4.6 FREQUENCY STABILITY

4.6.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

The frequency tolerance of the carrier signal shall be maintained within the band 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	DUE DATE OF CALIBRATION
R&S SPECTRUM ANALYZER	FSP40	100041	May 13, 2009	May 12, 2010
WIT STANDARD TEMPERATURE AND HUMIDITY CHAMBER	TH-4S-C	W981030	Jun. 24, 2009	Jun. 23, 2010

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.

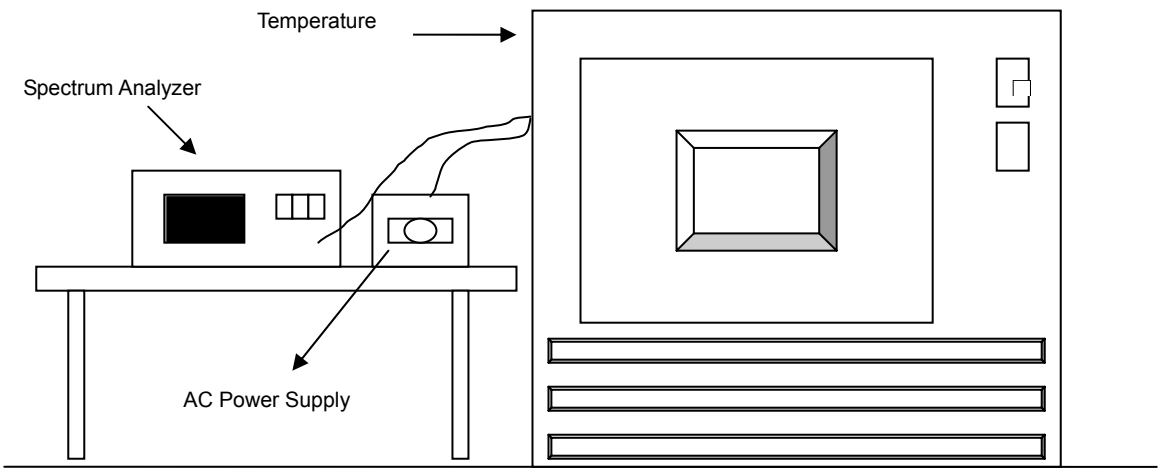
e. Repeat step b and c with the temperature chamber set to the lowest temperature.

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 4.1.7

4.6.7 TEST RESULTS

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
50	110.0	5319.997359	-0.496	5319.997509	-0.468	5319.997446	-0.480	5319.997797	-0.414
40	110.0	5319.997146	-0.536	5319.997467	-0.476	5319.997001	-0.564	5319.997338	-0.500
30	110.0	5319.996840	-0.594	5319.996738	-0.613	5319.996761	-0.609	5319.997021	-0.560
20	110.0	5319.997345	-0.499	5319.997409	-0.487	5319.997775	-0.418	5319.997385	-0.492
10	110.0	5319.997533	-0.464	5319.997463	-0.477	5319.997682	-0.436	5319.997510	-0.468
0	110.0	5319.997387	-0.491	5319.997672	-0.438	5319.997252	-0.517	5319.997482	-0.473
-10	110.0	5319.996604	-0.638	5319.996725	-0.616	5319.996752	-0.611	5319.996730	-0.615
-20	110.0	5319.997895	-0.396	5319.998138	-0.350	5319.997829	-0.408	5319.998277	-0.324
-30	110.0	5319.996932	-0.577	5319.997443	-0.481	5319.996839	-0.594	5319.997026	-0.559

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	93.5	5319.996840	-0.594	5319.997037	-0.557	5319.997339	-0.500	5319.997136	-0.538
	110.0	5319.997387	-0.491	5319.997672	-0.438	5319.997252	-0.517	5319.997482	-0.473
	126.5	5319.997533	-0.464	5319.997351	-0.498	5319.997348	-0.498	5319.997751	-0.423

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
50	12.0	5319.997359	-0.496	5319.997858	-0.403	5319.997588	-0.453	5319.997898	-0.395
40	12.0	5319.997146	-0.536	5319.997663	-0.439	5319.997380	-0.492	5319.997482	-0.473
30	12.0	5319.996840	-0.594	5319.997304	-0.507	5319.996918	-0.579	5319.996753	-0.610
20	12.0	5319.997345	-0.499	5319.997312	-0.505	5319.997746	-0.424	5319.997039	-0.557
10	12.0	5319.997533	-0.464	5319.997989	-0.378	5319.997812	-0.411	5319.997228	-0.521
0	12.0	5319.997387	-0.491	5319.997798	-0.414	5319.997167	-0.533	5319.997479	-0.474
-10	12.0	5319.996604	-0.638	5319.996646	-0.630	5319.996786	-0.604	5319.996947	-0.574
-20	12.0	5319.997895	-0.396	5319.997771	-0.419	5319.998094	-0.358	5319.997890	-0.397
-30	12.0	5319.996932	-0.577	5319.997242	-0.518	5319.997148	-0.536	5319.997377	-0.493

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	10.2	5319.997409	-0.487	5319.997337	-0.501	5319.997857	-0.403	5319.997754	-0.422
	12.0	5319.997387	-0.491	5319.997798	-0.414	5319.997167	-0.533	5319.997479	-0.474
	13.8	5319.997368	-0.495	5319.997769	-0.419	5319.997299	-0.508	5319.997701	-0.432

4.7 BAND EDGES MEASUREMENT

4.7.1 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESI7	100033	Jul. 06, 2009	Jul. 05, 2010
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100076	May 26, 2009	May 25, 2010
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Apr. 27, 2009	Apr. 26, 2010
HORN Antenna SCHWARZBECK	9120D	9120D-209	Jul. 01, 2009	Jun. 30, 2010
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Dec. 25, 2008	Dec. 24, 2009
Preamplifier Agilent	8447D	2944A10633	Nov. 03, 2008	Nov. 02, 2009
Preamplifier Agilent	8449B	3008A01964	Oct. 23, 2008	Oct. 22, 2009
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	238141/4	May 13, 2009	May 12, 2010
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	12738/6	May 13, 2009	May 12, 2010
Software ADT.	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	017303	NA	NA
Turn Table ADT.	TT100.	TT93021703	NA	NA
Turn Table Controller ADT.	SC100.	SC93021703	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	07026401	Sep. 10, 2008	Sep. 09, 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

The transmitter output was connected to the spectrum analyzer via a low lose cable. 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.

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 5.26 to 5.32GHz and 5.50 to 5.70GHz 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 5180-5320MHz BAND: 802.11a OFDM MODULATION

TEST MODE A

Channel 36 (5180MHz)

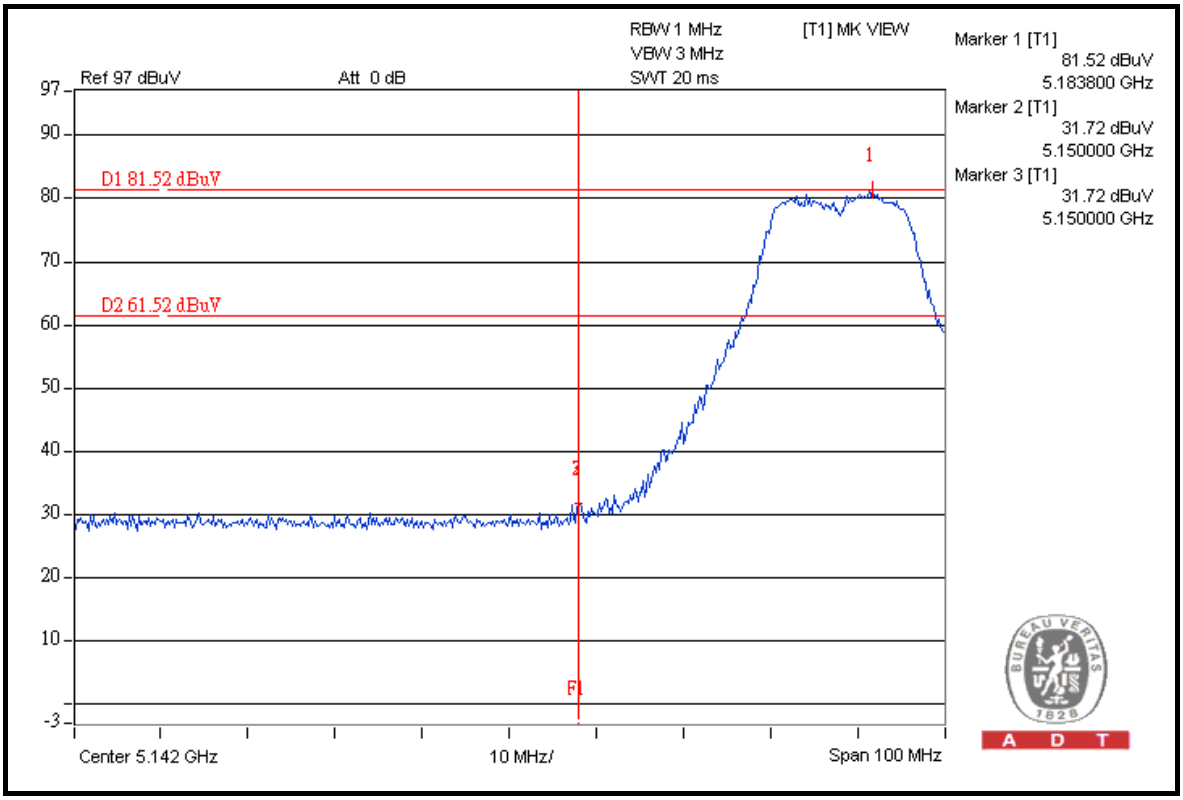
The band edge emission plot on the next page shows 49.80dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 36 is 107.85dBuV/m (Peak), so the maximum field strength in restrict band is 107.85 – 49.80 = 58.05dBuV/m which is under 74dBuV/m limit.

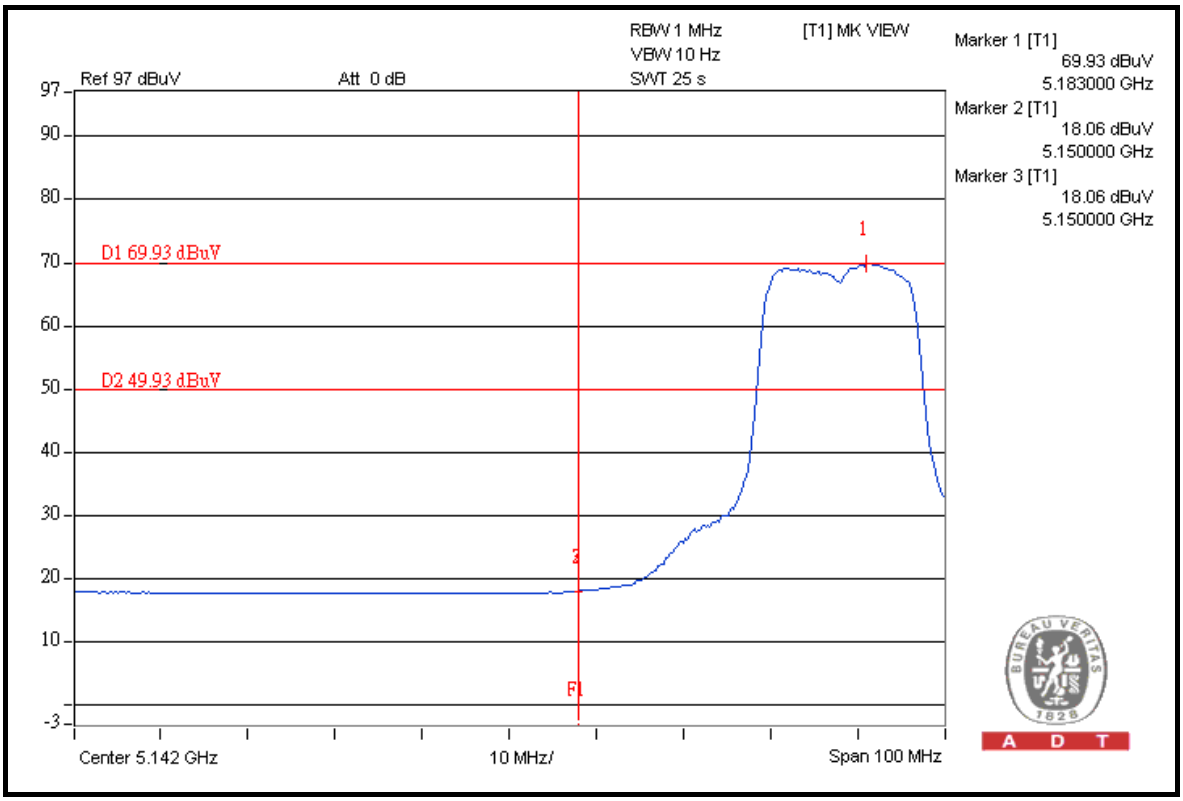
The band edge emission plot on the next page shows 51.87dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 36 is 97.21dBuV/m (Average), so the maximum field strength in restrict band is 97.21 – 51.87 = 45.34dBuV/m which is under 54dBuV/m limit.

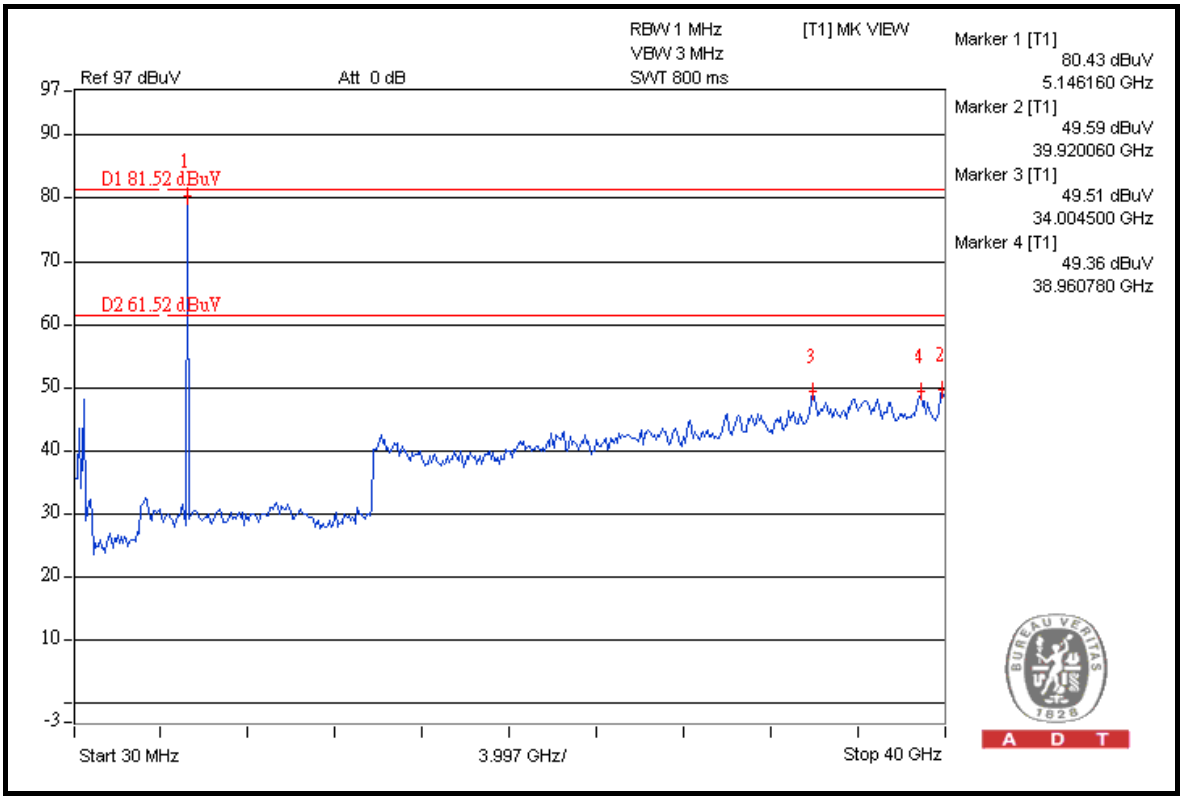
Channel 48 (5240MHz)

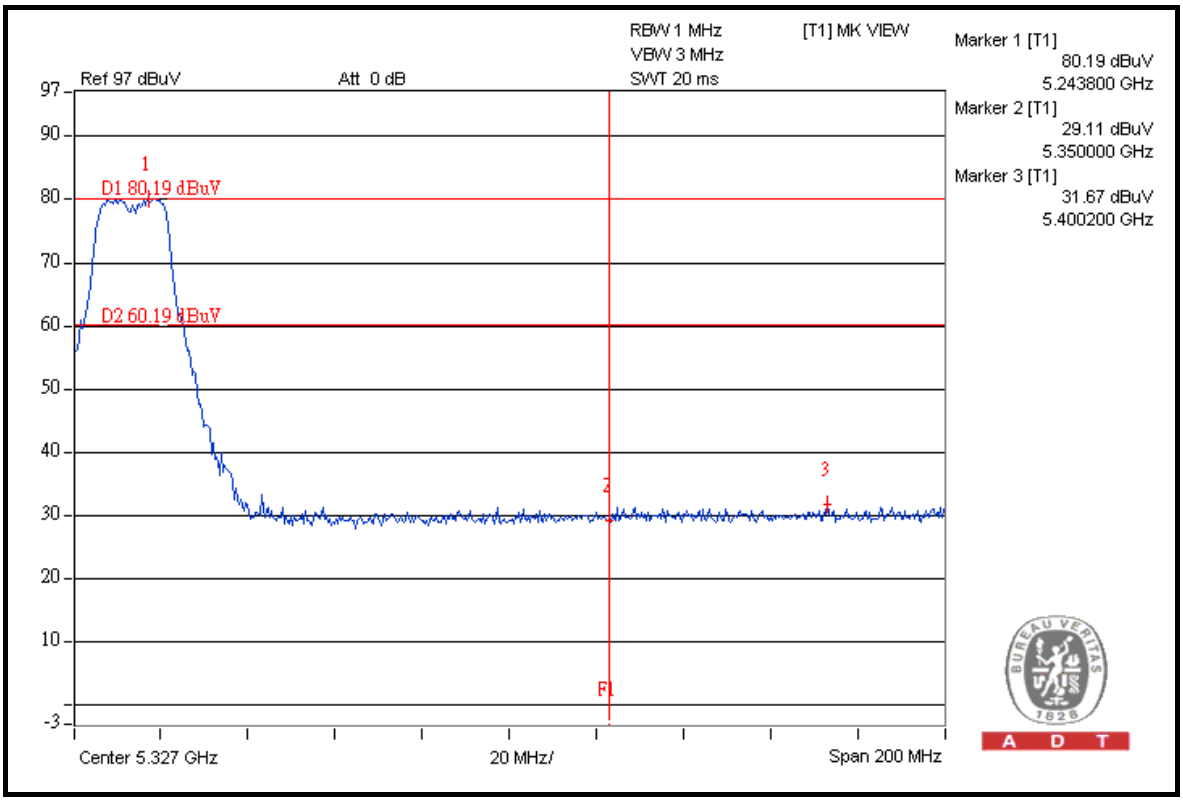
The band edge emission plot on the next second page shows 48.52dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 48 is 107.65dBuV/m (Peak), so the maximum field strength in restrict band is 107.65 – 48.52 = 59.13dBuV/m which is under 74dBuV/m limit.

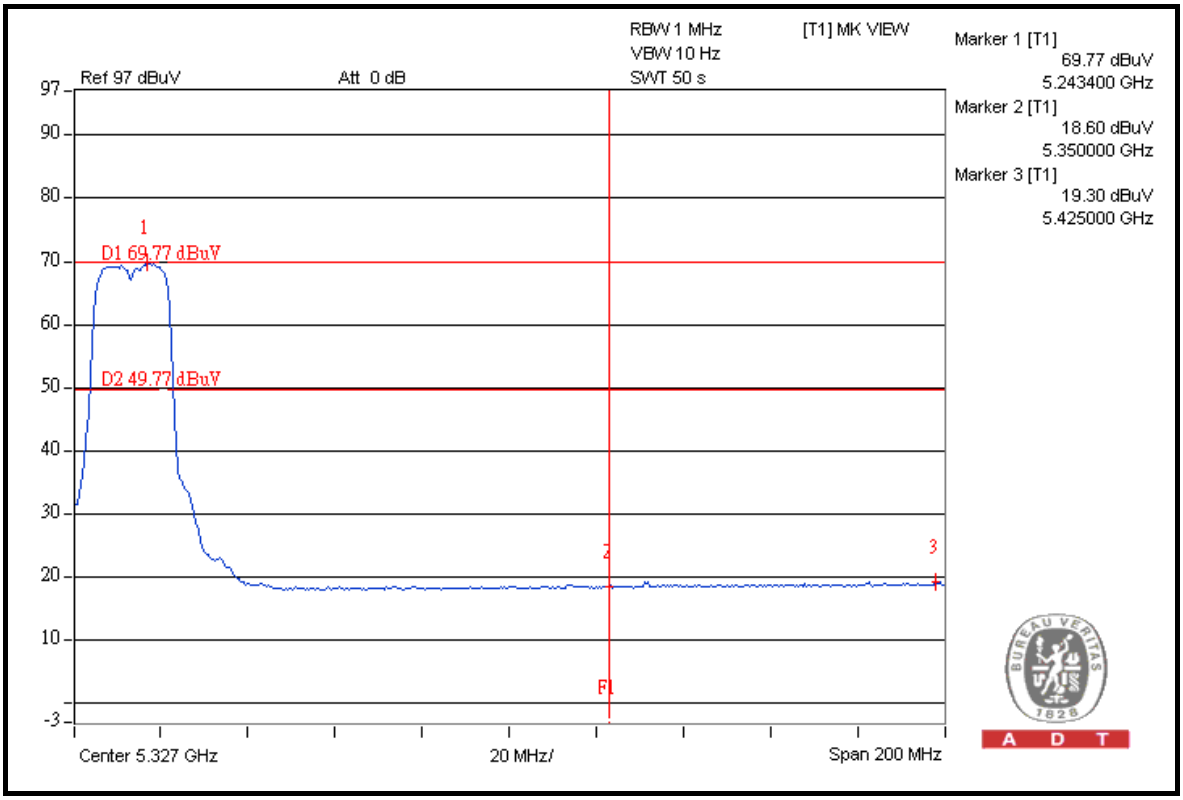
The band edge emission plot on the next third page shows 50.47dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 48 is 96.92dBuV/m (Average), so the maximum field strength in restrict band is 96.92 – 50.47 = 46.45dBuV/m which is under 54dBuV/m limit.

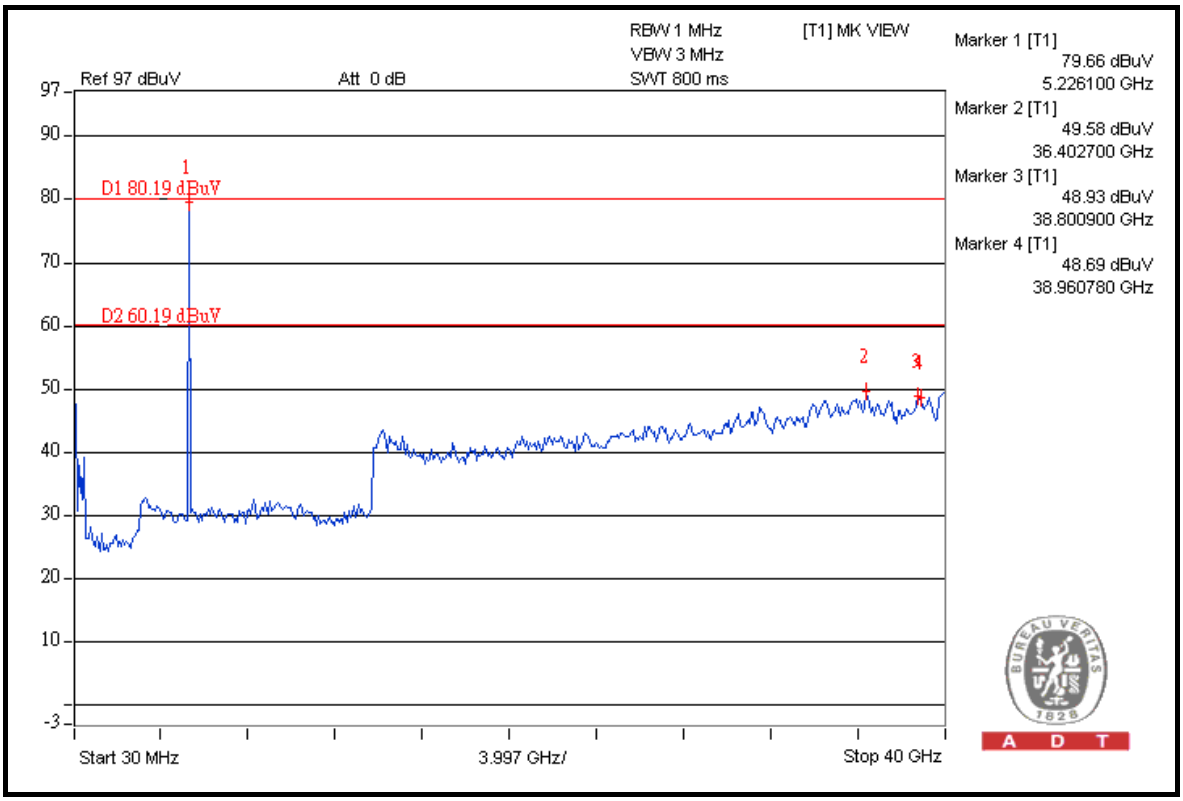

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
81.52 dBuV
5.183800 GHz
Marker 2 [T1]
31.72 dBuV
5.150000 GHz
Marker 3 [T1]
31.72 dBuV
5.150000 GHz
D1 81.52 dBuV
D2 61.52 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
69.93 dBuV
5.183000 GHz
Marker 2 [T1]
18.06 dBuV
5.150000 GHz
Marker 3 [T1]
18.06 dBuV
5.150000 GHz
D1 69.93 dBuV
D2 49.93 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 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]
80.43 dBuV
5.146160 GHz
Marker 2 [T1]
49.59 dBuV
39.920060 GHz
Marker 3 [T1]
49.51 dBuV
34.004500 GHz
Marker 4 [T1]
49.36 dBuV
38.960780 GHz
D1 81.52 dBuV
D2 61.52 dBuV
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
Marker 1 [T1]
80.19 dBuV
5.243800 GHz
Marker 2 [T1]
29.11 dBuV
5.350000 GHz
Marker 3 [T1]
31.67 dBuV
5.400200 GHz
D1 80.19 dBuV
D2 60.19 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
69.77 dBuV
5.243400 GHz
Marker 2 [T1]
18.60 dBuV
5.350000 GHz
Marker 3 [T1]
19.30 dBuV
5.425000 GHz
D1 69.77 dBuV
D2 49.77 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
79.66 dBuV
5.226100 GHz
Marker 2 [T1]
49.58 dBuV
36.402700 GHz
Marker 3 [T1]
48.93 dBuV
38.800900 GHz
Marker 4 [T1]
48.69 dBuV
38.960780 GHz
D1 80.19 dBuV
D2 60.19 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

Channel 52 (5260MHz)

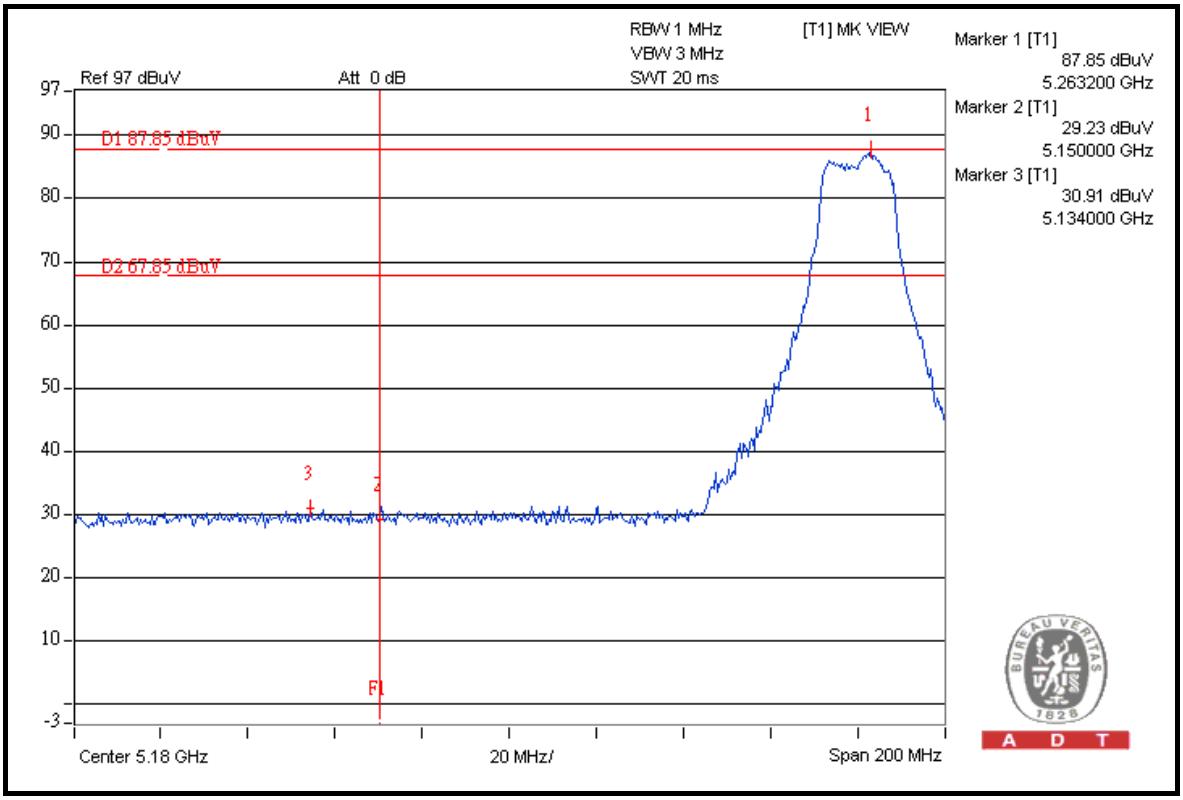
The band edge emission plot on the next page shows 56.94dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 52 is 114.82dBuV/m (Peak), so the maximum field strength in restrict band is 114.82 – 56.94 = 57.88dBuV/m which is under 74dBuV/m limit.

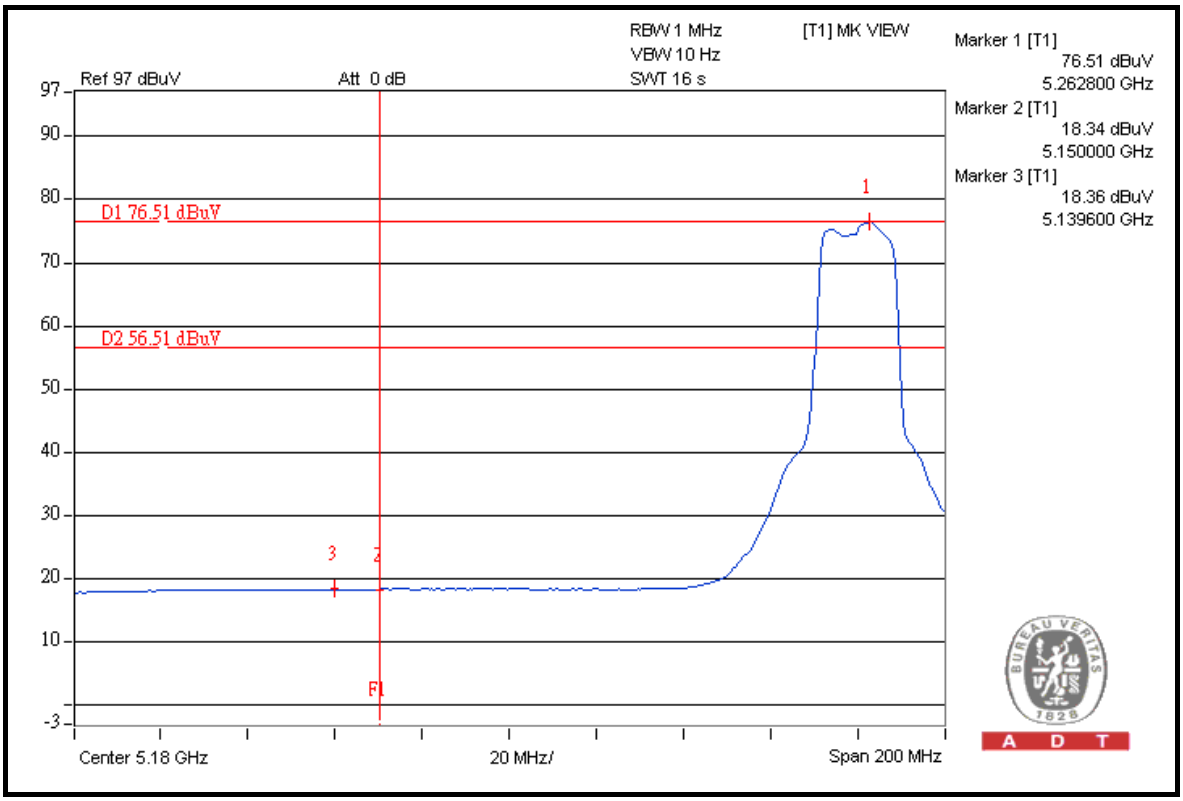
The band edge emission plot on the next page shows 58.15dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 52 is 104.04dBuV/m (Average), so the maximum field strength in restrict band is 104.04 – 58.15 = 45.89dBuV/m which is under 54dBuV/m limit.

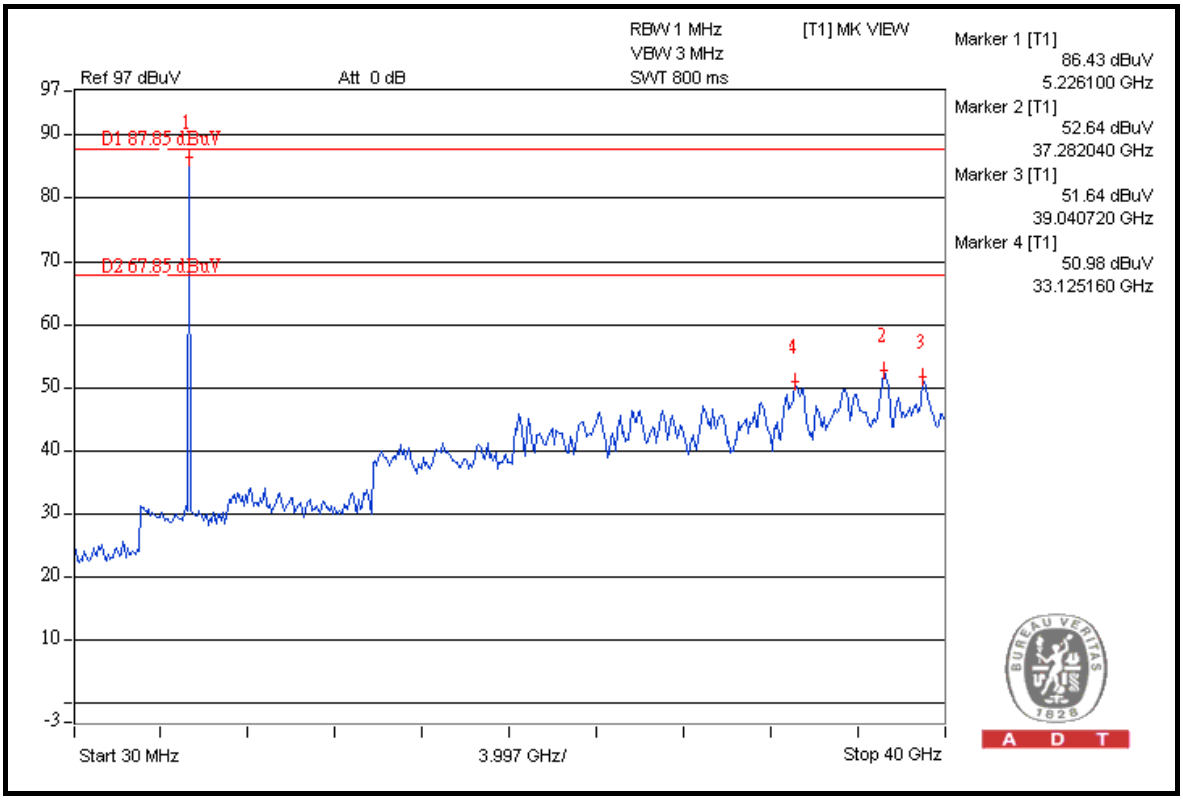
Channel 64 (5320MHz)

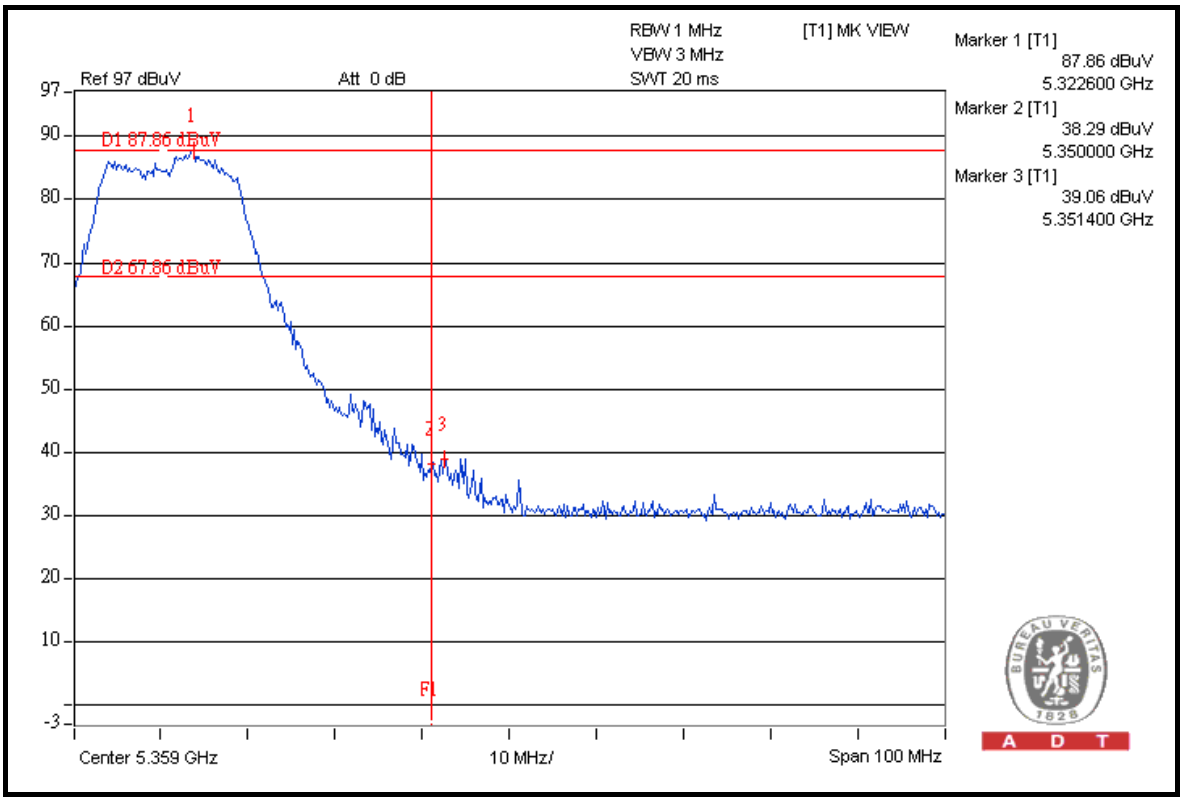
The band edge emission plot on the next second page shows 48.80dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 64 is 114.86dBuV/m (Peak), so the maximum field strength in restrict band is 114.86 – 48.80 = 66.06dBuV/m which is under 74dBuV/m limit.

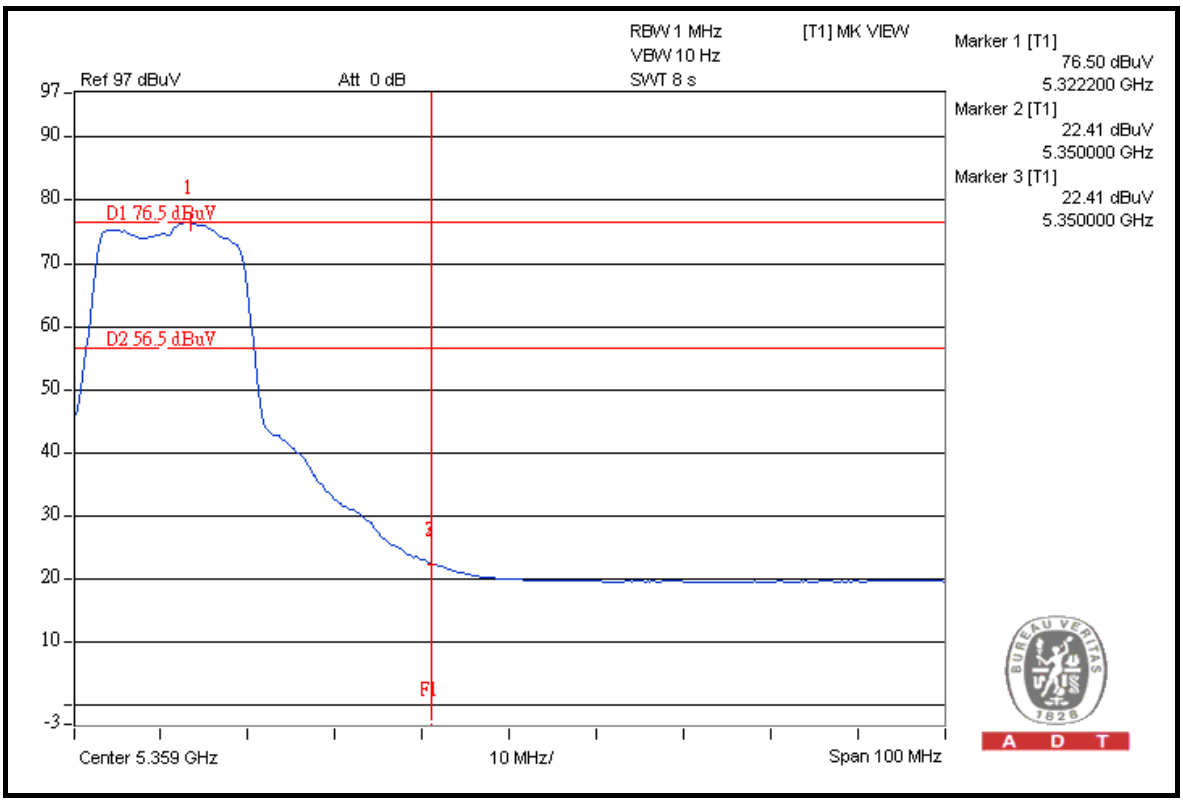
The band edge emission plot on the next third page shows 54.09dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 64 is 104.02dBuV/m (Average), so the maximum field strength in restrict band is 104.02 – 54.09 = 49.93dBuV/m which is under 54dBuV/m limit.

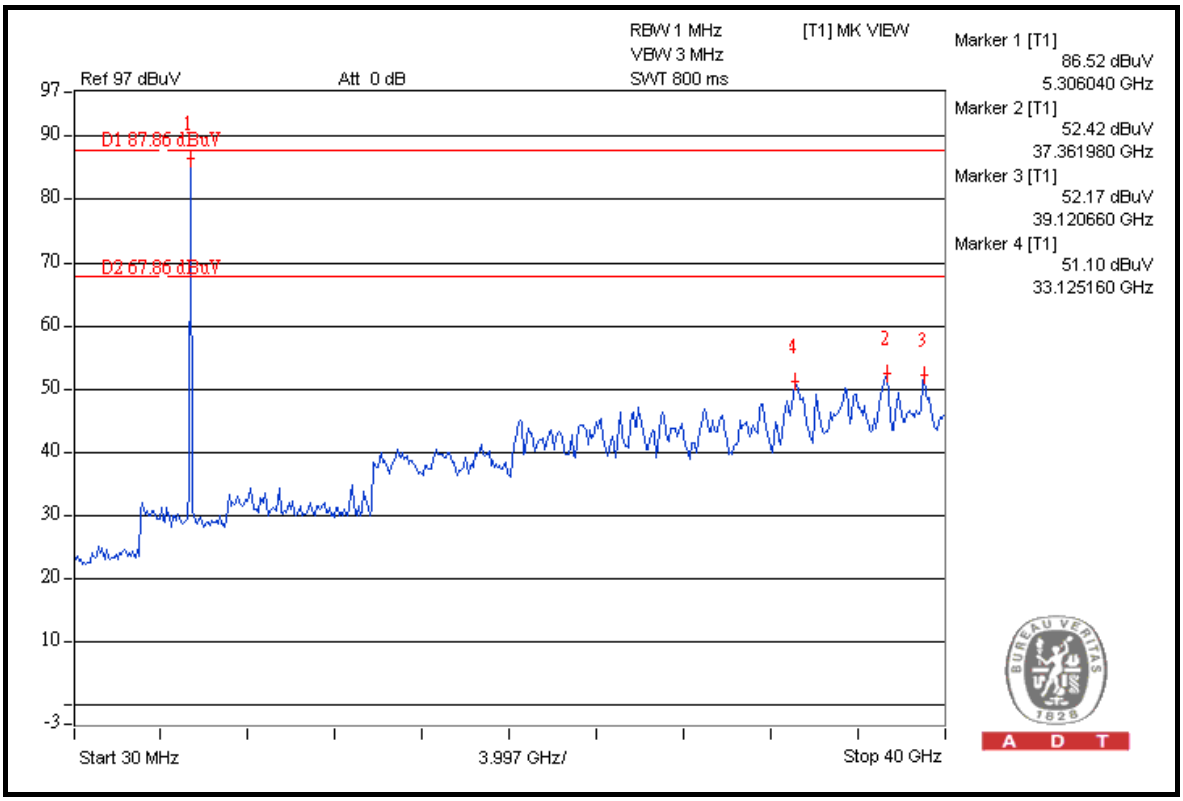

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 87.85 dBuV
D2 67.85 dBuV
Marker 1 [T1]
87.85 dBuV
5.263200 GHz
Marker 2 [T1]
29.23 dBuV
5.150000 GHz
Marker 3 [T1]
30.91 dBuV
5.134000 GHz
Center 5.18 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 76.51 dBuV
D2 56.51 dBuV
Marker 1 [T1]
76.51 dBuV
5.262800 GHz
Marker 2 [T1]
18.34 dBuV
5.150000 GHz
Marker 3 [T1]
18.36 dBuV
5.139600 GHz
Center 5.18 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 87.85 dBuV
D2 67.85 dBuV
Marker 1 [T1]
86.43 dBuV
5.226100 GHz
Marker 2 [T1]
52.64 dBuV
37.282040 GHz
Marker 3 [T1]
51.64 dBuV
39.040720 GHz
Marker 4 [T1]
50.98 dBuV
33.125160 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 87.86 dBuV
D2 67.86 dBuV
Marker 1 [T1]
87.86 dBuV
5.322600 GHz
Marker 2 [T1]
38.29 dBuV
5.350000 GHz
Marker 3 [T1]
39.06 dBuV
5.351400 GHz
Center 5.359 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
76.50 dBuV
5.322200 GHz
Marker 2 [T1]
22.41 dBuV
5.350000 GHz
Marker 3 [T1]
22.41 dBuV
5.350000 GHz
D1 76.5 dBuV
D2 56.5 dBuV
Center 5.359 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]
86.52 dBuV
5.306040 GHz
Marker 2 [T1]
52.42 dBuV
37.361980 GHz
Marker 3 [T1]
52.17 dBuV
39.120660 GHz
Marker 4 [T1]
51.10 dBuV
33.125160 GHz
D1 87.86 dBuV
D2 67.86 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

TEST MODE C

Channel 36 (5180MHz)

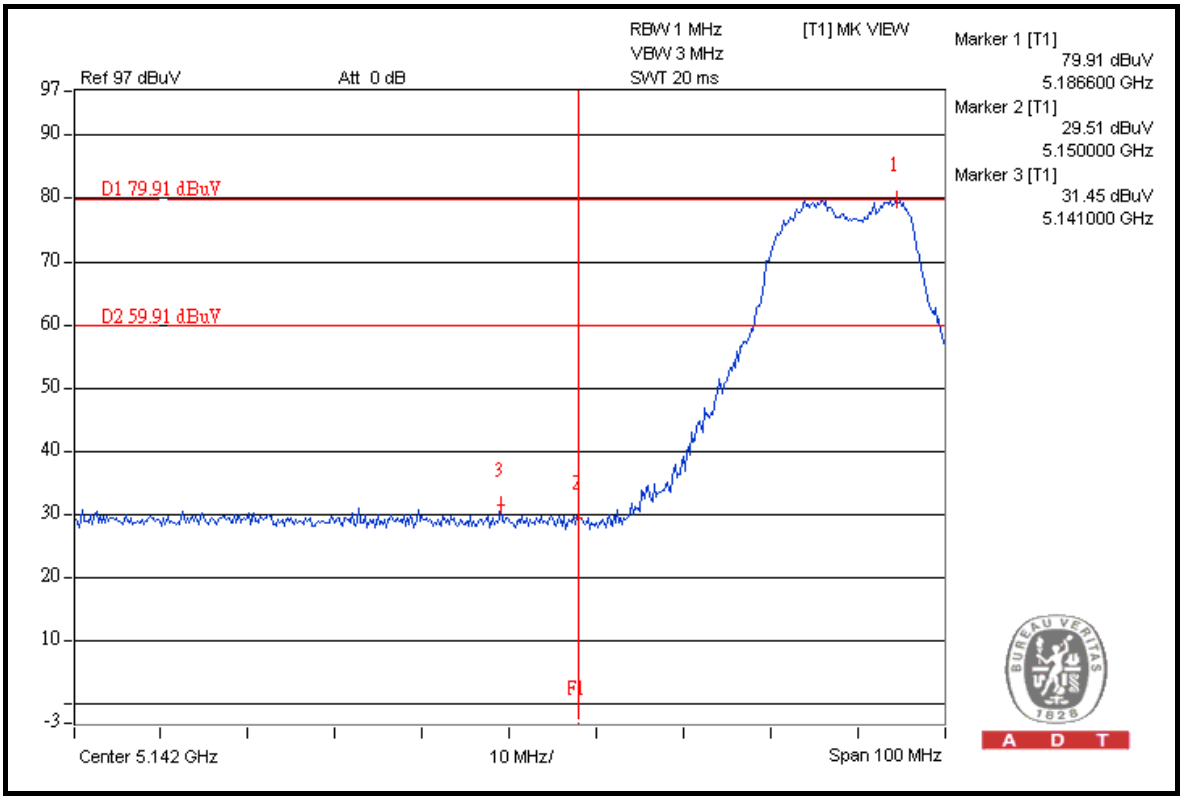
The band edge emission plot on the next page shows 48.46dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 36 is 107.68dBuV/m (Peak), so the maximum field strength in restrict band is 107.68 – 48.46 = 59.22dBuV/m which is under 74dBuV/m limit.

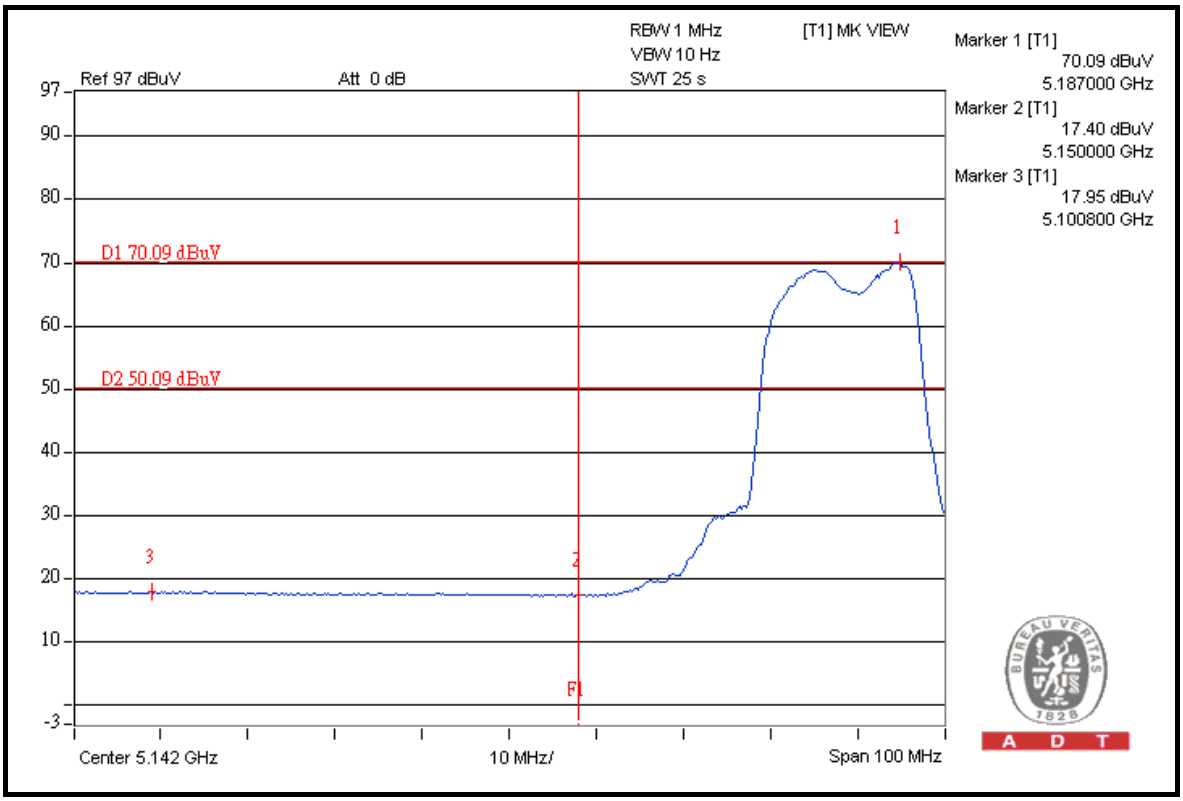
The band edge emission plot on the next page shows 52.14dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 36 is 97.04dBuV/m (Average), so the maximum field strength in restrict band is 97.04 – 52.14 = 44.90dBuV/m which is under 54dBuV/m limit.

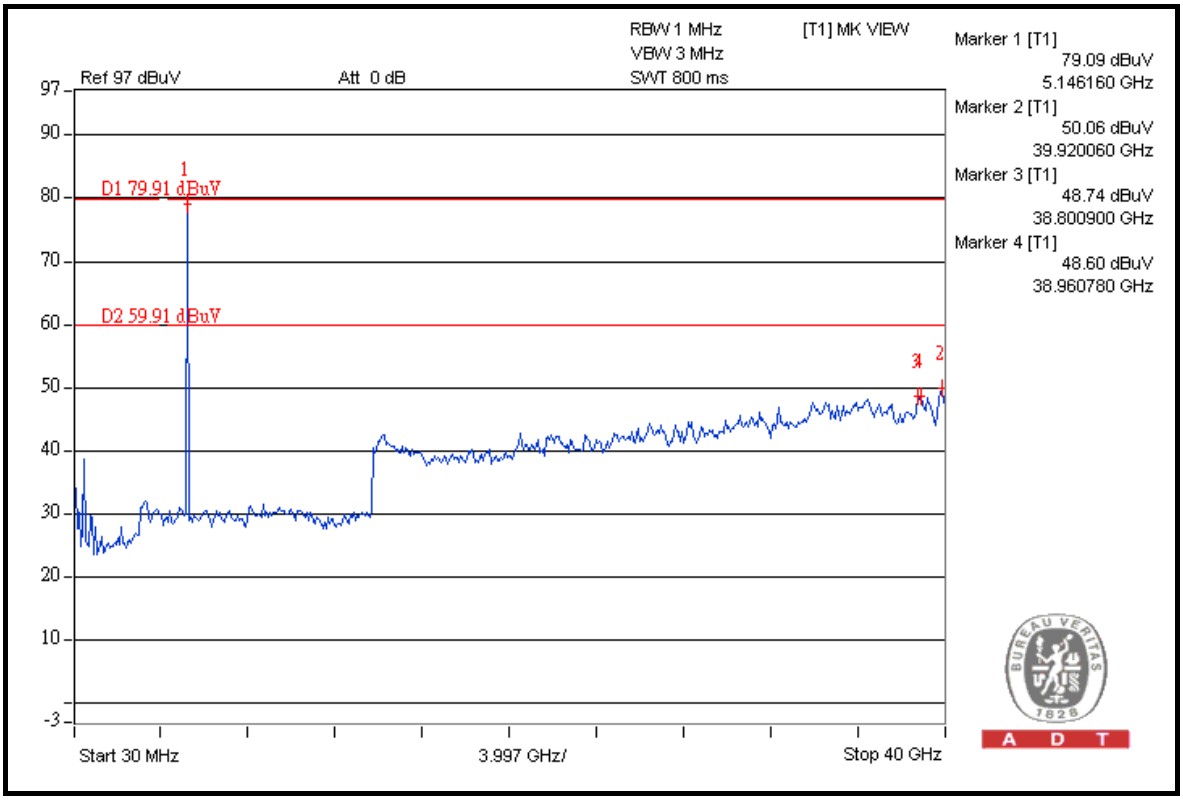
Channel 48 (5240MHz)

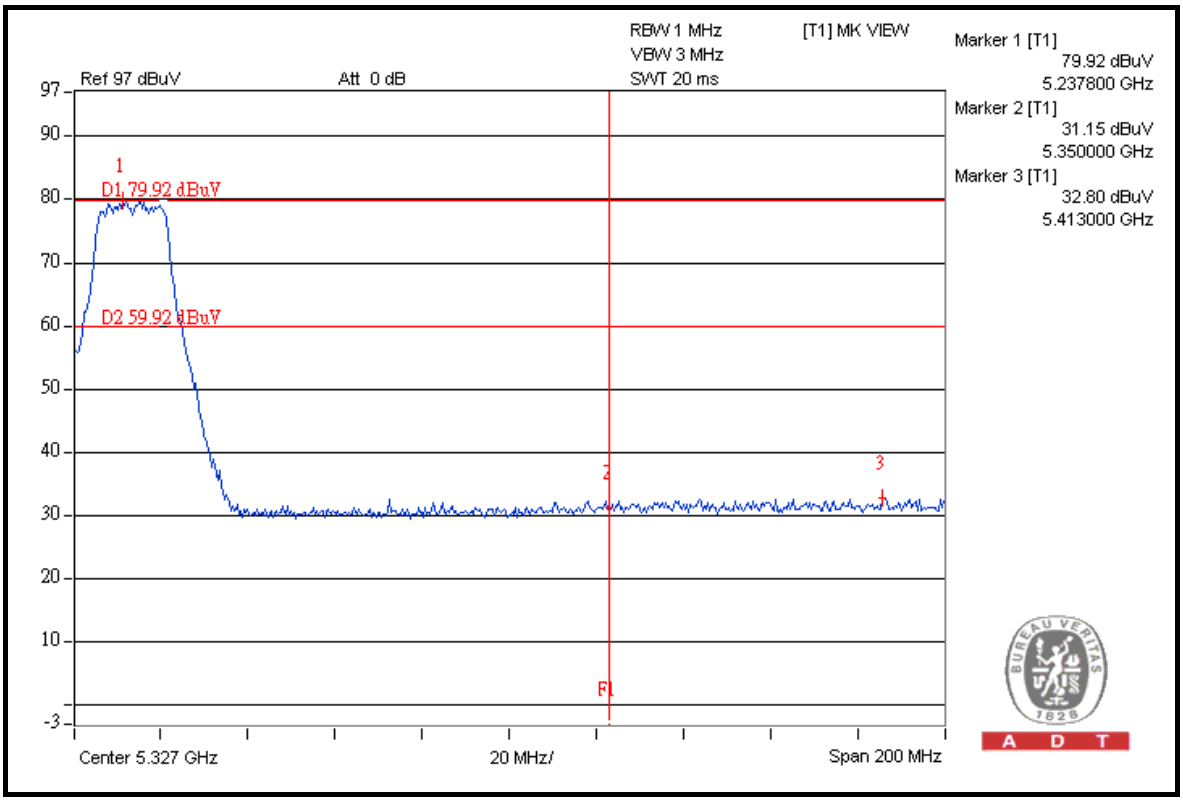
The band edge emission plot on the next second page shows 47.12dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 48 is 107.53dBuV/m (Peak), so the maximum field strength in restrict band is 107.53 – 47.12 = 60.41dBuV/m which is under 74dBuV/m limit.

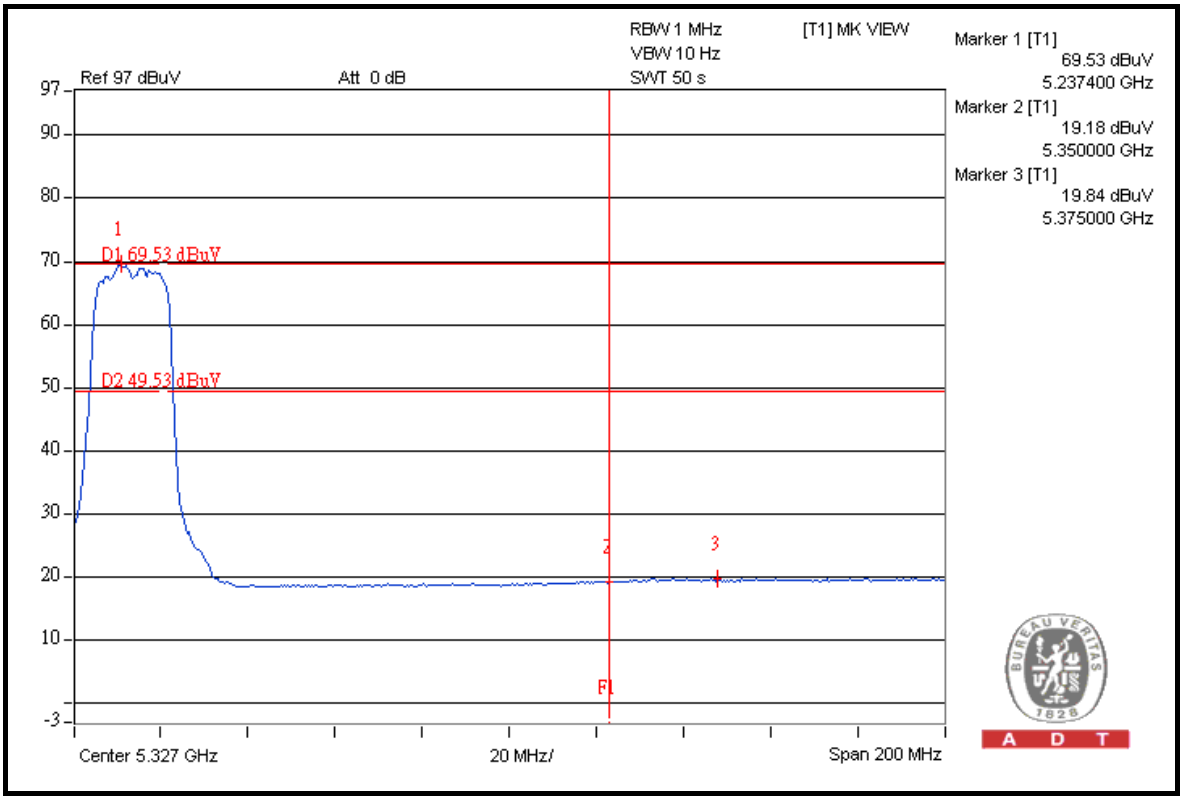
The band edge emission plot on the next third page shows 49.69dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 48 is 96.81dBuV/m (Average), so the maximum field strength in restrict band is 96.81 – 49.69 = 47.12dBuV/m which is under 54dBuV/m limit.

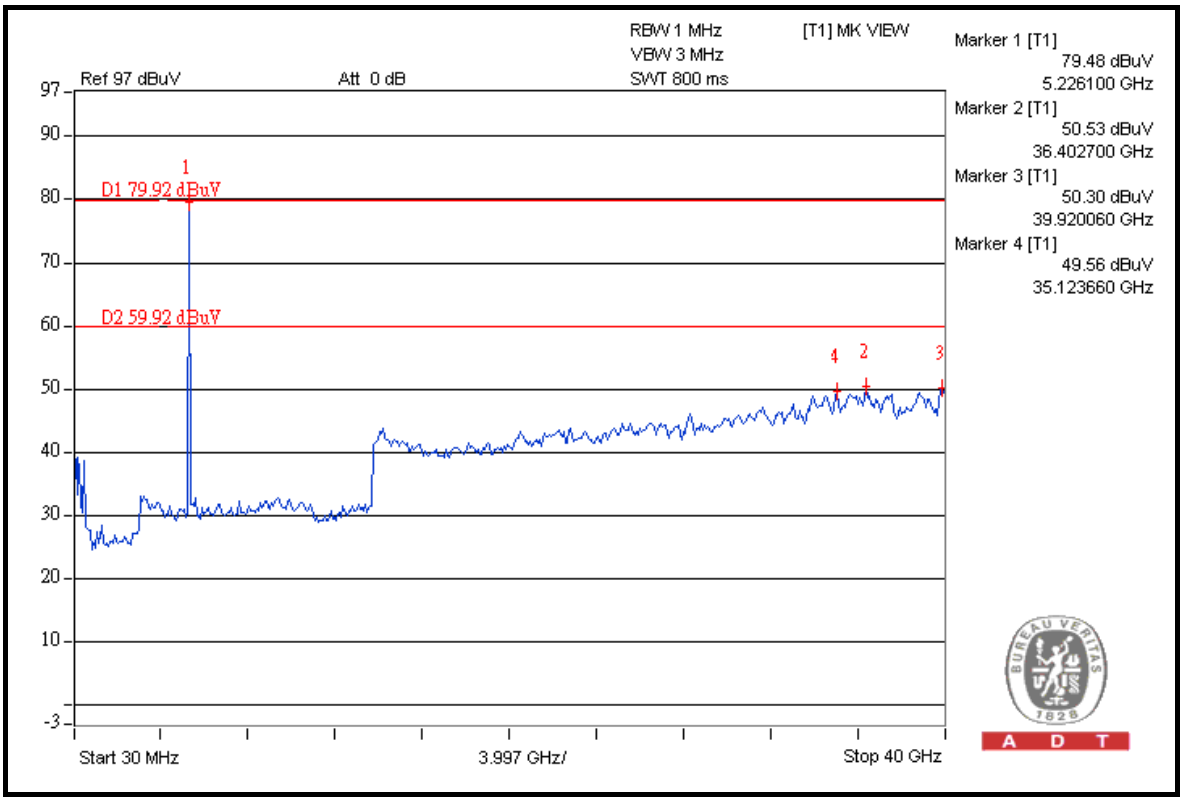

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
79.91 dBuV
5.186600 GHz
Marker 2 [T1]
29.51 dBuV
5.150000 GHz
Marker 3 [T1]
31.45 dBuV
5.141000 GHz
D1 79.91 dBuV
D2 59.91 dBuV
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
70.09 dBuV
5.187000 GHz
Marker 2 [T1]
17.40 dBuV
5.150000 GHz
Marker 3 [T1]
17.95 dBuV
5.100800 GHz
D1 70.09 dBuV
D2 50.09 dBuV
Center 5.142 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]
79.09 dBuV
5.146160 GHz
Marker 2 [T1]
50.06 dBuV
39.920060 GHz
Marker 3 [T1]
48.74 dBuV
38.800900 GHz
Marker 4 [T1]
48.60 dBuV
38.960780 GHz
D1 79.91 dBuV
D2 59.91 dBuV
97
90
80
70
60
50
40
30
20
10
-3
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
Marker 1 [T1]
79.92 dBuV
5.237800 GHz
Marker 2 [T1]
31.15 dBuV
5.350000 GHz
Marker 3 [T1]
32.80 dBuV
5.413000 GHz
D1 79.92 dBuV
D2 59.92 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
69.53 dBuV
5.237400 GHz
Marker 2 [T1]
19.18 dBuV
5.350000 GHz
Marker 3 [T1]
19.84 dBuV
5.375000 GHz
D1 69.53 dBuV
D2 49.53 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
79.48 dBuV
5.226100 GHz
Marker 2 [T1]
50.53 dBuV
36.402700 GHz
Marker 3 [T1]
50.30 dBuV
39.920060 GHz
Marker 4 [T1]
49.56 dBuV
35.123660 GHz
D1 79.92 dBuV
D2 59.92 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

Channel 52 (5260MHz)

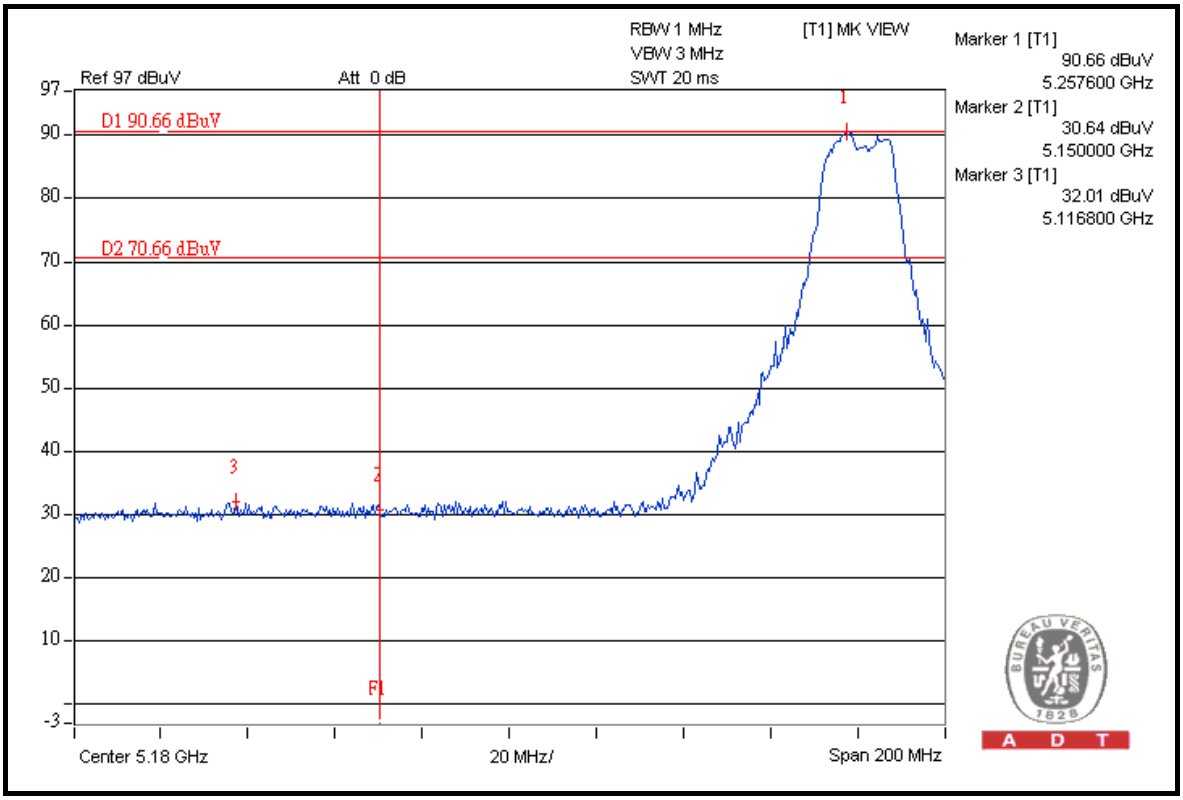
The band edge emission plot on the next page shows 58.65dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 52 is 117.67dBuV/m (Peak), so the maximum field strength in restrict band is 117.67 – 58.65 = 59.02dBuV/m which is under 74dBuV/m limit.

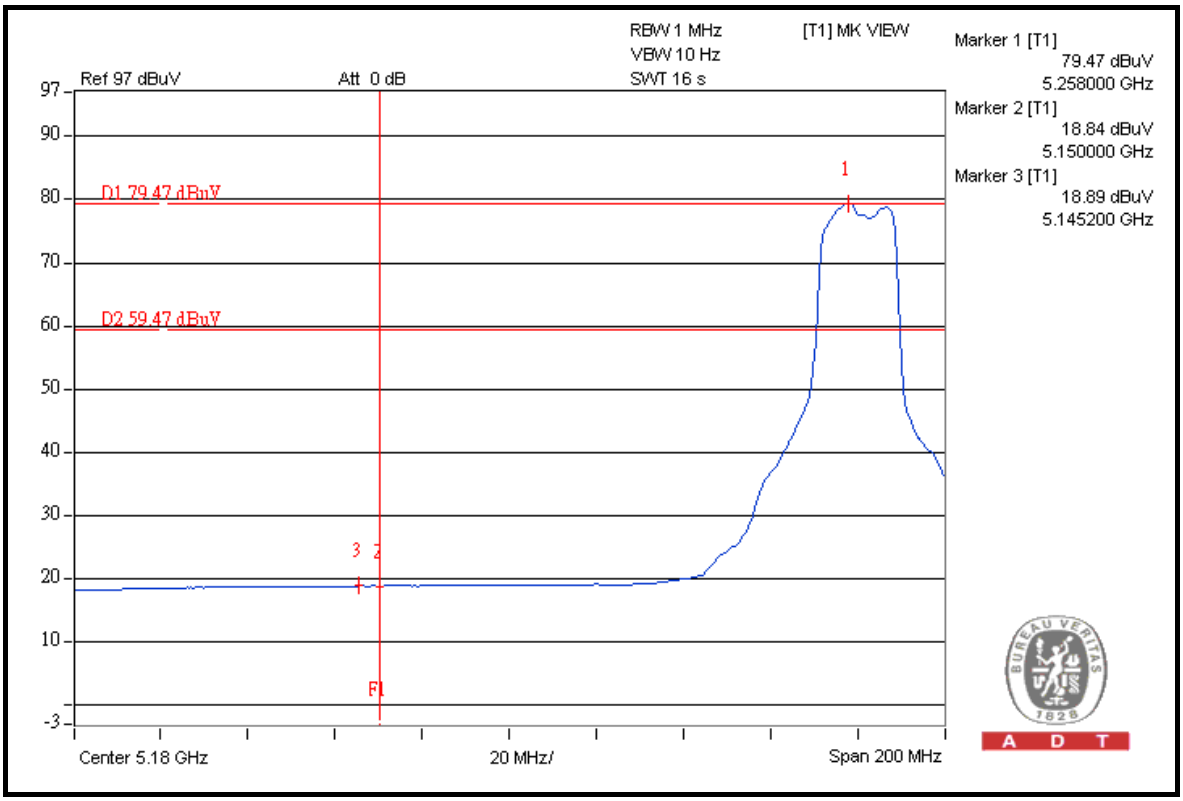
The band edge emission plot on the next page shows 60.58dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 52 is 106.89dBuV/m (Average), so the maximum field strength in restrict band is 106.89 – 60.58 = 46.31dBuV/m which is under 54dBuV/m limit.

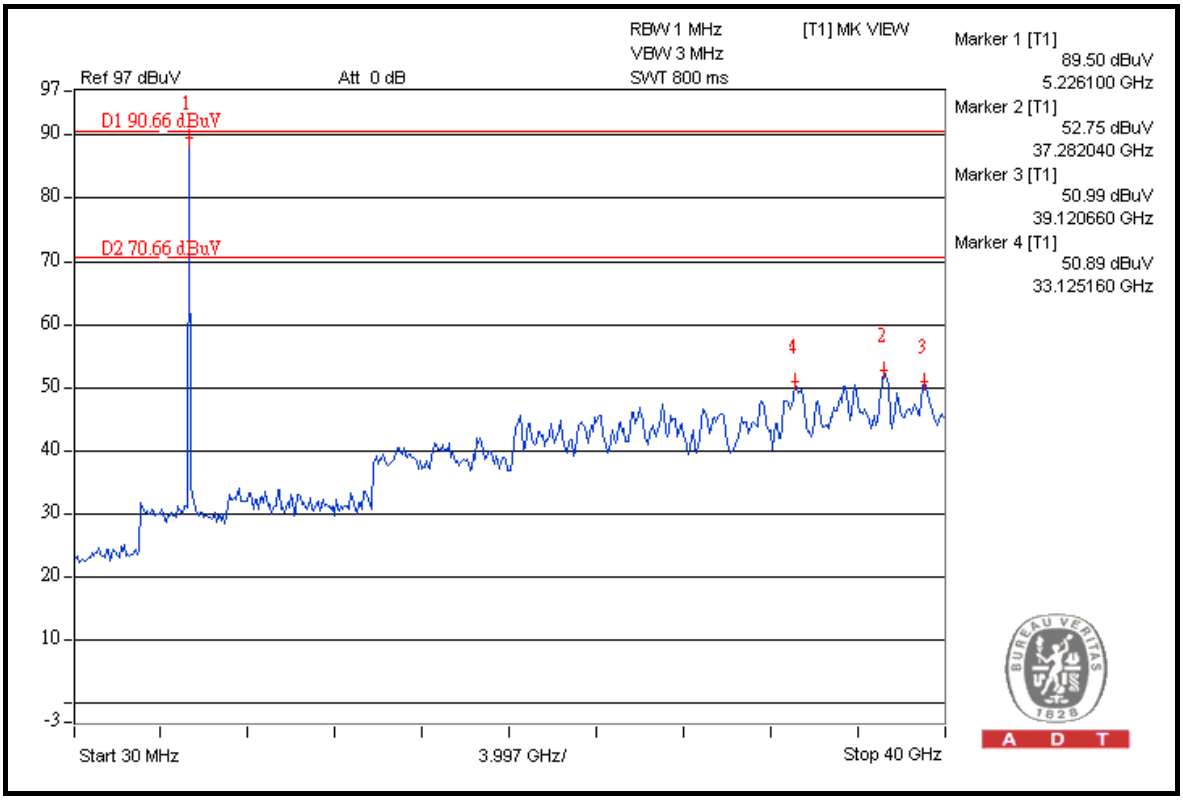
Channel 64 (5320MHz)

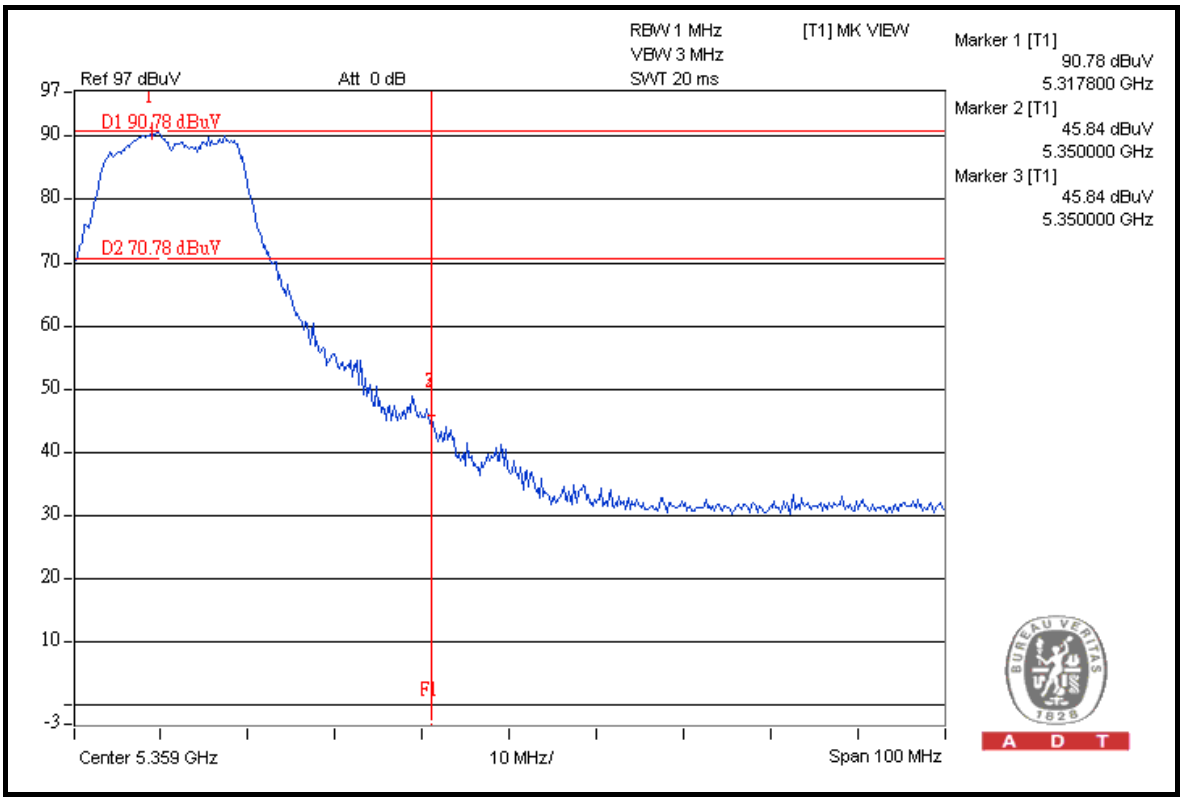
The band edge emission plot on the next second page shows 44.94dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 64 is 117.63dBuV/m (Peak), so the maximum field strength in restrict band is 117.63 – 44.94 = 72.69dBuV/m which is under 74dBuV/m limit.

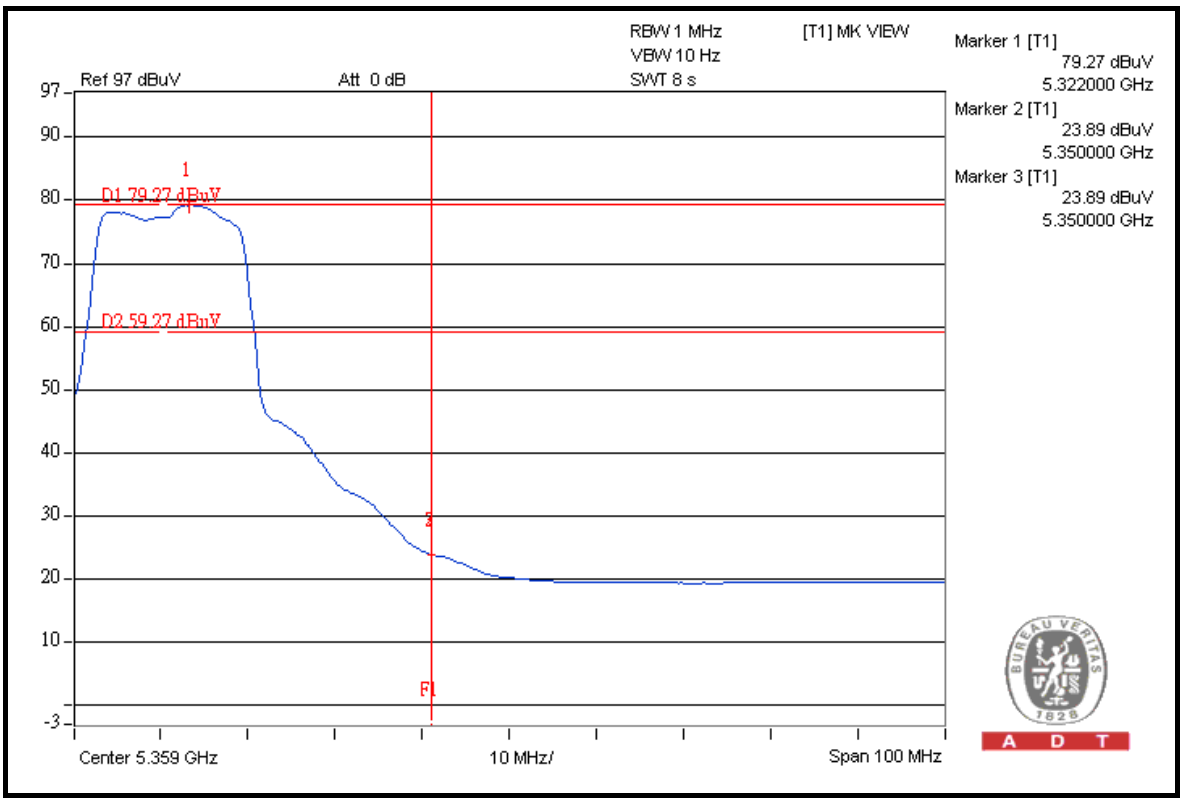
The band edge emission plot on the next third page shows 55.38dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 64 is 106.84dBuV/m (Average), so the maximum field strength in restrict band is 106.84 – 55.38 = 51.46dBuV/m which is under 54dBuV/m limit.

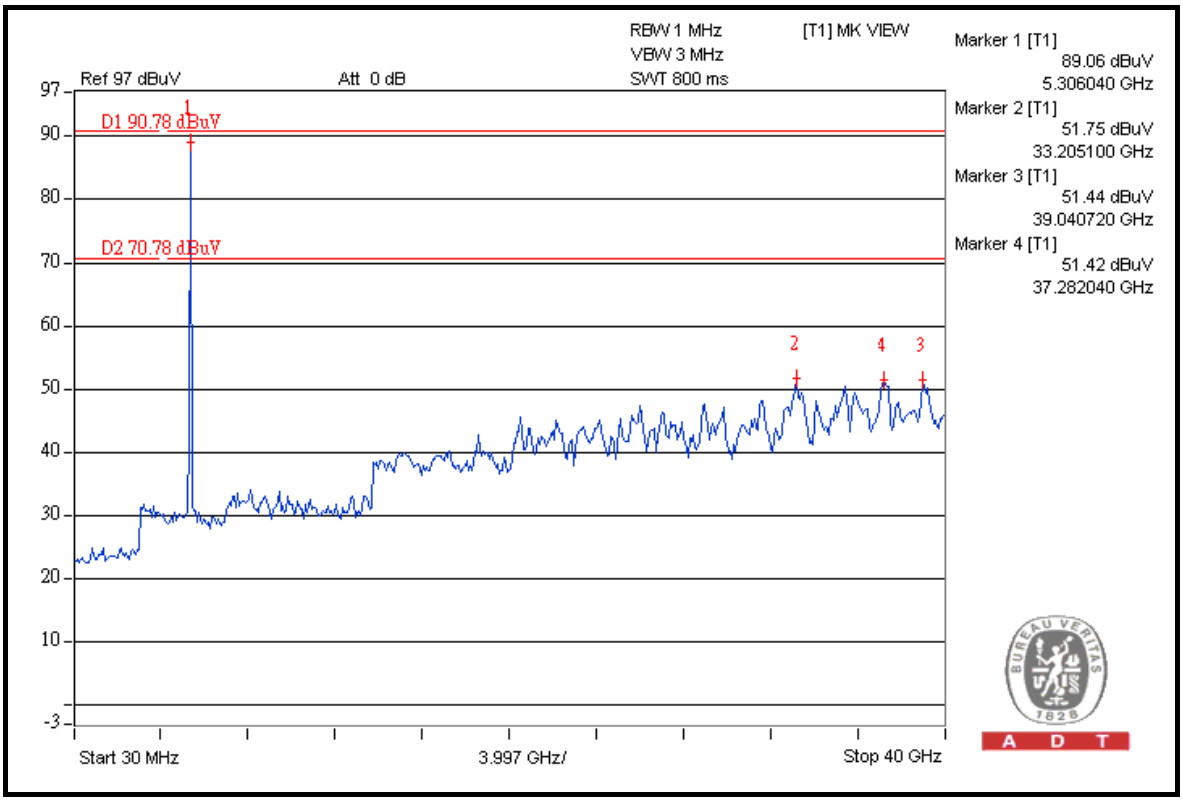

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 90.66 dBuV
D2 70.66 dBuV
Marker 1 [T1]
90.66 dBuV
5.257600 GHz
Marker 2 [T1]
30.64 dBuV
5.150000 GHz
Marker 3 [T1]
32.01 dBuV
5.116800 GHz
Center 5.18 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 79.47 dBuV
D2 59.47 dBuV
Marker 1 [T1]
79.47 dBuV
5.258000 GHz
Marker 2 [T1]
18.84 dBuV
5.150000 GHz
Marker 3 [T1]
18.89 dBuV
5.145200 GHz
Center 5.18 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 90.66 dBuV
D2 70.66 dBuV
Marker 1 [T1]
89.50 dBuV
5.226100 GHz
Marker 2 [T1]
52.75 dBuV
37.282040 GHz
Marker 3 [T1]
50.99 dBuV
39.120660 GHz
Marker 4 [T1]
50.89 dBuV
33.125160 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 90.78 dBuV
D2 70.78 dBuV
Marker 1 [T1]
90.78 dBuV
5.317800 GHz
Marker 2 [T1]
45.84 dBuV
5.350000 GHz
Marker 3 [T1]
45.84 dBuV
5.350000 GHz
Center 5.359 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 79.27 dBuV
D2 59.27 dBuV
Marker 1 [T1]
79.27 dBuV
5.322000 GHz
Marker 2 [T1]
23.89 dBuV
5.350000 GHz
Marker 3 [T1]
23.89 dBuV
5.350000 GHz
Center 5.359 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 90.78 dBuV
D2 70.78 dBuV
Marker 1 [T1]
89.06 dBuV
5.306040 GHz
Marker 2 [T1]
51.75 dBuV
33.205100 GHz
Marker 3 [T1]
51.44 dBuV
39.040720 GHz
Marker 4 [T1]
51.42 dBuV
37.282040 GHz
Start 30 MHz
3.997 GHz/
Stop 40 GHz

DRAFT 802.11n (20MHz) OFDM MODULATION

TEST MODE A

Channel 36 (5180MHz)

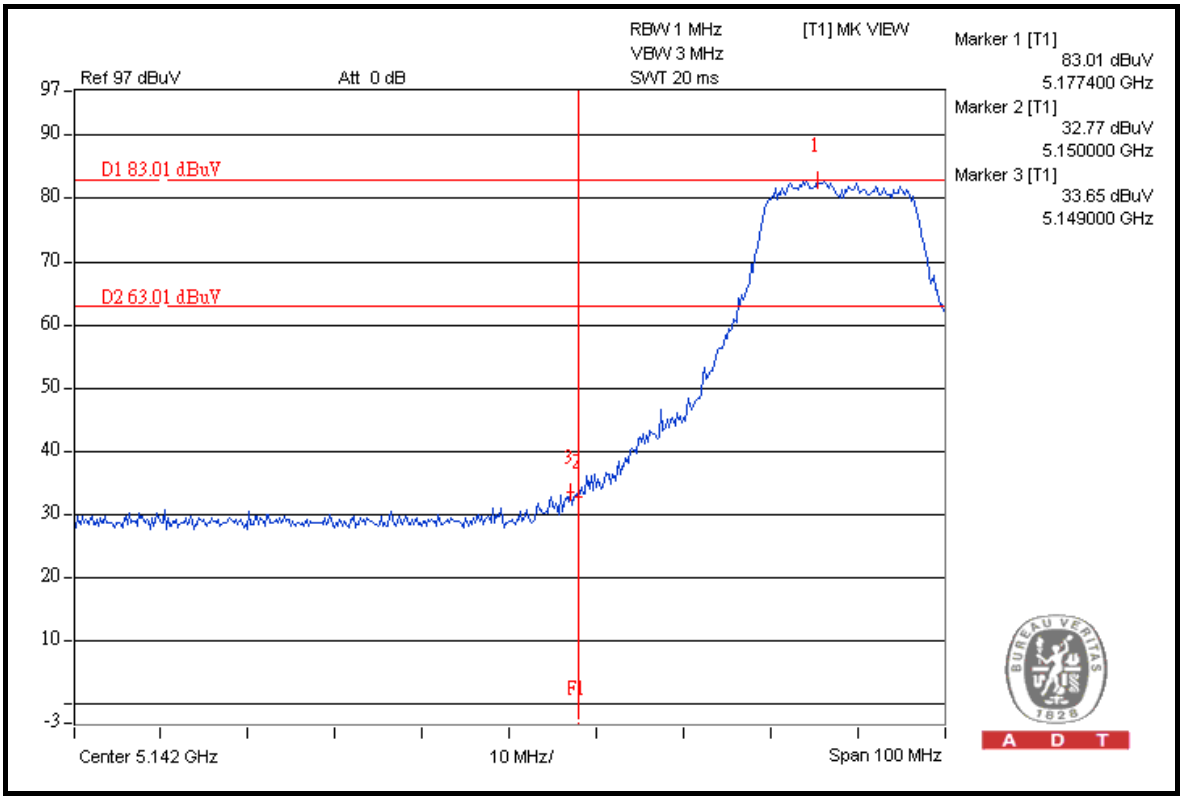
The band edge emission plot on the next page shows 49.36dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 36 is 107.63dBuV/m (Peak), so the maximum field strength in restrict band is 107.63 – 49.36 = 58.27dBuV/m which is under 74dBuV/m limit.

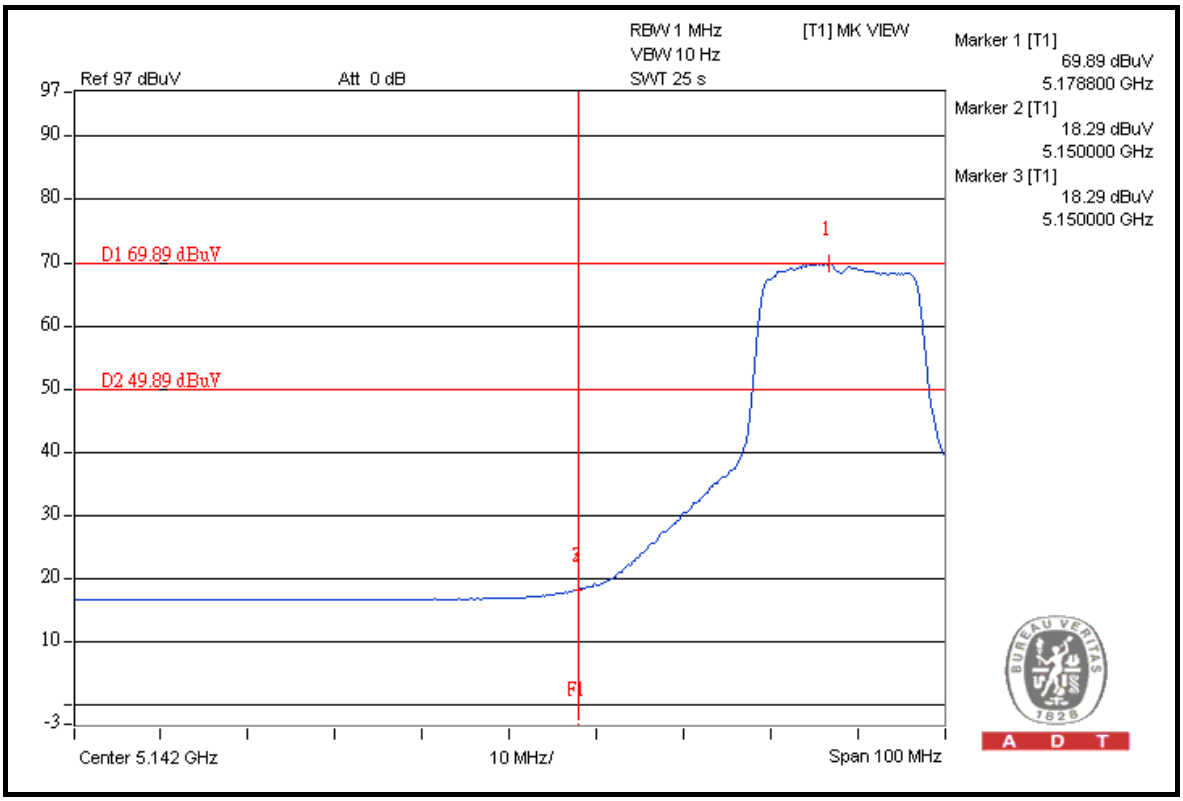
The band edge emission plot on the next page shows 51.60dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 36 is 97.02dBuV/m (Average), so the maximum field strength in restrict band is 97.02 – 51.60 = 45.42dBuV/m which is under 54dBuV/m limit.

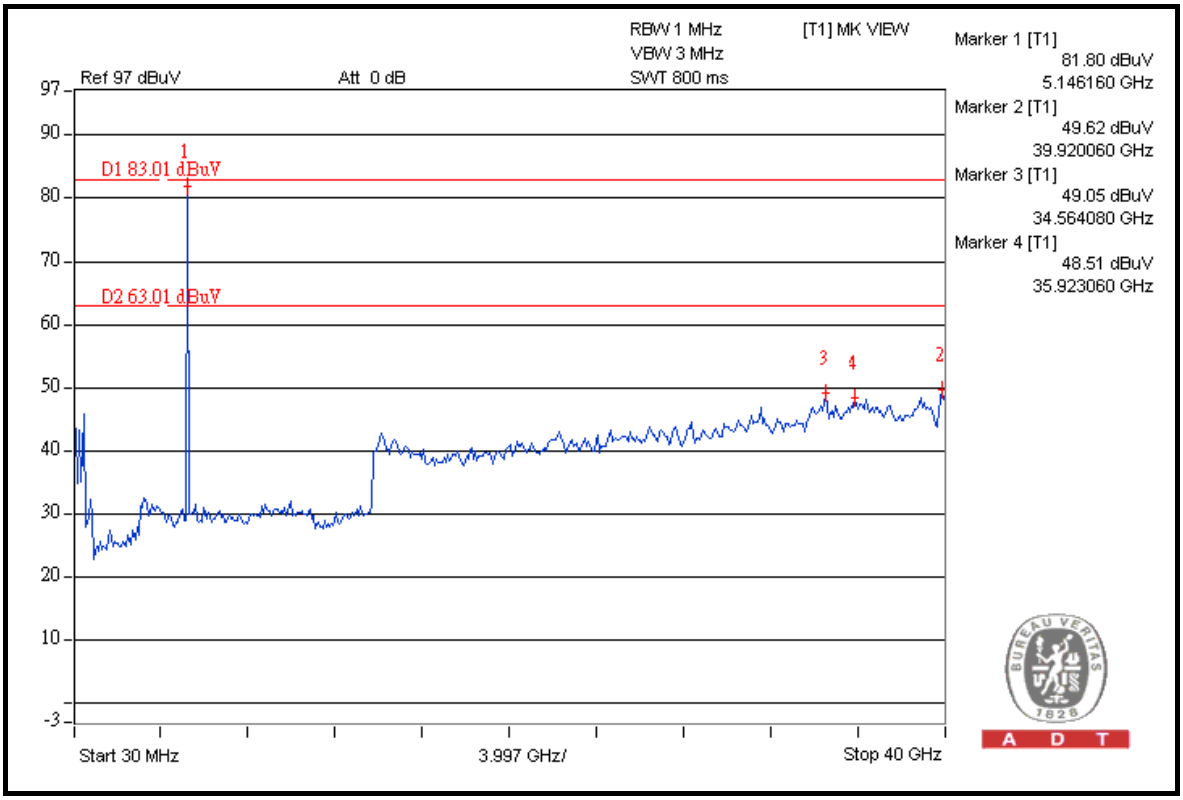
Channel 48 (5240MHz)

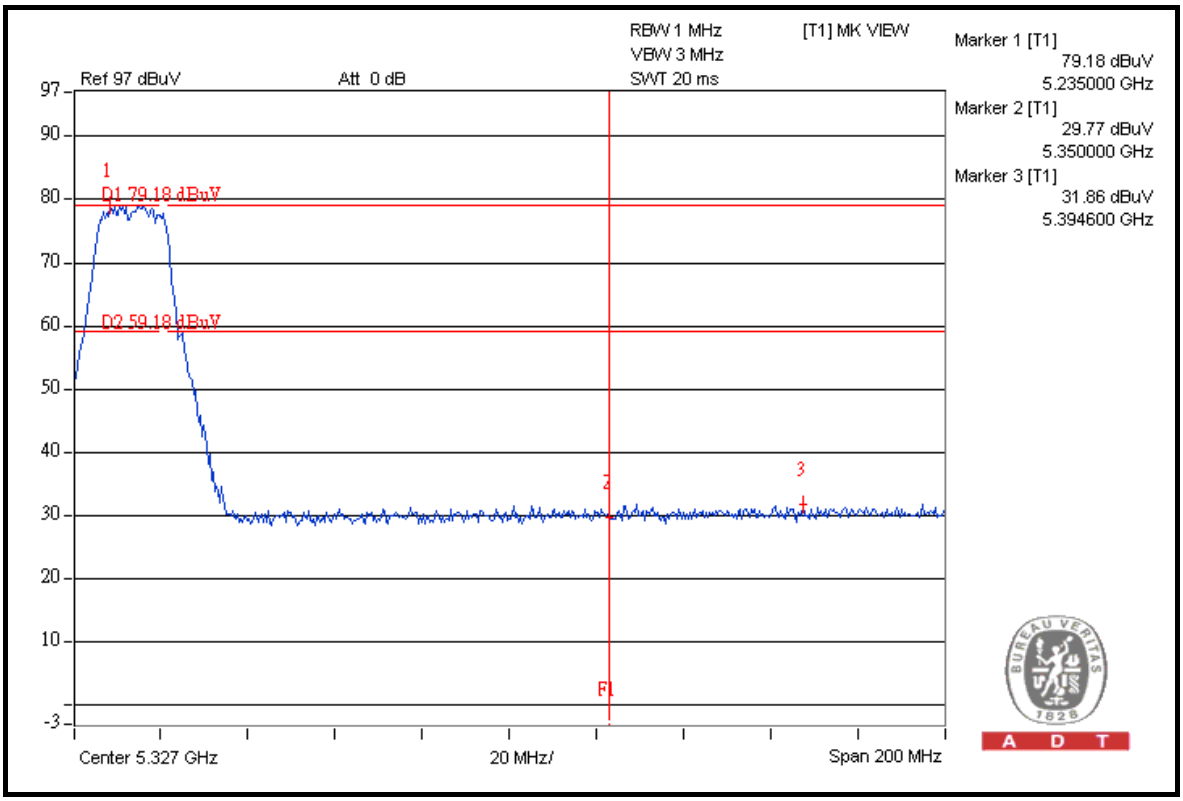
The band edge emission plot on the next second page shows 47.32dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 48 is 107.53dBuV/m (Peak), so the maximum field strength in restrict band is 107.53 – 47.32 = 60.21dBuV/m which is under 74dBuV/m limit.

