FCC TEST REPORT

(PART 27)

REPORT NO.:	RF110118C21
MODEL NO.:	Airstream 4000
FCC ID:	PIDASMAX698
RECEIVED:	Jan. 18, 2011
TESTED:	Jan. 26 ~ Mar. 27, 2011
ISSUED:	Mar. 29, 2011

APPLICANT:	Airspan Networks Inc.
ADDRESS:	777 Yamato Rd, Suite 310, Boca Raton, 33431, Florida, USA

ISSUED BY:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
LAB ADDRESS:	No. 47, 14th Ling, Chia Pau Tsuen, Lin Kou Hsiang, Taipei Hsien 244, Taiwan, R.O.C.
TEST LOCATION:	No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	N/A	Mar. 29, 2011

1 CERTIFICATION

PRODUCT : WiMAX Outdoor CPE
BRAND : Airspan
MODEL : Airstream 4000
APPLICANT : Airspan Networks Inc.
TESTED : Jan. 26 ~ Mar. 27, 2011
TEST SAMPLE : ENGINEERING SAMPLE
TEST STANDARDS : **FCC Part 27, Subpart C, H**
FCC Part 2
ANSI C63.4-2003

The above equipment (model: Airstream 4000) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch,** and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : _____ , **DATE:** Mar. 29, 2011
Rennie Wang / Supervisor

APPROVED BY : _____ , **DATE:** Mar. 29, 2011
Gary Chang / Assistant Manager

2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	REMARK
2.1046 27.50(C)(9)	Maximum Peak Output Power Limit: max. 30 watts e.r.p peak power	PASS	Meet the requirement of limit. Minimum passing margin is 33.13dBm at 701MHz.
2.1055 27.54	Frequency Stability	PASS	Meet the requirement of limit.
2.1049 27.53(g)	Occupied Bandwidth	PASS	Meet the requirement of limit.
27.53(g)	Band Edge Measurements	PASS	Meet the requirement of limit.
2.1051 27.53(g)	Conducted Spurious Emissions	PASS	Meet the requirement of limit.
2.1053 27.53(g)	Radiated Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -8.0dB at 2876.00MHz.

2.1 MEASUREMENT UNCERTAINTY

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

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	150kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	3.34 dB
	200MHz ~1000MHz	3.35 dB
	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

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

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	WiMAX Outdoor CPE		
MODEL NO.	Airstream 4000		
FCC ID	PIDASMAX698		
POWER SUPPLY	48Vdc		
CODED TYPE/MODULATION/ CODING RATE	UL	QPSK: 1/2, 3/4	
		16QAM: 1/2, 3/4	
		64QAM: 1/2, 2/3, 3/4, 5/6	
	DL	QPSK: 1/2, 3/4	
		16QAM: 1/2, 3/4	
		64QAM: 1/2, 2/3, 3/4, 5/6	
MODULATION TECHNOLOGY	OFDMA		
DUPLEX METHOD	TDD		
FREQUENCY RANGE	Channel Bandwidth: 3.5MHz	700MHz ~ 744MHz	
	Channel Bandwidth: 5.0MHz	701MHz ~ 743MHz	
	Channel Bandwidth: 7.0MHz	702MHz ~ 742MHz	
	Channel Bandwidth: 10.0MHz	704MHz ~ 740MHz	
MAX. ERP POWER (mW)	33.13dBm (2055.9mW)		
OPERATION TEMPERATURE RANGE	-40°C ~ 55°C		
ANTENNA TYPE	Refer to NOTE		
DATA CABLE	N/A		
I/O PORTS	Refer to user's manual		
ACCESSORY DEVICES	PoE		

NOTE:

1. The EUT consumes power from the following PoE:

MODEL:	GM18-480040-1
INPUT:	100-240Vac, 50/60Hz, 0.8A
OUTPUT:	48Vdc, 0.4A
POWER LINE:	1.45m non-shielded cable with one core

2. The antennas' information listed as below:

ITEM	ANTENNA TYPE	MODEL	ANTENNA GAIN
1	Panel Antenna	BBT-D0708SB	8dBi
2	Omni Antenna	84010510	4.5dBi
3	Omni Directional Antenna	MT-221023/NV	6.5dBi
4	Omni Directional Antenna	MT-221024/NV	6dBi

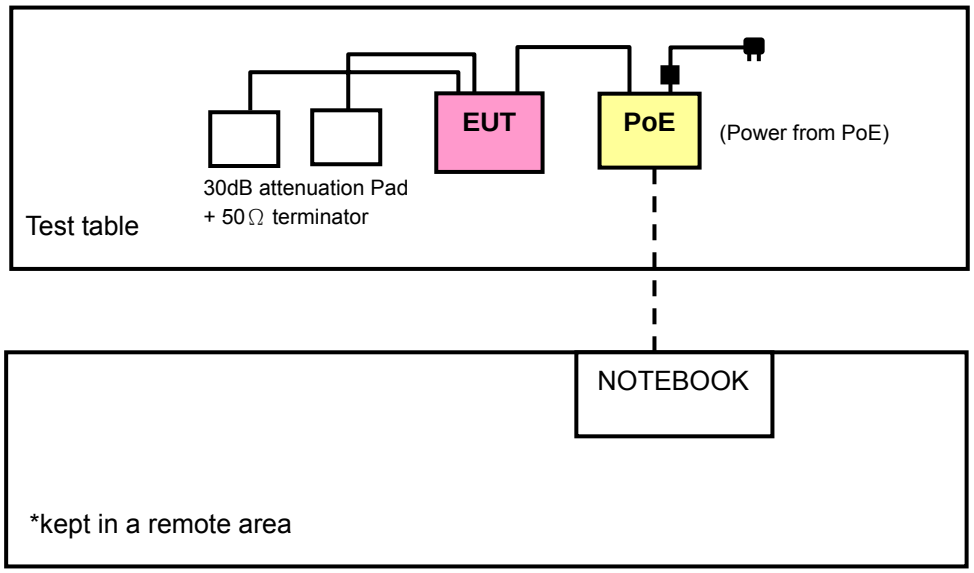
3. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

Three channels of each channel bandwidth had been tested.

CHANNEL (MHz)	CHANNEL BANDWIDTH			
	3.5 MHz	5.0 MHz	7.0 MHz	10.0 MHz
LOW	700 MHz	701 MHz	702 MHz	704 MHz
MIDDLE	719 MHz	719 MHz	720 MHz	722 MHz
HIGH	744 MHz	743 MHz	742 MHz	740 MHz

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST



3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO							DESCRIPTION
	OP	FS	OB	BE	CE	RE<1G	RE≥1G	
-	V	V	V	V	V	V	V	-

Where **OP:** Output power
FS: Frequency stability
OB: Occupied bandwidth
BE: Band edge
CE: Conducted spurious emissions
RE<1G: Radiated emission below 1GHz
RE≥1G: Radiated emission above 1GHz

OUTPUT POWER MEASUREMENT:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, XYZ axis and antenna ports (if EUT with antenna diversity architecture).
☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	TESTED CHANNEL	MODULATION TECHNOLOGY	CHANNEL BANDWIDTH	MODULATION TYPE	CODING RATE
-	L, M, H	OFDMA	3.5MHz	QPSK	1/2
-	L, M, H	OFDMA	5.0MHz	QPSK	1/2
-	L, M, H	OFDMA	7.0MHz	QPSK	1/2
-	L, M, H	OFDMA	10.0MHz	QPSK	1/2

FREQUENCY STABILITY MEASUREMENT:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and antenna ports (if EUT with antenna diversity architecture).
☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	TESTED CHANNEL	MODULATION TECHNOLOGY	CHANNEL BANDWIDTH	MODULATION TYPE	CODING RATE
-	H	OFDMA	3.5MHz	QPSK	1/2
-	L	OFDMA	5.0MHz	QPSK	1/2
-	H	OFDMA	7.0MHz	QPSK	1/2
-	L	OFDMA	10.0MHz	QPSK	1/2

OCCUPIED BANDWIDTH MEASUREMENT:

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

EUT CONFIGURE MODE	TESTED CHANNEL	MODULATION TECHNOLOGY	CHANNEL BANDWIDTH	MODULATION TYPE	CODING RATE
-	L, M, H	OFDMA	3.5MHz	QPSK	1/2
-	L, M, H	OFDMA	5.0MHz	QPSK	1/2
-	L, M, H	OFDMA	7.0MHz	QPSK	1/2
-	L, M, H	OFDMA	10.0MHz	QPSK	1/2

BAND EDGE MEASUREMENT:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, XYZ axis and antenna ports (if EUT with antenna diversity architecture).
☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	TESTED CHANNEL	MODULATION TECHNOLOGY	CHANNEL BANDWIDTH	MODULATION TYPE	CODING RATE
-	L, M, H	OFDMA	3.5MHz	QPSK	1/2
-	L, M, H	OFDMA	5.0MHz	QPSK	1/2
-	L, M, H	OFDMA	7.0MHz	QPSK	1/2
-	L, M, H	OFDMA	10.0MHz	QPSK	1/2

CONDUCTED SPURIOUS EMISSIONS MEASUREMENT:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and antenna ports (if EUT with antenna diversity architecture).
☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	TESTED CHANNEL	MODULATION TECHNOLOGY	CHANNEL BANDWIDTH	MODULATION TYPE	CODING RATE
-	L, M, H	OFDMA	3.5MHz	QPSK	1/2
-	L, M, H	OFDMA	5.0MHz	QPSK	1/2
-	L, M, H	OFDMA	7.0MHz	QPSK	1/2
-	L, M, H	OFDMA	10.0MHz	QPSK	1/2

RADIATED EMISSION MEASUREMENT (BELOW 1 GHz):

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

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

EUT CONFIGURE MODE	TESTED CHANNEL	MODULATION TECHNOLOGY	CHANNEL BANDWIDTH	MODULATION TYPE	CODING RATE
-	H	OFDMA	3.5MHz	QPSK	1/2
-	H	OFDMA	5.0MHz	QPSK	1/2
-	H	OFDMA	7.0MHz	QPSK	1/2
-	H	OFDMA	10.0MHz	QPSK	1/2

RADIATED EMISSION MEASUREMENT (ABOVE 1 GHz):

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

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

EUT CONFIGURE MODE	TESTED CHANNEL	MODULATION TECHNOLOGY	CHANNEL BANDWIDTH	MODULATION TYPE	CODING RATE
-	L, M, H	OFDMA	3.5MHz	QPSK	1/2
-	L, M, H	OFDMA	5.0MHz	QPSK	1/2
-	L, M, H	OFDMA	7.0MHz	QPSK	1/2
-	L, M, H	OFDMA	10.0MHz	QPSK	1/2

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
OP	23deg. C, 68%RH, 1010 hPa	120Vac, 60Hz	Long Chen
FS	23deg. C, 68%RH, 1010 hPa	120Vac, 60Hz	Long Chen
OB	23deg. C, 68%RH, 1010 hPa	120Vac, 60Hz	Long Chen
BE	23deg. C, 68%RH, 1010 hPa	120Vac, 60Hz	Long Chen
CE	23deg. C, 68%RH, 1010 hPa	120Vac, 60Hz	Long Chen
RE < 1G	20deg. C, 62%RH, 999 hPa	120Vac, 60Hz	Brad Wu
RE ≥ 1G	20deg. C, 62%RH, 999 hPa	120Vac, 60Hz	Brad Wu

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC 47 CFR Part 2

FCC 47 CFR Part 27

ANSI C63.4-2003

ANSI/TIA/EIA-603-C 2004

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

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

3.4 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK	HP	NC6000	CNU4110Y6Q	N/A
2	FIXED ATTENUATOR	Woken	MDC9331N-20	0724	N/A
3	FIXED ATTENUATOR	Woken	MT88MDC9331N-3020C	0721	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	10m UTP RJ45 cable w/o core.
2	N/A
3	N/A

NOTE:

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

4 TEST TYPES AND RESULTS

4.1 OUTPUT POWER MEASUREMENT

4.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

Control and mobile stations are limited to 30 watts ERP;

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100033	Jul. 29, 2010	Jul. 28, 2011
Spectrum Analyzer Agilent	E4446A	MY48250266	Aug. 11, 2010	Aug. 10, 2011
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Apr. 27, 2010	Apr. 26, 2011
HORN Antenna SCHWARZBECK	9120D	9120D-405	Feb. 08, 2011	Feb. 07, 2012
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Dec. 27, 2010	Dec. 26, 2011
Preamplifier Agilent	8447D	2944A10633	Nov. 02, 2010	Nov. 01, 2011
Preamplifier Agilent	8449B	3008A01964	Nov. 02, 2010	Nov. 01, 2011
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	238141/4	May 14, 2010	May 13, 2011
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	12738/6	May 14, 2010	May 13, 2011
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

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 3.

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 988962.

5. The IC Site Registration No. is IC 7450F-3.

4.1.3 TEST PROCEDURES

EIRP / ERP MEASUREMENT:

a. The EUT was set up for the maximum power with WiMAX link data modulation. The power was measured with R&S Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range).

b. E.I.R.P power measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.

c. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value” of step a. Record the power level of S.G

d. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn

e. E.R.P = E.I.R.P- 2.15 dB

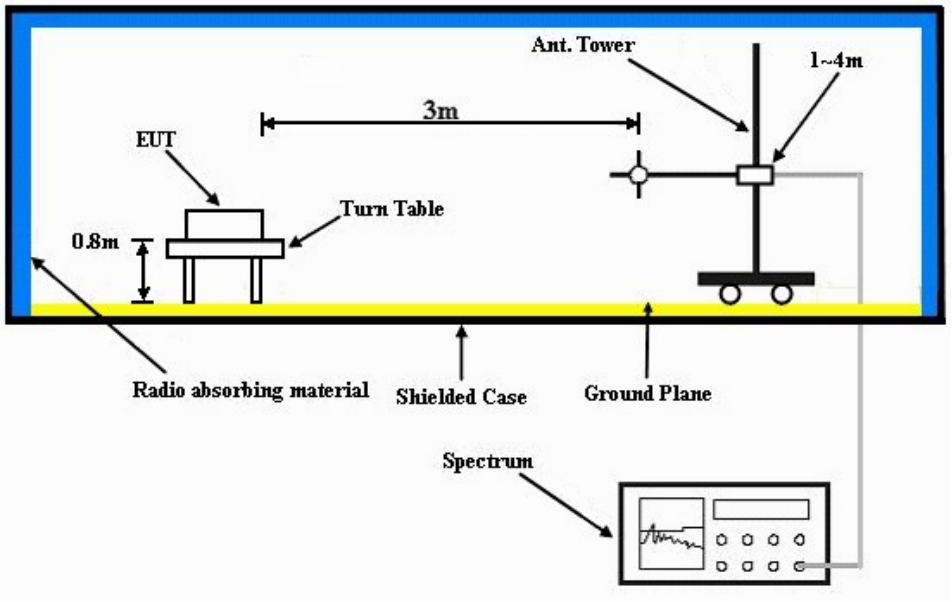
CONDUCTED POWER MEASUREMENT:

a. The EUT was set up for the maximum power with WiMAX link data modulation.

b. Set the EUT to transmit under low, middle and high channel and record the power level.

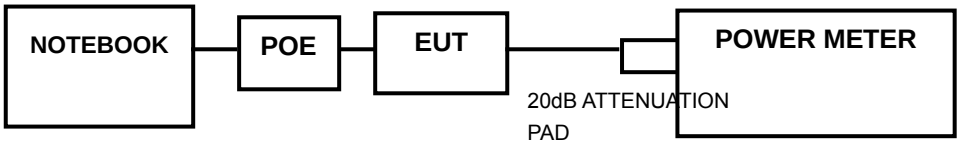
4.1.4 TEST SETUP

EIRP / ERP MEASUREMENT:



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

CONDUCTED POWER MEASUREMENT:



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

4.1.5 EUT OPERATING CONDITIONS

The notebook connected to EUT via RJ45 cable and run a test program to control EUT to transmit at specific channel and power level.

4.1.6 TEST RESULTS

CHANNEL BANDWIDTH: 3.5MHz

CONDUCTED OUTPUT POWER							
CHANNEL	FREQ. (MHz)	POWER OUTPUT (dBm)		C.F (dB)	TOTAL POWER		TOTAL POWER (chain 0+1)
					Chain 0	Chain 1	
		Chain 0	Chain 1		dBm	dBm	dBm
LOW	700	3.10	2.78	21.0	24.10	23.78	26.95
MIDDLE	719	3.22	2.96	21.0	24.22	23.96	27.10
HIGH	744	3.35	2.88	21.0	24.35	23.88	27.13

REMARKS: 1. Output Power (dBm) = Raw Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Cable Loss (dB) + 20dB Attenuator.

EIRP/ERP POWER							
CHANNEL	FREQ. (MHz)	TOTAL CONDUCTED POWER (dBm)	ANT. GAIN (dBi)	TOTAL EIRP POWER		TOTAL ERP POWER	
				dBm	mW	dBm	mW
LOW	700	26.95	8	34.95	3126.1	32.80	1905.5
MIDDLE	719	27.10	8	35.10	3235.9	32.95	1972.4
HIGH	744	27.13	8	35.13	3258.4	32.98	1986.1

REMARKS: 1. EIRP power (dBm) = Conducted power (dBm) + antenna gain (dBi).
2. ERP power (dBm) = EIRP – 2.15 dBi.

CHANNEL BANDWIDTH: 5.0MHz

CONDUCTED OUTPUT POWER							
CHANNEL	FREQ. (MHz)	POWER OUTPUT (dBm)		C.F (dB)	TOTAL POWER		TOTAL POWER (chain 0+1)
		Chain 0	Chain 1		Chain 0	Chain 1	
		dBm			dBm	dBm	dBm
LOW	701	3.41	3.12	21.0	24.41	24.12	27.28
MIDDLE	719	3.38	3.06	21.0	24.38	24.06	27.23
HIGH	743	3.32	3.01	21.0	24.32	24.01	27.18

REMARKS: 1. Output Power (dBm) = Raw Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Cable Loss (dB) + 20dB Attenuator.

EIRP/ERP POWER							
CHANNEL	FREQ. (MHz)	TOTAL CONDUCTED POWER (dBm)	ANT. GAIN (dBi)	TOTAL EIRP POWER		TOTAL ERP POWER	
				dBm	mW	dBm	mW
LOW	**701**	**27.28**	**8**	**35.28**	**3372.9**	**33.13**	**2055.9**
MIDDLE	719	27.23	8	35.23	3334.3	33.08	2032.4
HIGH	743	27.18	8	35.18	3296.1	33.03	2009.1

REMARKS: 1. EIRP power (dBm) = Conducted power (dBm) + antenna gain (dBi).
2. ERP power (dBm) = EIRP – 2.15 dBi.

CHANNEL BANDWIDTH: 7.0MHz

CONDUCTED OUTPUT POWER							
CHANNEL	FREQ. (MHz)	POWER OUTPUT (dBm)		C.F (dB)	TOTAL POWER		TOTAL POWER (chain 0+1)
		Chain 0	Chain 1		Chain 0	Chain 1	
		dBm			dBm	dBm	dBm
LOW	702	3.31	3.12	21.0	24.31	24.12	27.23
MIDDLE	720	3.08	2.91	21.0	24.08	23.91	27.01
HIGH	742	3.36	3.15	21.0	24.36	24.15	27.27

REMARKS: 1. Output Power (dBm) = Raw Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Cable Loss (dB) + 20dB Attenuator.

EIRP/ERP POWER							
CHANNEL	FREQ. (MHz)	TOTAL CONDUCTED POWER (dBm)	ANT. GAIN (dBi)	TOTAL EIRP POWER		TOTAL ERP POWER	
				dBm	mW	dBm	mW
LOW	702	27.23	8	35.23	3334.3	33.08	2032.4
MIDDLE	720	27.01	8	35.01	3169.6	32.86	1932.0
HIGH	742	27.27	8	35.27	3365.1	33.12	2051.2

REMARKS: 1. EIRP power (dBm) = Conducted power (dBm) + antenna gain (dBi).
2. ERP power (dBm) = EIRP – 2.15 dBi.

CHANNEL BANDWIDTH: 10.0MHz

CONDUCTED OUTPUT POWER							
CHANNEL	FREQ. (MHz)	POWER OUTPUT (dBm)		C.F (dB)	TOTAL POWER		TOTAL POWER (chain 0+1)
		Chain 0	Chain 1		Chain 0	Chain 1	
		dBm			dBm	dBm	dBm
LOW	704	3.10	2.91	21.0	24.10	23.91	27.02
MIDDLE	722	2.89	2.75	21.0	23.89	23.75	26.83
HIGH	740	2.96	2.82	21.0	23.96	23.82	26.90

REMARKS: 1. Output Power (dBm) = Raw Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Cable Loss (dB) + 20dB Attenuator.

EIRP/ERP POWER							
CHANNEL	FREQ. (MHz)	TOTAL CONDUCTED POWER (dBm)	ANT. GAIN (dBi)	TOTAL EIRP POWER		TOTAL ERP POWER	
				dBm	mW	dBm	mW
LOW	704	27.02	8	35.02	3176.9	32.87	1936.4
MIDDLE	722	26.83	8	34.83	3040.9	32.68	1853.5
HIGH	740	26.90	8	34.90	3090.3	32.75	1883.6

REMARKS: 1. EIRP power (dBm) = Conducted power (dBm) + antenna gain (dBi).
2. ERP power (dBm) = EIRP – 2.15 dBi.

4.2 FREQUENCY STABILITY MEASUREMENT

4.2.1 LIMITS OF FREQUENCY STABILIITY MEASUREMENT

According to the FCC part 27.54 shall be tested the frequency stability. The rule is defined that" The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation. The test extreme voltage is according to the 2.1055(d)(1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment and the extreme temperature rule is comply with the 2.1055(a)(1) –30℃~50℃.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Hewlett Packard RF cable	8120-6192	274388	Oct. 22, 2010	Oct. 21, 2011
Suhner RF cable	Sucoflex104	246272	May 14, 2010	May 13, 2011
WIT Standard Temperature & Humidity Chamber	TH-4S-C	W981030	Jun. 28, 2010	Jun. 27, 2011
Agilent Spectrum Analyzer	E4446A	MY48250266	Aug. 11, 2010	Aug. 10, 2011

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

4.2.3 TEST PROCEDURE

a. Because of the measure the carrier frequency under the condition of the AFC lock, it shall be used the mobile station in the WiMAX link mode. This is accomplished with the use of the communication simulator station. The oven room could control the temperatures and humidity.

b. Power must be removed when changing from one temperature to another or one voltage to another voltage. Power warm up is at least 15 min and power applied should perform before recording frequency error.

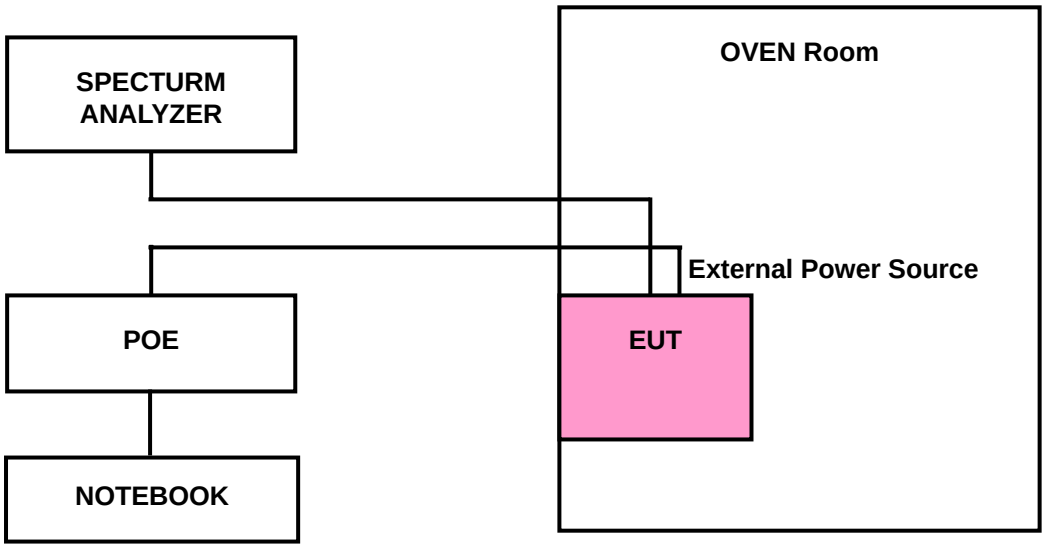
c. Laptop pc is connected the external power supply to control the AC input power. The various Volts from the minimum 126.5 Volts to 93.5 Volts. Each step shall be record the frequency error rate.

d. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the ±0.5℃ during the measurement testing.

e. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

NOTE: The frequency error was recorded frequency error from the communication simulator.

4.2.4 TEST SETUP



4.2.5 TEST RESULTS

CHANNEL BANDWIDTH: 3.5MHz

AFC FREQUENCY ERROR VS. VOLTAGE		
VOLTAGE (Volts)	**FREQUENCY (MHz)**	**FREQUENCY ERROR (ppm)**
93.5	744.001024	1.376
110.0	744.000852	1.145
126.5	744.000992	1.333

AFC FREQUENCY ERROR VS. TEMP.		
TEMP. (℃)	**FREQUENCY (MHz)**	**FREQUENCY ERROR (ppm)**
55	744.001830	2.460
50	744.001613	2.168
40	744.000859	1.155
30	744.001581	2.125
20	744.000852	1.145
10	744.001567	2.106
0	744.000362	0.487
-10	744.000996	1.339
-20	744.001791	2.407
-30	744.002038	2.739
-40	744.001348	1.812

CHANNEL BANDWIDTH: 5.0MHz

AFC FREQUENCY ERROR VS. VOLTAGE		
VOLTAGE (Volts)	FREQUENCY (MHz)	FREQUENCY ERROR (ppm)
93.5	701.001321	1.884
110.0	701.001275	1.819
126.5	701.001153	1.645

AFC FREQUENCY ERROR VS. TEMP.		
TEMP. (℃)	FREQUENCY (MHz)	FREQUENCY ERROR (ppm)
55	701.002092	2.984
50	701.001450	2.068
40	701.001123	1.602
30	701.001751	2.498
20	701.001275	1.819
10	701.001756	2.505
0	701.000322	0.459
-10	701.001030	1.469
-20	701.001823	2.601
-30	701.002337	3.334
-40	701.001503	2.144

CHANNEL BANDWIDTH: 7.0MHz

AFC FREQUENCY ERROR VS. VOLTAGE		
VOLTAGE (Volts)	FREQUENCY (MHz)	FREQUENCY ERROR (ppm)
93.5	742.001530	2.062
110.0	742.001570	2.116
126.5	742.001638	2.208

AFC FREQUENCY ERROR VS. TEMP.		
TEMP. (℃)	FREQUENCY (MHz)	FREQUENCY ERROR (ppm)
55	742.002478	3.340
50	742.001331	1.794
40	742.001052	1.418
30	742.001682	2.267
20	742.001570	2.116
10	742.002061	2.778
0	742.000867	1.168
-10	742.001291	1.740
-20	742.002180	2.938
-30	742.002462	3.318
-40	742.001338	1.803

CHANNEL BANDWIDTH: 10.0MHz

AFC FREQUENCY ERROR VS. VOLTAGE		
VOLTAGE (Volts)	FREQUENCY (MHz)	FREQUENCY ERROR (ppm)
93.5	704.001487	2.112
110.0	704.001387	1.970
126.5	704.001423	2.021

AFC FREQUENCY ERROR VS. TEMP.		
TEMP. (℃)	FREQUENCY (MHz)	FREQUENCY ERROR (ppm)
55	704.002744	3.898
50	704.001490	2.116
40	704.001403	1.993
30	704.002268	3.222
20	704.001387	1.970
10	704.002539	3.607
0	704.000869	1.234
-10	704.001172	1.665
-20	704.002057	2.922
-30	704.002377	3.376
-40	704.001377	1.956

4.3 OCCUPIED BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT

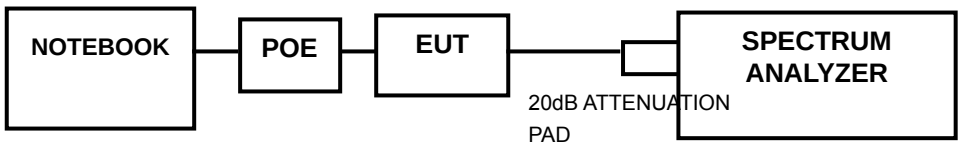
The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Mini-Circuits Power Splitter	ZAPD-4	NA	Jun. 29, 2010	Jun. 28, 2011
Hewlett Packard RF cable	8120-6192	274388	Oct. 22, 2010	Oct. 21, 2011
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA
Suhner RF cable	Sucoflex104	246272	May 14, 2010	May 13, 2011
ROHDE & SCHWARZ Spectrum Analyzer	E4446A	MY44360128	Feb. 22, 2011	Feb. 21, 2012

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

4.3.3 TEST SETUP



4.3.4 TEST PROCEDURES

a. The power was measured with Agilent Spectrum Analyzer. All measurements were done at 3 channels. (low, middle and high operational frequency range.)

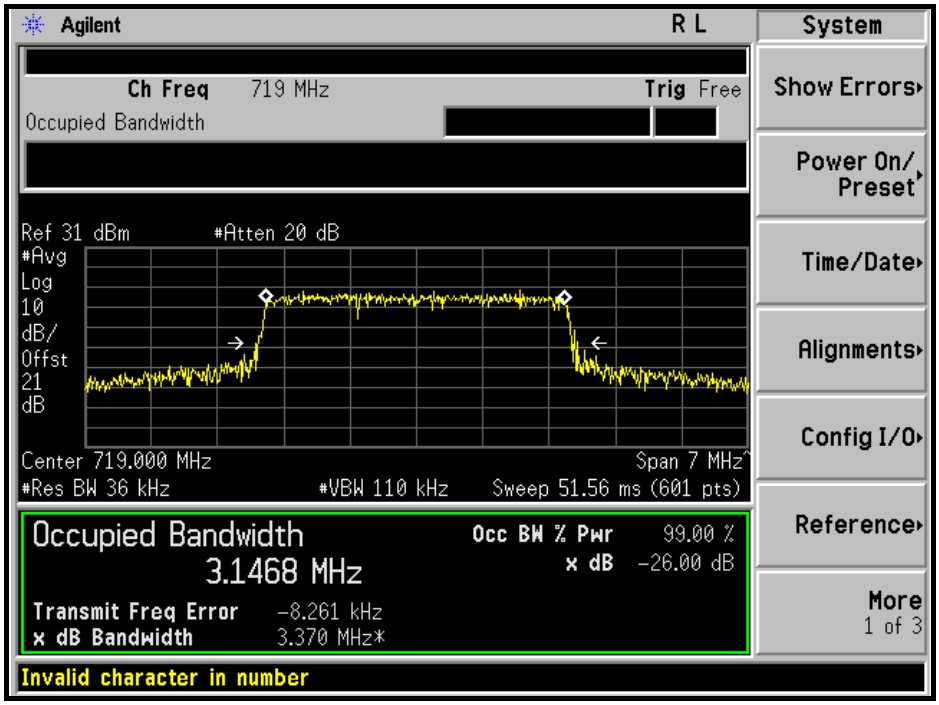
b. The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

c. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

4.3.5 TEST RESULTS

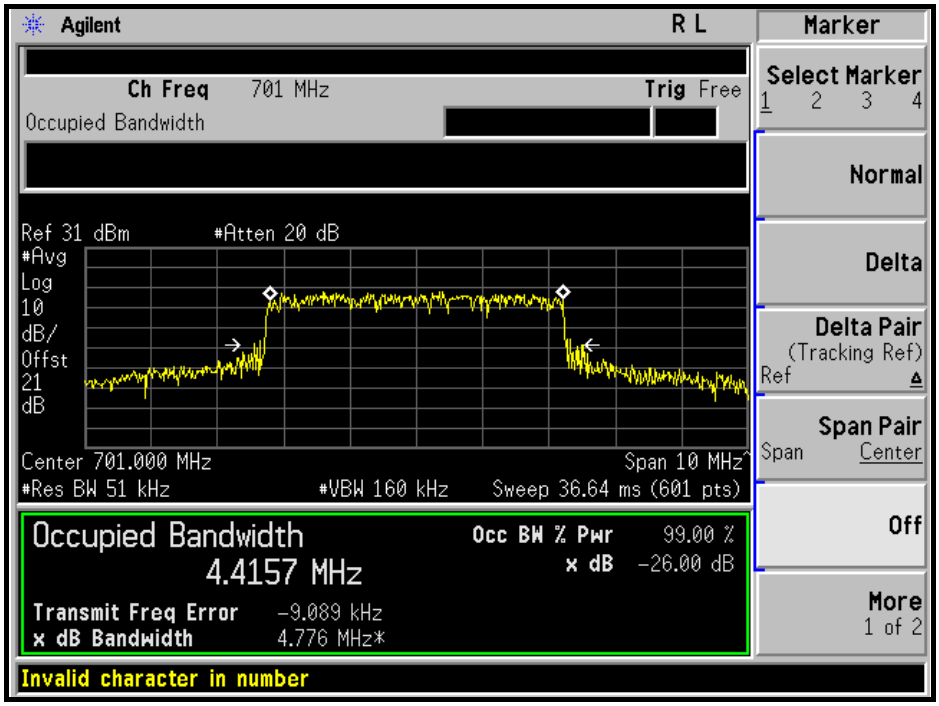
CHANNEL BANDWIDTH: 3.5MHz

FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHz)	
	Chain 0	Chain 1
LOW	3.357	3.324
MIDDLE	3.338	**3.370**
HIGH	3.349	3.323



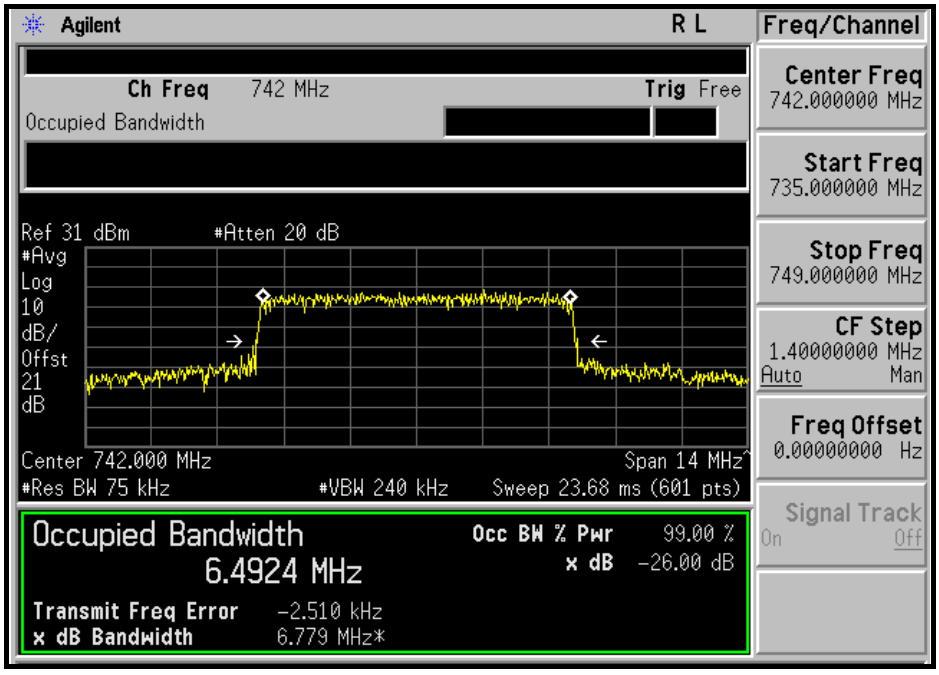
CHANNEL BANDWIDTH: 5.0MHz

FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHz)	
	Chain 0	Chain 1
LOW	4.759	**4.776**
MIDDLE	4.668	4.772
HIGH	4.696	4.731



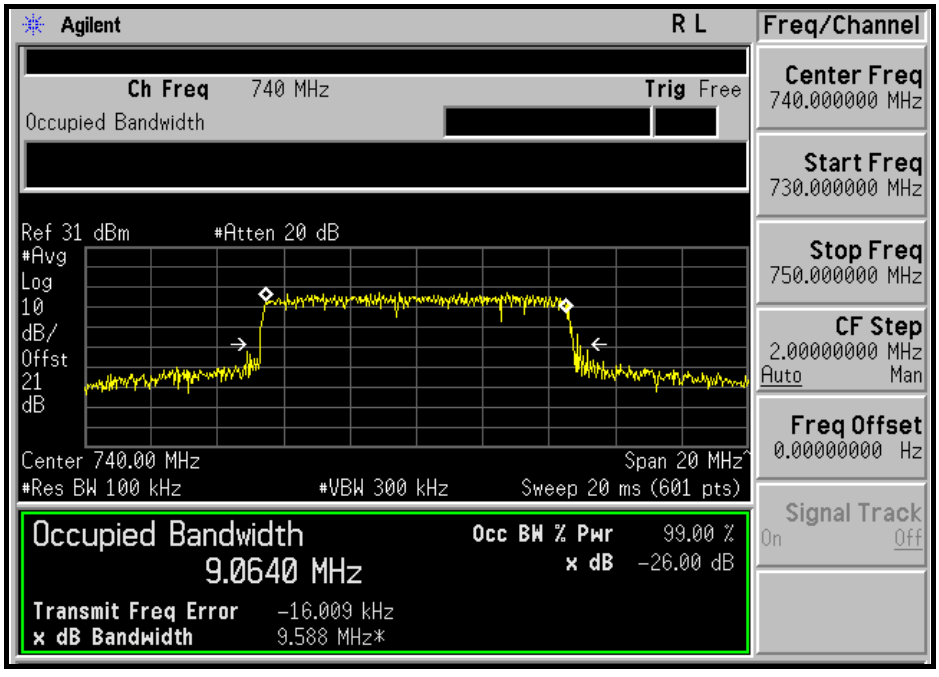
CHANNEL BANDWIDTH: 7.0MHz

FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHz)	
	Chain 0	Chain 1
LOW	6.762	6.745
MIDDLE	6.706	6.754
HIGH	6.760	**6.779**



CHANNEL BANDWIDTH: 10.0MHz

FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHz)	
	Chain 0	Chain 1
LOW	9.430	9.449
MIDDLE	9.545	9.584
HIGH	9.478	**9.588**



4.4 BAND EDGE MEASUREMENT

4.4.1 LIMITS OF BAND EDGE MEASUREMENT

For operations in the 698–746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

4.4.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
ROHDE & SCHWARZ Spectrum Analyzer	FSP40	100041	Jul. 09, 2010	Jul. 08, 2011
Mini-Circuits Power Splitter	ZN2PD-9G	NA	Mar. 29, 2010	Mar. 28, 2011
Hewlett Packard RF cable	8120-6192	274388	Oct. 22, 2010	Oct. 21, 2011
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA
Suhner RF cable	Sucoflex104	246272	May 14, 2010	May 13, 2011

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

4.4.3 TEST SETUP

Same as Item 4.3.3 .

