FCC RF Test Report

Product Name: Mobile WiFi

Product Model: HW-02E

Report Number: SYBH(Z-RF)001122012-2001

FCC ID: QISHW-02E

Reliability Laboratory of Huawei Technologies Co., Ltd.

Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C

Tel: +86 755 28780808 Fax: +86 755 89652518

Notice

1. The laboratory has Passed the accreditation by China National Accreditation Service for Conformity Assessment (CNAS). The accreditation number is L0310.

2. The laboratory has Passed the accreditation by The American Association for Laboratory Accreditation (A2LA). The accreditation number is 2174.01.

3. The laboratory has been listed by the US Federal Communications Commission to perform electromagnetic emission measurements. The site recognition number is 97456.

4. The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 6369A-2.

5. The laboratory has been listed by the VCCI to perform EMC measurements. The accreditation numbers of test site No.1 are R-2364, G-415, C-2583, and T-256, and the accreditation numbers of test site No.2 are R-3760, G-485, C-4210 and T-1237.

6. The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.

7. The test report is invalid if there is any evidence of erasure and/or falsification.

8. The test report is only valid for the test samples.

9. Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.

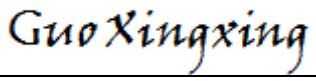
10. The laboratory has Passed the accreditation by The American Association for Laboratory Accreditation (A2LA). The accreditation number is 2174.01.

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Applicant:	Huawei Technologies Co., Ltd.
Address:	Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C

Date of Receipt Sample:	2012-12-04
Start Date of Test:	2012-12-05
End Date of Test:	2012-12-14

Test Result:	Pass

Approved by Senior Engineer:	2012-12-21	Dai Linjun	
	Date	Name	Signature
Prepared by:	2012-12-21	Guo Xingxing	
	Date	Name	Signature

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Modification Record

No.	Last Report No.	Modification Description
1		First report.

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

CONTENT

1 General Information 6
1.1 Applied Standard 6
1.2 Test Location 6
1.3 Test Environment Condition 6
2 Test Summary 7
3 Description of the Equipment under Test (EUT) 8
3.1 General Description 8
3.2 EUT Identity 8
3.3 Technical Description 9
4 General Test Conditions / Configurations 10
4.1 Test Modes 10
4.2 EUT Configurations 11
4.3 Test Environments 13
4.4 Test Setups 14
4.5 Test Conditions 17
5 Main Test Instruments 20

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

1 General Information

1.1 Applied Standard

Applied Rules:	47 CFR FCC Part 2, Subpart J (2011-1-10 Edition) 47 CFR FCC Part 15, Subpart C (2011-1-10 Edition)
Test Method:	FCC KDB 558074 D01 DTS Meas Guidance v01 FCC KDB 662911 D01 Multiple Transmitter Output v01

1.2 Test Location

Test Location 1:	Reliability Laboratory of Huawei Technologies Co., Ltd.
Address:	Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C

1.3 Test Environment Condition

Ambient Temperature:	19.5to 25 ℃
Ambient Relative Humidity:	40 to 55 %
Atmospheric Pressure:	Not applicable

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2 Test Summary

Test Item	FCC Part No.	IC Standard No.	Requirements	Test Result	Verdict (NOTE 2)
DTS (6 dB) Bandwidth	15.247(a)(2)	RSS-210, A8.2(a)	≥ 500 kHz.	Appendix A	Pass
Maximum Peak Conducted Output Power	15.247(b)(3)	RSS-210, A8.4(4)	For directional gain: < 30 dBm – (G[dBi] – 6 [dB]), peak; Otherwise: < 30 dBm, peak.	Appendix B	Pass
Maximum Power Spectral Density Level	15.247(e)	RSS-210, A8.2(b)	For directional gain: < 8 dBm/3 kHz – (G[dBi] – 6 [dB]), peak. Otherwise: < 8 dBm/3 kHz, peak.	Appendix C	Pass
Band Edges Compliance	15.247(d)	RSS-210, A8.5	< -20 dBr/100 kHz if total peak power ≤ power limit.	Appendix D	Pass
Unwanted Emissions into Non-Restricted Frequency Bands				Appendix E	Pass
Unwanted Emissions into Restricted Frequency Bands (Conducted)	15.247(d) 15.209 (NOTE 1)	RSS-210, A8.5 RSS-210, 2.2 RSS-Gen, 7.2.2 RSS-Gen, 7.2.5 (NOTE 1)	FCC Part 15.209 field strength limit; RSS-Gen 7.2.5 field strength limit.	Appendix F	Pass
Unwanted Emissions into Restricted Frequency Bands (Radiated)					
Conducted Emission at Power Port	15.207	RSS-Gen, 7.2.4	FCC Part 15.207 conducted limit; RSS-Gen, 7.2.4 conducted limit.	Appendix G	Pass
Photos of Test Setups	---	---	---	Appendix H	---

NOTE 1: According to KDB 558074, antenna-port conducted measurements are acceptable as an alternative to radiated measurements for demonstrating compliance to the limits in the restricted frequency bands. If conducted measurements are performed, then proper impedance matching must be ensured and an additional radiated test for cabinet/case emissions will also be required.

NOTE 2: For the verdict, the “N/A” denotes “not applicable”, the “N/T” denotes “not tested”.

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

3 Description of the Equipment under Test (EUT)

3.1 General Description

3.2 EUT Identity

NOTE: Unless otherwise noted in the report, the functional boards installed in the units shall be selected from the below list, but not means all the functional boards listed below shall be installed in one unit.

3.2.1 Board

Board		
Description	Hardware Version	Software version
Main board	CL1E5371SM	21.100.00.09.736

3.2.2 Sub-Assembly

Sub-Assembly			
Sub-Assembly Name	Model	Manufacturer	Description
Adapter	HUAWEI	HW-050100U3W	Adapter,0degC,45degC,100V,240V,5.0v/1.0A,PSE 2pin/DC USB2.0,Japan,NTT LOGO,Super Small,ERP V,PSE,White,Terminal Dedicated LOGO,ERP V
Li-ion Battery	HUAWEI	HB5F2H	Rated capacity: 1780mAh Nominal Voltage: ⎓ +3.7V Charging Voltage: ⎓ +4.2V

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

3.3 Technical Description

Characteristics	Description			
IEEE 802.11 WLAN Mode Supported	☒ 802.11b (20 MHz channel bandwidth), ☒ 802.11g (20 MHz channel bandwidth) ☒ 802.11n (20 MHz channel bandwidth), ☒ 802.11n (40 MHz channel bandwidth)			
TX/RX Operating Range	2412-2462 MHz band	fc = 2407 MHz + N * 5 MHz, where: - fc = "Operating Frequency" in MHz, - N = "Channel Number" with the range from 1 to 11 for the 20 MHz channel bandwidth, or 3 to 9 for the 40 MHz channel bandwidth.		
Data Rate	802.11b	1 Mbps, 2 Mbps, 5.5 Mbps, 11 Mbps		
	802.11g	6 Mbps, 9 Mbps, 12 Mbps, 18 Mbps, 24 Mbps, 36 Mbps, 48 Mbps, 54 Mbps		
	802.11n (SISO)	MCS 0 to MCS 7		
	802.11n (MIMO)	MCS 8 to MCS 15		
Modulation Type	DBPSK/DQPSK/CCK (DSSS), BPSK/QPSK/16QAM/64QAM (OFDM).			
Emission Designator	8M29G1D (for 802.11b mode), 16M5G7D (for 802.11g mode), 17M7G7D (for 802.11n with 20MHz of SISO mode), 17M8G7D (for 802.11n with 20MHz of MIMO mode), 36M6G7D (for 802.11n with 40MHz of SISO mode), 36M6G7D (for 802.11n with 40MHz of MIMO mode)			
TX Power Control	☒ Supported, ☐ Not Supported			
Standby Mode	☐ Supported, ☒ Not Supported			
Equipment Type	☐ Stand-alone equipment, ☐ Plug-in radio device, ☒ Combined equipment			
Antenna	Description	Isotropic Antenna,2400~2500MHz/5150~5850MHz,3dBi/5dBi,isotropic,5W,N-J,no		
	Type	☐ External, ☒ Integrated		
	Ports	☒ Ant 1, ☒ Ant 2, ☐ Ant 3		
	Smart System	☒ SISO (for 802.11b/g/n), ☒ MIMO (for 802.11n): 2 Tx & 2 Rx, ☐ Diversity (for 802.11b/g) : Tx & Rx		
	Gain	Ant1:-0.6 dbi, Ant2:-0.9 dbi		
	Remark	When the EUT is put into service, the practical maximum antenna gain should NOT exceed the value as described above.		
Power Supply	Type	☒ AC/DC Adapter	☐ PoE:	☐ Other:

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

4 General Test Conditions / Configurations

4.1 Test Modes

NOTE: Typical working modes for each IEEE 802.11 mode are selected to perform tests.

Test Mode	Test Modes Description
11B	IEEE 802.11b with data rate of 1 Mbps using SISO mode.
11G	IEEE 802.11g with data rate of 6 Mbps using SISO mode.
11N20	IEEE 802.11n with data date of MCS0 and bandwidth of 20 MHz using SISO mode.
11N20m	IEEE 802.11n with data date of MCS8 and bandwidth of 20 MHz using MIMO mode.
11N40	IEEE 802.11n with data date of MCS0 and bandwidth of 40 MHz using SISO mode.
11N40m	IEEE 802.11n with data date of MCS8 and bandwidth of 40 MHz using MIMO mode.

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

4.2 EUT Configurations

4.2.1 General Configurations

Configuration	Description
Test Antenna Ports	Until otherwise specified, - All TX tests are performed at all TX antenna ports of the EUT, and - All RX tests are performed at all RX antenna ports of the EUT.
Multiple RF Sources	Other than the tested RF source of the EUT, other RF source(s) are disabled or shutdown during measurements.

4.2.2 Customized Configurations

Test Mode	RF Ch.	TX Freq. [MHz]	Antenna Port	RX Freq. [MHz]	Ch. BW [MHz]	Power Conf., per Port	Duty Cycle
11B	B	Ch No. 1 / 2412 MHz	Ant1	---	20	8	1.00
			Ant2	---	20	8	1.00
	M	Ch No. 6 / 2437 MHz	Ant1	---	20	8	1.00
			Ant2	---	20	8	1.00
	T	Ch No. 11 / 2462 MHz	Ant1	---	20	8	1.00
			Ant2	---	20	8	1.00
11G	B	Ch No. 1 / 2412 MHz	Ant1	---	20	8	0.99
			Ant2	---	20	8	0.99
	M	Ch No. 6 / 2437 MHz	Ant1	---	20	8	0.99
			Ant2	---	20	8	0.99
	T	Ch No. 11 / 2462 MHz	Ant1	---	20	8	0.99
			Ant2	---	20	8	0.99
11N20	B	Ch No. 1 / 2412 MHz	Ant1	---	20	8	0.94
			Ant2	---	20	8	0.94
	M	Ch No. 6 / 2437 MHz	Ant1	---	20	8	0.94
			Ant2	---	20	8	0.94
	T	Ch No. 11 / 2462 MHz	Ant1	---	20	8	0.94
			Ant2	---	20	8	0.94
11N20m	B	Ch No. 1 / 2412 MHz	Ant1	---	20	8	0.93
			Ant2	---	20	8	0.93
	M	Ch No. 6 / 2437 MHz	Ant1	---	20	8	0.93
			Ant2	---	20	8	0.93
	T	Ch No. 11 / 2462 MHz	Ant1	---	20	8	0.93
			Ant2	---	20	8	0.93
11N40	B	Ch No. 3 / 2422 MHz	Ant1	---	40	8	0.85
			Ant2	---	40	8	0.85

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Test Mode	RF Ch.	TX Freq. [MHz]	Antenna Port	RX Freq. [MHz]	Ch. BW [MHz]	Power Conf., per Port	Duty Cycle
	M	Ch No. 6 / 2437 MHz	Ant1	---	40	8	0.85
			Ant2	---	40	8	0.85
	T	Ch No. 9 / 2452 MHz	Ant1	---	40	8	0.85
			Ant2	---	40	8	0.85
11N40m	B	Ch No. 3 / 2422 MHz	Ant1	---	40	8	0.83
			Ant2	---	40	8	0.83
	M	Ch No. 6 / 2437 MHz	Ant1	---	40	8	0.83
			Ant2	---	40	8	0.83
	T	Ch No. 9 / 2452 MHz	Ant1	---	40	8	0.83
			Ant2	---	40	8	0.83

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

4.3 Test Environments

NOTE: The values used in the test report may be stringent than the declared.

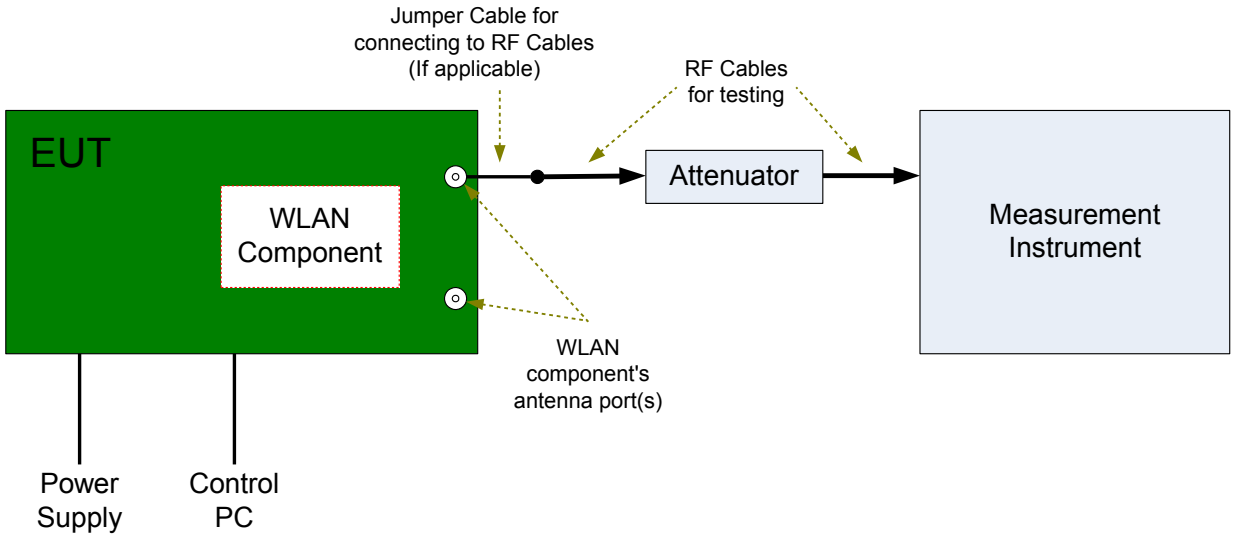
Environment Parameter	Selected Values During Tests		
	Temperature	Voltage	Relative Humidity
NTNV	Ambient	3.7 VDC	Ambient

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

4.4 Test Setups

4.4.1 Test Setup 1

The WLAN component's antenna ports(s) of the EUT are connected to the measurement instrument per an appropriate attenuator. The EUT is controlled by PC/software to emit the specified signals for the purpose of measurements.

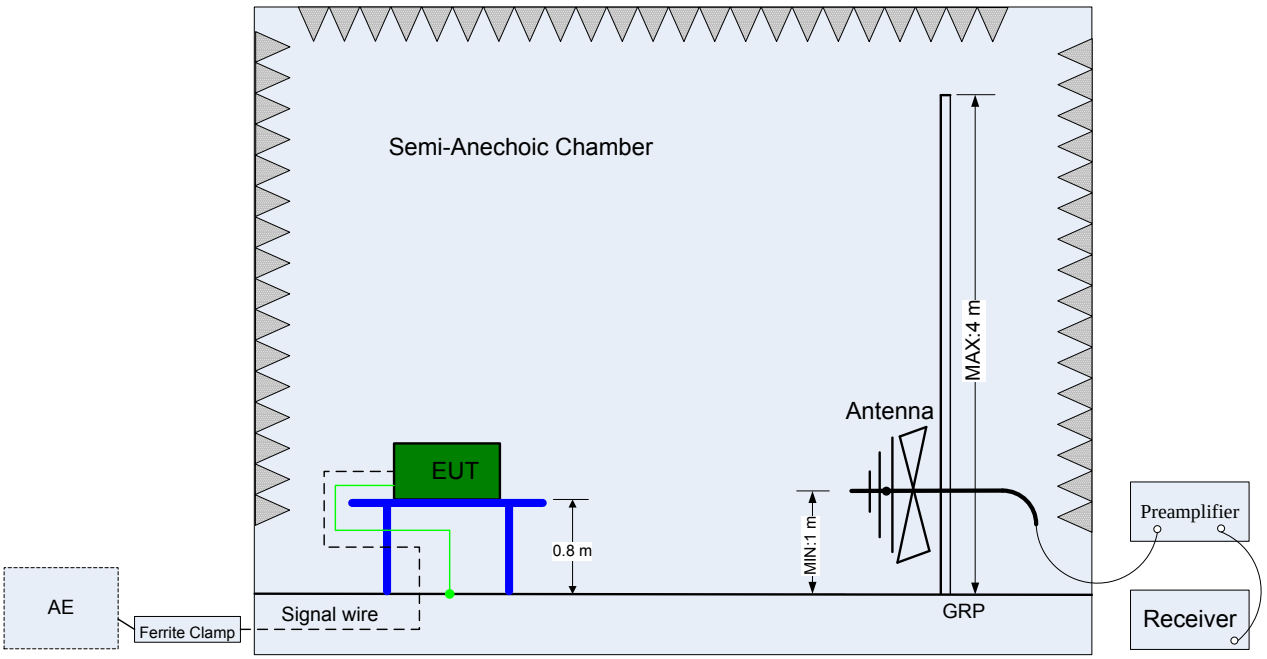


4.4.2 Test Setup 2

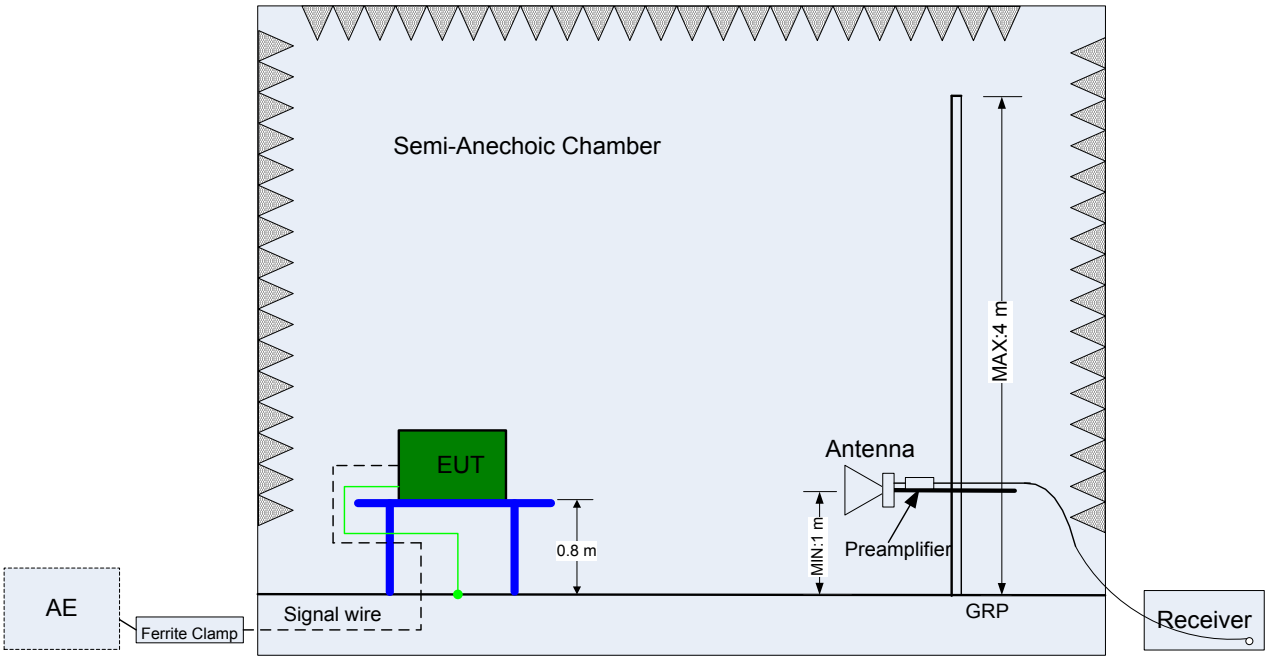
The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.4. The test distance is 3m.The setup is according to ANSI C63.4 and CAN/CSA-CEI/IEC CISPR 22.

The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.



(Below 1 GHz)



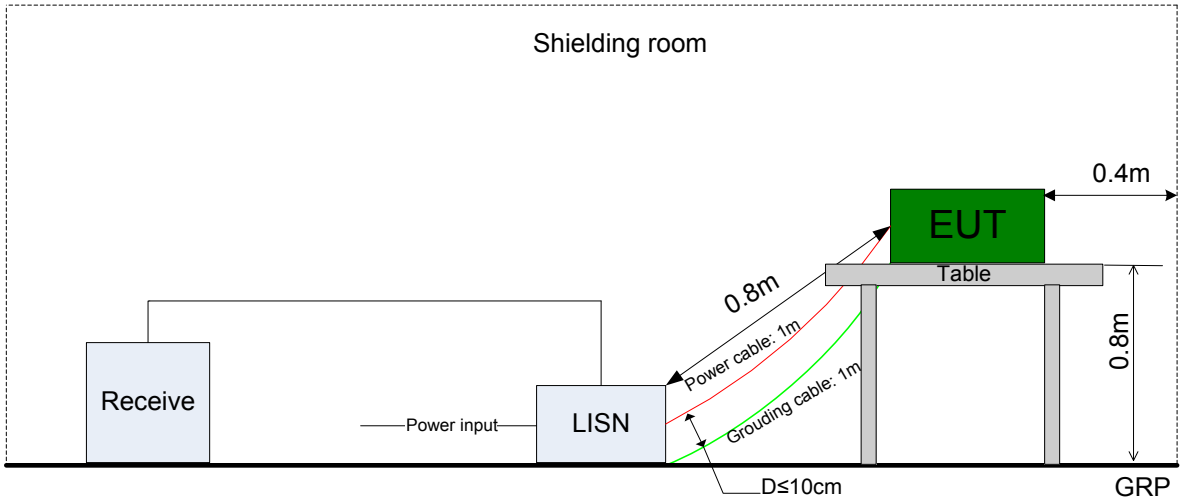
(Above 1 GHz)

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

4.4.3 Test Setup 3

The mains cable of the EUT (maybe per AC/DC Adapter) must be connected to LISN. The LISN shall be placed 0.8 m from the boundary of EUT and bonded to a ground reference plane for LISN mounted on top of the ground reference plane. This distance is between the closest points of the LISN and the EUT. All other units of the EUT and associated equipment shall be at least 0.8m from the LISN.

Ground connections, where required for safety purposes, shall be connected to the reference ground point of the LISN and, where not otherwise provided or specified by the manufacturer, shall be of same length as the mains cable and run parallel to the mains connection at a separation distance of not more than 0.1 m.



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

4.5 Test Conditions

Test Case	Test Conditions	
	Configuration	Description
DTS (6 dB) Bandwidth	Measurement Method	FCC KDB 558074 §7.1.1 Option 1.
	Test Environment	NTNV
	Test Setup	Test Setup 1
	EUT Configuration	11B_B@Ant1, 11B_B@Ant2, 11B_M@Ant1, 11B_M@Ant2, 11B_T@Ant1, 11B_T@Ant2, 11G_B@Ant1, 11G_B@Ant2, 11G_M@Ant1, 11G_M@Ant2, 11G_T@Ant1, 11G_T@Ant2, 11N20_B@Ant1, 11N20_B@Ant2, 11N20_M@Ant1, 11N20_M@Ant2, 11N20_T@Ant1, 11N20_T@Ant2, 11N20m_B@Ant1, 11N20m_B@Ant2, 11N20m_M@Ant1, 11N20m_M@Ant2, 11N20m_T@Ant1, 11N20m_T@Ant2, 11N40_B@Ant1, 11N40_B@Ant2, 11N40_M@Ant1, 11N40_M@Ant2, 11N40_T@Ant1, 11N40_T@Ant2, 11N40m_B@Ant1, 11N40m_B@Ant2, 11N40m_M@Ant1, 11N40m_M@Ant2, 11N40m_T@Ant1, 11N40m_T@Ant2,
Occupied Bandwidth (Only for IC requirement)	Measurement Method	RSS-Gen, 4.6.1.
	Test Environment	NTNV
	Test Setup	Test Setup 1
	EUT Configuration	---
Maximum Peak Conducted Output Power	Measurement Method	FCC KDB 558074 §7.2.1.2 Option 2 (integrated band power method).
	Test Environment	NTNV
	Test Setup	Test Setup 1
	EUT Configuration	11B_B@Ant1, 11B_B@Ant2, 11B_M@Ant1, 11B_M@Ant2, 11B_T@Ant1, 11B_T@Ant2, 11G_B@Ant1, 11G_B@Ant2, 11G_M@Ant1, 11G_M@Ant2, 11G_T@Ant1, 11G_T@Ant2, 11N20_B@Ant1, 11N20_B@Ant2, 11N20_M@Ant1, 11N20_M@Ant2, 11N20_T@Ant1, 11N20_T@Ant2, 11N20m_B@Ant1, 11N20m_B@Ant2, 11N20m_M@Ant1, 11N20m_M@Ant2, 11N20m_T@Ant1, 11N20m_T@Ant2, 11N40_B@Ant1, 11N40_B@Ant2, 11N40_M@Ant1, 11N40_M@Ant2, 11N40_T@Ant1, 11N40_T@Ant2, 11N40m_B@Ant1, 11N40m_B@Ant2, 11N40m_M@Ant1, 11N40m_M@Ant2, 11N40m_T@Ant1, 11N40m_T@Ant2,
Maximum Power Spectral Density Level	Measurement Method	FCC KDB 558074 §7.3.1 Option 1 (peak PSD).
	Test Environment	NTNV
	Test Setup	Test Setup 1
	EUT Configuration	11B_B@Ant1, 11B_B@Ant2, 11B_M@Ant1, 11B_M@Ant2,

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Test Case	Test Conditions	
	Configuration	Description
		11B_T@Ant1, 11B_T@Ant2, 11G_B@Ant1, 11G_B@Ant2, 11G_M@Ant1, 11G_M@Ant2, 11G_T@Ant1, 11G_T@Ant2, 11N20_B@Ant1, 11N20_B@Ant2, 11N20_M@Ant1, 11N20_M@Ant2, 11N20_T@Ant1, 11N20_T@Ant2, 11N20m_B@Ant1, 11N20m_B@Ant2, 11N20m_M@Ant1, 11N20m_M@Ant2, 11N20m_T@Ant1, 11N20m_T@Ant2, 11N40_B@Ant1, 11N40_B@Ant2, 11N40_M@Ant1, 11N40_M@Ant2, 11N40_T@Ant1, 11N40_T@Ant2, 11N40m_B@Ant1, 11N40m_B@Ant2, 11N40m_M@Ant1, 11N40m_M@Ant2, 11N40m_T@Ant1, 11N40m_T@Ant2,
Unwanted Emissions into Non-Restricted Frequency Bands	Measurement Method	FCC KDB 558074 §7.4.1, use Peak PSD.
	Test Environment	NTNV
	Test Setup	Test Setup 1
	EUT Configuration	11B_B@Ant1, 11B_B@Ant2, 11B_M@Ant1, 11B_M@Ant2, 11B_T@Ant1, 11B_T@Ant2, 11G_B@Ant1, 11G_B@Ant2, 11G_M@Ant1, 11G_M@Ant2, 11G_T@Ant1, 11G_T@Ant2, 11N20_B@Ant1, 11N20_B@Ant2, 11N20_M@Ant1, 11N20_M@Ant2, 11N20_T@Ant1, 11N20_T@Ant2, 11N20m_B@Ant1, 11N20m_B@Ant2, 11N20m_M@Ant1, 11N20m_M@Ant2, 11N20m_T@Ant1, 11N20m_T@Ant2, 11N40_B@Ant1, 11N40_B@Ant2, 11N40_M@Ant1, 11N40_M@Ant2, 11N40_T@Ant1, 11N40_T@Ant2, 11N40m_B@Ant1, 11N40m_B@Ant2, 11N40m_M@Ant1, 11N40m_M@Ant2, 11N40m_T@Ant1, 11N40m_T@Ant2,
Unwanted Emissions into Restricted Frequency Bands (Conducted)	Measurement Method	FCC KDB 558074 §7.4.2, Conducted (antenna-port).
	Test Environment	NTNV
	Test Setup	Test Setup 1
	EUT Configuration	11B_B@Ant1, 11B_B@Ant2, 11B_M@Ant1, 11B_M@Ant2, 11B_T@Ant1, 11B_T@Ant2, 11G_B@Ant1, 11G_B@Ant2, 11G_M@Ant1, 11G_M@Ant2, 11G_T@Ant1, 11G_T@Ant2, 11N20_B@Ant1, 11N20_B@Ant2, 11N20_M@Ant1, 11N20_M@Ant2, 11N20_T@Ant1, 11N20_T@Ant2, 11N20m_B@Ant1, 11N20m_B@Ant2, 11N20m_M@Ant1, 11N20m_M@Ant2, 11N20m_T@Ant1, 11N20m_T@Ant2, 11N40_B@Ant1, 11N40_B@Ant2, 11N40_M@Ant1, 11N40_M@Ant2, 11N40_T@Ant1, 11N40_T@Ant2, 11N40m_B@Ant1, 11N40m_B@Ant2, 11N40m_M@Ant1, 11N40m_M@Ant2, 11N40m_T@Ant1, 11N40m_T@Ant2,

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Test Case	Test Conditions	
	Configuration	Description
Unwanted Emissions into Restricted Frequency Bands (Radiated)	Measurement Method	FCC KDB 558074 §7.4.2, Radiated (cabinet/case emissions with impedance matching for antenna-port).
	Test Environment	NTNV
	Test Setup	Test Setup 2
	EUT Placement	☒ Flatwise, ☐ Upright, ☐ Hung
	EUT Configuration	(1) 30 MHz to 1 GHz: 11B_B@Ant1 (Worst Conf.). (2) 1 GHz to 3 GHz: 11B_B@Ant1, 11B_B@Ant2, 11B_T@Ant1, 11B_T@Ant2, 11G_B@Ant1, 11G_B@Ant2, 11G_T@Ant1, 11G_T@Ant2, 11N20_B@Ant1, 11N20_B@Ant2, 11N20_T@Ant1, 11N20_T@Ant2, 11N20m_B@Ant1, 11N20m_B@Ant2, 11N20m_T@Ant1, 11N20m_T@Ant2, 11N40_B@Ant1, 11N40_B@Ant2, 11N40_T@Ant1, 11N40_T@Ant2, 11N40m_B@Ant1, 11N40m_B@Ant2, 11N40m_T@Ant1, 11N40m_T@Ant2, (3) 3 GHz to 18 GHz: 11B_B@Ant1 (Worse Conf.), 11B_T@Ant1 (Worse Conf.). (4) 18 GHz to 26.5 GHz: 11B_B@Ant1 (Worse Conf.), 11B_T@Ant1 (Worse Conf.).
AC Power Line Conducted Emissions	Measurement Method	AC mains conducted.
	Test Environment	NTNV
	Test Setup	Test Setup 3
	EUT Configuration	11B_B@Ant1 (Worst Conf.).

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

5 Main Test Instruments

Equipment Name	Manufacturer	Model	Serial Number	Cal Date	Cal. Due
Power supply	KEITHLEY	2303	1288003	2012-11-09	2013-11-08
Spectrum Analyzer	Agilent	E4440A	MY48250119	2012-07-18	2013-07-17
Signal Analyzer	R&S	FSQ31	200021	2012-11-09	2013-11-08
Spectrum Analyzer	Agilent	N9030A	MY49431698	2012-11-09	2013-11-08
Temperature Chamber	WEISS	WKL64	24600294	2012-02-14	2013-02-13
Signal generator	Agilent	E8257D	MY49281095	2012-07-10	2013-07-09
Spectrum analyzer	R&S	FSU3	200474	2012-03-06	2013-03-05
Spectrum analyzer	R&S	FSU43	100144	2012-04-06	2013-04-05
Double-Ridged Waveguide Horn Antenna (1G~18GHz)	R&S	HF907	100304	2012-04-06	2013-04-05
Double-Ridged Waveguide Horn Antenna (1G~18GHz)	R&S	HF907	100391	2012-07-18	2013-07-17
Trilog Broadband Antenna (30M~3GHz)	SCHWARZBECK	VULB 9163	9163-521	2012-02-28	2013-02-27
Pyramidal Horn Antenna(26GHz-40GHz)	ETS-Lindgren	3160-10	00123940	2012-02-28	2013-02-27
Pyramidal Horn Antenna(18GHz-26.5GHz)	ETS-Lindgren	3160-09	00125912	2012-02-28	2013-02-27

END

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Appendix A.1: DTS (6 dB) Bandwidth

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

In this document, the “DTS6dBBW” refers to the measured “DTS (6 dB) Bandwidth” value. In this Appendix, the “fc(DTS6dBBW)” refers to the centre of the measured “DTS6dBBW”. The introduction of the “fc(DTS6dBBW)” is due to that other measurements use it as the spectrum analyzer setting.

For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

1 Result Table

EUT Conf.	Channel	Frequency (DTS6dBBW) [MHz]	Ant	DTS6dBBW [MHz]	Verdict
11B	B	2412	Ant 1	8.29	pass
			Ant 2	8.11	pass
	M	2437	Ant 1	8.05	pass
			Ant 2	7.92	pass
	T	2462	Ant 1	7.86	pass
			Ant 2	8.12	pass
11G	B	2412	Ant 1	16.44	pass
			Ant 2	14.89	pass
	M	2437	Ant 1	16.38	pass
			Ant 2	16.43	pass
	T	2462	Ant 1	15.75	pass
			Ant 2	16.37	pass
11N20	B	2412	Ant 1	16.40	pass
			Ant 2	15.49	pass
	M	2437	Ant 1	16.41	pass
			Ant 2	16.42	pass
	T	2462	Ant 1	16.41	pass
			Ant 2	17.63	pass
11N20m	B	2412	Ant 1	17.67	pass
			Ant 2	15.76	pass
	M	2437	Ant 1	17.62	pass
			Ant 2	17.63	pass
	T	2462	Ant 1	17.64	pass
			Ant 2	17.61	pass
11N40	B	2422	Ant 1	36.46	pass
			Ant 2	32.00	pass
	M	2437	Ant 1	36.37	pass
			Ant 2	36.54	pass
	T	2452	Ant 1	36.46	pass
			Ant 2	36.49	pass
11N40m	B	2422	Ant 2	31.63	pass
			Ant 1	36.35	pass

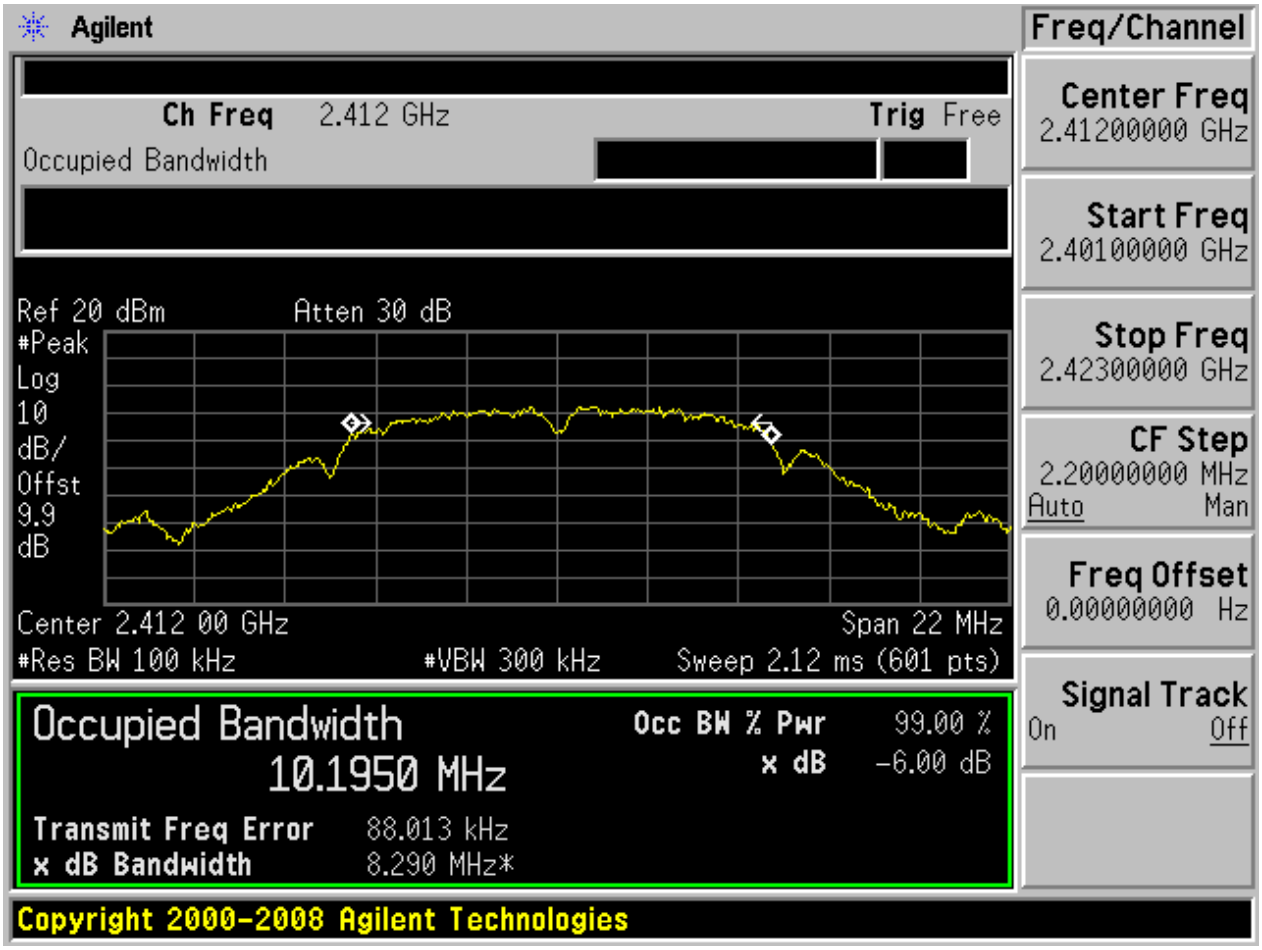
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

EUT Conf.	Channel	Frequency (DTS6dBBW) [MHz]	Ant	DTS6dBBW [MHz]	Verdict
	M	2437	Ant 2	36.55	pass
			Ant 1	36.55	pass
	T	2452	Ant 2	36.49	pass
			Ant 1	36.53	pass

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

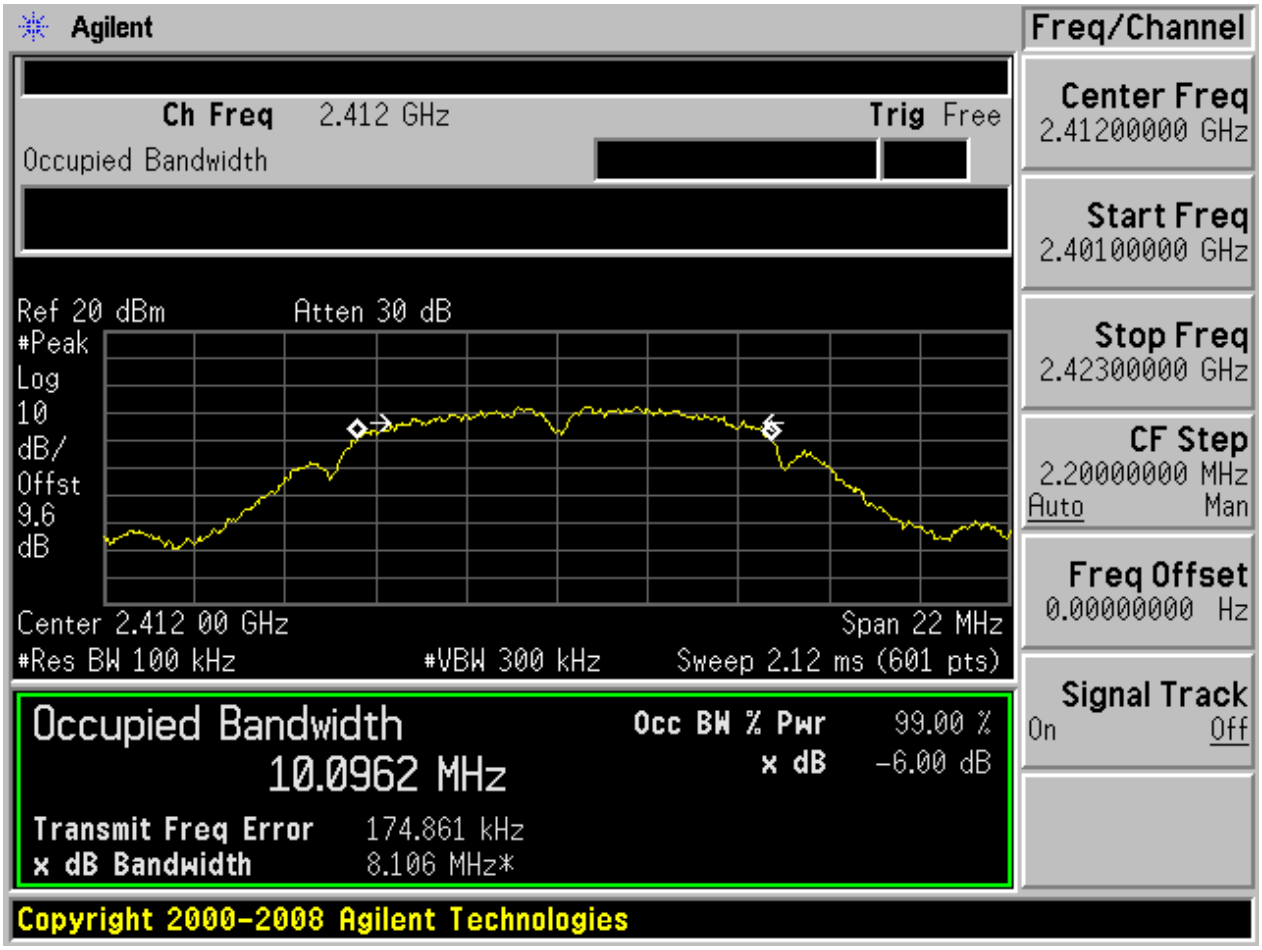
2 Test Plots

2.1 11B_B@Ant1



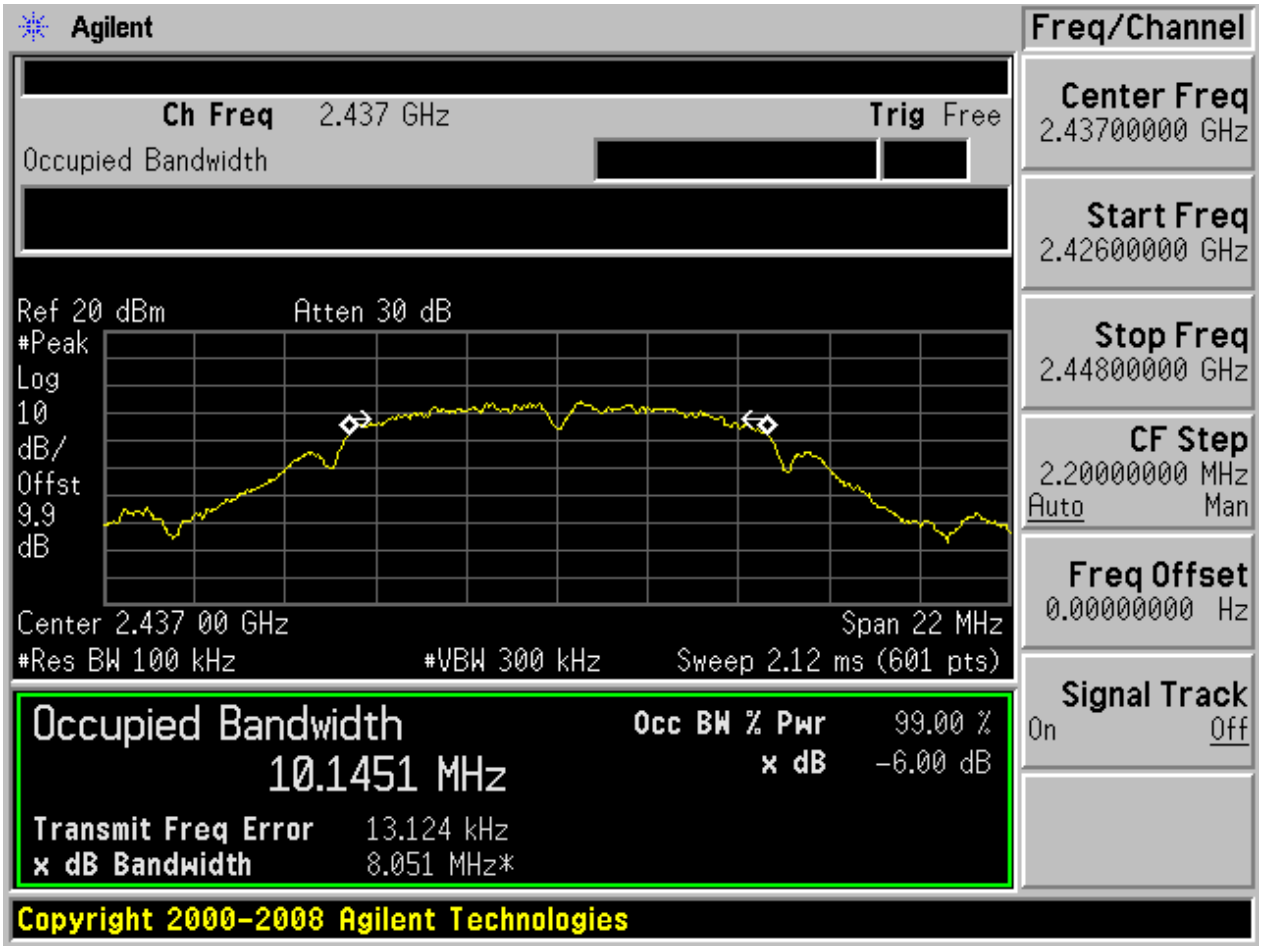
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.2 11B_B@Ant2



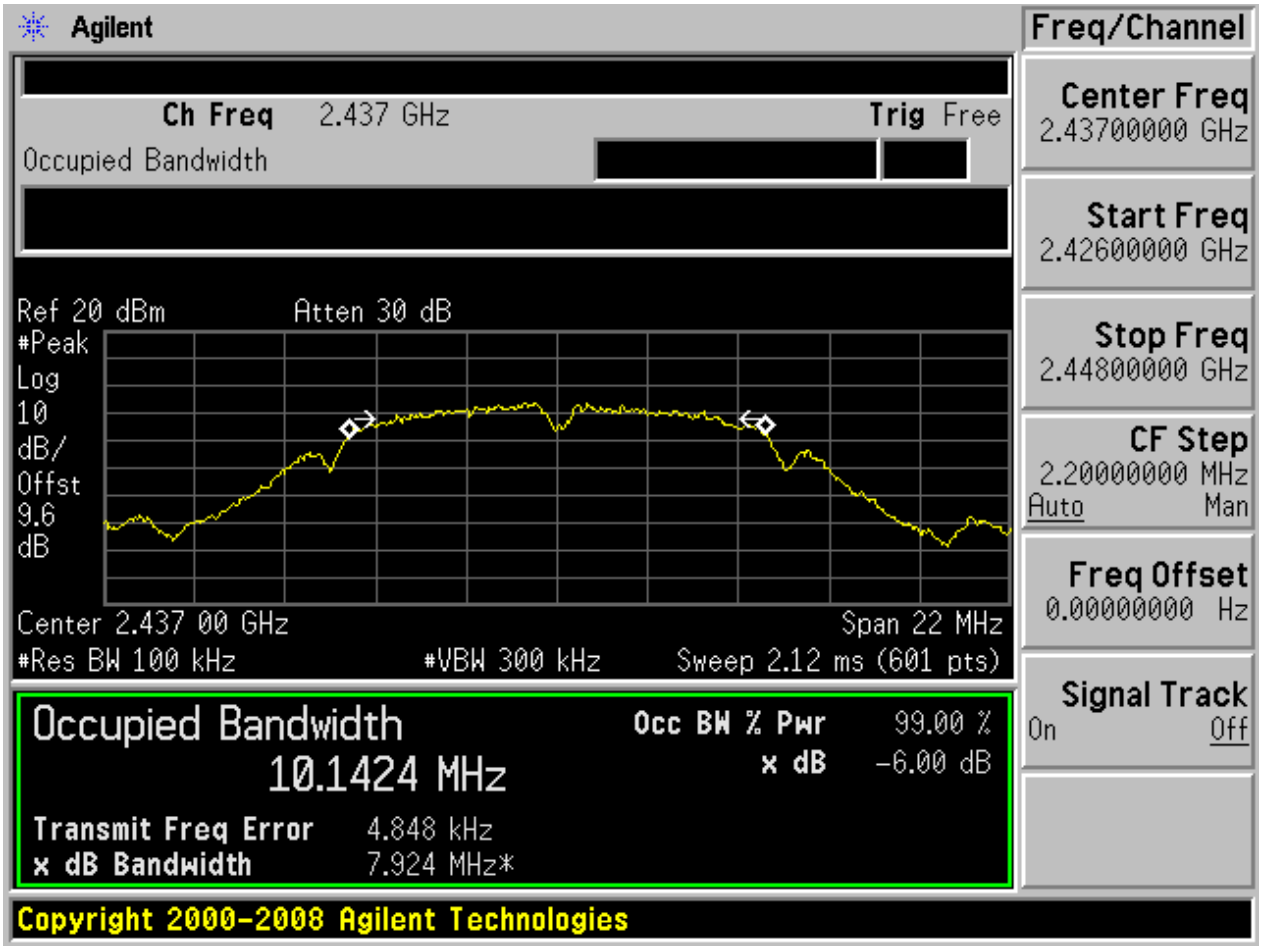
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3 11B_M@Ant1



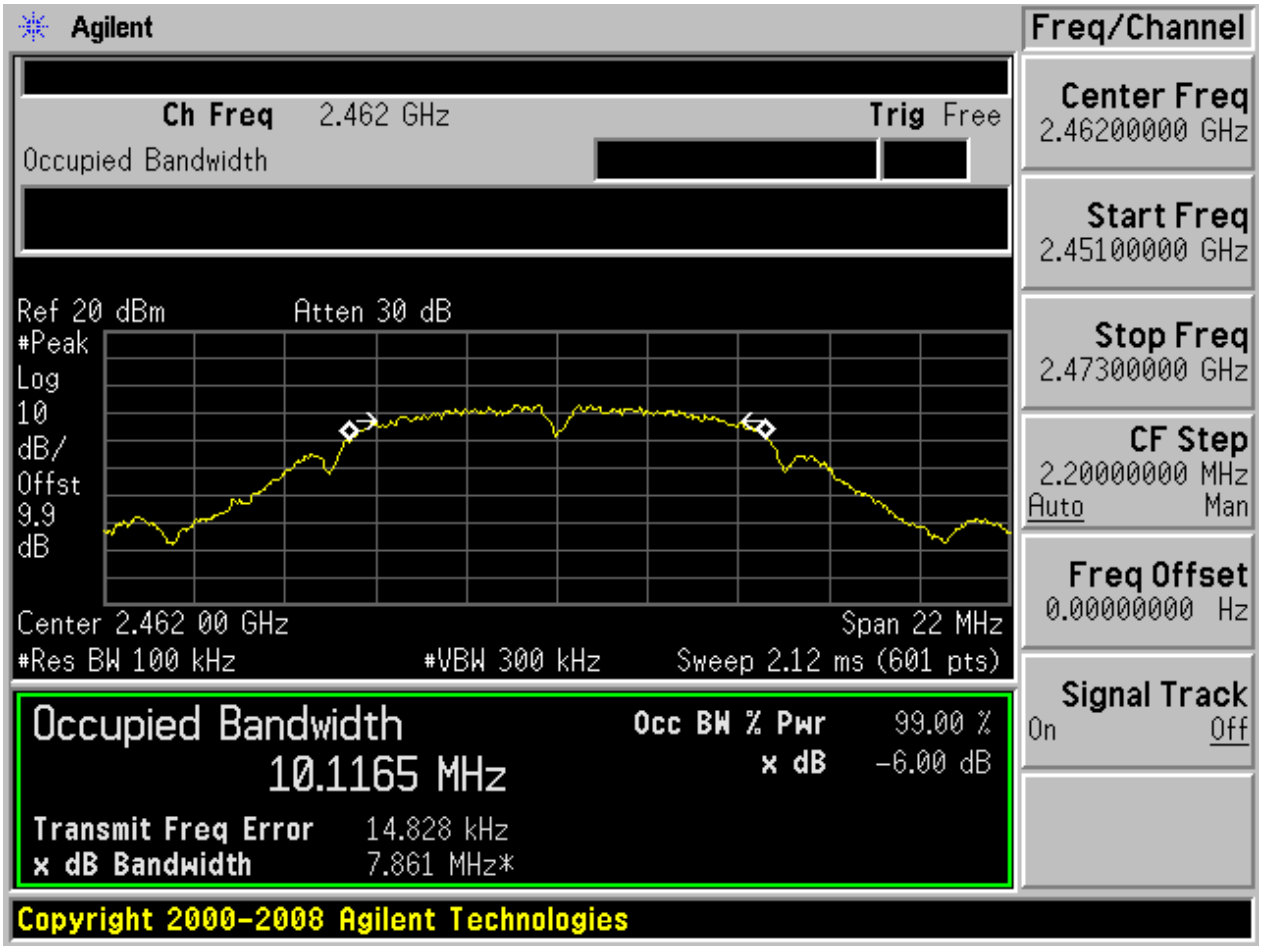
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4 11B_M@Ant2



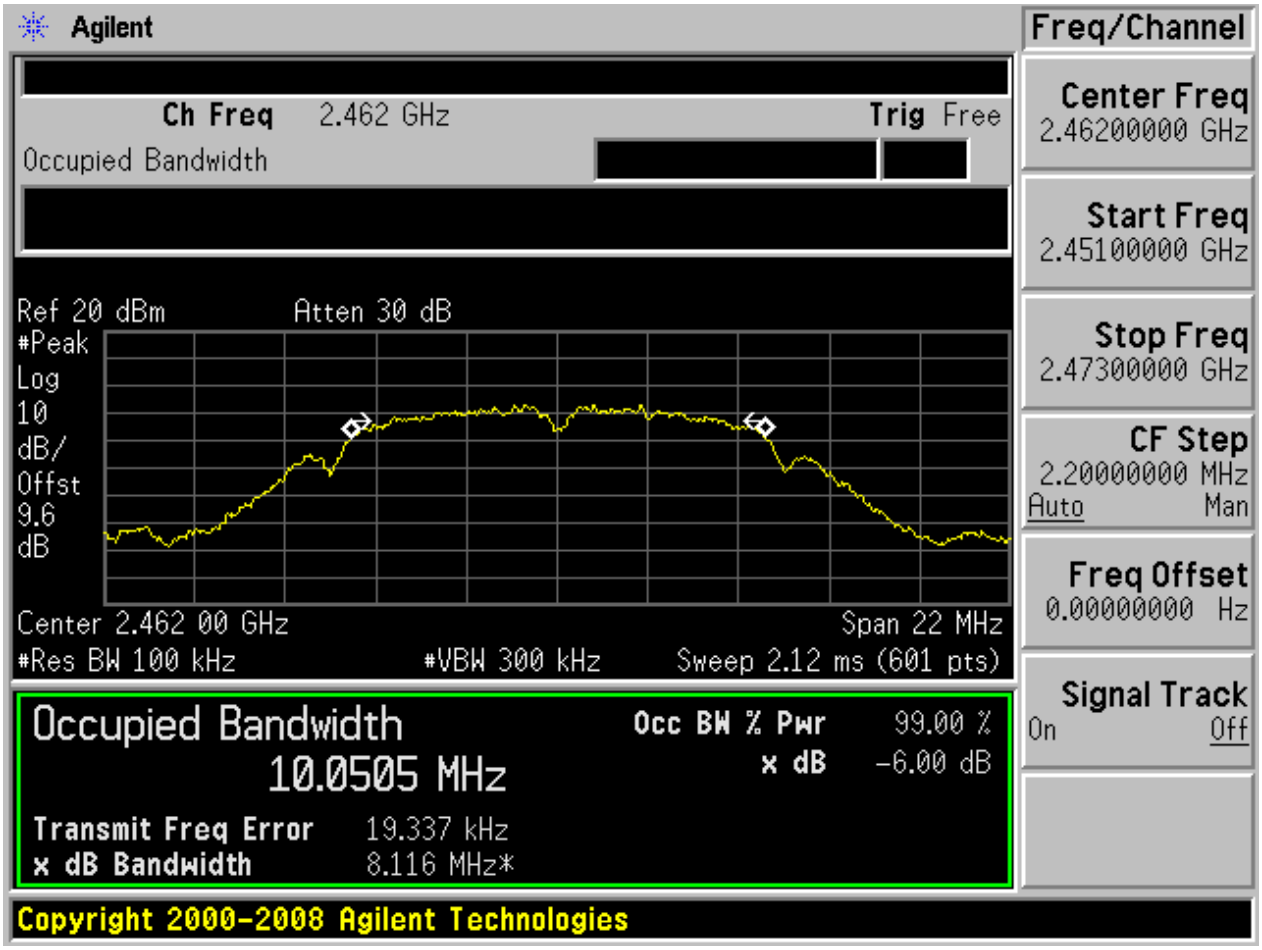
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.5 11B_T@Ant1



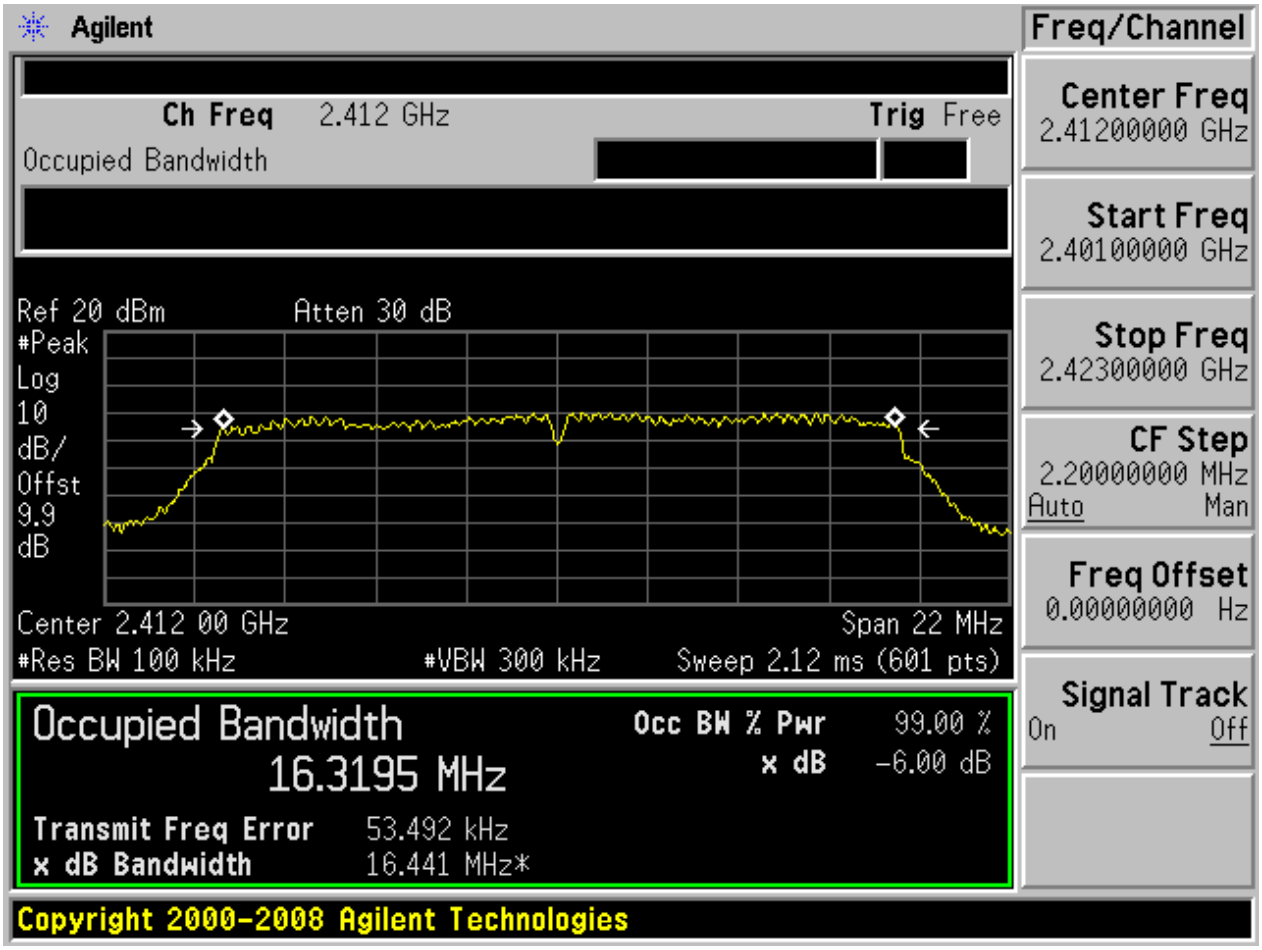
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.6 11B_T@Ant2



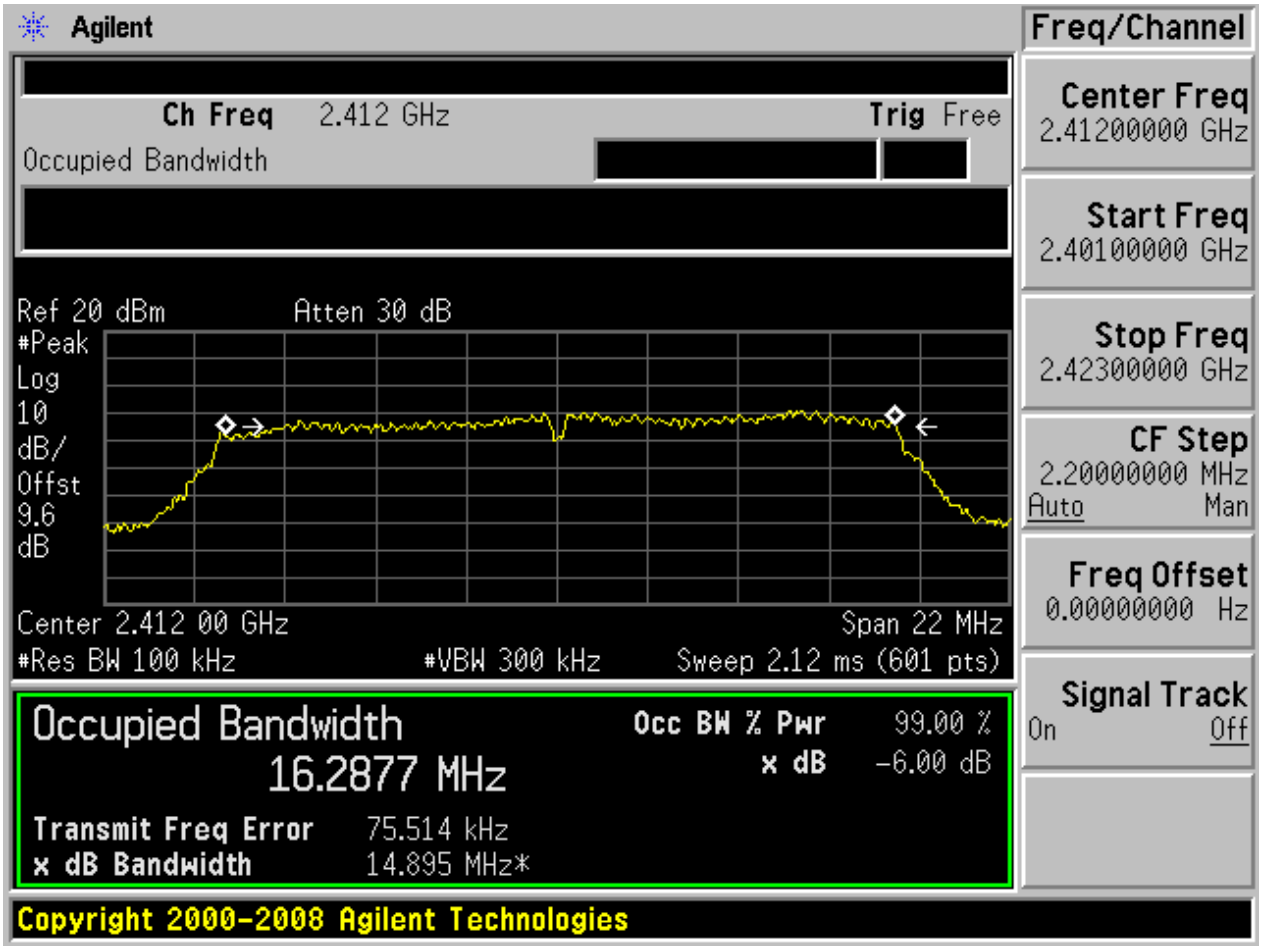
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.7 11G_B@Ant1



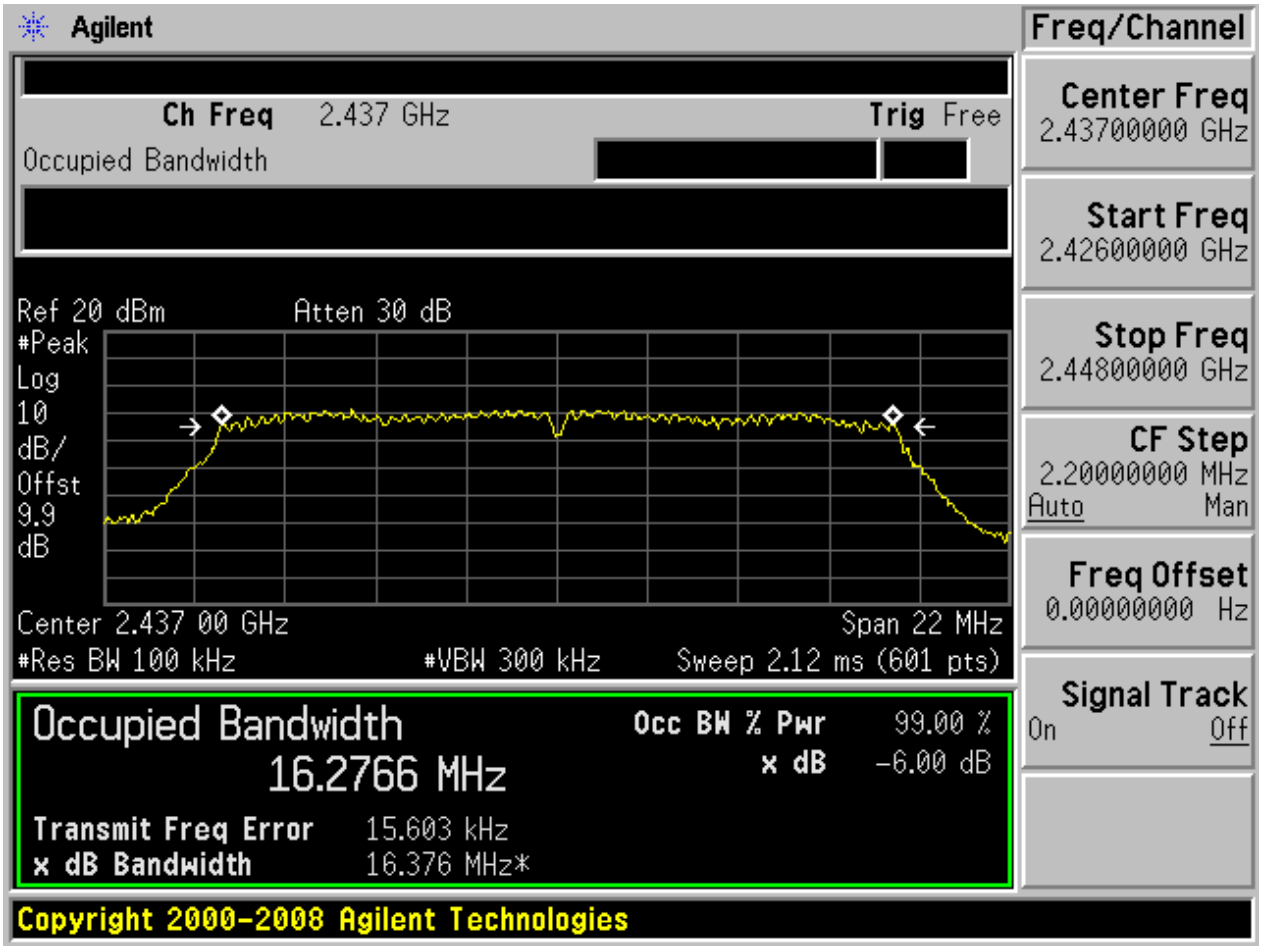
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.8 11G_B@Ant2



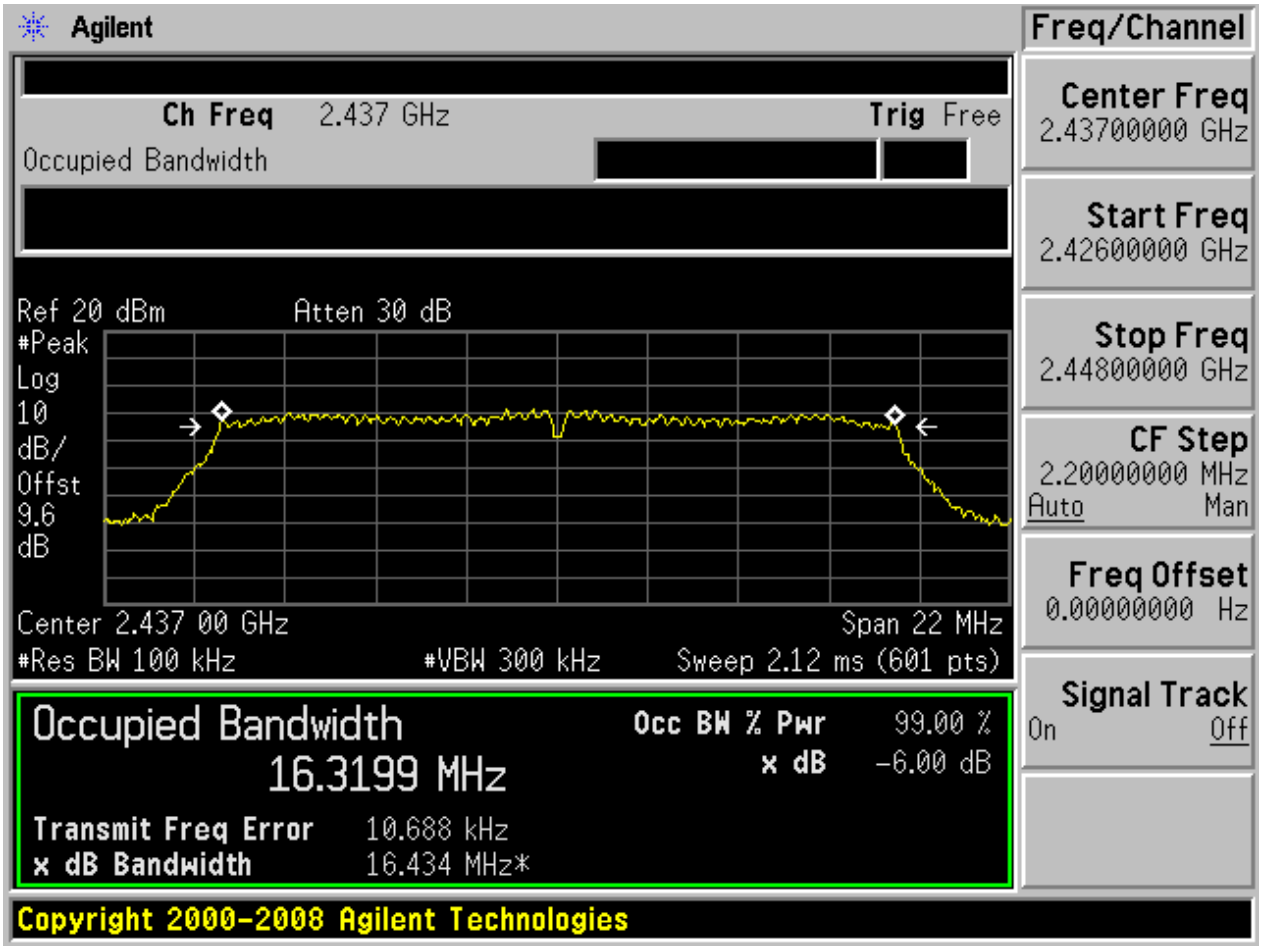
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.9 11G_M@Ant1



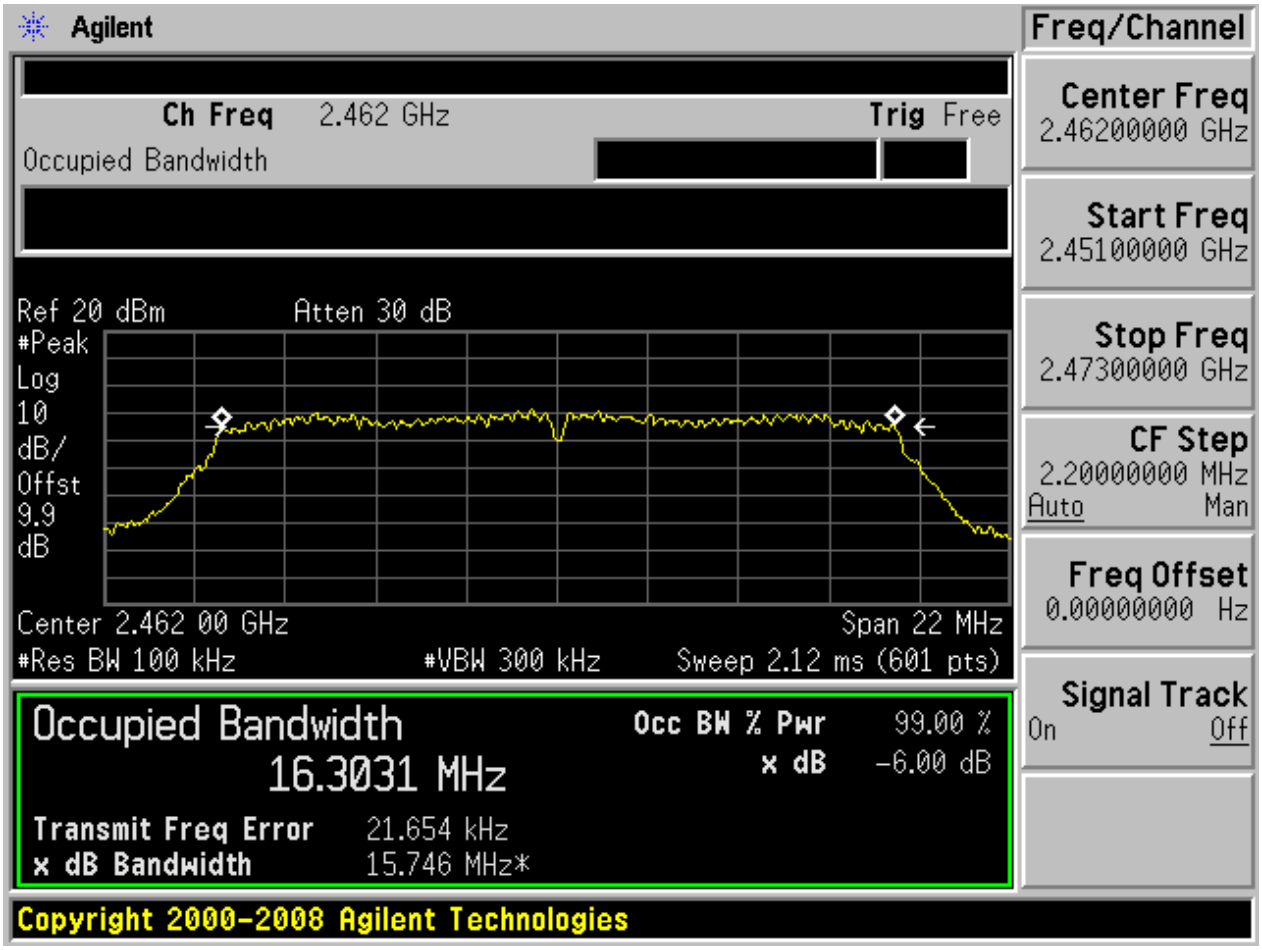
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.10 11G_M@Ant2



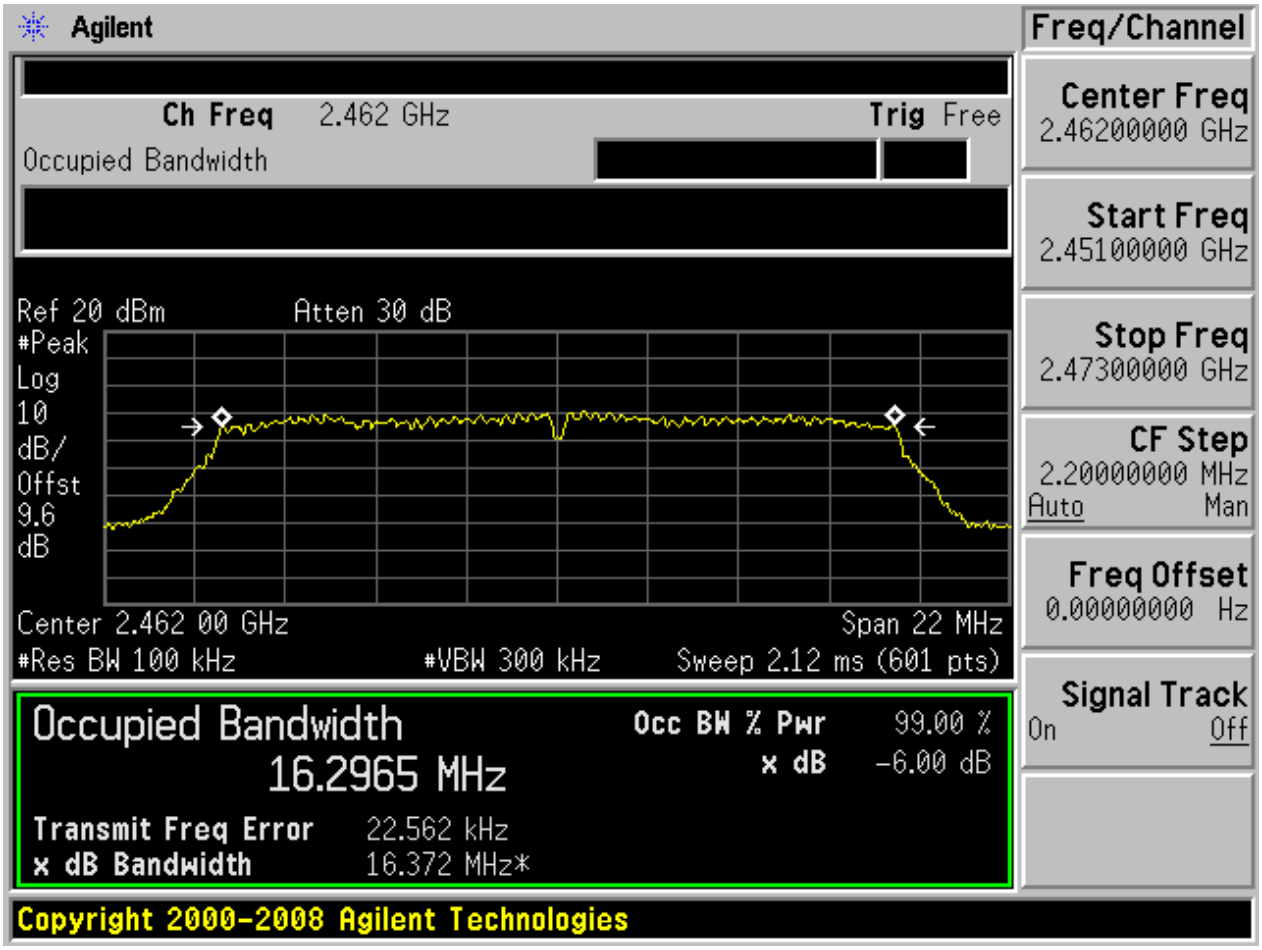
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.11 11G_T@Ant1



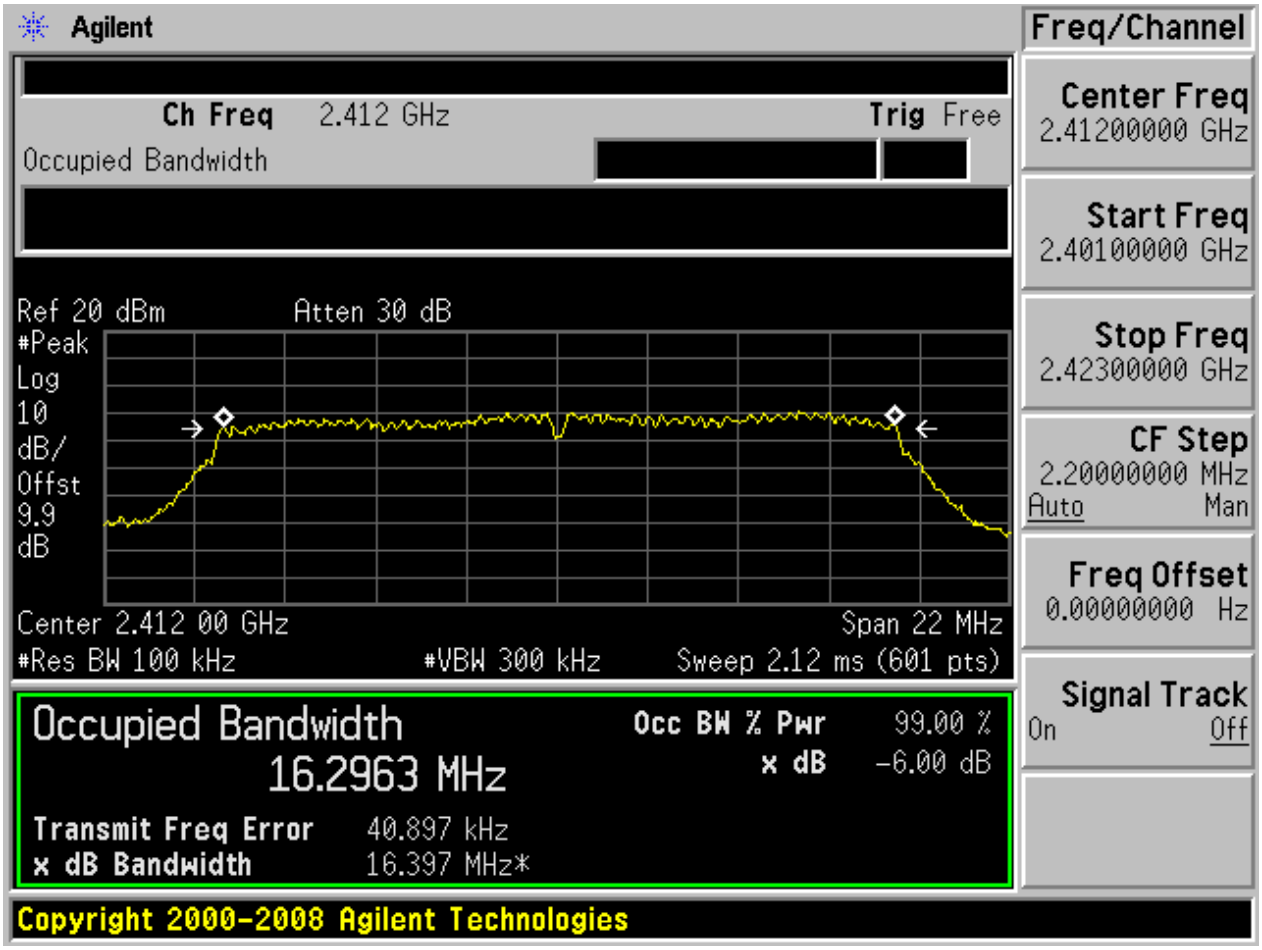
Copyright © Huawei Technologies Co., Ltd.