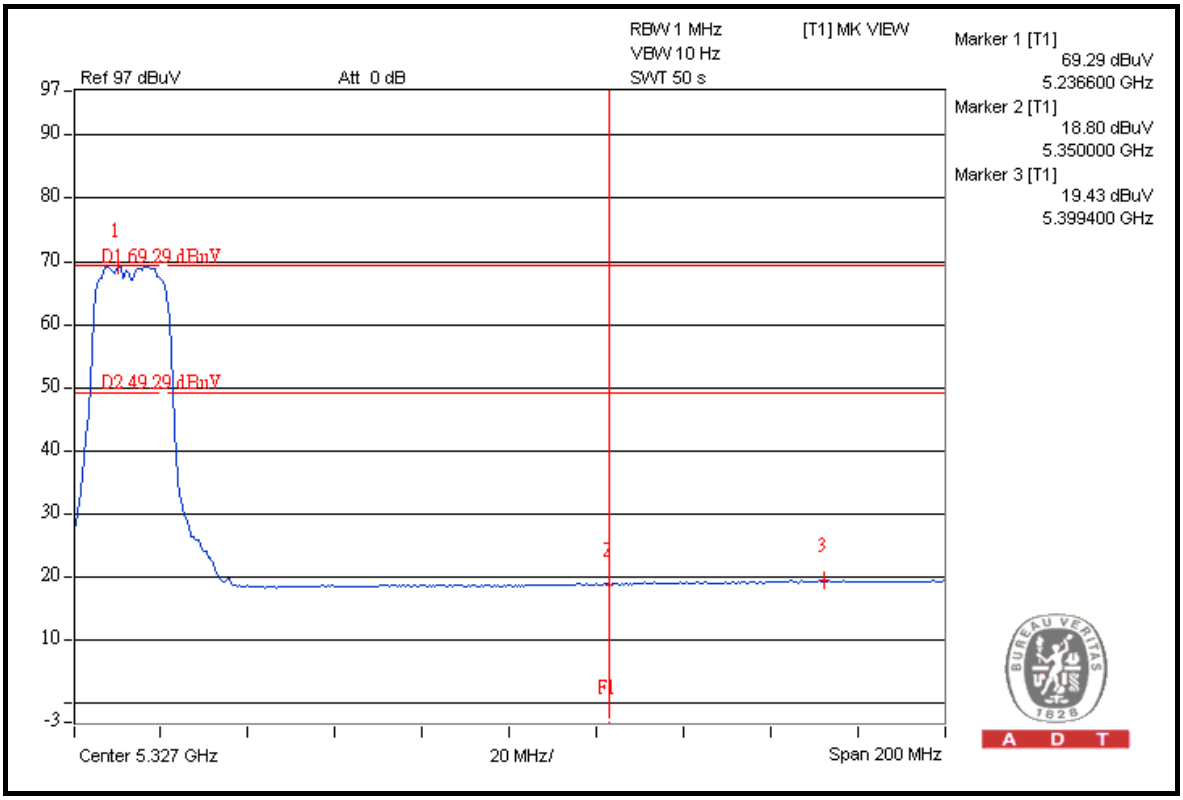
The band edge emission plot on the next third page shows 49.86dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 48 is 96.81dBuV/m (Average), so the maximum field strength in restrict band is 96.81 – 49.86 = 46.95dBuV/m which is under 54dBuV/m limit.

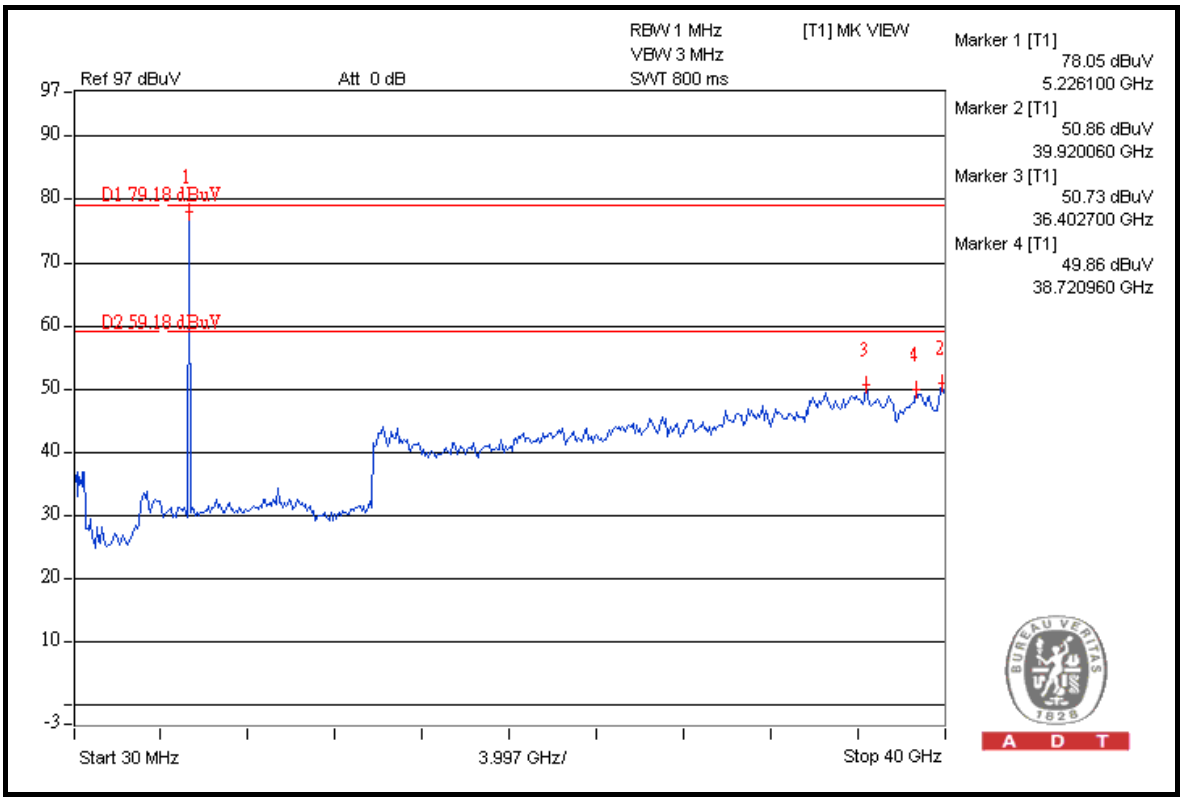

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
83.01 dBuV
5.177400 GHz
Marker 2 [T1]
32.77 dBuV
5.150000 GHz
Marker 3 [T1]
33.65 dBuV
5.149000 GHz
D1 83.01 dBuV
D2 63.01 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
69.89 dBuV
5.178800 GHz
Marker 2 [T1]
18.29 dBuV
5.150000 GHz
Marker 3 [T1]
18.29 dBuV
5.150000 GHz
D1 69.89 dBuV
D2 49.89 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 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]
81.80 dBuV
5.146160 GHz
Marker 2 [T1]
49.62 dBuV
39.920060 GHz
Marker 3 [T1]
49.05 dBuV
34.564080 GHz
Marker 4 [T1]
48.51 dBuV
35.923060 GHz
D1 83.01 dBuV
D2 63.01 dBuV
97
90
80
70
60
50
40
30
20
10
-3
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
Marker 1 [T1]
79.18 dBuV
5.235000 GHz
Marker 2 [T1]
29.77 dBuV
5.350000 GHz
Marker 3 [T1]
31.86 dBuV
5.394600 GHz
D1 79.18 dBuV
D2 59.18 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
69.29 dBuV
5.236600 GHz
Marker 2 [T1]
18.80 dBuV
5.350000 GHz
Marker 3 [T1]
19.43 dBuV
5.399400 GHz
D1 69.29 dBuV
D2 49.29 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
78.05 dBuV
5.226100 GHz
Marker 2 [T1]
50.86 dBuV
39.920060 GHz
Marker 3 [T1]
50.73 dBuV
36.402700 GHz
Marker 4 [T1]
49.86 dBuV
38.720960 GHz
D1 79.18 dBuV
D2 59.18 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

Channel 52 (5260MHz)

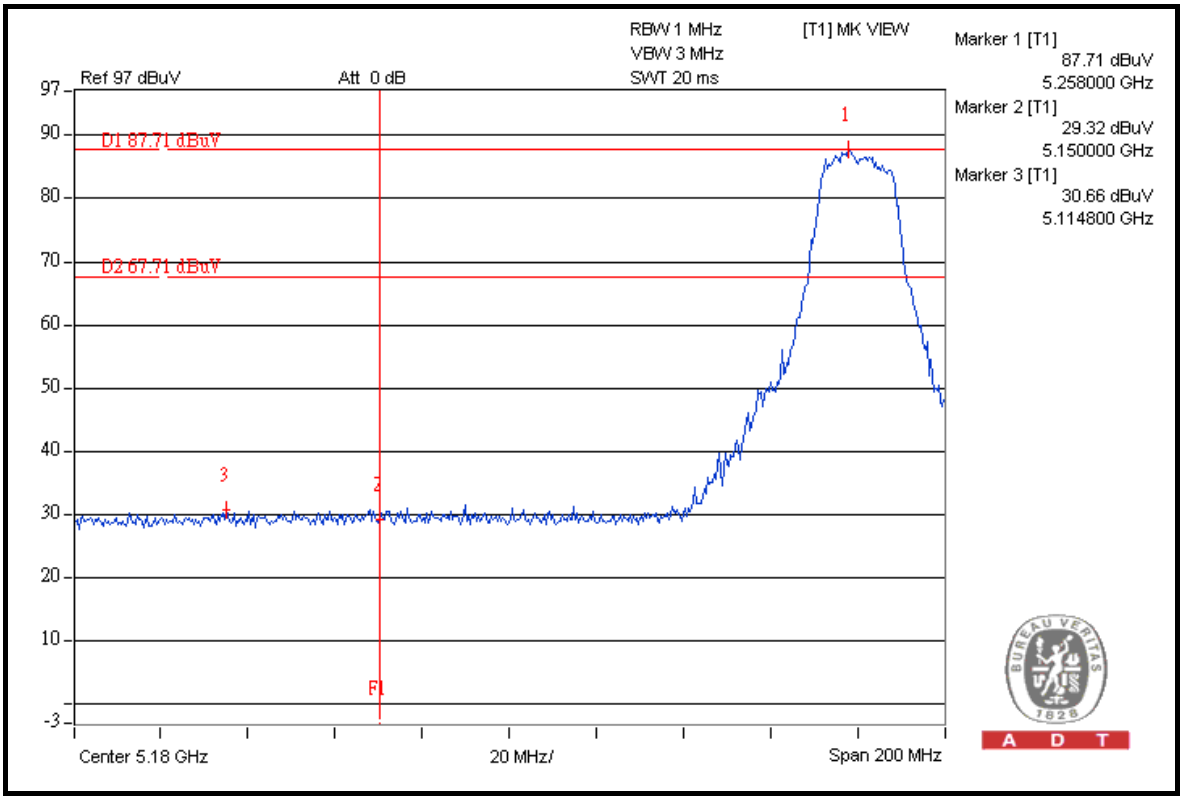
The band edge emission plot on the next page shows 57.05dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 52 is 114.66dBuV/m (Peak), so the maximum field strength in restrict band is 114.66 – 57.05 = 57.61dBuV/m which is under 74dBuV/m limit.

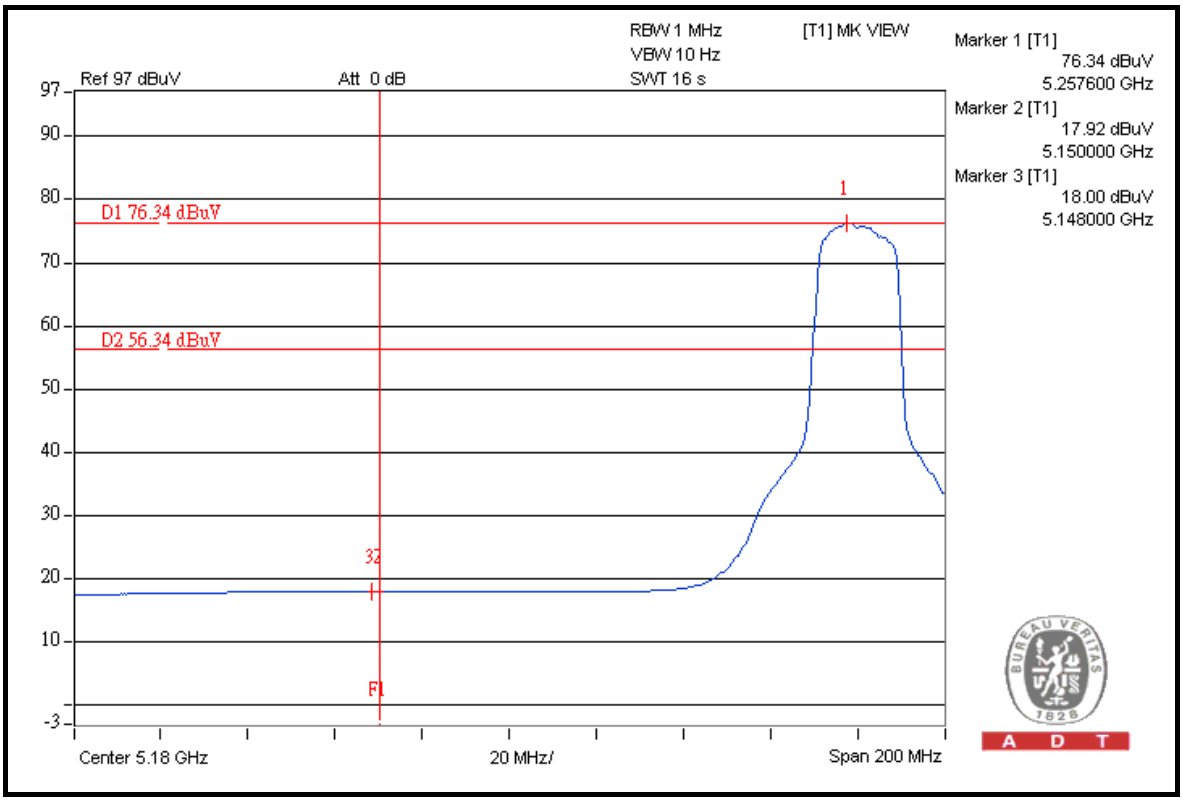
The band edge emission plot on the next page shows 58.34dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 52 is 103.85dBuV/m (Average), so the maximum field strength in restrict band is 103.85 – 58.34 = 45.51dBuV/m which is under 54dBuV/m limit.

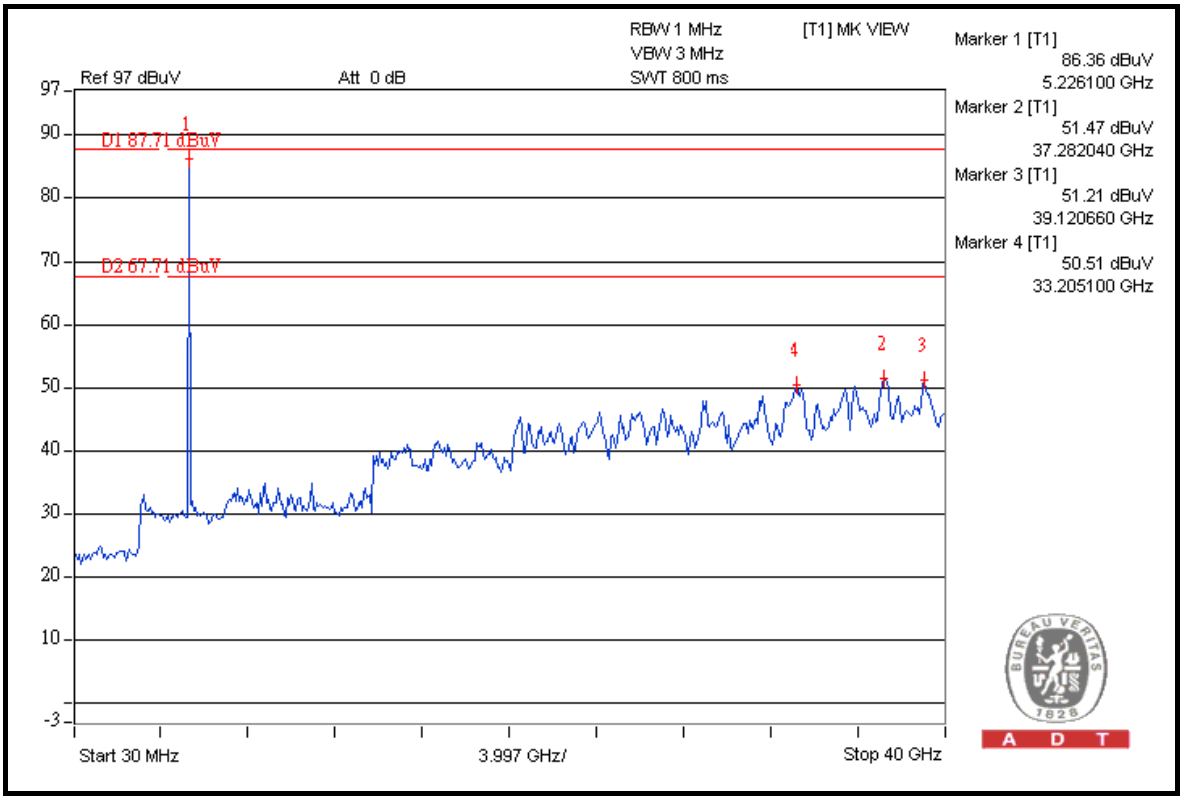
Channel 64 (5320MHz)

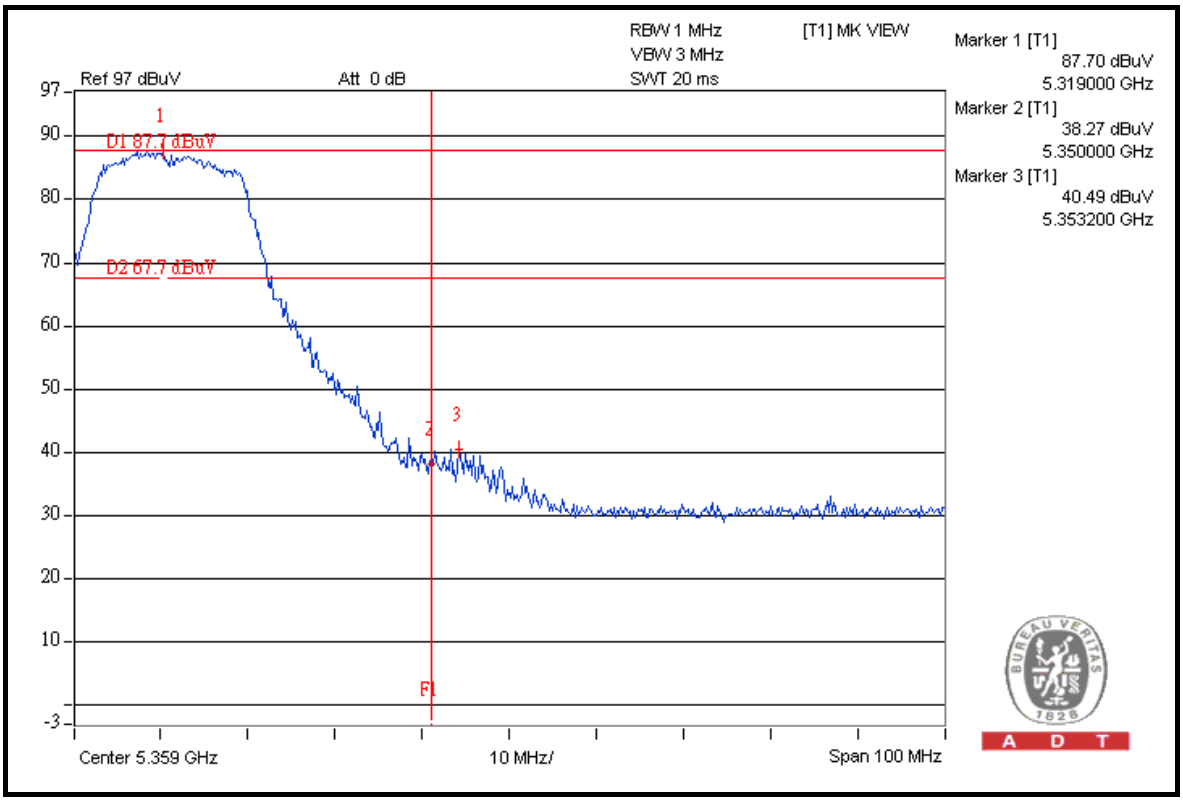
The band edge emission plot on the next second page shows 47.21dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 64 is 114.61dBuV/m (Peak), so the maximum field strength in restrict band is 114.61 – 47.21 = 67.40dBuV/m which is under 74dBuV/m limit.

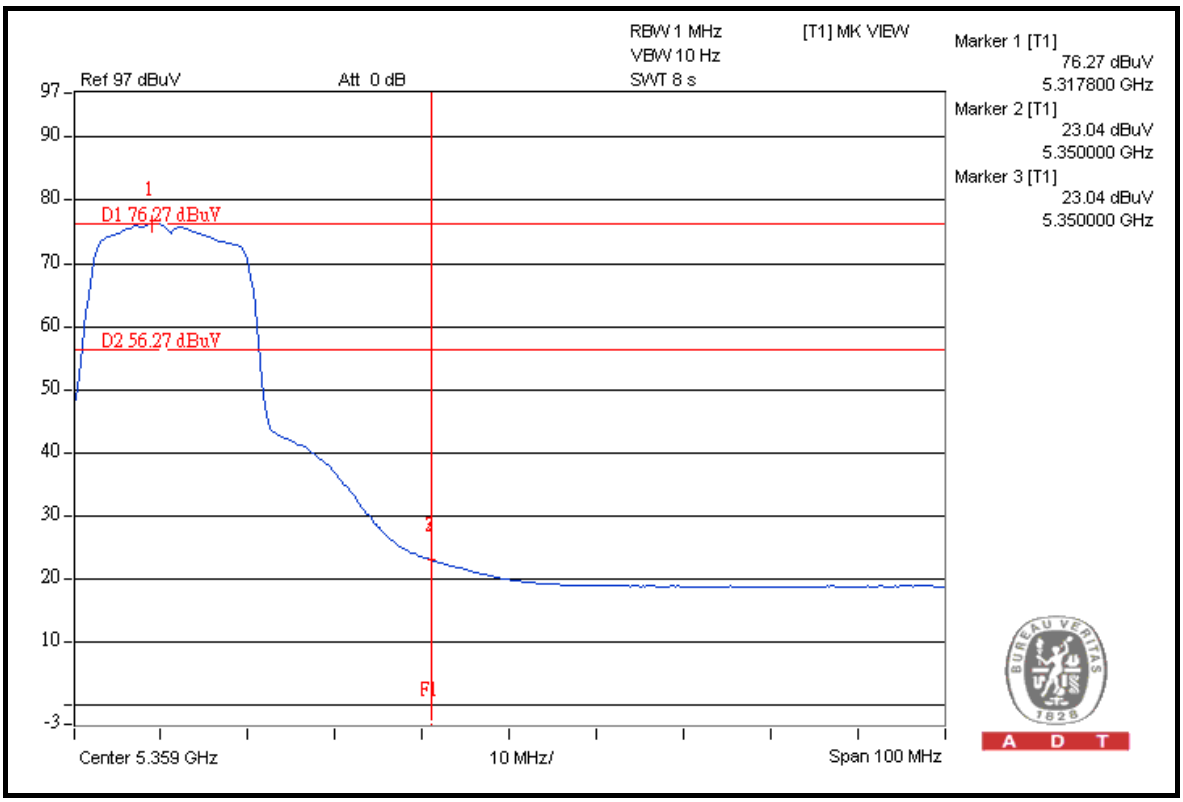
The band edge emission plot on the next third page shows 53.23dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 64 is 103.83dBuV/m (Average), so the maximum field strength in restrict band is 103.83 – 53.23 = 50.60dBuV/m which is under 54dBuV/m limit.

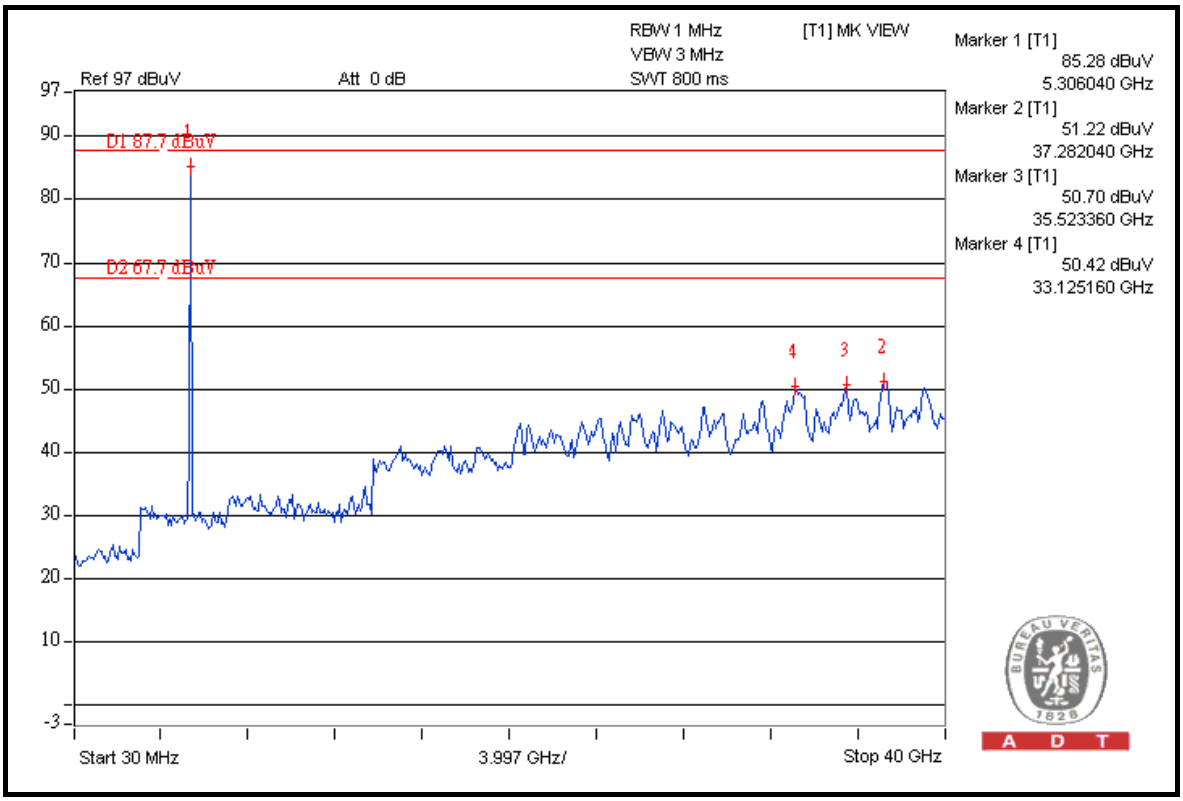

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 87.71 dBuV
D2 67.71 dBuV
Marker 1 [T1]
87.71 dBuV
5.258000 GHz
Marker 2 [T1]
29.32 dBuV
5.150000 GHz
Marker 3 [T1]
30.66 dBuV
5.114800 GHz
Center 5.18 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 76.34 dBuV
D2 56.34 dBuV
Marker 1 [T1]
76.34 dBuV
5.257600 GHz
Marker 2 [T1]
17.92 dBuV
5.150000 GHz
Marker 3 [T1]
18.00 dBuV
5.148000 GHz
Center 5.18 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 87.71 dBuV
D2 67.71 dBuV
Marker 1 [T1]
86.36 dBuV
5.226100 GHz
Marker 2 [T1]
51.47 dBuV
37.282040 GHz
Marker 3 [T1]
51.21 dBuV
39.120660 GHz
Marker 4 [T1]
50.51 dBuV
33.205100 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 87.7 dBuV
D2 67.7 dBuV
Marker 1 [T1]
87.70 dBuV
5.319000 GHz
Marker 2 [T1]
38.27 dBuV
5.350000 GHz
Marker 3 [T1]
40.49 dBuV
5.353200 GHz
Center 5.359 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
76.27 dBuV
5.317800 GHz
Marker 2 [T1]
23.04 dBuV
5.350000 GHz
Marker 3 [T1]
23.04 dBuV
5.350000 GHz
D1 76.27 dBuV
D2 56.27 dBuV
Center 5.359 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]
85.28 dBuV
5.306040 GHz
Marker 2 [T1]
51.22 dBuV
37.282040 GHz
Marker 3 [T1]
50.70 dBuV
35.523360 GHz
Marker 4 [T1]
50.42 dBuV
33.125160 GHz
D1 87.7 dBuV
D2 67.7 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

TEST MODE C

Channel 36 (5180MHz)

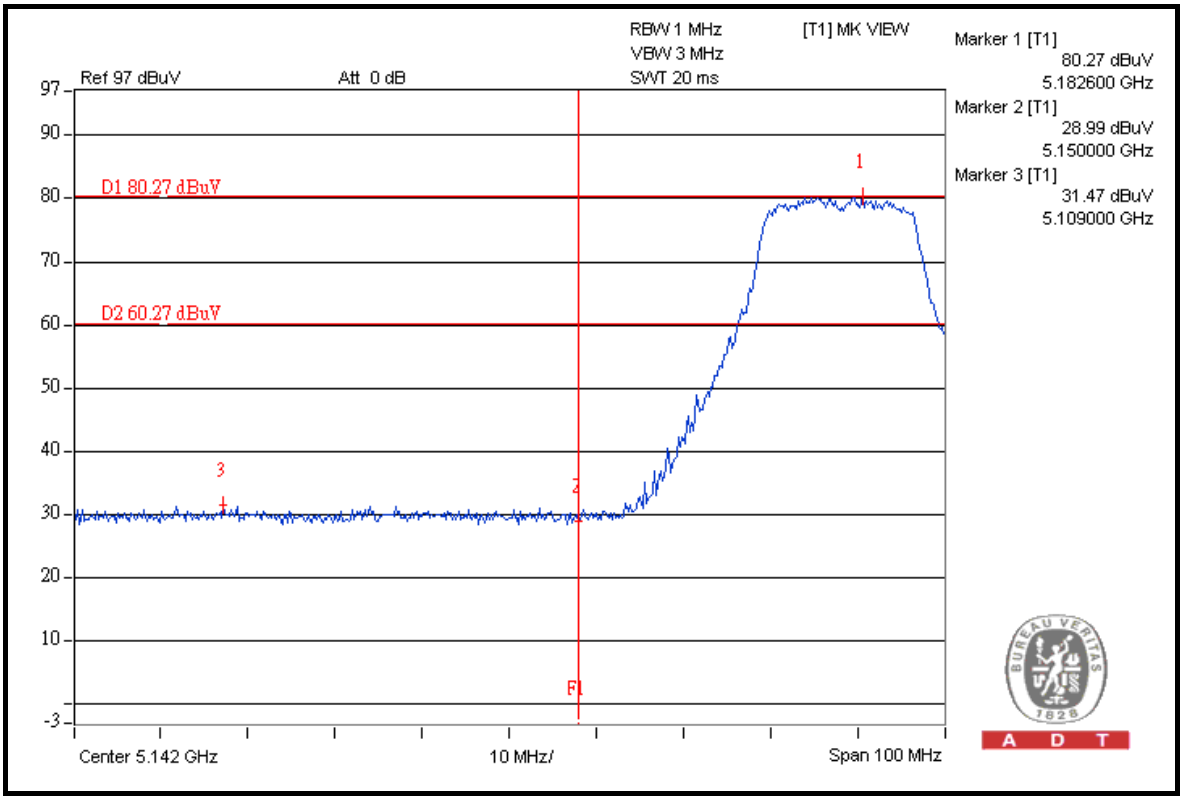
The band edge emission plot on the next page shows 48.80dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 36 is 107.51dBuV/m (Peak), so the maximum field strength in restrict band is 107.51 – 48.80 = 58.71dBuV/m which is under 74dBuV/m limit.

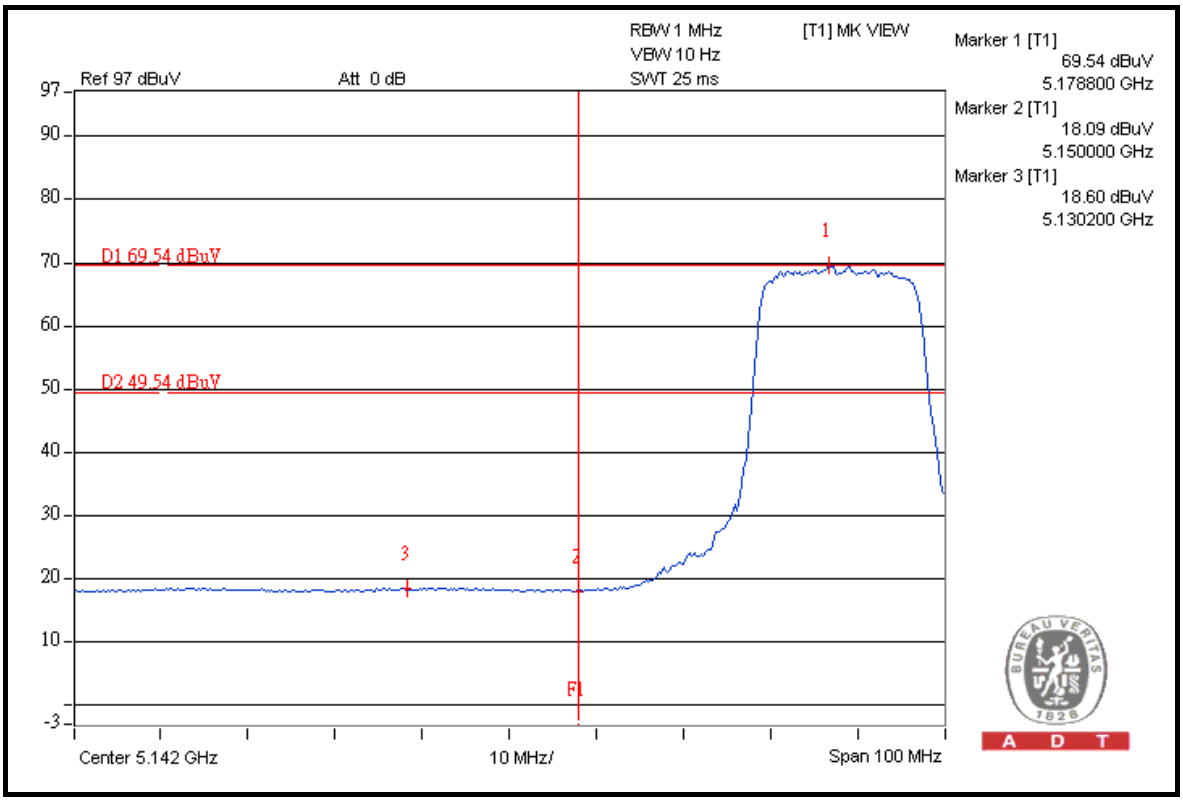
The band edge emission plot on the next page shows 50.94dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 36 is 96.87dBuV/m (Average), so the maximum field strength in restrict band is 96.87 – 50.94 = 45.93dBuV/m which is under 54dBuV/m limit.

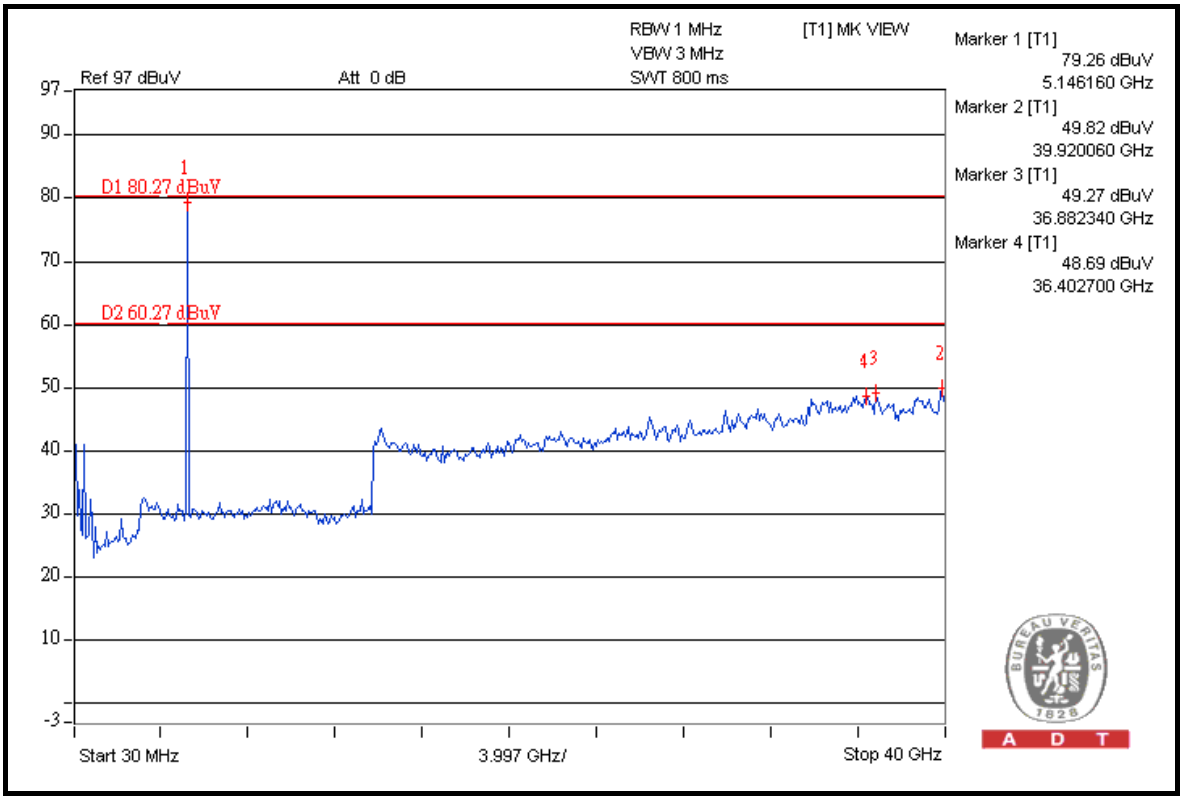
Channel 48 (5240MHz)

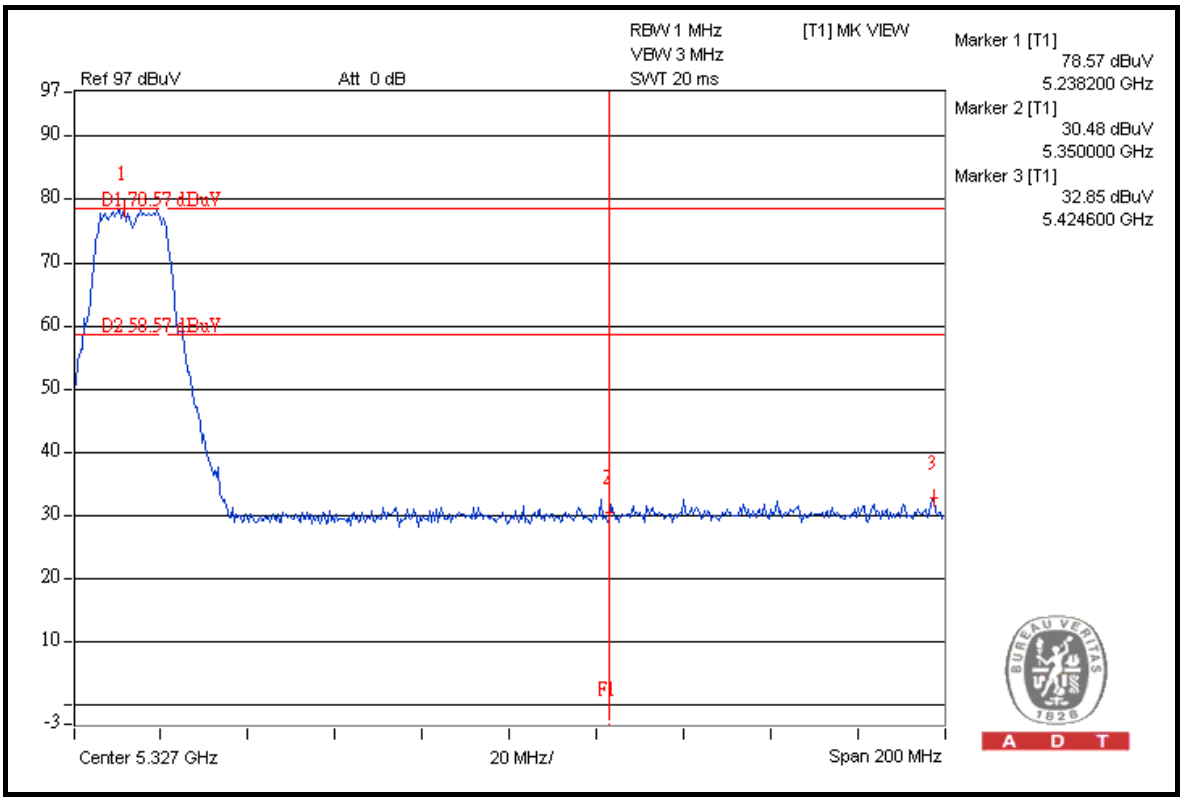
The band edge emission plot on the next second page shows 45.72dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 64 is 107.41dBuV/m (Peak), so the maximum field strength in restrict band is 107.41 – 45.72 = 61.69dBuV/m which is under 74dBuV/m limit.

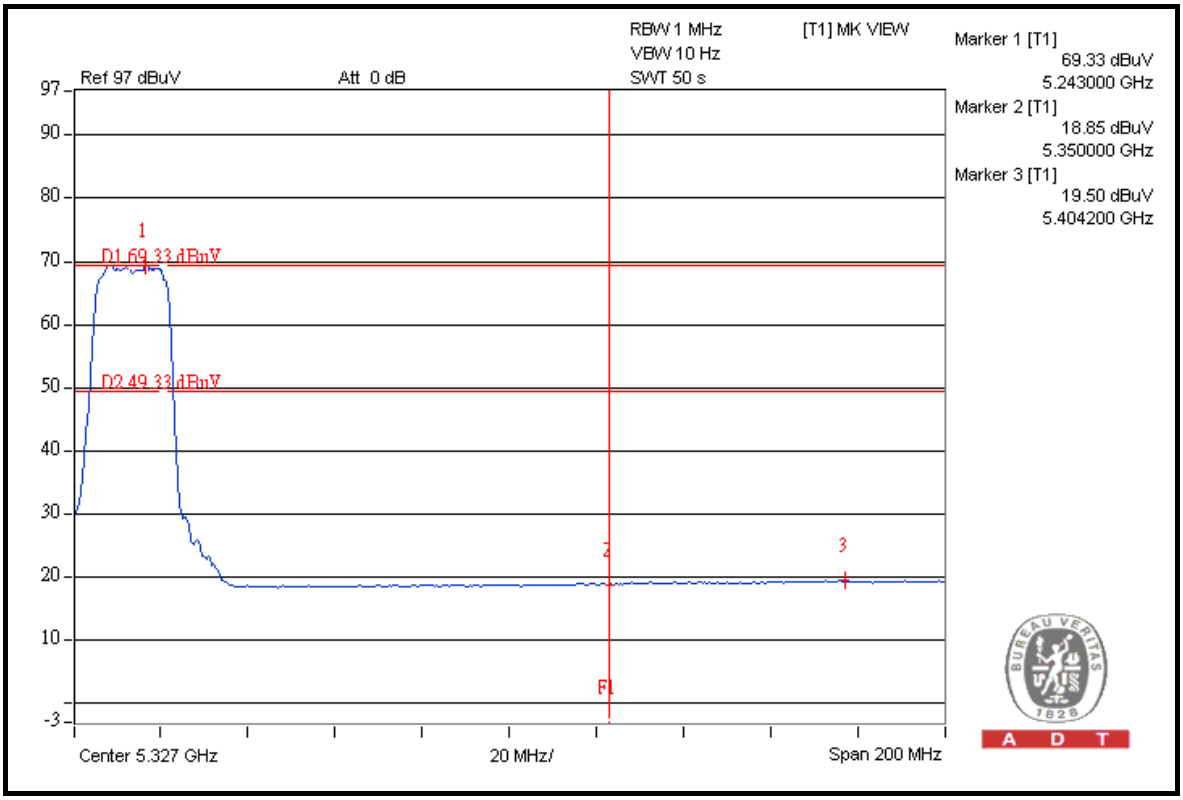
The band edge emission plot on the next third page shows 49.83dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 48 is 96.70dBuV/m (Average), so the maximum field strength in restrict band is 96.70 – 49.83 = 46.87dBuV/m which is under 54dBuV/m limit.

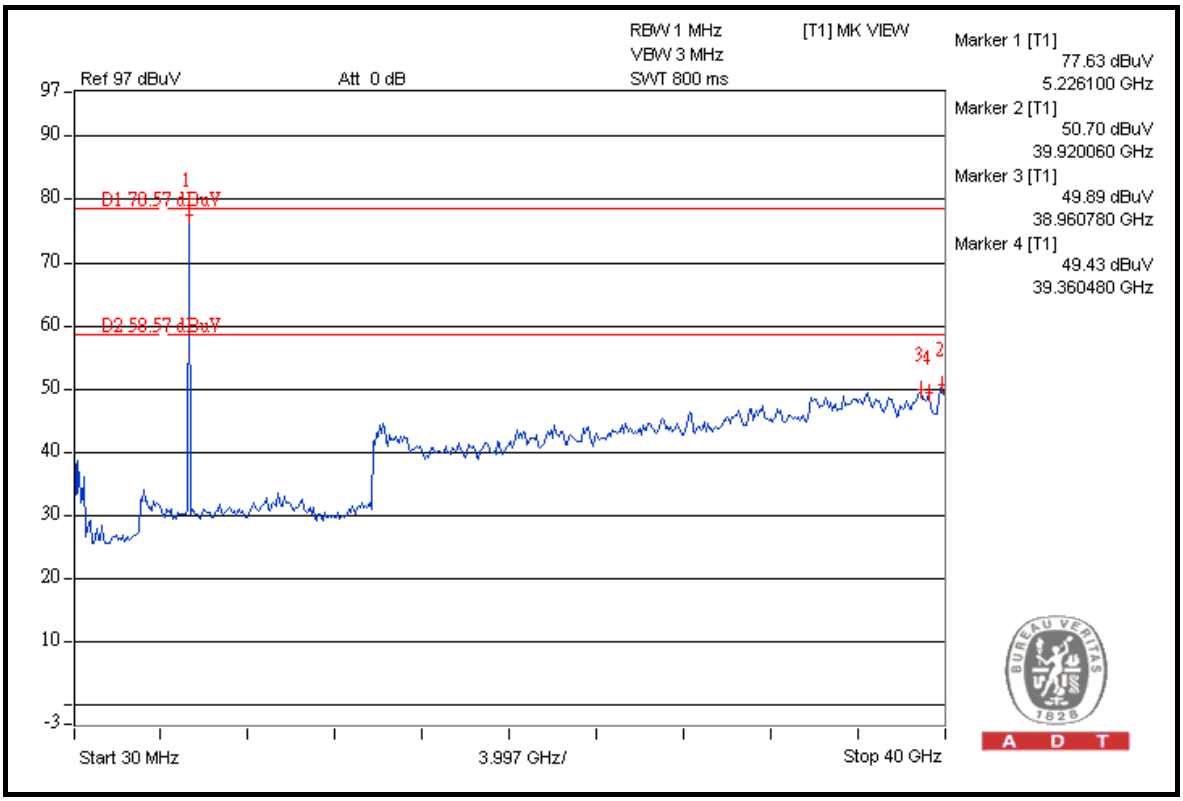

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
80.27 dBuV
5.182600 GHz
Marker 2 [T1]
28.99 dBuV
5.150000 GHz
Marker 3 [T1]
31.47 dBuV
5.109000 GHz
D1 80.27 dBuV
D2 60.27 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 25 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
69.54 dBuV
5.178800 GHz
Marker 2 [T1]
18.09 dBuV
5.150000 GHz
Marker 3 [T1]
18.60 dBuV
5.130200 GHz
D1 69.54 dBuV
D2 49.54 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 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]
79.26 dBuV
5.146160 GHz
Marker 2 [T1]
49.82 dBuV
39.920060 GHz
Marker 3 [T1]
49.27 dBuV
36.882340 GHz
Marker 4 [T1]
48.69 dBuV
36.402700 GHz
D1 80.27 dBuV
D2 60.27 dBuV
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
Marker 1 [T1]
78.57 dBuV
5.238200 GHz
Marker 2 [T1]
30.48 dBuV
5.350000 GHz
Marker 3 [T1]
32.85 dBuV
5.424600 GHz
D1 70.57 dBuV
D2 58.57 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
69.33 dBuV
5.243000 GHz
Marker 2 [T1]
18.85 dBuV
5.350000 GHz
Marker 3 [T1]
19.50 dBuV
5.404200 GHz
D1 69.33 dBuV
D2 49.33 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
77.63 dBuV
5.226100 GHz
Marker 2 [T1]
50.70 dBuV
39.920060 GHz
Marker 3 [T1]
49.89 dBuV
38.960780 GHz
Marker 4 [T1]
49.43 dBuV
39.360480 GHz
D1 70.57 dBuV
D2 58.57 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

Channel 52 (5260MHz)

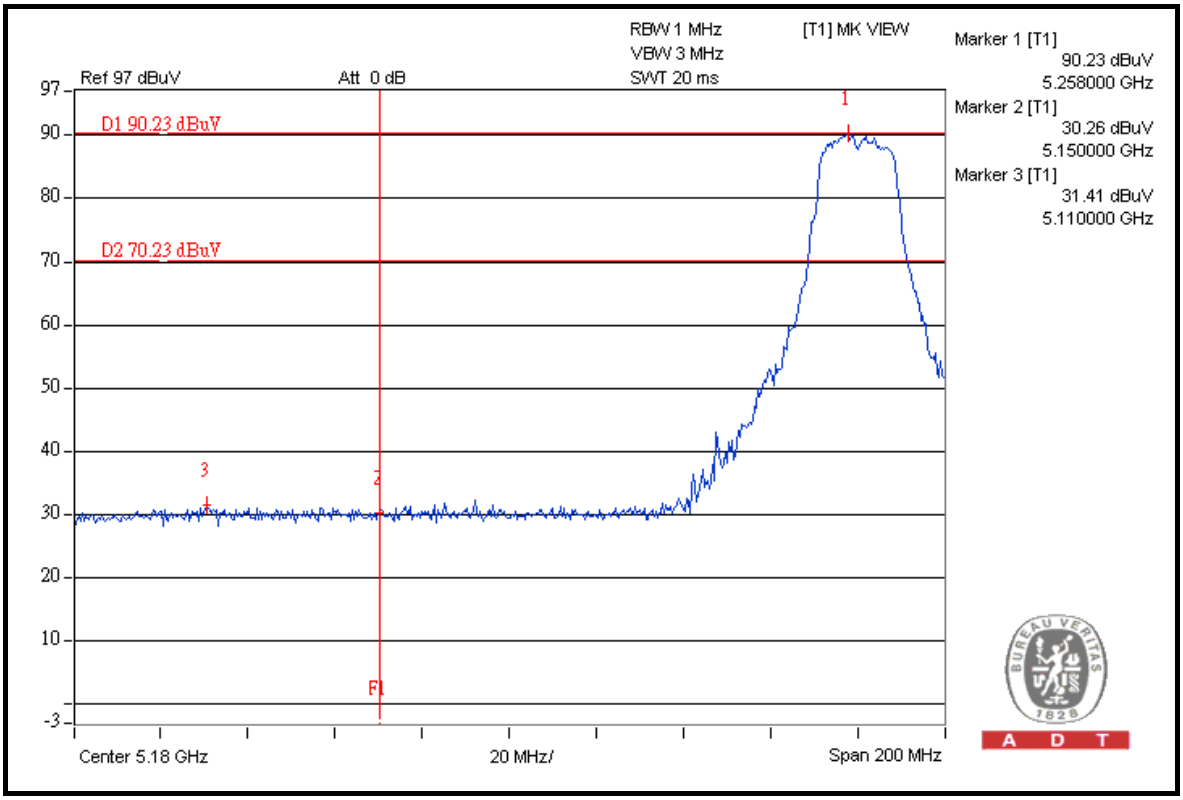
The band edge emission plot on the next page shows 58.82dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 52 is 117.54dBuV/m (Peak), so the maximum field strength in restrict band is 117.54 – 58.82 = 58.72dBuV/m which is under 74dBuV/m limit.

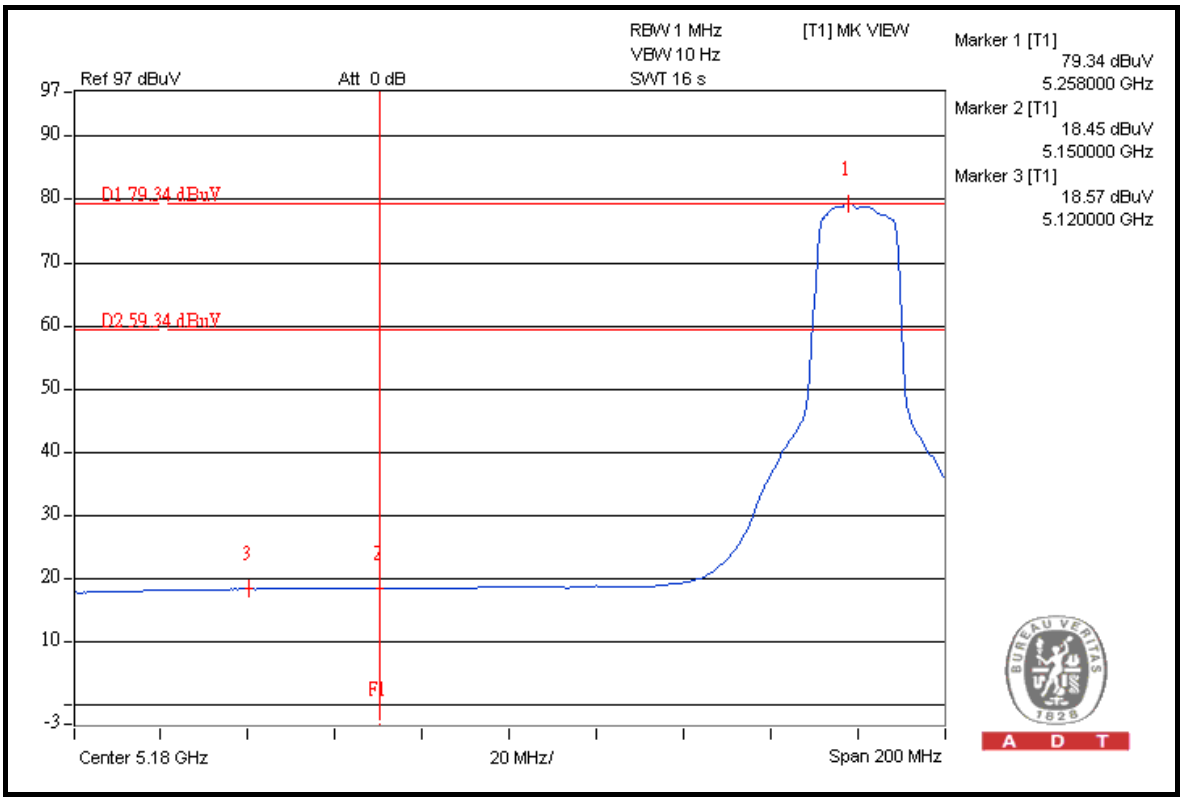
The band edge emission plot on the next page shows 60.77dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 52 is 106.76dBuV/m (Average), so the maximum field strength in restrict band is 106.76 – 60.77 = 45.99dBuV/m which is under 54dBuV/m limit.

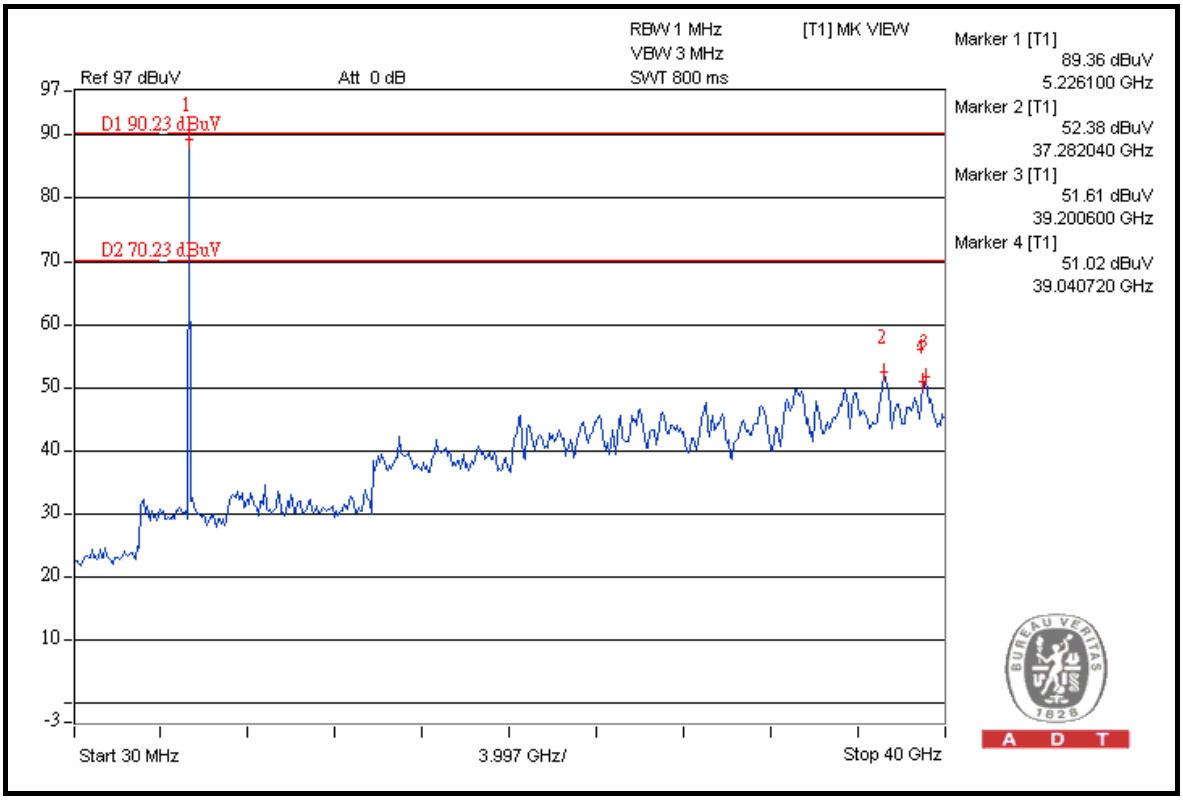
Channel 64 (5320MHz)

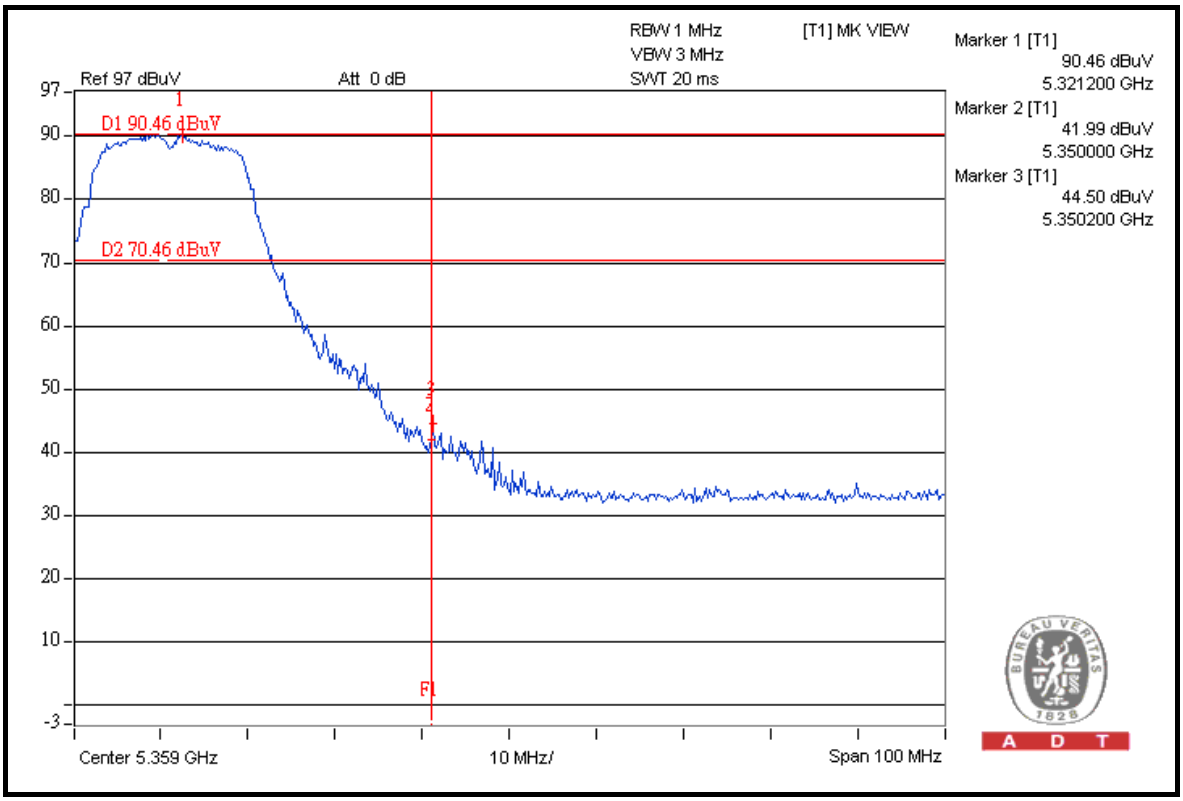
The band edge emission plot on the next second page shows 45.96dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 64 is 117.51dBuV/m (Peak), so the maximum field strength in restrict band is 117.51 – 45.96 = 71.55dBuV/m which is under 74dBuV/m limit.

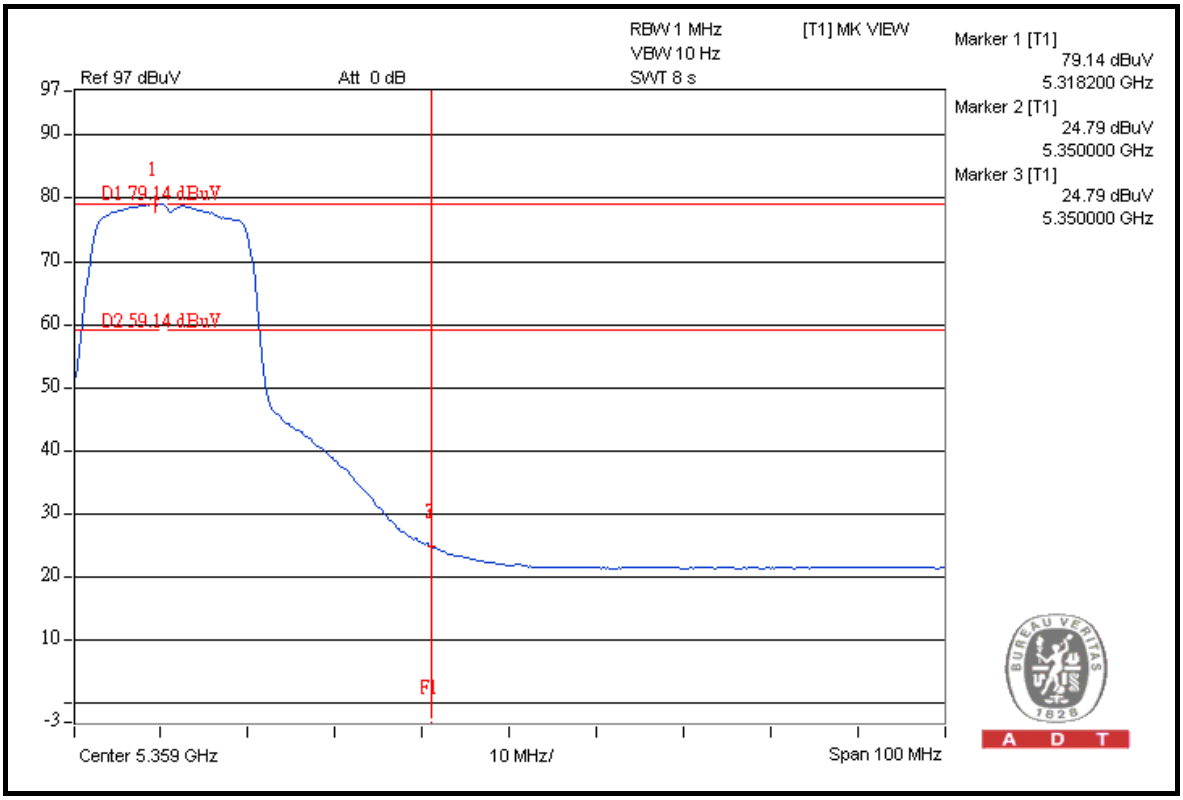
The band edge emission plot on the next third page shows 54.35dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 64 is 106.71dBuV/m (Average), so the maximum field strength in restrict band is 106.71 – 54.35 = 52.36dBuV/m which is under 54dBuV/m limit.

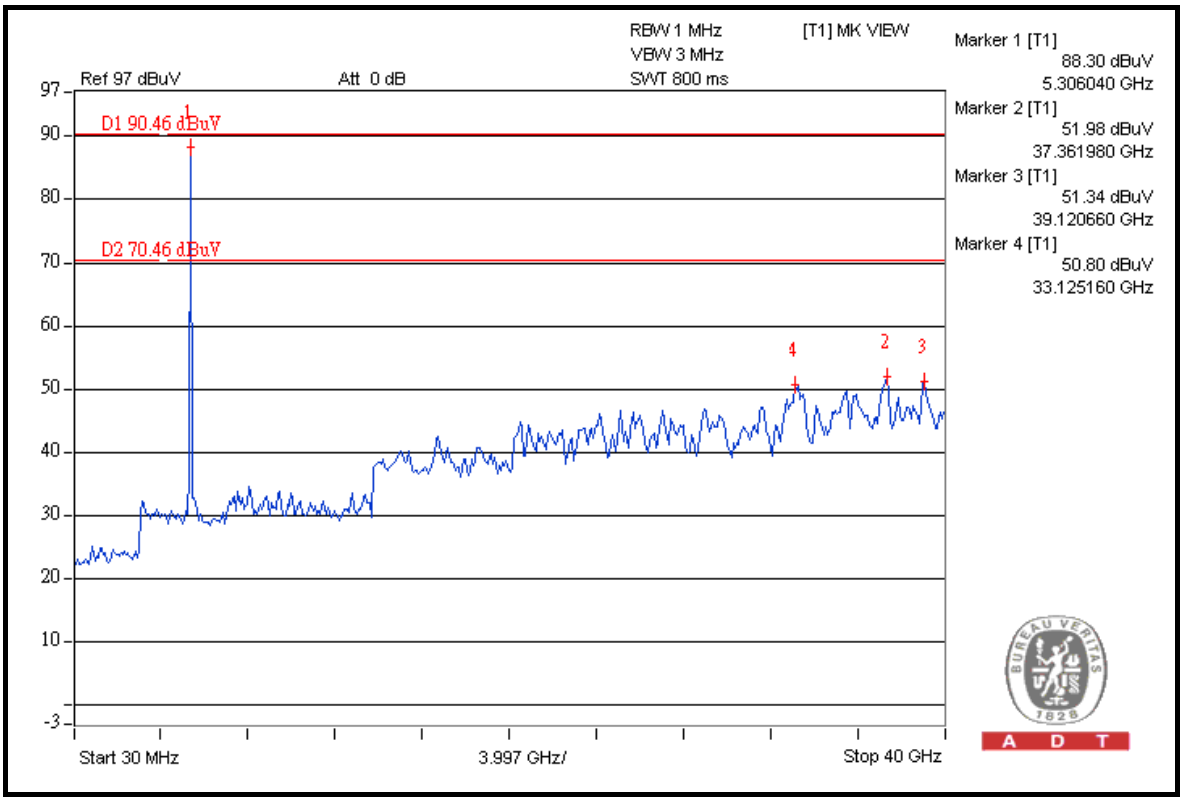

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 90.23 dBuV
D2 70.23 dBuV
Marker 1 [T1]
90.23 dBuV
5.258000 GHz
Marker 2 [T1]
30.26 dBuV
5.150000 GHz
Marker 3 [T1]
31.41 dBuV
5.110000 GHz
Center 5.18 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 79.34 dBuV
D2 59.34 dBuV
Marker 1 [T1]
79.34 dBuV
5.258000 GHz
Marker 2 [T1]
18.45 dBuV
5.150000 GHz
Marker 3 [T1]
18.57 dBuV
5.120000 GHz
Center 5.18 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 90.23 dBuV
D2 70.23 dBuV
Marker 1 [T1]
89.36 dBuV
5.226100 GHz
Marker 2 [T1]
52.38 dBuV
37.282040 GHz
Marker 3 [T1]
51.61 dBuV
39.200600 GHz
Marker 4 [T1]
51.02 dBuV
39.040720 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 90.46 dBuV
D2 70.46 dBuV
Marker 1 [T1]
90.46 dBuV
5.321200 GHz
Marker 2 [T1]
41.99 dBuV
5.350000 GHz
Marker 3 [T1]
44.50 dBuV
5.350200 GHz
Center 5.359 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 79.14 dBuV
D2 59.14 dBuV
Marker 1 [T1]
79.14 dBuV
5.318200 GHz
Marker 2 [T1]
24.79 dBuV
5.350000 GHz
Marker 3 [T1]
24.79 dBuV
5.350000 GHz
Center 5.359 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 90.46 dBuV
D2 70.46 dBuV
Marker 1 [T1]
88.30 dBuV
5.306040 GHz
Marker 2 [T1]
51.98 dBuV
37.361980 GHz
Marker 3 [T1]
51.34 dBuV
39.120660 GHz
Marker 4 [T1]
50.80 dBuV
33.125160 GHz
Start 30 MHz
3.997 GHz/
Stop 40 GHz

DRAFT 802.11n (40MHz) OFDM MODULATION

TEST MODE A

Channel 38 (5190MHz)

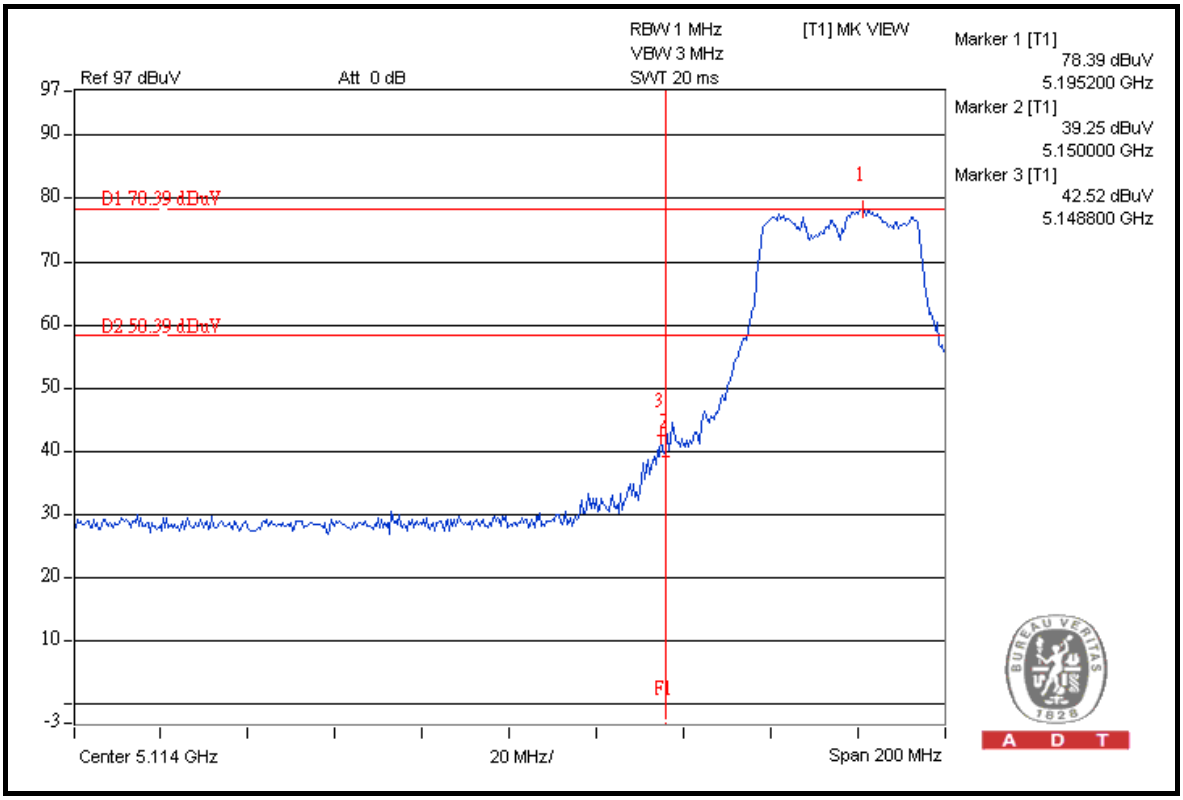
The band edge emission plot on the next page shows 35.87dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 38 is 104.69dBuV/m (Peak), so the maximum field strength in restrict band is 104.69 – 35.87 = 68.82dBuV/m which is under 74dBuV/m limit.

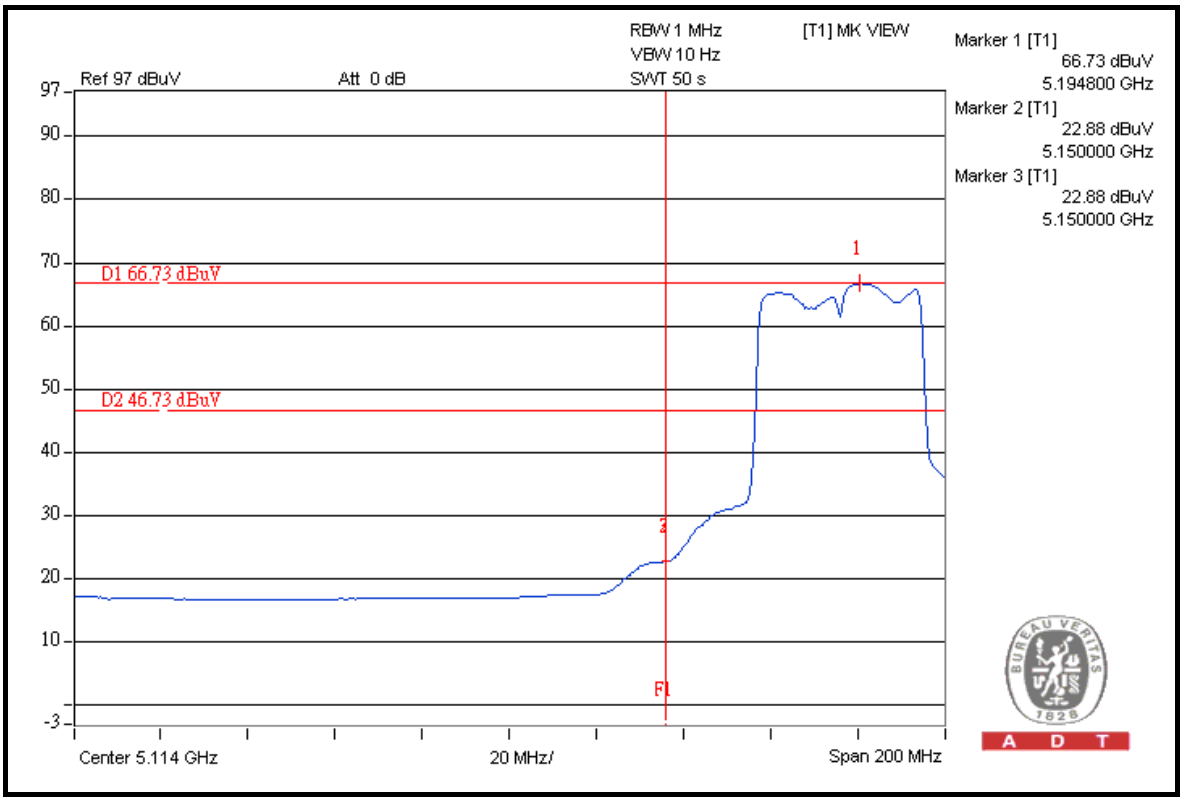
The band edge emission plot on the next page shows 43.85dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 38 is 94.12dBuV/m (Average), so the maximum field strength in restrict band is 94.12 – 43.85 = 50.27dBuV/m which is under 54dBuV/m limit.

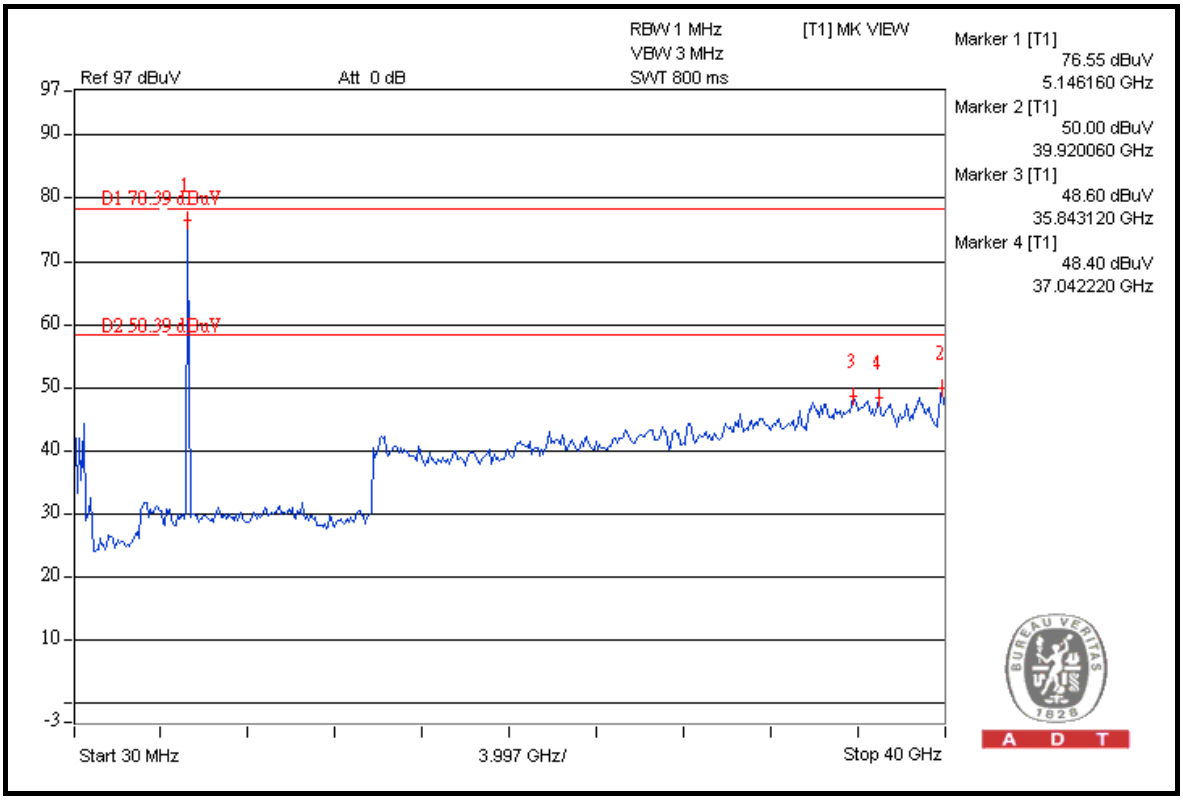
Channel 46 (5230MHz)

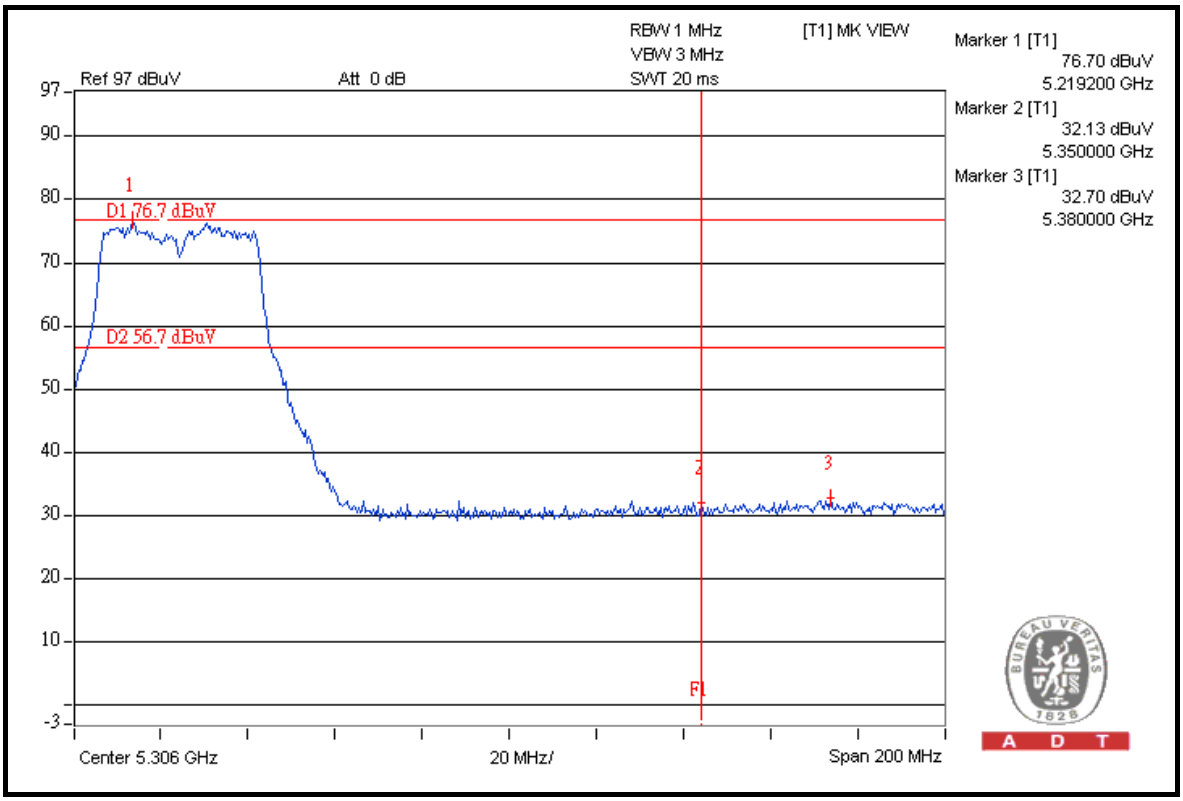
The band edge emission plot on the next second page shows 44.00dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 46 is 104.52dBuV/m (Peak), so the maximum field strength in restrict band is 104.52 – 44.00 = 60.52dBuV/m which is under 74dBuV/m limit.

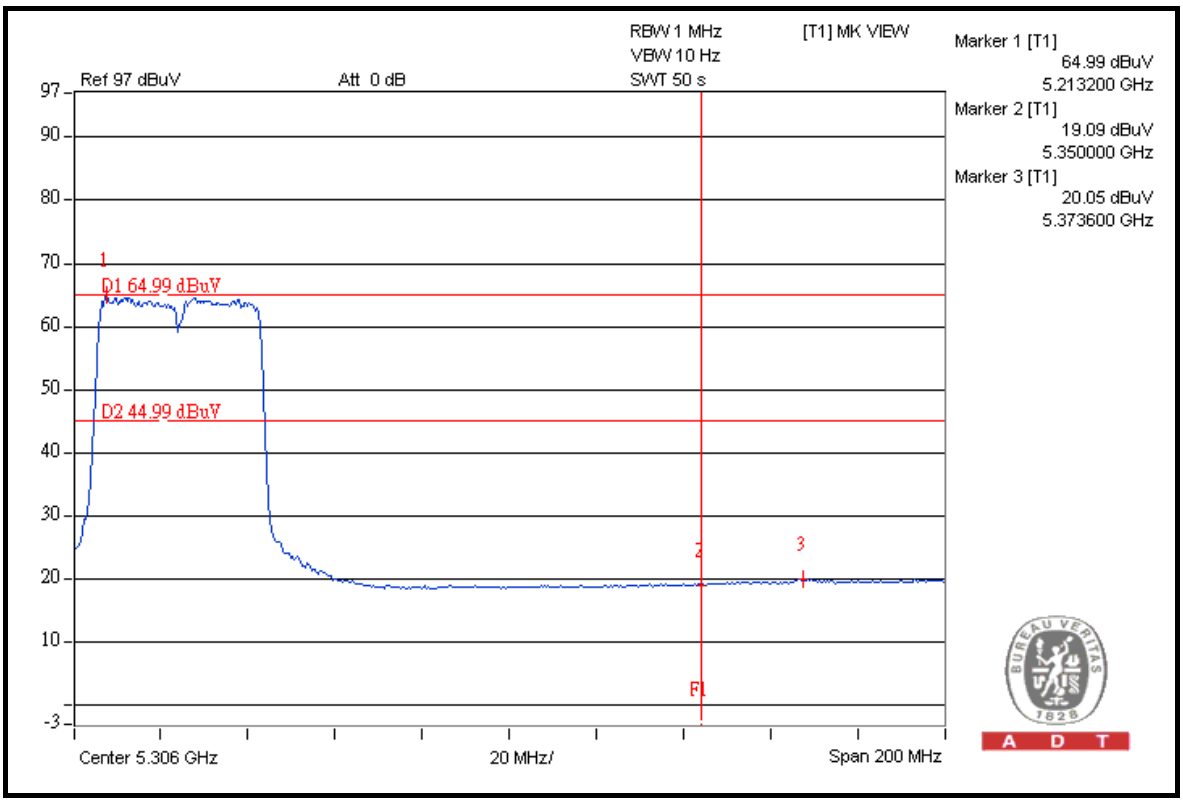
The band edge emission plot on the next third page shows 44.94dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 46 is 94.03dBuV/m (Average), so the maximum field strength in restrict band is 94.03 – 44.94 = 49.09dBuV/m which is under 54dBuV/m limit.

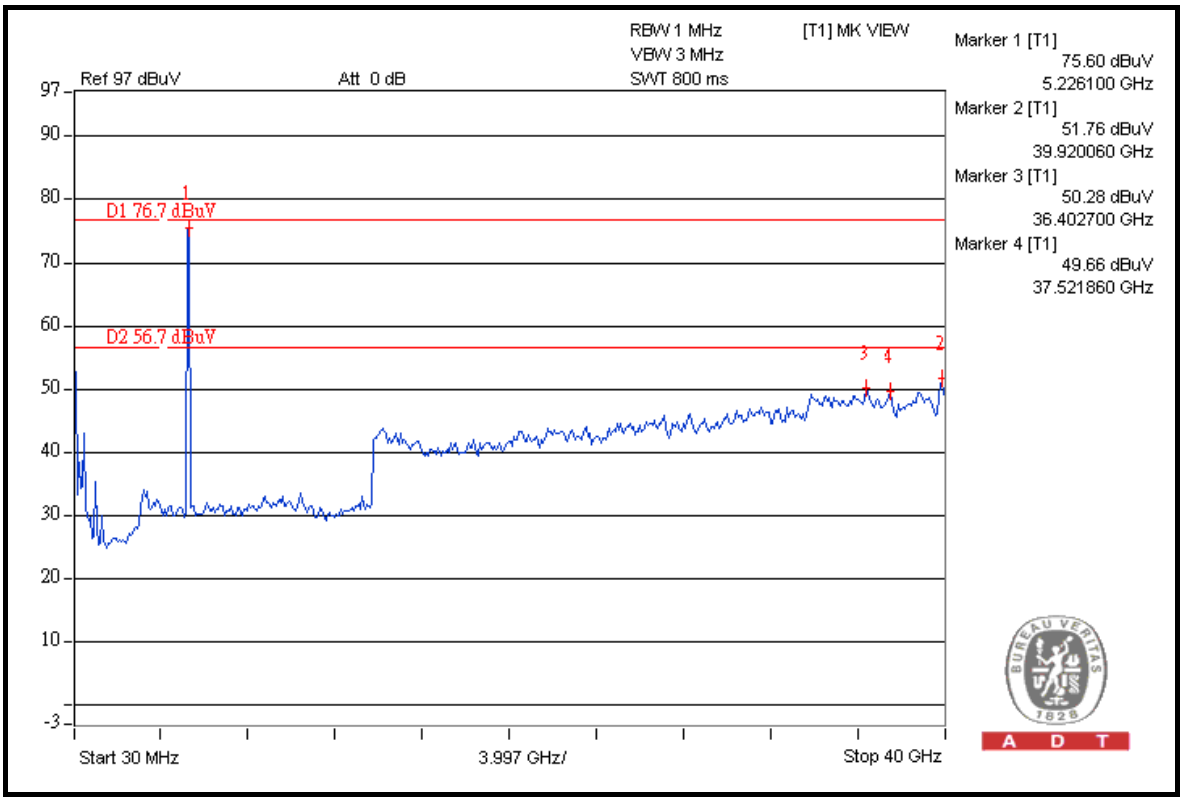

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
78.39 dBuV
5.195200 GHz
Marker 2 [T1]
39.25 dBuV
5.150000 GHz
Marker 3 [T1]
42.52 dBuV
5.148800 GHz
D1 70.39 dBuV
D2 50.39 dBuV
Center 5.114 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
66.73 dBuV
5.194800 GHz
Marker 2 [T1]
22.88 dBuV
5.150000 GHz
Marker 3 [T1]
22.88 dBuV
5.150000 GHz
D1 66.73 dBuV
D2 46.73 dBuV
Center 5.114 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
76.55 dBuV
5.146160 GHz
Marker 2 [T1]
50.00 dBuV
39.920060 GHz
Marker 3 [T1]
48.60 dBuV
35.843120 GHz
Marker 4 [T1]
48.40 dBuV
37.042220 GHz
D1 70.39 dBuV
D2 50.39 dBuV
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
Marker 1 [T1]
76.70 dBuV
5.219200 GHz
Marker 2 [T1]
32.13 dBuV
5.350000 GHz
Marker 3 [T1]
32.70 dBuV
5.380000 GHz
D1 76.7 dBuV
D2 56.7 dBuV
Center 5.306 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
64.99 dBuV
5.213200 GHz
Marker 2 [T1]
19.09 dBuV
5.350000 GHz
Marker 3 [T1]
20.05 dBuV
5.373600 GHz
D1 64.99 dBuV
D2 44.99 dBuV
Center 5.306 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
75.60 dBuV
5.226100 GHz
Marker 2 [T1]
51.76 dBuV
39.920060 GHz
Marker 3 [T1]
50.28 dBuV
36.402700 GHz
Marker 4 [T1]
49.66 dBuV
37.521860 GHz
D1 76.7 dBuV
D2 56.7 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

Channel 54 (5270MHz)

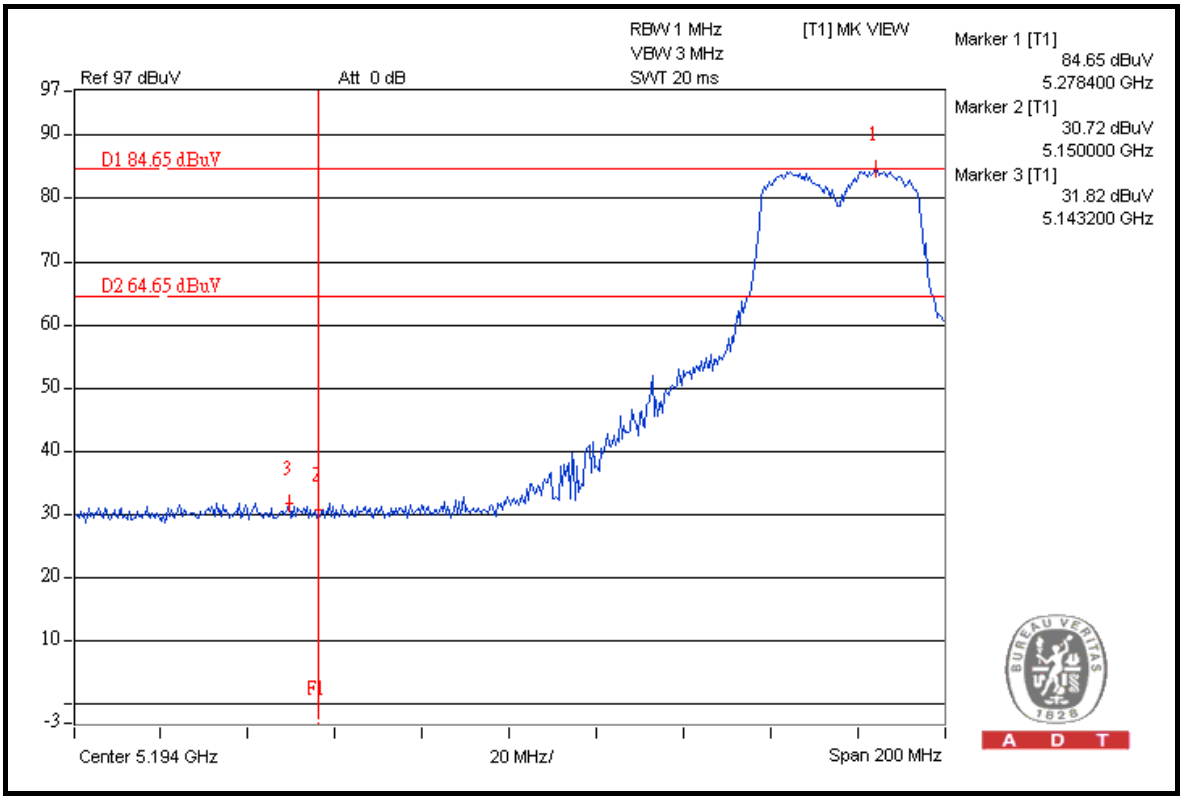
The band edge emission plot on the next page shows 52.83dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 54 is 111.71dBuV/m (Peak), so the maximum field strength in restrict band is 111.71 – 52.83 = 58.88dBuV/m which is under 74dBuV/m limit.

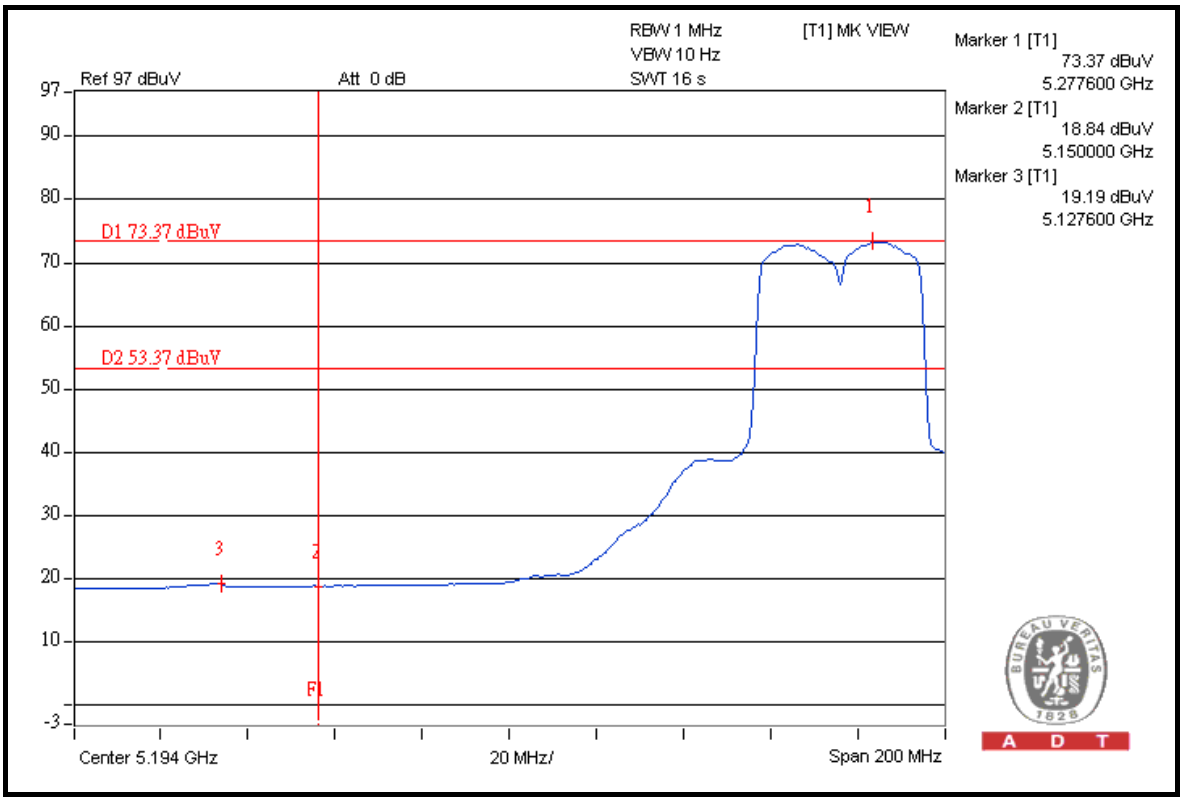
The band edge emission plot on the next page shows 54.18dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 54 is 100.92dBuV/m (Average), so the maximum field strength in restrict band is 100.92 – 54.18 = 46.74dBuV/m which is under 54dBuV/m limit.

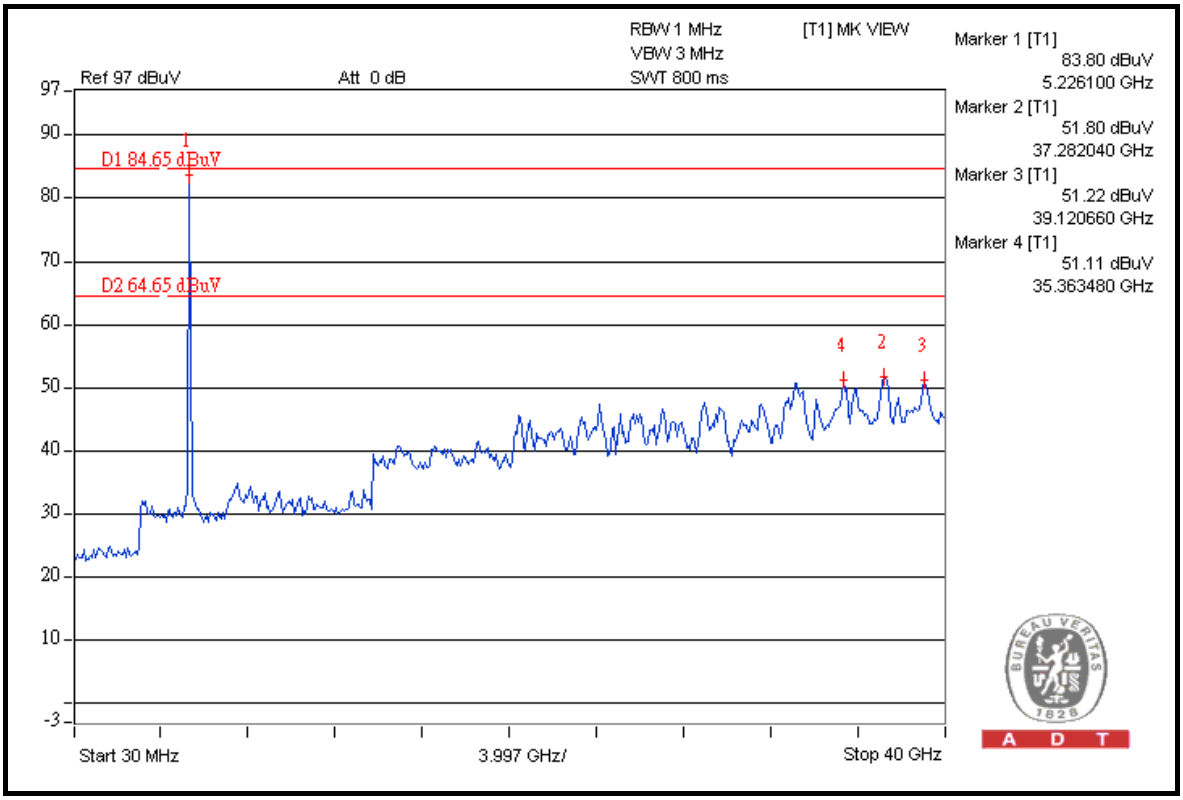
Channel 62 (5310MHz)

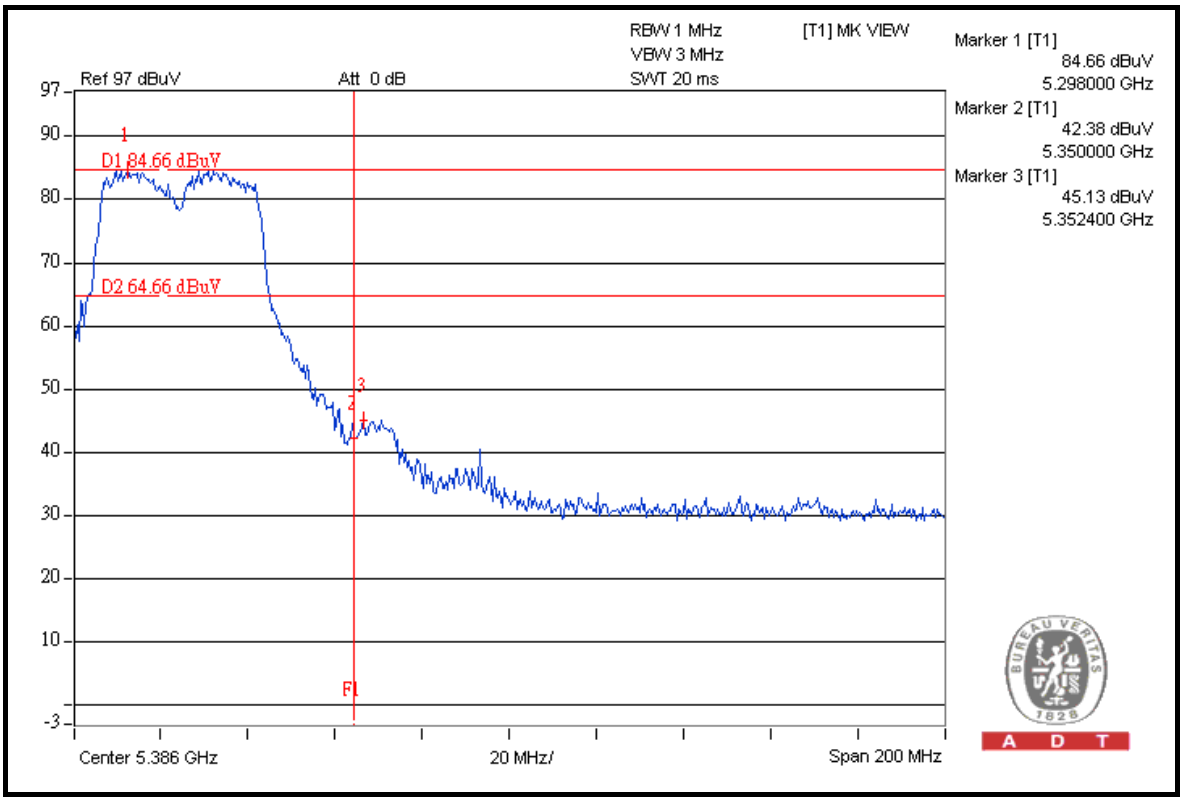
The band edge emission plot on the next second page shows 39.53dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 62 is 111.42dBuV/m (Peak), so the maximum field strength in restrict band is 111.42 – 39.53 = 71.89dBuV/m which is under 74dBuV/m limit.