4.4.4 TEST PROCEDURES

a. The EUT was set up for the maximum peak power with WiMAX link data modulation. The power was measured with Angilent Spectrum Analyzer. All measurements were done at 2 channels (low and high operational frequency range.).

b. The band edge measurement used the attenuator via EUT RF power connector on spectrum analyzer. This attenuator loss and cable loss are the worst loss 20 dB in the transmitted path track.

c. The center frequency of spectrum is the band edge frequency and span is 100kHz. RB of the spectrum is 30kHz and VB of the spectrum is 100kHz.

d. Record the max trace plot into the test report.

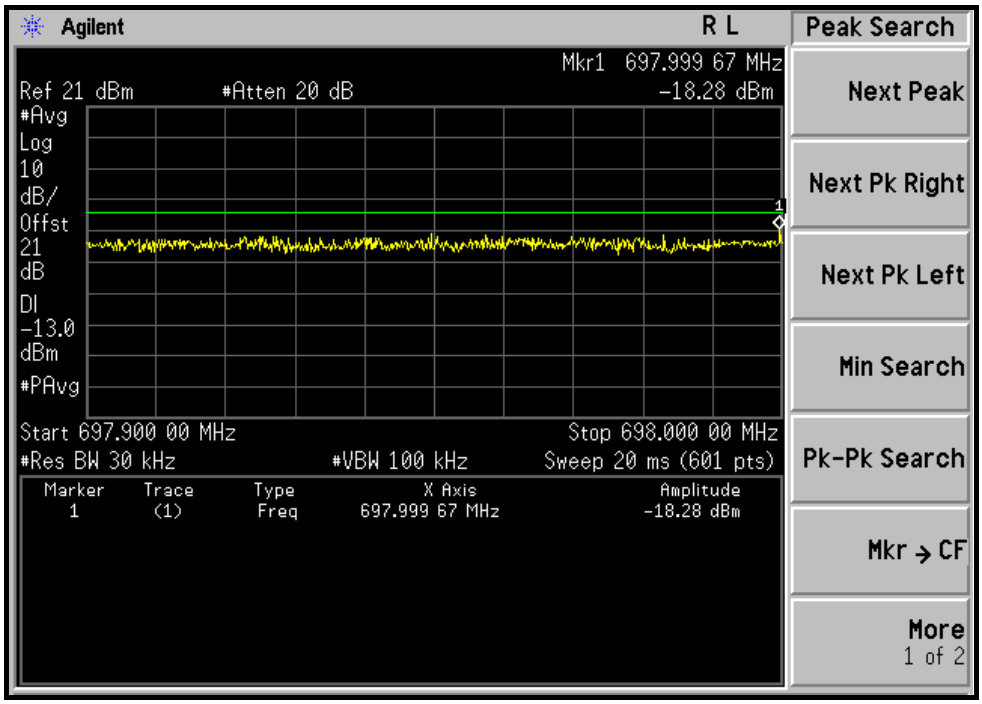
4.4.5 EUT OPERATING CONDITION

Same as Item 4.1.5

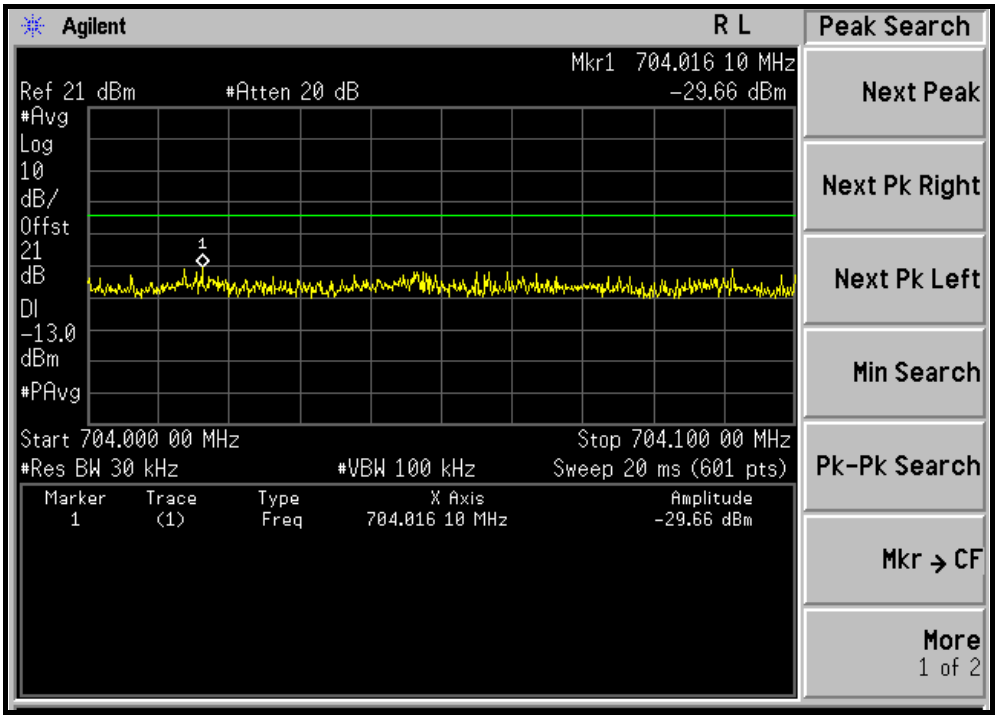
4.4.6 TEST RESULTS

CHANNEL BANDWIDTH: 3.5MHz

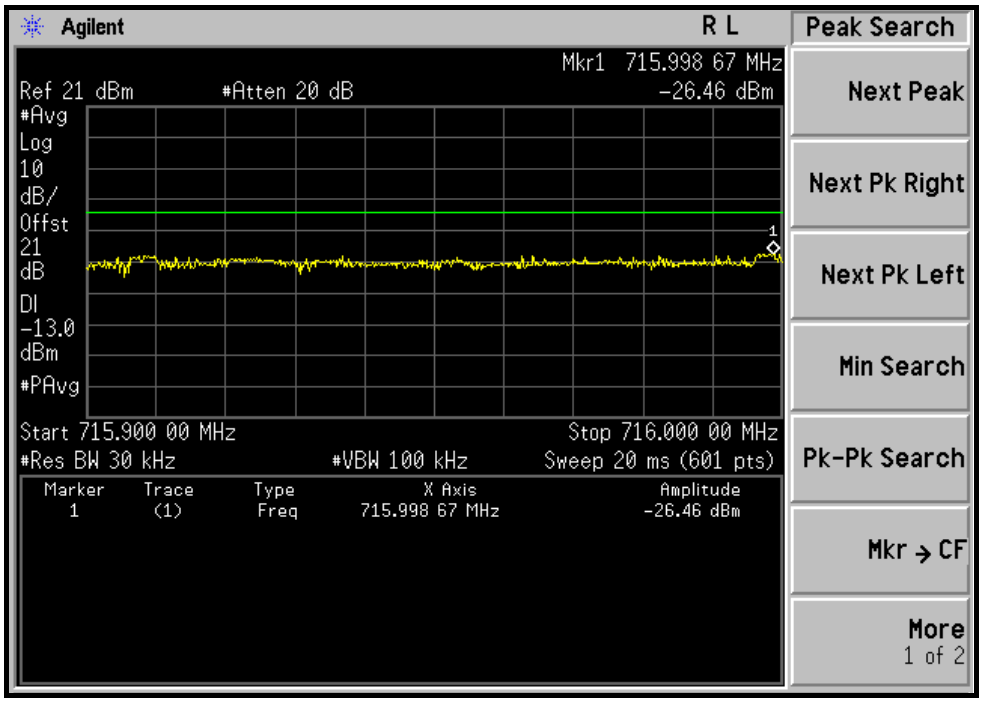
CHAIN 0: LOW CHANNEL, LOWER BAND EDGE



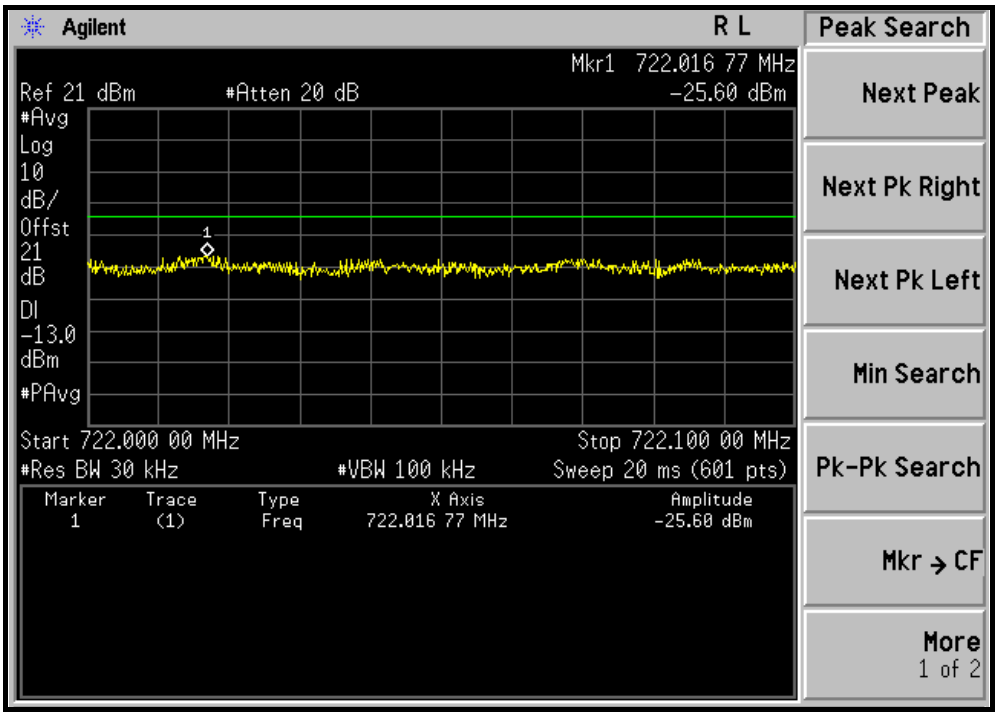
CHAIN 0: LOW CHANNEL, HIGHER BAND EDGE



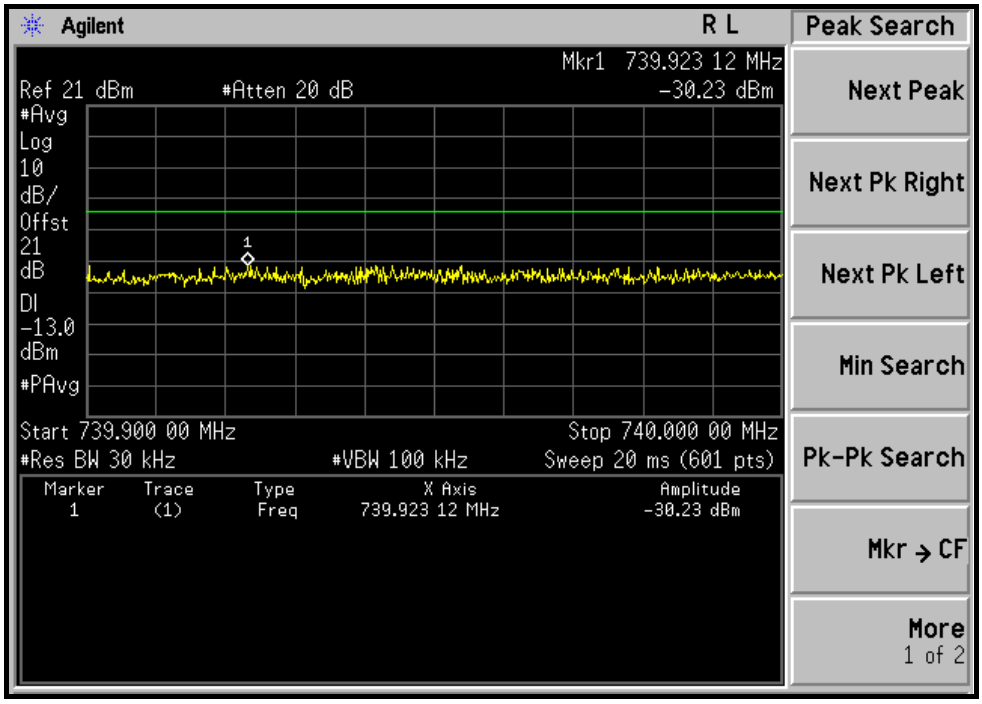
CHAIN 0: MIDDLE CHANNEL, LOWER BAND EDGE



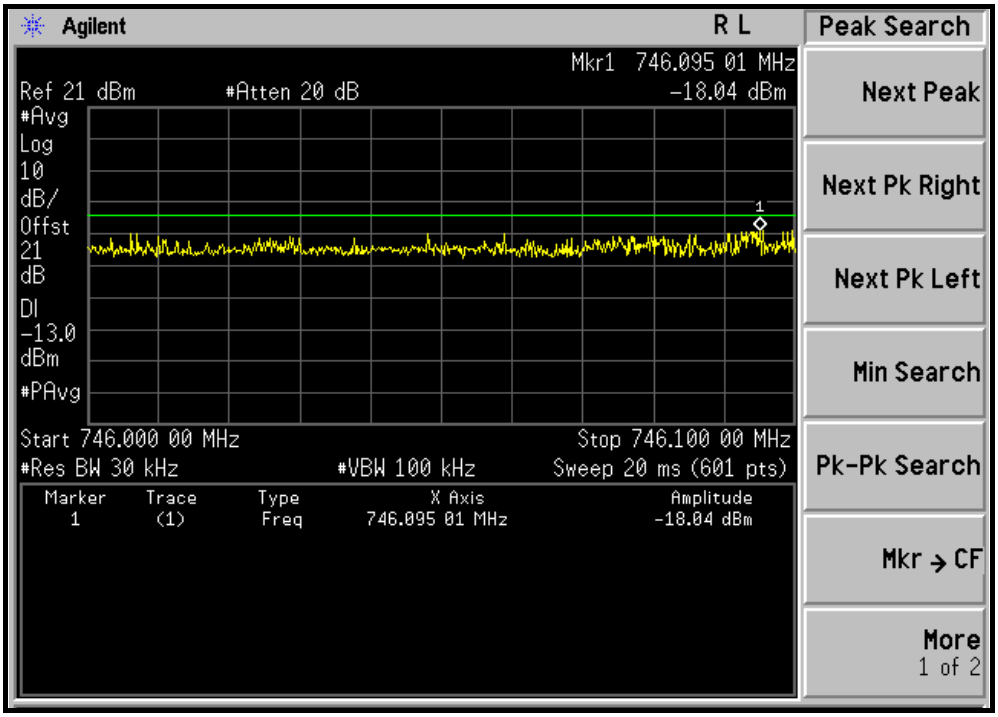
CHAIN 0: MIDDLE CHANNEL, HIGHER BAND EDGE



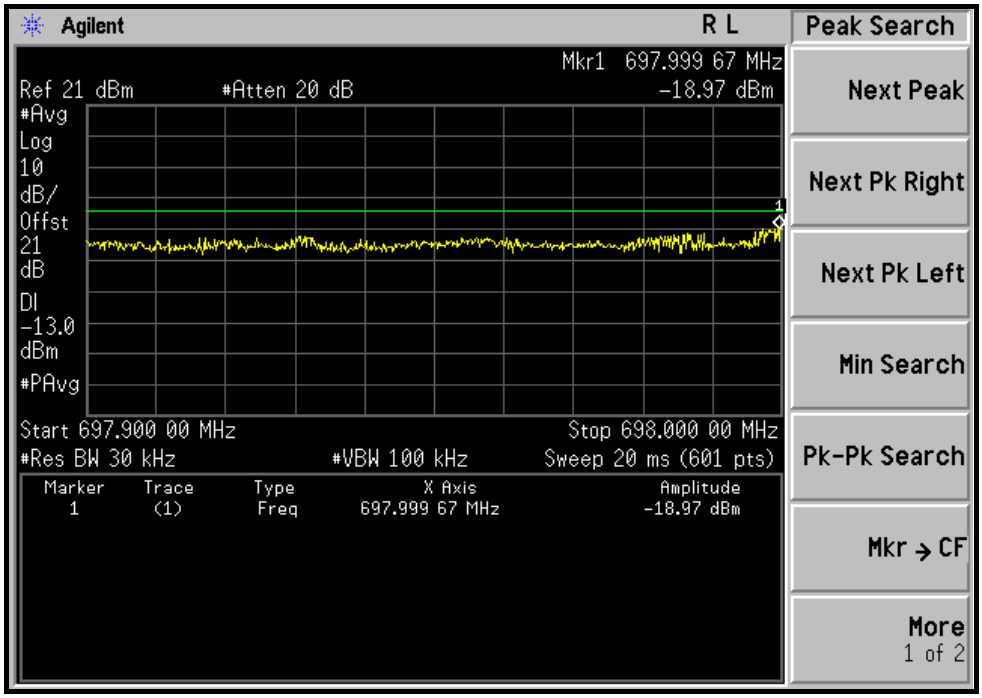
CHAIN 0: HIGH CHANNEL, LOWER BAND EDGE



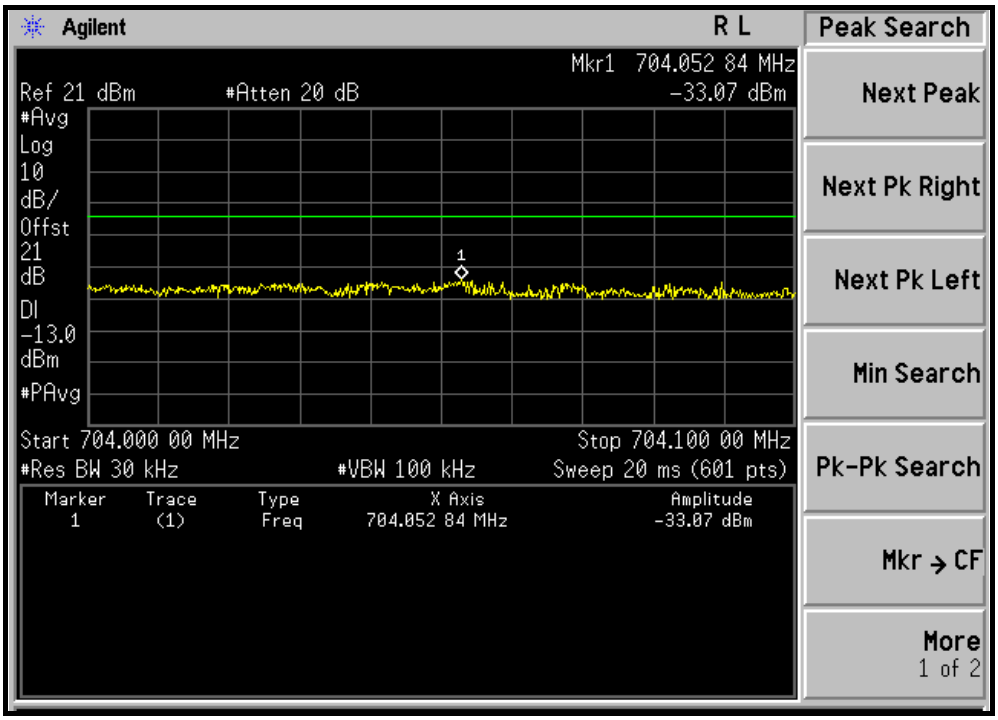
CHAIN 0: HIGH CHANNEL, HIGHER BAND EDGE



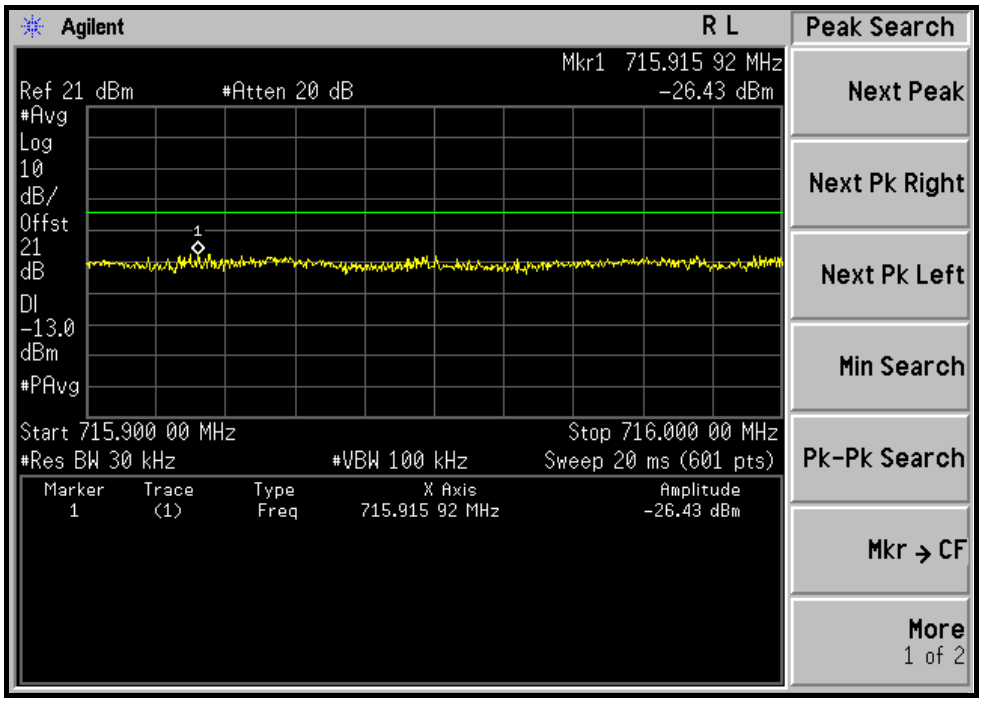
CHAIN 1: LOW CHANNEL, LOWER BAND EDGE



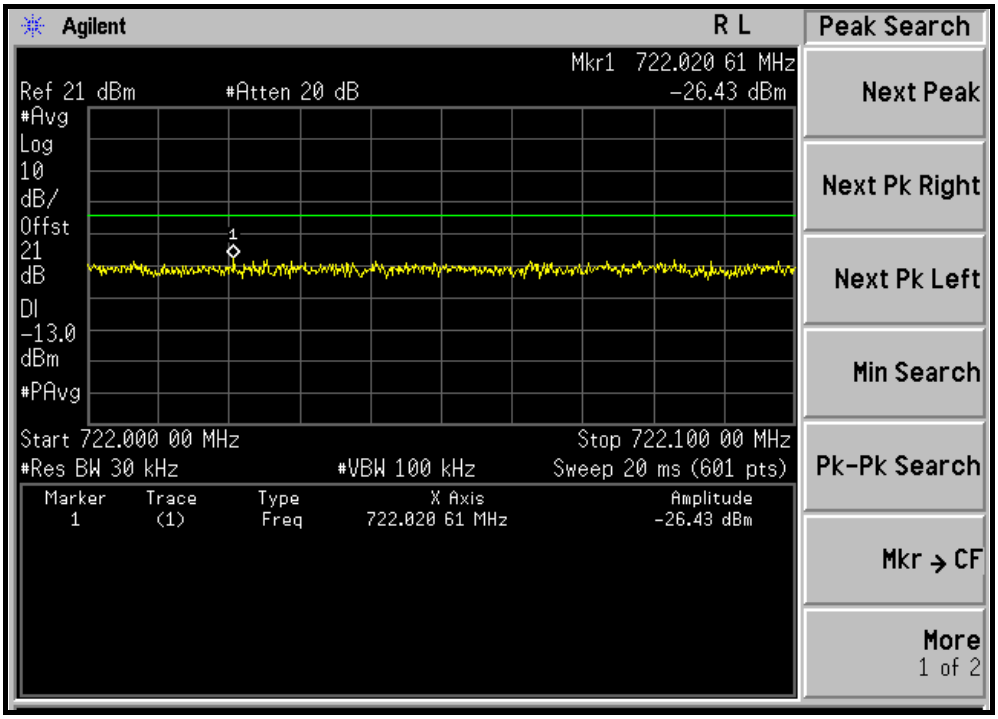
CHAIN 1: LOW CHANNEL, HIGHER BAND EDGE



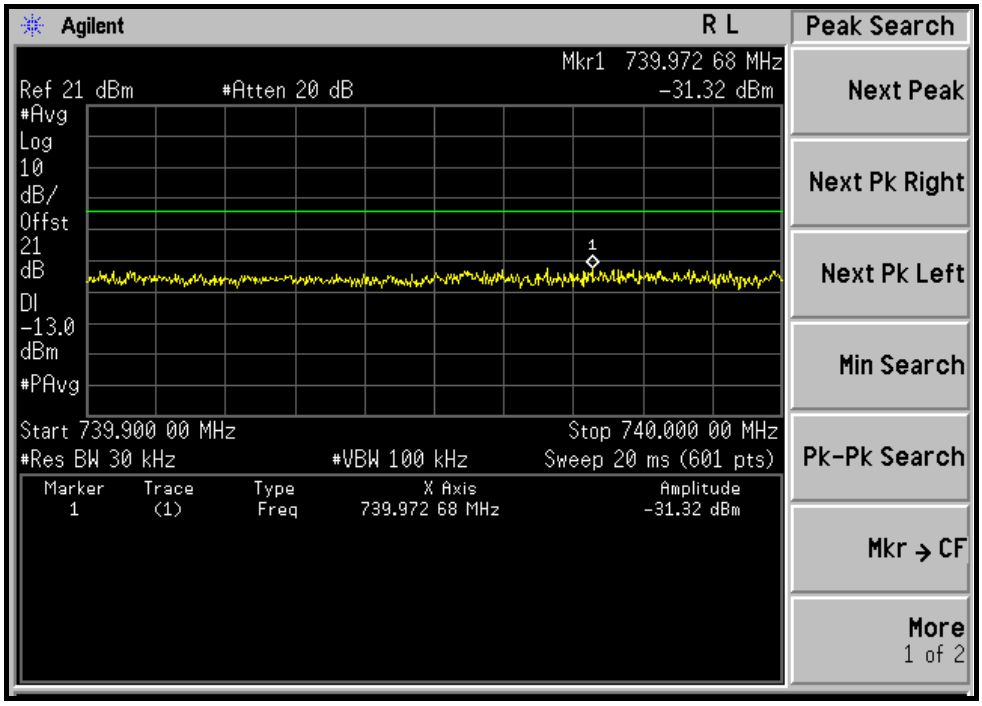
CHAIN 1: MIDDLE CHANNEL, LOWER BAND EDGE



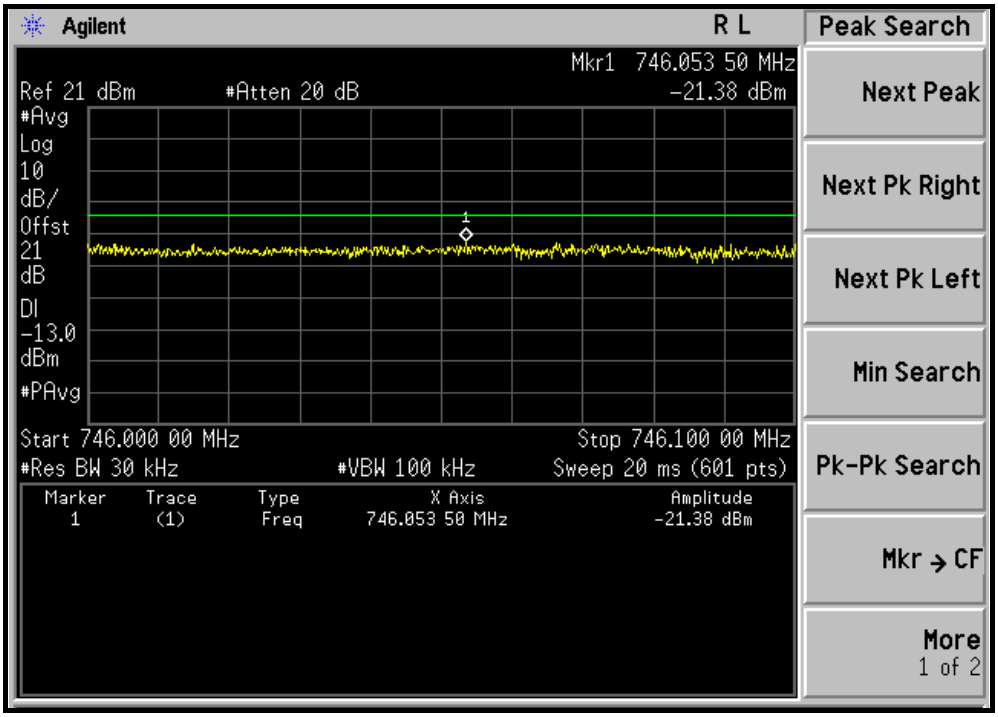
CHAIN 1: MIDDLE CHANNEL, HIGHER BAND EDGE



