FCC Part27M Test Report

Product Name	:	Wireless Module
Model No.	:	MC7304
FCC ID	:	N7NMC7304
IC	:	2417C-MC7304

Applicant	:	SIERRA WIRELESS Inc.
Address	:	13811 Wireless Way, Richmond, BC, Canada V6V 3A4

Date of Receipt	:	Dec. 04, 2014
Test Date	:	Dec. 04, 2014~ Dec. 13, 2014
Issued Date	:	Dec. 17, 2014
Report No.	:	14C0227R-HP-US-P07V01
Report Version	:	V 1.1

Test Report Certification

Issued Date : Dec. 17, 2014
Report No. : 14C0227R-HP-US-P07V01

Product Name	:	Wireless Module
Applicant	:	SIERRA WIRELESS TECHNOLOGY (SZ) LTD.
Address	:	2/F JIU-ZOU ELECTRONIC BUILDING, SOUTHERN NO.12 ROAD, HI-TECH PARK. NANSHAN, SHENZHEN, UANGDONG, CHINA, 518057
Manufacturer	:	Sierra Wireless Inc.
Address	:	13811 Wireless Way Richmond, British Columbia, Canada, V6V 3A4.
Model No.	:	MC7304
FCC ID	:	N7NMC7304
IC	:	2417C-MC7304
EUT Voltage	:	DC3.0/3.3/3.6V
Brand Name	:	AirPrime
Applicable Standard	:	FCC CFR Title 47 Part 2,TIA/EIA 603-C FCC Part27 Subpart M Industry Canada RSS-199, Issue 2
Test Result	:	Complied
Performed Location	:	Suzhou EMC Laboratory No.99 Hongye Rd., Suzhou Industrial Park Loufeng Hi-Tech Development Zone., Suzhou, China TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098 FCC Registration Number: 800392; IC Lab Code: 4075B

Documented By	:	Alice Ni
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Laboratory Information

We, **QuieTek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted(audited or listed) by the following related bodies in compliance with ISO 17025, EN 45001 and specified testing scope:

Taiwan R.O.C.	**:**	**BSMI, NCC, TAF**
Germany	**:**	**TUV Rheinland**
Norway	**:**	**Nemko, DNV**
USA	**:**	**FCC**
Japan	**:**	**VCCI**

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site :http://www.quietek.com/tw/ctg/cts/accreditations.htm
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : http://www.quietek.com/
If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

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LinKou Testing Laboratory :
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TEL : +86-512-6251-5088 / FAX : 86-512-6251-5098 E-Mail : service@quietek.com

TABLE OF CONTENTS

Description Page
1. General Information 6
1.1. EUT Description 6
1.2. Mode of Operation 7
1.3. Tested System Details 8
1.4. Configuration of Tested System 9
1.5. EUT Exercise Software 10
2. Technical Test 11
2.1. Summary of Test Result 11
2.2. Test Environment 12
3. Maximum Output Power and Effective Isotropic Radiated Power Measurement 13
3.1. Test Equipment 13
3.2. Test Setup 14
3.3. Test Procedure 14
3.4. Uncertainty 15
3.5. Test Result 16
4. Modulation Characteristic 20
4.1. Test Equipment 20
4.2. Test Setup 20
4.3. Limit 20
4.4. Uncertainty 21
4.5. Test Result 21
5. Occupied Bandwidth 22
5.1. Test Equipment 22
5.2. Test Setup 22
5.3. Test Procedure 22
5.4. Uncertainty 22
5.5. Test Result 23
6. Conducted Band Edge 39
6.1. Test Equipment 39
6.2. Test Setup 39
6.3. Test Procedure 39
6.4. Uncertainty 39
6.5. Test Result 40
7. Spurious Emission 104
7.1. Test Equipment 104
7.2. Test Setup 105

7.3. Test Procedure 107
7.4. Uncertainty 107
7.5. Test Result 108
8. Frequency Stability Under Temperature & Voltage Variations 140
8.1. Test Equipment 140
8.2. Test Setup 140
8.3. Test Procedure 141
8.4. Uncertainty 141
8.5. Test Result 142

1. General Information

1.1. EUT Description

Product Name	Wireless Module
Model No.	MC7304
Brand Name	AirPrime
EUT Voltage	DC3.0/3.3/3.6V
2G	
Support Band	GSM850/PCS1900
GPRS Class	Class 12
Uplink	GSM 850: 824~849MHz PCS 1900: 1850~1910MHz
Downlink	GSM 850: 869~894MHz PCS 1900: 1930~1990MHz
Type of modulation	GMSK for GPRS; 8PSK for EDGE
Antenna Type	Dipole
Antenna Gain	GSM 850: 1.2dBi PCS1900: 1.3dBi
3G	
Support Band	WCDMA Band II/WCDMA Band V
Uplink	WCDMA Band II: 1850~1910MHz WCDMA Band V: 824~849MHz
Downlink	WCDMA Band II: 1930~1990MHz WCDMA Band V: 869~894MHz
Type of modulation	QPSK, 16QAM for Downlink
	QPSK for Uplink
Antenna Type	Dipole
4G	
Support Band	LTE Band 1/3/7/8/20
Uplink	Band VII: 2502.5~2567.5MHz
Type of modulation	QPSK, 16QAM
Antenna Gain	Band VII: 4.2dBi

1.2. Mode of Operation

QuieTek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode
Mode 1: LTE Band 7

Note:

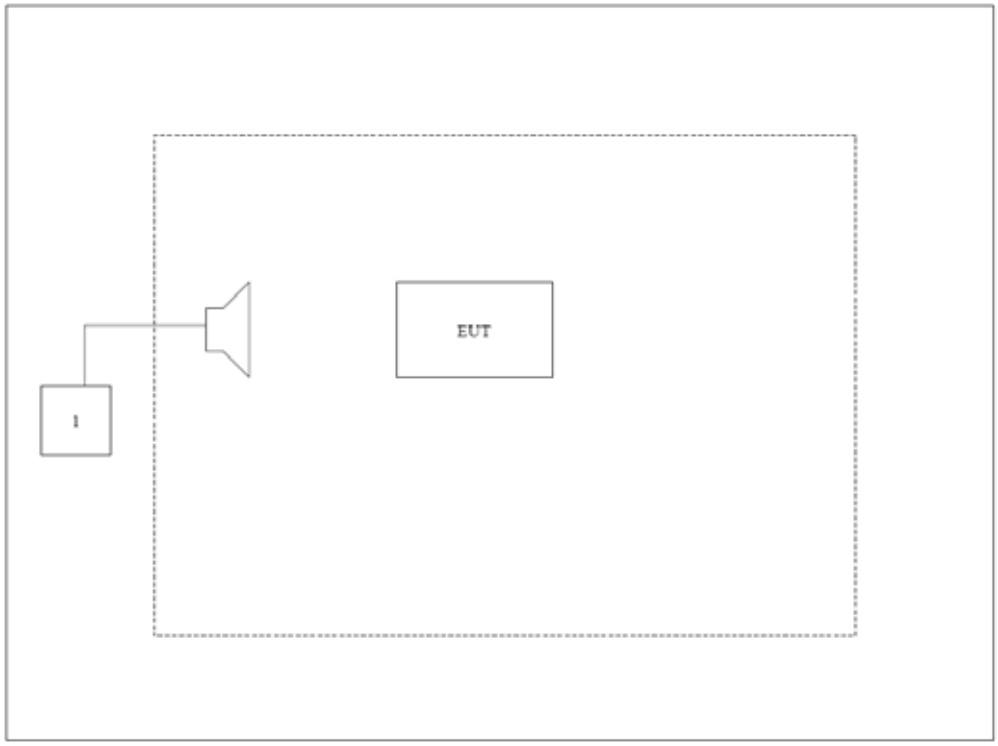
1. Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.

1.3. Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Radio Communication Tester	Anritsu	MT8820C	6201181503	N/A

1.4. Configuration of Tested System

Connection Diagram	
	
Signal Cable Type	Signal cable Description

1.5. EUT Exercise Software

1	Setup the EUT and simulators as shown on above.
2	Turn on the power of all equipment.
3	EUT Communicate with MT8820C, then select channel to test.

2. Technical Test

2.1. Summary of Test Result

For LTE Band VII(FCC Part 27M & Part 2)

Performed Item	FCC Rule	IC Rule	Limit	Result
Maximum Output Power	§2.1033 §2.1046 §27.50	§4.4	Output Power < 2 Watts	Pass
Equivalent Isotropic Radiated Power	§27.50	§4.4	< 33 dBW + 10 log(X/Y)dBW + 10 log(360/beamwidth) dBW	Pass
Modulation characteristics	§2.1047	§4.1	N/A	Pass
Occupied Bandwidth	§2.1049	§4.2	N/A	Pass
Conducted Band Edge Emissions	§27.50	§4.6	< 5MHz: -10 dBm 5MHz-X MHz:-13dBm >X MHz:-25dBm	Pass
Field Strength of Spurious Radiation	§2.1053 §27.53	§4.6	-25 dBm	Pass
Frequency Stability Under Temperature & Voltage Variations	§2.1055 §27.54	§4.3	2.5 ppm	Pass

2.2. Test Environment

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	23
Humidity (%RH)	25-75	52
Barometric pressure (mbar)	860-1060	950-1000

3. Maximum Output Power and Effective Isotropic Radiated Power Measurement

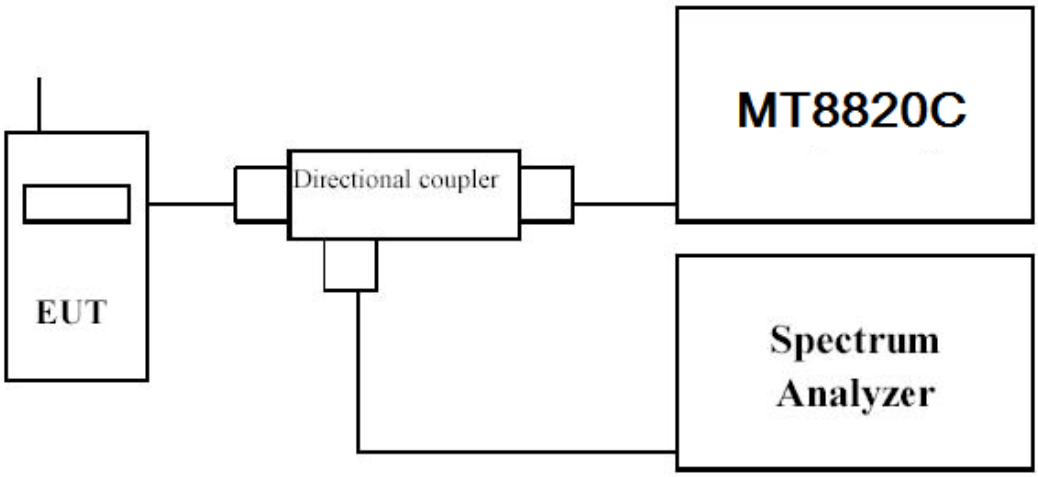
3.1. Test Equipment

Spurious Emission / AC-5

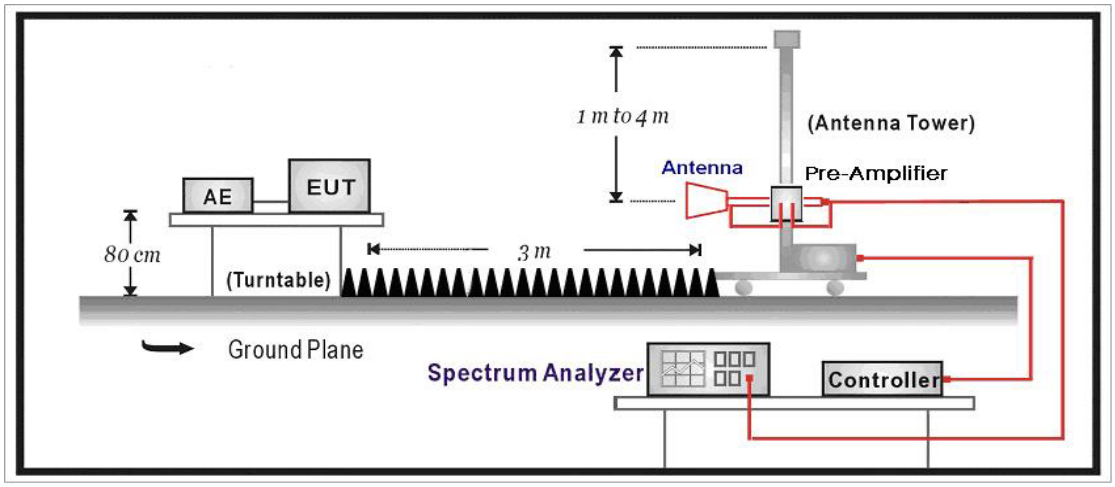
Instrument	Manufacturer	Type No.	Serial No	Cali. Due Date
PSA Series Spectrum Analyzer	Agilent	E4440A	MY49420184	2015.03.28
Radio Communication Tester	Anritsu	MT8820C	6201181503	2015.03.28
Dual Directional Coupler	Agilent	778D	20160	2015.03.28
10dB Coaxial Coupler	Agilent	87300C	MY44300299	2015.03.28
PSG Analog Signal Generator	Agilent	E8257D	MY44321116	2015.03.28
Preamplifier	QuieTek	AP-025C	CHM-0503006	2015.04.11
Preamplifier	Miteq	NSP1800-25	1364185	2015.05.03
Bilog Antenna	Teseq GmbH	CBL6112D	27612	2015.10.15
Half Wave Tuned Dipole Antenna	COM-POWER	AD-100	40137	2016.02.26
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	737	2016.02.26
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	499	2015.06.08
DRG Horn	ETS-Lindgren	3117	00123988	2015.01.07
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC5-TH	2015.01.08

3.2. Test Setup

Conducted Power Measurement:



Radiated Power Measurement:



3.3. Test Procedure

For Conducted Power Measurement:

a) The RF output of the transmitter was connected to base station simulator.

b) The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement..

c) Set EUT at maximum average power by base station simulator.

d) Measure lowest, middle, and highest channels for each bandwidth and different modulation.

For Effective Isotropic Radiated Power Measurement:

e) The EUT was placed on a turntable with 1.5 meter height in a fully anechoic chamber.
f) The EUT was set at 3 meters from the receiving antenna, which was mounted on the antenna tower
g) LTE operating modes: Set RBW= 100 KHz, VBW= 300 KHz, RMS detector over frame, and use
h) channel power option with bandwidth=5MHz, per section 4.0 of KDB 971168 D01.
i) The table was rotated 360 degrees to determine the position of the highest radiated power.
j) The height of the receiving antenna is adjusted to look for the maximum EIRP.
k) Taking the record of maximum EIRP.
l) A dipole antenna was substituted in place of the EUT and was driven by a signal generator.
m) The conducted power at the terminal of the dipole antenna is measured.
n) Repeat step 3 to step 5 to get the maximum EIRP of the substitution antenna.
o) EIRP = Ps + Et – Es + Gs = Ps + Rt – Rs + Gs.
p) Ps (dBm)：Input power to substitution antenna
q) Gs (dBi or dBd)：Substitution antenna Gain.
r) Et = Rt + AF
s) Es = Rs + AF
t) AF (dB/m)：Receive antenna factor
u) Rt：The highest received signal in spectrum analyzer for EUT.
v) Rs：The highest received signal in spectrum analyzer for substitution antenna.

3.4. Uncertainty

The measurement uncertainty is defined as for Conducted Power Measurement ± 1.2 dB, for Radiated Power Measurement ± 3.2 dB

3.5. Test Result

Conducted Output Power

BW [MHz]	RB Size	RB Offset	Mod	Maximum Average Power [dBm]		
				Low Ch. / Freq.	Mid Ch. / Freq.	High Ch. / Freq.
Channel				20850	21100	21350
Frequency				2510	2535	2560
20	1	0	QPSK	22.49	22.75	22.85
20	1	49		22.78	22.78	22.83
20	1	99		22.91	22.84	21.02
20	50	0		21.43	21.40	21.65
20	50	24		21.54	21.37	21.69
20	50	49		21.61	21.51	21.68
20	100	0		21.54	21.42	21.80
20	1	0	16-QAM	21.43	21.69	21.78
20	1	49		21.73	21.73	21.76
20	1	99		21.81	21.75	20.03
20	50	0		20.45	20.35	20.63
20	50	24		20.51	20.34	20.67
20	50	49		20.56	20.51	20.66
20	100	0		20.51	20.49	20.78
Channel				20825	21100	21375
Frequency				2507.5	2535	2562.5
15	1	0	QPSK	22.36	22.71	23.01
15	1	37		22.74	22.79	22.97
15	1	74		22.85	23.06	21.09
15	36	0		21.47	21.50	21.89
15	36	18		21.63	21.62	21.85
15	36	37		21.67	21.59	21.68
15	75	0		21.49	21.53	21.81
15	1	0	16-QAM	21.33	21.67	21.95
15	1	37		21.67	21.72	21.89
15	1	74		21.82	22.02	20.14
15	36	0		20.46	20.49	20.86
15	36	18		20.64	20.63	20.84
15	36	37		20.65	20.58	20.66
15	75	0		20.46	20.50	20.76

Channel				20800	21100	21400
Frequency				2505	2535	2565
10	1	0	QPSK	22.52	22.98	23.16
10	1	24		22.76	23.04	23.21
10	1	49		22.81	23.03	22.03
10	25	0		21.53	21.75	22.11
10	25	12		21.52	21.83	22.12
10	25	24		21.58	21.80	21.98
10	50	0		21.39	21.75	22.04
10	1	0	16-QAM	21.48	21.92	22.01
10	1	24		21.67	21.94	22.12
10	1	49		21.78	21.98	21.13
10	25	0		20.55	20.71	21.06
10	25	12		20.59	20.83	21.21
10	25	24		20.54	20.72	20.93
10	50	0		20.32	20.71	20.94
Channel				20775	21100	21425
Frequency				2502.5	2535	2567.5
5	1	0	QPSK	22.58	22.87	23.08
5	1	12		22.62	23.07	22.68
5	1	24		22.79	23.05	22.46
5	12	0		21.54	21.90	22.32
5	12	6		21.58	21.97	22.26
5	12	11		21.58	21.93	22.16
5	25	0		21.44	21.85	21.89
5	1	0	16-QAM	21.53	21.82	22.02
5	1	12		21.52	21.97	21.61
5	1	24		21.75	22.08	21.45
5	12	0		20.53	20.87	21.23
5	12	6		20.56	20.92	21.24
5	12	11		20.59	20.94	21.01
5	25	0		20.45	20.80	20.84

Note: All conducted measurements are based on a RMS detector.

Effective Isotropic Radiated Power

LTE Band 7 Radiated Power EIRP							
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Freq. (MHz)	EIRP (dBm)	H/V
			RB Size	RB Offset			
7	5	QPSK	1	24	2505.2	26.43	H
7	5	QPSK	1	12	2535.0	26.54	H
7	5	QPSK	1	0	2567.5	26.89	H
7	5	QPSK	1	24	2505.2	25.88	V
7	5	QPSK	1	12	2535.0	25.96	V
7	5	QPSK	1	0	2567.5	26.07	V
7	5	16QAM	1	24	2505.2	25.68	H
7	5	16QAM	1	24	2535.0	25.79	H
7	5	16QAM	1	0	2567.5	25.93	H
7	5	16QAM	1	24	2505.2	25.13	V
7	5	16QAM	1	24	2535.0	25.35	V
7	5	16QAM	1	0	2567.5	25.69	V
7	10	QPSK	1	49	2505.0	26.58	H
7	10	QPSK	1	49	2535.0	26.69	H
7	10	QPSK	1	24	2565.0	26.73	H
7	10	QPSK	1	49	2505.0	26.11	V
7	10	QPSK	1	49	2535.0	26.21	V
7	10	QPSK	1	24	2565.0	26.34	V
7	10	16QAM	1	49	2505.0	25.73	H
7	10	16QAM	1	49	2535.0	25.89	H
7	10	16QAM	1	24	2565.0	26.01	H
7	10	16QAM	1	49	2505.0	25.26	V
7	10	16QAM	1	49	2535.0	25.37	V
7	10	16QAM	1	24	2565.0	25.41	V

LTE Band 7 Radiated Power EIRP							
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Freq. (MHz)	EIRP (dBm)	H/V
			RB Size	RB Offset			
7	15	QPSK	1	74	2507.5	26.55	H
7	15	QPSK	1	74	2535.0	26.78	H
7	15	QPSK	1	0	2562.5	26.89	H
7	15	QPSK	1	74	2507.5	26.15	V
7	15	QPSK	1	74	2535.0	26.37	V
7	15	QPSK	1	0	2562.5	26.42	V
7	15	16QAM	1	74	2507.5	25.98	H
7	15	16QAM	1	74	2535.0	26.08	H
7	15	16QAM	1	0	2562.5	26.18	H
7	15	16QAM	1	74	2507.5	25.83	V
7	15	16QAM	1	74	2535.0	25.93	V
7	15	16QAM	1	0	2562.5	26.15	V
7	20	QPSK	1	99	2507.5	26.52	H
7	20	QPSK	1	99	2535.0	26.77	H
7	20	QPSK	1	0	2560.0	26.83	H
7	20	QPSK	1	99	2507.5	26.21	V
7	20	QPSK	1	99	2535.0	26.35	V
7	20	QPSK	1	0	2560.0	26.42	V
7	20	16QAM	1	0	2507.5	26.01	H
7	20	16QAM	1	99	2535.0	26.17	H
7	20	16QAM	1	99	2560.0	26.23	H
7	20	16QAM	1	0	2507.5	25.98	V
7	20	16QAM	1	99	2535.0	26.13	V
7	20	16QAM	1	99	2560.0	26.23	V

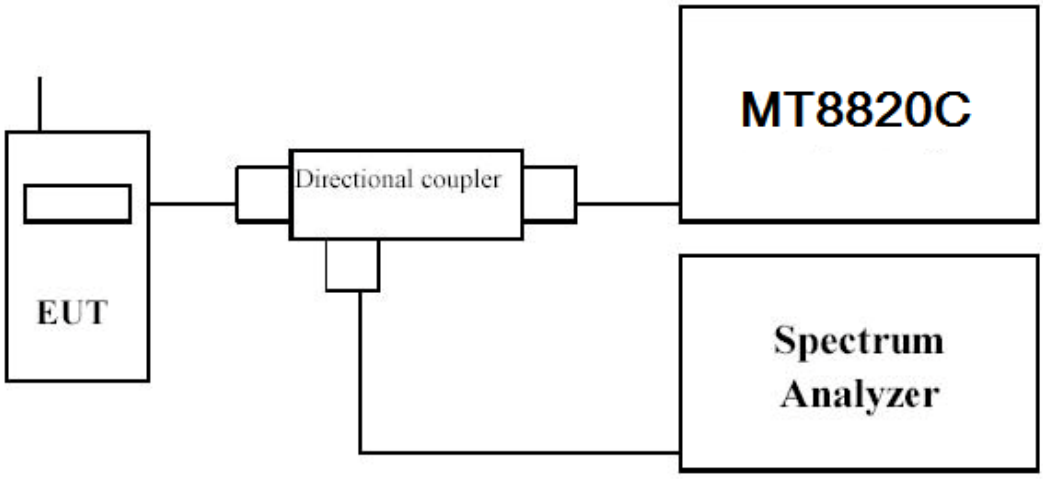
4. Modulation Characteristic

4.1. Test Equipment

Modulation Characteristic / AC-6

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
PSA Series Spectrum Analyzer	Agilent	E4440A	MY49420184	2015.03.28
Radio Communication Tester	Anritsu	MT8820C	6201181503	2015.03.28
Dual Directional Coupler	Agilent	778D	20160	2015.03.28
10dB Coaxial Coupler	Agilent	87300C	MY44300299	2015.03.28
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC6-TH	2015.01.08

4.2. Test Setup



4.3. Limit

N/A

4.4. Uncertainty

The measurement uncertainty is defined as 0.1%

4.5. Test Result

The modulation of GSM/WCDMA was verified and confirmed compliance with requirement.

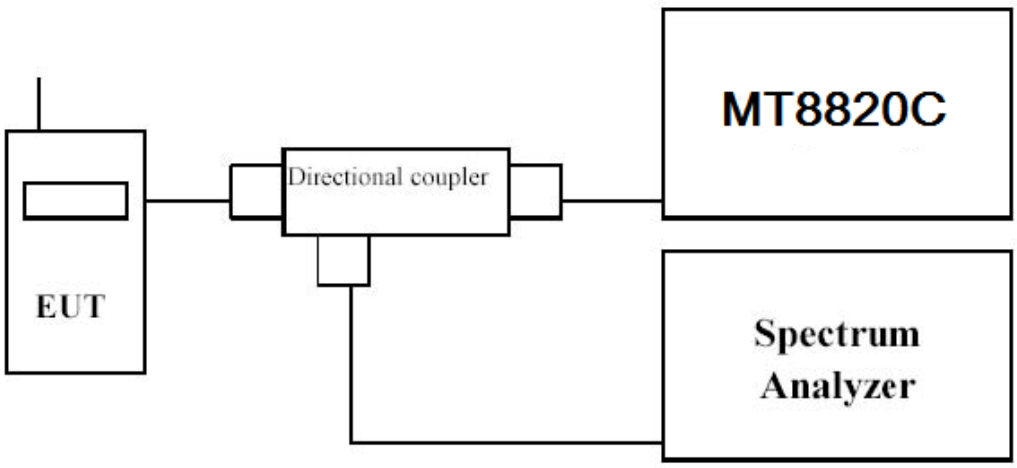
5. Occupied Bandwidth

5.1. Test Equipment

Occupied Bandwidth / AC-6

Instrument	Manufacturer	Type No.	Serial No	Cali. Due Date
PSA Series Spectrum Analyzer	Agilent	E4440A	MY49420184	2015.03.28
Radio Communication Tester	Anritsu	MT8820C	6201181503	2015.03.28
Dual Directional Coupler	Agilent	778D	20160	2015.03.28
10dB Coaxial Coupler	Agilent	87300C	MY44300299	2015.03.28
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC6-TH	2015.01.08

5.2. Test Setup



5.3. Test Procedure

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. The 99% occupied bandwidth and 26 dB bandwidth of the middle channel for the highest RF powers were measured.

5.4. Uncertainty

The measurement uncertainty is defined as ± 10 Hz

5.5. Test Result

Product	Wireless Module		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: LTE Band VII(5M/QPSK)		
Date of Test	2014/12/06	Test Site	AC6

Channel No.	Frequency (MHz)	-26dB Occupied Bandwidth (kHz)	99% Occupied Bandwidth (kHz)
20775	2502.50	5089.00	4504.60
21100	2535.00	5060.00	4505.10
21425	2567.50	5041.00	4503.00

Figure Channel 20775 25RB0 (2502.5MHz)

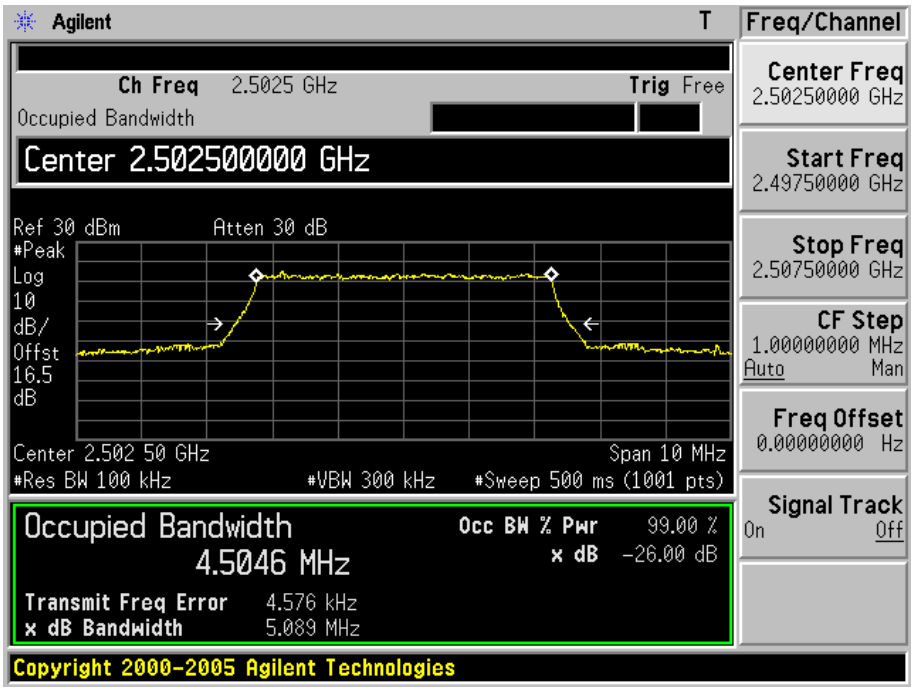


Figure Channel 21100 25RB0 (2535.00MHz)

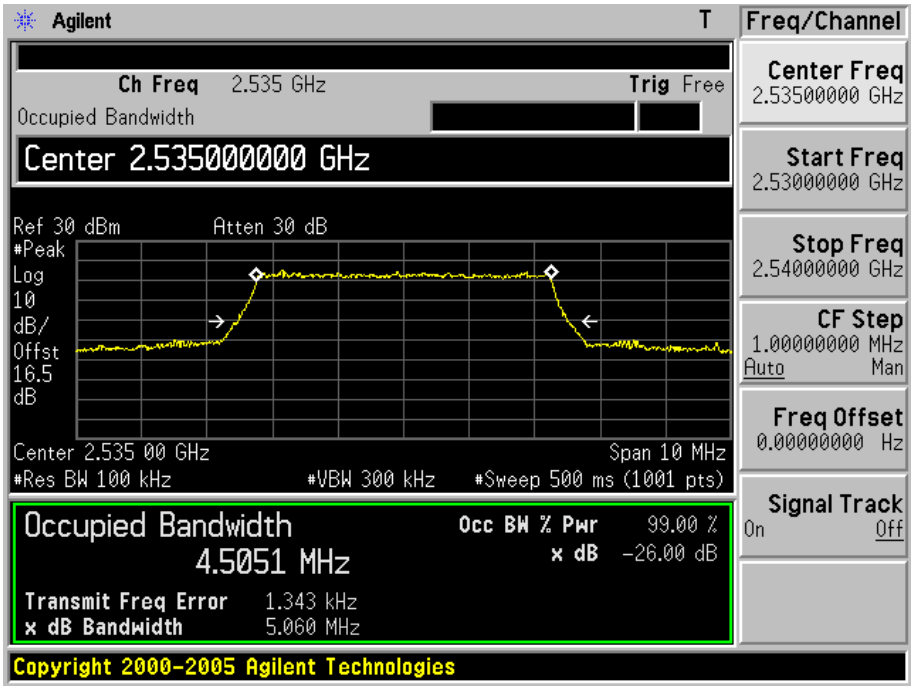
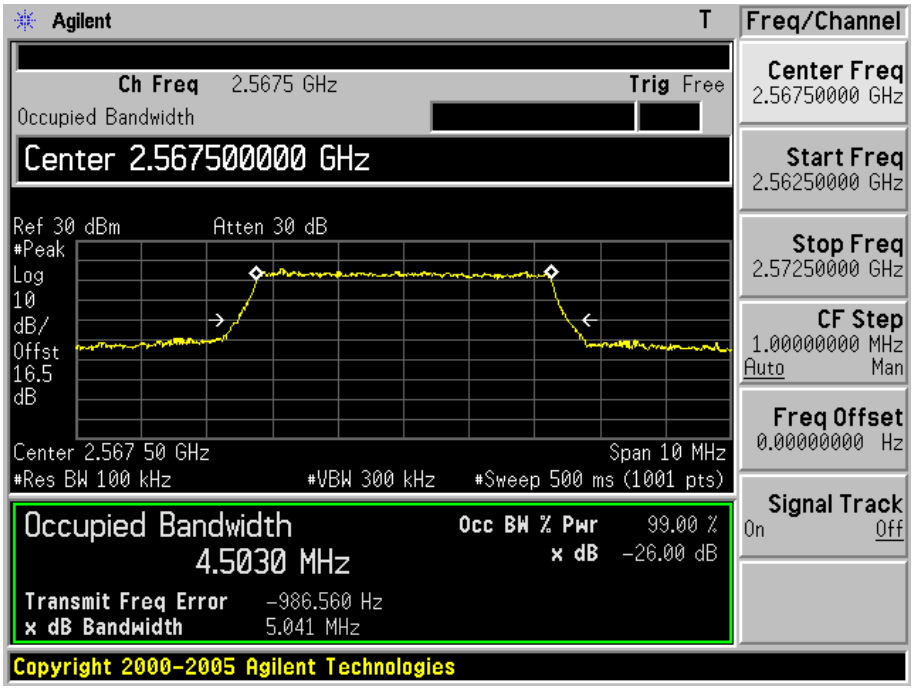


Figure Channel 21425 25RB0 (2567.5MHz)



Product	Wireless Module		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: LTE Band VII (5M/16QAM)		
Date of Test	2014/12/06	Test Site	AC6

Channel No.	Frequency (MHz)	-26dB Occupied Bandwidth (kHz)	99% Occupied Bandwidth (kHz)
20775	2502.50	5035.00	4484.80
21100	2535.00	4490.60	5006.00
21425	2567.50	5041.00	4490.50

Figure Channel 20775 25RB0 (2502.5MHz)

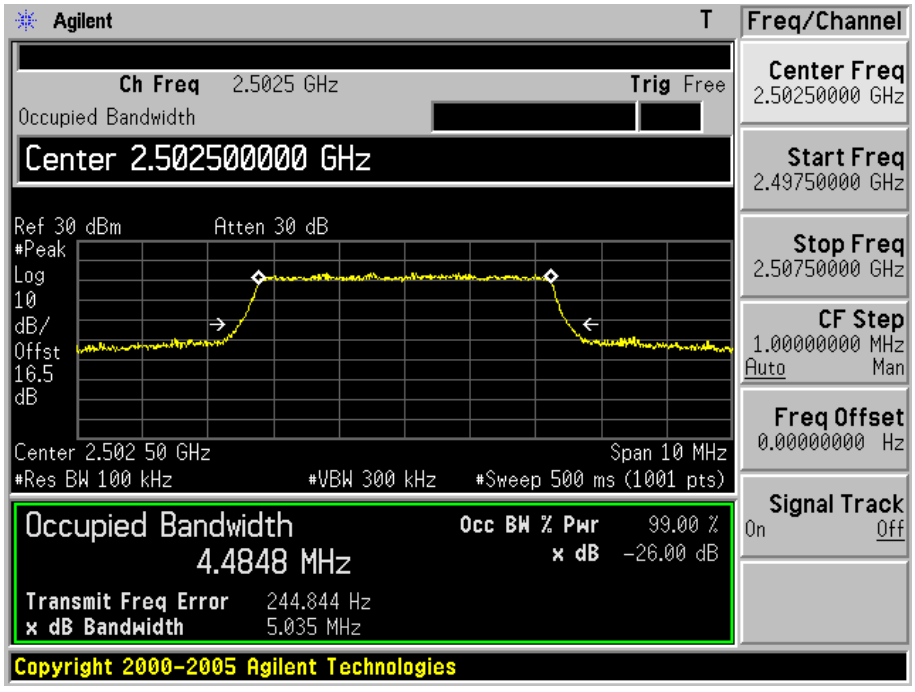


Figure Channel 21100 25RB0 (2535.00MHz)

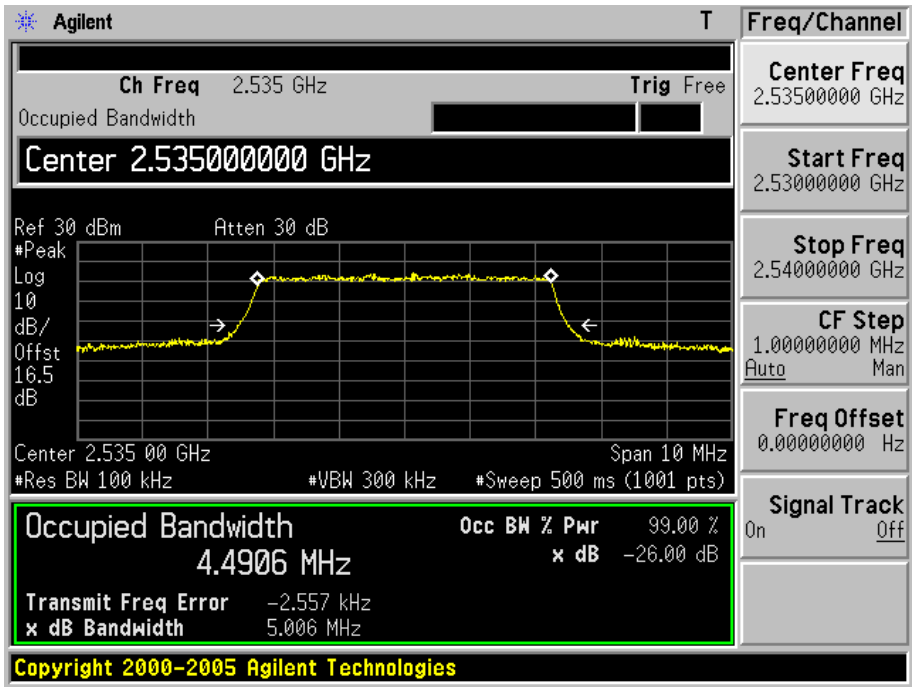
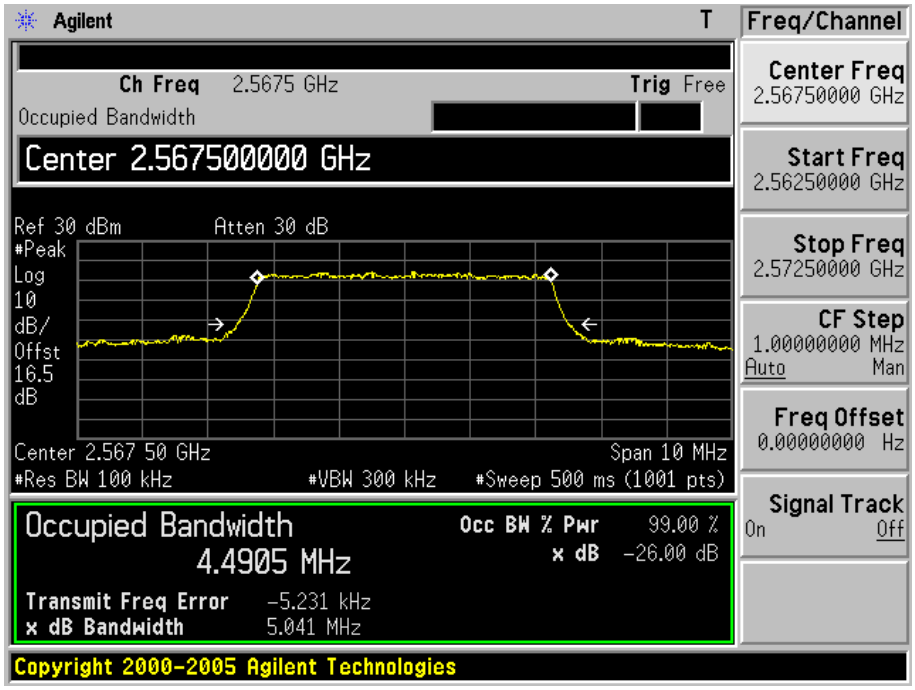


Figure Channel 21425 25RB0 (2567.5MHz)



Product	Wireless Module		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: LTE Band VII(10M/QPSK)		
Date of Test	2014/12/06	Test Site	AC6

Channel No.	Frequency (MHz)	-26dB Occupied Bandwidth (kHz)	99% Occupied Bandwidth (kHz)
20800	2505.00	10096.00	9053.70
21100	2535.00	10143.00	9065.10
21400	2565.00	10130.00	9052.30

Figure Channel 20800 50RB0 (2505.00MHz)

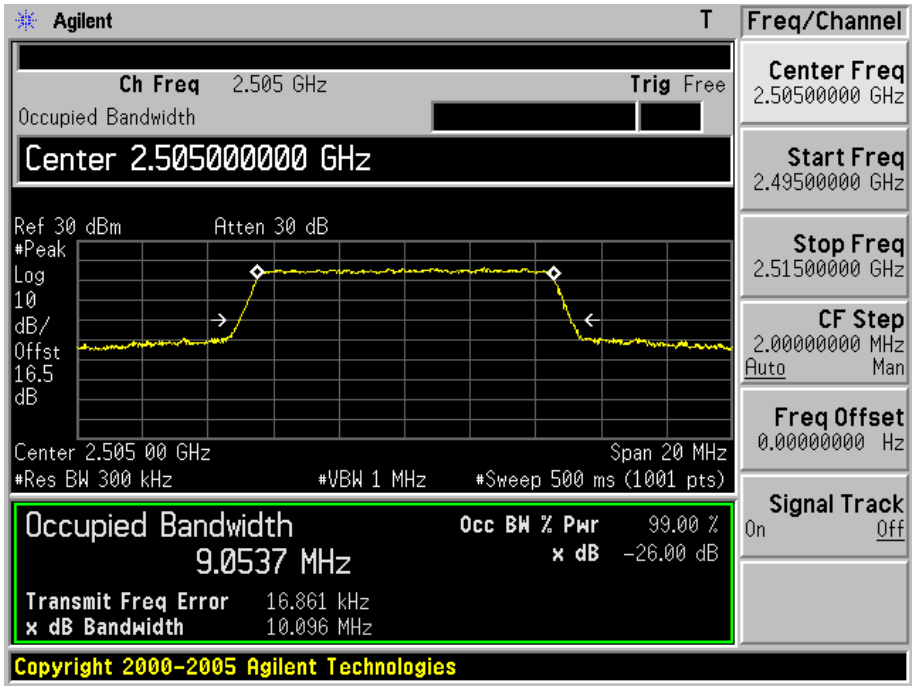


Figure Channel 21100 50RB0 (2535.00MHz)

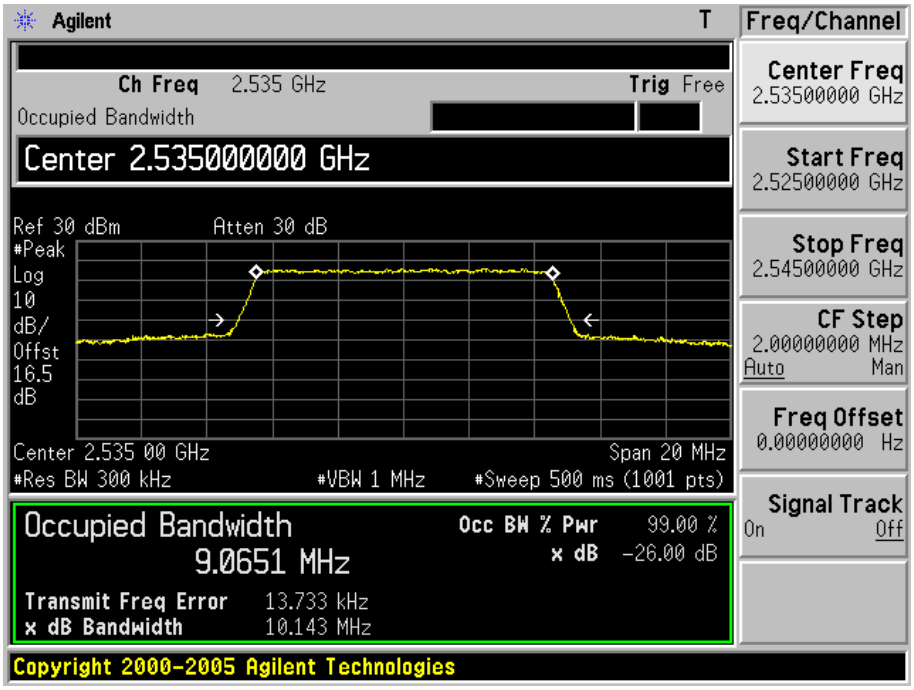
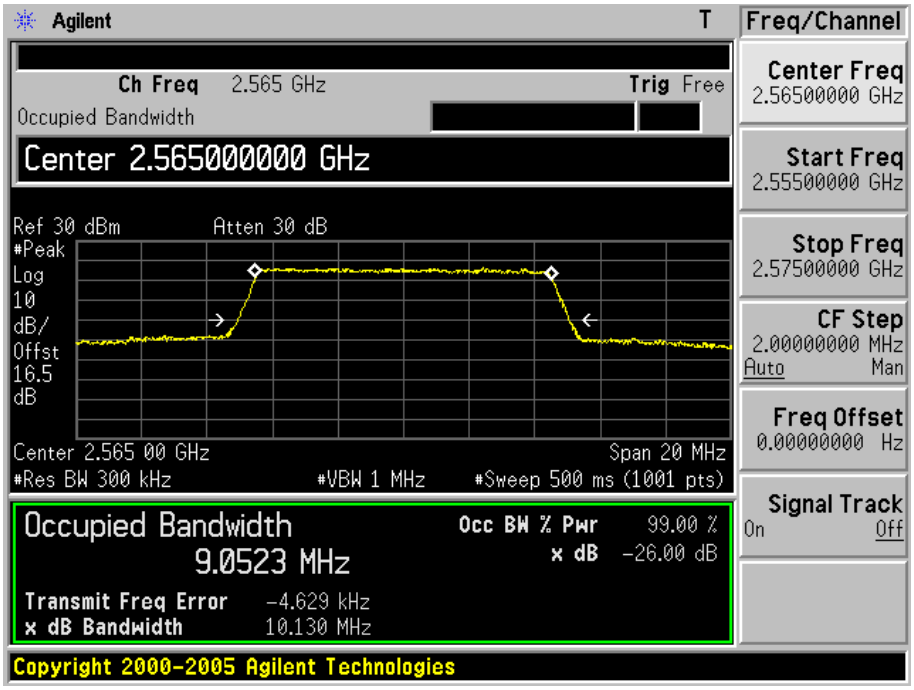


Figure Channel 21400 50RB0 (2565.00MHz)



Product	Wireless Module		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: LTE Band VII (10M/16QAM)		
Date of Test	2014/12/06	Test Site	AC6

Channel No.	Frequency (MHz)	-26dB Occupied Bandwidth (kHz)	99% Occupied Bandwidth (kHz)
20800	2505.00	10124.00	9019.60
21100	2535.00	10113.00	9025.70
21400	2565.00	10121.00	9020.00

Figure Channel 20800 50RB0 (2505.00MHz)

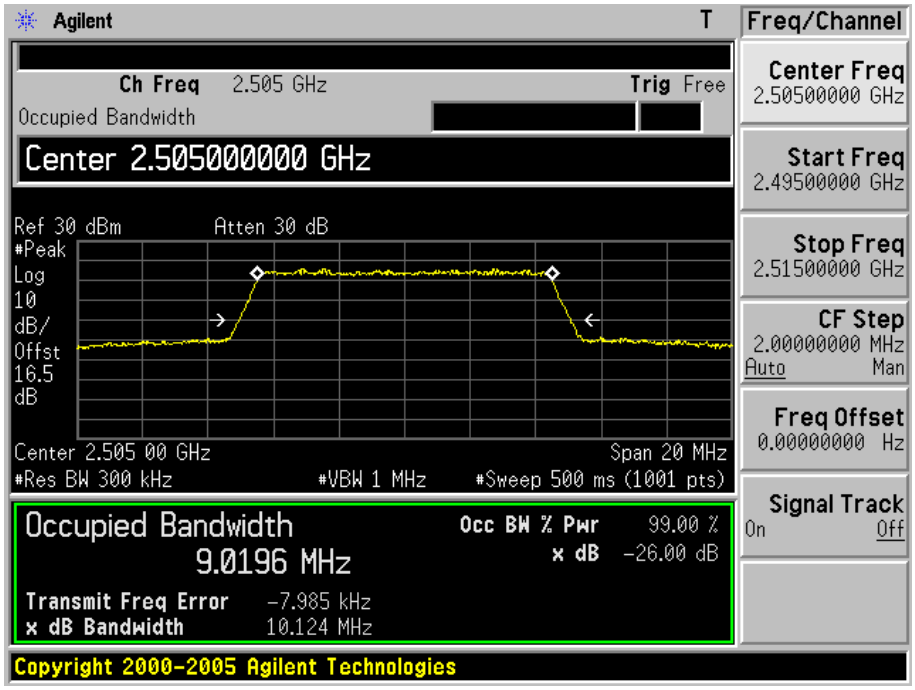


Figure Channel 21100 50RB0 (2535.00MHz)

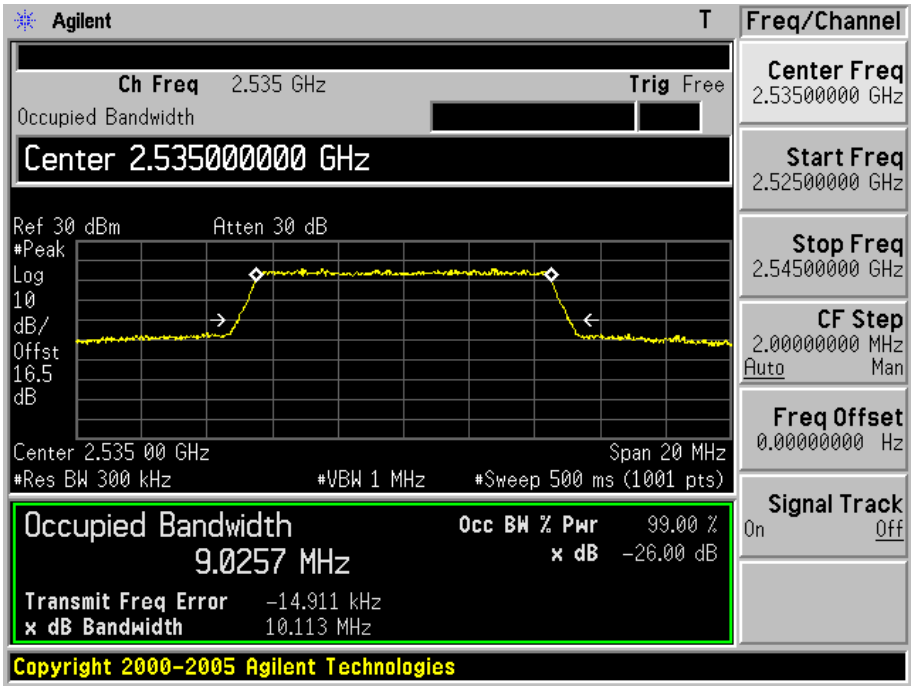
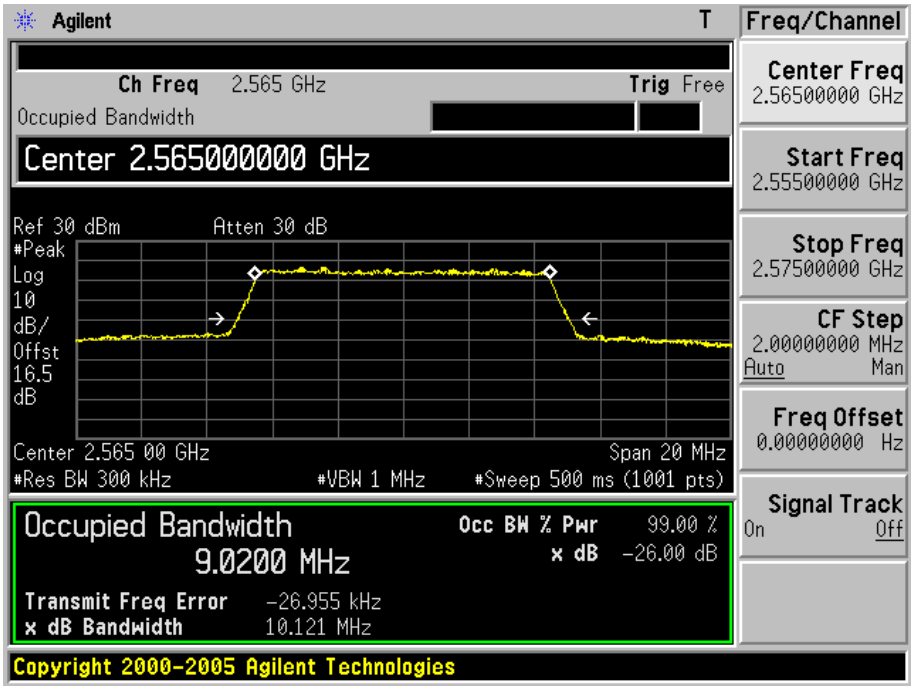


Figure Channel 21400 50RB0 (2565.00MHz)



Product	Wireless Module		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: LTE Band VII(15M/QPSK)		
Date of Test	2014/12/06	Test Site	AC6

Channel No.	Frequency (MHz)	-26dB Occupied Bandwidth (kHz)	99% Occupied Bandwidth (kHz)
20825	2507.50	14907.00	13459.40
21100	2535.00	14936.00	13457.50
21375	2562.50	14854.00	13452.70

Figure Channel 20825 75RB0 (2507.50MHz)

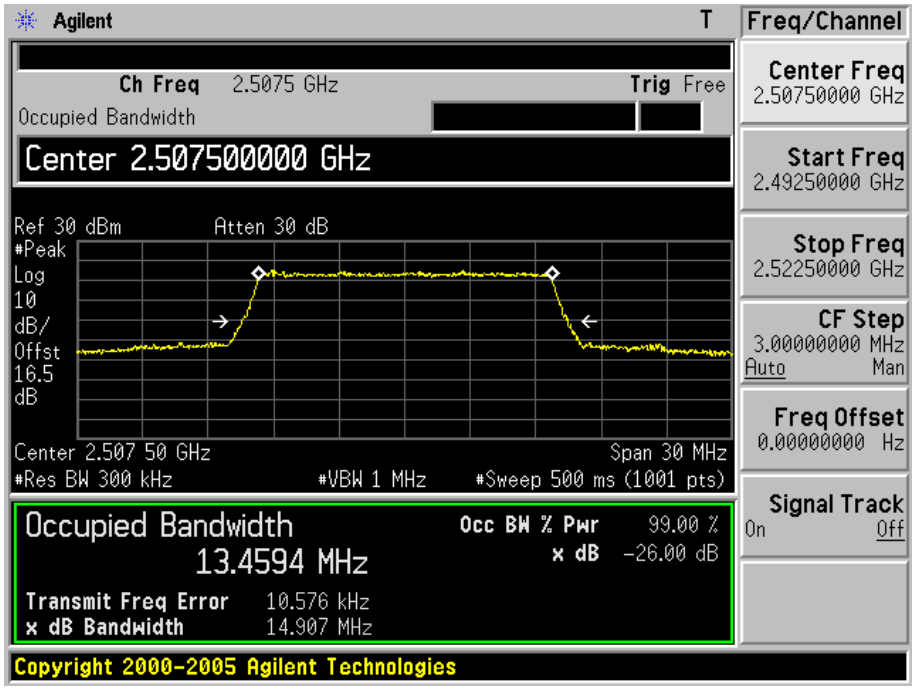


Figure Channel 21100 75RB0 (2535.00MHz)

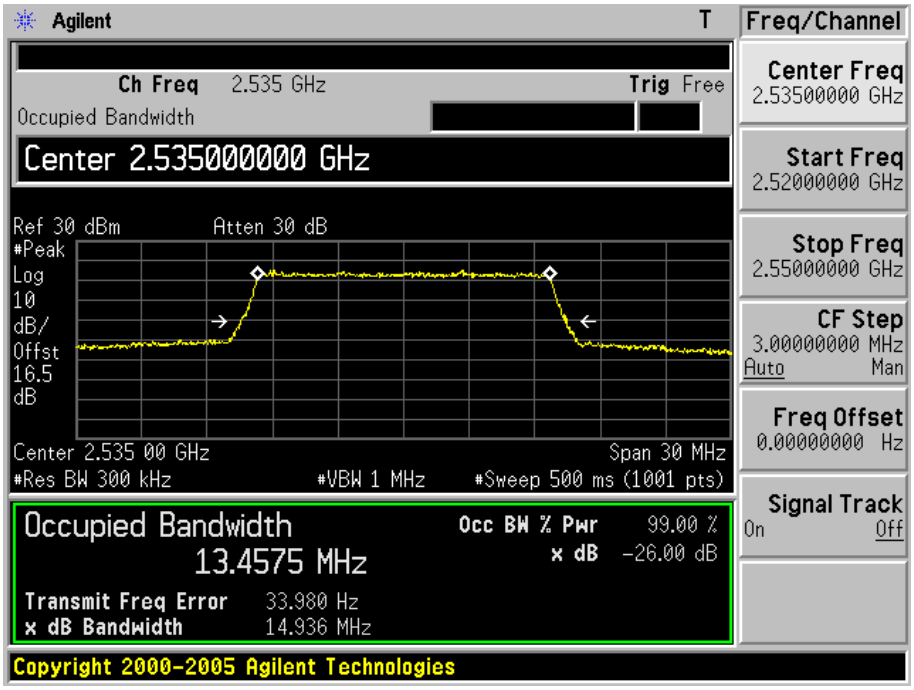
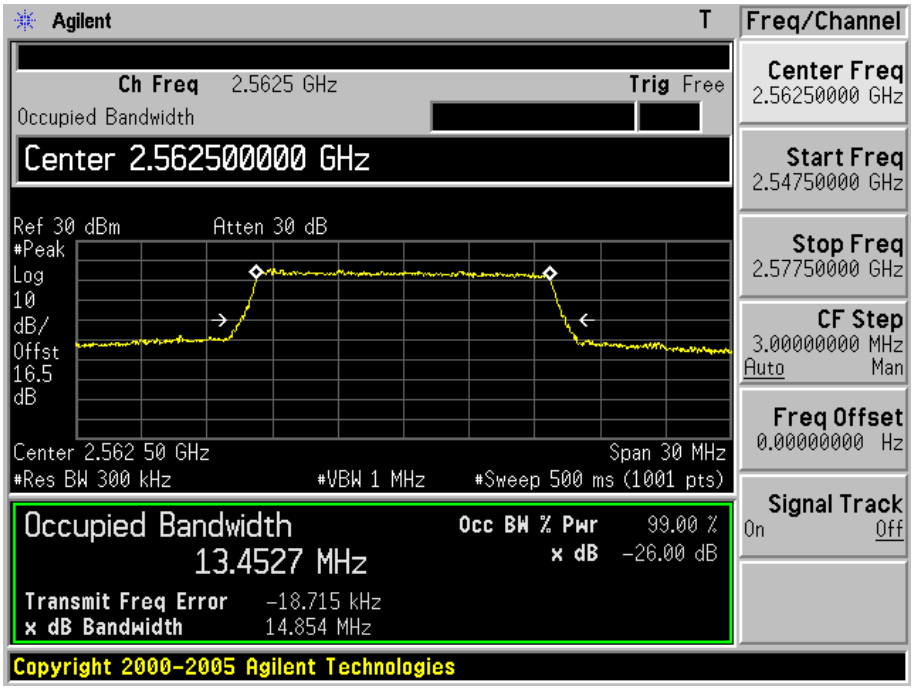


Figure Channel 21375 75RB0 (2562.50MHz)



Product	Wireless Module		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: LTE Band VII (15M/16QAM)		
Date of Test	2014/12/06	Test Site	AC6

Channel No.	Frequency (MHz)	-26dB Occupied Bandwidth (kHz)	99% Occupied Bandwidth (kHz)
20825	2507.50	14918.00	13470.30
21100	2535.00	14910.00	13465.70
21375	2562.50	14828.00	13460.50

Figure Channel 20825 75RB0 (2507.50MHz)

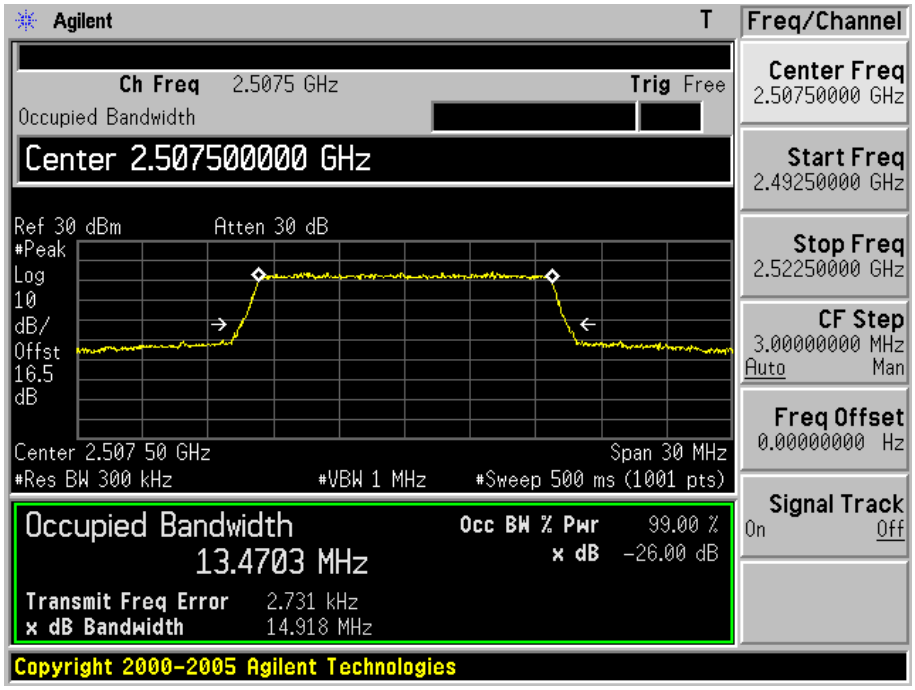


Figure Channel 21100 75RB0 (2535.00MHz)

