FCC TEST REPORT (15.407)

REPORT NO.: RF970807L10-1

MODEL NO.: WET610N

RECEIVED: Aug. 07, 2008

TESTED: Aug. 13 ~ Sep. 10, 2008

ISSUED: Sep. 24, 2008

APPLICANT: Cisco-Linksys LLC

ADDRESS: 121 Theory Drive Irvine, CA 92617 (USA)

ISSUED BY: Advance Data Technology Corporation

LAB ADDRESS: No. 47, 14th Ling, Chia Pau Tsuen, Lin Kou Hsiang, Taipei Hsien 244, Taiwan, R.O.C.

TEST LOCATION: No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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1. CERTIFICATION

PRODUCT: Wireless-N Ethernet Bridge with Dual-Band
MODEL: WET610N
BRAND: Linksys
APPLICANT: Cisco-Linksys LLC
TEST SAMPLE: ENGINEERING SAMPLE
TESTED: Aug. 13 ~ Sep. 10, 2008
STANDARDS: **FCC Part 15, Subpart E (Section 15.407)**
ANSI C63.4-2003

The above equipment (Model: WET610N) has been tested by **Advance Data Technology Corporation,** 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 : Andrea Hsia , **DATE:** Sep. 24, 2008
Andrea Hsia / Specialist

TECHNICAL ACCEPTANCE : Long Chen , **DATE:** Sep. 24, 2008
Responsible for RF Long Chen / Senior Engineer

APPROVED BY : Gary Chang , **DATE:** Sep. 24, 2008
Gary Chang / Assistant Manager

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407)			
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**	**REMARK**
15.407(b)(5)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -14.73dB at 0.193MHz
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 -1.03dB at 10640.00MHz
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.

2.1 MEASUREMENT UNCERTAINTY

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

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	2.93 dB
	200MHz ~1000MHz	2.95 dB
	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	Wireless-N Ethernet Bridge with Dual-Band
MODEL NO.	WET610N
FCC ID	Q87-WET610N
POWER SUPPLY	12Vdc from AC Adapter
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b:11.0/ 5.5/ 2.0/ 1.0Mbps 802.11g: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps Draft 802.11n: up to 300.0Mbps
FREQUENCY RANGE	2.4GHz: 2400.0 ~ 2483.5MHz 5.0GHz: 5150.0 ~ 5350.0MHz, 5470.0 ~ 5725.0MHz, 5725 ~ 5850MHz
NUMBER OF CHANNEL	2.4GHz: 11 for 802.11b, 802.11g, draft 802.11n (20MHz) 7 for draft 802.11n (40MHz) 5.0GHz: 5150 ~ 5350MHz: 8 for 802.11a, draft 802.11n (20MHz) 4 for draft 802.11n (40MHz) 5470 ~ 5725MHz: 11 for 802.11a, draft 802.11n (20MHz) 5 for draft 802.11n (40MHz) 5725 ~ 5850MHz: 5 for 802.11a, draft 802.11n (20MHz) 2 for draft 802.11n (40MHz)
OUTPUT POWER	342.857mW for 2400.0 ~ 2483.5MHz 26.991mW for 5150.0 ~ 5350.0MHz 25.796mW for 5470.0 ~ 5725.0MHz 324.370mW for 5725.0 ~ 5850.0MHz
ANTENNA TYPE	For transmission & receiving: PIFA antenna with 1.00dBi gain (for 2.4GHz) PIFA antenna with 1.28dBi gain (for 5.0GHz) For receiving only: PIFA antenna with 1.58dBi gain (for 2.4GHz) PIFA antenna with 1.45dBi gain (for 5.0GHz)
DATA CABLE	NA
I/O PORTS	RJ45
ACCESSORY DEVICES	Adapter

NOTE:

1. The EUT is a Wireless-N Ethernet Bridge with Dual-Band. The functions of EUT listed as below:

	TEST STANDARD	REFERENCE REPORT
WLAN 802.11b/g, draft 802.11n	FCC Part 15, Subpart C (Section 15.247)	RF970807L10
WLAN 802.11a, draft 802.11n (5725~5850 MHz)		
WLAN 802.11a, draft 802.11n (5150~ 5350MHz, 5470 ~ 5725MHz)	FCC Part 15, Subpart E (Section 15.407)	RF970807L10-1

2. The frequency bands used in this EUT are listed as follows:

Frequency Band (MHz)	2400~2483.5	5150~5350	5470 ~ 5725	5725~5850
802.11b	√	-	-	-
802.11g	√	-	-	-
802.11a	-	√	√	√
Draft 802.11n (20MHz)	√	√	√	√
Draft 802.11n (40MHz)	√	√	√	√

3. The EUT was powered by the following adapter:

BRAND	BesTec
MODEL	EA0121WAA
INPUT POWER	100-240Vac, 50-60Hz, 0.5A
OUTPUT POWER	12Vdc, 1A MAX
POWER LINE	1.8m non-shielded cable without core

4. The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and three receivers.

MODULATION MODE	TX FUNCTION
802.11b	1TX
802.11g	2TX
802.11a	2TX
Draft 802.11n (20MHz)	2TX
Draft 802.11n (40MHz)	2TX

5. 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 5150 ~ 5350MHz

8 channels are provided for 802.11a, draft 802.11n (20MHz):

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

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

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

Operated in 5470 ~ 5725MHz

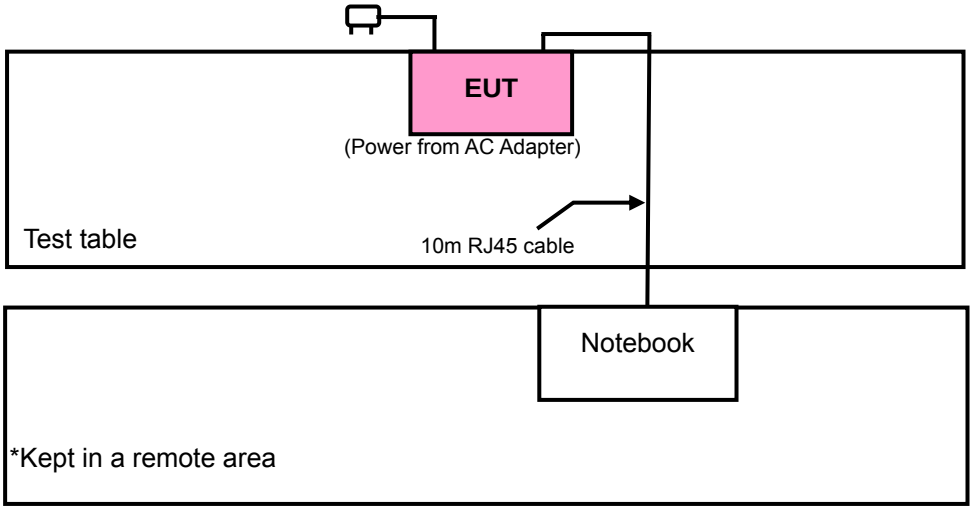
11 channels are provided for 802.11a, draft 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
100	5500 MHz	124	5620 MHz
104	5520 MHz	128	5640 MHz
108	5540 MHz	132	5660 MHz
112	5560 MHz	136	5680 MHz
116	5580 MHz	140	5700 MHz
120	5600 MHz		

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510 MHz	126	5630 MHz
110	5550 MHz	134	5670 MHz
118	5690 MHz		

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST



3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

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

Where **RE≥1G:** Radiated Emission above 1GHz **RE<1G:** Radiated Emission below 1GHz
PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

RADIATED EMISSION TEST (ABOVE 1GHz):

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

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

MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	5150-5350	36 to 64	36, 40, 48, 52, 60, 64	OFDM	BPSK	6.0
Draft 802.11n (20MHz)		36 to 64	36, 40, 48, 52, 60, 64	OFDM	BPSK	7.2
Draft 802.11n (40MHz)		38 to 62	38, 46, 54, 62	OFDM	BPSK	15.0
802.11a	5470-5725	100 to 140	100, 120, 140	OFDM	BPSK	6.0
Draft 802.11n (20MHz)		100 to 140	100, 120, 140	OFDM	BPSK	7.2
Draft 802.11n (40MHz)		102 to 134	102, 118, 134	OFDM	BPSK	15.0

RADIATED EMISSION TEST (BELOW 1GHz):

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

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

MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	5150-5350	36 to 64	40	OFDM	BPSK	6.0
802.11a	5470-5725	100 to 140	100	OFDM	BPSK	6.0

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	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	5150-5350	36 to 64	40	OFDM	BPSK	6.0
802.11a	5470-5725	100 to 140	100	OFDM	BPSK	6.0

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	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	5150-5350	36 to 64	36, 48, 52, 64	OFDM	BPSK	6.0
Draft 802.11n (20MHz)		36 to 64	36, 48, 52, 64	OFDM	BPSK	7.2
Draft 802.11n (40MHz)		38 to 62	38, 46, 54, 62	OFDM	BPSK	15.0
802.11a	5470-5725	100 to 140	100, 140	OFDM	BPSK	6.0
Draft 802.11n (20MHz)		100 to 140	100, 140	OFDM	BPSK	7.2
Draft 802.11n (40MHz)		102 to 134	102, 134	OFDM	BPSK	15.0

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	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	5150-5350	36 to 64	36, 40, 48, 52, 60, 64	OFDM	BPSK	6.0
Draft 802.11n (20MHz)		36 to 64	36, 40, 48, 52, 60, 64	OFDM	BPSK	7.2
Draft 802.11n (40MHz)		38 to 62	38, 46, 54, 62	OFDM	BPSK	15.0
802.11a	5470-5725	100 to 140	100, 120, 140	OFDM	BPSK	6.0
Draft 802.11n (20MHz)		100 to 140	100, 120, 140	OFDM	BPSK	7.2
Draft 802.11n (40MHz)		102 to 134	102, 118, 134	OFDM	BPSK	15.0

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart E (15.407)
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	DELL	PP05L	16484462992	E2K24CLNS

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	10m UTP RJ 45 cable

NOTE 1: All power cords of the above support units are non shielded (1.8m).
NOTE 2: Item 1 acted as communication partners to transfer data.

4. TEST TYPES AND RESULTS

4.1 RADIATED EMISSION MEASUREMENT

4.1.1 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.

4.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

FREQUENCIES (MHz)	EIRP LIMIT (dBm)		EQUIVALENT FIELD STRENGTH AT 3m (dBμV/m) *NOTE 3	
	PK	AV	PK	AV
5250 ~ 5350	-7	-27	88.3	68.3
5470 ~ 5725	-7	-27	88.3	68.3

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).

4.1.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100212	May 28, 2008	May 27, 2009
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Aug. 08, 2008	Aug. 07, 2009
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Apr. 25, 2008	Apr. 24, 2009
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-563	Aug. 06, 2008	Aug. 05, 2009
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170242	Jan. 07, 2008	Jan. 06, 2009
Preamplifier Agilent	8449B	3008A01911	Sep. 10, 2008	Sep. 09, 2009
Preamplifier Agilent	8447D	2944A10634	Dec. 13, 2007	Dec. 12, 2008
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	274039/223650	Nov. 08, 2007	Nov. 07, 2008
RF signal cable Worken	8D-FB	Cable-HYCH9-01	Aug. 09, 2008	Aug. 08, 2009
Software	ADT_Radiated_V7.6	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower &Turn Table Controller EMCO	2090	NA	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	07026401	Aug. 27, 2008	Aug. 26, 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.
2. The test was performed in HwaYa Chamber 9.
3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
4. The FCC Site Registration No. is 215374.
5. The IC Site Registration No. is IC3789B-9.

4.1.4 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. 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.

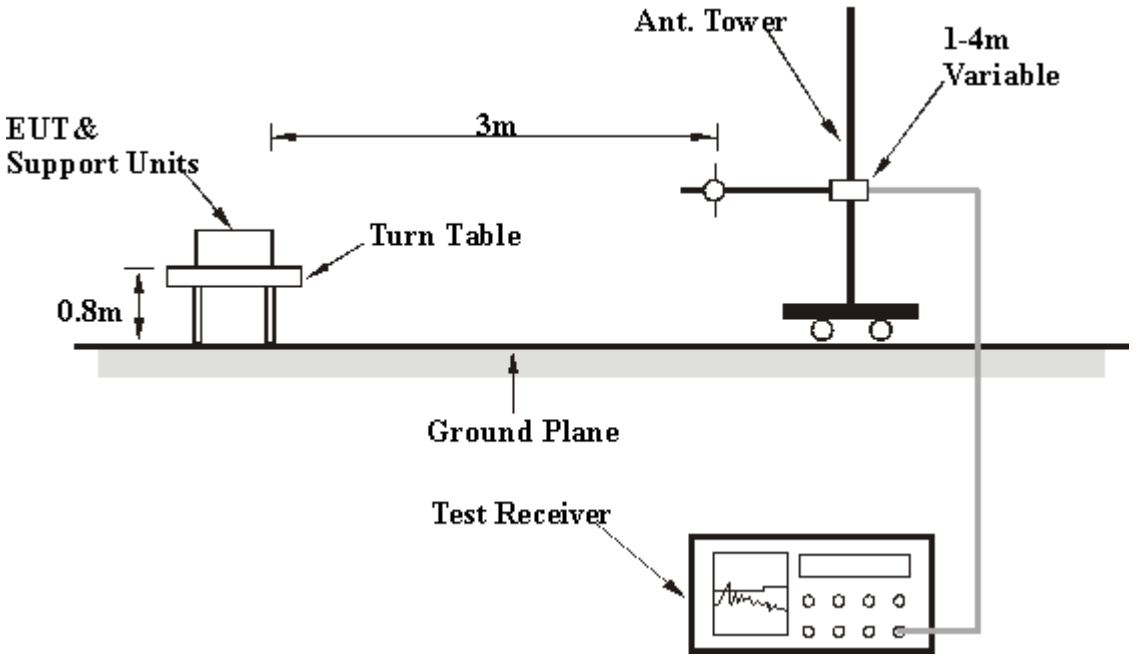
NOTE:

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 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.5 DEVIATION FROM TEST STANDARD

No deviation

4.1.6 TEST SETUP



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

4.1.7 EUT OPERATING CONDITION

a. Placed the EUT on a testing table.

b. Prepared notebook computer and placed it outside of testing area to act as communication partner for EUT.

c. The EUT ran a test program (provided by manufacturer) to enable all functions under transmission condition continuously at specific channel frequency.

d. The necessary accessories enable the EUT in full functions.

4.1.8 TEST RESULTS

802.11a OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	53.68 PK	74.00	-20.32	1.28 H	73	13.66	40.02
2	5150.00	39.63 AV	54.00	-14.37	1.28 H	73	-0.39	40.02
3	*5180.00	102.24 PK			1.28 H	73	62.16	40.08
4	*5180.00	92.54 AV			1.28 H	73	52.46	40.08
5	#10360.00	68.54 PK	88.30	-19.76	1.07 H	20	17.10	51.44
6	#10360.00	53.05 AV	68.30	-15.25	1.07 H	20	1.61	51.44
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	61.02 PK	74.00	-12.98	1.12 V	193	21.00	40.02
2	5150.00	44.65 AV	54.00	-9.35	1.12 V	193	4.63	40.02
3	*5180.00	107.32 PK			1.12 V	193	67.24	40.08
4	*5180.00	96.37 AV			1.12 V	193	56.29	40.08
5	#10360.00	69.58 PK	88.30	-18.72	1.65 V	127	18.14	51.44
6	#10360.00	54.96 AV	68.30	-13.34	1.65 V	127	3.52	51.44

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 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	102.65 PK			1.26 H	79	62.53	40.12
2	*5200.00	92.98 AV			1.26 H	79	52.86	40.12
3	#10400.00	70.12 PK	88.30	-18.18	1.06 H	28	18.53	51.59
4	#10400.00	55.86 AV	68.30	-12.44	1.06 H	28	4.27	51.59
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	108.00 PK			1.21 V	204	67.88	40.12
2	*5200.00	97.22 AV			1.21 V	204	57.10	40.12
3	#10400.00	70.69 PK	88.30	-17.61	1.42 V	135	19.10	51.59
4	#10400.00	56.23 AV	68.30	-12.07	1.42 V	135	4.64	51.59

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 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	102.06 PK			1.25 H	82	61.89	40.17
2	*5240.00	92.31 AV			1.25 H	82	52.14	40.17
3	#10480.00	70.25 PK	88.30	-18.05	1.12 H	95	18.57	51.68
4	#10480.00	56.03 AV	68.30	-12.27	1.12 H	95	4.35	51.68
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	107.36 PK			1.20 V	206	67.19	40.17
2	*5240.00	96.42 AV			1.20 V	206	56.25	40.17
3	#10480.00	70.21 PK	88.30	-18.09	1.13 V	96	18.53	51.68
4	#10480.00	55.88 AV	68.30	-12.42	1.13 V	96	4.20	51.68

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 52	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	101.76 PK			1.24 H	86	61.57	40.19
2	*5260.00	92.04 AV			1.24 H	86	51.85	40.19
3	#10520.00	70.38 PK	88.30	-17.92	1.19 H	258	18.63	51.75
4	#10520.00	56.21 AV	68.30	-12.09	1.19 H	258	4.46	51.75
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	107.28 PK			1.16 V	209	67.09	40.19
2	*5260.00	96.31 AV			1.16 V	209	56.12	40.19
3	#10520.00	70.36 PK	88.30	-17.94	1.01 V	87	18.61	51.75
4	#10520.00	55.93 AV	68.30	-12.37	1.01 V	87	4.18	51.75

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 60	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	100.94 PK			1.08 H	153	60.70	40.24
2	*5300.00	90.37 AV			1.08 H	153	50.13	40.24
3	10600.00	67.10 PK	74.00	-6.90	1.04 H	20	15.13	51.97
4	10600.00	52.68 AV	54.00	-1.32	1.04 H	20	0.71	51.97
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	104.97 PK			1.12 V	180	64.73	40.24
2	*5300.00	93.65 AV			1.12 V	180	53.41	40.24
3	10600.00	67.90 PK	74.00	-6.10	1.18 V	318	15.93	51.97
4	10600.00	52.88 AV	54.00	-1.12	1.18 V	318	0.91	51.97

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 64	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	101.96 PK			1.26 H	76	61.71	40.25
2	*5320.00	92.28 AV			1.26 H	76	52.03	40.25
3	5350.00	56.36 PK	74.00	-17.64	1.26 H	76	16.09	40.27
4	5350.00	39.02 AV	54.00	-14.98	1.26 H	76	-1.24	40.27
5	10640.00	67.82 PK	74.00	-6.18	1.07 H	40	15.82	52.00
6	**10640.00**	**52.97 AV**	**54.00**	**-1.03**	**1.07 H**	**40**	**0.97**	**52.00**
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	106.98 PK			1.11 V	187	66.73	40.25
2	*5320.00	96.02 AV			1.11 V	187	55.77	40.25
3	5350.00	62.49 PK	74.00	-11.51	1.11 V	191	22.23	40.27
4	5350.00	41.86 AV	54.00	-12.14	1.11 V	191	1.59	40.27
5	10640.00	66.64 PK	74.00	-7.36	1.15 V	255	14.64	52.00
6	10640.00	52.87 AV	54.00	-1.13	1.15 V	255	0.87	52.00

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

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 100	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	5436.00	54.91 PK	74.00	-19.09	1.22 H	97	14.55	40.36
2	5436.00	41.83 AV	54.00	-12.17	1.22 H	97	1.47	40.36
3	#5470.00	59.12 PK	88.30	-29.18	1.22 H	88	18.69	40.43
4	#5470.00	40.53 AV	68.30	-27.77	1.22 H	88	0.10	40.43
5	*5500.00	102.12 PK			1.22 H	88	61.63	40.48
6	*5500.00	92.22 AV			1.22 H	88	51.73	40.48
7	11000.00	61.98 PK	74.00	-12.02	1.05 H	70	9.89	52.09
8	11000.00	49.90 AV	54.00	-4.10	1.05 H	70	-2.19	52.09
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	5436.00	56.62 PK	74.00	-17.38	1.03 V	195	16.26	40.36
2	5436.00	43.12 AV	54.00	-10.88	1.03 V	195	2.76	40.36
3	#5470.00	61.44 PK	88.30	-26.86	1.05 V	194	21.01	40.43
4	#5470.00	42.03 AV	68.30	-26.27	1.05 V	194	1.60	40.43
5	*5500.00	107.00 PK			1.05 V	194	66.51	40.48
6	*5500.00	96.62 AV			1.05 V	194	56.14	40.48
7	11000.00	60.68 PK	74.00	-13.32	1.25 V	85	8.59	52.09
8	11000.00	48.21 AV	54.00	-5.79	1.25 V	85	-3.88	52.09

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 120	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	102.65 PK			1.03 H	153	61.92	40.73
2	*5600.00	92.34 AV			1.03 H	153	51.61	40.73
3	11200.00	66.73 PK	74.00	-7.27	1.05 H	32	14.69	52.04
4	11200.00	52.80 AV	54.00	-1.20	1.05 H	32	0.76	52.04
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	*5600.00	107.47 PK			1.08 V	202	66.74	40.73
2	*5600.00	96.62 AV			1.08 V	202	55.89	40.73
3	11200.00	61.39 PK	74.00	-12.61	1.23 V	330	9.35	52.04
4	11200.00	49.36 AV	54.00	-4.64	1.23 V	330	-2.68	52.04

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.

5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	101.16 PK			1.10 H	159	60.15	41.01
2	*5700.00	91.11 AV			1.10 H	159	50.10	41.01
3	#5725.00	61.41 PK	88.30	-26.89	1.10 H	159	20.34	41.07
4	#5725.00	41.30 AV	68.30	-27.00	1.10 H	159	0.23	41.07
5	11400.00	65.76 PK	74.00	-8.24	1.07 H	35	13.93	51.83
6	11400.00	52.74 AV	54.00	-1.26	1.07 H	35	0.91	51.83
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	105.12 PK			1.07 V	200	64.11	41.01
2	*5700.00	94.81 AV			1.07 V	200	53.81	41.01
3	#5725.00	58.01 PK	88.30	-30.29	1.07 V	200	16.94	41.07
4	#5725.00	43.71 AV	68.30	-24.59	1.07 V	200	2.64	41.07
5	11400.00	61.54 PK	74.00	-12.46	1.05 V	17	9.71	51.83
6	11400.00	48.60 AV	54.00	-5.40	1.05 V	17	-3.23	51.83

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.

DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	59.72 PK	74.00	-14.28	1.09 H	156	19.70	40.02
2	5150.00	41.54 AV	54.00	-12.46	1.09 H	156	1.52	40.02
3	*5180.00	102.69 PK			1.09 H	156	62.61	40.08
4	*5180.00	92.27 AV			1.09 H	156	52.19	40.08
5	#10360.00	68.08 PK	88.30	-20.22	1.09 H	35	16.64	51.44
6	#10360.00	53.61 AV	68.30	-14.69	1.09 H	35	2.17	51.44
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	55.81 PK	74.00	-18.19	1.10 V	160	15.79	40.02
2	5150.00	42.33 AV	54.00	-11.67	1.10 V	160	2.31	40.02
3	*5180.00	105.06 PK			1.10 V	160	64.98	40.08
4	*5180.00	94.95 AV			1.10 V	160	54.87	40.08
5	#10360.00	68.91 PK	88.30	-19.39	1.49 V	107	17.47	51.44
6	#10360.00	53.71 AV	68.30	-14.59	1.49 V	107	2.27	51.44

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 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	102.83 PK			1.08 H	155	62.71	40.12
2	*5200.00	92.44 AV			1.08 H	155	52.32	40.12
3	#10400.00	68.73 PK	88.30	-19.57	1.10 H	57	17.14	51.59
4	#10400.00	53.41 AV	68.30	-14.89	1.10 H	57	1.82	51.59
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	105.22 PK			1.11 V	159	65.10	40.12
2	*5200.00	95.09 AV			1.11 V	159	54.97	40.12
3	#10400.00	70.22 PK	88.30	-18.08	1.51 V	107	18.63	51.59
4	#10400.00	53.53 AV	68.30	-14.77	1.51 V	107	1.94	51.59

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 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	102.48 PK			1.08 H	157	62.31	40.17
2	*5240.00	92.14 AV			1.08 H	157	51.97	40.17
3	#10480.00	69.28 PK	88.30	-19.02	1.12 H	58	17.60	51.68
4	#10480.00	53.67 AV	68.30	-14.63	1.12 H	58	1.99	51.68
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	104.87 PK			1.11 V	167	64.70	40.17
2	*5240.00	94.73 AV			1.11 V	167	54.56	40.17
3	#10480.00	71.44 PK	88.30	-16.86	1.57 V	115	19.76	51.68
4	#10480.00	54.87 AV	68.30	-13.43	1.57 V	115	3.19	51.68

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 52	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	102.70 PK			1.08 H	153	62.51	40.19
2	*5260.00	91.82 AV			1.08 H	153	51.63	40.19
3	#10520.00	67.85 PK	88.30	-20.45	1.17 H	28	16.10	51.75
4	#10520.00	54.47 AV	68.30	-13.83	1.17 H	28	2.72	51.75
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	105.18 PK			1.00 V	195	64.99	40.19
2	*5260.00	94.32 AV			1.00 V	195	54.13	40.19
3	#10520.00	68.56 PK	88.30	-19.74	1.62 V	125	16.81	51.75
4	#10520.00	53.64 AV	68.30	-14.66	1.62 V	125	1.89	51.75

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 60	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	101.91 PK			1.09 H	154	61.67	40.24
2	*5300.00	90.99 AV			1.09 H	154	50.75	40.24
3	10600.00	67.32 PK	74.00	-6.68	1.10 H	31	15.35	51.97
4	10600.00	52.70 AV	54.00	-1.30	1.10 H	31	0.73	51.97
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	104.12 PK			1.09 V	16	63.88	40.24
2	*5300.00	93.19 AV			1.09 V	16	52.95	40.24
3	10600.00	65.70 PK	74.00	-8.30	1.51 V	125	13.73	51.97
4	10600.00	52.35 AV	54.00	-1.65	1.51 V	125	0.38	51.97

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 64	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	102.31 PK			1.08 H	160	62.06	40.25
2	*5320.00	91.93 AV			1.08 H	160	51.68	40.25
3	5350.00	55.27 PK	74.00	-18.73	1.08 H	161	15.01	40.27
4	5350.00	40.08 AV	54.00	-13.92	1.08 H	161	-0.19	40.27
5	10640.00	65.76 PK	74.00	-8.24	1.16 H	36	13.76	52.00
6	10640.00	52.82 AV	54.00	-1.18	1.16 H	36	0.82	52.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	104.36 PK			1.00 V	193	64.11	40.25
2	*5320.00	93.68 AV			1.00 V	193	53.43	40.25
3	5350.00	59.95 PK	74.00	-14.05	1.00 V	193	19.69	40.27
4	5350.00	42.33 AV	54.00	-11.67	1.00 V	193	2.06	40.27
5	10640.00	64.85 PK	74.00	-9.15	1.54 V	124	12.85	52.00
6	10640.00	51.70 AV	54.00	-2.30	1.54 V	124	-0.30	52.00

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

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 100	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	5460.00	56.75 PK	74.00	-17.25	1.03 H	154	16.34	40.41
2	5460.00	41.18 AV	54.00	-12.82	1.03 H	154	0.77	40.41
3	#5470.00	57.67 PK	88.30	-30.63	1.03 H	154	17.24	40.43
4	#5470.00	40.40 AV	68.30	-27.90	1.03 H	154	-0.03	40.43
5	*5500.00	101.87 PK			1.03 H	154	61.39	40.48
6	*5500.00	91.62 AV			1.03 H	154	51.14	40.48
7	11000.00	62.26 PK	74.00	-11.74	1.06 H	70	10.17	52.09
8	11000.00	49.48 AV	54.00	-4.52	1.06 H	70	-2.61	52.09
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	5460.00	57.64 PK	74.00	-16.36	1.11 V	198	17.23	40.41
2	5460.00	42.23 AV	54.00	-11.77	1.11 V	198	1.82	40.41
3	#5470.00	57.64 PK	88.30	-30.66	1.11 V	199	17.21	40.43
4	#5470.00	41.00 AV	68.30	-27.30	1.11 V	199	0.57	40.43
5	*5500.00	105.27 PK			1.11 V	199	64.78	40.48
6	*5500.00	95.12 AV			1.11 V	199	54.63	40.48
7	11000.00	61.48 PK	74.00	-12.52	1.53 V	118	9.39	52.09
8	11000.00	48.91 AV	54.00	-5.09	1.53 V	118	-3.18	52.09

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 120	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	101.95 PK			1.05 H	156	61.22	40.73
2	*5600.00	91.74 AV			1.05 H	156	51.01	40.73
3	11200.00	61.65 PK	74.00	-12.35	1.09 H	75	9.61	52.04
4	11200.00	49.28 AV	54.00	-4.72	1.09 H	75	-2.76	52.04
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	*5600.00	105.33 PK			1.10 V	203	64.60	40.73
2	*5600.00	95.19 AV			1.10 V	203	54.46	40.73
3	11200.00	60.97 PK	74.00	-13.03	1.48 V	115	8.93	52.04
4	11200.00	49.04 AV	54.00	-4.96	1.48 V	115	-3.00	52.04

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.

5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	101.43 PK			1.07 H	156	60.42	41.01
2	*5700.00	91.36 AV			1.07 H	156	50.35	41.01
3	#5725.00	59.37 PK	88.30	-28.93	1.07 H	156	18.30	41.07
4	#5725.00	41.56 AV	68.30	-26.74	1.07 H	156	0.49	41.07
5	11400.00	66.35 PK	74.00	-7.65	1.07 H	33	14.52	51.83
6	11400.00	52.67 AV	54.00	-1.33	1.07 H	33	0.84	51.83
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	106.03 PK			1.08 V	195	65.02	41.01
2	*5700.00	95.53 AV			1.08 V	195	54.52	41.01
3	#5725.00	59.83 PK	88.30	-28.47	1.08 V	195	18.76	41.07
4	#5725.00	43.53 AV	68.30	-24.77	1.08 V	195	2.46	41.07
5	11400.00	63.87 PK	74.00	-10.13	1.52 V	107	12.04	51.83
6	11400.00	50.32 AV	54.00	-3.68	1.52 V	107	-1.51	51.83

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.

DRAFT 802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	51.78 PK	74.00	-22.22	1.27 H	80	11.76	40.02
2	5150.00	38.90 AV	54.00	-15.10	1.27 H	80	-1.12	40.02
3	*5190.00	97.90 PK			1.27 H	79	57.80	40.10
4	*5190.00	87.80 AV			1.27 H	79	47.70	40.10
5	#10380.00	63.21 PK	88.30	-25.09	1.07 H	0	11.70	51.51
6	#10380.00	49.78 AV	68.30	-18.52	1.07 H	0	-1.73	51.51
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	55.03 PK	74.00	-18.97	1.12 V	202	15.01	40.02
2	5150.00	43.23 AV	54.00	-10.77	1.12 V	202	3.21	40.02
3	*5190.00	102.49 PK			1.12 V	202	62.39	40.10
4	*5190.00	92.69 AV			1.12 V	202	52.59	40.10
5	#10380.00	64.24 PK	88.30	-24.06	1.47 V	251	12.73	51.51
6	#10380.00	49.96 AV	68.30	-18.34	1.47 V	251	-1.55	51.51

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 46	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	98.06 PK			1.03 H	26	57.90	40.16
2	*5230.00	87.64 AV			1.03 H	26	47.48	40.16
3	#10460.00	64.29 PK	88.30	-24.01	1.06 H	211	12.63	51.66
4	#10460.00	49.97 AV	68.30	-18.33	1.06 H	211	-1.69	51.66
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	102.25 PK			1.00 V	195	62.09	40.16
2	*5230.00	91.86 AV			1.00 V	195	51.70	40.16
3	#10460.00	64.52 PK	88.30	-23.78	1.21 V	213	12.86	51.66
4	#10460.00	49.88 AV	68.30	-18.42	1.21 V	213	-1.78	51.66

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 54	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	97.63 PK			1.06 H	129	57.43	40.20
2	*5270.00	87.59 AV			1.06 H	129	47.39	40.20
3	#10540.00	63.88 PK	88.30	-24.42	1.08 H	59	12.07	51.81
4	#10540.00	49.27 AV	68.30	-19.03	1.08 H	59	-2.54	51.81
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	102.91 PK			1.00 V	197	62.71	40.20
2	*5270.00	92.46 AV			1.00 V	197	52.26	40.20
3	#10540.00	65.03 PK	88.30	-23.27	1.23 V	96	13.22	51.81
4	#10540.00	49.26 AV	68.30	-19.04	1.23 V	96	-2.55	51.81

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 62	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	97.75 PK			1.25 H	76	57.51	40.24
2	*5310.00	87.35 AV			1.25 H	76	47.10	40.24
3	5350.00	51.30 PK	74.00	-22.70	1.25 H	76	11.03	40.27
4	5350.00	38.12 AV	54.00	-15.88	1.25 H	76	-2.15	40.27
5	10620.00	64.26 PK	74.00	-9.74	1.14 H	35	12.28	51.98
6	10620.00	50.88 AV	54.00	-3.12	1.14 H	35	-1.10	51.98
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	102.19 PK			1.11 V	193	61.95	40.24
2	*5310.00	91.81 AV			1.11 V	193	51.57	40.24
3	5350.00	54.38 PK	74.00	-19.62	1.11 V	193	14.12	40.27
4	5350.00	40.55 AV	54.00	-13.45	1.11 V	193	0.29	40.27
5	10620.00	65.19 PK	74.00	-8.81	1.17 V	268	13.21	51.98
6	10620.00	51.61 AV	54.00	-2.39	1.17 V	268	-0.37	51.98

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 102	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	5460.00	51.00 PK	74.00	-23.00	1.21 H	88	10.59	40.41
2	5460.00	39.64 AV	54.00	-14.36	1.21 H	88	-0.77	40.41
3	#5470.00	52.77 PK	88.30	-35.53	1.21 H	87	12.34	40.43
4	#5470.00	39.10 AV	68.30	-29.20	1.21 H	87	-1.33	40.43
5	*5510.00	97.87 PK			1.21 H	87	57.36	40.51
6	*5510.00	87.25 AV			1.21 H	87	46.74	40.51
7	11020.00	60.52 PK	74.00	-13.48	1.06 H	20	8.45	52.07
8	11020.00	47.50 AV	54.00	-6.50	1.06 H	20	-4.57	52.07
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	5460.00	54.09 PK	74.00	-19.91	1.06 V	194	13.68	40.41
2	5460.00	41.23 AV	54.00	-12.77	1.06 V	194	0.82	40.41
3	#5470.00	53.90 PK	88.30	-34.40	1.06 V	194	13.47	40.43
4	#5470.00	42.73 AV	68.30	-25.57	1.06 V	194	2.30	40.43
5	*5510.00	102.19 PK			1.06 V	194	61.68	40.51
6	*5510.00	92.41 AV			1.06 V	194	51.90	40.51
7	11020.00	60.07 PK	74.00	-13.93	1.40 V	247	8.00	52.07
8	11020.00	46.57 AV	54.00	-7.43	1.40 V	247	-5.50	52.07

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.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 118	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	97.63 PK			1.00 H	217	56.92	40.71
2	*5590.00	87.52 AV			1.00 H	217	46.81	40.71
3	11180.00	60.88 PK	74.00	-13.12	1.11 H	25	8.85	52.03
4	11180.00	47.91 AV	54.00	-6.09	1.11 H	25	-4.12	52.03
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	102.78 PK			1.00 V	197	62.07	40.71
2	*5590.00	92.80 AV			1.00 V	197	52.09	40.71
3	11180.00	60.94 PK	74.00	-13.06	1.06 V	285	8.91	52.03
4	11180.00	47.82 AV	54.00	-6.18	1.06 V	285	-4.21	52.03

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 134	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 999hPa	TESTED BY	Kevin Liang

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	97.23 PK			1.10 H	29	56.31	40.92
2	*5670.00	87.21 AV			1.10 H	29	46.29	40.92
3	#5725.00	51.62 PK	88.30	-36.68	1.10 H	32	10.55	41.07
4	#5725.00	37.89 AV	68.30	-30.41	1.10 H	32	-3.18	41.07
5	11340.00	59.87 PK	74.00	-14.13	1.06 H	37	7.90	51.97
6	11340.00	46.54 AV	54.00	-7.46	1.06 H	37	-5.43	51.97
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	103.03 PK			1.16 V	199	62.11	40.92
2	*5670.00	92.94 AV			1.16 V	199	52.02	40.92
3	#5725.00	56.65 PK	88.30	-31.65	1.16 V	201	15.58	41.07
4	#5725.00	44.95 AV	68.30	-23.35	1.16 V	201	3.88	41.07
5	11340.00	60.52 PK	74.00	-13.48	1.02 V	84	8.55	51.97
6	11340.00	47.88 AV	54.00	-6.12	1.02 V	84	-4.09	51.97

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.

BELOW 1GHz WORST-CASE DATA：802.11a OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH 999hPa	TESTED BY	Antony 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	173.78	36.06 QP	43.50	-7.44	2.00 H	121	23.37	12.69
2	222.38	37.94 QP	46.00	-8.06	1.00 H	280	26.40	11.55
3	249.60	44.25 QP	46.00	-1.75	1.00 H	112	31.49	12.76
4	500.42	43.63 QP	46.00	-2.37	1.50 H	244	24.51	19.12
5	624.85	36.74 QP	46.00	-9.26	1.00 H	235	14.99	21.75
6	751.23	38.68 QP	46.00	-7.32	1.00 H	223	14.92	23.75
7	875.67	39.34 QP	46.00	-6.66	1.50 H	202	13.72	25.62
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	49.34	35.58 QP	40.00	-4.42	1.00 V	166	21.98	13.59
2	74.62	35.75 QP	40.00	-4.25	1.00 V	154	25.84	9.91
3	173.78	35.60 QP	43.50	-7.90	1.00 V	181	22.91	12.69
4	249.60	42.89 QP	46.00	-3.11	1.00 V	58	30.13	12.76
5	500.42	40.76 QP	46.00	-5.24	1.00 V	223	21.65	19.12
6	624.85	34.81 QP	46.00	-11.19	1.50 V	199	13.07	21.75
7	751.23	36.22 QP	46.00	-9.78	1.00 V	199	12.46	23.75

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.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 68%RH 999hPa	TESTED BY	Mark Liao

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	164.06	36.63 QP	43.50	-6.87	1.50 H	127	23.25	13.38
2	173.78	36.82 QP	43.50	-6.68	1.50 H	109	24.13	12.69
3	218.50	37.16 QP	46.00	-8.84	1.00 H	265	25.79	11.37
4	249.60	44.92 QP	46.00	-1.08	1.00 H	112	32.16	12.76
5	374.04	29.69 QP	46.00	-16.31	1.00 H	208	14.32	15.37
6	500.42	42.08 QP	46.00	-3.92	1.50 H	235	22.96	19.12
7	624.85	36.44 QP	46.00	-9.56	1.00 H	223	14.69	21.75
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	49.34	35.73 QP	40.00	-4.27	1.00 V	193	22.14	13.59
2	97.95	34.17 QP	43.50	-9.33	1.00 V	304	24.88	9.29
3	164.06	34.41 QP	43.50	-9.09	1.00 V	331	21.03	13.38
4	249.60	42.33 QP	46.00	-3.67	1.00 V	49	29.57	12.76
5	500.42	40.76 QP	46.00	-5.24	1.00 V	226	21.65	19.12
6	624.85	34.92 QP	46.00	-11.08	1.50 V	190	13.18	21.75
7	751.23	34.96 QP	46.00	-11.04	1.00 V	97	11.20	23.75

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.

4.2 CONDUCTED EMISSION MEASUREMENT

4.2.1 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 0.50MHz.

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.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100288	Sep. 22, 2007	Sep. 21, 2008
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Jan. 04, 2008	Jan. 03, 2009
LISN ROHDE & SCHWARZ	ESH2-Z5	100100	Jan. 10, 2008	Jan. 09, 2009
LISN SCHWARZBECK	ESH3-Z5	100311	Jul., 30, 2008	Jul. 29, 2009
Software ADT	ADT_Cond_V3	NA	NA	NA

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

2. The test was performed in HwaYa Shielded Room 2.

3. The VCCI Site Registration No. is C-2047.

4.2.3 TEST PROCEDURES

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

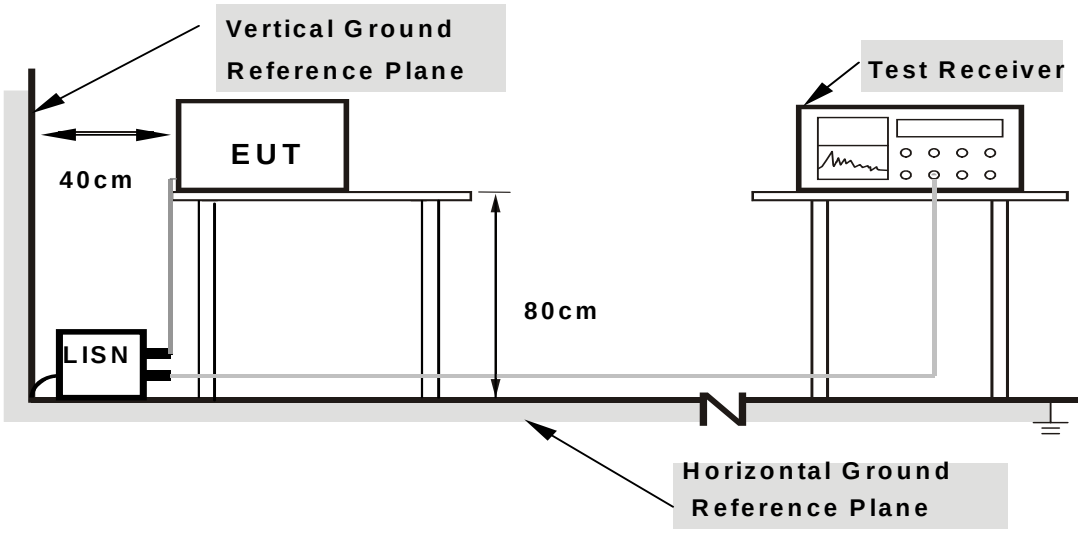
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

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

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 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 attached file (Test Setup Photo).

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

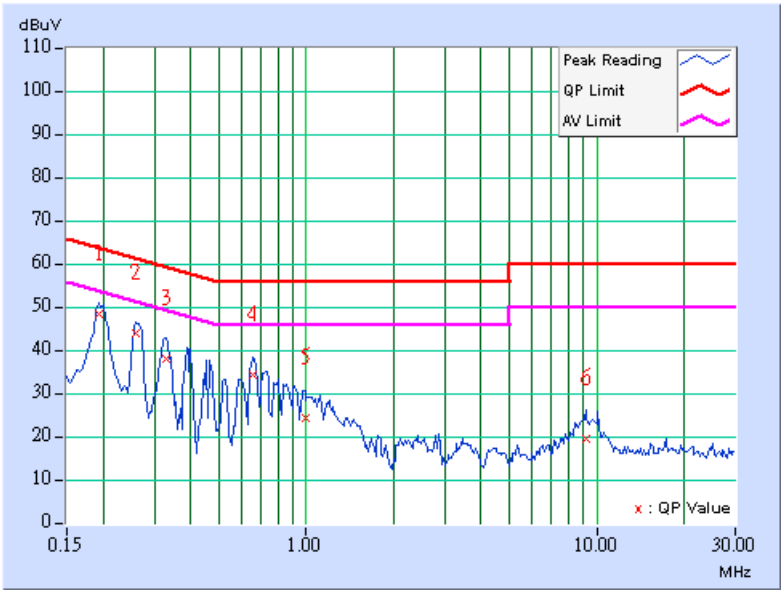
4.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA：DRAFT 802.11a OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	6Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	25deg. C, 66%RH, 982hPa	TESTED BY	Brad Wu

	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	0.193	0.20	48.17	-	48.37	-	63.91	53.91	-15.54	-
2	0.259	0.20	43.69	-	43.89	-	61.45	51.45	-17.56	-
3	0.330	0.20	37.60	-	37.80	-	59.46	49.46	-21.66	-
4	0.654	0.20	33.96	-	34.16	-	56.00	46.00	-21.84	-
5	0.994	0.20	24.01	-	24.21	-	56.00	46.00	-31.79	-
6	9.203	0.51	19.03	-	19.54	-	60.00	50.00	-40.46	-

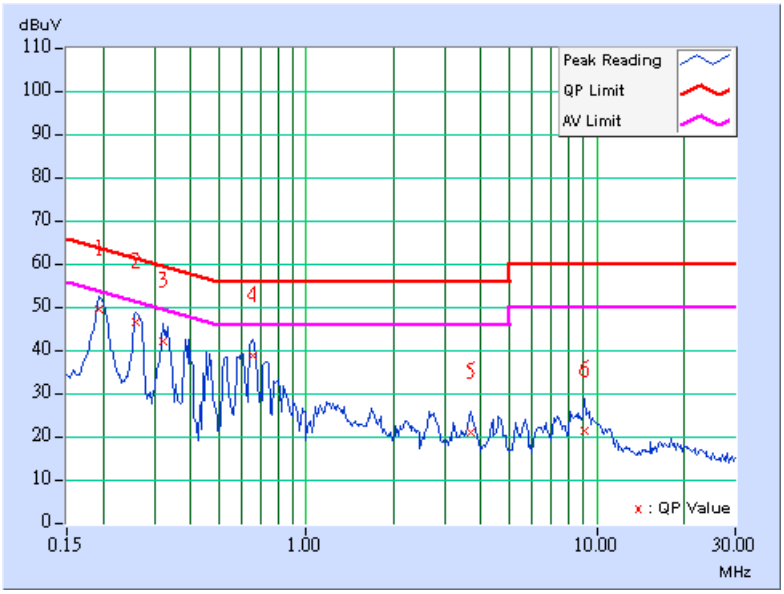
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	6Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	25deg. C, 66%RH, 982hPa	TESTED BY	Brad Wu

	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	**0.193**	**0.20**	**48.98**	**-**	**49.18**	**-**	**63.91**	**53.91**	**-14.73**	**-**
2	0.259	0.20	46.00	-	46.20	-	61.45	51.45	-15.25	-
3	0.322	0.20	41.80	-	42.00	-	59.66	49.66	-17.66	-
4	0.654	0.20	38.48	-	38.68	-	56.00	46.00	-17.32	-
5	3.664	0.37	20.45	-	20.82	-	56.00	46.00	-35.18	-
6	9.129	0.51	20.83	-	21.34	-	60.00	50.00	-38.66	-

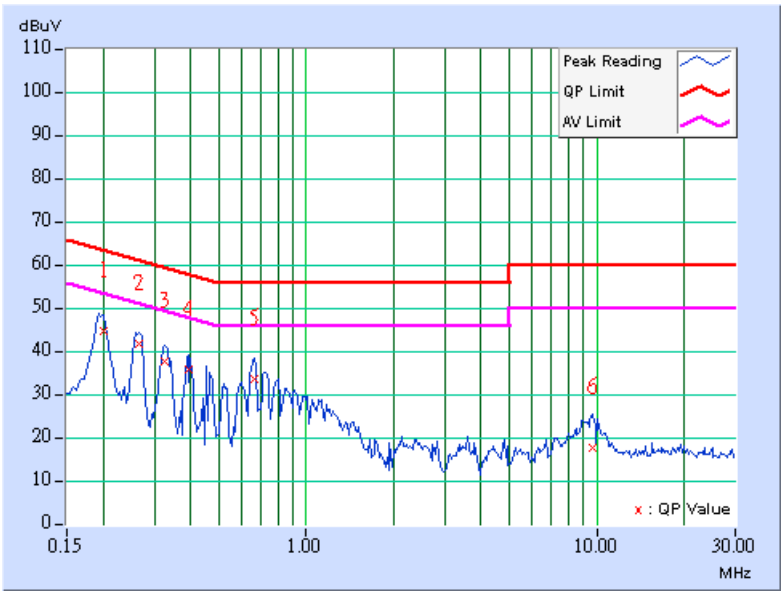
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	6Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	25deg. C, 66%RH, 982hPa	TESTED BY	Brad Wu

	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	0.201	0.20	44.12	-	44.32	-	63.58	53.58	-19.26	-
2	0.267	0.20	41.48	-	41.68	-	61.20	51.20	-19.52	-
3	0.326	0.20	37.30	-	37.50	-	59.56	49.56	-22.06	-
4	0.392	0.20	35.22	-	35.42	-	58.02	48.02	-22.60	-
5	0.666	0.20	33.11	-	33.31	-	56.00	46.00	-22.69	-
6	9.723	0.52	17.38	-	17.90	-	60.00	50.00	-42.10	-

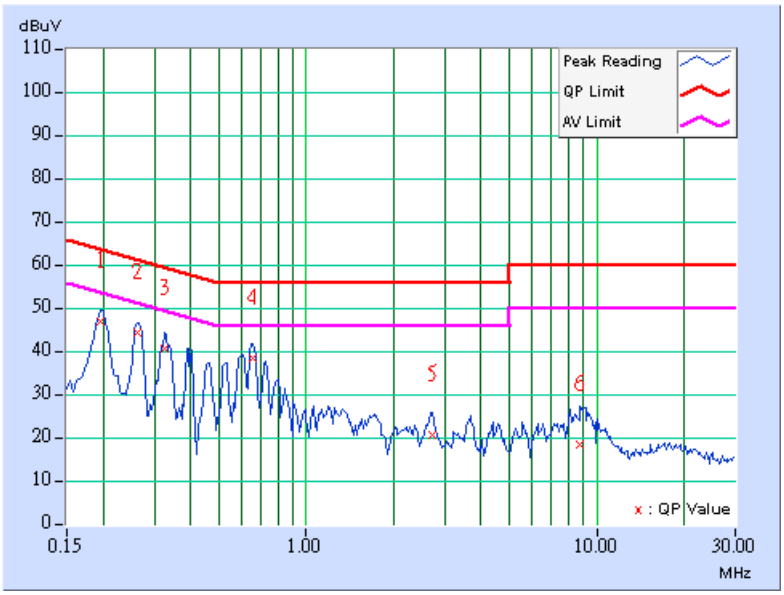
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	6Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	25deg. C, 66%RH, 982hPa	TESTED BY	Brad Wu

	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	0.197	0.20	46.52	-	46.72	-	63.74	53.74	-17.02	-
2	0.263	0.20	43.92	-	44.12	-	61.33	51.33	-17.21	-
3	0.326	0.20	40.21	-	40.41	-	59.56	49.56	-19.15	-
4	0.654	0.20	37.94	-	38.14	-	56.00	46.00	-17.86	-
5	2.723	0.27	20.33	-	20.60	-	56.00	46.00	-35.40	-
6	8.773	0.50	17.85	-	18.35	-	60.00	50.00	-41.65	-

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.



4.3 PEAK TRANSMIT POWER MEASUREMENT

4.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

FREQUENCY BAND	LIMIT
5.150 ~ 5.250GHz	The lesser of 50mW (17dBm) or 4dBm + 10logB
5.250 ~ 5.350GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.470 ~ 5.725GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB

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

4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100041	Apr. 22, 2008	Apr. 21, 2009

NOTE: 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

a. The transmitter output was connected to the spectrum analyzer.

b. Set span to encompass the entire emission bandwidth of the signal.

c. Set RBW to 1MHz, VBW to 3MHz.

d. Using the spectrum analyzer's channel power measurement function to measure the output power.

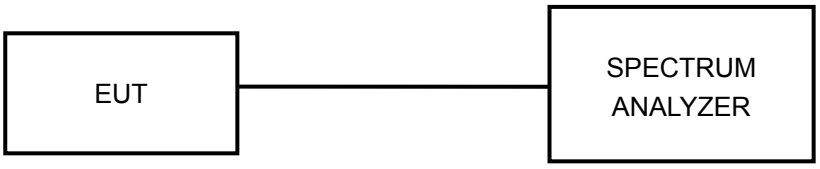
NOTE: The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

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.

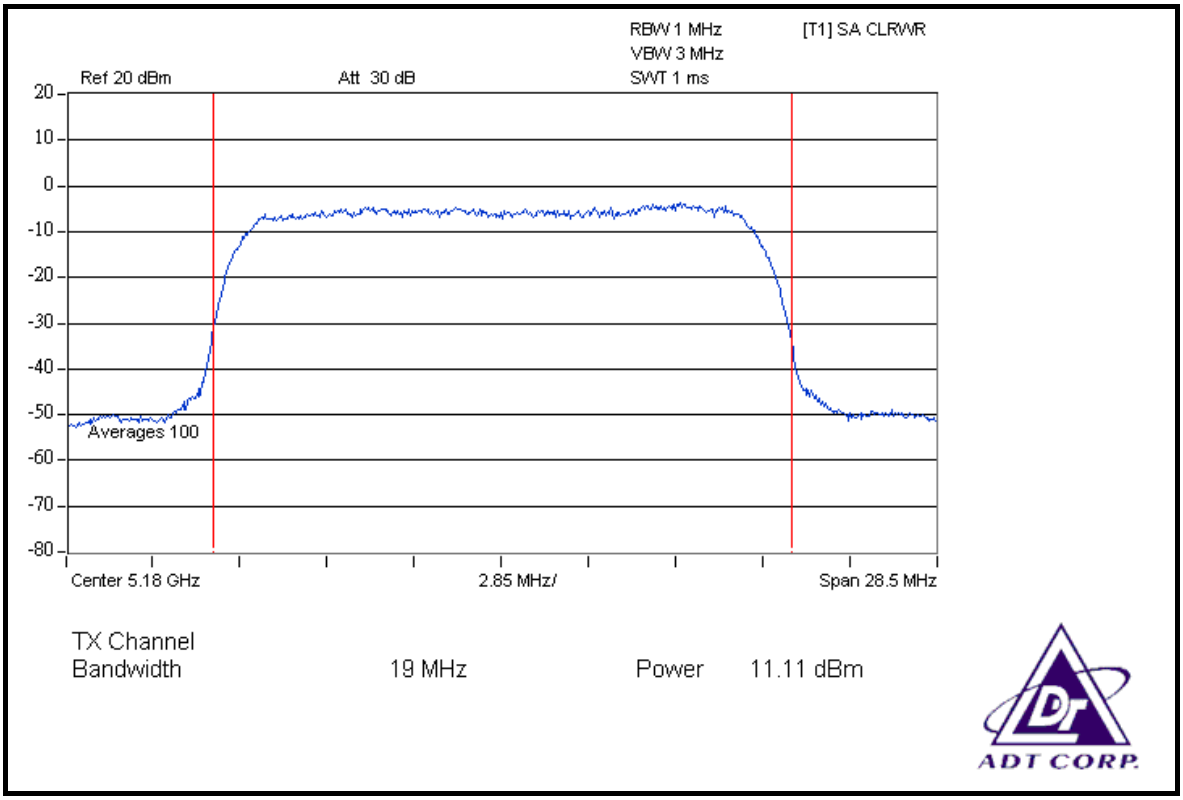
4.3.7 TEST RESULTS

PEAK POWER OUTPUT: 802.11a OFDM MODULATION

MODULATION TYPE	BPSK	**TRANSFER RATE**	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 65 %RH, 991hPa
TESTED BY	Brad Wu		

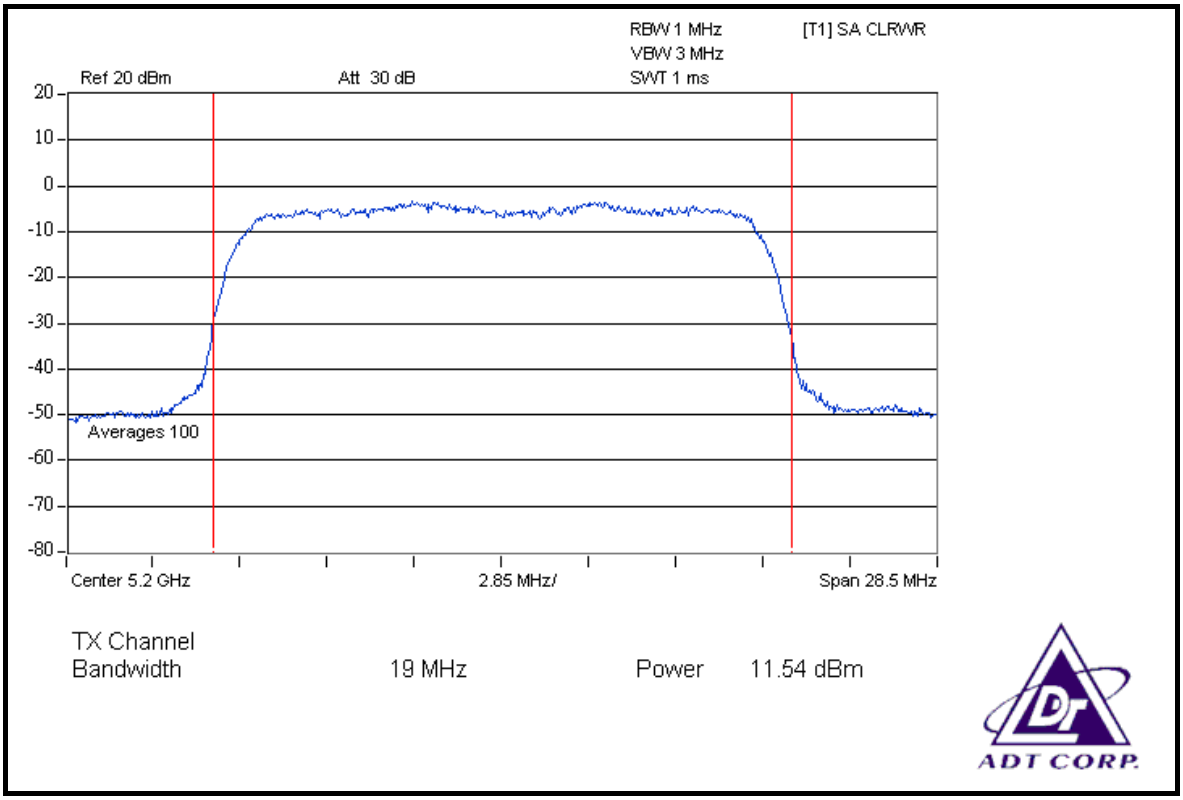
CHAN.	CHAN. FREQ. (MHz)	PEAK POWER OUTPUT (dBm)		TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	11.11	11.08	25.735	14.11	17	PASS
40	5200	11.54	11.05	26.991	14.31	17	PASS
48	5240	11.07	11.09	25.647	14.09	17	PASS
52	5260	11.10	11.11	25.795	14.12	24	PASS
60	5300	9.63	10.63	20.744	13.17	24	PASS
64	5320	11.05	11.03	25.412	14.05	24	PASS
100	5500	11.06	11.15	25.796	14.12	24	PASS
120	5600	11.10	11.10	25.765	14.11	24	PASS
140	5700	10.56	10.01	21.399	13.30	24	PASS

CHAIN 0: CH 36



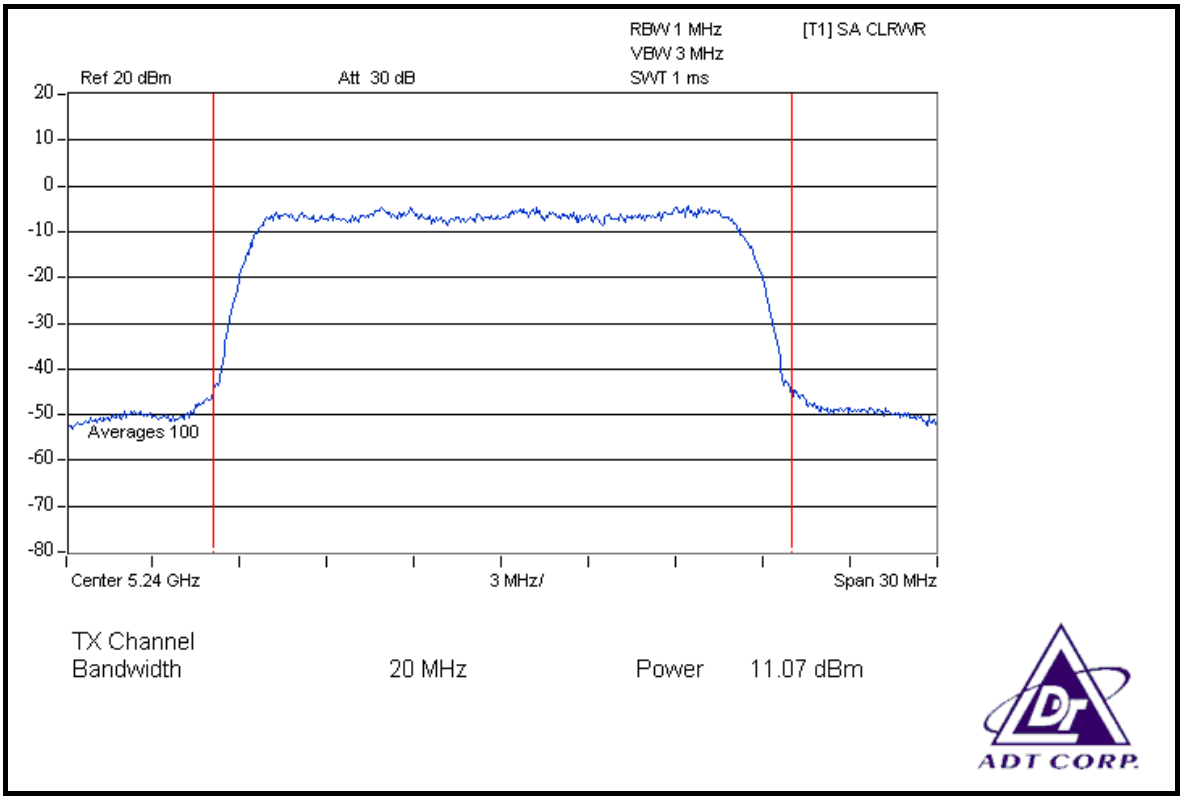
TX Channel Bandwidth 19 MHz Power 11.11 dBm

CH 40



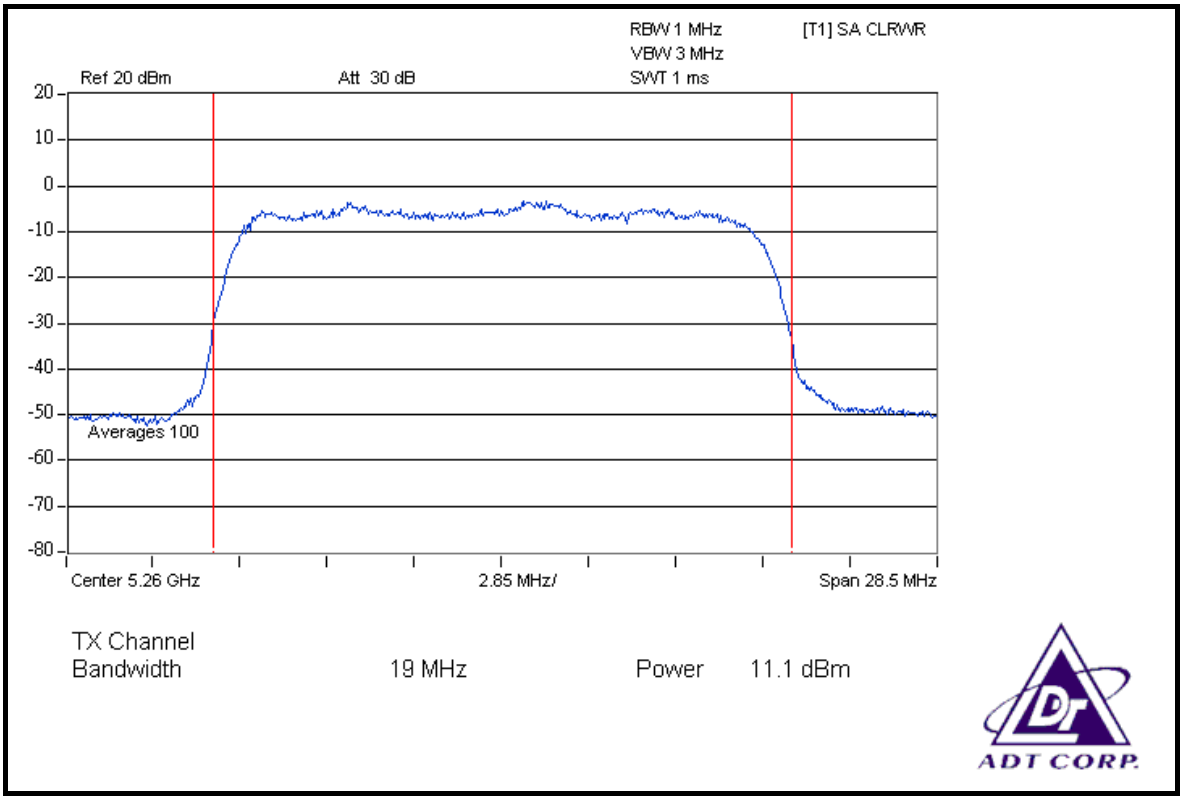
TX Channel Bandwidth 19 MHz Power 11.54 dBm

CH 48



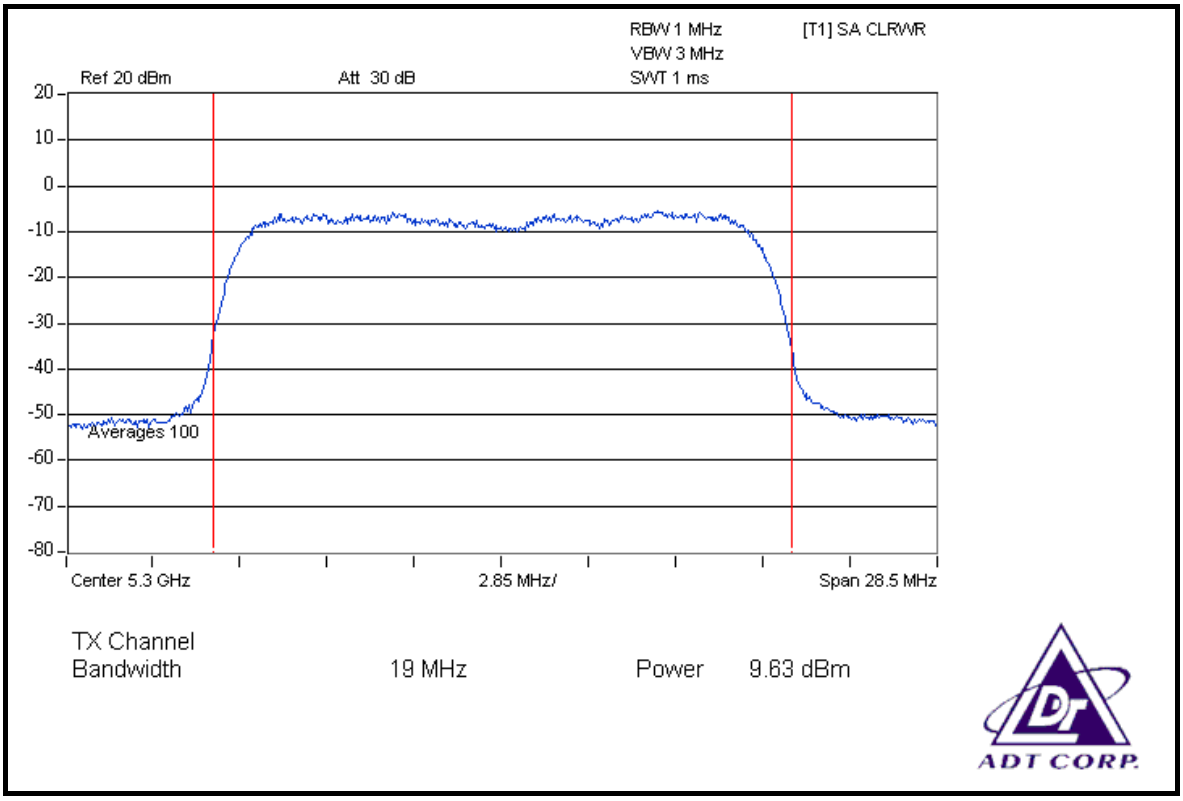
TX Channel Bandwidth 20 MHz Power 11.07 dBm

CH 52



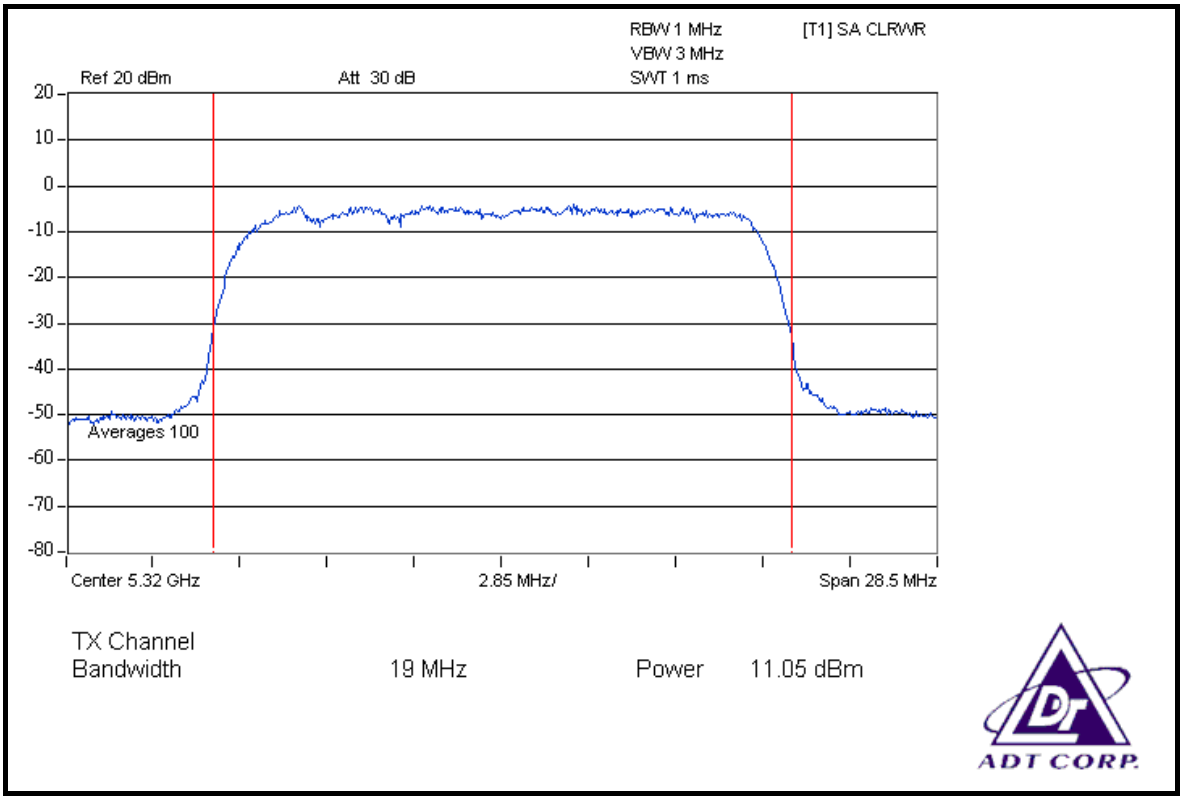
TX Channel Bandwidth 19 MHz Power 11.1 dBm

CH 60



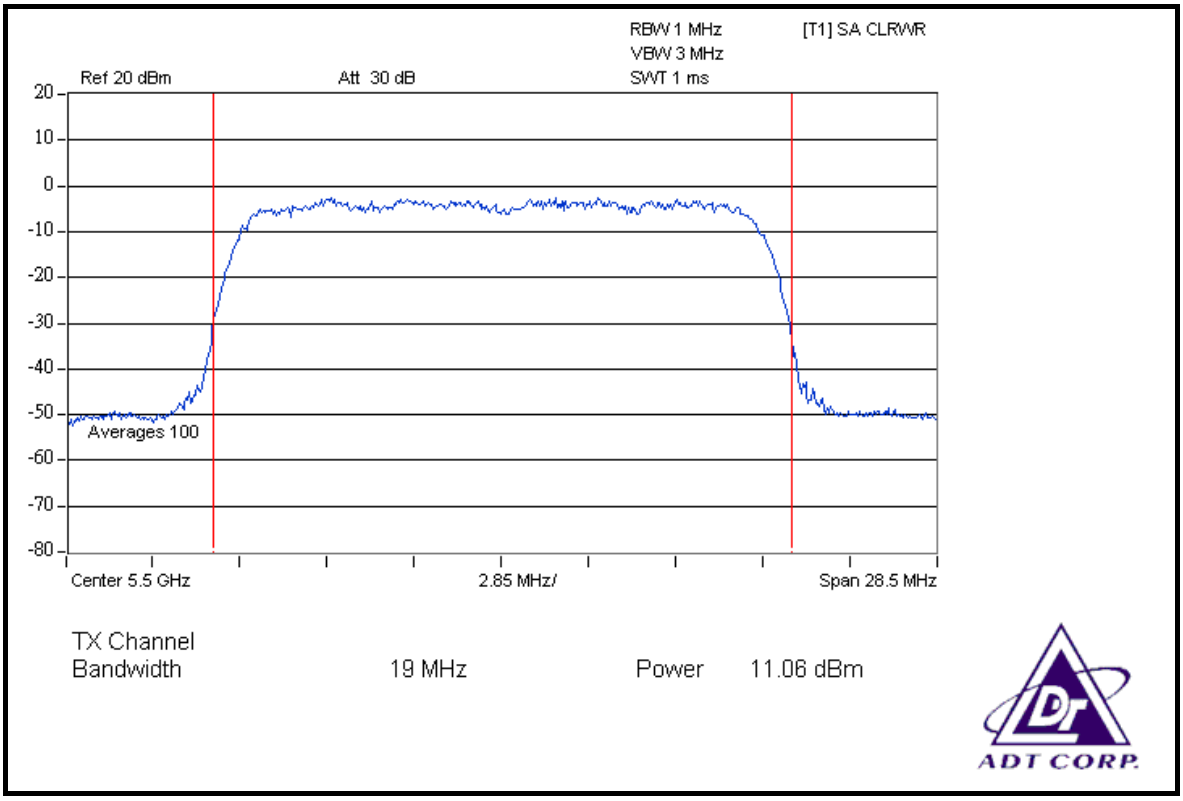
TX Channel Bandwidth 19 MHz Power 9.63 dBm

CH 64



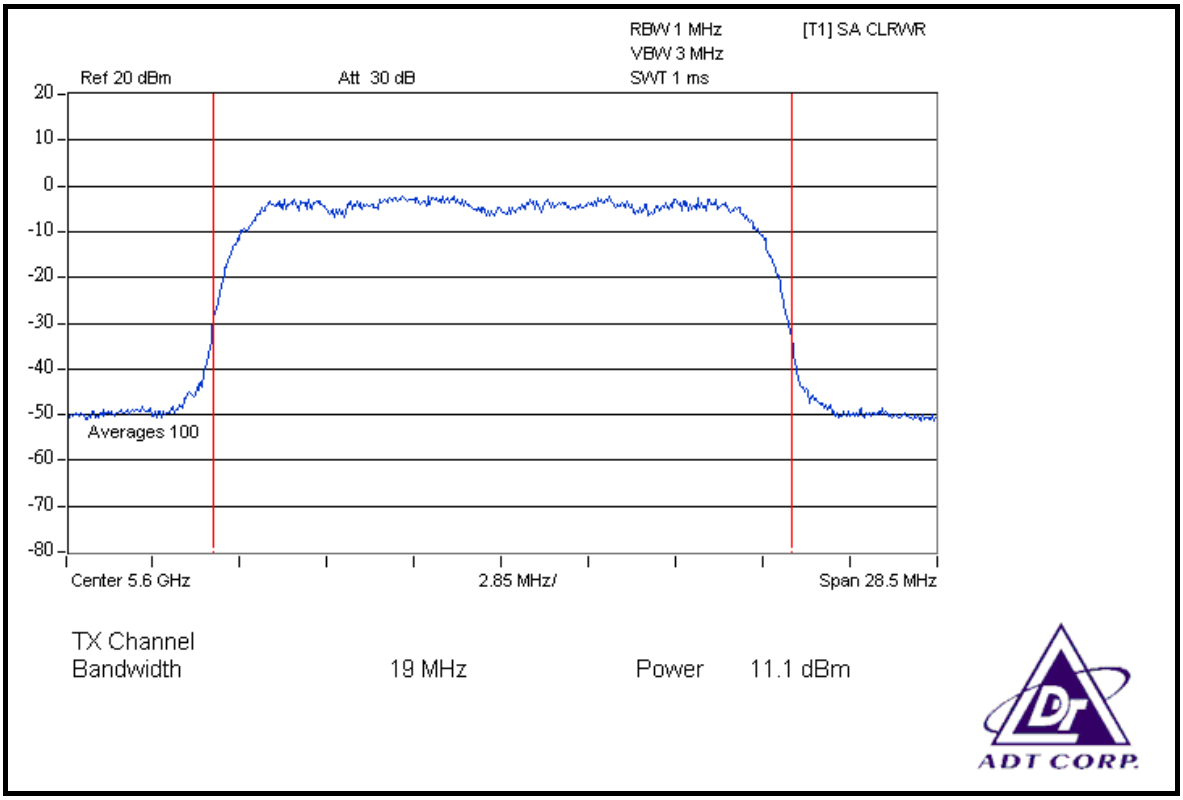
TX Channel Bandwidth 19 MHz Power 11.05 dBm

CH 100



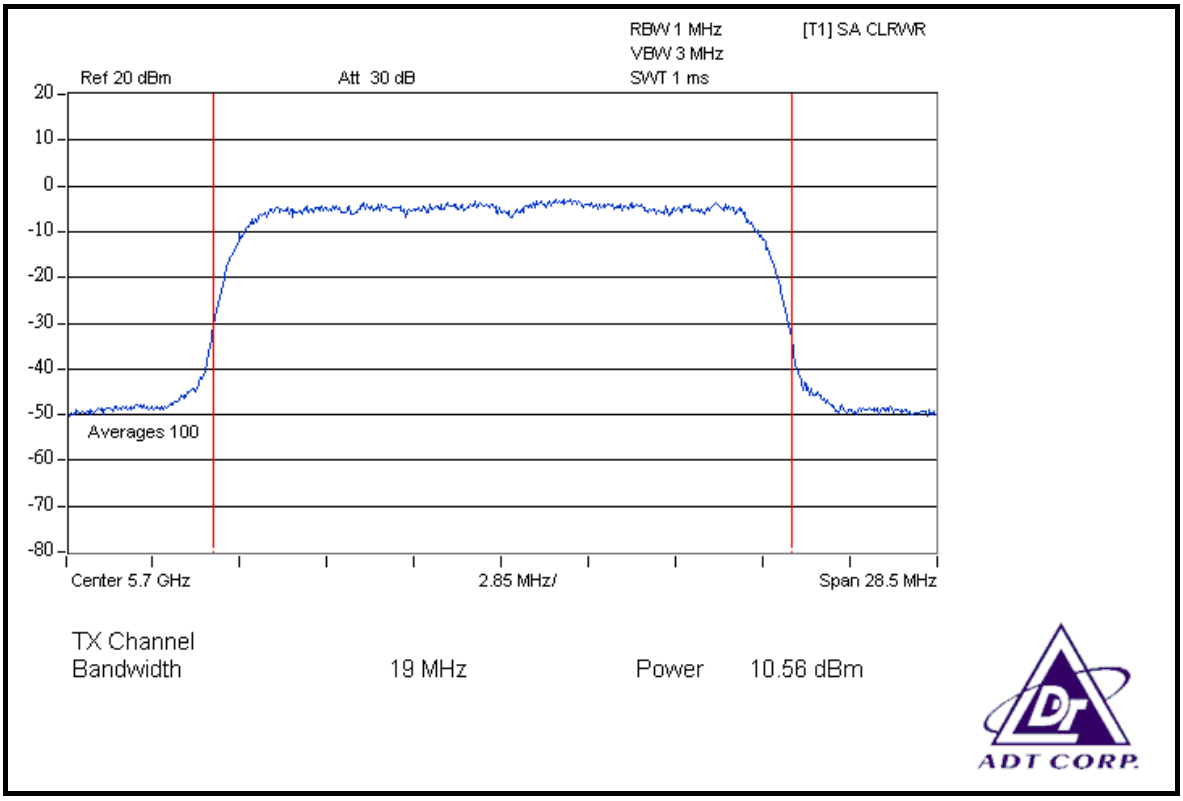
TX Channel Bandwidth 19 MHz Power 11.06 dBm

CH 120



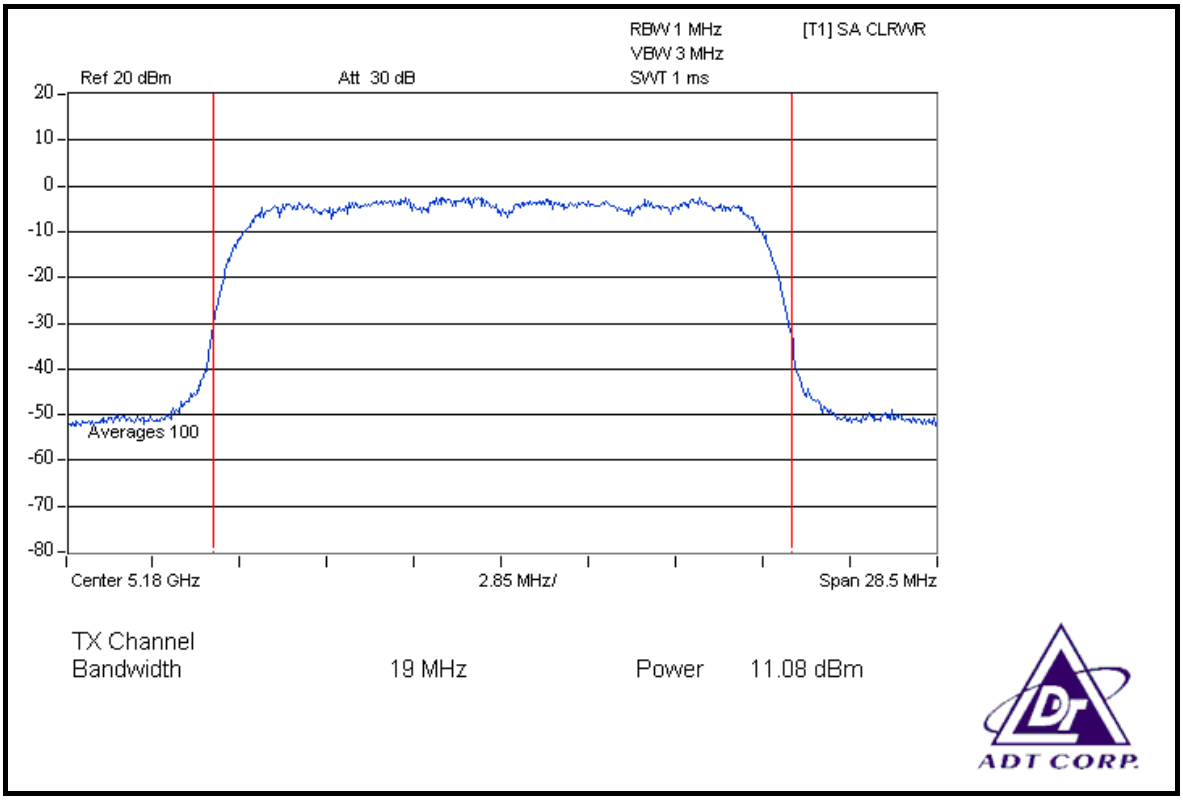
TX Channel Bandwidth 19 MHz Power 11.1 dBm

CH 140



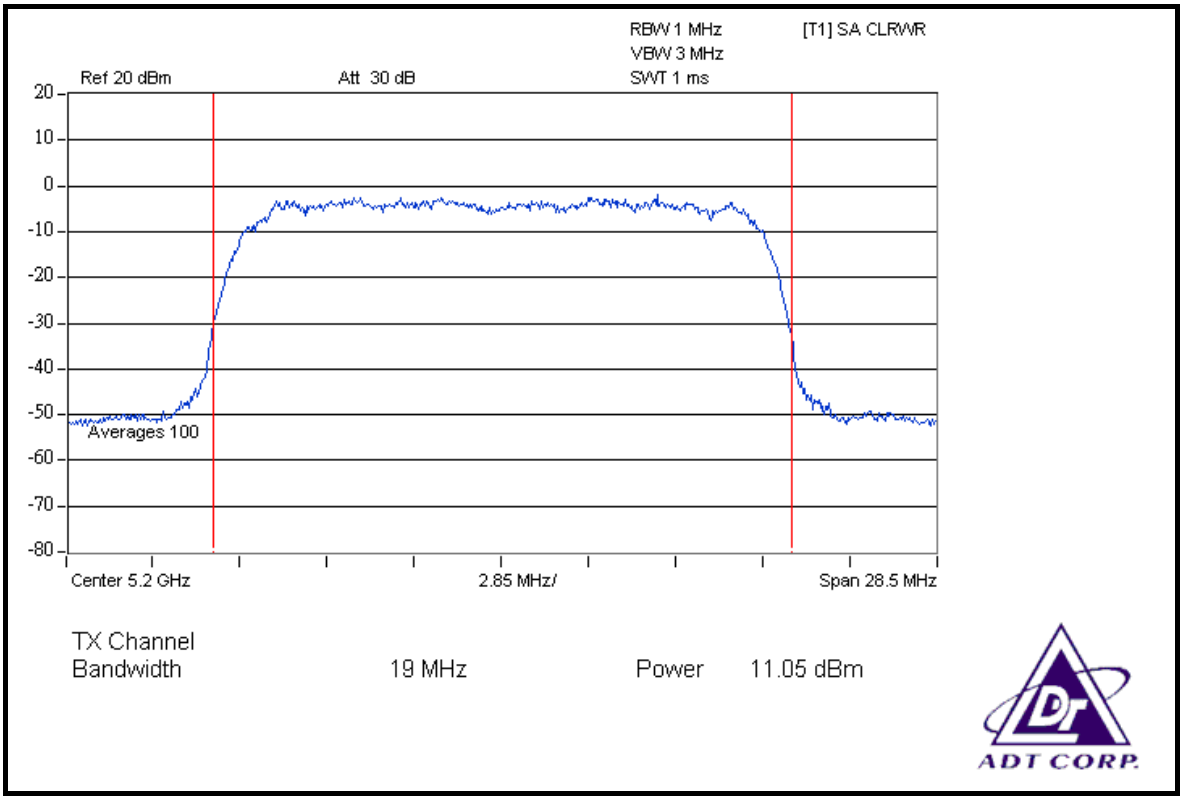
TX Channel Bandwidth 19 MHz Power 10.56 dBm

CHAIN 1: CH 36



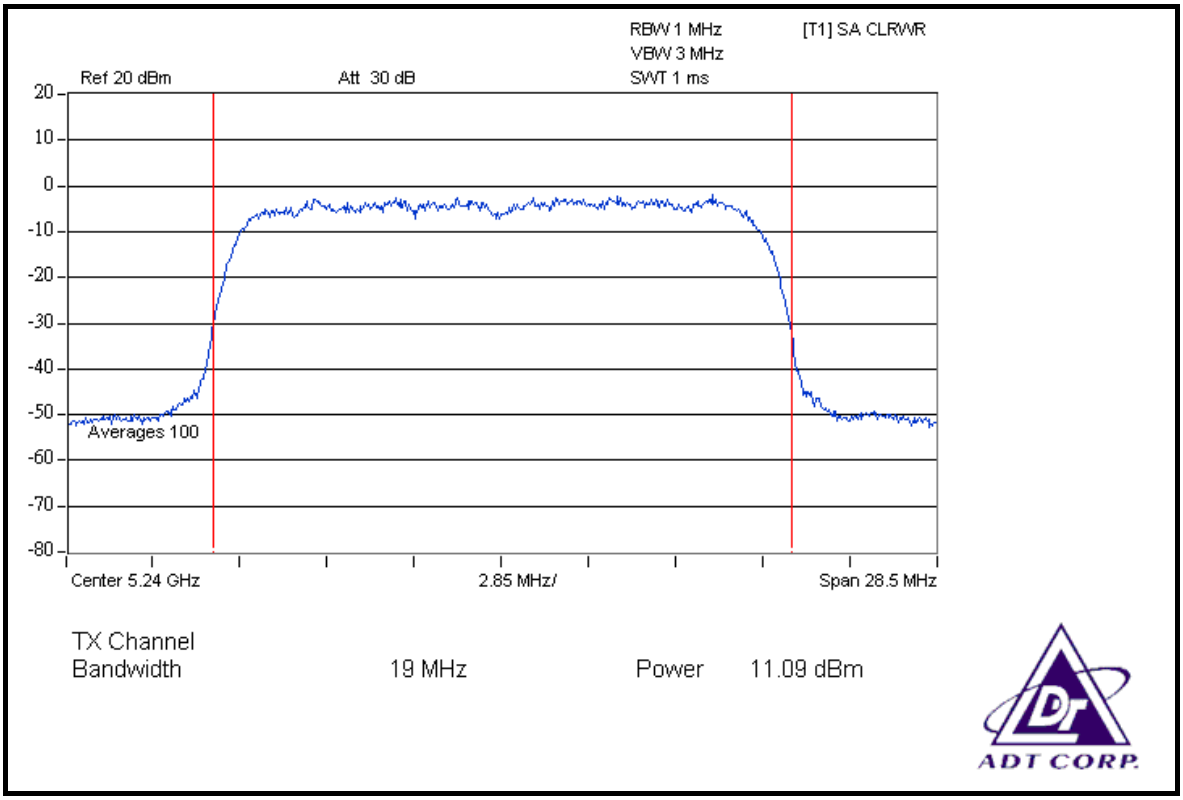
TX Channel Bandwidth 19 MHz Power 11.08 dBm

CH 40



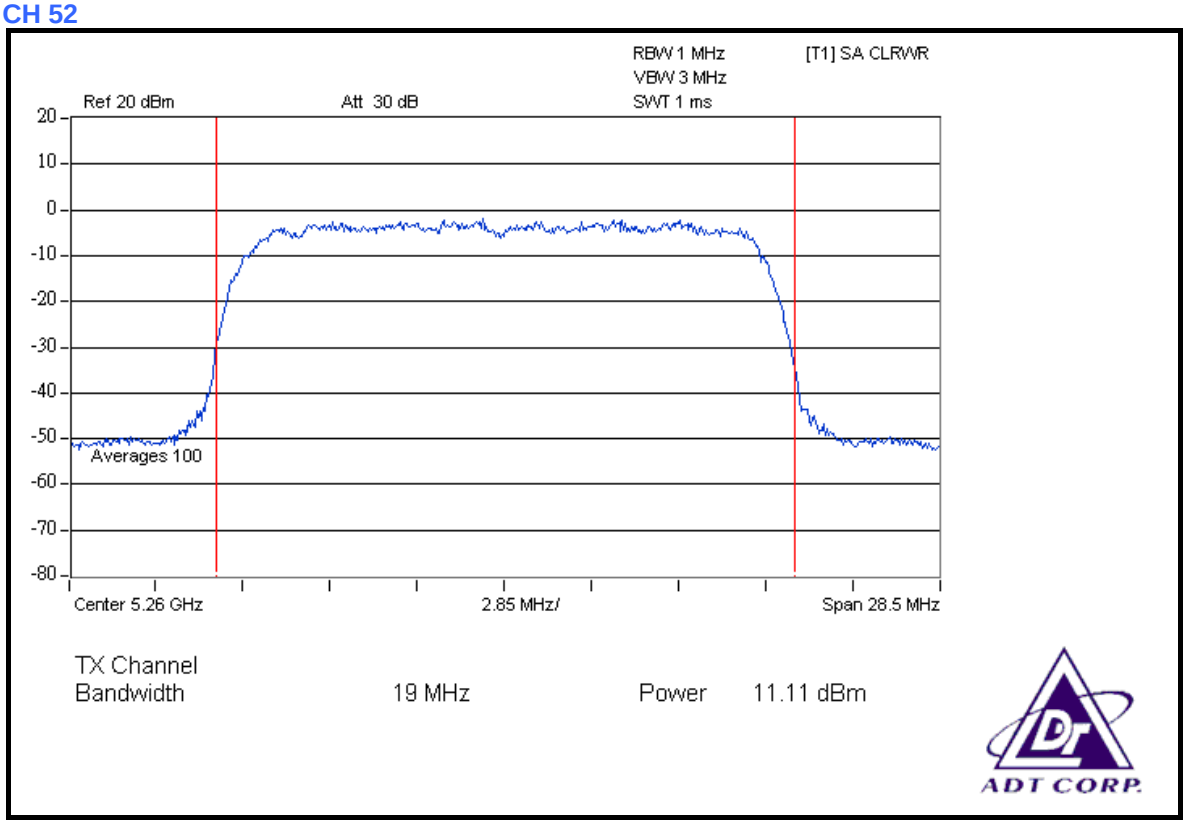
TX Channel Bandwidth 19 MHz Power 11.05 dBm

CH 48



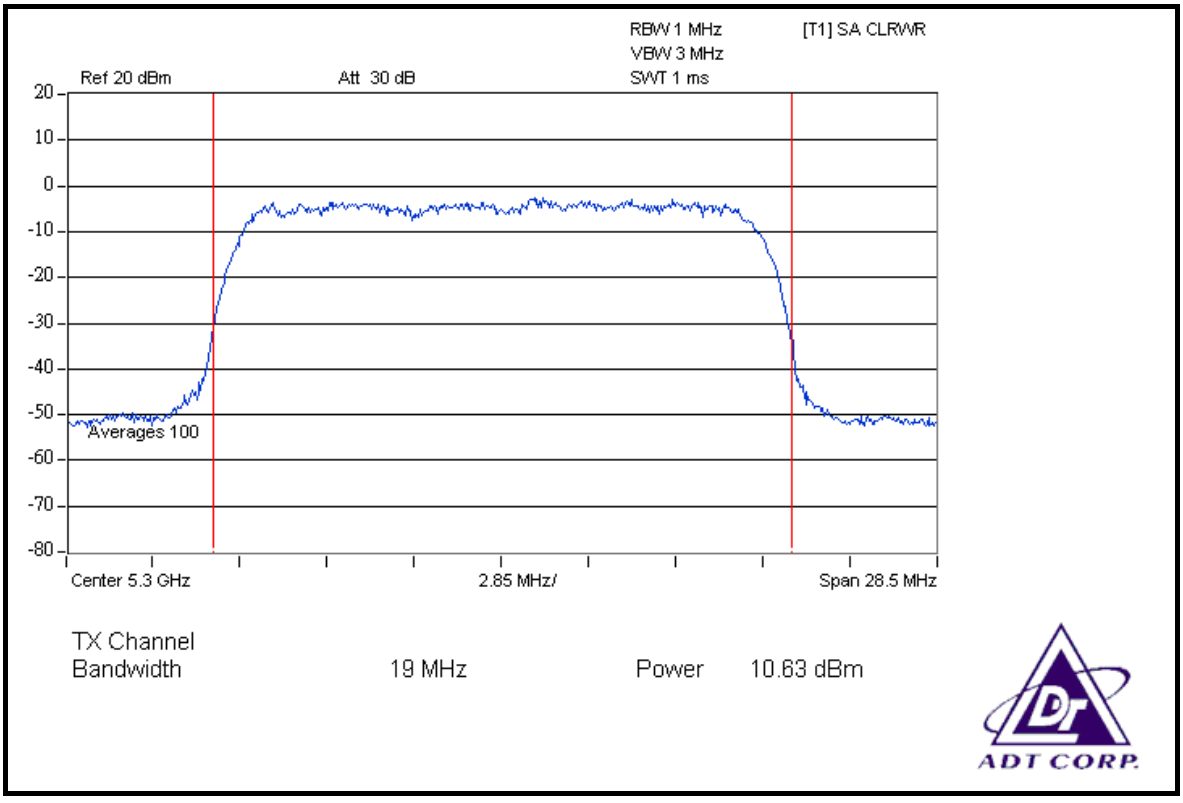
TX Channel Bandwidth 19 MHz Power 11.09 dBm

CH 52



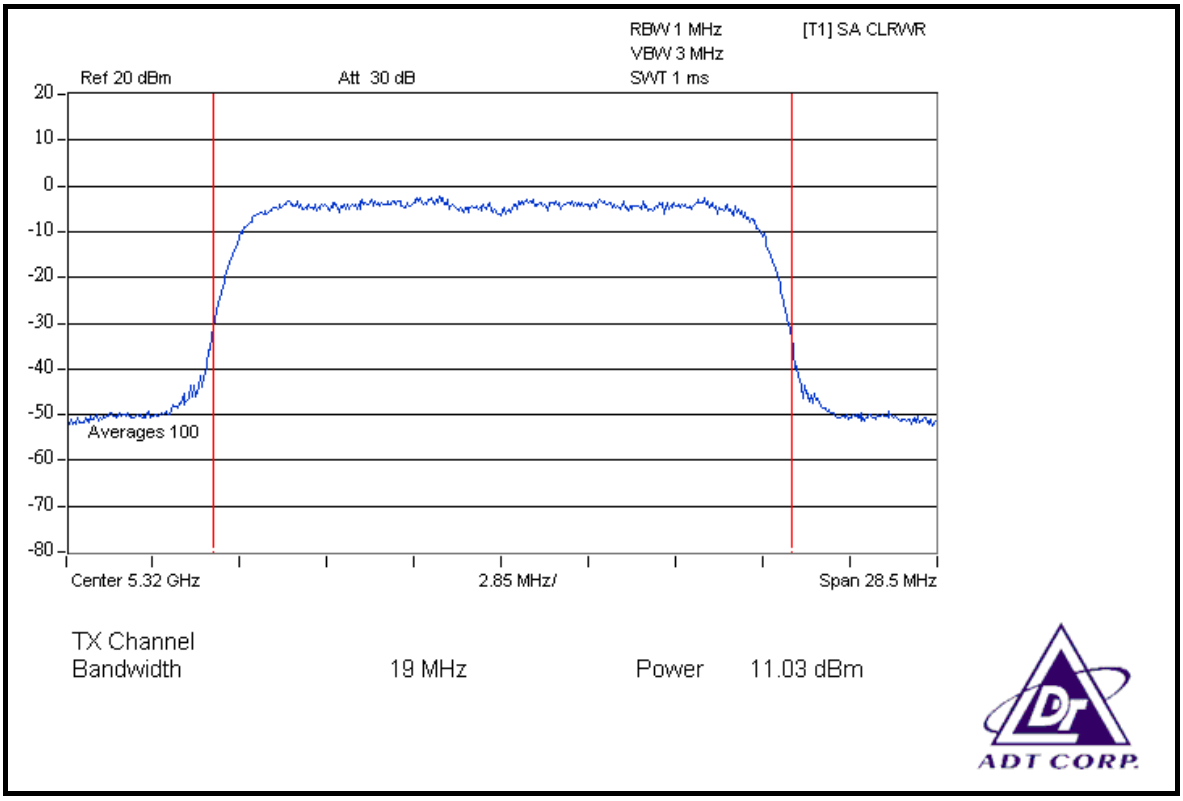
TX Channel Bandwidth 19 MHz Power 11.11 dBm

CH 60



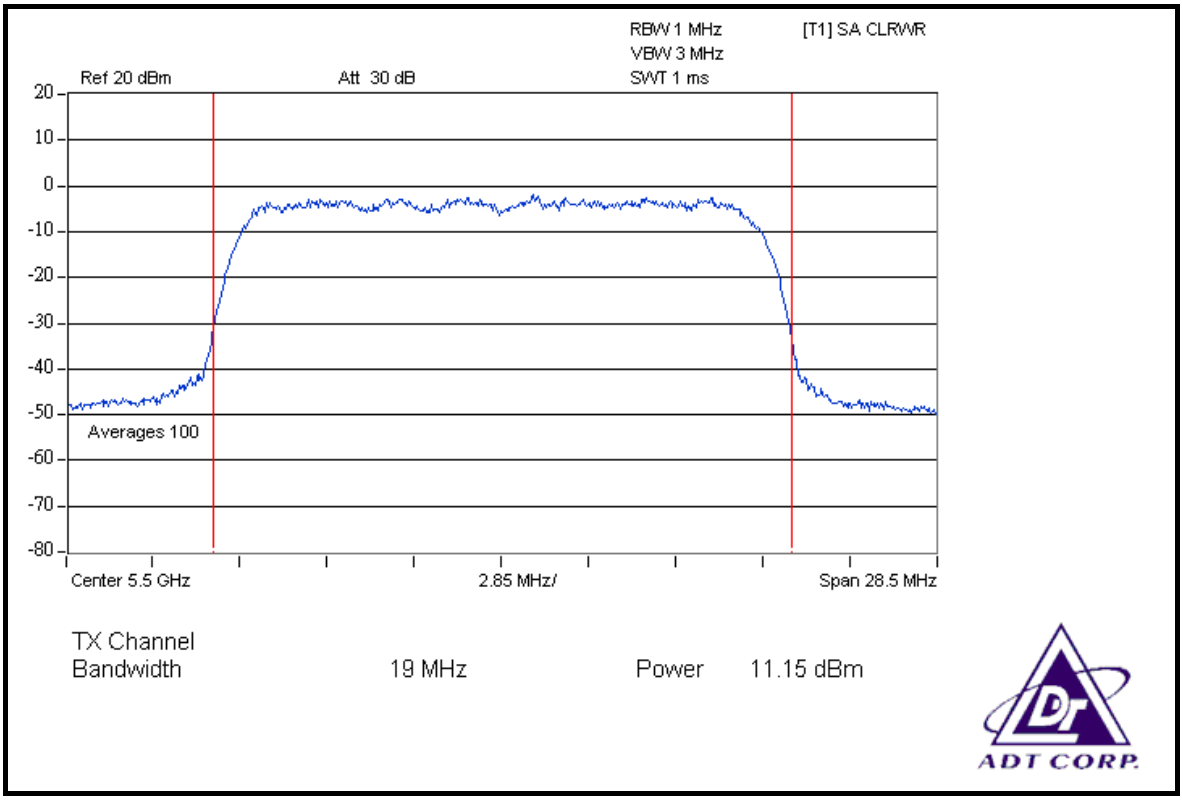
TX Channel Bandwidth 19 MHz Power 10.63 dBm

CH 64



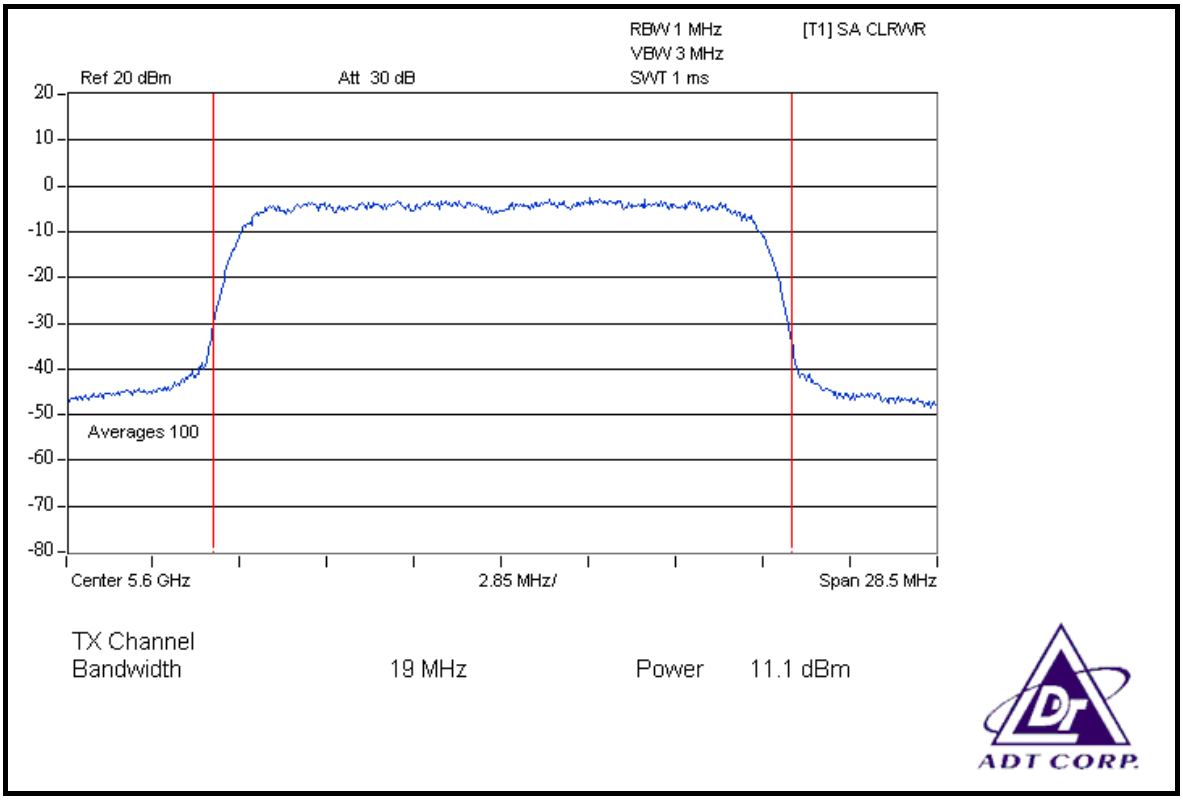
TX Channel Bandwidth 19 MHz Power 11.03 dBm

CH 100



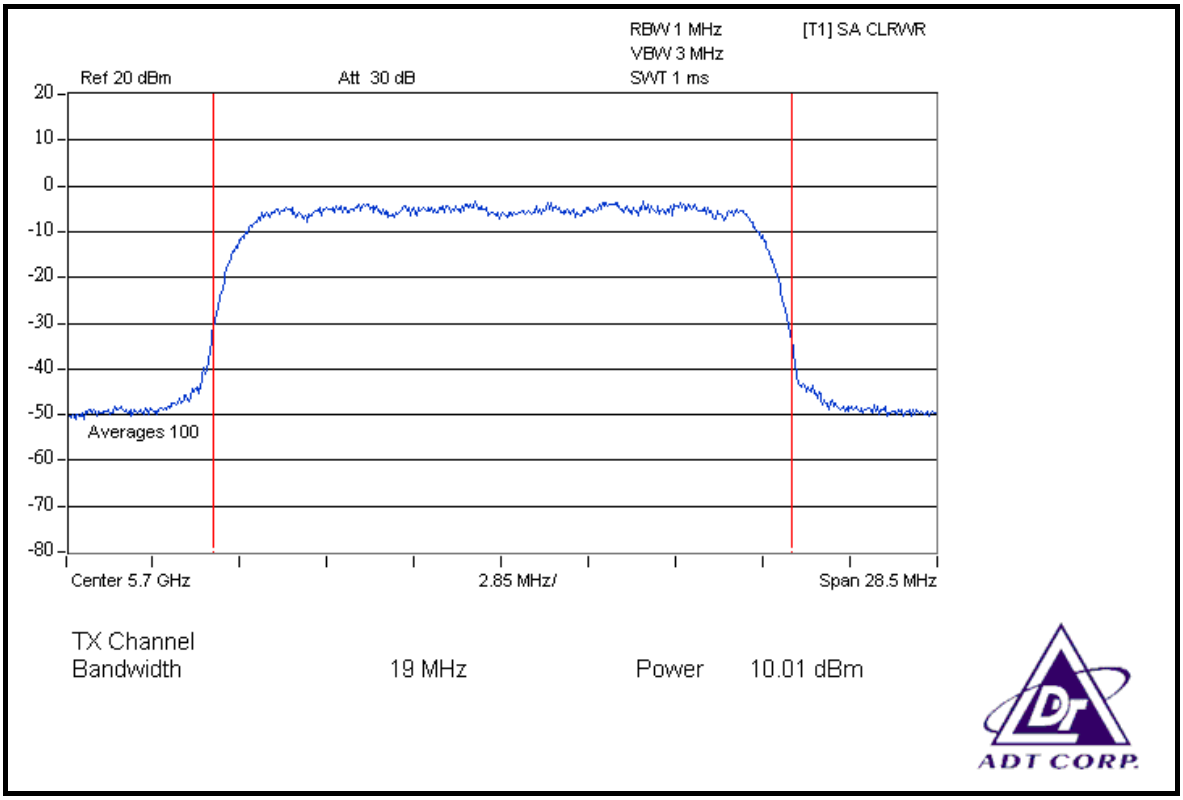
TX Channel Bandwidth 19 MHz Power 11.15 dBm

CH 120



TX Channel Bandwidth 19 MHz Power 11.1 dBm

CH 140



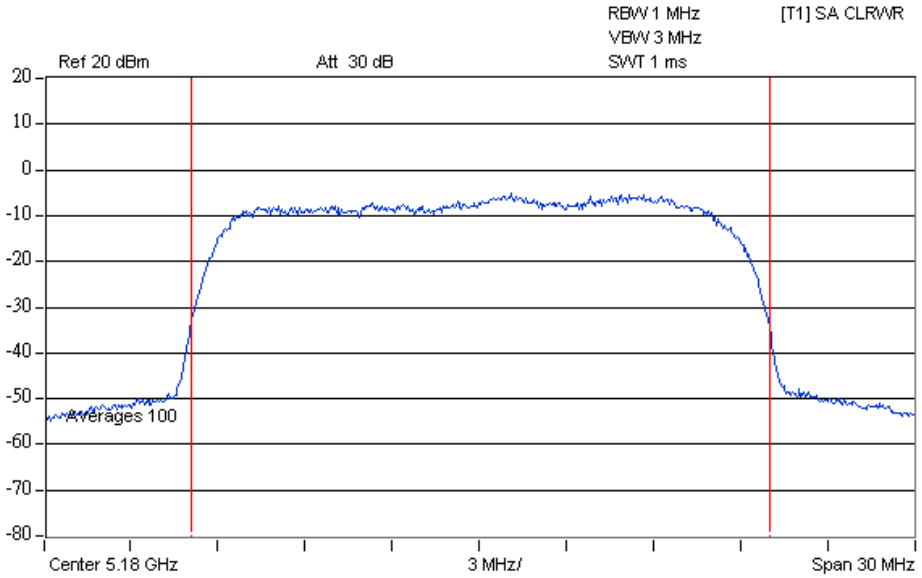
TX Channel Bandwidth 19 MHz Power 10.01 dBm

DRAFT 802.11n (20MHz) OFDM MODULATION

MODULATION TYPE	BPSK	**TRANSFER RATE**	7.2Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25 deg.C, 65 %RH, 991hPa
TESTED BY	Brad Wu		

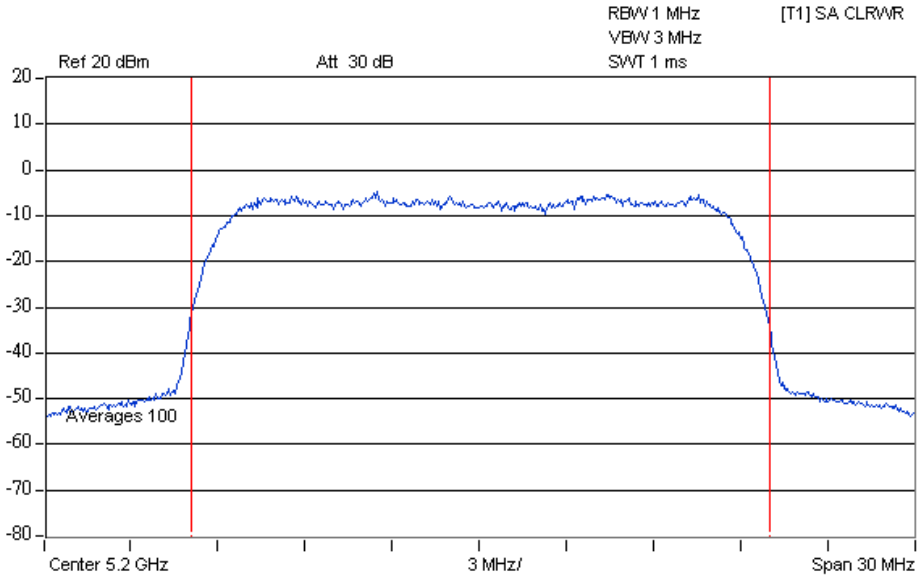
CHAN.	CHAN. FREQ. (MHz)	PEAK POWER OUTPUT (dBm)		TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	9.58	9.59	18.177	12.60	17	PASS
40	5200	10.06	9.52	19.093	12.81	17	PASS
48	5240	9.54	9.56	18.031	12.56	17	PASS
52	5260	9.53	9.63	18.158	12.59	24	PASS
60	5300	9.07	9.02	16.052	12.06	24	PASS
64	5320	9.60	9.55	18.136	12.59	24	PASS
100	5500	9.15	9.53	17.197	12.35	24	PASS
120	5600	9.58	9.53	18.052	12.57	24	PASS
140	5700	10.07	9.59	19.262	12.85	24	PASS

CHAIN 0: CH 36



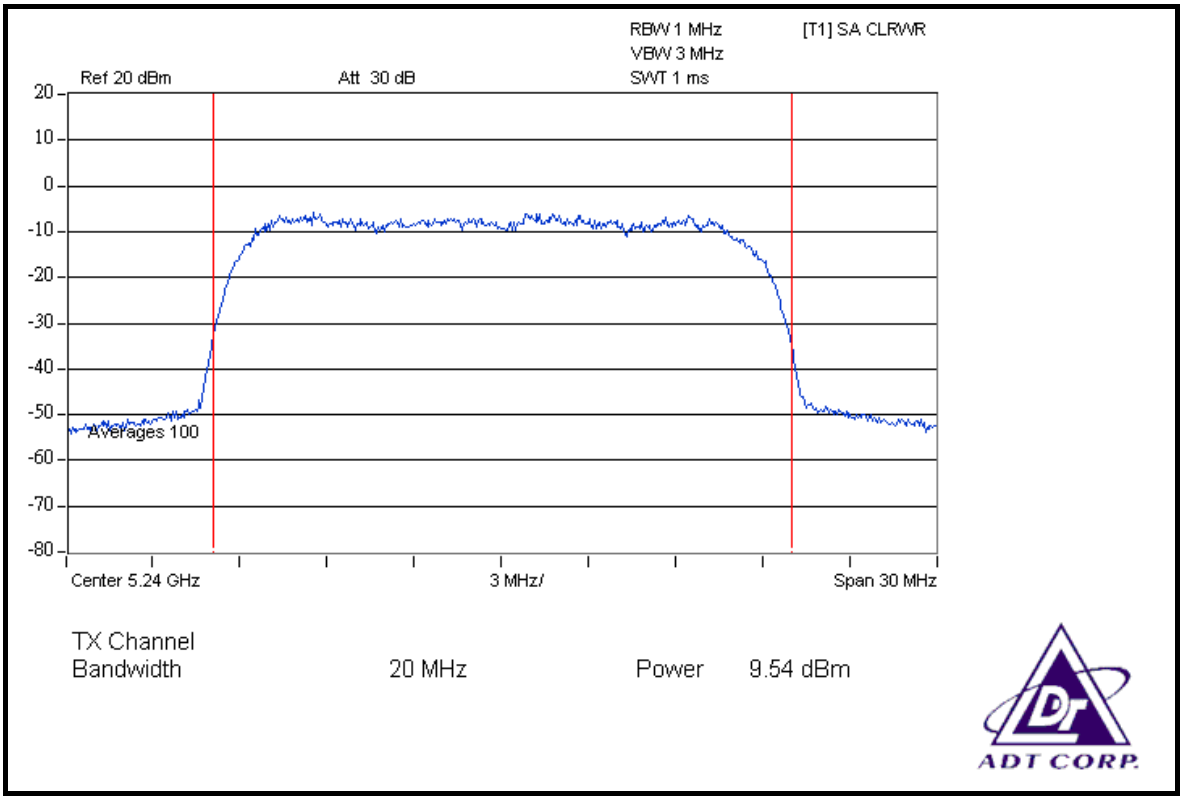
TX Channel Bandwidth	20 MHz	Power	9.58 dBm

CH 40



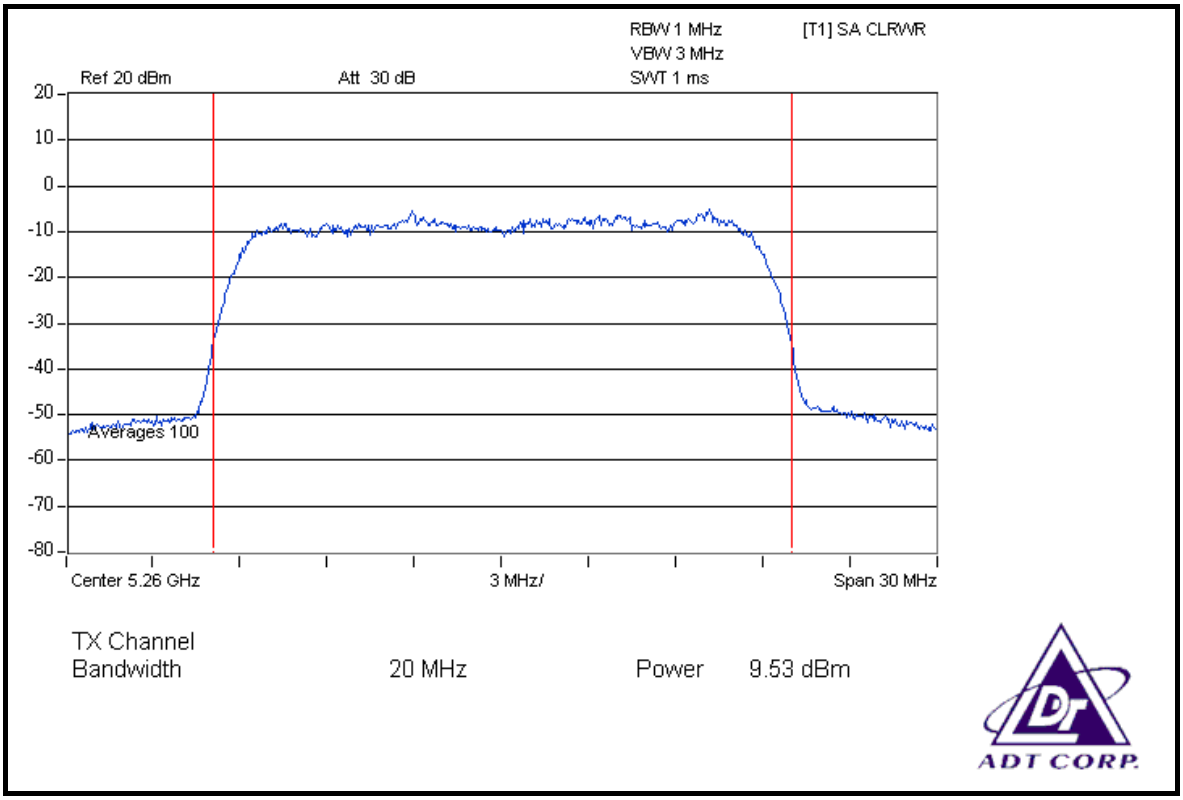
TX Channel Bandwidth	20 MHz	Power	10.06 dBm

CH 48



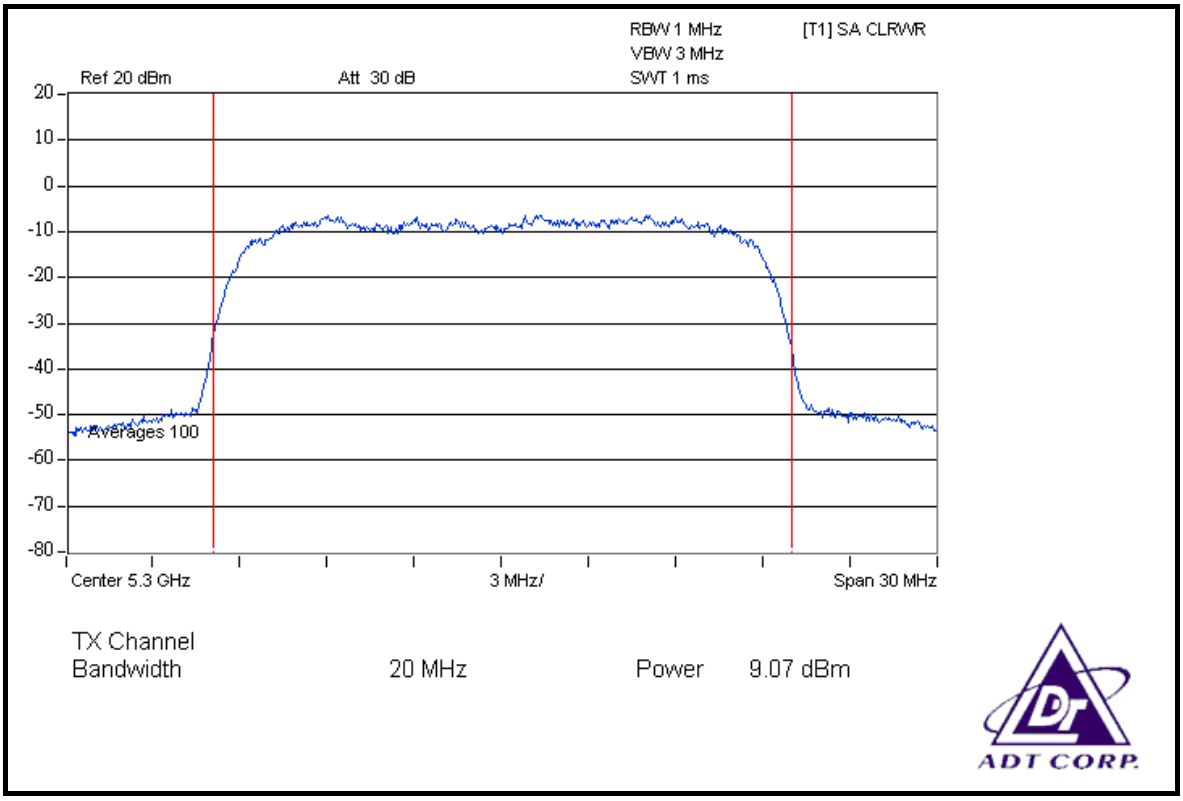
TX Channel Bandwidth 20 MHz Power 9.54 dBm

CH 52



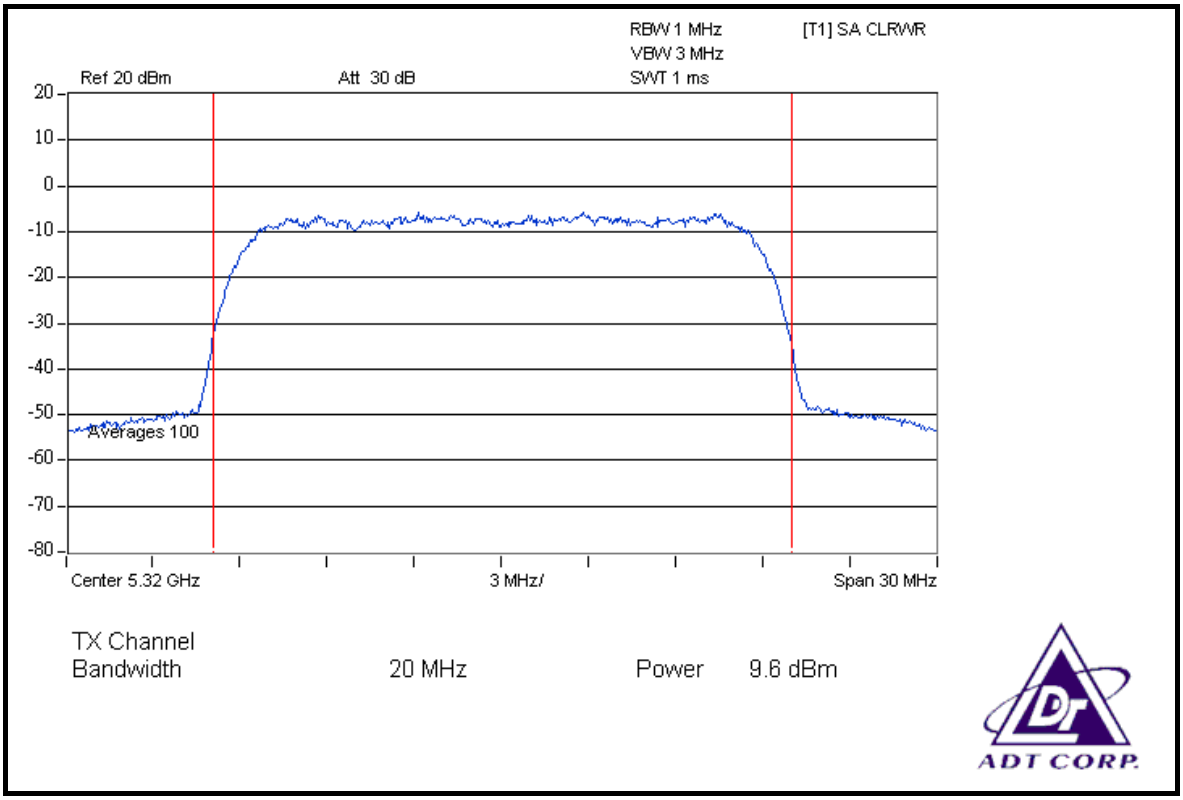
TX Channel Bandwidth 20 MHz Power 9.53 dBm

CH 60



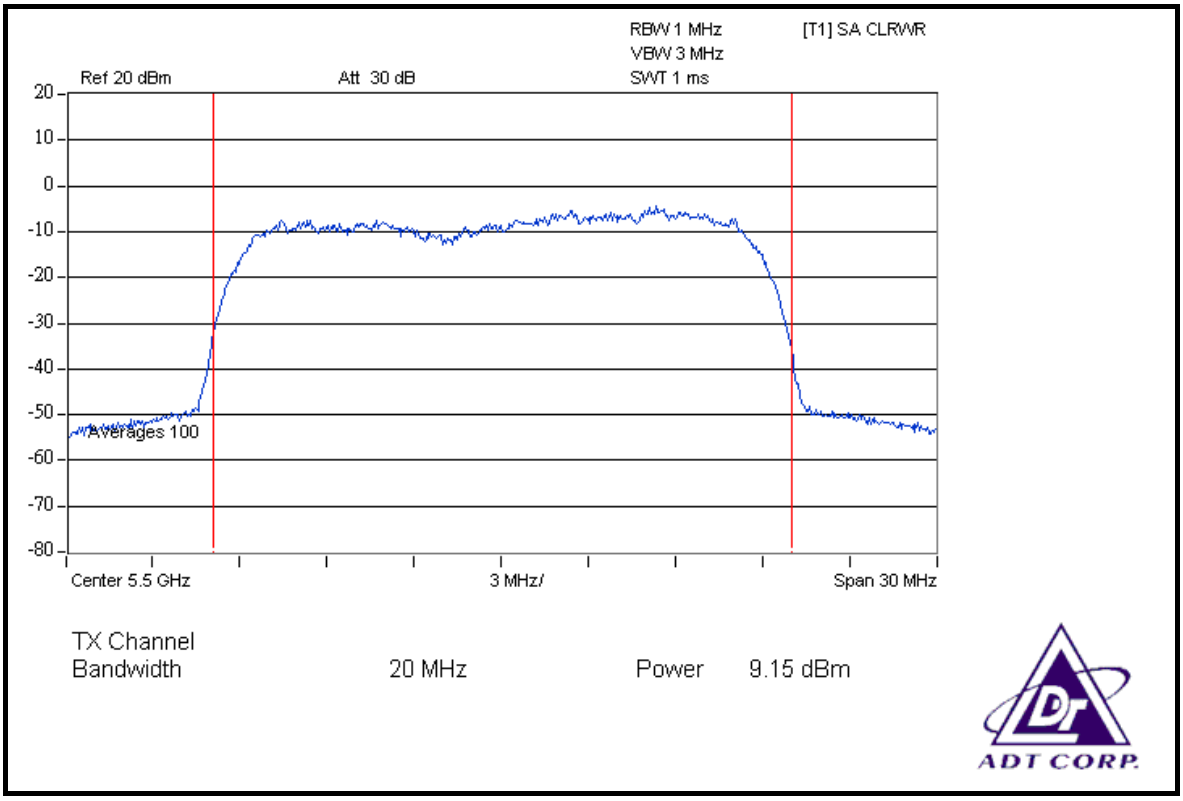
TX Channel Bandwidth 20 MHz Power 9.07 dBm

CH 64



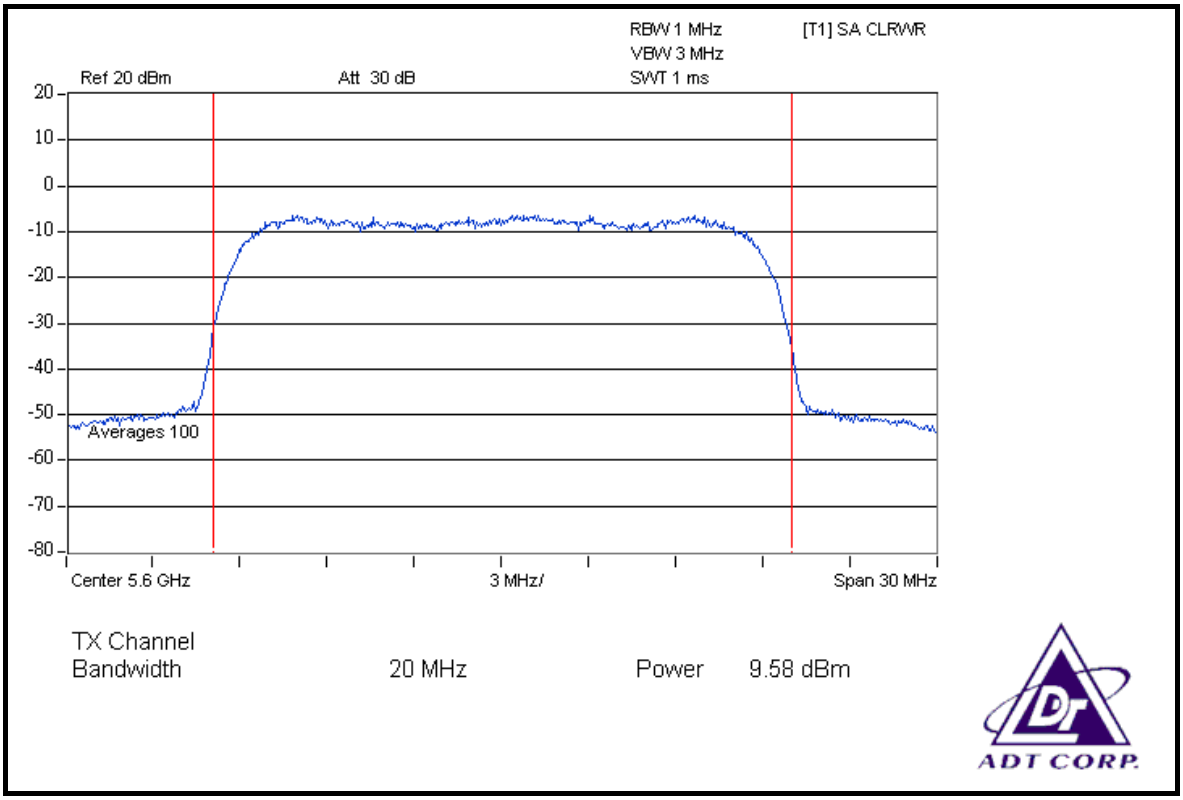
TX Channel Bandwidth 20 MHz Power 9.6 dBm