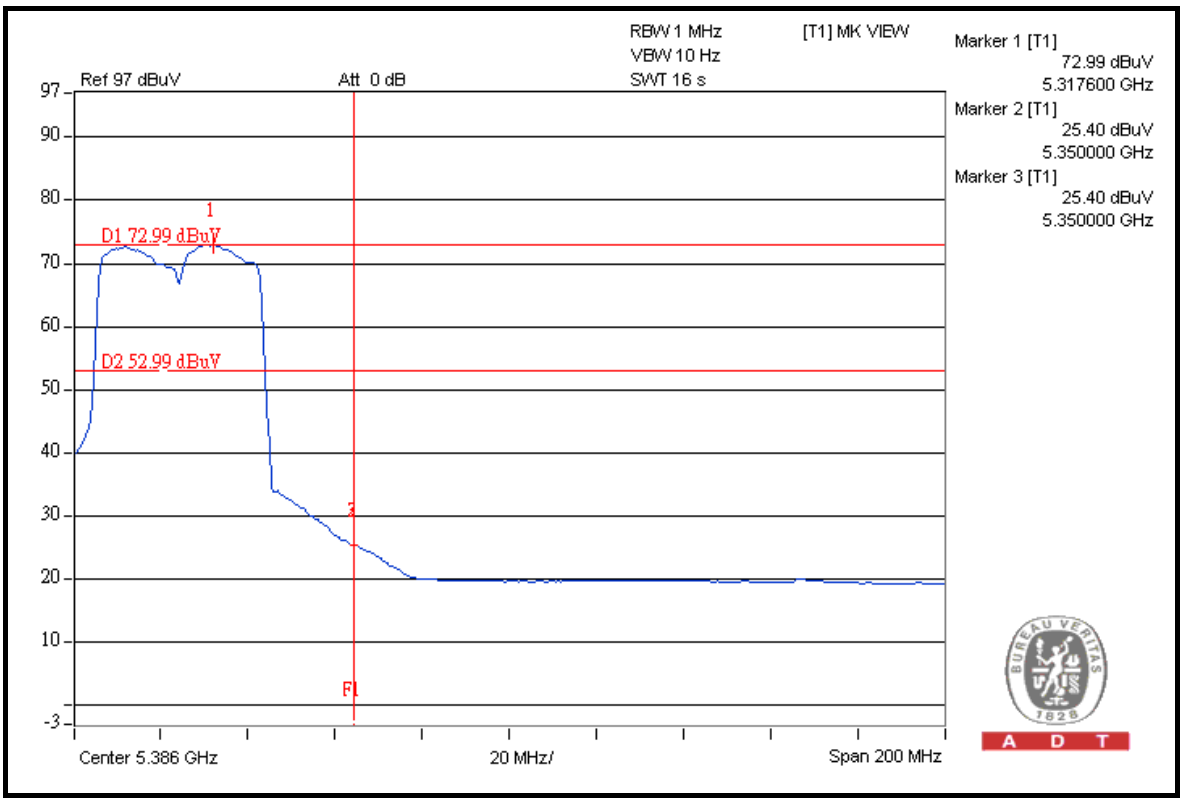
The band edge emission plot on the next third page shows 47.59dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 62 is 100.65dBuV/m (Average), so the maximum field strength in restrict band is 100.65 – 47.59 = 53.06dBuV/m which is under 54dBuV/m limit.

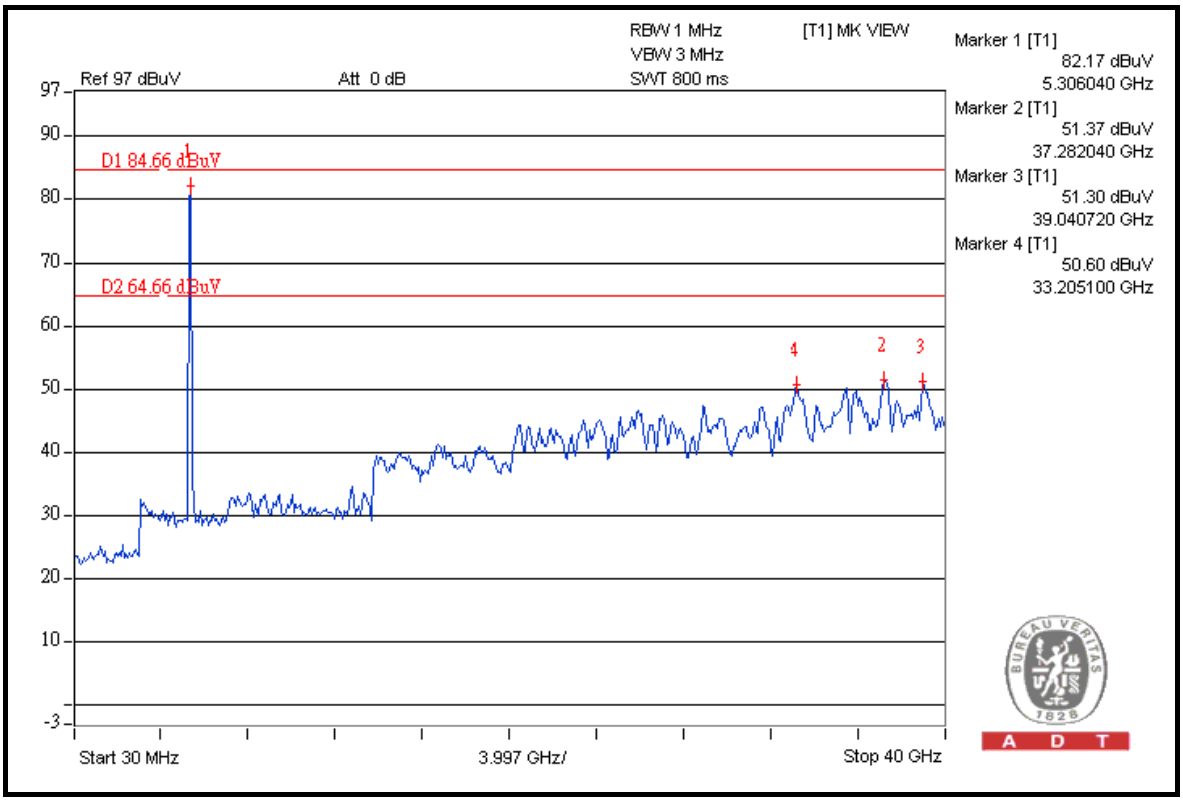

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
84.65 dBuV
5.278400 GHz
Marker 2 [T1]
30.72 dBuV
5.150000 GHz
Marker 3 [T1]
31.82 dBuV
5.143200 GHz
D1 84.65 dBuV
D2 64.65 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.194 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
73.37 dBuV
5.277600 GHz
Marker 2 [T1]
18.84 dBuV
5.150000 GHz
Marker 3 [T1]
19.19 dBuV
5.127600 GHz
D1 73.37 dBuV
D2 53.37 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.194 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 84.65 dBuV
D2 64.65 dBuV
Marker 1 [T1]
83.80 dBuV
5.226100 GHz
Marker 2 [T1]
51.80 dBuV
37.282040 GHz
Marker 3 [T1]
51.22 dBuV
39.120660 GHz
Marker 4 [T1]
51.11 dBuV
35.363480 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 84.66 dBuV
D2 64.66 dBuV
Marker 1 [T1]
84.66 dBuV
5.298000 GHz
Marker 2 [T1]
42.38 dBuV
5.350000 GHz
Marker 3 [T1]
45.13 dBuV
5.352400 GHz
Center 5.386 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
72.99 dBuV
5.317600 GHz
Marker 2 [T1]
25.40 dBuV
5.350000 GHz
Marker 3 [T1]
25.40 dBuV
5.350000 GHz
D1 72.99 dBuV
D2 52.99 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.386 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
82.17 dBuV
5.306040 GHz
Marker 2 [T1]
51.37 dBuV
37.282040 GHz
Marker 3 [T1]
51.30 dBuV
39.040720 GHz
Marker 4 [T1]
50.60 dBuV
33.205100 GHz
D1 84.66 dBuV
D2 64.66 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Start 30 MHz
3.997 GHz/
Stop 40 GHz

TEST MODE C

Channel 38 (5190MHz)

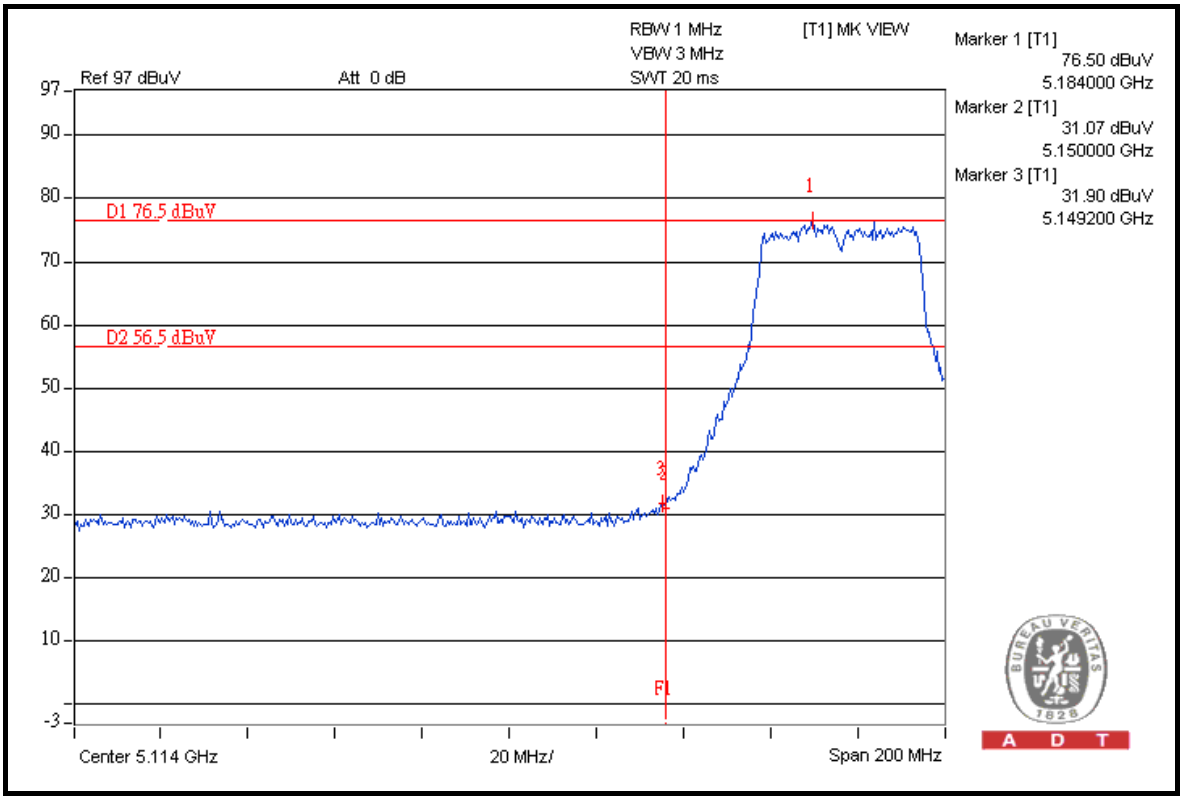
The band edge emission plot on the next page shows 44.60dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 38 is 104.54dBuV/m (Peak), so the maximum field strength in restrict band is 104.54 – 44.60 = 59.94dBuV/m which is under 74dBuV/m limit.

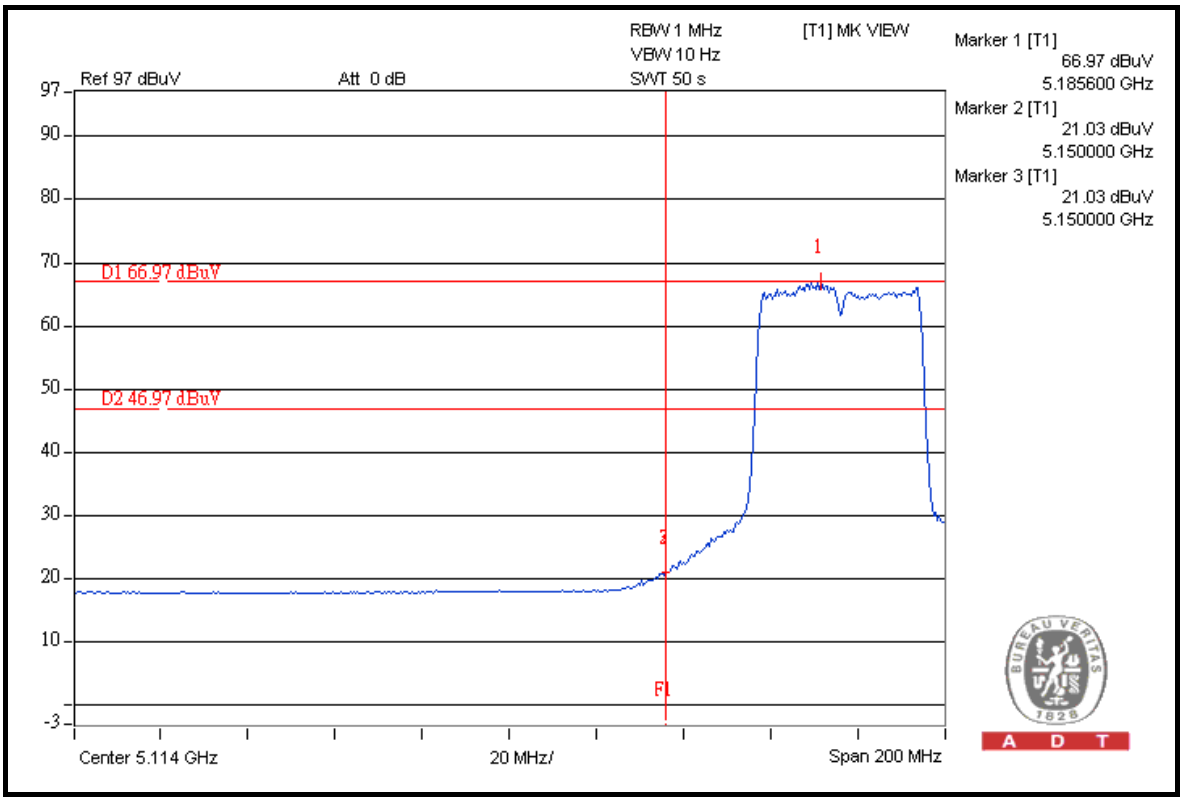
The band edge emission plot on the next page shows 45.94dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 38 is 94.03dBuV/m (Average), so the maximum field strength in restrict band is 94.03 – 45.94 = 48.09dBuV/m which is under 54dBuV/m limit.

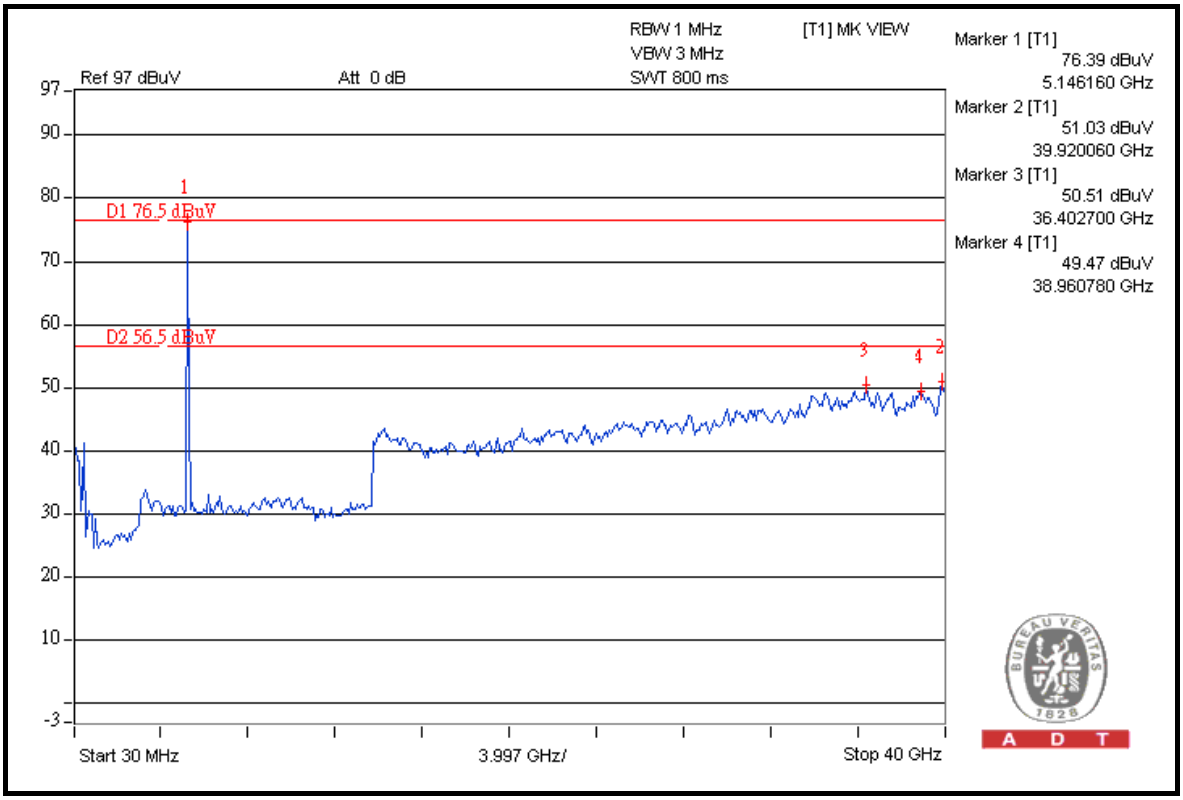
Channel 46 (5230MHz)

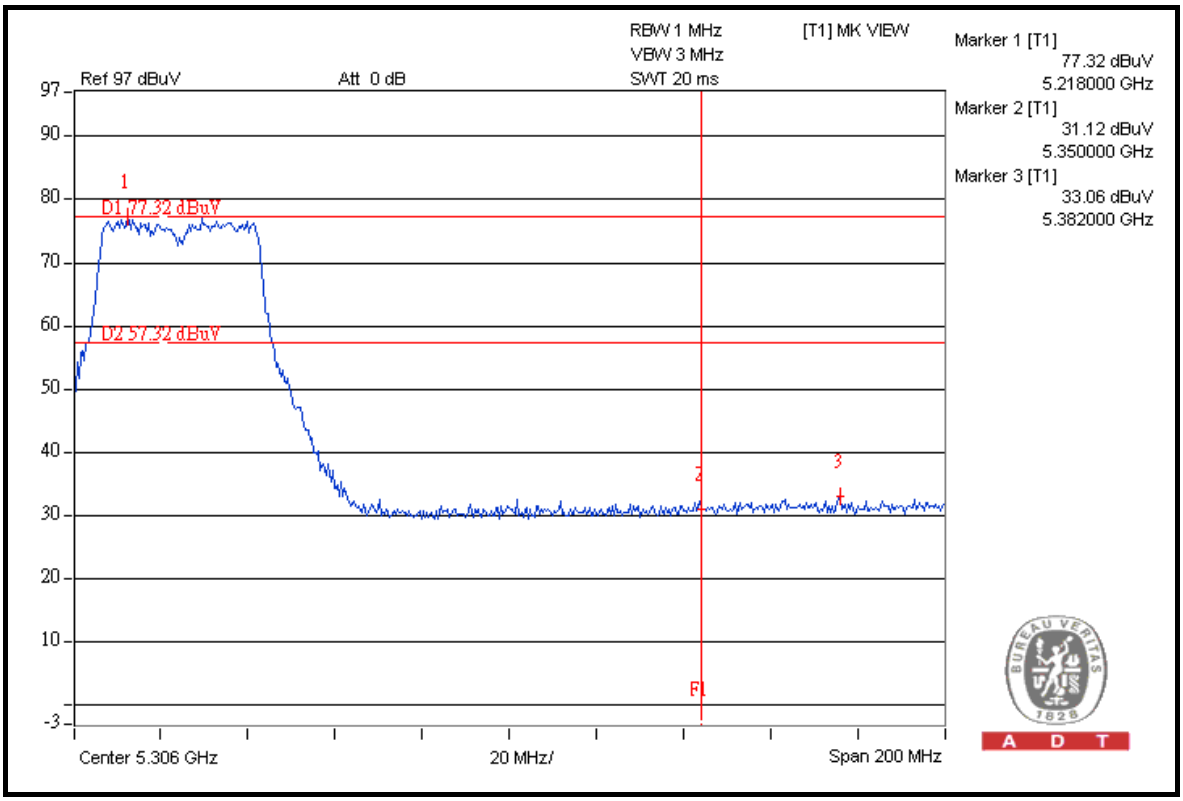
The band edge emission plot on the next second page shows 44.26dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 46 is 104.46dBuV/m (Peak), so the maximum field strength in restrict band is 104.46 – 44.26 = 60.20dBuV/m which is under 74dBuV/m limit.

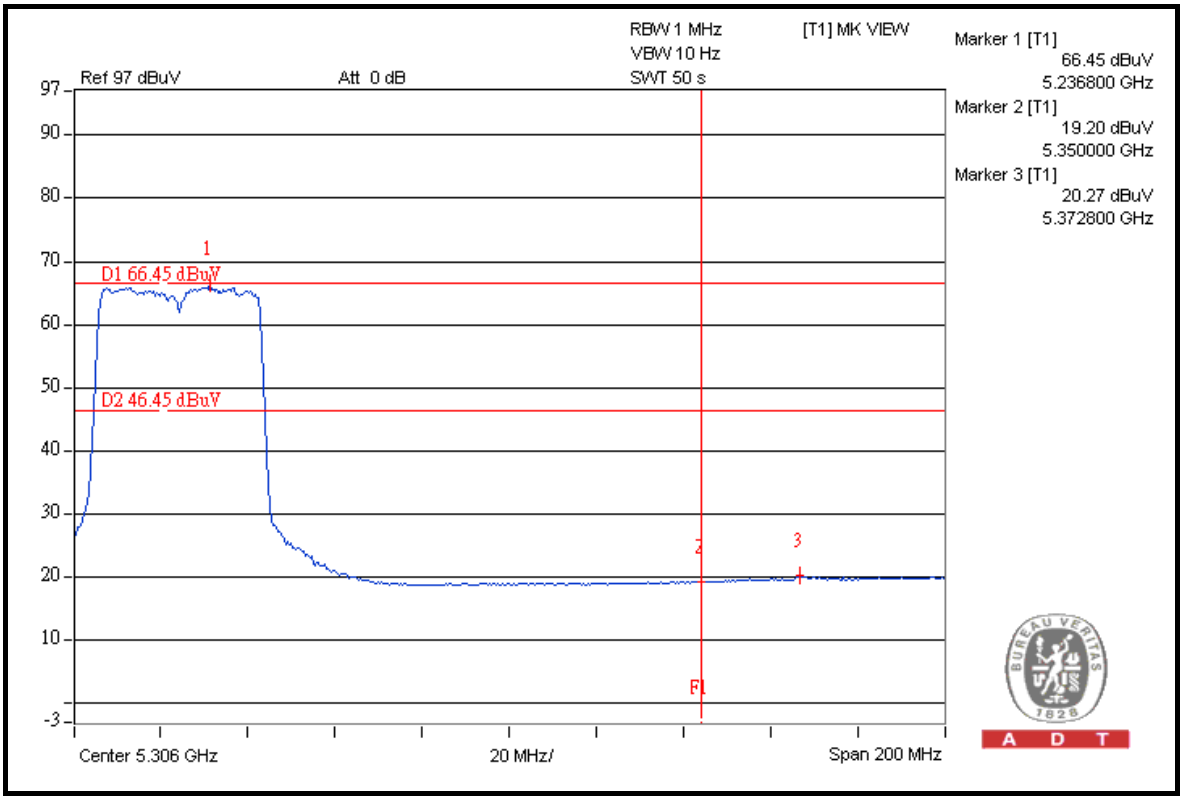
The band edge emission plot on the next third page shows 46.18dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 46 is 93.91dBuV/m (Average), so the maximum field strength in restrict band is 93.91 – 46.18 = 47.73dBuV/m which is under 54dBuV/m limit.

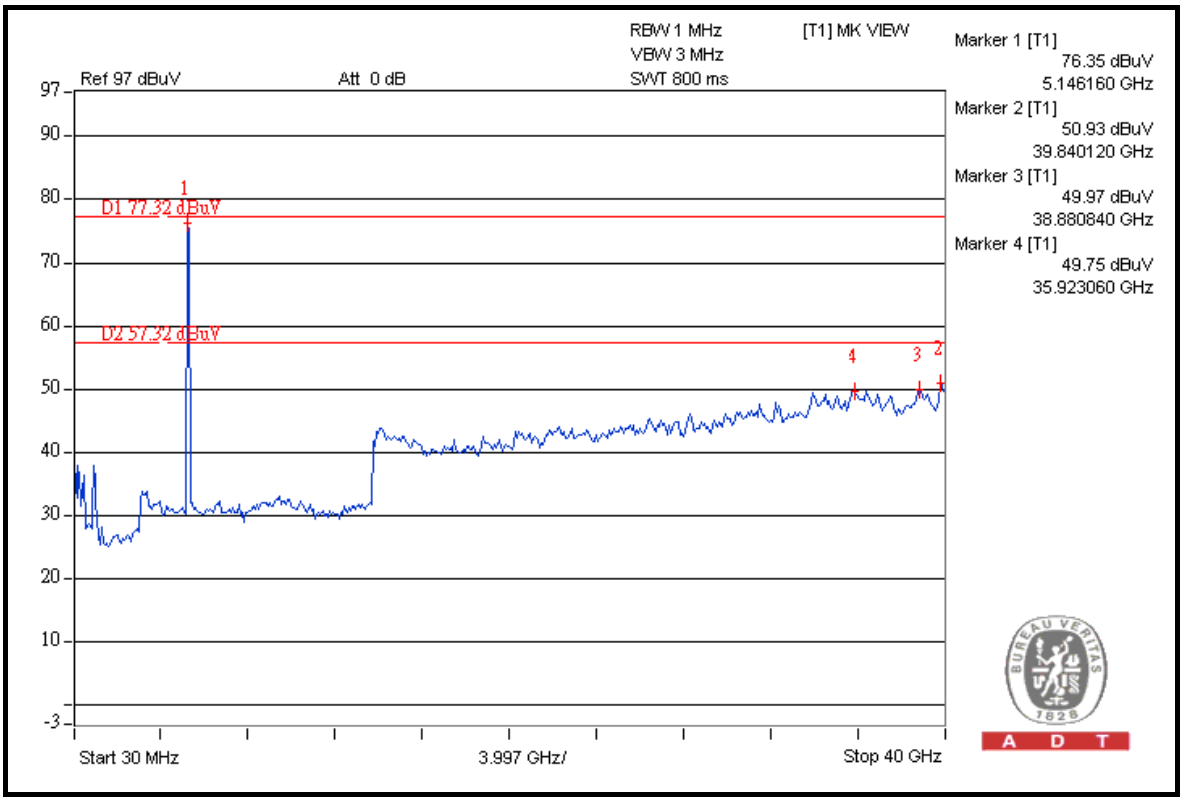

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
76.50 dBuV
5.184000 GHz
Marker 2 [T1]
31.07 dBuV
5.150000 GHz
Marker 3 [T1]
31.90 dBuV
5.149200 GHz
D1 76.5 dBuV
D2 56.5 dBuV
Center 5.114 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
66.97 dBuV
5.185600 GHz
Marker 2 [T1]
21.03 dBuV
5.150000 GHz
Marker 3 [T1]
21.03 dBuV
5.150000 GHz
D1 66.97 dBuV
D2 46.97 dBuV
Center 5.114 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
76.39 dBuV
5.146160 GHz
Marker 2 [T1]
51.03 dBuV
39.920060 GHz
Marker 3 [T1]
50.51 dBuV
36.402700 GHz
Marker 4 [T1]
49.47 dBuV
38.960780 GHz
D1 76.5 dBuV
D2 56.5 dBuV
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
Marker 1 [T1]
77.32 dBuV
5.218000 GHz
Marker 2 [T1]
31.12 dBuV
5.350000 GHz
Marker 3 [T1]
33.06 dBuV
5.382000 GHz
D1 77.32 dBuV
D2 57.32 dBuV
Center 5.306 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
66.45 dBuV
5.236800 GHz
Marker 2 [T1]
19.20 dBuV
5.350000 GHz
Marker 3 [T1]
20.27 dBuV
5.372800 GHz
D1 66.45 dBuV
D2 46.45 dBuV
Center 5.306 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
76.35 dBuV
5.146160 GHz
Marker 2 [T1]
50.93 dBuV
39.840120 GHz
Marker 3 [T1]
49.97 dBuV
38.880840 GHz
Marker 4 [T1]
49.75 dBuV
35.923060 GHz
D1 77.32 dBuV
D2 57.32 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

Channel 54 (5270MHz)

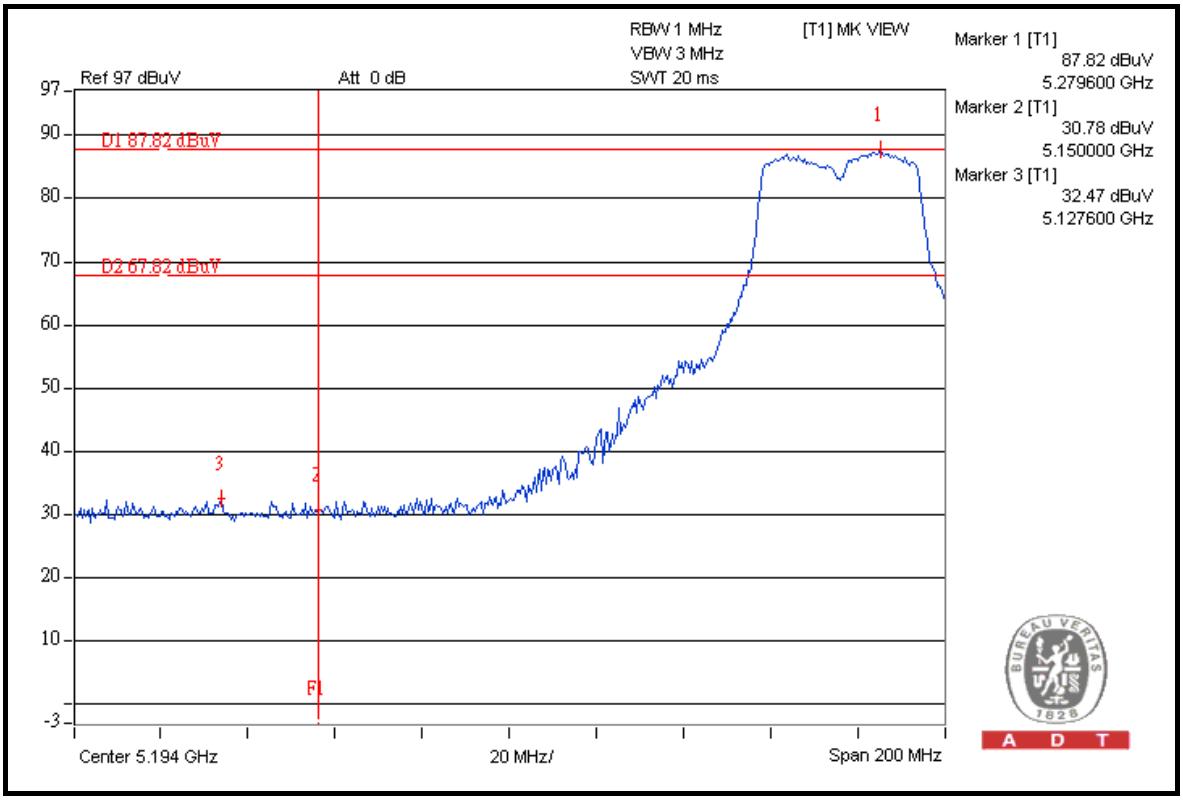
The band edge emission plot on the next page shows 55.35dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 54 is 114.58dBuV/m (Peak), so the maximum field strength in restrict band is 114.58 – 55.35 = 59.23dBuV/m which is under 74dBuV/m limit.

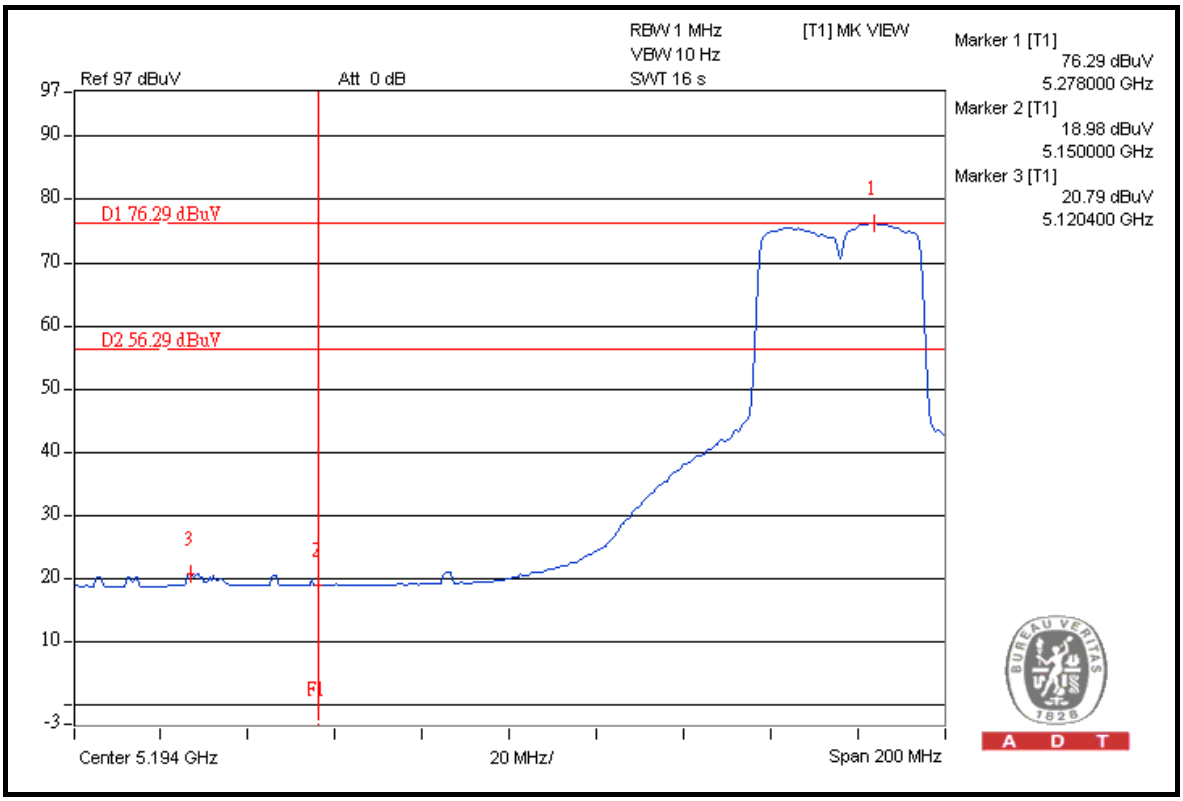
The band edge emission plot on the next page shows 55.50dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 54 is 103.76dBuV/m (Average), so the maximum field strength in restrict band is 103.76 – 55.50 = 48.26dBuV/m which is under 54dBuV/m limit.

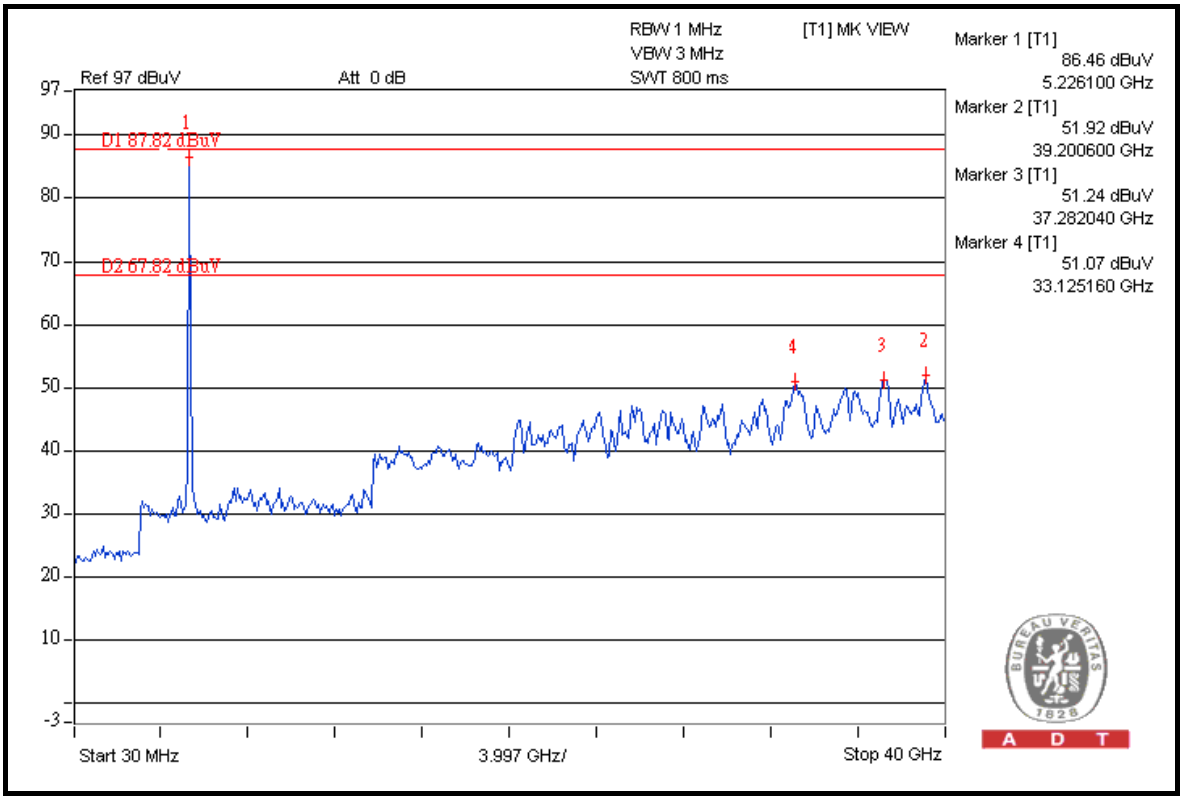
Channel 62 (5310MHz)

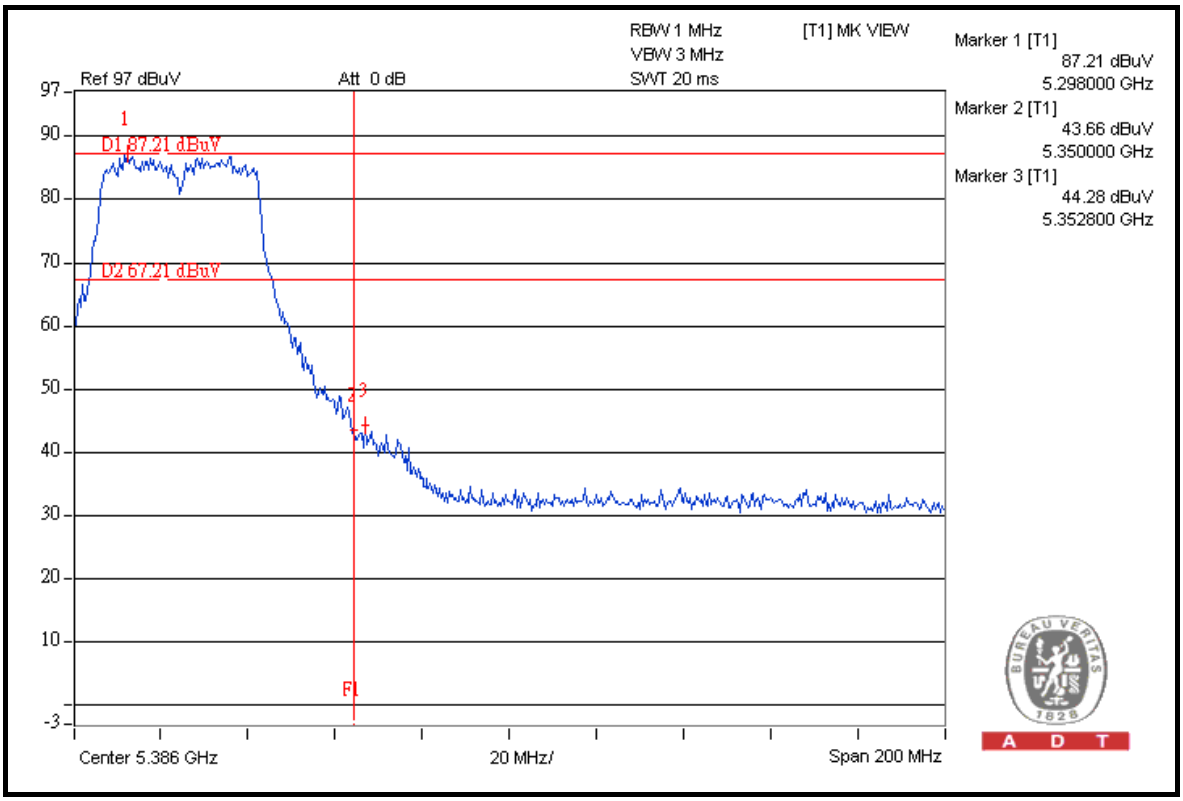
The band edge emission plot on the next second page shows 42.93dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 62 is 114.35dBuV/m (Peak), so the maximum field strength in restrict band is 114.35 – 42.93 = 71.42dBuV/m which is under 74dBuV/m limit.

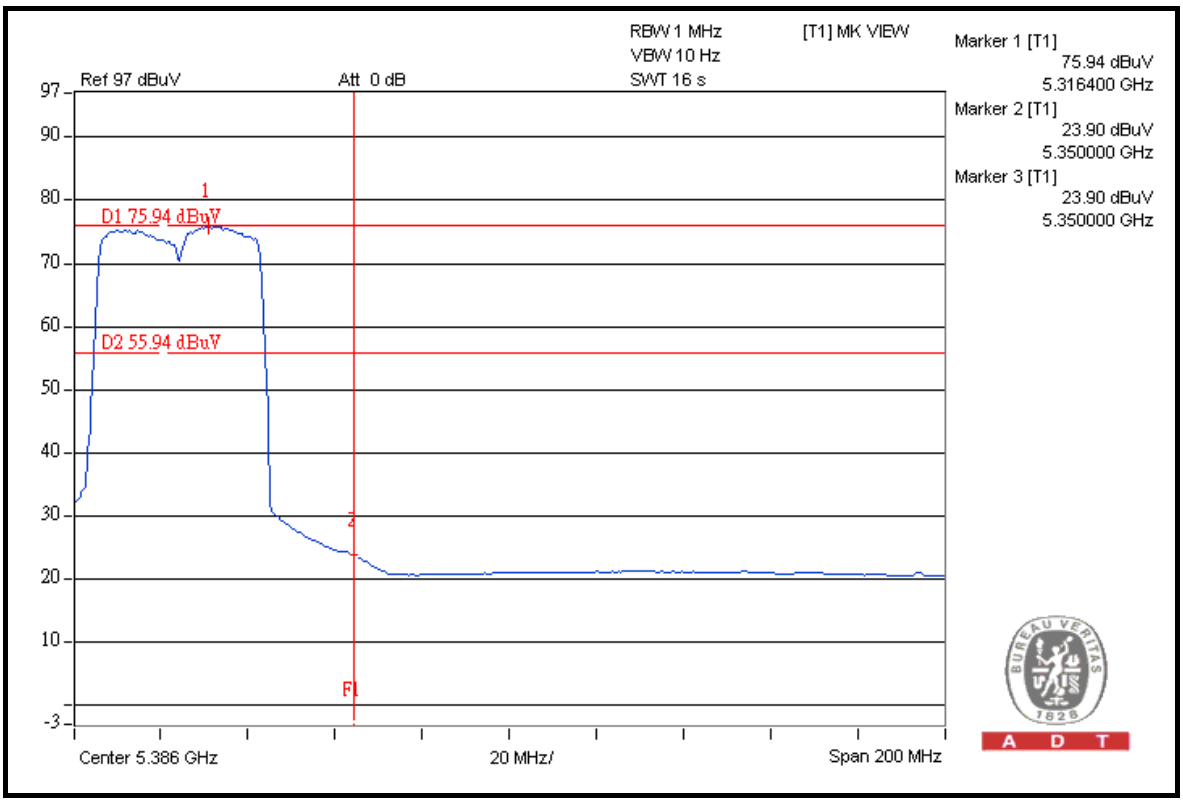
The band edge emission plot on the next third page shows 52.04dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 62 is 103.55dBuV/m (Average), so the maximum field strength in restrict band is 103.55 – 52.04 = 51.51dBuV/m which is under 54dBuV/m limit.

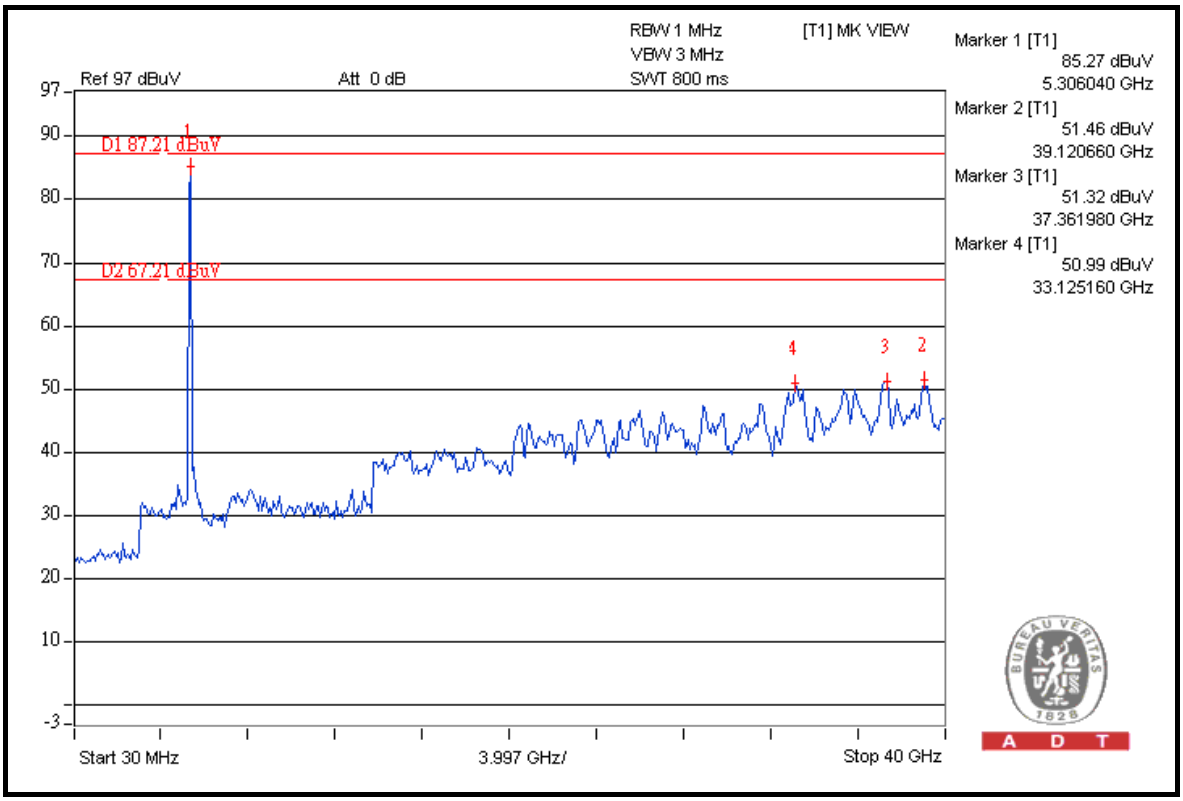

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 87.82 dBuV
D2 67.82 dBuV
Marker 1 [T1]
87.82 dBuV
5.279600 GHz
Marker 2 [T1]
30.78 dBuV
5.150000 GHz
Marker 3 [T1]
32.47 dBuV
5.127600 GHz
Center 5.194 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 76.29 dBuV
D2 56.29 dBuV
Marker 1 [T1]
76.29 dBuV
5.278000 GHz
Marker 2 [T1]
18.98 dBuV
5.150000 GHz
Marker 3 [T1]
20.79 dBuV
5.120400 GHz
Center 5.194 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 87.82 dBuV
D2 67.82 dBuV
Marker 1 [T1]
86.46 dBuV
5.226100 GHz
Marker 2 [T1]
51.92 dBuV
39.200600 GHz
Marker 3 [T1]
51.24 dBuV
37.282040 GHz
Marker 4 [T1]
51.07 dBuV
33.125160 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 87.21 dBuV
D2 67.21 dBuV
Marker 1 [T1]
87.21 dBuV
5.298000 GHz
Marker 2 [T1]
43.66 dBuV
5.350000 GHz
Marker 3 [T1]
44.28 dBuV
5.352800 GHz
Center 5.386 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
75.94 dBuV
5.316400 GHz
Marker 2 [T1]
23.90 dBuV
5.350000 GHz
Marker 3 [T1]
23.90 dBuV
5.350000 GHz
D1 75.94 dBuV
D2 55.94 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.386 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
85.27 dBuV
5.306040 GHz
Marker 2 [T1]
51.46 dBuV
39.120660 GHz
Marker 3 [T1]
51.32 dBuV
37.361980 GHz
Marker 4 [T1]
50.99 dBuV
33.125160 GHz
D1 87.21 dBuV
D2 67.21 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Start 30 MHz
3.997 GHz/
Stop 40 GHz

FOR 5500-5700MHz BAND: 802.11a OFDM MODULATION

TEST MODE A

Channel 100 (5500MHz)

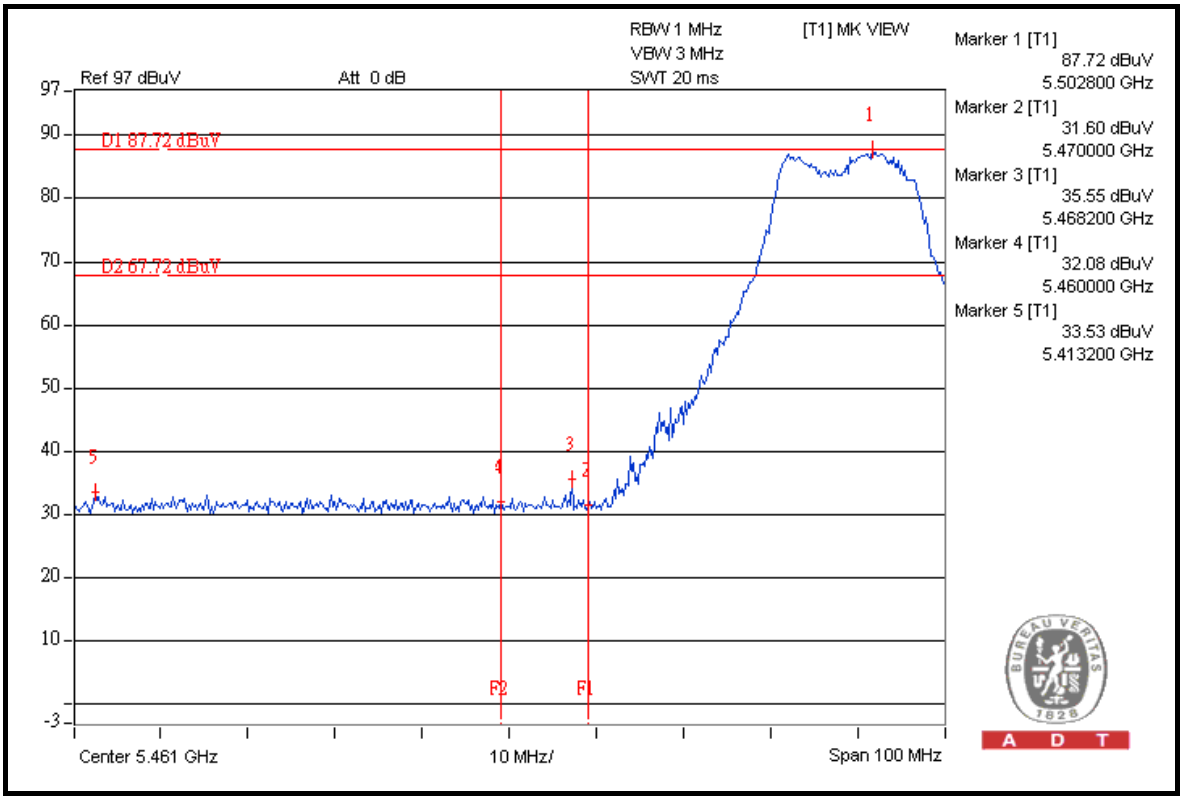
The band edge emission plot (5.460GHz) on the next page shows 54.19dBc between carrier maximum power and local maximum emission out of band emission. The emission of carrier strength list in the test result of channel 100 is 115.19dBuV/m (Peak), so the maximum field strength out of band emission is 115.19 – 54.19 = 61.00dBuV/m which is under 74dBuV/m limit.

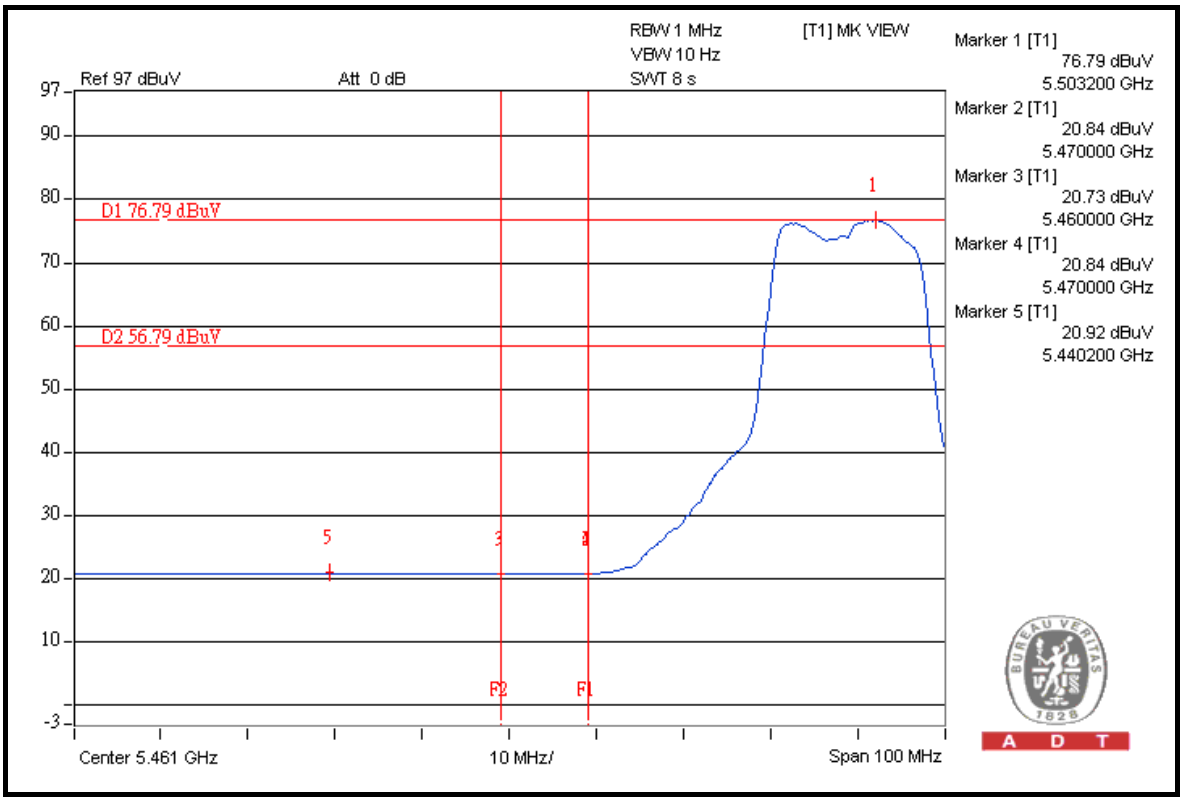
The band edge emission plot (5.460GHz) on the next page shows 55.87dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 100 is 104.68dBuV/m (Average), so the maximum field strength in restrict band is 104.68 – 55.87 = 48.81dBuV/m which is under 54dBuV/m limit.

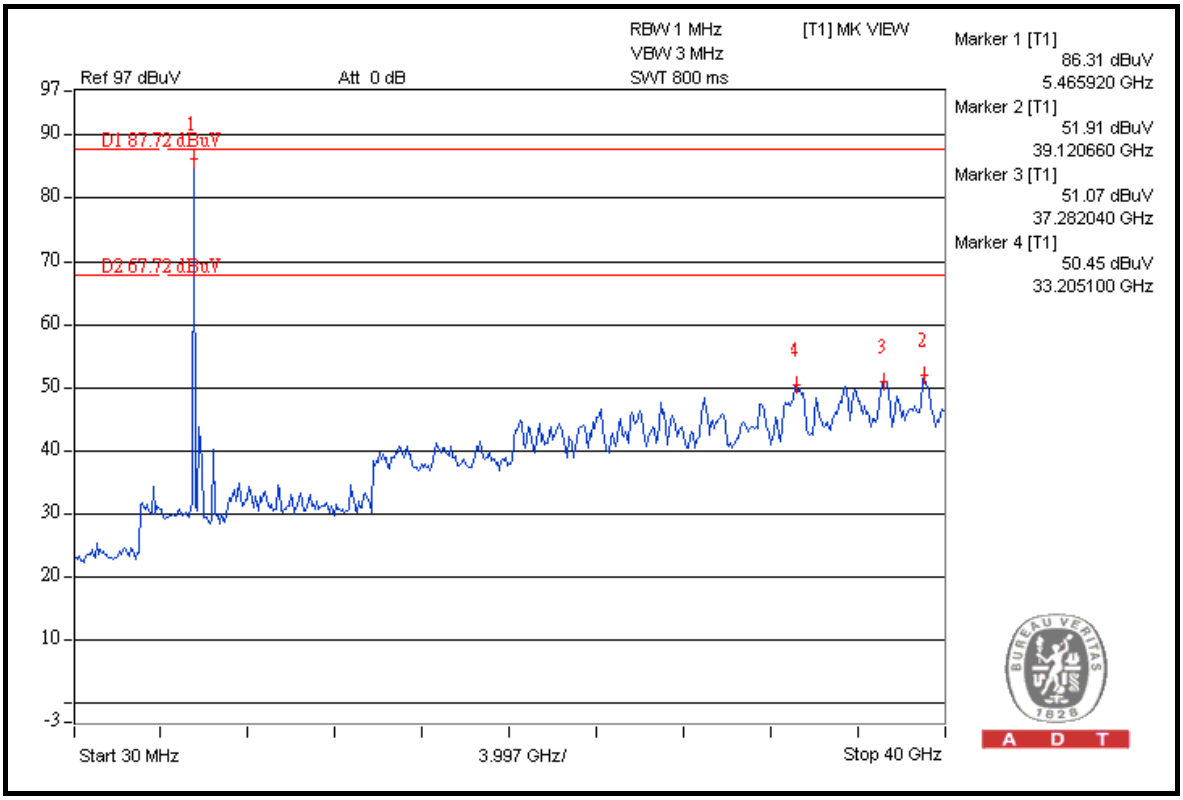
The band edge emission plot (5.470GHz) on the next page shows 52.17dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 100 is 115.19dBuV/m (Peak), so the maximum field strength in restrict band is 115.19 – 52.17 = 63.02dBuV/m which is under 68.3dBuV/m limit.

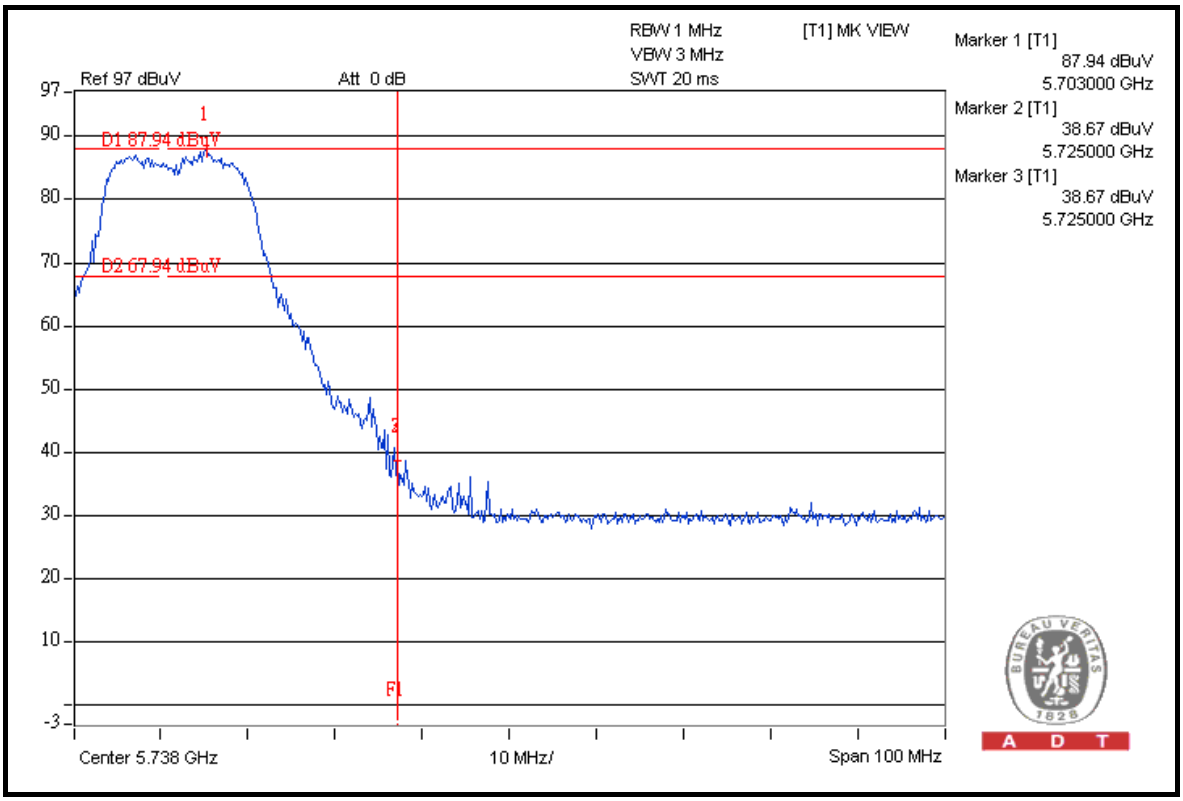
Channel 140 (5700MHz)

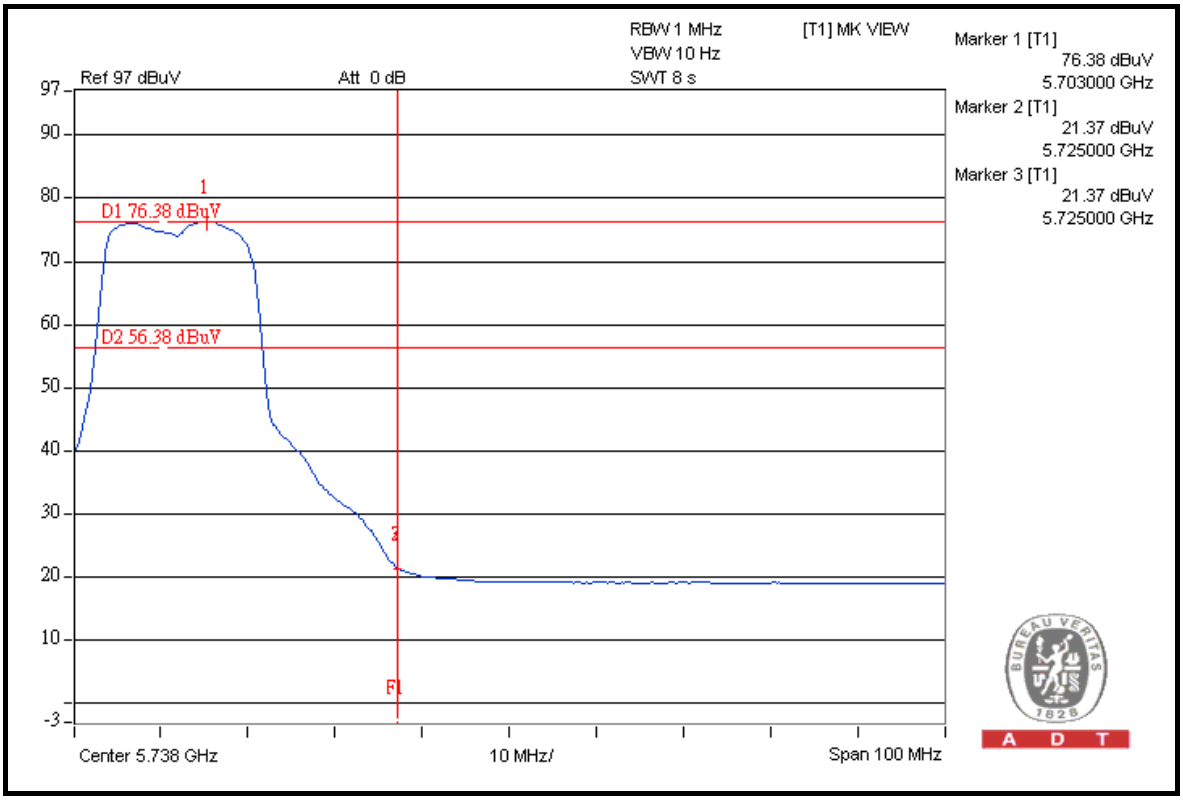
The band edge emission plot on the next second page shows 49.27dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 140 is 115.30dBuV/m (Peak), so the maximum field strength in restrict band is 115.30 – 49.27 = 66.03dBuV/m which is under 68.3dBuV/m limit.

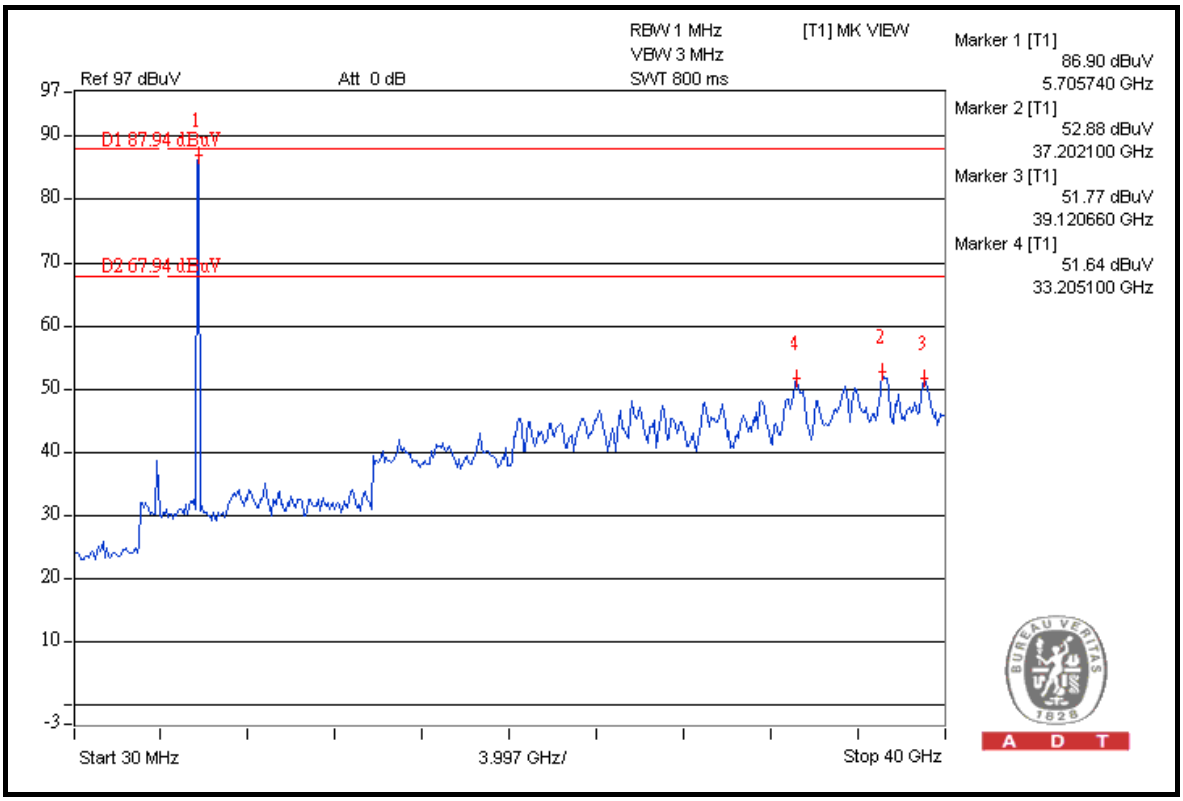

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 87.72 dBuV
D2 67.72 dBuV
Marker 1 [T1]
87.72 dBuV
5.502800 GHz
Marker 2 [T1]
31.60 dBuV
5.470000 GHz
Marker 3 [T1]
35.55 dBuV
5.468200 GHz
Marker 4 [T1]
32.08 dBuV
5.460000 GHz
Marker 5 [T1]
33.53 dBuV
5.413200 GHz
Center 5.461 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 76.79 dBuV
D2 56.79 dBuV
Marker 1 [T1]
76.79 dBuV
5.503200 GHz
Marker 2 [T1]
20.84 dBuV
5.470000 GHz
Marker 3 [T1]
20.73 dBuV
5.460000 GHz
Marker 4 [T1]
20.84 dBuV
5.470000 GHz
Marker 5 [T1]
20.92 dBuV
5.440200 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
D1 87.72 dBuV
D2 67.72 dBuV
Marker 1 [T1]
86.31 dBuV
5.465920 GHz
Marker 2 [T1]
51.91 dBuV
39.120660 GHz
Marker 3 [T1]
51.07 dBuV
37.282040 GHz
Marker 4 [T1]
50.45 dBuV
33.205100 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 87.94 dBuV
D2 67.94 dBuV
Marker 1 [T1]
87.94 dBuV
5.703000 GHz
Marker 2 [T1]
38.67 dBuV
5.725000 GHz
Marker 3 [T1]
38.67 dBuV
5.725000 GHz
Center 5.738 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
76.38 dBuV
5.703000 GHz
Marker 2 [T1]
21.37 dBuV
5.725000 GHz
Marker 3 [T1]
21.37 dBuV
5.725000 GHz
D1 76.38 dBuV
D2 56.38 dBuV
Center 5.738 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]
86.90 dBuV
5.705740 GHz
Marker 2 [T1]
52.88 dBuV
37.202100 GHz
Marker 3 [T1]
51.77 dBuV
39.120660 GHz
Marker 4 [T1]
51.64 dBuV
33.205100 GHz
D1 87.94 dBuV
D2 67.94 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

TEST MODE C

Channel 100 (5500MHz)

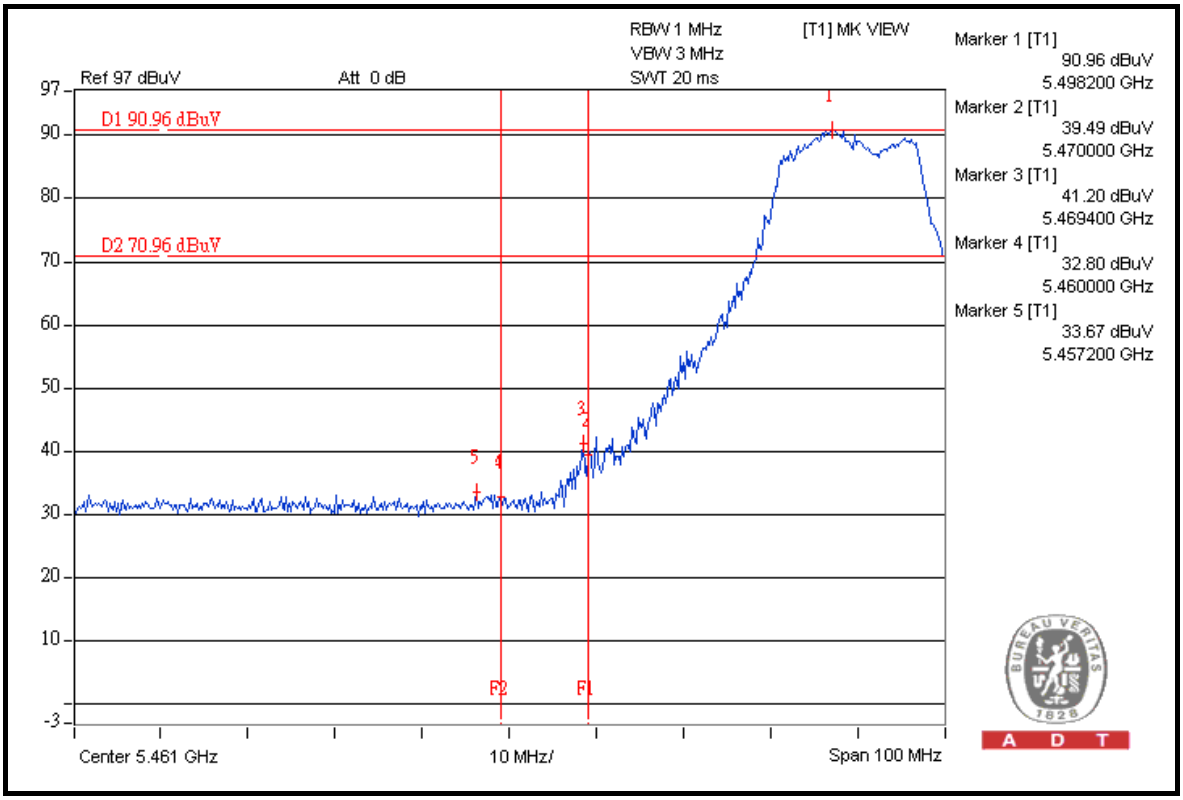
The band edge emission plot (5.460GHz) on the next page shows 57.29dBc between carrier maximum power and local maximum emission out of band emission. The emission of carrier strength list in the test result of channel 100 is 117.85dBuV/m (Peak), so the maximum field strength out of band emission is 117.85 – 57.29 = 60.56dBuV/m which is under 74dBuV/m limit.

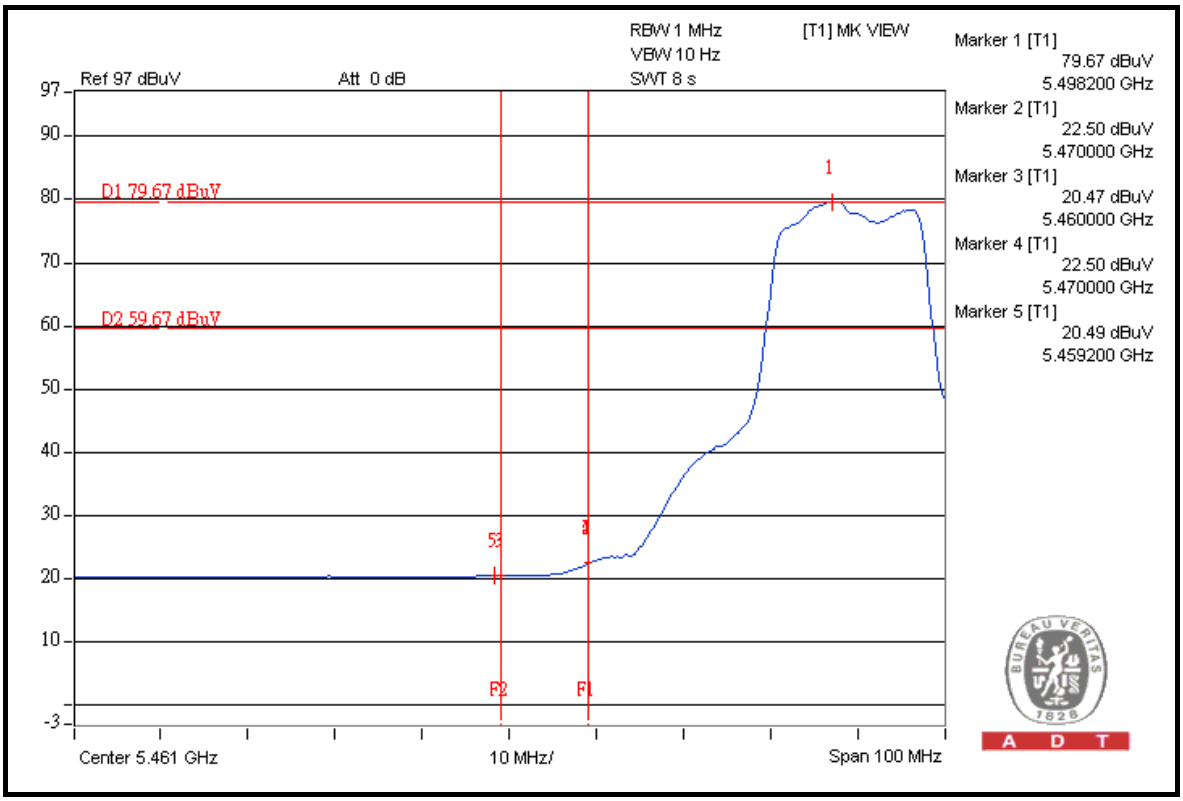
The band edge emission plot (5.460GHz) on the next page shows 59.18dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 100 is 107.46dBuV/m (Average), so the maximum field strength in restrict band is 107.46 – 59.18 = 48.28dBuV/m which is under 54dBuV/m limit.

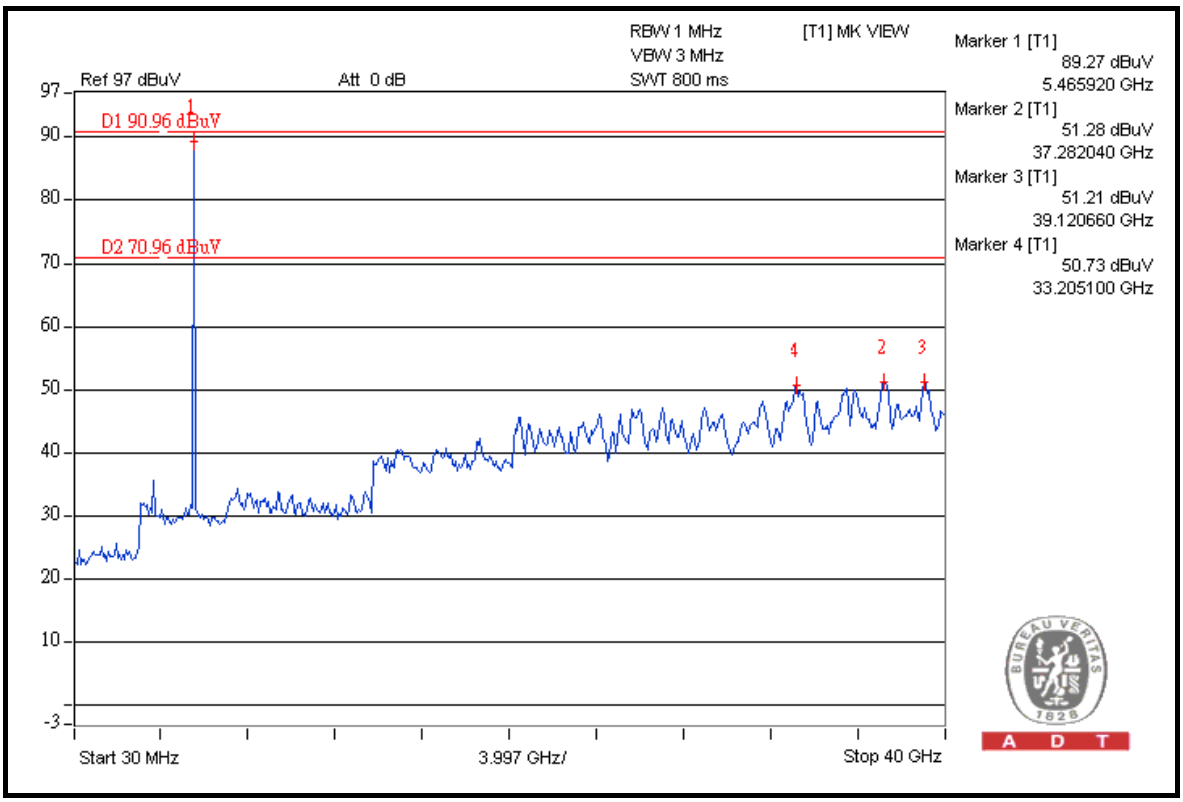
The band edge emission plot (5.470GHz) on the next page shows 49.76dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 100 is 117.85dBuV/m (Peak), so the maximum field strength in restrict band is 117.85 – 49.76 = 68.09dBuV/m which is under 68.3dBuV/m limit.

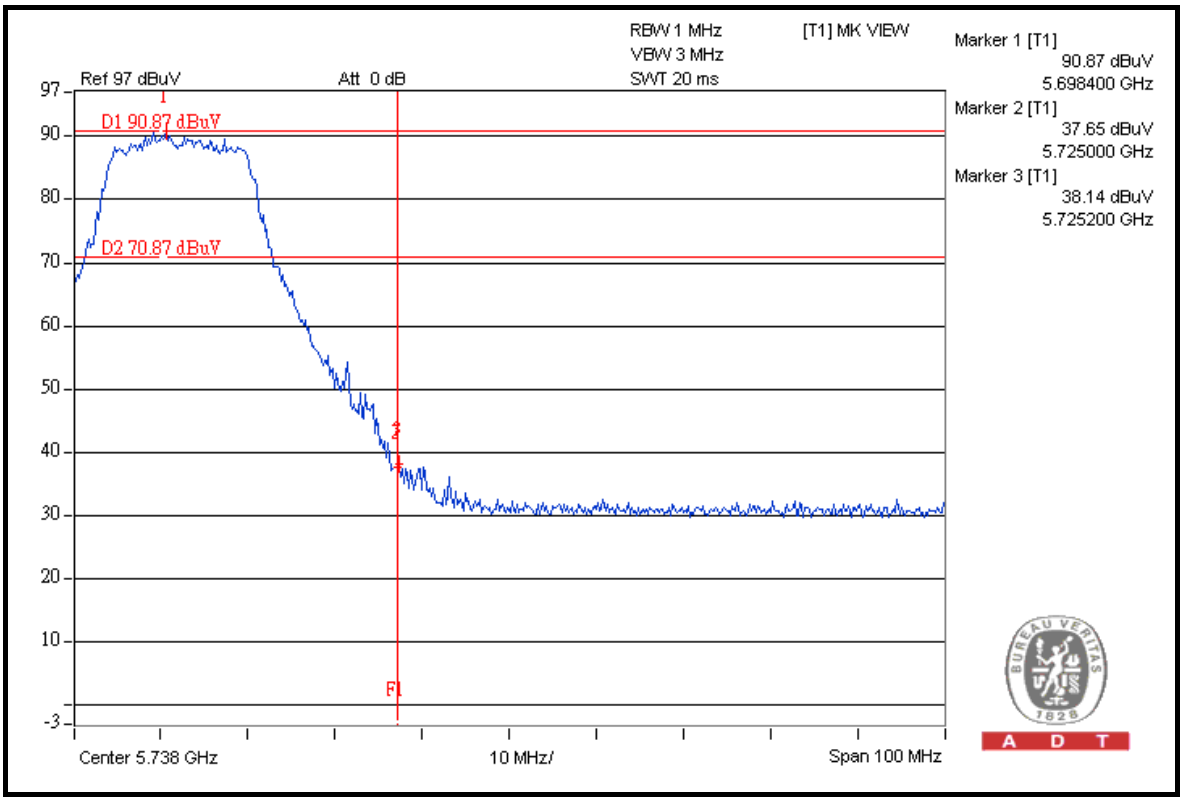
Channel 140 (5700MHz)

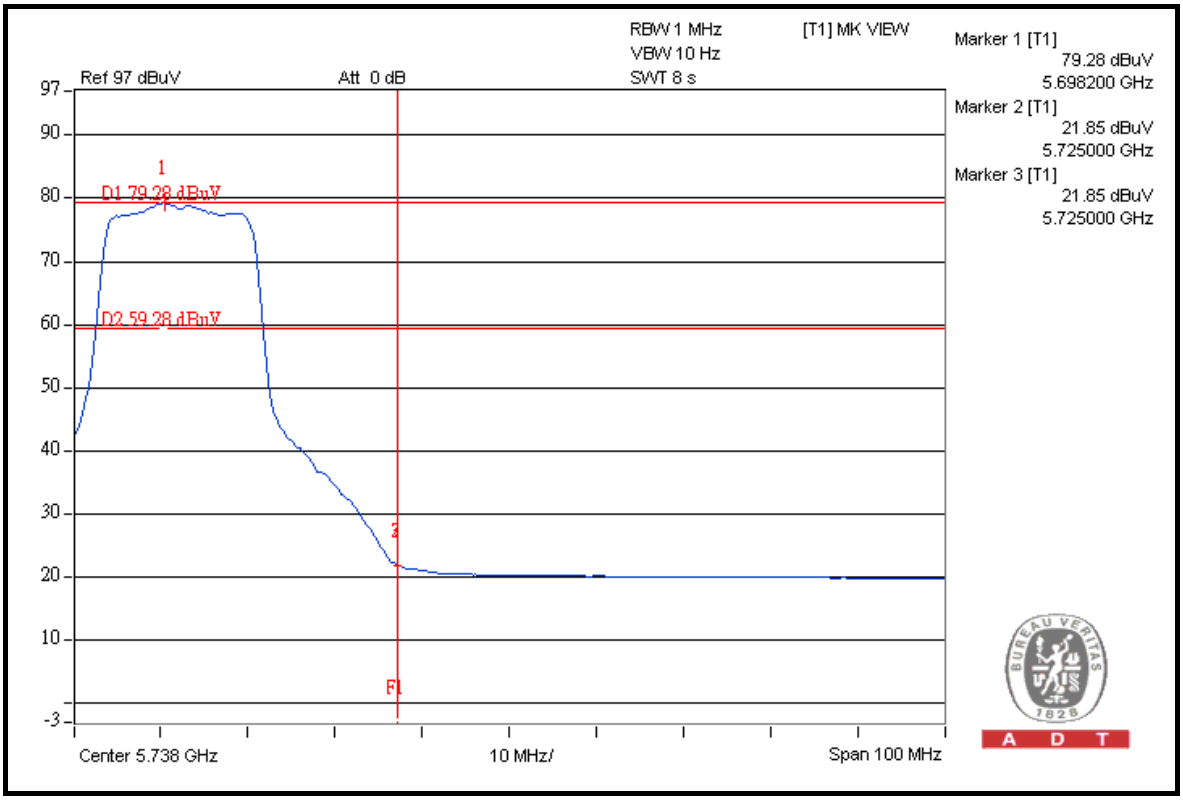
The band edge emission plot on the next second page shows 52.73dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 140 is 117.14dBuV/m (Peak), so the maximum field strength in restrict band is 117.14 – 52.73 = 64.41dBuV/m which is under 68.3dBuV/m limit.

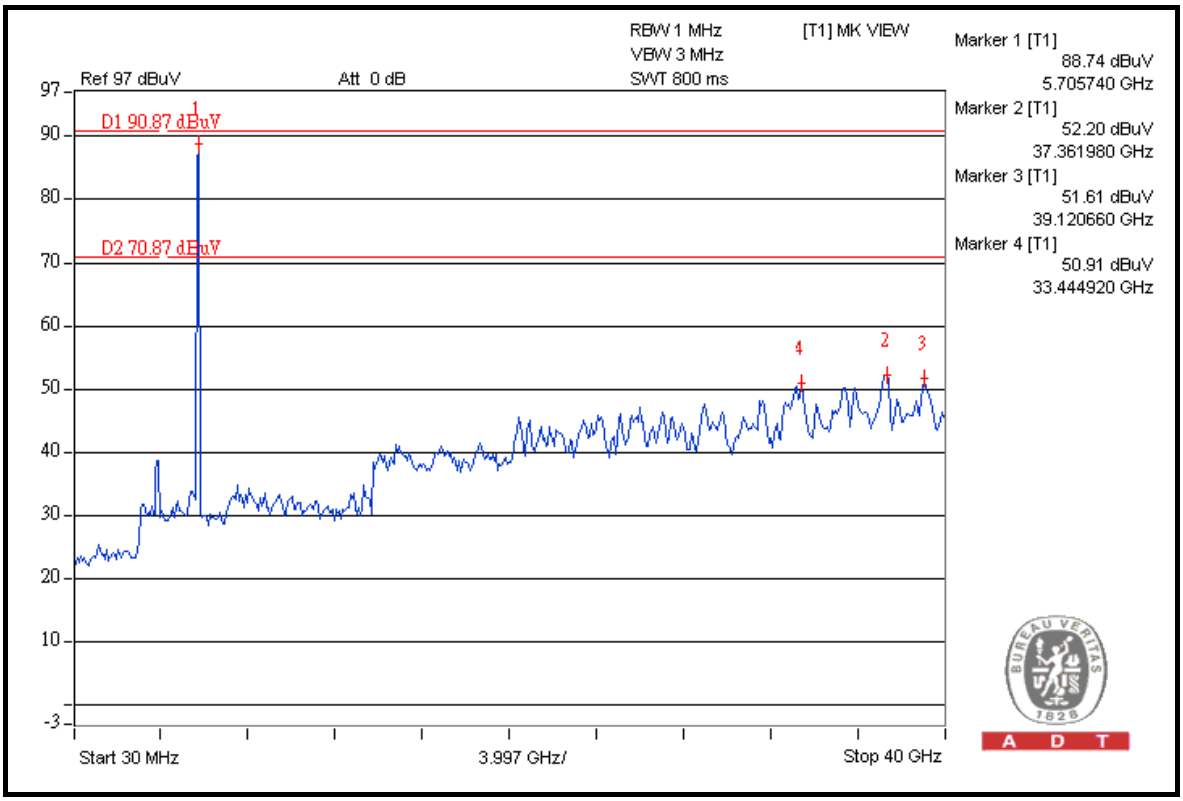

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 90.96 dBuV
D2 70.96 dBuV
Marker 1 [T1]
90.96 dBuV
5.498200 GHz
Marker 2 [T1]
39.49 dBuV
5.470000 GHz
Marker 3 [T1]
41.20 dBuV
5.469400 GHz
Marker 4 [T1]
32.80 dBuV
5.460000 GHz
Marker 5 [T1]
33.67 dBuV
5.457200 GHz
Center 5.461 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 79.67 dBuV
D2 59.67 dBuV
Marker 1 [T1]
79.67 dBuV
5.498200 GHz
Marker 2 [T1]
22.50 dBuV
5.470000 GHz
Marker 3 [T1]
20.47 dBuV
5.460000 GHz
Marker 4 [T1]
22.50 dBuV
5.470000 GHz
Marker 5 [T1]
20.49 dBuV
5.459200 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
D1 90.96 dBuV
D2 70.96 dBuV
Marker 1 [T1]
89.27 dBuV
5.465920 GHz
Marker 2 [T1]
51.28 dBuV
37.282040 GHz
Marker 3 [T1]
51.21 dBuV
39.120660 GHz
Marker 4 [T1]
50.73 dBuV
33.205100 GHz
97
90
80
70
60
50
40
30
20
10
-3
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 90.87 dBuV
D2 70.87 dBuV
Marker 1 [T1]
90.87 dBuV
5.698400 GHz
Marker 2 [T1]
37.65 dBuV
5.725000 GHz
Marker 3 [T1]
38.14 dBuV
5.725200 GHz
97
90
80
70
60
50
40
30
20
10
-3
Center 5.738 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 79.28 dBuV
D2 59.28 dBuV
Marker 1 [T1]
79.28 dBuV
5.698200 GHz
Marker 2 [T1]
21.85 dBuV
5.725000 GHz
Marker 3 [T1]
21.85 dBuV
5.725000 GHz
Center 5.738 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 90.87 dBuV
D2 70.87 dBuV
Marker 1 [T1]
88.74 dBuV
5.705740 GHz
Marker 2 [T1]
52.20 dBuV
37.361980 GHz
Marker 3 [T1]
51.61 dBuV
39.120660 GHz
Marker 4 [T1]
50.91 dBuV
33.444920 GHz
Start 30 MHz
3.997 GHz/
Stop 40 GHz

DRAFT 802.11n (20MHz) OFDM MODULATION
TEST MODE A

Channel 100 (5500MHz)

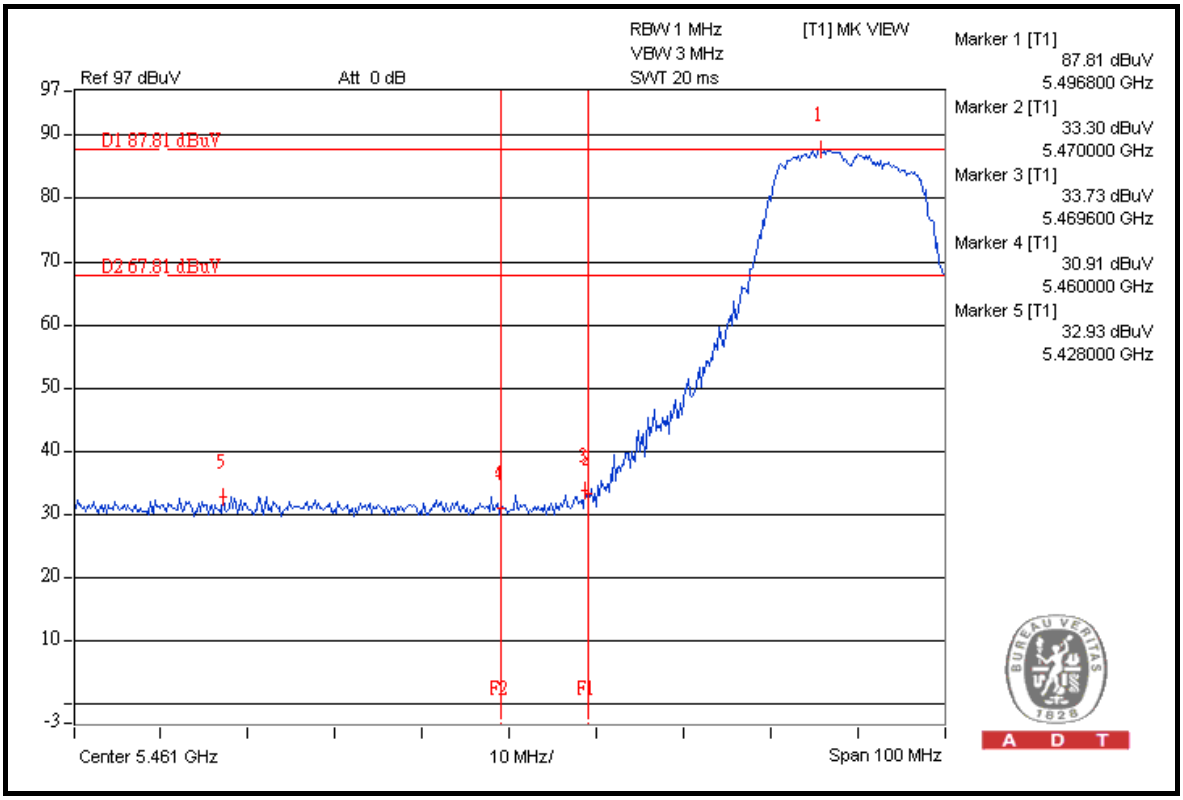
The band edge emission plot (5.460GHz) on the next page shows 54.88dBc between carrier maximum power and local maximum emission out of band emission. The emission of carrier strength list in the test result of channel 100 is 115.03dBuV/m (Peak), so the maximum field strength out of band emission is 115.03 – 54.88 = 60.15dBuV/m which is under 74dBuV/m limit.

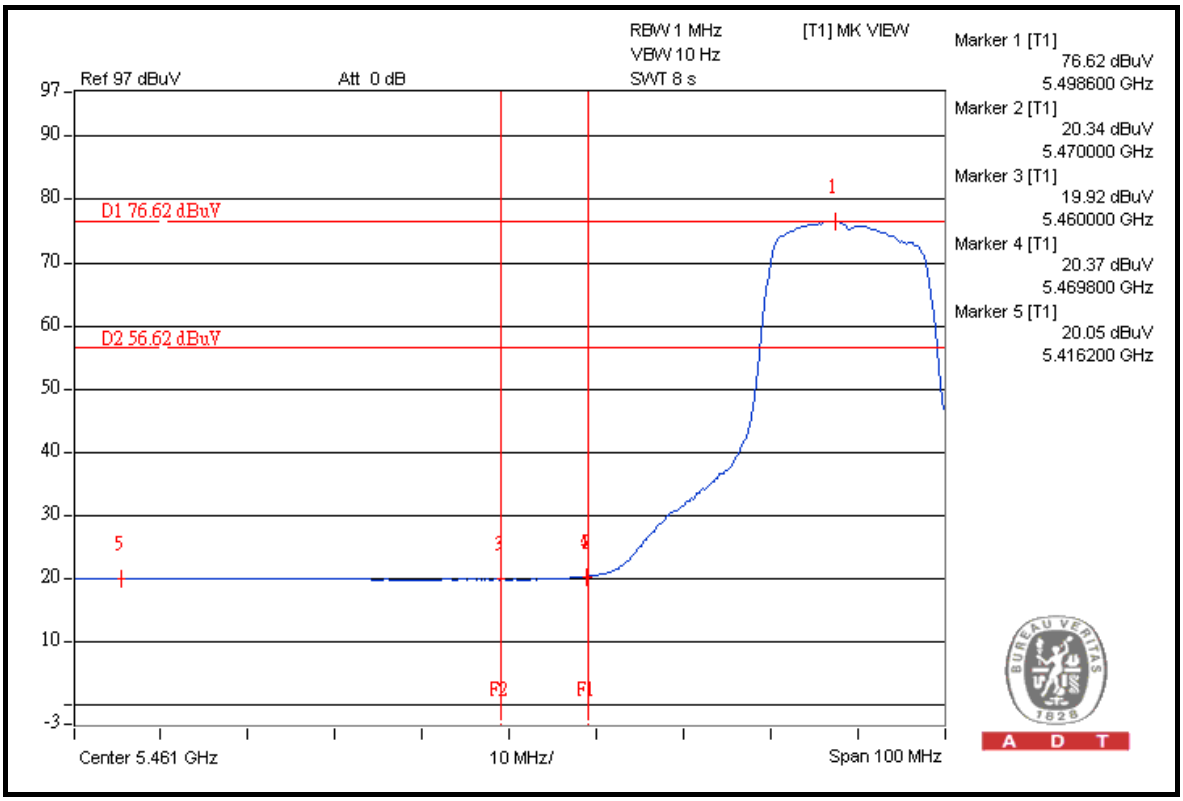
The band edge emission plot (5.460GHz) on the next page shows 56.57dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 100 is 104.54dBuV/m (Average), so the maximum field strength in restrict band is 104.54 – 56.57 = 47.97dBuV/m which is under 54dBuV/m limit.

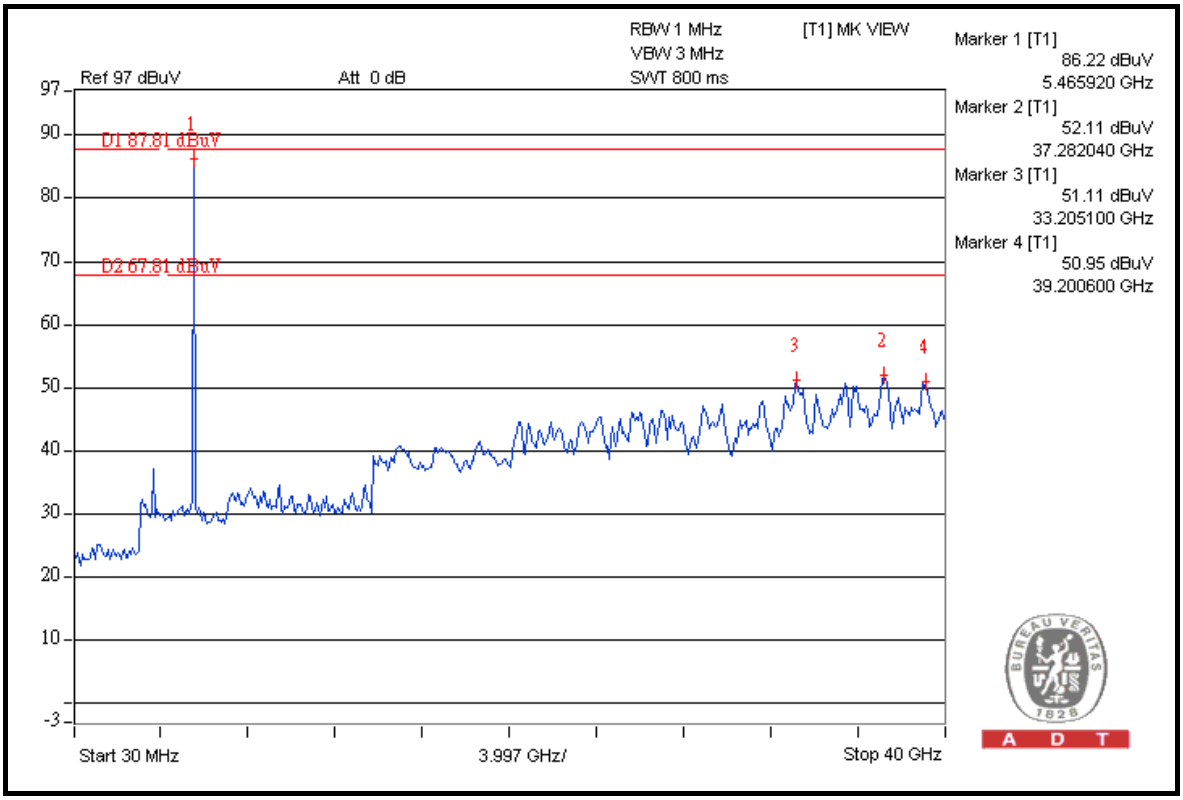
The band edge emission plot (5.470GHz) on the next page shows 54.08dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 100 is 115.03dBuV/m (Peak), so the maximum field strength in restrict band is 115.03 – 54.08 = 60.95dBuV/m which is under 68.3dBuV/m limit.