CHAIN 1: HIGH CHANNEL, LOWER BAND EDGE

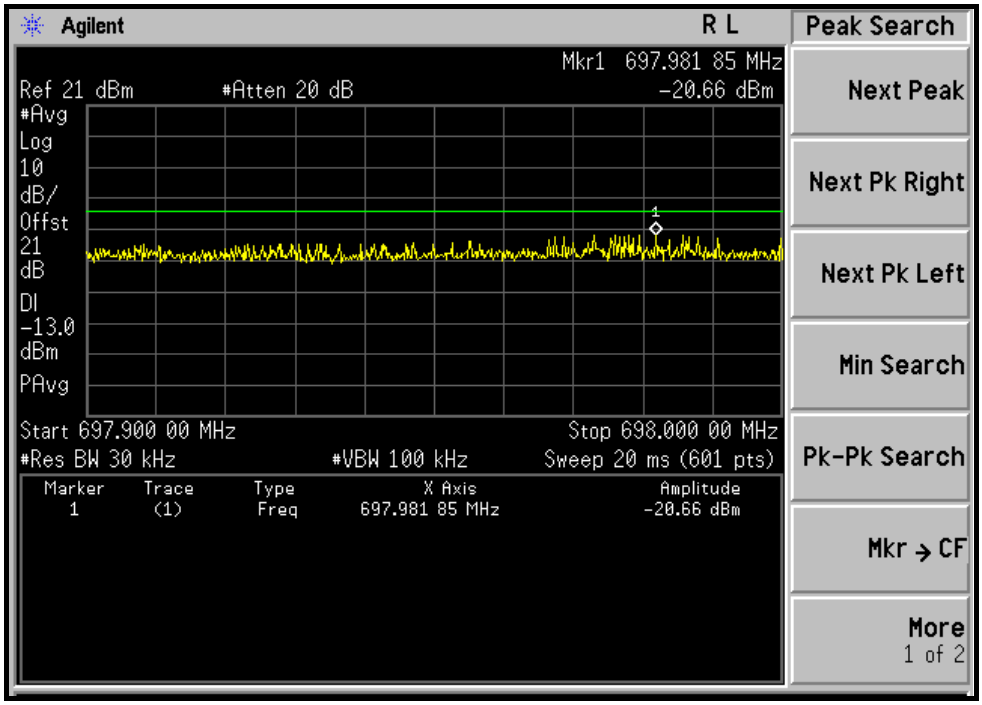


CHAIN 1: HIGH CHANNEL, HIGHER BAND EDGE

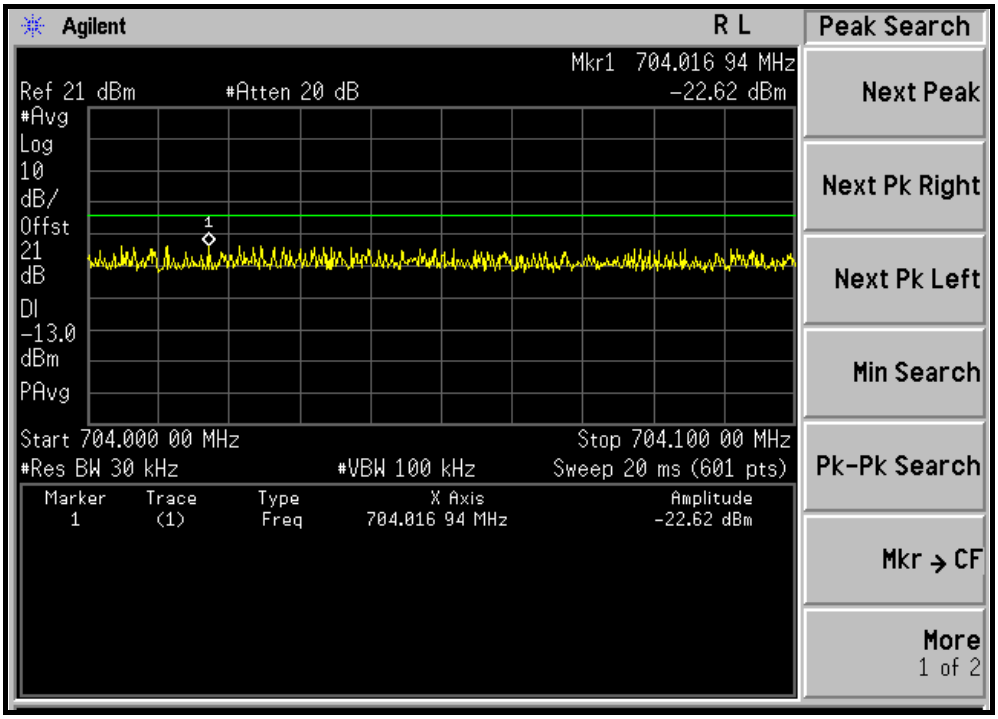


CHANNEL BANDWIDTH: 5.0MHz

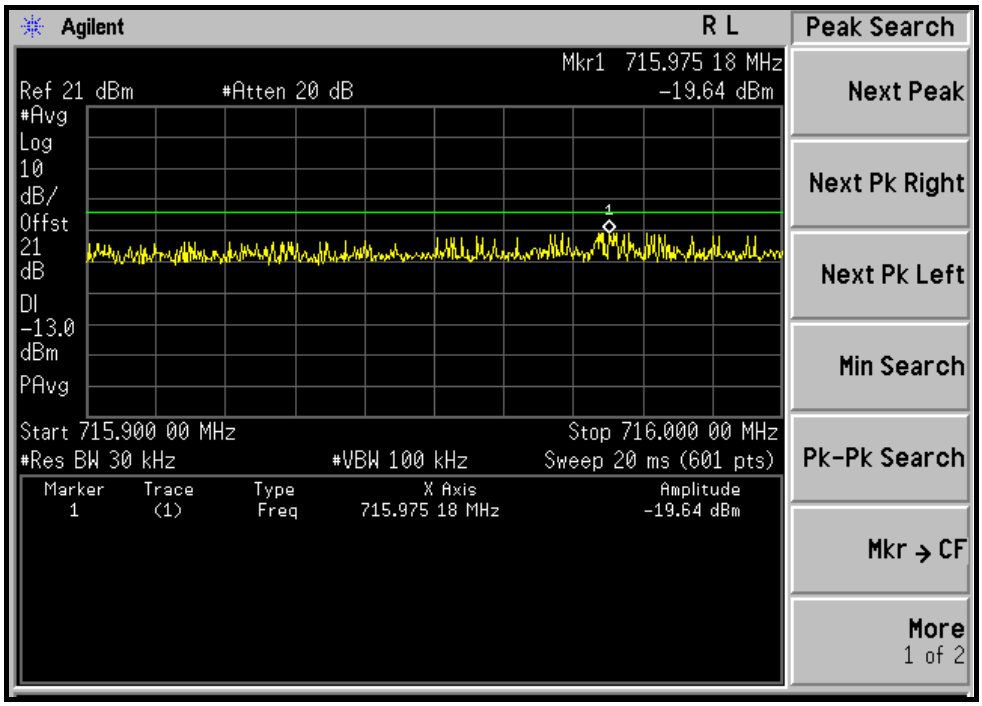
CHAIN 0: LOW CHANNEL, LOWER BAND EDGE



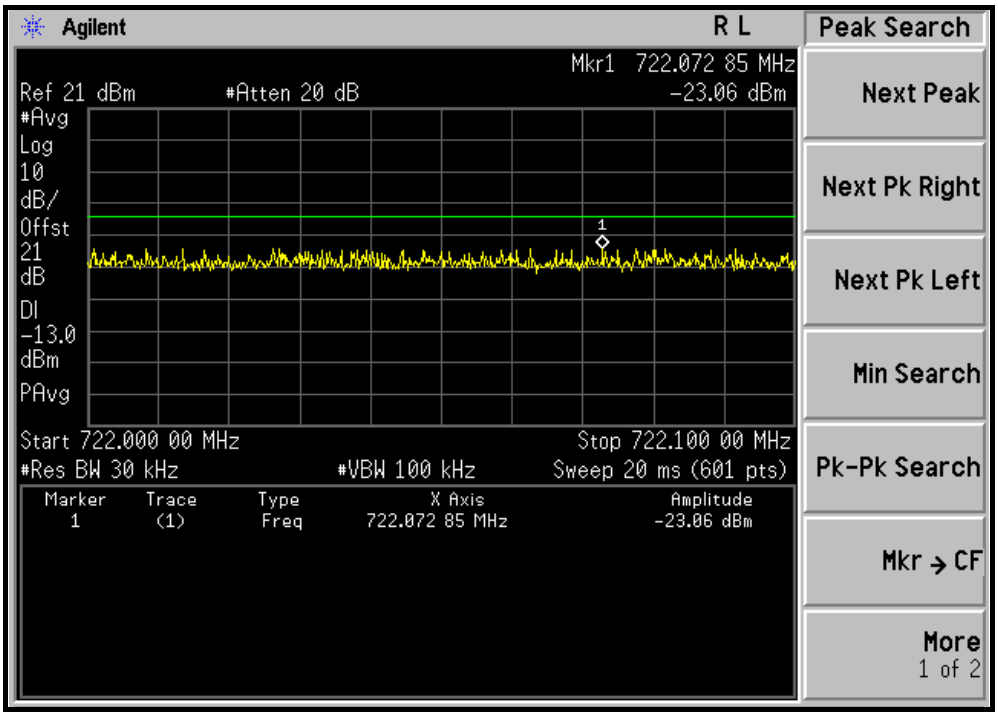
CHAIN 0: LOW CHANNEL, HIGHER BAND EDGE



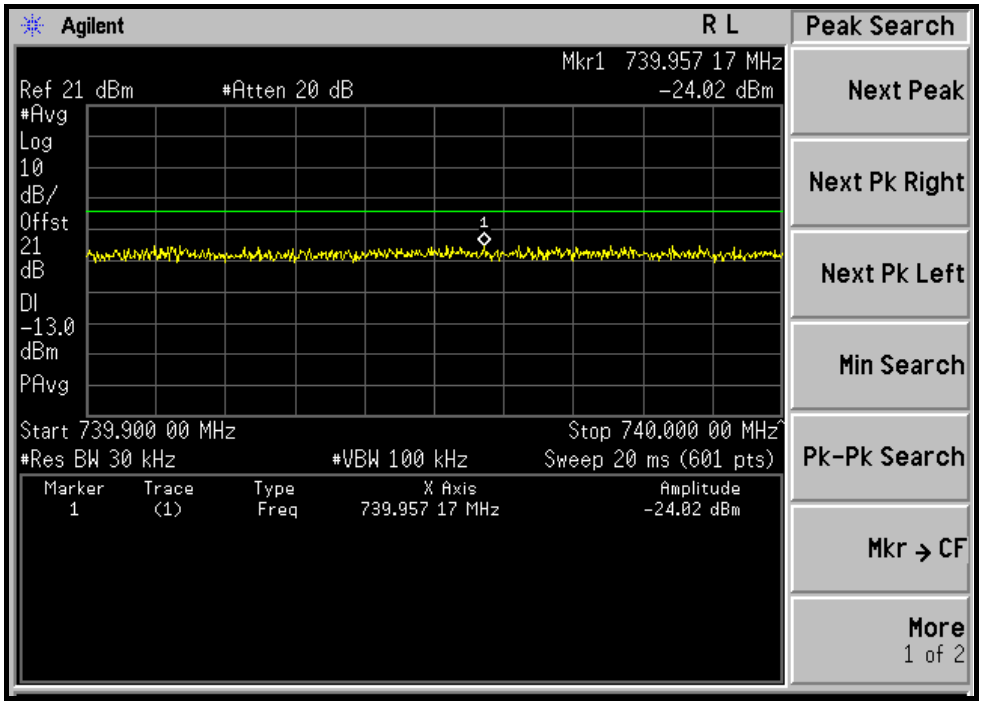
CHAIN 0: MIDDLE CHANNEL, LOWER BAND EDGE



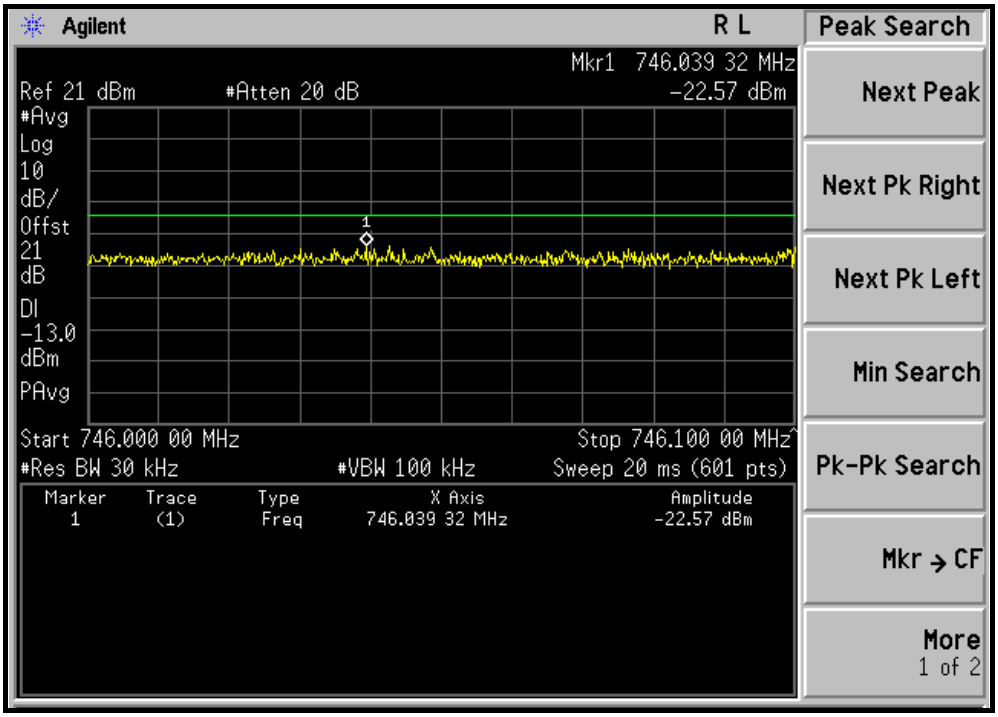
CHAIN 0: MIDDLE CHANNEL, HIGHER BAND EDGE



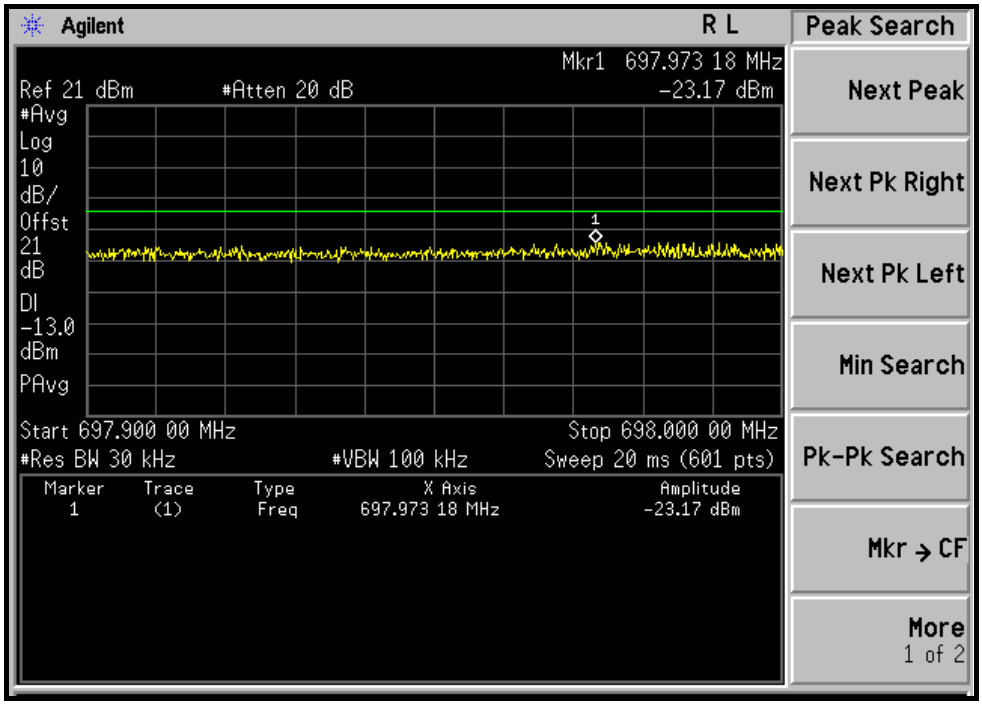
CHAIN 0: HIGH CHANNEL, LOWER BAND EDGE



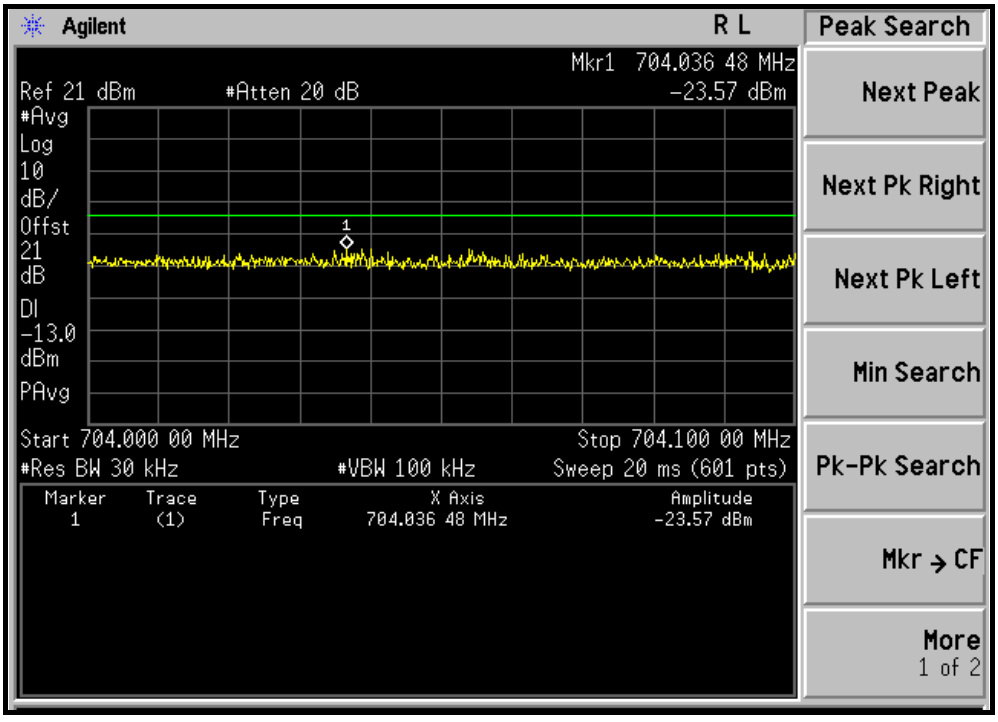
CHAIN 0: HIGH CHANNEL, HIGHER BAND EDGE



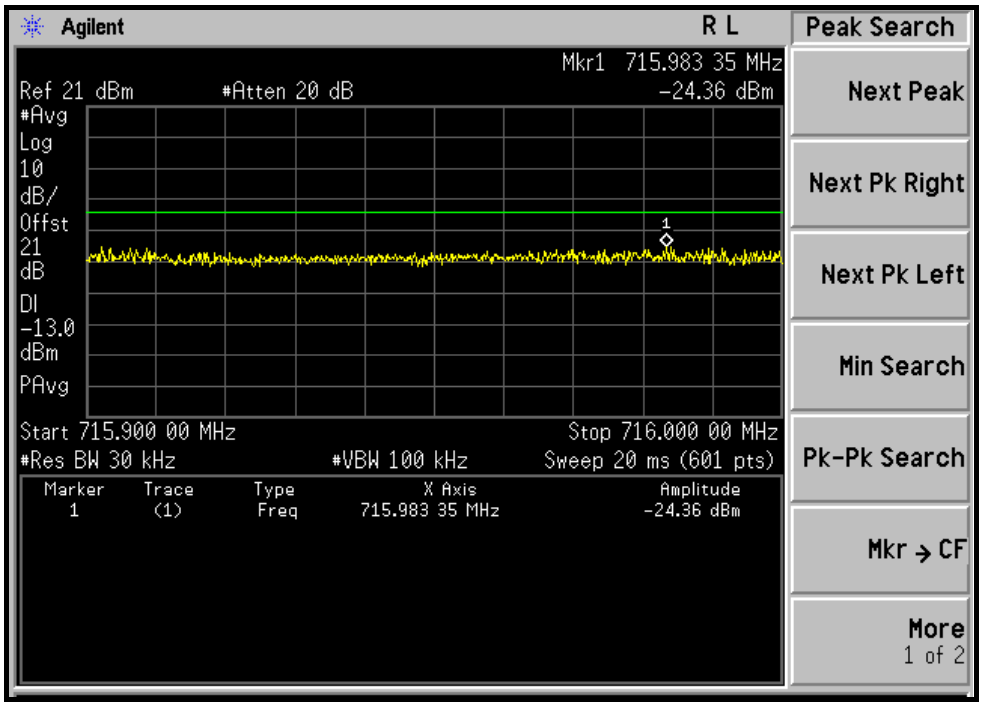
CHAIN 1: LOW CHANNEL, LOWER BAND EDGE



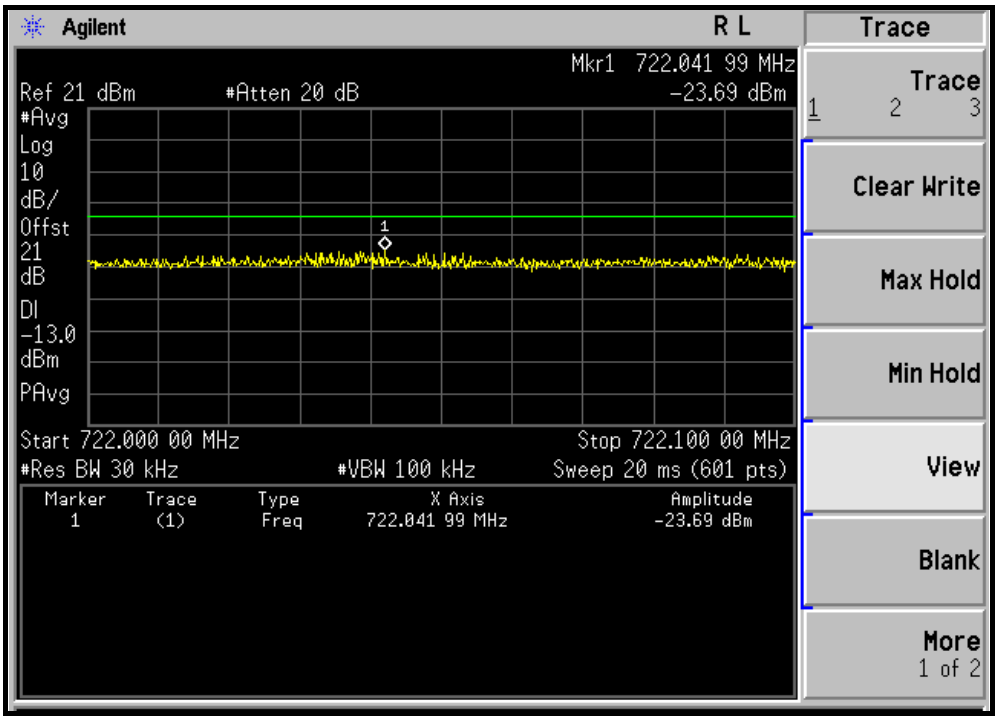
CHAIN 1: LOW CHANNEL, HIGHER BAND EDGE



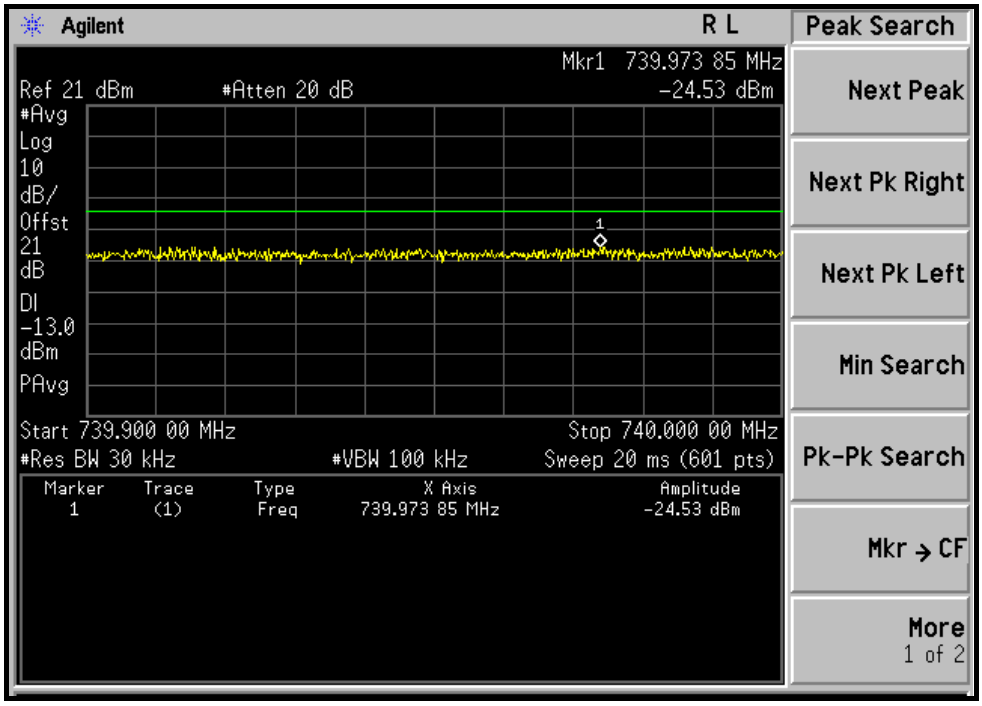
CHAIN 1: MIDDLE CHANNEL, LOWER BAND EDGE



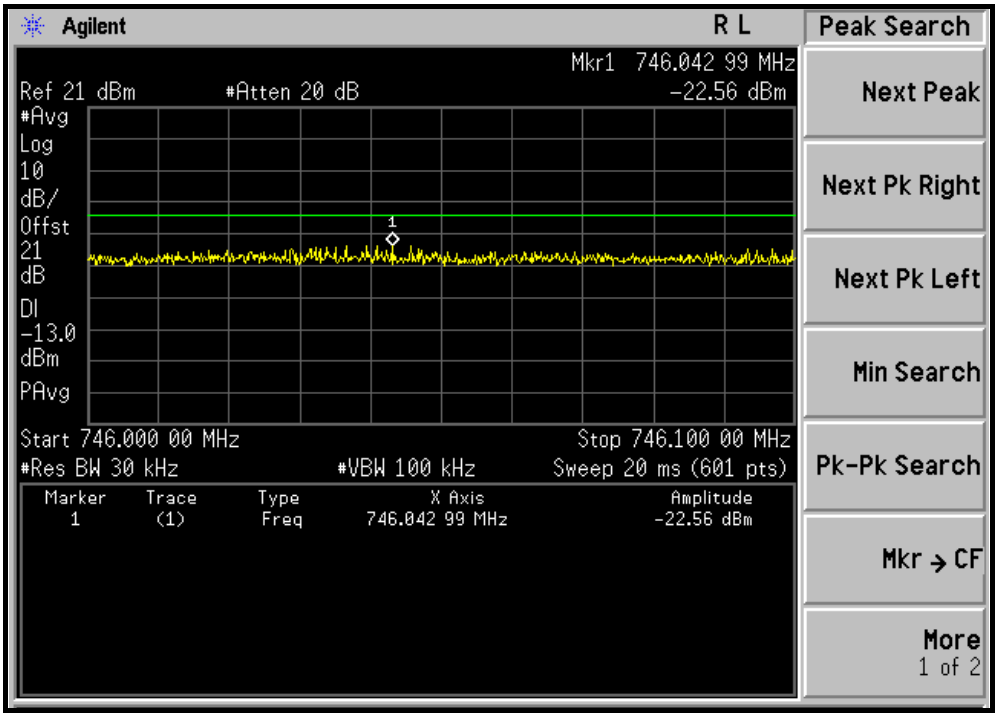
CHAIN 1: MIDDLE CHANNEL, HIGHER BAND EDGE