CH 100



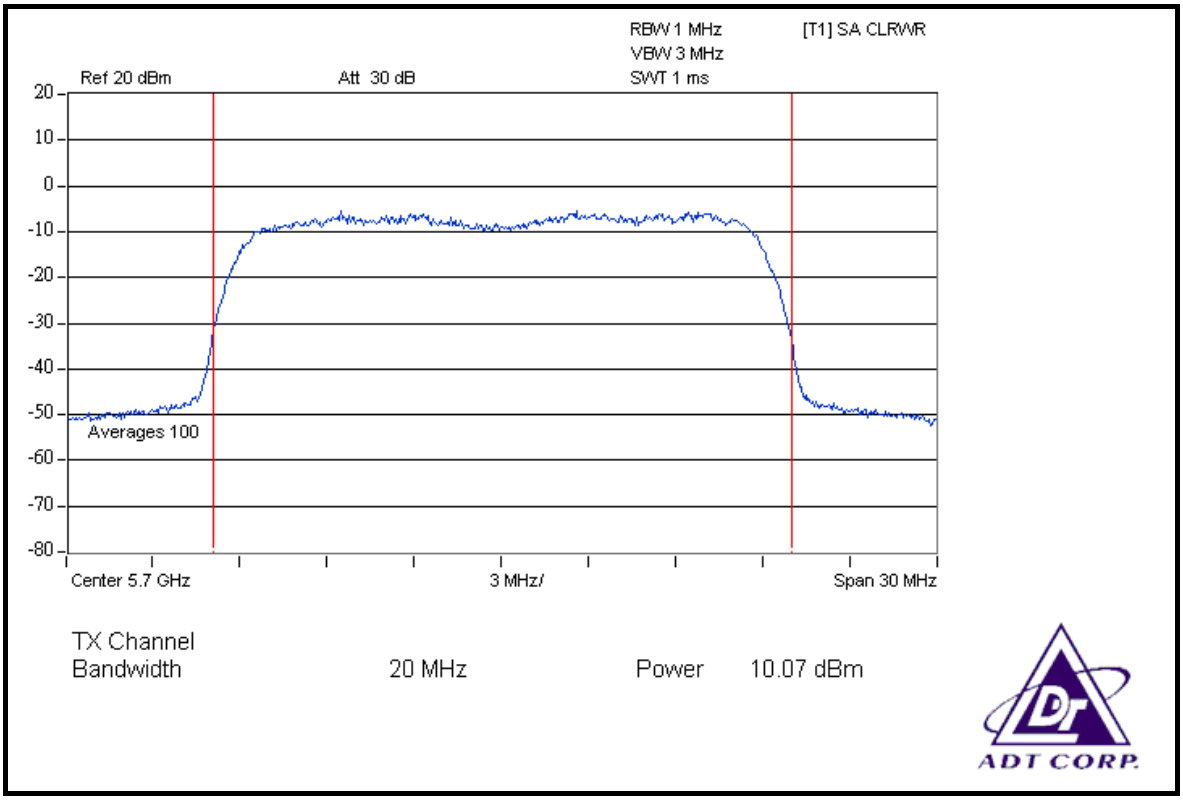
TX Channel Bandwidth 20 MHz Power 9.15 dBm

CH 120



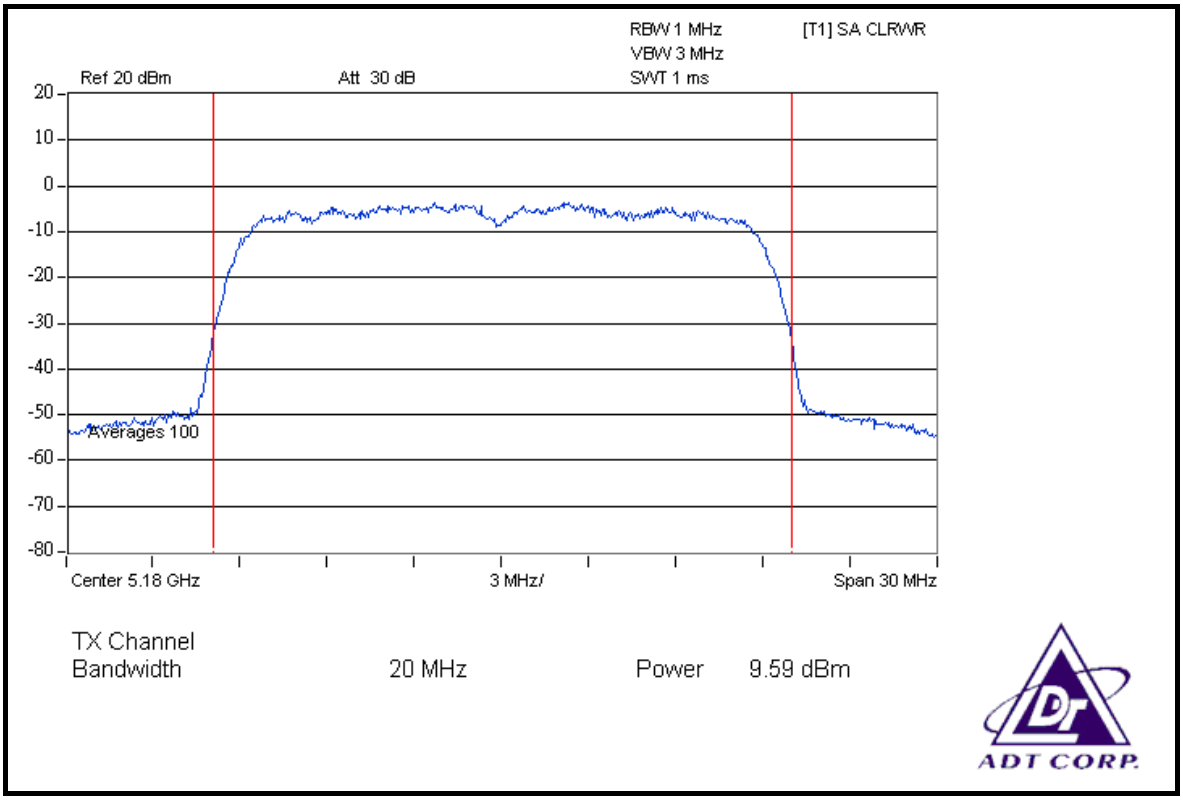
TX Channel Bandwidth 20 MHz Power 9.58 dBm

CH 140



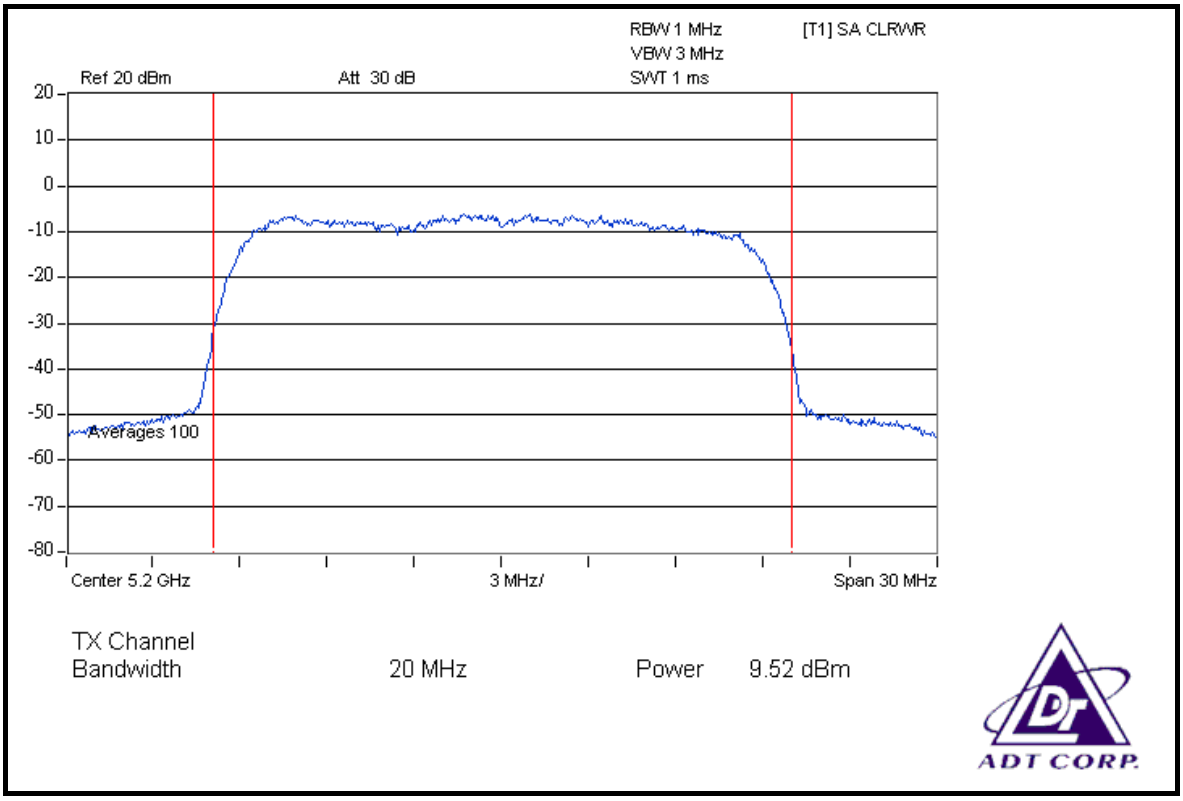
TX Channel Bandwidth 20 MHz Power 10.07 dBm

CHAIN 1: CH 36



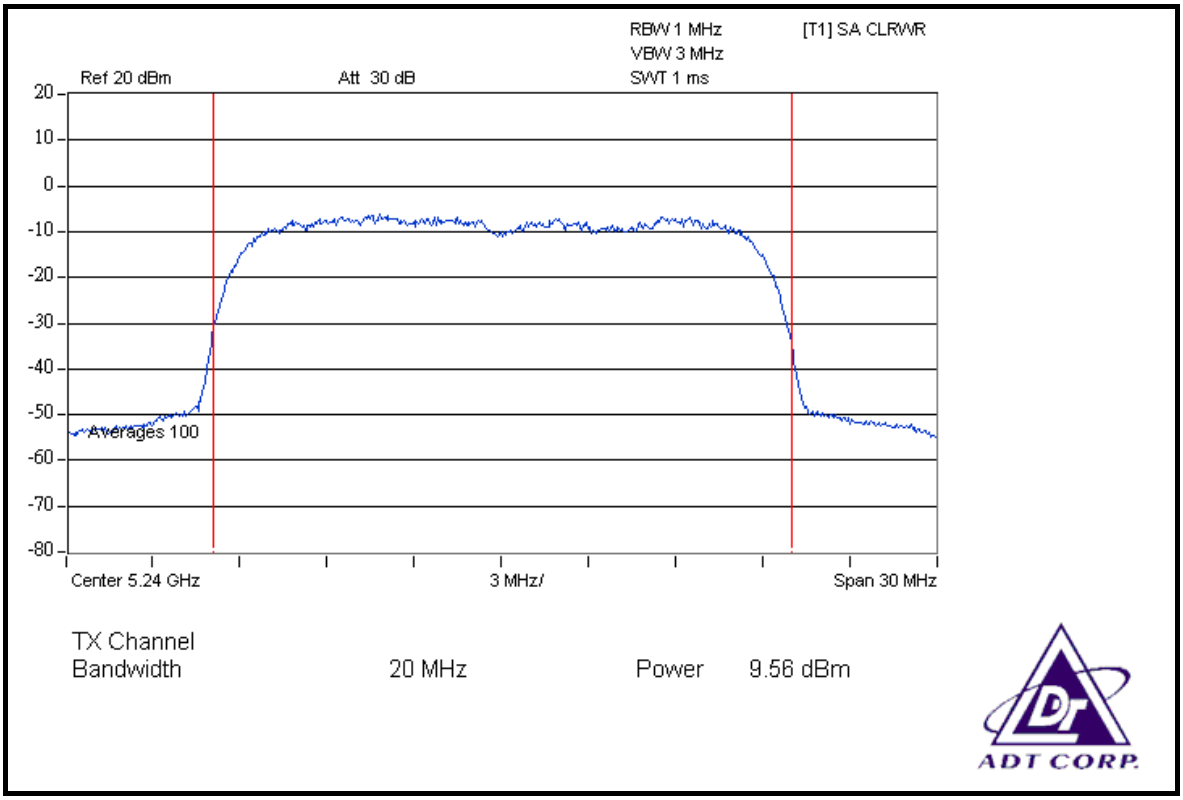
TX Channel Bandwidth 20 MHz Power 9.59 dBm

CH 40



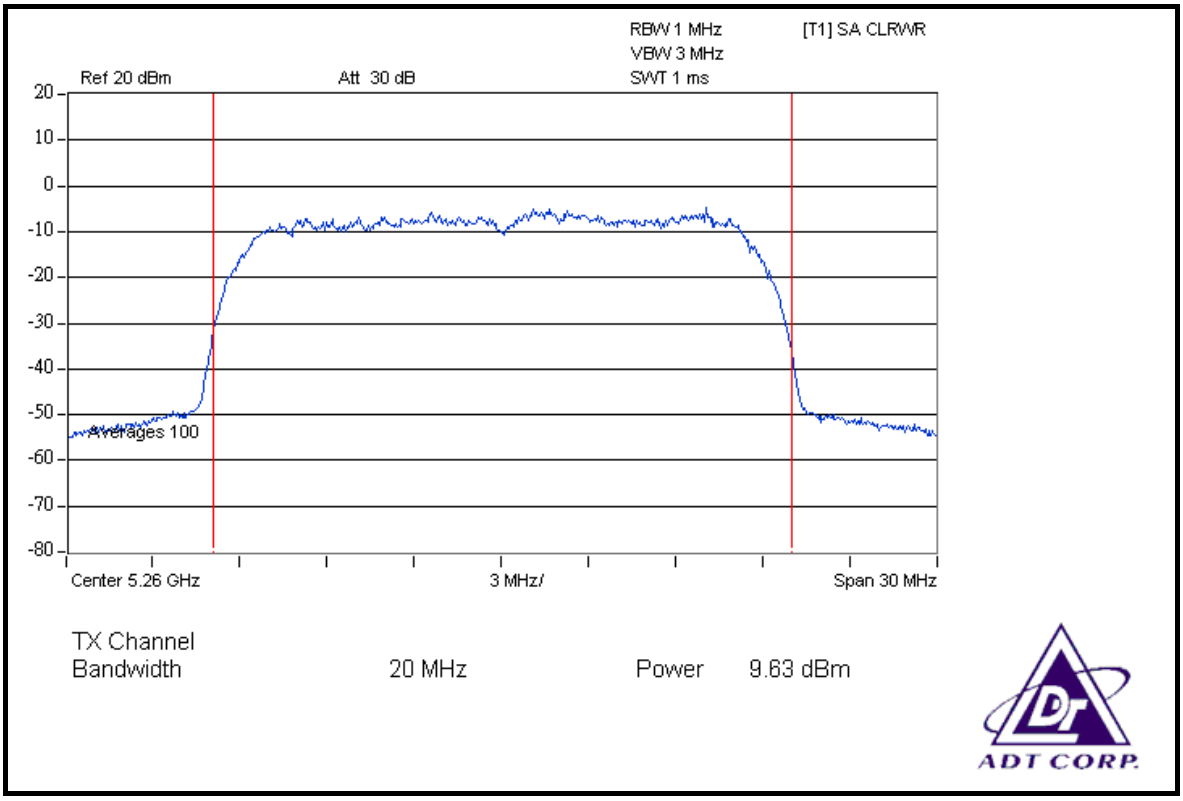
TX Channel Bandwidth 20 MHz Power 9.52 dBm

CH 48



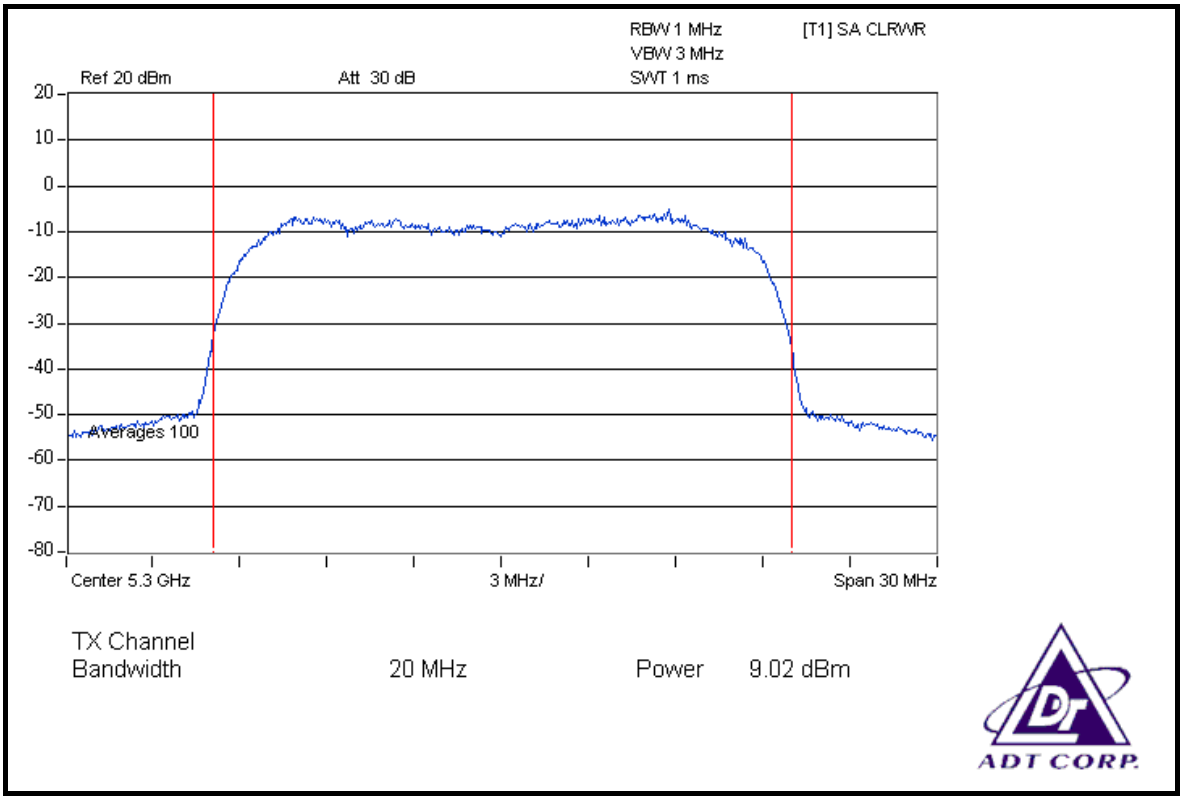
TX Channel Bandwidth 20 MHz Power 9.56 dBm

CH 52



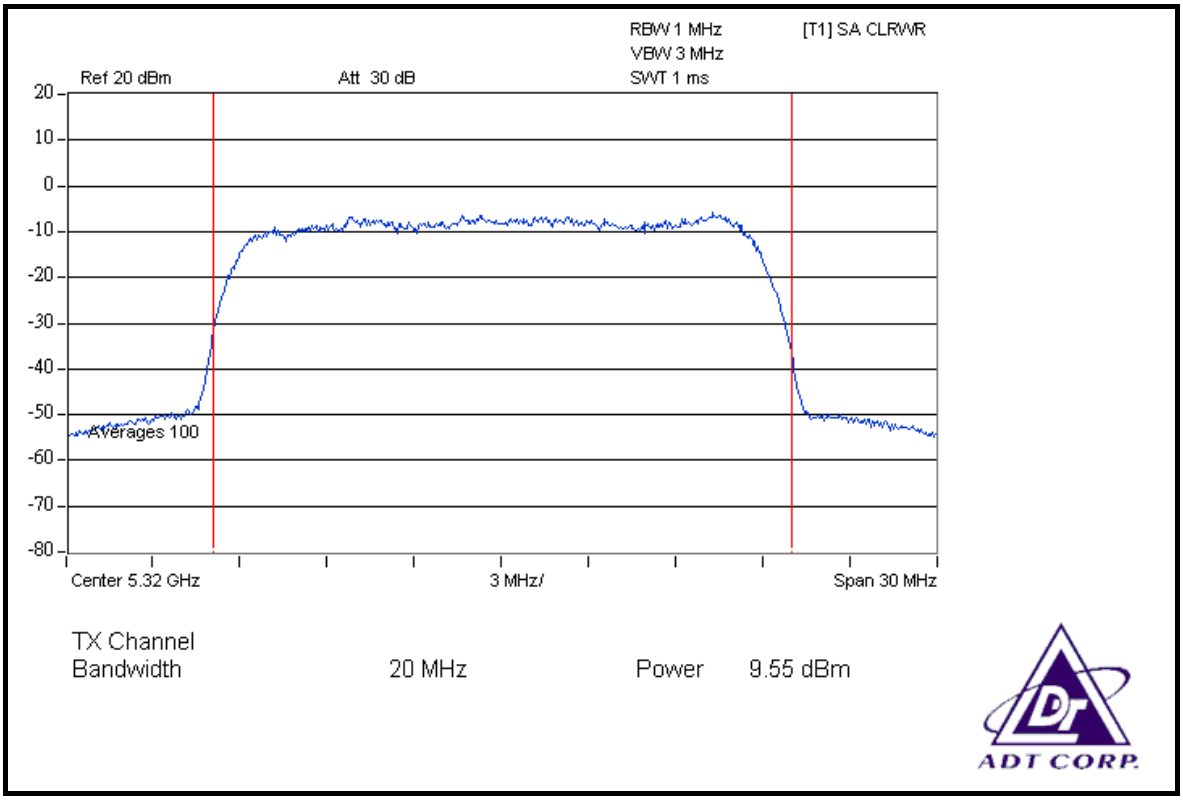
TX Channel Bandwidth 20 MHz Power 9.63 dBm

CH 60



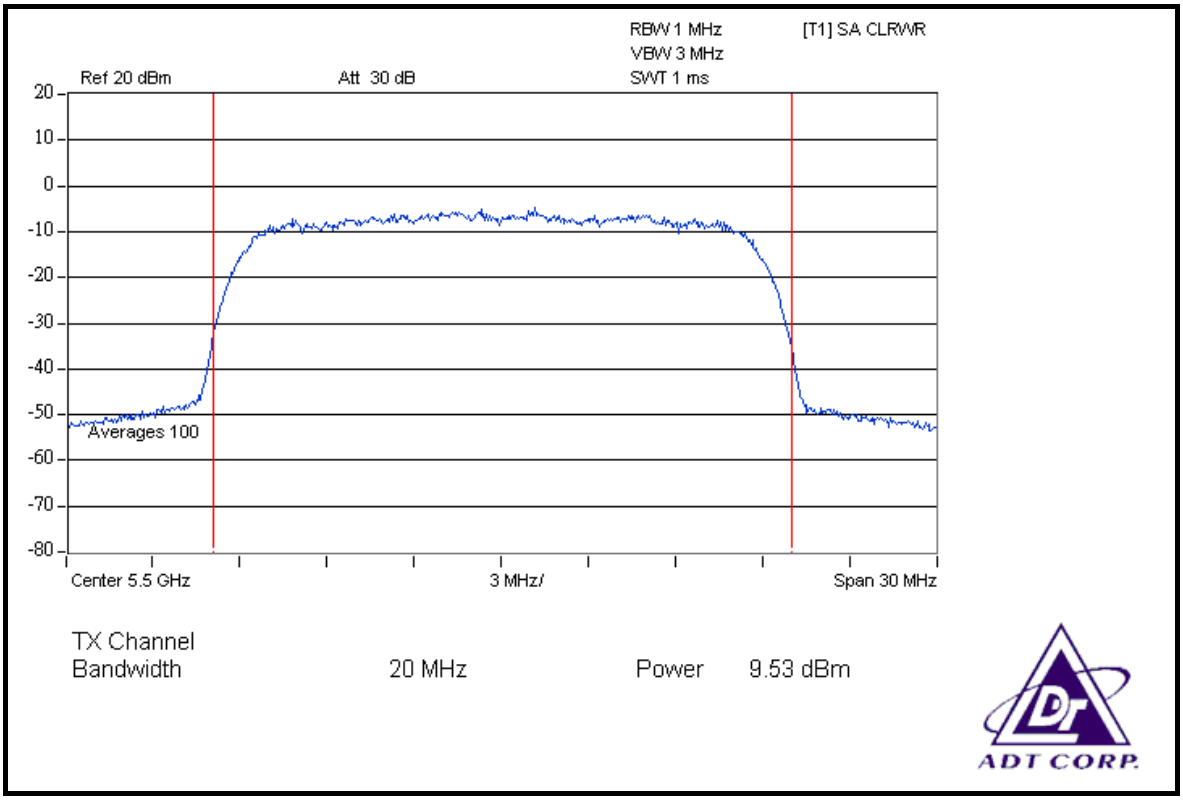
TX Channel Bandwidth 20 MHz Power 9.02 dBm

CH 64



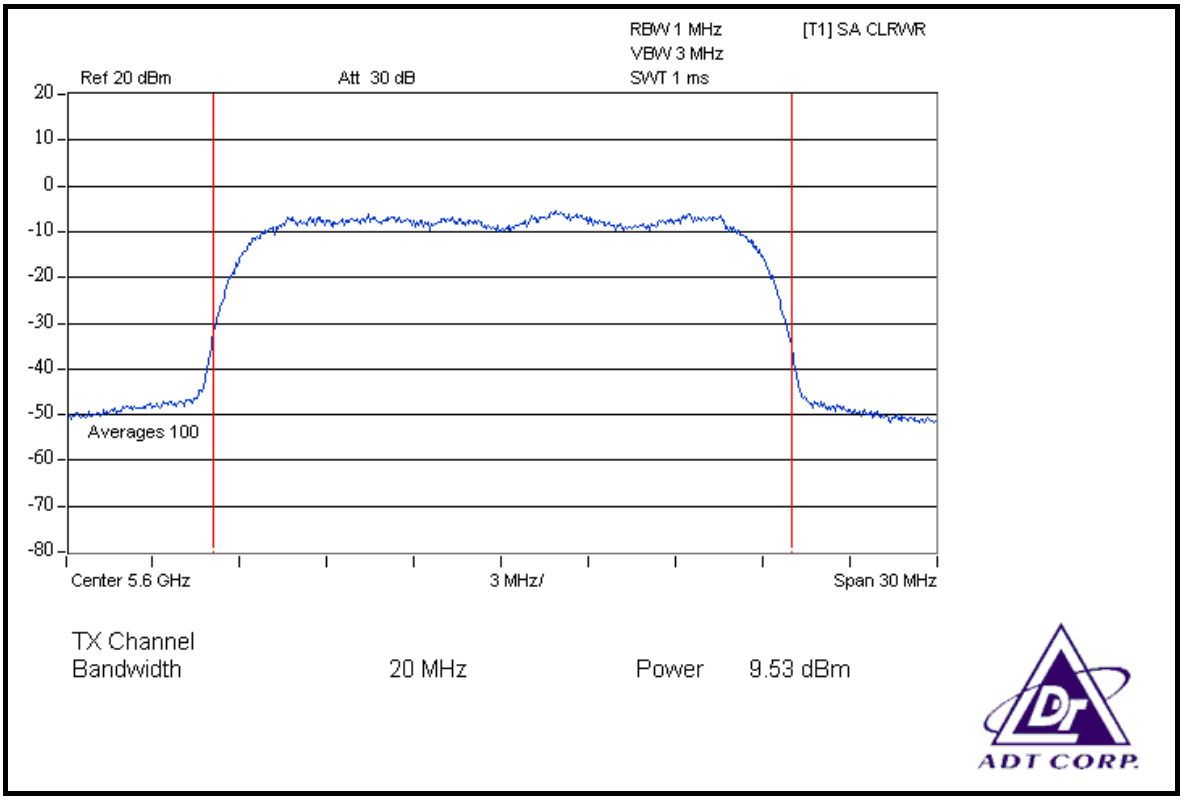
TX Channel Bandwidth 20 MHz Power 9.55 dBm

CH 100



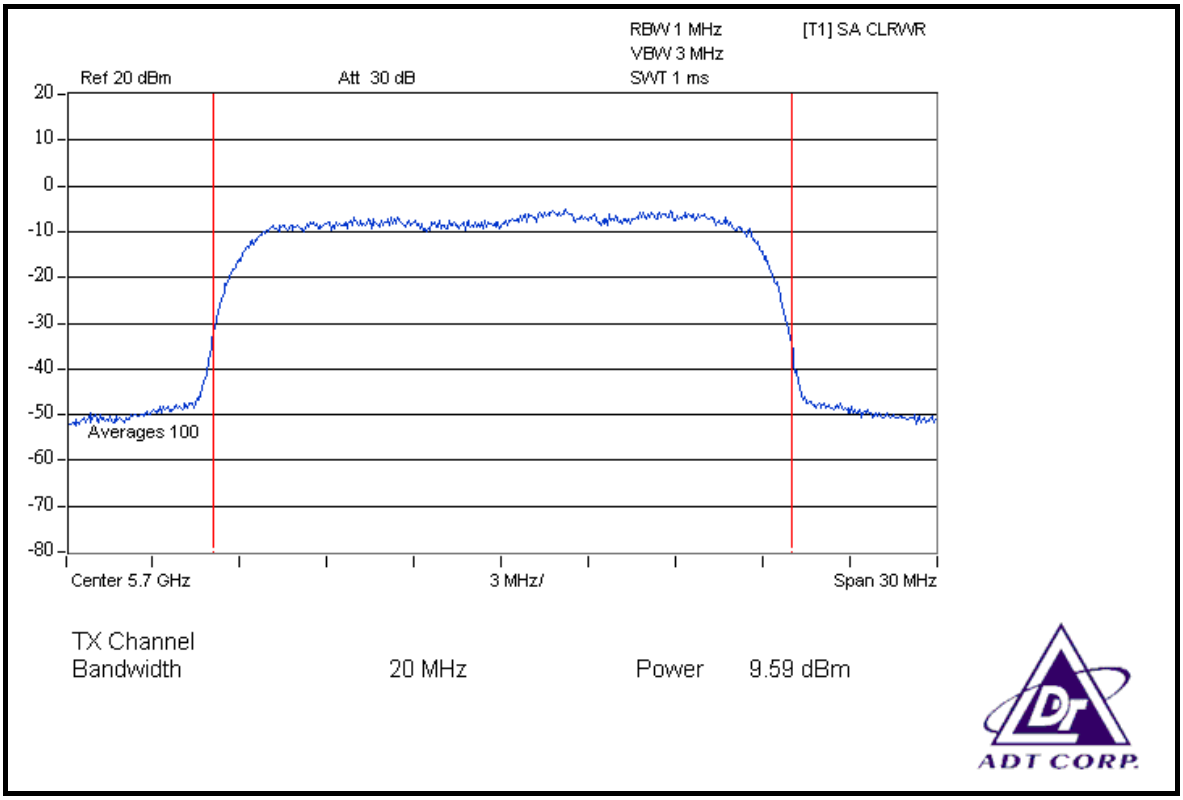
TX Channel Bandwidth 20 MHz Power 9.53 dBm

CH 120



TX Channel Bandwidth 20 MHz Power 9.53 dBm

CH 140



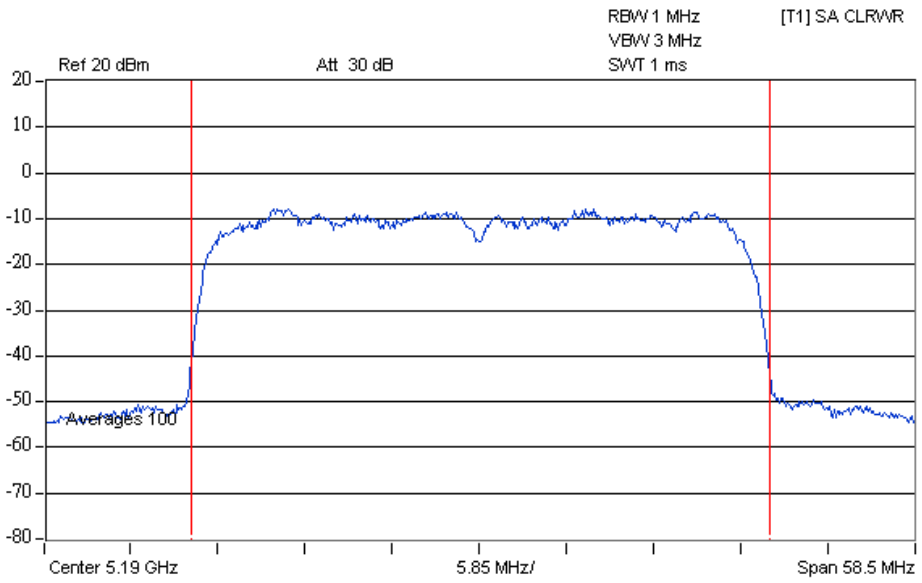
TX Channel Bandwidth 20 MHz Power 9.59 dBm

DRAFT 802.11n (40MHz) OFDM MODULATION

MODULATION TYPE	BPSK	**TRANSFER RATE**	15.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25 deg.C, 65 %RH, 991hPa
TESTED BY	Brad Wu		

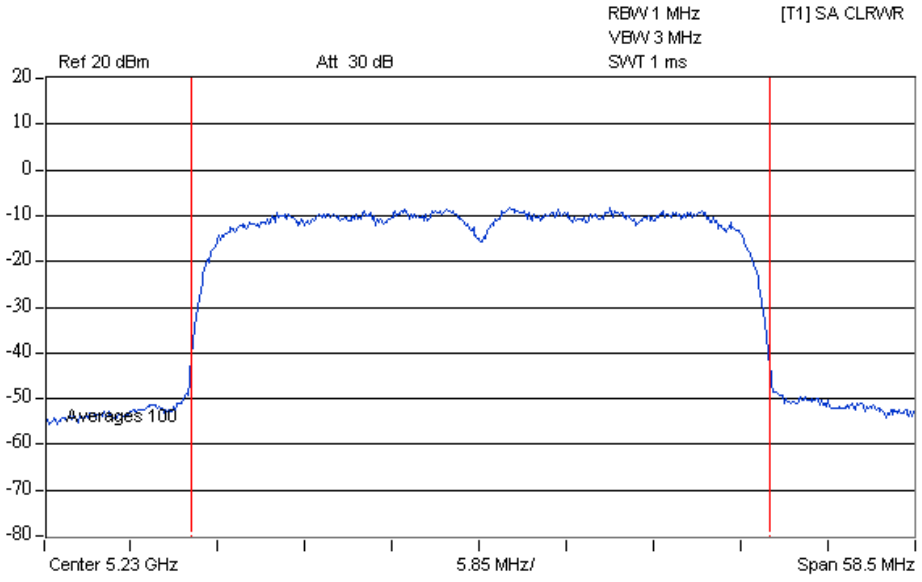
CHAN.	CHAN. FREQ. (MHz)	PEAK POWER OUTPUT (dBm)		TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
38	5190	9.04	9.10	16.145	12.08	17	PASS
46	5230	9.08	9.13	16.276	12.12	17	PASS
54	5270	9.51	9.53	17.907	12.53	24	PASS
62	5310	9.13	9.07	16.257	12.11	24	PASS
102	5510	9.08	9.07	16.163	12.09	24	PASS
118	5590	10.11	9.11	18.404	12.65	24	PASS
134	5670	9.09	10.14	18.437	12.66	24	PASS

CHAIN 0: CH 38



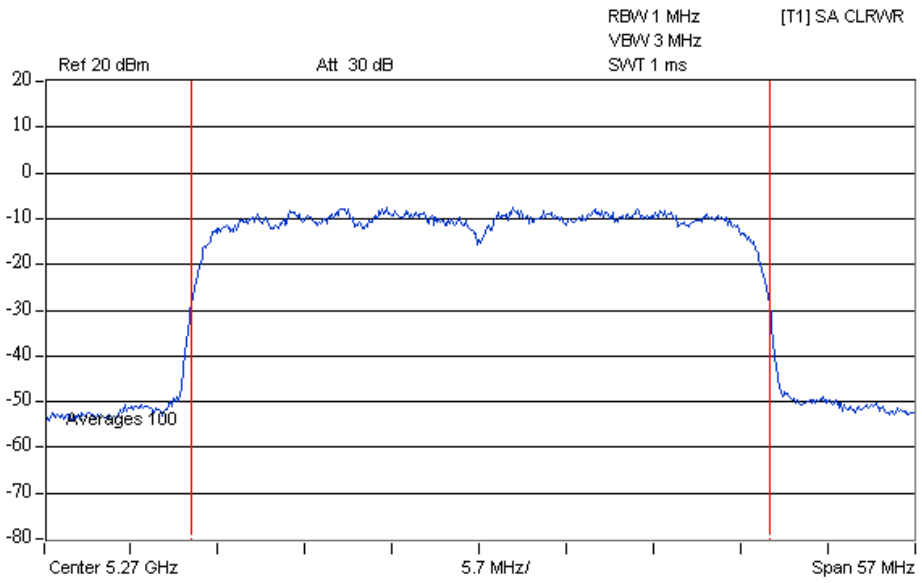
TX Channel Bandwidth 39 MHz Power 9.04 dBm

CH 46



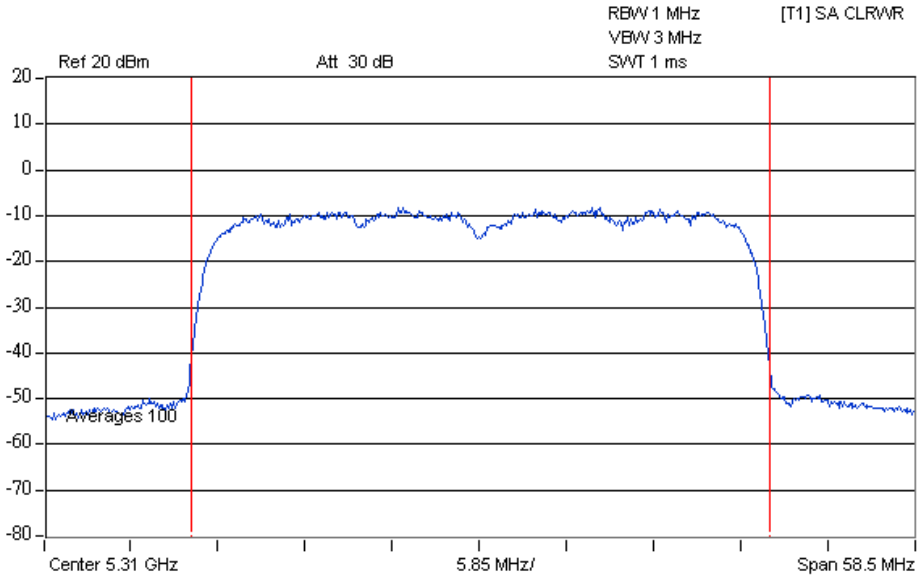
TX Channel Bandwidth 39 MHz Power 9.08 dBm

CH 54



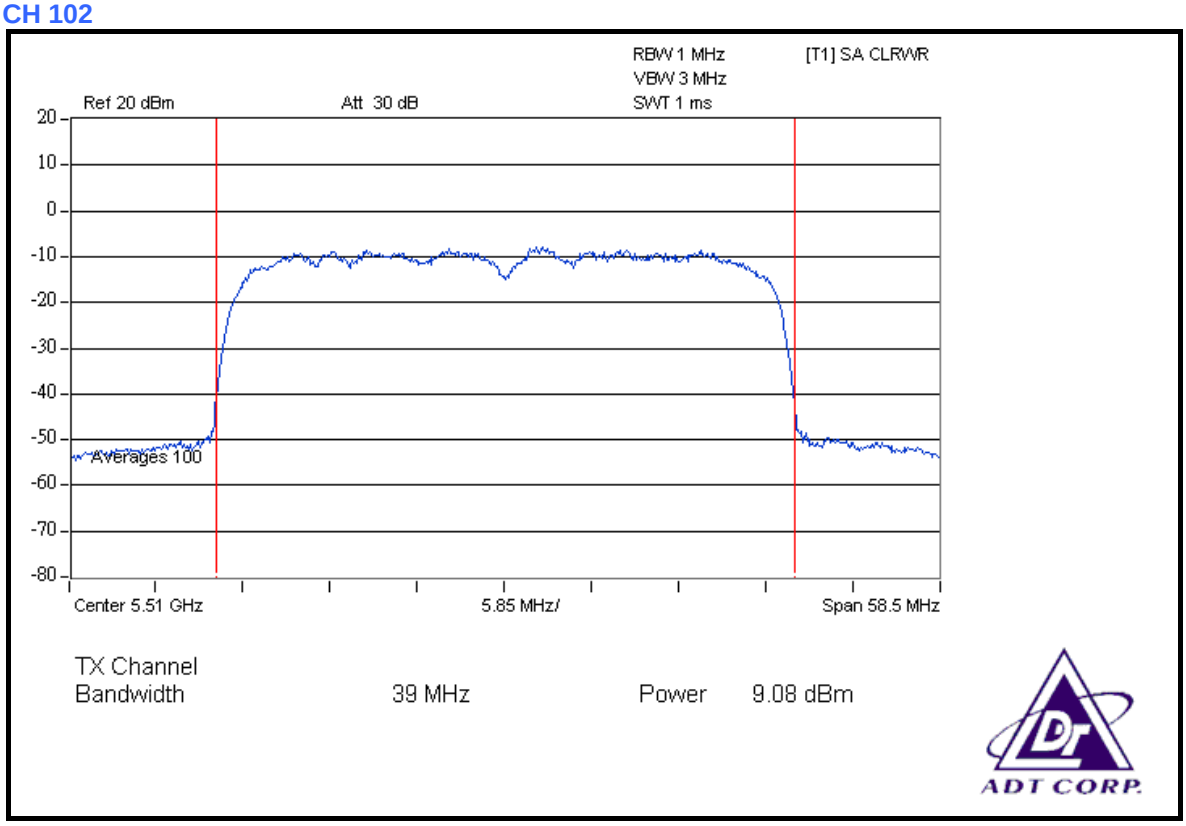
TX Channel Bandwidth 38 MHz Power 9.51 dBm

CH 62

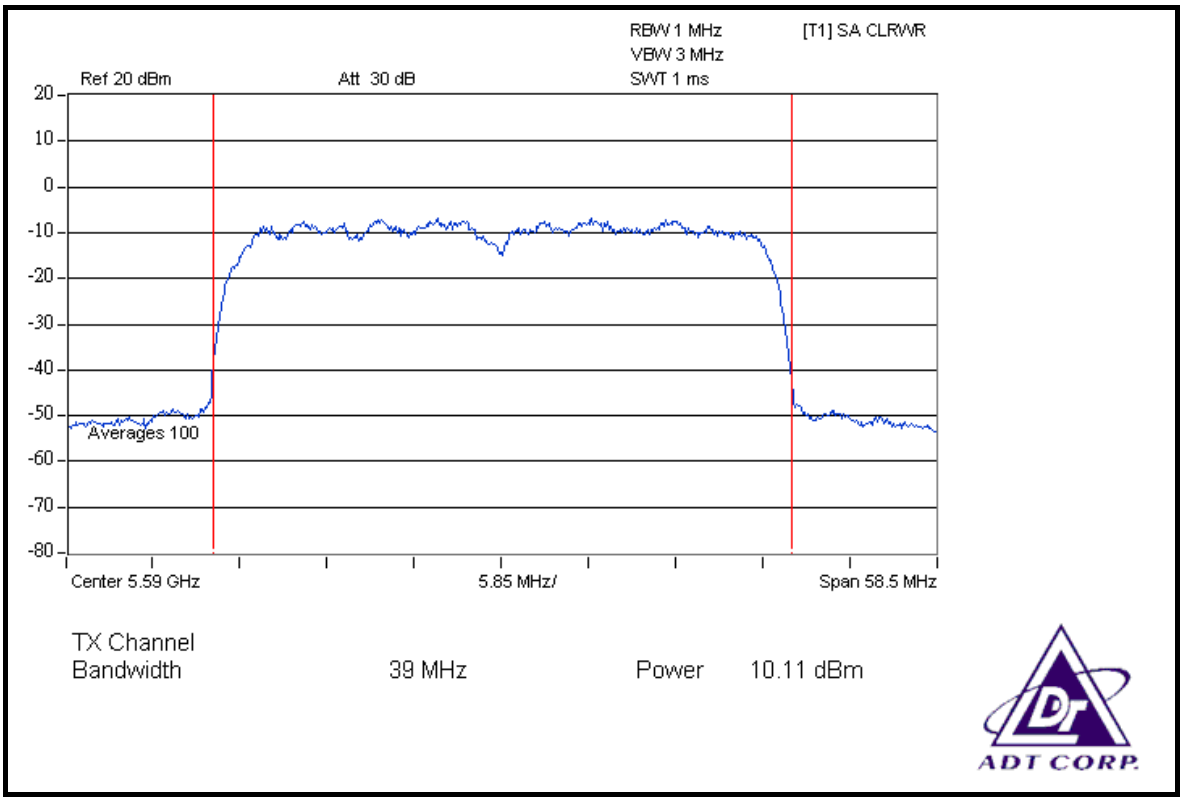


TX Channel Bandwidth 39 MHz Power 9.13 dBm

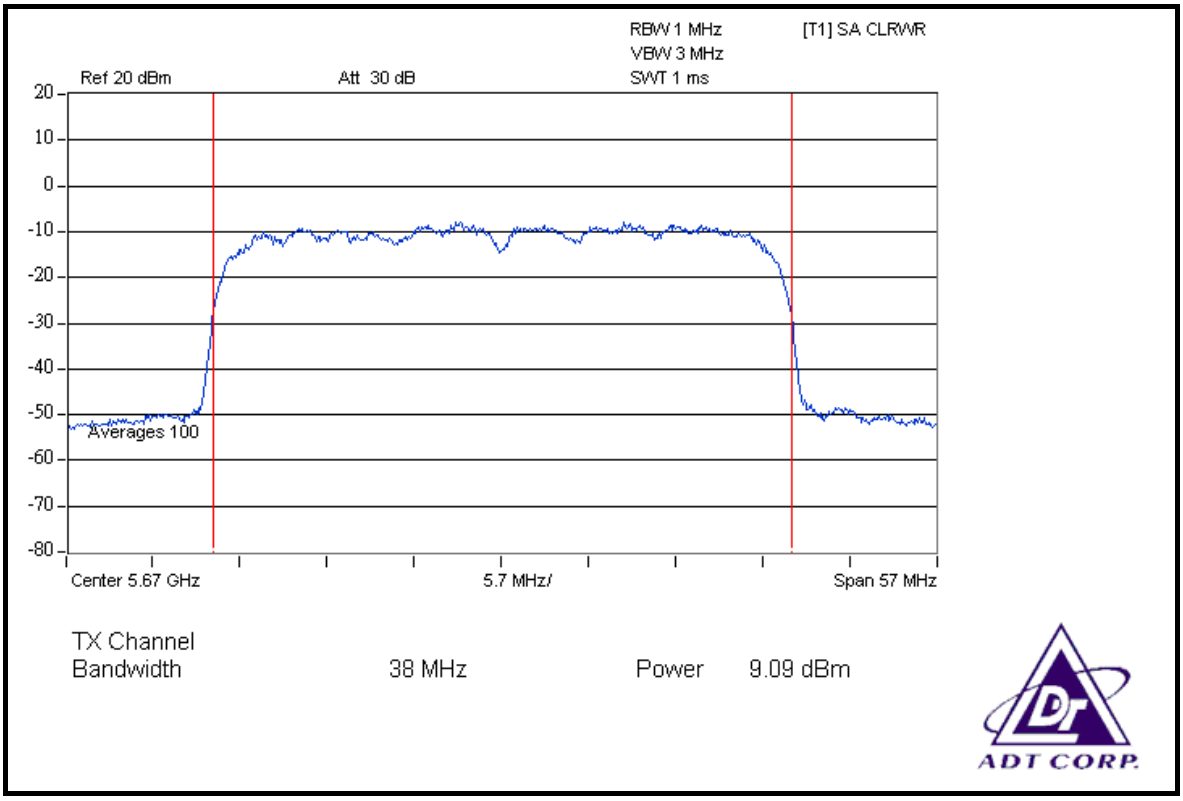
CH 102


RBW 1 MHz
VBW 3 MHz
SWT 1 ms
[T1] SA CLRWR
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Averages 100
Center 5.51 GHz
5.85 MHz/
Span 58.5 MHz
TX Channel
Bandwidth
39 MHz
Power
9.08 dBm

CH 118

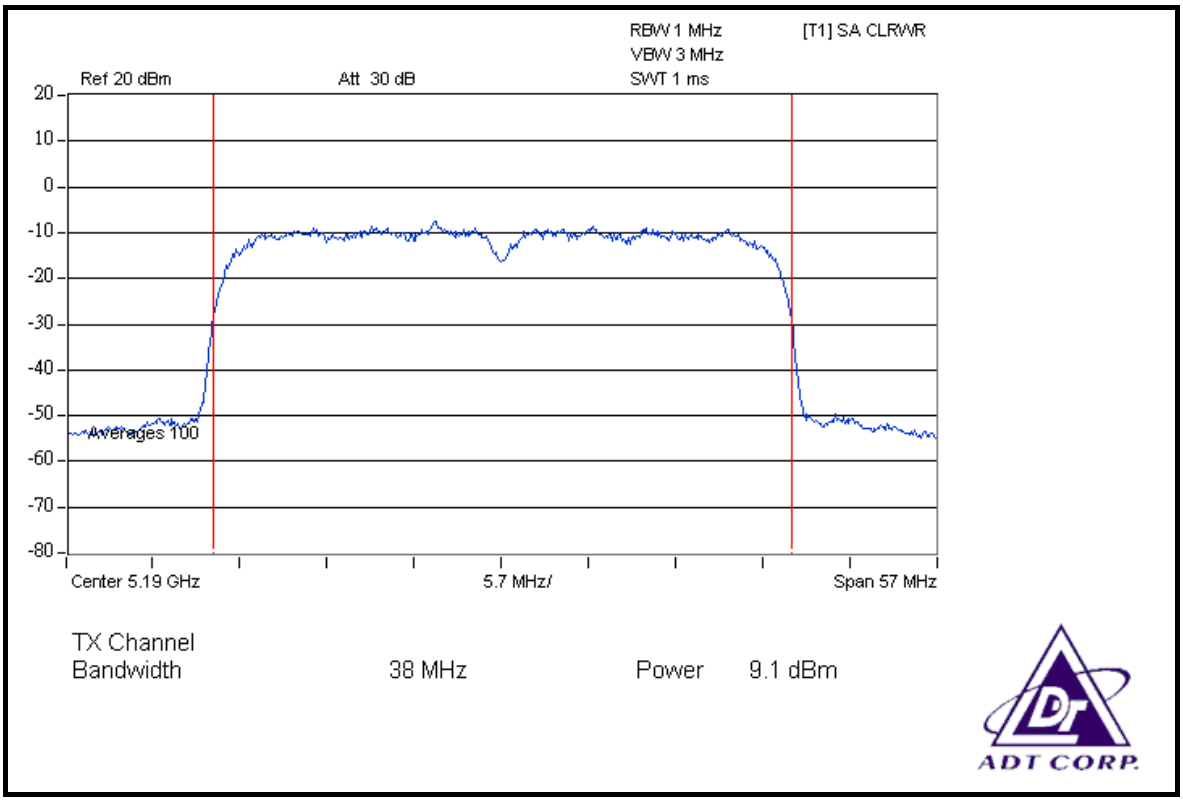

RBW 1 MHz
VBW 3 MHz
SWT 1 ms
[T1] SA CLRWR
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Averages 100
Center 5.59 GHz
5.85 MHz/
Span 58.5 MHz
TX Channel
Bandwidth
39 MHz
Power
10.11 dBm

CH 134



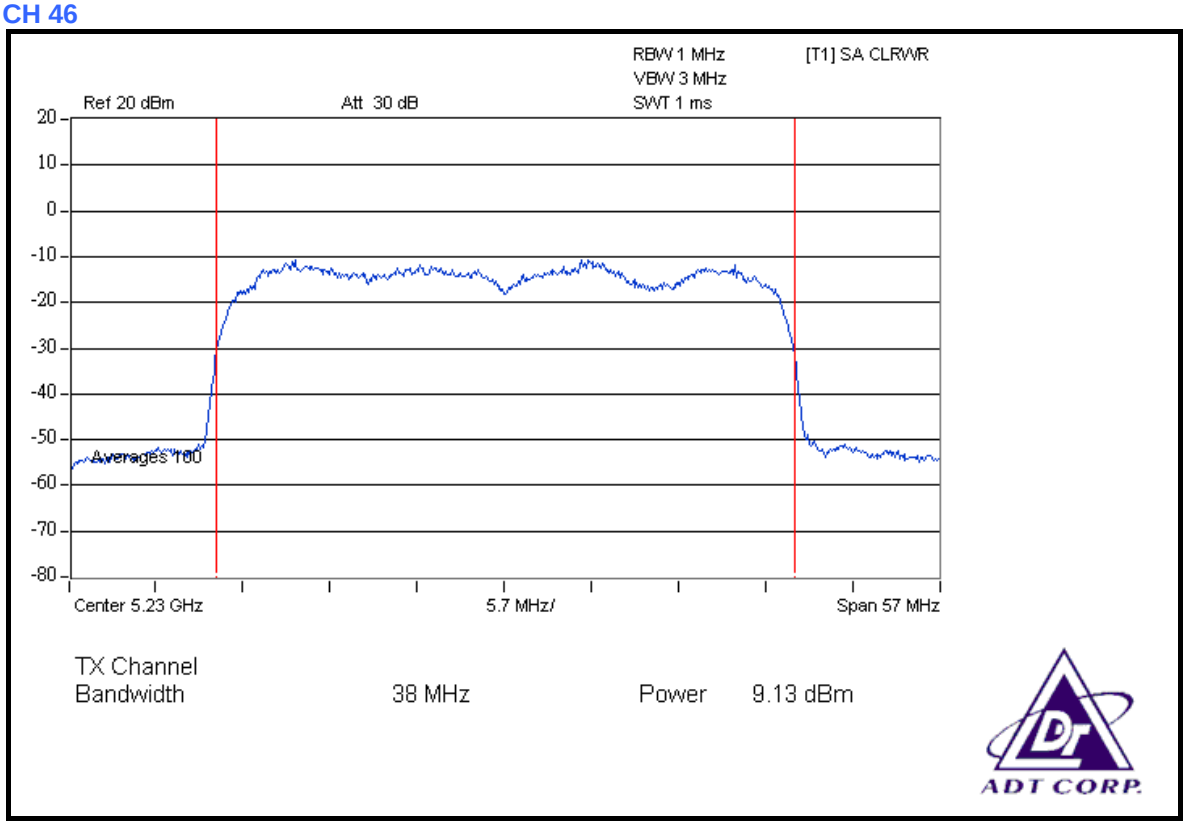
TX Channel Bandwidth 38 MHz Power 9.09 dBm

CHAIN 1: CH 38



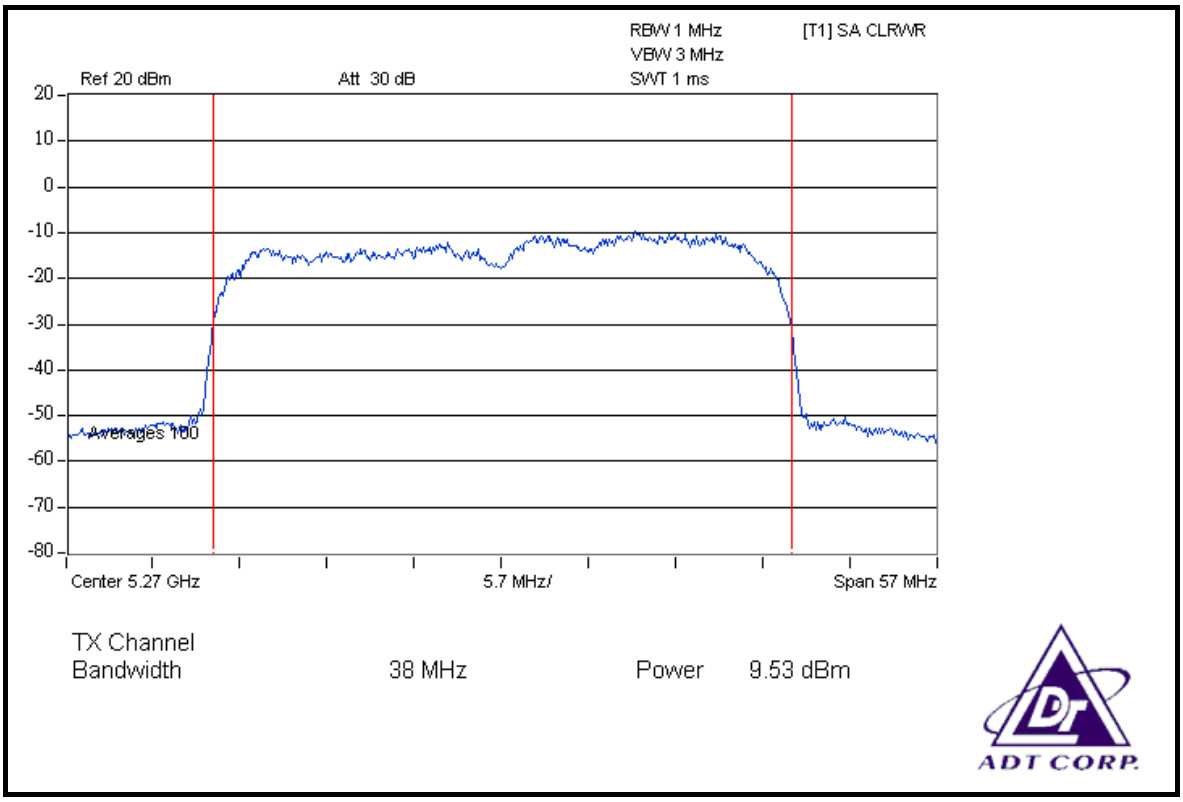
TX Channel Bandwidth 38 MHz Power 9.1 dBm

CH 46



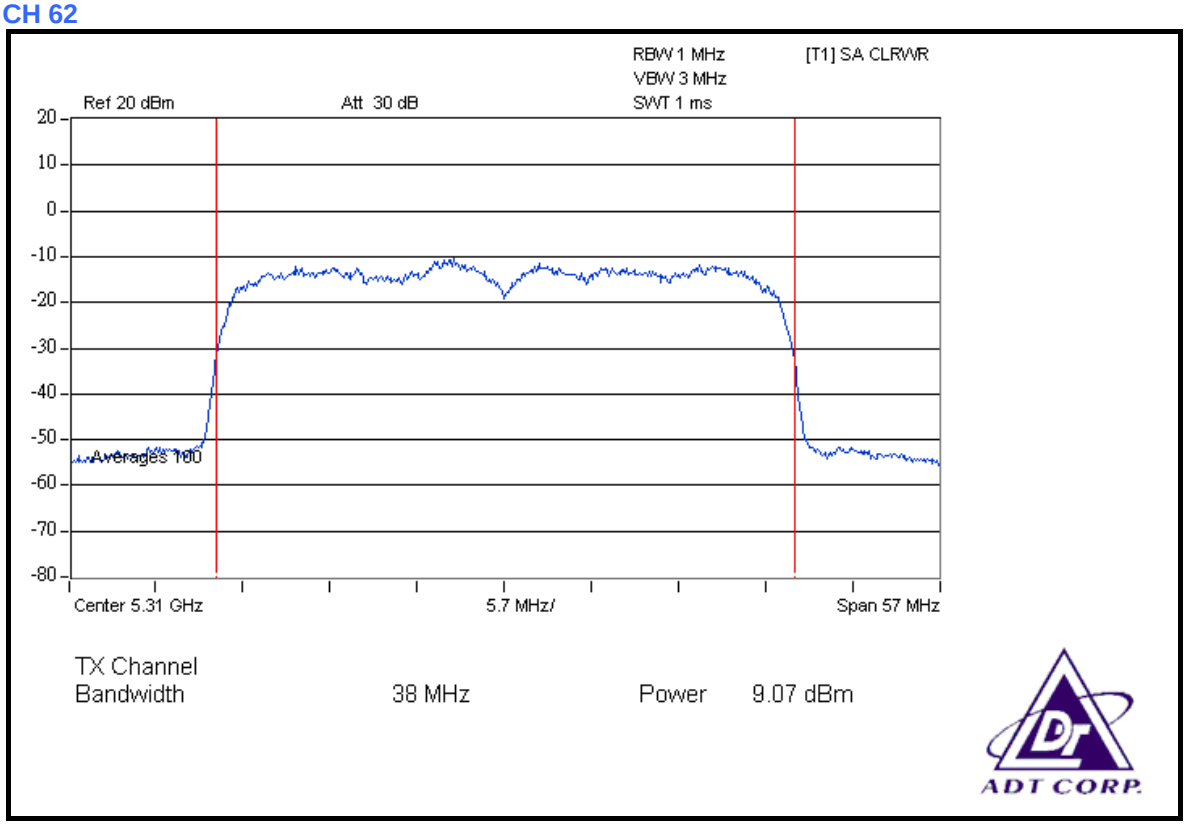
TX Channel Bandwidth 38 MHz Power 9.13 dBm

CH 54



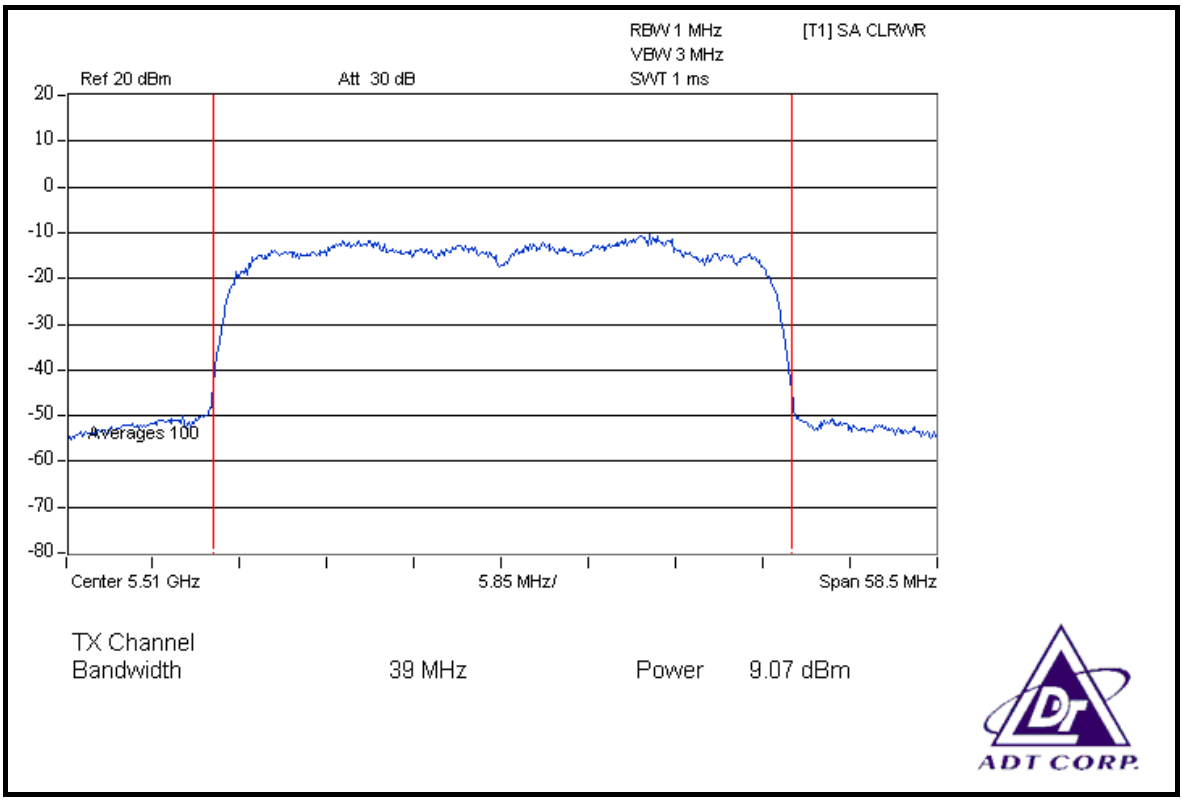
TX Channel Bandwidth 38 MHz Power 9.53 dBm

CH 62



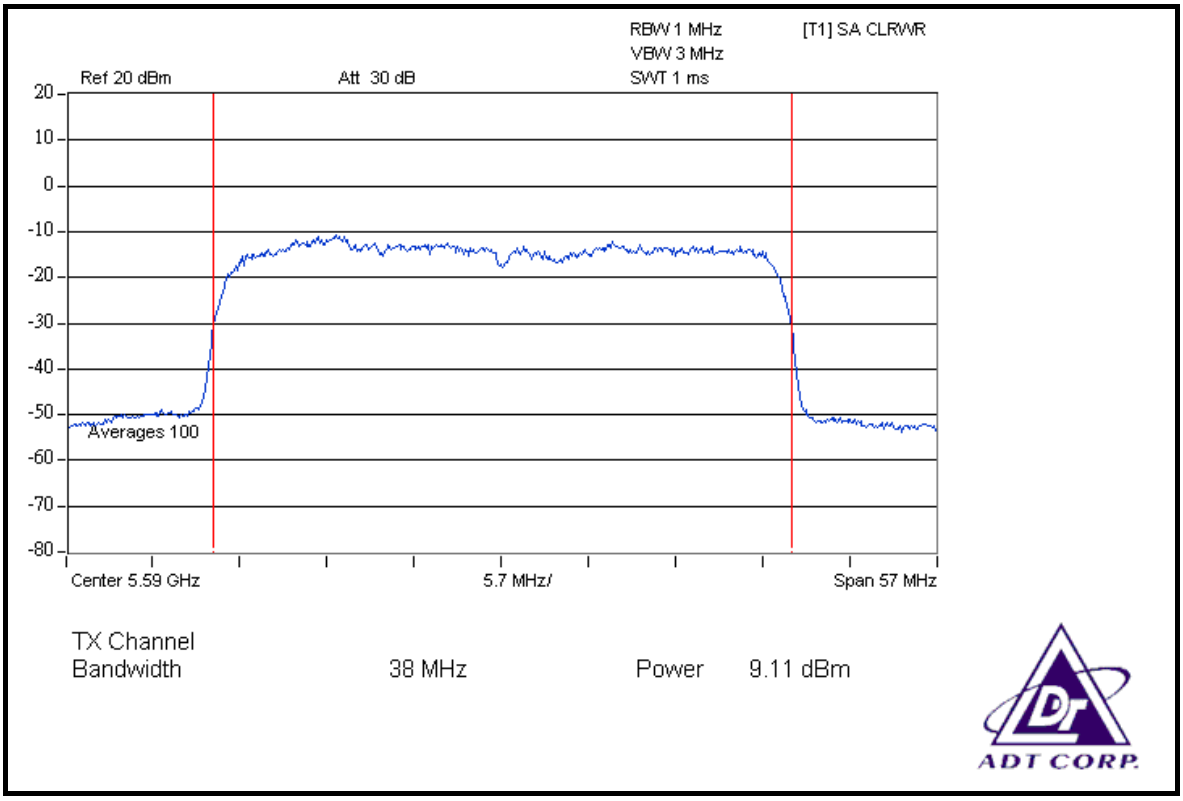
TX Channel Bandwidth 38 MHz Power 9.07 dBm

CH 102



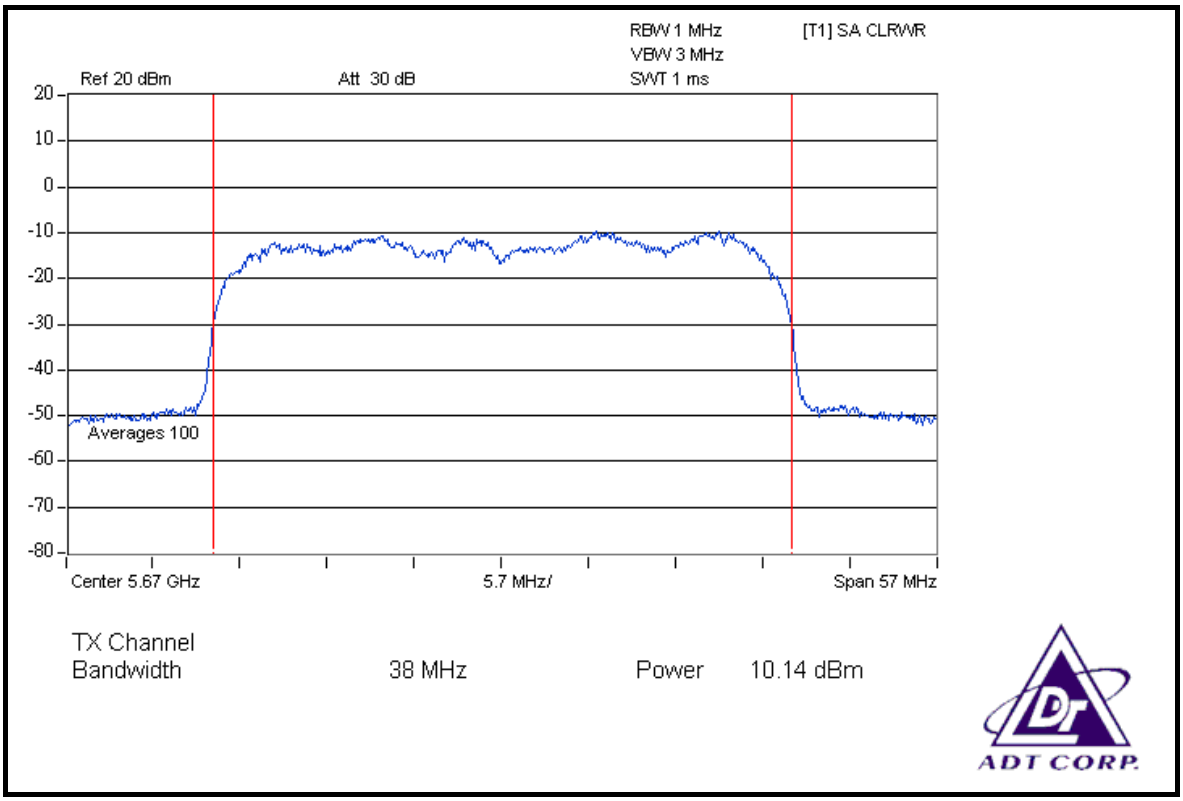
TX Channel Bandwidth 39 MHz Power 9.07 dBm

CH 118



TX Channel Bandwidth 38 MHz Power 9.11 dBm

CH 134



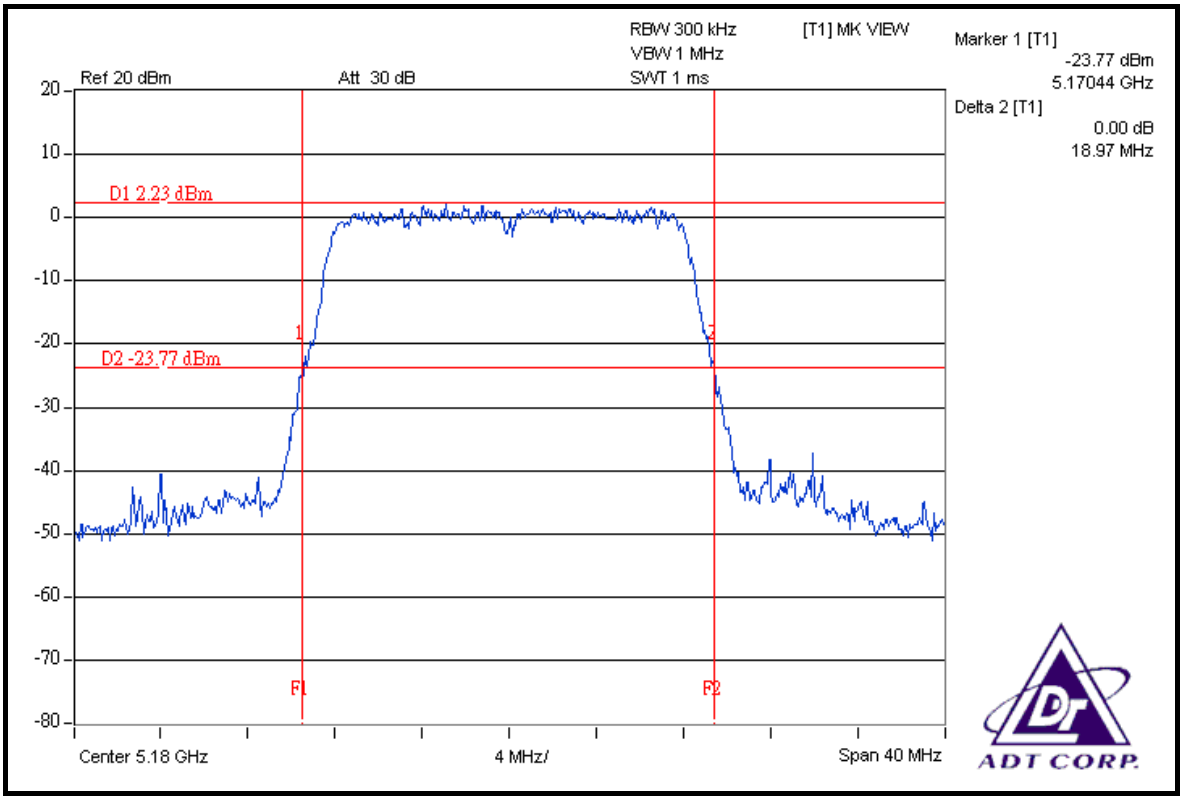
TX Channel Bandwidth 38 MHz Power 10.14 dBm

26dB OCCUPIED BANDWIDTH: 802.11a OFDM MODULATION

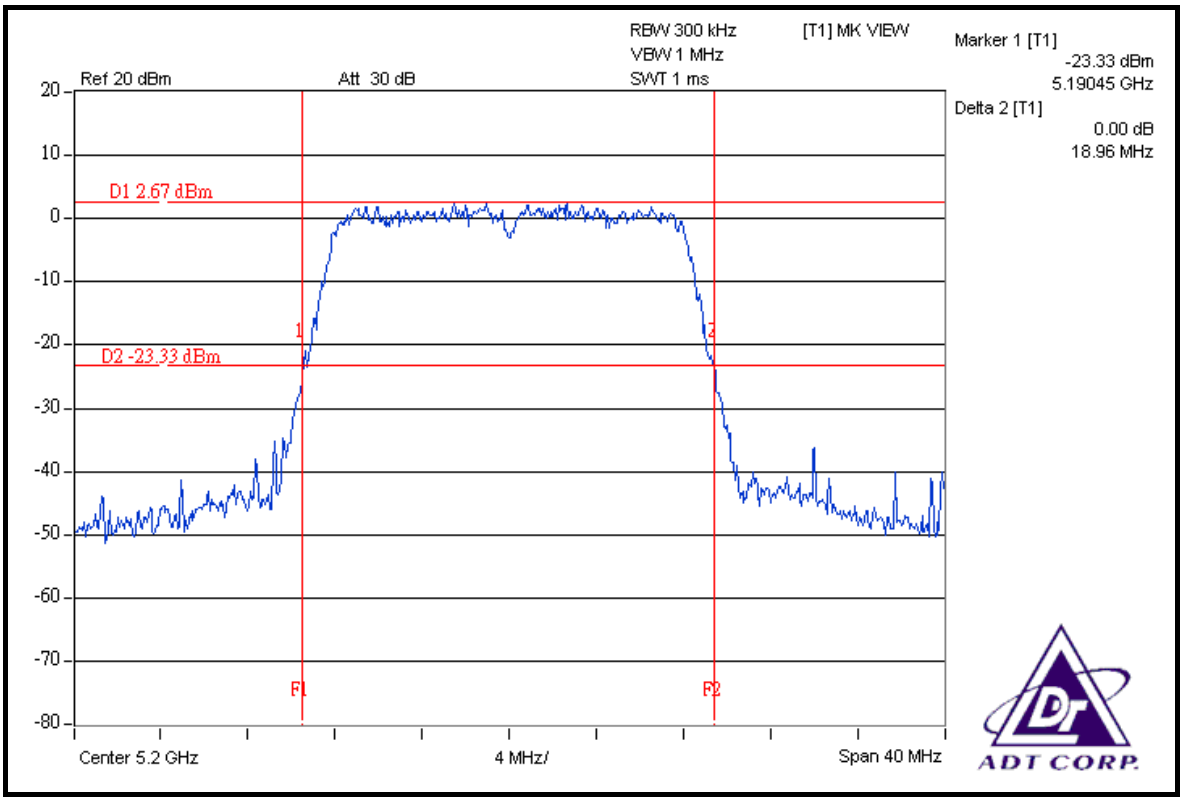
MODULATION TYPE	BPSK	**TRANSFER RATE**	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25 deg.C, 65 %RH, 991hPa
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
36	5180	18.97	18.68	PASS
40	5200	18.96	18.61	PASS
48	5240	19.02	18.77	PASS
52	5260	18.78	18.68	PASS
60	5300	18.84	18.66	PASS
64	5320	18.89	18.78	PASS
100	5500	18.87	18.76	PASS
120	5600	18.82	18.64	PASS
140	5700	18.96	18.90	PASS

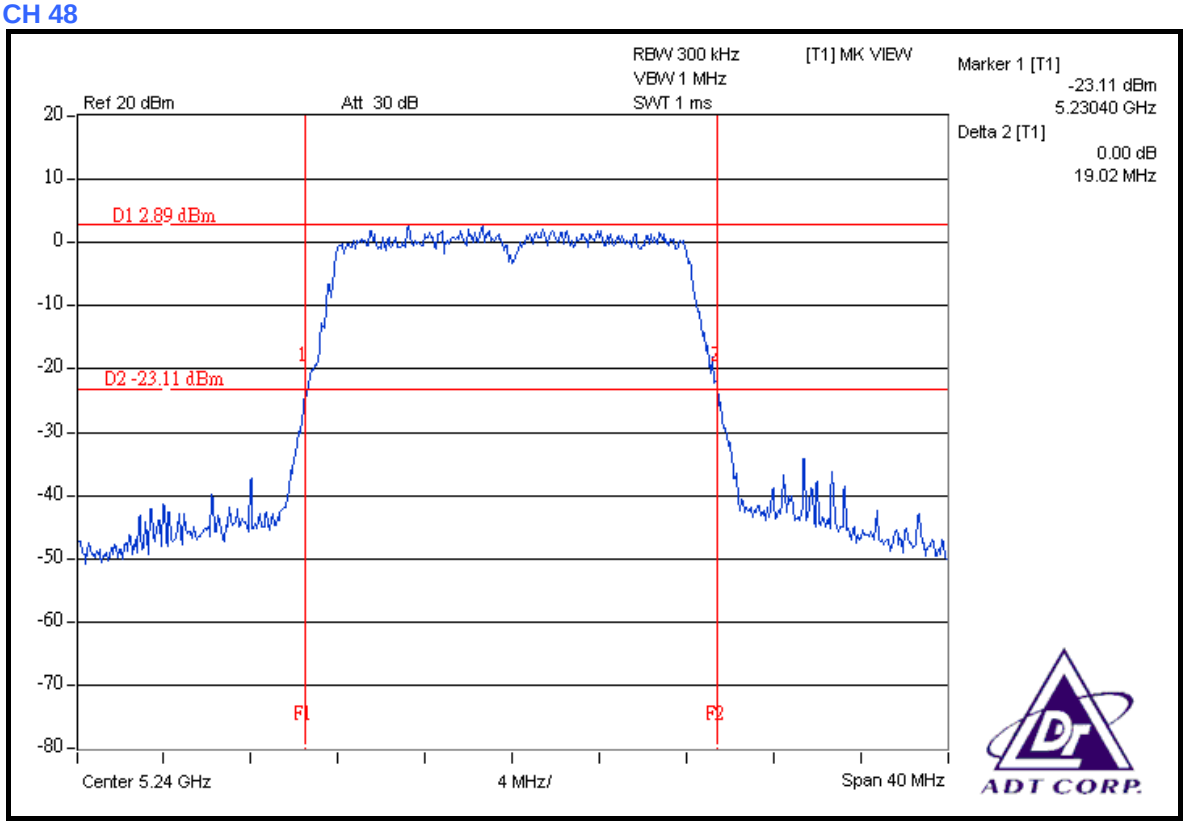
CHAIN 0: CH 36



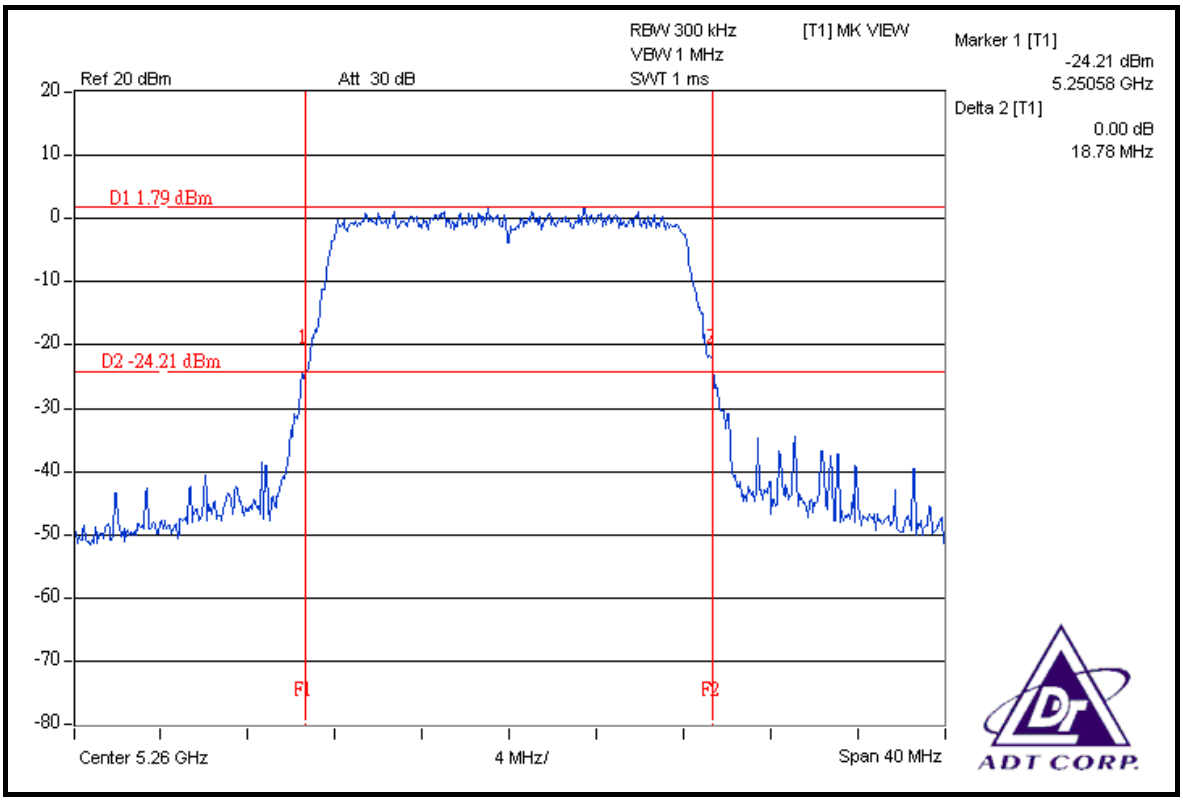
CH 40



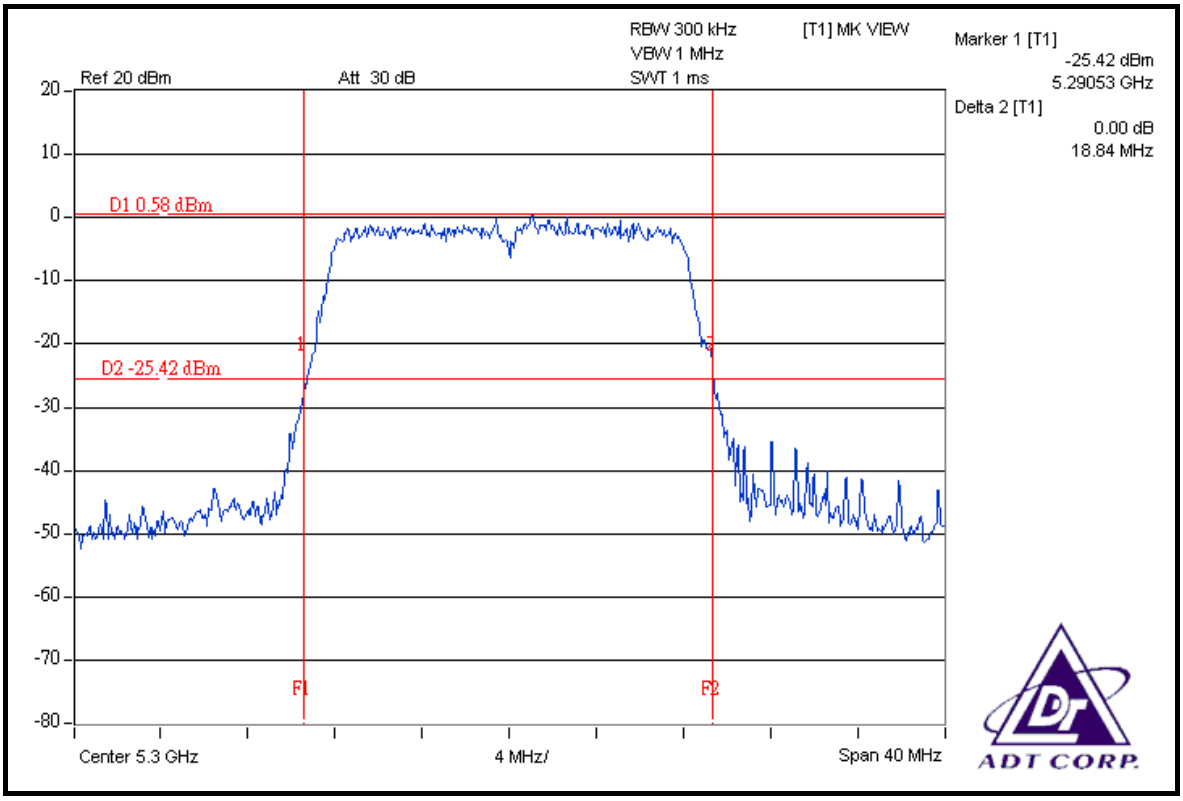
CH 48


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-23.11 dBm
5.23040 GHz
Delta 2 [T1]
0.00 dB
19.02 MHz
Ref 20 dBm
Att 30 dB
D1 2.89 dBm
D2 -23.11 dBm
F1
F2
Center 5.24 GHz
4 MHz/
Span 40 MHz
ADT CORP.

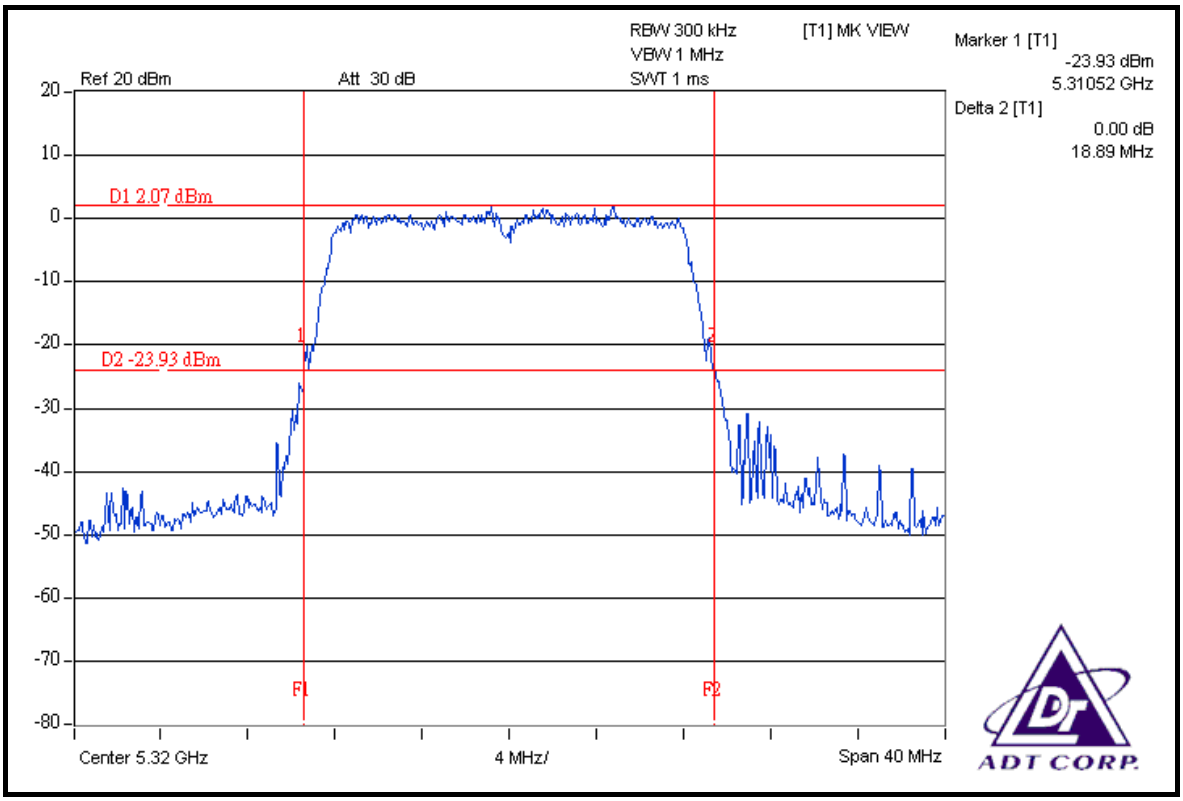
CH 52


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-24.21 dBm
5.25058 GHz
Delta 2 [T1]
0.00 dB
18.78 MHz
Ref 20 dBm
Att 30 dB
D1 1.79 dBm
D2 -24.21 dBm
F1
F2
Center 5.26 GHz
4 MHz/
Span 40 MHz
ADT CORP.

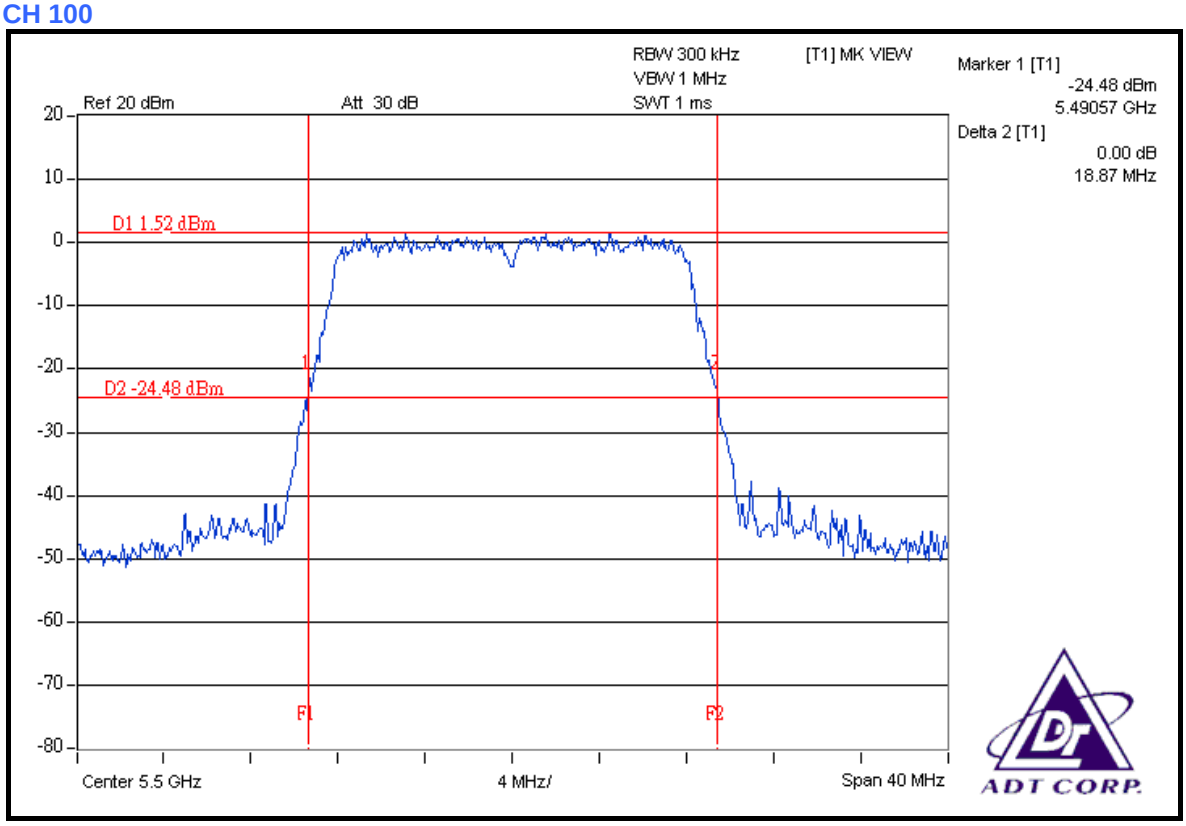
CH 60


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-25.42 dBm
5.29053 GHz
Delta 2 [T1]
0.00 dB
18.84 MHz
Ref 20 dBm
Att 30 dB
D1 0.58 dBm
D2 -25.42 dBm
F1
F2
Center 5.3 GHz
4 MHz/
Span 40 MHz
ADT CORP.

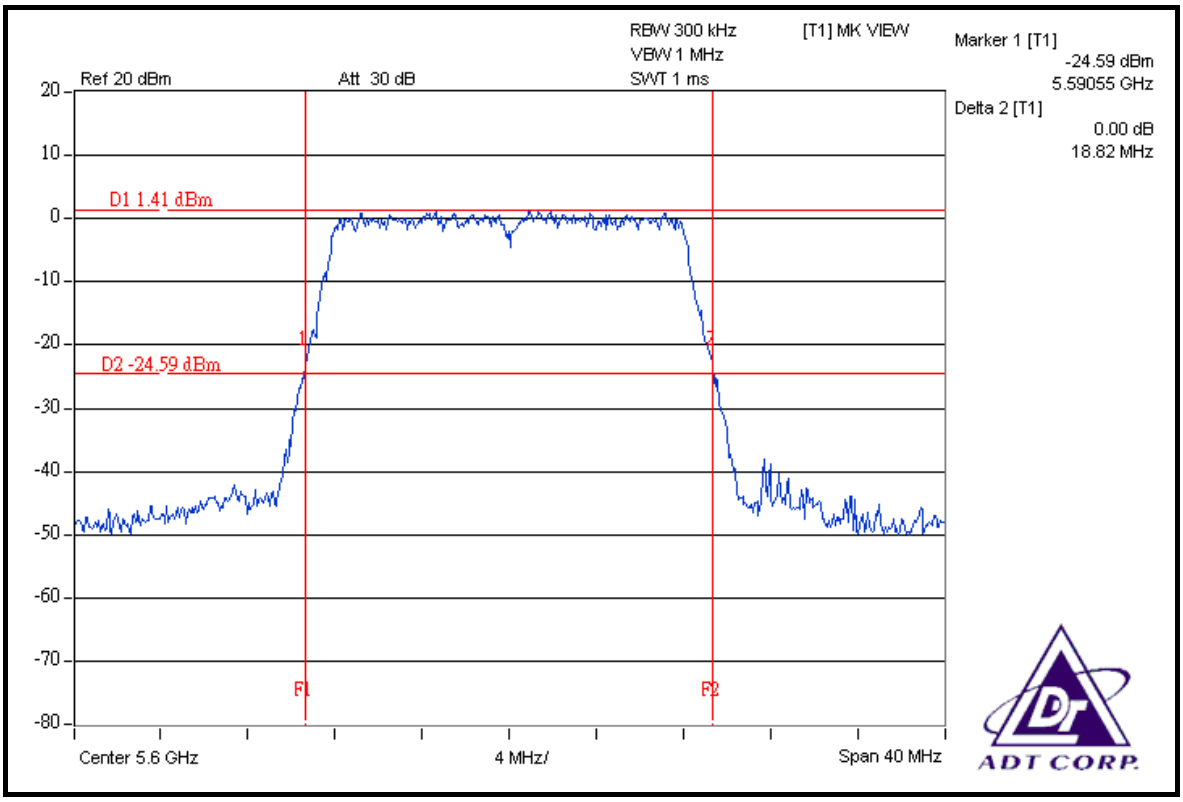
CH 64


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-23.93 dBm
5.31052 GHz
Delta 2 [T1]
0.00 dB
18.89 MHz
Ref 20 dBm
Att 30 dB
D1 2.07 dBm
D2 -23.93 dBm
F1
F2
Center 5.32 GHz
4 MHz/
Span 40 MHz
ADT CORP.

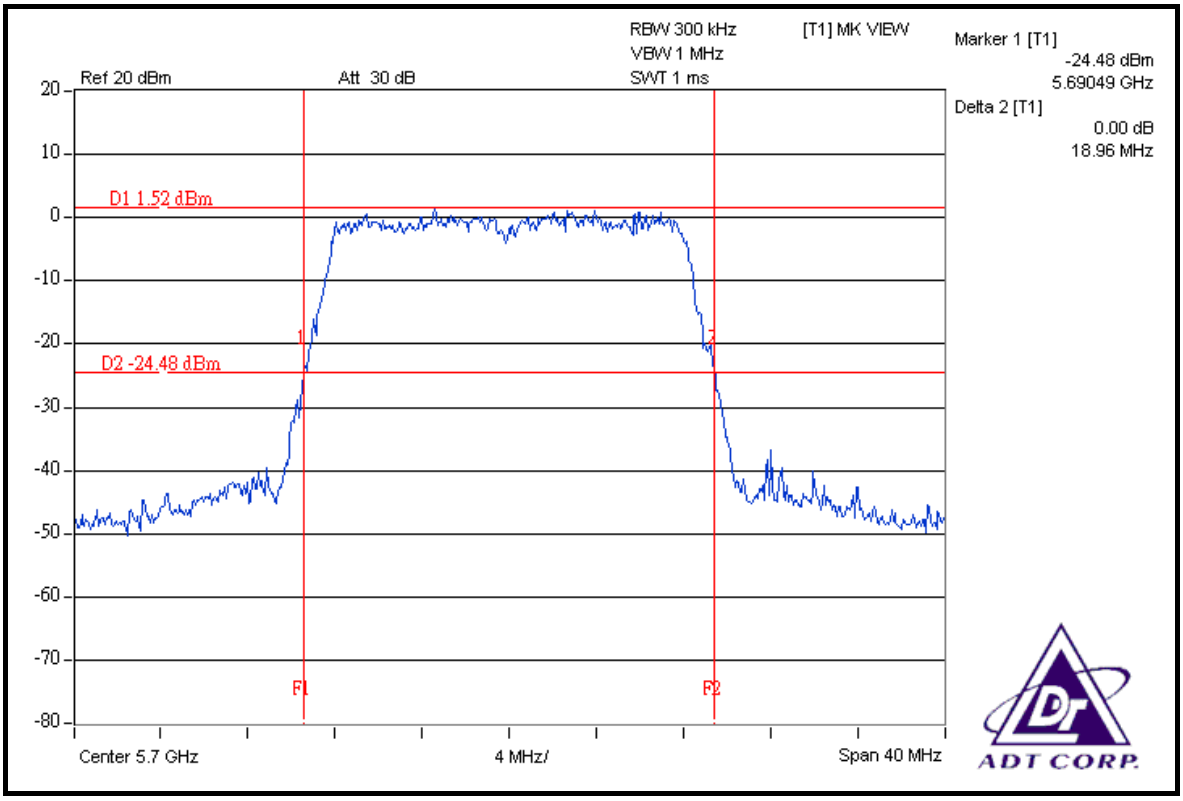
CH 100


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-24.48 dBm
5.49057 GHz
Delta 2 [T1]
0.00 dB
18.87 MHz
Ref 20 dBm
Att 30 dB
D1 1.52 dBm
D2 -24.48 dBm
F1
F2
Center 5.5 GHz
4 MHz/
Span 40 MHz
ADT CORP.

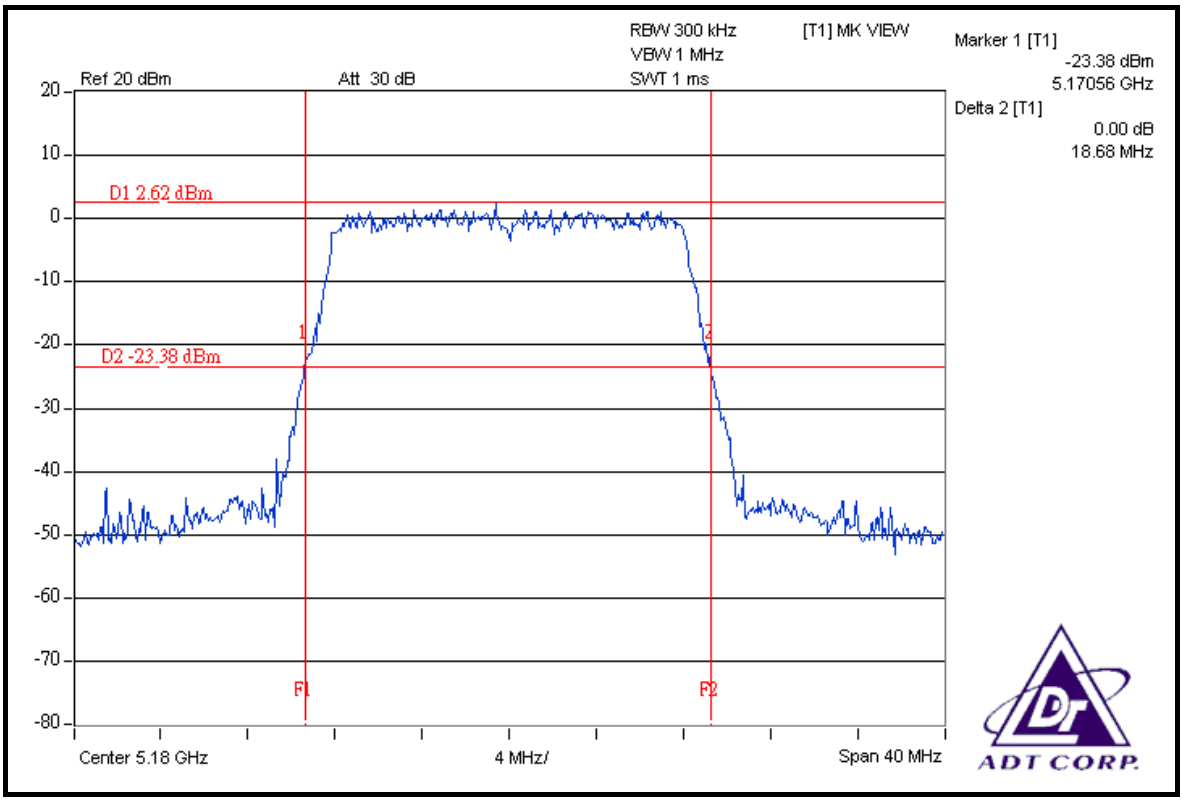
CH 120


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-24.59 dBm
5.59055 GHz
Delta 2 [T1]
0.00 dB
18.82 MHz
Ref 20 dBm
Att 30 dB
D1 1.41 dBm
D2 -24.59 dBm
F1
F2
Center 5.6 GHz
4 MHz/
Span 40 MHz
ADT CORP.

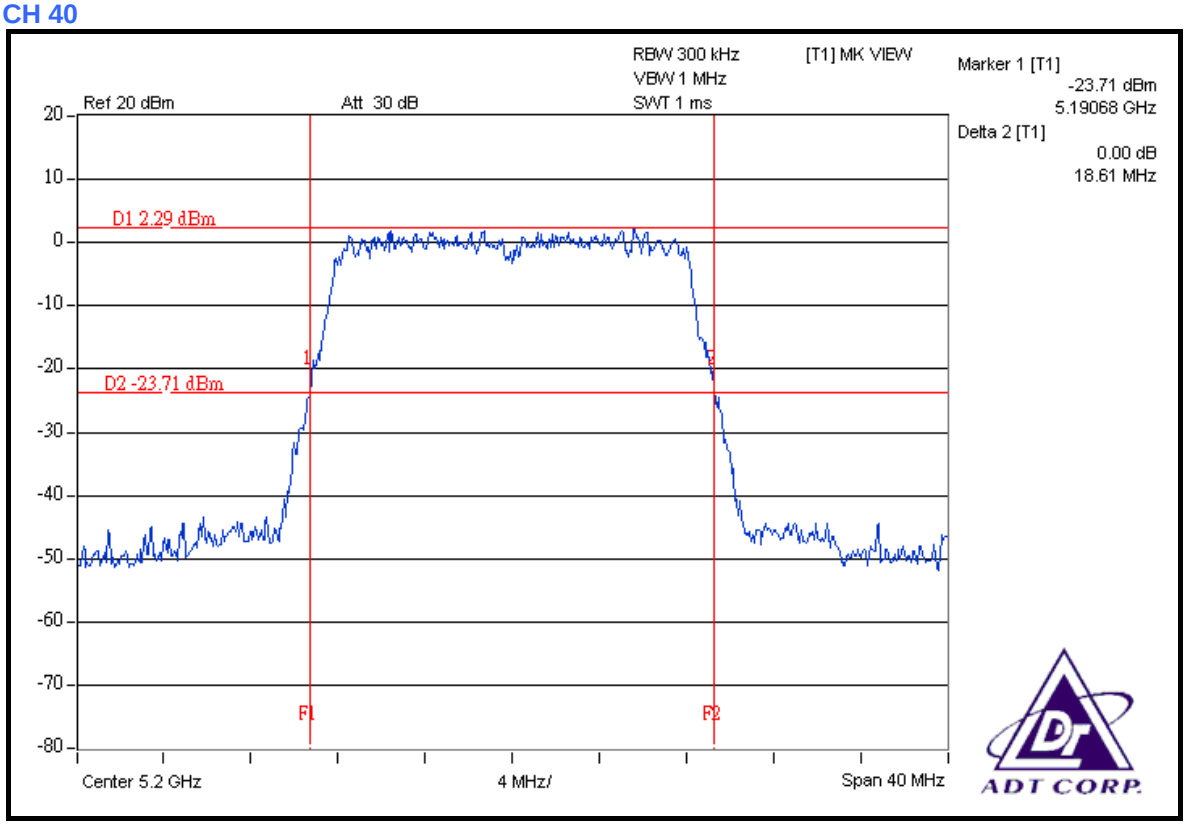
CH 140



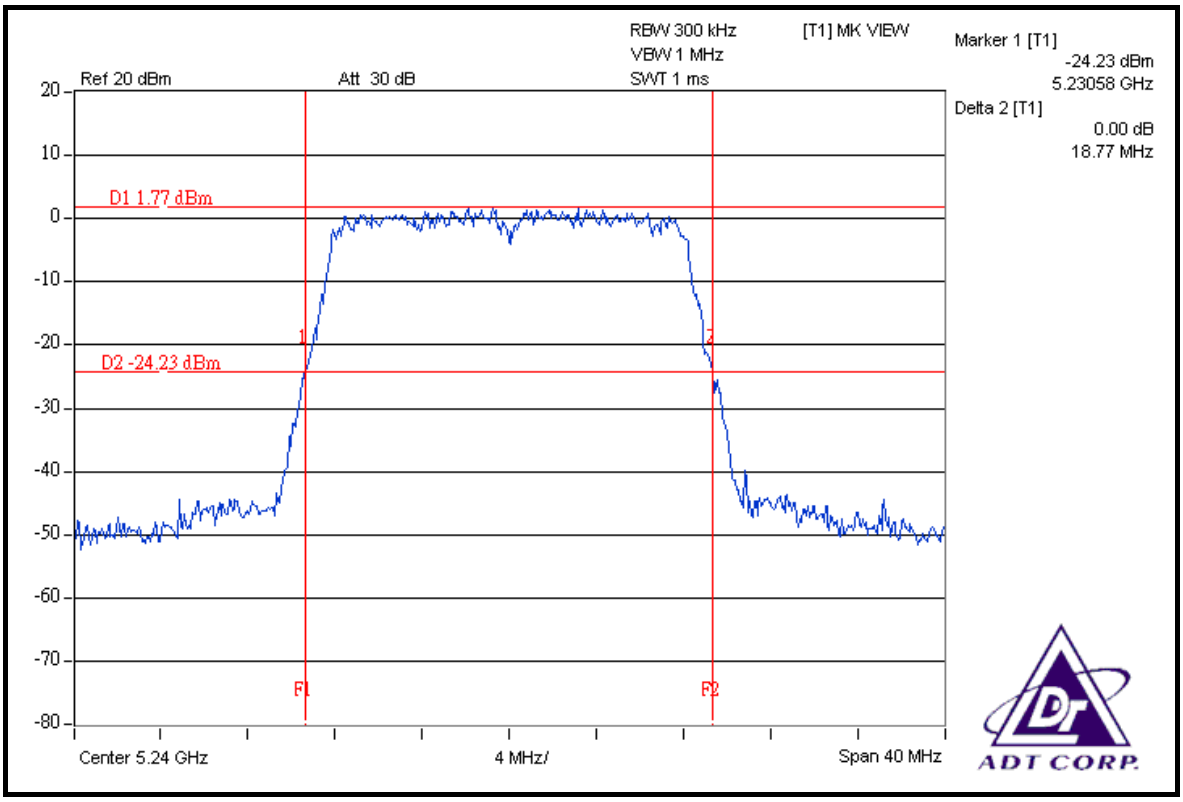
CHAIN 1: CH 36



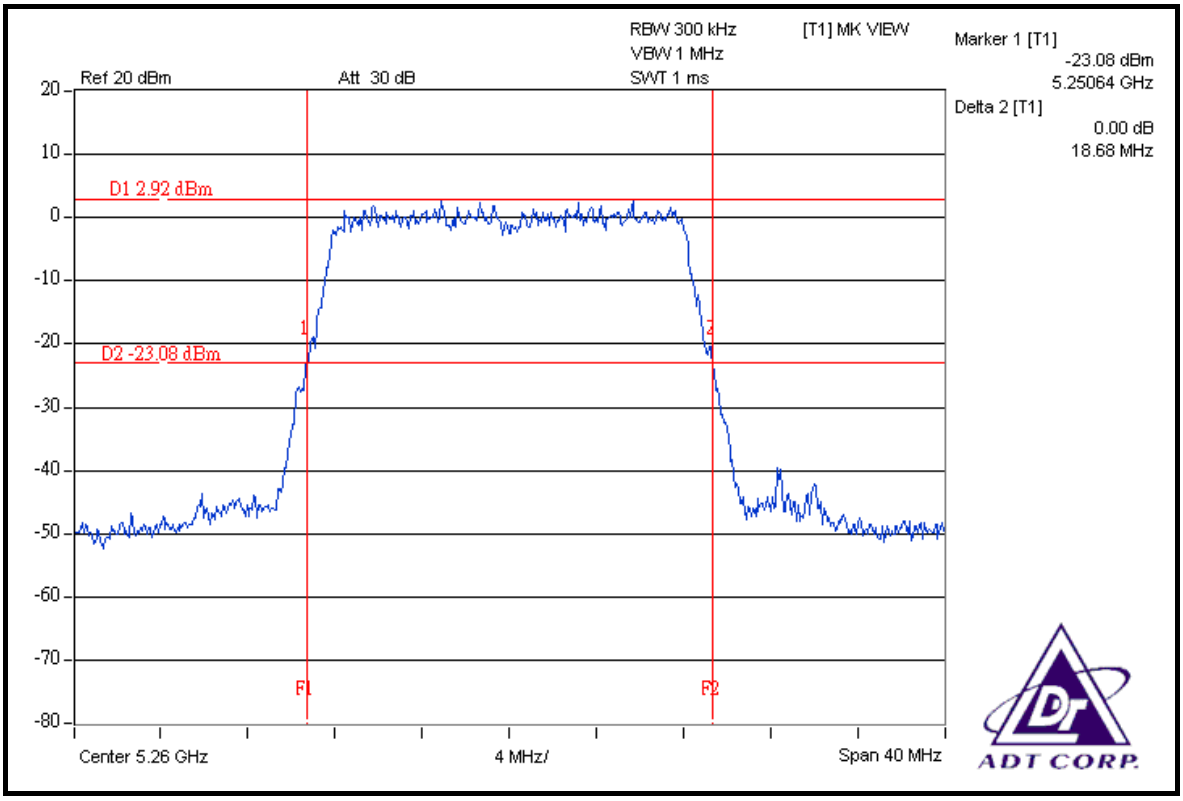
CH 40


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-23.71 dBm
5.19068 GHz
Delta 2 [T1]
0.00 dB
18.61 MHz
Ref 20 dBm
Att 30 dB
D1 2.29 dBm
D2 -23.71 dBm
F1
F2
Center 5.2 GHz
4 MHz/
Span 40 MHz
ADT CORP.

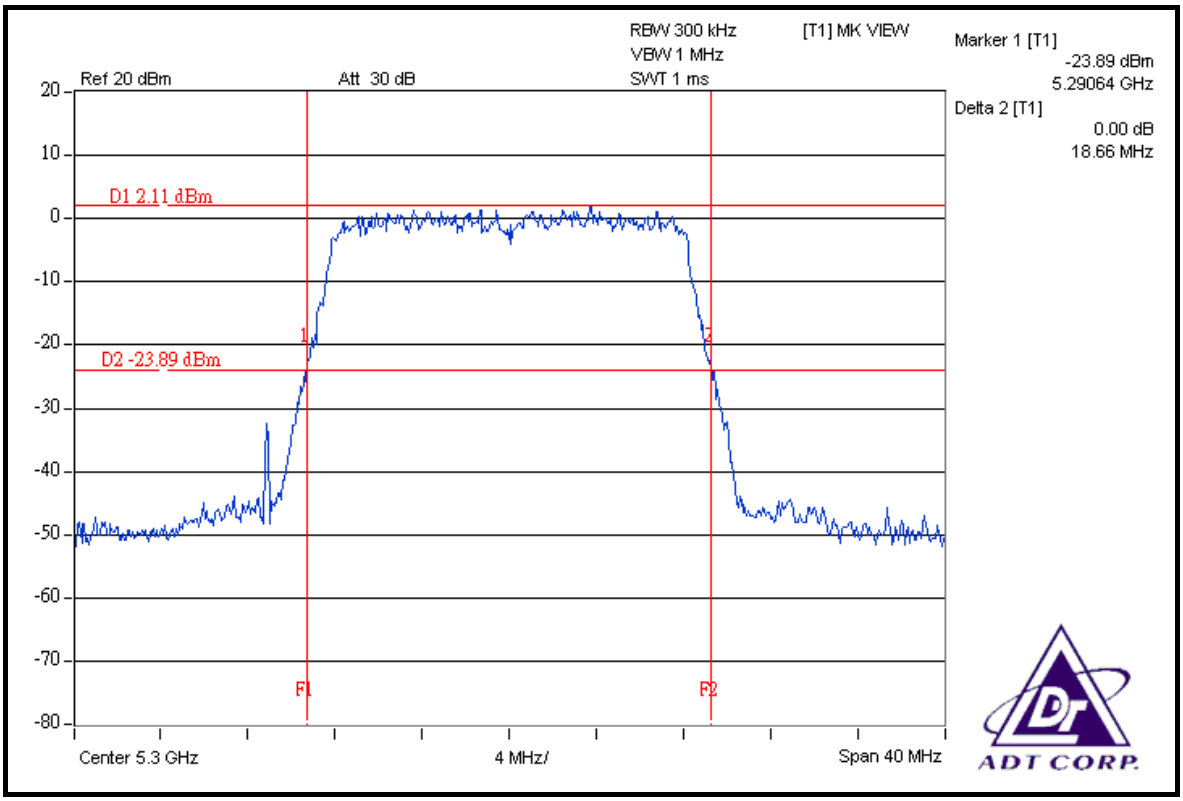
CH 48


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-24.23 dBm
5.23058 GHz
Delta 2 [T1]
0.00 dB
18.77 MHz
Ref 20 dBm
Att 30 dB
D1 1.77 dBm
D2 -24.23 dBm
F1
F2
Center 5.24 GHz
4 MHz/
Span 40 MHz
ADT CORP.

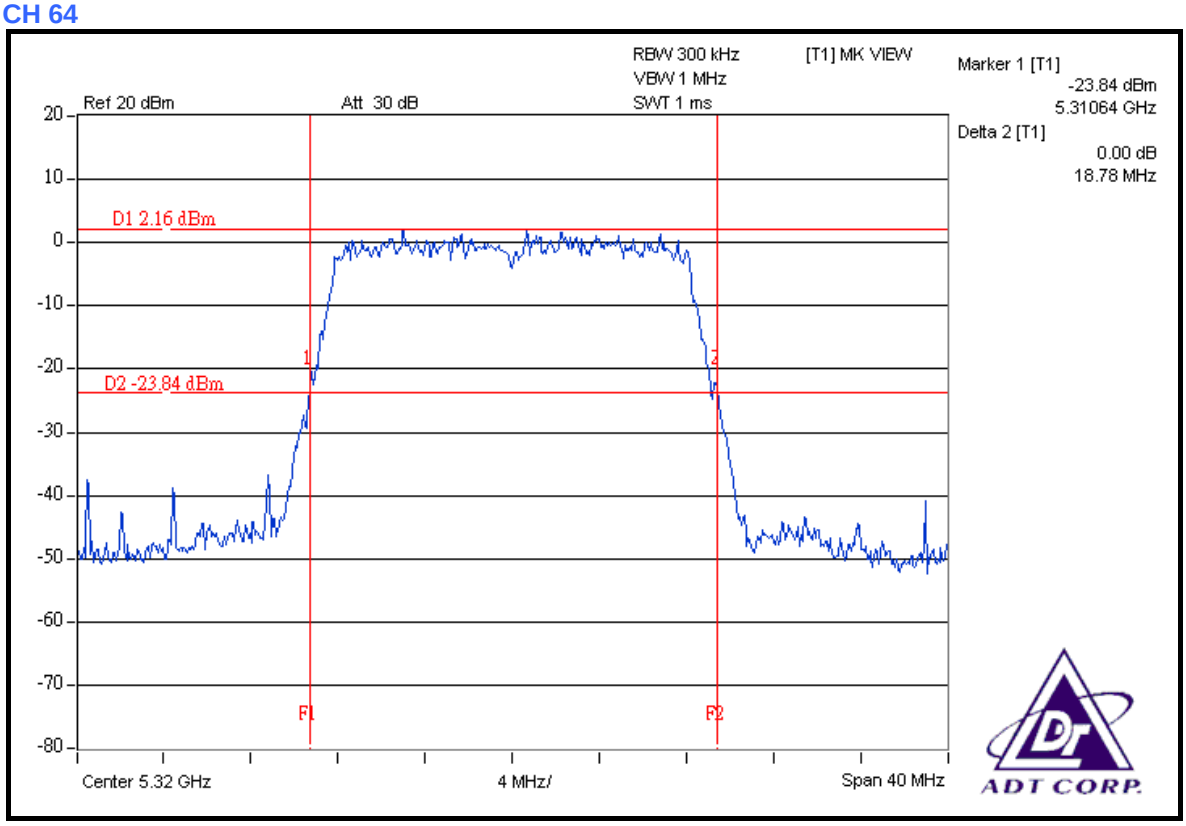
CH 52


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-23.08 dBm
5.25064 GHz
Delta 2 [T1]
0.00 dB
18.68 MHz
Ref 20 dBm
Att 30 dB
D1 2.92 dBm
D2 -23.08 dBm
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.26 GHz
4 MHz/
Span 40 MHz
ADT CORP.

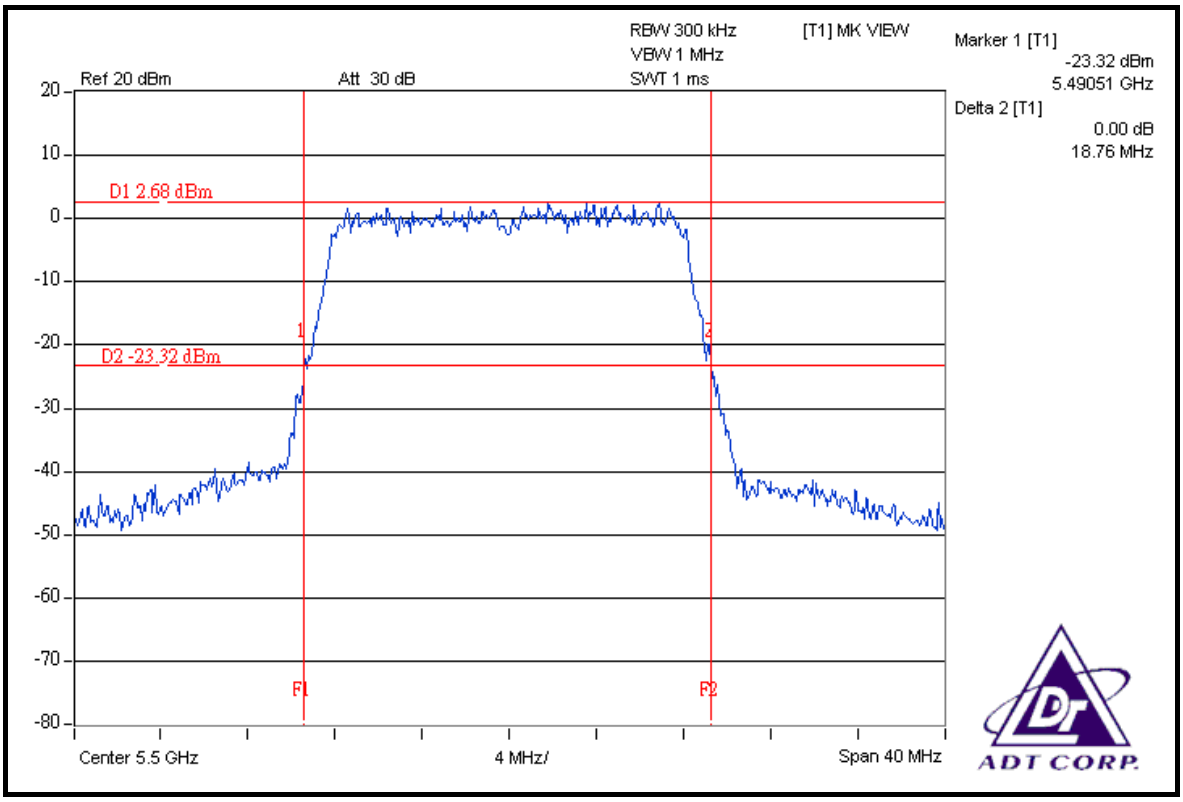
CH 60


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-23.89 dBm
5.29064 GHz
Delta 2 [T1]
0.00 dB
18.66 MHz
Ref 20 dBm
Att 30 dB
D1 2.11 dBm
D2 -23.89 dBm
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.3 GHz
4 MHz/
Span 40 MHz
ADT CORP.

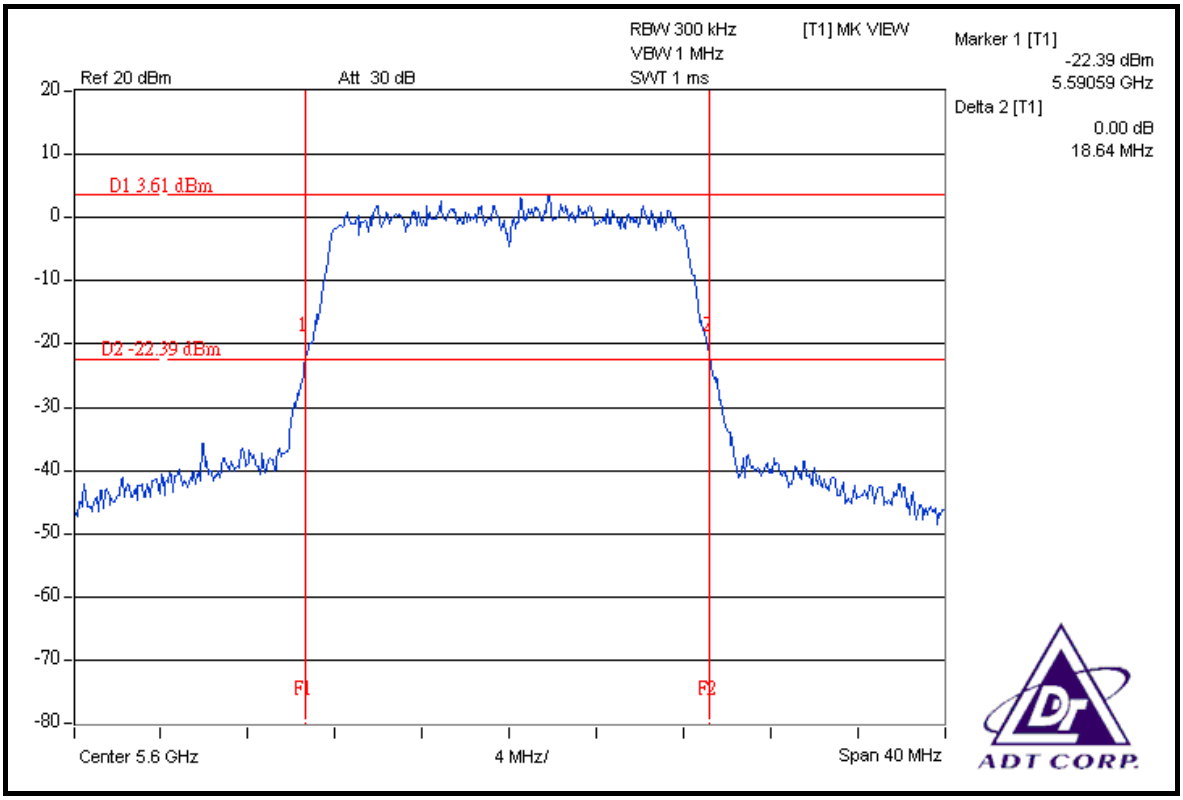
CH 64


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-23.84 dBm
5.31064 GHz
Delta 2 [T1]
0.00 dB
18.78 MHz
Ref 20 dBm
Att 30 dB
D1 2.16 dBm
D2 -23.84 dBm
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.32 GHz
4 MHz/
Span 40 MHz
ADT CORP.

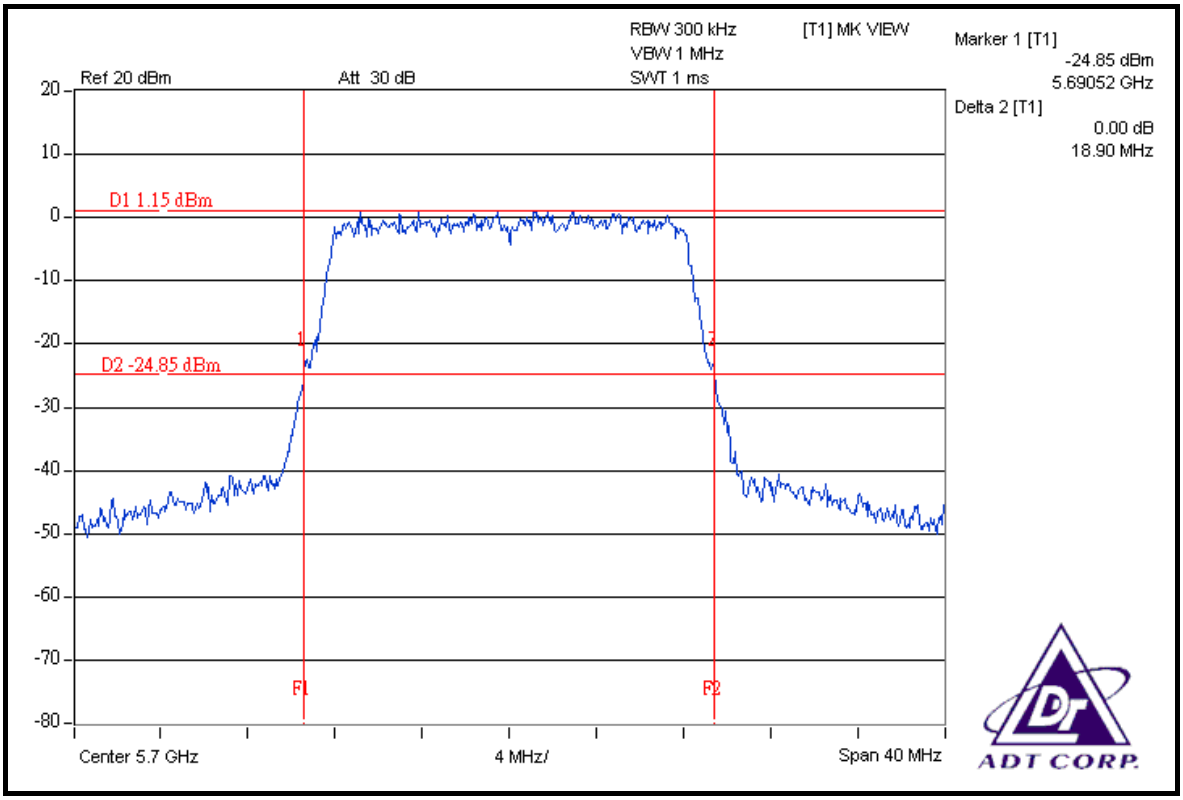
CH 100


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-23.32 dBm
5.49051 GHz
Delta 2 [T1]
0.00 dB
18.76 MHz
Ref 20 dBm
Att 30 dB
D1 2.68 dBm
D2 -23.32 dBm
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.5 GHz
4 MHz/
Span 40 MHz
ADT CORP.

