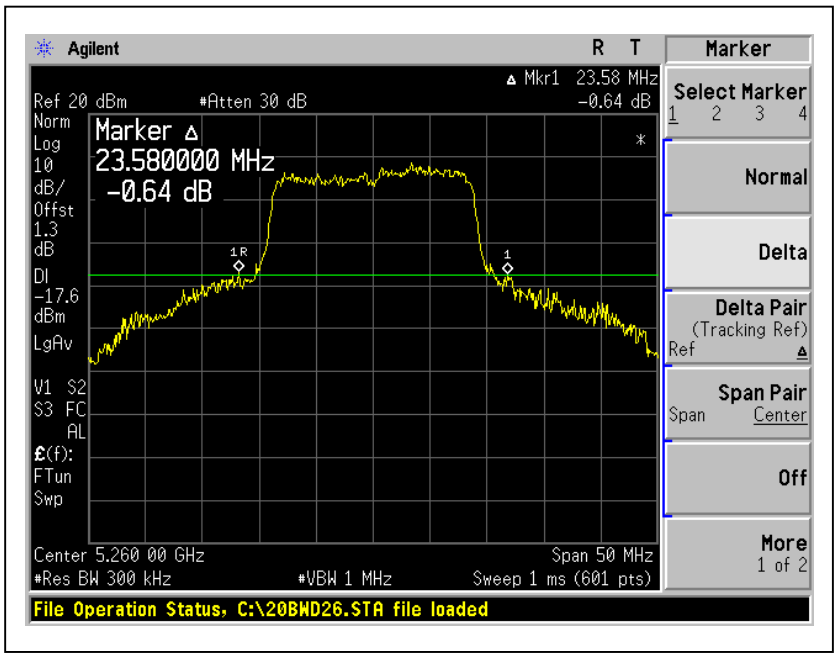
CH2



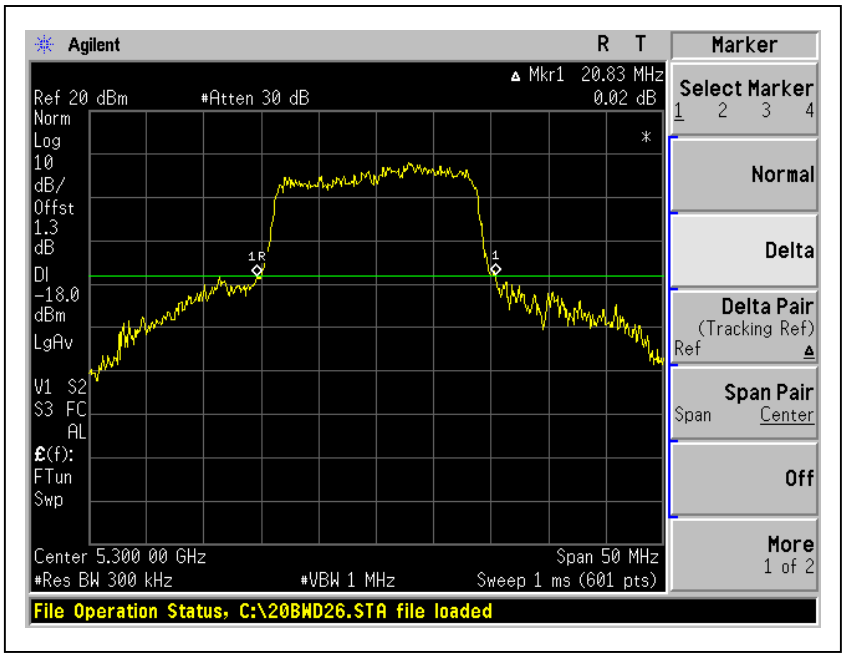
CH4


Agilent
R T
Marker
Mkr1 19.83 MHz
0.05 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-24.8
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.240 00 GHz
Span 50 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\20BWD26.STA file loaded

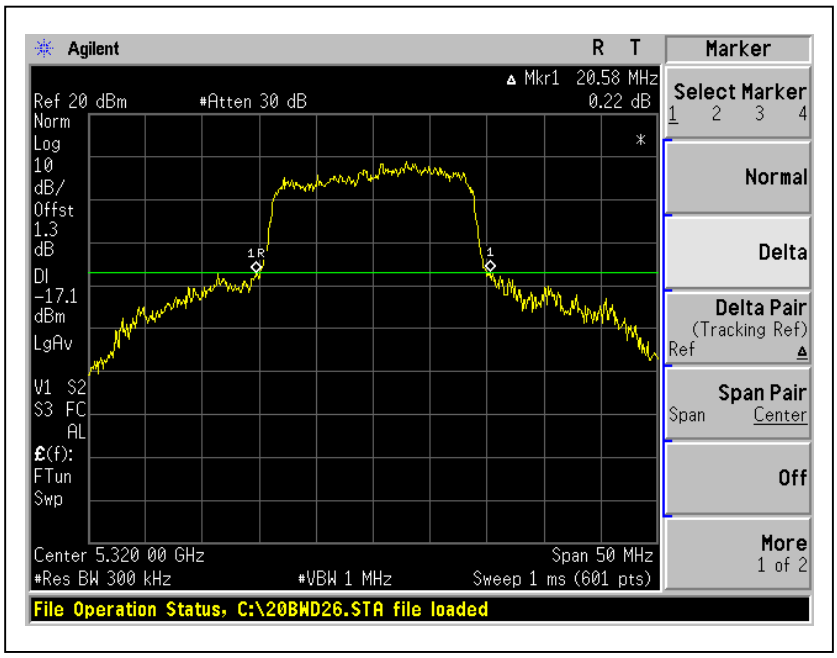
CH5


Agilent
R T
Marker
Mkr1 23.58 MHz
-0.64 dB
Ref 20 dBm
#Atten 30 dB
Marker Δ
23.580000 MHz
-0.64 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-17.6
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.260 00 GHz
Span 50 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\20BWD26.STA file loaded

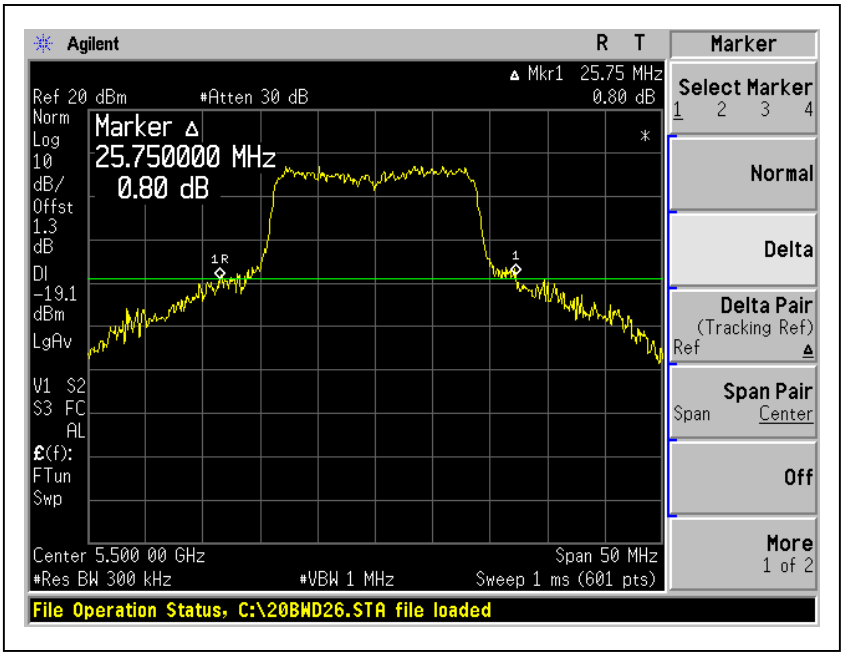
CH7


Agilent
R T
Marker
Mkr1 20.83 MHz
0.02 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-18.0
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.300 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 50 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\20BWD26.STA file loaded

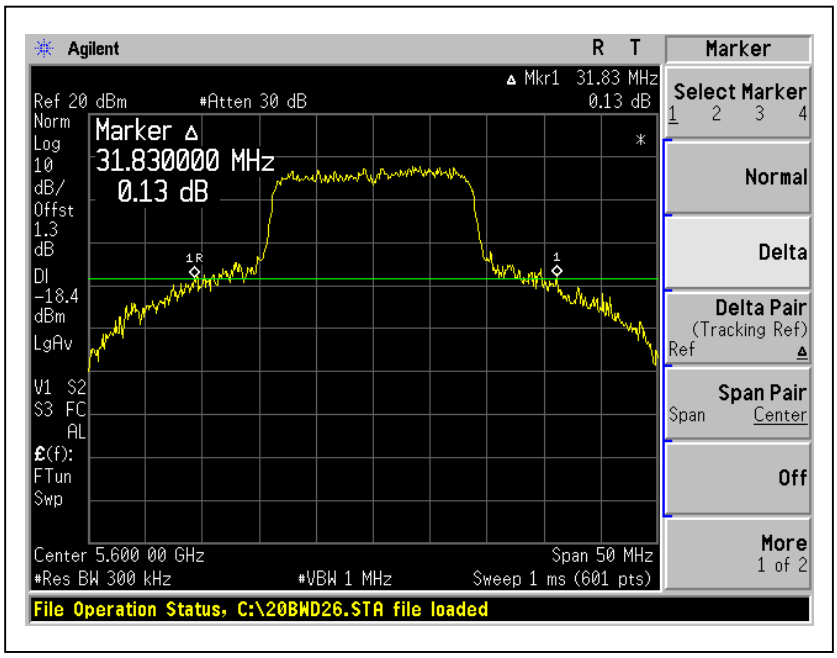
CH8


Agilent
R T
Marker
Mkr1 20.58 MHz
0.22 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-17.1
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.320 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 50 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\20BWD26.STA file loaded

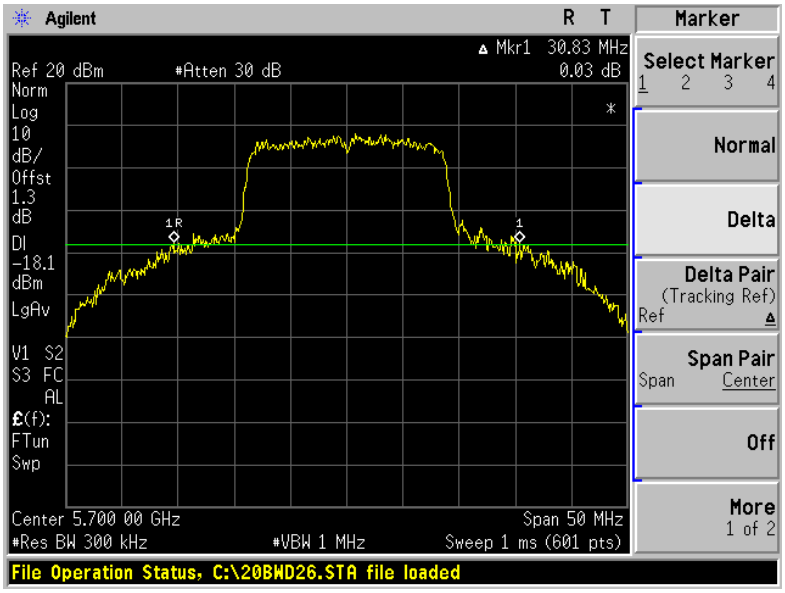
CH9


Agilent
R T
Marker
Mkr1 25.75 MHz
0.80 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-19.1
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
25.750000 MHz
0.80 dB
1R
1
Center 5.500 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 50 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\20BWD26.STA file loaded

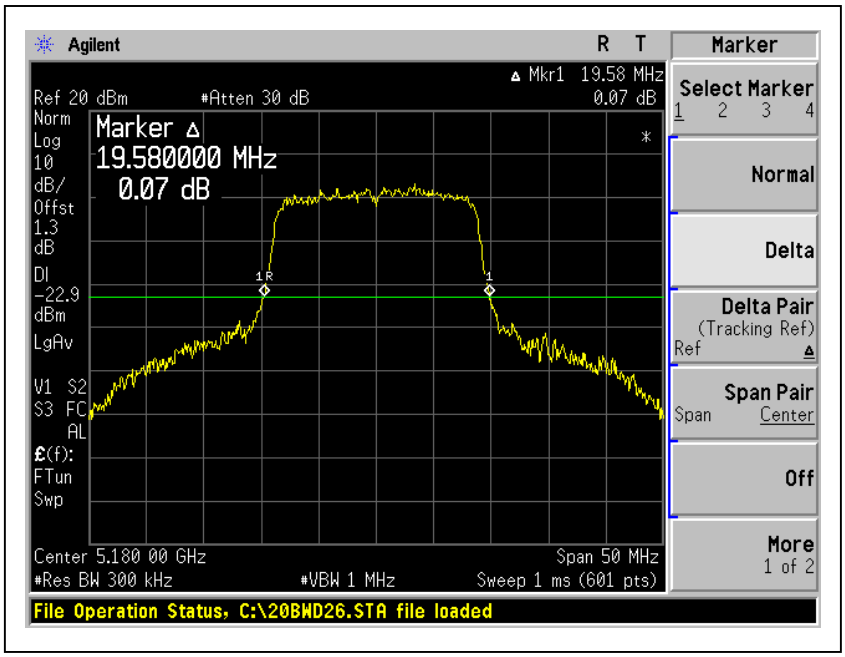
CH14


Agilent
R T
Marker
Mkr1 31.83 MHz
0.13 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-18.4
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
31.830000 MHz
0.13 dB
1R
1
Center 5.600 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 50 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\20BWD26.STA file loaded

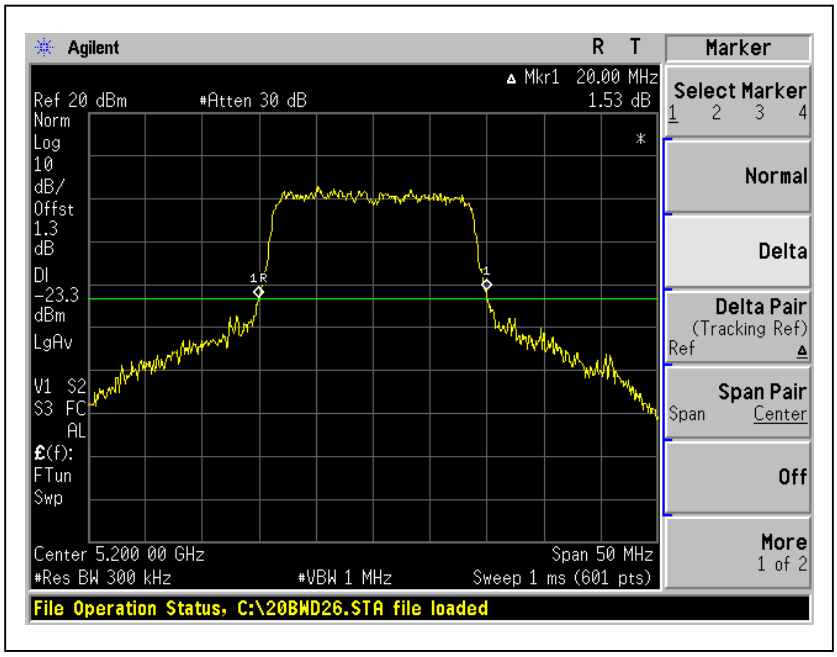
CH19


Agilent
R T
Marker
Mkr1 30.83 MHz
0.03 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-18.1
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
1R
1
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Center 5.700 00 GHz
Span 50 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
File Operation Status. C:\20BWD26.STA file loaded

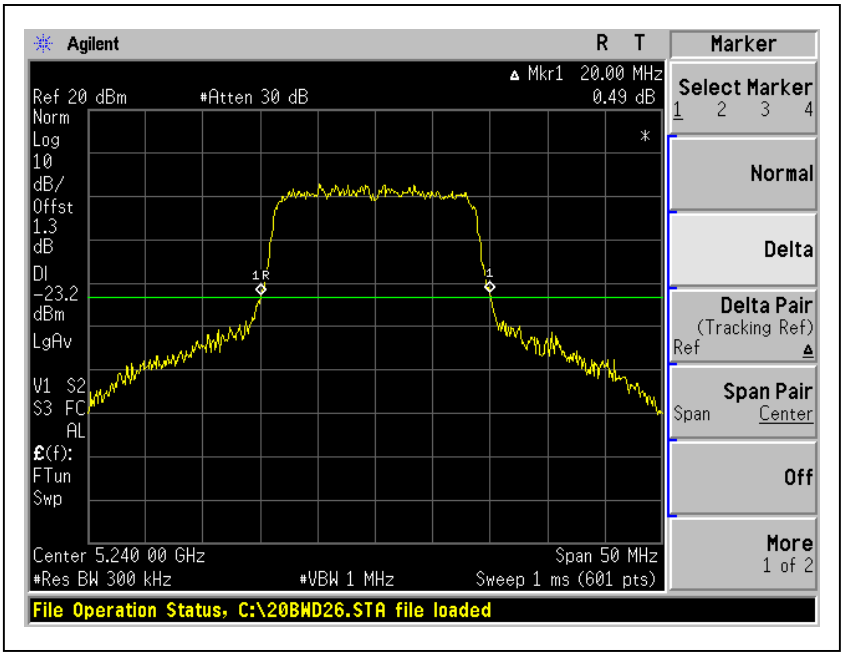
For Chain (1) :CH1



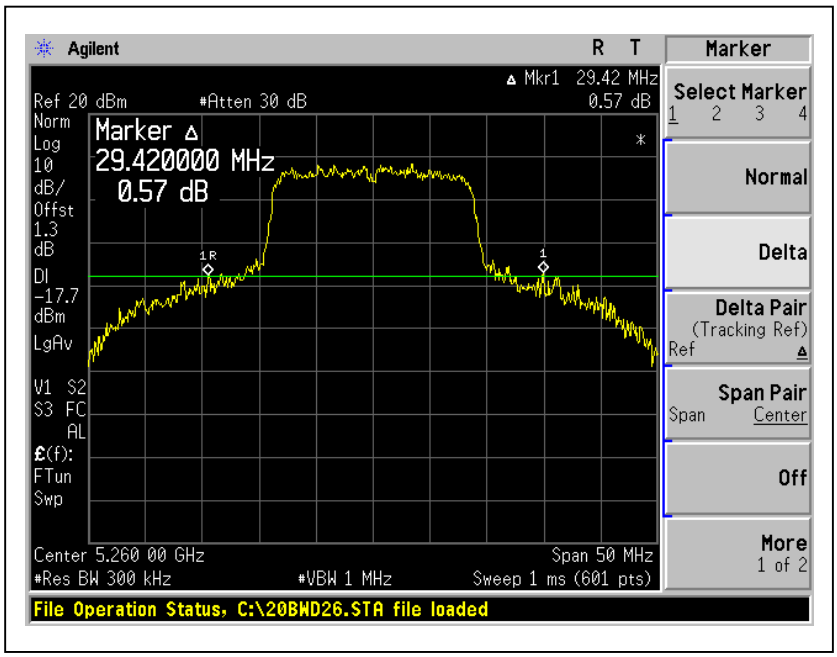
CH2



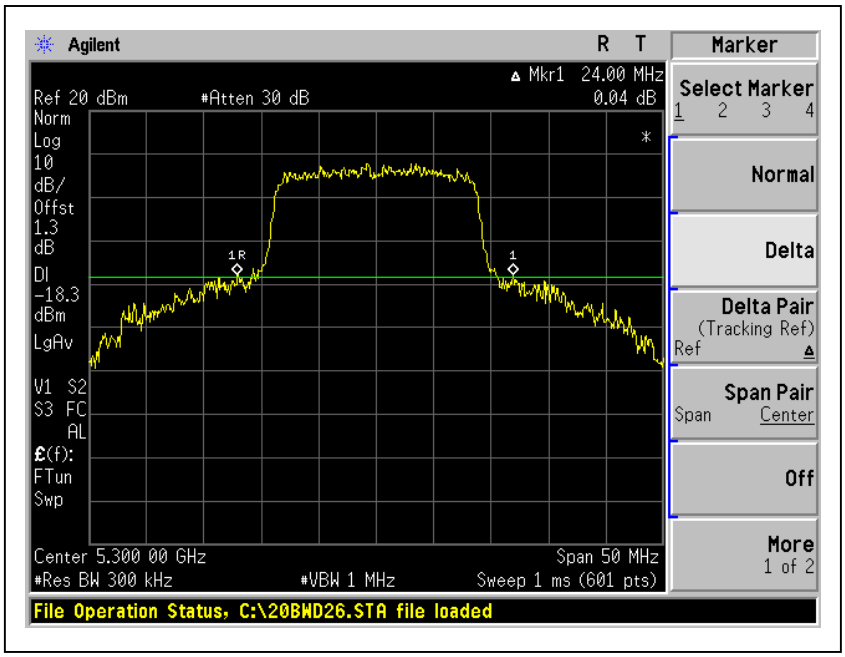
CH4


Agilent
R T
Marker
Mkr1 20.00 MHz
0.49 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-23.2
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.240 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 50 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\20BWD26.STA file loaded

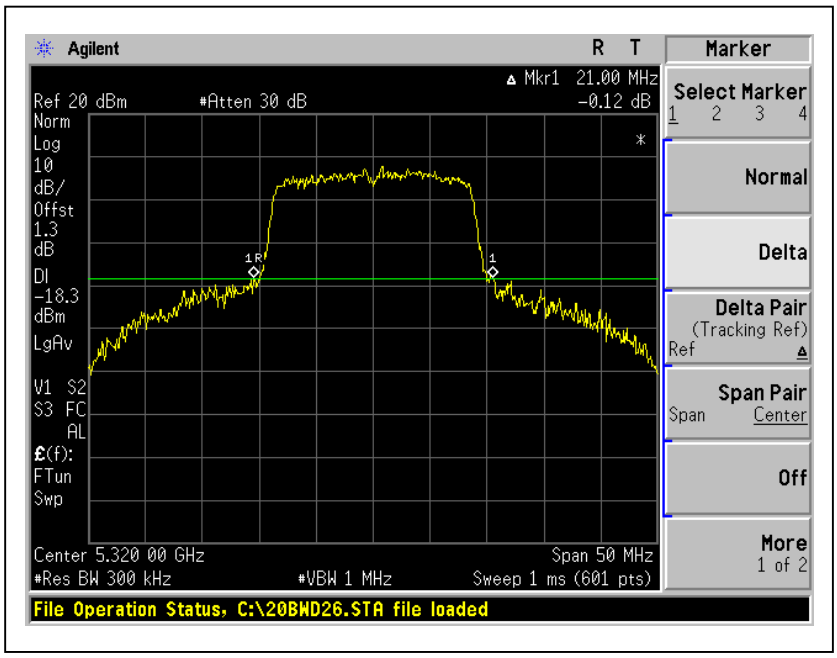
CH5


Agilent
R T
Marker
Mkr1 29.42 MHz
0.57 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-17.7
dBm
LgAv
Marker Δ
29.420000 MHz
0.57 dB
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.260 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 50 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\20BWD26.STA file loaded

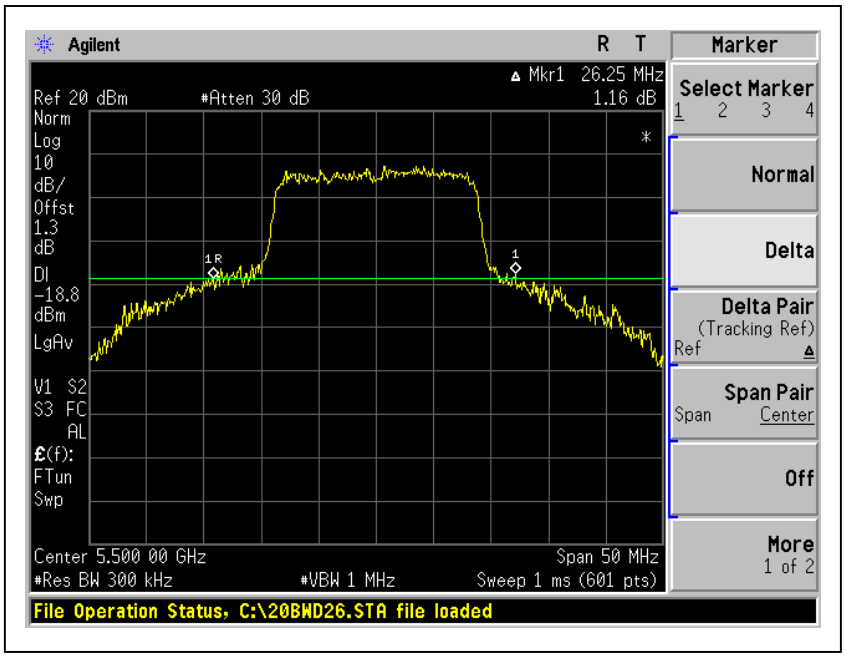
CH7


Agilent
R T
Marker
Mkr1 24.00 MHz
0.04 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-18.3
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Center 5.300 00 GHz
Span 50 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20BWD26.STA file loaded

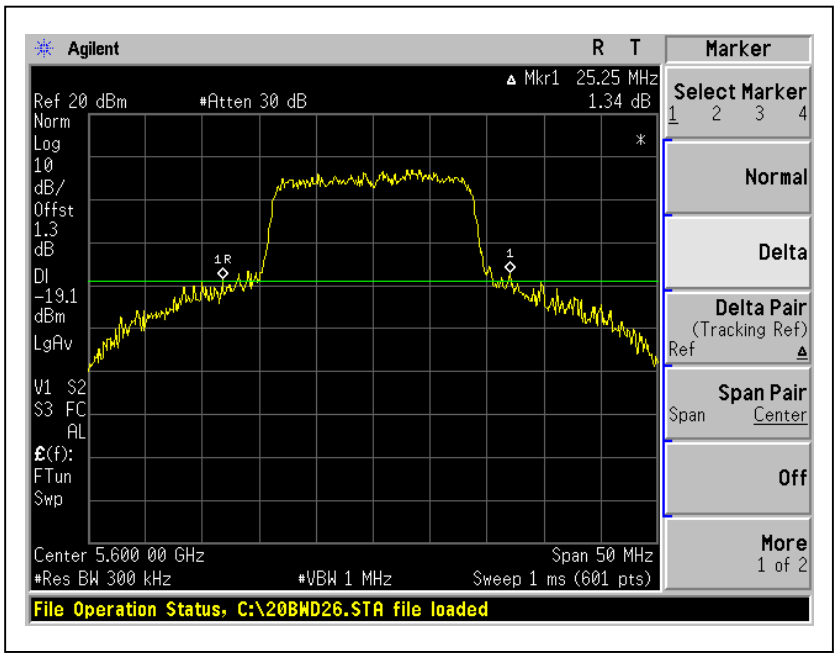
CH8


Agilent
R T
Marker
Mkr1 21.00 MHz
-0.12 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-18.3
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Center 5.320 00 GHz
Span 50 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20BWD26.STA file loaded

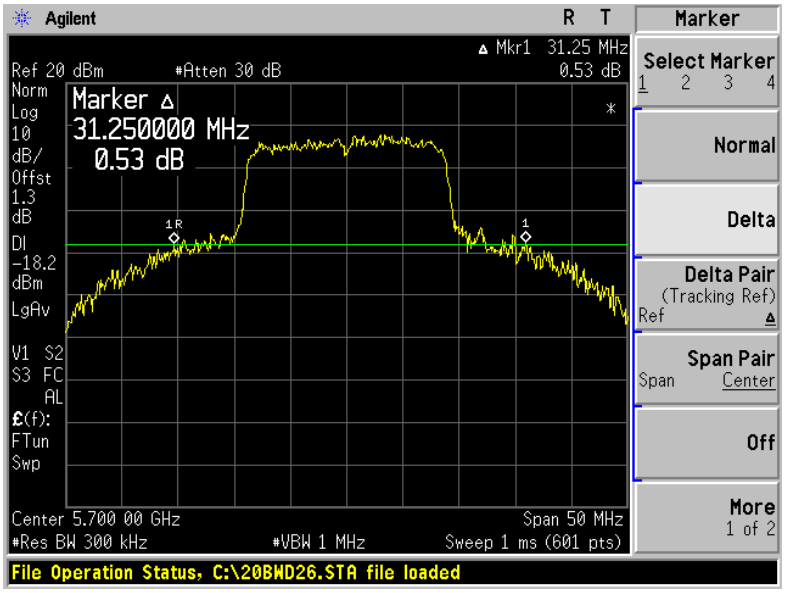
CH9


Agilent
R T
Marker
Mkr1 26.25 MHz
1.16 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-18.8
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.500 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 50 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\20BWD26.STA file loaded

CH14


Agilent
R T
Marker
Mkr1 25.25 MHz
1.34 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-19.1
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.600 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 50 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\20BWD26.STA file loaded

CH19


Agilent
R T
Marker
Mkr1 31.25 MHz
0.53 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-18.2
dBm
LgAv
Marker Δ
31.250000 MHz
0.53 dB
1R
1
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.700 00 GHz
Span 50 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status. C:\20BWD26.STA file loaded

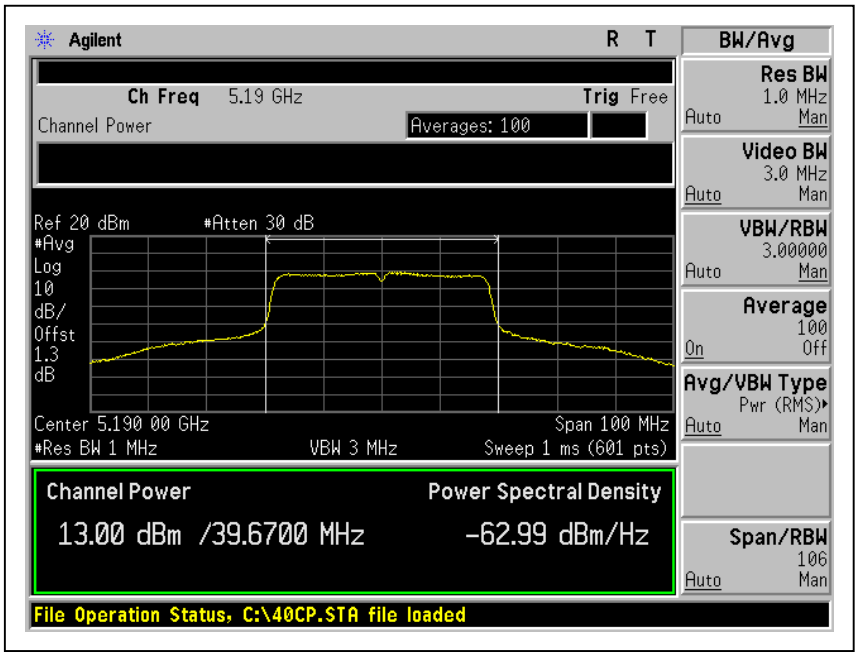
DRAFT 802.11n (40MHz) OFDM MODULATION:

MODULATION TYPE	BPSK	**TRANSFER RATE**	30Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	23deg.C, 54%RH, 965hPa
TESTED BY	Rex Huang		

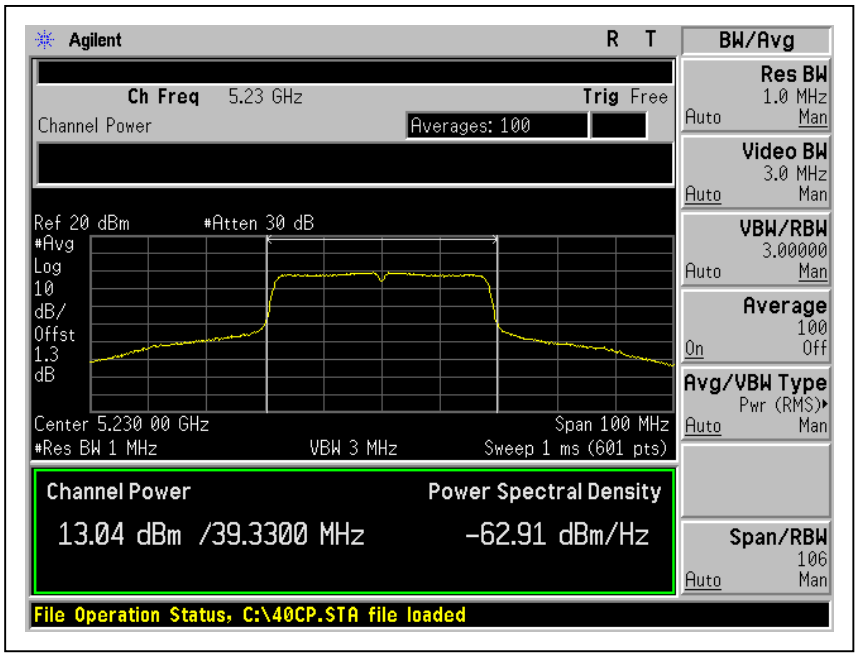
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)		PEAK POWER OUTPUT (mW)		TOTAL PEAK POWER (dBm)	TOTAL PEAK POWER (mW)	**PEAK POWER LIMIT (dBm)**	26dBc Occupied Bandwidth (MHz)		PASS/ FAIL
		Chain 0	Chain 1	Chain 0	Chain 1				Chain 0	Chain 1	
1	5190	13.00	14.65	19.953	29.174	16.91	49.127	17.00	39.67	39.67	PASS
2	5230	13.04	14.63	20.137	29.040	16.92	49.177	17.00	39.33	39.17	PASS
3	5270	15.77	17.42	37.757	55.208	19.68	92.965	24.00	41.67	42.83	PASS
4	5310	14.47	17.32	27.990	53.951	19.14	81.941	24.00	39.00	41.67	PASS
5	5510	14.62	15.06	28.973	32.063	17.86	61.036	24.00	40.17	39.17	PASS
7	5590	16.19	16.50	41.591	44.668	19.36	86.259	24.00	51.00	51.67	PASS
9	5670	16.05	16.99	40.272	50.003	19.56	90.275	24.00	55.00	48.83	PASS

NOTE: The 26dBc Occupied Bandwidth plot, please refer to the following pages.

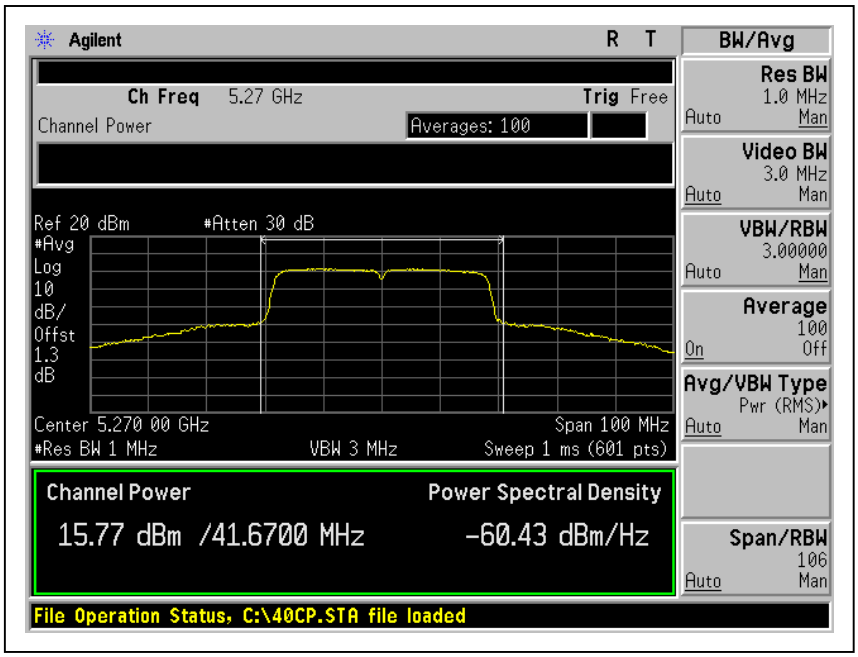
Peak Power Output:
For Chain (0) :CH1



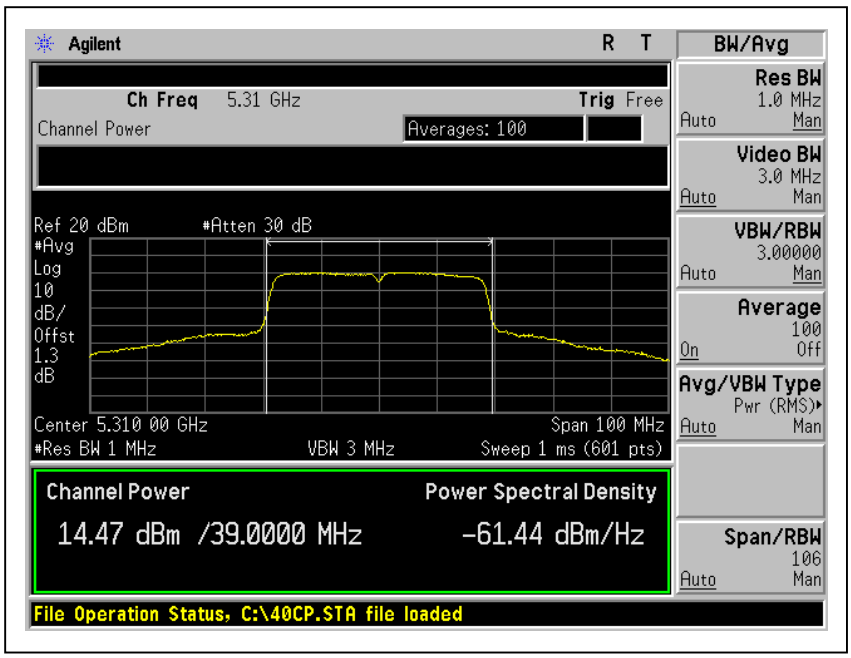
CH2



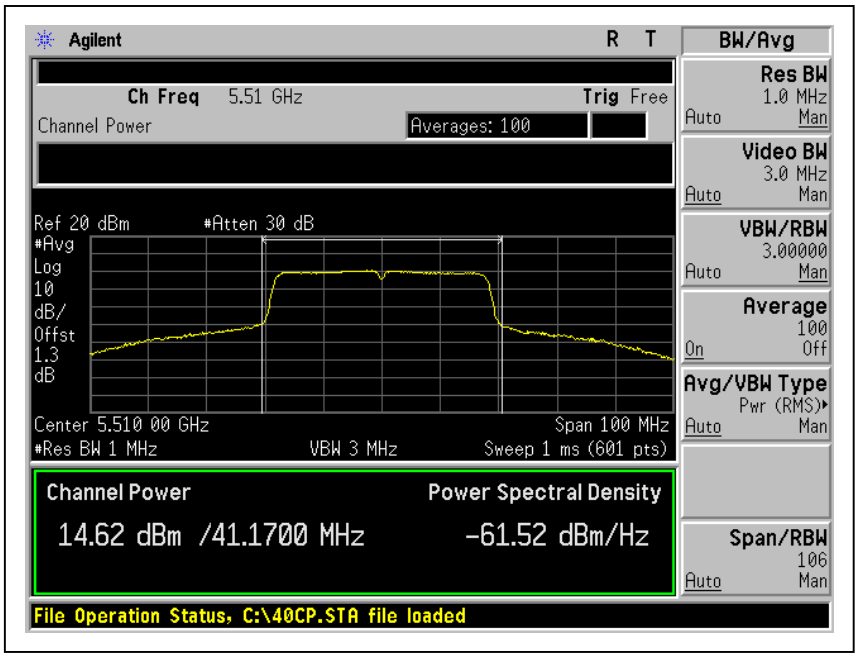
CH3


Agilent
R T
BW/Avg
Ch Freq 5.27 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.270 00 GHz
Span 100 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
15.77 dBm /41.6700 MHz
Power Spectral Density
-60.43 dBm/Hz
File Operation Status, C:\40CP.STA file loaded

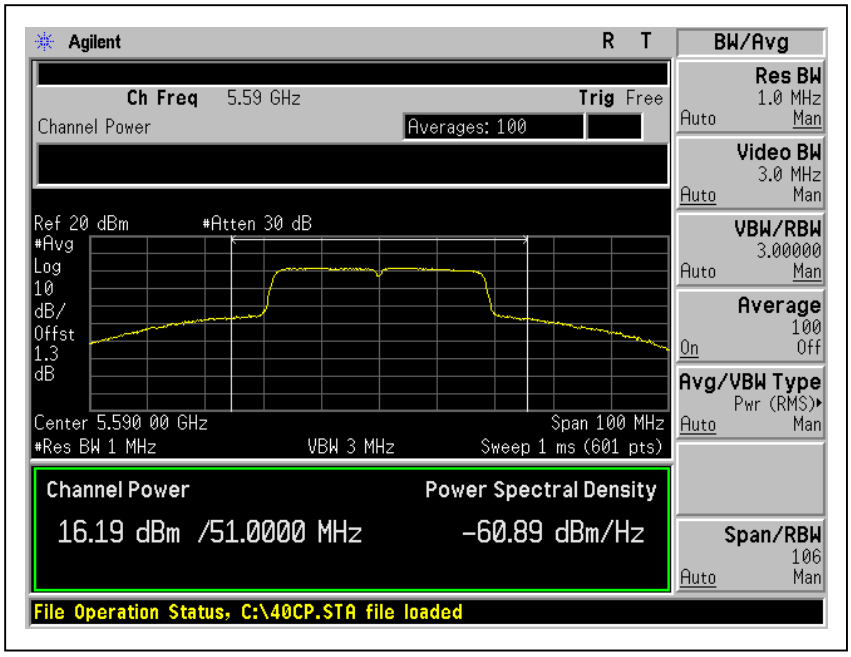
CH4


Agilent
R T
BW/Avg
Ch Freq 5.31 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.310 00 GHz
Span 100 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
14.47 dBm /39.0000 MHz
Power Spectral Density
-61.44 dBm/Hz
File Operation Status, C:\40CP.STA file loaded