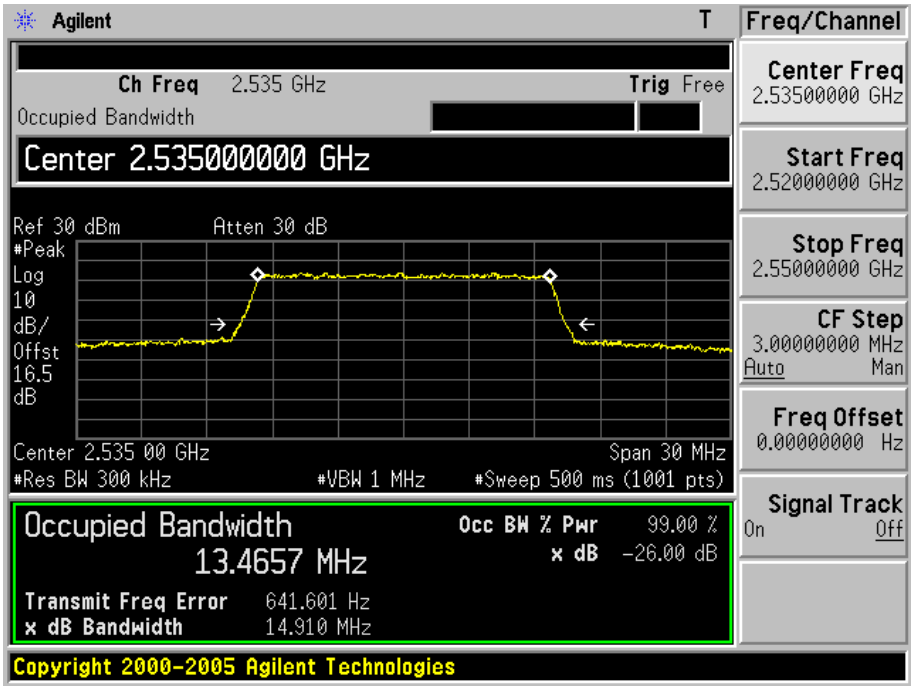
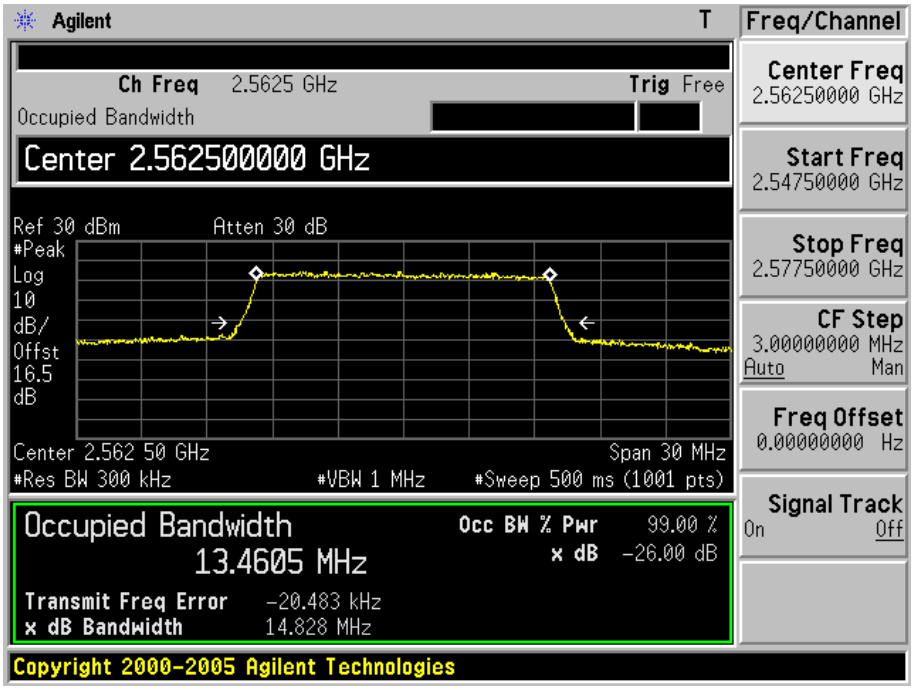


Figure Channel 21375 75RB0 (2562.50MHz)



Product	Wireless Module		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: LTE Band VII(20M/QPSK)		
Date of Test	2014/12/06	Test Site	AC6

Channel No.	Frequency (MHz)	-26dB Occupied Bandwidth (kHz)	99% Occupied Bandwidth (kHz)
20850	2510.00	20825.00	18420.40
21100	2535.00	20785.00	18419.90
21350	2560.00	20740.00	18424.50

Figure Channel 20850 100RB0 (2510.00MHz)

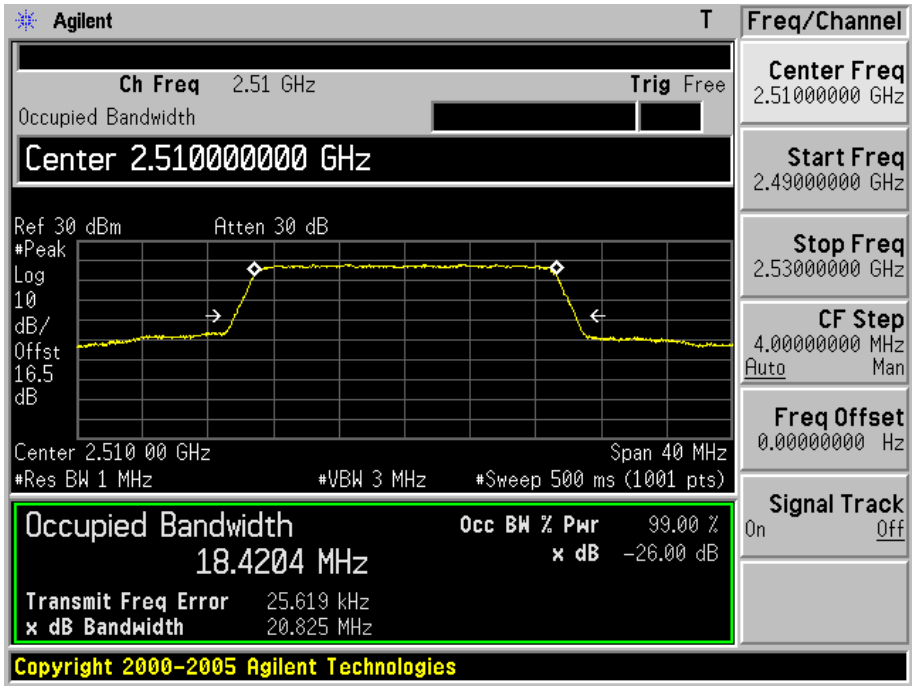


Figure Channel 21100 100RB0 (2535.00MHz)

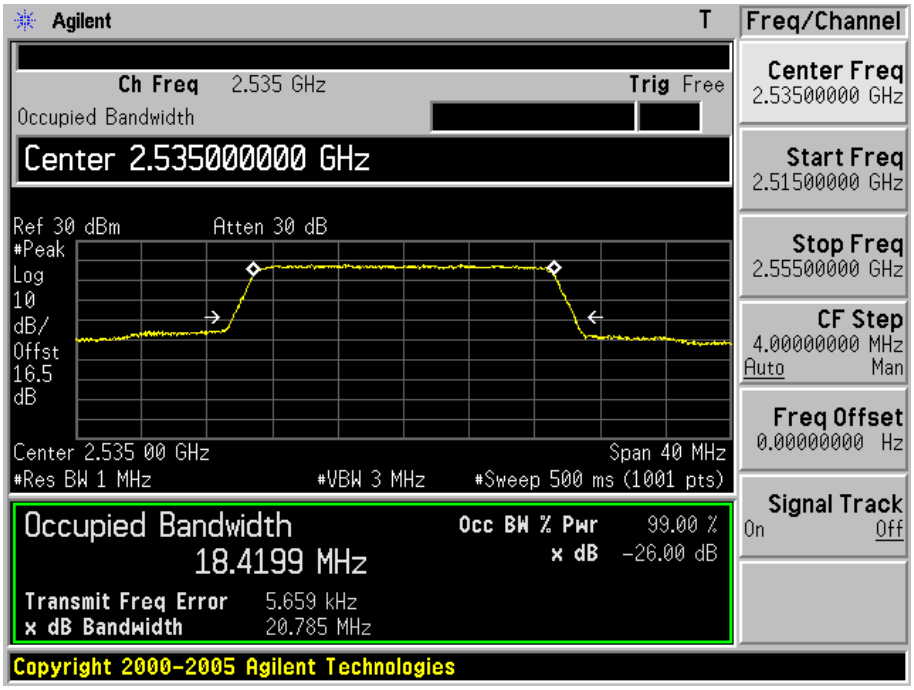
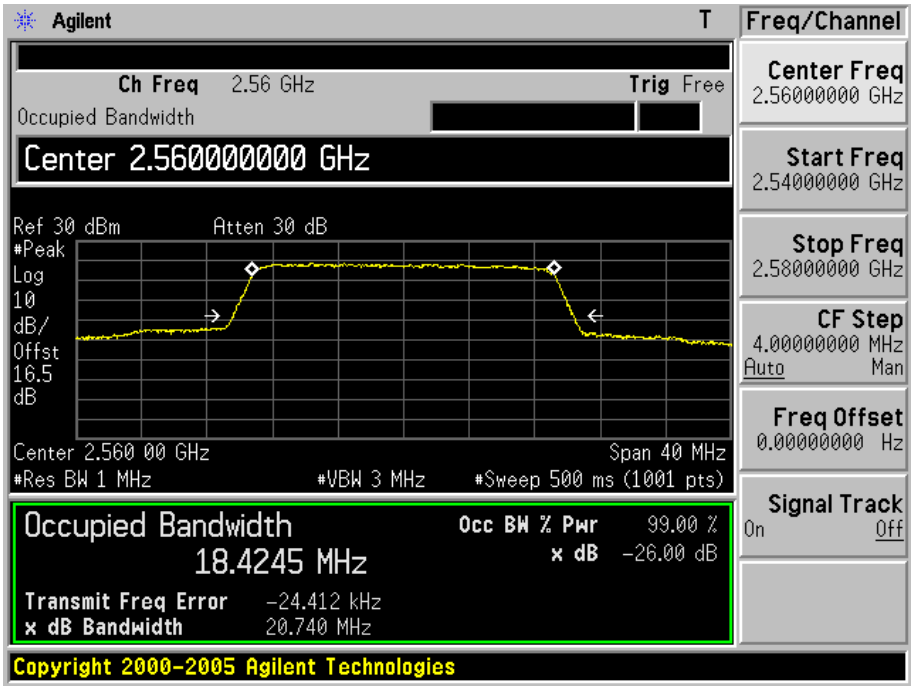


Figure Channel 21350 100RB0 (2560.00MHz)



Product	Wireless Module		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: LTE Band VII (20M/16QAM)		
Date of Test	2014/12/06	Test Site	AC6

Channel No.	Frequency (MHz)	-26dB Occupied Bandwidth (kHz)	99% Occupied Bandwidth (kHz)
20850	2510.00	20597.00	18373.40
21100	2535.00	20702.00	18379.70
21350	2560.00	20592.00	18336.20

Figure Channel 20850 100RB0 (2510.00MHz)

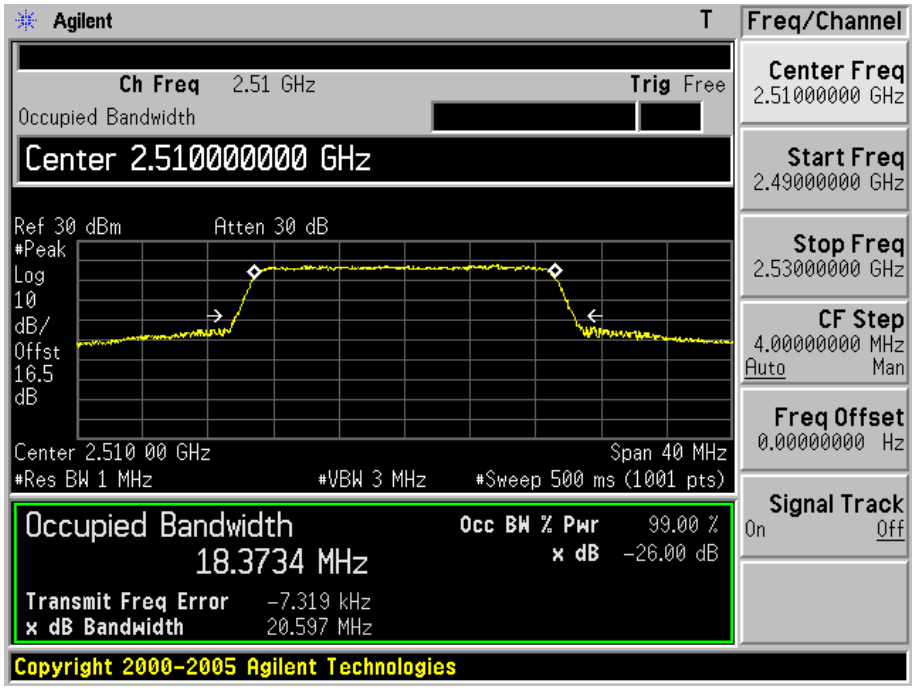


Figure Channel 21100 100RB0 (2535.00MHz)

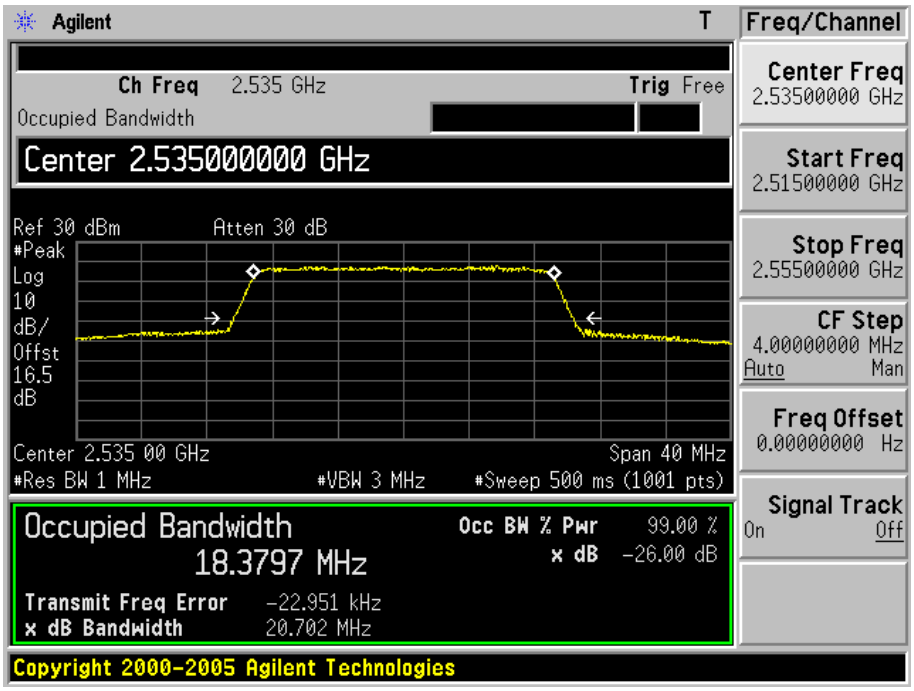
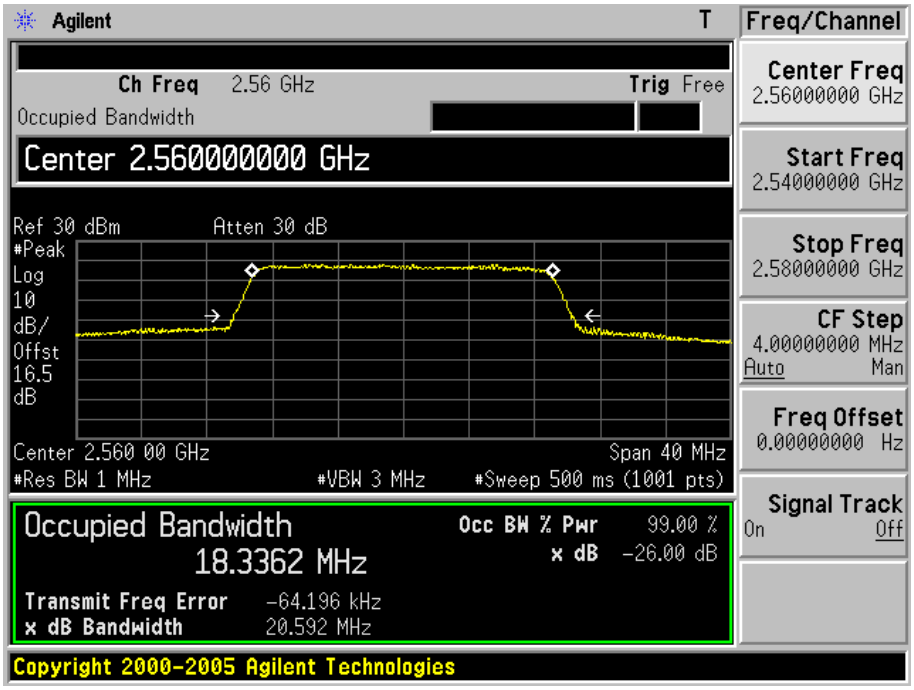


Figure Channel 21350 100RB0 (2560.00MHz)



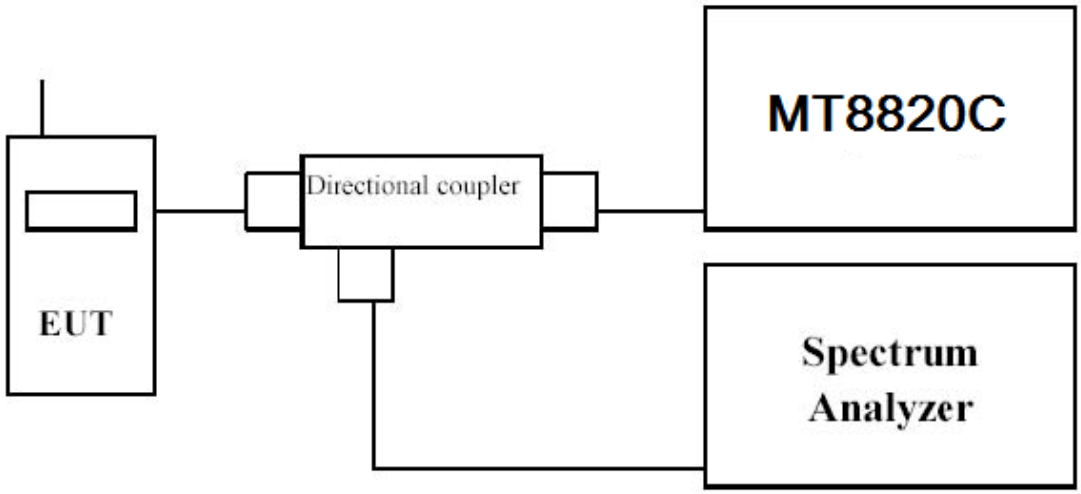
6. Conducted Band Edge

6.1. Test Equipment

Spurious Emission At Antenna Terminals (+/- 1MHz) / AC-6

Instrument	Manufacturer	Type No.	Serial No	Cali. Due Date
PSA Series Spectrum Analyzer	Agilent	E4440A	MY49420184	2015.03.28
Radio Communication Tester	Anritsu	MT8820C	6201181503	2015.03.28
Dual Directional Coupler	Agilent	778D	20160	2015.03.28
10dB Coaxial Coupler	Agilent	87300C	MY44300299	2015.03.28
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC6-TH	2015.01.08

6.2. Test Setup



6.3. Test Procedure

1. The EUT was connected to spectrum analyzer and System Simulator via power divider.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. The conducted spurious emission for the whole frequency range was taken.

6.4. Uncertainty

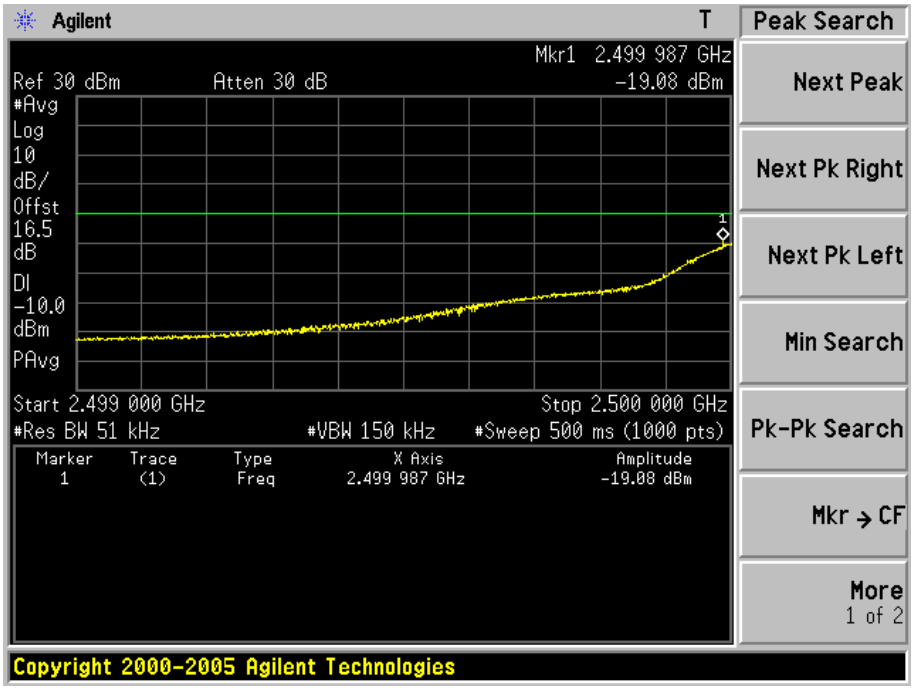
The measurement uncertainty is defined as ± 1.2 dB.

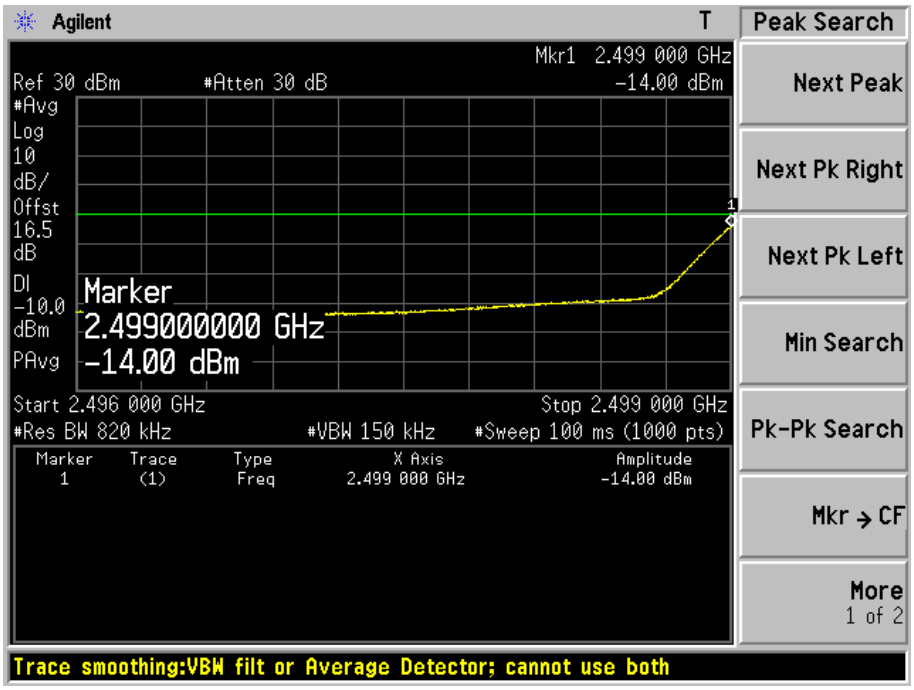
6.5. Test Result

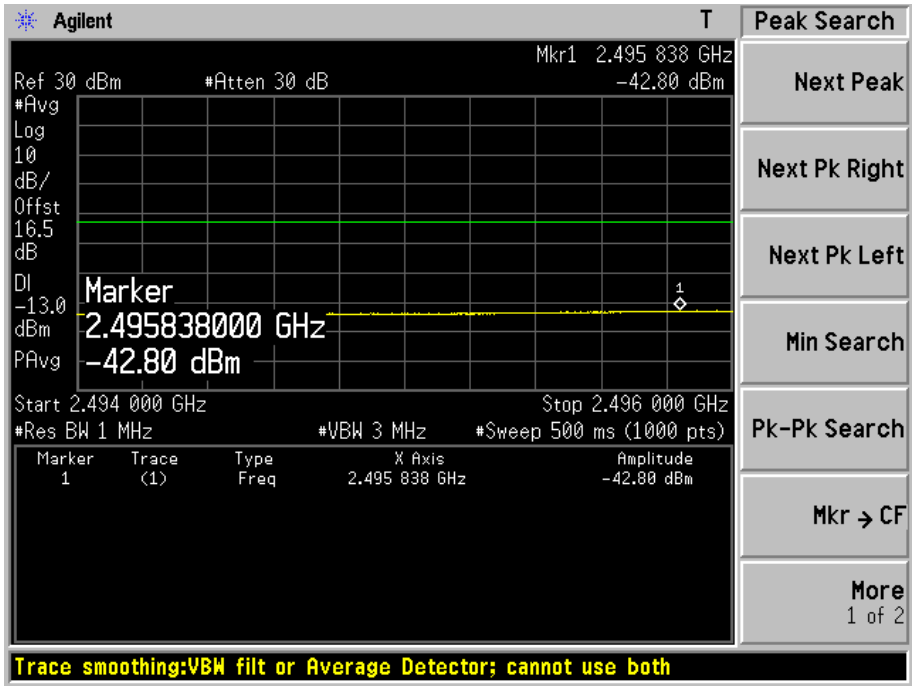
Product	Wireless Module		
Test Item	Conducted Band Edge		
Test Mode	Mode 1: LTE Band VII (5M/QPSK)		
Date of Test	2014/12/07	Test Site	AC6

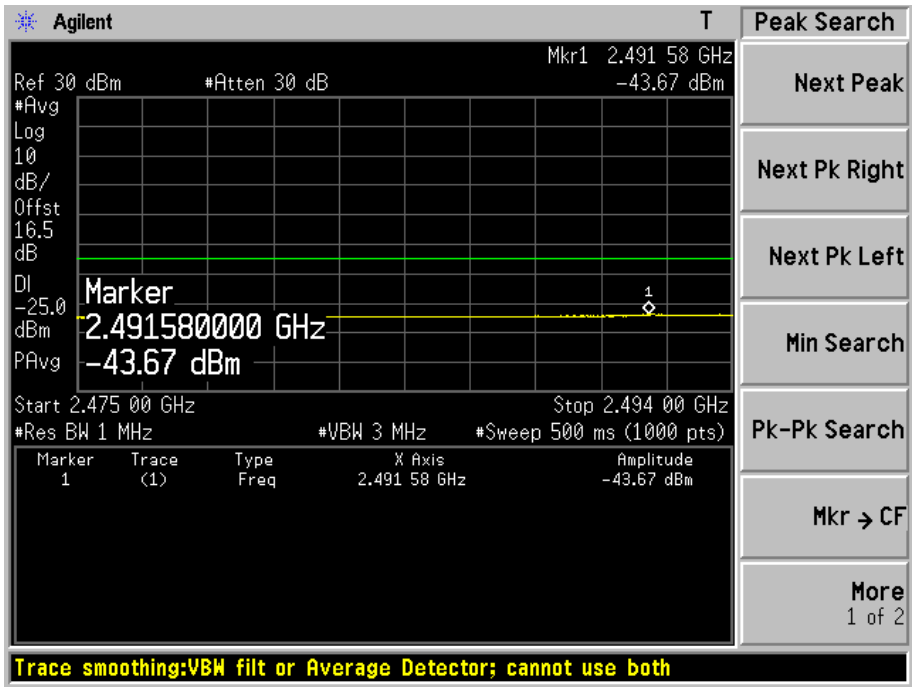
Figure Channel 20775 (2502.5MHz)

1RB0

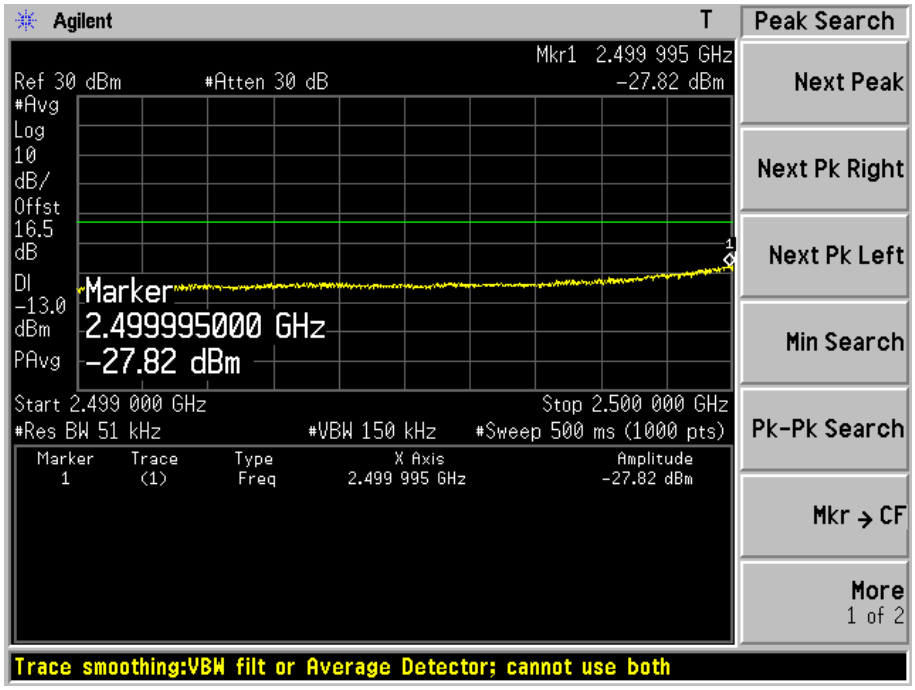


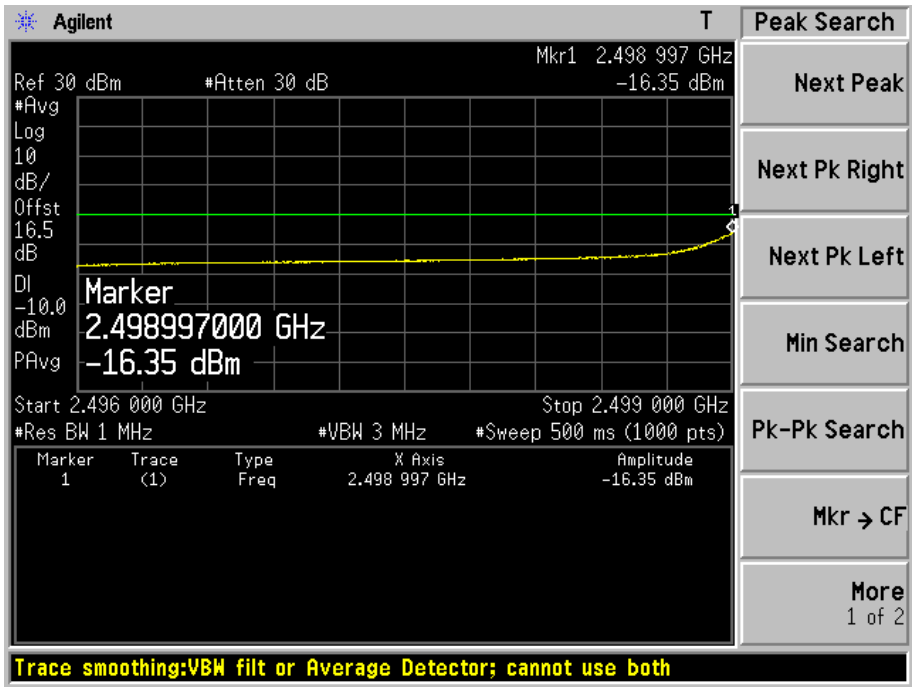


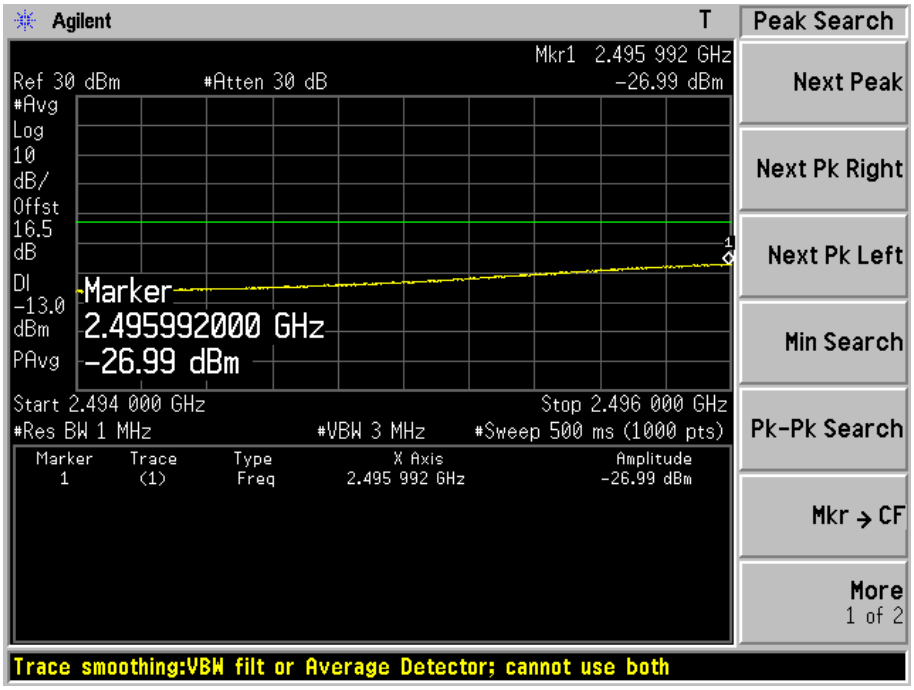

Agilent
T
Peak Search
Mkr1 2.495 838 GHz
Ref 30 dBm
#Atten 30 dB
-42.80 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-13.0
dBm
Marker
2.495838000 GHz
PAvg
-42.80 dBm
Min Search
Start 2.494 000 GHz
Stop 2.496 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.495 838 GHz -42.80 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both


Agilent
T
Peak Search
Mkr1 2.491 58 GHz
Ref 30 dBm
#Atten 30 dB
-43.67 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-25.0
dBm
Marker
2.491580000 GHz
PAvg
-43.67 dBm
Min Search
Start 2.475 00 GHz
Stop 2.494 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.491 58 GHz -43.67 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both

25RB0


Agilent
T
Peak Search
Mkr1 2.499 995 GHz
Ref 30 dBm
#Atten 30 dB
-27.82 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-13.0
dBm
PAvg
Marker
2.499995000 GHz
-27.82 dBm
Min Search
Start 2.499 000 GHz
Stop 2.500 000 GHz
#Res BW 51 kHz
#VBW 150 kHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.499 995 GHz -27.82 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both


Agilent
T
Peak Search
Mkr1 2.498 997 GHz
Ref 30 dBm
#Atten 30 dB
-16.35 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-10.0
dBm
PAvg
Marker
2.498997000 GHz
-16.35 dBm
Min Search
Start 2.496 000 GHz
Stop 2.499 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.498 997 GHz -16.35 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both


Agilent
T
Peak Search
Mkr1 2.495 992 GHz
Ref 30 dBm
#Atten 30 dB
-26.99 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-13.0
dBm
PAvg
Marker
2.495992000 GHz
-26.99 dBm
Start 2.494 000 GHz
Stop 2.496 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.495 992 GHz -26.99 dBm
Trace smoothing:VBW filt or Average Detector; cannot use both

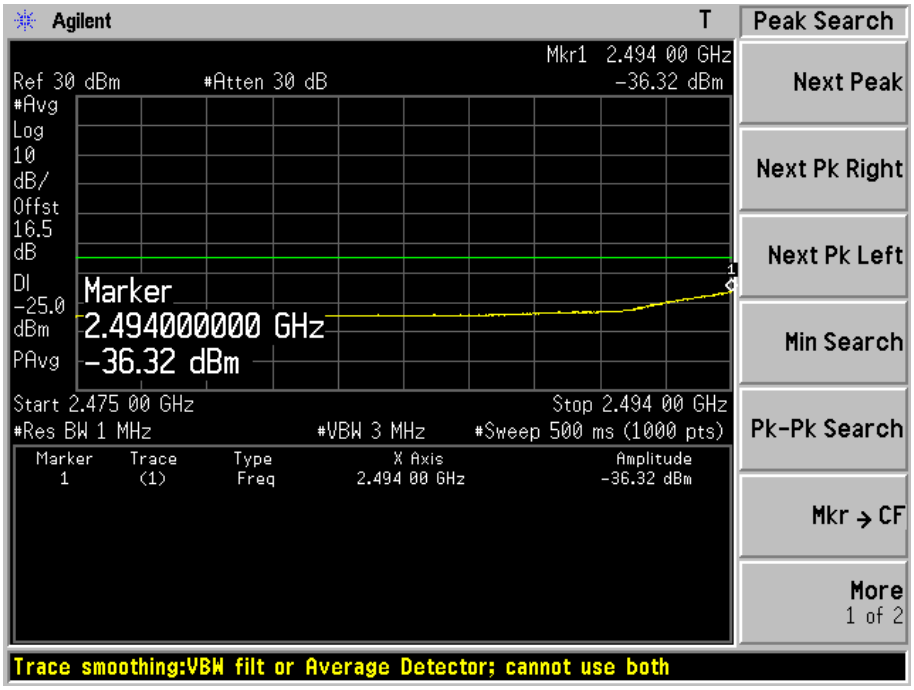
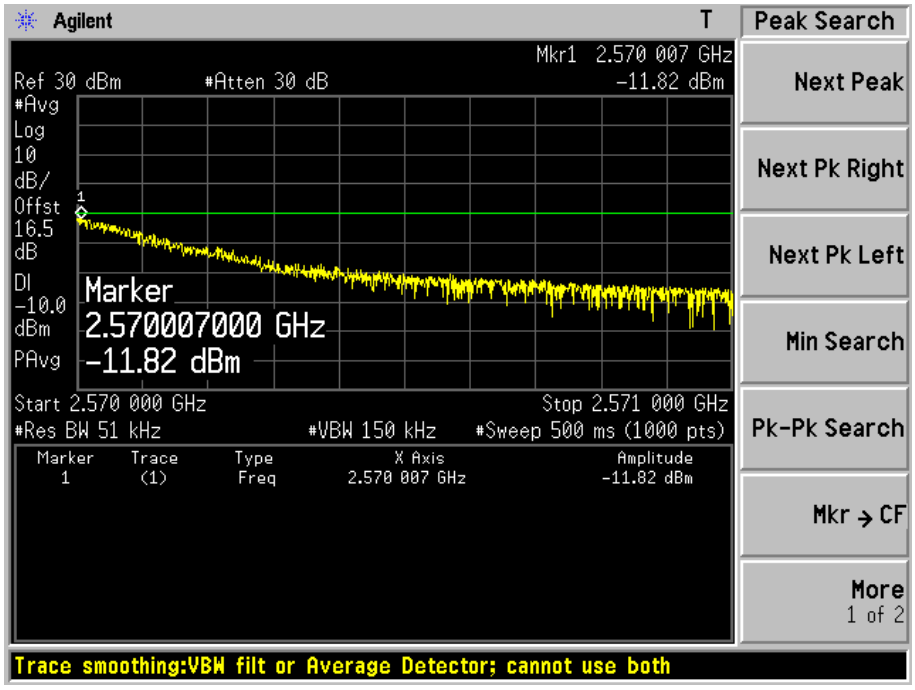
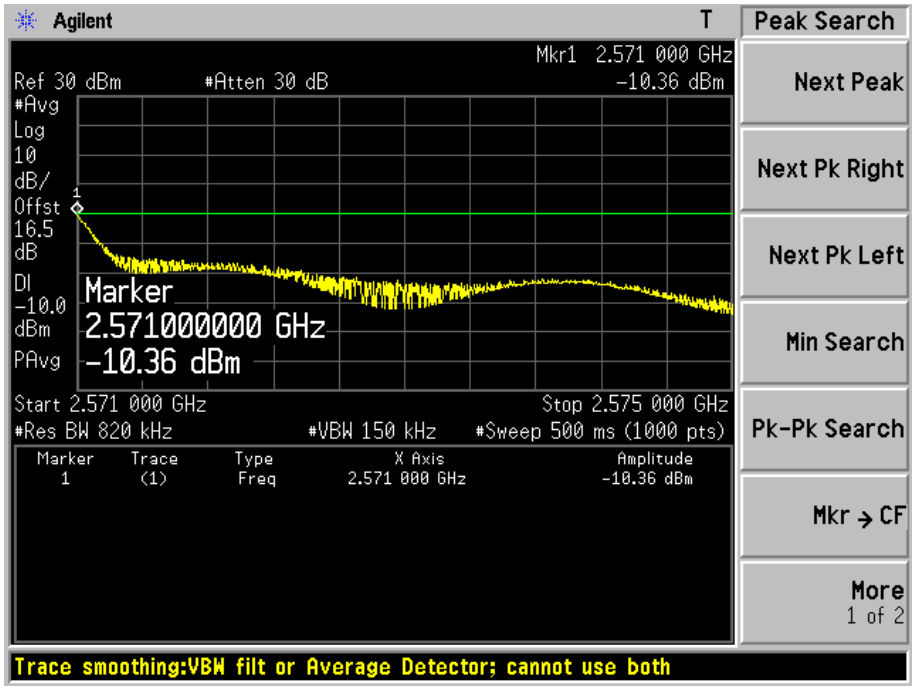
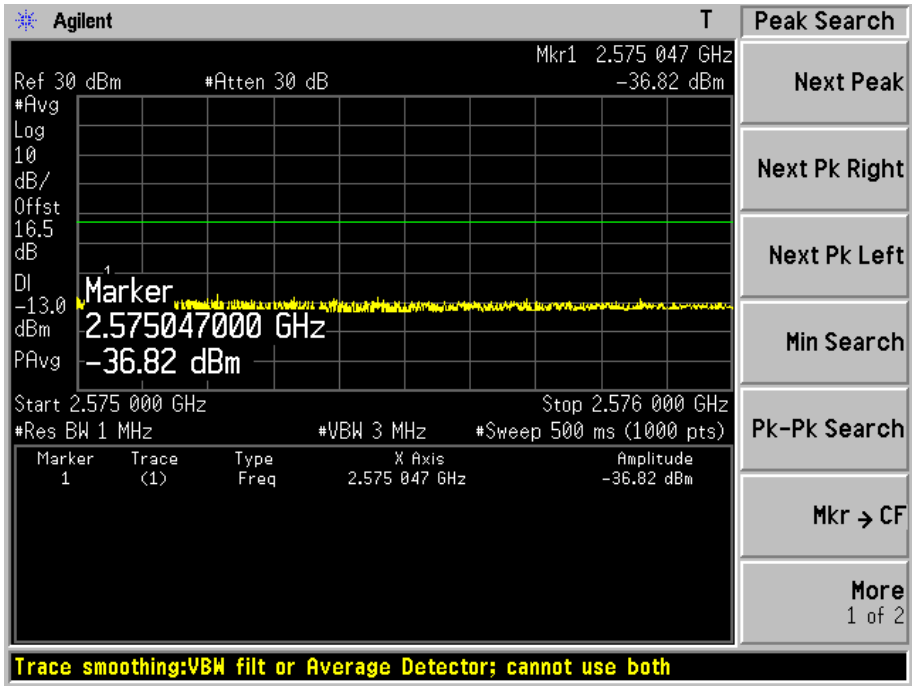

Agilent
T
Peak Search
Mkr1 2.494 00 GHz
Ref 30 dBm
#Atten 30 dB
-36.32 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-25.0
dBm
PAvg
Marker
2.494000000 GHz
-36.32 dBm
Start 2.475 00 GHz
Stop 2.494 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.494 00 GHz -36.32 dBm
Trace smoothing:VBW filt or Average Detector; cannot use both

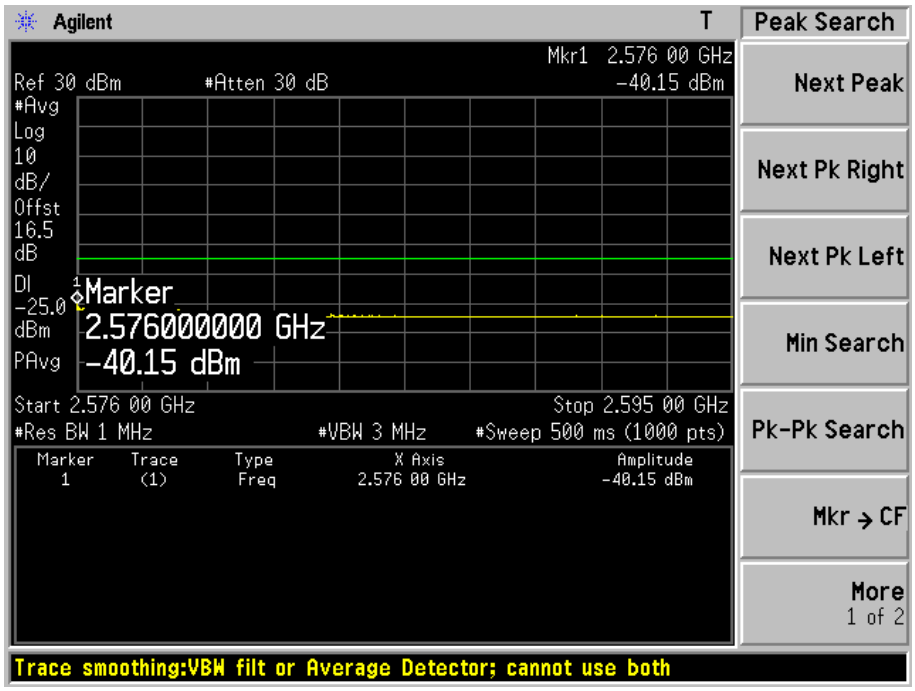
Figure Channel 21425 (2567.5MHz)

1RB24

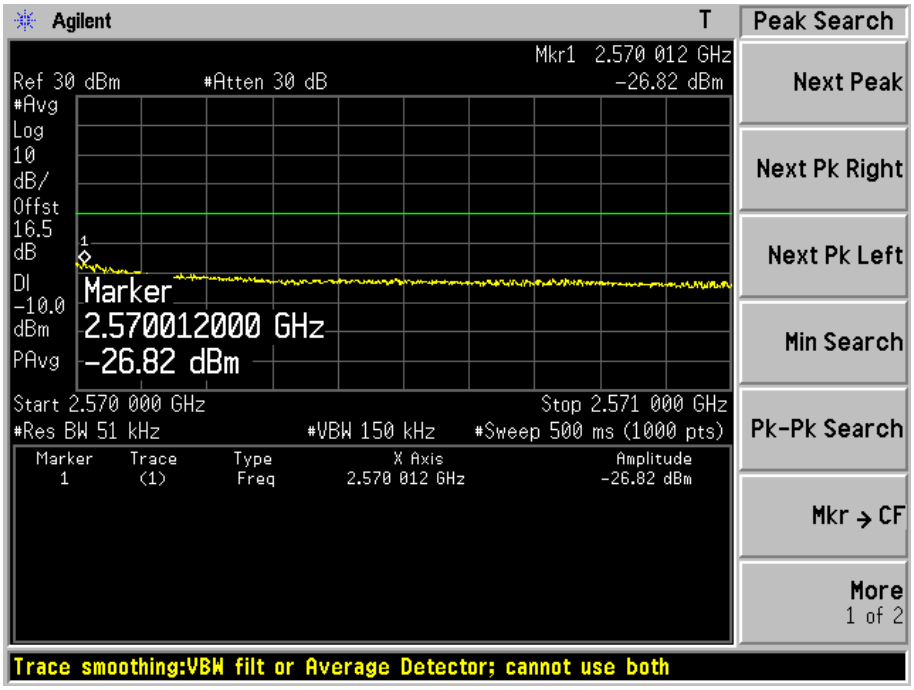


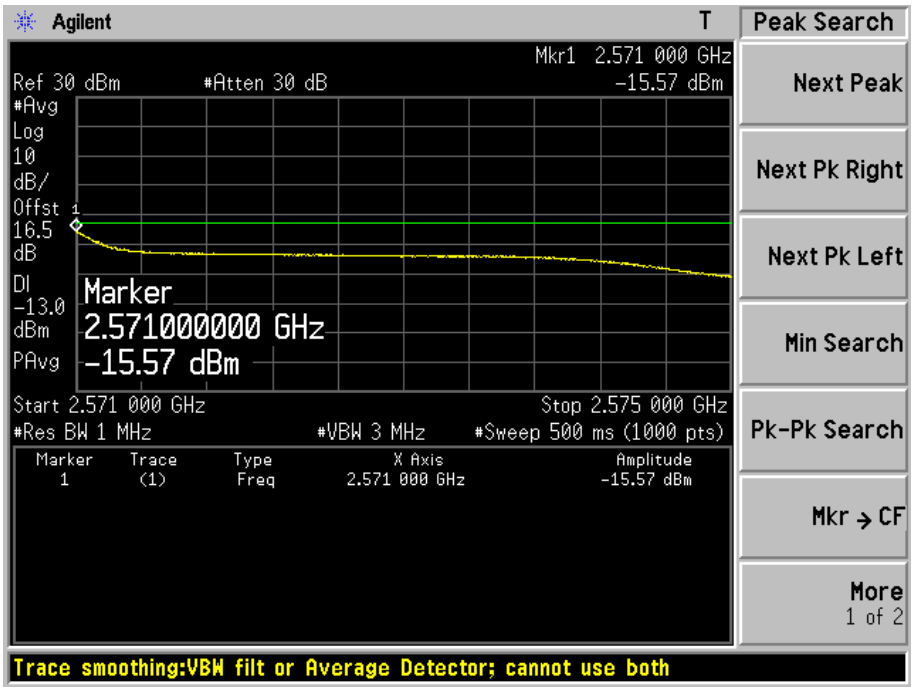


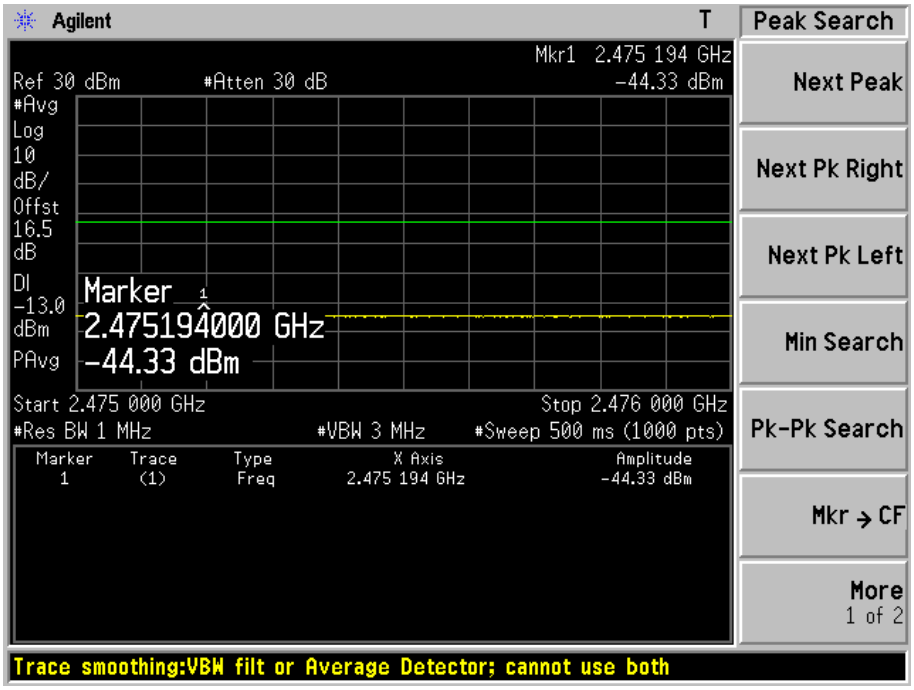

Agilent
T
Peak Search
Mkr1 2.575 047 GHz
Ref 30 dBm
#Atten 30 dB
-36.82 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-13.0
dBm
PAvg
Marker
2.575047000 GHz
-36.82 dBm
Start 2.575 000 GHz
Stop 2.576 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.575 047 GHz -36.82 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both

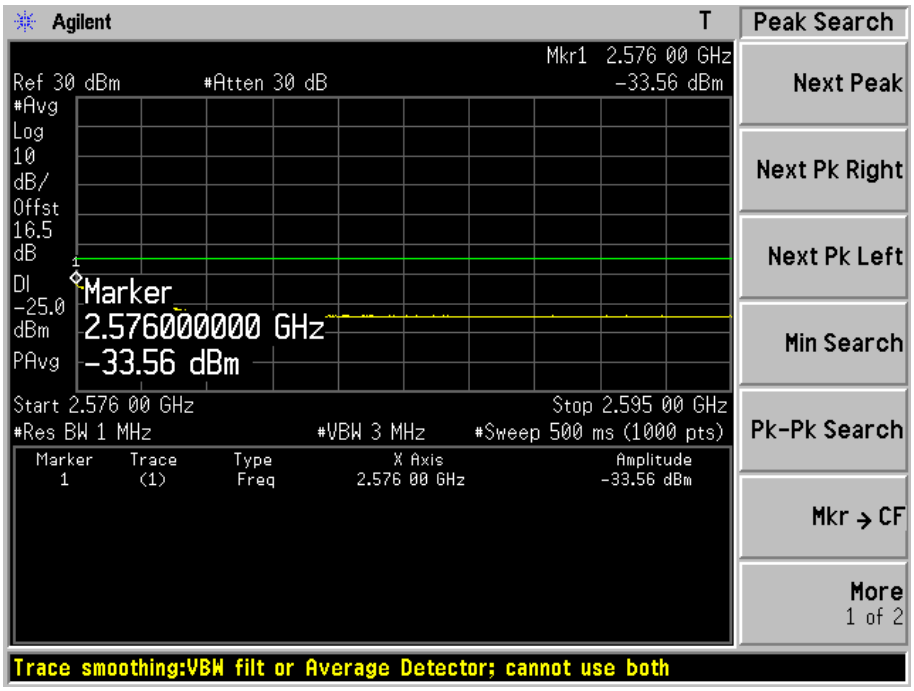

Agilent
T
Peak Search
Mkr1 2.576 00 GHz
Ref 30 dBm
#Atten 30 dB
-40.15 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-25.0
dBm
PAvg
Marker
2.576000000 GHz
-40.15 dBm
Start 2.576 00 GHz
Stop 2.595 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.576 00 GHz -40.15 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both

25RB0


Agilent
T
Peak Search
Mkr1 2.570 012 GHz
Ref 30 dBm
#Atten 30 dB
-26.82 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-10.0
dBm
PAvg
Marker
2.570012000 GHz
-26.82 dBm
Min Search
Start 2.570 000 GHz
Stop 2.571 000 GHz
#Res BW 51 kHz
#VBW 150 kHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.570 012 GHz -26.82 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both


Agilent
T
Peak Search
Mkr1 2.571 000 GHz
Ref 30 dBm
#Atten 30 dB
-15.57 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-13.0
dBm
PAvg
Marker
2.571000000 GHz
-15.57 dBm
Min Search
Start 2.571 000 GHz
Stop 2.575 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.571 000 GHz -15.57 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both

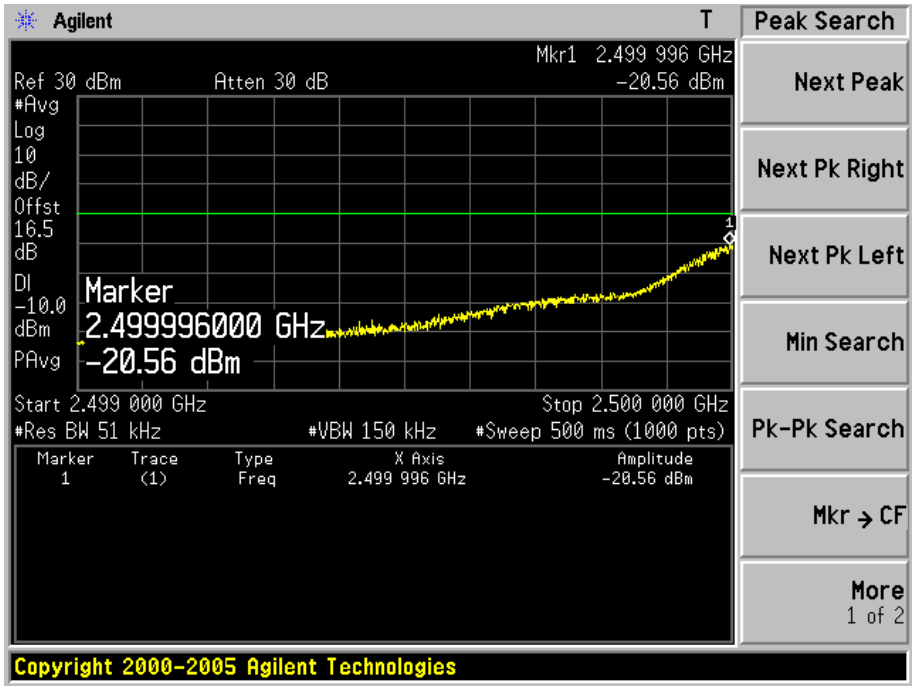

Agilent
T
Peak Search
Mkr1 2.475 194 GHz
Ref 30 dBm
#Atten 30 dB
-44.33 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-13.0
dBm
PAvg
Marker 1
2.475194000 GHz
-44.33 dBm
Start 2.475 000 GHz
Stop 2.476 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.475 194 GHz -44.33 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both

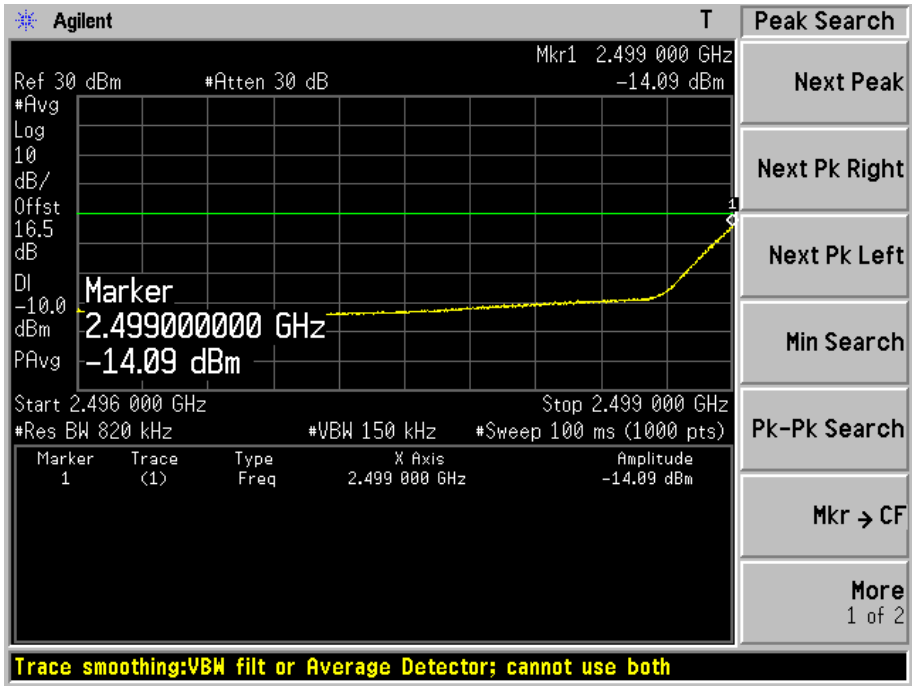

Agilent
T
Peak Search
Mkr1 2.576 00 GHz
Ref 30 dBm
#Atten 30 dB
-33.56 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-25.0
dBm
PAvg
Marker
2.576000000 GHz
-33.56 dBm
Start 2.576 00 GHz
Stop 2.595 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.576 00 GHz -33.56 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both

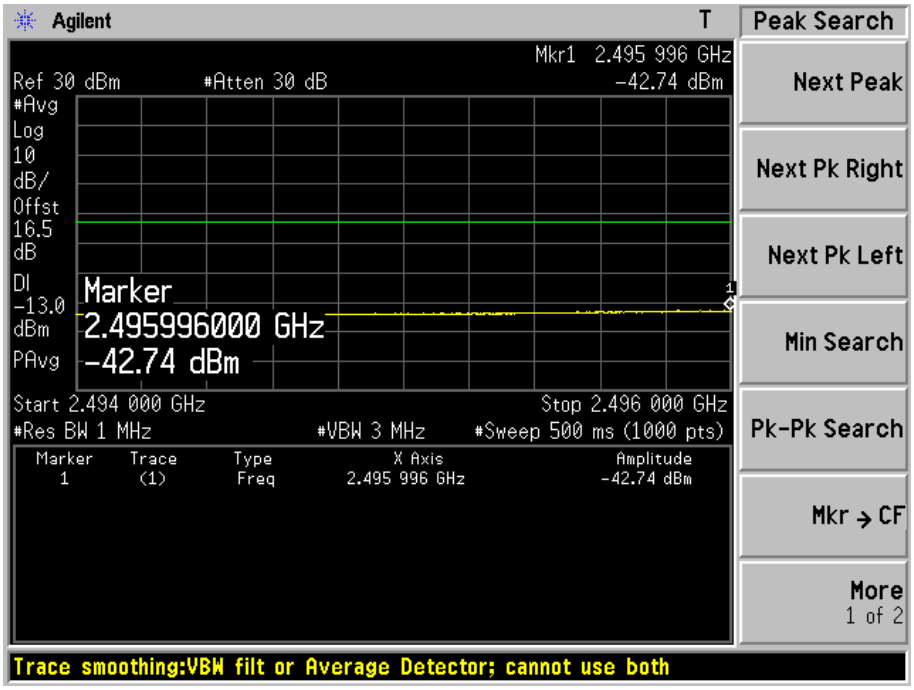
Product	Wireless Module		
Test Item	Conducted Band Edge		
Test Mode	Mode 1: LTE Band VII (5M/16QAM)		
Date of Test	2014/12/07	Test Site	AC6