CH 120


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-22.39 dBm
5.59059 GHz
Delta 2 [T1]
0.00 dB
18.64 MHz
Ref 20 dBm
Att 30 dB
D1 3.61 dBm
D2 -22.39 dBm
F1
F2
Center 5.6 GHz
4 MHz/
Span 40 MHz

CH 140

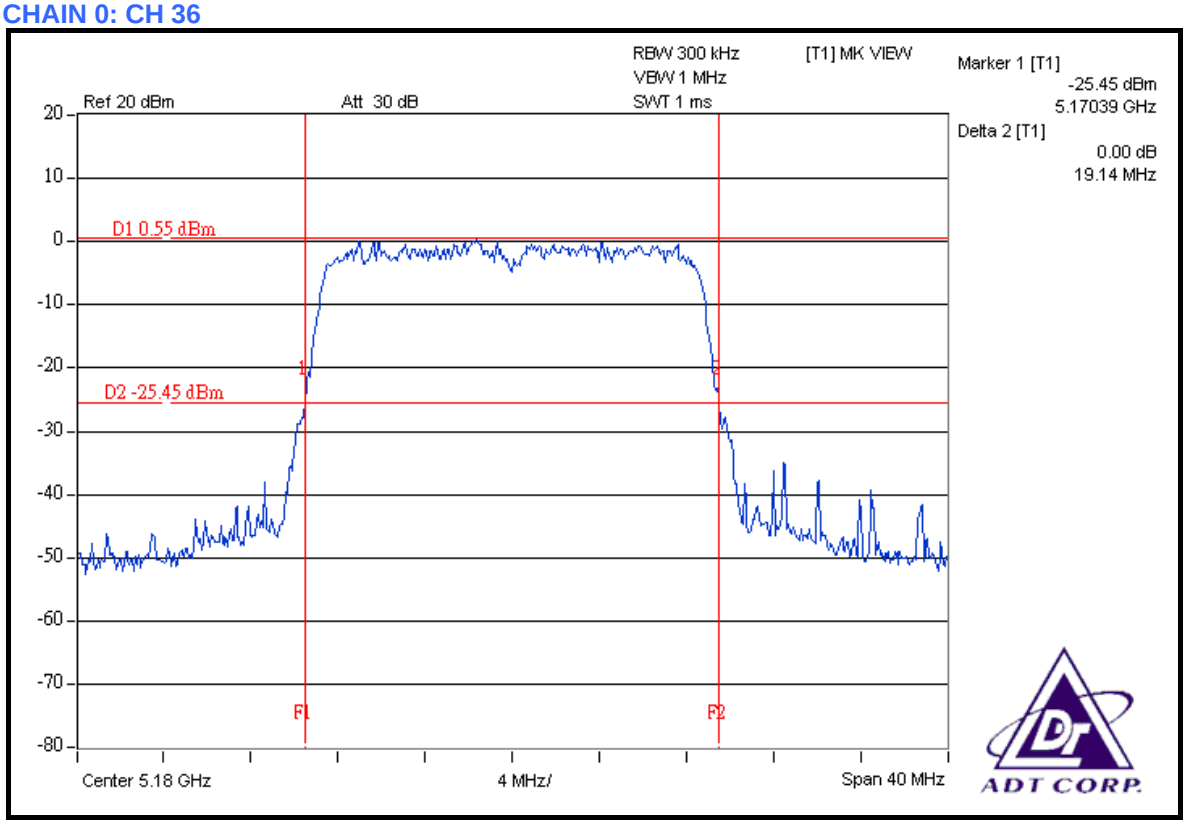

RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-24.85 dBm
5.69052 GHz
Delta 2 [T1]
0.00 dB
18.90 MHz
Ref 20 dBm
Att 30 dB
D1 1.15 dBm
D2 -24.85 dBm
F1
F2
Center 5.7 GHz
4 MHz/
Span 40 MHz

DRAFT 802.11n (20MHz) OFDM MODULATION

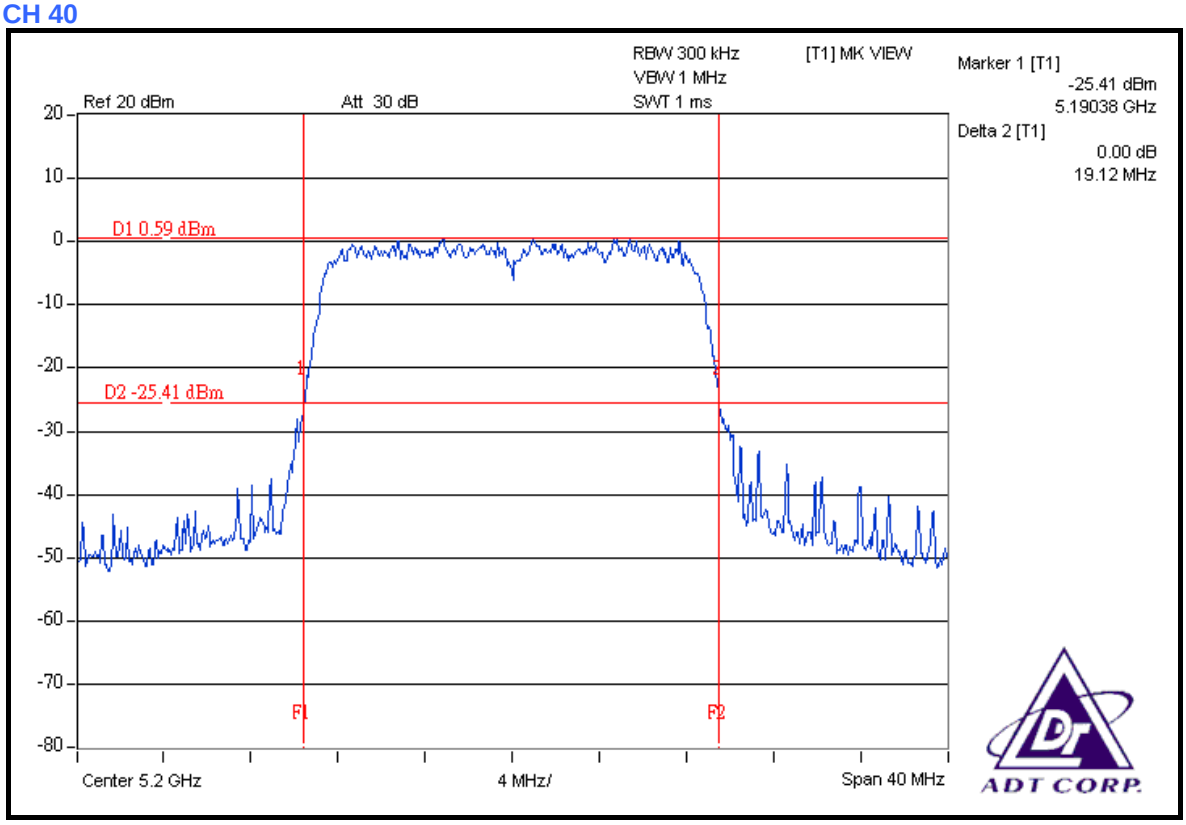
MODULATION TYPE	BPSK	**TRANSFER RATE**	7.2Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25 deg.C, 65 %RH, 991hPa
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
36	5180	19.14	19.13	PASS
40	5200	19.12	19.21	PASS
48	5240	19.32	19.06	PASS
52	5260	19.16	19.04	PASS
60	5300	19.17	19.15	PASS
64	5320	19.18	19.03	PASS
100	5500	19.30	19.11	PASS
120	5600	19.25	19.09	PASS
140	5700	19.28	19.03	PASS

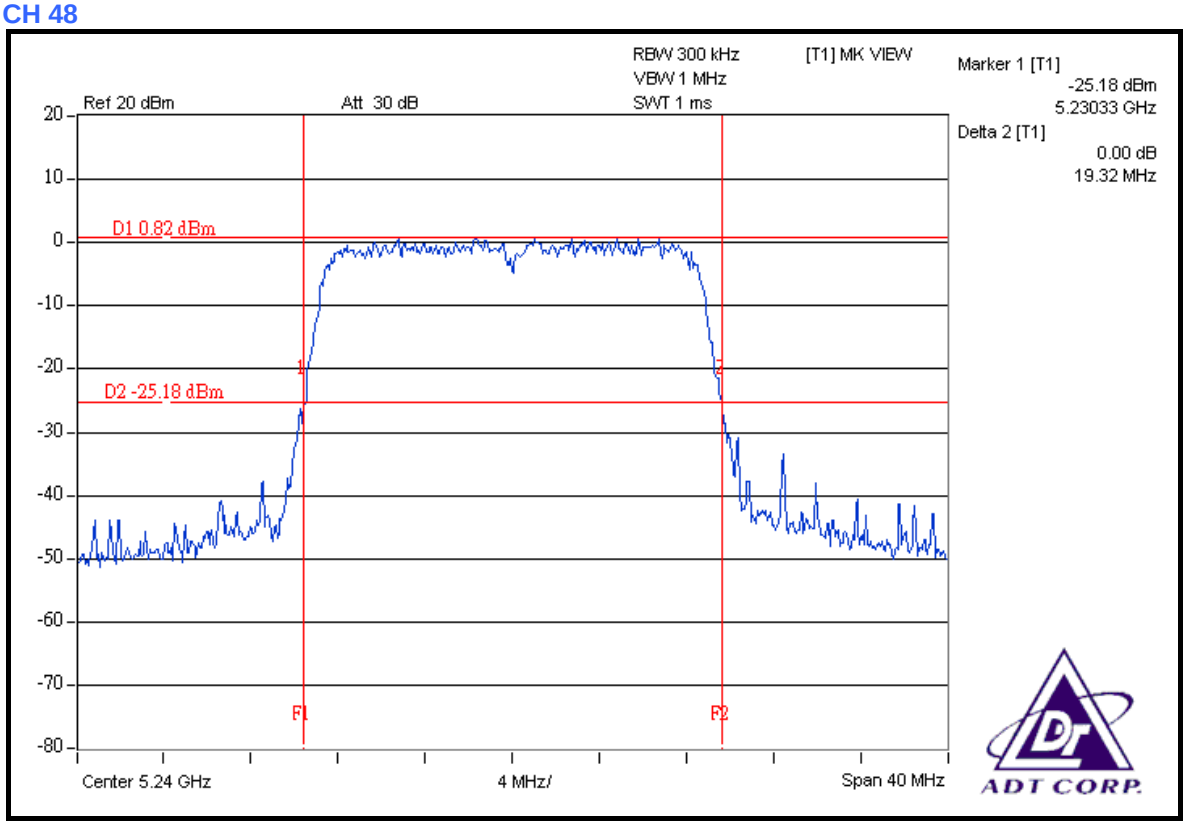
CHAIN 0: CH 36



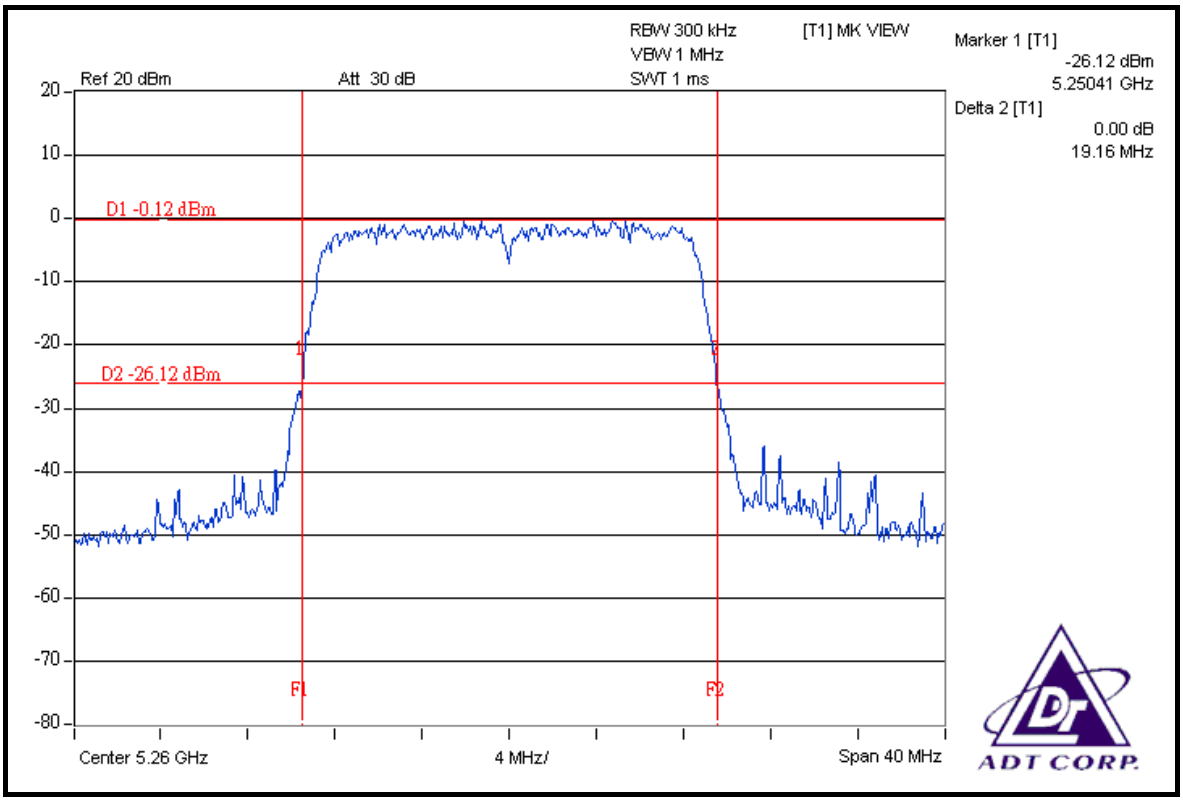
CH 40



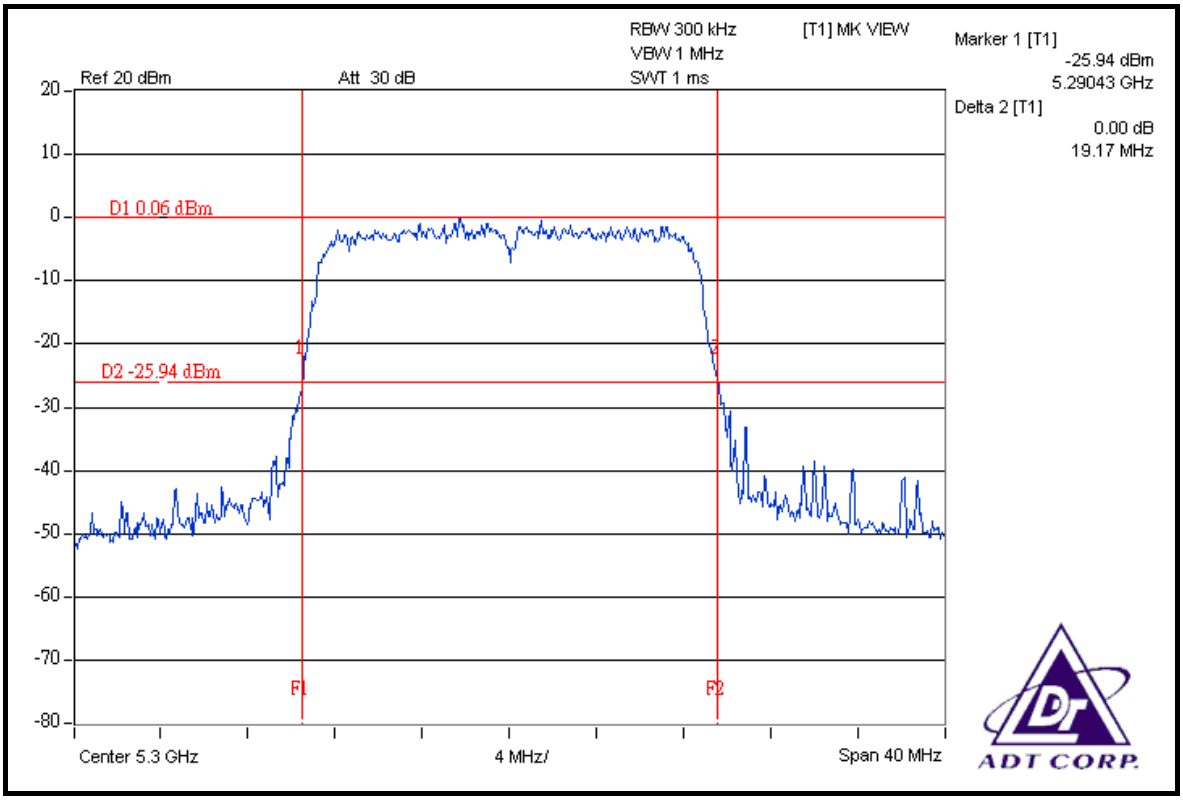
CH 48


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-25.18 dBm
5.23033 GHz
Delta 2 [T1]
0.00 dB
19.32 MHz
Ref 20 dBm
Att 30 dB
D1 0.82 dBm
D2 -25.18 dBm
F1
F2
Center 5.24 GHz
4 MHz/
Span 40 MHz
ADT CORP.

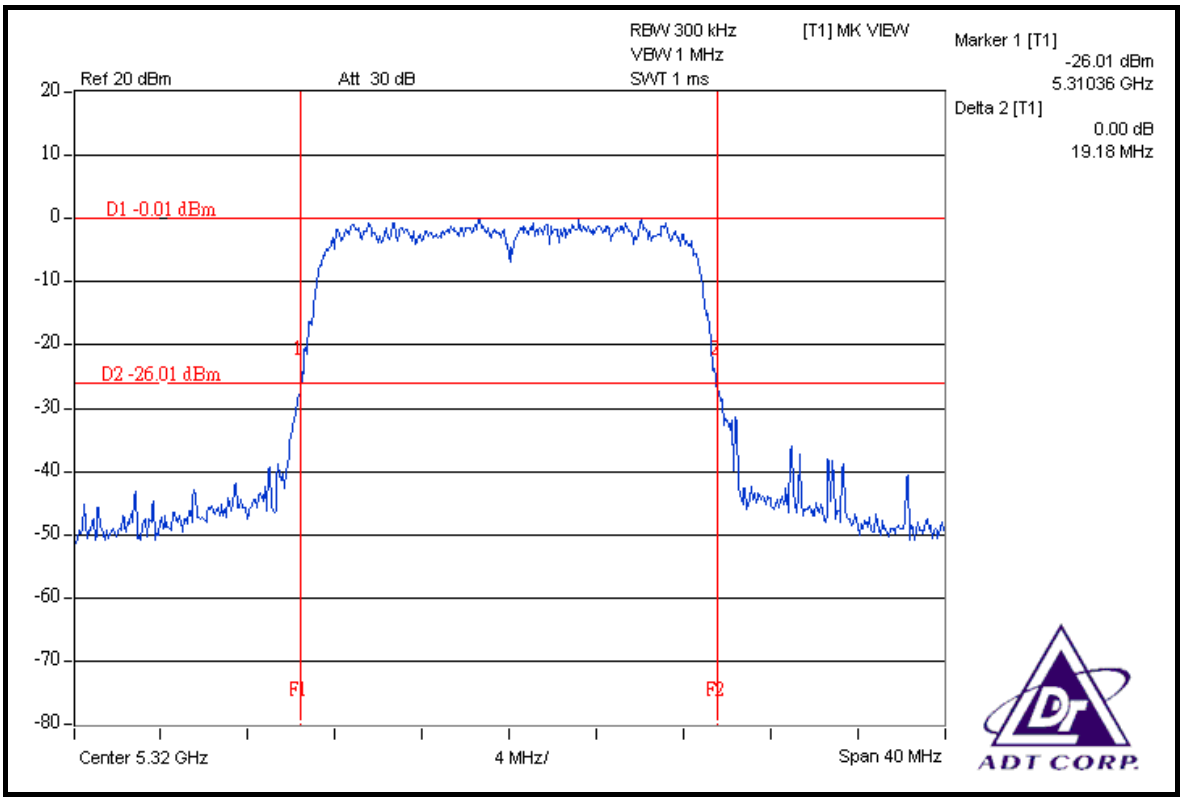
CH 52


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-26.12 dBm
5.25041 GHz
Delta 2 [T1]
0.00 dB
19.16 MHz
Ref 20 dBm
Att 30 dB
D1 -0.12 dBm
D2 -26.12 dBm
F1
F2
Center 5.26 GHz
4 MHz/
Span 40 MHz
ADT CORP.

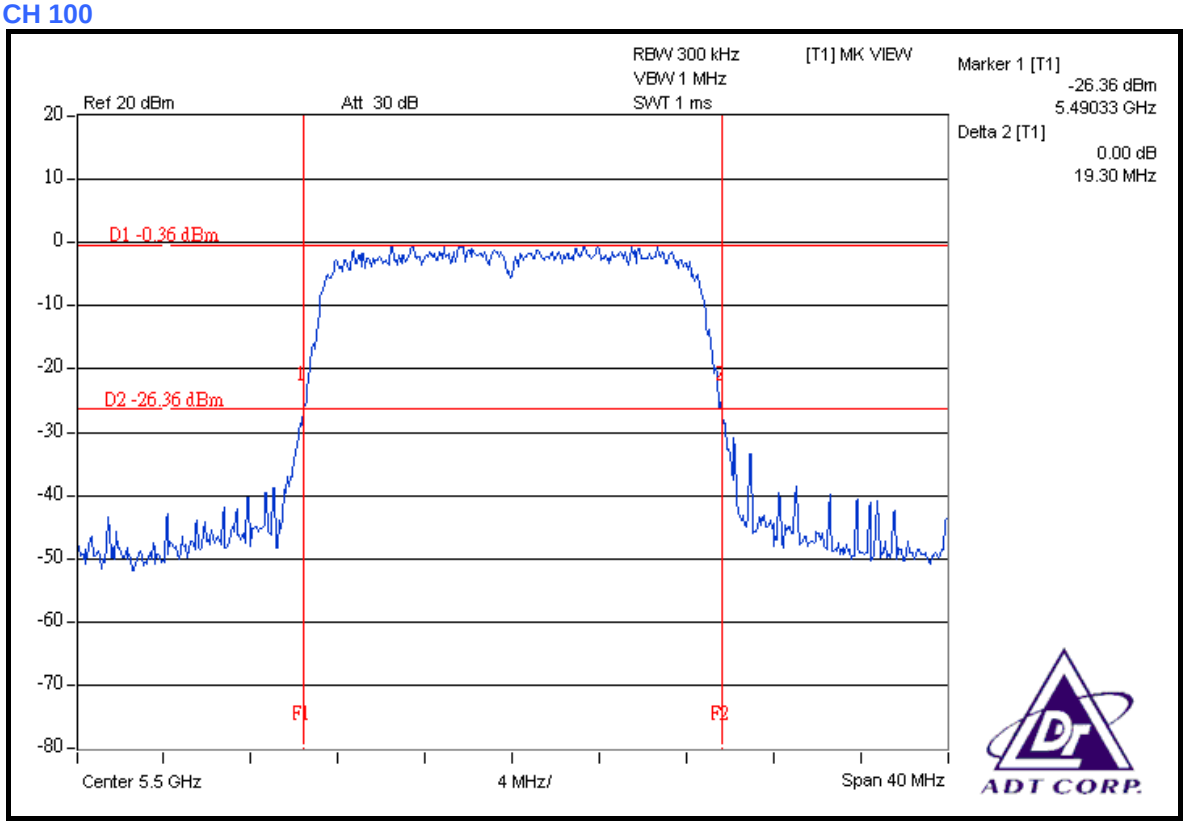
CH 60


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-25.94 dBm
5.29043 GHz
Delta 2 [T1]
0.00 dB
19.17 MHz
Ref 20 dBm
Att 30 dB
D1 0.06 dBm
D2 -25.94 dBm
F1
F2
Center 5.3 GHz
4 MHz/
Span 40 MHz
ADT CORP.

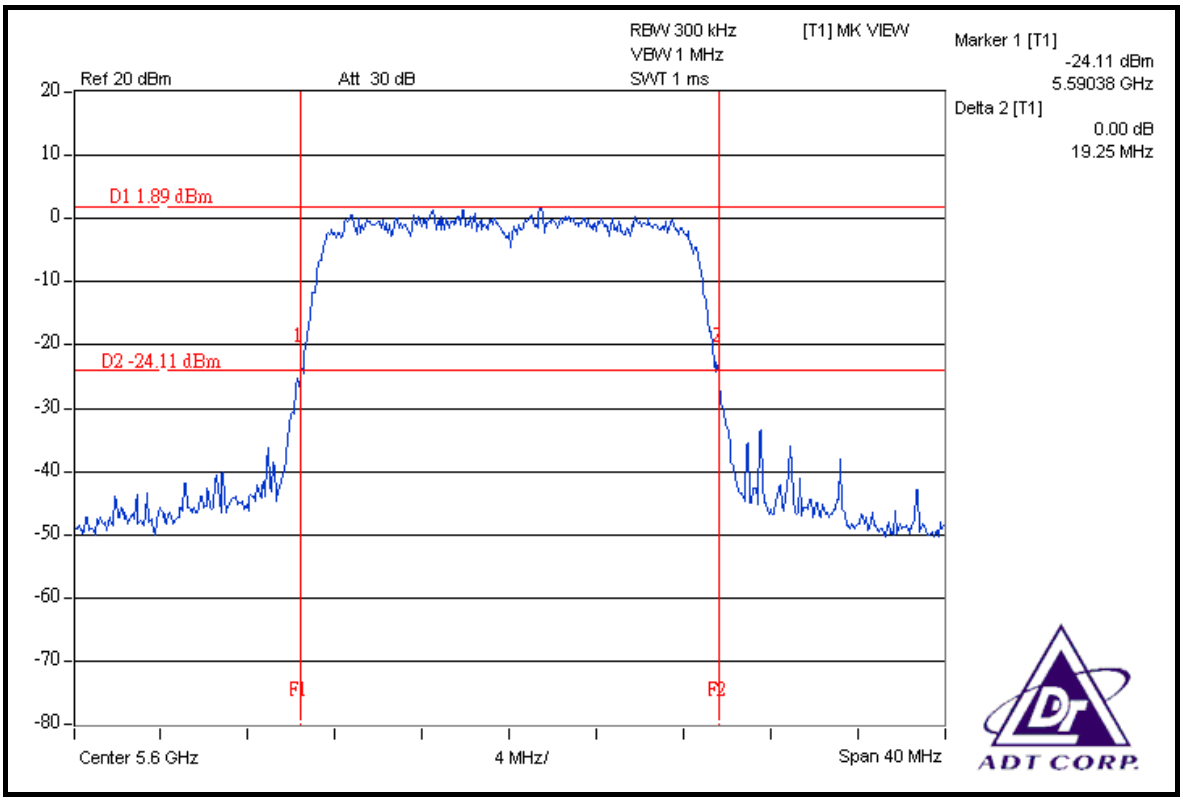
CH 64


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-26.01 dBm
5.31036 GHz
Delta 2 [T1]
0.00 dB
19.18 MHz
Ref 20 dBm
Att 30 dB
D1 -0.01 dBm
D2 -26.01 dBm
F1
F2
Center 5.32 GHz
4 MHz/
Span 40 MHz
ADT CORP.

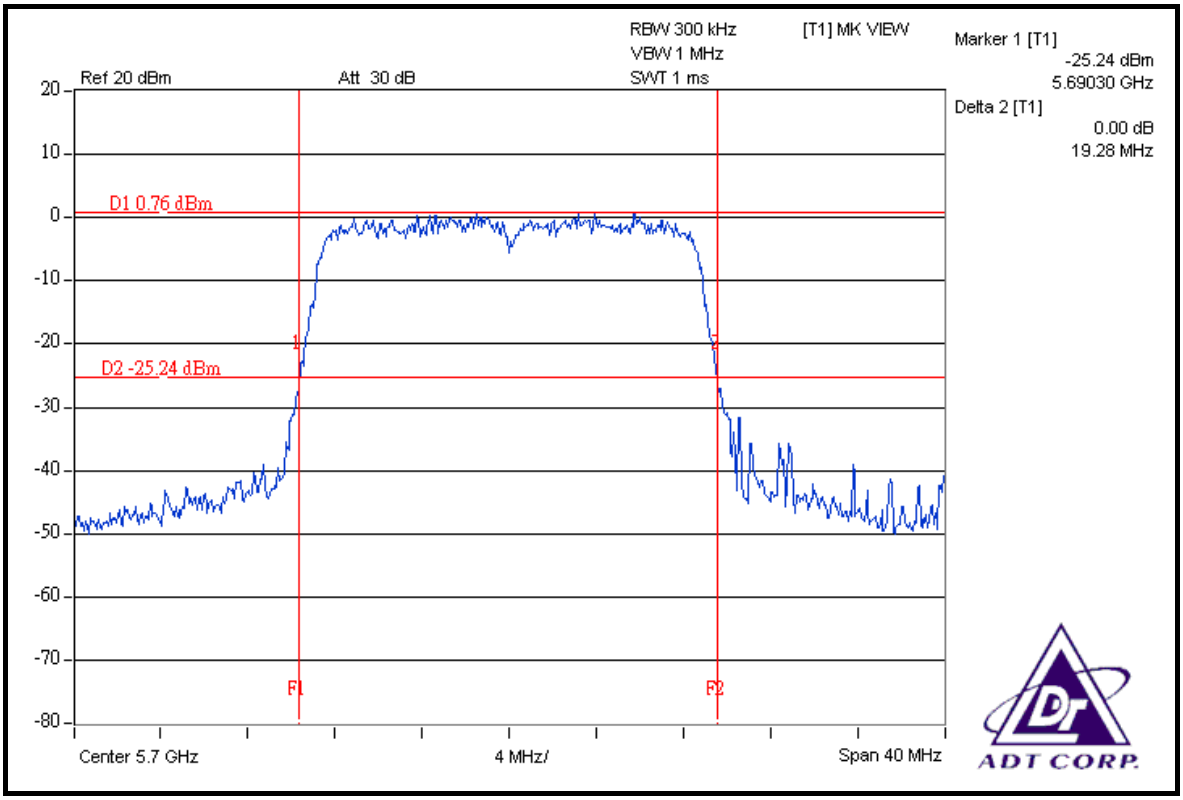
CH 100


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-26.36 dBm
5.49033 GHz
Delta 2 [T1]
0.00 dB
19.30 MHz
Ref 20 dBm
Att 30 dB
D1 -0.36 dBm
D2 -26.36 dBm
F1
F2
Center 5.5 GHz
4 MHz/
Span 40 MHz
ADT CORP.

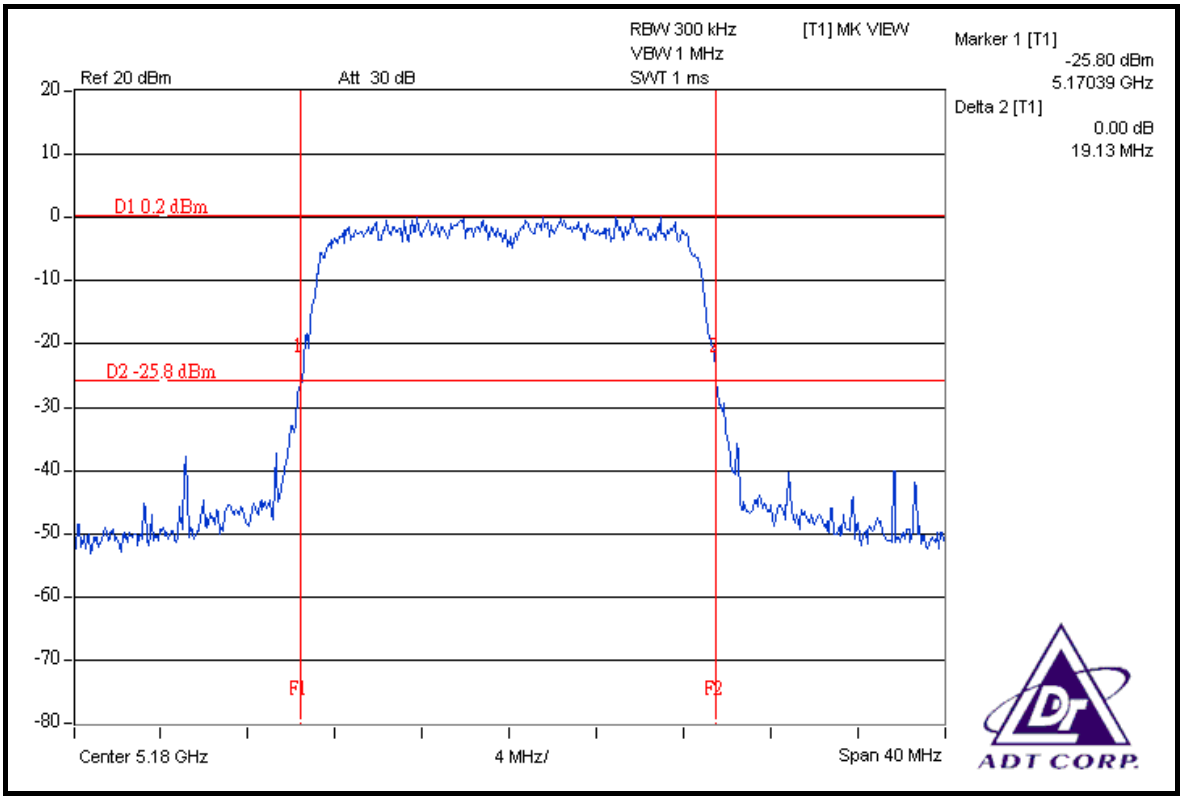
CH 120


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-24.11 dBm
5.59038 GHz
Delta 2 [T1]
0.00 dB
19.25 MHz
Ref 20 dBm
Att 30 dB
D1 1.89 dBm
D2 -24.11 dBm
F1
F2
Center 5.6 GHz
4 MHz/
Span 40 MHz
ADT CORP.

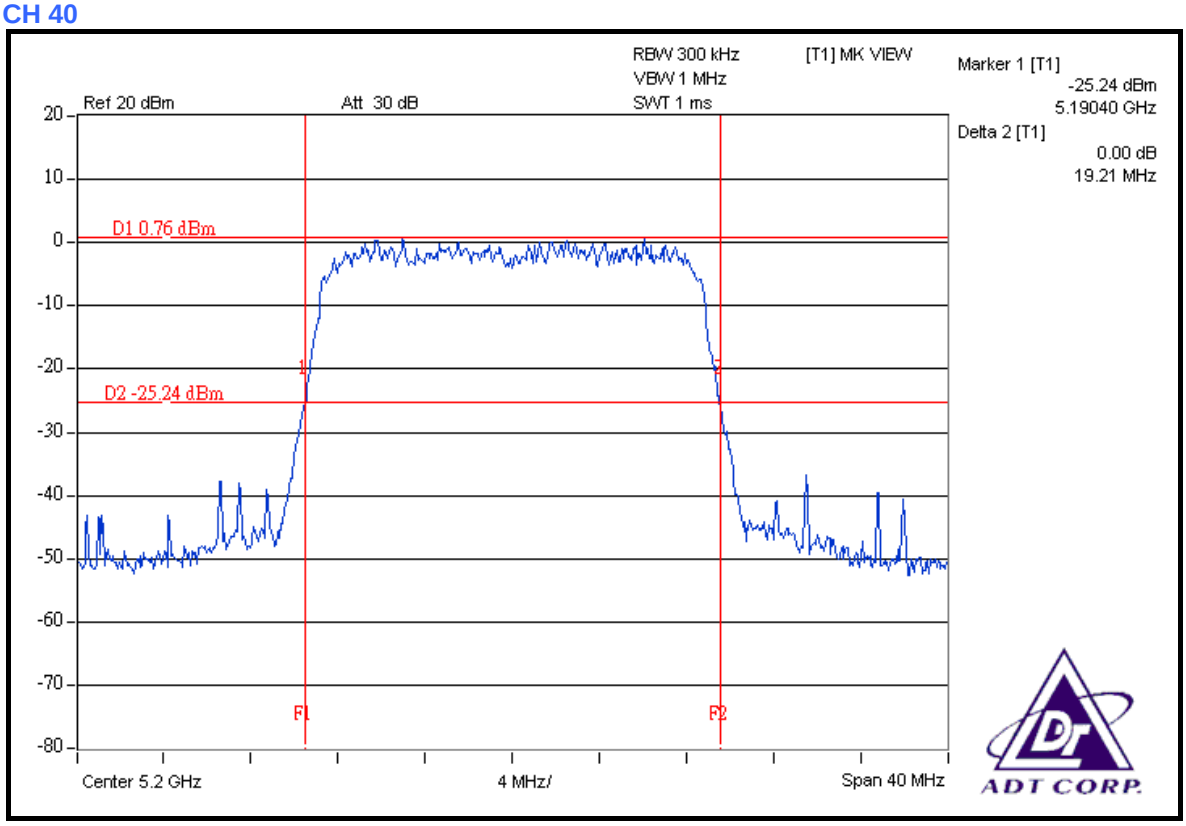
CH 140



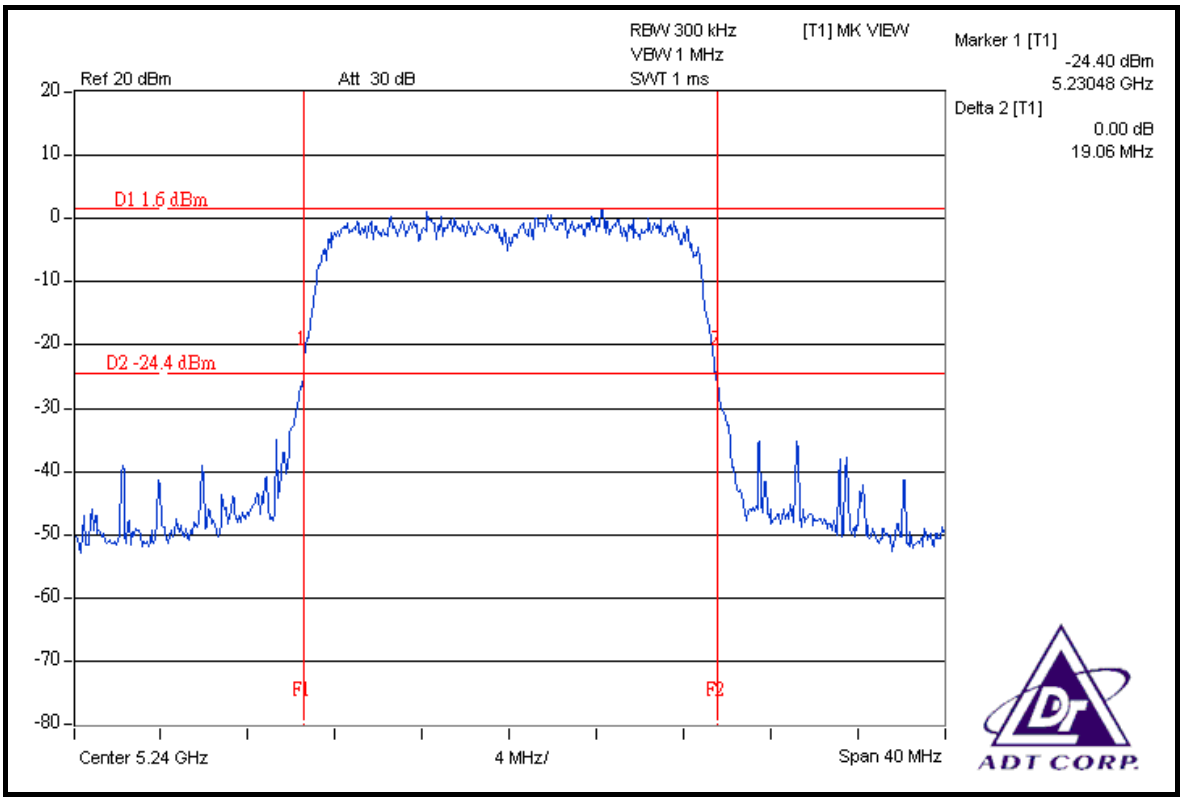
CHAIN 1: CH 36



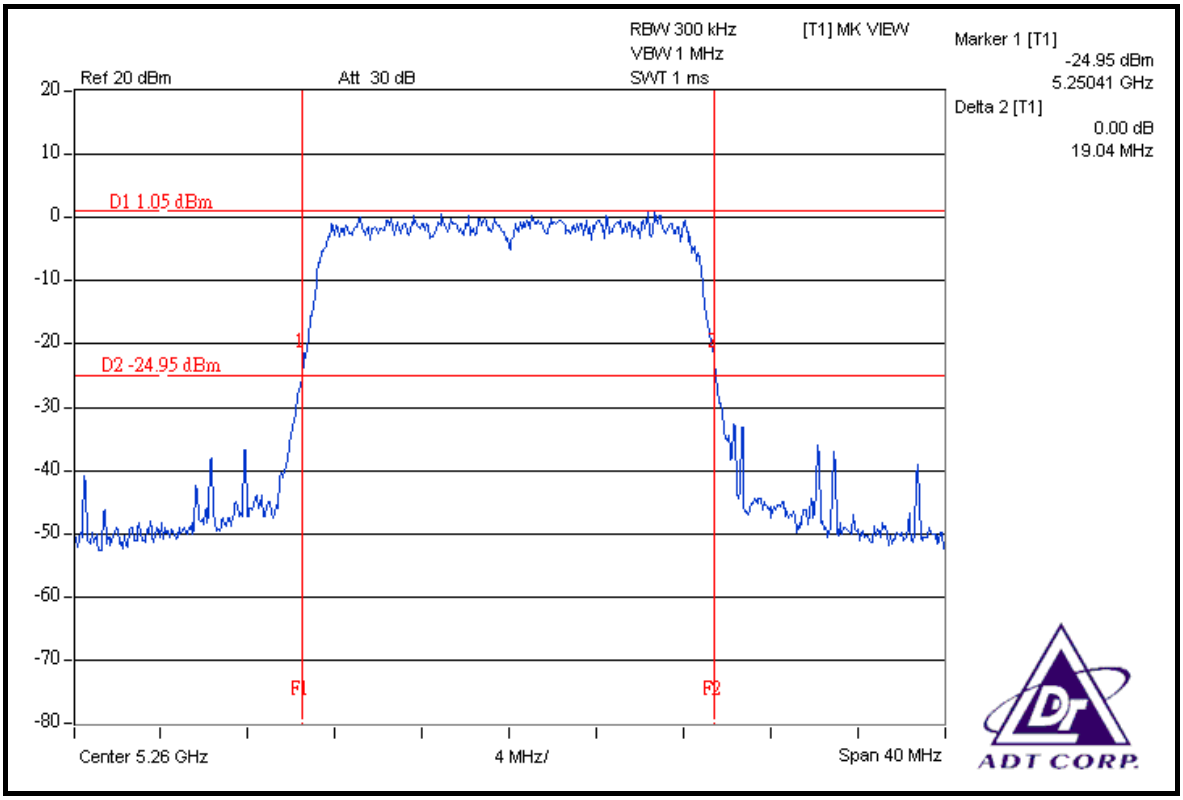
CH 40


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-25.24 dBm
5.19040 GHz
Delta 2 [T1]
0.00 dB
19.21 MHz
Ref 20 dBm
Att 30 dB
D1 0.76 dBm
D2 -25.24 dBm
F1
F2
Center 5.2 GHz
4 MHz/
Span 40 MHz
ADT CORP.

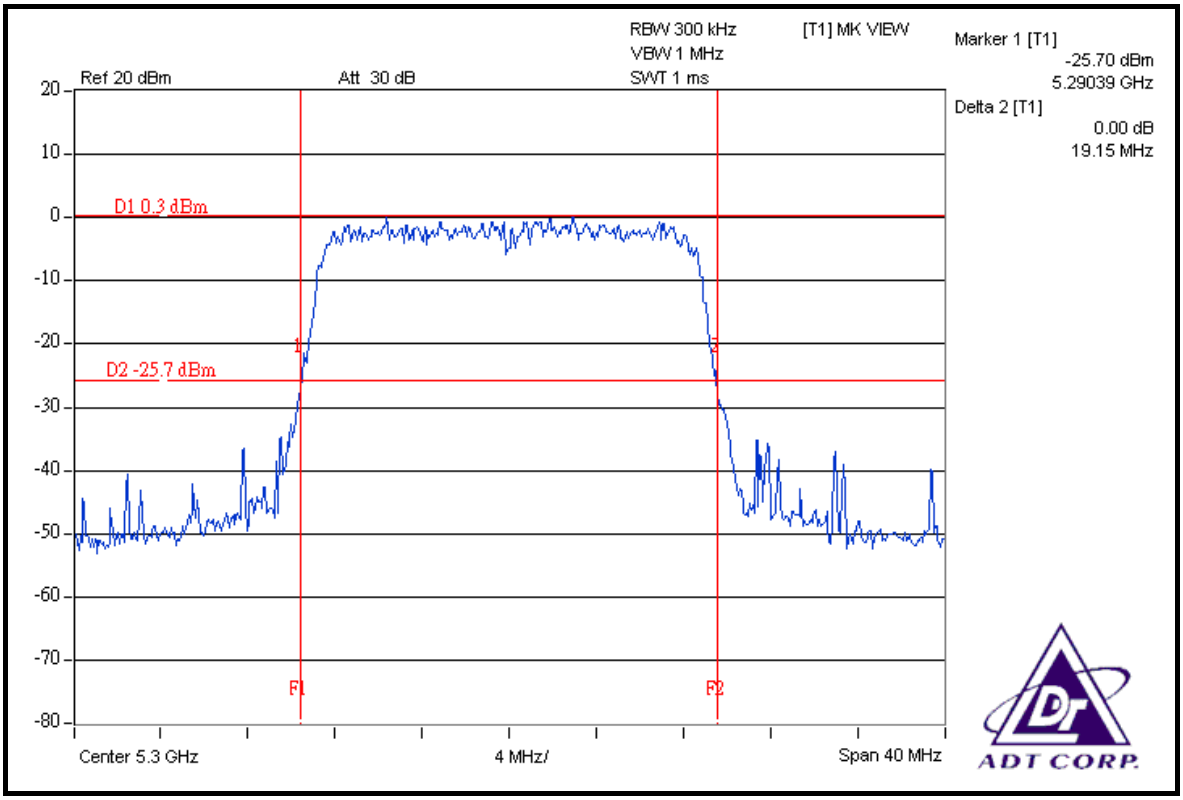
CH 48


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-24.40 dBm
5.23048 GHz
Delta 2 [T1]
0.00 dB
19.06 MHz
Ref 20 dBm
Att 30 dB
D1 1.6 dBm
D2 -24.4 dBm
F1
F2
Center 5.24 GHz
4 MHz/
Span 40 MHz
ADT CORP.

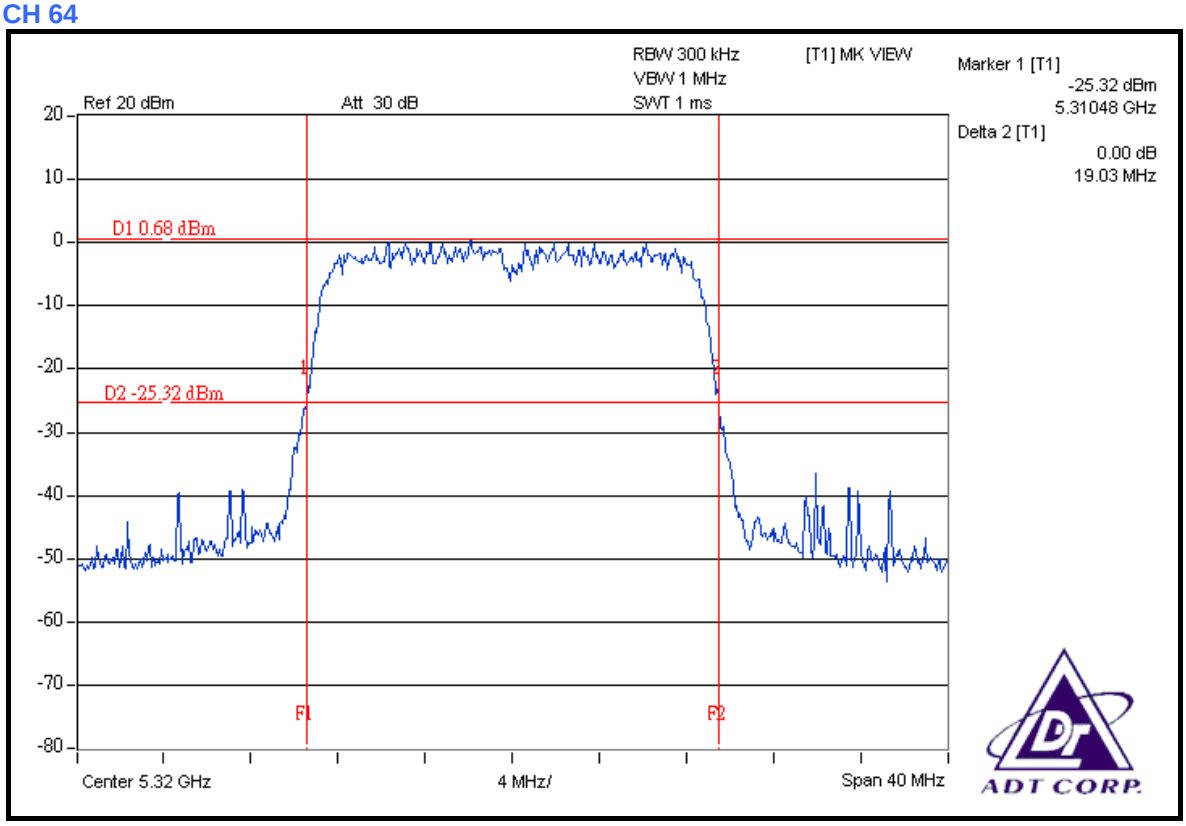
CH 52


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-24.95 dBm
5.25041 GHz
Delta 2 [T1]
0.00 dB
19.04 MHz
Ref 20 dBm
Att 30 dB
D1 1.05 dBm
D2 -24.95 dBm
F1
F2
Center 5.26 GHz
4 MHz/
Span 40 MHz
ADT CORP.

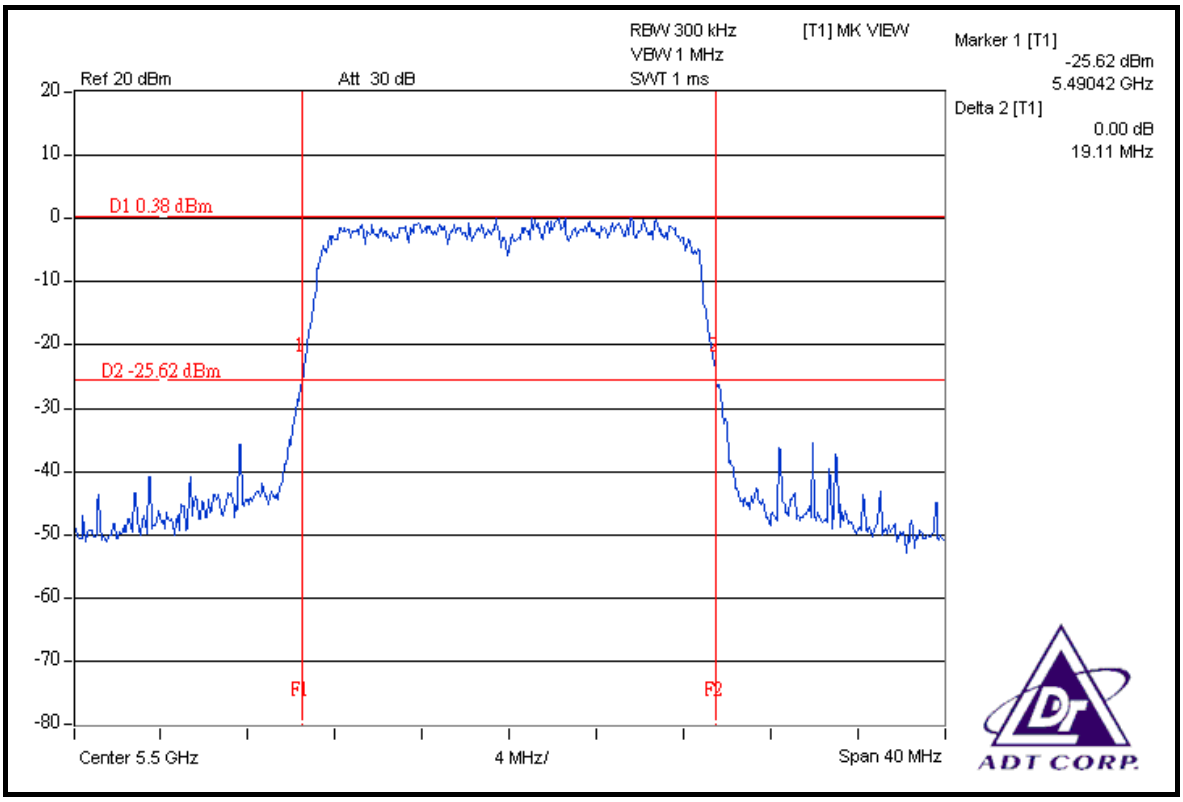
CH 60


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-25.70 dBm
5.29039 GHz
Delta 2 [T1]
0.00 dB
19.15 MHz
Ref 20 dBm
Att 30 dB
D1 0.3 dBm
D2 -25.7 dBm
F1
F2
Center 5.3 GHz
4 MHz/
Span 40 MHz
ADT CORP.

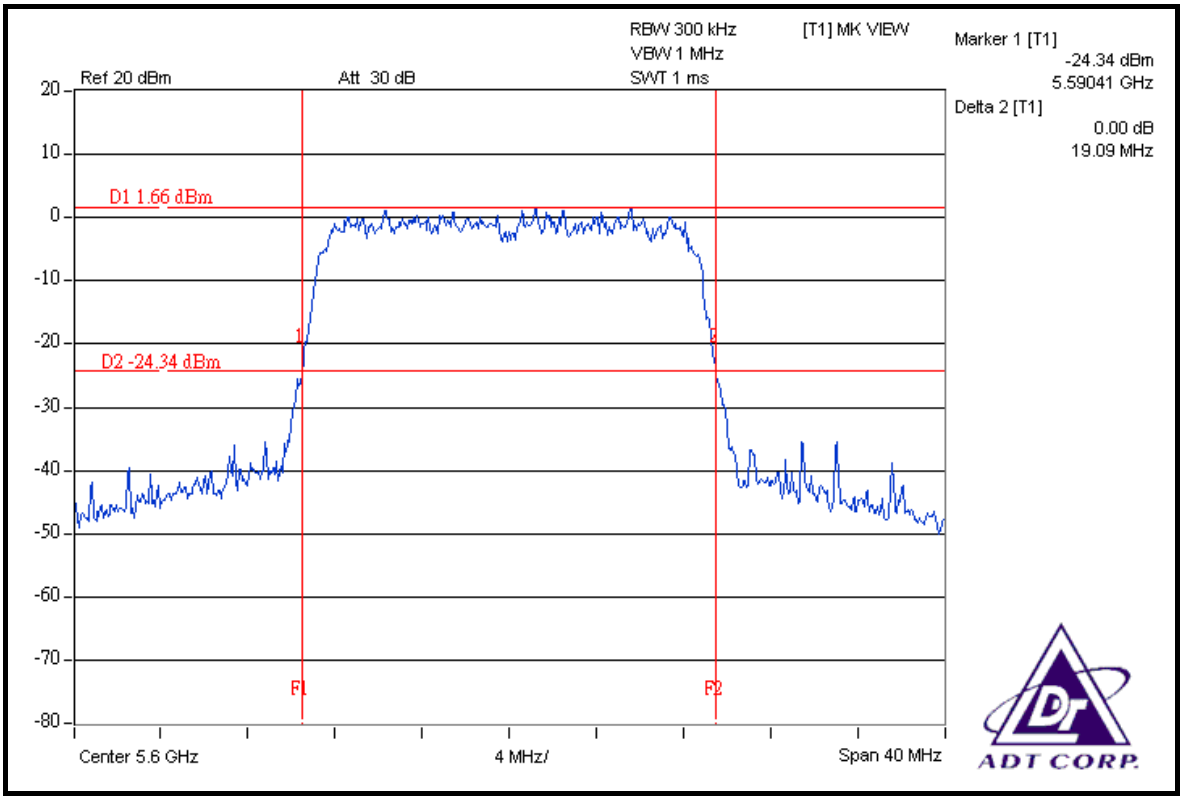
CH 64


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-25.32 dBm
5.31048 GHz
Delta 2 [T1]
0.00 dB
19.03 MHz
Ref 20 dBm
Att 30 dB
D1 0.68 dBm
D2 -25.32 dBm
F1
F2
Center 5.32 GHz
4 MHz/
Span 40 MHz
ADT CORP.

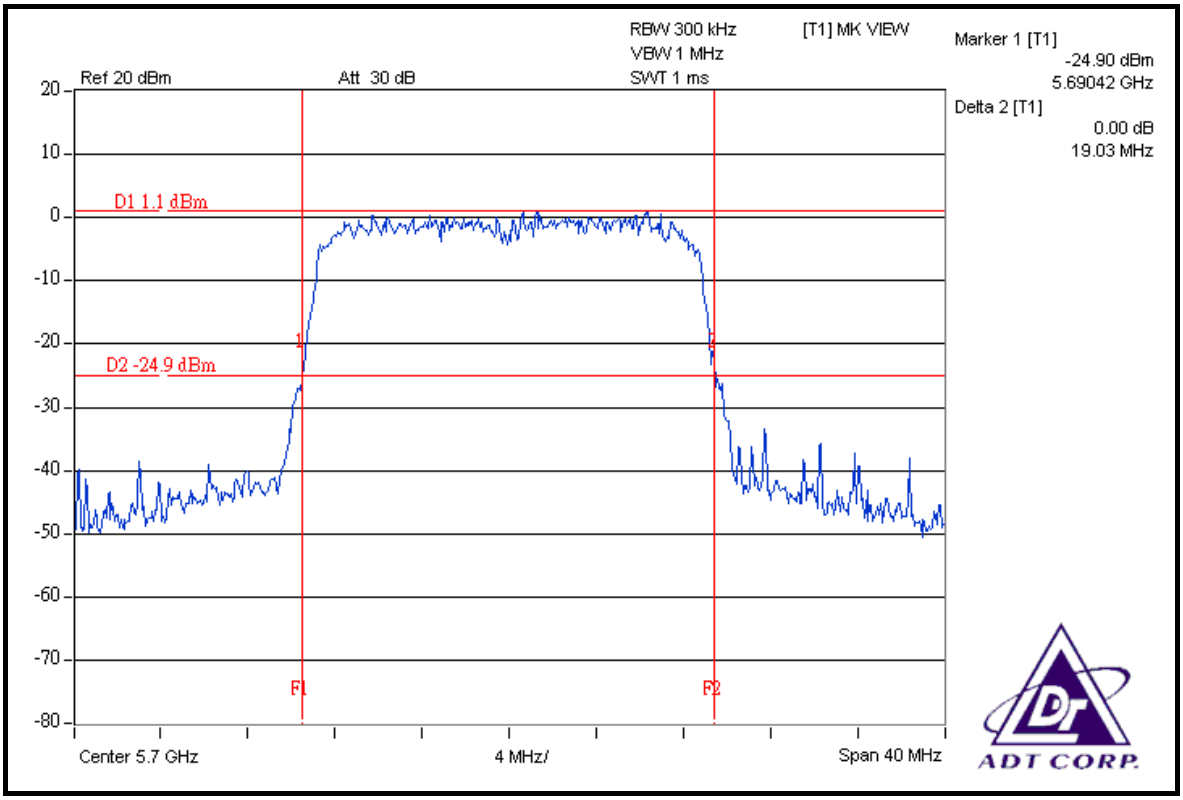
CH 100


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-25.62 dBm
5.49042 GHz
Delta 2 [T1]
0.00 dB
19.11 MHz
Ref 20 dBm
Att 30 dB
D1 0.38 dBm
D2 -25.62 dBm
F1
F2
Center 5.5 GHz
4 MHz/
Span 40 MHz
ADT CORP.

CH 120


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-24.34 dBm
5.59041 GHz
Delta 2 [T1]
0.00 dB
19.09 MHz
Ref 20 dBm
Att 30 dB
D1 1.66 dBm
D2 -24.34 dBm
F1
F2
Center 5.6 GHz
4 MHz/
Span 40 MHz
ADT CORP.

CH 140

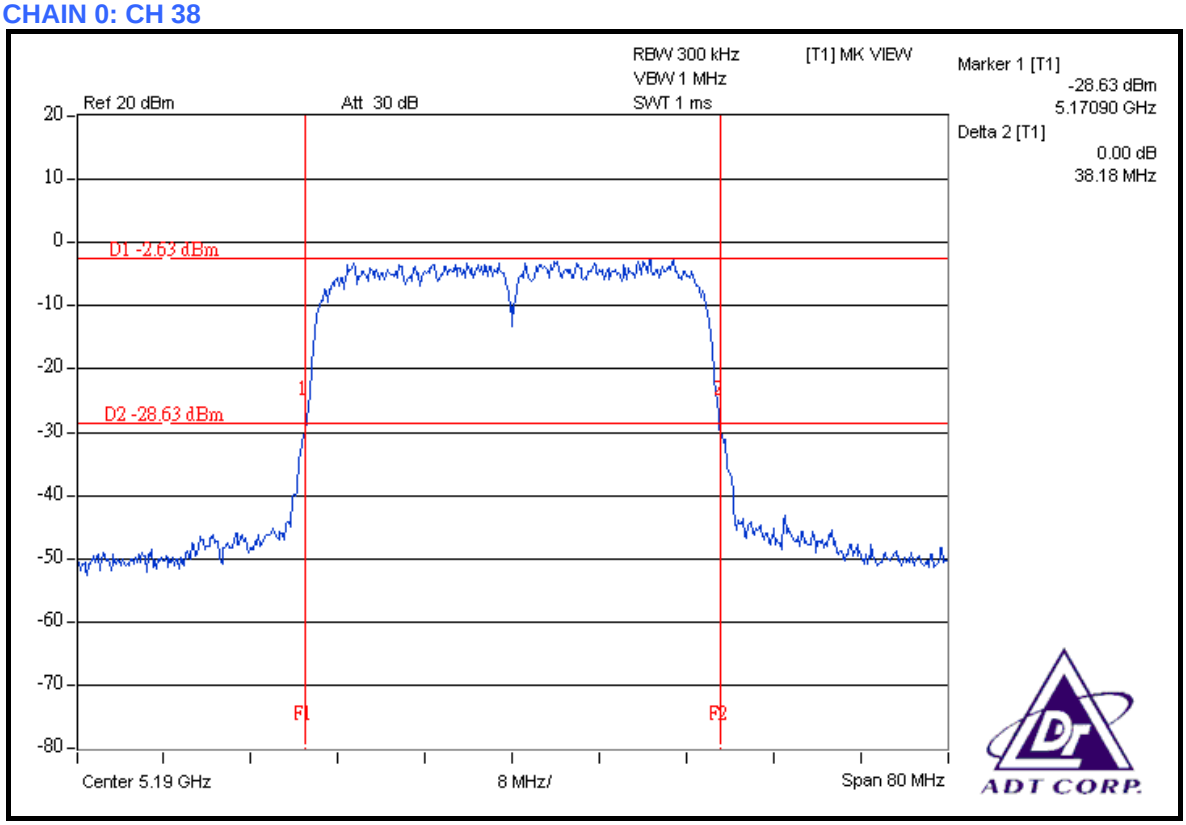

RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-24.90 dBm
5.69042 GHz
Delta 2 [T1]
0.00 dB
19.03 MHz
Ref 20 dBm
Att 30 dB
D1 1.1 dBm
D2 -24.9 dBm
F1
F2
Center 5.7 GHz
4 MHz/
Span 40 MHz
ADT CORP.

DRAFT 802.11n (40MHz) OFDM MODULATION

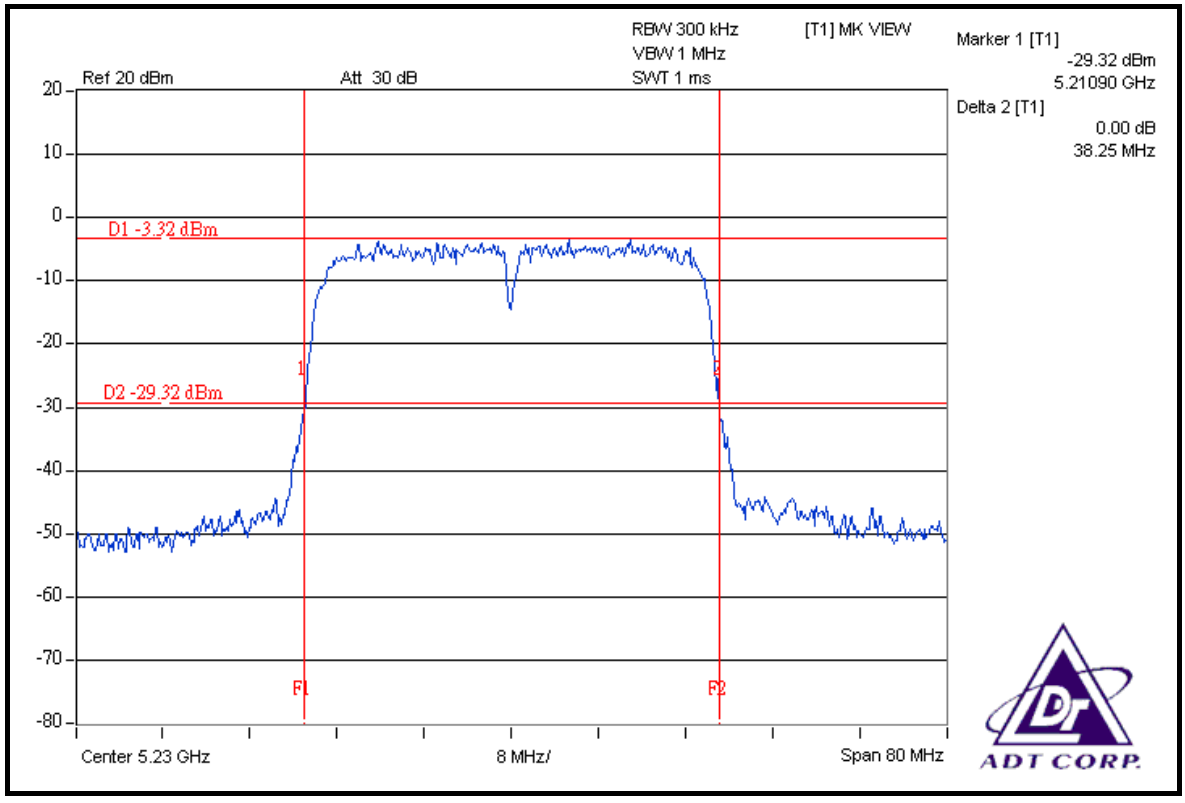
MODULATION TYPE	BPSK	**TRANSFER RATE**	15.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25 deg.C, 65 %RH, 991hPa
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
38	5190	38.18	37.87	PASS
46	5230	38.25	37.97	PASS
54	5270	37.94	37.91	PASS
62	5310	38.25	37.88	PASS
102	5510	38.09	38.01	PASS
118	5590	38.04	37.84	PASS
134	5670	37.98	37.90	PASS

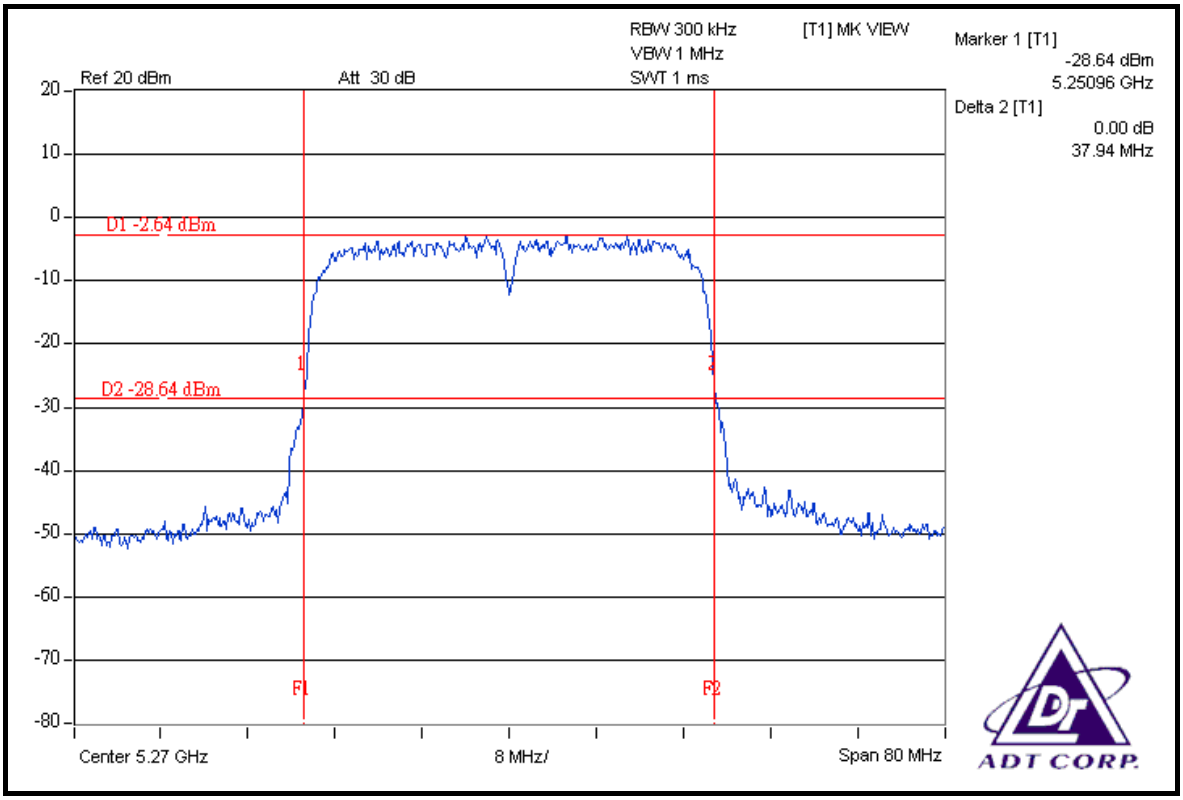
CHAIN 0: CH 38



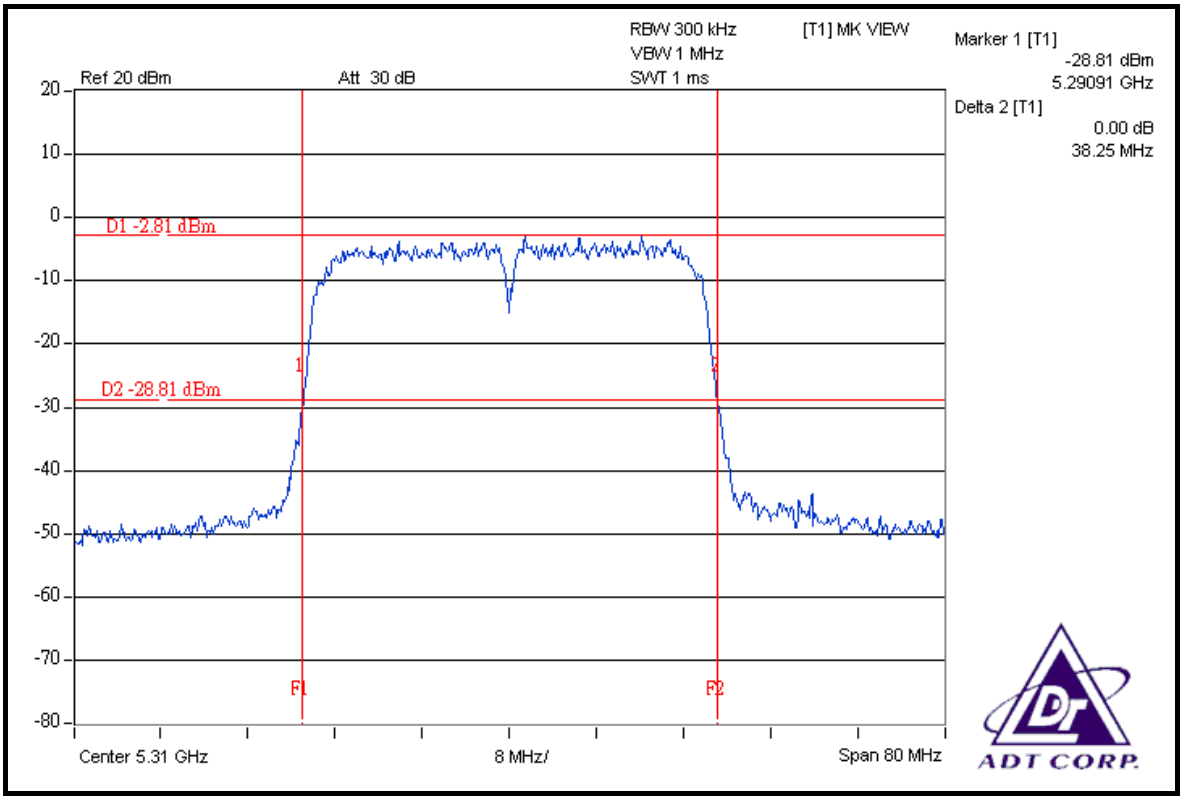
CH 46



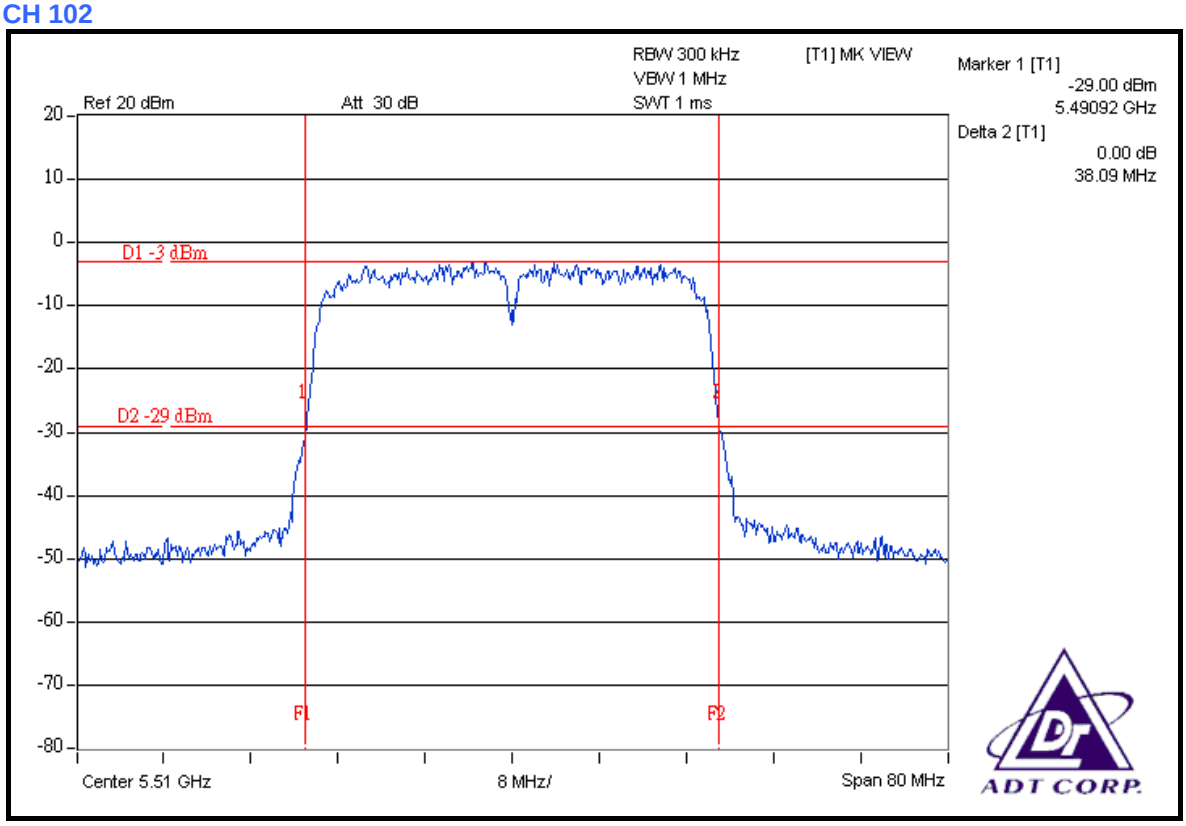
CH 54


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-28.64 dBm
5.25096 GHz
Delta 2 [T1]
0.00 dB
37.94 MHz
Ref 20 dBm
Att 30 dB
D1 -2.64 dBm
D2 -28.64 dBm
F1
F2
Center 5.27 GHz
8 MHz/
Span 80 MHz

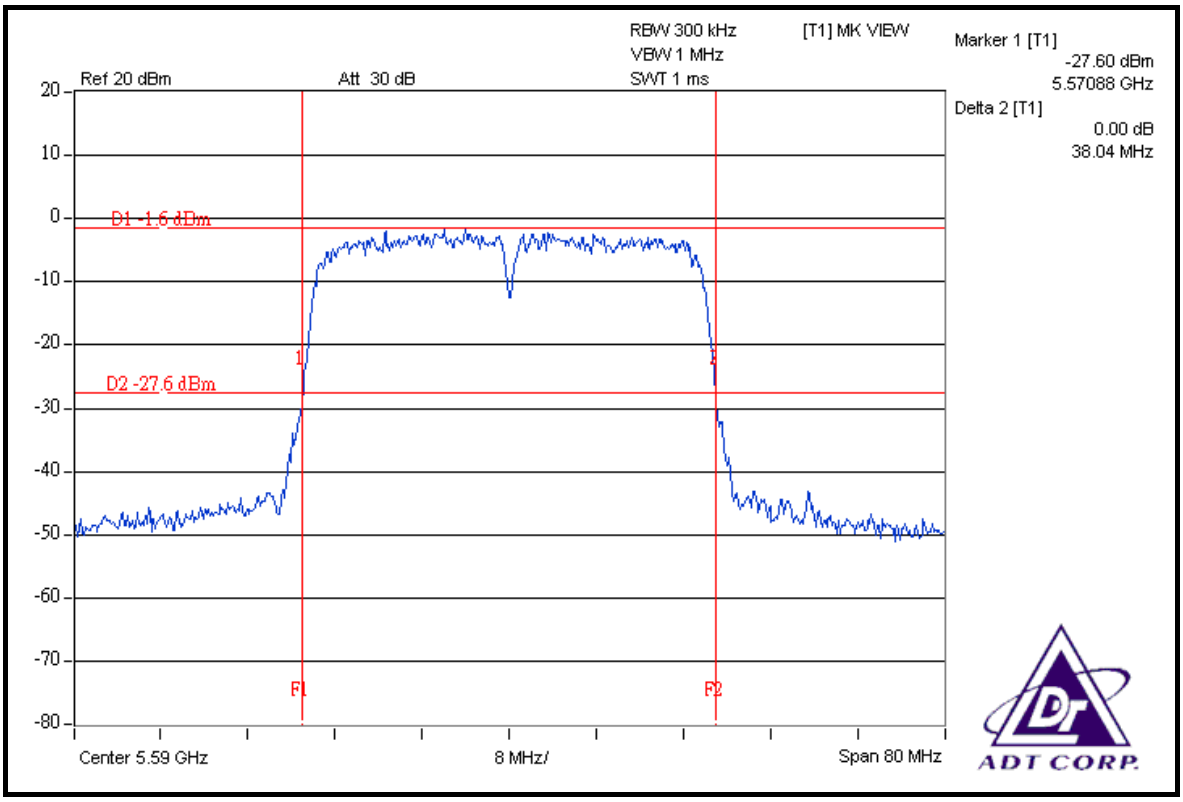
CH 62


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-28.81 dBm
5.29091 GHz
Delta 2 [T1]
0.00 dB
38.25 MHz
Ref 20 dBm
Att 30 dB
D1 -2.81 dBm
D2 -28.81 dBm
F1
F2
Center 5.31 GHz
8 MHz/
Span 80 MHz

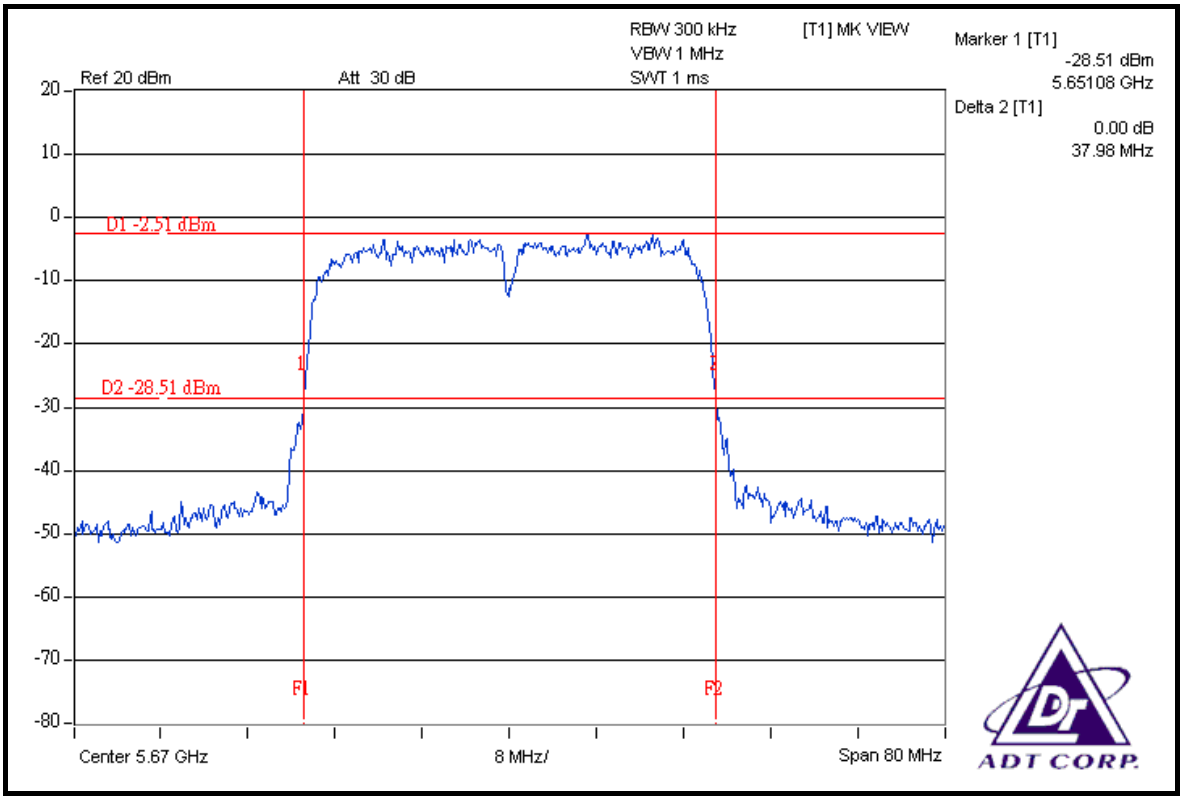
CH 102


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-29.00 dBm
5.49092 GHz
Delta 2 [T1]
0.00 dB
38.09 MHz
Ref 20 dBm
Att 30 dB
D1 -3 dBm
D2 -29 dBm
F1
F2
Center 5.51 GHz
8 MHz/
Span 80 MHz
ADT CORP.

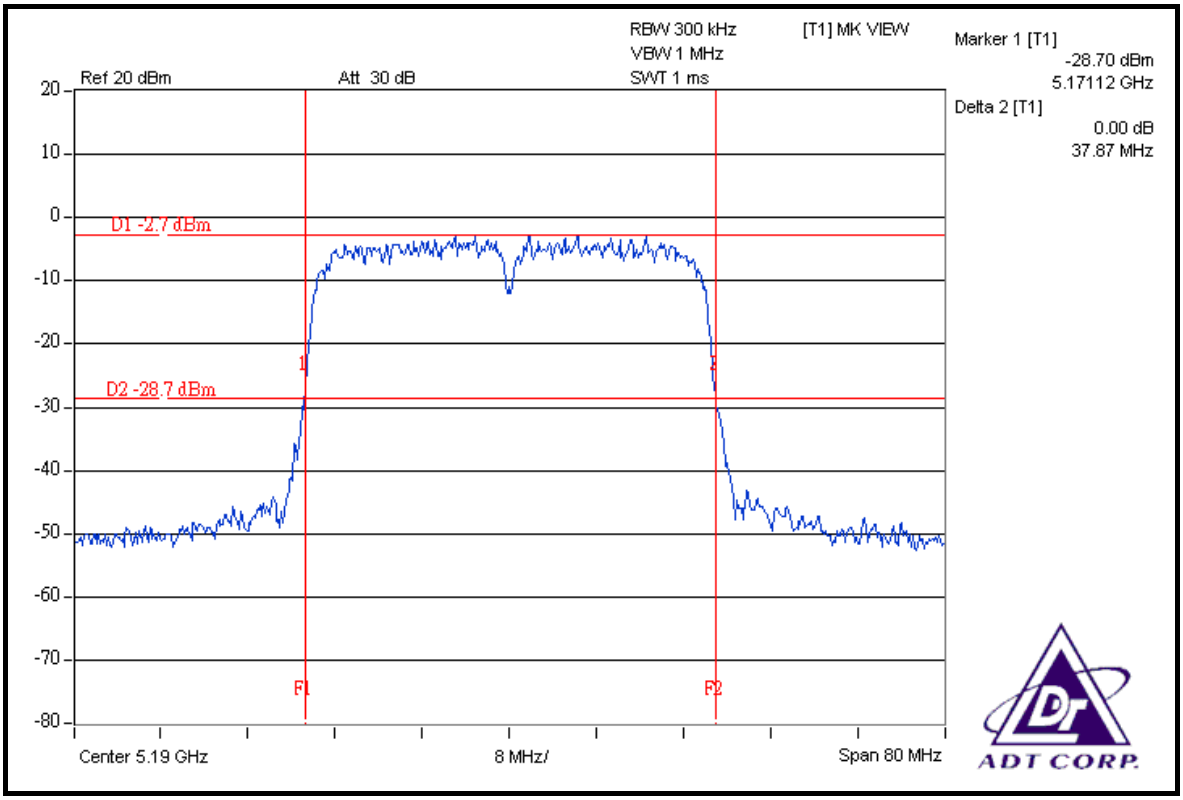
CH 118


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-27.60 dBm
5.57088 GHz
Delta 2 [T1]
0.00 dB
38.04 MHz
Ref 20 dBm
Att 30 dB
D1 -1.6 dBm
D2 -27.6 dBm
F1
F2
Center 5.59 GHz
8 MHz/
Span 80 MHz
ADT CORP.

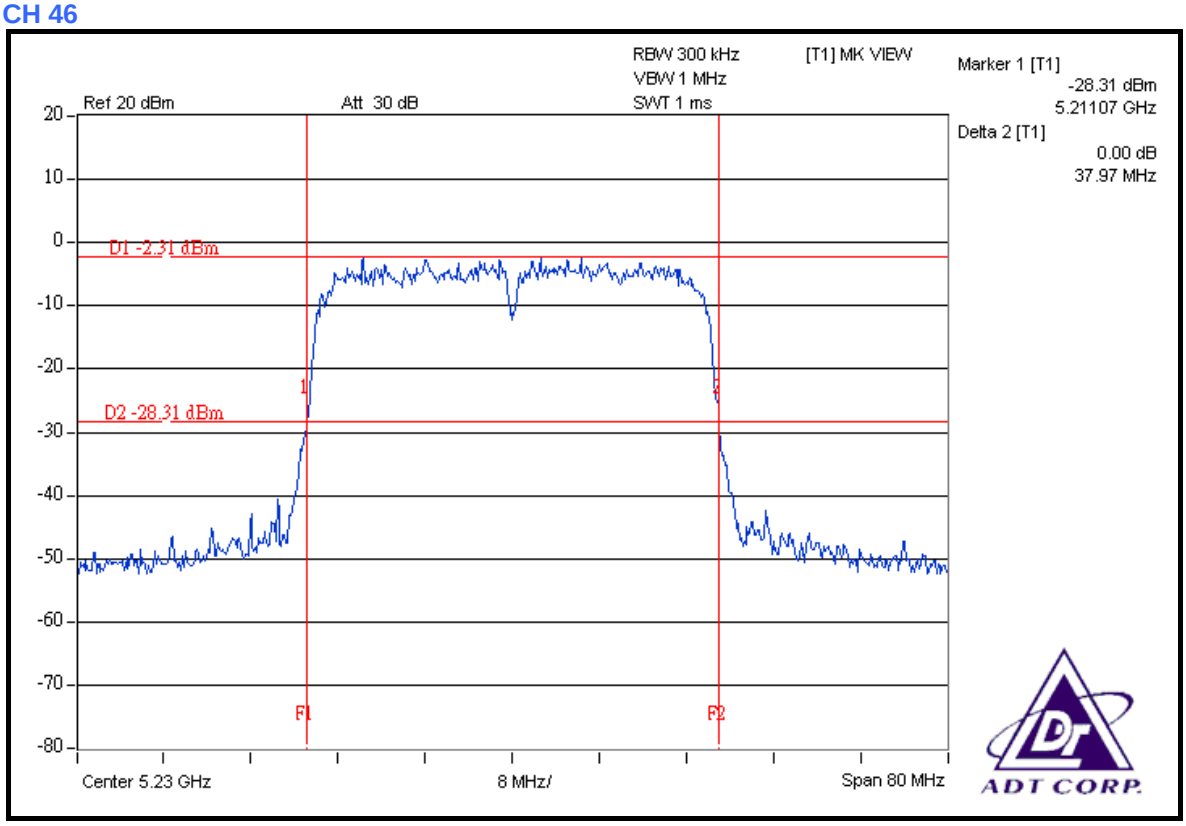
CH 134



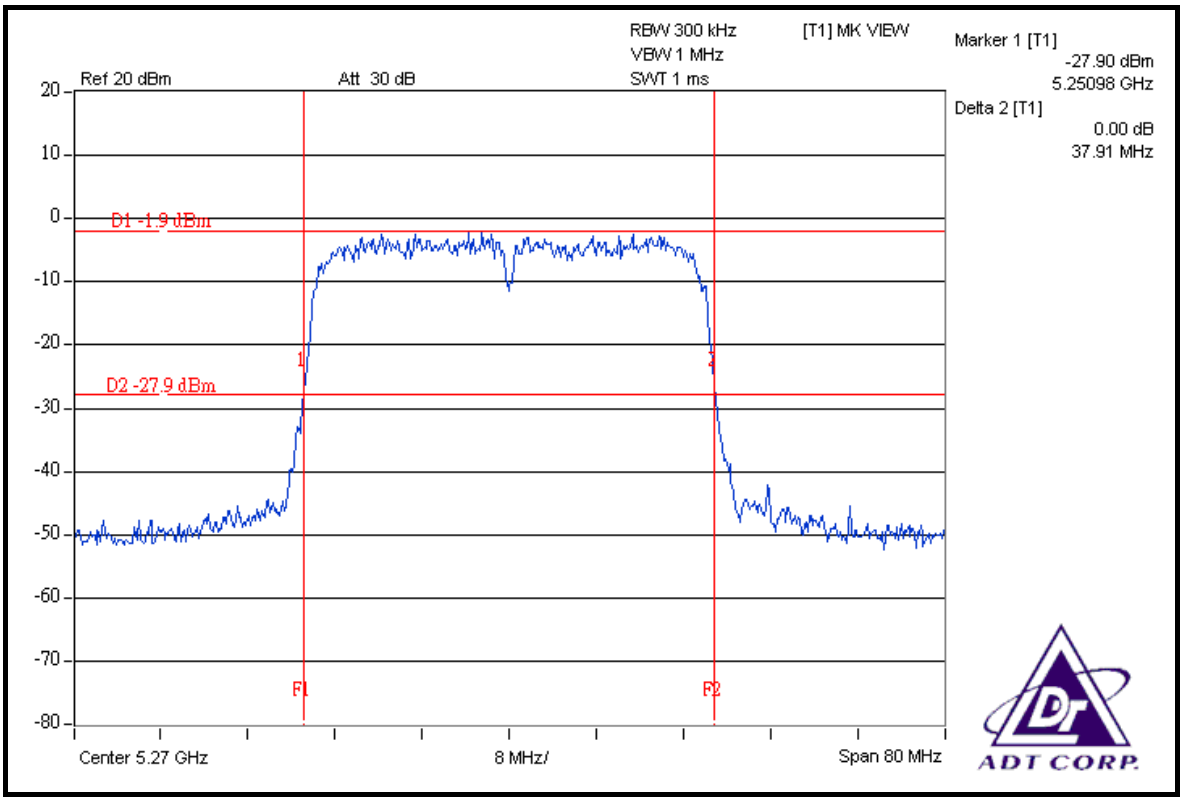
CHAIN 1: CH 38



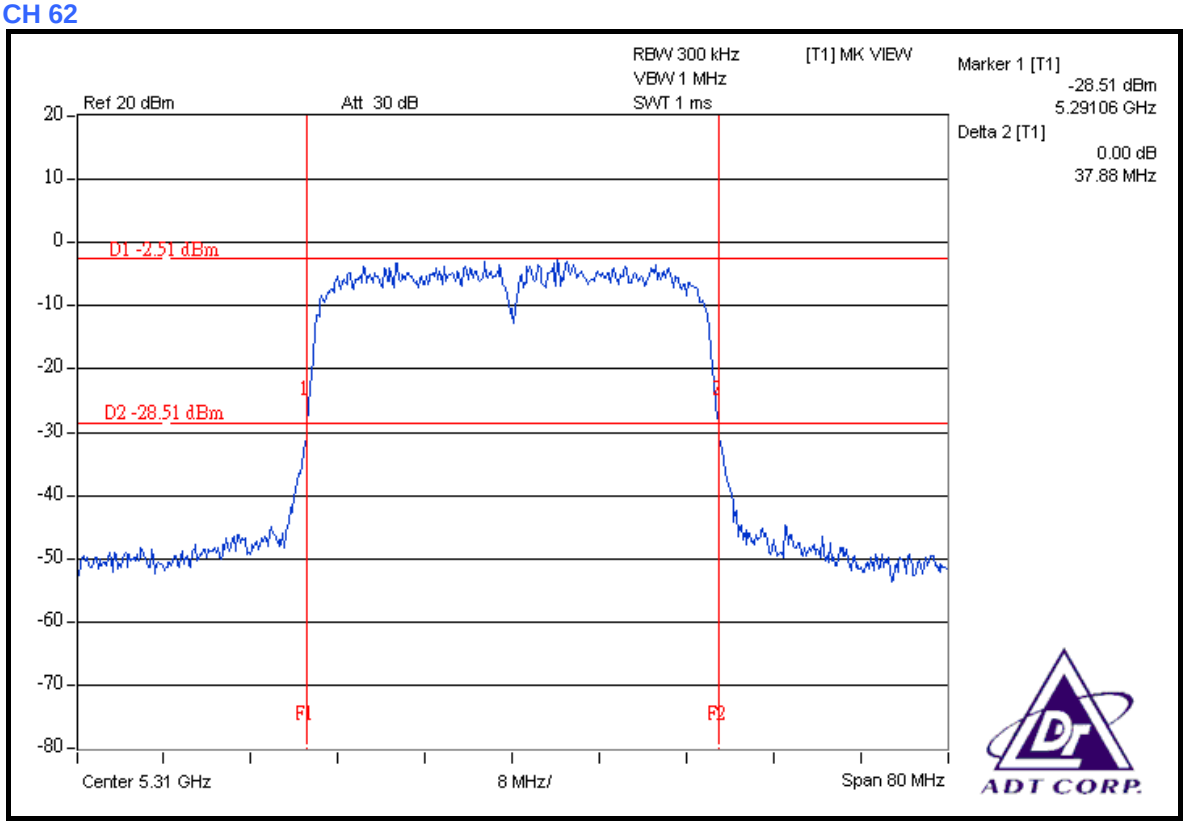
CH 46


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-28.31 dBm
5.21107 GHz
Delta 2 [T1]
0.00 dB
37.97 MHz
Ref 20 dBm
Att 30 dB
D1 -2.31 dBm
D2 -28.31 dBm
F1
F2
Center 5.23 GHz
8 MHz/
Span 80 MHz
ADT CORP.

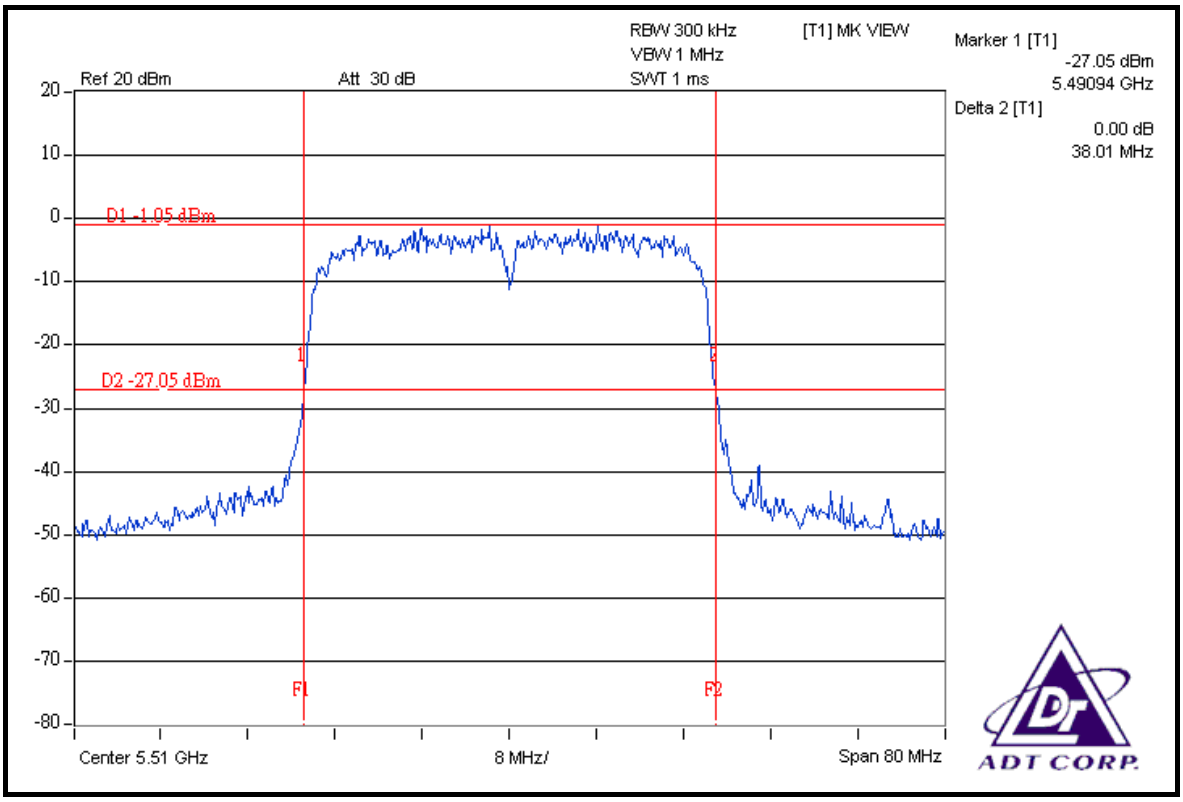
CH 54


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-27.90 dBm
5.25098 GHz
Delta 2 [T1]
0.00 dB
37.91 MHz
Ref 20 dBm
Att 30 dB
D1 -1.9 dBm
D2 -27.9 dBm
F1
F2
Center 5.27 GHz
8 MHz/
Span 80 MHz
ADT CORP.

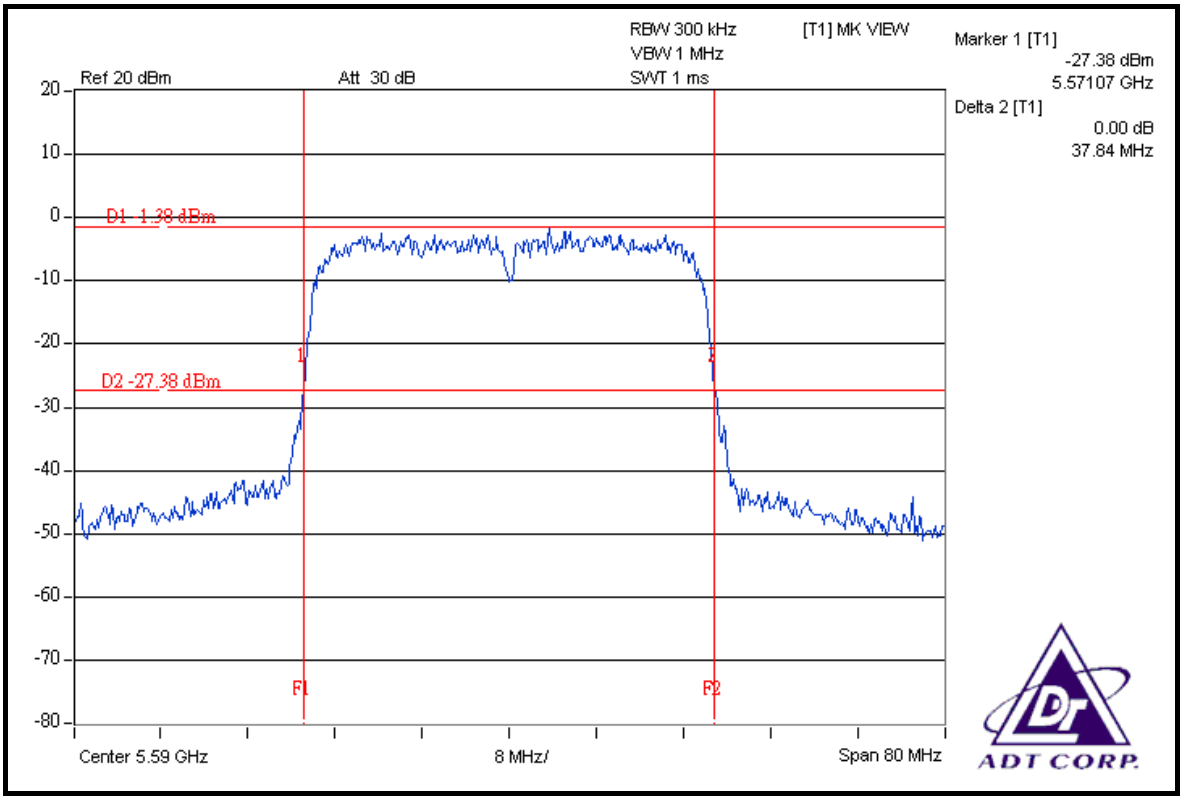
CH 62


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-28.51 dBm
5.29106 GHz
Delta 2 [T1]
0.00 dB
37.88 MHz
Ref 20 dBm
Att 30 dB
D1 -2.51 dBm
D2 -28.51 dBm
F1
F2
Center 5.31 GHz
8 MHz/
Span 80 MHz
ADT CORP.

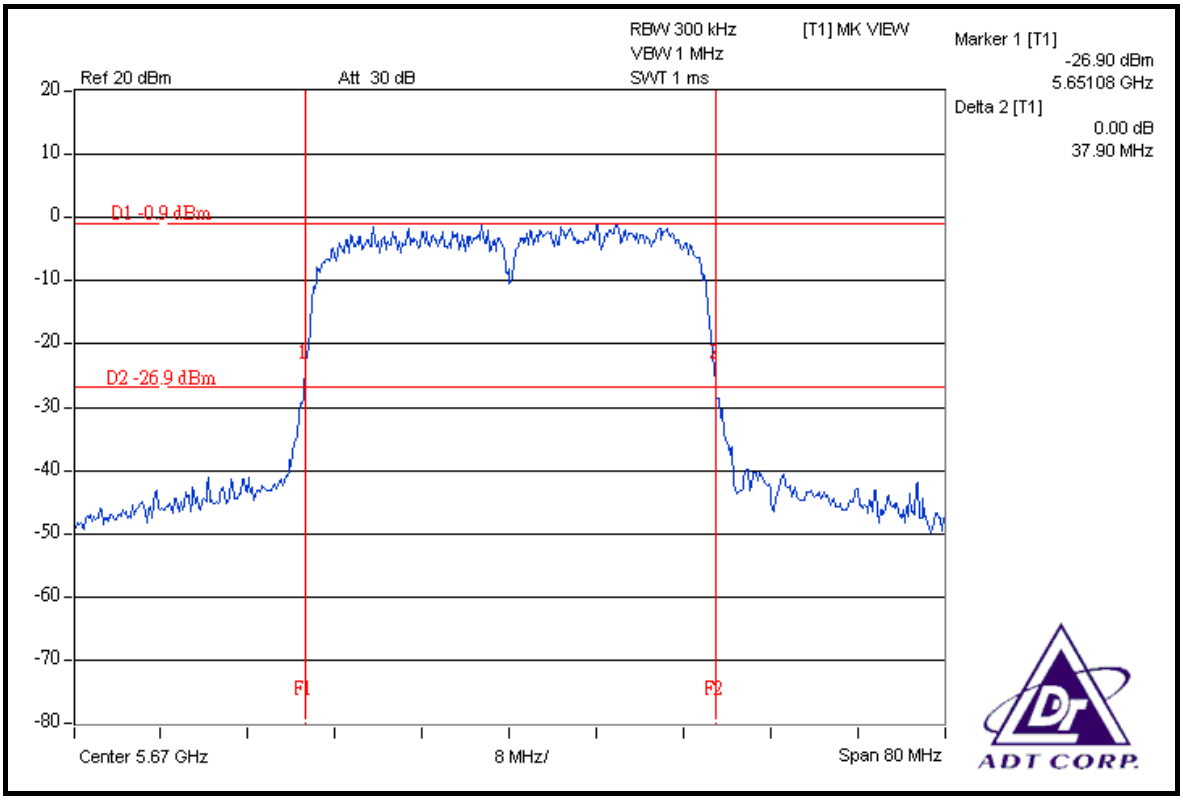
CH 102


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-27.05 dBm
5.49094 GHz
Delta 2 [T1]
0.00 dB
38.01 MHz
Ref 20 dBm
Att 30 dB
D1 -1.05 dBm
D2 -27.05 dBm
F1
F2
Center 5.51 GHz
8 MHz/
Span 80 MHz
ADT CORP.

CH 118


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-27.38 dBm
5.57107 GHz
Delta 2 [T1]
0.00 dB
37.84 MHz
Ref 20 dBm
Att 30 dB
D1 1.38 dBm
D2 -27.38 dBm
F1
F2
Center 5.59 GHz
8 MHz/
Span 80 MHz
ADT CORP.

CH 134


RBW 300 kHz
VBW 1 MHz
SWT 1 ms
[T1] MK VIEW
Marker 1 [T1]
-26.90 dBm
5.65108 GHz
Delta 2 [T1]
0.00 dB
37.90 MHz
Ref 20 dBm
Att 30 dB
D1 -0.9 dBm
D2 -26.9 dBm
F1
F2
Center 5.67 GHz
8 MHz/
Span 80 MHz
ADT CORP.

4.4 PEAK POWER EXCURSION MEASUREMENT

4.4.1 LIMITS OF PEAK POWER EXCURSION MEASUREMENT

FREQUENCY BAND	LIMIT
5.150 ~ 5.250GHz	13dB
5.250 ~ 5.350GHz	13dB
5.470 ~ 5.725GHz	13dB

4.4.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100041	Apr. 22, 2008	Apr. 21, 2009

NOTE: 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

a. The transmitter output was connected to the spectrum analyzer.

b. Set the spectrum bandwidth span to view the entire spectrum.

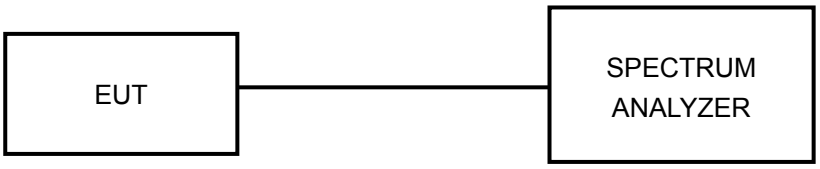
c. Using peak detector and Max-hold function for Trace 1 (RB = 1MHz, VB = 3MHz) and 2 (RB = 1MHz, VB = 300kHz).

d. The differences between Trace1 and Trace 2 in any 1MHz band at f1 to f2 range were recorded and showed to another trace .

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.

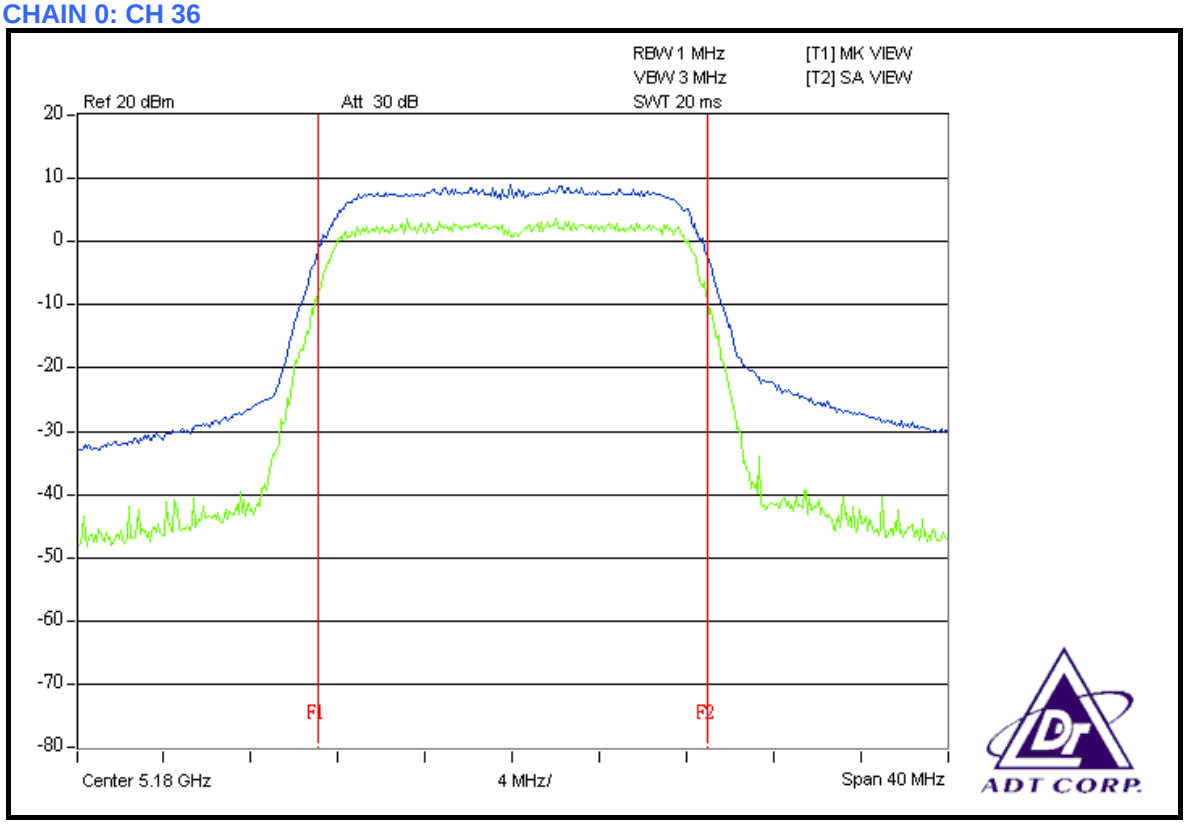
4.4.7 TEST RESULTS

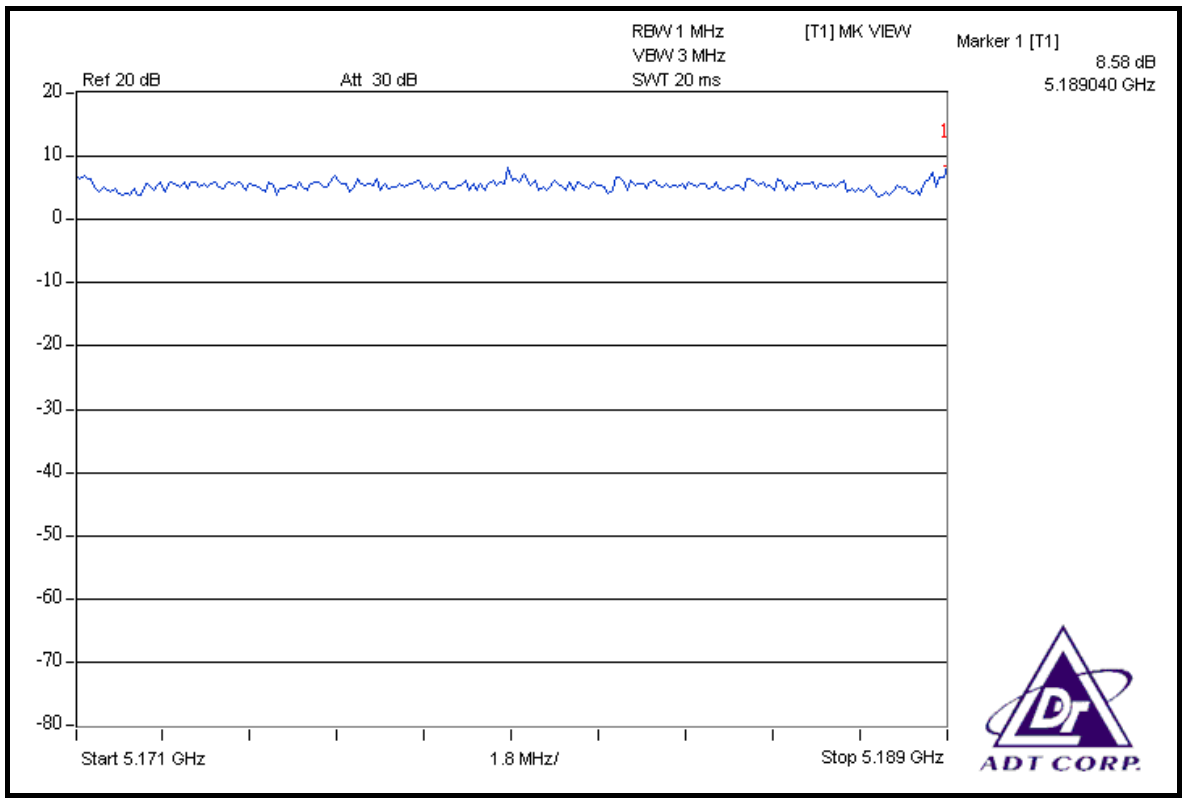
802.11a OFDM MODULATION

MODULATION TYPE	BPSK	**TRANSFER RATE**	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25 deg.C, 65 %RH, 991hPa
TESTED BY	Brad Wu		

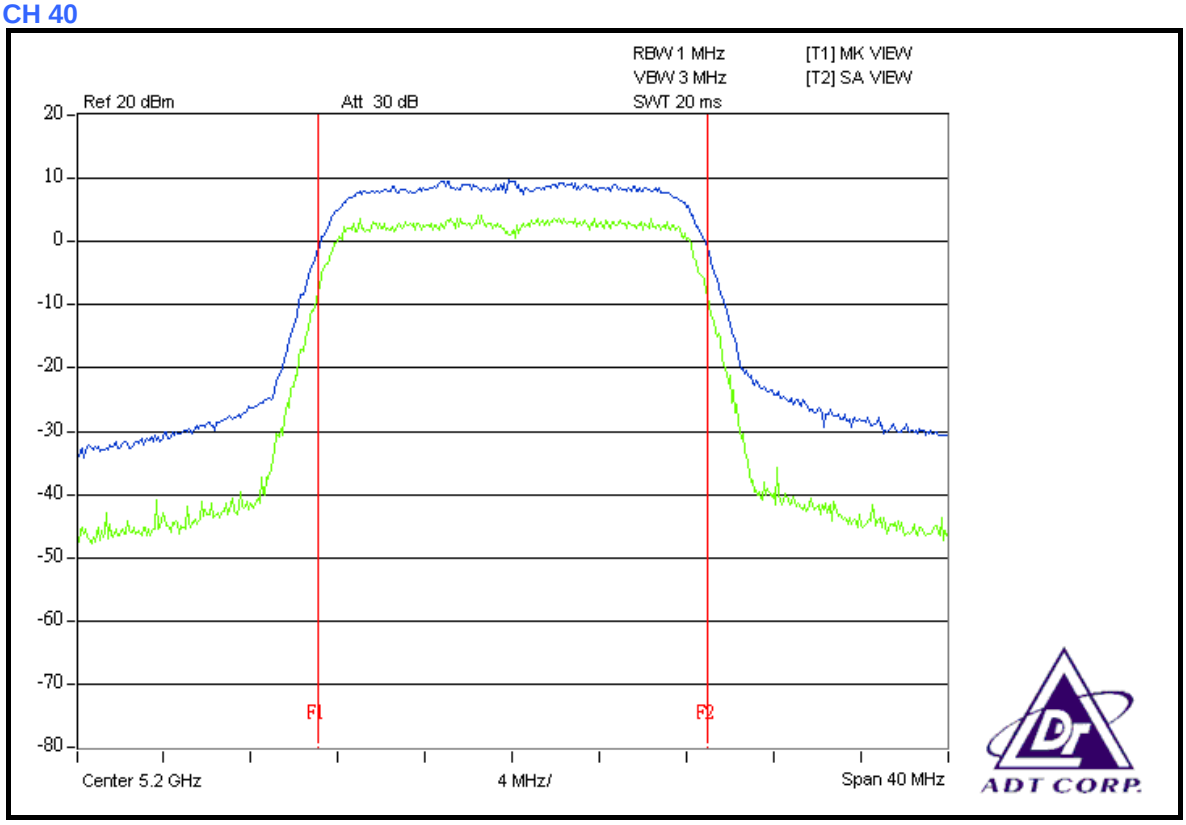
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)		PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1		
36	5180	8.58	8.32	13	PASS
40	5200	8.83	8.97	13	PASS
48	5240	8.49	8.42	13	PASS
52	5260	9.21	8.85	13	PASS
60	5300	8.48	9.28	13	PASS
64	5320	8.39	8.64	13	PASS
100	5500	8.25	8.76	13	PASS
120	5600	8.49	8.74	13	PASS
140	5700	8.76	9.21	13	PASS

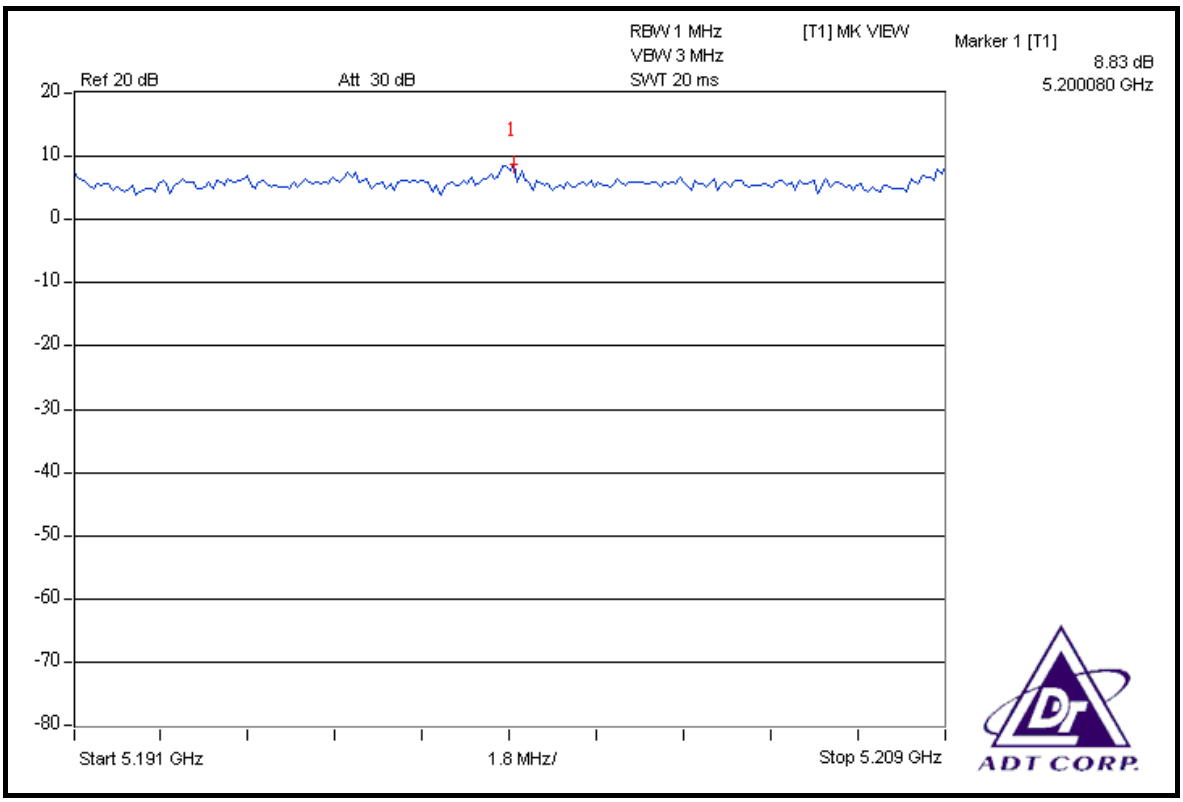
CHAIN 0: CH 36


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.18 GHz
4 MHz/
Span 40 MHz
ADT CORP.

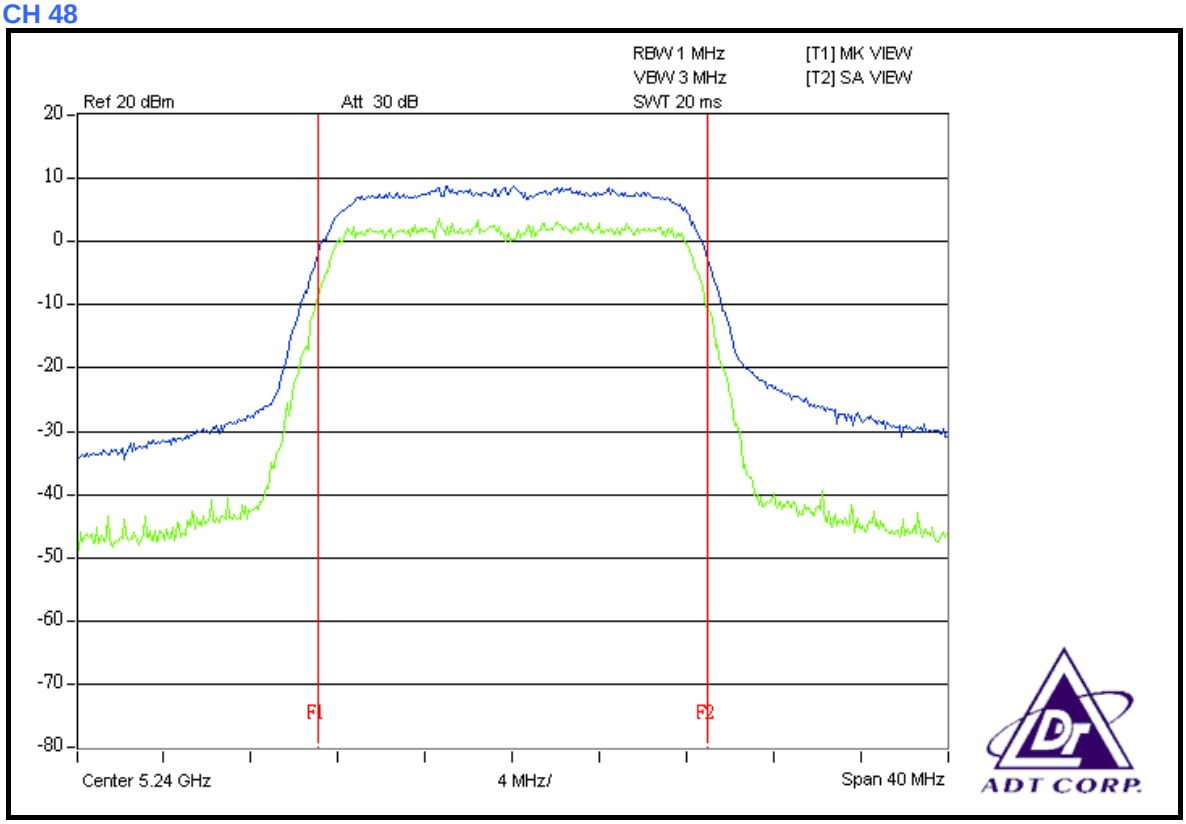

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.58 dB
5.189040 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.171 GHz
1.8 MHz/
Stop 5.189 GHz
ADT CORP.

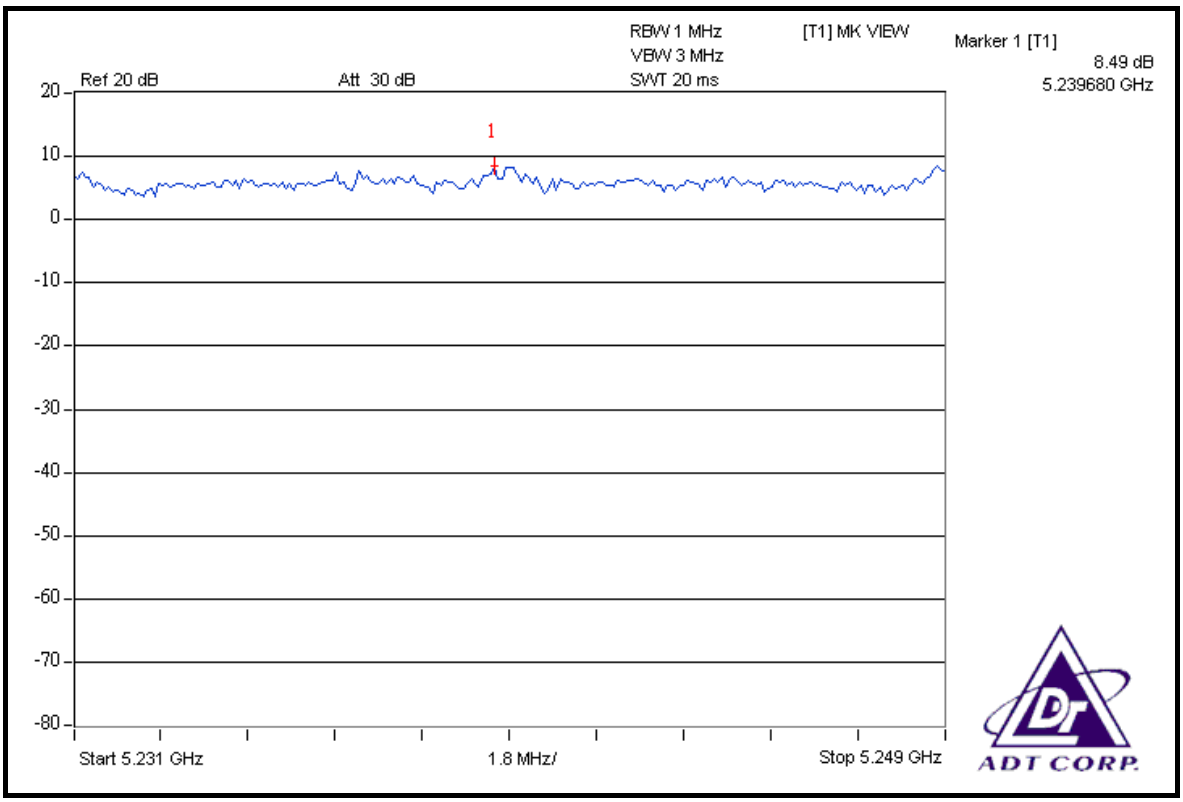
CH 40


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.2 GHz
4 MHz/
Span 40 MHz
ADT CORP.

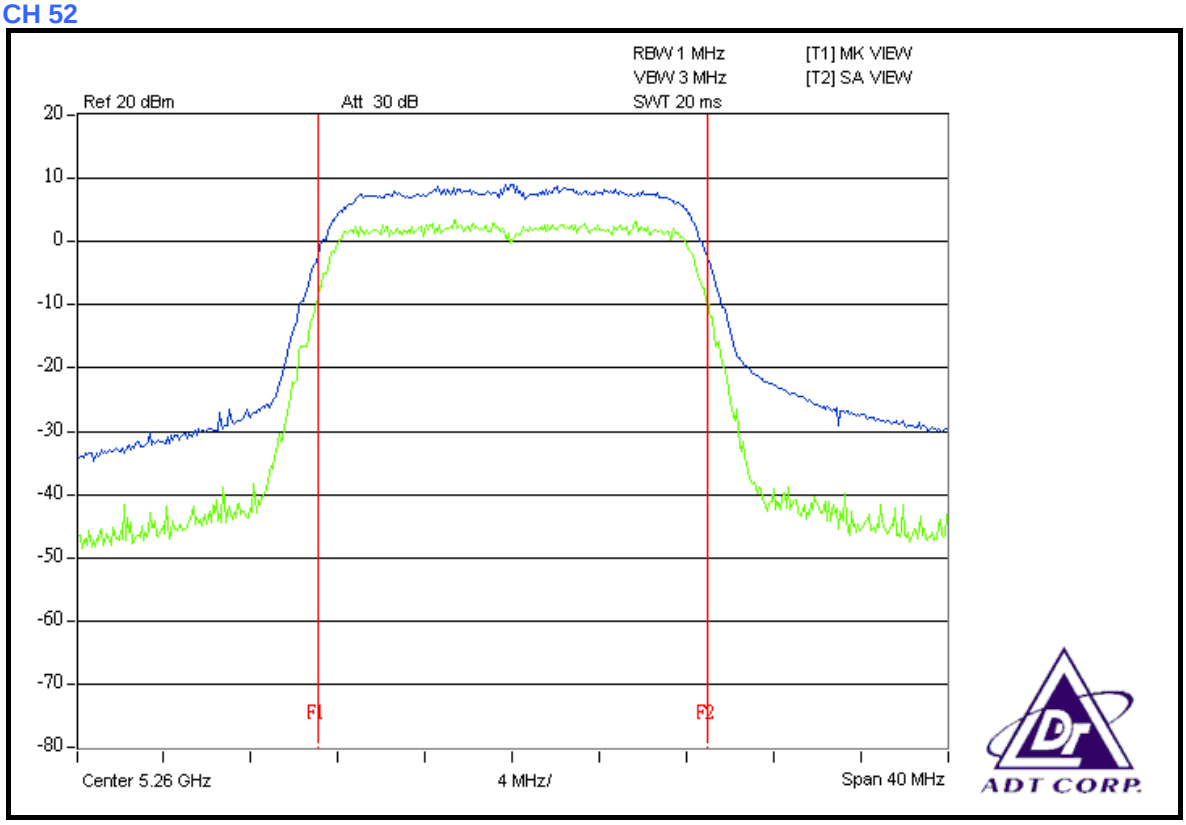

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.83 dB
5.200080 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.191 GHz
1.8 MHz/
Stop 5.209 GHz
ADT CORP.