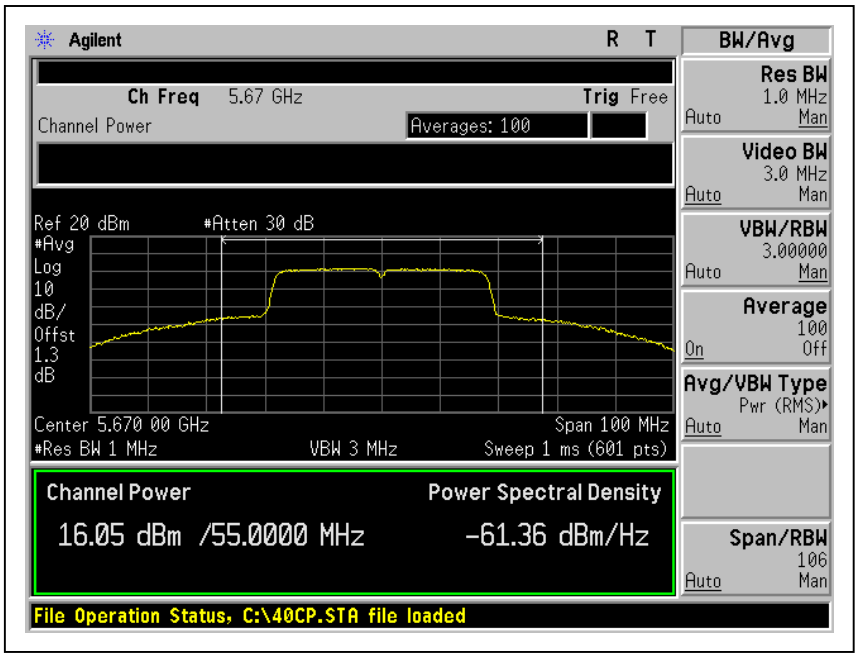
CH5


Agilent
R T
BW/Avg
Ch Freq 5.51 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.510 00 GHz
Span 100 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
14.62 dBm /41.1700 MHz
Power Spectral Density
-61.52 dBm/Hz
File Operation Status, C:\40CP.STA file loaded

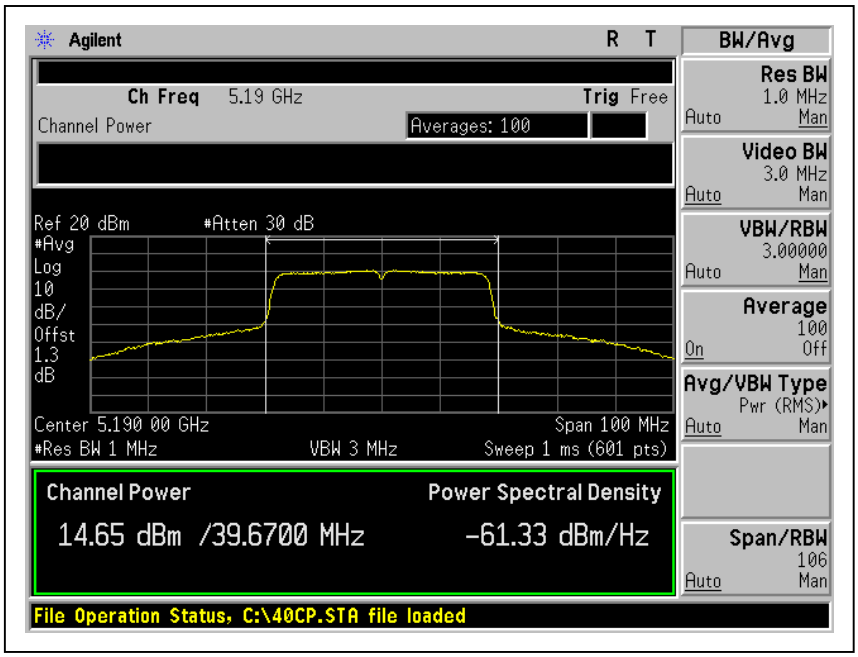
CH7


Agilent
R T
BW/Avg
Ch Freq 5.59 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.590 00 GHz
Span 100 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
16.19 dBm /51.0000 MHz
Power Spectral Density
-60.89 dBm/Hz
File Operation Status, C:\40CP.STA file loaded

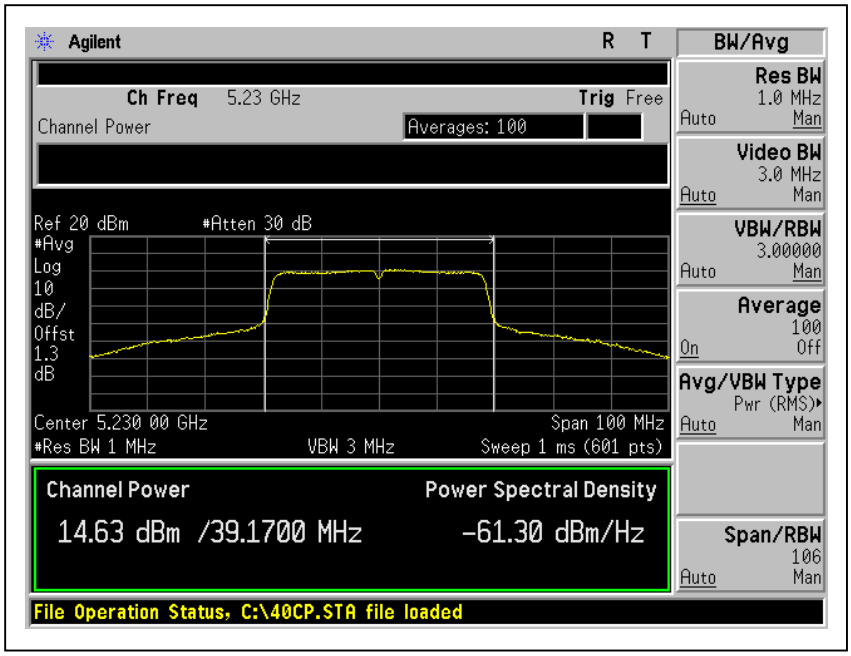
CH9


Agilent
R T
BW/Avg
Ch Freq 5.67 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.670 00 GHz
Span 100 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
16.05 dBm /55.0000 MHz
Power Spectral Density
-61.36 dBm/Hz
File Operation Status, C:\40CP.STA file loaded

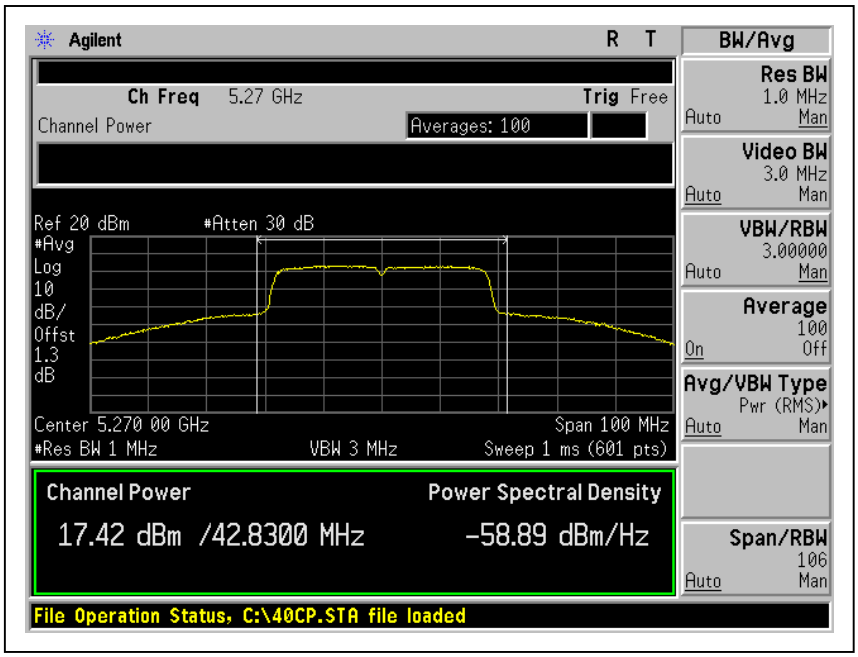
For Chain (1) :CH1



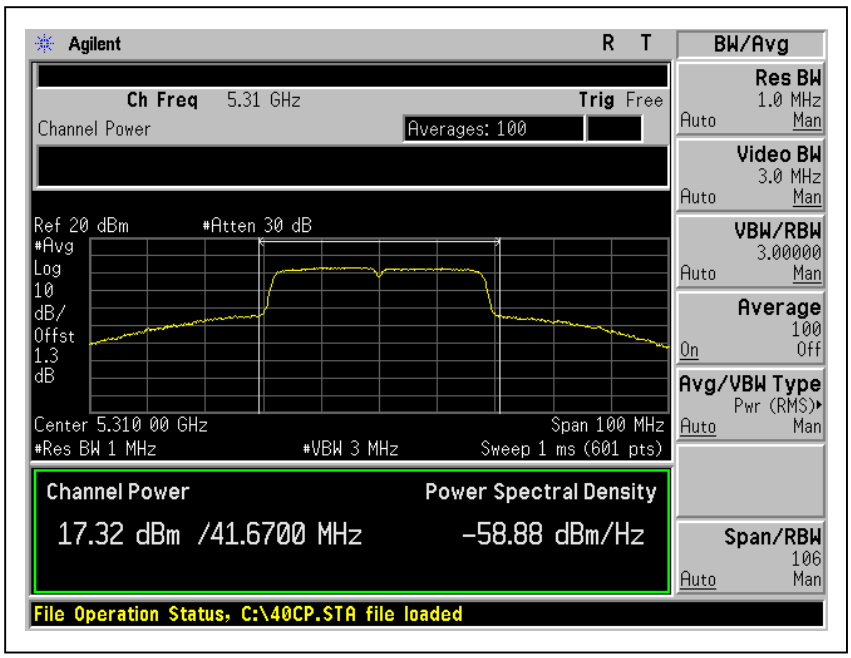
CH2



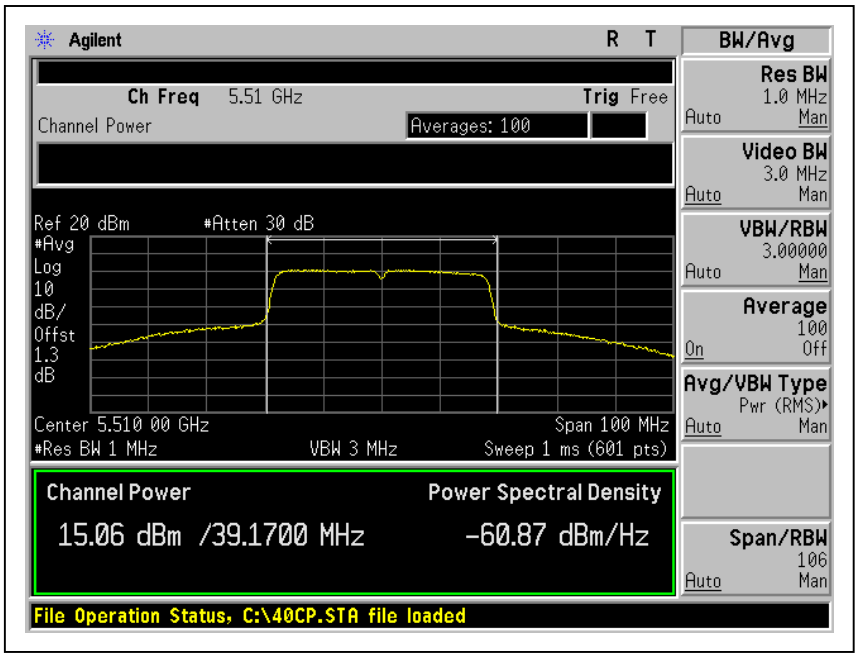
CH3


Agilent
R T
BW/Avg
Ch Freq 5.27 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.270 00 GHz
Span 100 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
17.42 dBm /42.8300 MHz
Power Spectral Density
-58.89 dBm/Hz
File Operation Status, C:\40CP.STA file loaded

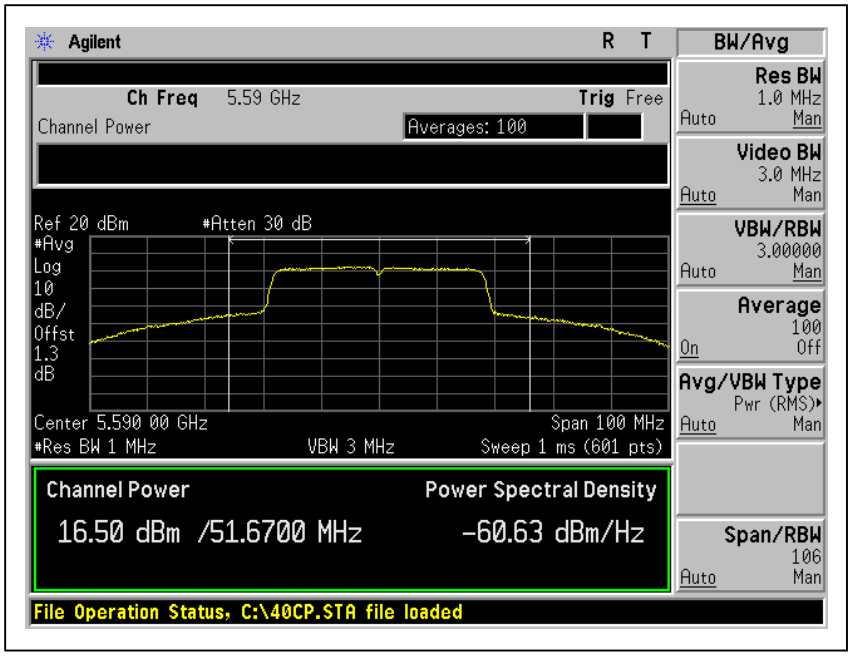
CH4


Agilent
R T
BW/Avg
Ch Freq 5.31 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.310 00 GHz
Span 100 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
17.32 dBm /41.6700 MHz
Power Spectral Density
-58.88 dBm/Hz
File Operation Status, C:\40CP.STA file loaded

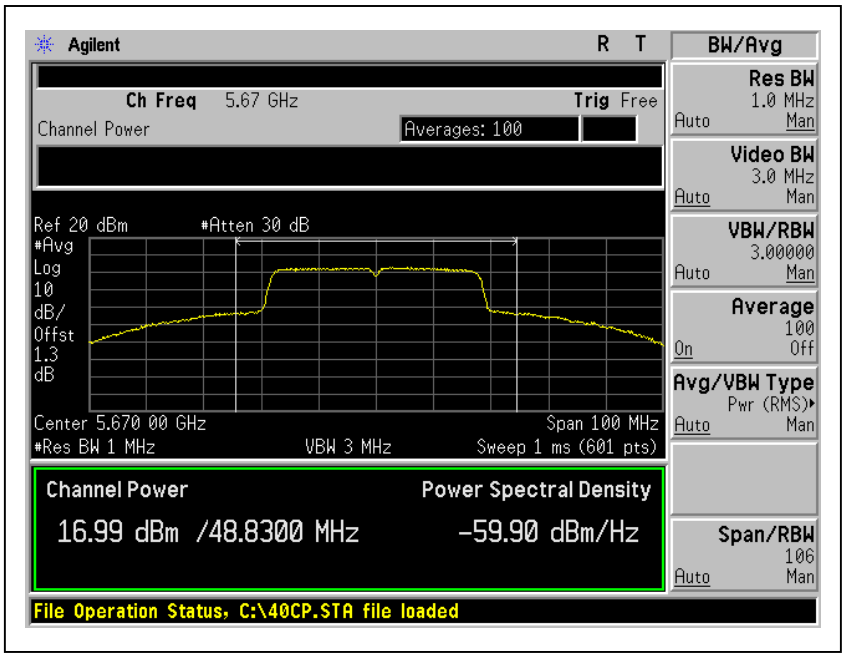
CH5


Agilent
R T
BW/Avg
Ch Freq 5.51 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.510 00 GHz
Span 100 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
15.06 dBm /39.1700 MHz
Power Spectral Density
-60.87 dBm/Hz
File Operation Status, C:\40CP.STA file loaded

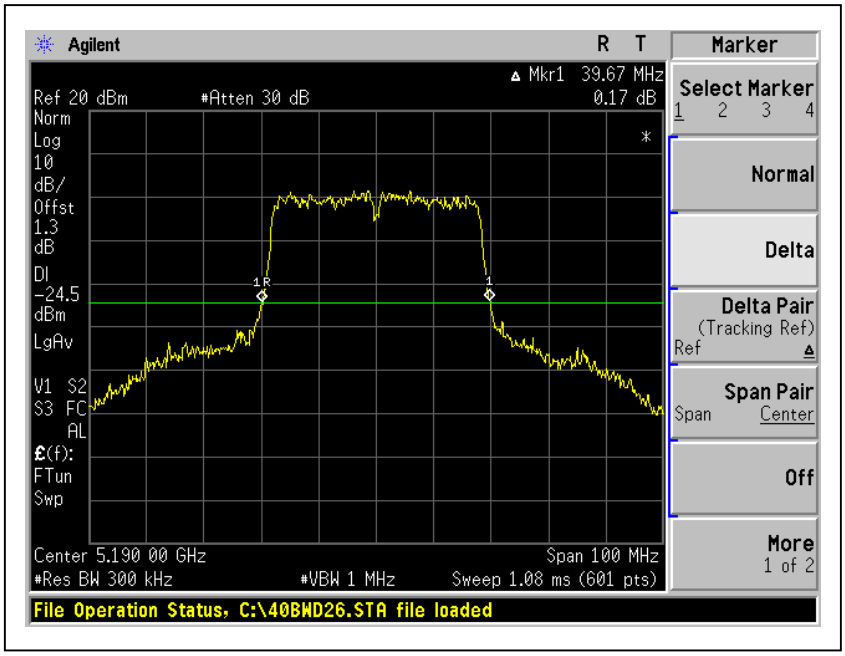
CH7


Agilent
R T
BW/Avg
Ch Freq 5.59 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Span/RBW
106
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.590 00 GHz
Span 100 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
16.50 dBm /51.6700 MHz
Power Spectral Density
-60.63 dBm/Hz
File Operation Status, C:\40CP.STA file loaded

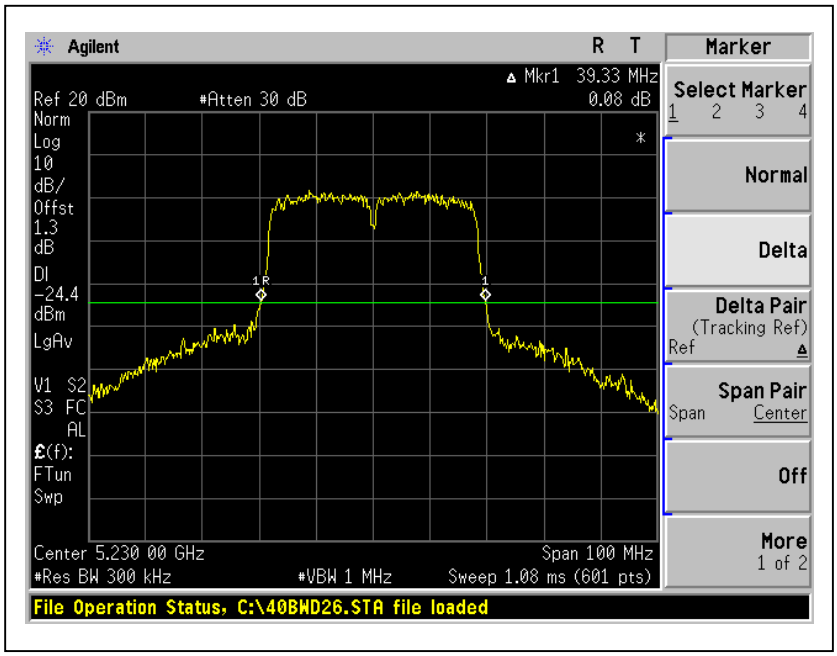
CH9


Agilent
R T
BW/Avg
Ch Freq 5.67 GHz
Trig Free
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
3.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Pwr (RMS)
Auto Man
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
Center 5.670 00 GHz
Span 100 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
16.99 dBm /48.8300 MHz
Power Spectral Density
-59.90 dBm/Hz
Span/RBW
106
Auto Man
File Operation Status, C:\40CP.STA file loaded

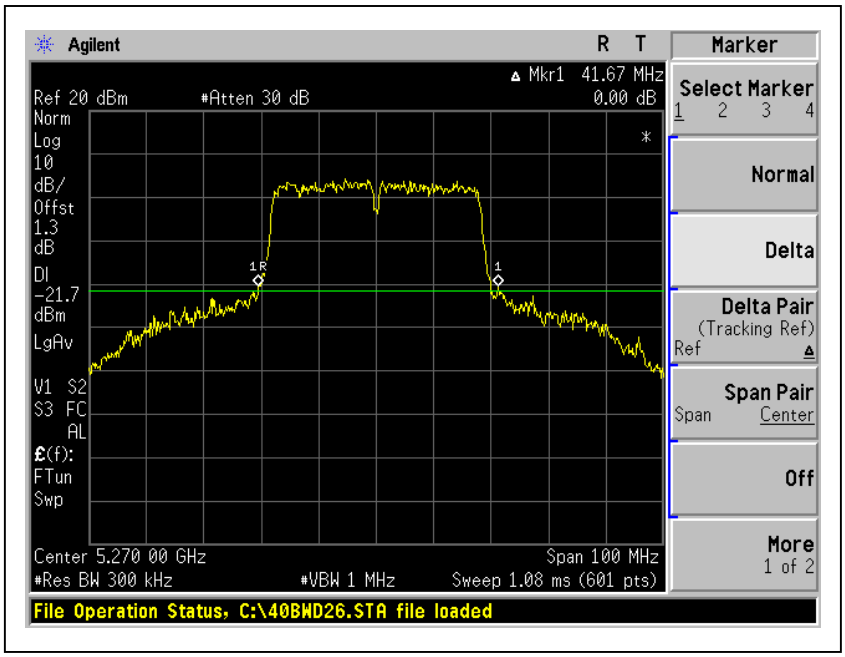
26dB Occupied Bandwidth:
For Chain (0) :CH1



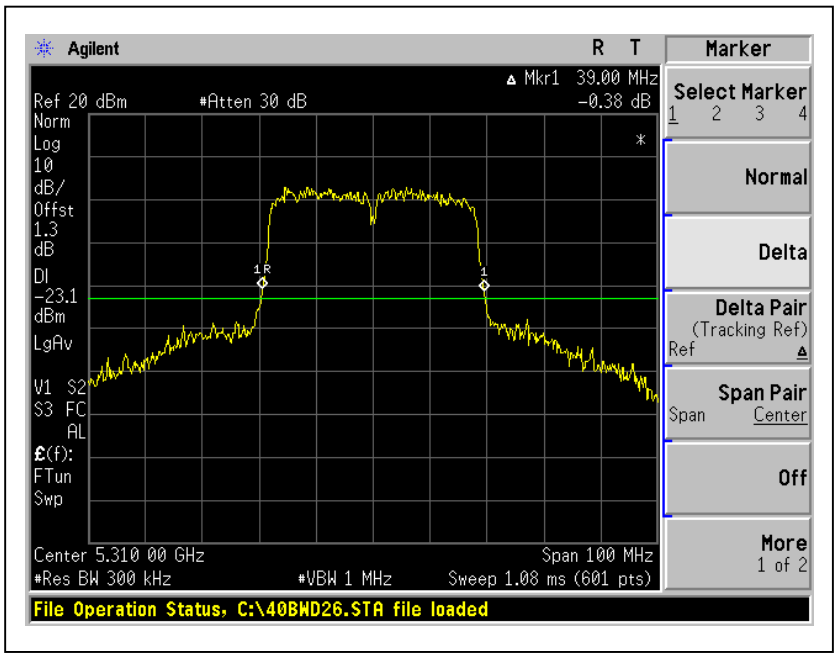
CH2



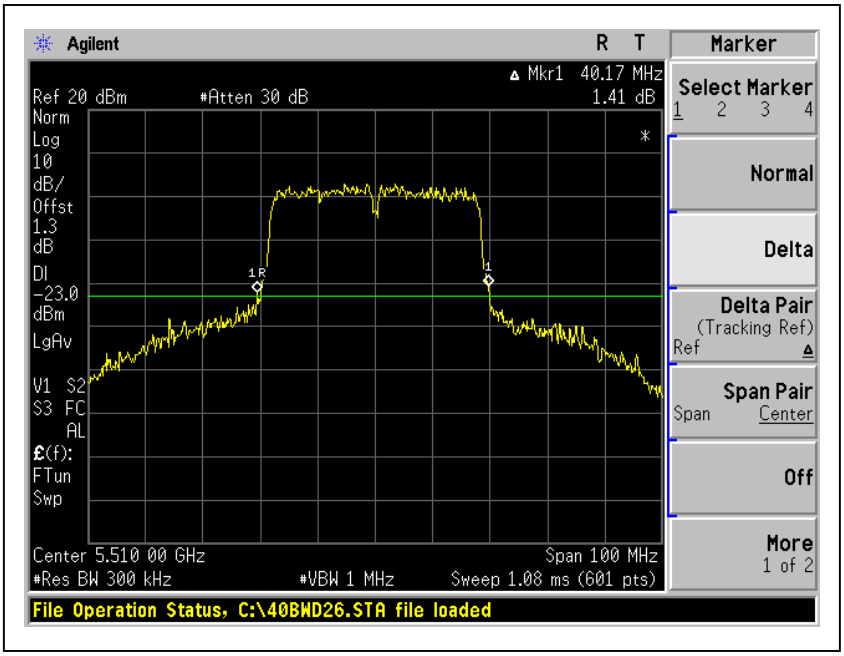
CH3


Agilent
R T
Marker
Mkr1 41.67 MHz
0.00 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-21.7
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.270 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 100 MHz
Sweep 1.08 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\40BWD26.STA file loaded

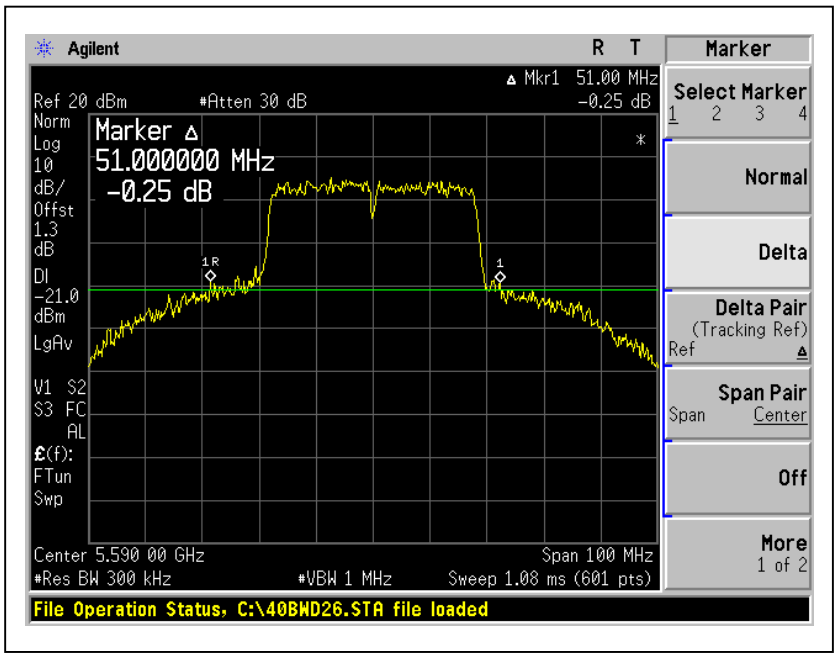
CH4


Agilent
R T
Marker
Mkr1 39.00 MHz
-0.38 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-23.1
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.310 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 100 MHz
Sweep 1.08 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\40BWD26.STA file loaded

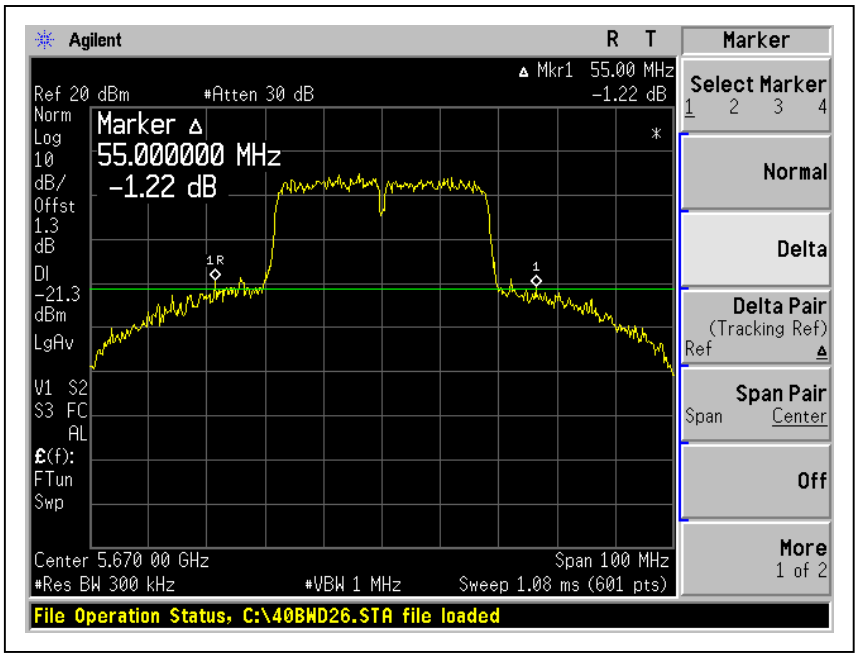
CH5


Agilent
R T
Marker
Mkr1 40.17 MHz
1.41 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-23.0
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.510 00 GHz
Span 100 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1.08 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\40BWD26.STA file loaded

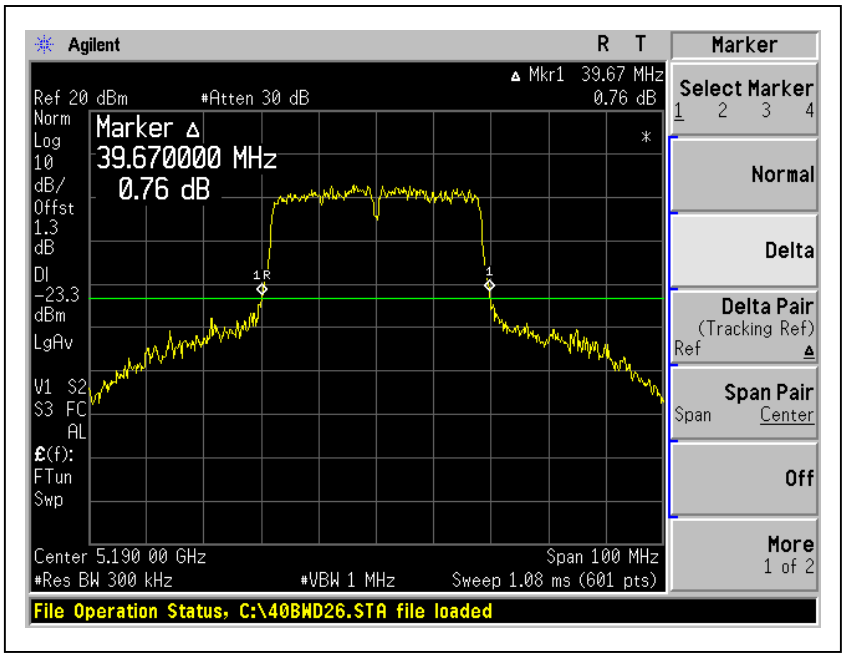
CH7


Agilent
R T
Marker
Mkr1 51.00 MHz
-0.25 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-21.0
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
51.000000 MHz
-0.25 dB
Center 5.590 00 GHz
Span 100 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1.08 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\40BWD26.STA file loaded

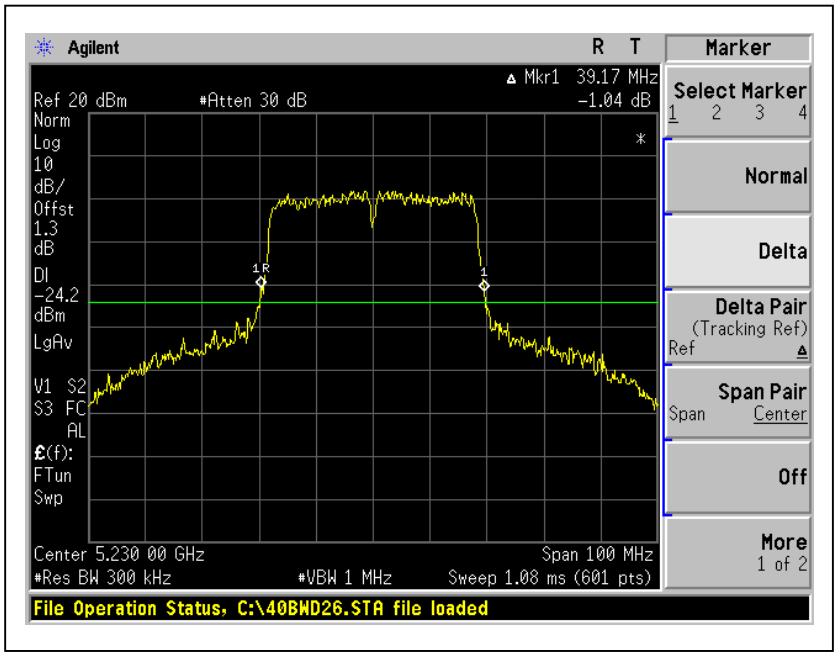
CH9


Agilent
R T
Marker
Mkr1 55.00 MHz
-1.22 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-21.3
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
55.000000 MHz
-1.22 dB
1R
1
Center 5.670 00 GHz
Span 100 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1.08 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\40BWD26.STA file loaded

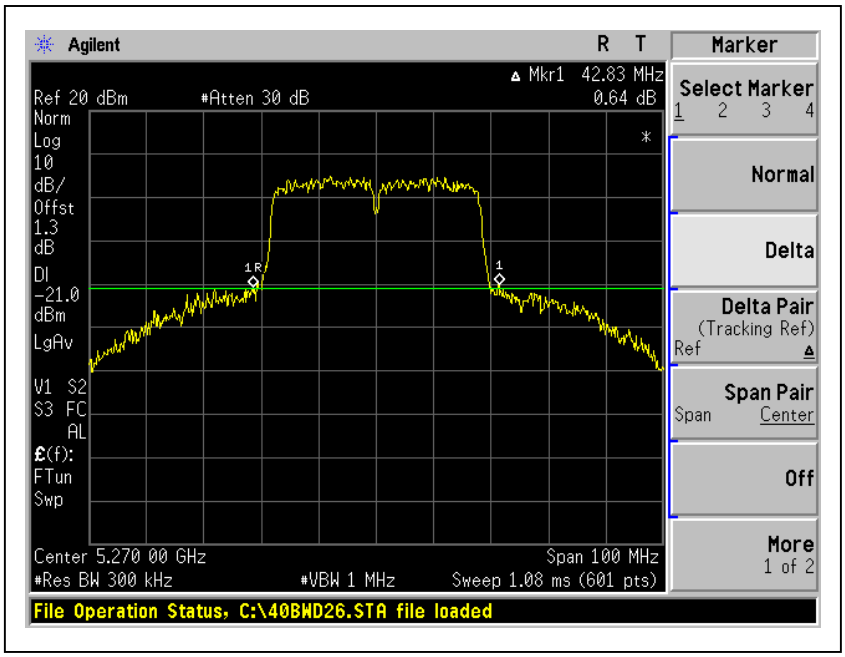
For Chain (1) :CH1



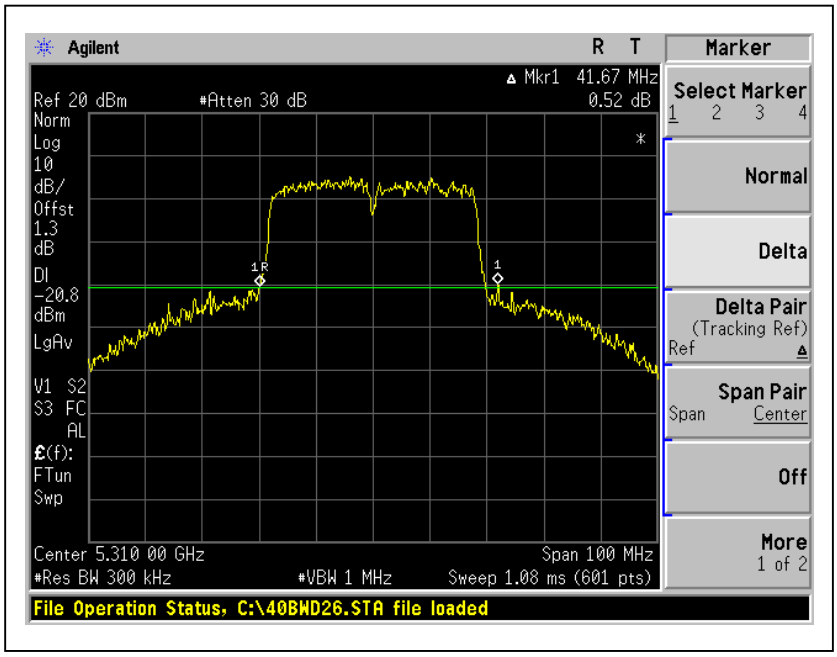
CH2



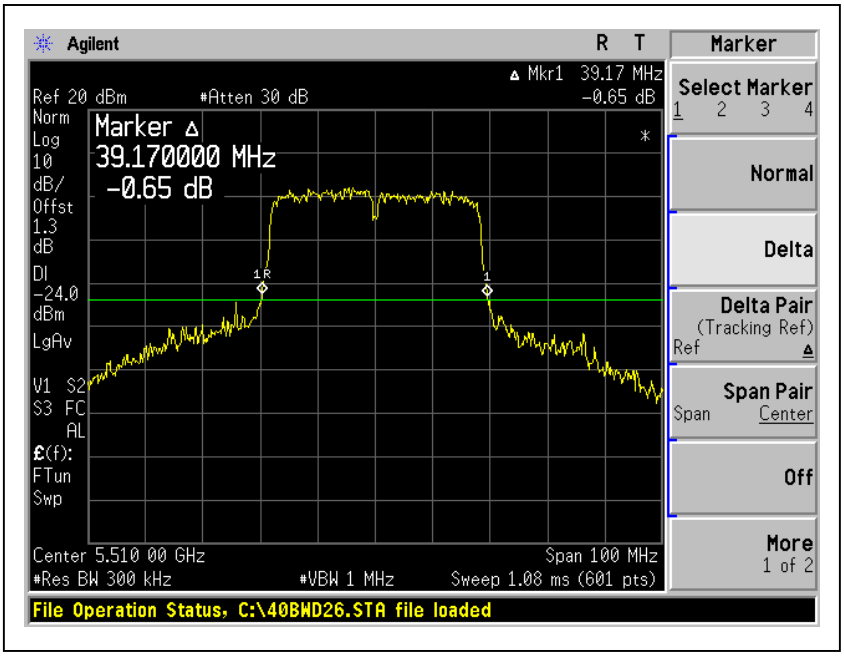
CH3


Agilent
R T
Marker
Mkr1 42.83 MHz
0.64 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-21.0
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.270 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 100 MHz
Sweep 1.08 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\40BWD26.STA file loaded

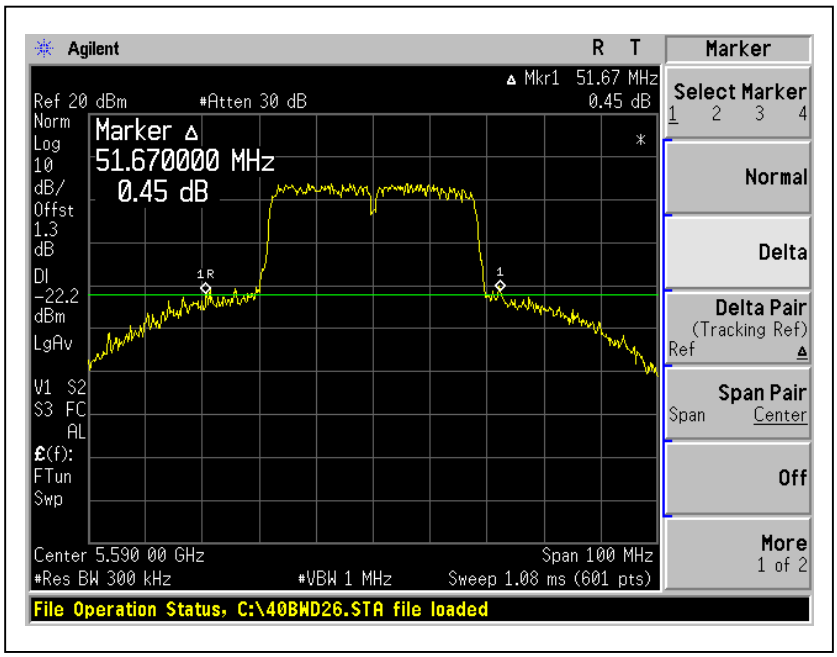
CH4


Agilent
R T
Marker
Mkr1 41.67 MHz
0.52 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-20.8
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Center 5.310 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 100 MHz
Sweep 1.08 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\40BWD26.STA file loaded

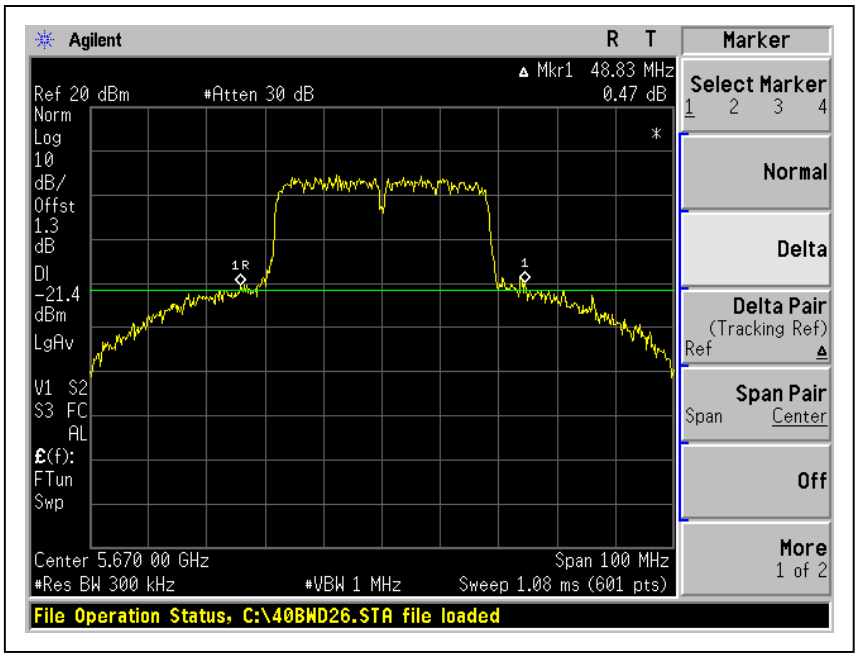
CH5


Agilent
R T
Marker
Mkr1 39.17 MHz
-0.65 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-24.0
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
39.170000 MHz
-0.65 dB
1R
1
Center 5.510 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 100 MHz
Sweep 1.08 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\40BWD26.STA file loaded

CH7


Agilent
R T
Marker
Mkr1 51.67 MHz
0.45 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-22.2
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
Marker Δ
51.670000 MHz
0.45 dB
1R
1
Center 5.590 00 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 100 MHz
Sweep 1.08 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\40BWD26.STA file loaded

CH9


Agilent
R T
Marker
Mkr1 48.83 MHz
0.47 dB
Ref 20 dBm
#Atten 30 dB
Norm
Log
10
dB/
Offst
1.3
dB
Dl
-21.4
dBm
LgAv
V1 S2
S3 FC
AL
£(f):
FTun
Swp
1R
1
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Center 5.670 00 GHz
Span 100 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1.08 ms (601 pts)
File Operation Status, C:\40BWD26.STA file loaded

4.4 PEAK POWER EXCURSION MEASUREMENT

4.4.1 LIMITS OF PEAK POWER EXCURSION MEASUREMENT

Frequency Band	Limit
5.15 – 5.25 GHz	13dB
5.25 – 5.35 GHz	13dB
5.47 – 5.725GHz	13dB
5.725 – 5.825 GHz	13dB

4.4.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100037	Aug. 09, 2008	Aug. 08, 2009

NOTE:

1.The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

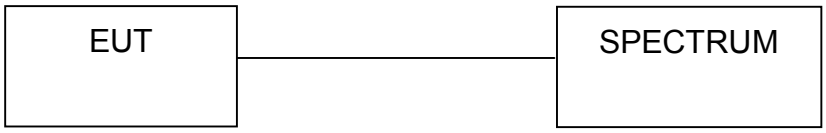
4.4.3 TEST PROCEDURE

1. The transmitter output was connected to the spectrum analyzer.
2. Set the spectrum bandwidth span to view the entire spectrum.
3. Using peak detector and Max-hold function for Trace 1 (RB=1MHz, VB=3MHz) and 2 (RB=1MHz, VB=300KHz).
4. The largest difference between Trace 1 and Trace 2 in any 1MHz band on any frequency was recorded.