2.12 11G_T@Ant2



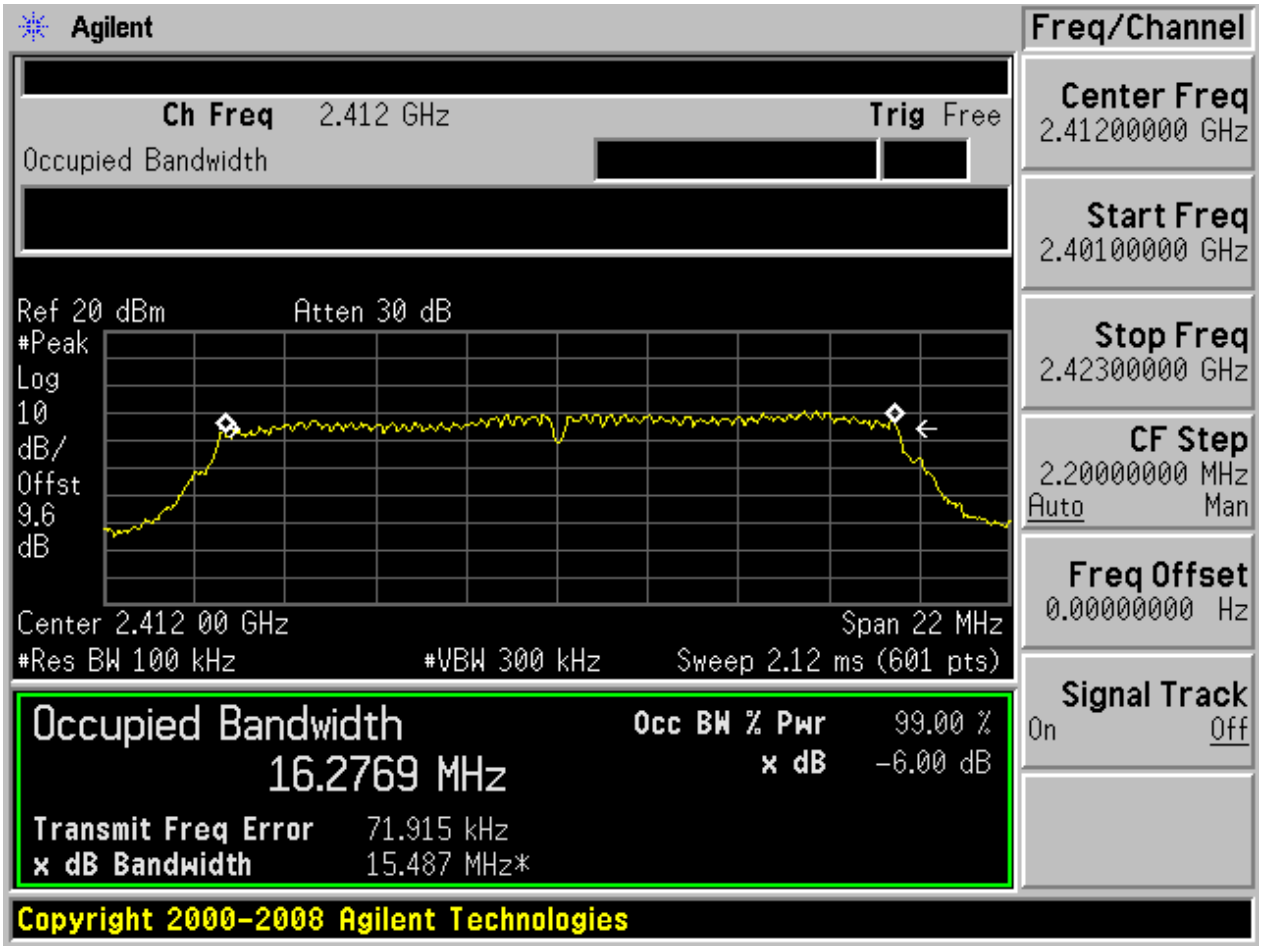
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.13 11N20_B@Ant1



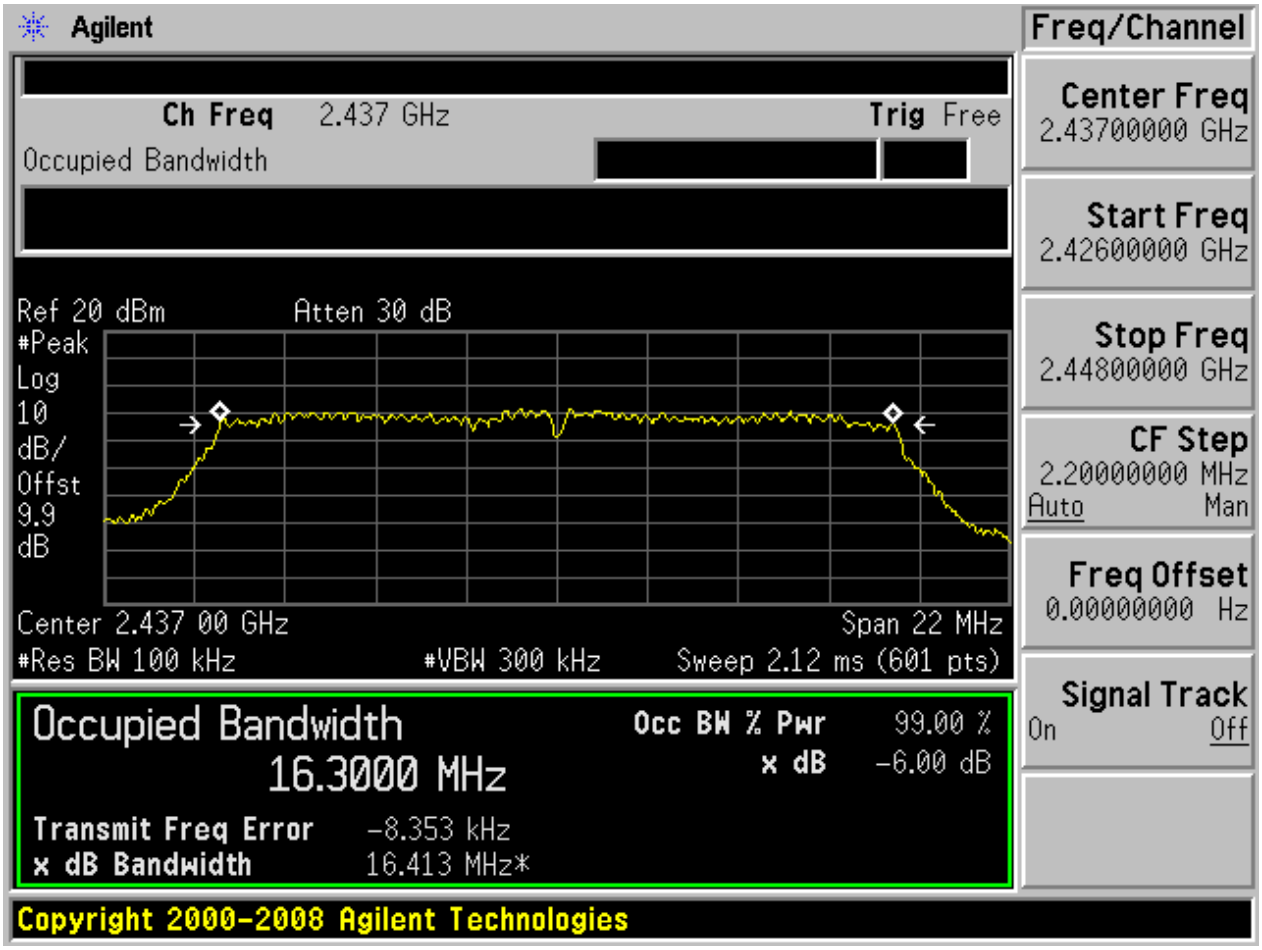
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.14 11N20_B@Ant2



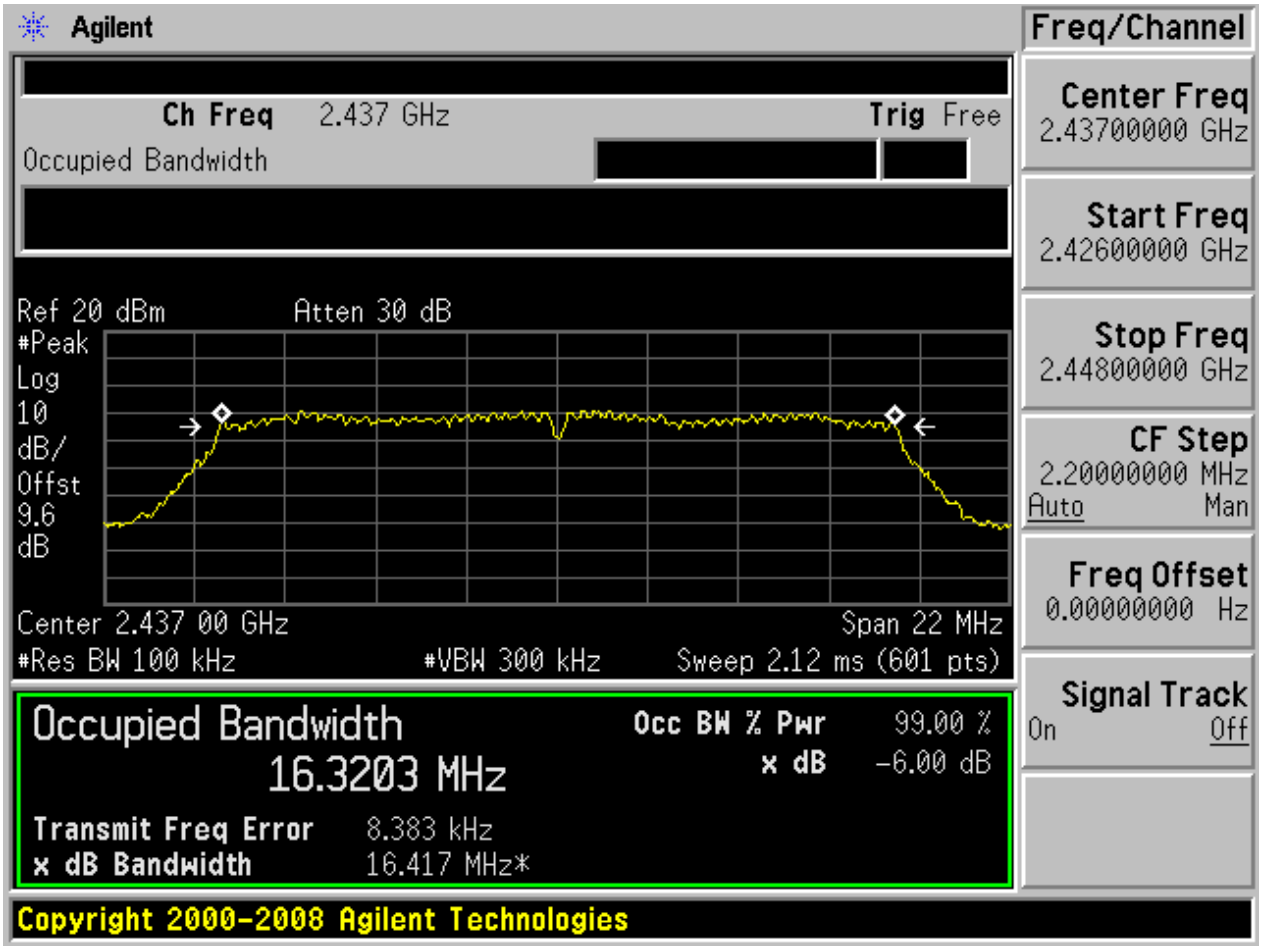
Copyright © Huawei Technologies Co., Ltd.

2.15 11N20_M@Ant1



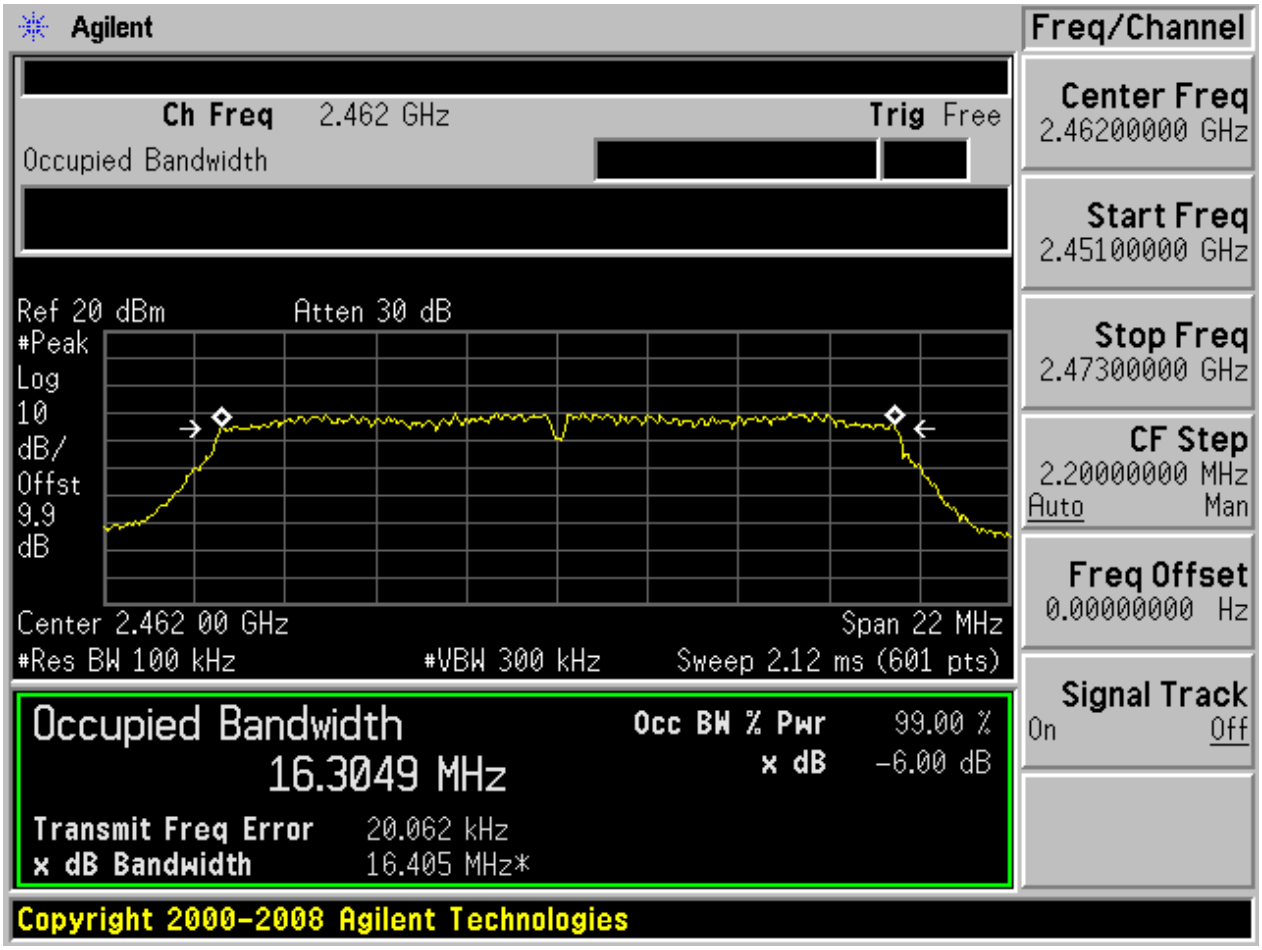
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.16 11N20_M@Ant2



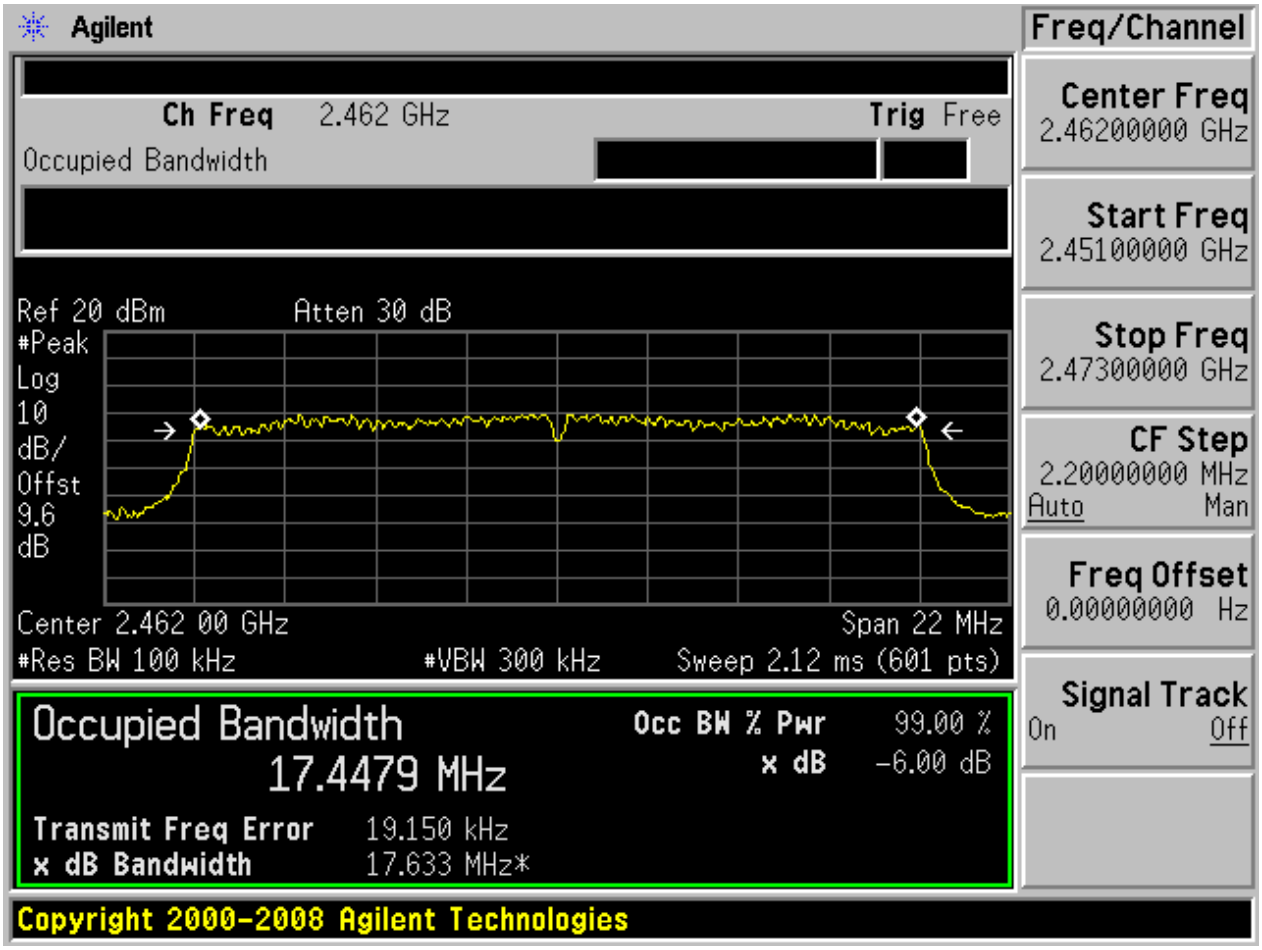
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.17 11N20_T@Ant1



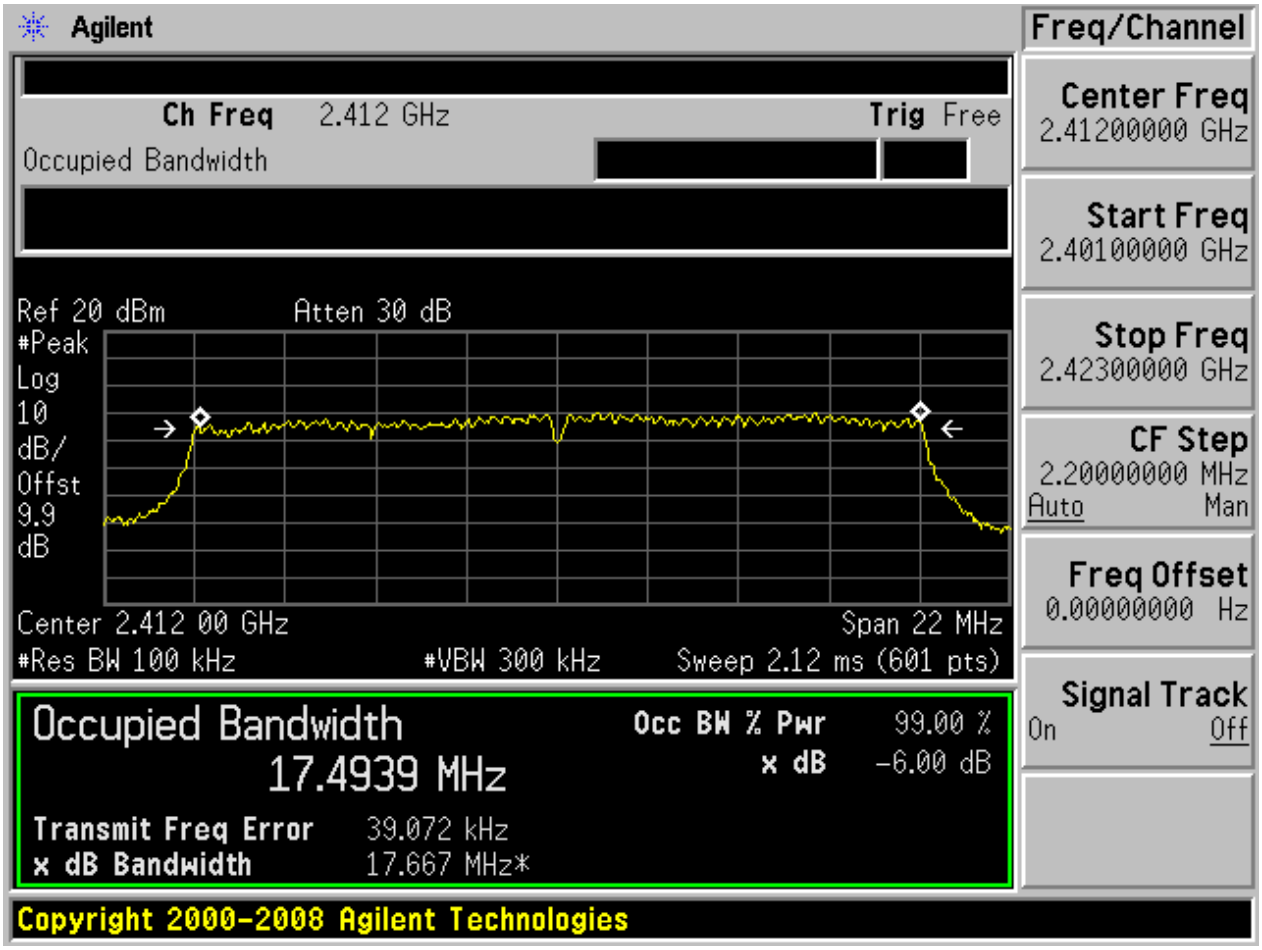
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.18 11N20_T@Ant2



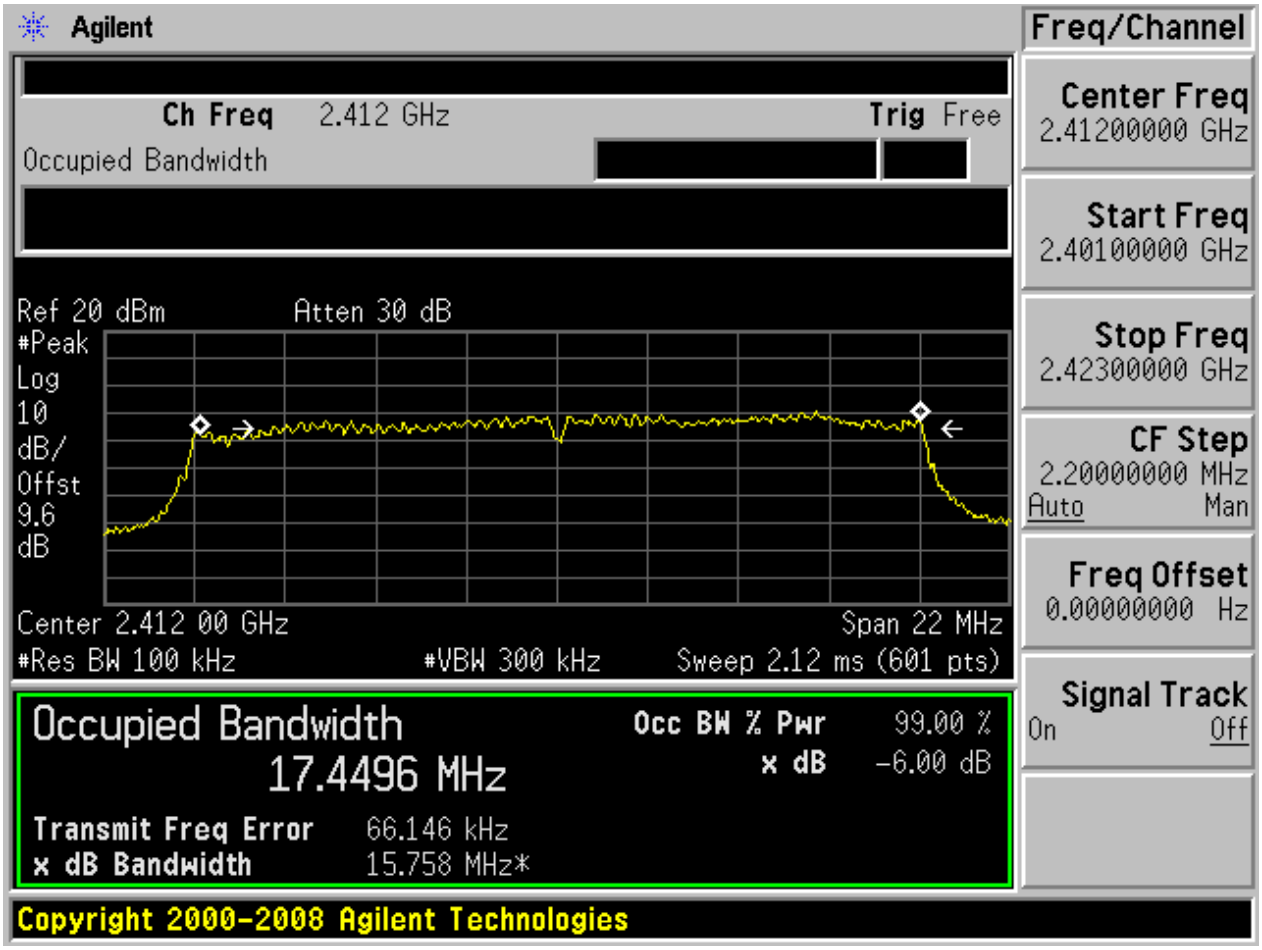
Copyright © Huawei Technologies Co., Ltd.

2.19 11N20m_B@Ant1



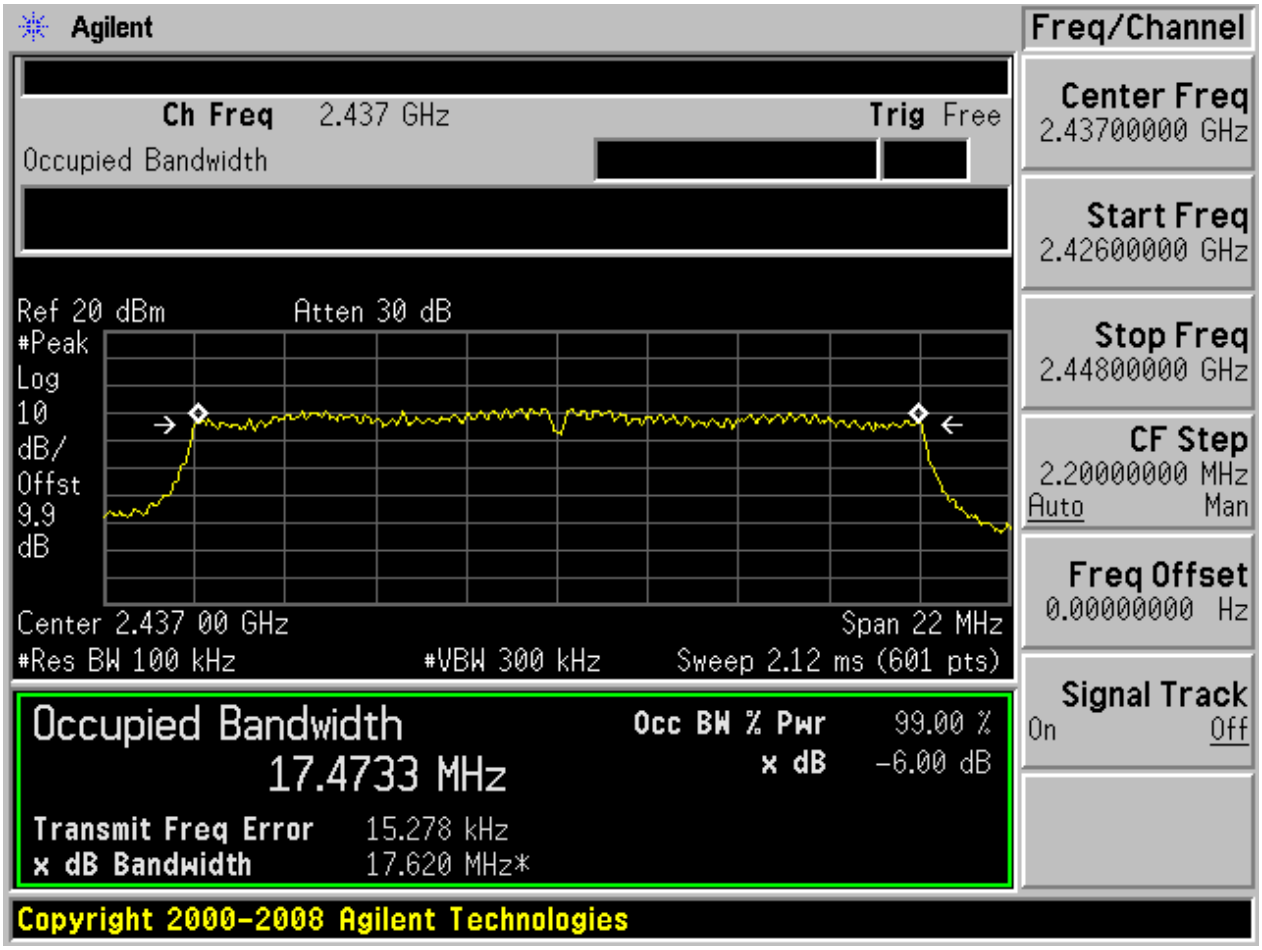
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.20 11N20m_B@Ant2



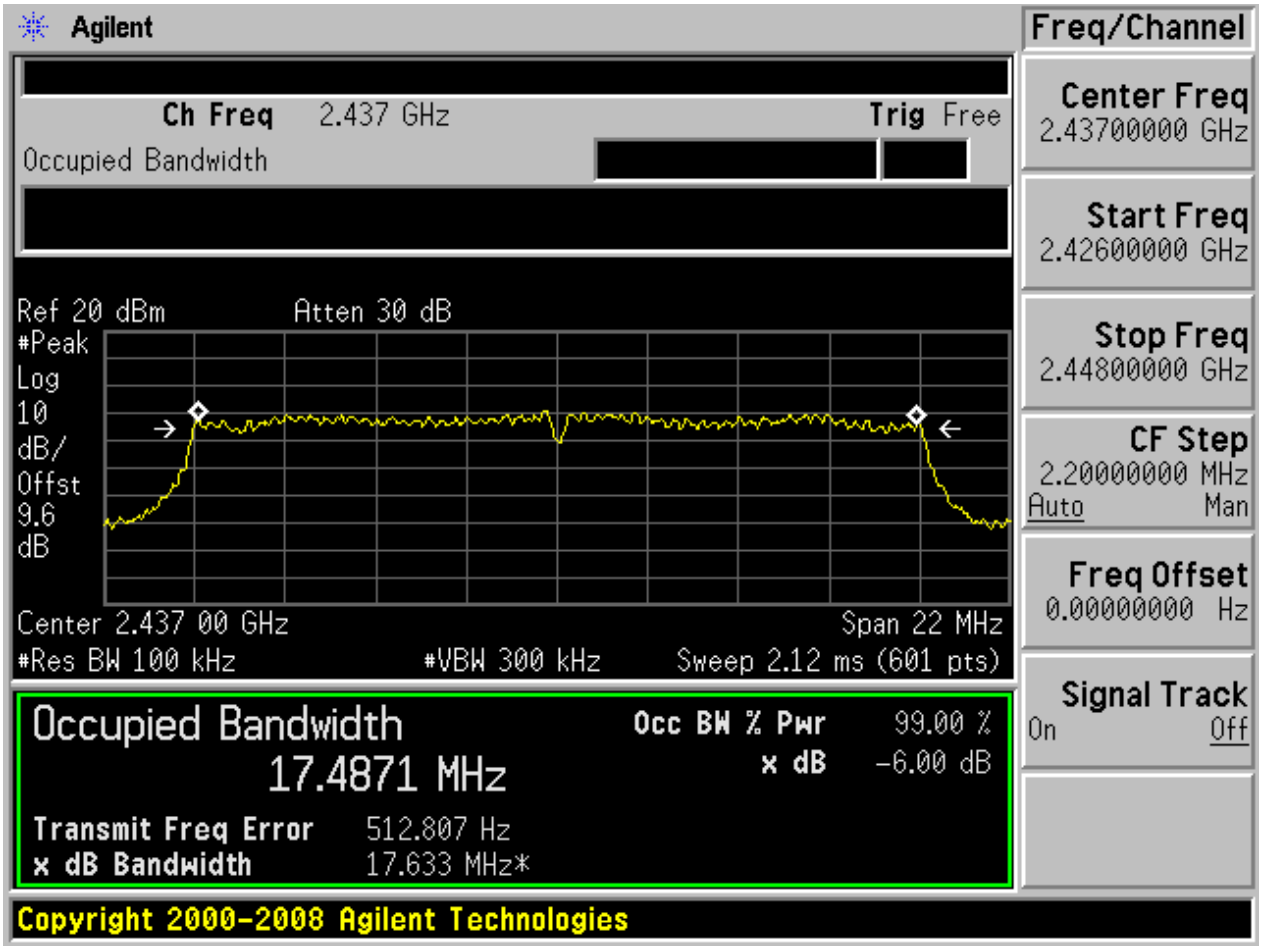
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.21 11N20m_M@Ant1



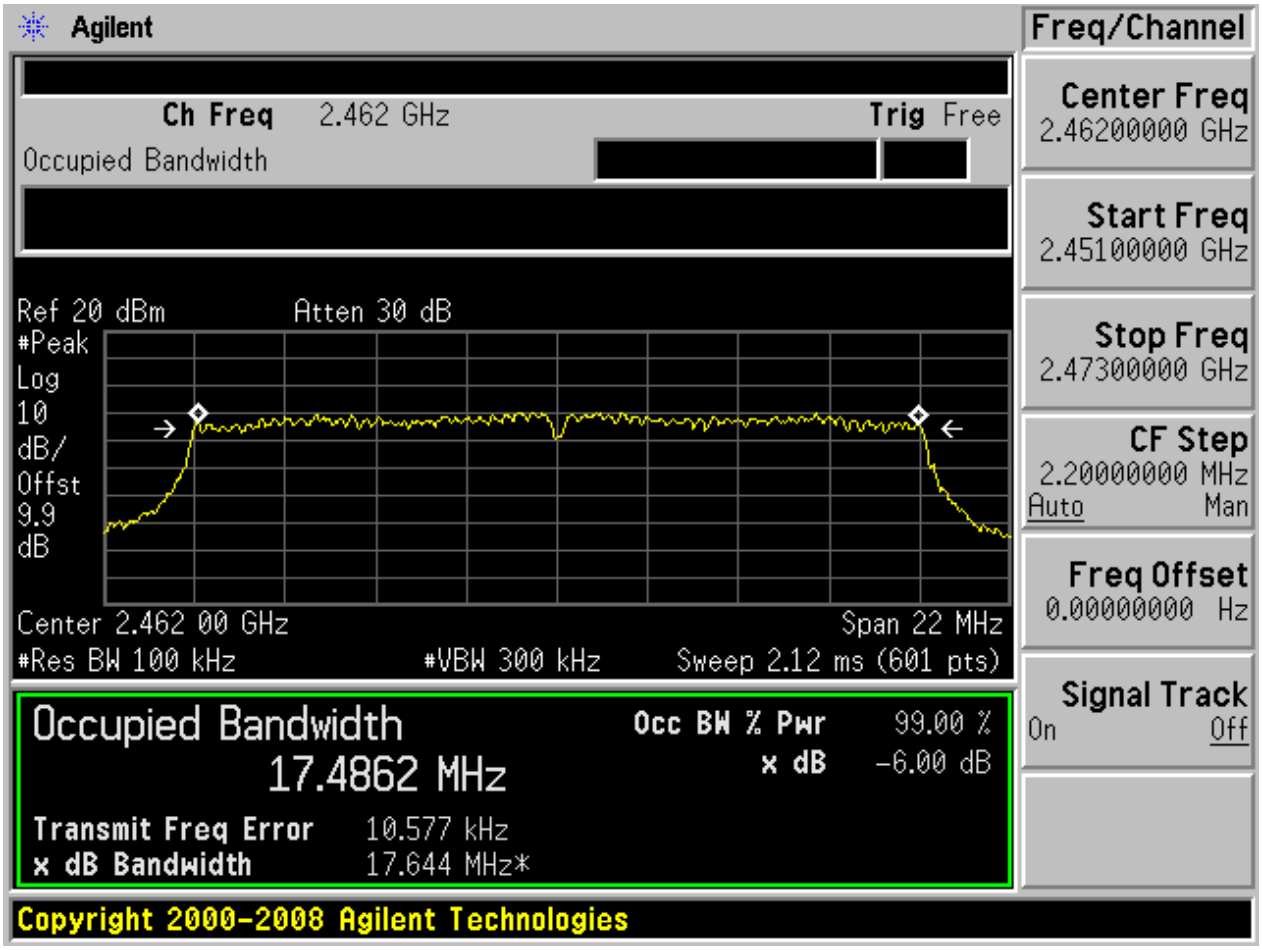
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.22 11N20m_M@Ant2



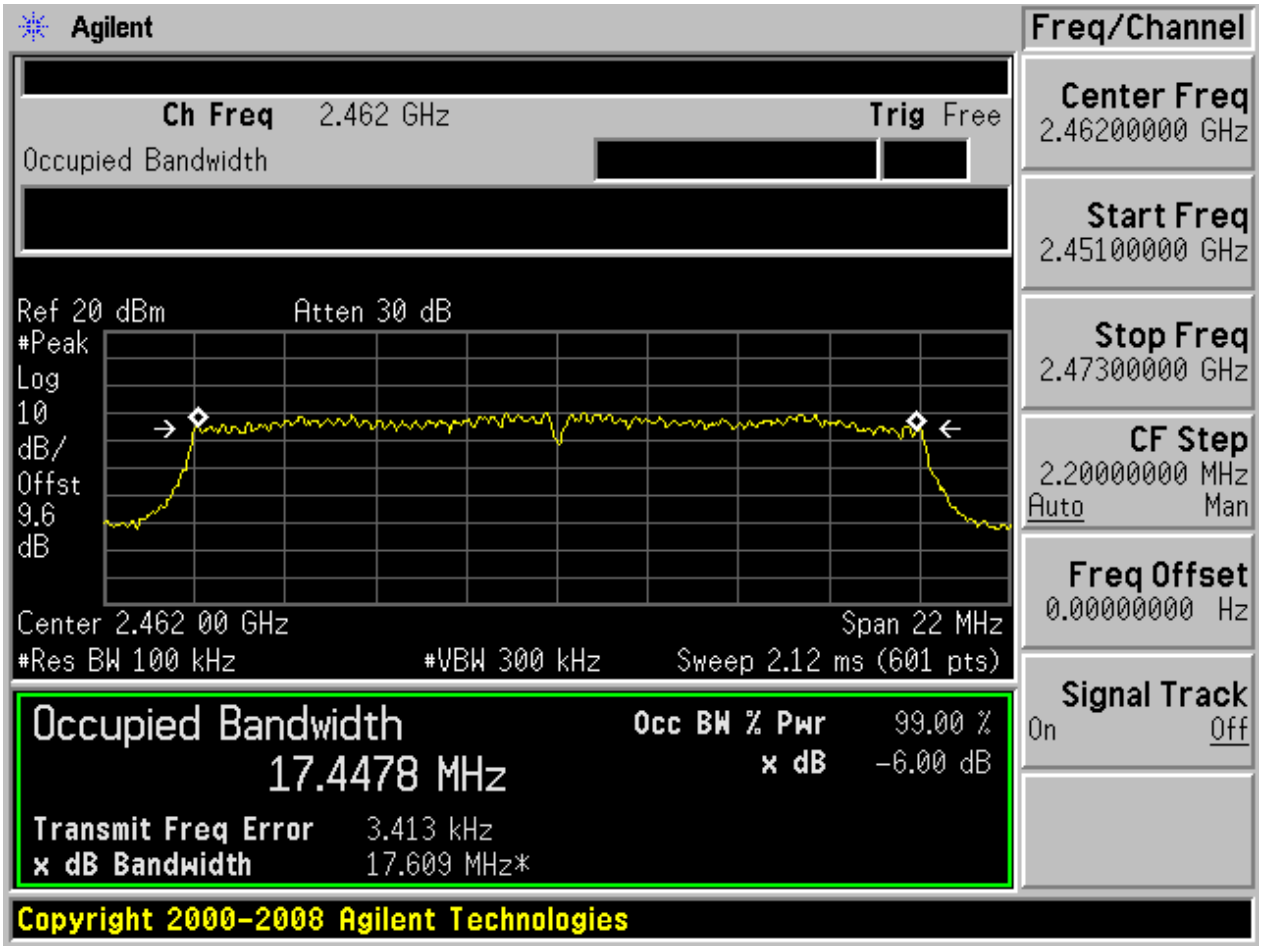
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.23 11N20m_T@Ant1



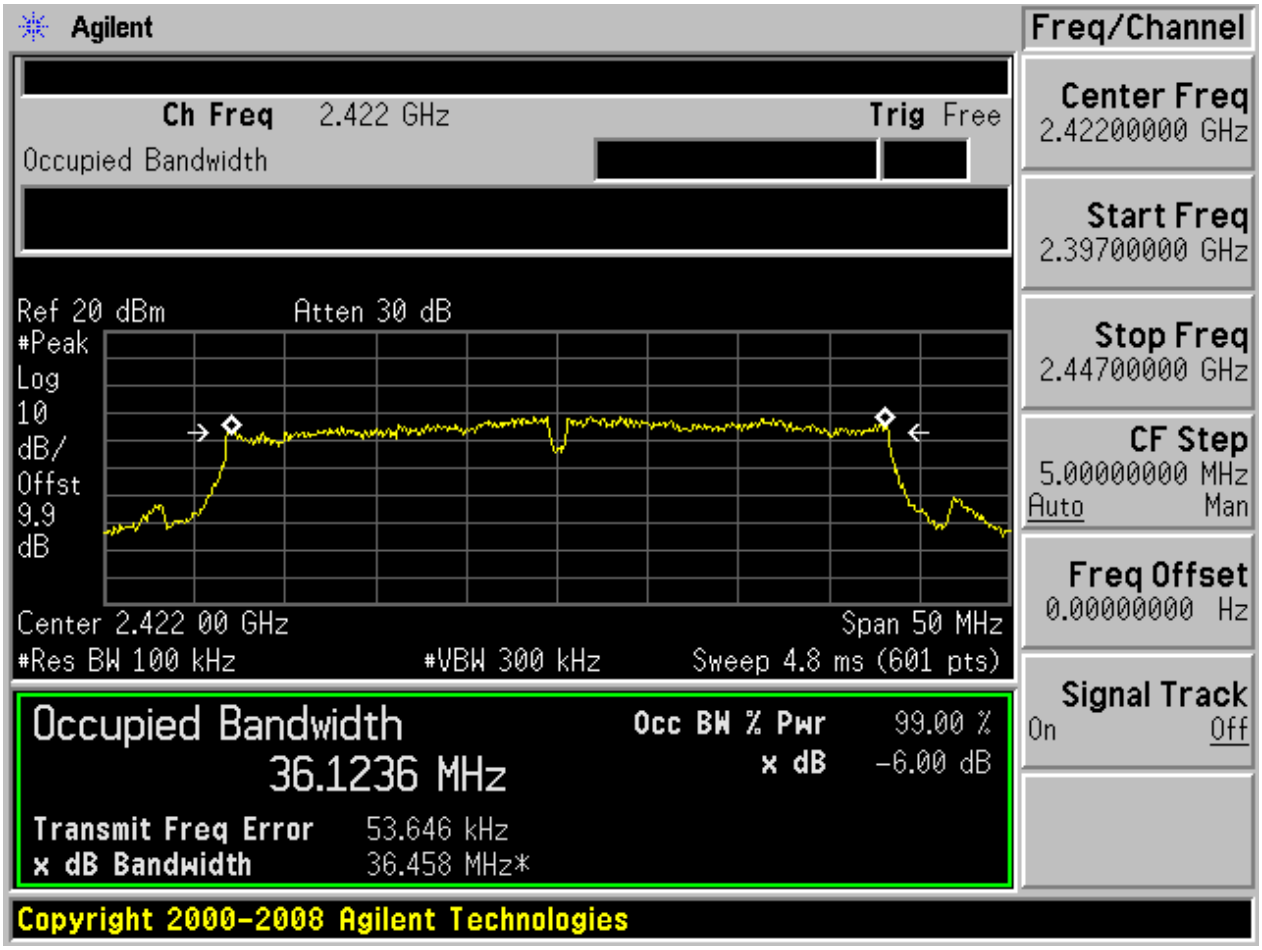
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.24 11N20m_T@Ant2



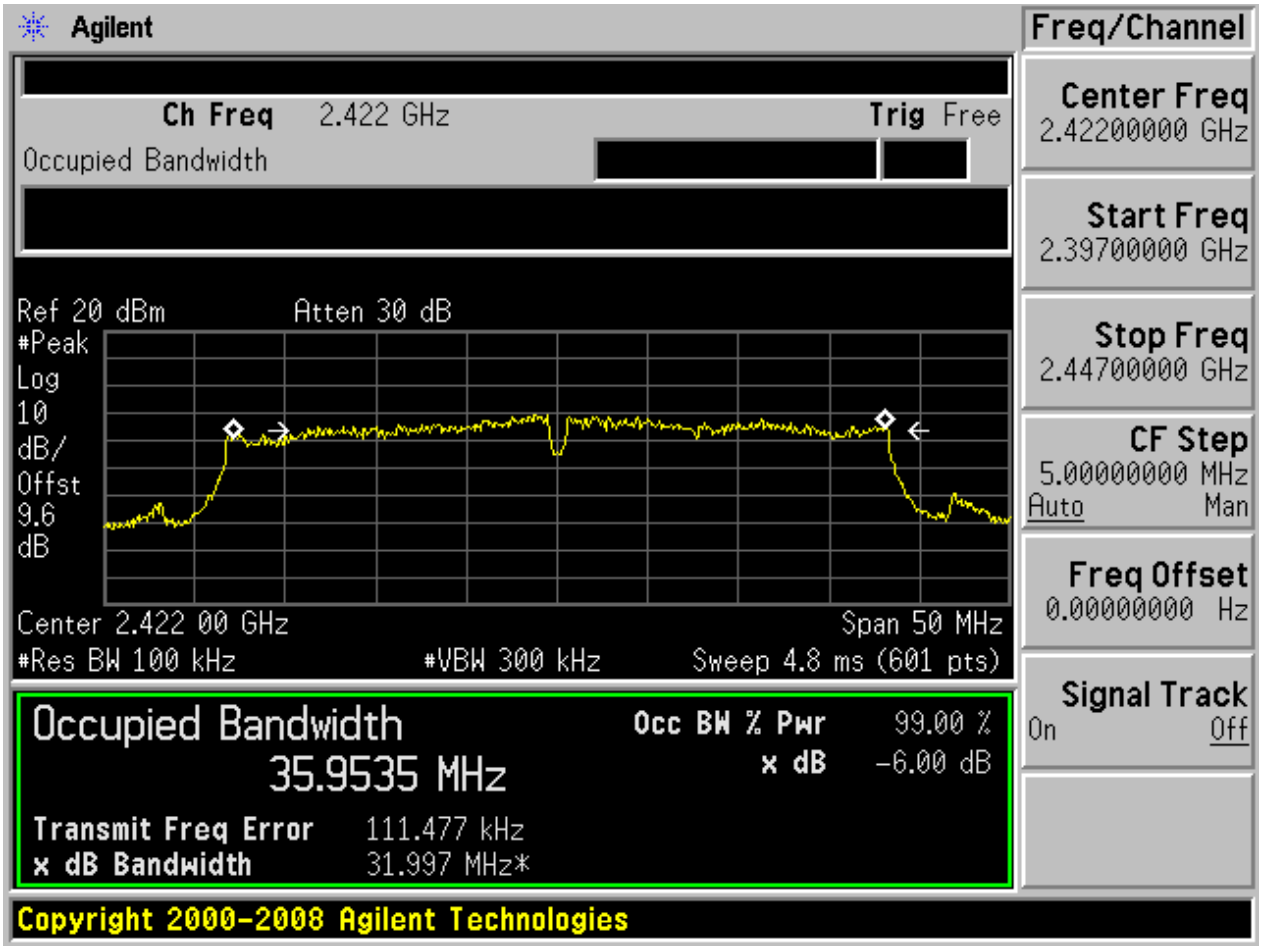
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.25 11N40_B@Ant1



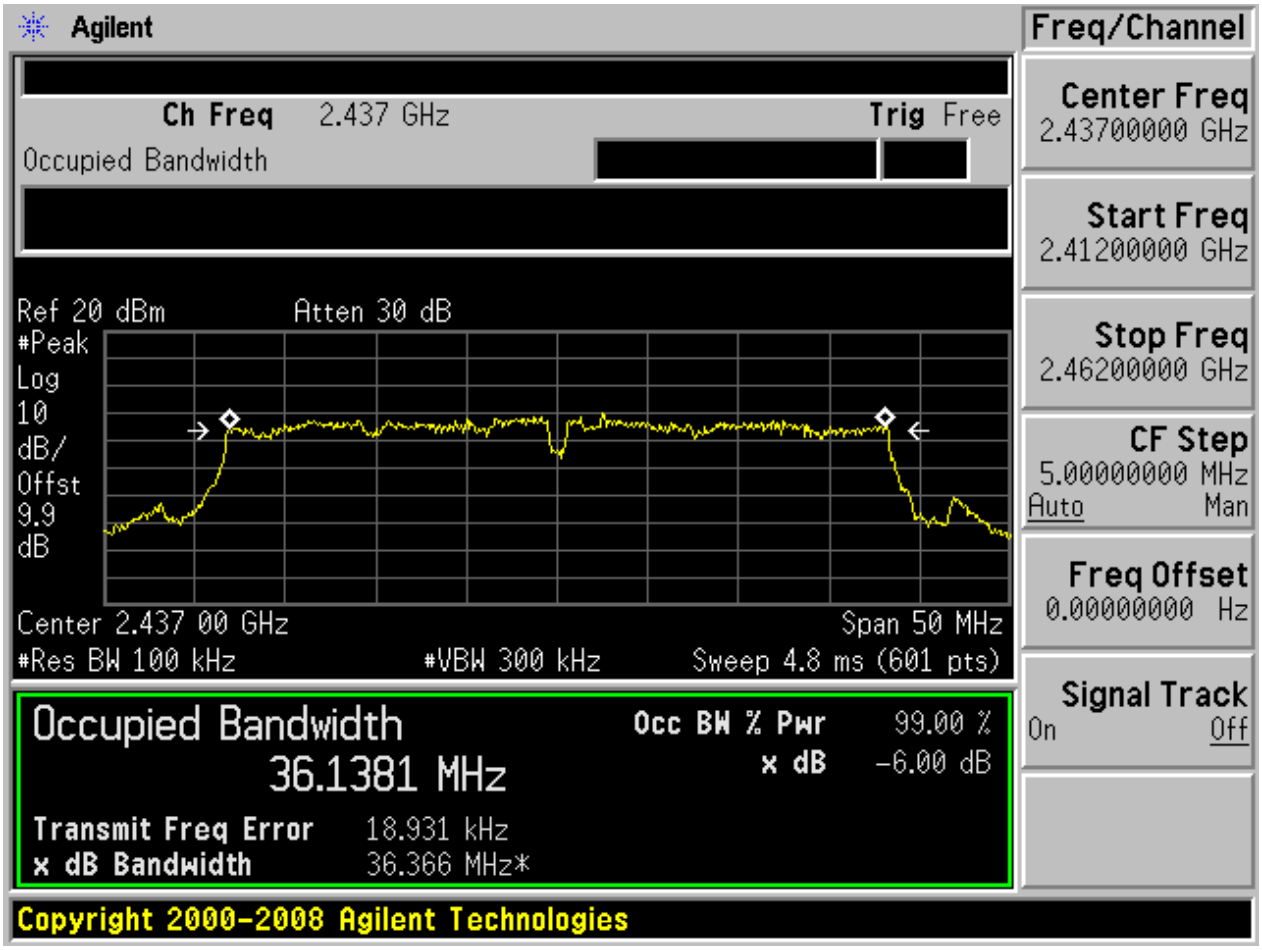
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.26 11N40_B@Ant2



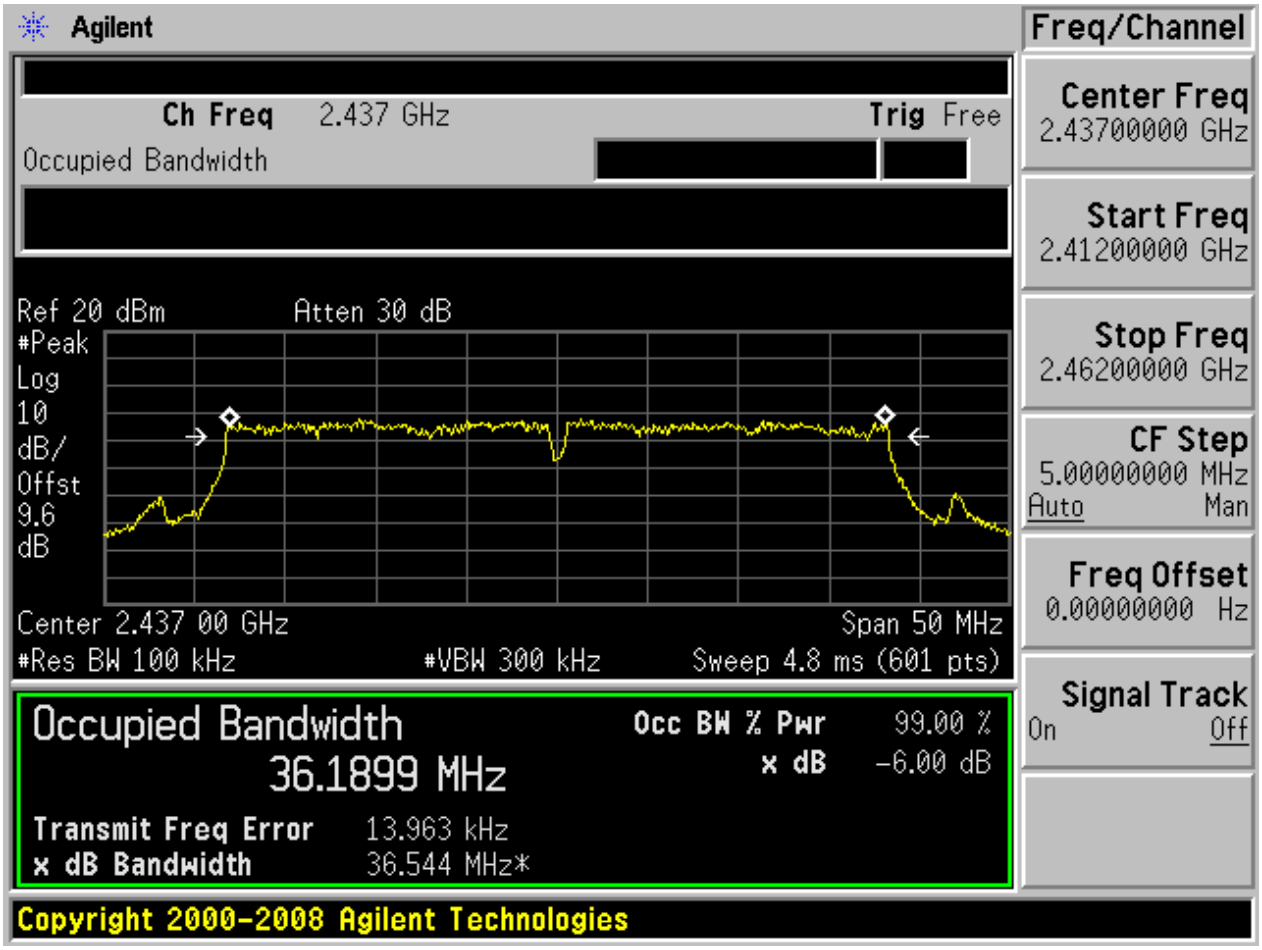
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.27 11N40_M@Ant1



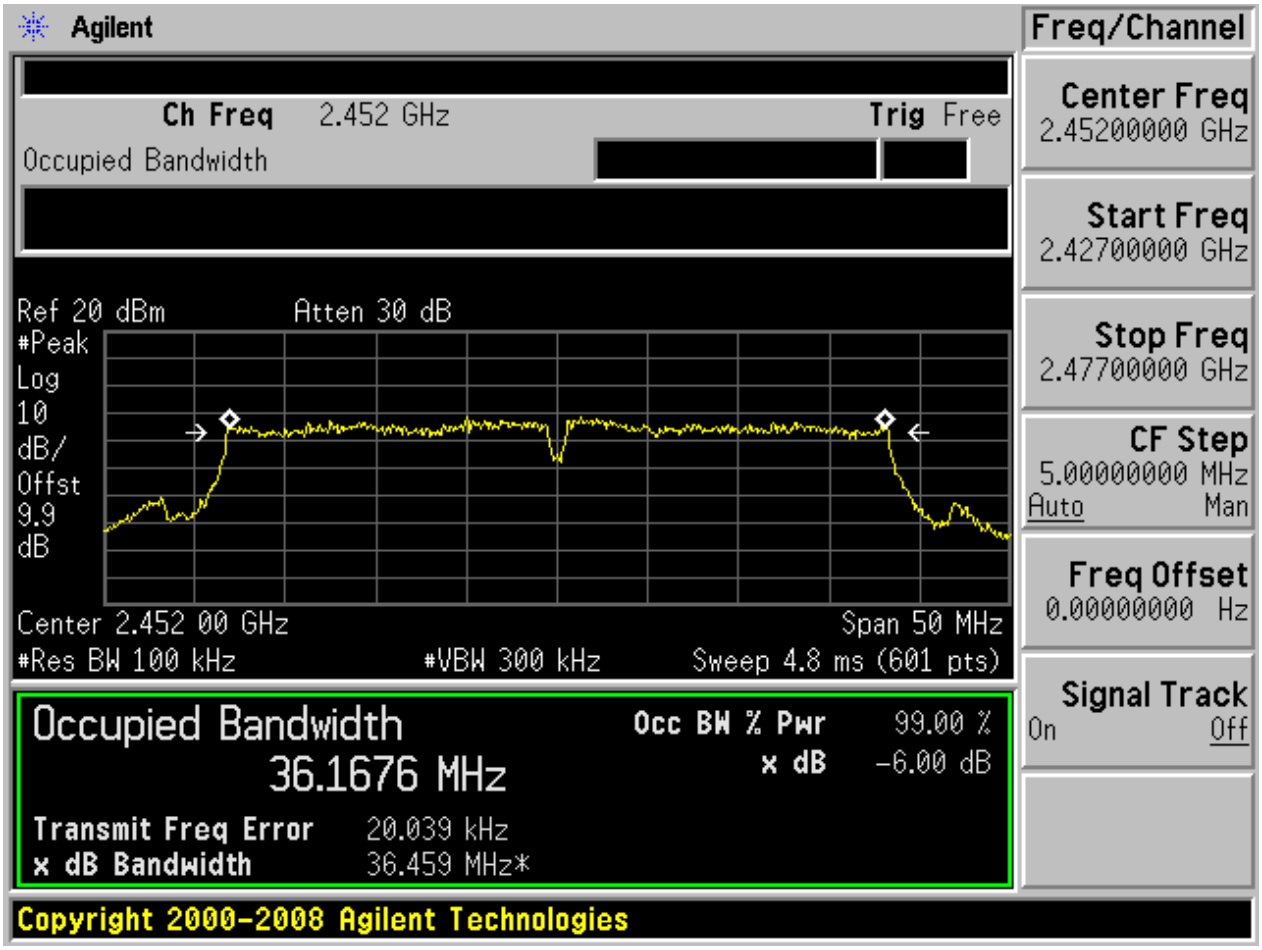
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.28 11N40_M@Ant2



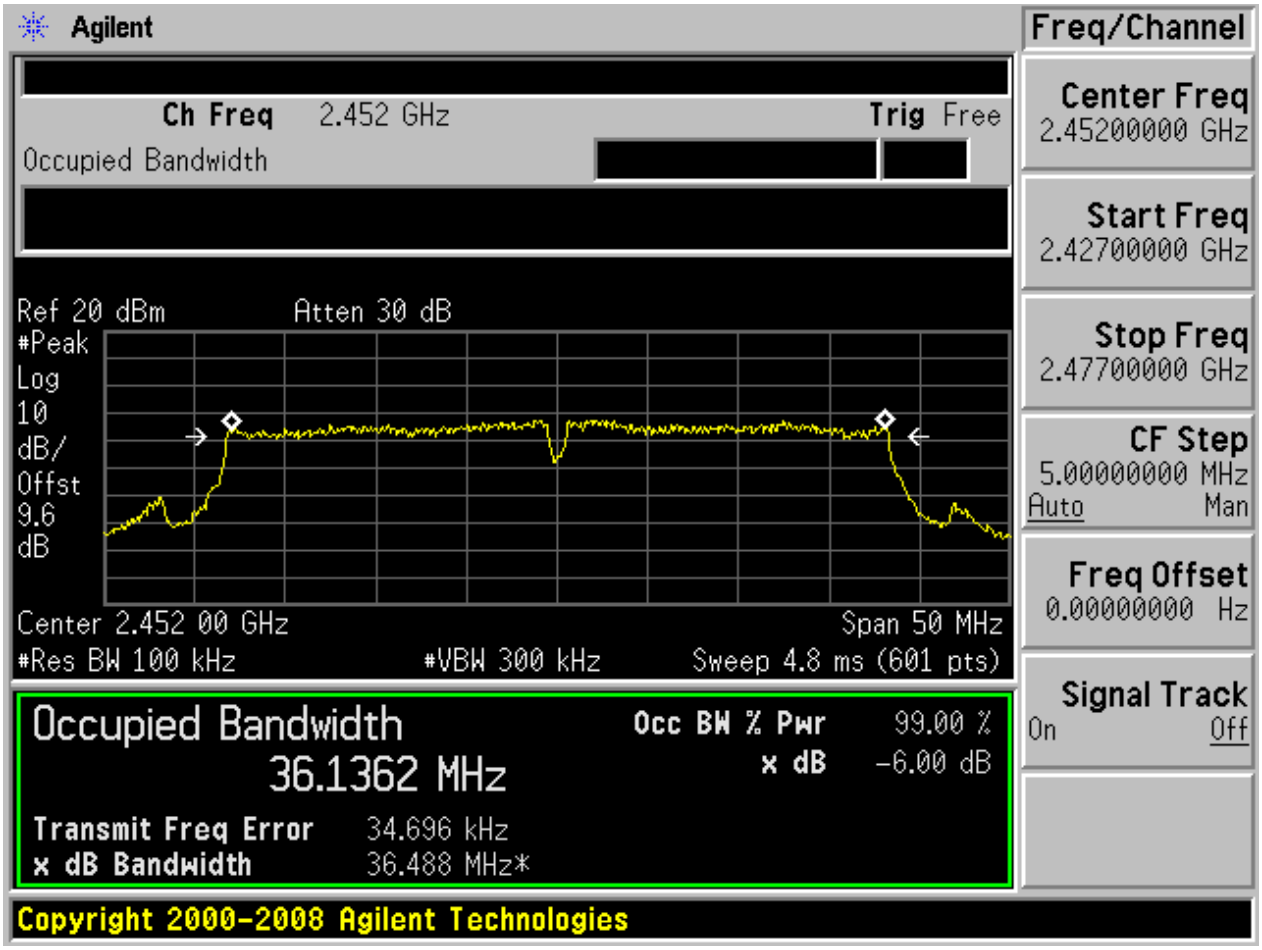
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.29 11N40_T@Ant1



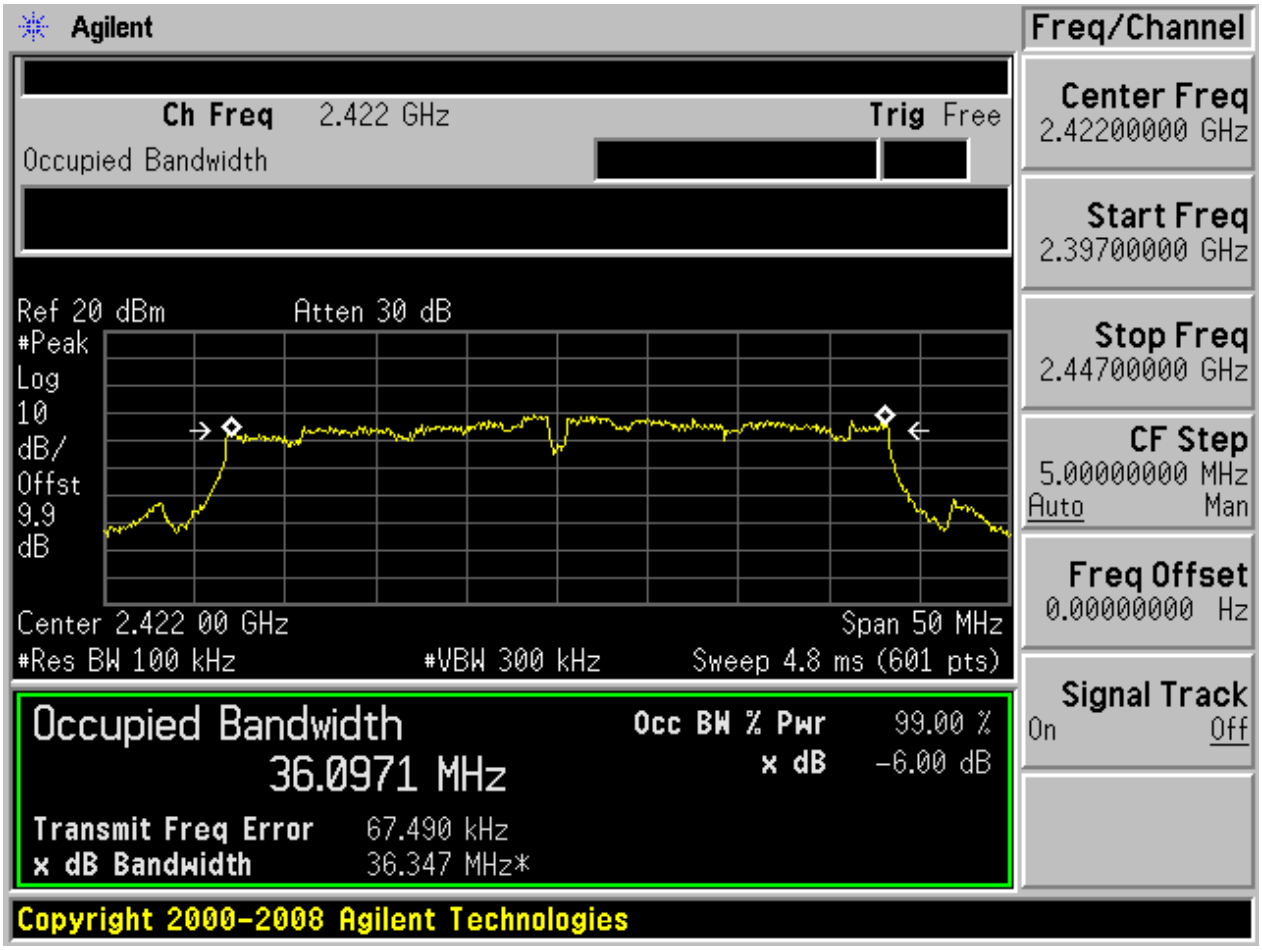
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.30 11N40_T@Ant2