CHAIN 1: HIGH CHANNEL, LOWER BAND EDGE

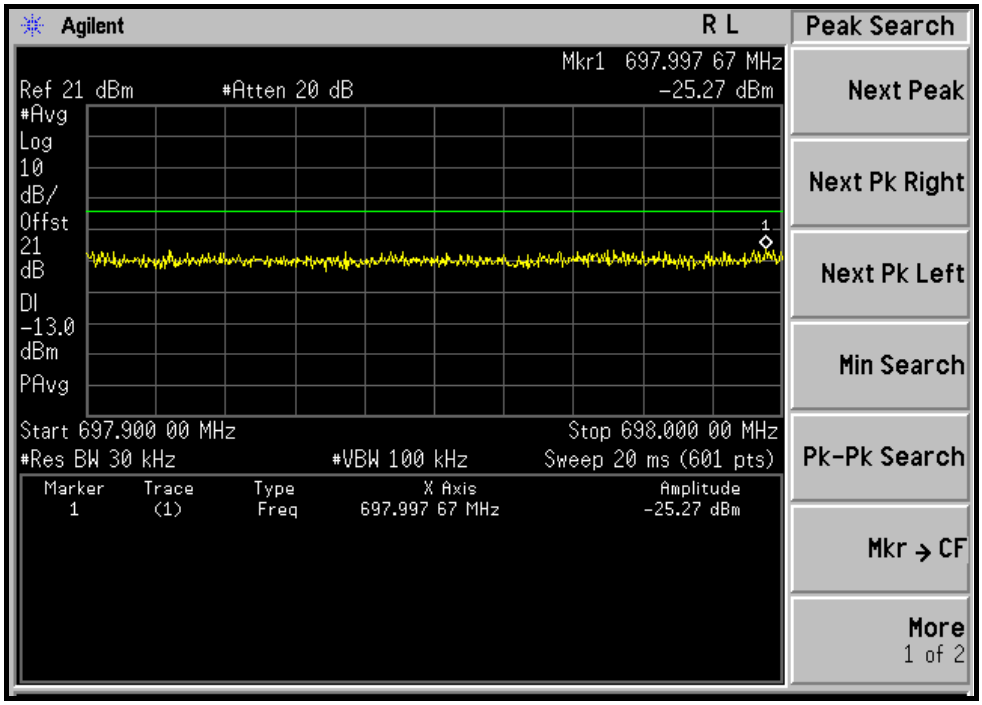


CHAIN 1: HIGH CHANNEL, HIGHER BAND EDGE

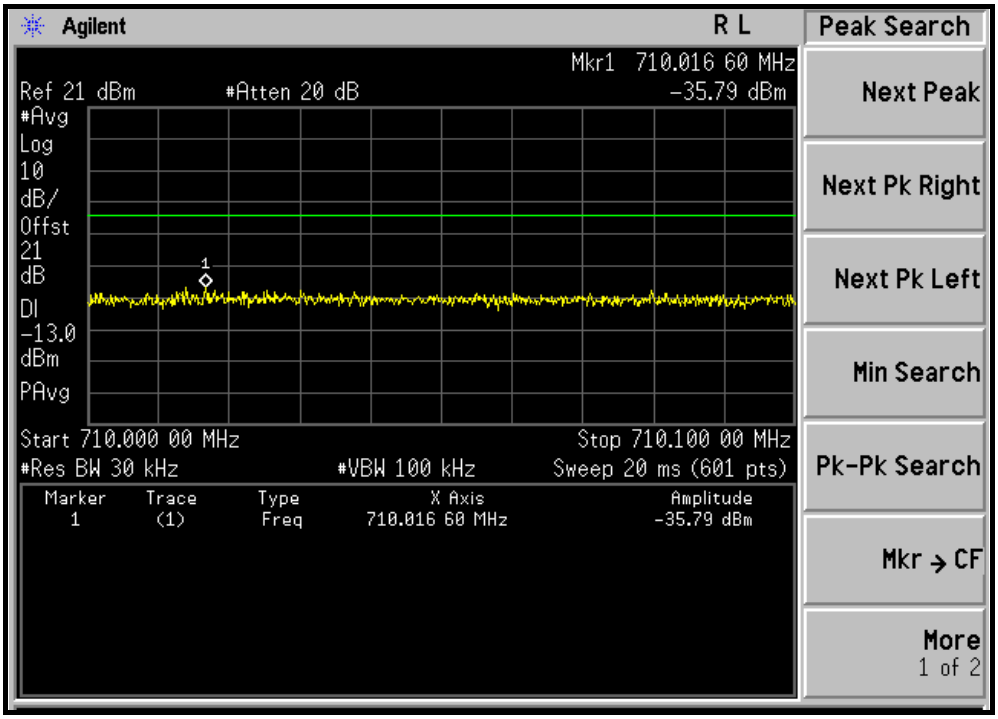


CHANNEL BANDWIDTH: 7.0MHz

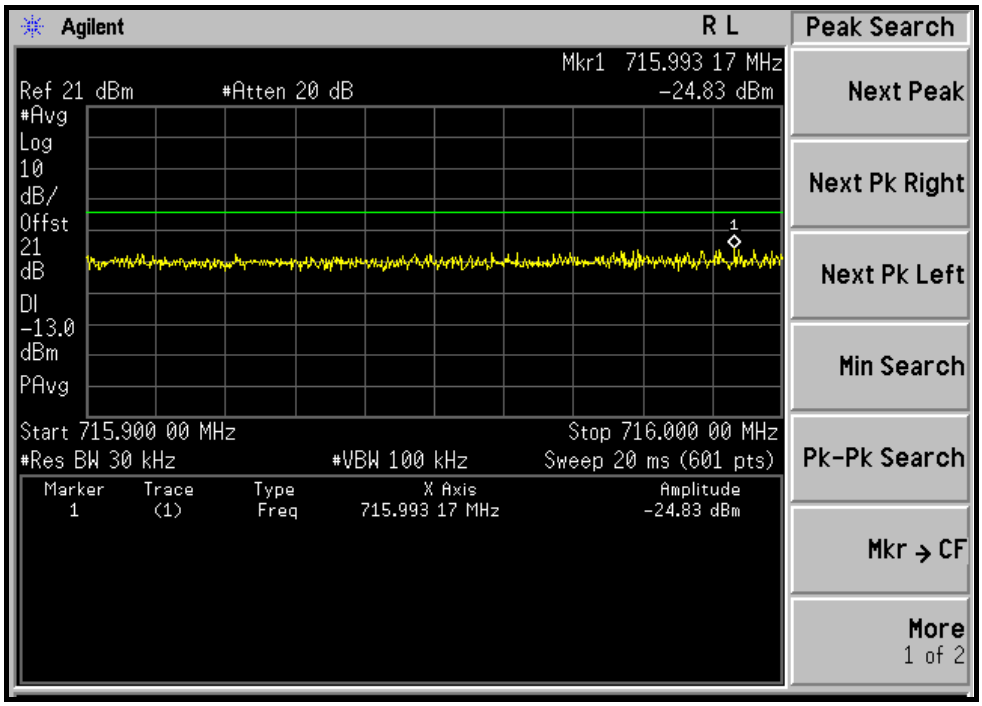
CHAIN 0: LOW CHANNEL, LOWER BAND EDGE



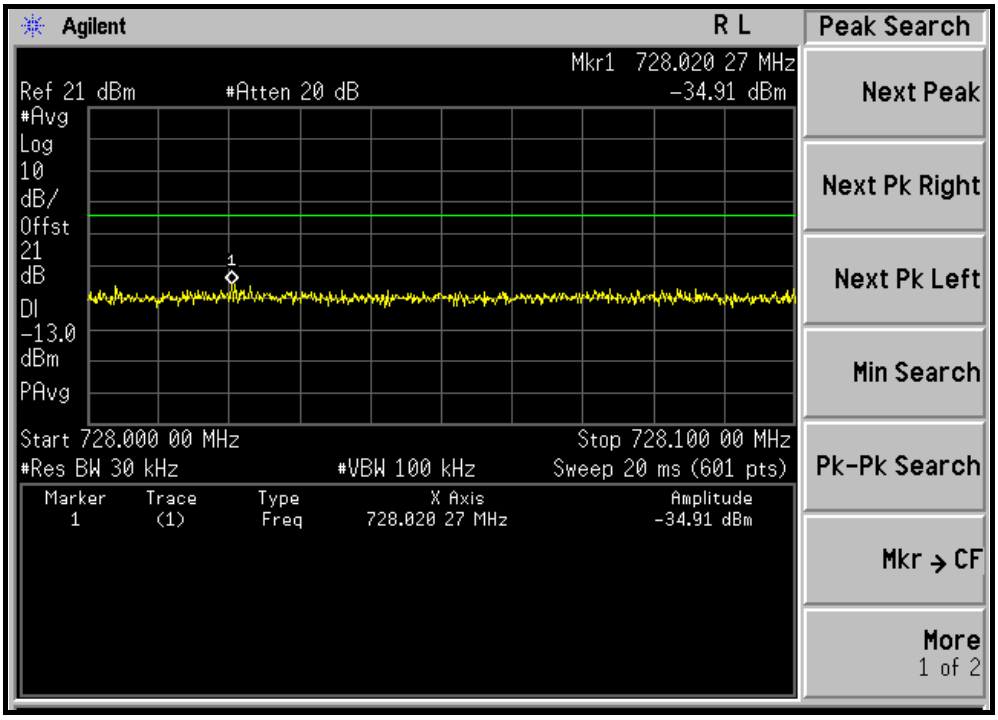
CHAIN 0: LOW CHANNEL, HIGHER BAND EDGE



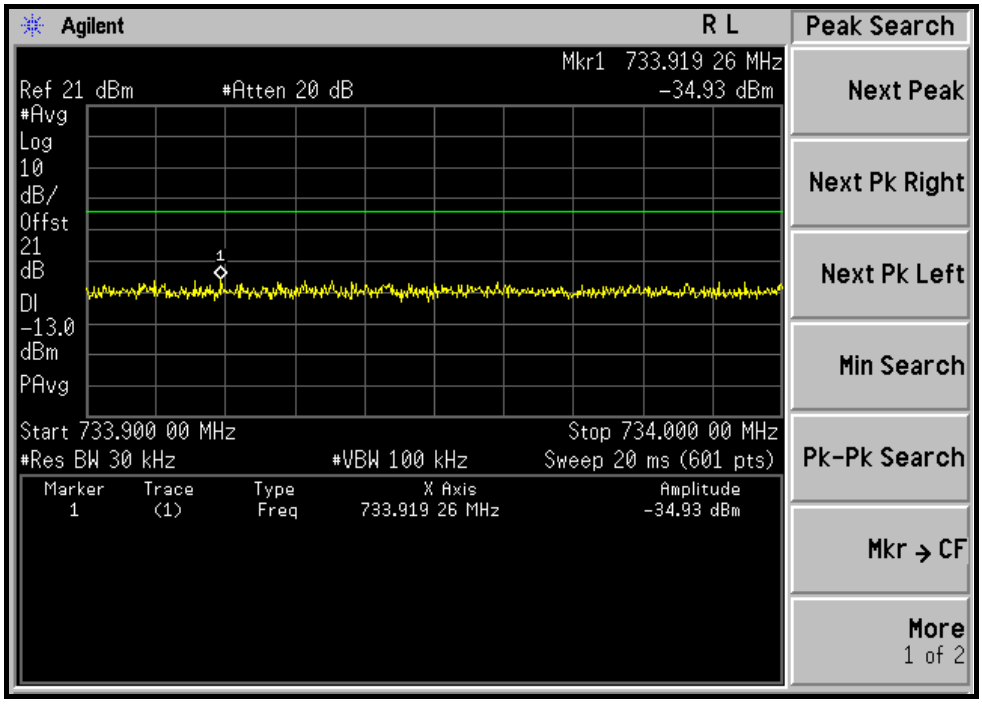
CHAIN 0: MIDDLE CHANNEL, LOWER BAND EDGE



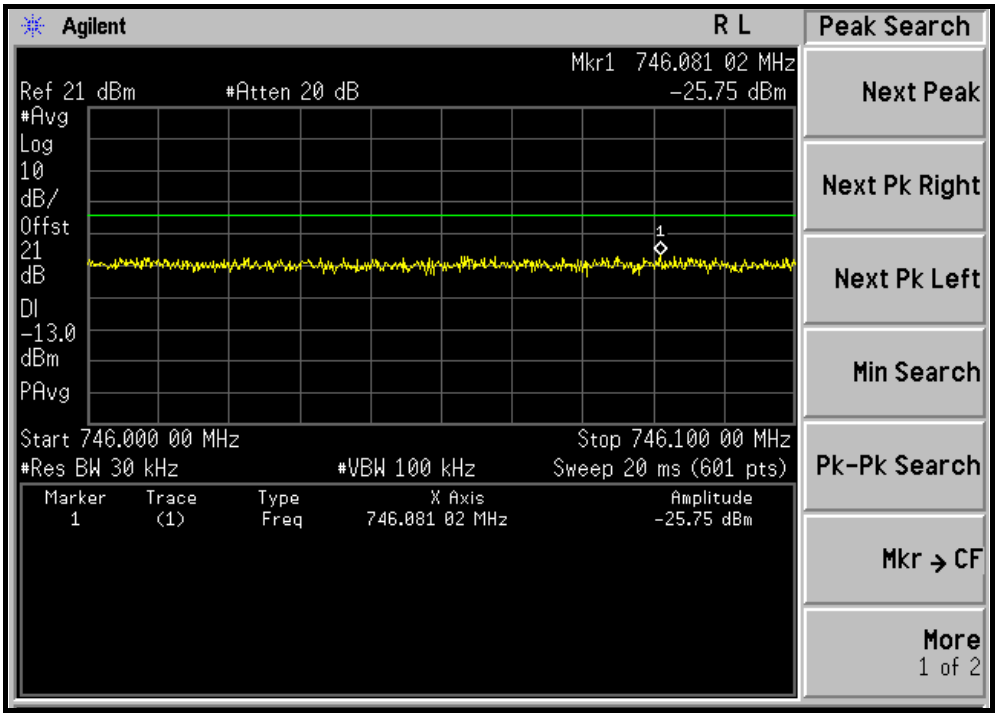
CHAIN 0: MIDDLE CHANNEL, HIGHER BAND EDGE



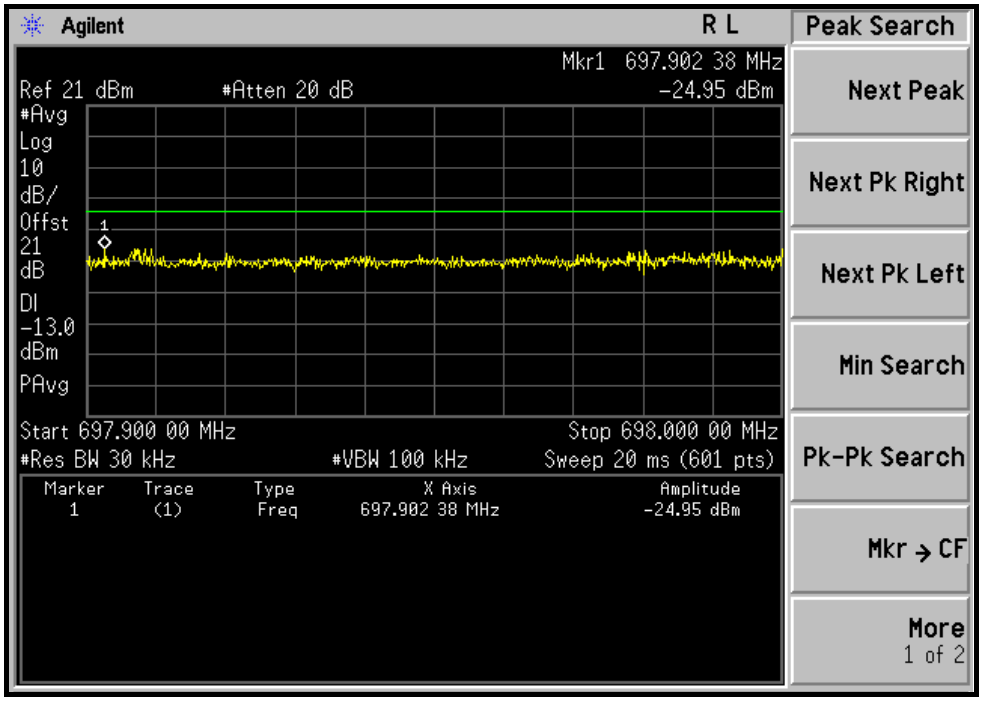
CHAIN 0: HIGH CHANNEL, LOWER BAND EDGE



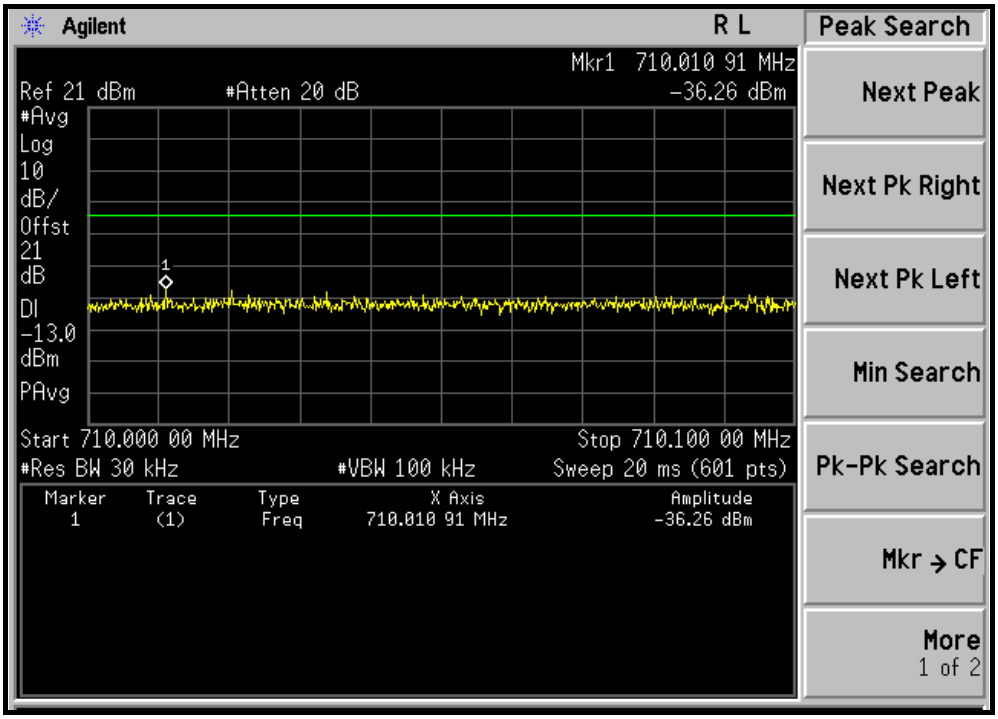
CHAIN 0: HIGH CHANNEL, HIGHER BAND EDGE



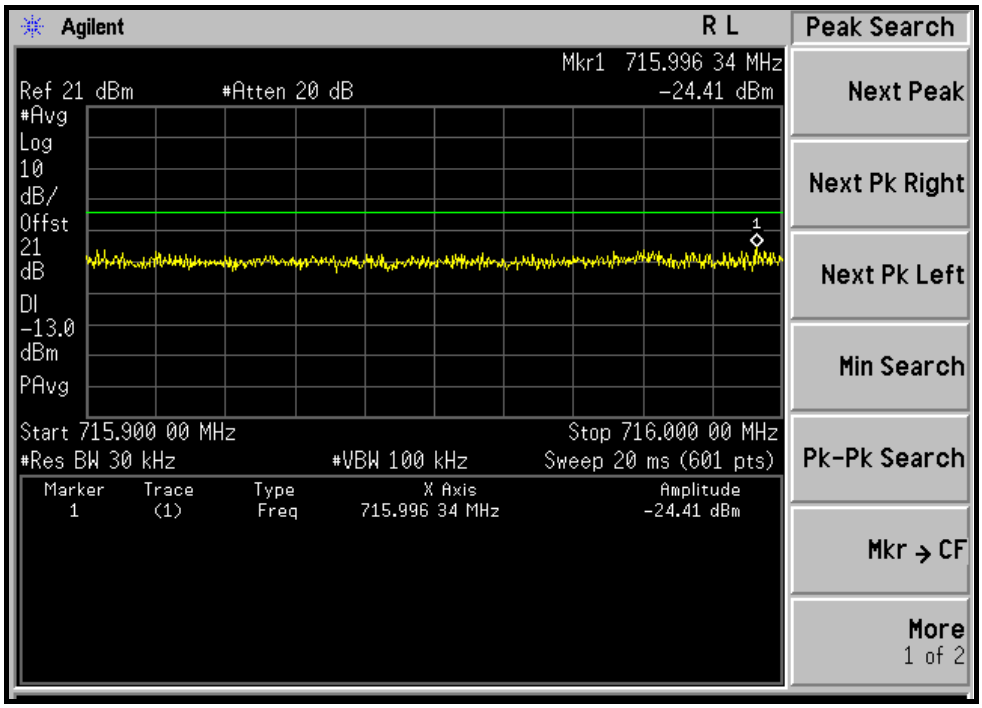
CHAIN 1: LOW CHANNEL, LOWER BAND EDGE



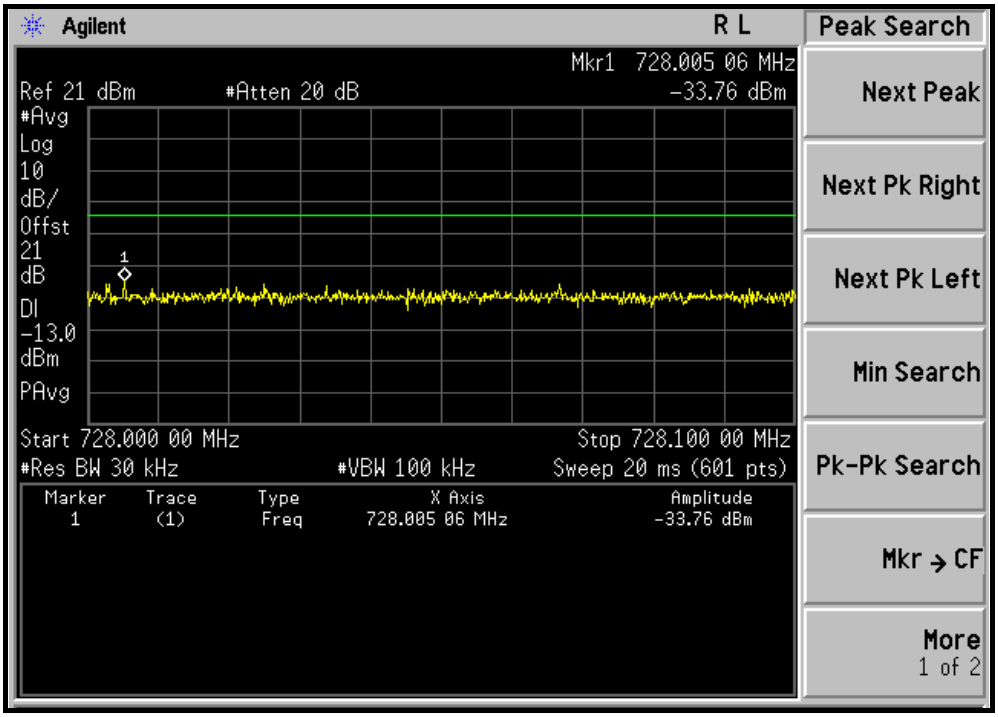
CHAIN 1: LOW CHANNEL, HIGHER BAND EDGE



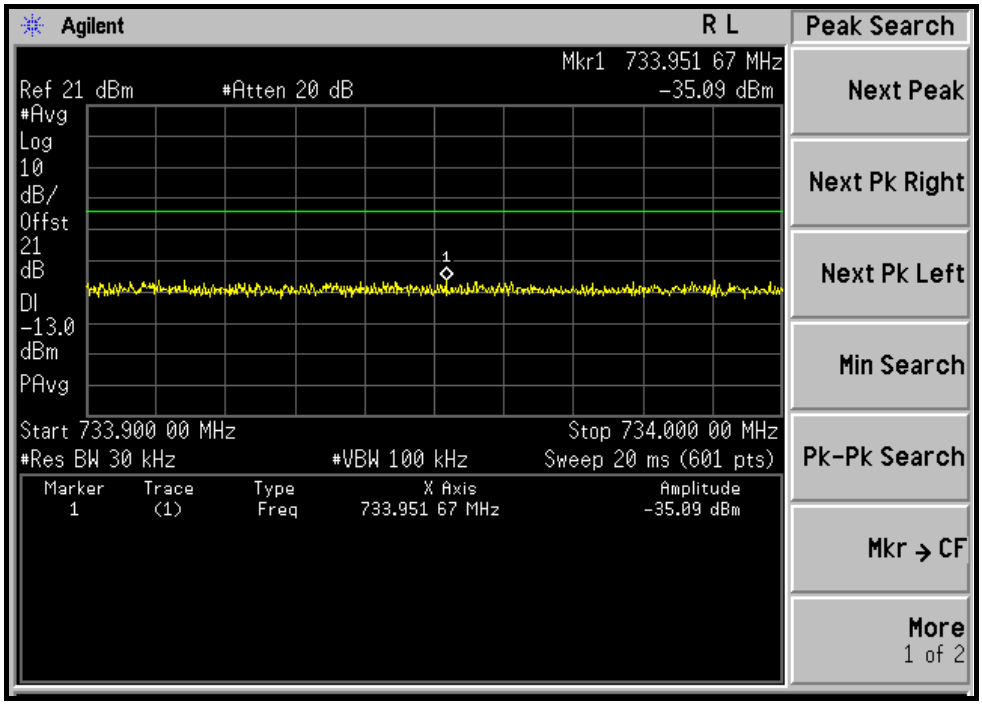
CHAIN 1: MIDDLE CHANNEL, LOWER BAND EDGE



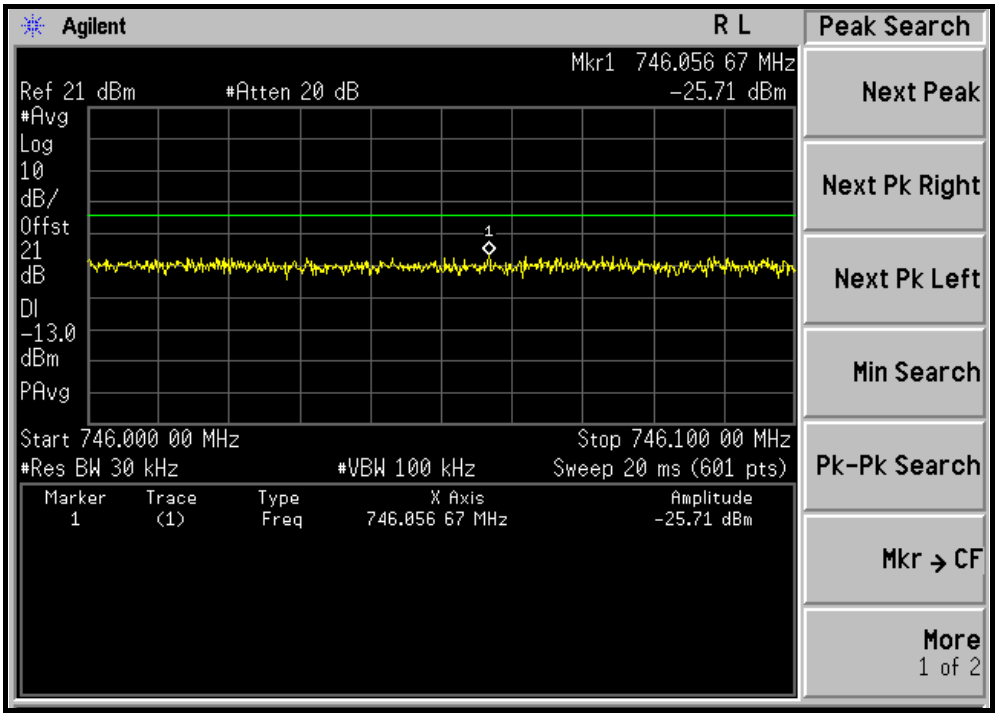
CHAIN 1: MIDDLE CHANNEL, HIGHER BAND EDGE



CHAIN 1: HIGH CHANNEL, LOWER BAND EDGE

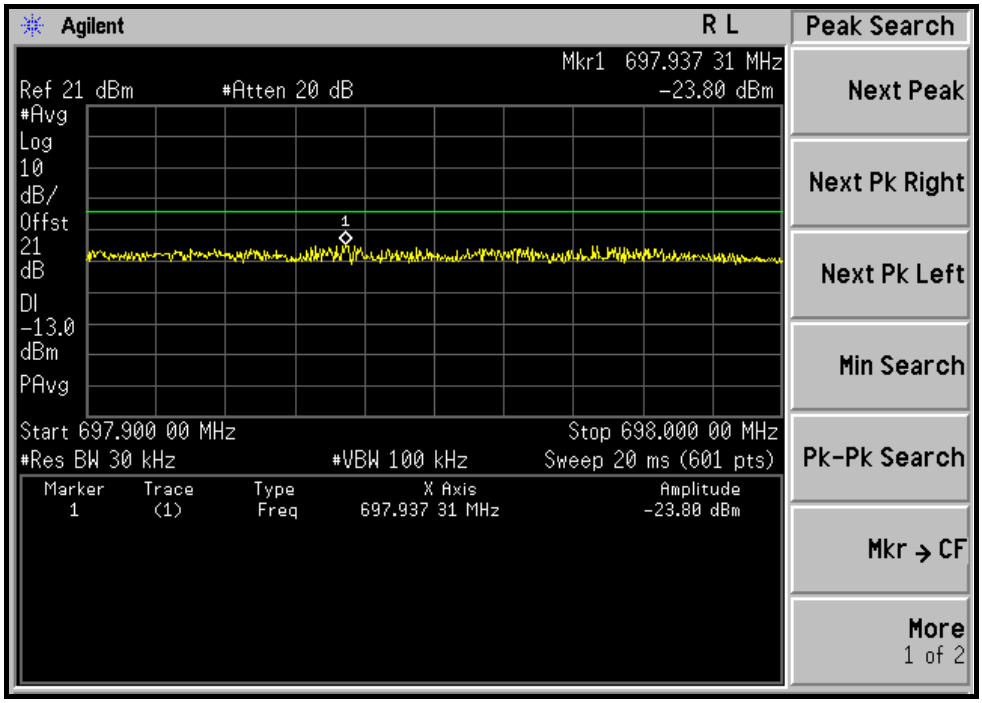


CHAIN 1: HIGH CHANNEL, HIGHER BAND EDGE

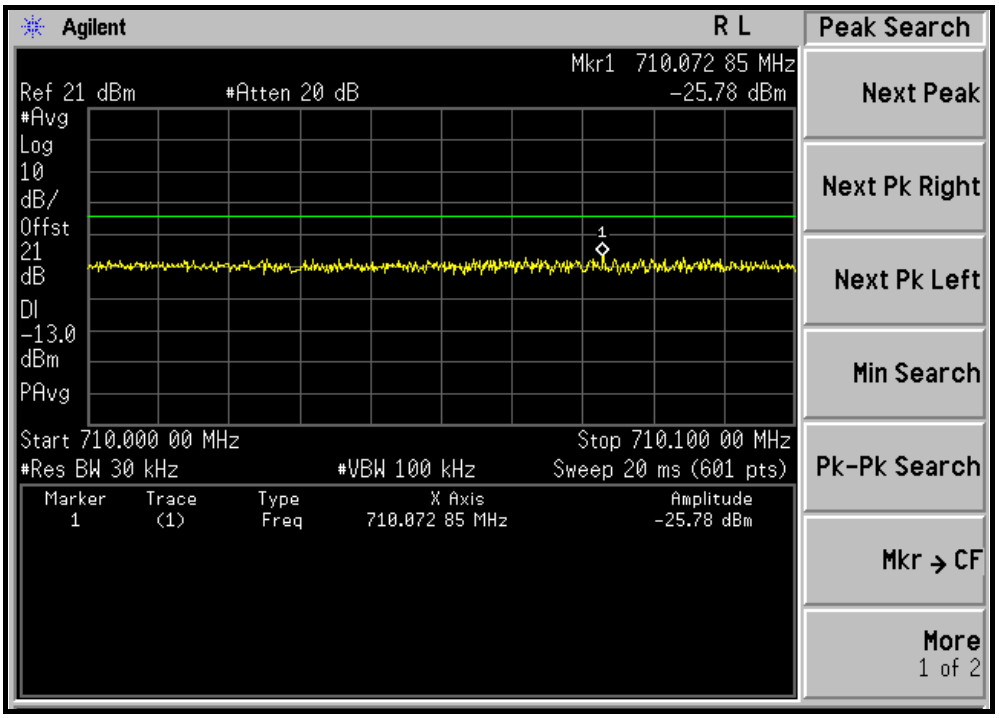


CHANNEL BANDWIDTH: 10.0MHz

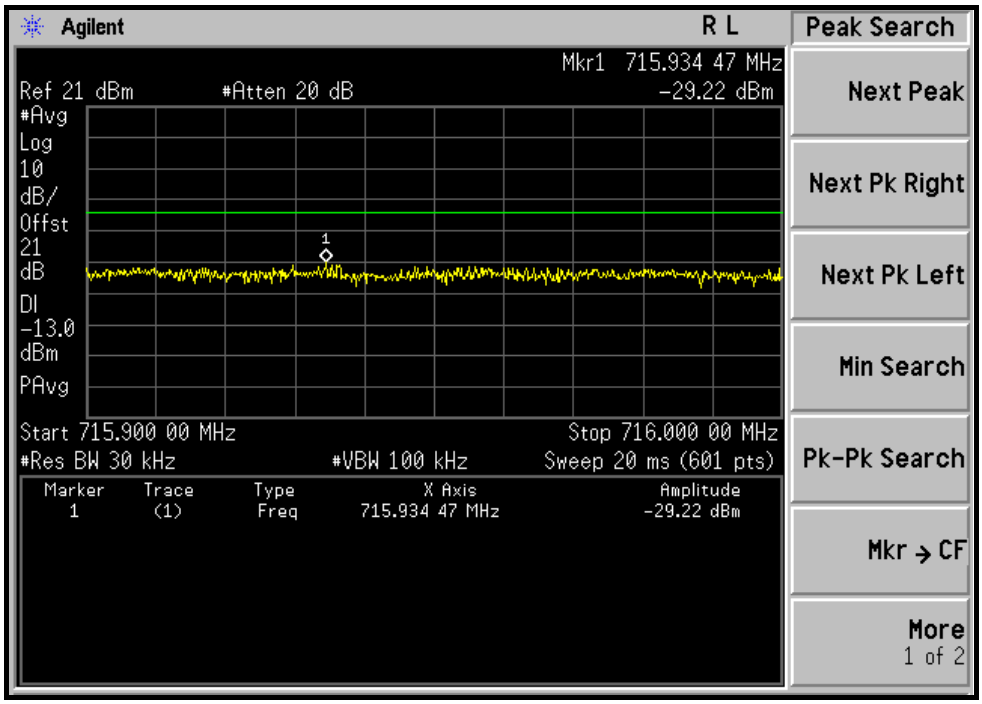
CHAIN 0: LOW CHANNEL, LOWER BAND EDGE



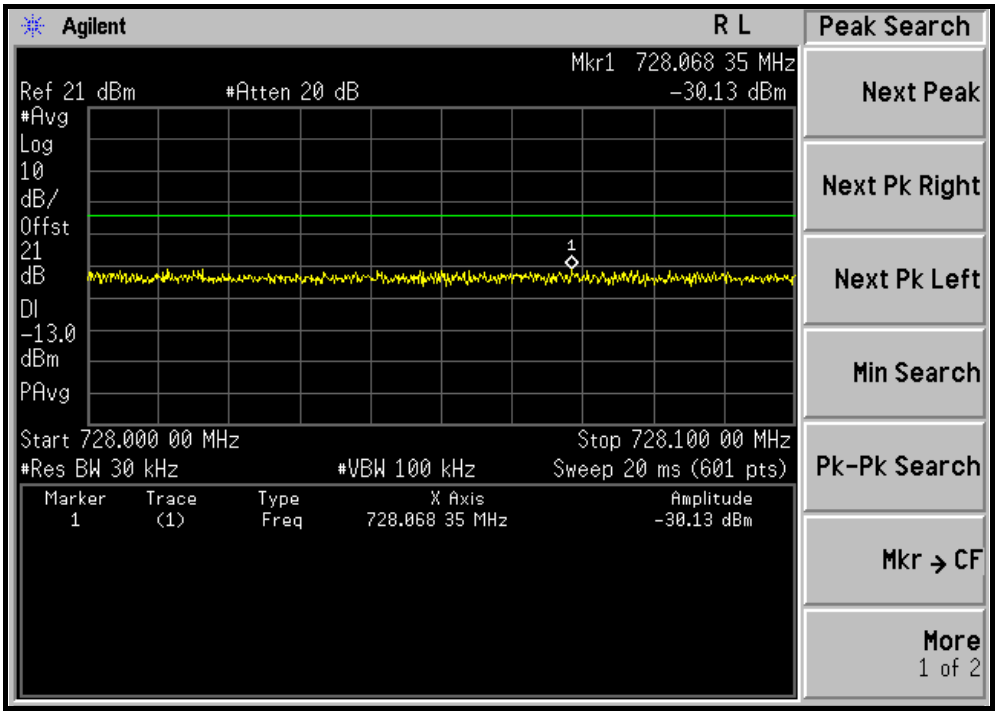
CHAIN 0: LOW CHANNEL, HIGHER BAND EDGE



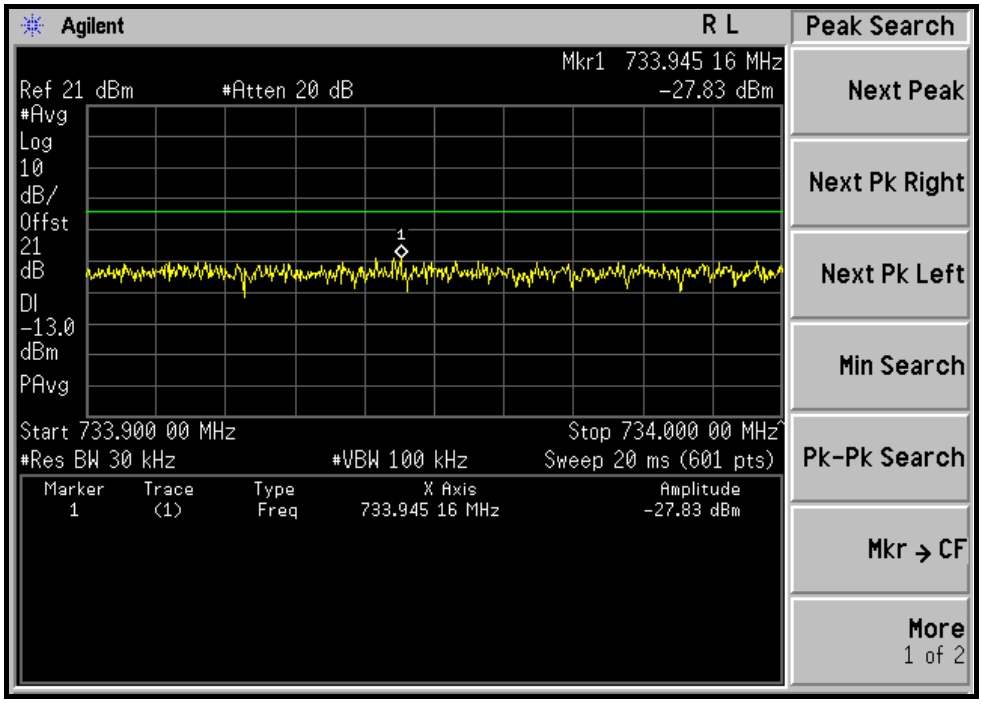
CHAIN 0: MIDDLE CHANNEL, LOWER BAND EDGE