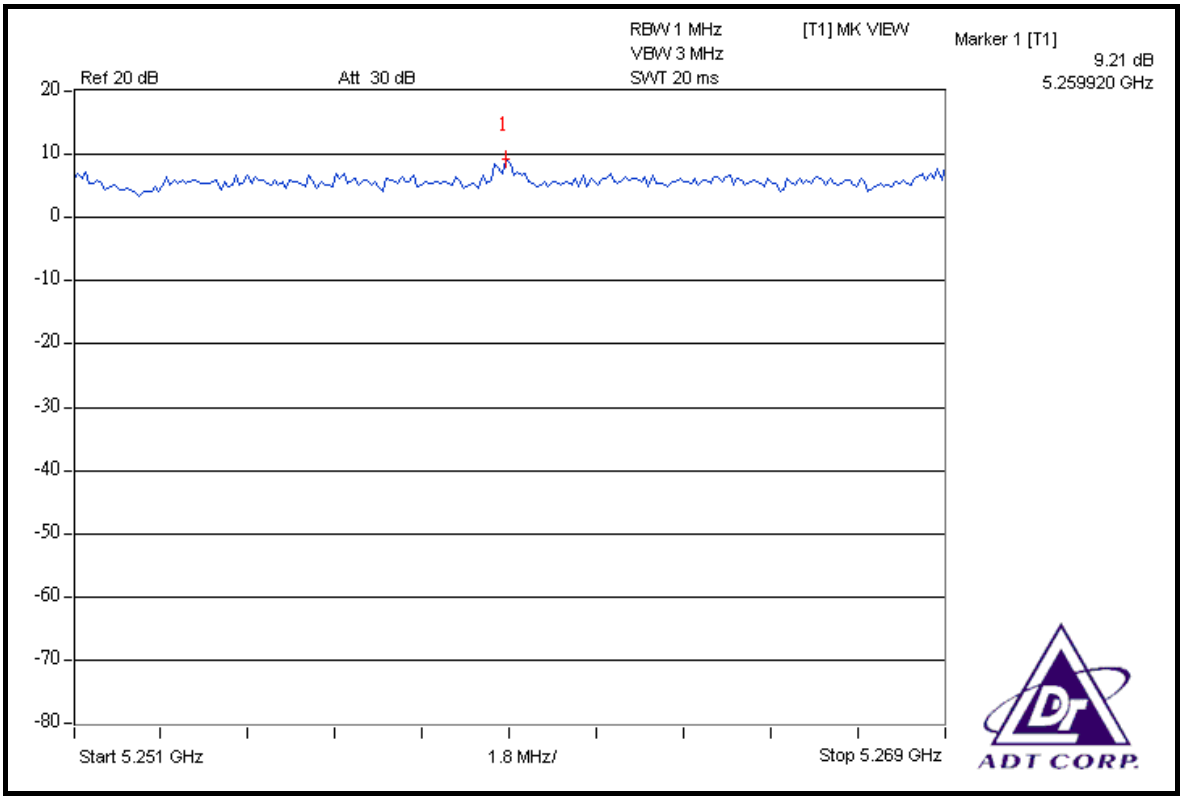
CH 48


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.24 GHz
4 MHz/
Span 40 MHz
ADT CORP.

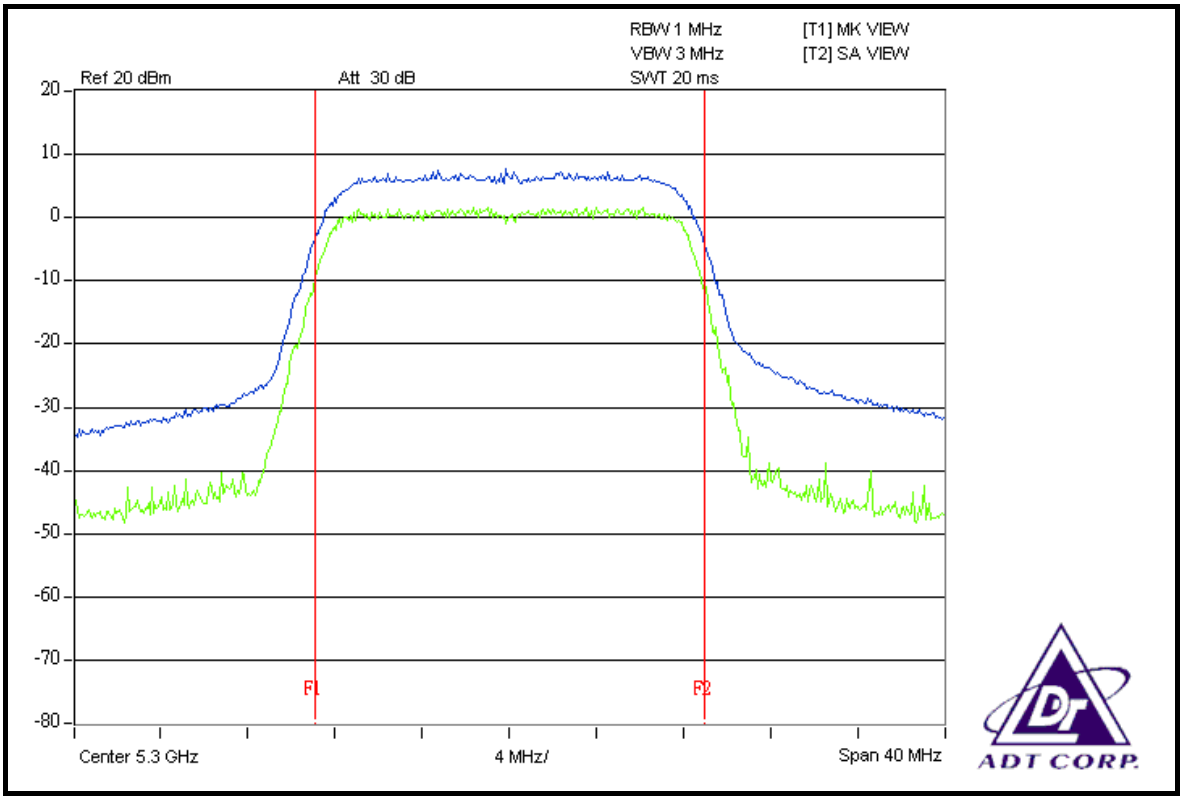

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.49 dB
5.239680 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.231 GHz
1.8 MHz/
Stop 5.249 GHz
ADT CORP.

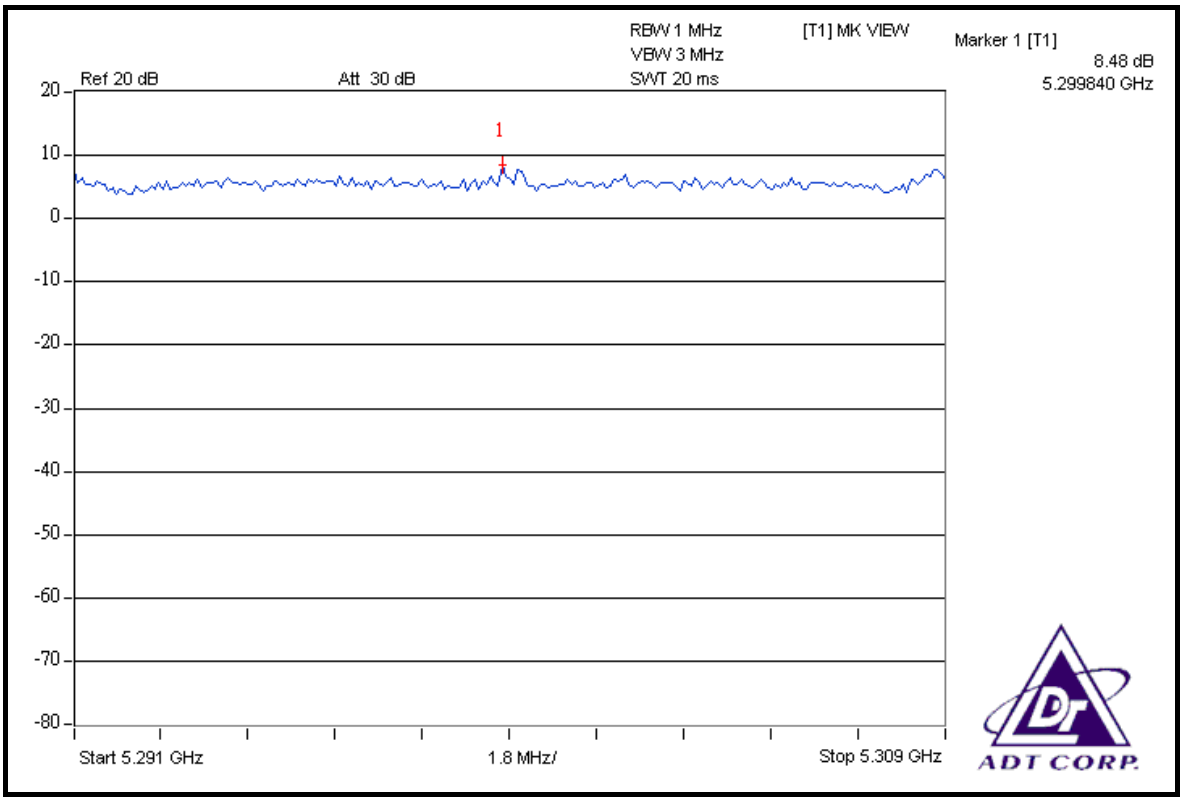
CH 52


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.26 GHz
4 MHz/
Span 40 MHz
ADT CORP.

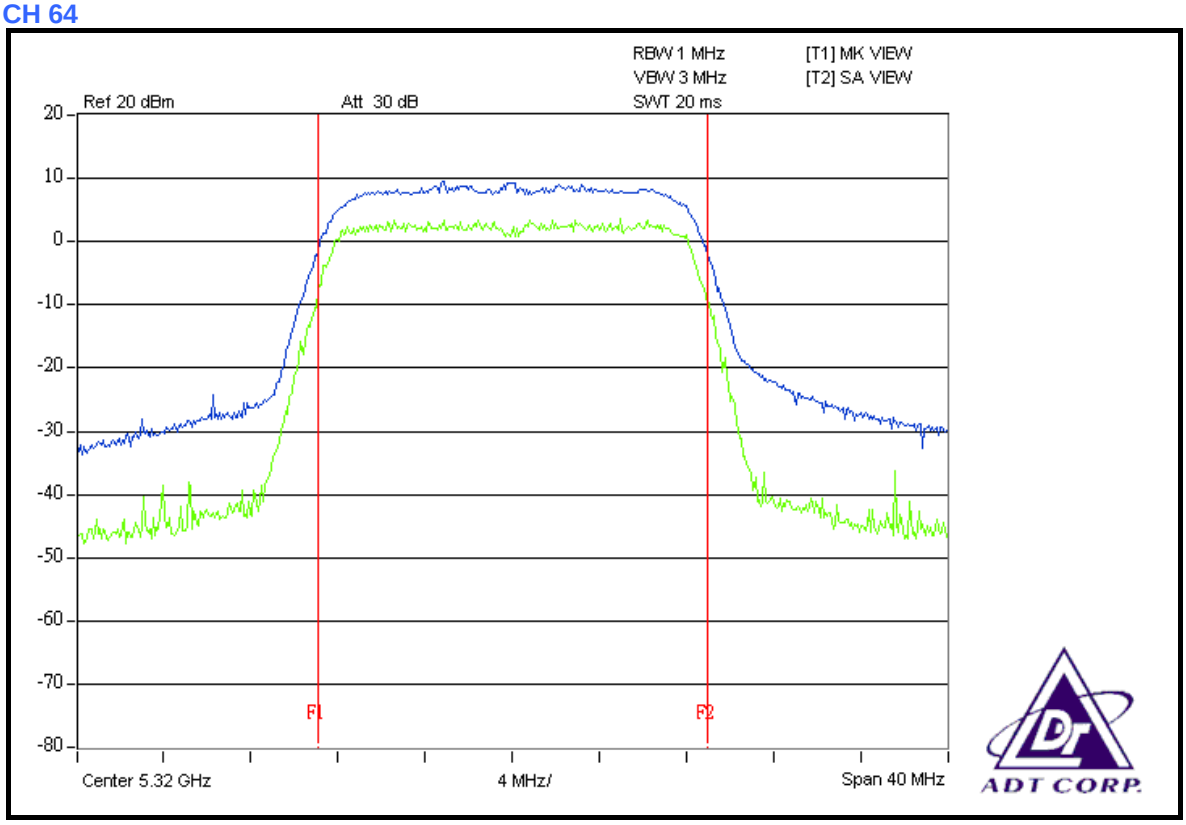

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
9.21 dB
5.259920 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.251 GHz
1.8 MHz/
Stop 5.269 GHz
ADT CORP.

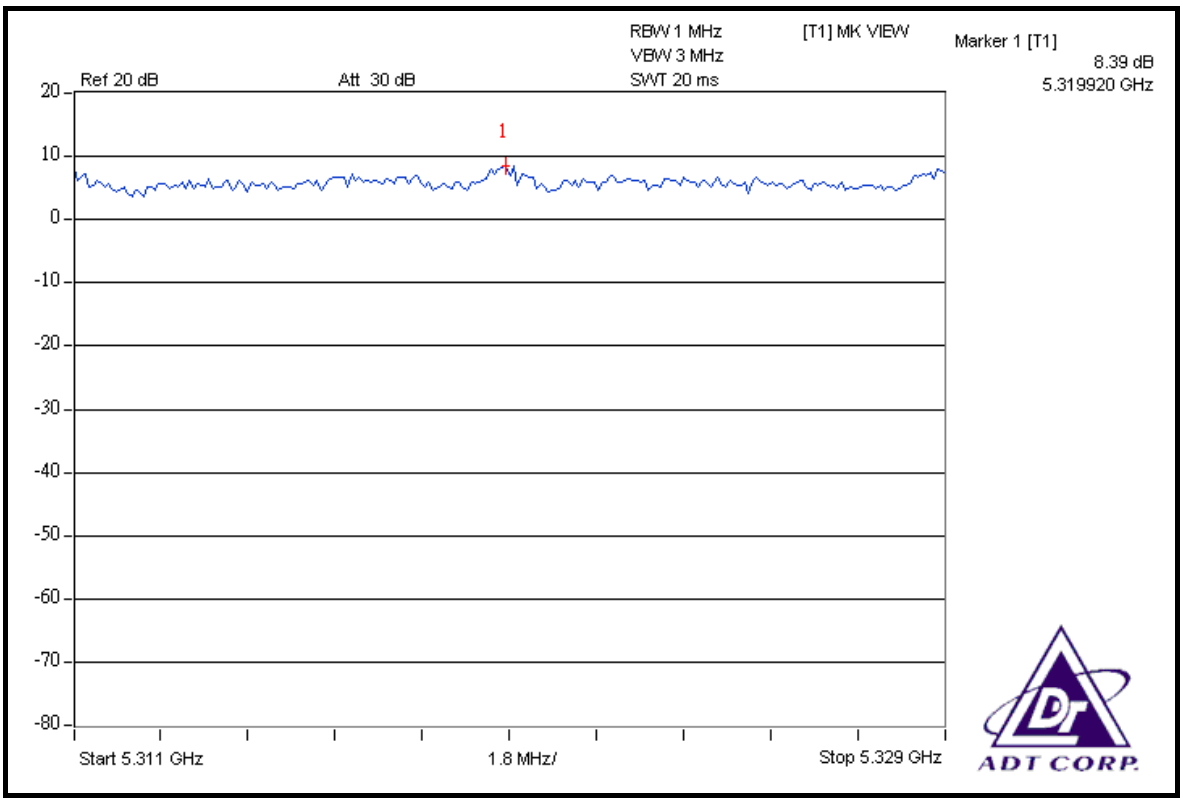
CH 60


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.3 GHz
4 MHz/
Span 40 MHz
ADT CORP.

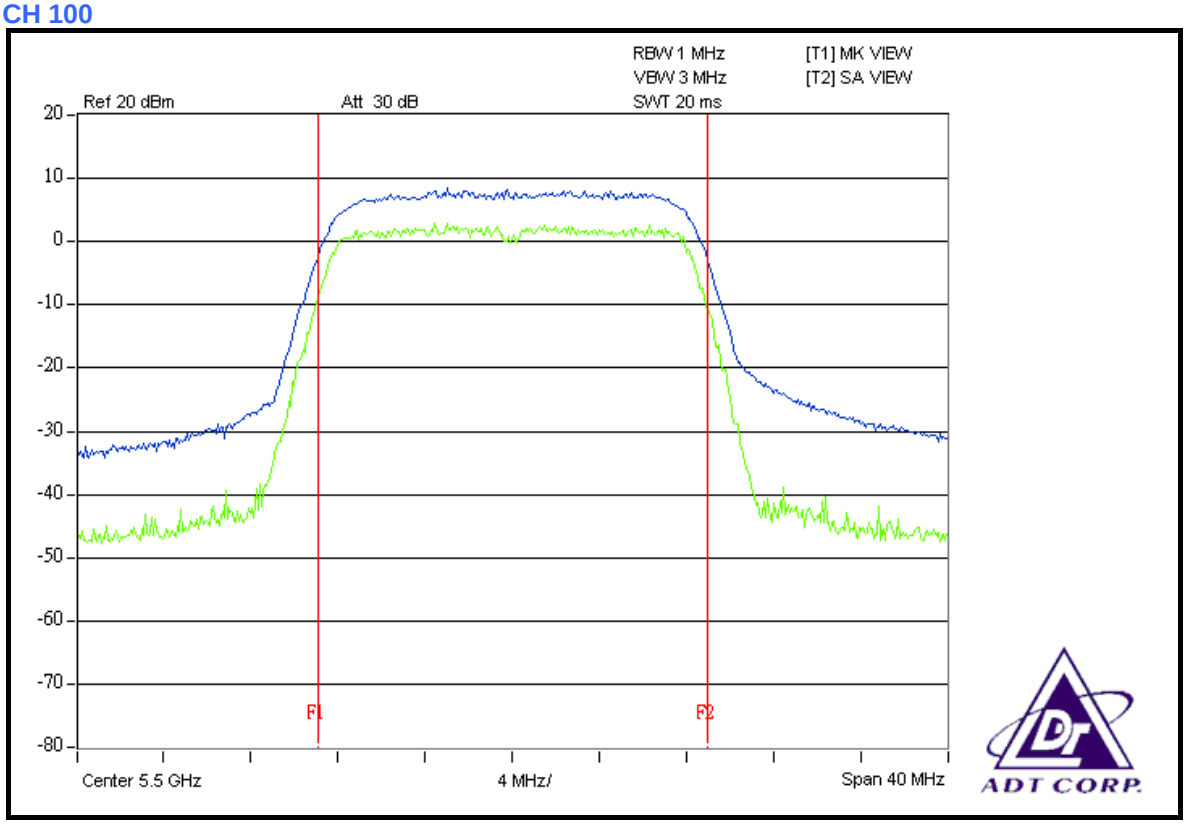

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.48 dB
5.299840 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.291 GHz
1.8 MHz/
Stop 5.309 GHz
ADT CORP.

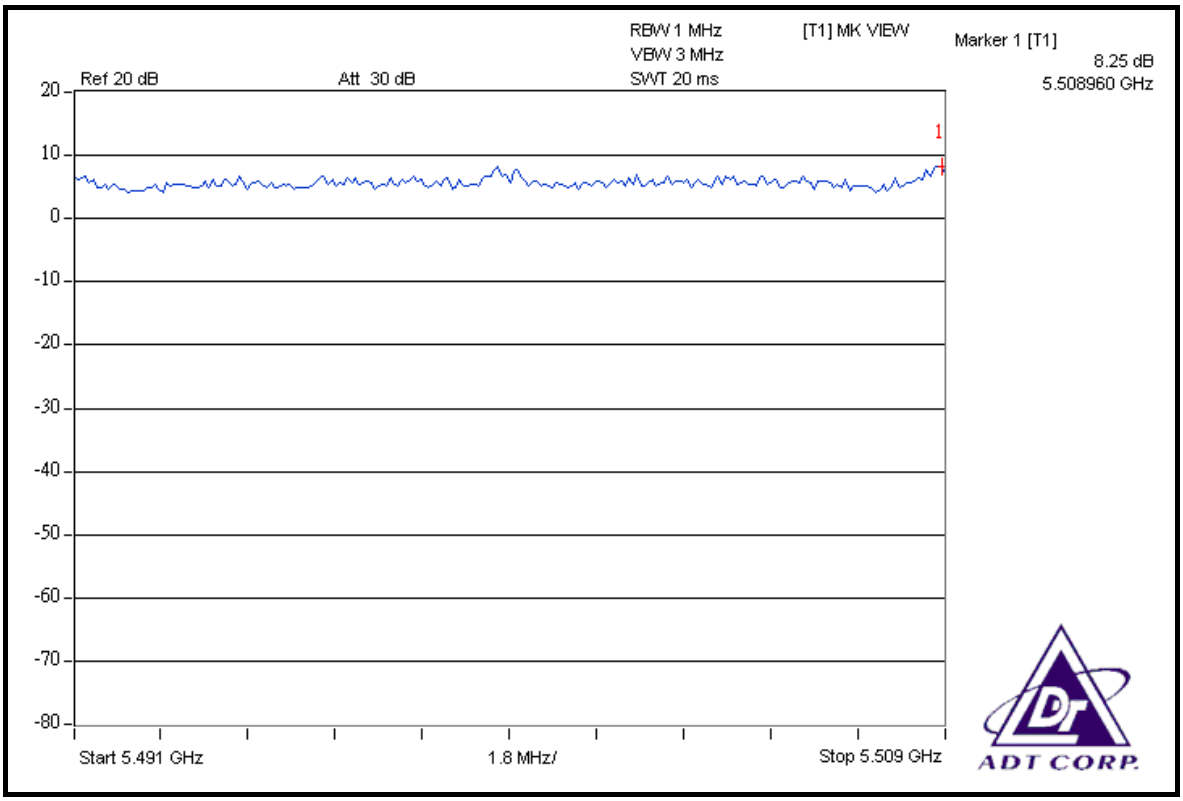
CH 64


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.32 GHz
4 MHz/
Span 40 MHz
ADT CORP.

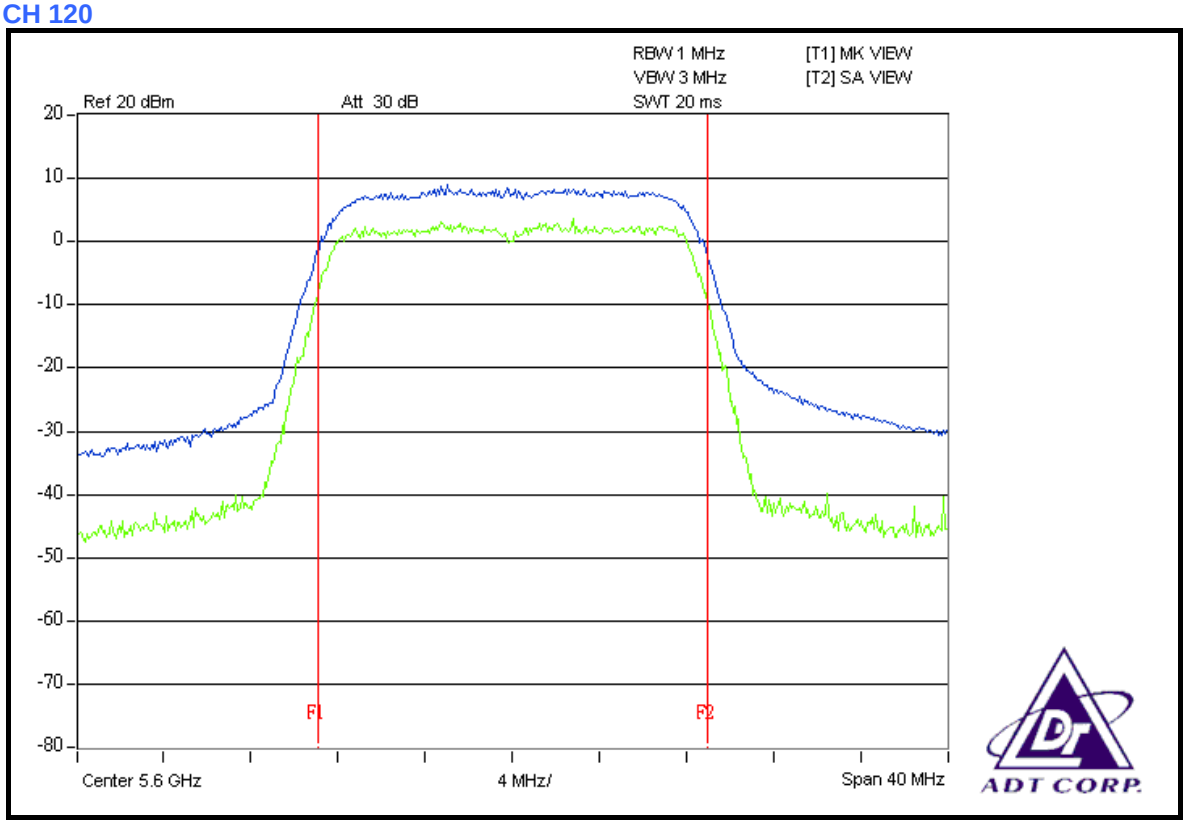

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.39 dB
5.319920 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.311 GHz
1.8 MHz/
Stop 5.329 GHz
ADT CORP.

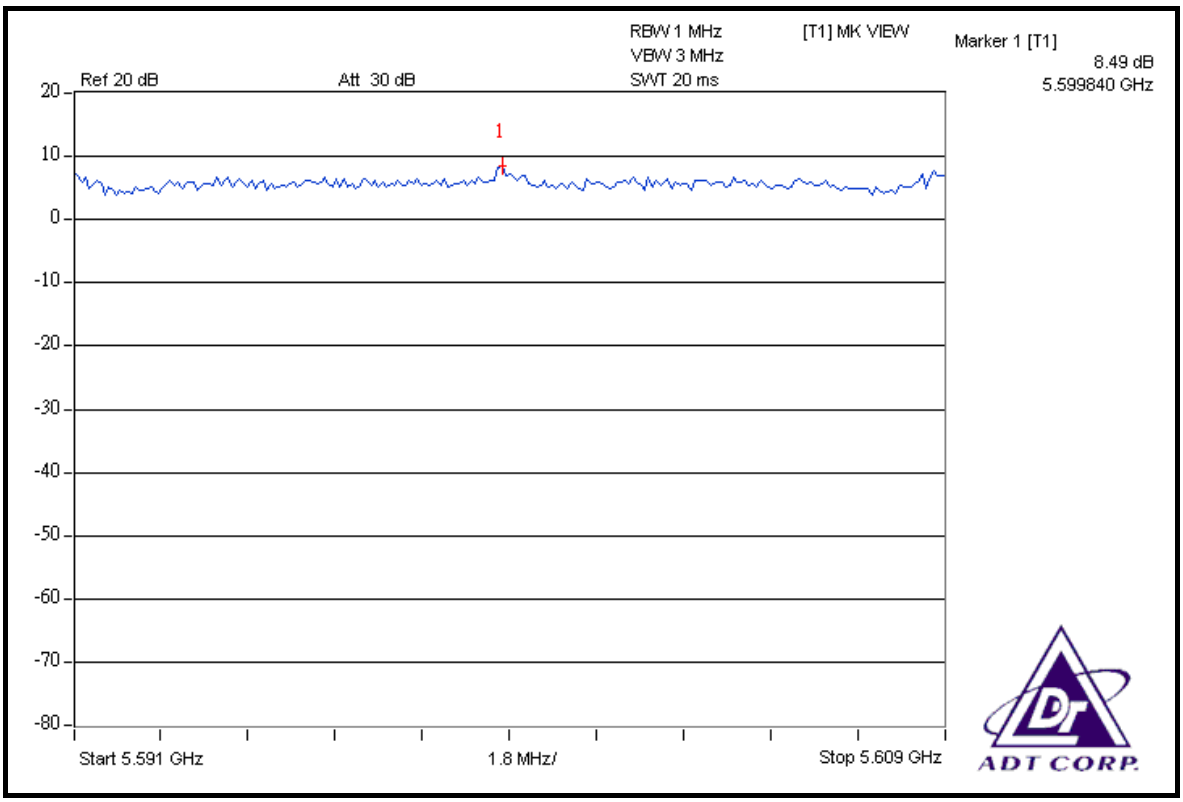
CH 100


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.5 GHz
4 MHz/
Span 40 MHz

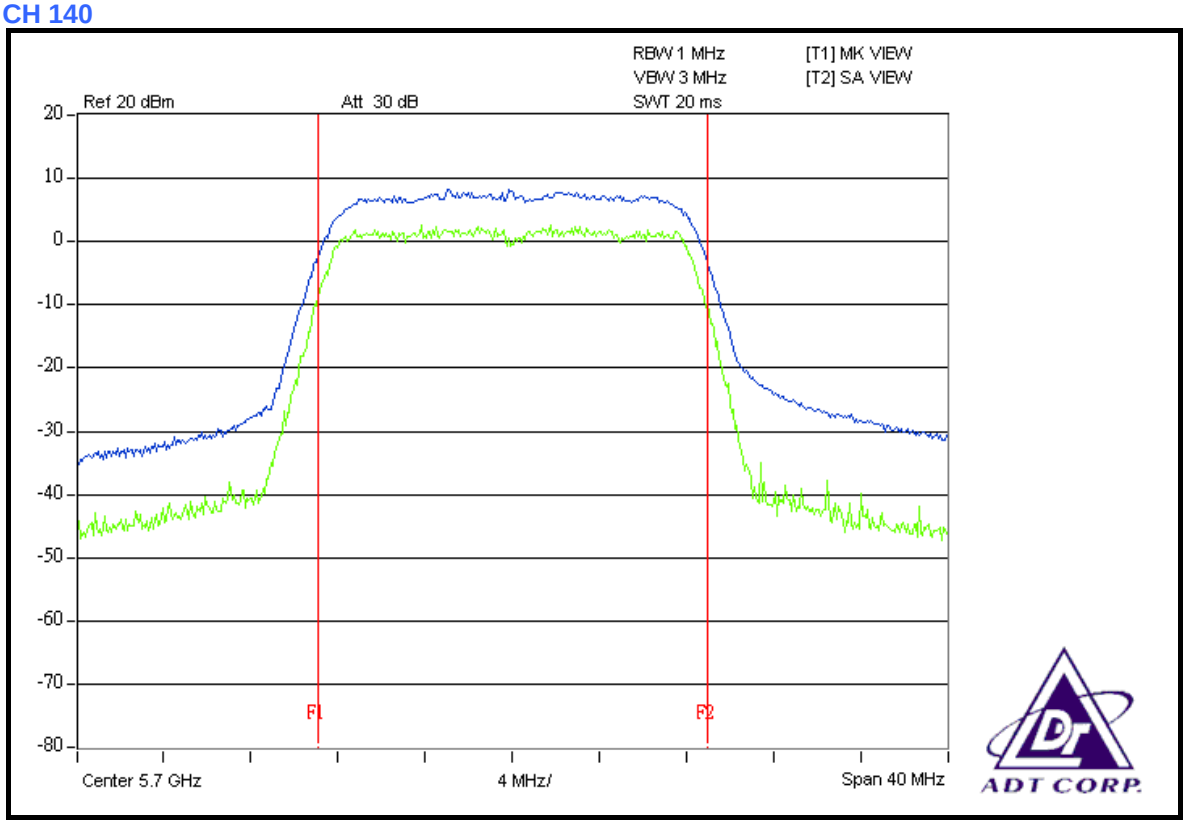

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.25 dB
5.508960 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.491 GHz
1.8 MHz/
Stop 5.509 GHz

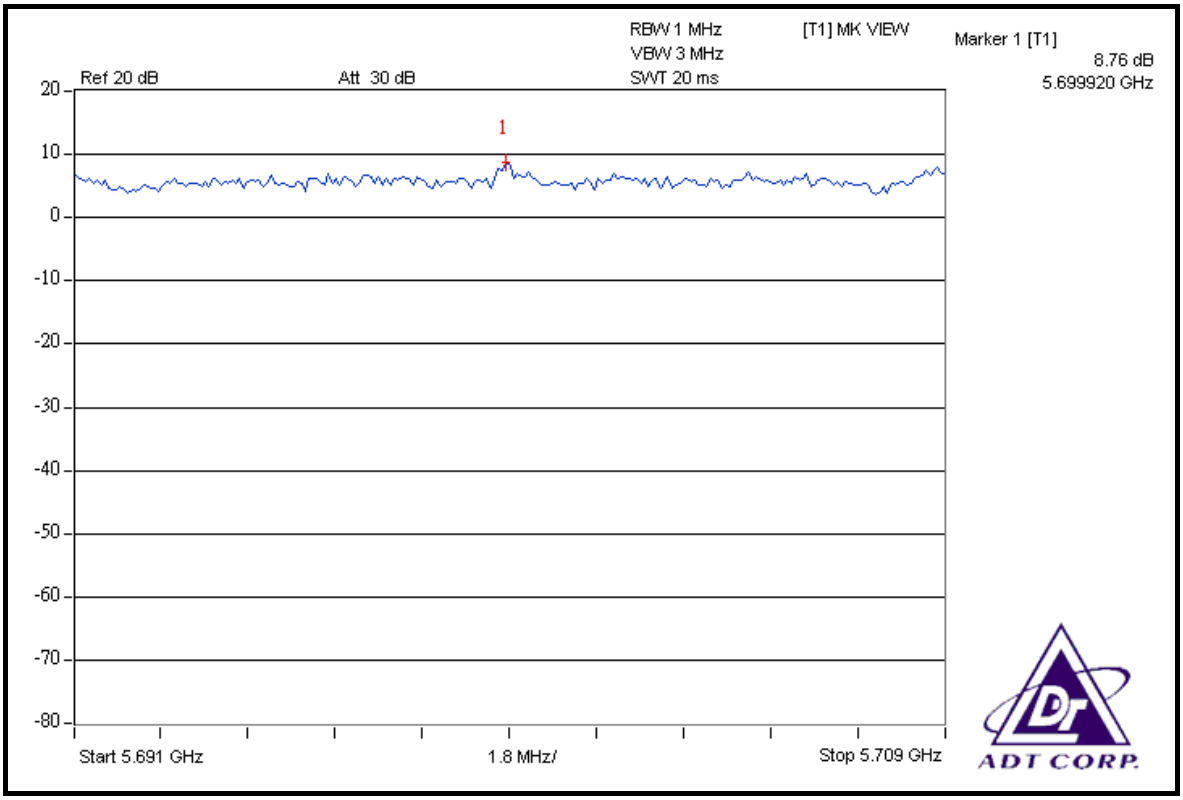
CH 120


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.6 GHz
4 MHz/
Span 40 MHz
ADT CORP.

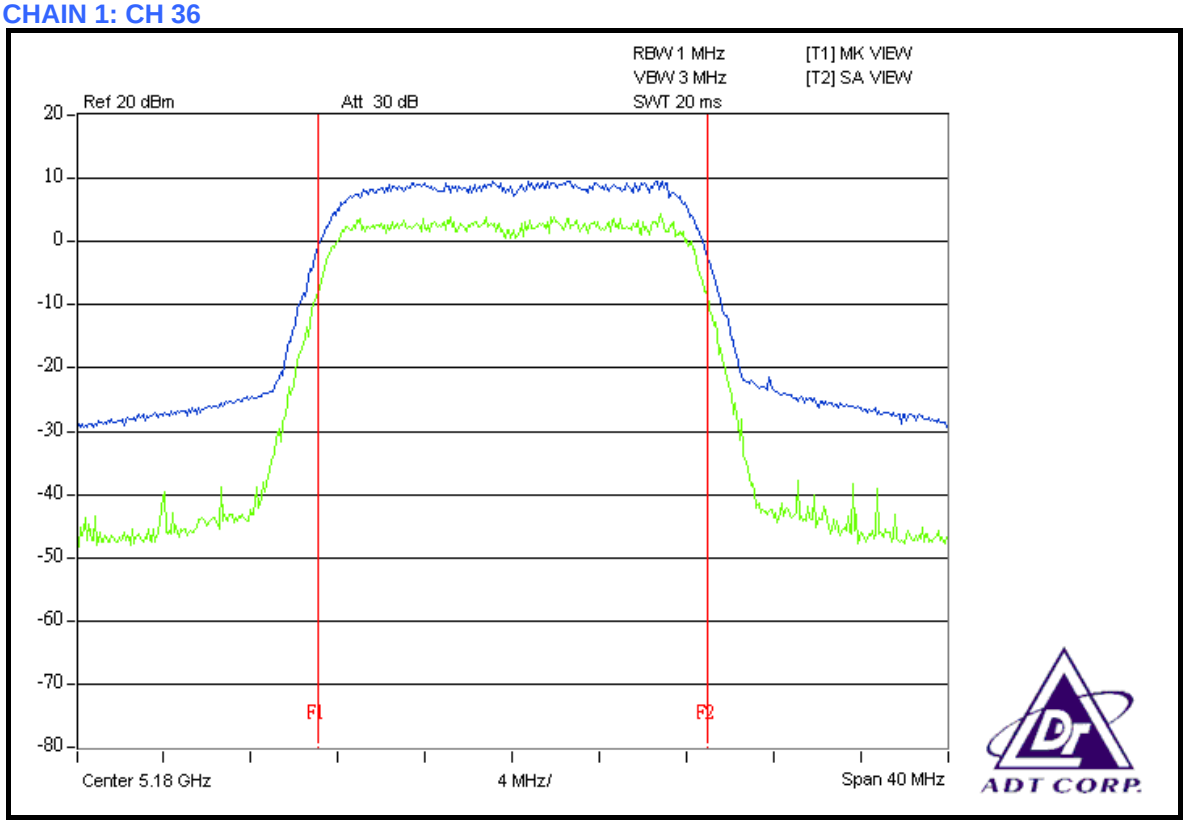

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.49 dB
5.599840 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.591 GHz
1.8 MHz/
Stop 5.609 GHz
ADT CORP.

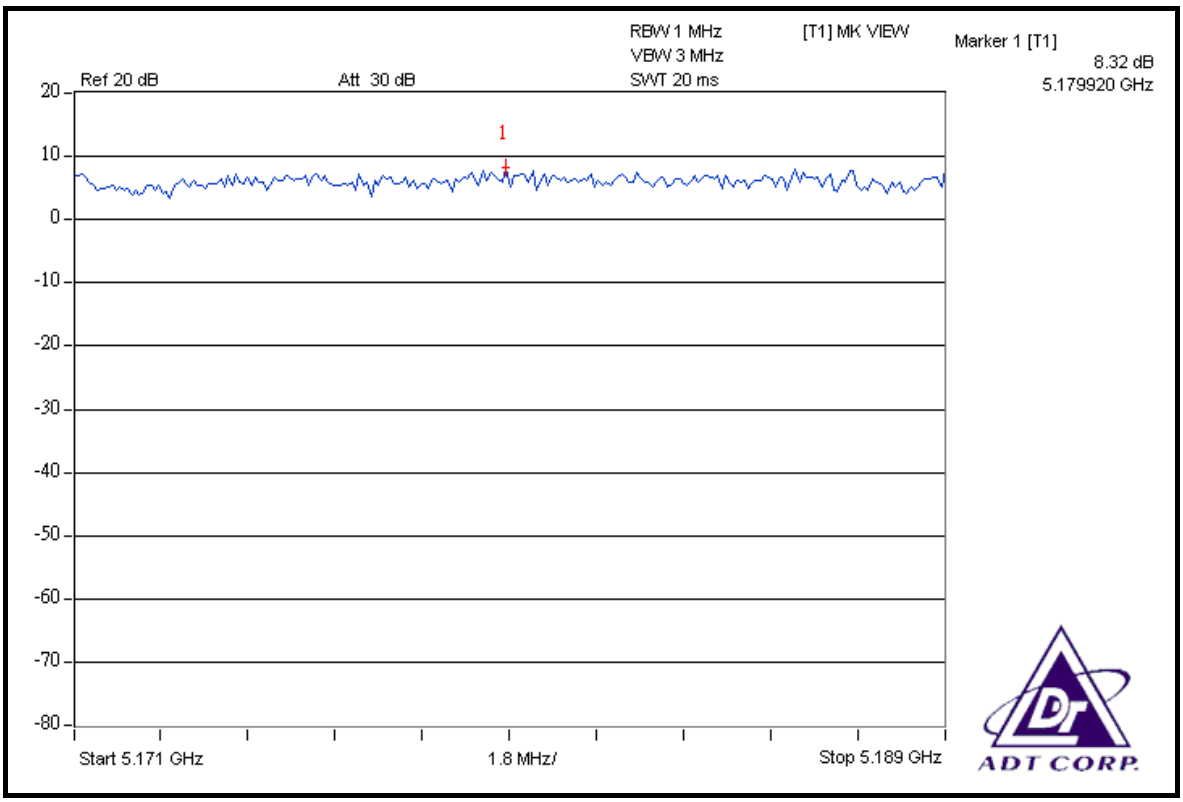
CH 140


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.7 GHz
4 MHz/
Span 40 MHz
ADT CORP.

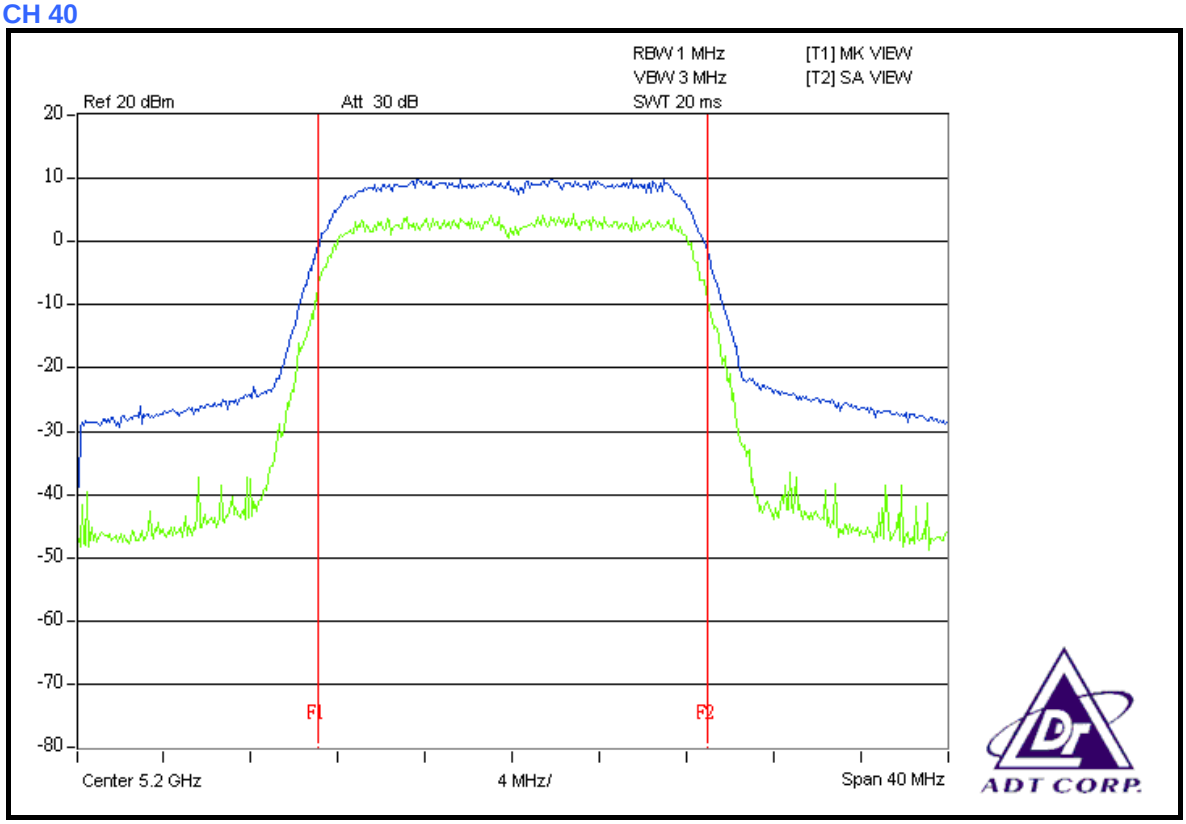

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.76 dB
5.699920 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.691 GHz
1.8 MHz/
Stop 5.709 GHz
ADT CORP.

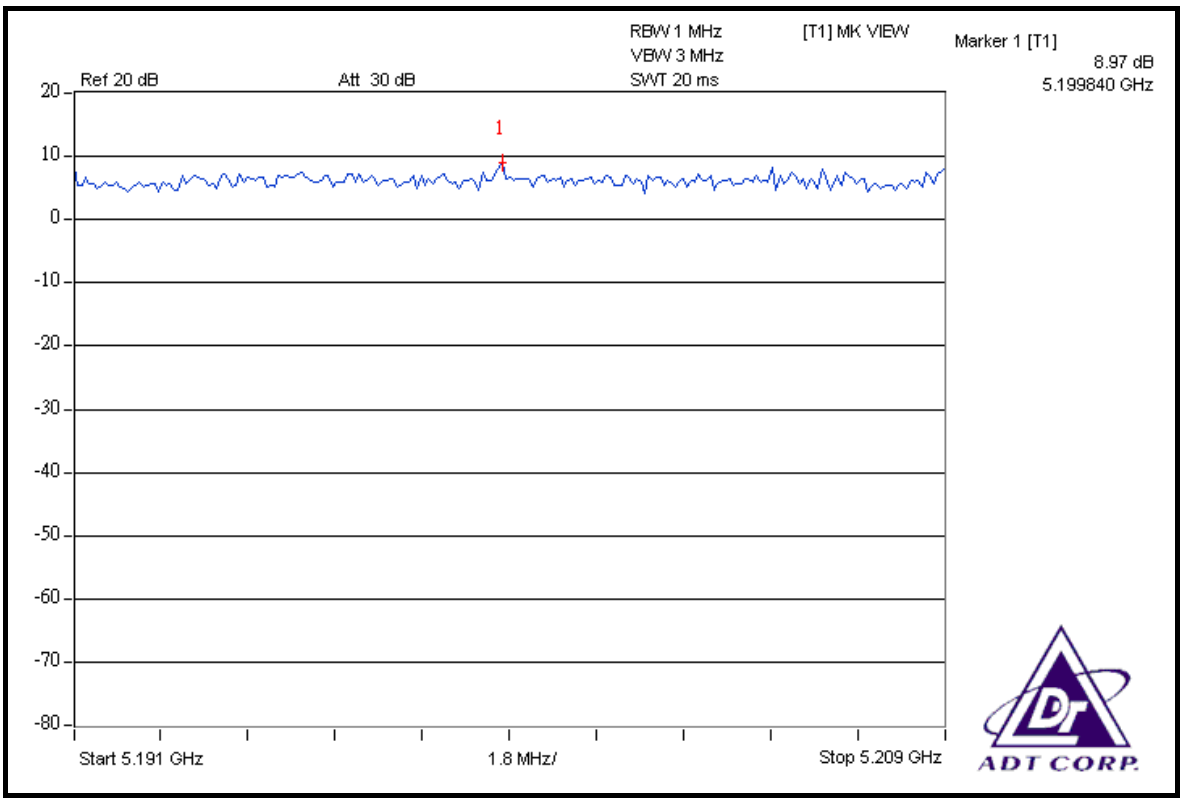
CHAIN 1: CH 36


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.18 GHz
4 MHz/
Span 40 MHz
ADT CORP.

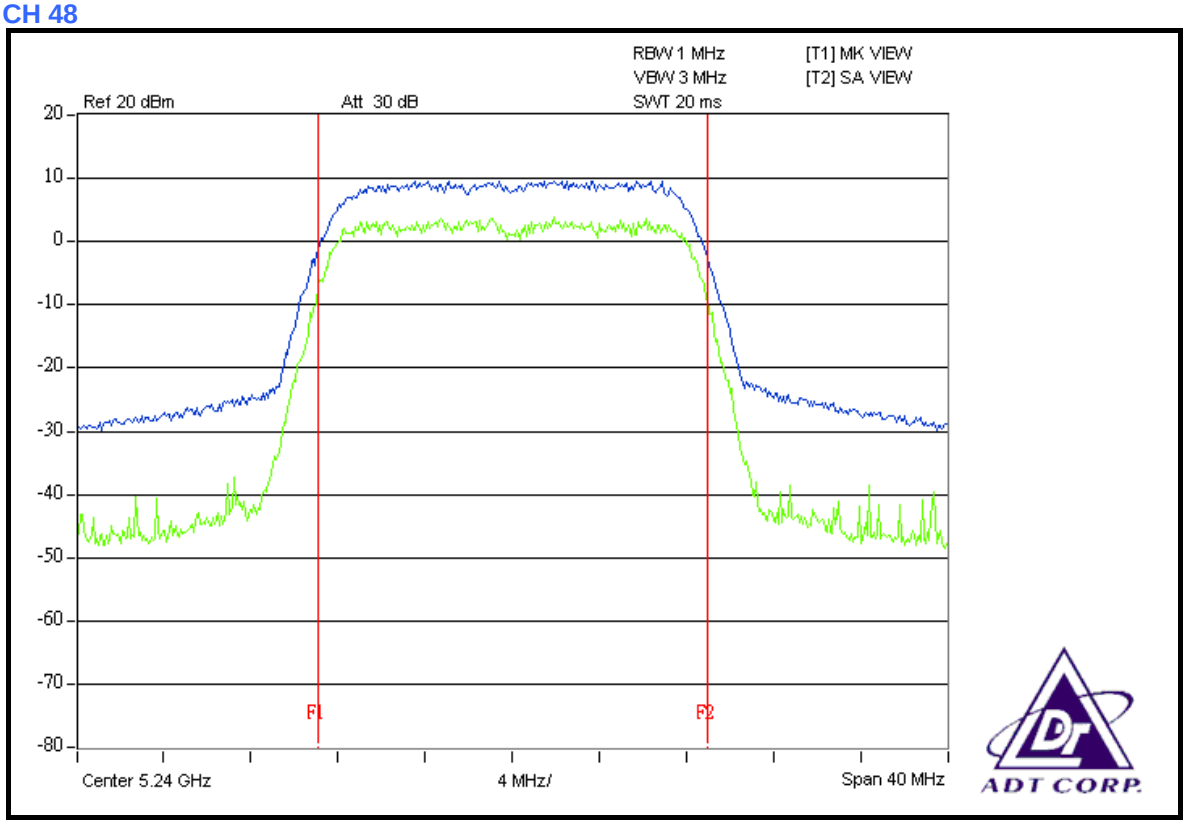

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.32 dB
5.179920 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.171 GHz
1.8 MHz/
Stop 5.189 GHz
ADT CORP.

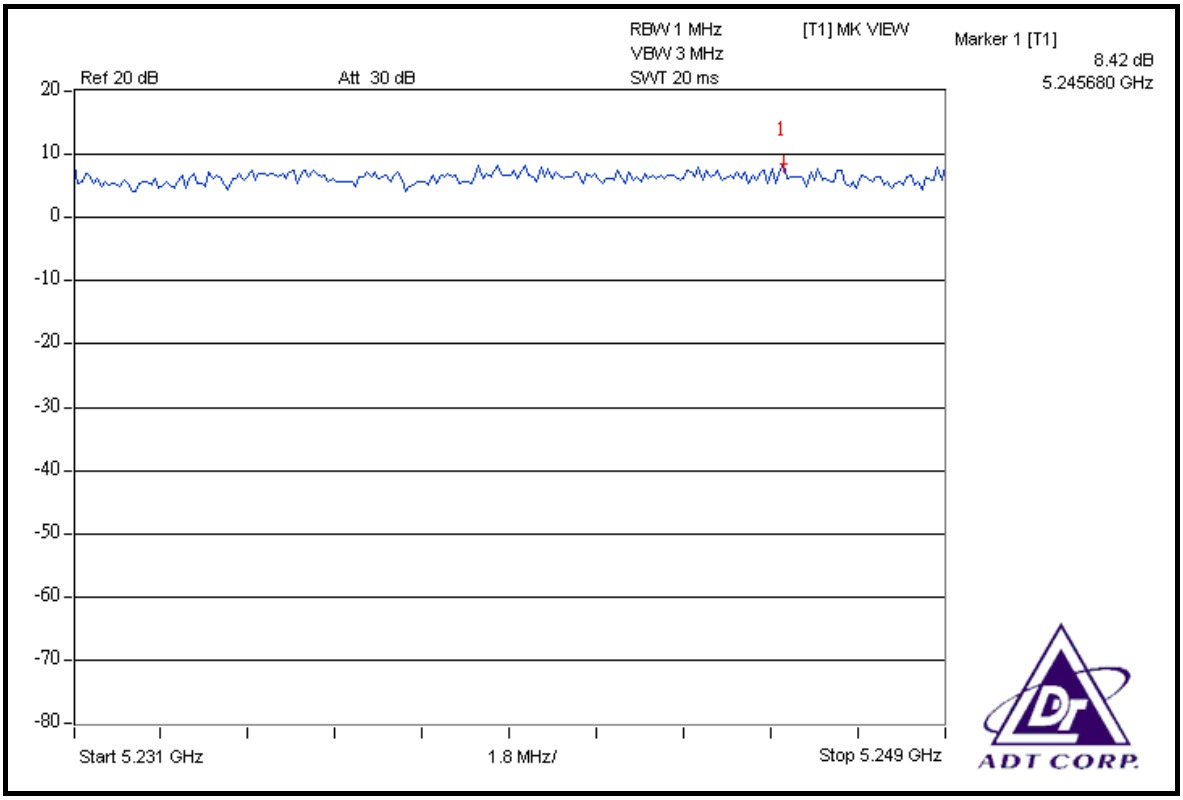
CH 40


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.2 GHz
4 MHz/
Span 40 MHz

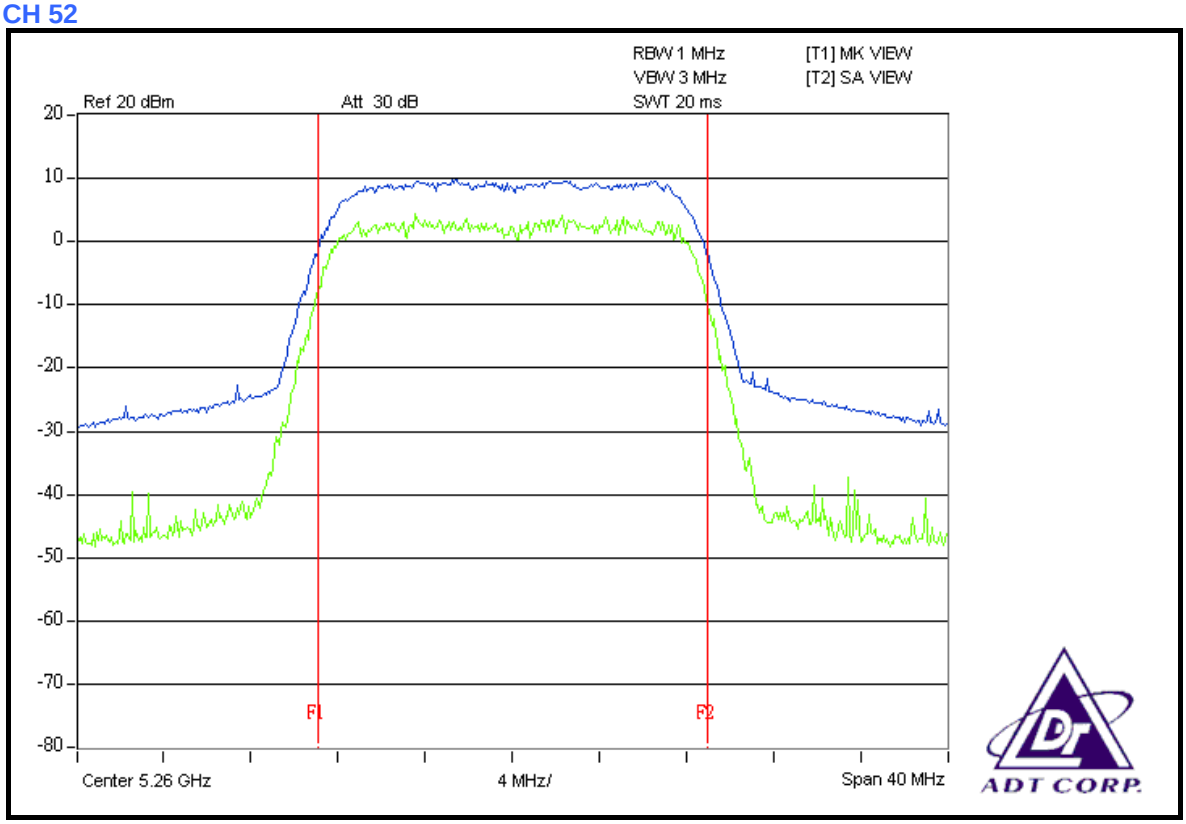

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.97 dB
5.199840 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.191 GHz
1.8 MHz/
Stop 5.209 GHz

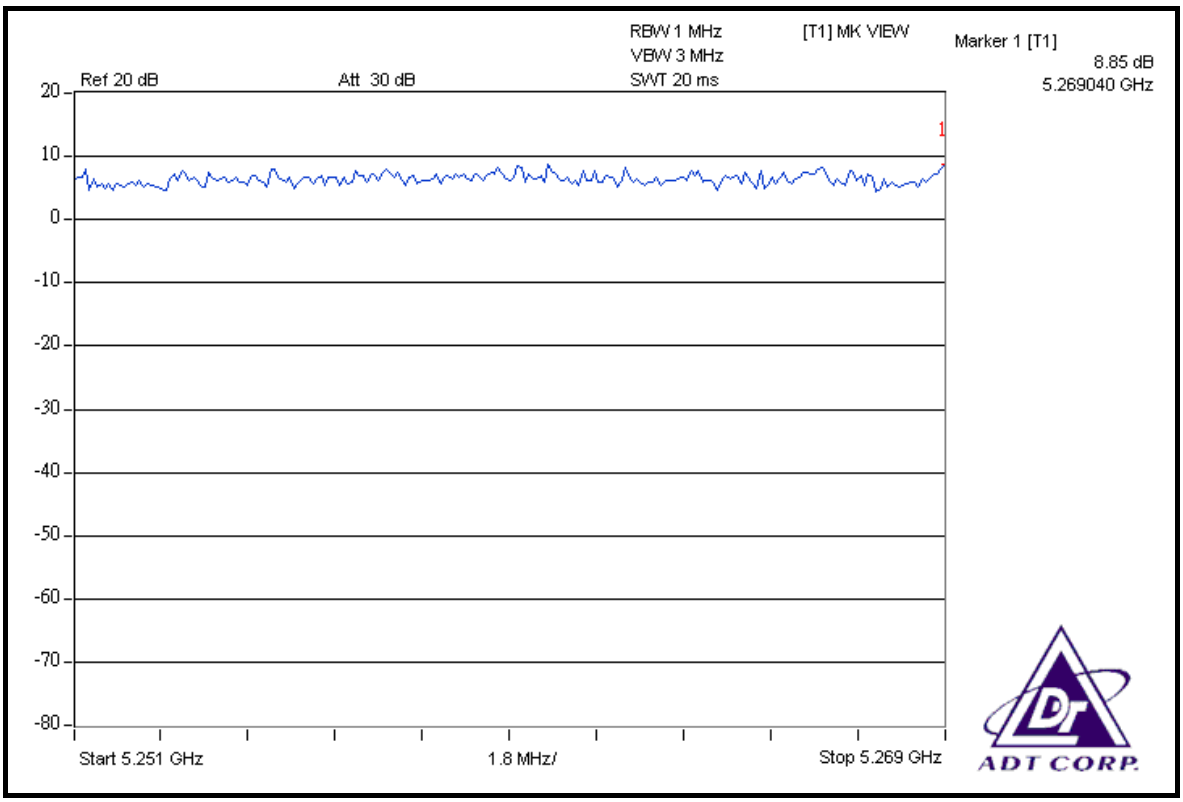
CH 48


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.24 GHz
4 MHz/
Span 40 MHz
ADT CORP.

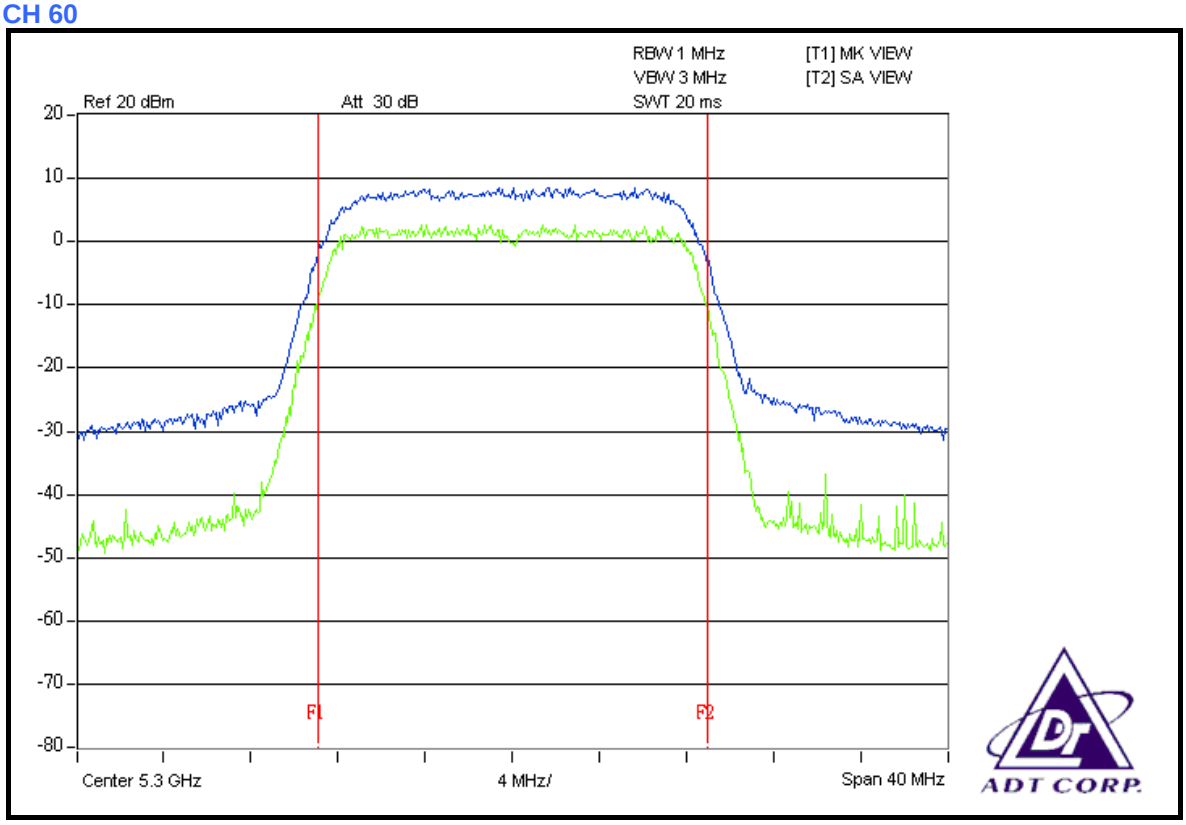

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.42 dB
5.245680 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.231 GHz
1.8 MHz/
Stop 5.249 GHz
ADT CORP.

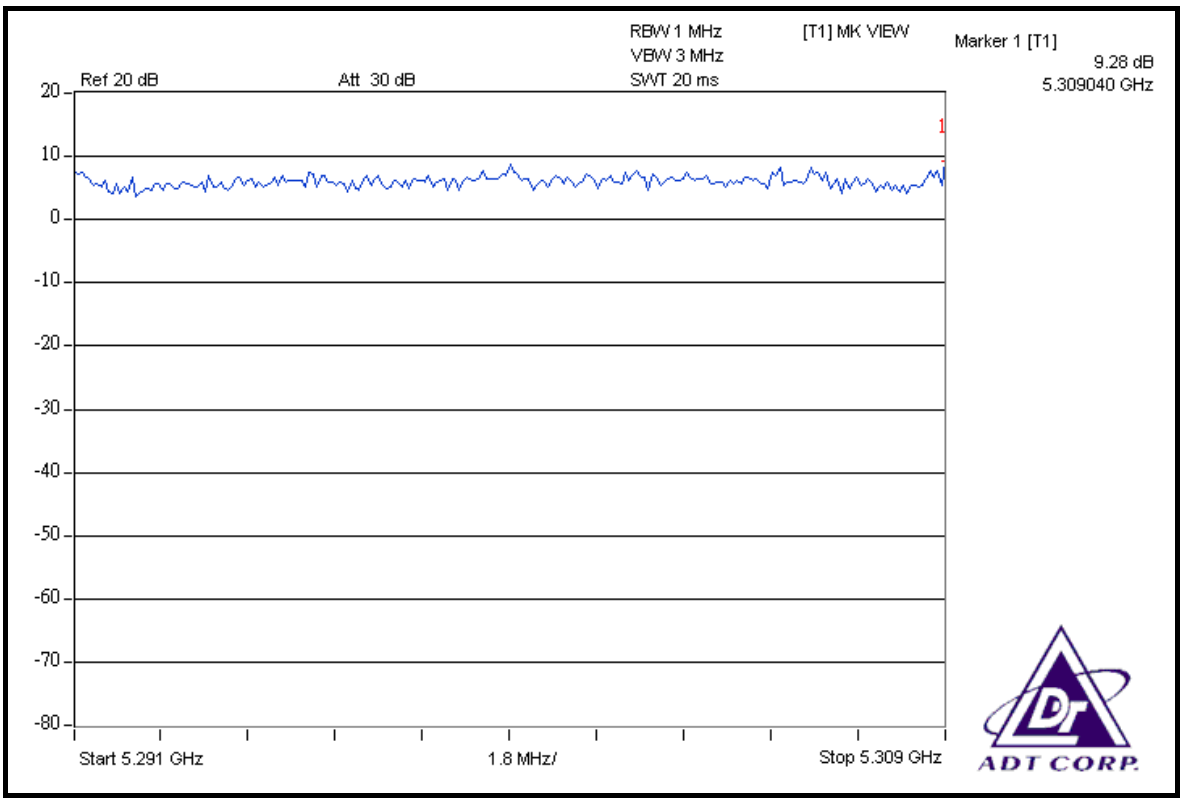
CH 52


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.26 GHz
4 MHz/
Span 40 MHz

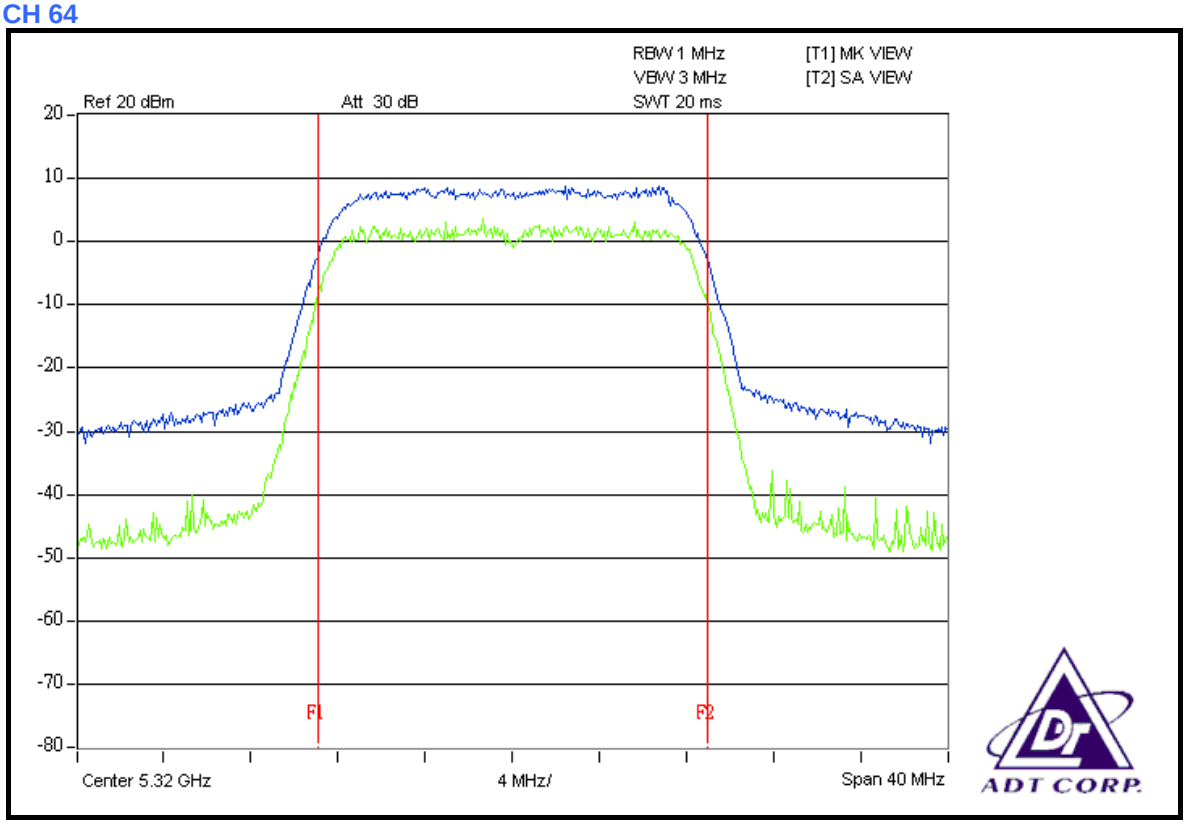

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.85 dB
5.269040 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.251 GHz
1.8 MHz/
Stop 5.269 GHz

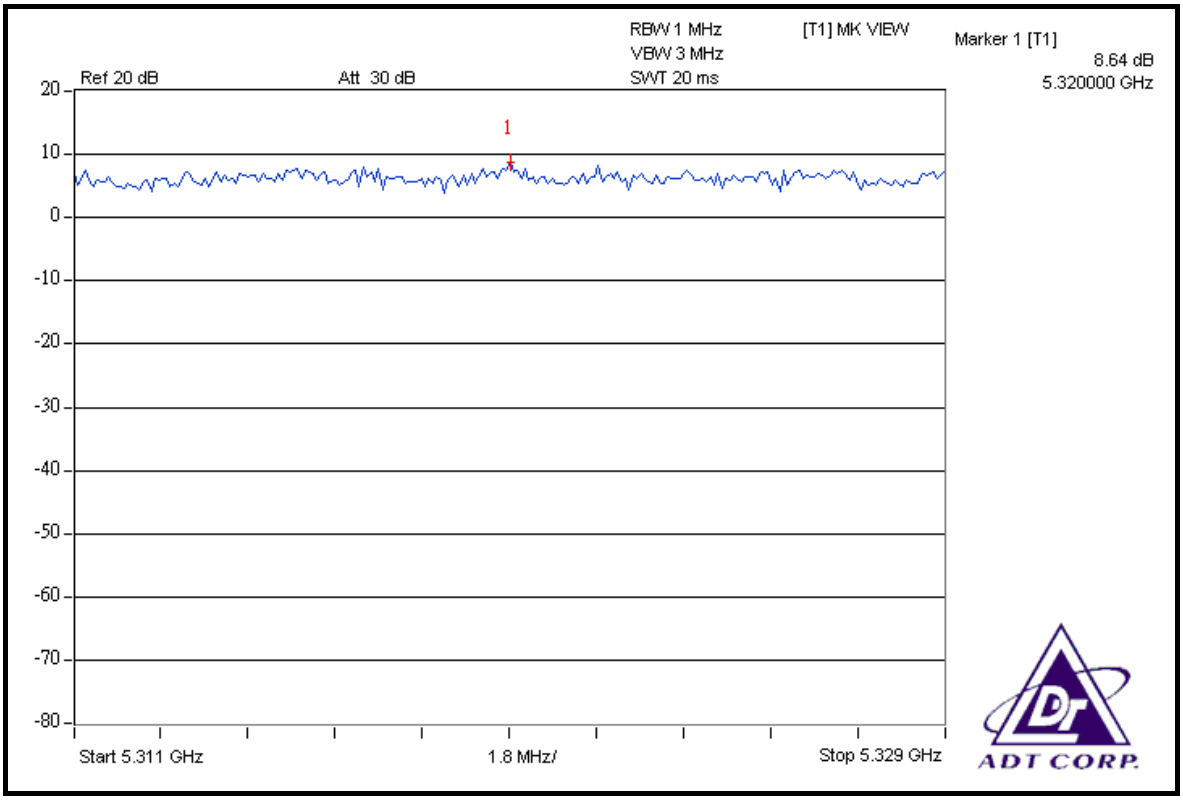
CH 60


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.3 GHz
4 MHz/
Span 40 MHz
ADT CORP.

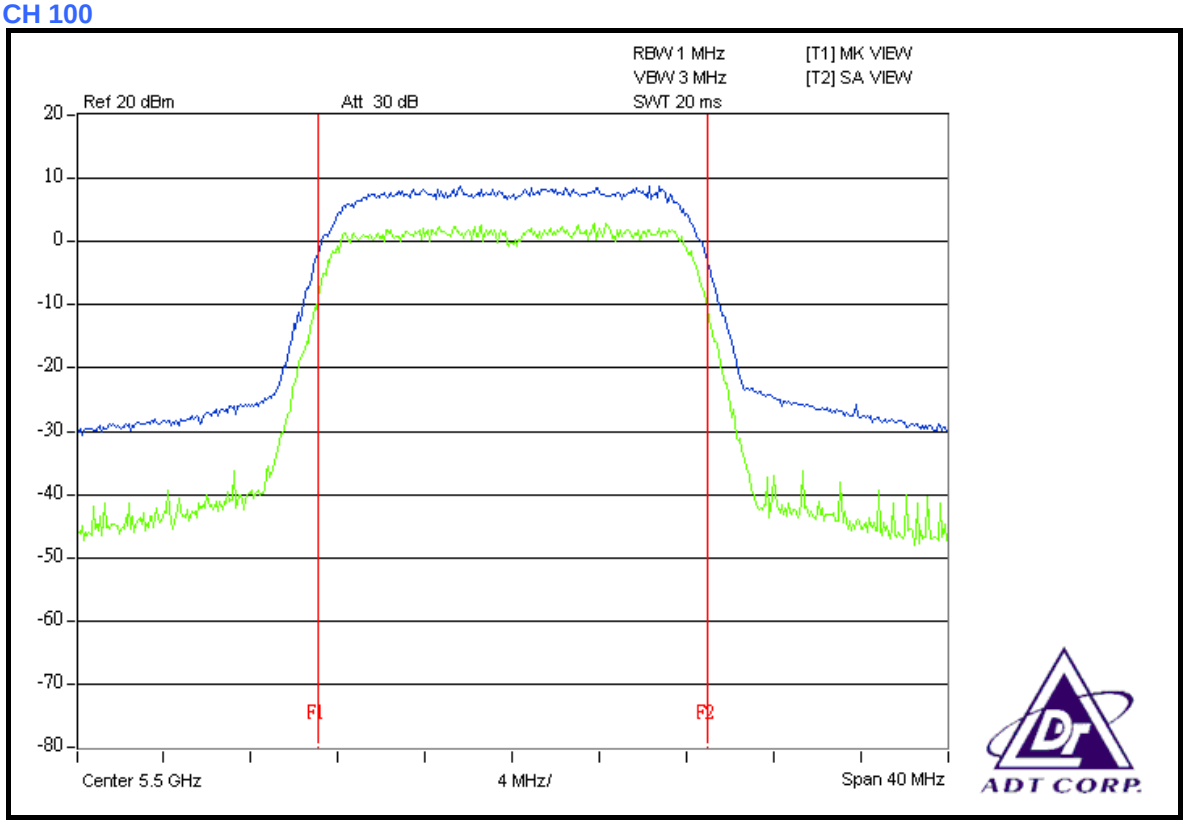

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
9.28 dB
5.309040 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.291 GHz
1.8 MHz/
Stop 5.309 GHz
ADT CORP.

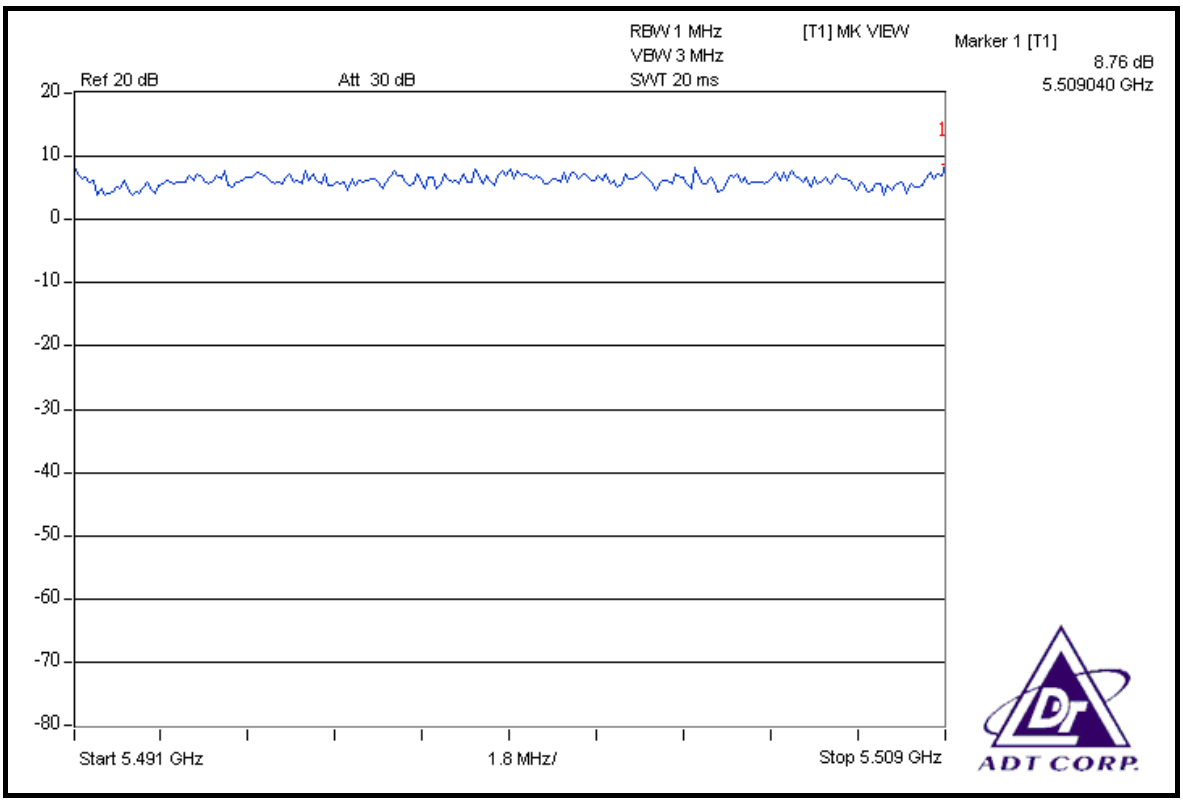
CH 64


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.32 GHz
4 MHz/
Span 40 MHz

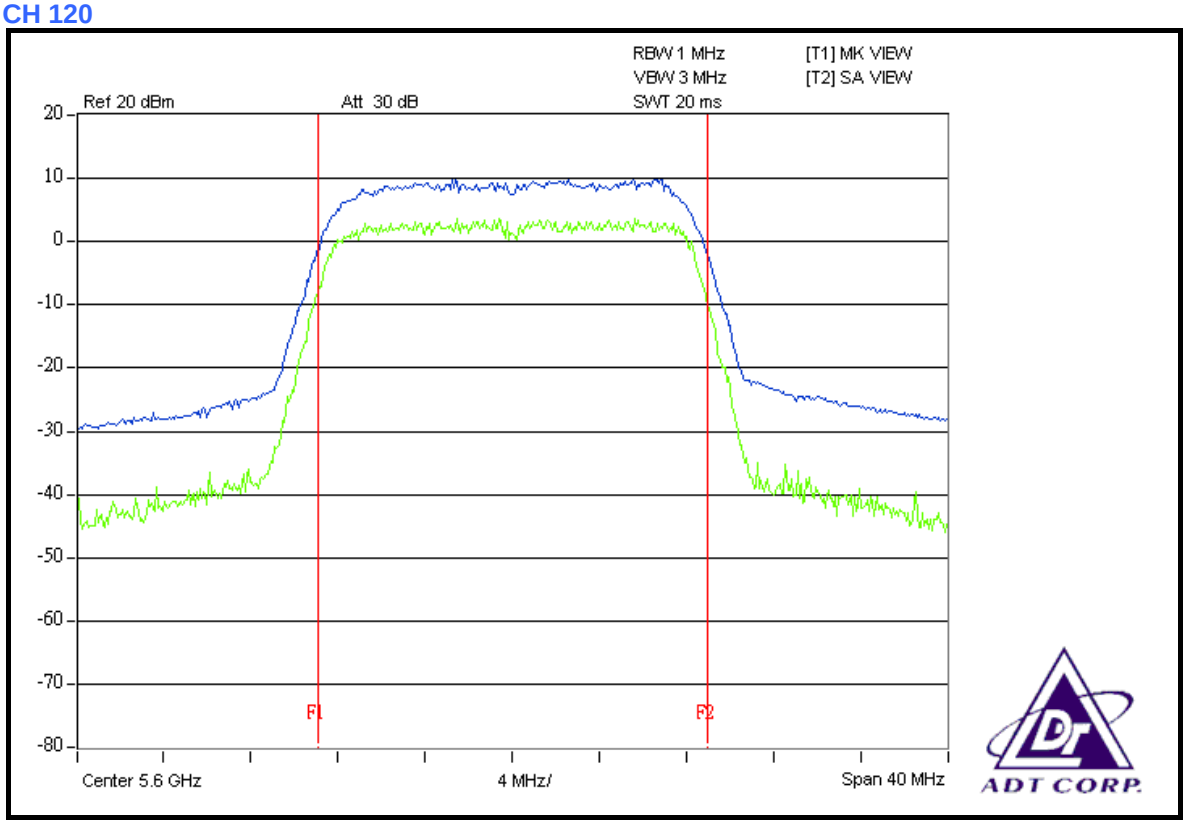

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.64 dB
5.320000 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.311 GHz
1.8 MHz/
Stop 5.329 GHz

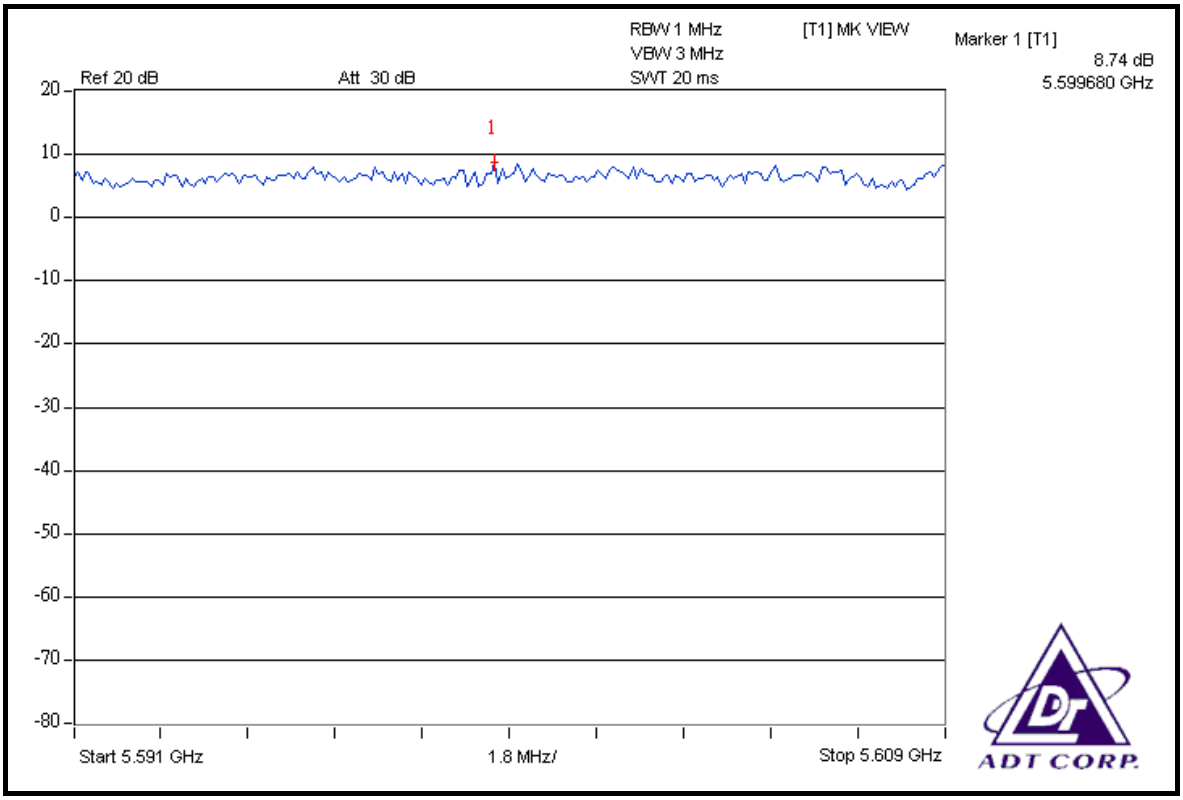
CH 100


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.5 GHz
4 MHz/
Span 40 MHz
ADT CORP.

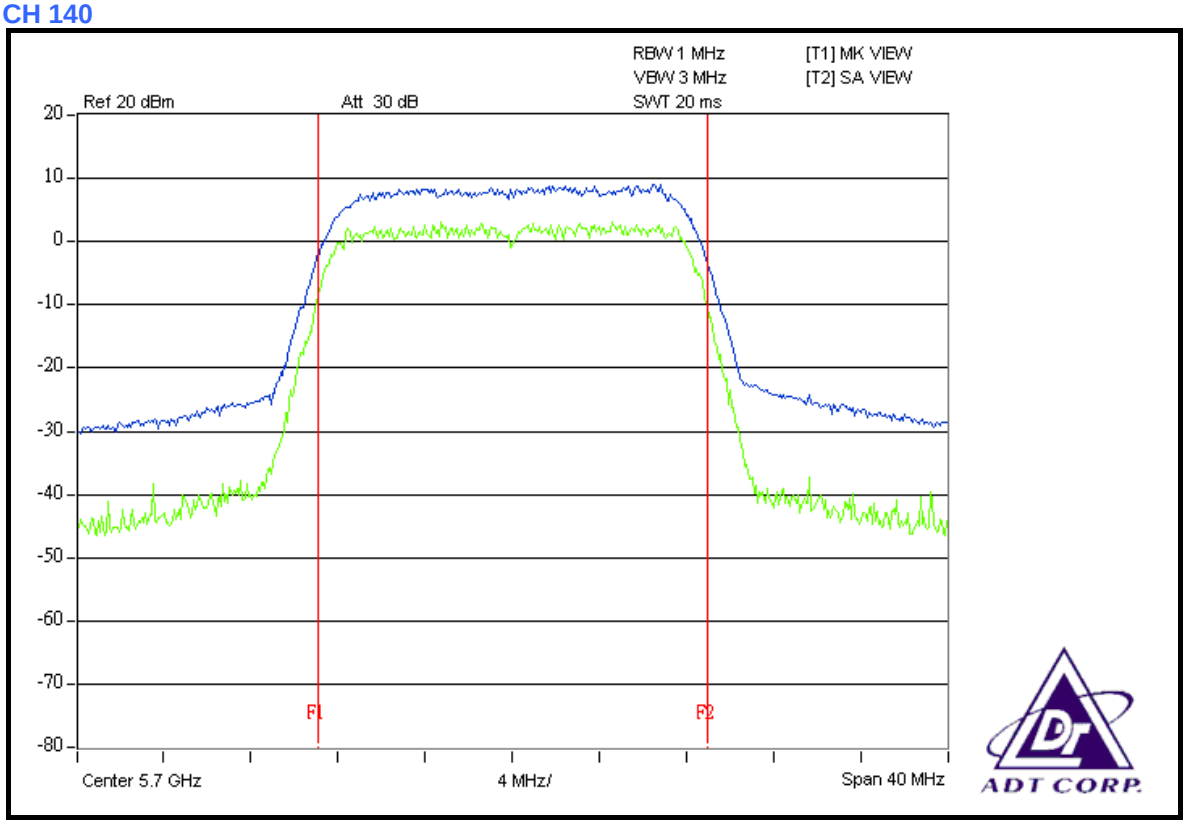

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.76 dB
5.509040 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.491 GHz
1.8 MHz/
Stop 5.509 GHz
ADT CORP.

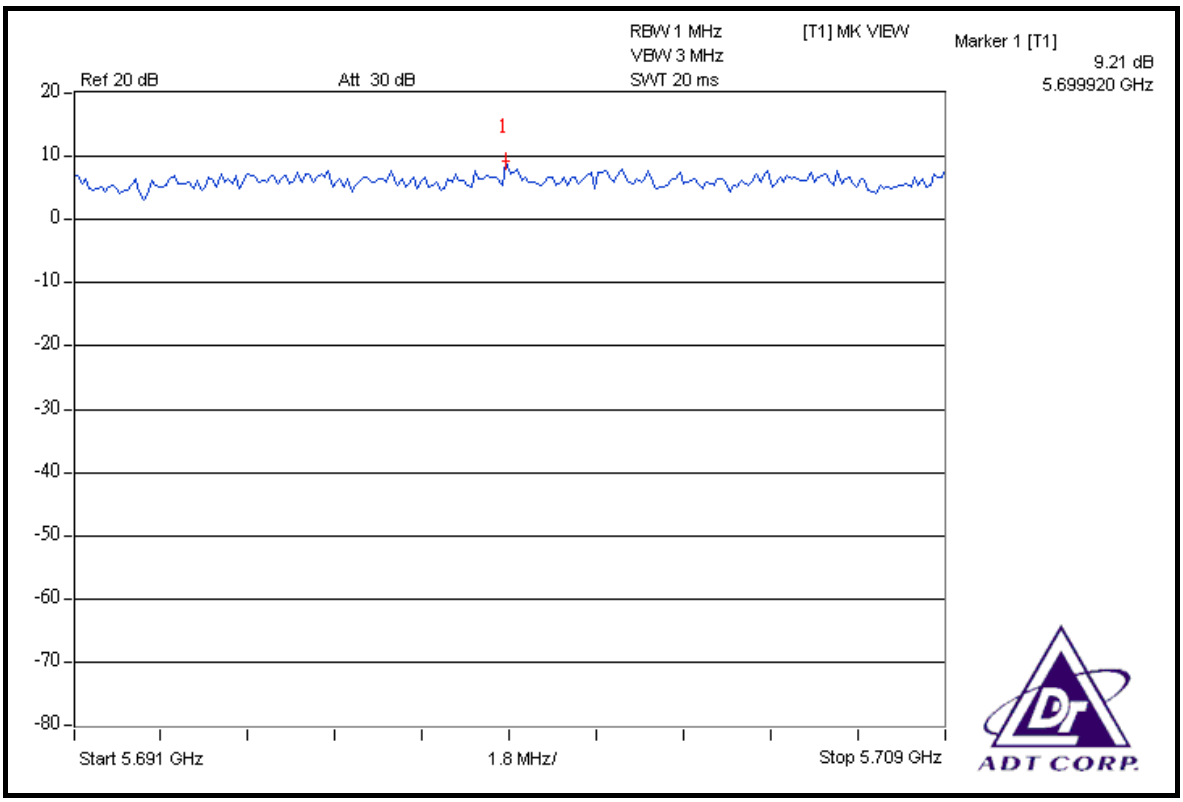
CH 120


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.6 GHz
4 MHz/
Span 40 MHz
ADT CORP.


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.74 dB
5.599680 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.591 GHz
1.8 MHz/
Stop 5.609 GHz
ADT CORP.

CH 140


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.7 GHz
4 MHz/
Span 40 MHz
ADT CORP.

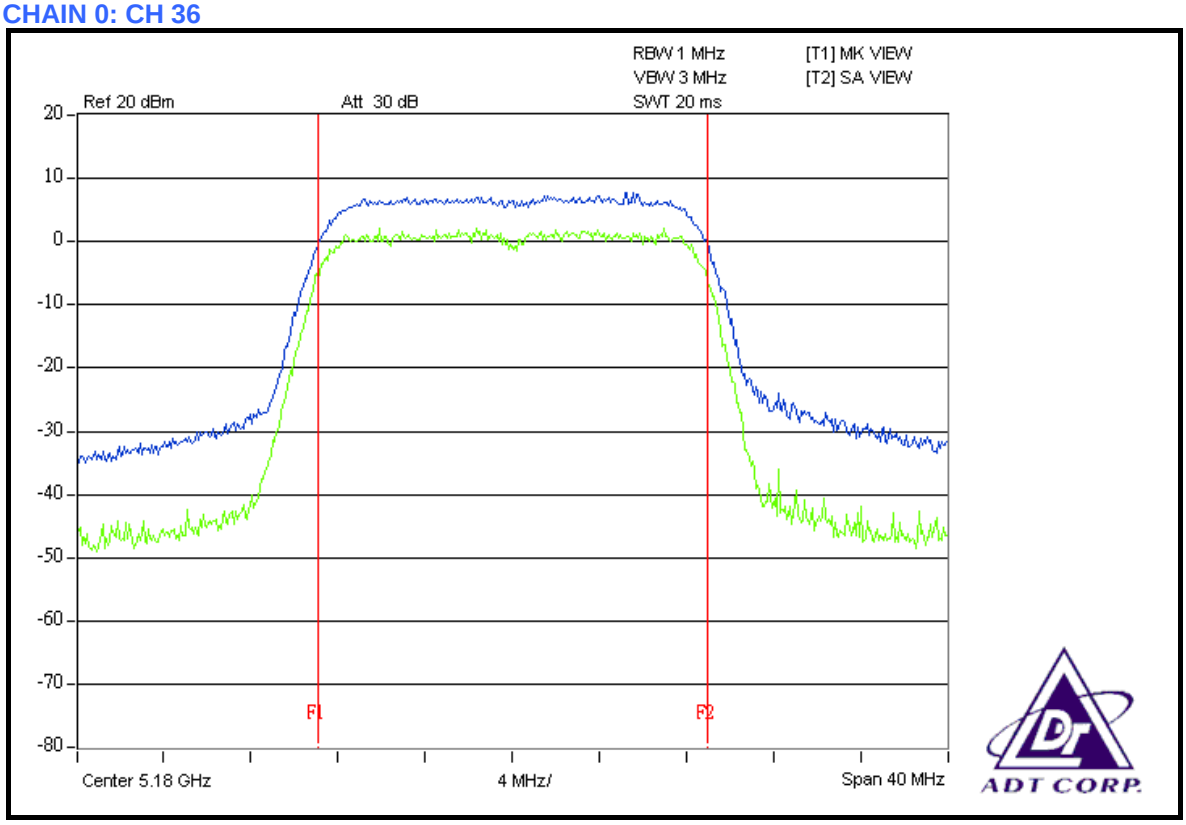

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
9.21 dB
5.699920 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.691 GHz
1.8 MHz/
Stop 5.709 GHz
ADT CORP.

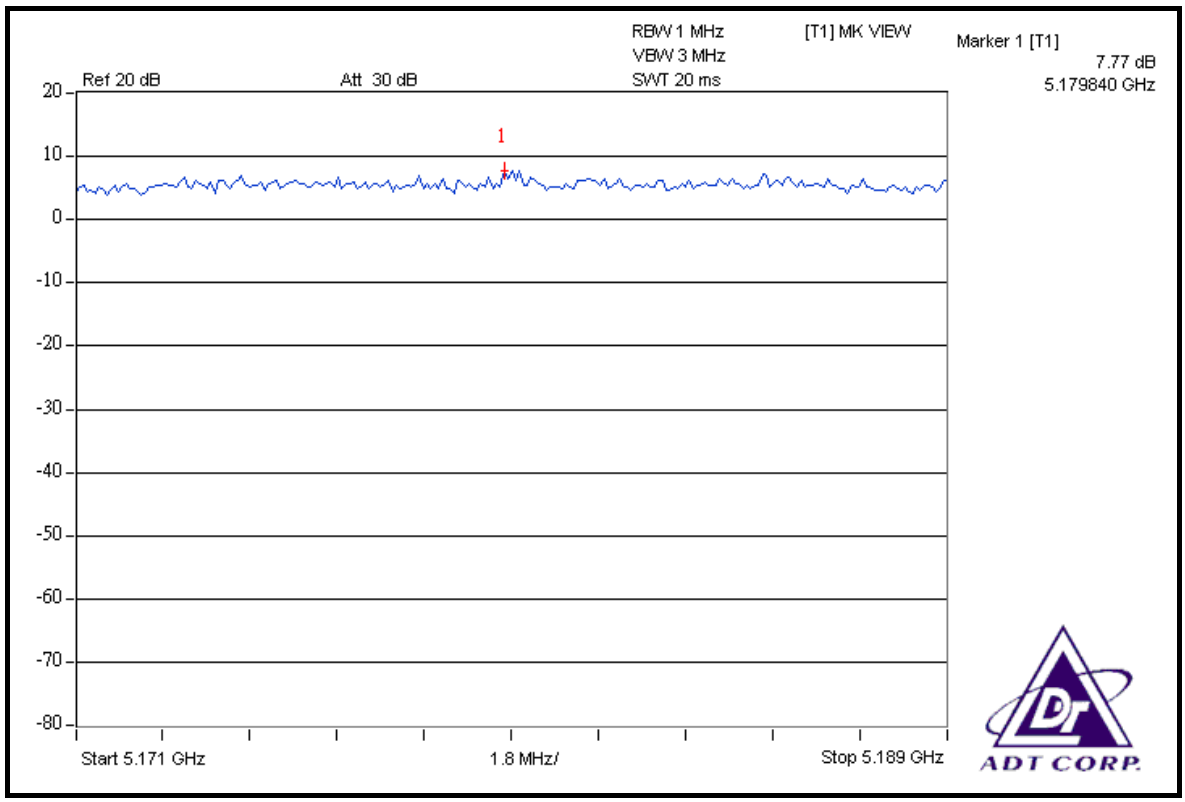
DRAFT 802.11n (20MHz) OFDM MODULATION

MODULATION TYPE	BPSK	**TRANSFER RATE**	7.2Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25 deg.C, 65 %RH, 991hPa
TESTED BY	Brad Wu		

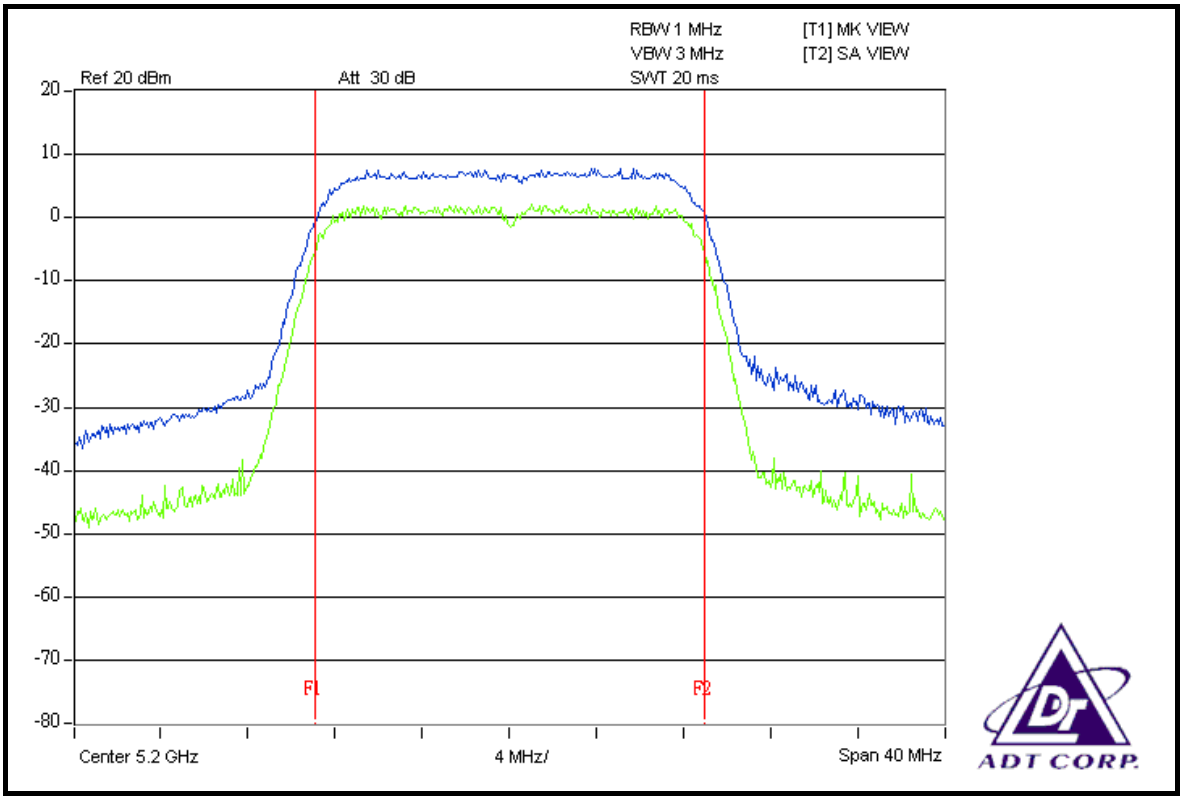
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)		PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1		
36	5180	7.77	8.13	13	PASS
40	5200	8.18	8.05	13	PASS
48	5240	7.52	8.58	13	PASS
52	5260	7.72	8.21	13	PASS
60	5300	7.95	8.16	13	PASS
64	5320	7.50	8.26	13	PASS
100	5500	7.60	8.20	13	PASS
120	5600	7.81	8.23	13	PASS
140	5700	7.58	8.42	13	PASS

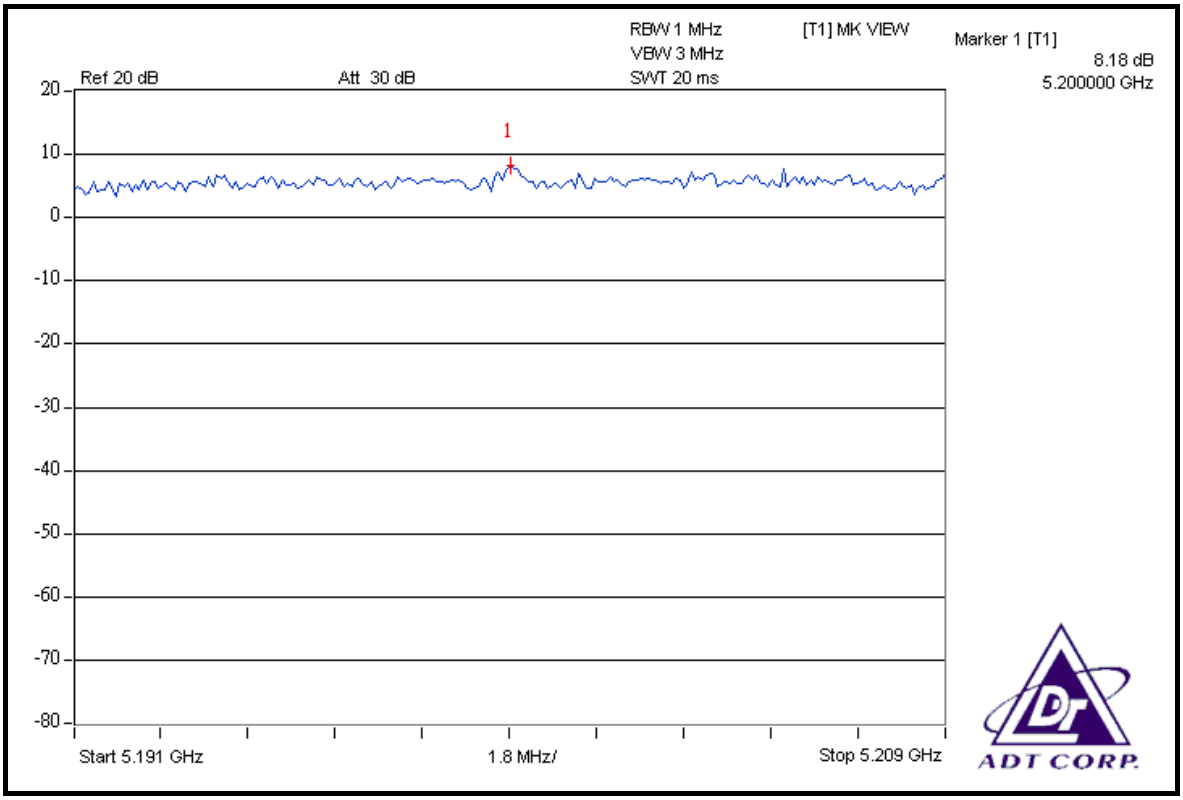
CHAIN 0: CH 36


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.18 GHz
4 MHz/
Span 40 MHz

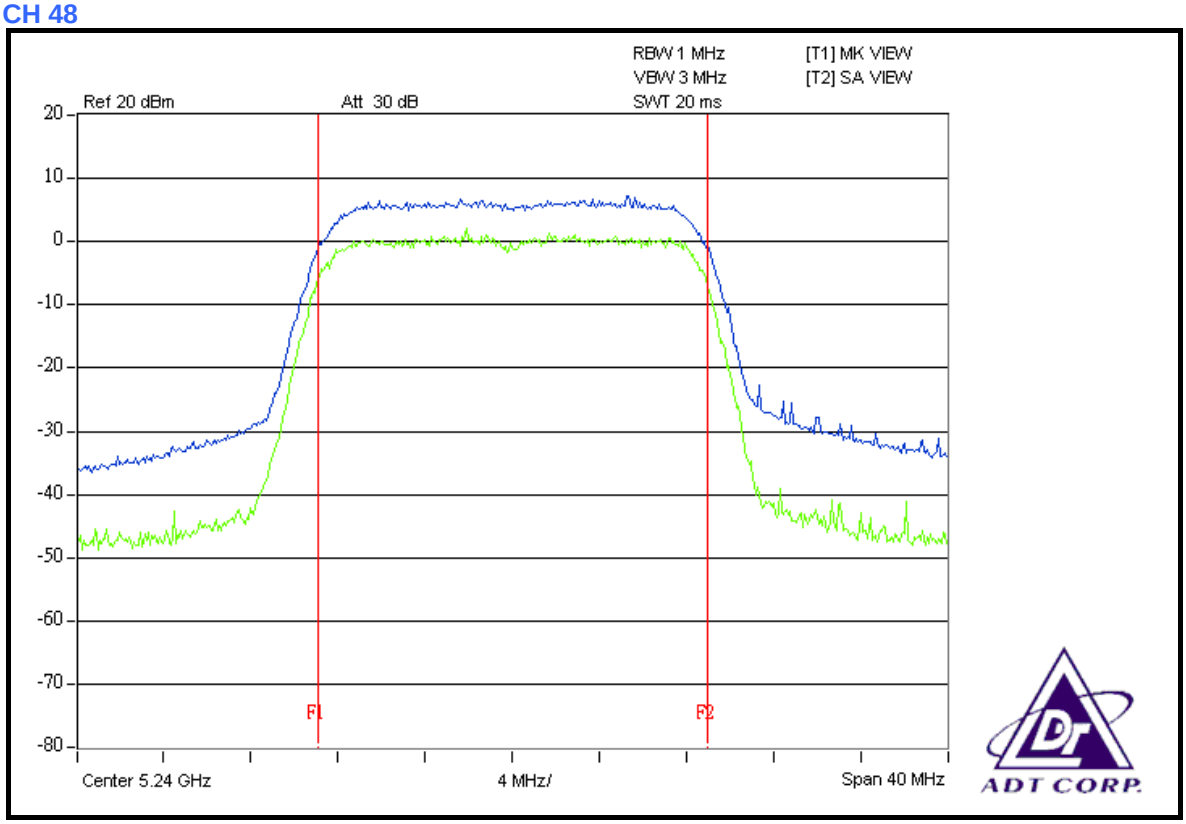

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
7.77 dB
5.179840 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.171 GHz
1.8 MHz/
Stop 5.189 GHz

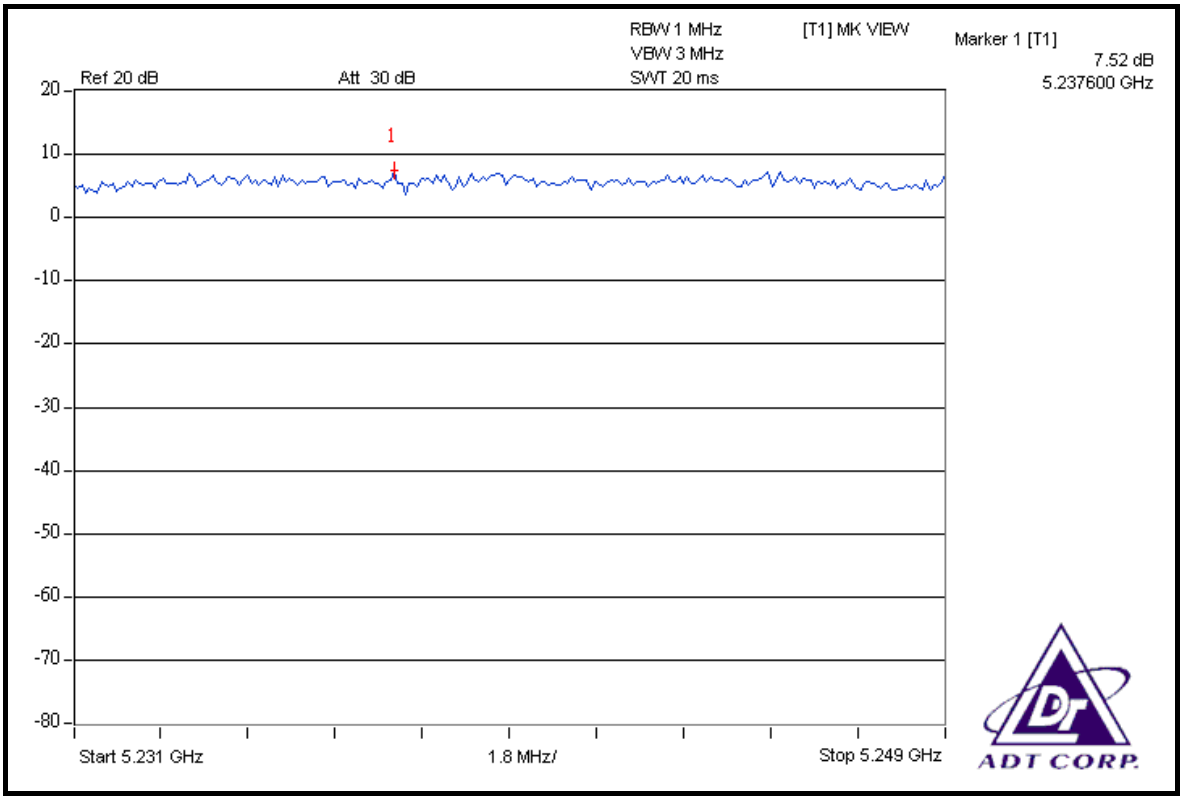
CH 40


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.2 GHz
4 MHz/
Span 40 MHz
ADT CORP.

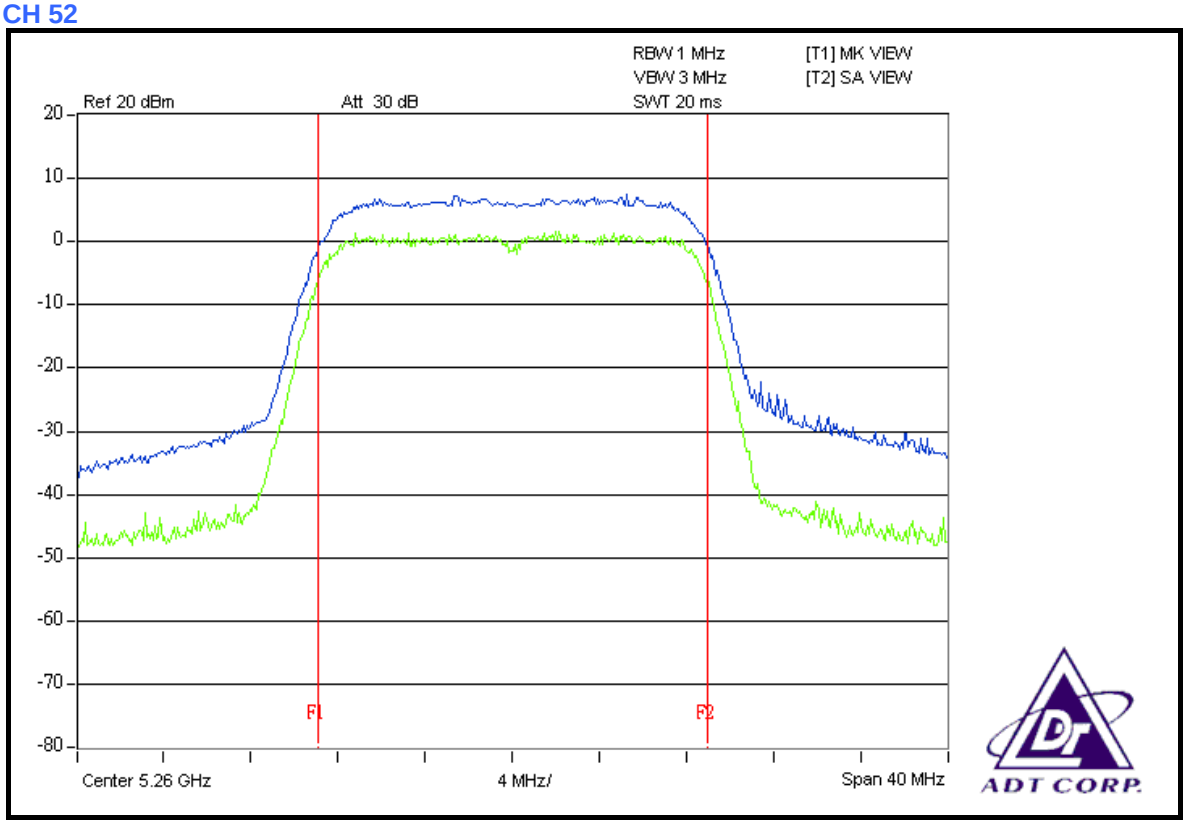

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.18 dB
5.200000 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.191 GHz
1.8 MHz/
Stop 5.209 GHz
ADT CORP.

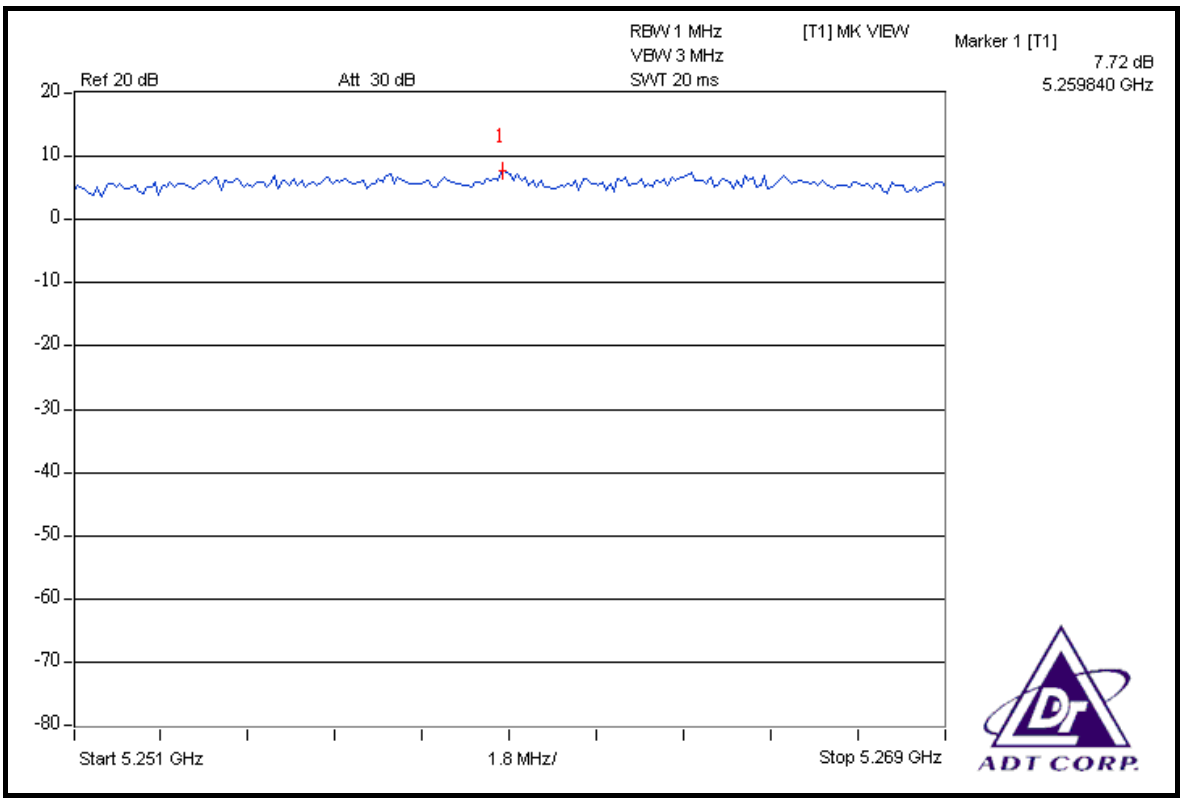
CH 48


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.24 GHz
4 MHz/
Span 40 MHz
ADT CORP.

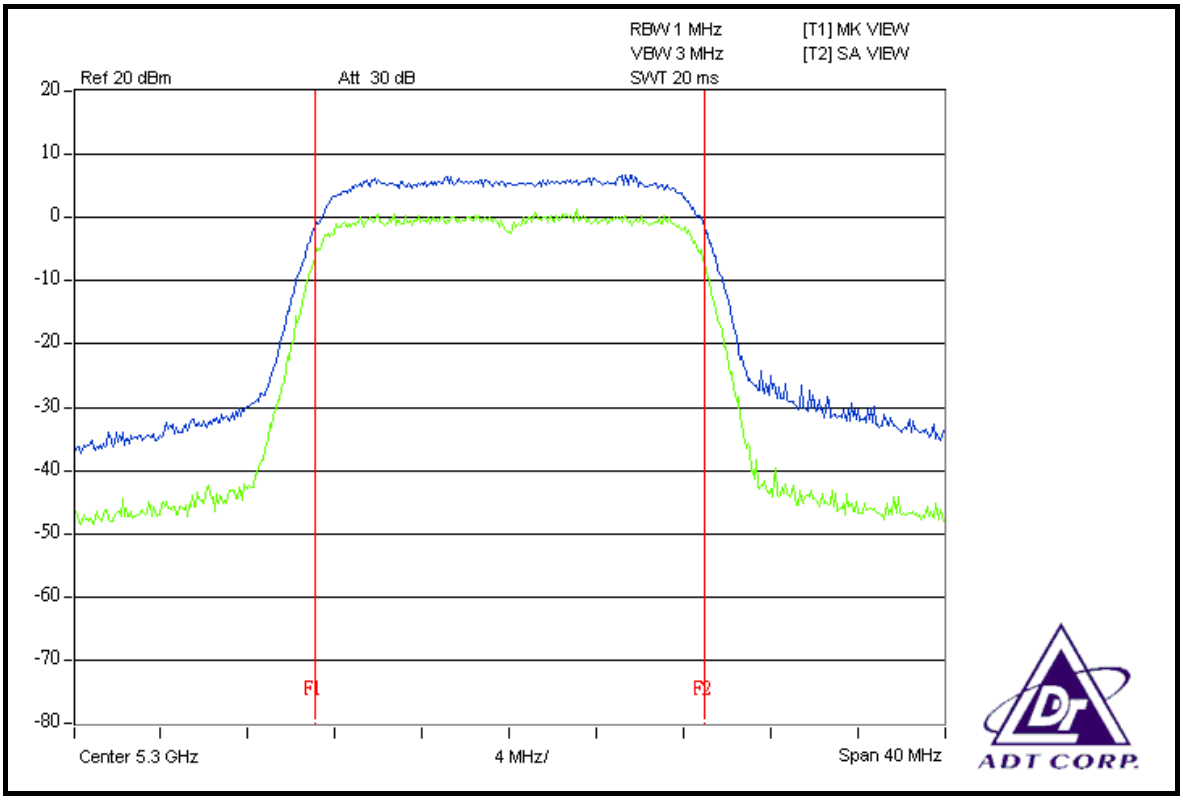

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
7.52 dB
5.237600 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.231 GHz
1.8 MHz/
Stop 5.249 GHz
ADT CORP.

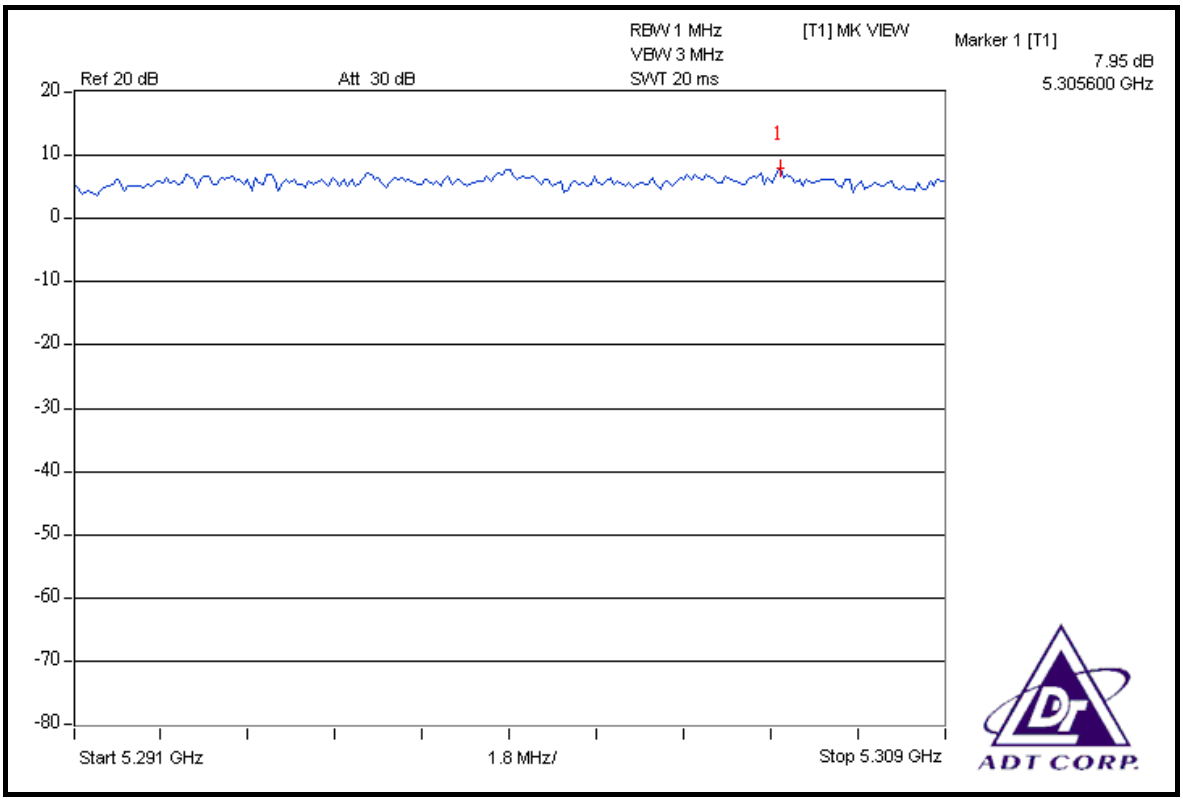
CH 52


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.26 GHz
4 MHz/
Span 40 MHz
ADT CORP.

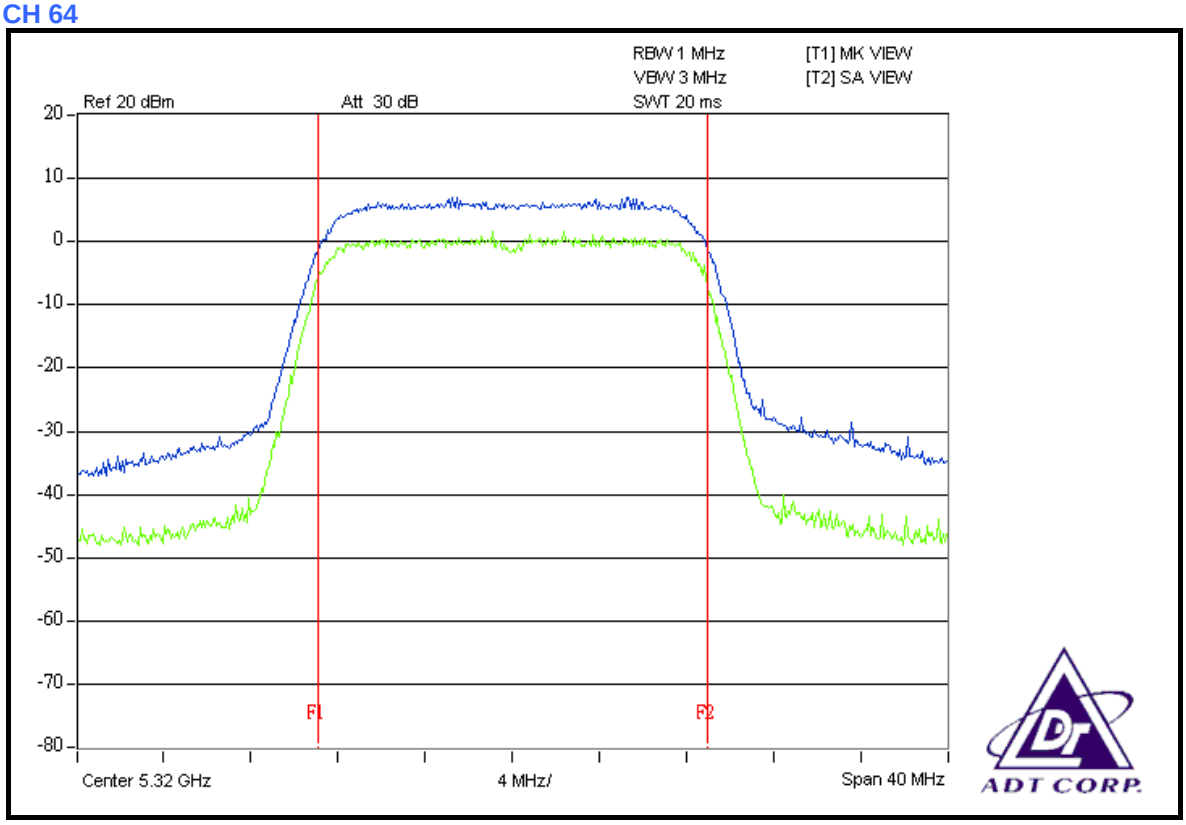

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
7.72 dB
5.259840 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.251 GHz
1.8 MHz/
Stop 5.269 GHz
ADT CORP.

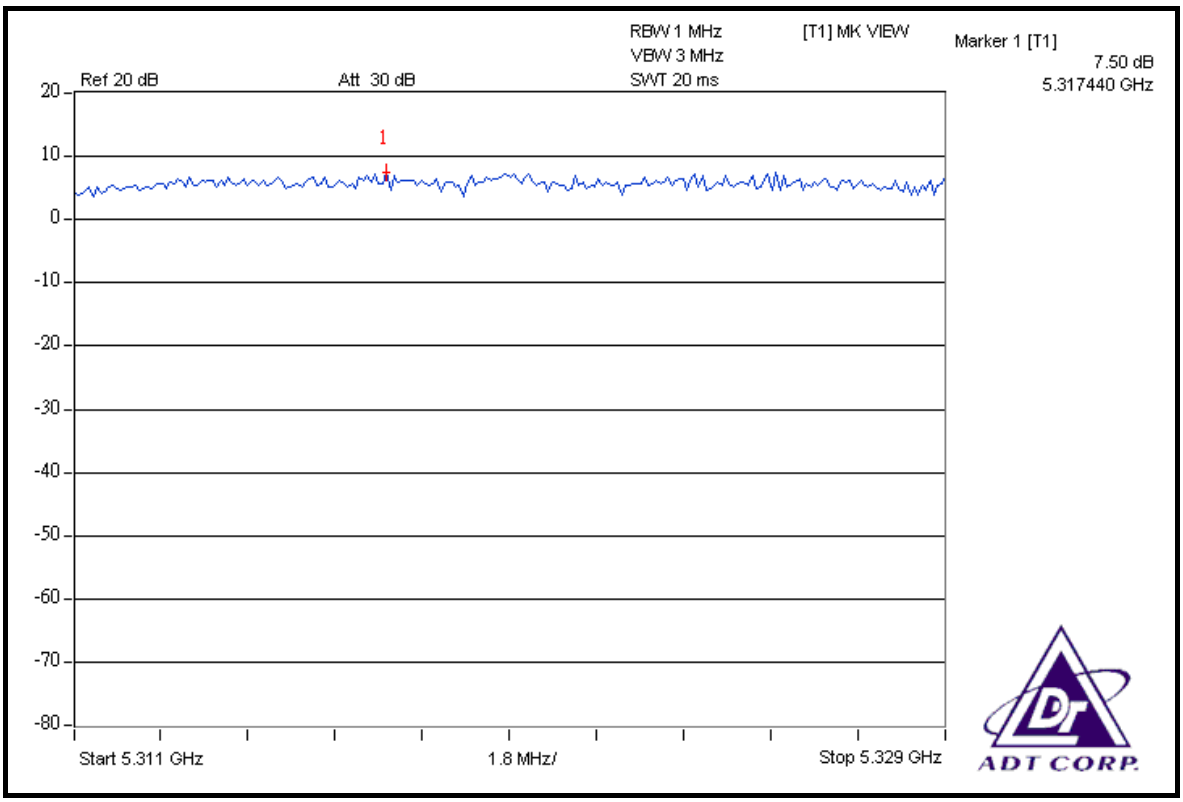
CH 60


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.3 GHz
4 MHz/
Span 40 MHz

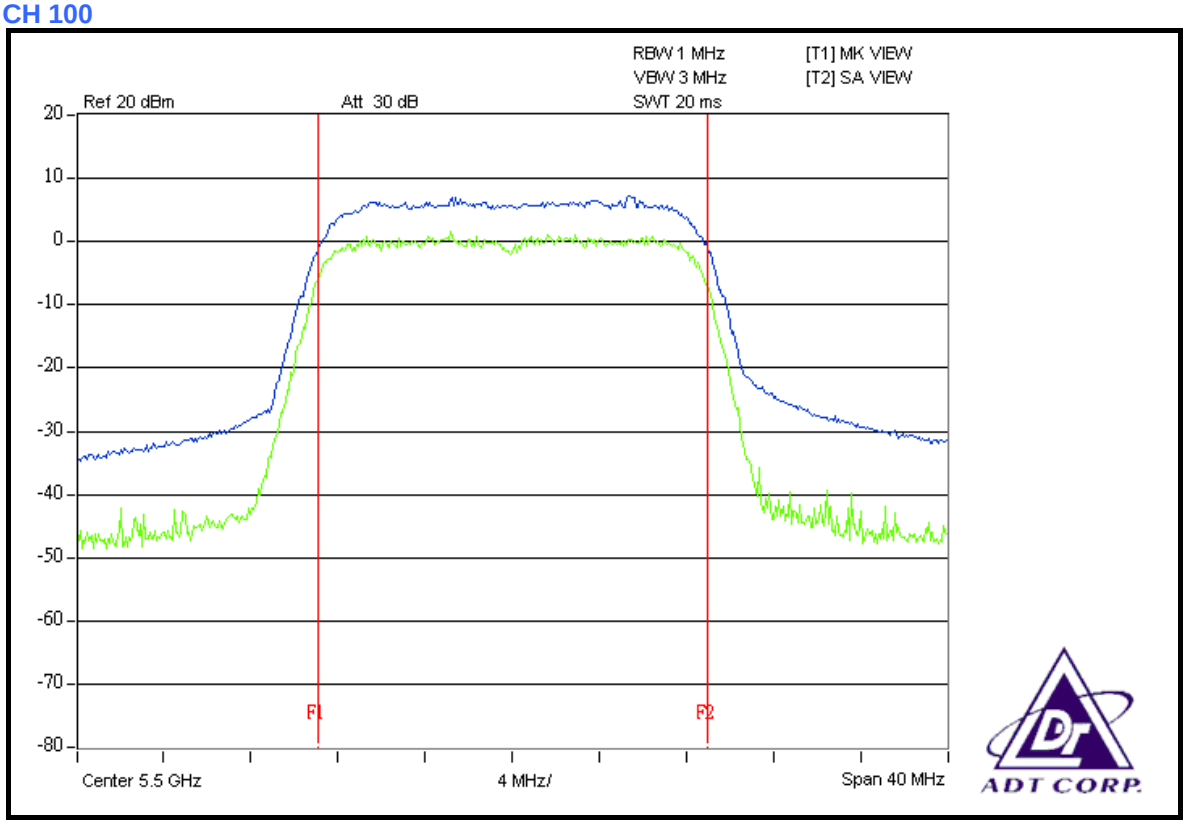

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
7.95 dB
5.305600 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.291 GHz
1.8 MHz/
Stop 5.309 GHz

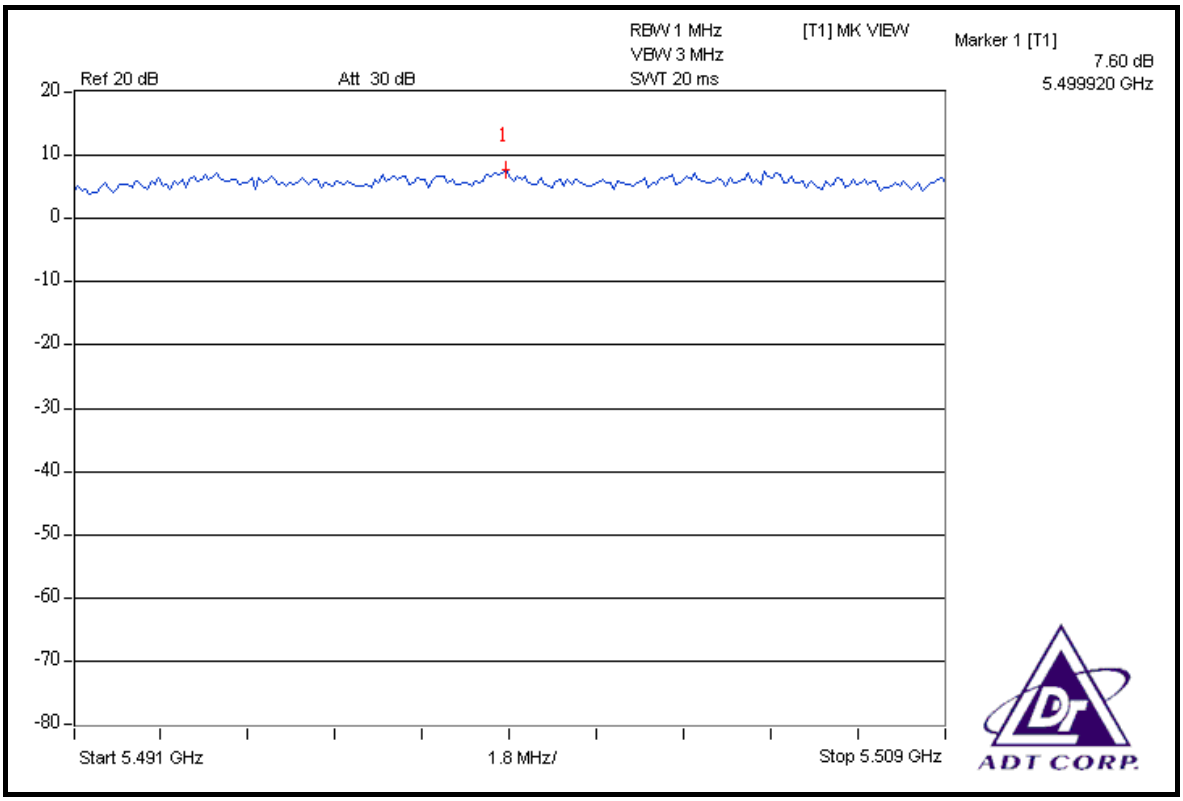
CH 64


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.32 GHz
4 MHz/
Span 40 MHz
ADT CORP.