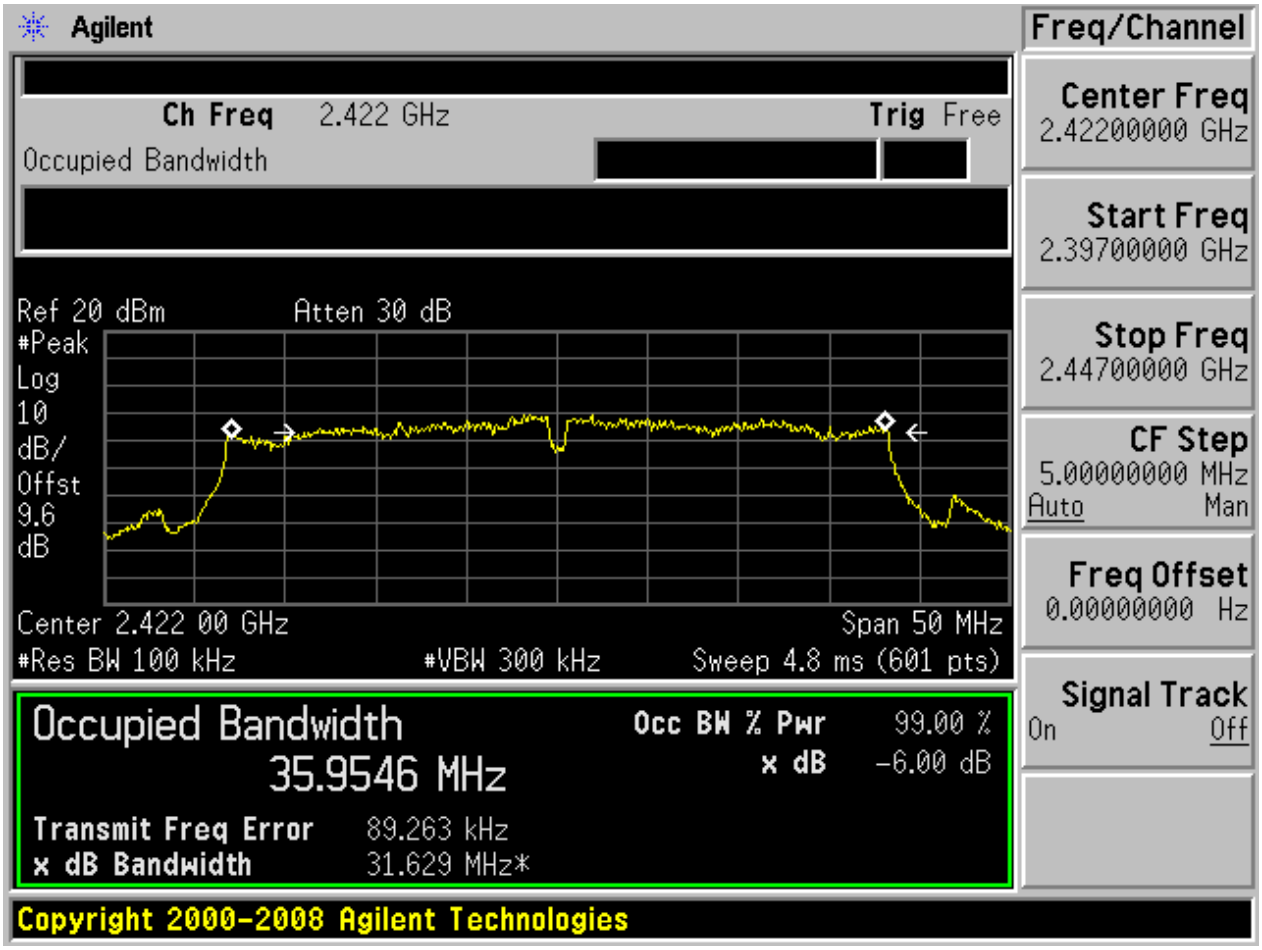
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.31 11N40m_B@Ant1



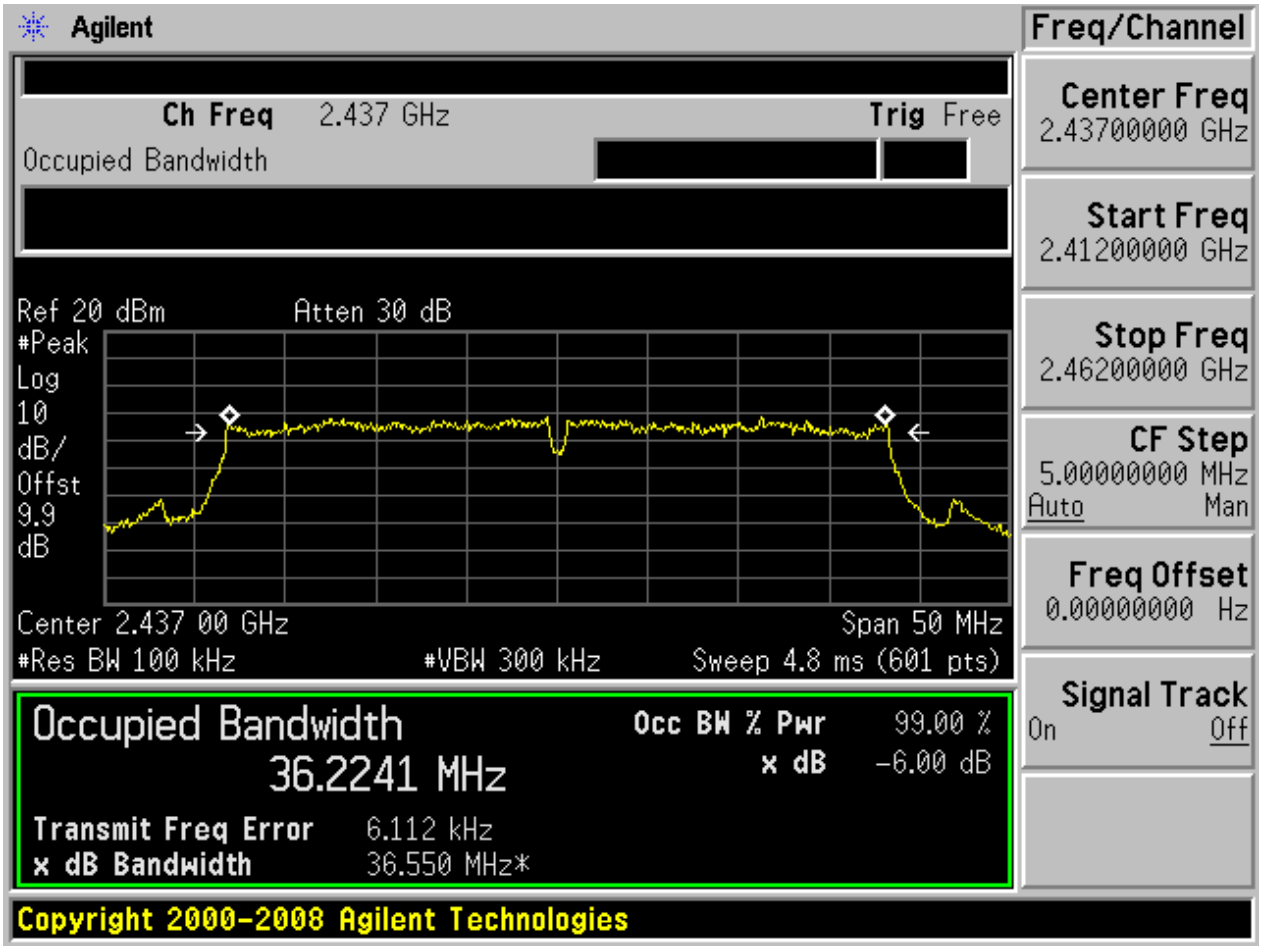
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.32 11N40m_B@Ant2



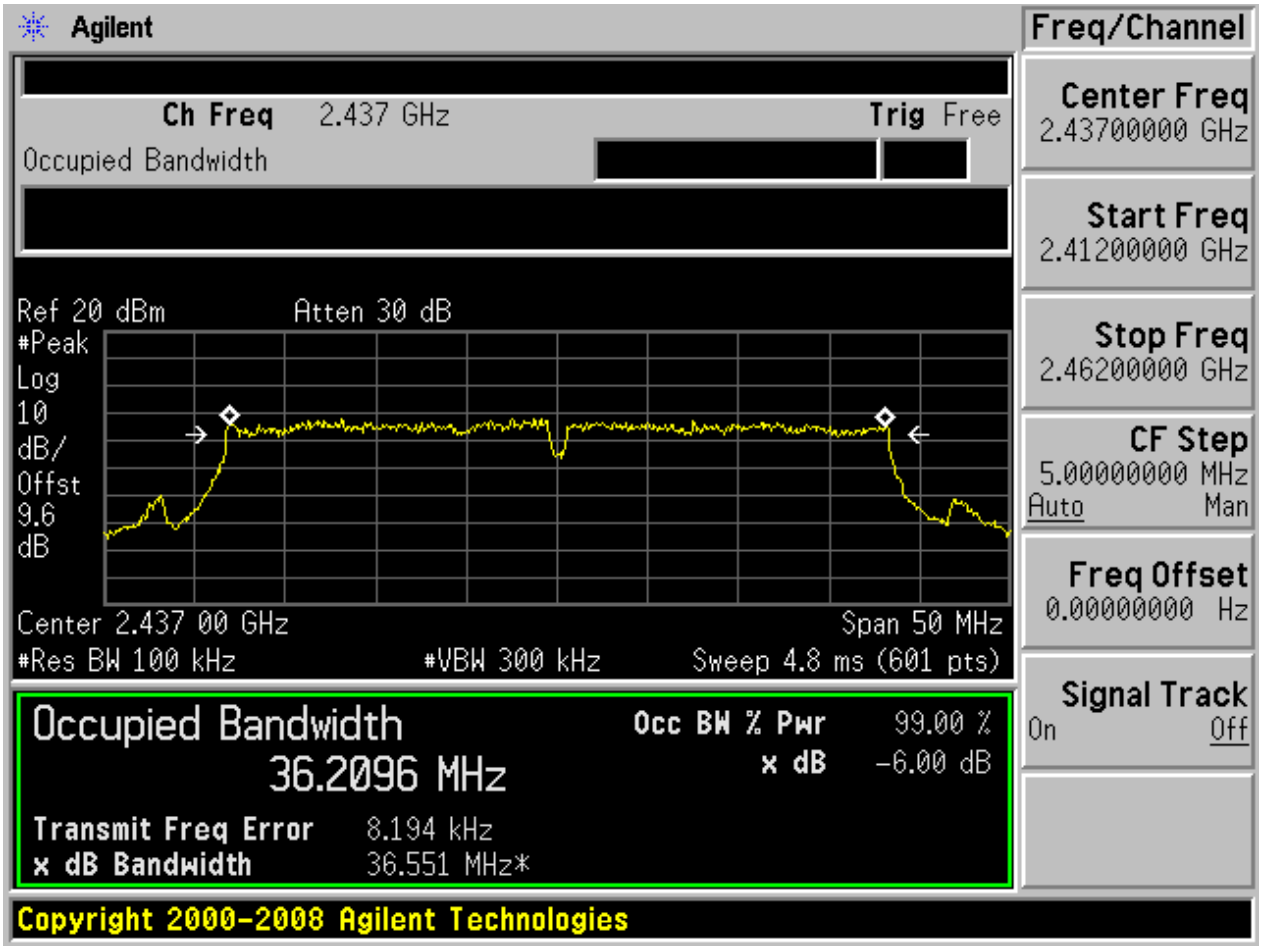
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.33 11N40m_M@Ant1



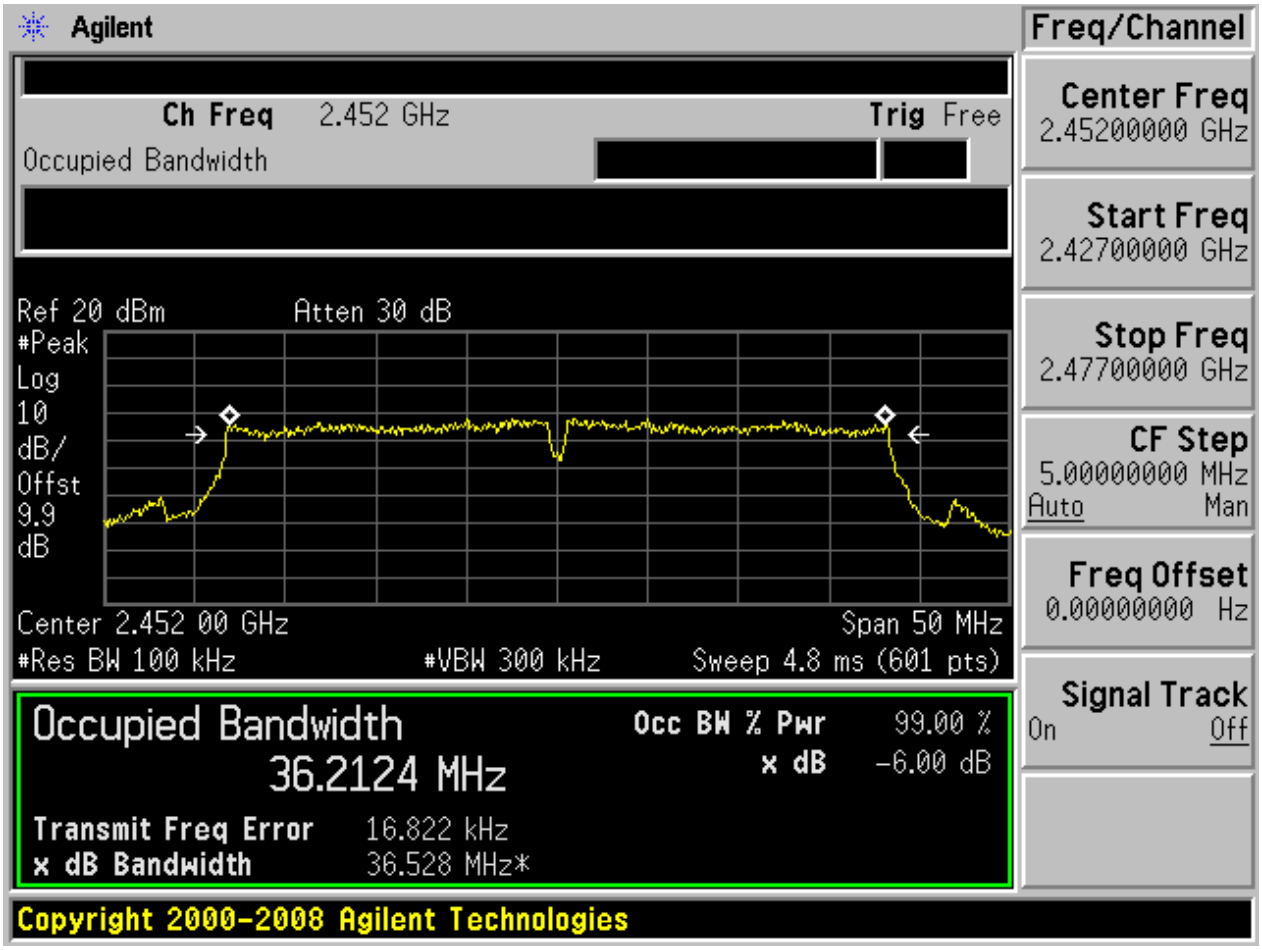
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.34 11N40m_M@Ant2



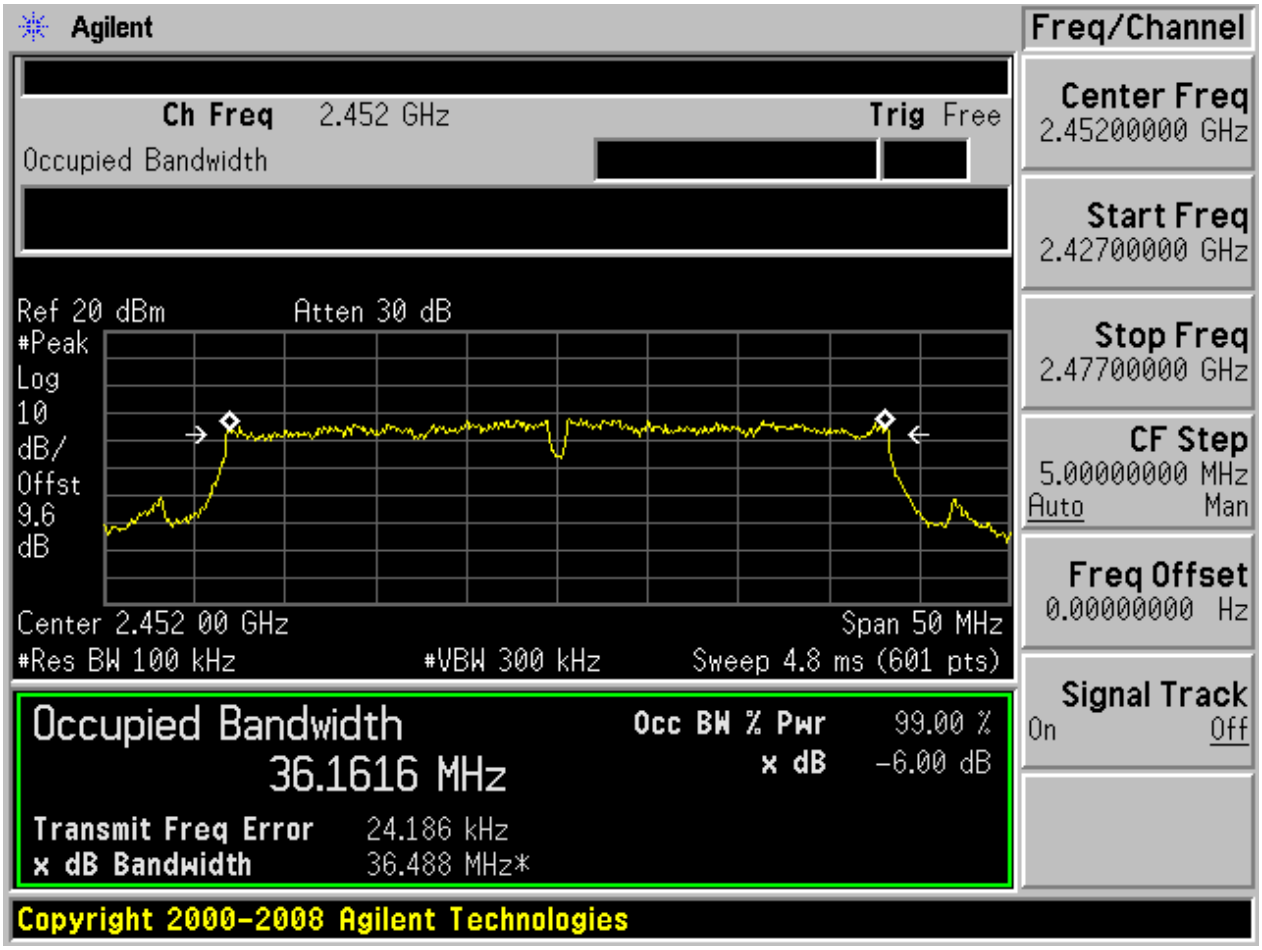
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.35 11N40m_T@Ant1



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.36 11N40m_T@Ant2



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Appendix B: Conducted Peak output power

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

In this Appendix, the “Pmax” refers to the measured “Maximum Peak Conducted Output Power” value. The “fc(DTS6dBBW)” and “DTS6dBBW” in “DTS (6 dB) Bandwidth” are used to determine the integrated band power.

For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain as “Pmax@i [dBm]”, and then combined into the final result “Pmax [dBm]” to compare with the limit according to: Pmax [dBm] = 10 x lg(10 ^ (Pmax@1 [dBm] / 10) + ... + 10 ^ (Pmax@N [dBm] / 10)) (the N denotes the antenna chains used by smart antenna systems).

1 Result Table

EUT Conf.	Channel	Frequency [MHz]	Ant	Meas. Level (Cond.) [dBm]	Verdict
11B	B	2412	Ant1	10.14	pass
			Ant2	9.58	pass
	M	2437	Ant1	11.34	pass
			Ant2	10.66	pass
	T	2462	Ant1	10.18	pass
			Ant2	10.03	pass
11G	B	2412	Ant1	15.33	pass
			Ant2	15.20	pass
	M	2437	Ant1	16.91	pass
			Ant2	16.05	pass
	T	2462	Ant1	15.68	pass
			Ant2	15.53	pass
11N20	B	2412	Ant1	15.64	pass
			Ant2	14.93	pass
	M	2437	Ant1	16.64	pass
			Ant2	16.09	pass
	T	2462	Ant1	15.38	pass
			Ant2	15.64	pass
11N20m	B	2412	Ant1	15.36	---
			Ant2	15.37	---
			1+2	18.38	pass
	M	2437	Ant1	16.82	---
			Ant2	16.42	---
			1+2	19.63	pass
	T	2462	Ant1	15.75	---
			Ant2	15.89	---
			1+2	18.83	pass
11N40	B	2422	Ant1	16.30	pass
			Ant2	16.66	pass
	M	2437	Ant1	16.50	pass
			Ant2	16.66	pass

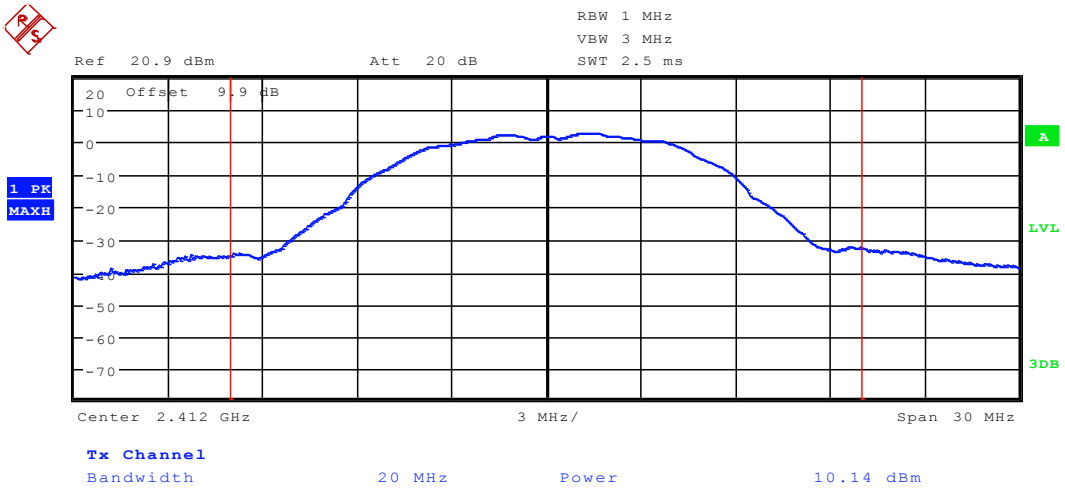
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

	T	2452	Ant1	15.89	pass
			Ant2	15.97	pass
11N40m	B	2422	Ant1	16.28	---
			Ant2	16.42	---
			1+2	19.36	pass
	M	2437	Ant1	16.53	---
			Ant2	16.57	---
			1+2	19.56	pass
	T	2452	Ant1	15.86	---
			Ant2	16.28	---
			1+2	19.09	pass

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2 Test Plots

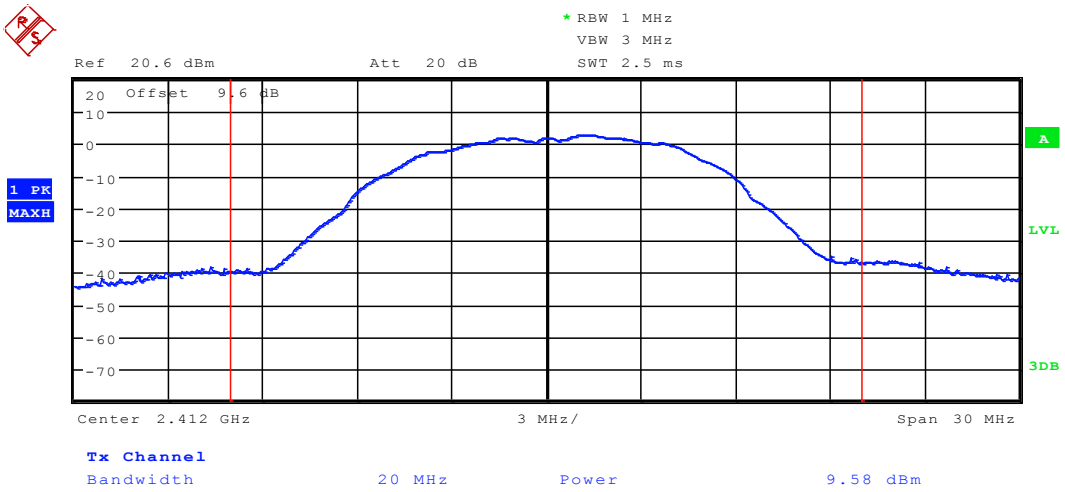
2.1 11B_B@Ant1



Date: 13.DEC.2012 10:34:37

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

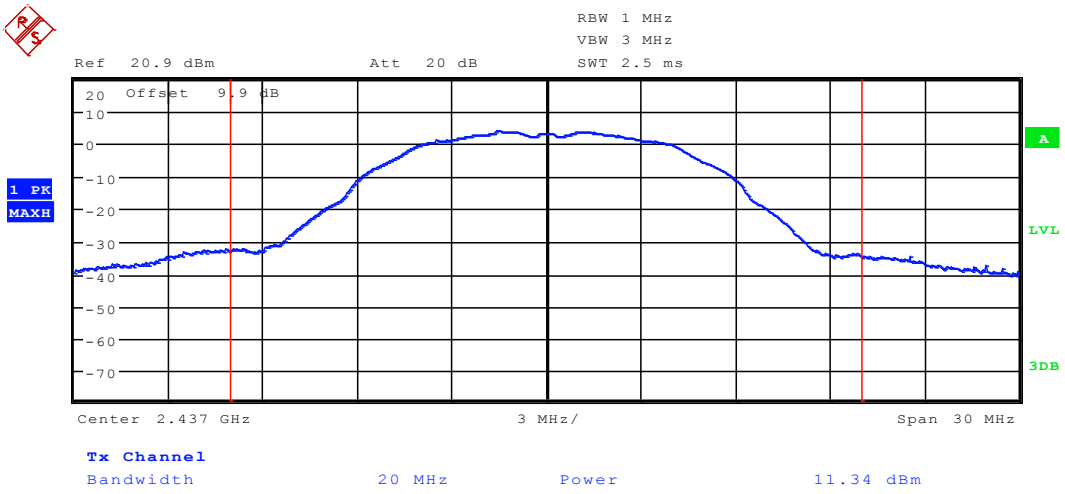
2.2 11B_B@Ant2



Date: 13.DEC.2012 10:52:55

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

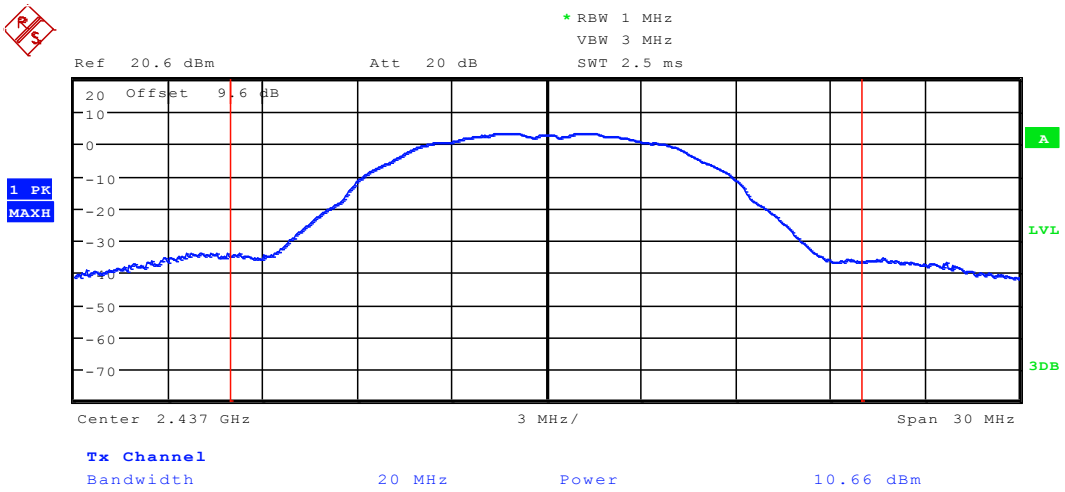
2.3 11B_M@Ant1



Date: 13.DEC.2012 10:36:28

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

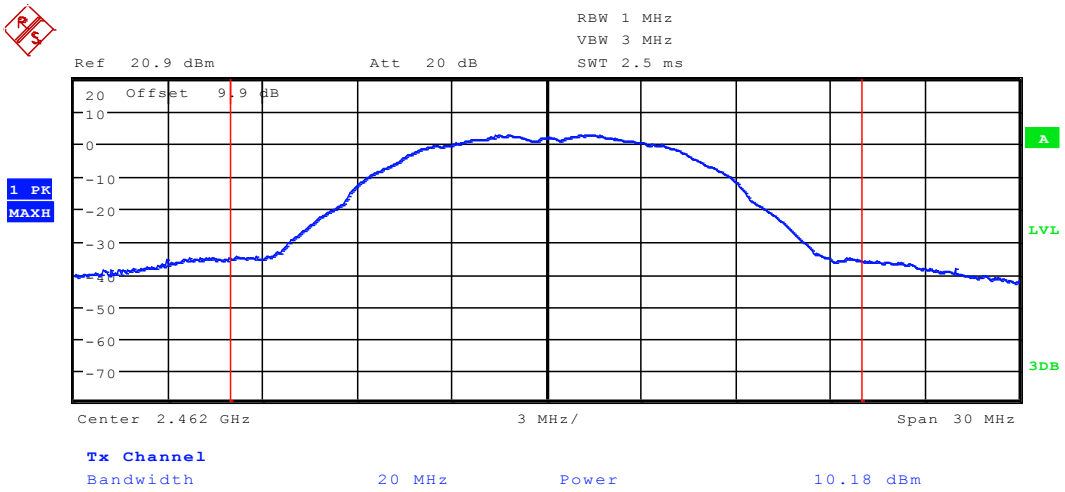
2.4 11B_M@Ant2



Date: 13.DEC.2012 10:53:26

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

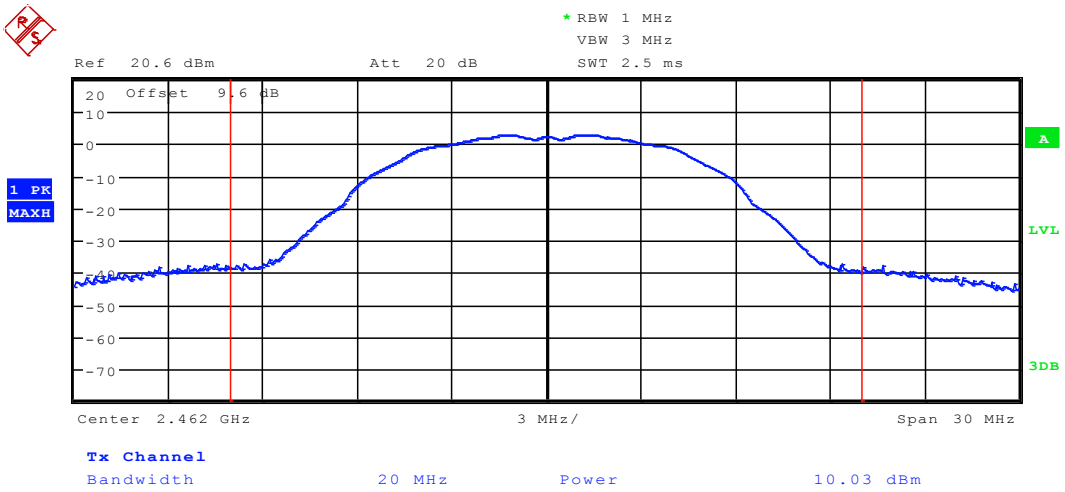
2.5 11B_T@Ant1



Date: 13.DEC.2012 10:37:26

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

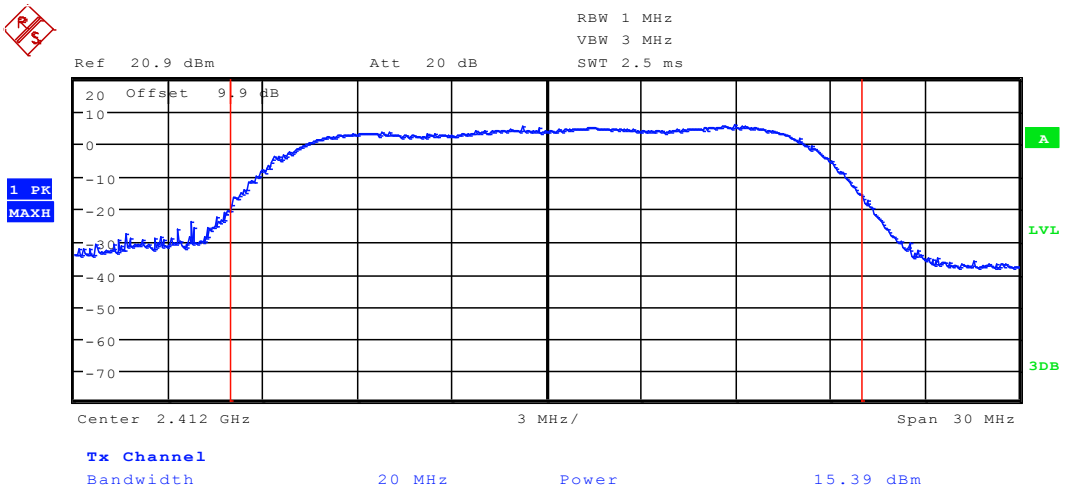
2.6 11B_T@Ant2



Date: 13.DEC.2012 10:53:56

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

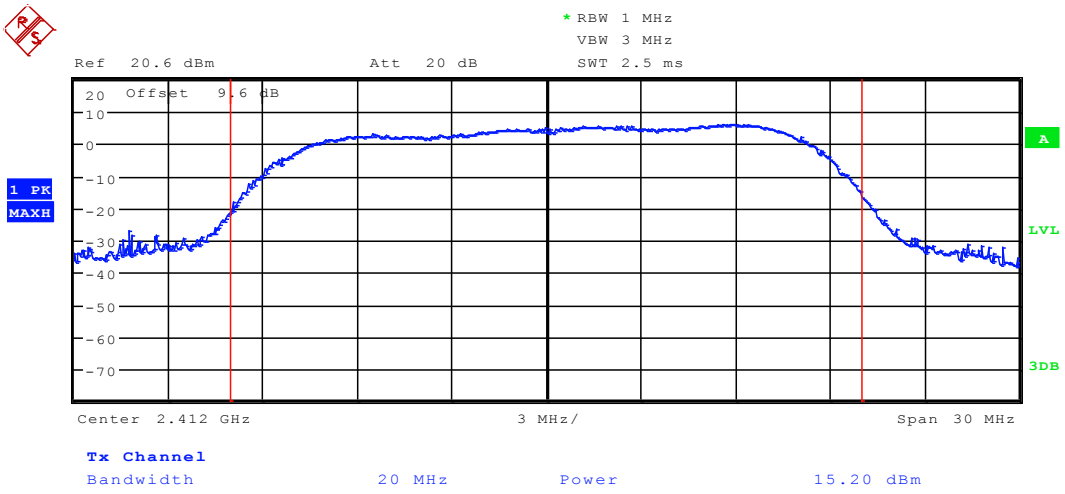
2.7 11G_B@Ant1



Date: 13.DEC.2012 10:38:31

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

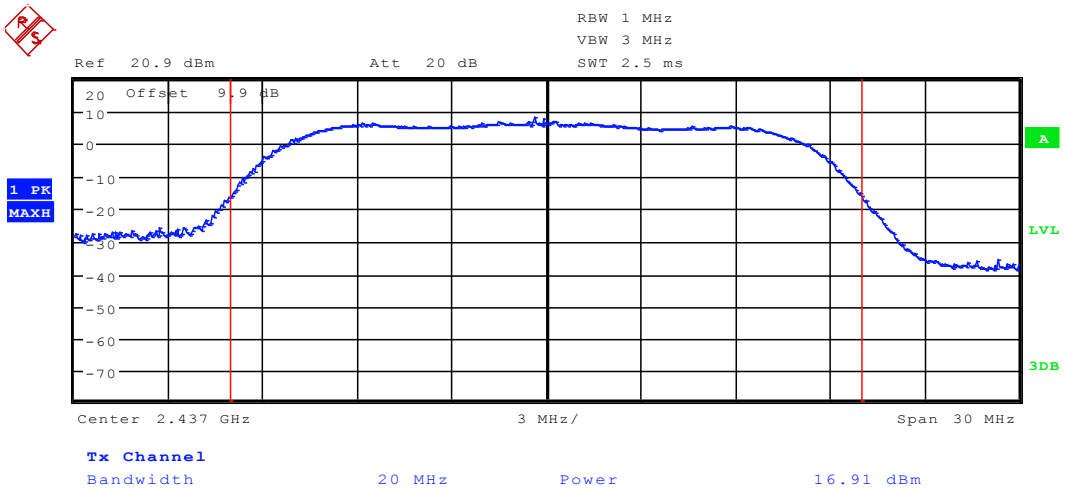
2.8 11G_B@Ant2



Date: 13.DEC.2012 11:12:05

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

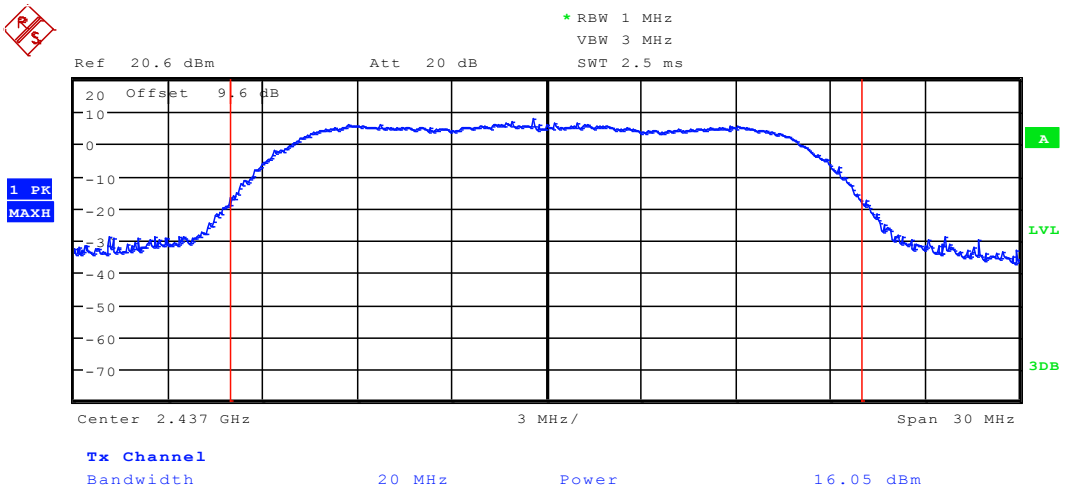
2.9 11G_M@Ant1



Date: 13.DEC.2012 10:39:33

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

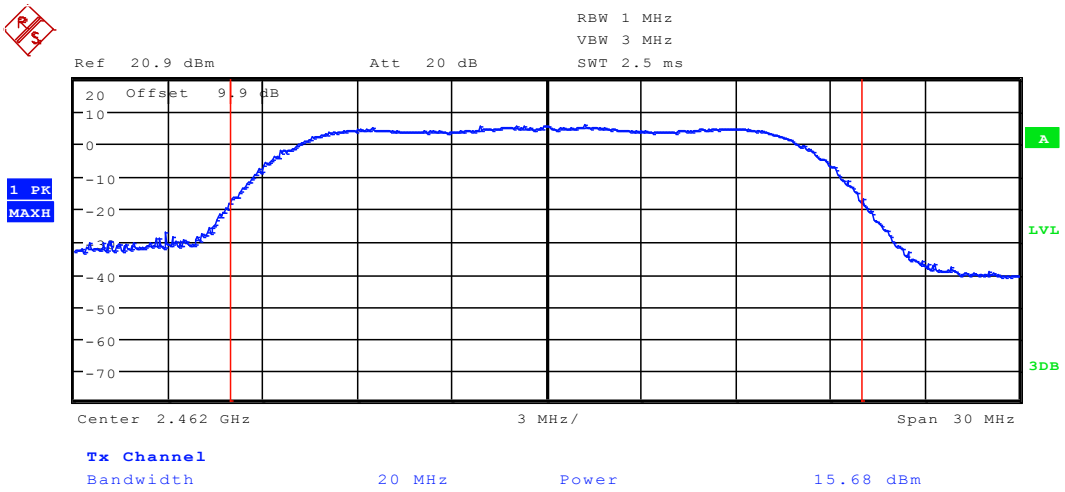
2.10 11G_M@Ant2



Date: 13.DEC.2012 11:12:35

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

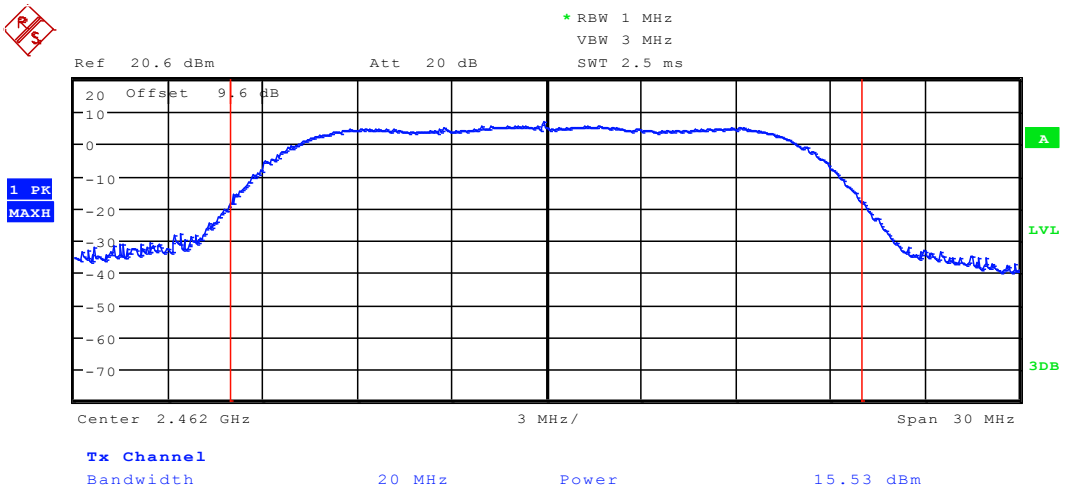
2.11 11G_T@Ant1



Date: 13.DEC.2012 10:40:13

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

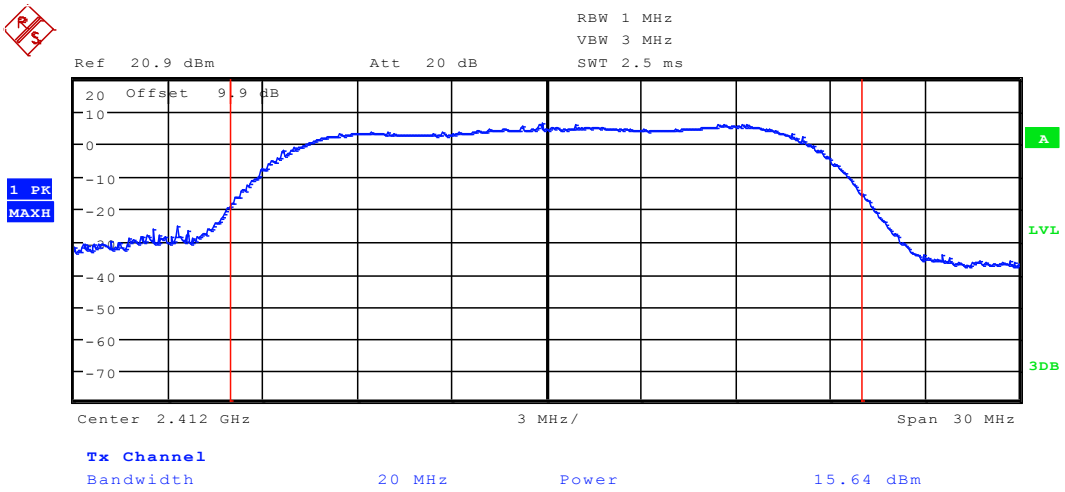
2.12 11G_T@Ant2



Date: 13.DEC.2012 11:13:09

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

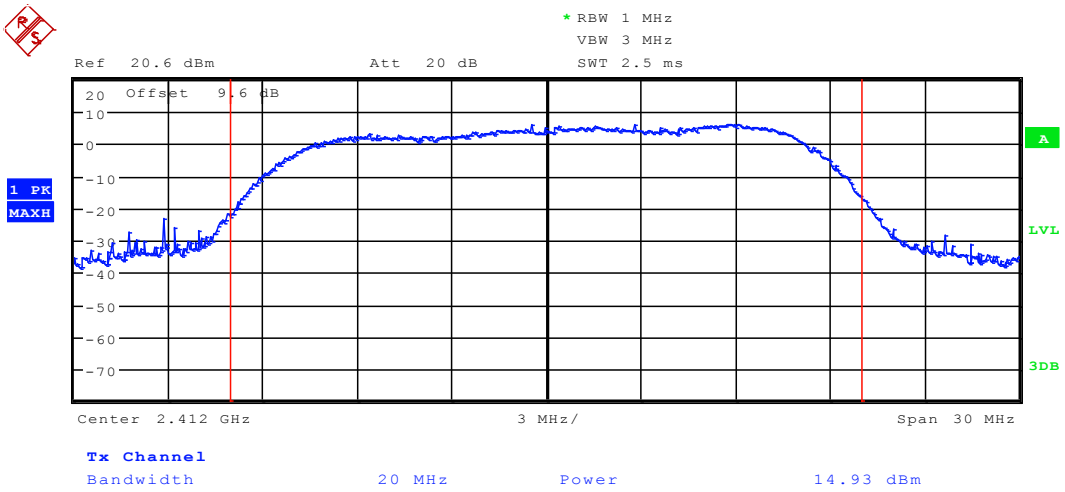
2.13 11N20_B@Ant1



Date: 13.DEC.2012 10:41:08

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

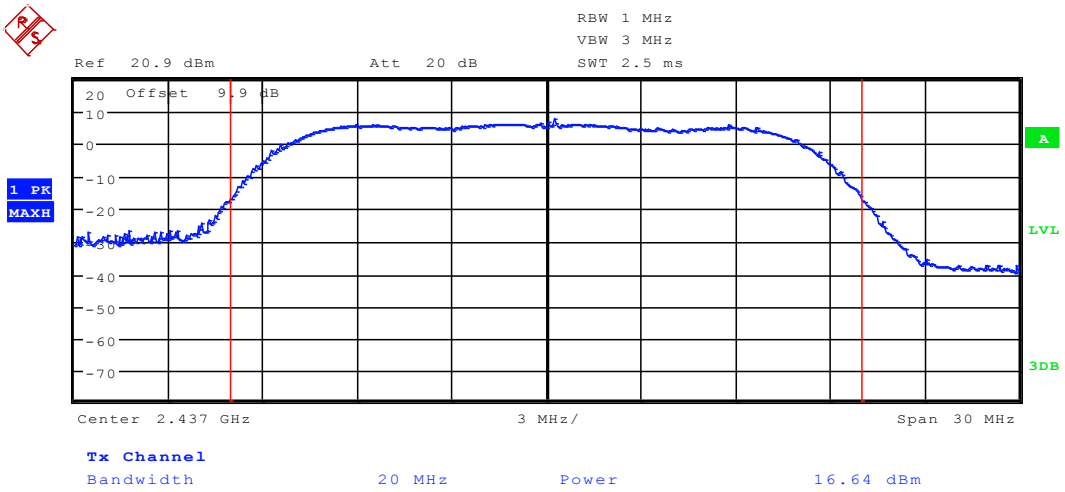
2.14 11N20_B@Ant2



Date: 13.DEC.2012 11:13:48

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

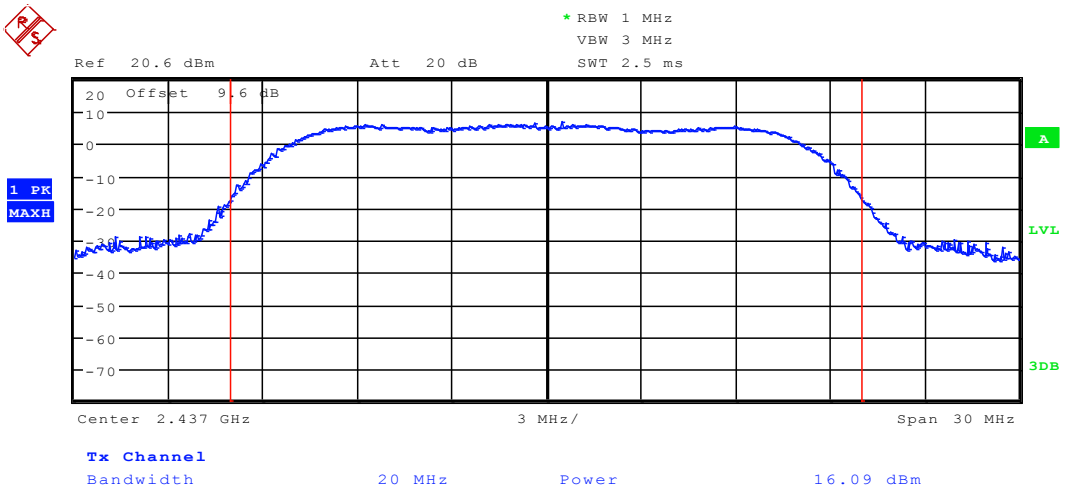
2.15 11N20_M@Ant1



Date: 13.DEC.2012 10:41:40

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

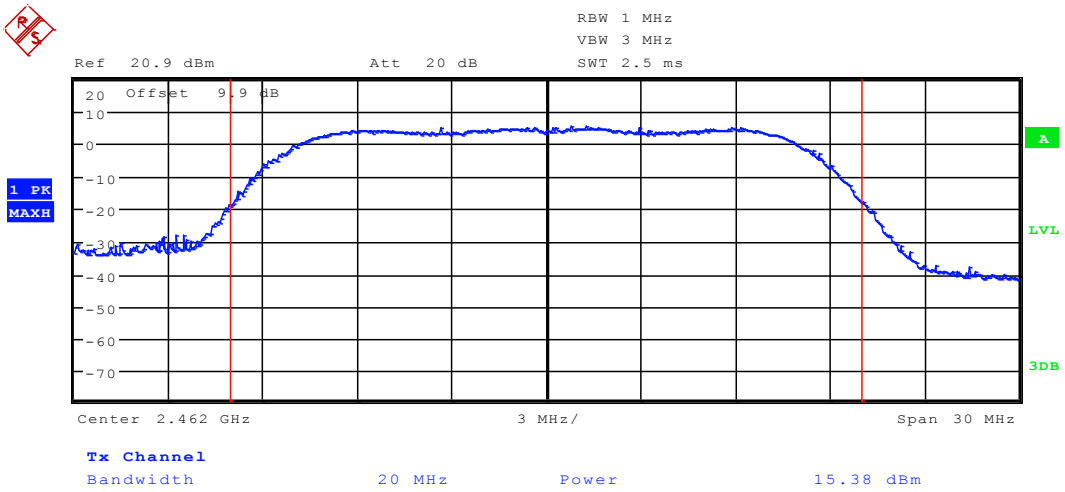
2.16 11N20_M@Ant2



Date: 13.DEC.2012 11:14:19

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

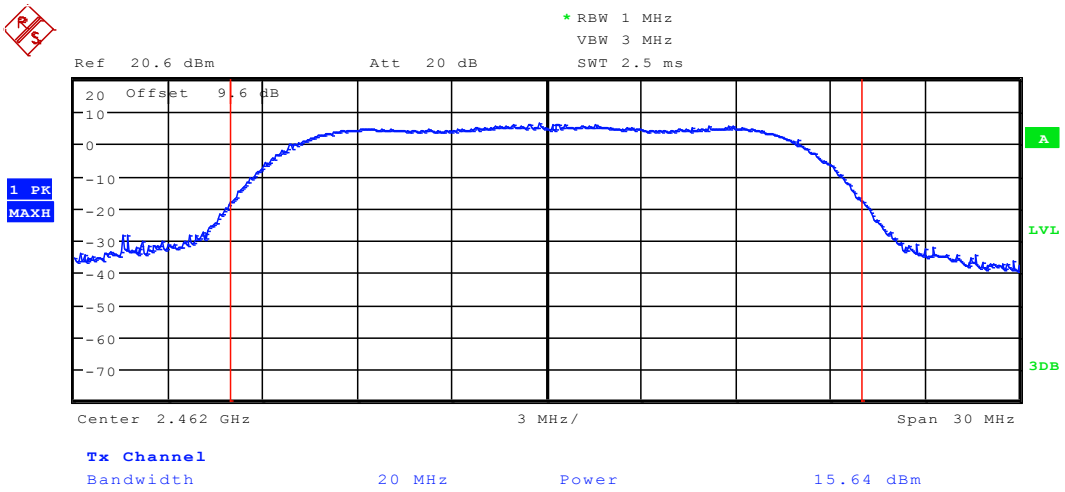
2.17 11N20_T@Ant1



Date: 13.DEC.2012 10:42:10

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

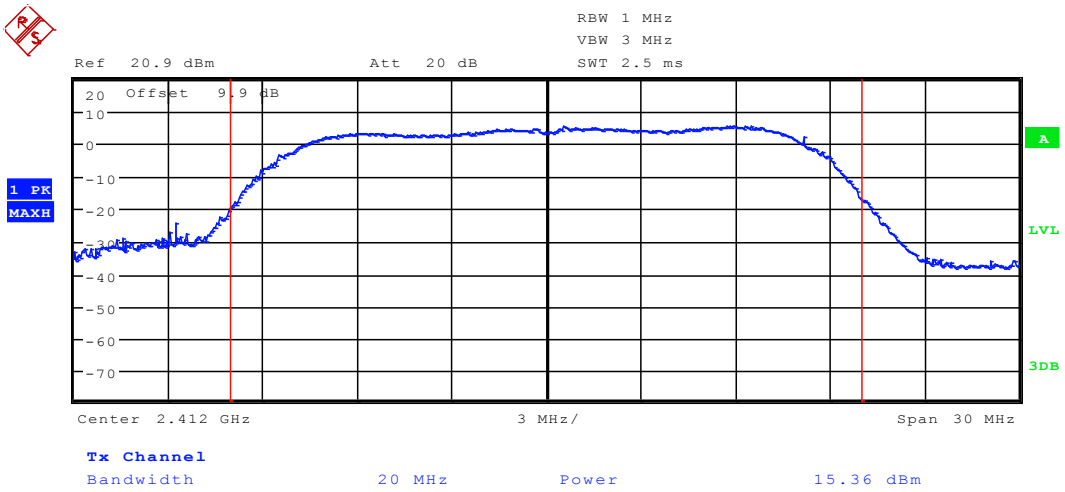
2.18 11N20_T@Ant2



Date: 13.DEC.2012 11:14:58

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

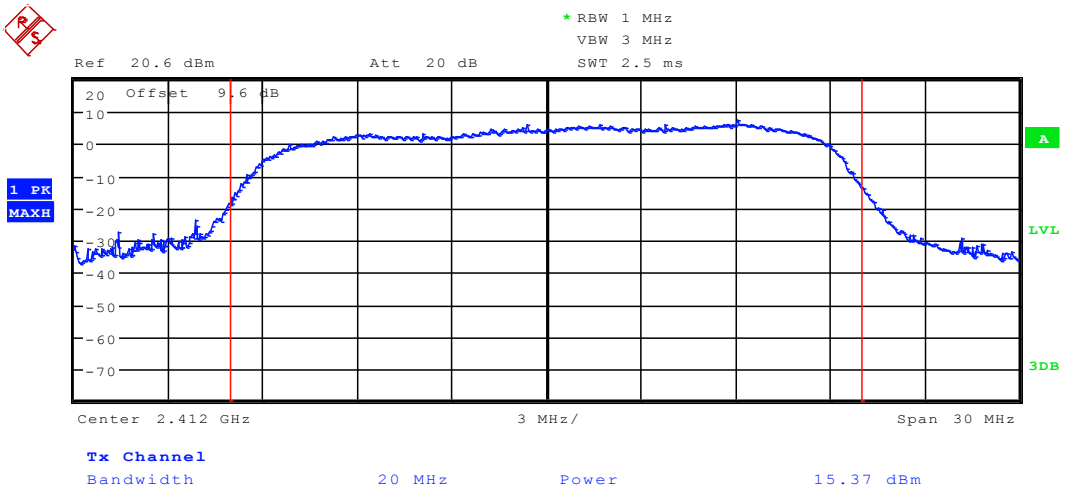
2.19 11N20m_B@Ant1



Date: 13.DEC.2012 10:43:24

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

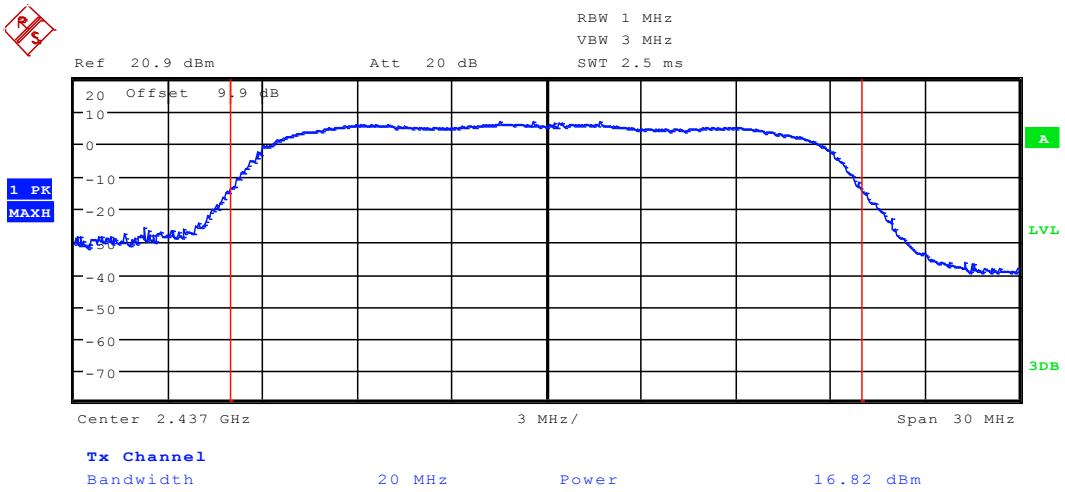
2.20 11N20m_B@Ant2



Date: 13.DEC.2012 11:17:03

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

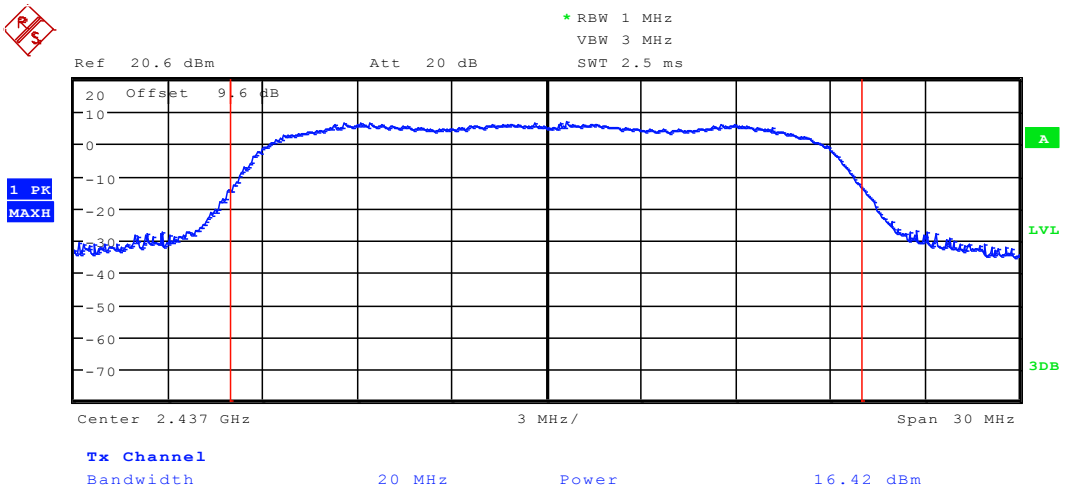
2.21 11N20m_M@Ant1



Date: 13.DEC.2012 10:44:00

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

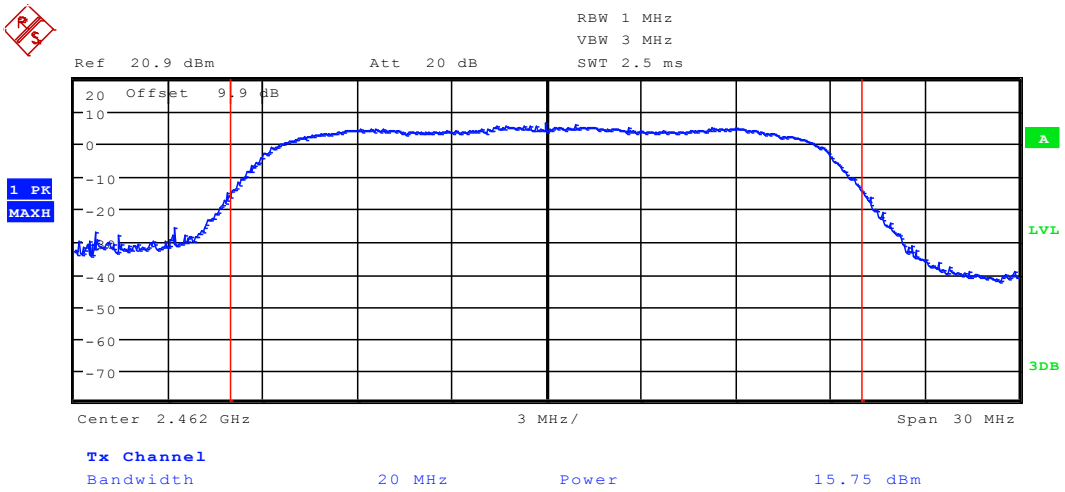
2.22 11N20m_M@Ant2



Date: 13.DEC.2012 11:17:40

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

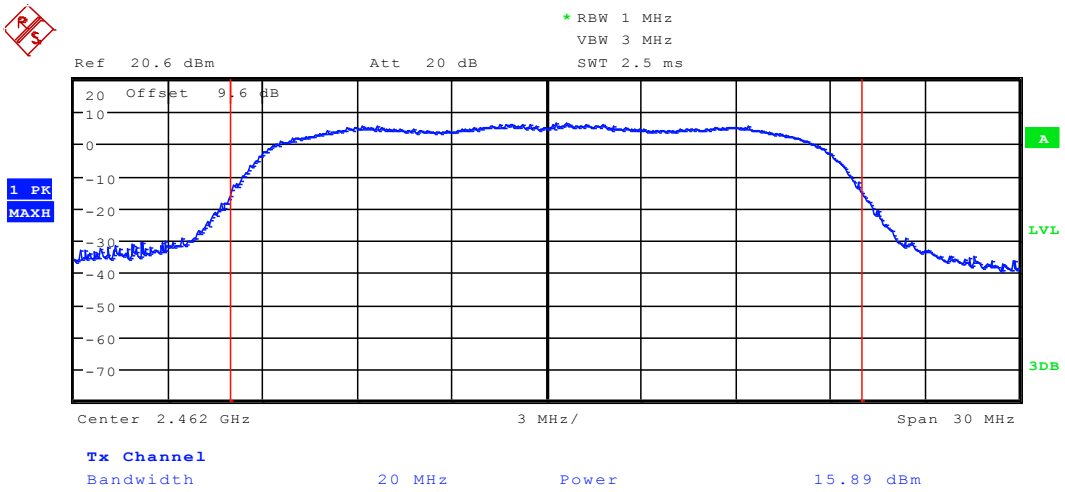
2.23 11N20m_T@Ant1



Date: 13.DEC.2012 10:44:30

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

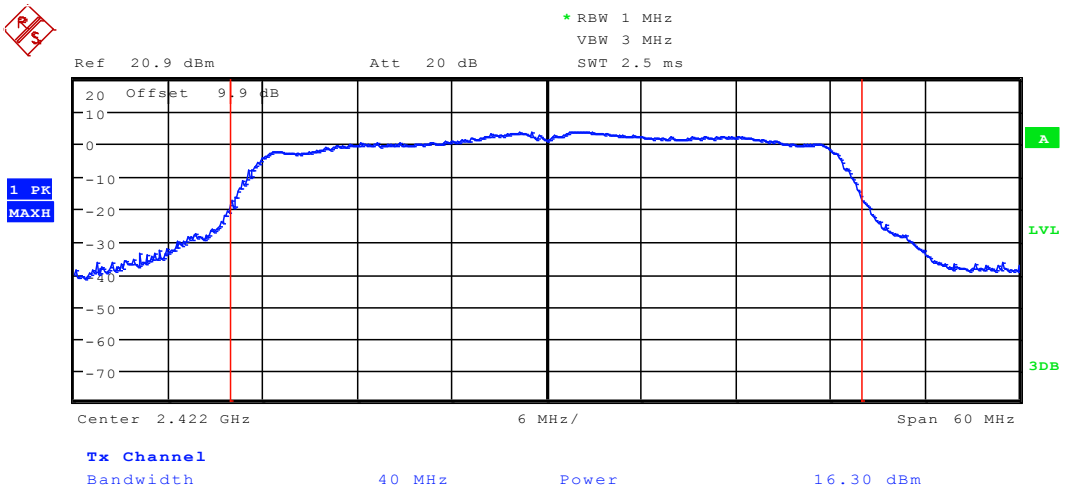
2.24 11N20m_T@Ant2



Date: 13.DEC.2012 11:18:16

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

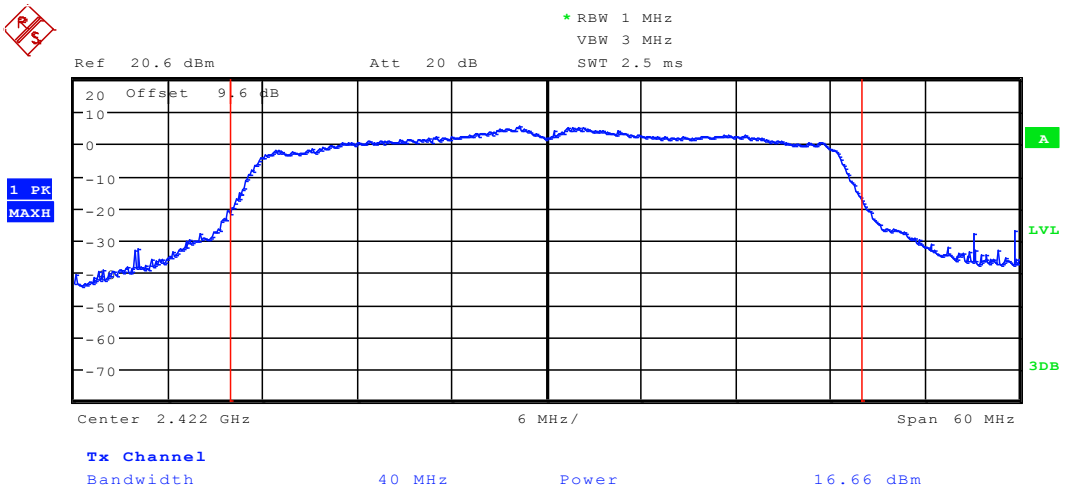
2.25 11N40_B@Ant1



Date: 13.DEC.2012 10:46:35

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

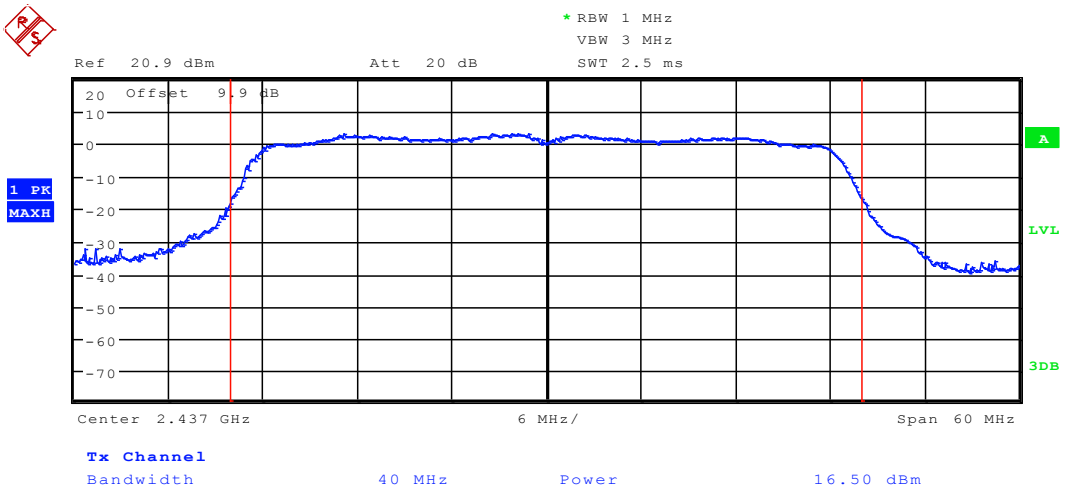
2.26 11N40_B@Ant2



Date: 13.DEC.2012 11:20:36

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

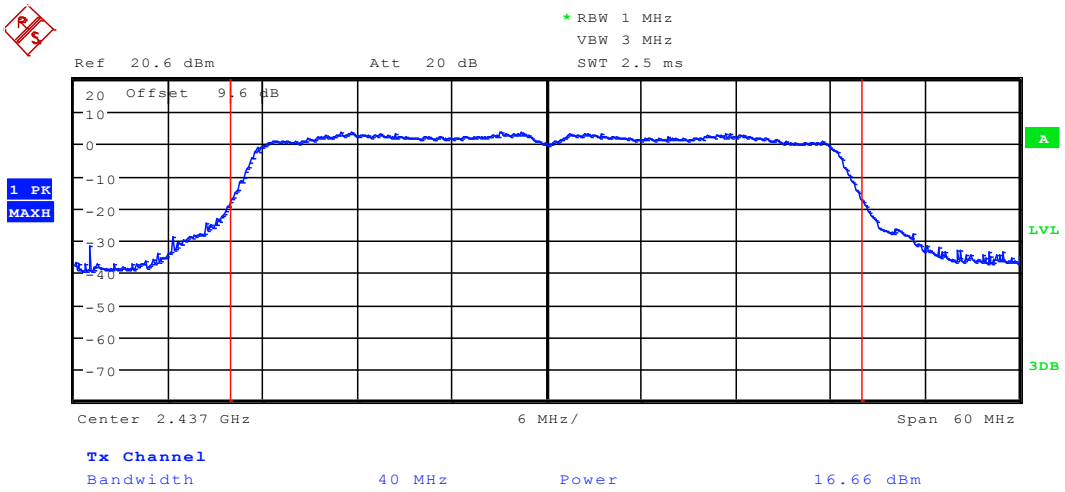
2.27 11N40_M@Ant1



Date: 13.DEC.2012 10:47:14

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

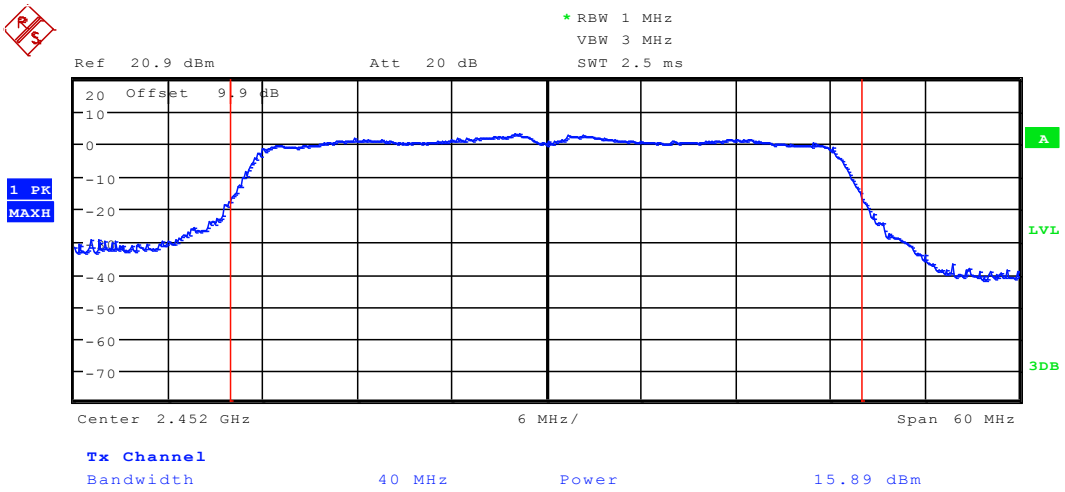
2.28 11N40_M@Ant2



Date: 13.DEC.2012 11:21:09

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

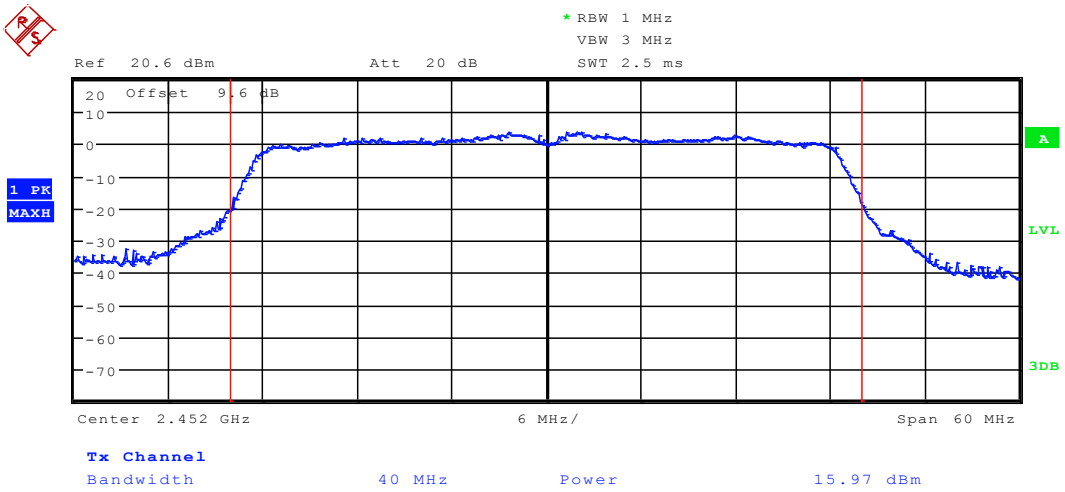
2.29 11N40_T@Ant1



Date: 13.DEC.2012 10:47:51

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

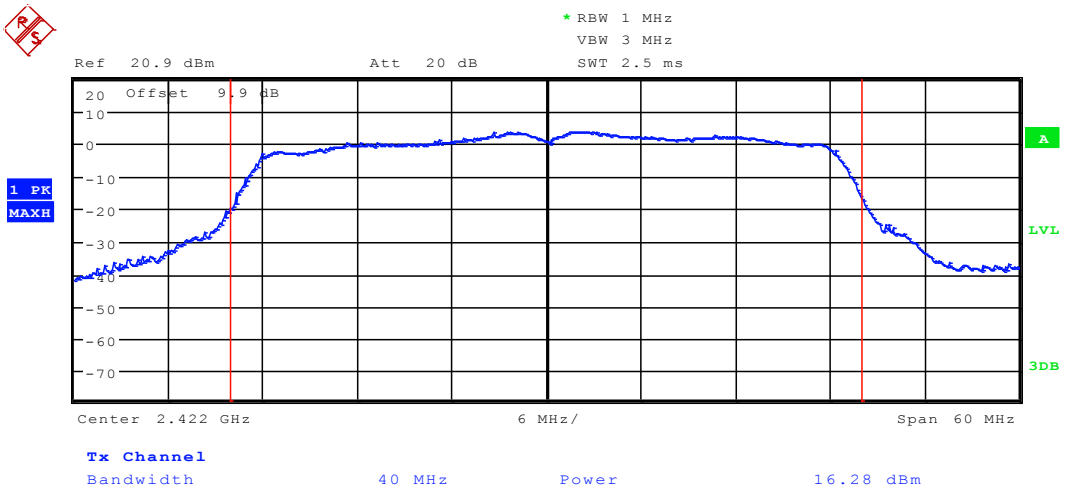
2.30 11N40_T@Ant2



Date: 13.DEC.2012 11:21:41

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

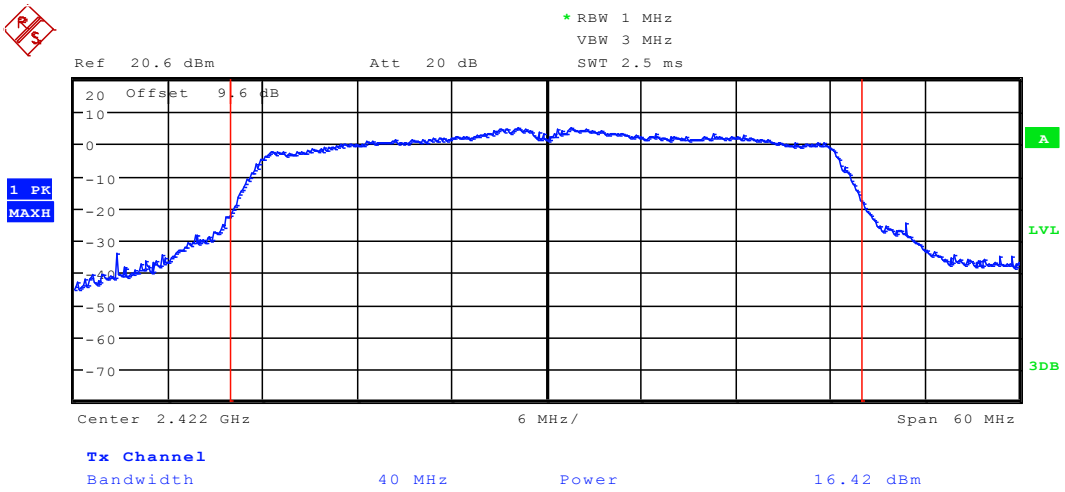
2.31 11N40m_B@Ant1



Date: 13.DEC.2012 10:48:53

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

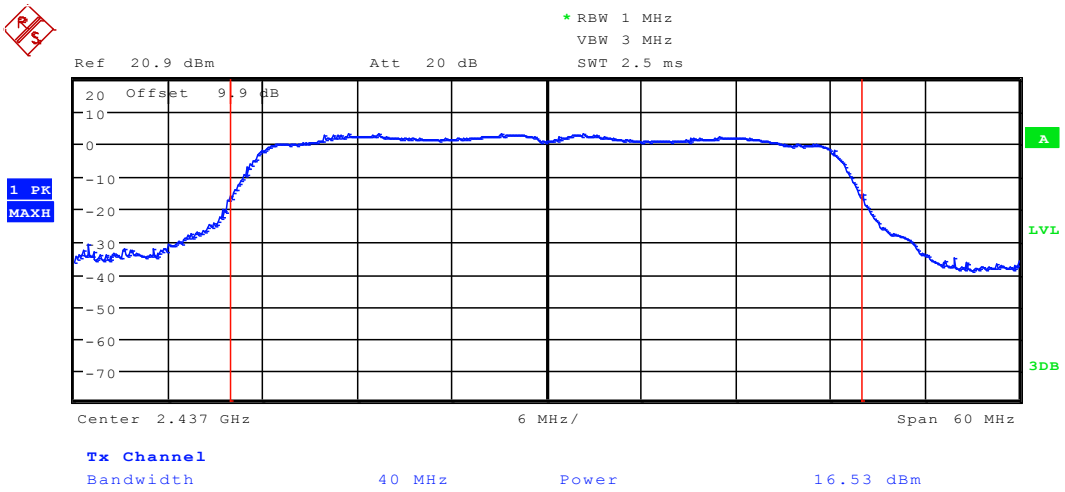
2.32 11N40m_B@Ant2



Date: 13.DEC.2012 11:22:48

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

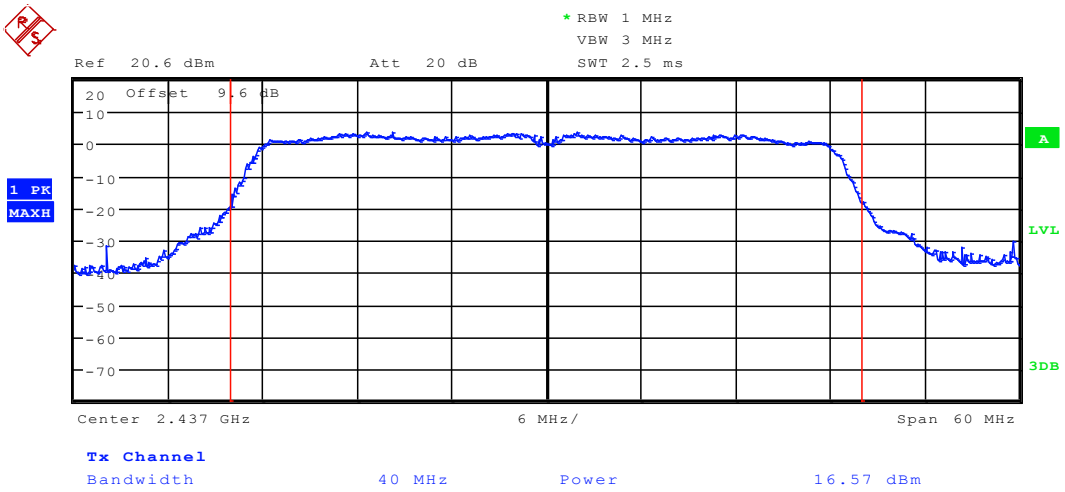
2.33 11N40m_M@Ant1



Date: 13.DEC.2012 10:50:40

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

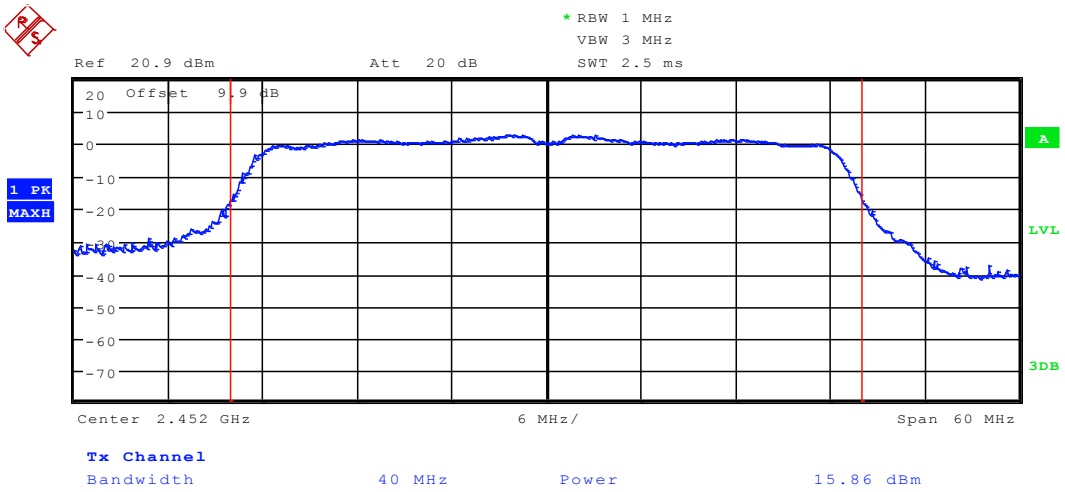
2.34 11N40m_M@Ant2



Date: 13.DEC.2012 11:23:19

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

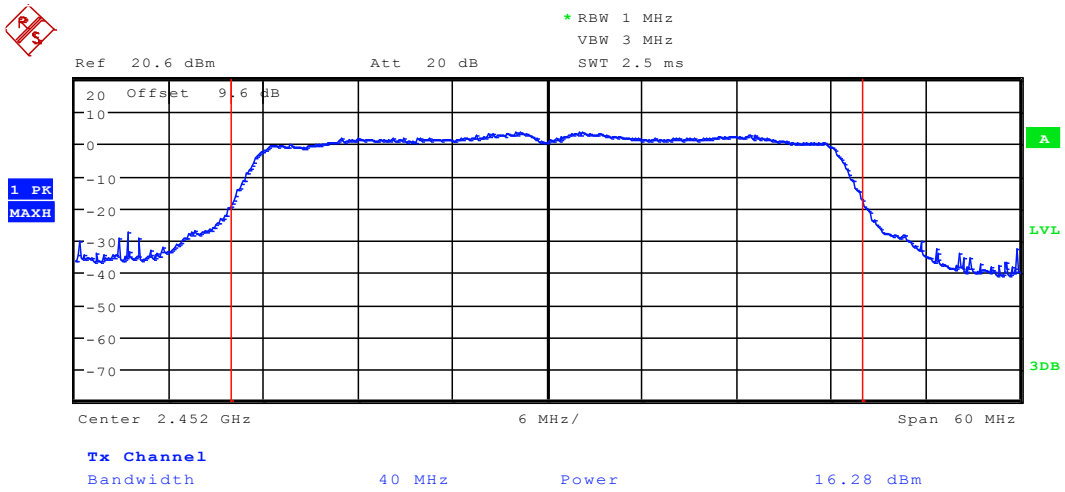
2.35 11N40m_T@Ant1



Date: 13.DEC.2012 10:51:11

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.36 11N40m_T@Ant2



Date: 13.DEC.2012 11:24:12

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Appendix C: Maximum Power Spectral Density Level

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

In this Appendix, the “PD*” refers to the measured “Maximum Power Spectral Density” value with 100 kHz RBW. The final result “PD” within 3 kHz bandwidth, which is used to compare with the limit requirements, should be adjusted according to: PD [dBm/3 kHz] = PD* [dBm/100 kHz] – 15.2 [dB].