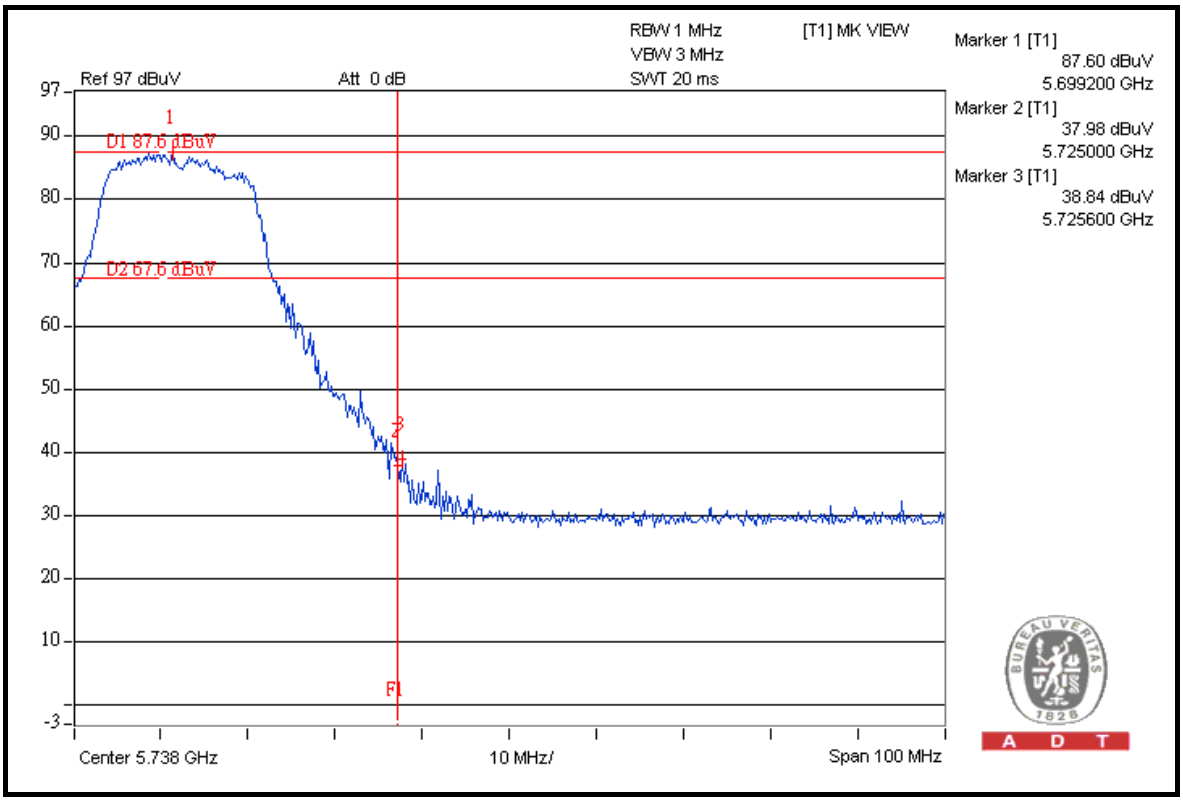
Channel 140 (5700MHz)

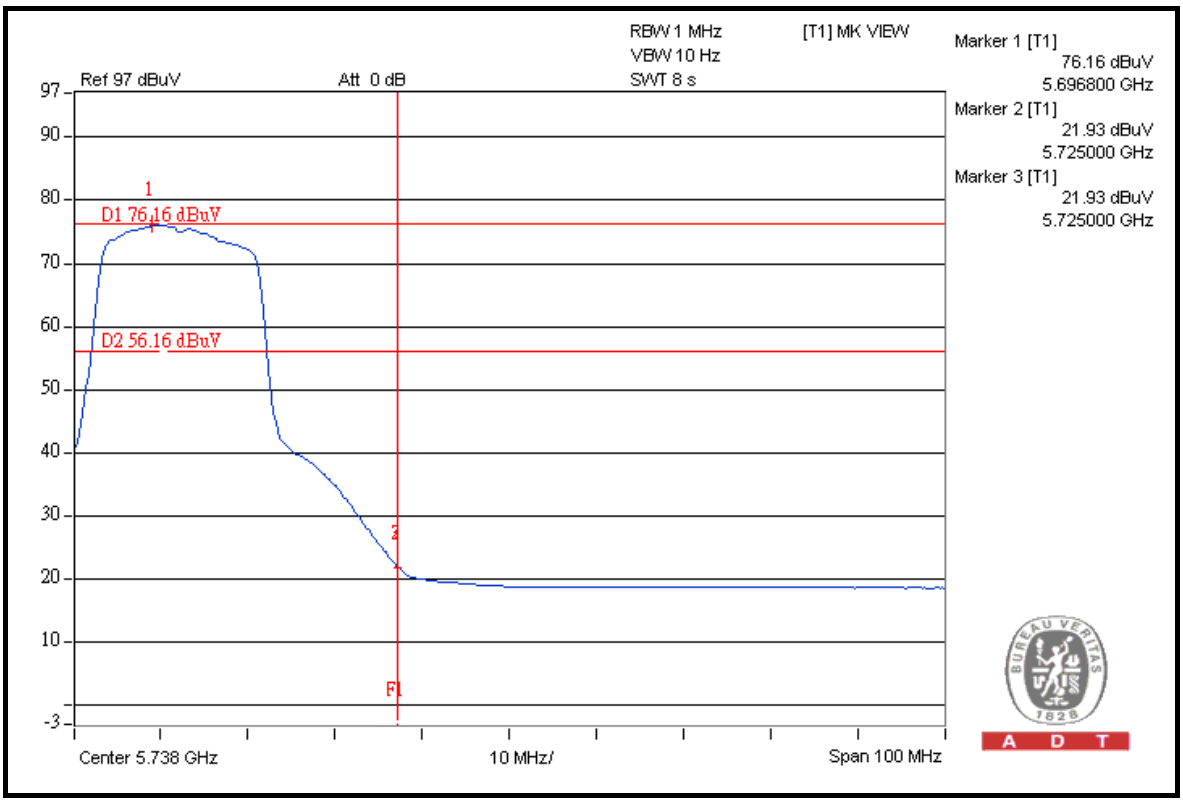
The band edge emission plot on the next second page shows 48.76dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 140 is 114.95dBuV/m (Peak), so the maximum field strength in restrict band is 114.95 – 48.76 = 66.19dBuV/m which is under 68.3dBuV/m limit.

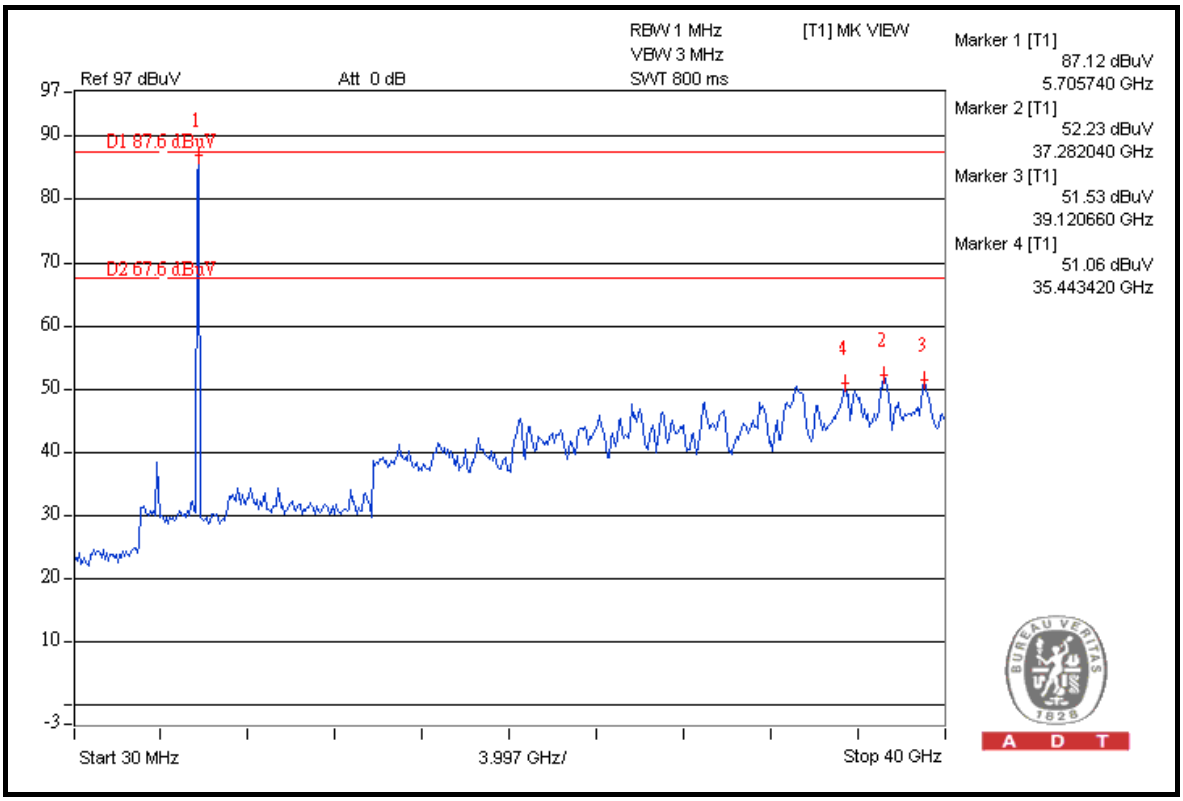

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 87.81 dBuV
D2 67.81 dBuV
Marker 1 [T1]
87.81 dBuV
5.496800 GHz
Marker 2 [T1]
33.30 dBuV
5.470000 GHz
Marker 3 [T1]
33.73 dBuV
5.469600 GHz
Marker 4 [T1]
30.91 dBuV
5.460000 GHz
Marker 5 [T1]
32.93 dBuV
5.428000 GHz
Center 5.461 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 76.62 dBuV
D2 56.62 dBuV
Marker 1 [T1]
76.62 dBuV
5.498600 GHz
Marker 2 [T1]
20.34 dBuV
5.470000 GHz
Marker 3 [T1]
19.92 dBuV
5.460000 GHz
Marker 4 [T1]
20.37 dBuV
5.469800 GHz
Marker 5 [T1]
20.05 dBuV
5.416200 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
D1 87.81 dBuV
D2 67.81 dBuV
Marker 1 [T1]
86.22 dBuV
5.465920 GHz
Marker 2 [T1]
52.11 dBuV
37.282040 GHz
Marker 3 [T1]
51.11 dBuV
33.205100 GHz
Marker 4 [T1]
50.95 dBuV
39.200600 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 87.6 dBuV
D2 67.6 dBuV
Marker 1 [T1]
87.60 dBuV
5.699200 GHz
Marker 2 [T1]
37.98 dBuV
5.725000 GHz
Marker 3 [T1]
38.84 dBuV
5.725600 GHz
Center 5.738 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
76.16 dBuV
5.696800 GHz
Marker 2 [T1]
21.93 dBuV
5.725000 GHz
Marker 3 [T1]
21.93 dBuV
5.725000 GHz
D1 76.16 dBuV
D2 56.16 dBuV
Center 5.738 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]
87.12 dBuV
5.705740 GHz
Marker 2 [T1]
52.23 dBuV
37.282040 GHz
Marker 3 [T1]
51.53 dBuV
39.120660 GHz
Marker 4 [T1]
51.06 dBuV
35.443420 GHz
D1 87.6 dBuV
D2 67.6 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

TEST MODE C

Channel 100 (5500MHz)

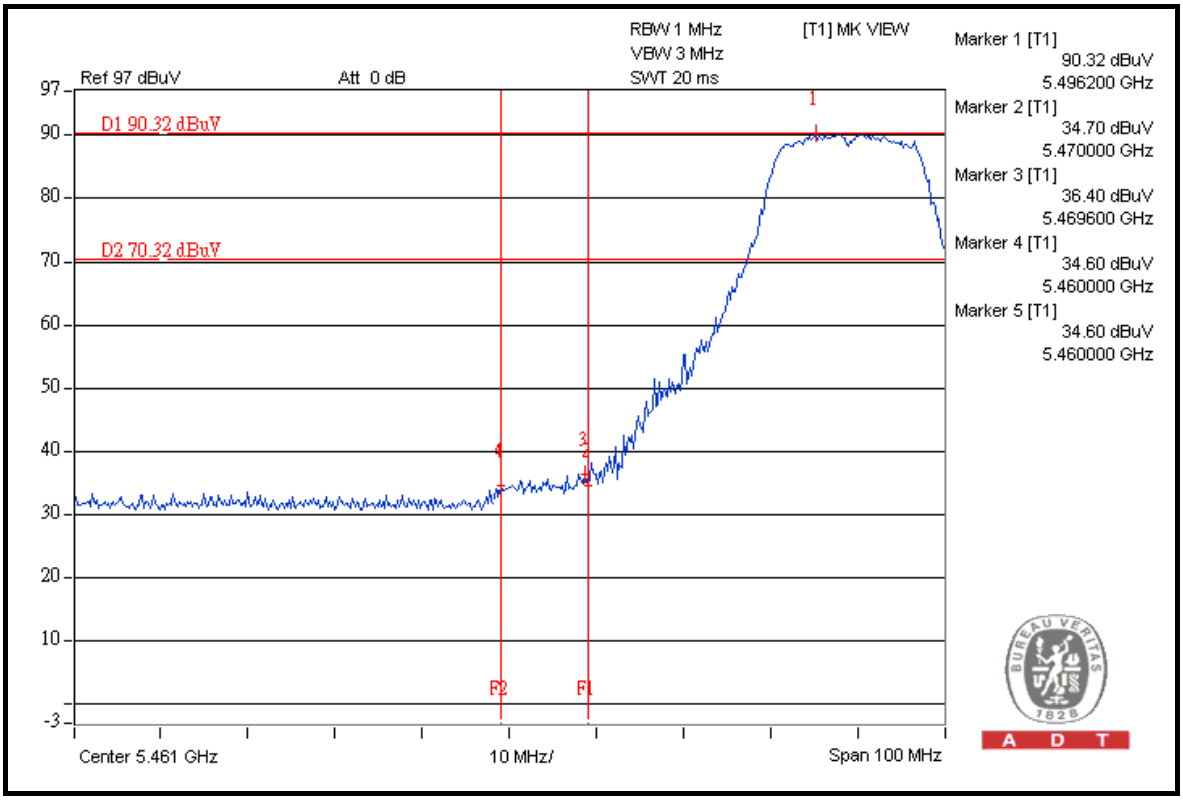
The band edge emission plot (5.460GHz) on the next page shows 55.72dBc between carrier maximum power and local maximum emission out of band emission. The emission of carrier strength list in the test result of channel 100 is 117.68dBuV/m (Peak), so the maximum field strength out of band emission is 117.68 – 55.72 = 61.96dBuV/m which is under 74dBuV/m limit.

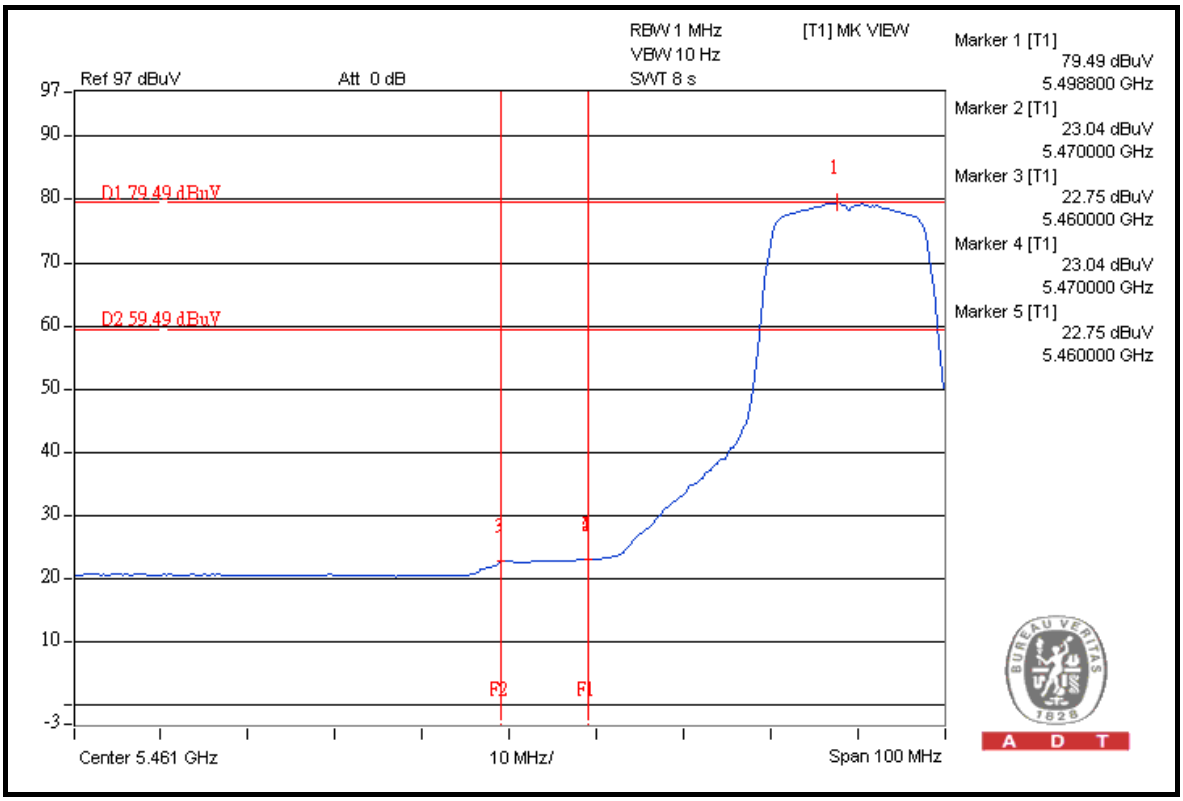
The band edge emission plot (5.460GHz) on the next page shows 56.74dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 100 is 107.32dBuV/m (Average), so the maximum field strength in restrict band is 107.32 – 56.74 = 50.58dBuV/m which is under 54dBuV/m limit.

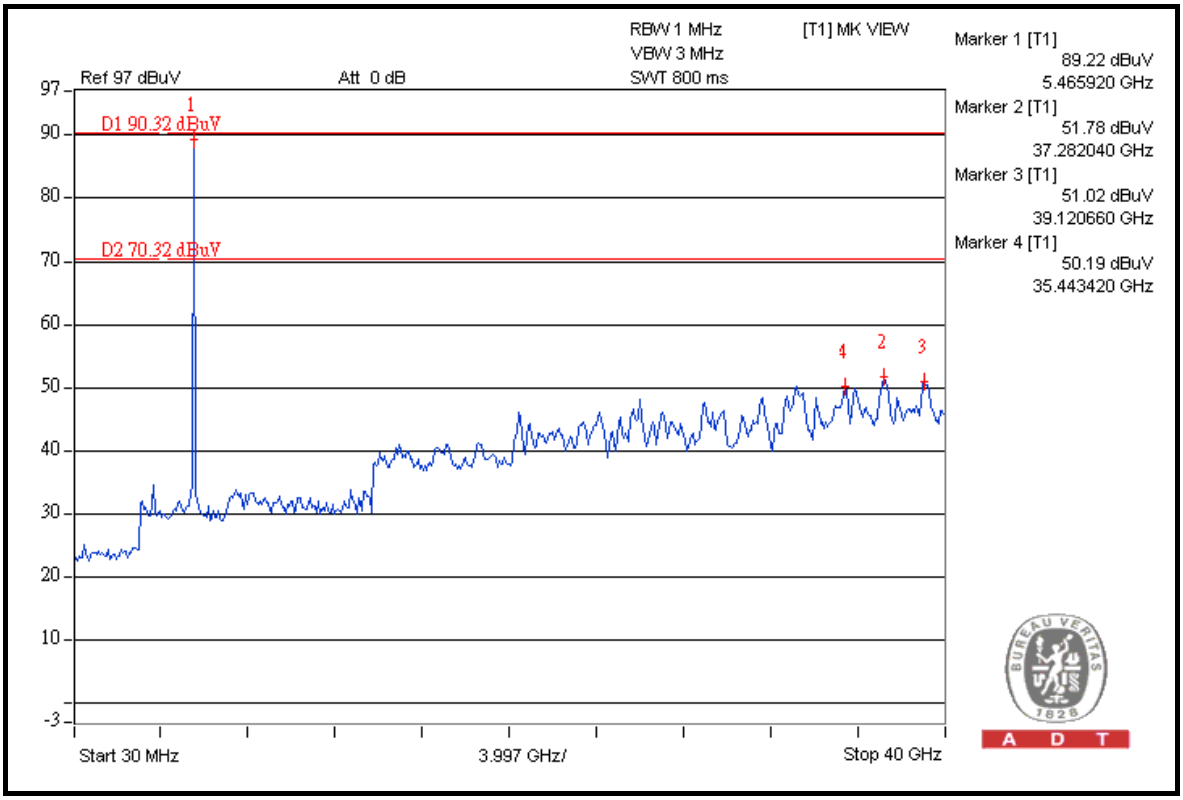
The band edge emission plot (5.470GHz) on the next page shows 53.92dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 100 is 117.68dBuV/m (Peak), so the maximum field strength in restrict band is 117.68 – 53.92 = 63.76dBuV/m which is under 68.3dBuV/m limit.

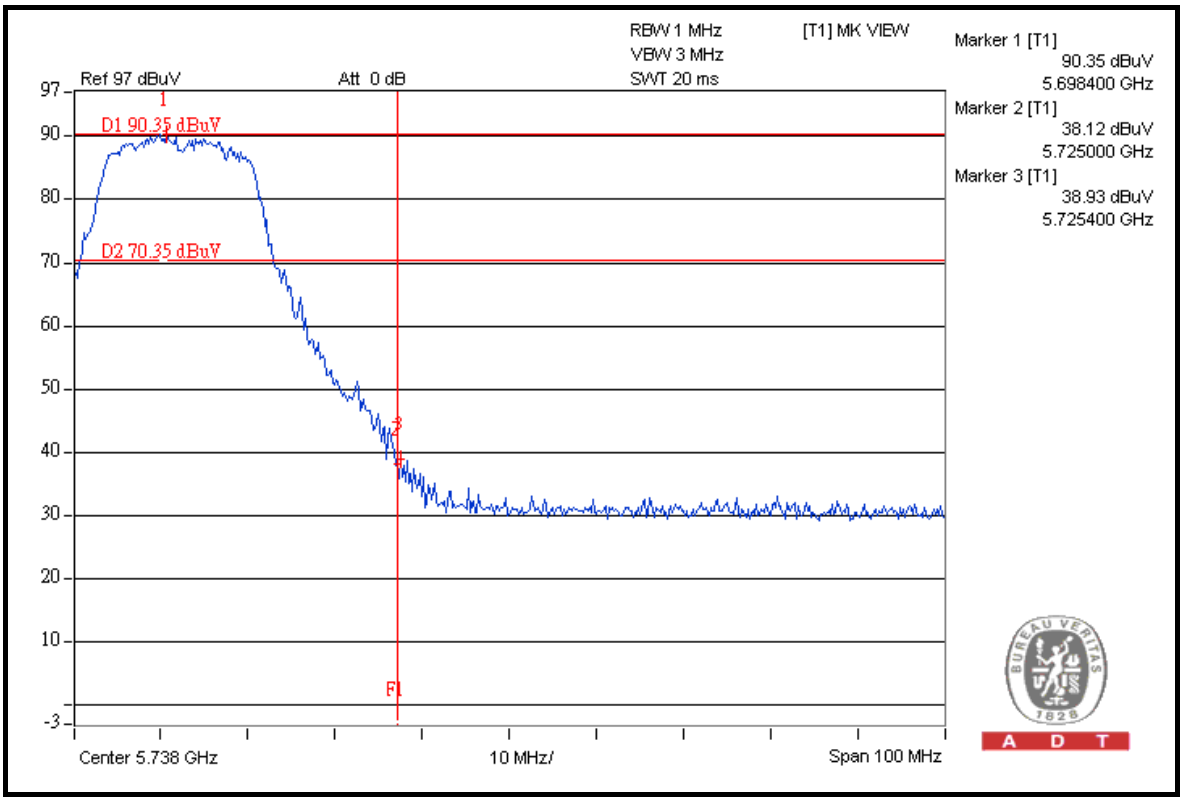
Channel 140 (5700MHz)

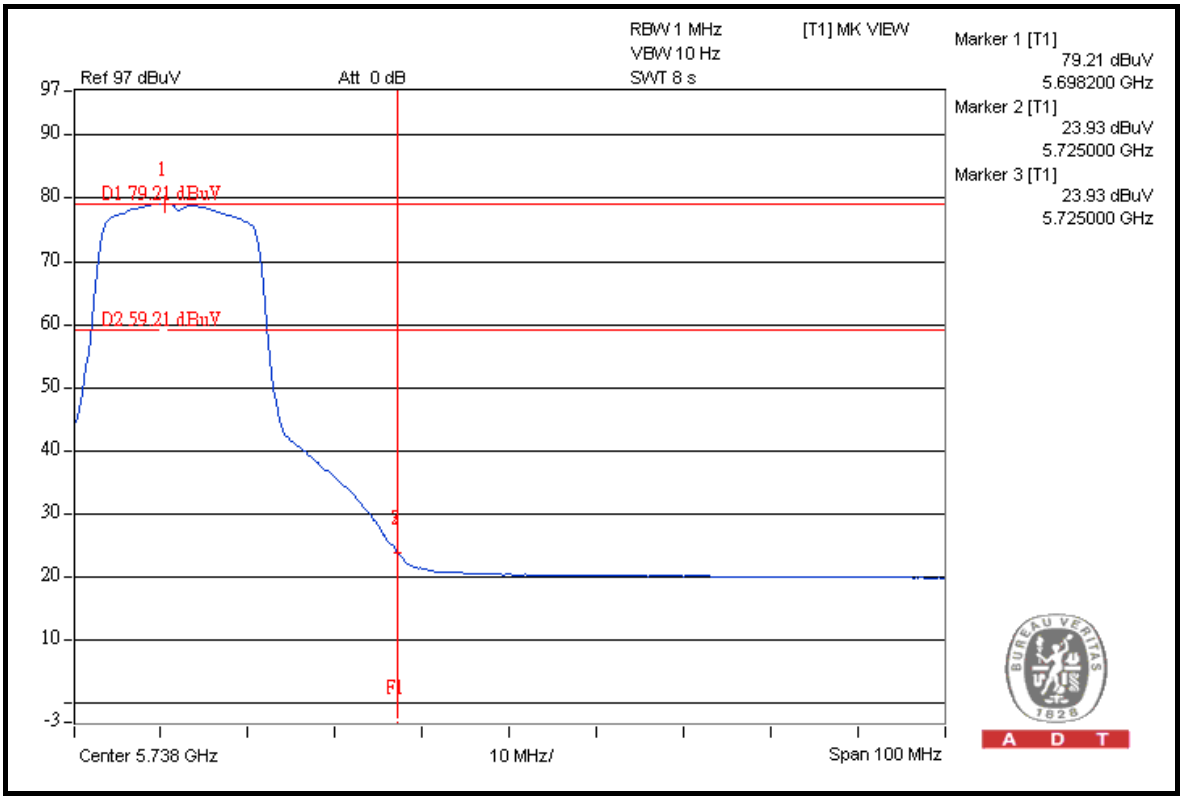
The band edge emission plot on the next second page shows 51.42dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 140 is 118.02dBuV/m (Peak), so the maximum field strength in restrict band is 118.02 – 51.42 = 66.60dBuV/m which is under 68.3dBuV/m limit.

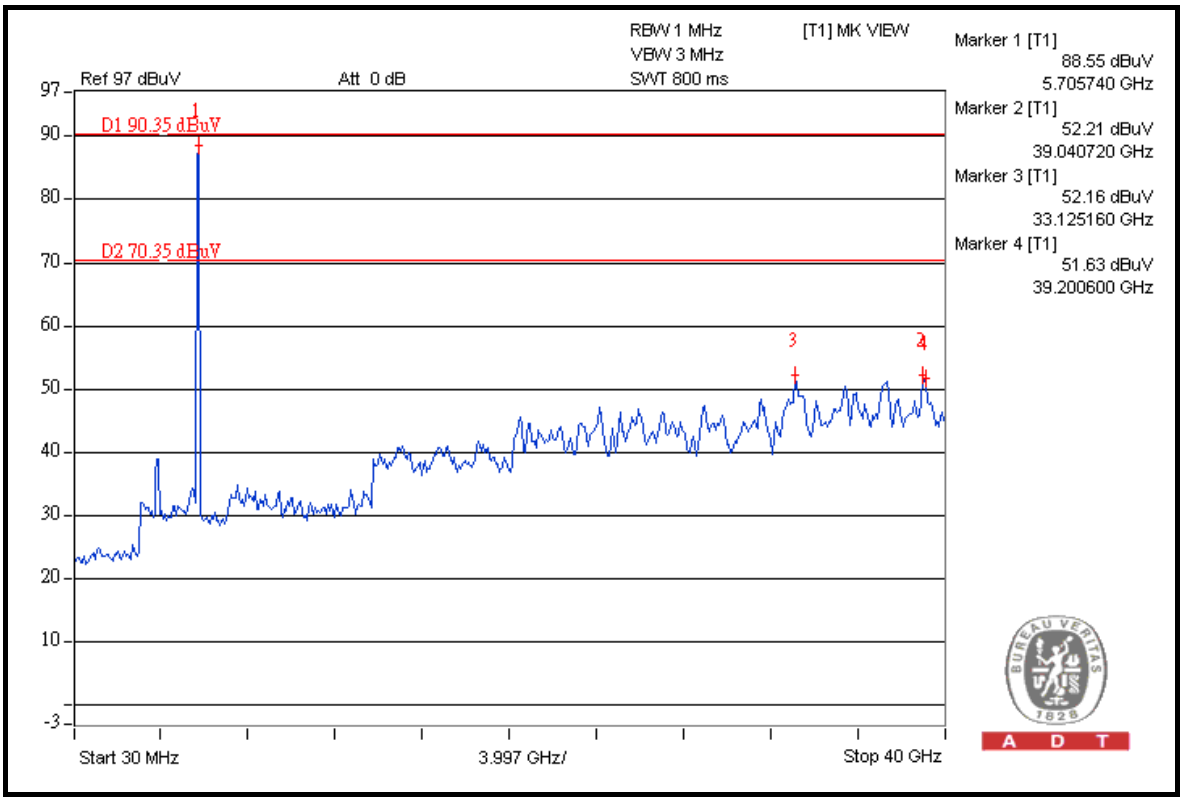

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 90.32 dBuV
D2 70.32 dBuV
Marker 1 [T1]
90.32 dBuV
5.496200 GHz
Marker 2 [T1]
34.70 dBuV
5.470000 GHz
Marker 3 [T1]
36.40 dBuV
5.469600 GHz
Marker 4 [T1]
34.60 dBuV
5.460000 GHz
Marker 5 [T1]
34.60 dBuV
5.460000 GHz
97
90
80
70
60
50
40
30
20
10
-3
F2
F1
Center 5.461 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 79.49 dBuV
D2 59.49 dBuV
Marker 1 [T1]
79.49 dBuV
5.498800 GHz
Marker 2 [T1]
23.04 dBuV
5.470000 GHz
Marker 3 [T1]
22.75 dBuV
5.460000 GHz
Marker 4 [T1]
23.04 dBuV
5.470000 GHz
Marker 5 [T1]
22.75 dBuV
5.460000 GHz
97
90
80
70
60
50
40
30
20
10
-3
F2
F1
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
D1 90.32 dBuV
D2 70.32 dBuV
Marker 1 [T1]
89.22 dBuV
5.465920 GHz
Marker 2 [T1]
51.78 dBuV
37.282040 GHz
Marker 3 [T1]
51.02 dBuV
39.120660 GHz
Marker 4 [T1]
50.19 dBuV
35.443420 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 90.35 dBuV
D2 70.35 dBuV
Marker 1 [T1]
90.35 dBuV
5.698400 GHz
Marker 2 [T1]
38.12 dBuV
5.725000 GHz
Marker 3 [T1]
38.93 dBuV
5.725400 GHz
Center 5.738 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 79.21 dBuV
D2 59.21 dBuV
Marker 1 [T1]
79.21 dBuV
5.698200 GHz
Marker 2 [T1]
23.93 dBuV
5.725000 GHz
Marker 3 [T1]
23.93 dBuV
5.725000 GHz
Center 5.738 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 90.35 dBuV
D2 70.35 dBuV
Marker 1 [T1]
88.55 dBuV
5.705740 GHz
Marker 2 [T1]
52.21 dBuV
39.040720 GHz
Marker 3 [T1]
52.16 dBuV
33.125160 GHz
Marker 4 [T1]
51.63 dBuV
39.200600 GHz
Start 30 MHz
3.997 GHz/
Stop 40 GHz

DRAFT 802.11n (40MHz) OFDM MODULATION

TEST MODE A

Channel 102 (5510MHz)

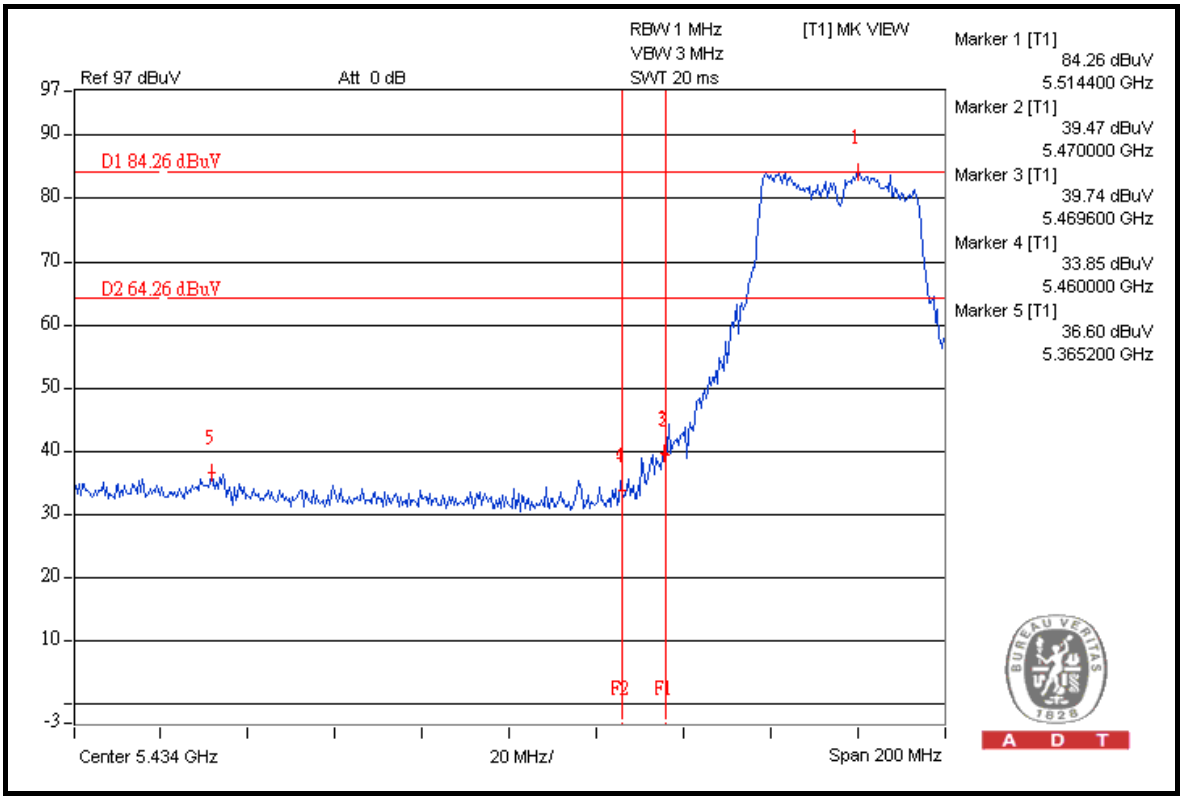
The band edge emission plot (5.460GHz) on the next page shows 47.66dBc between carrier maximum power and local maximum emission out of band emission. The emission of carrier strength list in the test result of channel 102 is 112.02dBuV/m (Peak), so the maximum field strength out of band emission is 112.02 – 47.66 = 64.36dBuV/m which is under 74dBuV/m limit.

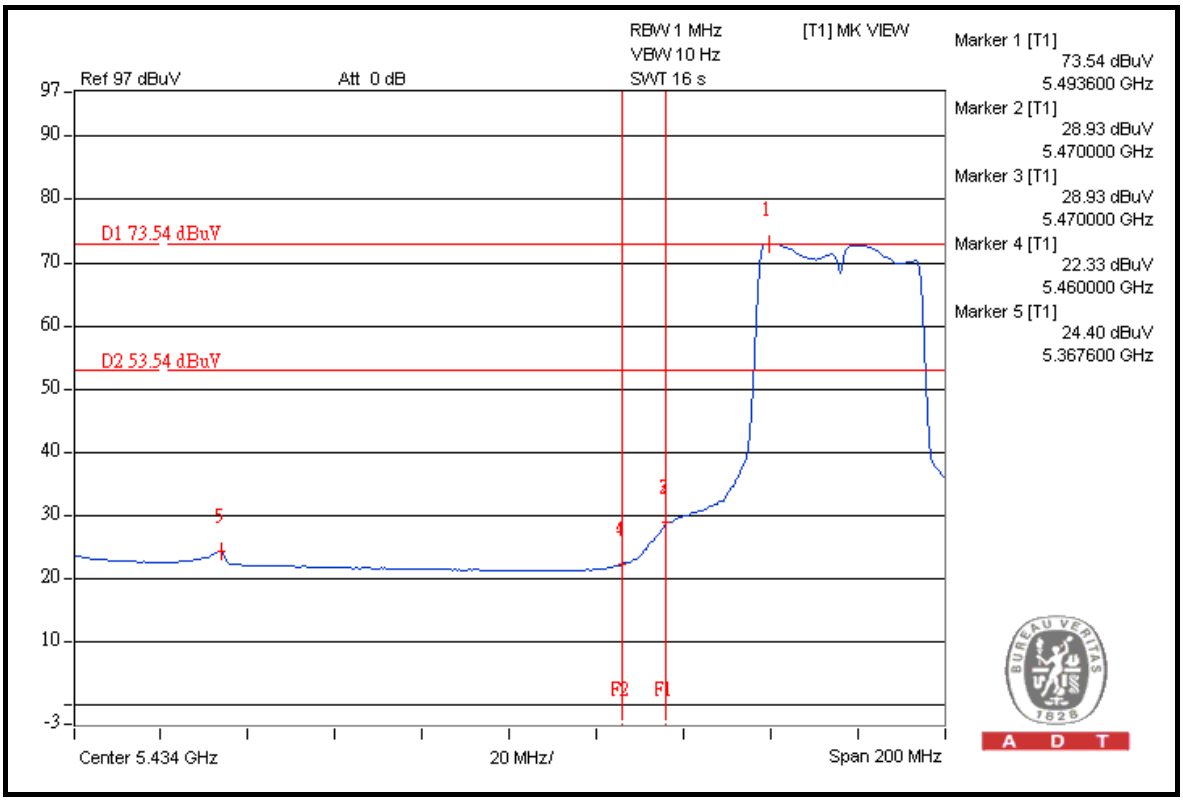
The band edge emission plot (5.460GHz) on the next page shows 49.14dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 102 is 101.54dBuV/m (Average), so the maximum field strength in restrict band is 101.54 – 49.14 = 52.40dBuV/m which is under 54dBuV/m limit.

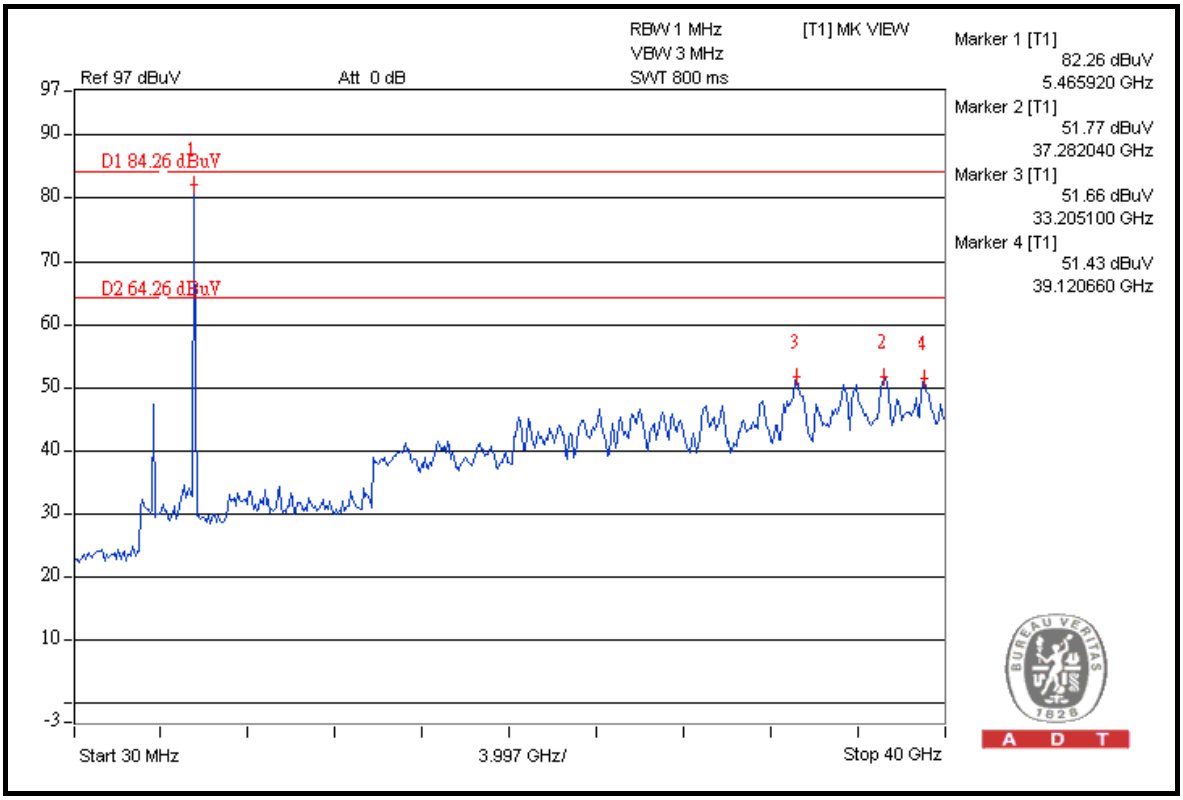
The band edge emission plot (5.470GHz) on the next page shows 44.52dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 102 is 112.02dBuV/m (Peak), so the maximum field strength in restrict band is 112.02 – 44.52 = 67.50dBuV/m which is under 68.3dBuV/m limit.

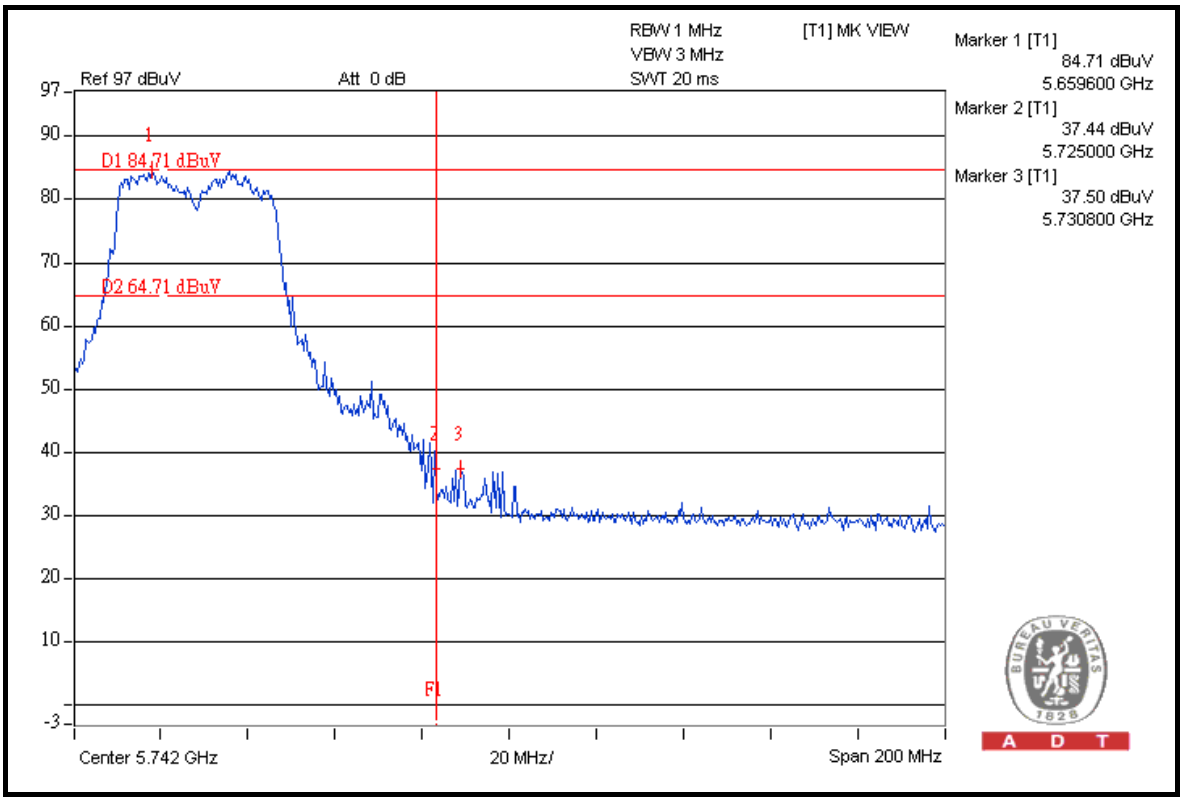
Channel 134 (5670MHz)

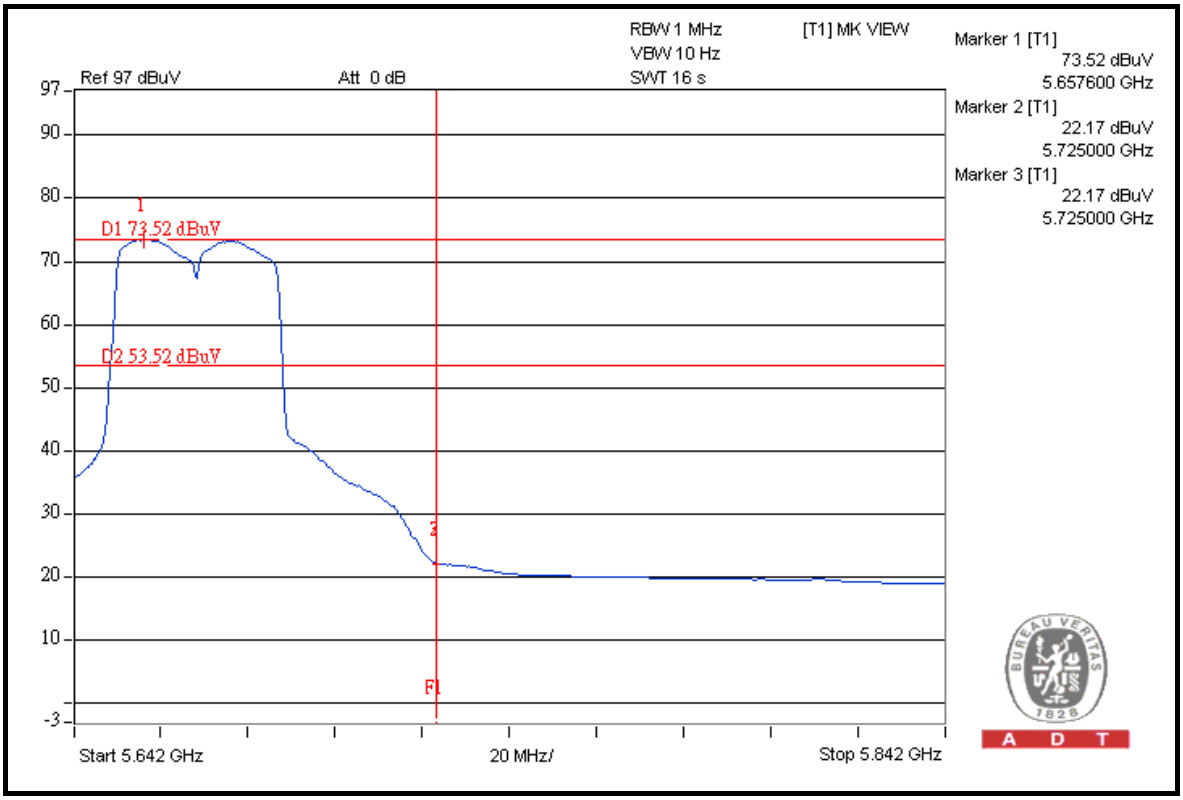
The band edge emission plot on the next second page shows 47.21dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 134 is 112.46dBuV/m (Peak), so the maximum field strength in restrict band is 112.46 – 47.21 = 65.25dBuV/m which is under 68.3dBuV/m limit.

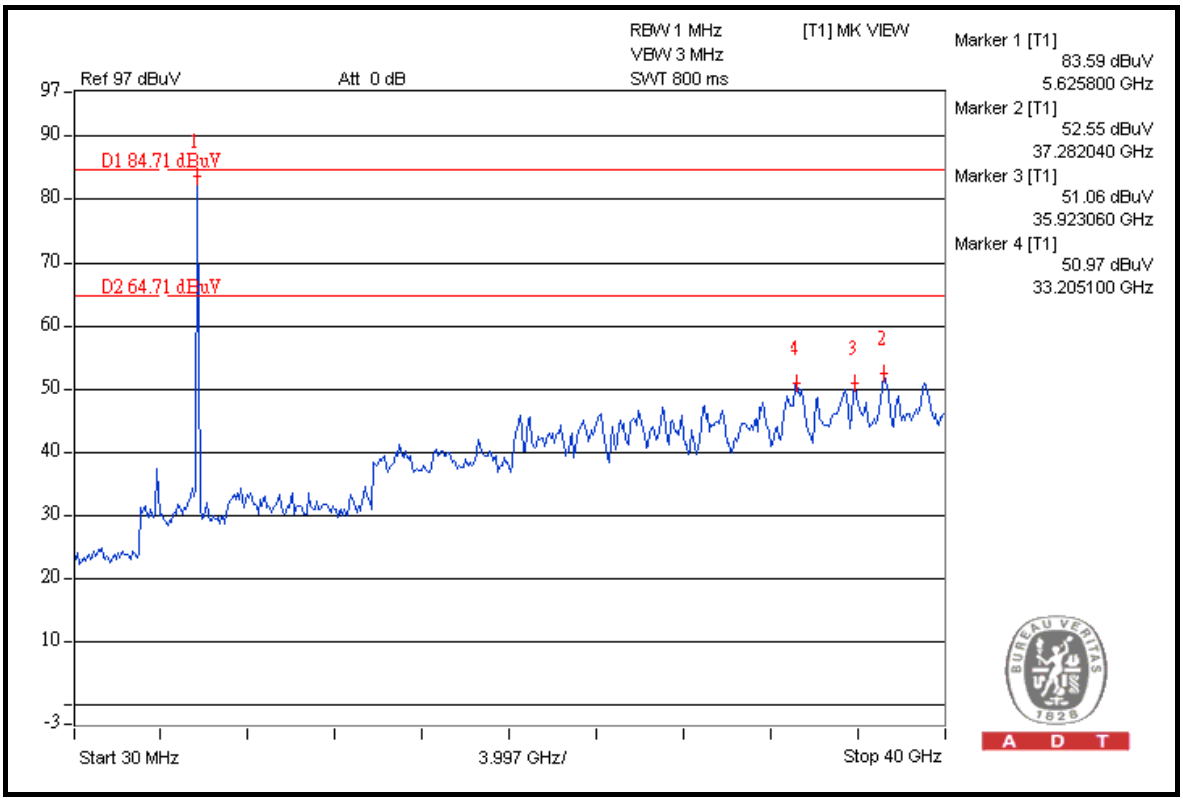

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 84.26 dBuV
D2 64.26 dBuV
Marker 1 [T1]
84.26 dBuV
5.514400 GHz
Marker 2 [T1]
39.47 dBuV
5.470000 GHz
Marker 3 [T1]
39.74 dBuV
5.469600 GHz
Marker 4 [T1]
33.85 dBuV
5.460000 GHz
Marker 5 [T1]
36.60 dBuV
5.365200 GHz
Center 5.434 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 73.54 dBuV
D2 53.54 dBuV
Marker 1 [T1]
73.54 dBuV
5.493600 GHz
Marker 2 [T1]
28.93 dBuV
5.470000 GHz
Marker 3 [T1]
28.93 dBuV
5.470000 GHz
Marker 4 [T1]
22.33 dBuV
5.460000 GHz
Marker 5 [T1]
24.40 dBuV
5.367600 GHz
Center 5.434 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 84.26 dBuV
D2 64.26 dBuV
Marker 1 [T1]
82.26 dBuV
5.465920 GHz
Marker 2 [T1]
51.77 dBuV
37.282040 GHz
Marker 3 [T1]
51.66 dBuV
33.205100 GHz
Marker 4 [T1]
51.43 dBuV
39.120660 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 84.71 dBuV
D2 64.71 dBuV
Marker 1 [T1]
84.71 dBuV
5.659600 GHz
Marker 2 [T1]
37.44 dBuV
5.725000 GHz
Marker 3 [T1]
37.50 dBuV
5.730800 GHz
Center 5.742 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
73.52 dBuV
5.657600 GHz
Marker 2 [T1]
22.17 dBuV
5.725000 GHz
Marker 3 [T1]
22.17 dBuV
5.725000 GHz
D1 73.52 dBuV
D2 53.52 dBuV
Start 5.642 GHz
20 MHz/
Stop 5.842 GHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
83.59 dBuV
5.625800 GHz
Marker 2 [T1]
52.55 dBuV
37.282040 GHz
Marker 3 [T1]
51.06 dBuV
35.923060 GHz
Marker 4 [T1]
50.97 dBuV
33.205100 GHz
D1 84.71 dBuV
D2 64.71 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

TEST MODE C

Channel 102 (5510MHz)

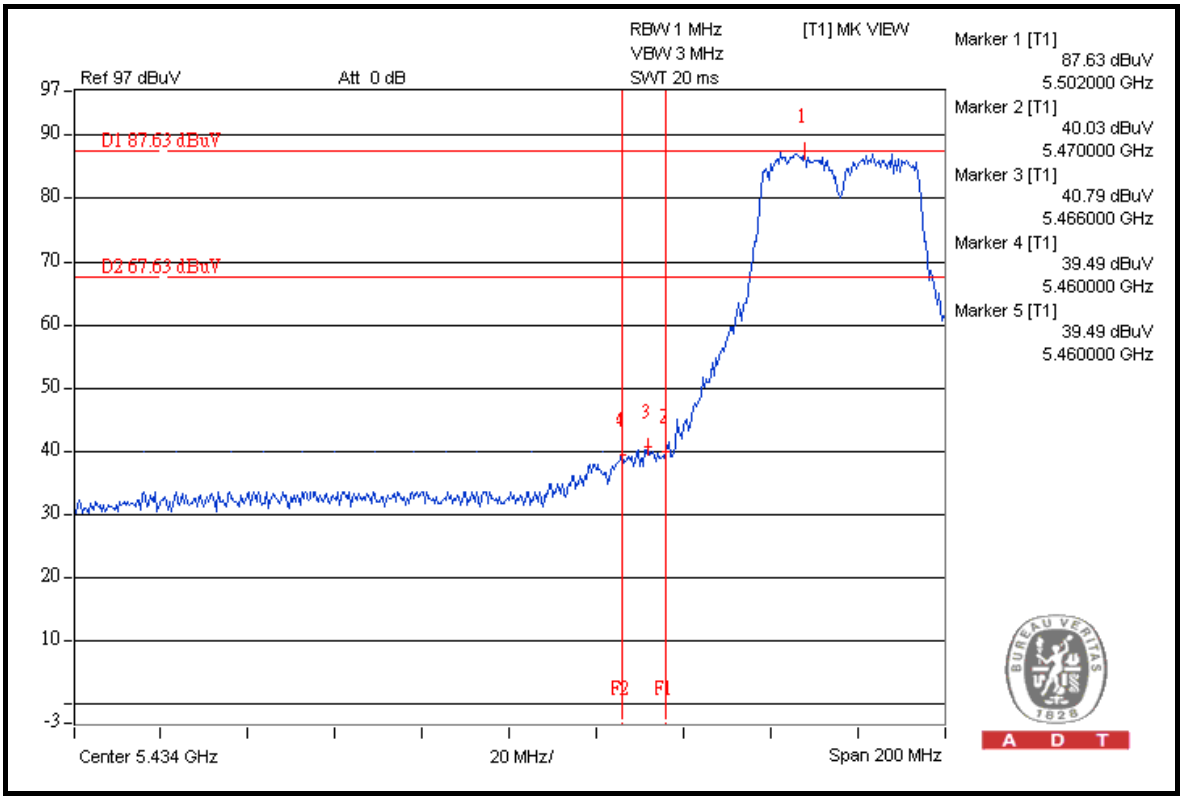
The band edge emission plot (5.460GHz) on the next page shows 48.14dBc between carrier maximum power and local maximum emission out of band emission. The emission of carrier strength list in the test result of channel 102 is 114.91dBuV/m (Peak), so the maximum field strength out of band emission is 114.91 – 48.14 = 66.77dBuV/m which is under 74dBuV/m limit.

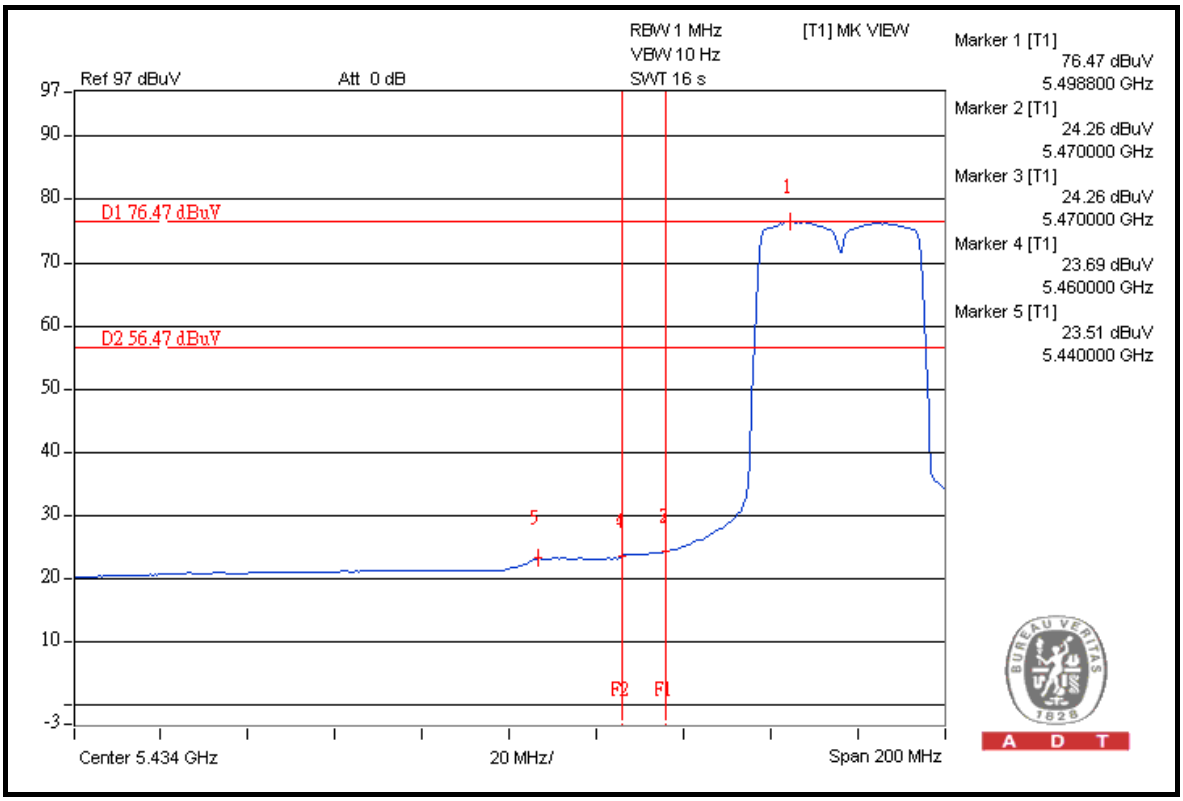
The band edge emission plot (5.460GHz) on the next page shows 52.78dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 102 is 104.42dBuV/m (Average), so the maximum field strength in restrict band is 104.42 – 52.78 = 51.64dBuV/m which is under 54dBuV/m limit.

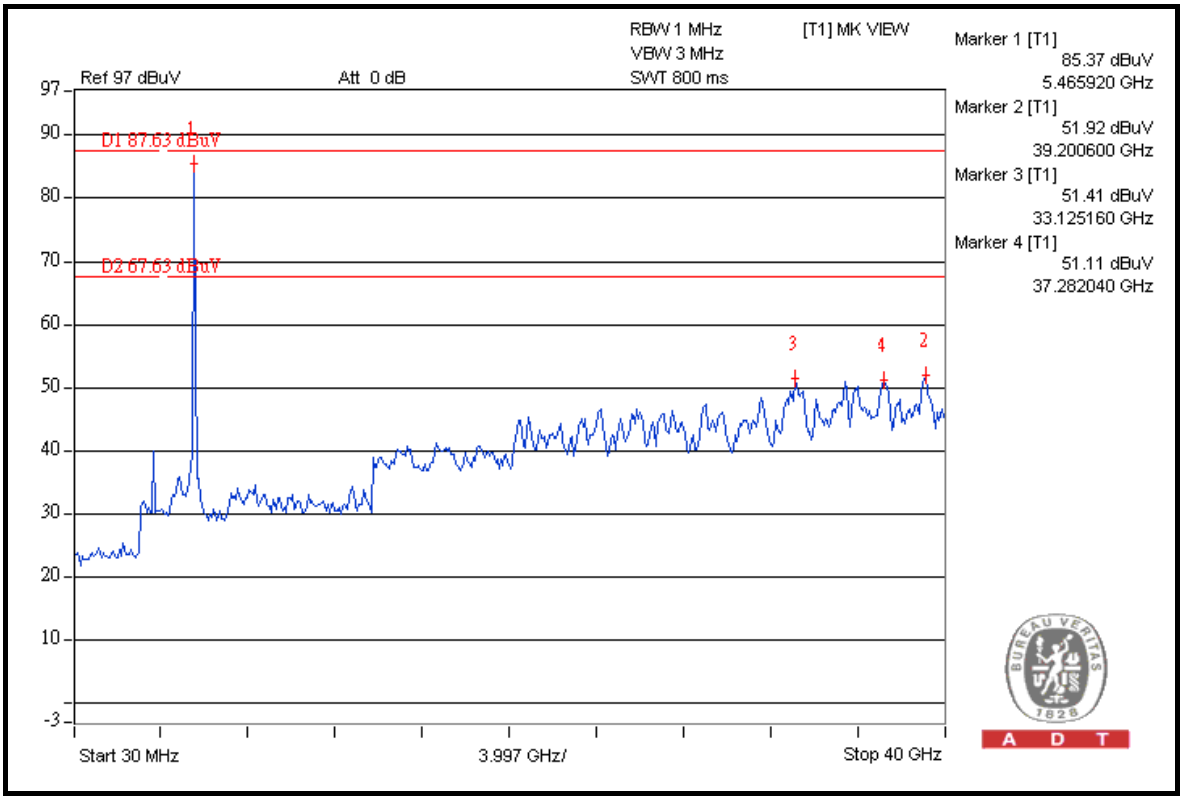
The band edge emission plot (5.470GHz) on the next page shows 46.84dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 102 is 114.91dBuV/m (Peak), so the maximum field strength in restrict band is 114.91 – 46.84 = 68.07dBuV/m which is under 68.3dBuV/m limit.

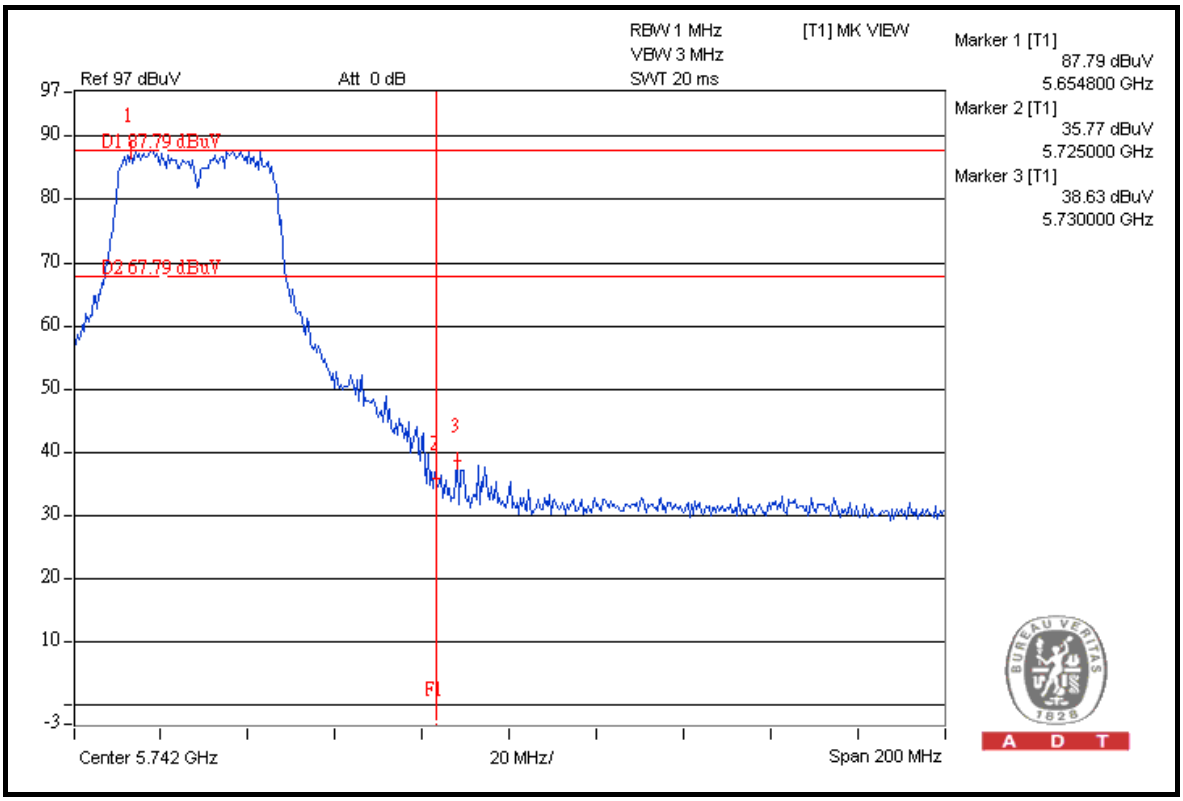
Channel 134 (5670MHz)

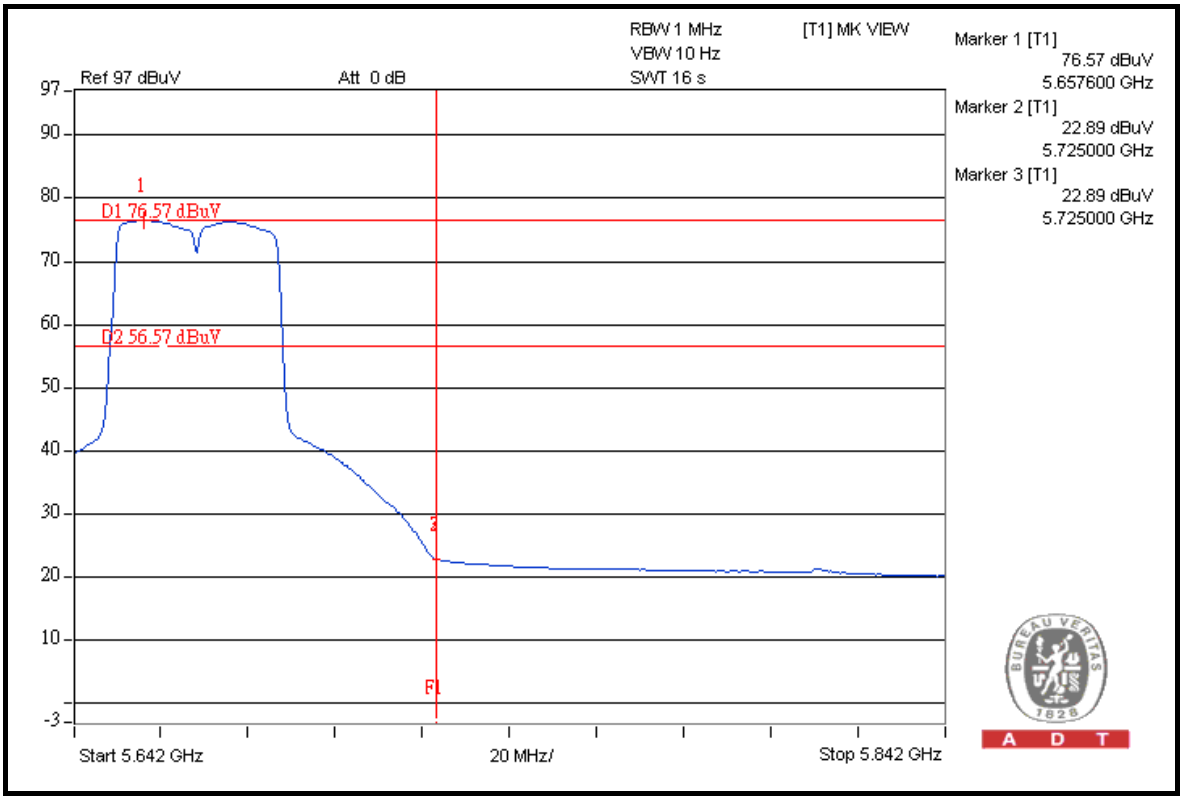
The band edge emission plot on the next second page shows 49.16dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 134 is 115.14dBuV/m (Peak), so the maximum field strength in restrict band is 115.14 – 49.16 = 65.98dBuV/m which is under 68.3dBuV/m limit.

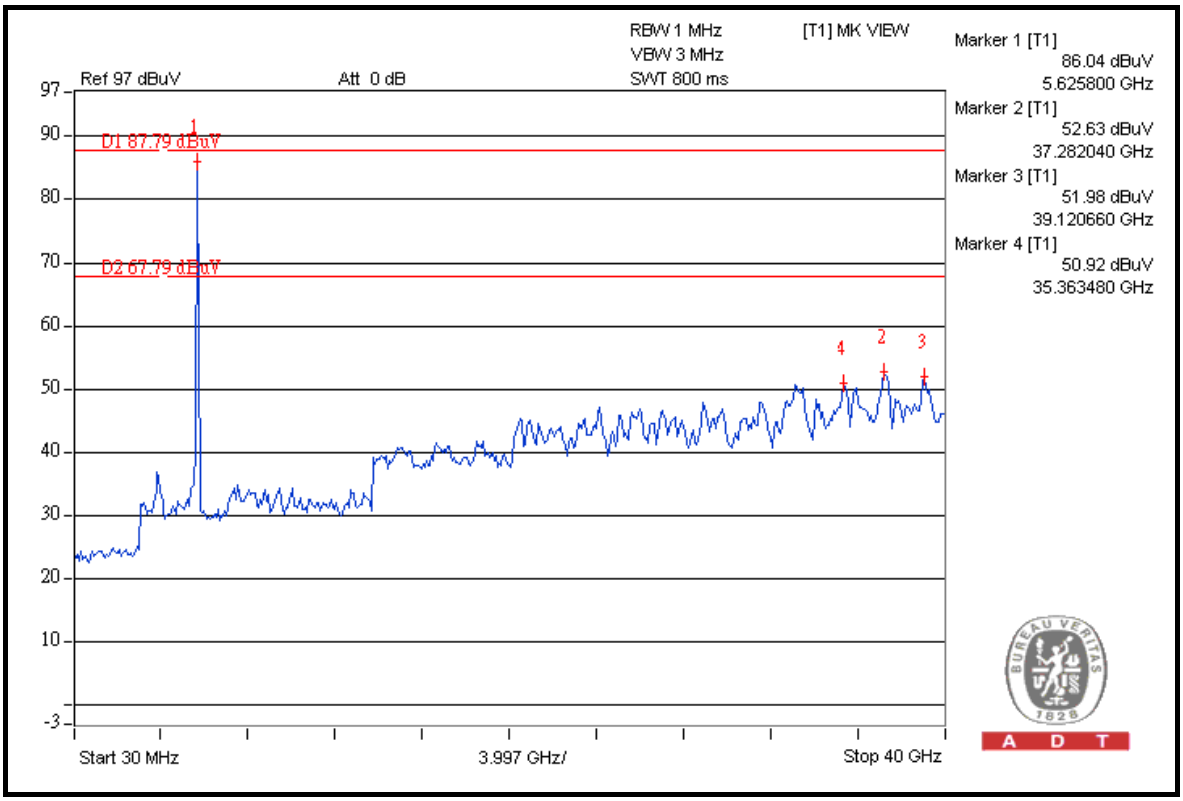

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 87.63 dBuV
D2 67.63 dBuV
Marker 1 [T1]
87.63 dBuV
5.502000 GHz
Marker 2 [T1]
40.03 dBuV
5.470000 GHz
Marker 3 [T1]
40.79 dBuV
5.466000 GHz
Marker 4 [T1]
39.49 dBuV
5.460000 GHz
Marker 5 [T1]
39.49 dBuV
5.460000 GHz
Center 5.434 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 76.47 dBuV
D2 56.47 dBuV
Marker 1 [T1]
76.47 dBuV
5.498800 GHz
Marker 2 [T1]
24.26 dBuV
5.470000 GHz
Marker 3 [T1]
24.26 dBuV
5.470000 GHz
Marker 4 [T1]
23.69 dBuV
5.460000 GHz
Marker 5 [T1]
23.51 dBuV
5.440000 GHz
Center 5.434 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 87.63 dBuV
D2 67.63 dBuV
Marker 1 [T1]
85.37 dBuV
5.465920 GHz
Marker 2 [T1]
51.92 dBuV
39.200600 GHz
Marker 3 [T1]
51.41 dBuV
33.125160 GHz
Marker 4 [T1]
51.11 dBuV
37.282040 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 87.79 dBuV
D2 67.79 dBuV
Marker 1 [T1]
87.79 dBuV
5.654800 GHz
Marker 2 [T1]
35.77 dBuV
5.725000 GHz
Marker 3 [T1]
38.63 dBuV
5.730000 GHz
Center 5.742 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
76.57 dBuV
5.657600 GHz
Marker 2 [T1]
22.89 dBuV
5.725000 GHz
Marker 3 [T1]
22.89 dBuV
5.725000 GHz
D1 76.57 dBuV
D2 56.57 dBuV
Start 5.642 GHz
20 MHz/
Stop 5.842 GHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
86.04 dBuV
5.625800 GHz
Marker 2 [T1]
52.63 dBuV
37.282040 GHz
Marker 3 [T1]
51.98 dBuV
39.120660 GHz
Marker 4 [T1]
50.92 dBuV
35.363480 GHz
D1 87.79 dBuV
D2 67.79 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

4.8 ANTENNA REQUIREMENT

4.8.1 STANDARD APPLICABLE

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

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

4.8.2 ANTENNA CONNECTED CONSTRUCTION

The antennas used in this product are internal: proprietary omni antenna without connector and external: directional panel antenna with female N-Type connector. The maximum gain of the antenna is 14dBi.

5. PHOTOGRAPHS OF THE TEST CONFIGURATION

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

6. INFORMATION ON THE TESTING LABORATORIES

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

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

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

Linko EMC/RF Lab:
Tel: 886-2-26052180
Fax: 886-2-26051924

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.

---END---

APPENDIX-B

Table of Contents

1 TEST TYPES AND RESULTS

1.1 RECEIVER RADIATED EMISSION MEASUREMENT

1.1.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.109 (RSS-Gen table 1) as following:

Frequencies (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
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.

1.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100212	May 25, 2009	May 24, 2010
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Jul. 07, 2009	Jul. 06, 2010
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Apr. 30, 2009	Apr. 29, 2010
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-563	Aug. 10, 2009	Aug. 09, 2010
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170242	Jan. 06, 2009	Jan. 05, 2010
Preamplifier Agilent	8449B	3008A01911	Sep. 10, 2008	Sep. 09, 2009
Preamplifier Agilent	8447D	2944A10638	Dec. 26, 2008	Dec. 25, 2009
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	218190/4 231241/4	May 13, 2009	May 12, 2010
RF signal cable Worken	8D-FB	Cable-HYCH9-01	Aug. 17, 2009	Aug. 16, 2010
Software	ADT_Radiated_ V7.6.15.9.2	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 460141.

5. The IC Site Registration No. is IC 7450F-4.

1.1.3 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters semi-anechoic chamber & 3 meters open side area. 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 lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions would be re-tested one by one using peak, quasi-peak method or average method as specified and then reported in data sheet.

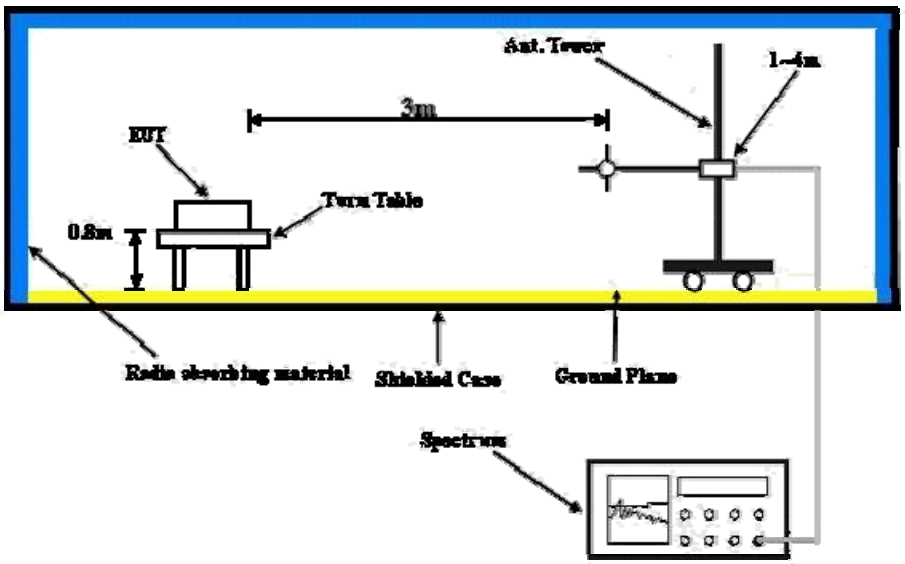
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. All modes of operation were investigated and the worst-case emissions are reported.

1.1.4 DEVIATION FROM TEST STANDARD

No deviation.

1.1.5 TEST SETUP



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

1.1.6 EUT OPERATING CONDITIONS

a. Placed the EUT on the testing table.
b. Prepared two notebook systems to act as communication partners and placed them outside of testing area.
c. The communication partners run a test program (provided by manufacturer) to enable EUT under receiving condition continuously at specific channel frequency via RJ45 cables.
d. The communication partners sent data to EUT by command "PING".

1.1.7 TEST RESULTS

DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	**FREQUENCY RANGE**	1 ~ 30GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1002 hPa	**TESTED BY**	Brad Wu
TEST MODE	**A**		

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	1375.00	49.23 PK	74.00	-24.77	1.01 H	216	21.44	27.79
2	1375.00	46.81 AV	54.00	-7.19	1.01 H	216	19.02	27.79
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	1375.00	45.86 PK	74.00	-28.14	1.41 V	192	18.07	27.79
2	1375.00	41.32 AV	54.00	-12.68	1.41 V	192	13.53	27.79

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 40	FREQUENCY RANGE	1 ~ 30GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1002 hPa	TESTED BY	Brad Wu
TEST MODE	A		

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	1375.00	49.36 PK	74.00	-24.64	1.02 H	218	21.57	27.79
2	1375.00	46.94 AV	54.00	-7.06	1.02 H	218	19.15	27.79
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	1375.00	45.92 PK	74.00	-28.08	1.40 V	195	18.13	27.79
2	1375.00	41.38 AV	54.00	-12.62	1.40 V	195	13.59	27.79

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 48	**FREQUENCY RANGE**	1 ~ 30GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1002 hPa	**TESTED BY**	Brad Wu
TEST MODE	**A**		

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	1375.00	49.08 PK	74.00	-24.92	1.02 H	223	21.29	27.79
2	1375.00	46.64 AV	54.00	-7.36	1.02 H	223	18.85	27.79
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	1375.00	45.72 PK	74.00	-28.28	1.40 V	196	17.93	27.79
2	1375.00	41.21 AV	54.00	-12.79	1.40 V	196	13.42	27.79

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 52	FREQUENCY RANGE	1 ~ 30GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1002 hPa	TESTED BY	Brad Wu
TEST MODE	A		

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	1375.00	49.46 PK	74.00	-24.54	1.02 H	213	21.67	27.79
2	1375.00	47.02 AV	54.00	-6.98	1.02 H	213	19.23	27.79
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	1375.00	46.08 PK	74.00	-27.92	1.38 V	185	18.29	27.79
2	1375.00	41.55 AV	54.00	-12.45	1.38 V	185	13.76	27.79

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 60	FREQUENCY RANGE	1 ~ 30GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1002 hPa	TESTED BY	Brad Wu
TEST MODE	A		

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	1375.00	49.04 PK	74.00	-24.96	1.04 H	225	21.25	27.79
2	1375.00	46.58 AV	54.00	-7.42	1.04 H	225	18.79	27.79
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	1375.00	45.73 PK	74.00	-28.27	1.36 V	205	17.94	27.79
2	1375.00	41.21 AV	54.00	-12.79	1.36 V	205	13.42	27.79

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 64	**FREQUENCY RANGE**	1 ~ 30GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1002 hPa	**TESTED BY**	Brad Wu
TEST MODE	**A**		

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	1375.00	49.36 PK	74.00	-24.64	1.04 H	235	21.57	27.79
2	1375.00	46.94 AV	54.00	-7.06	1.04 H	235	19.15	27.79
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	1375.00	45.94 PK	74.00	-28.06	1.36 V	202	18.15	27.79
2	1375.00	41.44 AV	54.00	-12.56	1.36 V	202	13.65	27.79

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.

DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1 ~ 30GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1002 hPa	TESTED BY	Brad Wu
TEST MODE	A		

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	1375.00	48.91 PK	74.00	-25.09	1.02 H	229	21.12	27.79
2	1375.00	46.52 AV	54.00	-7.48	1.02 H	229	18.73	27.79
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	1375.00	45.51 PK	74.00	-28.49	1.35 V	184	17.72	27.79
2	1375.00	41.04 AV	54.00	-12.96	1.35 V	184	13.25	27.79

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 120	FREQUENCY RANGE	1 ~ 30GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1002 hPa	TESTED BY	Brad Wu
TEST MODE	A		

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	1375.00	49.29 PK	74.00	-24.71	1.04 H	221	21.50	27.79
2	1375.00	46.85 AV	54.00	-7.15	1.04 H	221	19.06	27.79
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	1375.00	45.61 PK	74.00	-28.39	1.32 V	149	17.82	27.79
2	1375.00	41.13 AV	54.00	-12.87	1.32 V	149	13.34	27.79

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 140	**FREQUENCY RANGE**	1 ~ 30GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1002 hPa	**TESTED BY**	Brad Wu
TEST MODE	**A**		

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	1375.00	49.55 PK	74.00	-24.45	1.14 H	187	21.76	27.79
2	1375.00	47.14 AV	54.00	-6.86	1.14 H	187	19.35	27.79
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	1375.00	46.24 PK	74.00	-27.76	1.38 V	196	18.45	27.79
2	1375.00	41.76 AV	54.00	-12.24	1.38 V	196	13.97	27.79

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.

DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 30GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1002 hPa	TESTED BY	Brad Wu
TEST MODE	C		

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	1375.00	49.16 PK	74.00	-24.84	1.03 H	225	21.37	27.79
2	1375.00	46.75 AV	54.00	-7.25	1.03 H	225	18.96	27.79
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	1375.00	45.62 PK	74.00	-28.38	1.38 V	184	17.83	27.79
2	1375.00	41.13 AV	54.00	-12.87	1.38 V	184	13.34	27.79

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 40	**FREQUENCY RANGE**	1 ~ 30GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1002 hPa	**TESTED BY**	Brad Wu
TEST MODE	**C**		

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	1375.00	49.28 PK	74.00	-24.72	1.05 H	213	21.49	27.79
2	1375.00	46.85 AV	54.00	-7.15	1.05 H	213	19.06	27.79
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	1375.00	45.75 PK	74.00	-28.25	1.36 V	178	17.96	27.79
2	1375.00	41.26 AV	54.00	-12.74	1.36 V	178	13.47	27.79

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 48	**FREQUENCY RANGE**	1 ~ 30GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1002 hPa	**TESTED BY**	Brad Wu
TEST MODE	**C**		

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	1375.00	49.21 PK	74.00	-24.79	1.03 H	211	21.42	27.79
2	1375.00	46.82 AV	54.00	-7.18	1.03 H	211	19.03	27.79
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	1375.00	45.86 PK	74.00	-28.14	1.35 V	241	18.07	27.79
2	1375.00	41.34 AV	54.00	-12.66	1.35 V	241	13.55	27.79

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 52	FREQUENCY RANGE	1 ~ 30GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1002 hPa	TESTED BY	Brad Wu
TEST MODE	C		

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	1375.00	49.24 PK	74.00	-24.76	1.05 H	220	21.45	27.79
2	1375.00	46.83 AV	54.00	-7.17	1.05 H	220	19.04	27.79
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	1375.00	46.13 PK	74.00	-27.87	1.34 V	215	18.34	27.79
2	1375.00	41.62 AV	54.00	-12.38	1.34 V	215	13.83	27.79

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 60	FREQUENCY RANGE	1 ~ 30GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1002 hPa	TESTED BY	Brad Wu
TEST MODE	C		

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	1375.00	49.15 PK	74.00	-24.85	1.01 H	209	21.36	27.79
2	1375.00	46.69 AV	54.00	-7.31	1.01 H	209	18.90	27.79
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	1375.00	45.84 PK	74.00	-28.16	1.32 V	199	18.05	27.79
2	1375.00	41.35 AV	54.00	-12.65	1.32 V	199	13.56	27.79

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 64	FREQUENCY RANGE	1 ~ 30GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1002 hPa	TESTED BY	Brad Wu
TEST MODE	C		

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	1375.00	49.21 PK	74.00	-24.79	1.01 H	235	21.42	27.79
2	1375.00	46.83 AV	54.00	-7.17	1.01 H	235	19.04	27.79
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	1375.00	45.81 PK	74.00	-28.19	1.34 V	205	18.02	27.79
2	1375.00	41.30 AV	54.00	-12.70	1.34 V	205	13.51	27.79

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.

DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1 ~ 30GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1002 hPa	TESTED BY	Brad Wu
TEST MODE	C		

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	1375.00	48.94 PK	74.00	-25.06	1.01 H	234	21.15	27.79
2	1375.00	46.57 AV	54.00	-7.43	1.01 H	234	18.78	27.79
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	1375.00	45.63 PK	74.00	-28.37	1.31 V	195	17.84	27.79
2	1375.00	41.19 AV	54.00	-12.81	1.31 V	195	13.40	27.79

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 120	FREQUENCY RANGE	1 ~ 30GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1002 hPa	TESTED BY	Brad Wu
TEST MODE	C		

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	1375.00	49.36 PK	74.00	-24.64	1.09 H	203	21.57	27.79
2	1375.00	46.94 AV	54.00	-7.06	1.09 H	203	19.15	27.79
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	1375.00	45.82 PK	74.00	-28.18	1.24 V	186	18.03	27.79
2	1375.00	41.39 AV	54.00	-12.61	1.24 V	186	13.60	27.79

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 140	FREQUENCY RANGE	1 ~ 30GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1002 hPa	TESTED BY	Brad Wu
TEST MODE	C		

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	1375.00	49.68 PK	74.00	-24.32	1.05 H	197	21.89	27.79
2	1375.00	47.26 AV	54.00	-6.74	1.05 H	197	19.47	27.79
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	1375.00	46.48 PK	74.00	-27.52	1.35 V	201	18.69	27.79
2	1375.00	41.99 AV	54.00	-12.01	1.35 V	201	14.20	27.79

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.

BELOW 1GHz WORST-CASE DATA：DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Brad Wu
TEST MODE	A		

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	249.60	42.39 QP	46.00	-3.61	1.00 H	256	28.58	13.80
2	282.66	37.06 QP	46.00	-8.94	1.00 H	10	23.30	13.75
3	681.24	38.45 QP	46.00	-7.55	1.00 H	319	13.88	24.57
4	751.23	39.19 QP	46.00	-6.81	1.00 H	322	13.68	25.51
5	865.94	43.69 QP	46.00	-2.31	1.00 H	358	16.45	27.24
6	928.16	41.99 QP	46.00	-4.01	1.25 H	10	13.72	28.27
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	43.51	38.24 QP	40.00	-1.76	1.00 V	85	23.73	14.51
2	72.67	35.63 QP	40.00	-4.37	1.25 V	190	23.76	11.87
3	132.95	41.75 QP	43.50	-1.75	1.00 V	46	29.39	12.36
4	399.31	41.18 QP	46.00	-4.82	1.50 V	40	23.16	18.02
5	862.06	44.71 QP	46.00	-1.29	1.00 V	343	17.55	27.16
6	891.22	38.96 QP	46.00	-7.04	1.25 V	88	11.23	27.74

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.

802.11a OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Brad Wu
TEST MODE	A		

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	125.11	36.12 QP	43.50	-7.38	1.25 H	245	24.39	11.73
2	249.52	43.01 QP	46.00	-2.99	1.25 H	94	29.21	13.80
3	395.37	37.91 QP	46.00	-8.09	1.25 H	14	20.06	17.85
4	681.15	41.53 QP	46.00	-4.47	1.00 H	32	16.96	24.57
5	751.42	40.76 QP	46.00	-5.24	1.00 H	11	15.25	25.51
6	867.75	38.64 QP	46.00	-7.36	1.25 H	275	11.36	27.28
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	39.57	35.69 QP	40.00	-4.31	1.25 V	125	20.61	15.08
2	70.69	35.24 QP	40.00	-4.76	1.00 V	251	22.33	12.91
3	125.22	34.88 QP	43.50	-8.62	1.25 V	244	23.14	11.74
4	630.61	38.59 QP	46.00	-7.41	1.25 V	44	15.34	23.25
5	729.76	38.59 QP	46.00	-7.41	1.00 V	69	13.28	25.31
6	867.81	39.93 QP	46.00	-6.07	1.50 V	284	12.65	27.28

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.

DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Brad Wu
TEST MODE	B		

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	125.17	35.63 QP	43.50	-7.87	1.50 H	250	23.90	11.73
2	249.60	43.29 QP	46.00	-2.71	1.00 H	61	29.49	13.80
3	352.65	37.22 QP	46.00	-8.78	1.25 H	34	21.16	16.06
4	681.24	42.11 QP	46.00	-3.89	1.00 H	25	17.54	24.57
5	751.23	40.99 QP	46.00	-5.01	1.25 H	22	15.48	25.51
6	865.94	38.92 QP	46.00	-7.08	1.50 H	22	11.68	27.24
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	41.57	36.49 QP	40.00	-3.51	1.00 V	40	21.62	14.87
2	84.34	33.74 QP	40.00	-6.26	1.00 V	265	25.76	7.97
3	125.17	35.61 QP	43.50	-7.89	1.00 V	280	23.87	11.73
4	733.73	38.52 QP	46.00	-7.48	1.25 V	1	13.17	25.35
5	867.89	39.57 QP	46.00	-6.43	1.00 V	4	12.30	27.28
6	928.16	37.05 QP	46.00	-8.95	1.50 V	22	8.77	28.27

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.

802.11a OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Brad Wu
TEST MODE	B		

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	249.52	42.45 QP	46.00	-3.55	1.25 H	242	28.65	13.80
2	267.02	41.71 QP	46.00	-4.29	1.50 H	355	27.93	13.78
3	309.75	38.82 QP	46.00	-7.18	1.50 H	210	24.66	14.16
4	751.11	40.85 QP	46.00	-5.15	1.00 H	311	15.34	25.51
5	867.81	41.35 QP	46.00	-4.65	1.25 H	36	14.07	27.28
6	933.84	39.42 QP	46.00	-6.58	1.25 H	55	11.07	28.35
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	35.67	37.48 QP	40.00	-2.52	1.25 V	34	23.13	14.35
2	72.54	35.41 QP	40.00	-4.59	1.25 V	254	23.47	11.94
3	132.84	38.05 QP	43.50	-5.45	1.00 V	310	25.70	12.35
4	265.02	39.45 QP	46.00	-6.55	1.25 V	310	25.66	13.79
5	867.79	43.77 QP	46.00	-2.23	1.00 V	348	16.49	27.28
6	930.02	39.15 QP	46.00	-6.85	1.50 V	194	10.85	28.30

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

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

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Brad Wu
TEST MODE	C		

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	113.50	32.93 QP	43.50	-10.57	1.50 H	265	21.52	11.41
2	249.60	40.43 QP	46.00	-5.57	1.00 H	52	26.63	13.80
3	500.42	35.84 QP	46.00	-10.16	1.50 H	94	15.40	20.44
4	681.24	40.06 QP	46.00	-5.94	1.00 H	103	15.49	24.57
5	729.84	36.92 QP	46.00	-9.08	1.50 H	46	11.61	25.31
6	867.89	36.14 QP	46.00	-9.86	1.00 H	166	8.86	27.28
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	45.52	38.02 QP	40.00	-1.98	1.50 V	346	23.89	14.13
2	70.81	38.36 QP	40.00	-1.64	1.00 V	169	25.52	12.84
3	115.56	38.82 QP	43.50	-4.68	1.00 V	151	27.44	11.38
4	249.81	38.02 QP	46.00	-7.98	1.50 V	122	24.20	13.82
5	500.55	38.92 QP	46.00	-7.08	1.00 V	173	18.48	20.44
6	733.82	41.21 QP	46.00	-4.79	1.00 V	193	15.86	25.35

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.

DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Brad Wu
TEST MODE	C		

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	152.31	35.78 QP	43.50	-7.72	1.00 H	75	21.69	14.09
2	249.54	32.51 QP	46.00	-13.49	1.25 H	183	18.71	13.80
3	519.75	34.25 QP	46.00	-11.75	1.25 H	311	13.41	20.84
4	681.17	38.13 QP	46.00	-7.87	1.00 H	154	13.56	24.57
5	751.16	40.92 QP	46.00	-5.08	1.00 H	188	15.41	25.51
6	867.72	35.24 QP	46.00	-10.76	1.00 H	94	7.97	27.27
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	45.41	38.12 QP	40.00	-1.88	1.25 V	328	23.97	14.15
2	68.61	35.59 QP	40.00	-4.41	1.00 V	122	22.38	13.21
3	113.27	37.64 QP	43.50	-5.86	1.00 V	102	26.22	11.42
4	599.45	34.96 QP	46.00	-11.04	1.25 V	154	12.57	22.39
5	731.72	41.45 QP	46.00	-4.55	1.25 V	144	16.12	25.33
6	867.76	39.09 QP	46.00	-6.91	1.25 V	143	11.81	27.28

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.

DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Brad Wu
TEST MODE	D		

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	150.45	37.04 QP	43.50	-6.46	1.50 H	91	23.00	14.04
2	249.60	31.37 QP	46.00	-14.63	1.50 H	52	17.56	13.80
3	519.86	34.95 QP	46.00	-11.05	1.50 H	94	14.11	20.84
4	681.24	38.47 QP	46.00	-7.53	1.00 H	73	13.90	24.57
5	751.23	40.82 QP	46.00	-5.18	1.00 H	190	15.31	25.51
6	867.89	36.48 QP	46.00	-9.52	1.50 H	118	9.20	27.28
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	43.51	38.82 QP	40.00	-1.18	1.00 V	229	24.31	14.51
2	68.79	36.14 QP	40.00	-3.86	1.50 V	349	22.92	13.22
3	115.45	38.55 QP	43.50	-4.95	1.00 V	166	27.17	11.38
4	597.63	35.05 QP	46.00	-10.95	1.00 V	172	12.70	22.36
5	731.79	41.45 QP	46.00	-4.55	1.00 V	127	16.12	25.33
6	867.89	39.49 QP	46.00	-6.51	1.00 V	160	12.22	27.28

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.

DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Brad Wu
TEST MODE	D		

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	138.64	39.62 QP	43.50	-3.88	1.25 H	85	26.81	12.81
2	249.54	40.38 QP	46.00	-5.62	1.25 H	45	26.58	13.80
3	500.34	35.02 QP	46.00	-10.98	1.25 H	79	14.59	20.43
4	681.15	39.57 QP	46.00	-6.43	1.50 H	197	15.00	24.57
5	731.72	37.18 QP	46.00	-8.82	1.25 H	31	11.85	25.33
6	867.81	36.75 QP	46.00	-9.25	1.00 H	85	9.47	27.28
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	70.65	38.67 QP	40.00	-1.33	1.25 V	310	25.74	12.93
2	115.34	38.75 QP	43.50	-4.75	1.00 V	152	27.36	11.39
3	249.52	37.82 QP	46.00	-8.18	1.25 V	122	24.02	13.80
4	500.35	39.12 QP	46.00	-6.88	1.00 V	152	18.69	20.43
5	729.75	39.45 QP	46.00	-6.55	1.25 V	142	14.14	25.31
6	867.81	38.94 QP	46.00	-7.06	1.25 V	175	11.66	27.28

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.

802.11a OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Brad Wu
TEST MODE	A		

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	249.60	42.51 QP	46.00	-3.49	1.00 H	262	28.70	13.80
2	267.10	41.78 QP	46.00	-4.22	1.25 H	331	27.99	13.78
3	309.88	38.90 QP	46.00	-7.10	1.25 H	205	24.73	14.17
4	751.23	41.00 QP	46.00	-5.00	1.00 H	319	15.49	25.51
5	867.89	41.38 QP	46.00	-4.62	1.00 H	1	14.11	27.28
6	933.99	39.46 QP	46.00	-6.54	1.50 H	4	11.11	28.35
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	35.73	37.54 QP	40.00	-2.46	1.00 V	10	23.18	14.36
2	72.67	35.45 QP	40.00	-4.55	1.00 V	229	23.58	11.87
3	132.95	38.13 QP	43.50	-5.37	1.25 V	340	25.78	12.36
4	265.16	39.51 QP	46.00	-6.49	1.25 V	307	25.72	13.79
5	867.89	43.82 QP	46.00	-2.18	1.25 V	343	16.54	27.28
6	930.11	39.23 QP	46.00	-6.77	1.25 V	163	10.93	28.30

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

802.11a OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Brad Wu
TEST MODE	B		

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	125.17	36.19 QP	43.50	-7.31	1.50 H	259	24.46	11.73
2	249.60	43.04 QP	46.00	-2.96	1.00 H	103	29.24	13.80
3	395.43	38.01 QP	46.00	-7.99	1.50 H	7	20.16	17.85
4	681.24	41.62 QP	46.00	-4.38	1.25 H	16	17.05	24.57
5	751.23	40.83 QP	46.00	-5.17	1.00 H	4	15.33	25.51
6	867.89	38.76 QP	46.00	-7.24	1.25 H	301	11.48	27.28
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	39.62	35.75 QP	40.00	-4.25	1.25 V	103	20.67	15.09
2	70.73	35.18 QP	40.00	-4.82	1.00 V	262	22.29	12.88
3	125.17	34.98 QP	43.50	-8.52	1.50 V	250	23.24	11.73
4	630.69	38.63 QP	46.00	-7.37	1.25 V	10	15.37	23.26
5	729.84	38.63 QP	46.00	-7.37	1.25 V	10	13.32	25.31
6	867.89	40.00 QP	46.00	-6.00	1.50 V	301	12.72	27.28

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.

DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Brad Wu
TEST MODE	C		

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	138.78	39.78 QP	43.50	-3.72	1.50 H	79	26.96	12.82
2	249.60	40.45 QP	46.00	-5.55	1.00 H	61	26.65	13.80
3	500.42	35.07 QP	46.00	-10.93	1.50 H	88	14.64	20.44
4	681.24	39.65 QP	46.00	-6.35	1.00 H	211	15.07	24.57
5	731.79	37.24 QP	46.00	-8.76	1.50 H	37	11.91	25.33
6	867.89	36.79 QP	46.00	-9.21	1.00 H	157	9.51	27.28
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	**70.73**	**38.75 QP**	**40.00**	**-1.25**	**1.00 V**	**223**	**25.87**	**12.88**
2	115.45	38.84 QP	43.50	-4.66	1.00 V	160	27.45	11.38
3	249.60	37.90 QP	46.00	-8.10	1.50 V	127	24.09	13.80
4	500.42	39.17 QP	46.00	-6.83	1.00 V	166	18.73	20.44
5	729.84	39.59 QP	46.00	-6.41	1.00 V	175	14.28	25.31
6	867.89	39.01 QP	46.00	-6.99	1.50 V	163	11.73	27.28

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.

DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Brad Wu
TEST MODE	D		

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	152.39	36.02 QP	43.50	-7.48	1.00 H	82	21.93	14.10
2	249.60	32.60 QP	46.00	-13.40	1.00 H	175	18.80	13.80
3	519.86	34.30 QP	46.00	-11.70	1.50 H	253	13.46	20.84
4	681.24	38.22 QP	46.00	-7.78	1.00 H	79	13.65	24.57
5	751.23	41.01 QP	46.00	-4.99	1.00 H	202	15.50	25.51
6	867.89	35.32 QP	46.00	-10.68	1.00 H	148	8.04	27.28
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	45.45	38.16 QP	40.00	-1.84	1.50 V	340	24.02	14.14
2	68.79	35.69 QP	40.00	-4.31	1.00 V	166	22.47	13.22
3	113.50	37.75 QP	43.50	-5.75	1.00 V	166	26.33	11.41
4	599.58	35.03 QP	46.00	-10.97	1.00 V	160	12.64	22.39
5	731.79	41.53 QP	46.00	-4.47	1.00 V	133	16.21	25.33
6	867.89	39.20 QP	46.00	-6.80	1.00 V	151	11.92	27.28

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.

1.2 20dB BANDWIDTH MEASUREMENT

1.2.1 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
R&S SPECTRUM ANALYZER	FSP40	100041	May 13, 2009	May 12, 2010

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

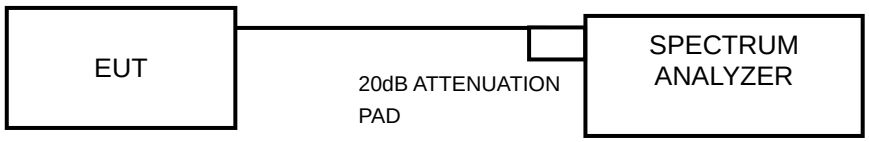
1.2.2 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 300 kHz RBW and 1MHz VBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

1.2.3 DEVIATION FROM TEST STANDARD

No deviation.

1.2.4 TEST SETUP



1.2.5 EUT OPERATING CONDITIONS

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

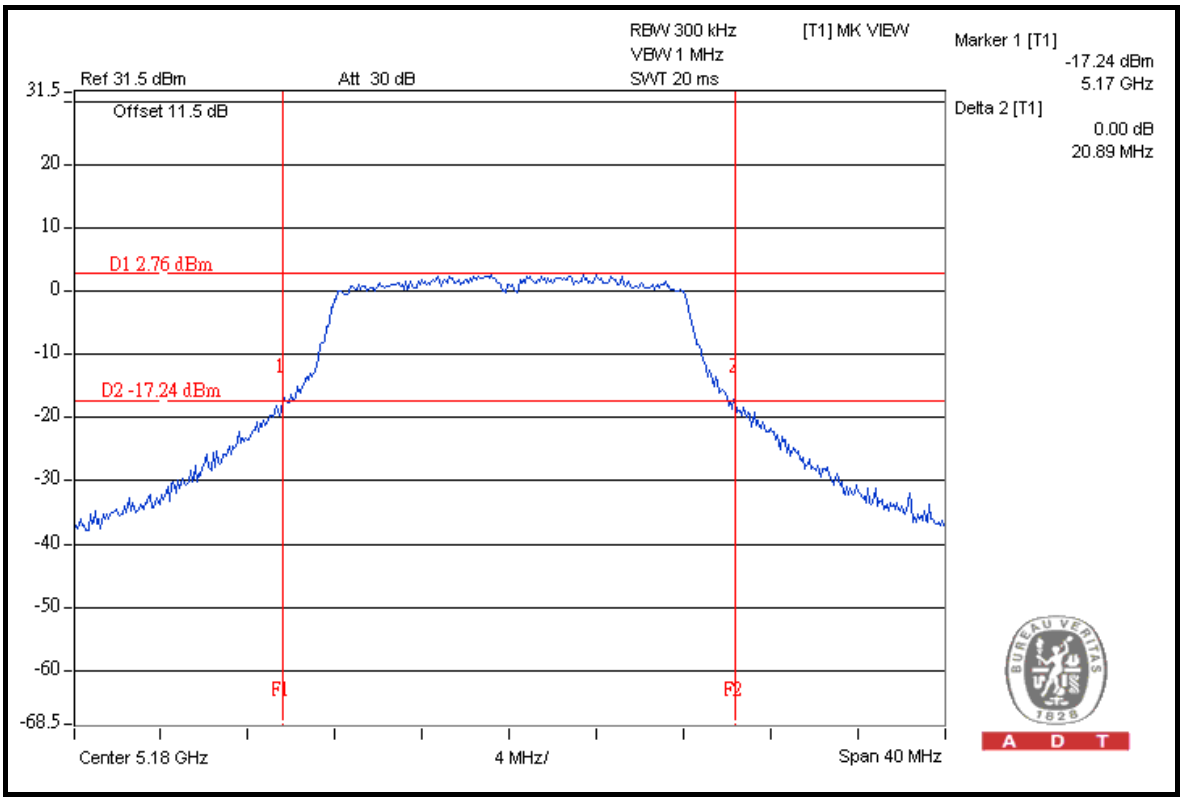
1.2.6 TEST RESULTS

802.11a OFDM MODULATION:

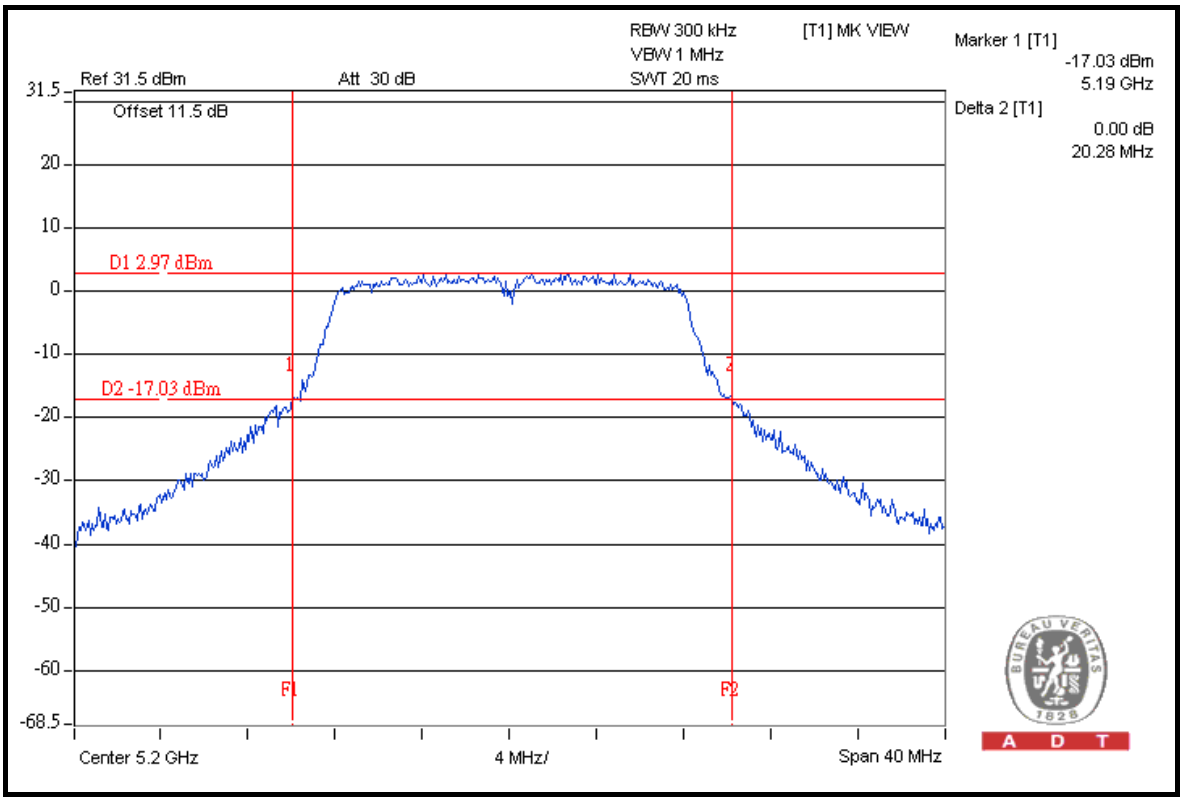
MODULATION TYPE	BPSK	**TRANSFER RATE**	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	23deg.C, 70%RH, 1023hPa
TESTED BY	Brad Wu	**TEST MODE**	**A**

CHANNEL	CHANNEL FREQUENCY (MHz)	20dB BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	20.89	20.67	20.44	PASS
40	5200	20.28	20.51	20.22	PASS
48	5240	20.57	20.29	20.29	PASS
52	5260	20.56	20.51	20.43	PASS
60	5300	20.77	21.22	20.64	PASS
64	5320	20.59	21.29	20.57	PASS
100	5500	20.07	21.17	20.43	PASS
120	5600	20.21	20.48	20.97	PASS
140	5700	20.45	20.19	20.76	PASS

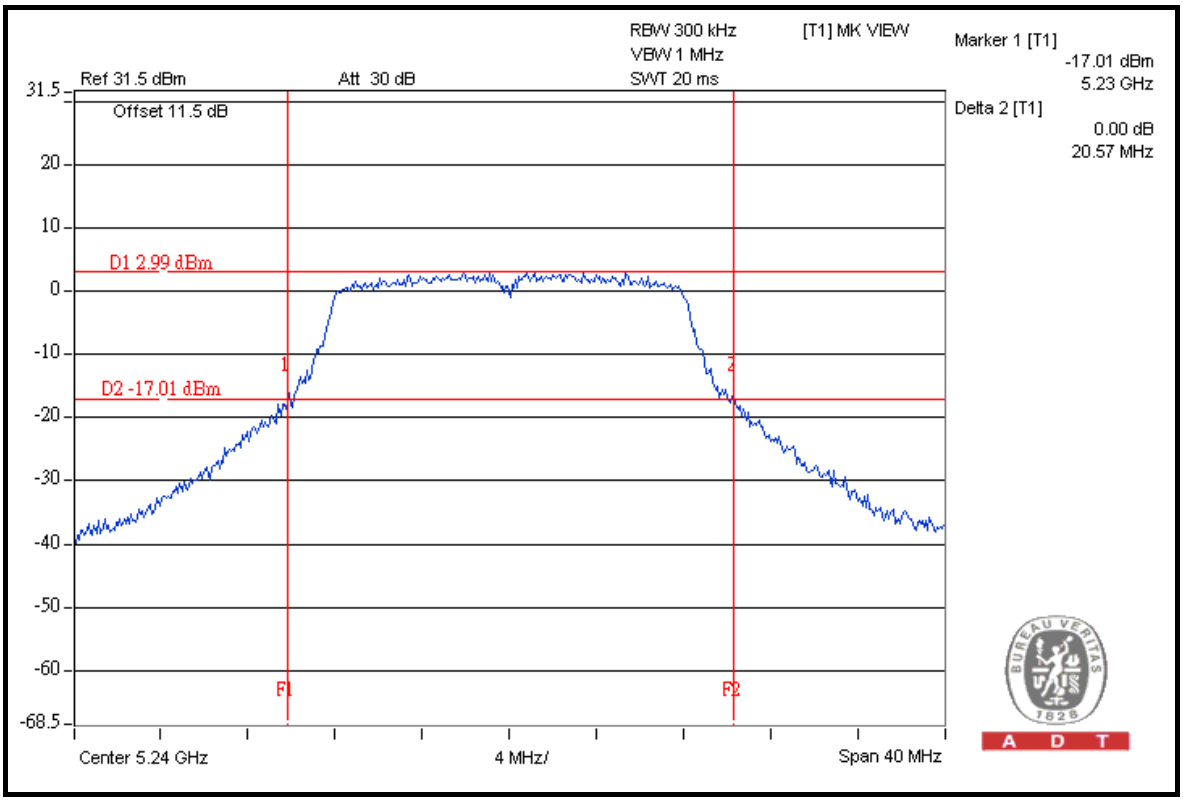
FOR CHAIN 0: CH 36



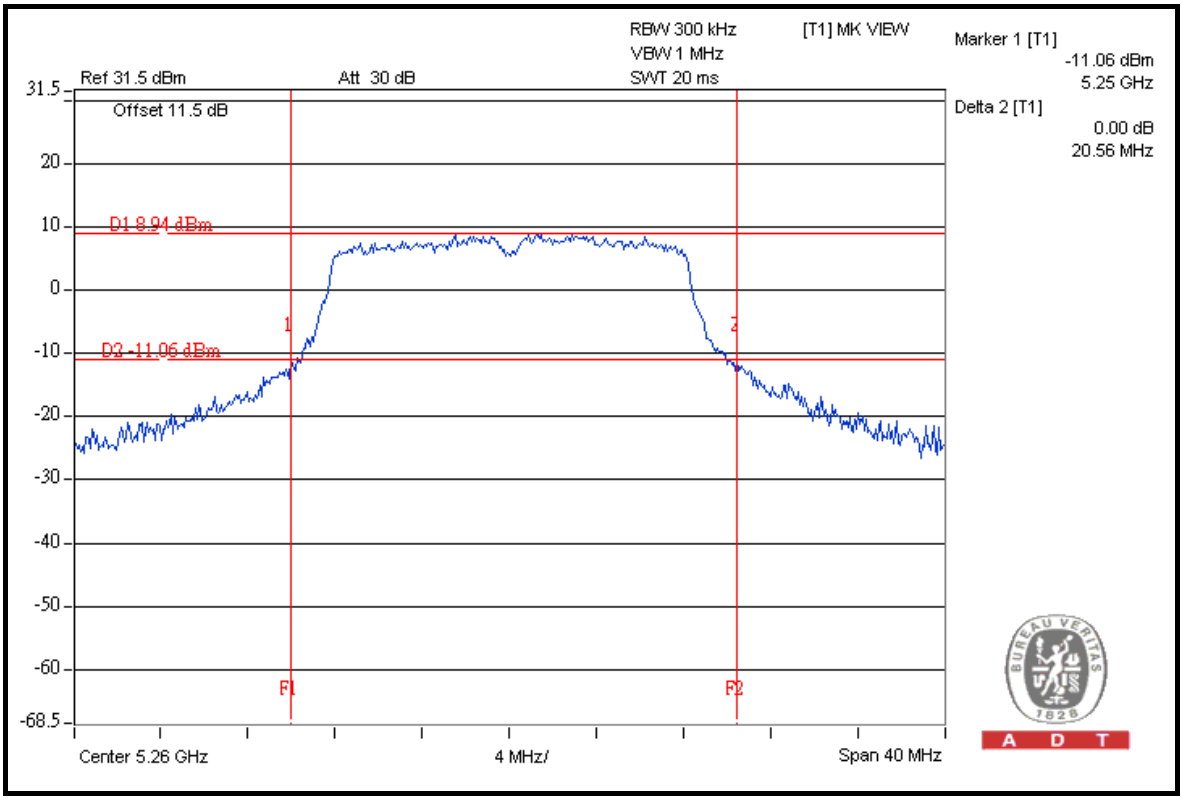
CH 40



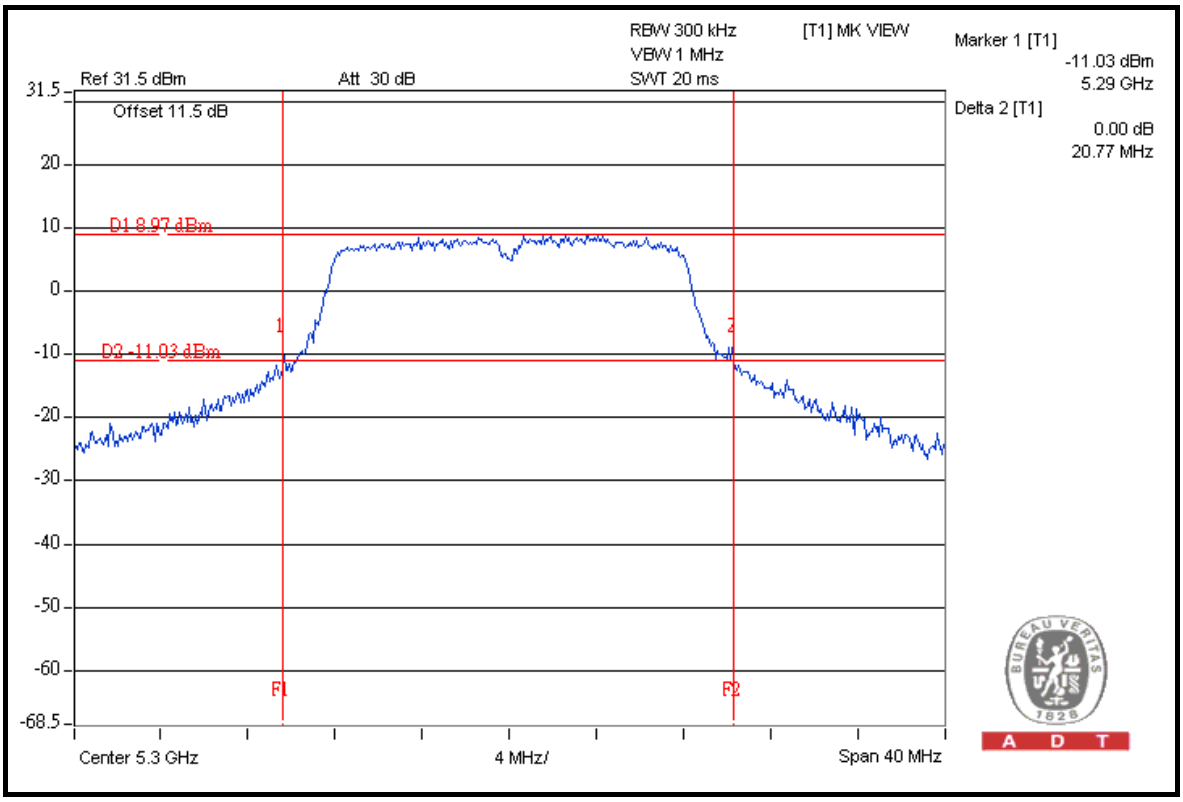
CH 48


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-17.01 dBm
5.23 GHz
Delta 2 [T1]
0.00 dB
20.57 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 2.99 dBm
D2 -17.01 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.24 GHz
4 MHz/
Span 40 MHz

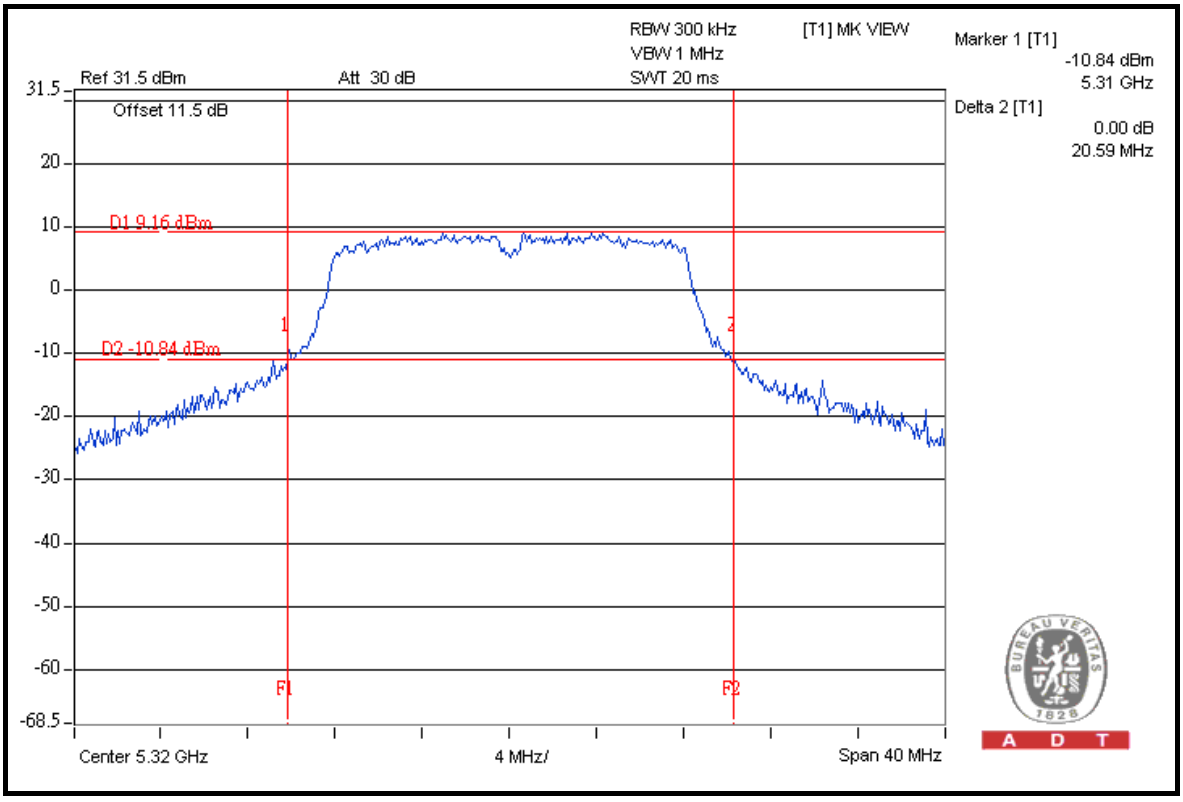
CH 52


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-11.06 dBm
5.25 GHz
Delta 2 [T1]
0.00 dB
20.56 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 8.94 dBm
D2 -11.06 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.26 GHz
4 MHz/
Span 40 MHz

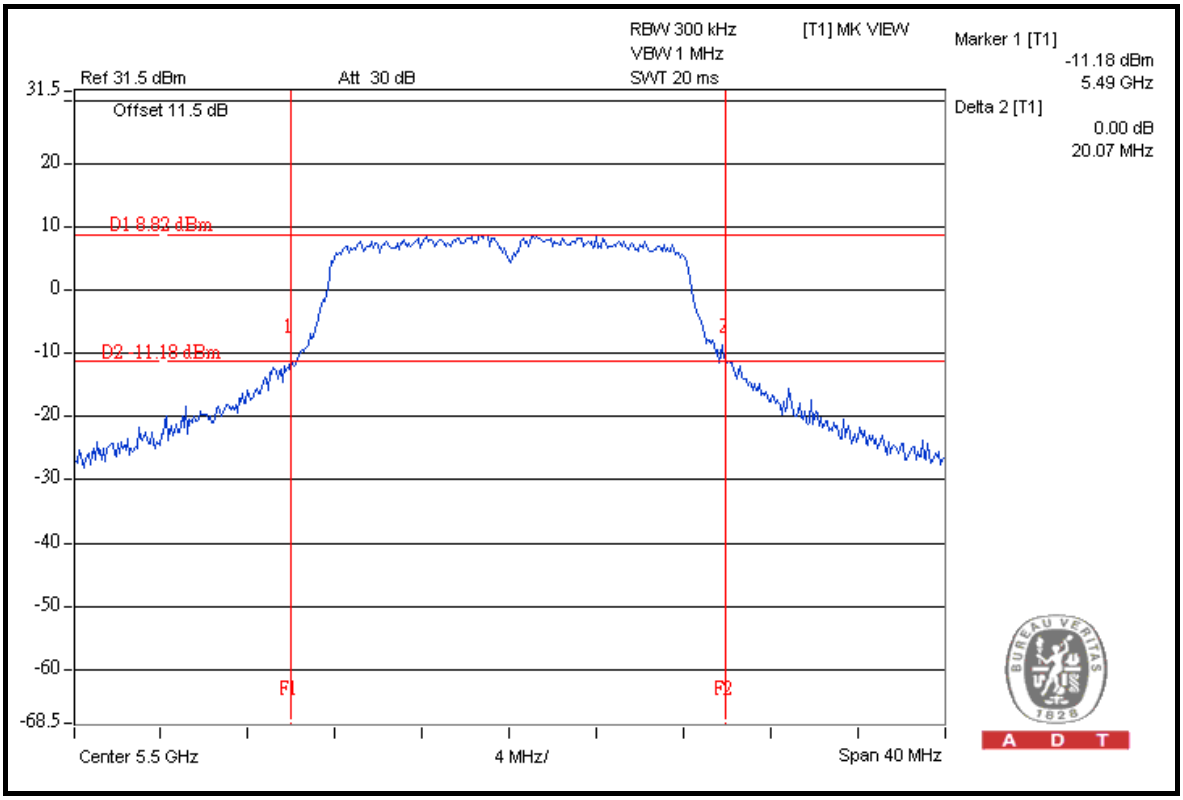
CH 60


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-11.03 dBm
5.29 GHz
Delta 2 [T1]
0.00 dB
20.77 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 8.97 dBm
D2 -11.03 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.3 GHz
4 MHz/
Span 40 MHz

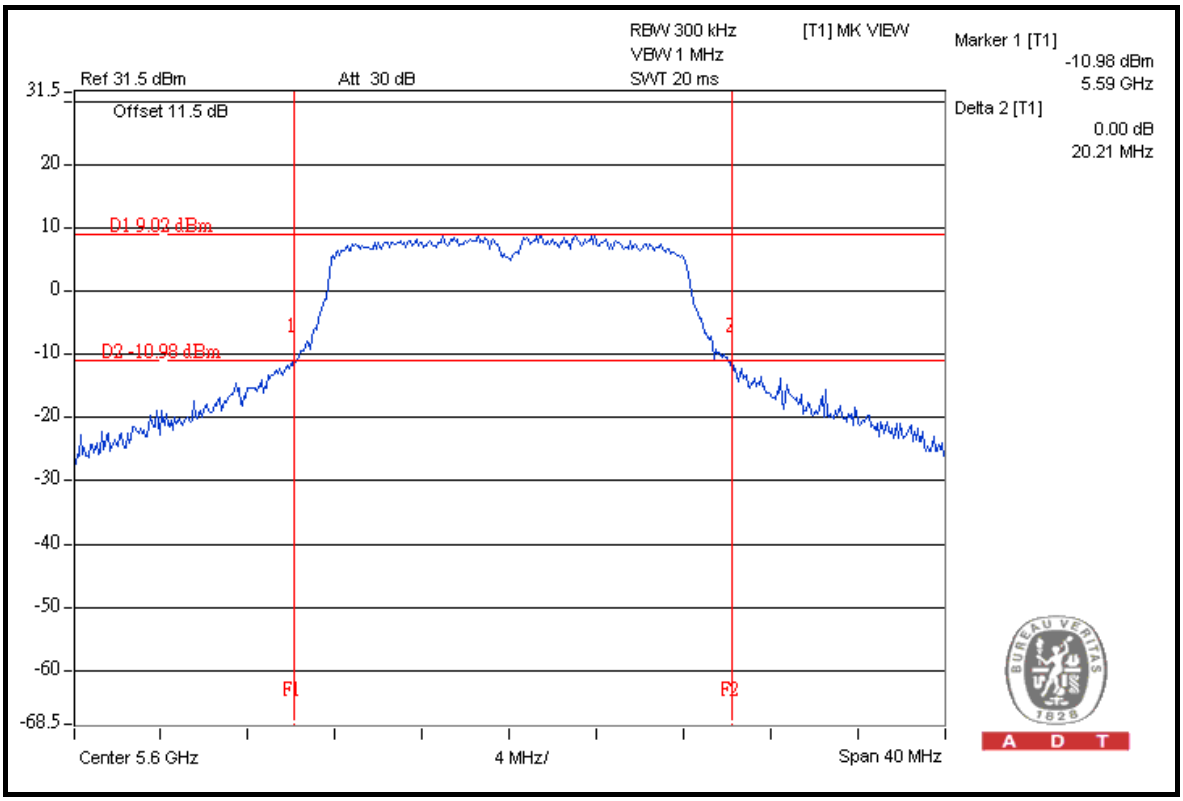
CH 64


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.84 dBm
5.31 GHz
Delta 2 [T1]
0.00 dB
20.59 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.16 dBm
D2 -10.84 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.32 GHz
4 MHz/
Span 40 MHz

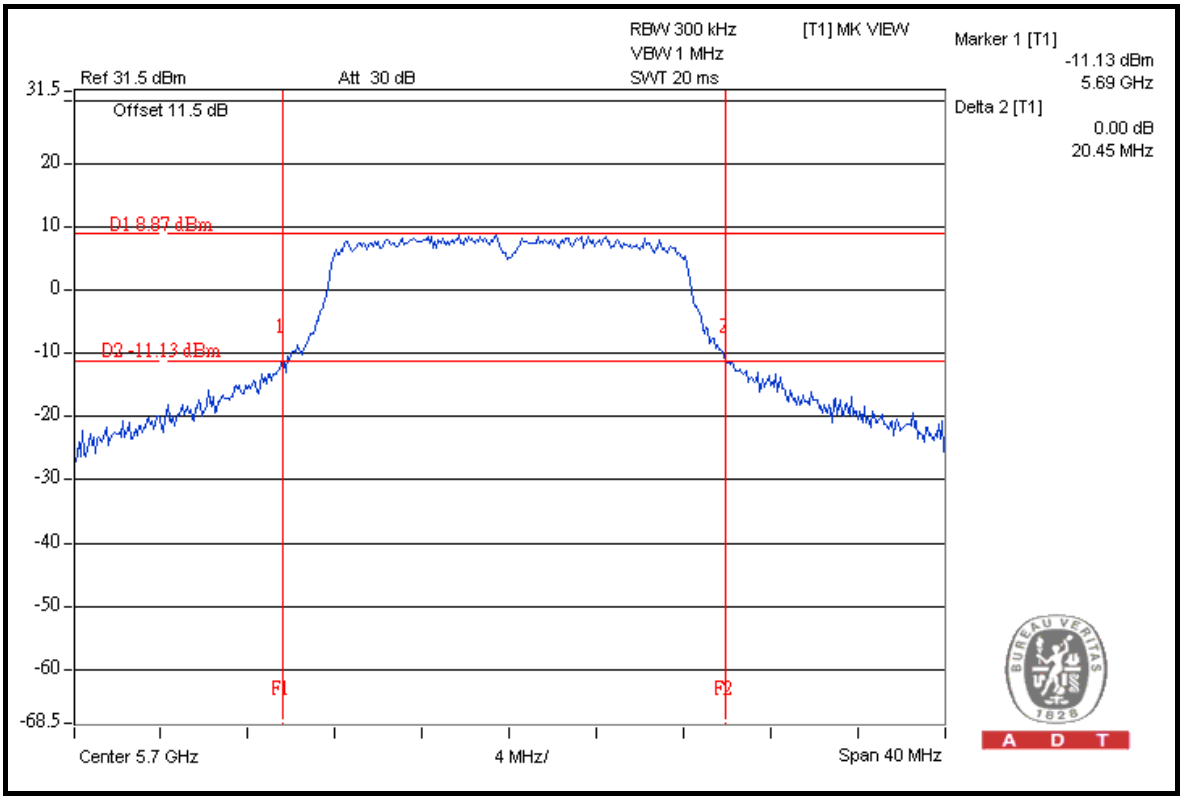
CH 100


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-11.18 dBm
5.49 GHz
Delta 2 [T1]
0.00 dB
20.07 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 8.82 dBm
D2 -11.18 dBm
1
2
F1
F2
Center 5.5 GHz
4 MHz/
Span 40 MHz

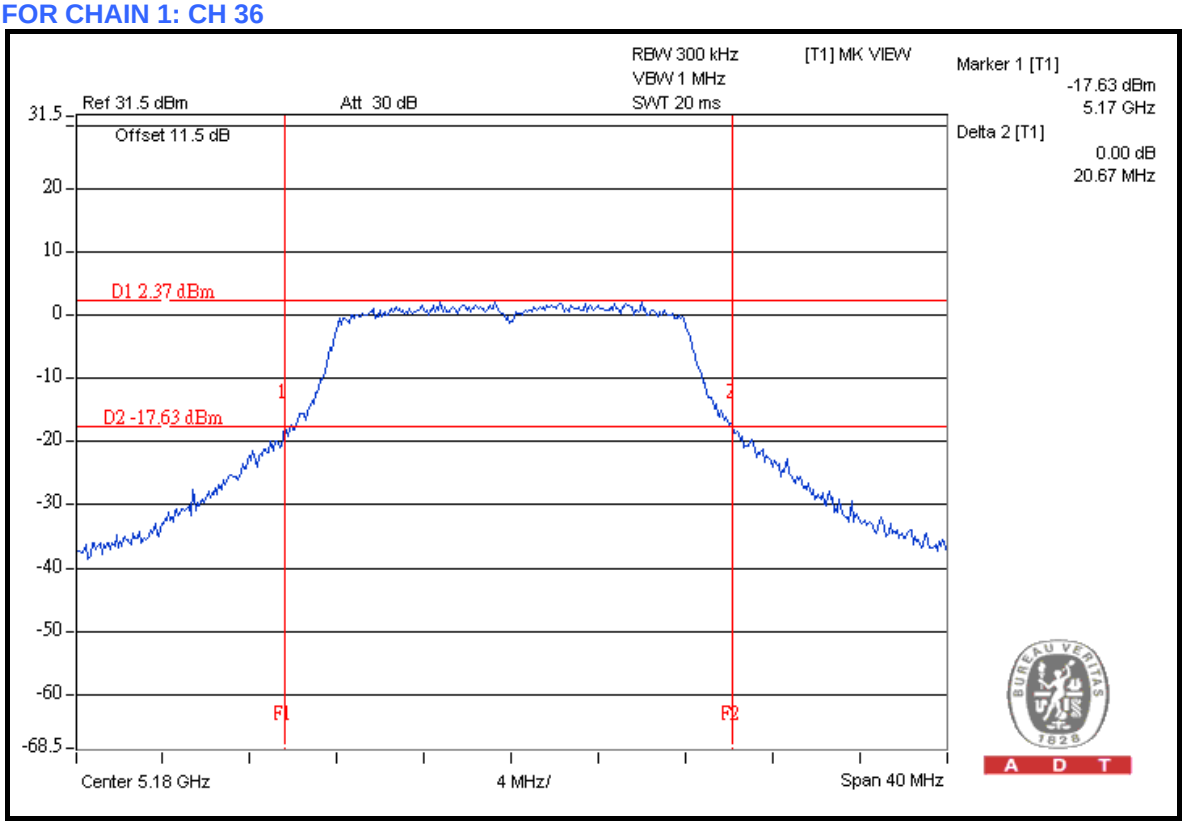
CH 120


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.98 dBm
5.59 GHz
Delta 2 [T1]
0.00 dB
20.21 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 9.02 dBm
D2 -10.98 dBm
1
2
F1
F2
Center 5.6 GHz
4 MHz/
Span 40 MHz

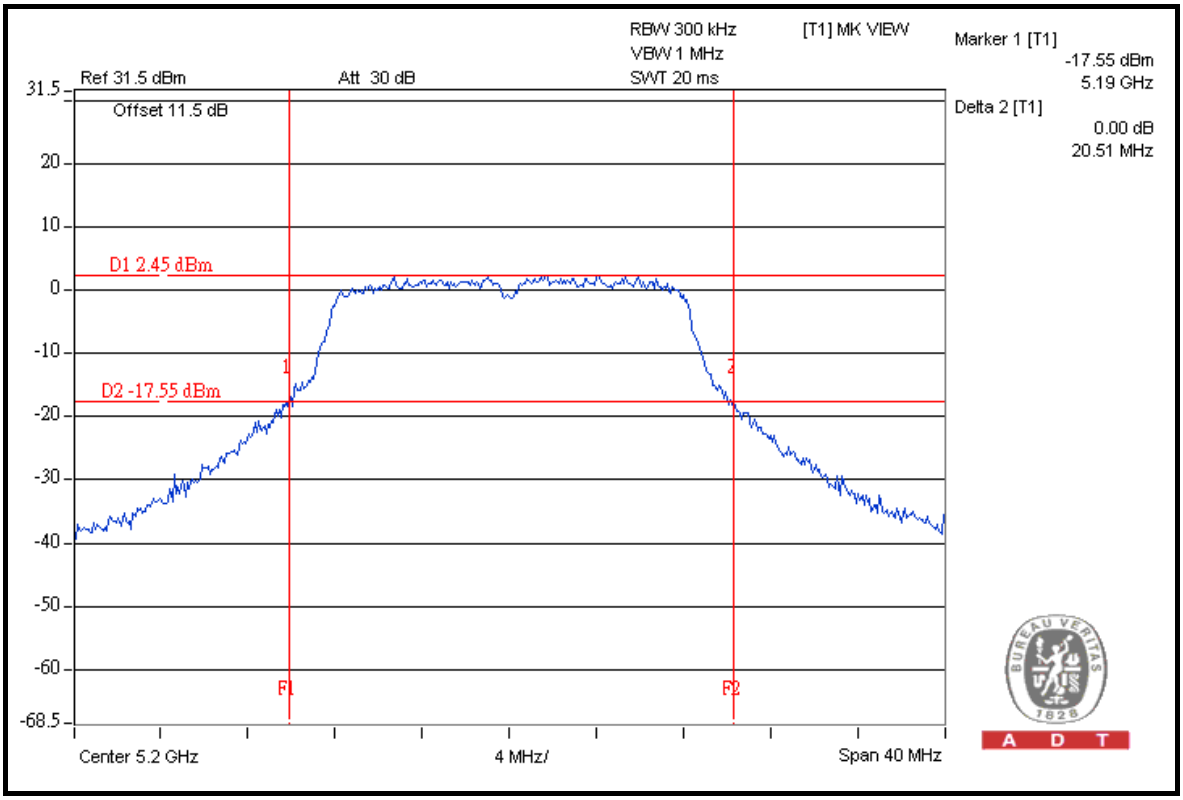
CH 140



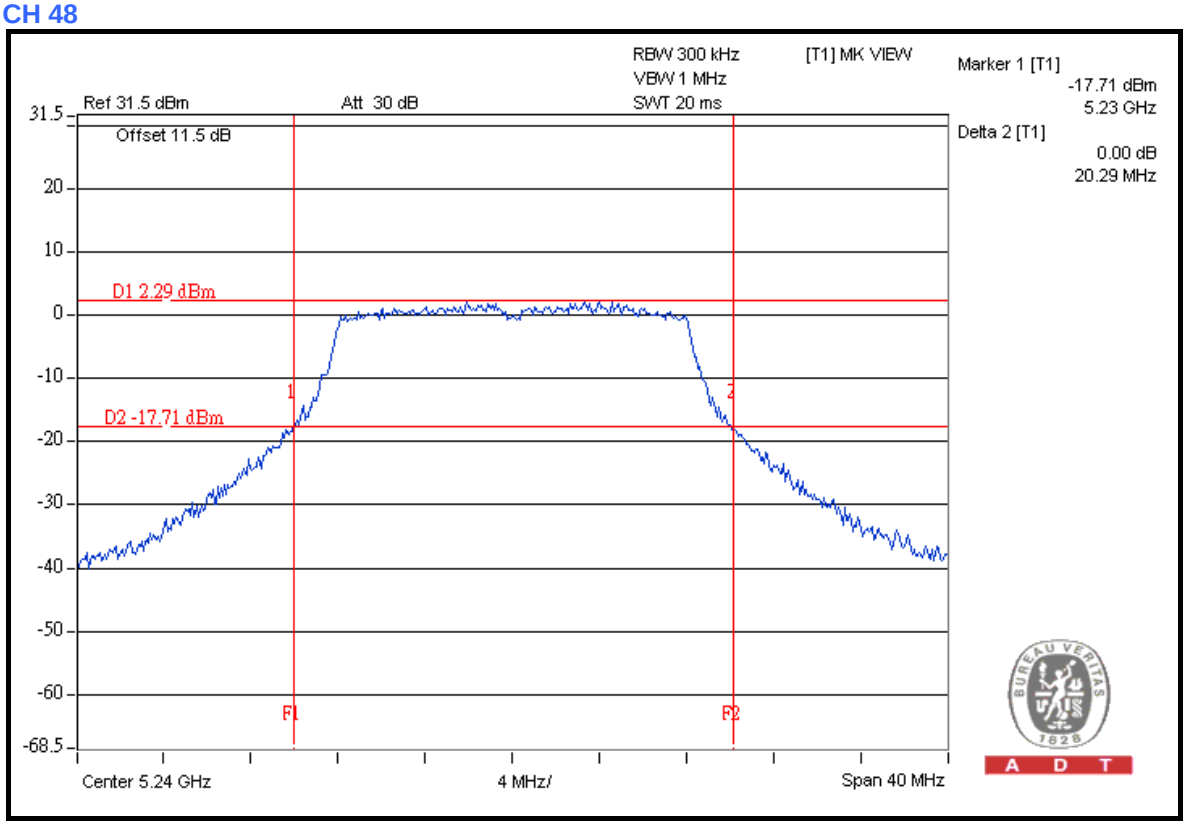
FOR CHAIN 1: CH 36



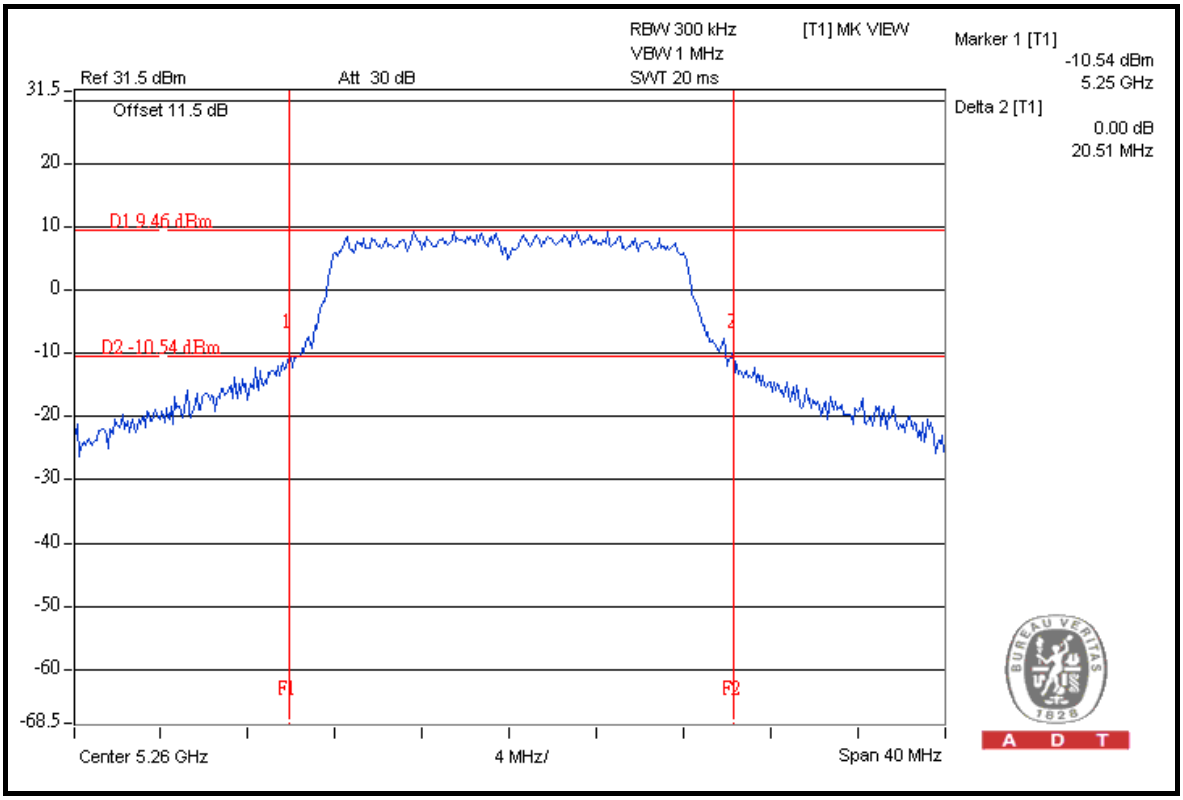
CH 40


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-17.55 dBm
5.19 GHz
Delta 2 [T1]
0.00 dB
20.51 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 2.45 dBm
D2 -17.55 dBm
1
2
F1
F2
Center 5.2 GHz
4 MHz/
Span 40 MHz

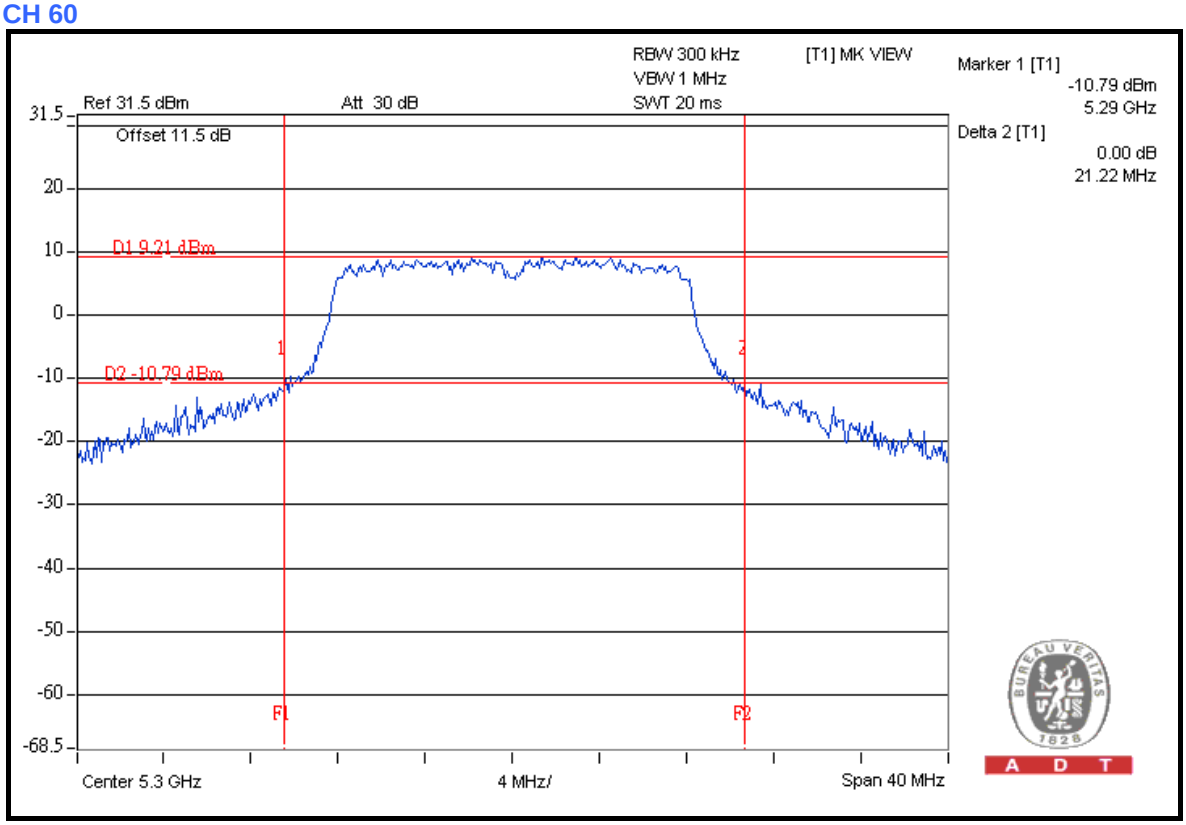
CH 48


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-17.71 dBm
5.23 GHz
Delta 2 [T1]
0.00 dB
20.29 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 2.29 dBm
D2 -17.71 dBm
1
2
F1
F2
Center 5.24 GHz
4 MHz/
Span 40 MHz

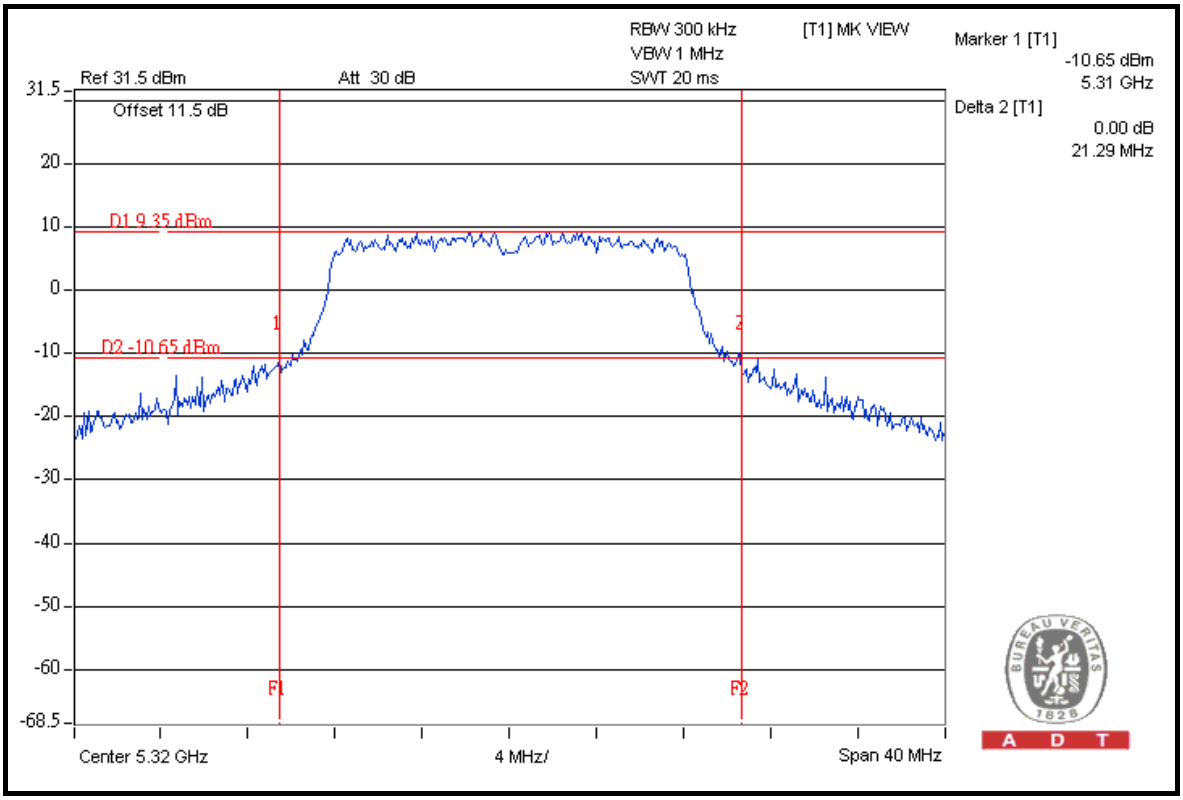
CH 52


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.54 dBm
5.25 GHz
Delta 2 [T1]
0.00 dB
20.51 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.46 dBm
D2 -10.54 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.26 GHz
4 MHz/
Span 40 MHz

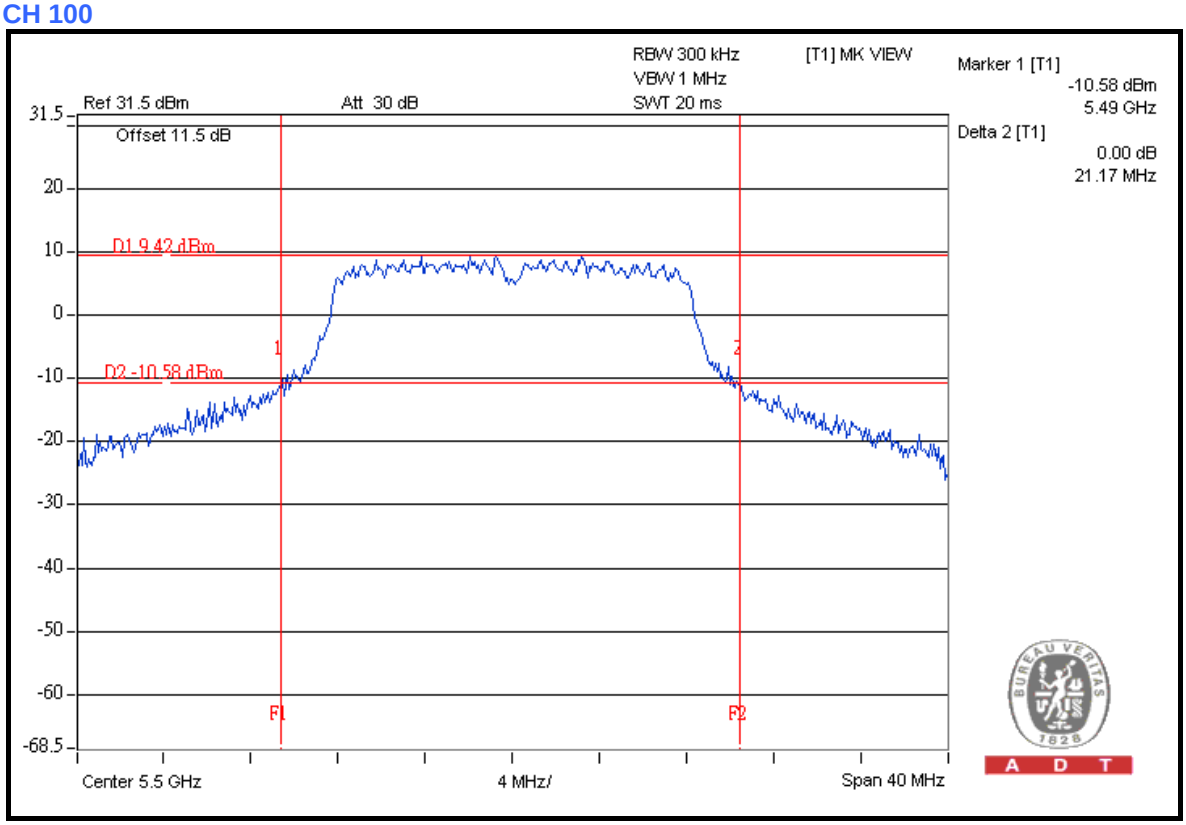
CH 60


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.79 dBm
5.29 GHz
Delta 2 [T1]
0.00 dB
21.22 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.21 dBm
D2 -10.79 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.3 GHz
4 MHz/
Span 40 MHz

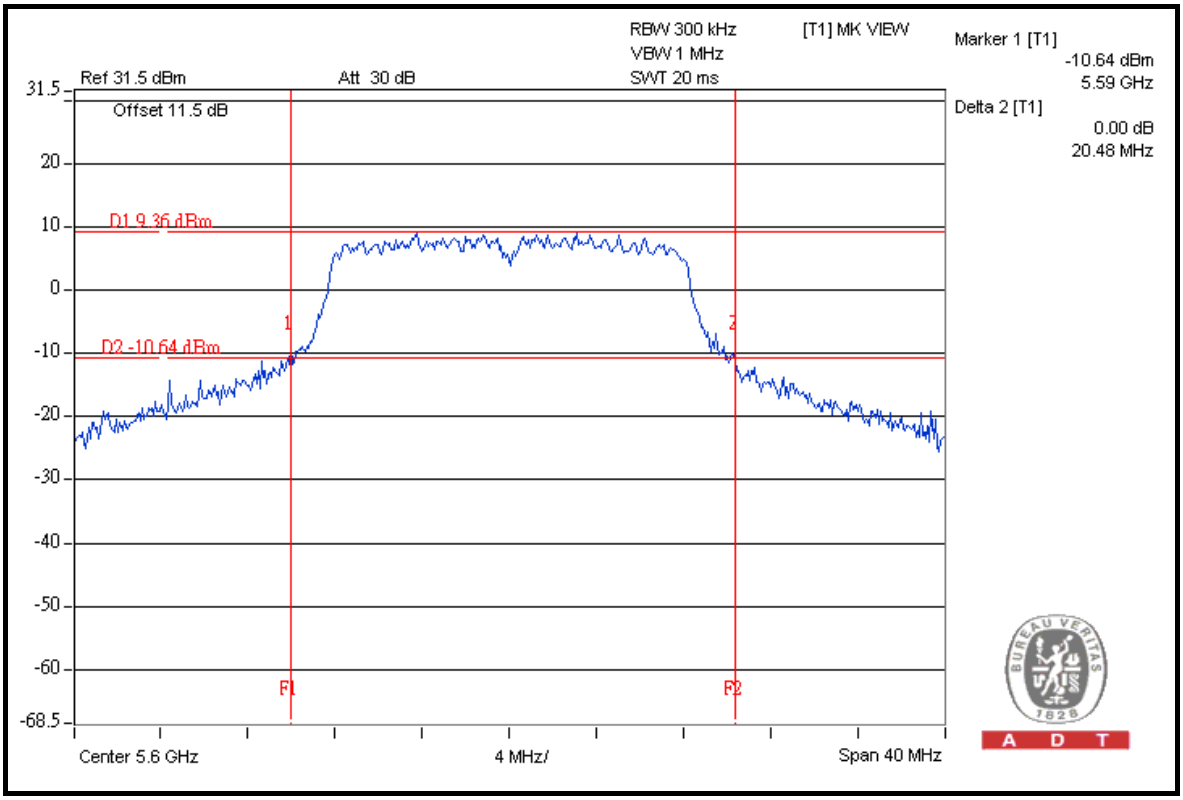
CH 64


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.65 dBm
5.31 GHz
Delta 2 [T1]
0.00 dB
21.29 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.35 dBm
D2 -10.65 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.32 GHz
4 MHz/
Span 40 MHz

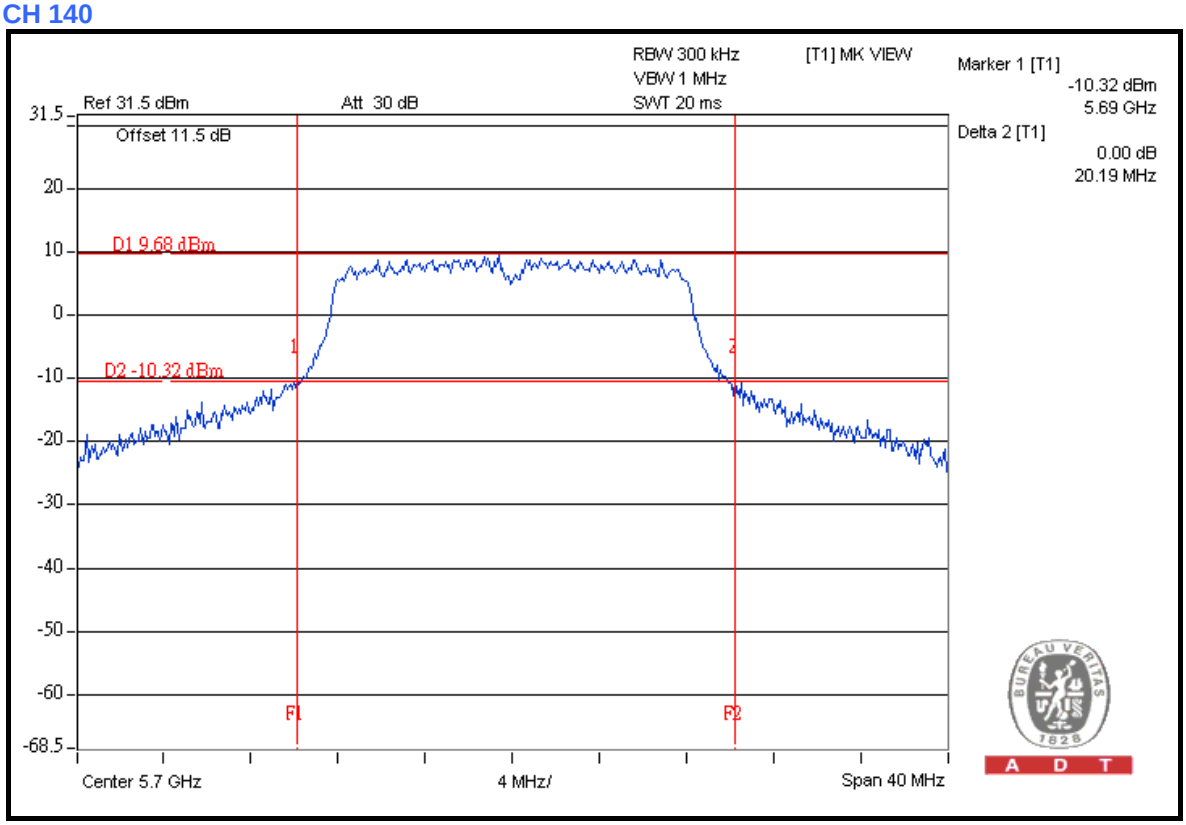
CH 100


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.58 dBm
5.49 GHz
Delta 2 [T1]
0.00 dB
21.17 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.42 dBm
D2 -10.58 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.5 GHz
4 MHz/
Span 40 MHz

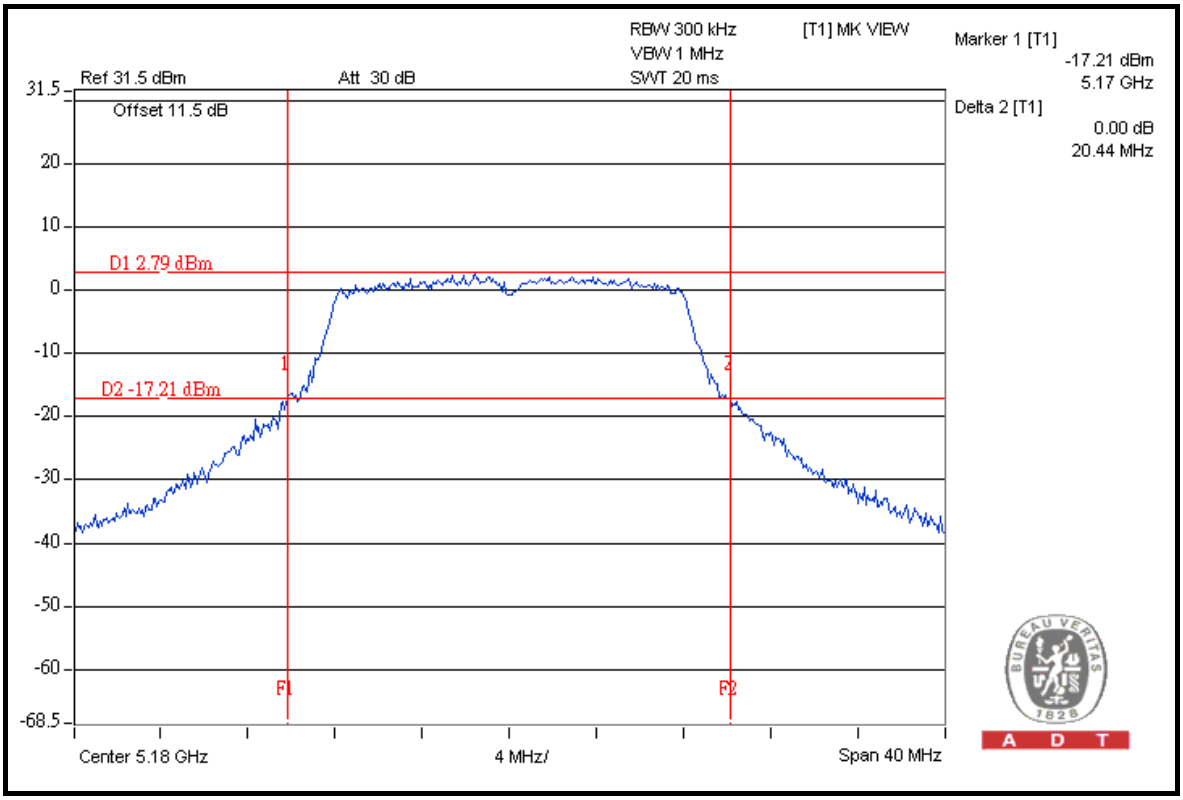
CH 120


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.64 dBm
5.59 GHz
Delta 2 [T1]
0.00 dB
20.48 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 9.36 dBm
D2 -10.64 dBm
1
2
F1
F2
Center 5.6 GHz
4 MHz/
Span 40 MHz

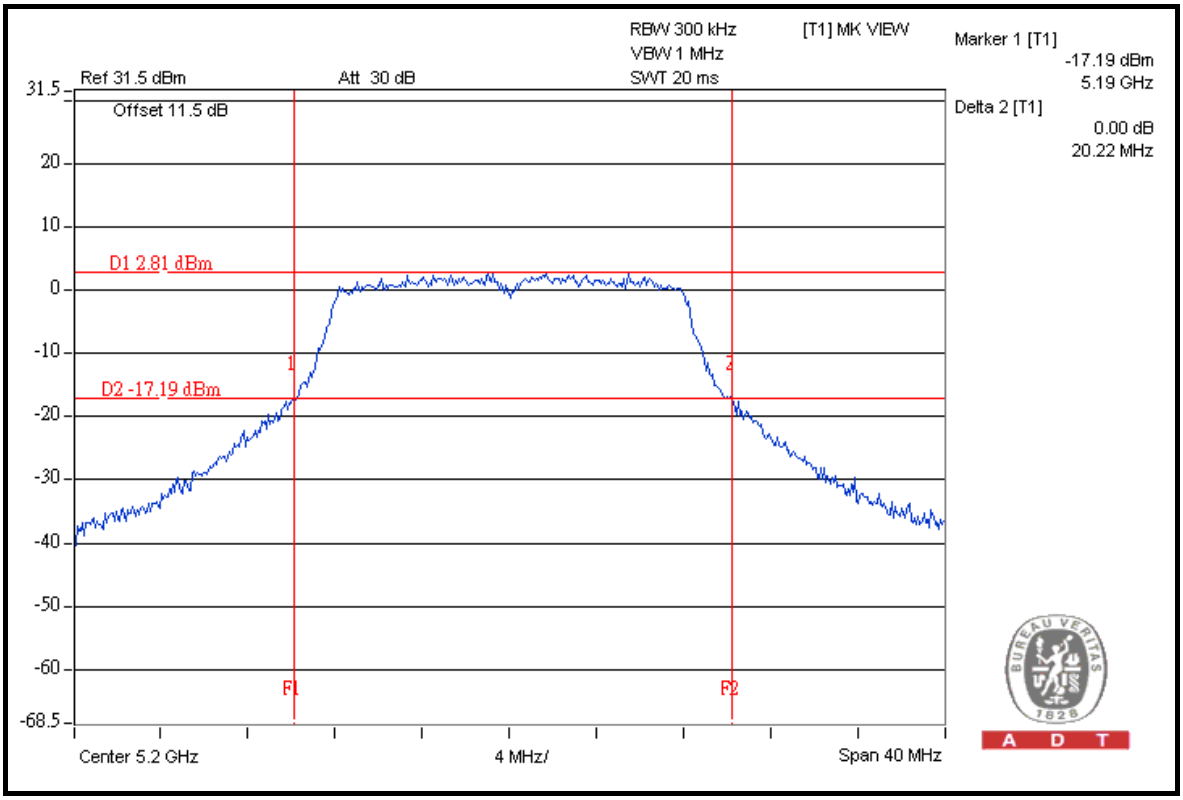
CH 140


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.32 dBm
5.69 GHz
Delta 2 [T1]
0.00 dB
20.19 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 9.68 dBm
D2 -10.32 dBm
1
2
F1
F2
Center 5.7 GHz
4 MHz/
Span 40 MHz

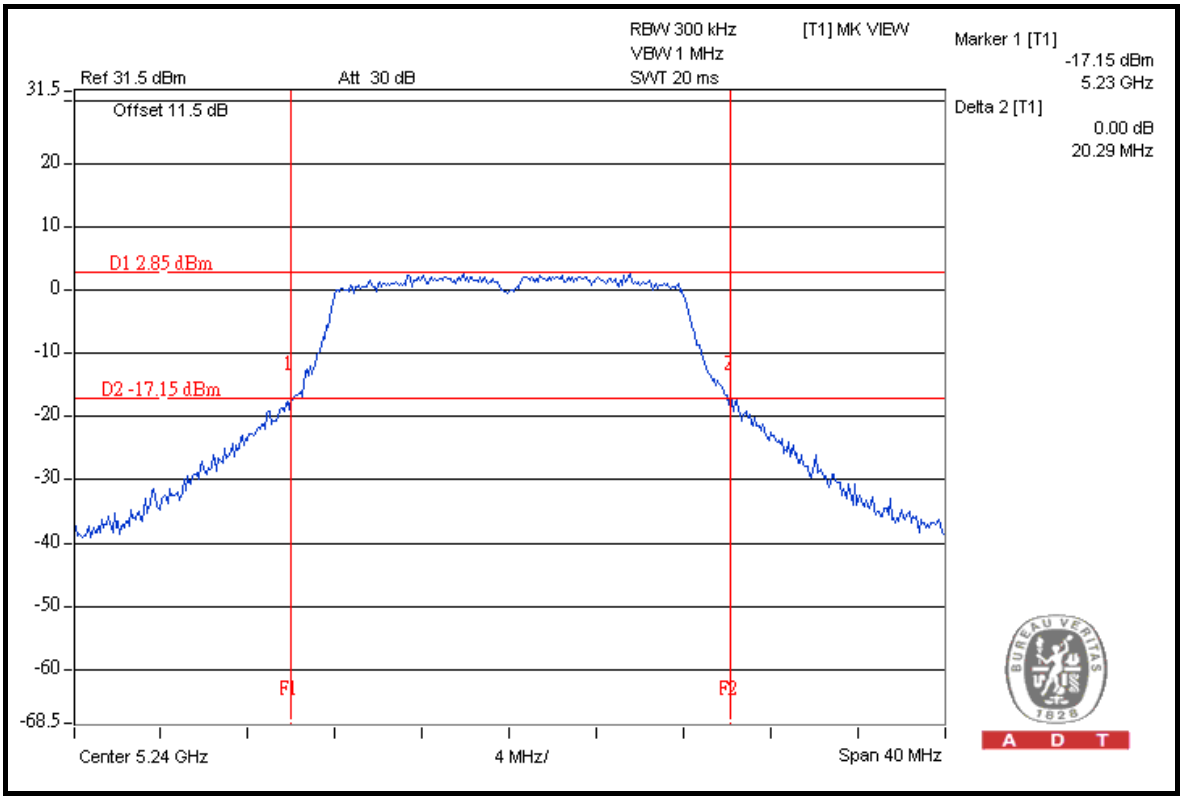
FOR CHAIN 2: CH 36



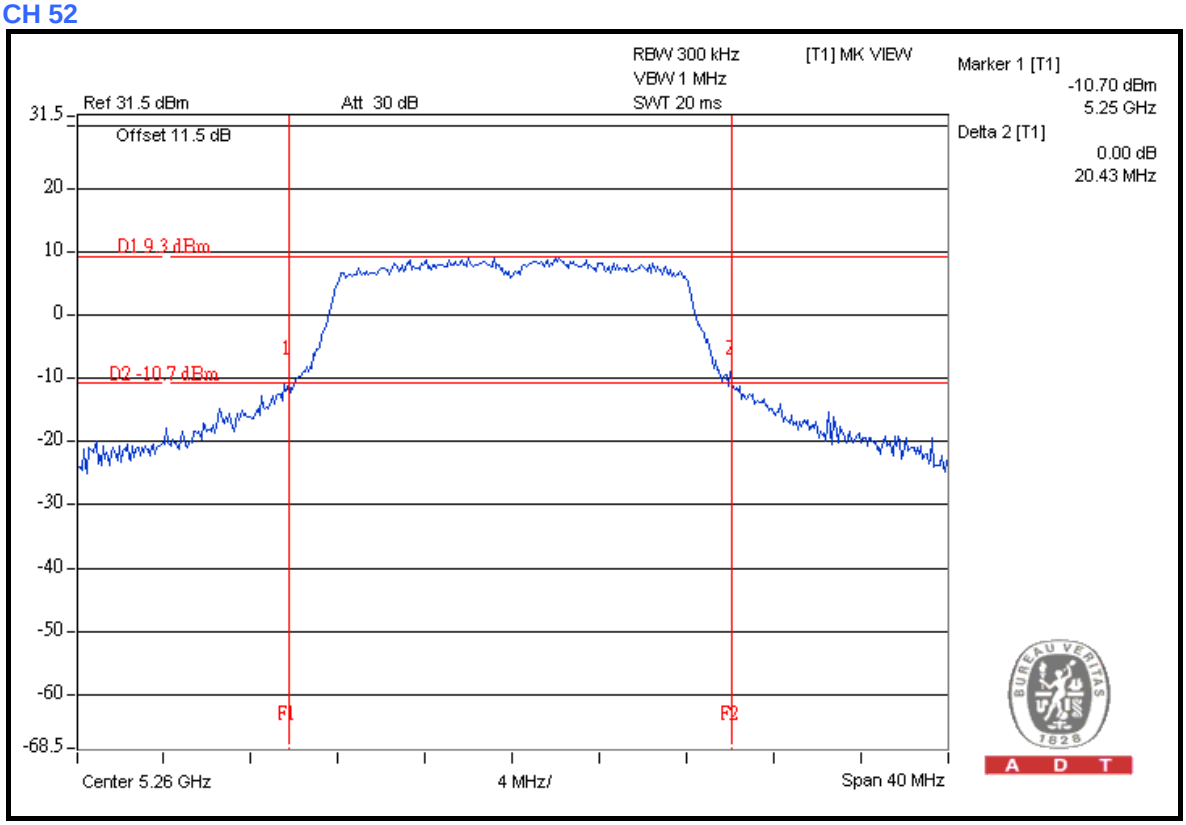
CH 40



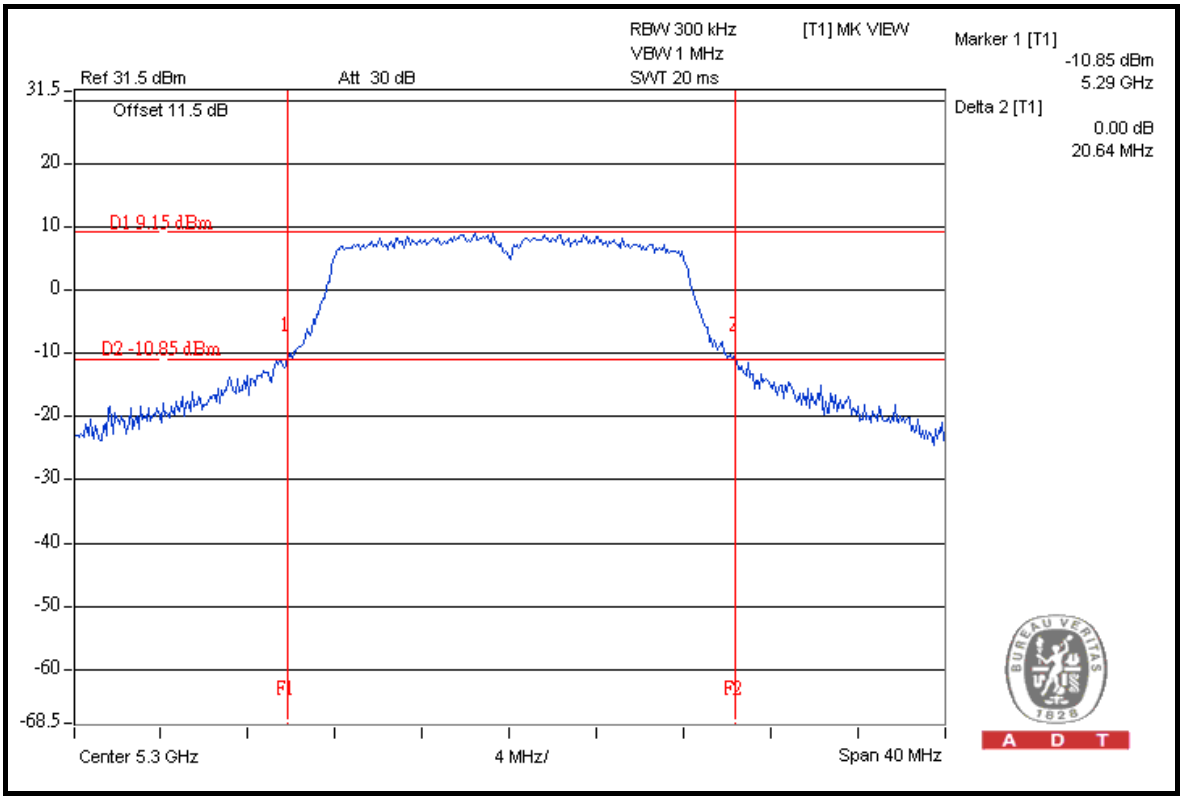
CH 48


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-17.15 dBm
5.23 GHz
Delta 2 [T1]
0.00 dB
20.29 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 2.85 dBm
D2 -17.15 dBm
F1
F2
Center 5.24 GHz
4 MHz/
Span 40 MHz

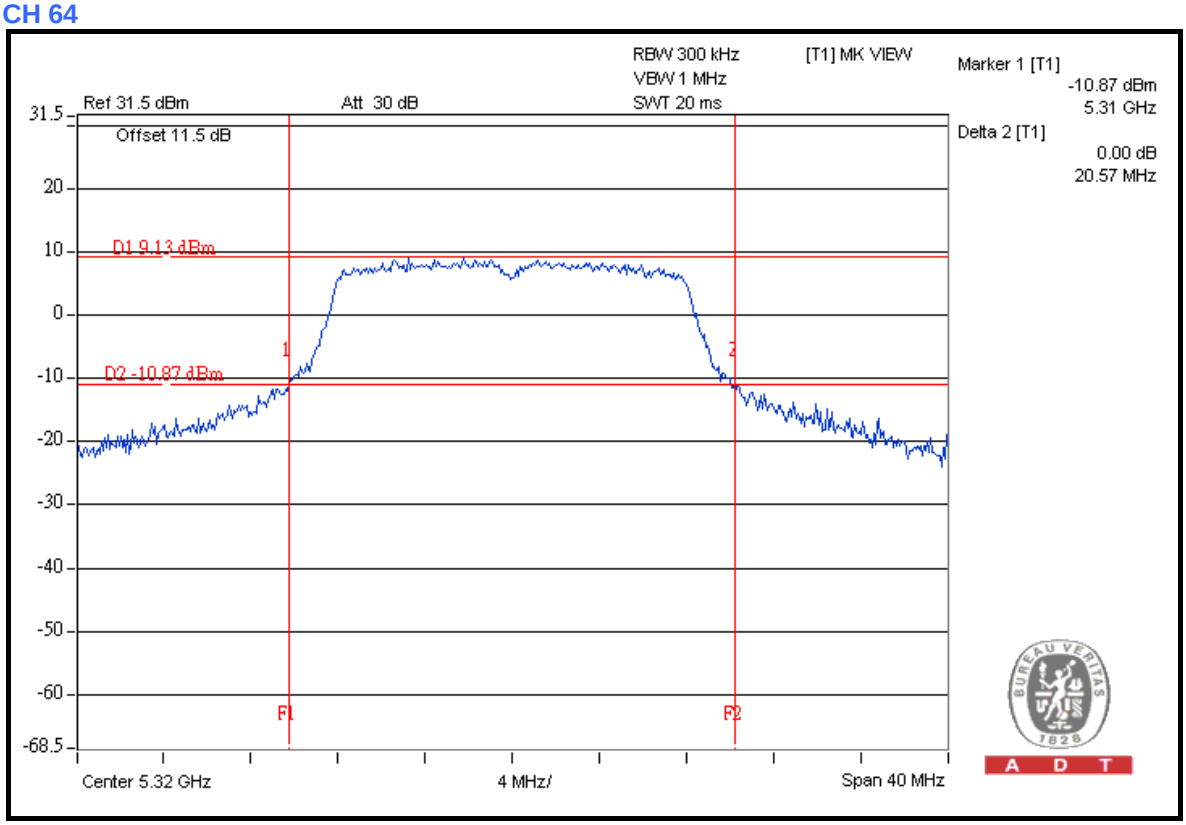
CH 52


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.70 dBm
5.25 GHz
Delta 2 [T1]
0.00 dB
20.43 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 9.3 dBm
D2 -10.7 dBm
F1
F2
Center 5.26 GHz
4 MHz/
Span 40 MHz

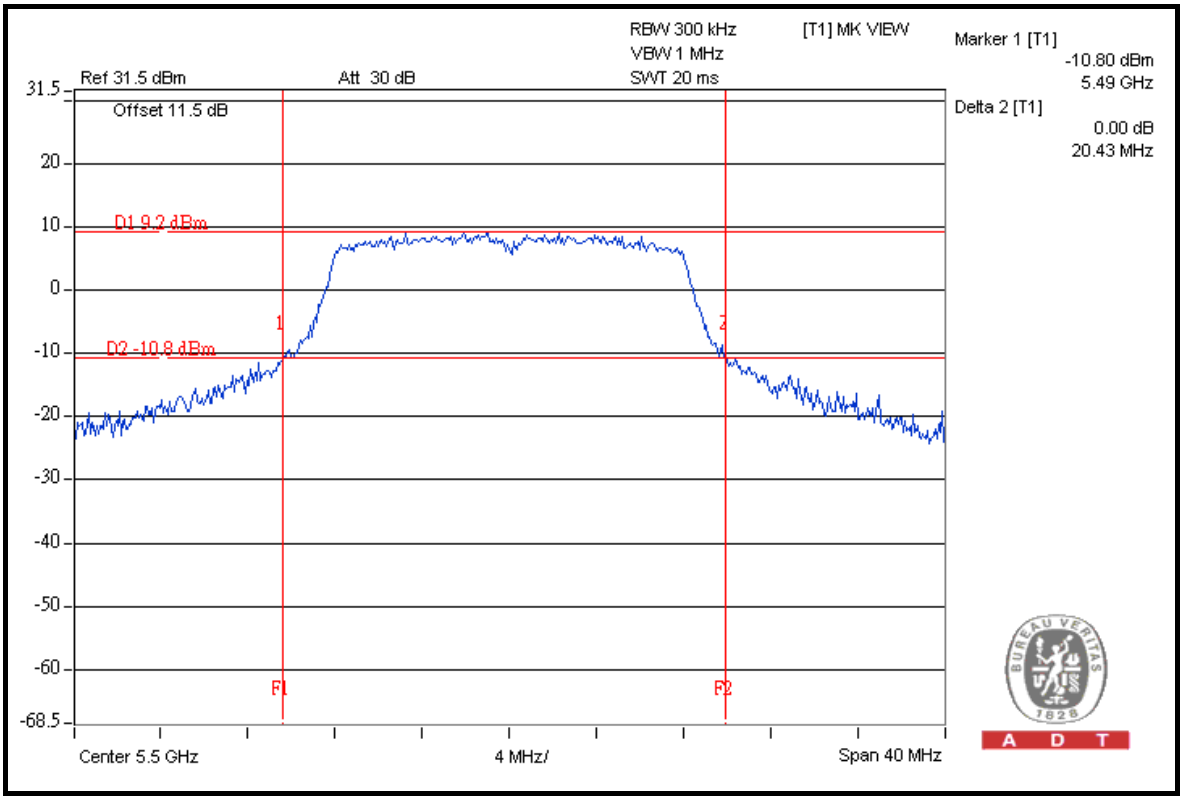
CH 60


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.85 dBm
5.29 GHz
Delta 2 [T1]
0.00 dB
20.64 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.15 dBm
D2 -10.85 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.3 GHz
4 MHz/
Span 40 MHz

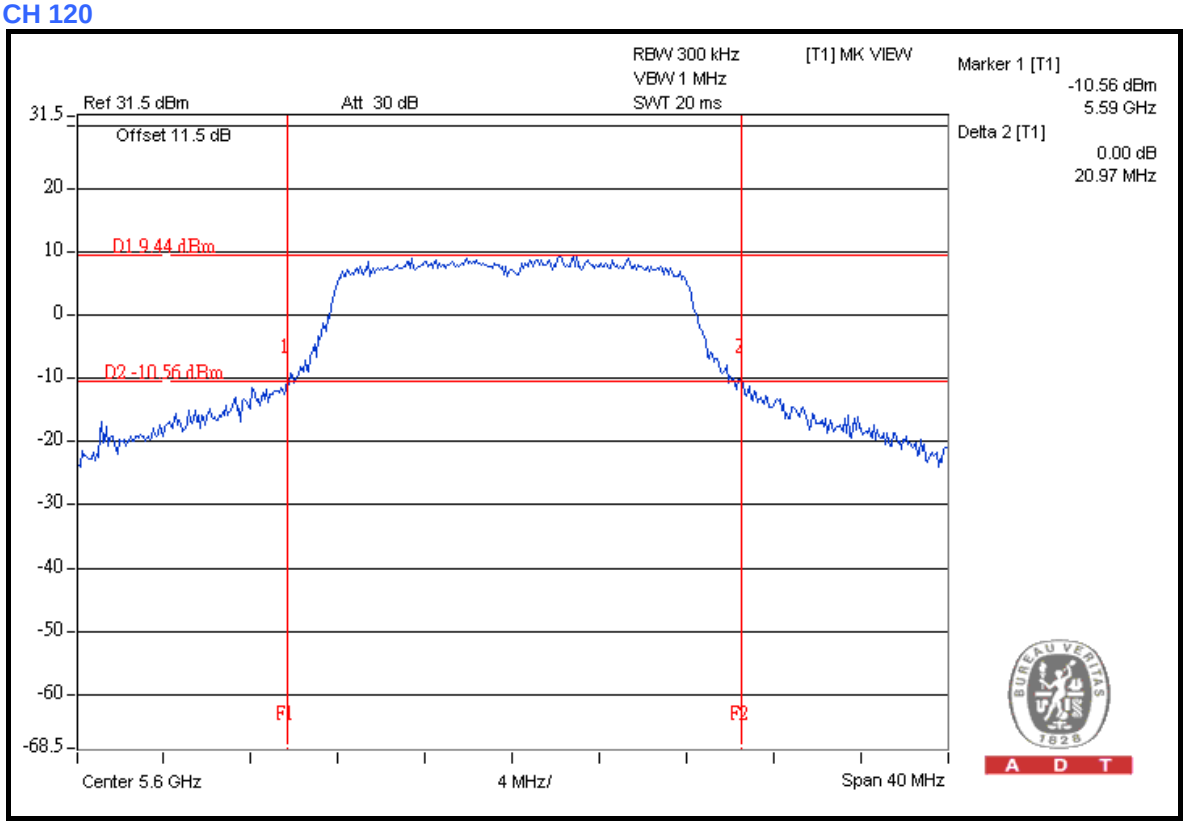
CH 64


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.87 dBm
5.31 GHz
Delta 2 [T1]
0.00 dB
20.57 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.13 dBm
D2 -10.87 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.32 GHz
4 MHz/
Span 40 MHz

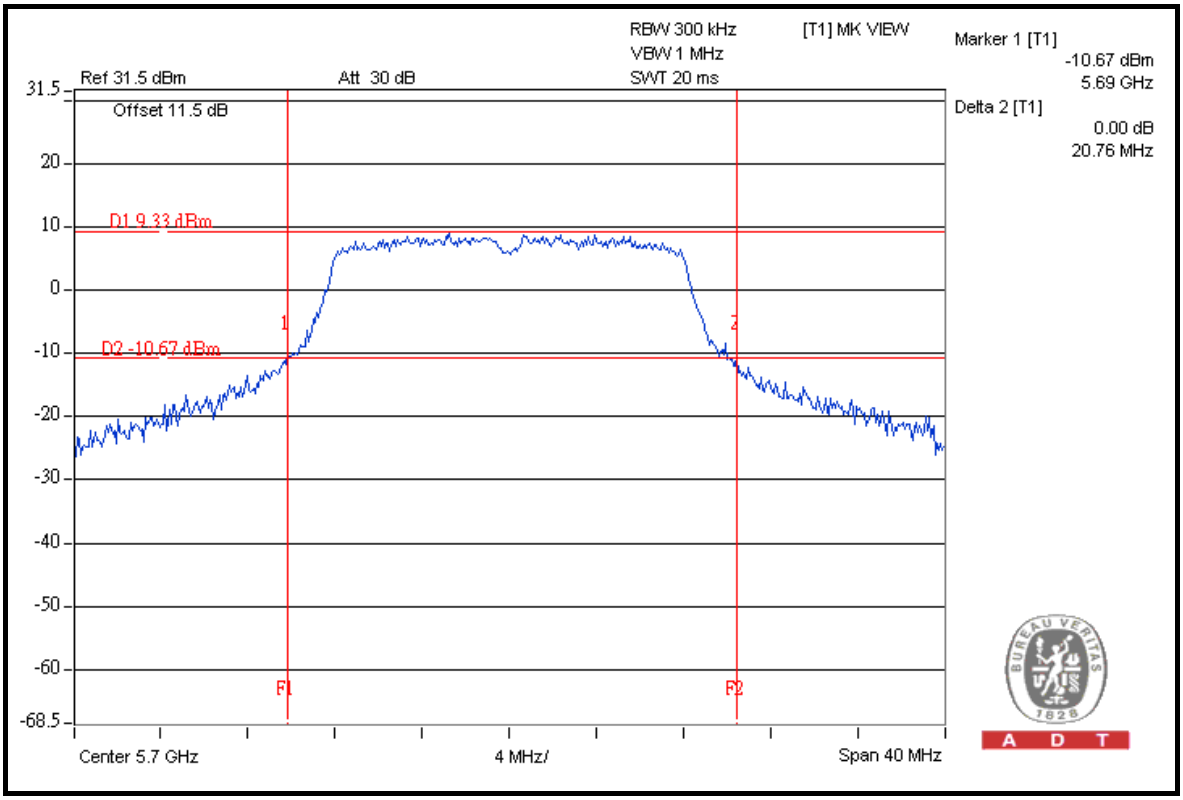
CH 100


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.80 dBm
5.49 GHz
Delta 2 [T1]
0.00 dB
20.43 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.2 dBm
D2 -10.8 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.5 GHz
4 MHz/
Span 40 MHz

CH 120


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.56 dBm
5.59 GHz
Delta 2 [T1]
0.00 dB
20.97 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.44 dBm
D2 -10.56 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.6 GHz
4 MHz/
Span 40 MHz

CH 140

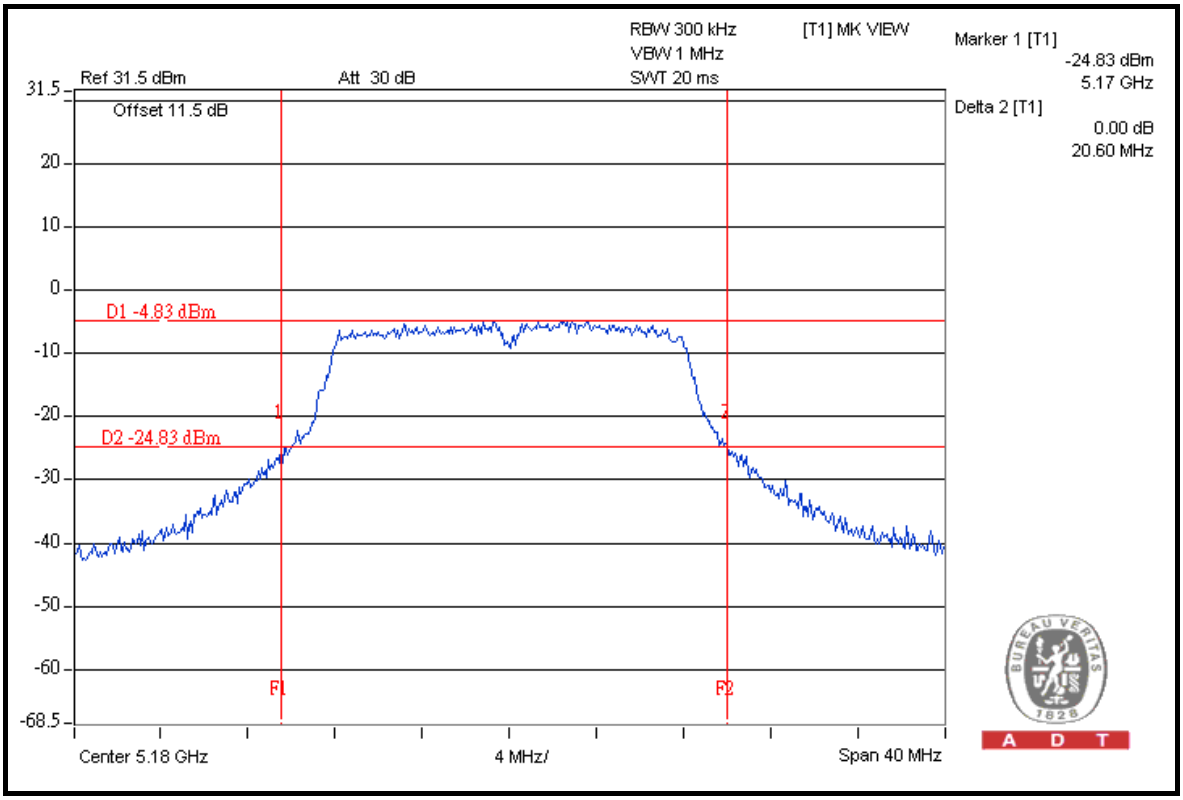

RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.67 dBm
5.69 GHz
Delta 2 [T1]
0.00 dB
20.76 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 9.33 dBm
D2 -10.67 dBm
1
2
F1
F2
Center 5.7 GHz
4 MHz/
Span 40 MHz

802.11a OFDM MODULATION:

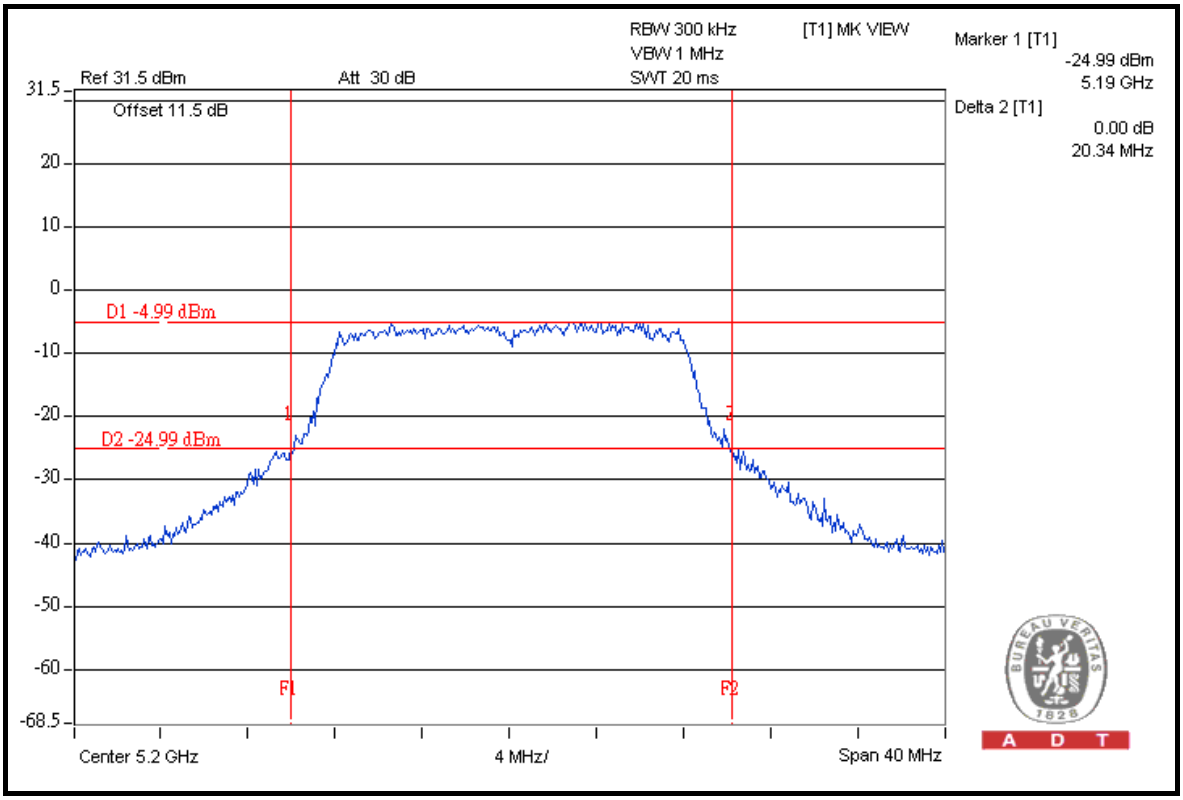
MODULATION TYPE	BPSK	**TRANSFER RATE**	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	23deg.C, 70%RH, 1023hPa
TESTED BY	Brad Wu	**TEST MODE**	**C**

CHANNEL	CHANNEL FREQUENCY (MHz)	20dBc OCCUPIED BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
36	5180	20.60	19.31	PASS
40	5200	20.34	20.04	PASS
48	5240	20.26	19.57	PASS
52	5260	20.31	20.36	PASS
60	5300	20.58	20.20	PASS
64	5320	20.43	20.21	PASS
100	5500	20.53	20.45	PASS
120	5600	20.23	20.36	PASS
140	5700	20.08	20.37	PASS

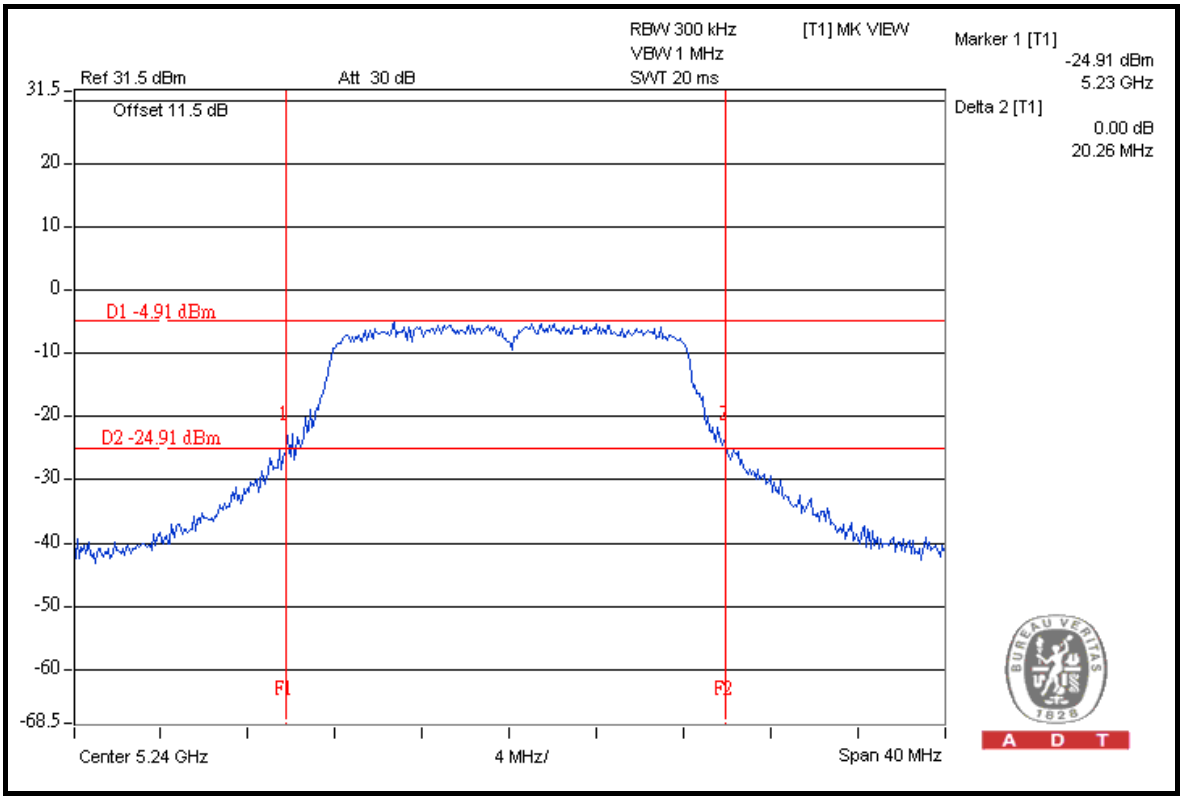
FOR CHAIN 0: CH 36



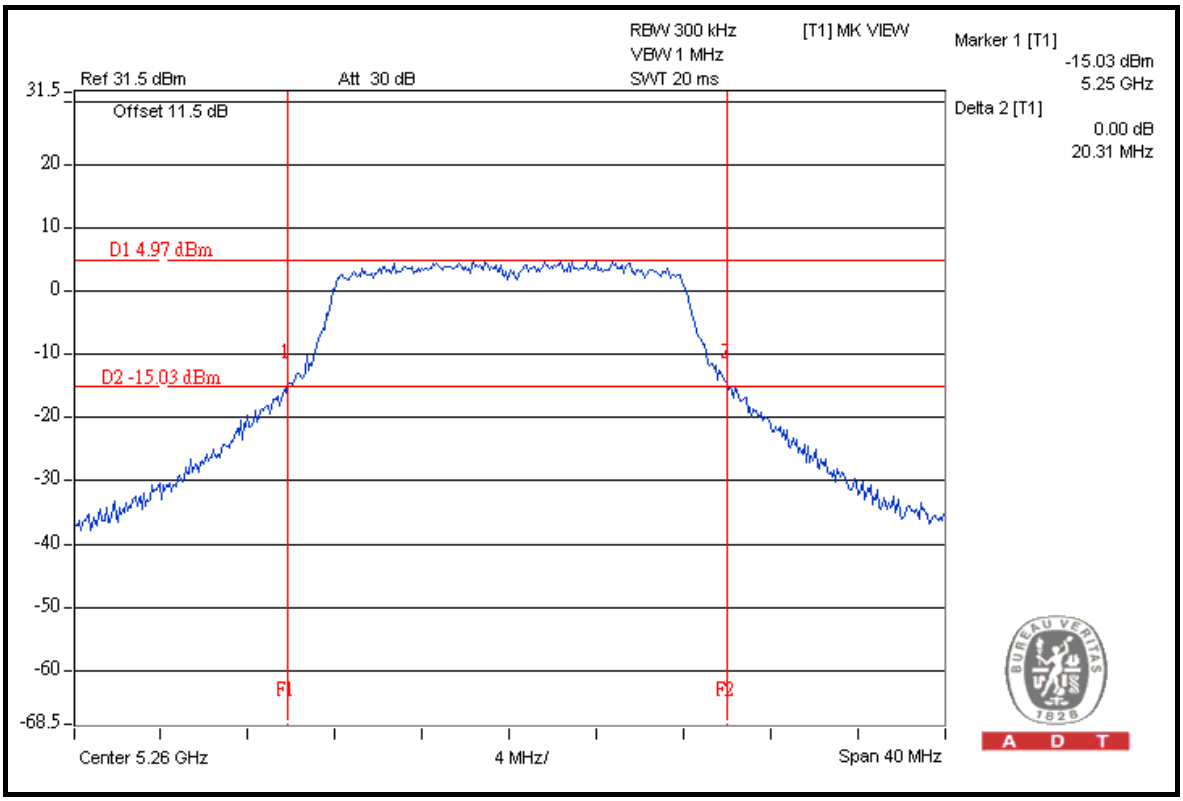
CH 40



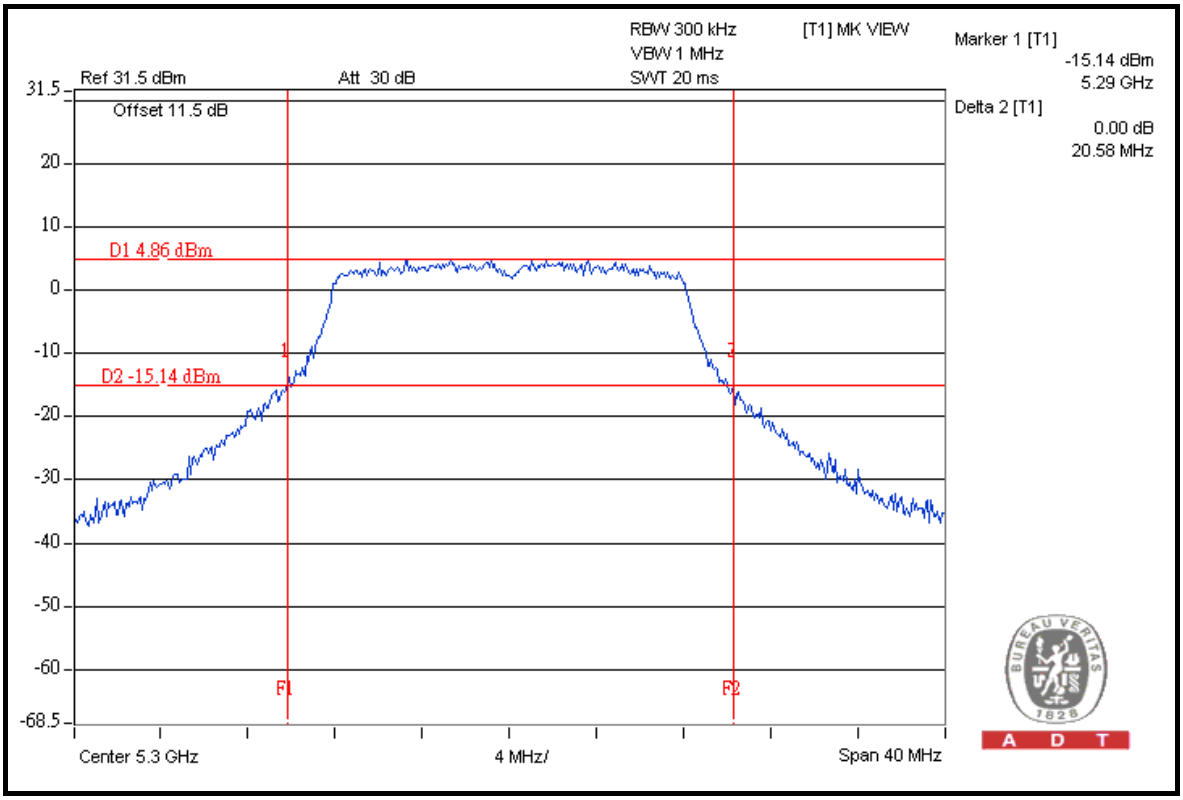
CH 48


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-24.91 dBm
5.23 GHz
Delta 2 [T1]
0.00 dB
20.26 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 -4.91 dBm
D2 -24.91 dBm
F1
F2
Center 5.24 GHz
4 MHz/
Span 40 MHz