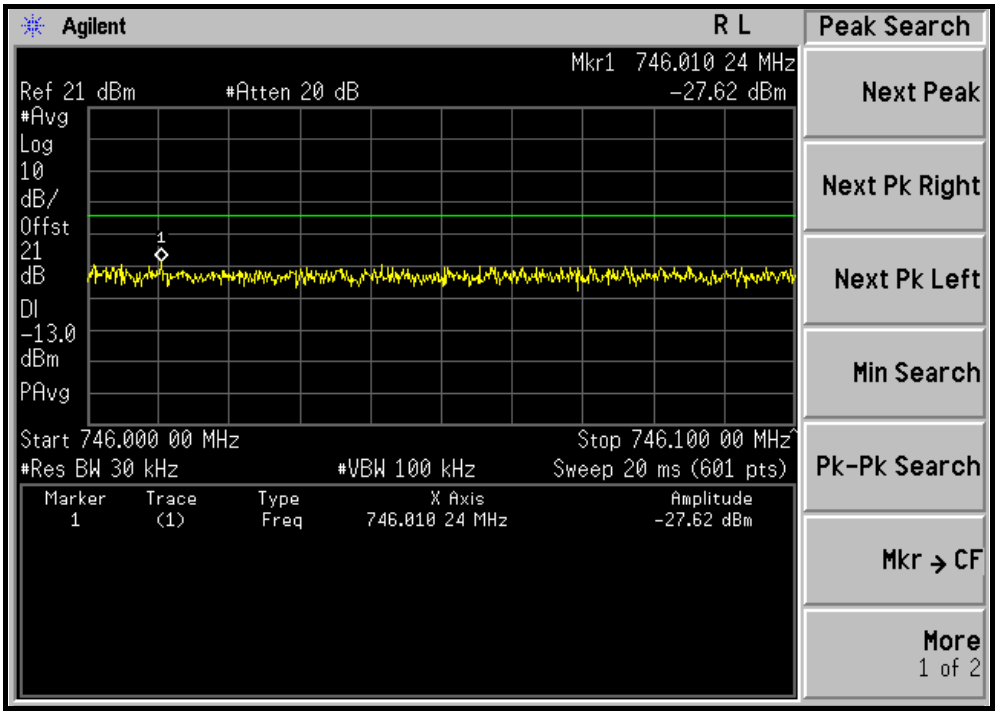
CHAIN 0: MIDDLE CHANNEL, HIGHER BAND EDGE



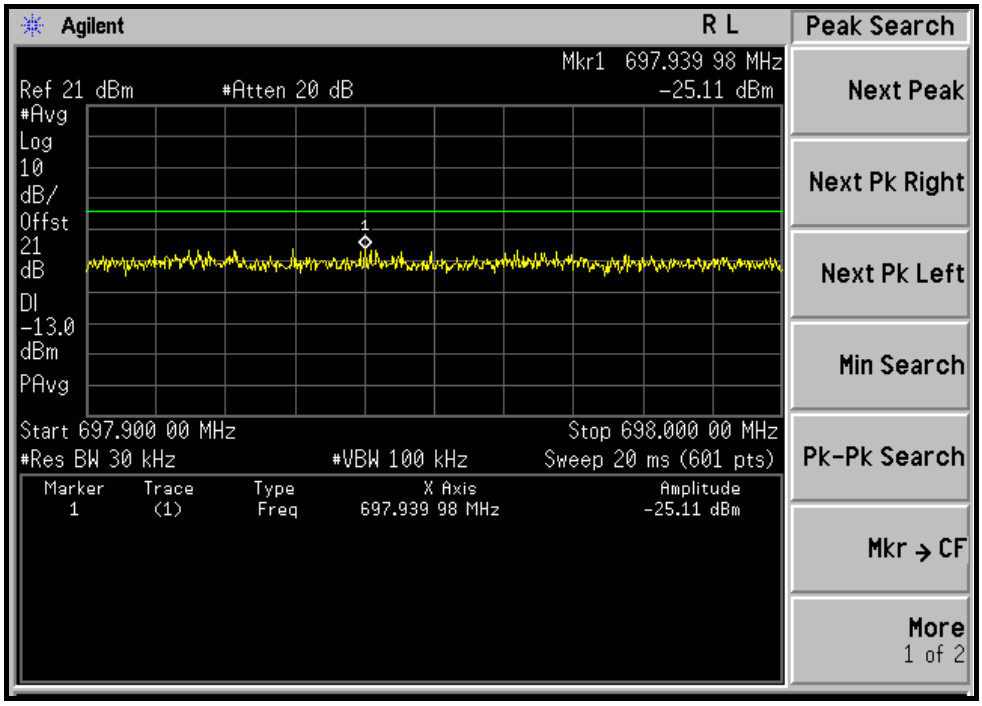
CHAIN 0: HIGH CHANNEL, LOWER BAND EDGE



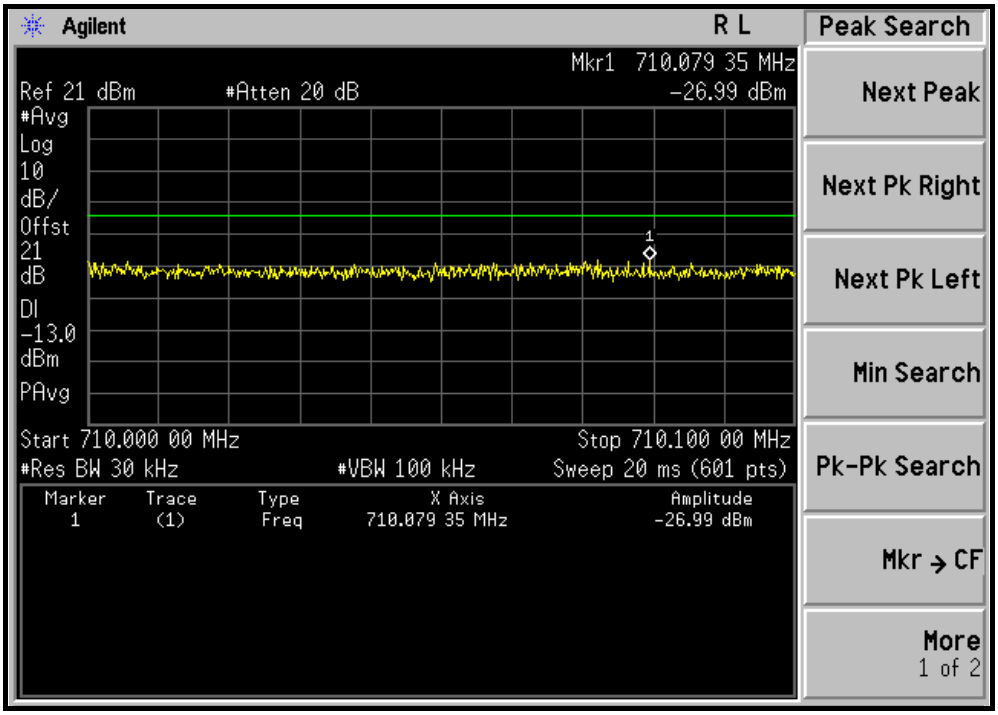
CHAIN 0: HIGH CHANNEL, HIGHER BAND EDGE



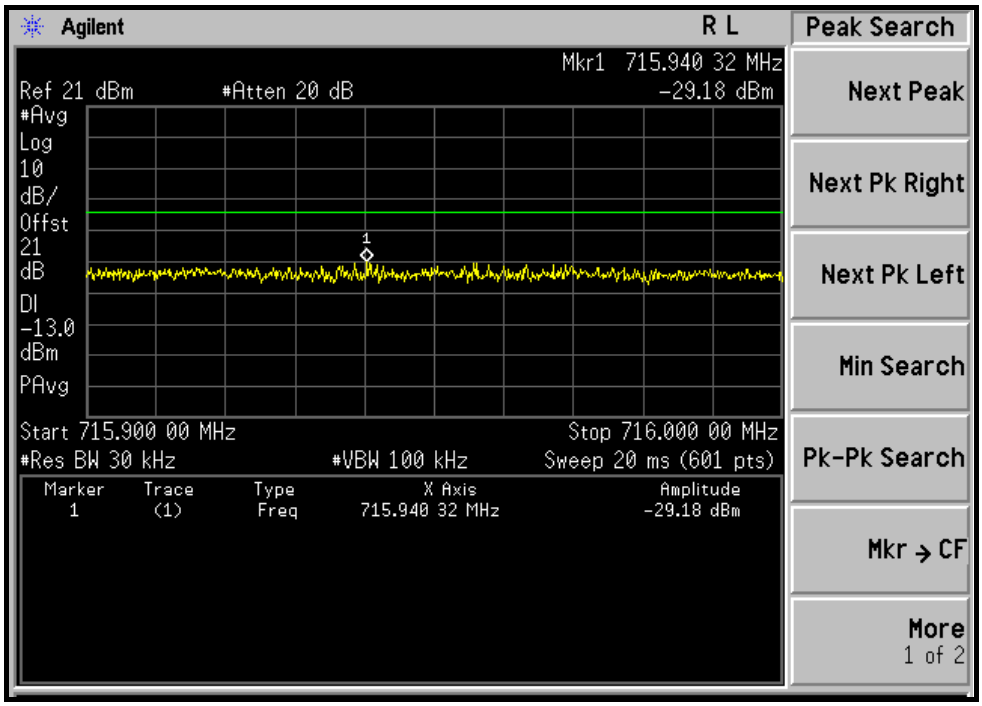
CHAIN 1: LOW CHANNEL, LOWER BAND EDGE



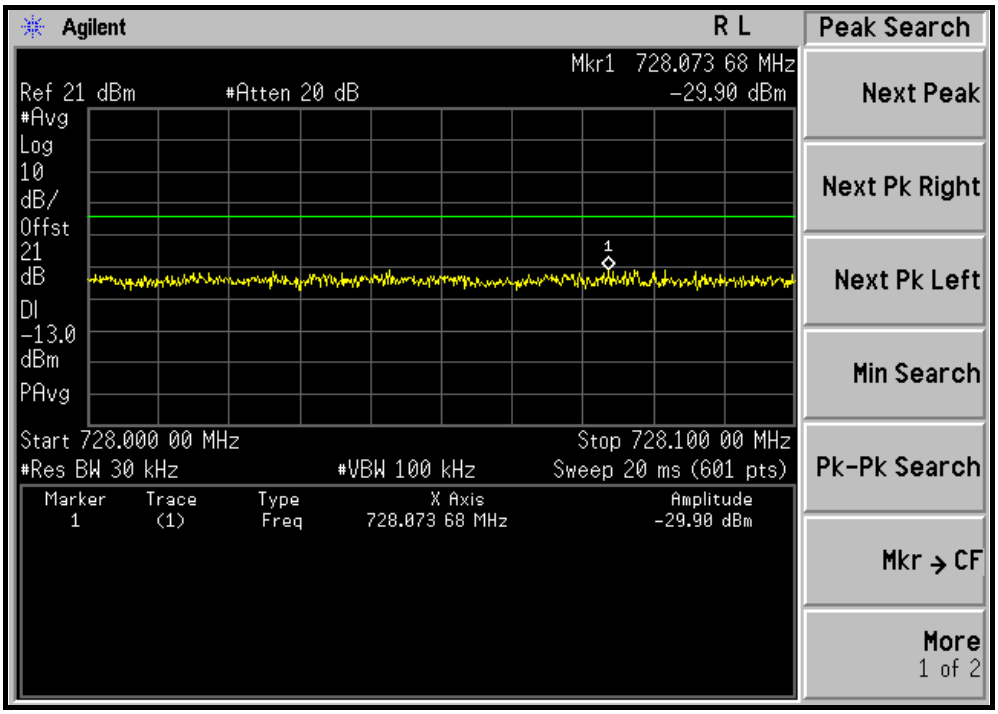
CHAIN 1: LOW CHANNEL, HIGHER BAND EDGE



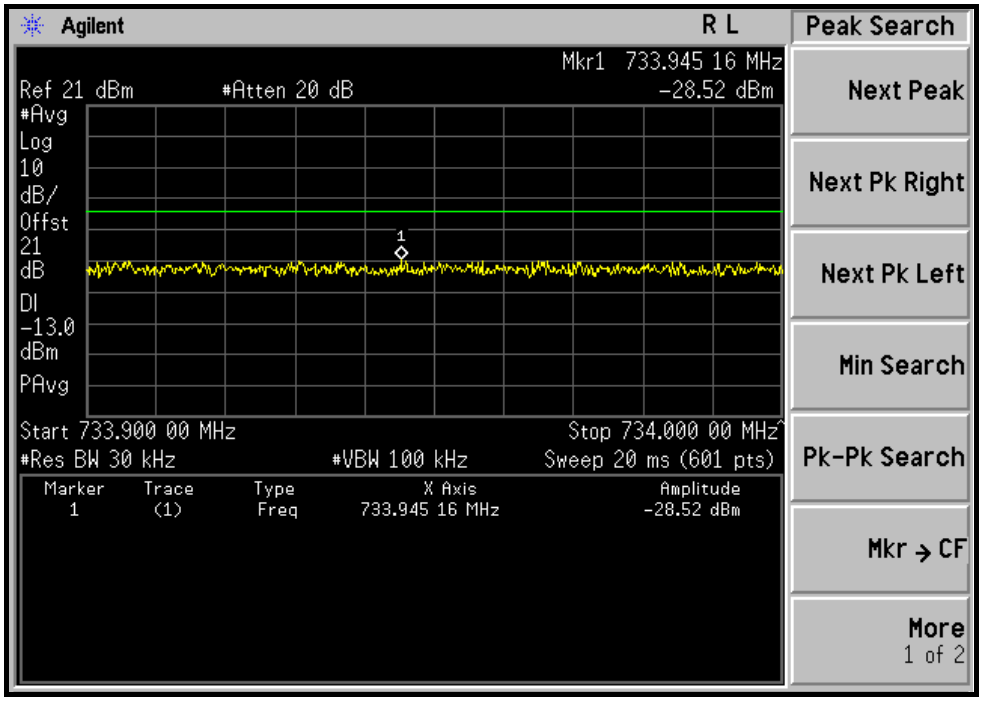
CHAIN 1: MIDDLE CHANNEL, LOWER BAND EDGE



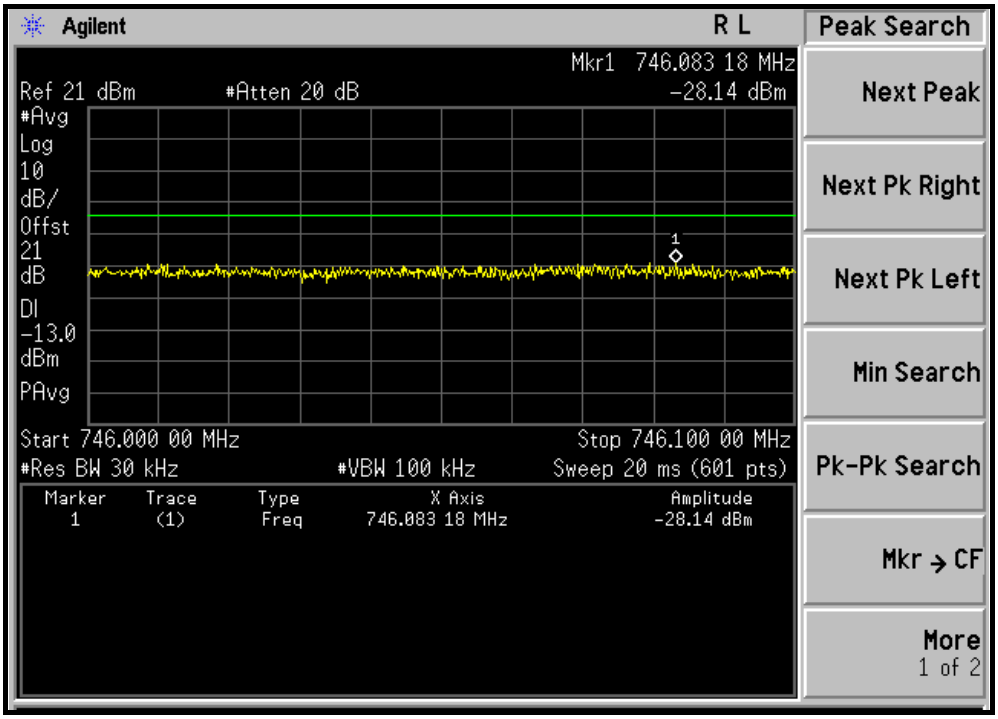
CHAIN 1: MIDDLE CHANNEL, HIGHER BAND EDGE



CHAIN 1: HIGH CHANNEL, LOWER BAND EDGE



CHAIN 1: HIGH CHANNEL, HIGHER BAND EDGE



4.5 CONDUCTED SPURIOUS EMISSIONS

4.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 43 +10 log10(P) dB. The limit of emission equal to –13dBm

4.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
ROHDE & SCHWARZ Spectrum Analyzer	FSP40	100041	Jul. 09, 2010	Jul. 08, 2011
Wainwright Instruments High Pass Filter	WHK3.1/18G-10SS	SN3	Jun. 29, 2010	Jun. 28, 2011
Mini-Circuits Power Splitter	ZAPD-4	NA	Jun. 29, 2010	Jun. 28, 2011
Hewlett Packard RF cable	8120-6192	274388	Oct. 22, 2010	Oct. 21, 2011
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA
Suhner RF cable	Sucoflex104	246272	May 14, 2010	May 13, 2011

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

4.5.3 TEST PROCEDURE

a. The EUT was set up for the maximum peak power with WiMAX link data modulation. The power was measured with Agilent Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range.).

b. The conducted spurious emission used the attenuator via EUT RF power connector on spectrum analyzer.

c. When the spectrum scanned from 9kHz to 1GHz, it shall be connected to the band reject filter attenuated the carried frequency. The spectrum set RB=100kHz, VB=300kHz.

d. When the spectrum scanned from 1GHz to 8GHz, it shall be connected to the high pass filter attenuated the carried frequency. The spectrum set RB=1MHz, VB=3MHz.

4.5.4 TEST SETUP

Same as Item 4.3.3.