For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain as “PD@i [dBm]”, and then combined into the final result “PD [dBm]” to compare with the limit according to: PD [dBm] = 10 x lg(10 ^ (PD@1 [dBm] / 10) + ... + 10 ^ (PD@N [dBm] / 10)) (the N denotes the antenna chains used by smart antenna systems). NOTE that the method is a stringent but convenient consideration, because each “PD@i [dBm]” may be located at different frequency occurrence. For the final judgment, the combination of the final result “PD [dBm]” (Trace#sum) should be performed frequency-by-frequency on the measured spectrum trace for each antenna chain (Trace#i). Unless otherwise specified, the method for final judgment will not be used.

1 Result Table

Eut.conf	Channel	Frequency (MHz)	Ant	PD [dBm]	Verdict
11B	B	2412	Ant1	-5.01	pass
			Ant2	-4.92	pass
	M	2437	Ant1	-3.37	pass
			Ant2	-3.83	pass
	T	2462	Ant1	-3.99	pass
			Ant2	-5.85	pass
11G	B	2412	Ant1	-7.12	pass
			Ant2	-7.36	pass
	M	2437	Ant1	-6.35	pass
			Ant2	-6.93	pass
	T	2462	Ant1	-7.47	pass
			Ant2	-7.65	pass
11N20	B	2412	Ant1	-6.88	pass
			Ant2	-6.84	pass
	M	2437	Ant1	-6.52	pass
			Ant2	-6.67	pass
	T	2462	Ant1	-7.32	pass
			Ant2	-7.89	pass
11N20m	B	2412	Ant1	-7.32	---
			Ant2	-6.79	---
			1+2	-4.04	pass
	M	2437	Ant1	-6.3	---
			Ant2	-7.45	---
			1+2	-3.83	pass
	T	2462	Ant1	-7.05	---
			Ant2	-7.09	---
			1+2	-4.06	pass
11N40	B	2422	Ant1	-9.03	pass
			Ant2	-8.78	pass

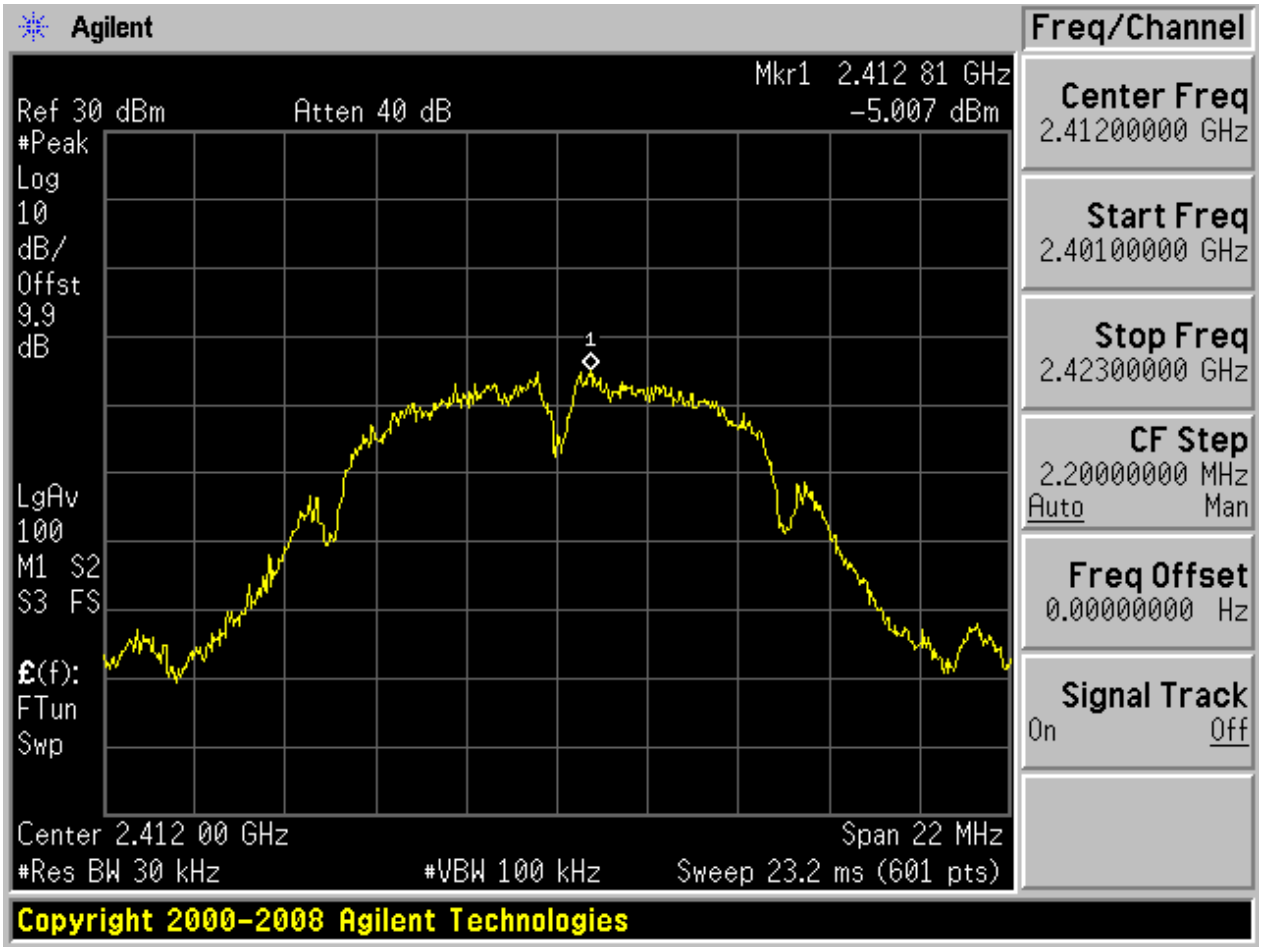
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

	M	2437	Ant1	-10.05	pass
			Ant2	-9.64	pass
	T	2452	Ant1	-10.48	pass
			Ant2	-10.13	pass
11N40m	B	2422	Ant1	-8.86	---
			Ant2	-8.89	---
			1+2	-5.86	pass
	M	2437	Ant1	-10.23	---
			Ant2	-9.87	---
			1+2	-7.04	pass
	T	2452	Ant1	-10.02	---
			Ant2	-10.15	---
			1+2	-7.07	pass

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

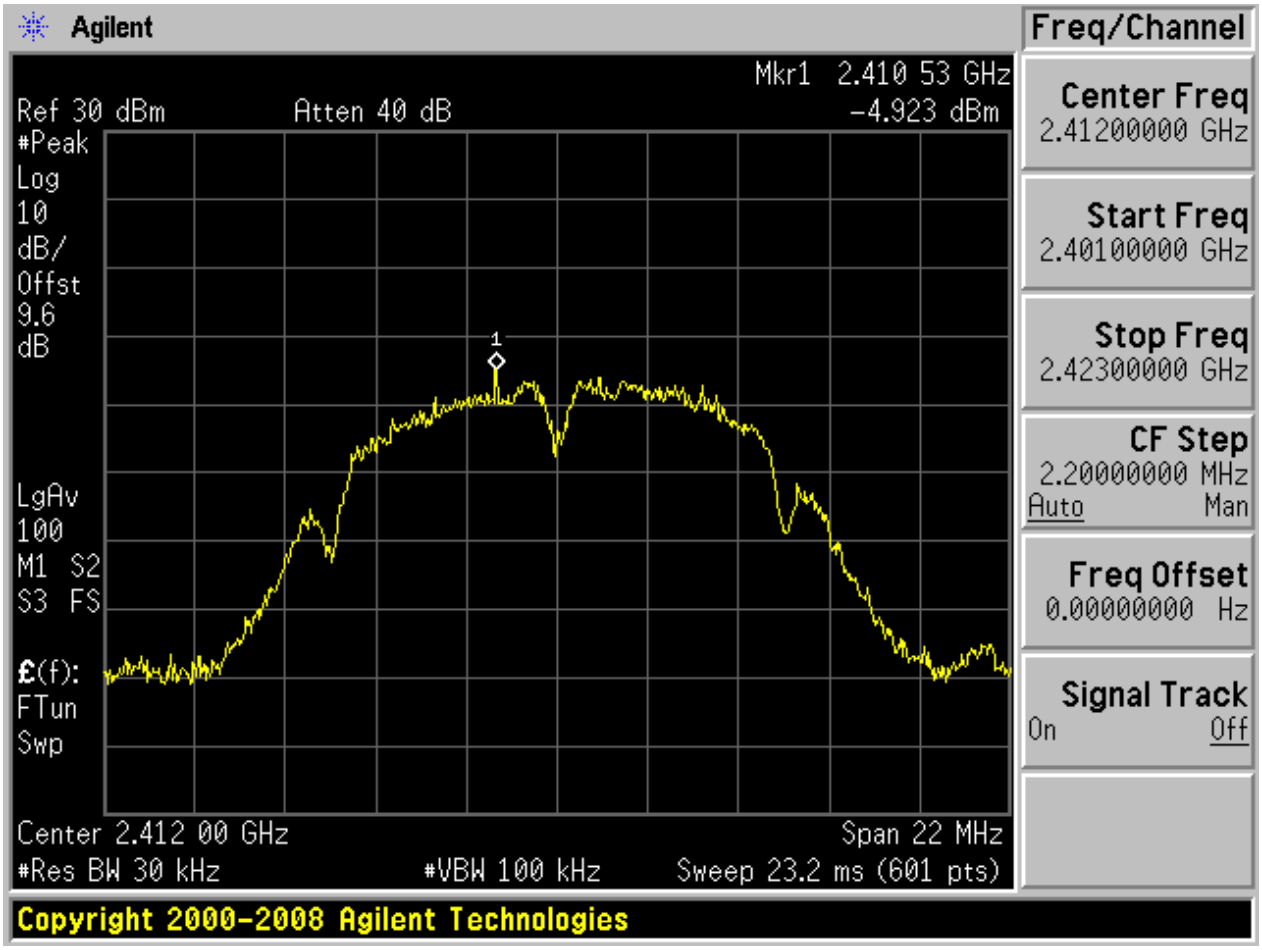
2 Test Plot

2.1 11B_B@Ant1



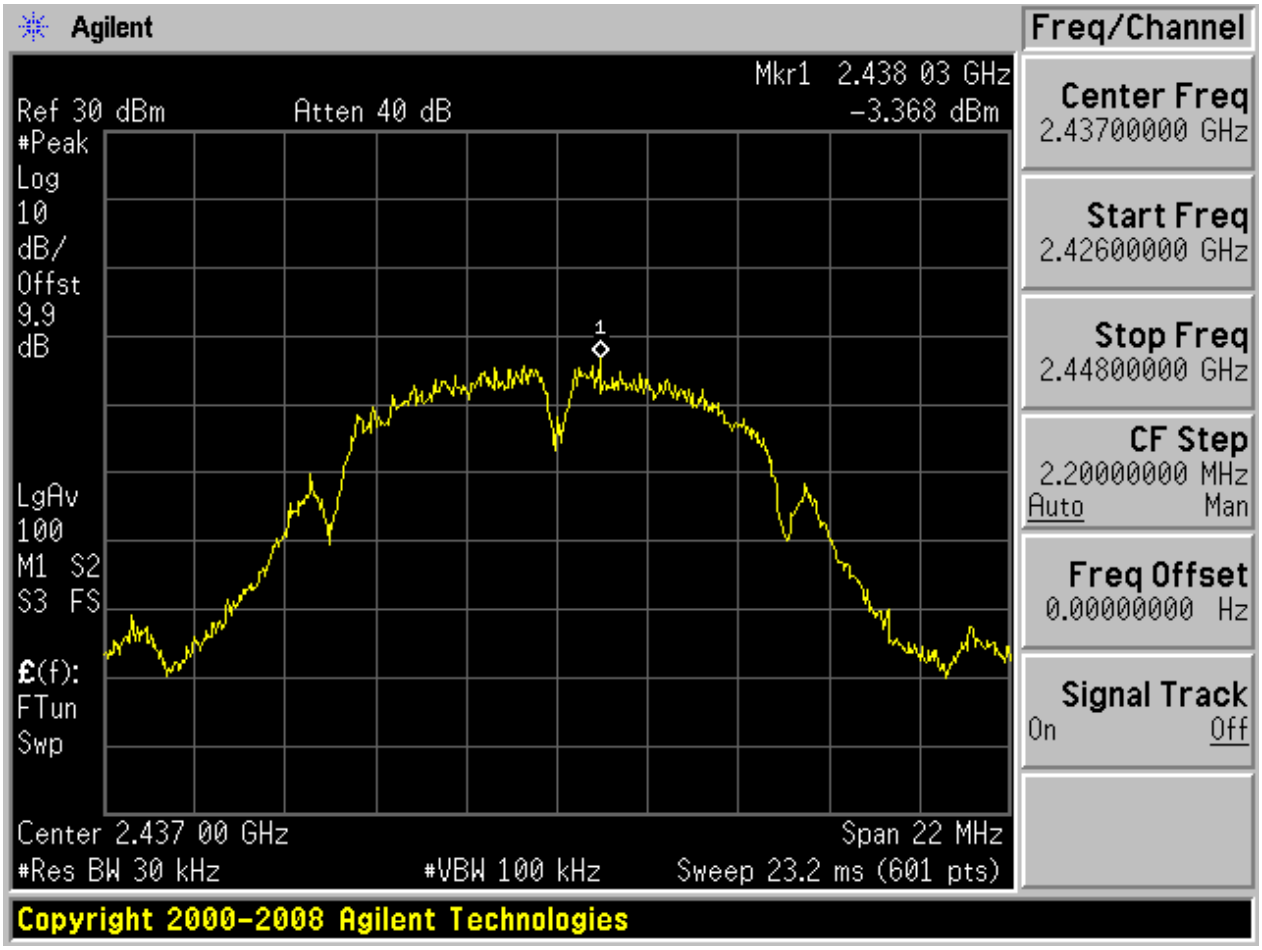
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.2 11B_B@Ant2



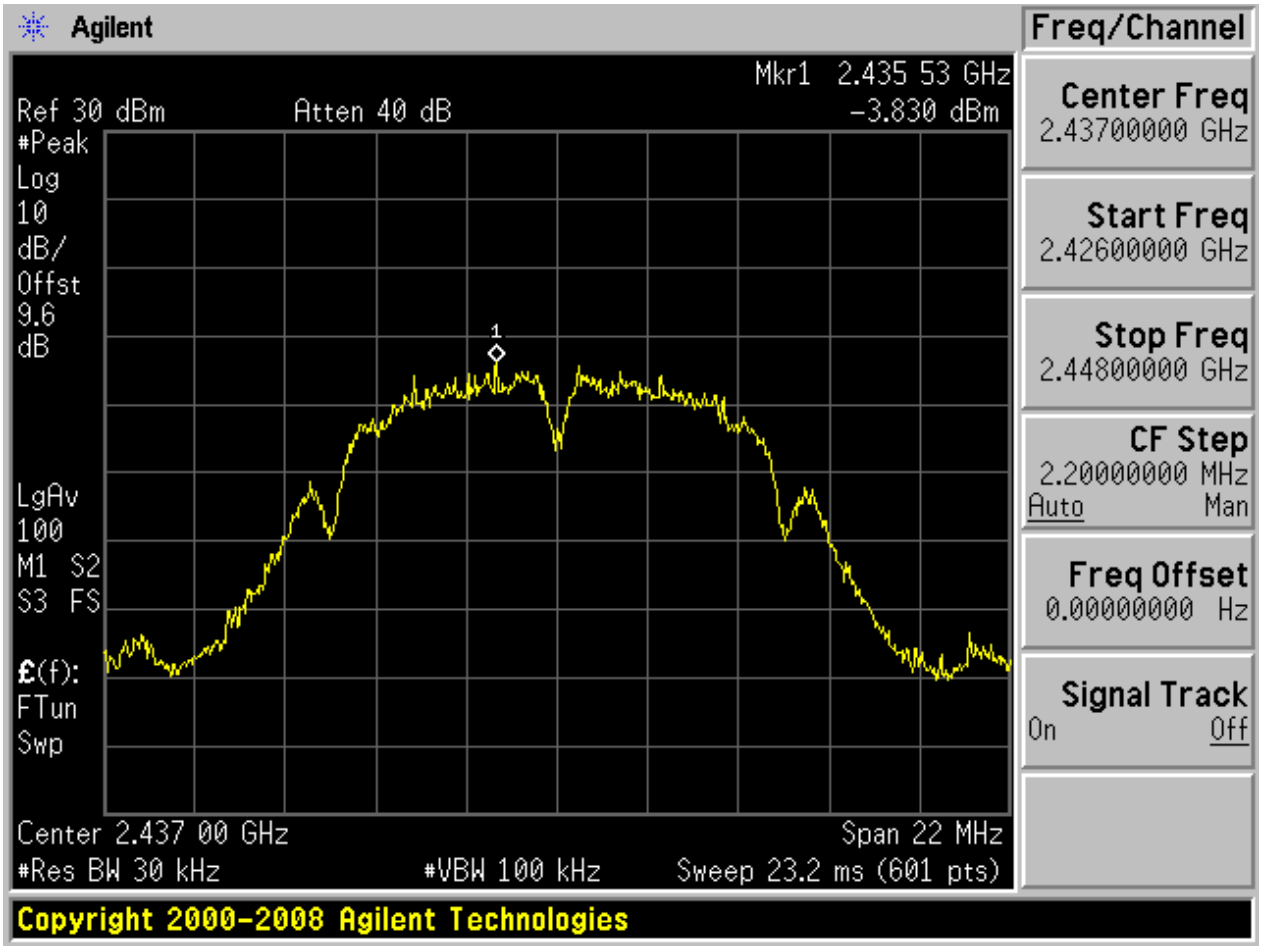
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3 11B_M@Ant1



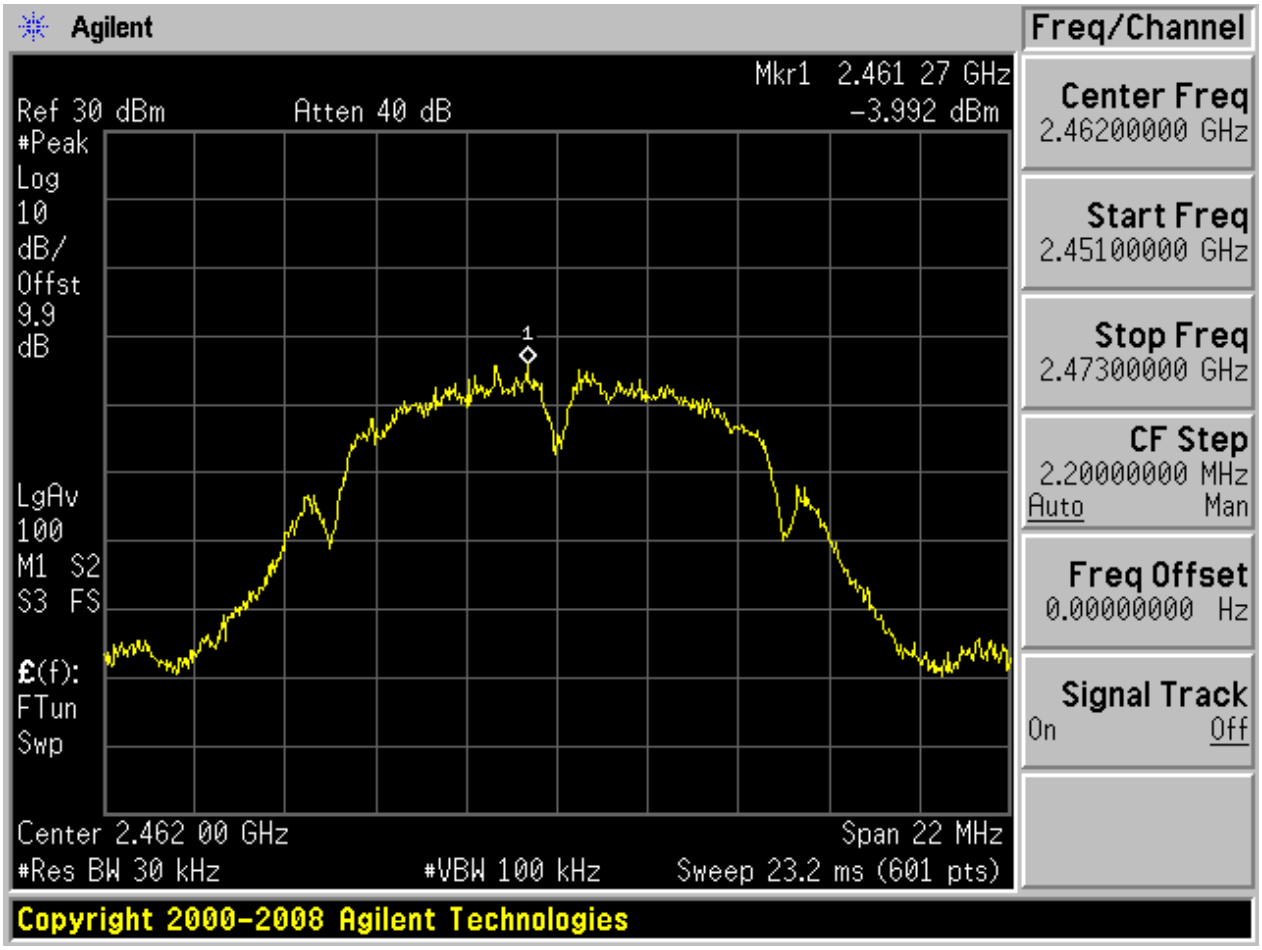
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4 11B_M@Ant2



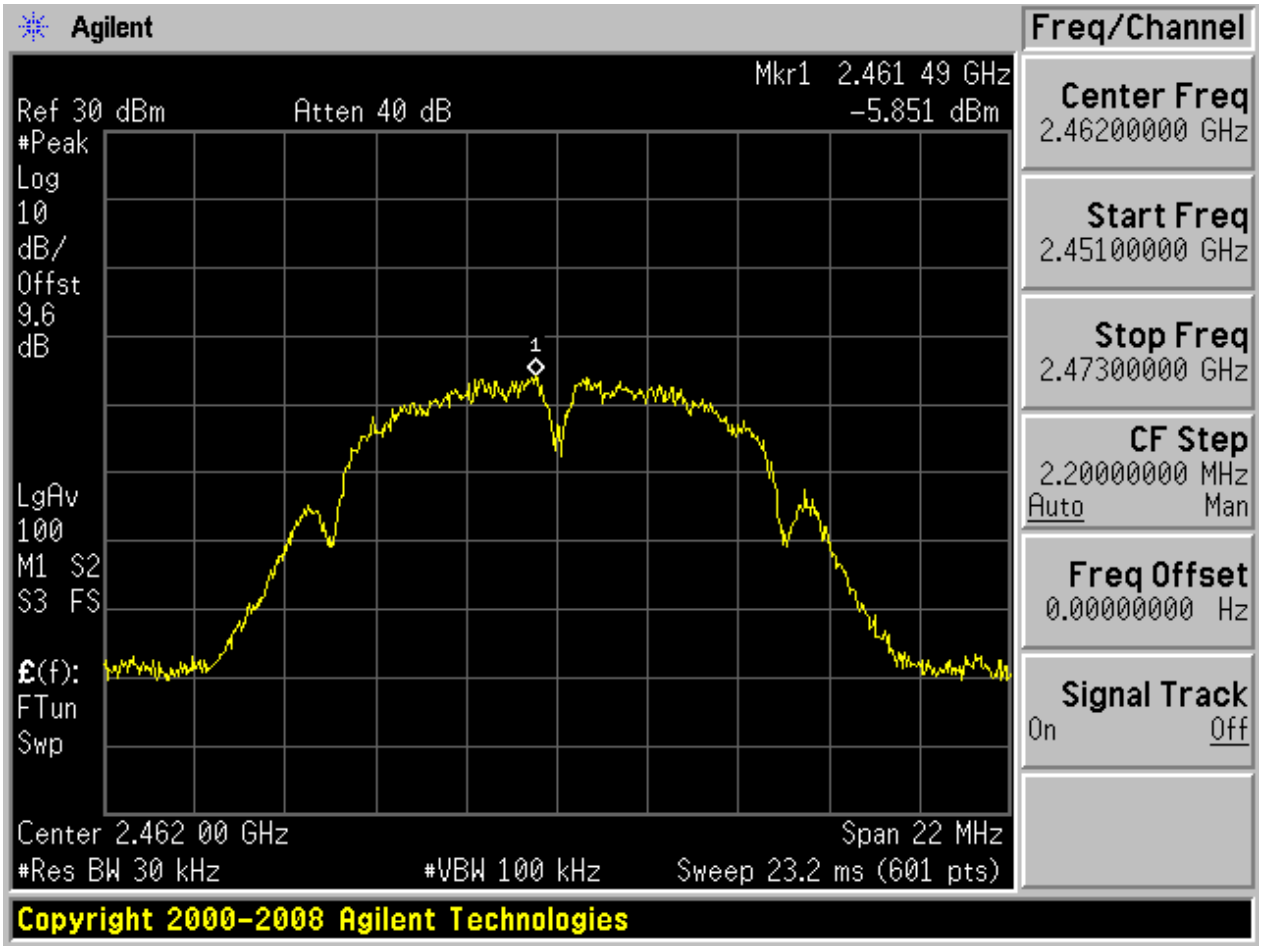
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.5 11B_T@Ant1



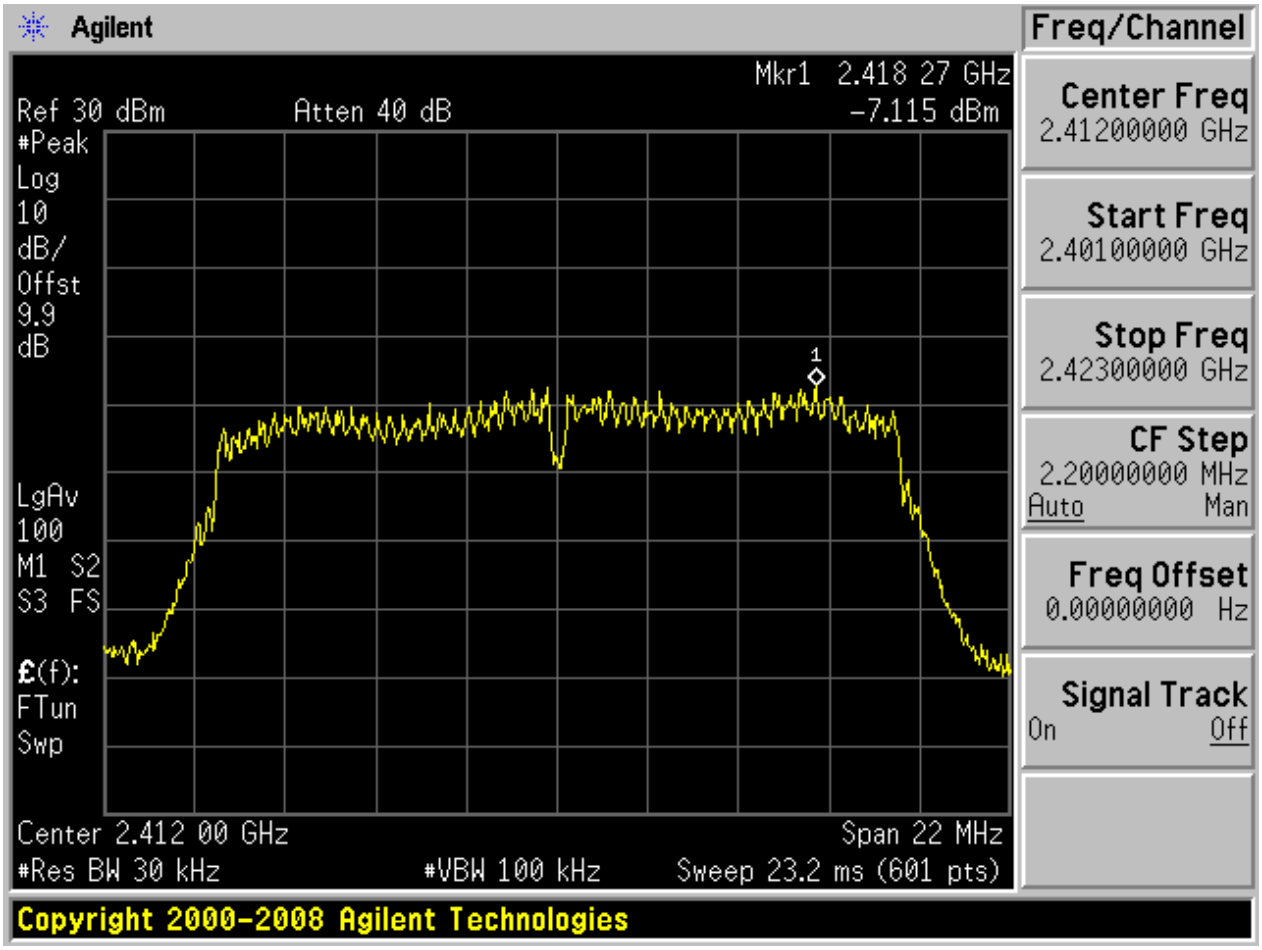
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.6 11B_T@Ant2



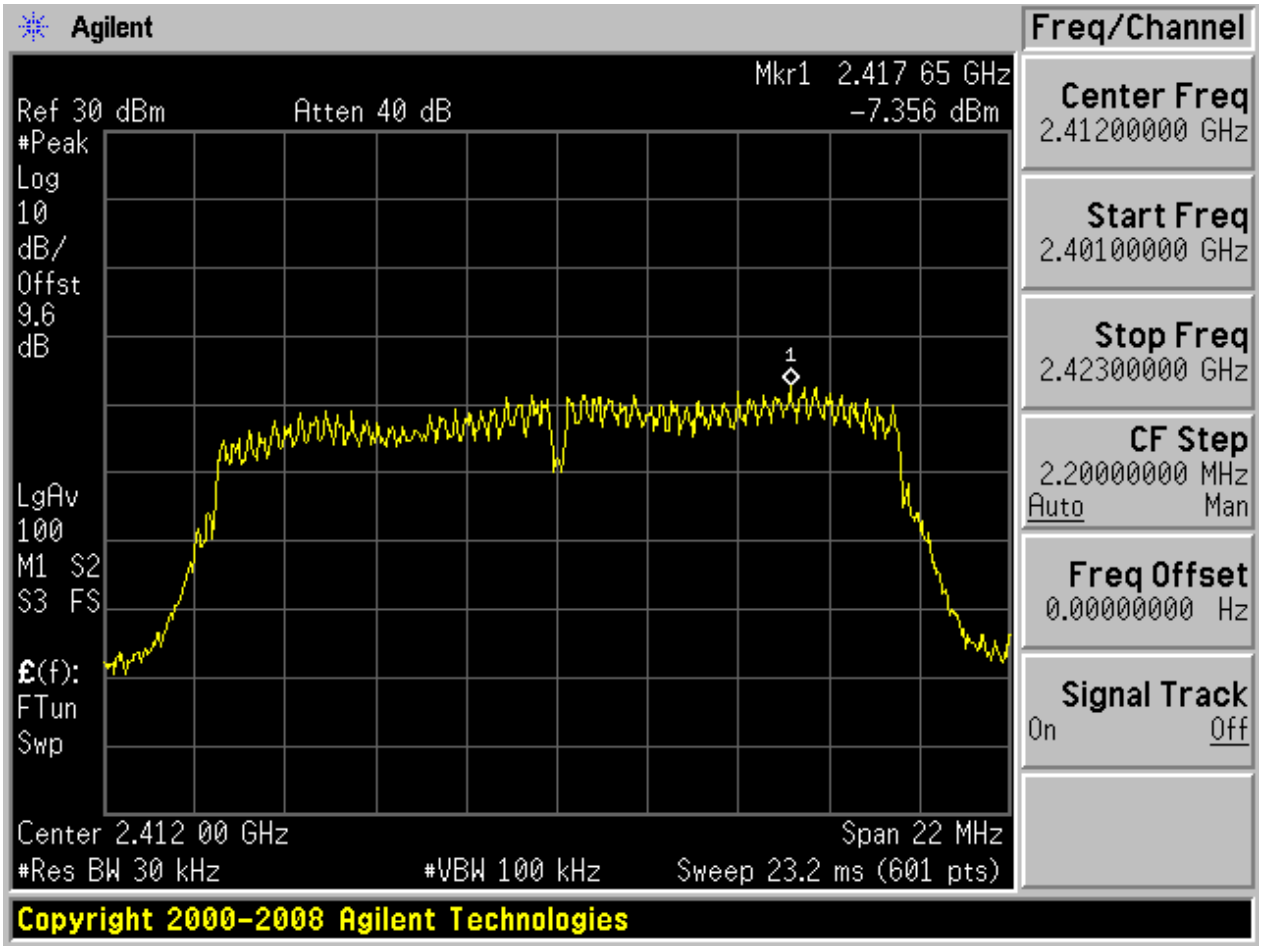
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.7 11G_B@Ant1



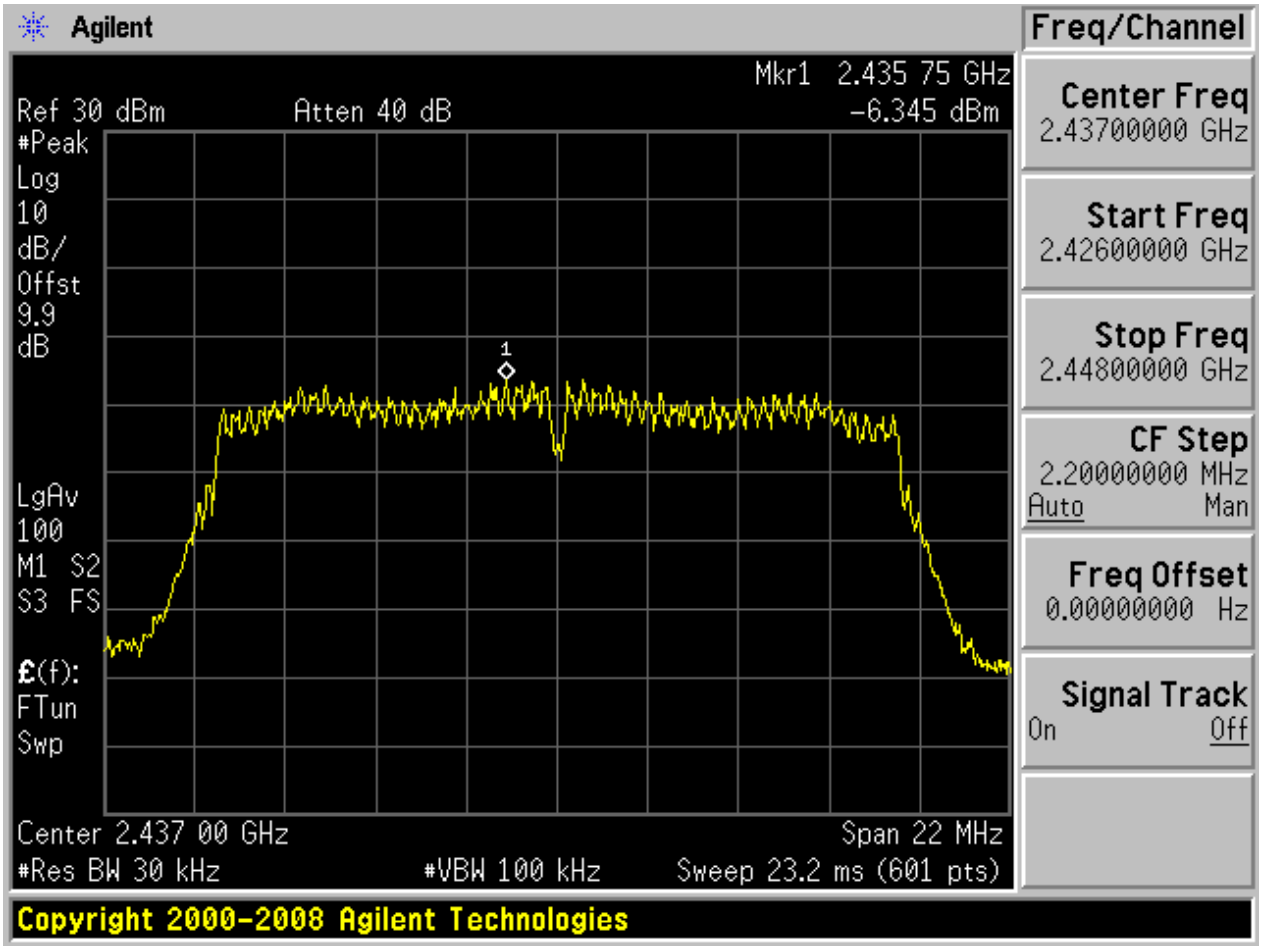
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.8 11G_B@Ant2



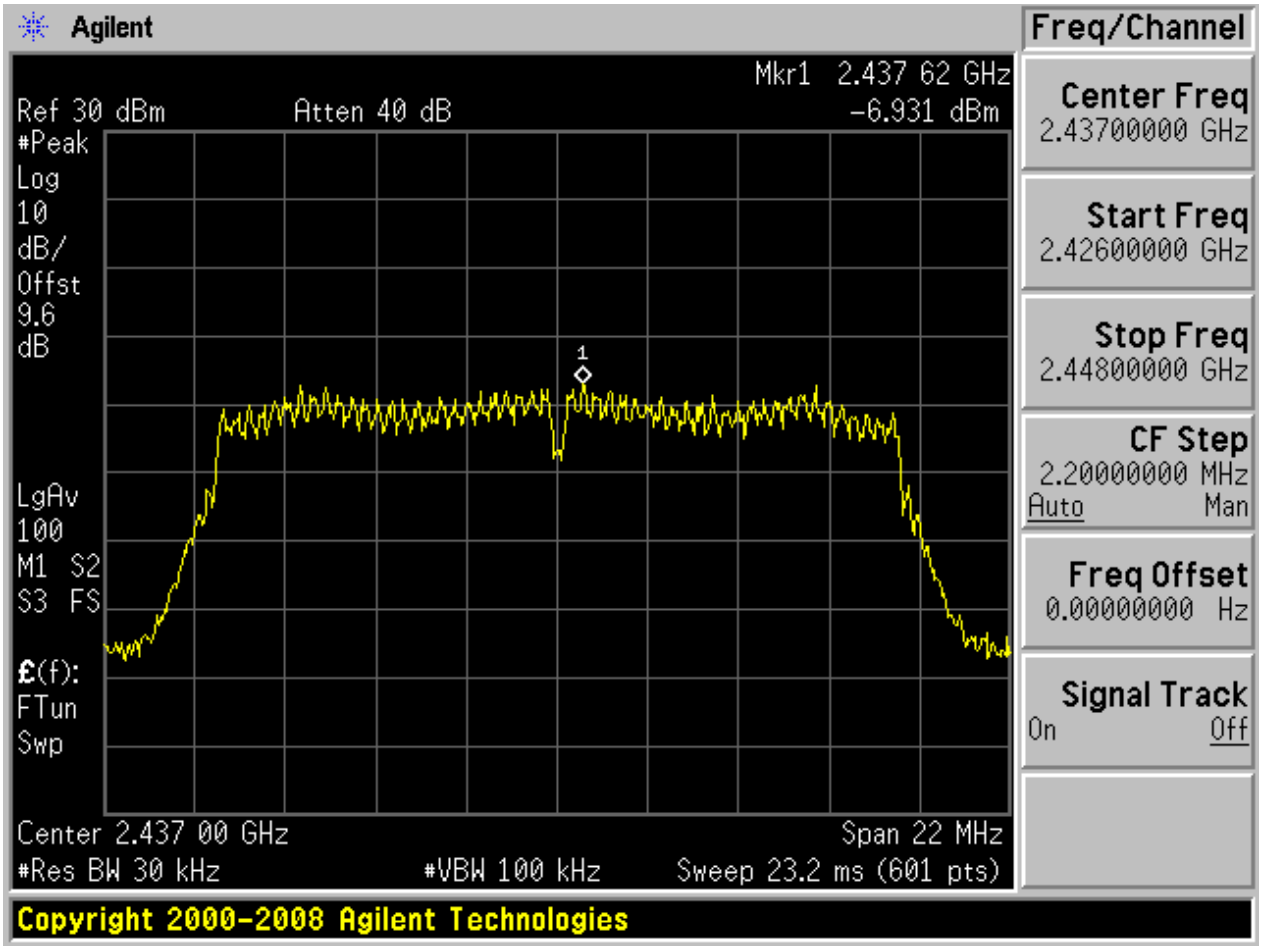
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.9 11G_M@Ant1



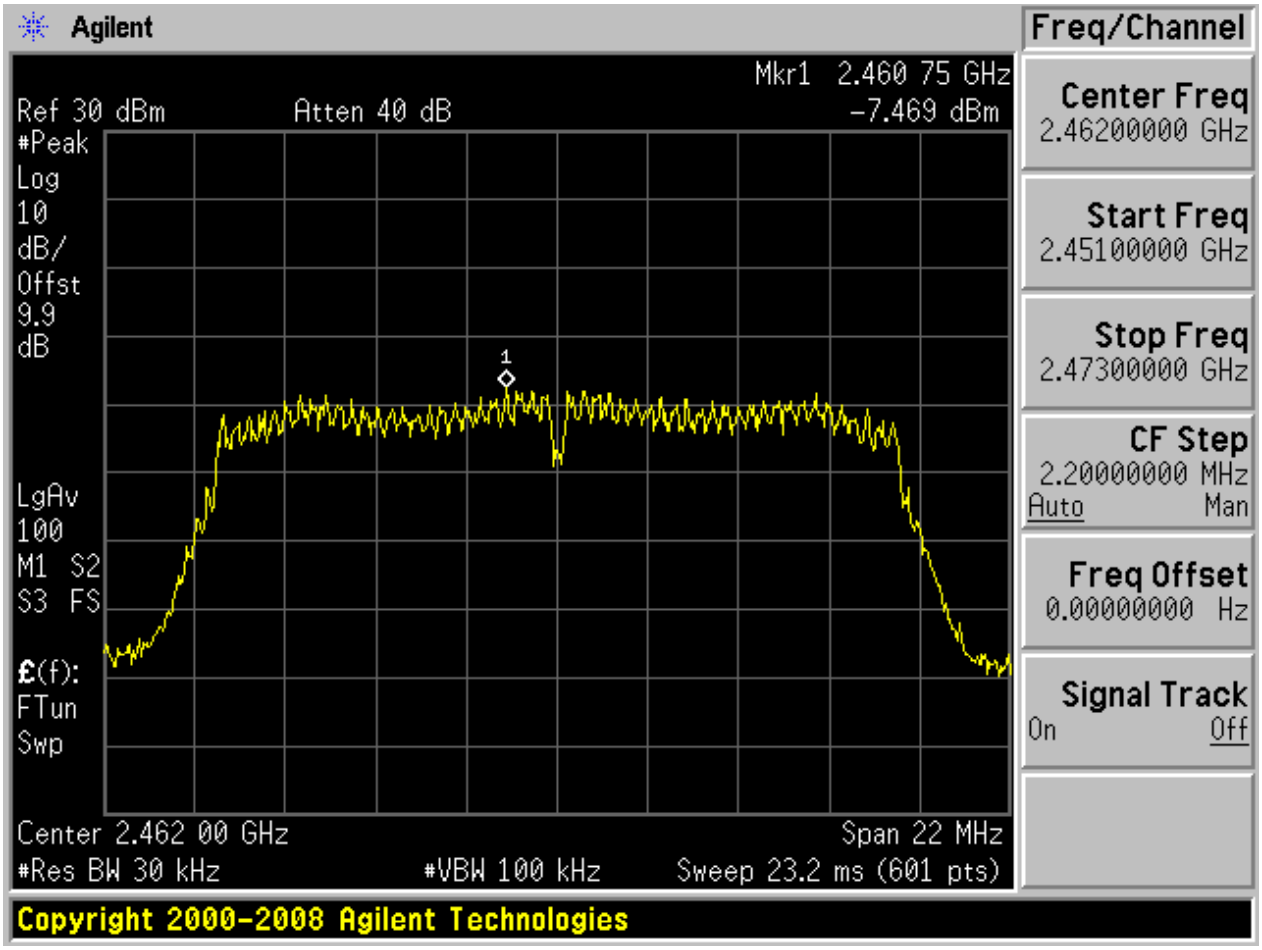
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.10 11G_M@Ant2



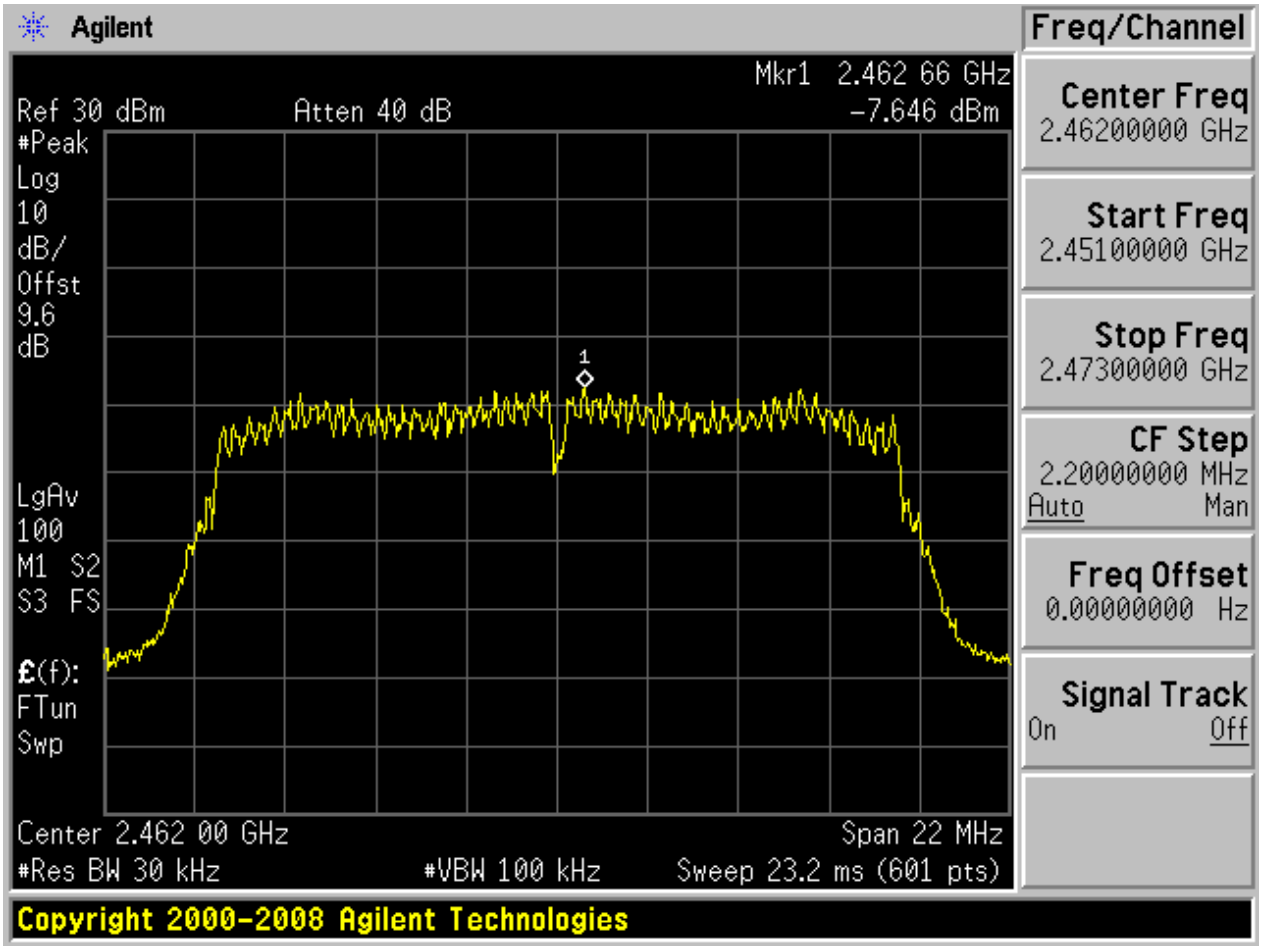
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.11 11G_T@Ant1



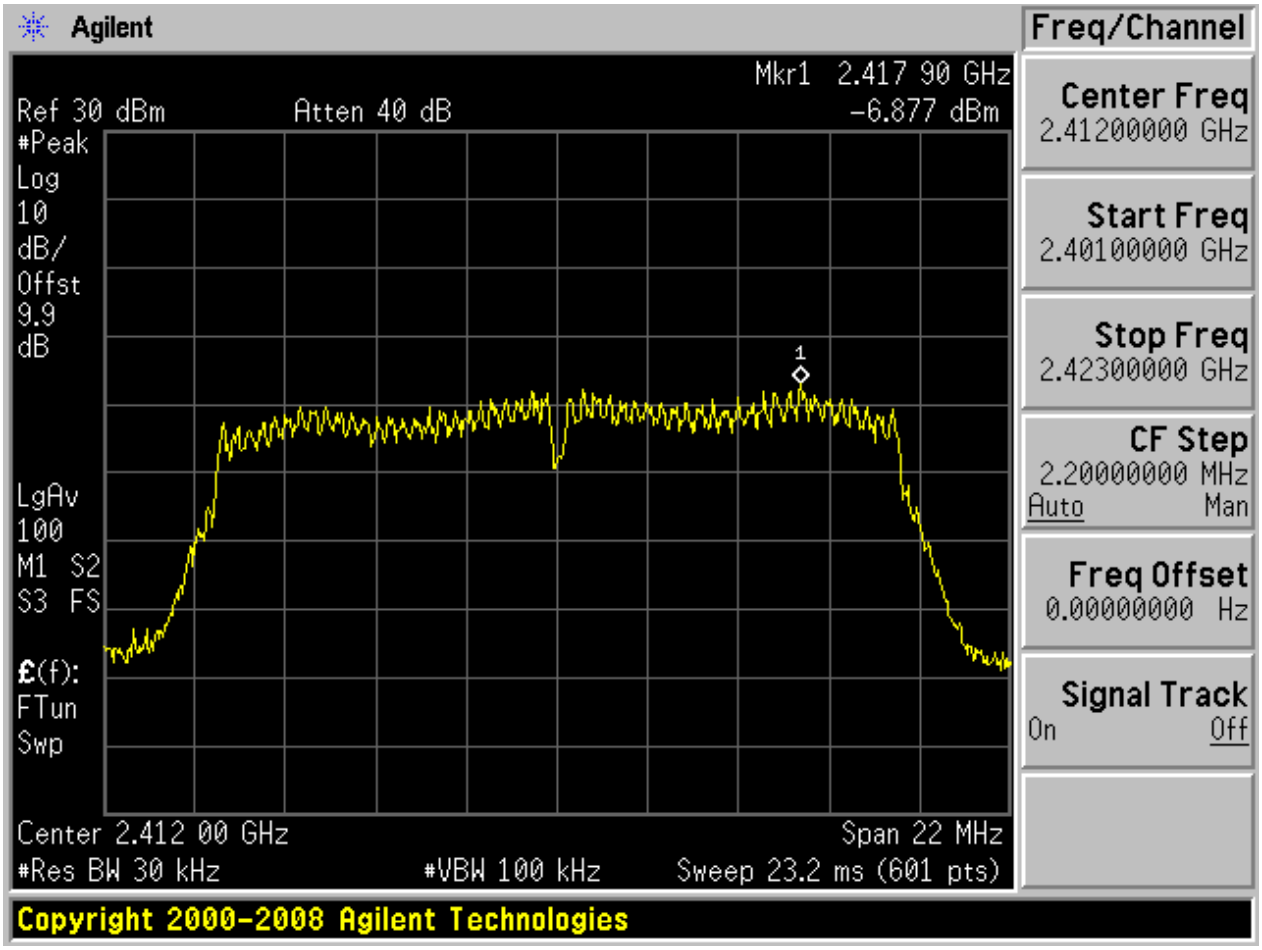
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.12 11G_T@Ant2



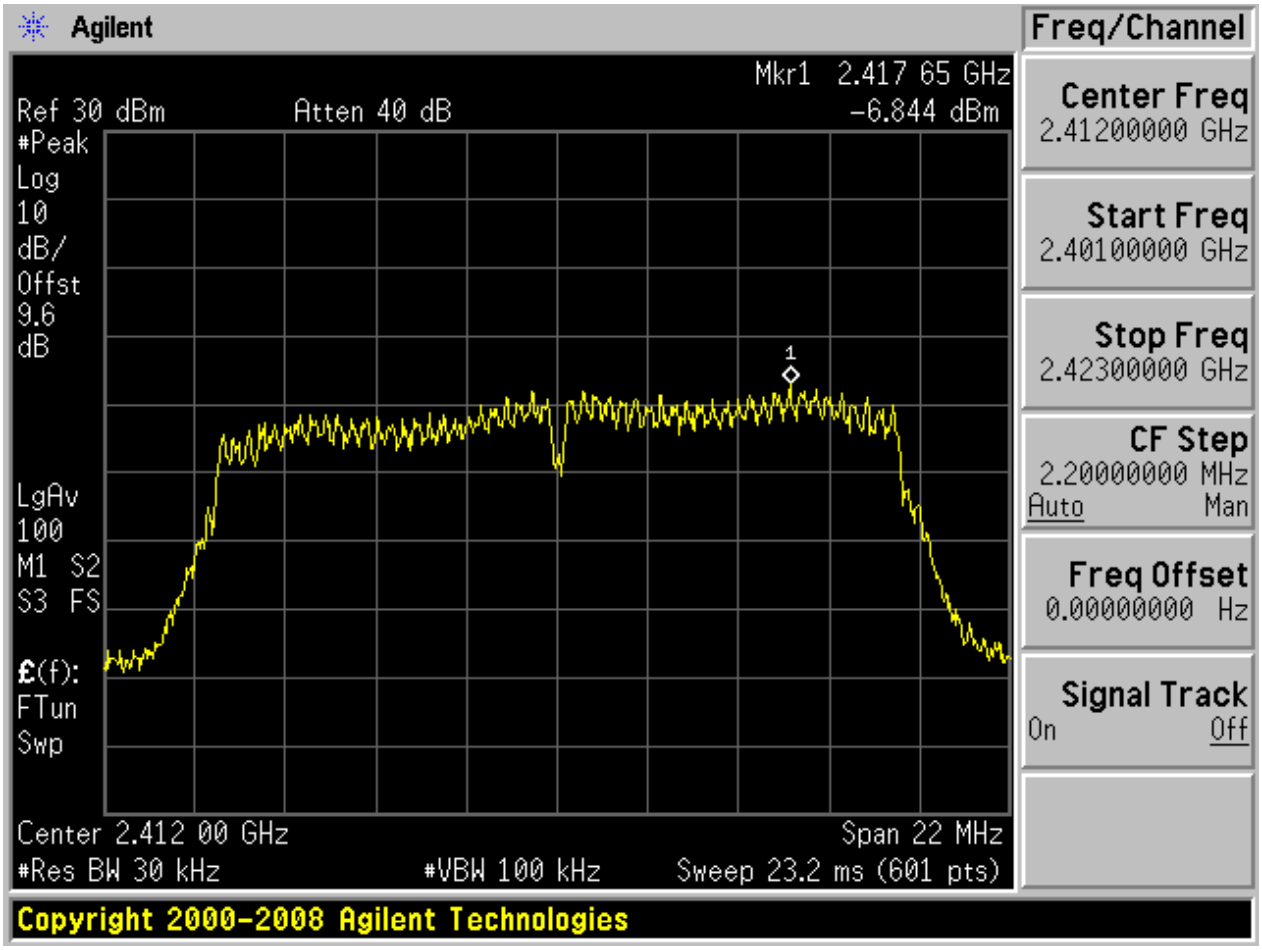
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.13 11N20_B@Ant1



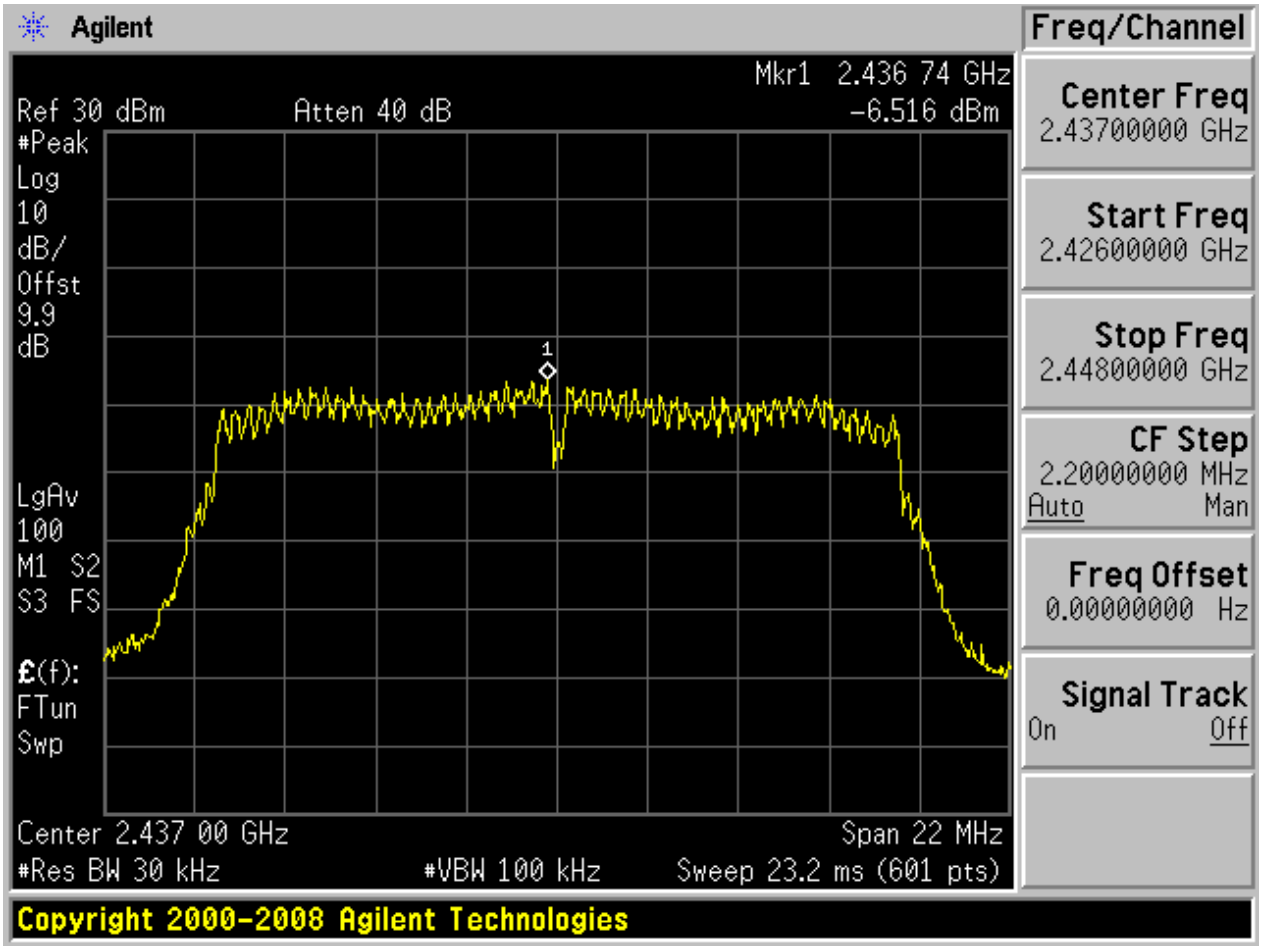
Copyright © Huawei Technologies Co., Ltd.