4.4.4 DEVIATION FROM TEST STANDARD

No deviation

4.4.5 TEST SETUP



4.4.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

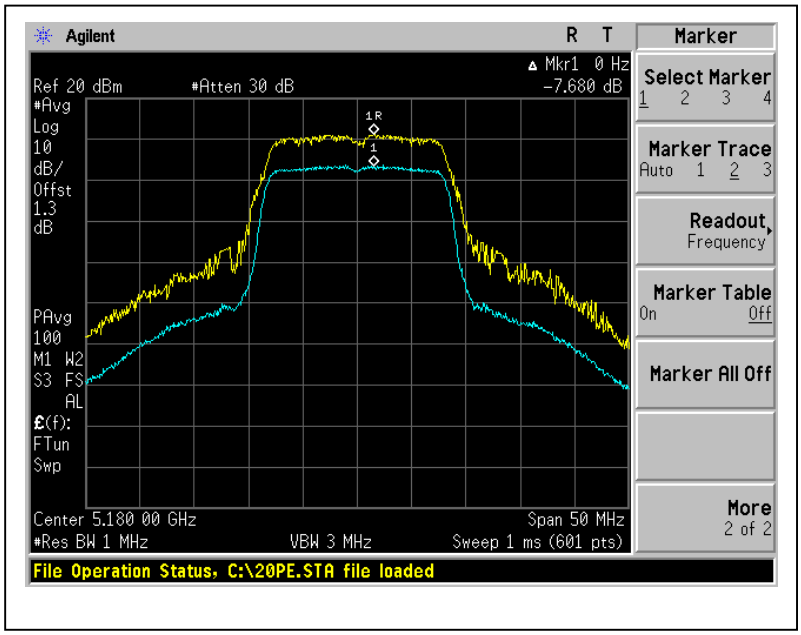
4.4.7 TEST RESULTS

802.11a OFDM modulation

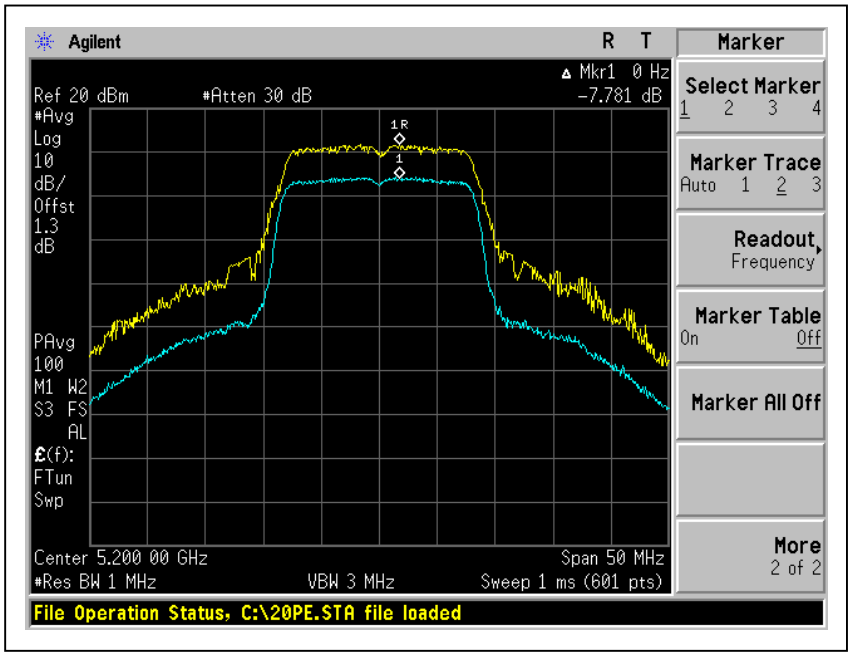
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	23deg.C, 54%RH, 965hPa
TESTED BY	Rex Huang		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
1	5180	7.680	13	PASS
2	5200	7.781	13	PASS
4	5240	8.067	13	PASS
5	5260	7.962	13	PASS
7	5300	7.756	13	PASS
8	5320	8.052	13	PASS
9	5500	7.927	13	PASS
14	5600	8.267	13	PASS
19	5700	8.181	13	PASS

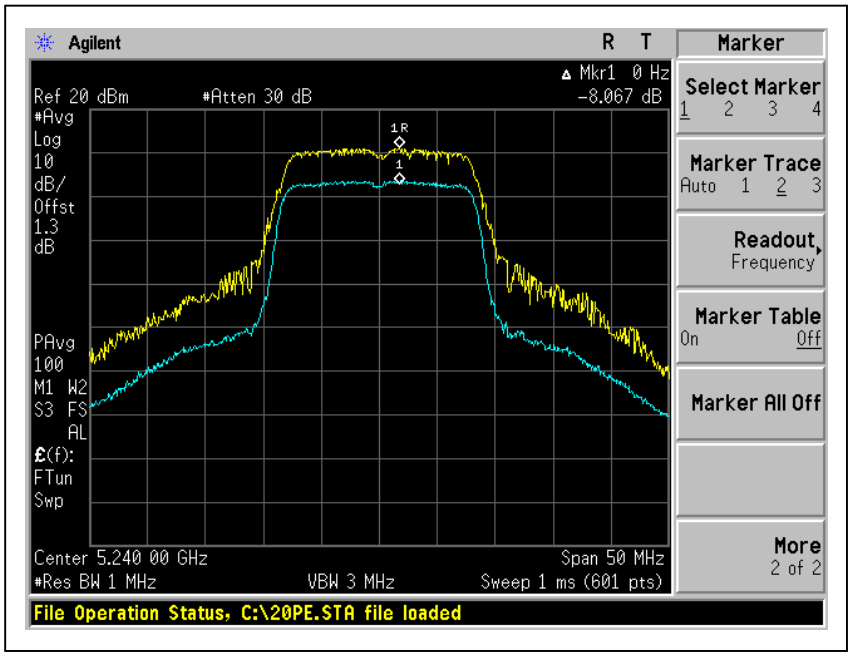
CH1



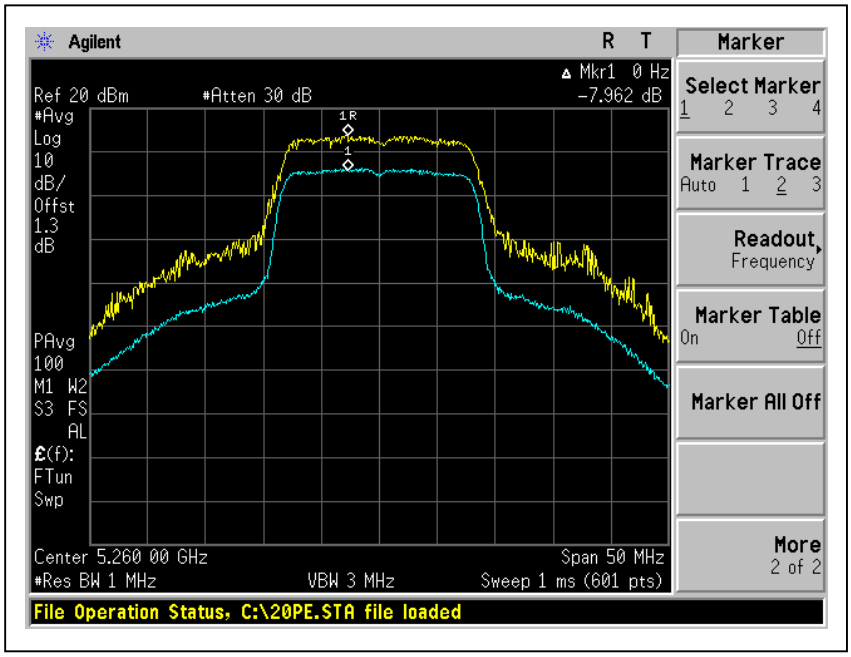
CH2


Agilent
R T
Marker
Δ Mkr1 0 Hz
-7.781 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Center 5.200 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PE.STA file loaded

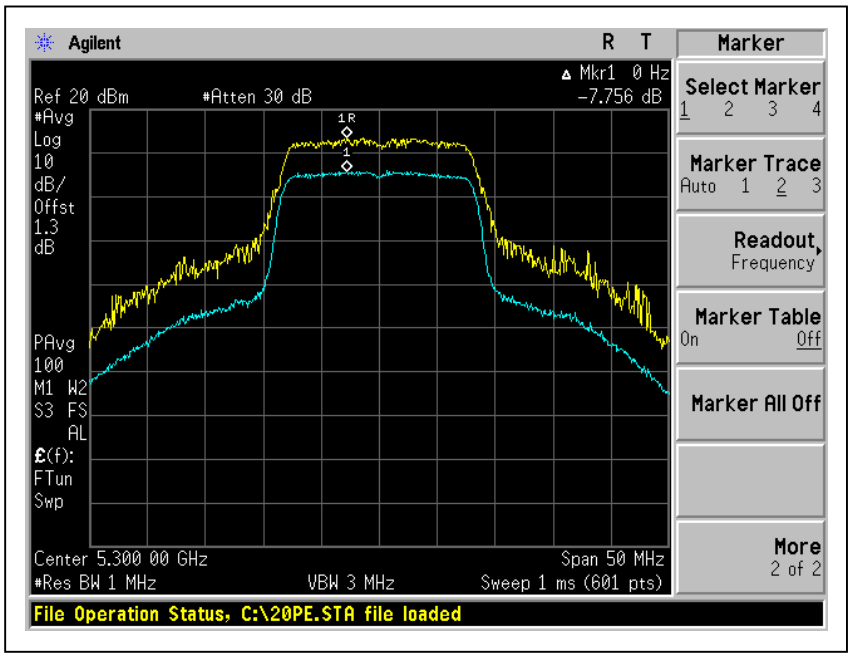
CH4


Agilent
R T
Marker
Δ Mkr1 0 Hz
-8.067 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Center 5.240 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PE.STA file loaded

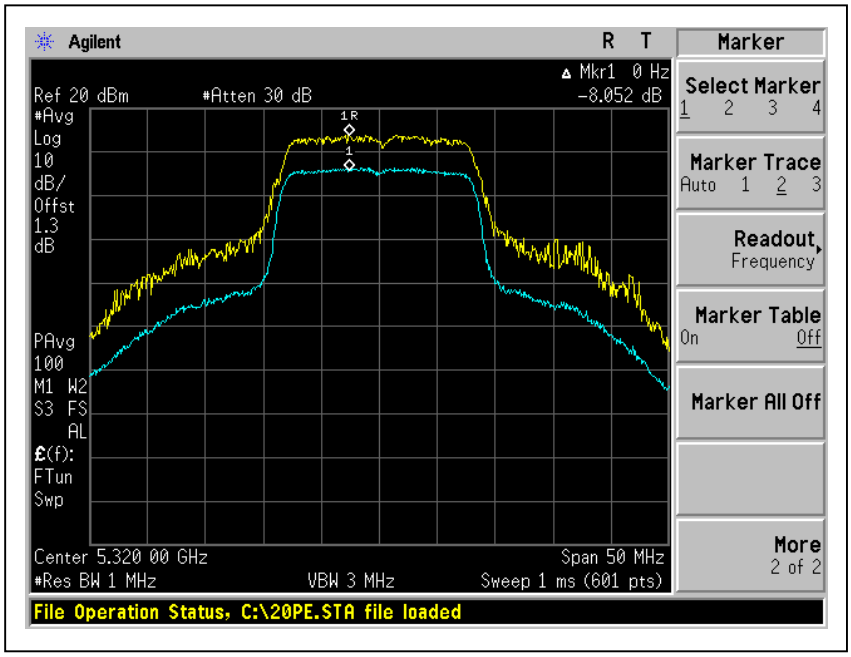
CH5


Agilent
R T
Marker
Mkr1 0 Hz
-7.962 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Center 5.260 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
File Operation Status, C:\20PE.STA file loaded

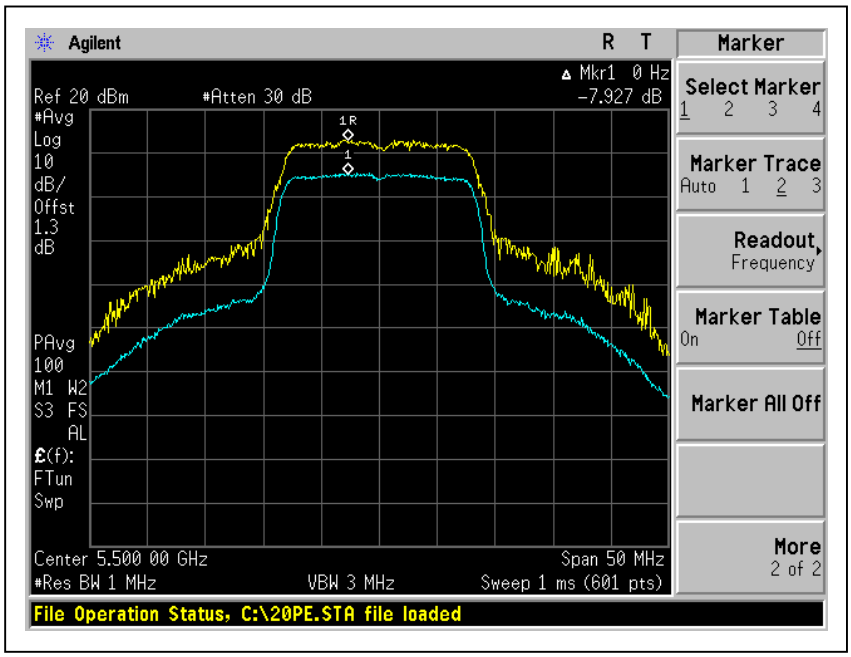
CH7


Agilent
R T
Marker
Mkr1 0 Hz
-7.756 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Center 5.300 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
File Operation Status, C:\20PE.STA file loaded

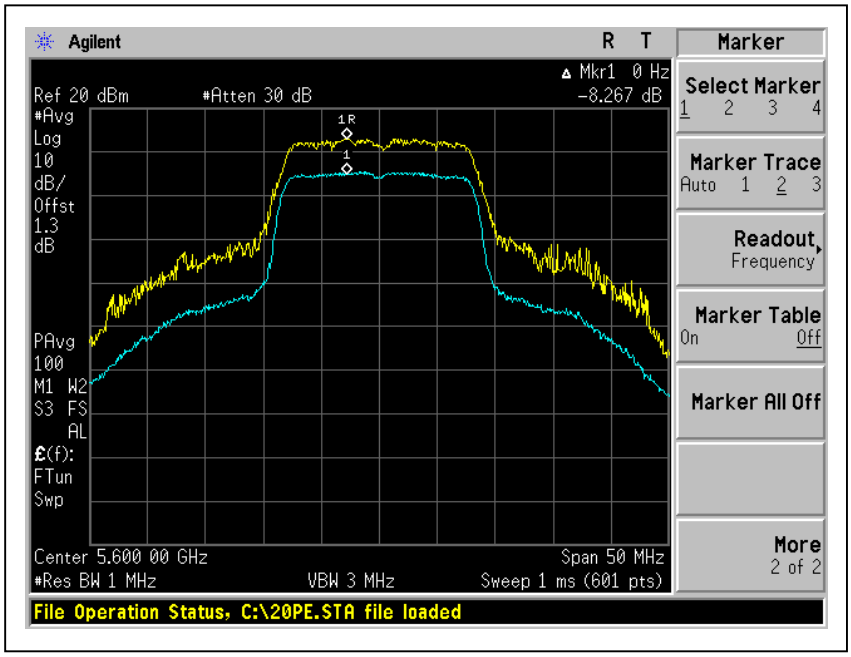
CH8


Agilent
R T
Marker
Mkr1 0 Hz
-8.052 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Center 5.320 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PE.STA file loaded

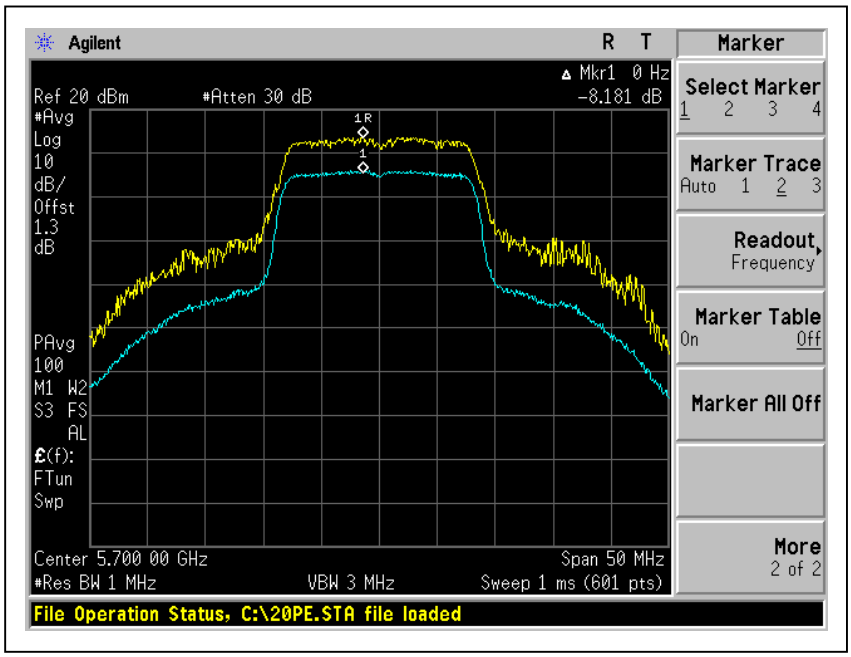
CH9


Agilent
R T
Marker
Mkr1 0 Hz
-7.927 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Center 5.500 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PE.STA file loaded

CH14


Agilent
R T
Marker
Δ Mkr1 0 Hz
-8.267 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Center 5.600 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
File Operation Status, C:\20PE.STA file loaded

CH19

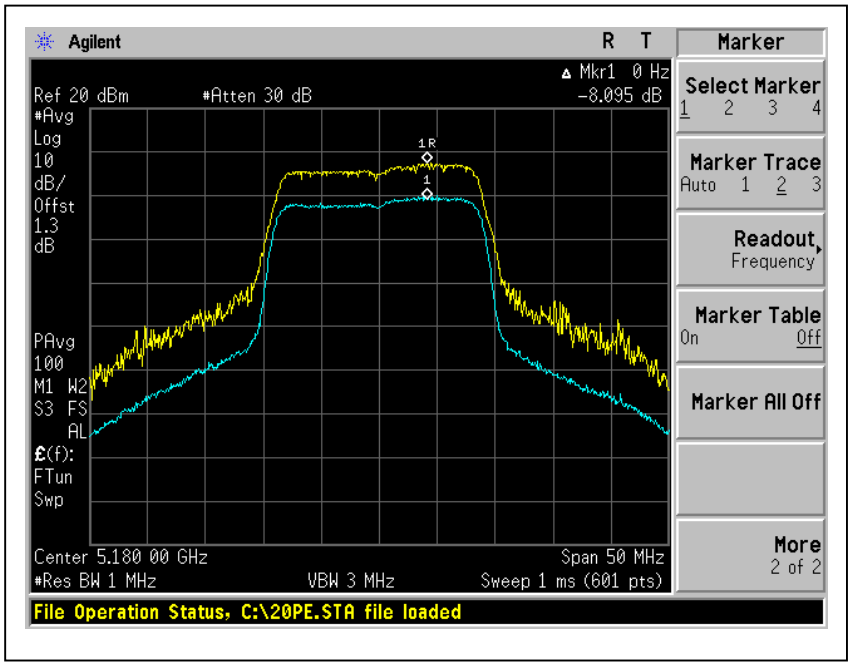

Agilent
R T
Marker
Δ Mkr1 0 Hz
-8.181 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Center 5.700 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
File Operation Status, C:\20PE.STA file loaded

DRAFT 802.11n (20MHz) OFDM MODULATION:

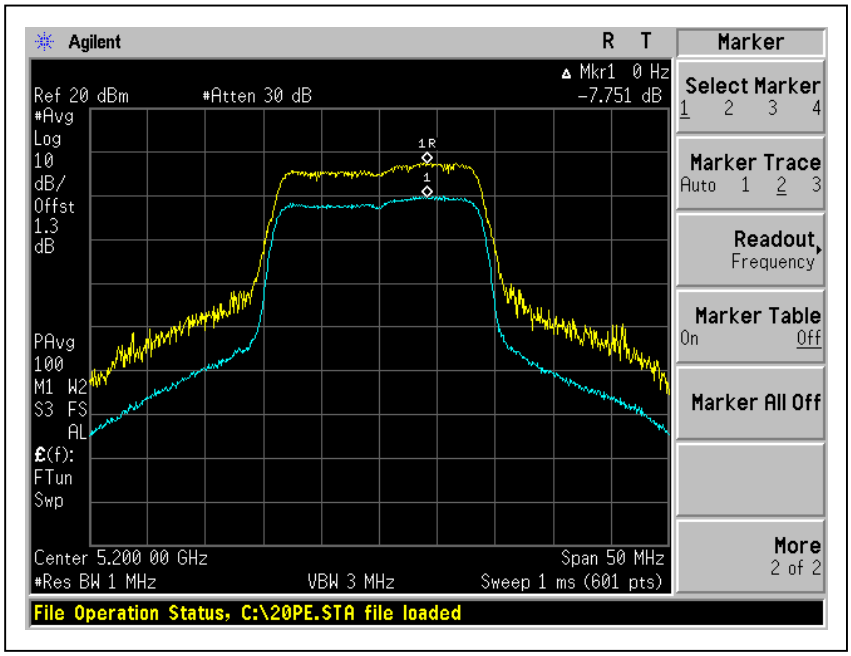
MODULATION TYPE	BPSK	TRANSFER RATE	14.4Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	23deg.C, 54%RH, 965hPa
TESTED BY	Rex Huang		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)		PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		Chain (0)	Chain(1)		
1	5180	8.095	7.897	13	PASS
2	5200	7.751	7.815	13	PASS
4	5240	7.960	7.812	13	PASS
5	5260	8.027	8.080	13	PASS
7	5300	7.704	8.159	13	PASS
8	5320	7.832	7.568	13	PASS
9	5500	7.915	7.745	13	PASS
14	5600	8.095	7.931	13	PASS
19	5700	8.416	7.707	13	PASS

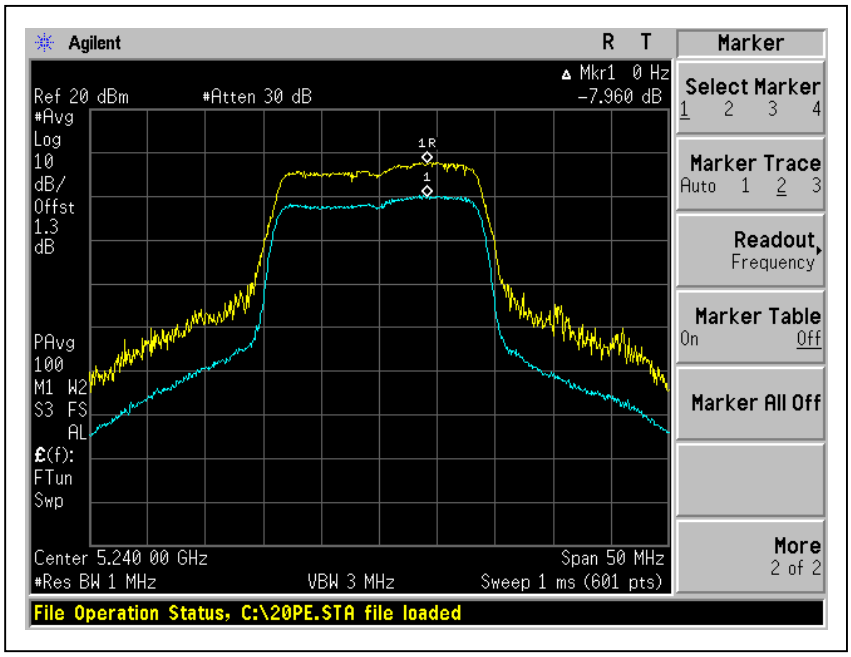
For Chain (0) : CH1



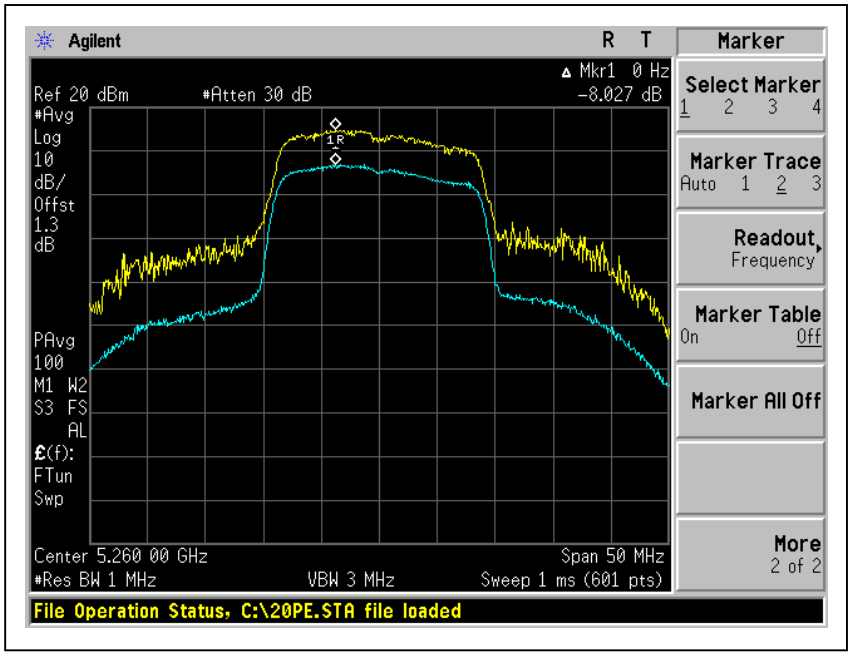
CH2



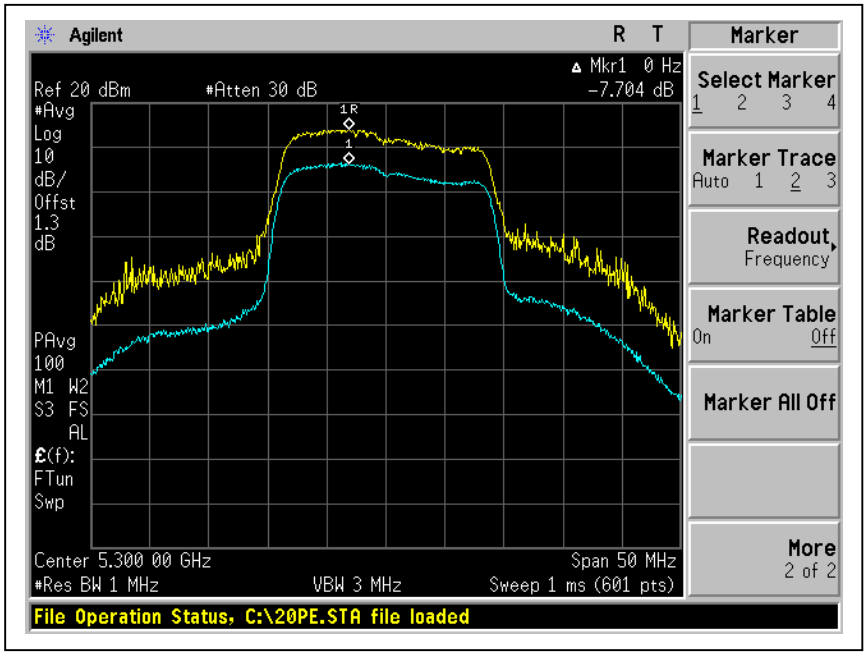
CH4


Agilent
R T
Marker
Mkr1 0 Hz
-7.960 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Center 5.240 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PE.STA file loaded
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2

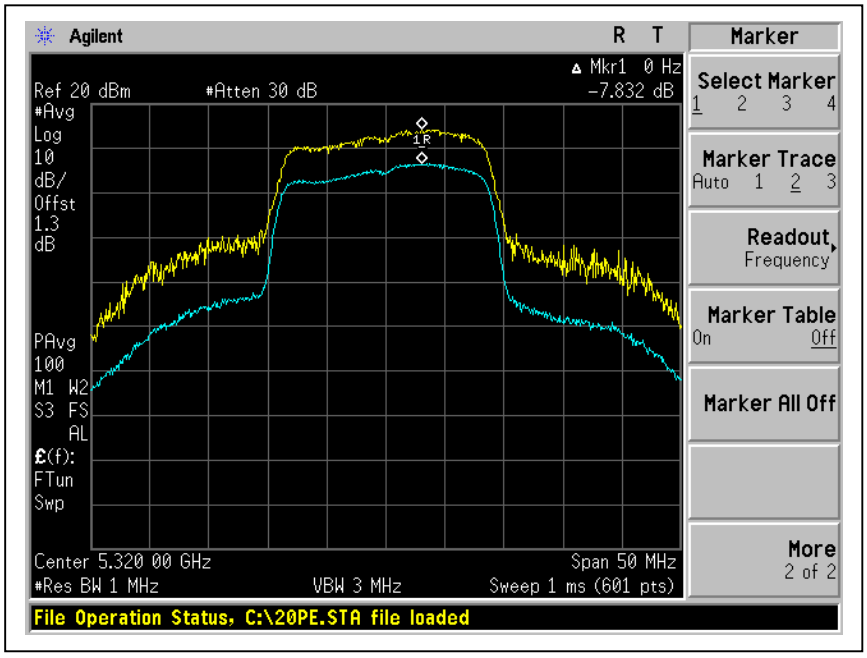
CH5


Agilent
R T
Marker
Mkr1 0 Hz
-8.027 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Center 5.260 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PE.STA file loaded
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2

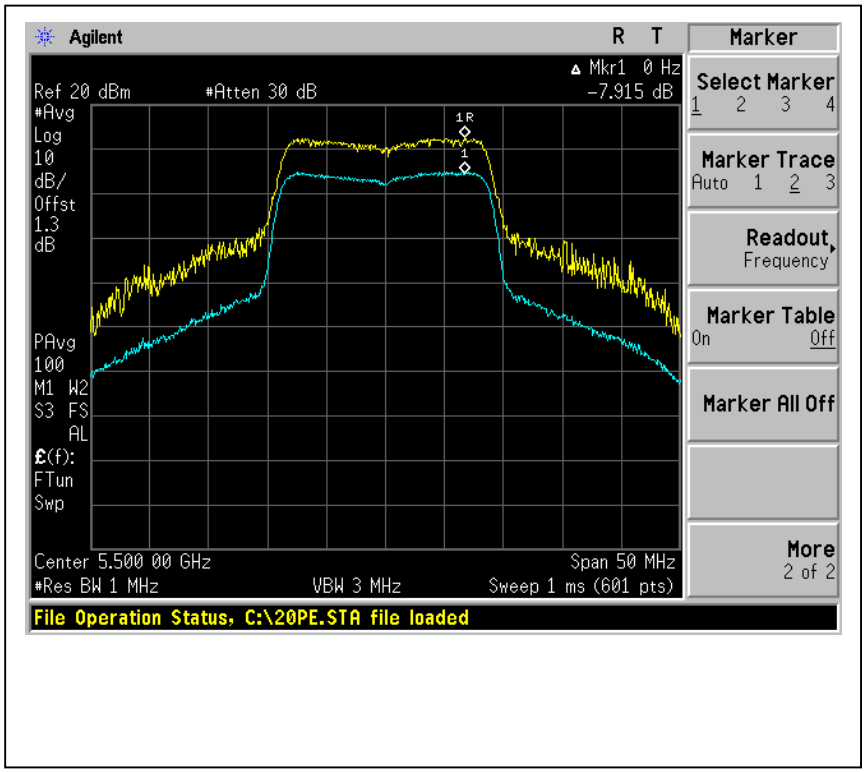
CH7


Agilent
R T
Marker
Ref 20 dBm
#Atten 30 dB
Δ Mkr1 0 Hz
-7.704 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Center 5.300 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PE.STA file loaded

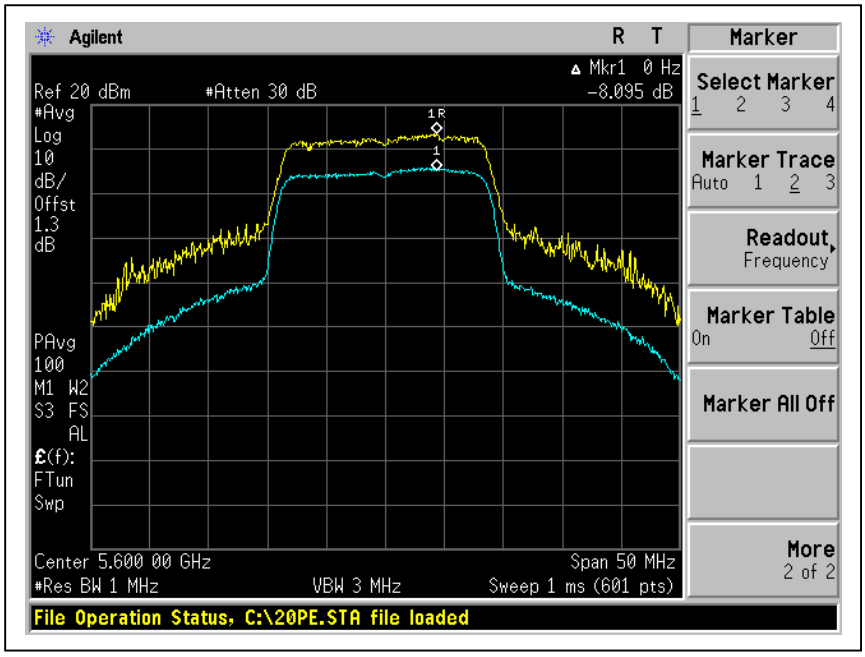
CH8


Agilent
R T
Marker
Ref 20 dBm
#Atten 30 dB
Δ Mkr1 0 Hz
-7.832 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Center 5.320 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PE.STA file loaded

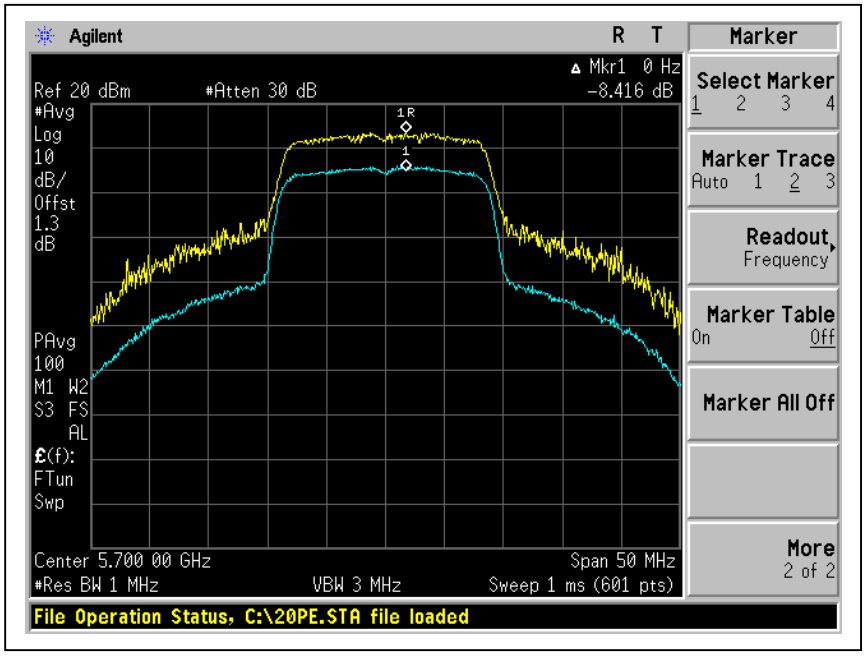
CH9


Agilent
R T
Marker
Ref 20 dBm
#Atten 30 dB
Mkr1 0 Hz
-7.915 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Center 5.500 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
File Operation Status, C:\20PE.STA file loaded

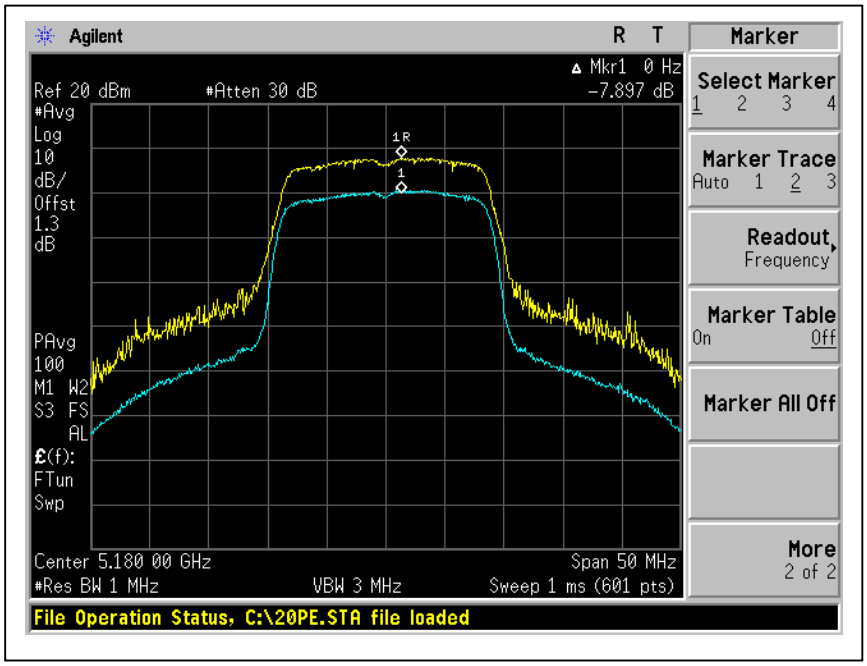
CH14


Agilent
R T
Marker
Ref 20 dBm
#Atten 30 dB
Mkr1 0 Hz
-8.095 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Center 5.600 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
File Operation Status, C:\20PE.STA file loaded

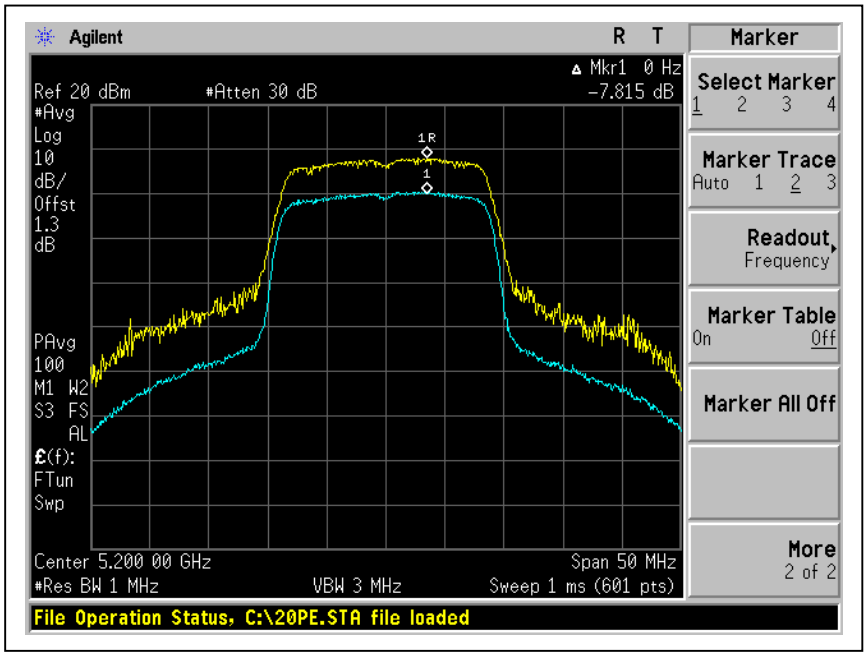
CH19


Agilent
R T
Marker
Ref 20 dBm
#Atten 30 dB
Mkr1 0 Hz
-8.416 dB
#Avg
Log
10
dB/
Offst
1.3
dB
1R
1
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Center 5.700 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PE.STA file loaded