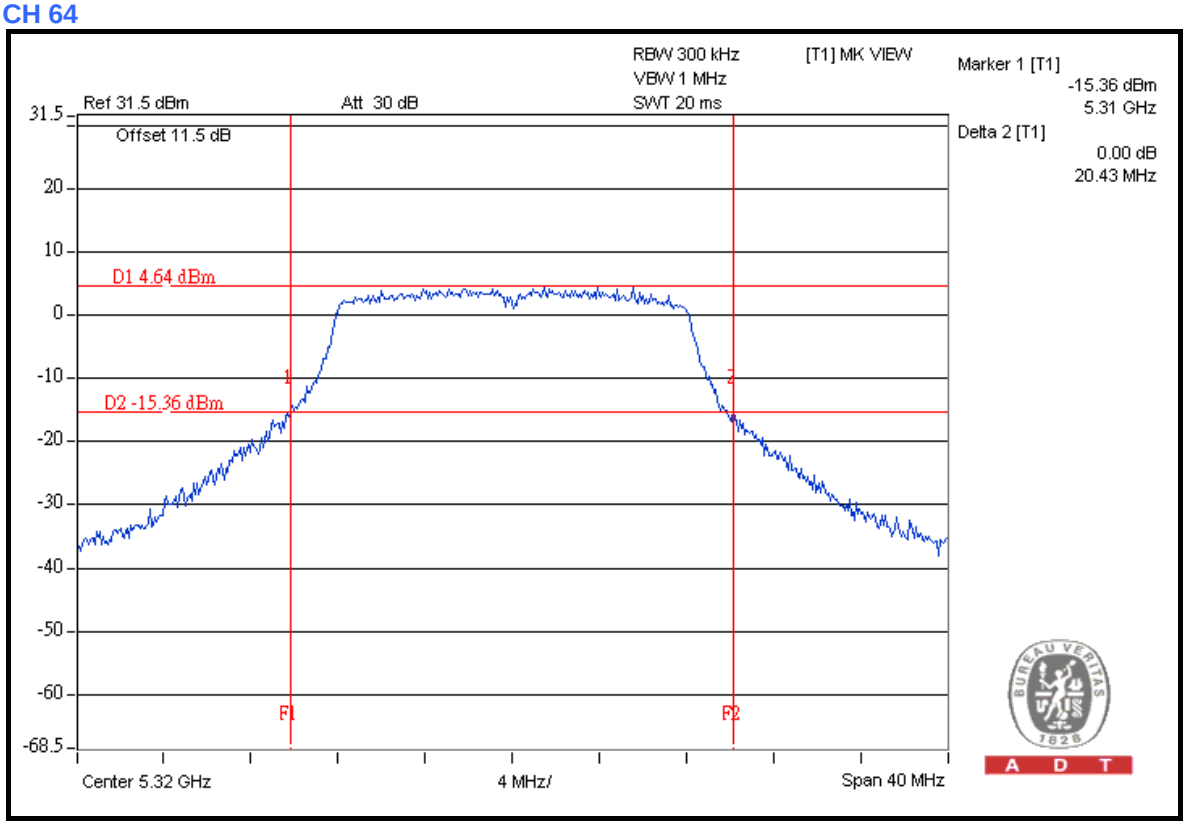
CH 52


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.03 dBm
5.25 GHz
Delta 2 [T1]
0.00 dB
20.31 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 4.97 dBm
D2 -15.03 dBm
F1
F2
Center 5.26 GHz
4 MHz/
Span 40 MHz

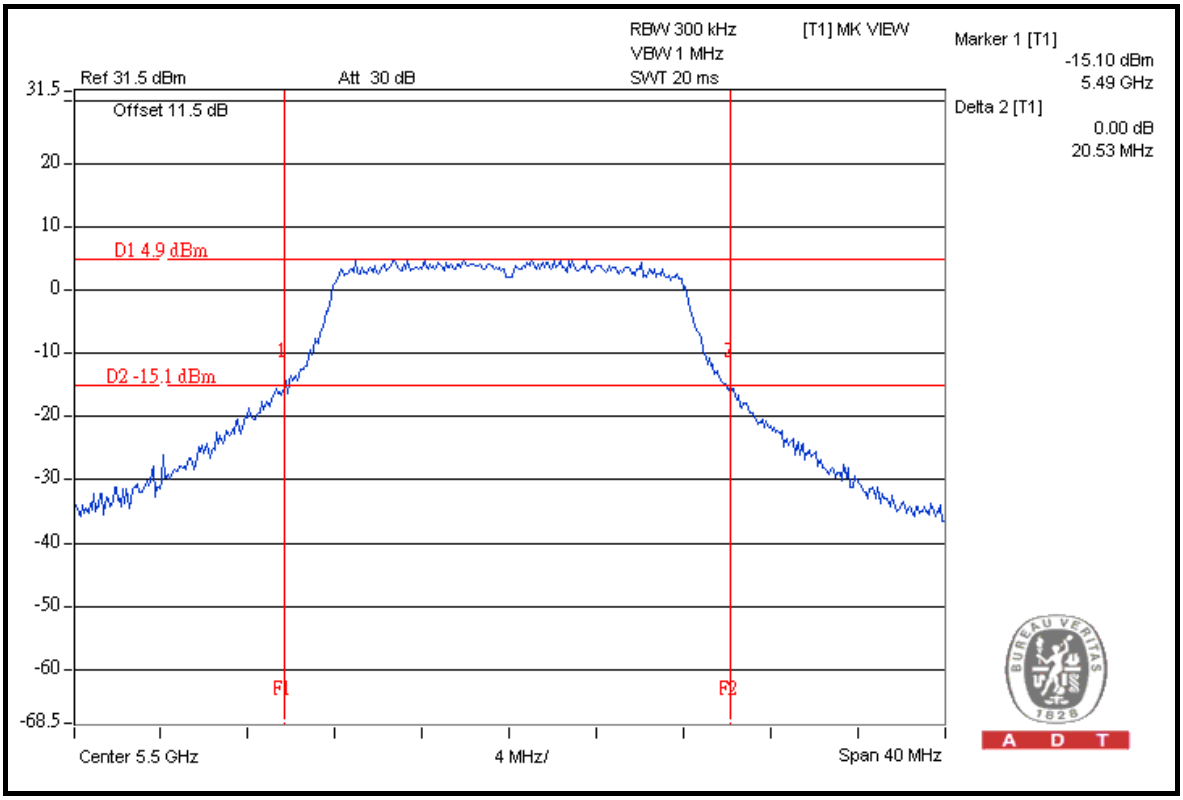
CH 60


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.14 dBm
5.29 GHz
Delta 2 [T1]
0.00 dB
20.58 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 4.86 dBm
D2 -15.14 dBm
F1
F2
Center 5.3 GHz
4 MHz/
Span 40 MHz

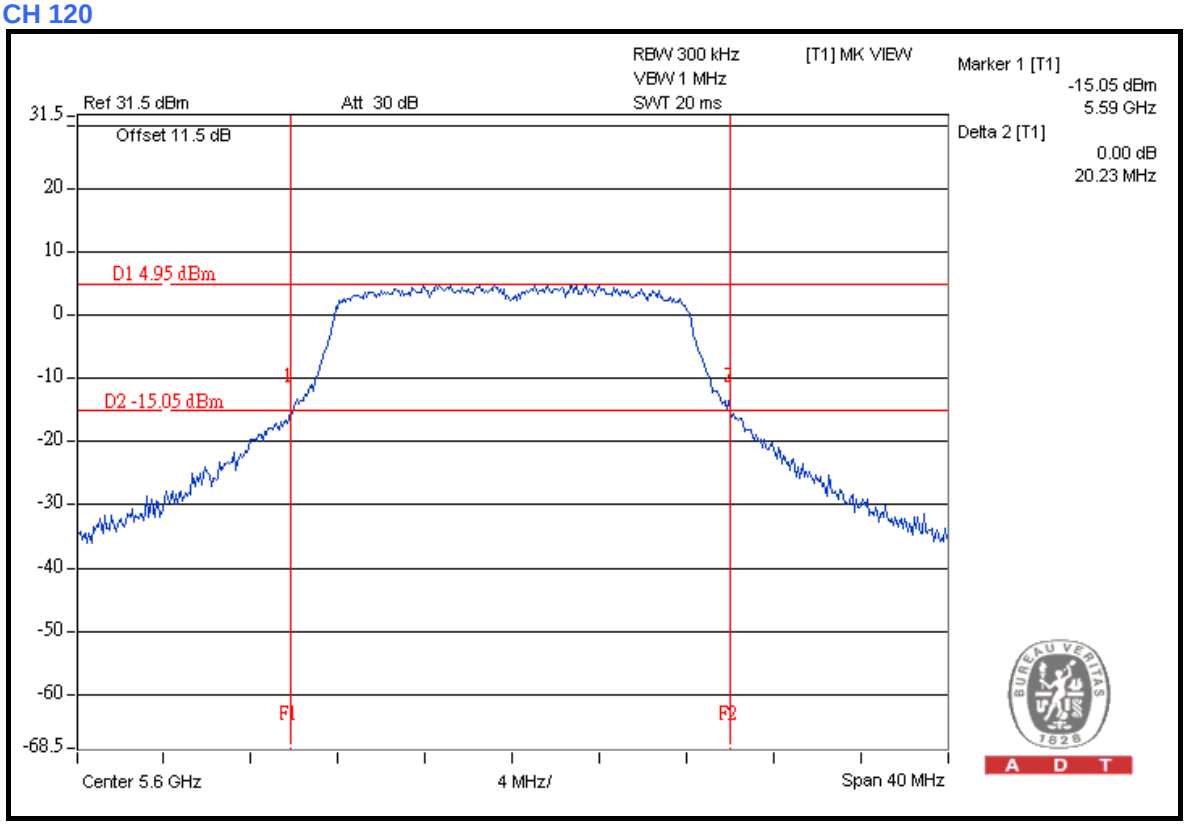
CH 64


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.36 dBm
5.31 GHz
Delta 2 [T1]
0.00 dB
20.43 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 4.64 dBm
D2 -15.36 dBm
F1
F2
Center 5.32 GHz
4 MHz/
Span 40 MHz

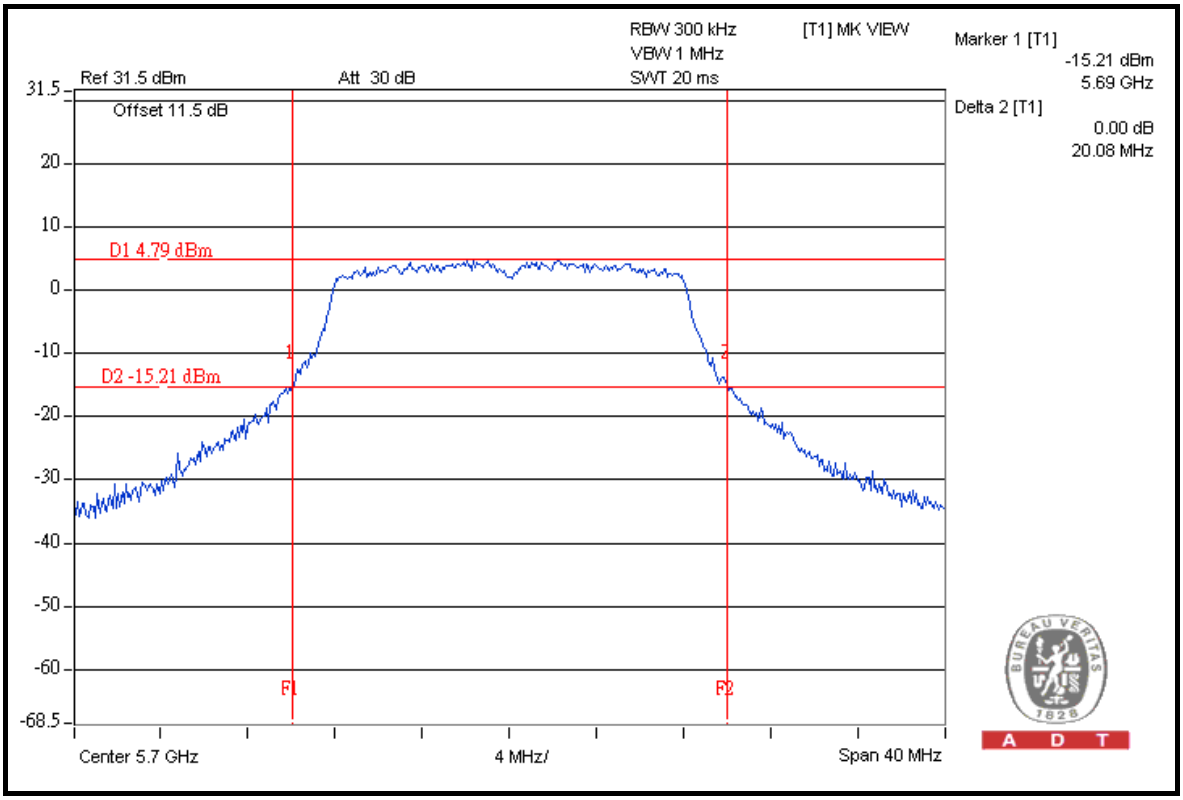
CH 100


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.10 dBm
5.49 GHz
Delta 2 [T1]
0.00 dB
20.53 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 4.9 dBm
D2 -15.1 dBm
F1
F2
Center 5.5 GHz
4 MHz/
Span 40 MHz

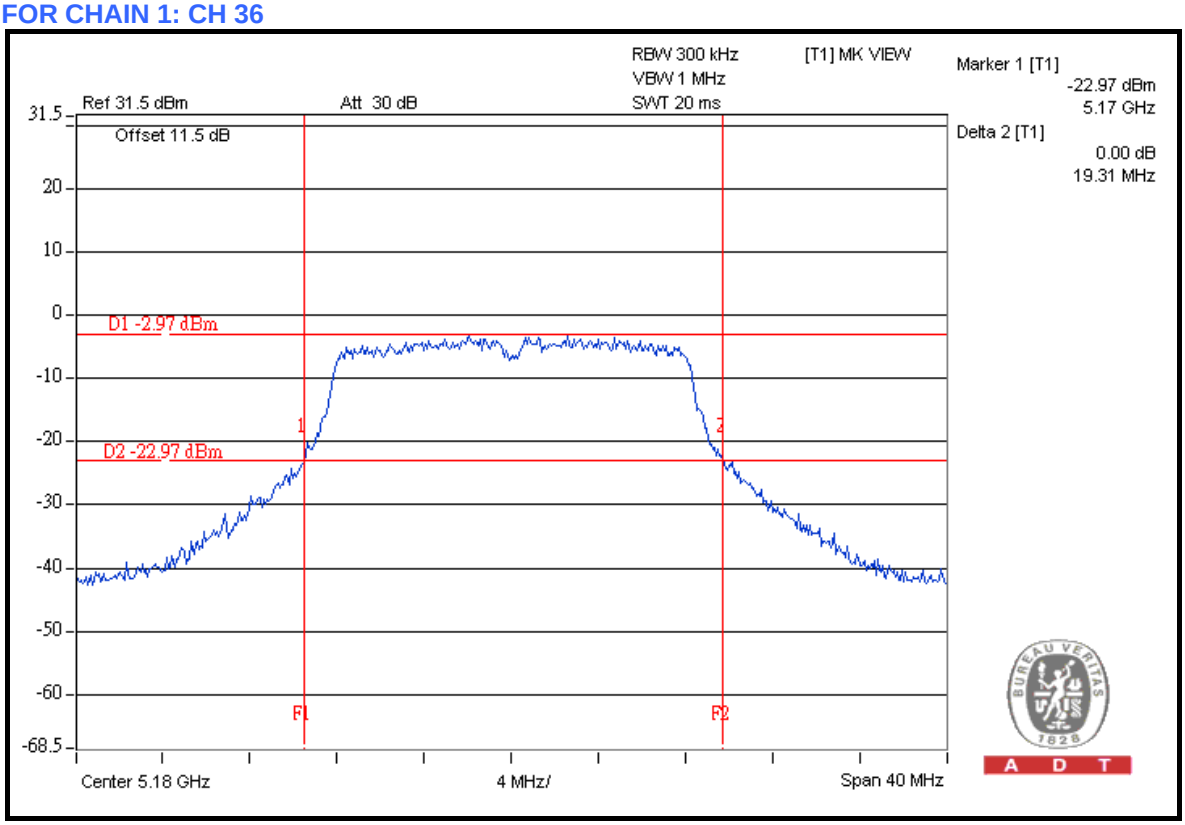
CH 120


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.05 dBm
5.59 GHz
Delta 2 [T1]
0.00 dB
20.23 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 4.95 dBm
D2 -15.05 dBm
F1
F2
Center 5.6 GHz
4 MHz/
Span 40 MHz

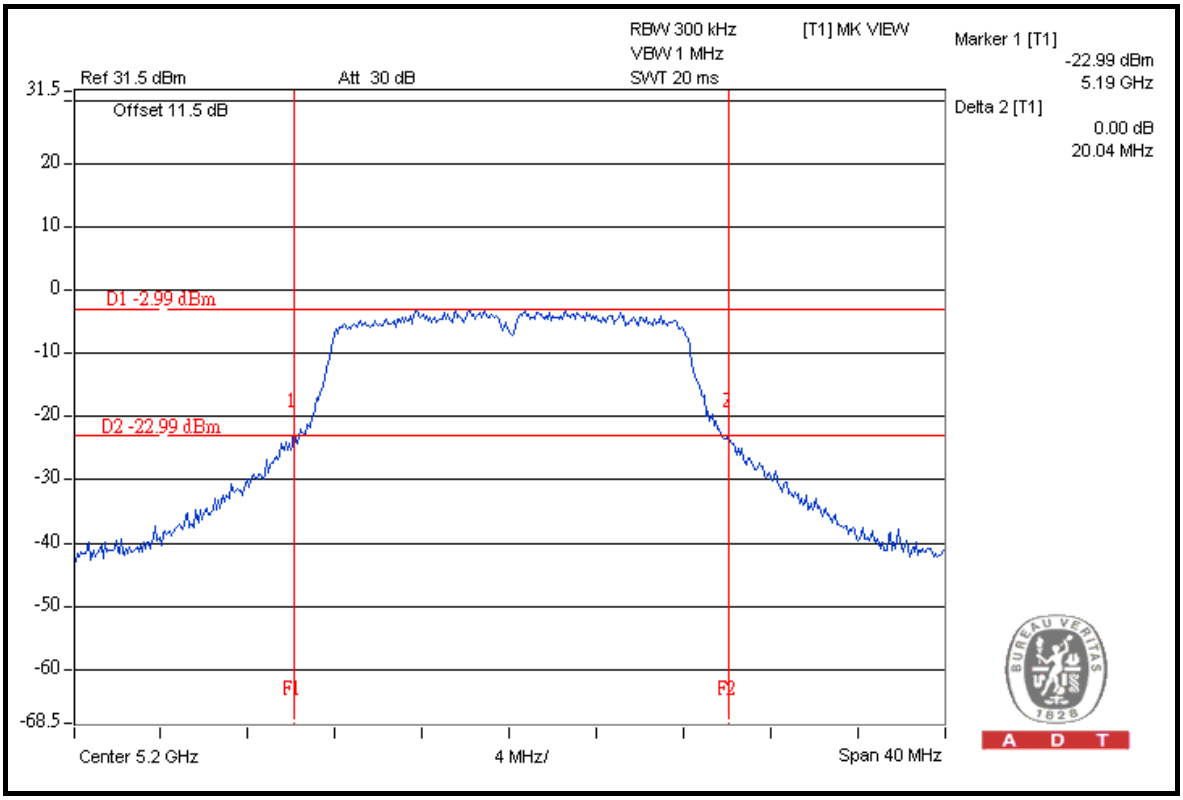
CH 140



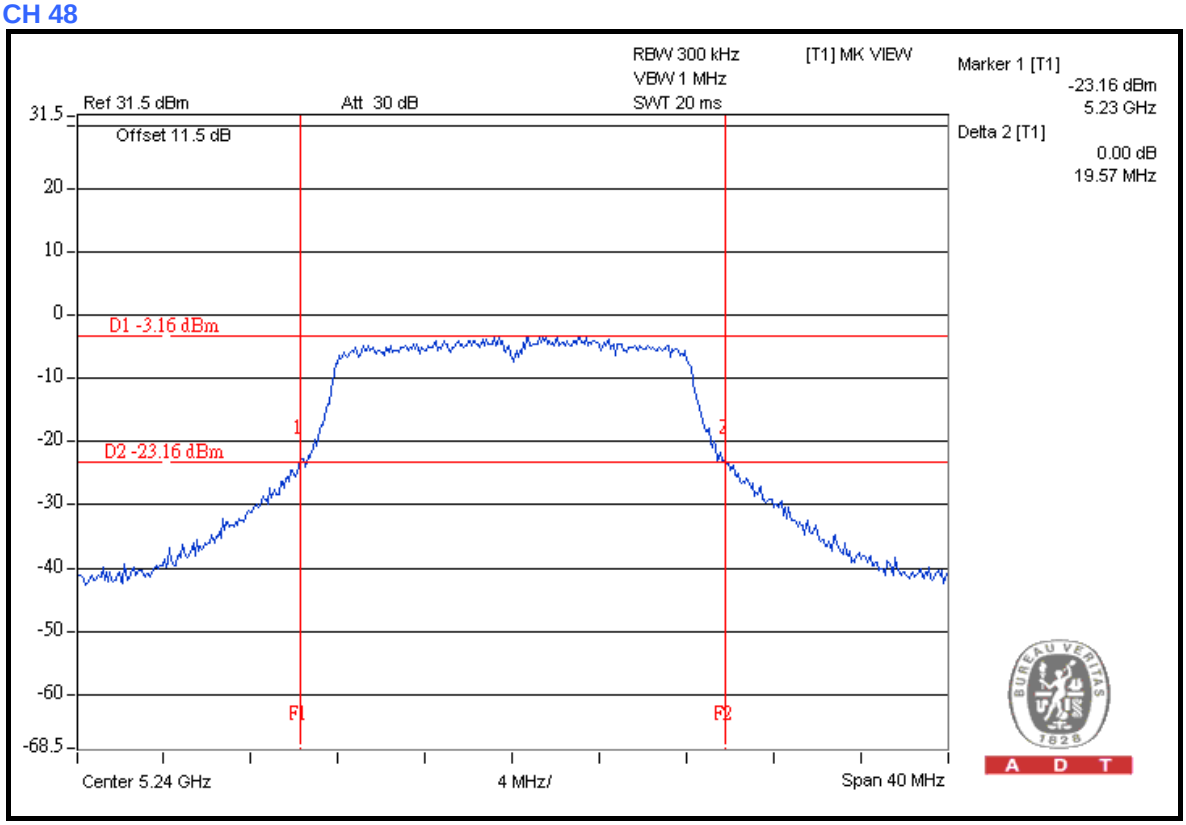
FOR CHAIN 1: CH 36



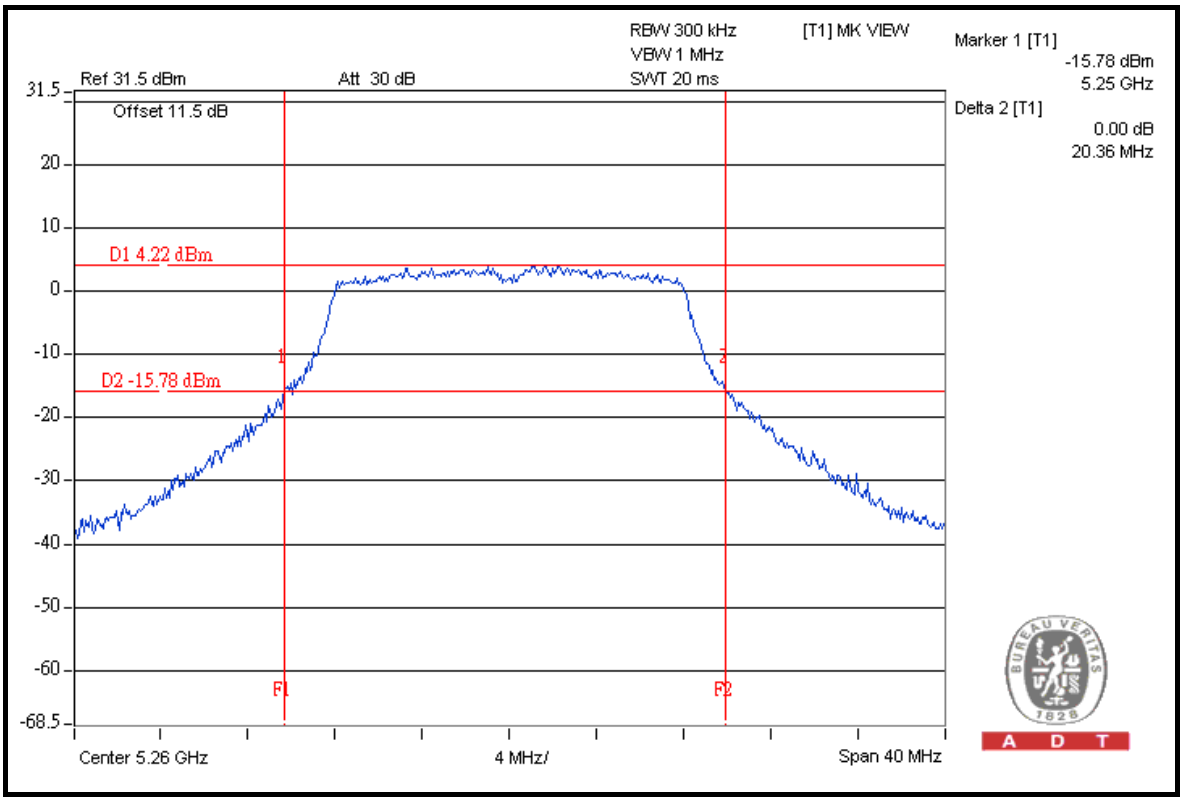
CH 40


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-22.99 dBm
5.19 GHz
Delta 2 [T1]
0.00 dB
20.04 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 -2.99 dBm
D2 -22.99 dBm
1
2
F1
F2
Center 5.2 GHz
4 MHz/
Span 40 MHz

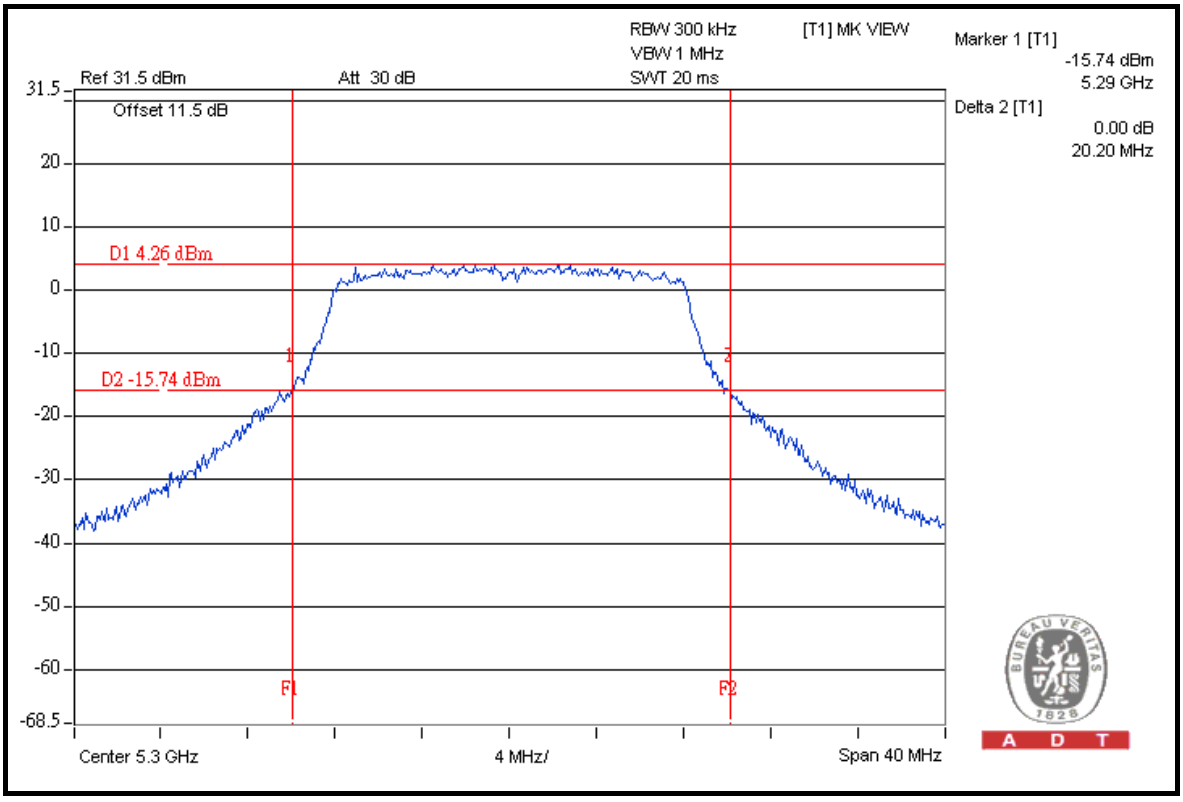
CH 48


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-23.16 dBm
5.23 GHz
Delta 2 [T1]
0.00 dB
19.57 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 -3.16 dBm
D2 -23.16 dBm
1
2
F1
F2
Center 5.24 GHz
4 MHz/
Span 40 MHz

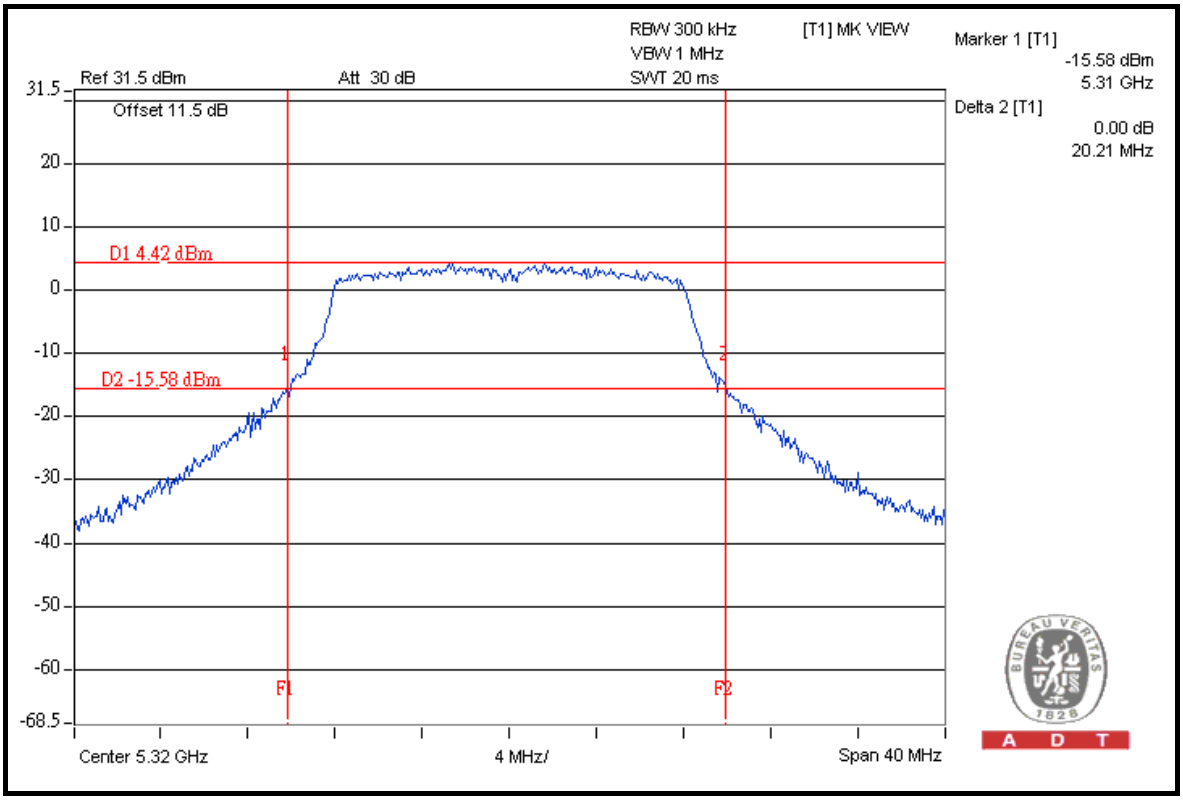
CH 52


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.78 dBm
5.25 GHz
Delta 2 [T1]
0.00 dB
20.36 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 4.22 dBm
D2 -15.78 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.26 GHz
4 MHz/
Span 40 MHz

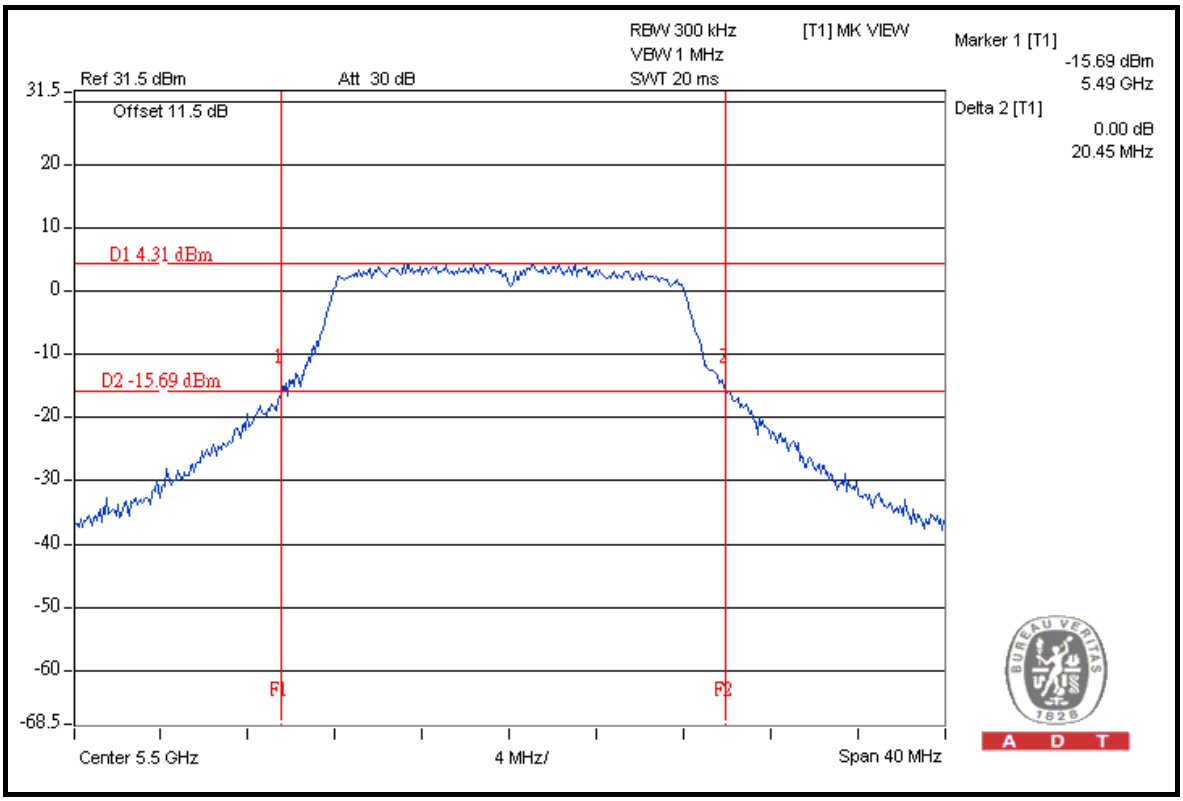
CH 60


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.74 dBm
5.29 GHz
Delta 2 [T1]
0.00 dB
20.20 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 4.26 dBm
D2 -15.74 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.3 GHz
4 MHz/
Span 40 MHz

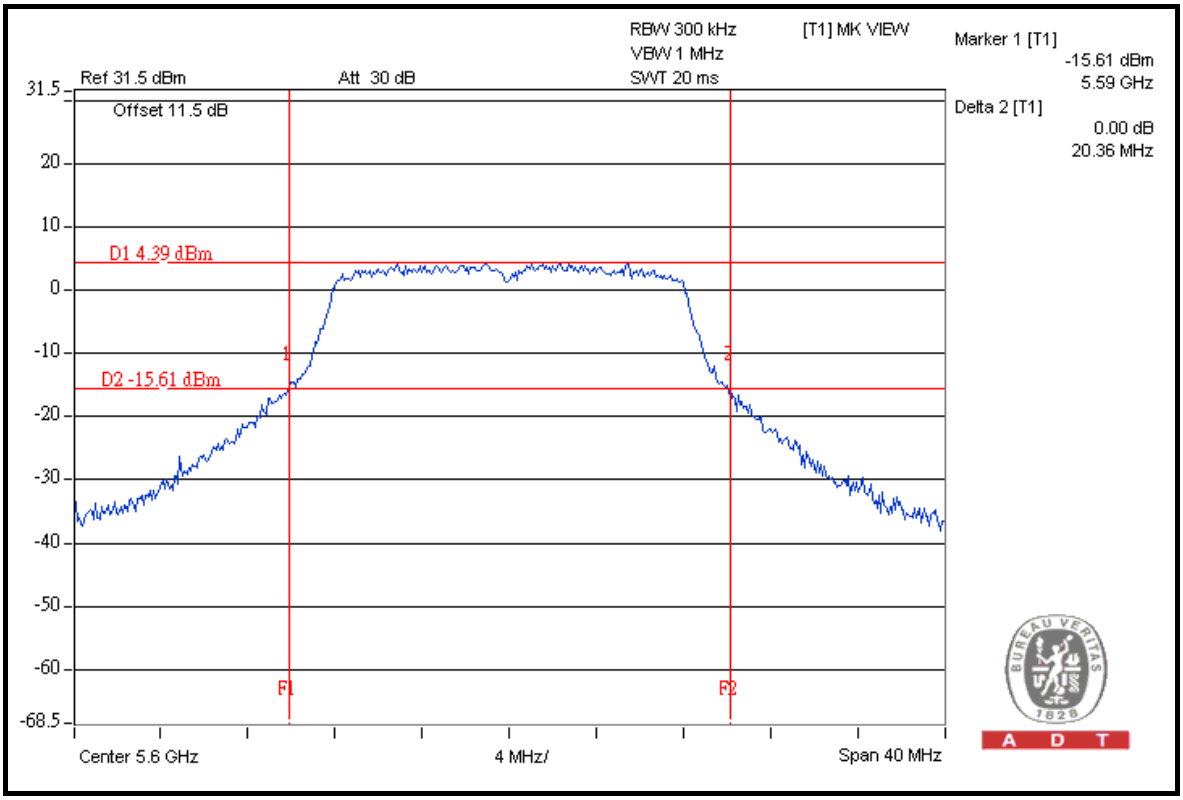
CH 64


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.58 dBm
5.31 GHz
Delta 2 [T1]
0.00 dB
20.21 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 4.42 dBm
D2 -15.58 dBm
F1
F2
Center 5.32 GHz
4 MHz/
Span 40 MHz

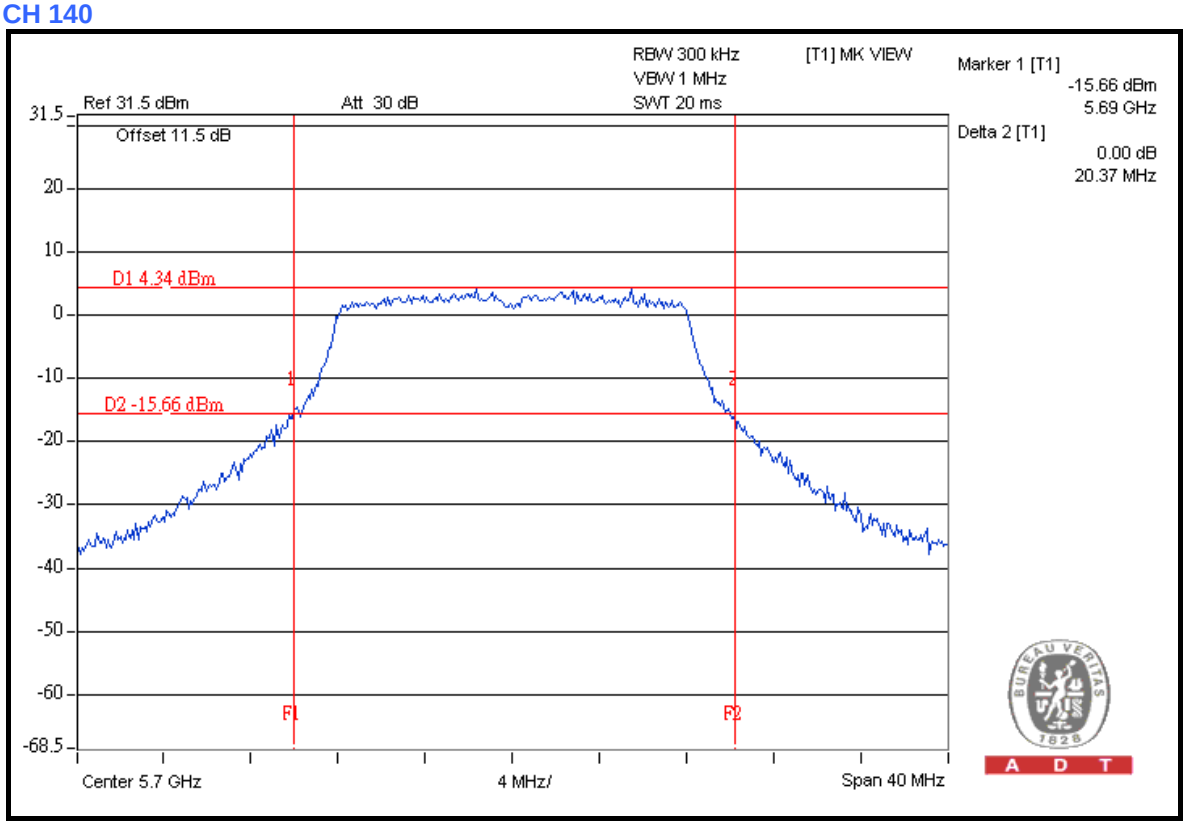
CH 100


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.69 dBm
5.49 GHz
Delta 2 [T1]
0.00 dB
20.45 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 4.31 dBm
D2 -15.69 dBm
F1
F2
Center 5.5 GHz
4 MHz/
Span 40 MHz

CH 120


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.61 dBm
5.59 GHz
Delta 2 [T1]
0.00 dB
20.36 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 4.39 dBm
D2 -15.61 dBm
F1
F2
Center 5.6 GHz
4 MHz/
Span 40 MHz

CH 140

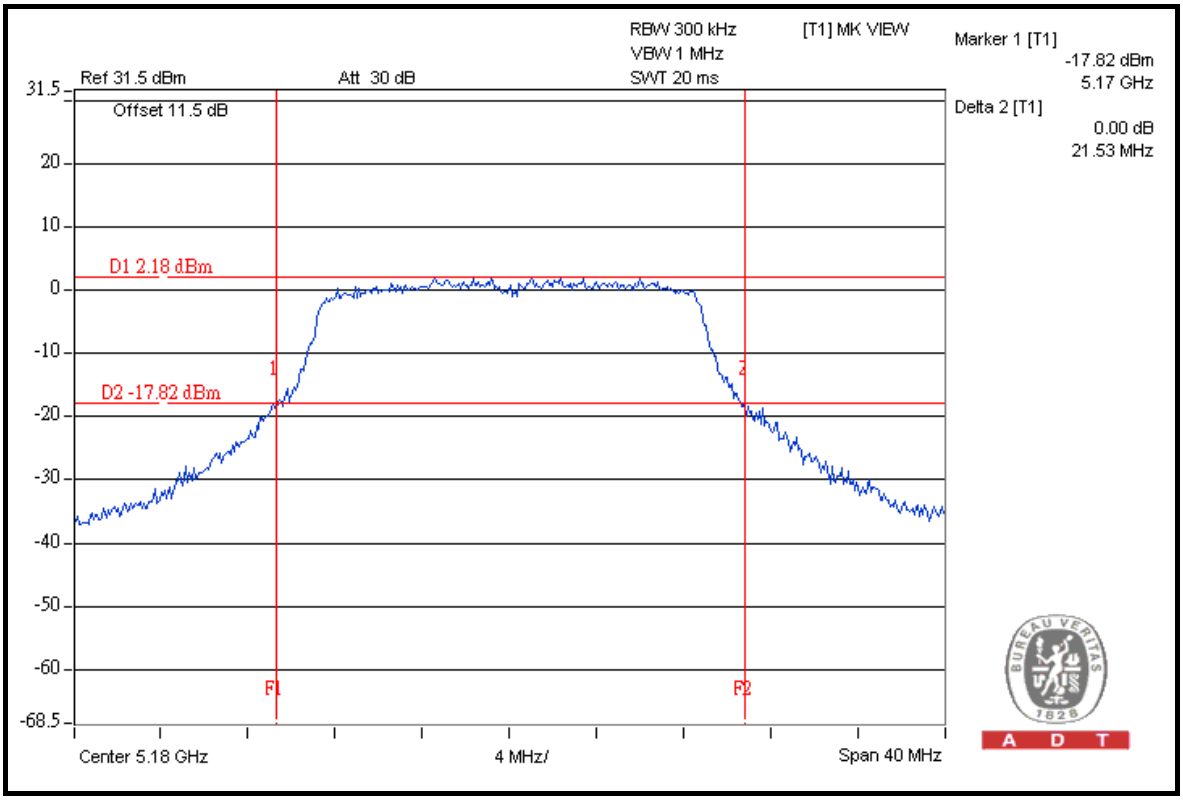

RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.66 dBm
5.69 GHz
Delta 2 [T1]
0.00 dB
20.37 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 4.34 dBm
D2 -15.66 dBm
F1
F2
Center 5.7 GHz
4 MHz/
Span 40 MHz

DRAFT 802.11n (20MHz) OFDM MODULATION

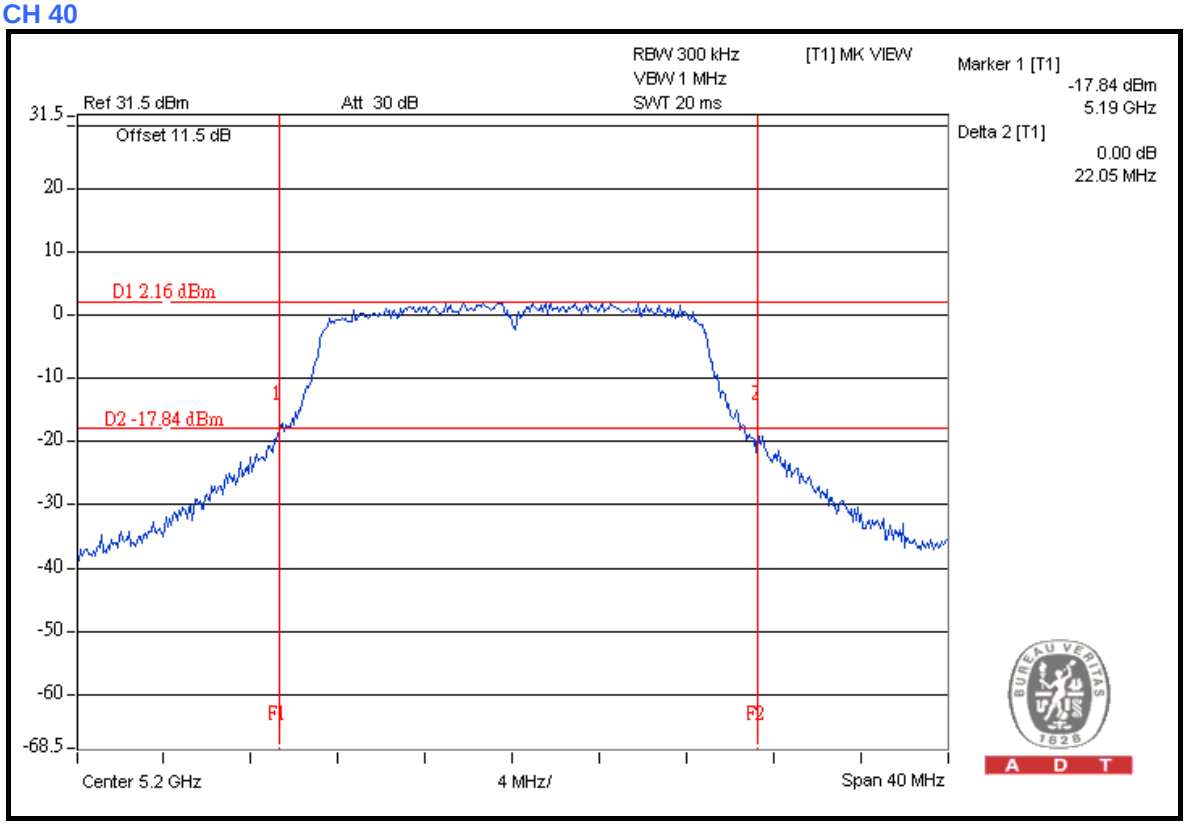
MODULATION TYPE	BPSK	**TRANSFER RATE**	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	23deg.C, 70%RH, 1023hPa
TESTED BY	Brad Wu	**TEST MODE**	**A**

CHANNEL	CHANNEL FREQUENCY (MHz)	20dB BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	21.53	20.87	21.48	PASS
40	5200	22.05	21.16	21.26	PASS
48	5240	21.79	21.42	21.19	PASS
52	5260	21.26	22.58	21.15	PASS
60	5300	21.44	22.83	22.03	PASS
64	5320	21.63	23.24	22.70	PASS
100	5500	21.08	23.17	21.65	PASS
120	5600	21.19	24.55	21.79	PASS
140	5700	21.82	23.54	22.35	PASS

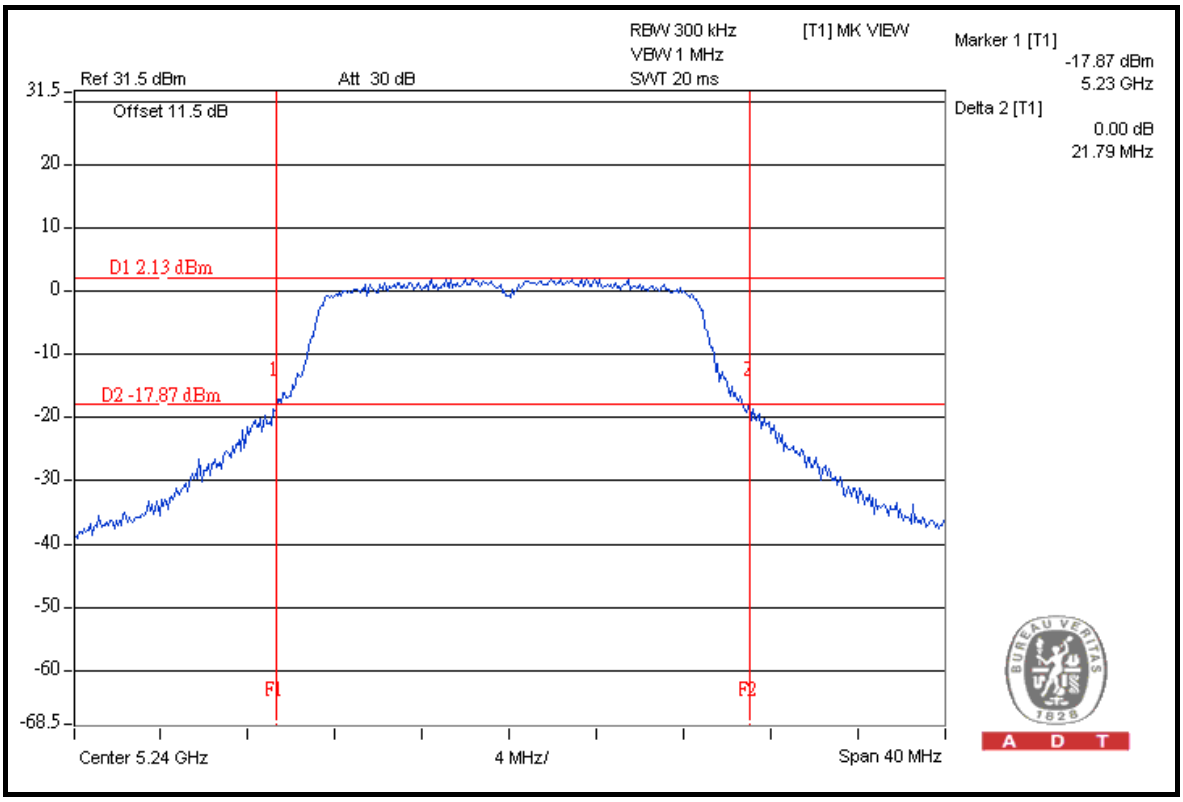
FOR CHAIN 0: CH 36



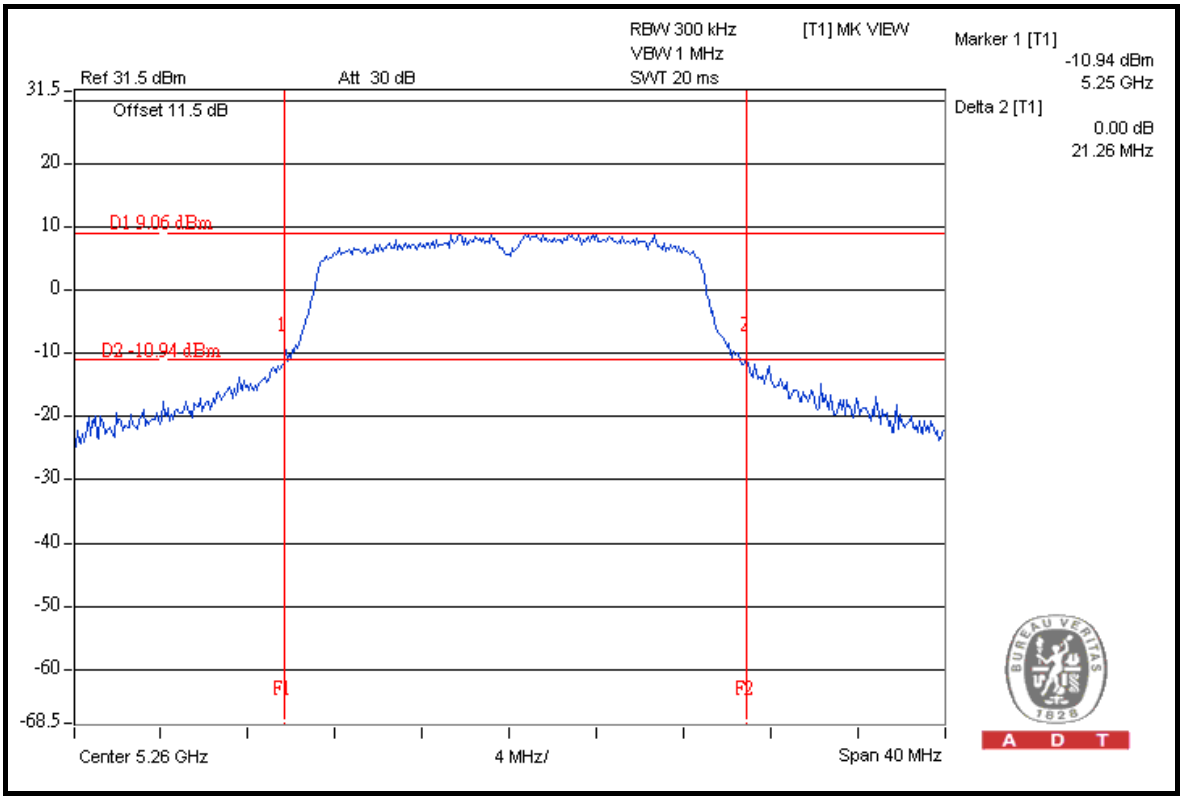
CH 40



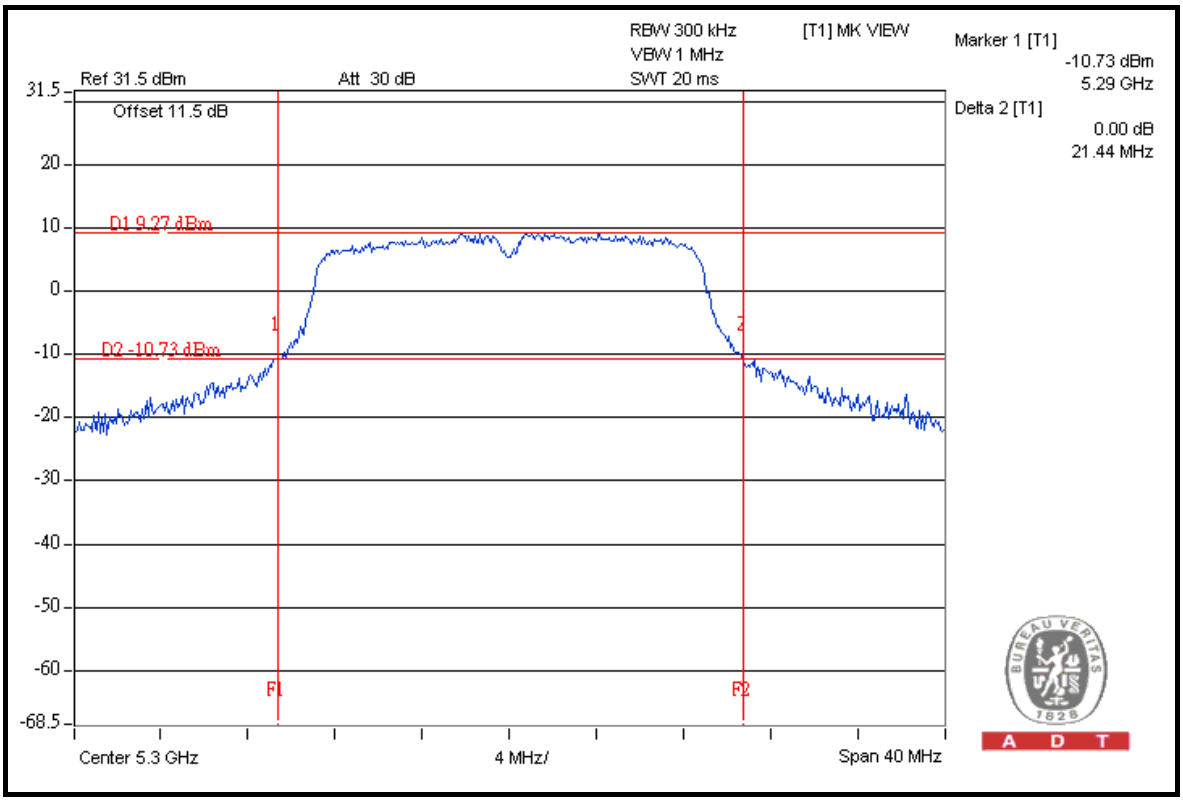
CH 48


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-17.87 dBm
5.23 GHz
Delta 2 [T1]
0.00 dB
21.79 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 2.13 dBm
D2 -17.87 dBm
1
2
F1
F2
Center 5.24 GHz
4 MHz/
Span 40 MHz

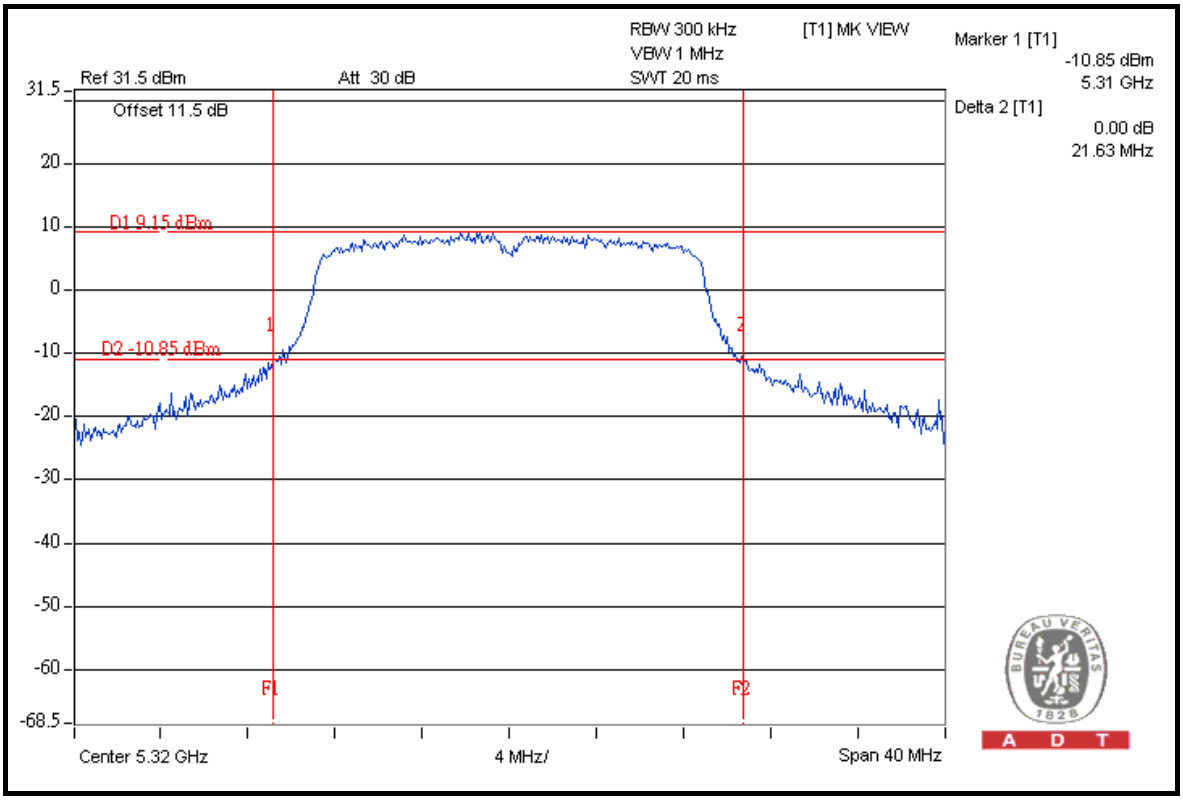
CH 52


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.94 dBm
5.25 GHz
Delta 2 [T1]
0.00 dB
21.26 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 9.06 dBm
D2 -10.94 dBm
1
2
F1
F2
Center 5.26 GHz
4 MHz/
Span 40 MHz

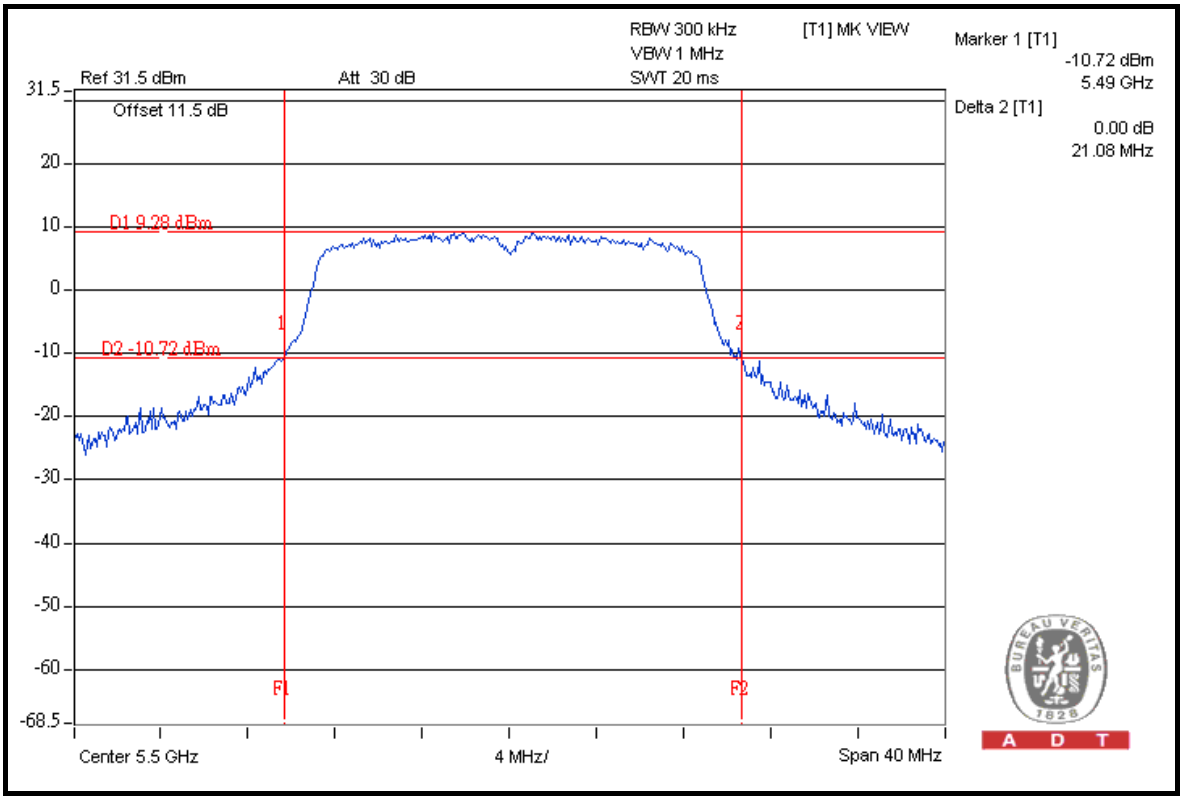
CH 60


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.73 dBm
5.29 GHz
Delta 2 [T1]
0.00 dB
21.44 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.27 dBm
D2 -10.73 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.3 GHz
4 MHz/
Span 40 MHz

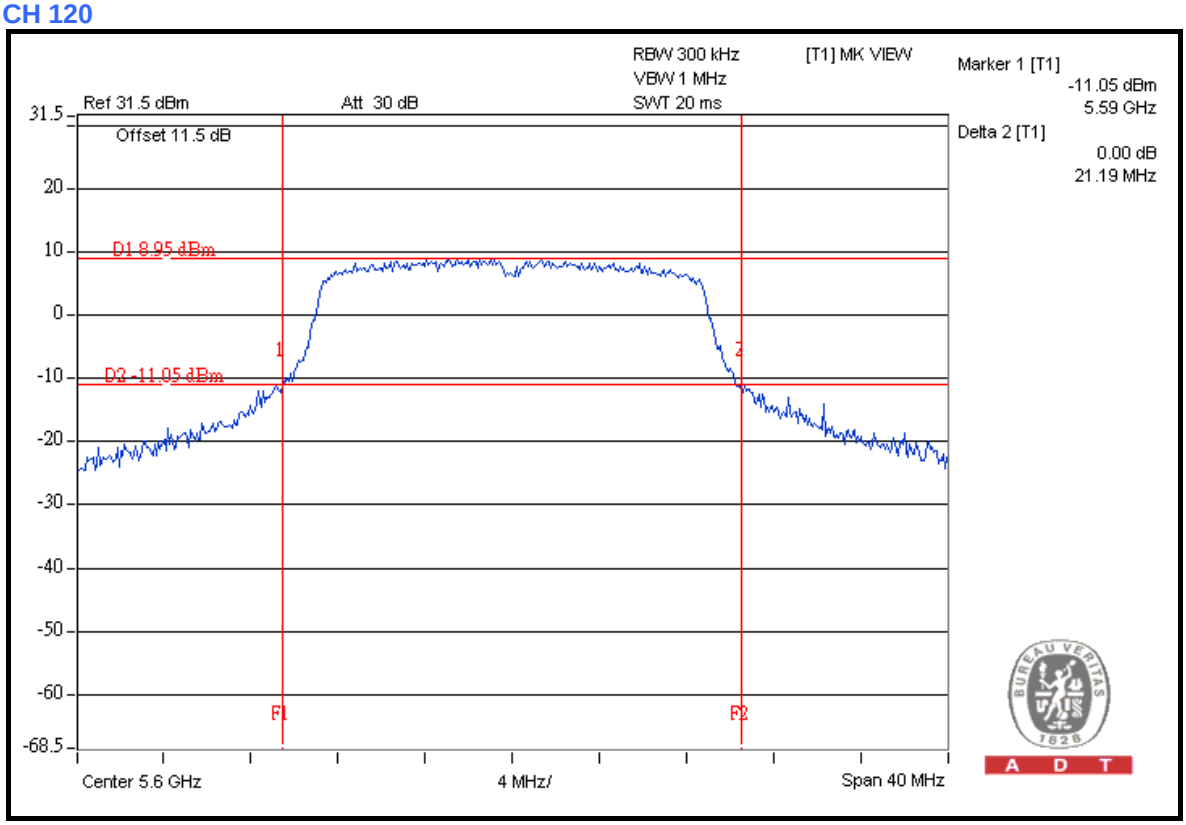
CH 64


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.85 dBm
5.31 GHz
Delta 2 [T1]
0.00 dB
21.63 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.15 dBm
D2 -10.85 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.32 GHz
4 MHz/
Span 40 MHz

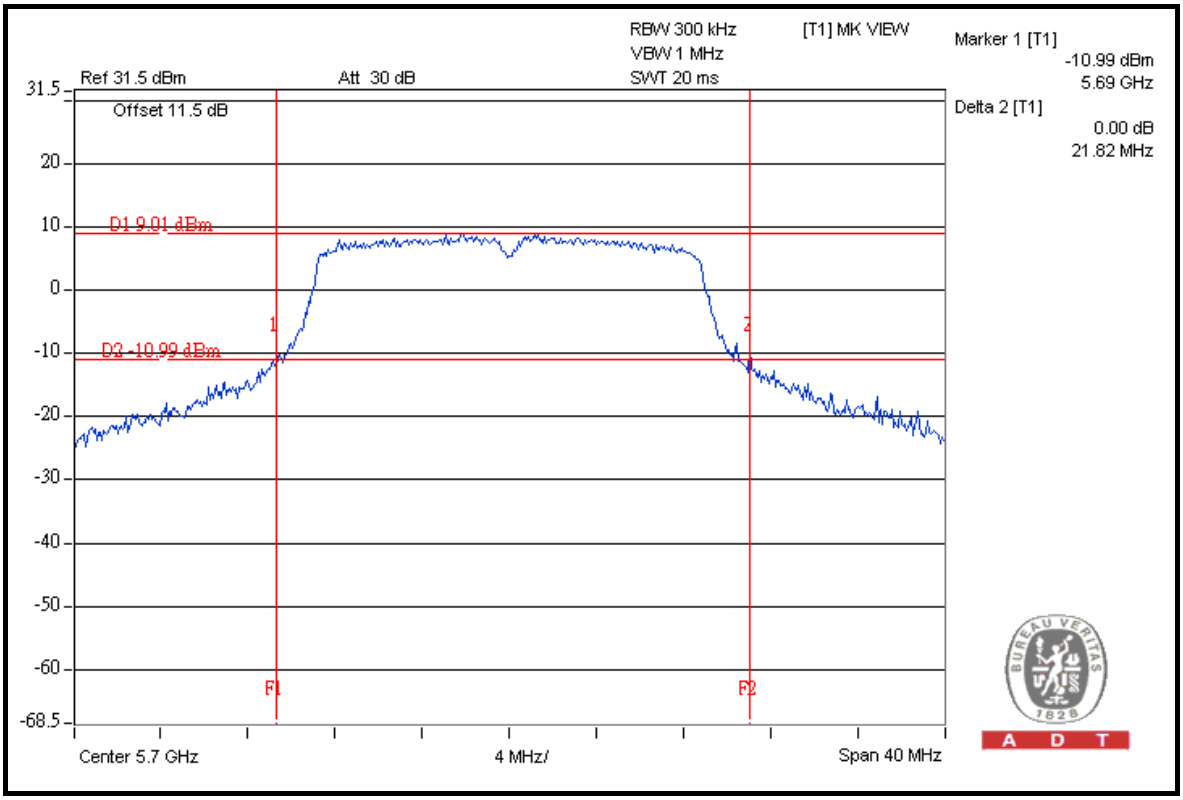
CH 100


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.72 dBm
5.49 GHz
Delta 2 [T1]
0.00 dB
21.08 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.28 dBm
D2 -10.72 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.5 GHz
4 MHz/
Span 40 MHz

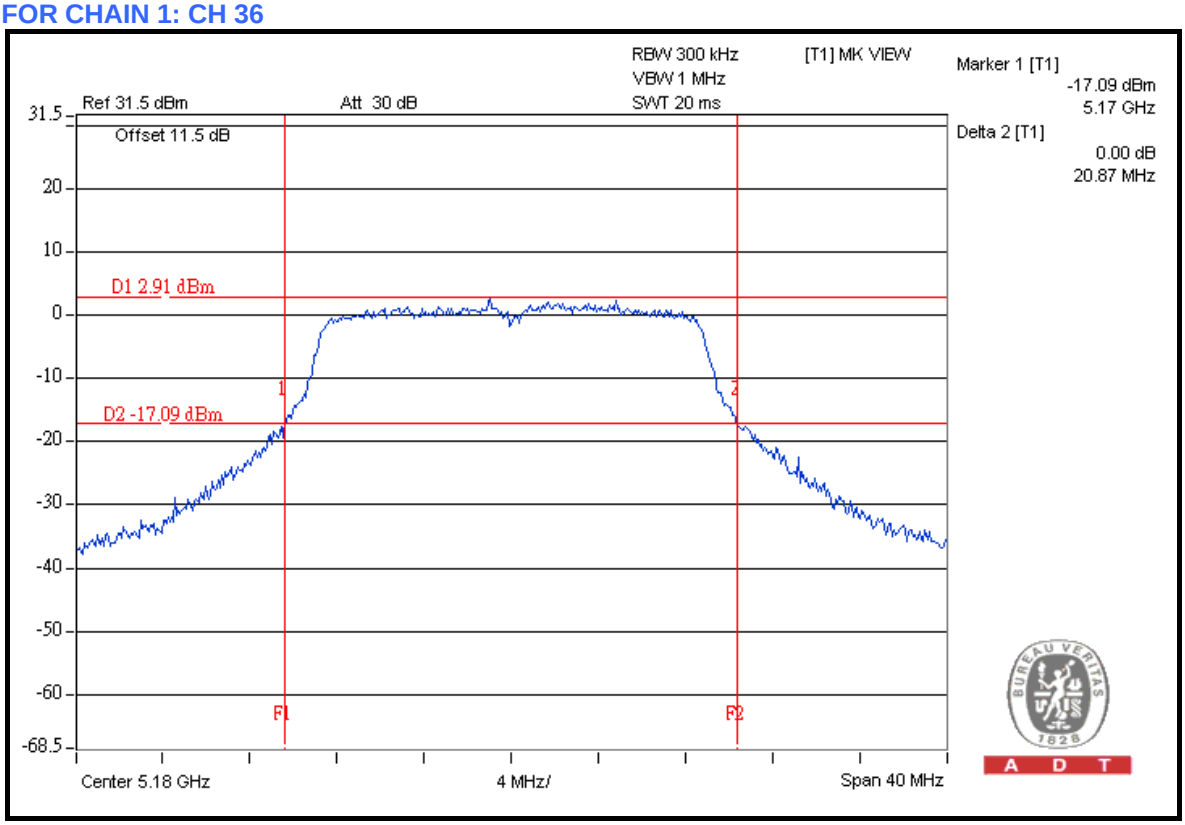
CH 120


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-11.05 dBm
5.59 GHz
Delta 2 [T1]
0.00 dB
21.19 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 8.95 dBm
D2 -11.05 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.6 GHz
4 MHz/
Span 40 MHz

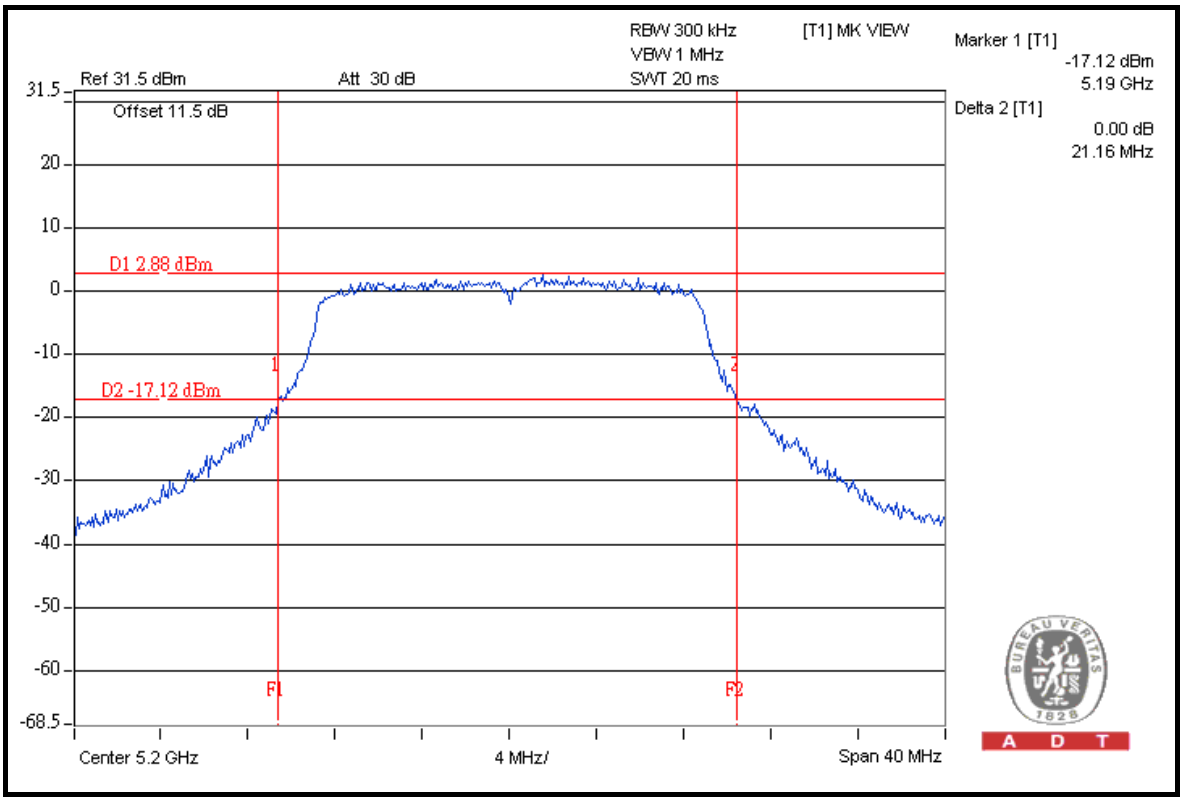
CH 140



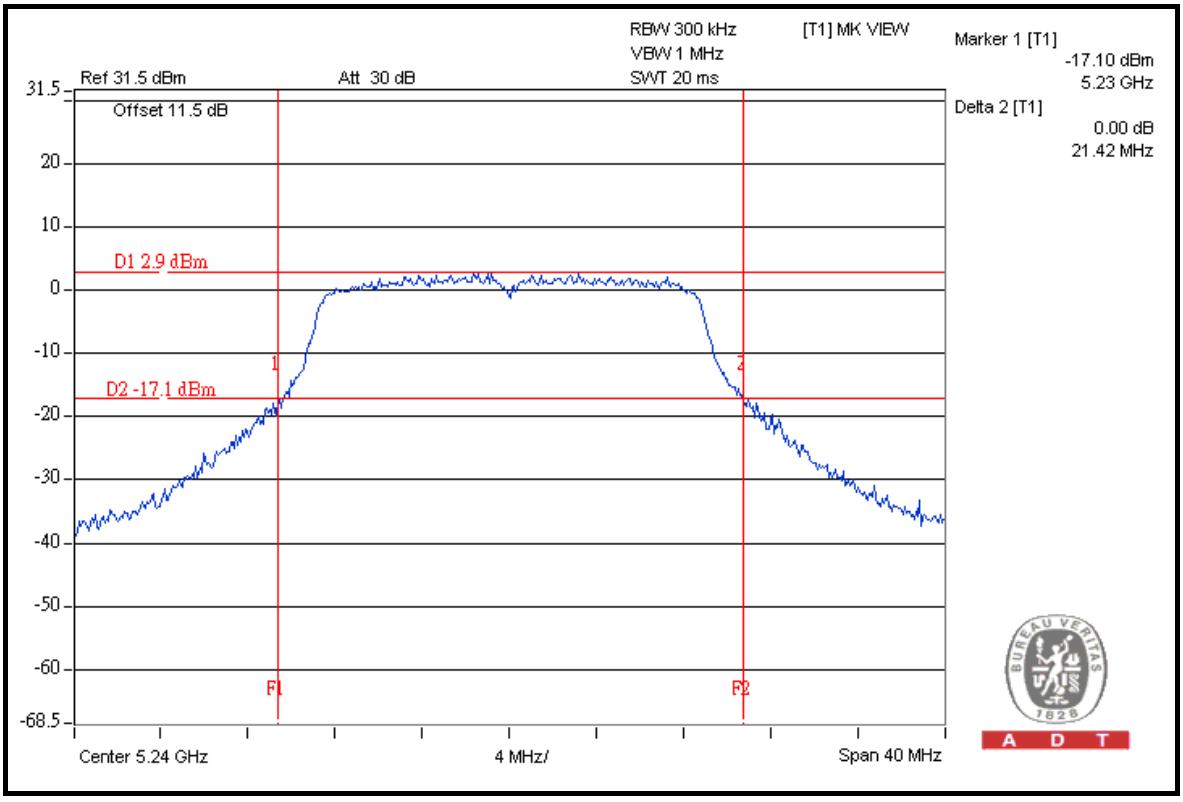
FOR CHAIN 1: CH 36



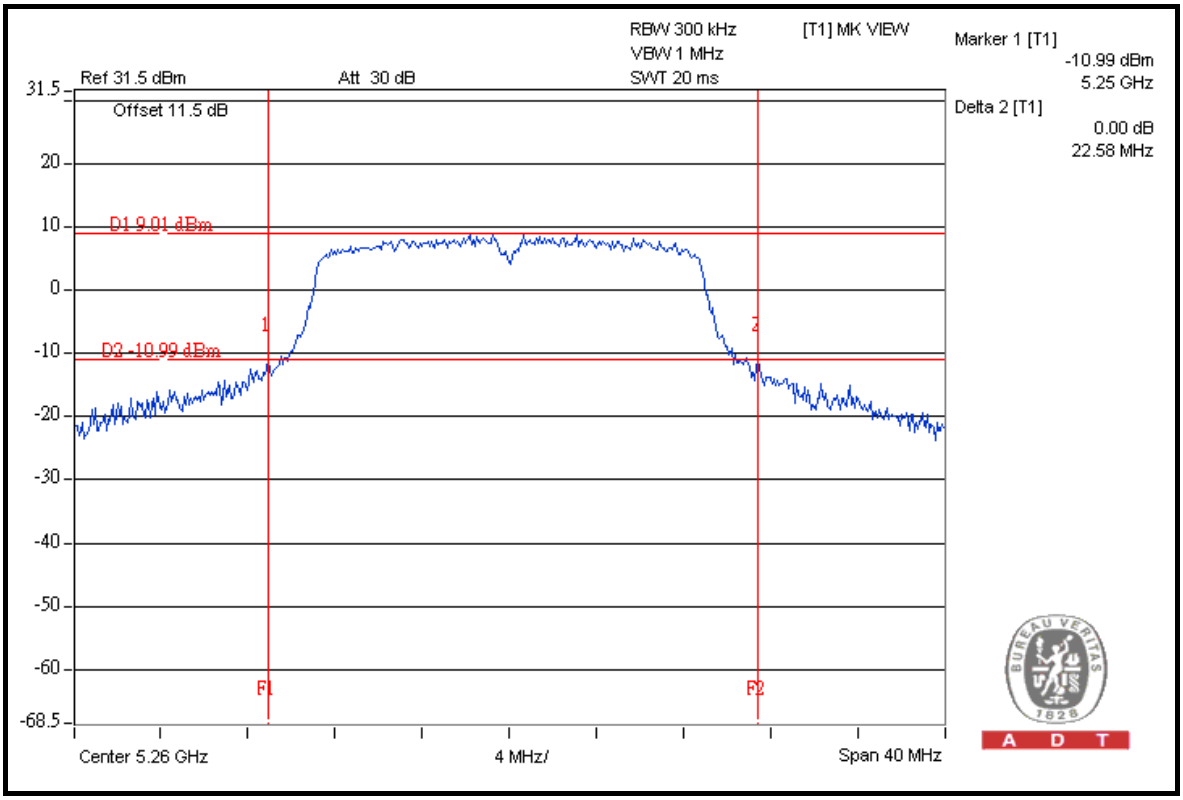
CH 40


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-17.12 dBm
5.19 GHz
Delta 2 [T1]
0.00 dB
21.16 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 2.88 dBm
D2 -17.12 dBm
F1
F2
Center 5.2 GHz
4 MHz/
Span 40 MHz

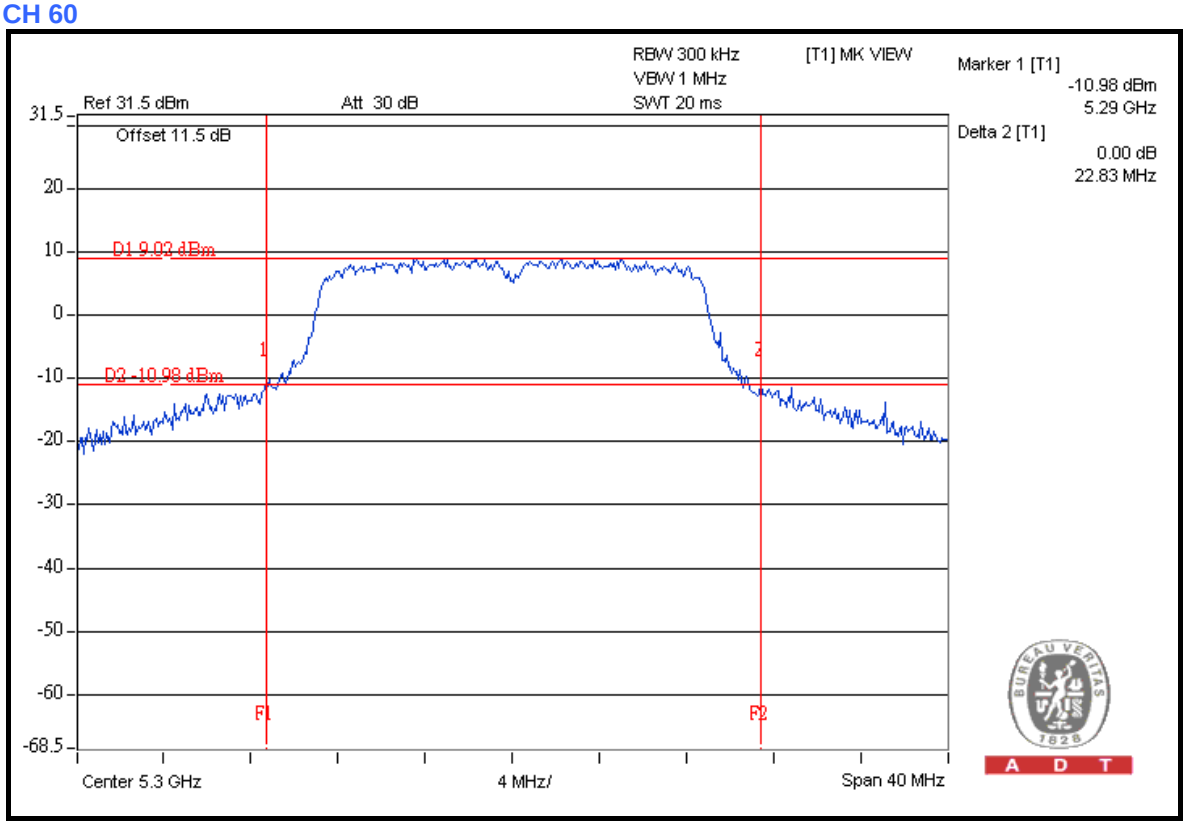
CH 48


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-17.10 dBm
5.23 GHz
Delta 2 [T1]
0.00 dB
21.42 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 2.9 dBm
D2 -17.1 dBm
F1
F2
Center 5.24 GHz
4 MHz/
Span 40 MHz

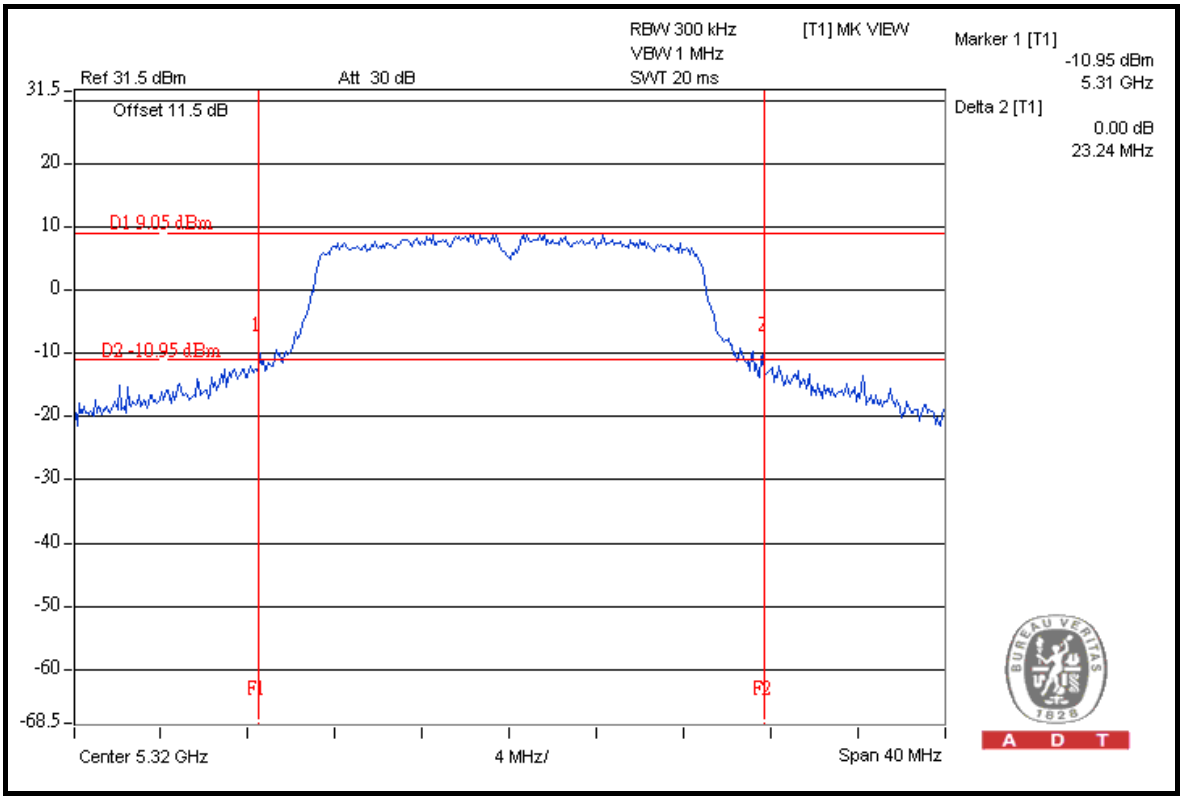
CH 52


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.99 dBm
5.25 GHz
Delta 2 [T1]
0.00 dB
22.58 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.01 dBm
D2 -10.99 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.26 GHz
4 MHz/
Span 40 MHz

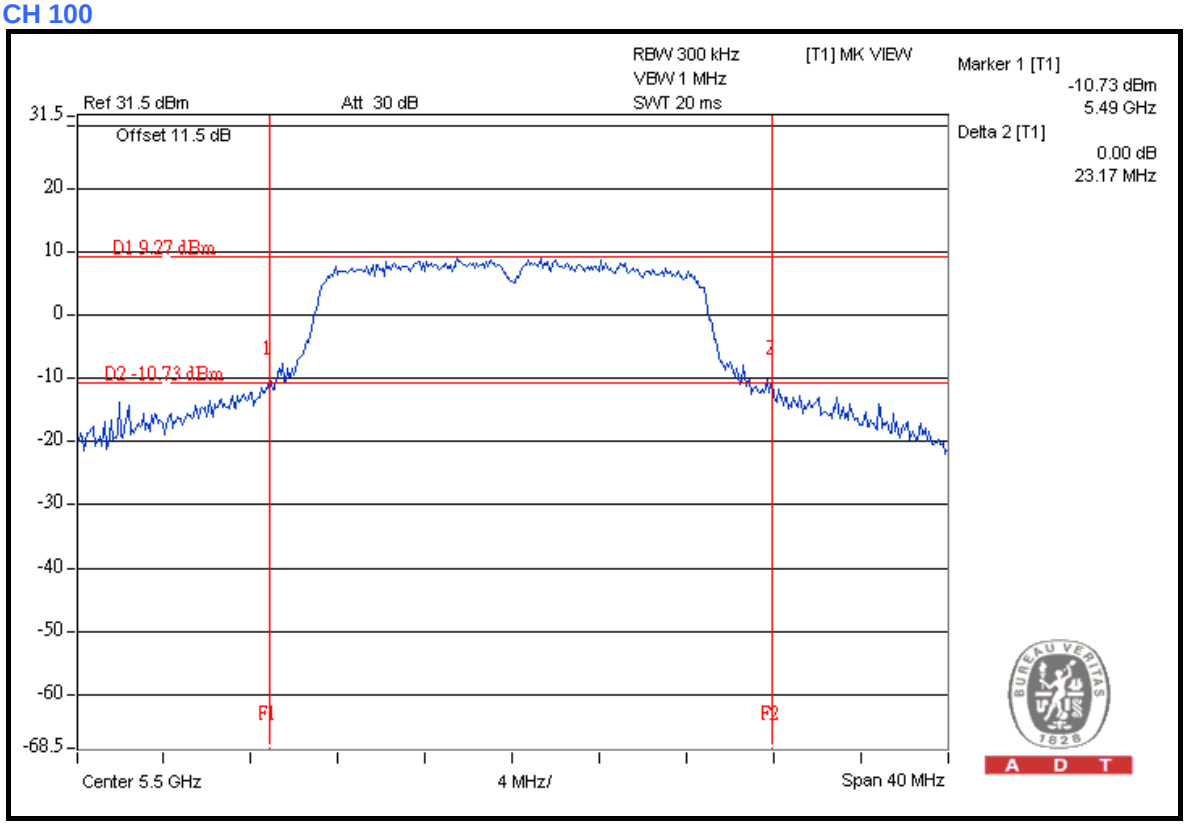
CH 60


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.98 dBm
5.29 GHz
Delta 2 [T1]
0.00 dB
22.83 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.02 dBm
D2 -10.98 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.3 GHz
4 MHz/
Span 40 MHz

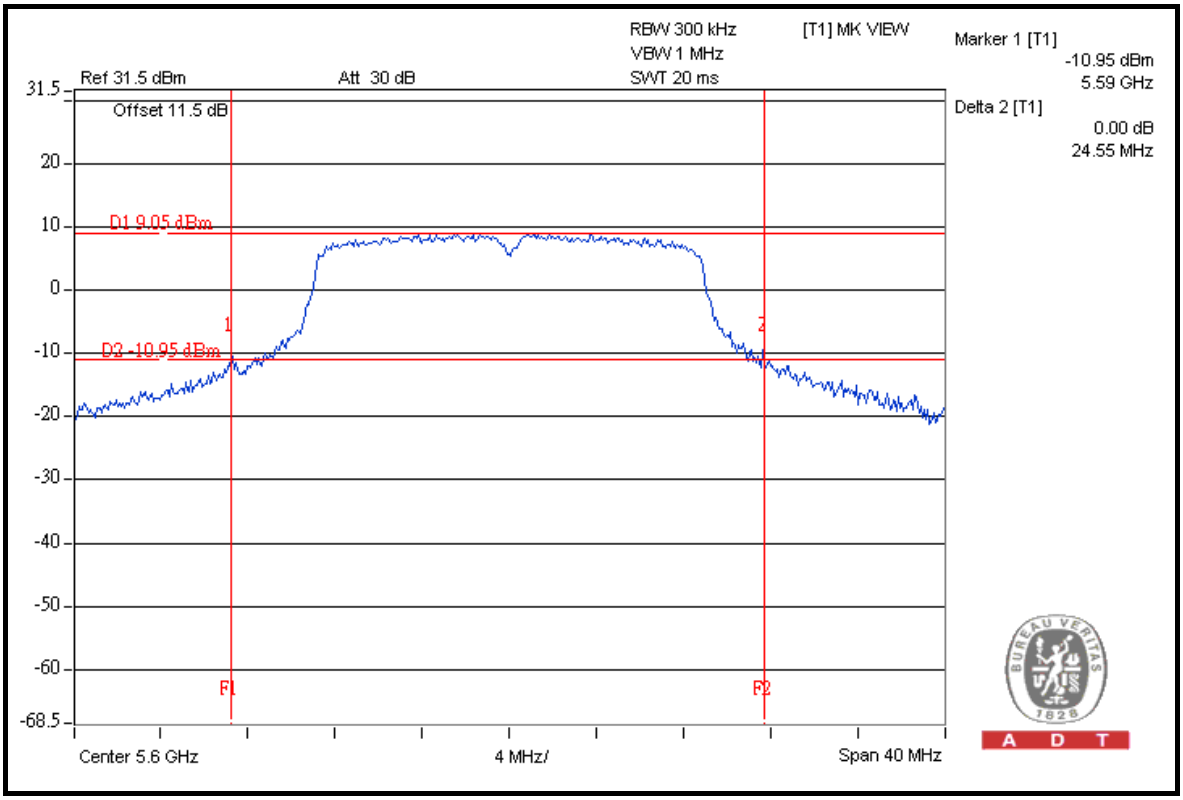
CH 64


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.95 dBm
5.31 GHz
Delta 2 [T1]
0.00 dB
23.24 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.05 dBm
D2 -10.95 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.32 GHz
4 MHz/
Span 40 MHz