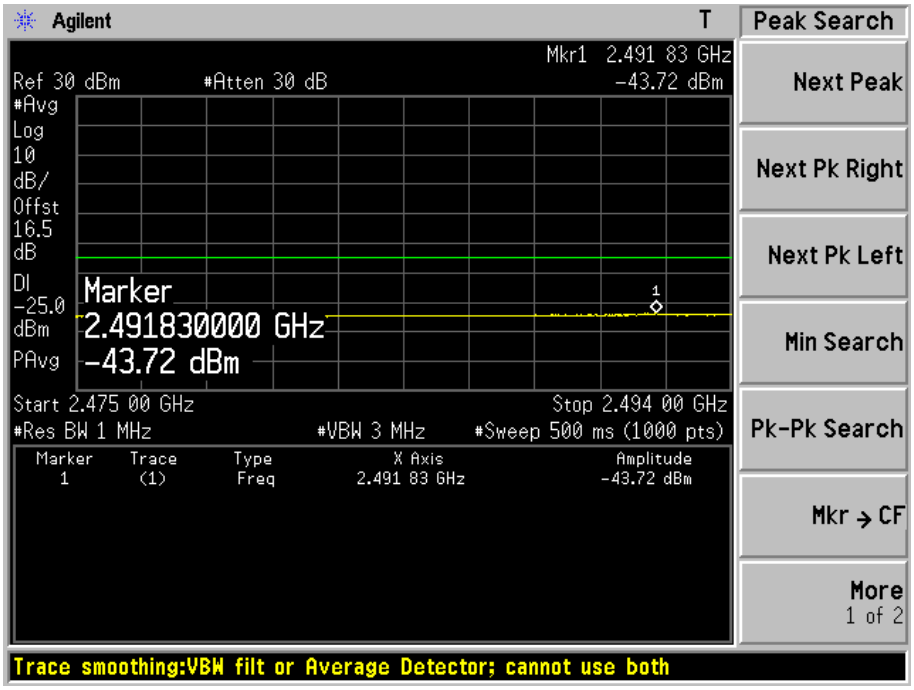
Figure Channel 20775 (2502.5MHz)

1RB0

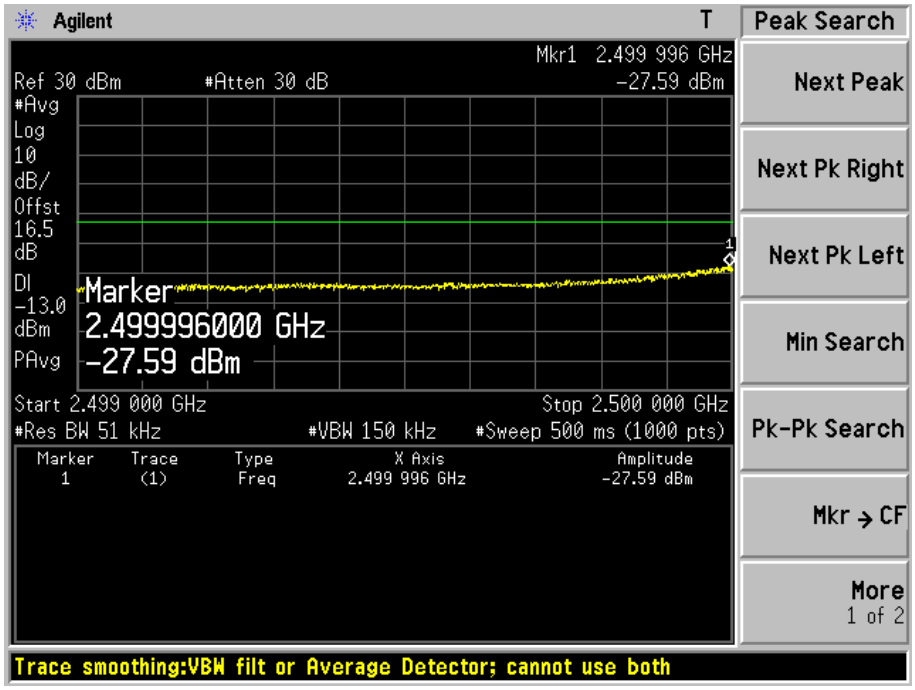


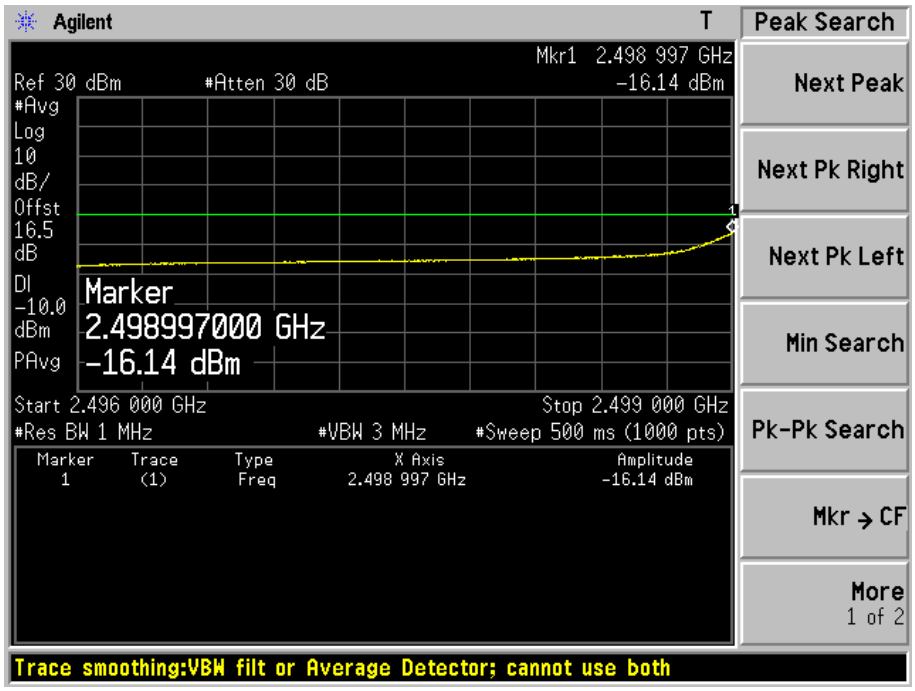


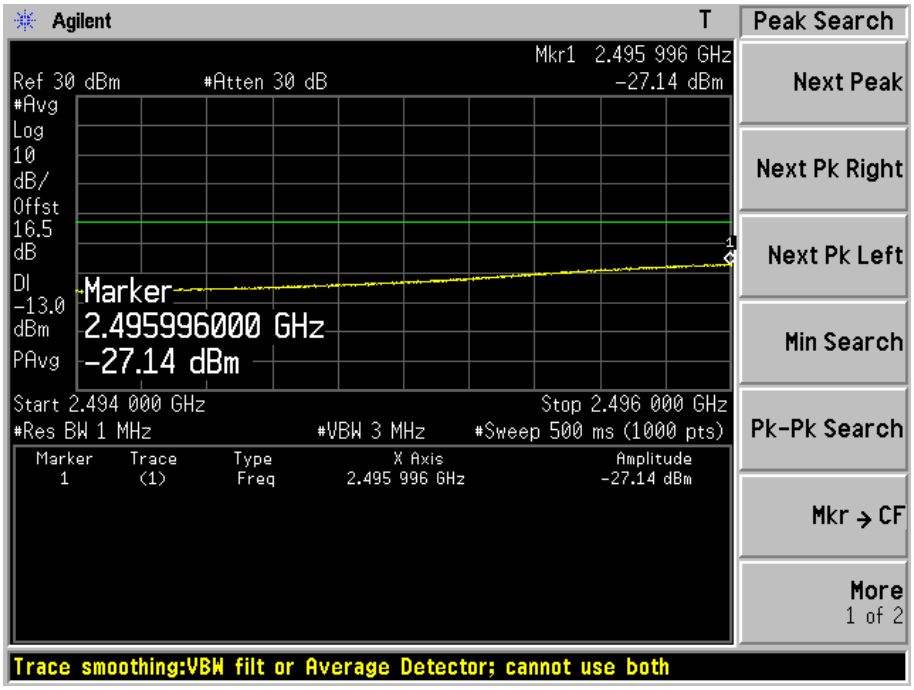

Agilent
T
Peak Search
Mkr1 2.495 996 GHz
Ref 30 dBm
#Atten 30 dB
-42.74 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-13.0
dBm
PAvg
Marker
2.495996000 GHz
-42.74 dBm
Min Search
Start 2.494 000 GHz
Stop 2.496 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.495 996 GHz -42.74 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both


Agilent
T
Peak Search
Mkr1 2.491 83 GHz
Ref 30 dBm
#Atten 30 dB
-43.72 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-25.0
dBm
PAvg
Marker
2.491830000 GHz
-43.72 dBm
Min Search
Start 2.475 00 GHz
Stop 2.494 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.491 83 GHz -43.72 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both

25RB0


Agilent
T
Peak Search
Mkr1 2.499 996 GHz
Ref 30 dBm
#Atten 30 dB
-27.59 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-13.0
dBm
PAvg
Marker
2.499996000 GHz
-27.59 dBm
Min Search
Start 2.499 000 GHz
Stop 2.500 000 GHz
#Res BW 51 kHz
#VBW 150 kHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.499 996 GHz -27.59 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both


Agilent
T
Peak Search
Mkr1 2.498 997 GHz
Ref 30 dBm
#Atten 30 dB
-16.14 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-10.0
dBm
PAvg
Marker
2.498997000 GHz
-16.14 dBm
Min Search
Start 2.496 000 GHz
Stop 2.499 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.498 997 GHz -16.14 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both


Agilent
T
Peak Search
Mkr1 2.495 996 GHz
Ref 30 dBm
#Atten 30 dB
-27.14 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-13.0
dBm
PAvg
Marker
2.495996000 GHz
-27.14 dBm
Start 2.494 000 GHz
Stop 2.496 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.495 996 GHz -27.14 dBm
Trace smoothing:VBW filt or Average Detector; cannot use both

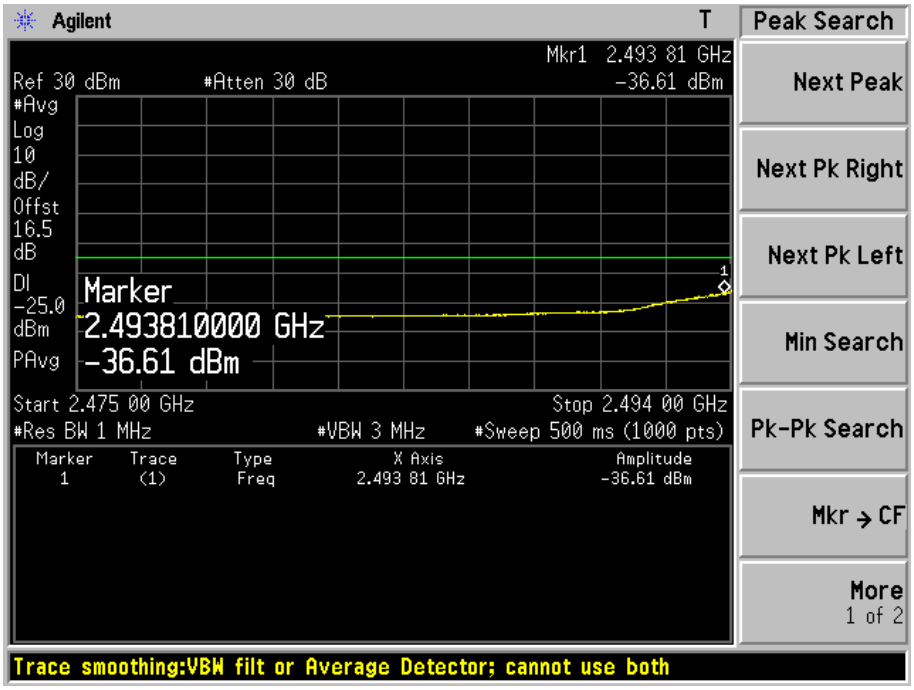
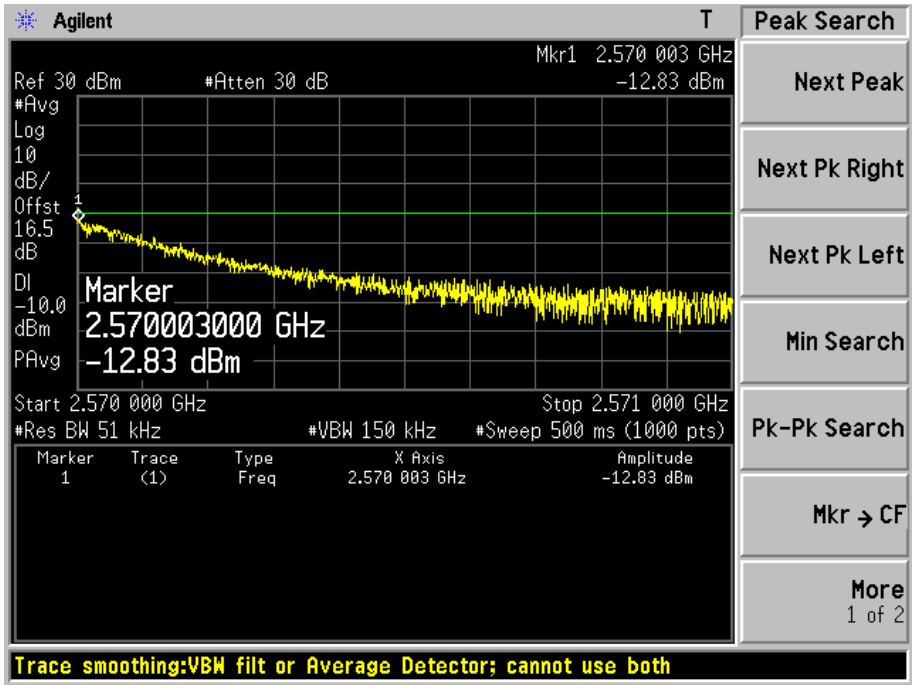
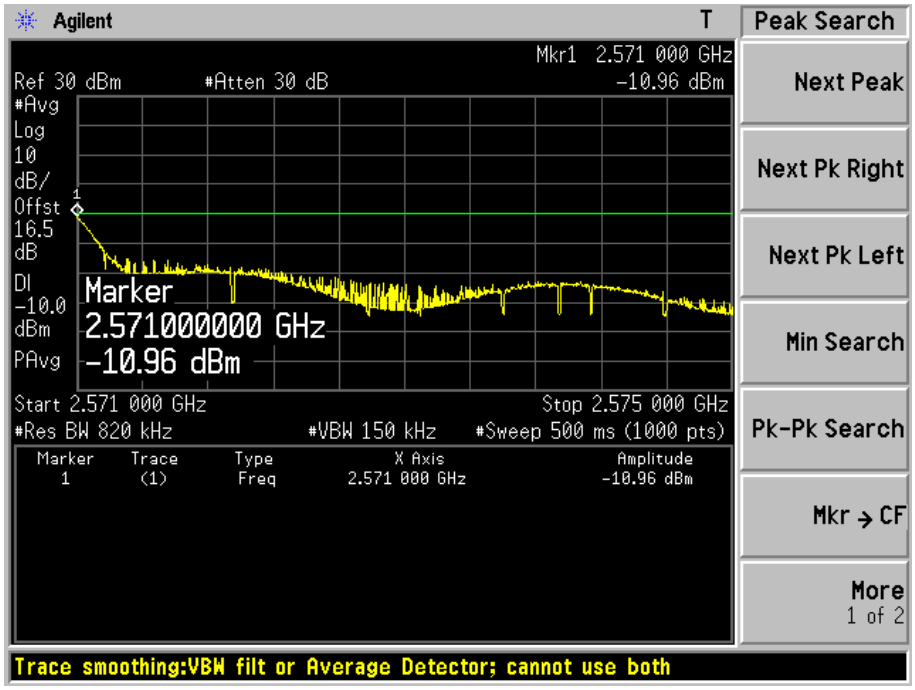
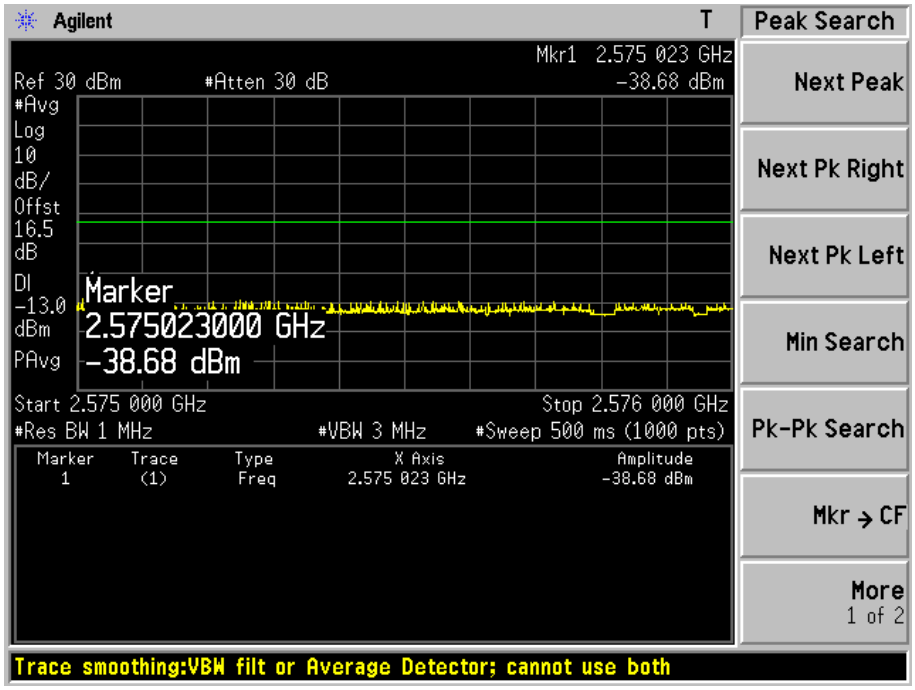

Agilent
T
Peak Search
Mkr1 2.493 81 GHz
Ref 30 dBm
#Atten 30 dB
-36.61 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-25.0
dBm
PAvg
Marker
2.493810000 GHz
-36.61 dBm
Start 2.475 00 GHz
Stop 2.494 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.493 81 GHz -36.61 dBm
Trace smoothing:VBW filt or Average Detector; cannot use both

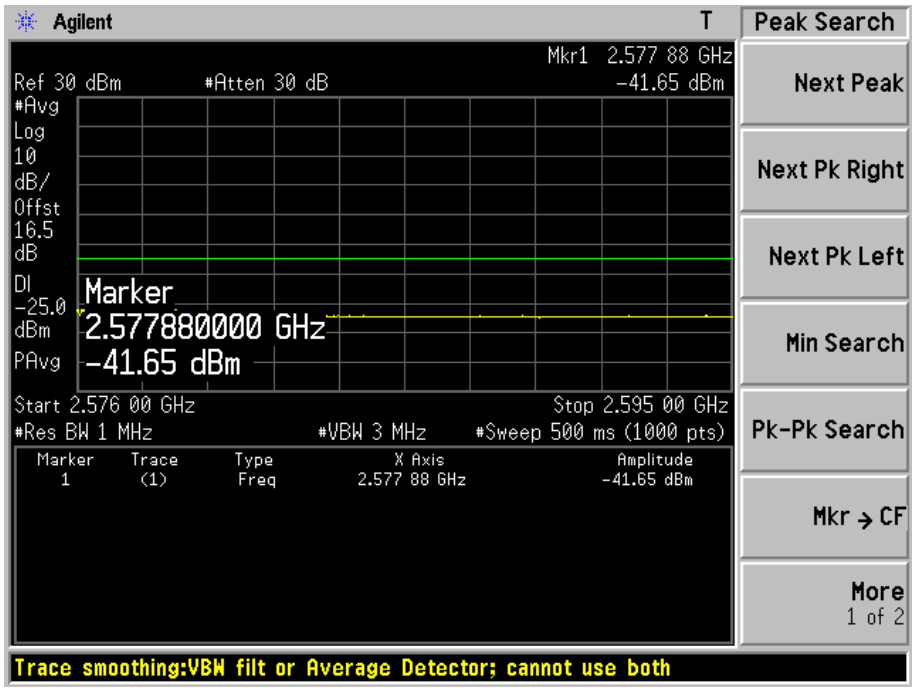
Figure Channel 21425 (2567.5MHz)

1RB24

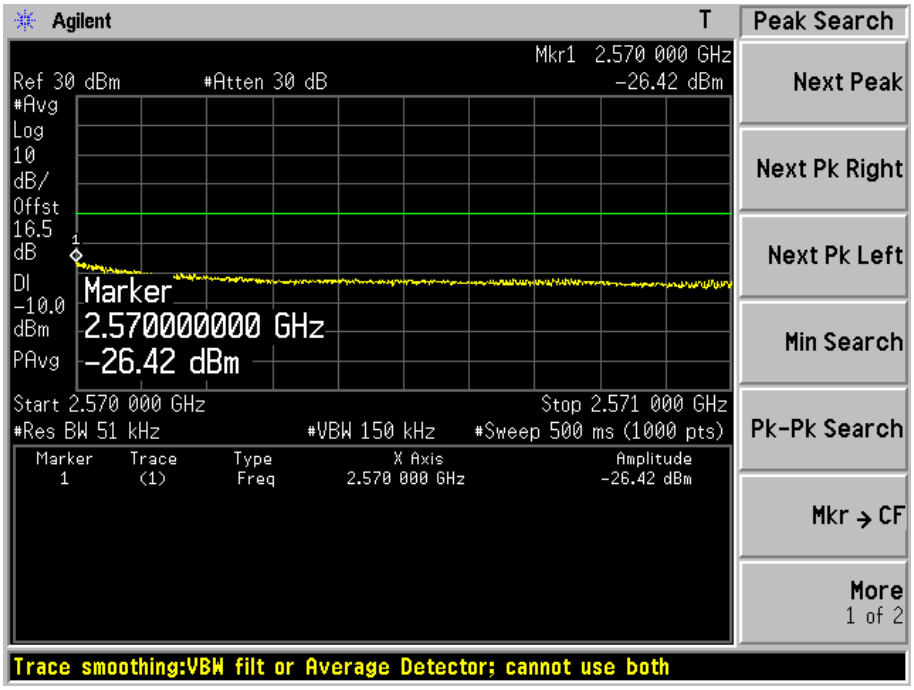


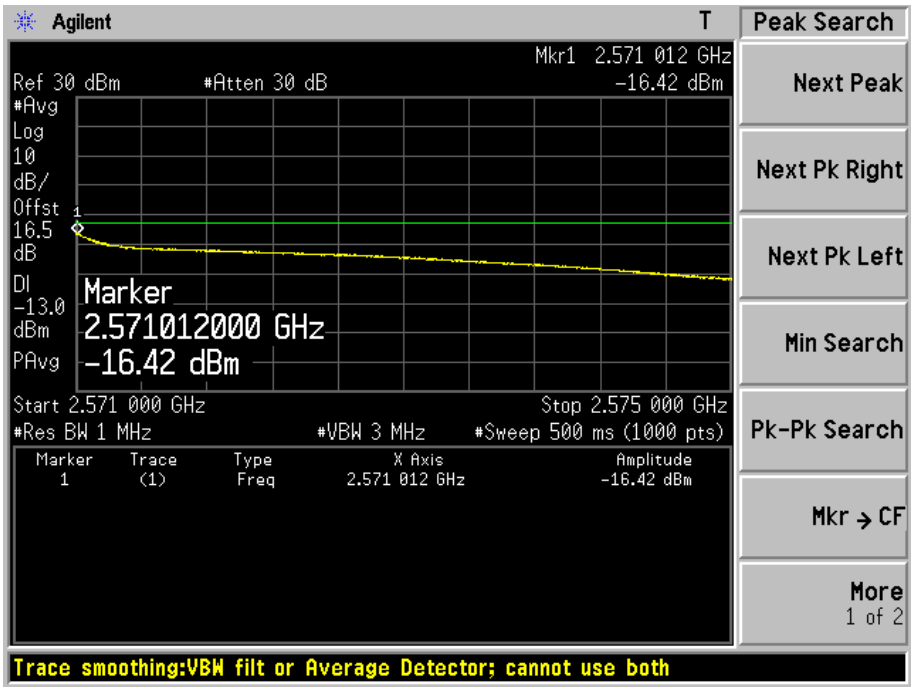


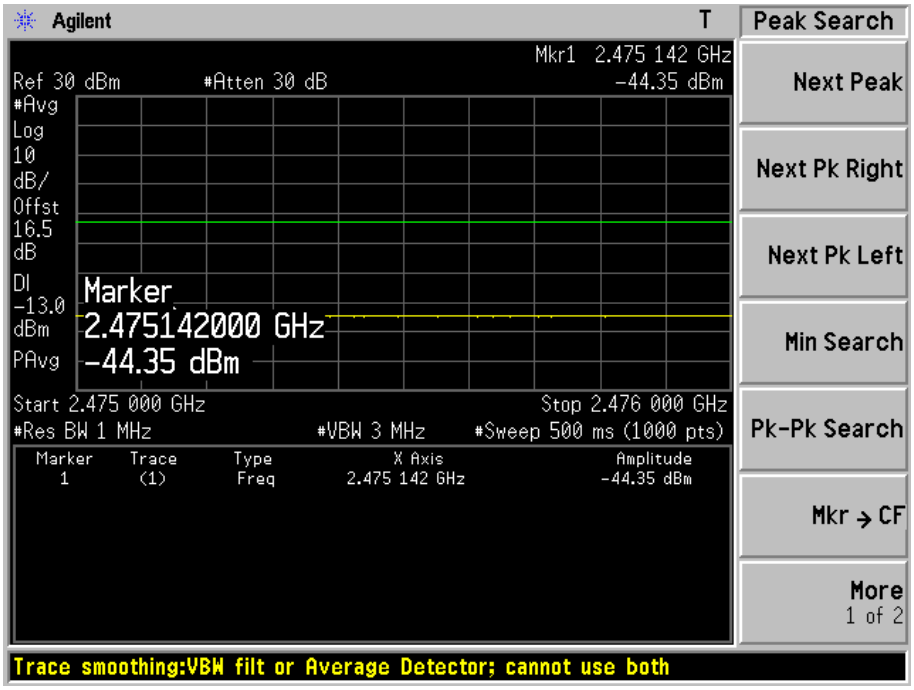

Agilent
T
Peak Search
Mkr1 2.575 023 GHz
Ref 30 dBm
#Atten 30 dB
-38.68 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-13.0
dBm
PAvg
Marker
2.575023000 GHz
-38.68 dBm
Start 2.575 000 GHz
Stop 2.576 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.575 023 GHz -38.68 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both

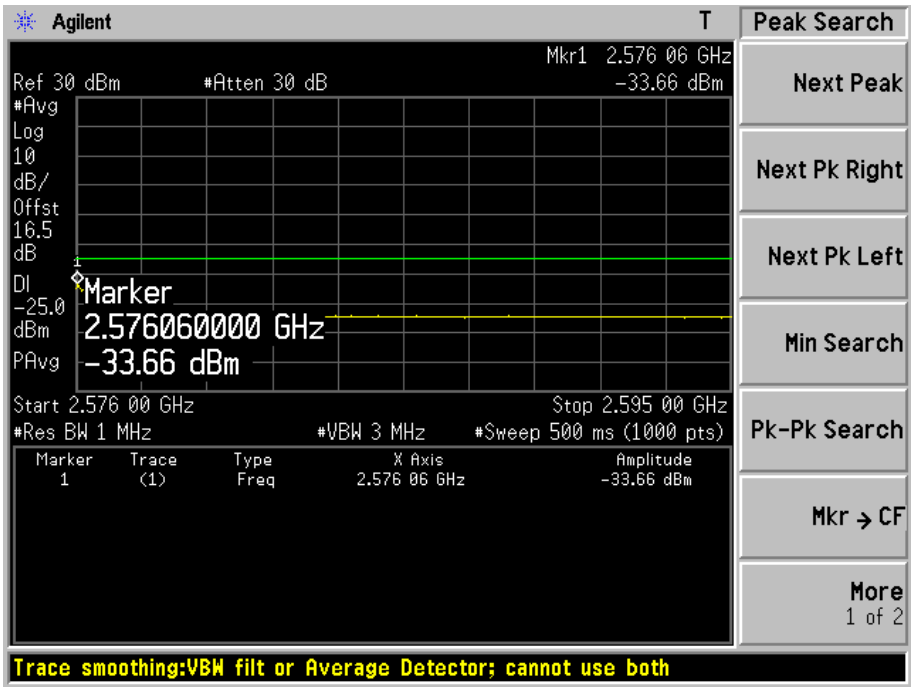

Agilent
T
Peak Search
Mkr1 2.577 88 GHz
Ref 30 dBm
#Atten 30 dB
-41.65 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-25.0
dBm
PAvg
Marker
2.577880000 GHz
-41.65 dBm
Start 2.576 00 GHz
Stop 2.595 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.577 88 GHz -41.65 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both

25RB0


Agilent
T
Peak Search
Mkr1 2.570 000 GHz
Ref 30 dBm
#Atten 30 dB
-26.42 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-10.0
dBm
PAvg
Marker
2.570000000 GHz
-26.42 dBm
Min Search
Start 2.570 000 GHz
Stop 2.571 000 GHz
#Res BW 51 kHz
#VBW 150 kHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.570 000 GHz -26.42 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both


Agilent
T
Peak Search
Mkr1 2.571 012 GHz
Ref 30 dBm
#Atten 30 dB
-16.42 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-13.0
dBm
PAvg
Marker
2.571012000 GHz
-16.42 dBm
Min Search
Start 2.571 000 GHz
Stop 2.575 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.571 012 GHz -16.42 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both

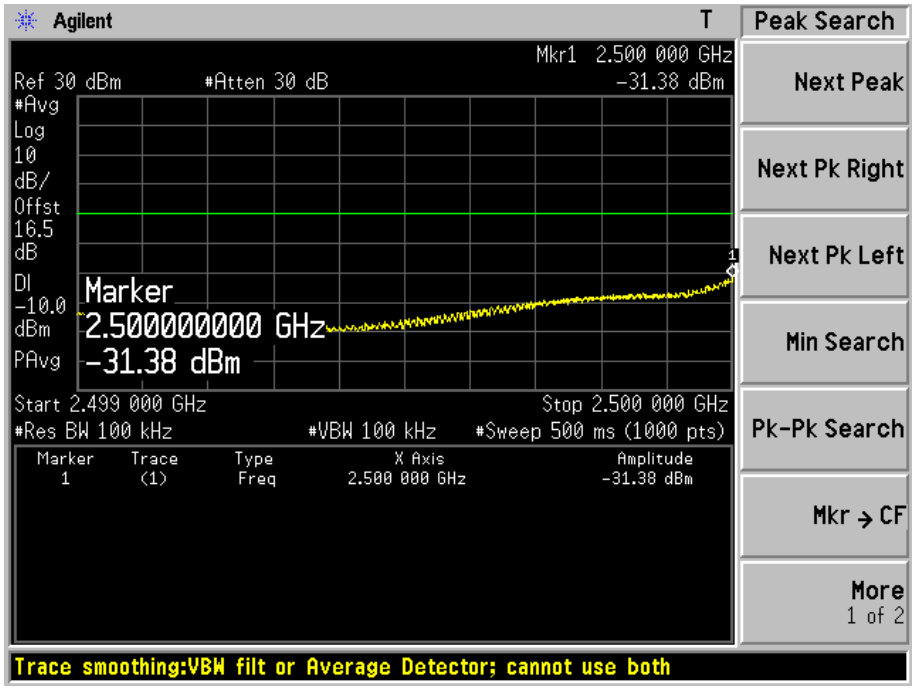

Agilent
T
Peak Search
Mkr1 2.475 142 GHz
Ref 30 dBm
#Atten 30 dB
-44.35 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-13.0
dBm
PAvg
Marker
2.475142000 GHz
-44.35 dBm
Start 2.475 000 GHz
Stop 2.476 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.475 142 GHz -44.35 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both

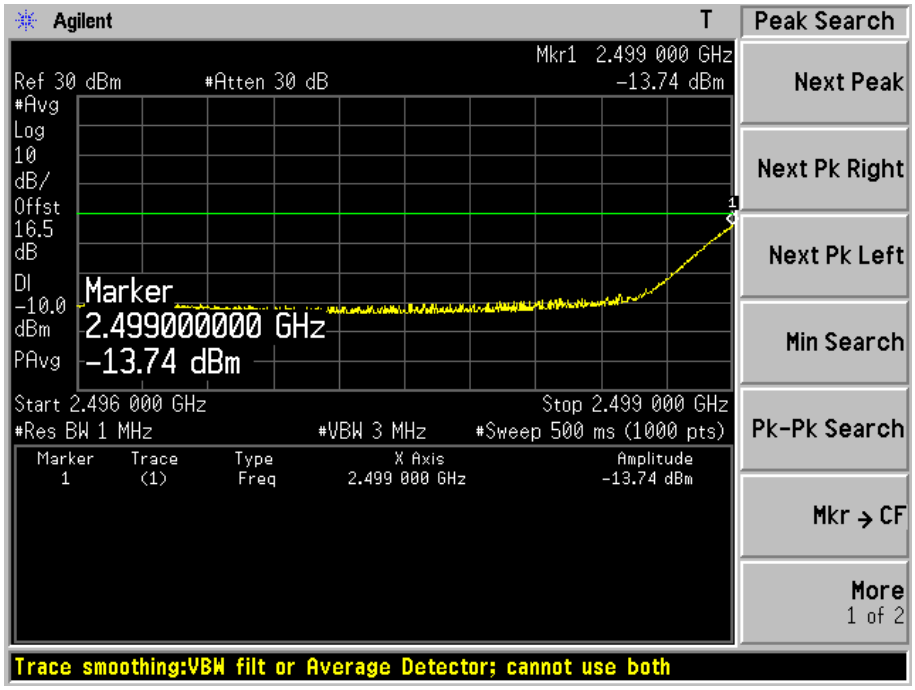

Agilent
T
Peak Search
Mkr1 2.576 06 GHz
Ref 30 dBm
#Atten 30 dB
-33.66 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-25.0
dBm
PAvg
Marker
2.576060000 GHz
-33.66 dBm
Start 2.576 00 GHz
Stop 2.595 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.576 06 GHz -33.66 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both

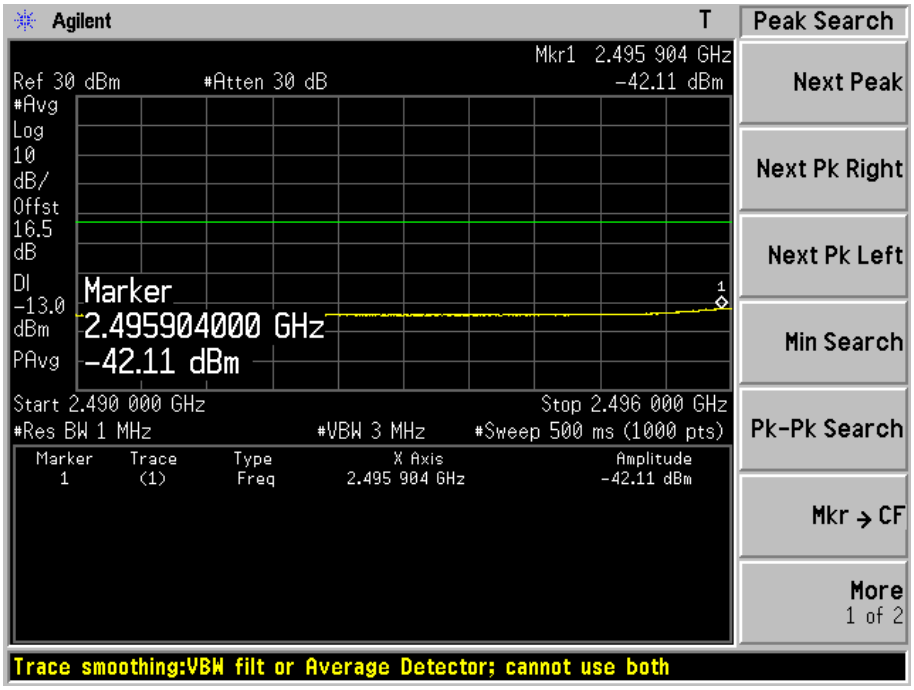
Product	Wireless Module		
Test Item	Conducted Band Edge		
Test Mode	Mode 1: LTE Band VII (10M/QPSK)		
Date of Test	2014/12/07	Test Site	AC6

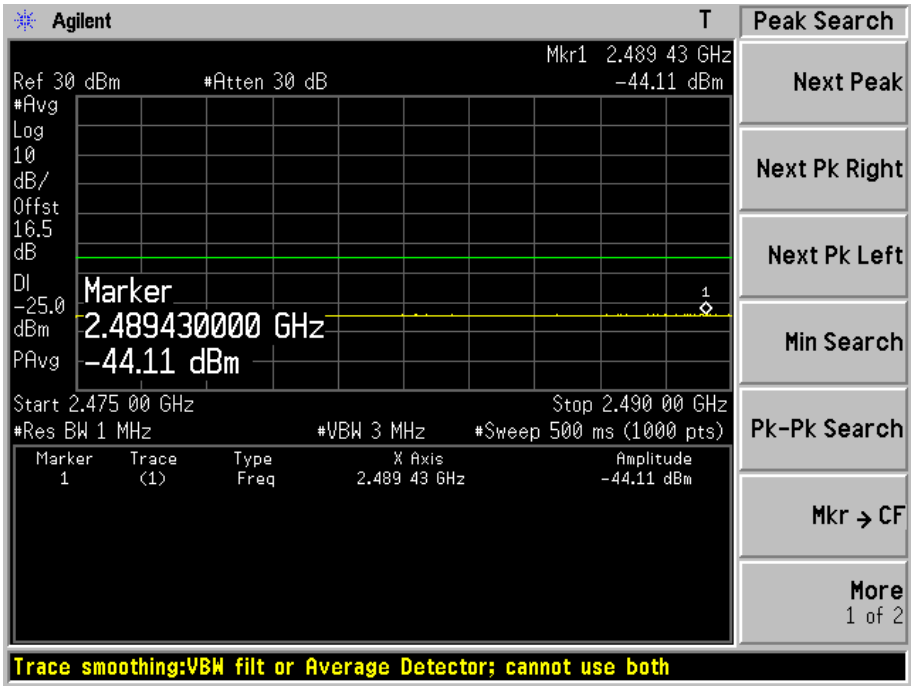
Figure Channel 20800 (2505MHz)

1RB0

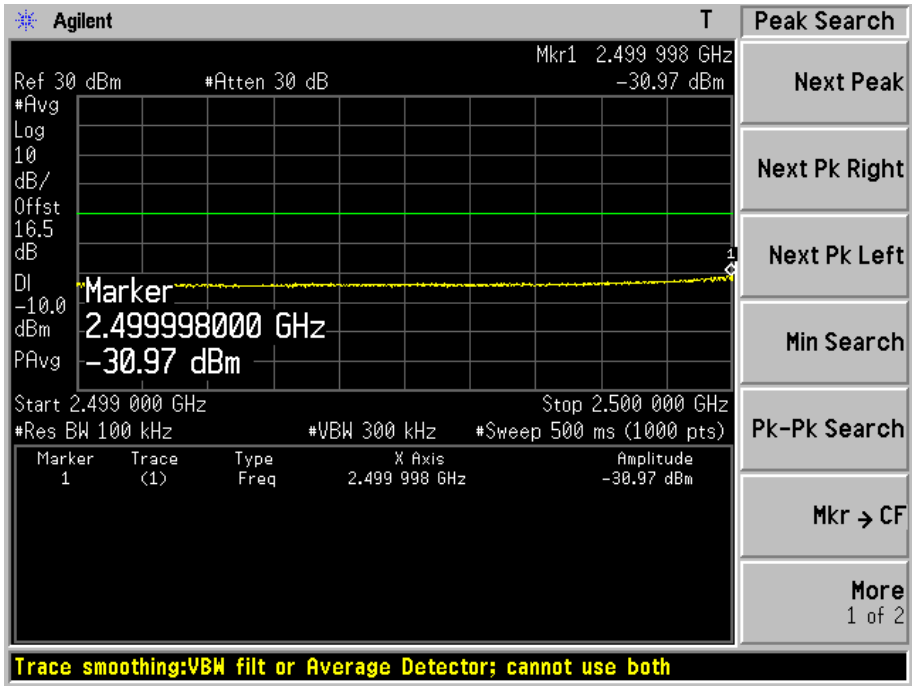


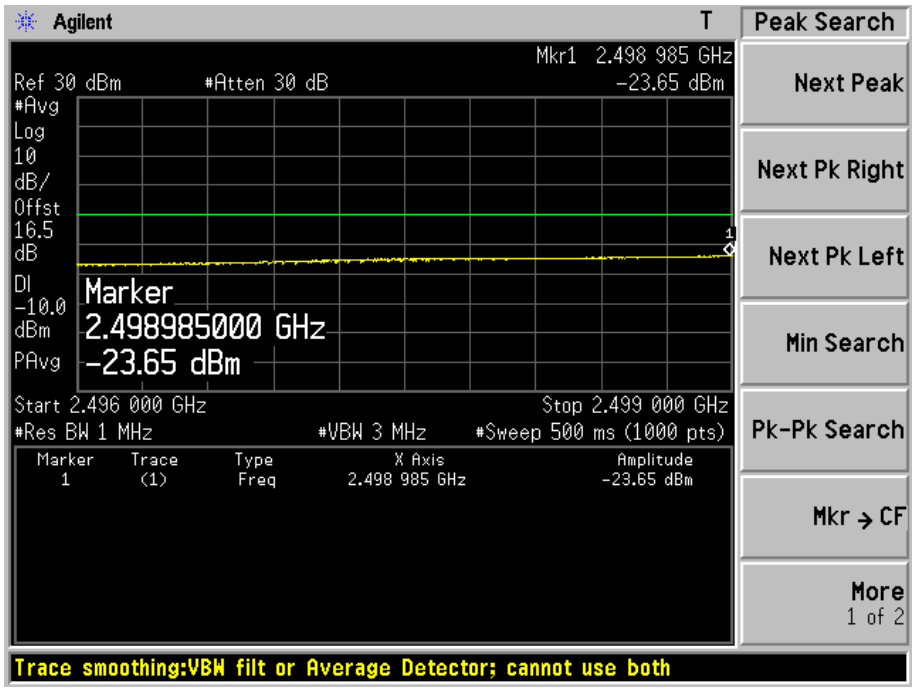


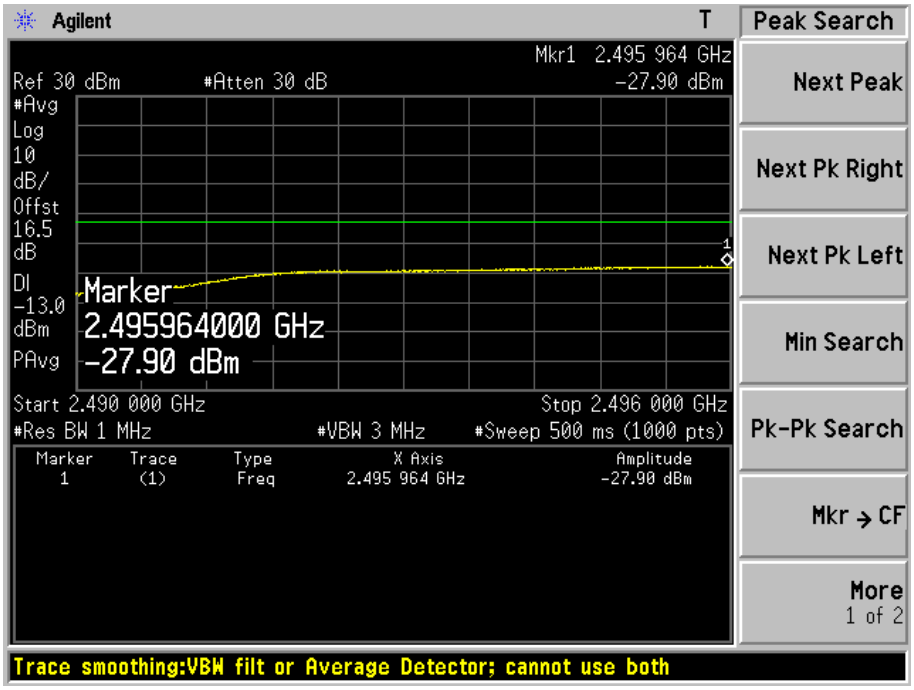

Agilent
T
Peak Search
Mkr1 2.495 904 GHz
Ref 30 dBm
#Atten 30 dB
-42.11 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-13.0
dBm
PAvg
Marker
2.495904000 GHz
-42.11 dBm
Min Search
Start 2.490 000 GHz
Stop 2.496 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.495 904 GHz -42.11 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both


Agilent
T
Peak Search
Mkr1 2.489 43 GHz
Ref 30 dBm
#Atten 30 dB
-44.11 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-25.0
dBm
PAvg
Marker
2.489430000 GHz
-44.11 dBm
Min Search
Start 2.475 00 GHz
Stop 2.490 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.489 43 GHz -44.11 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both

50RB0


Agilent
T
Peak Search
Mkr1 2.499 998 GHz
Ref 30 dBm
#Atten 30 dB
-30.97 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-10.0
dBm
PAvg
Marker
2.499998000 GHz
-30.97 dBm
Min Search
Start 2.499 000 GHz
Stop 2.500 000 GHz
#Res BW 100 kHz
#VBW 300 kHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.499 998 GHz -30.97 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both


Agilent
T
Peak Search
Mkr1 2.498 985 GHz
Ref 30 dBm
#Atten 30 dB
-23.65 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-10.0
dBm
PAvg
Marker
2.498985000 GHz
-23.65 dBm
Min Search
Start 2.496 000 GHz
Stop 2.499 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.498 985 GHz -23.65 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both


Agilent
T
Peak Search
Mkr1 2.495 964 GHz
Ref 30 dBm
#Atten 30 dB
-27.90 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-13.0
dBm
PAvg
Marker
2.495964000 GHz
-27.90 dBm
Min Search
Start 2.490 000 GHz
Stop 2.496 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.495 964 GHz -27.90 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both

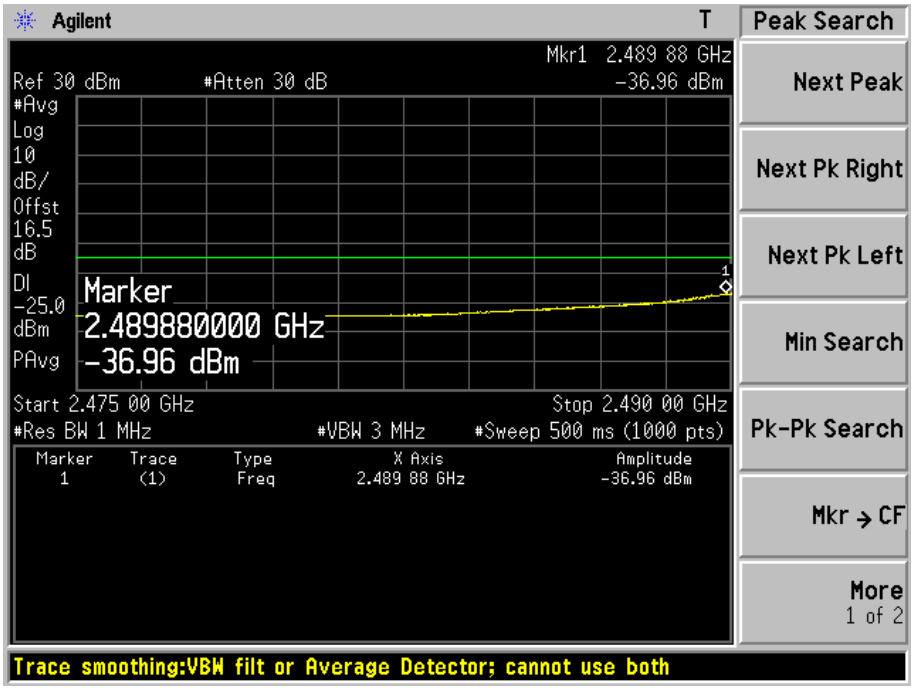
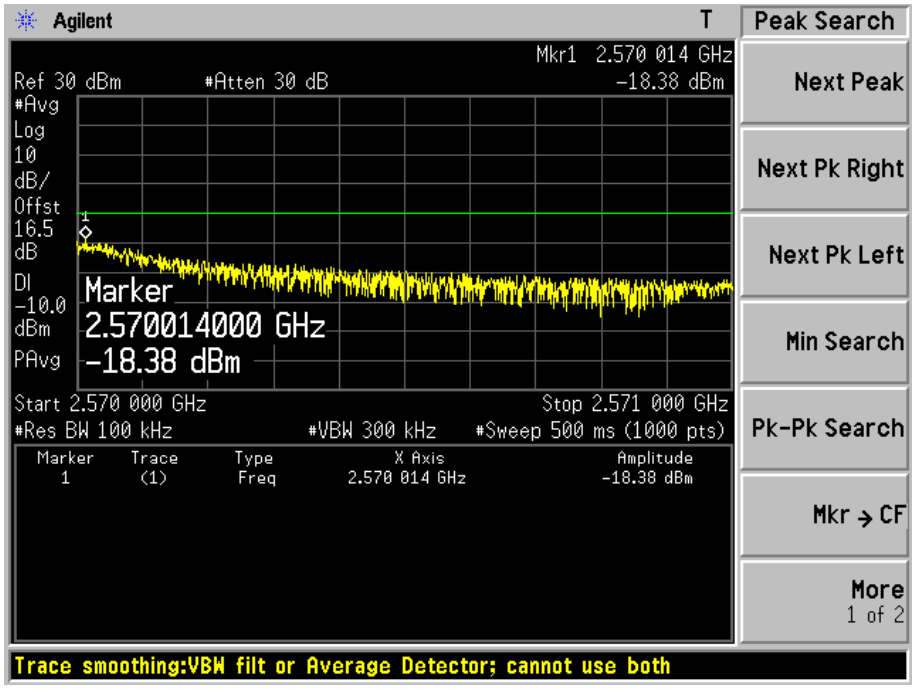
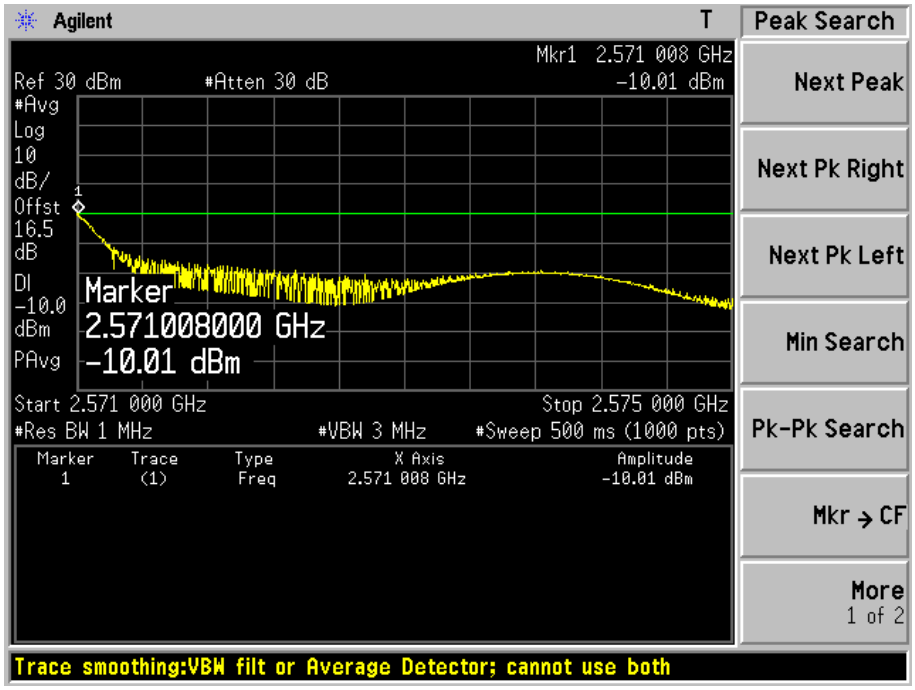
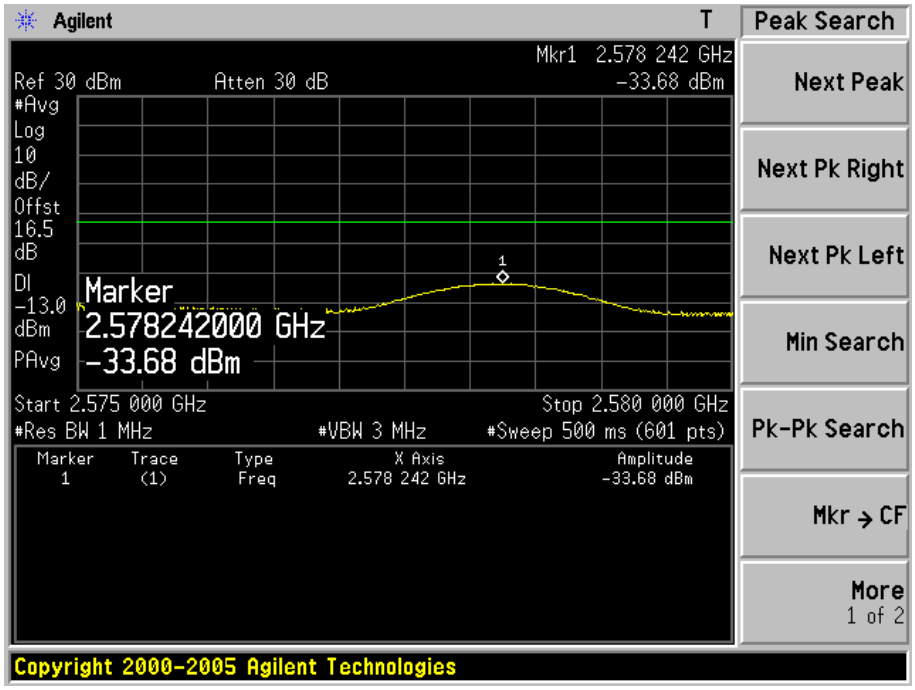

Agilent
T
Peak Search
Mkr1 2.489 88 GHz
Ref 30 dBm
#Atten 30 dB
-36.96 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-25.0
dBm
PAvg
Marker
2.489880000 GHz
-36.96 dBm
Min Search
Start 2.475 00 GHz
Stop 2.490 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.489 88 GHz -36.96 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both

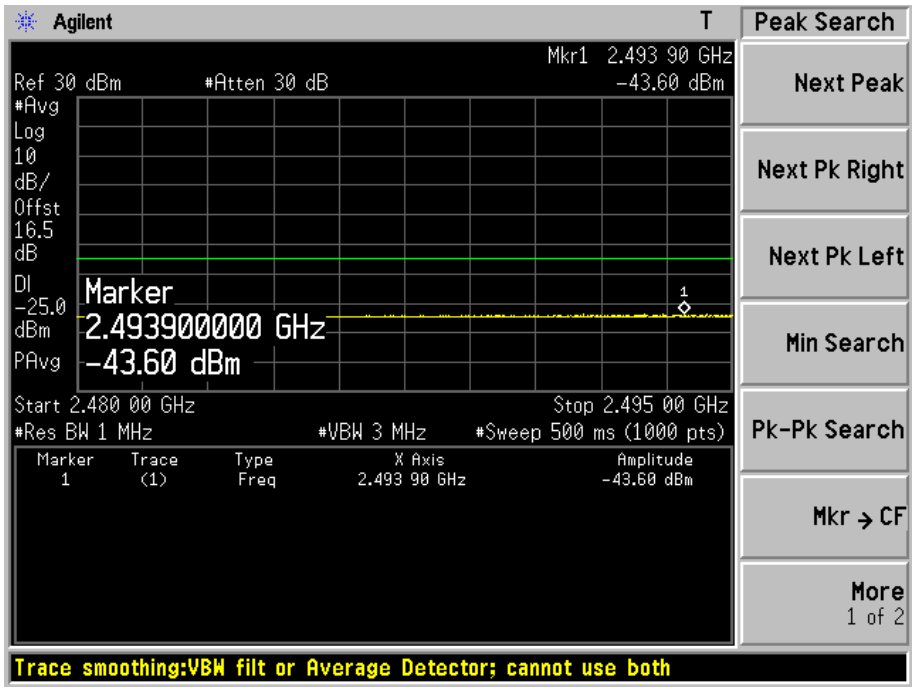
Figure Channel 21400 (2565MHz)

1RB49

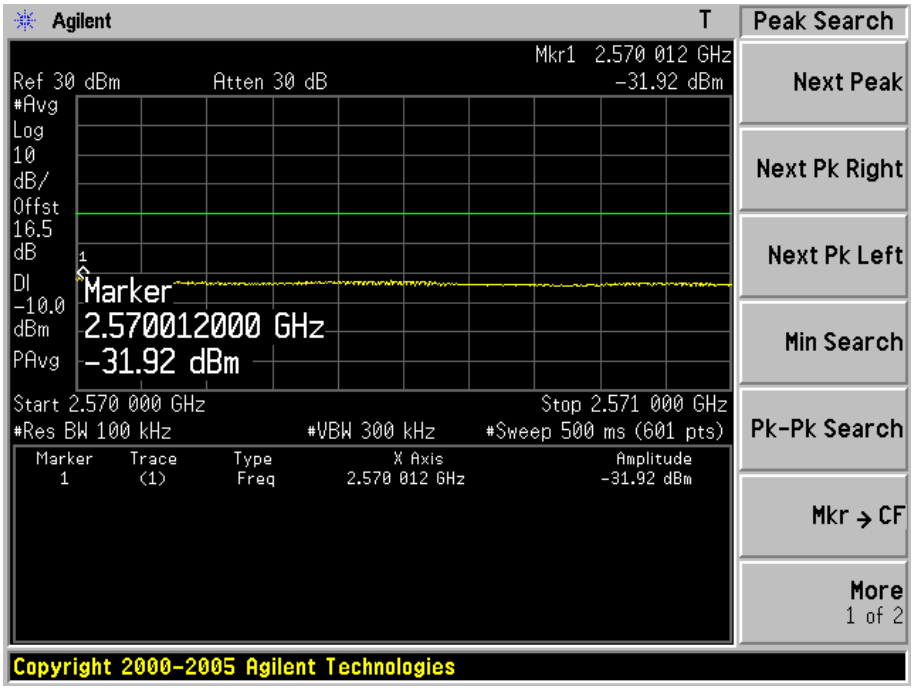


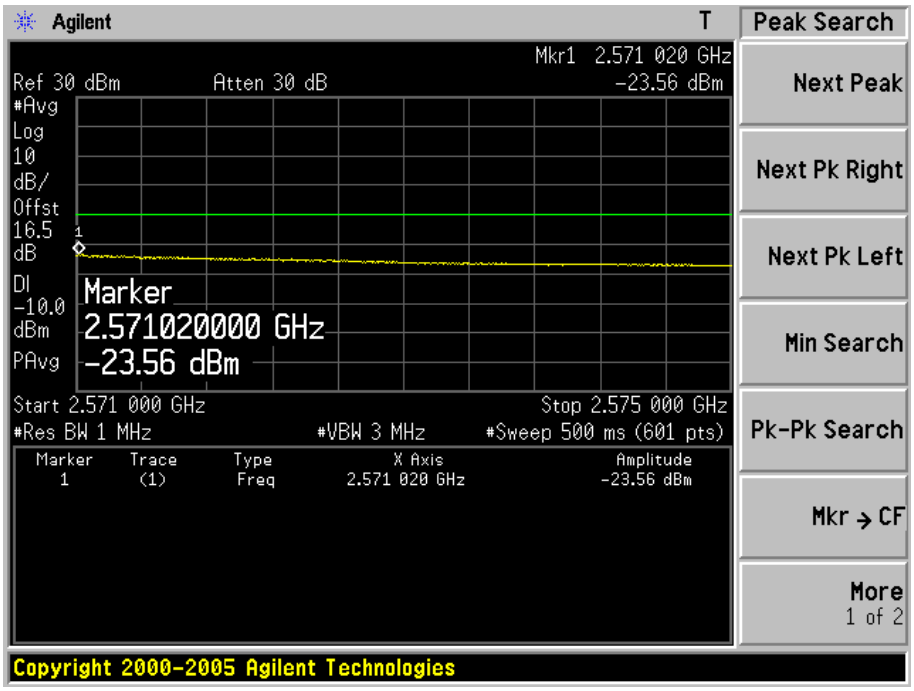


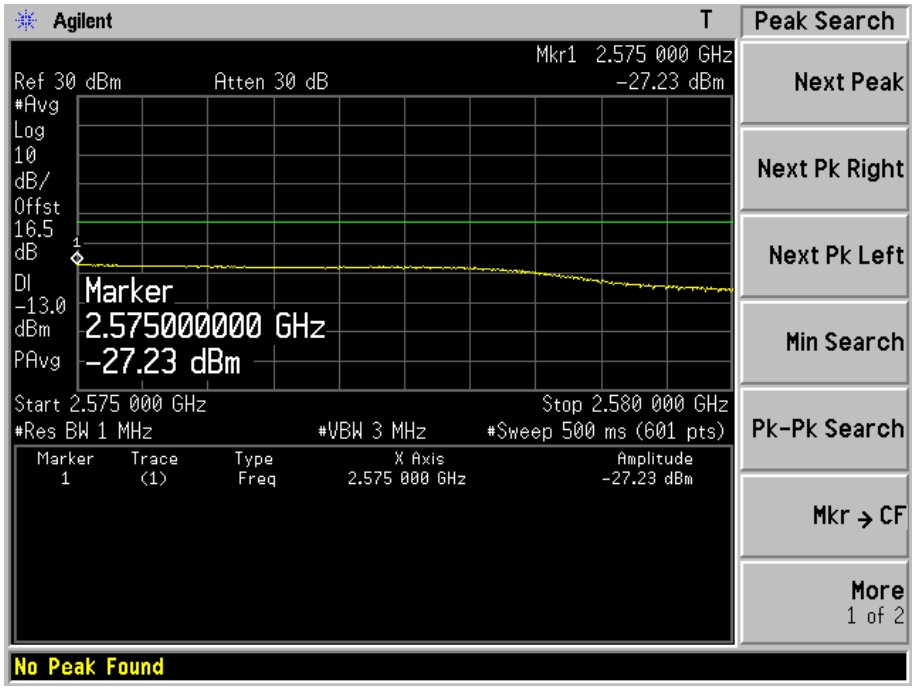

Agilent
T
Peak Search
Mkr1 2.578 242 GHz
Ref 30 dBm
Atten 30 dB
-33.68 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-13.0
dBm
PAvg
Marker
2.578242000 GHz
-33.68 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 2.575 000 GHz
Stop 2.580 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.578 242 GHz -33.68 dBm
Copyright 2000-2005 Agilent Technologies