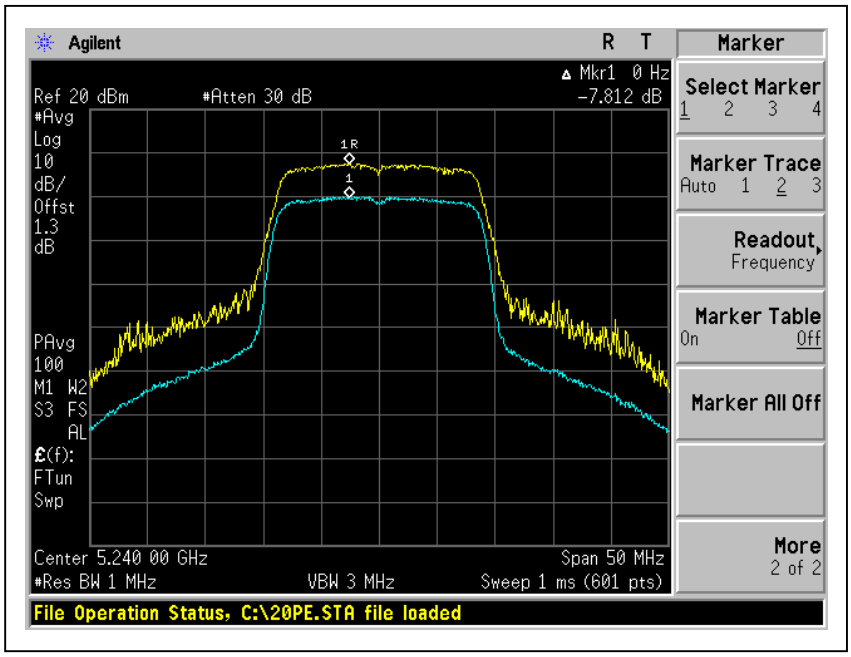
For Chain (1) : CH1



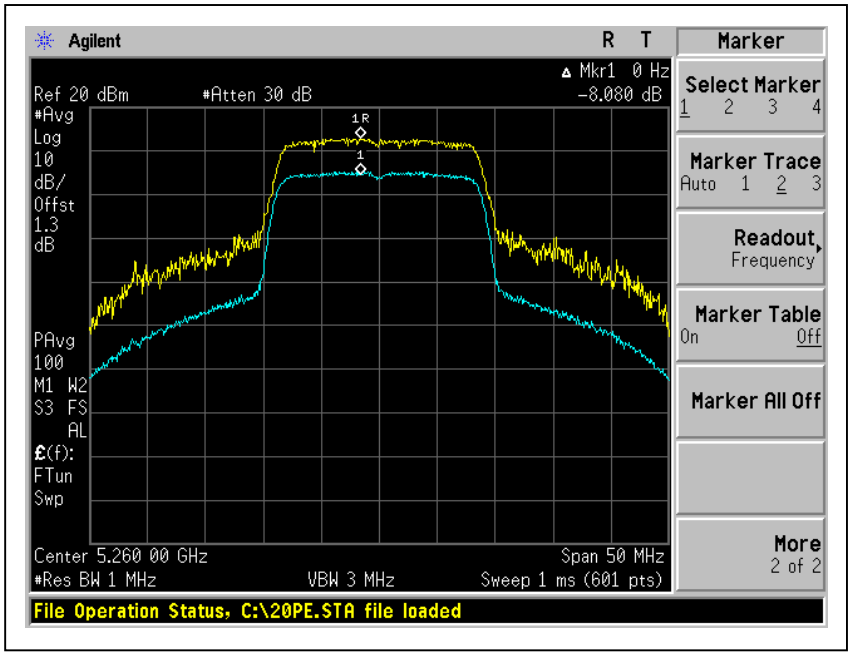
CH2



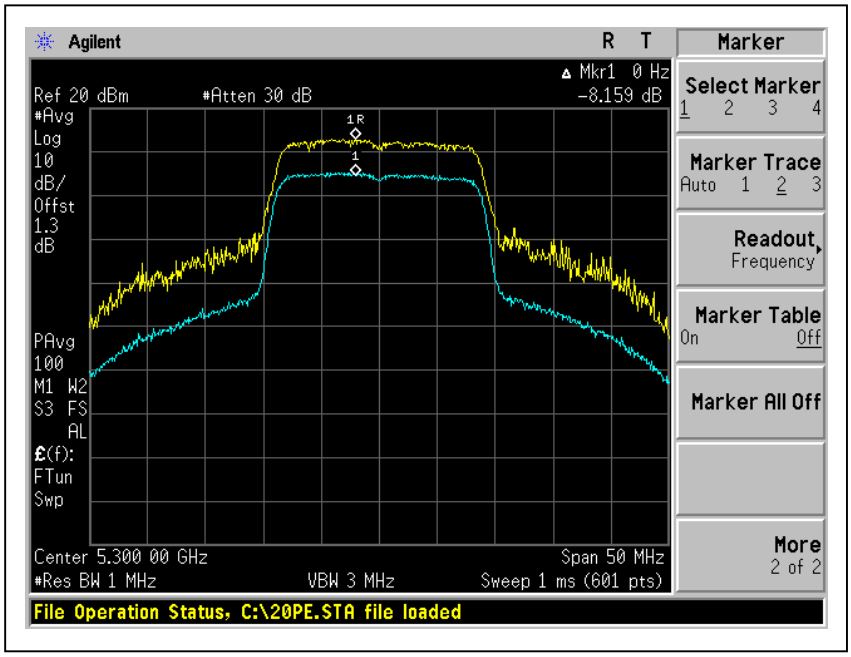
CH4


Agilent
R T
Marker
Mkr1 0 Hz
-7.812 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
1R
1
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Center 5.240 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
File Operation Status, C:\20PE.STA file loaded

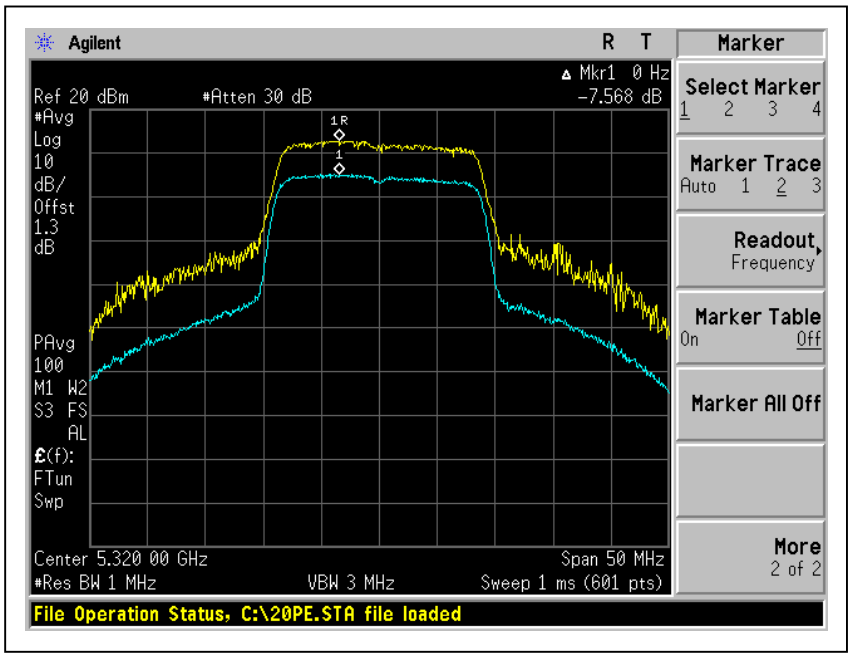
CH5


Agilent
R T
Marker
Mkr1 0 Hz
-8.080 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
1R
1
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Center 5.260 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
File Operation Status, C:\20PE.STA file loaded

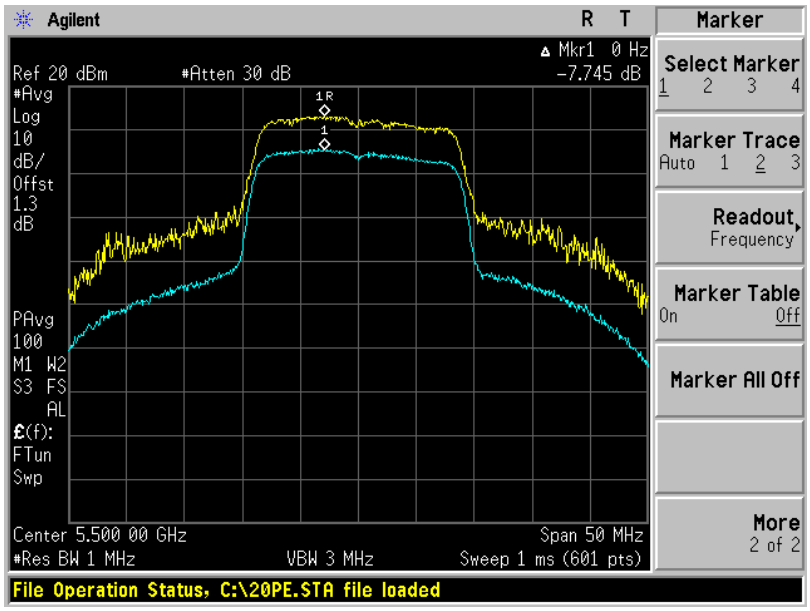
CH7


Agilent
R T
Marker
Mkr1 0 Hz
-8.159 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Center 5.300 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PE.STA file loaded

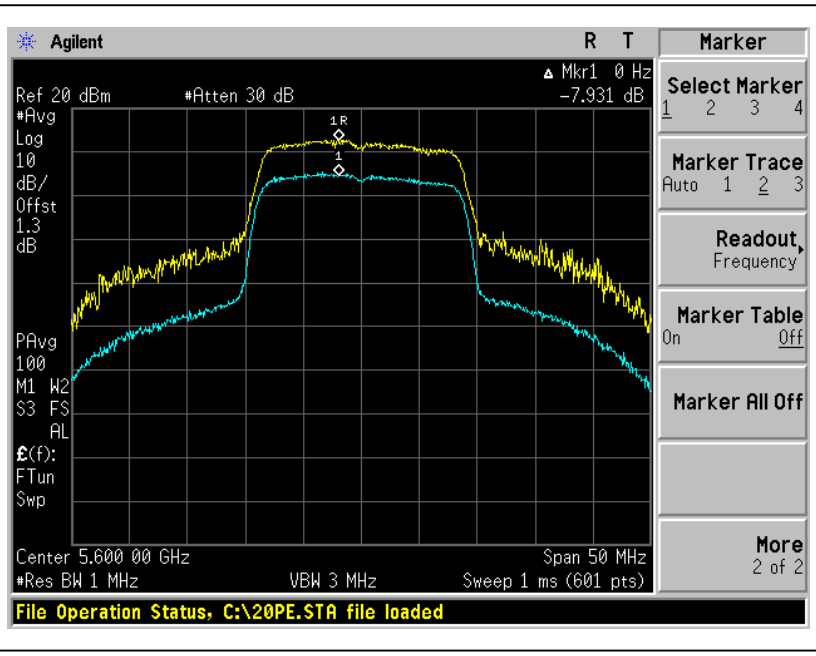
CH8


Agilent
R T
Marker
Mkr1 0 Hz
-7.568 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Center 5.320 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PE.STA file loaded

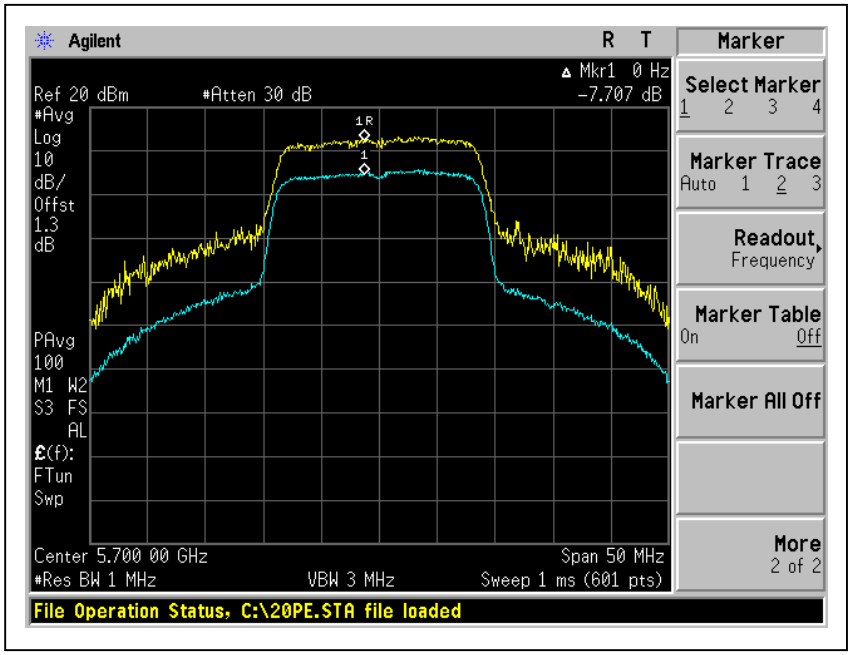
CH9


Agilent
R T
Marker
Mkr1 0 Hz
-7.745 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Center 5.500 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PE.STA file loaded

CH14


Agilent
R T
Marker
Mkr1 0 Hz
-7.931 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Center 5.600 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PE.STA file loaded

CH19

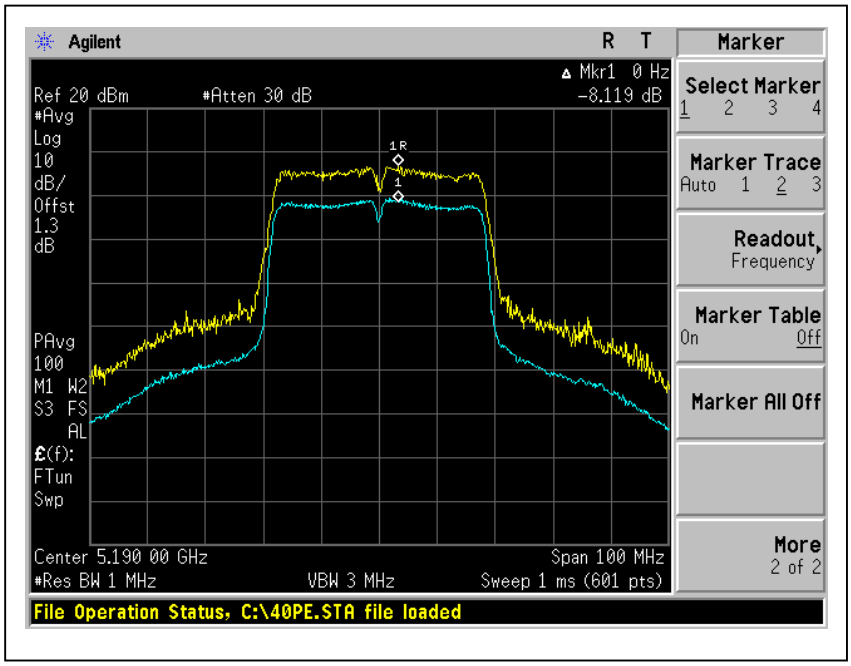

Agilent
R T
Marker
Mkr1 0 Hz
-7.707 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
1R
1
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Center 5.700 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PE.STA file loaded

DRAFT 802.11n (40MHz) OFDM MODULATION:

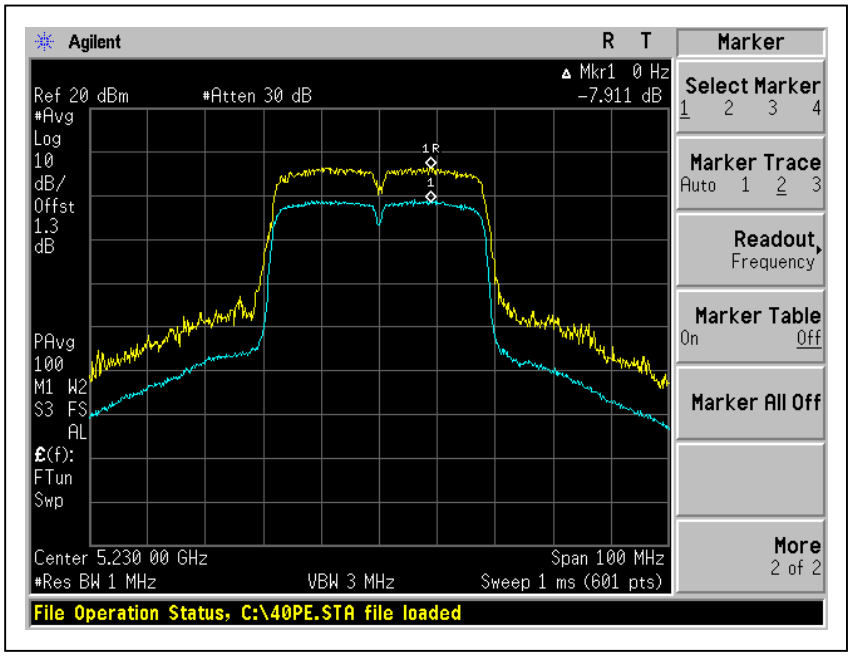
MODULATION TYPE	BPSK	TRANSFER RATE	30Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	23deg.C, 54%RH, 965hPa
TESTED BY	Rex Huang		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)		PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		Chain (0)	Chain(1)		
1	5190	8.119	8.142	13	PASS
2	5230	7.911	8.283	13	PASS
3	5270	8.117	8.351	13	PASS
4	5310	7.936	7.856	13	PASS
5	5510	7.831	8.318	13	PASS
7	5590	8.127	8.289	13	PASS
9	5670	8.016	8.225	13	PASS

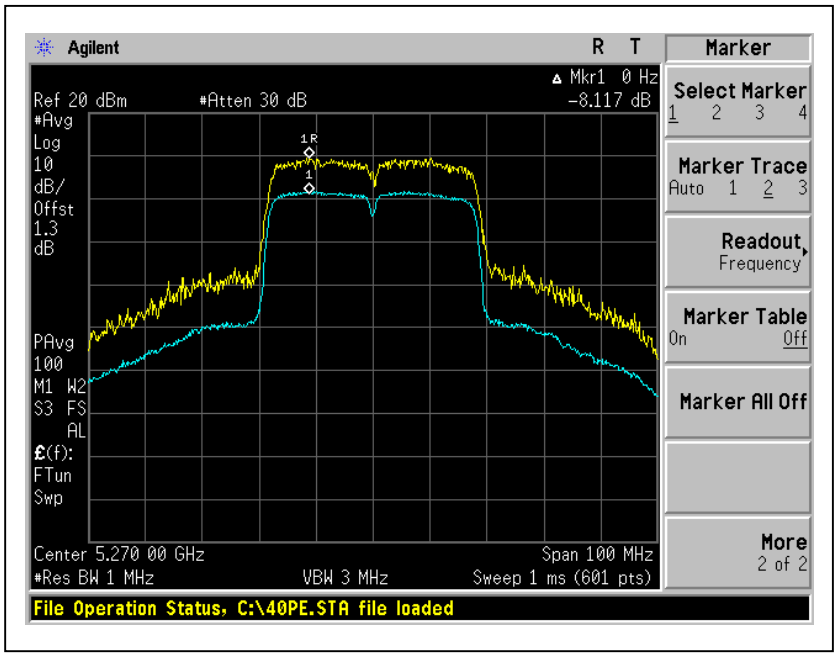
For Chain (0) : CH1



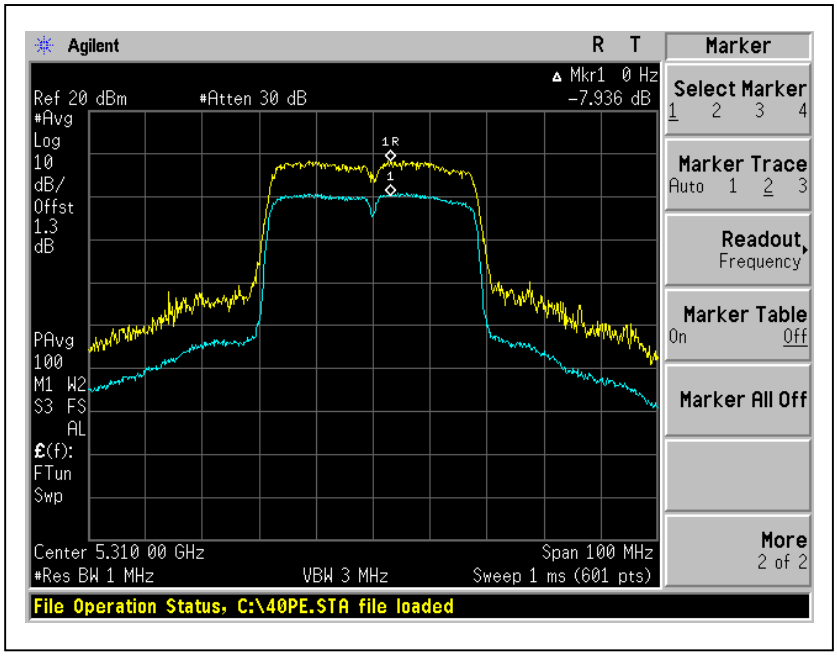
CH2



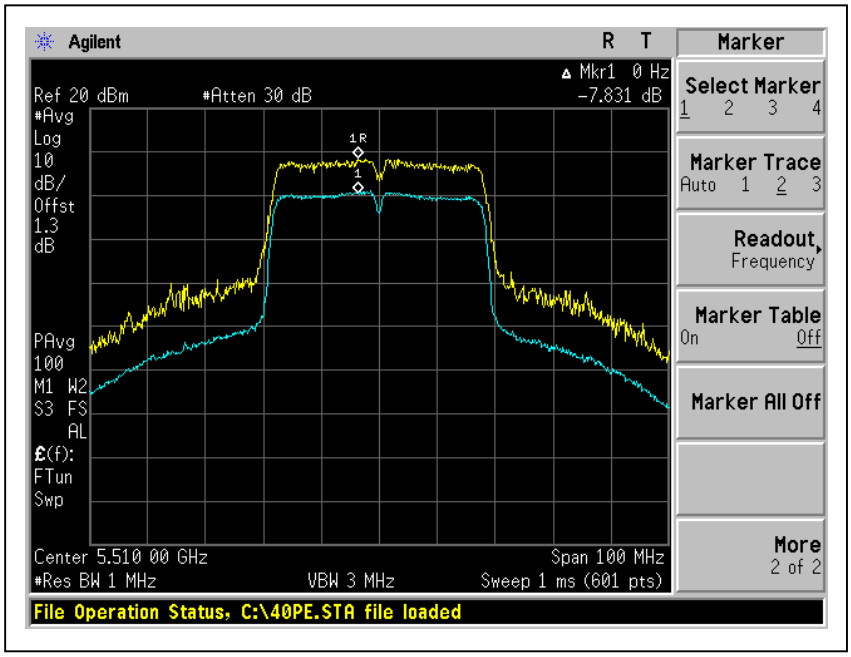
CH3


Agilent
R T
Marker
Mkr1 0 Hz
-8.117 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
1R
1
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Center 5.270 00 GHz
Span 100 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PE.STA file loaded

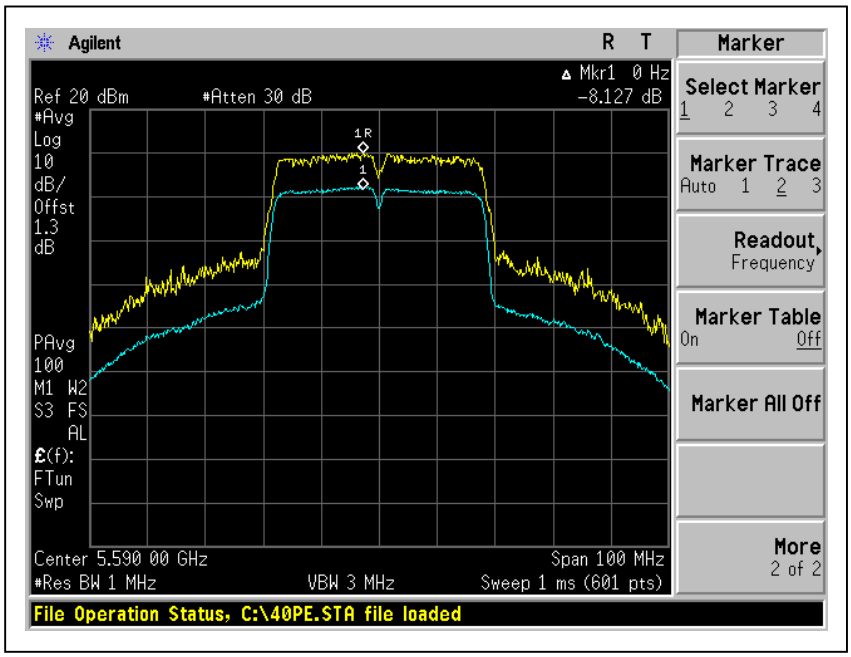
CH4


Agilent
R T
Marker
Mkr1 0 Hz
-7.936 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
1R
1
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Center 5.310 00 GHz
Span 100 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PE.STA file loaded

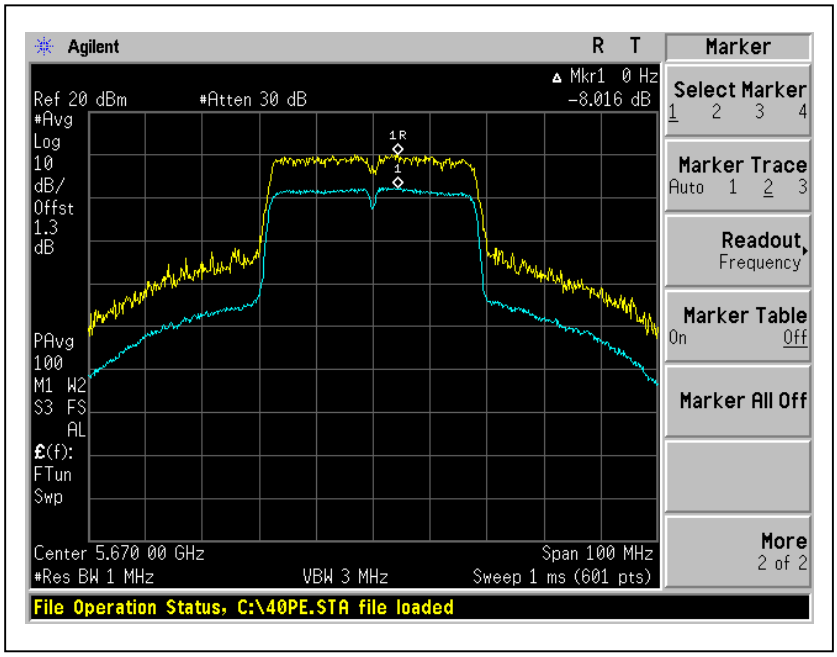
CH5


Agilent
R T
Marker
Δ Mkr1 0 Hz
-7.831 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Center 5.510 00 GHz
Span 100 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
File Operation Status, C:\40PE.STA file loaded

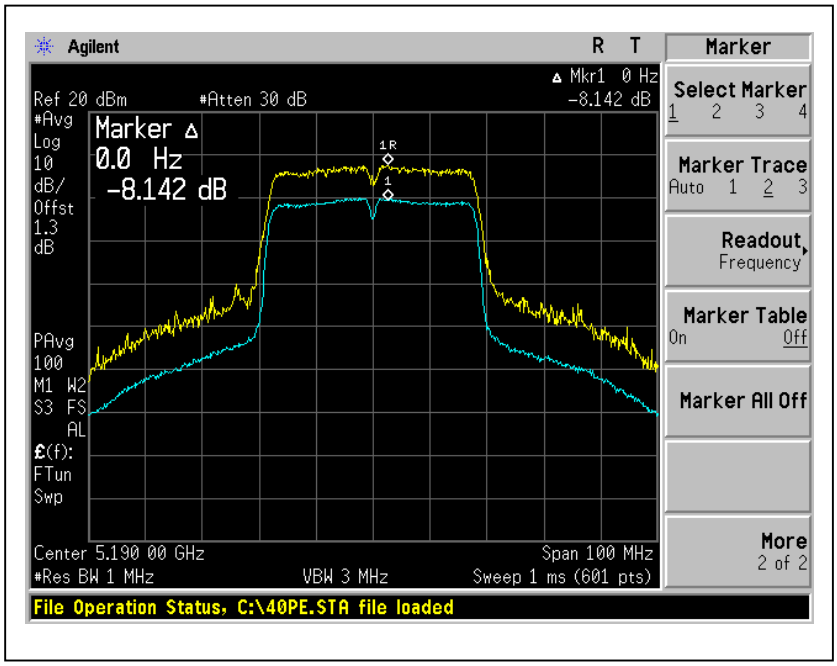
CH7


Agilent
R T
Marker
Δ Mkr1 0 Hz
-8.127 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Center 5.590 00 GHz
Span 100 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
File Operation Status, C:\40PE.STA file loaded

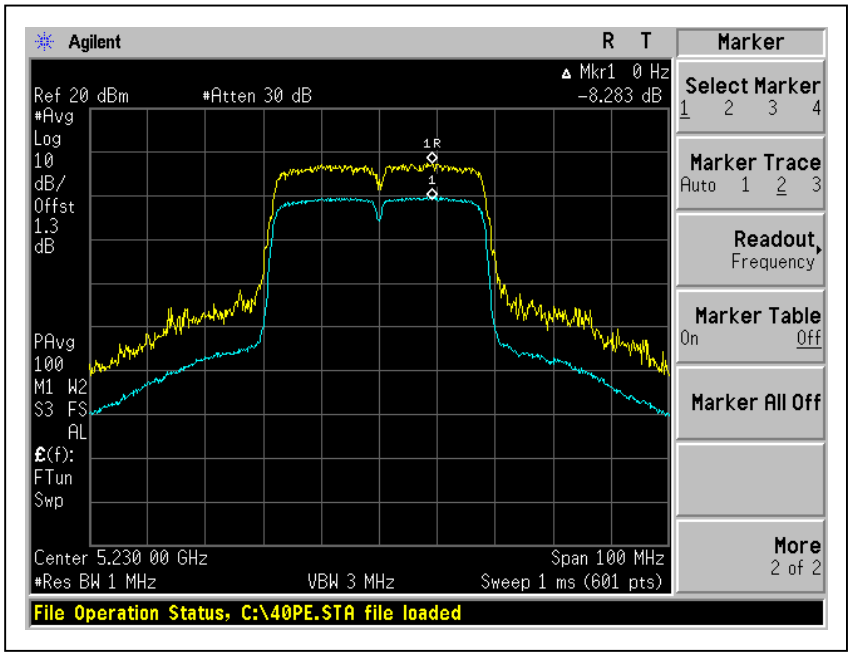
CH9


Agilent
R T
Marker
Mkr1 0 Hz
Ref 20 dBm
#Atten 30 dB
-8.016 dB
Select Marker
1 2 3 4
#Avg
Log
10
dB/
Offst
1.3
dB
1R
1
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
More
2 of 2
Center 5.670 00 GHz
Span 100 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PE.STA file loaded

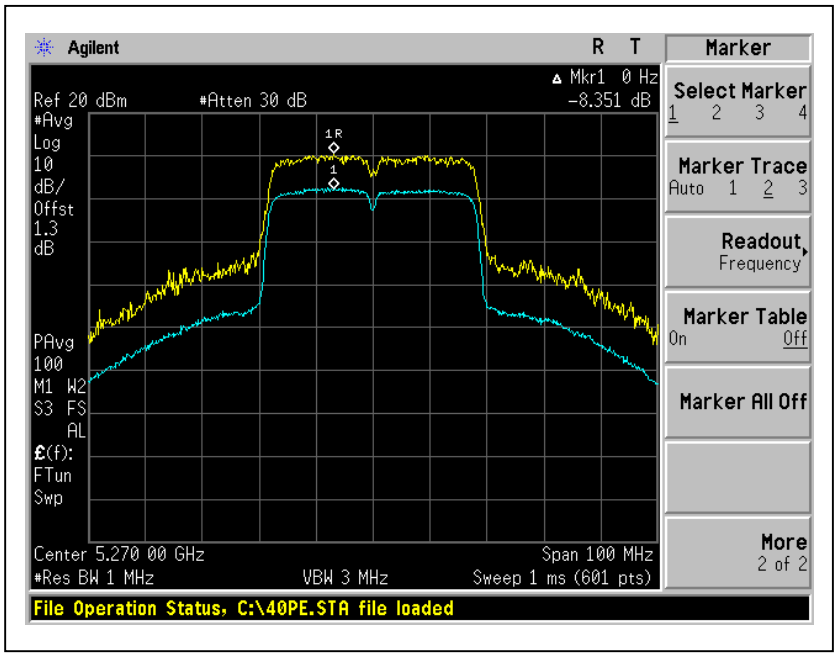
For Chain (1) : CH1



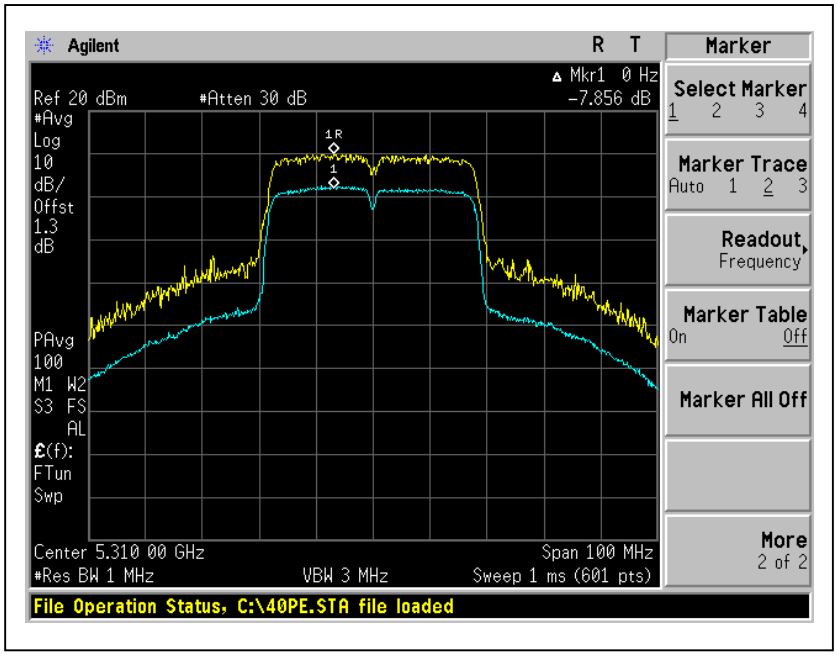
CH2



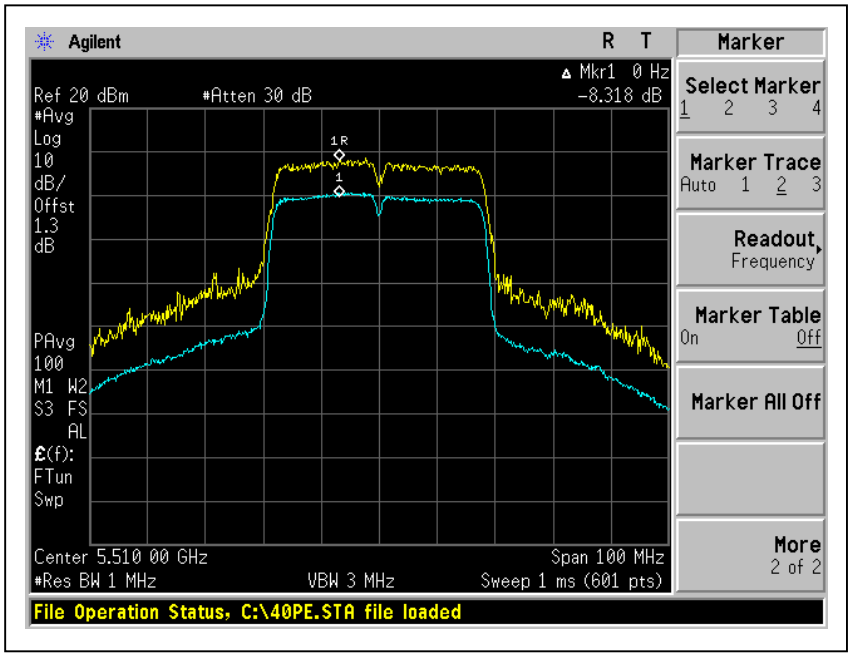
CH3


Agilent
R T
Marker
Mkr1 0 Hz
-8.351 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Center 5.270 00 GHz
Span 100 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PE.STA file loaded

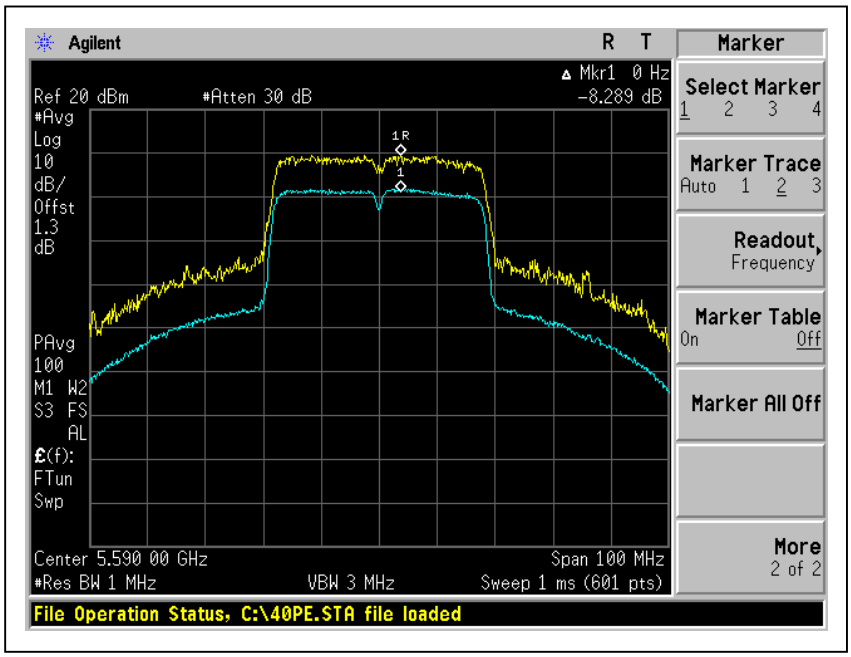
CH4


Agilent
R T
Marker
Mkr1 0 Hz
-7.856 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Center 5.310 00 GHz
Span 100 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PE.STA file loaded

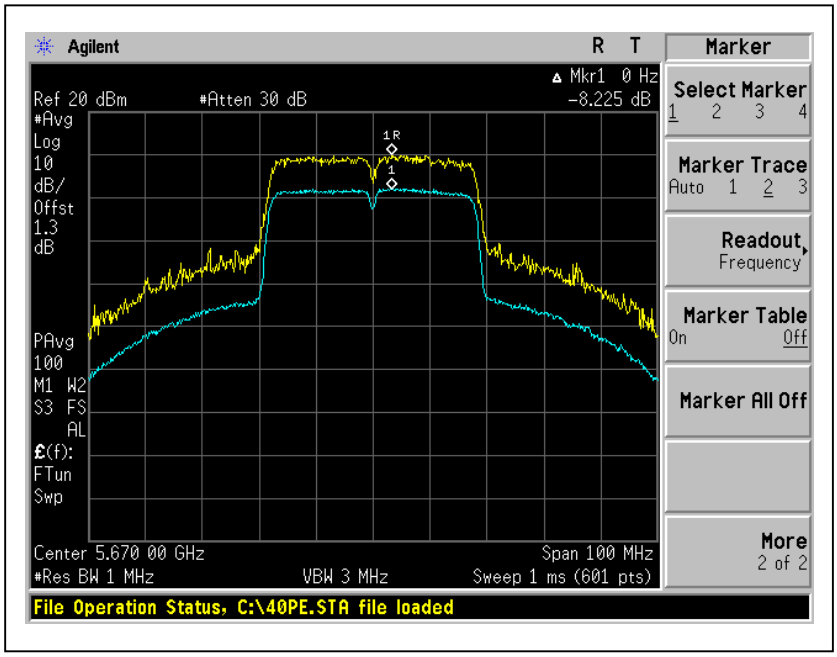
CH5


Agilent
R T
Marker
Mkr1 0 Hz
-8.318 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
1R
1
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Center 5.510 00 GHz
Span 100 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PE.STA file loaded

CH7


Agilent
R T
Marker
Mkr1 0 Hz
-8.289 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
1R
1
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Center 5.590 00 GHz
Span 100 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PE.STA file loaded

CH9


Agilent
R T
Marker
Mkr1 0 Hz
-8.225 dB
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
1R
1
PAvg
100
M1 W2
S3 FS
AL
£(f):
FTun
Swp
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
Center 5.670 00 GHz
Span 100 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PE.STA file loaded

4.5 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

Frequency Band	Limit
5.15 ~ 5.25GHz	4dBm
5.25 ~ 5.35GHz	11dBm
5.47 – 5.725GHz	11dBm
5.725 ~ 5.825GHz	17dBm

4.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100037	Aug. 09, 2008	Aug. 08, 2009

NOTE:

1.The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.5.3 TEST PROCEDURES

1. The transmitter output was connected to the spectrum analyzer.
2. Set RBW=1MHz, VBW=3MHz. The PPSD is the highest level found across the emission in any 1MHz band.