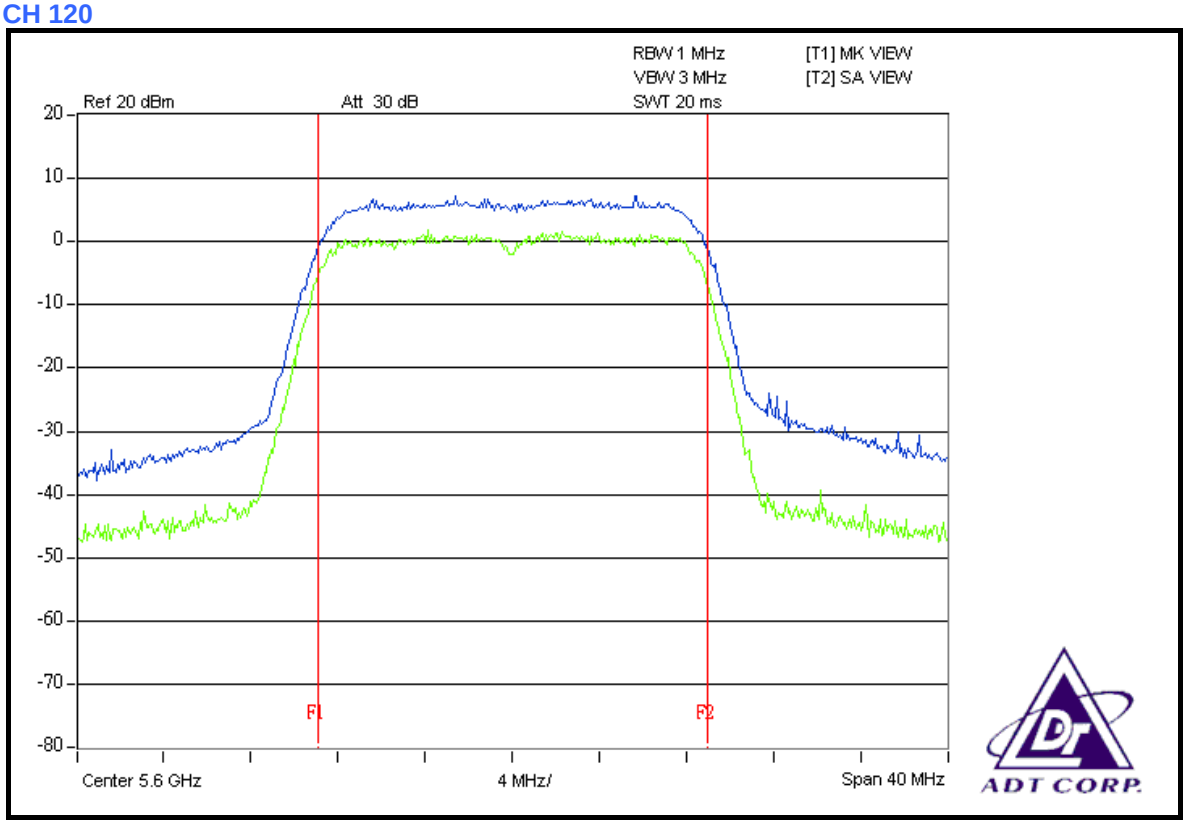

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
7.50 dB
5.317440 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.311 GHz
1.8 MHz/
Stop 5.329 GHz
ADT CORP.

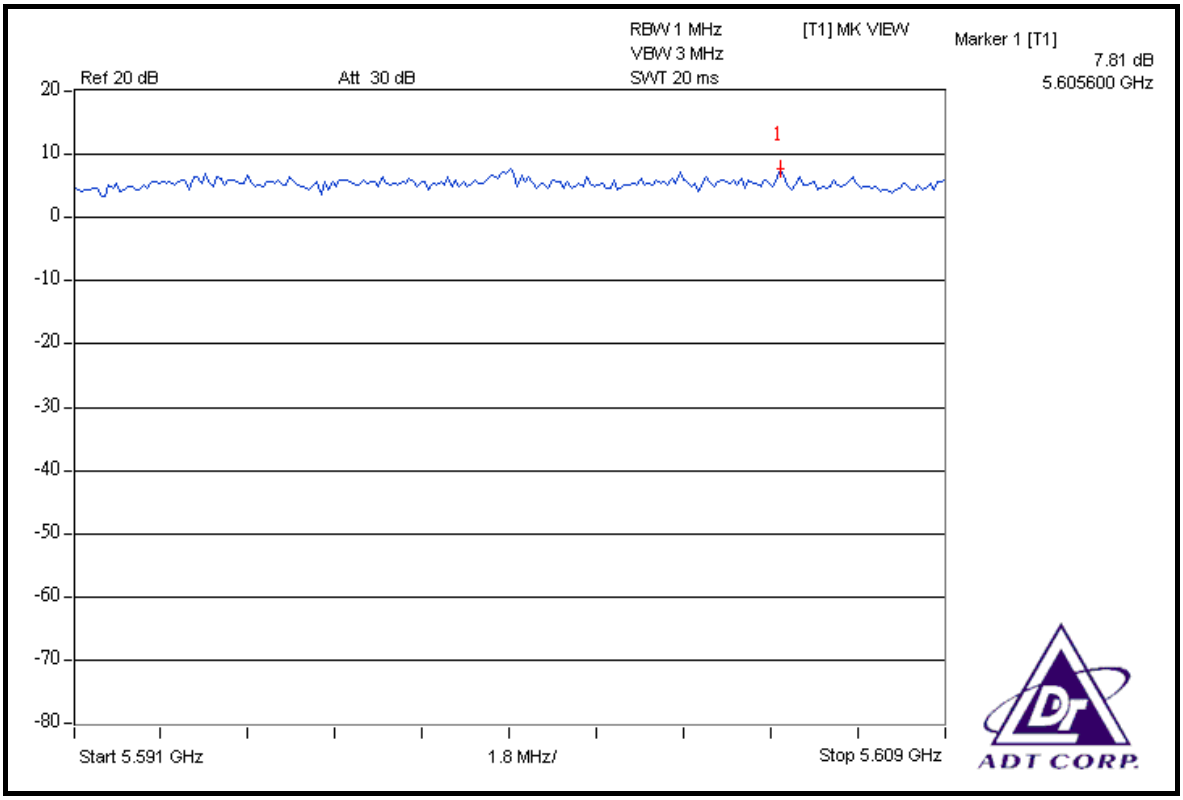
CH 100


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.5 GHz
4 MHz/
Span 40 MHz

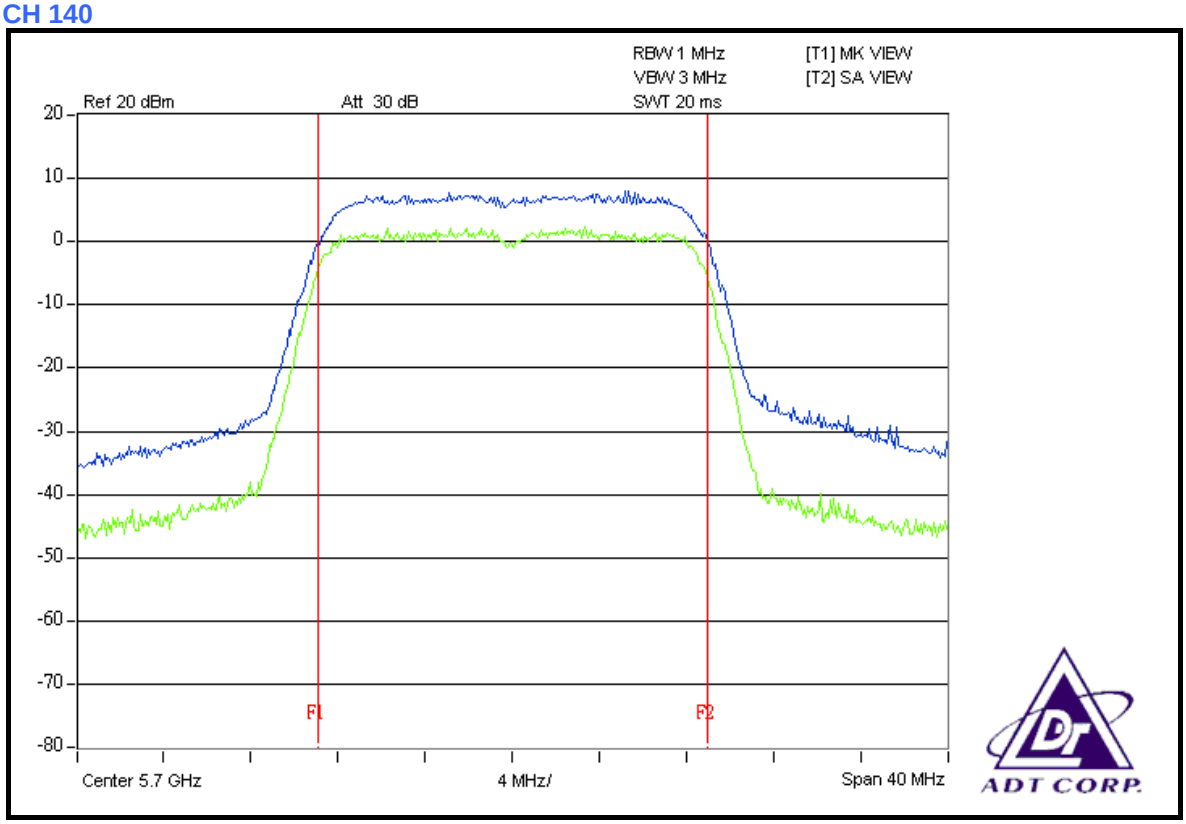

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
7.60 dB
5.499920 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.491 GHz
1.8 MHz/
Stop 5.509 GHz

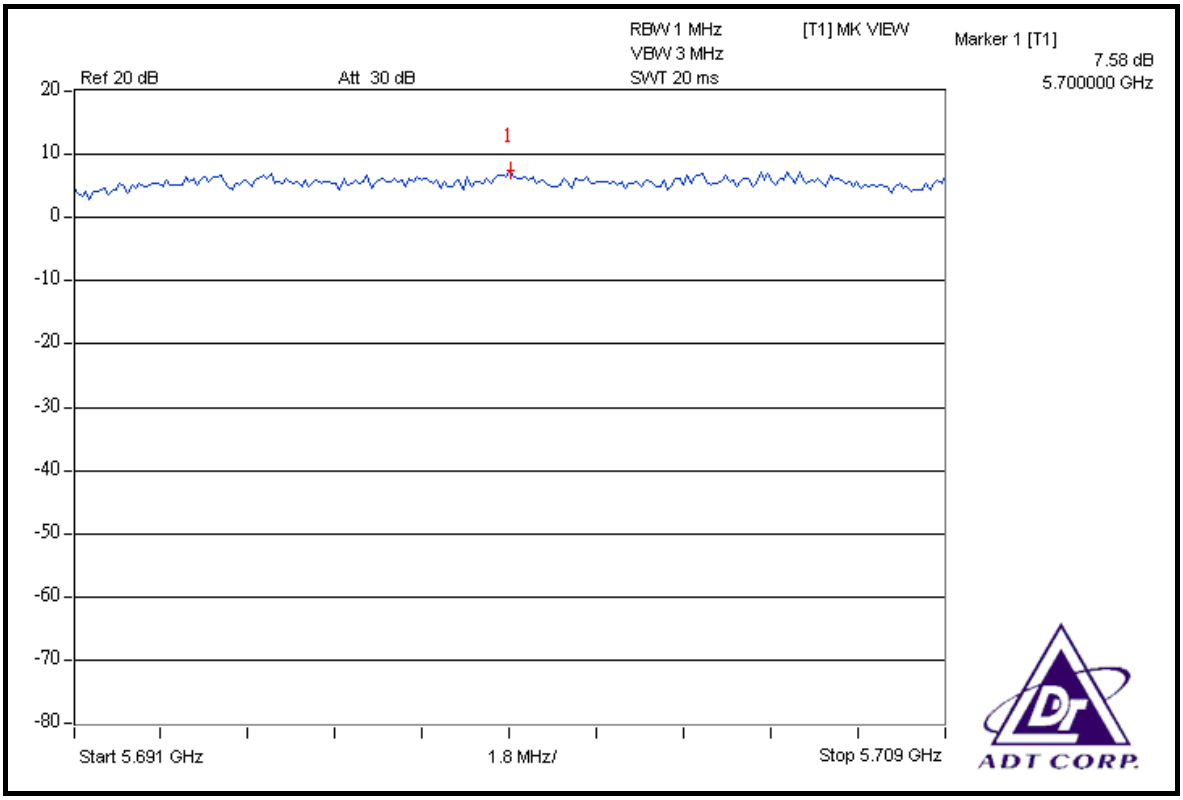
CH 120


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.6 GHz
4 MHz/
Span 40 MHz
ADT CORP.

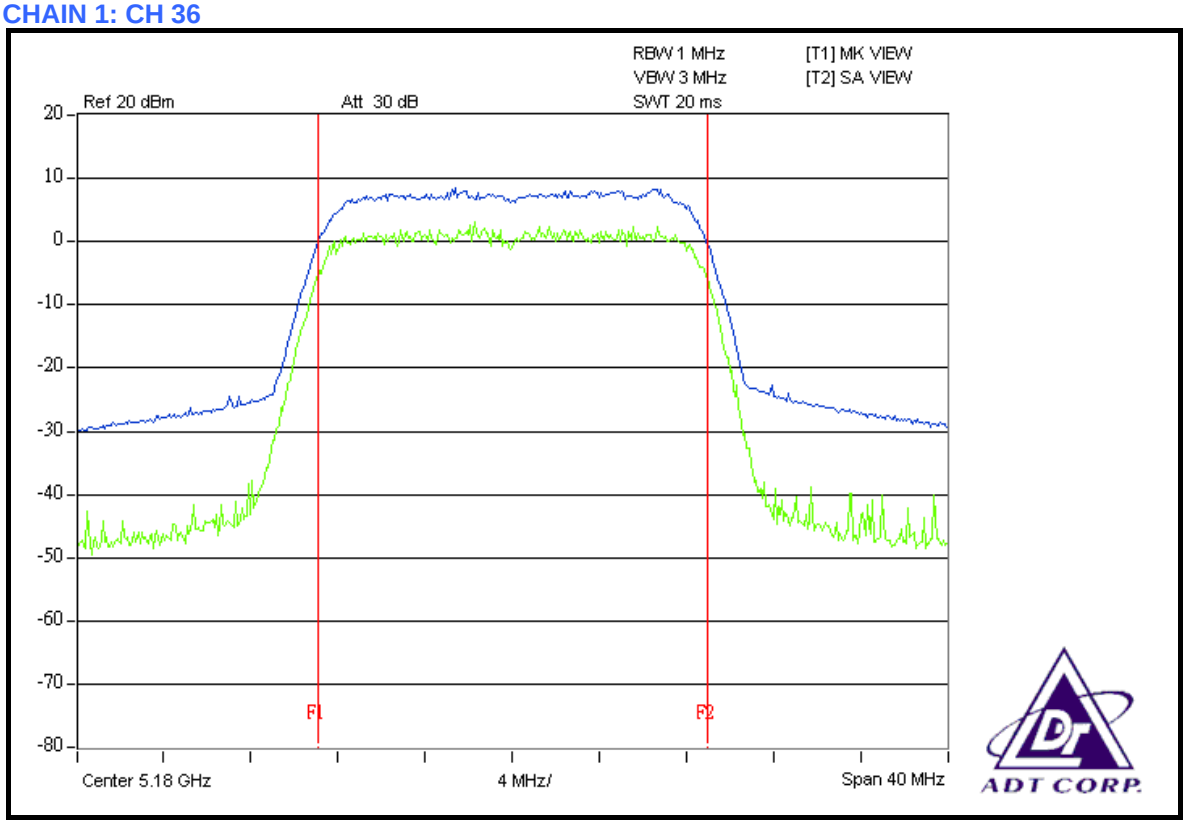

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
7.81 dB
5.605600 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.591 GHz
1.8 MHz/
Stop 5.609 GHz
ADT CORP.

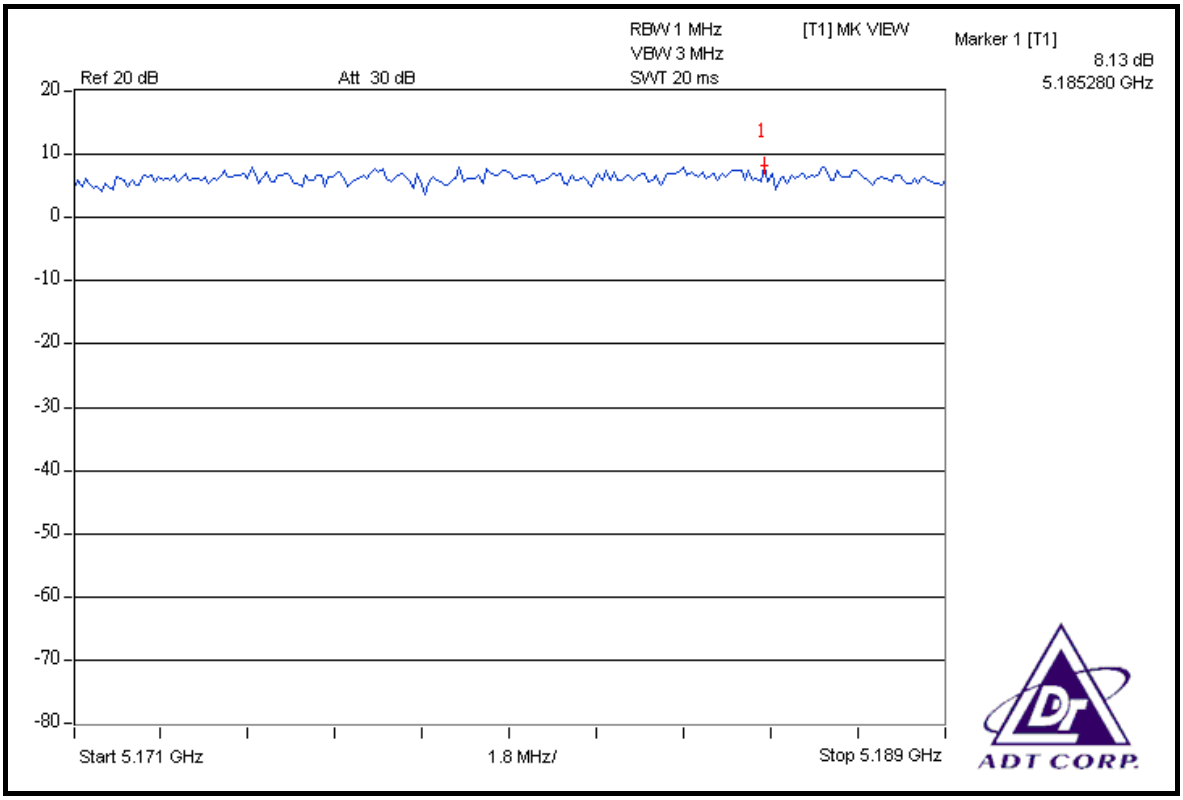
CH 140


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.7 GHz
4 MHz/
Span 40 MHz
ADT CORP.

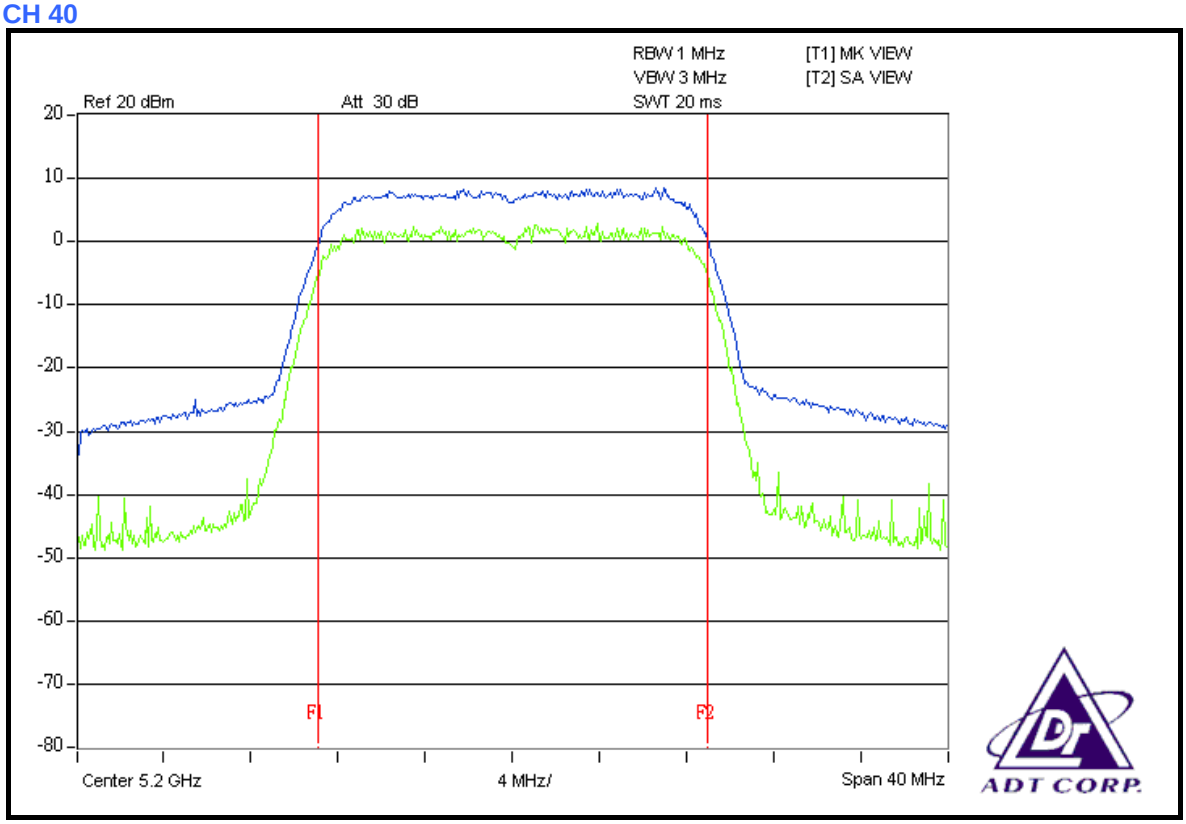

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
7.58 dB
5.700000 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.691 GHz
1.8 MHz/
Stop 5.709 GHz
ADT CORP.

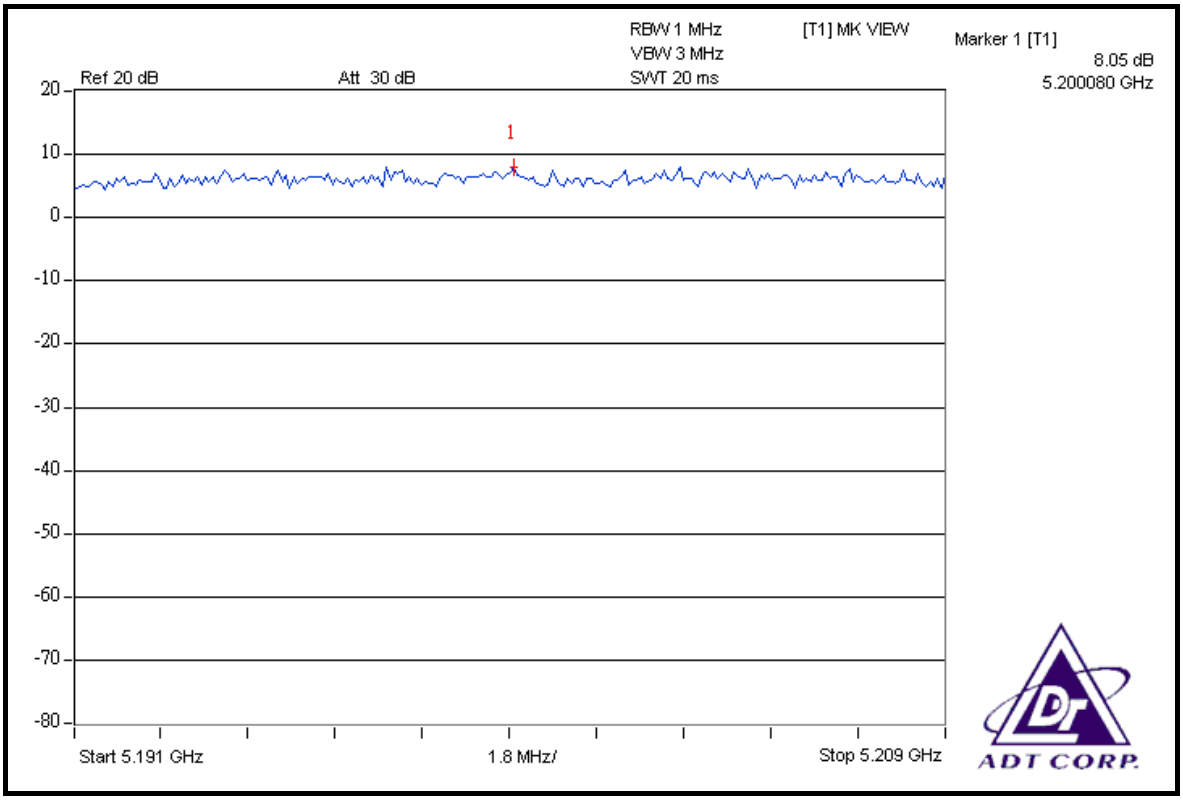
CHAIN 1: CH 36


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.18 GHz
4 MHz/
Span 40 MHz
ADT CORP.

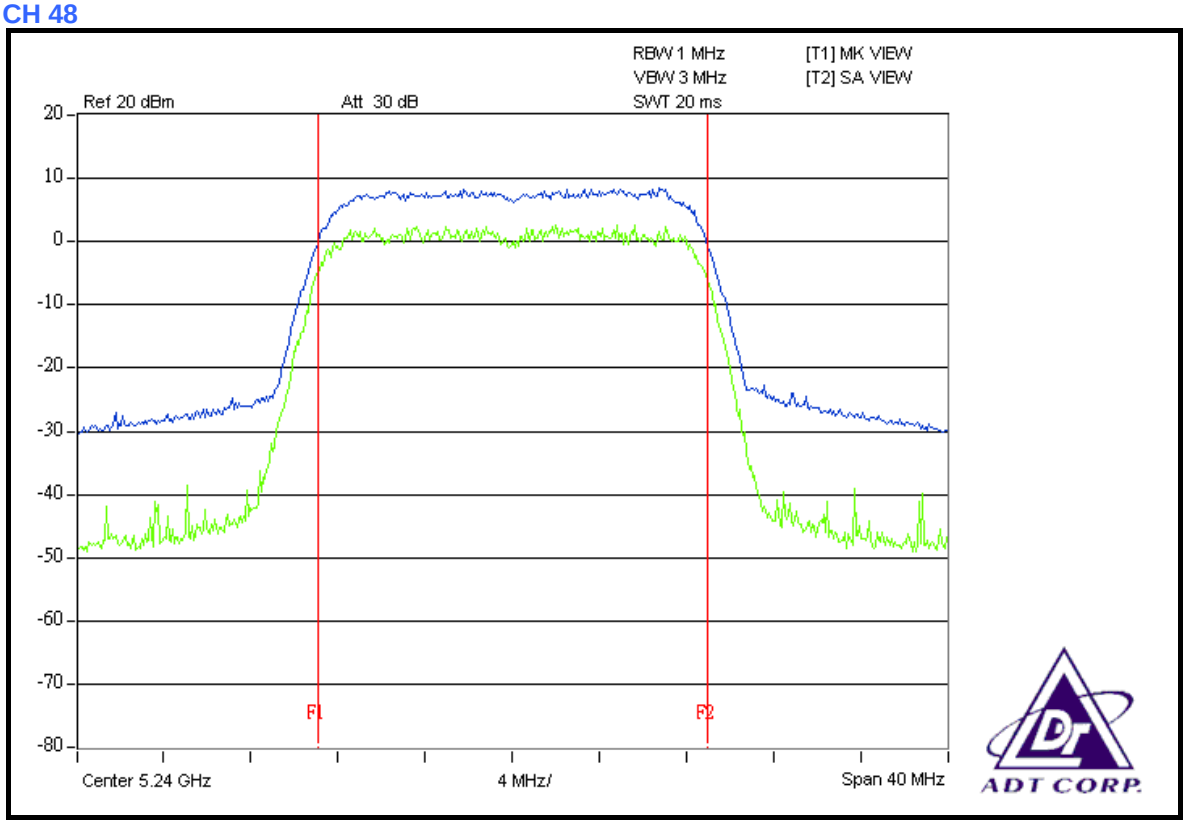

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.13 dB
5.185280 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.171 GHz
1.8 MHz/
Stop 5.189 GHz
ADT CORP.

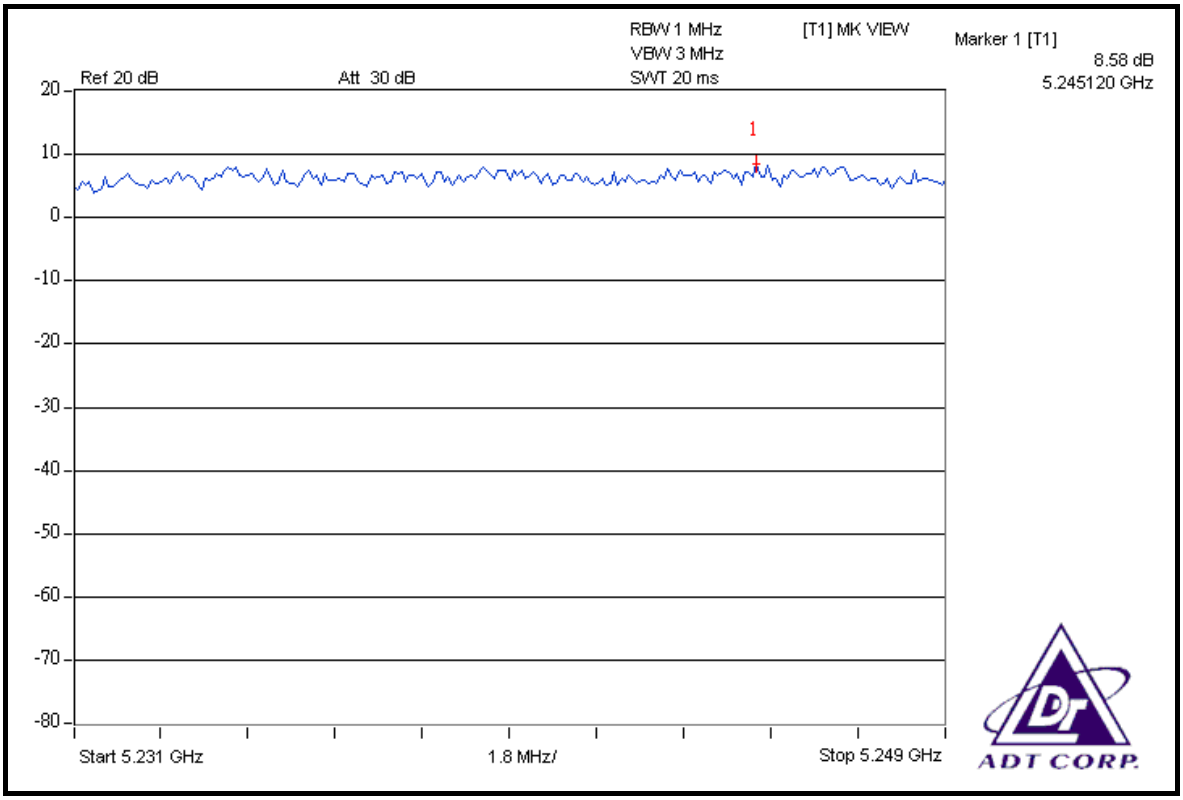
CH 40


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.2 GHz
4 MHz/
Span 40 MHz

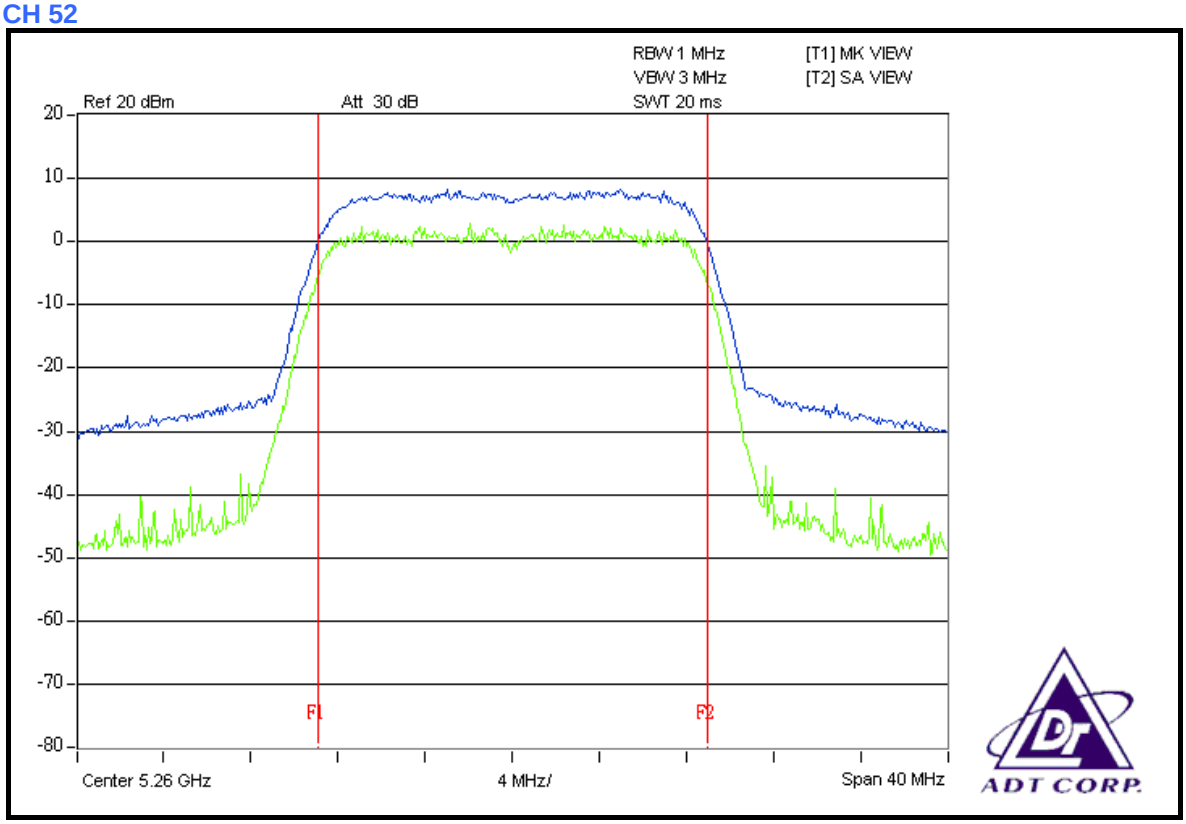

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.05 dB
5.200080 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.191 GHz
1.8 MHz/
Stop 5.209 GHz

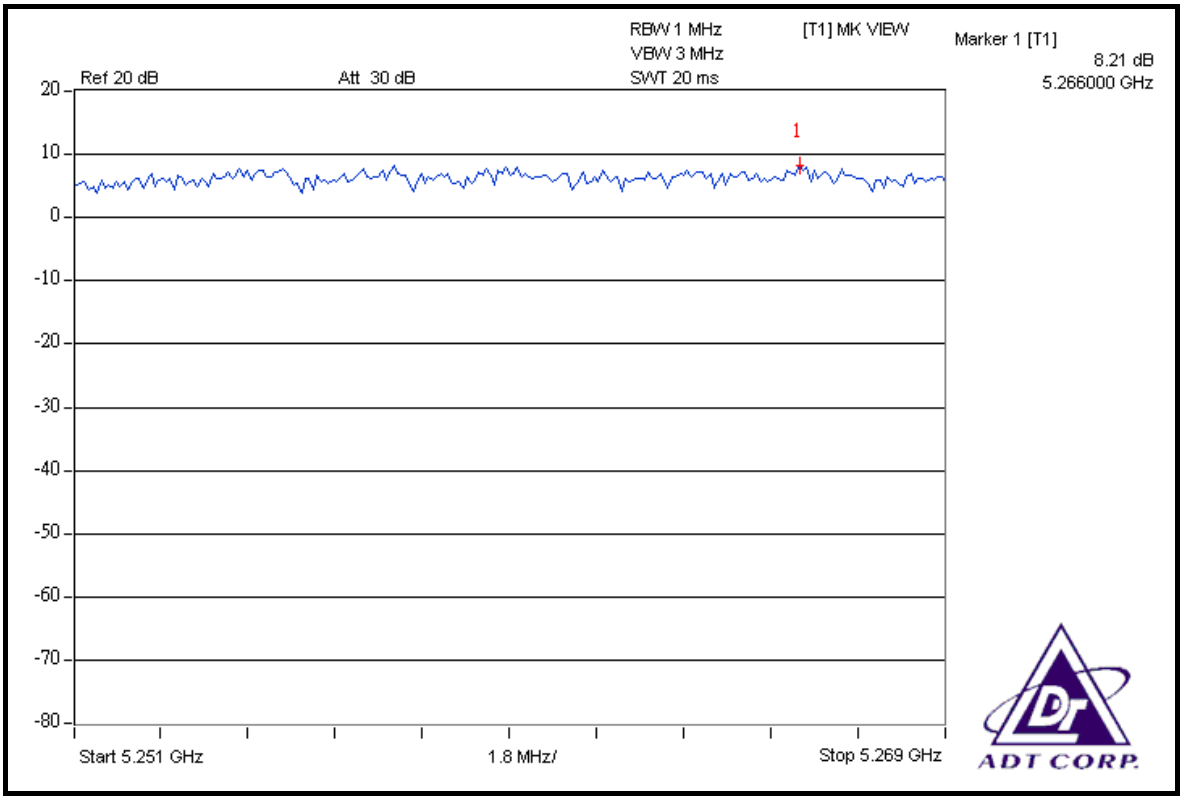
CH 48


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.24 GHz
4 MHz/
Span 40 MHz
ADT CORP.

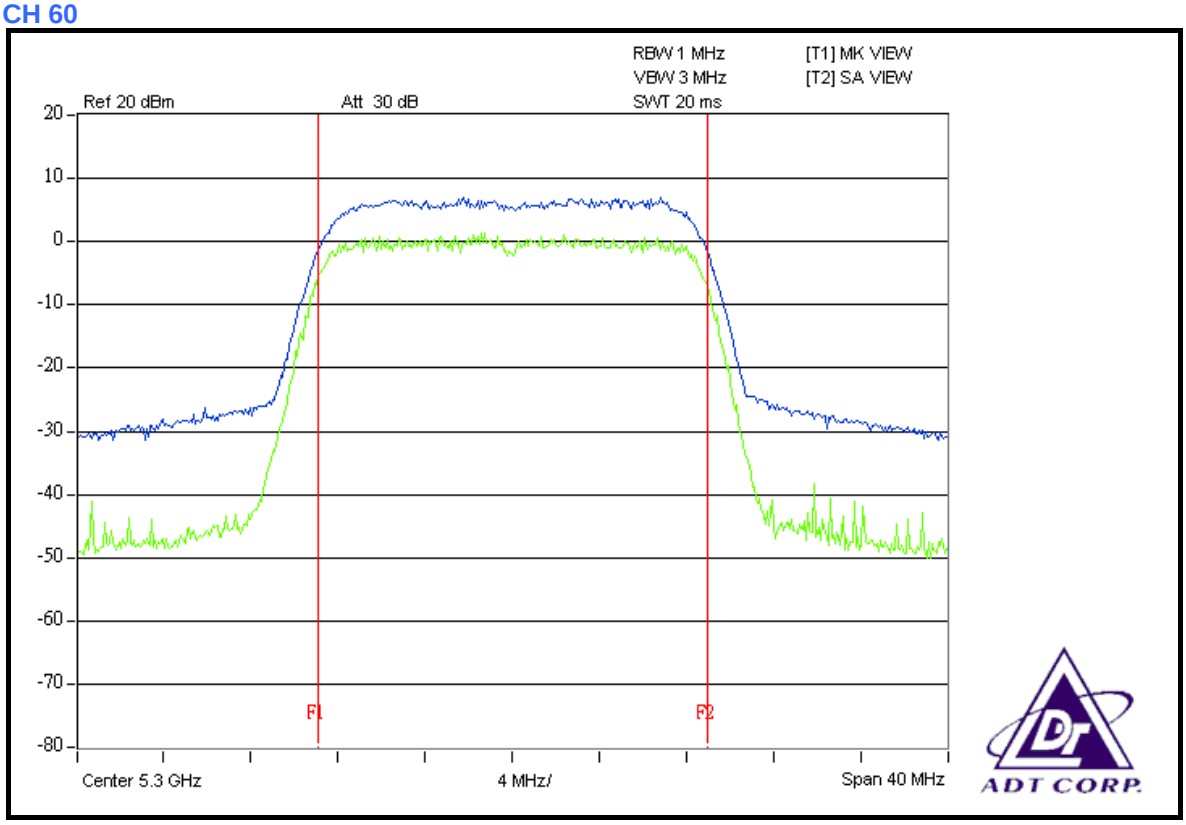

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.58 dB
5.245120 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.231 GHz
1.8 MHz/
Stop 5.249 GHz
ADT CORP.

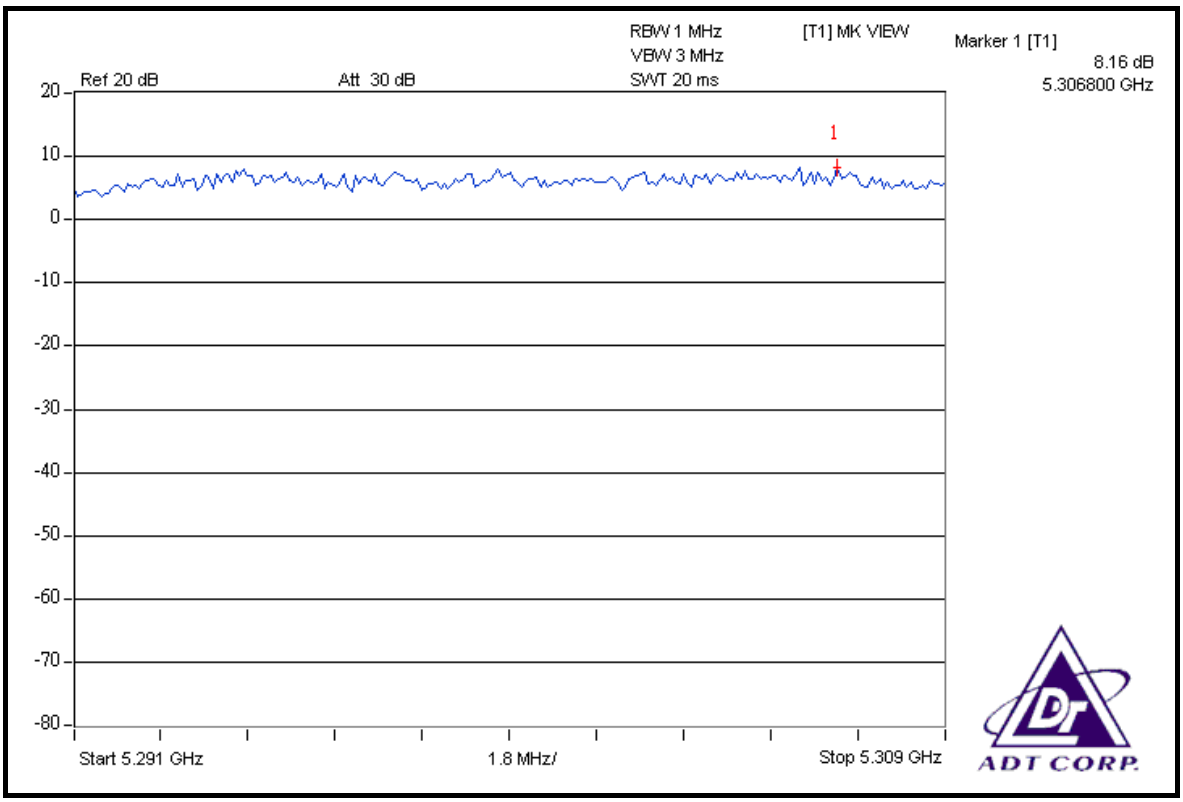
CH 52


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.26 GHz
4 MHz/
Span 40 MHz
ADT CORP.

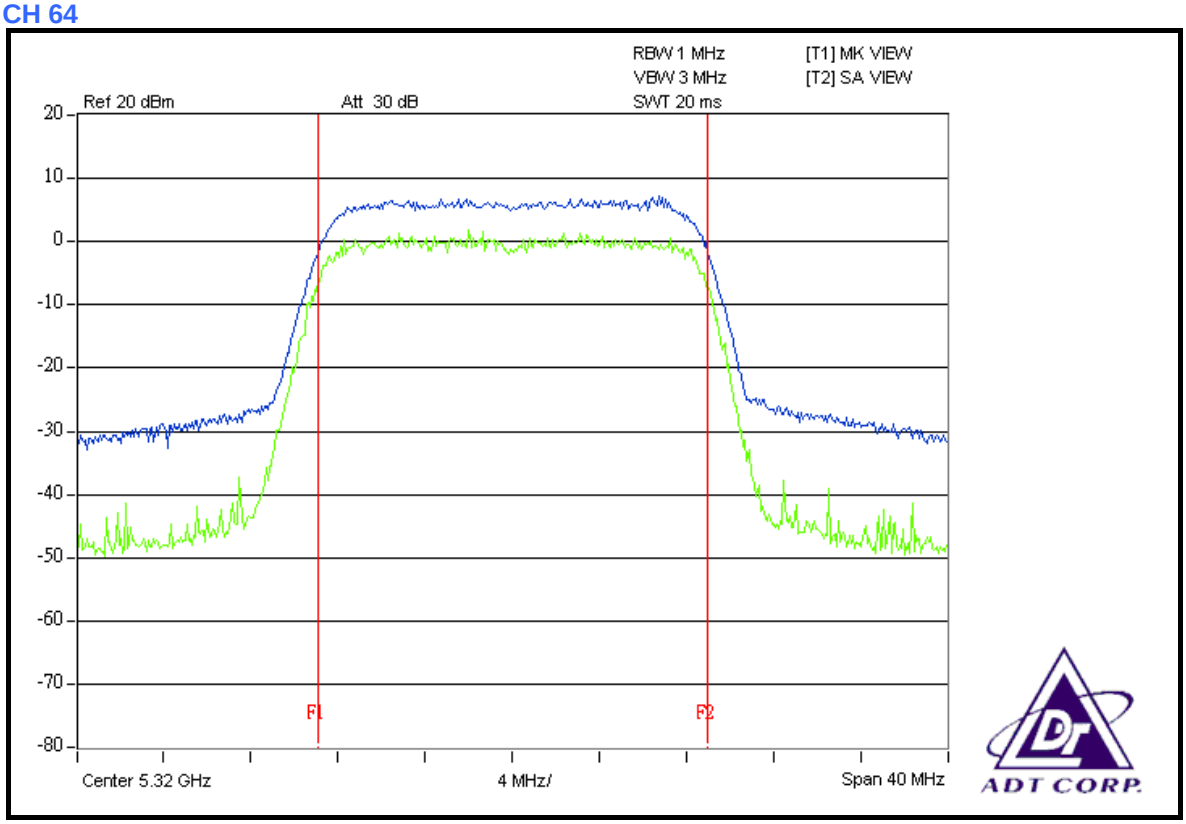

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.21 dB
5.266000 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.251 GHz
1.8 MHz/
Stop 5.269 GHz
ADT CORP.

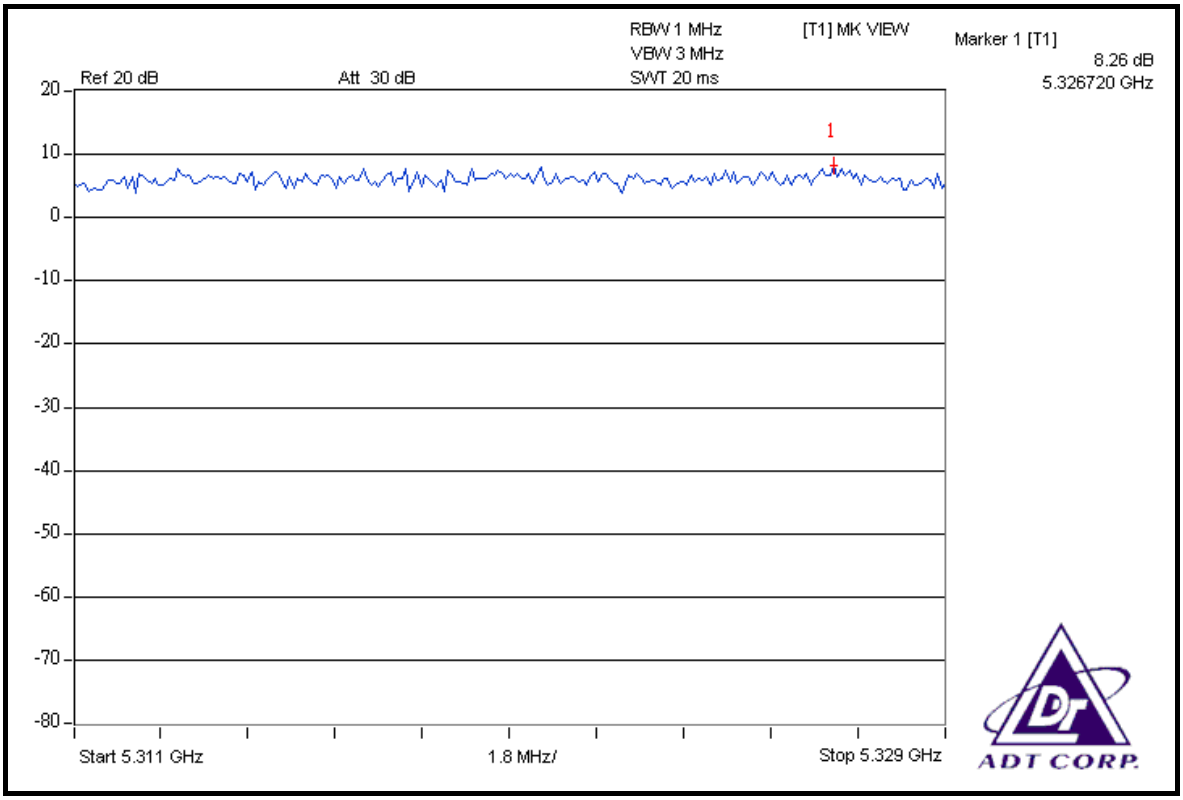
CH 60


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.3 GHz
4 MHz/
Span 40 MHz
ADT CORP.

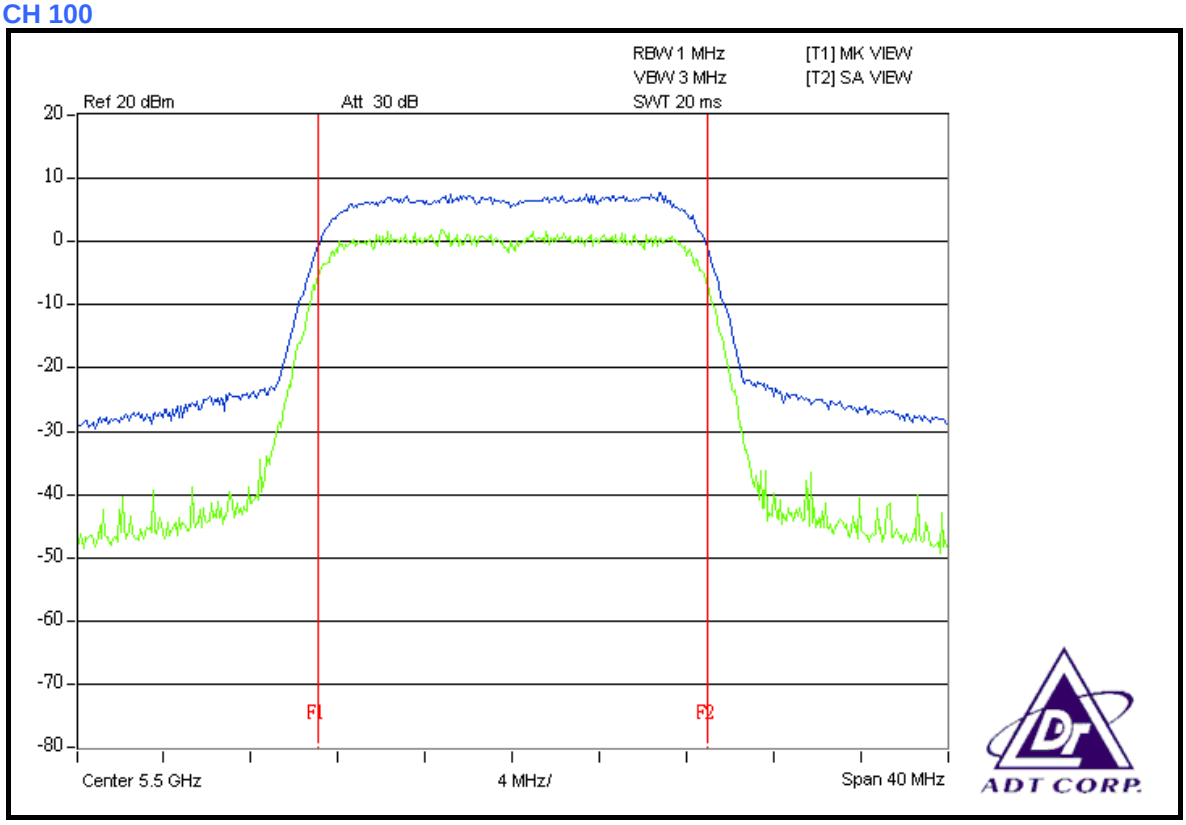

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.16 dB
5.306800 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.291 GHz
1.8 MHz/
Stop 5.309 GHz
ADT CORP.

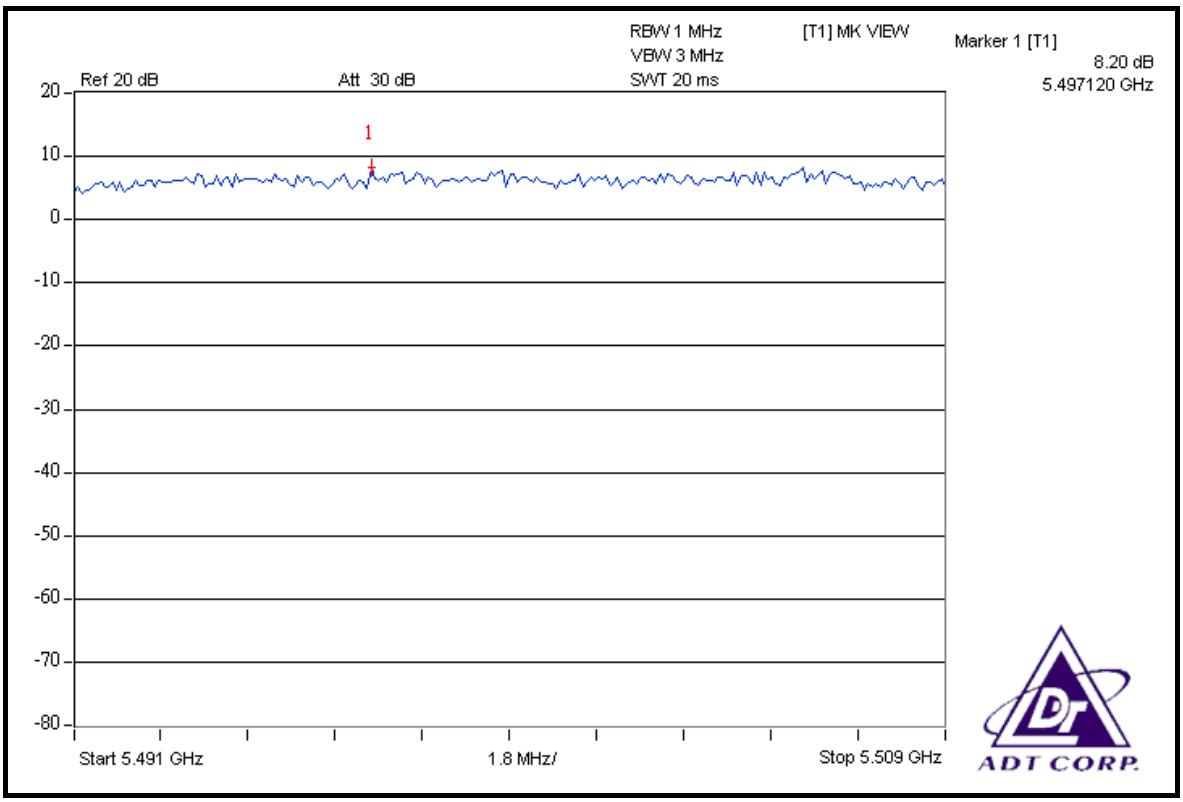
CH 64


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.32 GHz
4 MHz/
Span 40 MHz

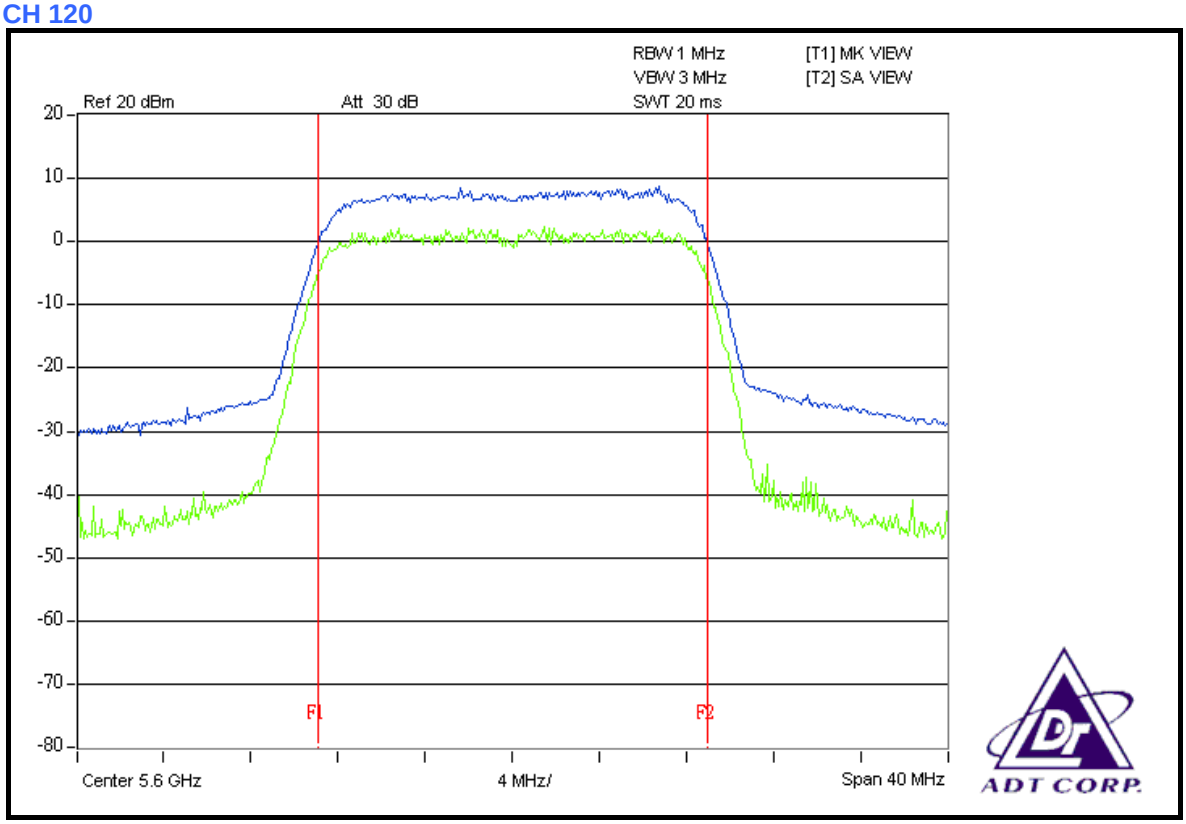

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.26 dB
5.326720 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.311 GHz
1.8 MHz/
Stop 5.329 GHz

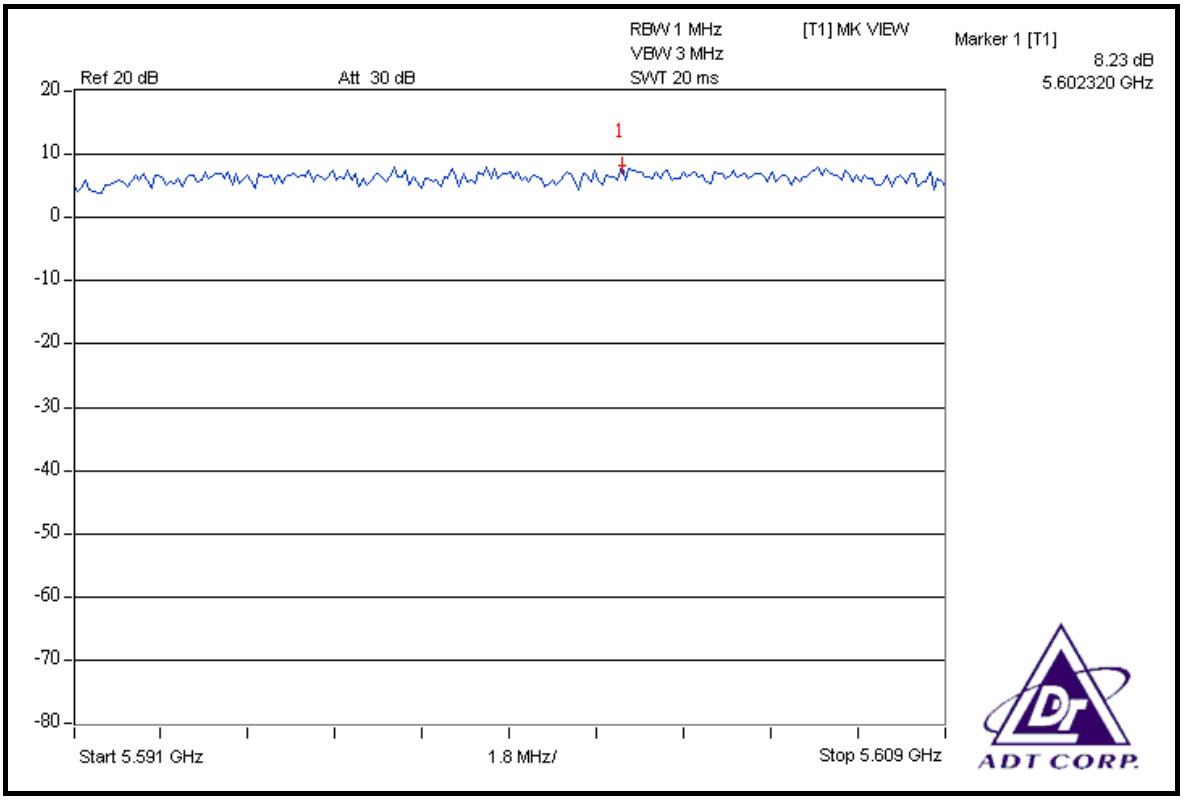
CH 100


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.5 GHz
4 MHz/
Span 40 MHz
ADT CORP.

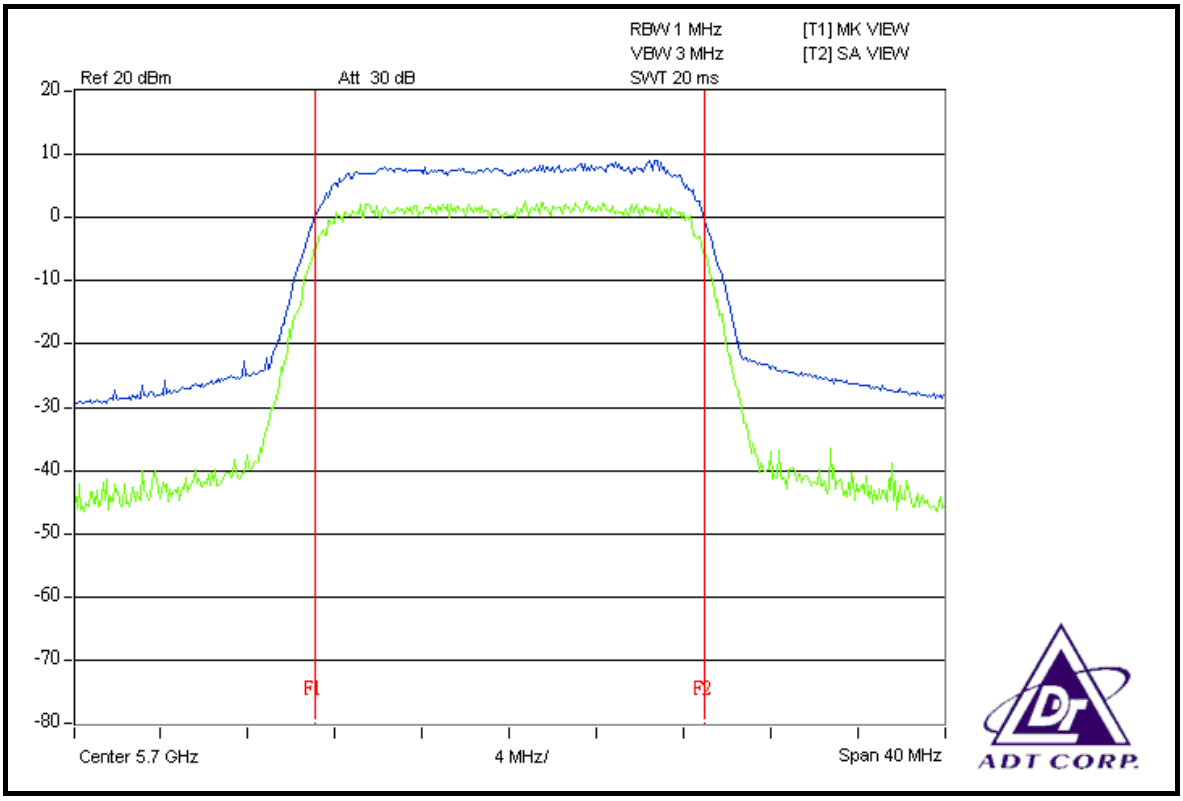

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.20 dB
5.497120 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.491 GHz
1.8 MHz/
Stop 5.509 GHz
ADT CORP.

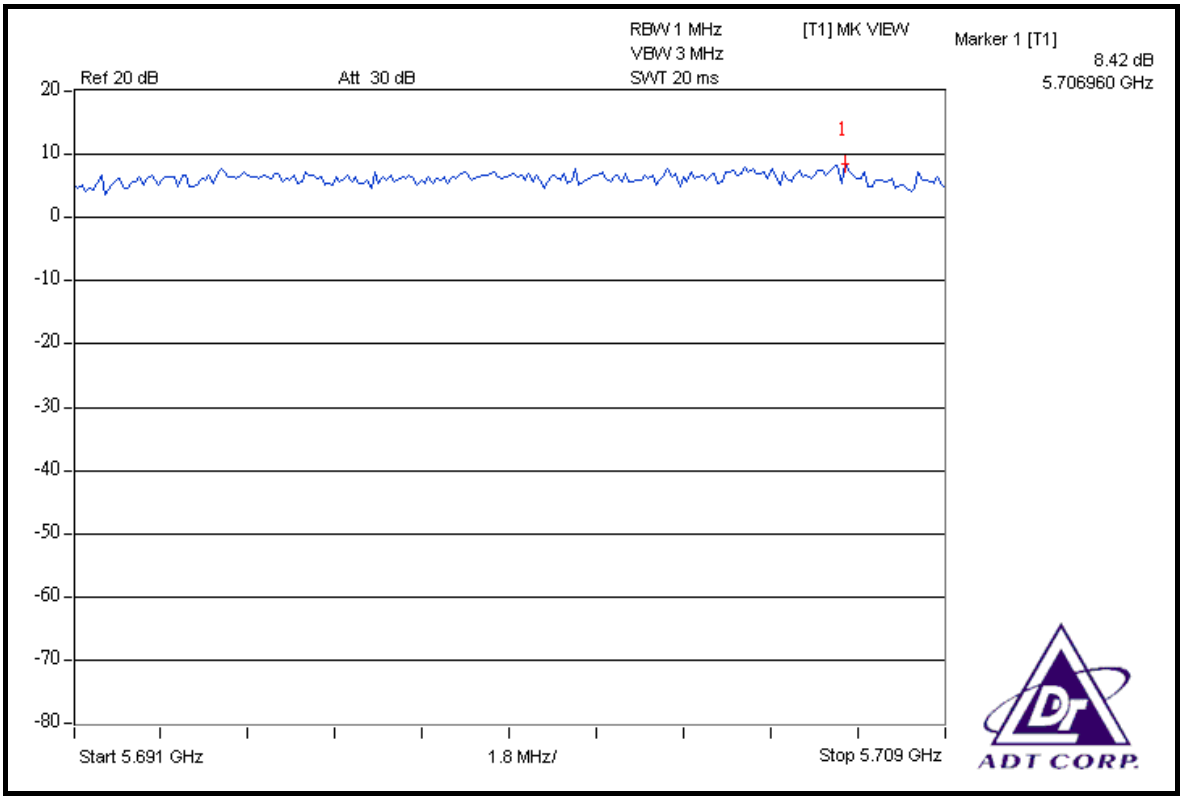
CH 120


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.6 GHz
4 MHz/
Span 40 MHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.23 dB
5.602320 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.591 GHz
1.8 MHz/
Stop 5.609 GHz

CH 140


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.7 GHz
4 MHz/
Span 40 MHz
ADT CORP.

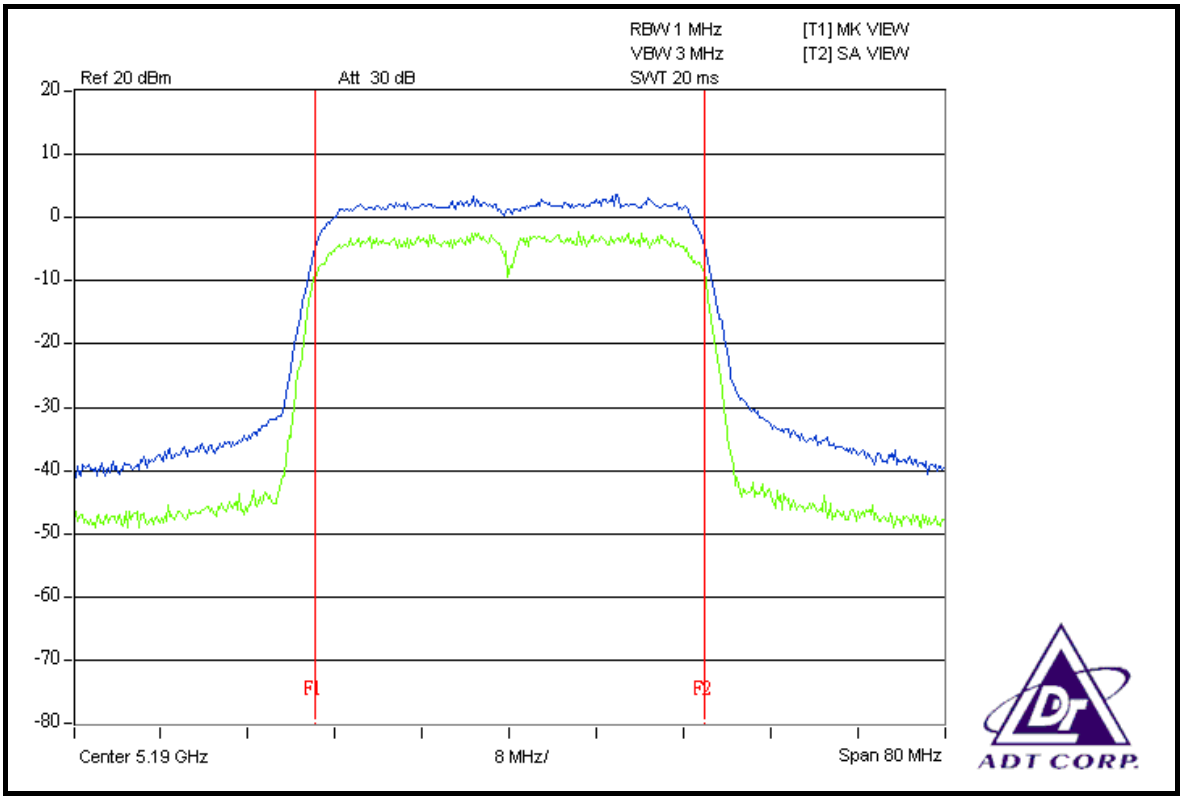

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.42 dB
5.706960 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.691 GHz
1.8 MHz/
Stop 5.709 GHz
ADT CORP.

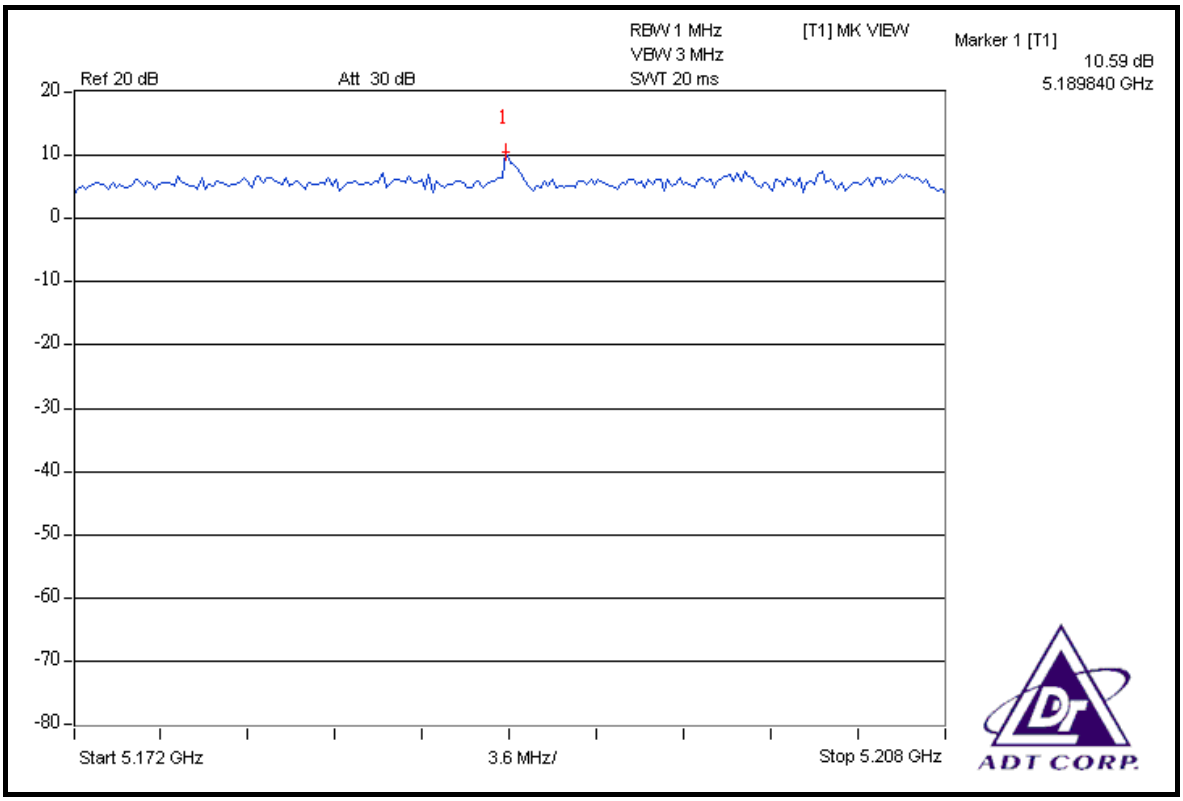
DRAFT 802.11n (40MHz) OFDM MODULATION

MODULATION TYPE	BPSK	**TRANSFER RATE**	15.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25 deg.C, 65 %RH, 991hPa
TESTED BY	Brad Wu		

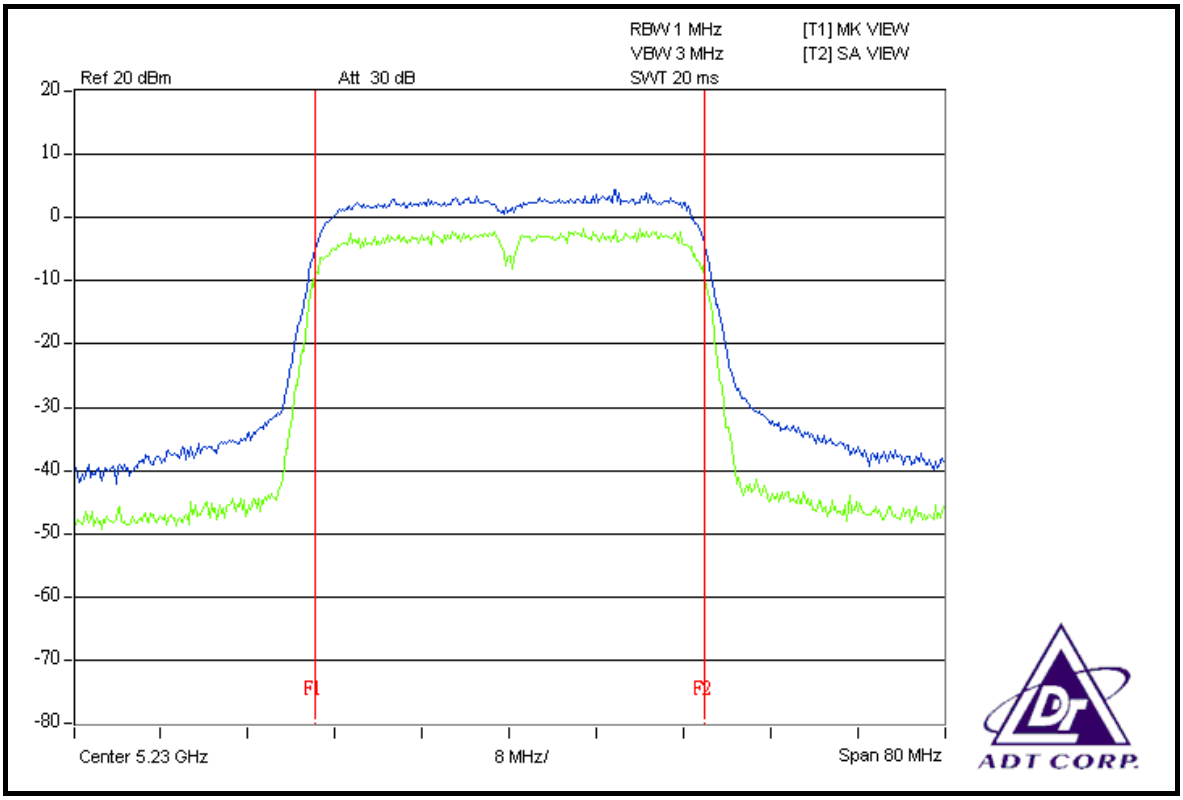
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)		PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1		
38	5190	10.59	8.39	13	PASS
46	5230	9.60	9.88	13	PASS
54	5270	9.34	8.60	13	PASS
62	5310	10.13	8.29	13	PASS
102	5510	10.07	9.10	13	PASS
118	5590	9.69	8.77	13	PASS
134	5670	9.79	9.01	13	PASS

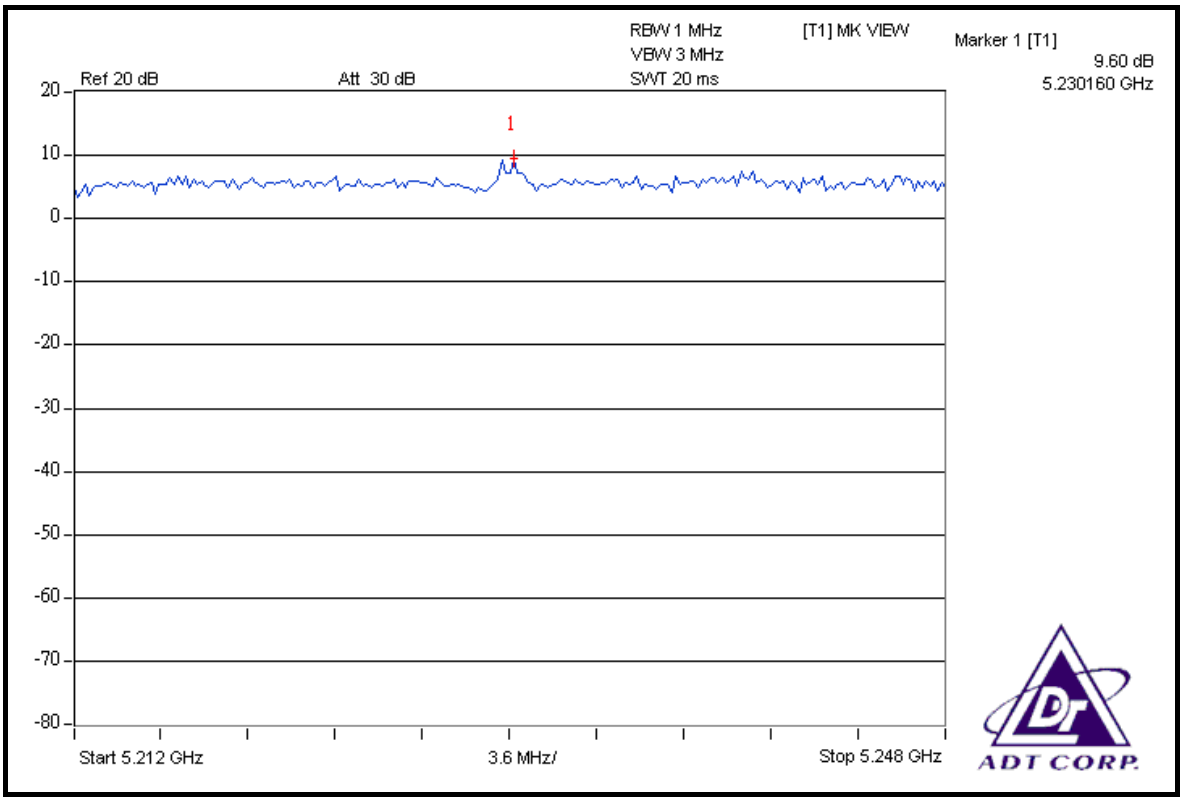
CHAIN 0: CH 38


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.19 GHz
8 MHz/
Span 80 MHz
ADT CORP.

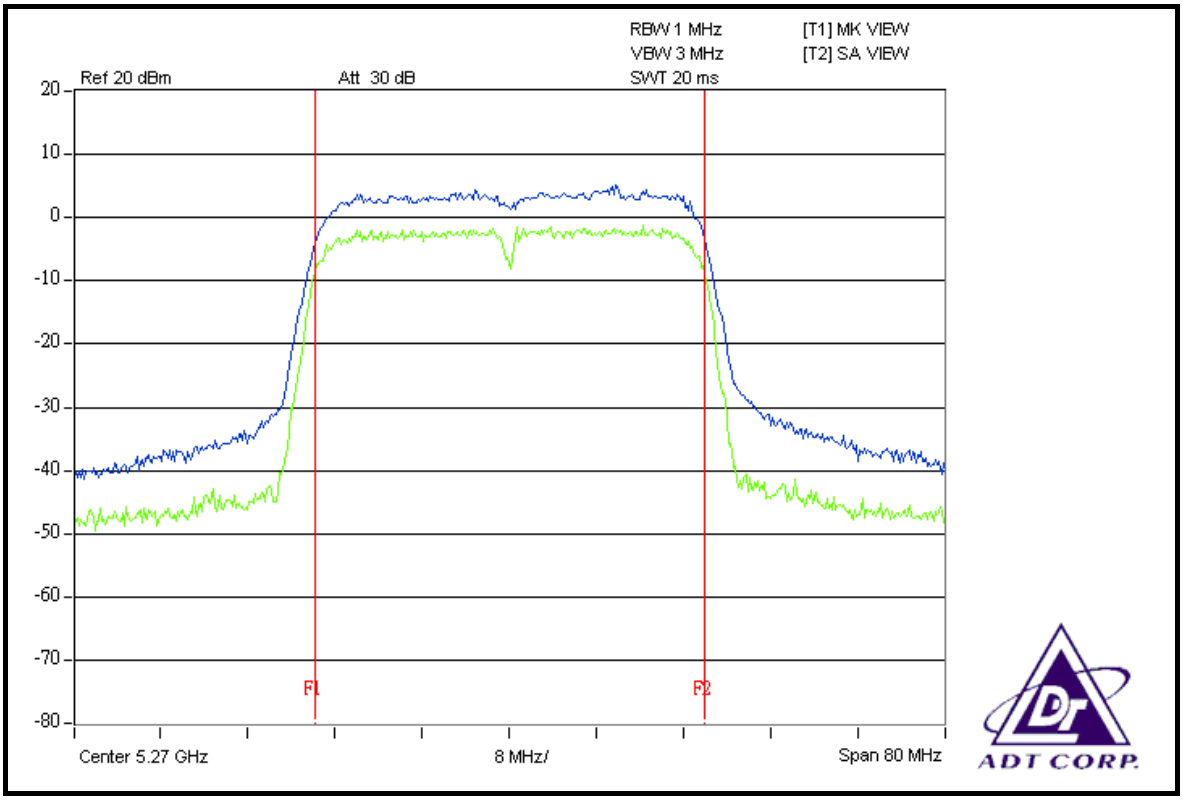

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
10.59 dB
5.189840 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.172 GHz
3.6 MHz/
Stop 5.208 GHz
ADT CORP.

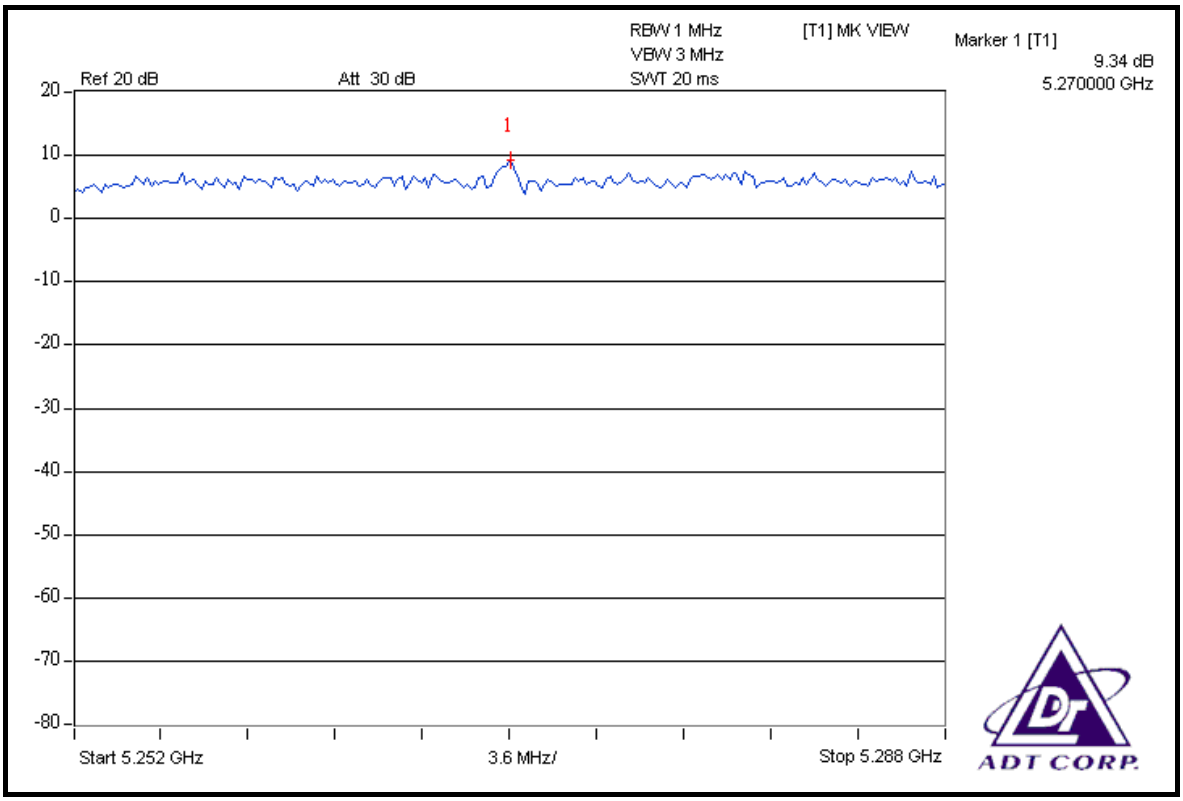
CH 46


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.23 GHz
8 MHz/
Span 80 MHz
ADT CORP.

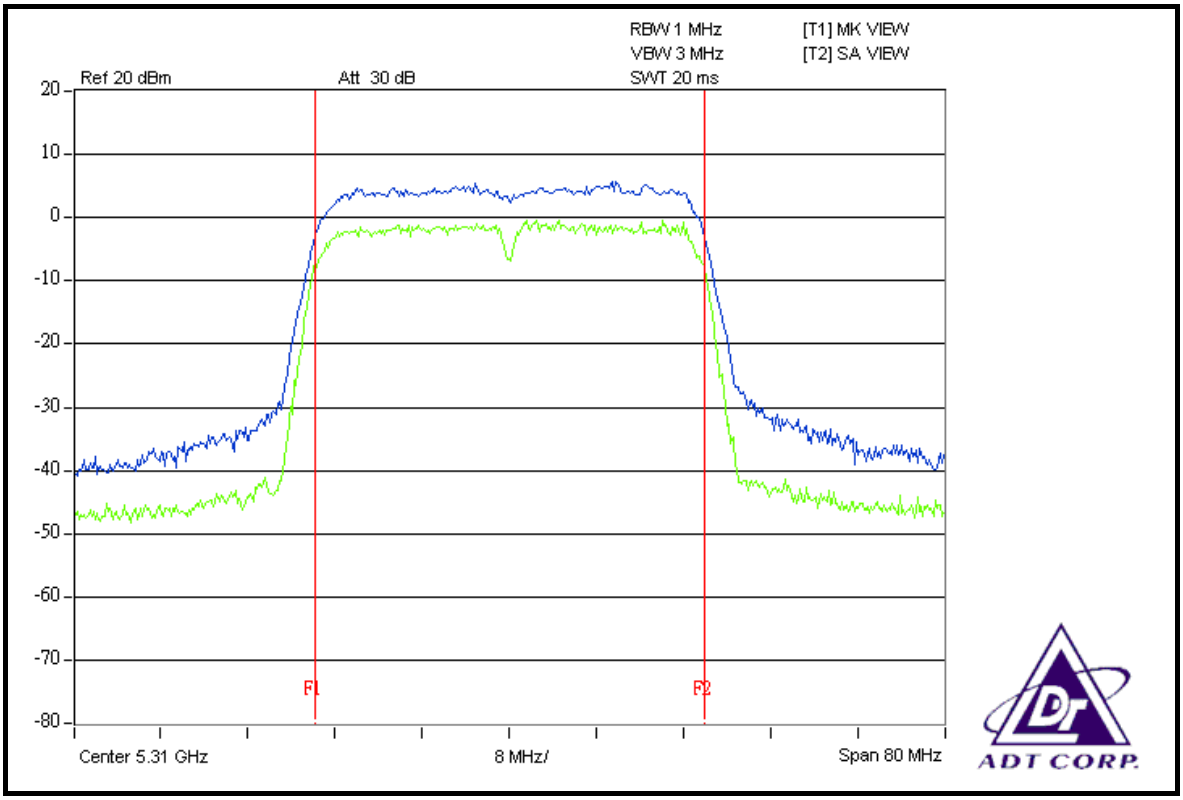

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
9.60 dB
5.230160 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.212 GHz
3.6 MHz/
Stop 5.248 GHz
ADT CORP.

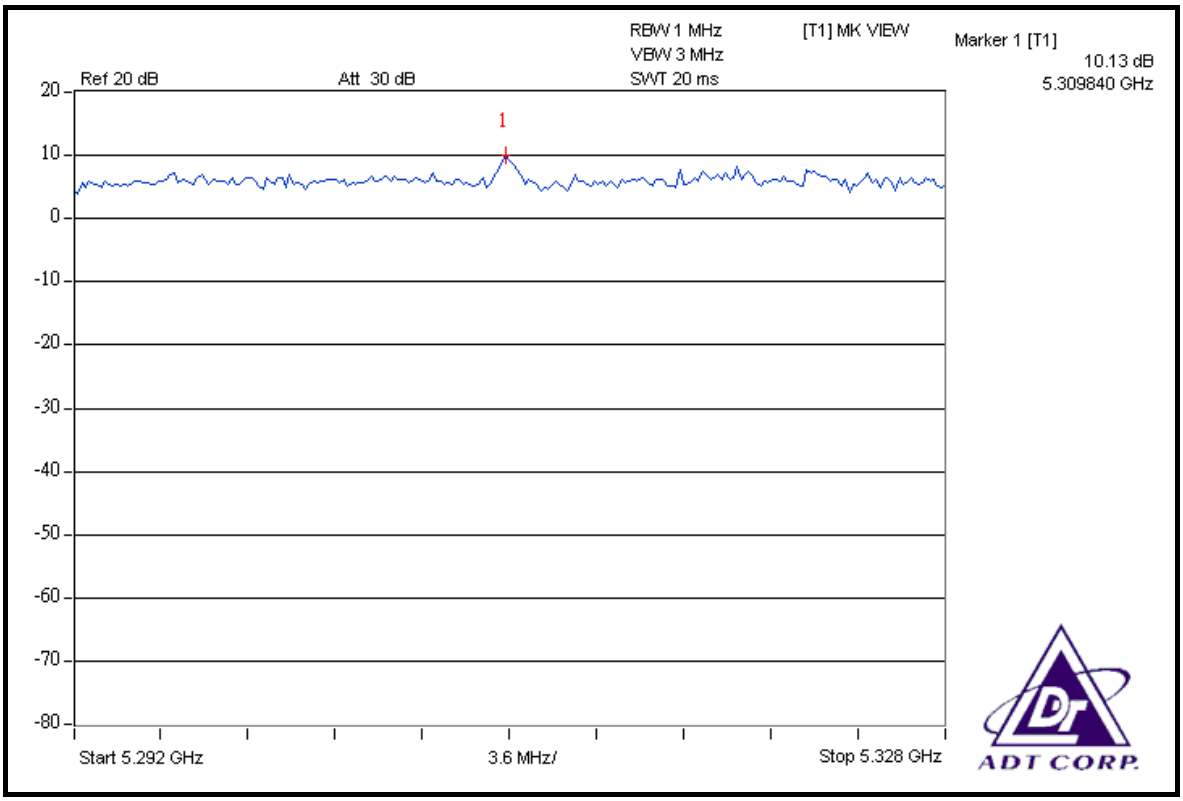
CH 54


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.27 GHz
8 MHz/
Span 80 MHz

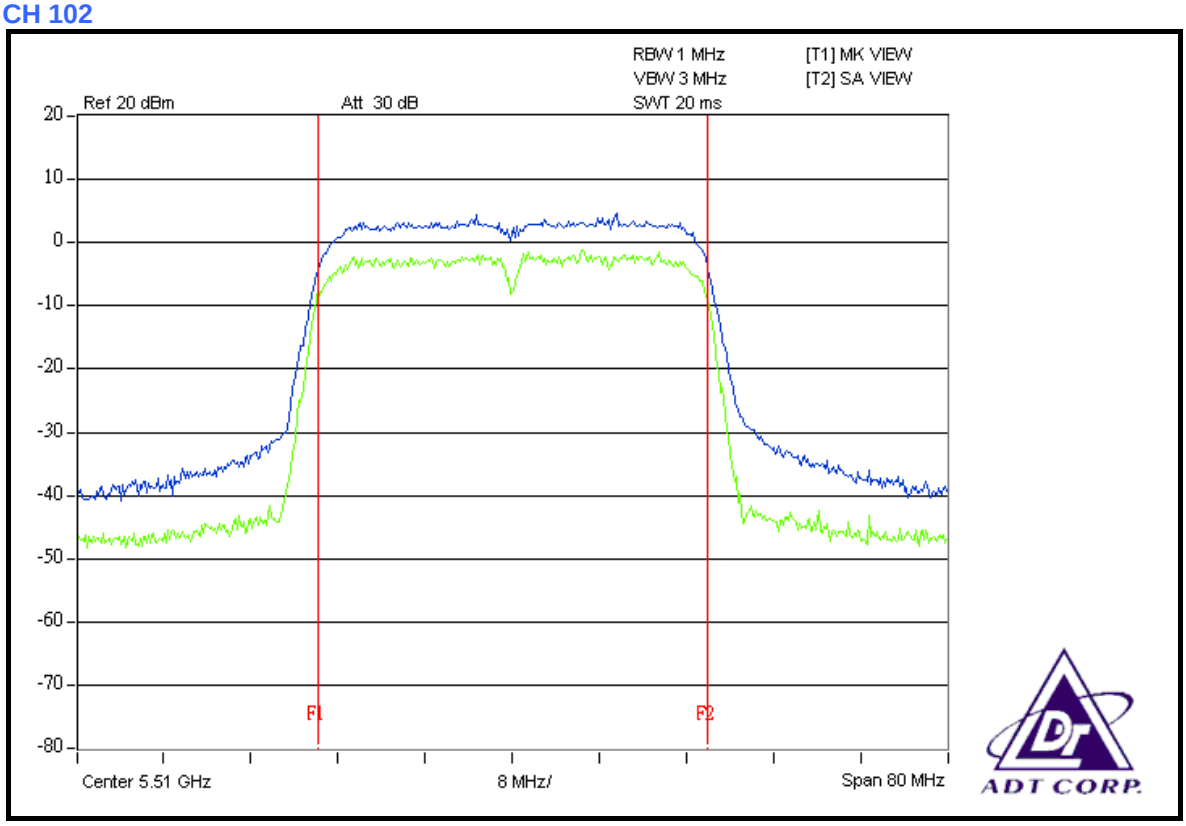

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
9.34 dB
5.270000 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.252 GHz
3.6 MHz/
Stop 5.288 GHz

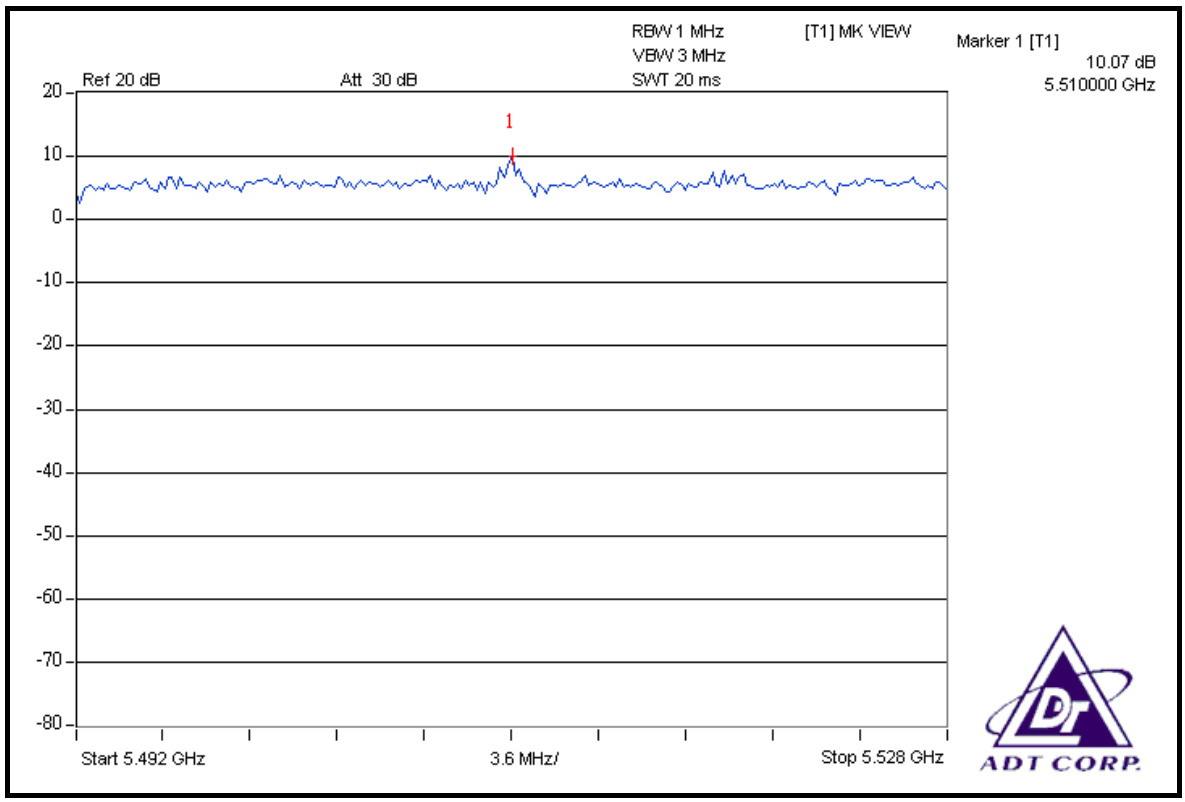
CH 62


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.31 GHz
8 MHz/
Span 80 MHz
ADT CORP.

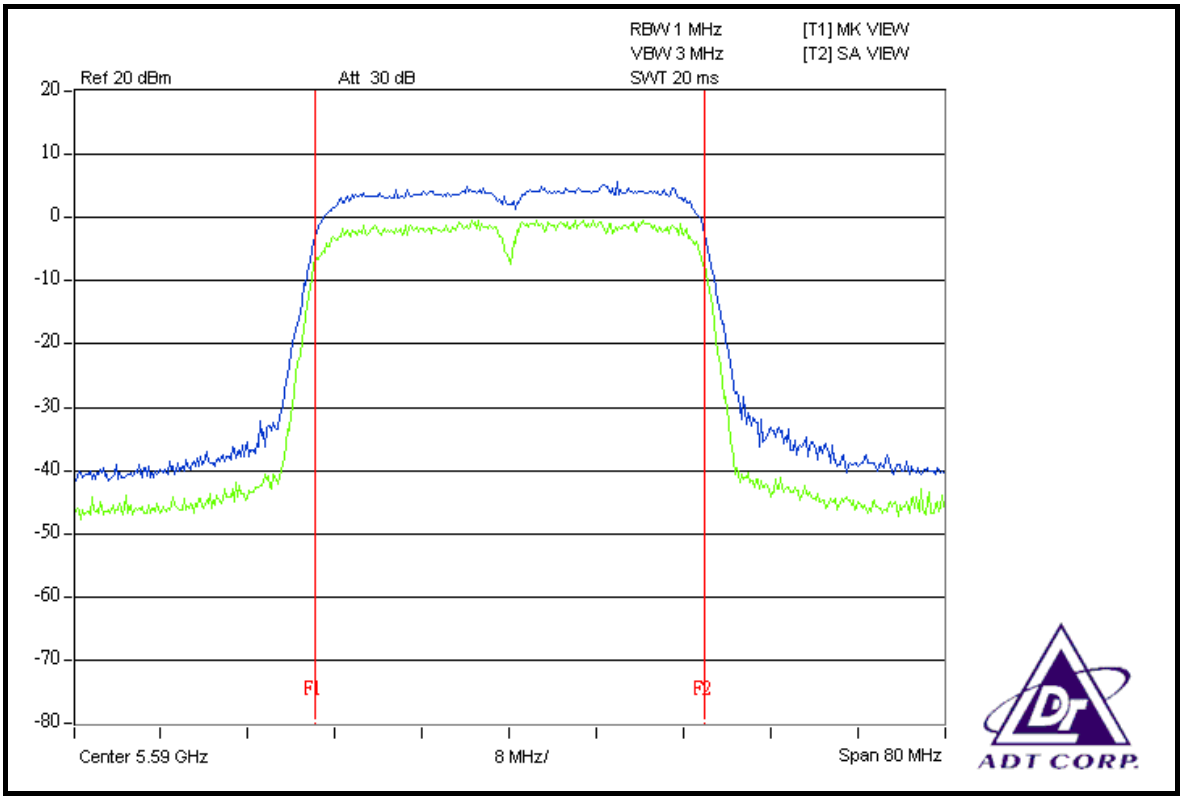

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
10.13 dB
5.309840 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.292 GHz
3.6 MHz/
Stop 5.328 GHz
ADT CORP.

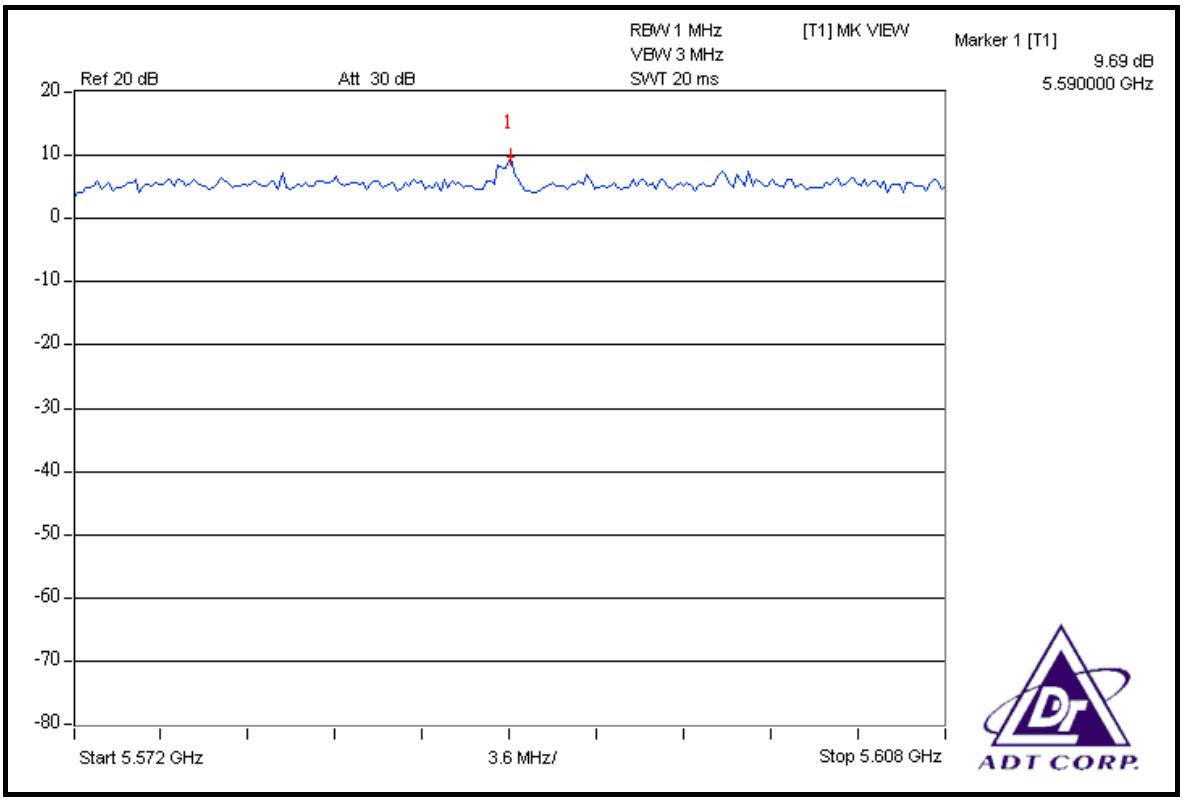
CH 102


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.51 GHz
8 MHz/
Span 80 MHz
ADT CORP.

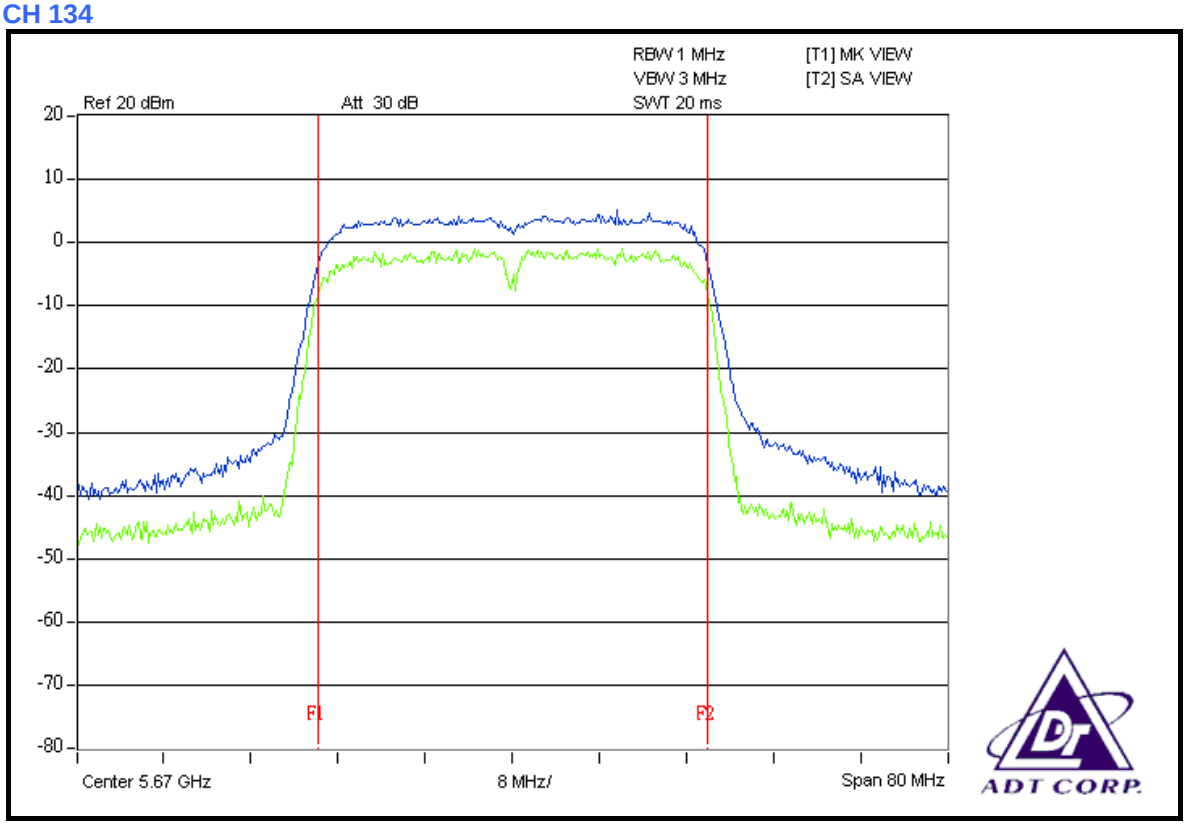

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
10.07 dB
5.510000 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.492 GHz
3.6 MHz/
Stop 5.528 GHz
ADT CORP.

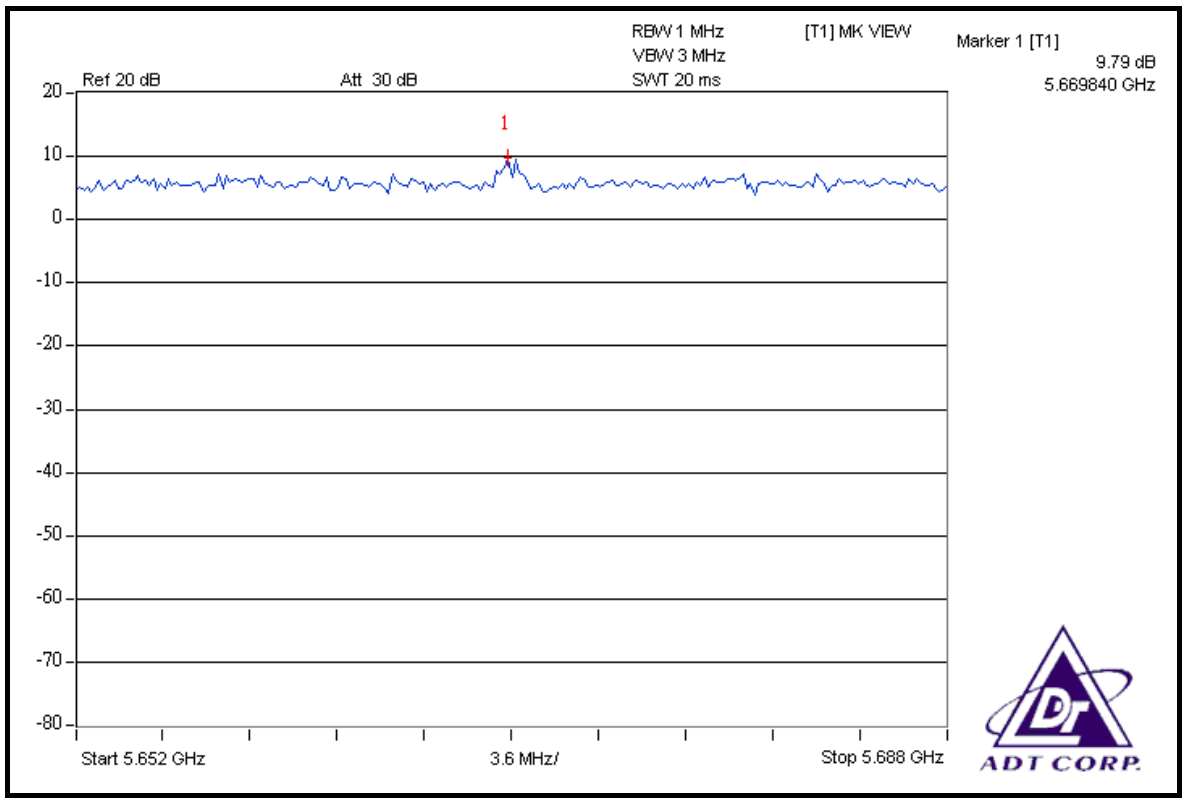
CH 118


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.59 GHz
8 MHz/
Span 80 MHz
ADT CORP.

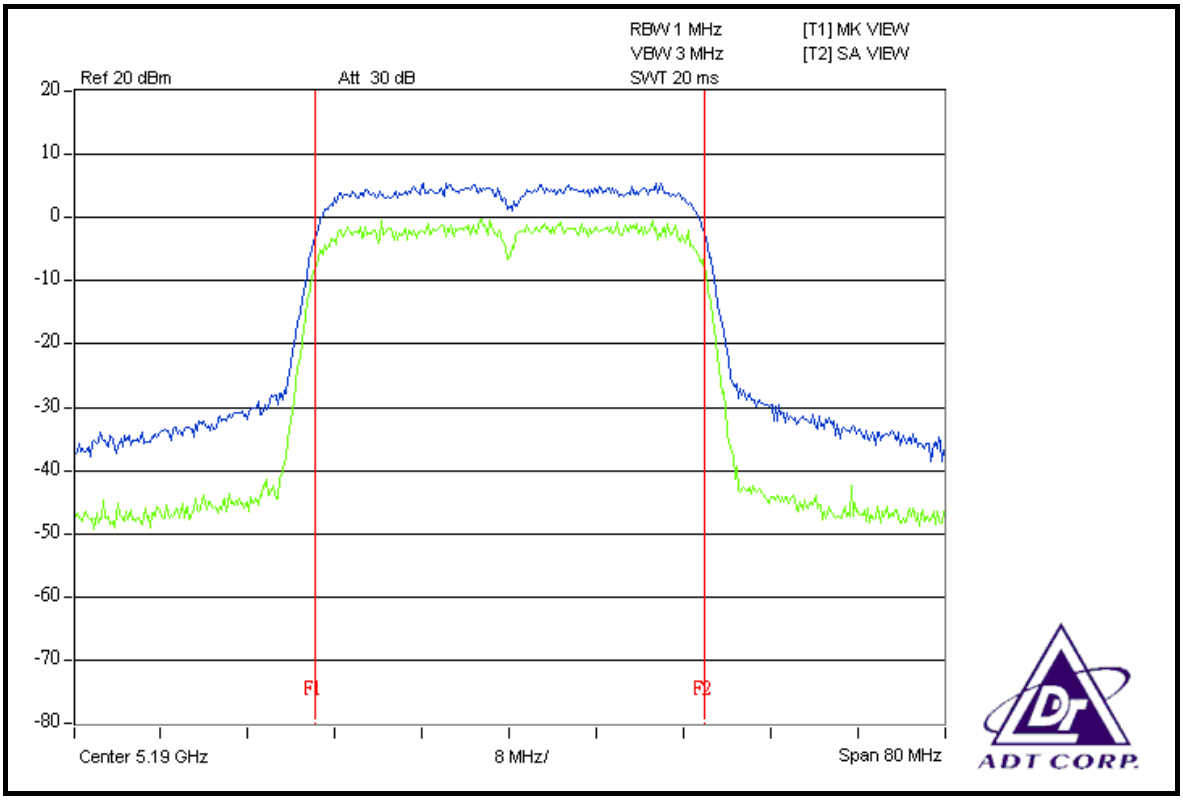

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
9.69 dB
5.590000 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.572 GHz
3.6 MHz/
Stop 5.608 GHz
ADT CORP.

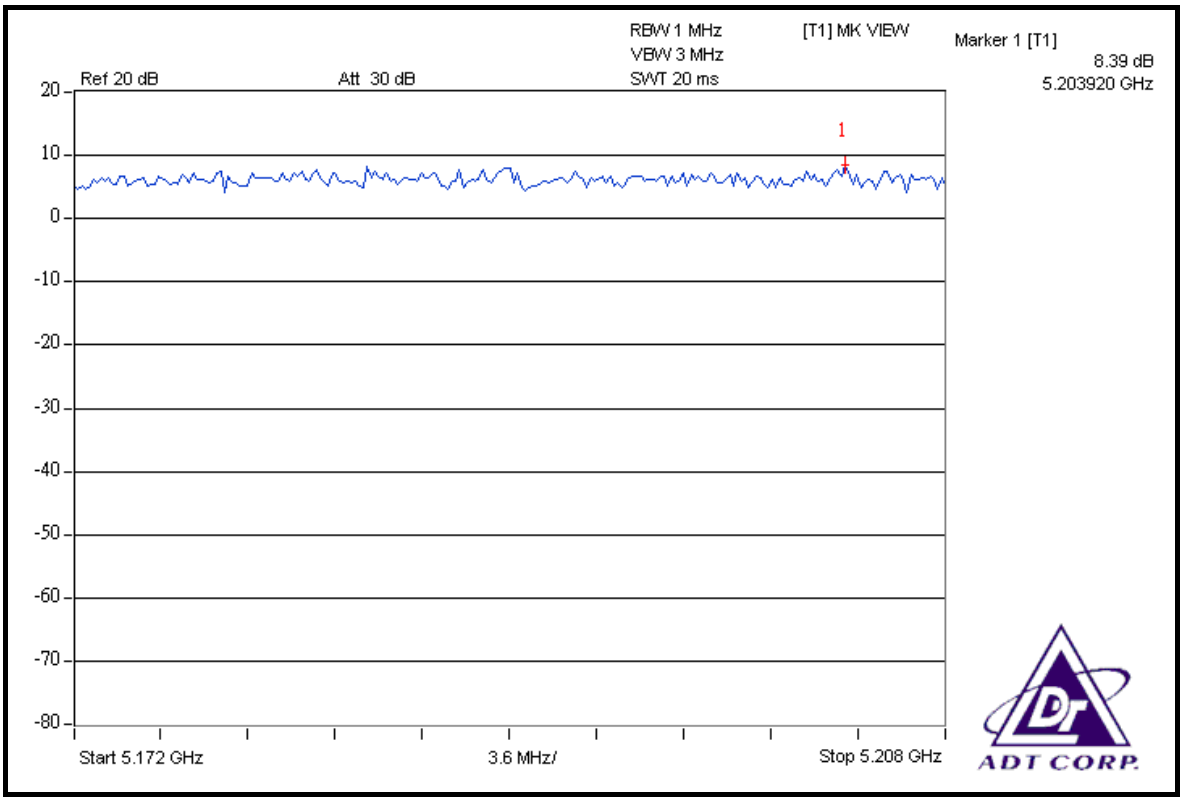
CH 134


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.67 GHz
8 MHz/
Span 80 MHz
ADT CORP.

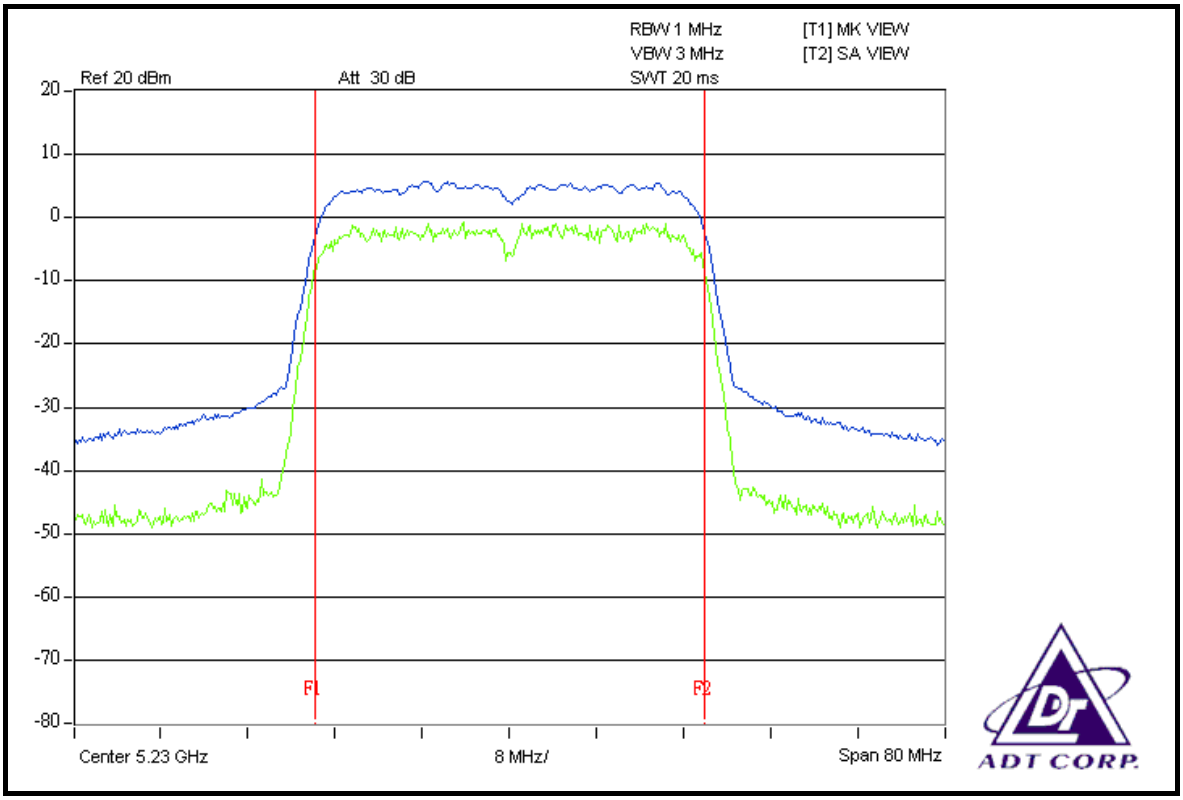

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
9.79 dB
5.669840 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.652 GHz
3.6 MHz/
Stop 5.688 GHz
ADT CORP.

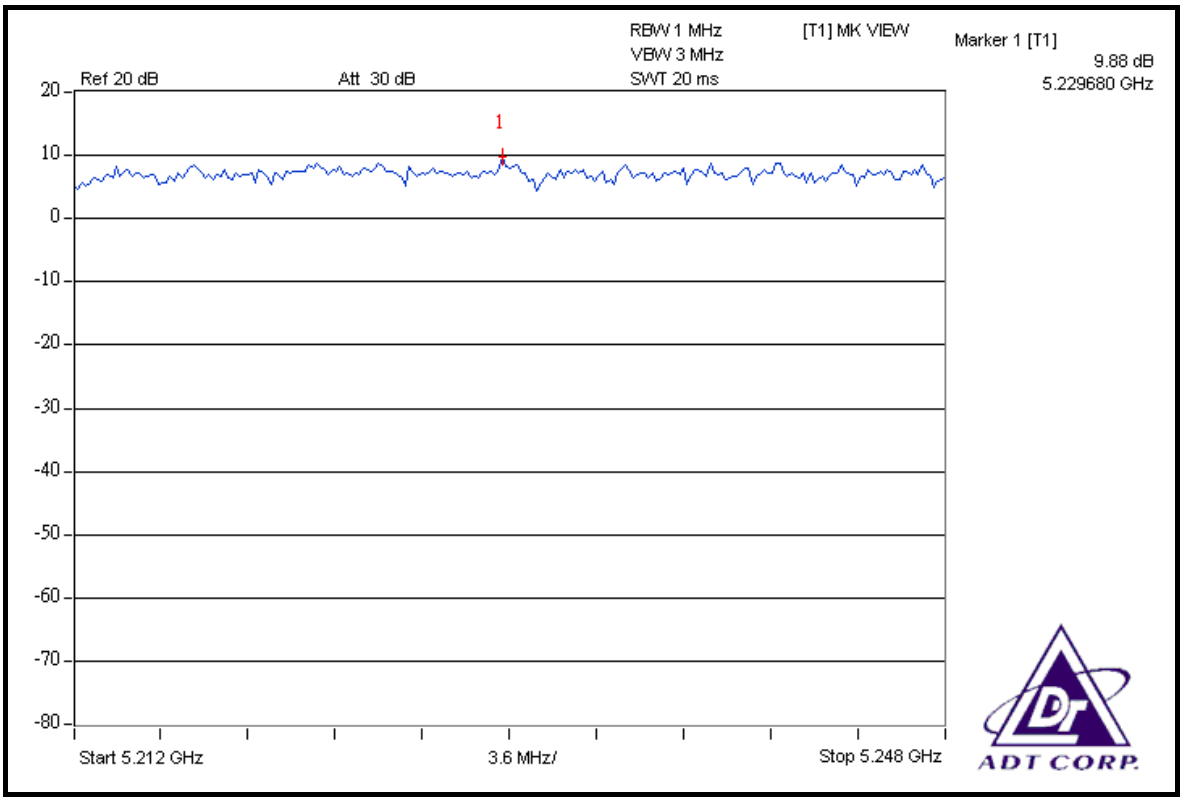
CHAIN 1: CH 38


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.19 GHz
8 MHz/
Span 80 MHz
ADT CORP.