2.14 11N20_B@Ant2



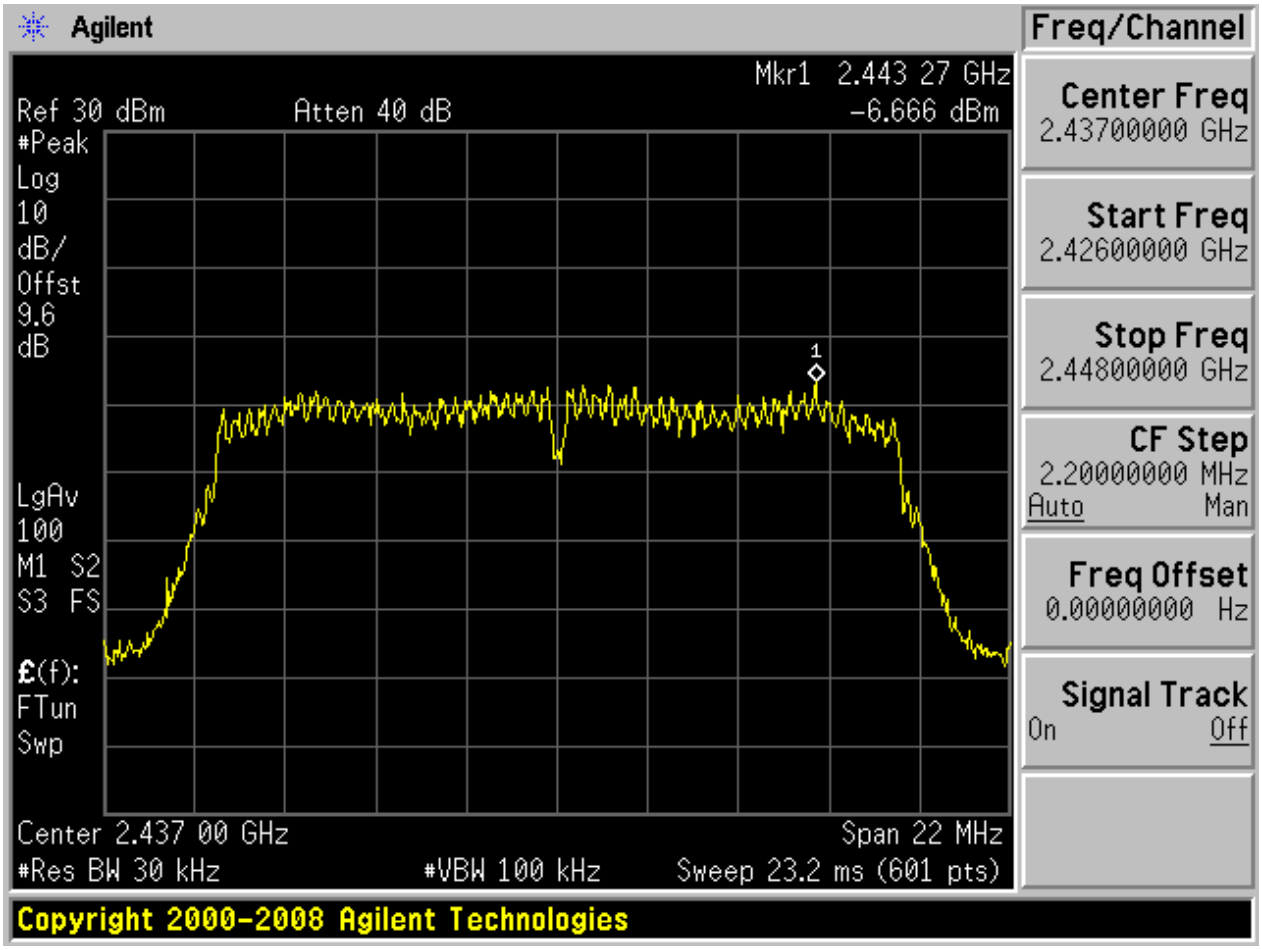
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.15 11N20_M@Ant1



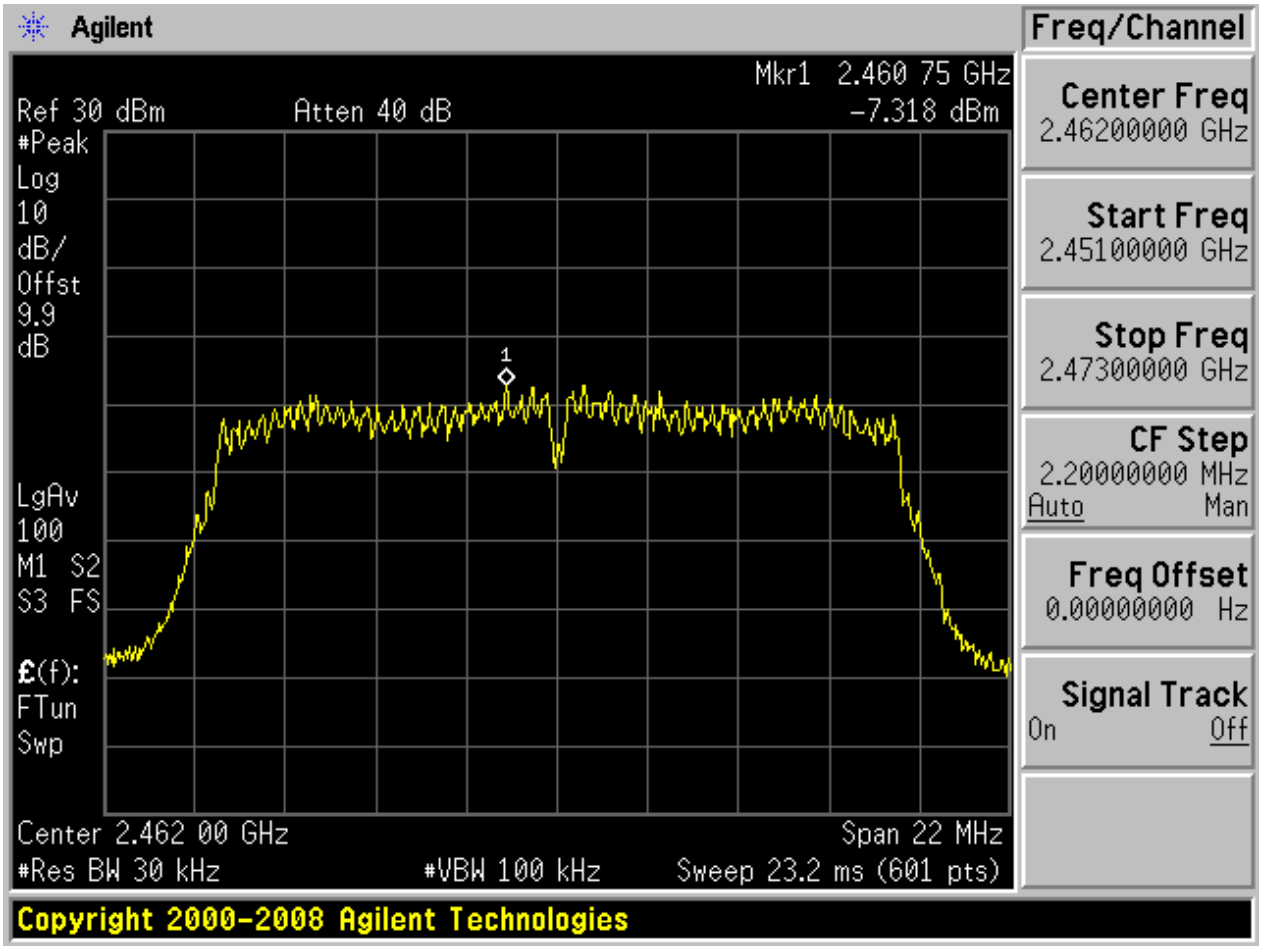
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.16 11N20_M@Ant2



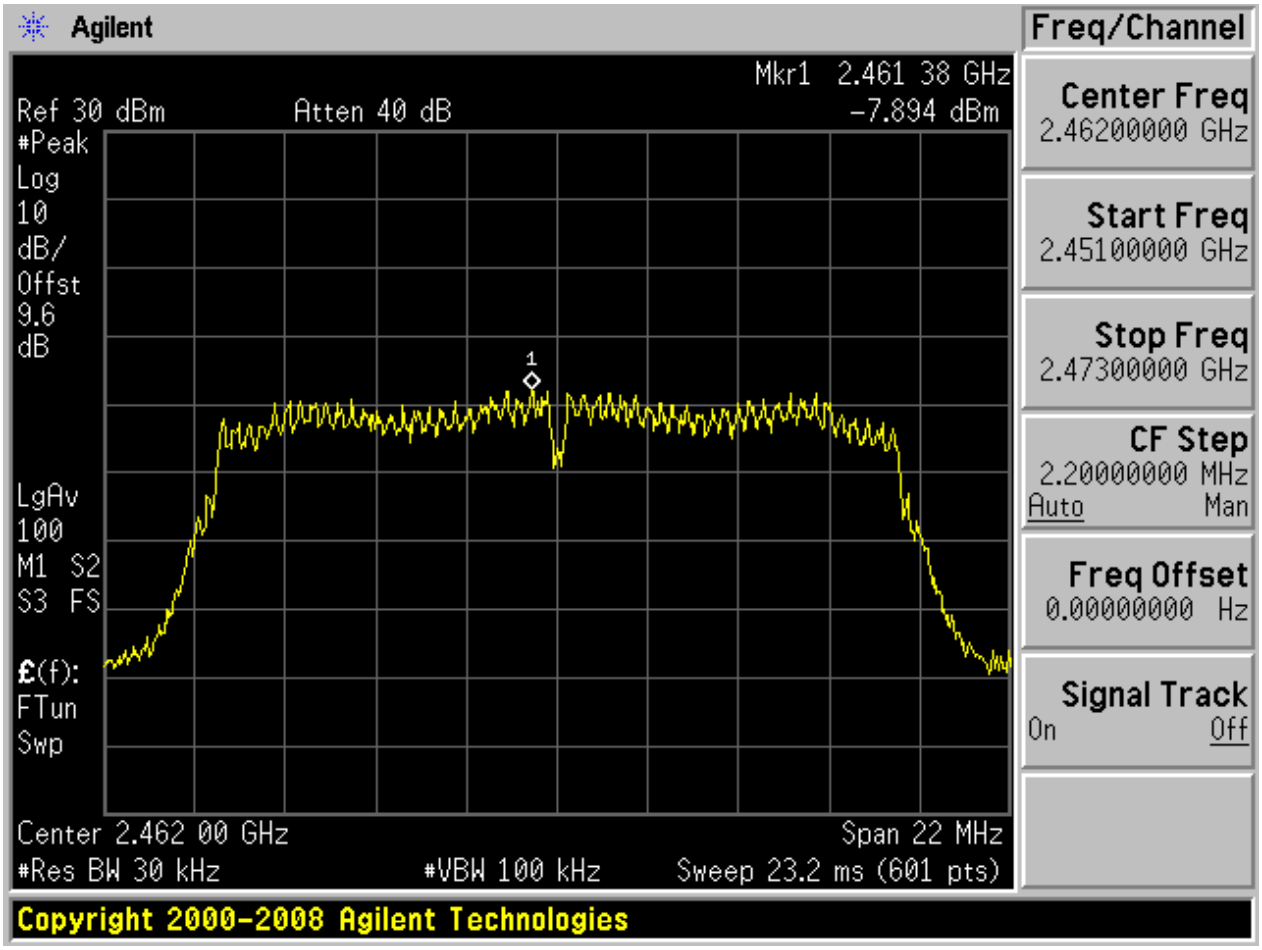
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.17 11N20_T@Ant1



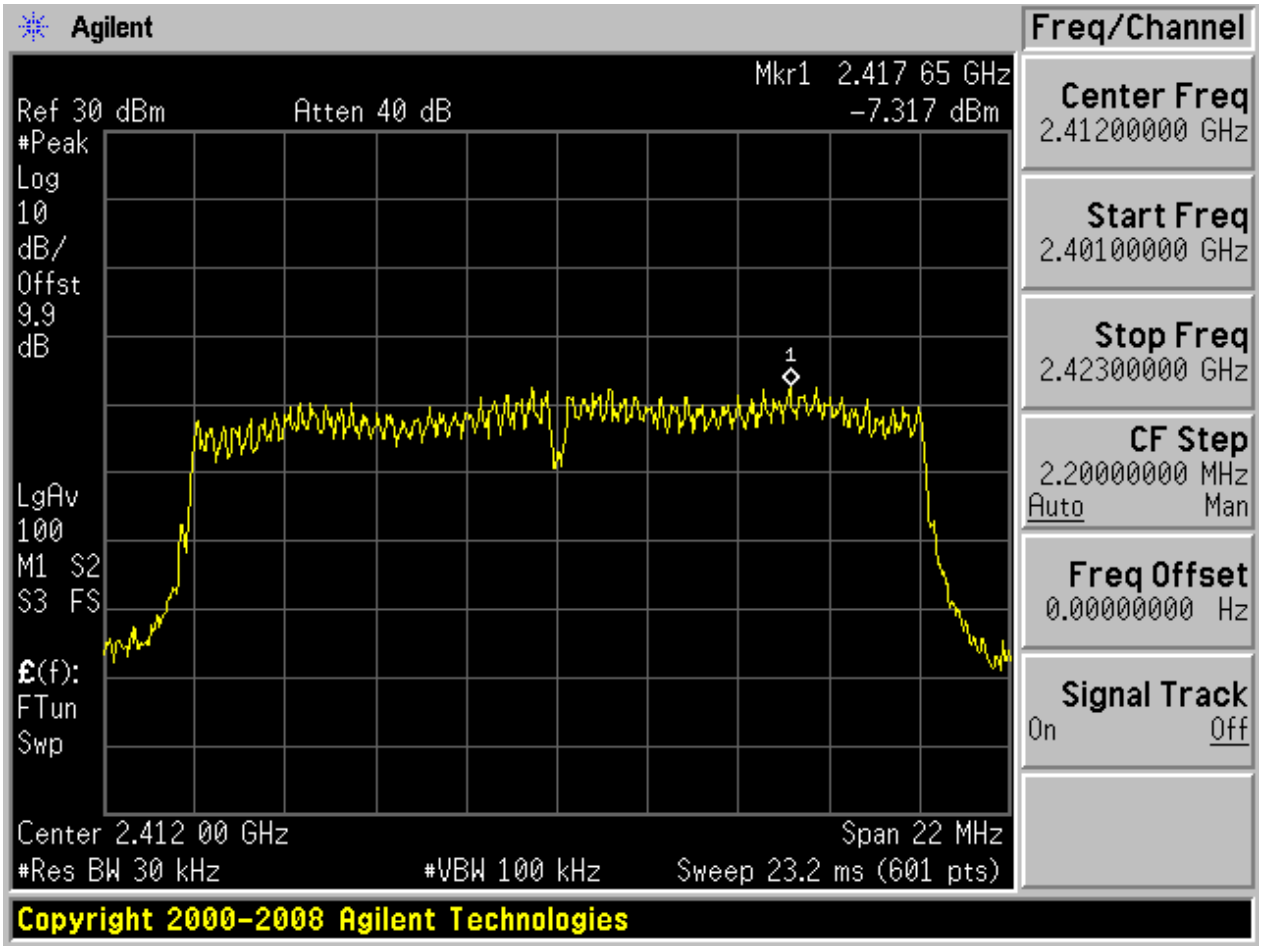
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.18 11N20_T@Ant2



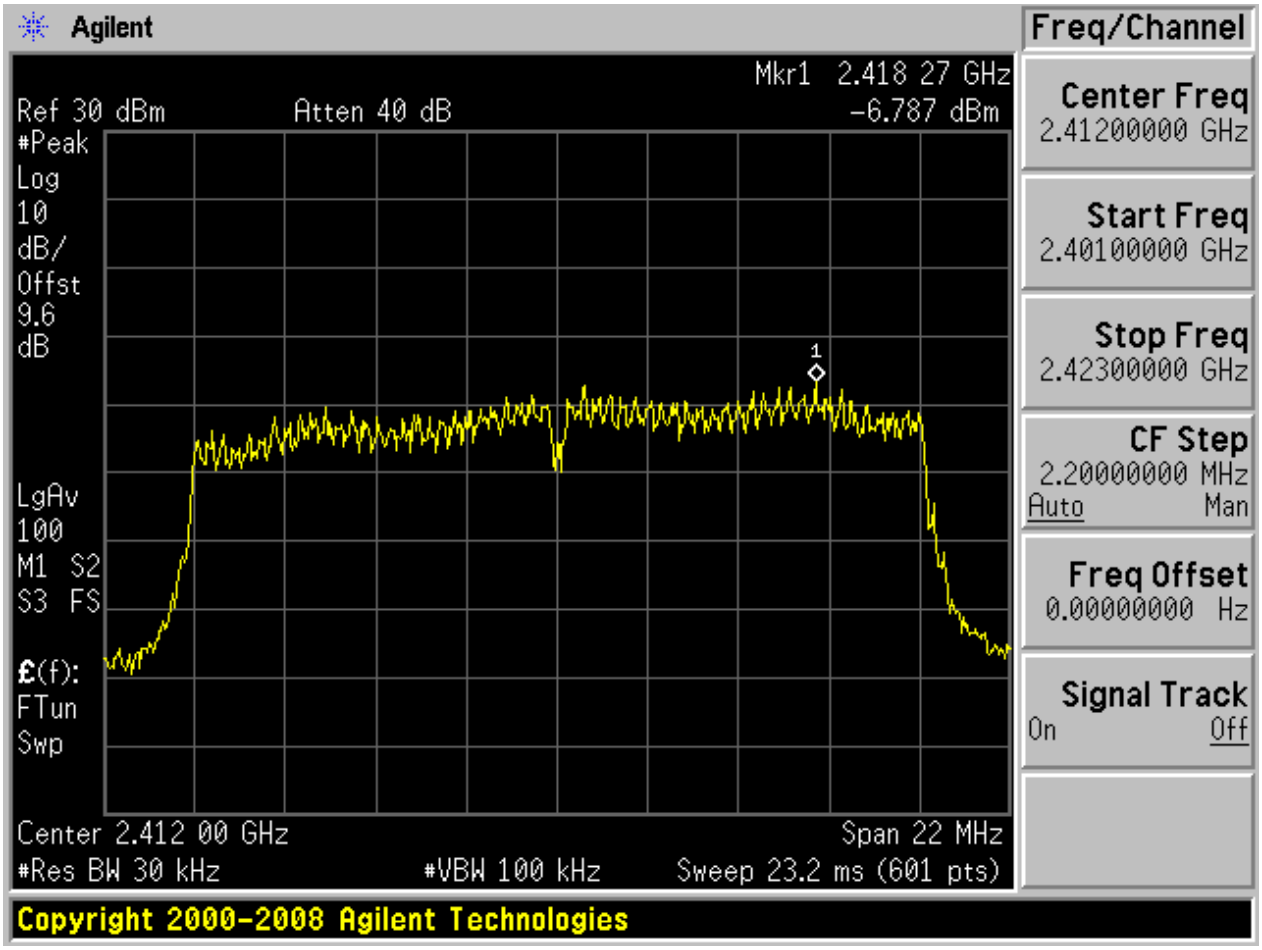
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.19 11N20m_B@Ant1



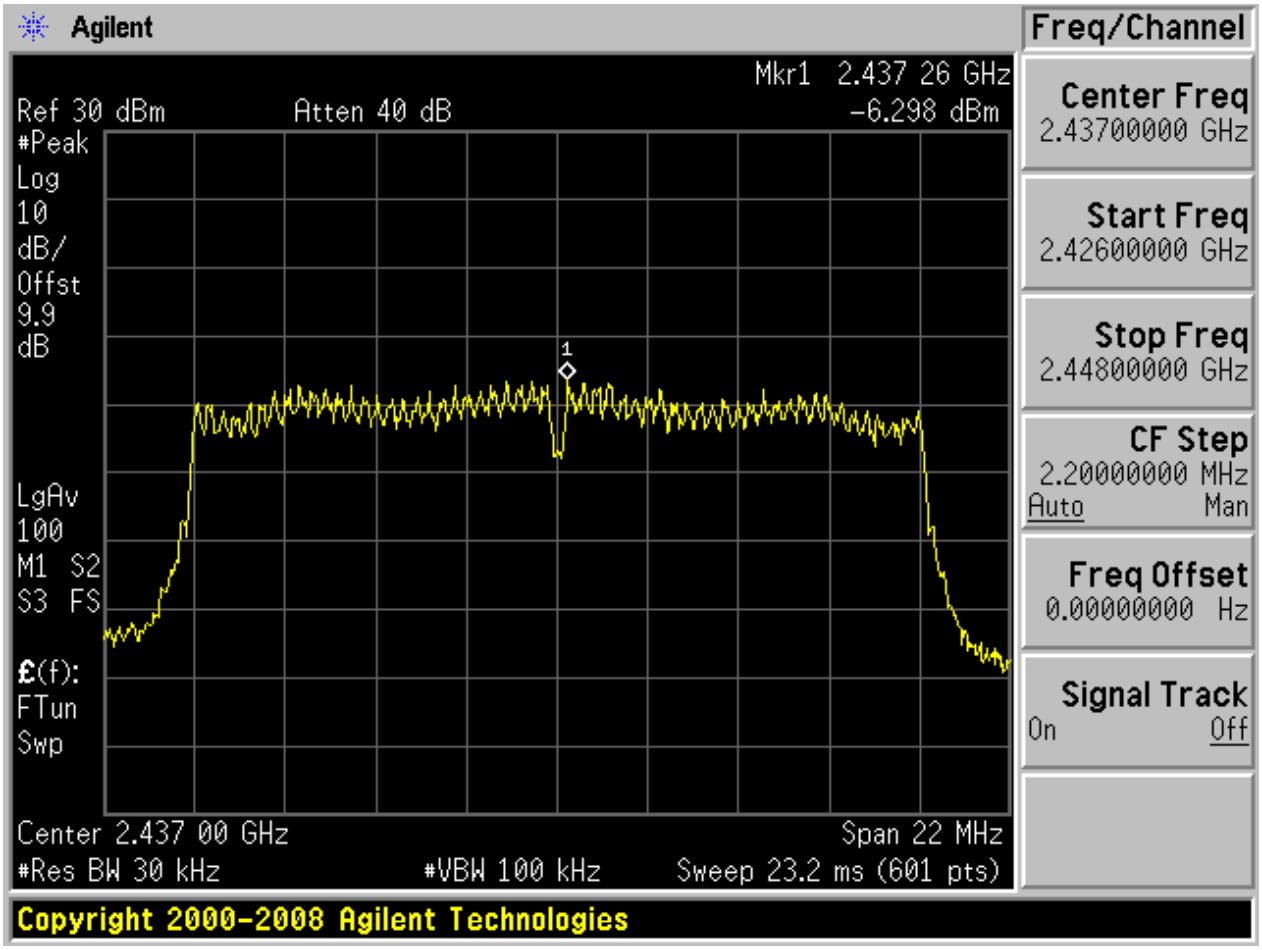
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.20 11N20m_B@Ant2



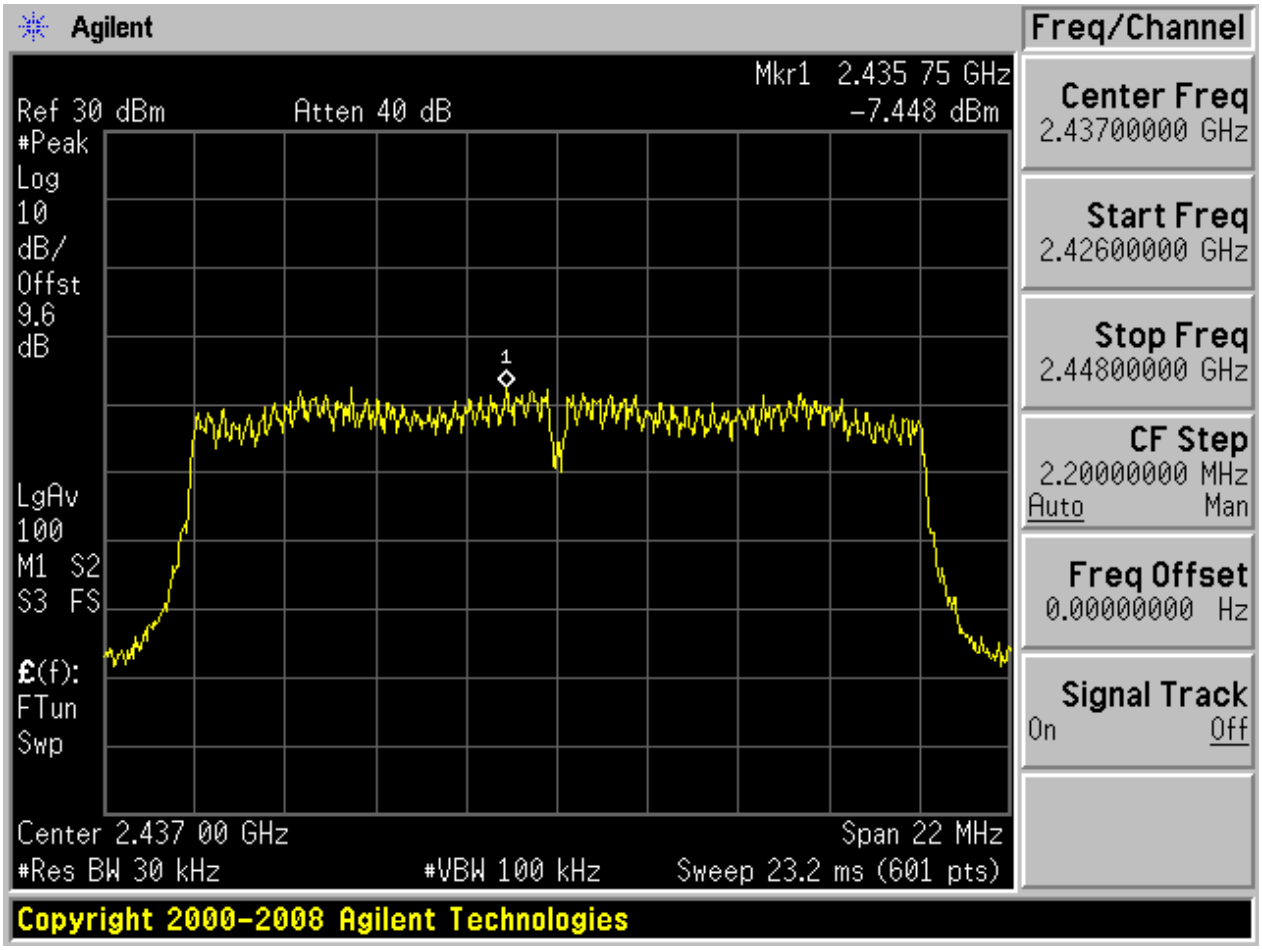
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.21 11N20m_M@Ant1



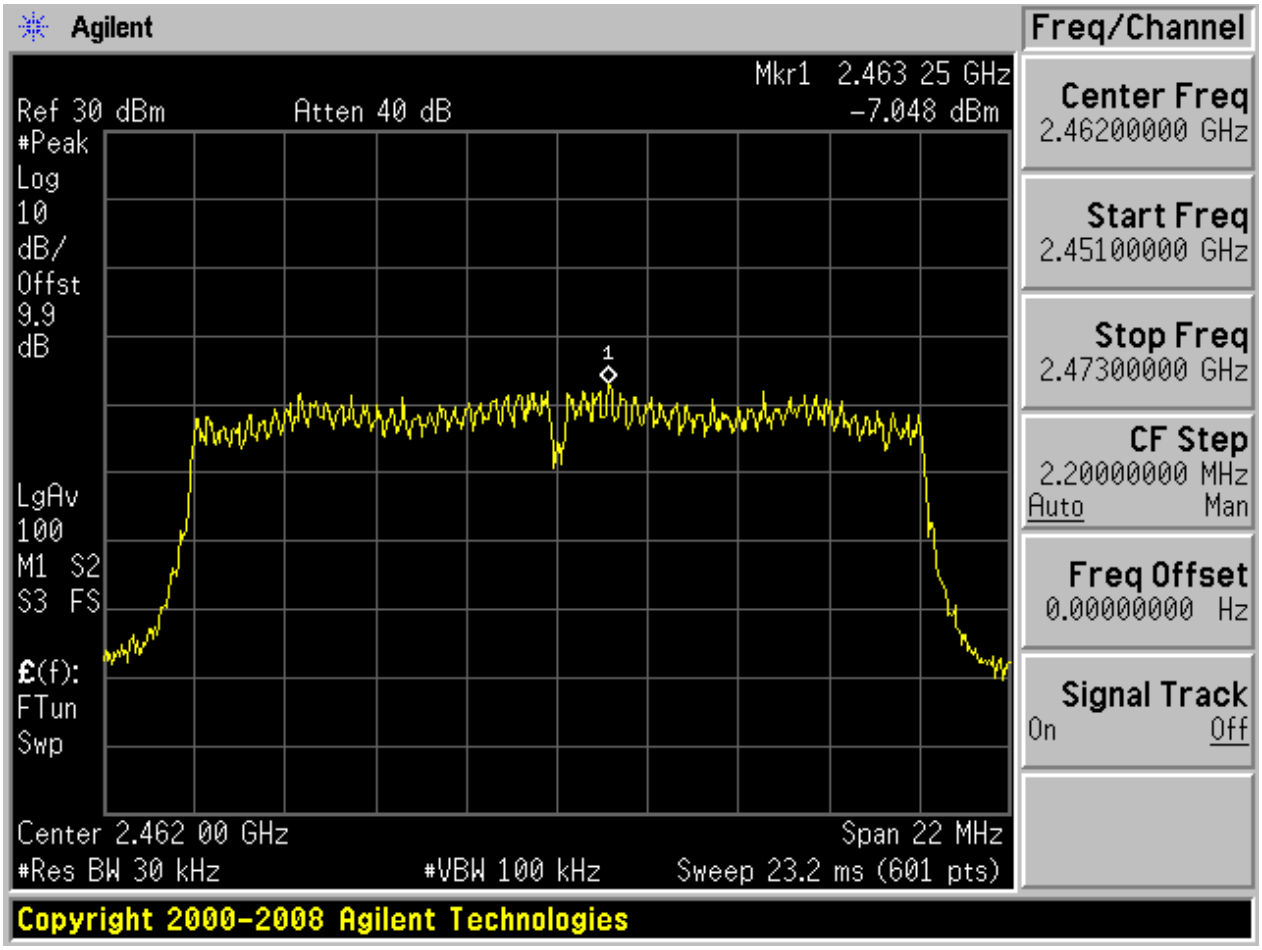
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.22 11N20m_M@Ant2



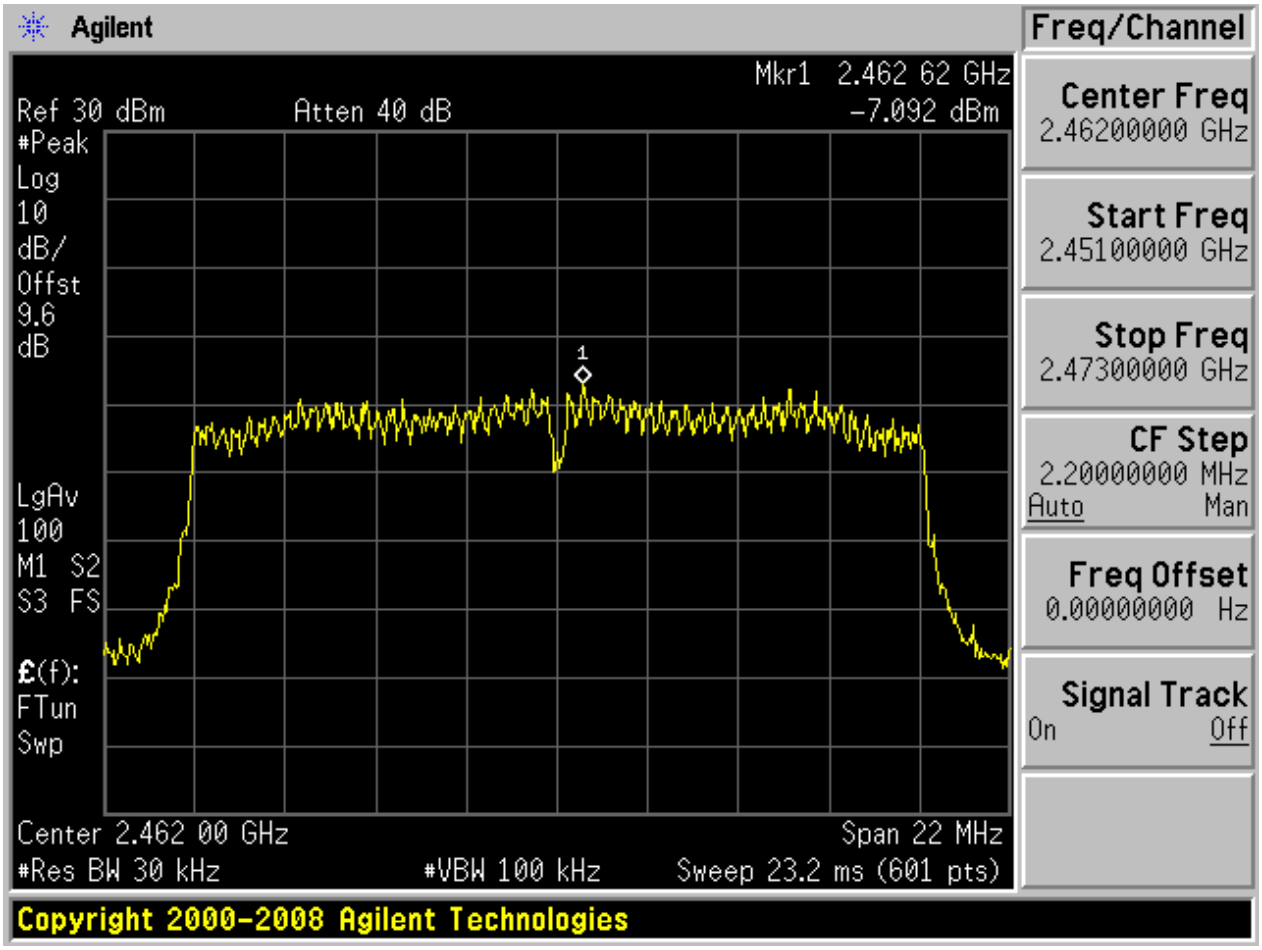
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.23 11N20m_T@Ant1



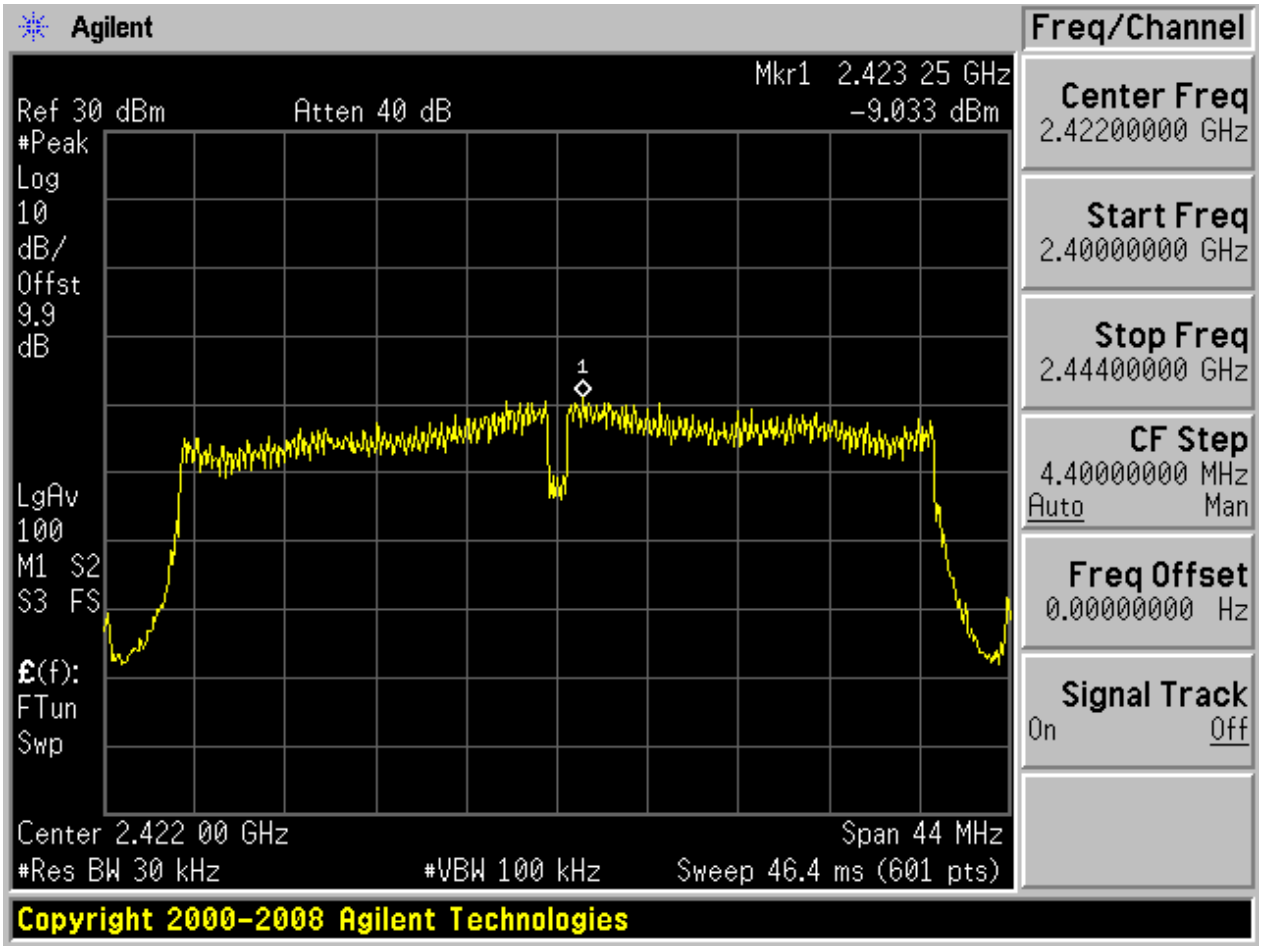
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.24 11N20m_T@Ant2



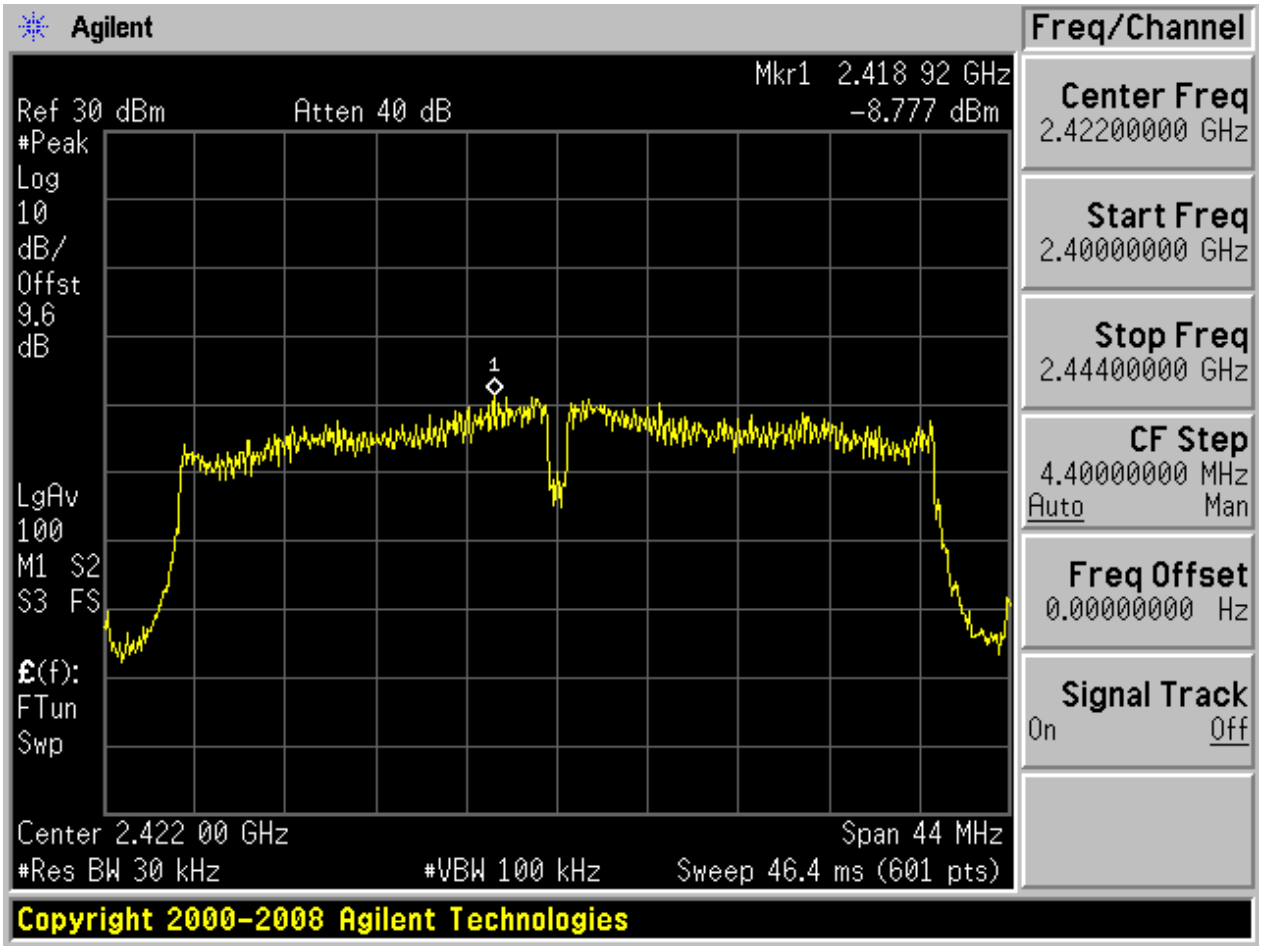
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.25 11N40_B@Ant1



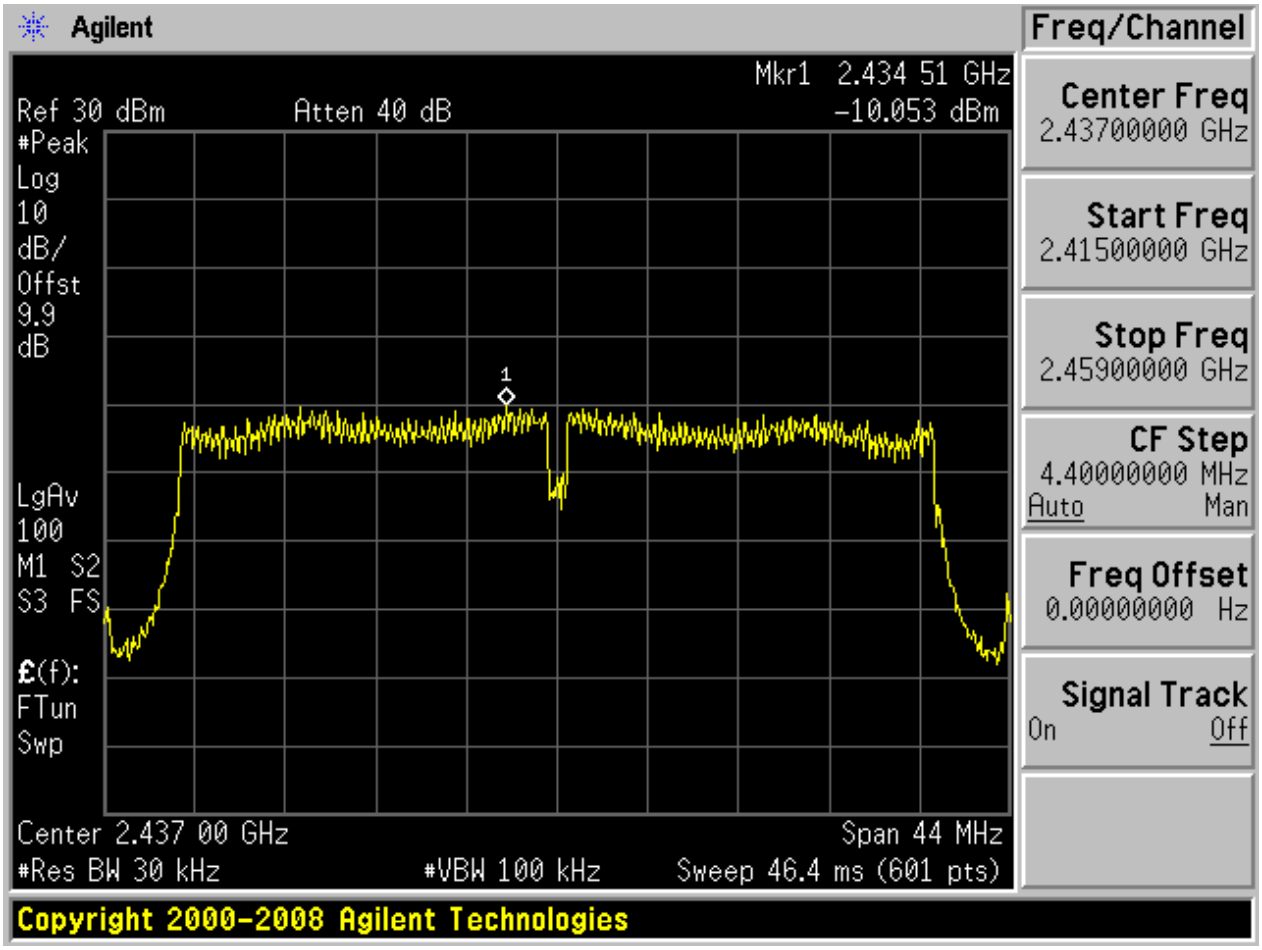
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.26 11N40_B@Ant2



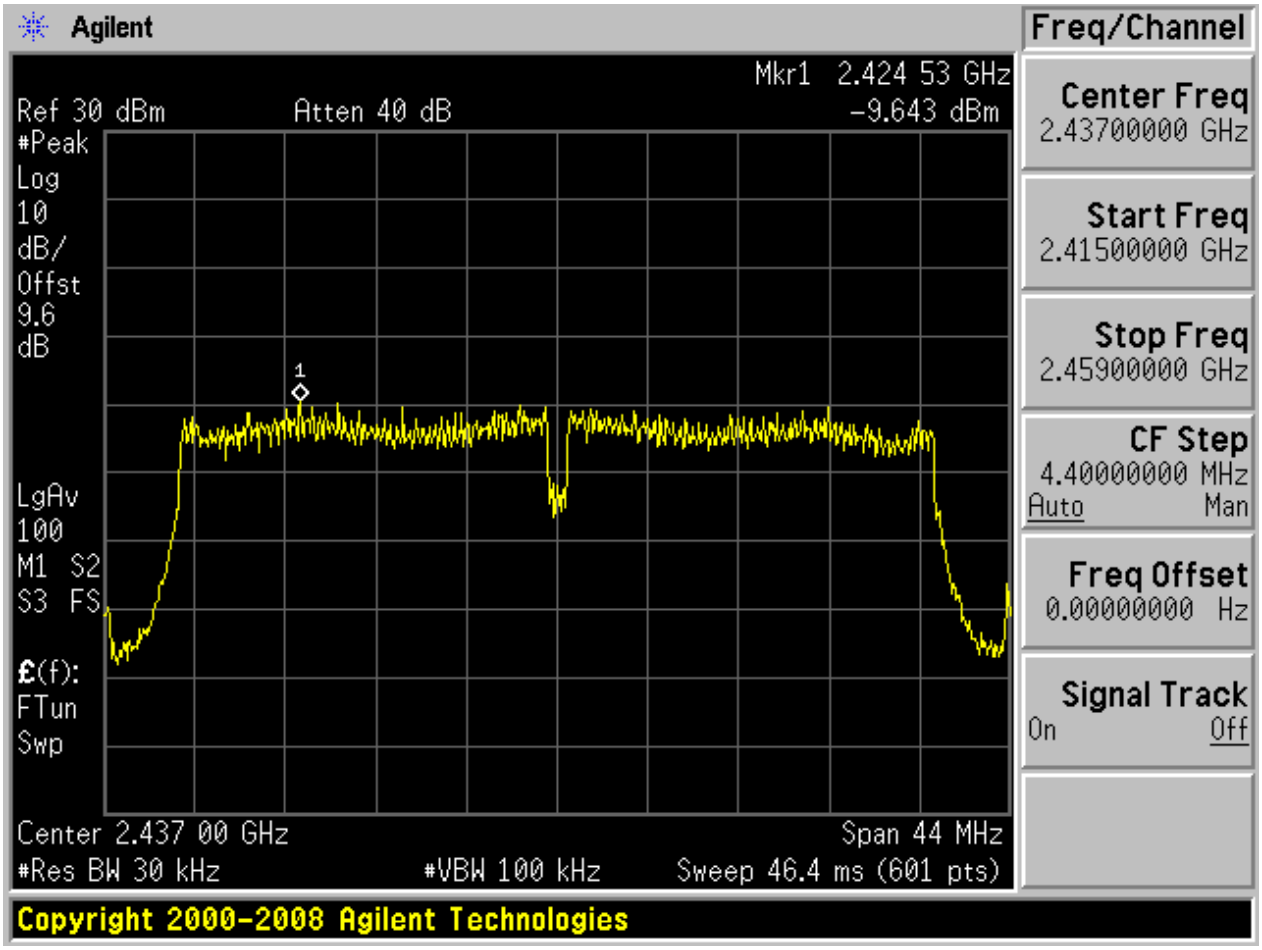
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.27 11N40_M@Ant1



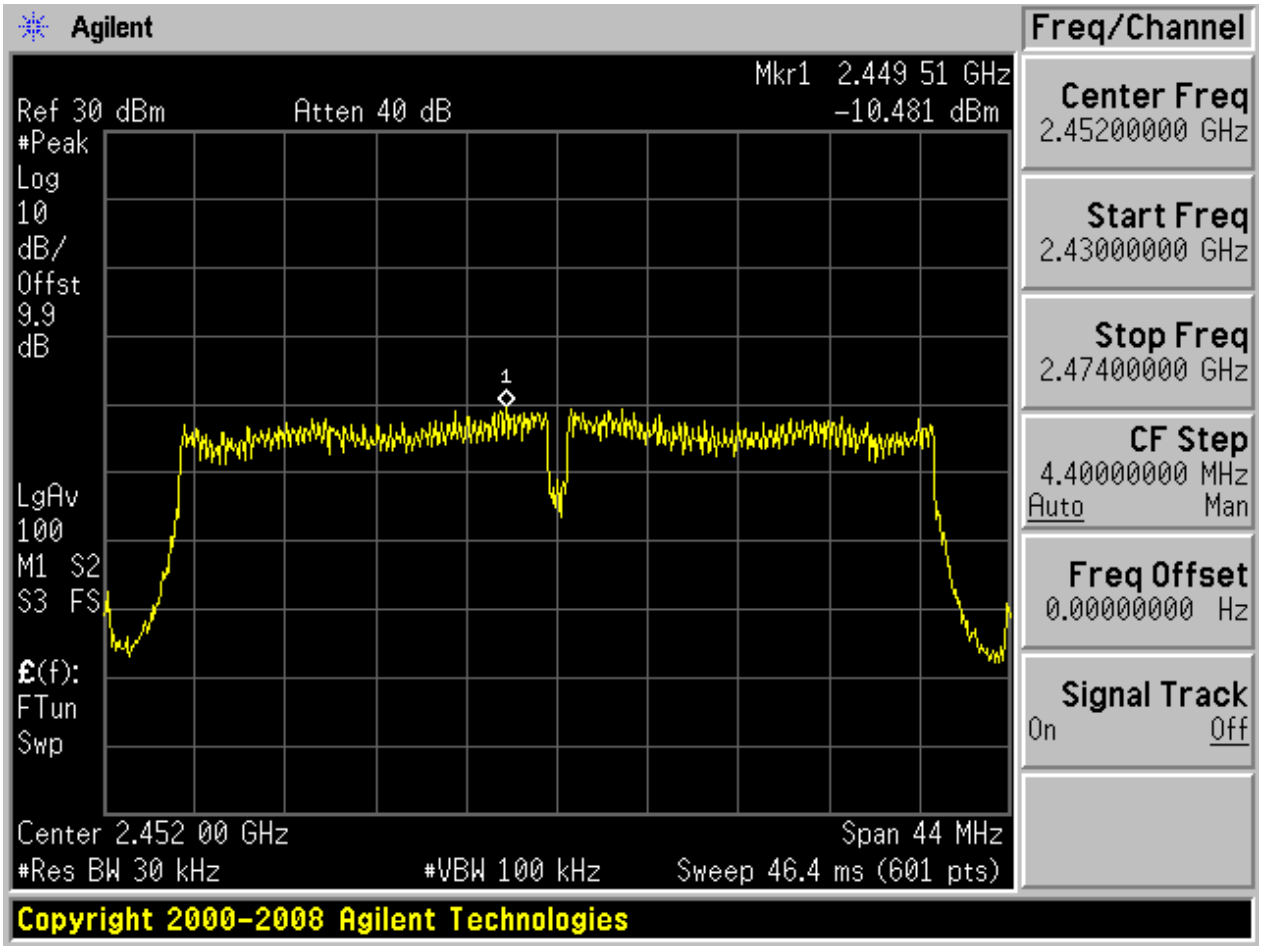
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.28 11N40_M@Ant2



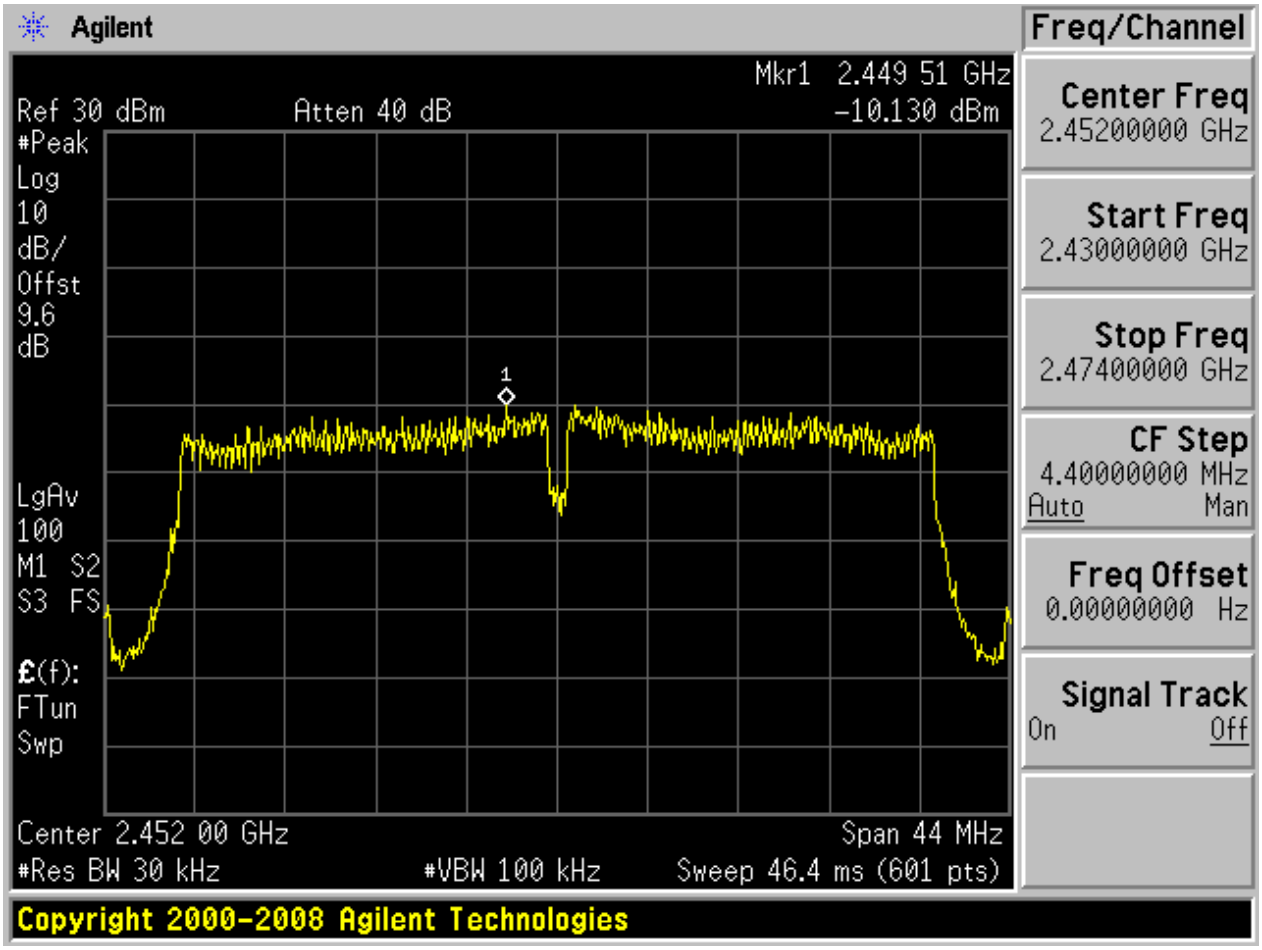
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.29 11N40_T@Ant1



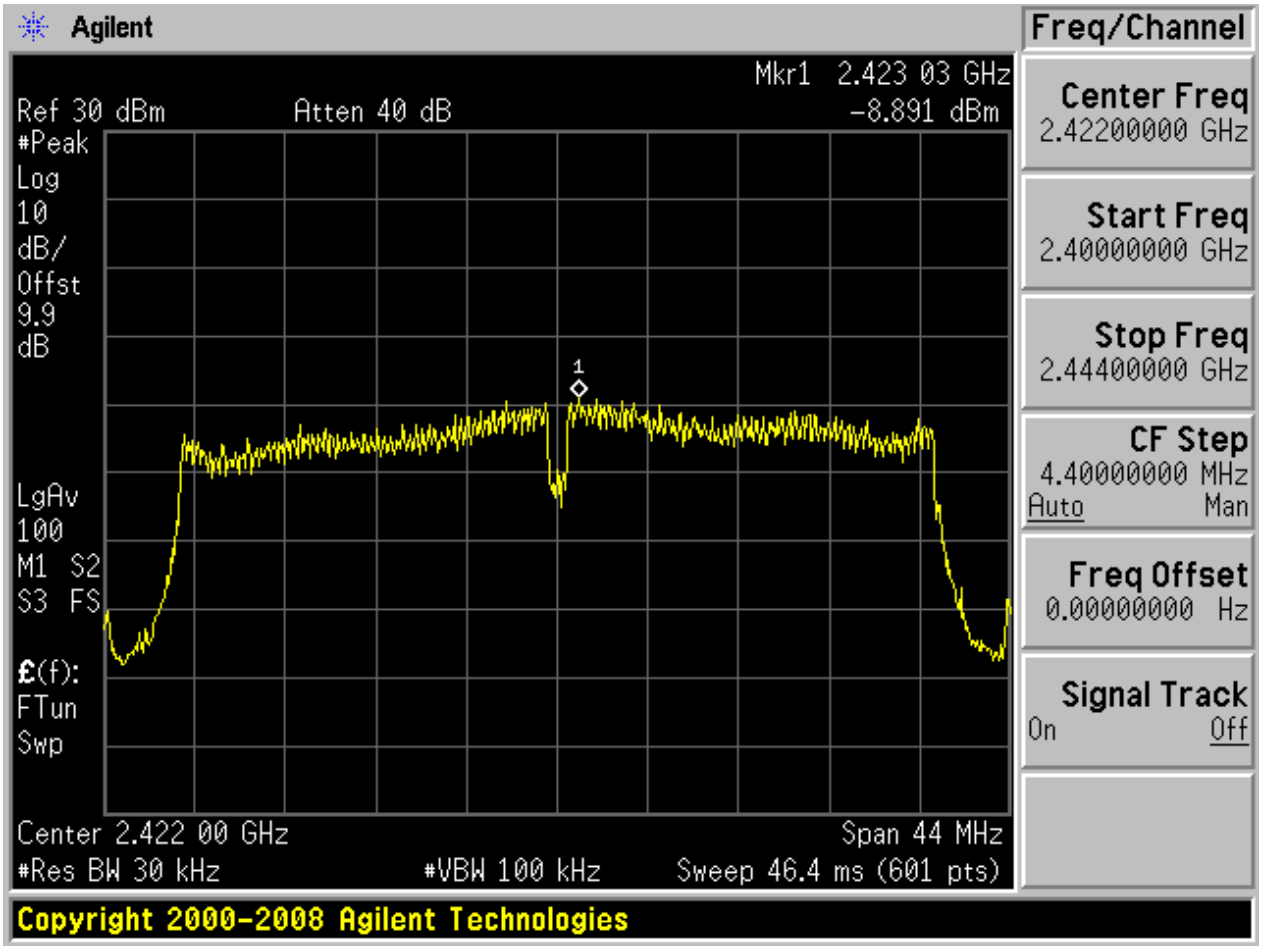
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.30 11N40_T@Ant2



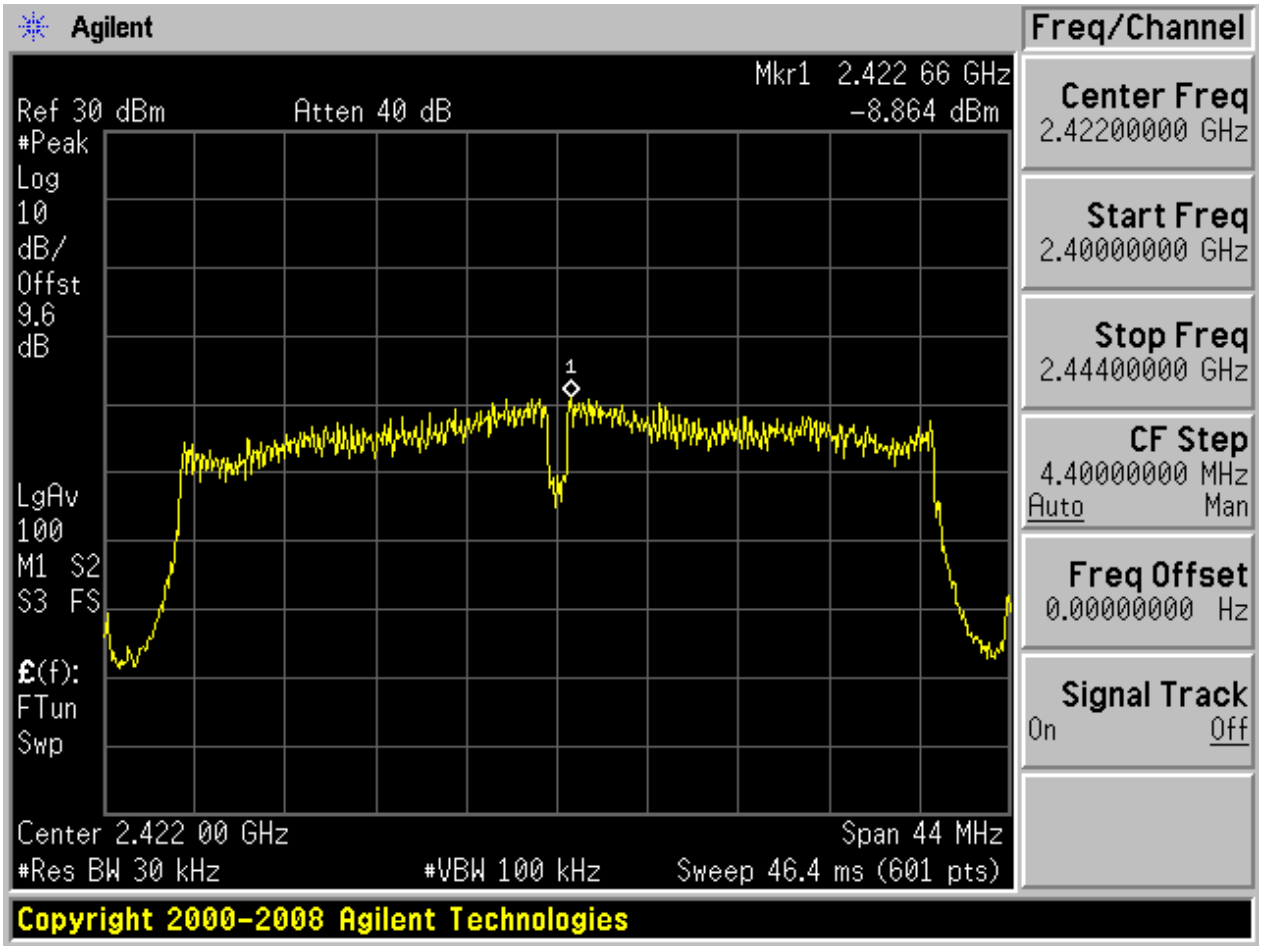
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.31 11N40m_B@Ant1



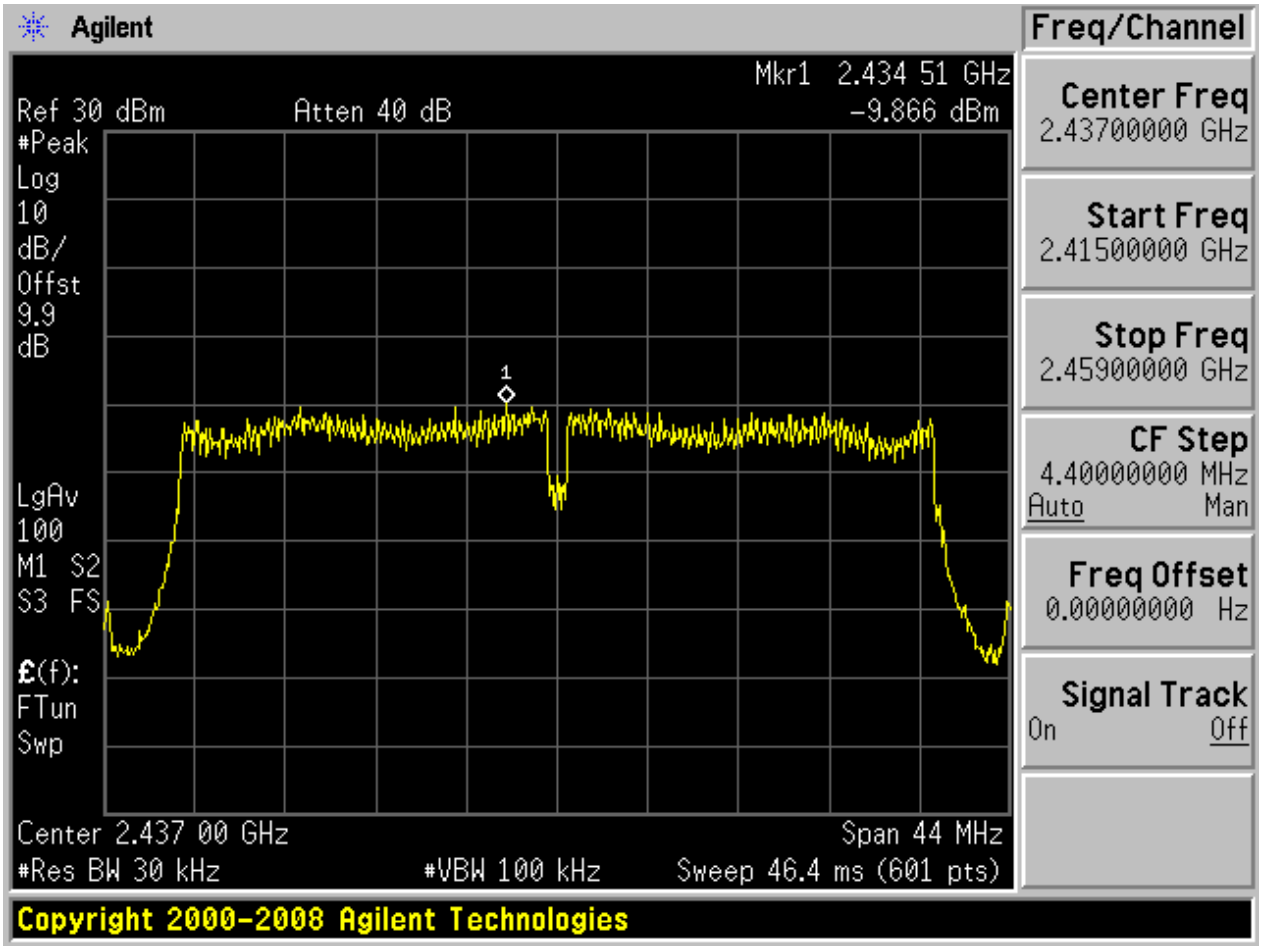
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.32 11N40m_B@Ant2



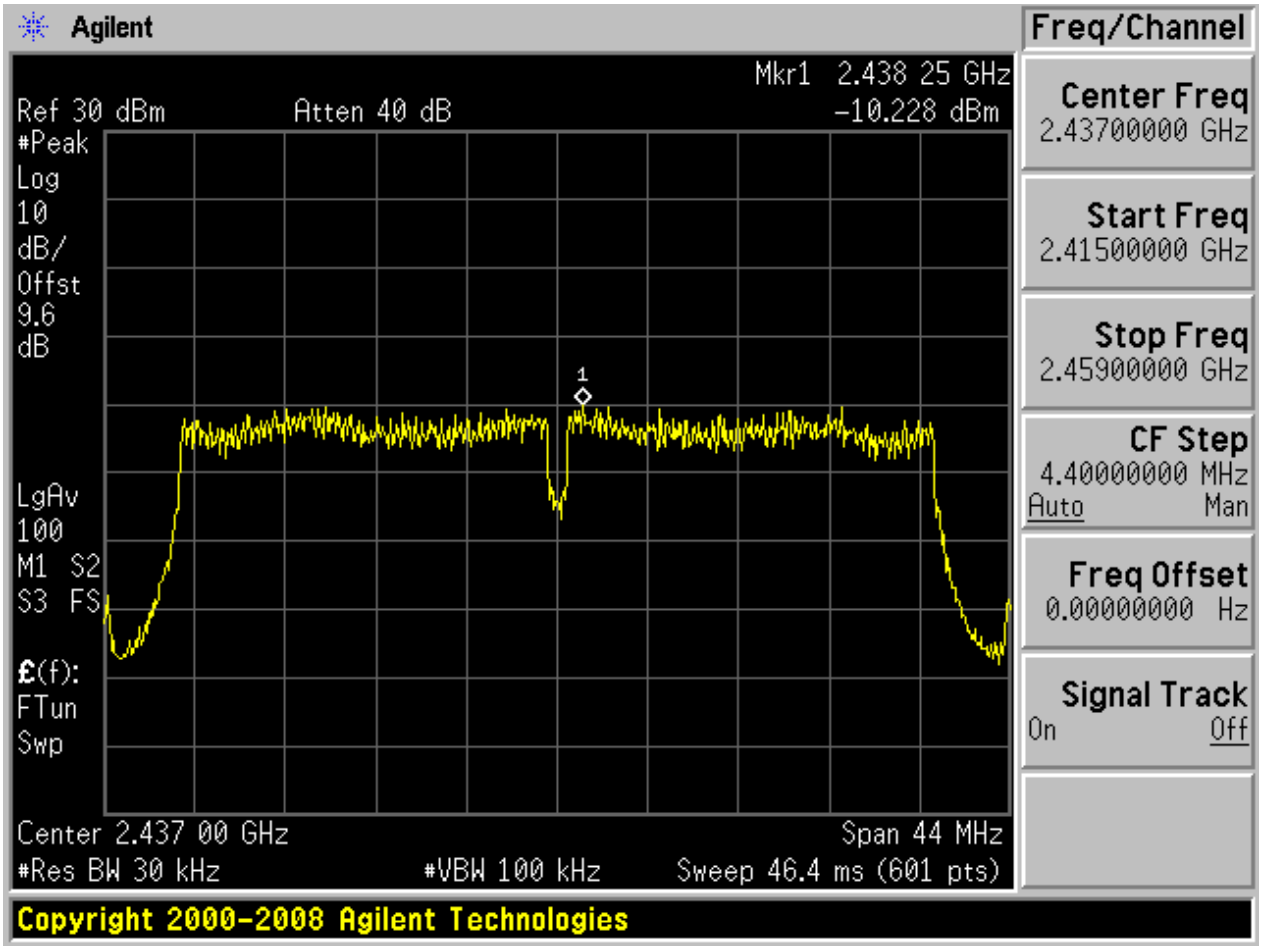
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.33 11N40m_M@Ant1



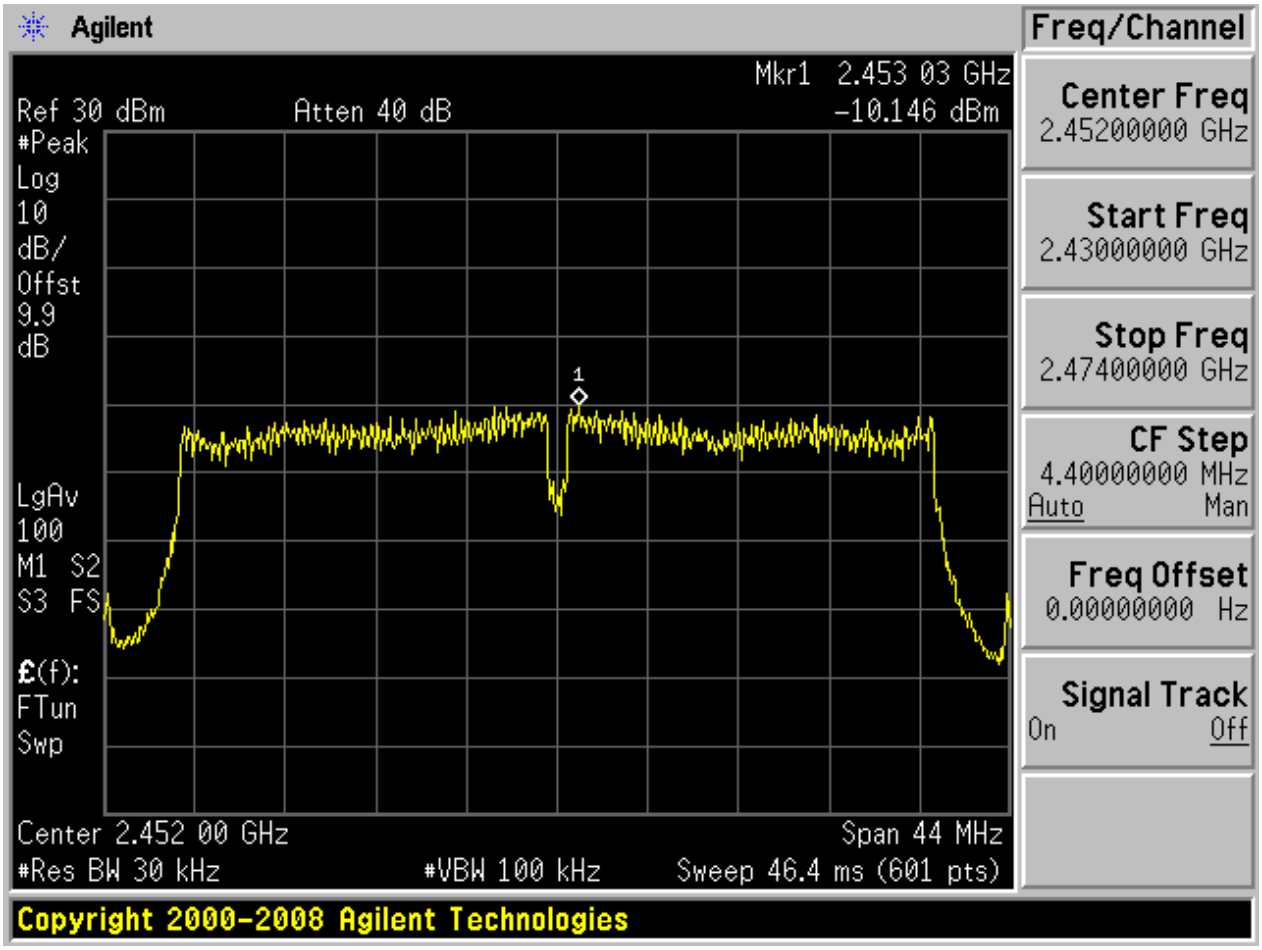
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.34 11N40m_M@Ant2



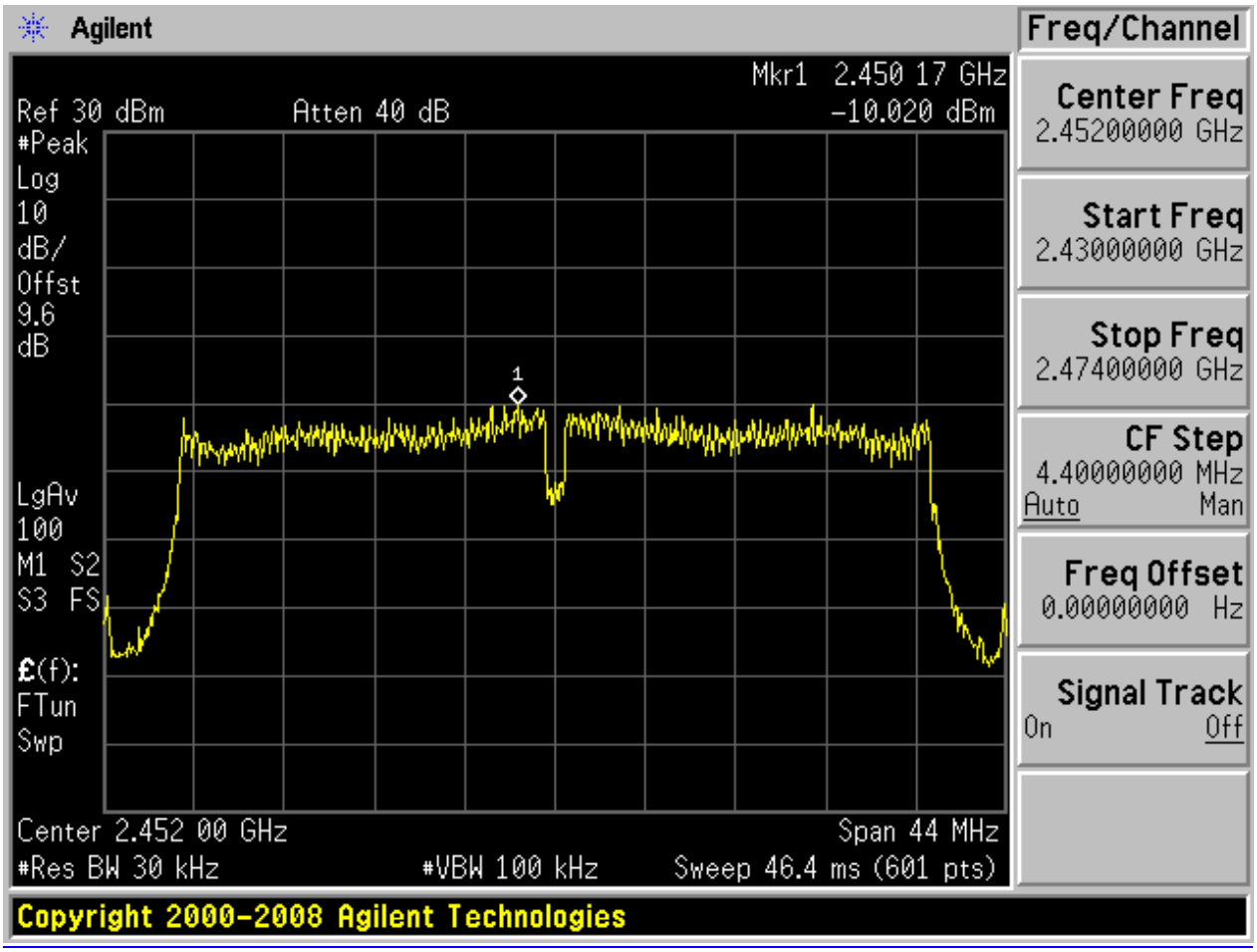
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.35 11N40m_T@Ant1



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.36 11N40m_T@Ant2



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Appendix D: Band Edges Compliance

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

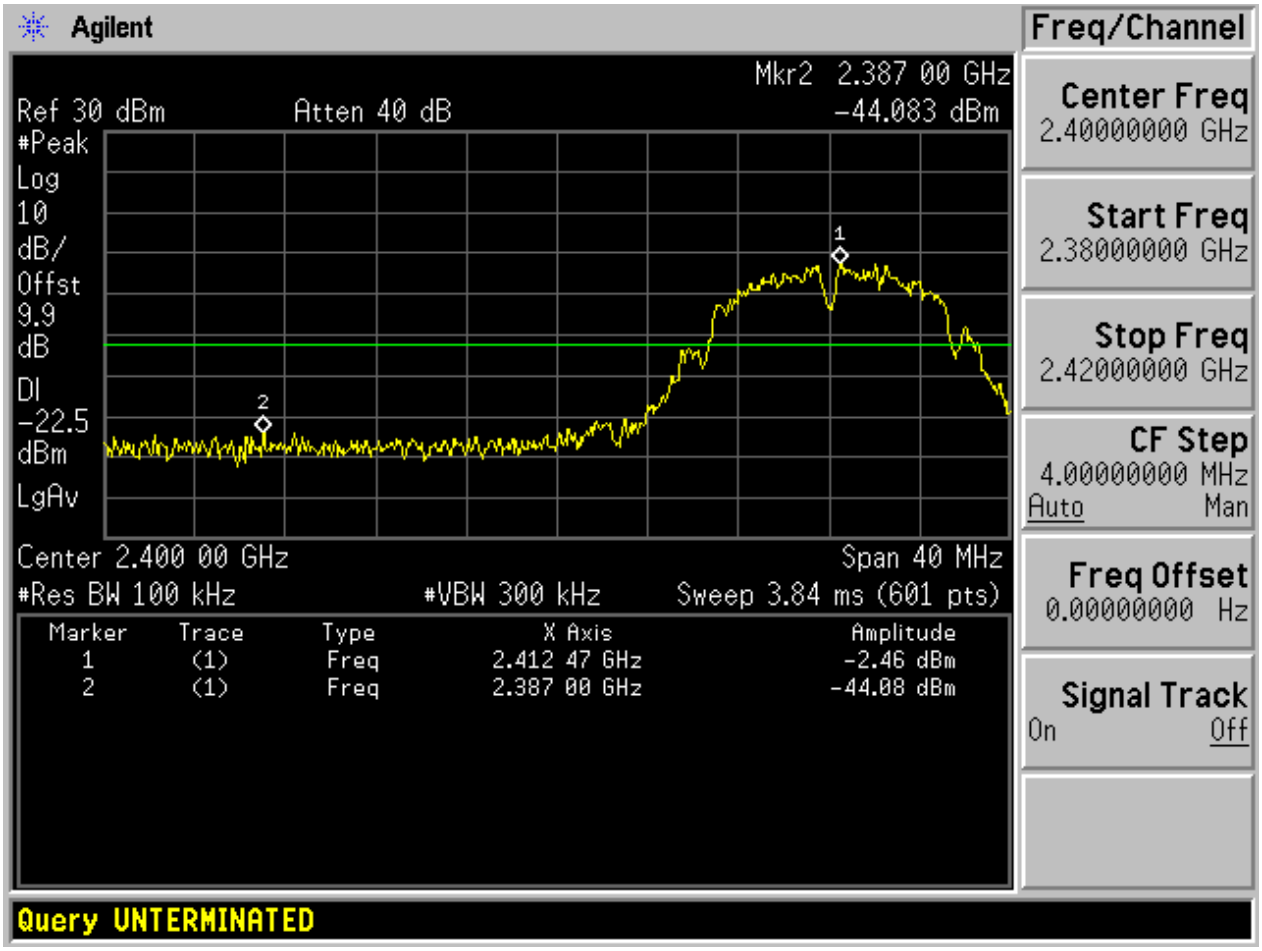
1 Result Table

Eut.conf	Channel	Frequency (MHz)	Ant	Carrier Power [dBm]	Max. Spurious Level [dBm]	verdict
11B	B	2412	Ant1	-2.46	-44.08	pass
			Ant2	-3.16	-44.43	pass
	T	2462	Ant1	-2.07	-44.06	pass
			Ant2	-1.71	-44.32	pass
11G	B	2412	Ant1	-2.50	-40.38	pass
			Ant2	-5.64	-43.47	pass
	T	2462	Ant1	-3.29	-43.57	pass
			Ant2	-6.12	-42.70	pass
11N20	B	2412	Ant1	-6.03	-42.93	pass
			Ant2	-5.32	-43.94	pass
	T	2462	Ant1	-4.77	-43.00	pass
			Ant2	-5.44	-43.89	pass
11N20m	B	2412	Ant1	-4.73	-44.69	pass
			Ant2	-5.94	-44.83	pass
	T	2462	Ant1	-4.47	-42.77	pass
			Ant2	-4.91	-43.28	pass
11N40	B	2422	Ant1	-7.25	-43.15	pass
			Ant2	-8.46	-39.57	pass
	T	2452	Ant1	-7.03	-37.39	pass
			Ant2	-6.01	-37.58	pass
11N40m	B	2422	Ant1	-5.68	-42.61	pass
			Ant2	-4.97	-43.17	pass
	T	2452	Ant1	-7.18	-35.22	pass
			Ant2	-8.38	-36.33	pass

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

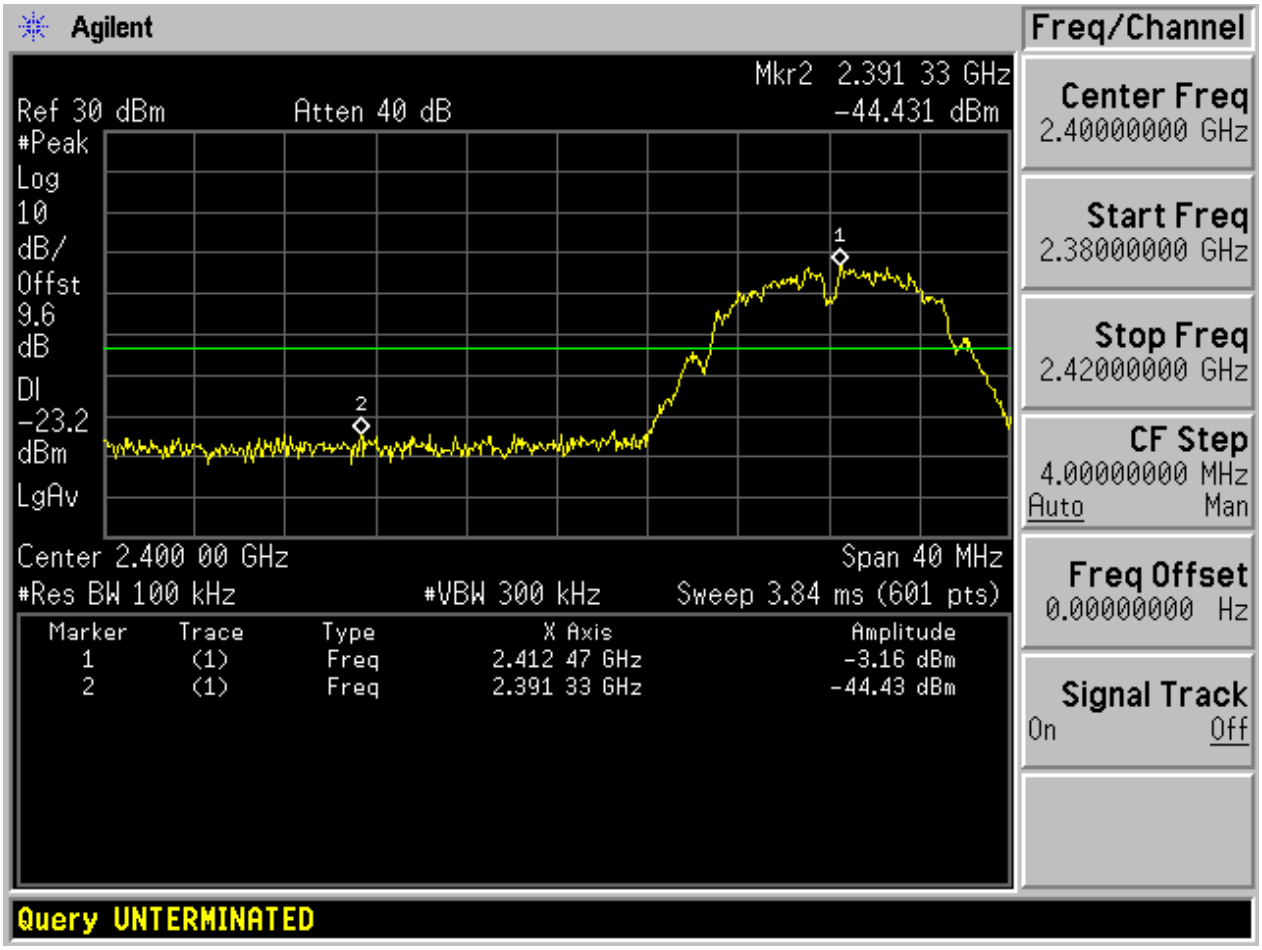
2 Test Plot

2.1 11B_B@Ant1



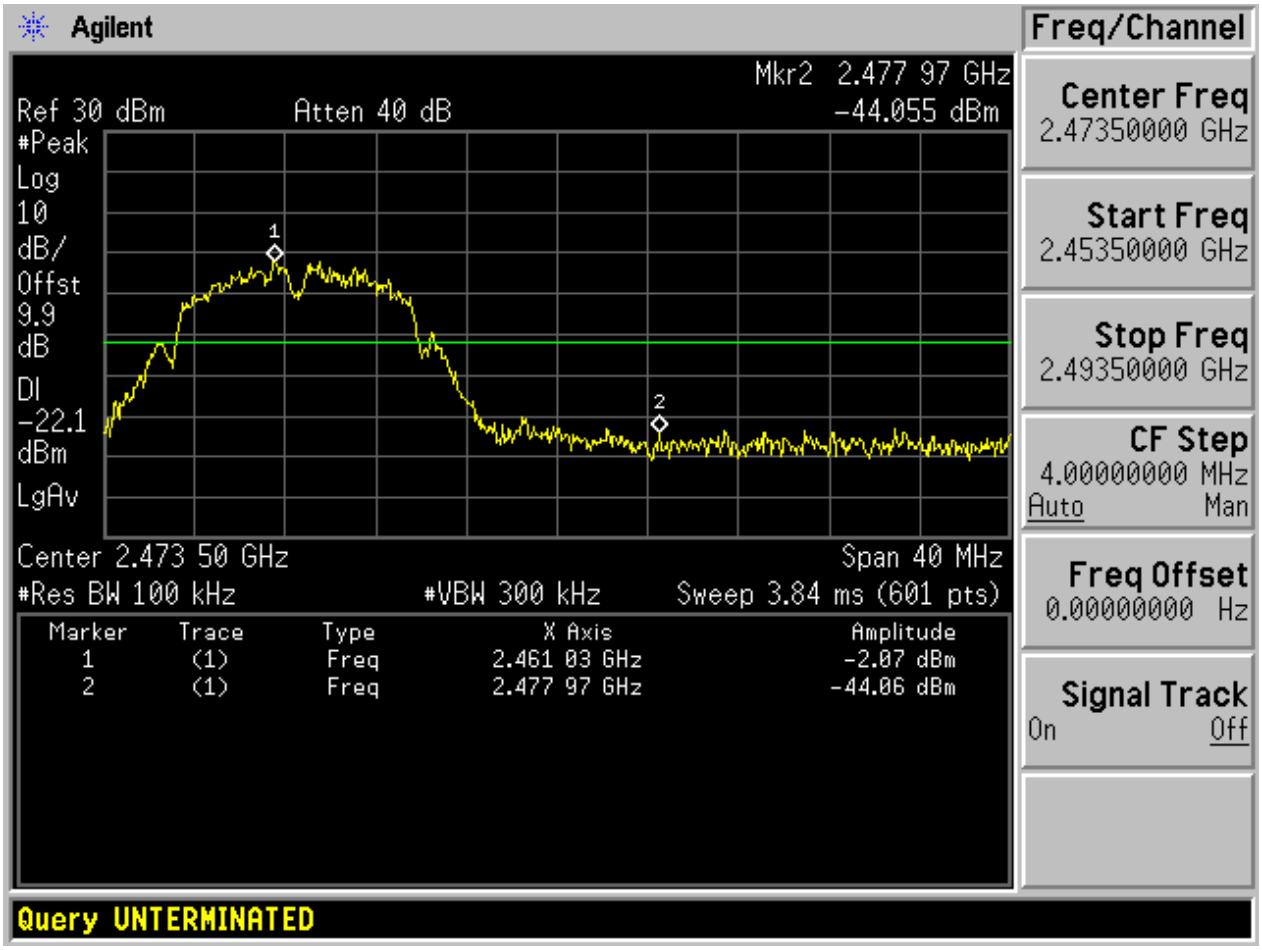
Copyright © Huawei Technologies Co., Ltd.