4.5.4 DEVIATION FROM TEST STANDARD

No deviation

4.5.5 TEST SETUP

4.5.6 EUT OPERATING CONDITIONS

Same as 4.3.6

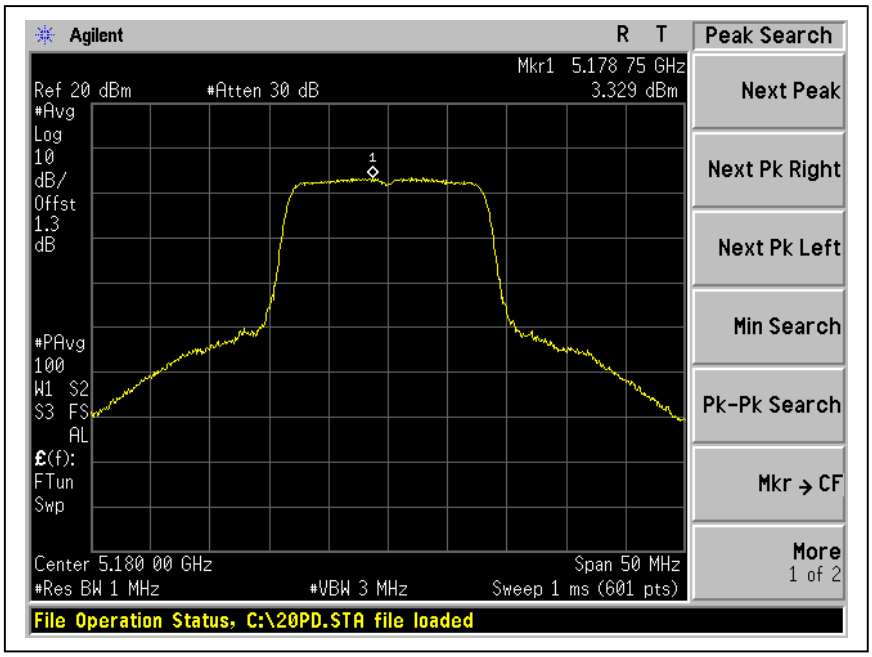
4.5.7 TEST RESULTS

802.11a OFDM modulation

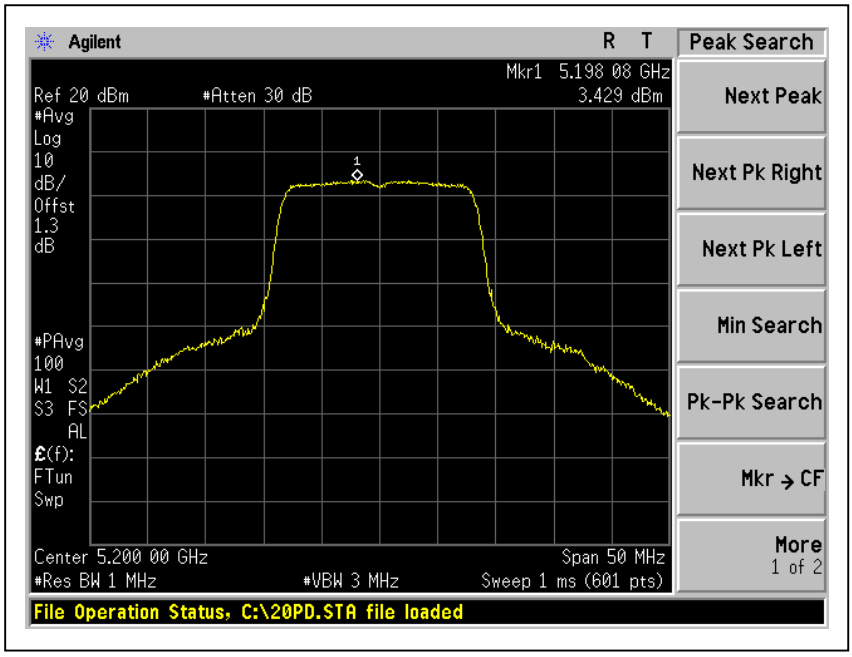
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	23deg.C, 54%RH, 965hPa
TESTED BY	Rex Huang		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	5180	3.329	4	PASS
2	5200	3.429	4	PASS
4	5240	3.509	4	PASS
5	5260	6.200	11	PASS
7	5300	5.795	11	PASS
8	5320	6.307	11	PASS
9	5500	5.318	11	PASS
14	5600	5.154	11	PASS
19	5700	5.885	11	PASS

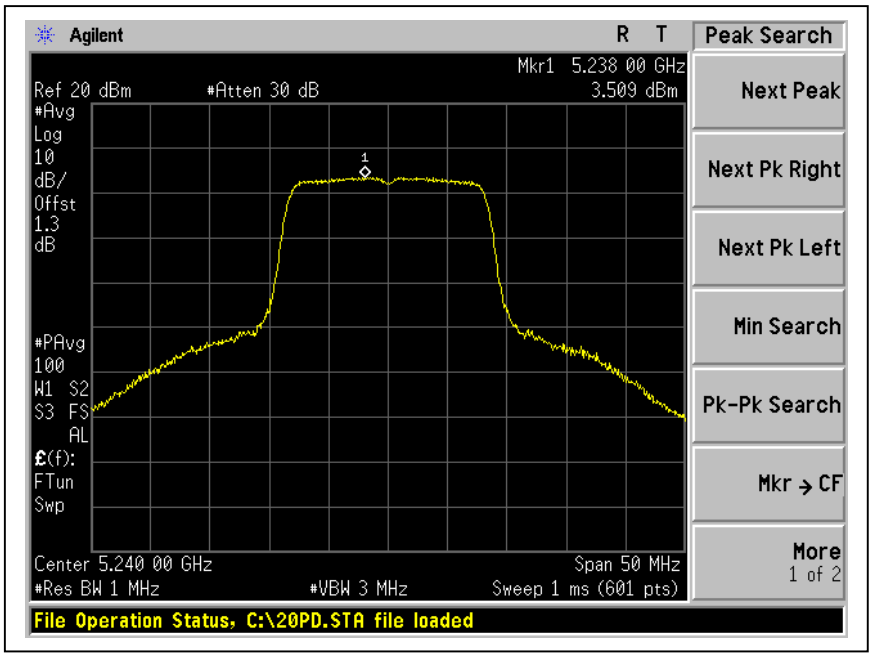
CH1


Agilent
R T
Peak Search
Mkr1 5.178 75 GHz
Ref 20 dBm
#Atten 30 dB
3.329 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.180 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

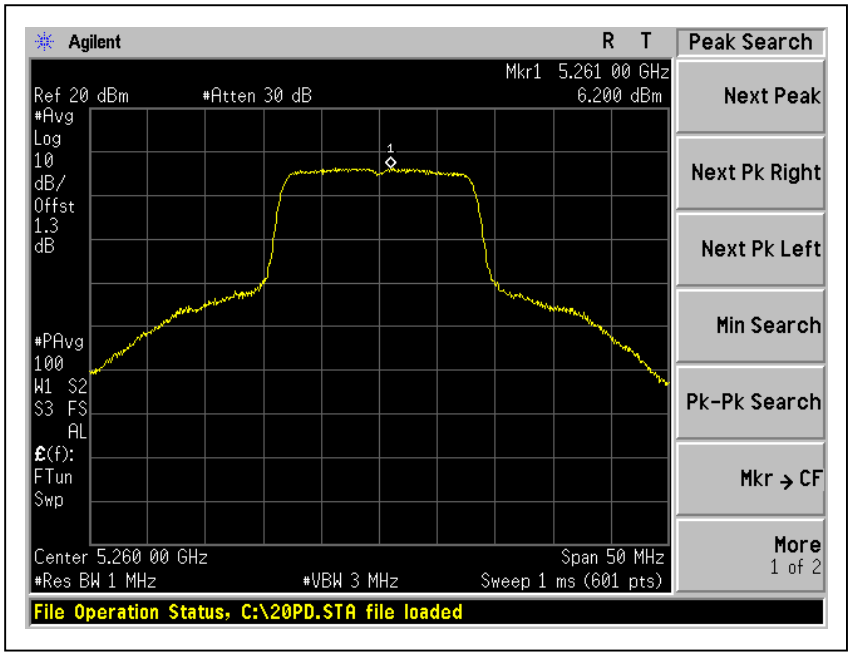
CH2


Agilent
R T
Peak Search
Mkr1 5.198 08 GHz
Ref 20 dBm
#Atten 30 dB
3.429 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.200 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

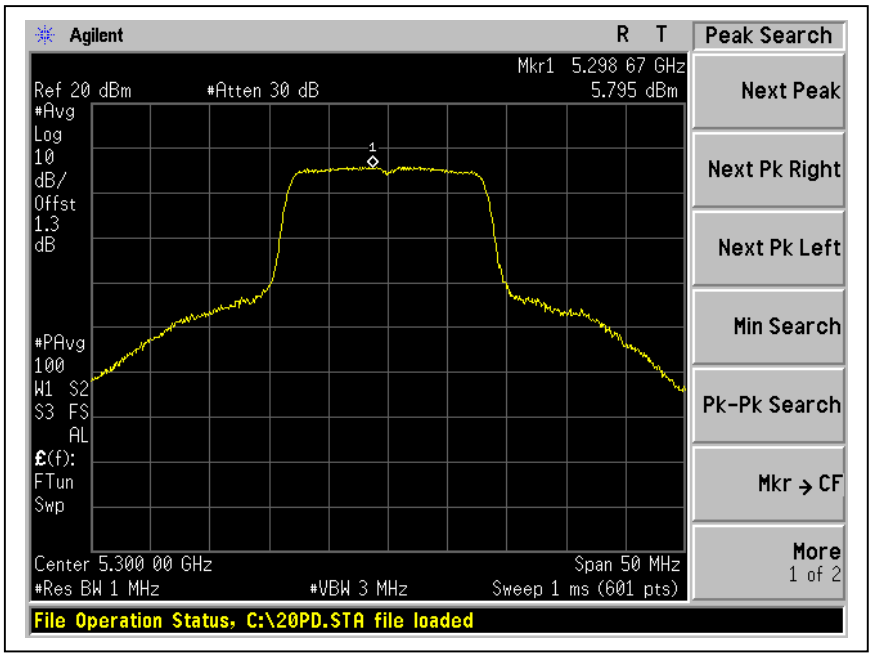
CH4


Agilent
R T
Peak Search
Mkr1 5.238 00 GHz
Ref 20 dBm
#Atten 30 dB
3.509 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.240 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

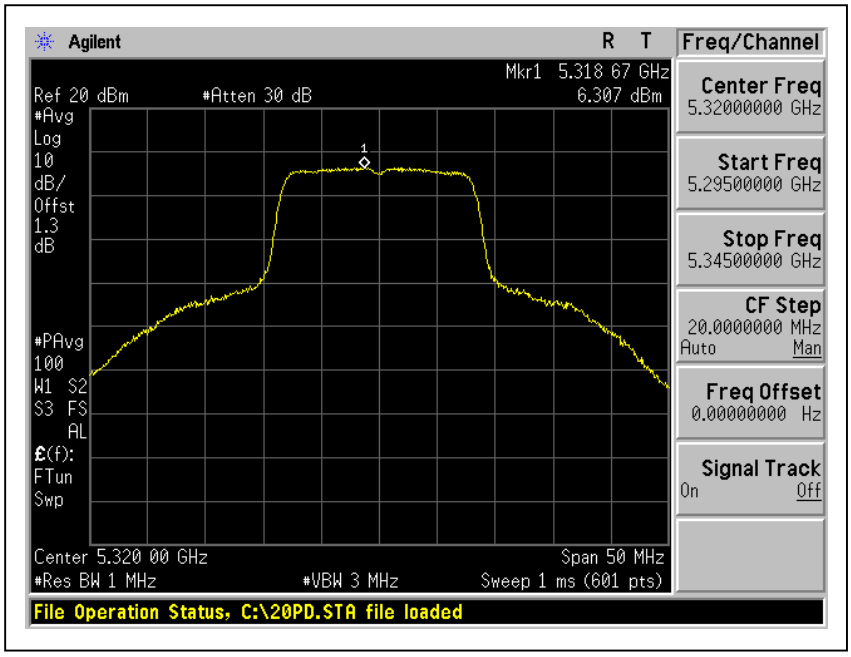
CH5


Agilent
R T
Peak Search
Mkr1 5.261 00 GHz
Ref 20 dBm
#Atten 30 dB
6.200 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.260 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

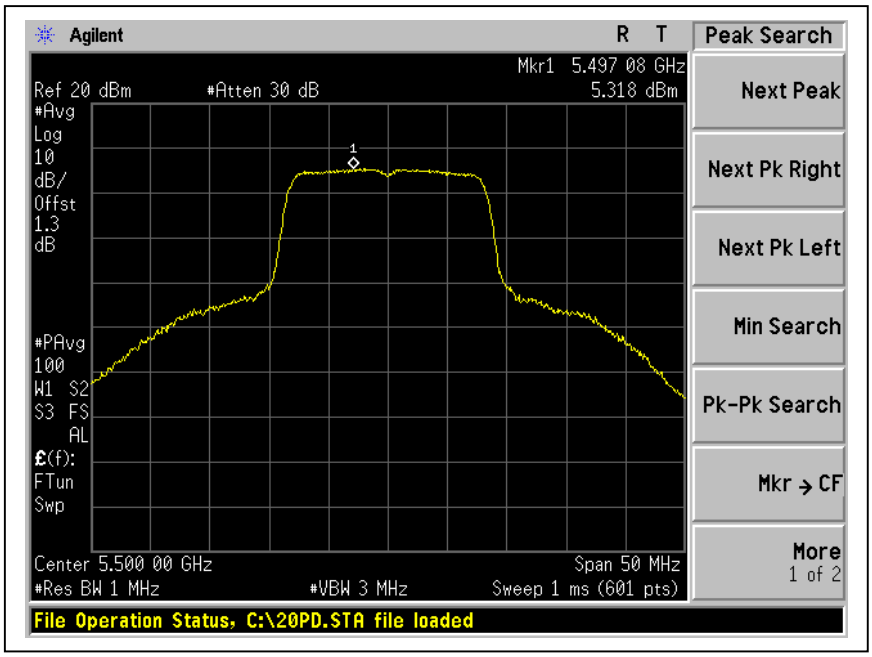
CH7


Agilent
R T
Peak Search
Mkr1 5.298 67 GHz
Ref 20 dBm
#Atten 30 dB
5.795 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.300 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

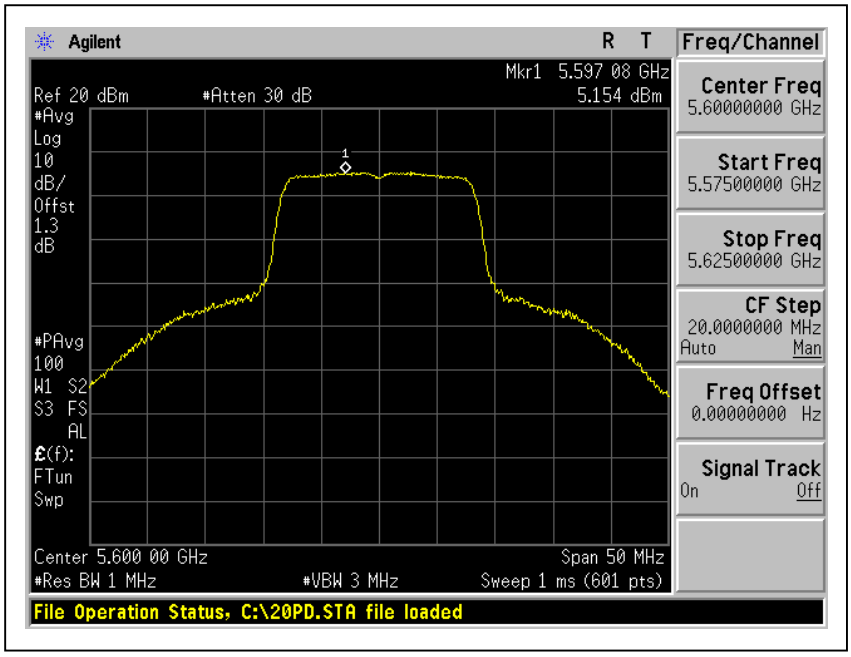
CH8


Agilent
R T
Freq/Channel
Mkr1 5.318 67 GHz
Ref 20 dBm
#Atten 30 dB
6.307 dBm
Center Freq
5.32000000 GHz
#Avg
Log
10
dB/
Offst
1.3
dB
Start Freq
5.29500000 GHz
Stop Freq
5.34500000 GHz
CF Step
20.0000000 MHz
Auto
Man
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Center 5.320 00 GHz
Span 50 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

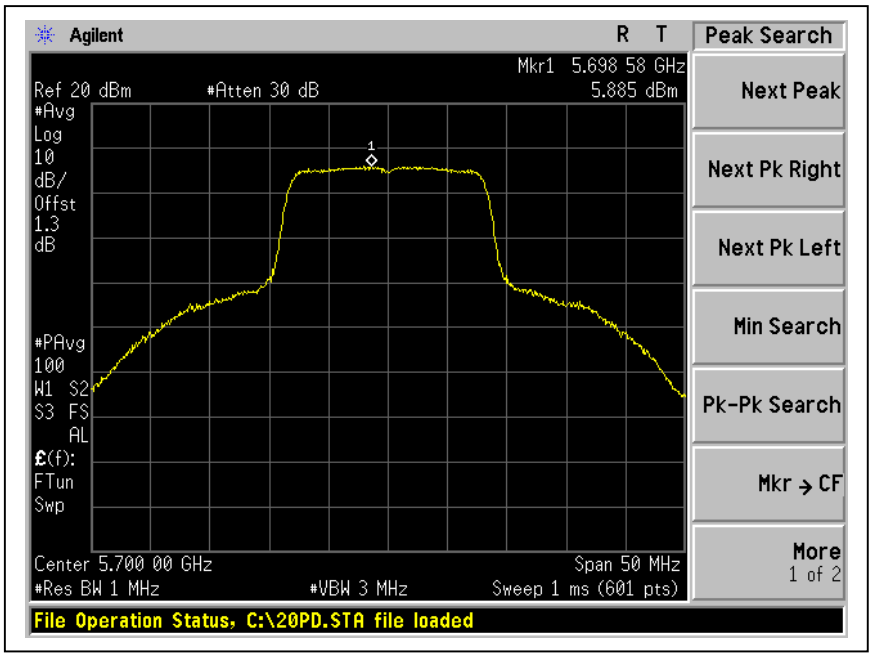
CH9


Agilent
R T
Peak Search
Mkr1 5.497 08 GHz
Ref 20 dBm
#Atten 30 dB
5.318 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.500 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

CH14


Agilent
R T
Freq/Channel
Mkr1 5.597 08 GHz
Ref 20 dBm
#Atten 30 dB
5.154 dBm
Center Freq
5.60000000 GHz
#Avg
Log
10
dB/
Offst
1.3
dB
Start Freq
5.57500000 GHz
Stop Freq
5.62500000 GHz
CF Step
20.0000000 MHz
Auto
Man
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Center 5.600 00 GHz
Span 50 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

CH19

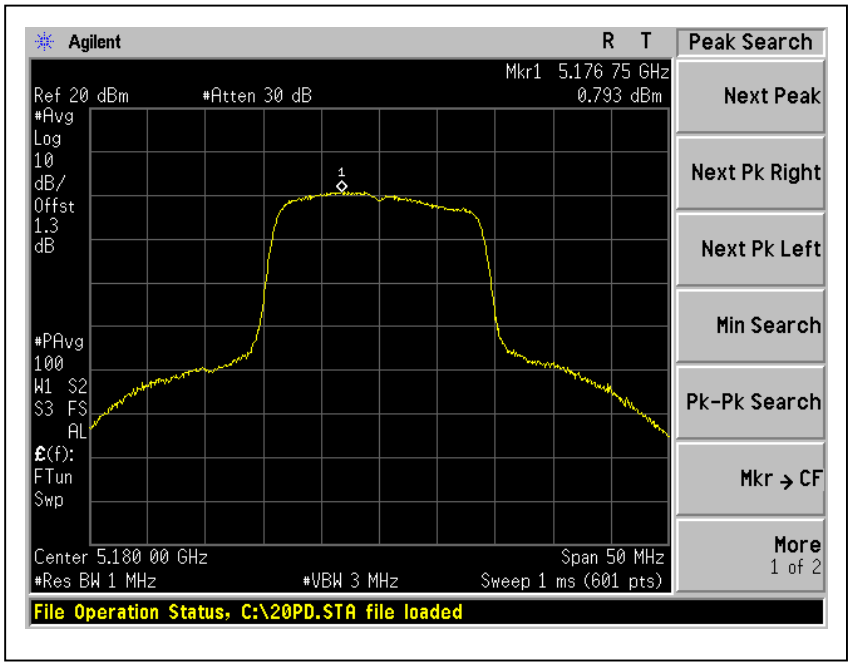

Agilent
R T
Peak Search
Mkr1 5.698 58 GHz
5.885 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.700 00 GHz
Span 50 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

DRAFT 802.11n (20MHz) OFDM MODULATION:

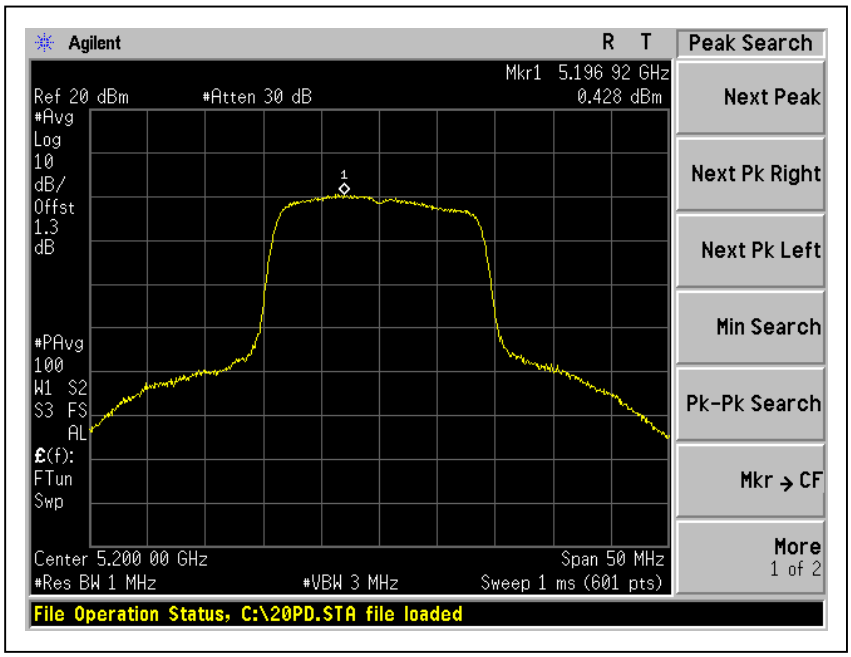
MODULATION TYPE	BPSK	TRANSFER RATE	14.4Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	23deg.C, 54%RH, 965hPa
TESTED BY	Rex Huang		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)		TOTAL OUTPUT POWER DENSITY (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
		Chain (0)	Chain(1)			
1	5180	0.793	0.247	3.54	4	PASS
2	5200	0.428	0.699	3.58	4	PASS
4	5240	0.690	0.723	3.72	4	PASS
5	5260	6.215	5.972	9.11	11	PASS
7	5300	5.769	5.669	8.73	11	PASS
8	5320	6.167	5.656	8.93	11	PASS
9	5500	5.626	5.778	8.71	11	PASS
14	5600	6.012	5.222	8.65	11	PASS
19	5700	6.395	5.701	9.07	11	PASS

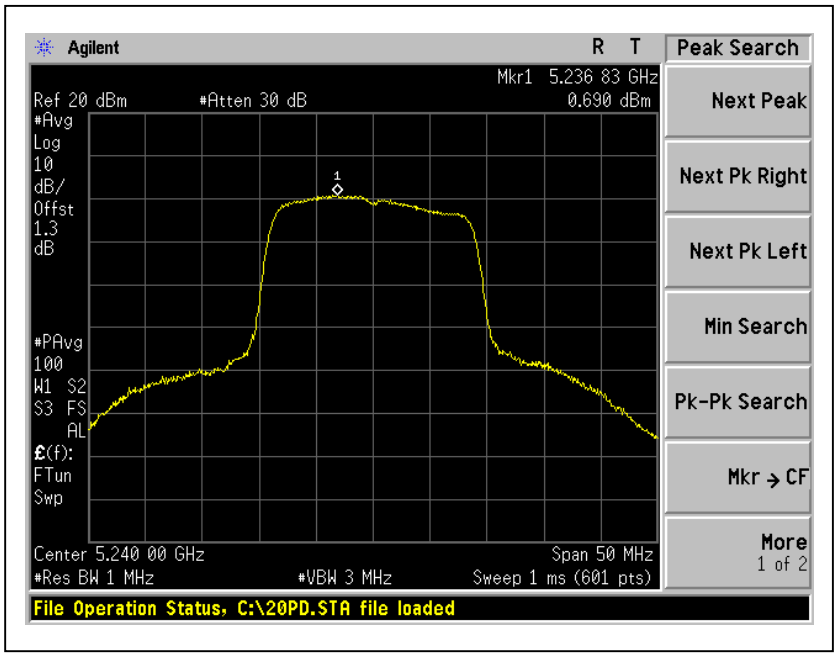
For Chain (0) : CH1



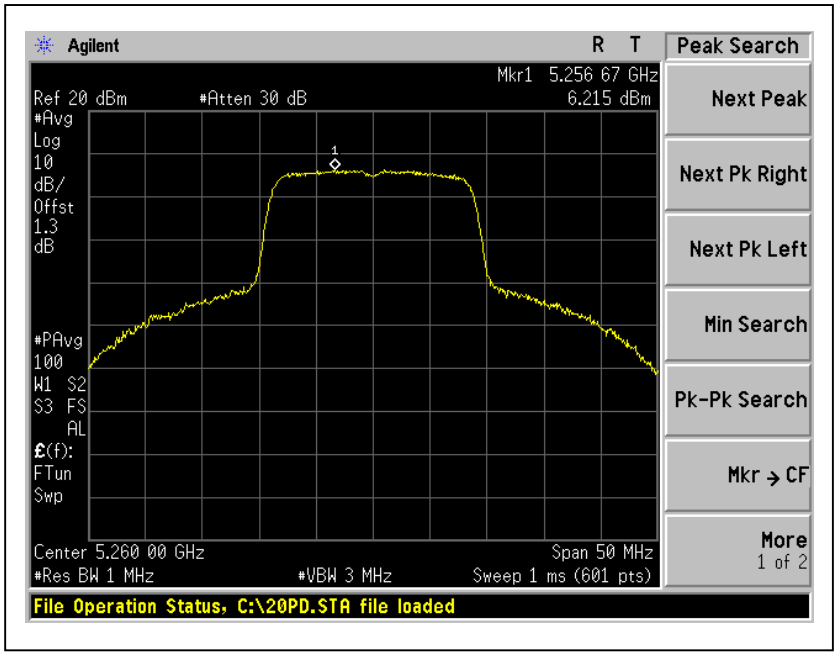
CH2



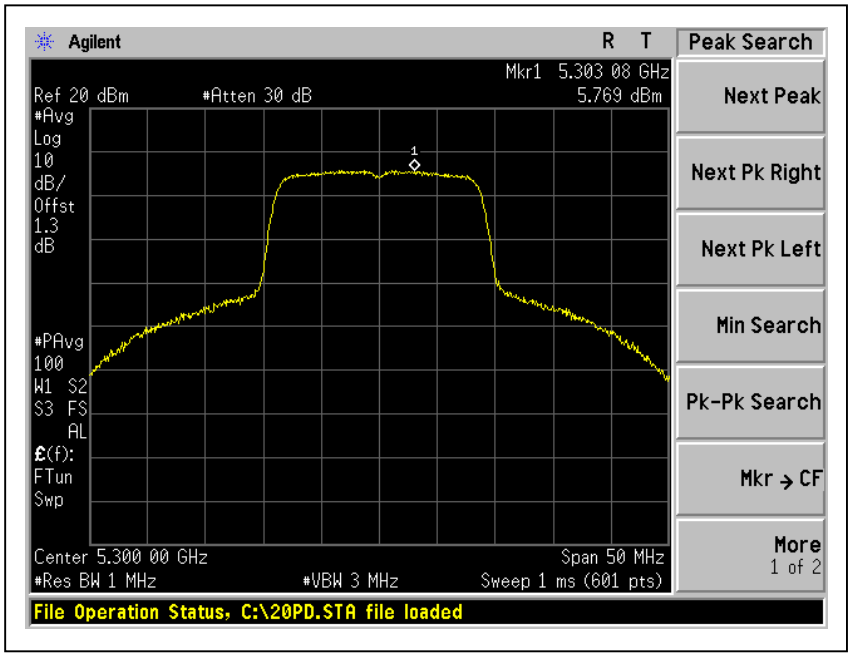
CH4


Agilent
R T
Peak Search
Mkr1 5.236 83 GHz
Ref 20 dBm
#Atten 30 dB
0.690 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
Pk-Pk Search
£(f):
FTun
Swp
Mkr → CF
Center 5.240 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

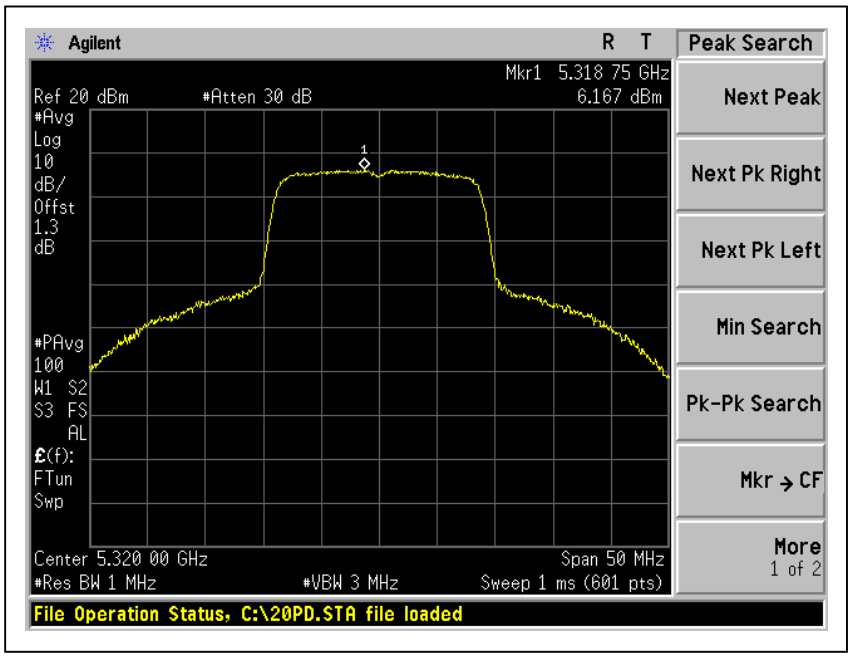
CH5


Agilent
R T
Peak Search
Mkr1 5.256 67 GHz
Ref 20 dBm
#Atten 30 dB
6.215 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
Pk-Pk Search
£(f):
FTun
Swp
Mkr → CF
Center 5.260 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

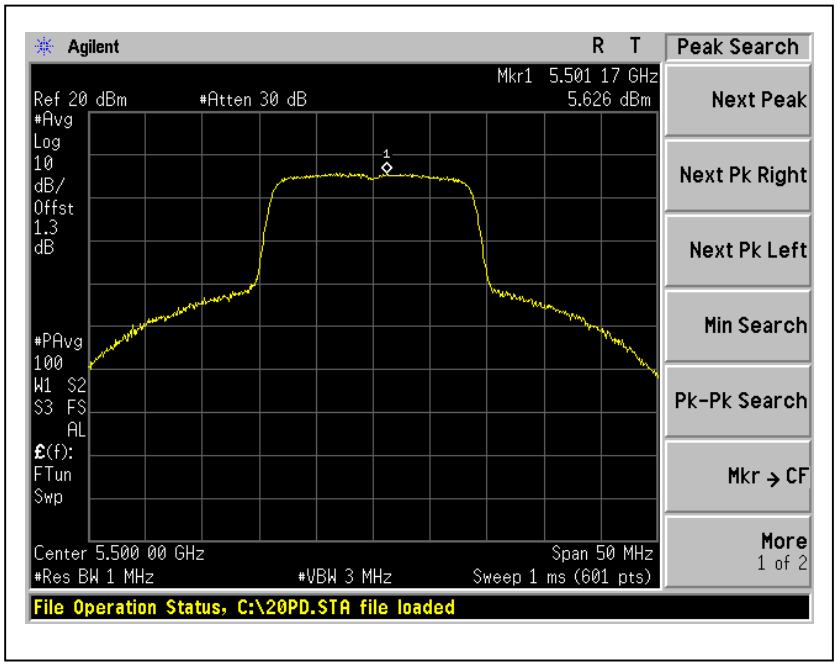
CH7


Agilent
R T
Peak Search
Mkr1 5.303 08 GHz
Ref 20 dBm
#Atten 30 dB
5.769 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.300 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

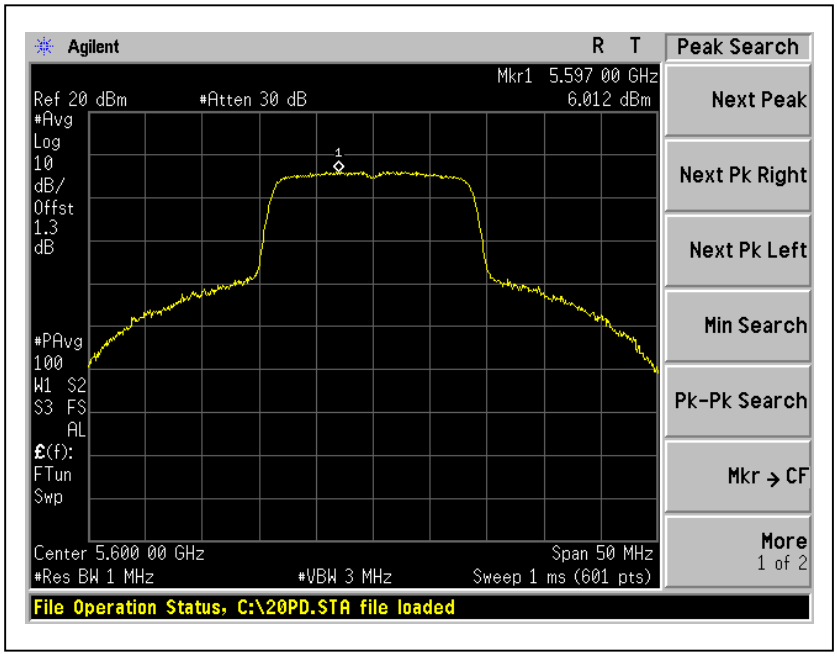
CH8


Agilent
R T
Peak Search
Mkr1 5.318 75 GHz
Ref 20 dBm
#Atten 30 dB
6.167 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.320 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

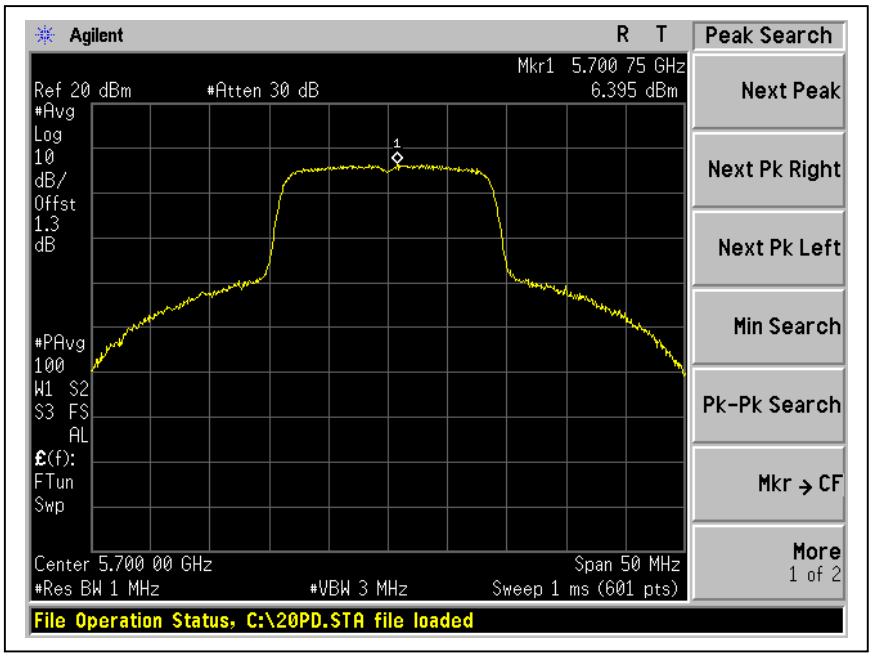
CH9


Agilent
R T
Peak Search
Mkr1 5.501 17 GHz
Ref 20 dBm
#Atten 30 dB
5.626 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.500 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

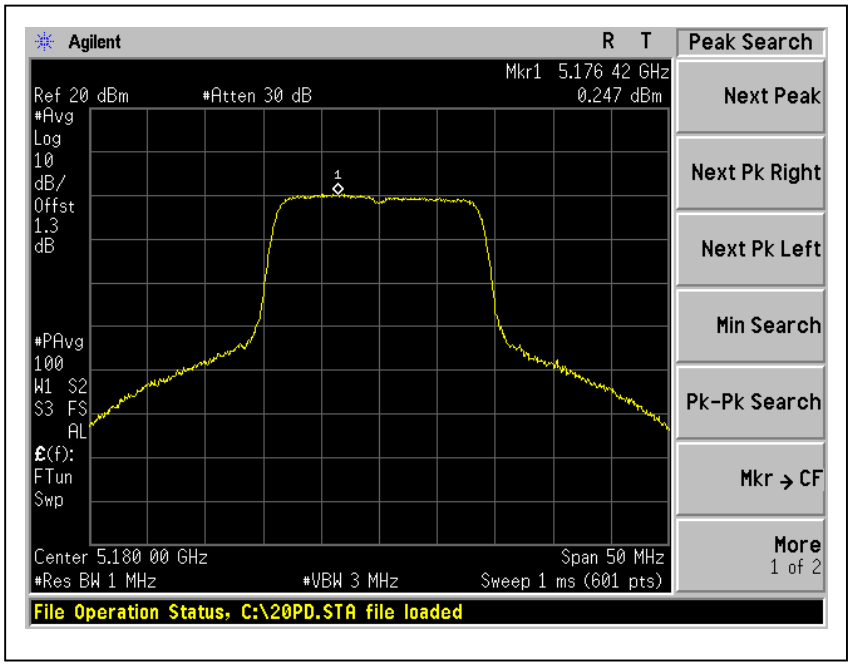
CH14


Agilent
R T
Peak Search
Mkr1 5.597 00 GHz
Ref 20 dBm
#Atten 30 dB
6.012 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.600 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

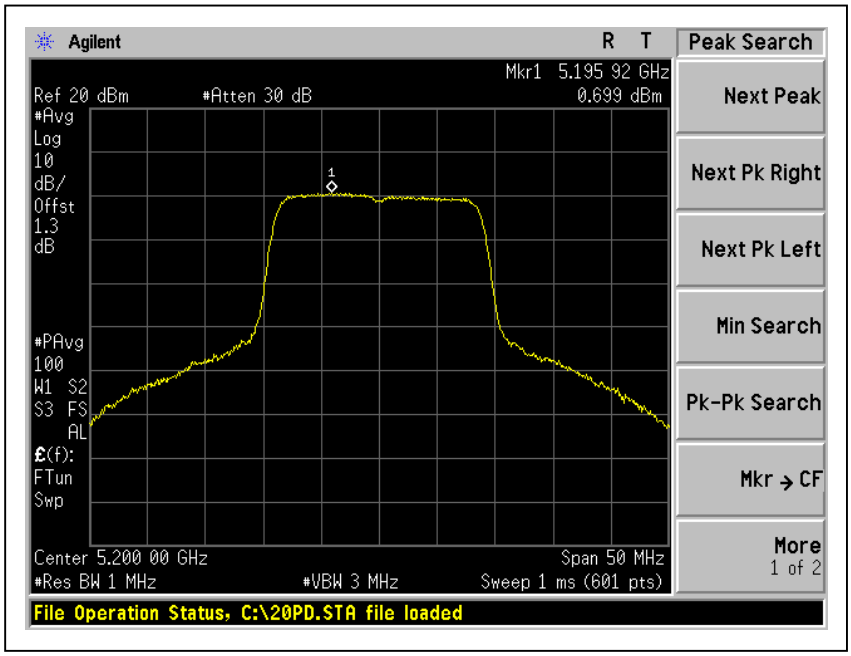
CH19


Agilent
R T
Peak Search
Mkr1 5.700 75 GHz
6.395 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.700 00 GHz
Span 50 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