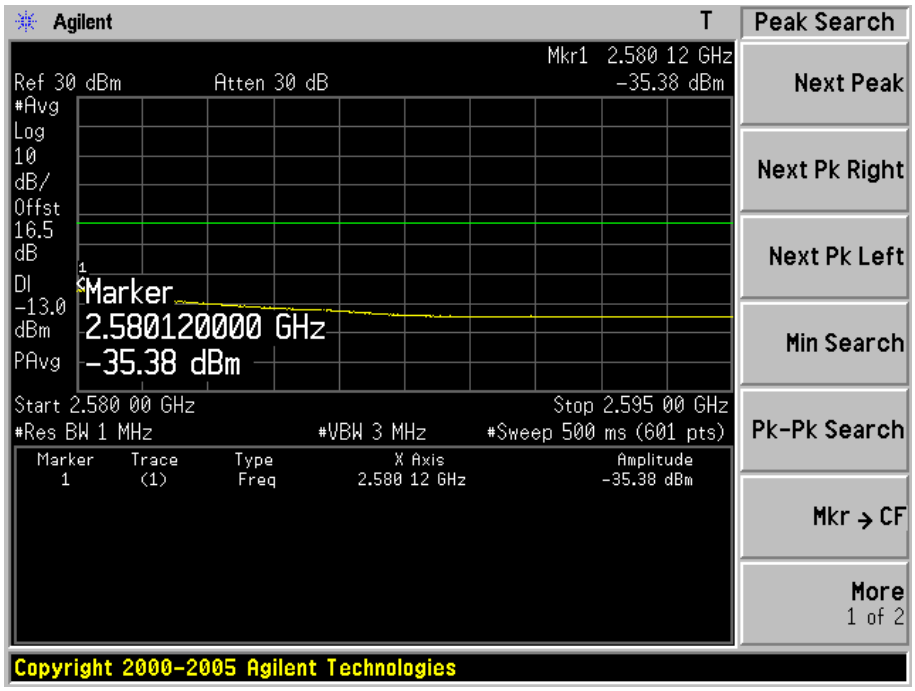

Agilent
T
Peak Search
Mkr1 2.493 90 GHz
Ref 30 dBm
#Atten 30 dB
-43.60 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-25.0
dBm
PAvg
Marker
2.493900000 GHz
-43.60 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 2.480 00 GHz
Stop 2.495 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.493 90 GHz -43.60 dBm
Trace smoothing:VBW filt or Average Detector; cannot use both

50RB0


Agilent
T
Peak Search
Mkr1 2.570 012 GHz
Ref 30 dBm
Atten 30 dB
-31.92 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-10.0
dBm
PAvg
Marker
2.570012000 GHz
-31.92 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 2.570 000 GHz
Stop 2.571 000 GHz
#Res BW 100 kHz
#VBW 300 kHz
#Sweep 500 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.570 012 GHz -31.92 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.571 020 GHz
Ref 30 dBm
Atten 30 dB
-23.56 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-10.0
dBm
PAvg
Marker
2.571020000 GHz
-23.56 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 2.571 000 GHz
Stop 2.575 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.571 020 GHz -23.56 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.575 000 GHz
Ref 30 dBm
Atten 30 dB
-27.23 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-13.0
dBm
PAvg
Marker
2.575000000 GHz
-27.23 dBm
Start 2.575 000 GHz
Stop 2.580 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.575 000 GHz -27.23 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
No Peak Found


Agilent
T
Peak Search
Mkr1 2.580 12 GHz
Ref 30 dBm
Atten 30 dB
-35.38 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-13.0
dBm
PAvg
Marker
2.580120000 GHz
-35.38 dBm
Start 2.580 00 GHz
Stop 2.595 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.580 12 GHz -35.38 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
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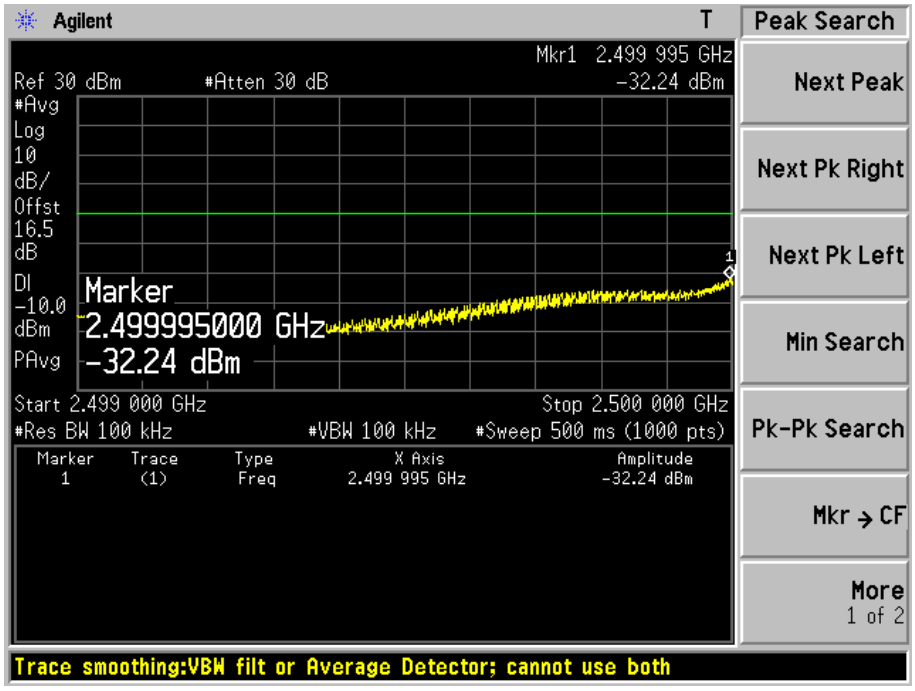
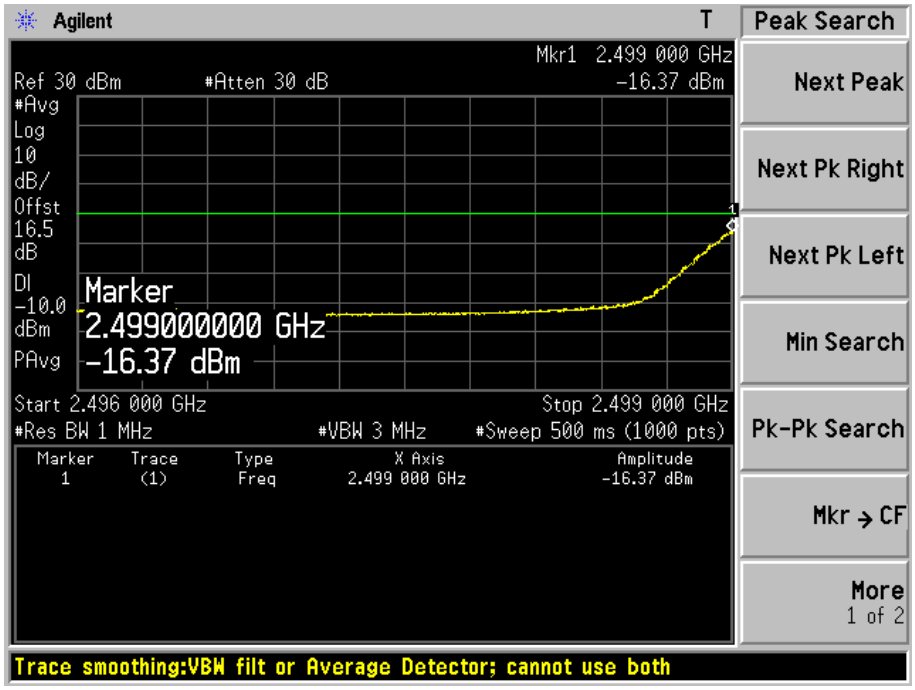
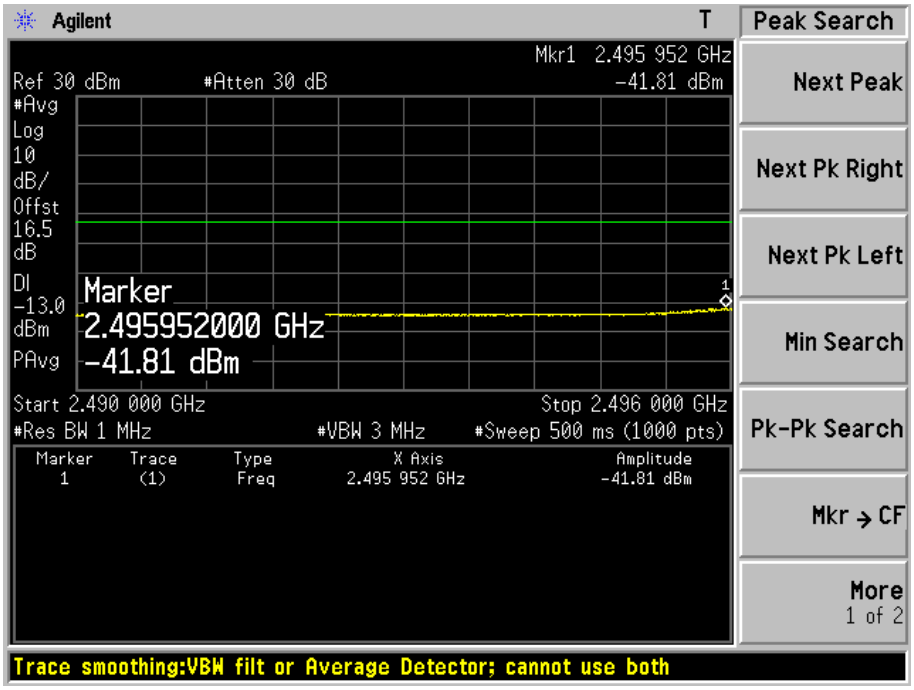
Product	Wireless Module		
Test Item	Conducted Band Edge		
Test Mode	Mode 1: LTE Band VII (10M/16QAM)		
Date of Test	2014/12/07	Test Site	AC6

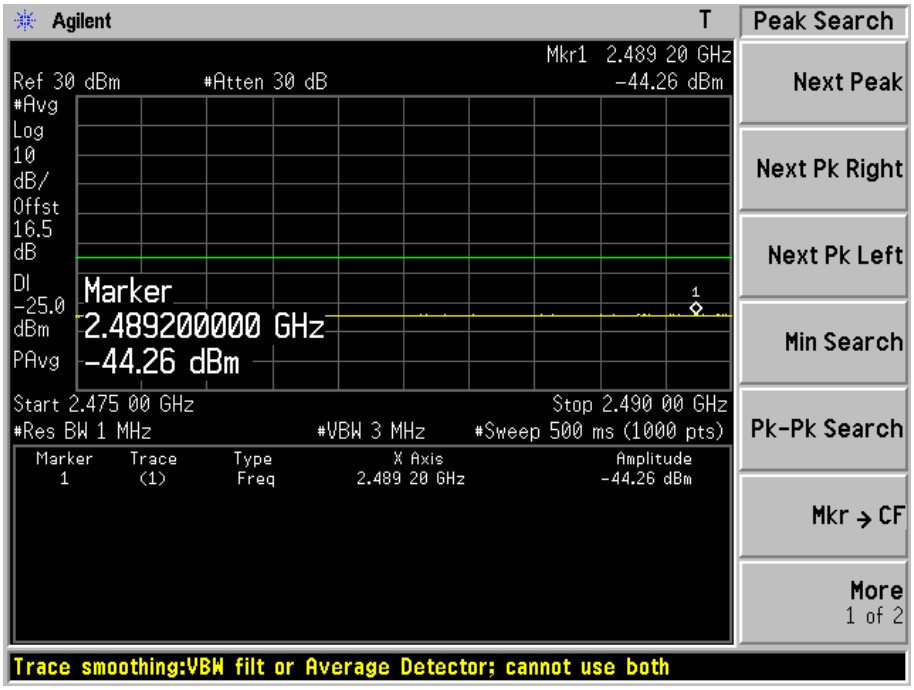
Figure Channel 20800 (2505MHz)

1RB0

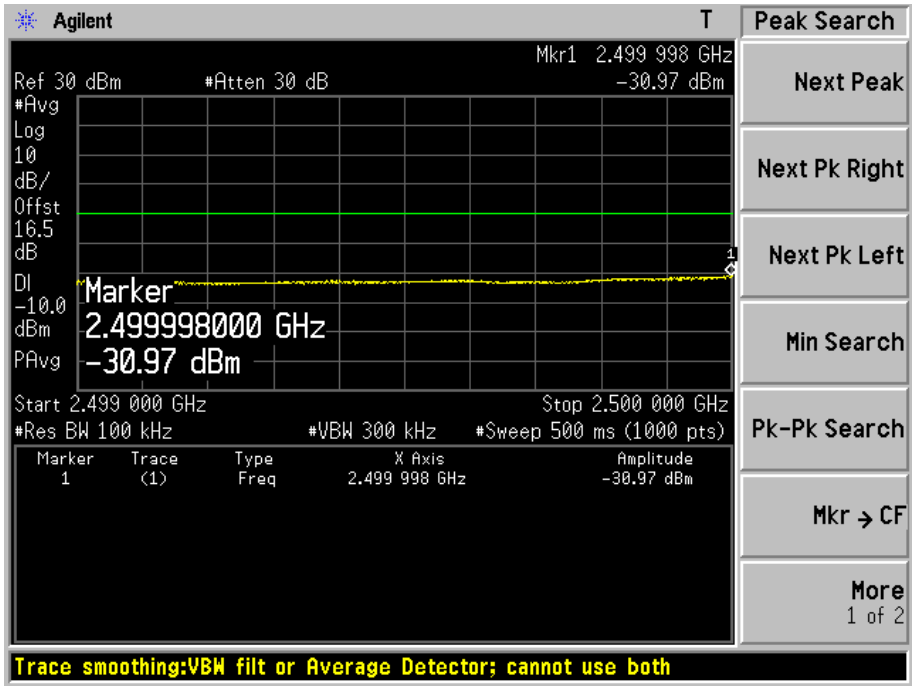


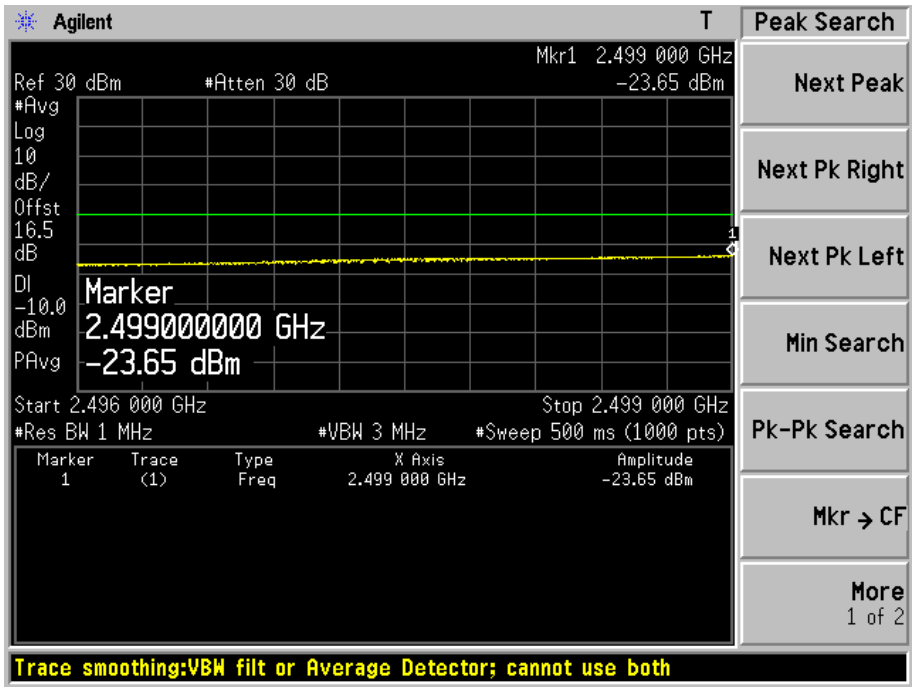


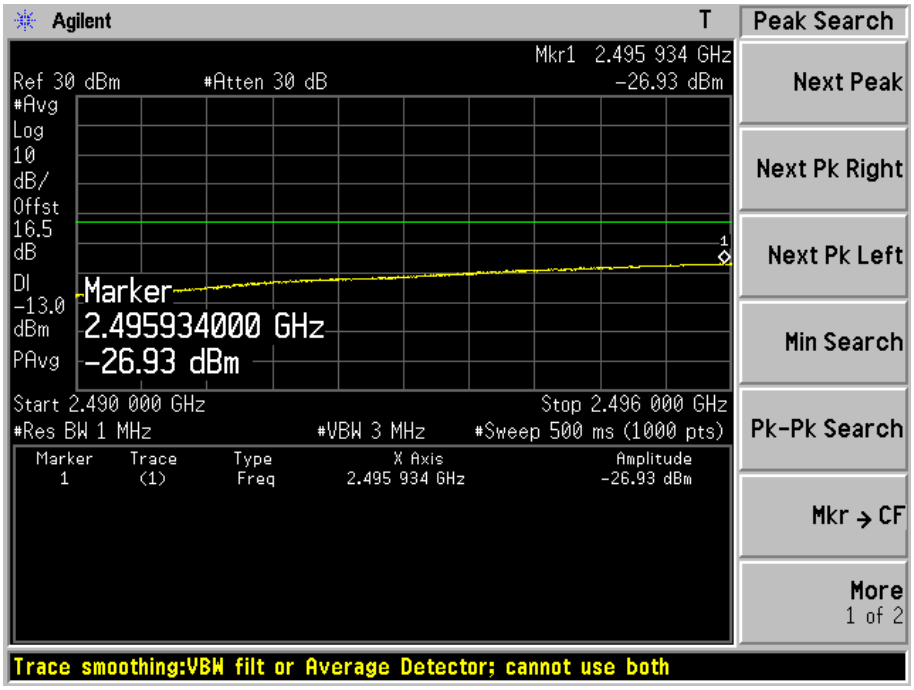

Agilent
T
Peak Search
Mkr1 2.495 952 GHz
Ref 30 dBm
#Atten 30 dB
-41.81 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-13.0
dBm
PAvg
Marker
2.495952000 GHz
-41.81 dBm
Min Search
Start 2.490 000 GHz
Stop 2.496 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.495 952 GHz -41.81 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both


Agilent
T
Peak Search
Mkr1 2.489 20 GHz
Ref 30 dBm
#Atten 30 dB
-44.26 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-25.0
dBm
PAvg
Marker
2.489200000 GHz
-44.26 dBm
Min Search
Start 2.475 00 GHz
Stop 2.490 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.489 20 GHz -44.26 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both

50RB0


Agilent
T
Peak Search
Mkr1 2.499 998 GHz
Ref 30 dBm
#Atten 30 dB
-30.97 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-10.0
dBm
PAvg
Marker
2.499998000 GHz
-30.97 dBm
Min Search
Start 2.499 000 GHz
Stop 2.500 000 GHz
#Res BW 100 kHz
#VBW 300 kHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.499 998 GHz -30.97 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both


Agilent
T
Peak Search
Mkr1 2.499 000 GHz
Ref 30 dBm
#Atten 30 dB
-23.65 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-10.0
dBm
PAvg
Marker
2.499000000 GHz
-23.65 dBm
Min Search
Start 2.496 000 GHz
Stop 2.499 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.499 000 GHz -23.65 dBm
Mkr → CF
More
1 of 2
Trace smoothing:VBW filt or Average Detector; cannot use both


Agilent
T
Peak Search
Mkr1 2.495 934 GHz
Ref 30 dBm
#Atten 30 dB
-26.93 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-13.0
dBm
PAvg
Marker
2.495934000 GHz
-26.93 dBm
Start 2.490 000 GHz
Stop 2.496 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.495 934 GHz -26.93 dBm
Trace smoothing:VBW filt or Average Detector; cannot use both

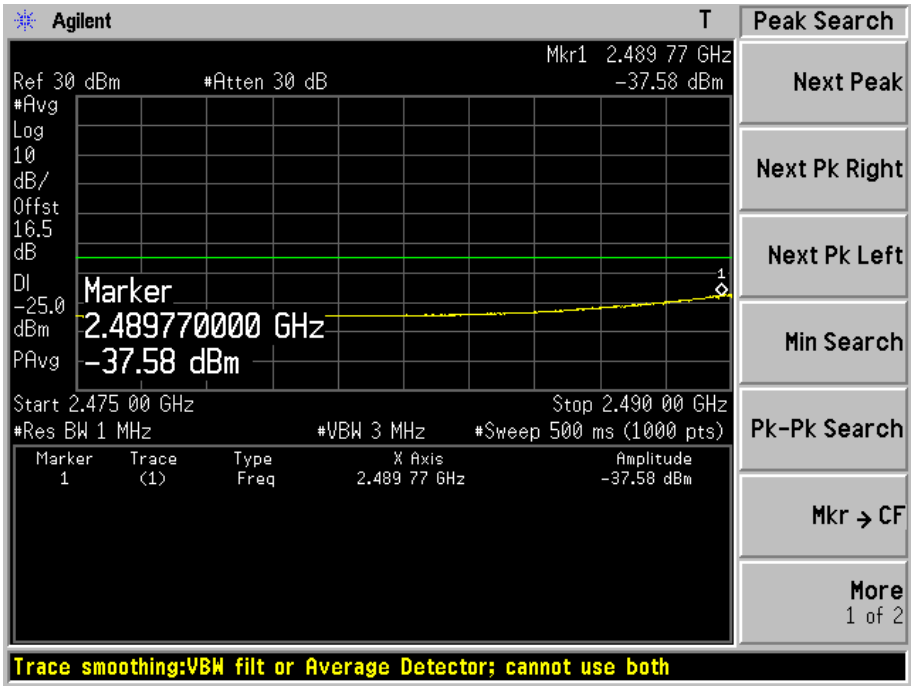
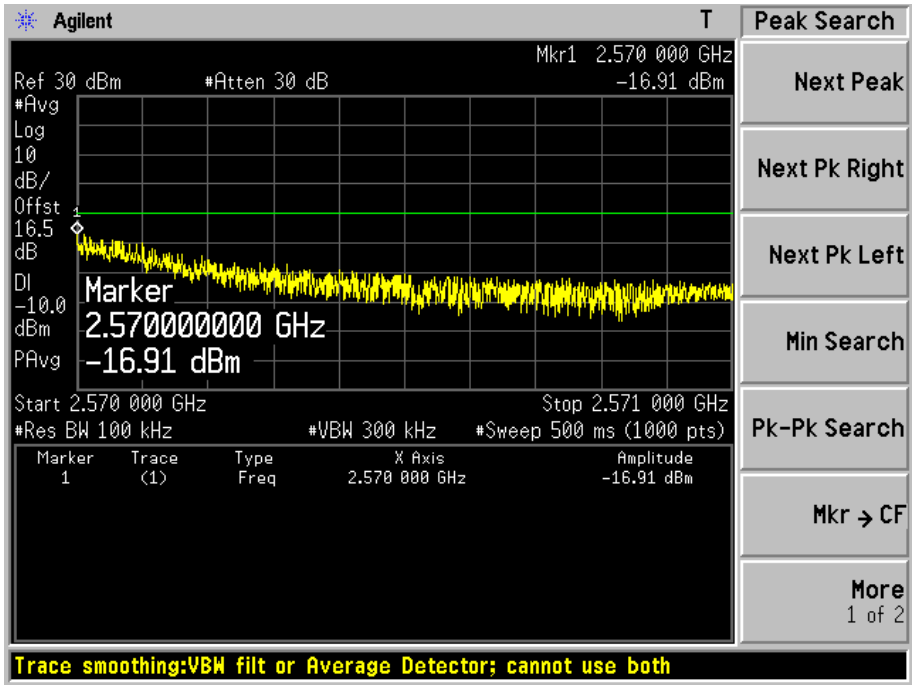
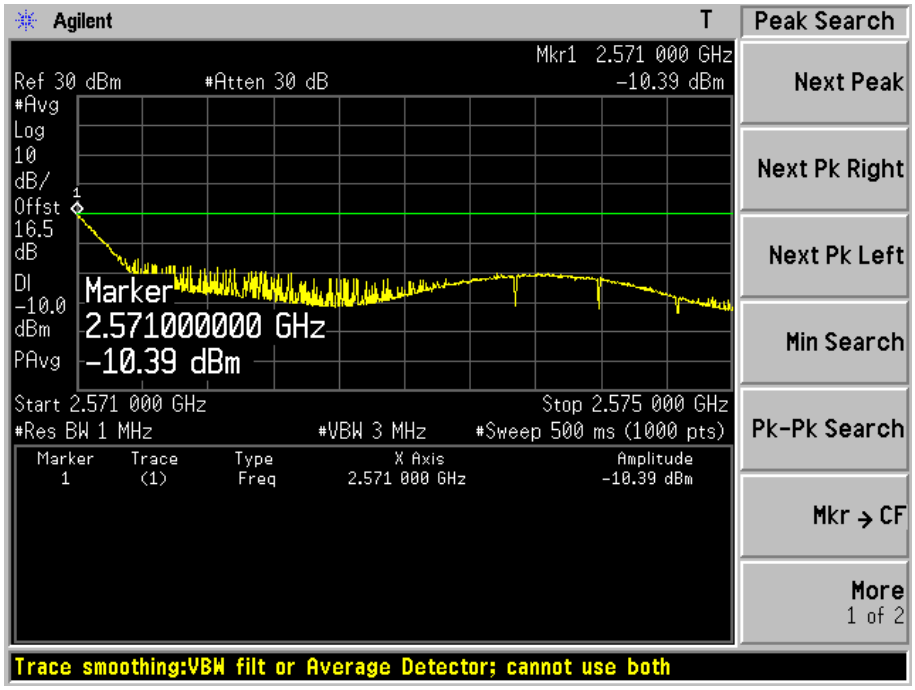
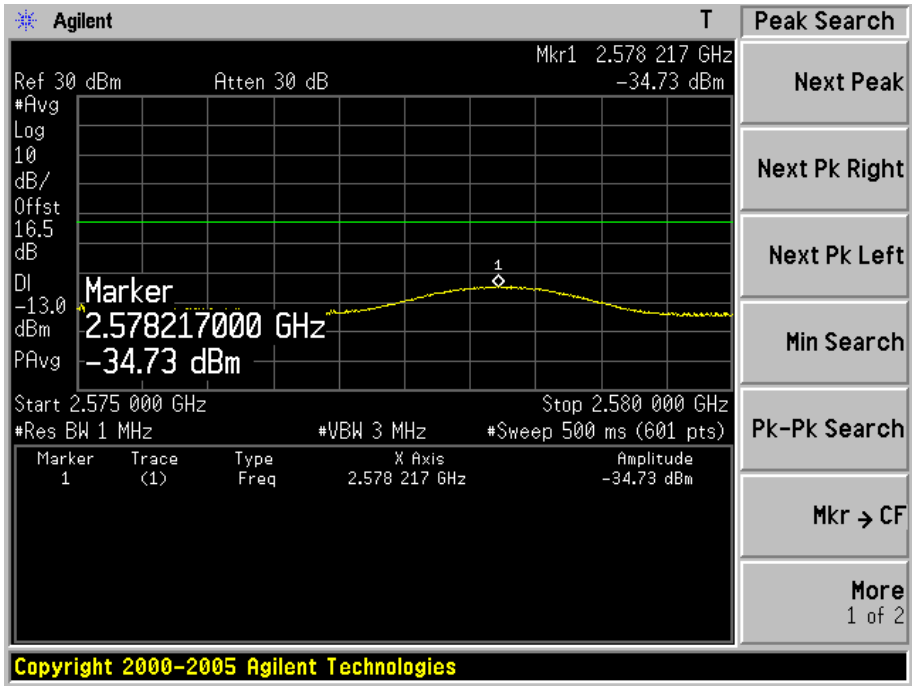

Agilent
T
Peak Search
Mkr1 2.489 77 GHz
Ref 30 dBm
#Atten 30 dB
-37.58 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-25.0
dBm
PAvg
Marker
2.489770000 GHz
-37.58 dBm
Start 2.475 00 GHz
Stop 2.490 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.489 77 GHz -37.58 dBm
Trace smoothing:VBW filt or Average Detector; cannot use both

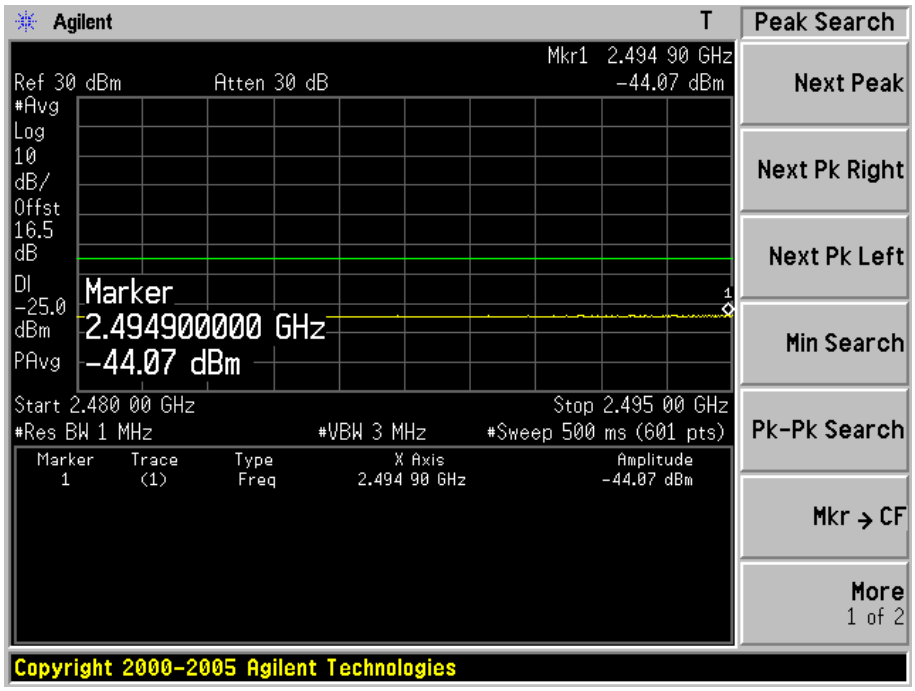
Figure Channel 21400 (2565MHz)

1RB49

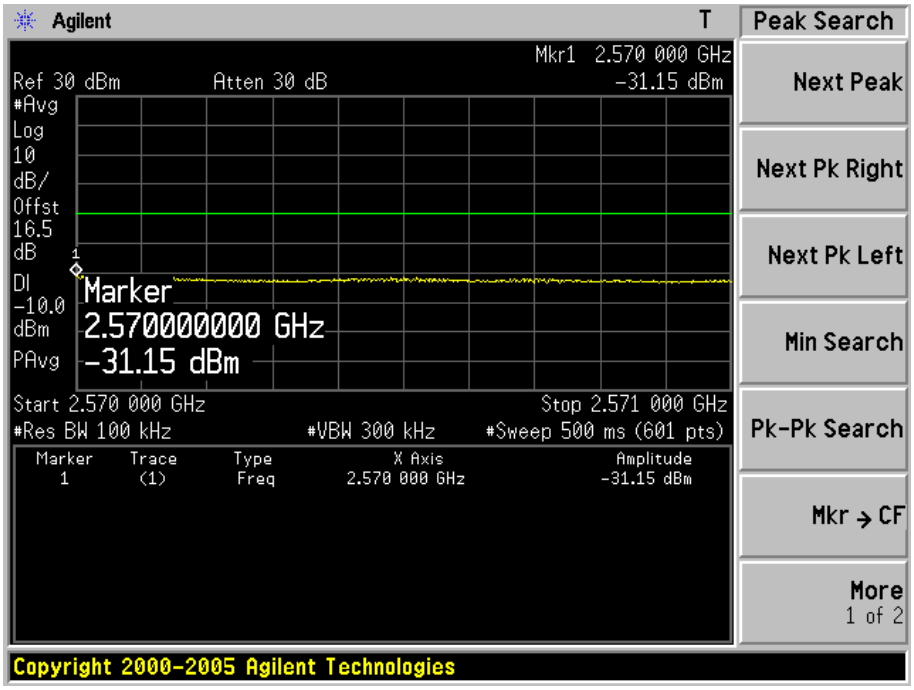


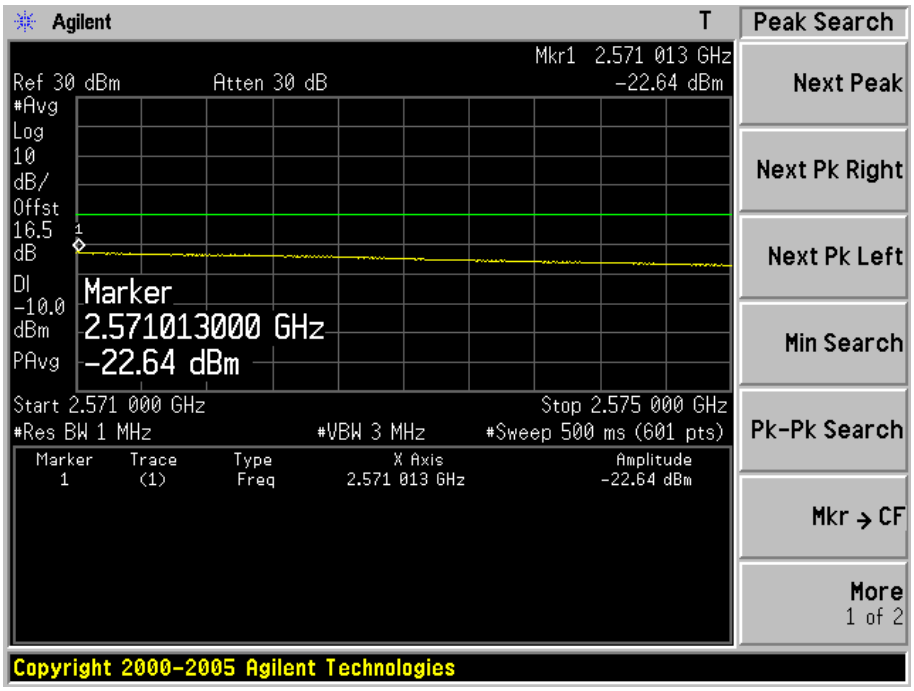


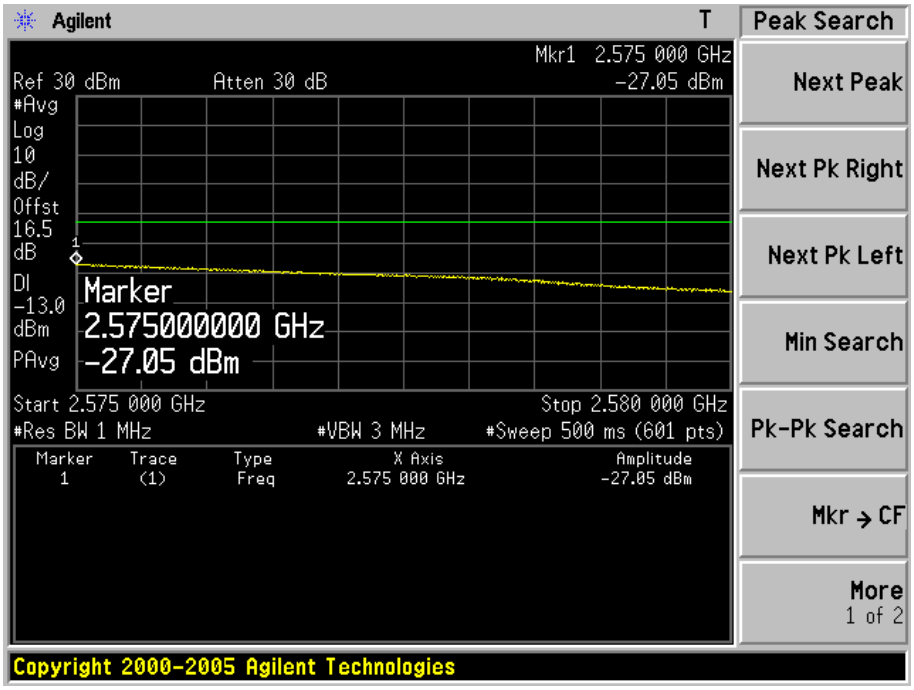

Agilent
T
Peak Search
Mkr1 2.578 217 GHz
Ref 30 dBm
Atten 30 dB
-34.73 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-13.0
dBm
PAvg
Marker
2.578217000 GHz
-34.73 dBm
Start 2.575 000 GHz
Stop 2.580 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.578 217 GHz -34.73 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies

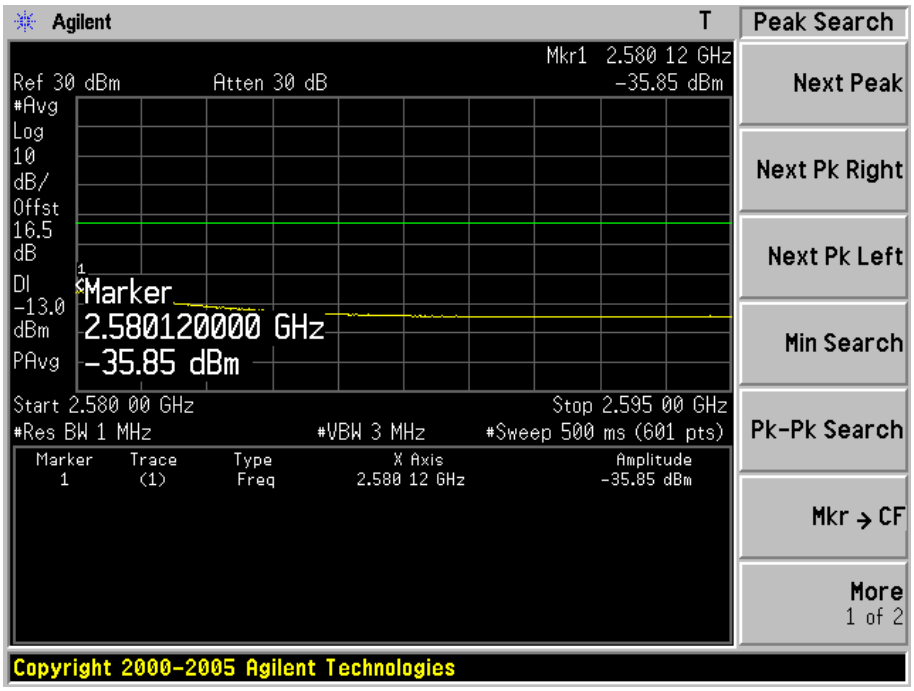

Agilent
T
Peak Search
Mkr1 2.494 90 GHz
Ref 30 dBm
Atten 30 dB
-44.07 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-25.0
dBm
PAvg
Marker
2.494900000 GHz
-44.07 dBm
Start 2.480 00 GHz
Stop 2.495 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.494 90 GHz -44.07 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies

50RB0


Agilent
T
Peak Search
Mkr1 2.570 000 GHz
Ref 30 dBm
Atten 30 dB
-31.15 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-10.0
dBm
PAvg
Marker
2.570000000 GHz
-31.15 dBm
Min Search
Start 2.570 000 GHz
Stop 2.571 000 GHz
#Res BW 100 kHz
#VBW 300 kHz
#Sweep 500 ms (601 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.570 000 GHz -31.15 dBm
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.571 013 GHz
Ref 30 dBm
Atten 30 dB
-22.64 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-10.0
dBm
PAvg
Marker
2.571013000 GHz
-22.64 dBm
Min Search
Start 2.571 000 GHz
Stop 2.575 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (601 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.571 013 GHz -22.64 dBm
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies

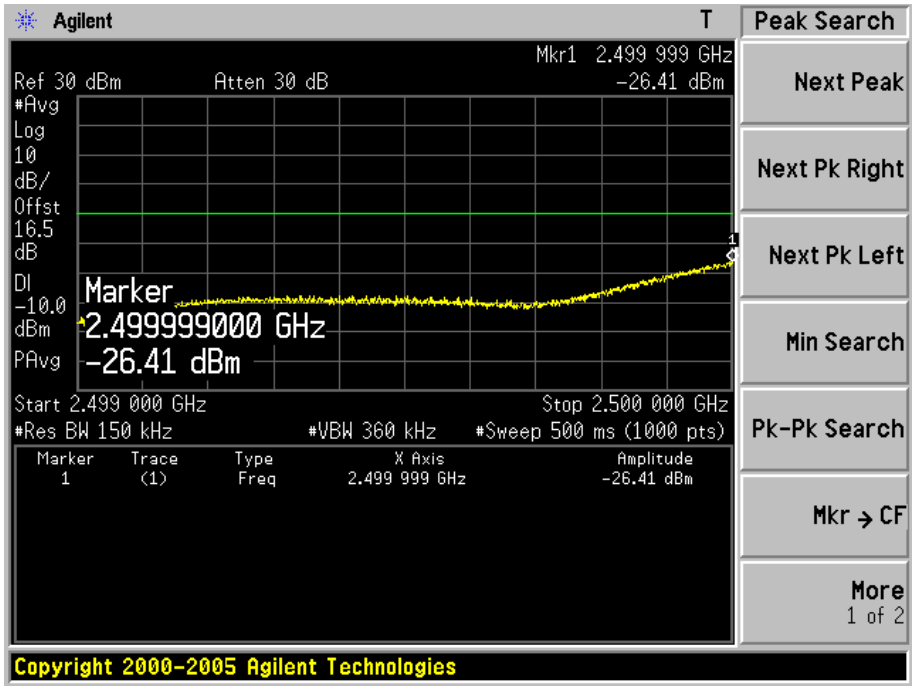

Agilent
T
Peak Search
Mkr1 2.575 000 GHz
Ref 30 dBm
Atten 30 dB
-27.05 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-13.0
dBm
PAvg
Marker
2.575000000 GHz
-27.05 dBm
Start 2.575 000 GHz
Stop 2.580 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.575 000 GHz -27.05 dBm
Copyright 2000-2005 Agilent Technologies

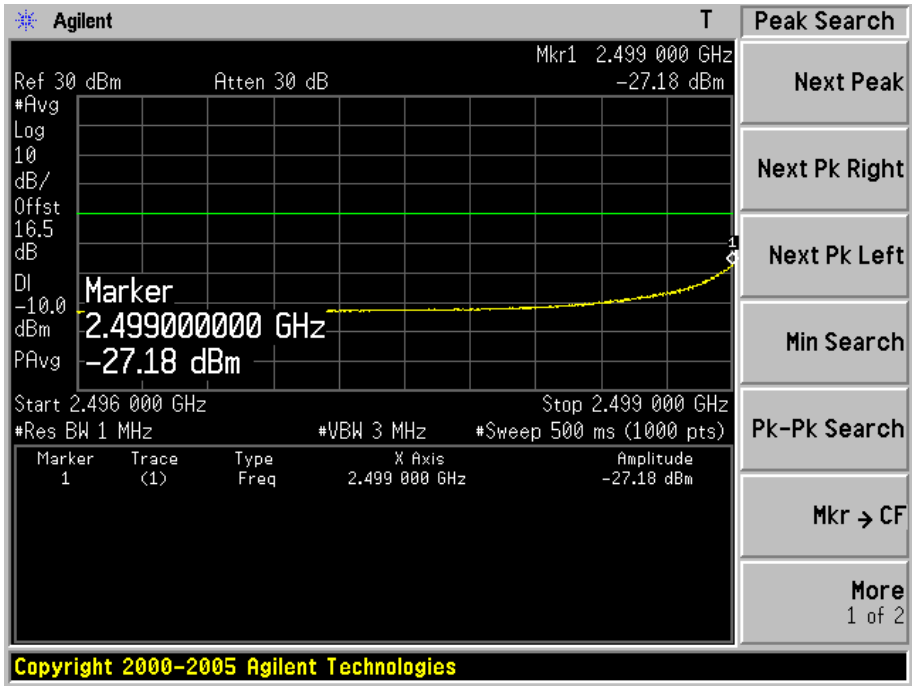

Agilent
T
Peak Search
Mkr1 2.580 12 GHz
Ref 30 dBm
Atten 30 dB
-35.85 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-13.0
dBm
PAvg
Marker
2.580120000 GHz
-35.85 dBm
Start 2.580 00 GHz
Stop 2.595 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.580 12 GHz -35.85 dBm
Copyright 2000-2005 Agilent Technologies

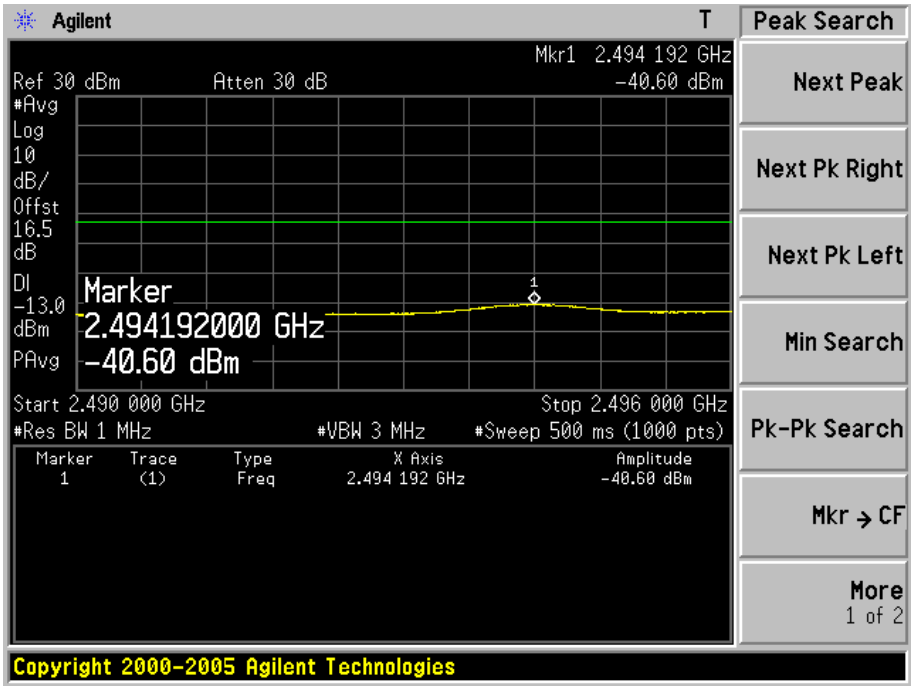
Product	Wireless Module		
Test Item	Conducted Band Edge		
Test Mode	Mode 1: LTE Band VII (15M/QPSK)		
Date of Test	2014/12/07	Test Site	AC6

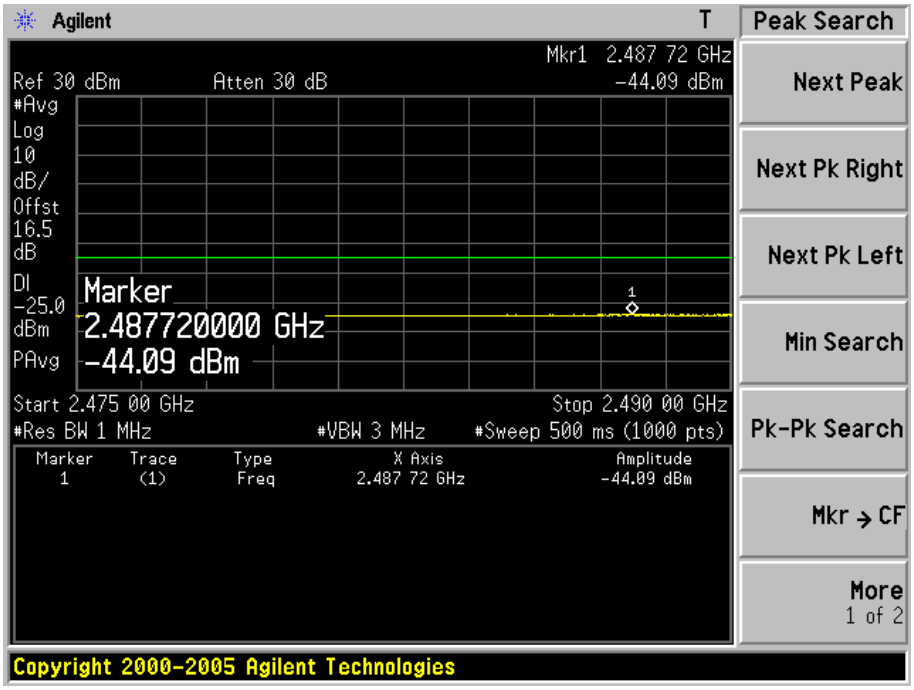
Figure Channel 20825 (2507.5MHz)

1RB0

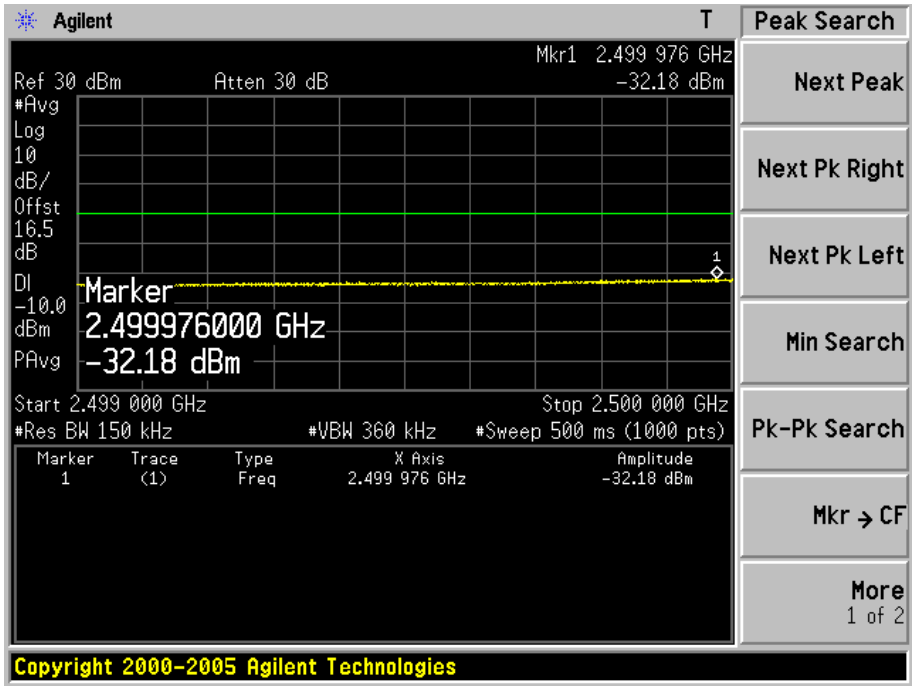


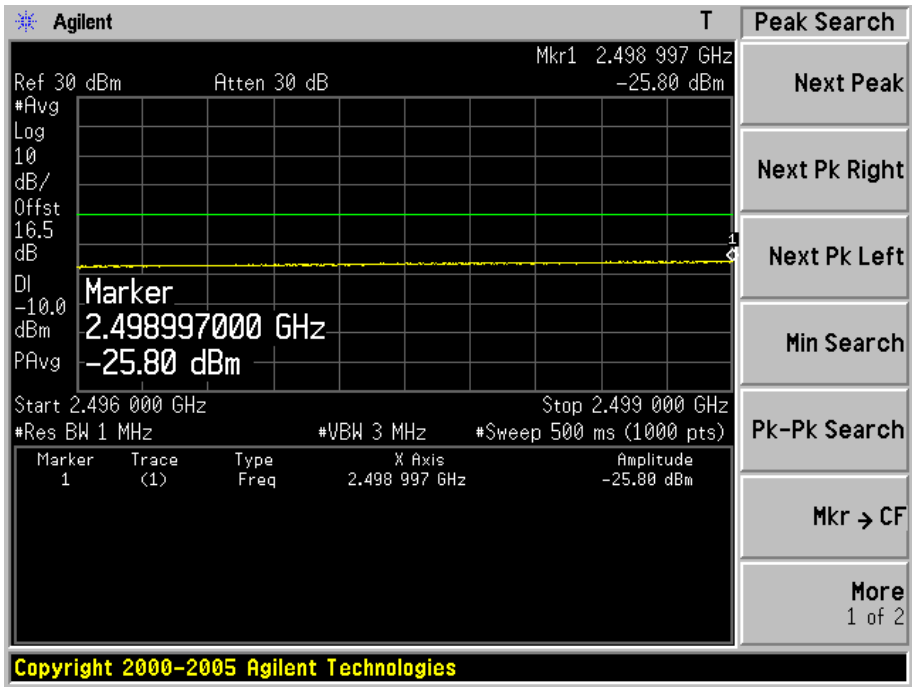


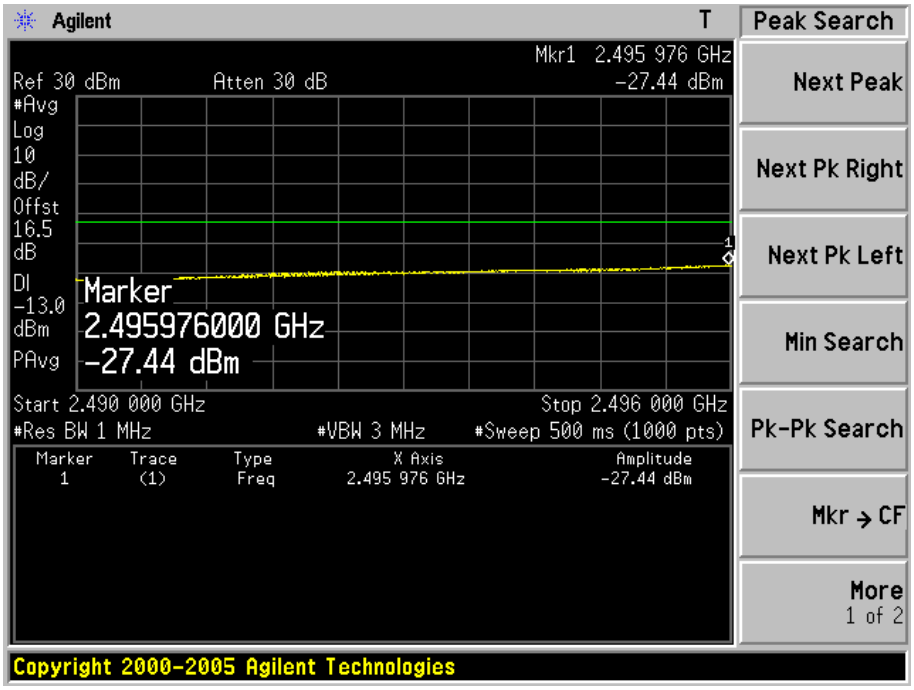

Agilent
T
Peak Search
Mkr1 2.494 192 GHz
Ref 30 dBm
Atten 30 dB
-40.60 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-13.0
dBm
PAvg
Marker
2.494192000 GHz
-40.60 dBm
Start 2.490 000 GHz
Stop 2.496 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.494 192 GHz -40.60 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.487 72 GHz
Ref 30 dBm
Atten 30 dB
-44.09 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-25.0
dBm
PAvg
Marker
2.487720000 GHz
-44.09 dBm
Start 2.475 00 GHz
Stop 2.490 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.487 72 GHz -44.09 dBm
Copyright 2000-2005 Agilent Technologies

75RB0


Agilent
T
Peak Search
Mkr1 2.499 976 GHz
Ref 30 dBm
Atten 30 dB
-32.18 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-10.0
dBm
PAvg
Marker
2.499976000 GHz
-32.18 dBm
Start 2.499 000 GHz
Stop 2.500 000 GHz
#Res BW 150 kHz
#VBW 360 kHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.499 976 GHz -32.18 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.498 997 GHz
Ref 30 dBm
Atten 30 dB
-25.80 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-10.0
dBm
PAvg
Marker
2.498997000 GHz
-25.80 dBm
Start 2.496 000 GHz
Stop 2.499 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.498 997 GHz -25.80 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.495 976 GHz
Ref 30 dBm
Atten 30 dB
-27.44 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-13.0
dBm
PAvg
Marker
2.495976000 GHz
-27.44 dBm
Start 2.490 000 GHz
Stop 2.496 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.495 976 GHz -27.44 dBm
Copyright 2000-2005 Agilent Technologies

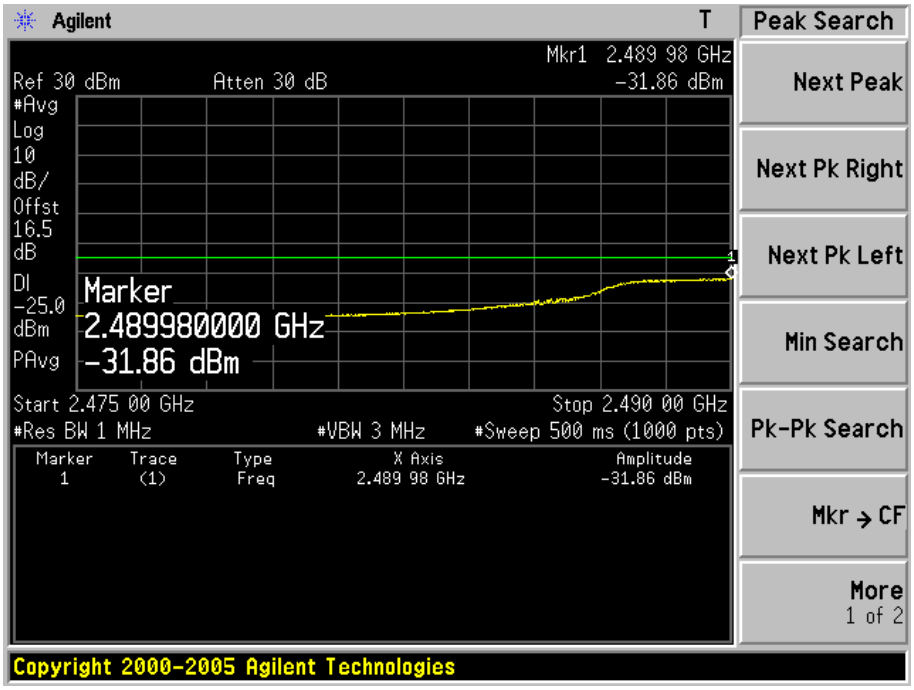
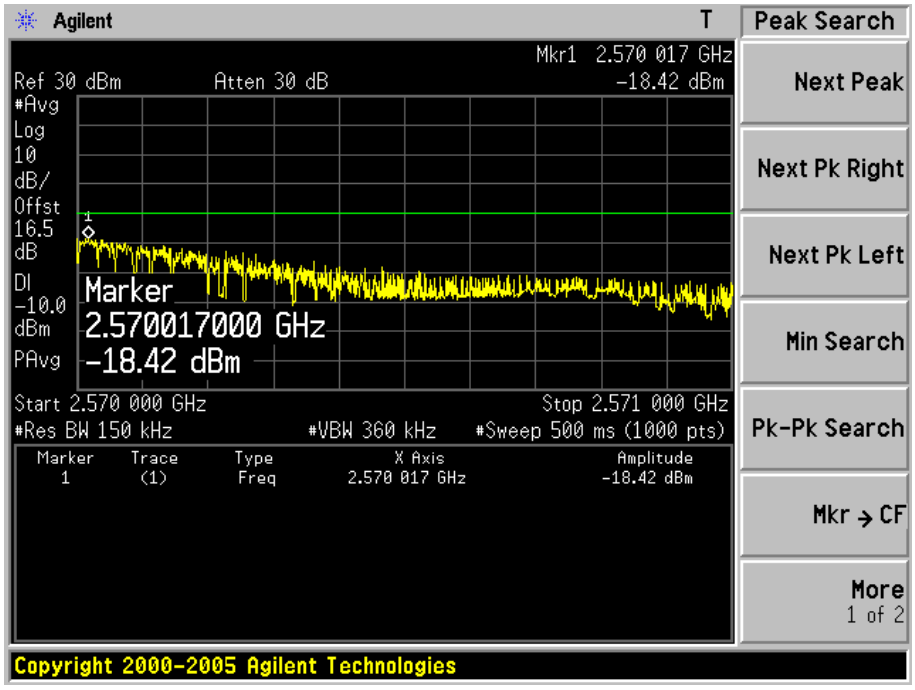
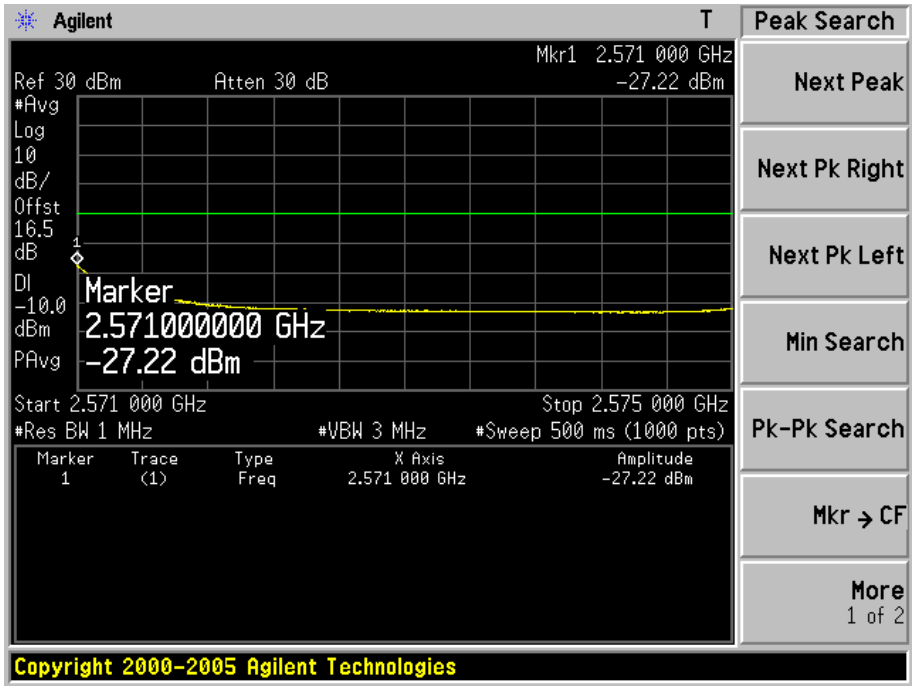
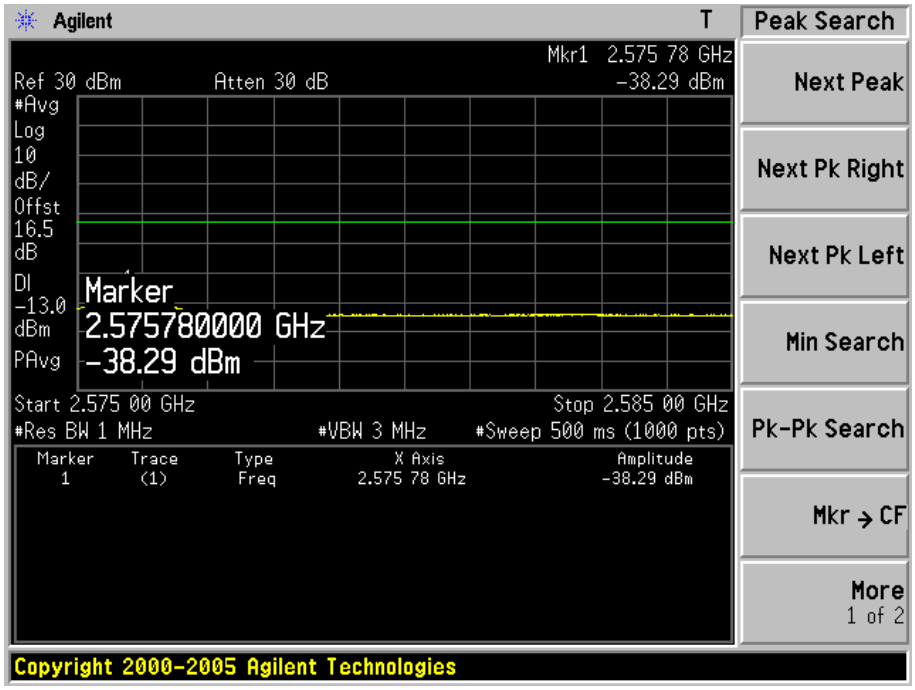