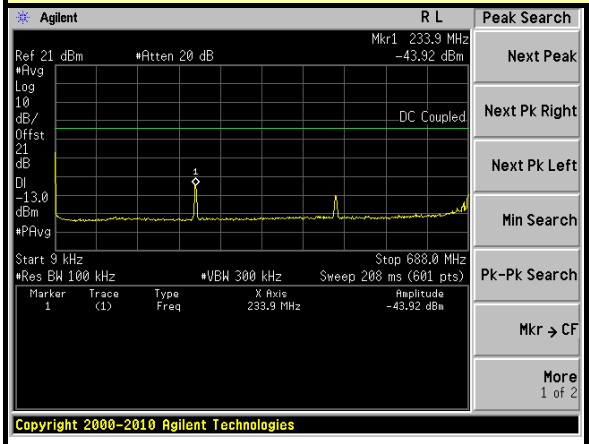
4.5.5 EUT OPERATING CONDITIONS

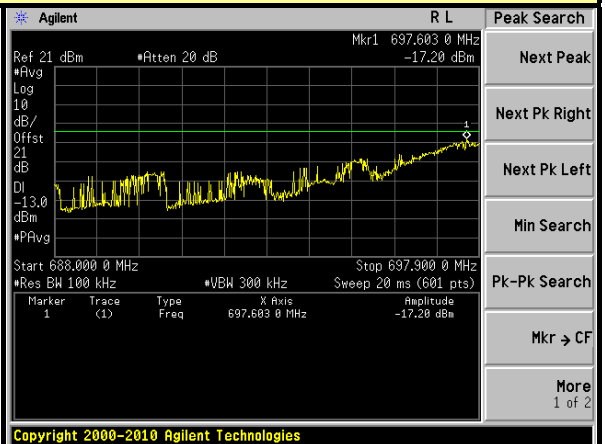
Same as Item 4.1.5

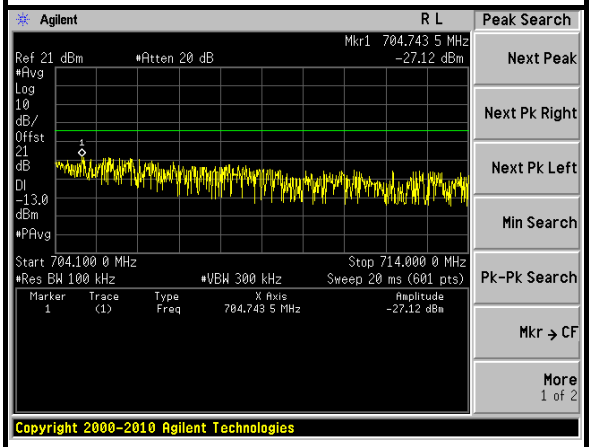
4.5.6 TEST RESULTS

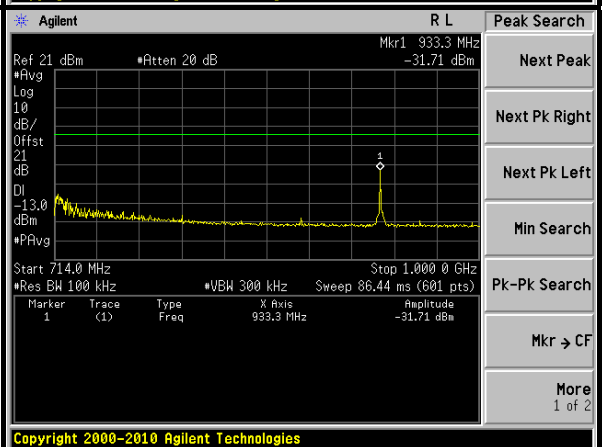
CHANNEL BANDWIDTH: 3.5MHz

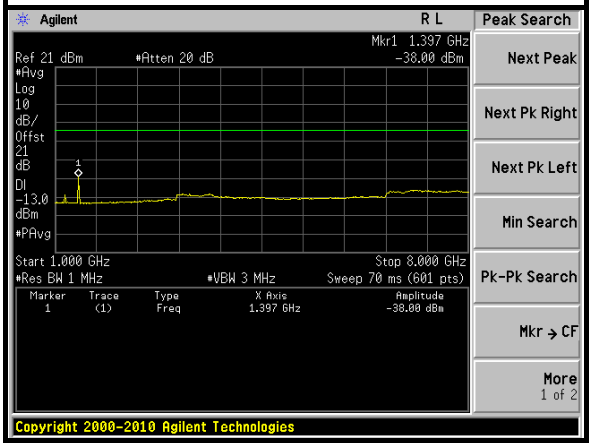
CHAIN 0, LOW CHANNEL



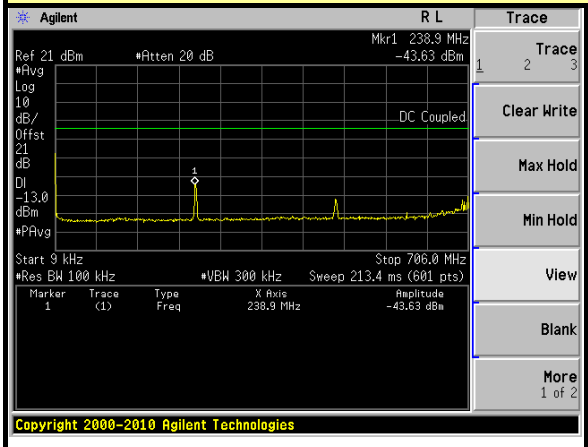


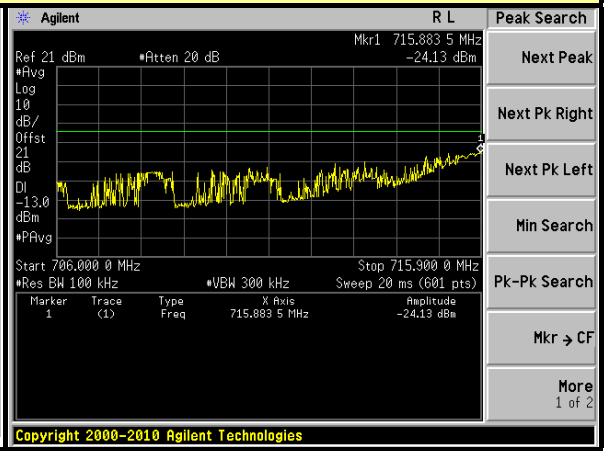


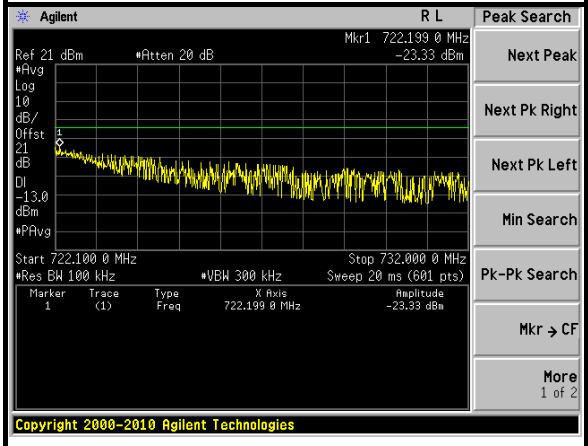


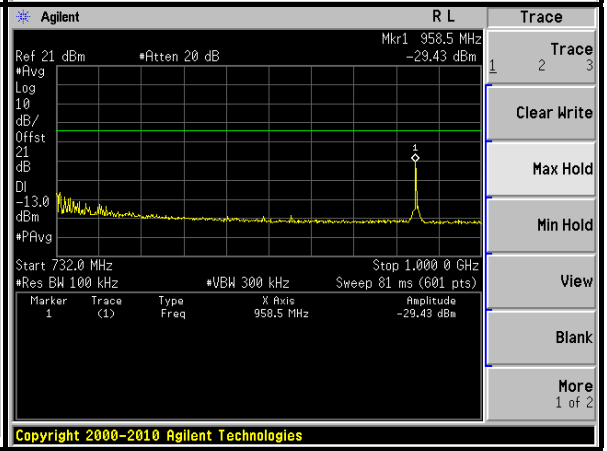


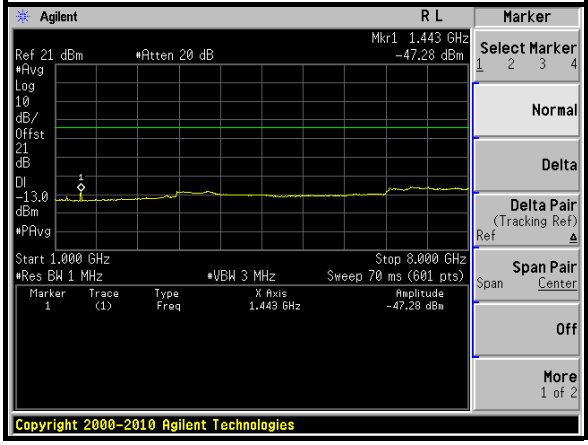
CHAIN 0, MIDDLE CHANNEL



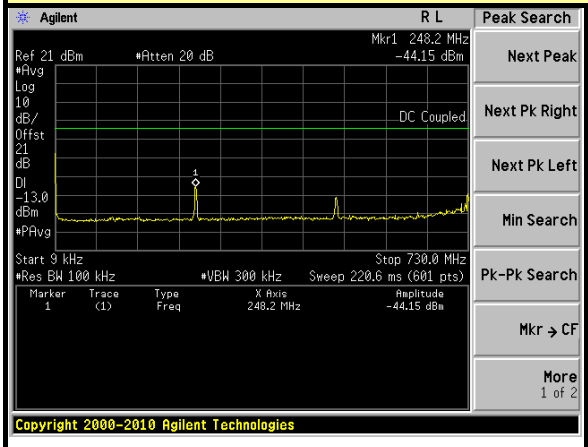


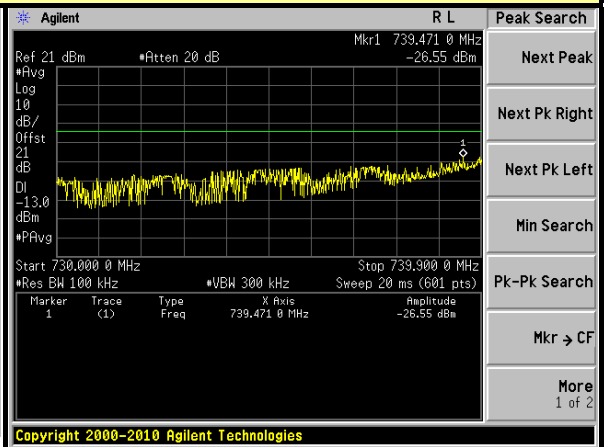


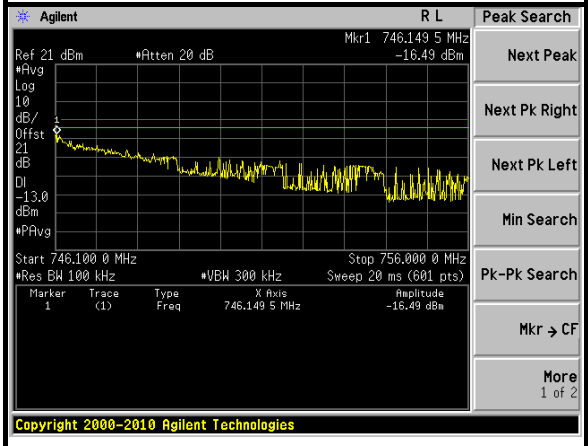


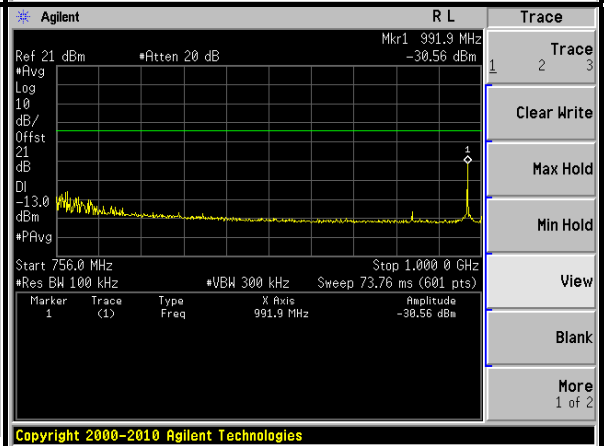


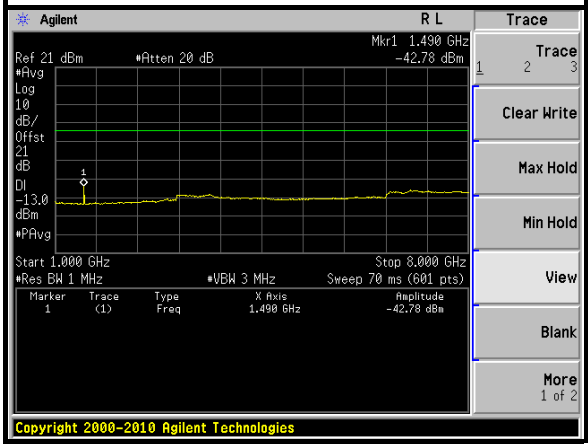
CHAIN 0, HIGH CHANNEL



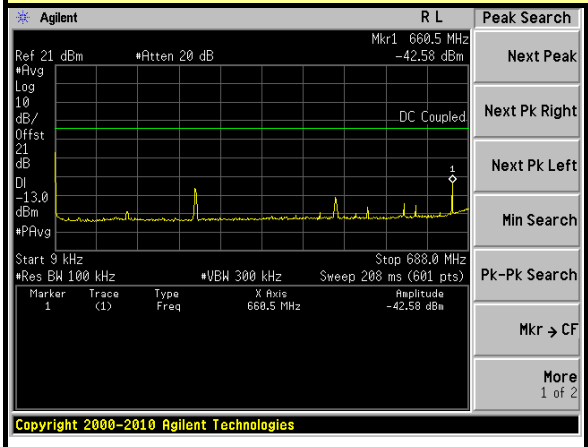


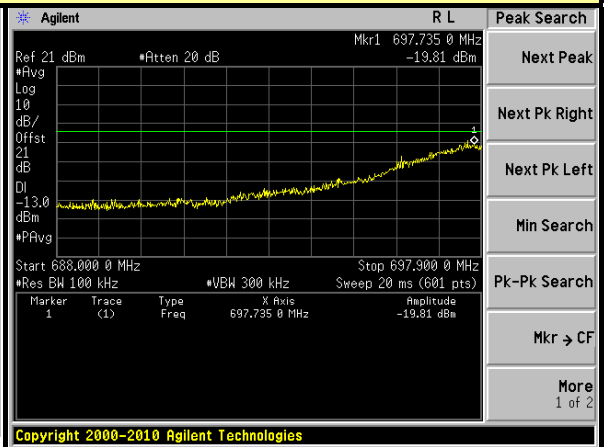


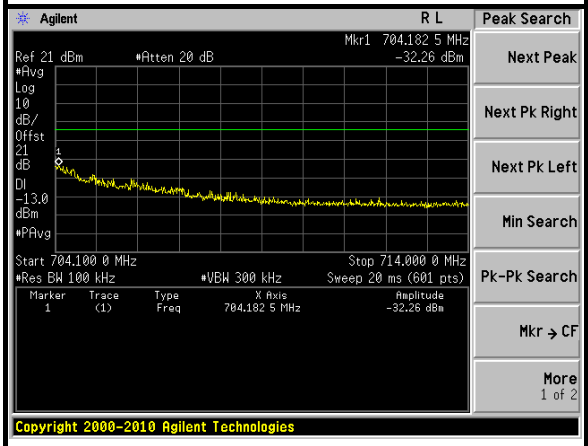


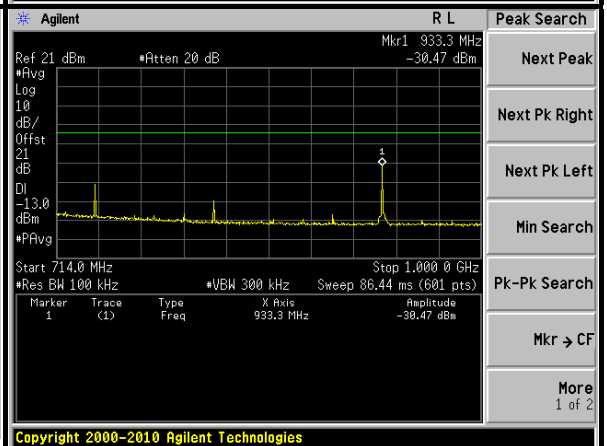


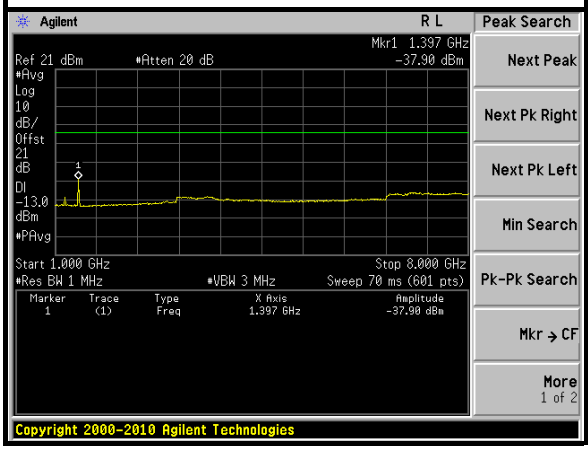
CHAIN 1, LOW CHANNEL



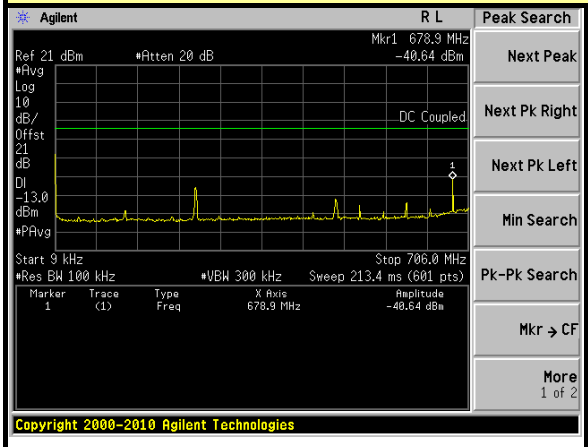


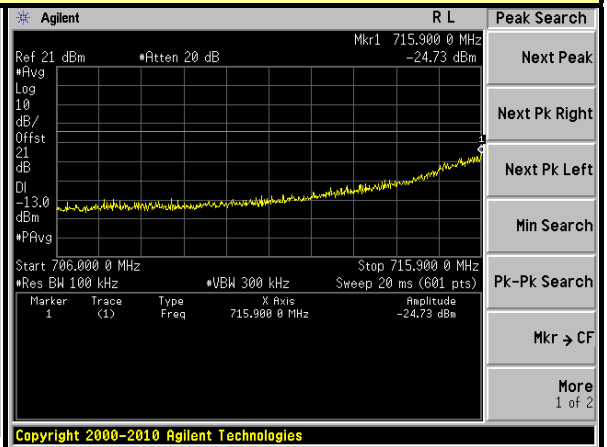


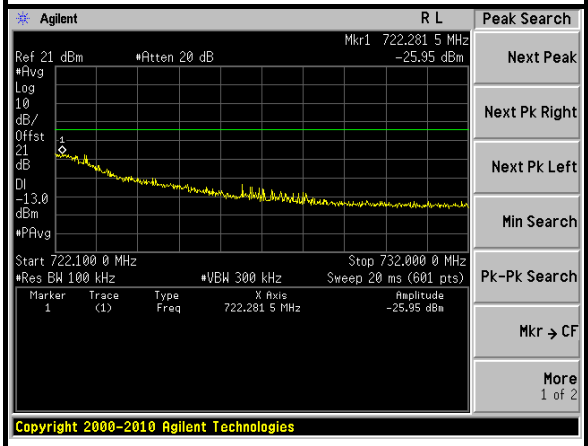


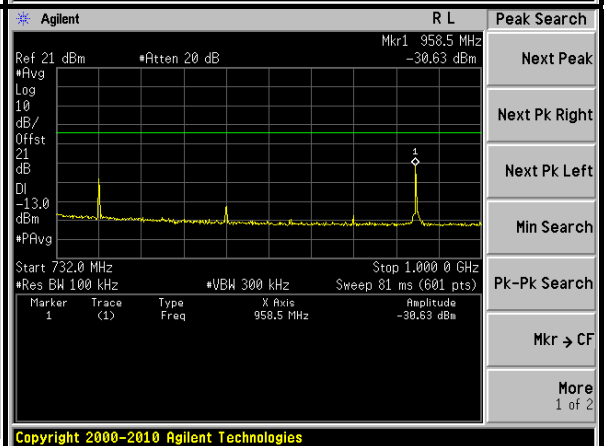


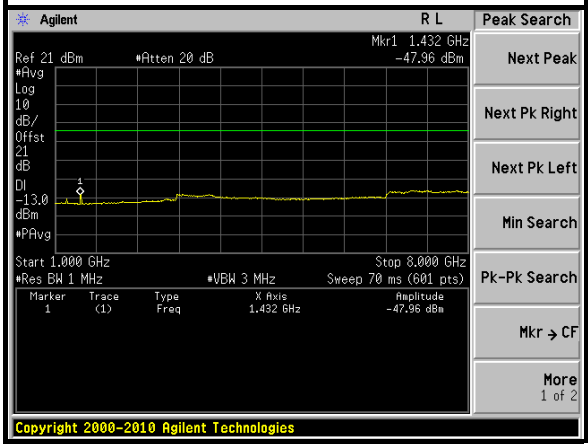
CHAIN 1, MIDDLE CHANNEL



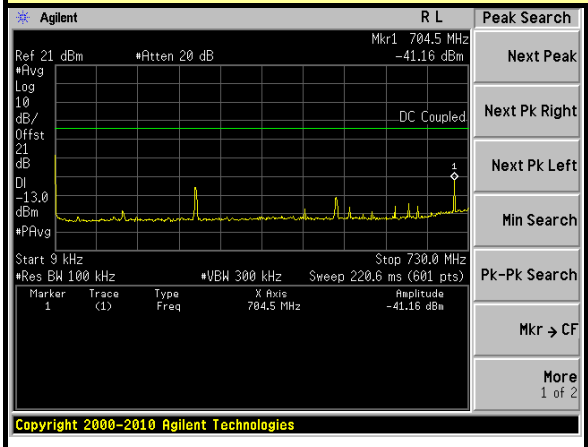


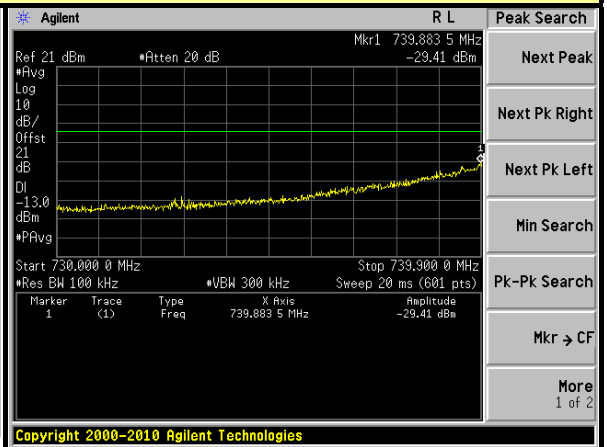


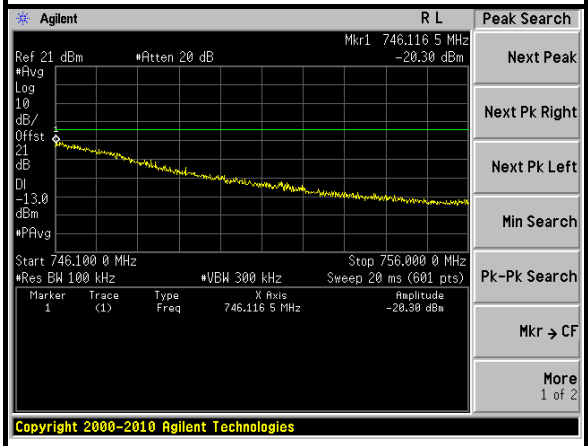


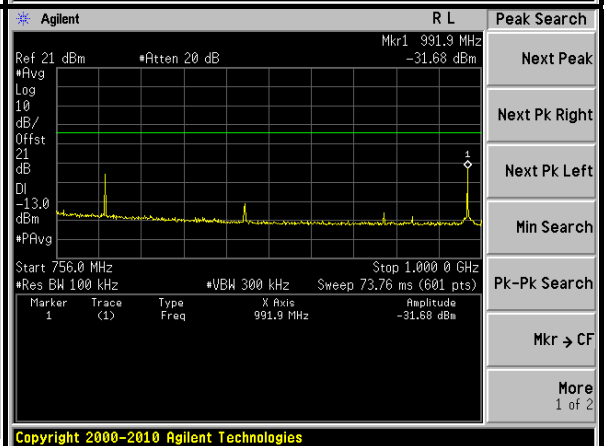


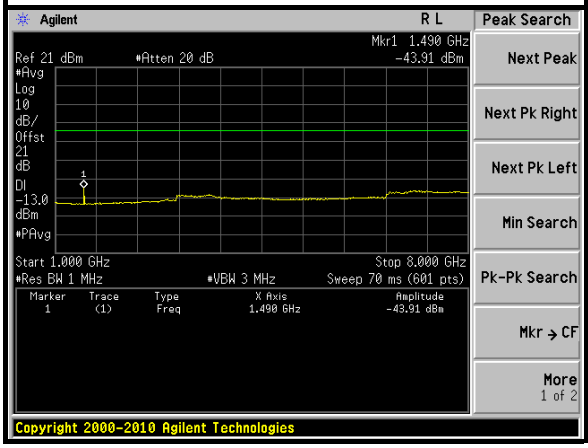
CHAIN 1, HIGH CHANNEL





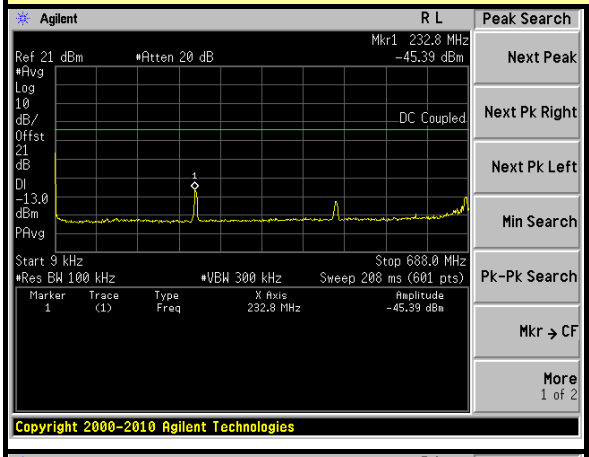


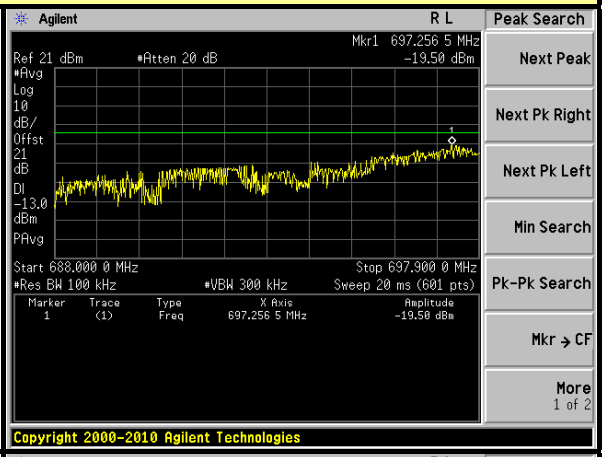


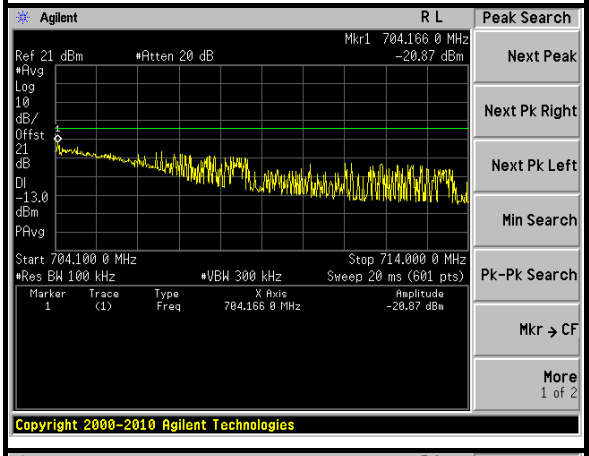


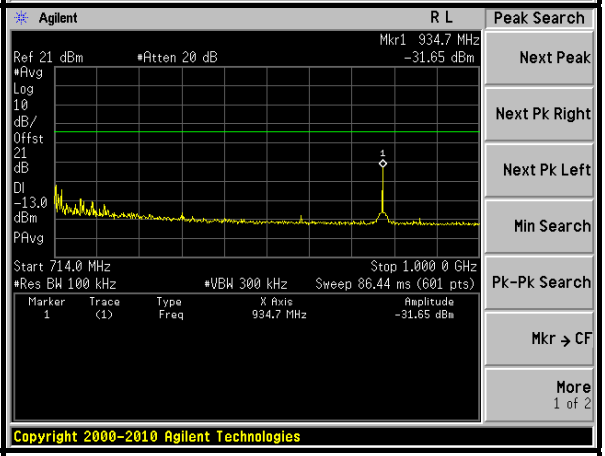
CHANNEL BANDWIDTH: 5.0MHz

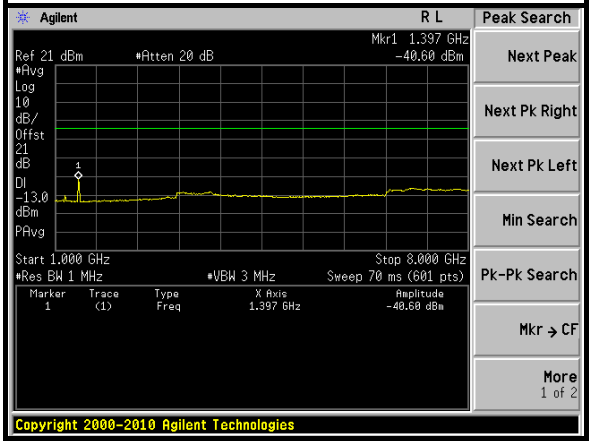
CHAIN 0, LOW CHANNEL



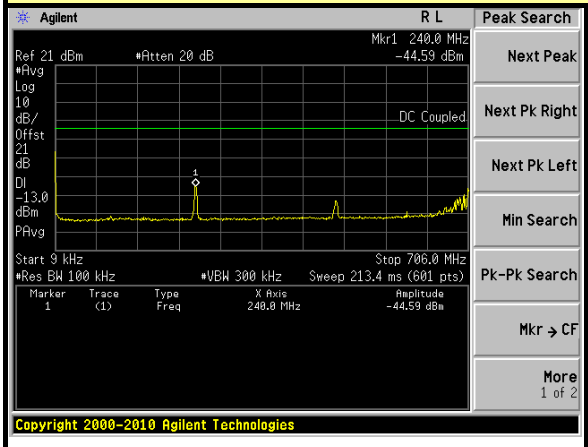


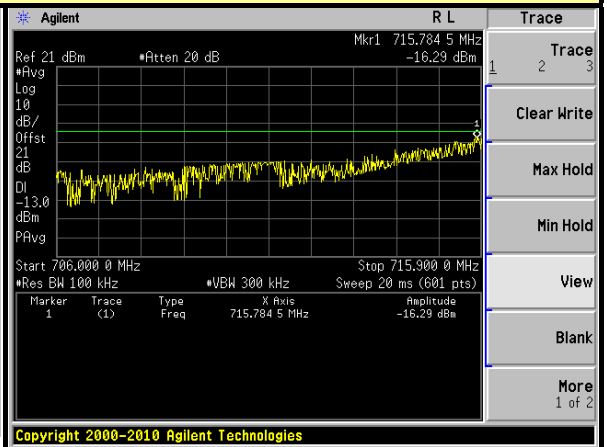


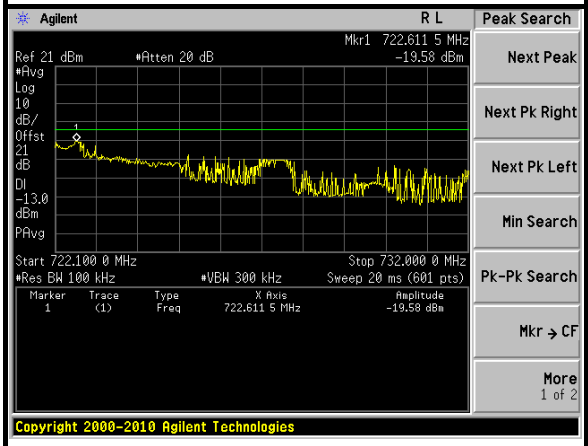


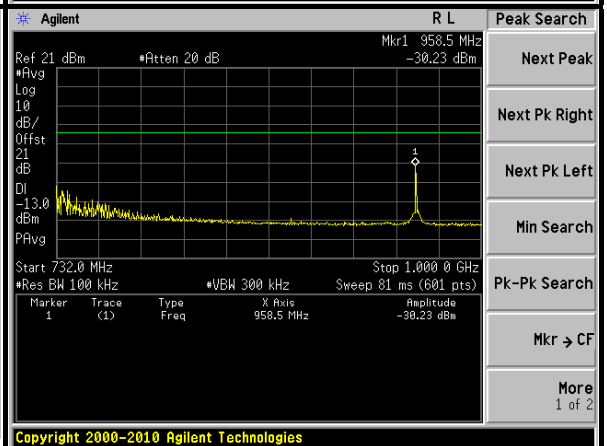


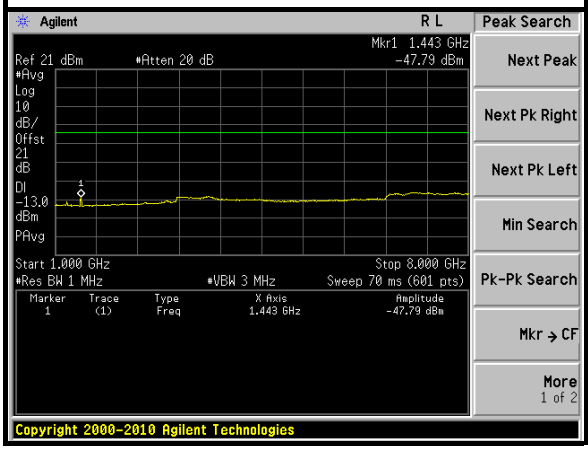
CHAIN 0, MIDDLE CHANNEL



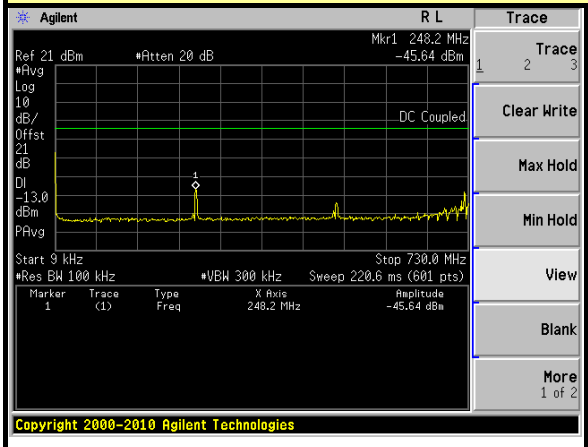


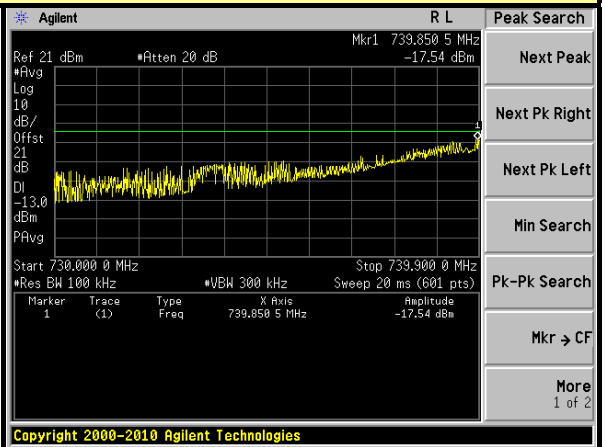


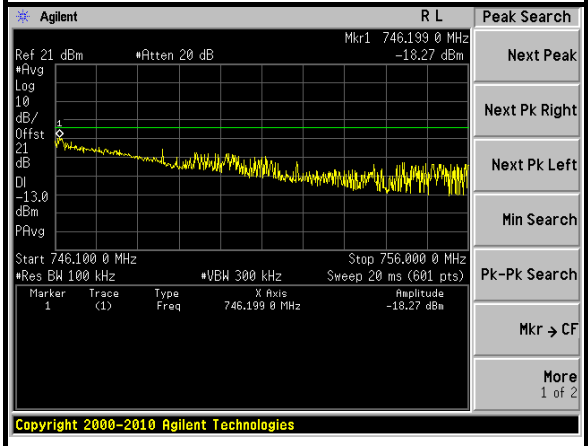


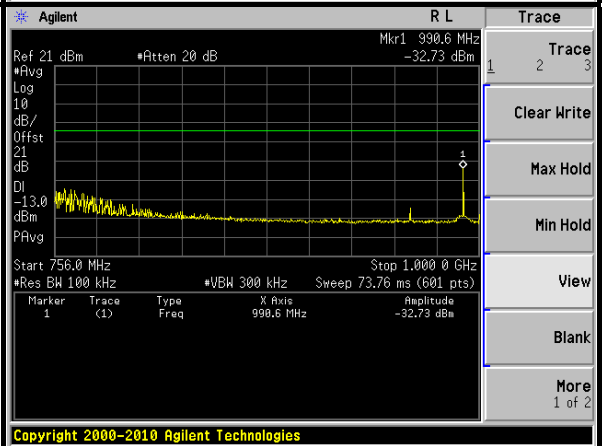


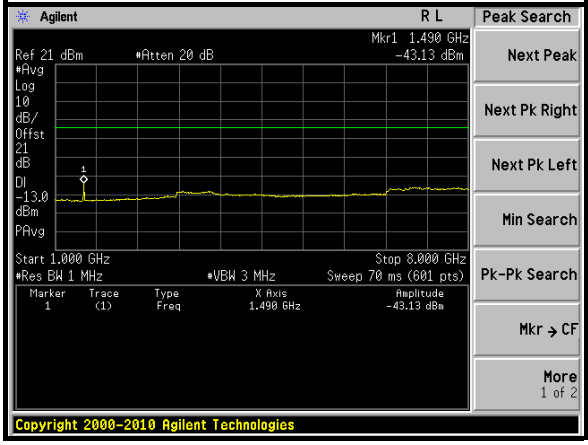
CHAIN 0, HIGH CHANNEL



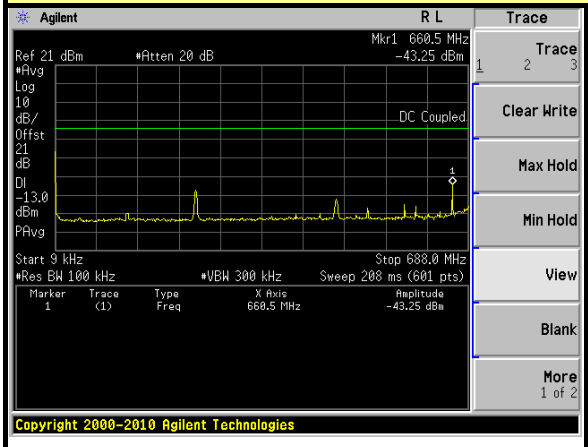


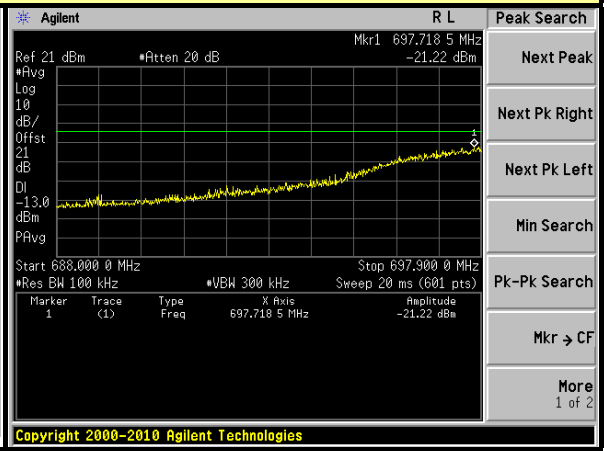


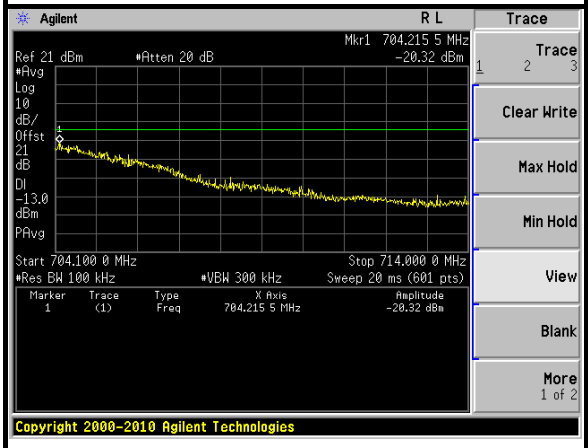


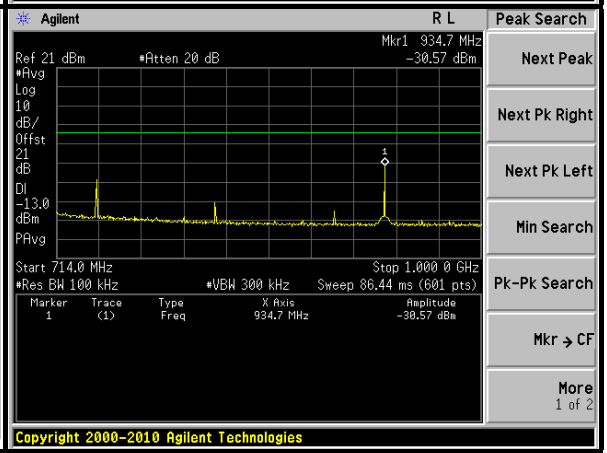


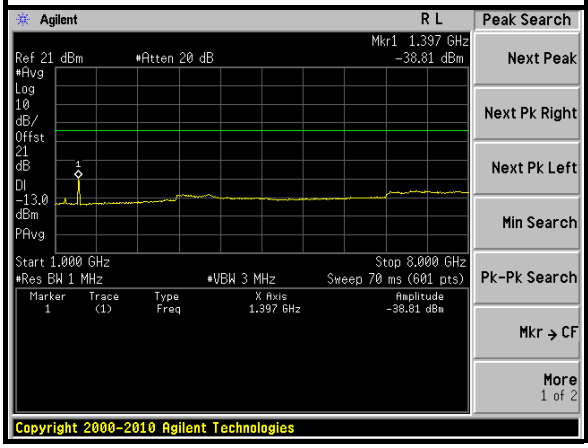
CHAIN 1, LOW CHANNEL



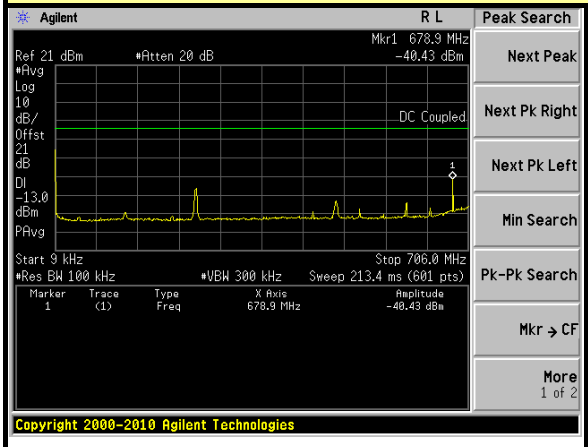


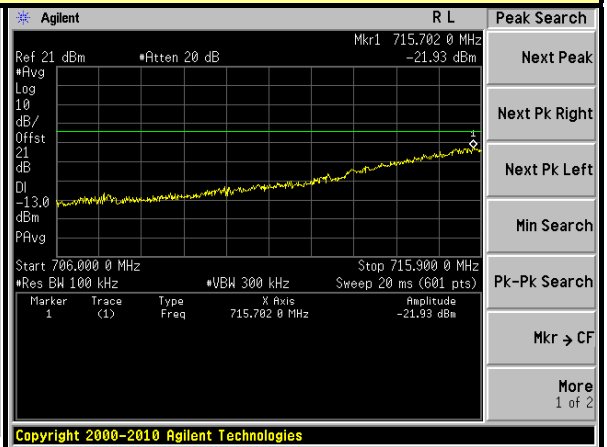


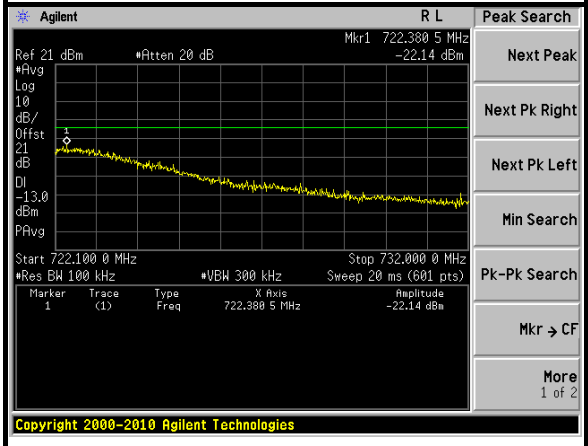


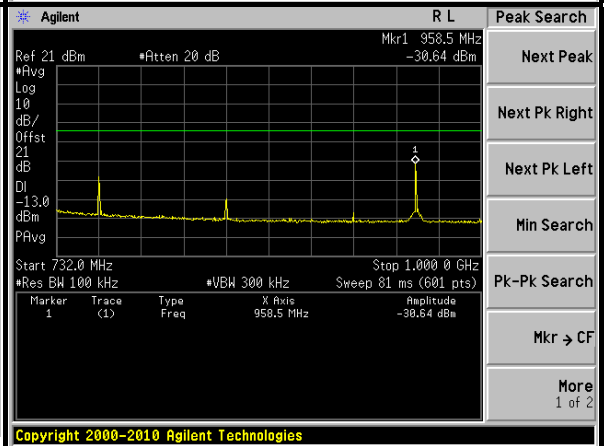


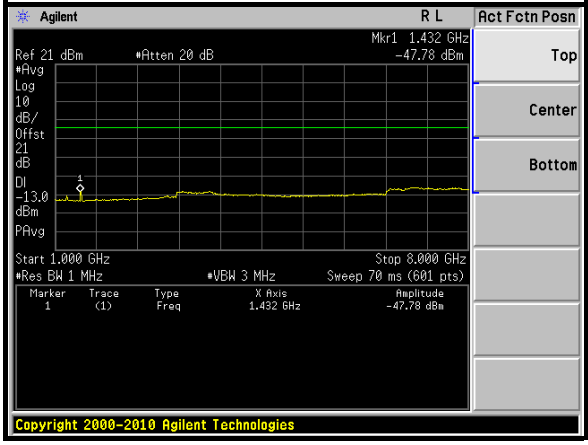
CHAIN 1, MIDDLE CHANNEL



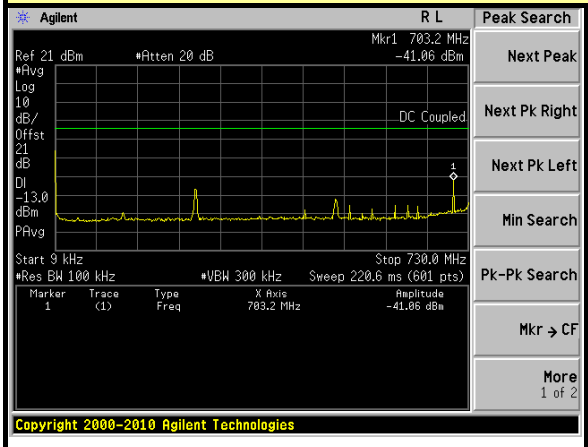


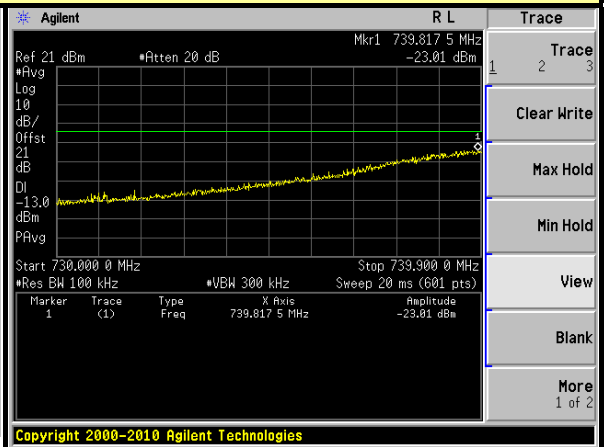


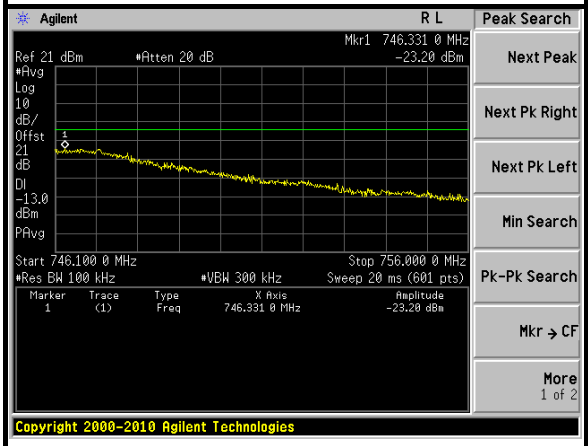


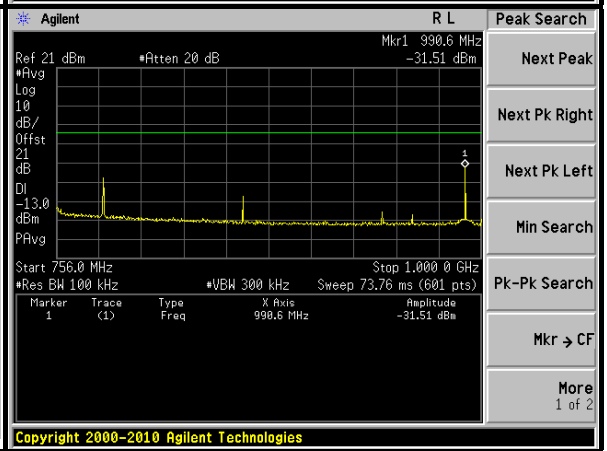


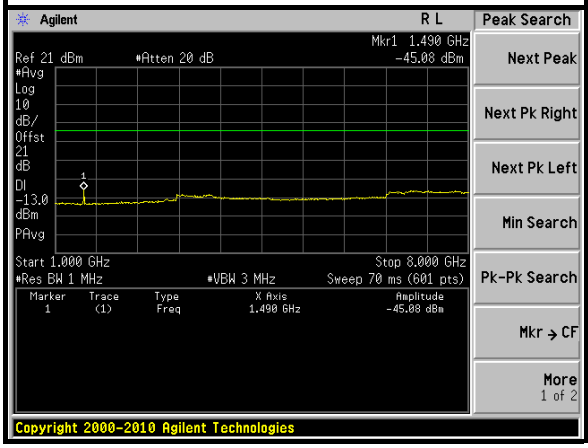
CHAIN 1, HIGH CHANNEL





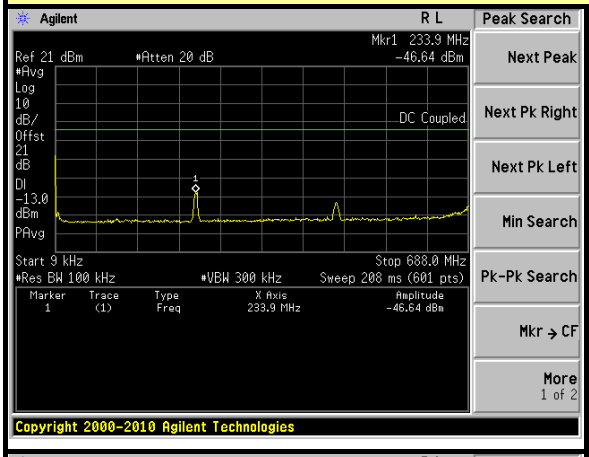


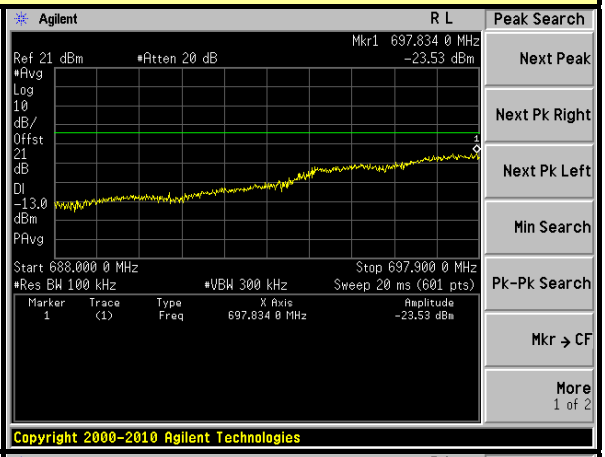


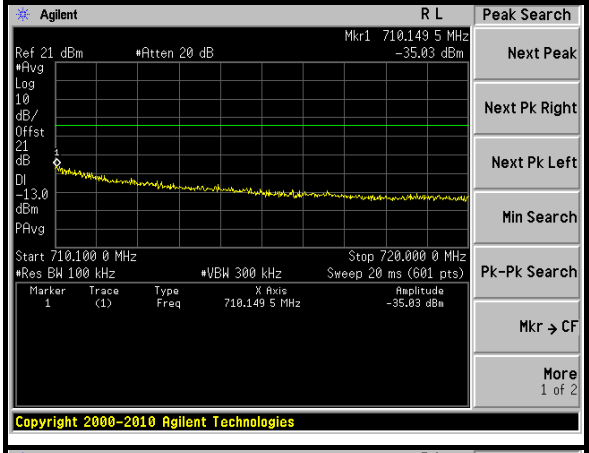


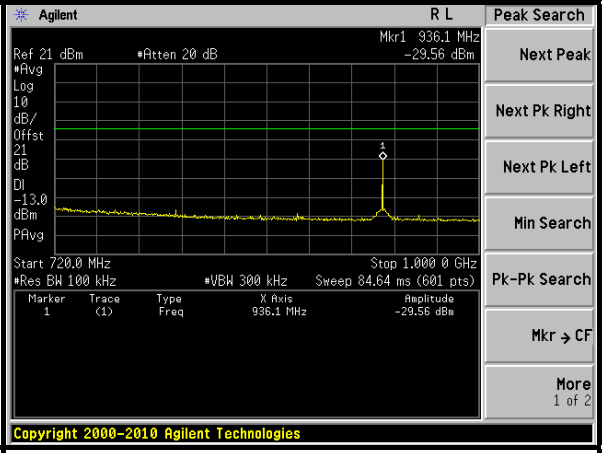
CHANNEL BANDWIDTH: 7.0MHz

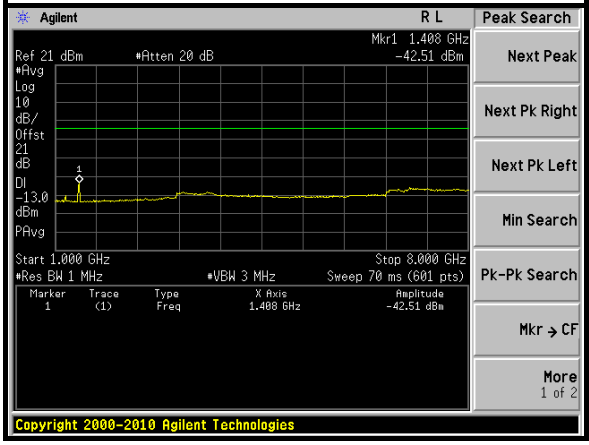
CHAIN 0, LOW CHANNEL



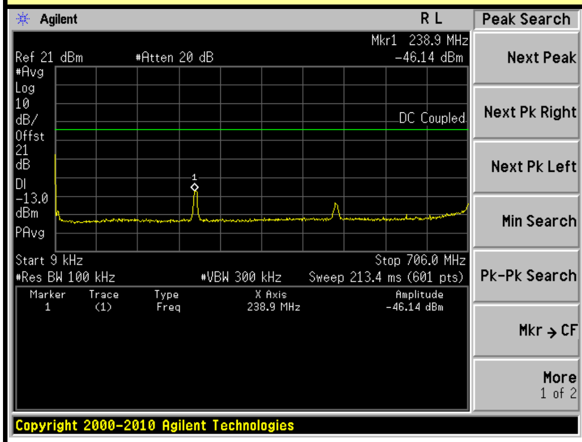


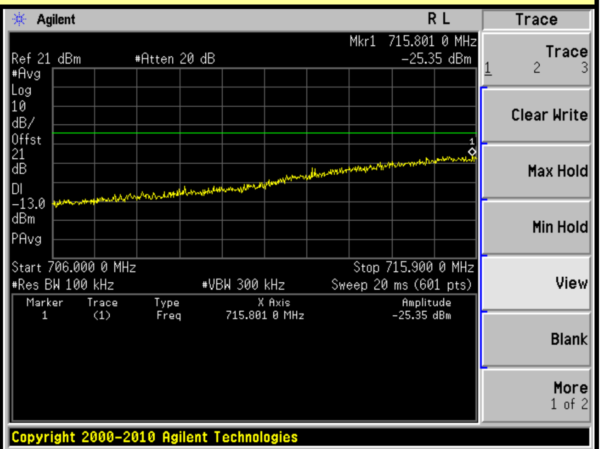


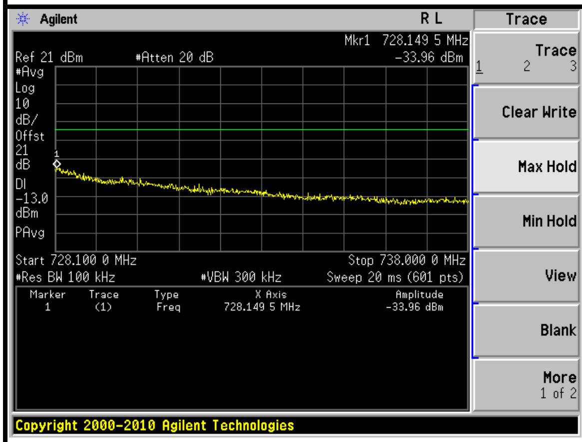


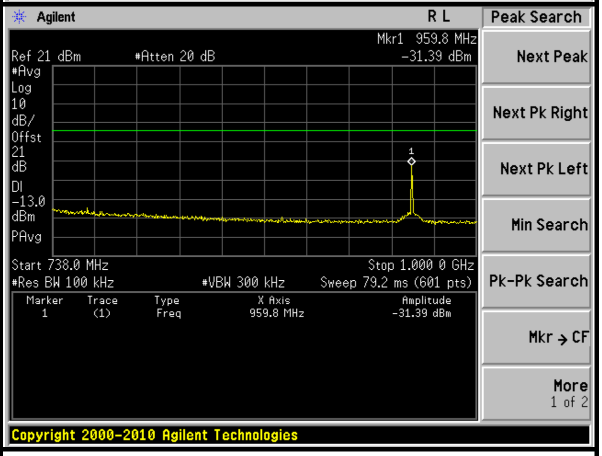


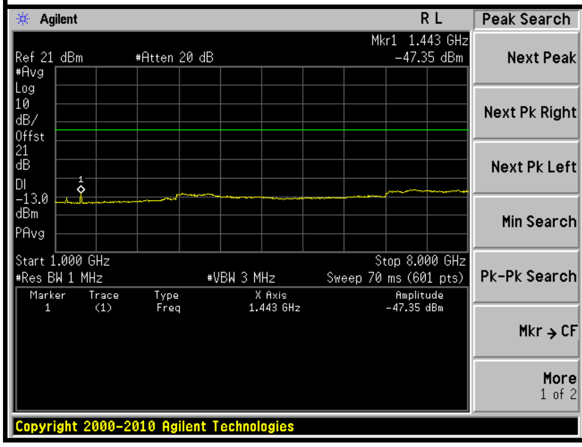
CHAIN 0, MIDDLE CHANNEL



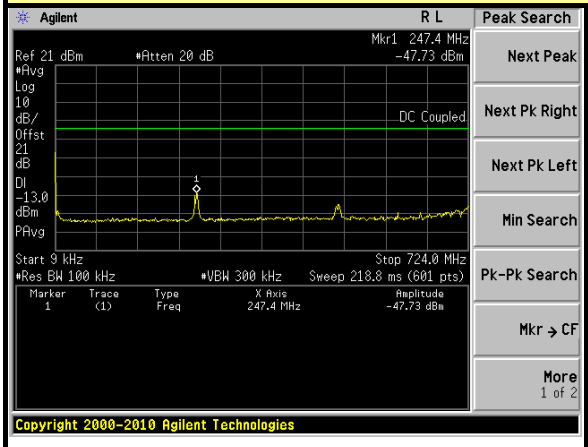


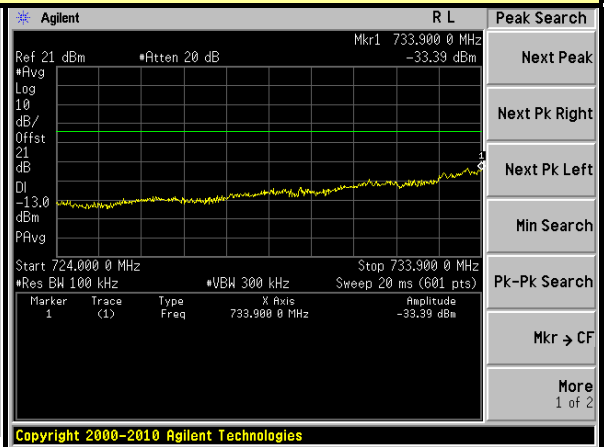


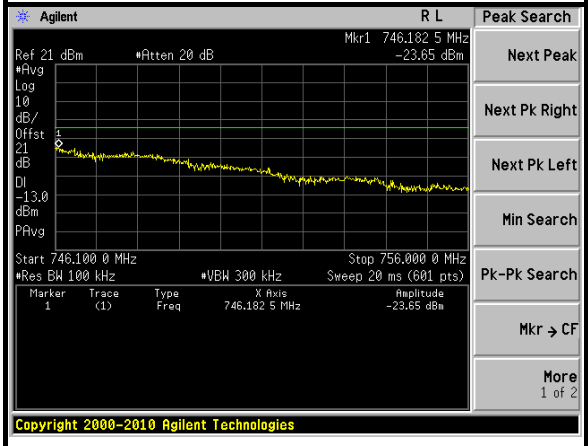


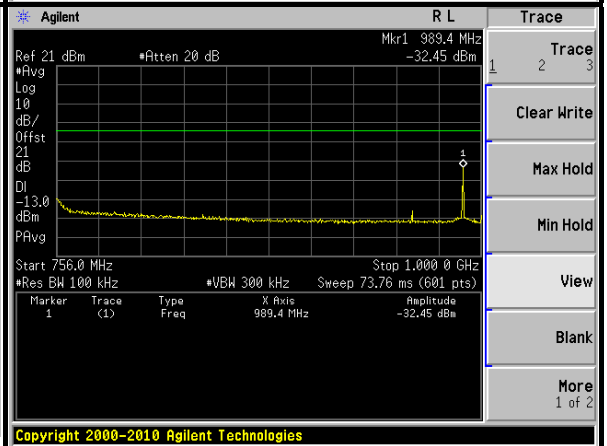


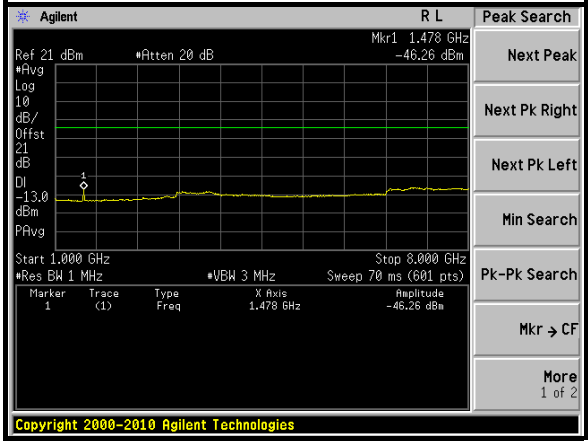
CHAIN 0, HIGH CHANNEL



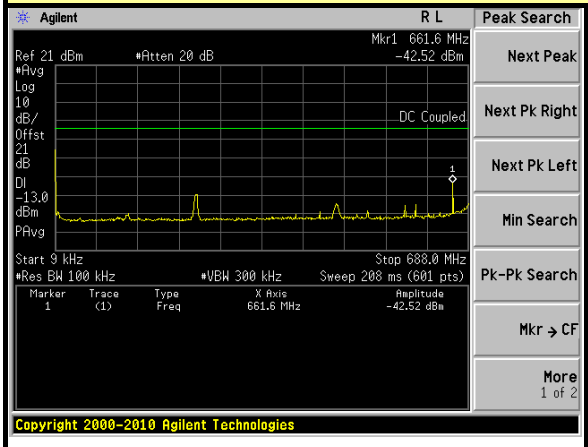


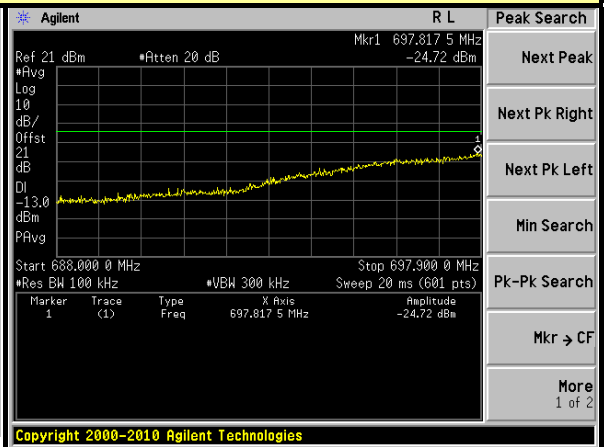


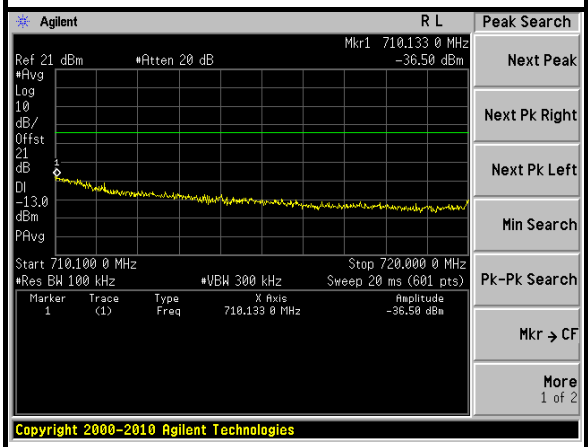


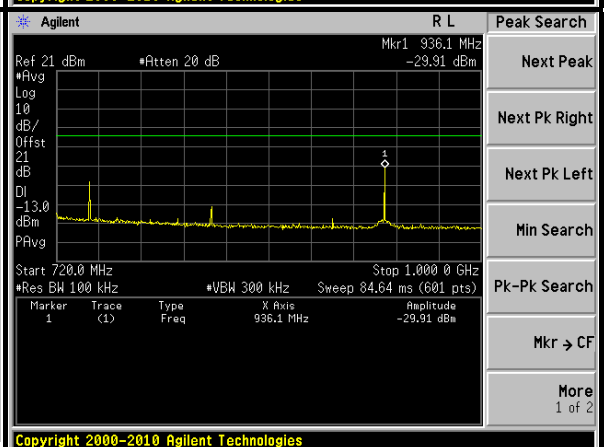


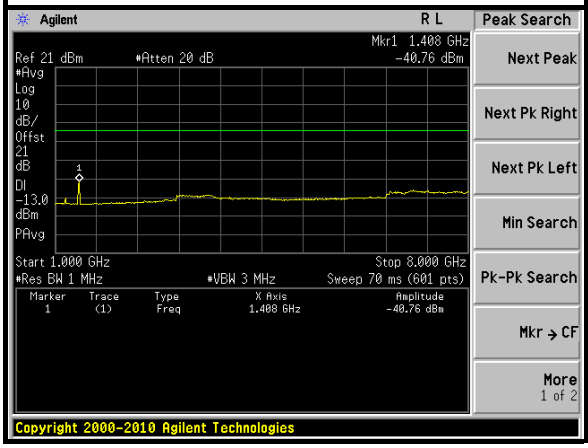
CHAIN 1, LOW CHANNEL



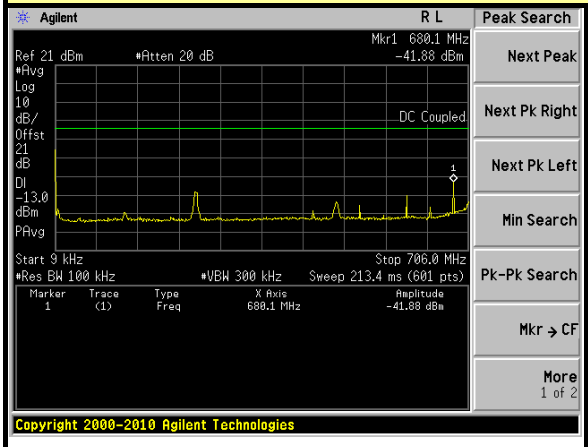


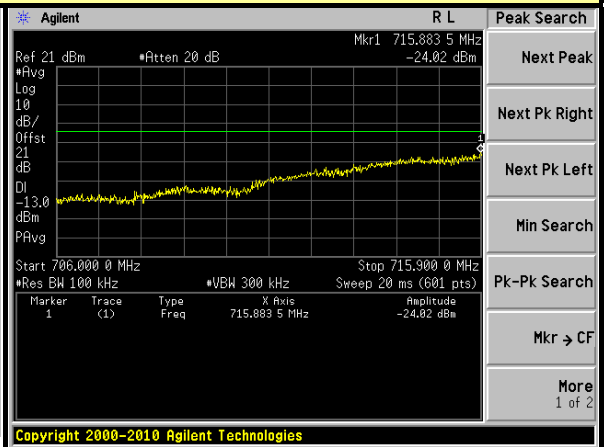


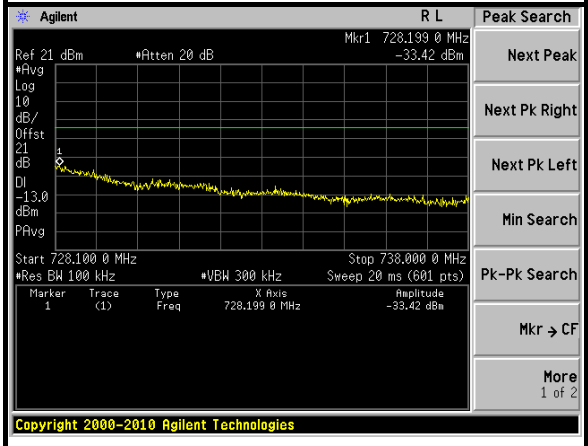


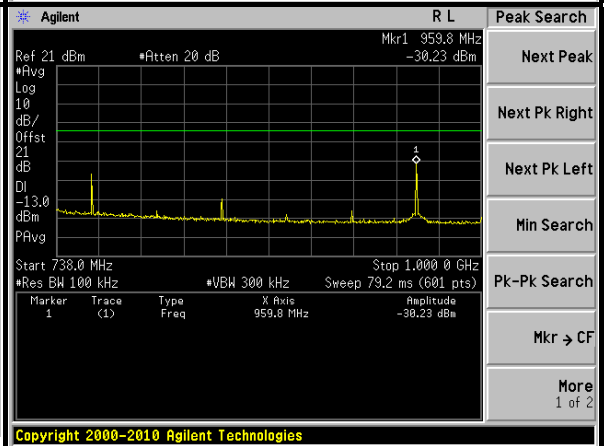


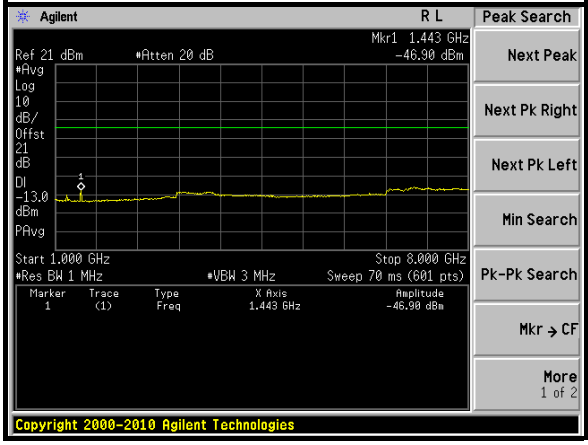
CHAIN 1, MIDDLE CHANNEL



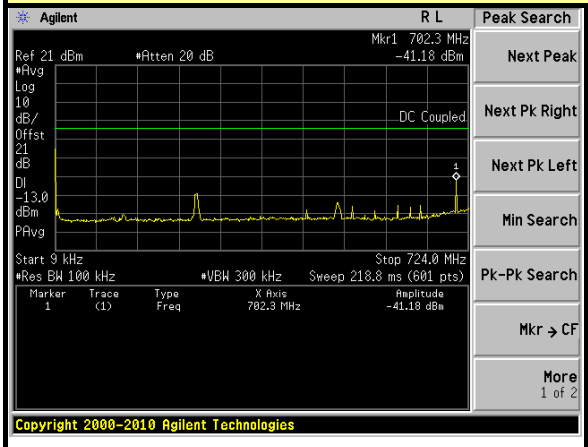


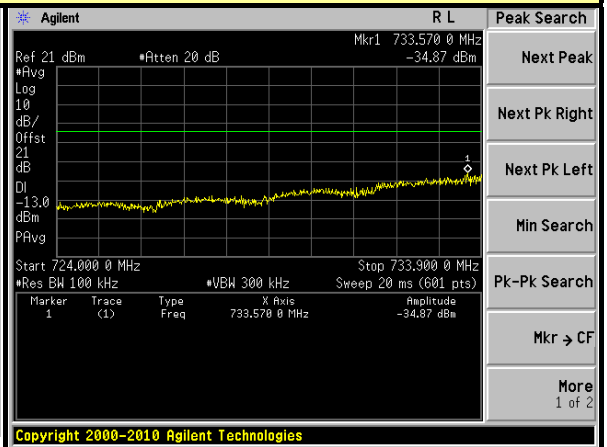


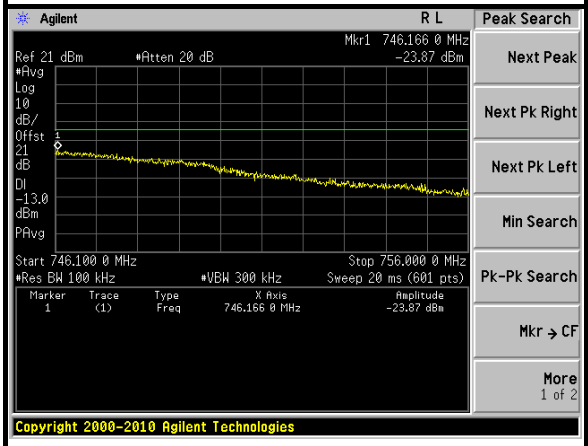


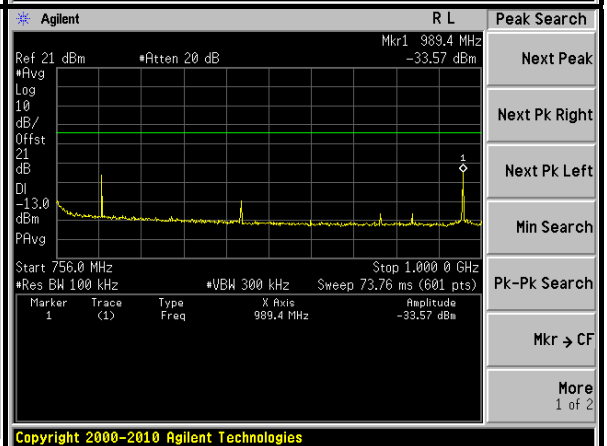


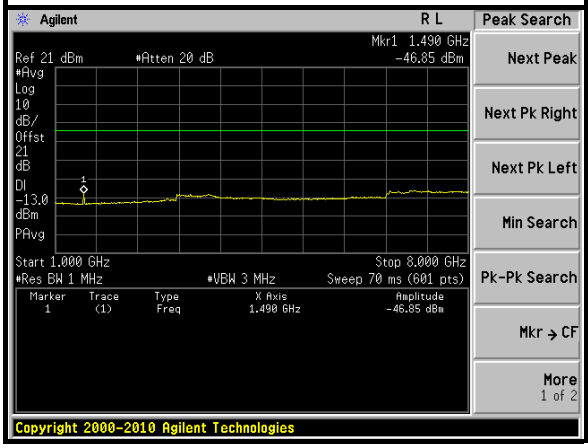
CHAIN 1, HIGH CHANNEL





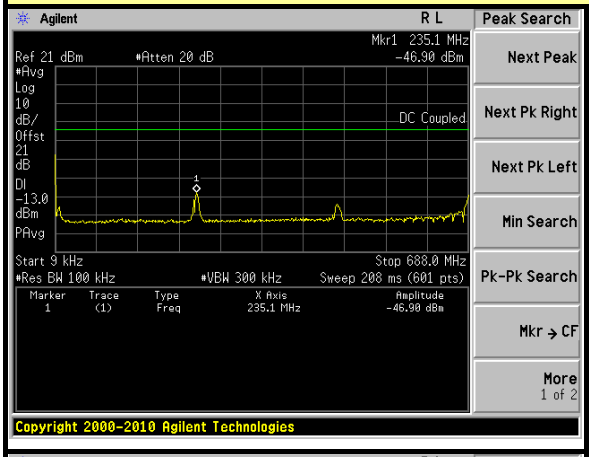


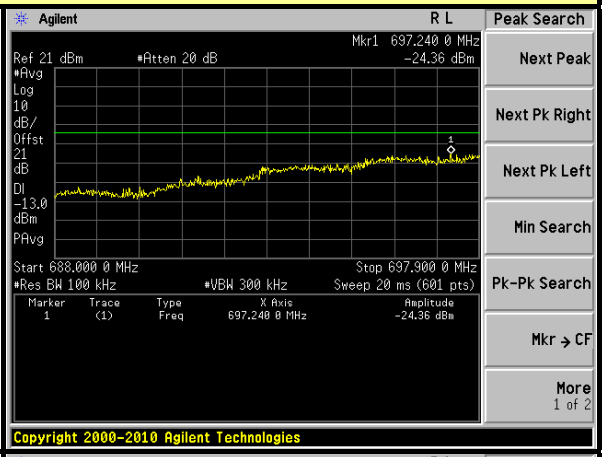


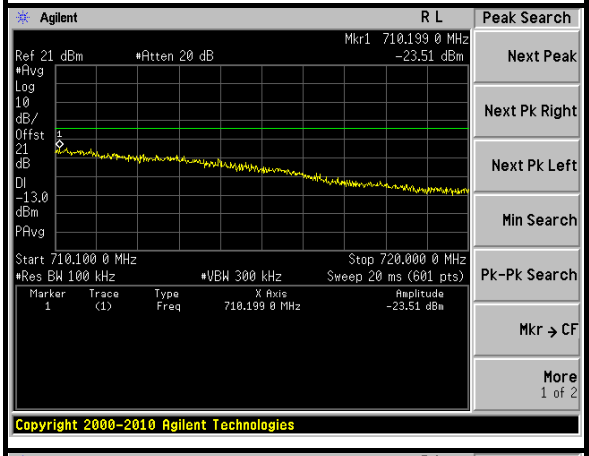


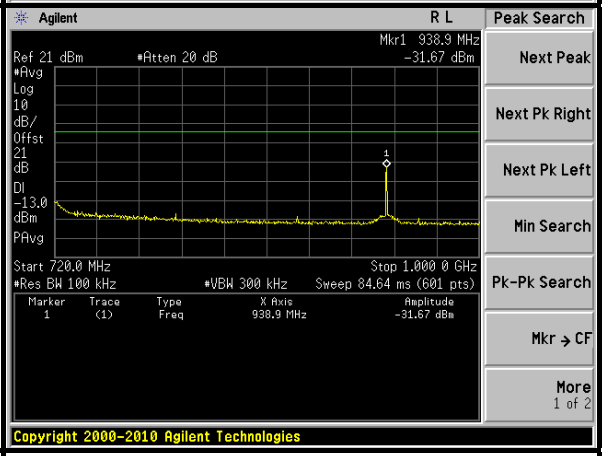
CHANNEL BANDWIDTH: 10.0MHz

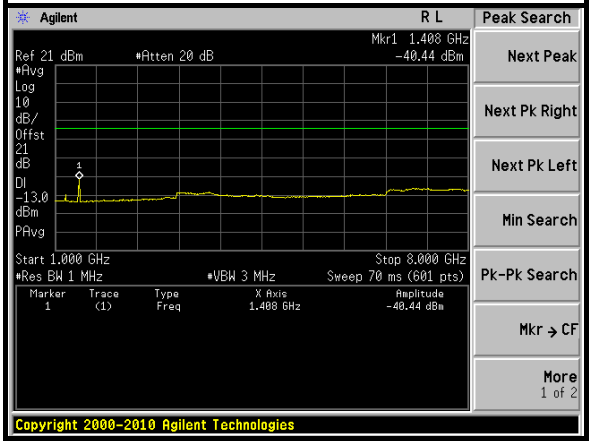
CHAIN 0, LOW CHANNEL



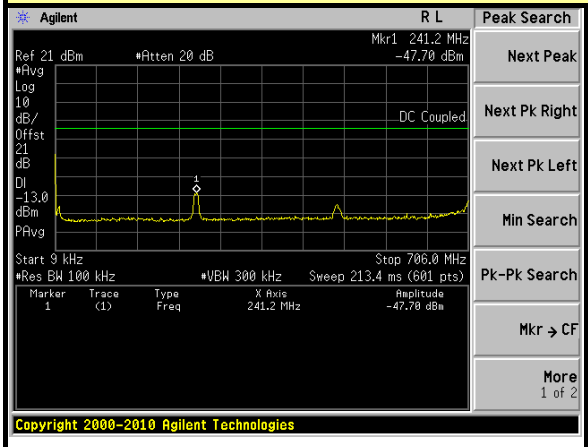


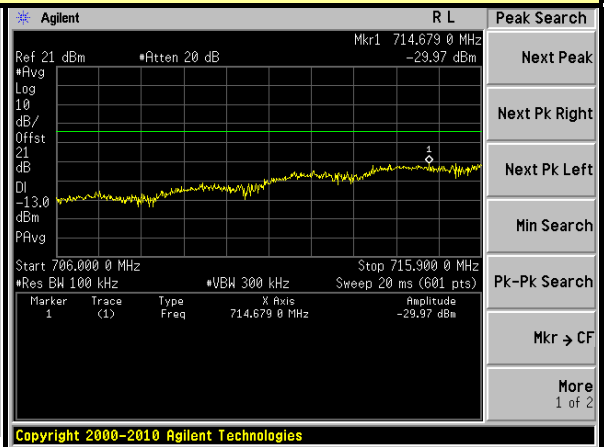


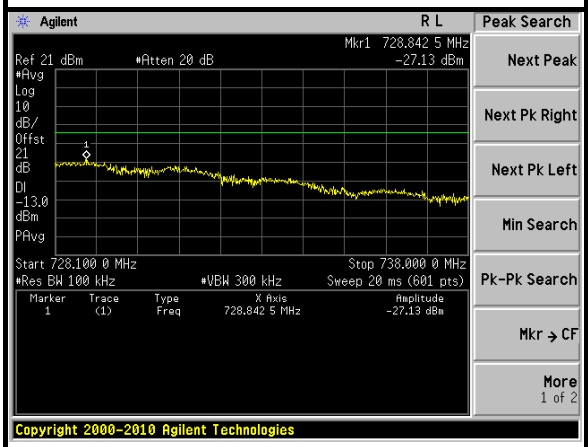


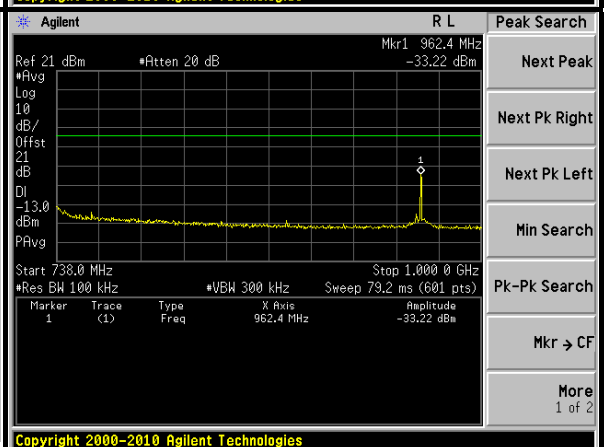


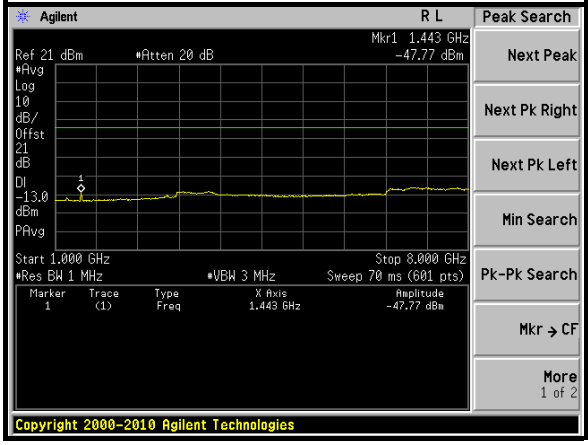
CHAIN 0, MIDDLE CHANNEL



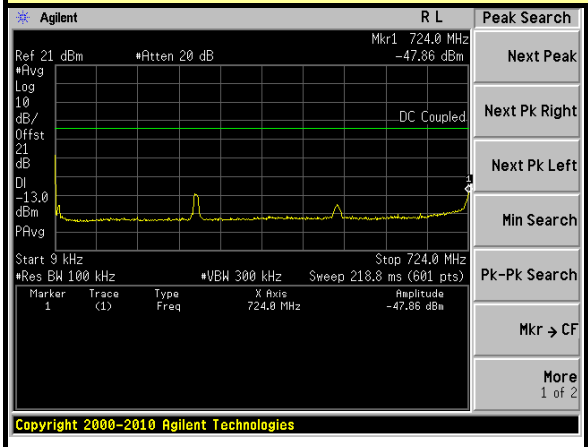


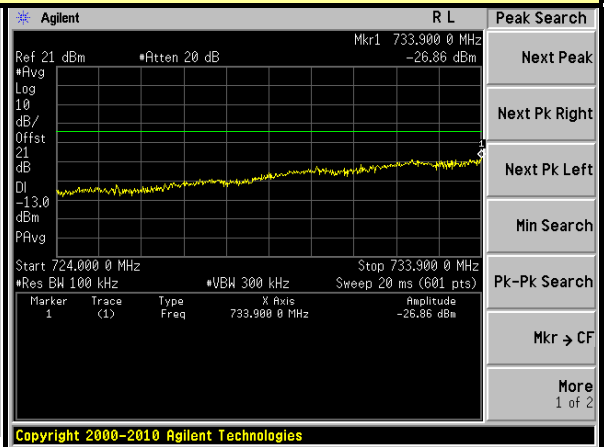


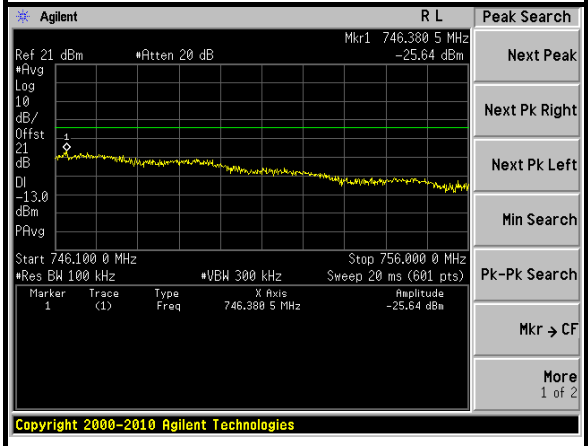


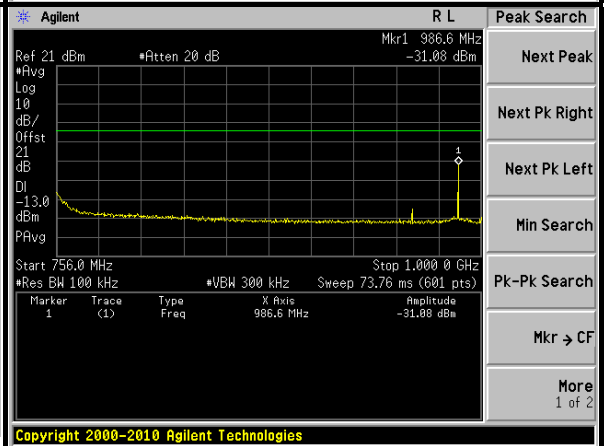


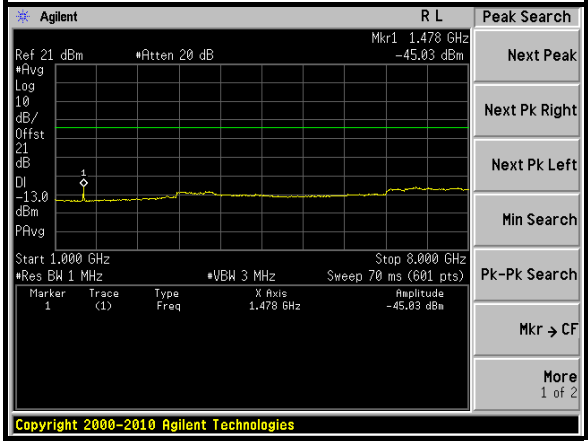
CHAIN 0, HIGH CHANNEL



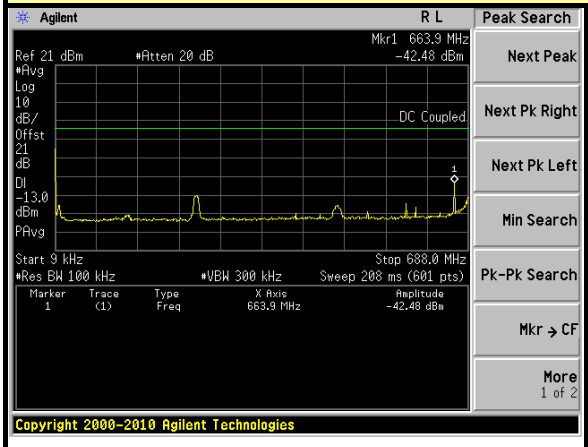


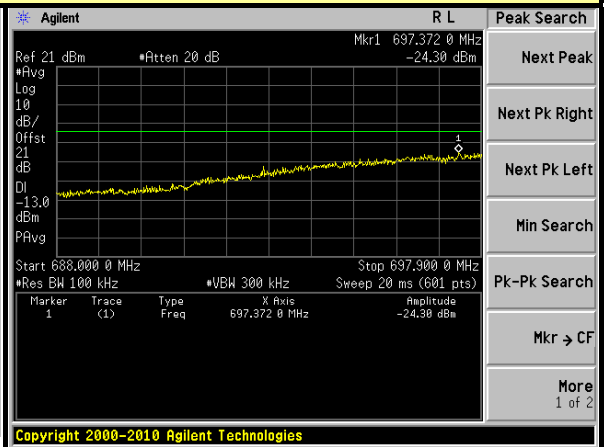


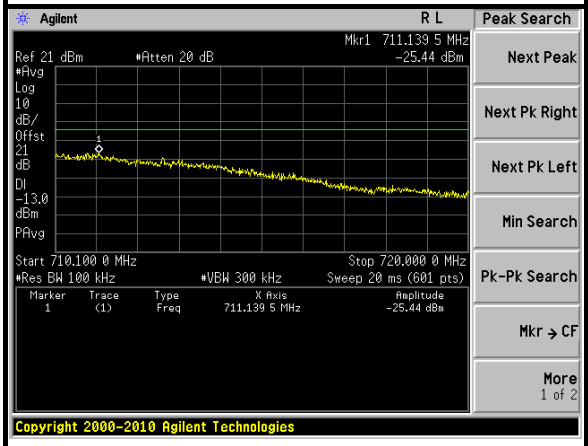


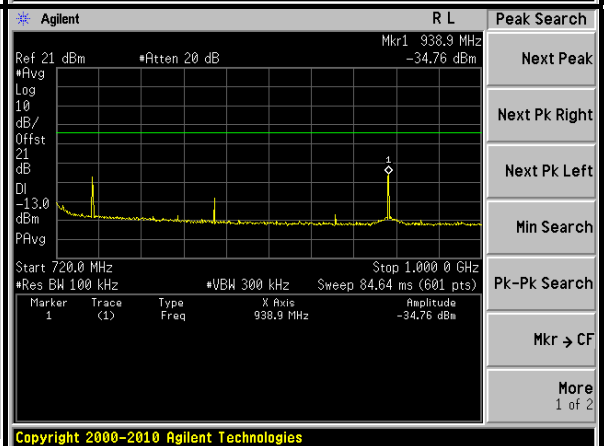


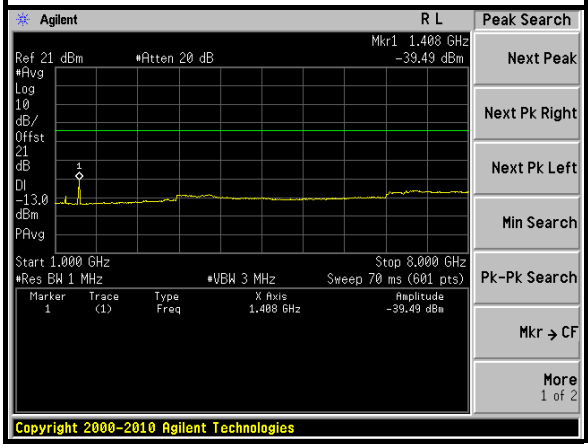
CHAIN 1, LOW CHANNEL



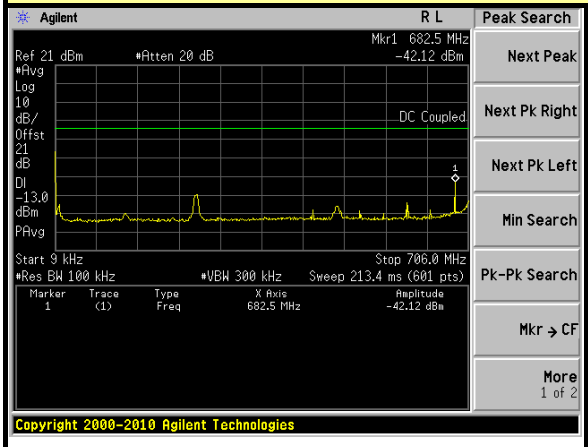


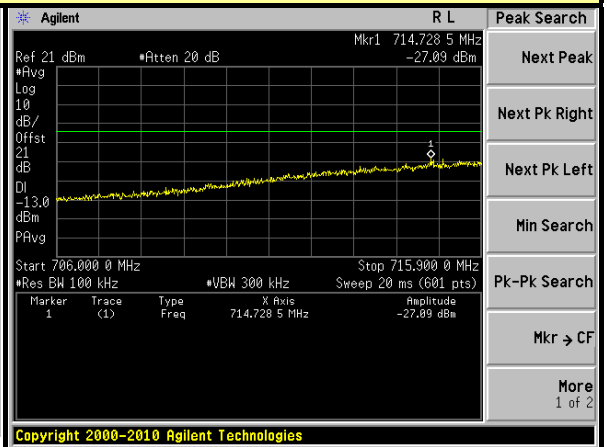


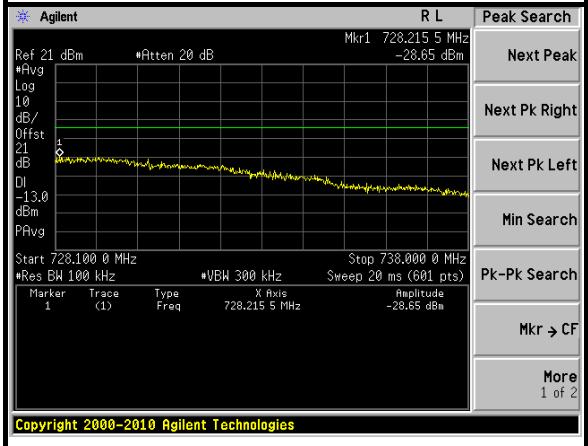


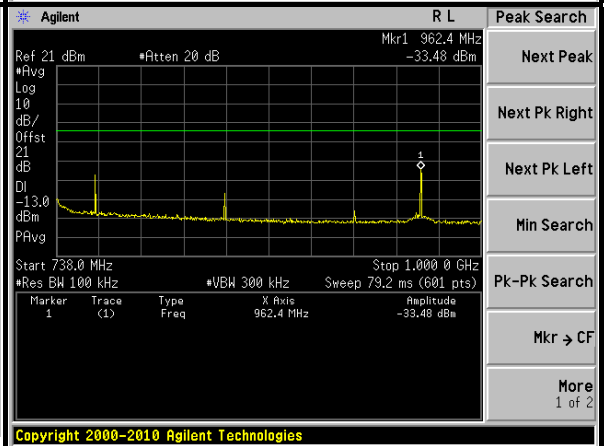