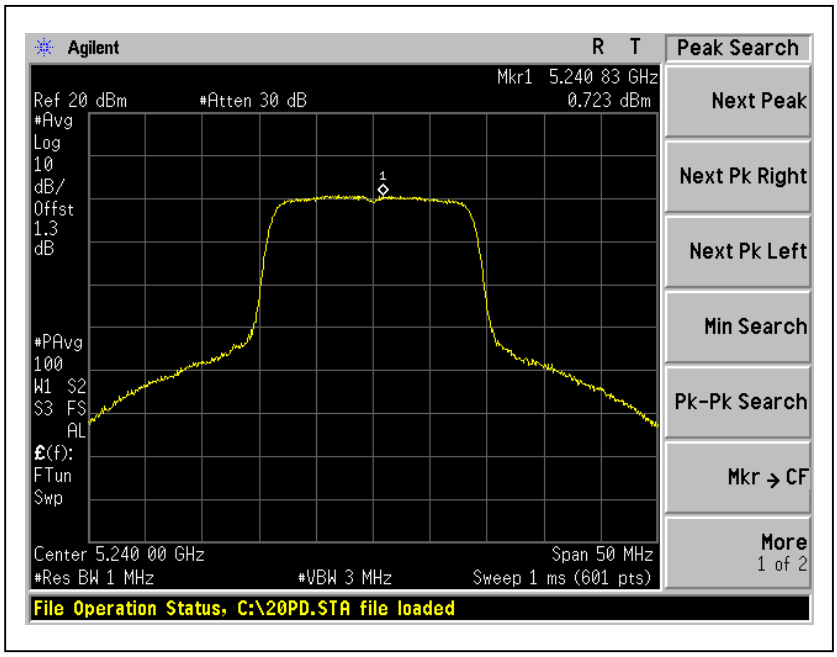
For Chain (1) : CH1



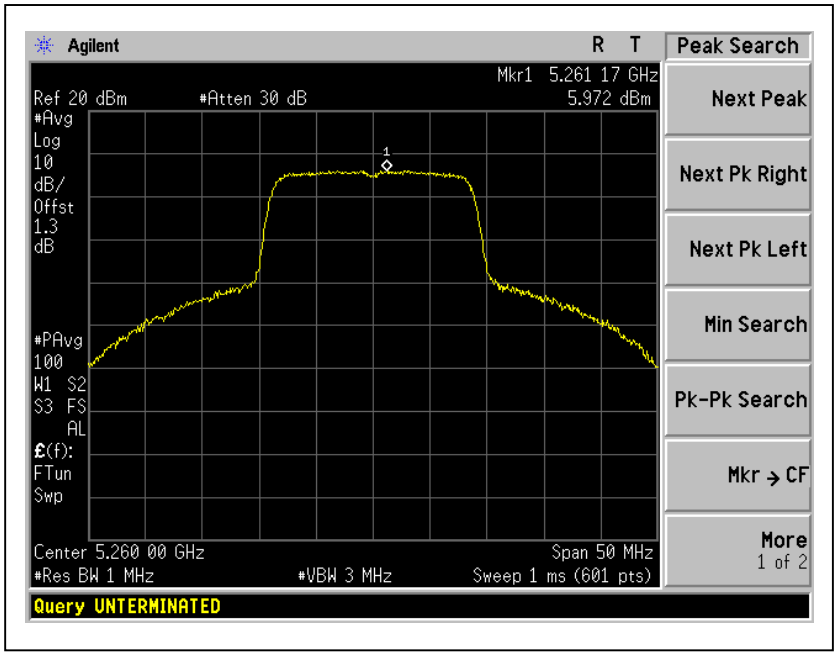
CH2



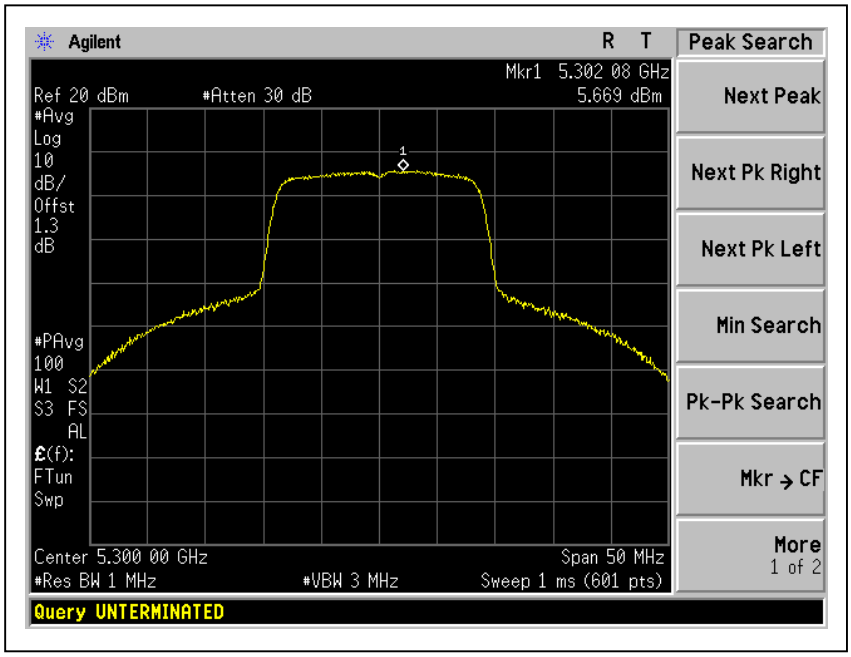
CH4


Agilent
R T
Peak Search
Mkr1 5.240 83 GHz
Ref 20 dBm
#Atten 30 dB
0.723 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.240 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

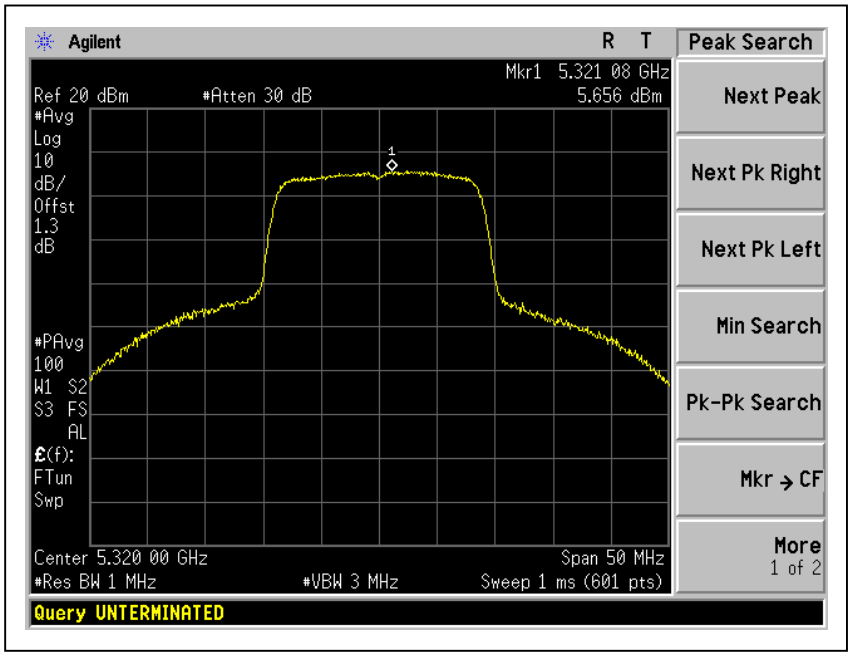
CH5


Agilent
R T
Peak Search
Mkr1 5.261 17 GHz
Ref 20 dBm
#Atten 30 dB
5.972 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.260 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Query UNTERMINATED

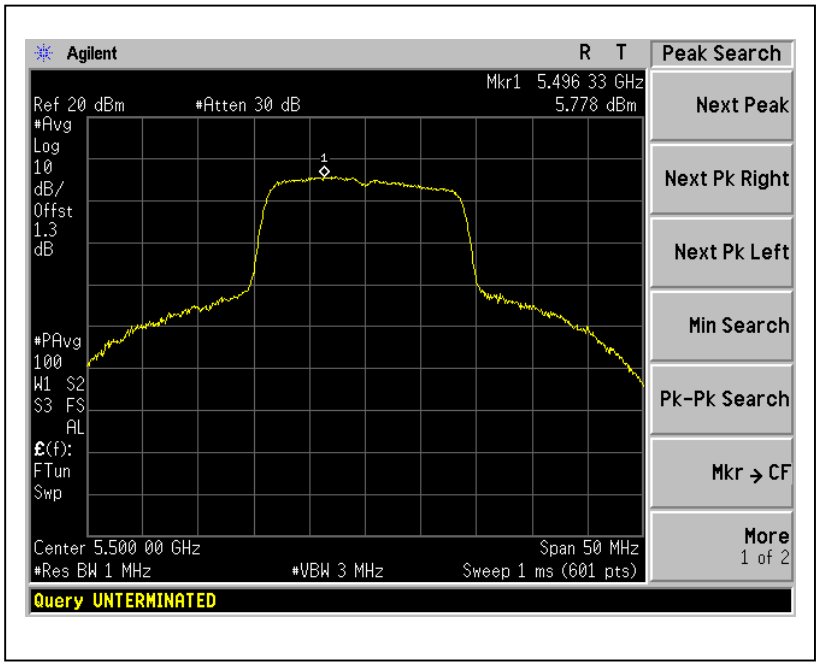
CH7


Agilent
R T
Peak Search
Mkr1 5.302 08 GHz
Ref 20 dBm
#Atten 30 dB
5.669 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.300 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Query UNTERMINATED

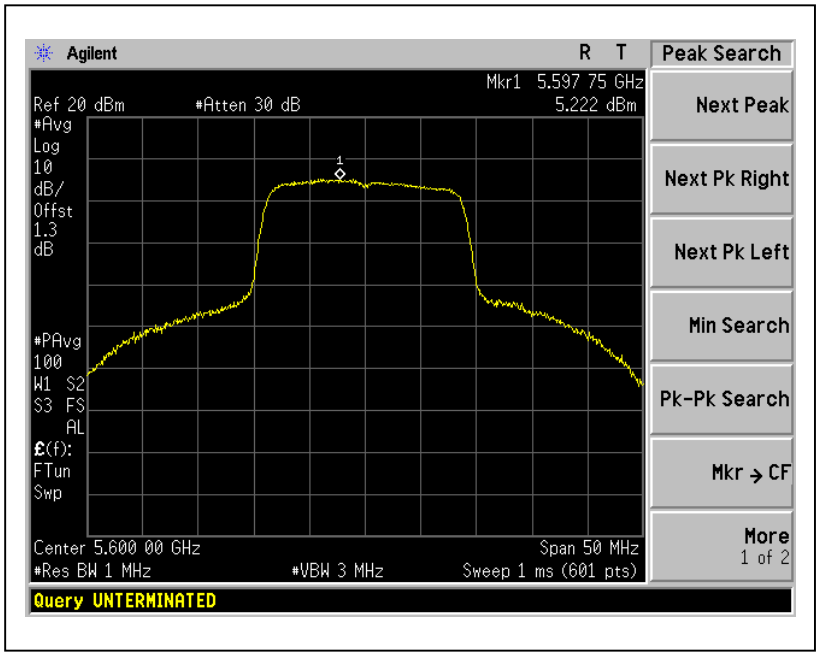
CH8


Agilent
R T
Peak Search
Mkr1 5.321 08 GHz
Ref 20 dBm
#Atten 30 dB
5.656 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.320 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Query UNTERMINATED

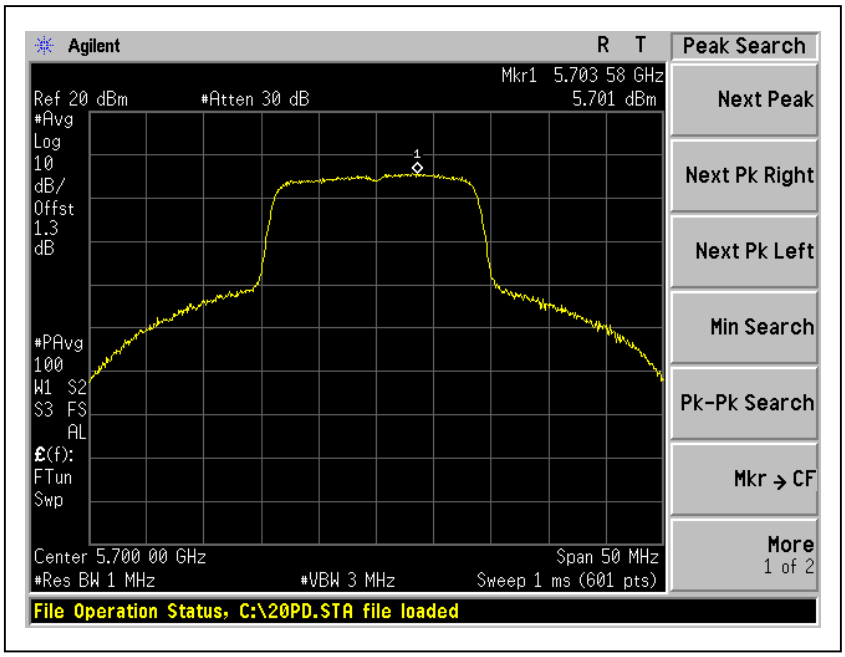
CH9


Agilent
R T
Peak Search
Mkr1 5.496 33 GHz
Ref 20 dBm
#Atten 30 dB
5.778 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.500 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Query UNTERMINATED

CH14


Agilent
R T
Peak Search
Mkr1 5.597 75 GHz
Ref 20 dBm
#Atten 30 dB
5.222 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.600 00 GHz
Span 50 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Query UNTERMINATED

CH19

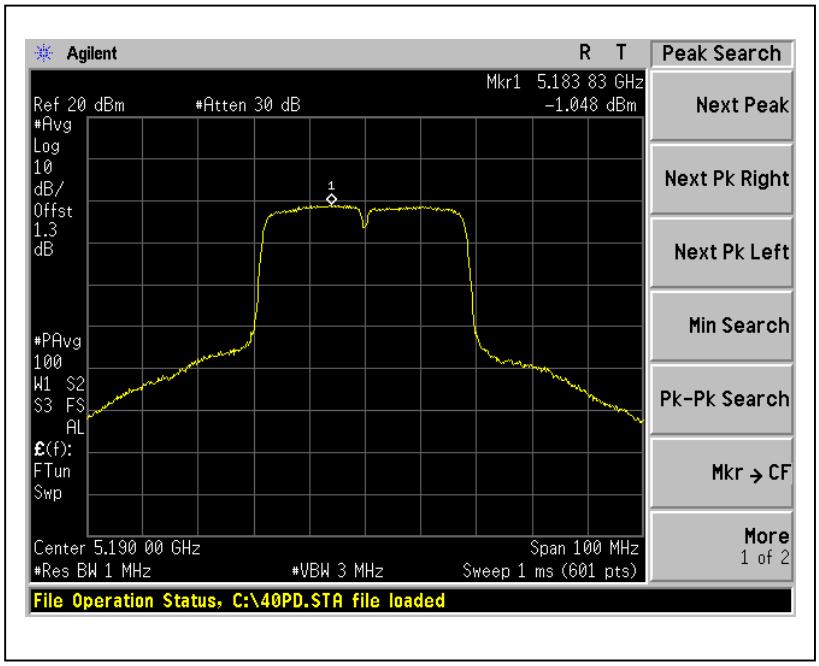

Agilent
R T
Peak Search
Mkr1 5.703 58 GHz
5.701 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.700 00 GHz
Span 50 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\20PD.STA file loaded

DRAFT 802.11n (40MHz) OFDM MODULATION:

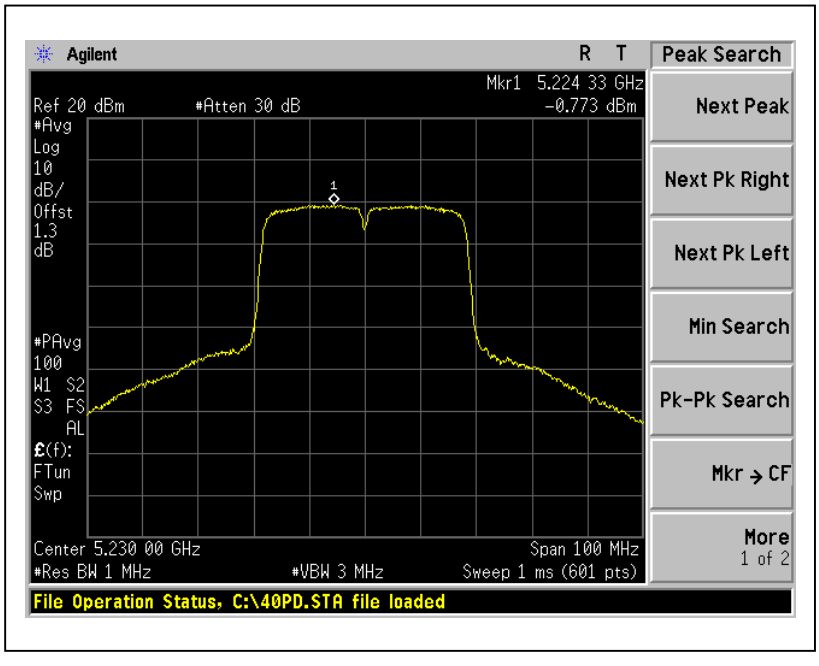
MODULATION TYPE	BPSK	TRANSFER RATE	30Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	23deg.C, 54%RH, 965hPa
TESTED BY	Rex Huang		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)		TOTAL OUTPUT POWER DENSITY (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
		Chain (0)	Chain(1)			
1	5190	-1.048	-0.195	2.41	4	PASS
2	5230	-0.773	-0.555	2.35	4	PASS
3	5270	2.000	2.398	5.21	11	PASS
4	5310	0.380	2.405	4.52	11	PASS
5	5510	0.319	0.347	3.34	11	PASS
7	5590	2.385	1.667	5.05	11	PASS
9	5670	2.042	2.091	5.08	11	PASS

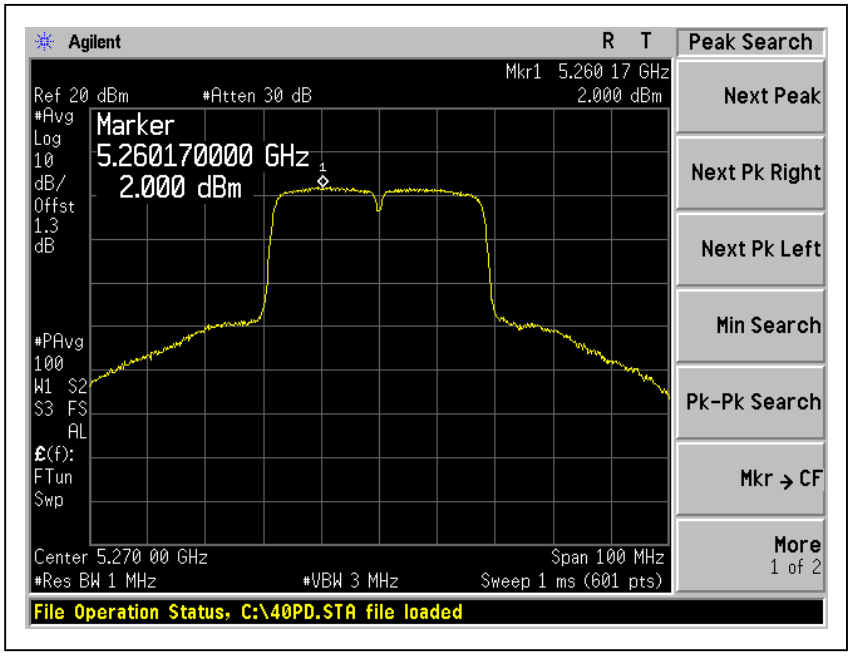
For Chain (0) : CH1



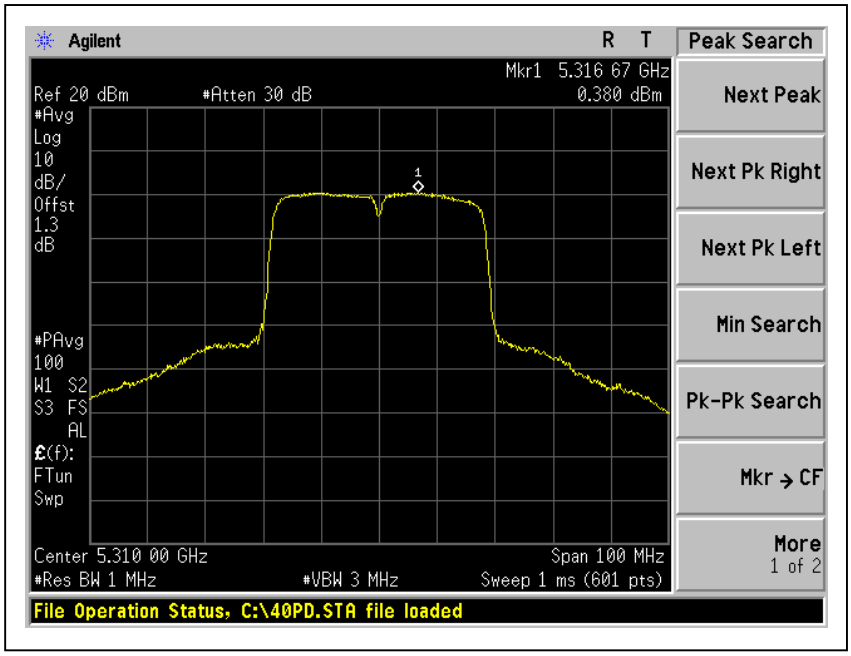
CH2



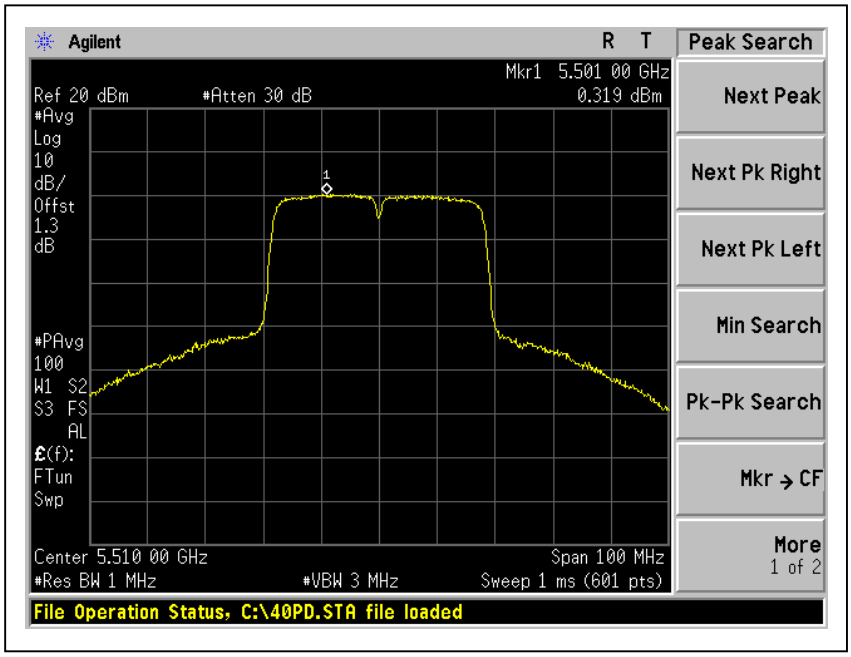
CH3


Agilent
R T
Peak Search
Mkr1 5.260 17 GHz
2.000 dBm
Ref 20 dBm
#Atten 30 dB
Marker
5.260170000 GHz
2.000 dBm
#Avg
Log
10
dB/
Offst
1.3
dB
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.270 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 100 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PD.STA file loaded

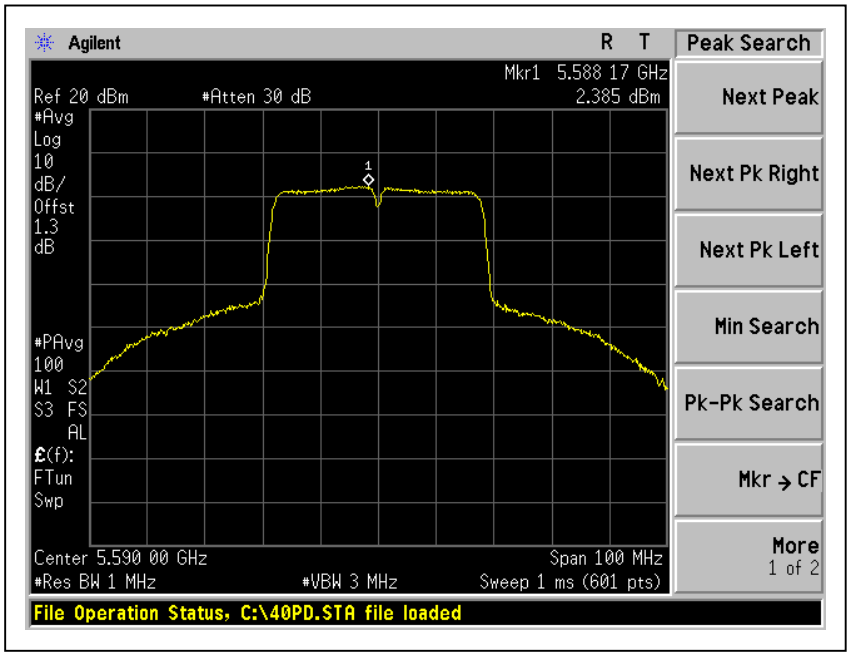
CH4


Agilent
R T
Peak Search
Mkr1 5.316 67 GHz
0.380 dBm
Ref 20 dBm
#Atten 30 dB
#Avg
Log
10
dB/
Offst
1.3
dB
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.310 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 100 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PD.STA file loaded

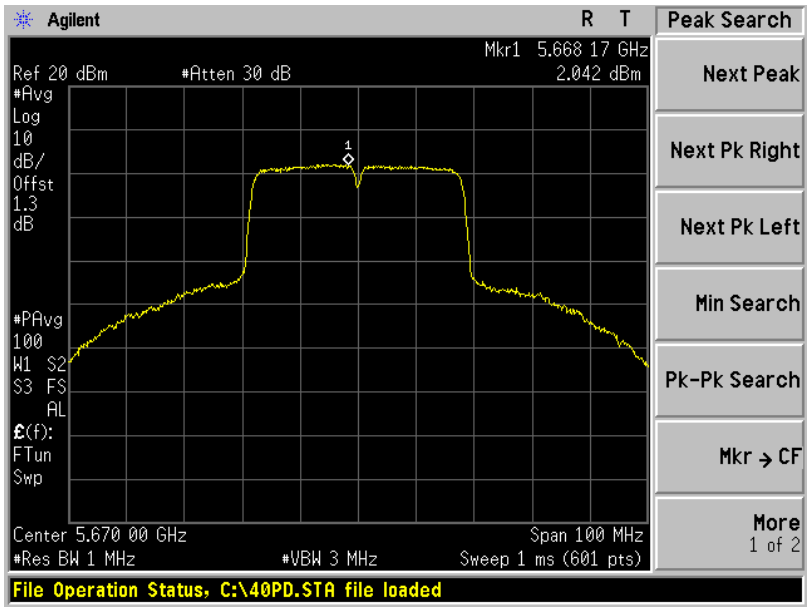
CH5


Agilent
R T
Peak Search
Mkr1 5.501 00 GHz
Ref 20 dBm
#Atten 30 dB
0.319 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.510 00 GHz
Span 100 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PD.STA file loaded

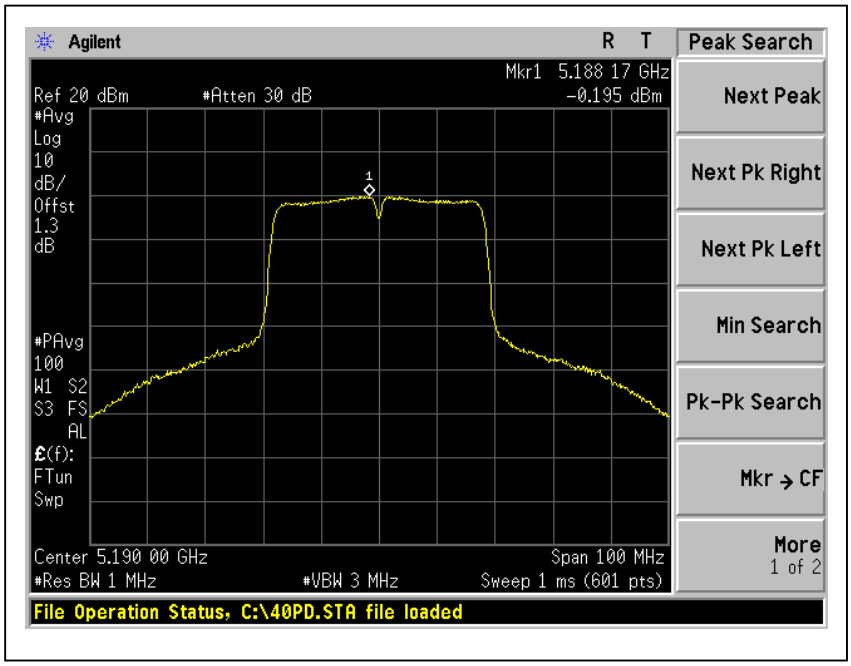
CH7


Agilent
R T
Peak Search
Mkr1 5.588 17 GHz
Ref 20 dBm
#Atten 30 dB
2.385 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.590 00 GHz
Span 100 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PD.STA file loaded

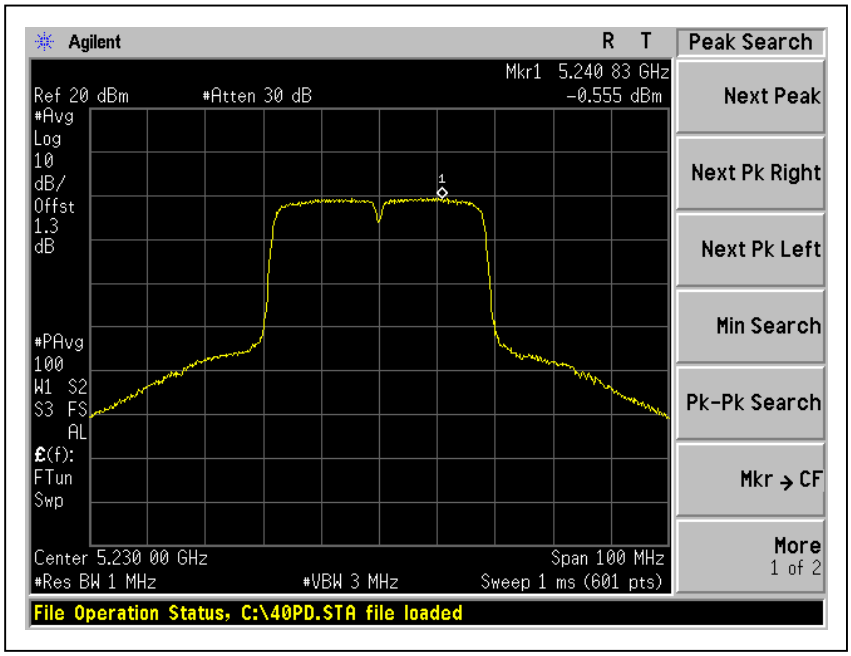
CH9


Agilent
R T
Peak Search
Mkr1 5.668 17 GHz
Ref 20 dBm
#Atten 30 dB
2.042 dBm
#Avg
Log
10
dB/
Offst
1.3
dB
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.670 00 GHz
Span 100 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PD.STA file loaded

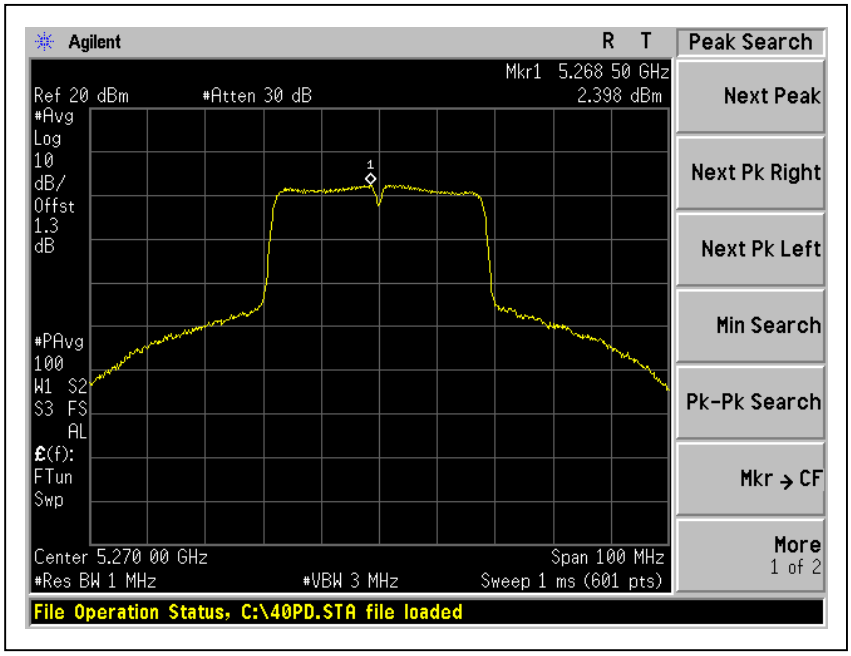
For Chain (1) : CH1



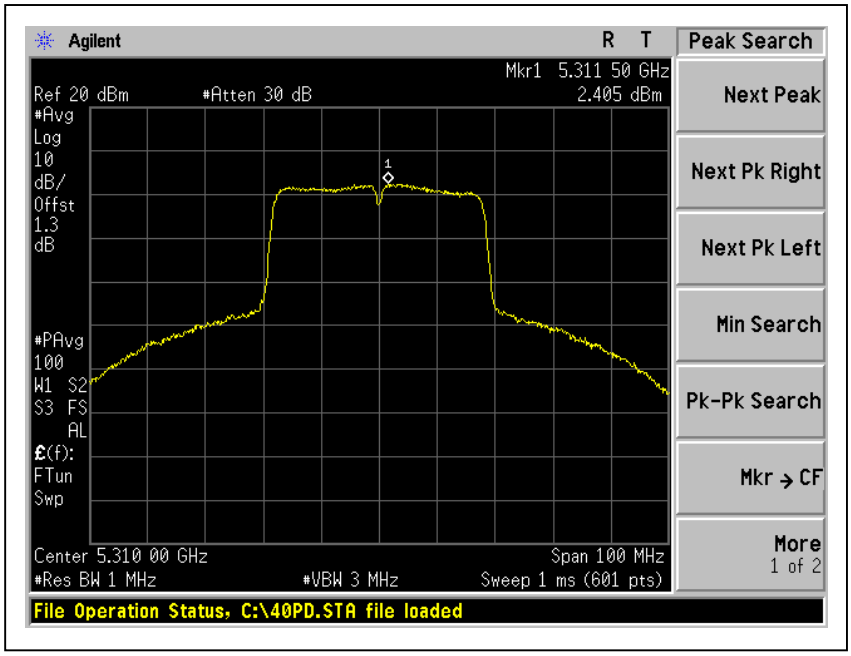
CH2



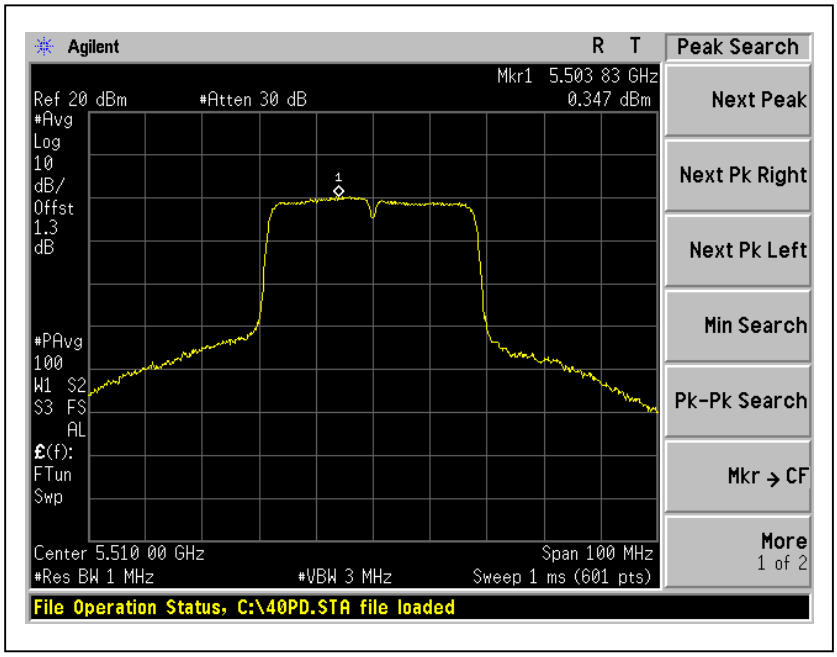
CH3


Agilent
R T
Peak Search
Mkr1 5.268 50 GHz
Ref 20 dBm
#Atten 30 dB
2.398 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.270 00 GHz
Span 100 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PD.STA file loaded

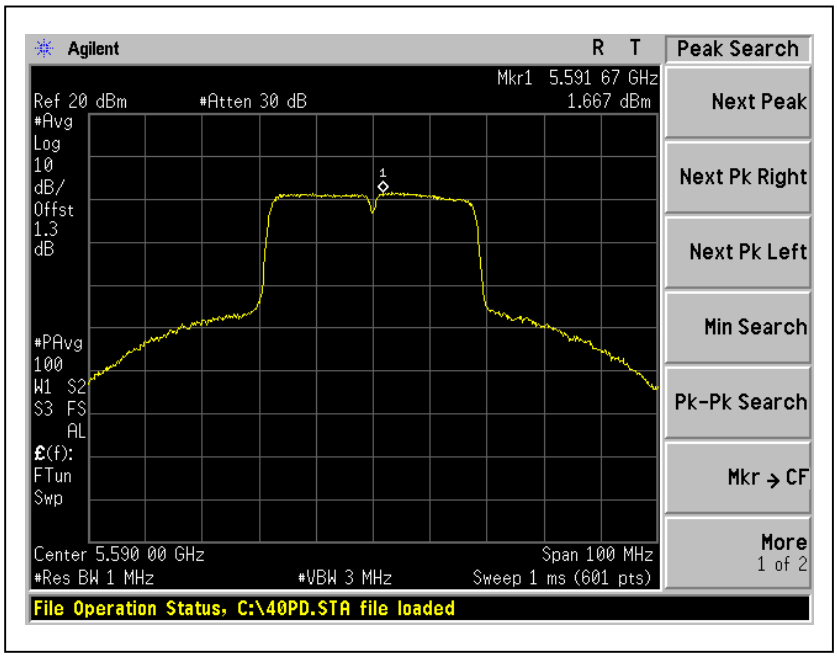
CH4


Agilent
R T
Peak Search
Mkr1 5.311 50 GHz
Ref 20 dBm
#Atten 30 dB
2.405 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.310 00 GHz
Span 100 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PD.STA file loaded

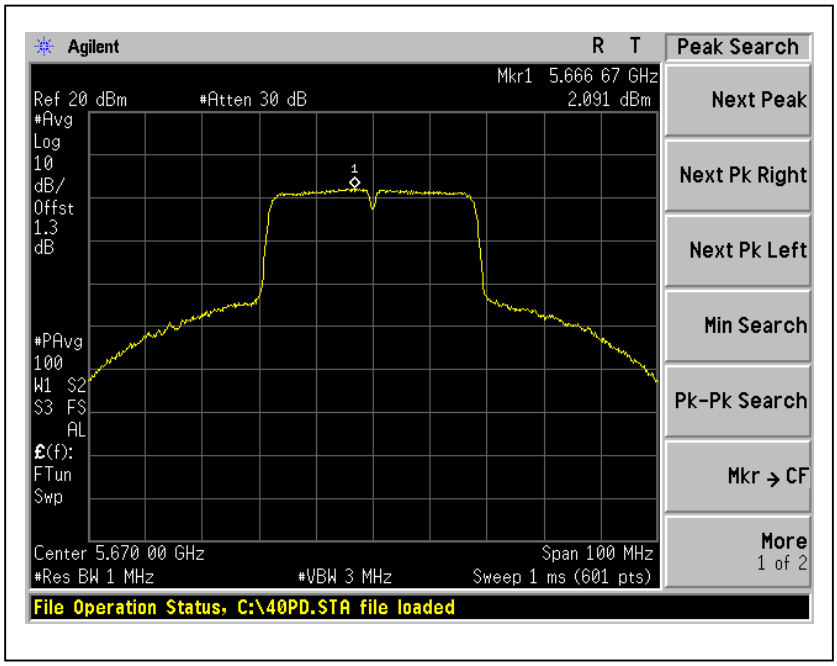
CH5


Agilent
R T
Peak Search
Mkr1 5.503 83 GHz
Ref 20 dBm
#Atten 30 dB
0.347 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.510 00 GHz
Span 100 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PD.STA file loaded

CH7


Agilent
R T
Peak Search
Mkr1 5.591 67 GHz
Ref 20 dBm
#Atten 30 dB
1.667 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
Center 5.590 00 GHz
Span 100 MHz
More
1 of 2
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PD.STA file loaded

CH9


Agilent
R T
Peak Search
Mkr1 5.666 67 GHz
Ref 20 dBm
#Atten 30 dB
2.091 dBm
Next Peak
#Avg
Log
10
dB/
Offst
1.3
dB
Next Pk Right
Next Pk Left
Min Search
#PAvg
100
W1 S2
S3 FS
AL
£(f):
FTun
Swp
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.670 00 GHz
Span 100 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
File Operation Status, C:\40PD.STA file loaded

4.6 FREQUENCY STABILITY

4.6.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

The frequency tolerance of the carrier signal shall be maintained within +/- 0.02% of the operating frequency over a temperature variation of –30 degrees to 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.

4.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100037	Aug. 09, 2008	Aug. 08, 2009

NOTE:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

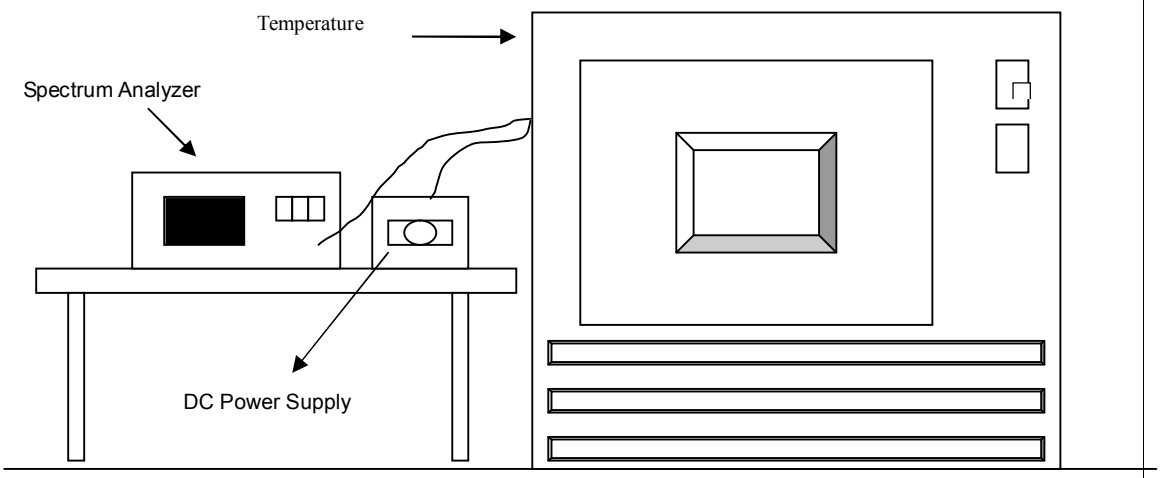
4.6.3 TEST PROCEDURE

1. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
2. Turn the EUT on and couple its output to a spectrum analyzer.
3. Turn the EUT off and set the chamber to the highest temperature specified.
4. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
5. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
6. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 TEST SETUP



4.6.6 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

4.6.7 TEST RESULTS

Operating frequency: 5320MHz						Limit : ± 0.02%	
Temp. (℃)	Power supply (VAC)	2 minute		5 minute		10 minute	
		(MHz)	(%)	(MHz)	(%)	(MHz)	(%)
50	126.5	5320.0385	0.000724	5320.0464	0.000872	5320.0444	0.000835
	110	5320.0366	0.000688	5320.0484	0.000910	5320.0464	0.000872
	93.5	5320.0375	0.000705	5320.0454	0.000853	5320.0444	0.000835
40	126.5	5320.0348	0.000654	5320.0441	0.000829	5320.0442	0.000831
	110	5320.0343	0.000645	5320.044	0.000827	5320.0442	0.000831
	93.5	5320.0342	0.000643	5320.0438	0.000823	5320.0442	0.000831
30	126.5	5320.0293	0.000551	5320.0285	0.000536	5320.0282	0.000530
	110	5320.0299	0.000562	5320.0287	0.000539	5320.0285	0.000536
	93.5	5320.0289	0.000543	5320.0285	0.000536	5320.0282	0.000530
20	126.5	5319.9887	0.000212	5319.9866	0.000252	5319.9831	0.000318
	110	5319.9881	0.000224	5319.9865	0.000254	5319.9832	0.000316
	93.5	5319.9882	0.000222	5319.9863	0.000258	5319.9830	0.000320
10	126.5	5320.0253	0.000476	5320.0284	0.000534	5320.0284	0.000534
	110	5320.0254	0.000477	5320.0284	0.000534	5320.0294	0.000553
	93.5	5320.0258	0.000485	5320.0284	0.000534	5320.0294	0.000553
0	126.5	5320.0152	0.000286	5320.0196	0.000368	5320.0193	0.000363
	110	5320.0157	0.000295	5320.0196	0.000368	5320.0195	0.000367
	93.5	5320.0162	0.000305	5320.0195	0.000367	5320.0192	0.000361
-10	126.5	5320.0123	0.000231	5320.0142	0.000267	5320.0139	0.000261
	110	5320.0136	0.000256	5320.0146	0.000274	5320.0143	0.000269
	93.5	5320.0145	0.000273	5320.0142	0.000267	5320.0139	0.000261
-20	126.5	5320.0234	0.000440	5320.0254	0.000477	5320.0254	0.000477
	110	5320.0233	0.000438	5320.0284	0.000534	5320.0264	0.000496
	93.5	5320.0234	0.000440	5320.0254	0.000477	5320.0254	0.000477
-30	126.5	5319.9845	0.000291	5319.9925	0.000141	5319.9927	0.000137
	110	5319.9836	0.000308	5319.9925	0.000141	5319.9929	0.000133
	93.5	5319.9835	0.000310	5319.98253	0.000328	5319.9826	0.000327

4.7 CONDUCTED OUT-BAND EMISSION MEASUREMENT

4.7.1 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100037	Aug. 09, 2008	Aug. 08, 2009

NOTE:

1.The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.7.2 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set RBW of spectrum analyzer to 1MHz with suitable frequency span including 100 MHz bandwidth from band edge. The band edges was measured and recorded.