Agilent
T
Peak Search
Mkr1 2.489 98 GHz
Ref 30 dBm
Atten 30 dB
-31.86 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-25.0
dBm
PAvg
Marker
2.489980000 GHz
-31.86 dBm
Start 2.475 00 GHz
Stop 2.490 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.489 98 GHz -31.86 dBm
Copyright 2000-2005 Agilent Technologies

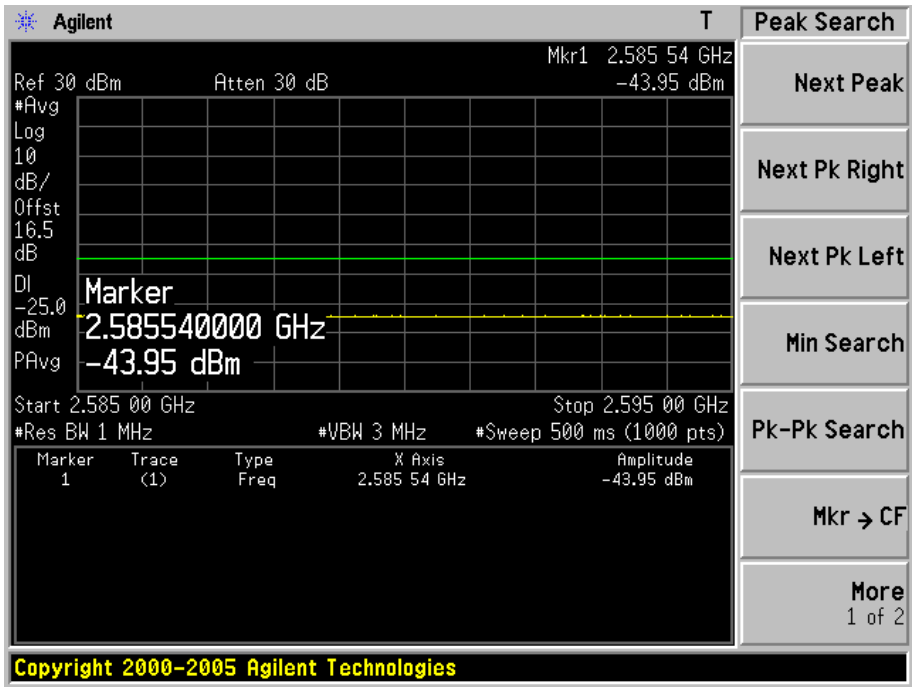
Figure Channel 21375 (2562.5MHz)

1RB74

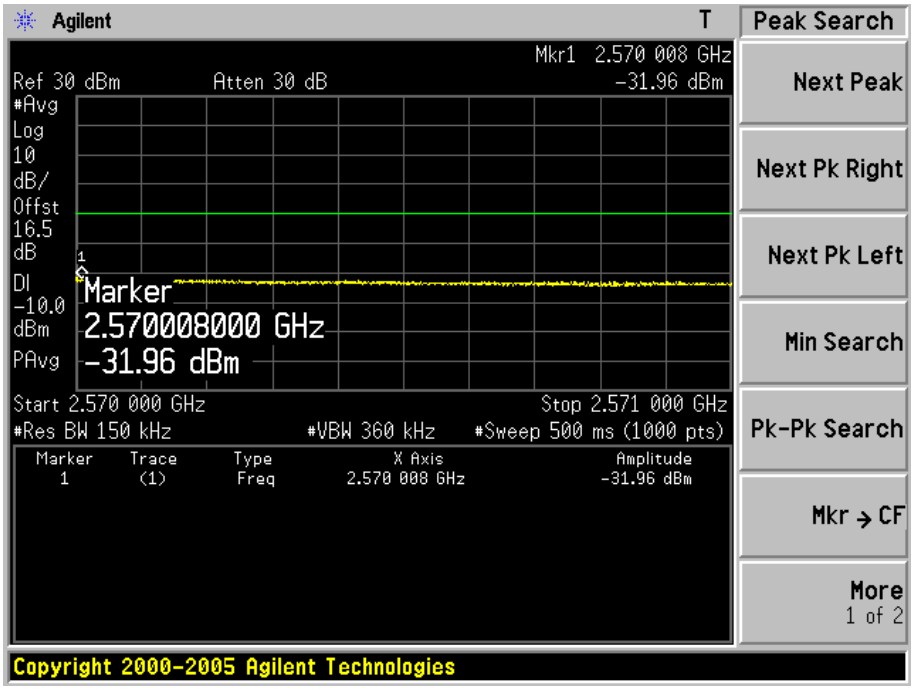


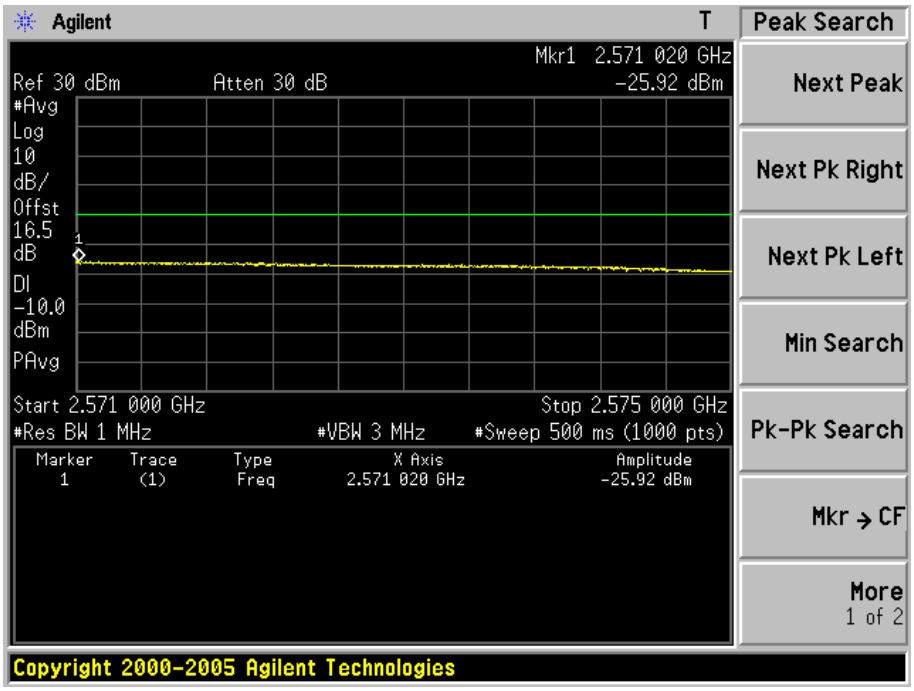


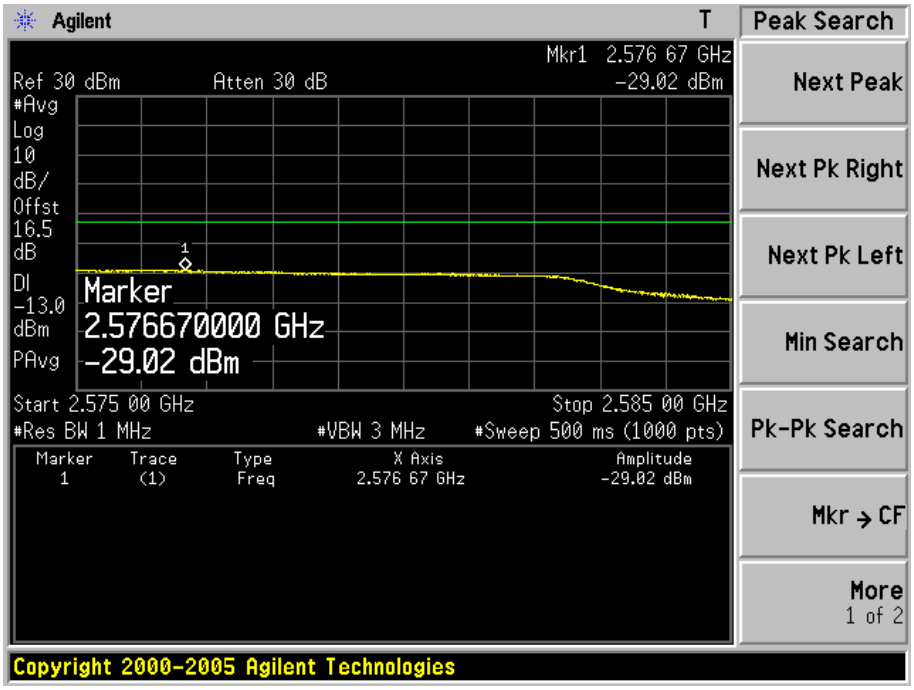

Agilent
T
Peak Search
Mkr1 2.575 78 GHz
Ref 30 dBm
Atten 30 dB
-38.29 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-13.0
dBm
PAvg
Marker
2.575780000 GHz
-38.29 dBm
Start 2.575 00 GHz
Stop 2.585 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.575 78 GHz -38.29 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies

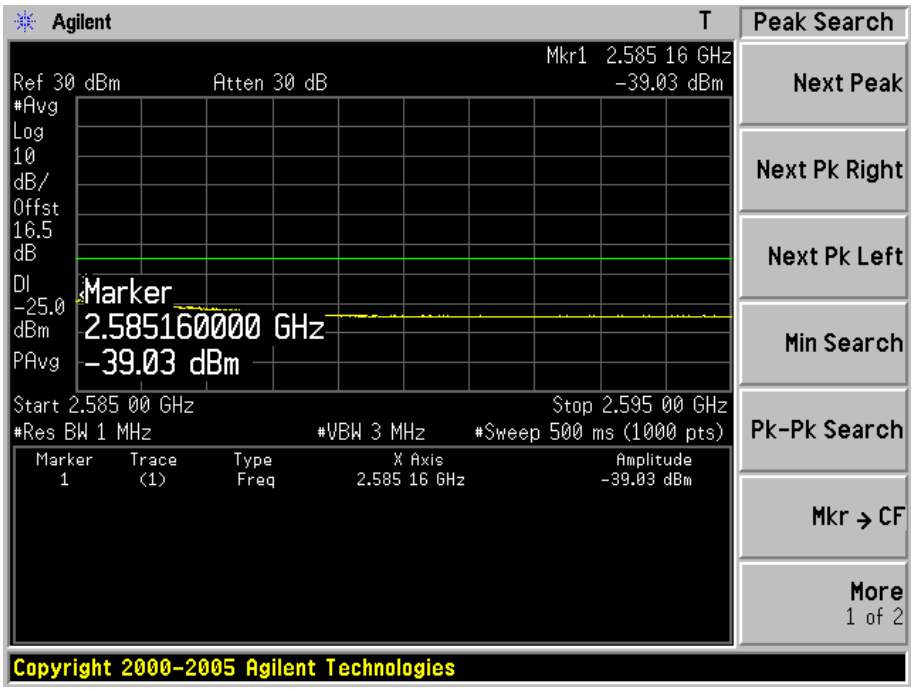

Agilent
T
Peak Search
Mkr1 2.585 54 GHz
Ref 30 dBm
Atten 30 dB
-43.95 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-25.0
dBm
PAvg
Marker
2.585540000 GHz
-43.95 dBm
Start 2.585 00 GHz
Stop 2.595 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.585 54 GHz -43.95 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies

75RB0


Agilent
T
Peak Search
Mkr1 2.570 008 GHz
Ref 30 dBm
Atten 30 dB
-31.96 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-10.0
dBm
PAvg
Marker
2.570008000 GHz
-31.96 dBm
Start 2.570 000 GHz
Stop 2.571 000 GHz
#Res BW 150 kHz
#VBW 360 kHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.570 008 GHz -31.96 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.571 020 GHz
Ref 30 dBm
Atten 30 dB
-25.92 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-10.0
dBm
PAvg
Start 2.571 000 GHz
Stop 2.575 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.571 020 GHz -25.92 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.576 67 GHz
Ref 30 dBm
Atten 30 dB
-29.02 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-13.0
dBm
PAvg
Marker
2.576670000 GHz
-29.02 dBm
Start 2.575 00 GHz
Stop 2.585 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.576 67 GHz -29.02 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.585 16 GHz
Ref 30 dBm
Atten 30 dB
-39.03 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-25.0
dBm
PAvg
Marker
2.585160000 GHz
-39.03 dBm
Start 2.585 00 GHz
Stop 2.595 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.585 16 GHz -39.03 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
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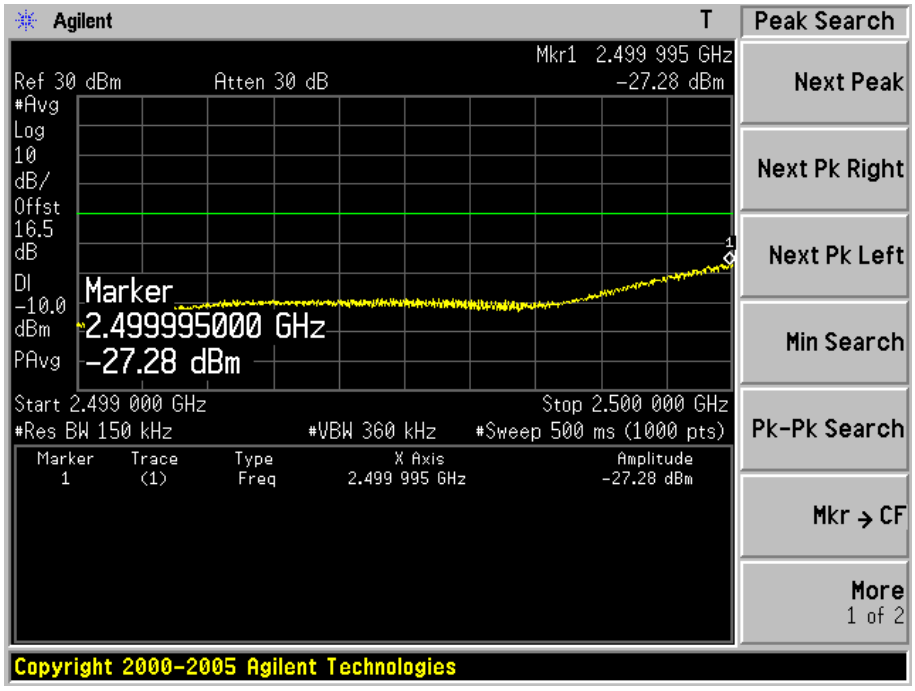
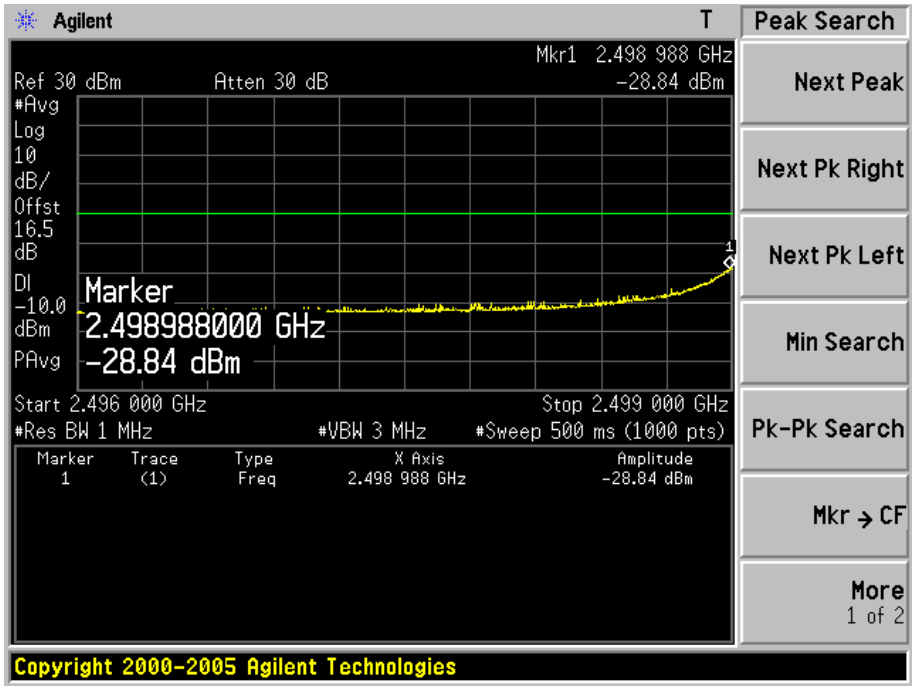
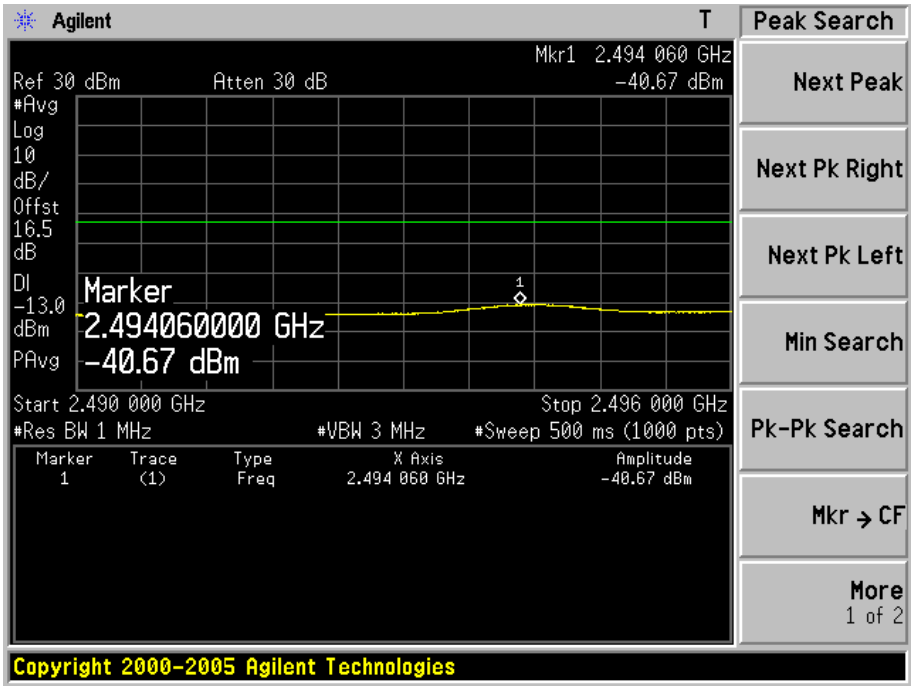
Product	Wireless Module		
Test Item	Conducted Band Edge		
Test Mode	Mode 1: LTE Band VII (15M/16QAM)		
Date of Test	2014/12/07	Test Site	AC6

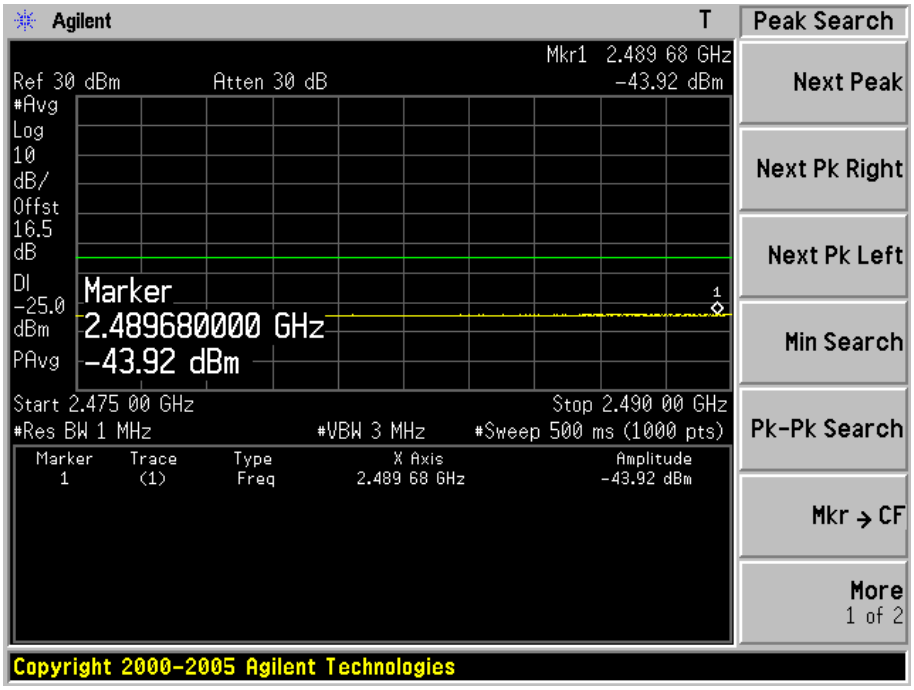
Figure Channel 20825 (2507.5MHz)

1RB0

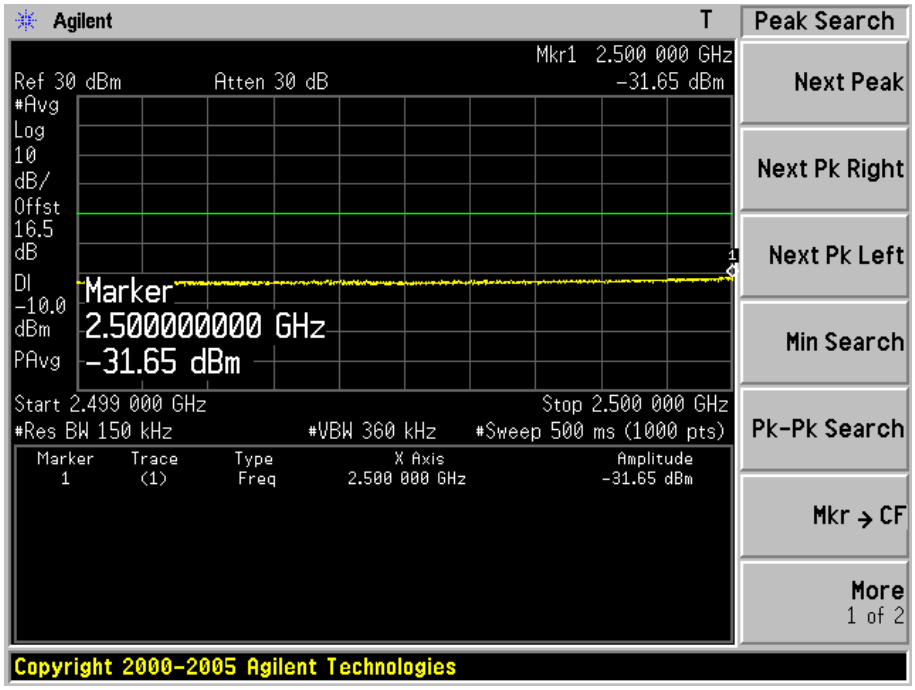


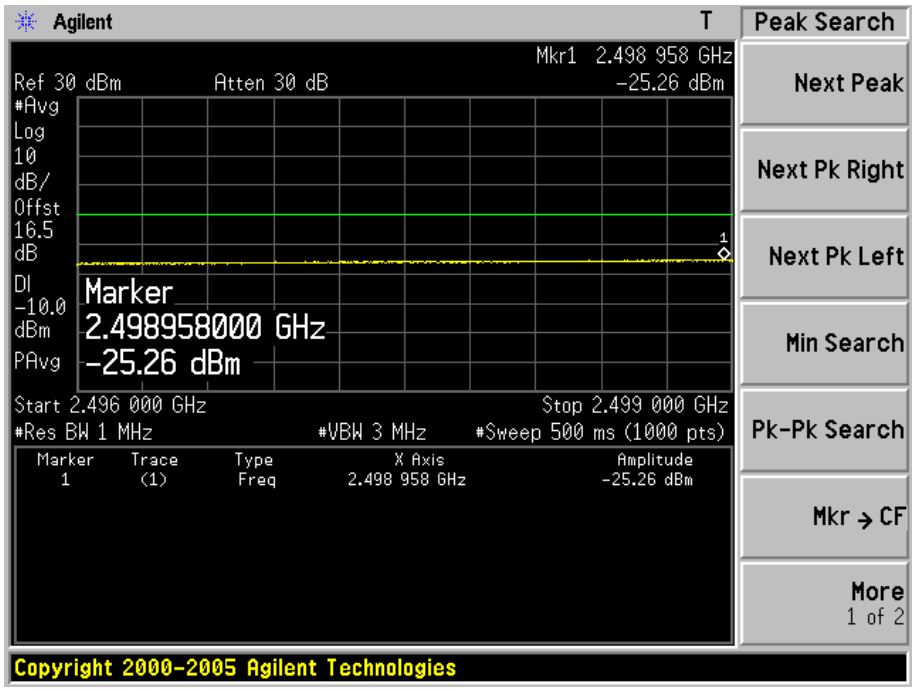


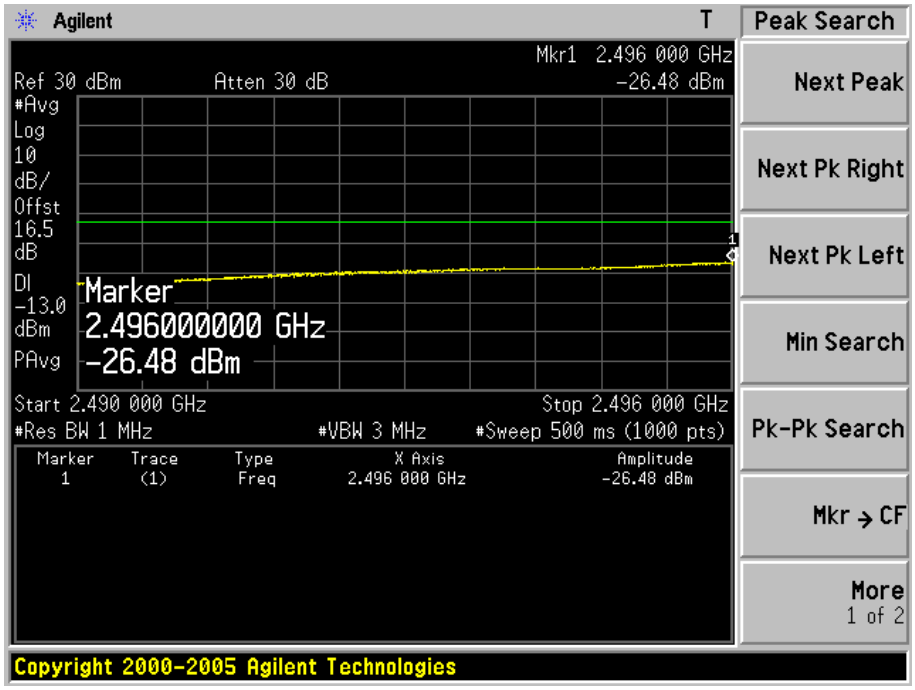

Agilent
T
Peak Search
Mkr1 2.494 060 GHz
Ref 30 dBm
Atten 30 dB
-40.67 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Marker
2.494060000 GHz
-40.67 dBm
Start 2.490 000 GHz
Stop 2.496 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.494 060 GHz -40.67 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.489 68 GHz
Ref 30 dBm
Atten 30 dB
-43.92 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Marker
2.489680000 GHz
-43.92 dBm
Start 2.475 00 GHz
Stop 2.490 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.489 68 GHz -43.92 dBm
Copyright 2000-2005 Agilent Technologies

75RB0


Agilent
T
Peak Search
Mkr1 2.500 000 GHz
Ref 30 dBm
Atten 30 dB
-31.65 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-10.0
dBm
PAvg
Marker
2.500000000 GHz
-31.65 dBm
Min Search
Start 2.499 000 GHz
Stop 2.500 000 GHz
#Res BW 150 kHz
#VBW 360 kHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.500 000 GHz -31.65 dBm
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.498 958 GHz
Ref 30 dBm
Atten 30 dB
-25.26 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-10.0
dBm
PAvg
Marker
2.498958000 GHz
-25.26 dBm
Min Search
Start 2.496 000 GHz
Stop 2.499 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.498 958 GHz -25.26 dBm
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.496 000 GHz
Ref 30 dBm
Atten 30 dB
-26.48 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-13.0
dBm
PAvg
Marker
2.496000000 GHz
-26.48 dBm
Start 2.490 000 GHz
Stop 2.496 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.496 000 GHz -26.48 dBm
Copyright 2000-2005 Agilent Technologies

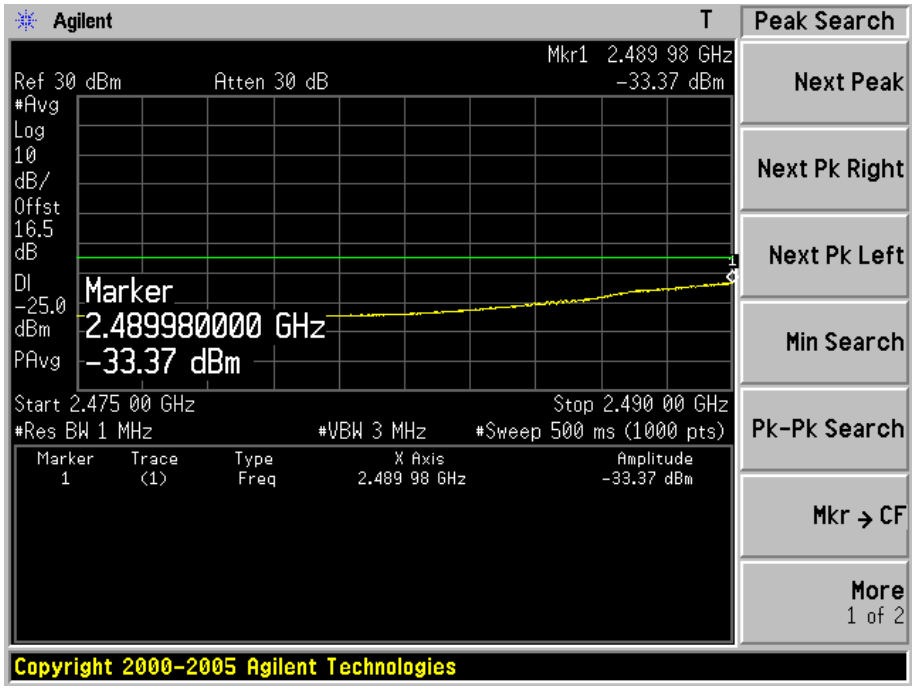
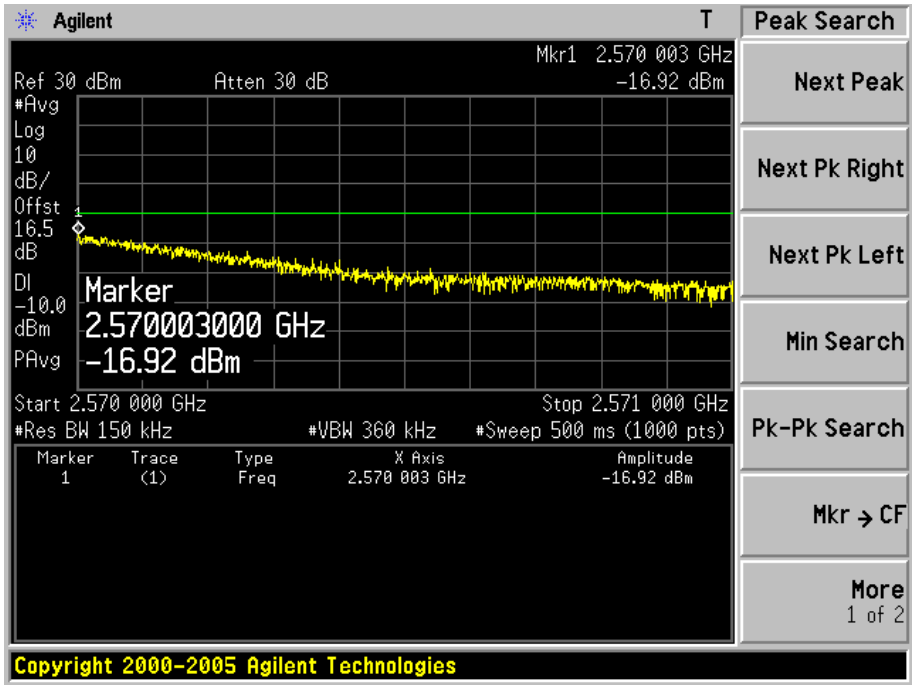
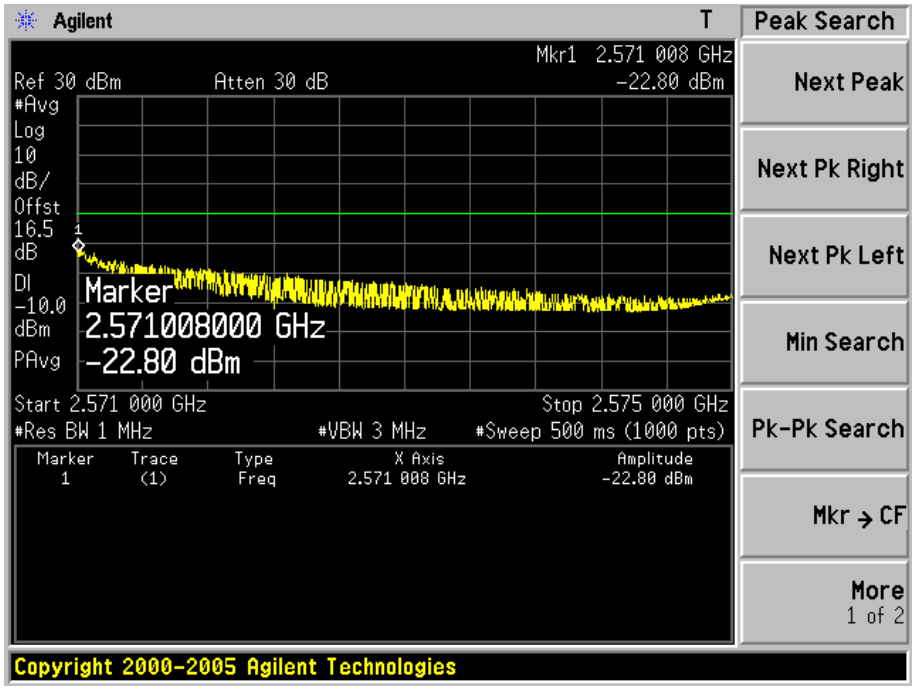
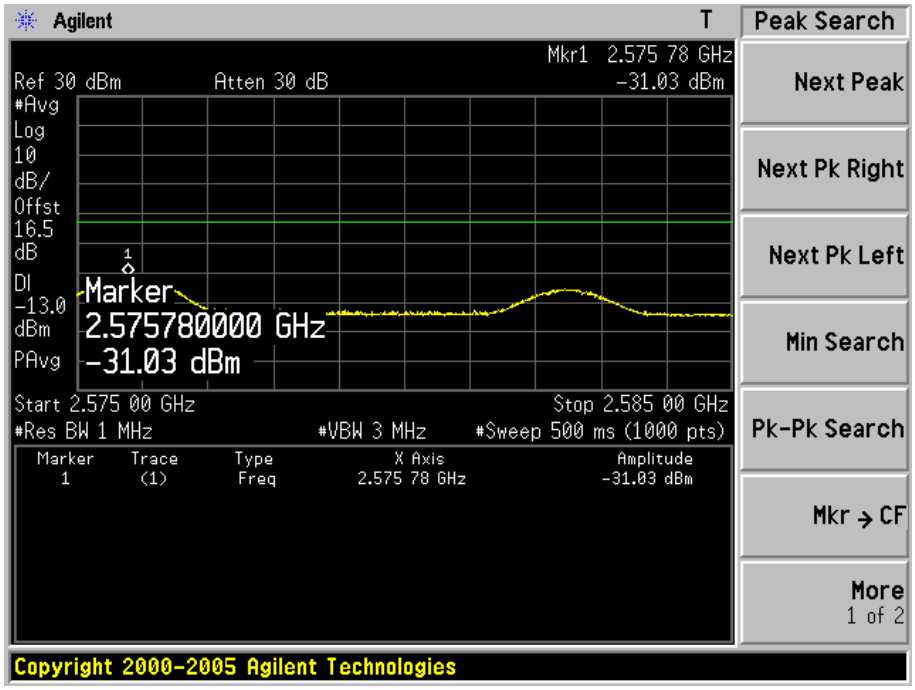

Agilent
T
Peak Search
Mkr1 2.489 98 GHz
Ref 30 dBm
Atten 30 dB
-33.37 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-25.0
dBm
PAvg
Marker
2.489980000 GHz
-33.37 dBm
Start 2.475 00 GHz
Stop 2.490 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.489 98 GHz -33.37 dBm
Copyright 2000-2005 Agilent Technologies

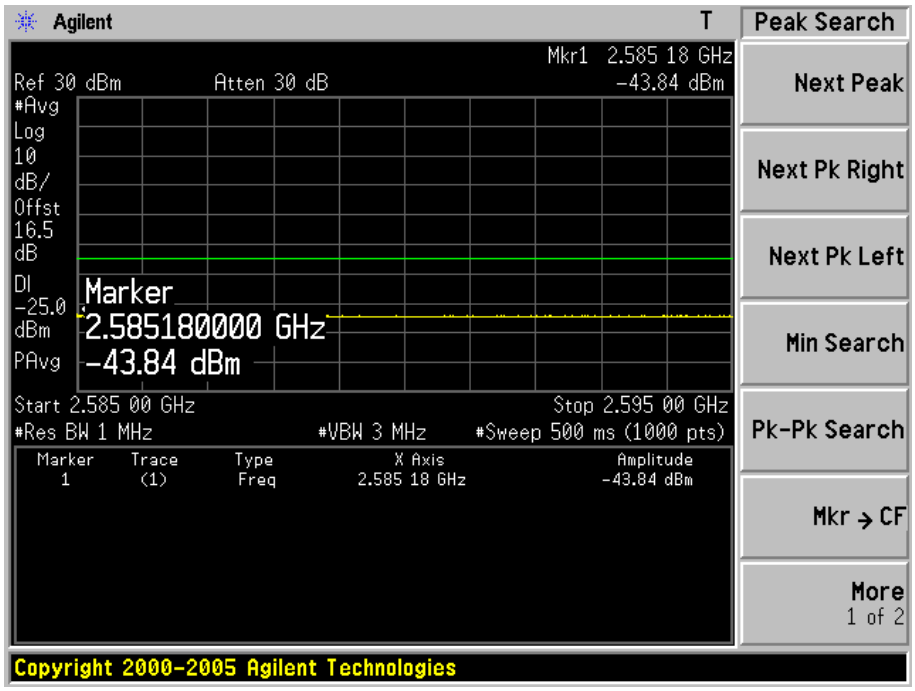
Figure Channel 21375 (2562.5MHz)

1RB74






Agilent
T
Peak Search
Mkr1 2.575 78 GHz
Ref 30 dBm
Atten 30 dB
-31.03 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-13.0
dBm
PAvg
Marker
2.575780000 GHz
-31.03 dBm
Start 2.575 00 GHz
Stop 2.585 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.575 78 GHz -31.03 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.585 18 GHz
Ref 30 dBm
Atten 30 dB
-43.84 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-25.0
dBm
PAvg
Marker
2.585180000 GHz
-43.84 dBm
Start 2.585 00 GHz
Stop 2.595 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.585 18 GHz -43.84 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
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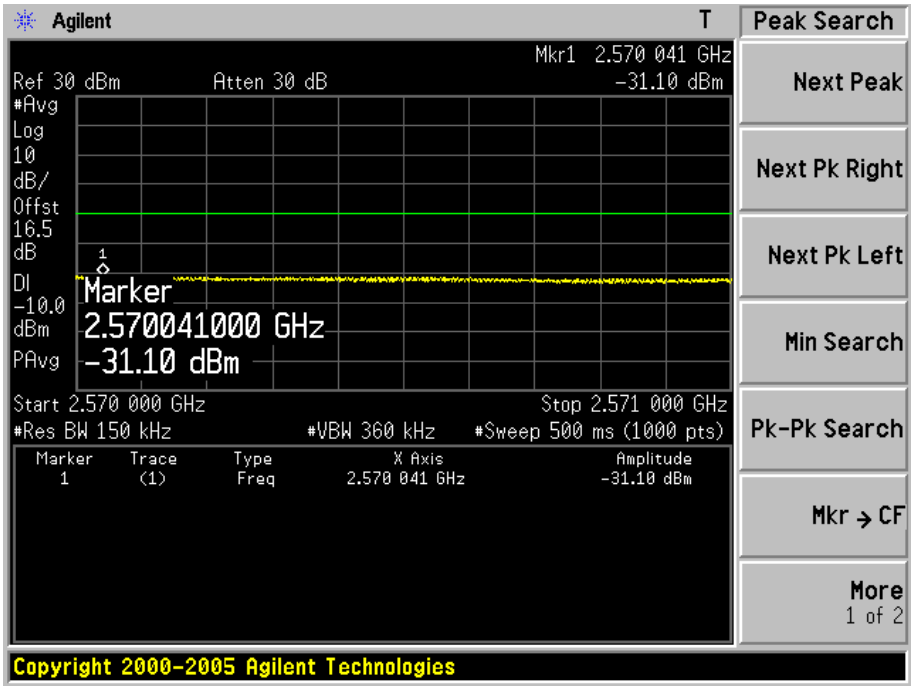
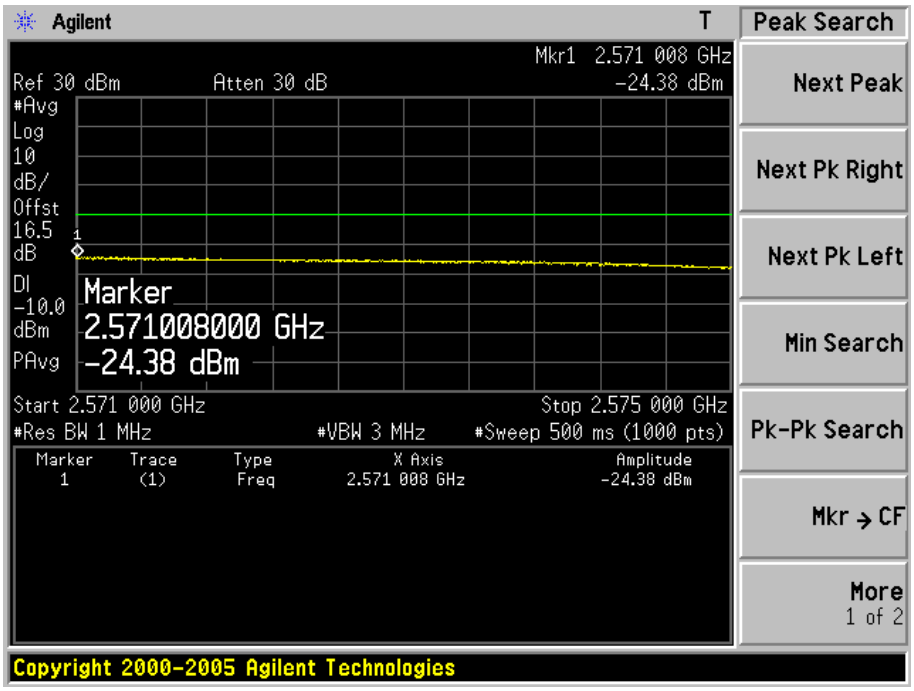
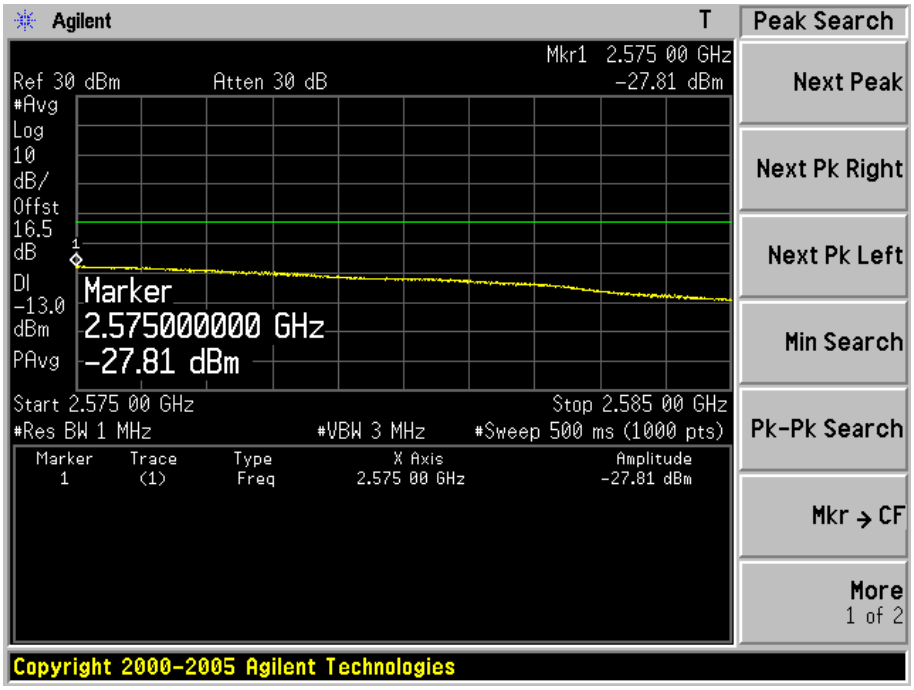
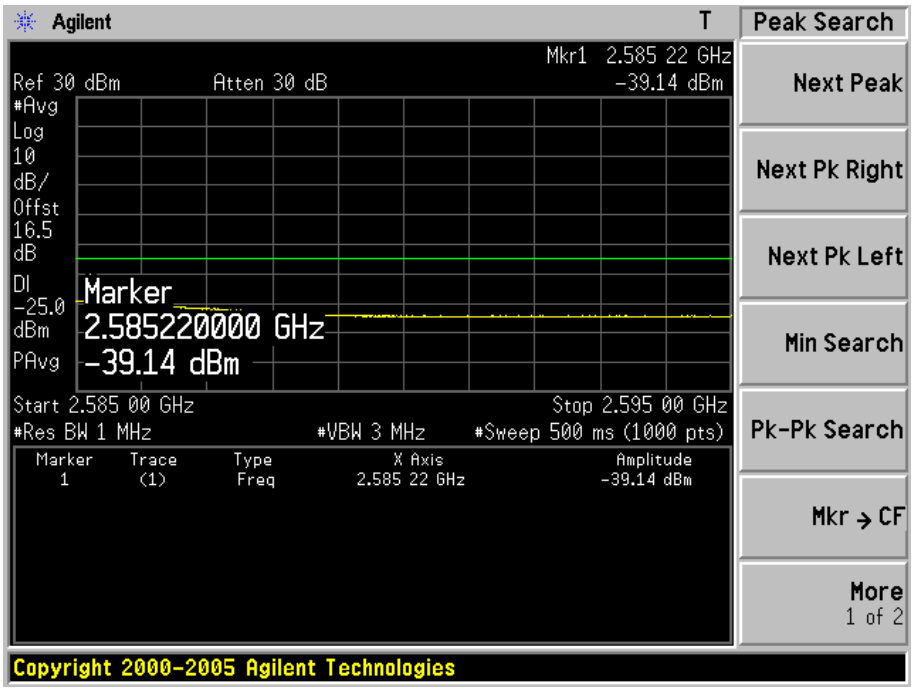
75RB0


Agilent
T
Peak Search
Mkr1 2.570 041 GHz
Ref 30 dBm
Atten 30 dB
-31.10 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-10.0
dBm
PAvg
Marker
2.570041000 GHz
-31.10 dBm
Min Search
Start 2.570 000 GHz
Stop 2.571 000 GHz
#Res BW 150 kHz
#VBW 360 kHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.570 041 GHz -31.10 dBm
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.571 008 GHz
Ref 30 dBm
Atten 30 dB
-24.38 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-10.0
dBm
PAvg
Marker
2.571008000 GHz
-24.38 dBm
Min Search
Start 2.571 000 GHz
Stop 2.575 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.571 008 GHz -24.38 dBm
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies

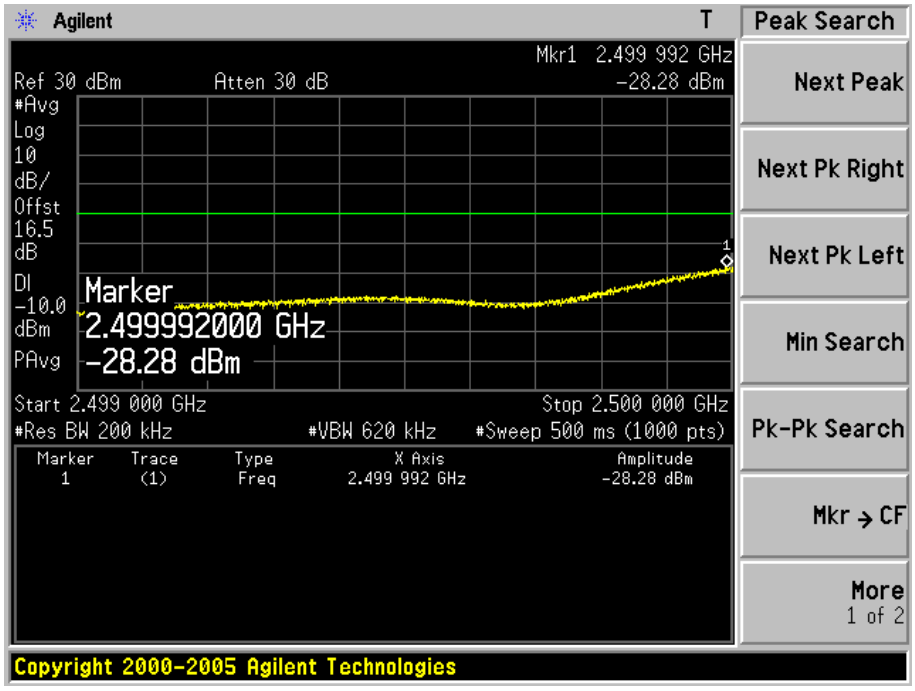

Agilent
T
Peak Search
Mkr1 2.575 00 GHz
Ref 30 dBm
Atten 30 dB
-27.81 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-13.0
dBm
PAvg
Marker
2.575000000 GHz
-27.81 dBm
Start 2.575 00 GHz
Stop 2.585 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.575 00 GHz -27.81 dBm
Copyright 2000-2005 Agilent Technologies

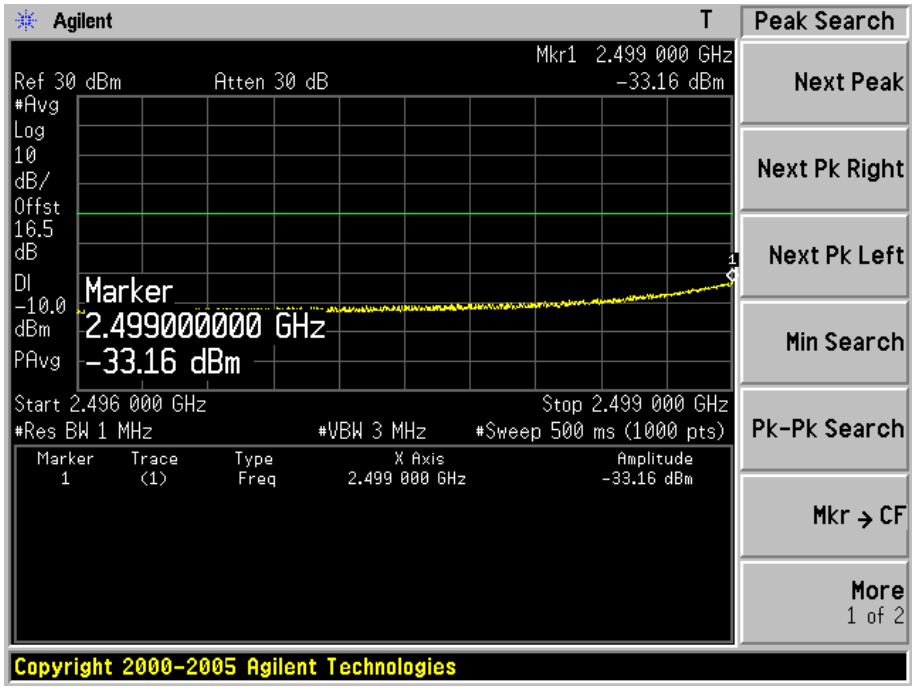

Agilent
T
Peak Search
Mkr1 2.585 22 GHz
Ref 30 dBm
Atten 30 dB
-39.14 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-25.0
dBm
PAvg
Marker
2.585220000 GHz
-39.14 dBm
Start 2.585 00 GHz
Stop 2.595 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.585 22 GHz -39.14 dBm
Copyright 2000-2005 Agilent Technologies

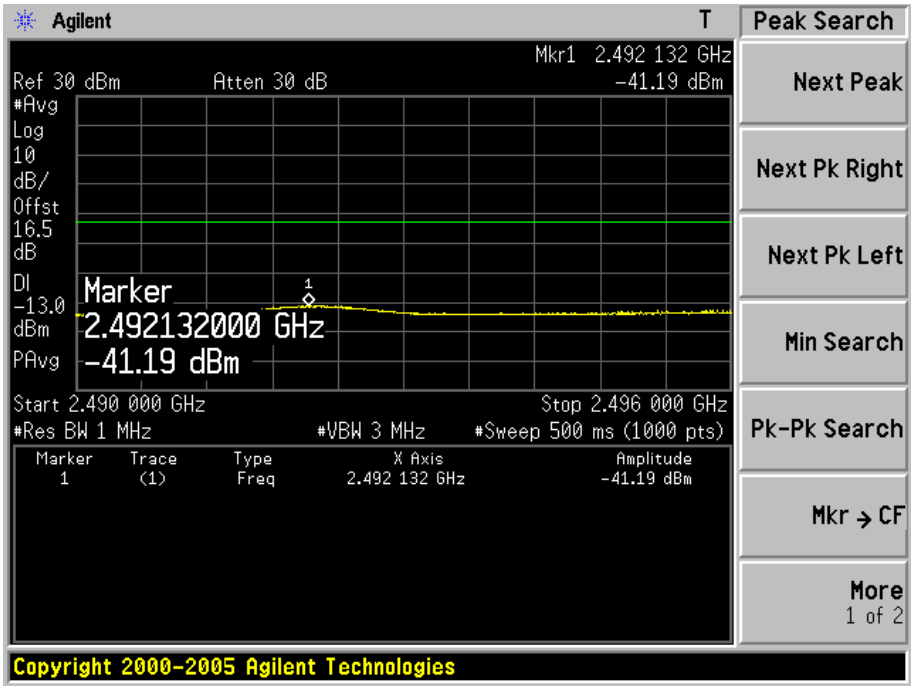
Product	Wireless Module		
Test Item	Conducted Band Edge		
Test Mode	Mode 1: LTE Band VII (20M/QPSK)		
Date of Test	2014/12/07	Test Site	AC6

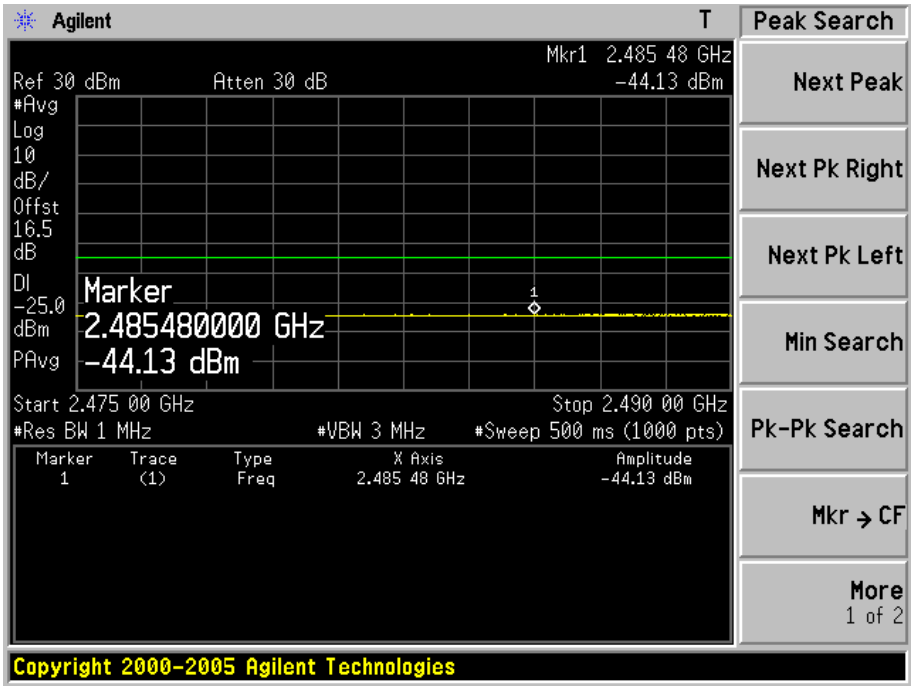
Figure Channel 20850 (2510MHz)

1RB0

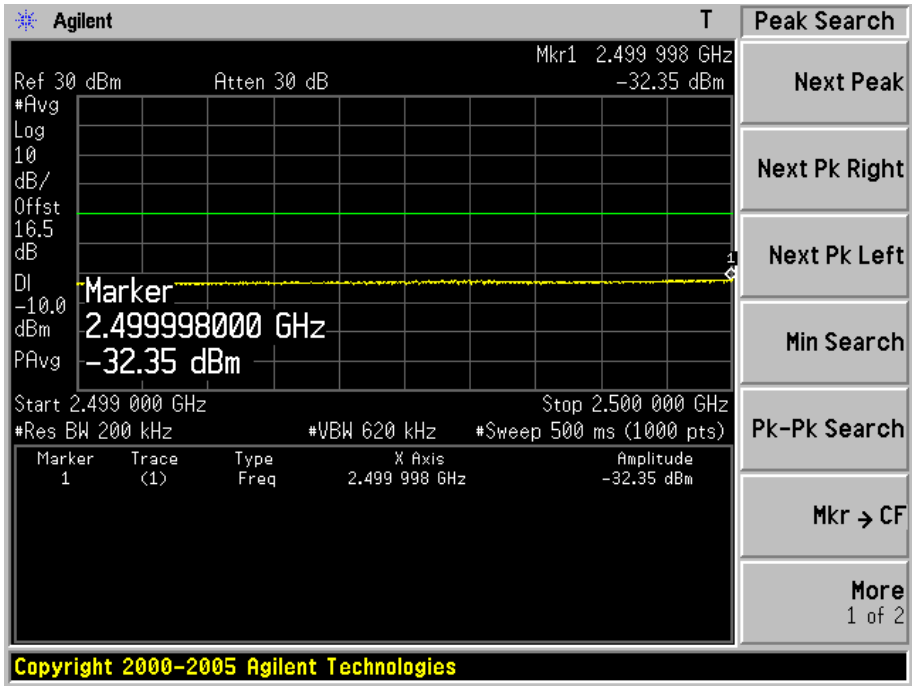


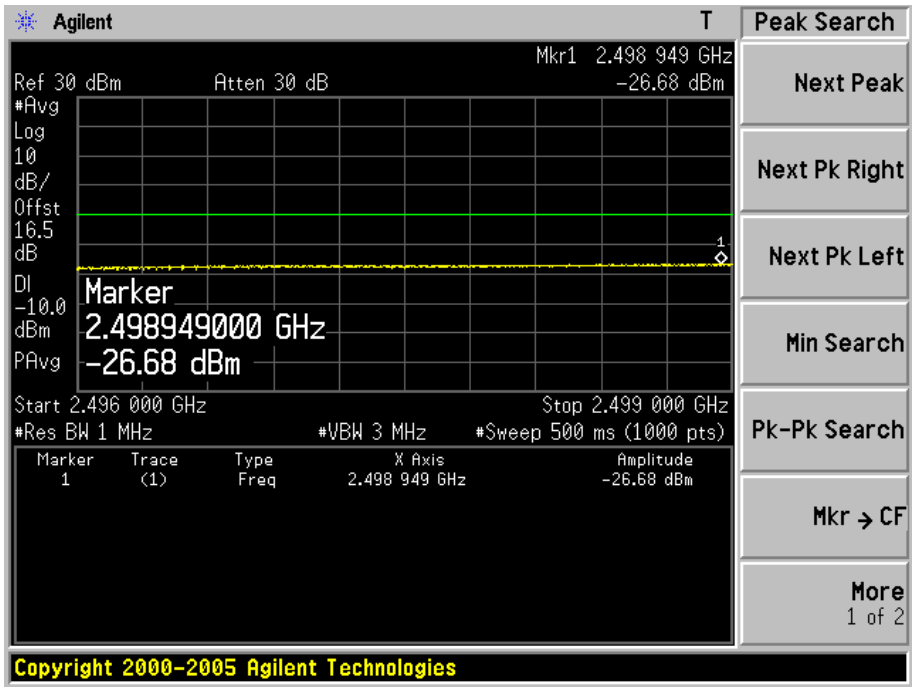


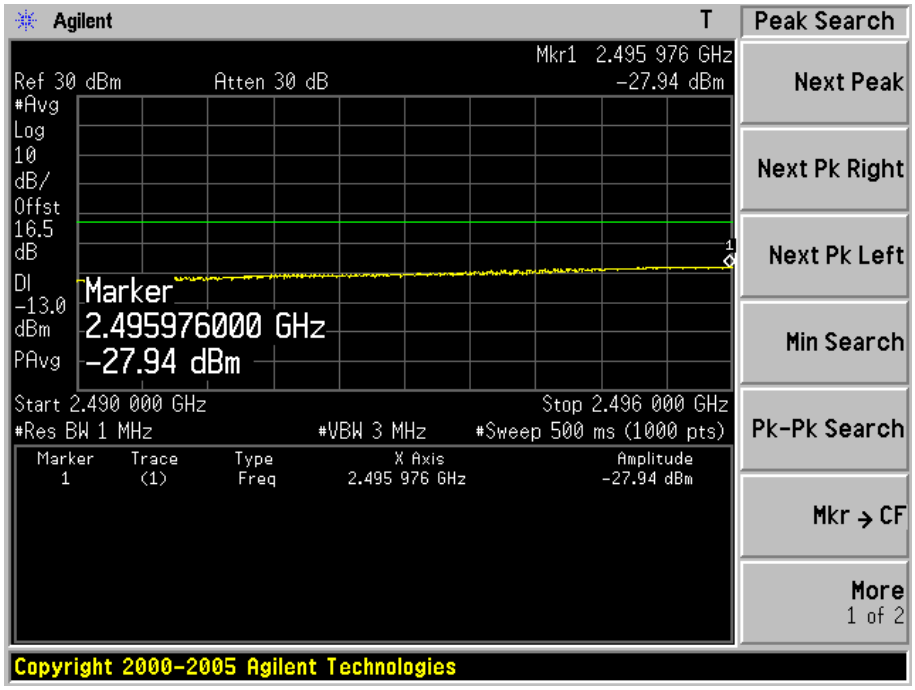

Agilent
T
Peak Search
Mkr1 2.492 132 GHz
Ref 30 dBm
Atten 30 dB
-41.19 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-13.0
dBm
PAvg
Marker
2.492132000 GHz
-41.19 dBm
Start 2.490 000 GHz
Stop 2.496 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.492 132 GHz -41.19 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.485 48 GHz
Ref 30 dBm
Atten 30 dB
-44.13 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-25.0
dBm
PAvg
Marker
2.485480000 GHz
-44.13 dBm
Start 2.475 00 GHz
Stop 2.490 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.485 48 GHz -44.13 dBm
Copyright 2000-2005 Agilent Technologies