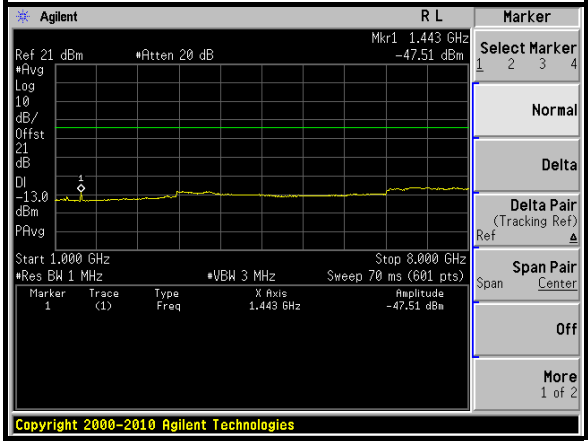
CHAIN 1, MIDDLE CHANNEL



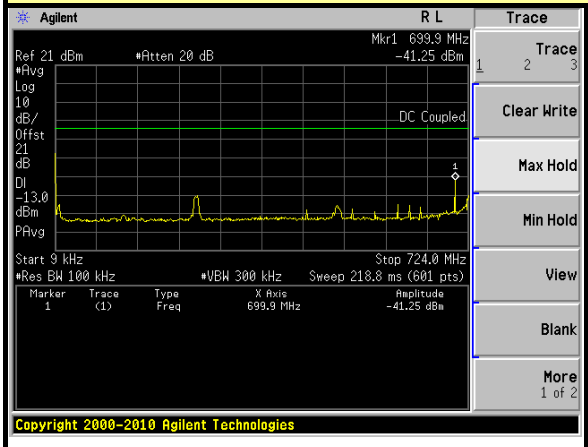


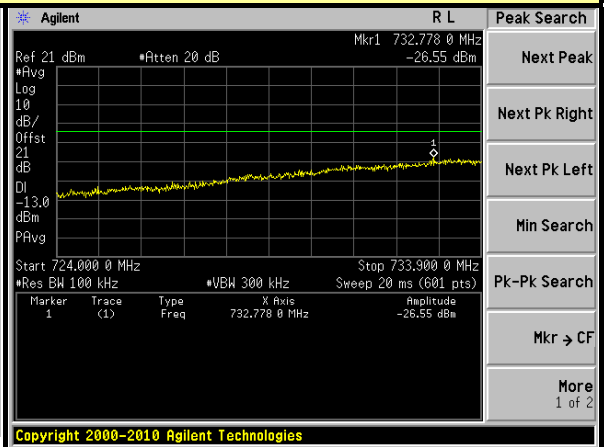


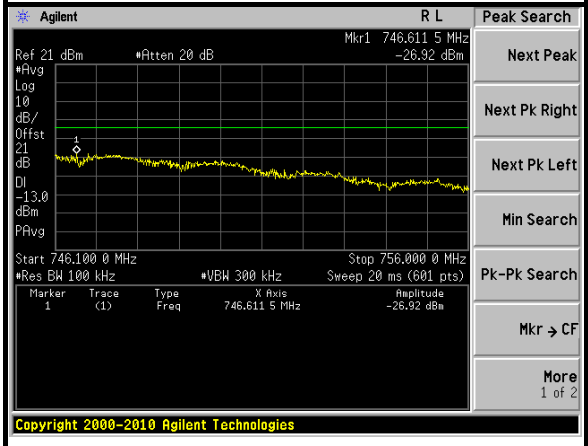


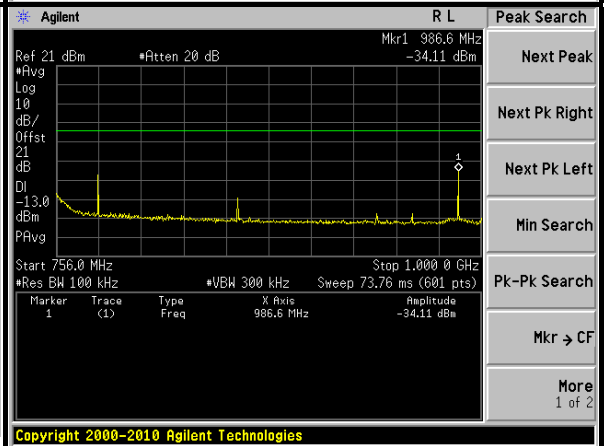


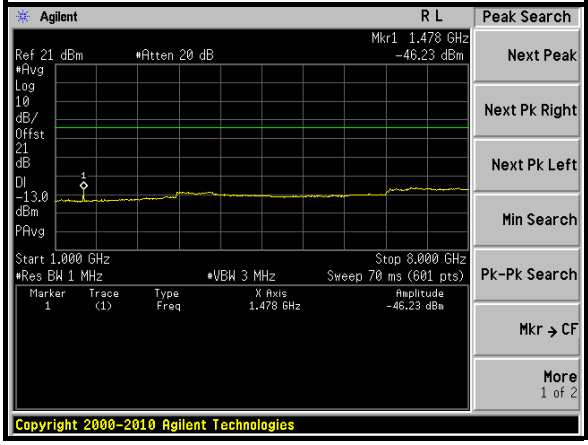
CHAIN 1, HIGH CHANNEL











4.6 RADIATED EMISSION MEASUREMENT

4.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 43 +10 log10(P) dB. The limit of emission equal to –13dBm

So the limit of emission is the same absolute specified line.

LIMIT (dBm)	EQUIVALENT FIELD STRENGTH AT 3m (dBuV/m) (NOTE)
-13	82.2

NOTE: The following formula is used to convert the equipment radiated power to field strength.

E = [1000000 Ⅰ (30P)] / 3 uV/m, where P is Watts.

4.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100033	Jul. 29, 2010	Jul. 28, 2011
Spectrum Analyzer Agilent	E4446A	MY48250266	Aug. 11, 2010	Aug. 10, 2011
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Apr. 27, 2010	Apr. 26, 2011
HORN Antenna SCHWARZBECK	9120D	9120D-405	Feb. 08, 2011	Feb. 07, 2012
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Dec. 27, 2010	Dec. 26, 2011
Preamplifier Agilent	8447D	2944A10633	Nov. 02, 2010	Nov. 01, 2011
Preamplifier Agilent	8449B	3008A01964	Nov. 02, 2010	Nov. 01, 2011
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	238141/4	May 14, 2010	May 13, 2011
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	12738/6	May 14, 2010	May 13, 2011
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

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 3.

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 988962.

5. The IC Site Registration No. is IC 7450F-3.

4.6.3 TEST PROCEDURES

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

b. The EUT was set 3 meters away from the receiving antenna, which was mounted on antenna tower and its position at 0.8 m above the ground.

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

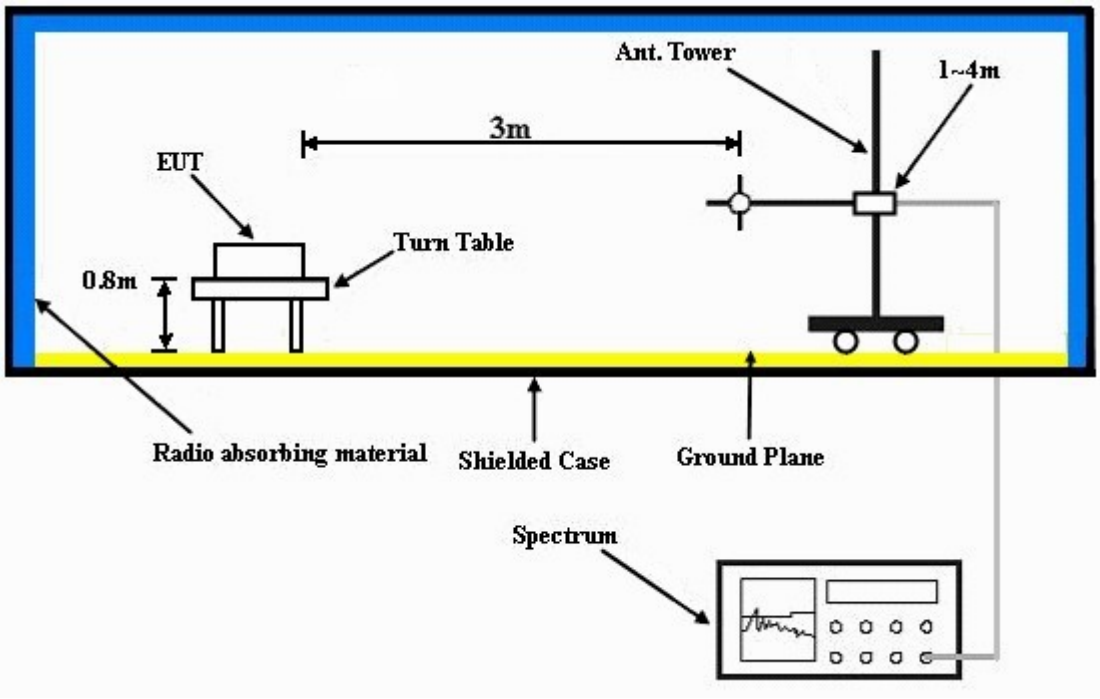
d. Repeat step a ~ c for horizontal polarization.

NOTE: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 TEST SETUP



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

4.6.6 EUT OPERATING CONDITIONS

Same as Item 4.1.5

4.6.7 TEST RESULTS (Below 1GHz)

CHANNEL BANDWIDTH: 3.5MHz

MODE	Low channel	FREQUENCY RANGE	Below 1000MHz

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	47.49	50.80	82.2	-31.40	1.50 H	235	36.30	14.50
2	136.91	53.20	82.2	-29.00	2.00 H	58	39.30	13.90
3	253.55	60.00	82.2	-22.20	1.00 H	73	46.80	13.20
4	317.70	51.50	82.2	-30.70	1.00 H	202	36.10	15.40
5	449.88	48.40	82.2	-33.80	1.50 H	31	29.60	18.80
6	564.57	53.90	82.2	-28.30	1.50 H	178	32.20	21.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	49.44	61.60	82.2	-20.60	1.00 V	175	47.10	14.50
2	251.60	52.40	82.2	-29.80	1.50 V	34	39.30	13.10
3	434.33	48.40	82.2	-33.80	1.00 V	169	30.00	18.40
4	500.42	43.30	82.2	-38.90	1.00 V	181	23.00	20.30
5	560.68	51.50	82.2	-30.70	1.50 V	31	29.90	21.60
6	900.86	41.50	82.2	-40.70	1.50 V	211	14.50	27.00

NOTE:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. This is valid for all 3 channels.

CHANNEL BANDWIDTH: 5.0MHz

MODE	Low channel	FREQUENCY RANGE	Below 1000MHz

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	45.55	50.90	82.2	-31.30	1.50 H	241	36.40	14.50
2	136.91	53.10	82.2	-29.10	2.00 H	58	39.20	13.90
3	255.49	60.00	82.2	-22.20	1.00 H	79	46.70	13.30
4	317.70	50.80	82.2	-31.40	1.00 H	199	35.40	15.40
5	550.96	53.60	82.2	-28.60	1.50 H	49	32.20	21.40
6	830.88	53.80	82.2	-28.40	2.00 H	133	28.00	25.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	47.49	50.80	82.2	-31.40	2.00 V	235	36.30	14.50
2	136.91	53.00	82.2	-29.20	2.00 V	61	39.10	13.90
3	249.66	59.60	82.2	-22.60	1.00 V	76	46.60	13.00
4	317.70	51.40	82.2	-30.80	1.00 V	181	36.00	15.40
5	449.88	48.40	82.2	-33.80	2.00 V	37	29.60	18.80
6	562.63	54.00	82.2	-28.20	1.50 V	52	32.40	21.60

NOTE:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. This is valid for all 3 channels.

CHANNEL BANDWIDTH: 7.0MHz

MODE	Low channel	FREQUENCY RANGE	Below 1000MHz

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	47.49	50.00	82.2	-32.20	1.00 H	226	35.50	14.50
2	136.91	52.40	82.2	-29.80	2.00 H	61	38.50	13.90
3	251.60	59.70	82.2	-22.50	1.00 H	88	46.60	13.10
4	317.70	51.10	82.2	-31.10	1.00 H	205	35.70	15.40
5	562.63	53.70	82.2	-28.50	1.50 H	46	32.10	21.60
6	830.88	50.90	82.2	-31.30	1.00 H	82	25.10	25.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	49.44	60.20	82.2	-22.00	1.00 V	121	45.70	14.50
2	257.43	52.30	82.2	-29.90	1.00 V	43	39.00	13.30
3	344.91	43.60	82.2	-38.60	1.00 V	355	27.50	16.10
4	449.88	47.80	82.2	-34.40	1.00 V	181	29.00	18.80
5	564.57	51.50	82.2	-30.70	1.50 V	10	29.80	21.70
6	825.05	38.20	82.2	-44.00	1.50 V	334	12.50	25.70

NOTE:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. This is valid for all 3 channels.

CHANNEL BANDWIDTH: 10.0MHz

MODE	Low channel	FREQUENCY RANGE	Below 1000MHz

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	45.55	50.10	82.2	-32.10	1.00 H	247	35.60	14.50
2	136.91	53.10	82.2	-29.10	2.00 H	58	39.20	13.90
3	245.77	59.10	82.2	-23.10	1.00 H	76	46.30	12.80
4	317.70	51.10	82.2	-31.10	1.00 H	208	35.70	15.40
5	432.38	48.00	82.2	-34.20	2.00 H	43	29.60	18.40
6	564.57	53.60	82.2	-28.60	1.50 H	40	31.90	21.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	47.49	60.90	82.2	-21.30	1.00 V	112	46.40	14.50
2	150.52	45.70	82.2	-36.50	1.00 V	91	31.10	14.60
3	253.55	52.70	82.2	-29.50	1.00 V	28	39.50	13.20
4	344.91	43.50	82.2	-38.70	1.00 V	1	27.40	16.10
5	449.88	47.20	82.2	-35.00	1.00 V	181	28.40	18.80
6	564.57	50.70	82.2	-31.50	1.50 V	343	29.00	21.70