4.7.3 EUT OPERATING CONDITION

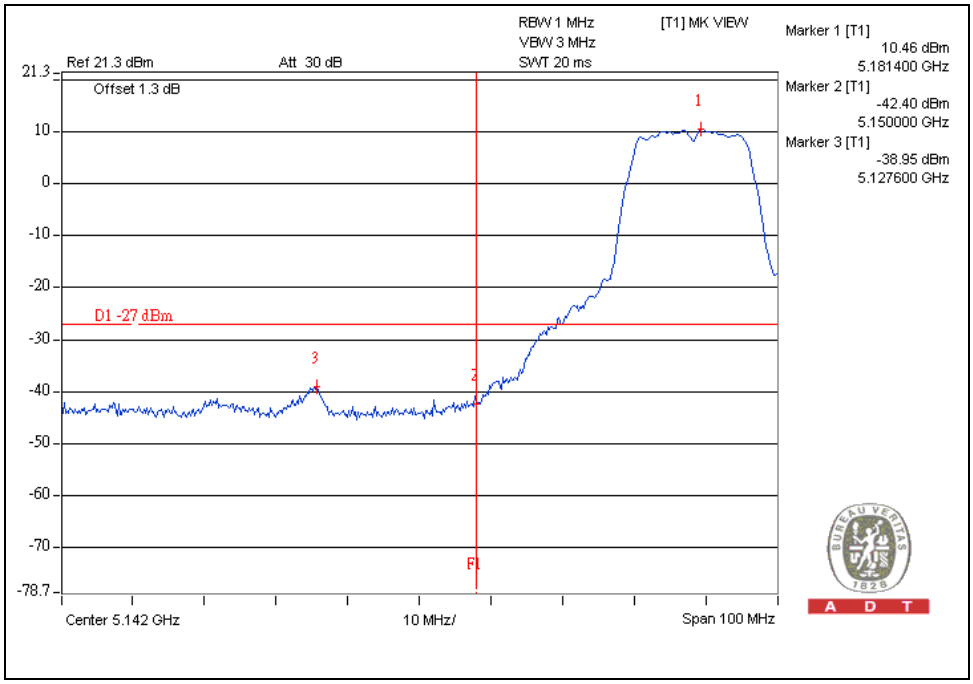
The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

4.7.4 TEST RESULTS

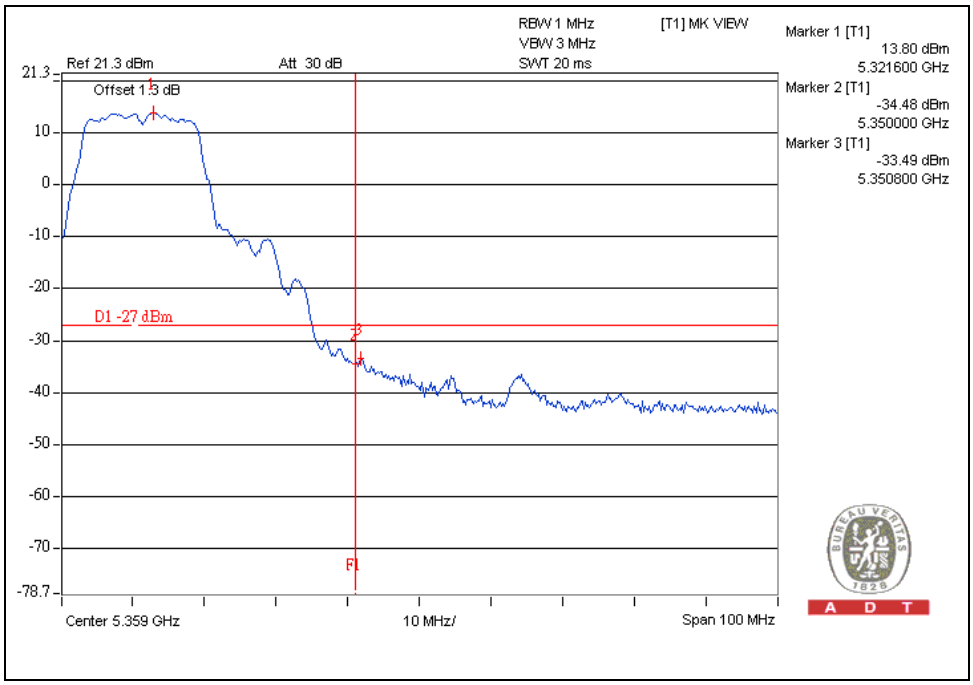
For 5.15 to 5.35GHz band:
The spectrum plots (Peak RBW=1MHz, VBW=3MHz) are attached on the following pages.

802.11a OFDM modulation

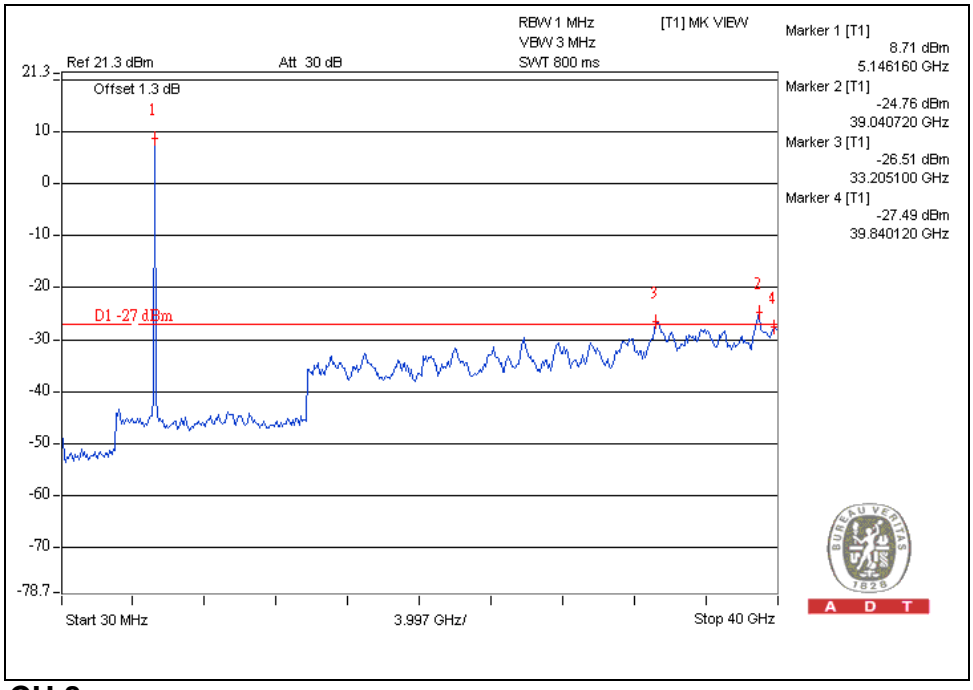
CH 1



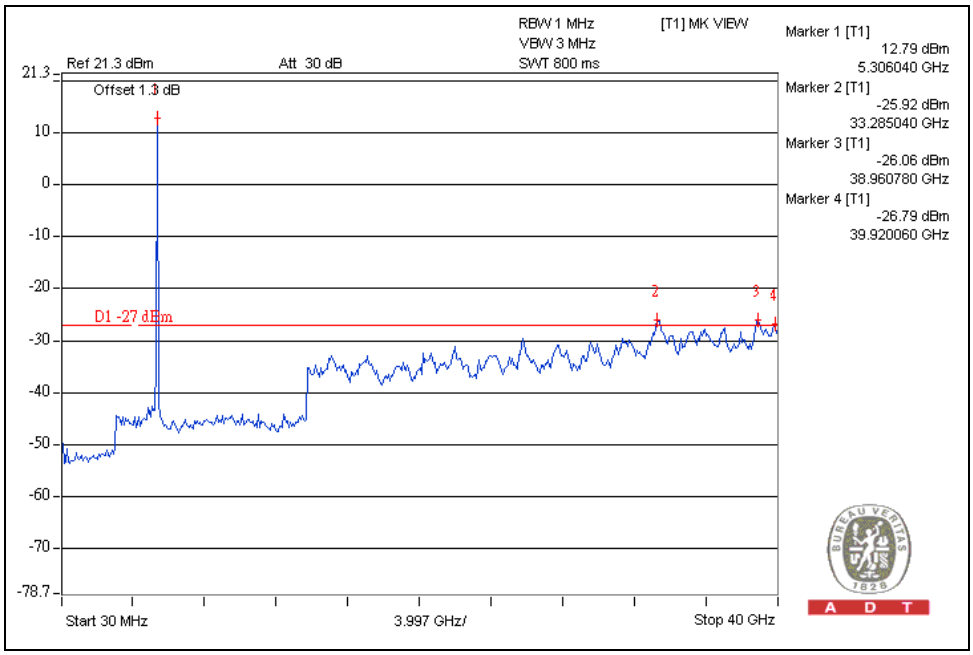
CH 8



CH 1


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 21.3 dBm
Att 30 dB
Offset 1.3 dB
D1 -27 dBm
Marker 1 [T1]
8.71 dBm
5.146160 GHz
Marker 2 [T1]
-24.76 dBm
39.040720 GHz
Marker 3 [T1]
-26.51 dBm
33.205100 GHz
Marker 4 [T1]
-27.49 dBm
39.840120 GHz
21.3
10
0
-10
-20
-30
-40
-50
-60
-70
-78.7
Start 30 MHz
3.997 GHz/
Stop 40 GHz

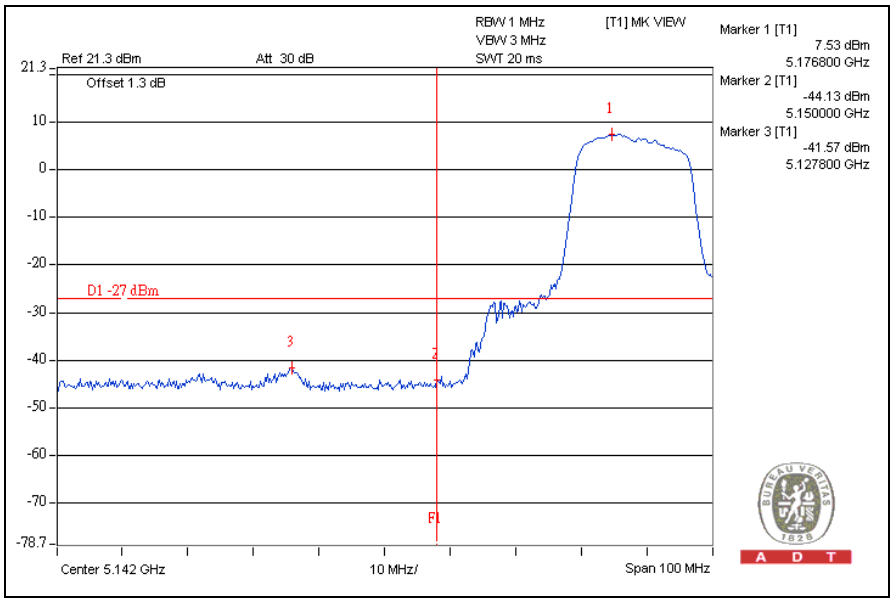
CH 8


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 21.3 dBm
Att 30 dB
Offset 1.3 dB
D1 -27 dBm
Marker 1 [T1]
12.79 dBm
5.306040 GHz
Marker 2 [T1]
-25.92 dBm
33.285040 GHz
Marker 3 [T1]
-26.06 dBm
38.960780 GHz
Marker 4 [T1]
-26.79 dBm
39.920060 GHz
21.3
10
0
-10
-20
-30
-40
-50
-60
-70
-78.7
Start 30 MHz
3.997 GHz/
Stop 40 GHz

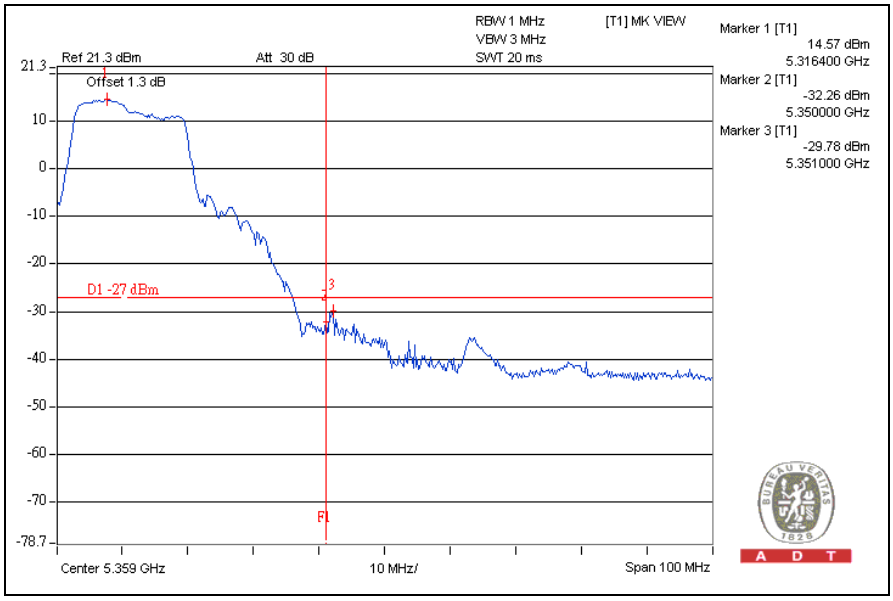
DRAFT 802.11n (20MHz) OFDM MODULATION:

For chain (0):

CH1

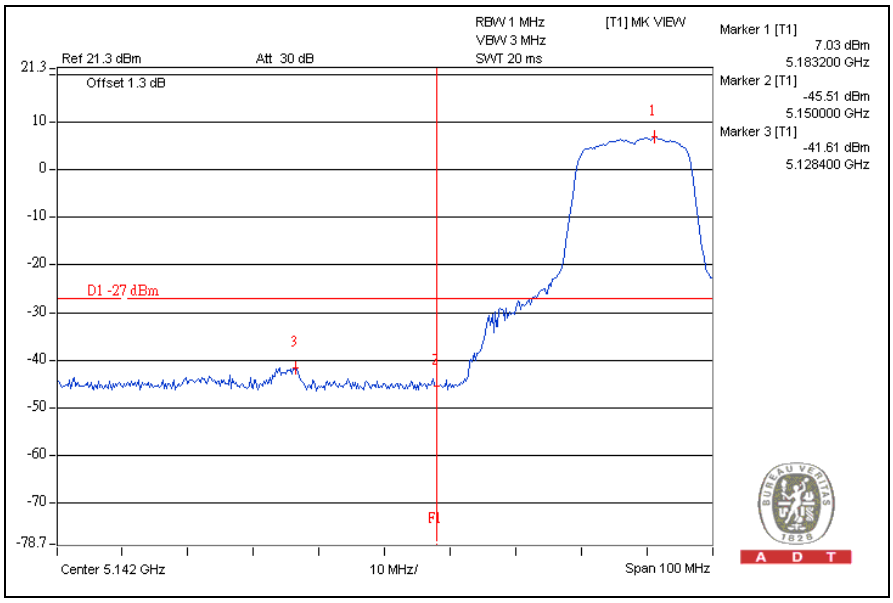


CH8

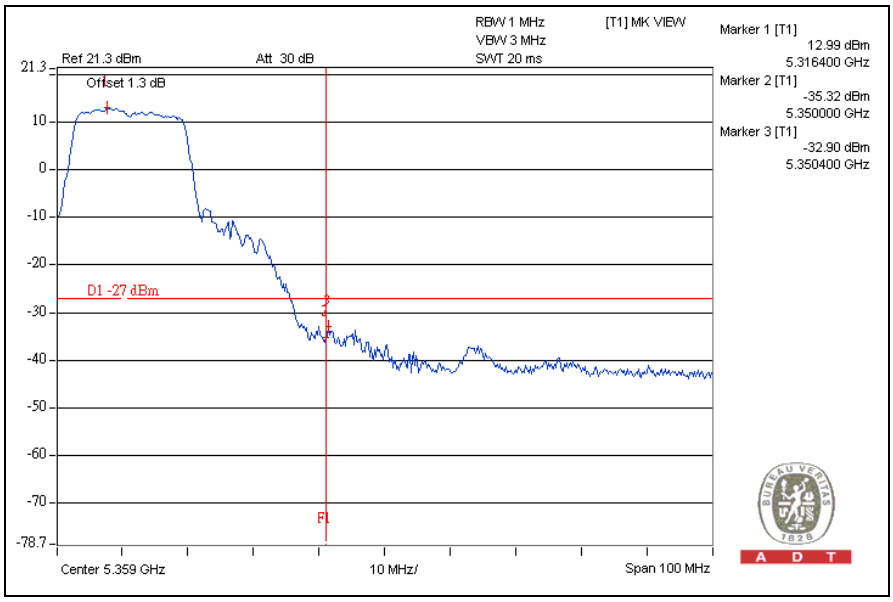


For chain (1):

CH1

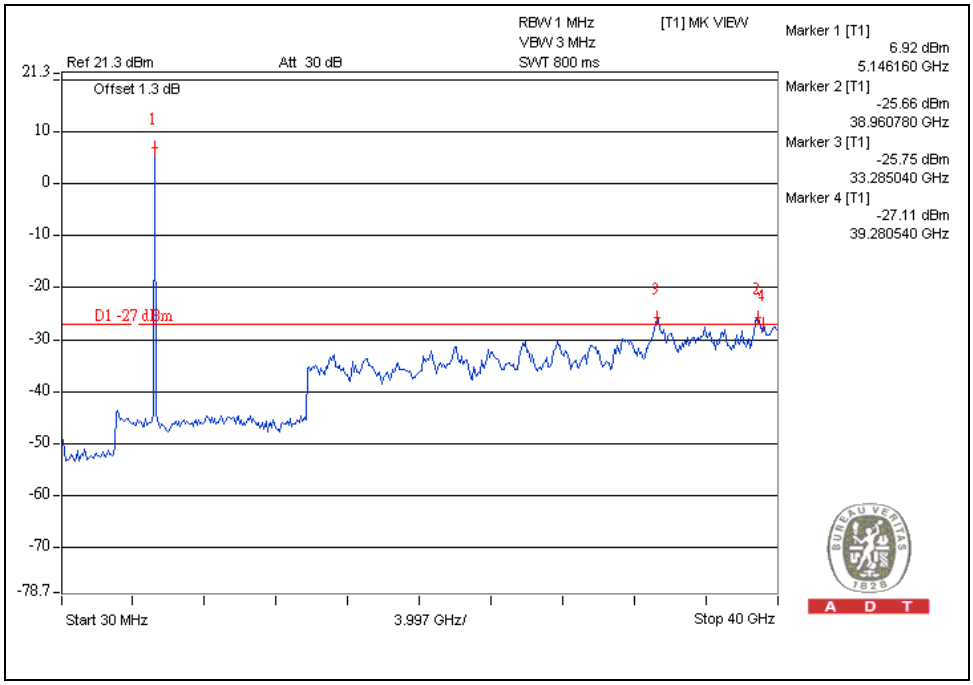


CH8

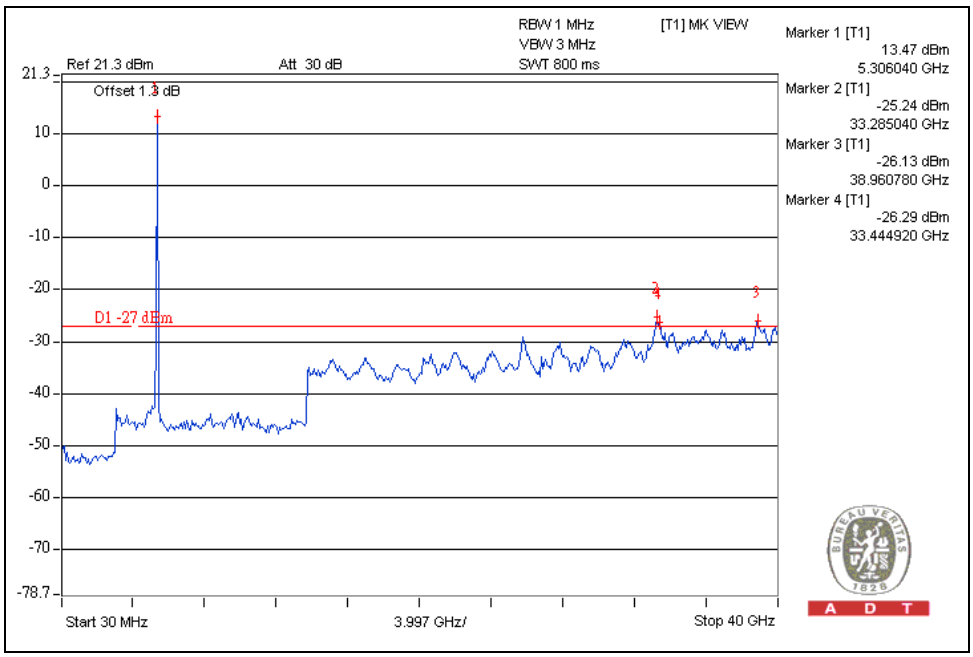


For chain (0):

CH1

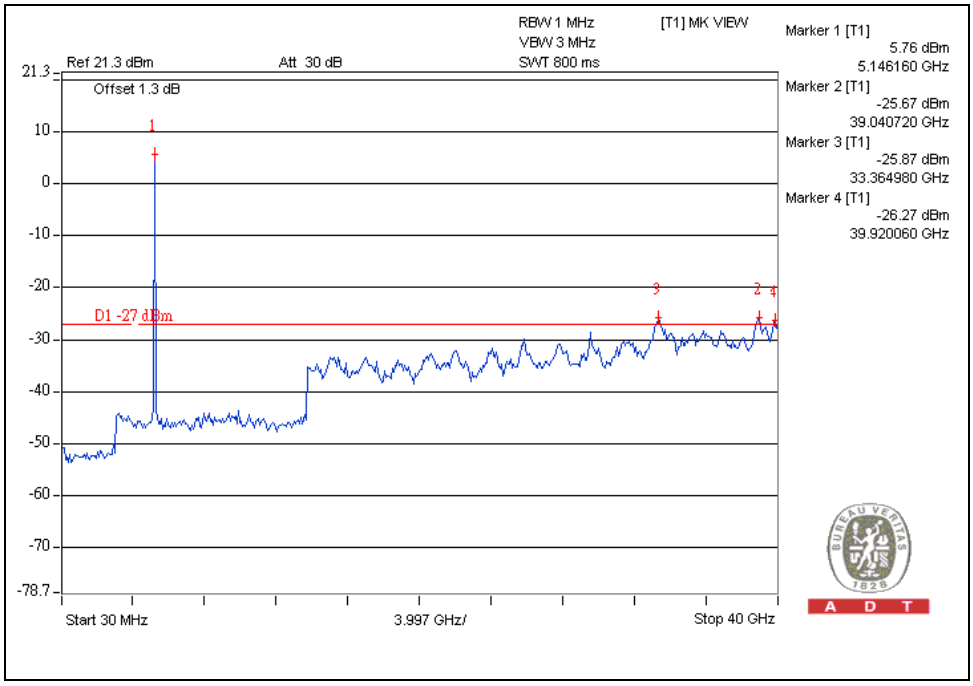


CH8

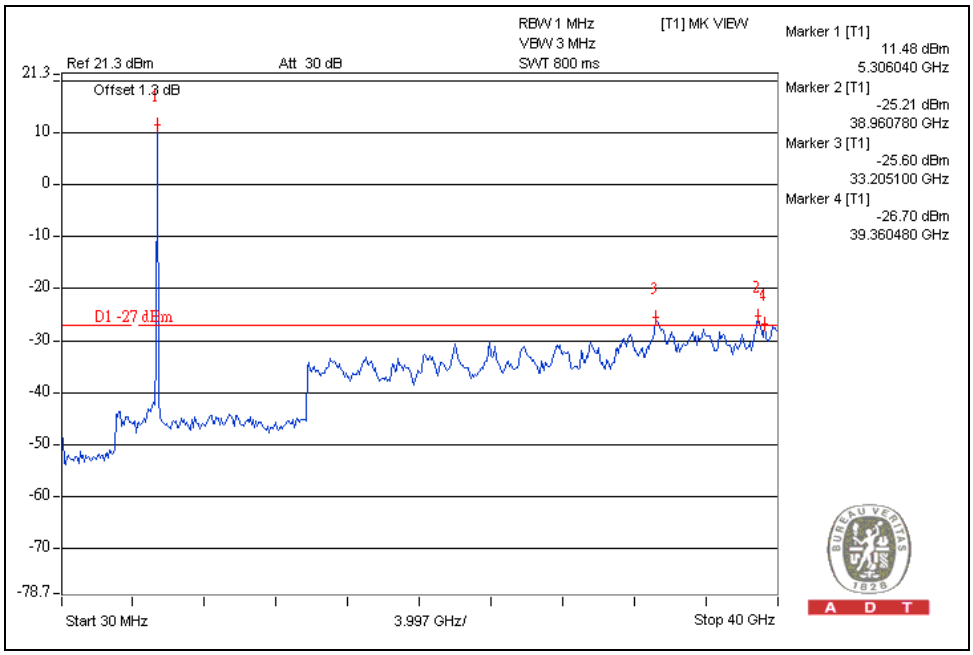


For chain (1):

CH1



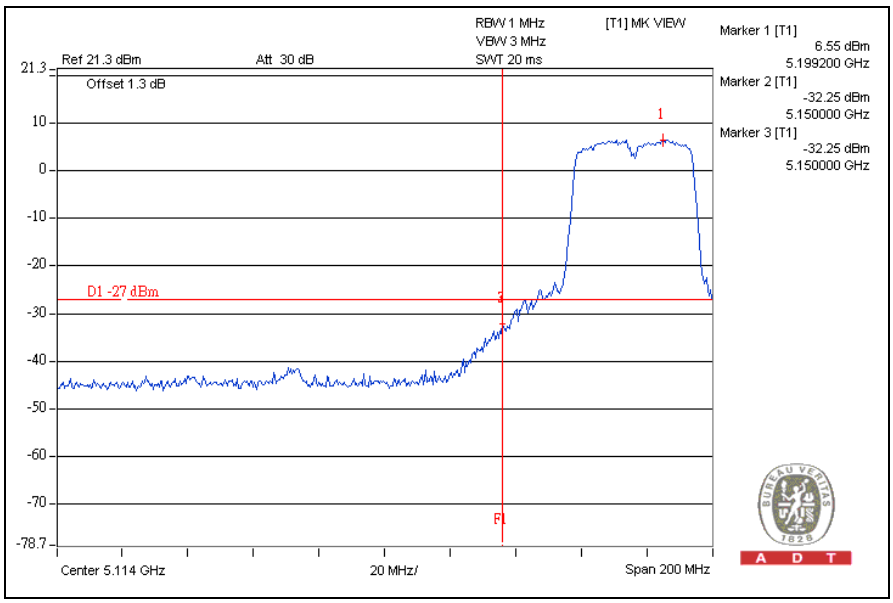
CH8



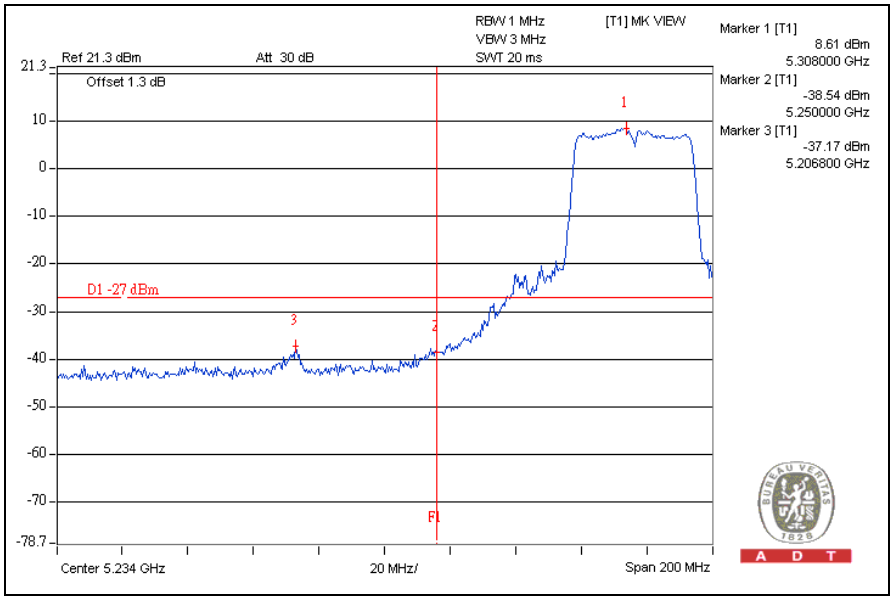
DRAFT 802.11n (40MHz) OFDM MODULATION:

For chain (0):

CH1

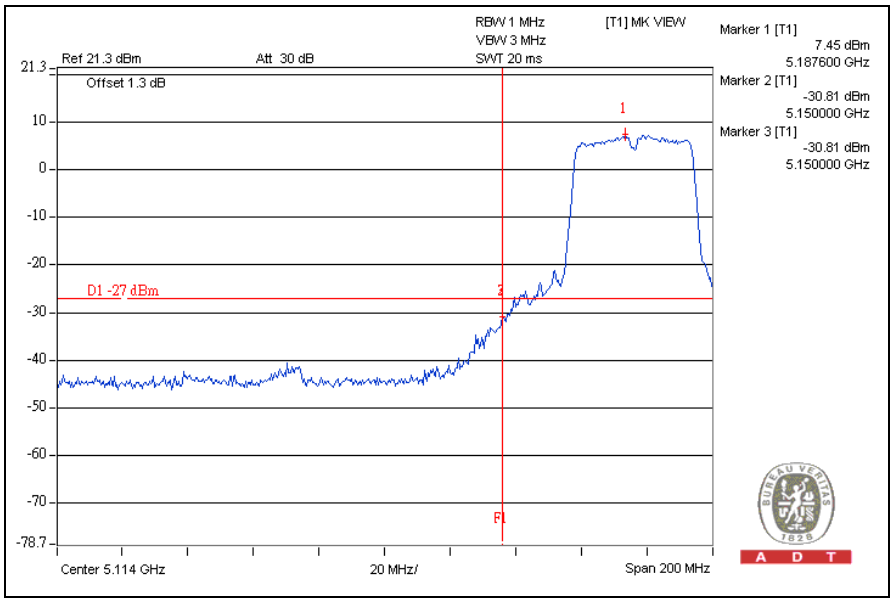


CH4

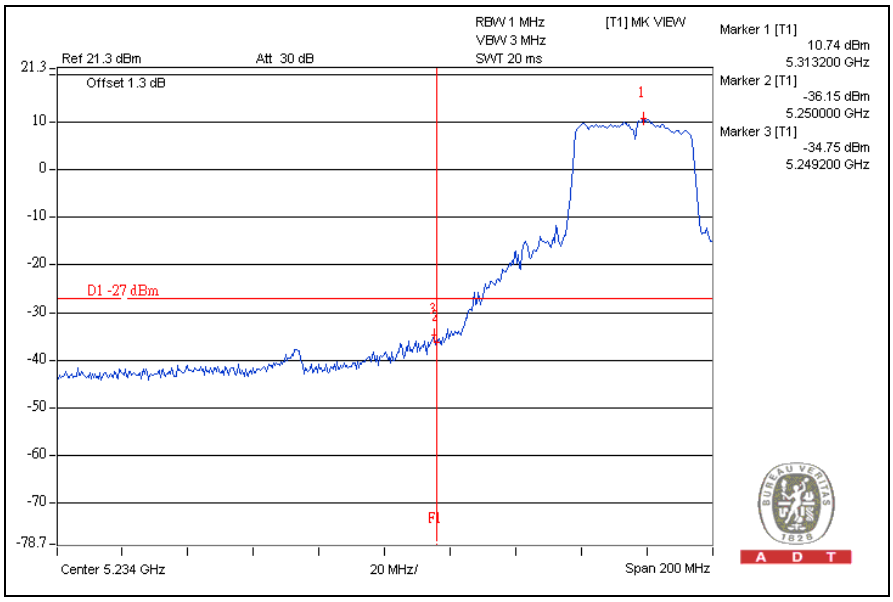


For chain (1):

CH1

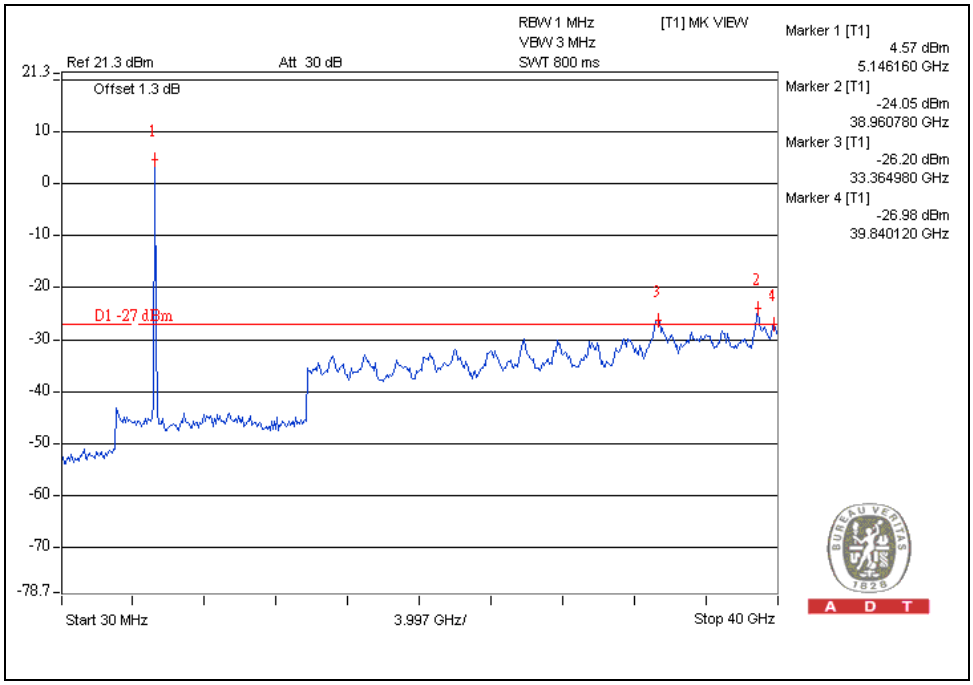


CH4

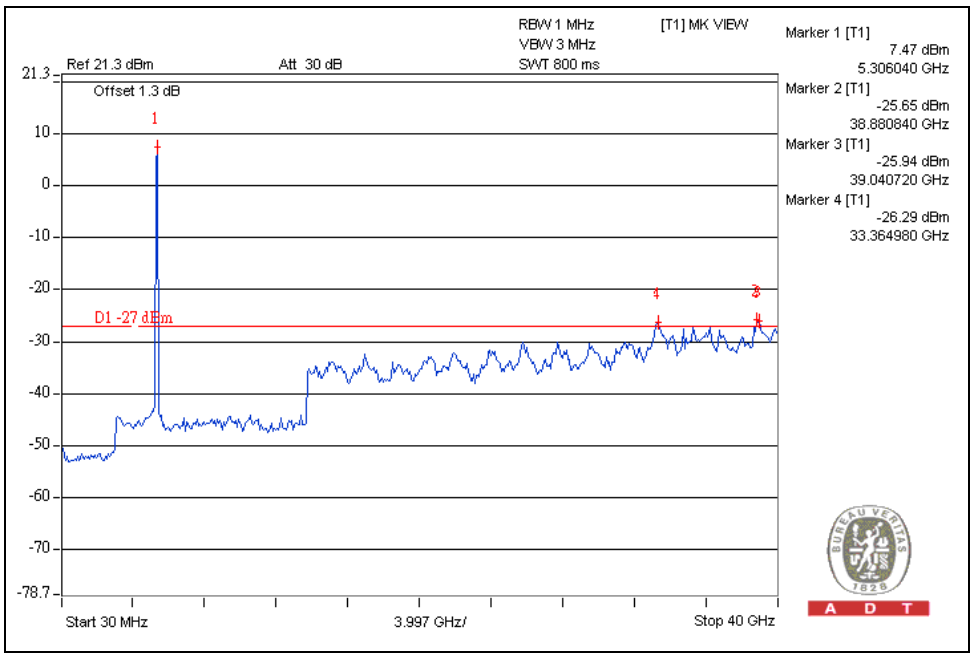


For chain (0):

CH1

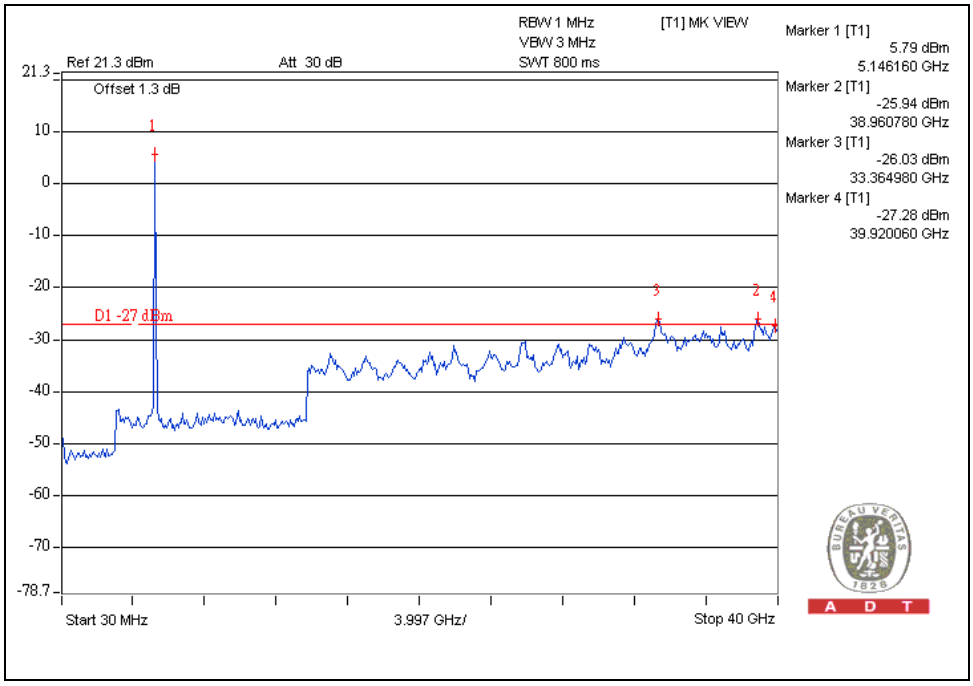


CH4

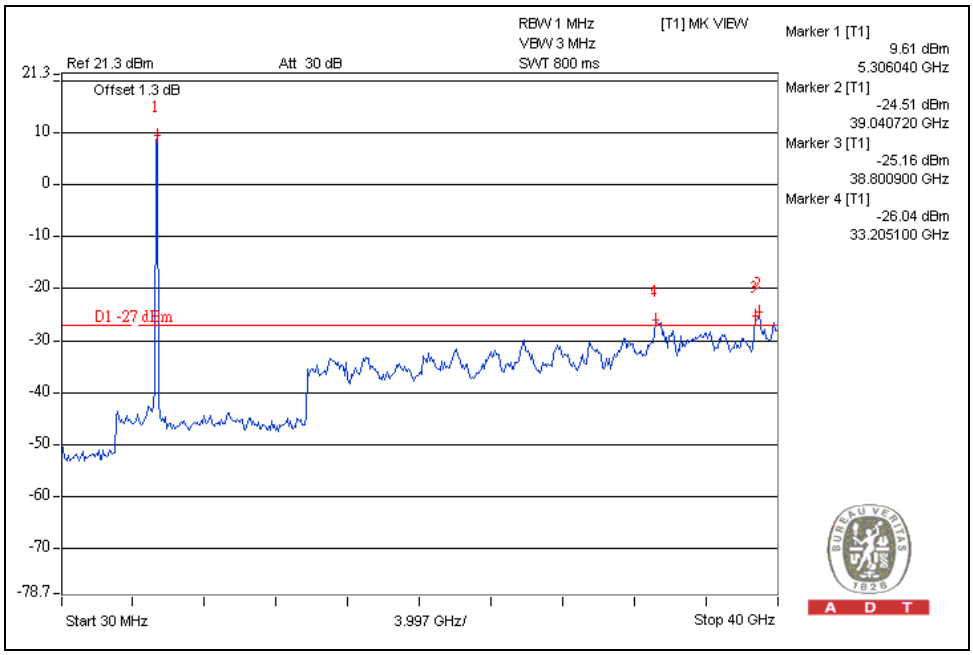


For chain (1):

CH1



CH4

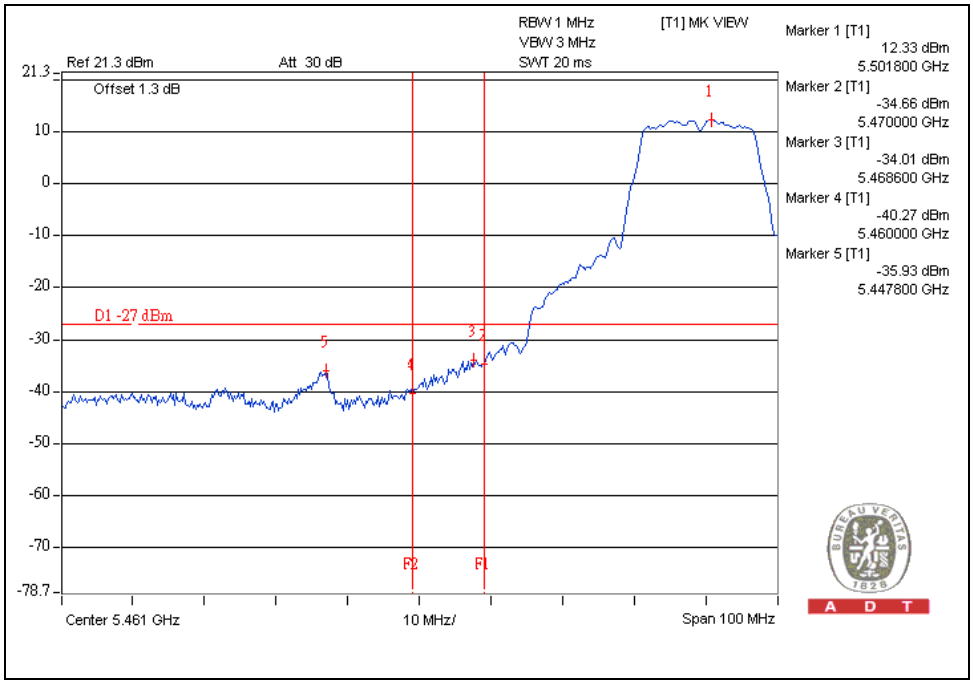


For 5.47 to 5.725GHz band:

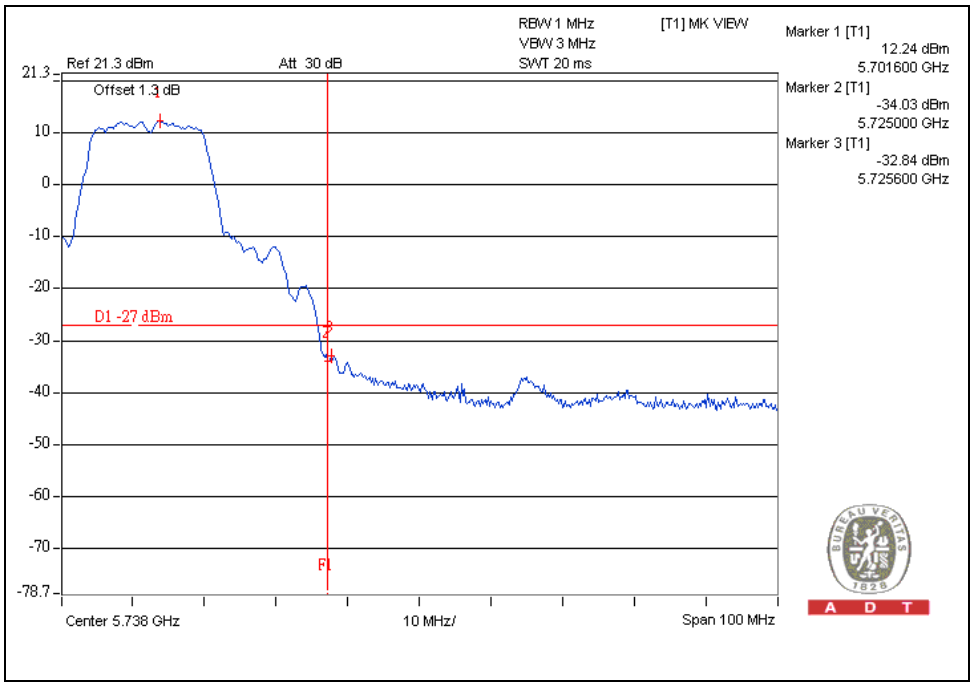
The spectrum plots (Peak RBW=1MHz, VBW=3MHz) are attached on the following pages.