2.2 11B_B@Ant2



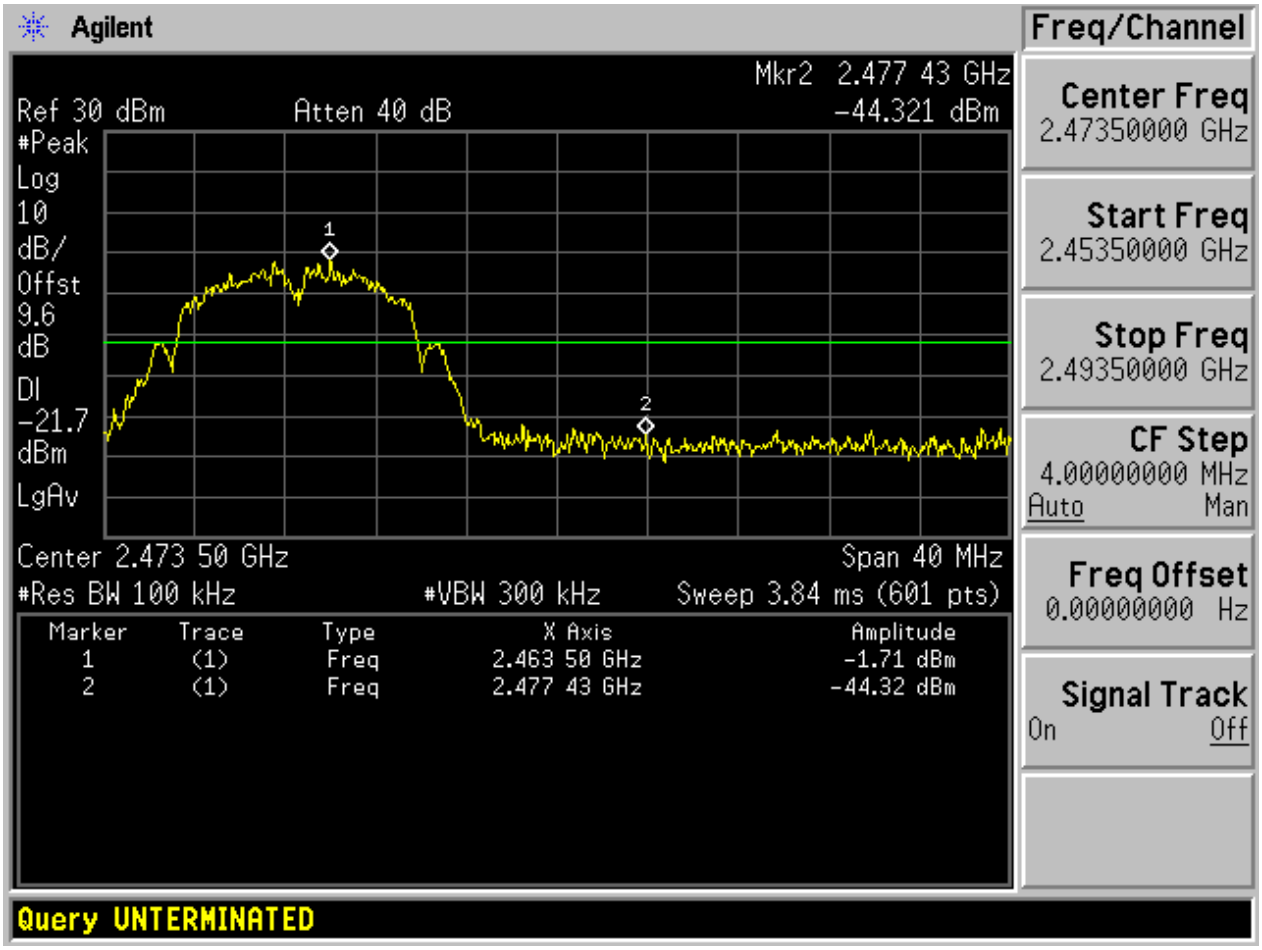
Copyright © Huawei Technologies Co., Ltd.

2.3 11B_T@Ant1



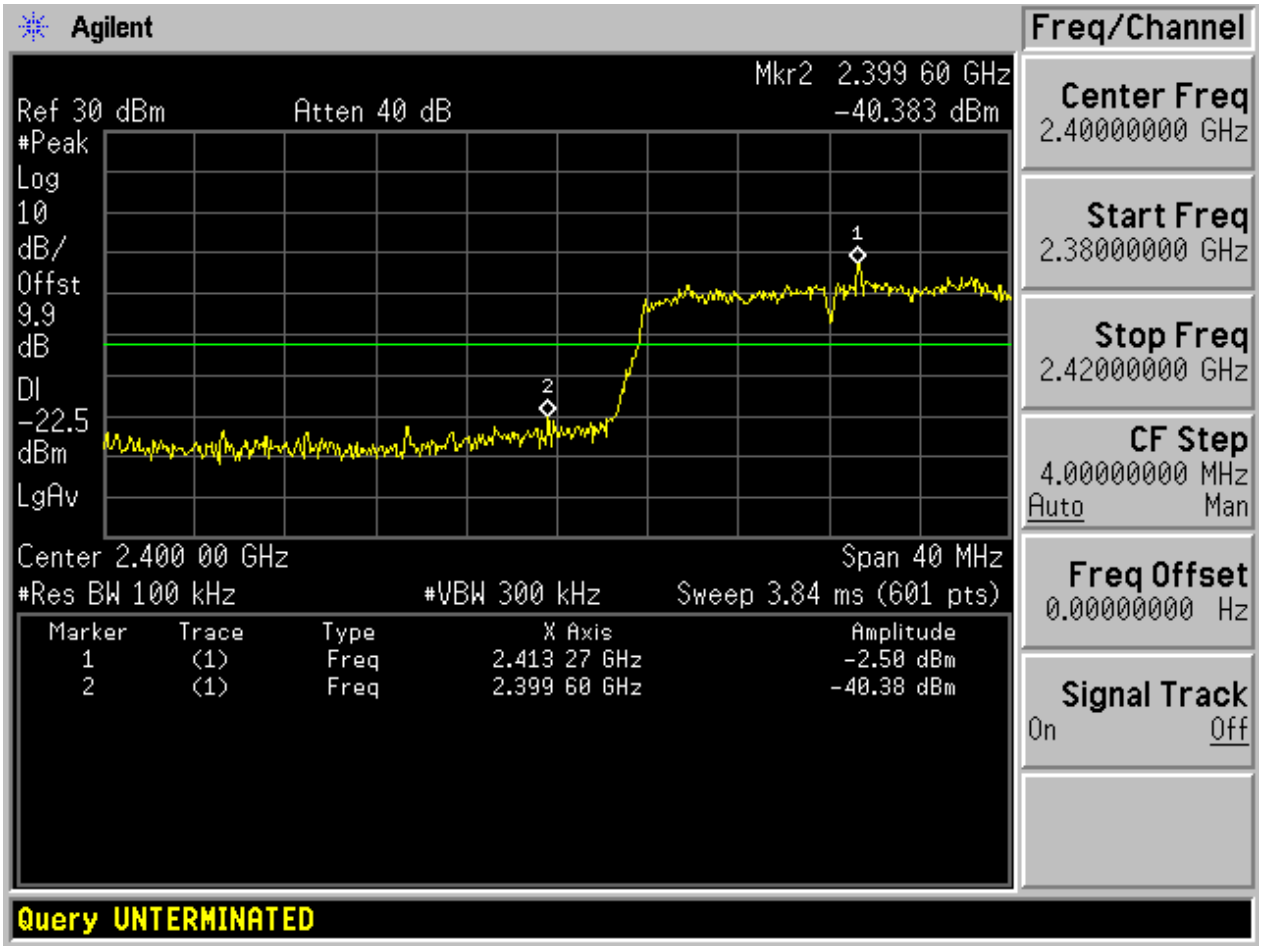
Copyright © Huawei Technologies Co., Ltd.

2.4 11B_T@Ant2



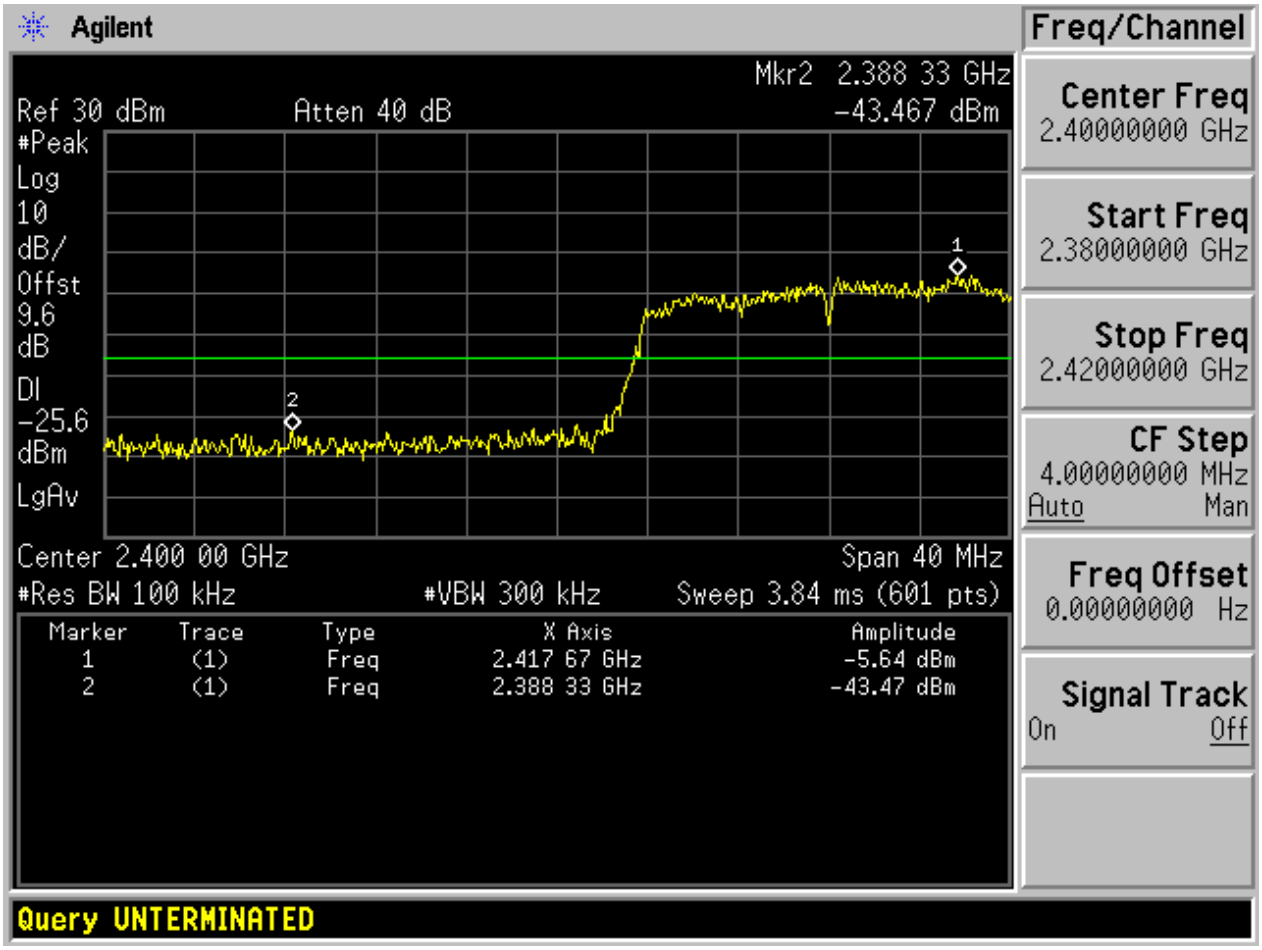
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.5 11G_B@Ant1



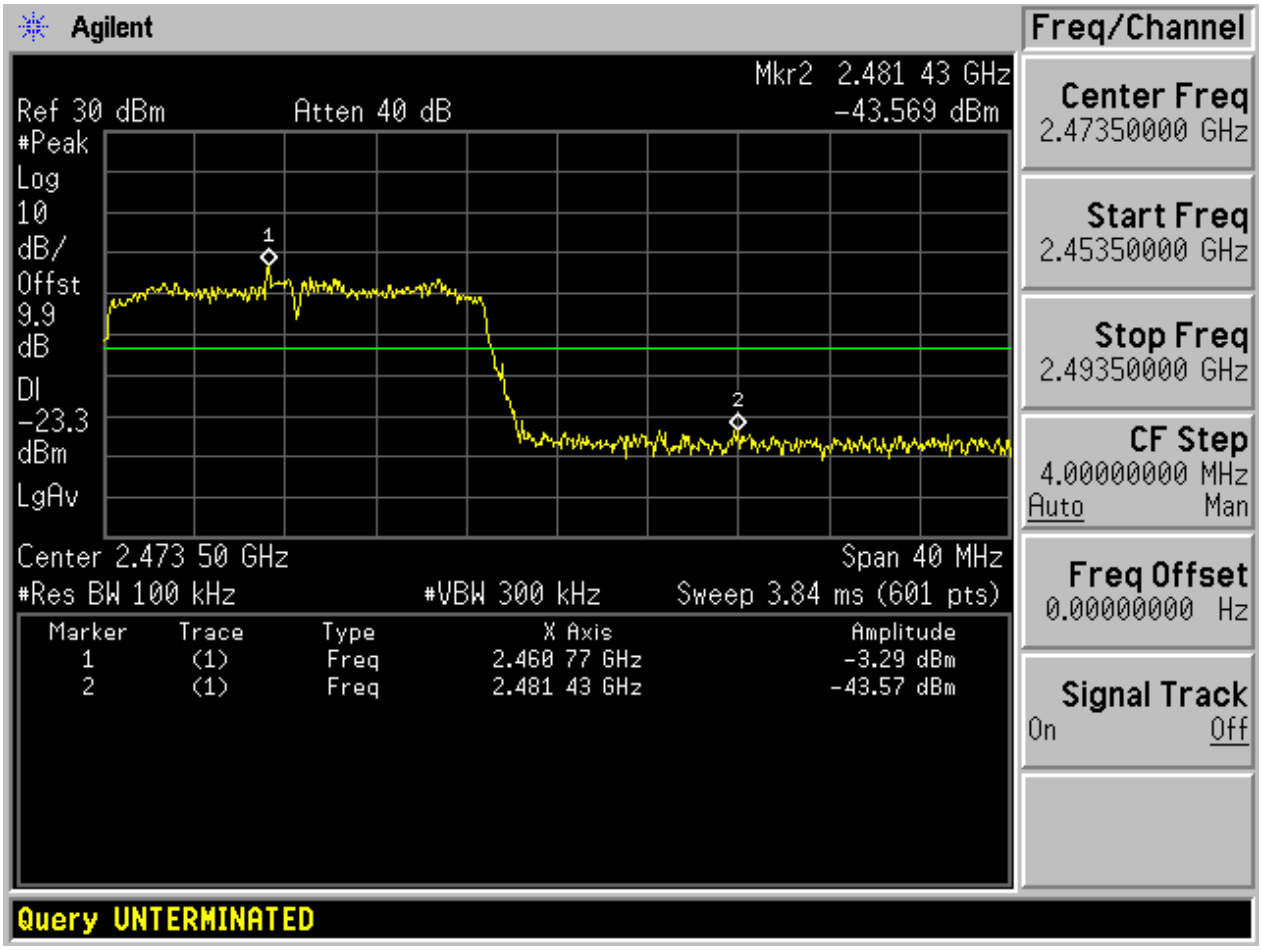
Copyright © Huawei Technologies Co., Ltd.

2.6 11G_B@Ant2



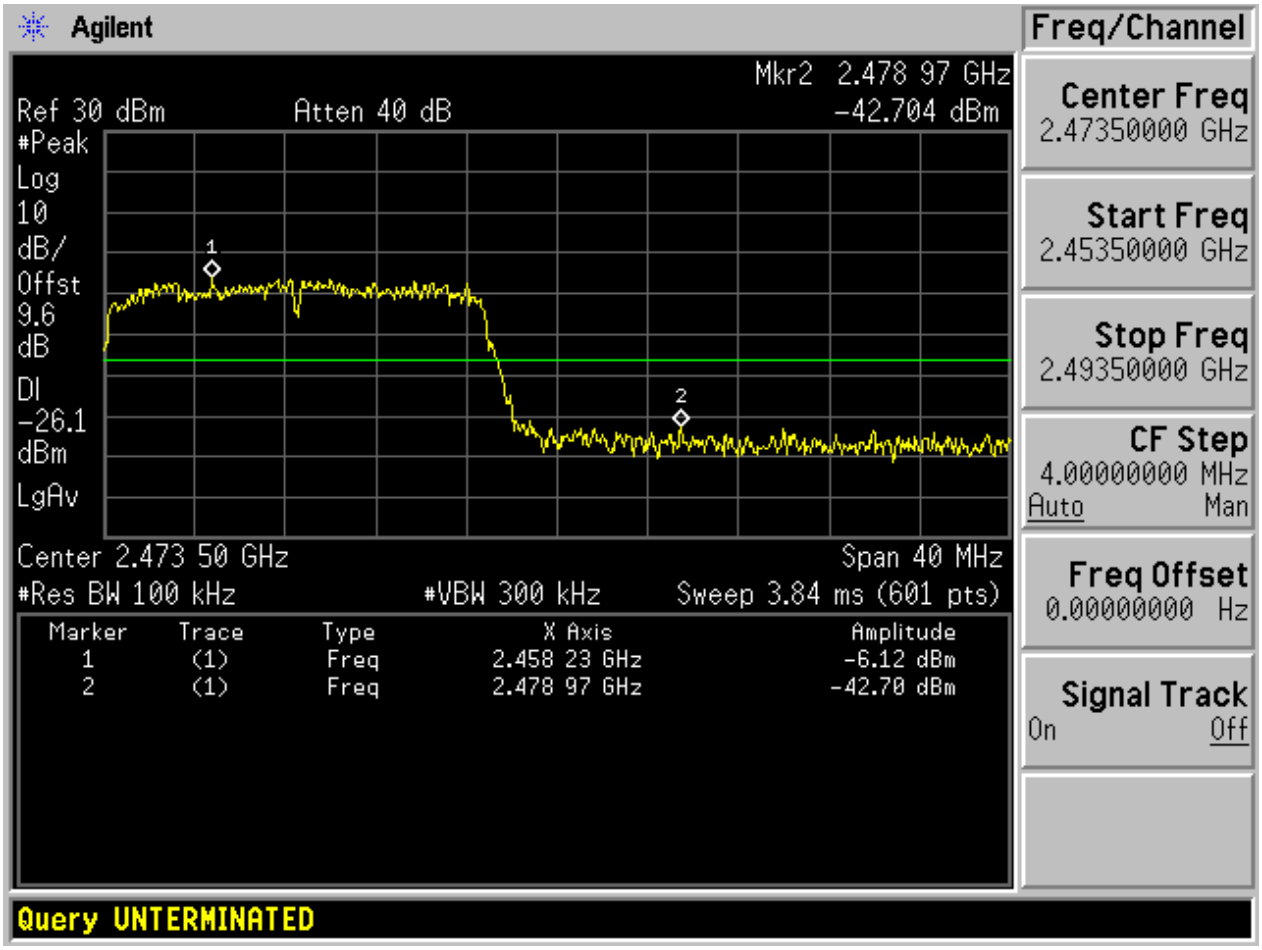
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.7 11G_T@Ant1



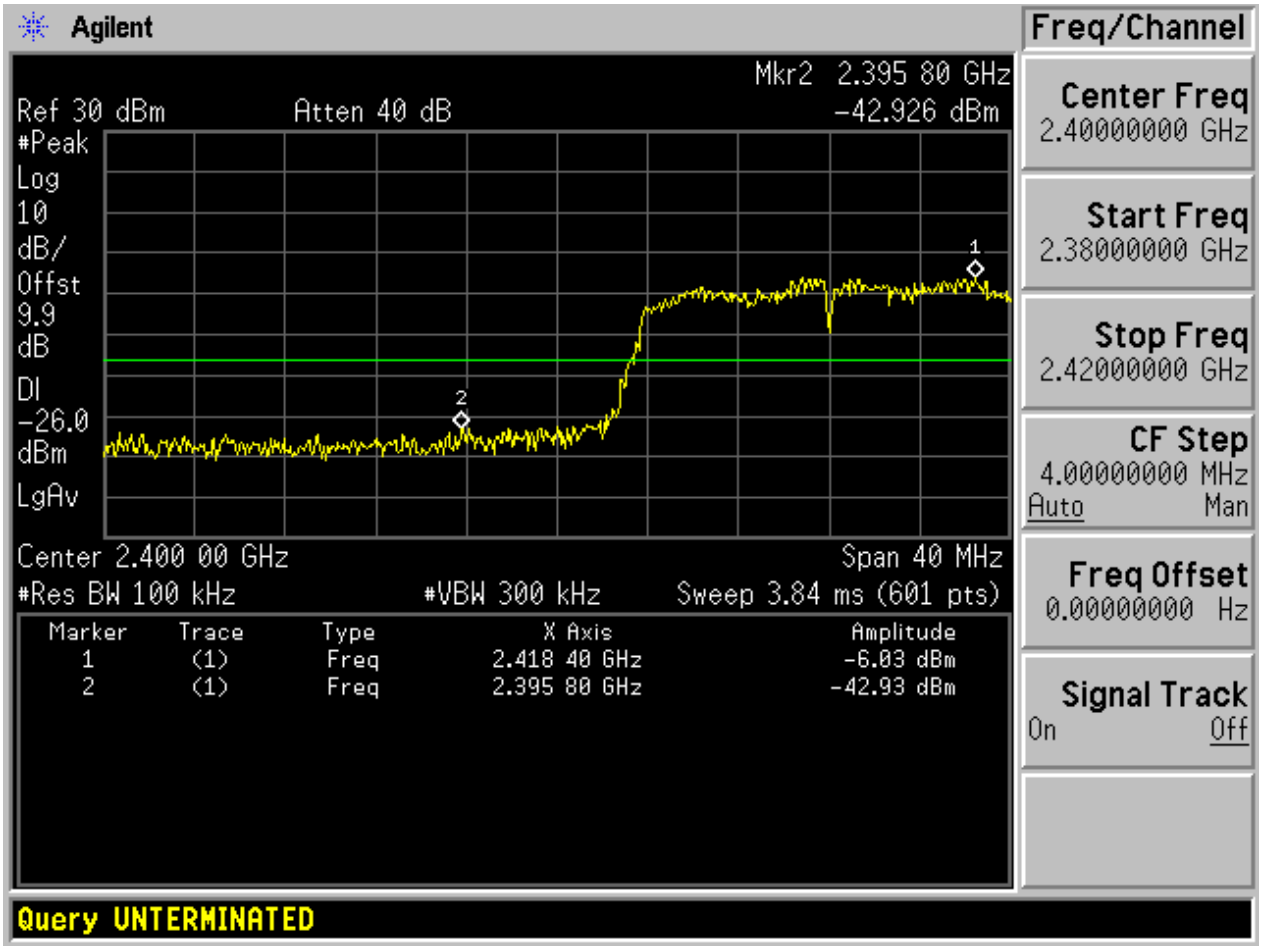
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.8 11G_T@Ant2



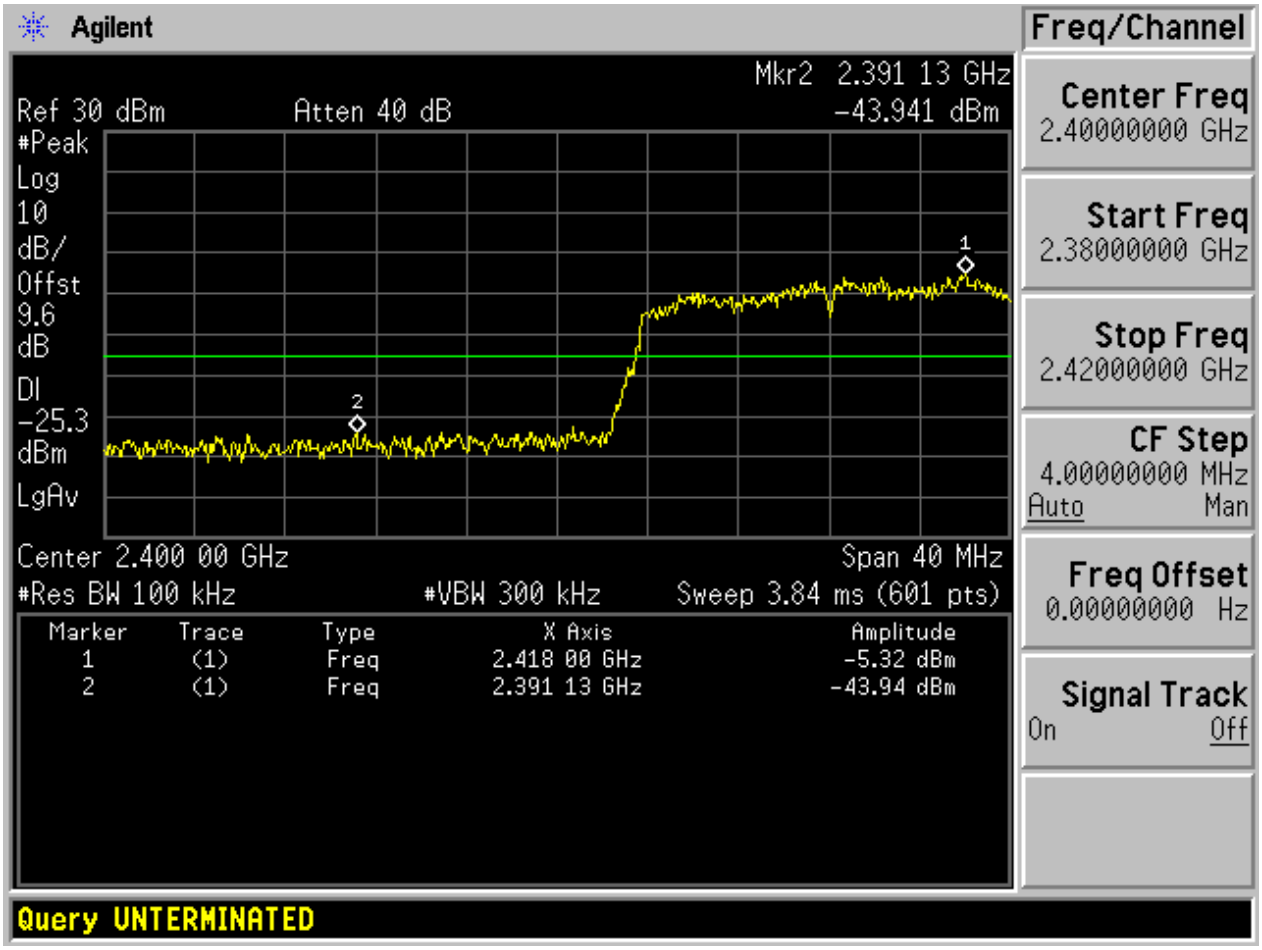
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.9 11N20_B@Ant1



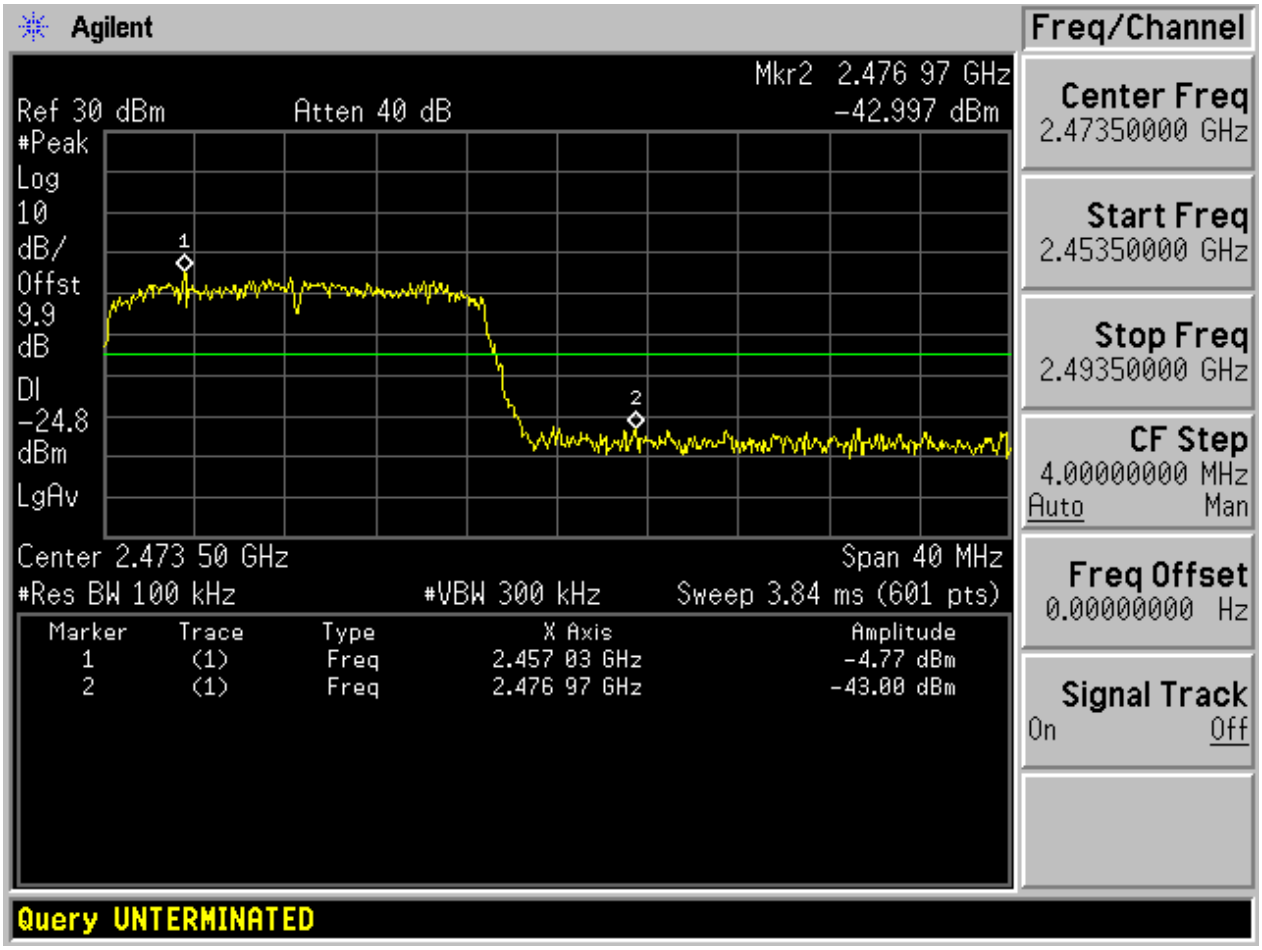
Copyright © Huawei Technologies Co., Ltd.

2.10 11N20_B@Ant2



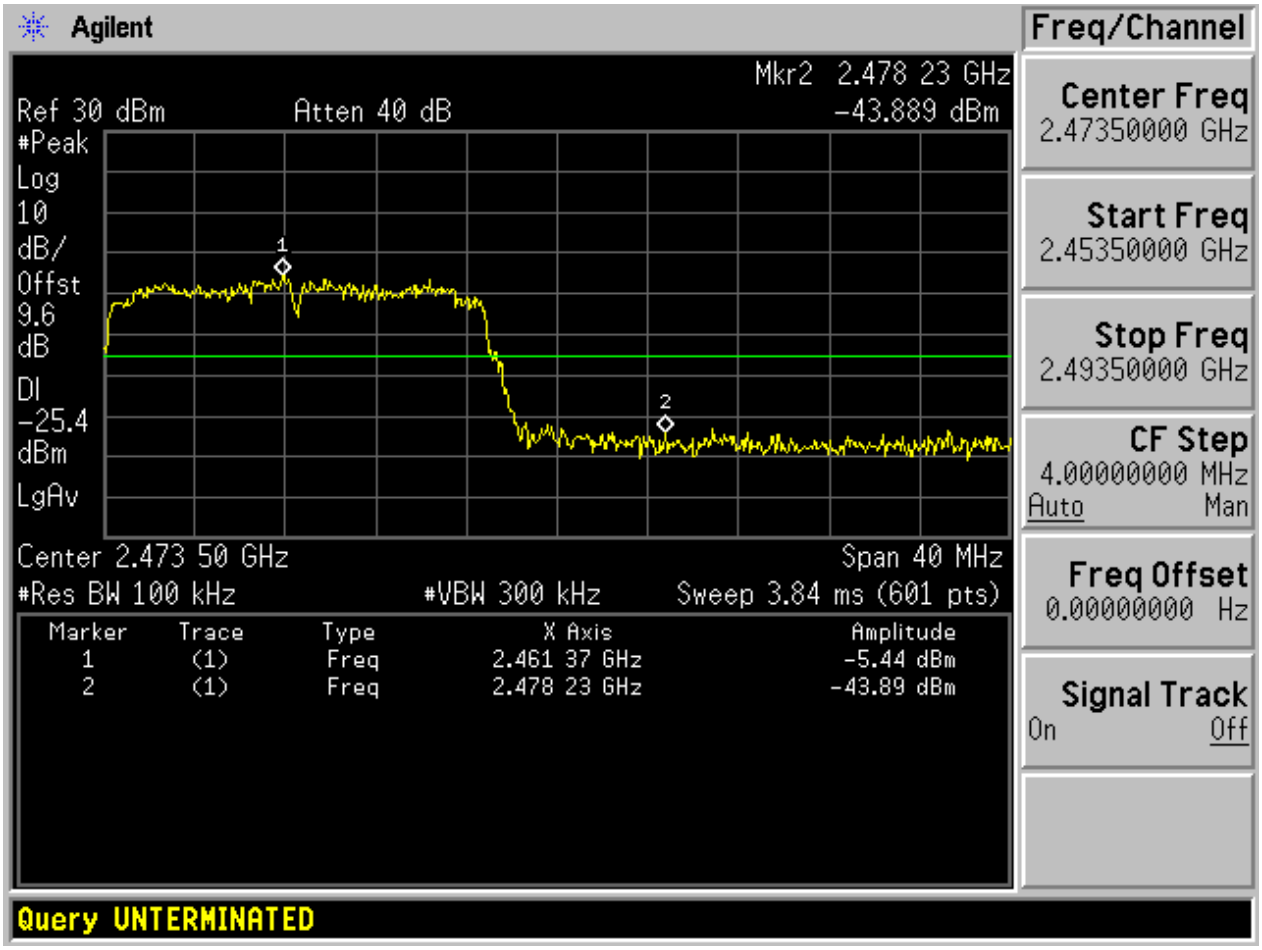
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.11 11N20_T@Ant1



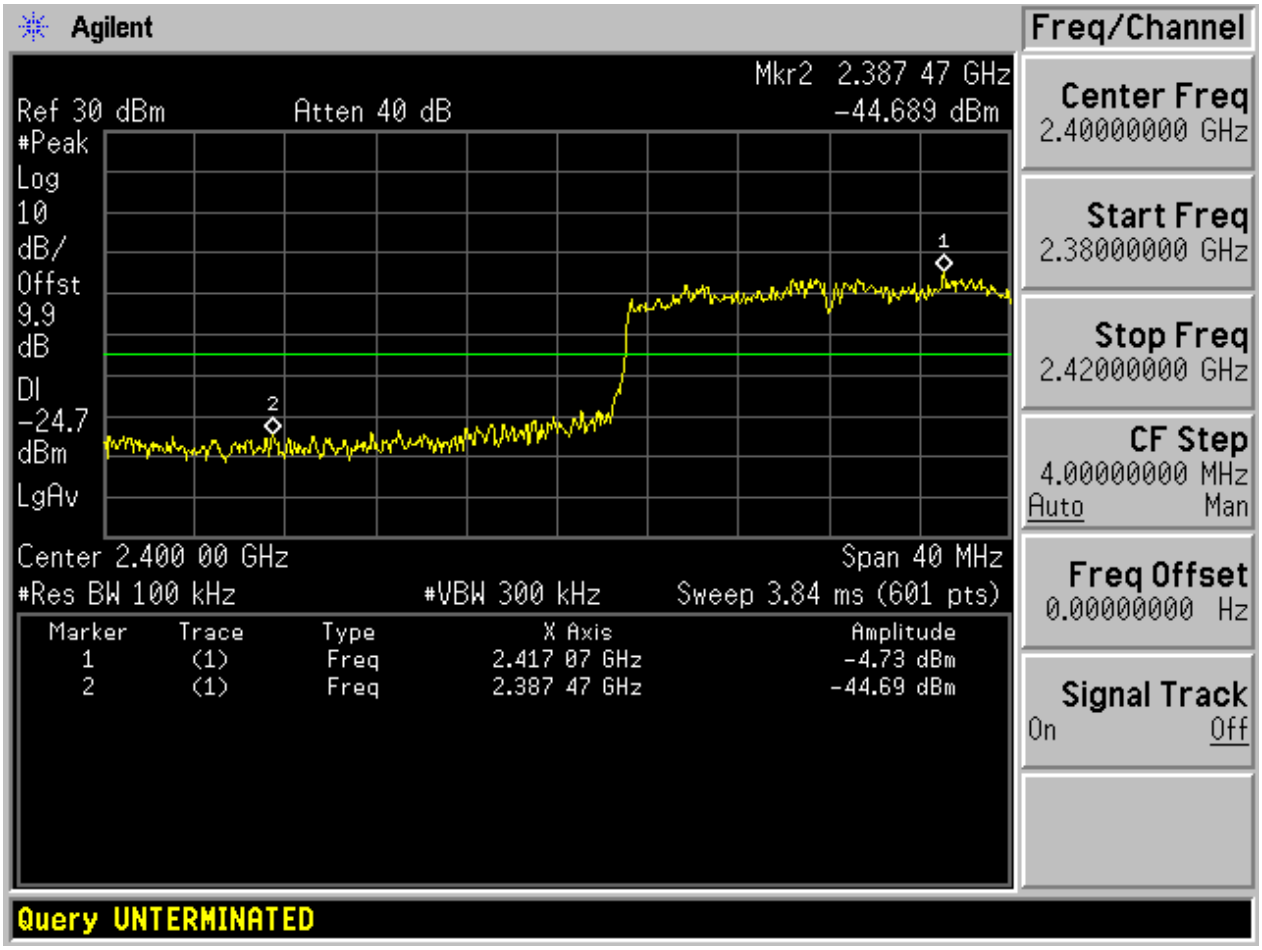
Copyright © Huawei Technologies Co., Ltd.

2.12 11N20_T@Ant2



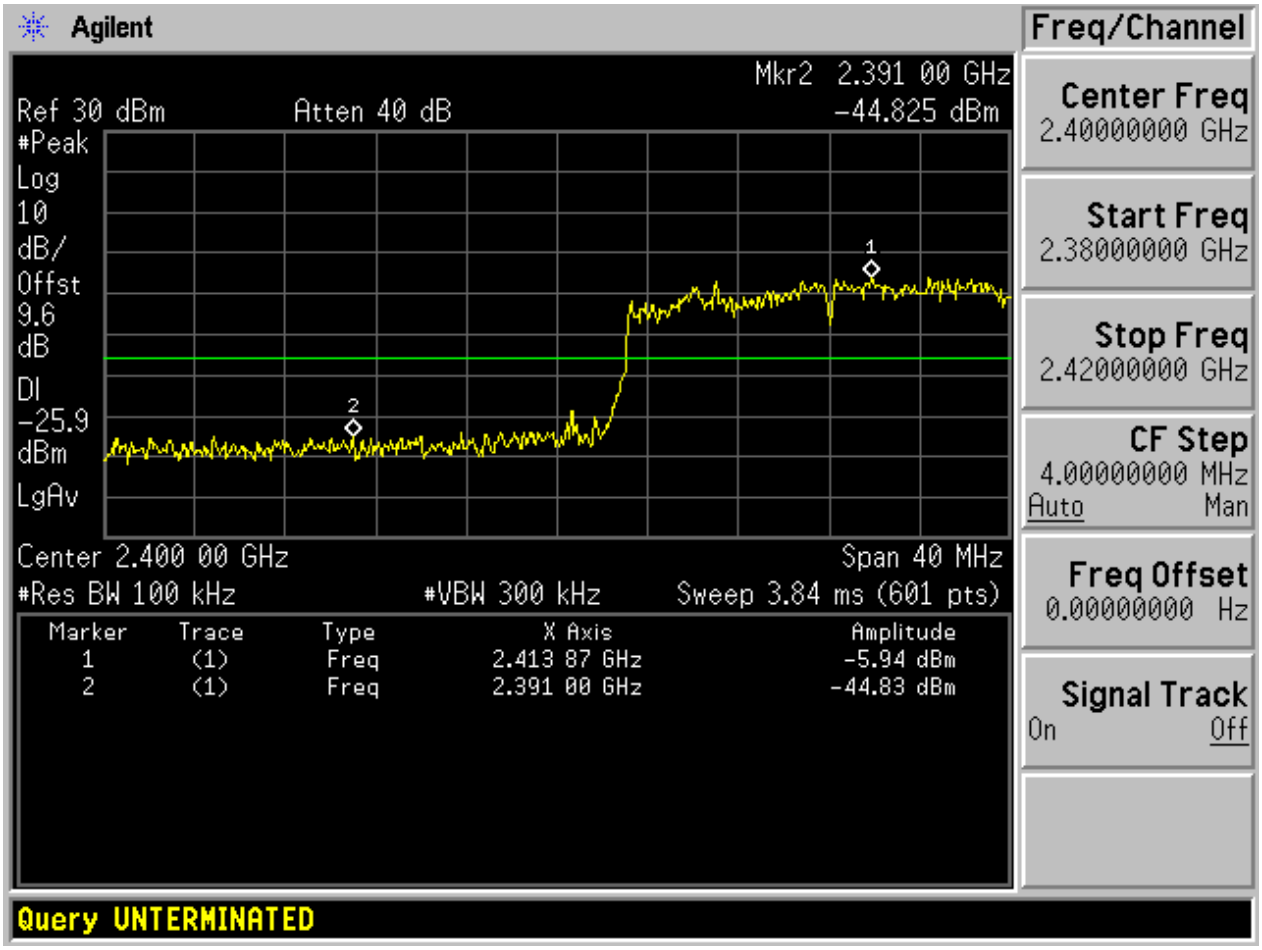
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.13 11N20m_B@Ant1



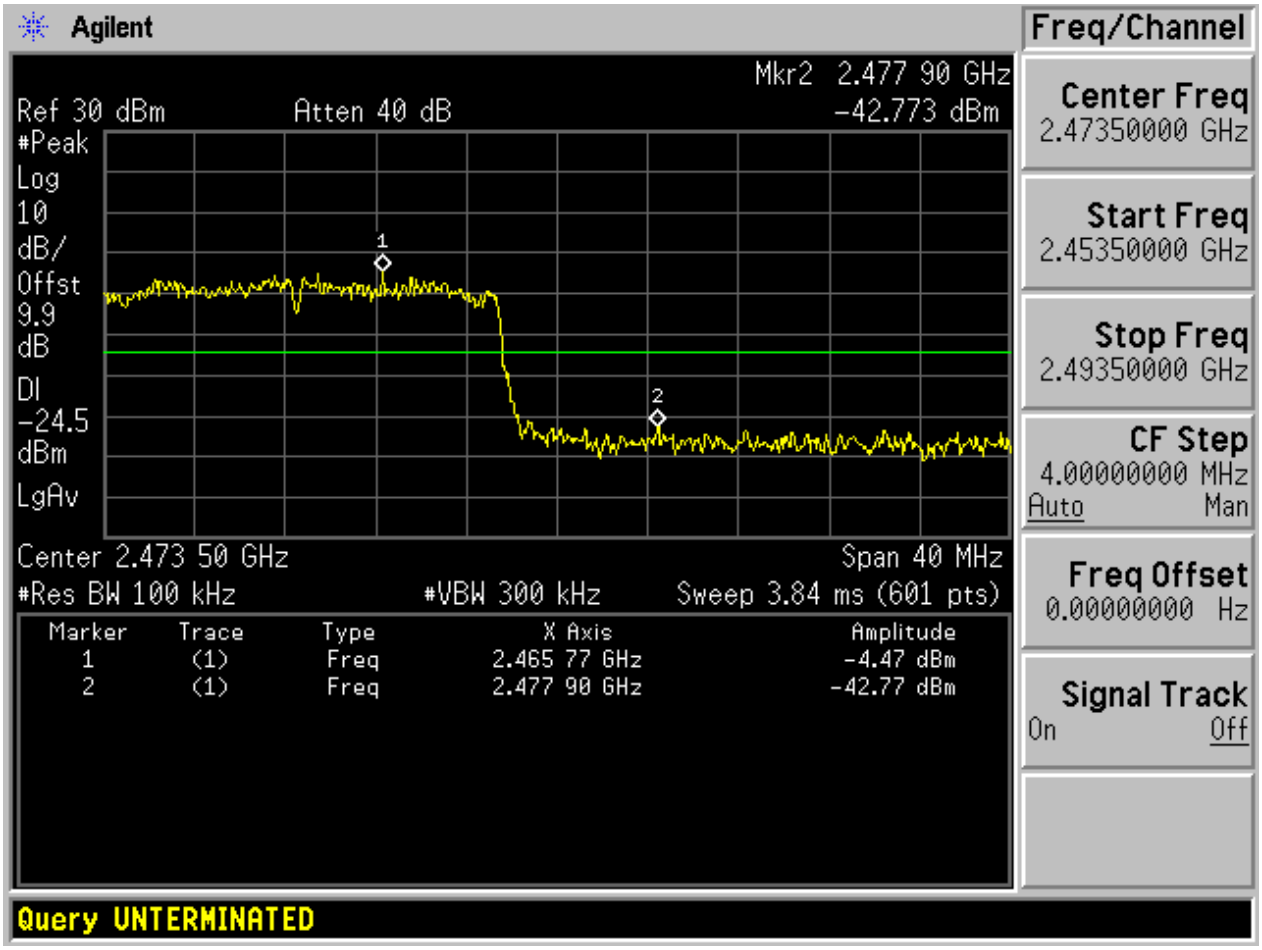
Copyright © Huawei Technologies Co., Ltd.

2.14 11N20m_B@Ant2



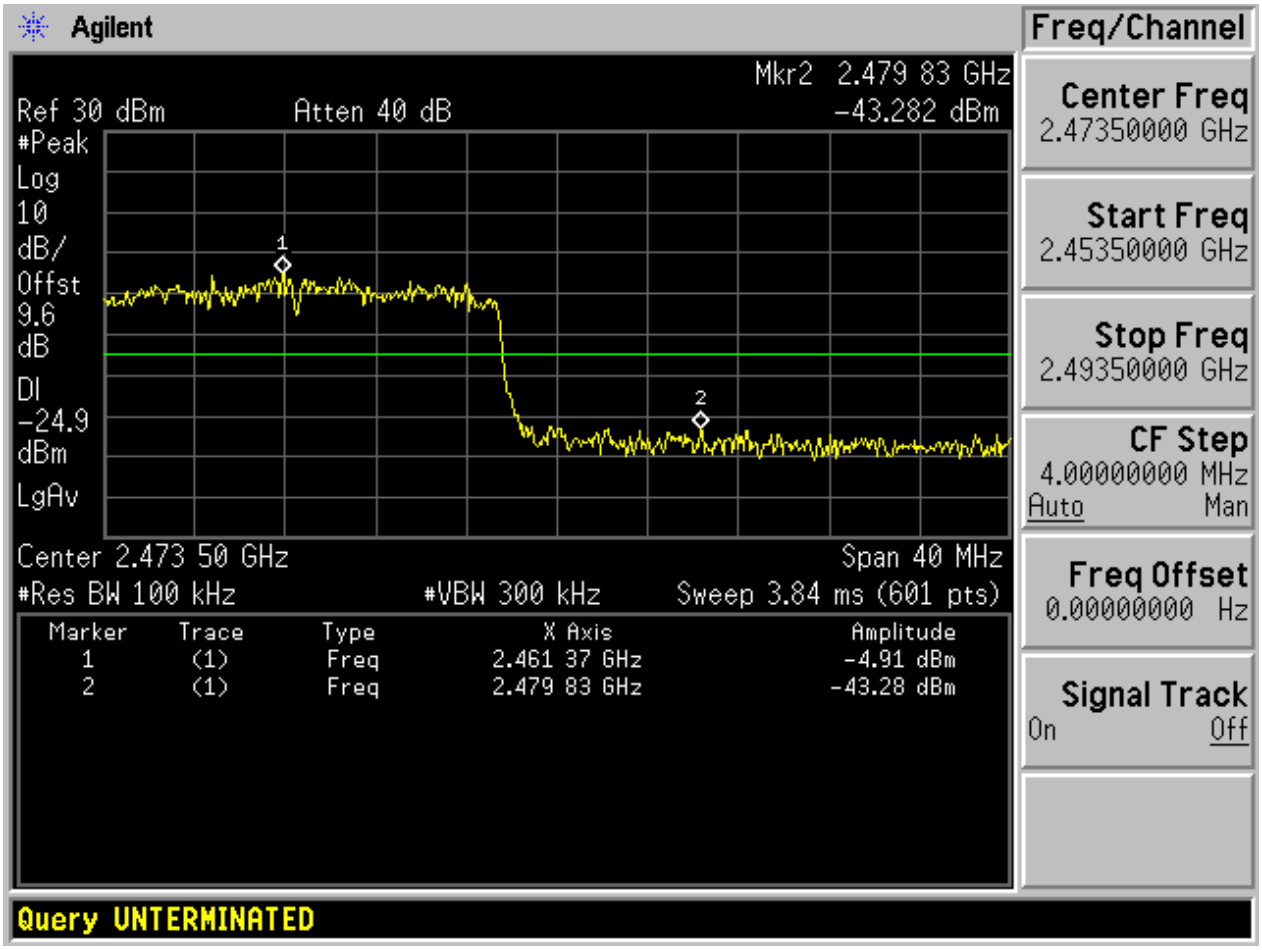
Copyright © Huawei Technologies Co., Ltd.

2.15 11N20m_T@Ant1



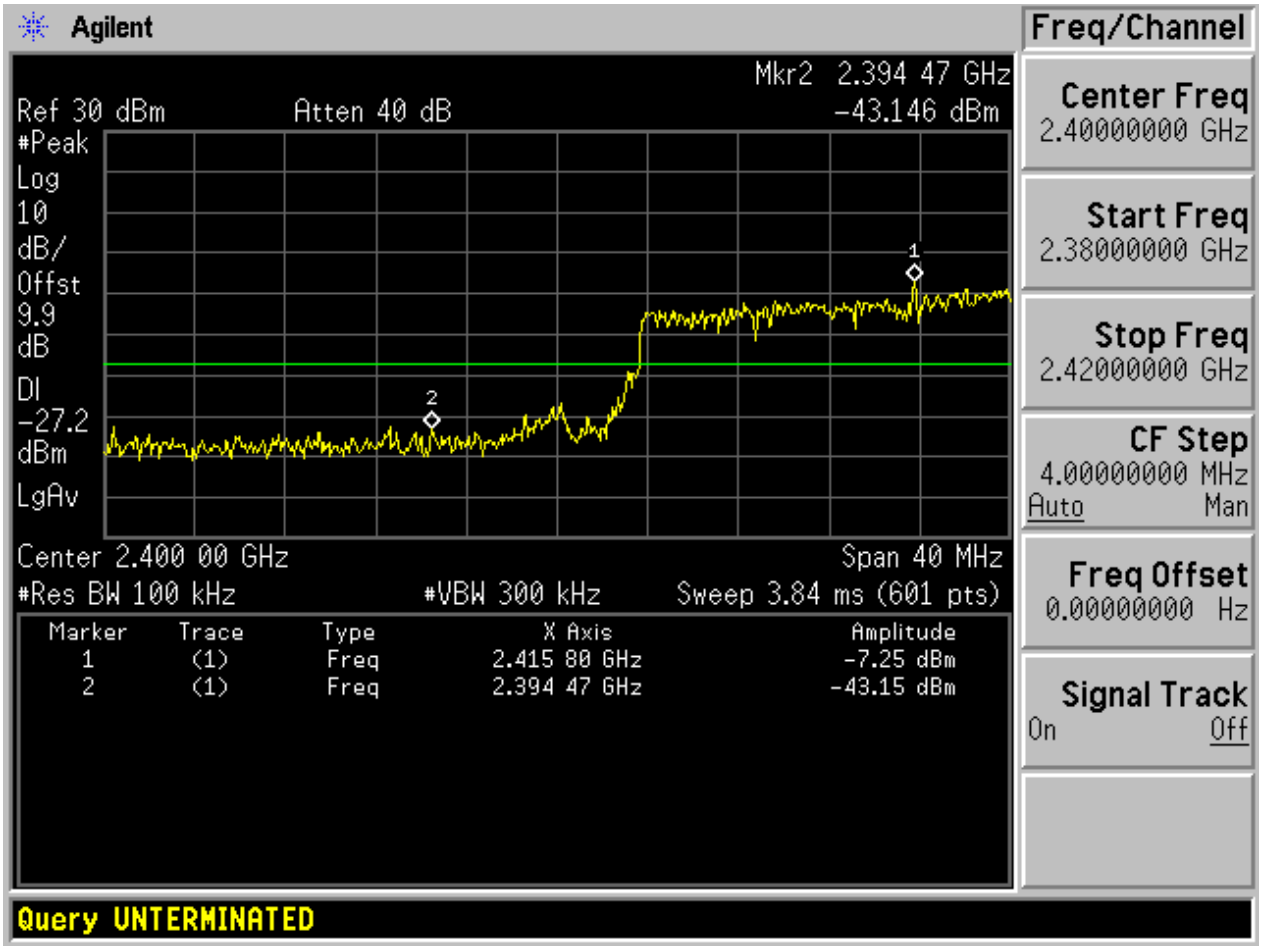
Copyright © Huawei Technologies Co., Ltd.

2.16 11N20m_T@Ant2



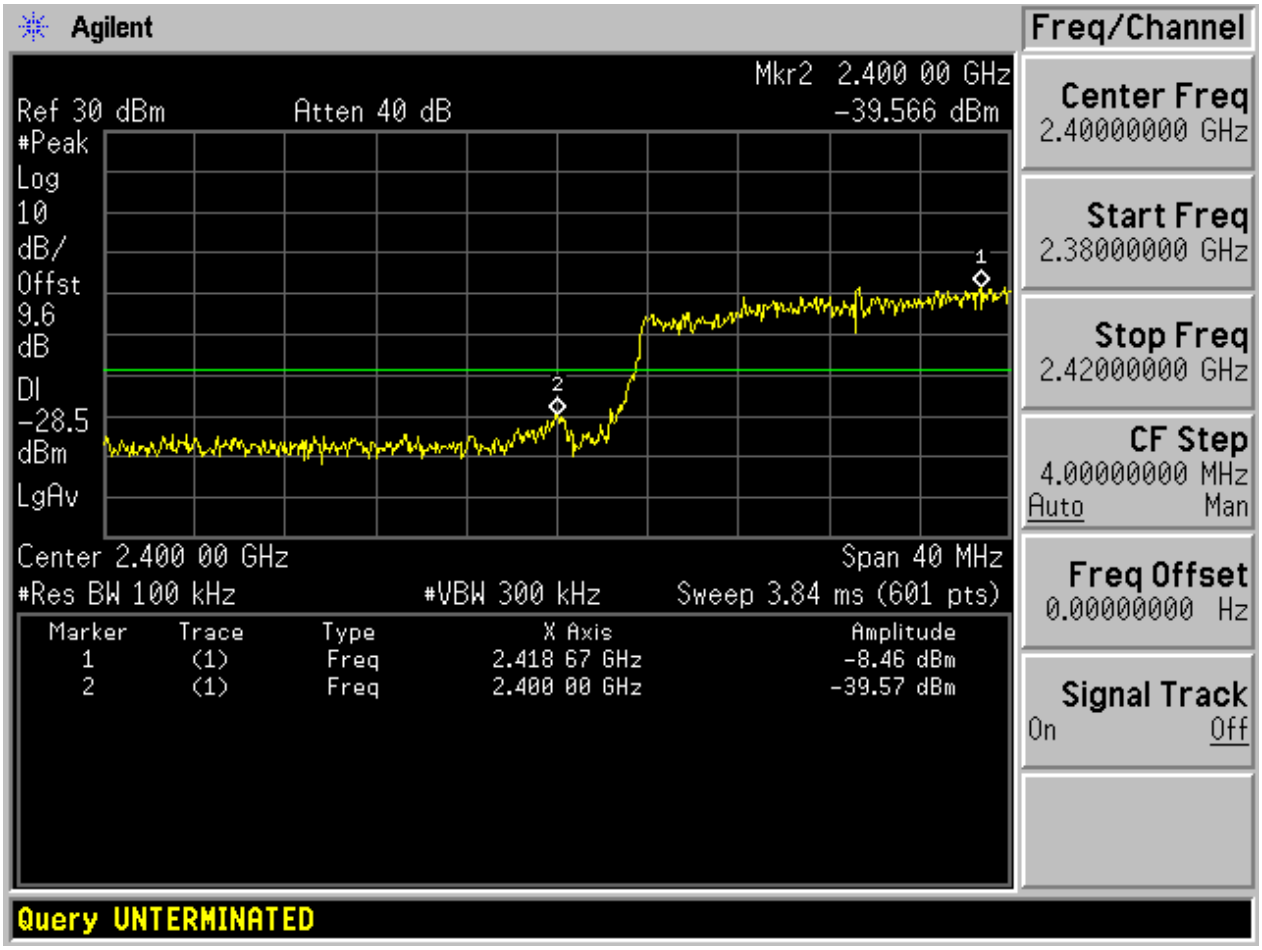
Copyright © Huawei Technologies Co., Ltd.

2.17 11N40_T@Ant1



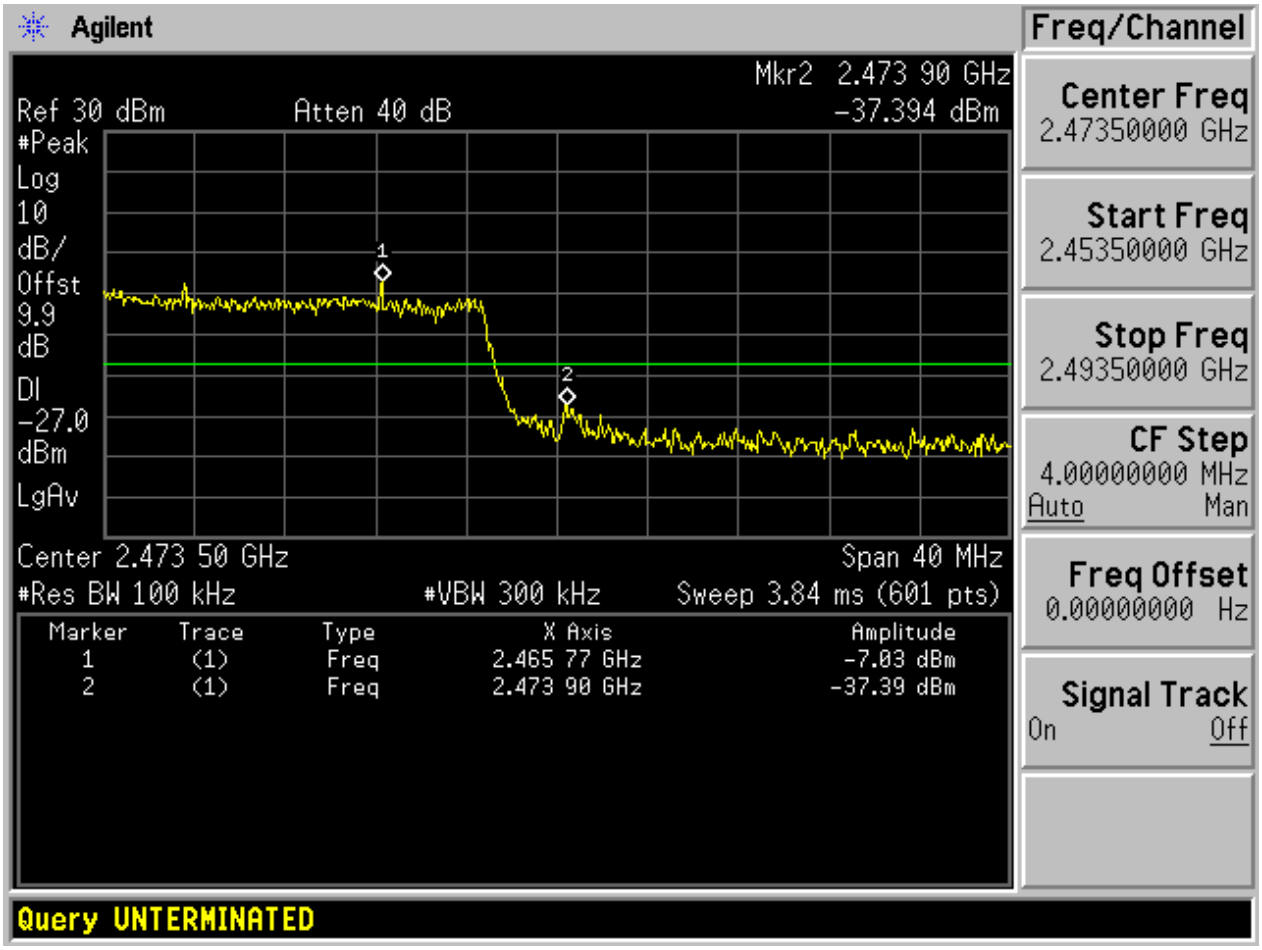
Copyright © Huawei Technologies Co., Ltd.

2.18 11N40_T@Ant2



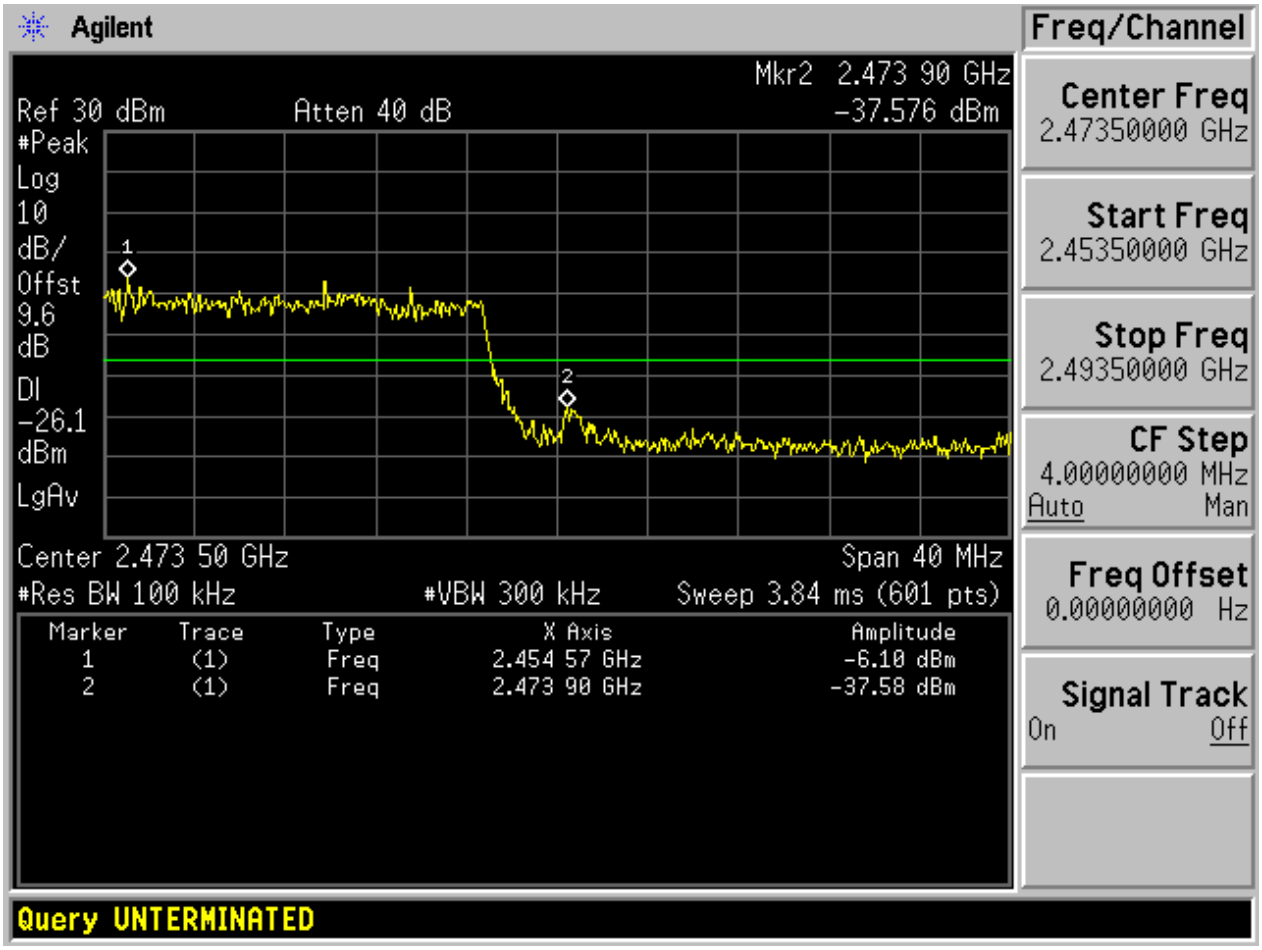
Copyright © Huawei Technologies Co., Ltd.

2.19 11N40_T@Ant1



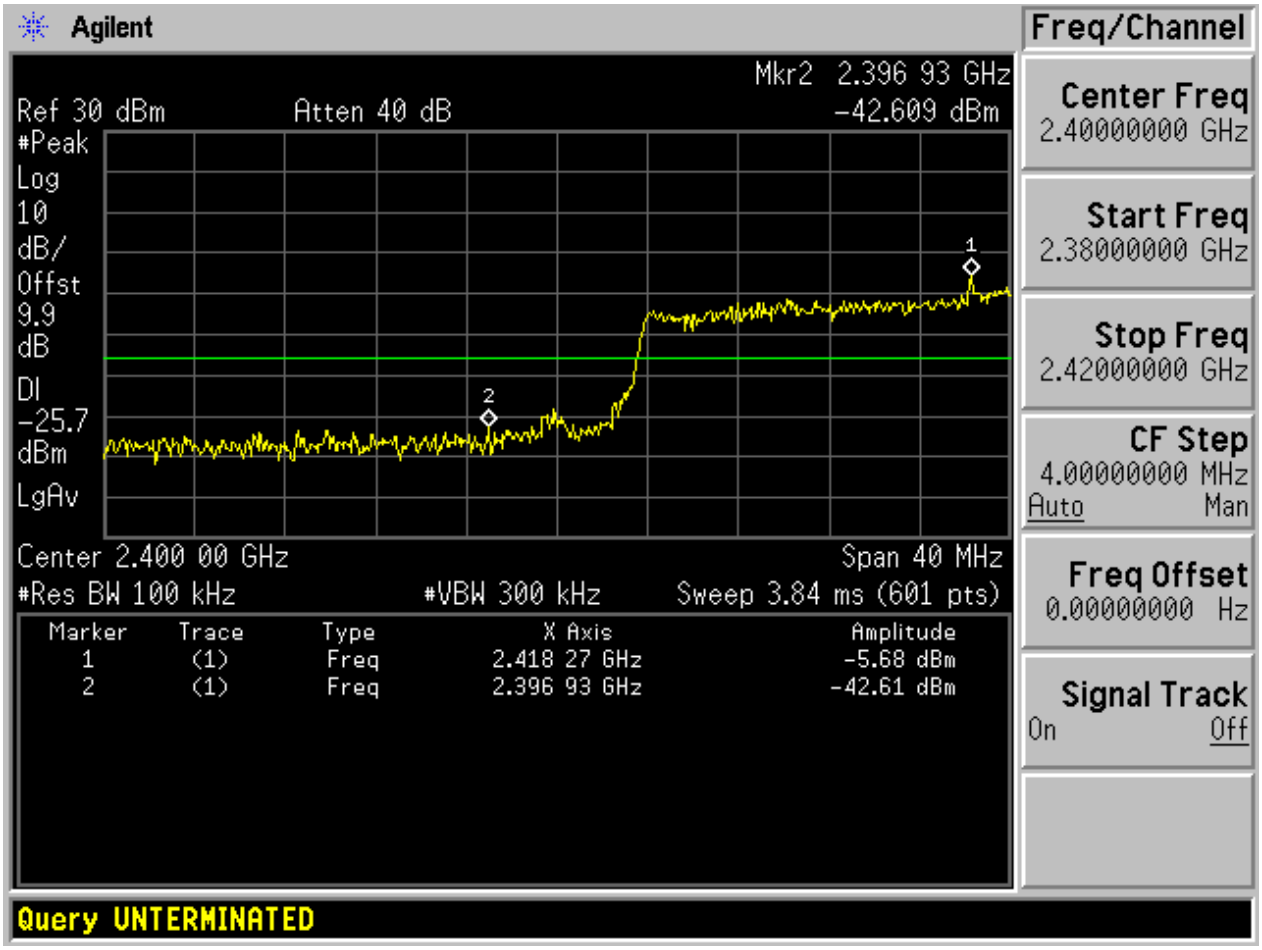
Copyright © Huawei Technologies Co., Ltd.