NOTE:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. This is valid for all 3 channels.

4.6.8 TEST RESULTS (Above 1GHz)

CHANNEL BANDWIDTH: 3.5MHz

LOW CHANNEL						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m						
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1400	52.6	-13.0	-48.2	6.1	-42.1
2	2100	43.8	-13.0	-59.1	8.4	-50.7
3	2800	66.6	-13.0	-36.5	8.7	-27.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m						
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1400	46.5	-13.0	-54.3	6.1	-48.2
2	2100	42.6	-13.0	-60.3	8.4	-51.9
3	2800	64.8	-13.0	-38.3	8.7	-29.6
MIDDLE CHANNEL						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m						
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1438	52.8	-13.0	-48.1	6.2	-41.9
2	2157	42.4	-13.0	-60.6	8.4	-52.2
3	**2876**	**73.4**	**-13.0**	**-29.8**	**8.8**	**-21.0**
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m						
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1438	47.2	-13.0	-53.7	6.2	-47.5
2	2157	43.4	-13.0	-59.6	8.4	-51.2
3	2876	71.2	-13.0	-32.0	8.8	-23.2
HIGH CHANNEL						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m						
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1488	54.6	-13.0	-46.4	6.3	-40.1
2	2232	43.1	-13.0	-59.8	8.4	-51.4
3	2976	70.0	-13.0	-33.3	9.0	-24.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m						
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1488	48.2	-13.0	-52.8	6.3	-46.5
2	2232	42.6	-13.0	-60.3	8.4	-51.9
3	2976	63.9	-13.0	-39.4	9.0	-30.4

NOTE: Power Value (dBum) = S.G Power Value (dBm) + Correction Factor (dB).

CHANNEL BANDWIDTH: 5.0MHz

LOW CHANNEL						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m						
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1402	45.3	-13.0	-55.5	6.1	-49.4
2	2103	43.3	-13.0	-59.6	8.4	-51.2
3	2804	68.3	-13.0	-34.8	8.7	-26.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m						
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1402	48.0	-13.0	-52.8	6.1	-46.7
2	2103	44.3	-13.0	-58.6	8.4	-50.2
3	2804	65.7	-13.0	-37.4	8.7	-28.7
MIDDLE CHANNEL						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m						
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1438	52.2	-13.0	-48.7	6.2	-42.5
2	2157	41.9	-13.0	-61.1	8.4	-52.7
3	2876	73.2	-13.0	-30.0	8.8	-21.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m						
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1438	48.3	-13.0	-52.6	6.2	-46.4
2	2157	43.2	-13.0	-59.8	8.4	-51.4
3	2876	72.5	-13.0	-30.7	8.8	-21.9
HIGH CHANNEL						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m						
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1484	53.4	-13.0	-47.6	6.3	-41.3
2	2226	42.7	-13.0	-60.2	8.4	-51.8
3	2968	70.8	-13.0	-32.5	9.0	-23.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m						
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1484	53.5	-13.0	-47.5	6.3	-41.2
2	2226	42.2	-13.0	-60.7	8.4	-52.3
3	2968	63.9	-13.0	-39.4	9.0	-30.4

NOTE: Power Value (dBum) = S.G Power Value (dBm) + Correction Factor (dB).

CHANNEL BANDWIDTH: 7.0MHz

LOW CHANNEL

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1404	50.4	-13.0	-50.4	6.1	-44.3
2	2106	42.7	-13.0	-60.2	8.4	-51.8
3	2808	67.5	-13.0	-35.6	8.7	-26.9

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1404	48.0	-13.0	-52.8	6.1	-46.7
2	2106	43.7	-13.0	-59.2	8.4	-50.8
3	2808	65.0	-13.0	-38.1	8.7	-29.4

MIDDLE CHANNEL

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1440	51.5	-13.0	-49.4	6.2	-43.2
2	2160	42.7	-13.0	-60.3	8.4	-51.9
3	2880	73.3	-13.0	-29.9	8.8	-21.1

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1440	48.2	-13.0	-52.7	6.2	-46.5
2	2160	42.4	-13.0	-60.6	8.4	-52.2
3	2880	71.1	-13.0	-32.1	8.8	-23.3

HIGH CHANNEL

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1484	53.3	-13.0	-47.7	6.3	-41.4
2	2226	43.5	-13.0	-59.4	8.4	-51.0
3	2968	71.7	-13.0	-31.6	9.0	-22.6

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1484	46.1	-13.0	-54.9	6.3	-48.6
2	2226	42.3	-13.0	-60.6	8.4	-52.2
3	2968	65.0	-13.0	-38.3	9.0	-29.3

NOTE: Power Value (dBum) = S.G Power Value (dBm) + Correction Factor (dB).

CHANNEL BANDWIDTH: 10.0MHz

LOW CHANNEL

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1408	51.6	-13.0	-49.3	6.1	-43.2
2	2112	41.6	-13.0	-61.3	8.4	-52.9
3	2816	70.5	-13.0	-32.6	8.7	-23.9

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1408	45.2	-13.0	-55.7	6.1	-49.6
2	2112	42.7	-13.0	-60.2	8.4	-51.8
3	2816	65.1	-13.0	-38.0	8.7	-29.3

MIDDLE CHANNEL

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1444	51.2	-13.0	-49.7	6.2	-43.5
2	2166	42.7	-13.0	-60.2	8.4	-51.8
3	2888	72.4	-13.0	-30.8	8.8	-22.0

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1444	46.7	-13.0	-54.2	6.2	-48.0
2	2166	43.5	-13.0	-59.4	8.4	-51.0
3	2888	71.1	-13.0	-32.1	8.8	-23.3

HIGH CHANNEL

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1480	53.2	-13.0	-47.7	6.3	-41.4
2	2220	42.7	-13.0	-60.2	8.4	-51.8
3	2960	70.5	-13.0	-32.8	9.0	-23.8

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV)	LIMIT (dBm)	S.G POWER VALUE (dBm)	CORRECTION FACTOR (dB)	POWER VALUE (dBm)
1	1480	51.2	-13.0	-49.7	6.3	-43.4
2	2220	42.4	-13.0	-60.5	8.4	-52.1
3	2960	66.0	-13.0	-37.3	9.0	-28.3

NOTE: Power Value (dBum) = S.G Power Value (dBm) + Correction Factor (dB).

5 INFORMATION ON THE TESTING LABORATORIES

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

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.

6 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

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

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