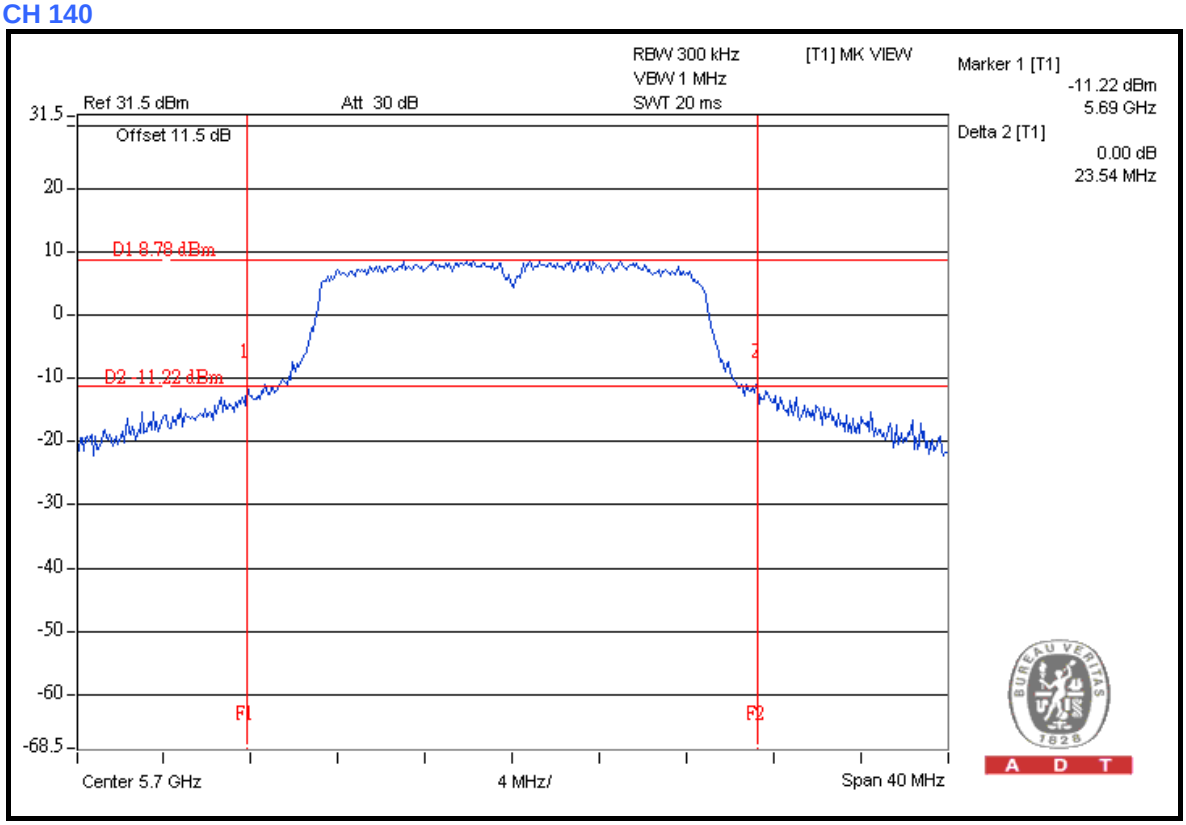
CH 100


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.73 dBm
5.49 GHz
Delta 2 [T1]
0.00 dB
23.17 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.27 dBm
D2 -10.73 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.5 GHz
4 MHz/
Span 40 MHz

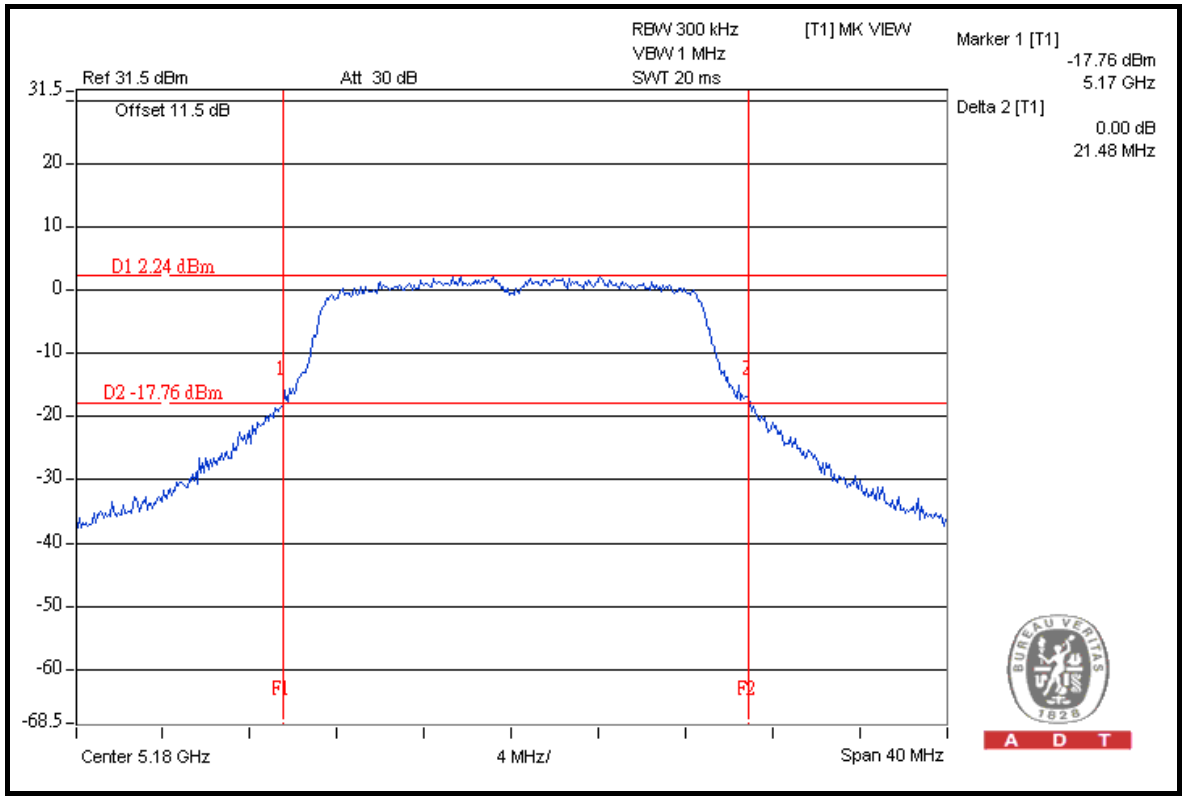
CH 120


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.95 dBm
5.59 GHz
Delta 2 [T1]
0.00 dB
24.55 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.05 dBm
D2 -10.95 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.6 GHz
4 MHz/
Span 40 MHz

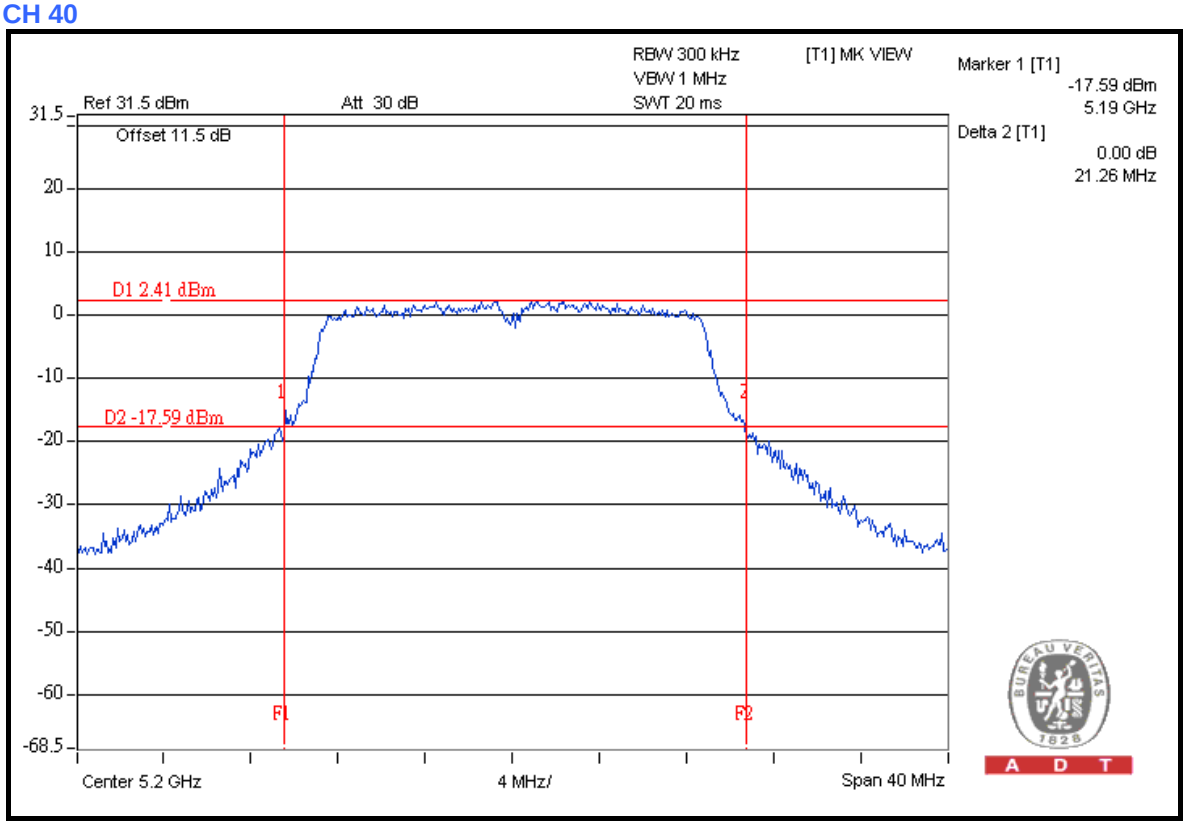
CH 140


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-11.22 dBm
5.69 GHz
Delta 2 [T1]
0.00 dB
23.54 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 8.78 dBm
D2 -11.22 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.7 GHz
4 MHz/
Span 40 MHz

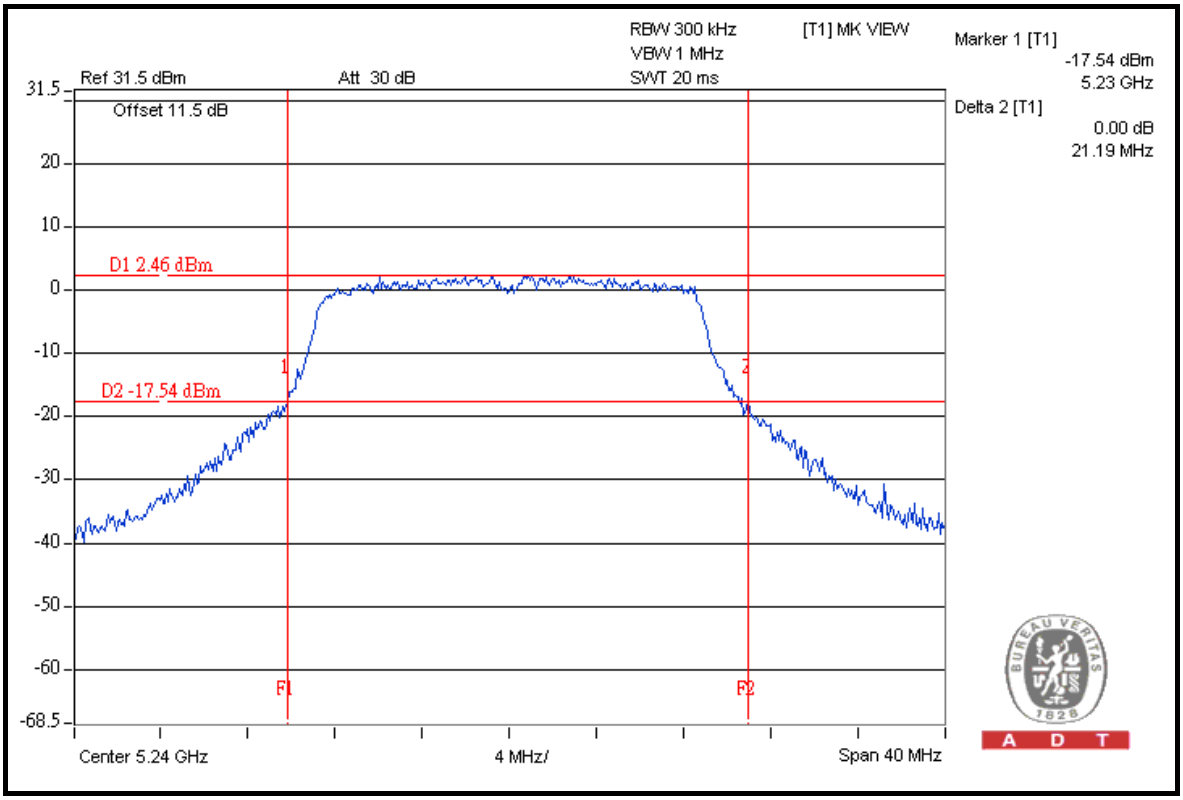
FOR CHAIN 2: CH 36



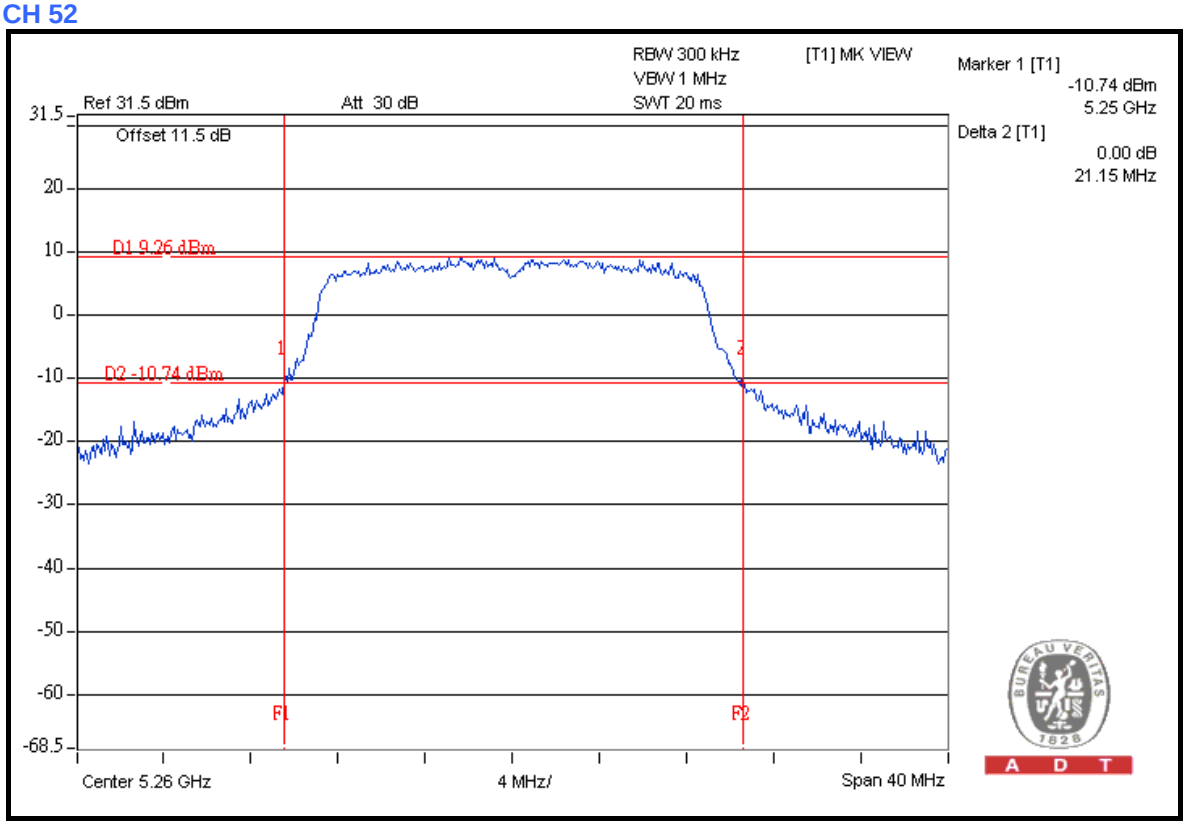
CH 40



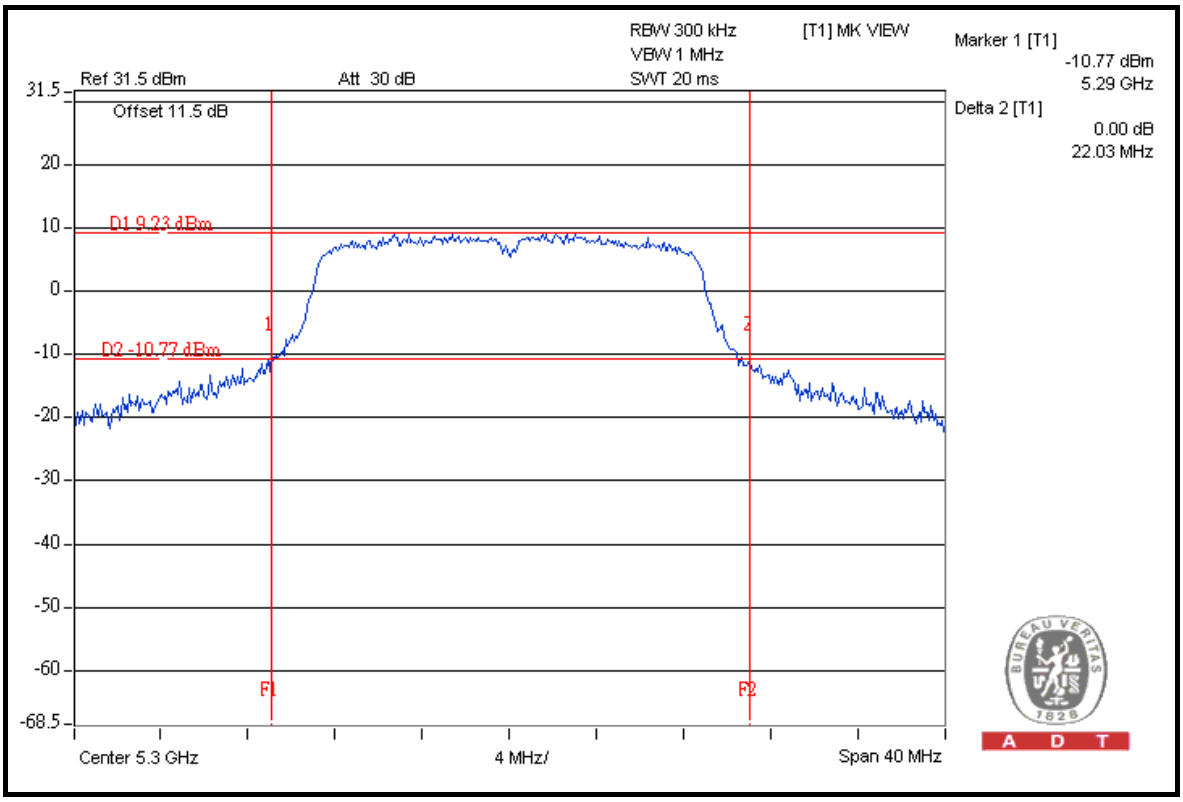
CH 48


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-17.54 dBm
5.23 GHz
Delta 2 [T1]
0.00 dB
21.19 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 2.46 dBm
D2 -17.54 dBm
1
2
F1
F2
Center 5.24 GHz
4 MHz/
Span 40 MHz

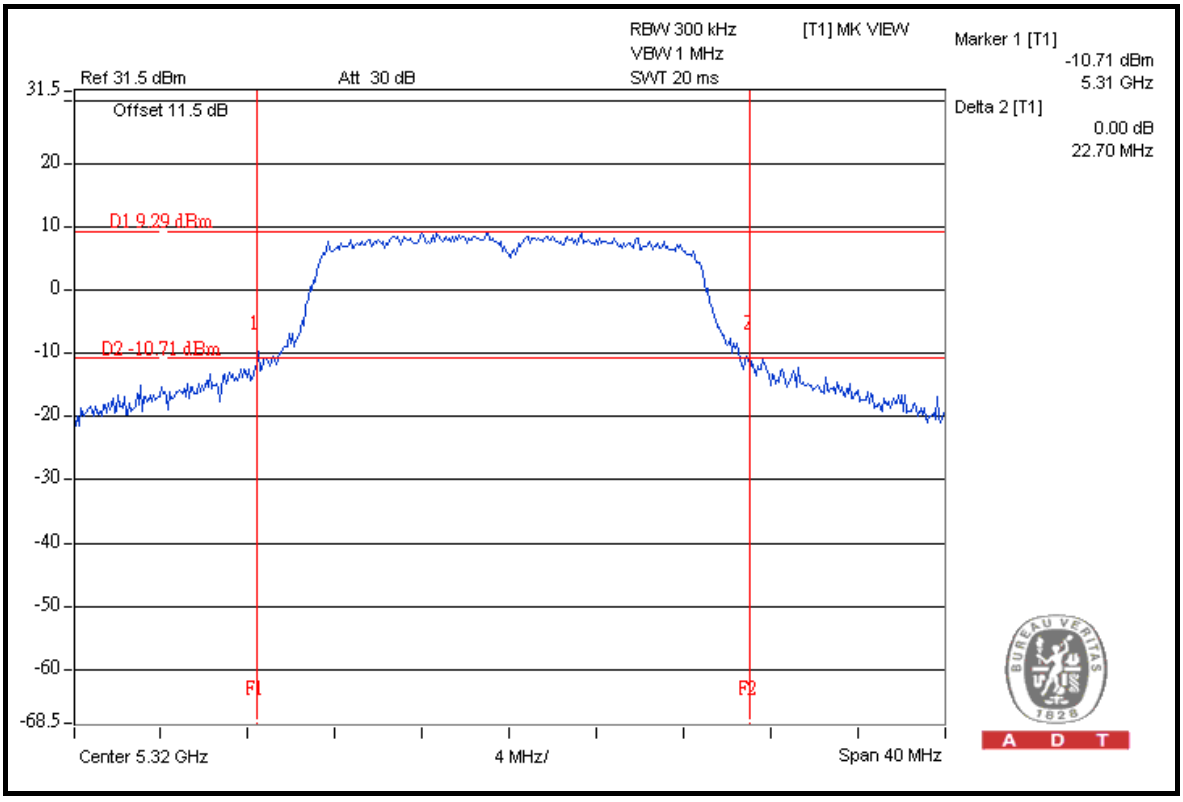
CH 52


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.74 dBm
5.25 GHz
Delta 2 [T1]
0.00 dB
21.15 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 9.26 dBm
D2 -10.74 dBm
1
2
F1
F2
Center 5.26 GHz
4 MHz/
Span 40 MHz

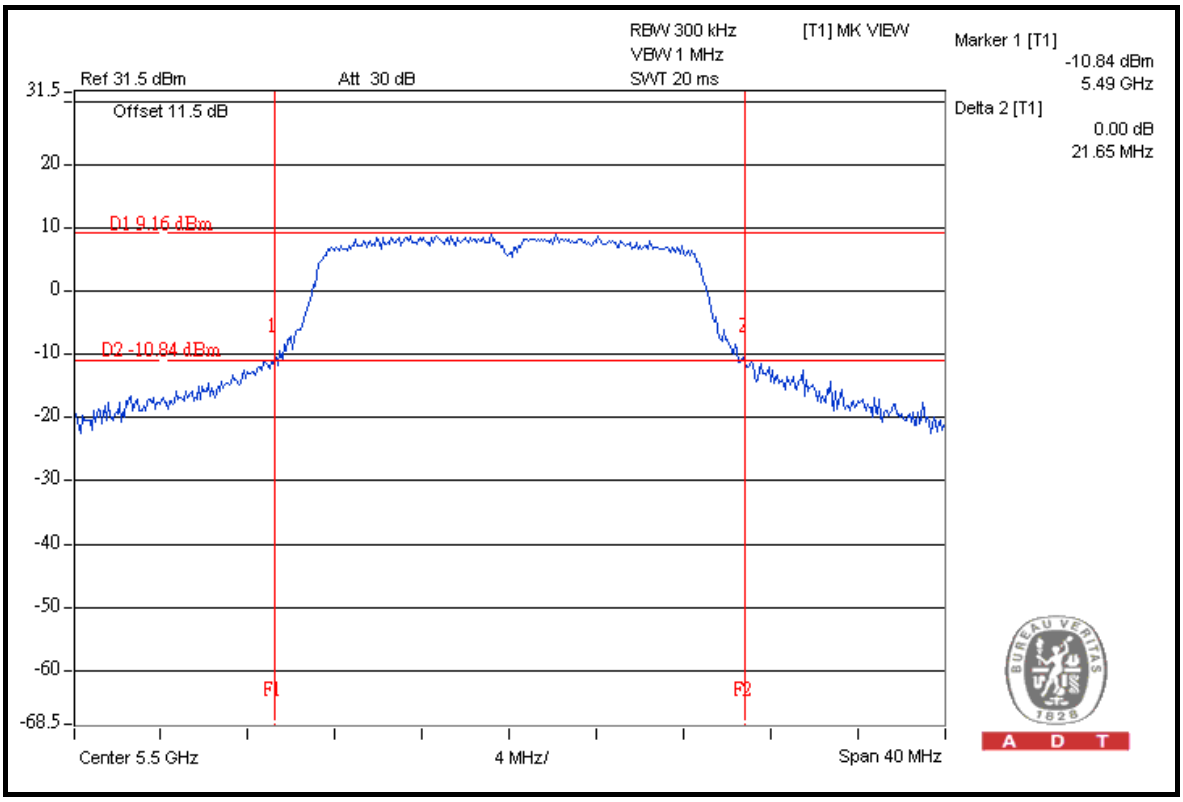
CH 60


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.77 dBm
5.29 GHz
Delta 2 [T1]
0.00 dB
22.03 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.23 dBm
D2 -10.77 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.3 GHz
4 MHz/
Span 40 MHz

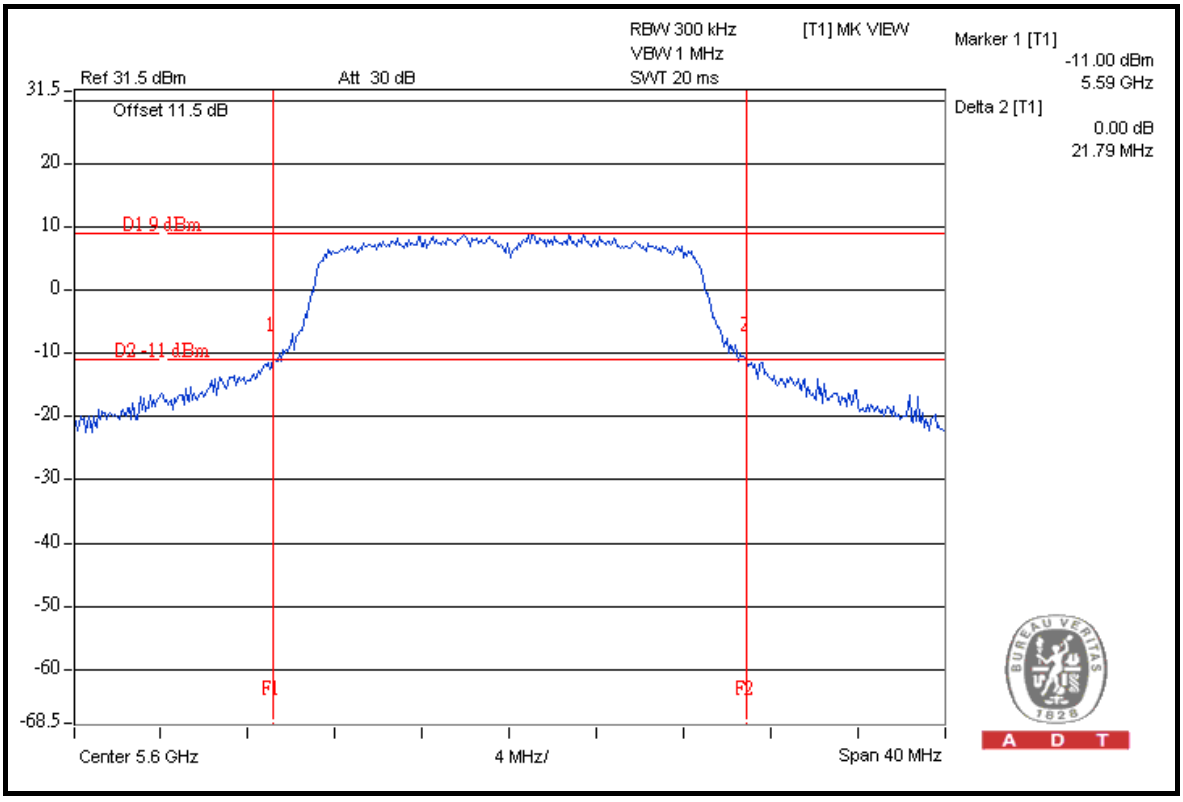
CH 64


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.71 dBm
5.31 GHz
Delta 2 [T1]
0.00 dB
22.70 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.29 dBm
D2 -10.71 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.32 GHz
4 MHz/
Span 40 MHz

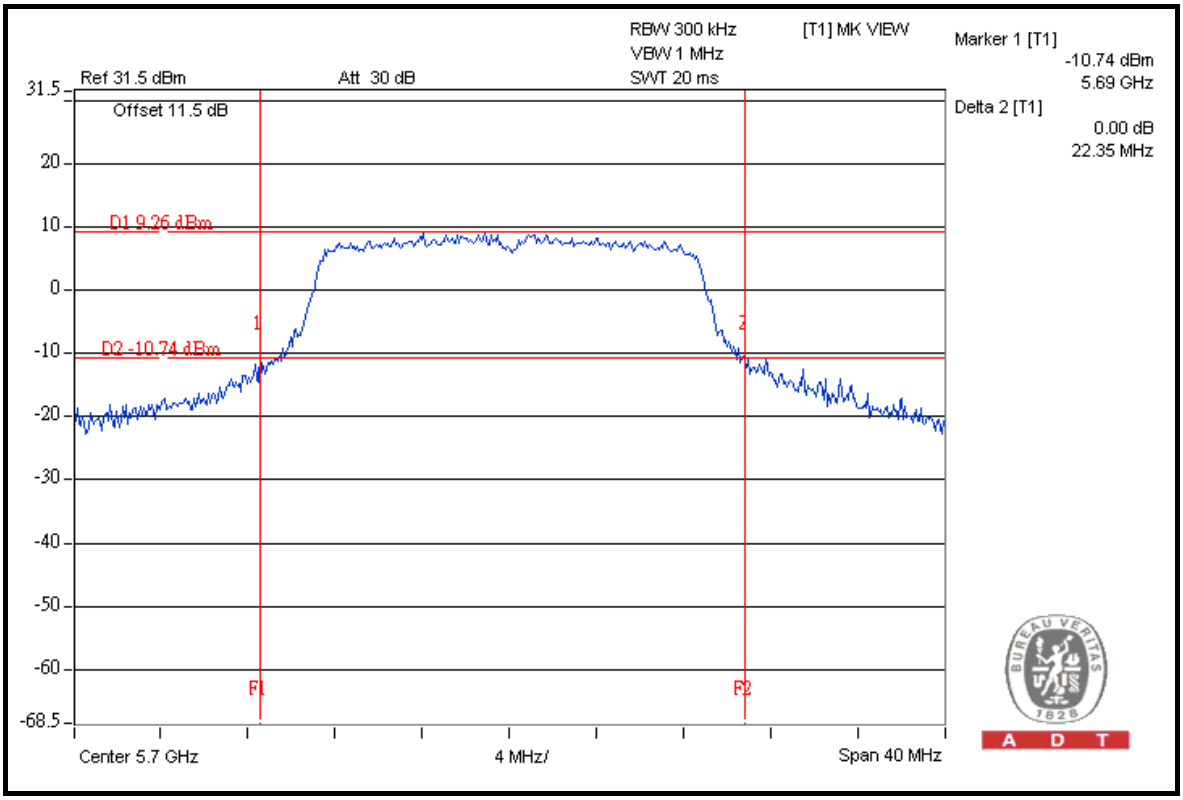
CH 100


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.84 dBm
5.49 GHz
Delta 2 [T1]
0.00 dB
21.65 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9.16 dBm
D2 -10.84 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.5 GHz
4 MHz/
Span 40 MHz

CH 120


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-11.00 dBm
5.59 GHz
Delta 2 [T1]
0.00 dB
21.79 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 9 dBm
D2 -11 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.6 GHz
4 MHz/
Span 40 MHz

CH 140

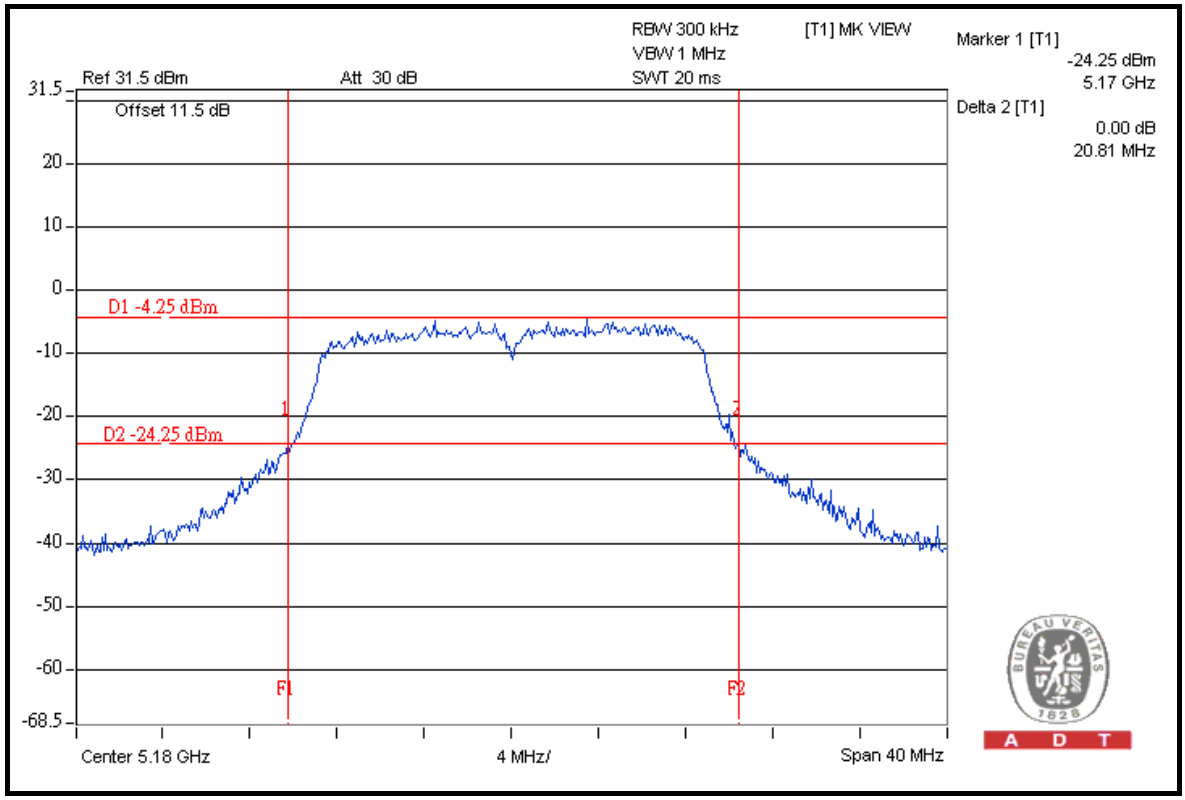

RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-10.74 dBm
5.69 GHz
Delta 2 [T1]
0.00 dB
22.35 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 9.26 dBm
D2 -10.74 dBm
1
2
F1
F2
Center 5.7 GHz
4 MHz/
Span 40 MHz

DRAFT 802.11n (20MHz) OFDM MODULATION

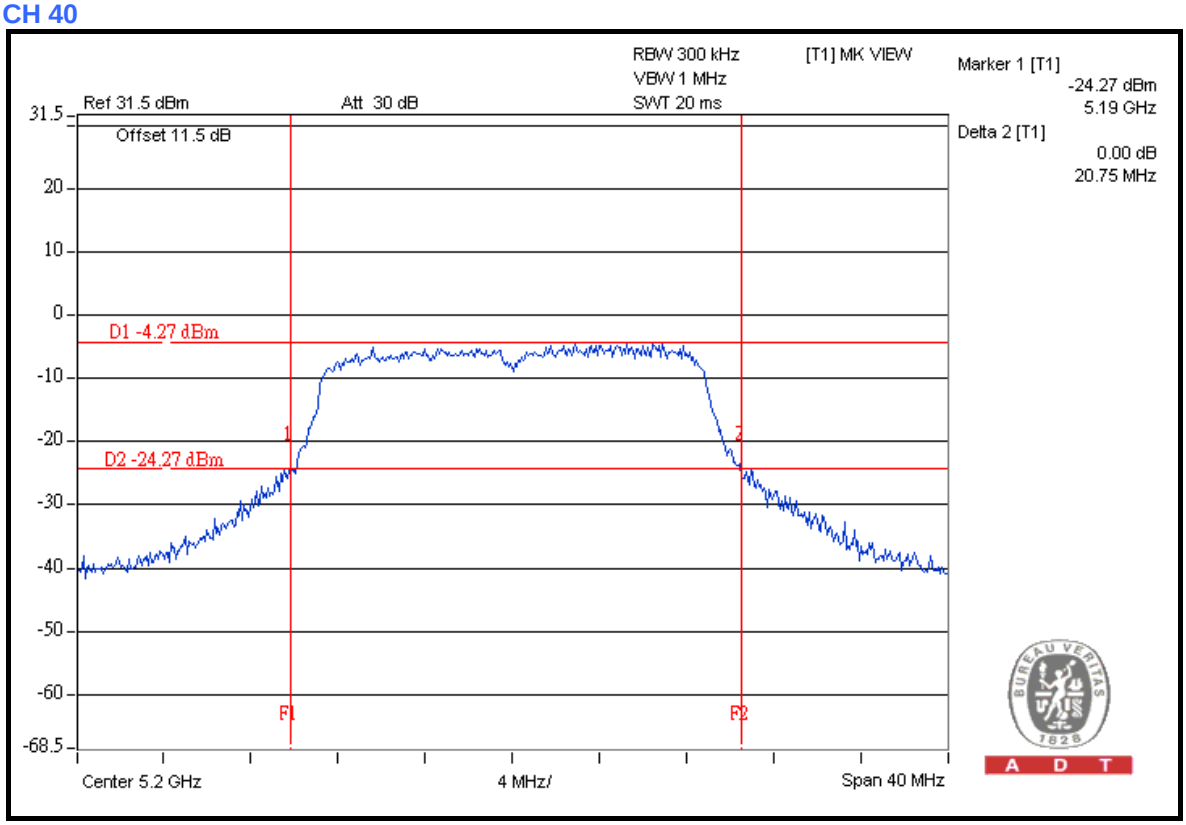
MODULATION TYPE	BPSK	**TRANSFER RATE**	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	23deg.C, 70%RH, 1023hPa
TESTED BY	Brad Wu	**TEST MODE**	**C**

CHANNEL	CHANNEL FREQUENCY (MHz)	20dBc OCCUPIED BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
36	5180	20.81	21.61	PASS
40	5200	20.75	20.69	PASS
48	5240	20.38	21.04	PASS
52	5260	21.59	21.28	PASS
60	5300	21.65	21.32	PASS
64	5320	21.33	21.25	PASS
100	5500	21.71	21.34	PASS
120	5600	21.14	21.65	PASS
140	5700	21.10	21.11	PASS

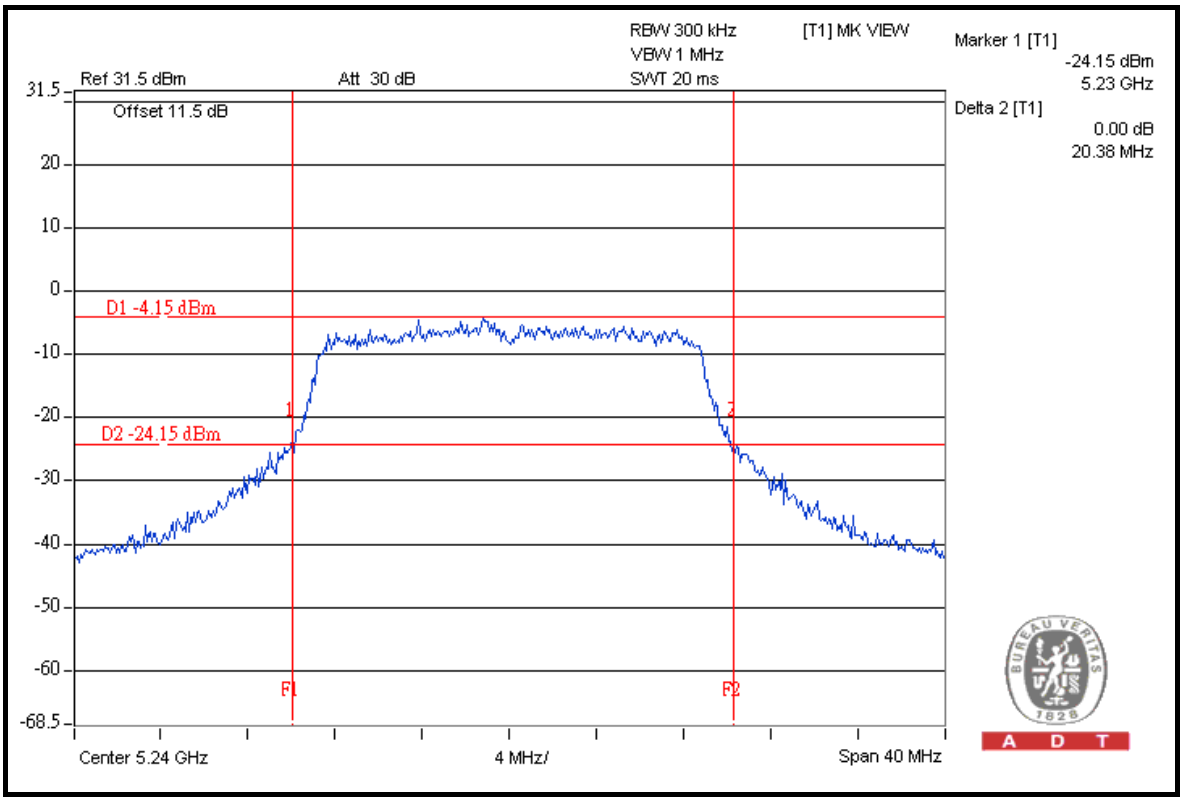
FOR CHAIN 0: CH 36



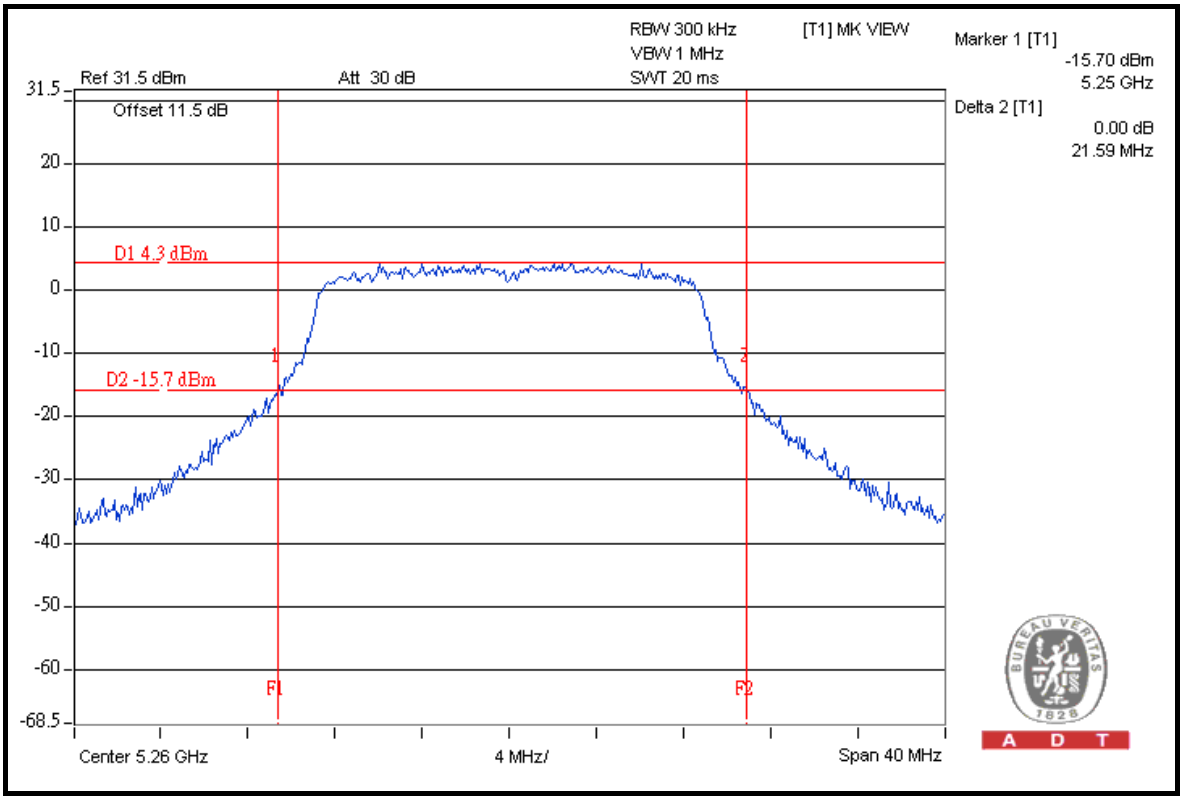
CH 40



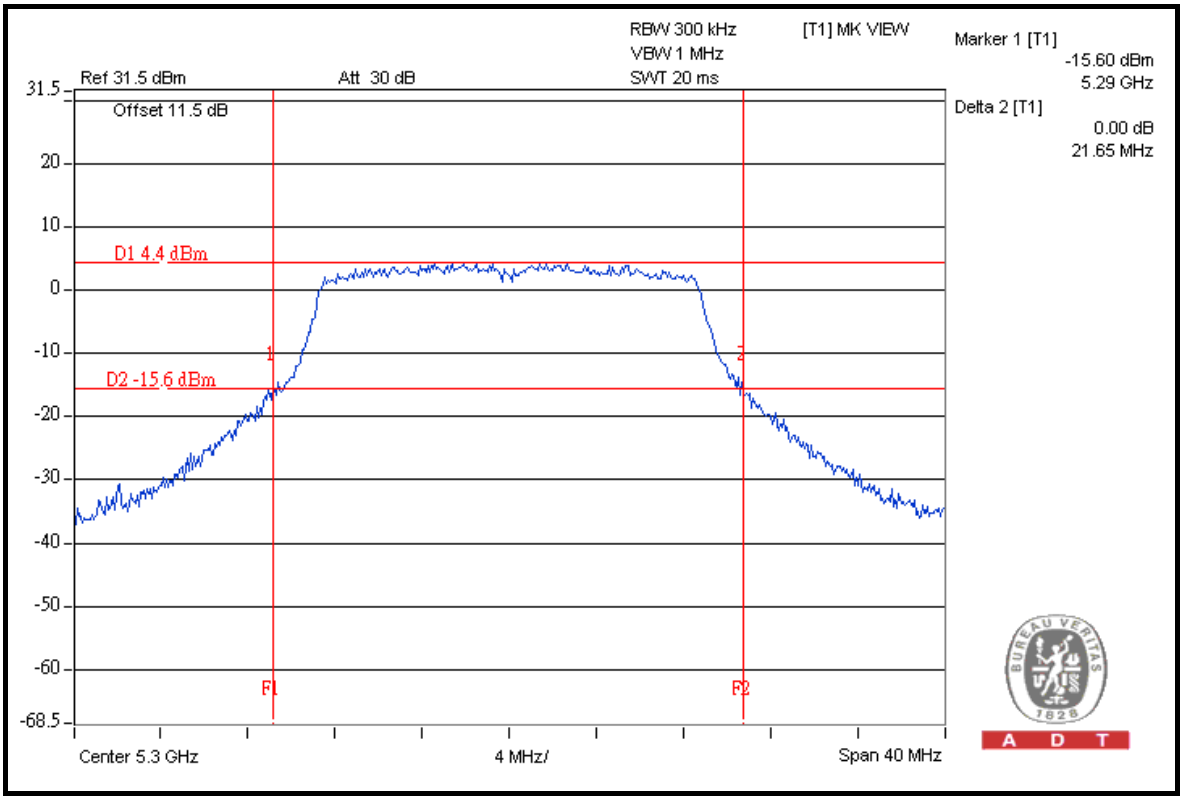
CH 48


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-24.15 dBm
5.23 GHz
Delta 2 [T1]
0.00 dB
20.38 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 -4.15 dBm
D2 -24.15 dBm
F1
F2
Center 5.24 GHz
4 MHz/
Span 40 MHz

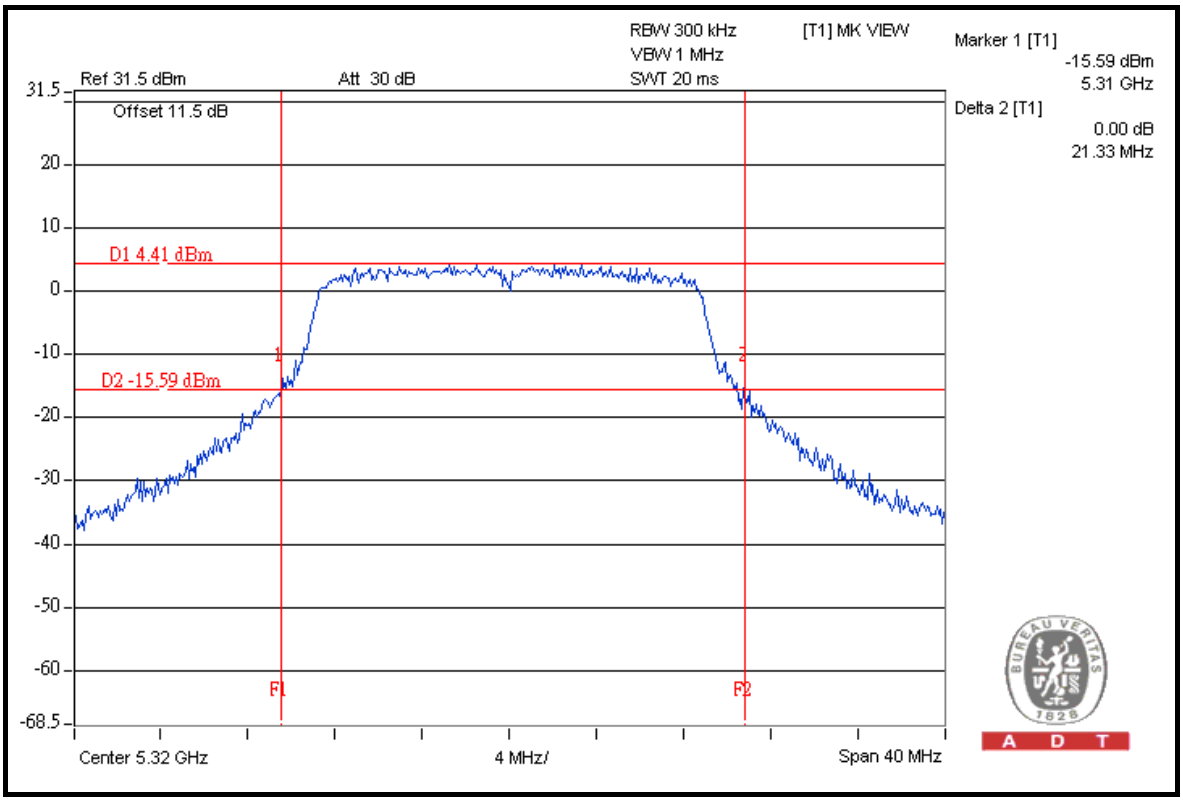
CH 52


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.70 dBm
5.25 GHz
Delta 2 [T1]
0.00 dB
21.59 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 4.3 dBm
D2 -15.7 dBm
F1
F2
Center 5.26 GHz
4 MHz/
Span 40 MHz

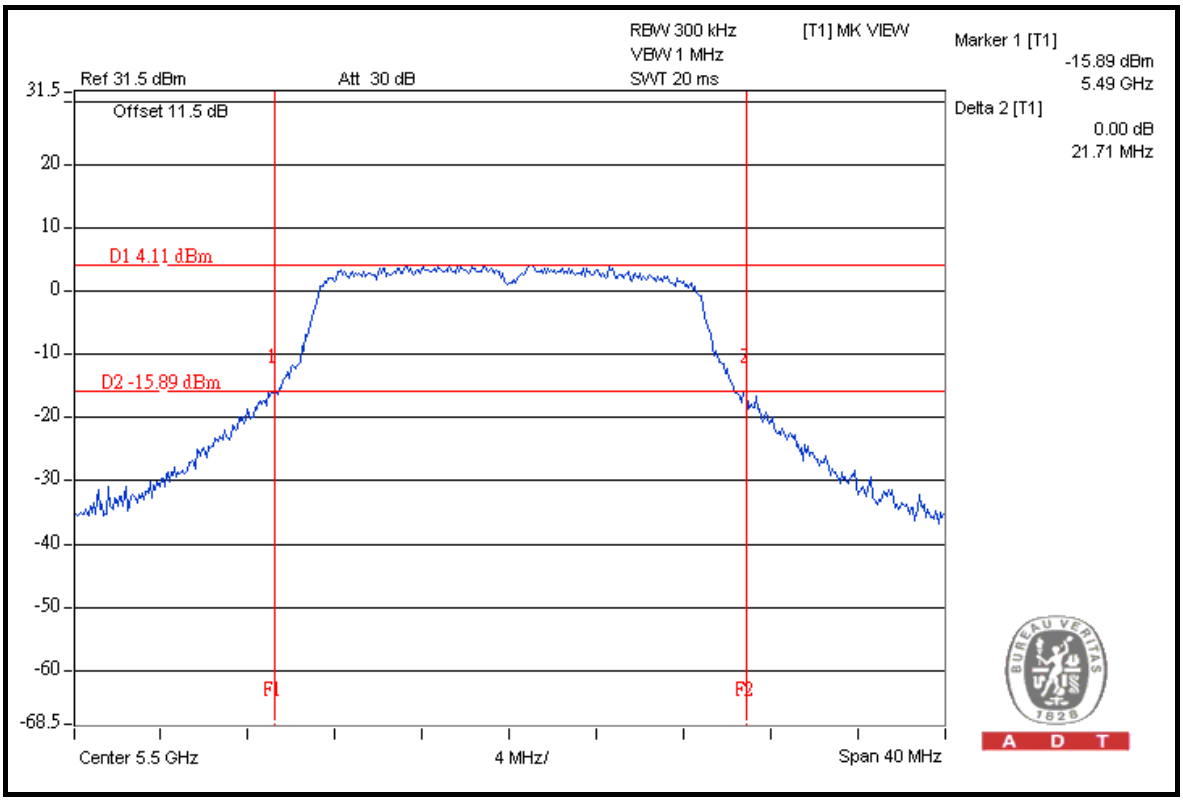
CH 60


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.60 dBm
5.29 GHz
Delta 2 [T1]
0.00 dB
21.65 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 4.4 dBm
D2 -15.6 dBm
F1
F2
Center 5.3 GHz
4 MHz/
Span 40 MHz

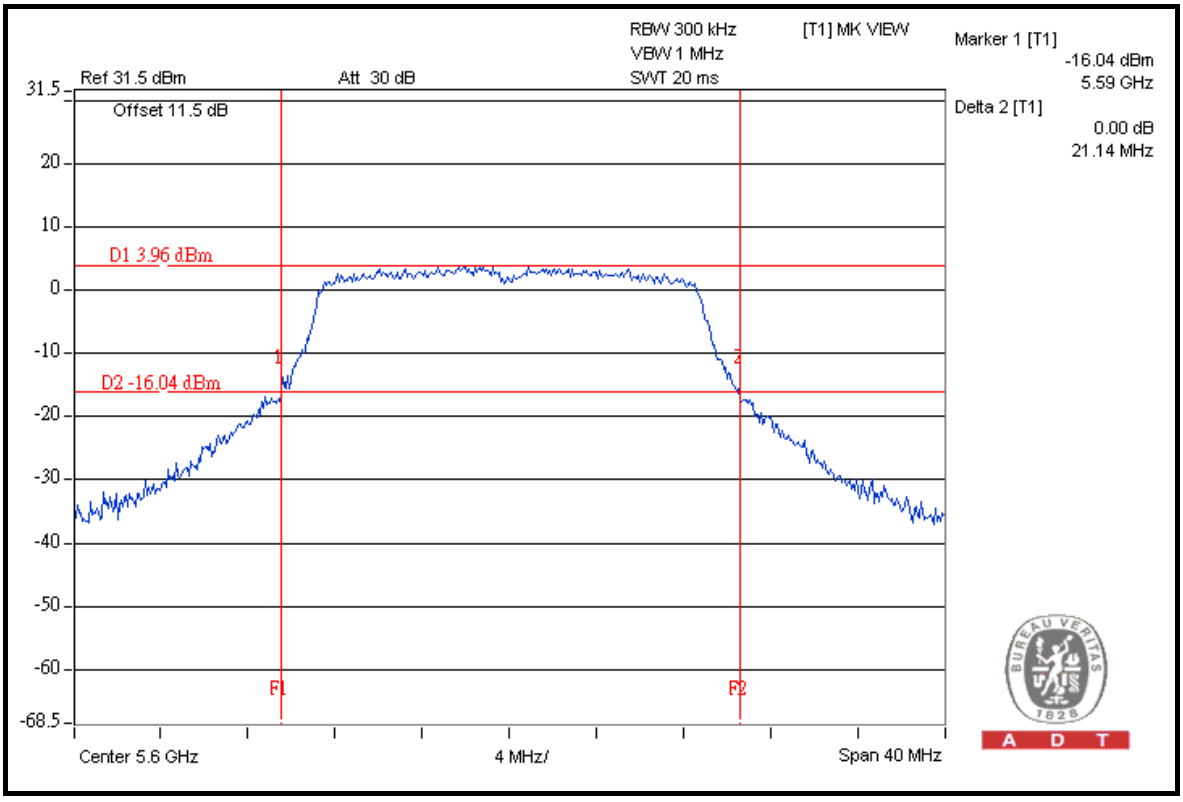
CH 64


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.59 dBm
5.31 GHz
Delta 2 [T1]
0.00 dB
21.33 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 4.41 dBm
D2 -15.59 dBm
F1
F2
Center 5.32 GHz
4 MHz/
Span 40 MHz

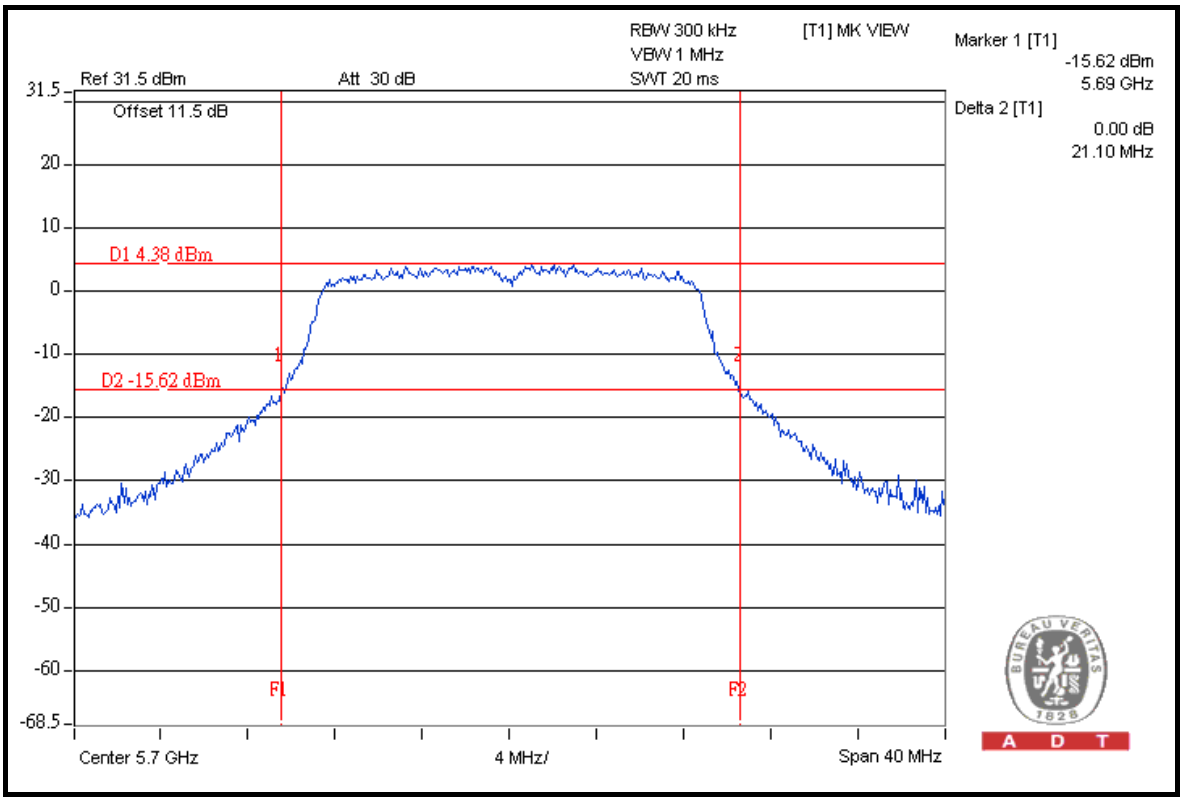
CH 100


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.89 dBm
5.49 GHz
Delta 2 [T1]
0.00 dB
21.71 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 4.11 dBm
D2 -15.89 dBm
1
2
F1
F2
Center 5.5 GHz
4 MHz/
Span 40 MHz

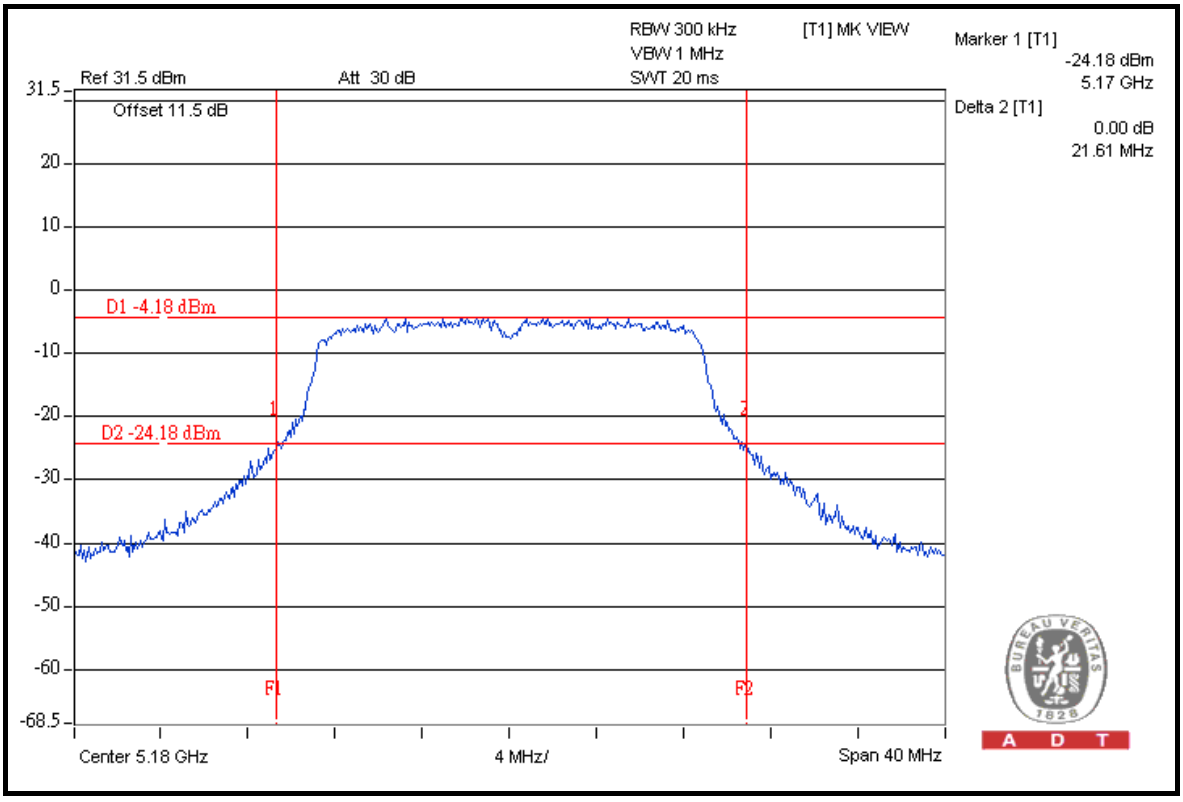
CH 120


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-16.04 dBm
5.59 GHz
Delta 2 [T1]
0.00 dB
21.14 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 3.96 dBm
D2 -16.04 dBm
1
2
F1
F2
Center 5.6 GHz
4 MHz/
Span 40 MHz

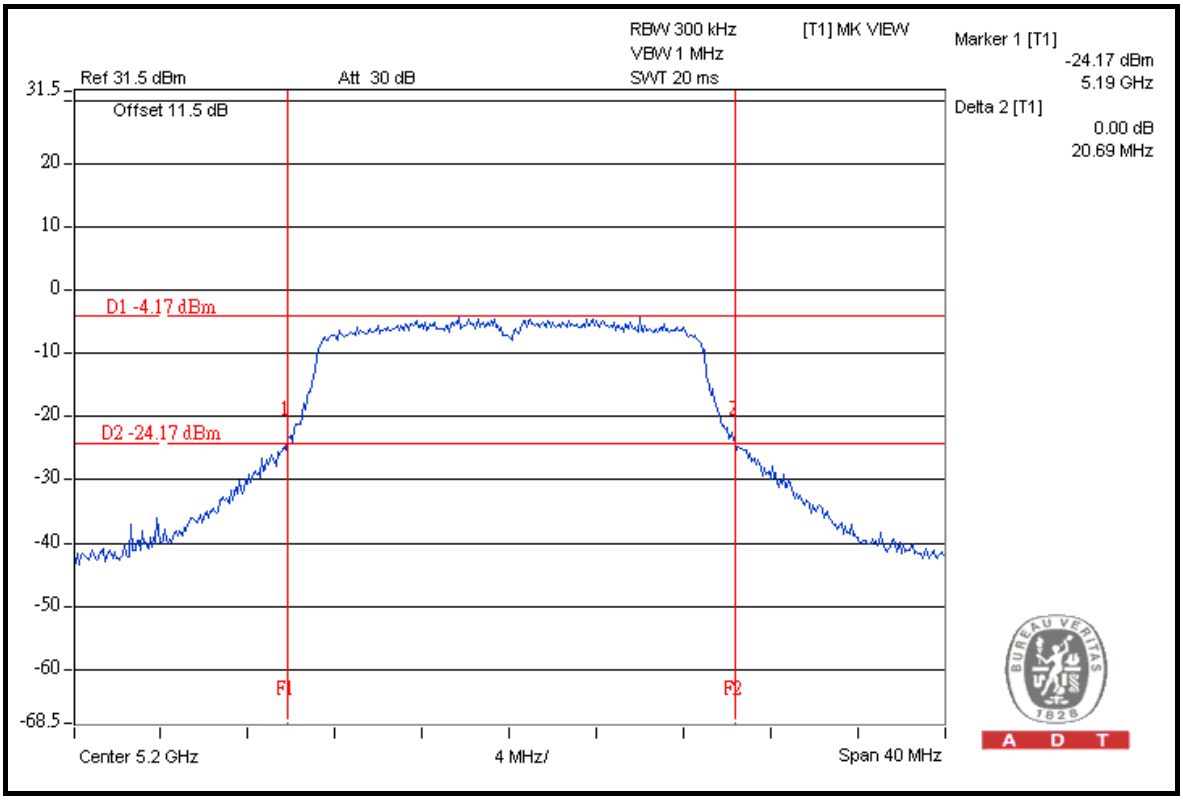
CH 140



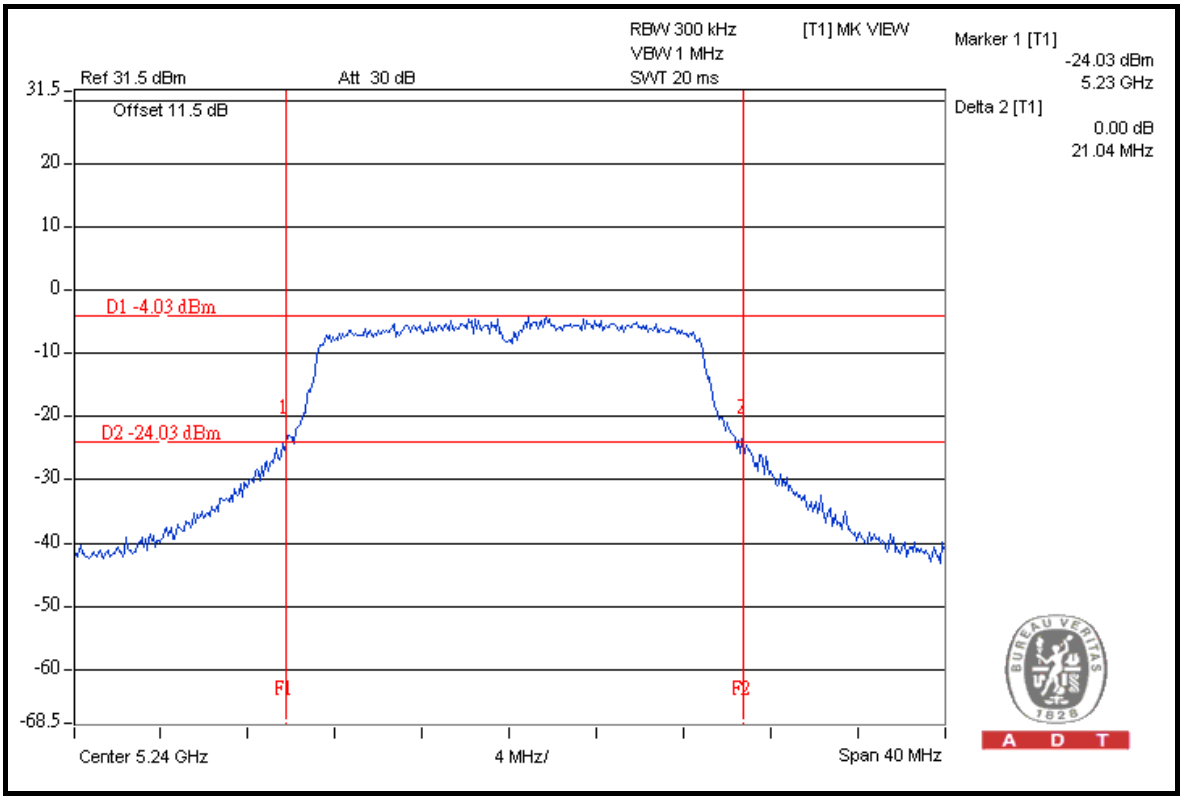
FOR CHAIN 1: CH 36



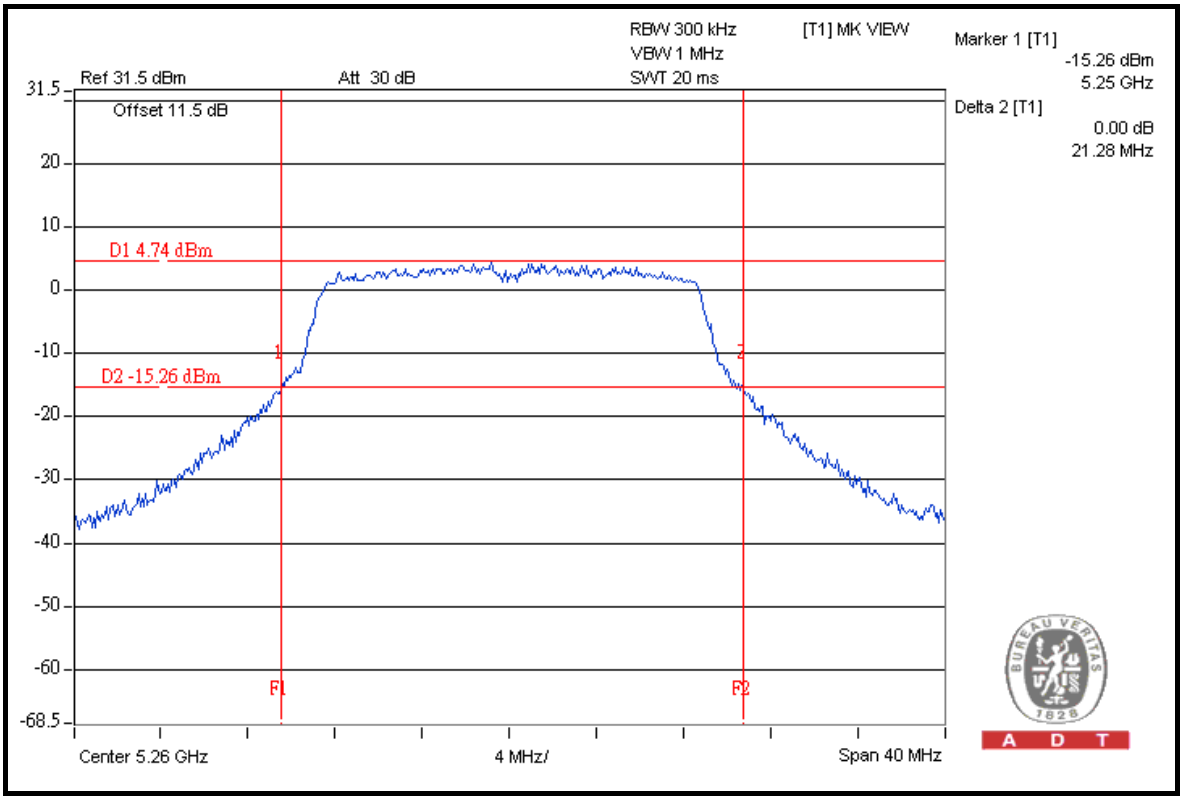
CH 40


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-24.17 dBm
5.19 GHz
Delta 2 [T1]
0.00 dB
20.69 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 -4.17 dBm
D2 -24.17 dBm
F1
F2
Center 5.2 GHz
4 MHz/
Span 40 MHz

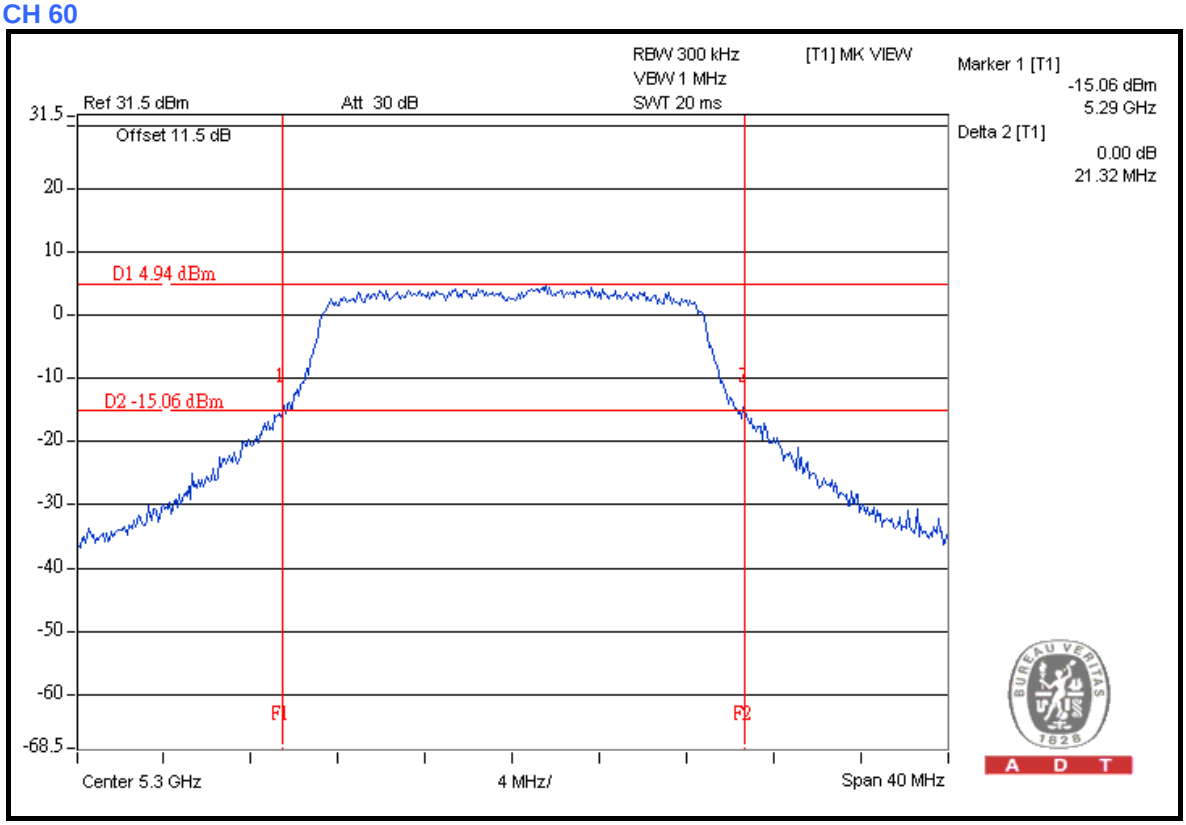
CH 48


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-24.03 dBm
5.23 GHz
Delta 2 [T1]
0.00 dB
21.04 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 -4.03 dBm
D2 -24.03 dBm
F1
F2
Center 5.24 GHz
4 MHz/
Span 40 MHz

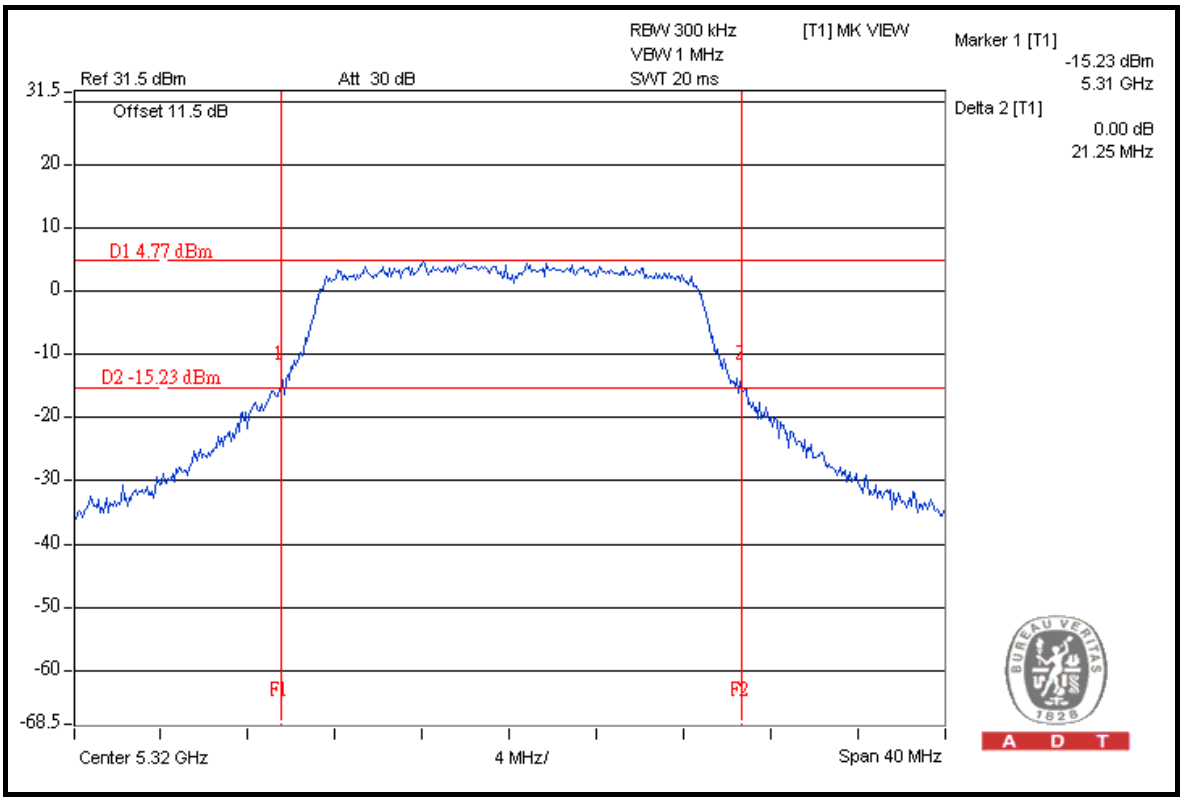
CH 52


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.26 dBm
5.25 GHz
Delta 2 [T1]
0.00 dB
21.28 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 4.74 dBm
D2 -15.26 dBm
F1
F2
Center 5.26 GHz
4 MHz/
Span 40 MHz

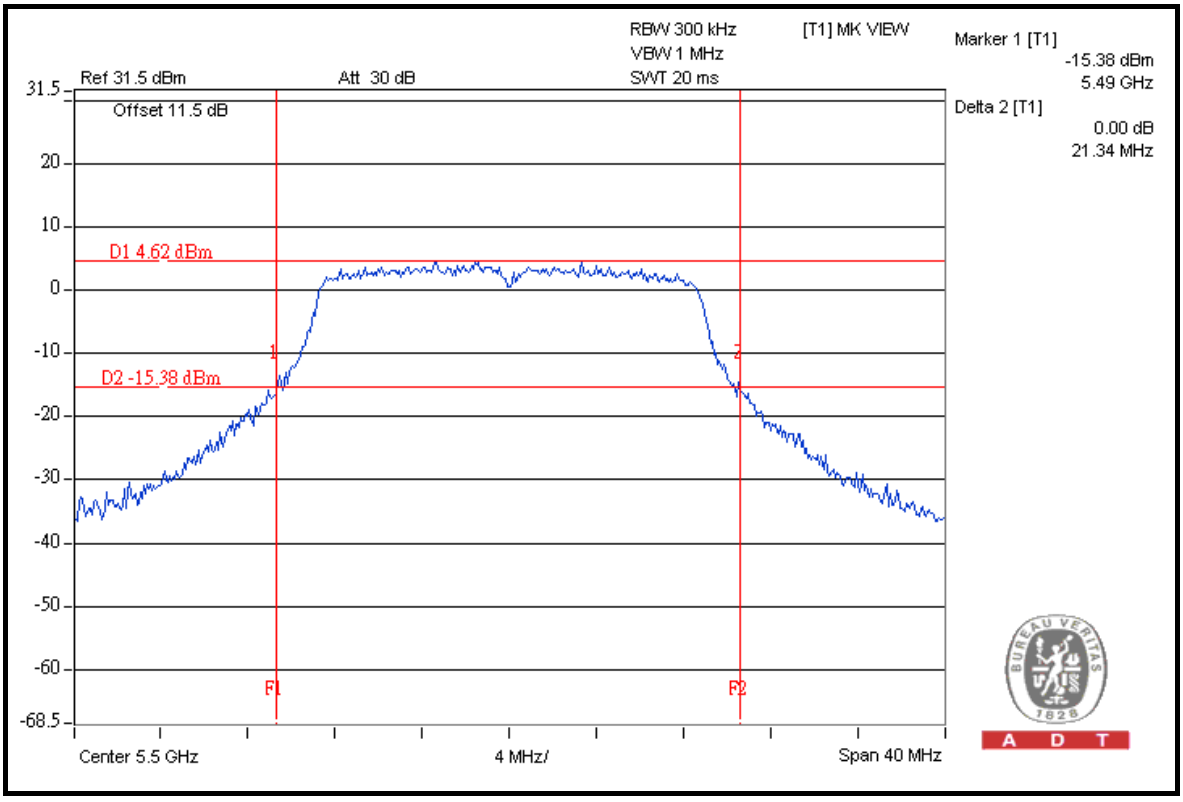
CH 60


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.06 dBm
5.29 GHz
Delta 2 [T1]
0.00 dB
21.32 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 4.94 dBm
D2 -15.06 dBm
F1
F2
Center 5.3 GHz
4 MHz/
Span 40 MHz

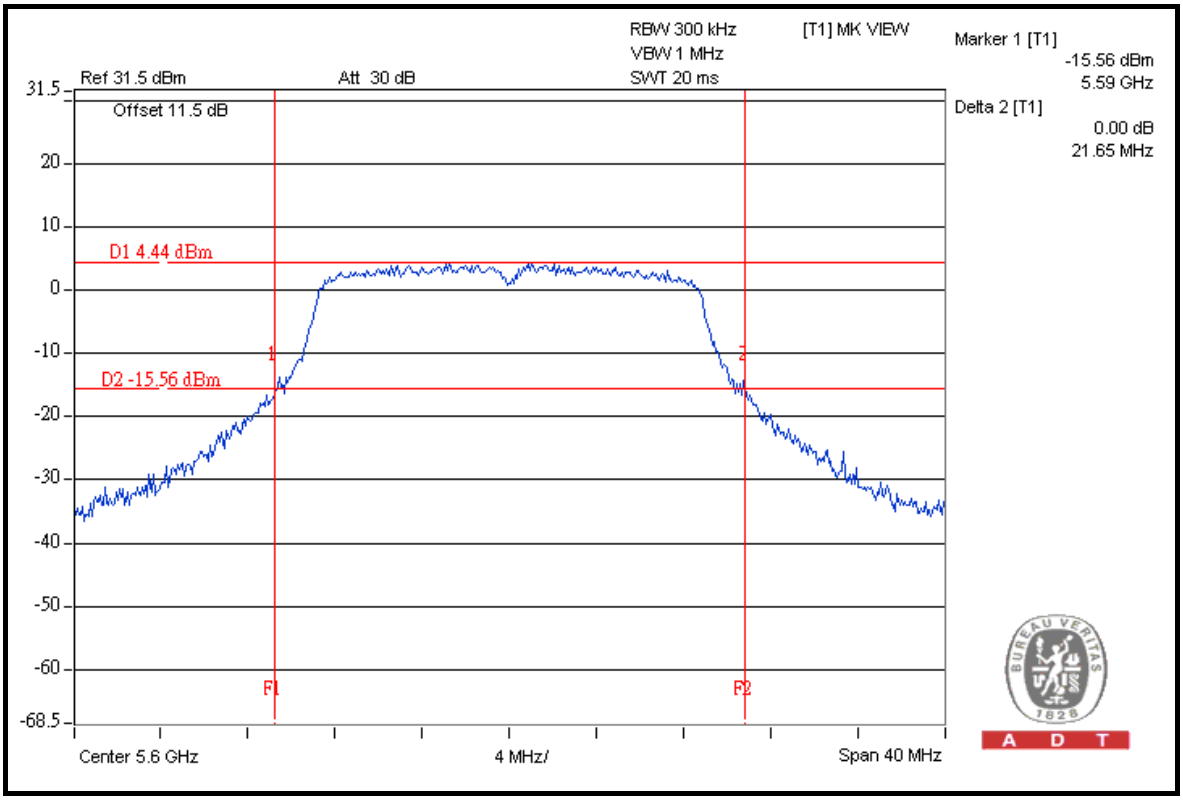
CH 64


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.23 dBm
5.31 GHz
Delta 2 [T1]
0.00 dB
21.25 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 4.77 dBm
D2 -15.23 dBm
F1
F2
Center 5.32 GHz
4 MHz/
Span 40 MHz

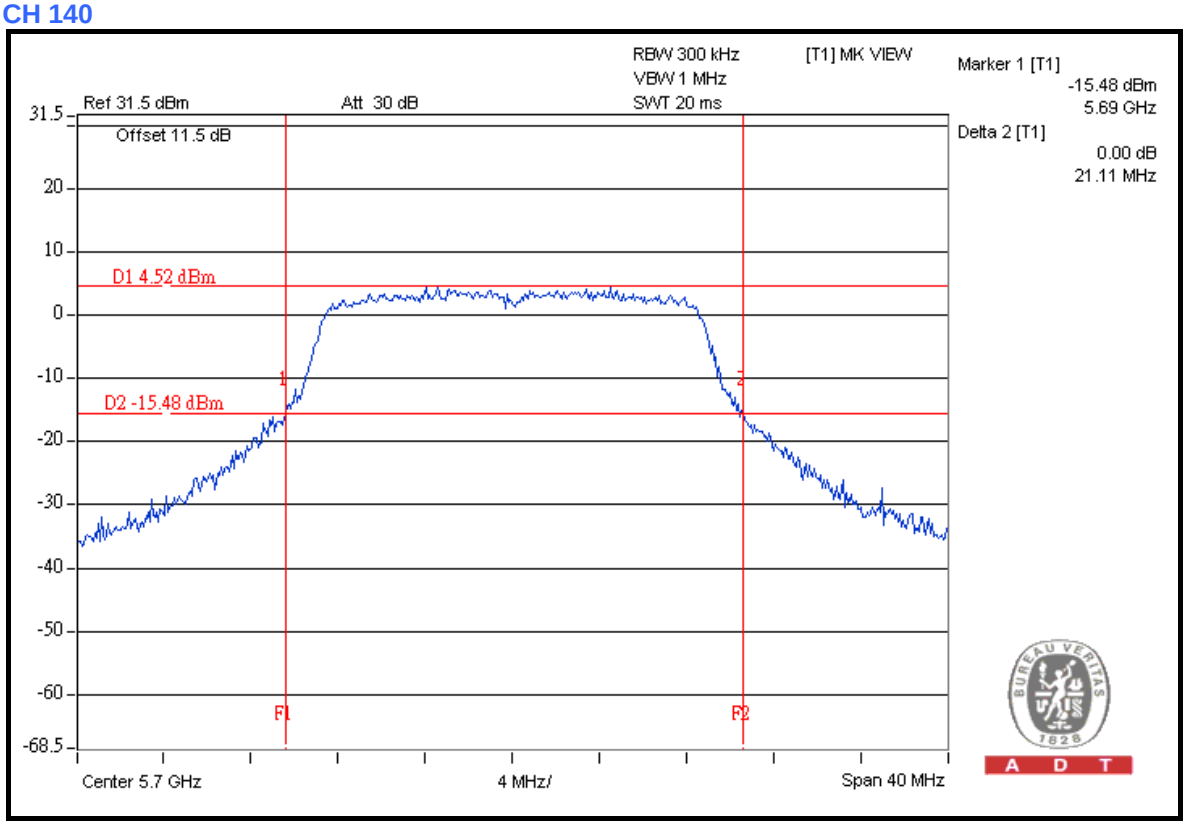
CH 100


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.38 dBm
5.49 GHz
Delta 2 [T1]
0.00 dB
21.34 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 4.62 dBm
D2 -15.38 dBm
F1
F2
Center 5.5 GHz
4 MHz/
Span 40 MHz

CH 120


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.56 dBm
5.59 GHz
Delta 2 [T1]
0.00 dB
21.65 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 4.44 dBm
D2 -15.56 dBm
F1
F2
Center 5.6 GHz
4 MHz/
Span 40 MHz

CH 140

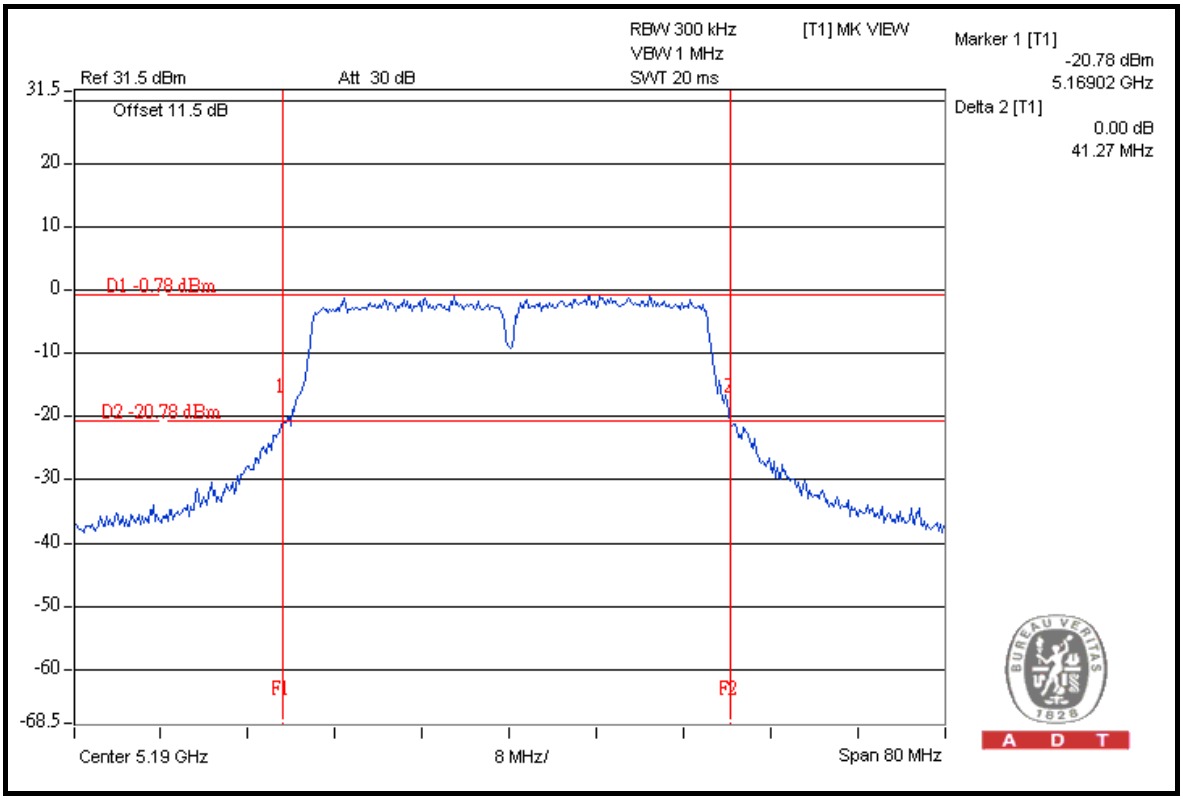

RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-15.48 dBm
5.69 GHz
Delta 2 [T1]
0.00 dB
21.11 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 4.52 dBm
D2 -15.48 dBm
F1
F2
Center 5.7 GHz
4 MHz/
Span 40 MHz

DRAFT 802.11n (40MHz) OFDM MODULATION

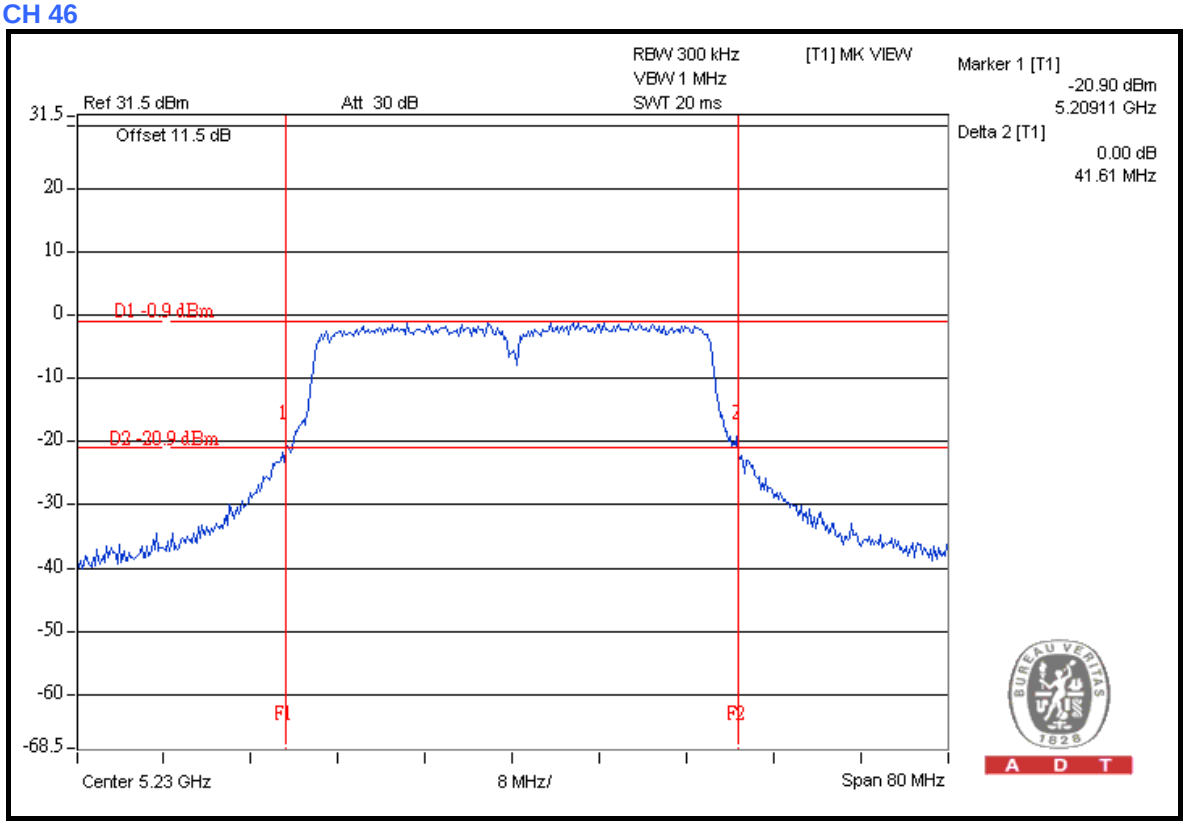
MODULATION TYPE	BPSK	**TRANSFER RATE**	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	23deg.C, 70%RH, 1023hPa
TESTED BY	Brad Wu	**TEST MODE**	**A**

CHANNEL	CHANNEL FREQUENCY (MHz)	20dB BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
38	5190	41.27	41.85	40.98	PASS
46	5230	41.61	41.50	41.06	PASS
54	5270	41.31	41.23	41.03	PASS
62	5310	41.84	42.34	41.25	PASS
102	5510	41.33	41.22	40.89	PASS
118	5590	41.06	40.76	41.28	PASS
134	5670	41.42	43.75	41.67	PASS

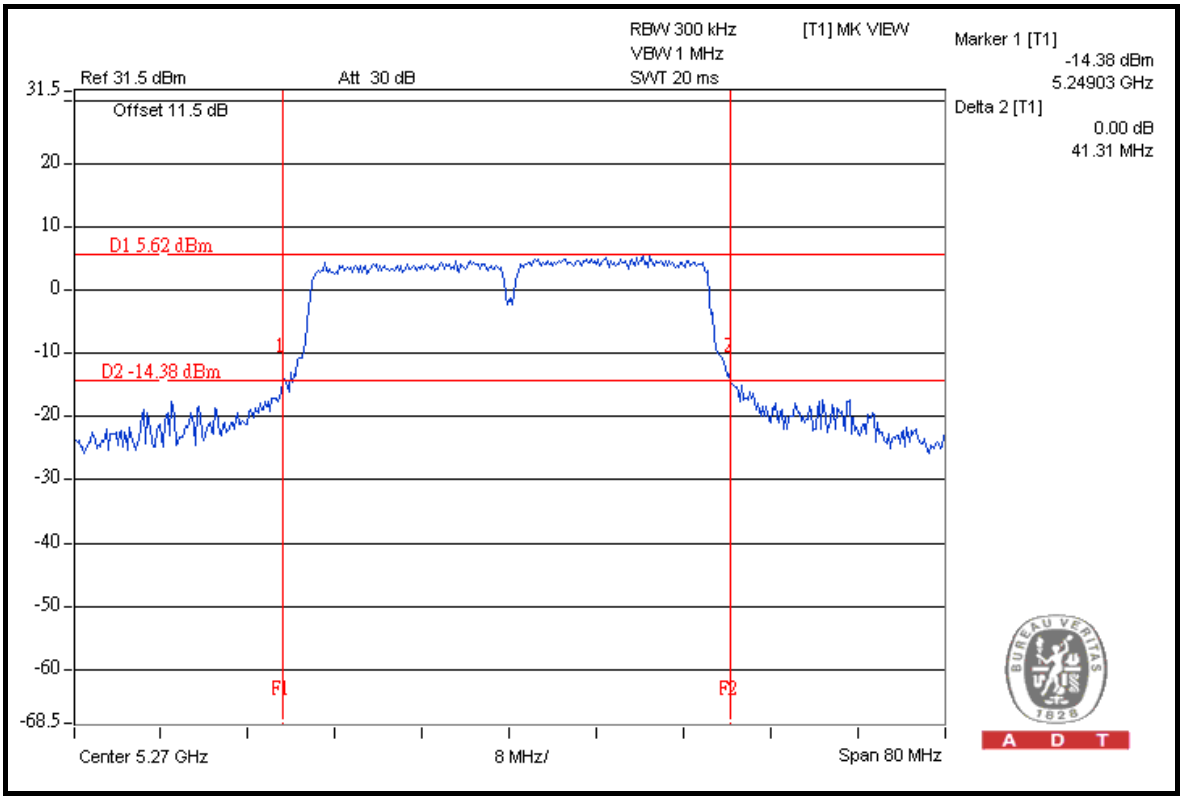
CHAIN 0: CH 38



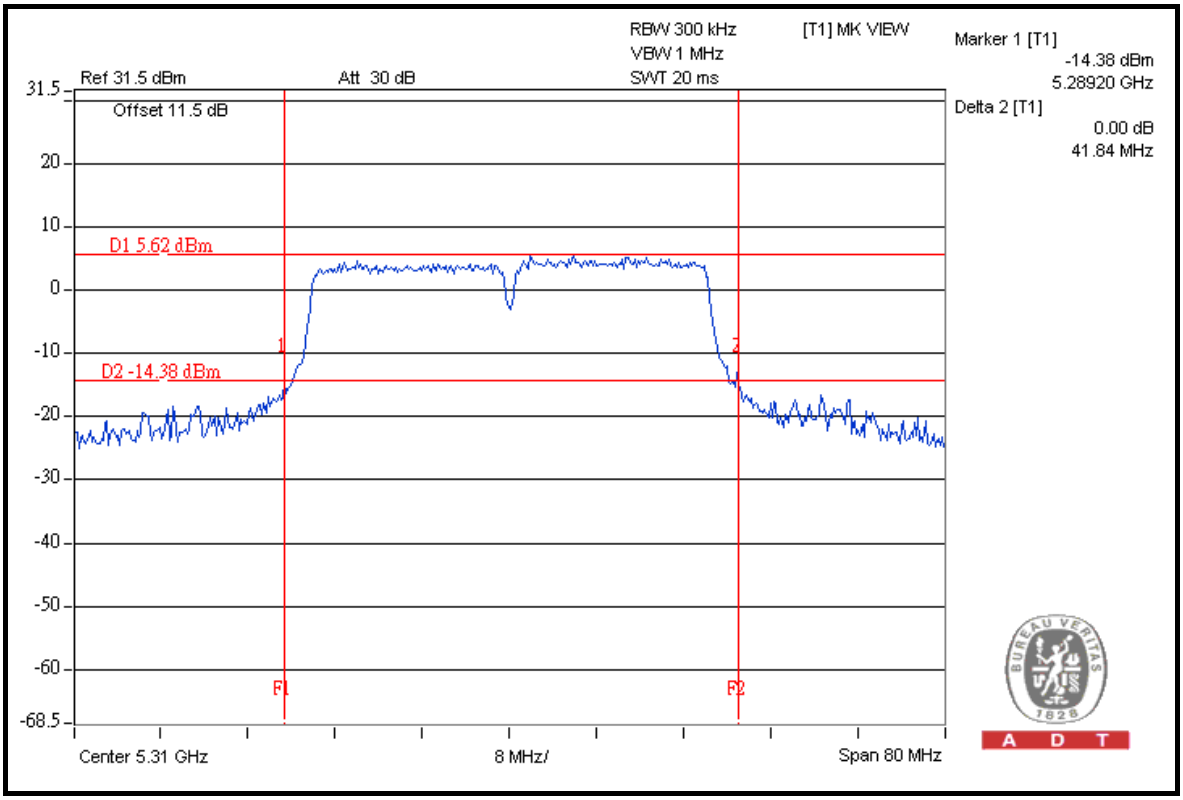
CH 46



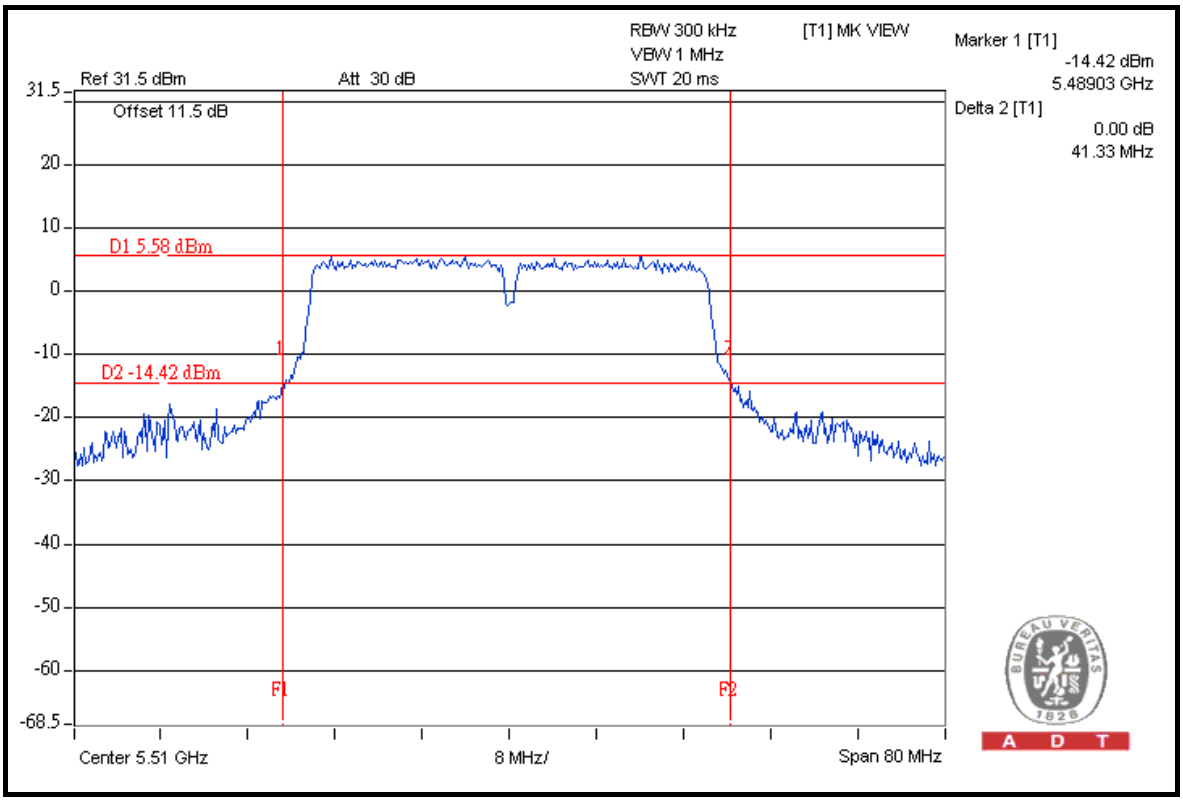
CH 54


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-14.38 dBm
5.24903 GHz
Delta 2 [T1]
0.00 dB
41.31 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 5.62 dBm
D2 -14.38 dBm
F1
F2
Center 5.27 GHz
8 MHz/
Span 80 MHz