802.11a OFDM modulation

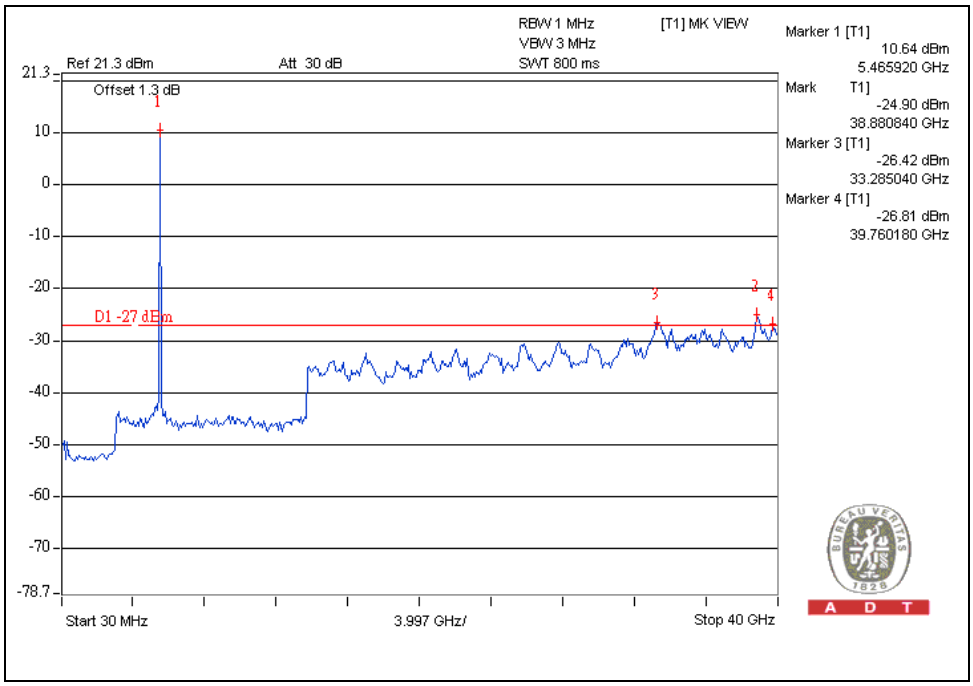
CH 9



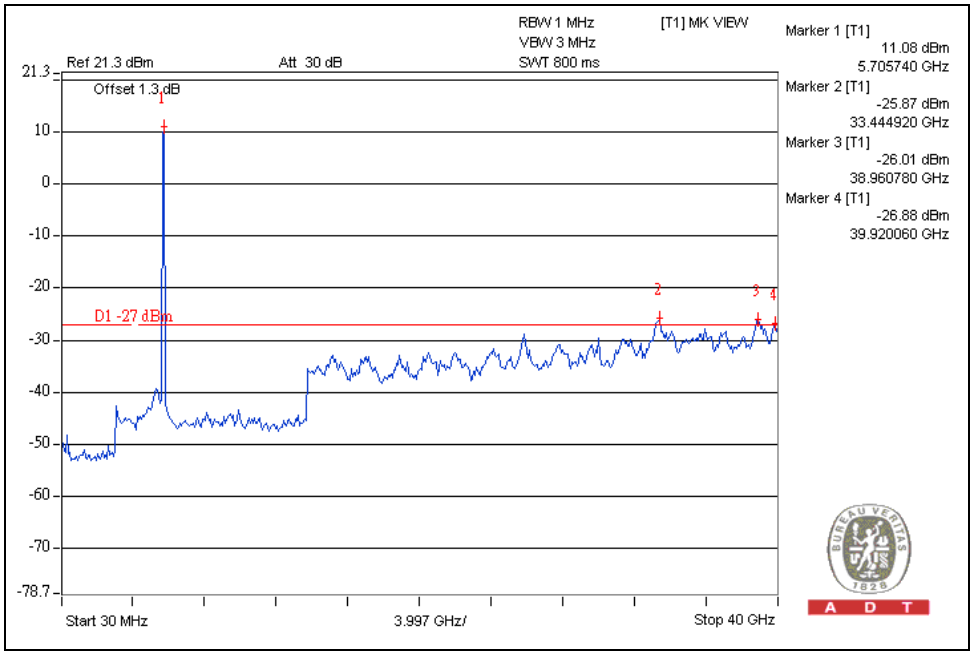
CH 19



CH 9


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 21.3 dBm
Att 30 dB
Offset 1.3 dB
D1 -27 dBm
Marker 1 [T1]
10.64 dBm
5.465920 GHz
Mark T1]
-24.90 dBm
38.880840 GHz
Marker 3 [T1]
-26.42 dBm
33.285040 GHz
Marker 4 [T1]
-26.81 dBm
39.760180 GHz
21.3
10
0
-10
-20
-30
-40
-50
-60
-70
-78.7
Start 30 MHz
3.997 GHz/
Stop 40 GHz

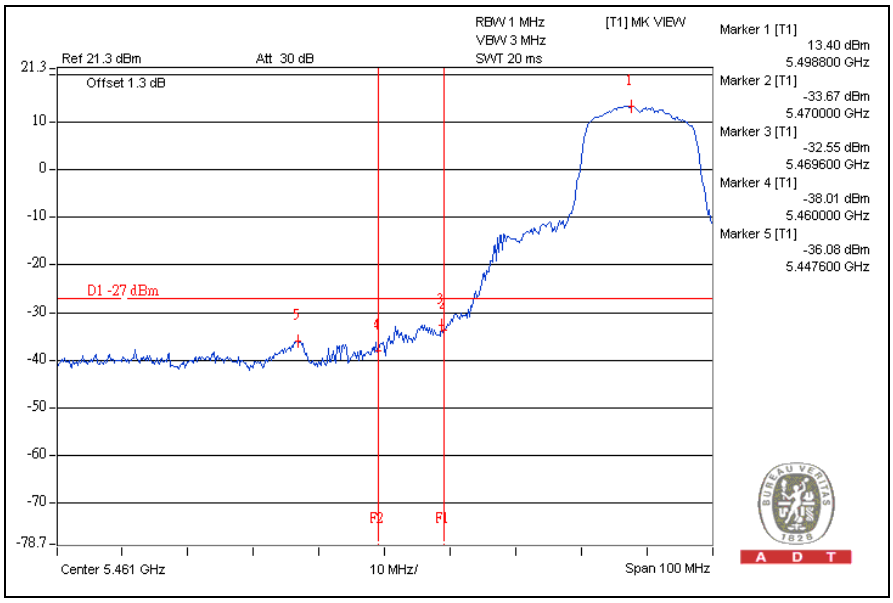
CH 19


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 21.3 dBm
Att 30 dB
Offset 1.3 dB
D1 -27 dBm
Marker 1 [T1]
11.08 dBm
5.705740 GHz
Marker 2 [T1]
-25.87 dBm
33.444920 GHz
Marker 3 [T1]
-26.01 dBm
38.960780 GHz
Marker 4 [T1]
-26.88 dBm
39.920060 GHz
21.3
10
0
-10
-20
-30
-40
-50
-60
-70
-78.7
Start 30 MHz
3.997 GHz/
Stop 40 GHz

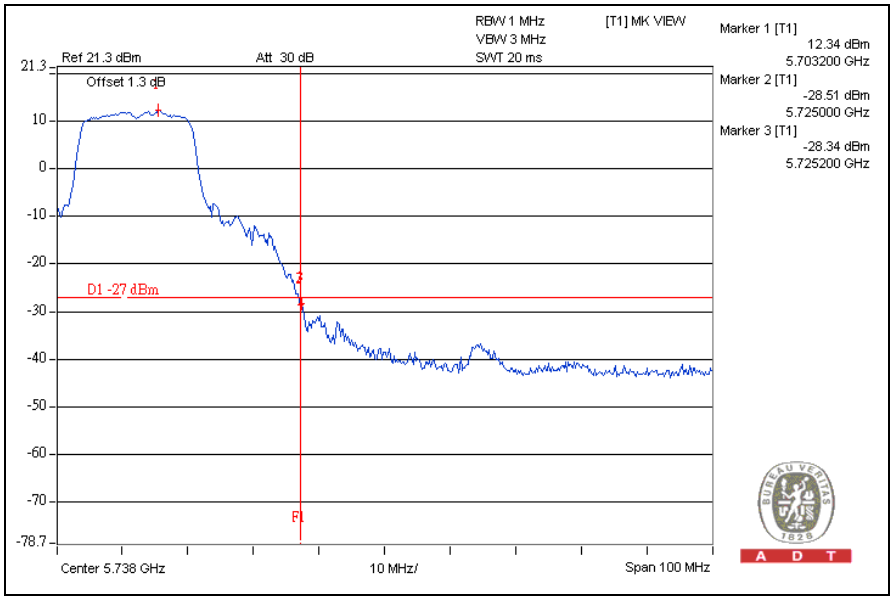
DRAFT 802.11n (20MHz) OFDM MODULATION:

For chain (0):

CH9

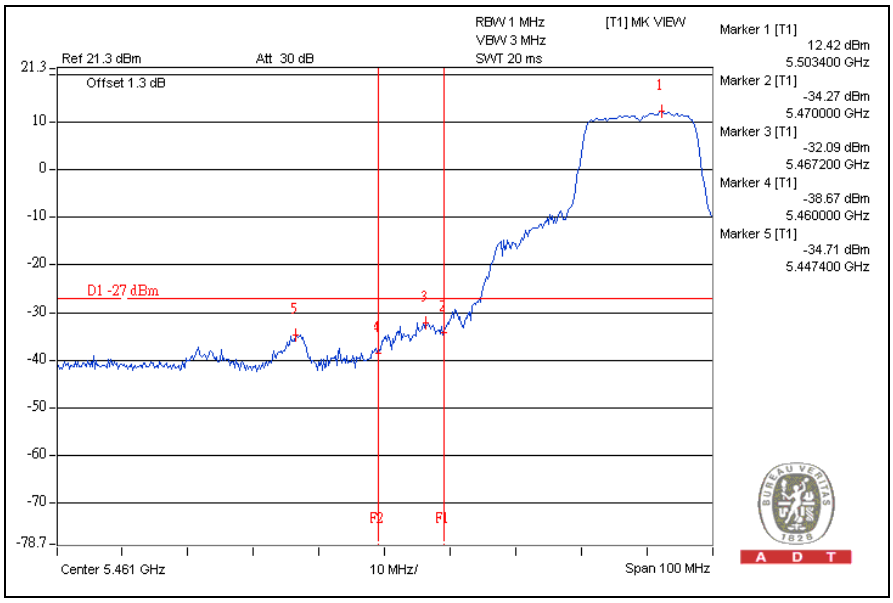


CH19

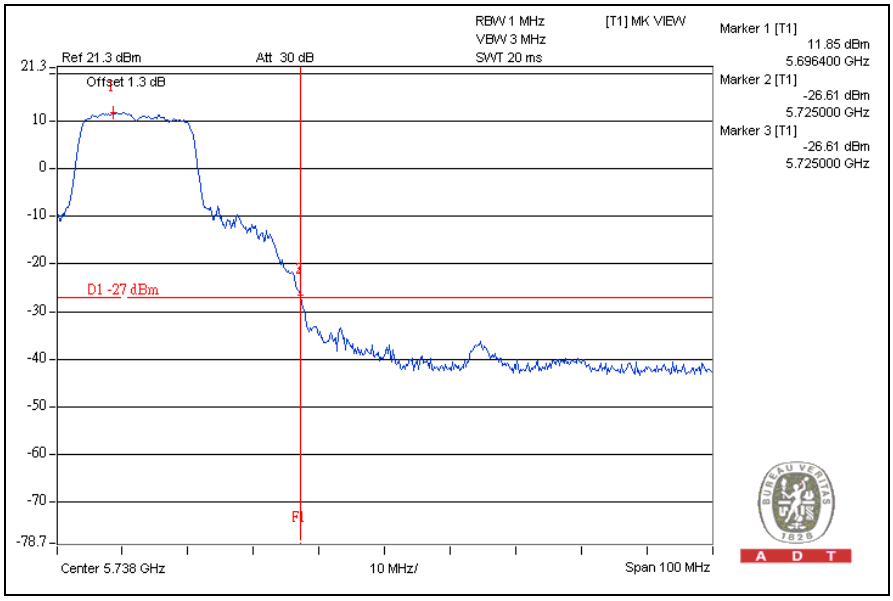


For chain (1):

CH9

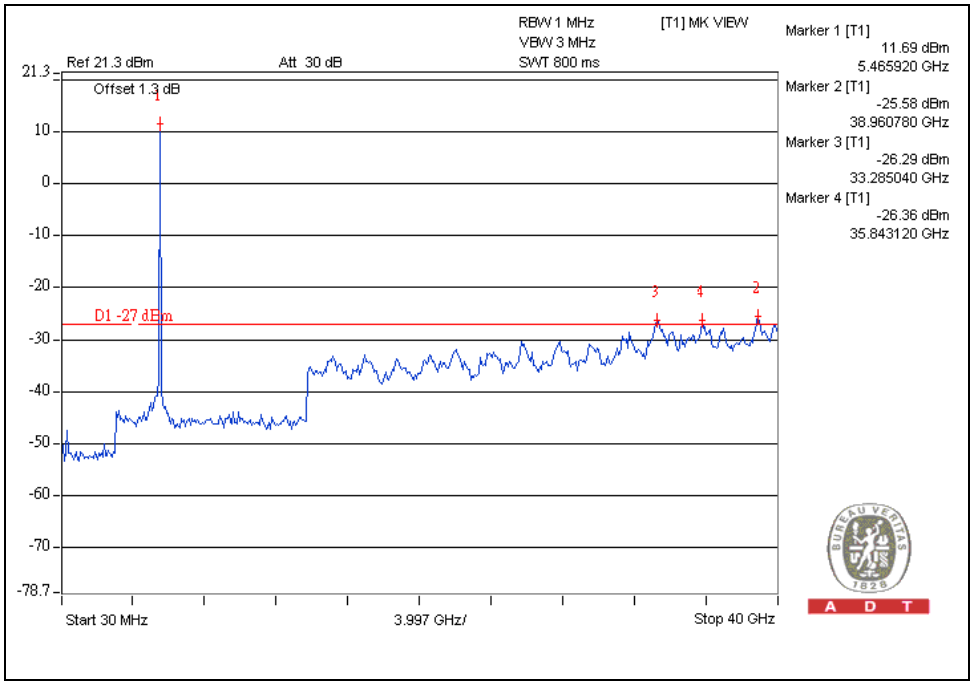


CH19

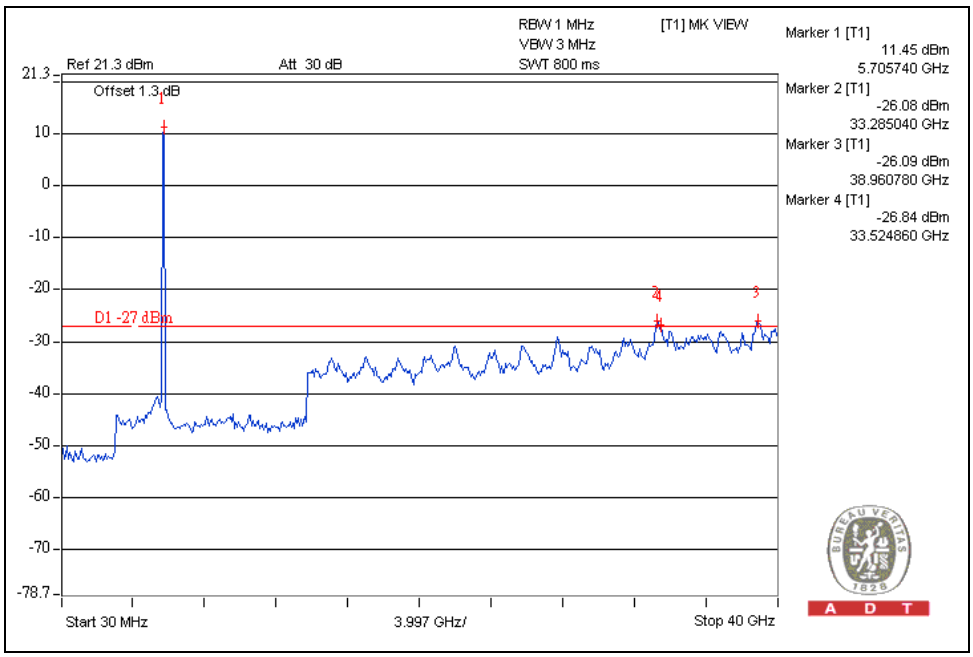


For chain (0):

CH9

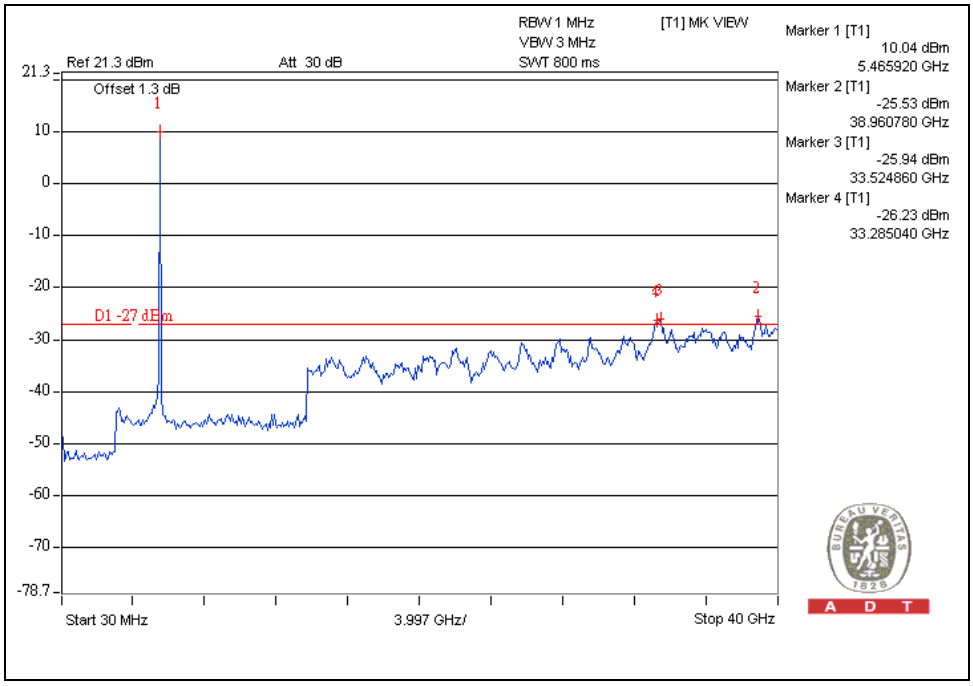


CH19

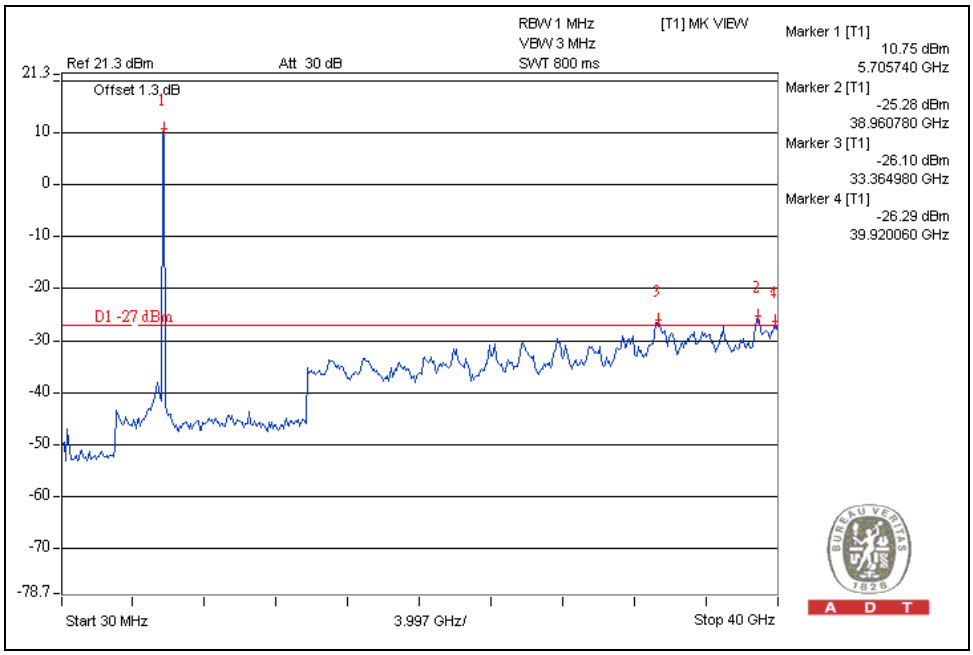


For chain (1):

CH9



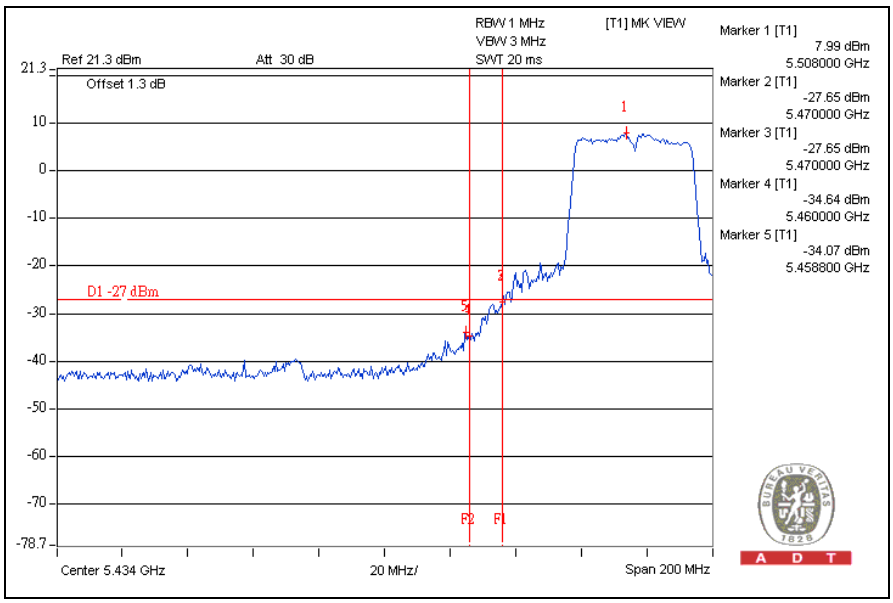
CH19



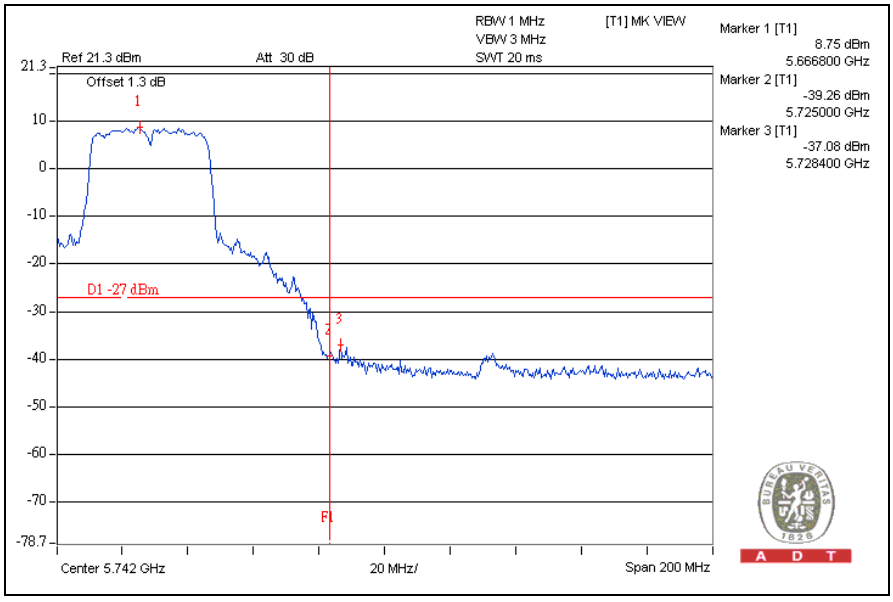
DRAFT 802.11n (40MHz) OFDM MODULATION:

For chain (0):

CH5

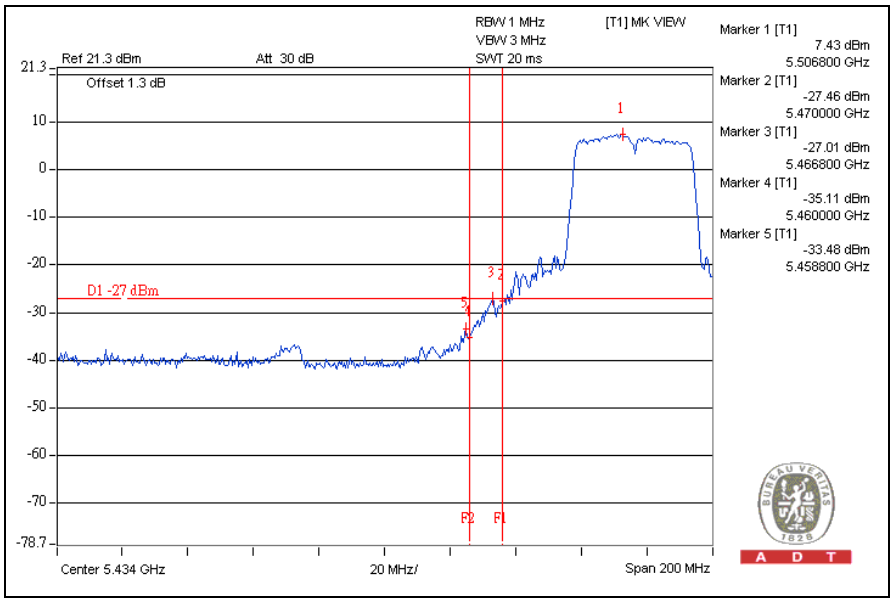


CH9

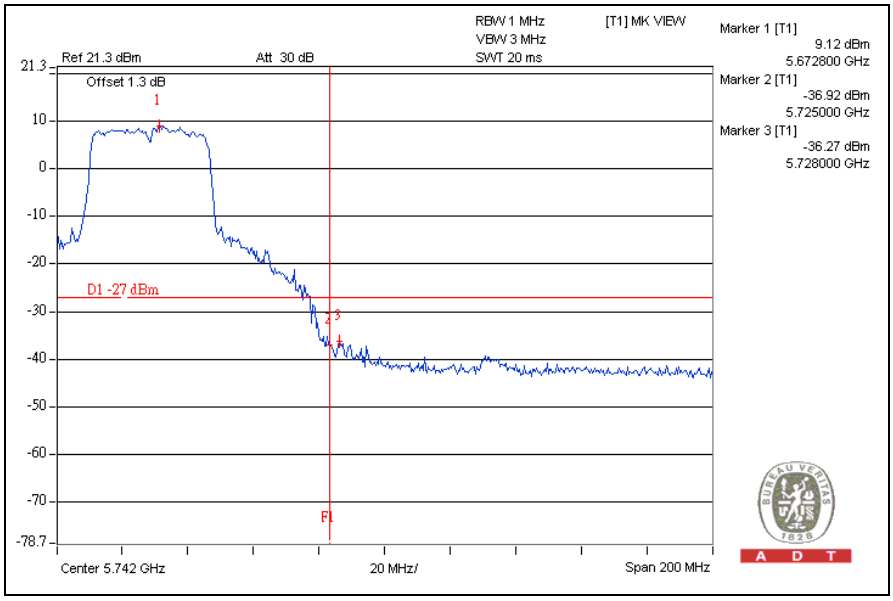


For chain (1):

CH5

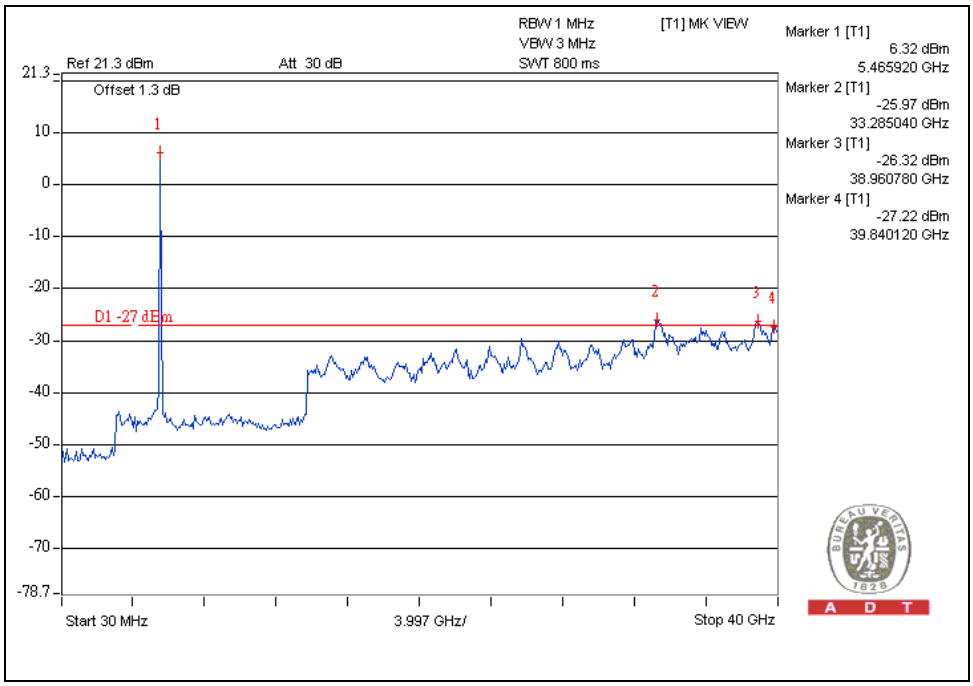


CH9

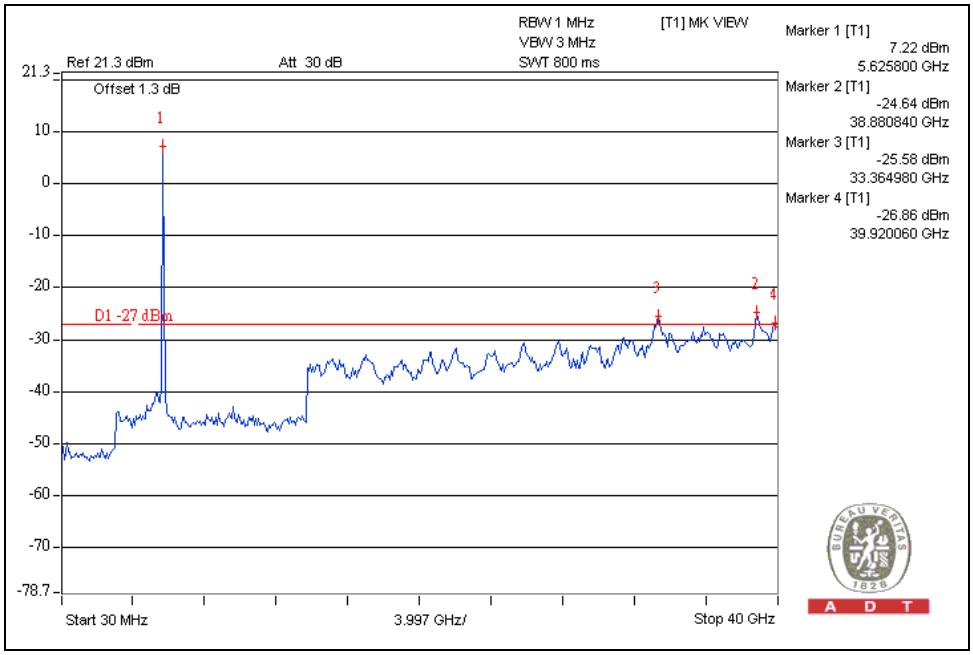


For chain (0):

CH5

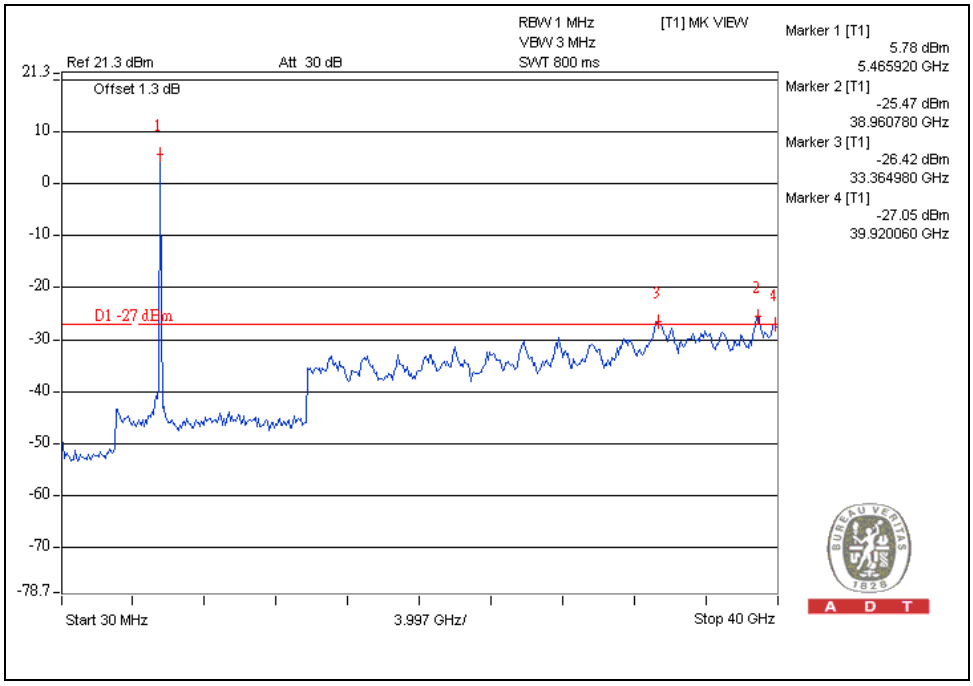


CH9

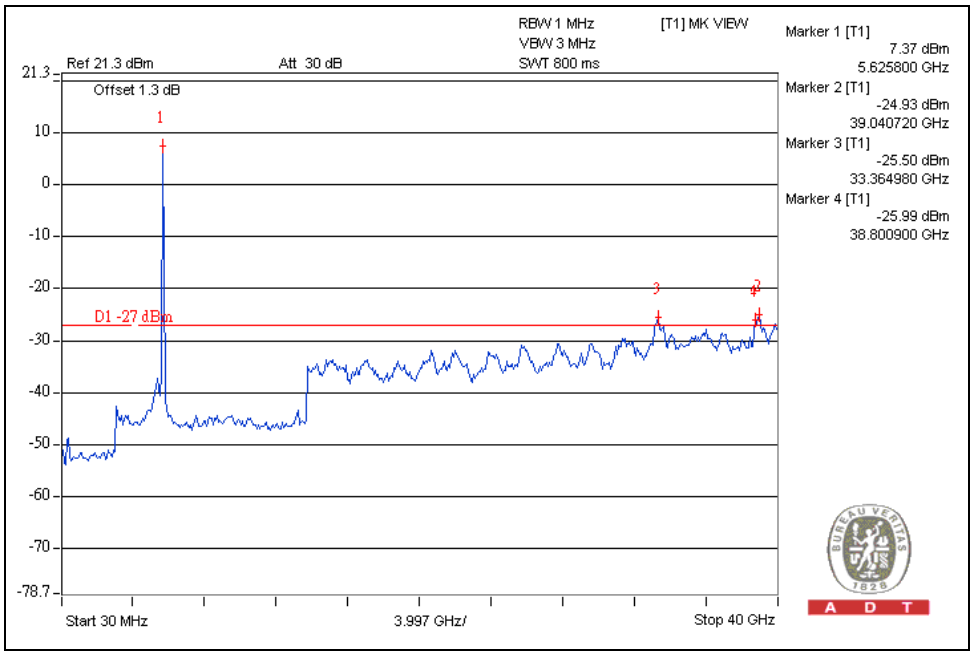


For chain (1):

CH5



CH9



4.8 ANTENNA REQUIREMENT

4.8.1 STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.407(a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

4.8.2 ANTENNA CONNECTED CONSTRUCTION

There two antennas provided to this EUT, please refer to the following table:

No.	Antenna Type	For 2.4GHz Gain (dBi)	For 5GHz Gain (dBi)	Antenna Connector
CHAIN(0)	PCB Print	0.5	4	NA
CHAIN(1)	PCB Print	1.4	4	NA

5. INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025:

USA	FCC, NVLAP
Germany	TUV Rheinland
Japan	VCCI
Norway	NEMKO
Canada	INDUSTRY CANADA, CSA
R.O.C.	TAF, BSMI, NCC
Netherlands	Telefication
Singapore	GOST-ASIA (MOU)
Russia	CERTIS (MOU)

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: www.adt.com.tw/index.5/phtml. If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:
Tel: 886-2-26052180
Fax: 886-2-26052943

Hsin Chu EMC/RF Lab:
Tel: 886-3-5935343
Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Telecom Lab:
Tel: 886-3-3183232
Fax: 886-3-3185050

Web Site: www.adt.com.tw

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

6.APPENDIX-A- Modifications recorders for engineering changes to the eut BY THE LAB

No any modifications are made to the EUT by the lab during the test.

---END---