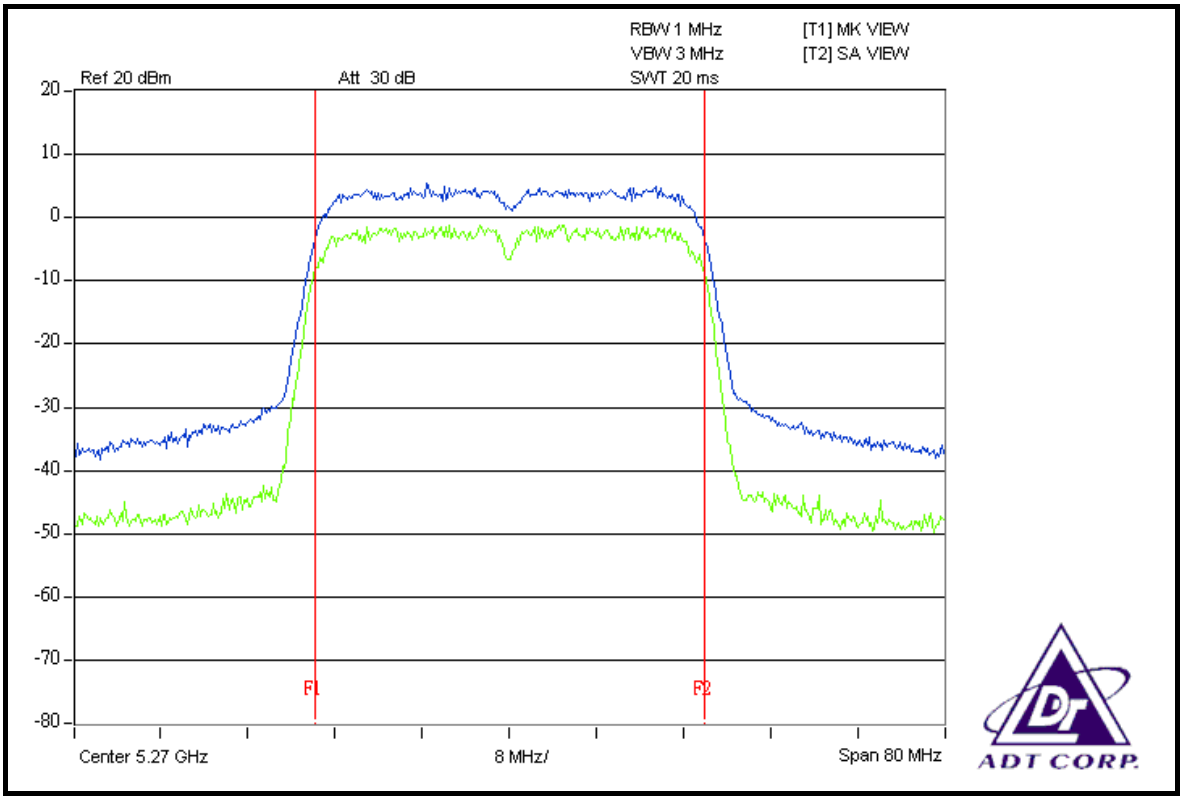

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.39 dB
5.203920 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.172 GHz
3.6 MHz/
Stop 5.208 GHz
ADT CORP.

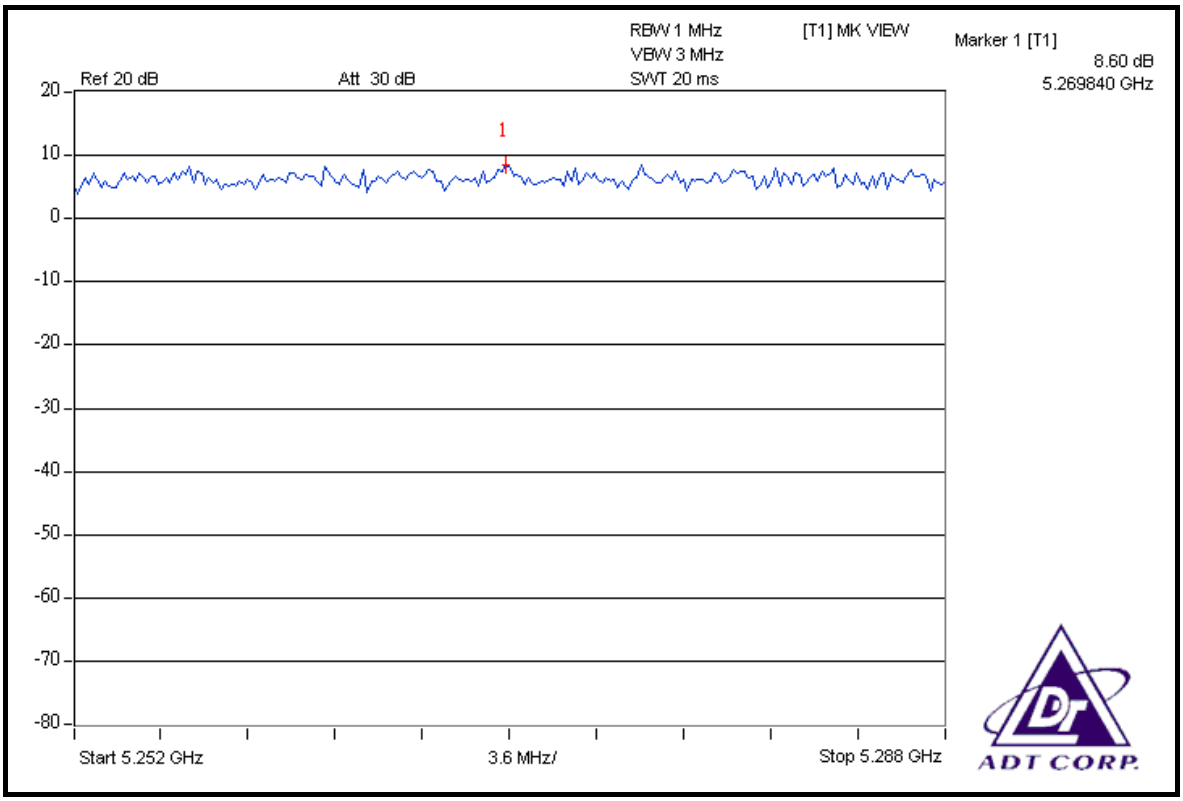
CH 46


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.23 GHz
8 MHz/
Span 80 MHz
ADT CORP.

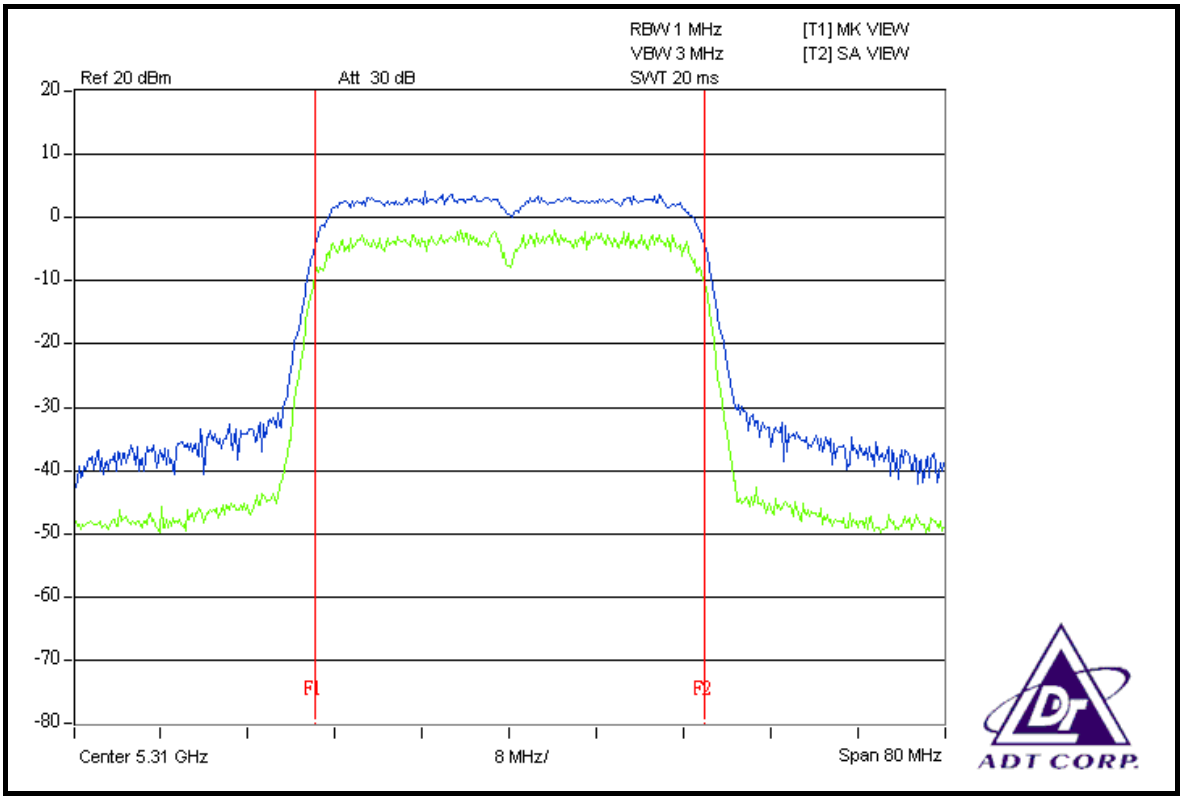

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
9.88 dB
5.229680 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.212 GHz
3.6 MHz/
Stop 5.248 GHz
ADT CORP.

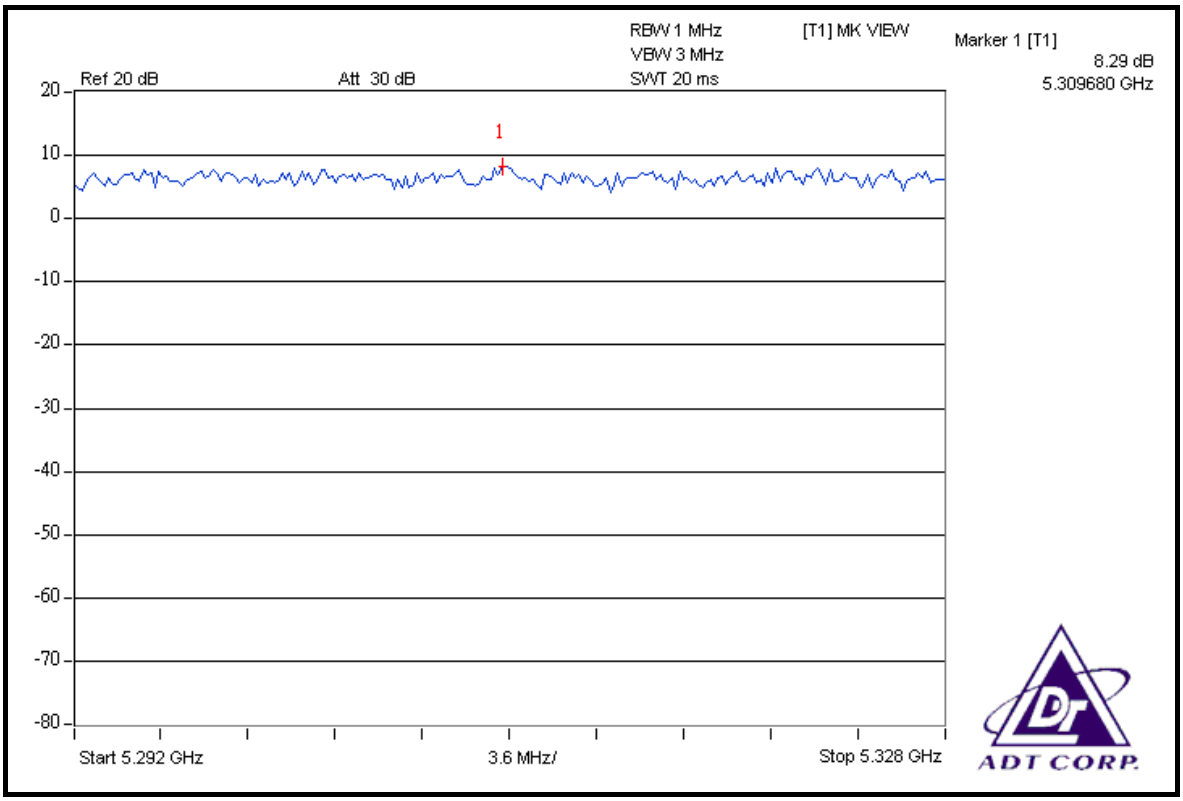
CH 54


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.27 GHz
8 MHz/
Span 80 MHz
ADT CORP.

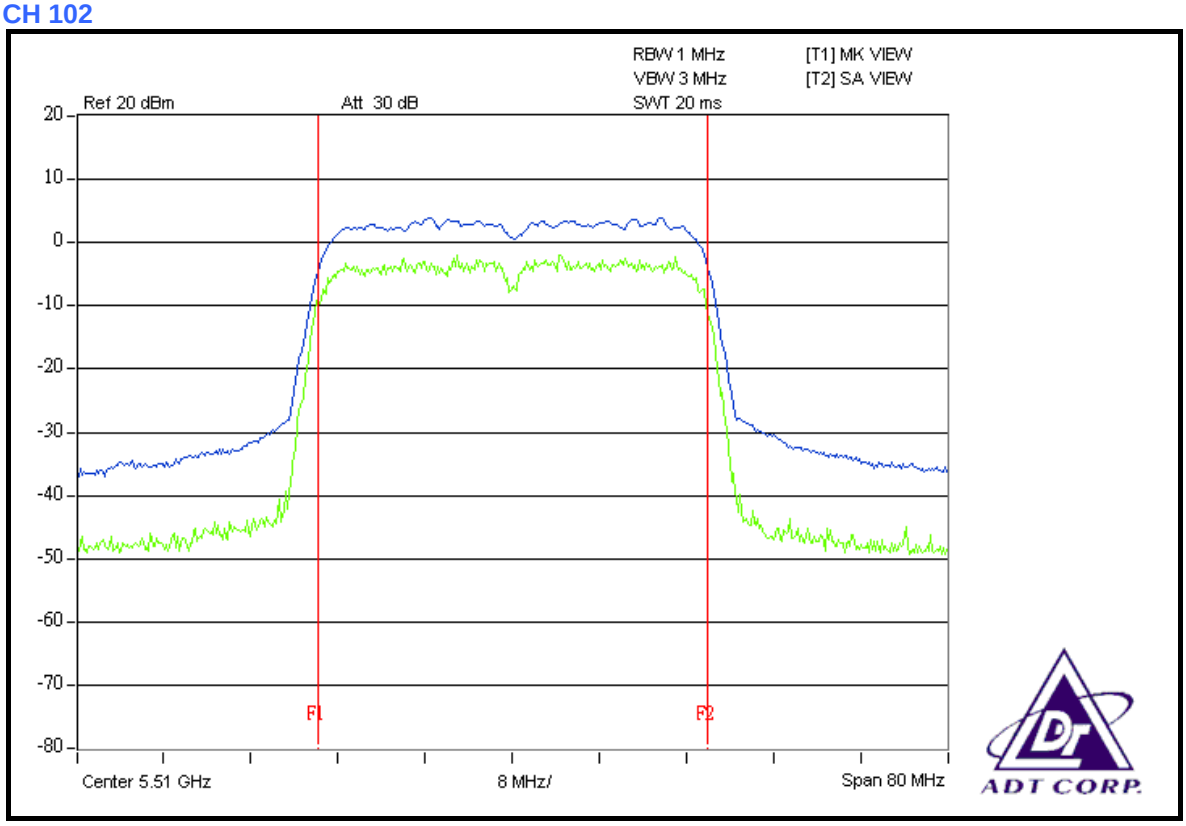

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.60 dB
5.269840 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.252 GHz
3.6 MHz/
Stop 5.288 GHz
ADT CORP.

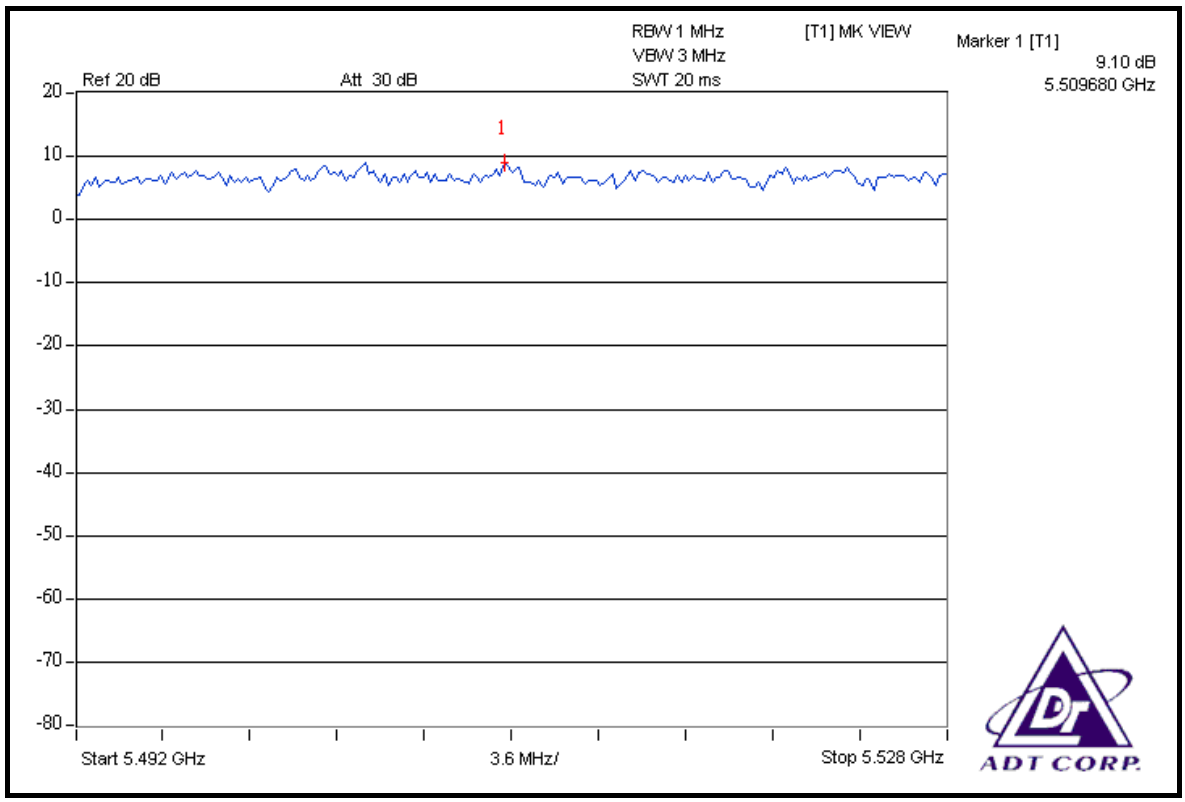
CH 62


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.31 GHz
8 MHz/
Span 80 MHz
ADT CORP.

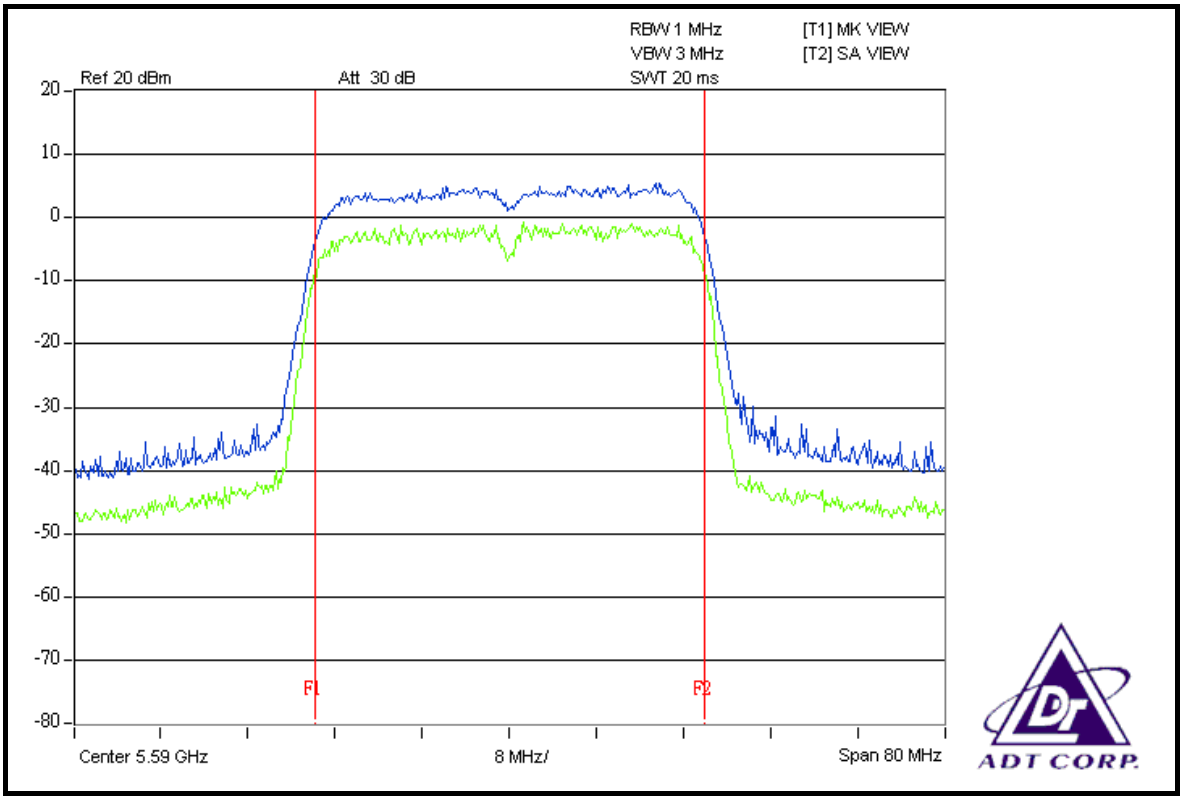

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.29 dB
5.309680 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.292 GHz
3.6 MHz/
Stop 5.328 GHz
ADT CORP.

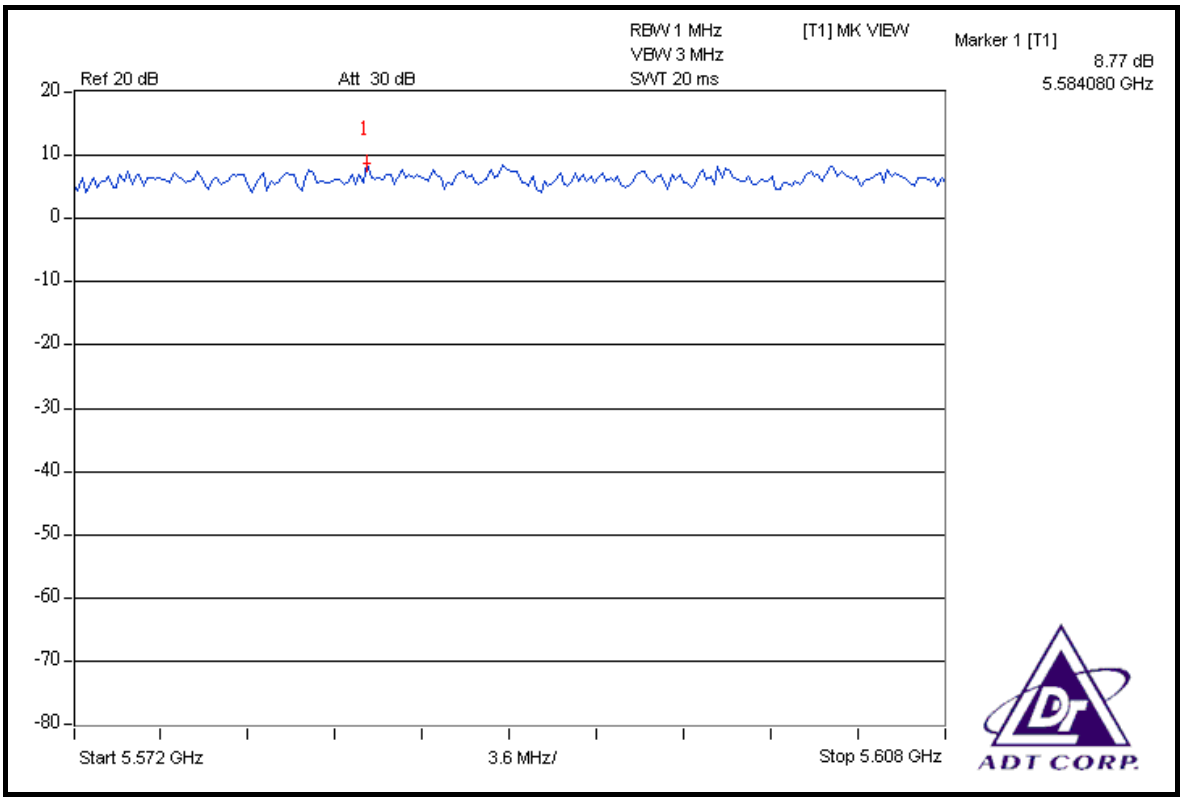
CH 102


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.51 GHz
8 MHz/
Span 80 MHz
ADT CORP.

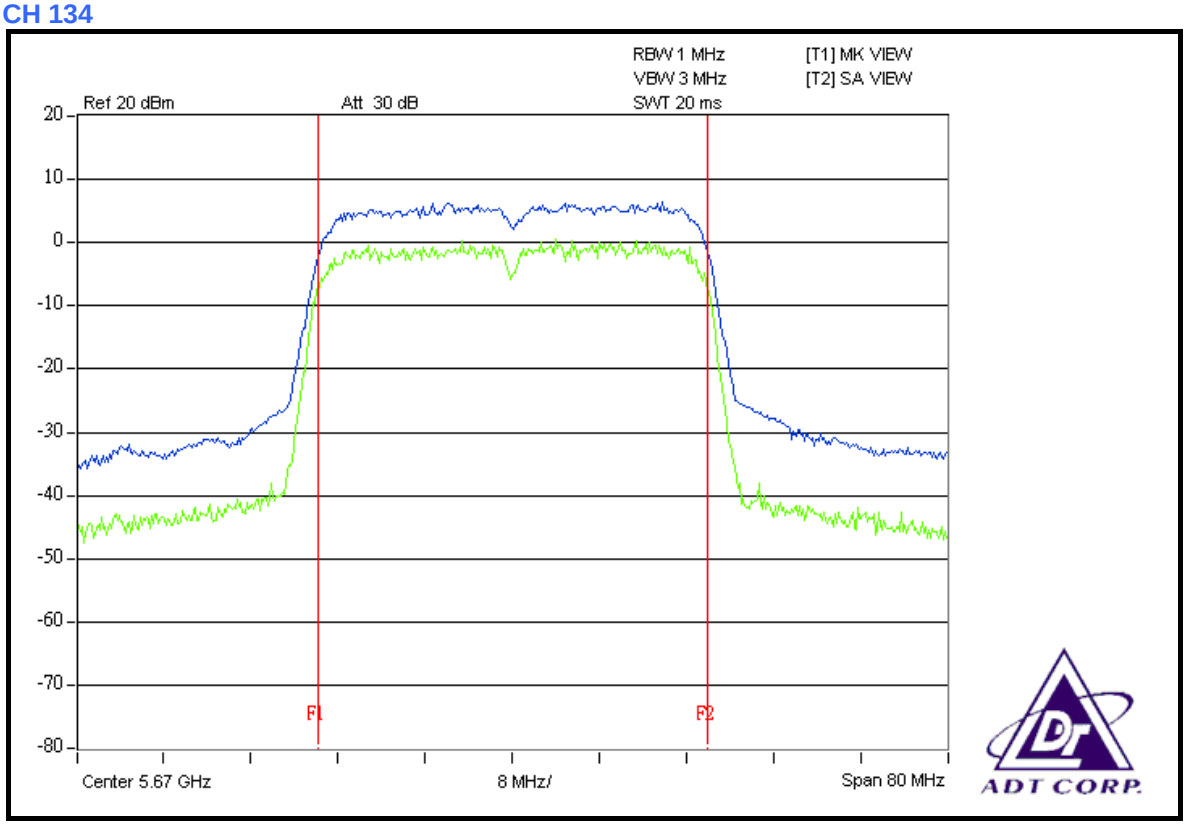

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
9.10 dB
5.509680 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.492 GHz
3.6 MHz/
Stop 5.528 GHz
ADT CORP.

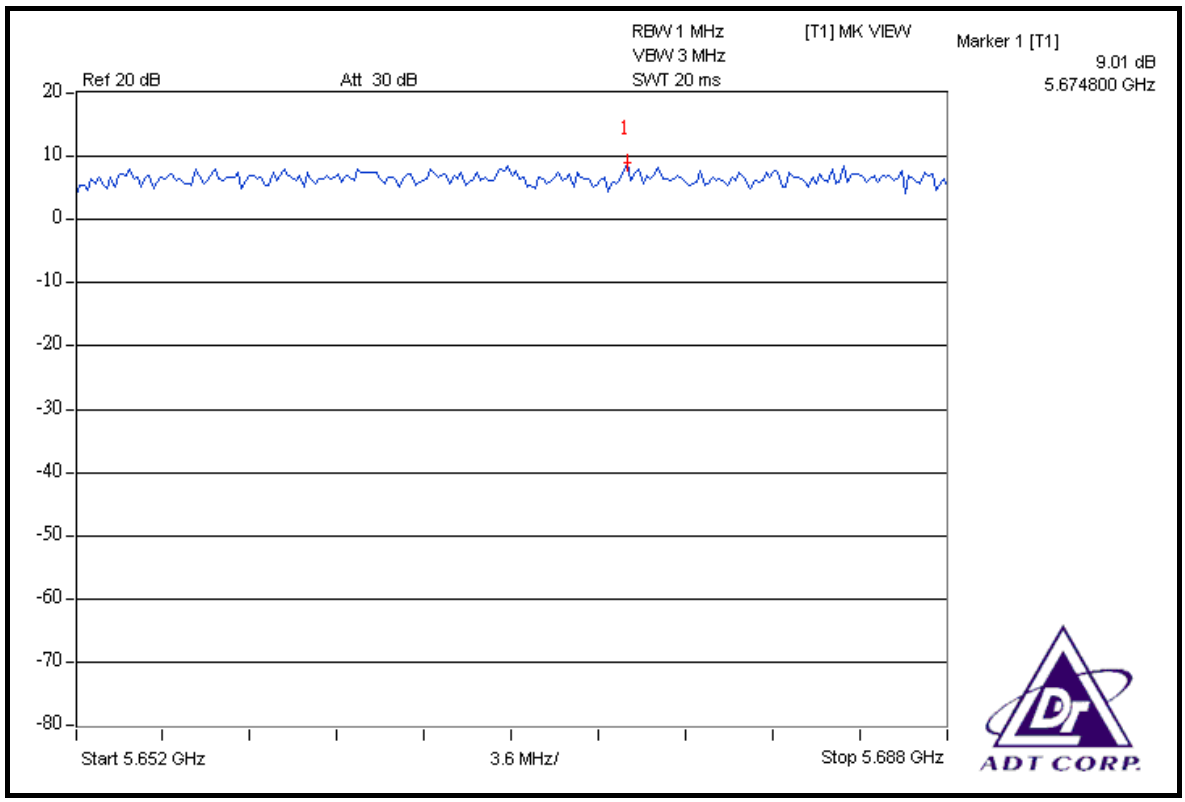
CH 118


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.59 GHz
8 MHz/
Span 80 MHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
8.77 dB
5.584080 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.572 GHz
3.6 MHz/
Stop 5.608 GHz

CH 134


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
[T2] SA VIEW
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.67 GHz
8 MHz/
Span 80 MHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
9.01 dB
5.674800 GHz
Ref 20 dB
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 5.652 GHz
3.6 MHz/
Stop 5.688 GHz

4.5 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

FREQUENCY BAND	LIMIT
5.150 ~ 5.250GHz	4dBm
5.250 ~ 5.350GHz	11dBm
5.470 ~ 5.725GHz	11dBm

4.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100041	Apr. 22, 2008	Apr. 21, 2009

NOTE: 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

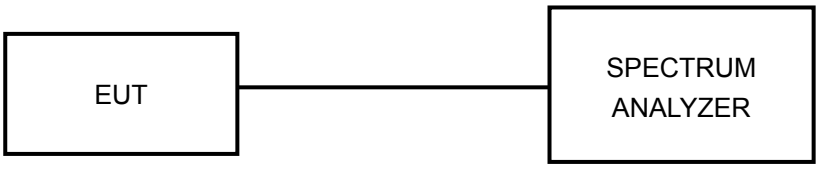
a. The transmitter output was connected to the spectrum analyzer.

b. 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 5.3.6

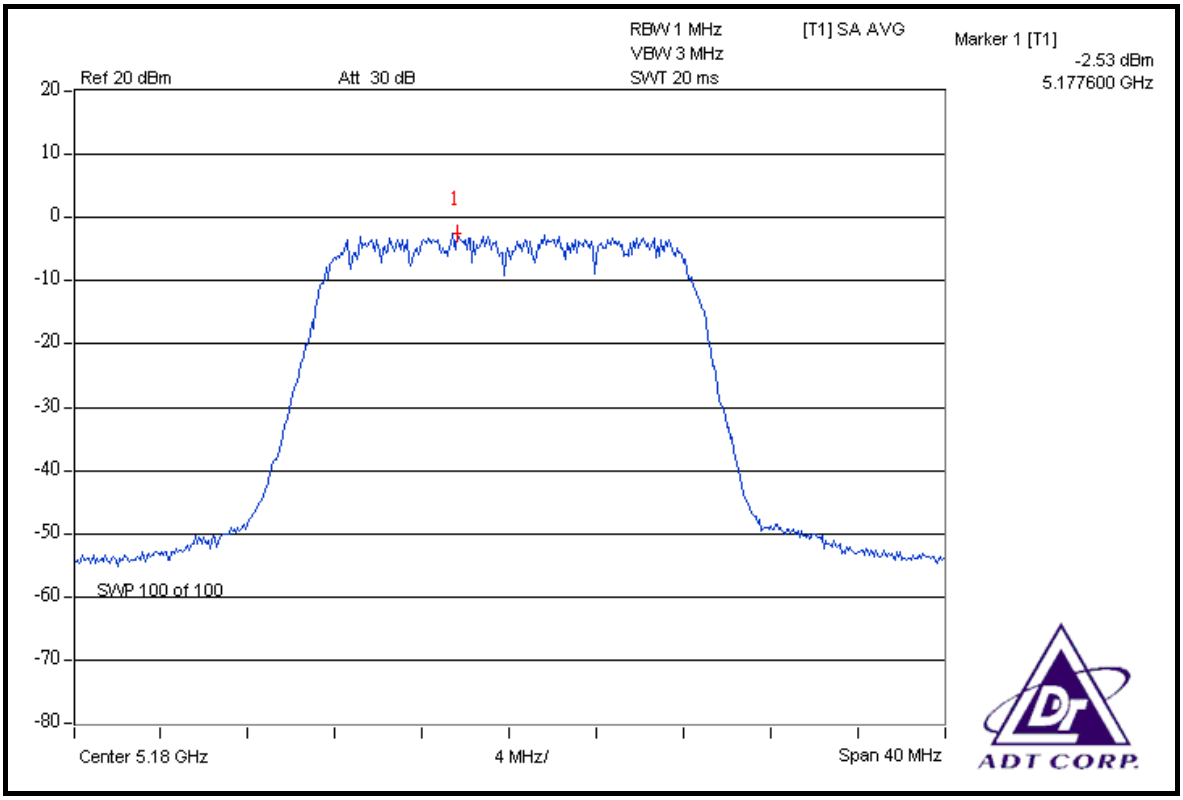
4.5.7 TEST RESULTS

802.11a OFDM MODULATION

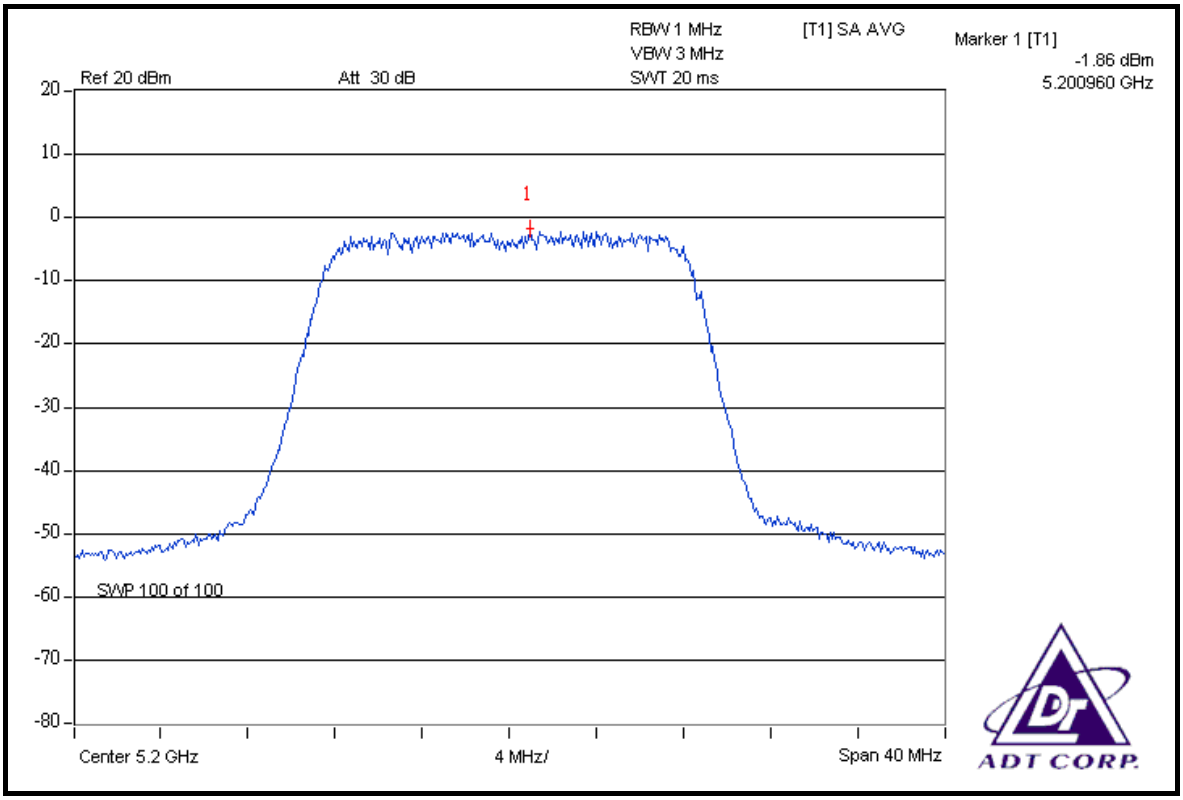
MODULATION TYPE	BPSK	**TRANSFER RATE**	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25 deg.C, 65 %RH, 991hPa
TESTED BY	Brad Wu		

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (mW)	TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	-2.53	-3.63	0.992	-0.03	4	PASS
40	5200	-1.86	-3.85	1.064	0.27	4	PASS
48	5240	-2.40	-3.59	1.013	0.06	4	PASS
52	5260	-2.35	-3.79	1.000	0.00	11	PASS
60	5300	-3.91	-3.96	0.808	-0.92	11	PASS
64	5320	-2.60	-3.47	0.999	0.00	11	PASS
100	5500	-2.19	-3.42	1.059	0.25	11	PASS
120	5600	-2.19	-3.40	1.061	0.26	11	PASS
140	5700	-2.69	-4.63	0.883	-0.54	11	PASS

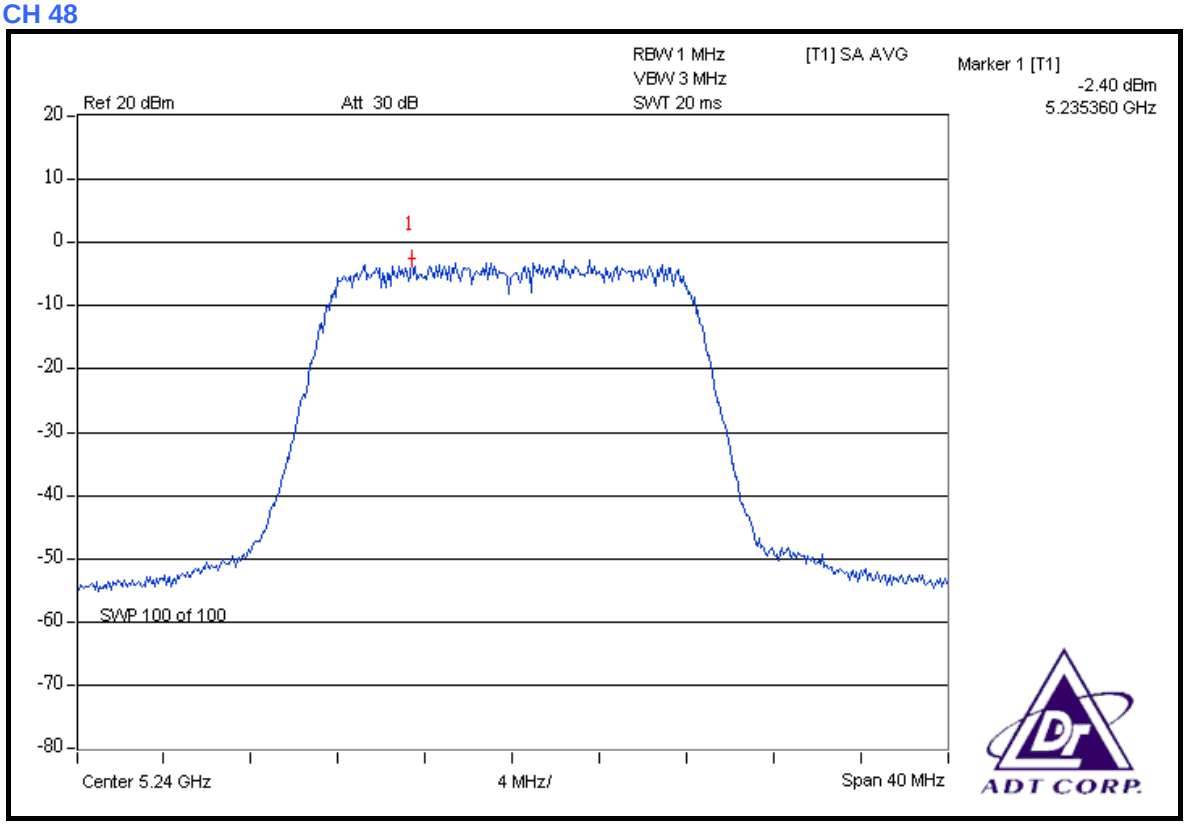
CHAIN 0: CH 36



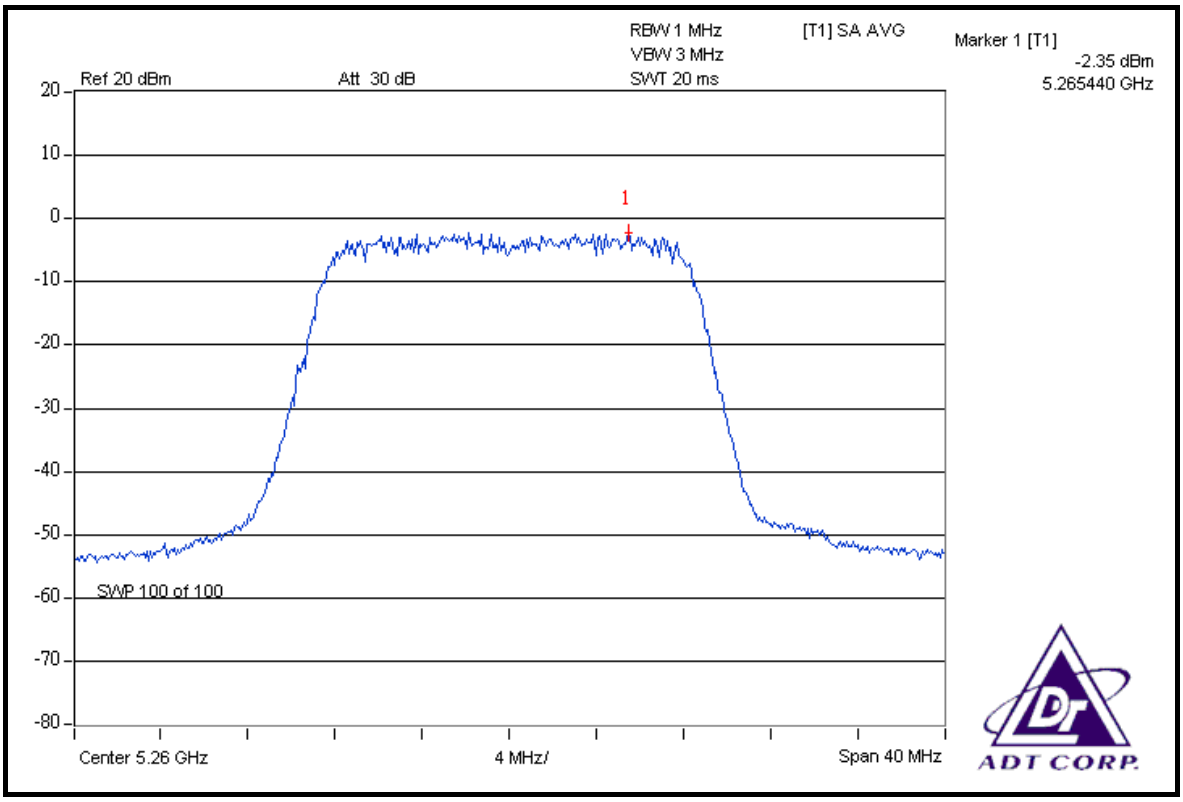
CH 40



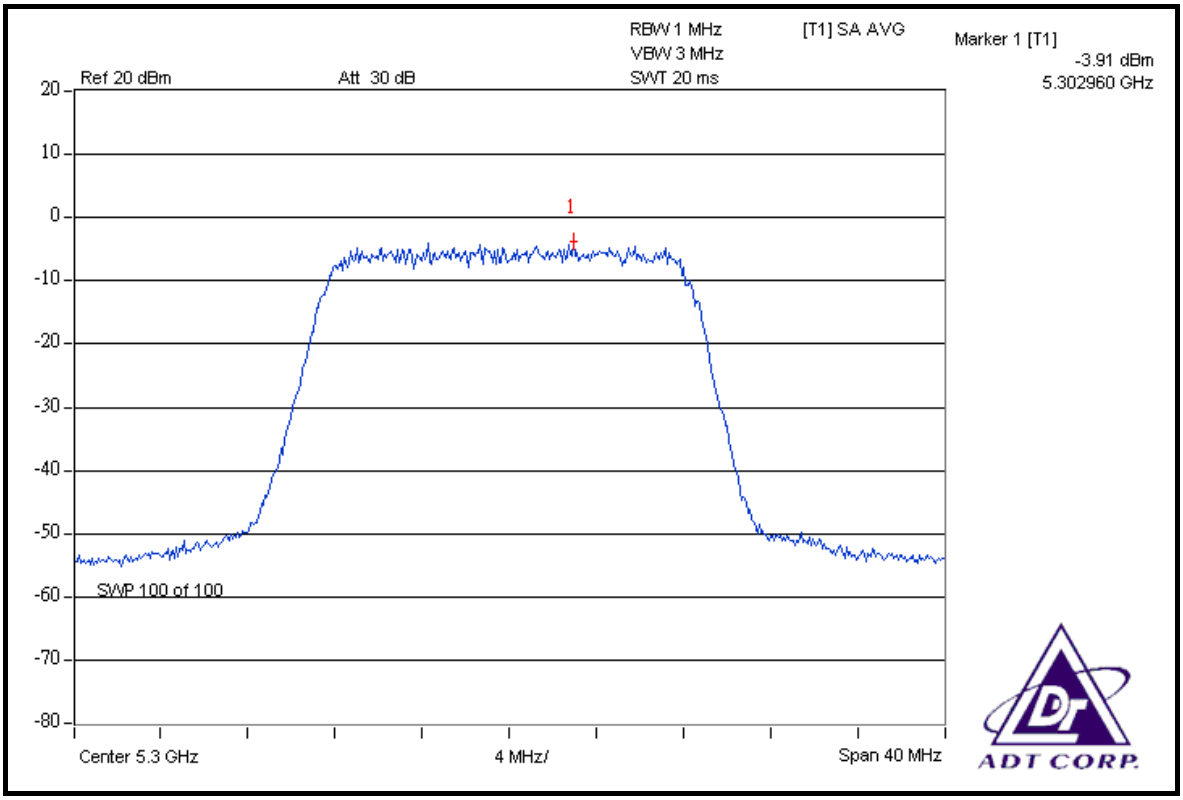
CH 48


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-2.40 dBm
5.235360 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.24 GHz
4 MHz/
Span 40 MHz
ADT CORP.

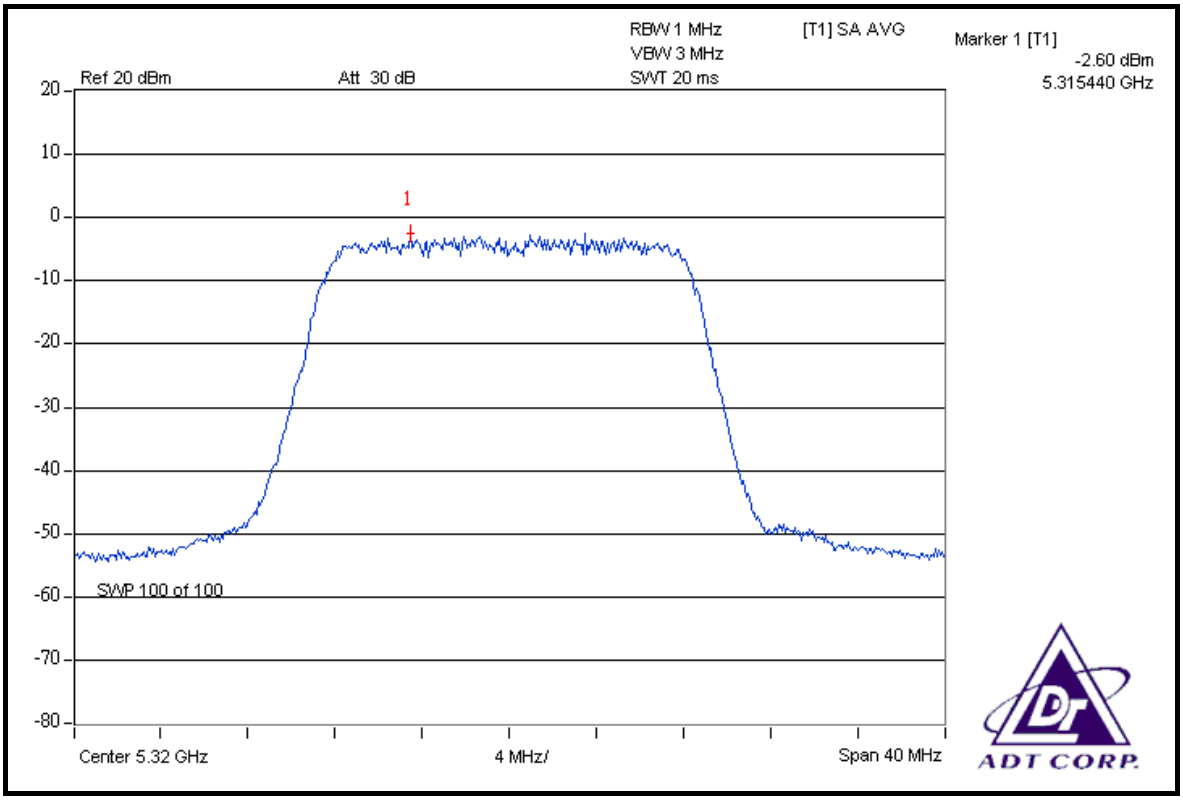
CH 52


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-2.35 dBm
5.265440 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.26 GHz
4 MHz/
Span 40 MHz
ADT CORP.

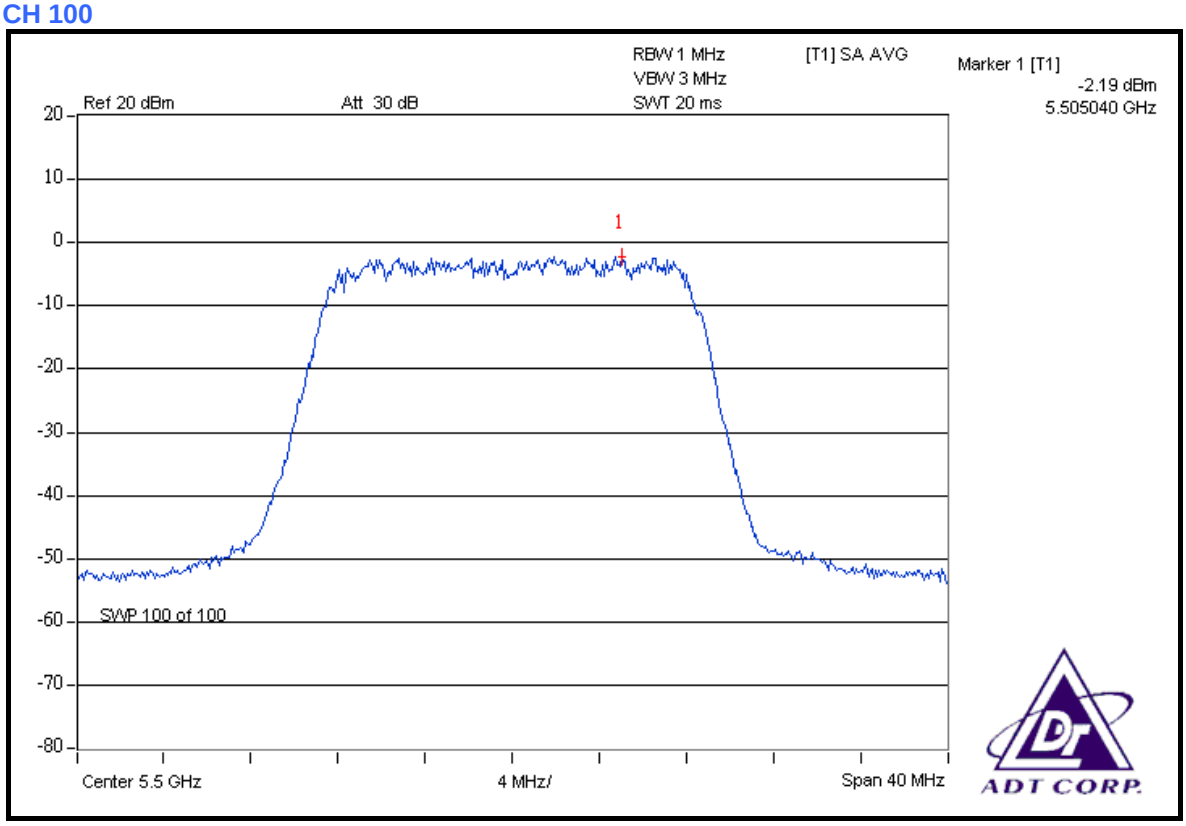
CH 60


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-3.91 dBm
5.302960 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.3 GHz
4 MHz/
Span 40 MHz
ADT CORP.

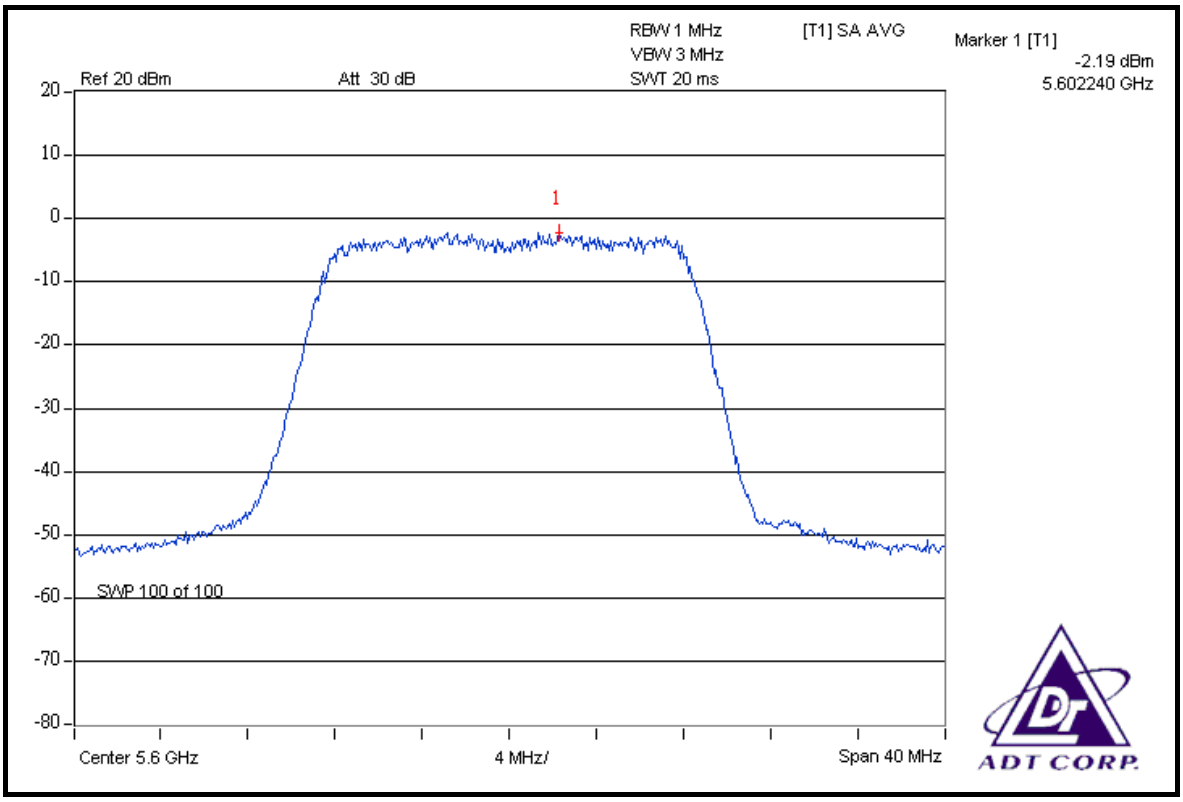
CH 64


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-2.60 dBm
5.315440 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.32 GHz
4 MHz/
Span 40 MHz
ADT CORP.

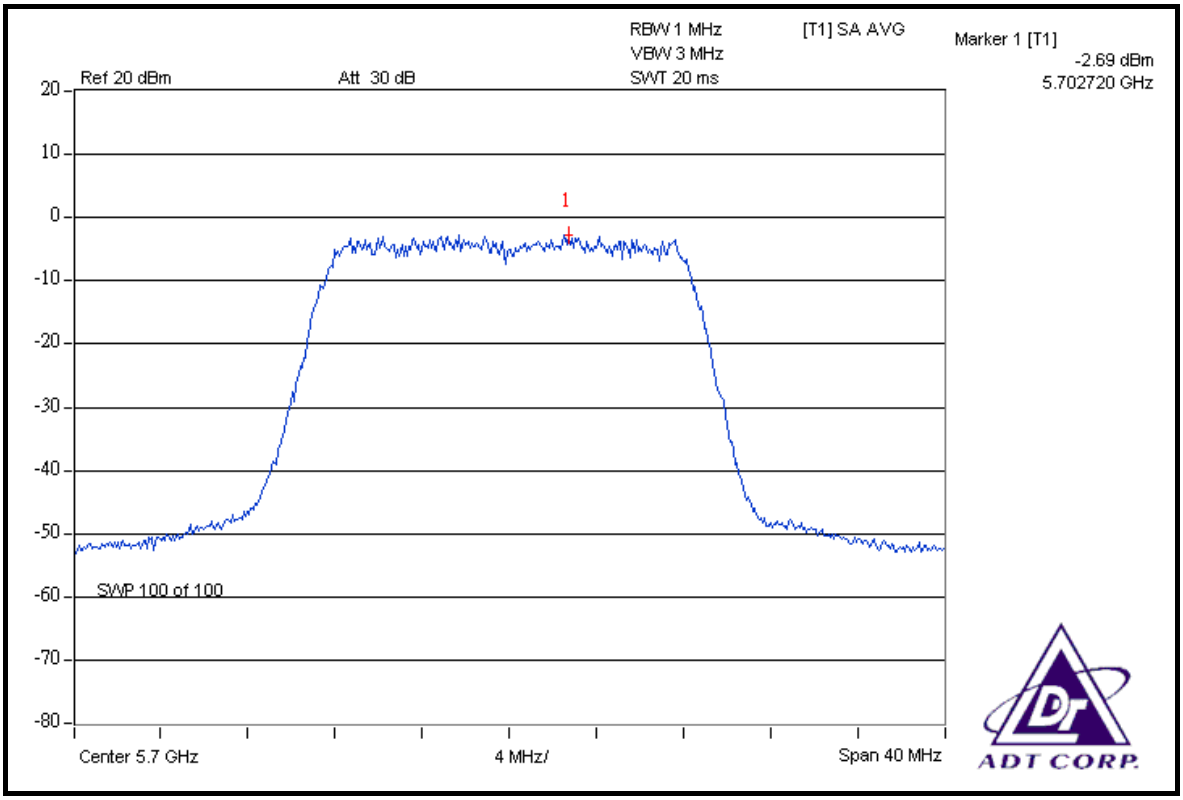
CH 100


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-2.19 dBm
5.505040 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.5 GHz
4 MHz/
Span 40 MHz
ADT CORP.

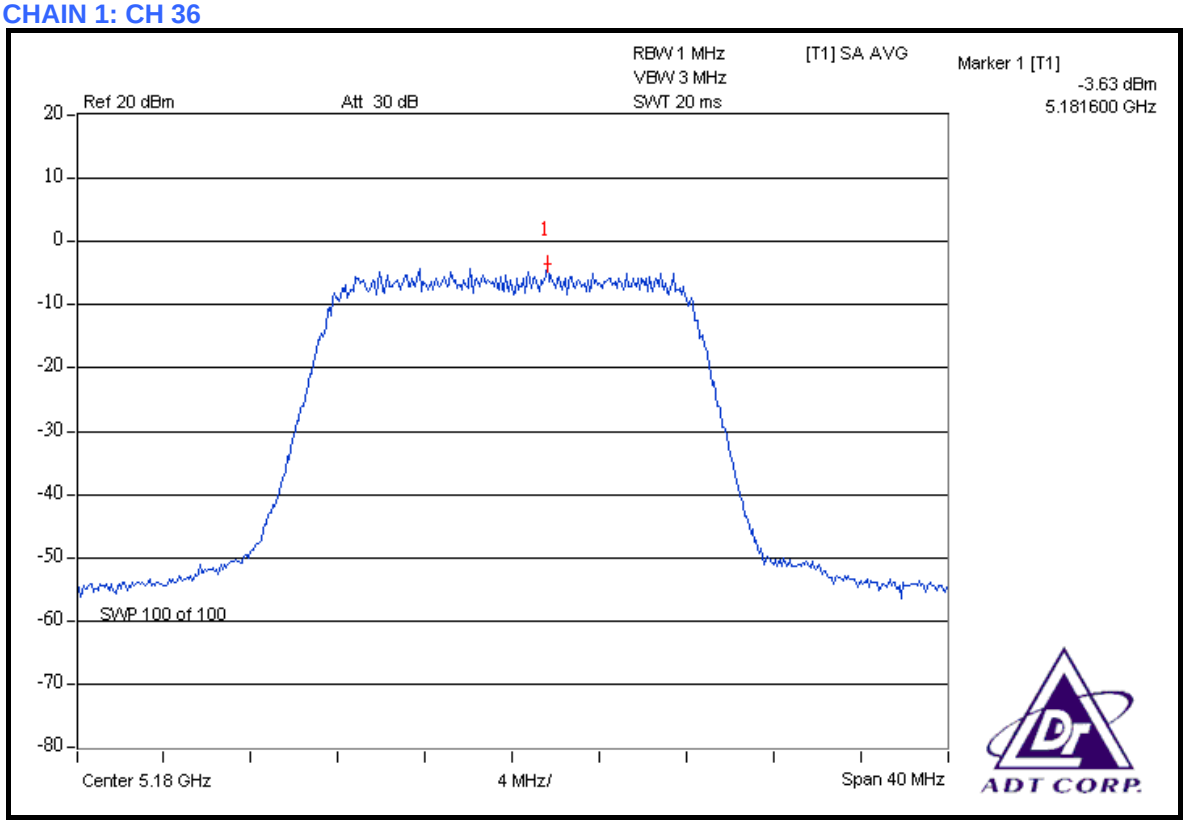
CH 120


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-2.19 dBm
5.602240 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.6 GHz
4 MHz/
Span 40 MHz
ADT CORP.

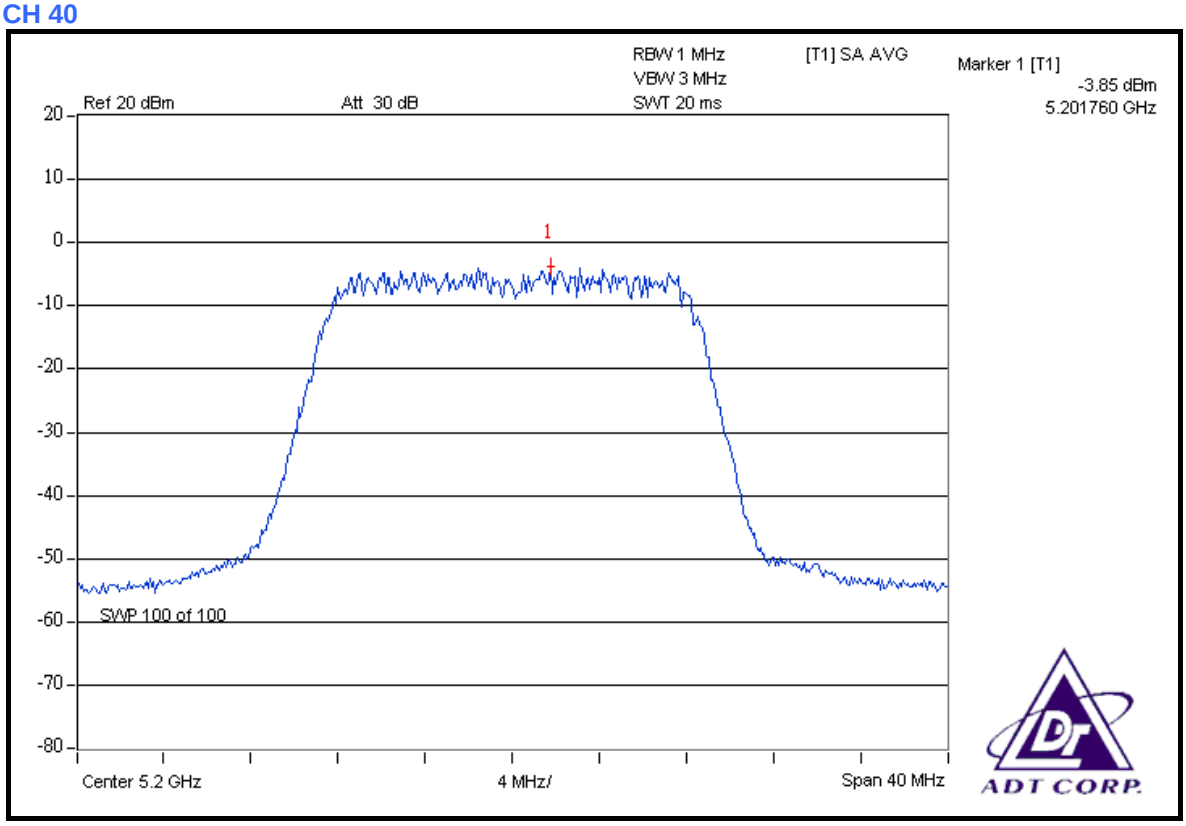
CH 140



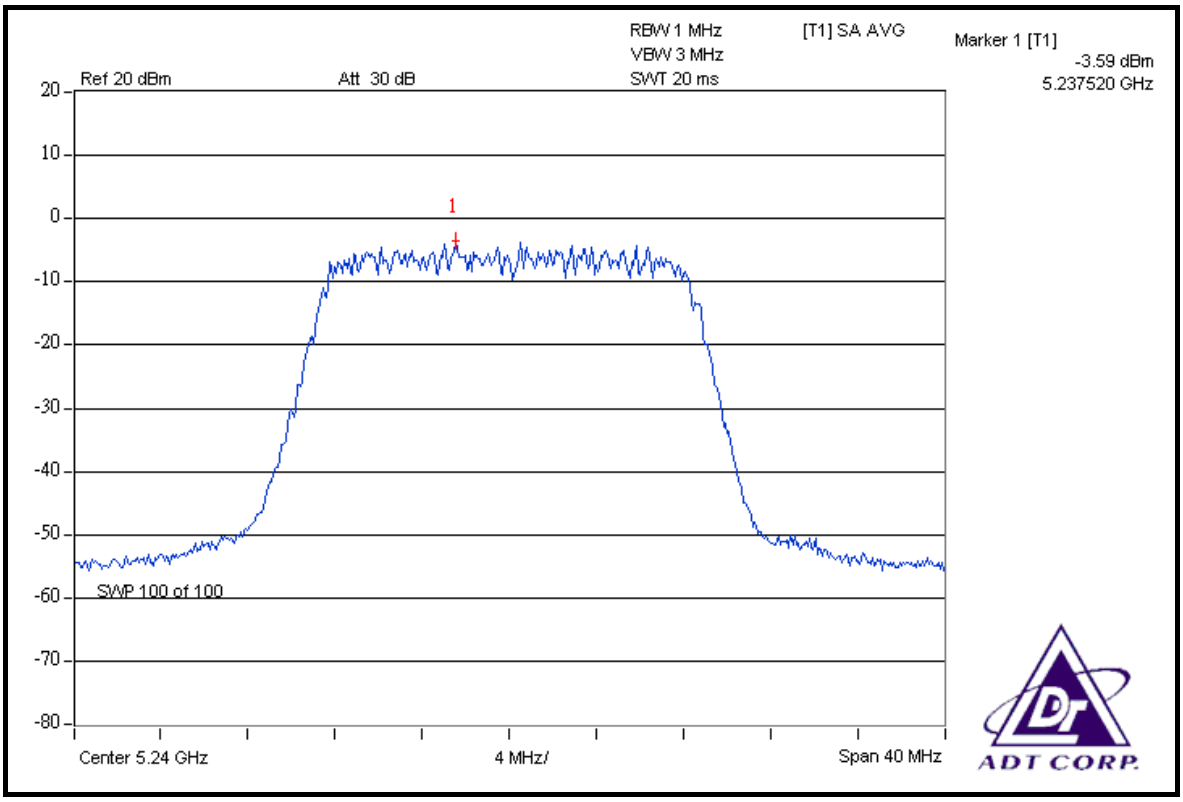
CHAIN 1: CH 36



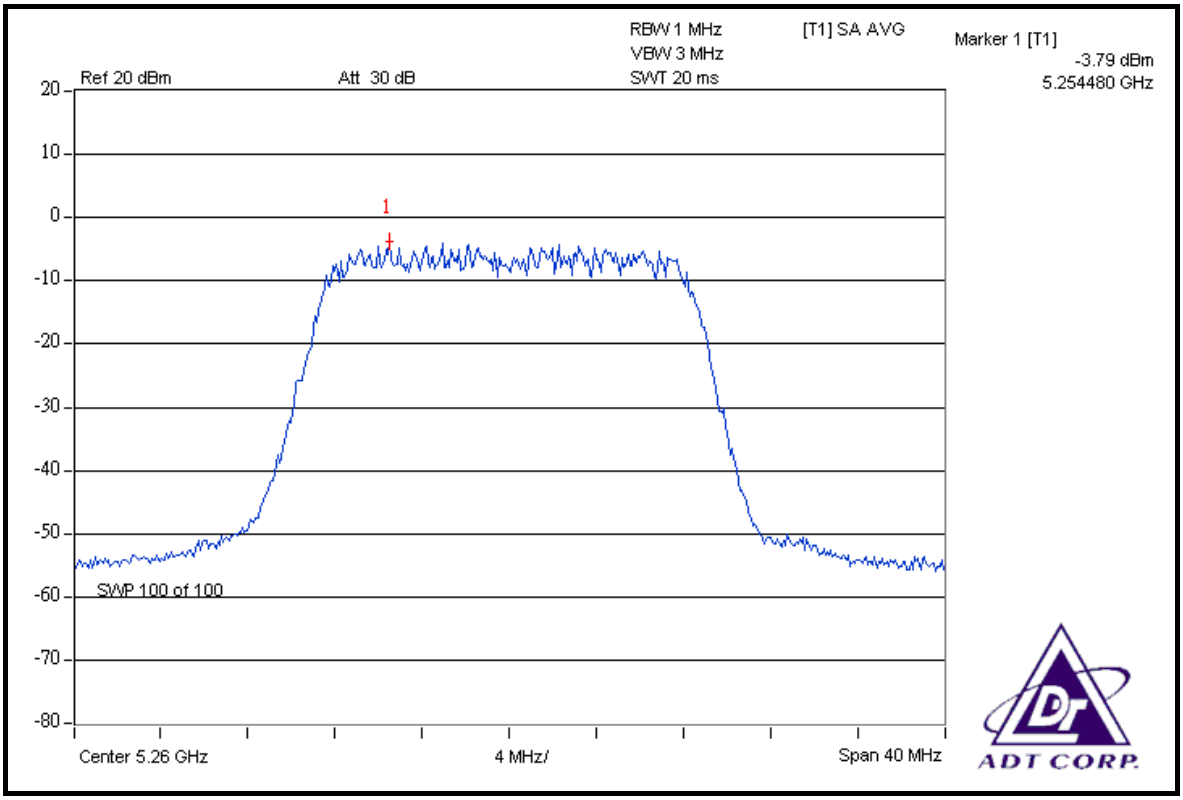
CH 40


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-3.85 dBm
5.201760 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.2 GHz
4 MHz/
Span 40 MHz
ADT CORP.

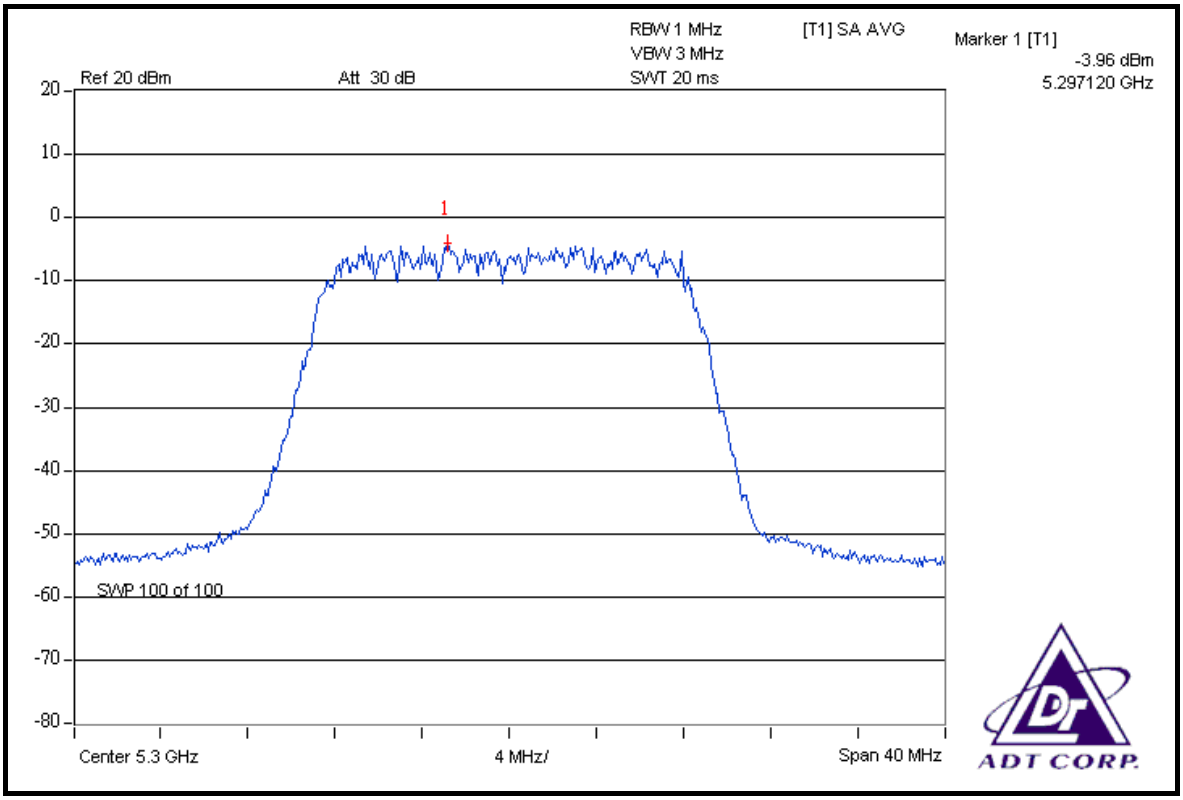
CH 48


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-3.59 dBm
5.237520 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.24 GHz
4 MHz/
Span 40 MHz
ADT CORP.

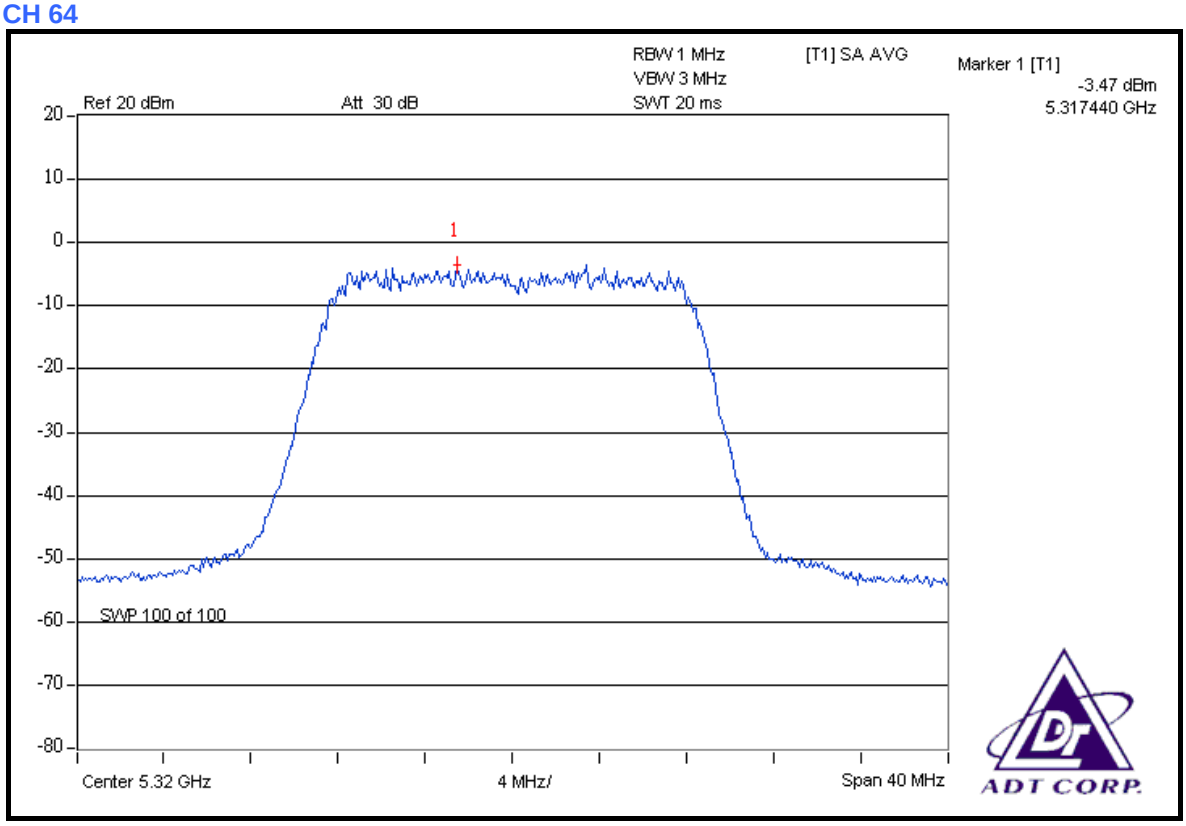
CH 52


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-3.79 dBm
5.254480 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.26 GHz
4 MHz/
Span 40 MHz
ADT CORP.

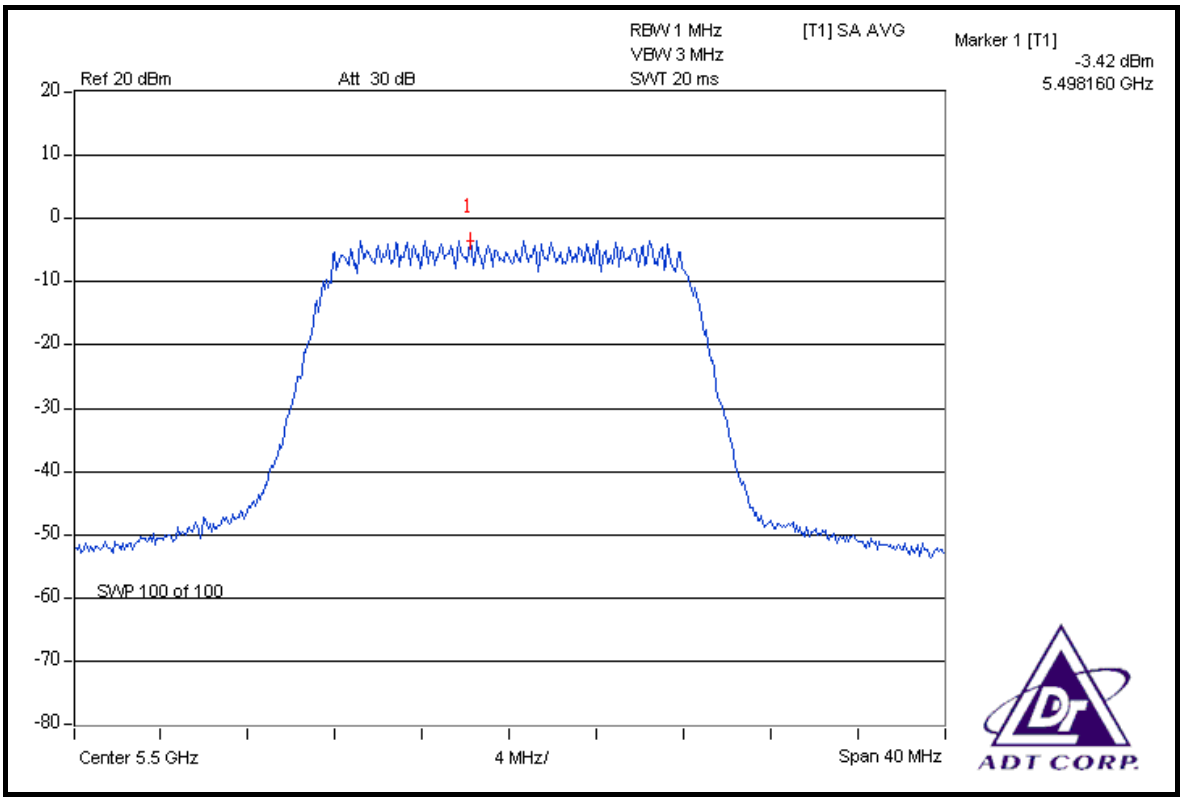
CH 60


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-3.96 dBm
5.297120 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.3 GHz
4 MHz/
Span 40 MHz
ADT CORP.

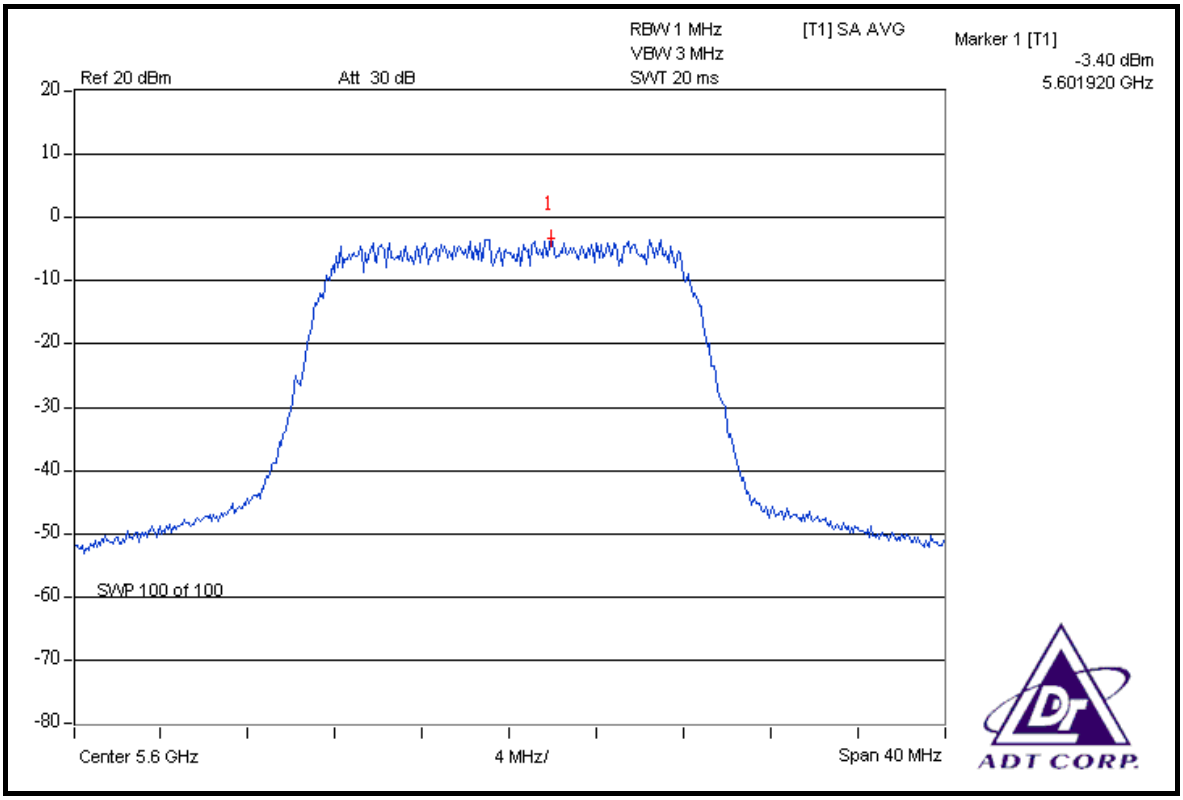
CH 64


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-3.47 dBm
5.317440 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.32 GHz
4 MHz/
Span 40 MHz
ADT CORP.

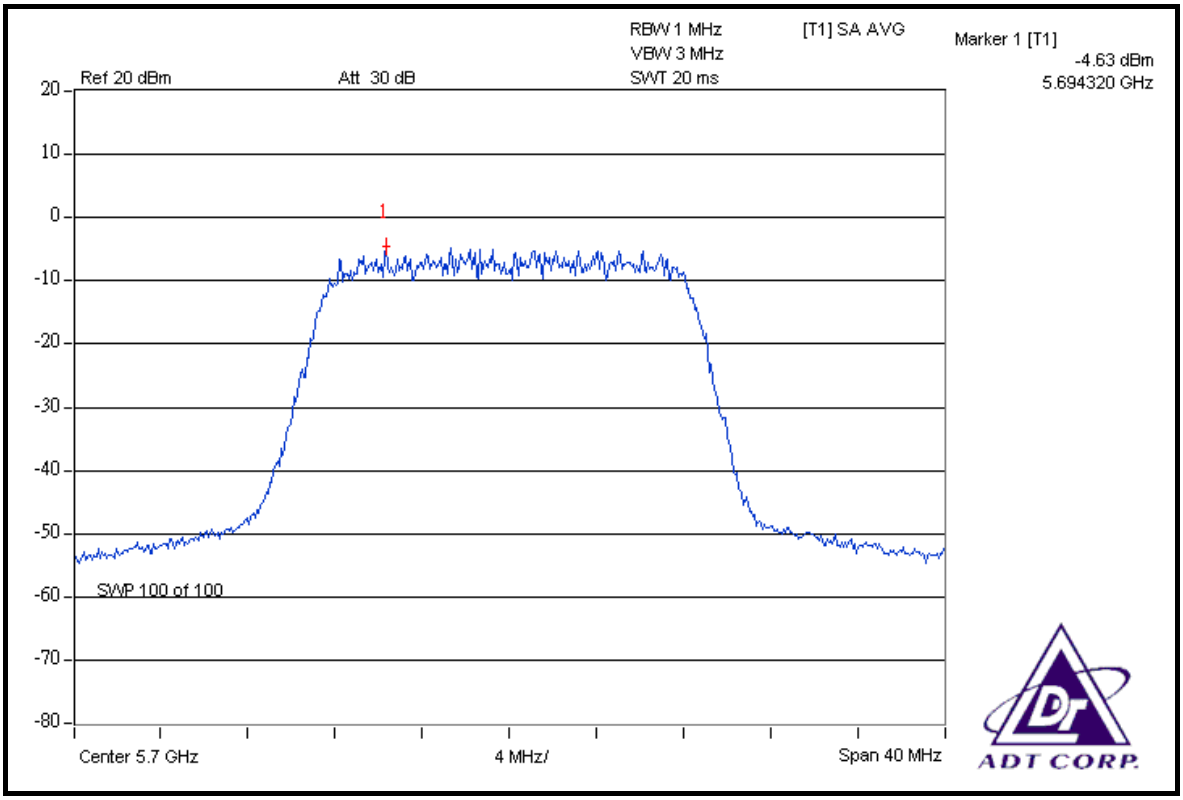
CH 100


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-3.42 dBm
5.498160 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.5 GHz
4 MHz/
Span 40 MHz
ADT CORP.

CH 120


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-3.40 dBm
5.601920 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
SWP 100 of 100
Center 5.6 GHz
4 MHz/
Span 40 MHz
ADT CORP.

CH 140

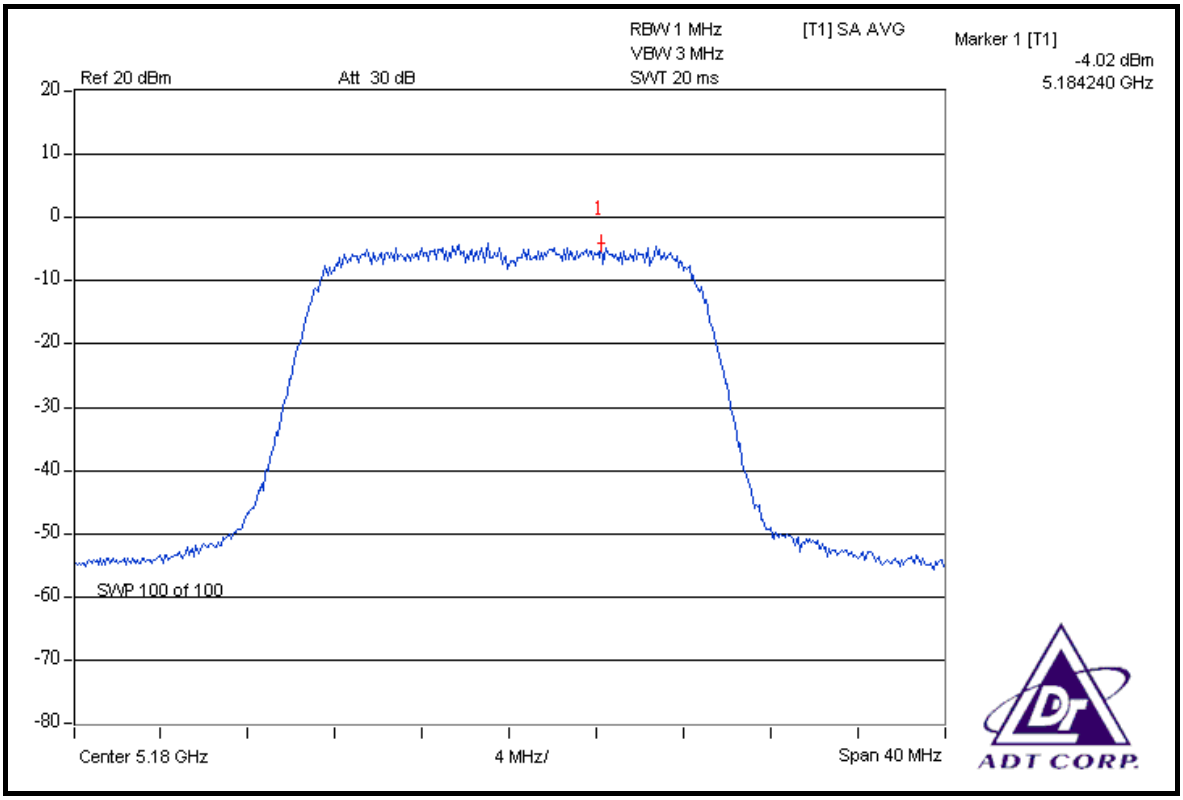

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-4.63 dBm
5.694320 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
SWP 100 of 100
Center 5.7 GHz
4 MHz/
Span 40 MHz
ADT CORP.

DRAFT 802.11n (20MHz) OFDM MODULATION

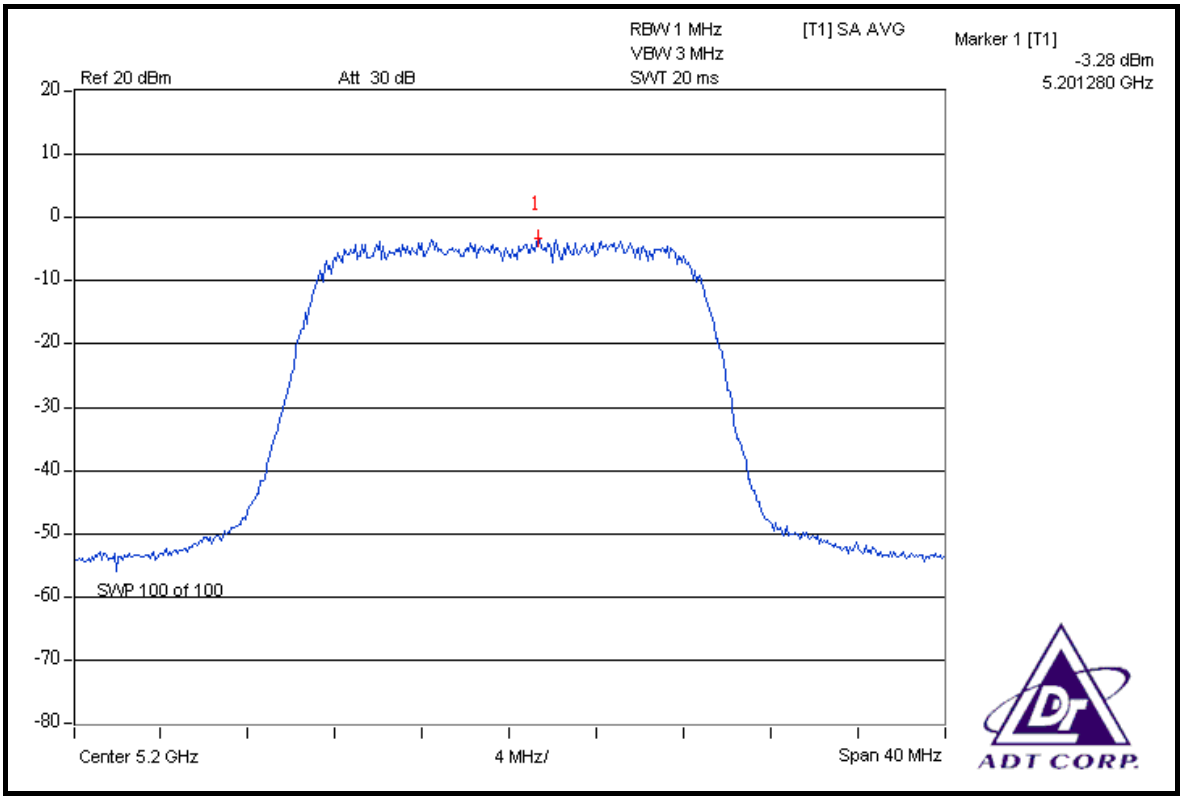
MODULATION TYPE	BPSK	TRANSFER RATE	7.2Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	25 deg.C, 65 %RH, 991hPa
TESTED BY	Brad Wu		

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (mW)	TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	-4.02	-5.61	0.671	-1.73	4	PASS
40	5200	-3.28	-5.64	0.743	-1.29	4	PASS
48	5240	-3.83	-5.43	0.700	-1.55	4	PASS
52	5260	-3.86	-5.75	0.677	-1.69	11	PASS
60	5300	-4.34	-5.97	0.621	-2.07	11	PASS
64	5320	-3.84	-5.46	0.697	-1.56	11	PASS
100	5500	-4.37	-5.47	0.649	-1.87	11	PASS
120	5600	-3.85	-5.43	0.699	-1.56	11	PASS
140	5700	-3.76	-5.47	0.705	-1.52	11	PASS

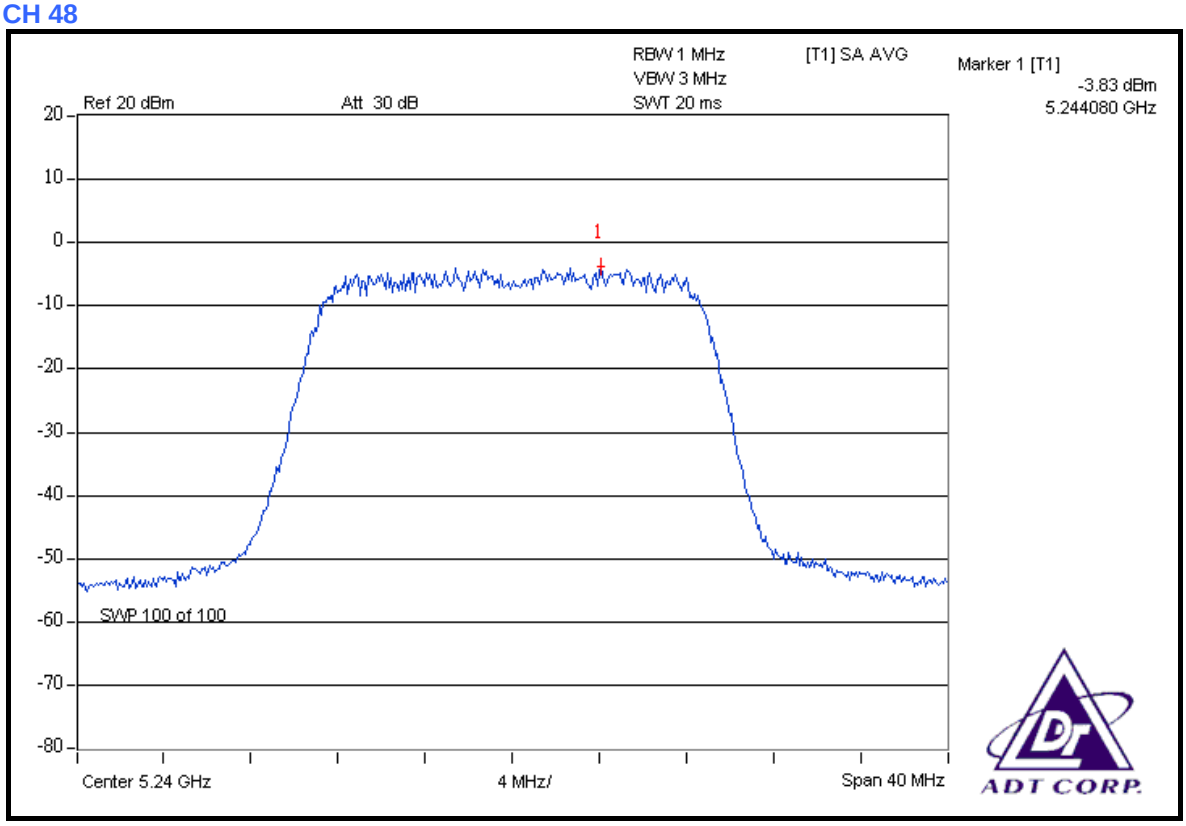
CHAIN 0: CH 36



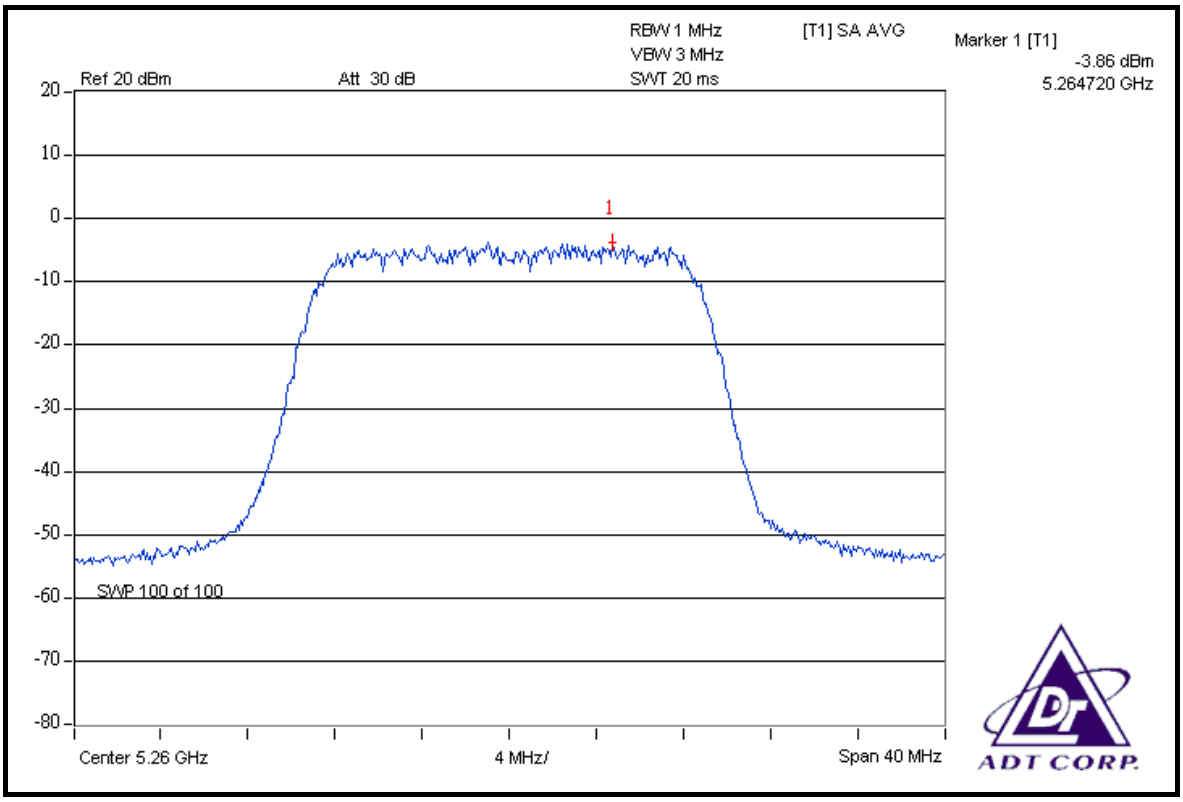
CH 40



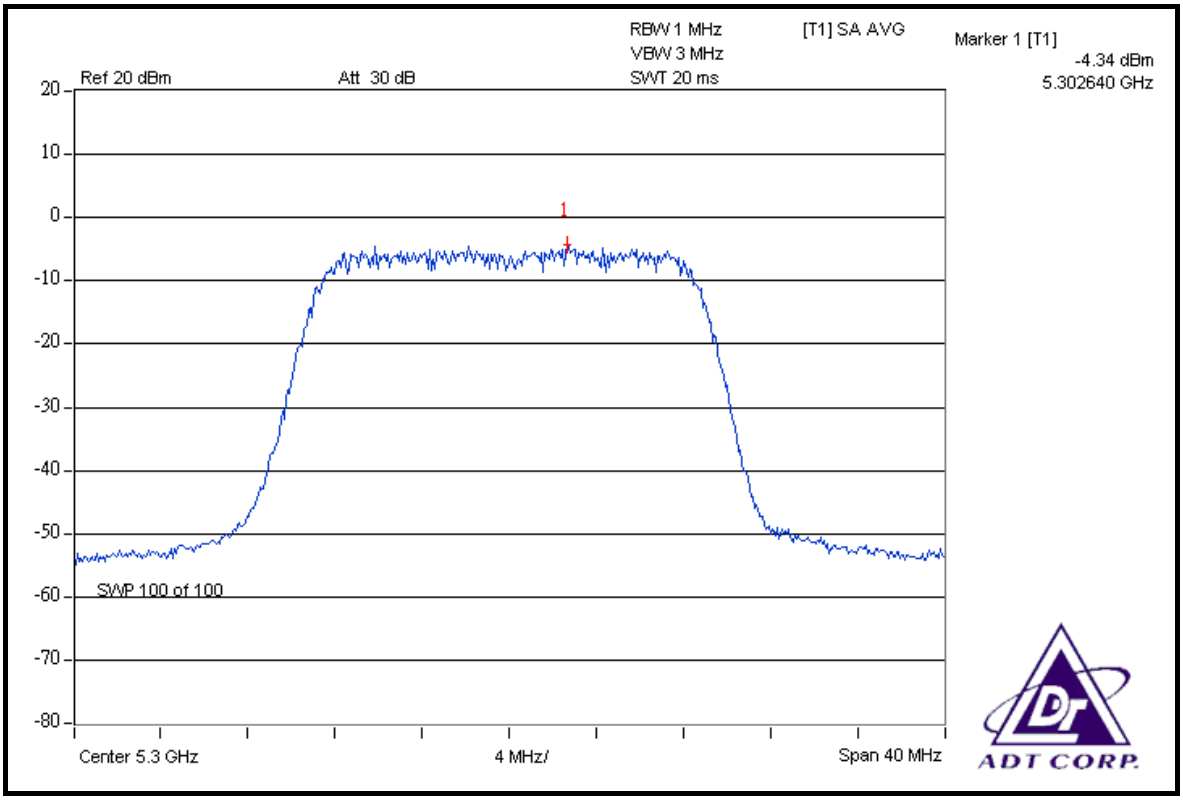
CH 48


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-3.83 dBm
5.244080 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.24 GHz
4 MHz/
Span 40 MHz
ADT CORP.

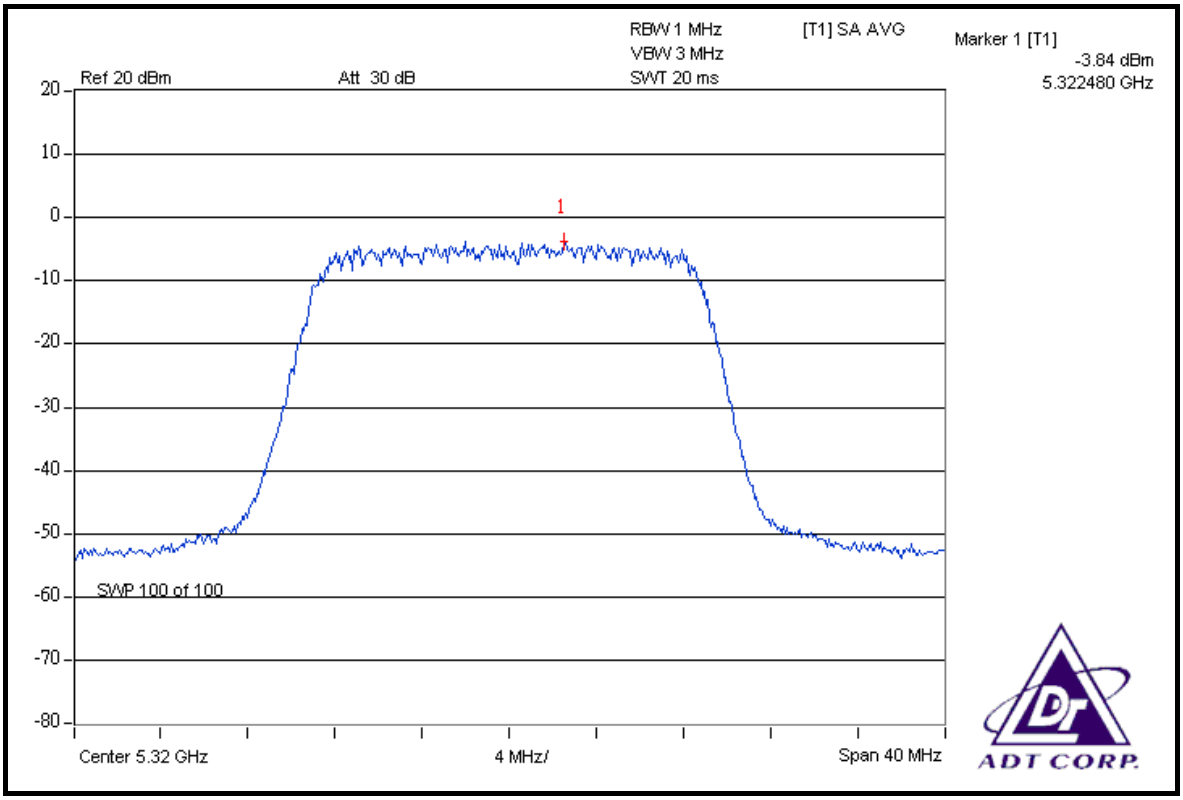
CH 52


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-3.86 dBm
5.264720 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.26 GHz
4 MHz/
Span 40 MHz
ADT CORP.

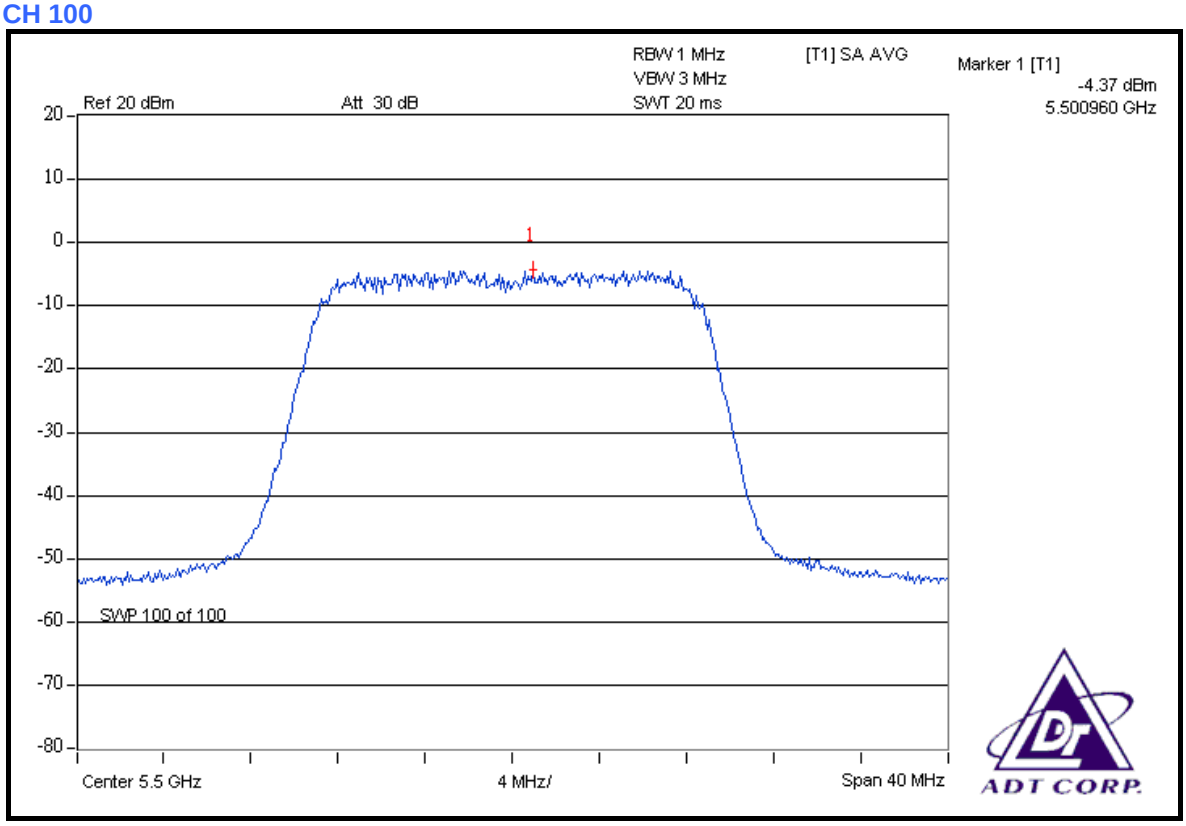
CH 60


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-4.34 dBm
5.302640 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
SWP 100 of 100
Center 5.3 GHz
4 MHz/
Span 40 MHz
ADT CORP.

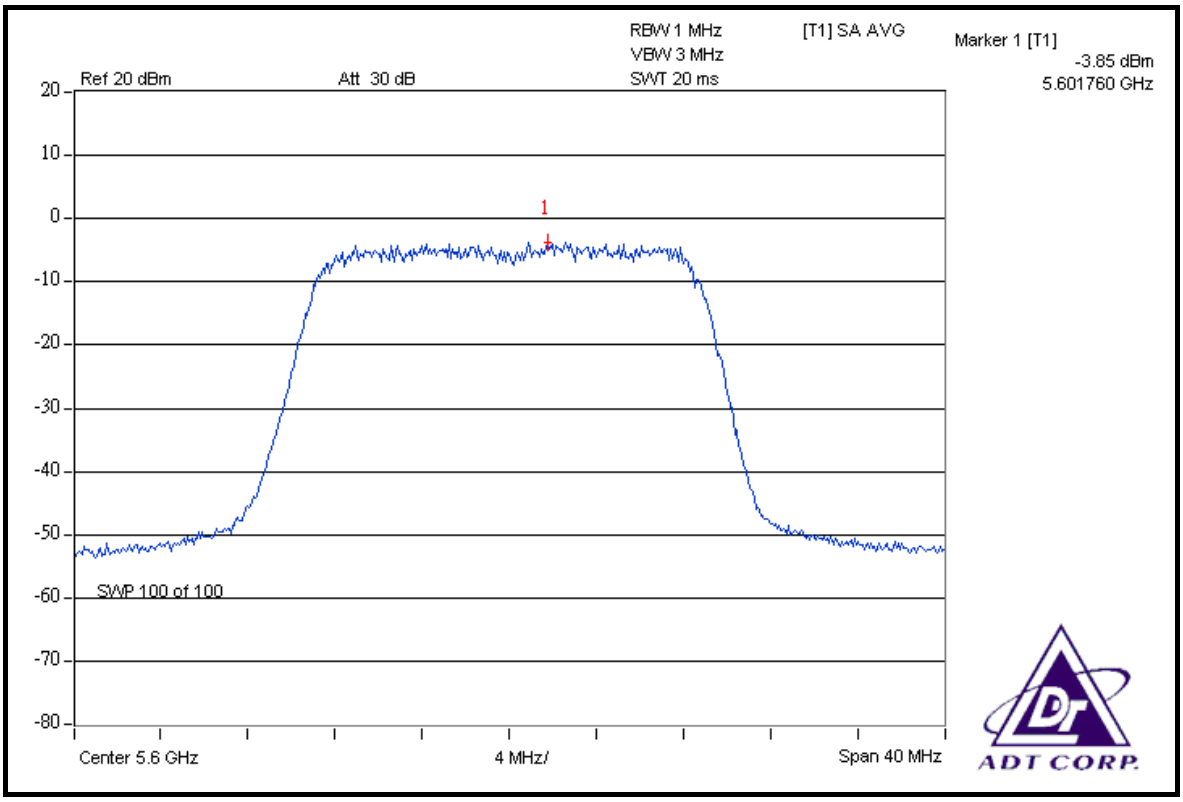
CH 64


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-3.84 dBm
5.322480 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
SWP 100 of 100
Center 5.32 GHz
4 MHz/
Span 40 MHz
ADT CORP.

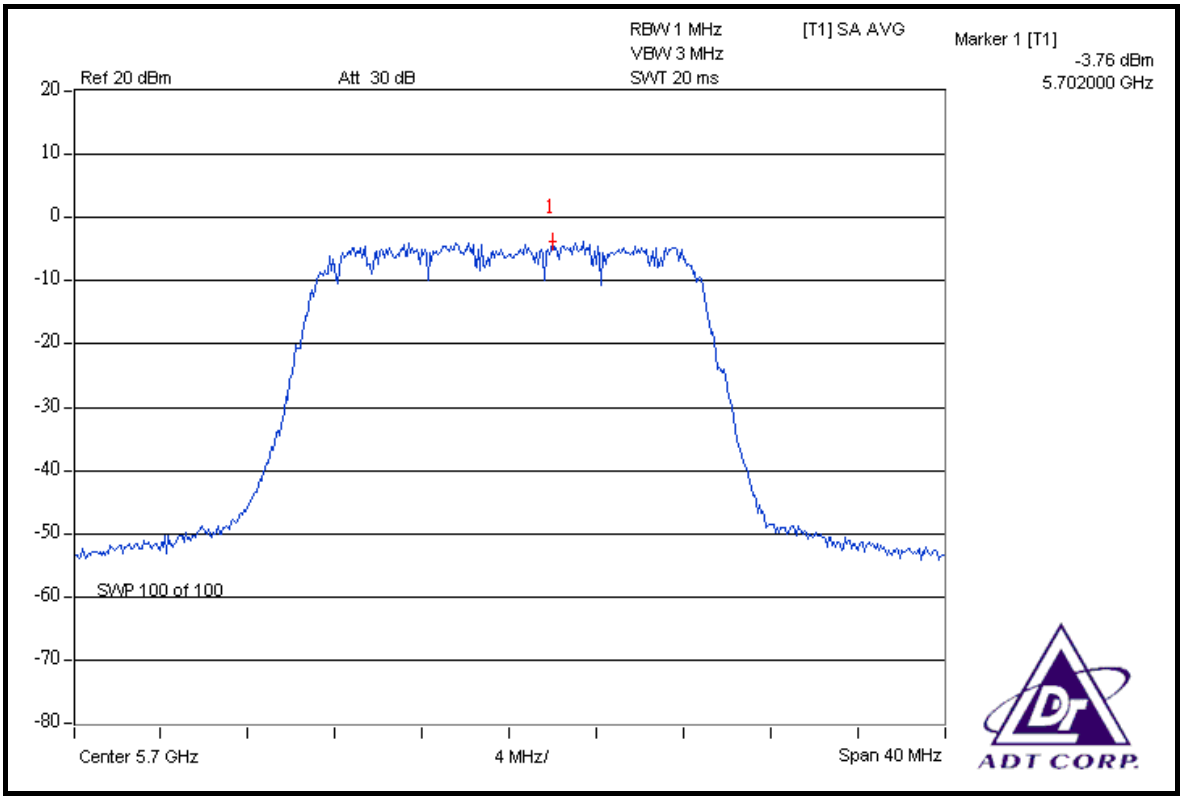
CH 100


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-4.37 dBm
5.500960 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
SWP 100 of 100
Center 5.5 GHz
4 MHz/
Span 40 MHz
ADT CORP.

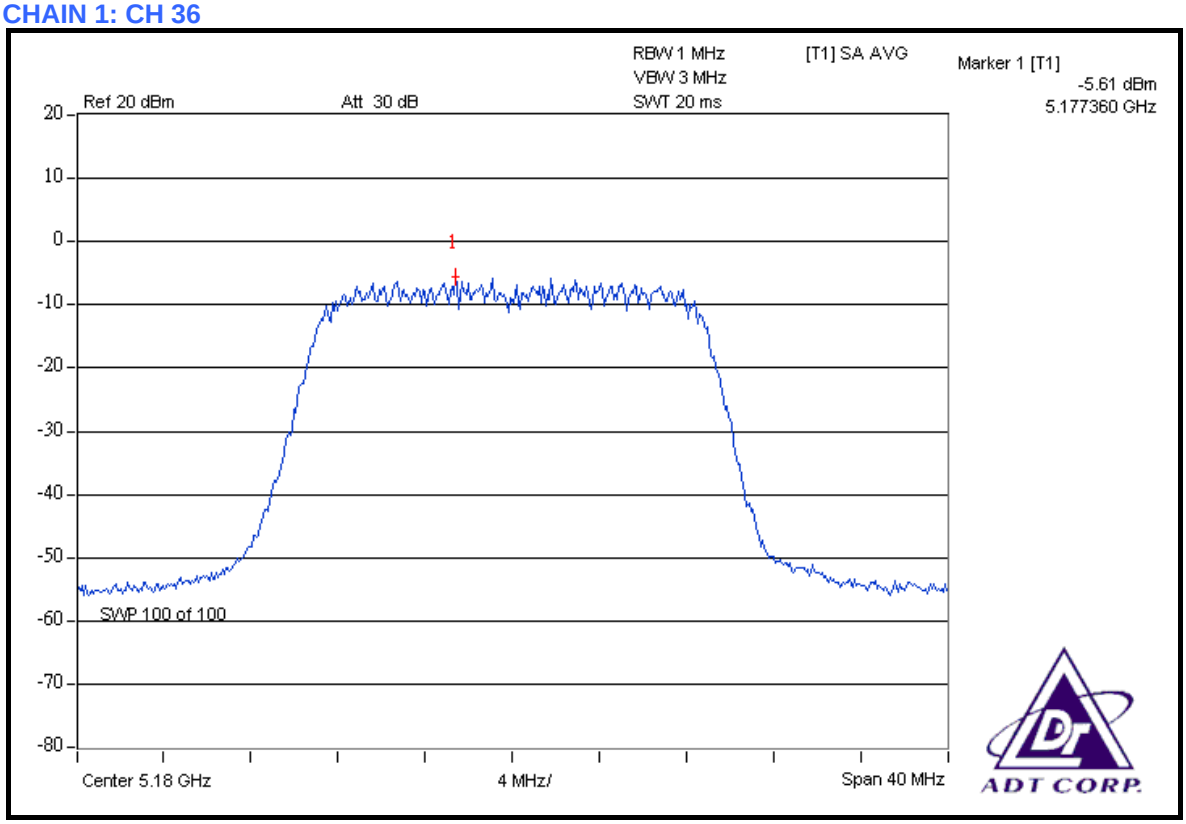
CH 120


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-3.85 dBm
5.601760 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
SWP 100 of 100
Center 5.6 GHz
4 MHz/
Span 40 MHz
ADT CORP.

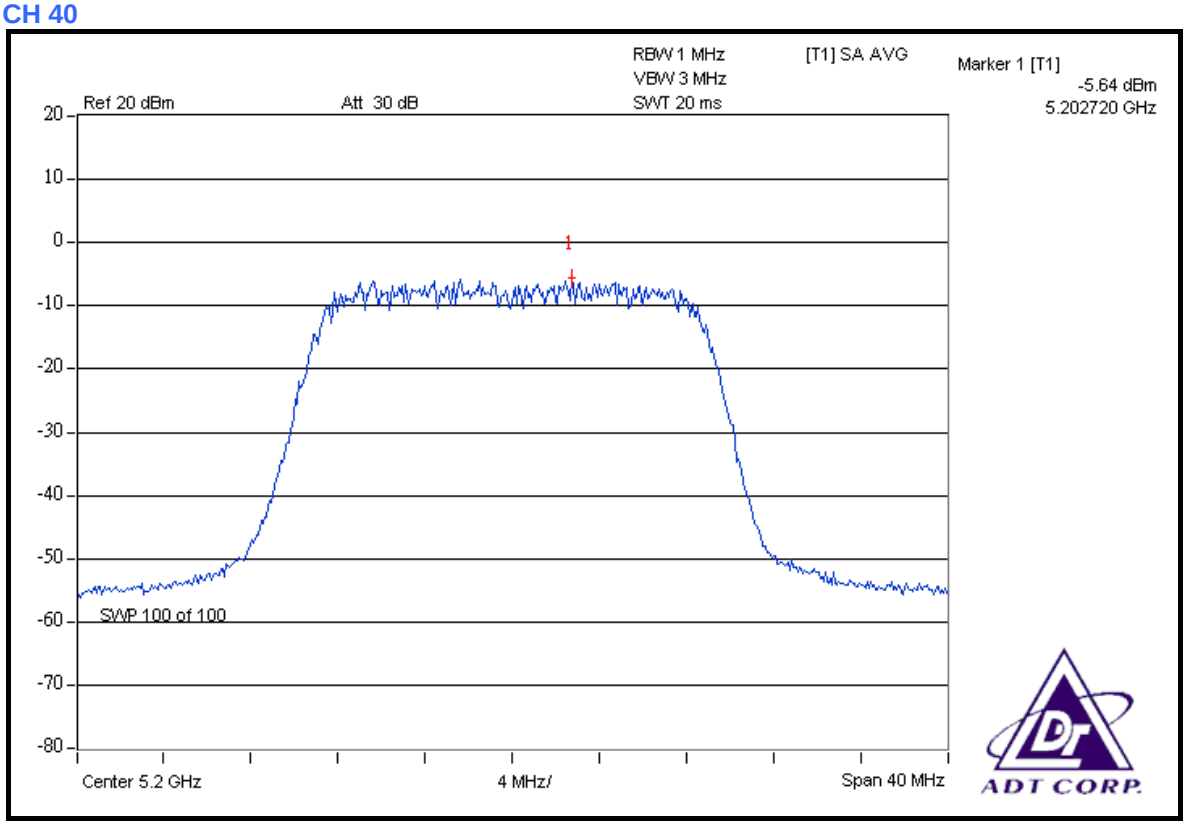
CH 140



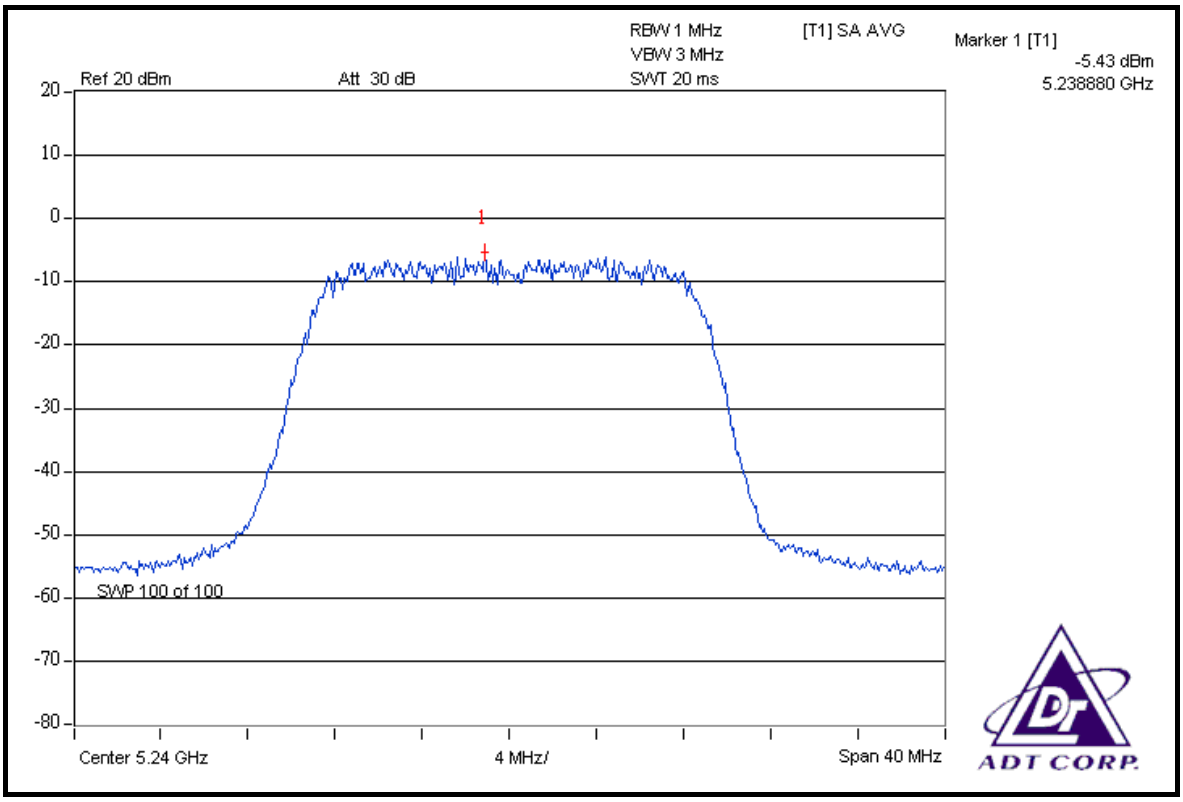
CHAIN 1: CH 36



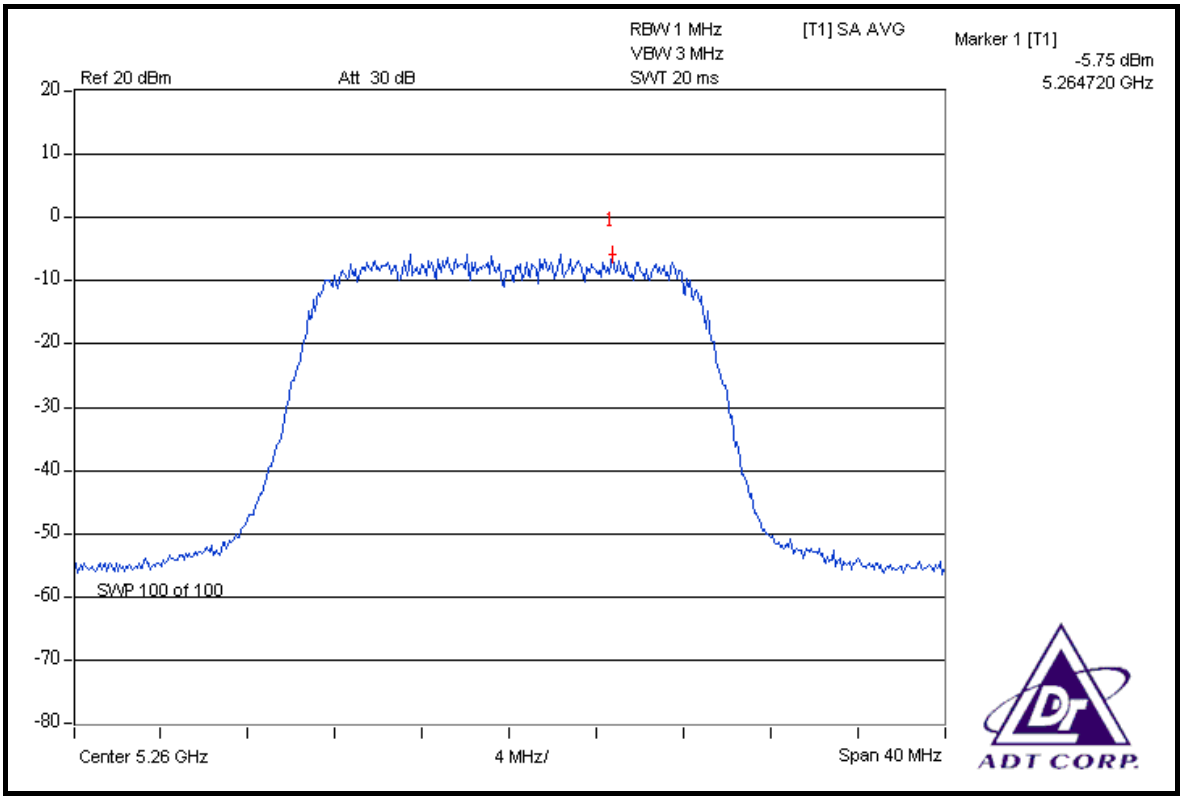
CH 40


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-5.64 dBm
5.202720 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
SWP 100 of 100
Center 5.2 GHz
4 MHz/
Span 40 MHz
ADT CORP.