2.20 11N40_T@Ant2



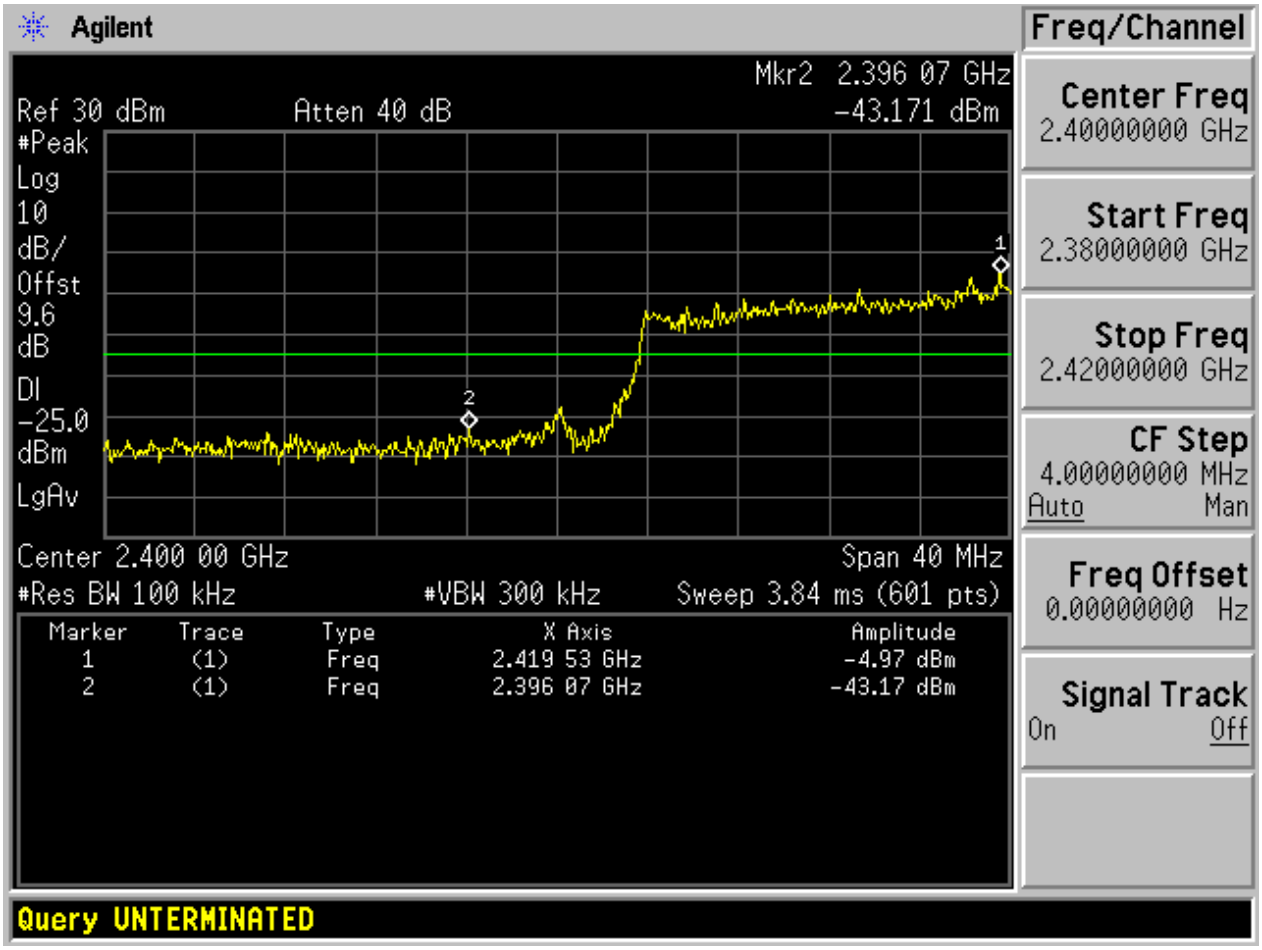
Copyright © Huawei Technologies Co., Ltd.

2.21 11N40m_B@Ant1



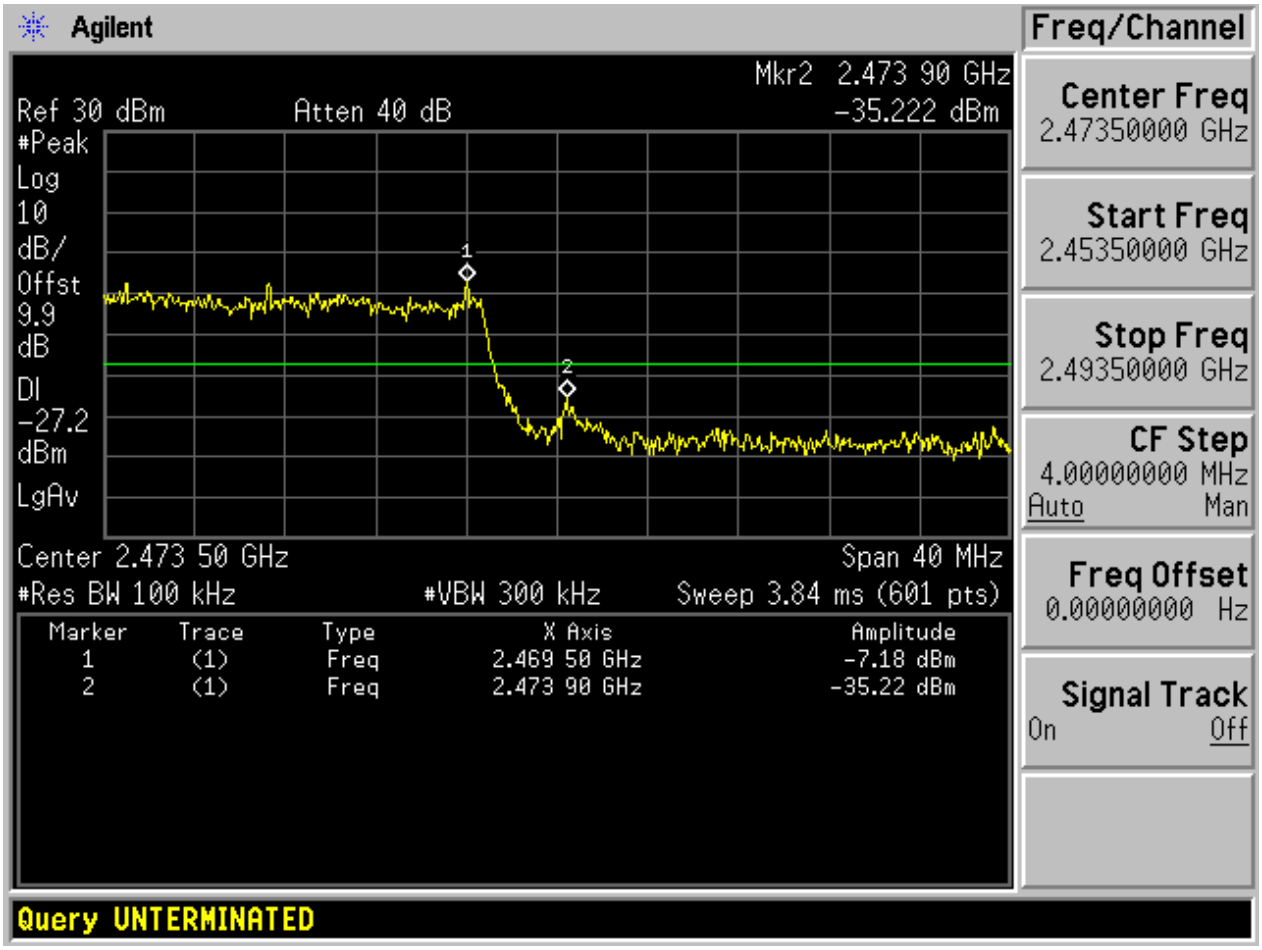
Copyright © Huawei Technologies Co., Ltd.

2.22 11N40m_B@Ant2



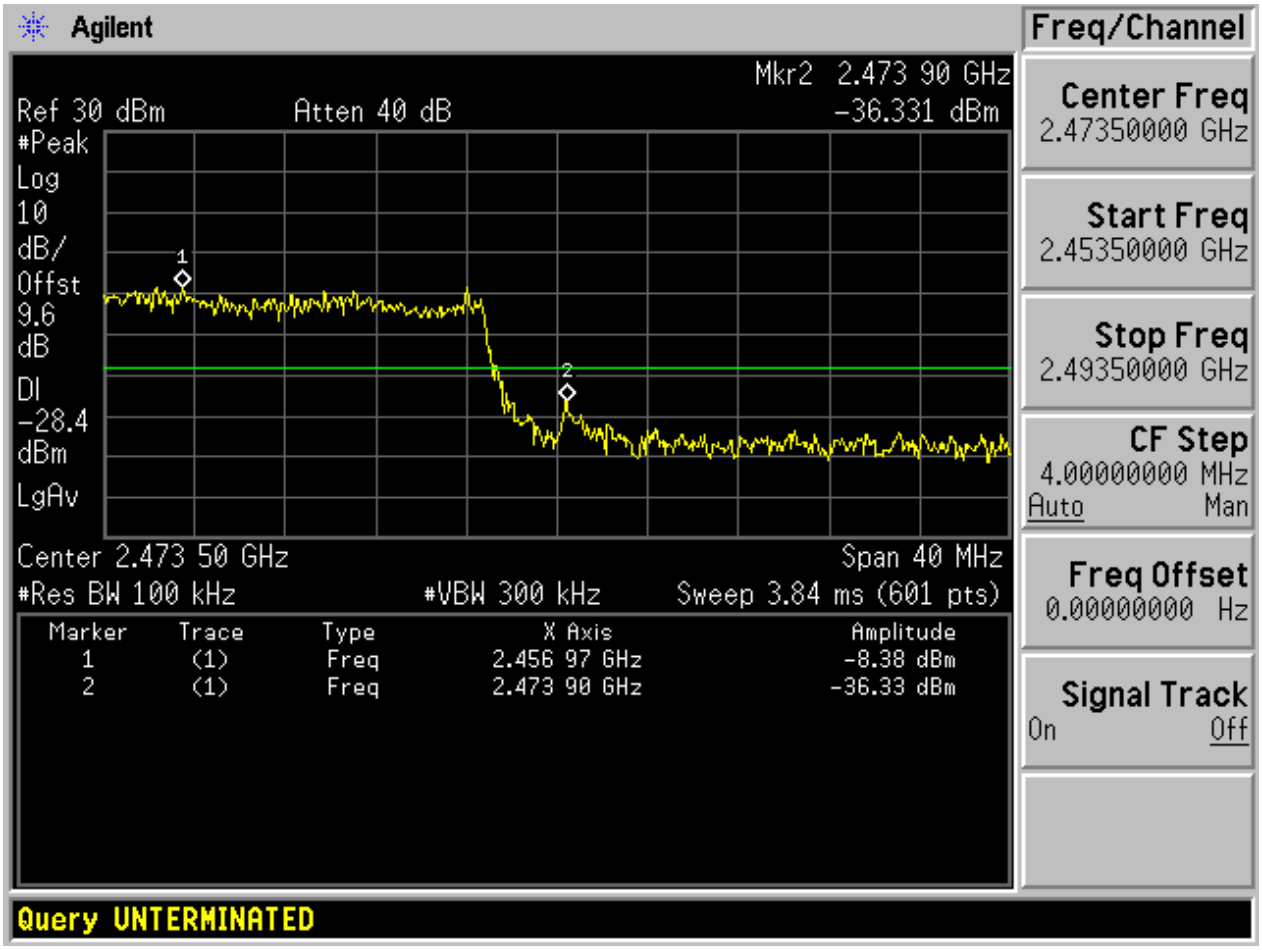
Copyright © Huawei Technologies Co., Ltd.

2.23 11N40m_T@Ant1



Copyright © Huawei Technologies Co., Ltd.

2.24 11N40m_T@Ant2



Copyright © Huawei Technologies Co., Ltd.

Appendix E: Unwanted Emissions into Non-Restricted Frequency Bands

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

In this Appendix, the “Pref”, which is used as the reference level, refers to the peak power level in any 100 kHz bandwidth within the fundamental emission, the “Puw” referrers to the maximum emission power in 100 kHz band segments outside of the authorized frequency band.

Considering that the higher ratio of RBW to the span for the frequency ranges below 30 MHz makes the results determination be complicated, a narrower RBW other than 100 kHz is used for these ranges. The measured value should add a RBW correction factor (RBWCF) where RBWCF [dB] = 10 x lg(100 [kHz]/narrower RBW [kHz]). As to this Appendix, the narrower RBW is 1 kHz and RBWCF is 20 dB for the frequency 9 kHz to 150 kHz, and the narrower RBW is 10 kHz and RBWCF is 10 dB for the frequency 150 kHz to 30 MHz.

For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain and used as respective results for each chain, due to the relative-limit requirement.

In the result table, the “< Limit” denotes that “The Puw [dBm] is less than Pref [dBm] – 20 [dB], see test plots for detailed”.

1 Result Table

Eut.conf	Channel	Frequency (MHz)	ANT	Pref [dBm]	Puw [dBm]	Verdict
11B	B	2412	Ant 1	-0.90	<limit	pass
			Ant 2	-0.95	<limit	pass
	M	2437	Ant 1	0.29	<limit	pass
			Ant 2	1.50	<limit	pass
	T	2462	Ant 1	-0.84	<limit	pass
			Ant 2	-0.56	<limit	pass
11G	B	2412	Ant 1	-2.40	<limit	pass
			Ant 2	-2.97	<limit	pass
	M	2437	Ant 1	-1.39	<limit	pass
			Ant 2	-2.43	<limit	pass
	T	2462	Ant 1	-2.21	<limit	pass
			Ant 2	-3.21	<limit	pass
11N20	B	2412	Ant 1	-2.40	<limit	pass
			Ant 2	-3.21	<limit	pass
	M	2437	Ant 1	-1.51	<limit	pass
			Ant 2	-2.60	<limit	pass
	T	2462	Ant 1	-2.28	<limit	pass
			Ant 2	-3.31	<limit	pass
11N20m	B	2412	Ant 1	-1.97	<limit	pass
			Ant 2	-2.74	<limit	pass
	M	2437	Ant 1	-1.18	<limit	pass
			Ant 2	-2.76	<limit	pass
	T	2462	Ant 1	-1.84	<limit	pass
			Ant 2	-3.06	<limit	pass
11N40	B	2422	Ant 1	-3.98	<limit	pass

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

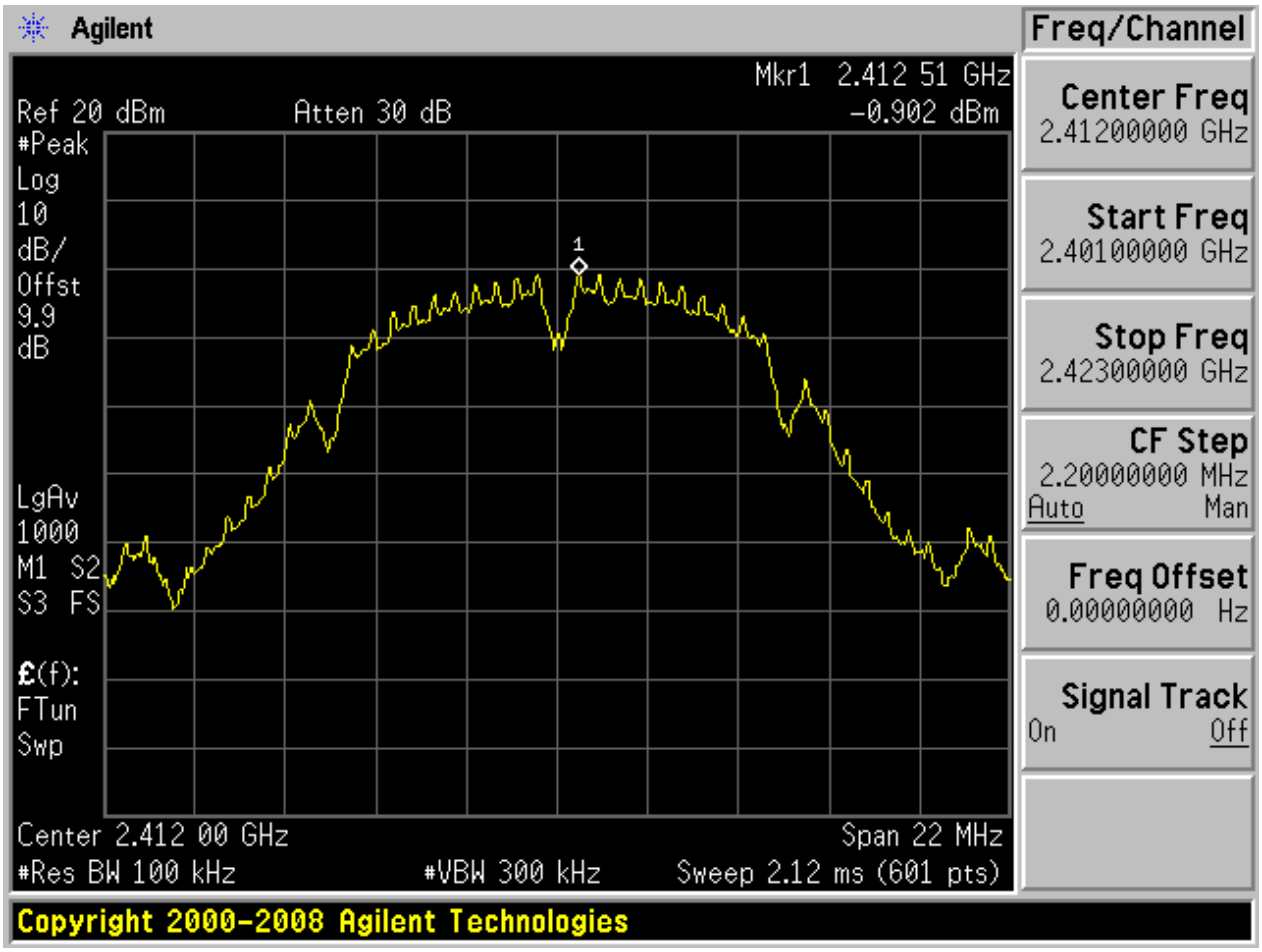
Eut.conf	Channel	Frequency (MHz)	ANT	Pref [dBm]	Puw [dBm]	Verdict
			Ant 2	-4.39	<limit	pass
	M	2437	Ant 1	-4.87	<limit	pass
			Ant 2	-5.86	<limit	pass
	T	2452	Ant 1	-5.10	<limit	pass
			Ant 2	-5.72	<limit	pass
11N40m	B	2422	Ant 2	-4.49	<limit	pass
			Ant 1	-3.82	<limit	pass
	M	2437	Ant 2	-5.98	<limit	pass
			Ant 1	-4.67	<limit	pass
	T	2452	Ant 2	-5.85	<limit	pass
			Ant 1	-4.91	<limit	pass

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2 Test Plot

2.1 11B_B@Ant1

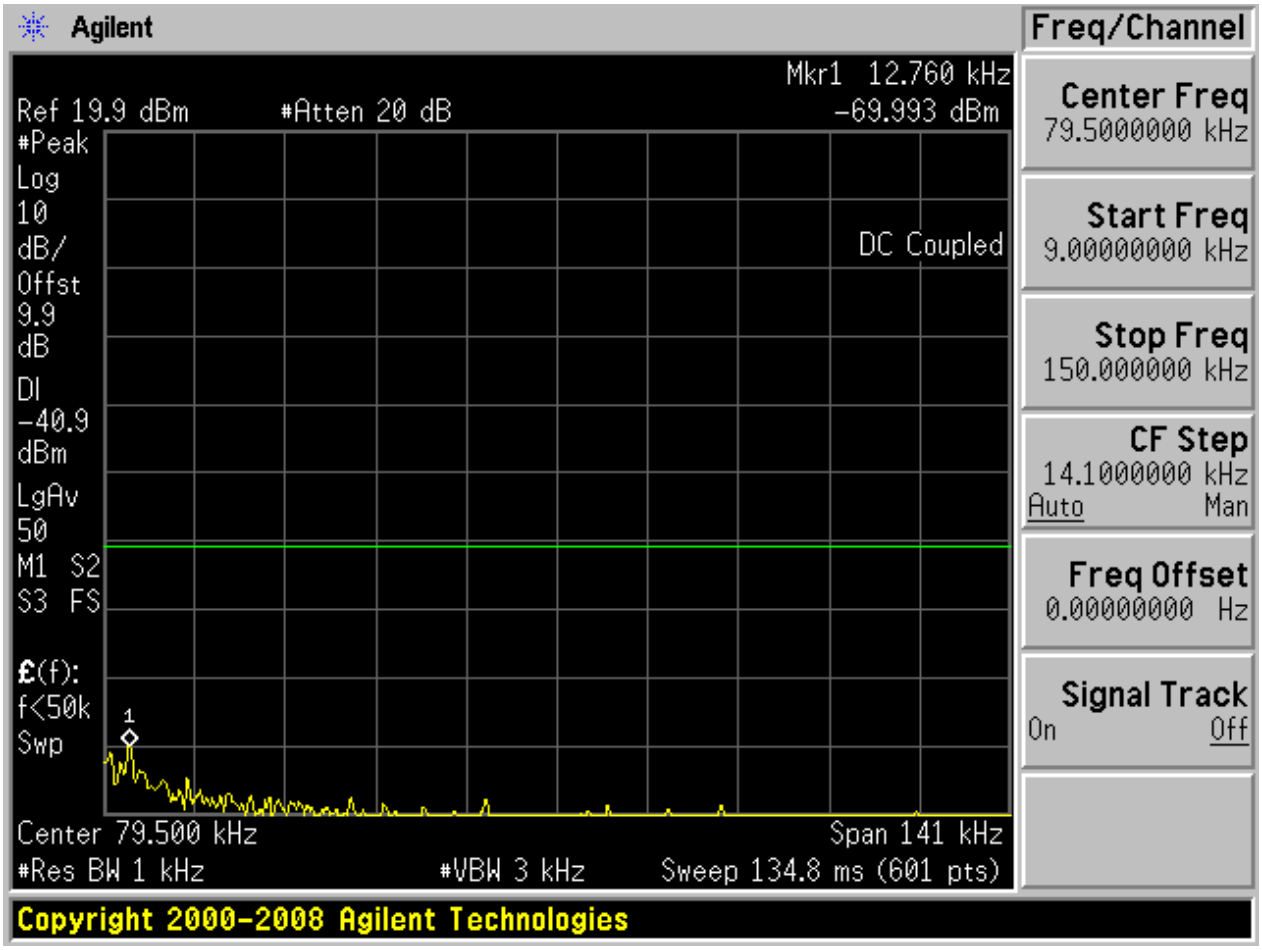
2.1.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

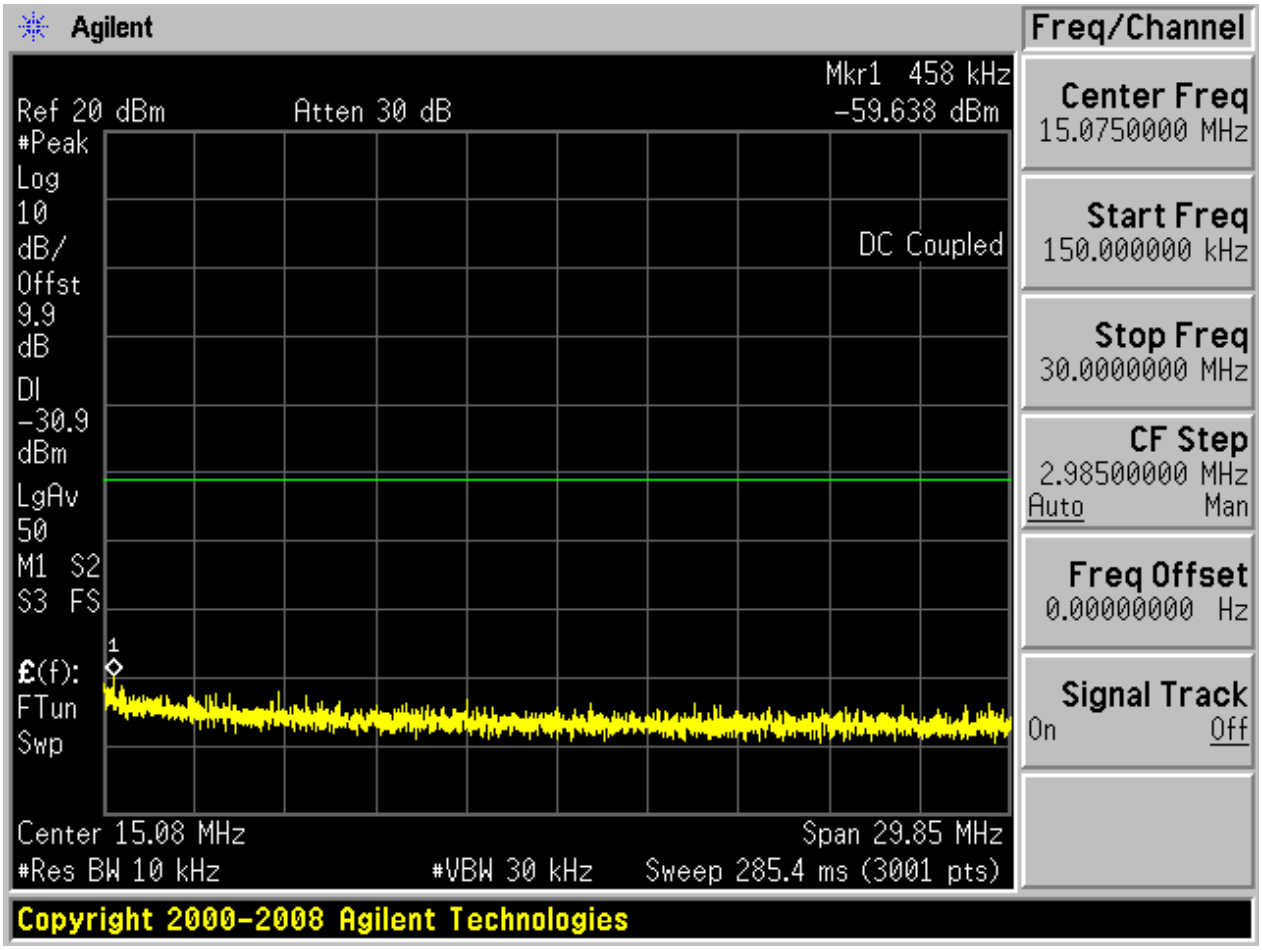
2.1.2 Puw:

9k - 150k



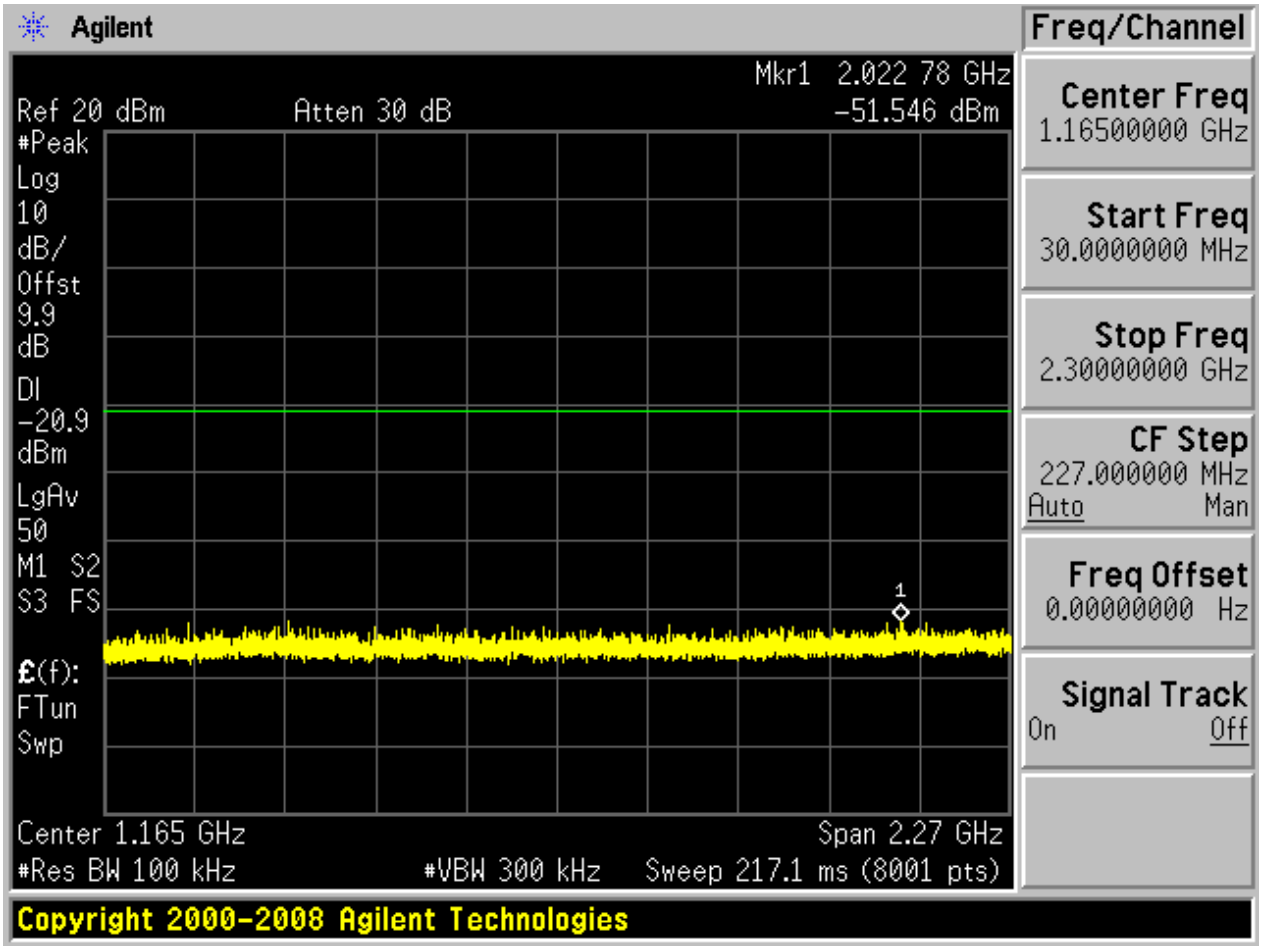
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



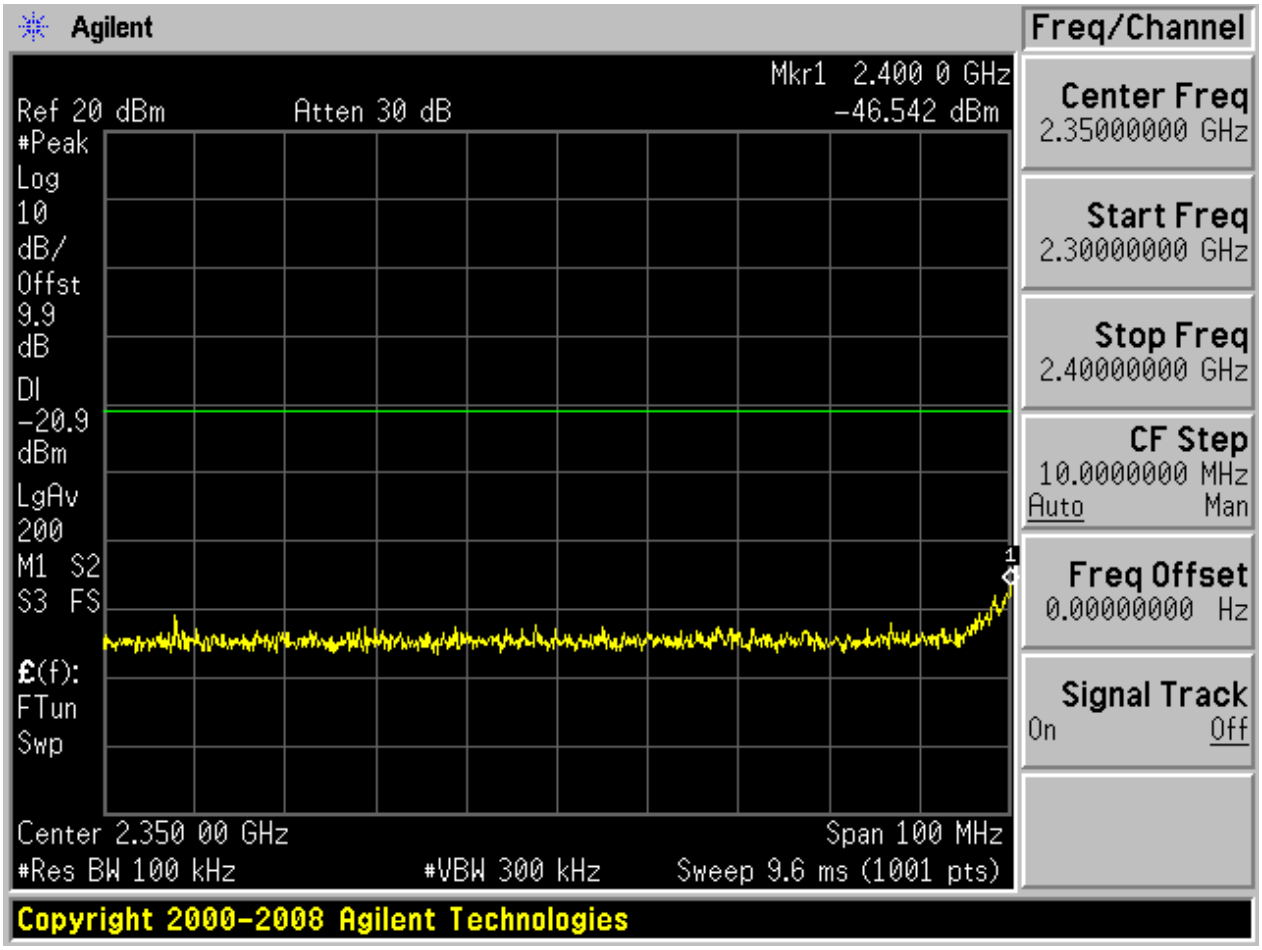
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



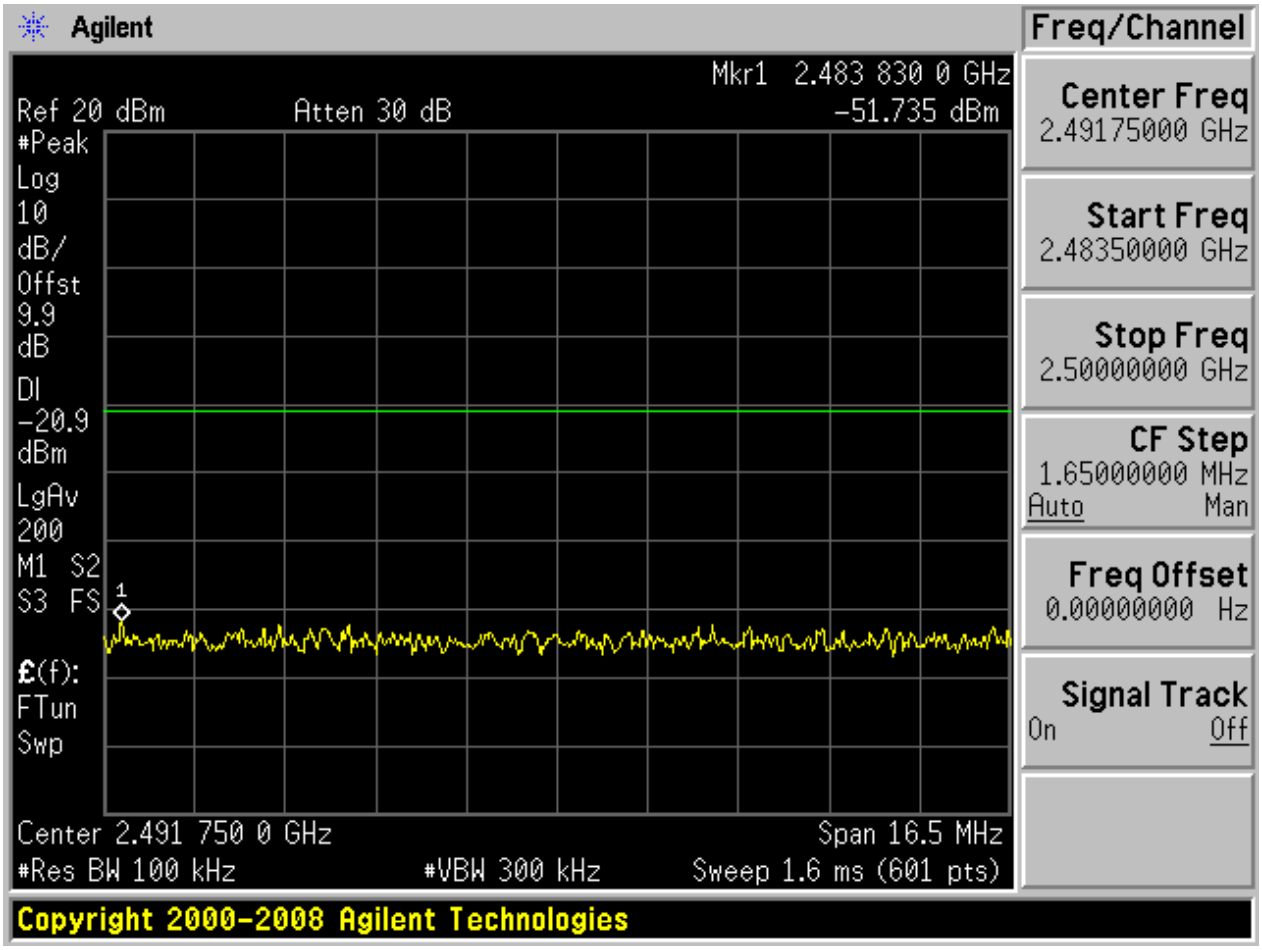
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



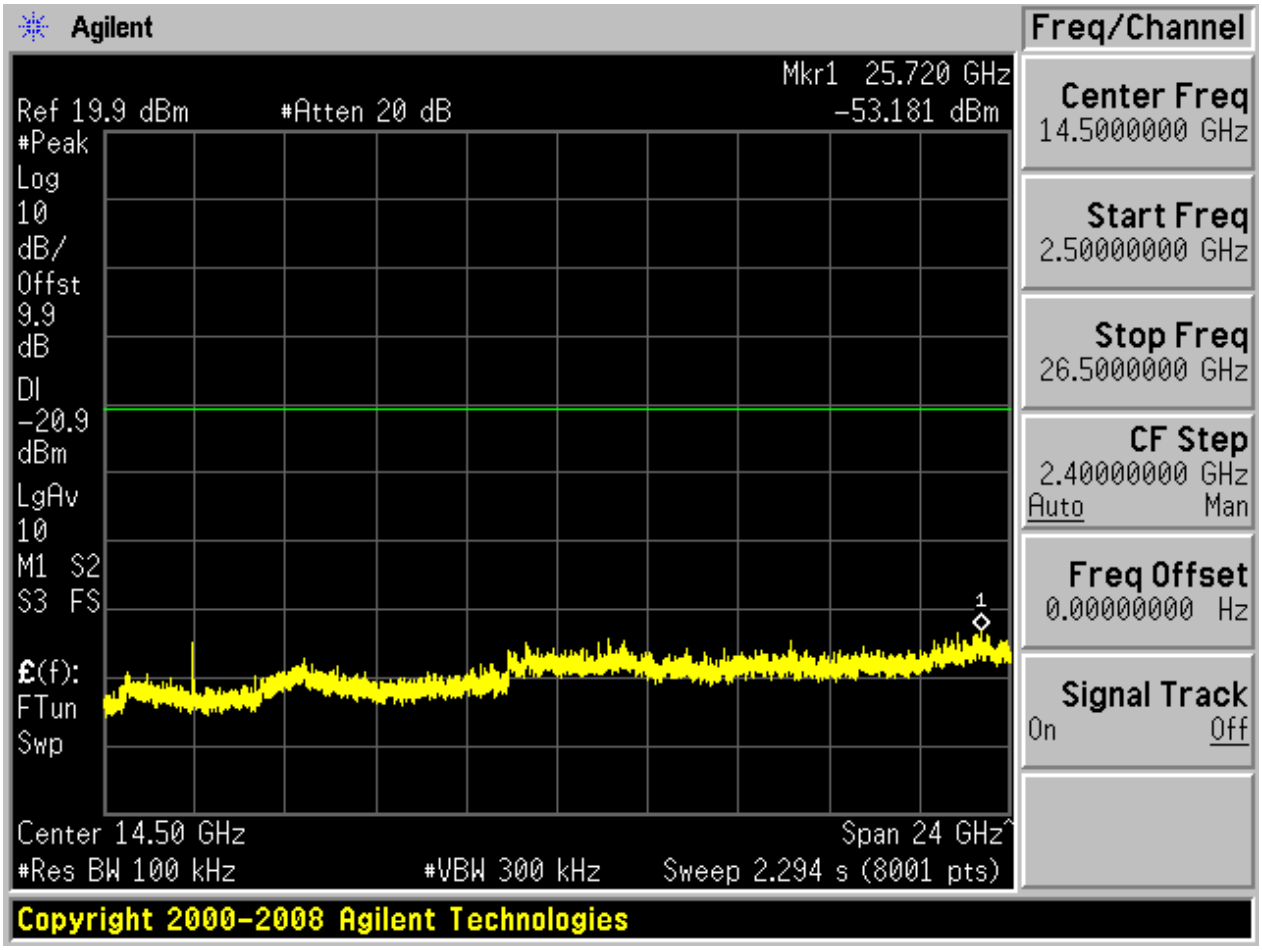
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

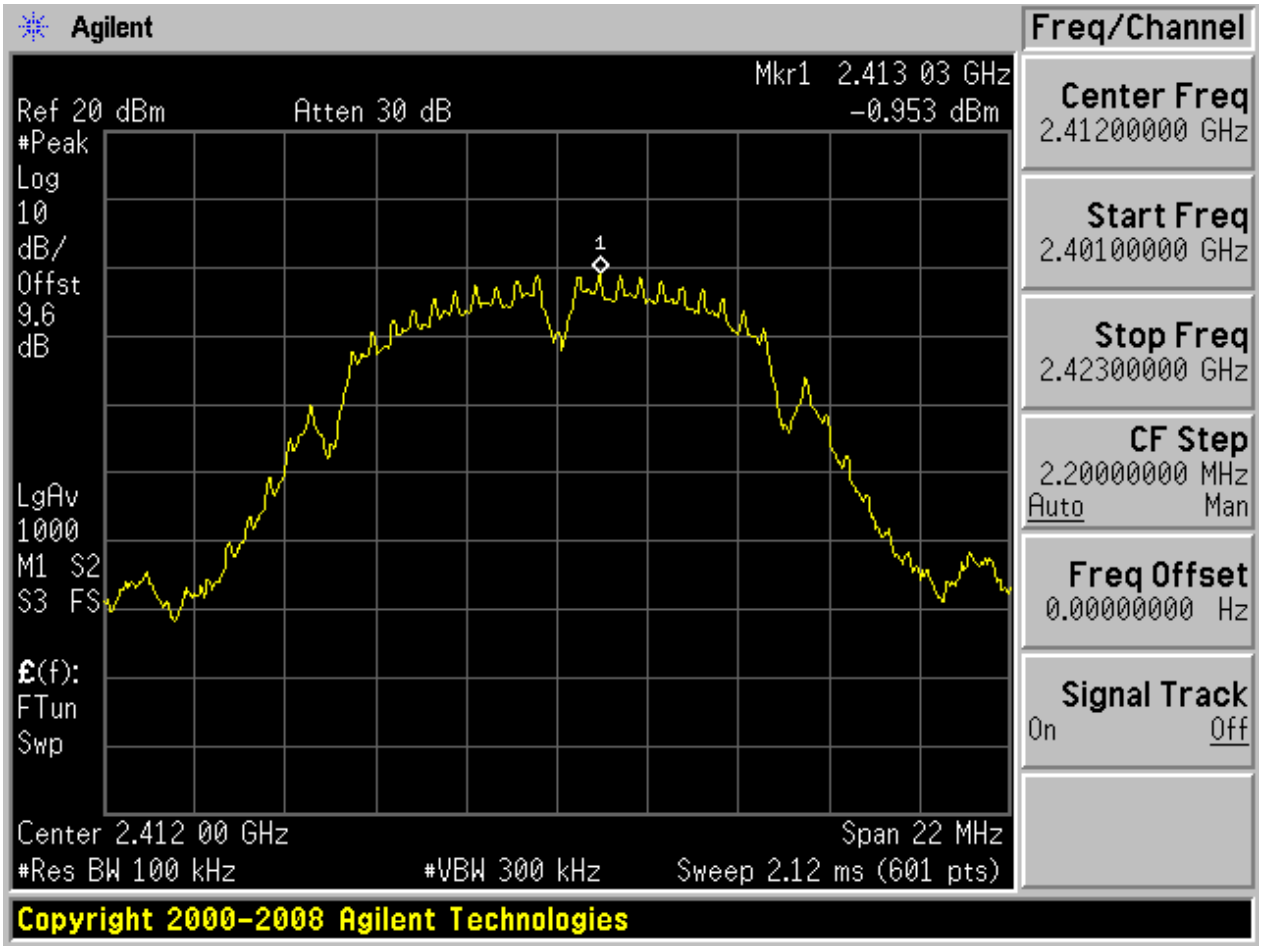
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.2 11B_B@Ant2

2.2.1 Pref:

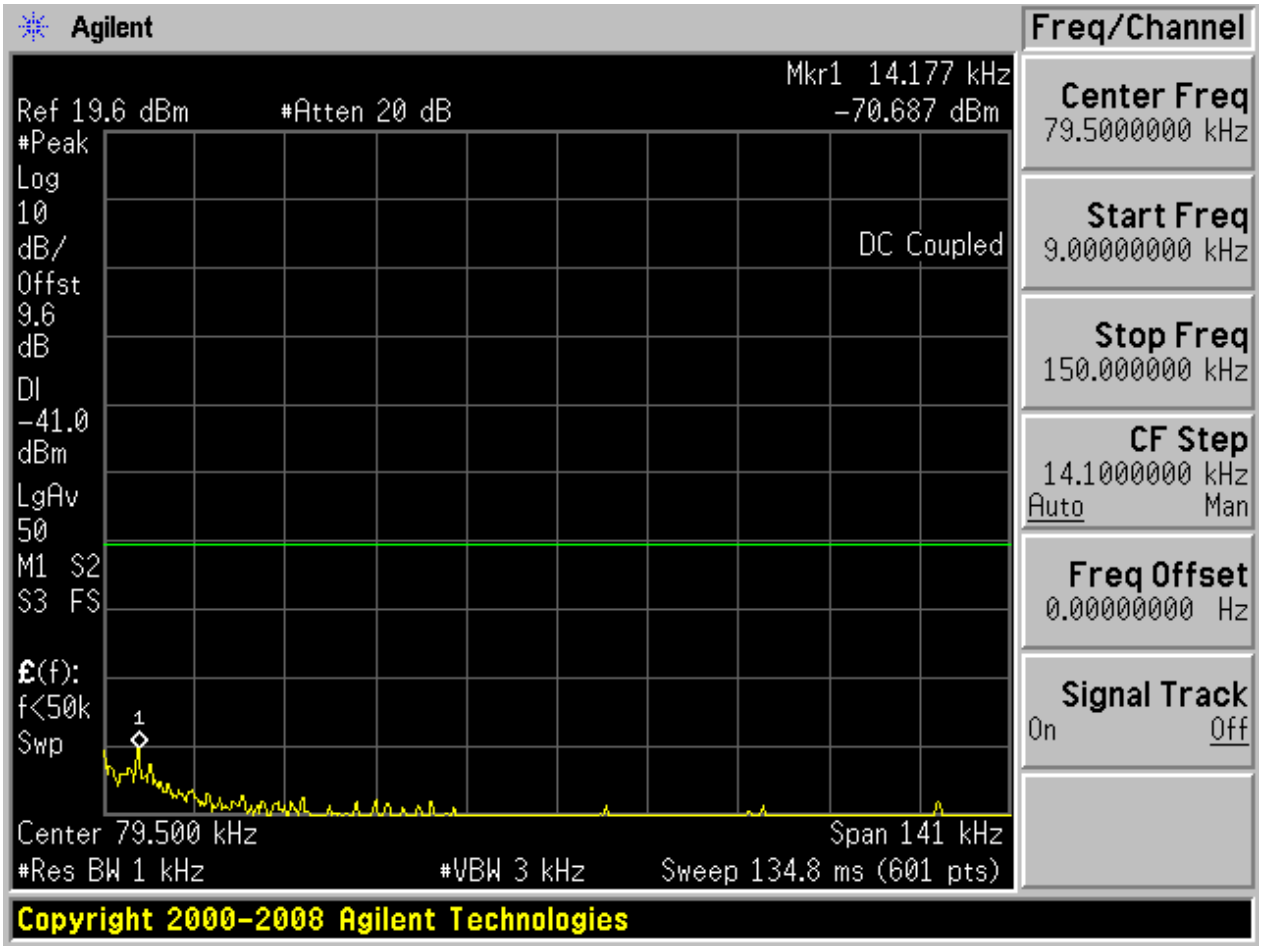


Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

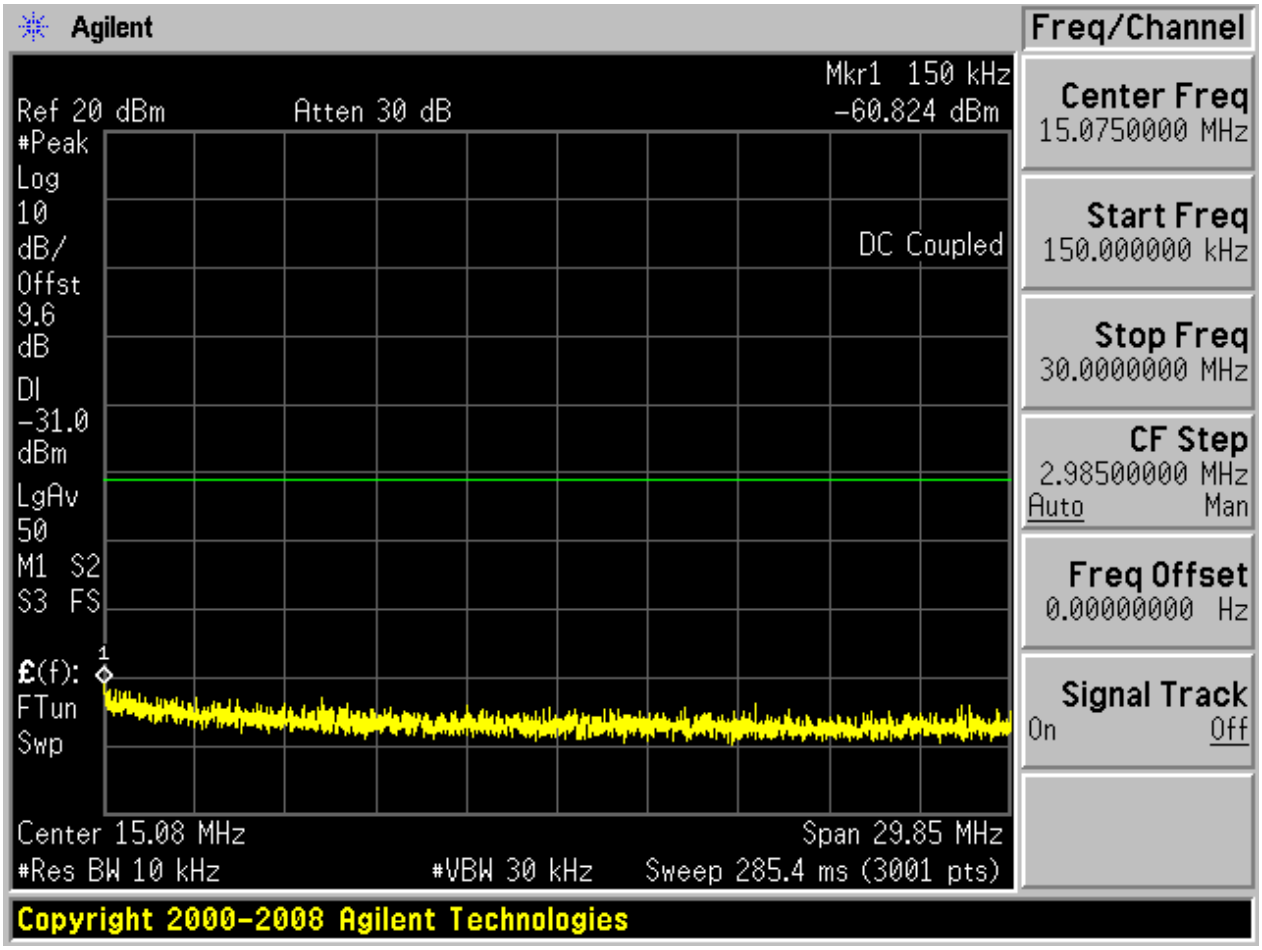
2.2.2 Puw:

9k - 150k



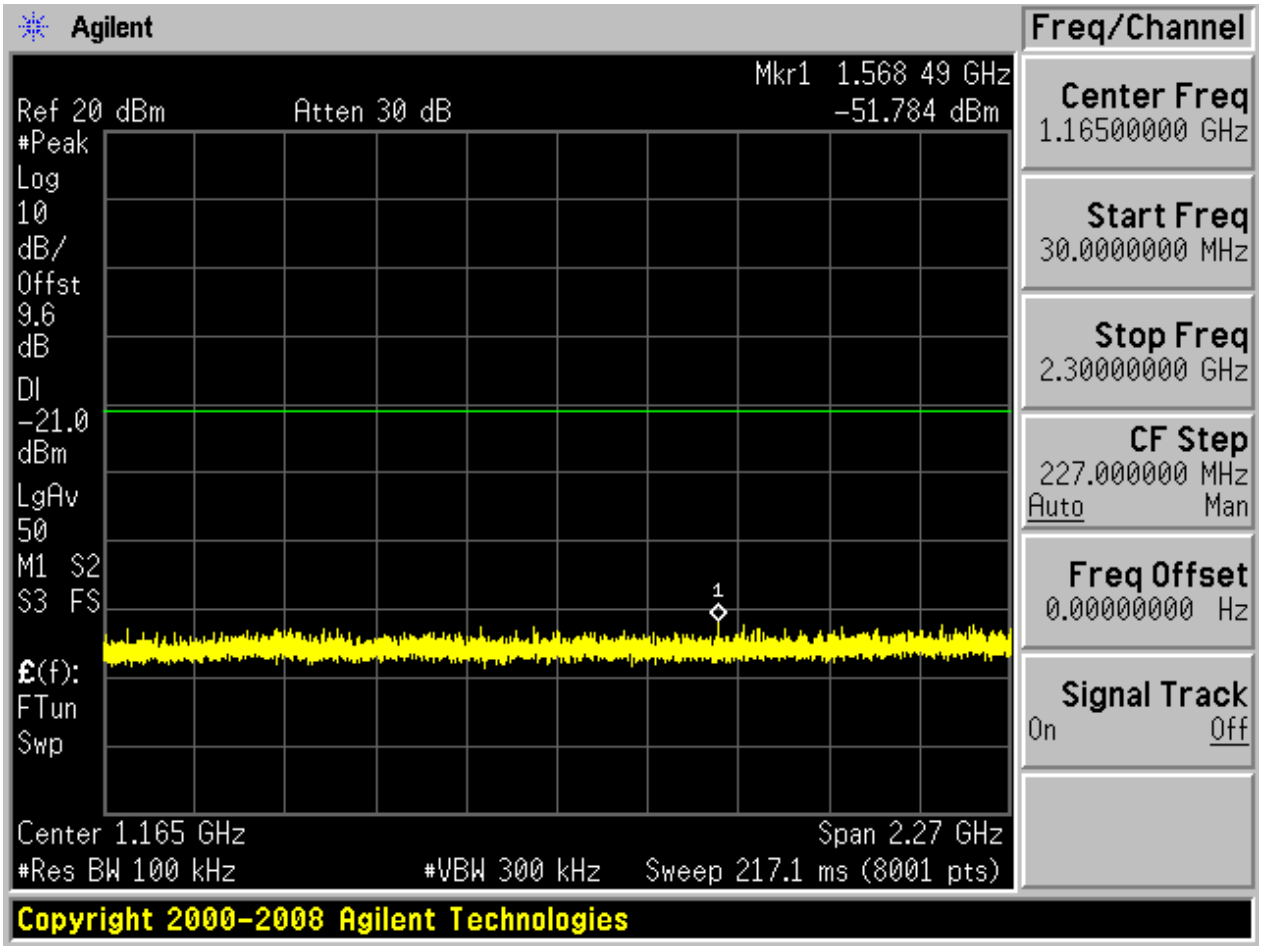
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



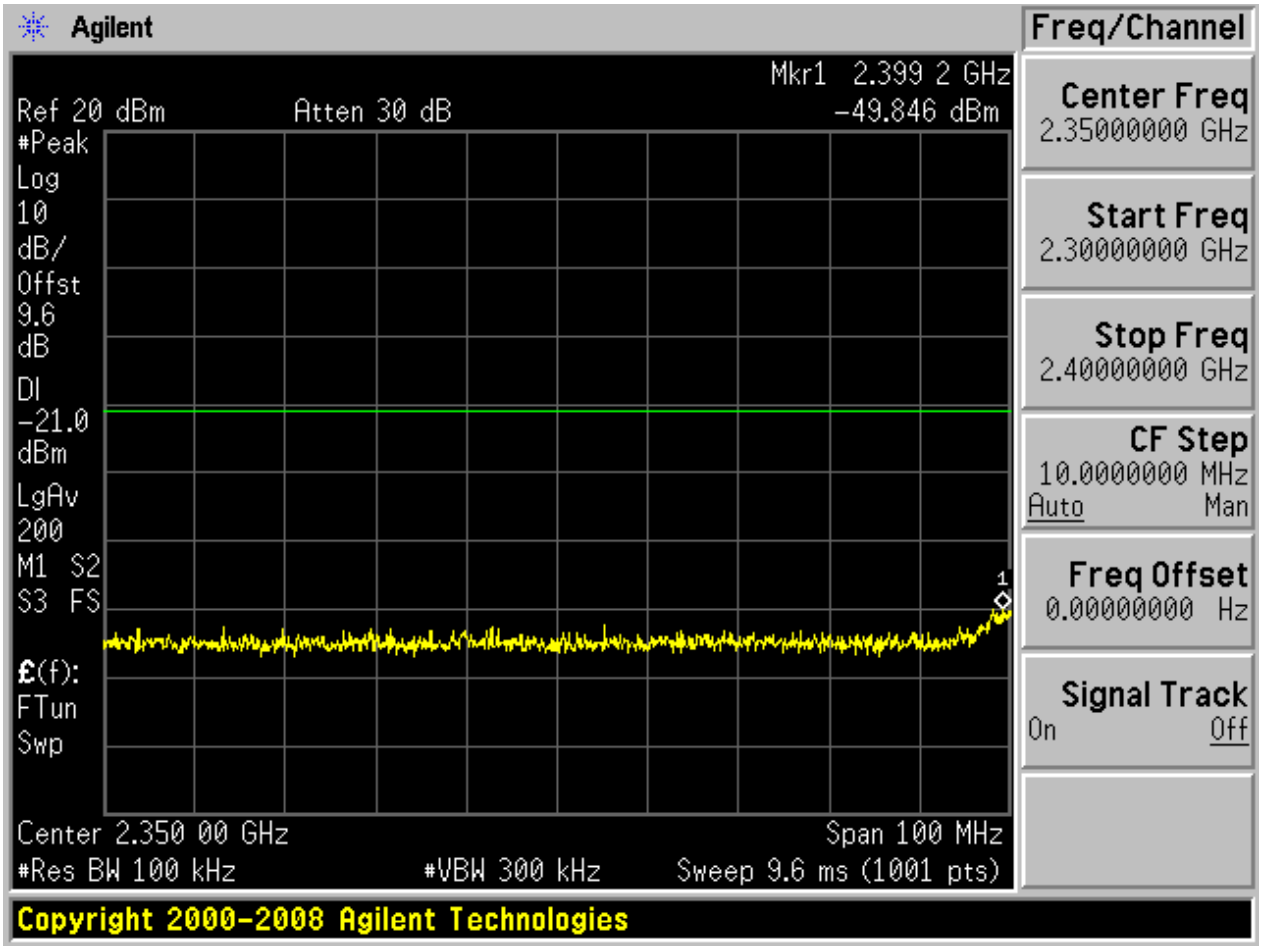
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



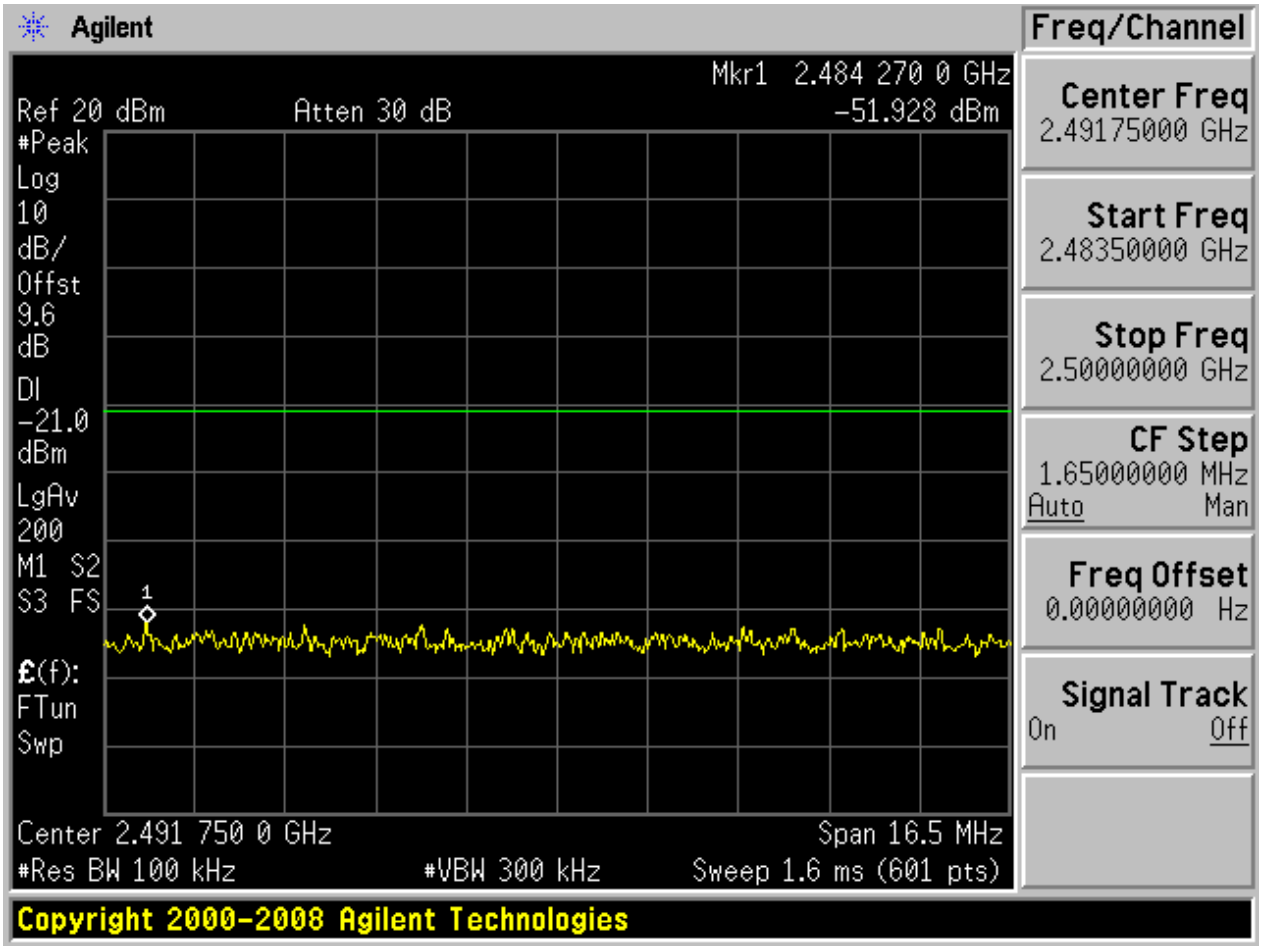
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



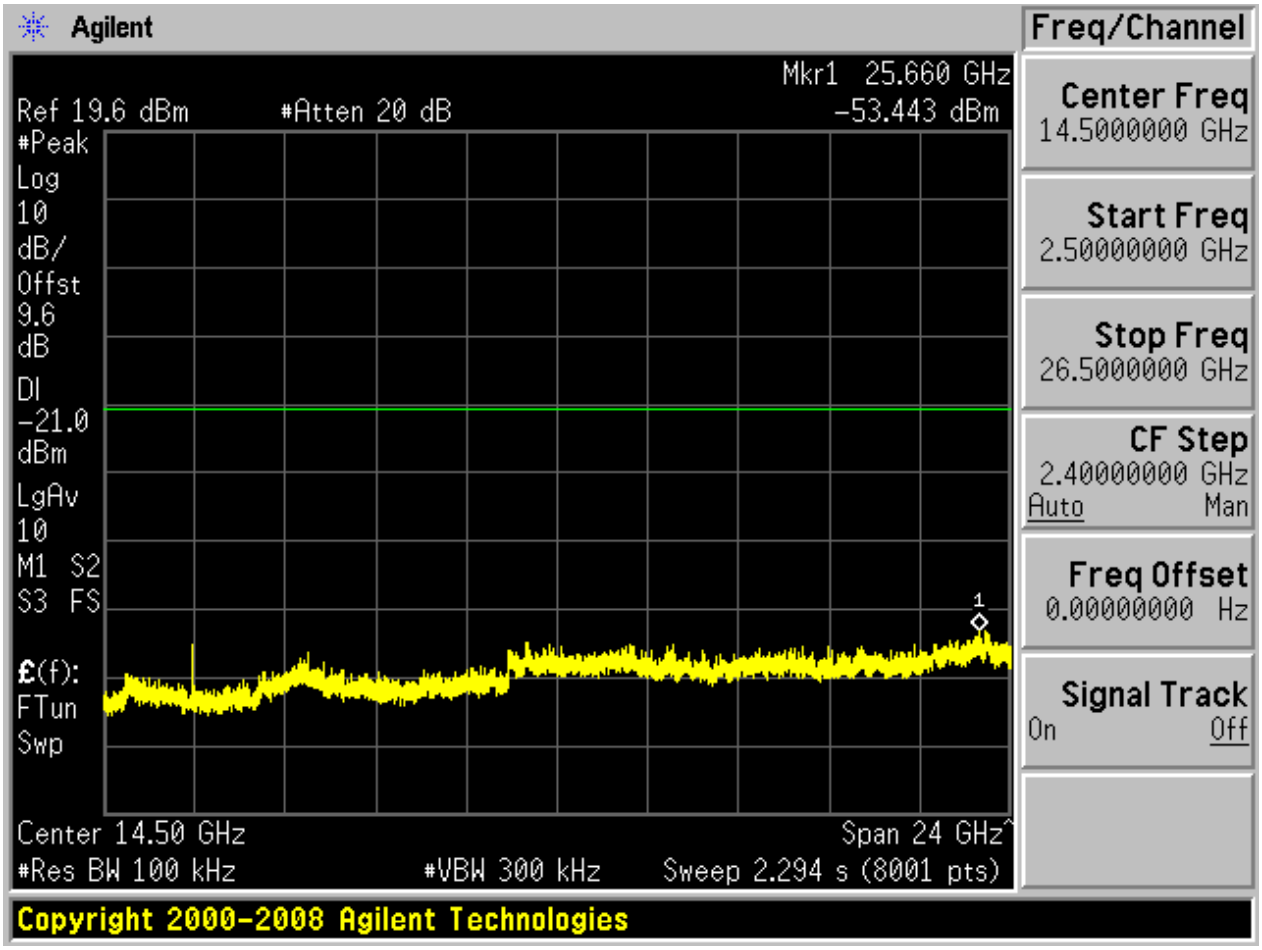
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Copyright © Huawei Technologies Co., Ltd.