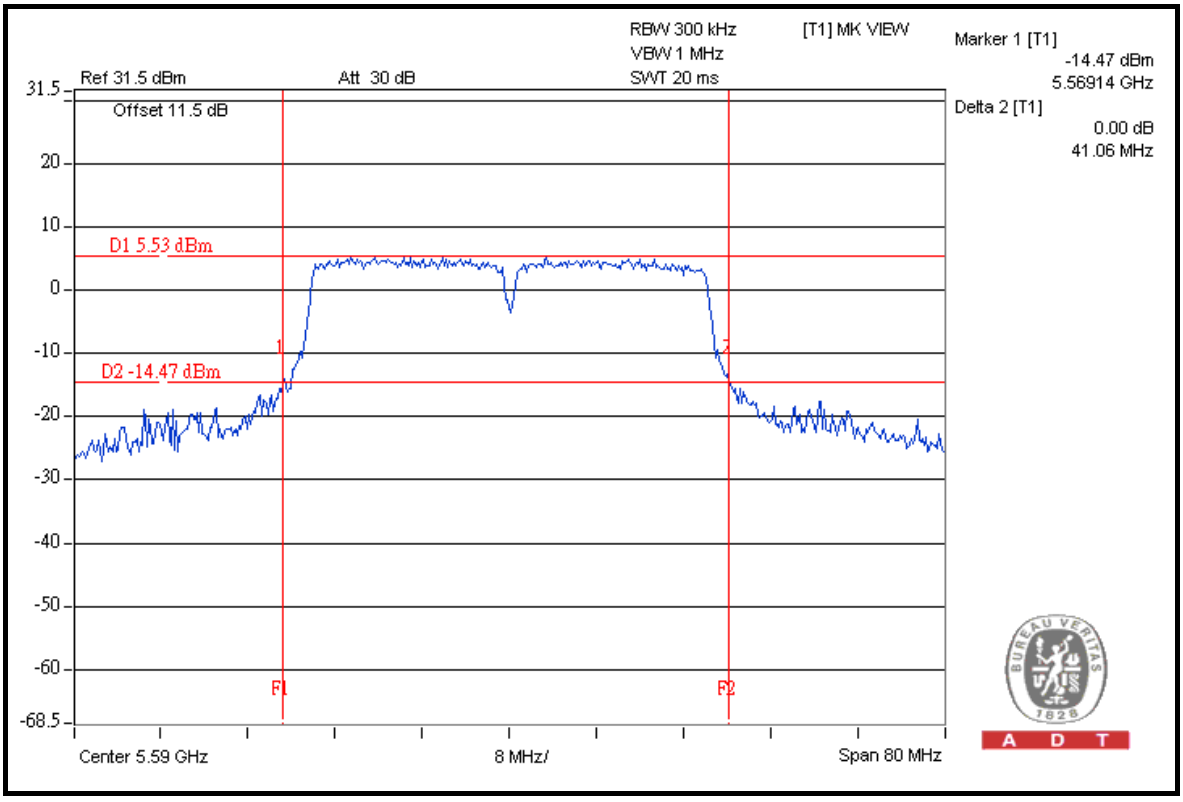
CH 62


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-14.38 dBm
5.28920 GHz
Delta 2 [T1]
0.00 dB
41.84 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 5.62 dBm
D2 -14.38 dBm
F1
F2
Center 5.31 GHz
8 MHz/
Span 80 MHz

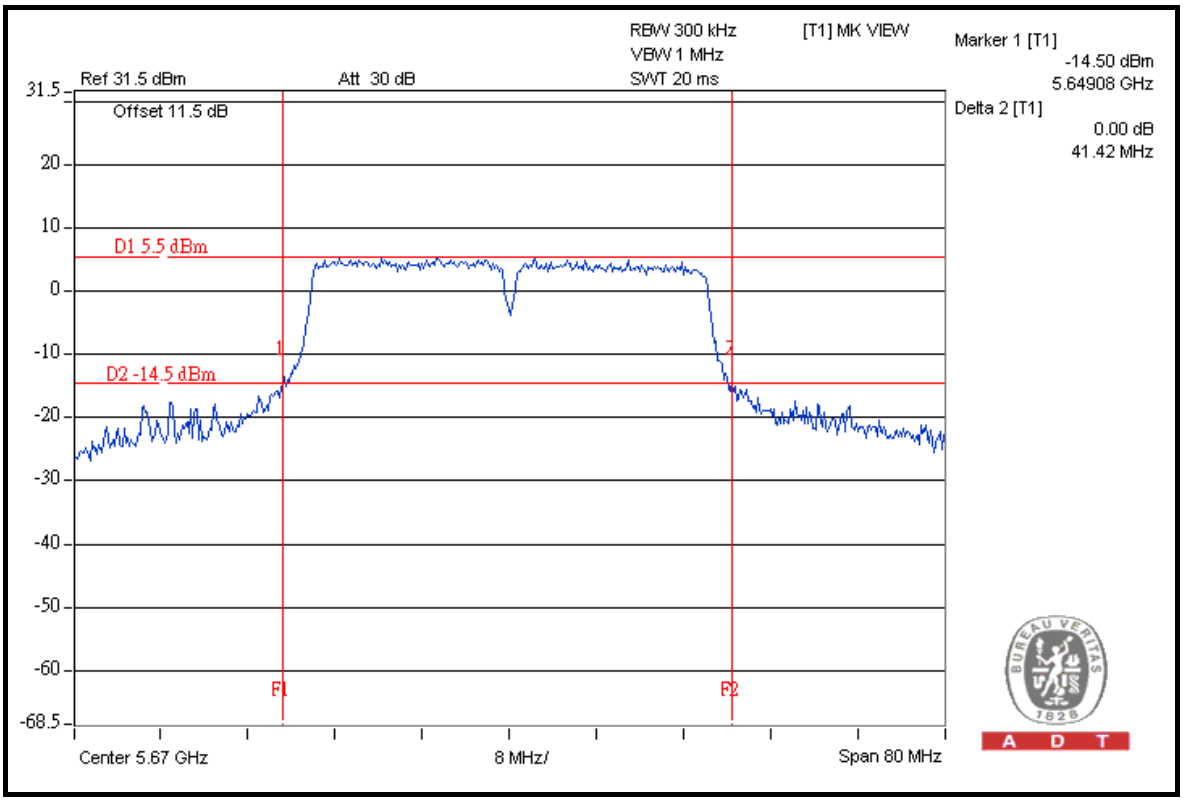
CH 102


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-14.42 dBm
5.48903 GHz
Delta 2 [T1]
0.00 dB
41.33 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 5.58 dBm
D2 -14.42 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.51 GHz
8 MHz/
Span 80 MHz

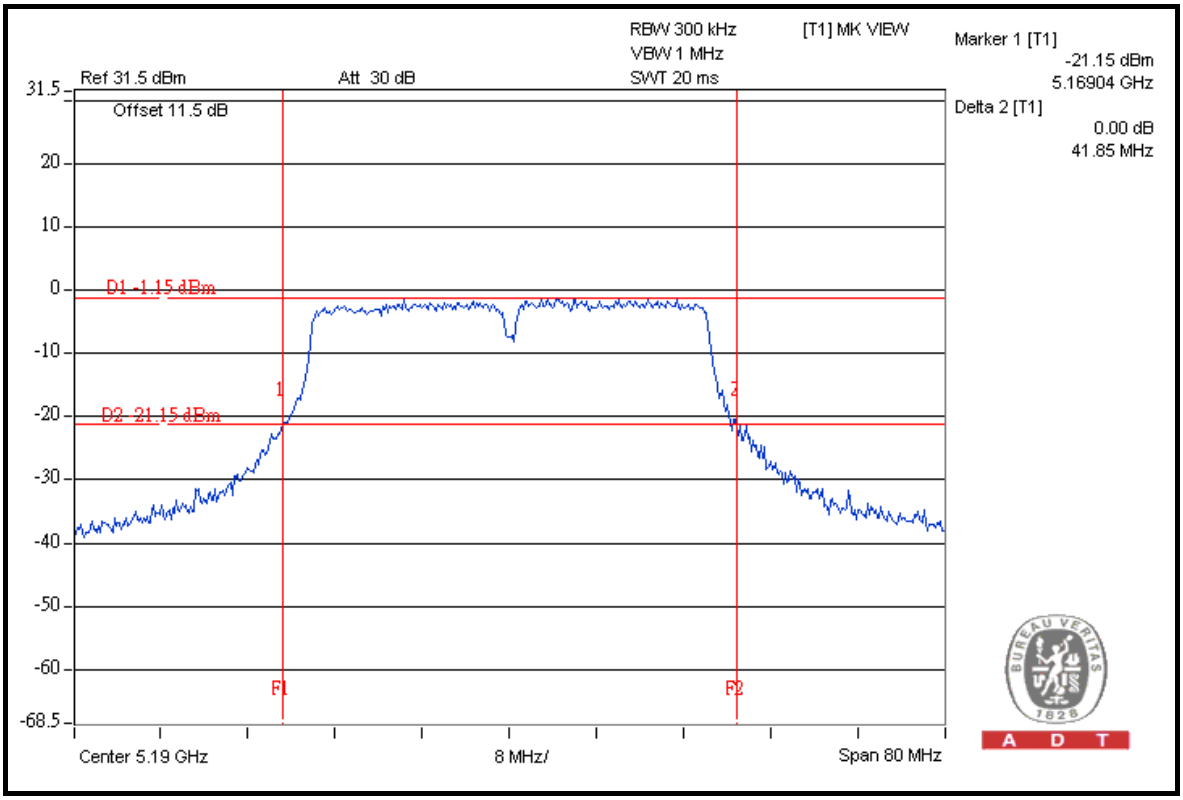
CH 118


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-14.47 dBm
5.56914 GHz
Delta 2 [T1]
0.00 dB
41.06 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 5.53 dBm
D2 -14.47 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.59 GHz
8 MHz/
Span 80 MHz

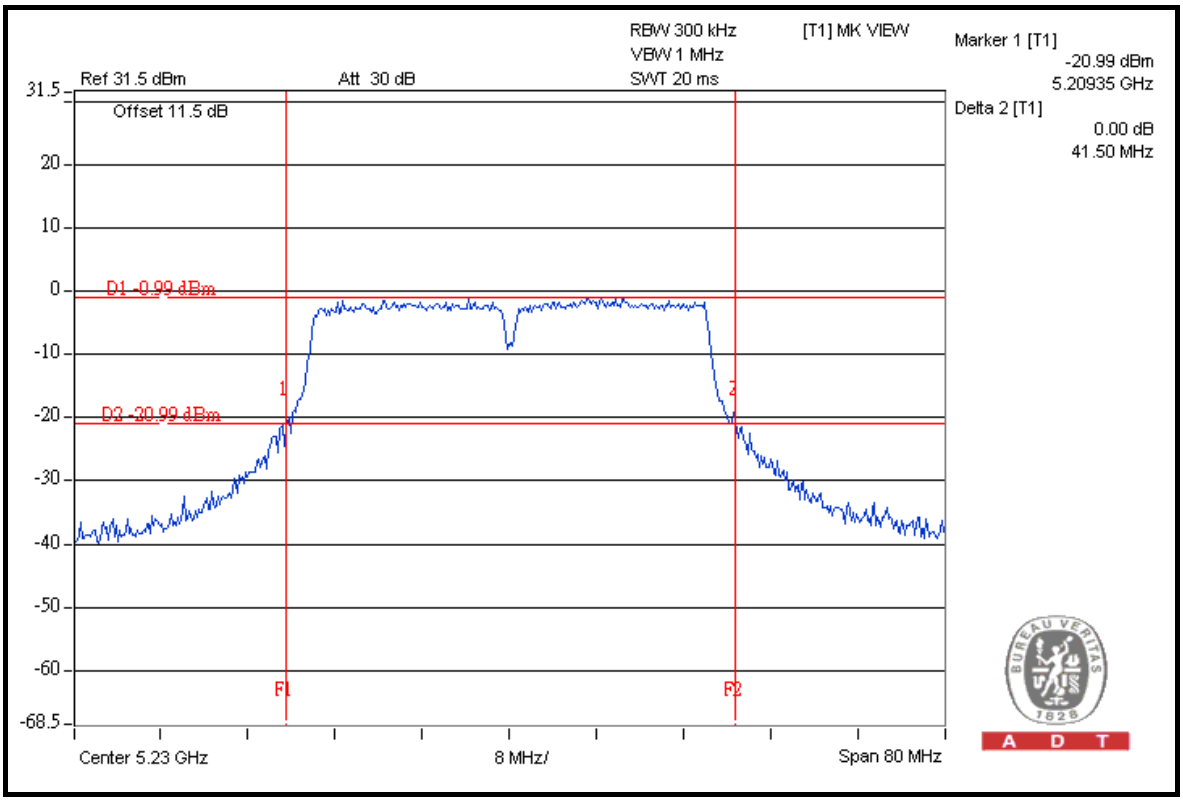
CH 134



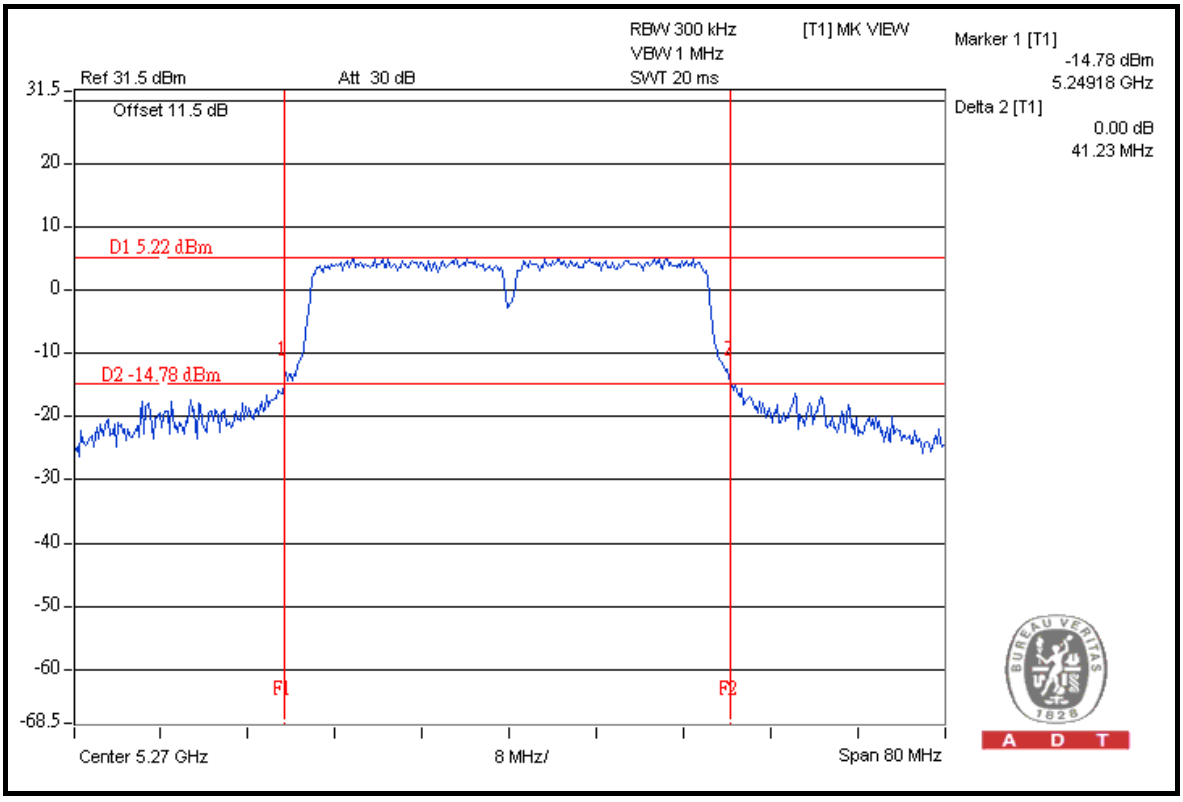
CHAIN 1: CH 38



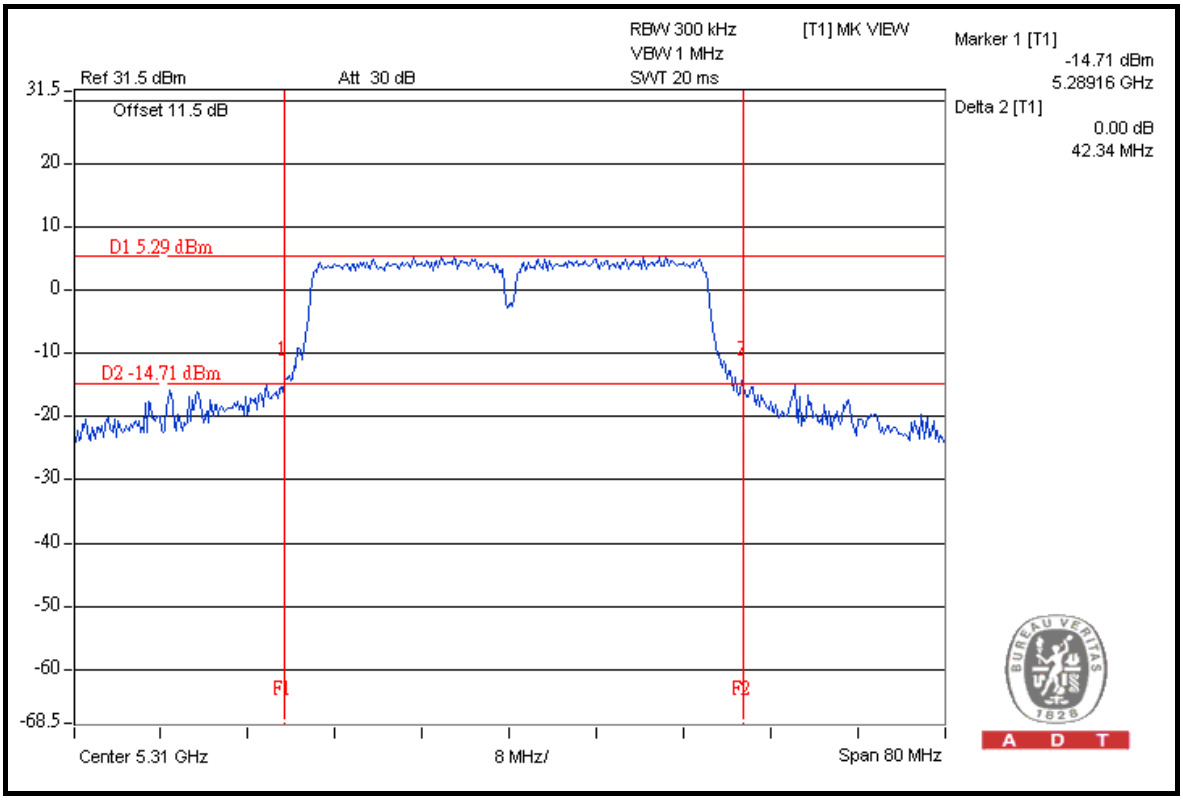
CH 46


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-20.99 dBm
5.20935 GHz
Delta 2 [T1]
0.00 dB
41.50 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 -0.99 dBm
D2 -20.99 dBm
F1
F2
Center 5.23 GHz
8 MHz/
Span 80 MHz

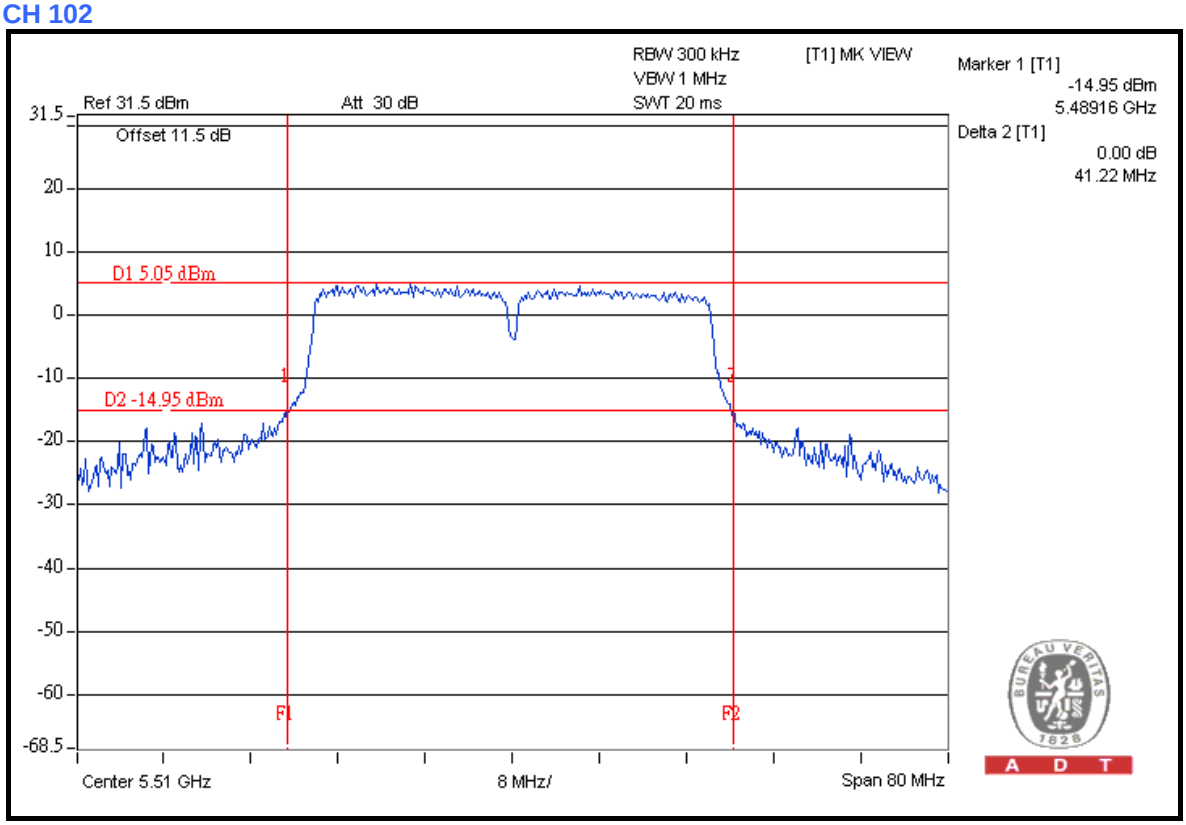
CH 54


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-14.78 dBm
5.24918 GHz
Delta 2 [T1]
0.00 dB
41.23 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 5.22 dBm
D2 -14.78 dBm
F1
F2
Center 5.27 GHz
8 MHz/
Span 80 MHz

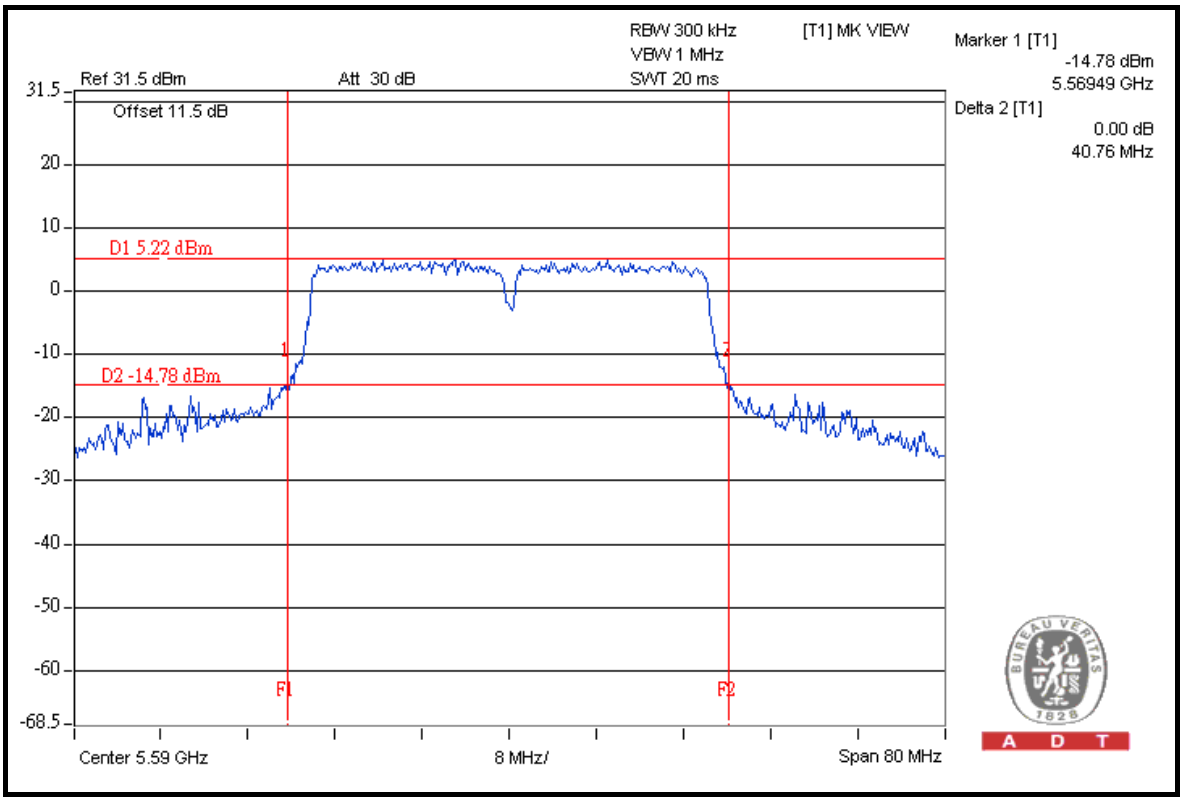
CH 62


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-14.71 dBm
5.28916 GHz
Delta 2 [T1]
0.00 dB
42.34 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 5.29 dBm
D2 -14.71 dBm
F1
F2
Center 5.31 GHz
8 MHz/
Span 80 MHz

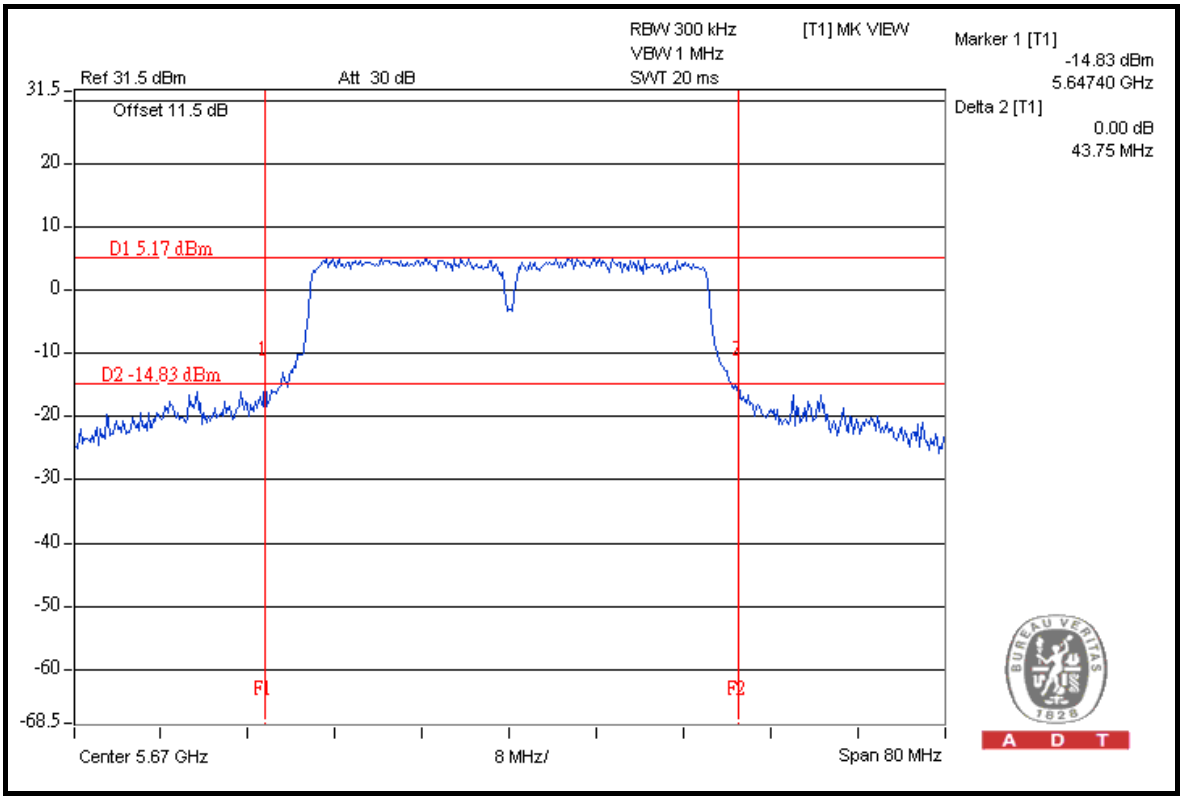
CH 102


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-14.95 dBm
5.48916 GHz
Delta 2 [T1]
0.00 dB
41.22 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 5.05 dBm
D2 -14.95 dBm
F1
F2
Center 5.51 GHz
8 MHz/
Span 80 MHz

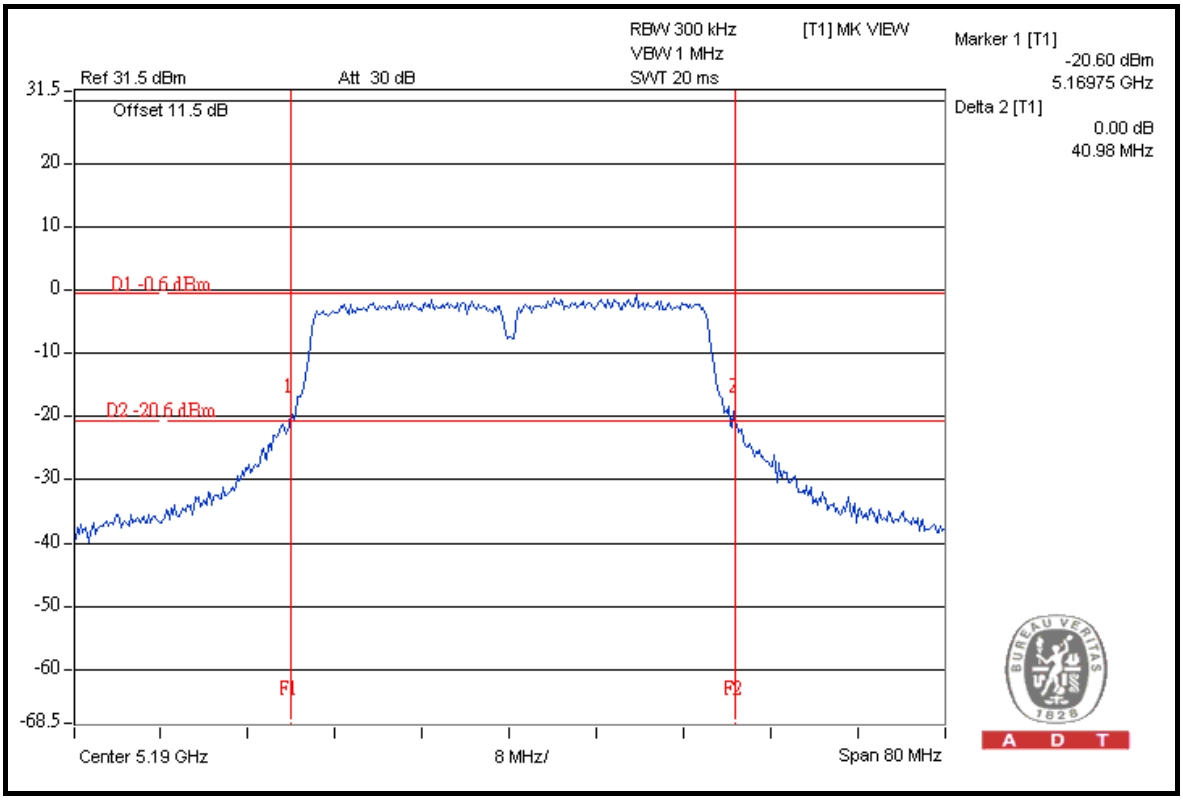
CH 118


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-14.78 dBm
5.56949 GHz
Delta 2 [T1]
0.00 dB
40.76 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 5.22 dBm
D2 -14.78 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.59 GHz
8 MHz/
Span 80 MHz

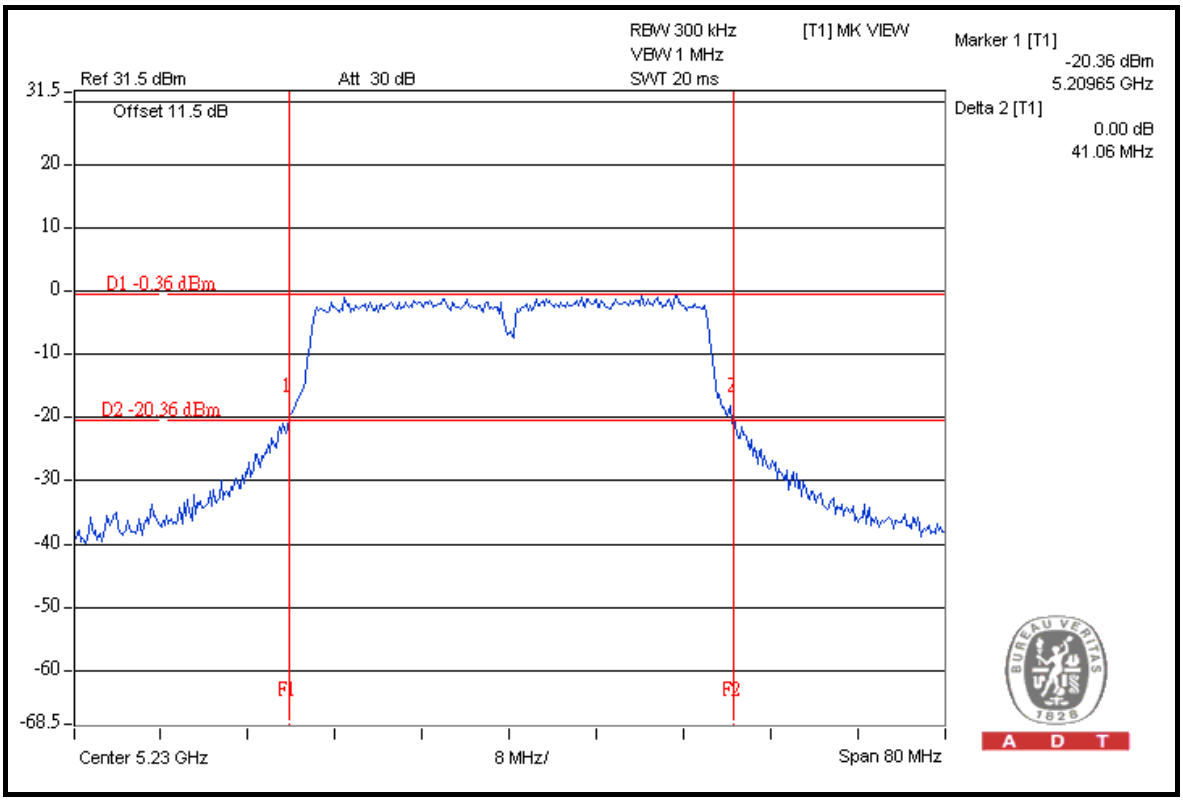
CH 134


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-14.83 dBm
5.64740 GHz
Delta 2 [T1]
0.00 dB
43.75 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 5.17 dBm
D2 -14.83 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.67 GHz
8 MHz/
Span 80 MHz

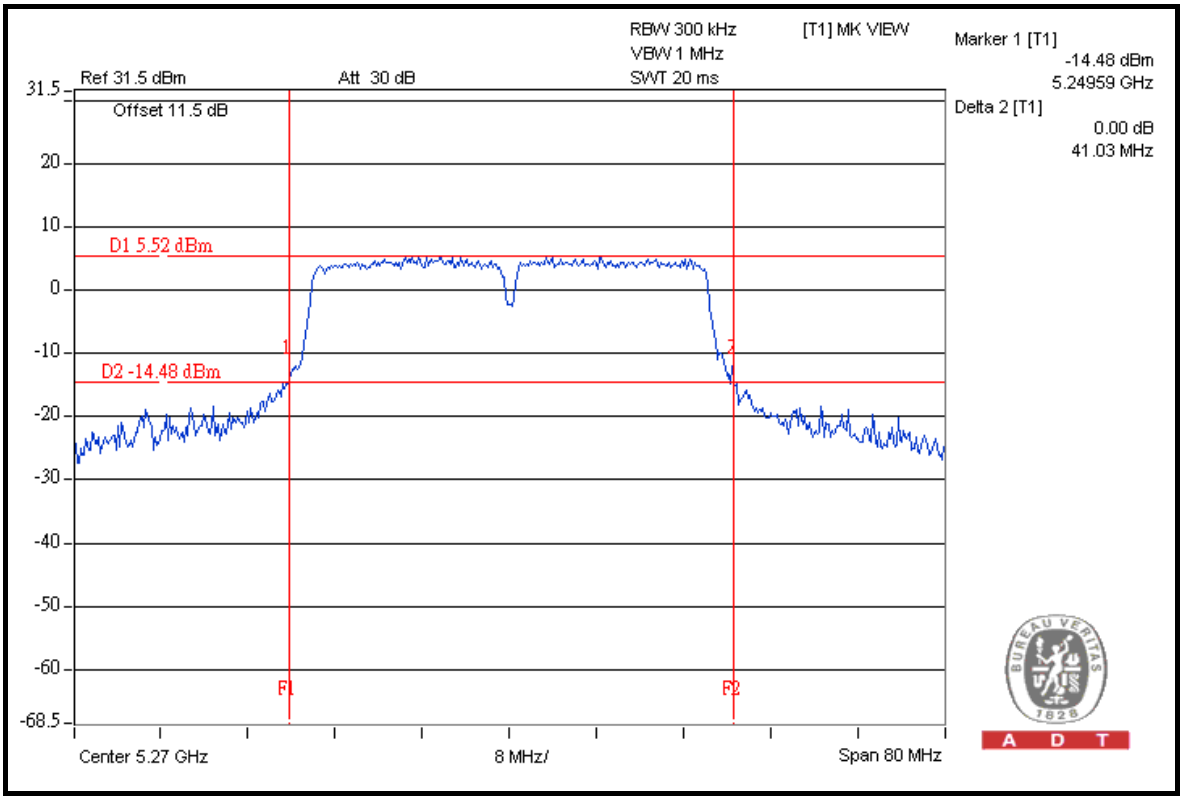
CHAIN 2: CH 38



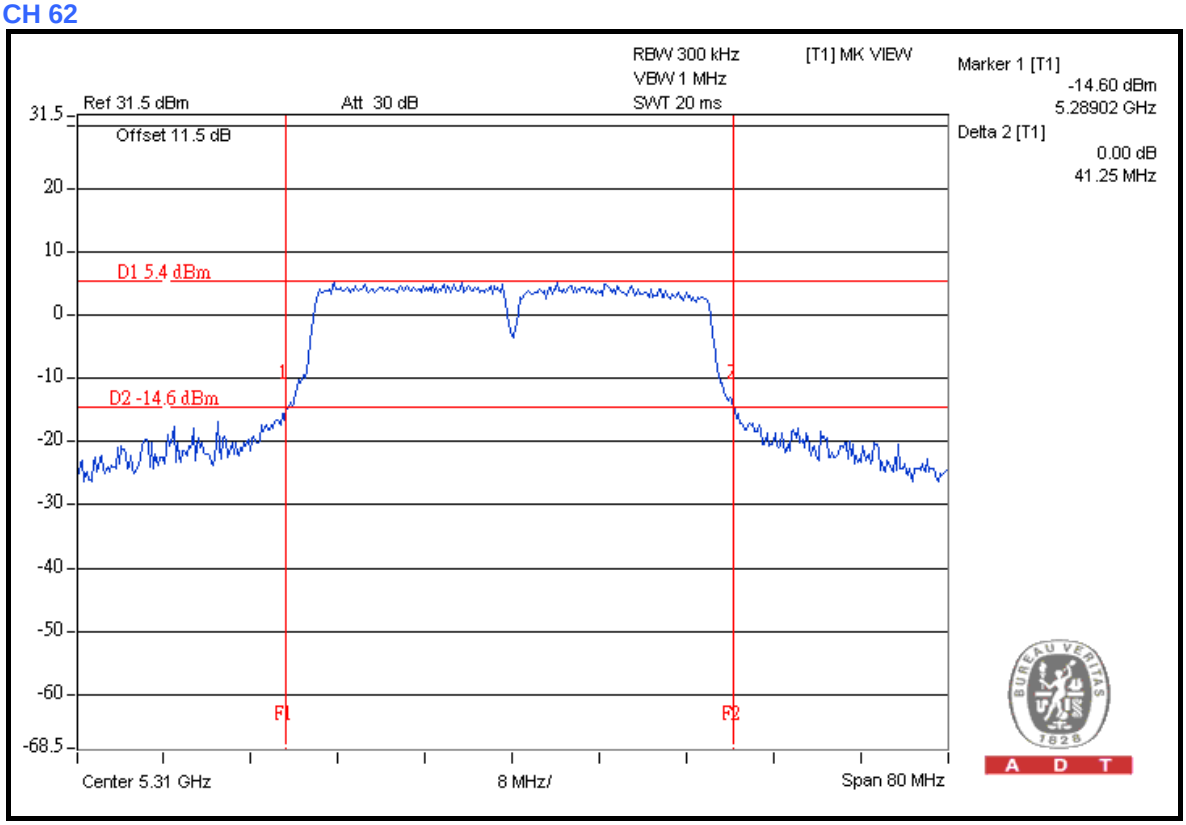
CH 46



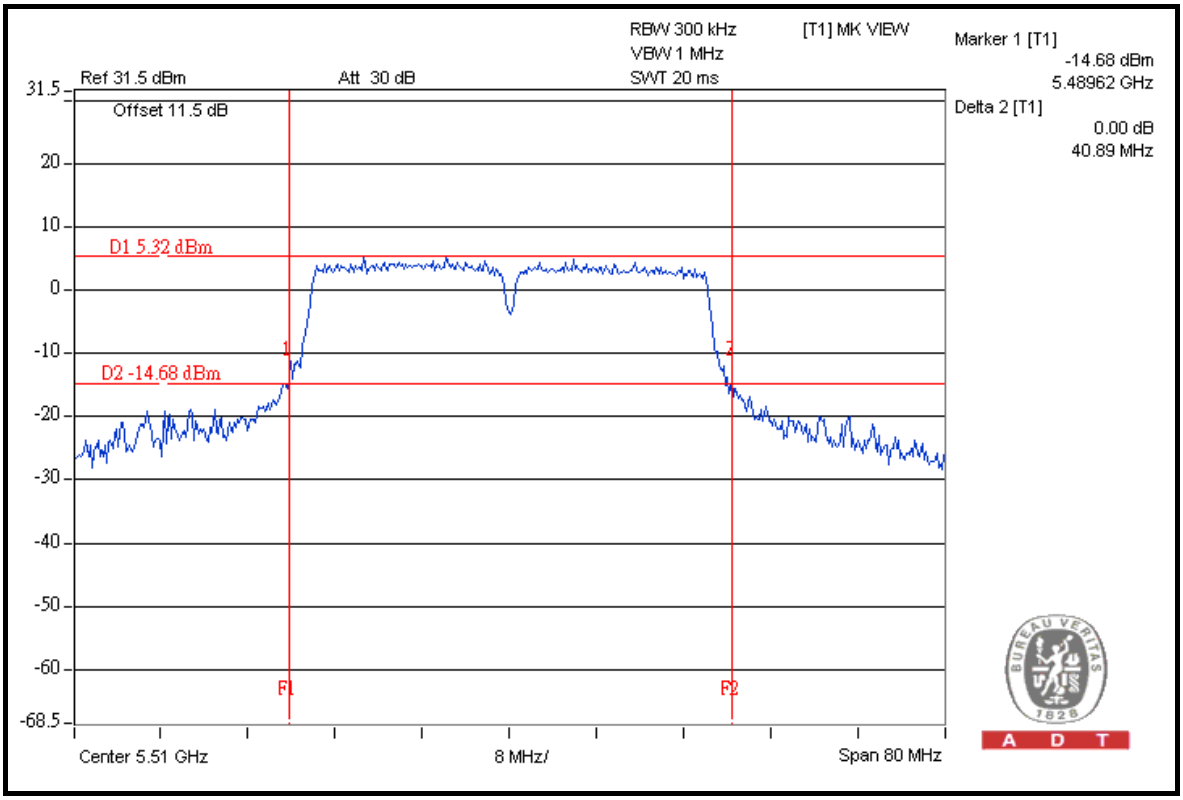
CH 54


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-14.48 dBm
5.24959 GHz
Delta 2 [T1]
0.00 dB
41.03 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 5.52 dBm
D2 -14.48 dBm
F1
F2
Center 5.27 GHz
8 MHz/
Span 80 MHz

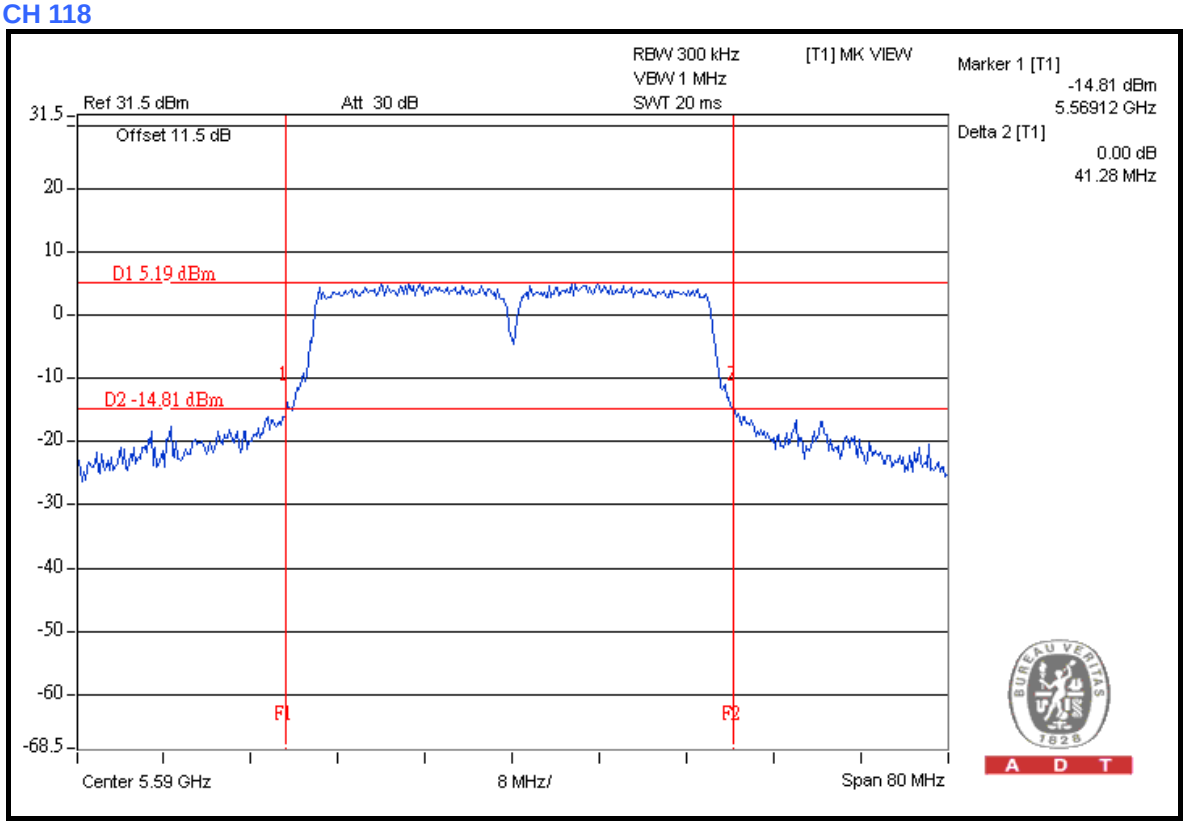
CH 62


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-14.60 dBm
5.28902 GHz
Delta 2 [T1]
0.00 dB
41.25 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 5.4 dBm
D2 -14.6 dBm
F1
F2
Center 5.31 GHz
8 MHz/
Span 80 MHz

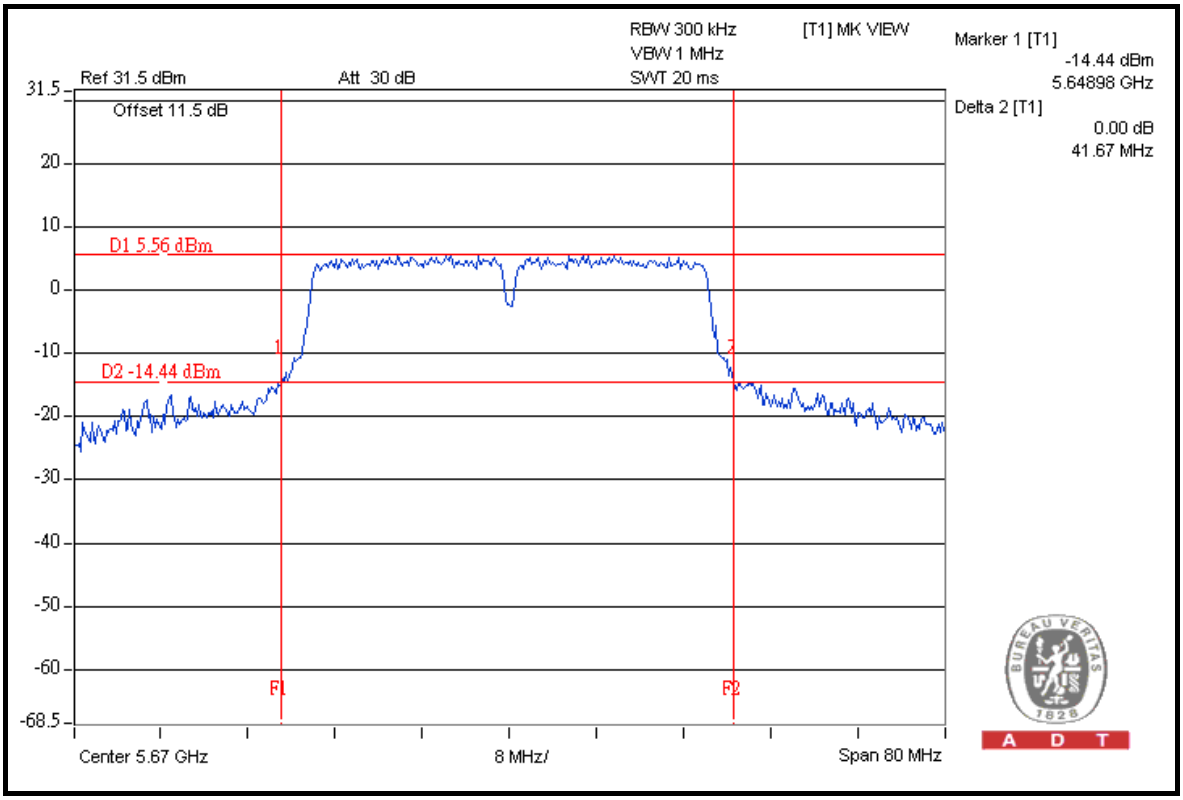
CH 102


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-14.68 dBm
5.48962 GHz
Delta 2 [T1]
0.00 dB
40.89 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 5.32 dBm
D2 -14.68 dBm
F1
F2
Center 5.51 GHz
8 MHz/
Span 80 MHz

CH 118


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-14.81 dBm
5.56912 GHz
Delta 2 [T1]
0.00 dB
41.28 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 5.19 dBm
D2 -14.81 dBm
F1
F2
Center 5.59 GHz
8 MHz/
Span 80 MHz

CH 134

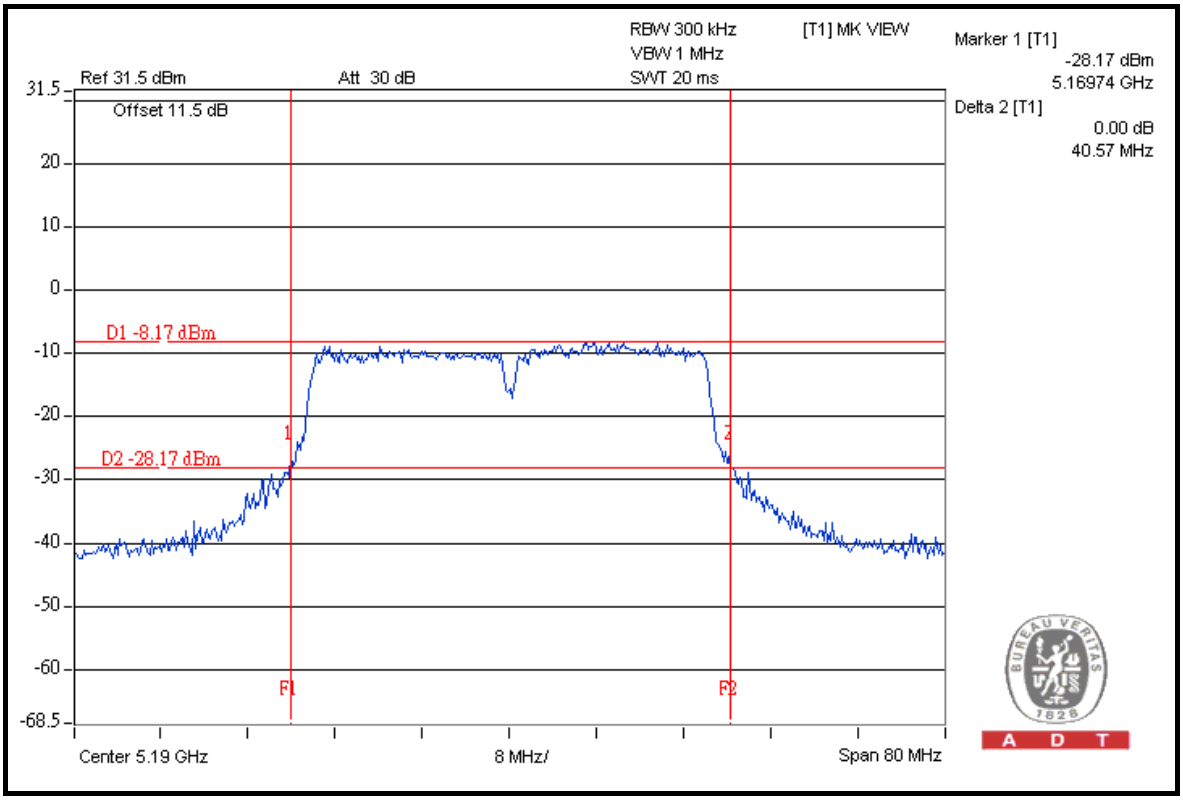

RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-14.44 dBm
5.64898 GHz
Delta 2 [T1]
0.00 dB
41.67 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 5.56 dBm
D2 -14.44 dBm
F1
F2
Center 5.67 GHz
8 MHz/
Span 80 MHz

DRAFT 802.11n (40MHz) OFDM MODULATION

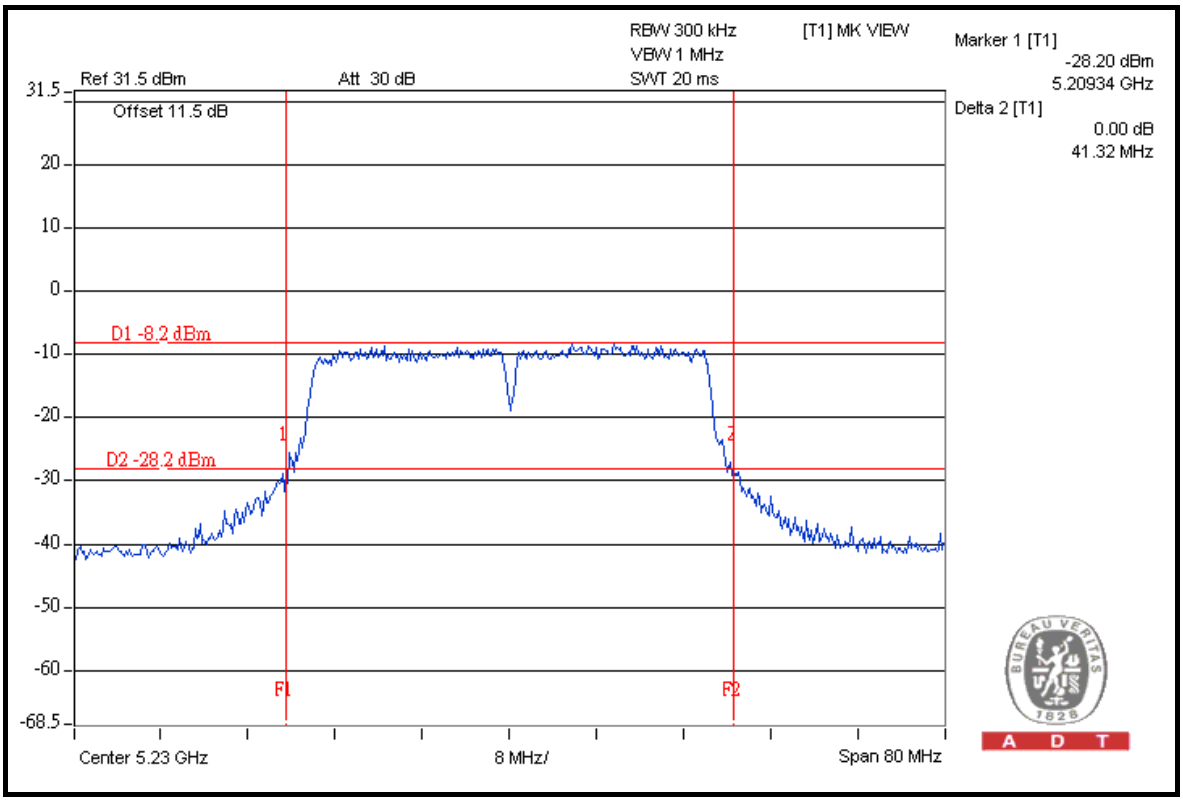
MODULATION TYPE	BPSK	**TRANSFER RATE**	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	23deg.C, 70%RH, 1023hPa
TESTED BY	Brad Wu	**TEST MODE**	**C**

CHANNEL	CHANNEL FREQUENCY (MHz)	20dBc OCCUPIED BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
38	5190	40.57	40.53	PASS
46	5230	41.32	40.73	PASS
54	5270	41.07	41.20	PASS
62	5310	41.32	40.64	PASS
102	5510	40.23	41.11	PASS
118	5590	40.50	40.92	PASS
134	5670	41.00	41.27	PASS

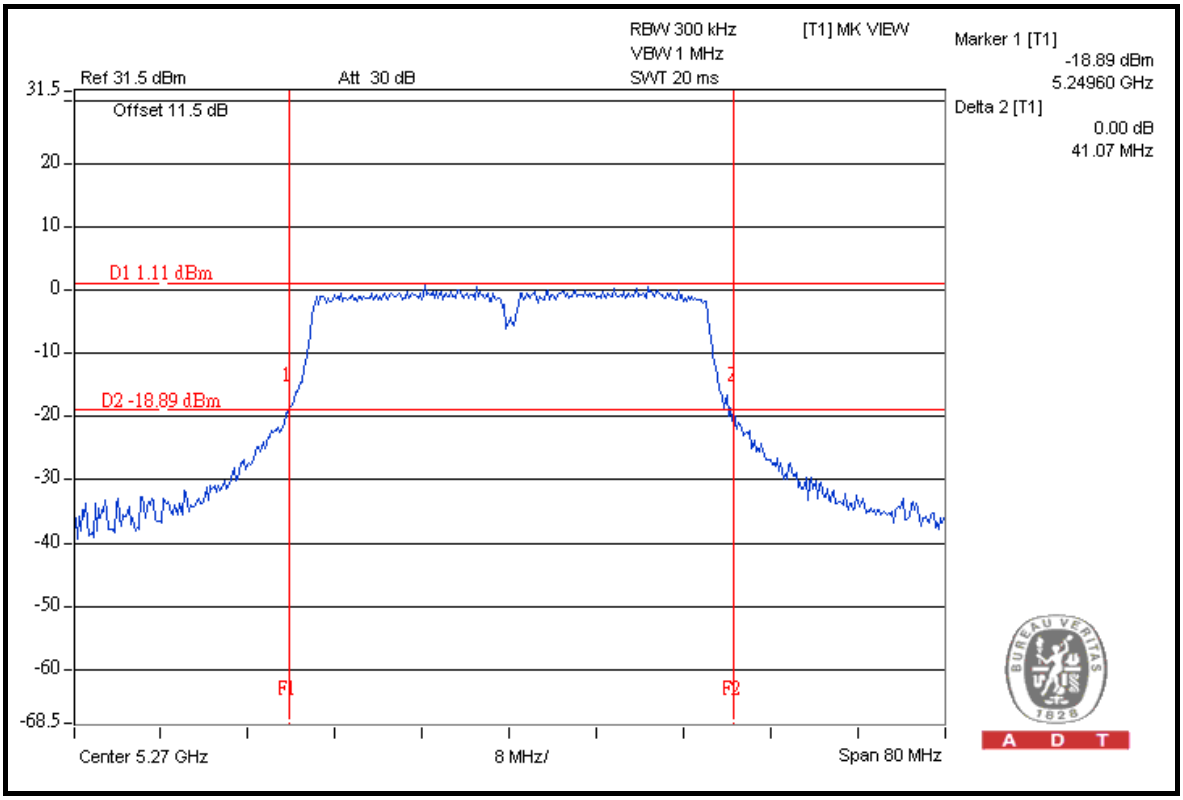
CHAIN 0: CH 38



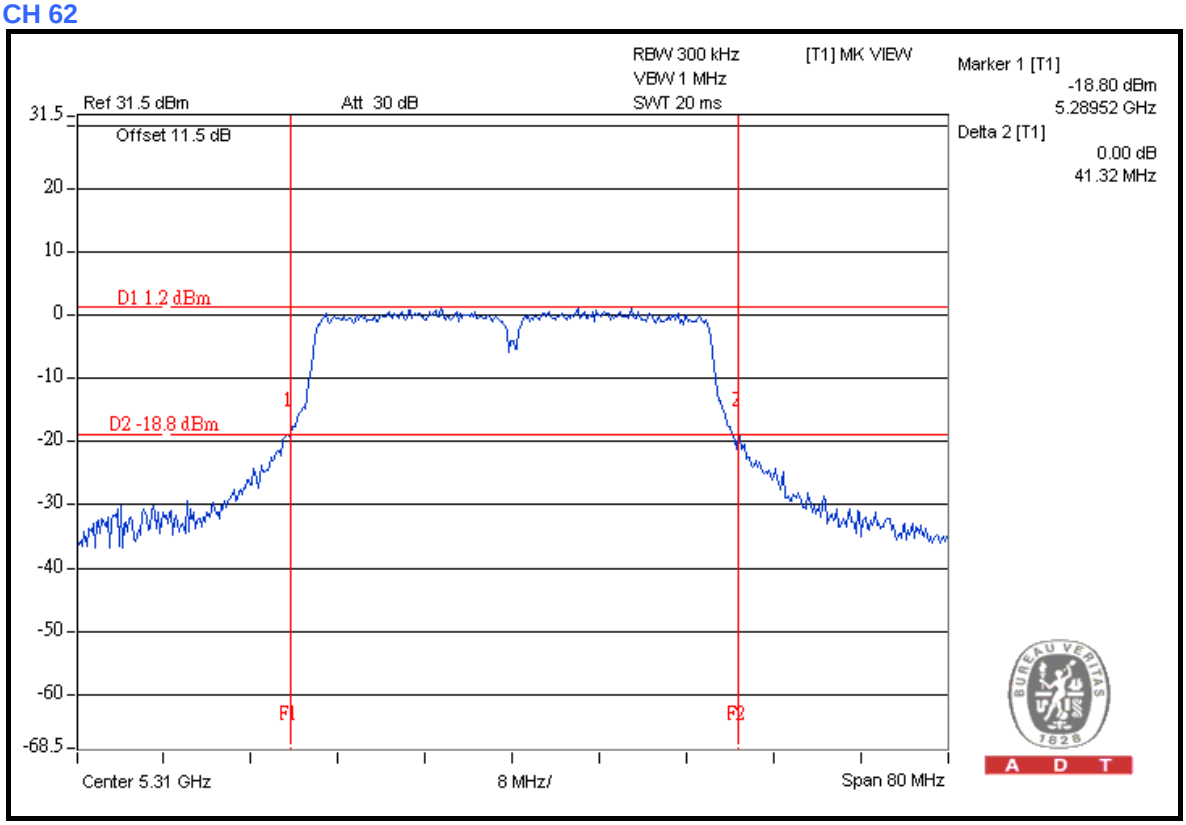
CH 46



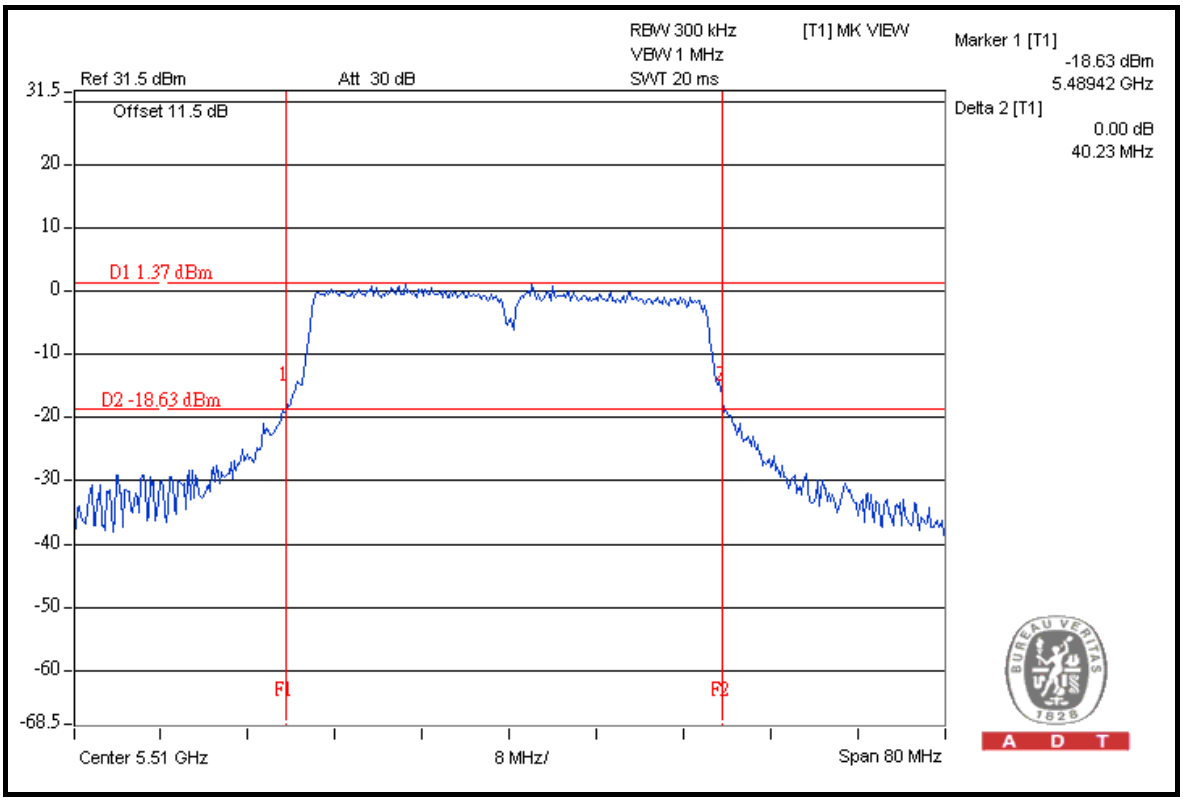
CH 54


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-18.89 dBm
5.24960 GHz
Delta 2 [T1]
0.00 dB
41.07 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 1.11 dBm
D2 -18.89 dBm
1
2
F1
F2
Center 5.27 GHz
8 MHz/
Span 80 MHz

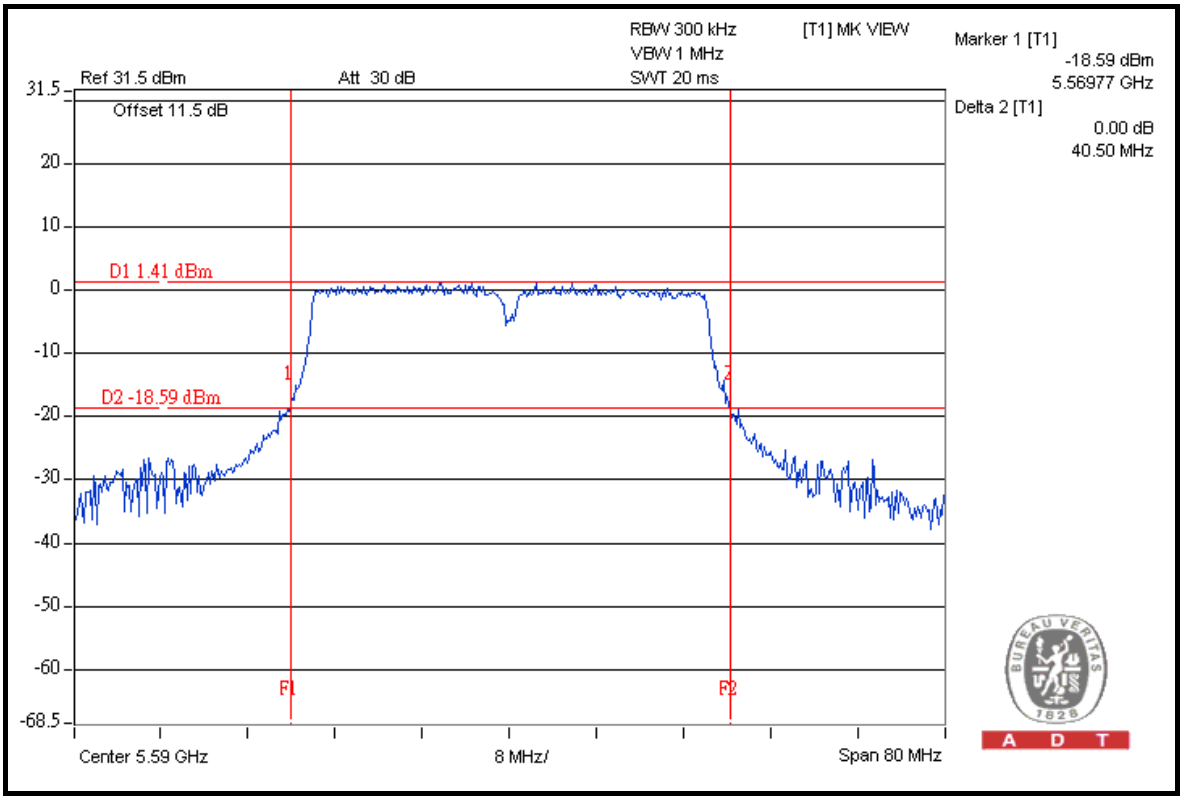
CH 62


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-18.80 dBm
5.28952 GHz
Delta 2 [T1]
0.00 dB
41.32 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 1.2 dBm
D2 -18.8 dBm
1
2
F1
F2
Center 5.31 GHz
8 MHz/
Span 80 MHz

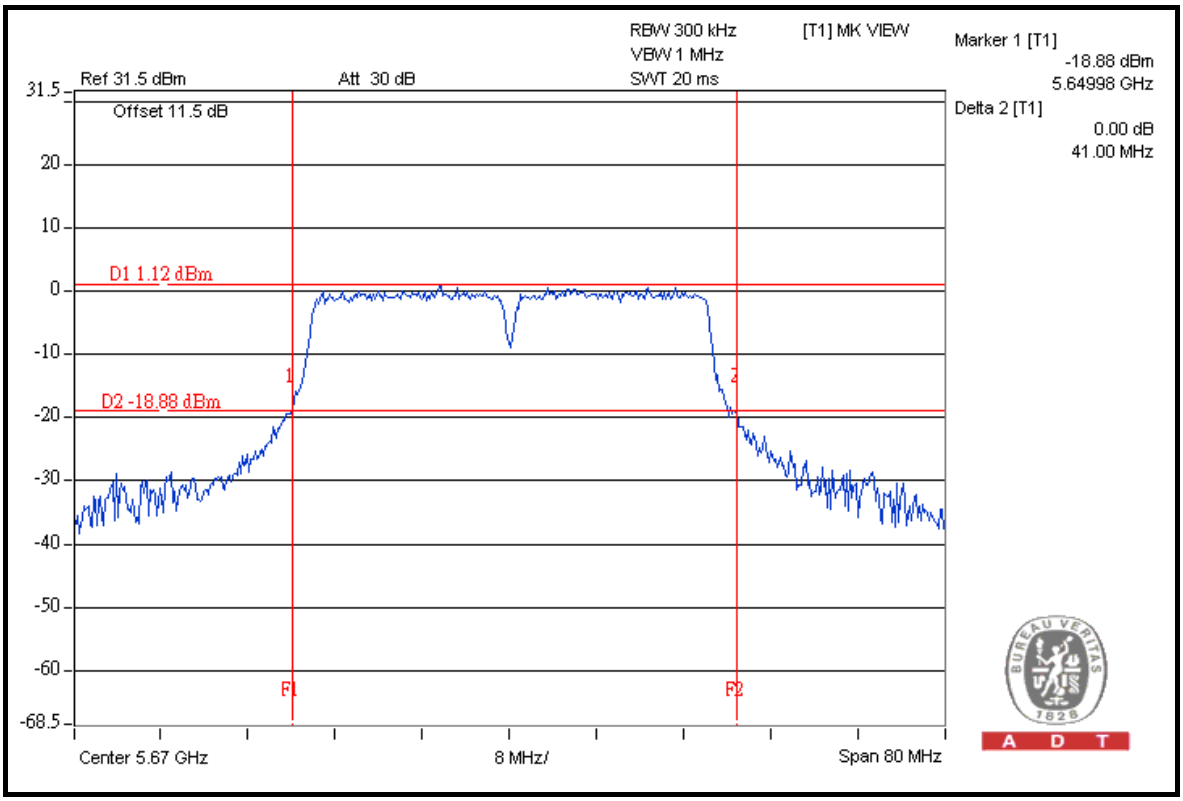
CH 102


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-18.63 dBm
5.48942 GHz
Delta 2 [T1]
0.00 dB
40.23 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 1.37 dBm
D2 -18.63 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.51 GHz
8 MHz/
Span 80 MHz

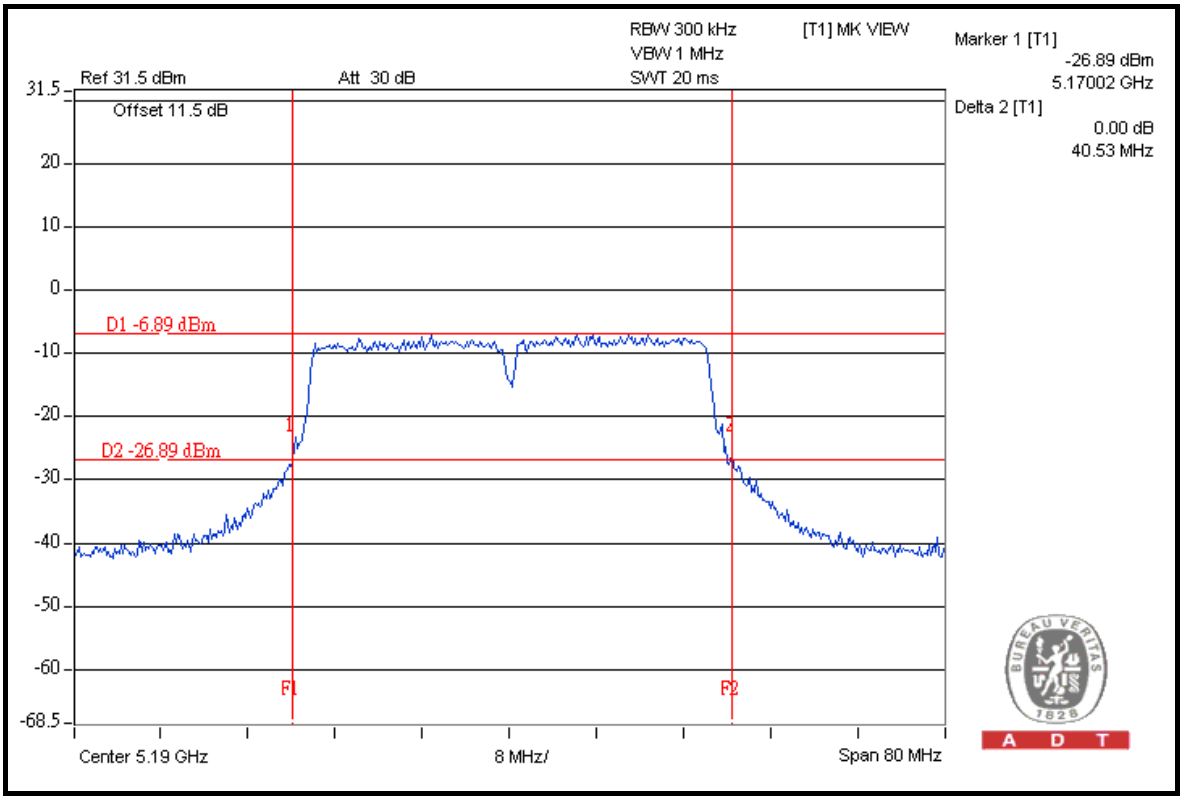
CH 118


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-18.59 dBm
5.56977 GHz
Delta 2 [T1]
0.00 dB
40.50 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
D1 1.41 dBm
D2 -18.59 dBm
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
F1
F2
Center 5.59 GHz
8 MHz/
Span 80 MHz

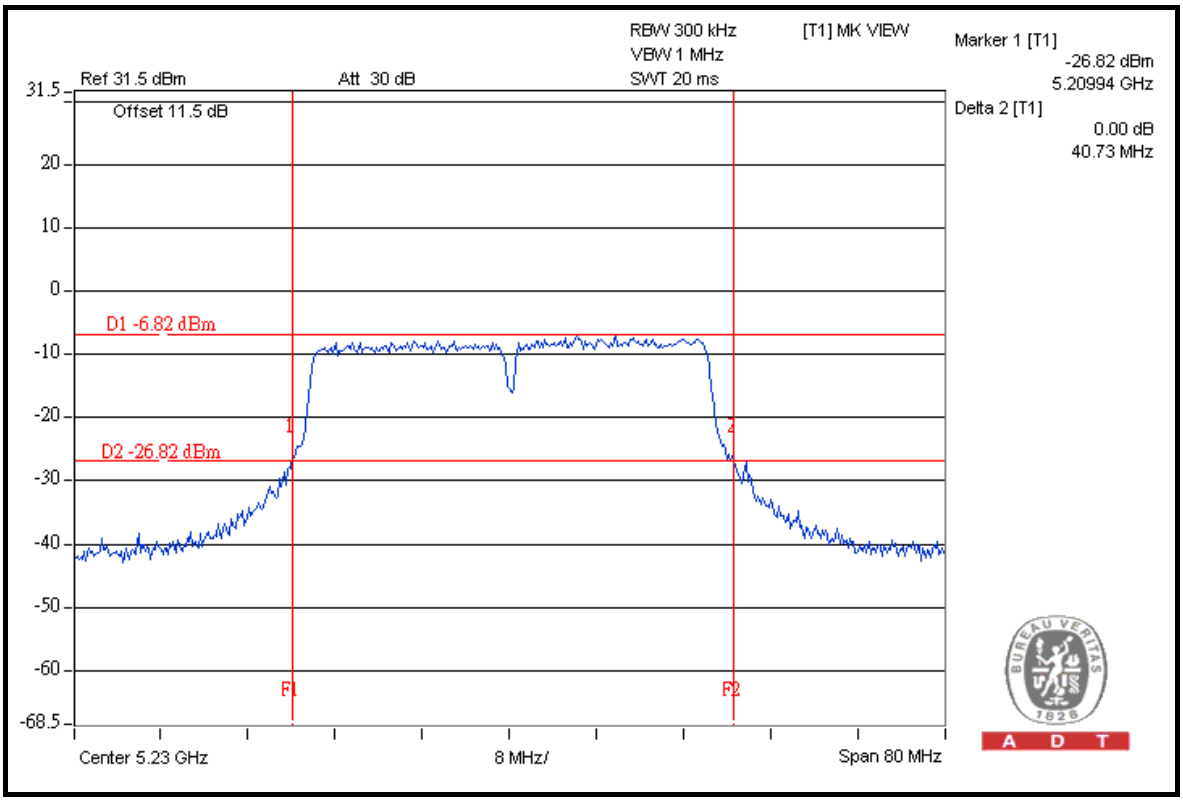
CH 134



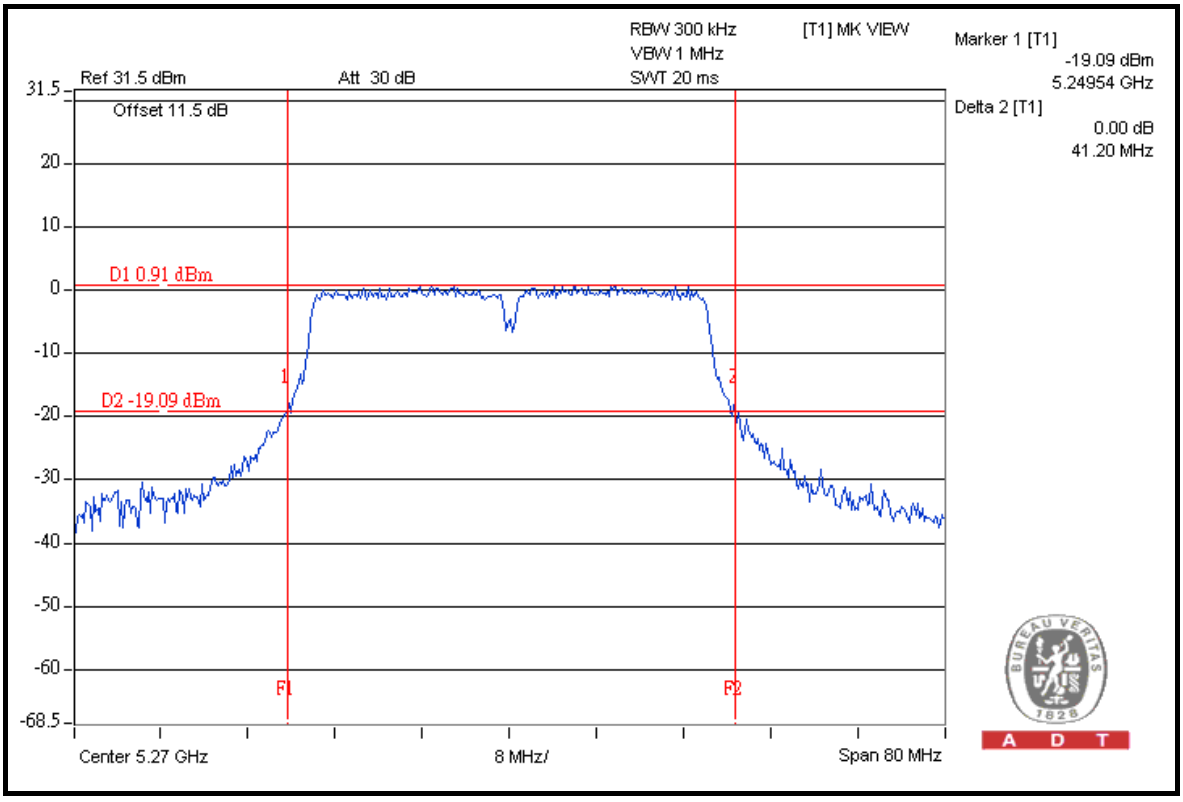
CHAIN 1: CH 38



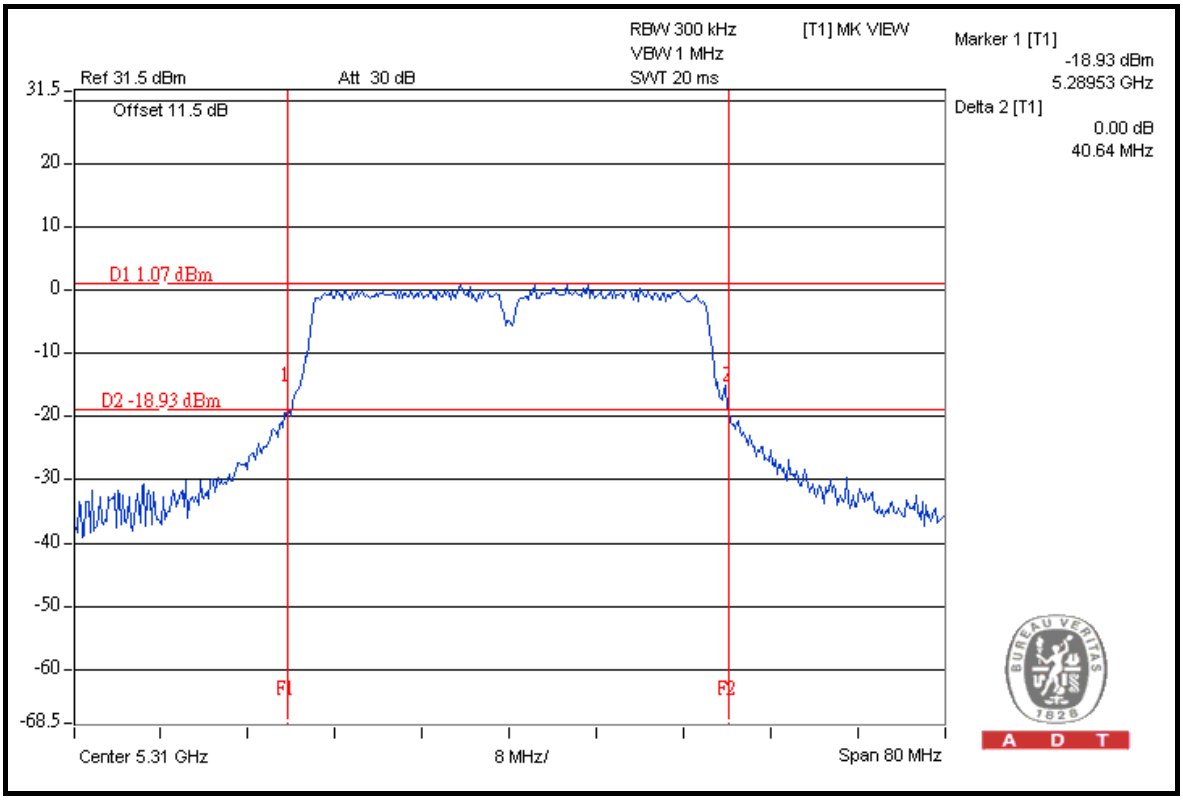
CH 46


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-26.82 dBm
5.20994 GHz
Delta 2 [T1]
0.00 dB
40.73 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 -6.82 dBm
D2 -26.82 dBm
F1
F2
Center 5.23 GHz
8 MHz/
Span 80 MHz

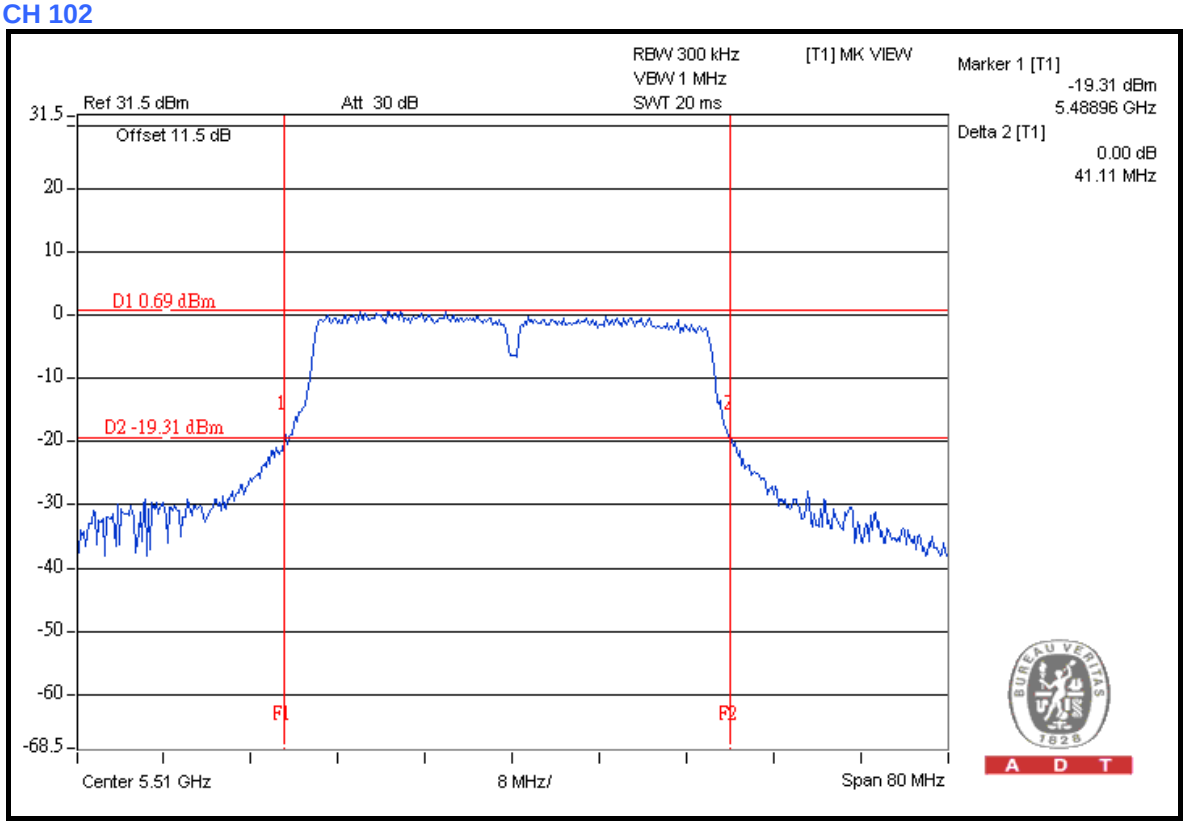
CH 54


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-19.09 dBm
5.24954 GHz
Delta 2 [T1]
0.00 dB
41.20 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 0.91 dBm
D2 -19.09 dBm
F1
F2
Center 5.27 GHz
8 MHz/
Span 80 MHz

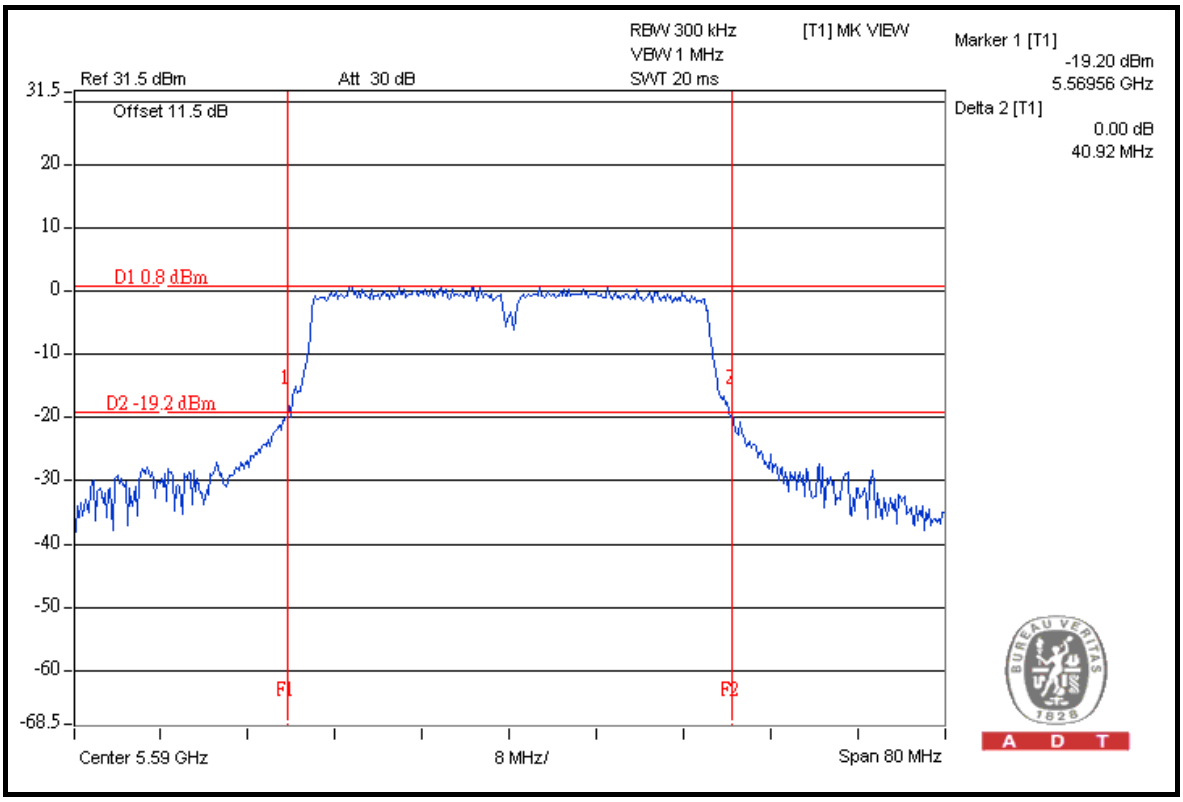
CH 62


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-18.93 dBm
5.28953 GHz
Delta 2 [T1]
0.00 dB
40.64 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 1.07 dBm
D2 -18.93 dBm
1
2
F1
F2
Center 5.31 GHz
8 MHz/
Span 80 MHz

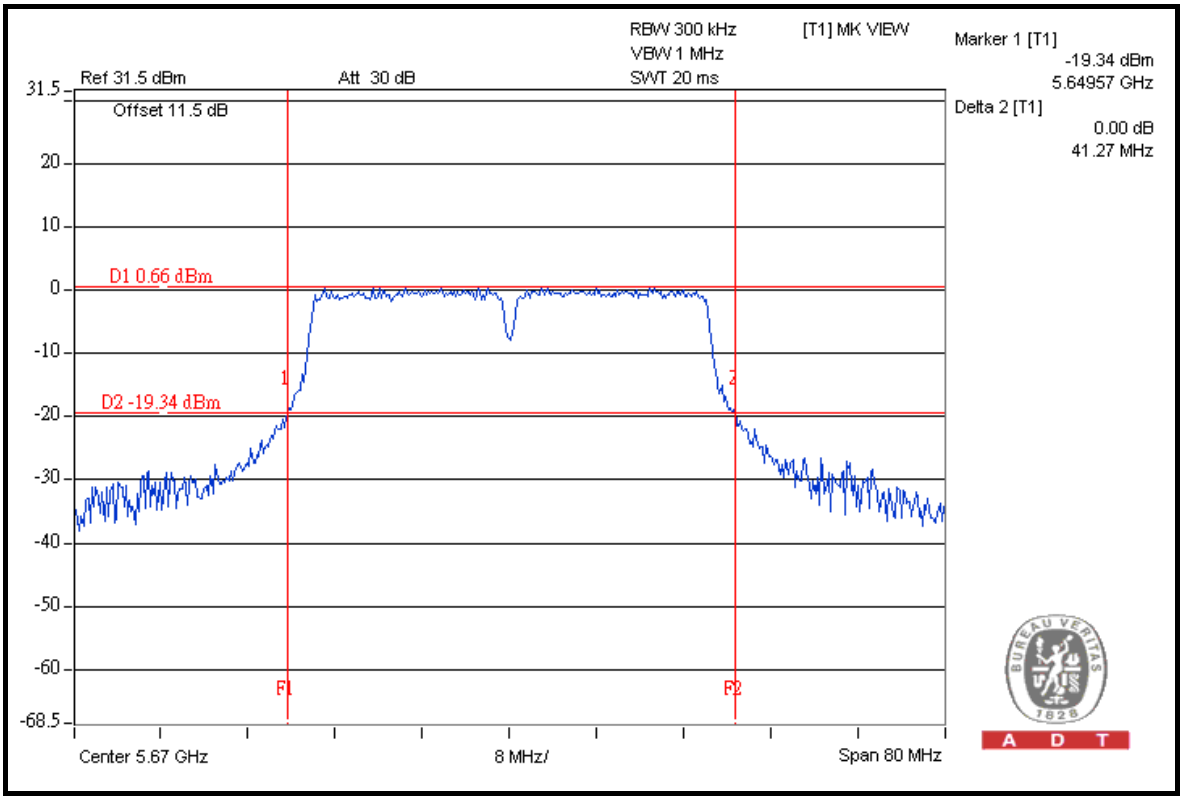
CH 102


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-19.31 dBm
5.48896 GHz
Delta 2 [T1]
0.00 dB
41.11 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 0.69 dBm
D2 -19.31 dBm
1
2
F1
F2
Center 5.51 GHz
8 MHz/
Span 80 MHz

CH 118


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-19.20 dBm
5.56956 GHz
Delta 2 [T1]
0.00 dB
40.92 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 0.8 dBm
D2 -19.2 dBm
1
2
F1
F2
Center 5.59 GHz
8 MHz/
Span 80 MHz

CH 134


RBW 300 kHz
VBW 1 MHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-19.34 dBm
5.64957 GHz
Delta 2 [T1]
0.00 dB
41.27 MHz
Ref 31.5 dBm
Att 30 dB
Offset 11.5 dB
31.5
20
10
0
-10
-20
-30
-40
-50
-60
-68.5
D1 0.66 dBm
D2 -19.34 dBm
1
2
F1
F2
Center 5.67 GHz
8 MHz/
Span 80 MHz