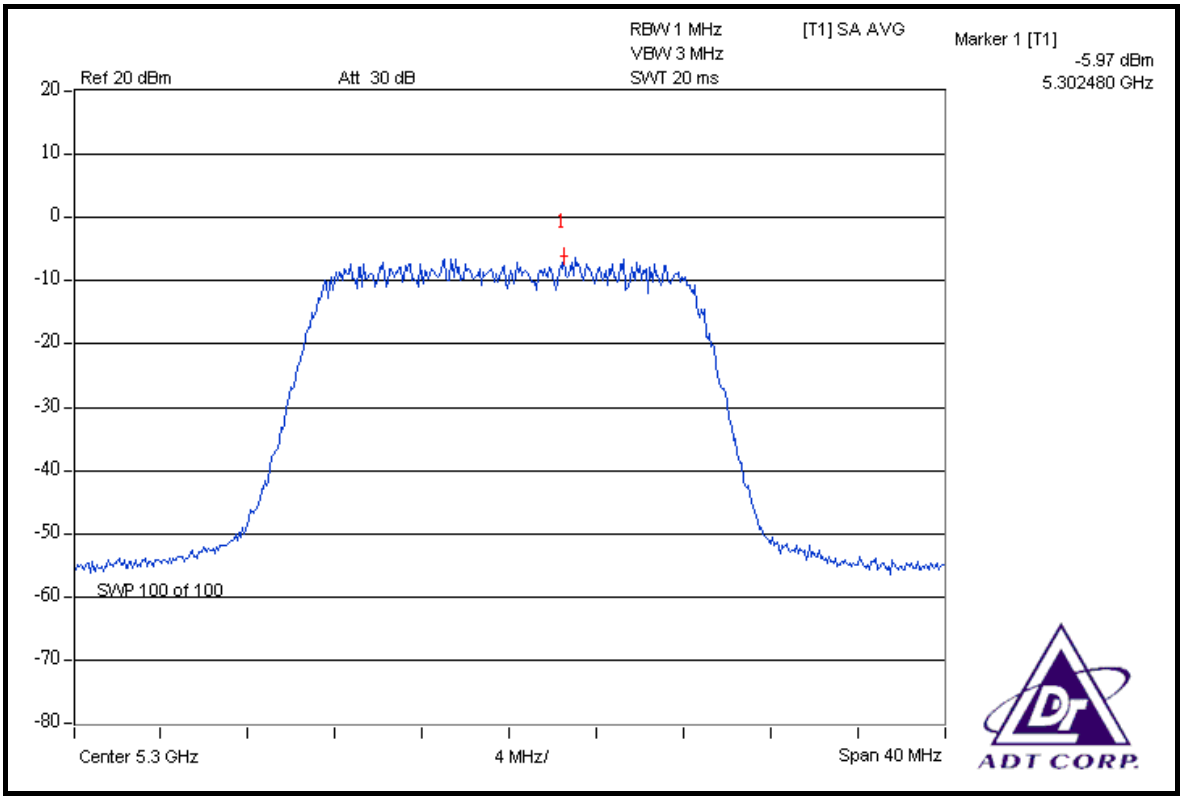
CH 48


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-5.43 dBm
5.238880 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
SWP 100 of 100
Center 5.24 GHz
4 MHz/
Span 40 MHz
ADT CORP.

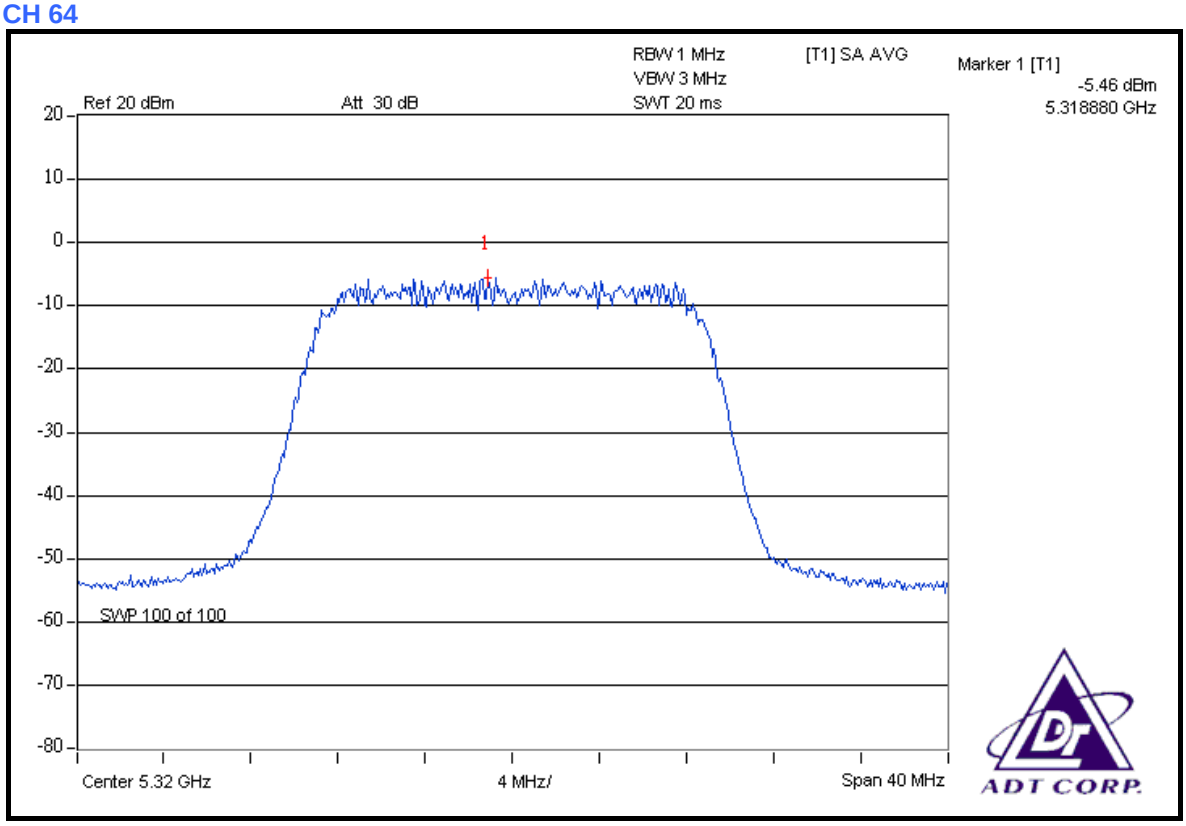
CH 52


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-5.75 dBm
5.264720 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
SWP 100 of 100
Center 5.26 GHz
4 MHz/
Span 40 MHz
ADT CORP.

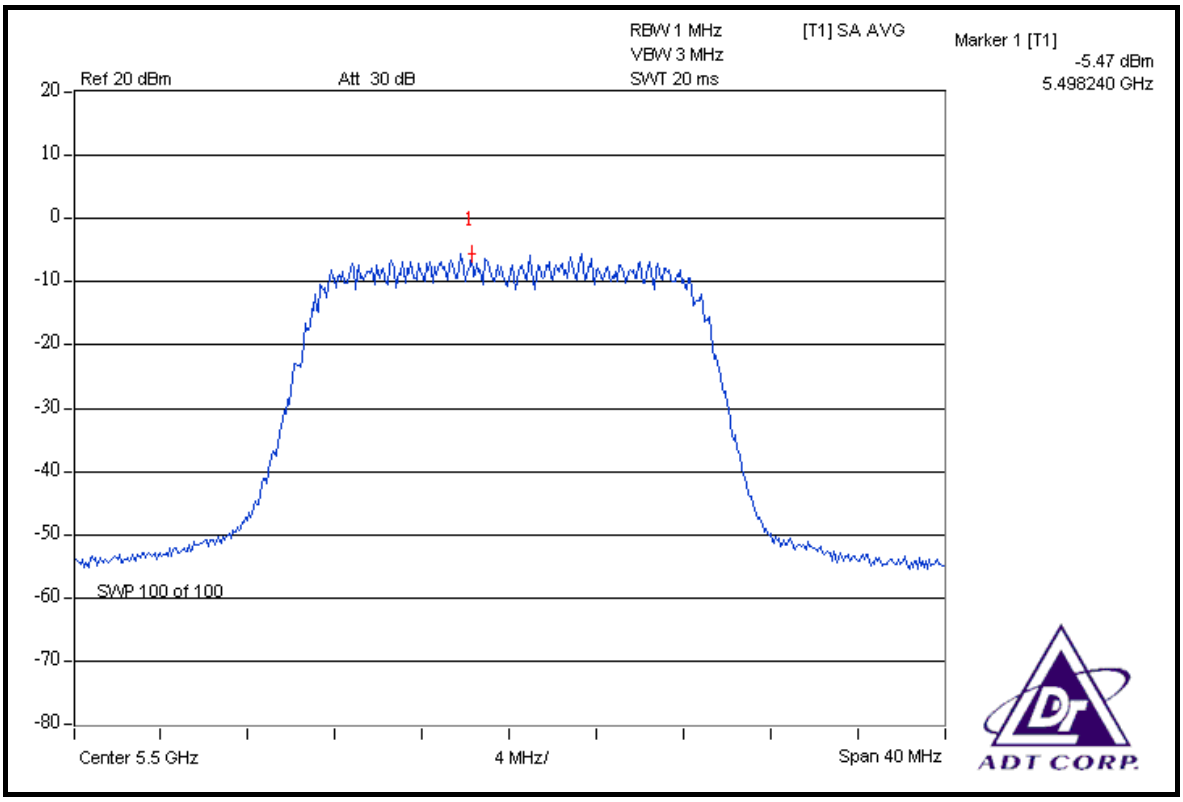
CH 60


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-5.97 dBm
5.302480 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
SWP 100 of 100
Center 5.3 GHz
4 MHz/
Span 40 MHz
ADT CORP.

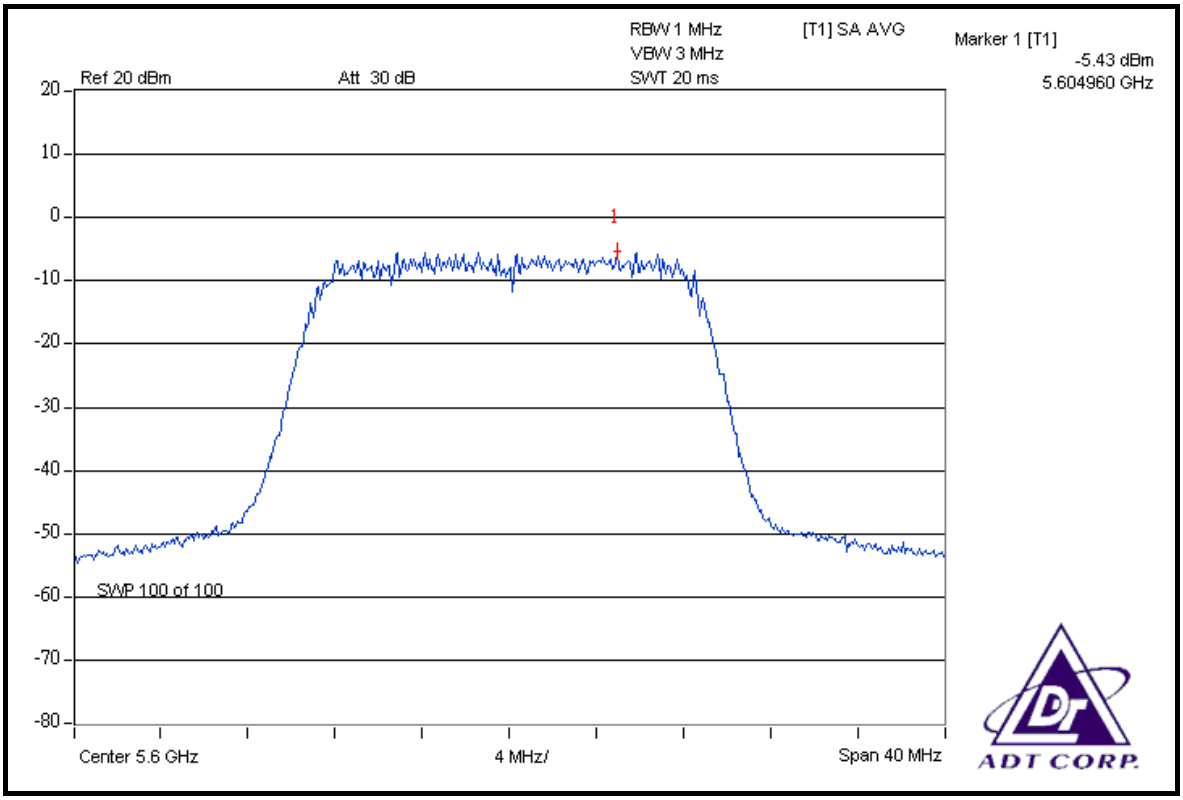
CH 64


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-5.46 dBm
5.318880 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
SWP 100 of 100
Center 5.32 GHz
4 MHz/
Span 40 MHz
ADT CORP.

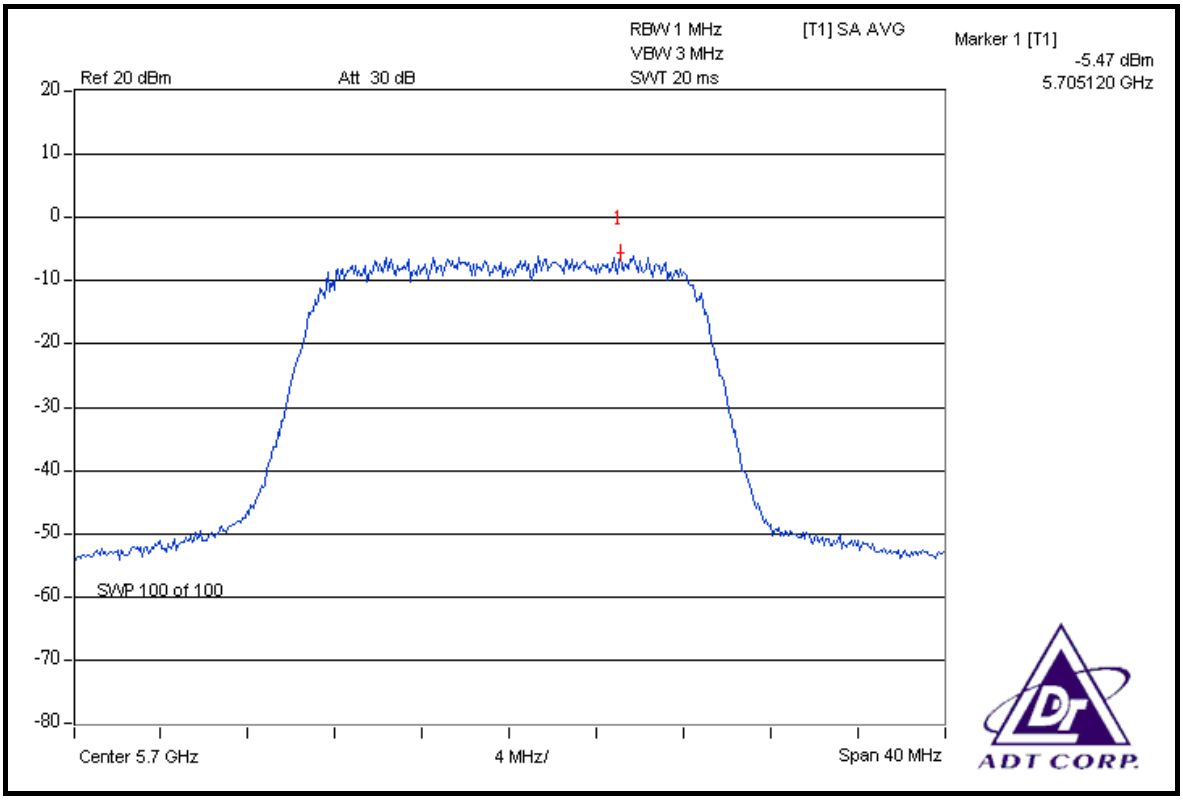
CH 100


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-5.47 dBm
5.498240 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
SWP 100 of 100
Center 5.5 GHz
4 MHz/
Span 40 MHz
ADT CORP.

CH 120


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-5.43 dBm
5.604960 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
SWP 100 of 100
Center 5.6 GHz
4 MHz/
Span 40 MHz
ADT CORP.

CH 140

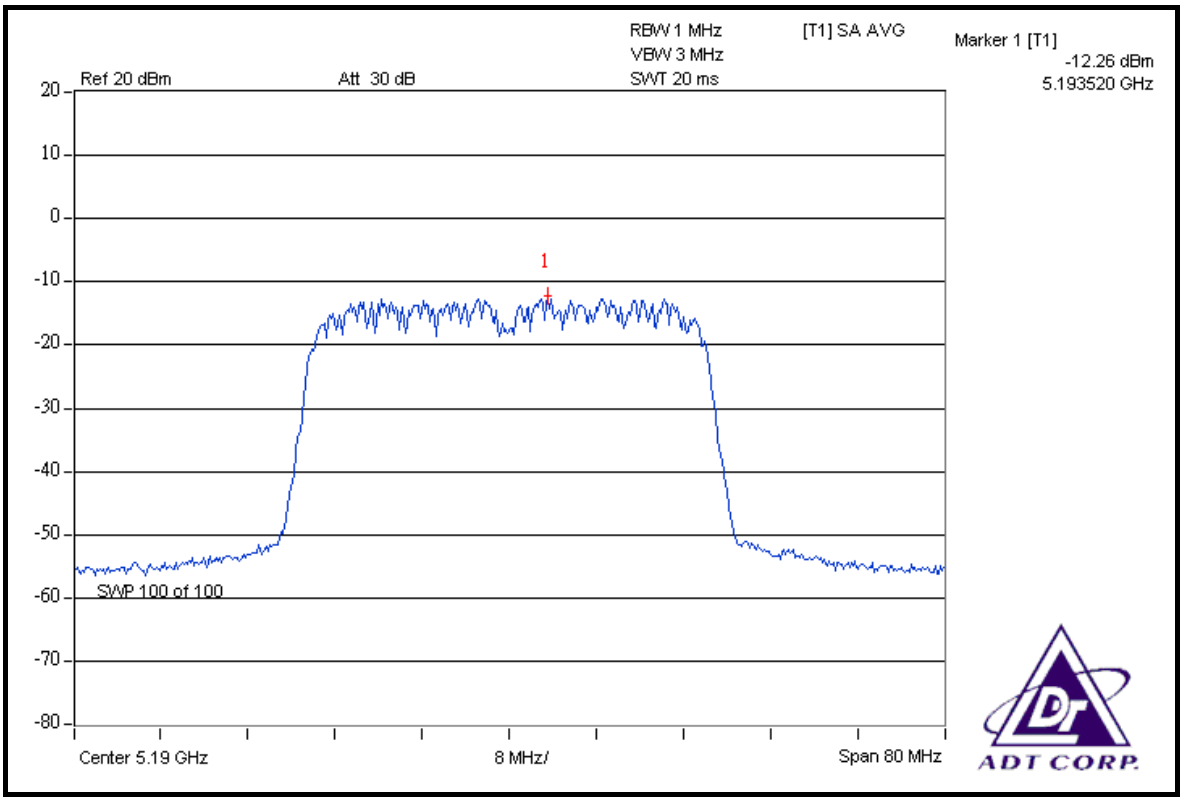

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-5.47 dBm
5.705120 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
SWP 100 of 100
Center 5.7 GHz
4 MHz/
Span 40 MHz
ADT CORP.

DRAFT 802.11n (40MHz) OFDM MODULATION

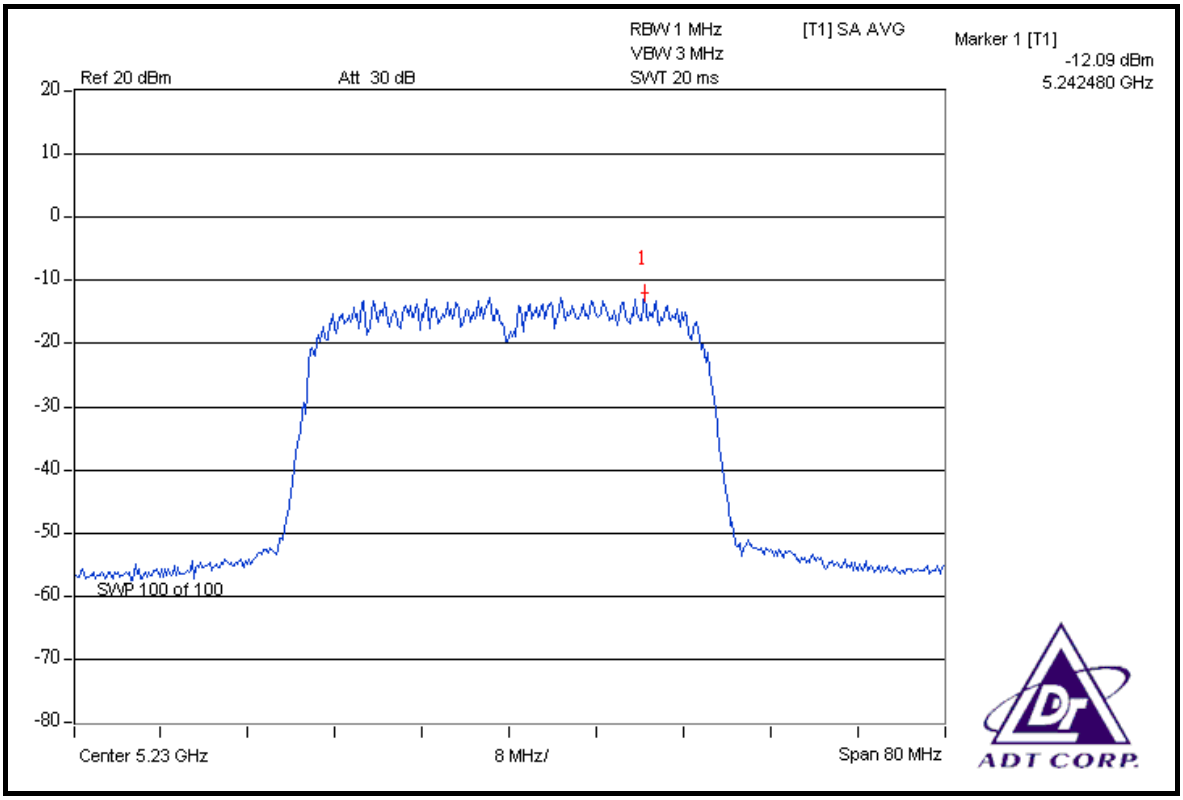
MODULATION TYPE	BPSK	**TRANSFER RATE**	15.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25 deg.C, 65 %RH, 991hPa
TESTED BY	Brad Wu		

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (mW)	TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
38	5190	-12.26	-11.32	0.133	-8.75	4	PASS
46	5230	-12.09	-11.28	0.136	-8.66	4	PASS
54	5270	-11.59	-10.66	0.155	-8.09	11	PASS
62	5310	-12.05	-11.19	0.138	-8.59	11	PASS
102	5510	-12.12	-11.46	0.133	-8.77	11	PASS
118	5590	-11.15	-11.21	0.152	-8.17	11	PASS
134	5670	-12.06	-10.53	0.151	-8.22	11	PASS

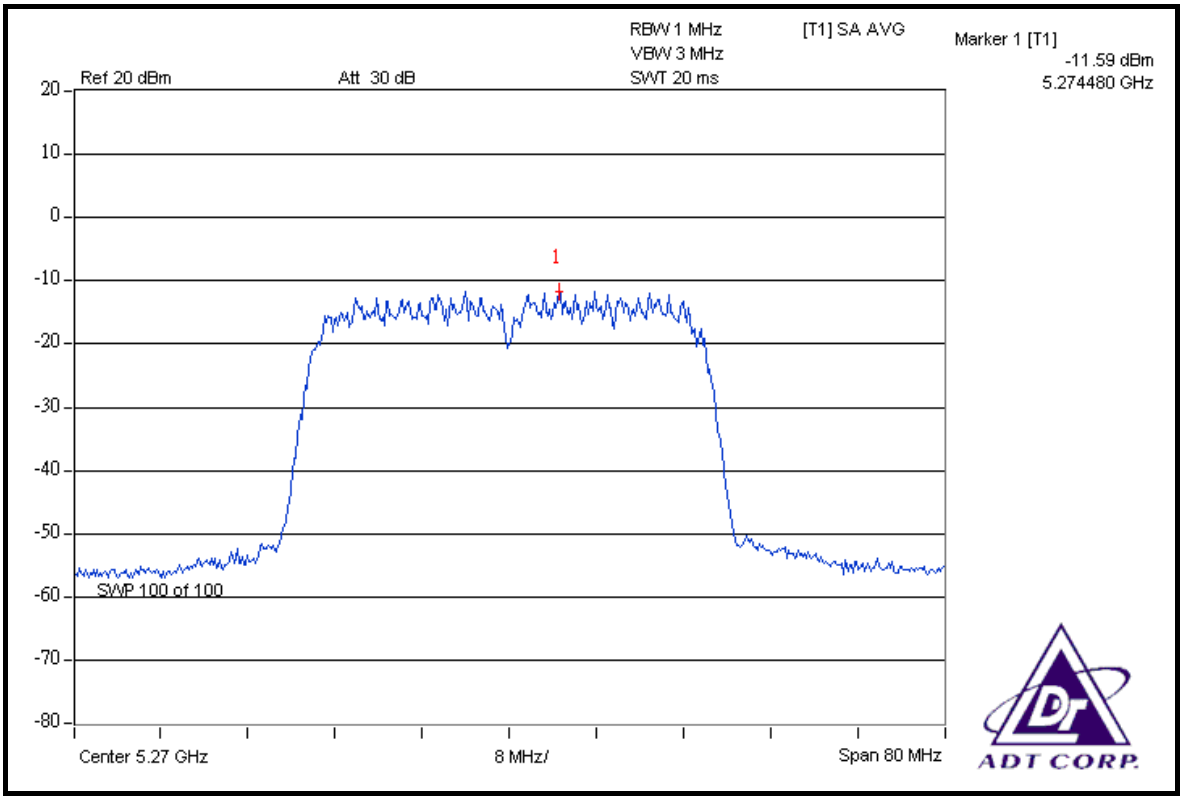
CHAIN 0: CH 38



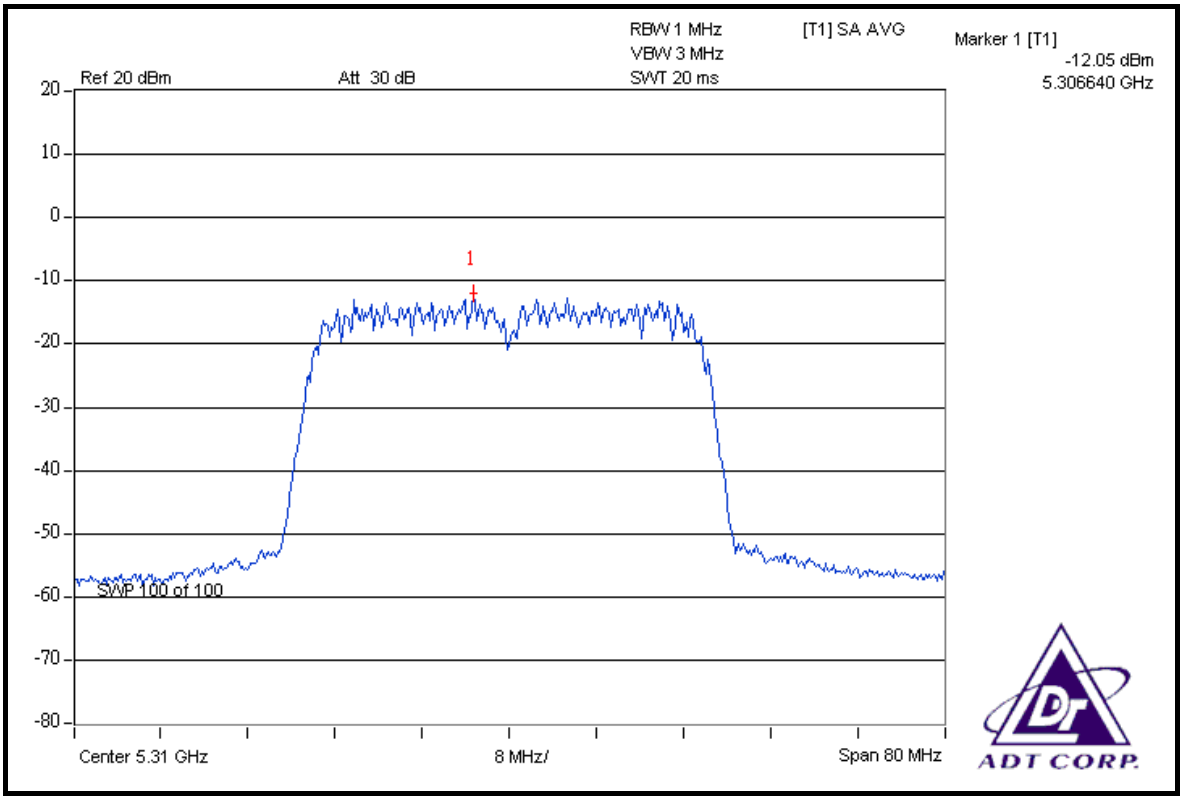
CH 46



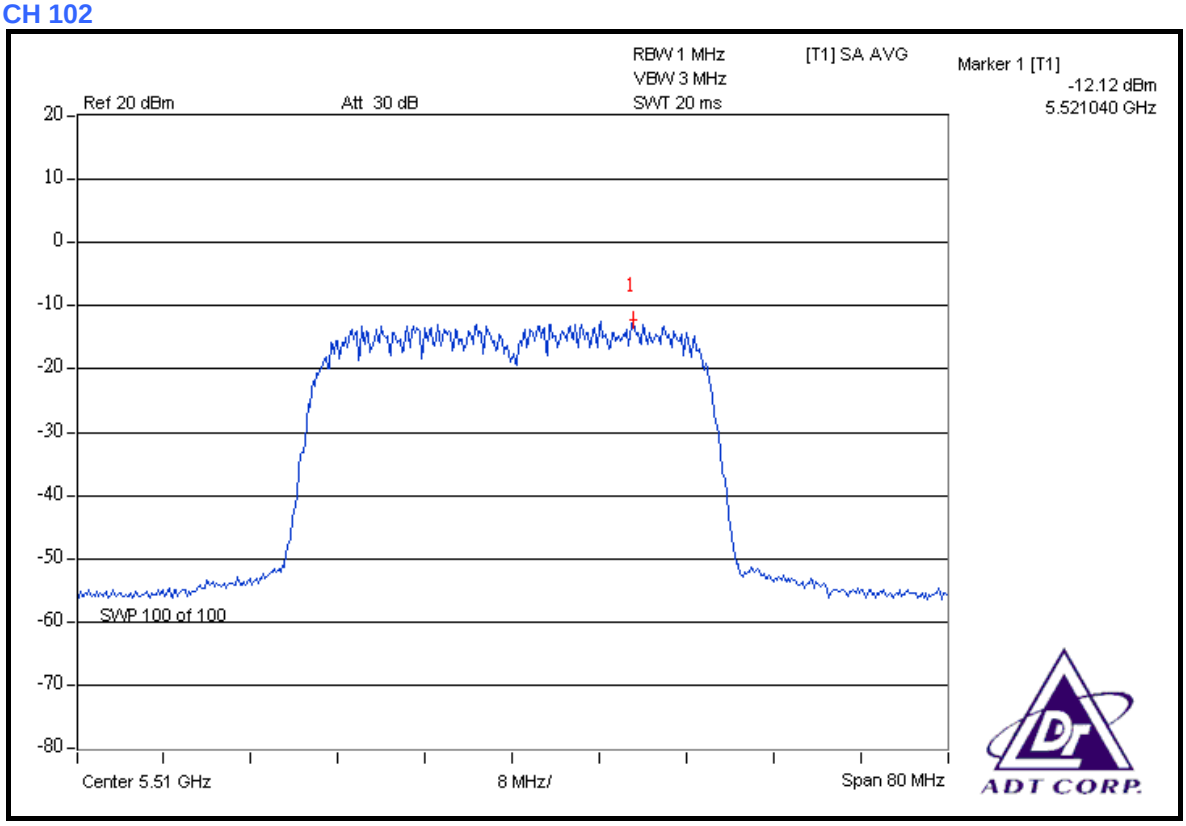
CH 54


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-11.59 dBm
5.274480 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.27 GHz
8 MHz/
Span 80 MHz
ADT CORP.

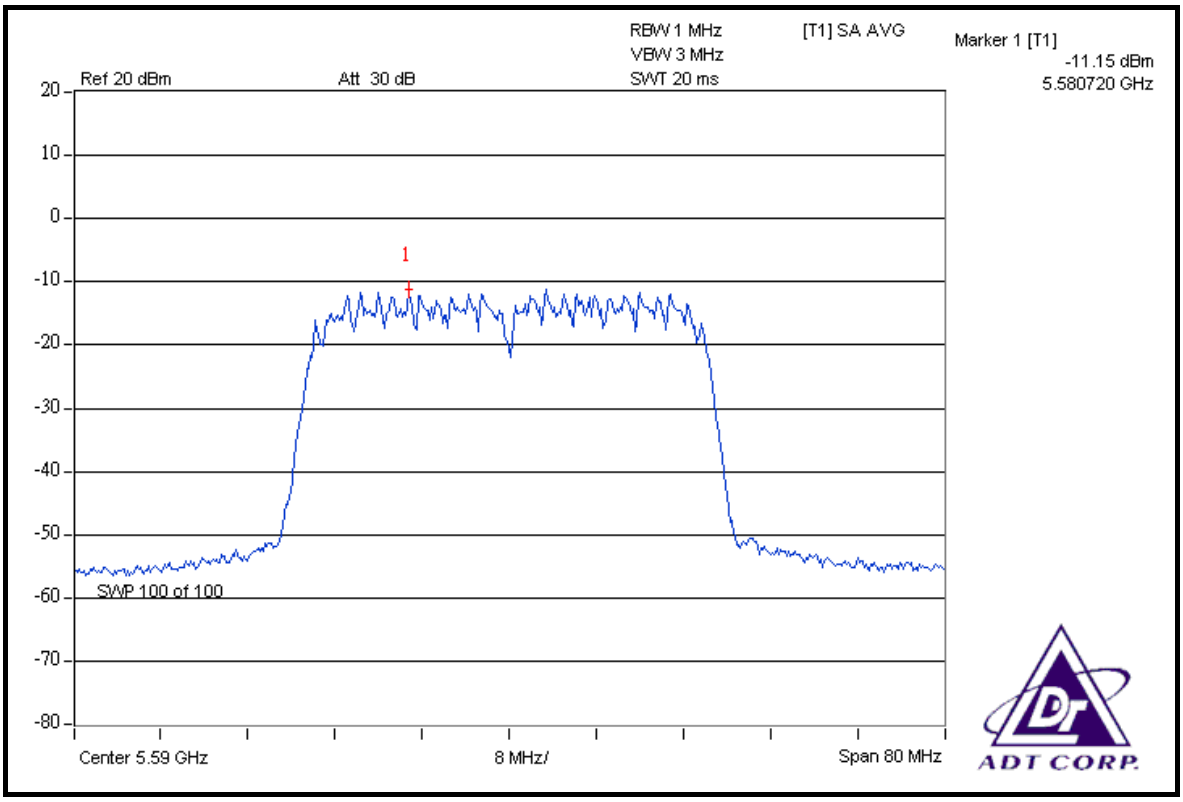
CH 62


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-12.05 dBm
5.306640 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.31 GHz
8 MHz/
Span 80 MHz
ADT CORP.

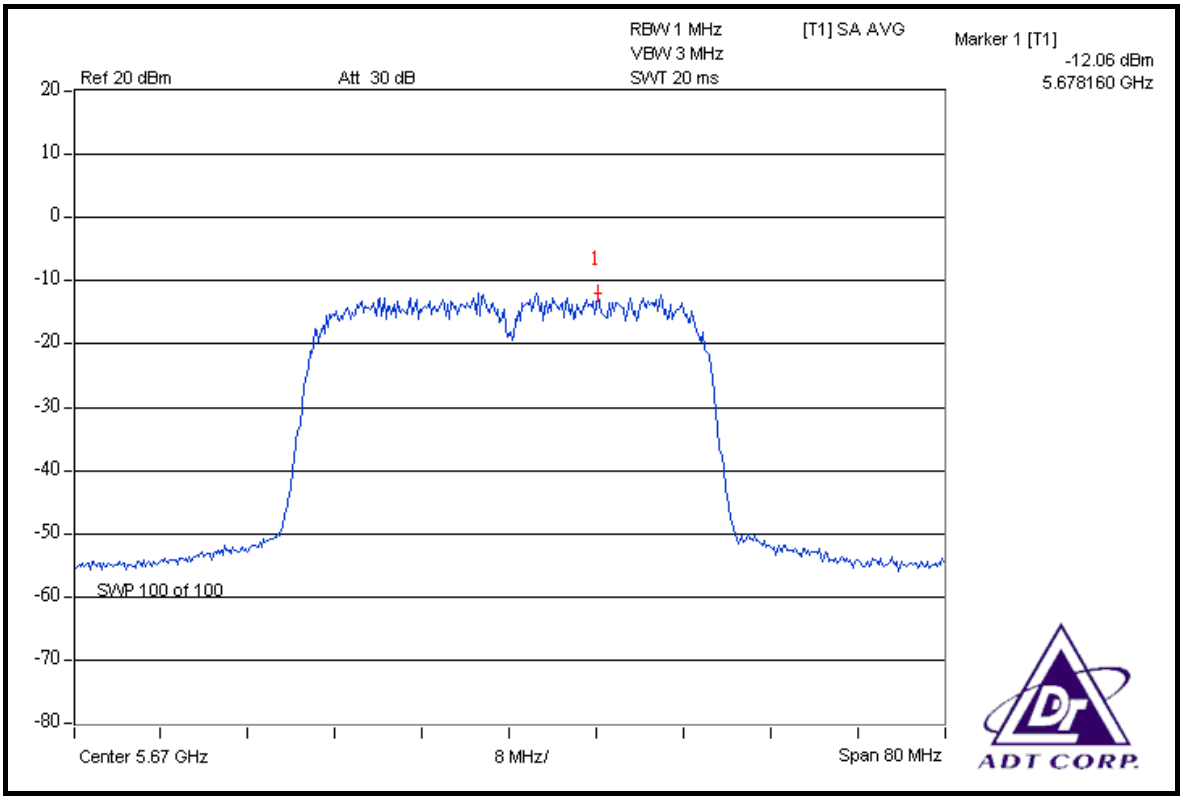
CH 102


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-12.12 dBm
5.521040 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.51 GHz
8 MHz/
Span 80 MHz
ADT CORP.

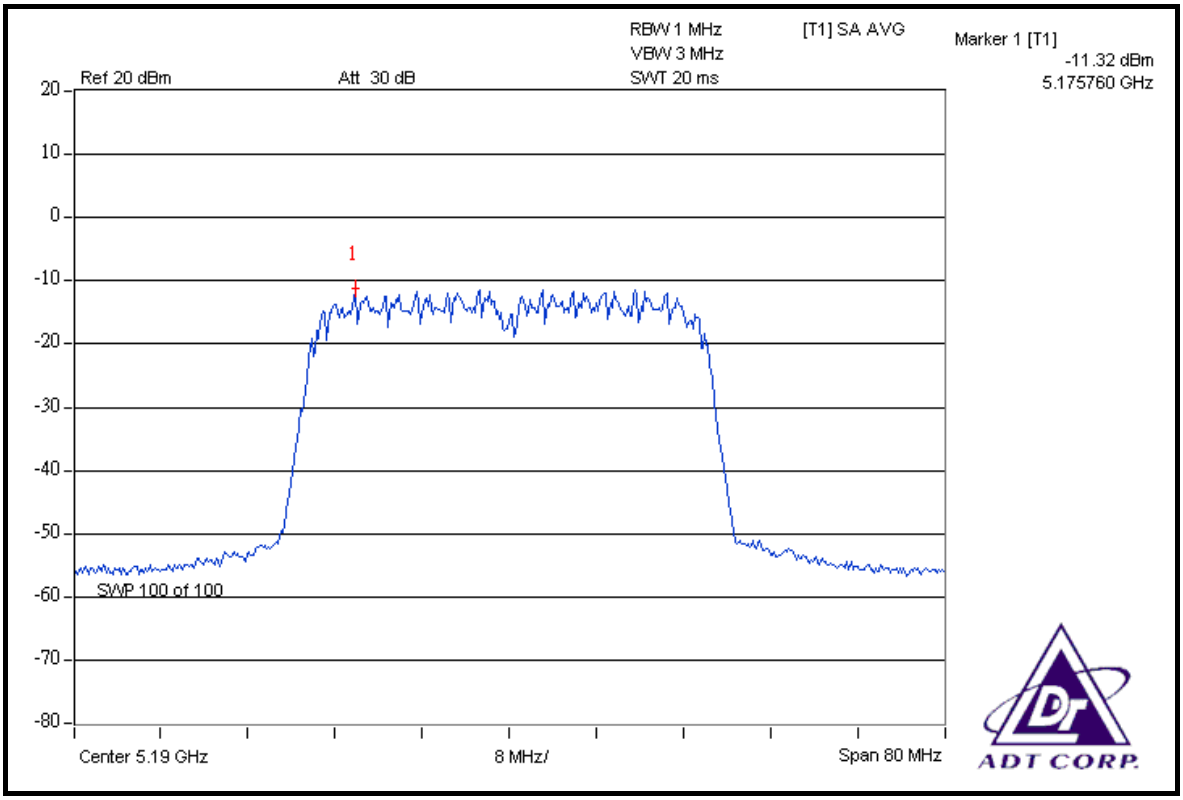
CH 118


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-11.15 dBm
5.580720 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.59 GHz
8 MHz/
Span 80 MHz
ADT CORP.

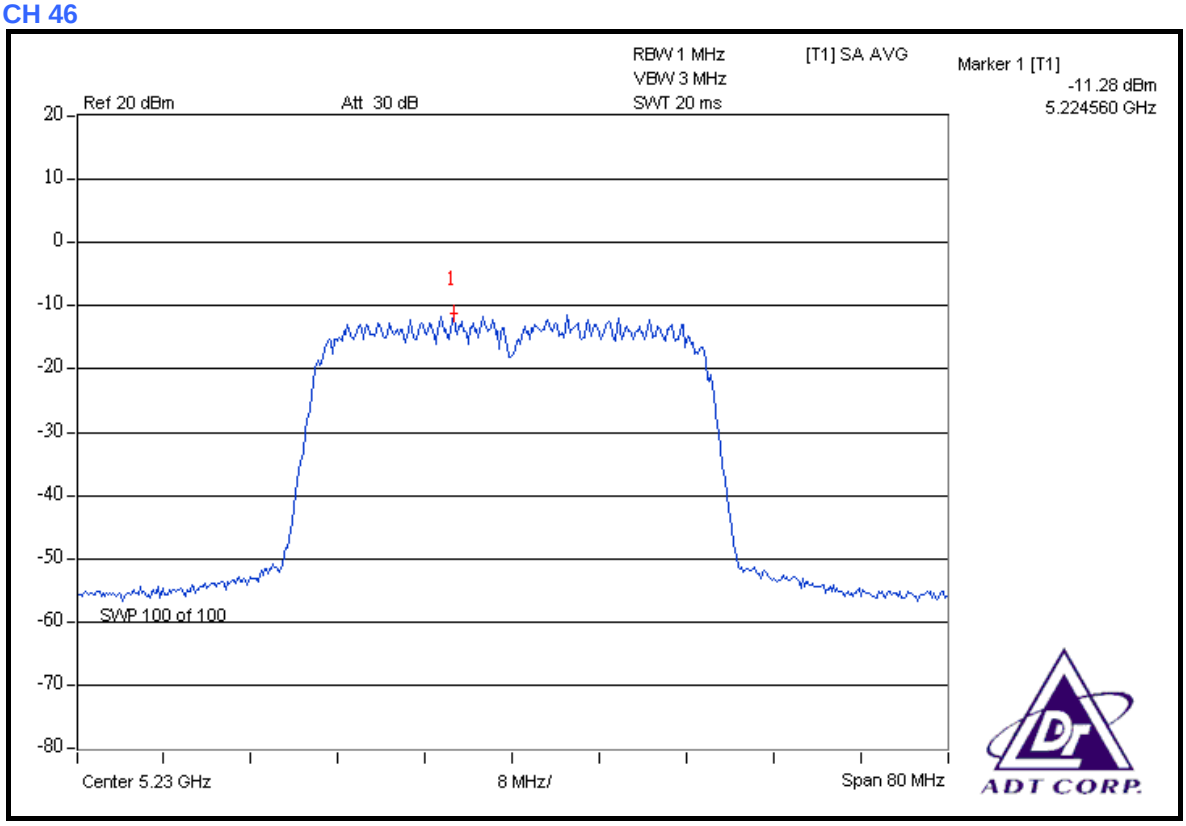
CH 134



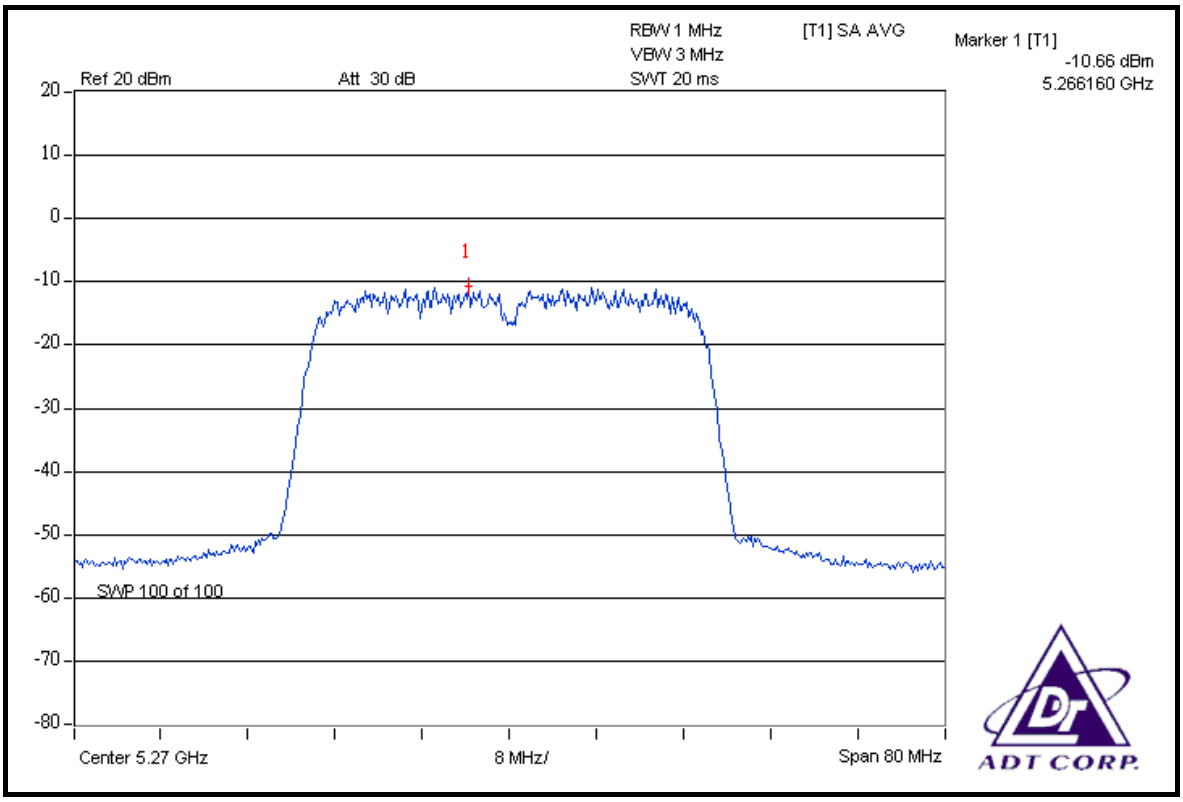
CHAIN 1: CH 38



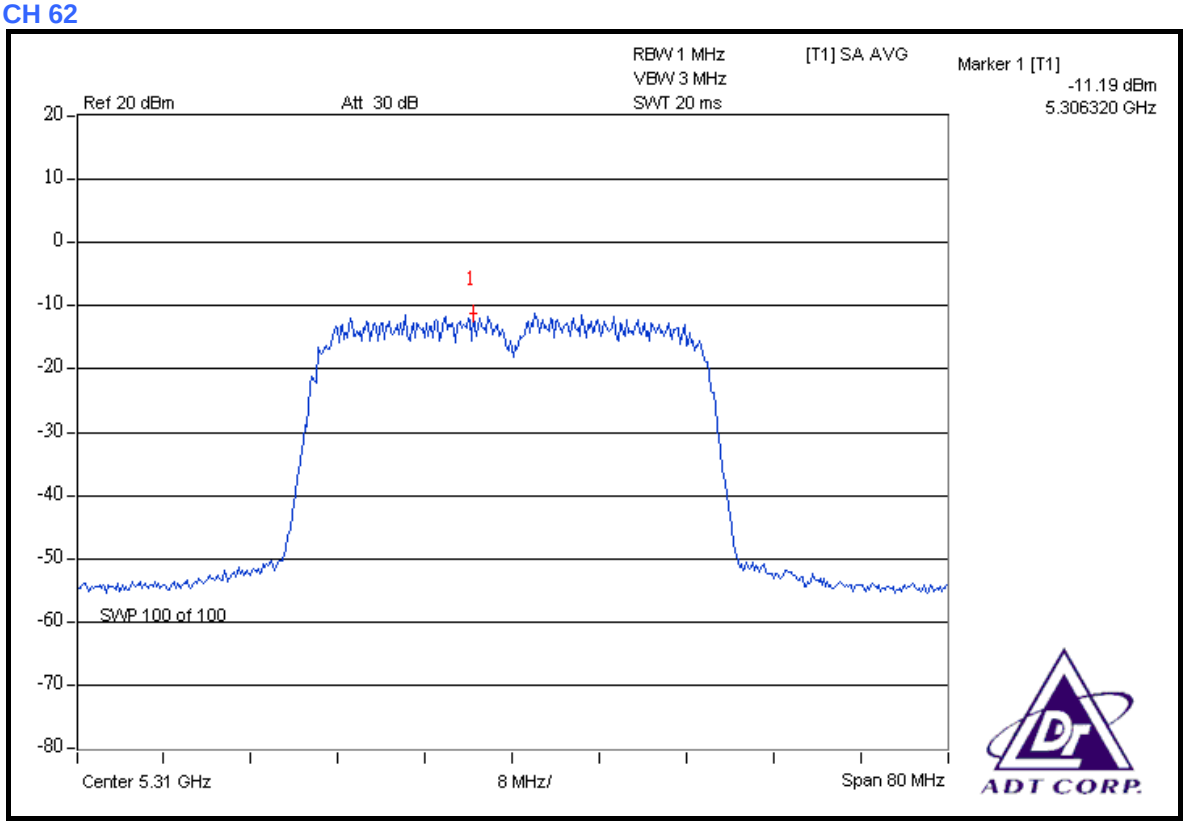
CH 46


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-11.28 dBm
5.224560 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.23 GHz
8 MHz/
Span 80 MHz
ADT CORP.

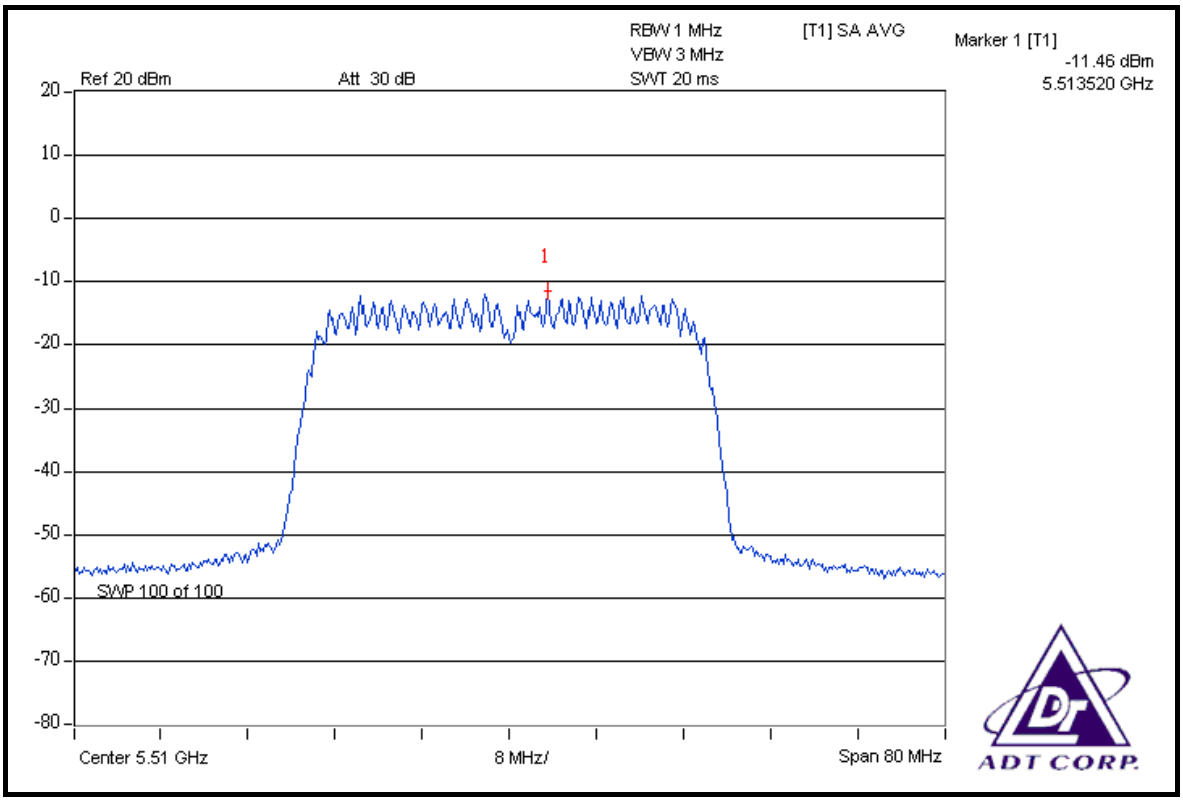
CH 54


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-10.66 dBm
5.266160 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.27 GHz
8 MHz/
Span 80 MHz
ADT CORP.

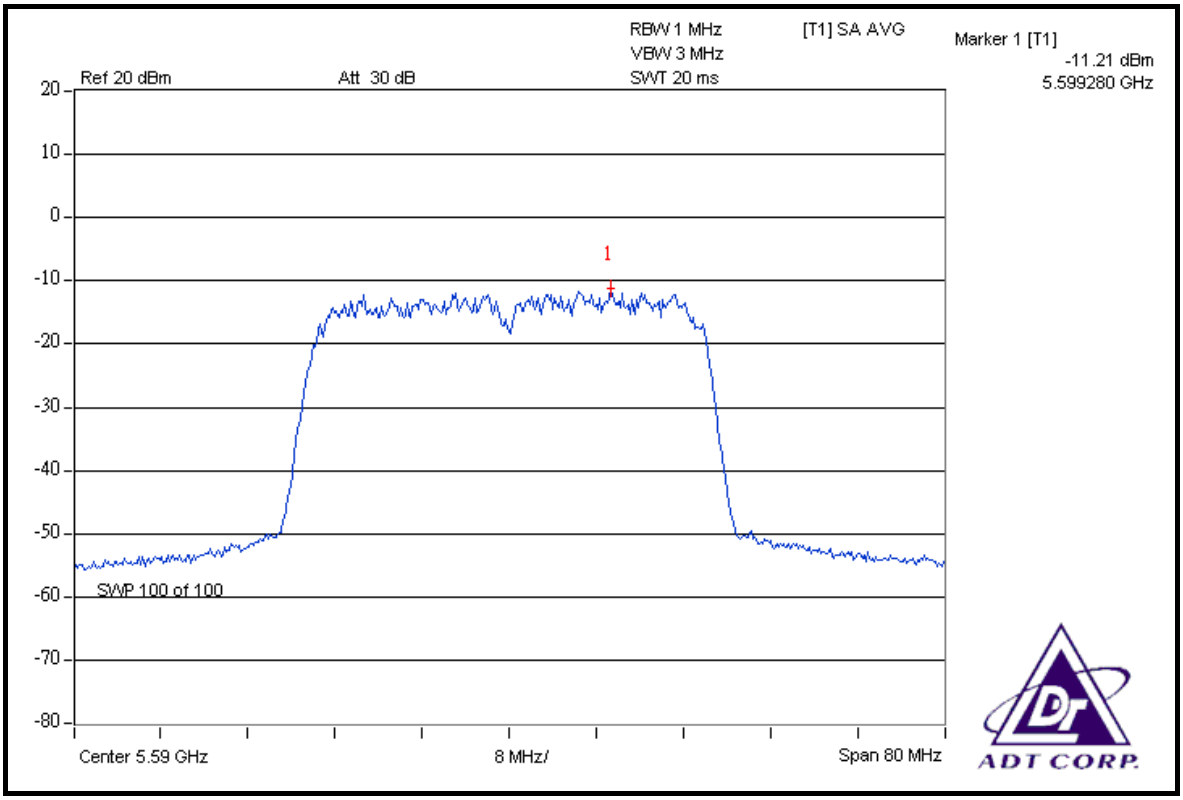
CH 62


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-11.19 dBm
5.306320 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.31 GHz
8 MHz/
Span 80 MHz
ADT CORP.

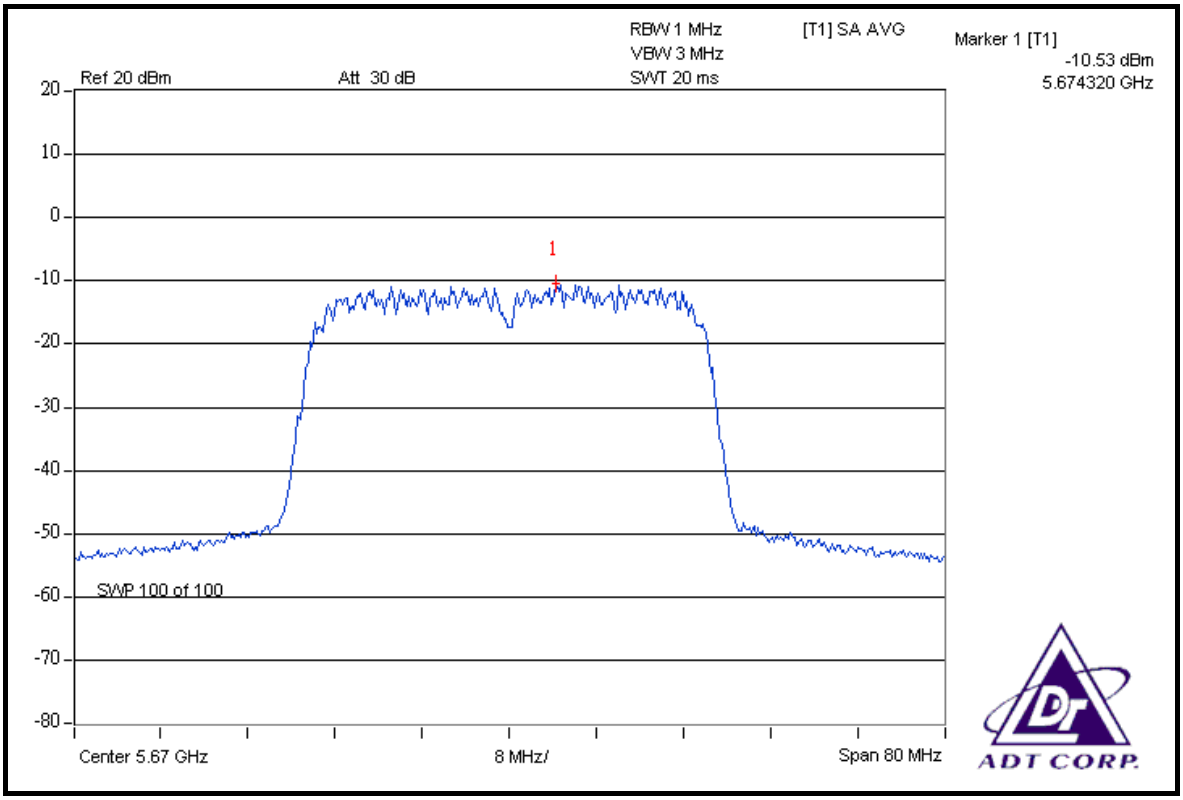
CH 102


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-11.46 dBm
5.513520 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.51 GHz
8 MHz/
Span 80 MHz
ADT CORP.

CH 118


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-11.21 dBm
5.599280 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.59 GHz
8 MHz/
Span 80 MHz
ADT CORP.

CH 134


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] SA AVG
Marker 1 [T1]
-10.53 dBm
5.674320 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
SWP 100 of 100
Center 5.67 GHz
8 MHz/
Span 80 MHz
ADT CORP.

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.	DATE OF CALIBRATION	CALIBRATED UNTIL
ANRITSU SPECTRUM ANALYZER	MS2667C	M10281	Nov. 22, 2007	Nov. 21, 2008
WIT STANDARD TEMPERATURE AND HUMIDITY CHAMBER	TH-4S-C	W981030	Jun. 26, 2008	Jun. 25, 2009

NOTE: 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

a. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.

b. Turn the EUT on and couple its output to a spectrum analyzer.

c. Turn the EUT off and set the chamber to the highest temperature specified.

d. 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.

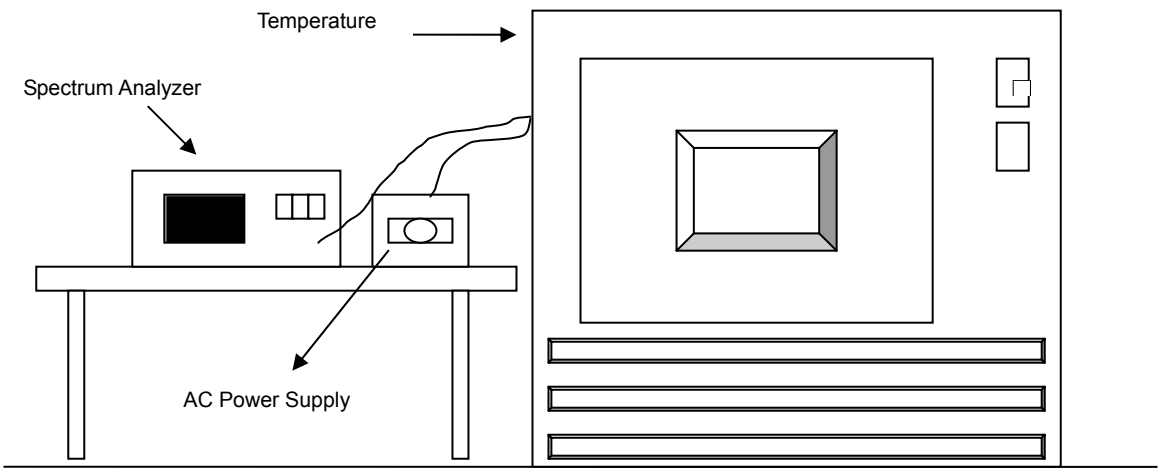
e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.

f. 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

Same as Item 4.1.6

4.6.7 TEST RESULTS

OPERATING FREQUENCY: 5320MHz						LIMIT: ± 0.01%			
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		(MHz)	(%)	(MHz)	(%)	(MHz)	(%)	(MHz)	(%)
50	126.5	5319.939211	-0.0011427	5319.939332	-0.0011404	5319.939420	-0.0011387	5319.939760	-0.0011323
	110.0	5319.939355	-0.0011399	5319.939075	-0.0011452	5319.939132	-0.0011441	5319.939600	-0.0011353
	93.5	5319.939400	-0.0011391	5319.939447	-0.0011382	5319.939640	-0.0011346	5319.939687	-0.0011337
40	126.5	5319.939515	-0.0011369	5319.939532	-0.0011366	5319.939718	-0.0011331	5319.939519	-0.0011369
	110.0	5319.939270	-0.0011415	5319.939255	-0.0011418	5319.939103	-0.0011447	5319.939308	-0.0011408
	93.5	5319.939311	-0.0011408	5319.939256	-0.0011418	5319.939223	-0.0011424	5319.939263	-0.0011417
30	126.5	5319.939435	-0.0011384	5319.939472	-0.0011377	5319.939548	-0.0011363	5319.939441	-0.0011383
	110.0	5319.939383	-0.0011394	5319.939394	-0.0011392	5319.939288	-0.0011412	5319.939193	-0.0011430
	93.5	5319.939585	-0.0011356	5319.939498	-0.0011373	5319.939620	-0.0011350	5319.939818	-0.0011312
20	126.5	5319.939513	-0.0011370	5319.939390	-0.0011393	5319.939476	-0.0011377	5319.939501	-0.0011372
	110.0	5319.939581	-0.0011357	5319.939283	-0.0011413	5319.939434	-0.0011385	5319.939540	-0.0011365
	93.5	5319.939654	-0.0011343	5319.939413	-0.0011389	5319.939584	-0.0011356	5319.939476	-0.0011377
10	126.5	5319.939233	-0.0011422	5319.939283	-0.0011413	5319.939223	-0.0011424	5319.939158	-0.0011436
	110.0	5319.939466	-0.0011379	5319.939390	-0.0011393	5319.939568	-0.0011359	5319.939388	-0.0011393
	93.5	5319.939507	-0.0011371	5319.939549	-0.0011363	5319.939572	-0.0011359	5319.939694	-0.0011336
0	126.5	5319.939457	-0.0011380	5319.939238	-0.0011421	5319.939242	-0.0011421	5319.939603	-0.0011353
	110.0	5319.939263	-0.0011417	5319.939370	-0.0011397	5319.939206	-0.0011427	5319.938945	-0.0011477
	93.5	5319.939527	-0.0011367	5319.939579	-0.0011357	5319.939299	-0.0011410	5319.939729	-0.0011329
-10	126.5	5319.939387	-0.0011393	5319.939423	-0.0011387	5319.939647	-0.0011345	5319.939550	-0.0011363
	110.0	5319.939491	-0.0011374	5319.939211	-0.0011427	5319.939545	-0.0011364	5319.939799	-0.0011316
	93.5	5319.939307	-0.0011408	5319.939531	-0.0011366	5319.939221	-0.0011425	5319.939391	-0.0011393
-20	126.5	5319.939622	-0.0011349	5319.939601	-0.0011353	5319.939486	-0.0011375	5319.939622	-0.0011349
	110.0	5319.939308	-0.0011408	5319.939402	-0.0011391	5319.939248	-0.0011420	5319.939431	-0.0011385
	93.5	5319.939620	-0.0011350	5319.939724	-0.0011330	5319.939465	-0.0011379	5319.939557	-0.0011361
-30	126.5	5319.939378	-0.0011395	5319.939377	-0.0011395	5319.939390	-0.0011393	5319.939368	-0.0011397
	110.0	5319.939373	-0.0011396	5319.939211	-0.0011427	5319.939649	-0.0011344	5319.939443	-0.0011383
	93.5	5319.939247	-0.0011420	5319.939303	-0.0011409	5319.939194	-0.0011430	5319.939304	-0.0011409

4.7 BAND EDGES MEASUREMENT

4.7.1 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESIB7	100212	May 28, 2008	May 27, 2009
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Aug. 08, 2008	Aug. 07, 2009
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Apr. 25, 2008	Apr. 24, 2009
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-563	Aug. 06, 2008	Aug. 05, 2009
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170242	Jan. 07, 2008	Jan. 06, 2009
Preamplifier Agilent	8449B	3008A01911	Sep. 11, 2007	Sep. 10, 2008
Preamplifier Agilent	8447D	2944A10634	Dec. 13, 2007	Dec. 12, 2008
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	274039/223650	Nov. 08, 2007	Nov. 07, 2008
RF signal cable Worken	8D-FB	Cable-HYCH9-01	Aug. 09, 2008	Aug. 08, 2009
Software	ADT_Radiated_V7.6	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower &Turn Table Controller EMCO	2090	NA	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	07026401	May 06, 2008	May 05, 2009

NOTE: 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

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. 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. Set both RBW and VBW of spectrum analyzer to 1MHz and 3MHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

NOTE: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz

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 signals in the restricted bands above and below the 5.25 to 5.35GHz and 5.47 to 5.725GHz allocated band a measurement was made of the amplitude of the spurious emissions with respect to the intentional signals. The relative amplitude, in dBc, was applied to the average and peak filed strength of the intentional signal made on the OATS to calculate the field strength of the unintentional signals.

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

FOR 5150-5350MHz BAND: 802.11a OFDM MODULATION

Channel 36 (5180MHz)

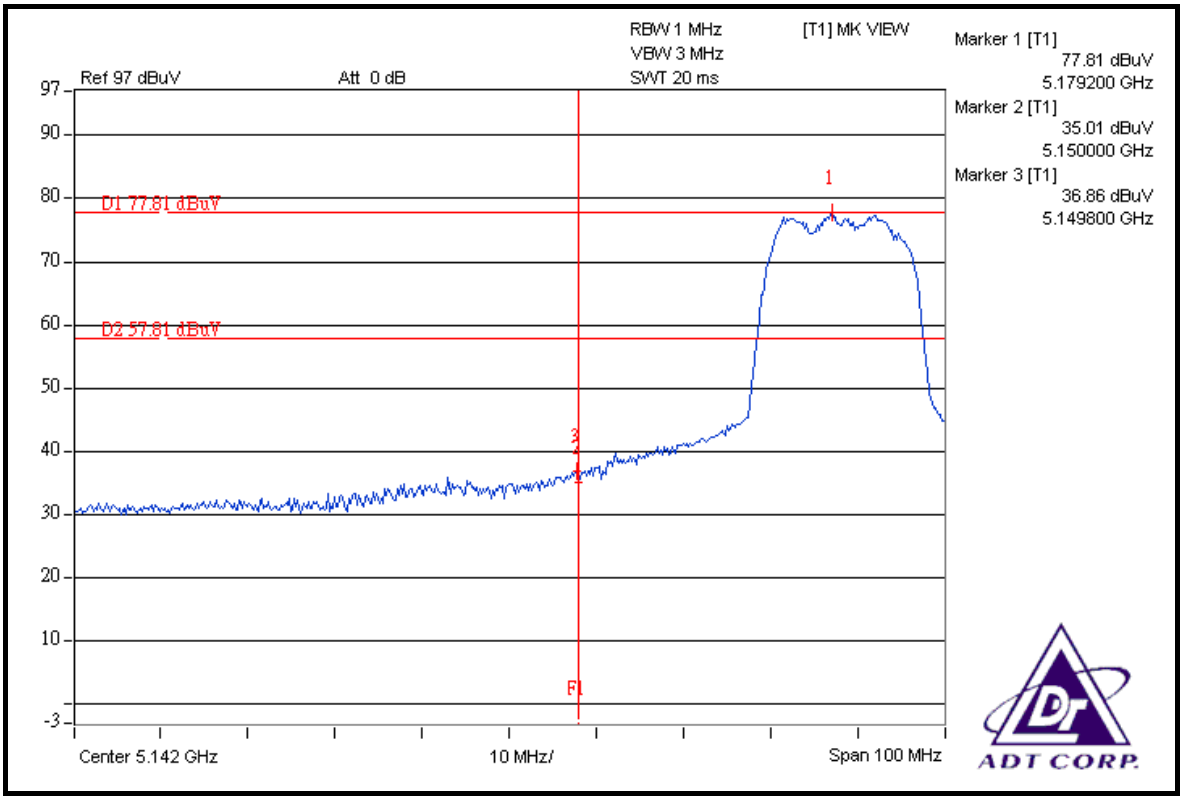
The band edge emission plot on the next page shows 40.95dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 36 is 107.32dBuV/m (Peak), so the maximum field strength in restrict band is 107.32 – 40.95 = 66.37dBuV/m which is under 74dBuV/m limit.

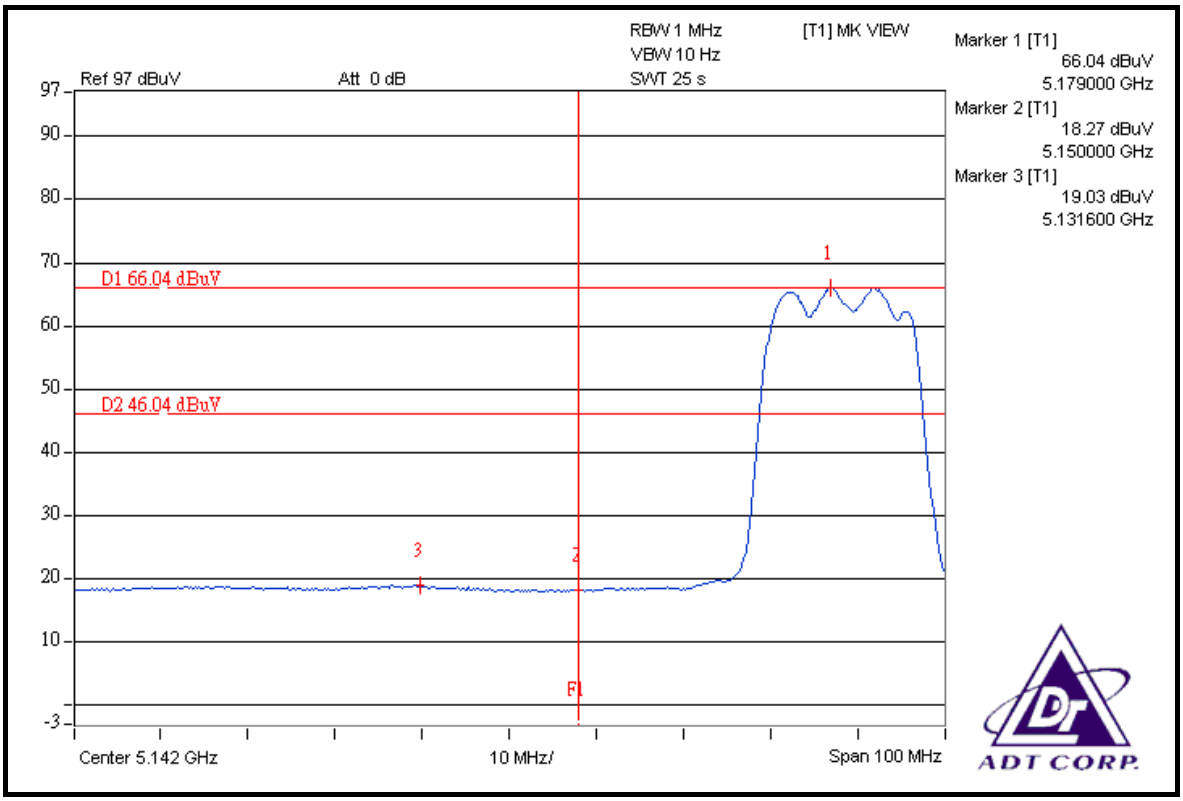
The band edge emission plot on the next page shows 47.01dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 36 is 96.37dBuV/m (Average), so the maximum field strength in restrict band is 96.37 – 47.01 = 49.36dBuV/m which is under 54dBuV/m limit.

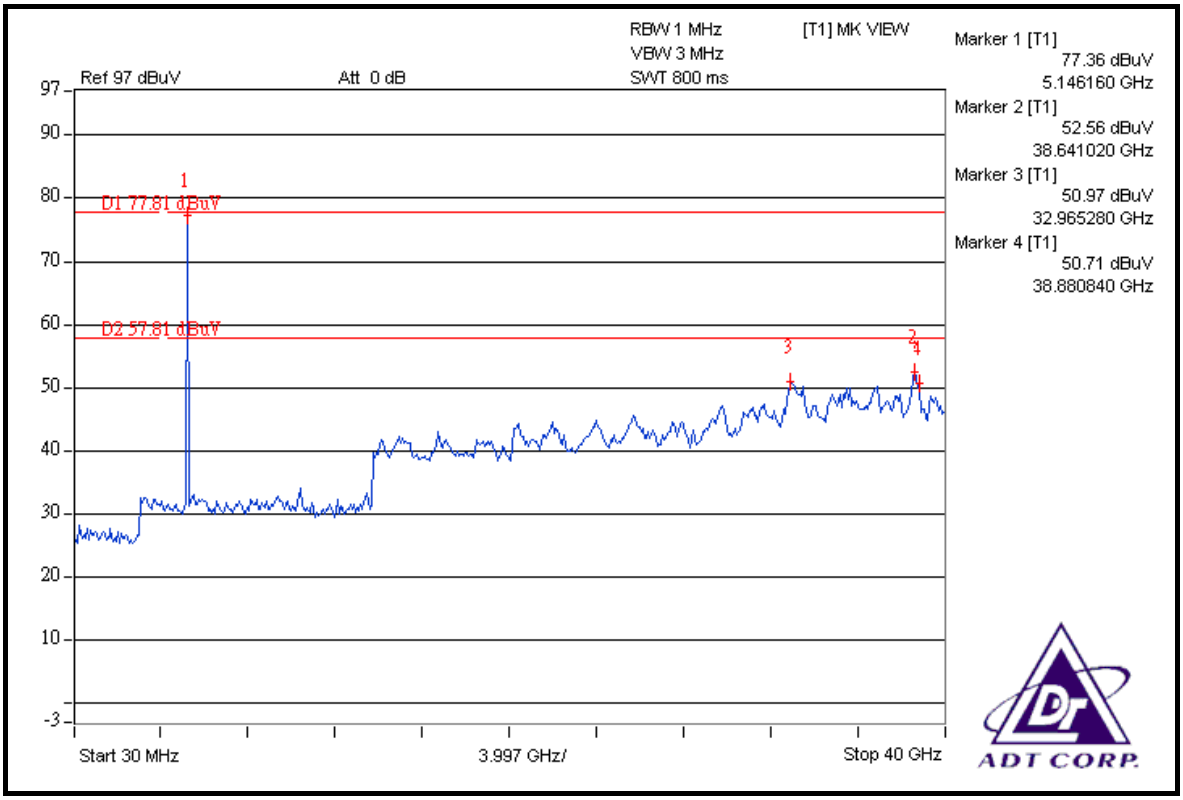
Channel 64 (5320MHz)

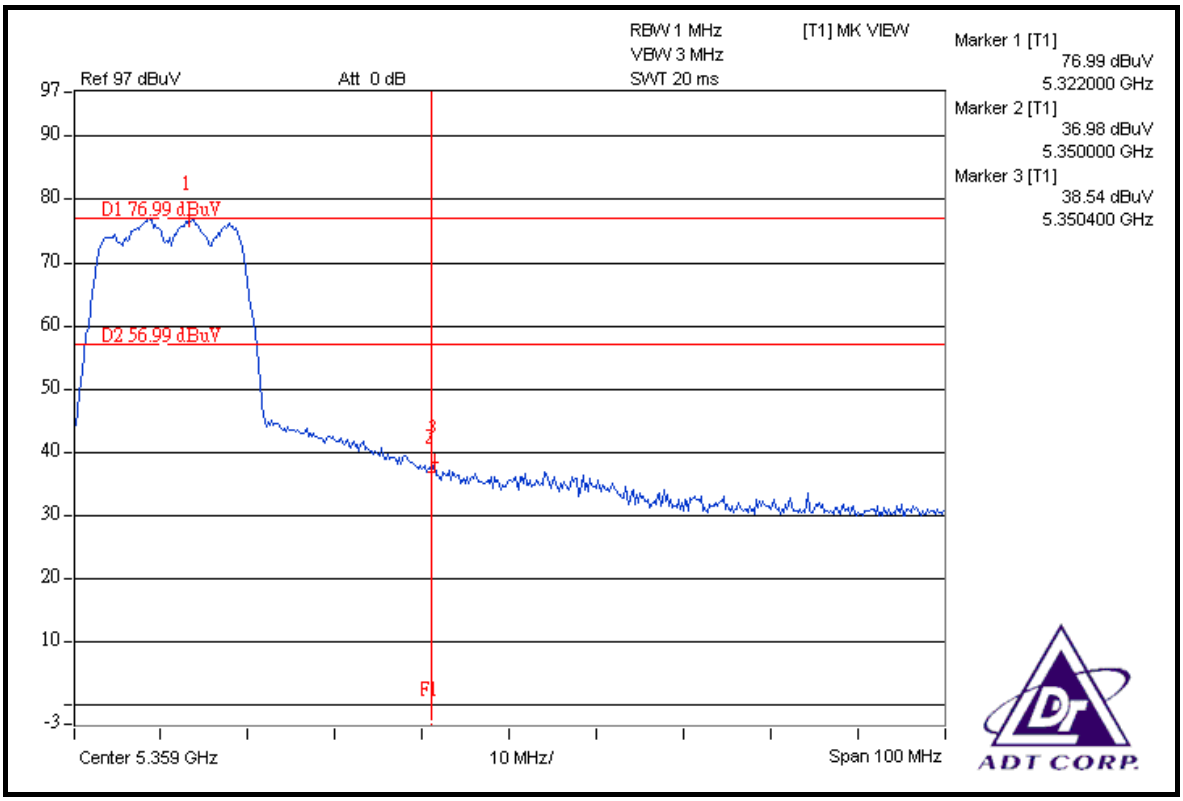
The band edge emission plot on the next second page shows 38.45dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 64 is 106.98dBuV/m (Peak), so the maximum field strength in restrict band is 106.98 – 38.45 = 68.53dBuV/m which is under 74dBuV/m limit.

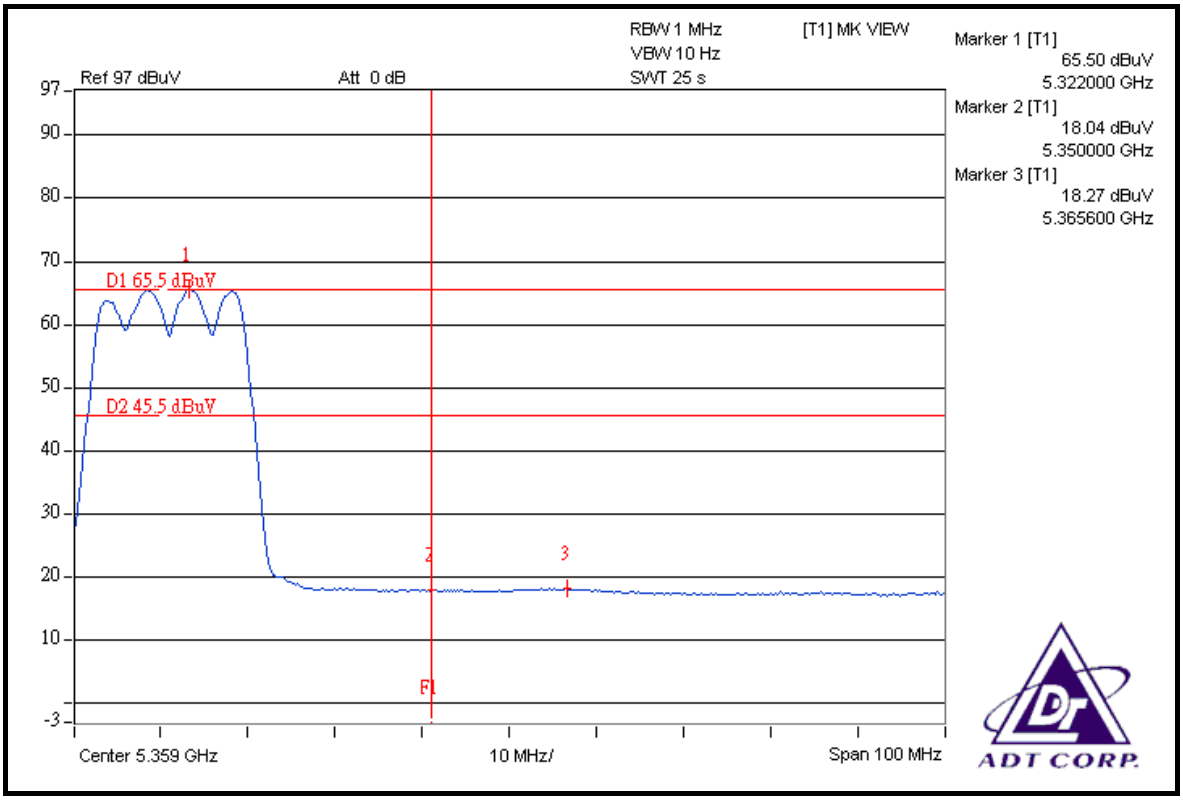
The band edge emission plot on the next third page shows 47.23dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 64 is 96.02dBuV/m (Average), so the maximum field strength in restrict band is 96.02 – 47.23 = 48.79dBuV/m which is under 54dBuV/m limit.

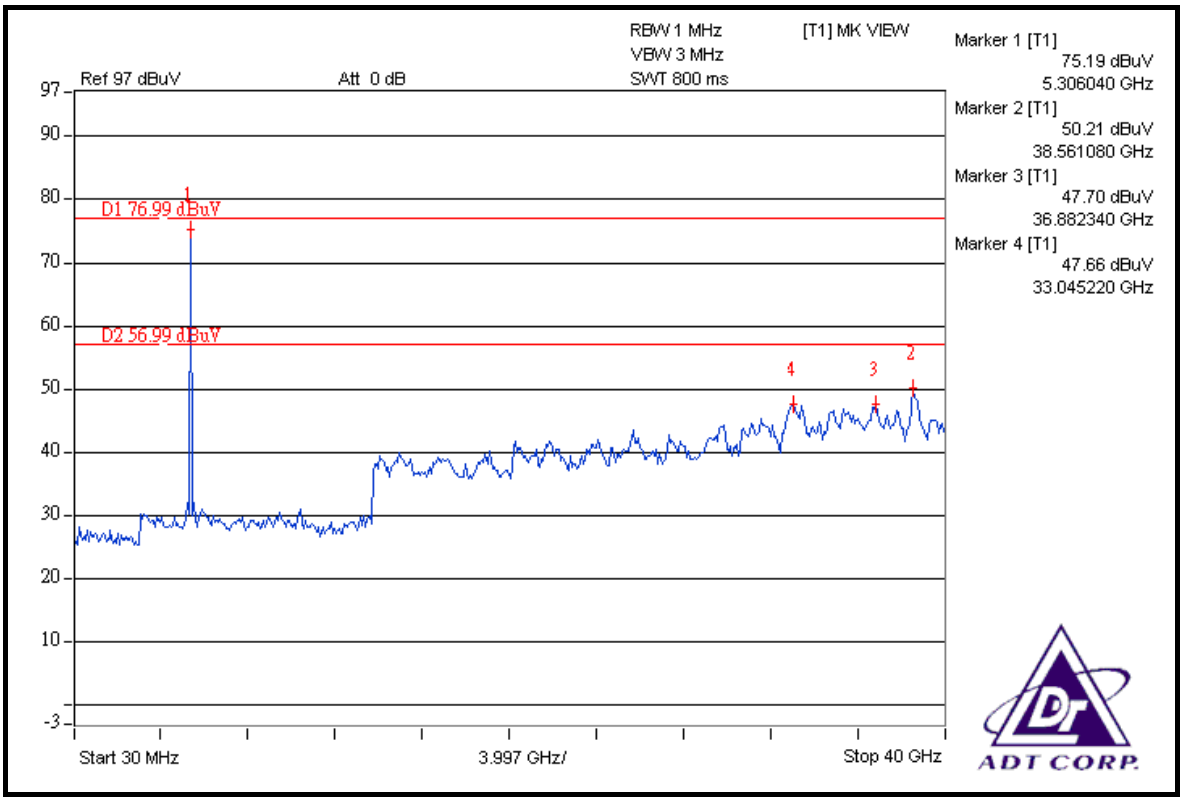

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
77.81 dBuV
5.179200 GHz
Marker 2 [T1]
35.01 dBuV
5.150000 GHz
Marker 3 [T1]
36.86 dBuV
5.149800 GHz
D1 77.81 dBuV
D2 57.81 dBuV
Center 5.142 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
66.04 dBuV
5.179000 GHz
Marker 2 [T1]
18.27 dBuV
5.150000 GHz
Marker 3 [T1]
19.03 dBuV
5.131600 GHz
D1 66.04 dBuV
D2 46.04 dBuV
Center 5.142 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
77.36 dBuV
5.146160 GHz
Marker 2 [T1]
52.56 dBuV
38.641020 GHz
Marker 3 [T1]
50.97 dBuV
32.965280 GHz
Marker 4 [T1]
50.71 dBuV
38.880840 GHz
D1 77.81 dBuV
D2 57.81 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
76.99 dBuV
5.322000 GHz
Marker 2 [T1]
36.98 dBuV
5.350000 GHz
Marker 3 [T1]
38.54 dBuV
5.350400 GHz
D1 76.99 dBuV
D2 56.99 dBuV
Center 5.359 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
65.50 dBuV
5.322000 GHz
Marker 2 [T1]
18.04 dBuV
5.350000 GHz
Marker 3 [T1]
18.27 dBuV
5.365600 GHz
D1 65.5 dBuV
D2 45.5 dBuV
Center 5.359 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
75.19 dBuV
5.306040 GHz
Marker 2 [T1]
50.21 dBuV
38.561080 GHz
Marker 3 [T1]
47.70 dBuV
36.882340 GHz
Marker 4 [T1]
47.66 dBuV
33.045220 GHz
D1 76.99 dBuV
D2 56.99 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.

FOR 5470-5725MHz BAND: 802.11a OFDM MODULATION

Channel 100 (5500MHz)

The band edge emission plot (5.460GHz) on the next page shows 44.75dBc between carrier maximum power and local maximum emission out of band emission. The emission of carrier strength list in the test result of channel 100 is 107.00dBuV/m (Peak), so the maximum field strength out of band emission is 107.00 – 44.75 = 62.25dBuV/m which is under 74dBuV/m limit.

The band edge emission plot (5.460GHz) on the next page shows 47.76dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 100 is 96.62dBuV/m (Average), so the maximum field strength in restrict band is 96.62 – 47.76 = 48.86dBuV/m which is under 54dBuV/m limit.

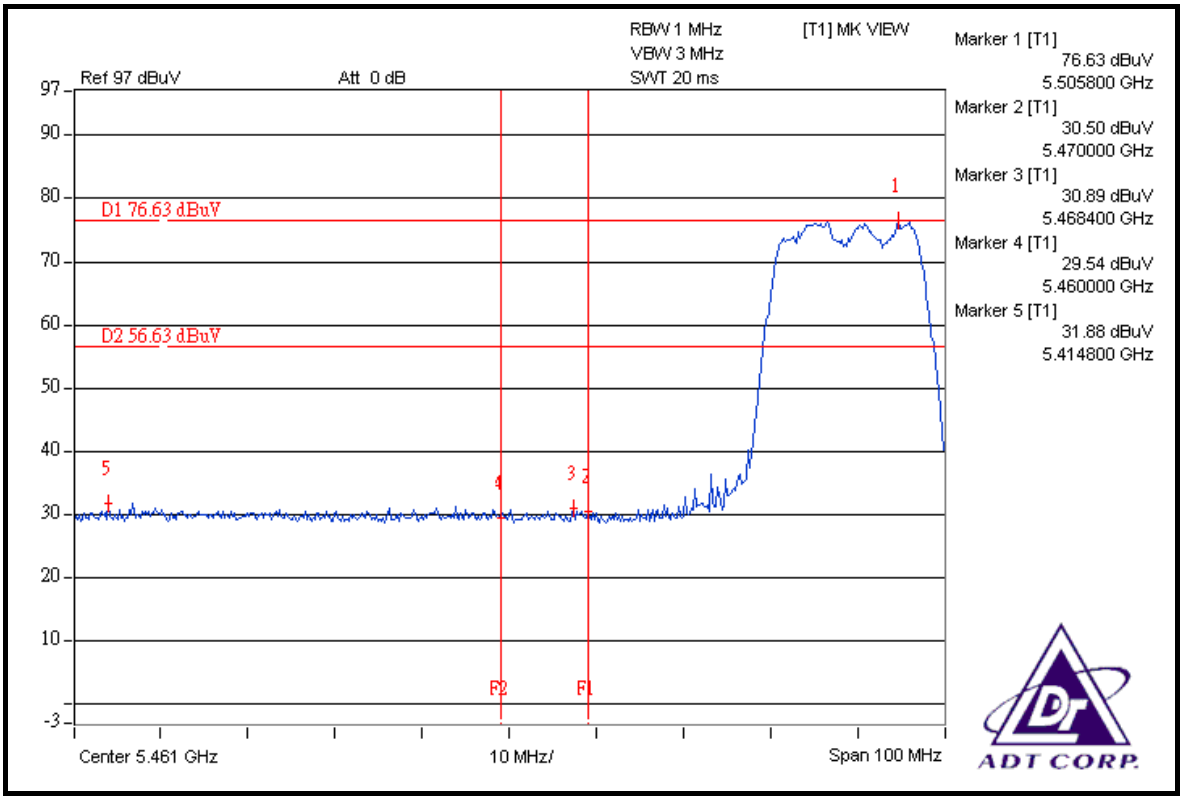
The band edge emission plot (5.470GHz) on the next page shows 45.74dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 100 is 107.00dBuV/m (Peak), so the maximum field strength in restrict band is 107.00 – 45.74 = 61.26dBuV/m which is under 88.3dBuV/m limit.

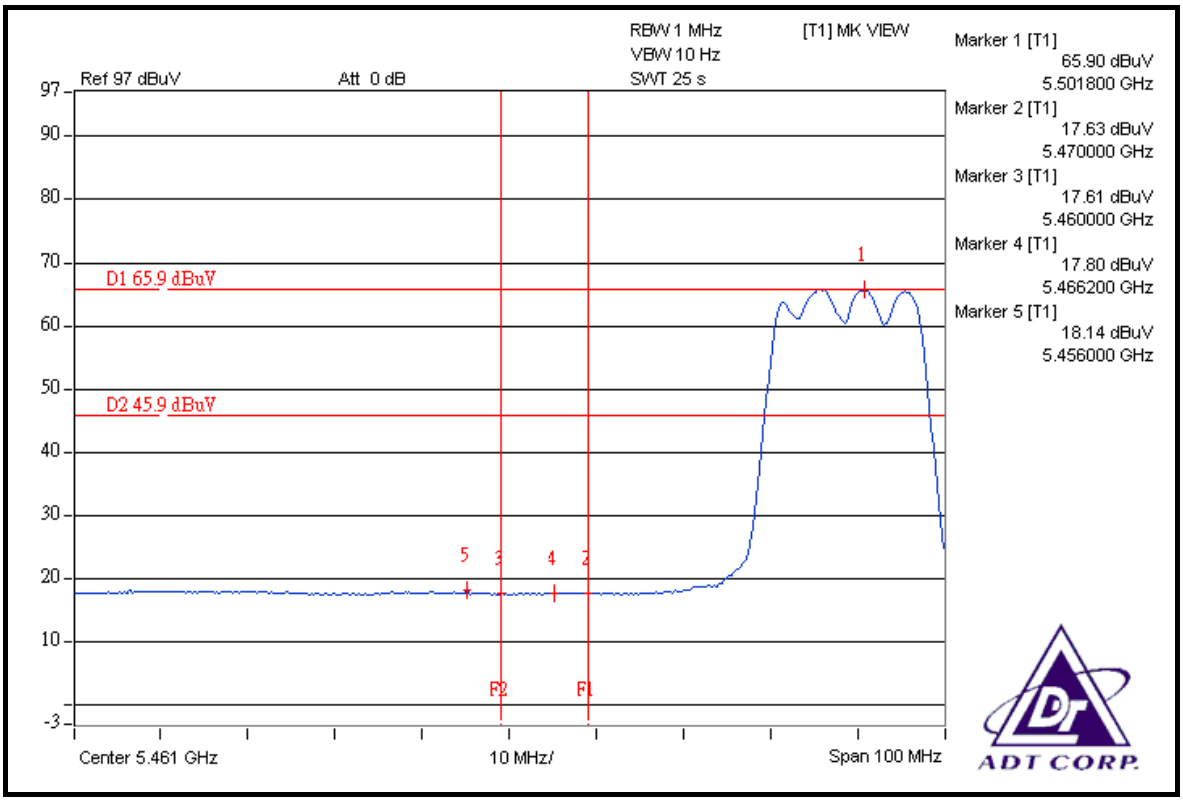
The band edge emission plot (5.470GHz) on the next page shows 48.10dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 100 is 97.16dBuV/m (Average), so the maximum field strength in restrict band is 96.62 – 48.10 = 48.52dBuV/m which is under 68.3dBuV/m limit.

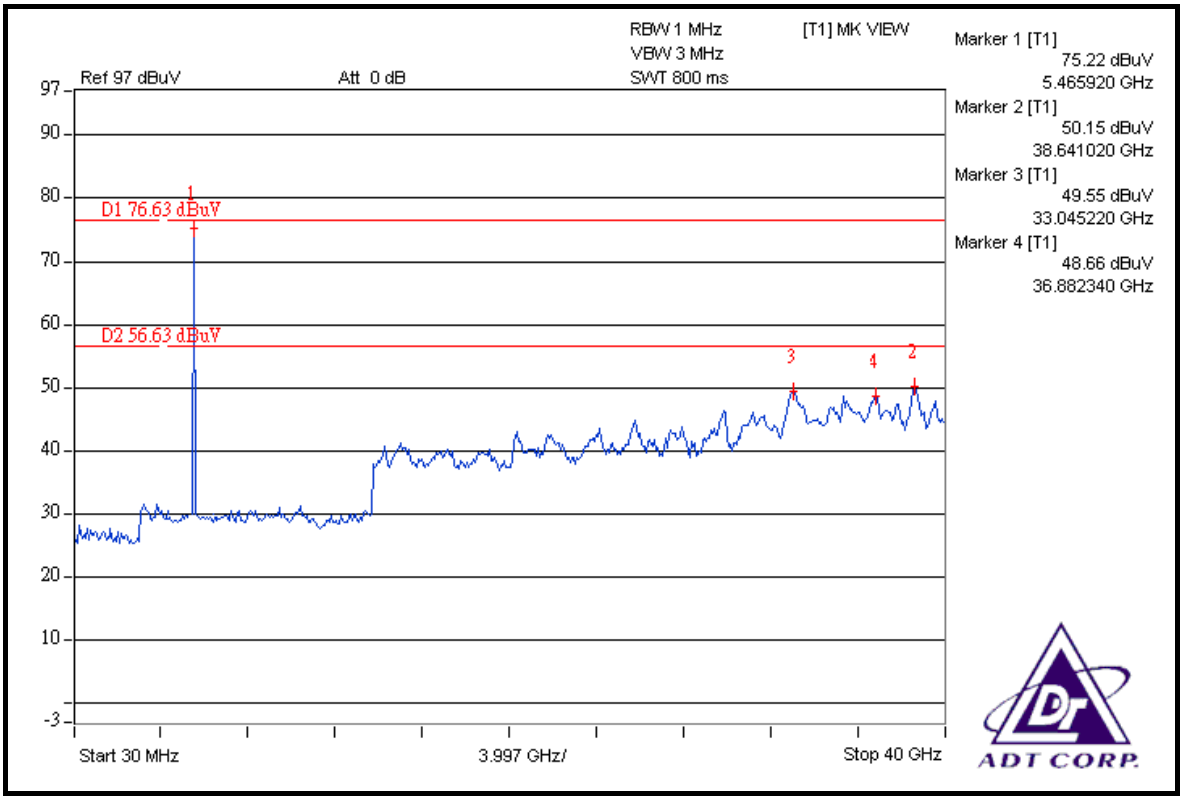
Channel 140 (5700MHz)

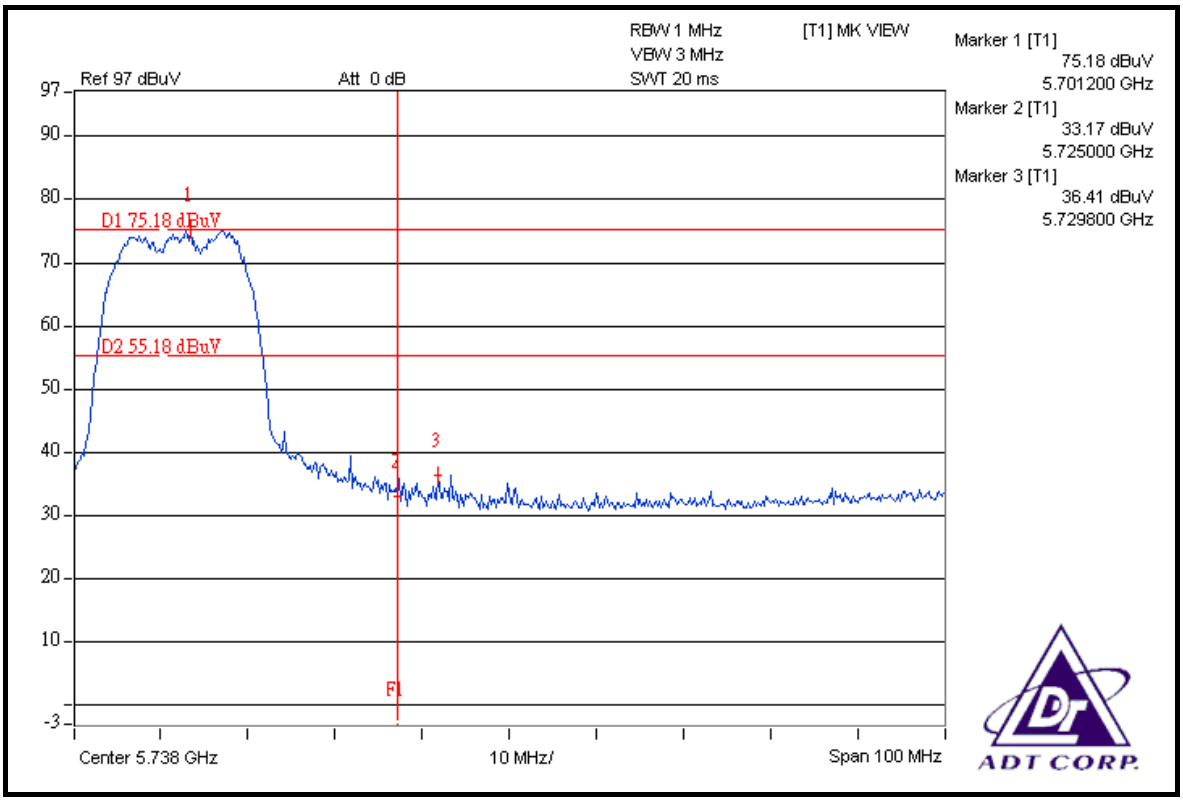
The band edge emission plot on the next second page shows 38.77dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 140 is 105.12dBuV/m (Peak), so the maximum field strength in restrict band is 105.12 – 38.77 = 66.35dBuV/m which is under 88.3dBuV/m limit.

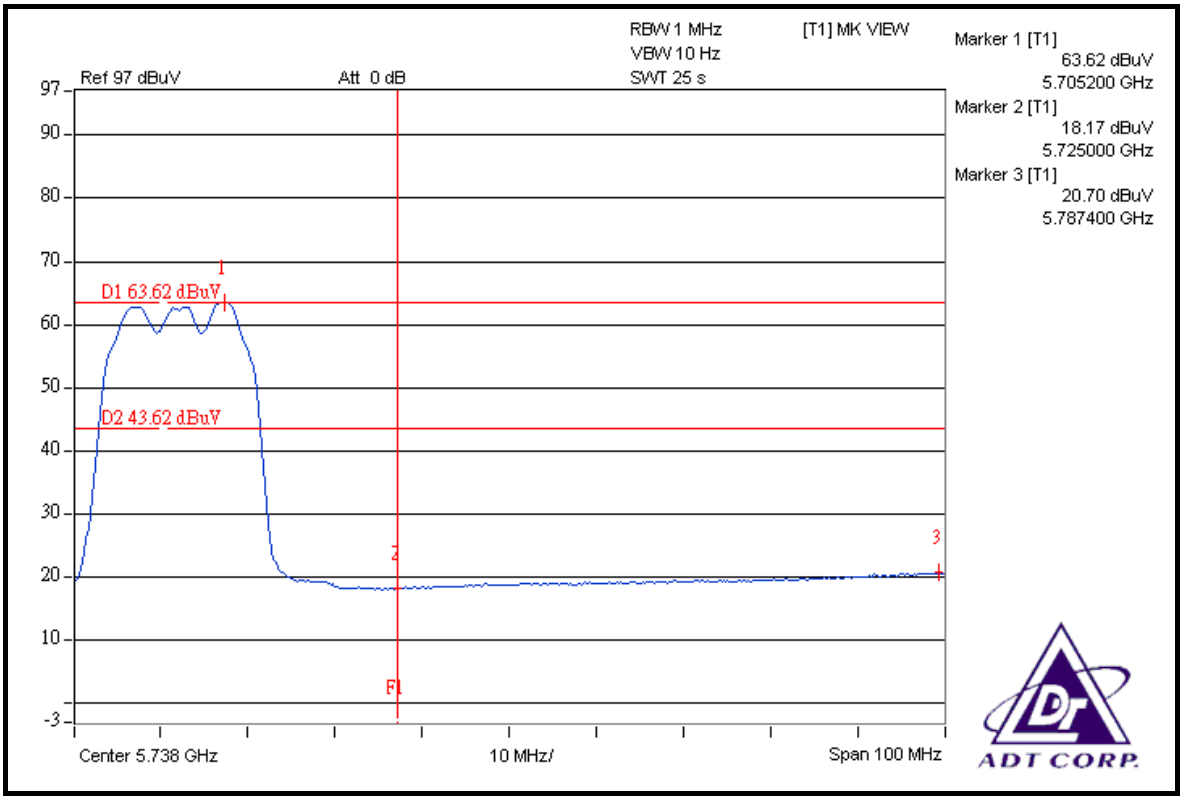
The band edge emission plot on the next third page shows 42.92dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 140 is 94.81dBuV/m (Average), so the maximum field strength in restrict band is 94.81 – 42.92 = 51.89dBuV/m which is under 68.3dBuV/m limit.

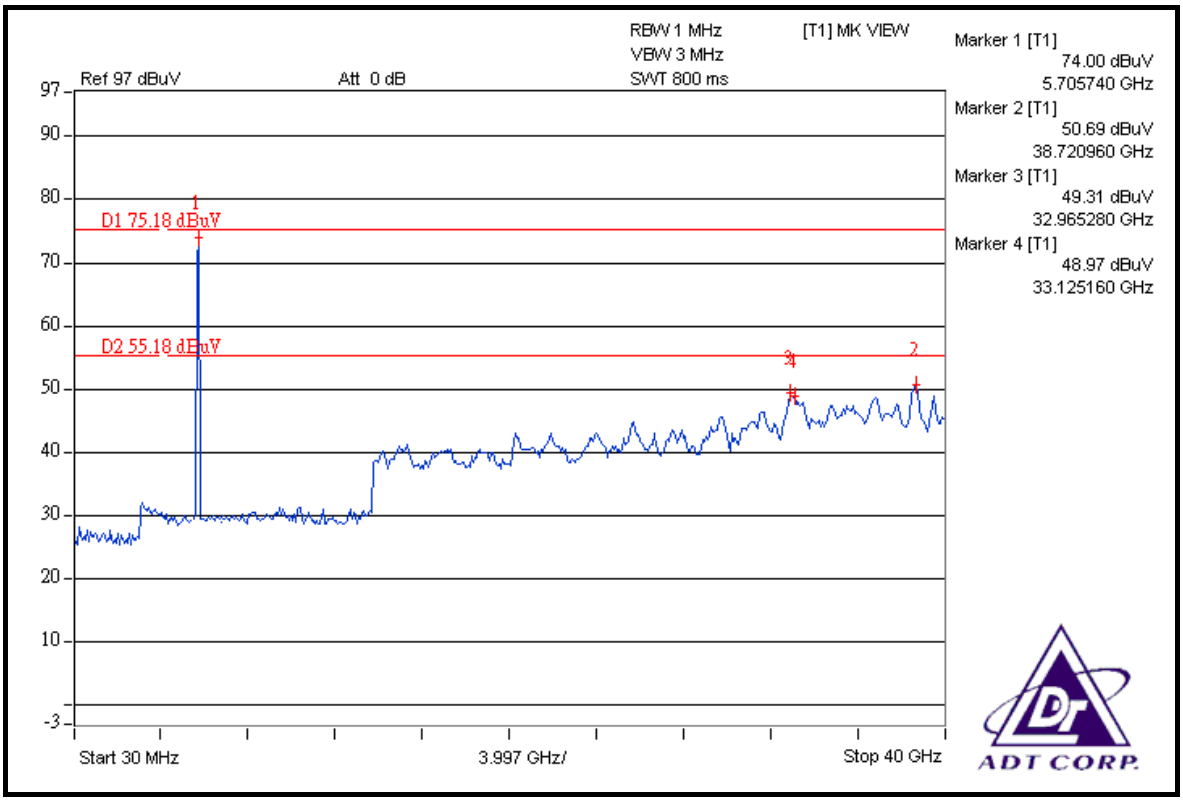

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 76.63 dBuV
D2 56.63 dBuV
Marker 1 [T1]
76.63 dBuV
5.505800 GHz
Marker 2 [T1]
30.50 dBuV
5.470000 GHz
Marker 3 [T1]
30.89 dBuV
5.468400 GHz
Marker 4 [T1]
29.54 dBuV
5.460000 GHz
Marker 5 [T1]
31.88 dBuV
5.414800 GHz
Center 5.461 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 65.9 dBuV
D2 45.9 dBuV
Marker 1 [T1]
65.90 dBuV
5.501800 GHz
Marker 2 [T1]
17.63 dBuV
5.470000 GHz
Marker 3 [T1]
17.61 dBuV
5.460000 GHz
Marker 4 [T1]
17.80 dBuV
5.466200 GHz
Marker 5 [T1]
18.14 dBuV
5.456000 GHz
Center 5.461 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
75.22 dBuV
5.465920 GHz
Marker 2 [T1]
50.15 dBuV
38.641020 GHz
Marker 3 [T1]
49.55 dBuV
33.045220 GHz
Marker 4 [T1]
48.66 dBuV
36.882340 GHz
D1 76.63 dBuV
D2 56.63 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
75.18 dBuV
5.701200 GHz
Marker 2 [T1]
33.17 dBuV
5.725000 GHz
Marker 3 [T1]
36.41 dBuV
5.729800 GHz
D1 75.18 dBuV
D2 55.18 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.738 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
63.62 dBuV
5.705200 GHz
Marker 2 [T1]
18.17 dBuV
5.725000 GHz
Marker 3 [T1]
20.70 dBuV
5.787400 GHz
D1 63.62 dBuV
D2 43.62 dBuV
Center 5.738 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
74.00 dBuV
5.705740 GHz
Marker 2 [T1]
50.69 dBuV
38.720960 GHz
Marker 3 [T1]
49.31 dBuV
32.965280 GHz
Marker 4 [T1]
48.97 dBuV
33.125160 GHz
D1 75.18 dBuV
D2 55.18 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.

FOR 5150-5350MHz BAND: DRAFT 802.11n (20MHz) OFDM MODULATION

Channel 36 (5180MHz)

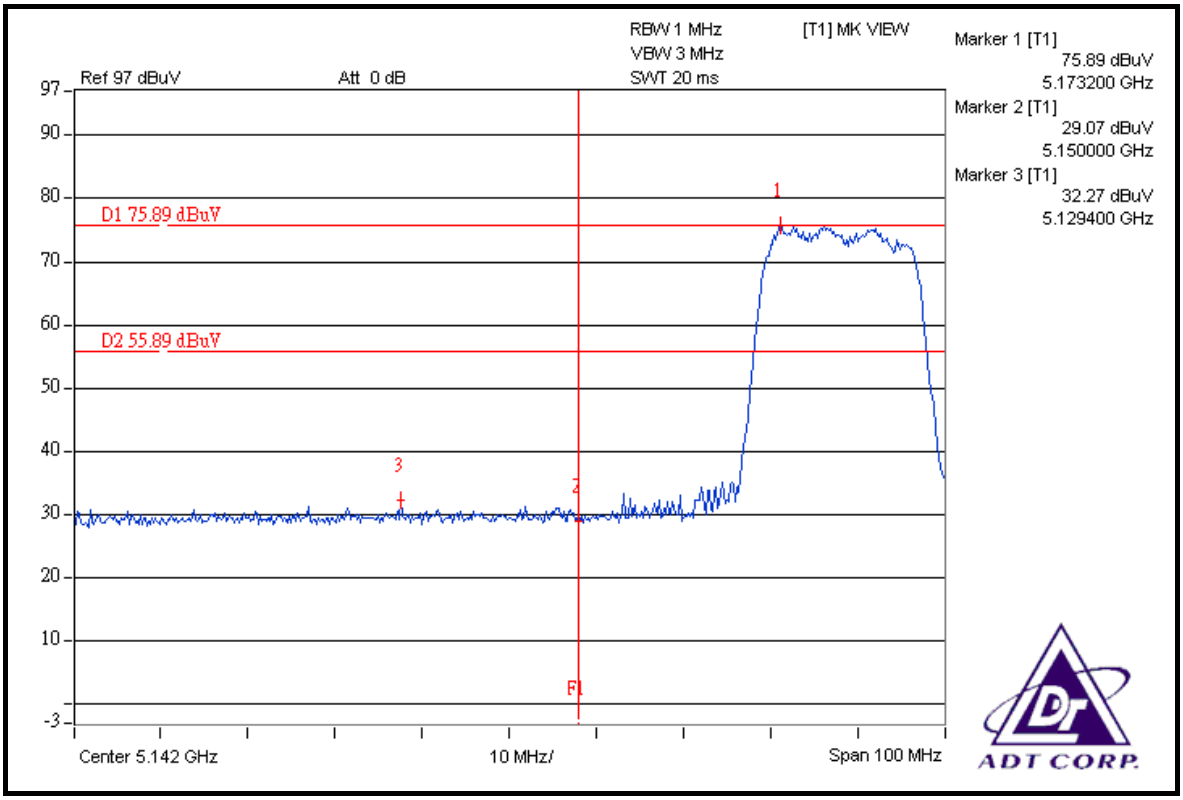
The band edge emission plot on the next page shows 43.62dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 36 is 105.06dBuV/m (Peak), so the maximum field strength in restrict band is 105.06 – 43.62 = 61.44dBuV/m which is under 74dBuV/m limit.

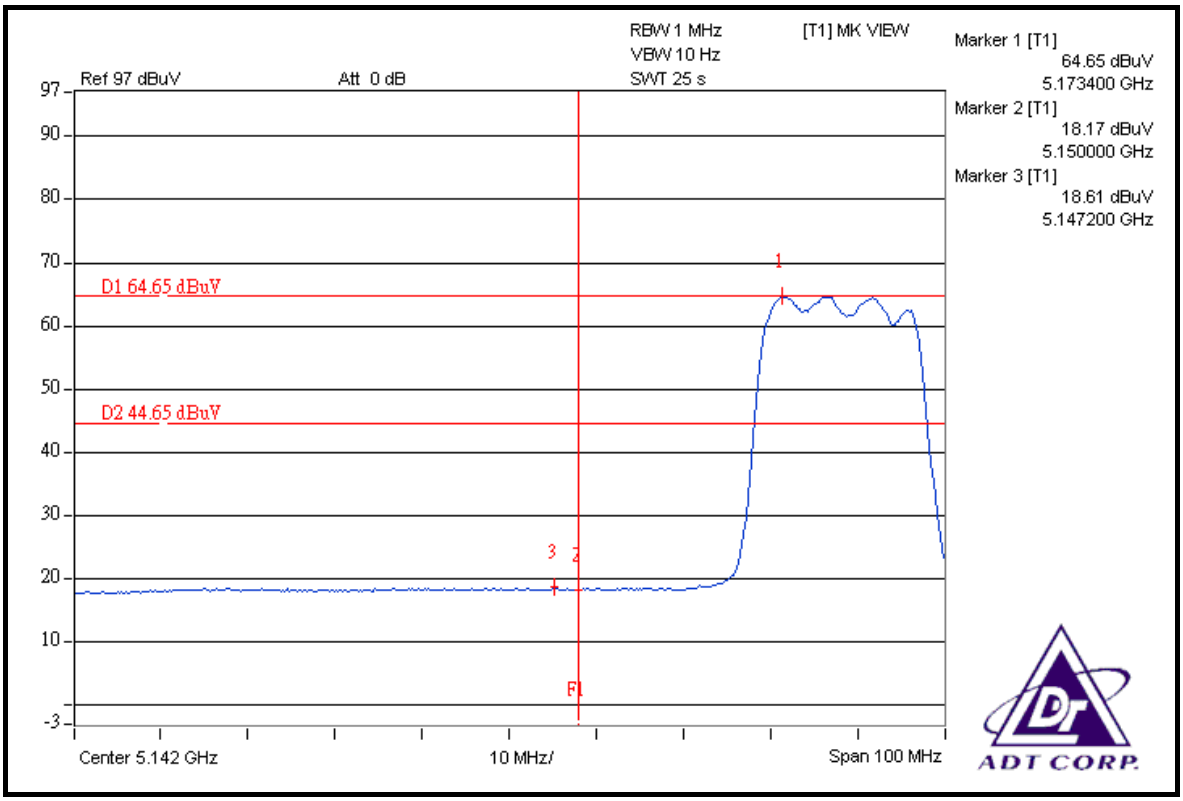
The band edge emission plot on the next page shows 46.04dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 36 is 94.95dBuV/m (Average), so the maximum field strength in restrict band is 94.95 – 46.04 = 48.91dBuV/m which is under 54dBuV/m limit.

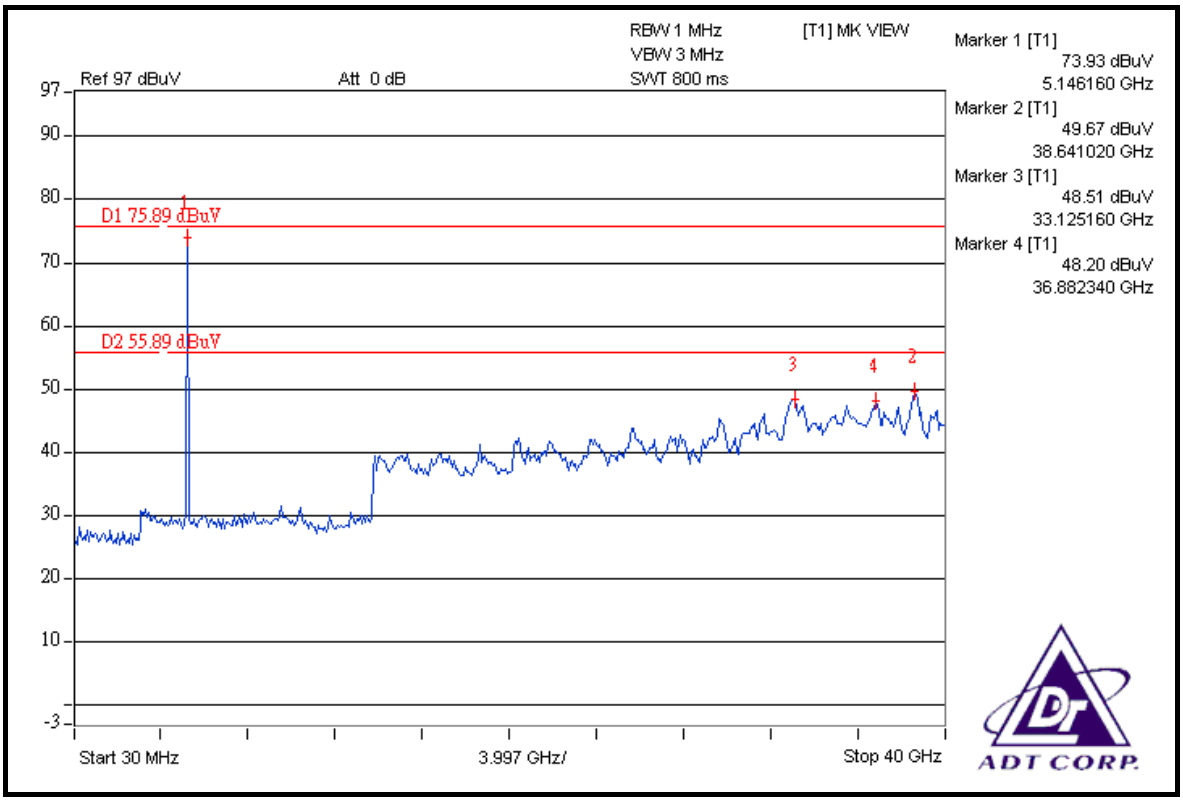
Channel 64 (5320MHz)

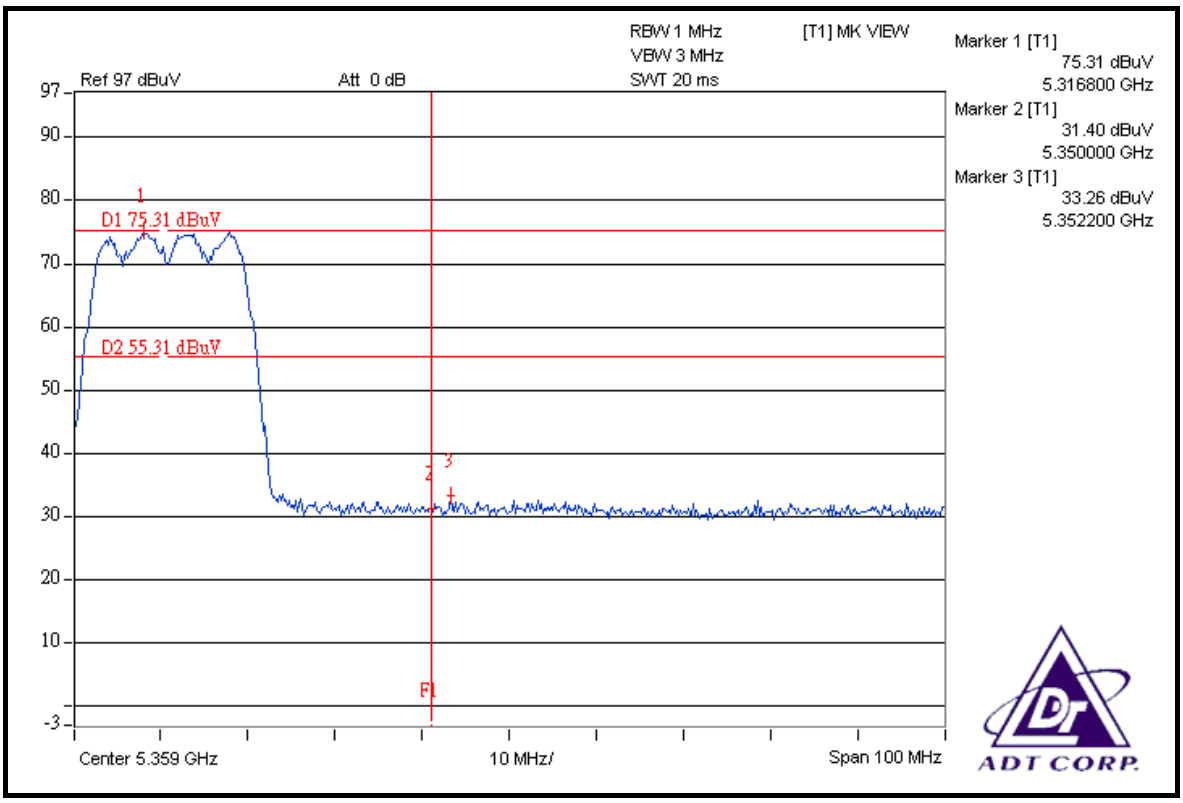
The band edge emission plot on the next second page shows 42.05dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 64 is 104.36dBuV/m (Peak), so the maximum field strength in restrict band is 104.36 – 42.05 = 62.31dBuV/m which is under 74dBuV/m limit.

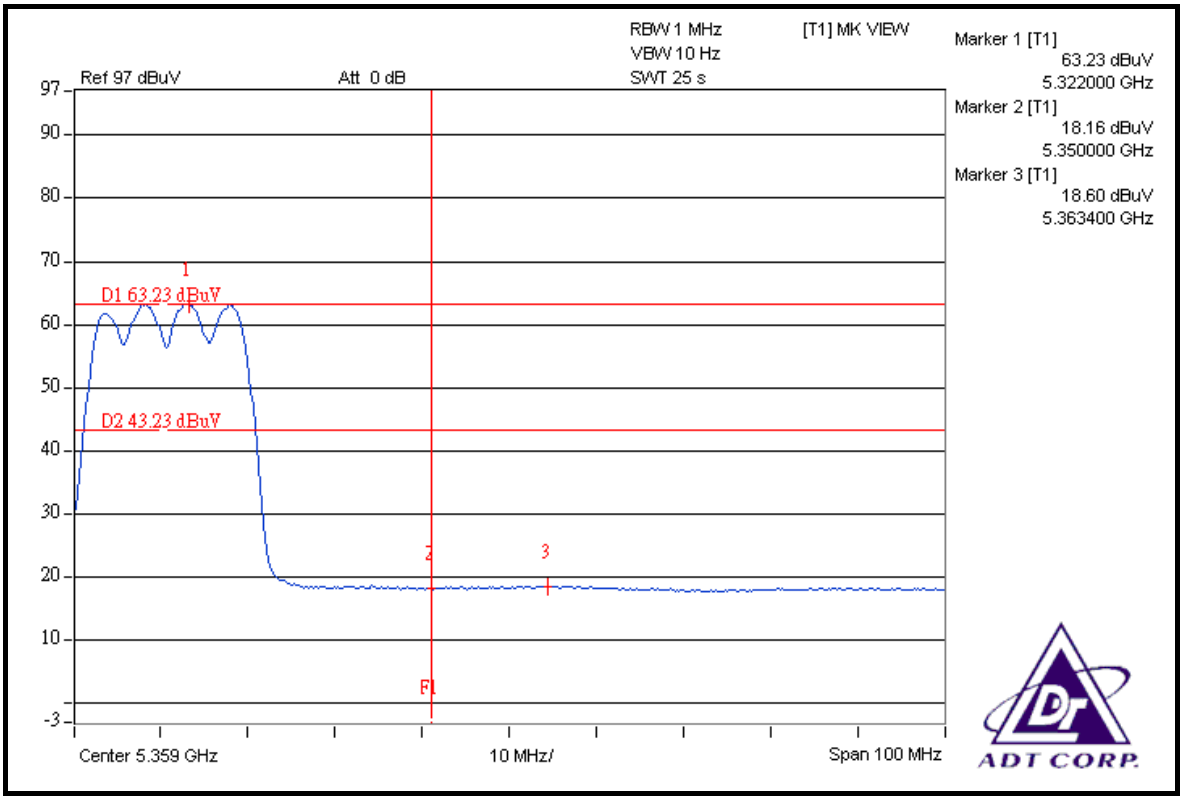
The band edge emission plot on the next third page shows 44.63dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 64 is 93.68dBuV/m (Average), so the maximum field strength in restrict band is 93.68 – 44.63 = 49.05dBuV/m which is under 54dBuV/m limit.

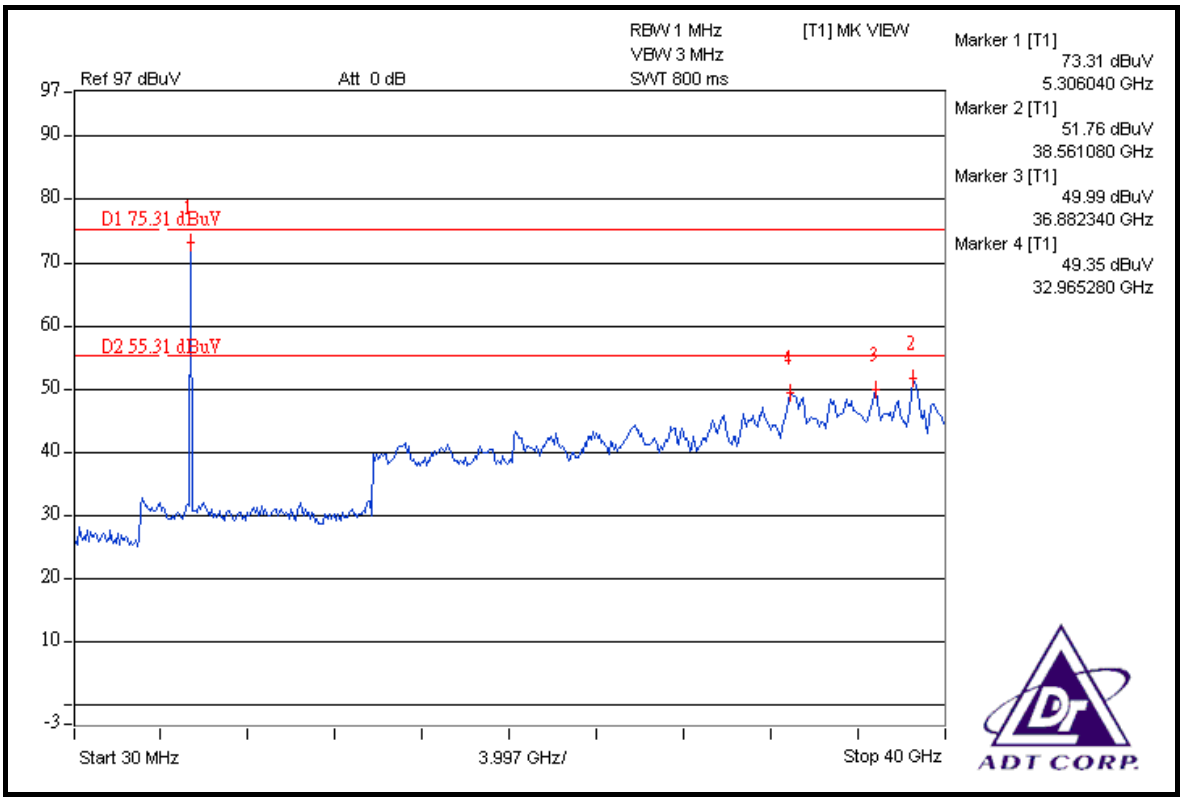

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
75.89 dBuV
5.173200 GHz
Marker 2 [T1]
29.07 dBuV
5.150000 GHz
Marker 3 [T1]
32.27 dBuV
5.129400 GHz
D1 75.89 dBuV
D2 55.89 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
64.65 dBuV
5.173400 GHz
Marker 2 [T1]
18.17 dBuV
5.150000 GHz
Marker 3 [T1]
18.61 dBuV
5.147200 GHz
D1 64.65 dBuV
D2 44.65 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 75.89 dBuV
D2 55.89 dBuV
Marker 1 [T1]
73.93 dBuV
5.146160 GHz
Marker 2 [T1]
49.67 dBuV
38.641020 GHz
Marker 3 [T1]
48.51 dBuV
33.125160 GHz
Marker 4 [T1]
48.20 dBuV
36.882340 GHz
Start 30 MHz
3.997 GHz/
Stop 40 GHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 75.31 dBuV
D2 55.31 dBuV
Marker 1 [T1]
75.31 dBuV
5.316800 GHz
Marker 2 [T1]
31.40 dBuV
5.350000 GHz
Marker 3 [T1]
33.26 dBuV
5.352200 GHz
Center 5.359 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
63.23 dBuV
5.322000 GHz
Marker 2 [T1]
18.16 dBuV
5.350000 GHz
Marker 3 [T1]
18.60 dBuV
5.363400 GHz
D1 63.23 dBuV
D2 43.23 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.359 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
73.31 dBuV
5.306040 GHz
Marker 2 [T1]
51.76 dBuV
38.561080 GHz
Marker 3 [T1]
49.99 dBuV
36.882340 GHz
Marker 4 [T1]
49.35 dBuV
32.965280 GHz
D1 75.31 dBuV
D2 55.31 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.