100RB0


Agilent
T
Peak Search
Mkr1 2.499 998 GHz
Ref 30 dBm
Atten 30 dB
-32.35 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-10.0
dBm
PAvg
Marker
2.499998000 GHz
-32.35 dBm
Start 2.499 000 GHz
Stop 2.500 000 GHz
#Res BW 200 kHz
#VBW 620 kHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.499 998 GHz -32.35 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.498 949 GHz
Ref 30 dBm
Atten 30 dB
-26.68 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-10.0
dBm
PAvg
Marker
2.498949000 GHz
-26.68 dBm
Start 2.496 000 GHz
Stop 2.499 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.498 949 GHz -26.68 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.495 976 GHz
Ref 30 dBm
Atten 30 dB
-27.94 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-13.0
dBm
PAvg
Marker
2.495976000 GHz
-27.94 dBm
Start 2.490 000 GHz
Stop 2.496 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.495 976 GHz -27.94 dBm
Copyright 2000-2005 Agilent Technologies

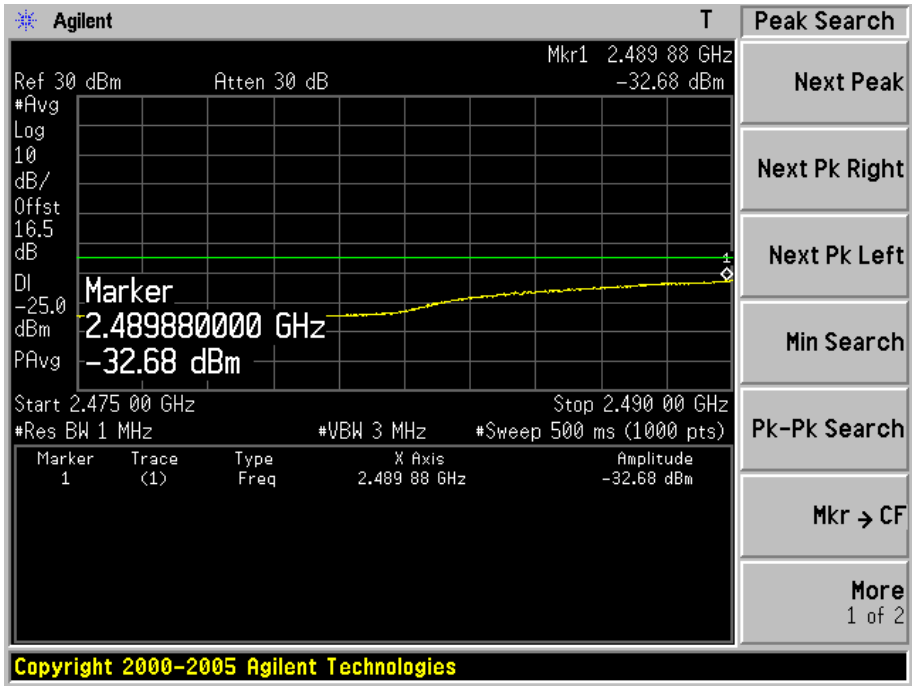
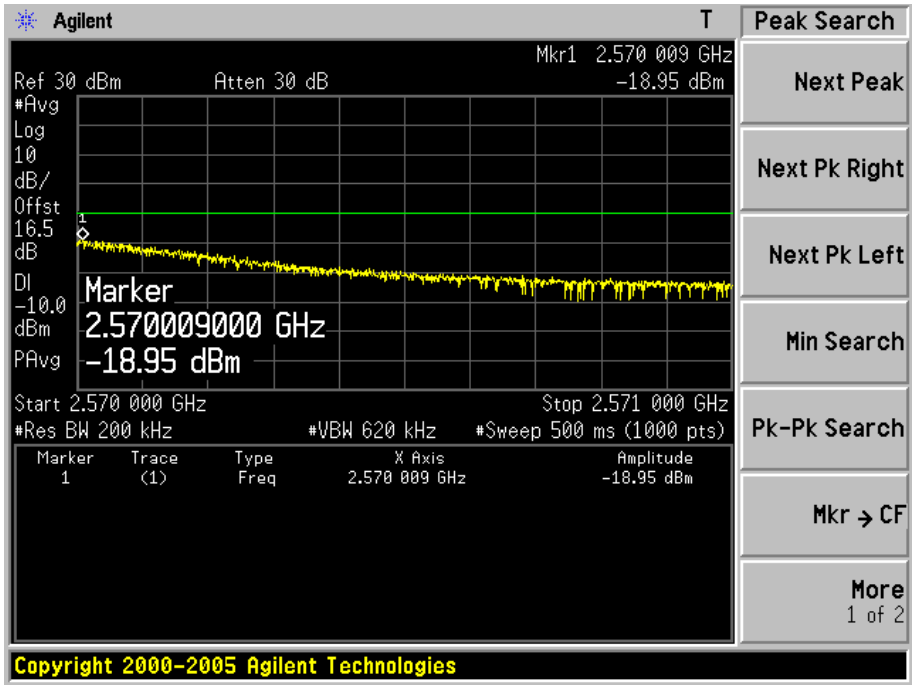
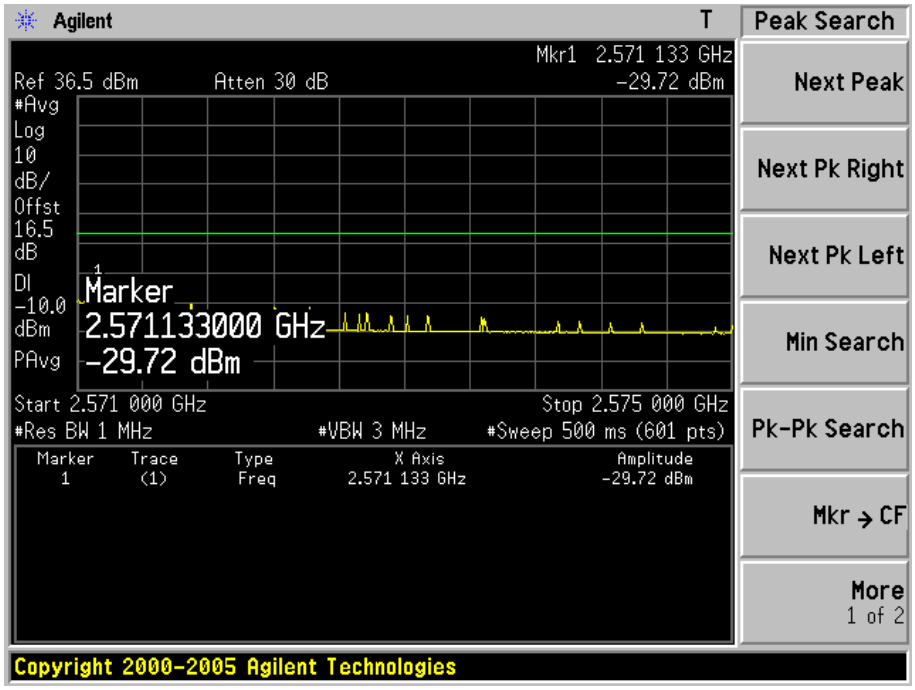
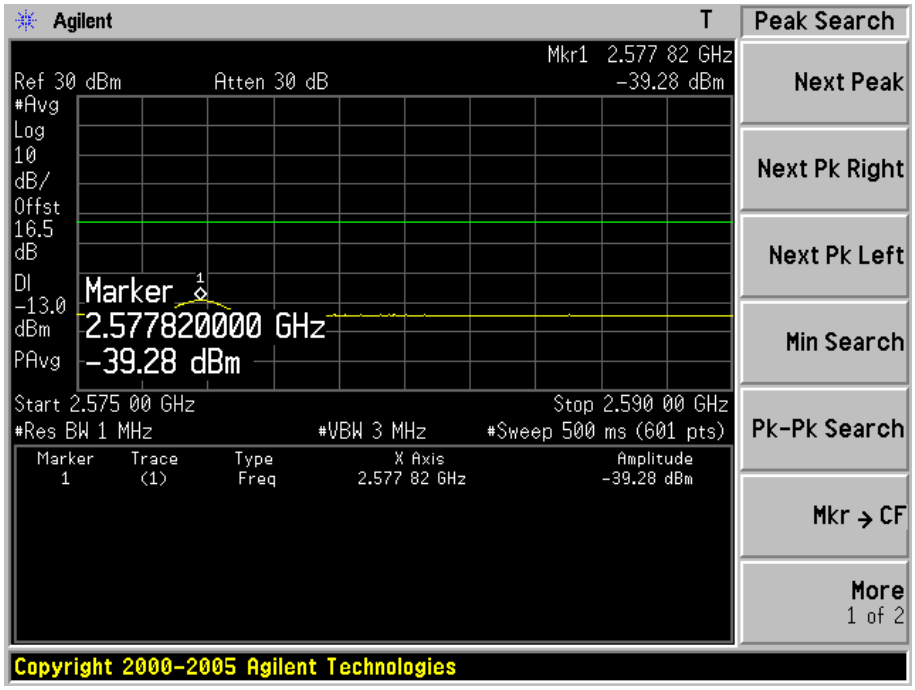

Agilent
T
Peak Search
Mkr1 2.489 88 GHz
Ref 30 dBm
Atten 30 dB
-32.68 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-25.0
dBm
PAvg
Marker
2.489880000 GHz
-32.68 dBm
Start 2.475 00 GHz
Stop 2.490 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.489 88 GHz -32.68 dBm
Copyright 2000-2005 Agilent Technologies

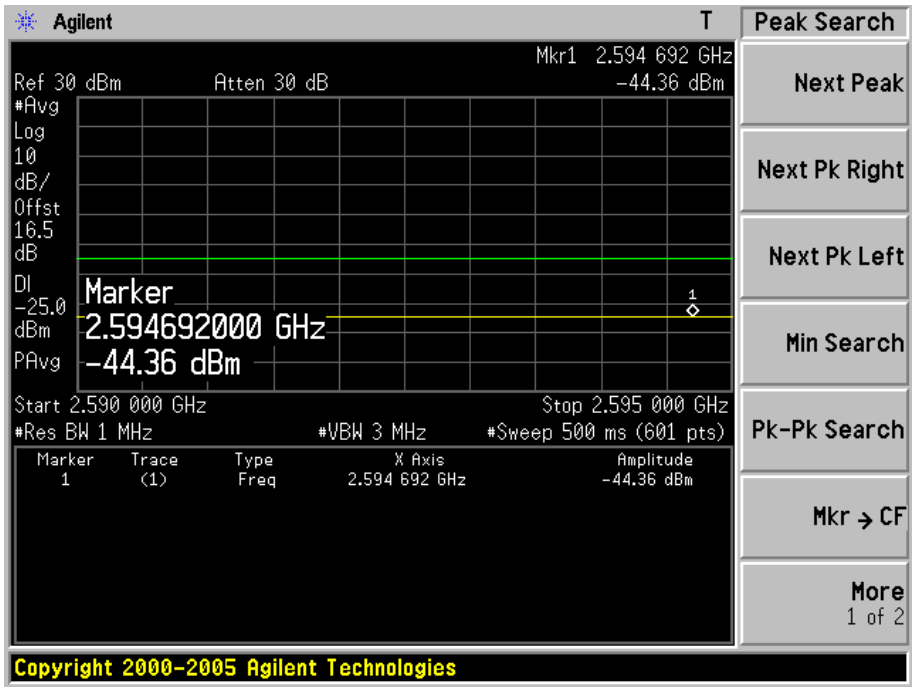
Figure Channel 21350 (2560MHz)

1RB99

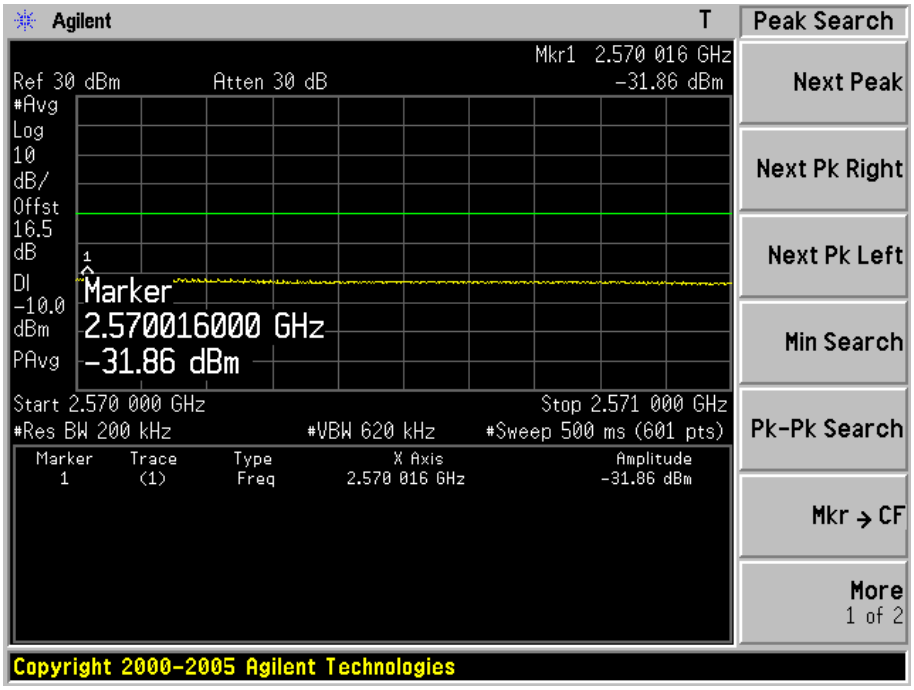


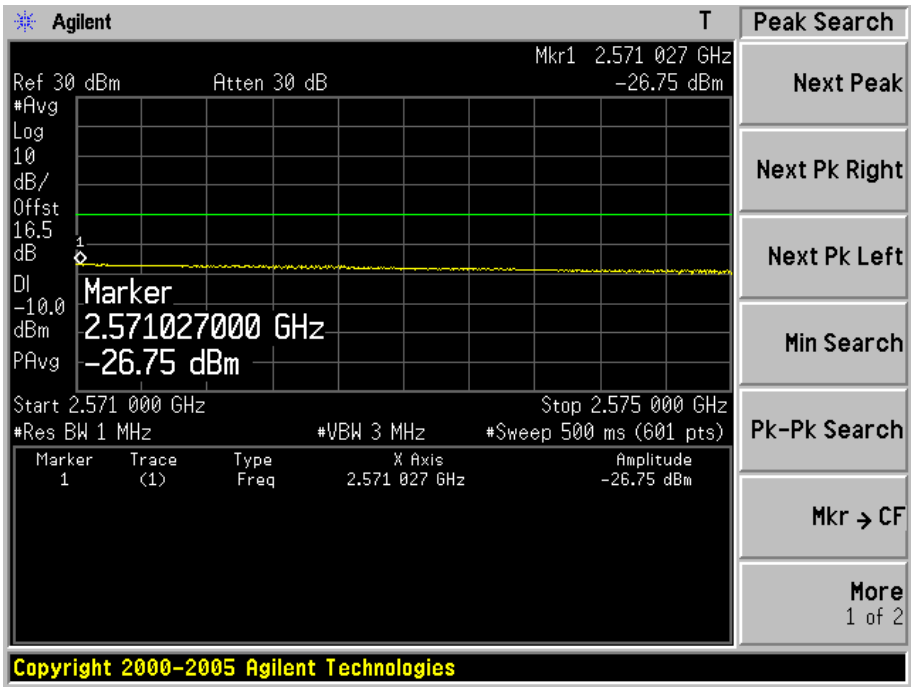


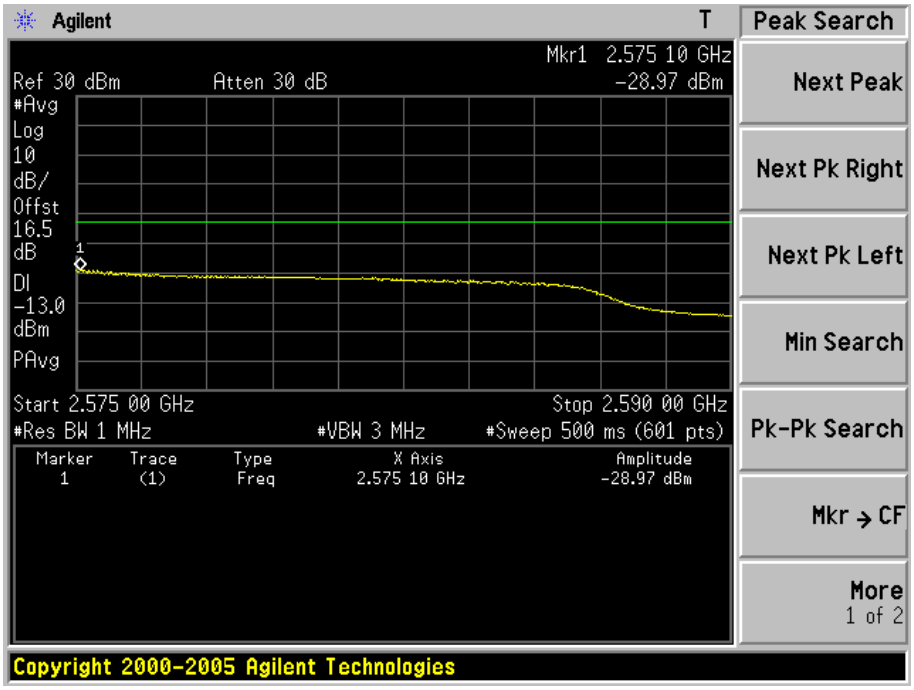

Agilent
T
Peak Search
Mkr1 2.577 82 GHz
Ref 30 dBm
Atten 30 dB
-39.28 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-13.0
dBm
PAvg
Marker 1
2.577820000 GHz
-39.28 dBm
Start 2.575 00 GHz
Stop 2.590 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.577 82 GHz -39.28 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies

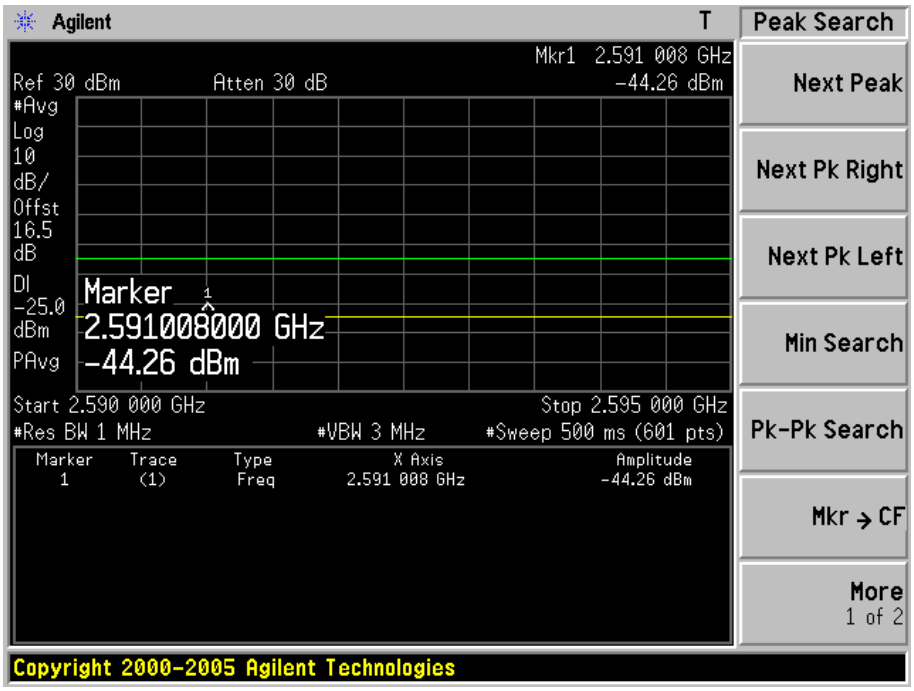

Agilent
T
Peak Search
Mkr1 2.594 692 GHz
Ref 30 dBm
Atten 30 dB
-44.36 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-25.0
dBm
PAvg
Marker 1
2.594692000 GHz
-44.36 dBm
Start 2.590 000 GHz
Stop 2.595 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.594 692 GHz -44.36 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies

100RB0


Agilent
T
Peak Search
Mkr1 2.570 016 GHz
Ref 30 dBm
Atten 30 dB
-31.86 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-10.0
dBm
PAvg
Marker
2.570016000 GHz
-31.86 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 2.570 000 GHz
Stop 2.571 000 GHz
#Res BW 200 kHz
#VBW 620 kHz
#Sweep 500 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.570 016 GHz -31.86 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.571 027 GHz
Ref 30 dBm
Atten 30 dB
-26.75 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-10.0
dBm
PAvg
Marker
2.571027000 GHz
-26.75 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 2.571 000 GHz
Stop 2.575 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.571 027 GHz -26.75 dBm
Copyright 2000-2005 Agilent Technologies

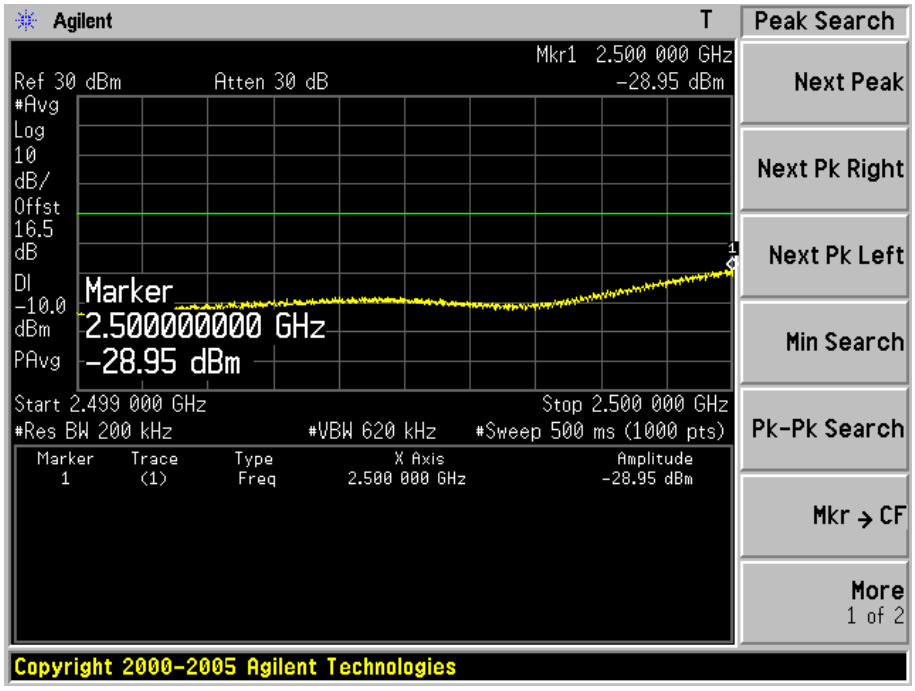

Agilent
T
Peak Search
Mkr1 2.575 10 GHz
Ref 30 dBm
Atten 30 dB
-28.97 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-13.0
dBm
PAvg
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 2.575 00 GHz
Stop 2.590 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.575 10 GHz -28.97 dBm
Copyright 2000-2005 Agilent Technologies

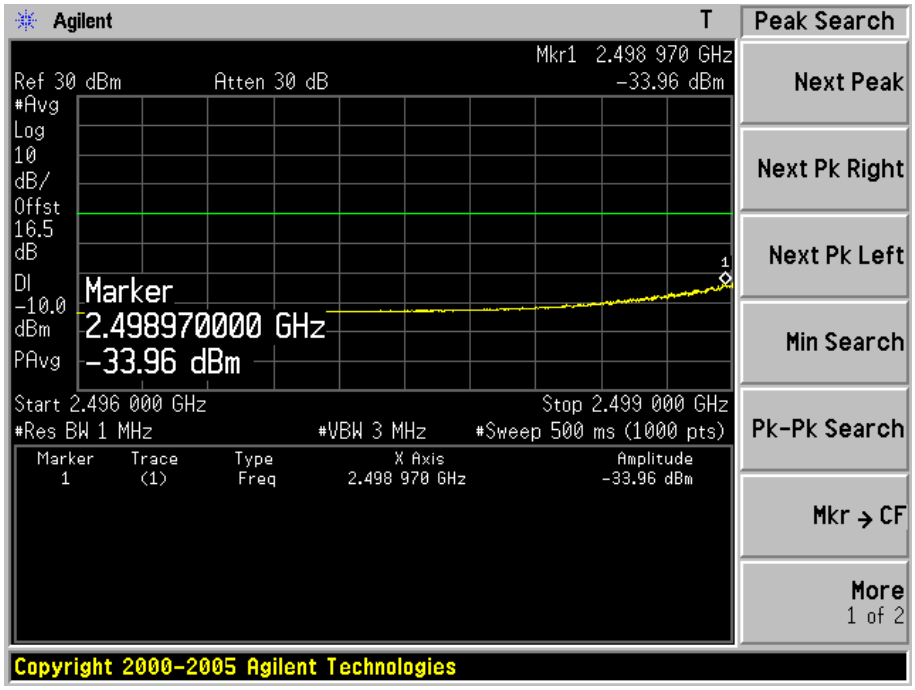

Agilent
T
Peak Search
Mkr1 2.591 008 GHz
Ref 30 dBm
Atten 30 dB
-44.26 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-25.0
dBm
PAvg
Marker 1
2.591008000 GHz
-44.26 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 2.590 000 GHz
Stop 2.595 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.591 008 GHz -44.26 dBm
Copyright 2000-2005 Agilent Technologies

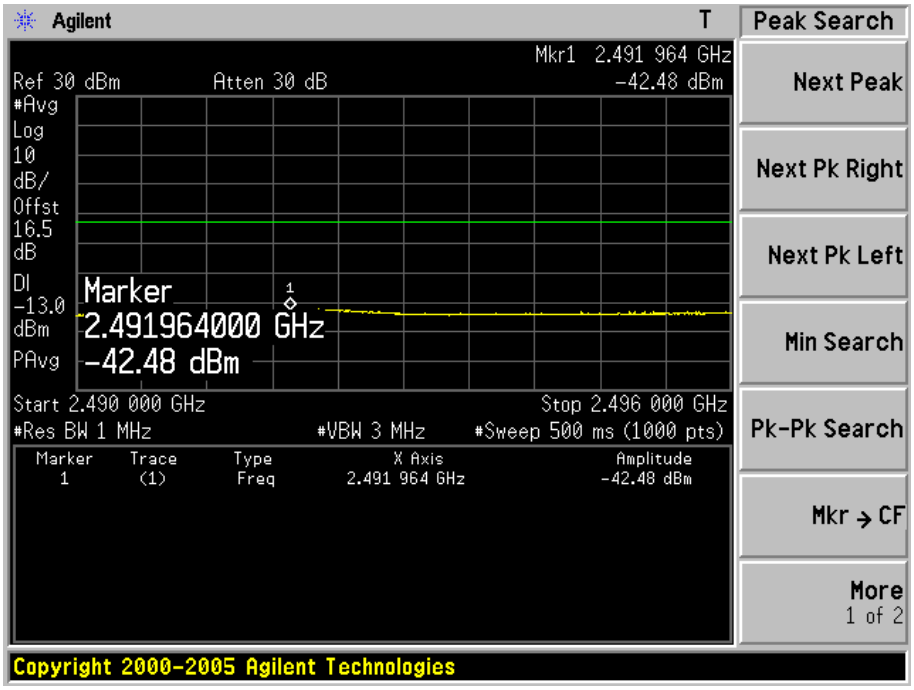
Product	Wireless Module		
Test Item	Conducted Band Edge		
Test Mode	Mode 1: LTE Band VII (20M/16QAM)		
Date of Test	2014/12/07	Test Site	AC6

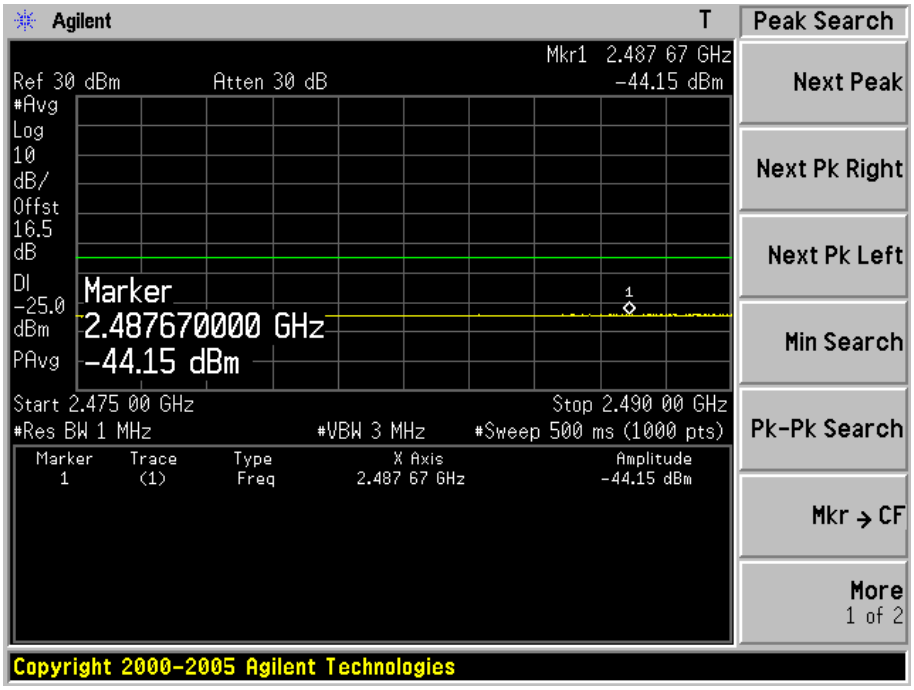
Figure Channel 20850 (2510MHz)

1RB0

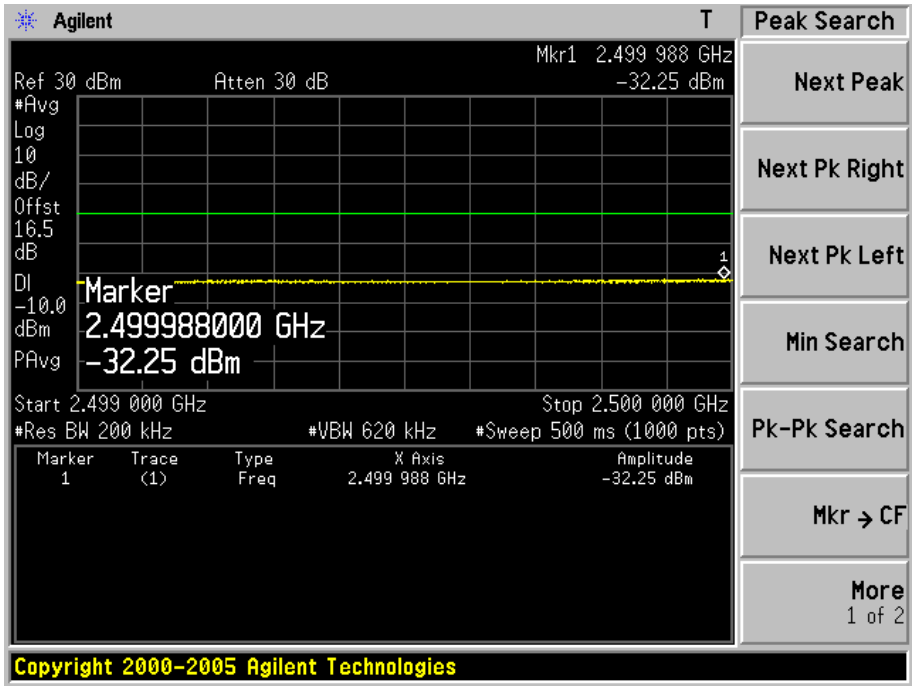


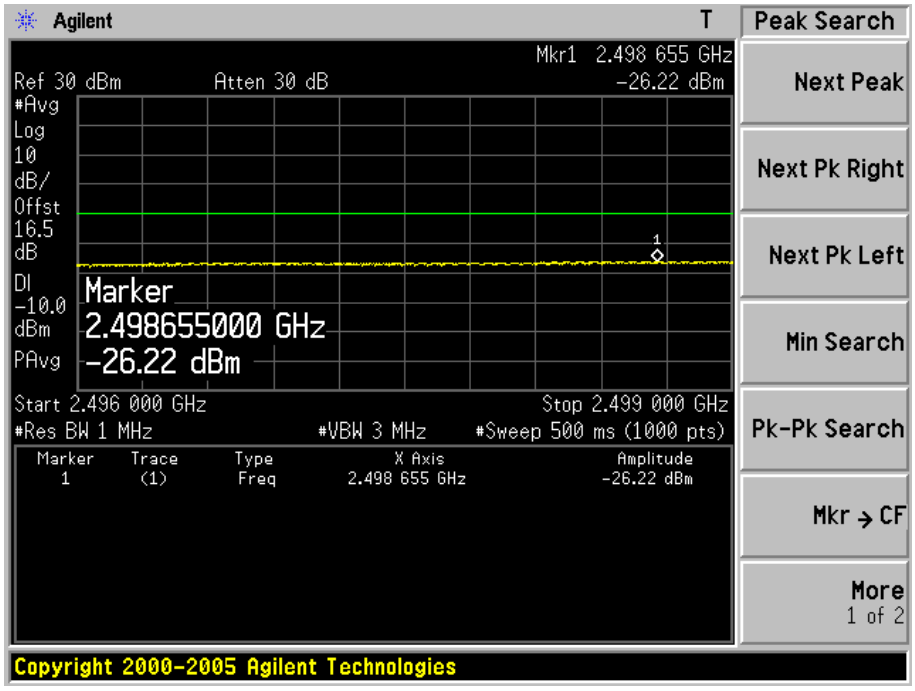


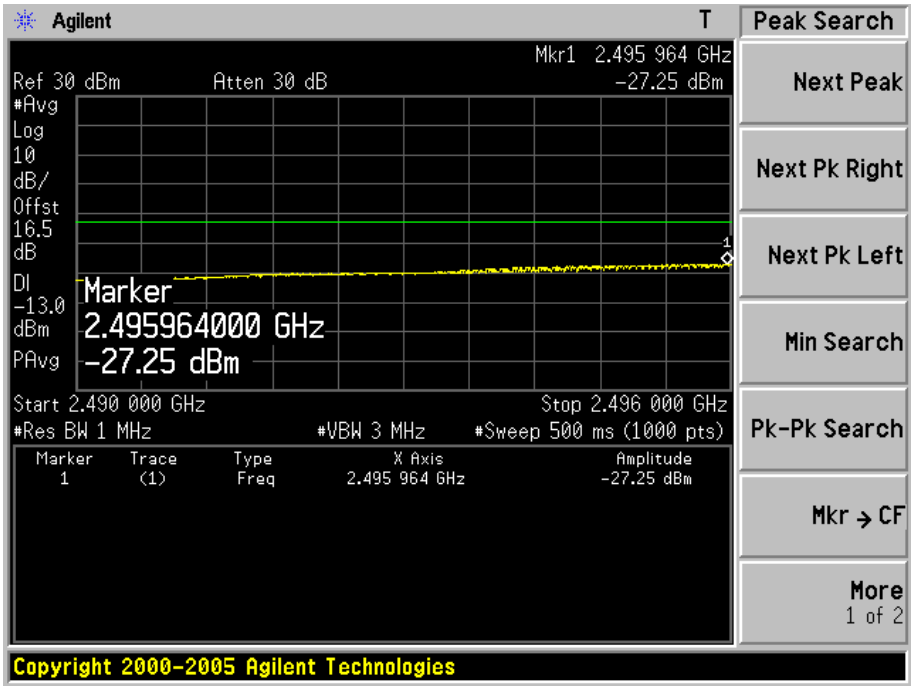

Agilent
T
Peak Search
Mkr1 2.491 964 GHz
Ref 30 dBm
Atten 30 dB
-42.48 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Marker
2.491964000 GHz
-42.48 dBm
Start 2.490 000 GHz
Stop 2.496 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.491 964 GHz -42.48 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.487 67 GHz
Ref 30 dBm
Atten 30 dB
-44.15 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Marker
2.487670000 GHz
-44.15 dBm
Start 2.475 00 GHz
Stop 2.490 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.487 67 GHz -44.15 dBm
Copyright 2000-2005 Agilent Technologies

100RB0


Agilent
T
Peak Search
Mkr1 2.499 988 GHz
Ref 30 dBm
Atten 30 dB
-32.25 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-10.0
dBm
PAvg
Marker
2.499988000 GHz
-32.25 dBm
Min Search
Start 2.499 000 GHz
Stop 2.500 000 GHz
#Res BW 200 kHz
#VBW 620 kHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.499 988 GHz -32.25 dBm
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.498 655 GHz
Ref 30 dBm
Atten 30 dB
-26.22 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-10.0
dBm
PAvg
Marker
2.498655000 GHz
-26.22 dBm
Min Search
Start 2.496 000 GHz
Stop 2.499 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.498 655 GHz -26.22 dBm
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.495 964 GHz
Ref 30 dBm
Atten 30 dB
-27.25 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-13.0
dBm
PAvg
Marker
2.495964000 GHz
-27.25 dBm
Start 2.490 000 GHz
Stop 2.496 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.495 964 GHz -27.25 dBm
Copyright 2000-2005 Agilent Technologies

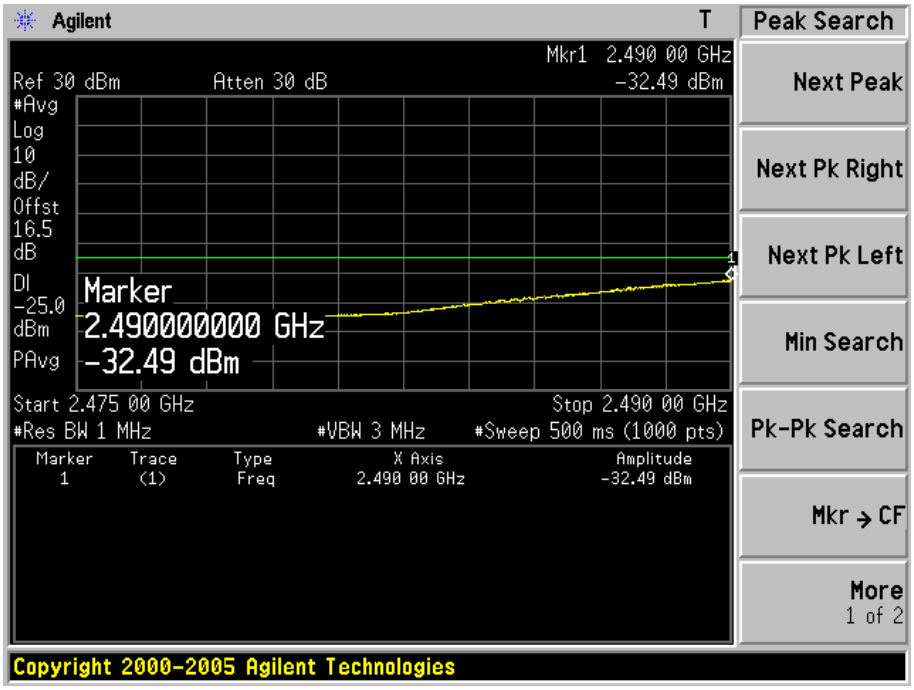
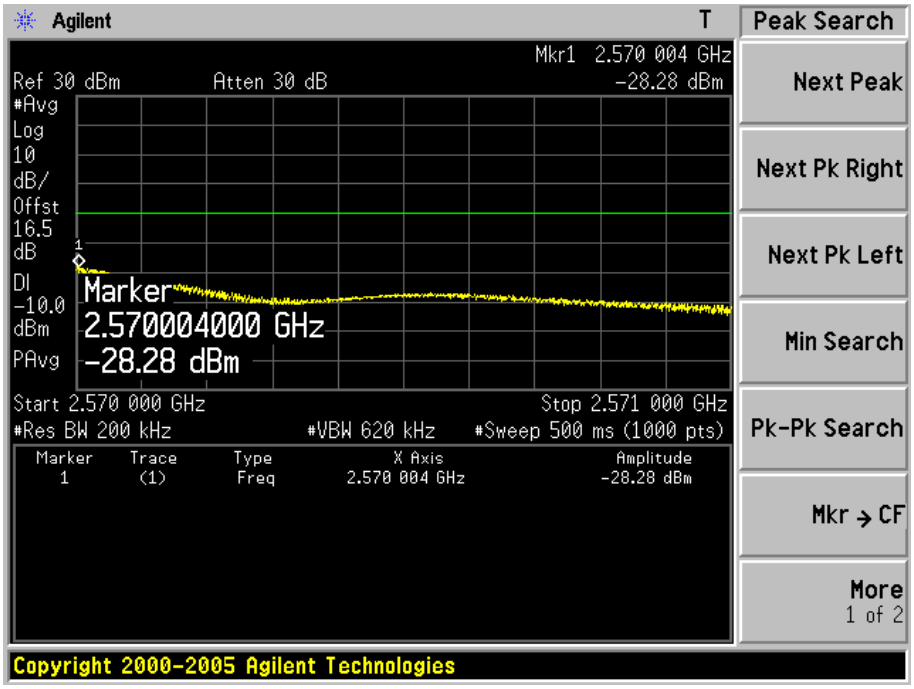
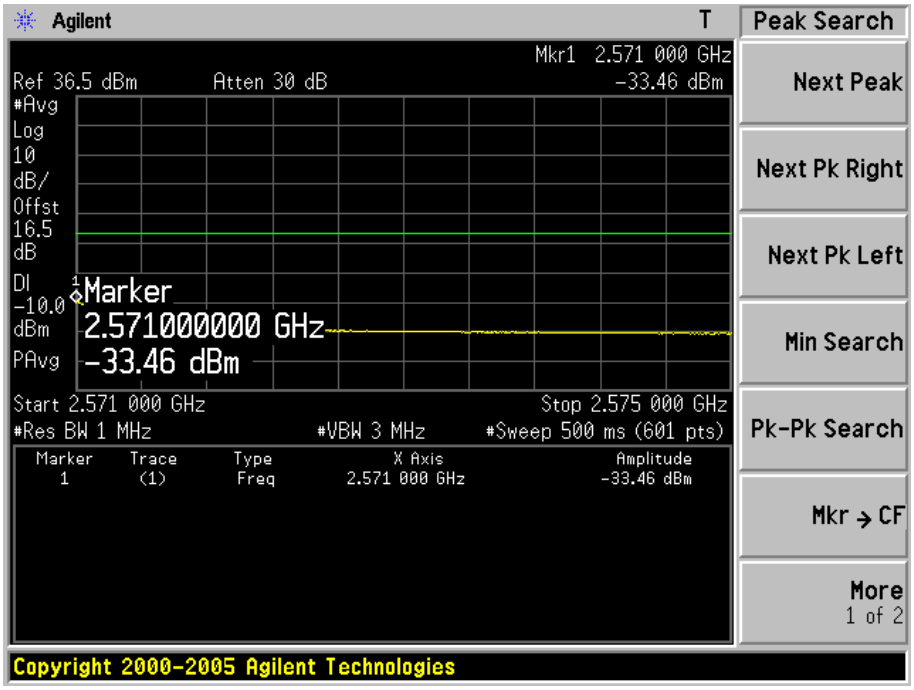
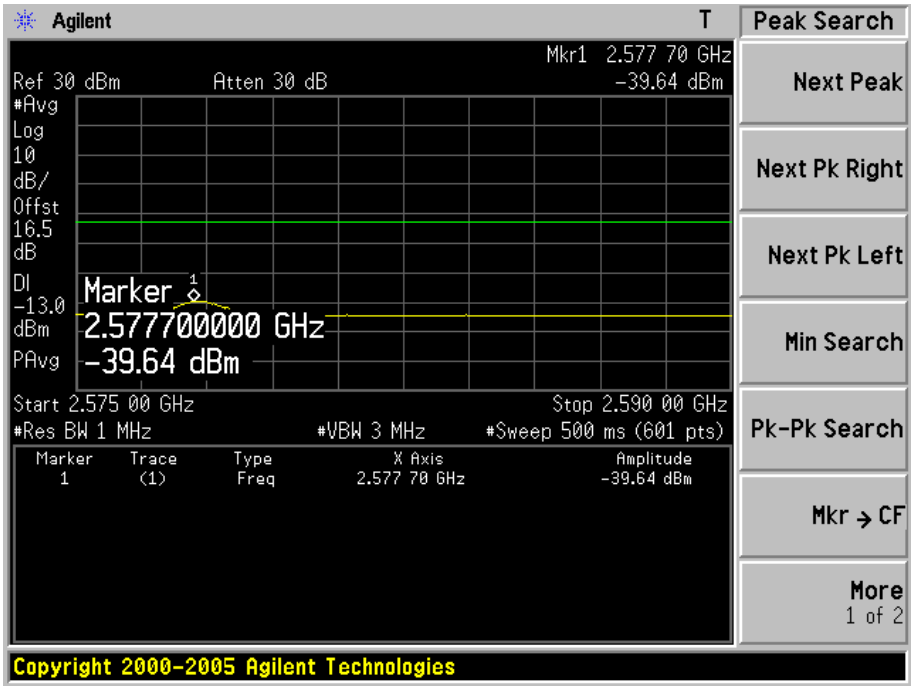

Agilent
T
Peak Search
Mkr1 2.490 00 GHz
Ref 30 dBm
Atten 30 dB
-32.49 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Dl
-25.0
dBm
PAvg
Marker
2.490000000 GHz
-32.49 dBm
Start 2.475 00 GHz
Stop 2.490 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (1000 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.490 00 GHz -32.49 dBm
Copyright 2000-2005 Agilent Technologies

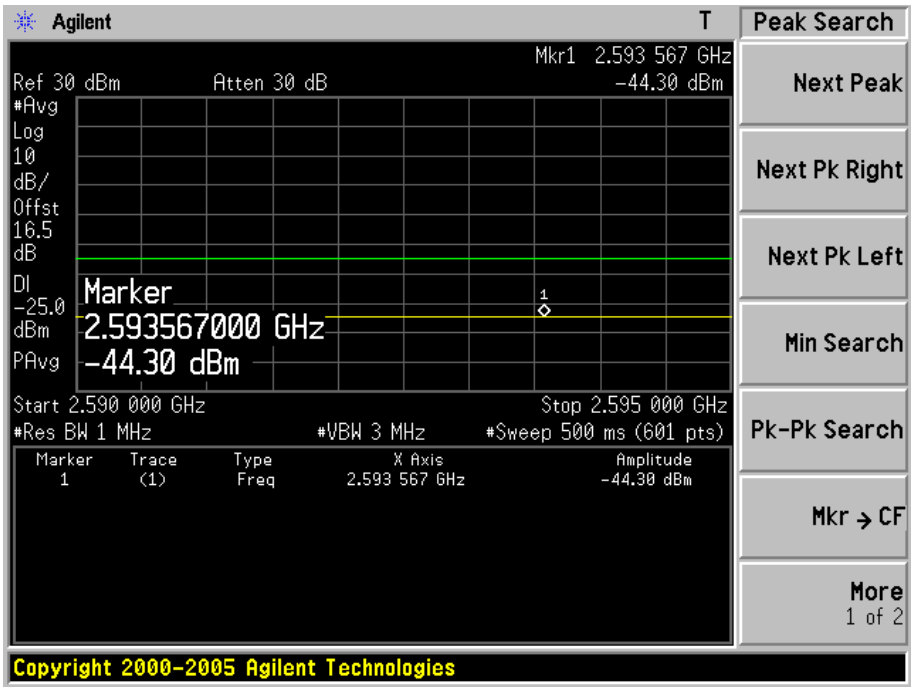
Figure Channel 21350 (2560MHz)

1RB99

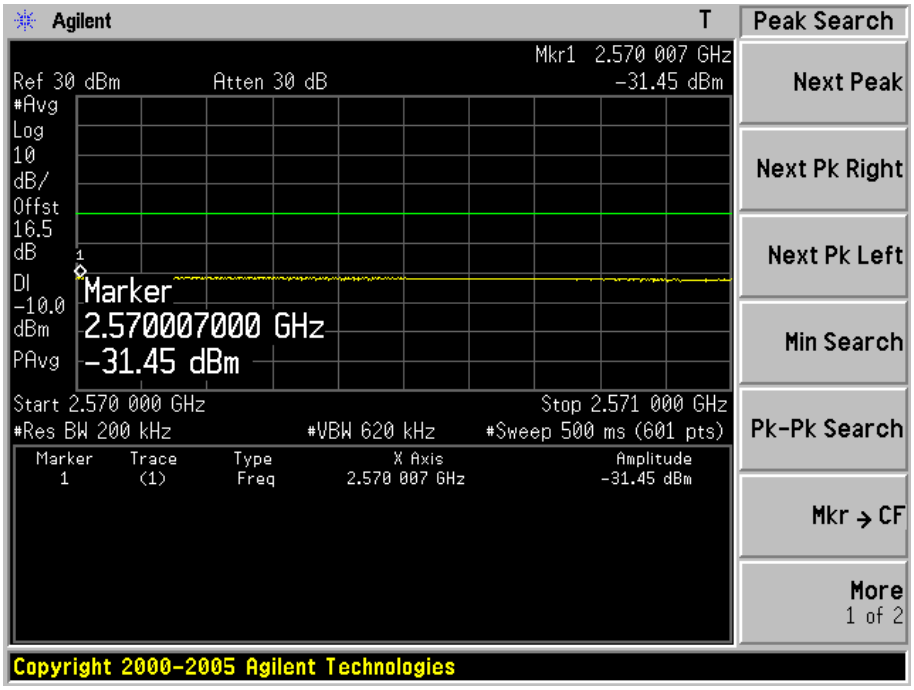


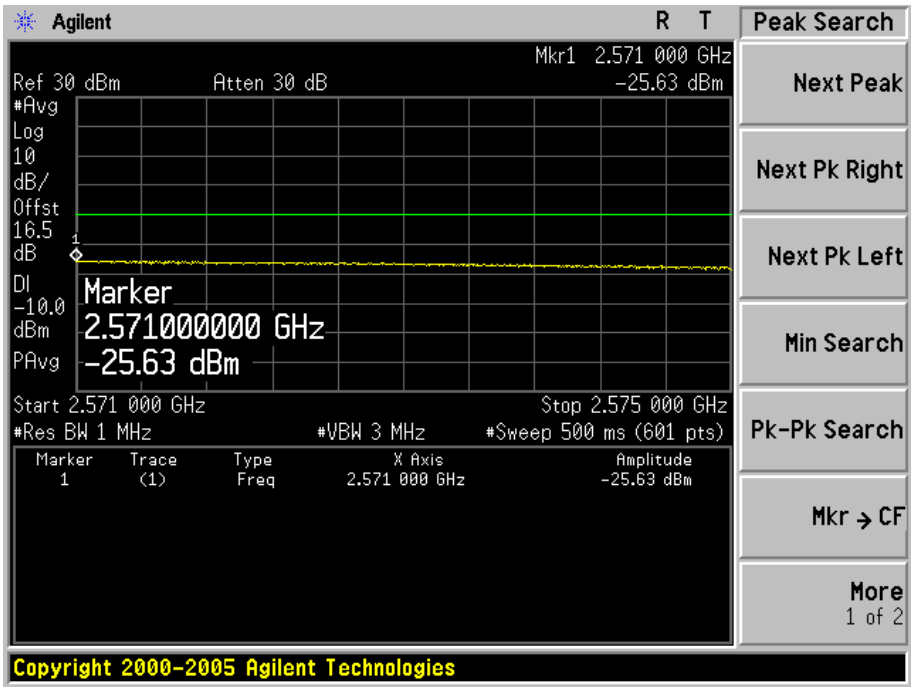


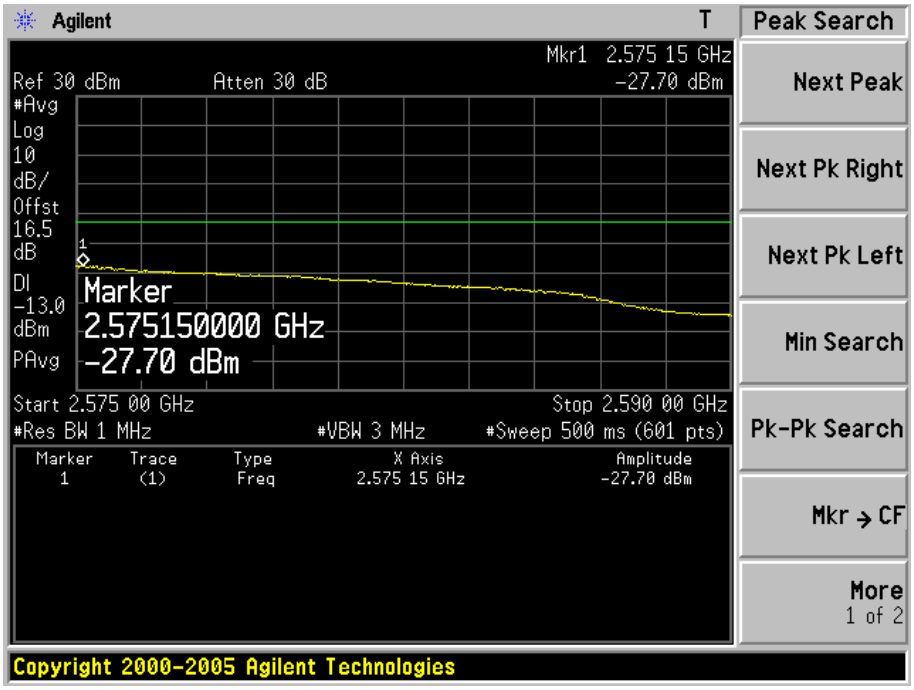

Agilent
T
Peak Search
Mkr1 2.577 70 GHz
Ref 30 dBm
Atten 30 dB
-39.64 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-13.0
dBm
PAvg
Marker 1
2.577700000 GHz
-39.64 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 2.575 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
Stop 2.590 00 GHz
#Sweep 500 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.577 70 GHz -39.64 dBm
Copyright 2000-2005 Agilent Technologies

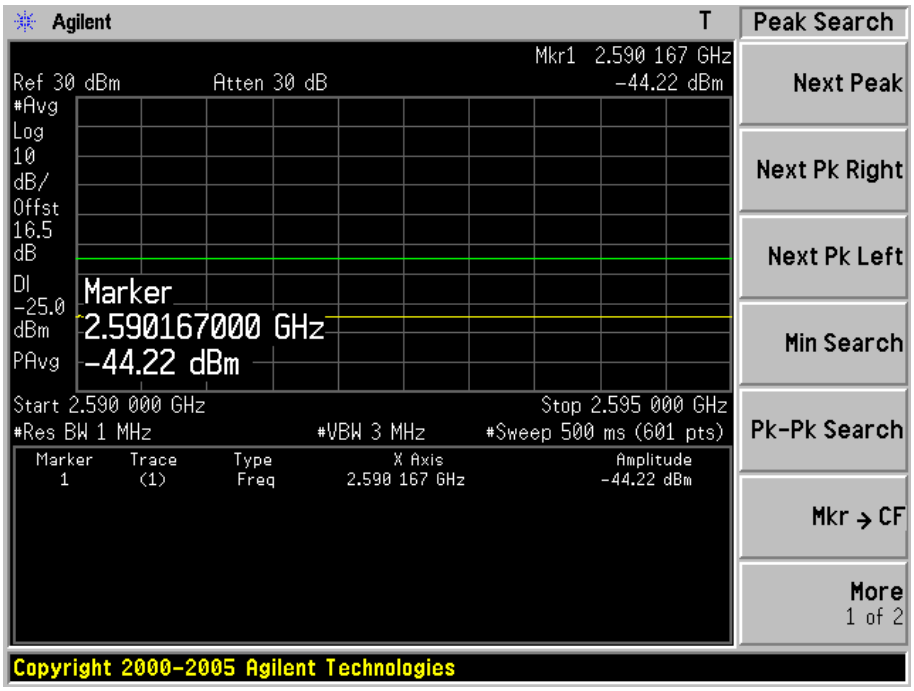

Agilent
T
Peak Search
Mkr1 2.593 567 GHz
Ref 30 dBm
Atten 30 dB
-44.30 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-25.0
dBm
PAvg
Marker 1
2.593567000 GHz
-44.30 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 2.590 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
Stop 2.595 000 GHz
#Sweep 500 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.593 567 GHz -44.30 dBm
Copyright 2000-2005 Agilent Technologies

100RB0


Agilent
T
Peak Search
Mkr1 2.570 007 GHz
Ref 30 dBm
Atten 30 dB
-31.45 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-10.0
dBm
PAvg
Marker
2.570007000 GHz
-31.45 dBm
Min Search
Start 2.570 000 GHz
Stop 2.571 000 GHz
#Res BW 200 kHz
#VBW 620 kHz
#Sweep 500 ms (601 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.570 007 GHz -31.45 dBm
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
R T
Peak Search
Mkr1 2.571 000 GHz
Ref 30 dBm
Atten 30 dB
-25.63 dBm
Next Peak
#Avg
Log
10
dB/
Offst
16.5
dB
Next Pk Right
Next Pk Left
Dl
-10.0
dBm
PAvg
Marker
2.571000000 GHz
-25.63 dBm
Min Search
Start 2.571 000 GHz
Stop 2.575 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (601 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.571 000 GHz -25.63 dBm
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.575 15 GHz
Ref 30 dBm
Atten 30 dB
-27.70 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-13.0
dBm
PAvg
Marker
2.575150000 GHz
-27.70 dBm
Start 2.575 00 GHz
Stop 2.590 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.575 15 GHz -27.70 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
T
Peak Search
Mkr1 2.590 167 GHz
Ref 30 dBm
Atten 30 dB
-44.22 dBm
#Avg
Log
10
dB/
Offst
16.5
dB
Dl
-25.0
dBm
PAvg
Marker
2.590167000 GHz
-44.22 dBm
Start 2.590 000 GHz
Stop 2.595 000 GHz
#Res BW 1 MHz
#VBW 3 MHz
#Sweep 500 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.590 167 GHz -44.22 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies

7. Spurious Emission

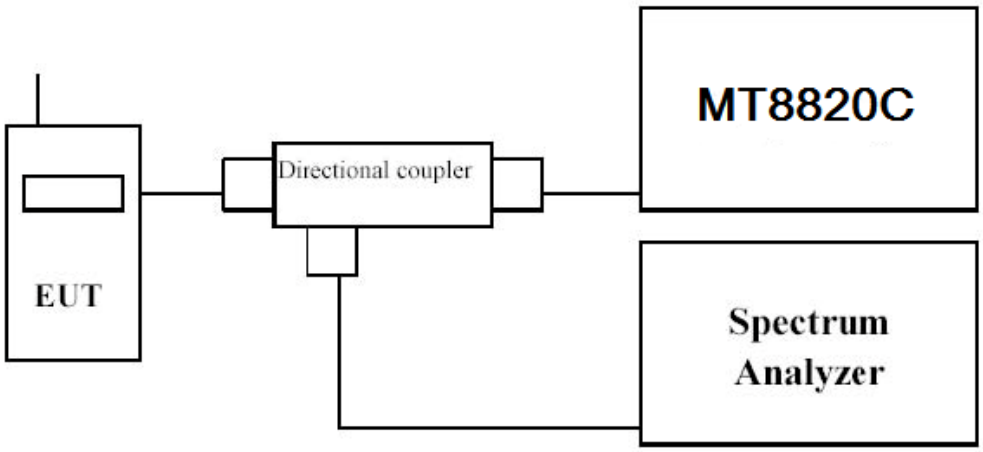
7.1. Test Equipment

Spurious Emission / AC-5

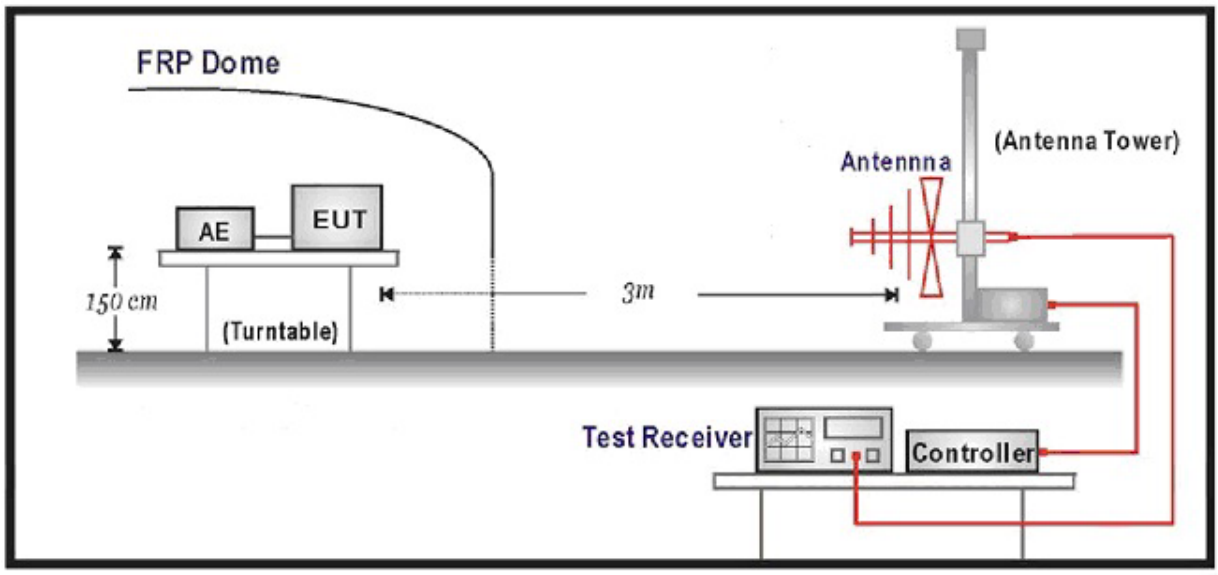
Instrument	Manufacturer	Type No.	Serial No	Cali. Due Date
PSA Series Spectrum Analyzer	Agilent	E4440A	MY49420184	2015.03.28
Radio Communication Tester	Anritsu	MT8820C	6201181503	2015.03.28
Dual Directional Coupler	Agilent	778D	20160	2015.03.28
10dB Coaxial Coupler	Agilent	87300C	MY44300299	2015.03.28
PSG Analog Signal Generator	Agilent	E8257D	MY44321116	2015.03.28
Preamplifier	QuieTek	AP-025C	CHM-0503006	2015.04.11
Preamplifier	Miteq	NSP1800-25	1364185	2015.05.03
Bilog Antenna	Teseq GmbH	CBL6112D	27612	2015.10.15
Half Wave Tuned Dipole Antenna	COM-POWER	AD-100	40137	2016.02.26
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	737	2016.02.26
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	499	2015.06.08
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC5-TH	2015.01.08

7.2. Test Setup

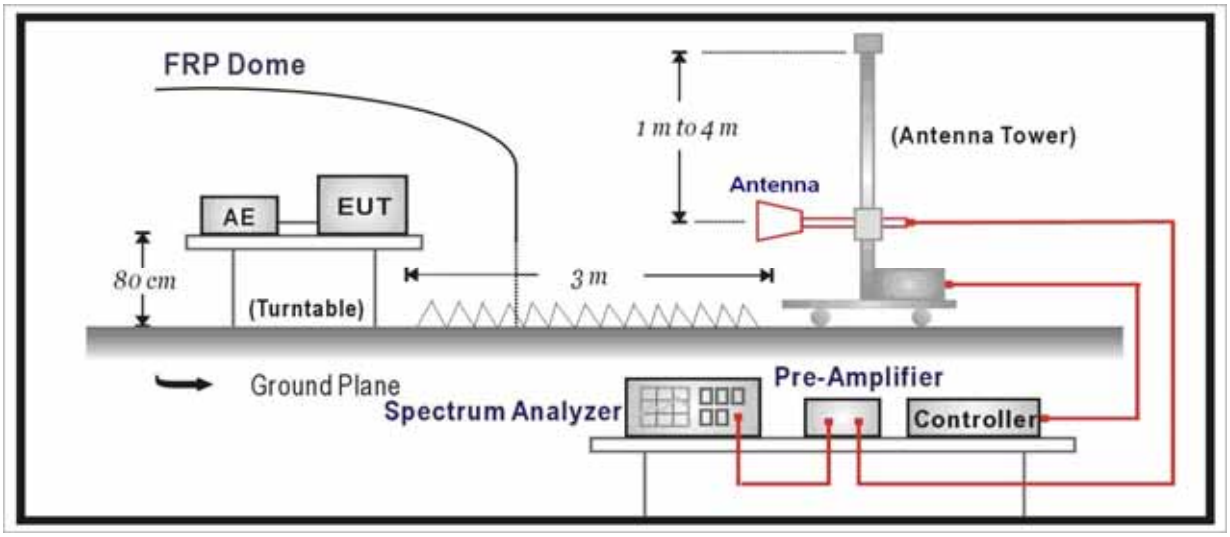
Conducted Spurious Measurement: below 1GHz



Radiated Spurious Measurement: below 1GHz



Radiated Spurious Measurement: above 1GHz



7.3. Test Procedure

Conducted Spurious Measurement:

a) The EUT was connected to spectrum analyzer and System Simulator via power divider.
b) The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.
   The path loss was compensated to the results for each measurement.
c) The conducted spurious emission for the whole frequency range was taken.

Radiated Spurious Measurement:

d) The EUT was placed on a rotatable wooden table with 1.5 meter above ground.
e) The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
f) The table was rotated 360 degrees to determine the position of the highest spurious emission.
g) The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
h) Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 1MHz, Sweep 500ms, Taking the record of maximum spurious emission.
i) A horn antenna was substituted in place of the EUT and was driven by a signal generator.
j) Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
k) Taking the record of output power at antenna port
l) Repeat step 7 to step 8 for another polarization.I receiver.
m) EIRP = SG - Cable loss + Antenna Gain

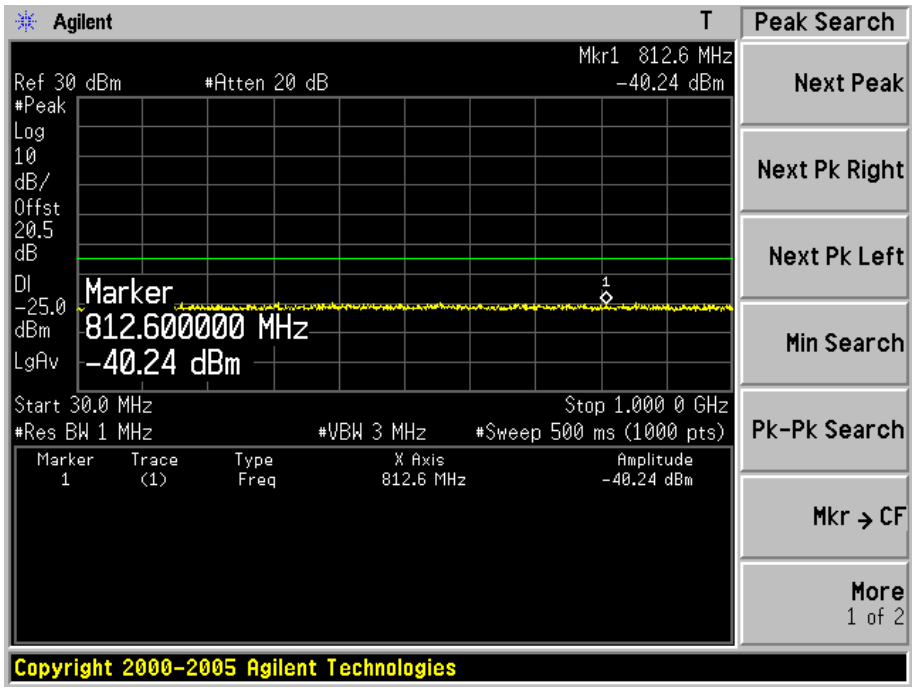
7.4. Uncertainty

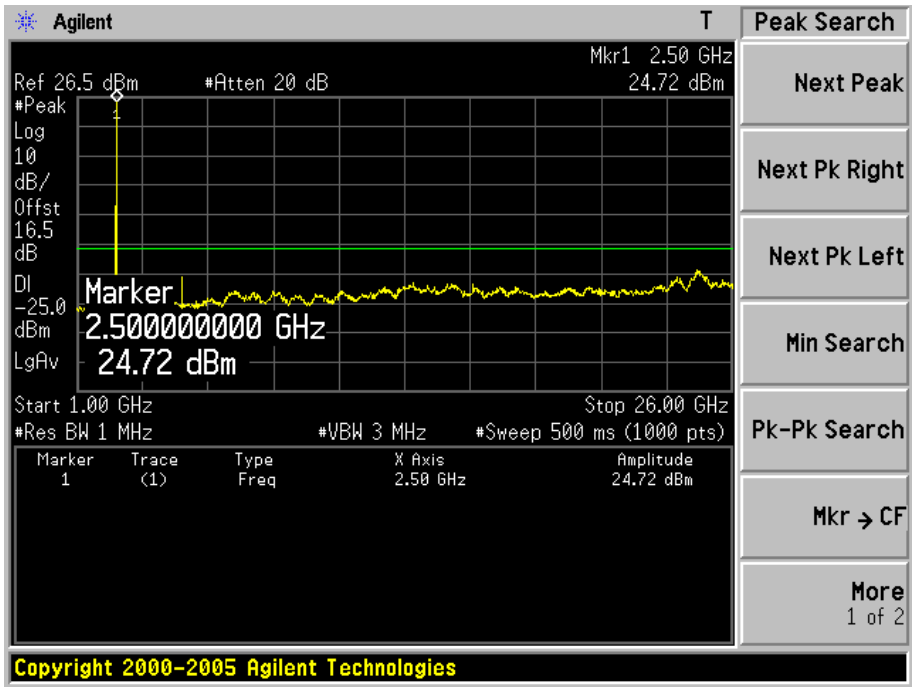
The measurement uncertainty is defined as 3.2 dB for Radiated Power Measurement.

7.5. Test Result

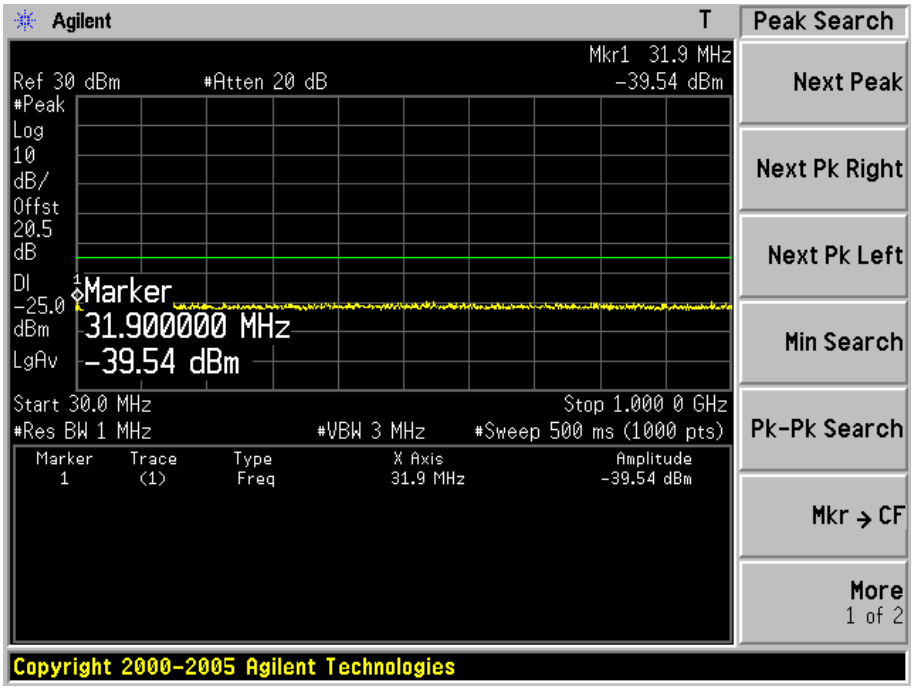
Product	Wireless Module		
Test Item	Conducted Spurious Emission		
Test Mode	Mode 1: LTE Band VII (5M/QPSK)		
Date of Test	2014/12/09	Test Site	TR8

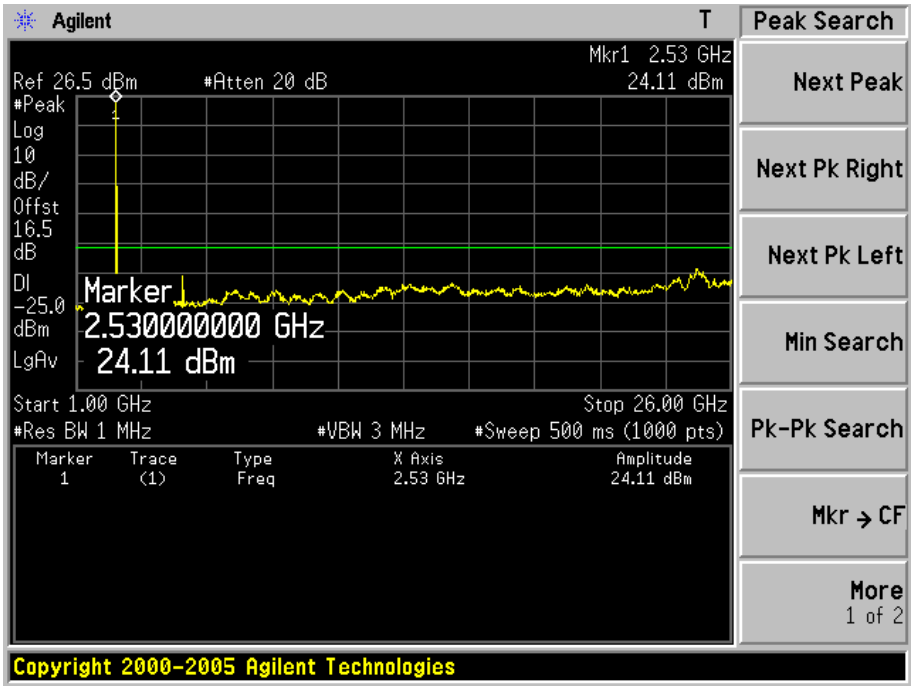
Low Channel 20775(2502.5MHz) 1RB24



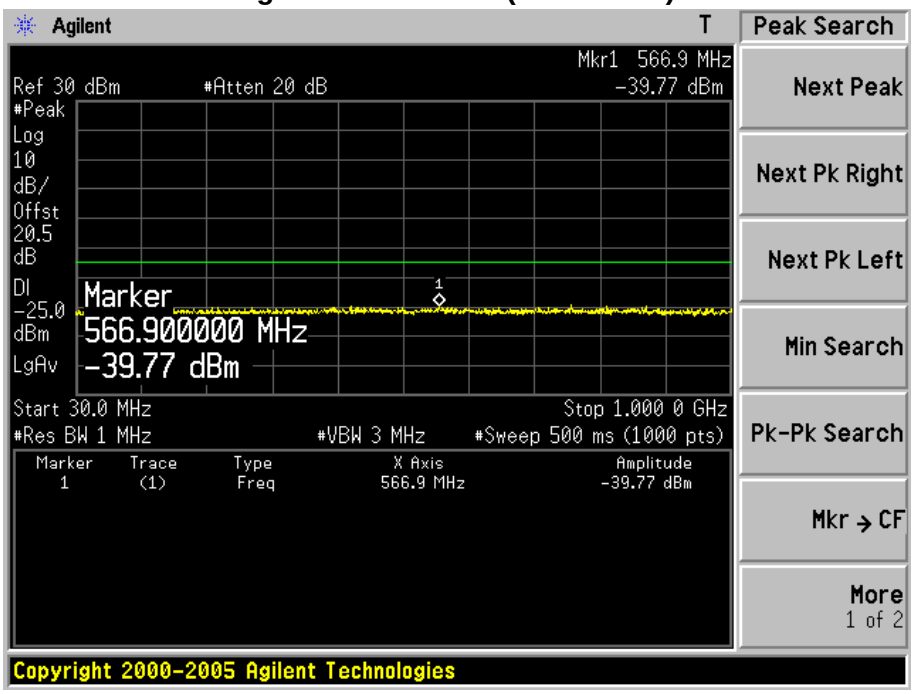


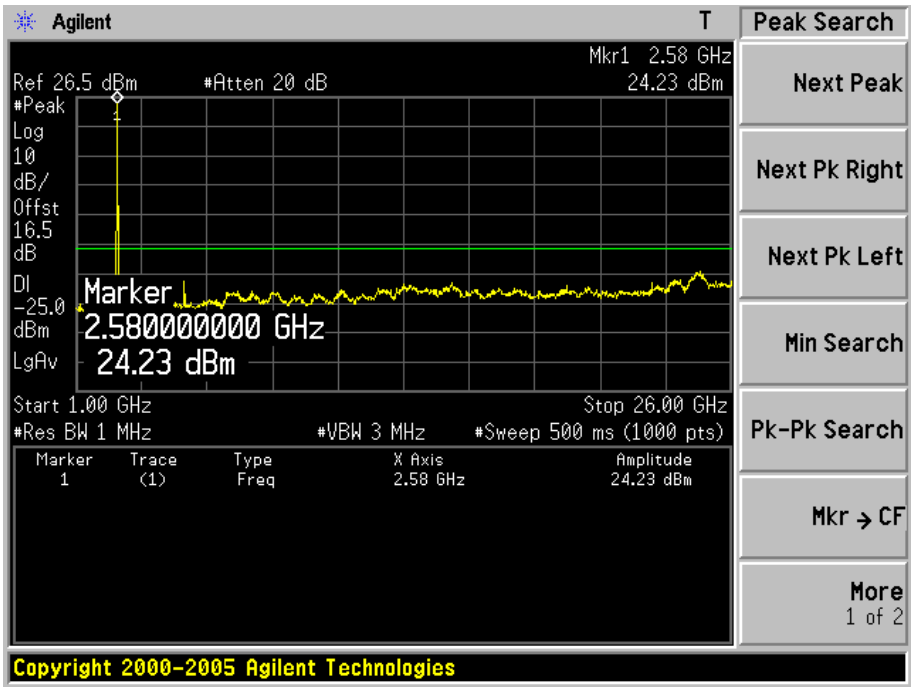
Mid Channel 21100(2535MHz) 1RB12





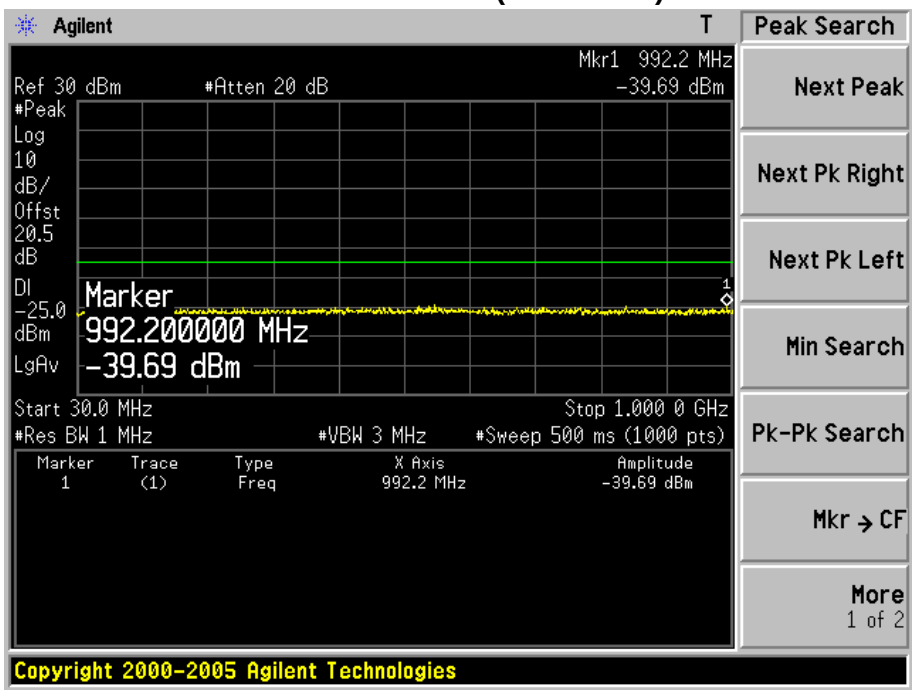
High Channel 21425(2567.5MHz) 1RB0

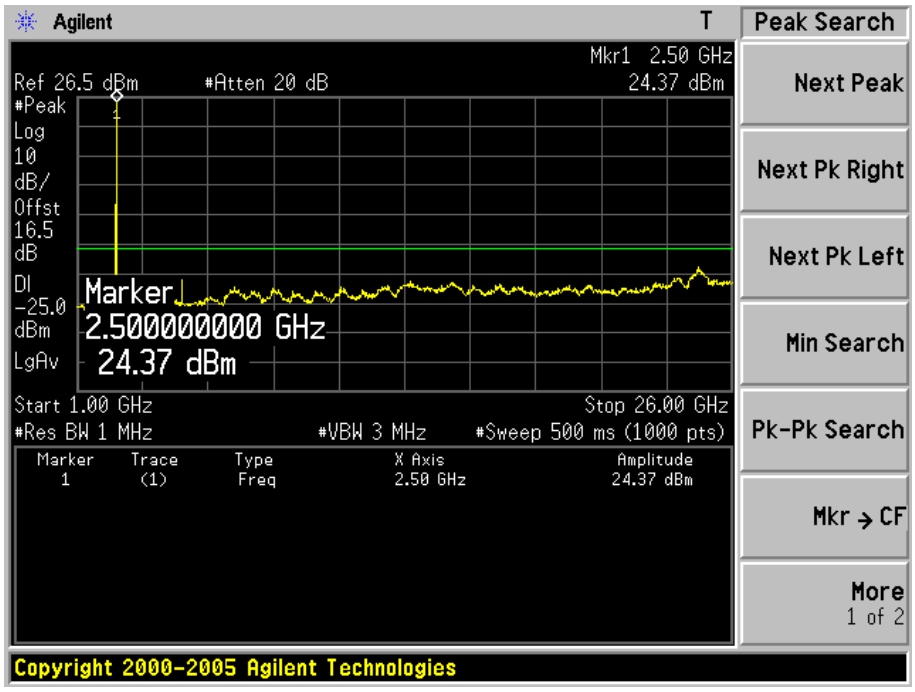




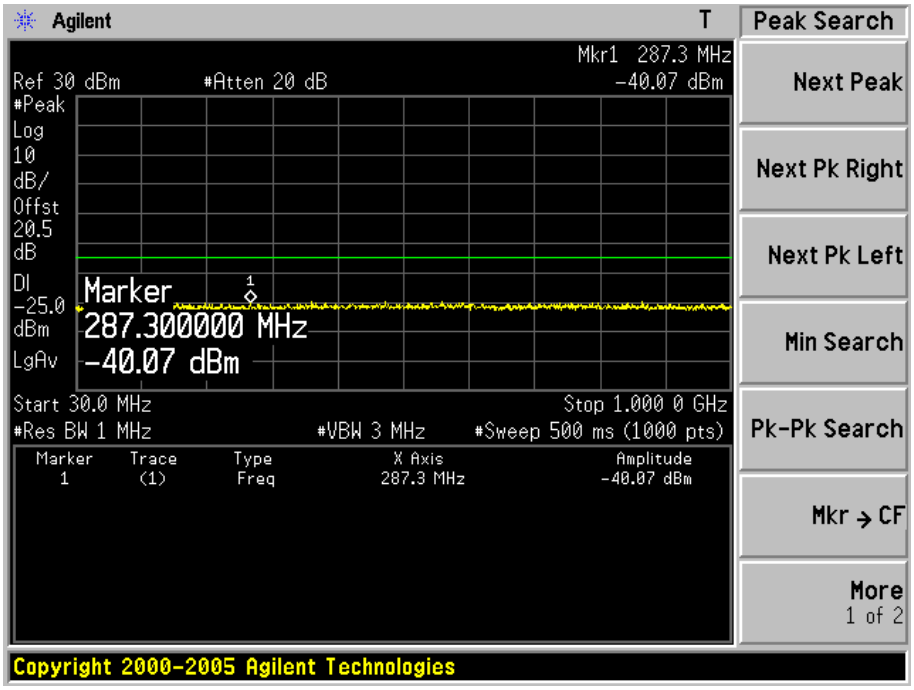
Product	Wireless Module		
Test Item	Conducted Spurious Emission		
Test Mode	Mode 1: LTE Band VII (5M/QPSK)		
Date of Test	2014/11/22	Test Site	TR8

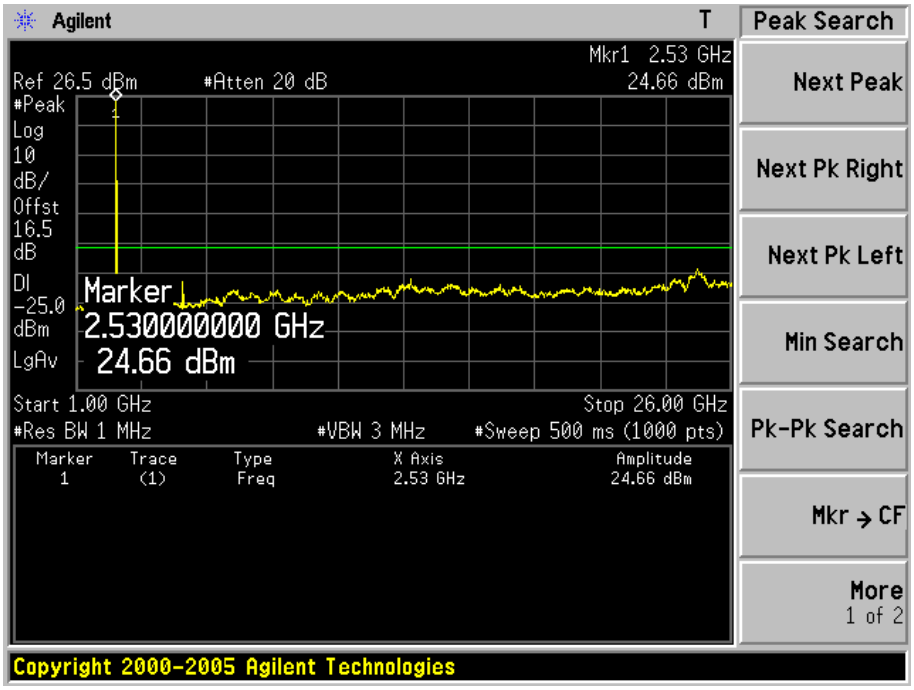
Low Channel 20775(2502.5MHz) 1RB24



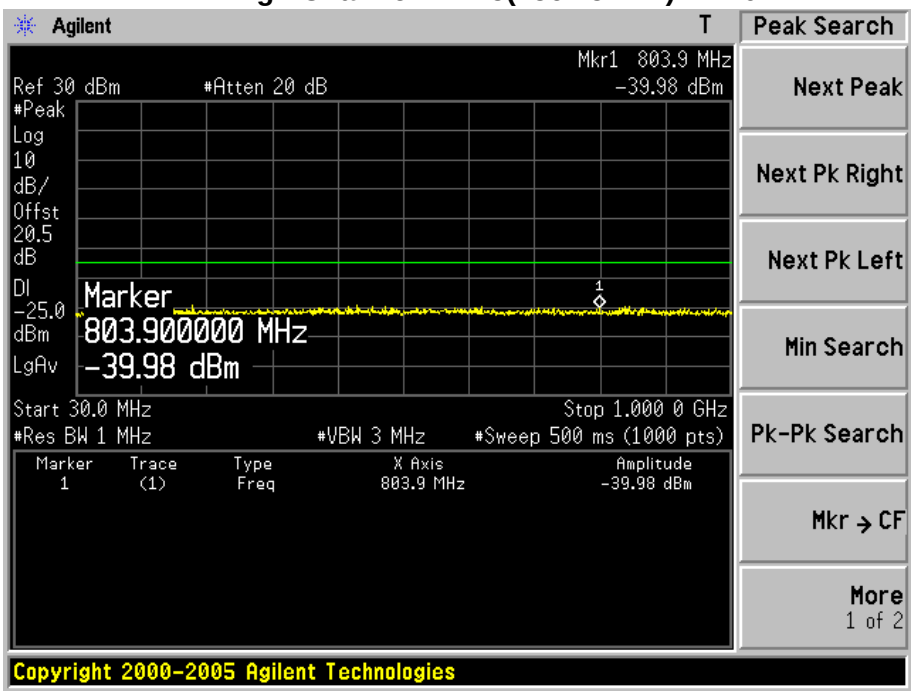


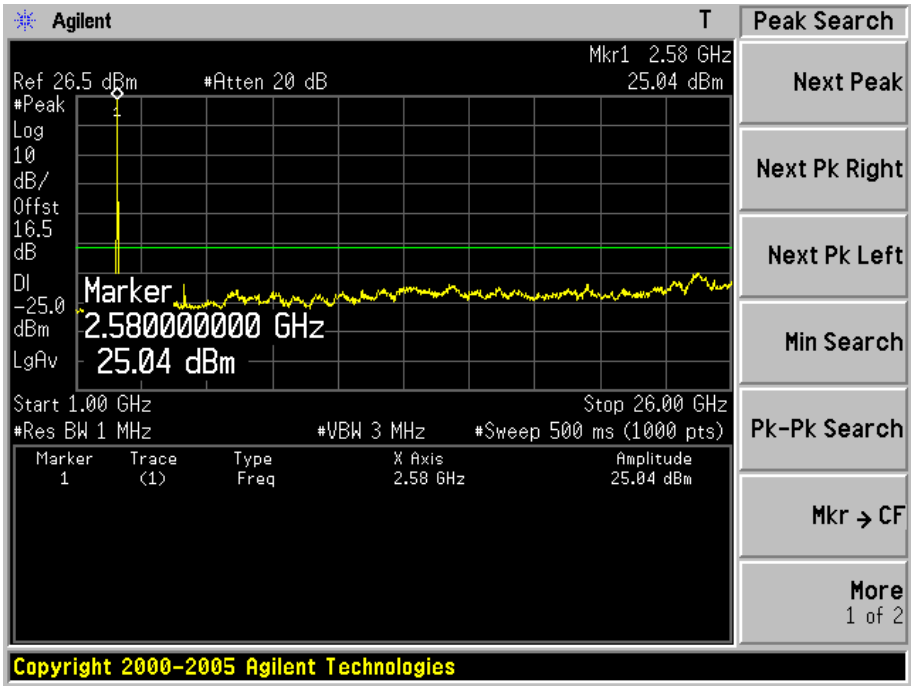
Mid Channel 21100(2535MHz) 1RB12





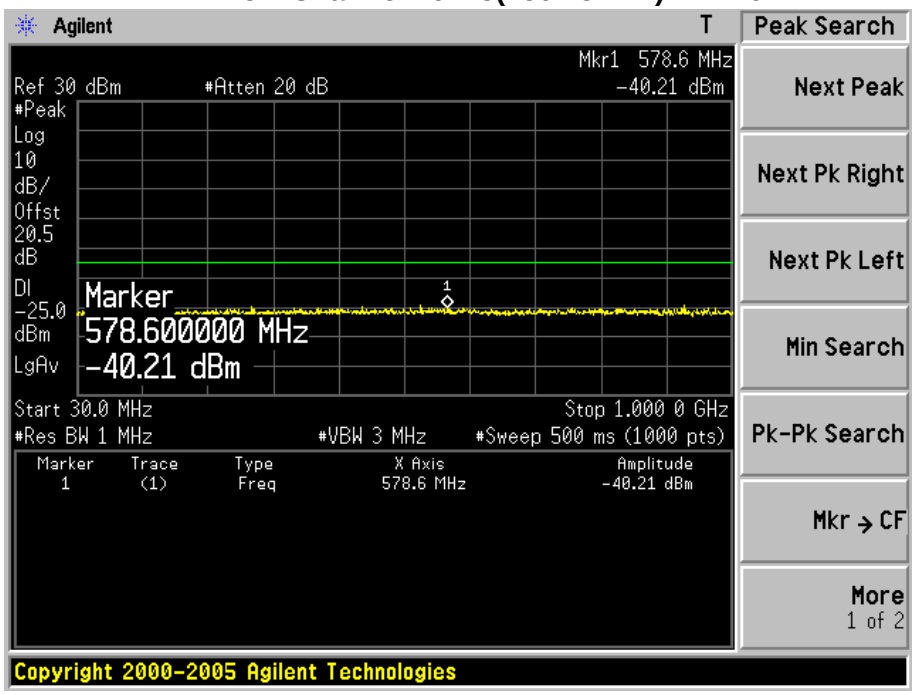
High Channel 21425(2567.5MHz) 1RB0

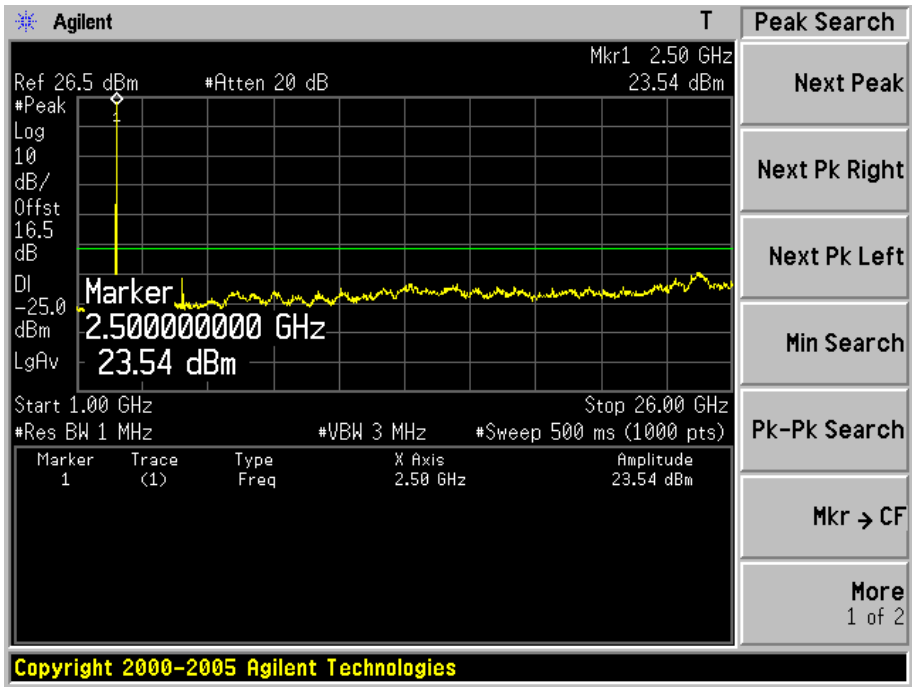




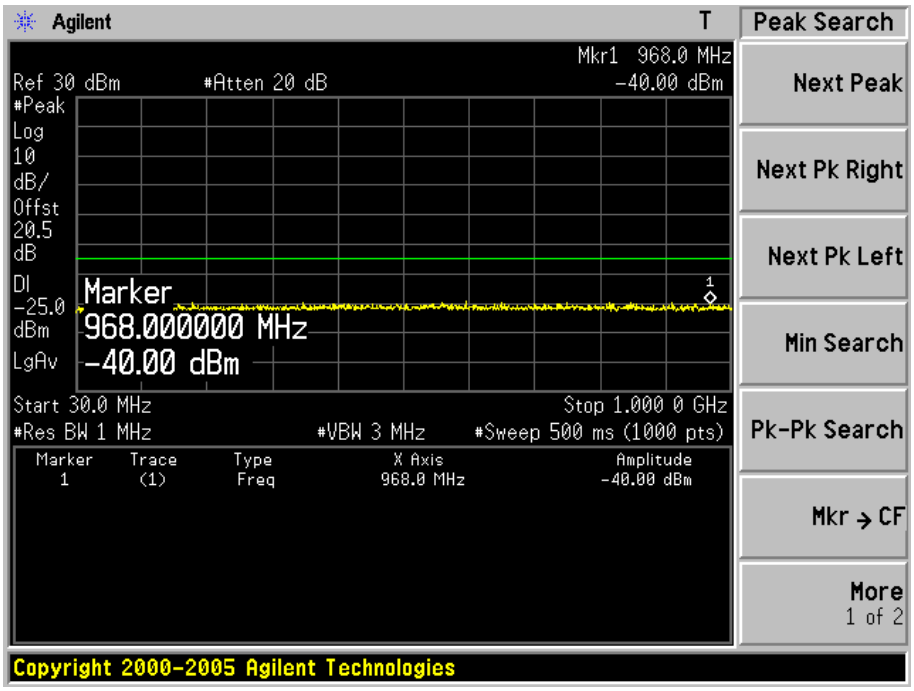
Product	Wireless Module		
Test Item	Conducted Spurious Emission		
Test Mode	Mode 1: LTE Band VII (10M/QPSK)		
Date of Test	2014/12/10	Test Site	TR8

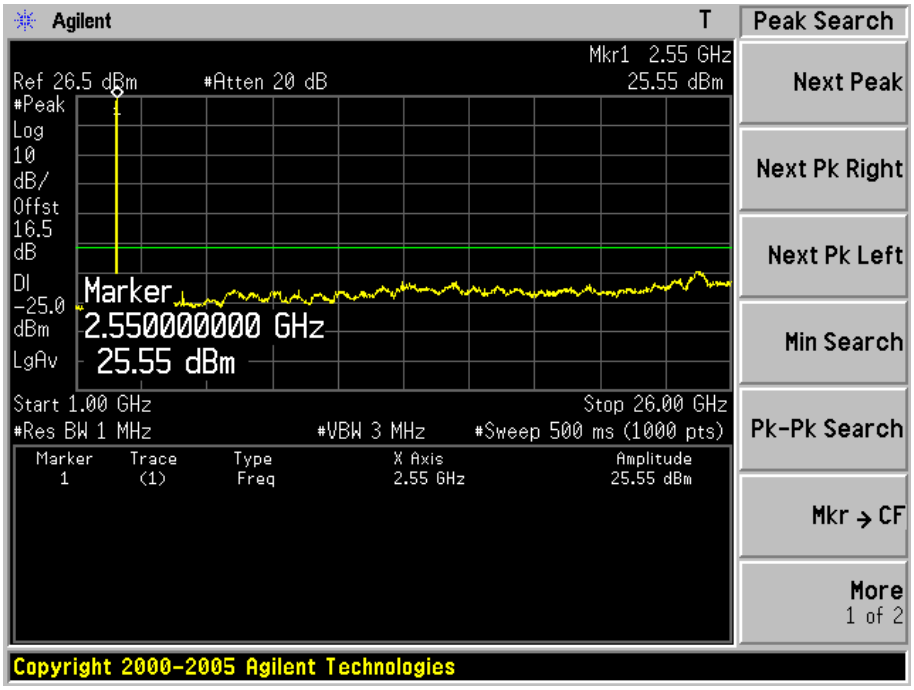
Low Channel 20775(2502.5MHz) 1RB49



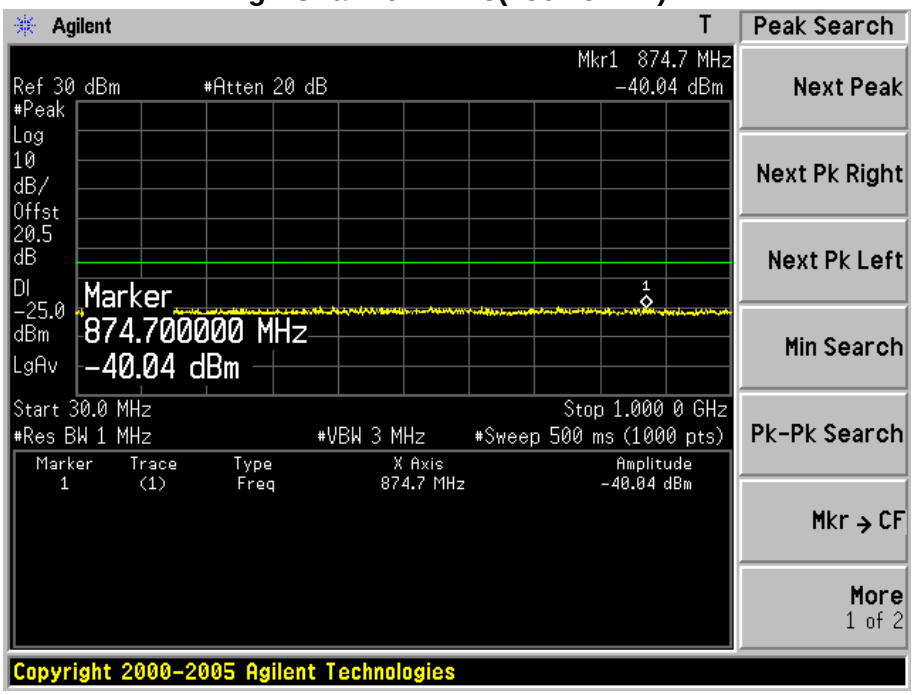


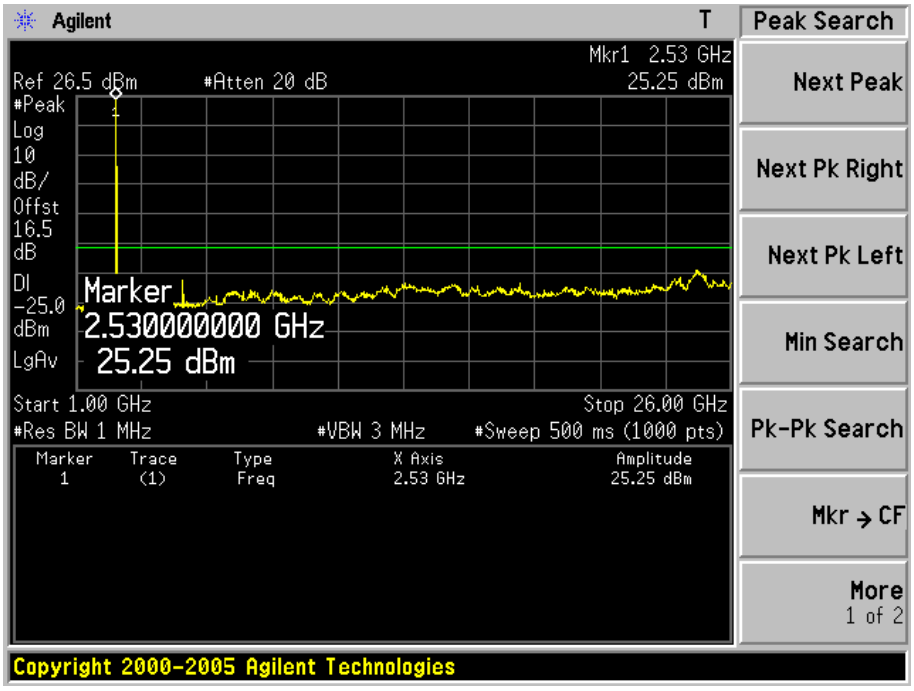
Mid Channel 21100(2535MHz) 1RB49





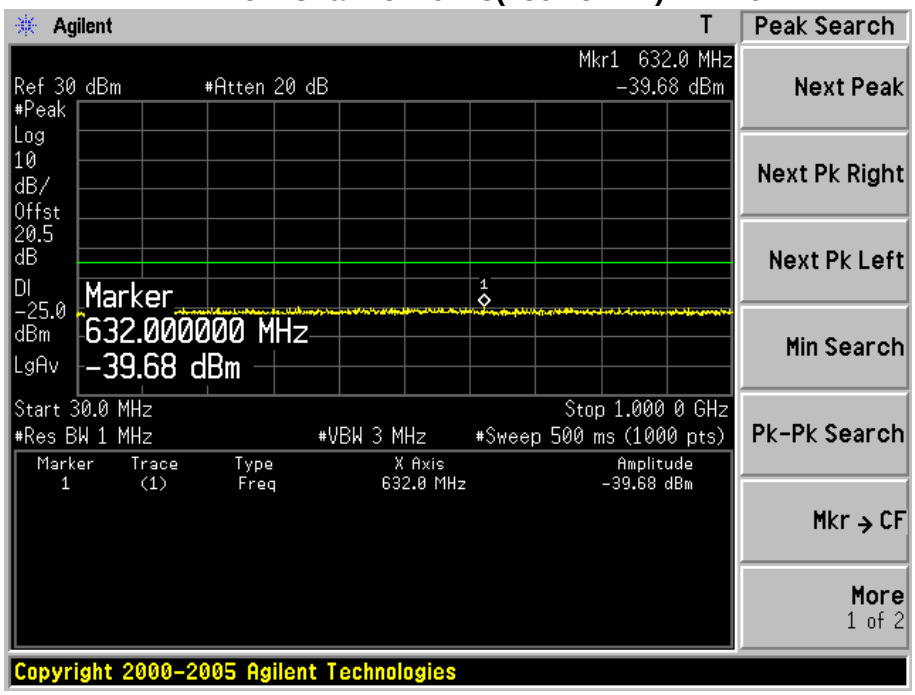
High Channel 21425(2567.5MHz) 1RB24

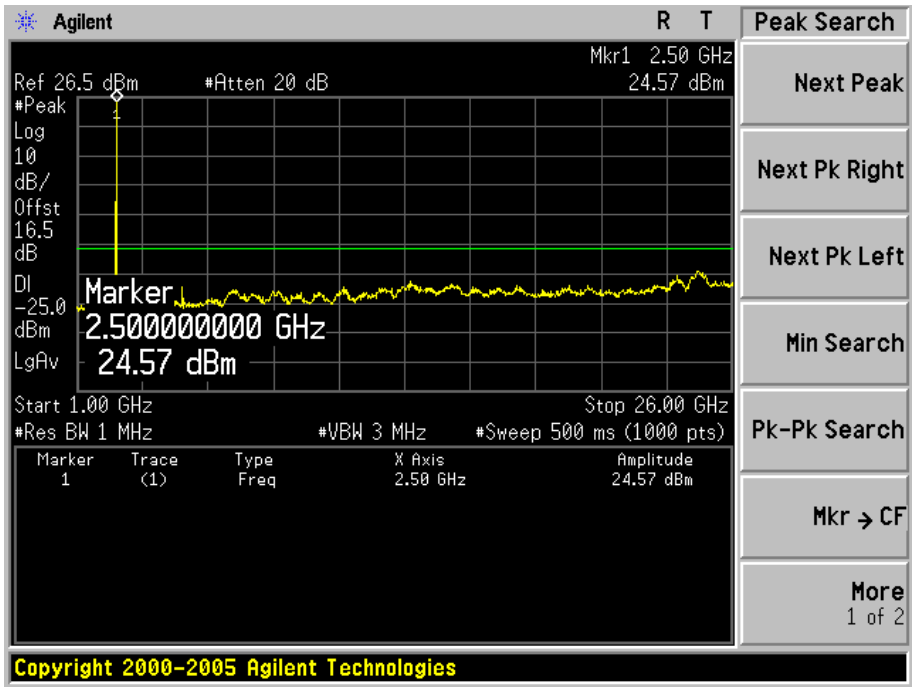




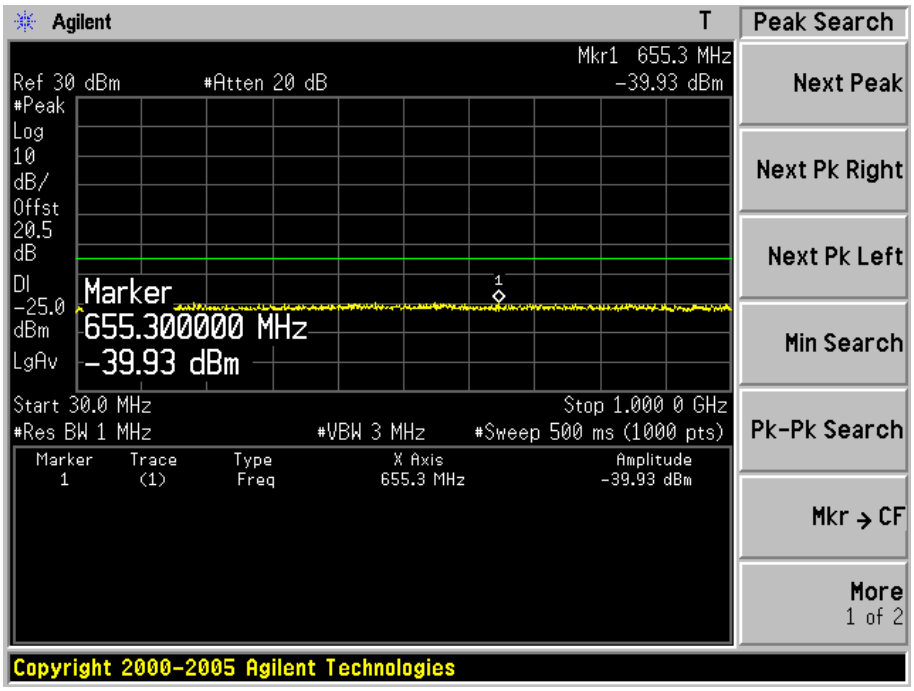
Product	Wireless Module		
Test Item	Conducted Spurious Emission		
Test Mode	Mode 1: LTE Band VII (10M/16QAM)		
Date of Test	2014/12/10	Test Site	TR8

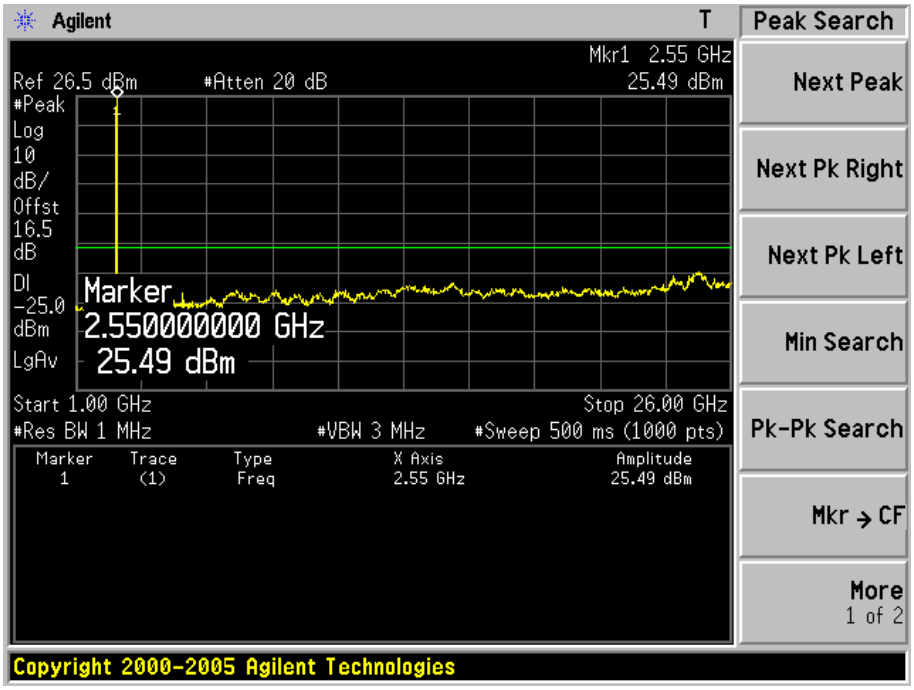
Low Channel 20775(2502.5MHz) 1RB49



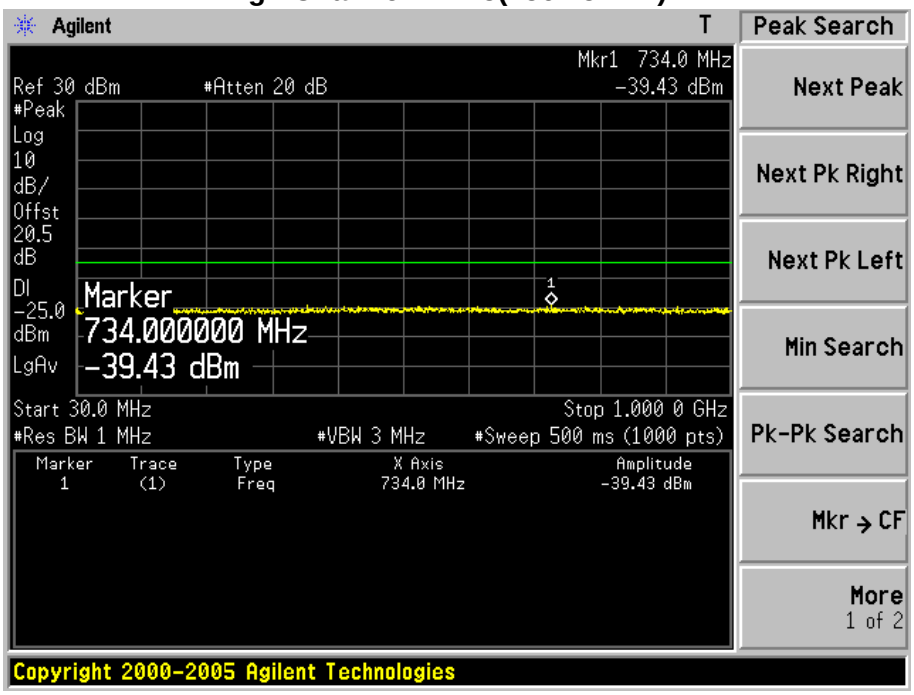


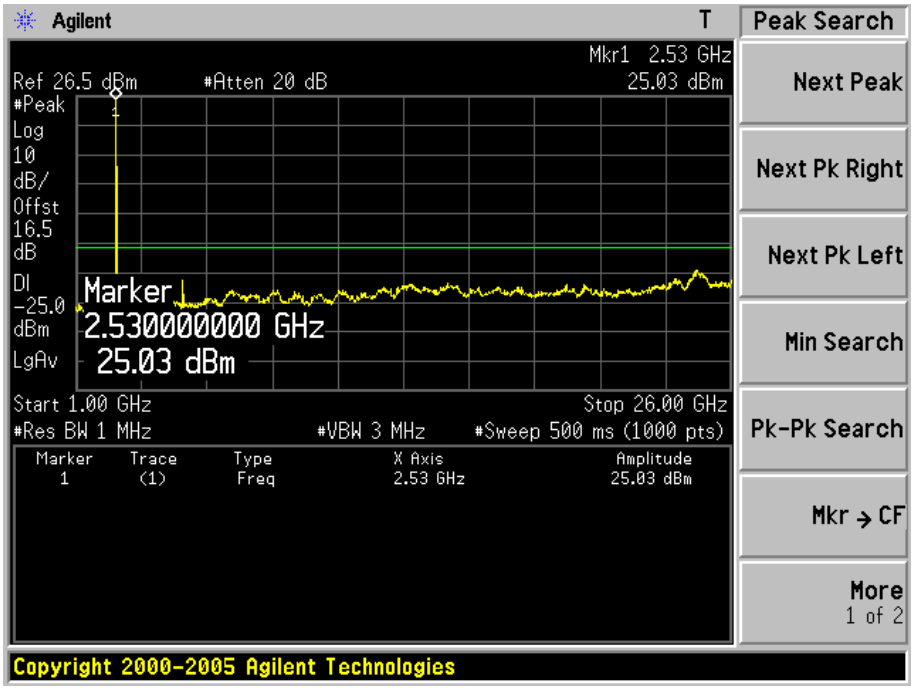
Mid Channel 21100(2535MHz) 1RB49





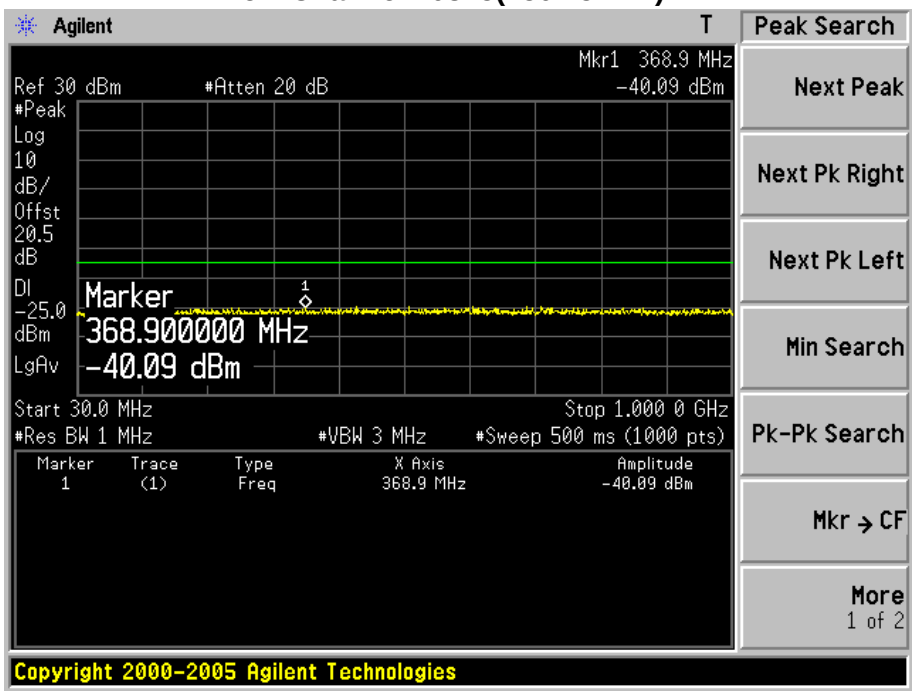
High Channel 21425(2567.5MHz) 1RB24

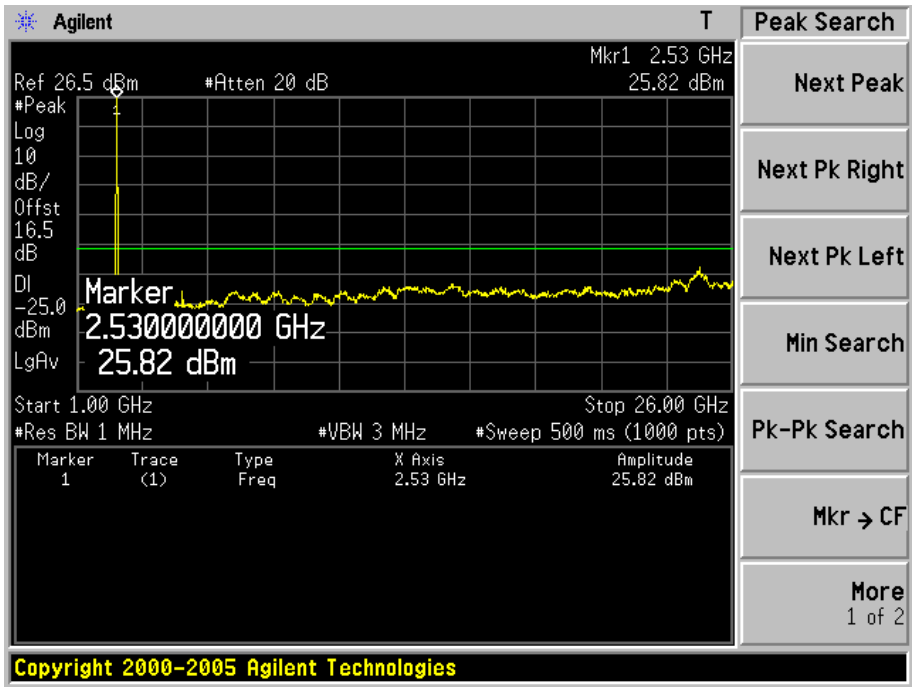




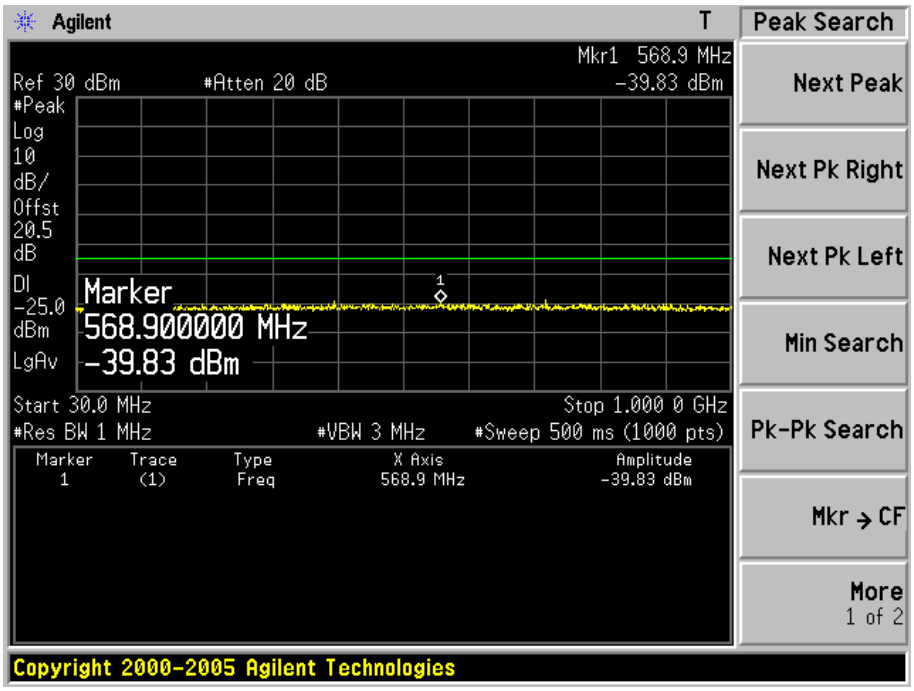
Product	Wireless Module		
Test Item	Conducted Spurious Emission		
Test Mode	Mode 1: LTE Band VII (15M/QPSK)		
Date of Test	2014/12/10	Test Site	TR8