FOR 5470-5725MHz BAND: DRAFT 802.11n (20MHz) OFDM MODULATION

Channel 100 (5500MHz)

The band edge emission plot (5.460GHz) on the next page shows 41.98dBc between carrier maximum power and local maximum emission out of band emission. The emission of carrier strength list in the test result of channel 100 is 105.27dBuV/m (Peak), so the maximum field strength out of band emission is 105.27 – 41.98 = 63.29dBuV/m which is under 74dBuV/m limit.

The band edge emission plot (5.460GHz) on the next page shows 46.08dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 100 is 95.12dBuV/m (Average), so the maximum field strength in restrict band is 95.12 – 46.08 = 49.04dBuV/m which is under 54dBuV/m limit.

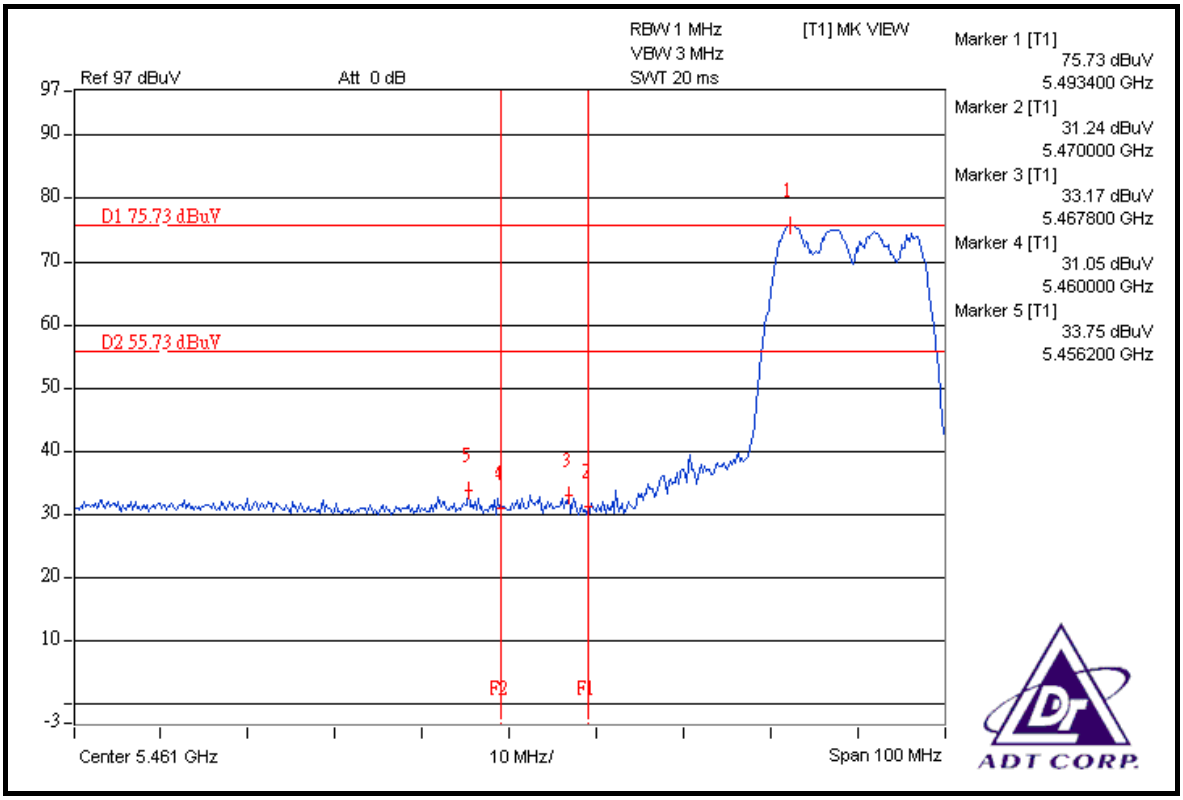
The band edge emission plot (5.470GHz) on the next page shows 42.56dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 100 is 105.27dBuV/m (Peak), so the maximum field strength in restrict band is 105.27 – 42.56 = 62.71dBuV/m which is under 88.3dBuV/m limit.

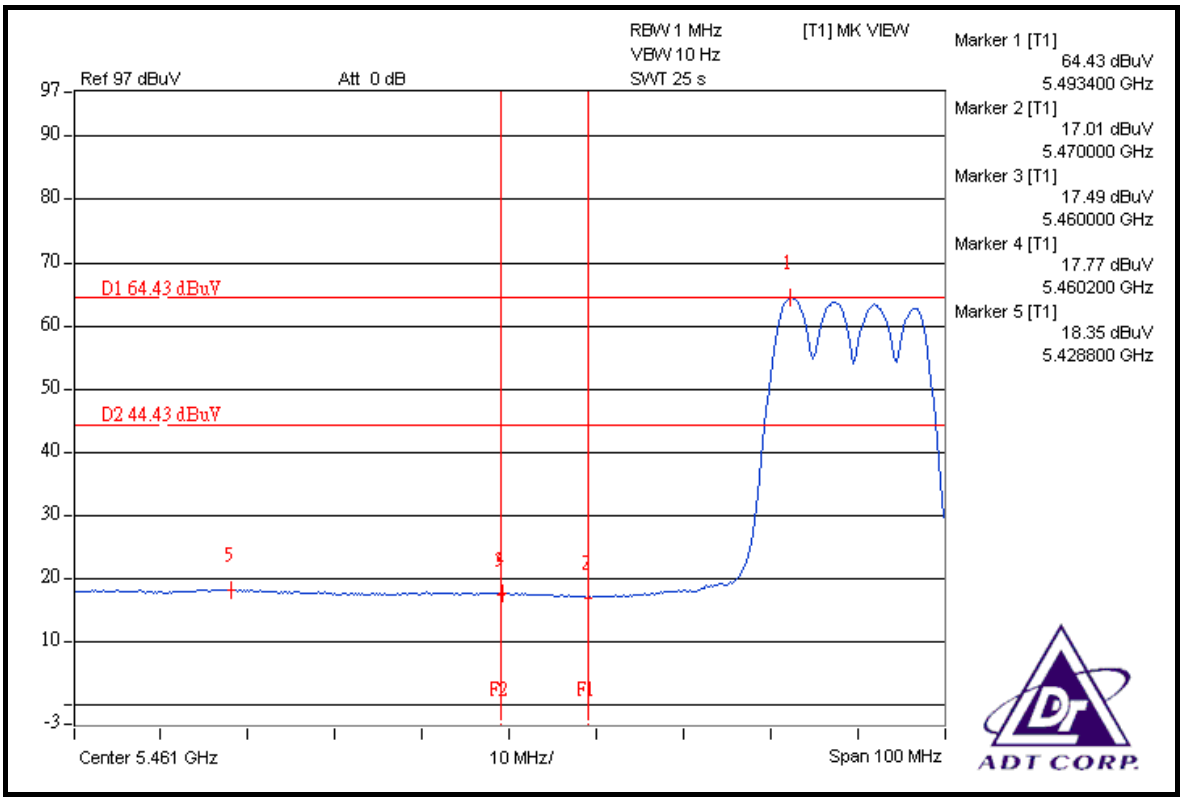
The band edge emission plot (5.470GHz) on the next page shows 46.66dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 100 is 95.12dBuV/m (Average), so the maximum field strength in restrict band is 95.12 – 46.66 = 48.46dBuV/m which is under 68.3dBuV/m limit.

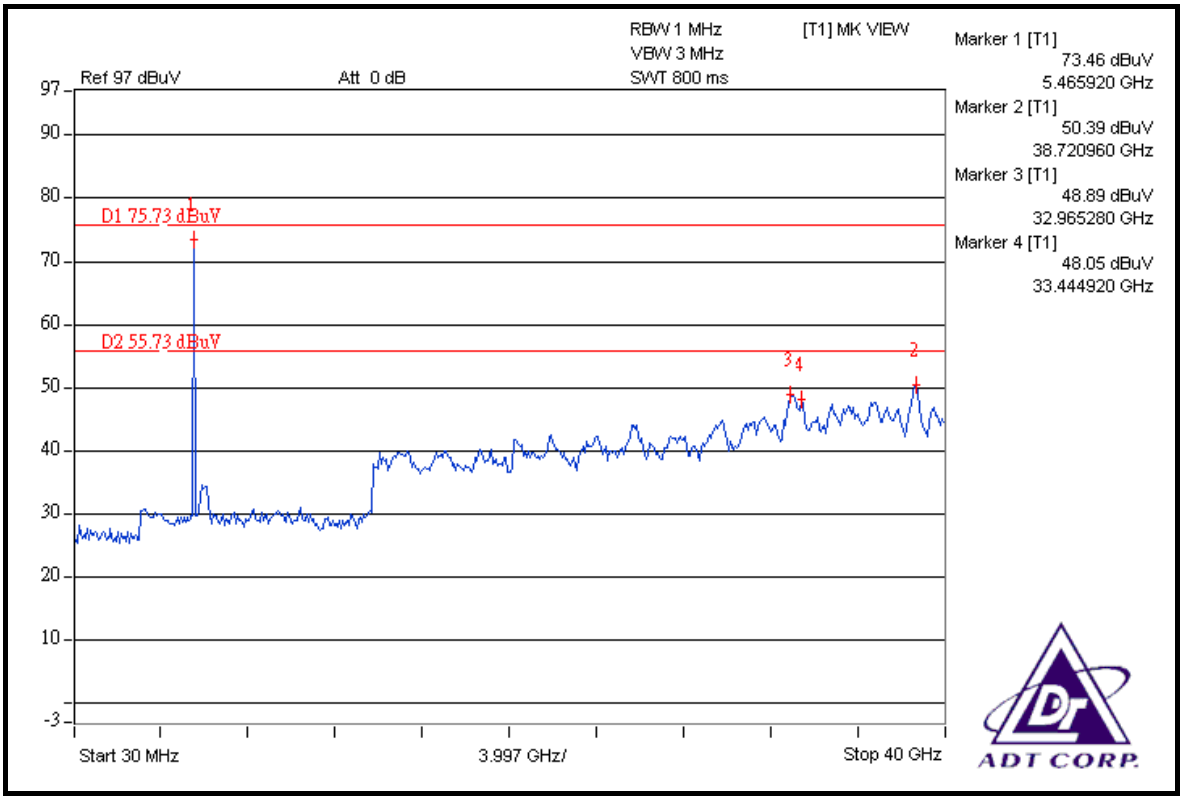
Channel 140 (5700MHz)

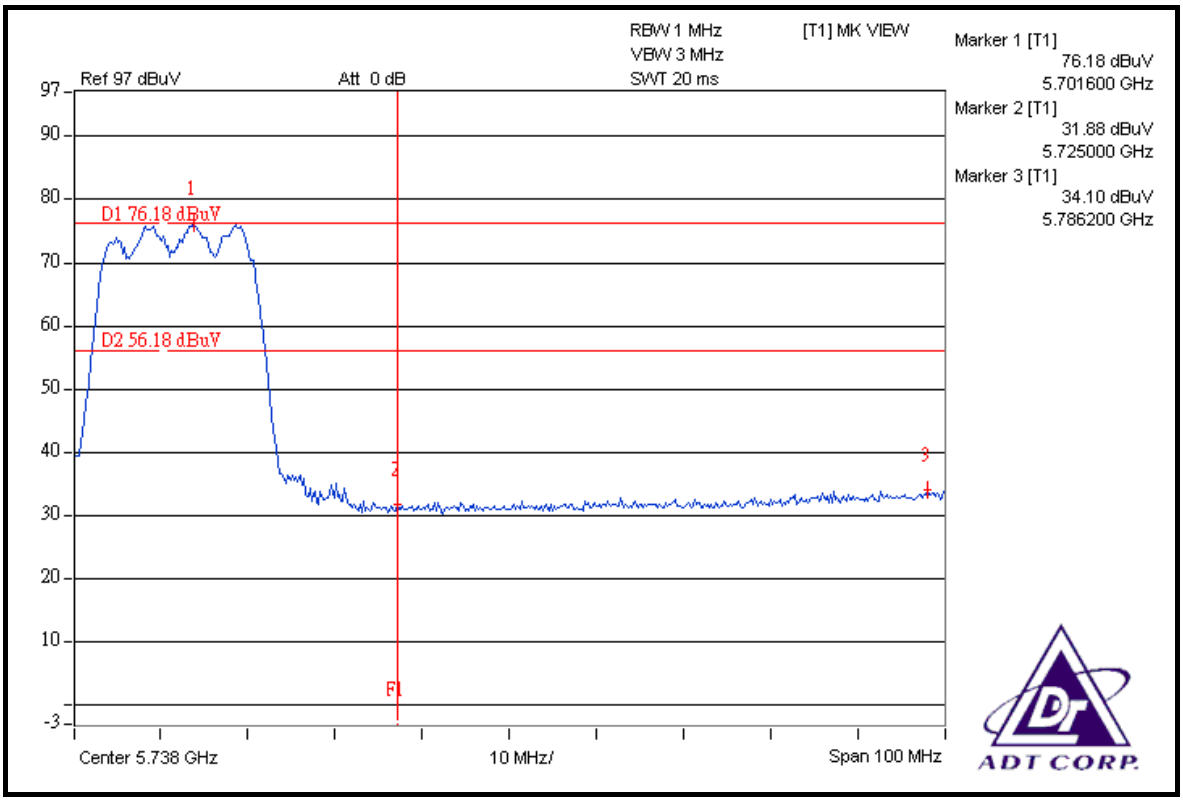
The band edge emission plot on the next second page shows 42.08dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 140 is 106.03dBuV/m (Peak), so the maximum field strength in restrict band is 106.03 – 42.08 = 63.95dBuV/m which is under 88.3dBuV/m limit.

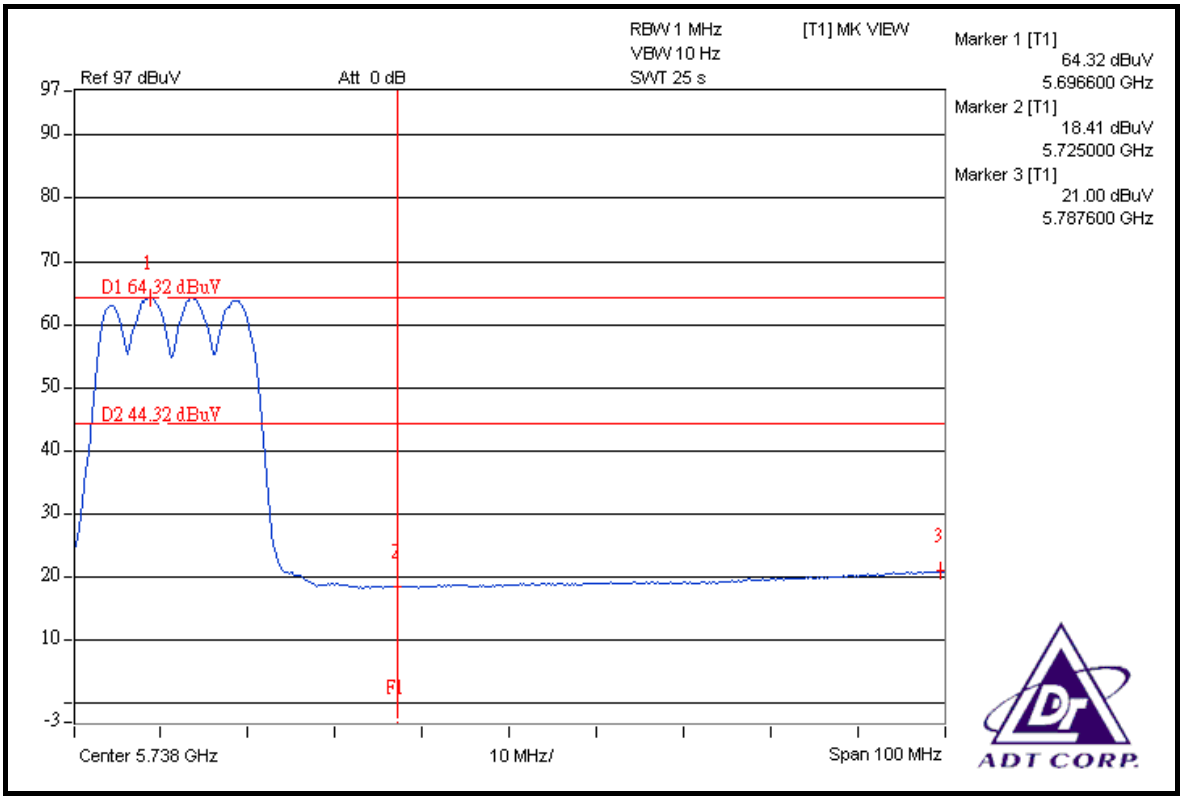
The band edge emission plot on the next third page shows 43.32dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 140 is 95.53dBuV/m (Average), so the maximum field strength in restrict band is 95.53 – 43.32 = 52.21dBuV/m which is under 68.3dBuV/m limit.

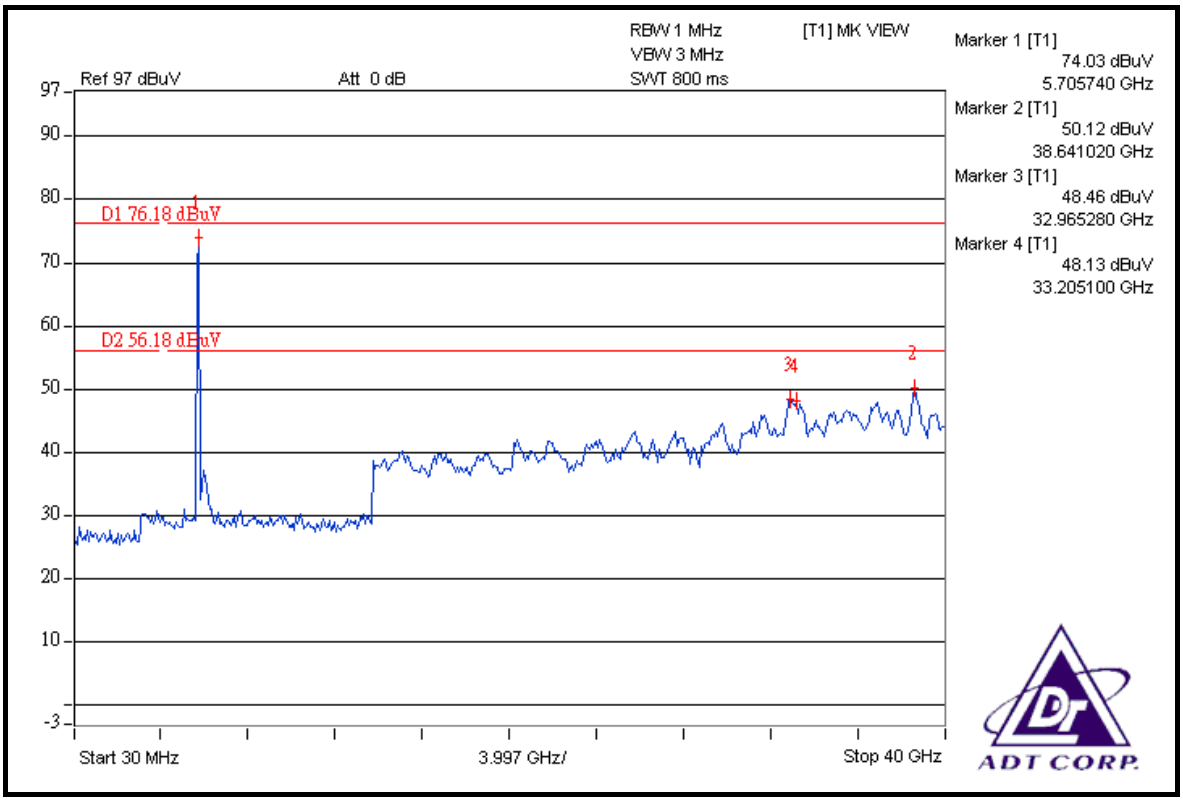

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 75.73 dBuV
D2 55.73 dBuV
Marker 1 [T1]
75.73 dBuV
5.493400 GHz
Marker 2 [T1]
31.24 dBuV
5.470000 GHz
Marker 3 [T1]
33.17 dBuV
5.467800 GHz
Marker 4 [T1]
31.05 dBuV
5.460000 GHz
Marker 5 [T1]
33.75 dBuV
5.456200 GHz
Center 5.461 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 64.43 dBuV
D2 44.43 dBuV
Marker 1 [T1]
64.43 dBuV
5.493400 GHz
Marker 2 [T1]
17.01 dBuV
5.470000 GHz
Marker 3 [T1]
17.49 dBuV
5.460000 GHz
Marker 4 [T1]
17.77 dBuV
5.460200 GHz
Marker 5 [T1]
18.35 dBuV
5.428800 GHz
Center 5.461 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
73.46 dBuV
5.465920 GHz
Marker 2 [T1]
50.39 dBuV
38.720960 GHz
Marker 3 [T1]
48.89 dBuV
32.965280 GHz
Marker 4 [T1]
48.05 dBuV
33.444920 GHz
D1 75.73 dBuV
D2 55.73 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
76.18 dBuV
5.701600 GHz
Marker 2 [T1]
31.88 dBuV
5.725000 GHz
Marker 3 [T1]
34.10 dBuV
5.786200 GHz
D1 76.18 dBuV
D2 56.18 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.738 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
64.32 dBuV
5.696600 GHz
Marker 2 [T1]
18.41 dBuV
5.725000 GHz
Marker 3 [T1]
21.00 dBuV
5.787600 GHz
D1 64.32 dBuV
D2 44.32 dBuV
Center 5.738 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
74.03 dBuV
5.705740 GHz
Marker 2 [T1]
50.12 dBuV
38.641020 GHz
Marker 3 [T1]
48.46 dBuV
32.965280 GHz
Marker 4 [T1]
48.13 dBuV
33.205100 GHz
D1 76.18 dBuV
D2 56.18 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.

FOR 5150-5350MHz BAND: DRAFT 802.11n (40MHz) OFDM MODULATION

Channel 38 (5190MHz)

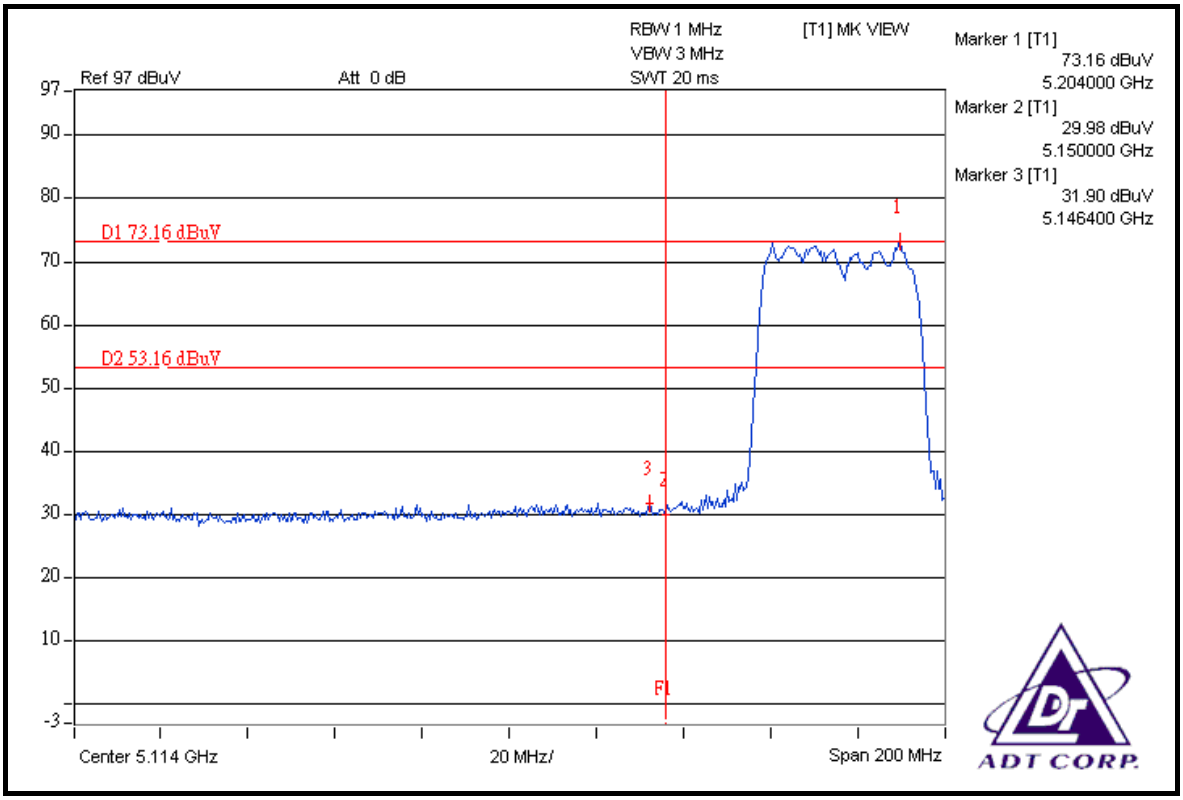
The band edge emission plot on the next page shows 41.26dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 38 is 102.49dBuV/m (Peak), so the maximum field strength in restrict band is 102.49 – 41.26 = 61.23dBuV/m which is under 74dBuV/m limit.

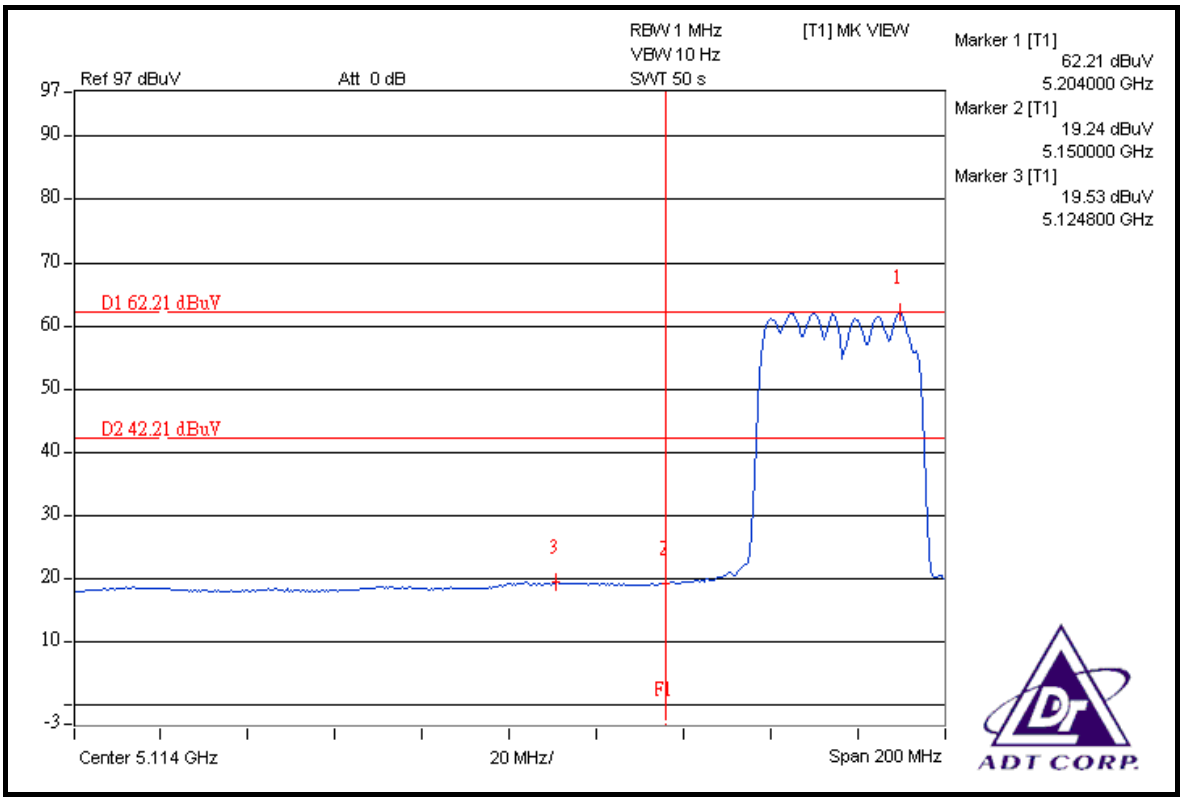
The band edge emission plot on the next page shows 42.68dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 38 is 92.69dBuV/m (Average), so the maximum field strength in restrict band is 92.69 – 42.68 = 50.01dBuV/m which is under 54dBuV/m limit.

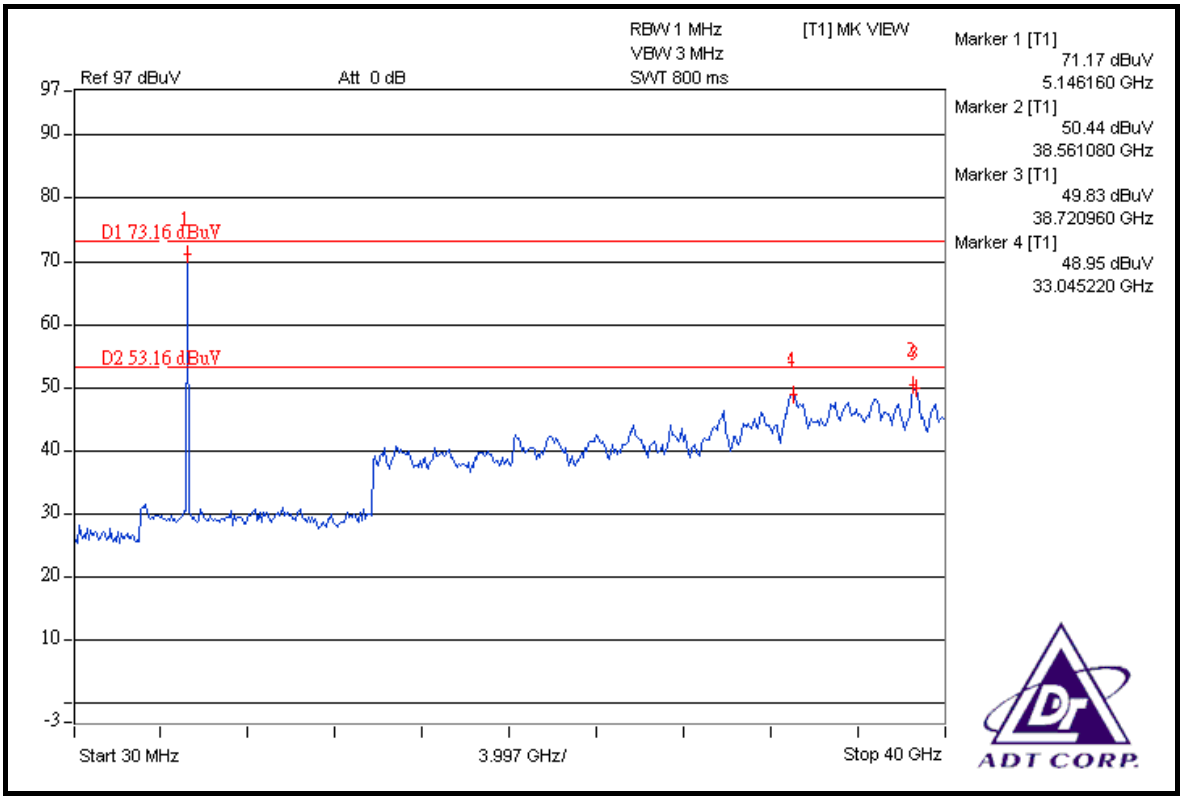
Channel 62 (5310MHz)

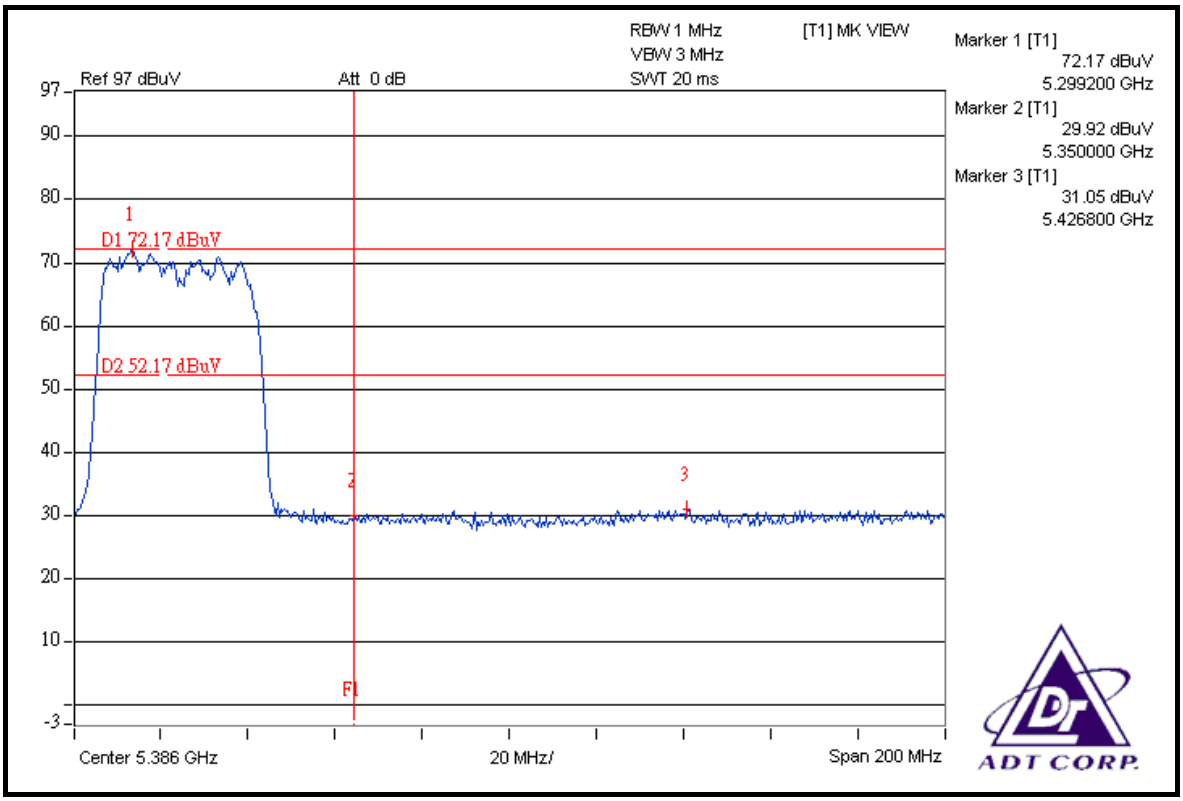
The band edge emission plot on the next second page shows 41.12dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 62 is 102.19dBuV/m (Peak), so the maximum field strength in restrict band is 102.19 – 41.12 = 61.07dBuV/m which is under 74dBuV/m limit.

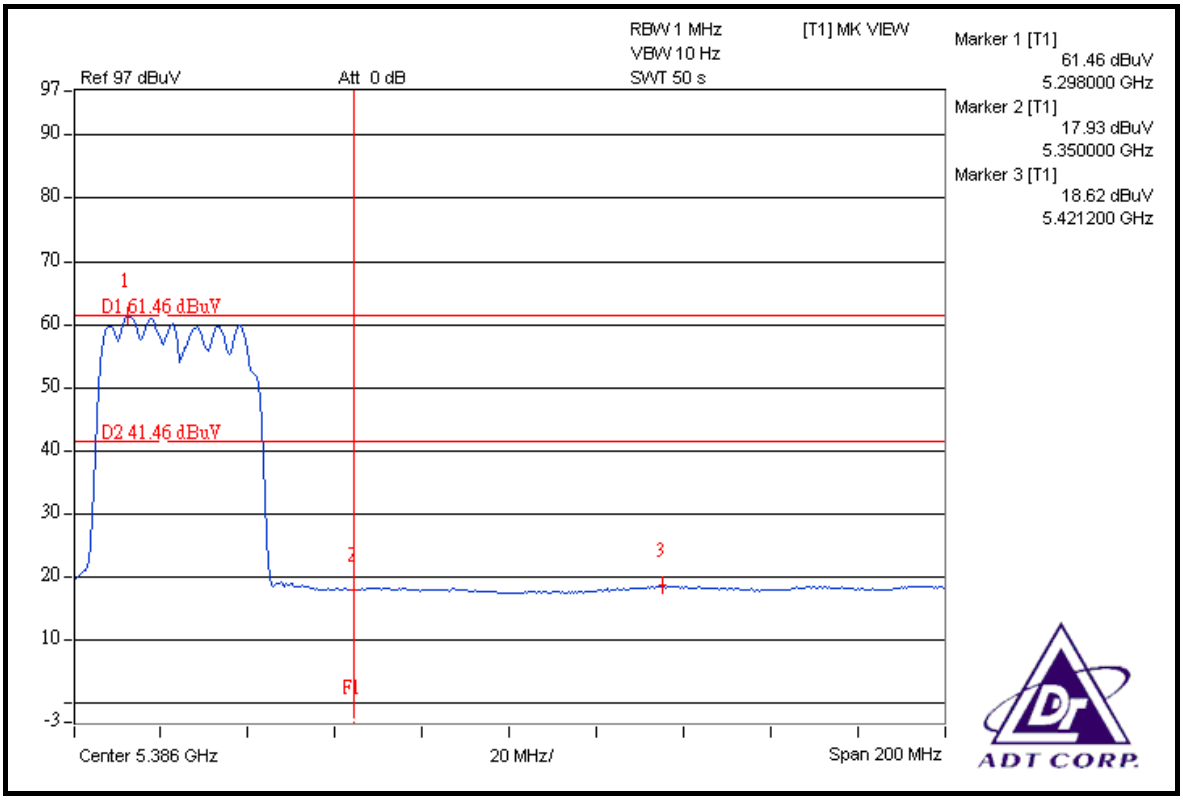
The band edge emission plot on the next third page shows 42.84dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 62 is 91.81dBuV/m (Average), so the maximum field strength in restrict band is 91.81 – 42.84 = 48.97dBuV/m which is under 54dBuV/m limit.

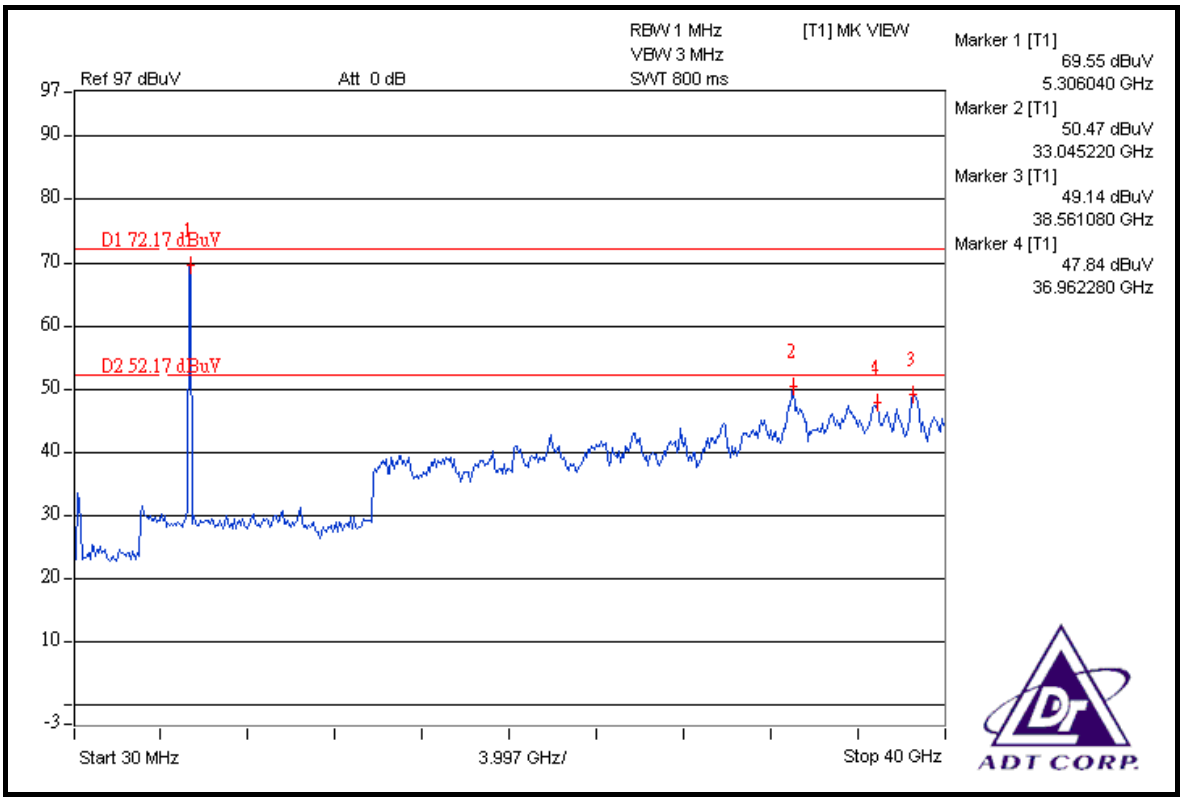

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
73.16 dBuV
5.204000 GHz
Marker 2 [T1]
29.98 dBuV
5.150000 GHz
Marker 3 [T1]
31.90 dBuV
5.146400 GHz
D1 73.16 dBuV
D2 53.16 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.114 GHz
20 MHz/
Span 200 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
62.21 dBuV
5.204000 GHz
Marker 2 [T1]
19.24 dBuV
5.150000 GHz
Marker 3 [T1]
19.53 dBuV
5.124800 GHz
D1 62.21 dBuV
D2 42.21 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.114 GHz
20 MHz/
Span 200 MHz
ADT CORP.


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
71.17 dBuV
5.146160 GHz
Marker 2 [T1]
50.44 dBuV
38.561080 GHz
Marker 3 [T1]
49.83 dBuV
38.720960 GHz
Marker 4 [T1]
48.95 dBuV
33.045220 GHz
D1 73.16 dBuV
D2 53.16 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
72.17 dBuV
5.299200 GHz
Marker 2 [T1]
29.92 dBuV
5.350000 GHz
Marker 3 [T1]
31.05 dBuV
5.426800 GHz
D1 72.17 dBuV
D2 52.17 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.386 GHz
20 MHz/
Span 200 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
61.46 dBuV
5.298000 GHz
Marker 2 [T1]
17.93 dBuV
5.350000 GHz
Marker 3 [T1]
18.62 dBuV
5.421200 GHz
D1 61.46 dBuV
D2 41.46 dBuV
Center 5.386 GHz
20 MHz/
Span 200 MHz
ADT CORP.


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
69.55 dBuV
5.306040 GHz
Marker 2 [T1]
50.47 dBuV
33.045220 GHz
Marker 3 [T1]
49.14 dBuV
38.561080 GHz
Marker 4 [T1]
47.84 dBuV
36.962280 GHz
D1 72.17 dBuV
D2 52.17 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.

FOR 5470-5725MHz BAND: DRAFT 802.11n (40MHz) OFDM MODULATION

Channel 102 (5510MHz)

The band edge emission plot (5.460GHz) on the next page shows 40.60dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 102 is 102.19dBuV/m (Peak), so the maximum field strength in restrict band is 102.19 – 40.60 = 61.59dBuV/m which is under 74dBuV/m limit.

The band edge emission plot (5.460GHz) on the next page shows 43.08dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 102 is 92.41dBuV/m (Average), so the maximum field strength in restrict band is 92.41 – 43.08 = 49.33dBuV/m which is under 54dBuV/m limit.

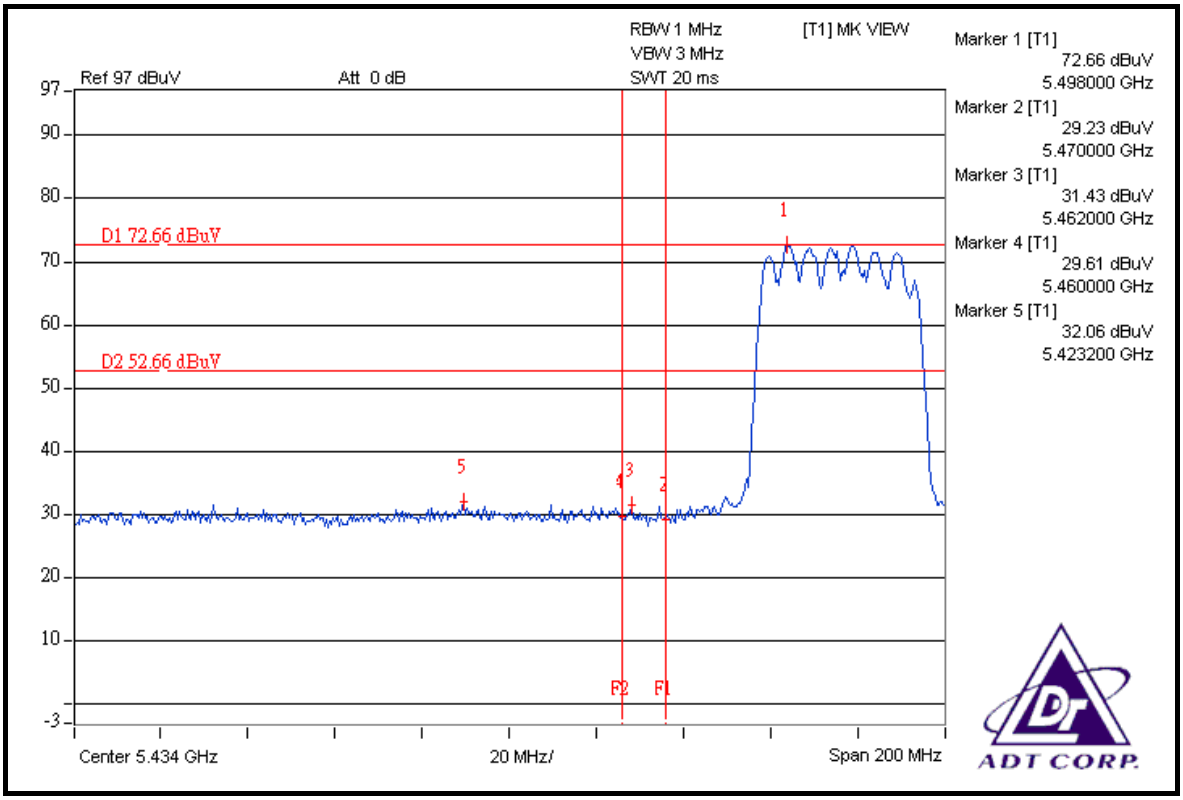
The band edge emission plot (5.470GHz) on the next page shows 41.23dBc between carrier maximum power and local maximum emission out of band emission. The emission of carrier strength list in the test result of channel 102 is 102.19dBuV/m (Peak), so the maximum field strength out of band emission is 102.19 – 41.23 = 60.96dBuV/m which is under 88.3dBuV/m limit.

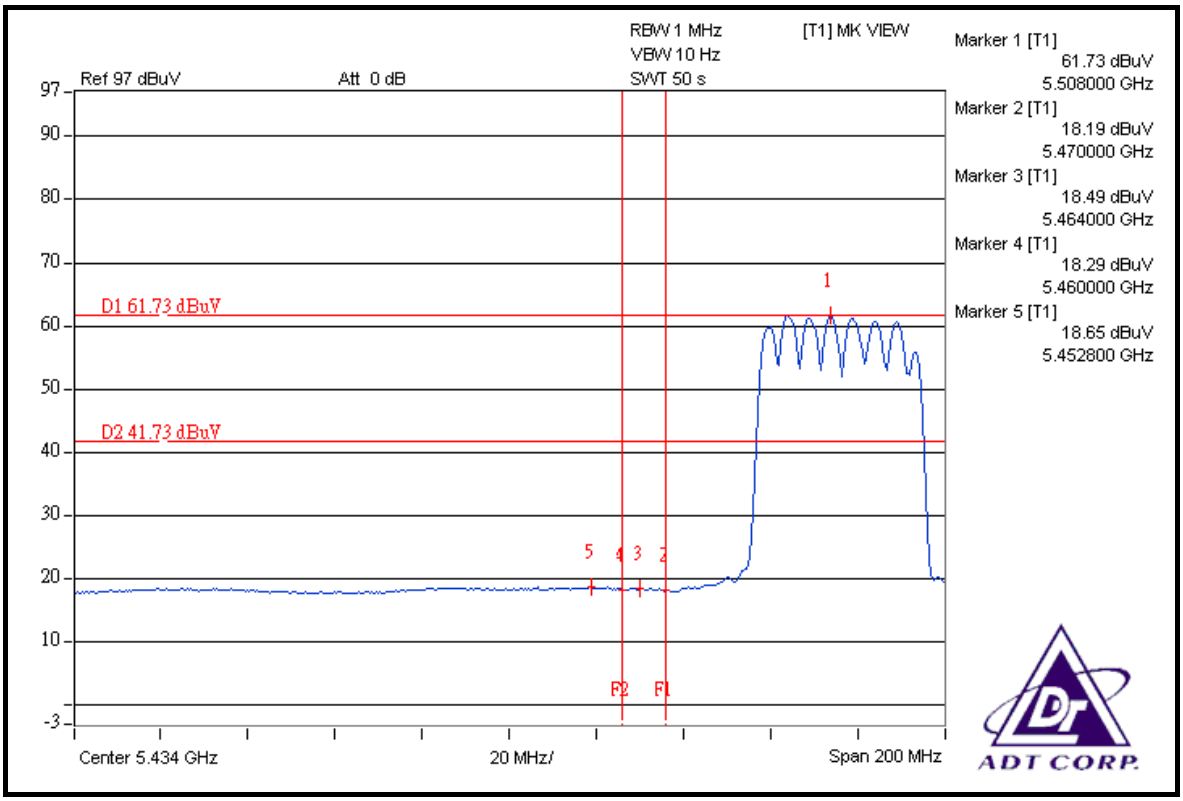
The band edge emission plot (5.470GHz) on the next page shows 43.24dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 102 is 92.41dBuV/m (Average), so the maximum field strength in restrict band is 92.41 – 43.24 = 49.17dBuV/m which is under 68.3dBuV/m limit.

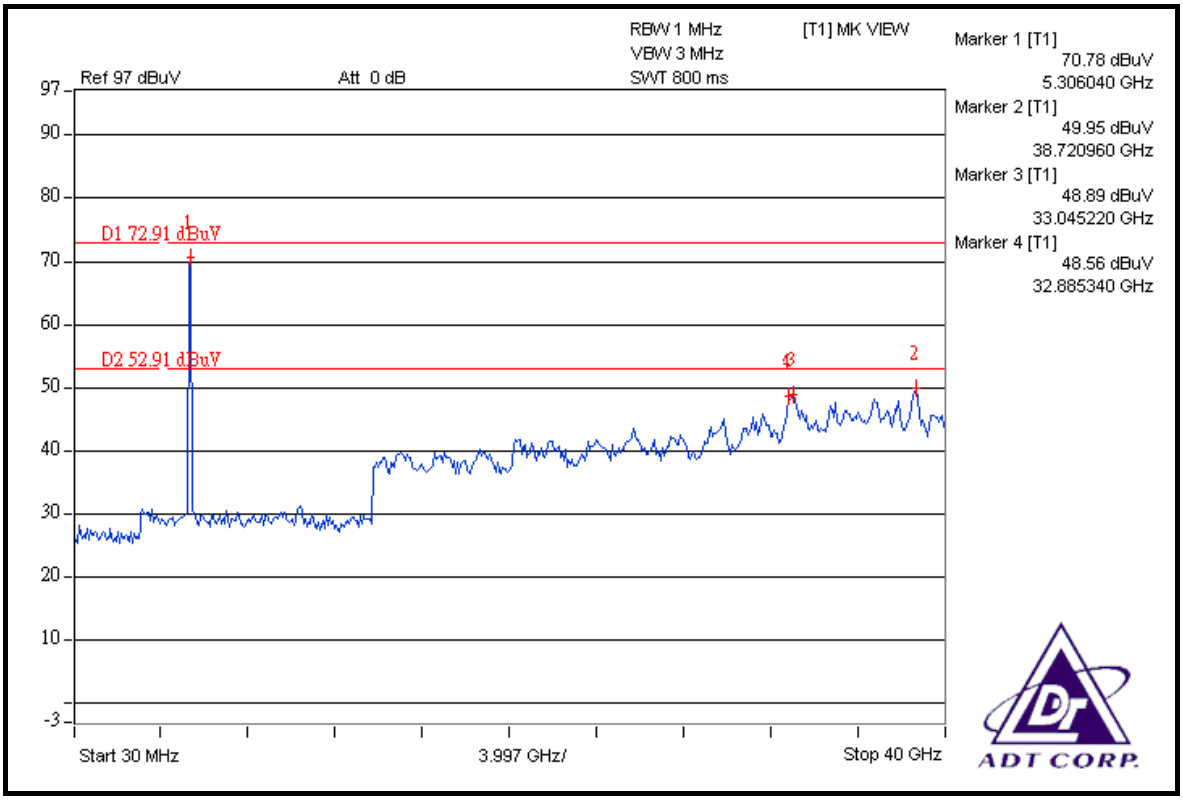
Channel 134 (5670MHz)

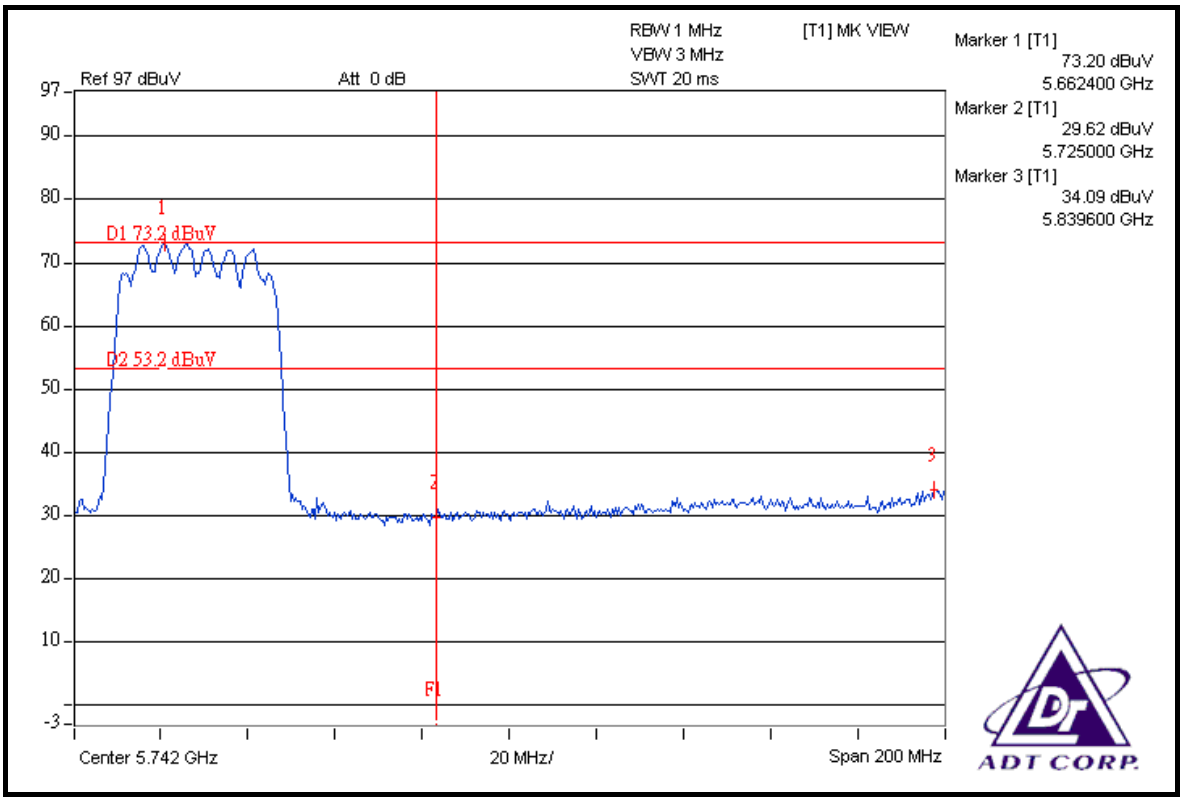
The band edge emission plot on the next second page shows 39.11dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 134 is 103.03dBuV/m (Peak), so the maximum field strength in restrict band is 103.03 – 39.11 = 63.92dBuV/m which is under 88.3dBuV/m limit.

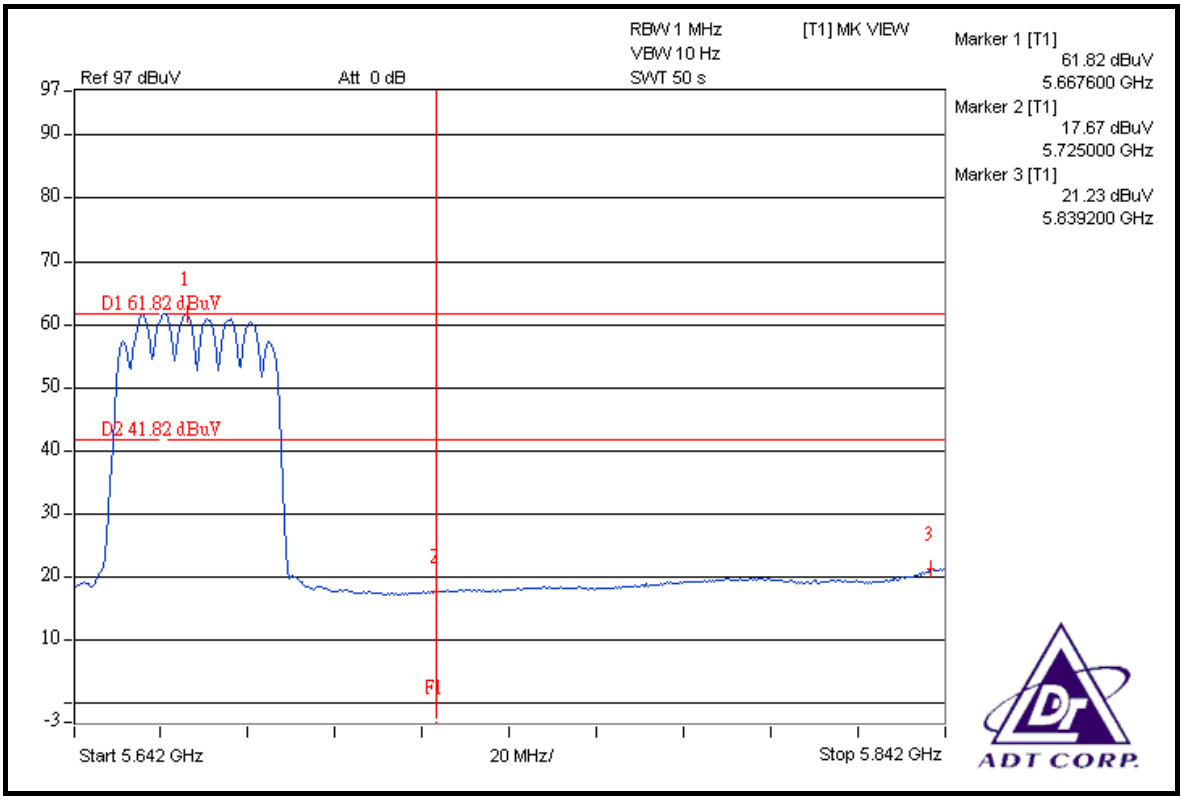
The band edge emission plot on the next third page shows 40.59dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 134 is 92.94dBuV/m (Average), so the maximum field strength in restrict band is 92.94 – 40.59 = 52.35dBuV/m which is under 68.3dBuV/m limit.

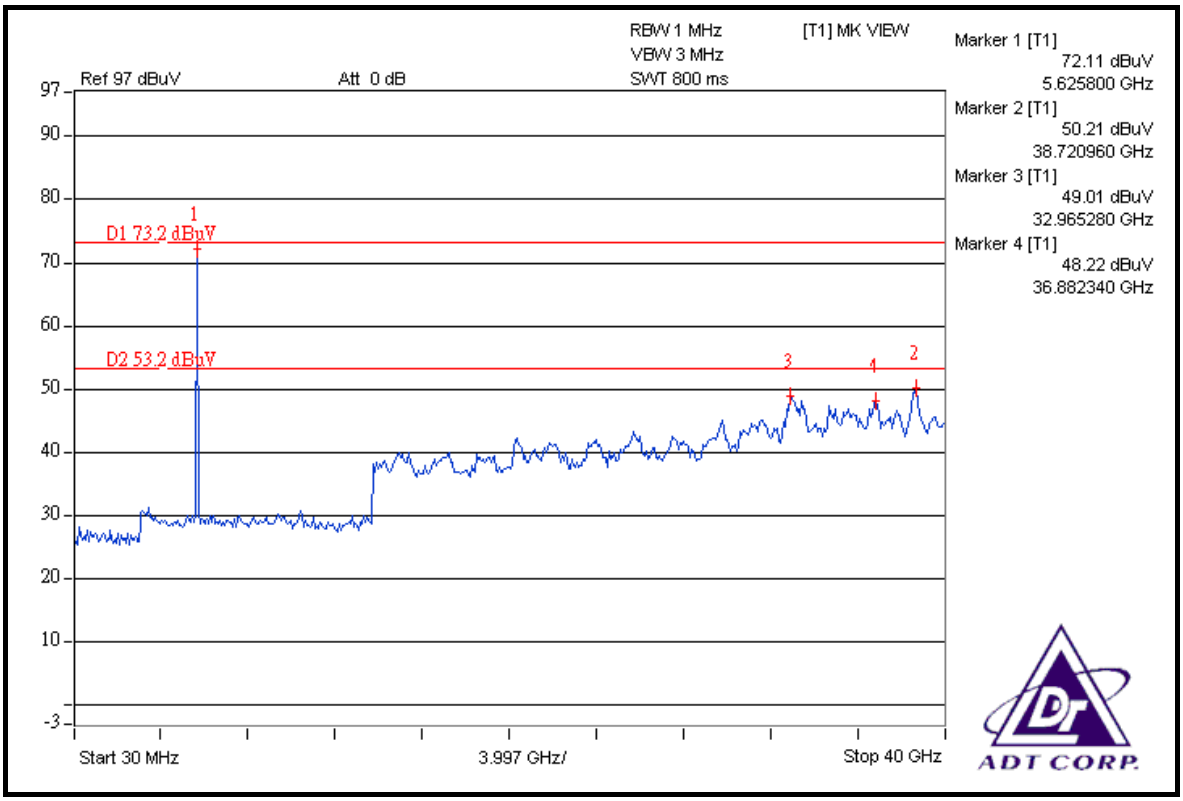

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 72.66 dBuV
D2 52.66 dBuV
Marker 1 [T1]
72.66 dBuV
5.498000 GHz
Marker 2 [T1]
29.23 dBuV
5.470000 GHz
Marker 3 [T1]
31.43 dBuV
5.462000 GHz
Marker 4 [T1]
29.61 dBuV
5.460000 GHz
Marker 5 [T1]
32.06 dBuV
5.423200 GHz
Center 5.434 GHz
20 MHz/
Span 200 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 61.73 dBuV
D2 41.73 dBuV
Marker 1 [T1]
61.73 dBuV
5.508000 GHz
Marker 2 [T1]
18.19 dBuV
5.470000 GHz
Marker 3 [T1]
18.49 dBuV
5.464000 GHz
Marker 4 [T1]
18.29 dBuV
5.460000 GHz
Marker 5 [T1]
18.65 dBuV
5.452800 GHz
Center 5.434 GHz
20 MHz/
Span 200 MHz
ADT CORP.


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
70.78 dBuV
5.306040 GHz
Marker 2 [T1]
49.95 dBuV
38.720960 GHz
Marker 3 [T1]
48.89 dBuV
33.045220 GHz
Marker 4 [T1]
48.56 dBuV
32.885340 GHz
D1 72.91 dBuV
D2 52.91 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
73.20 dBuV
5.662400 GHz
Marker 2 [T1]
29.62 dBuV
5.725000 GHz
Marker 3 [T1]
34.09 dBuV
5.839600 GHz
D1 73.2 dBuV
D2 53.2 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.742 GHz
20 MHz/
Span 200 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
61.82 dBuV
5.667600 GHz
Marker 2 [T1]
17.67 dBuV
5.725000 GHz
Marker 3 [T1]
21.23 dBuV
5.839200 GHz
D1 61.82 dBuV
D2 41.82 dBuV
Start 5.642 GHz
20 MHz/
Stop 5.842 GHz
ADT CORP.


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
72.11 dBuV
5.625800 GHz
Marker 2 [T1]
50.21 dBuV
38.720960 GHz
Marker 3 [T1]
49.01 dBuV
32.965280 GHz
Marker 4 [T1]
48.22 dBuV
36.882340 GHz
D1 73.2 dBuV
D2 53.2 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.

4.8 DYNAMIC FREQUENCY SELECTION

4.8.1 OPERATING FREQUENCY BANDS AND MODE OF EUT

Table 1: Operating frequency bands and mode of EUT.

Operational Mode	Operating Frequency Range	
	5250~5350MHz	5470~5725MHz
Client without radar detection and ad hoc function	✓	✓

4.8.2 EUT SOFTWARE AND FIRMWARE VERSION

Table 2: The EUT software/firmware version.

No.	Product	Model No.	Software/Firmware Version
1	Wireless-N Ethernet Bridge with Dual-Band	WET610N	Driver Version: 0.1.08 build 14

4.8.3 DESCRIPTION OF AVAILABLE ANTENNAS TO THE EUT

Table 3: Antenna list.

Ant NO.	Antenna	Type	Operation Frequency Range	Max. Gain(dBi)
1	PIFA	PIFA	5250~5470MHz	1.28
1	PIFA	PIFA	5470~5725MHz	1.28

4.8.4 EUT MAXIMUM AND MINIMUM CONDUCTED POWER

Table 4: The measured conducted output power.

IEEE 802.11a

Ant NO.	Frequency Band(MHz)	MAX. Power		MIN. Power	
		Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
1	5250-5350	14.12	25.823	11	12.589
1	5470-5725	14.12	25.823	11	12.589

Draft 802.11n(20MHz)

Ant NO.	Frequency Band(MHz)	MAX. Power		MIN. Power	
		Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
1	5250-5350	12.59	18.155	11	12.589
1	5470-5725	12.85	19.275	11	12.589

Draft 802.11n(40MHz)

Ant NO.	Frequency Band(MHz)	MAX. Power		MIN. Power	
		Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
1	5250-5350	12.53	17.906	11	12.589
1	5470-5725	12.66	18.450	11	12.589

Table 5: The E.I.R.P output power list.

IEEE 802.11a

Ant NO.	Frequency Band(MHz)	MAX. Power		MIN. Power	
		Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
1	5250-5350	15.4	34.674	12.28	16.904
1	5470-5725	15.4	34.674	12.28	16.904

Draft 802.11n(20MHz)

Ant NO.	Frequency Band(MHz)	MAX. Power		MIN. Power	
		Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
1	5250-5350	13.87	24.378	12.28	16.904
1	5470-5725	14.13	25.882	12.28	16.904

Draft 802.11n(40MHz)

Ant NO.	Frequency Band(MHz)	MAX. Power		MIN. Power	
		Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
1	5250-5350	13.81	24.044	12.28	16.904
1	5470-5725	13.94	24.774	12.28	16.904

4.8.5 STATEMENT OF MAUNFACTURER

Manufacturer statement confirming that information regarding the parameters of the detected Radar Waveforms is not available to the end user. **And the device doesn't have Ad Hoc mode on DFS frequency band.**

4.8.6 U-NII DFS RULE REQUIREMENTS

WORKING MODES AND REQUIRED TEST ITEMS

The manufacturer shall state whether the UUT is capable of operating as a Master and/or a Client. If the UUT is capable of operating in more than one operating mode then each operating mode shall be tested separately. See tables 1 and 2 for the applicability of DFS requirements for each of the operational modes.

Table 6: Applicability of DFS requirements prior to use a channel

Requirement	Operational Mode		
	Master	Client without radar detection	Client with radar detection
Non-Occupancy Period	✓	Not required	✓
DFS Detection Threshold	✓	Not required	✓
Channel Availability Check Time	✓	Not required	Not required
Uniform Spreading	✓	Not required	Not required
U-NII Detection Bandwidth	✓	Not required	✓

Table 7: Applicability of DFS requirements during normal operation.

Requirement	Operational Mode		
	Master	Client without radar detection	Client with radar detection
DFS Detection Threshold	✓	Not required	✓
Channel Closing Transmission Time	✓	✓	✓
Channel Move Time	✓	✓	✓
U-NII Detection Bandwidth	✓	Not required	✓

4.8.7 TEST LIMITS AND RADAR SIGNAL PARAMETERS

DETECTION THRESHOLD VALUES

Table 8: DFS Detection Thresholds for Master Devices and Client Devices With Radar Detection.

Maximum Transmit Power	Value (See Notes 1 and 2)
≥ 200 milliwatt	-64 dBm
< 200 milliwatt	-62 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.	

Table 9: DFS Response Requirement Values

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 80% of the UNII 99% transmission power bandwidth. See Note 3.
Note 1: The instant that the Channel Move Time and the Channel Closing Transmission Time begins is as follows: • For the Short Pulse Radar Test Signals this instant is the end of the Burst. • For the Frequency Hopping radar Test Signal, this instant is the end of the last radar Burst generated. • For the Long Pulse Radar Test Signal this instant is the end of the 12 second period defining the Radar Waveform. **Note 2:** The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions. **Note 3:** During the U-NII Detection Bandwidth detection test, radar type 1 is used and for each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.	

PARAMETERS OF DFS TEST SIGNALS

Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

Table 10: Short Pulse Radar Test Waveforms.

Radar Type	Pulse Width (µsec)	PRI (µsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
1	1	1428	18	60%	30
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120

Table 11: Long Pulse Radar Test Waveform

Radar Type	Pulse Width (µsec)	Chirp Width (MHz)	PRI (µsec)	Number of Pulses per Burst	Number of Bursts	Minimum Percentage of Successful Detection	Minimum Number of Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

Table 12: Frequency Hopping Radar Test Waveform

Radar Type	Pulse Width (µsec)	PRI (µsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)	Minimum Percentage of Successful Detection	Minimum Number of Trials
6	1	333	9	0.333	300	70%	30

4.8.8 TEST & SUPPORT EQUIPMENT LIST

TEST INSTRUMENTS

Table 1: Test instruments list.

DESCRIPTION & MANUFACTURER	MODEL NO.	BRAND	CALIBRATED UNTIL
R&S Spectrum analyzer	FSP40	R&S	May. 26, 2009
Signal generator	8645A	Agilent	Jun. 09, 2009
Oscilloscope	TDS 5104	Tektronix	Aug. 30. 2008

DESCRIPTION OF SUPPORT UNITS

Table 2: Support Unit information.

No.	Product	Brand	Model No.	FCC ID	Spec.
1	802.11a/b/g/n Access Point	Cisco	AIR-AP1252AG-A-K9	LDK102061	NA

Note: This device was functioned as a ■ Master □ Slave device during the DFS test.

Table 3: Software/Firmware information.

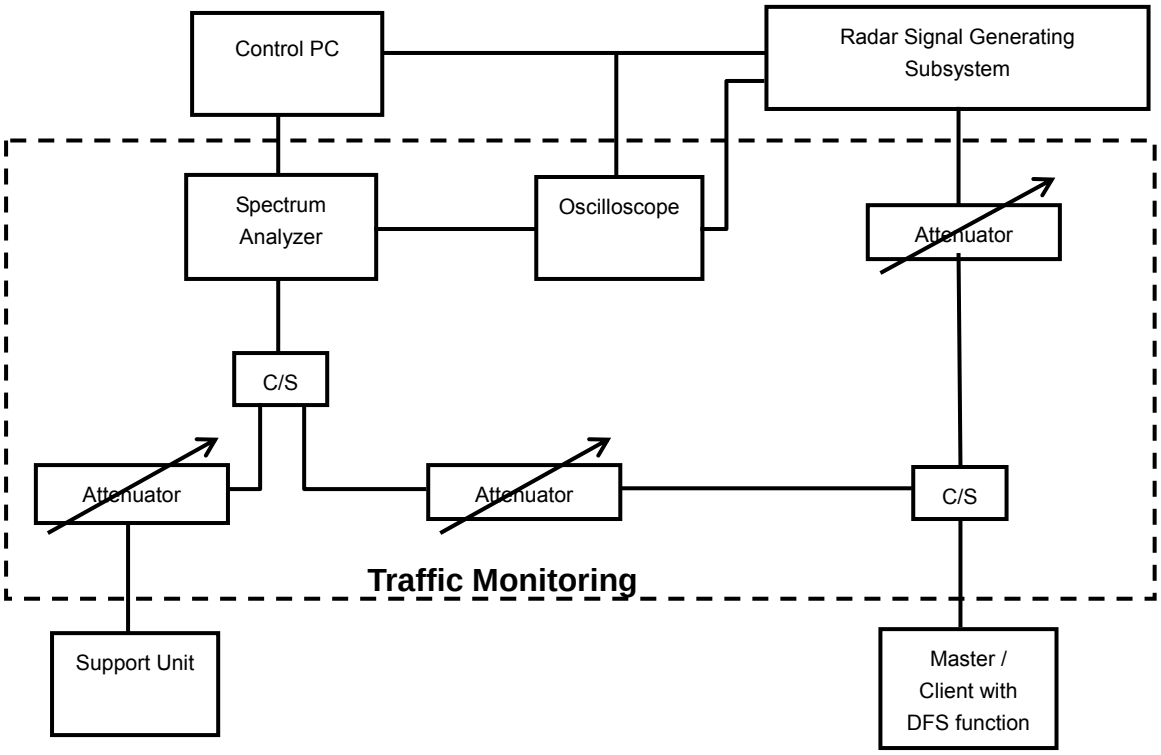
No.	Product	Model No.	Software/Firmware Version
1.	802.11a/b/g/n Access Point	AIR-AP1252AG-A-K9	12.4(10b)JA1

4.8.9 TEST PROCEDURE

ADT DFS MEASUREMENT SYSTEM:

A complete ADT DFS Measurement System consists of two subsystems: (1) the Radar Signal Generating Subsystem and (2) the Traffic Monitoring Subsystem. The control PC is necessary for generating the Radar waveforms in Table 6, 7 and 8. The traffic monitoring subsystem is specified to the type of unit under test (UUT).

Conducted setup configuration of ADT DFS Measurement System

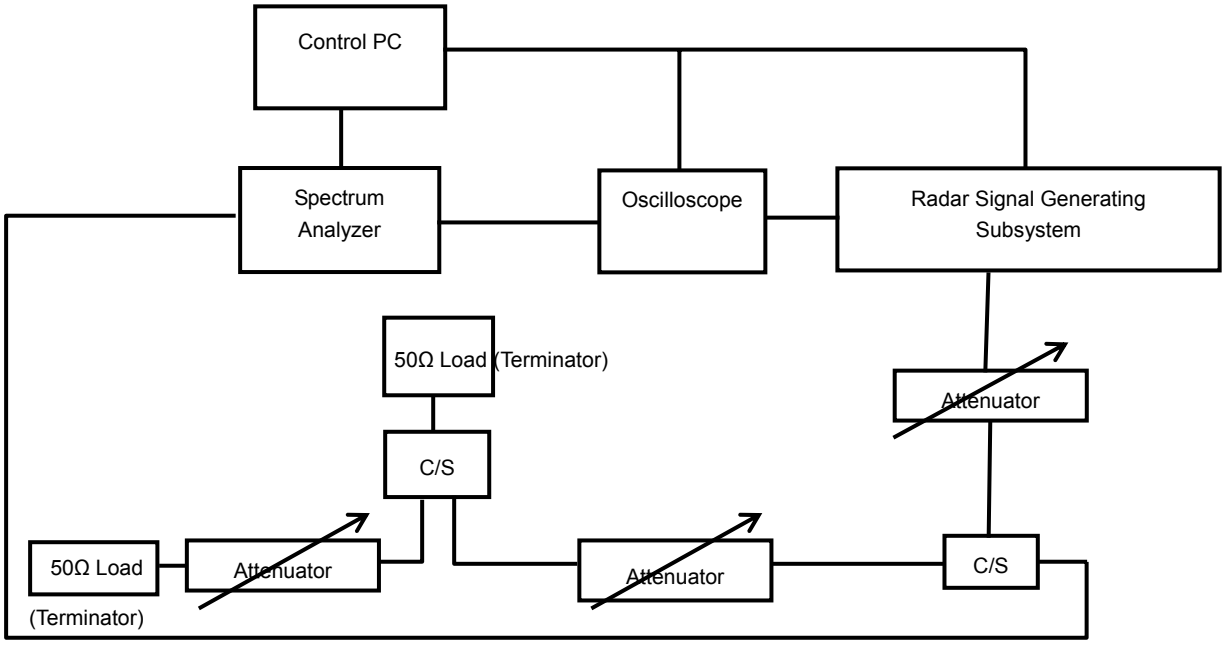


The test transmission will always be from the Master Device to the Client Device. While the Client device is set up to associate with the Master device and play the MPEG file (6 $\frac{1}{2}$ Magic Hours) from Master device, the designated MPEG test file and instructions are located at: http://ntiacsd.ntia.doc.gov/dfs/.

4.8.10 CALIBRATION OF DFS DETECTION THRESHOLD LEVEL:

The measured channel is 5320 MHz and 5500MHz. The radar signal was the same as transmitted channels, and injected into the antenna port of AP (master) or Client Device with Radar Detection, measured the channel closing transmission time and channel move time. The Master antenna gain is 3dBi and required detection threshold is -58dBm (= -62 +1+3)dBm. The calibrated conducted detection threshold level is set to -59dBm. The tested level is lower than required level hence it provides margin to the limit.

Conducted setup configuration of Calibration of DFS Detection Threshold Level

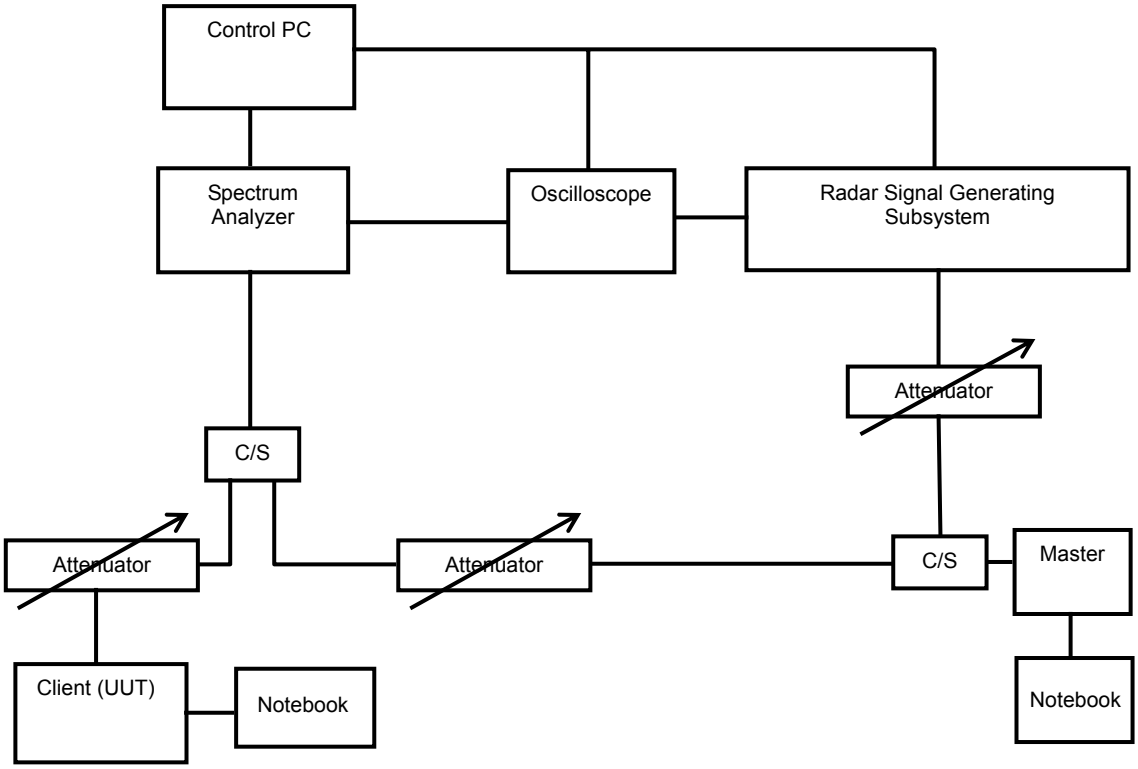


4.8.11 DEVIATION FROM TEST STANDARD

No deviation.

4.8.12 CONDUCTED TEST SETUP CONFIGURATION

CLIENT WITHOUT RADAR DETECTION MODE



The UUT is a U-NII Device operating in Client mode without radar detection. The radar test signals are injected into the Master Device.

4.8.13 TEST RESULTS

SUMMARY OF TEST RESULT

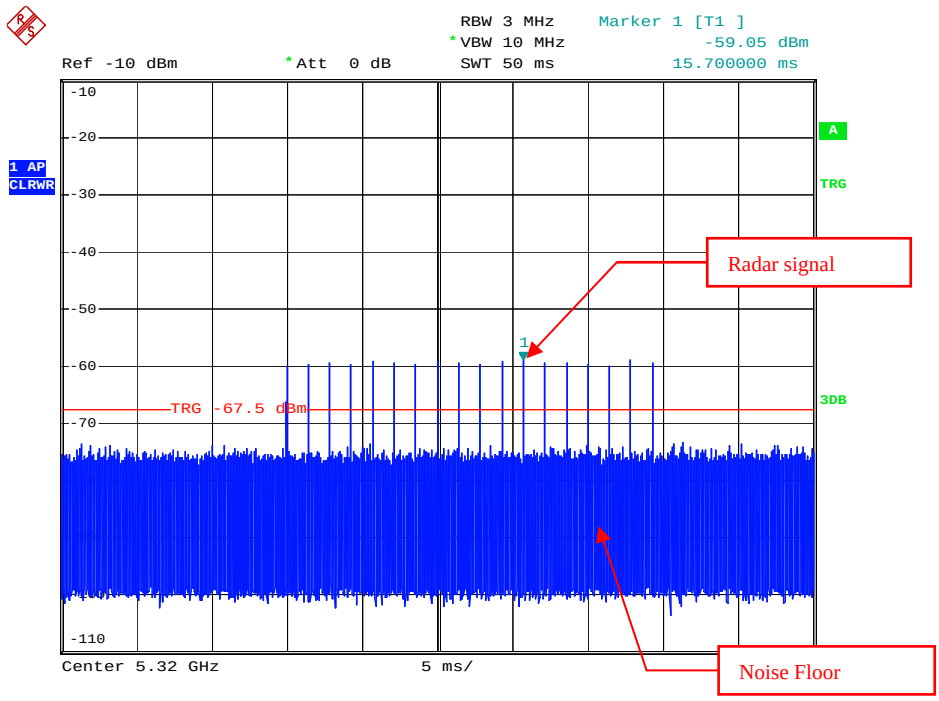
Clause	Test Parameter	Remarks	Pass/Fail
15.407	DFS Detection Threshold	Not Applicable	NA
15.407	Channel Availability Check Time	Not Applicable	NA
15.407	Channel Move Time	Applicable	Pass
15.407	Channel Closing Transmission Time	Applicable	Pass
15.407	Non- Occupancy Period	Applicable	Pass
15.407	Uniform Spreading	Not Applicable	NA
15.407	U-NII Detection Bandwidth	Not Applicable	NA
15.407	Non-associated test	Applicable	Pass

4.8.14 DETELED TEST RESULTS

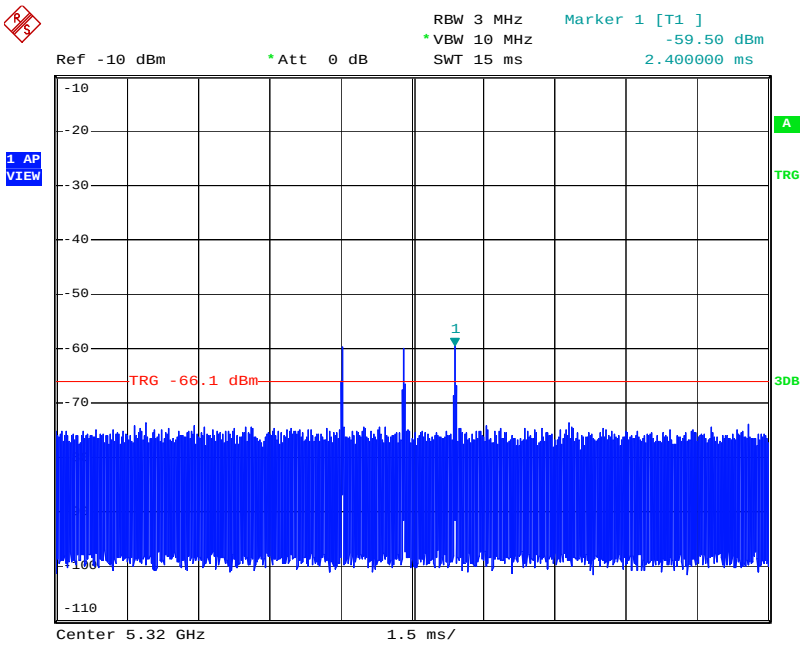
Test Mode: Device operating in Client without Radar Detection mode.
Client with injection at the Master. (The radar test signals are injected into the Master Device.

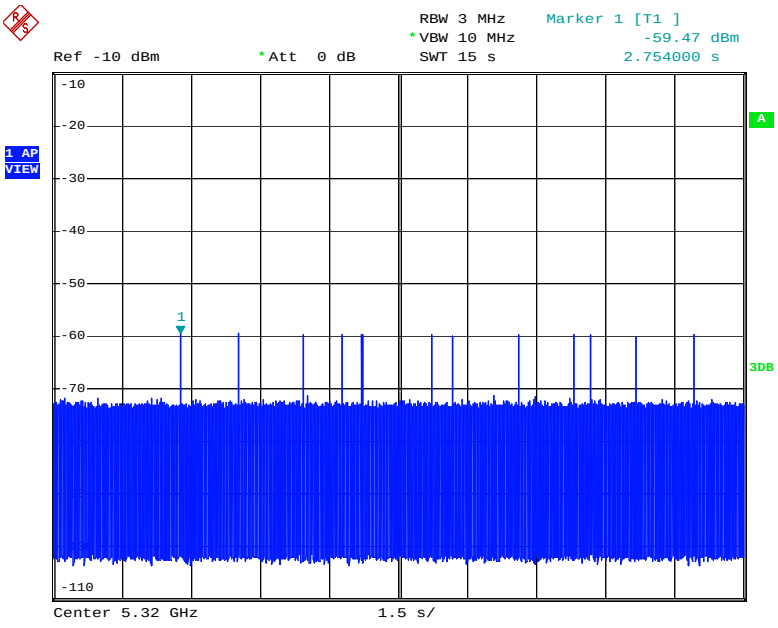
DFS DETECTION THRESHOLD

For a detection threshold level of –62dBm and the Master antenna gain is 3dBi. The Required detection threshold is -58dBm (= -62 +1+3)dBm. The conducted radar burst level is set to -59dBm. The tested level is lower than required level hence it provides margin to the limit.



Radar Signal 1



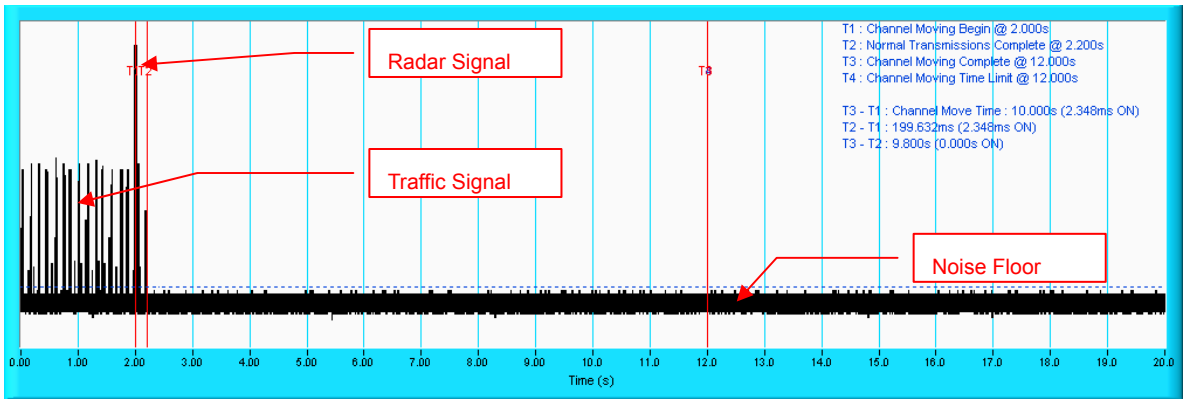


Radar Signal 5

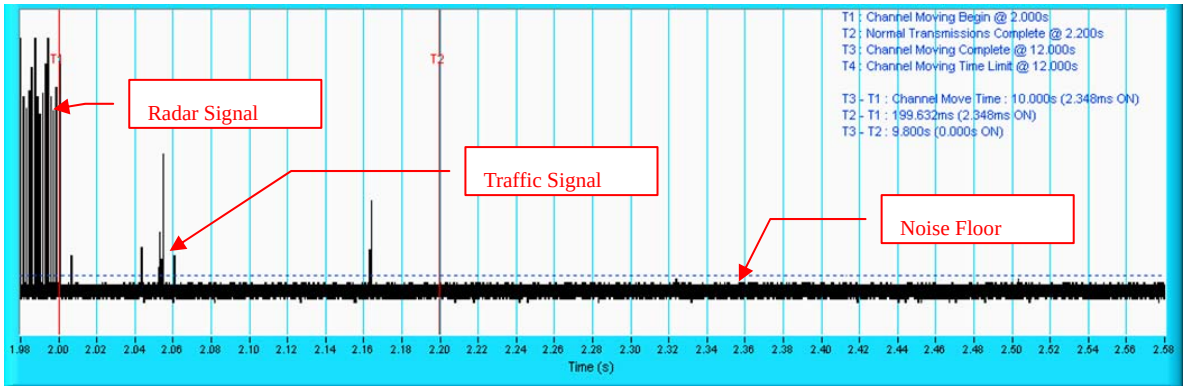
4.8.15 CHANNEL CLOSING TRANSMISSION AND CHANNEL MOVE TIME

Radar signal 1

IEEE 802.11a

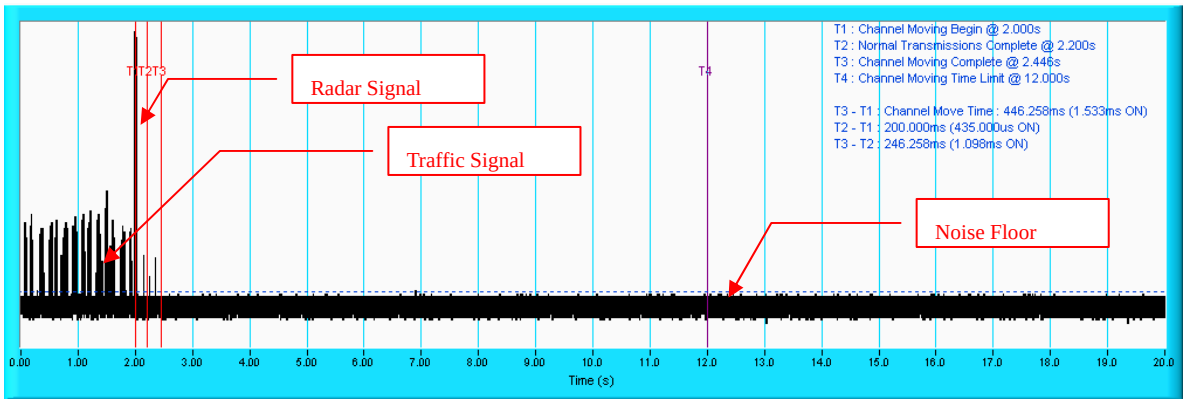


NOTE: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200ms from T1. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

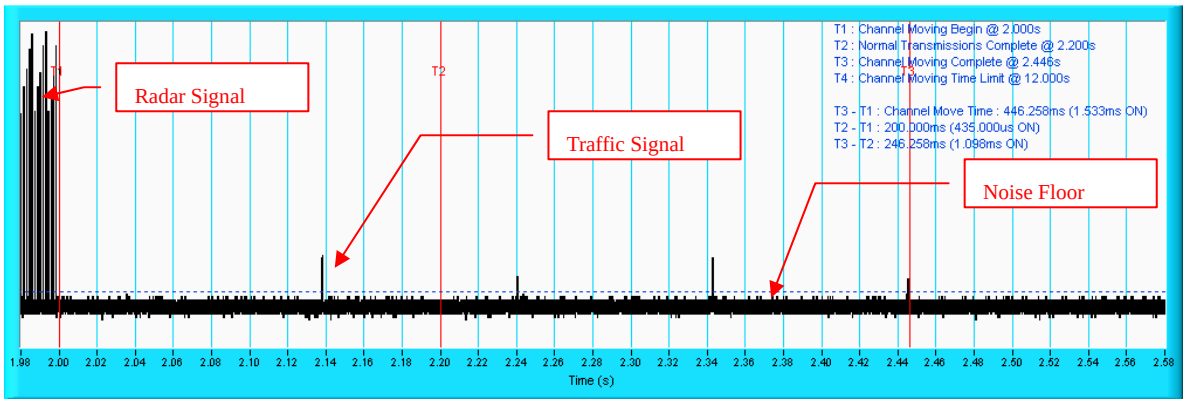


NOTE: An expanded plot for the device vacates the channel in the required 200ms.

Draft 802.11n (20MHz)

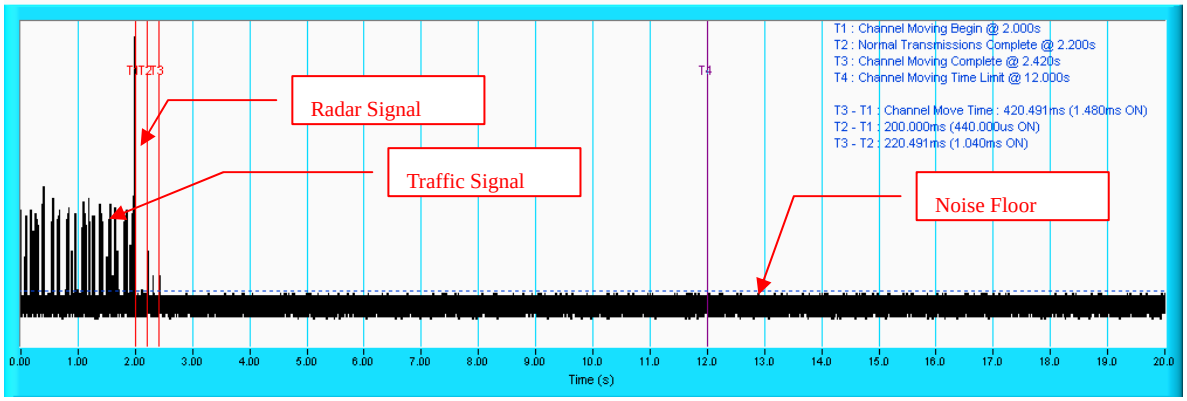


NOTE: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200ms from T1. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

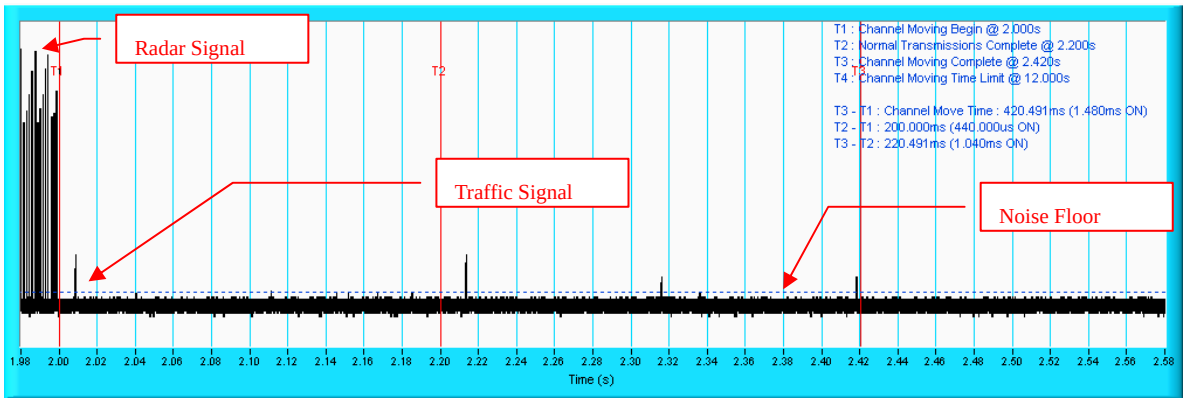


NOTE: An expanded plot for the device vacates the channel in the required 200ms.

Draft 802.11n(40MHz)



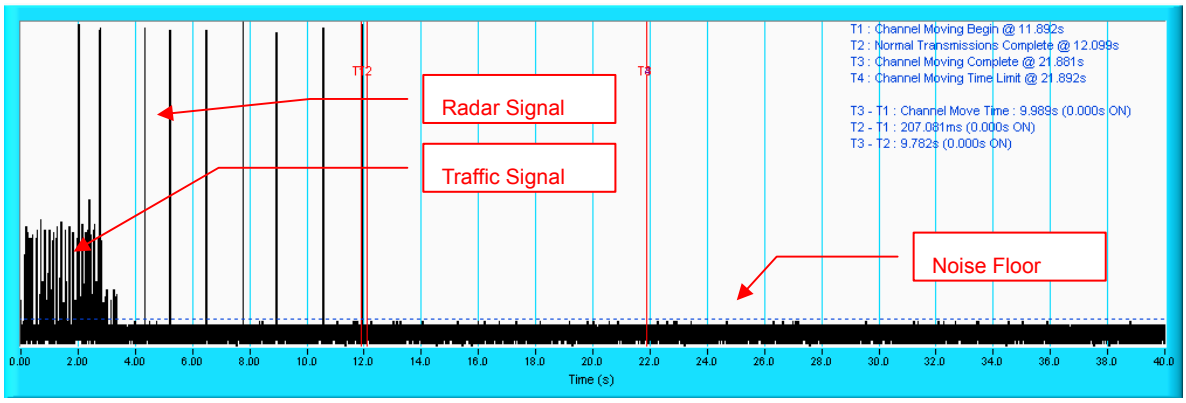
NOTE: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200ms from T1. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.



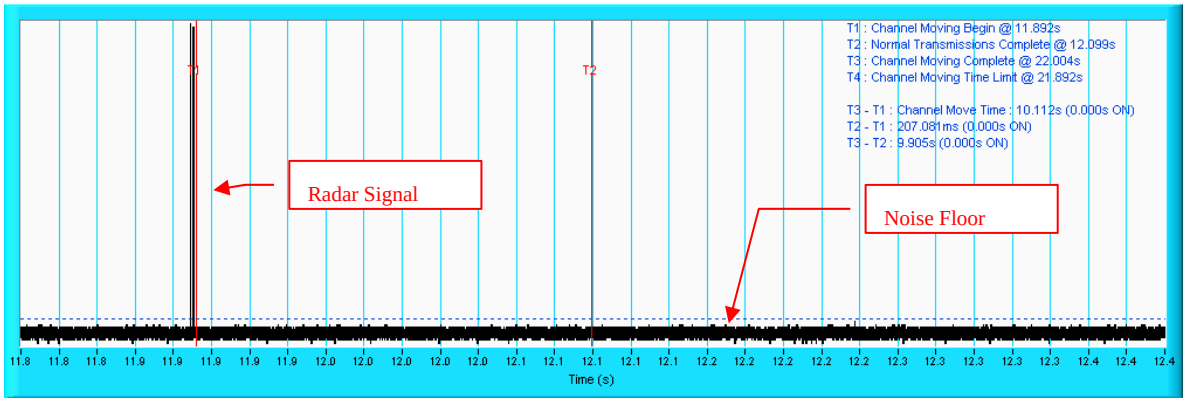
NOTE: An expanded plot for the device vacates the channel in the required 200ms.

Radar signal 5

IEEE 802.11a

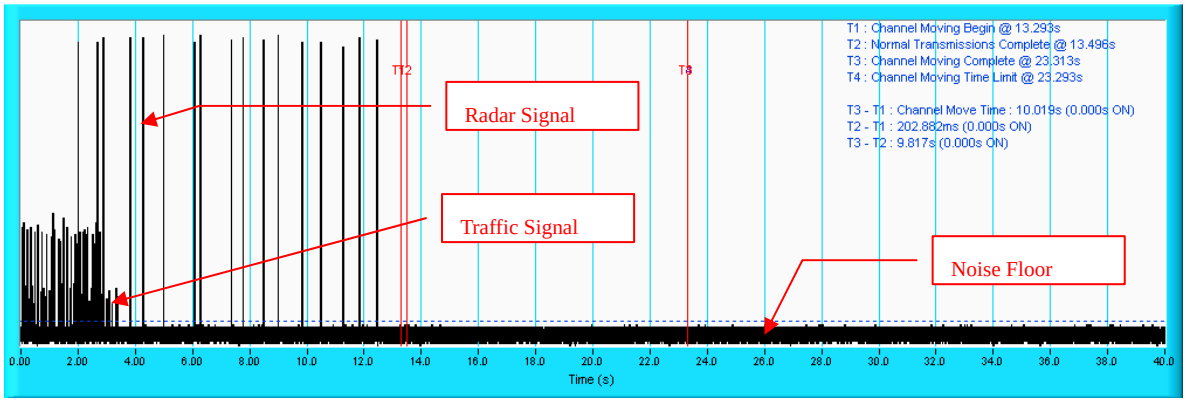


NOTE: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200ms from T1. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

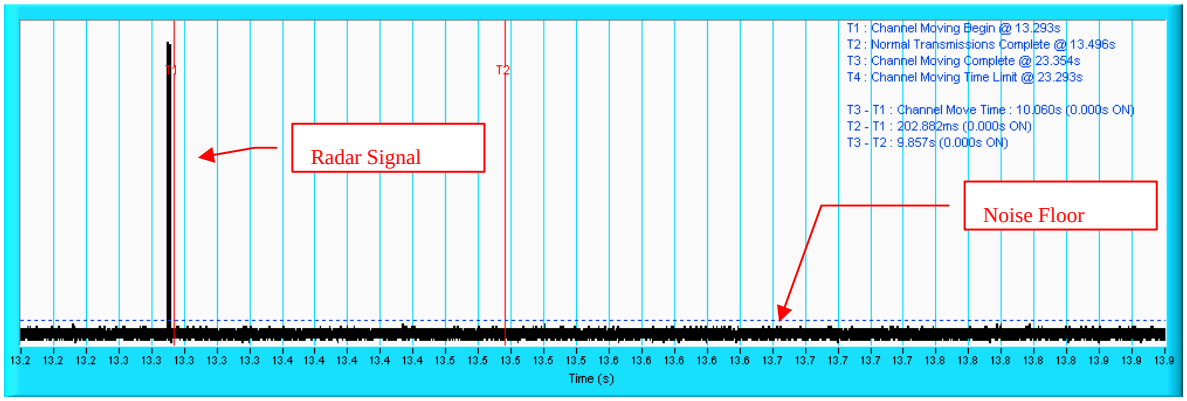


NOTE: An expanded plot for the device vacates the channel in the required 200ms.

Draft 802.11n (20MHz)

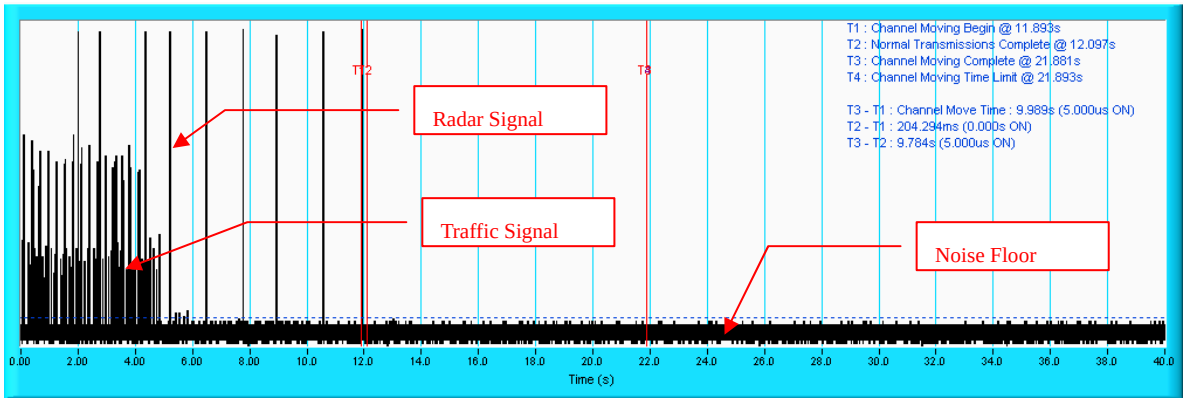


NOTE: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200ms from T1. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

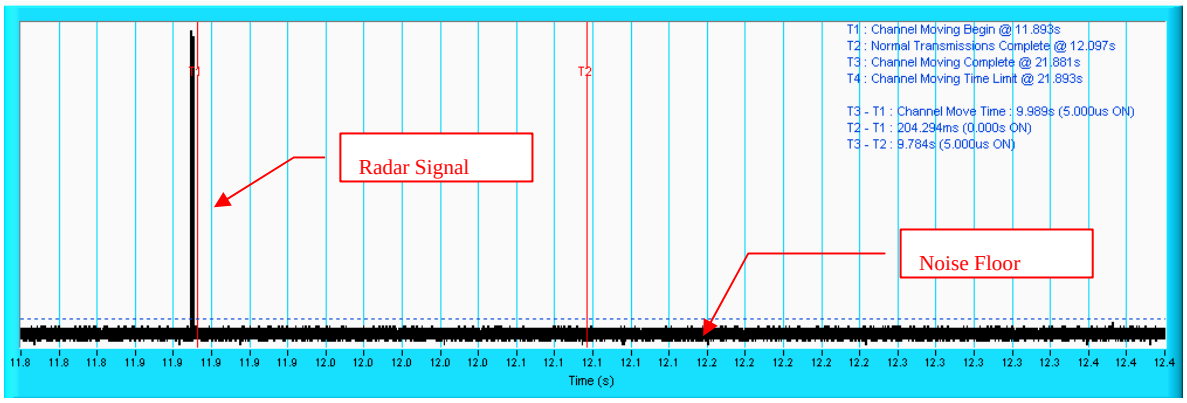


NOTE: An expanded plot for the device vacates the channel in the required 200ms.

Draft 802.11n (40MHz)



NOTE: T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200ms from T1. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

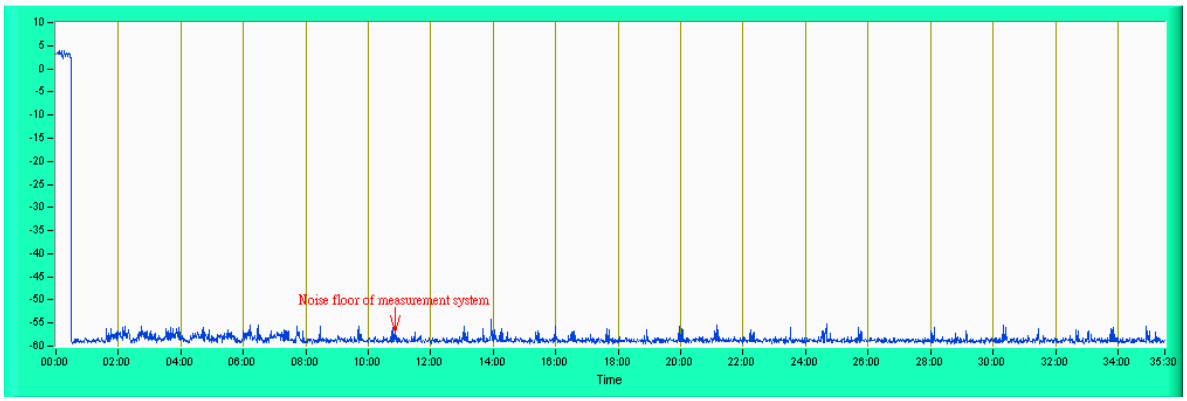


NOTE: An expanded plot for the device vacates the channel in the required 200ms.

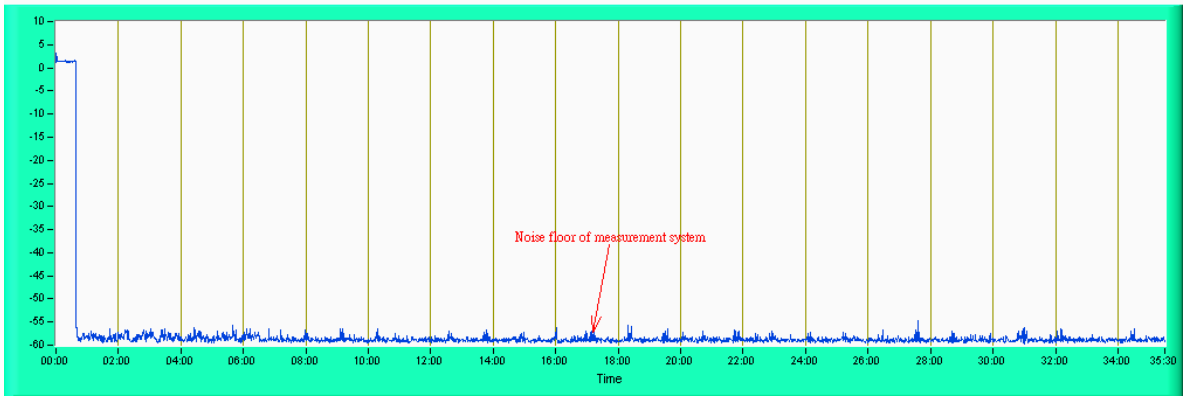
Non- Occupancy Period

During the 30 minutes observation time, UUT did not make any transmissions on a channel after a radar signal was detected on that channel by either the Channel Availability Check or the In-Service Monitoring.

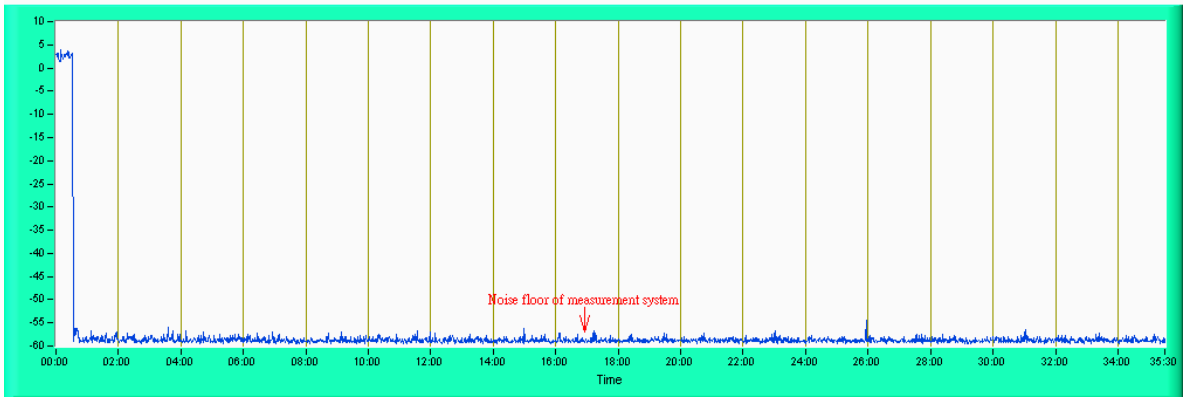
802.11a



Draft 802.11n (20MHz)



Draft 802.11n (40MHz)

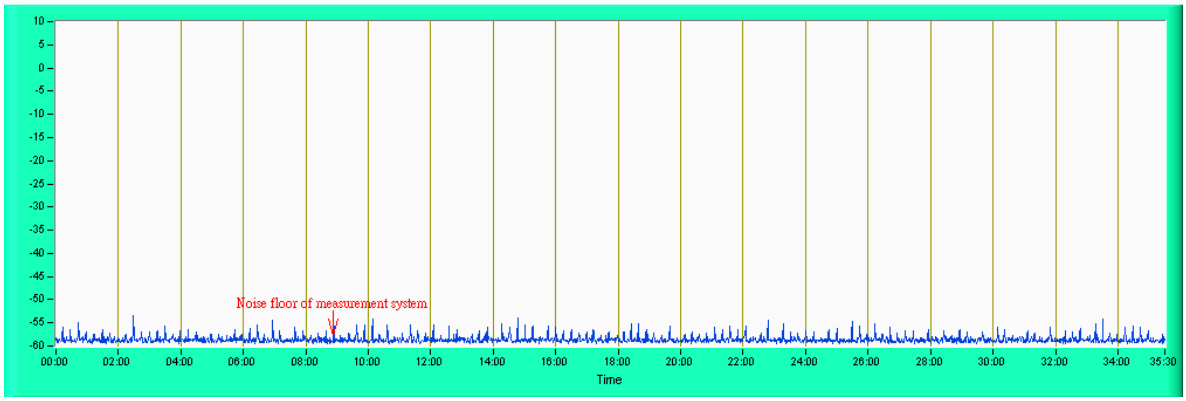


Non-associated test

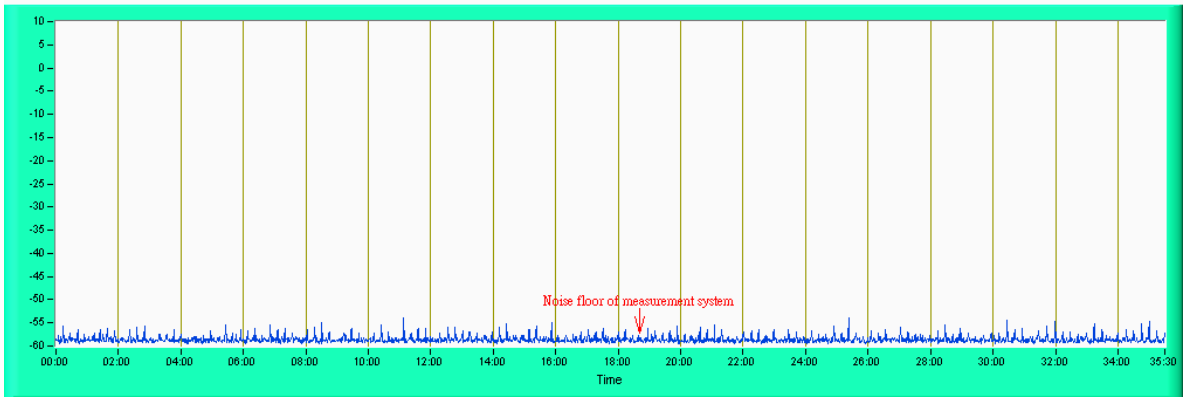
Master was off.

During the 30 minutes observation time, The UUT did not make any transmissions in the DFS band after UUT power up.

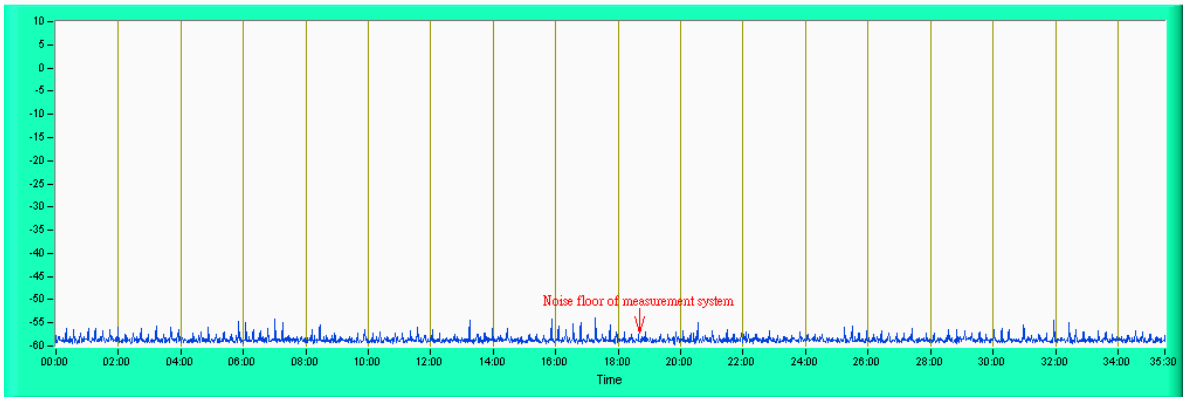
802.11a



Draft 802.11n (20MHz)



Draft 802.11n (40MHz)



4.9 ANTENNA REQUIREMENT

4.9.1 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.

4.9.2 ANTENNA CONNECTED CONSTRUCTION

The antenna used in this product is PIFA antenna without connector. The maximum Gain of the antenna is 1.28Bi.

5. PHOTOGRAPHS OF THE TEST CONFIGURATION

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

6. INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., 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, UL
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: 886-2-26051924

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.

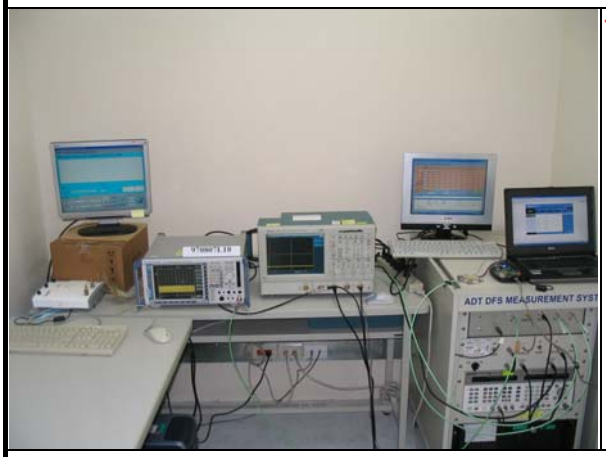
7. APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

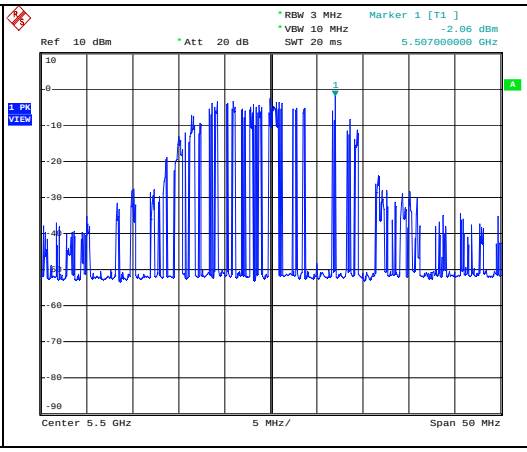
No any modifications are made to the EUT by the lab during the test.

8. APPENDIX B MODIFICATIONS OR ADDING COMPONENTS DURING THE TEST

Modifications or adding components during the test

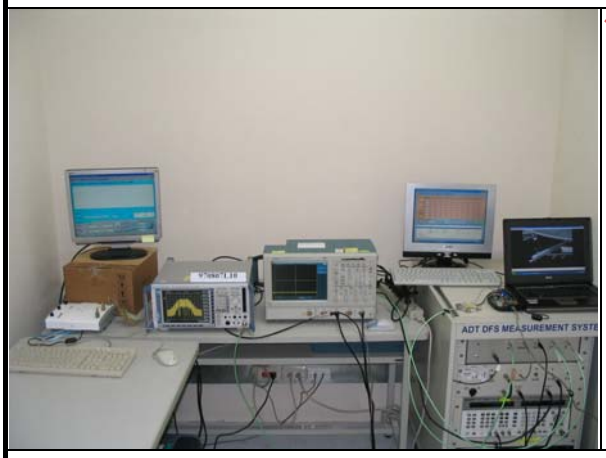
1) Test results demonstrating an associated client link is established with the master on a test frequency.

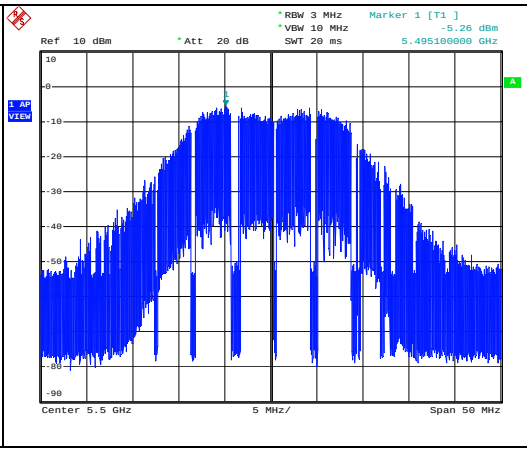




EUT (Client) links with master on 5500MHz

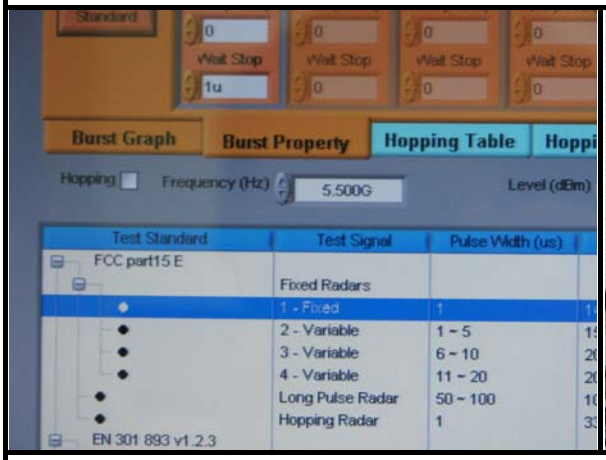
2) The client and DFS-certified master device are associated, and the movie can be streamed as specified in the DFS Order for a non-occupancy period test.

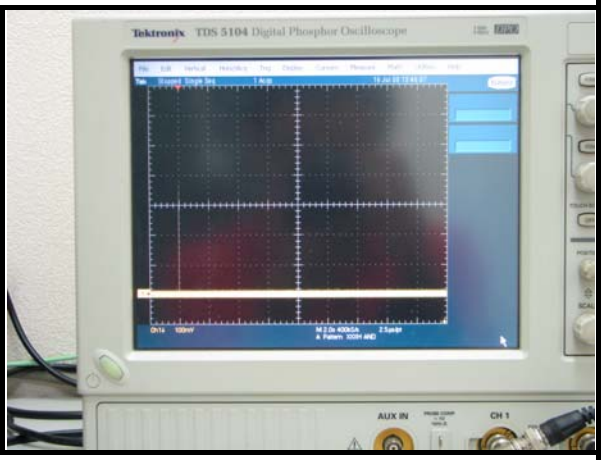




Client plays a specified files via master .

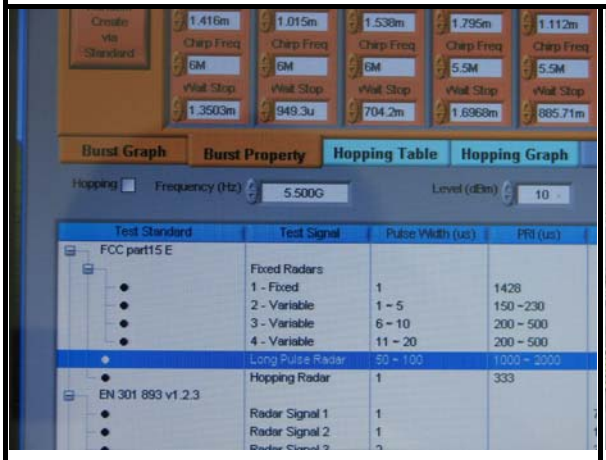
3). The device transmits one type of radar as specified in the DFS Order.

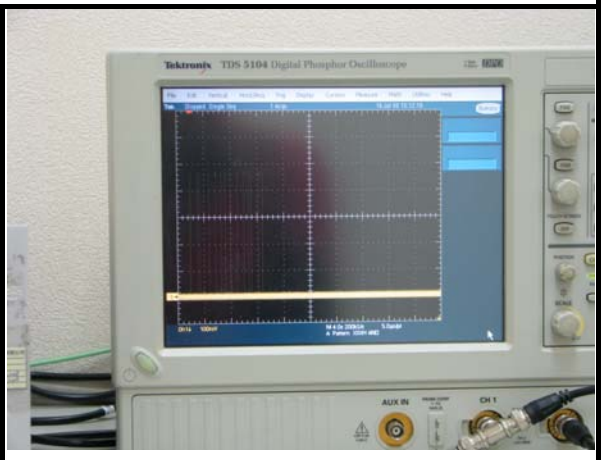




Radar 1 is used to test during DFS testing.

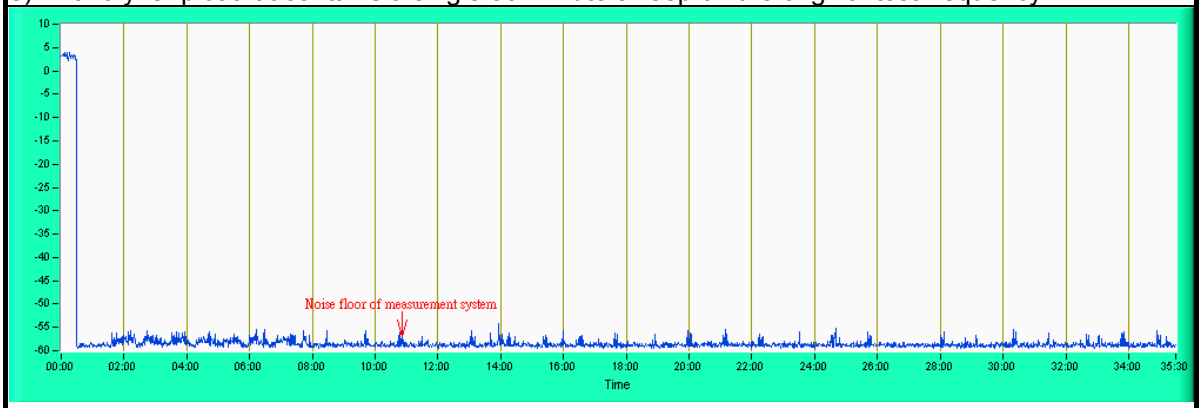
3). The device transmits one type of radar as specified in the DFS Order.



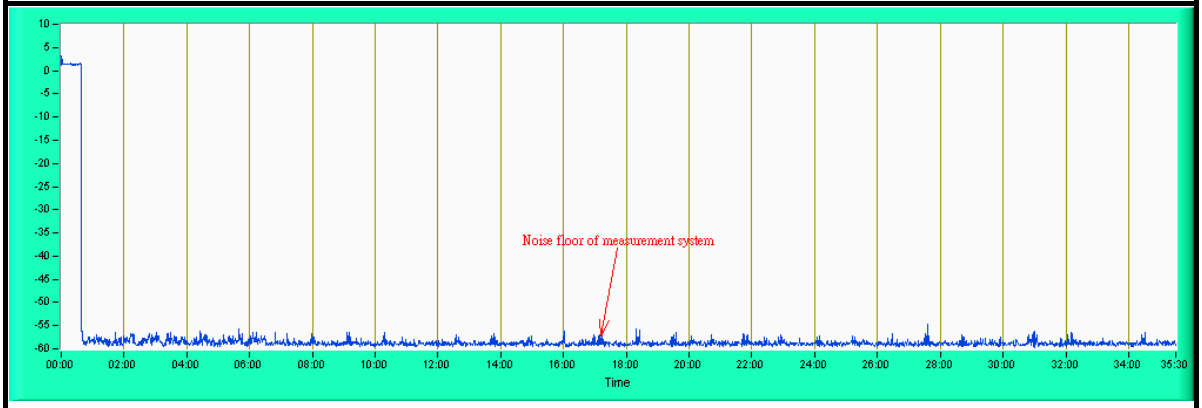


Radar 5 is used to test during DFS testing.

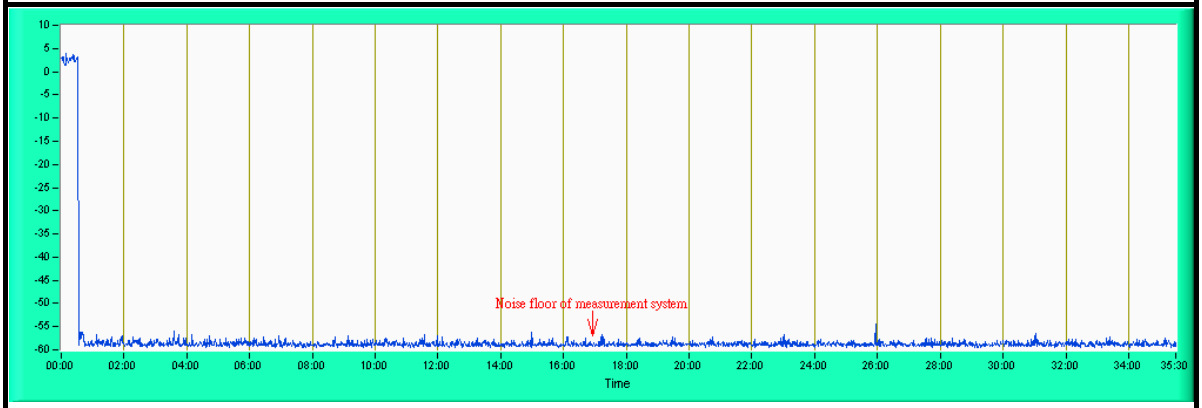
4) The test frequency has been monitored to ensure no transmission of any type has occurred for 30 minutes.
Note: If the client moves with the master, the device is considered compliant if nothing appears in the client no occupancy period test. For devices that shut down (rather than moving channels), no beacons should appear;
5)An analyzer plot that contains a single 30-minute sweep on the original test frequency.



802.11a (20MHz)



Draft 802.11n(20MHz)



Draft 802.11n(40MHz)

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