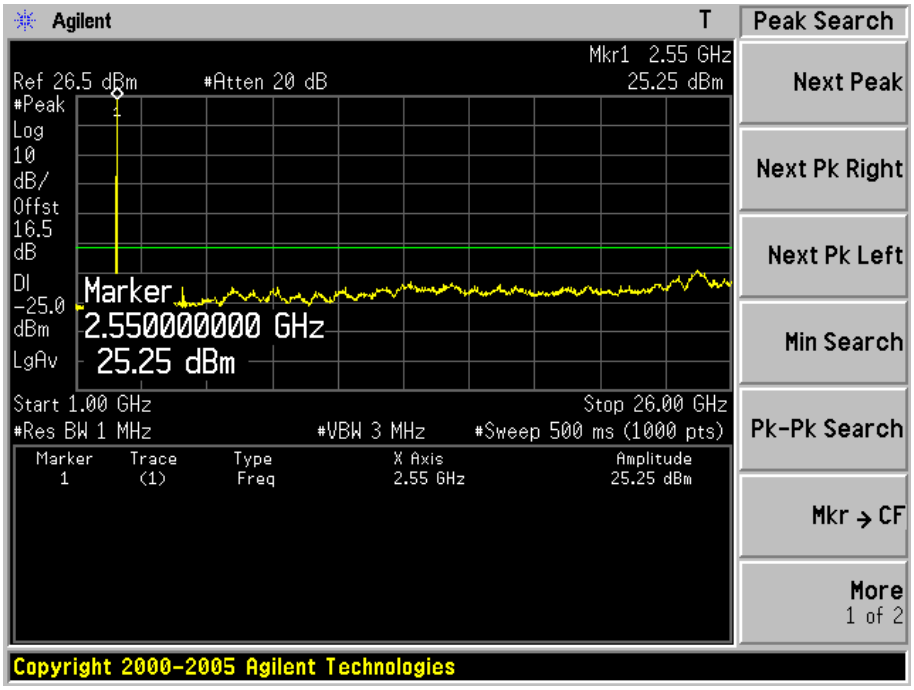
Low Channel 20825(2507.5MHz) 1RB74



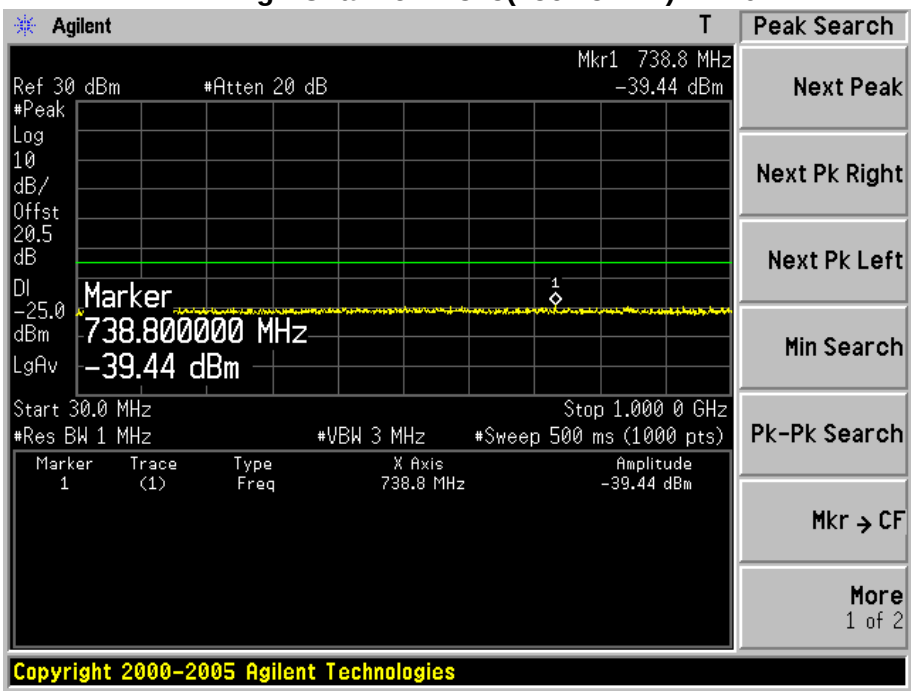


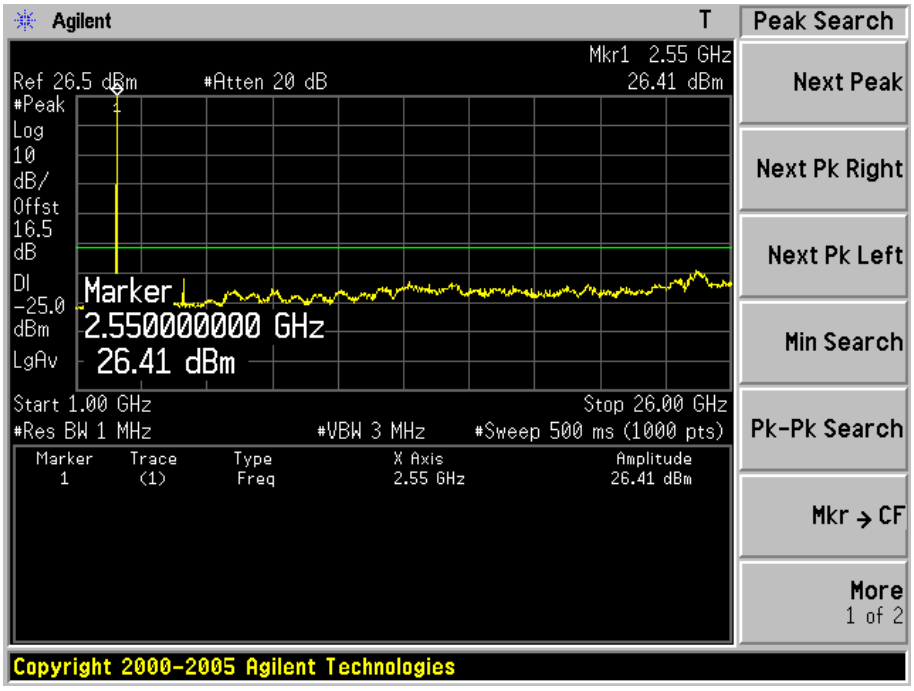
Mid Channel 21100(2535MHz) 1RB74





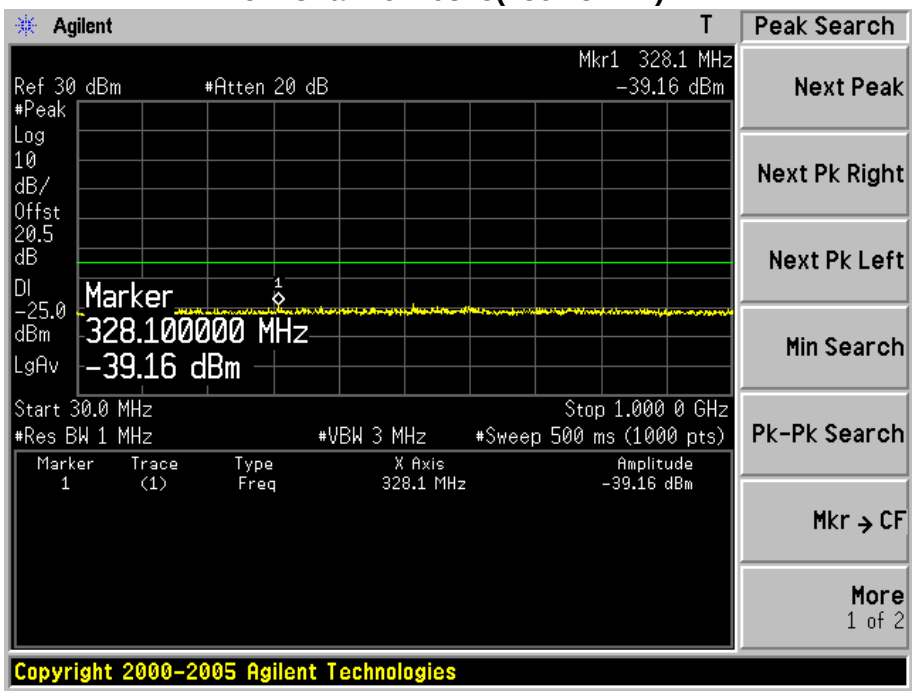
High Channel 21375(2562.5MHz) 1RB0

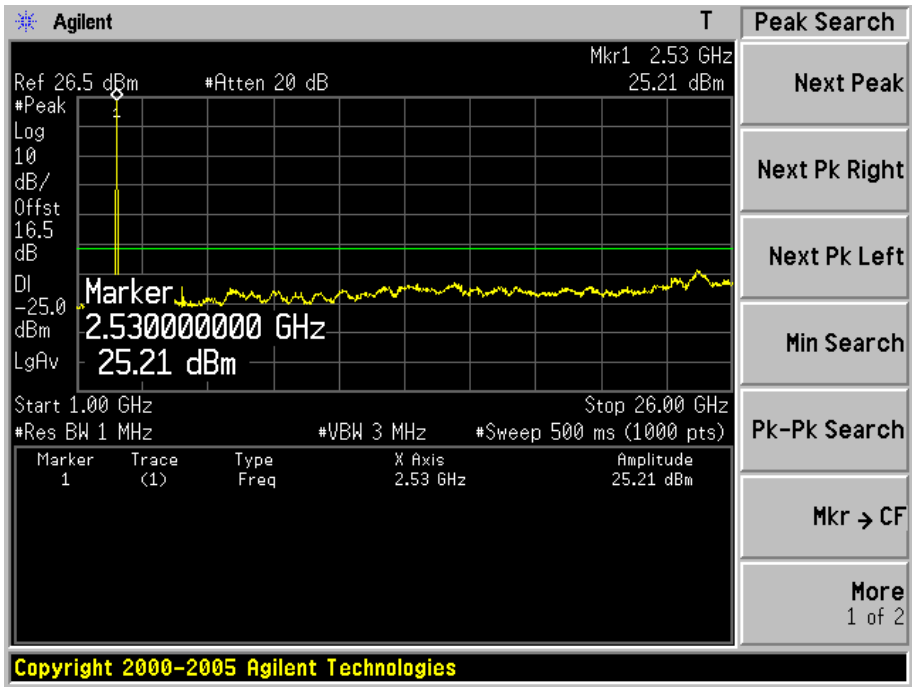




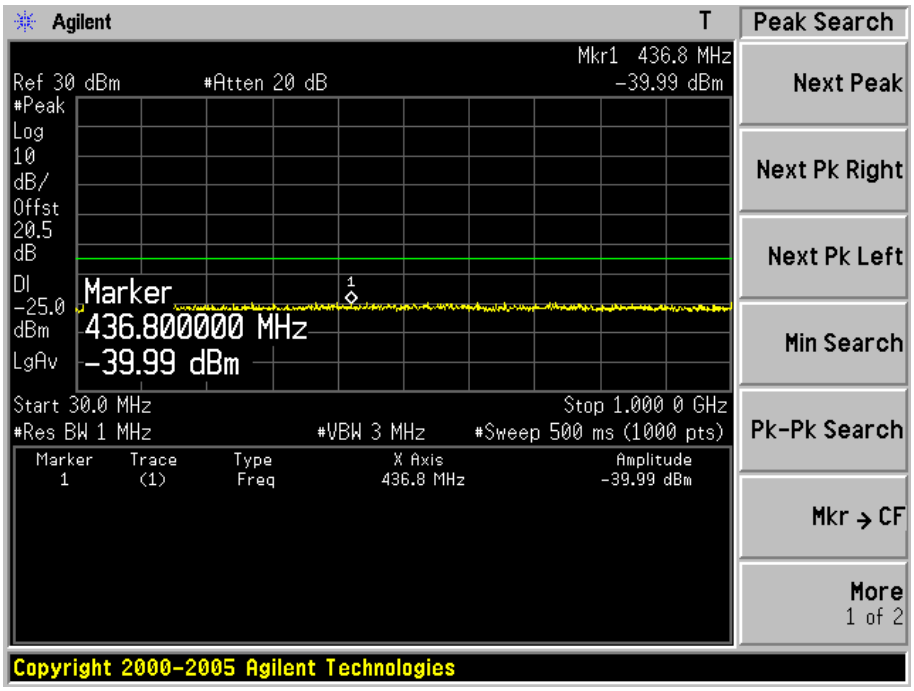
Product	Wireless Module		
Test Item	Conducted Spurious Emission		
Test Mode	Mode 1: LTE Band VII (15M/16QAM)		
Date of Test	2014/12/10	Test Site	TR8

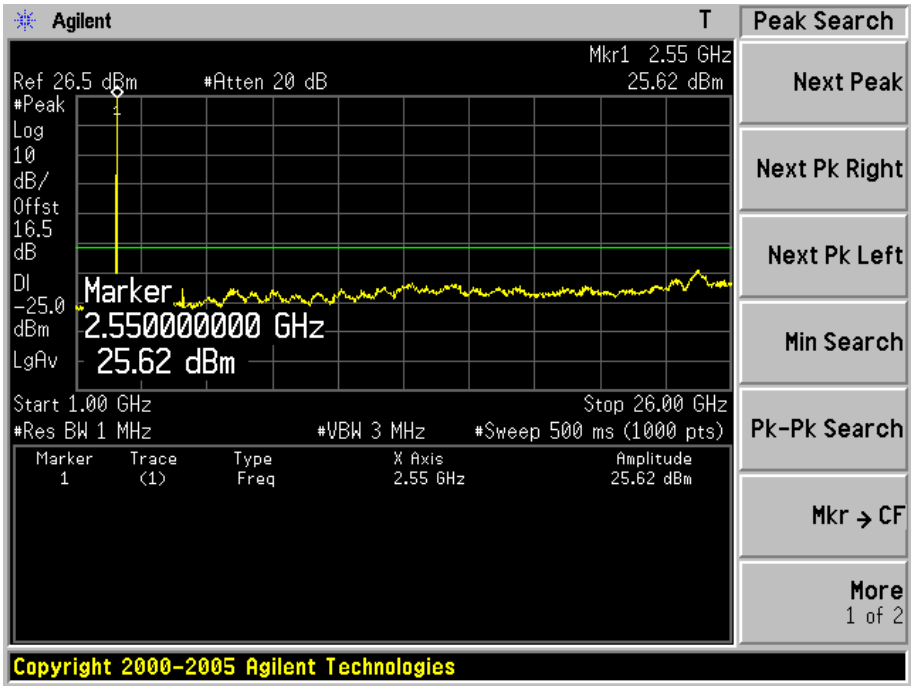
Low Channel 20825(2507.5MHz) 1RB74



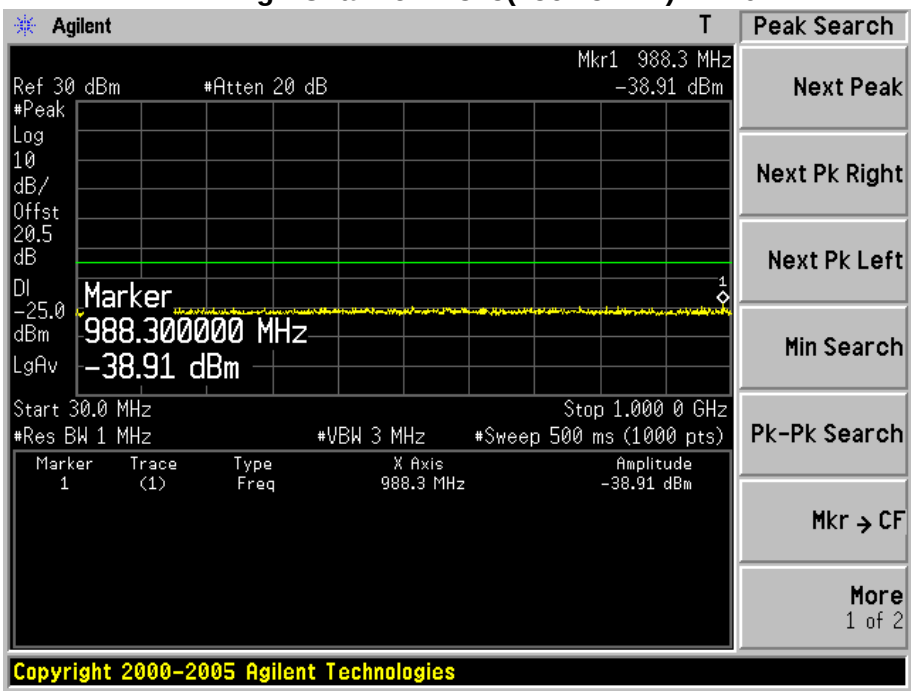


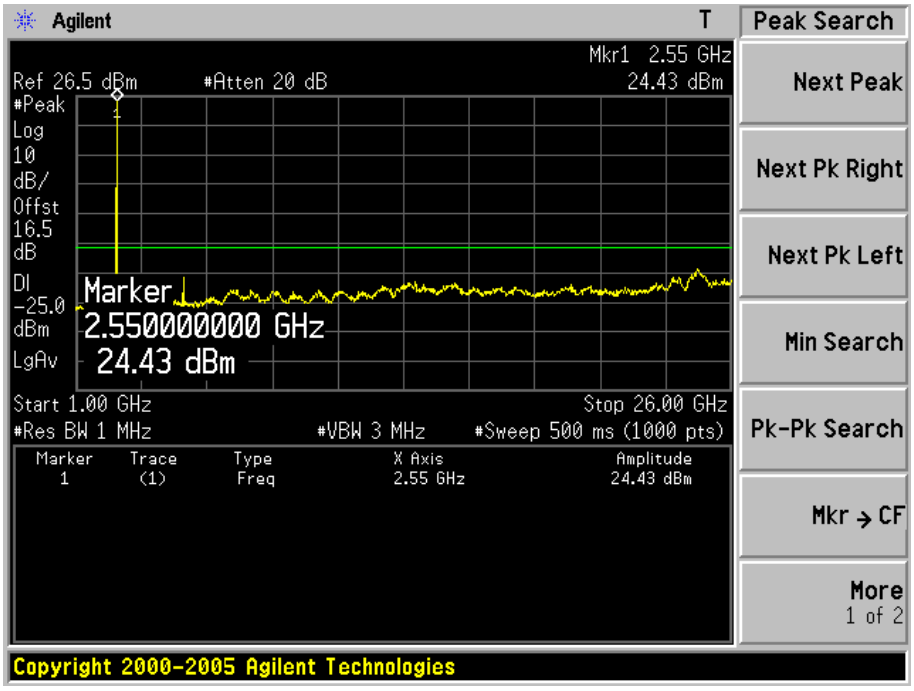
Mid Channel 21100(2535MHz) 1RB74





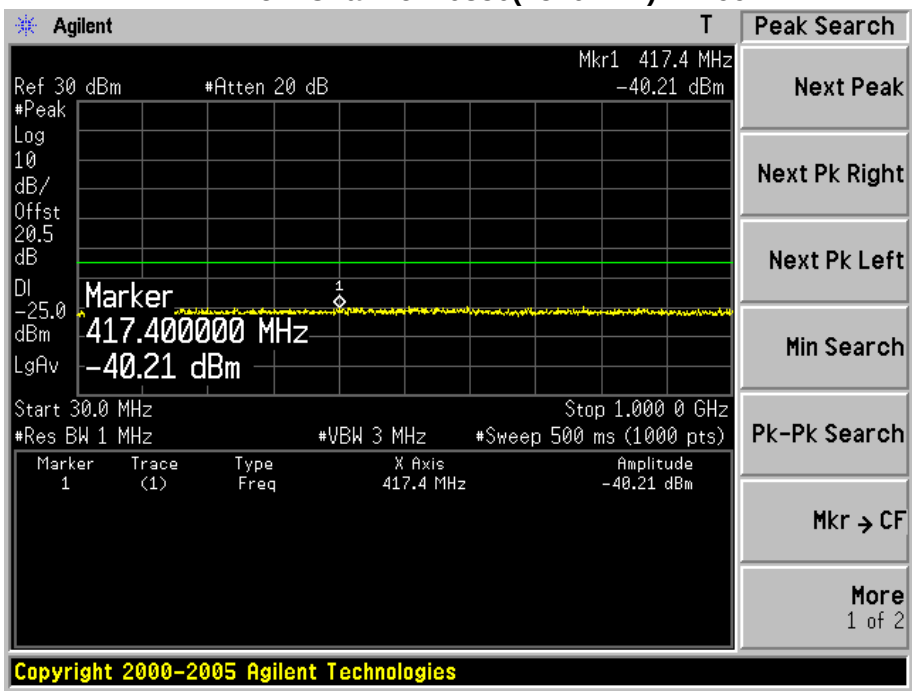
High Channel 21375(2562.5MHz) 1RB0

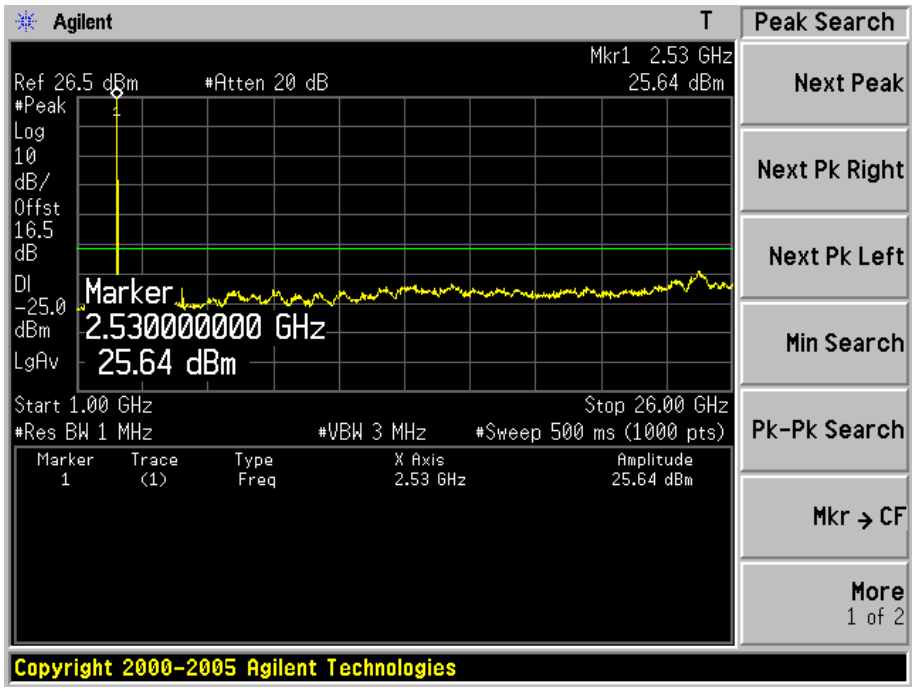




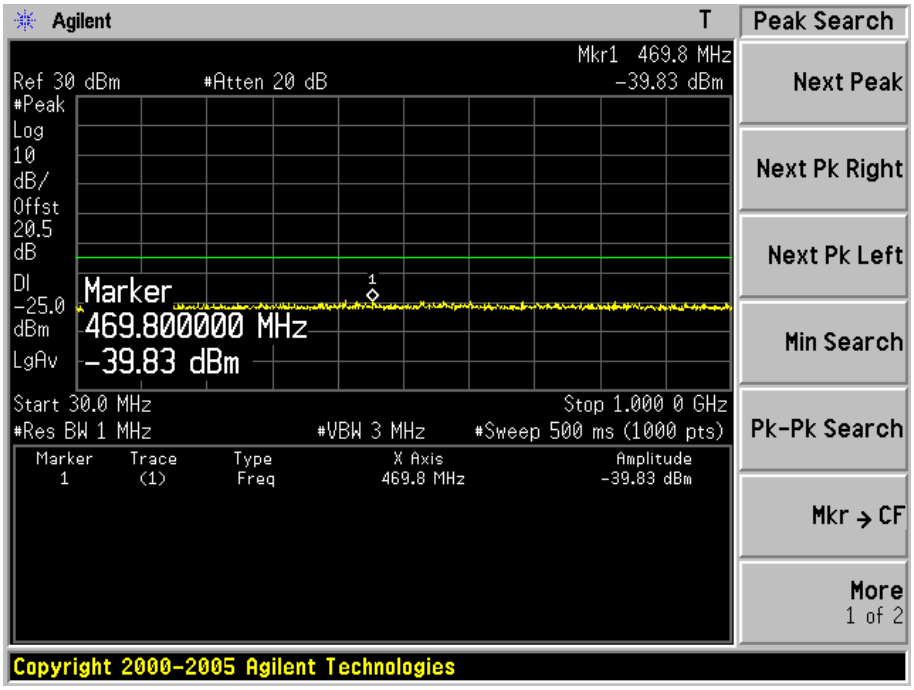
Product	Wireless Module		
Test Item	Conducted Spurious Emission		
Test Mode	Mode 1: LTE Band VII (20M/QPSK)		
Date of Test	2014/12/10	Test Site	TR8

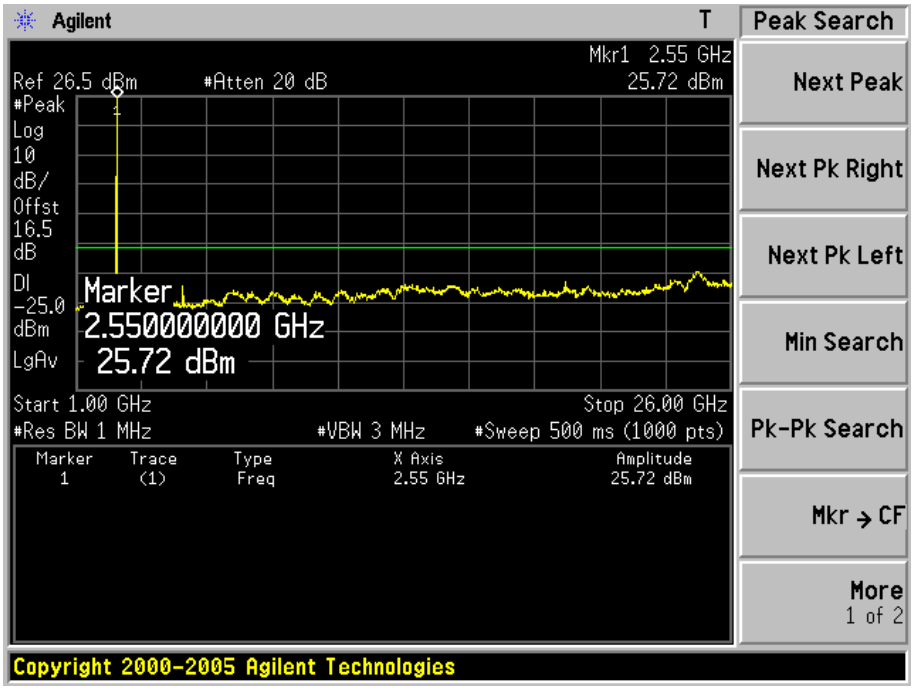
Low Channel 20850(2510MHz)1RB99



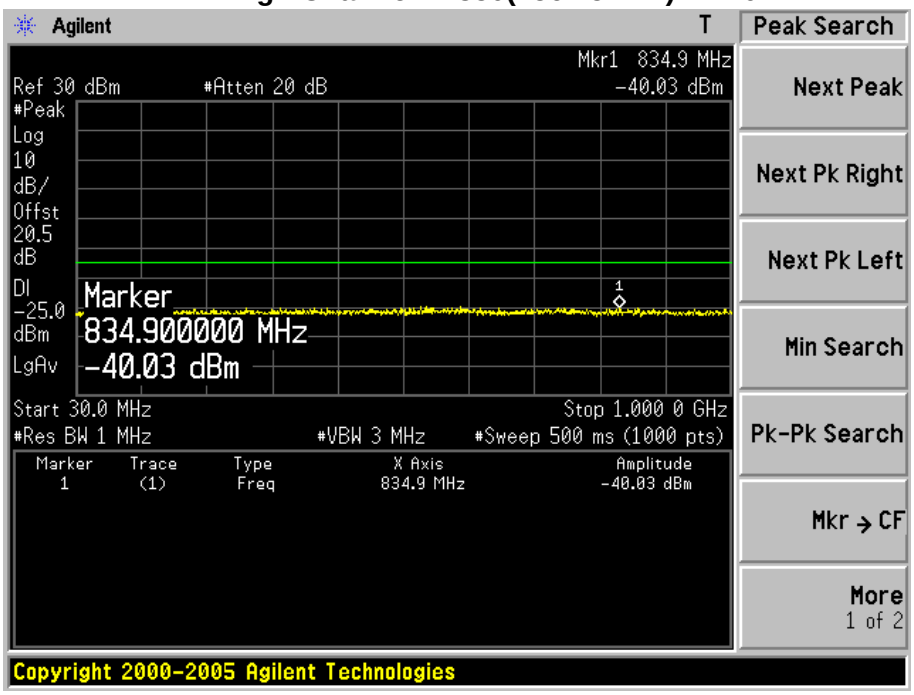


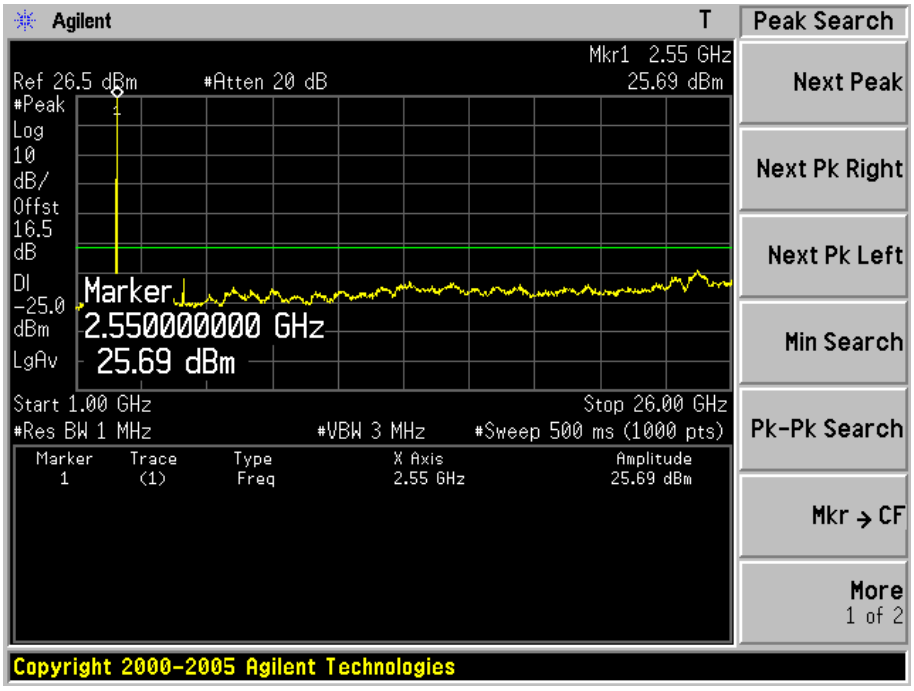
Mid Channel 21100(2535MHz) 1RB99





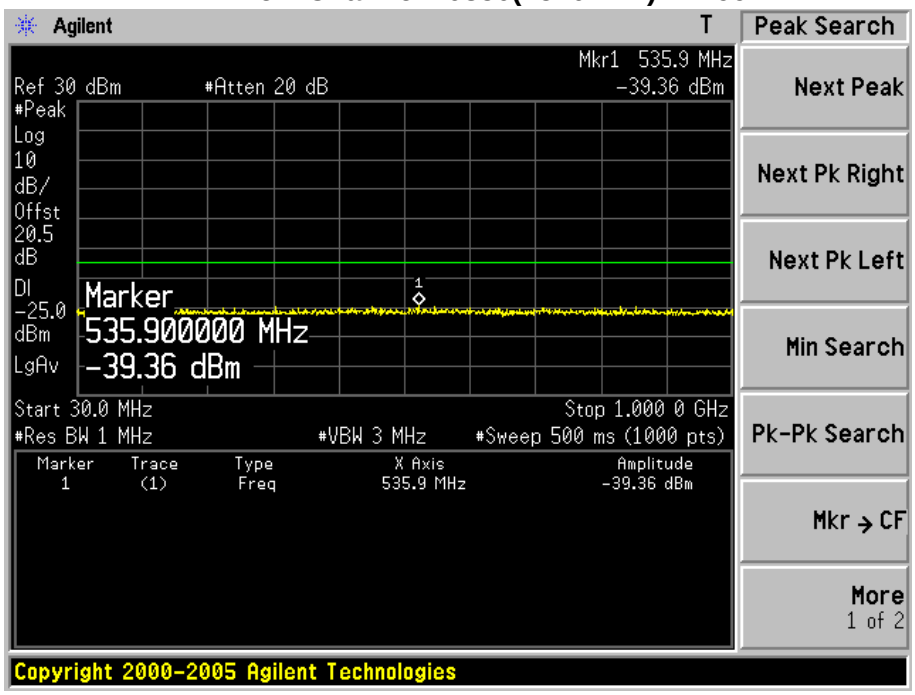
High Channel 21350(2562.5MHz) 1RB0

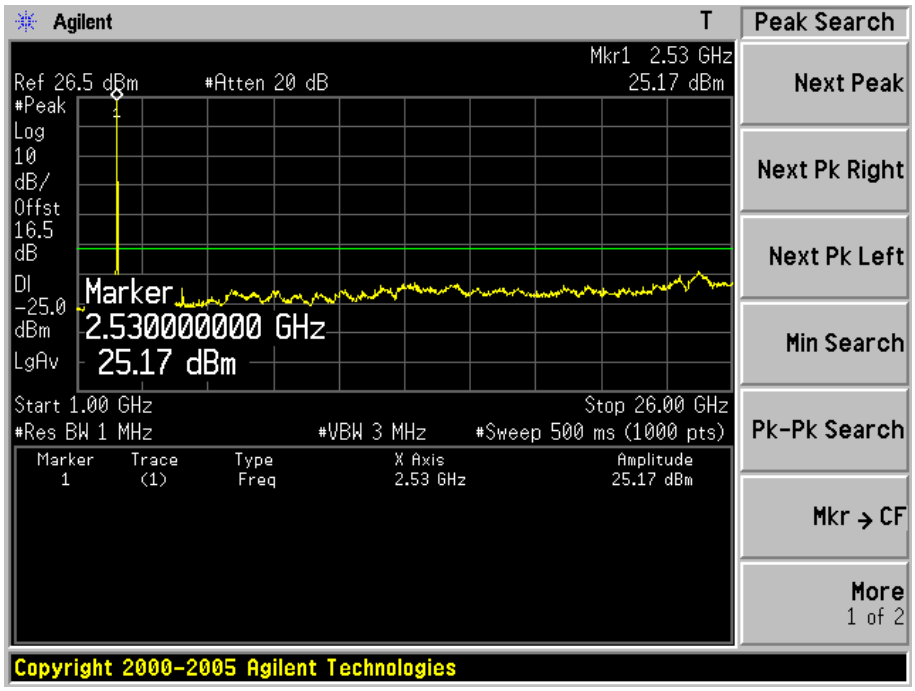




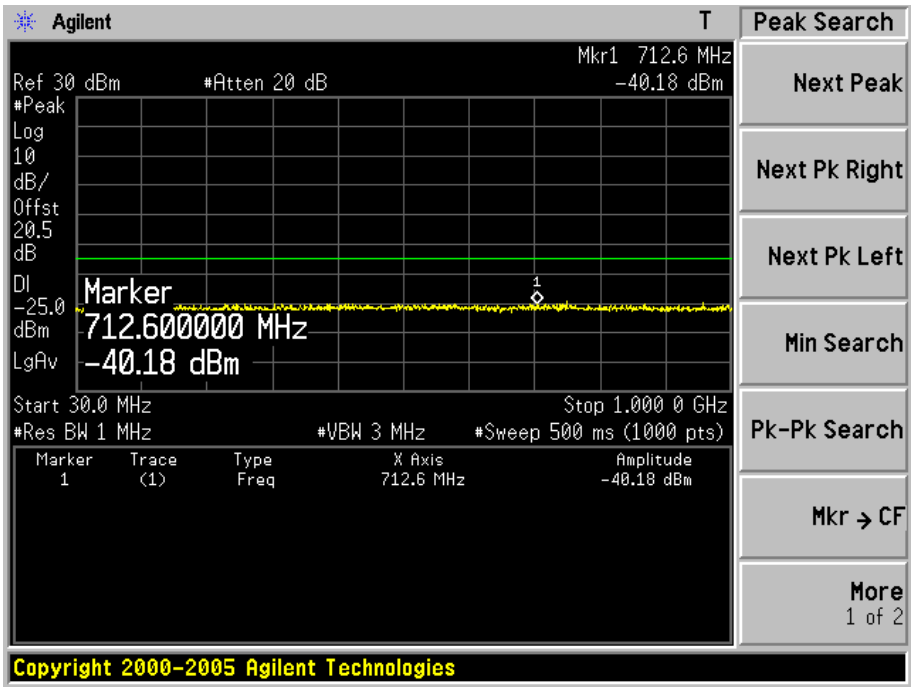
Product	Wireless Module		
Test Item	Conducted Spurious Emission		
Test Mode	Mode 1: LTE Band VII (20M/16QAM)		
Date of Test	2014/12/10	Test Site	TR8

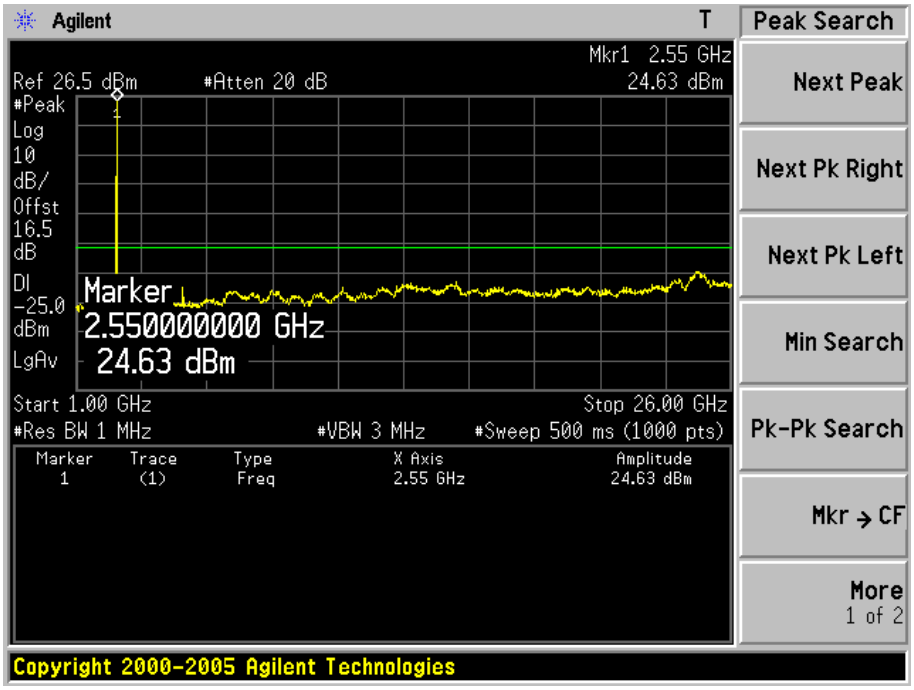
Low Channel 20850(2510MHz)1RB99



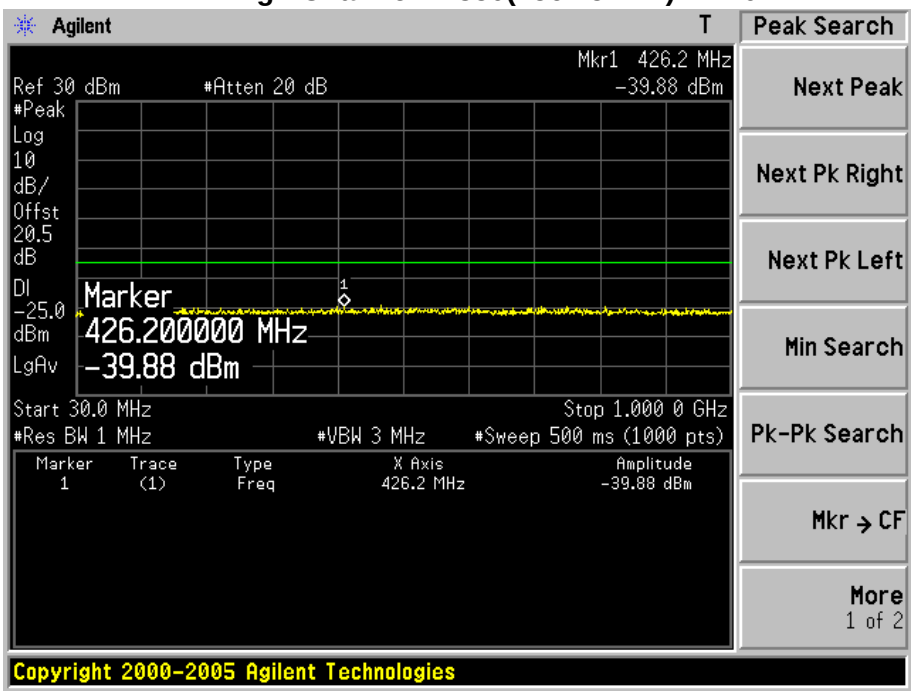


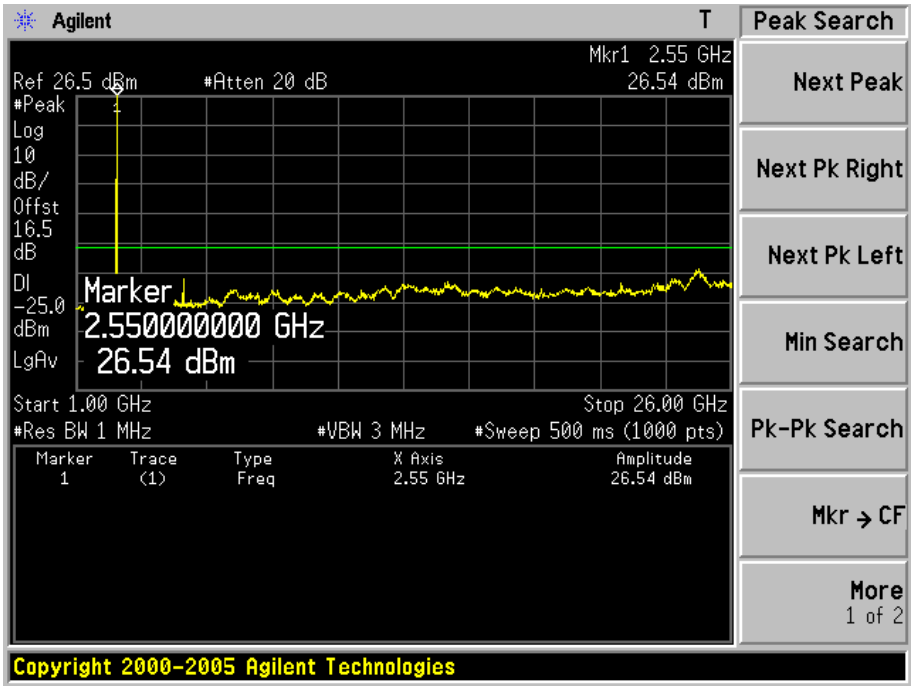
Mid Channel 21100(2535MHz) 1RB99





High Channel 21350(2562.5MHz) 1RB0





Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 1: LTE Band VII (5M/QPSK)		
Date of Test	2014/12/13	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20775 (2502.50MHz) 1RB24								
5005.00	-57.93	V	-53.53	1.24	12.65	-42.12	-25.00	-17.12
7507.50	-63.48	V	-51.16	1.48	11.25	-41.39	-25.00	-16.39
5005.00	-60.28	H	-55.89	1.24	12.65	-44.48	-25.00	-19.48
7507.50	-64.30	H	-52.01	1.48	11.25	-42.24	-25.00	-17.24
Middle Channel 21100 (2535.00MHz) 1RB12								
5070.00	-58.04	V	-53.12	1.22	12.72	-41.62	-25.00	-16.62
7605.00	-64.58	V	-52.21	1.54	11.45	-42.30	-25.00	-17.30
5070.00	-59.80	H	-55.04	1.22	12.72	-43.54	-25.00	-18.54
7605.00	-64.61	H	-52.73	1.54	11.45	-42.82	-25.00	-17.82
High Channel 21425 (2567.50MHz) 1RB0								
5135.00	-57.15	V	-52.39	1.22	12.79	-40.82	-25.00	-15.82
7702.50	-64.52	V	-52.49	1.57	11.45	-42.61	-25.00	-17.61
5135.00	-59.66	H	-54.88	1.22	12.79	-43.31	-25.00	-18.31
7702.50	-65.24	H	-53.10	1.57	11.45	-43.22	-25.00	-18.22

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 1: LTE Band VII (5M/16QAM)		
Date of Test	2014/12/13	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20775 (2502.50MHz) 1RB24								
5005.00	-57.75	V	-53.48	1.24	12.65	-42.07	-25.00	-17.07
7507.50	-64.67	V	-52.27	1.48	11.25	-42.50	-25.00	-17.50
5005.00	-60.16	H	-55.76	1.24	12.65	-44.35	-25.00	-19.35
7507.50	-64.70	H	-52.40	1.48	11.25	-42.63	-25.00	-17.63
Middle Channel 21100 (2535.00MHz) 1RB24								
5070.00	-59.01	V	-54.09	1.22	12.72	-42.59	-25.00	-17.59
7605.00	-65.01	V	-52.49	1.54	11.45	-42.58	-25.00	-17.58
5070.00	-61.67	H	-56.91	1.22	12.72	-45.41	-25.00	-20.41
7605.00	-64.35	H	-52.21	1.54	11.45	-42.30	-25.00	-17.30
High Channel 21425 (2567.50MHz) 1RB0								
5135.00	-56.78	V	-52.02	1.22	12.79	-40.45	-25.00	-15.45
7702.50	-64.23	V	-52.88	1.57	11.45	-43.00	-25.00	-18.00
5135.00	-58.96	H	-54.17	1.22	12.79	-42.60	-25.00	-17.60
7702.50	-64.66	H	-52.41	1.57	11.45	-42.53	-25.00	-17.53

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 1: LTE Band VII (10M/QPSK)		
Date of Test	2014/12/13	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20800 (2505.00MHz) 1RB49								
5010.00	-58.60	V	-54.24	1.24	12.66	-42.82	-25.00	-17.82
7515.00	-64.18	V	-51.69	1.49	11.27	-41.91	-25.00	-16.91
5010.00	-59.58	H	-55.20	1.24	12.66	-43.78	-25.00	-18.78
7515.00	-64.48	H	-52.95	1.49	11.27	-43.17	-25.00	-18.17
Middle Channel 21100 (2535.00MHz) 1RB49								
5070.00	-59.40	V	-54.44	1.22	12.72	-42.94	-25.00	-17.94
7605.00	-64.68	V	-52.43	1.54	11.45	-42.52	-25.00	-17.52
5070.00	-61.67	H	-56.82	1.22	12.72	-45.32	-25.00	-20.32
7605.00	-64.84	H	-53.81	1.54	11.45	-43.90	-25.00	-18.90
High Channel 21400 (2565.00MHz) 1RB24								
5130.00	-55.79	V	-51.03	1.22	12.79	-39.46	-25.00	-14.46
7695.00	-64.75	V	-52.32	1.57	11.45	-42.44	-25.00	-17.44
5130.00	-58.47	H	-53.68	1.22	12.79	-42.11	-25.00	-17.11
7695.00	-64.41	H	-52.22	1.57	11.45	-42.34	-25.00	-17.34

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 1: LTE Band VII (10M/16QAM)		
Date of Test	2014/12/13	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20800 (2505.00MHz) 1RB49								
5010.00	-57.32	V	-52.96	1.24	12.66	-41.54	-25.00	-16.54
7515.00	-65.03	V	-52.44	1.49	11.27	-42.66	-25.00	-17.66
5010.00	-60.90	H	-56.51	1.24	12.66	-45.09	-25.00	-20.09
7515.00	-64.97	H	-52.76	1.49	11.27	-42.98	-25.00	-17.98
Middle Channel 21100 (2535.00MHz) 1RB49								
5070.00	-59.02	V	-54.06	1.22	12.72	-42.56	-25.00	-17.56
7605.00	-64.91	V	-52.40	1.54	11.45	-42.49	-25.00	-17.49
5070.00	-61.36	H	-56.50	1.22	12.72	-45.00	-25.00	-20.00
7605.00	-64.99	H	-52.91	1.54	11.45	-43.00	-25.00	-18.00
High Channel 21400 (2565.00MHz) 1RB24								
5130.00	-57.36	V	-52.60	1.22	12.79	-41.03	-25.00	-16.03
7695.00	-63.49	V	-52.00	1.57	11.45	-42.12	-25.00	-17.12
5130.00	-59.55	H	-54.77	1.22	12.79	-43.20	-25.00	-18.20
7695.00	-63.32	H	-50.35	1.57	11.45	-40.47	-25.00	-15.47

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 1: LTE Band VII (15M/QPSK)		
Date of Test	2014/12/13	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20825 (2507.50MHz) 1RB74								
5015.00	-58.30	V	-53.83	1.24	12.67	-42.40	-25.00	-17.40
7522.50	-64.52	V	-53.04	1.49	11.27	-43.26	-25.00	-18.26
5015.00	-58.30	H	-53.95	1.24	12.67	-42.52	-25.00	-17.52
7522.50	-64.75	H	-53.26	1.49	11.27	-43.48	-25.00	-18.48
Middle Channel 21100 (2535.00MHz) 1RB74								
5070.00	-58.56	V	-53.56	1.22	12.72	-42.06	-25.00	-17.06
7605.00	-64.22	V	-52.84	1.54	11.45	-42.93	-25.00	-17.93
5070.00	-60.36	H	-55.36	1.22	12.72	-43.86	-25.00	-18.86
7605.00	-64.44	H	-53.13	1.54	11.45	-43.22	-25.00	-18.22
High Channel 21375 (2562.50MHz) 1RB0								
5125.00	-55.41	V	-50.40	1.22	12.78	-38.84	-25.00	-13.84
7687.50	-64.31	V	-51.92	1.57	11.45	-42.04	-25.00	-17.04
5125.00	-59.20	H	-54.08	1.22	12.78	-42.52	-25.00	-17.52
7687.50	-64.60	H	-52.48	1.57	11.45	-42.60	-25.00	-17.60

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 1: LTE Band VII (15M/16QAM)		
Date of Test	2014/12/13	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20825 (2507.50MHz) 1RB74								
5015.00	-58.29	V	-53.82	1.24	12.67	-42.39	-25.00	-17.39
7522.50	-64.14	V	-52.43	1.49	11.27	-42.65	-25.00	-17.65
5015.00	-60.64	H	-56.29	1.24	12.67	-44.86	-25.00	-19.86
7522.50	-64.42	H	-53.27	1.49	11.27	-43.49	-25.00	-18.49
Middle Channel 21100 (2535.00MHz) 1RB74								
5070.00	-58.01	V	-53.01	1.22	12.72	-41.51	-25.00	-16.51
7605.00	-64.95	V	-52.59	1.54	11.45	-42.68	-25.00	-17.68
5070.00	-60.86	H	-55.91	1.22	12.72	-44.41	-25.00	-19.41
7605.00	-63.95	H	-51.79	1.54	11.45	-41.88	-25.00	-16.88
High Channel 21375 (2562.50MHz) 1RB0								
5125.00	-56.63	V	-51.62	1.22	12.78	-40.06	-25.00	-15.06
7687.50	-64.77	V	-52.21	1.57	11.45	-42.33	-25.00	-17.33
5125.00	-59.12	H	-53.99	1.22	12.78	-42.43	-25.00	-17.43
7687.50	-65.23	H	-52.98	1.57	11.45	-43.10	-25.00	-18.10

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 1: LTE Band VII (20M/QPSK)		
Date of Test	2014/12/13	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20850 (2510.00MHz) 1RB99								
5020.00	-58.46	V	-53.89	1.24	12.67	-42.46	-25.00	-17.46
7530.00	-65.13	V	-52.63	1.50	11.30	-42.83	-25.00	-17.83
5020.00	-59.98	H	-55.66	1.24	12.67	-44.23	-25.00	-19.23
7530.00	-64.86	H	-52.61	1.50	11.30	-42.81	-25.00	-17.81
Middle Channel 21100 (2535.00MHz) 1RB99								
5070.00	-58.27	V	-53.20	1.22	12.72	-41.70	-25.00	-16.70
7605.00	-64.88	V	-52.59	1.54	11.45	-42.68	-25.00	-17.68
5070.00	-60.02	H	-54.93	1.22	12.72	-43.43	-25.00	-18.43
7605.00	-64.89	H	-52.80	1.54	11.45	-42.89	-25.00	-17.89
High Channel 21350 (2560.00MHz) 1RB0								
5120.00	-56.92	V	-51.89	1.21	12.78	-40.32	-25.00	-15.32
7680.00	-64.52	V	-52.49	1.57	11.45	-42.61	-25.00	-17.61
5120.00	-60.46	H	-55.29	1.21	12.78	-43.72	-25.00	-18.72
7680.00	-64.88	H	-52.82	1.57	11.45	-42.94	-25.00	-17.94

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 1: LTE Band VII (20M/16QAM)		
Date of Test	2014/12/13	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20850 (2510.00MHz) 1RB99								
5020.00	-58.37	V	-53.80	1.24	12.67	-42.37	-25.00	-17.37
7530.00	-65.09	V	-52.65	1.50	11.30	-42.85	-25.00	-17.85
5020.00	-60.72	H	-56.40	1.24	12.67	-44.97	-25.00	-19.97
7530.00	-63.73	H	-52.61	1.50	11.30	-42.81	-25.00	-17.81
Middle Channel 21100 (2535.00MHz) 1RB99								
5070.00	-57.95	V	-52.89	1.22	12.72	-41.39	-25.00	-16.39
7605.00	-64.79	V	-52.66	1.54	11.45	-42.75	-25.00	-17.75
5070.00	-57.95	H	-52.86	1.22	12.72	-41.36	-25.00	-16.36
7605.00	-64.65	H	-53.74	1.54	11.45	-43.83	-25.00	-18.83
High Channel 21350 (2560.00MHz) 1RB0								
5120.00	-56.04	V	-50.99	1.21	12.78	-39.42	-25.00	-14.42
7680.00	-65.14	V	-50.37	1.57	11.45	-40.49	-25.00	-15.49
5120.00	-59.56	H	-54.39	1.21	12.78	-42.82	-25.00	-17.82
7680.00	-64.72	H	-50.55	1.57	11.45	-40.67	-25.00	-15.67

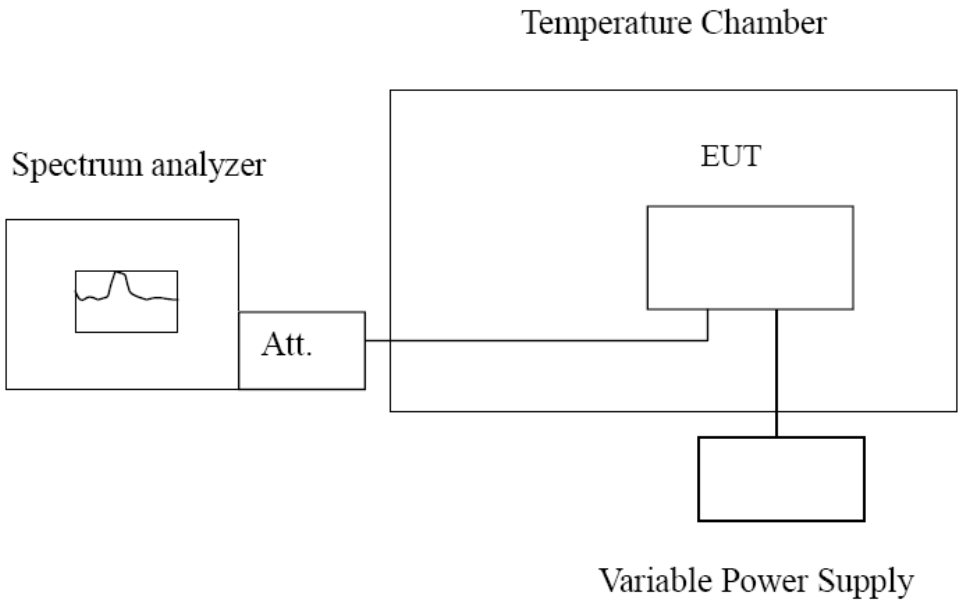
8. Frequency Stability Under Temperature & Voltage Variations

8.1. Test Equipment

Frequency Stability Under Temperature & Voltage Variations / AC-6

Instrument	Manufacturer	Type No.	Serial No	Cali. Due Date
PSA Series Spectrum Analyzer	Agilent	E4440A	MY49420184	2015.03.28
Radio Communication Tester	Anritsu	MT8820C	6201181503	2015.03.28
Dual Directional Coupler	Agilent	778D	20160	2015.03.28
10dB Coaxial Coupler	Agilent	87300C	MY44300299	2015.03.28
DC Power Supply	IDRC	CD-035-020PR	977272	2015.03.28
Temperature & Humidity Chamber	Gaoyu	TH-1P-B	WIT-05121302	2015.01.07
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC6-TH	2015.01.08

8.2. Test Setup



8.3. Test Procedure

Frequency Stability Under Temperature Variations:

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20℃ operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30℃. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10℃ increased per stage until the highest temperature of +50℃ reached.

Frequency Stability Under Voltage Variations:

Set chamber temperature to 20℃. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation (±15%) and endpoint, record the maximum frequency change.

8.4. Uncertainty

The measurement uncertainty is defined as ± 10 Hz.

8.5. Test Result

Product	Wireless Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 1: LTE Band VII (5M/QPSK)		
Date of Test	2014/12/13	Test Site	AC6

Frequency Stability under Temperature

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
-30	2535.00	-35	± 6337.5
-20	2535.00	49	± 6337.5
-10	2535.00	-36	± 6337.5
0	2535.00	33	± 6337.5
10	2535.00	50	± 6337.5
20	2535.00	-48	± 6337.5
30	2535.00	-53	± 6337.5
40	2535.00	70	± 6337.5
50	2535.00	-67	± 6337.5

Frequency Stability under Voltage

DC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
3.2	2535.00	-10	± 6337.5
3.3	2535.00	55	± 6337.5
3.6	2535.00	-19	± 6337.5

Product	Wireless Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 1: LTE Band VII (5M/16QAM)		
Date of Test	2014/12/13	Test Site	AC6

Frequency Stability under Temperature

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
-30	2535.00	60	± 6337.5
-20	2535.00	-54	± 6337.5
-10	2535.00	32	± 6337.5
0	2535.00	36	± 6337.5
10	2535.00	-46	± 6337.5
20	2535.00	-62	± 6337.5
30	2535.00	76	± 6337.5
40	2535.00	58	± 6337.5
50	2535.00	45	± 6337.5

Frequency Stability under Voltage

DC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
3.2	2535.00	77	± 6337.5
3.3	2535.00	-52	± 6337.5
3.6	2535.00	-49	± 6337.5

Product	Wireless Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 1: LTE Band VII (10M/QPSK)		
Date of Test	2014/12/13	Test Site	TR7

Frequency Stability under Temperature

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
-30	2535.00	-57	± 6337.5
-20	2535.00	31	± 6337.5
-10	2535.00	-34	± 6337.5
0	2535.00	59	± 6337.5
10	2535.00	-18	± 6337.5
20	2535.00	-42	± 6337.5
30	2535.00	-26	± 6337.5
40	2535.00	50	± 6337.5
50	2535.00	27	± 6337.5

Frequency Stability under Voltage

DC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
3.2	2535.00	69	± 6337.5
3.3	2535.00	-73	± 6337.5
3.6	2535.00	45	± 6337.5

Product	Wireless Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 1: LTE Band VII (10M/16QAM)		
Date of Test	2014/12/13	Test Site	TR7

Frequency Stability under Temperature

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
-30	2535.00	32	± 6337.5
-20	2535.00	-12	± 6337.5
-10	2535.00	41	± 6337.5
0	2535.00	-48	± 6337.5
10	2535.00	-30	± 6337.5
20	2535.00	38	± 6337.5
30	2535.00	-89	± 6337.5
40	2535.00	-13	± 6337.5
50	2535.00	-22	± 6337.5

Frequency Stability under Voltage

DC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
3.2	2535.00	-23	± 6337.5
3.3	2535.00	48	± 6337.5
3.6	2535.00	-73	± 6337.5

Product	Wireless Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 1: LTE Band VII (15M/QPSK)		
Date of Test	2014/12/13	Test Site	TR7

Frequency Stability under Temperature

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
-30	2535.00	69	± 6337.5
-20	2535.00	31	± 6337.5
-10	2535.00	26	± 6337.5
0	2535.00	35	± 6337.5
10	2535.00	33	± 6337.5
20	2535.00	-58	± 6337.5
30	2535.00	23	± 6337.5
40	2535.00	-48	± 6337.5
50	2535.00	-29	± 6337.5

Frequency Stability under Voltage

DC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
3.2	2535.00	23	± 6337.5
3.3	2535.00	-17	± 6337.5
3.6	2535.00	-19	± 6337.5

Product	Wireless Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 1: LTE Band VII (15M/16QAM)		
Date of Test	2014/12/13	Test Site	TR7

Frequency Stability under Temperature

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
-30	2535.00	-75	± 6337.5
-20	2535.00	-43	± 6337.5
-10	2535.00	20	± 6337.5
0	2535.00	-68	± 6337.5
10	2535.00	28	± 6337.5
20	2535.00	-19	± 6337.5
30	2535.00	65	± 6337.5
40	2535.00	-45	± 6337.5
50	2535.00	-77	± 6337.5

Frequency Stability under Voltage

DC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
3.2	2535.00	-56	± 6337.5
3.3	2535.00	77	± 6337.5
3.6	2535.00	-36	± 6337.5

Product	Wireless Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 1: LTE Band VII (20M/QPSK)		
Date of Test	2014/12/13	Test Site	TR7

Frequency Stability under Temperature

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
-30	2535.00	73	± 6337.5
-20	2535.00	31	± 6337.5
-10	2535.00	-26	± 6337.5
0	2535.00	35	± 6337.5
10	2535.00	33	± 6337.5
20	2535.00	19	± 6337.5
30	2535.00	-23	± 6337.5
40	2535.00	-48	± 6337.5
50	2535.00	-28	± 6337.5

Frequency Stability under Voltage

DC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
3.2	2535.00	25	± 6337.5
3.3	2535.00	-29	± 6337.5
3.6	2535.00	-23	± 6337.5

Product	Wireless Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 1: LTE Band VII (20M/16QAM)		
Date of Test	2014/12/13	Test Site	TR7

Frequency Stability under Temperature

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
-30	2535.00	-75	± 6337.5
-20	2535.00	-43	± 6337.5
-10	2535.00	20	± 6337.5
0	2535.00	-65	± 6337.5
10	2535.00	28	± 6337.5
20	2535.00	18	± 6337.5
30	2535.00	65	± 6337.5
40	2535.00	44	± 6337.5
50	2535.00	-73	± 6337.5

Frequency Stability under Voltage

DC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
3.2	2535.00	-48	± 6337.5
3.3	2535.00	39	± 6337.5
3.6	2535.00	-25	± 6337.5

The End