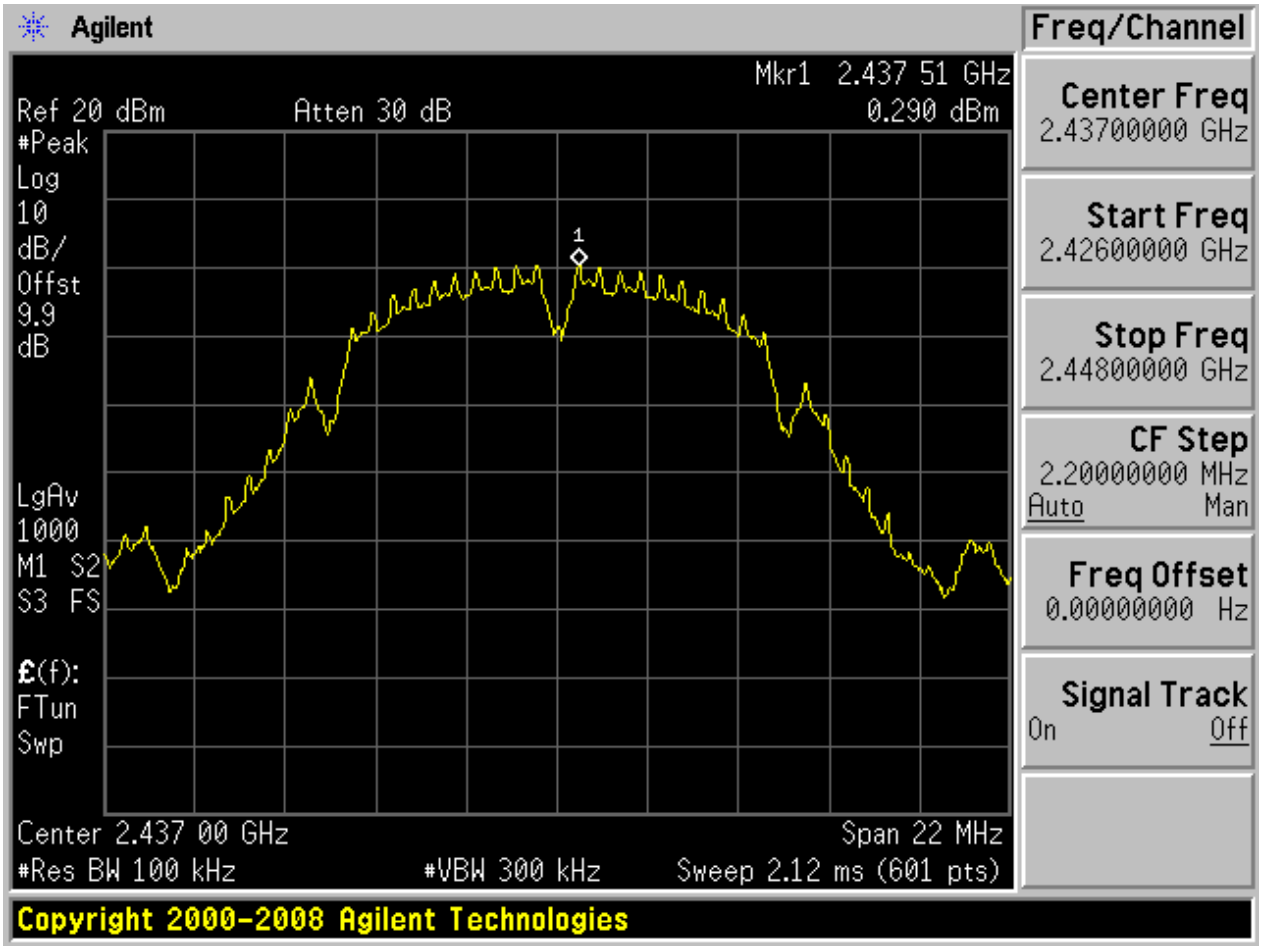
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3 11B_M@Ant1

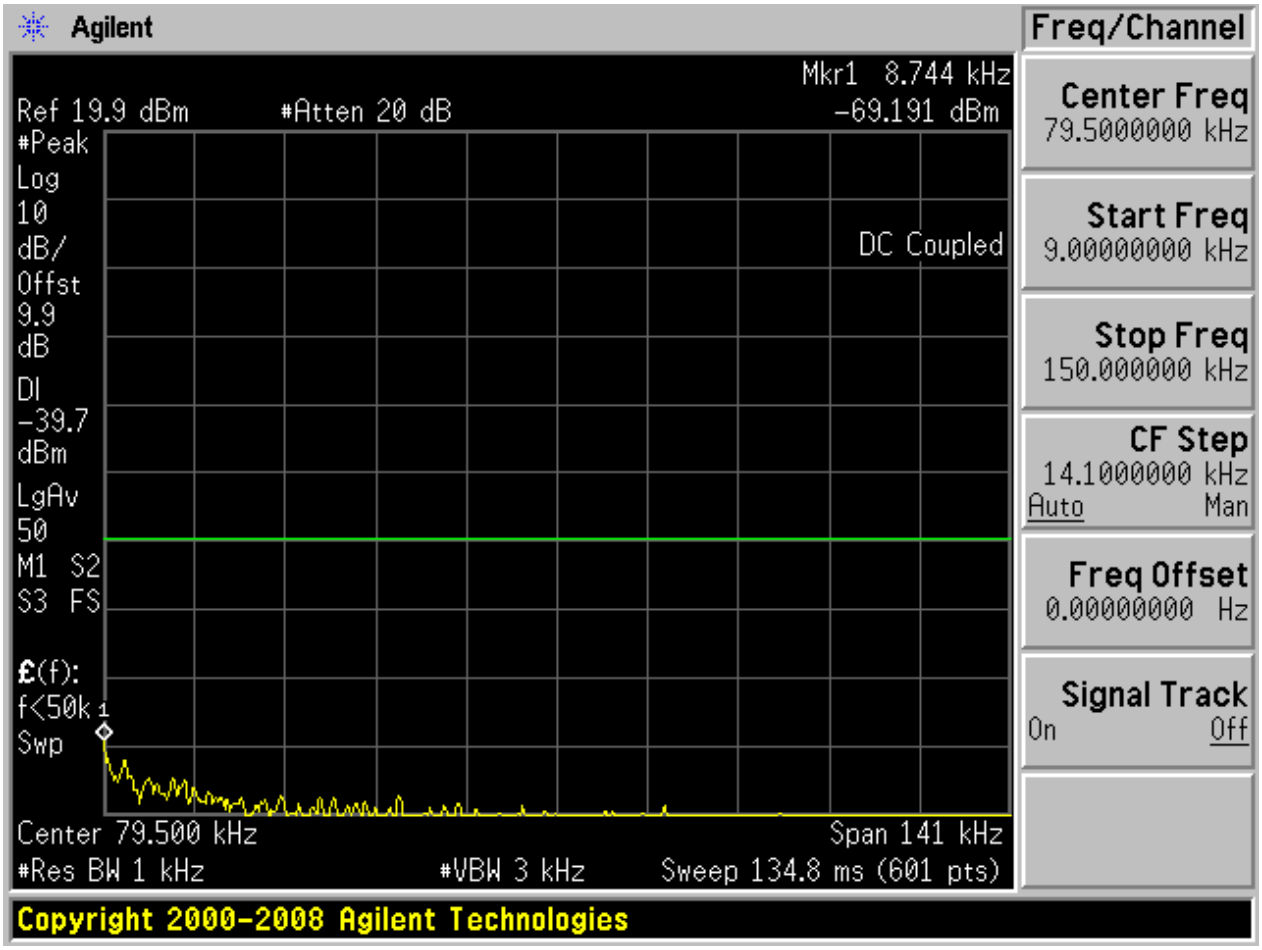
2.3.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

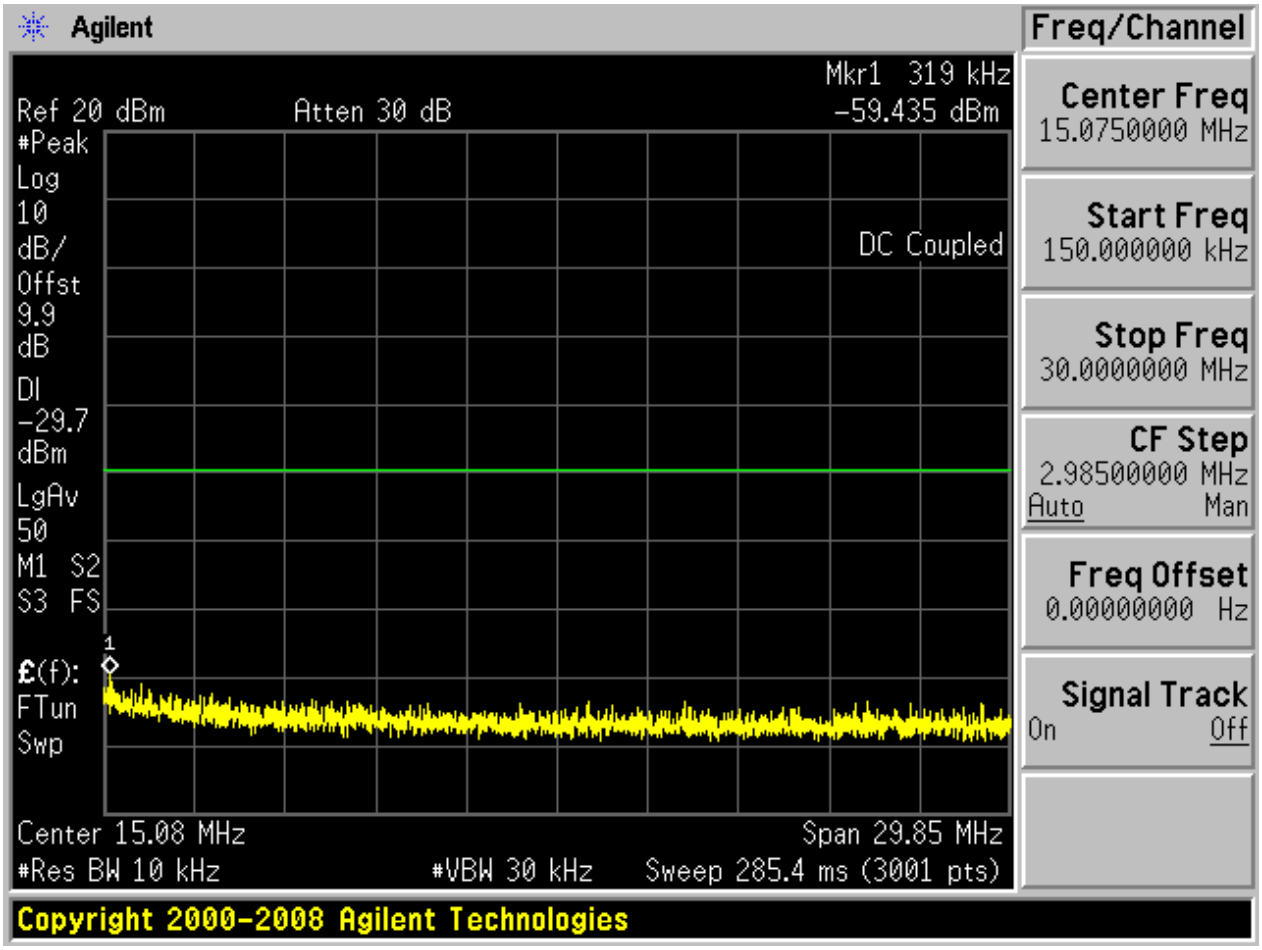
2.3.2 Puw:

9k - 150k



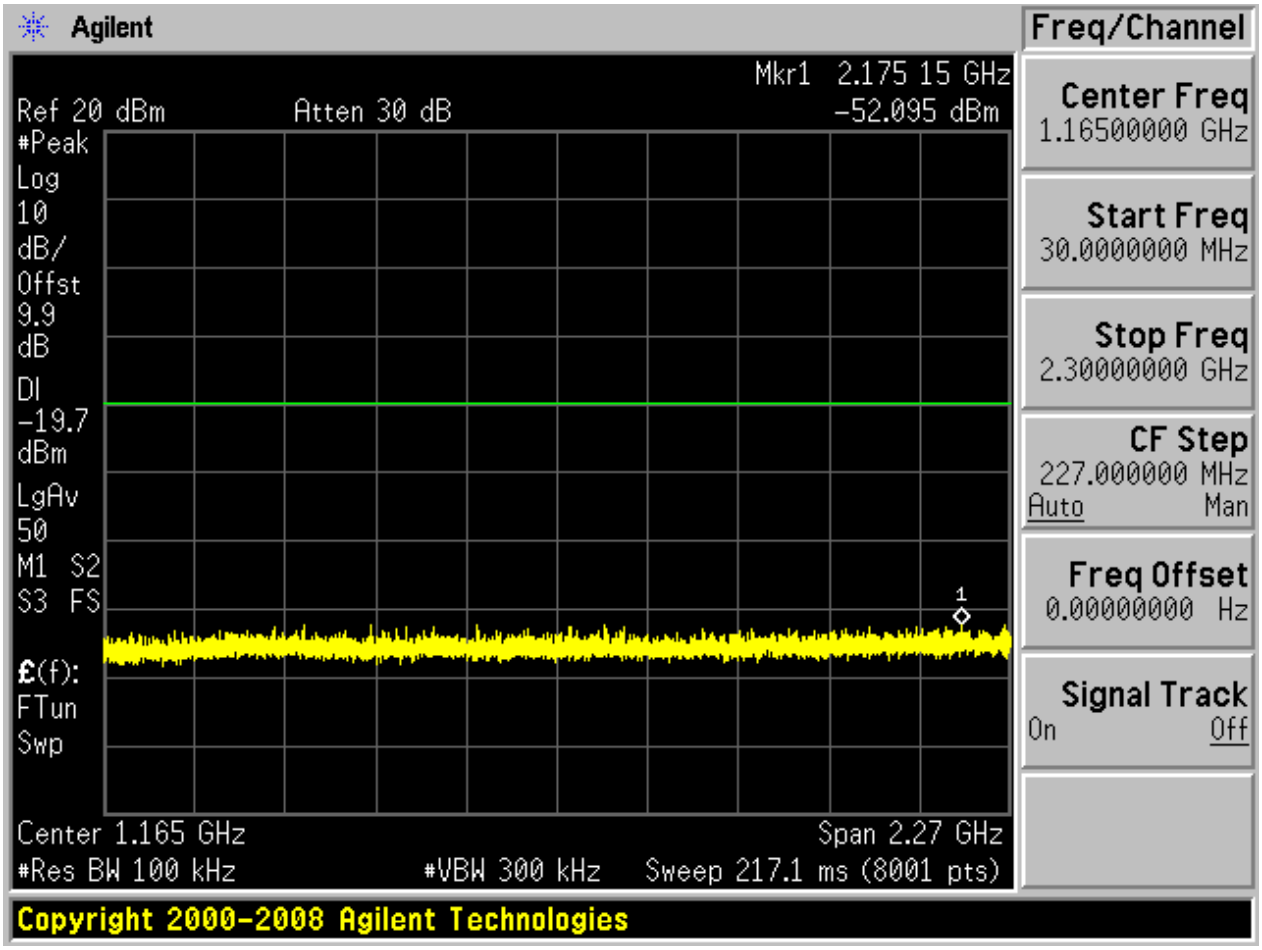
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



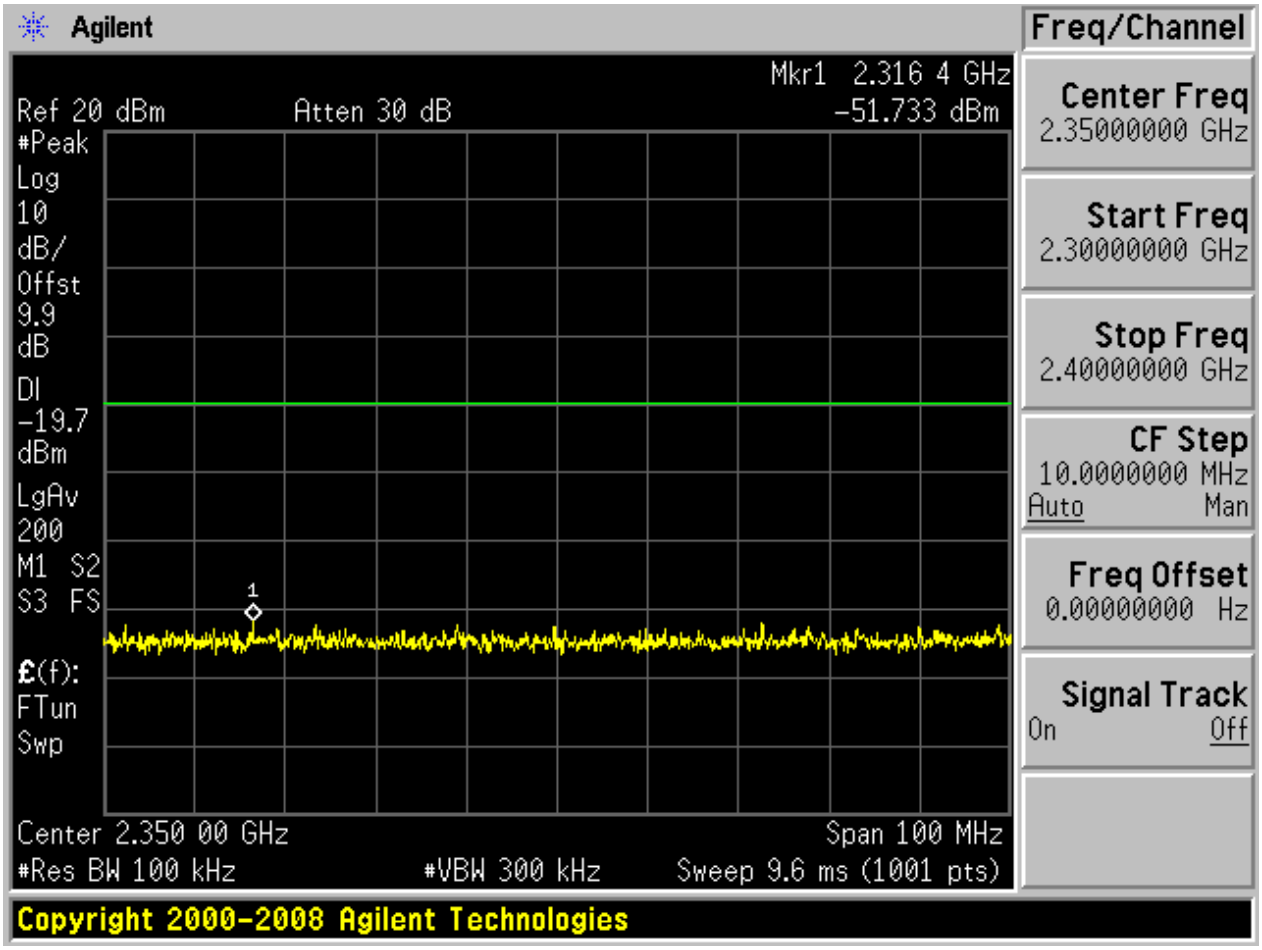
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



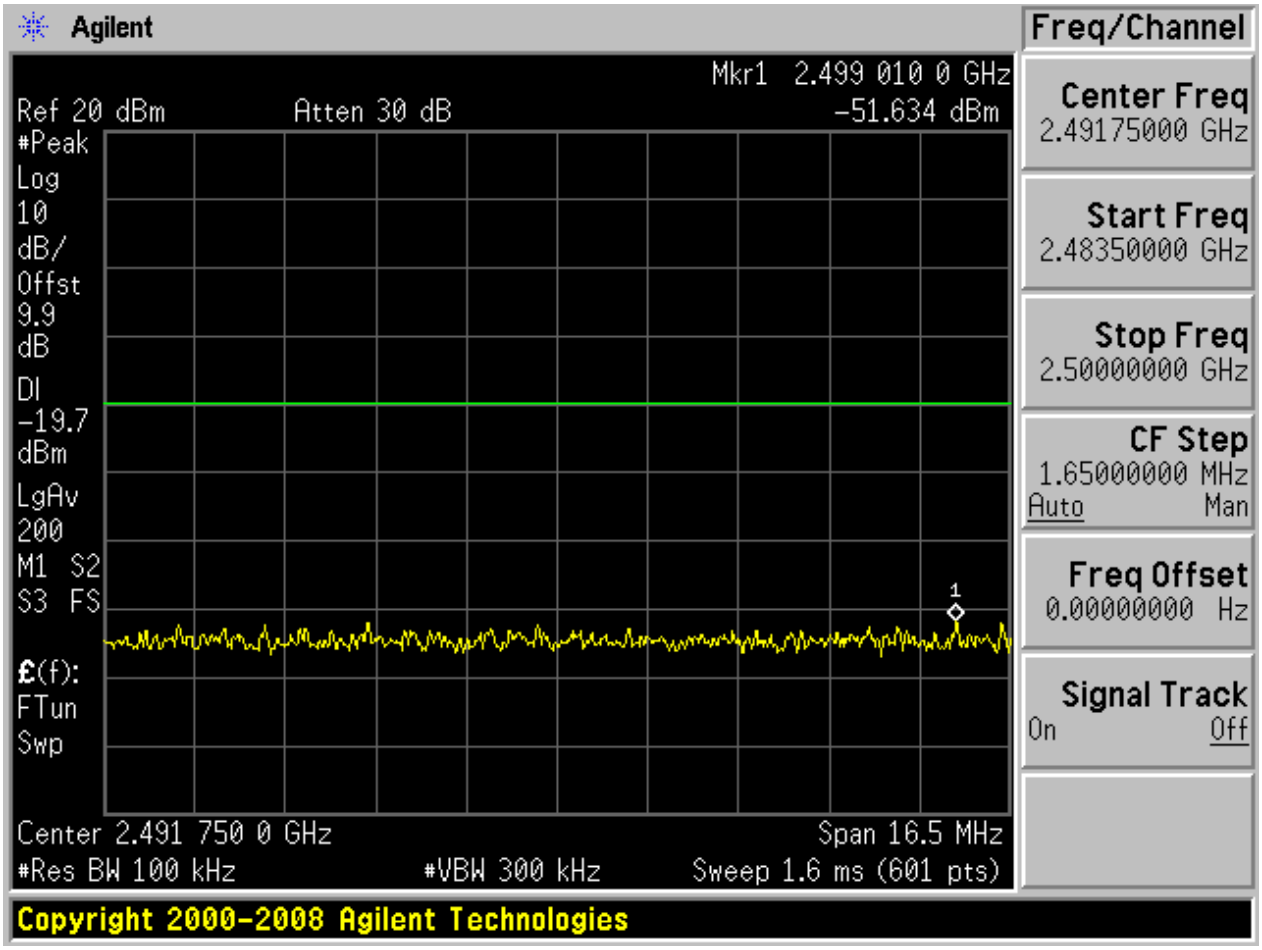
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



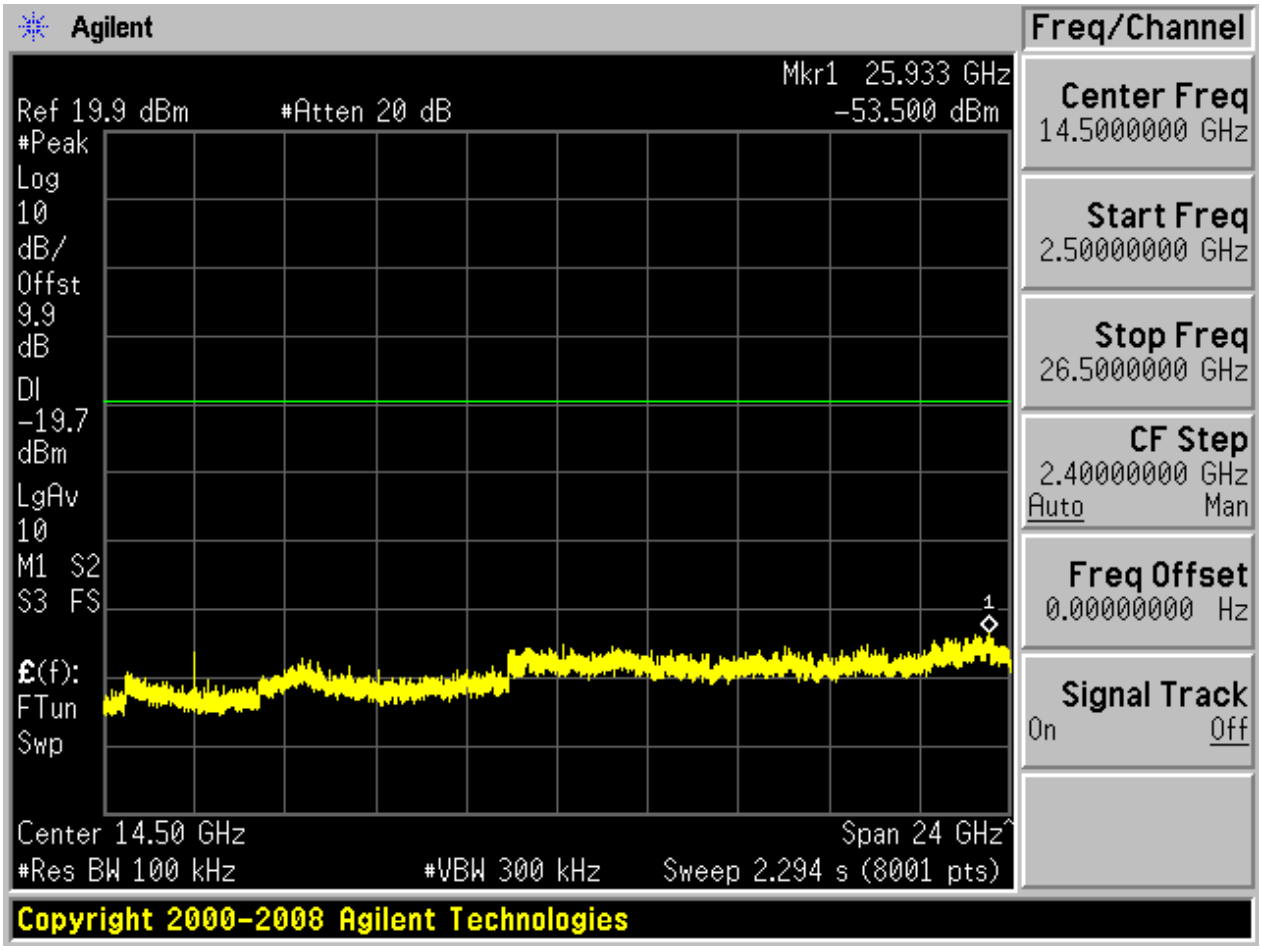
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Copyright © Huawei Technologies Co., Ltd.

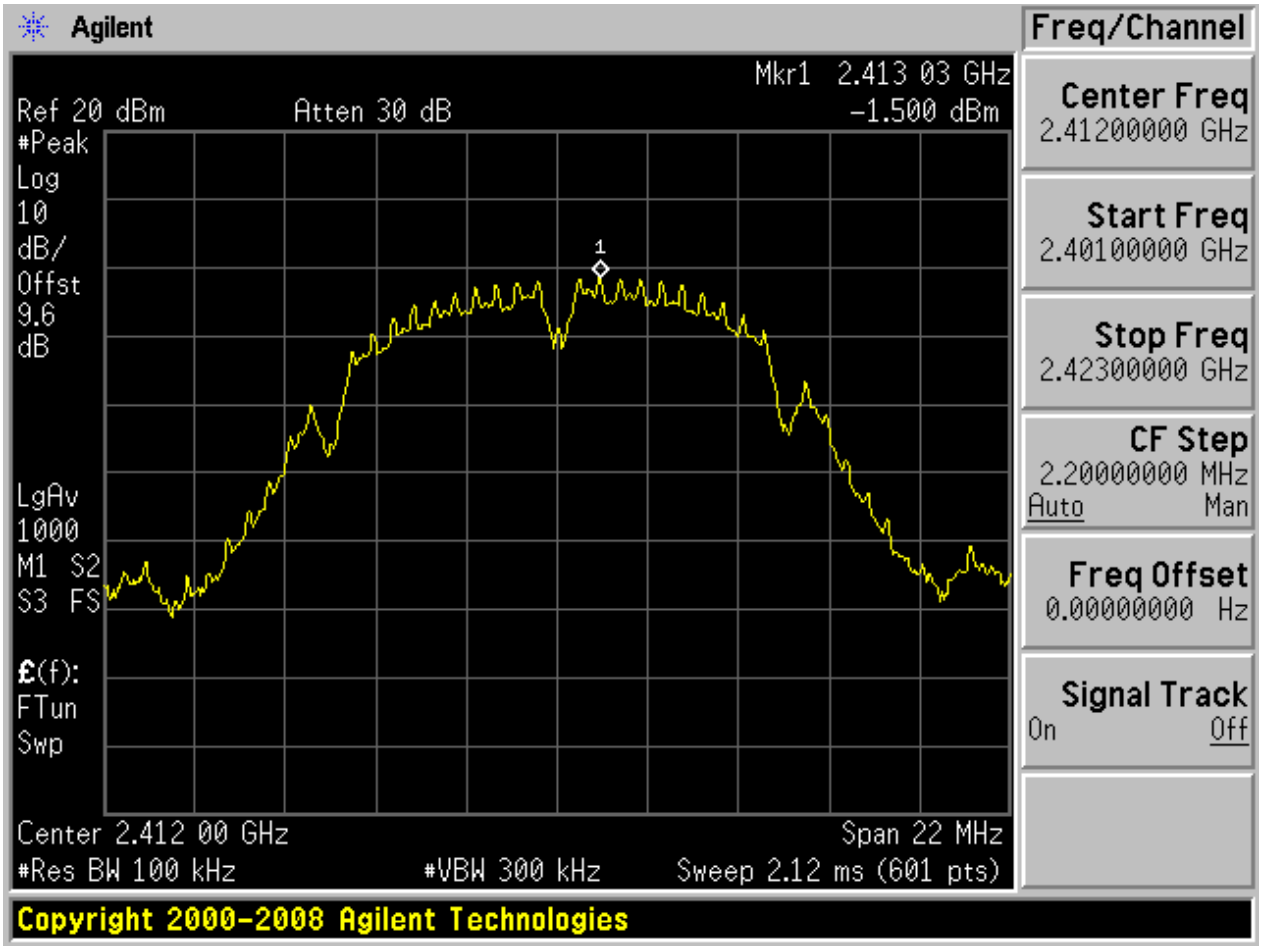
2.5G - 26.5G



Copyright © Huawei Technologies Co., Ltd.

2.4 11B_M@Ant2

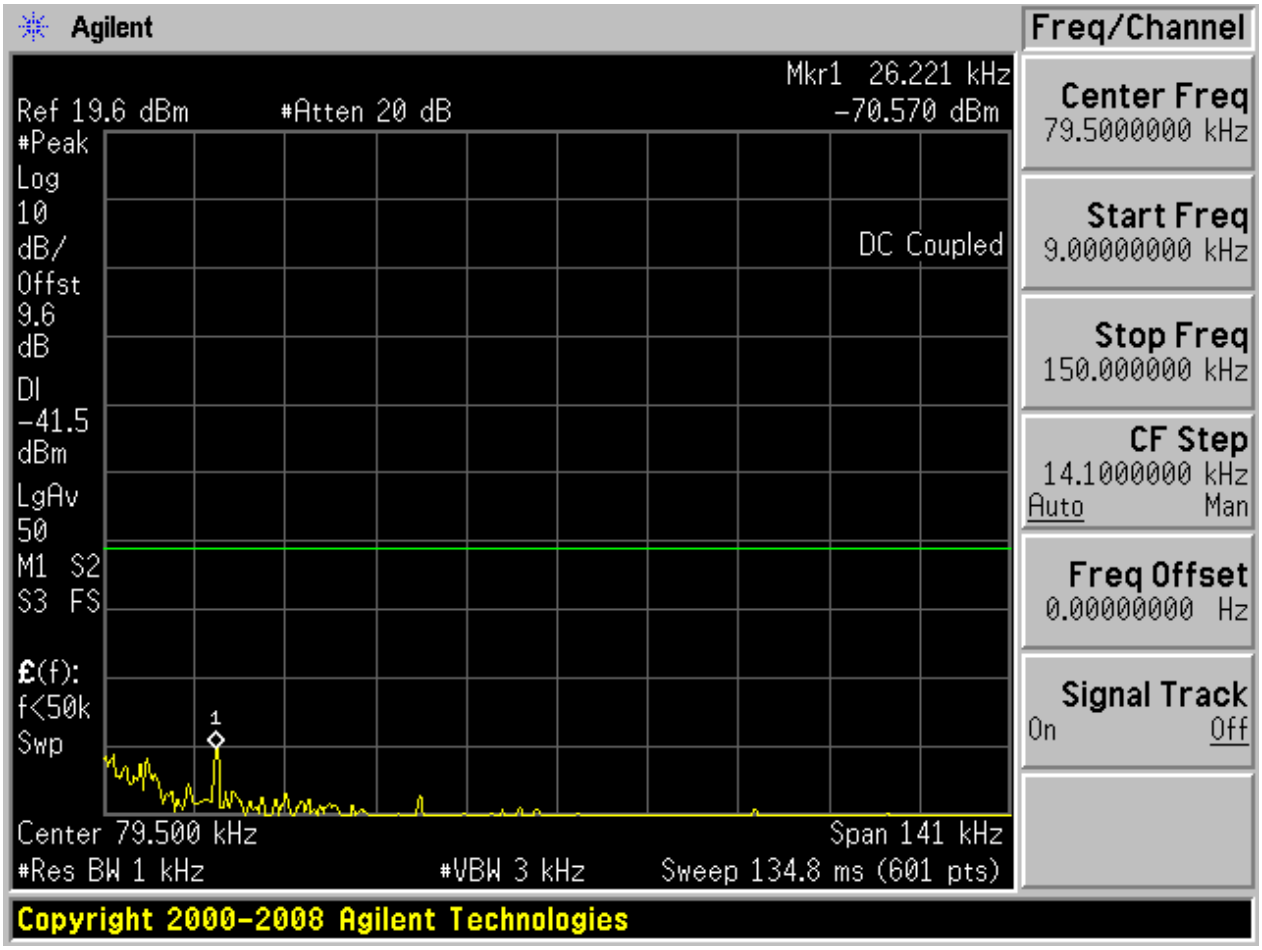
2.4.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

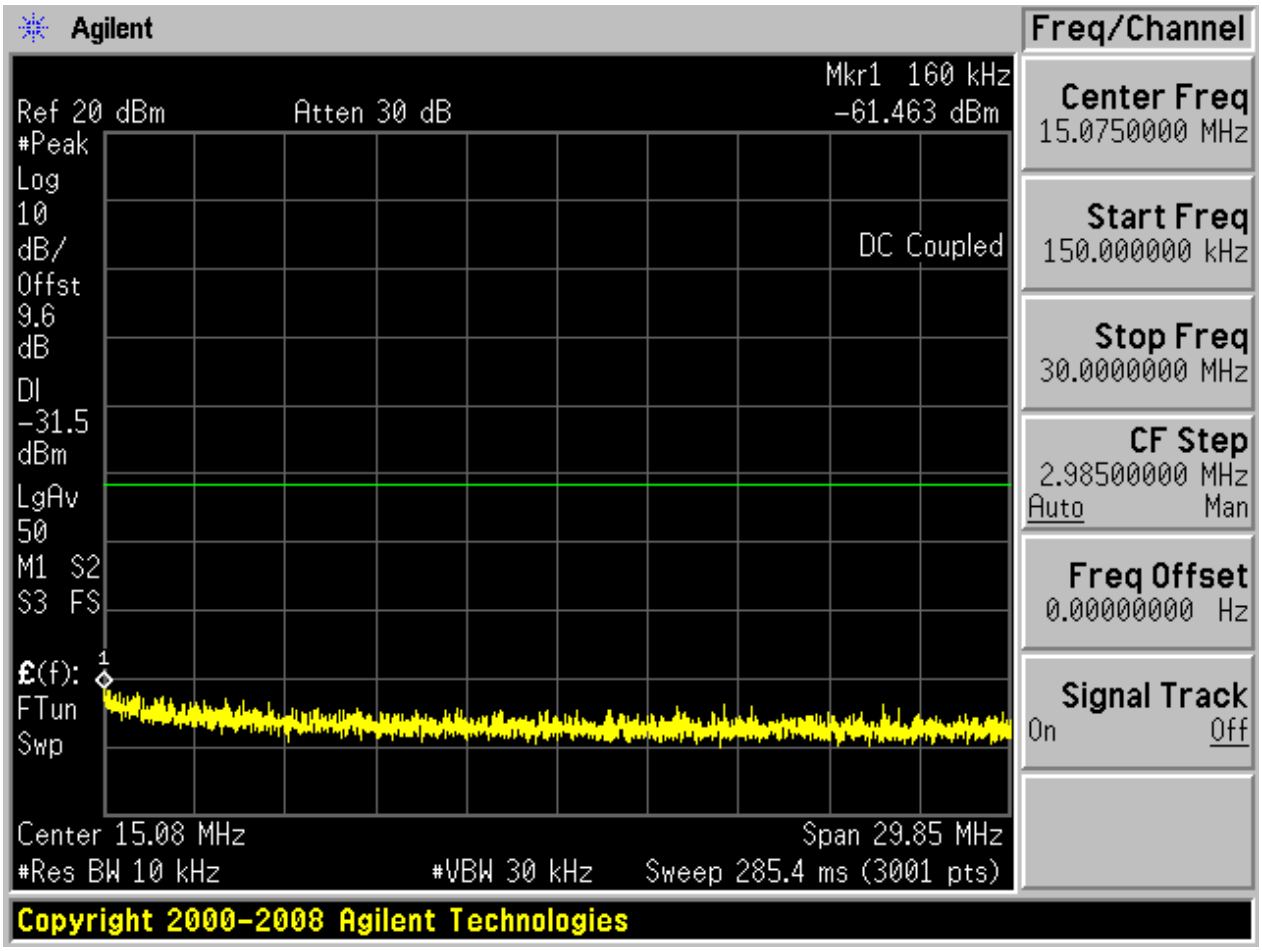
2.4.2 Puw:

9k – 150k



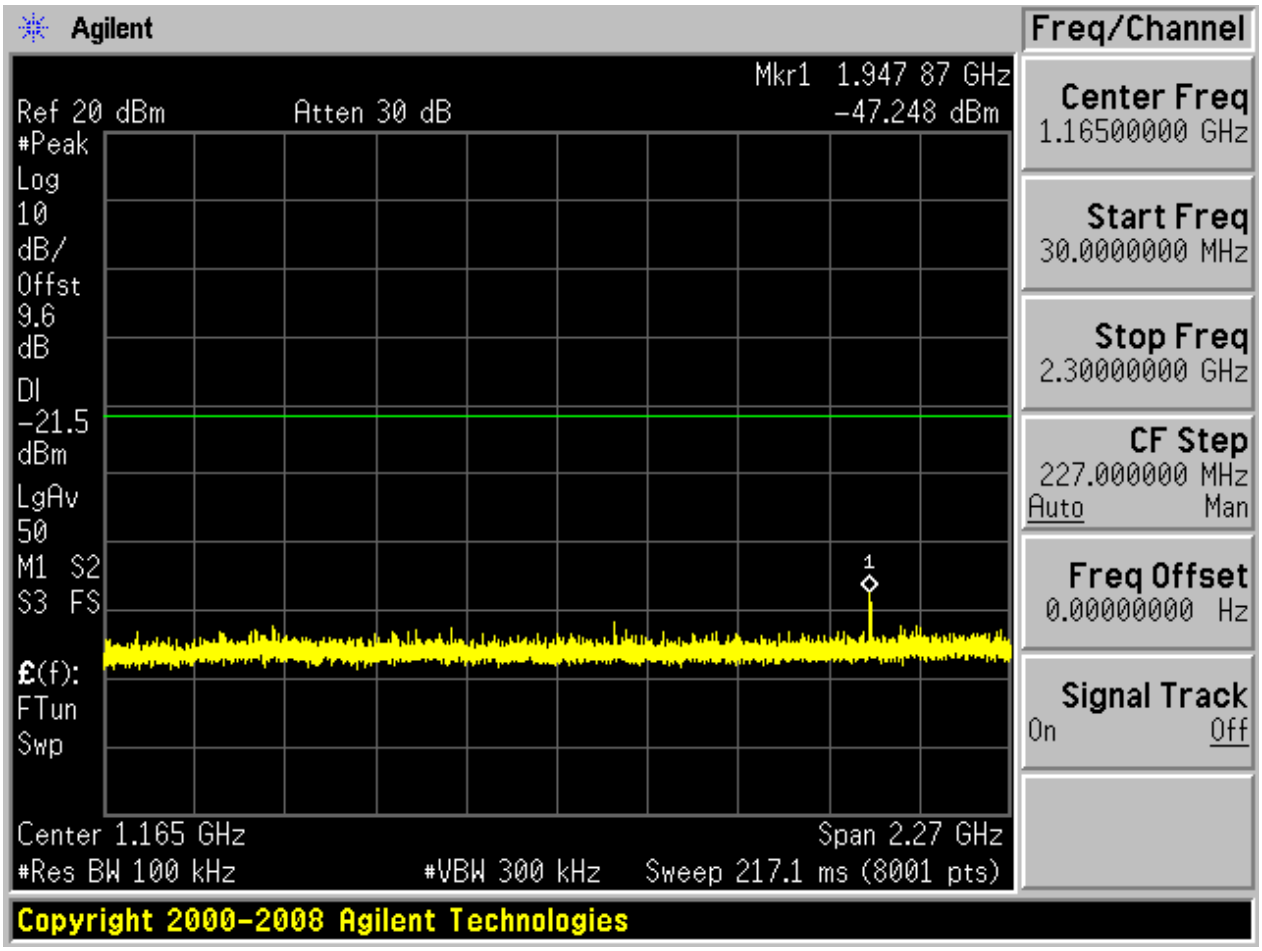
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

150k – 30M



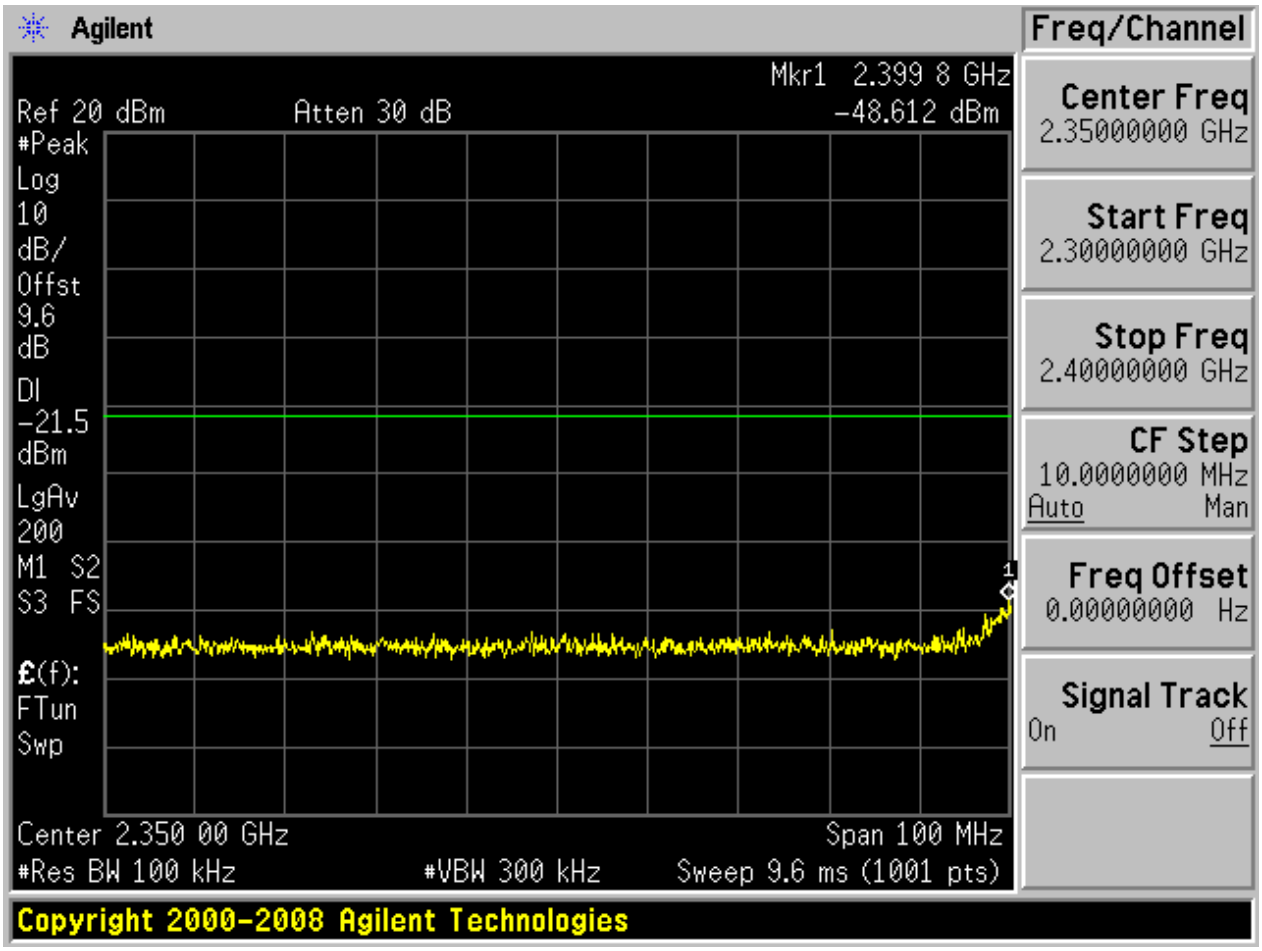
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

30M – 2.3G



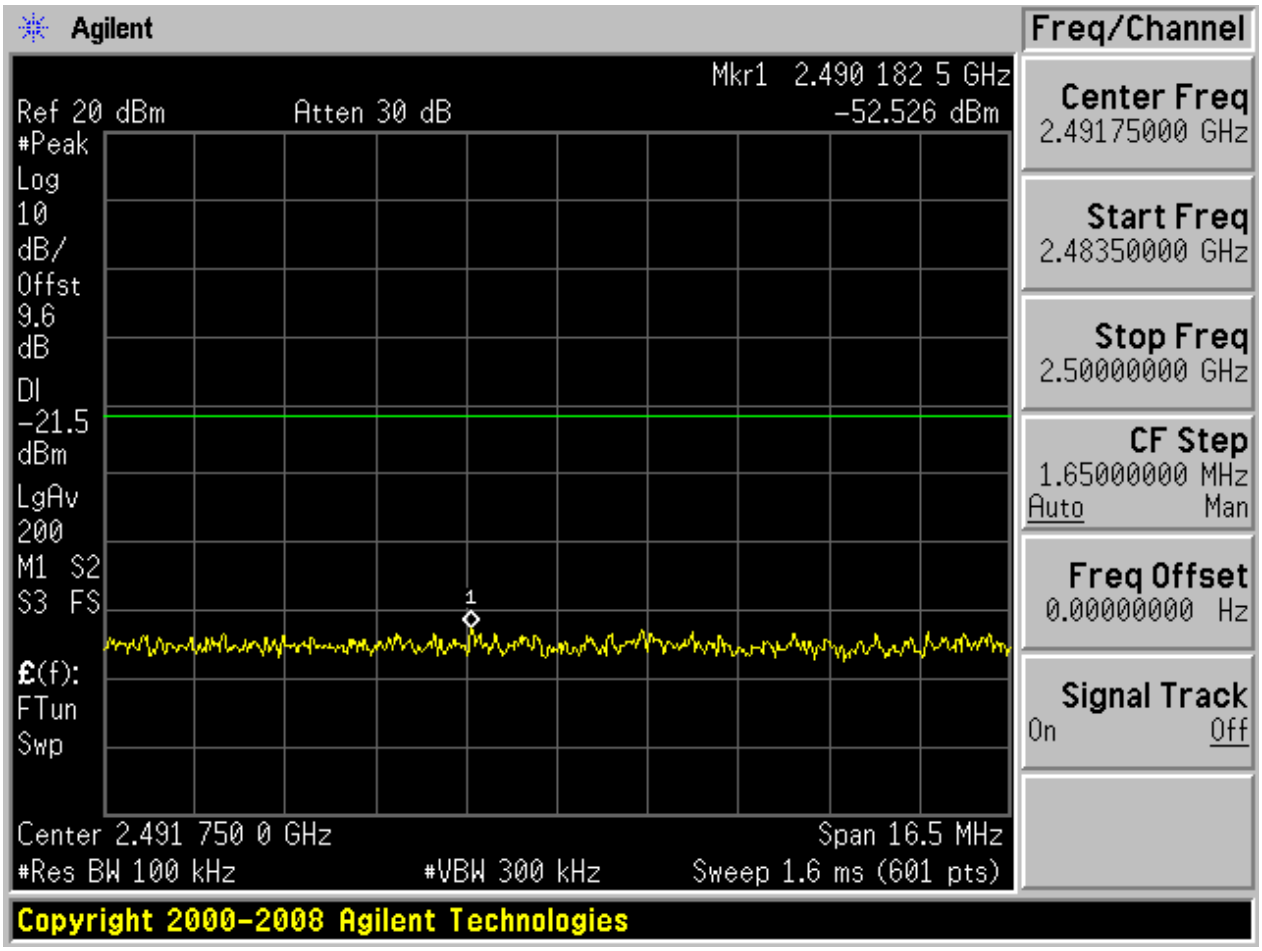
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G – 2.4G



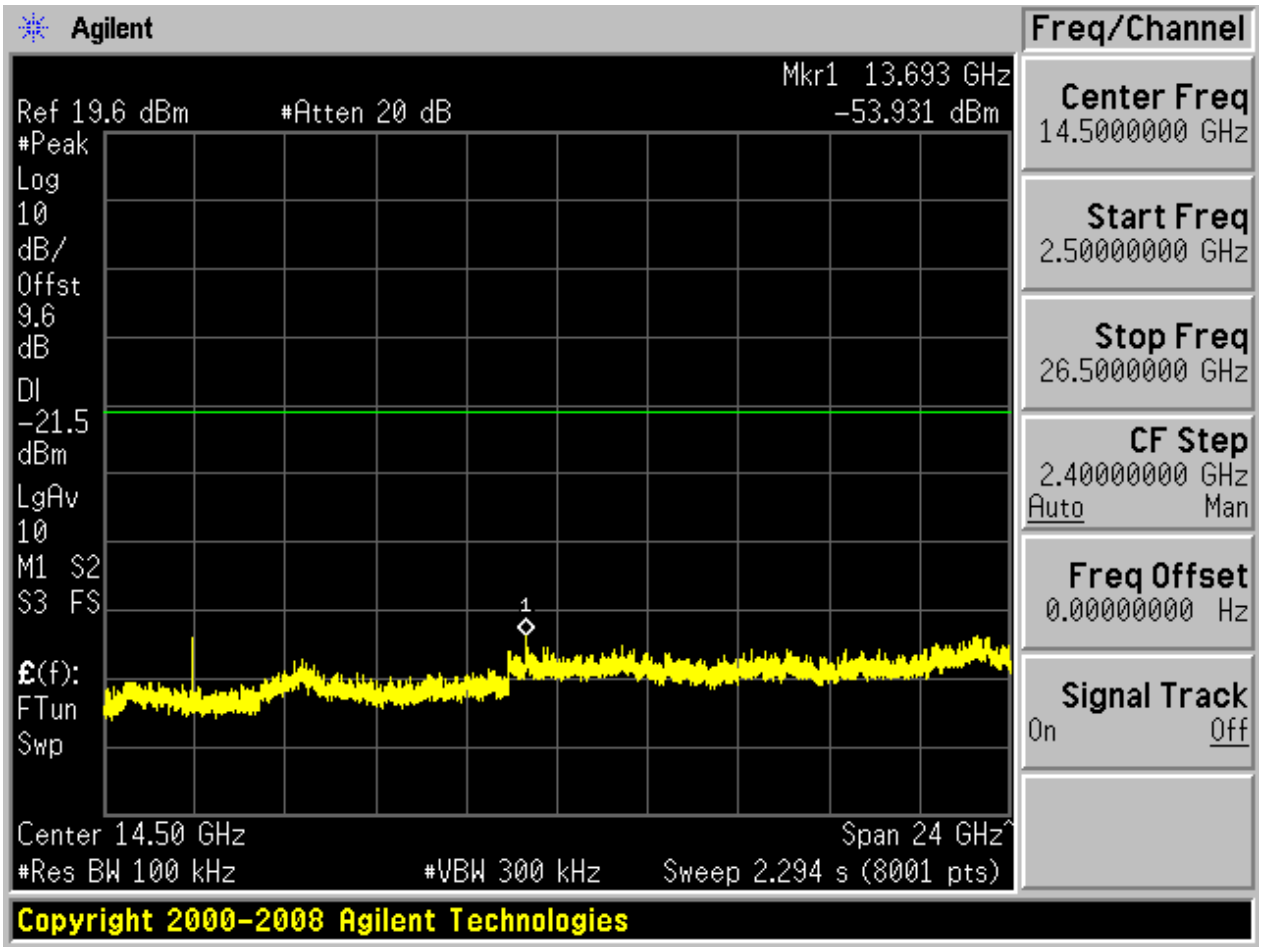
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4835G – 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

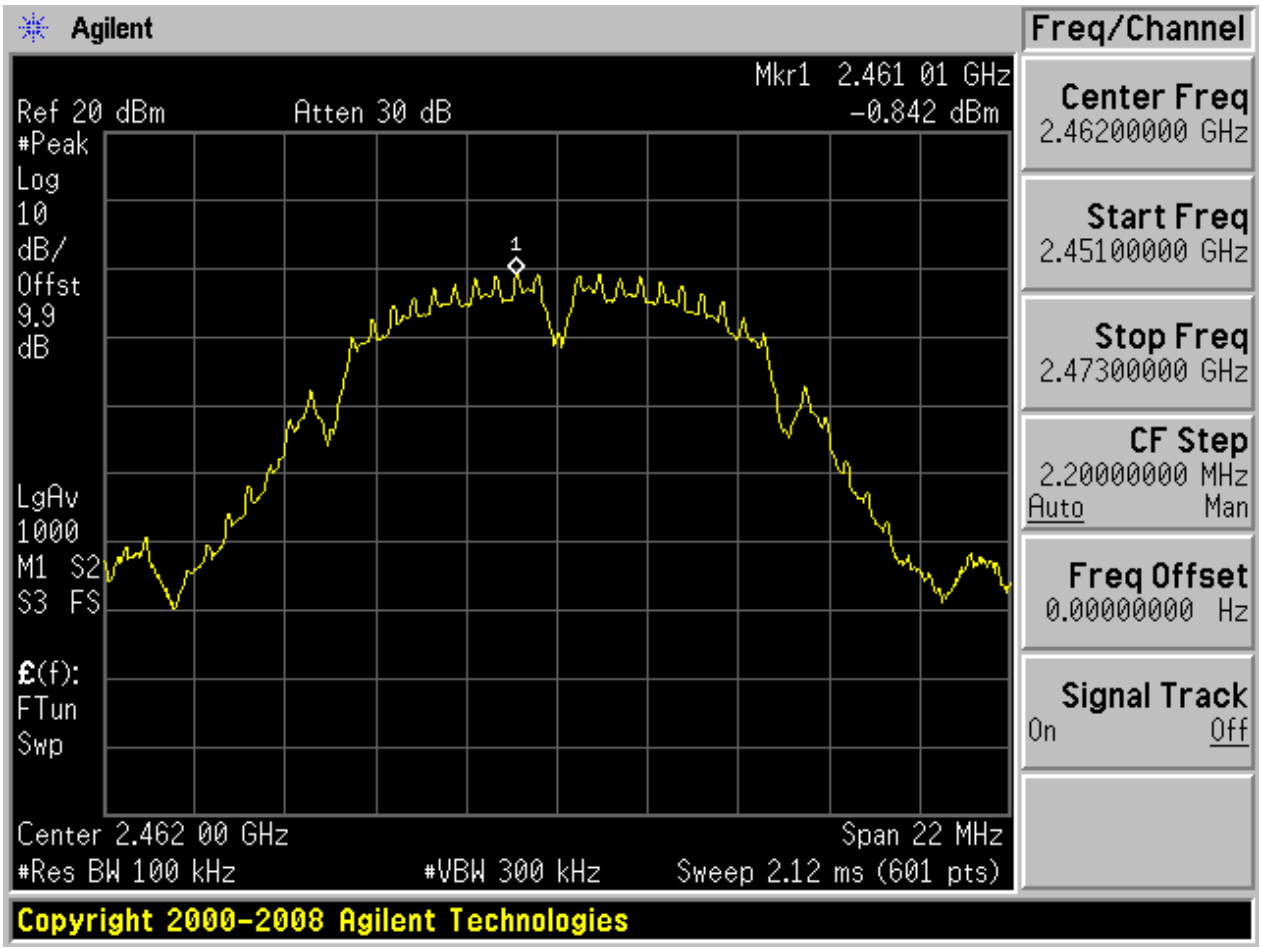
2.5G – 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.5 11B_T@Ant1

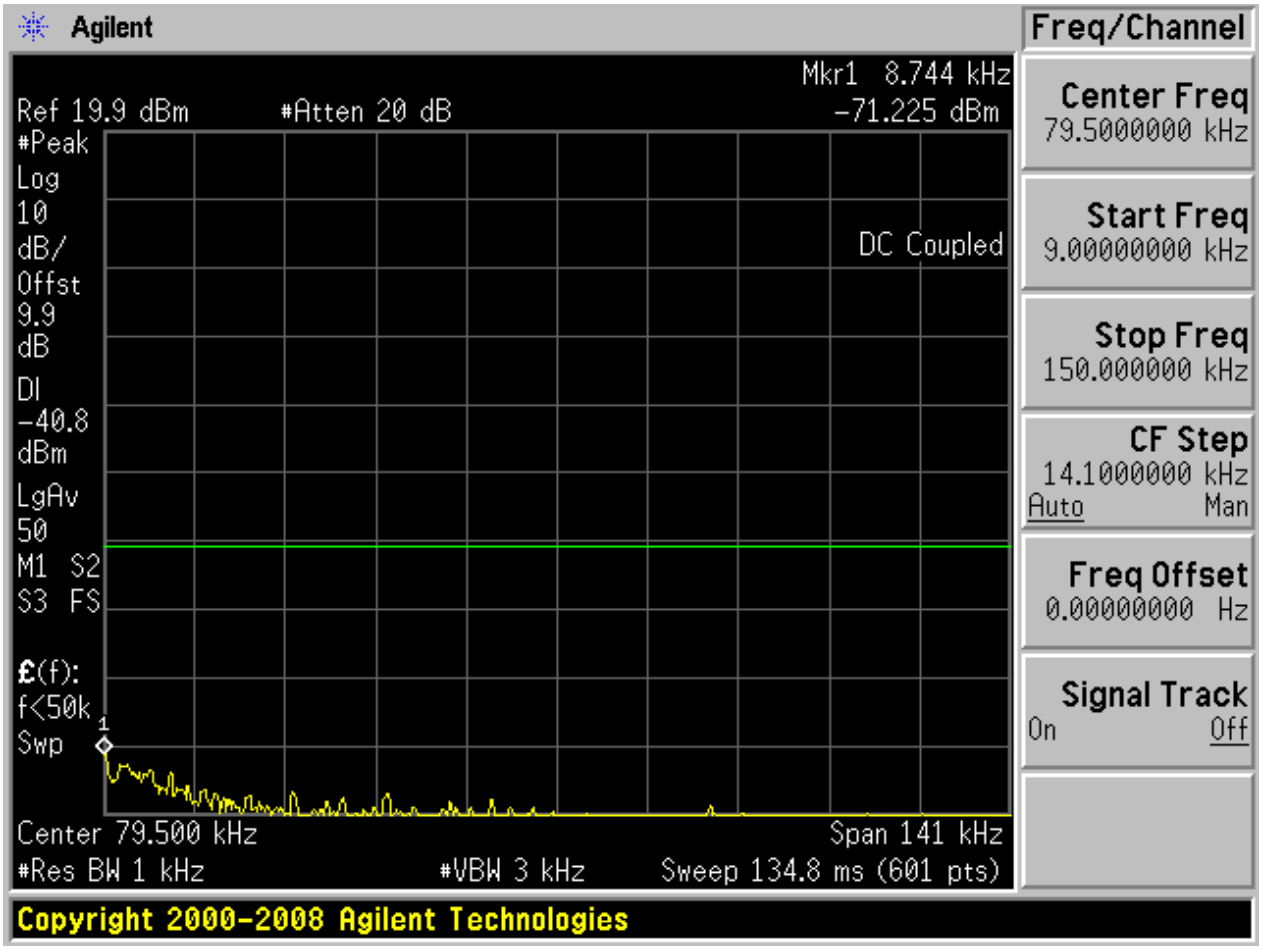
2.5.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

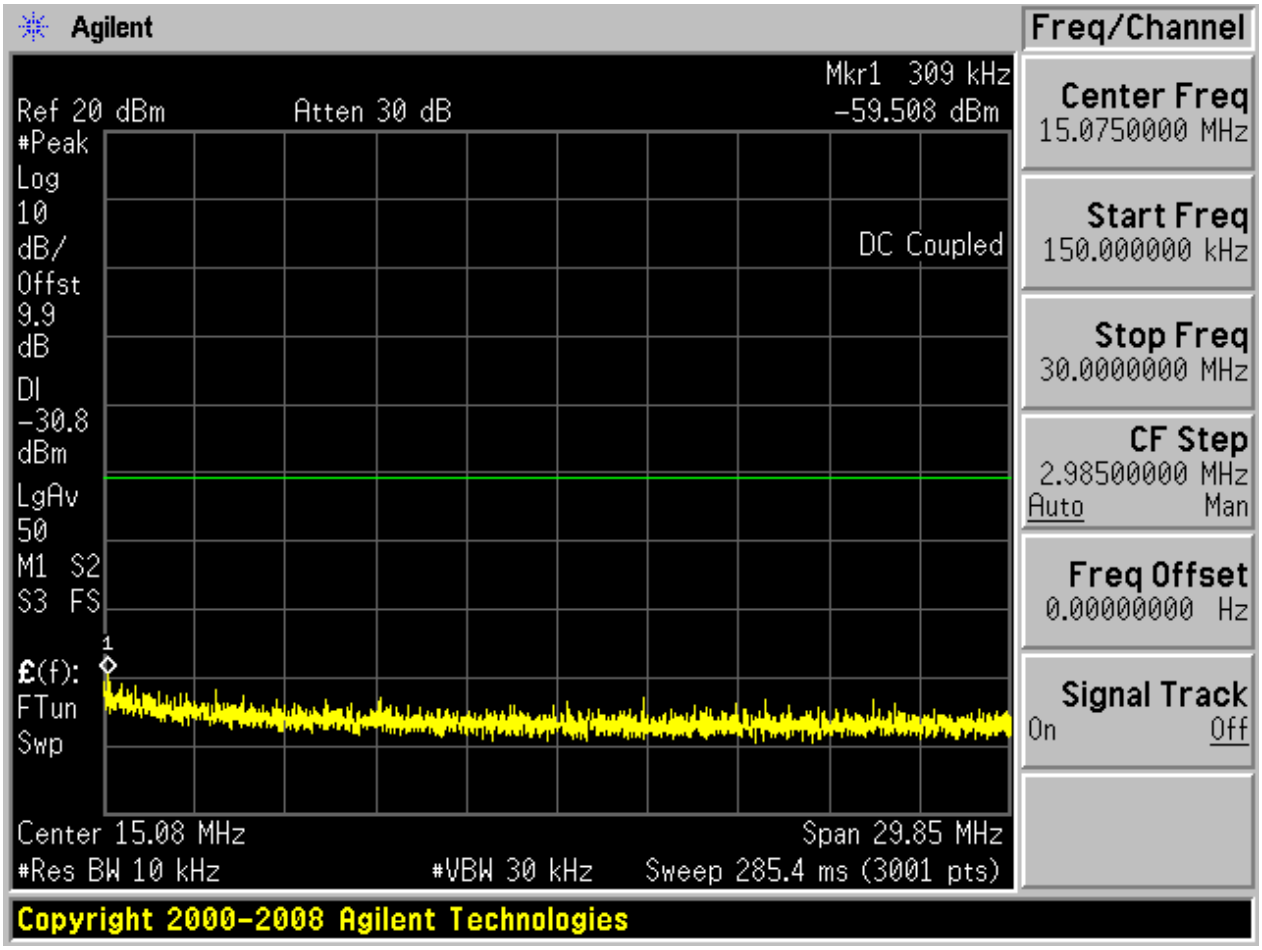
2.5.2 Puw:

9k - 150k



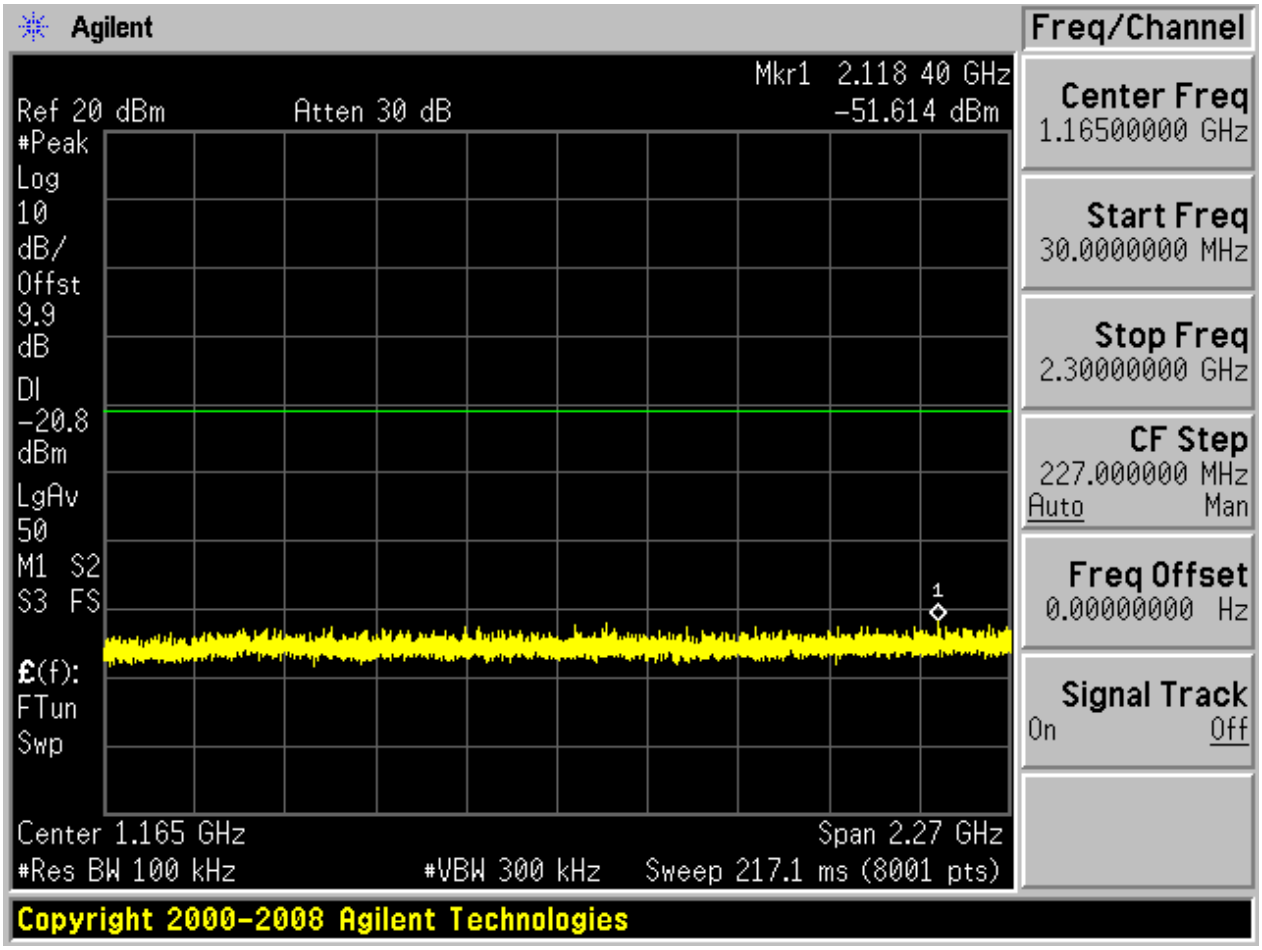
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



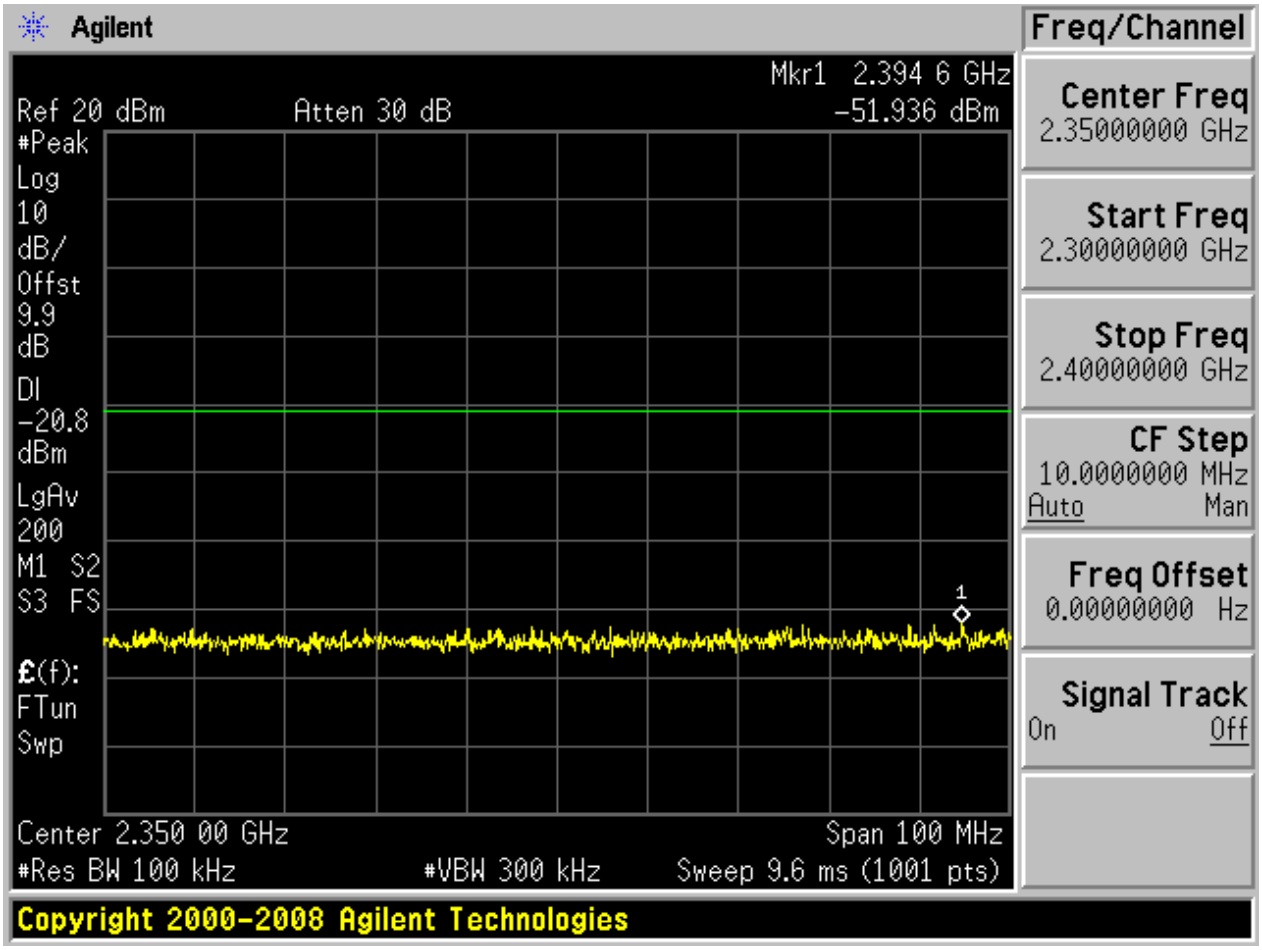
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



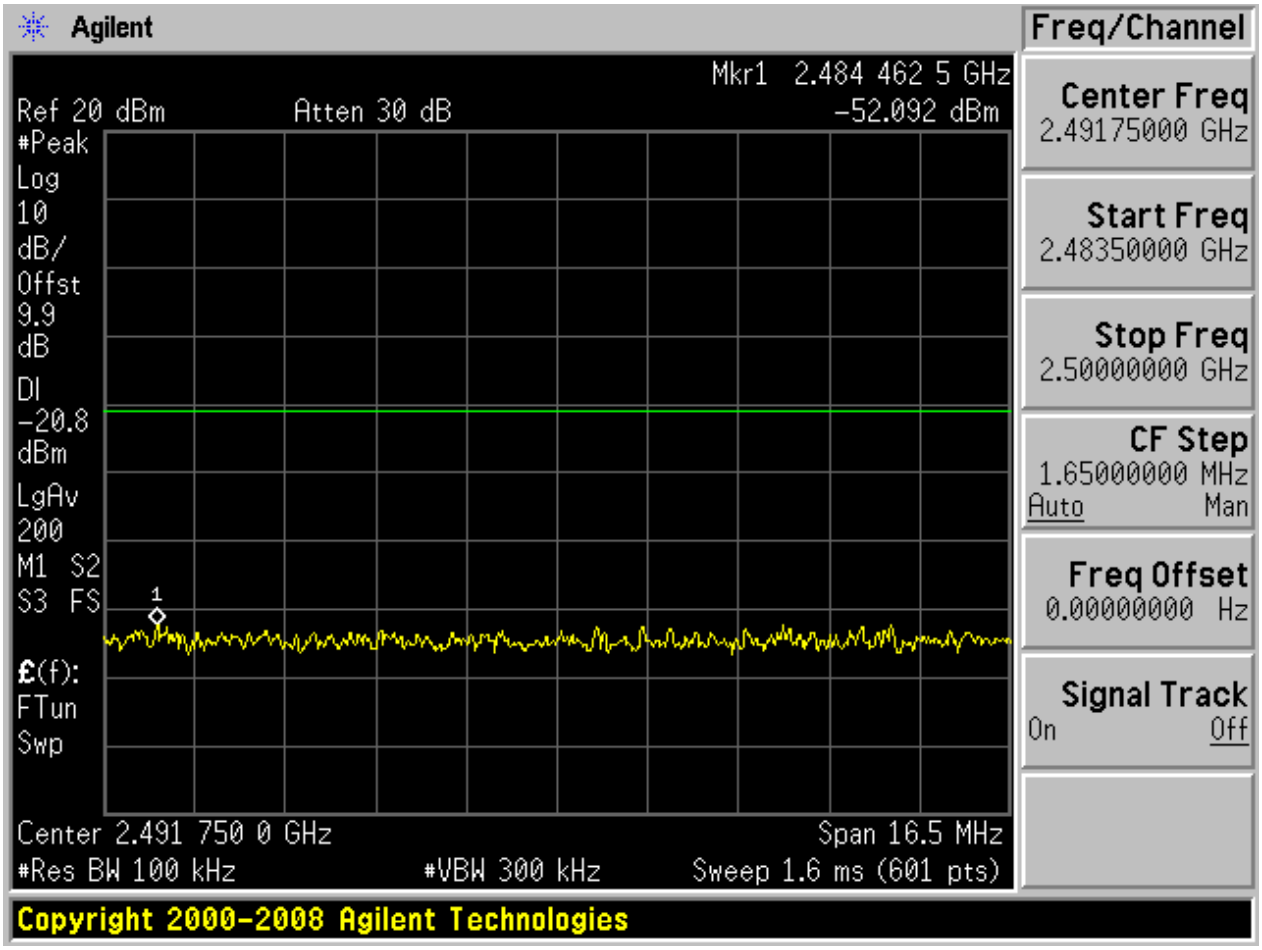
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



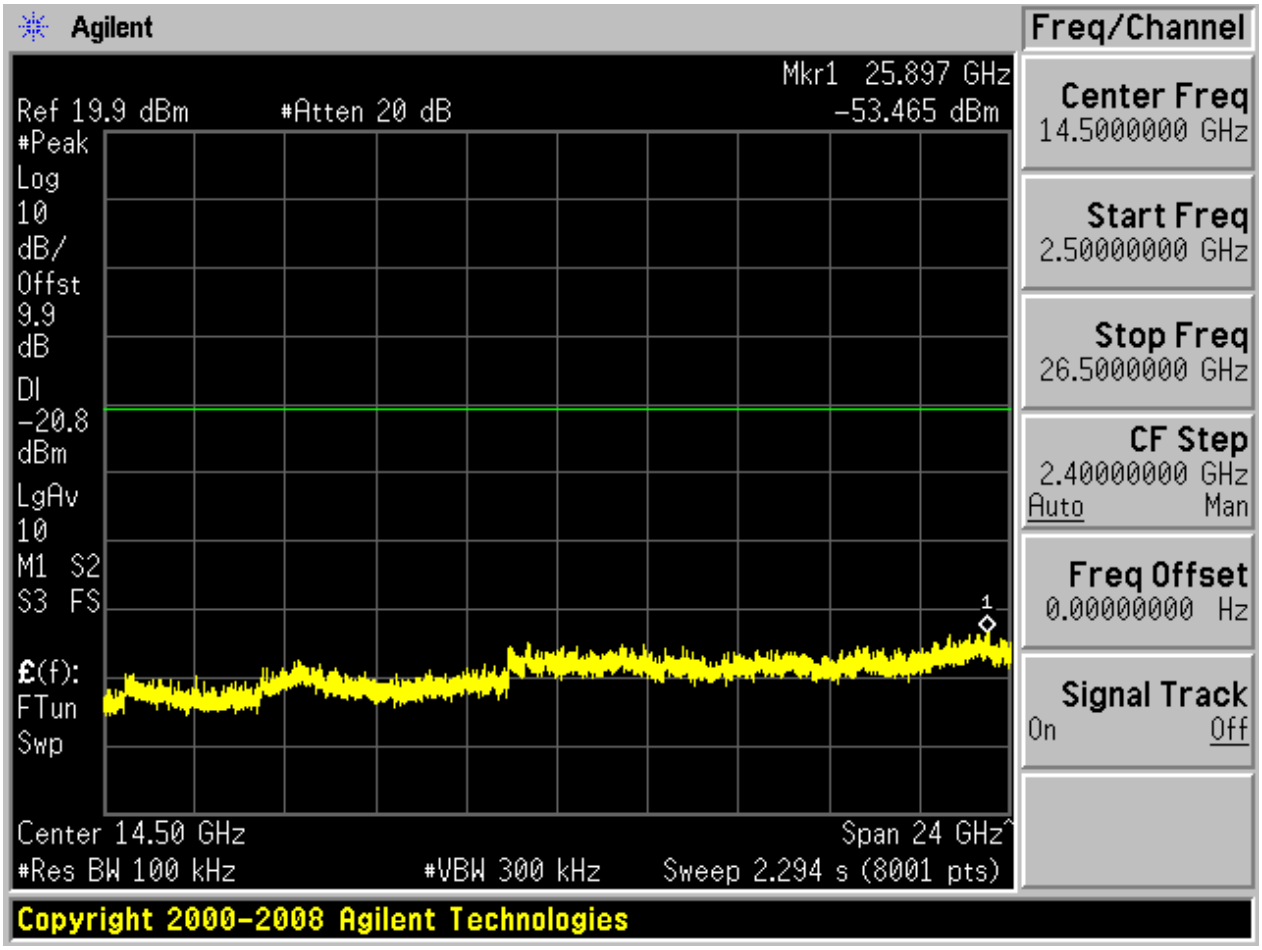
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Copyright © Huawei Technologies Co., Ltd.

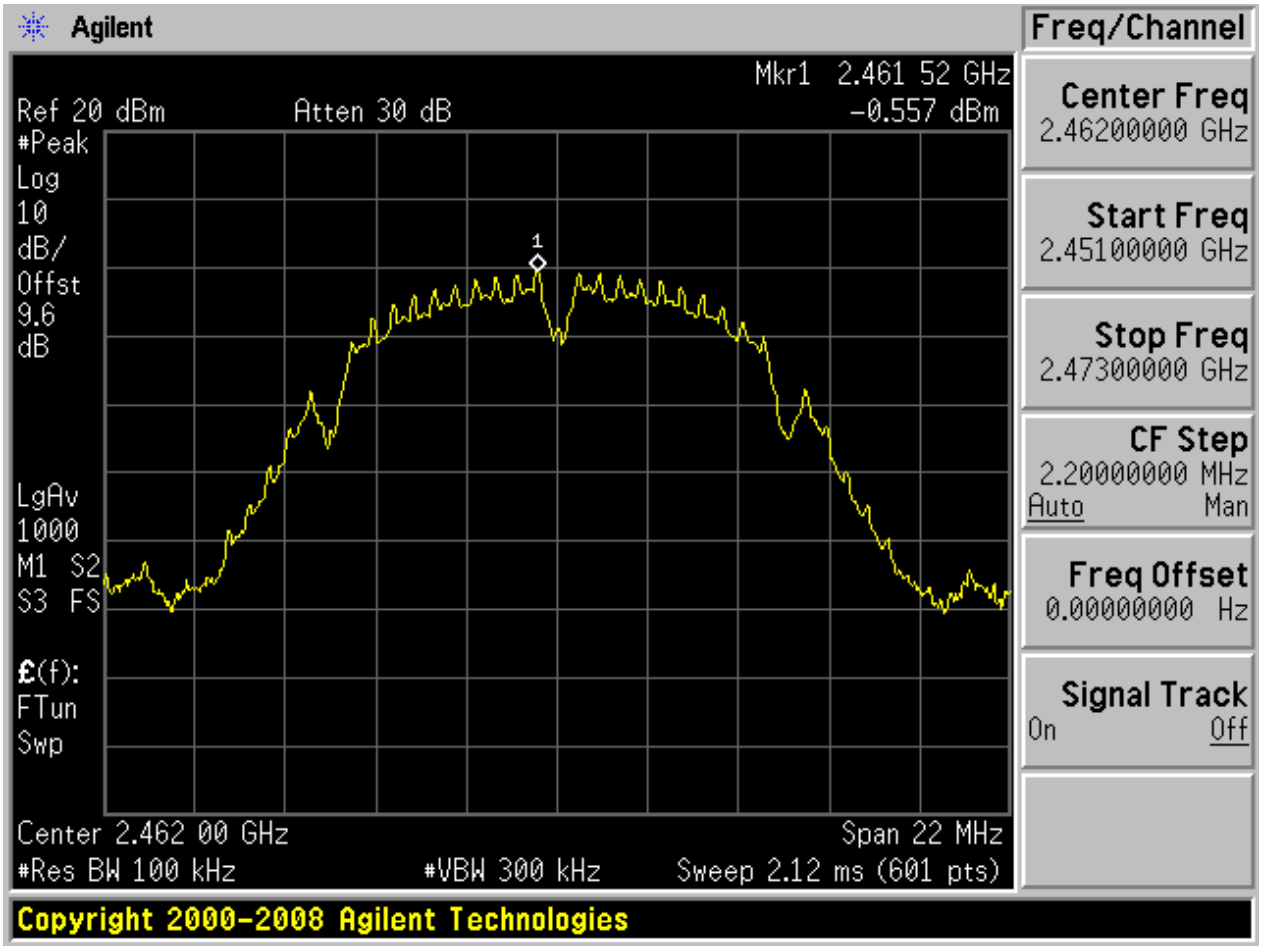
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.6 11B_T@Ant2

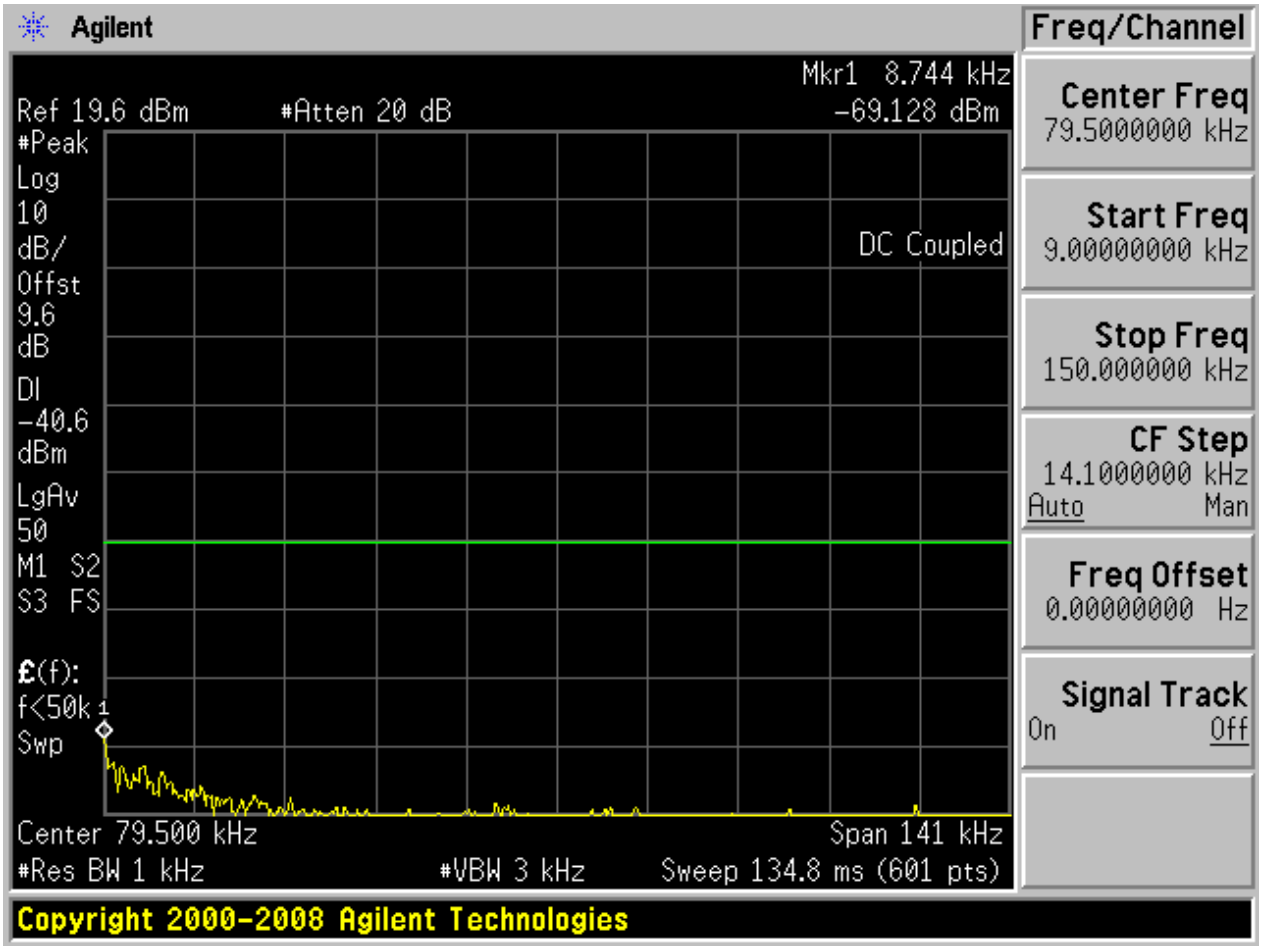
2.6.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

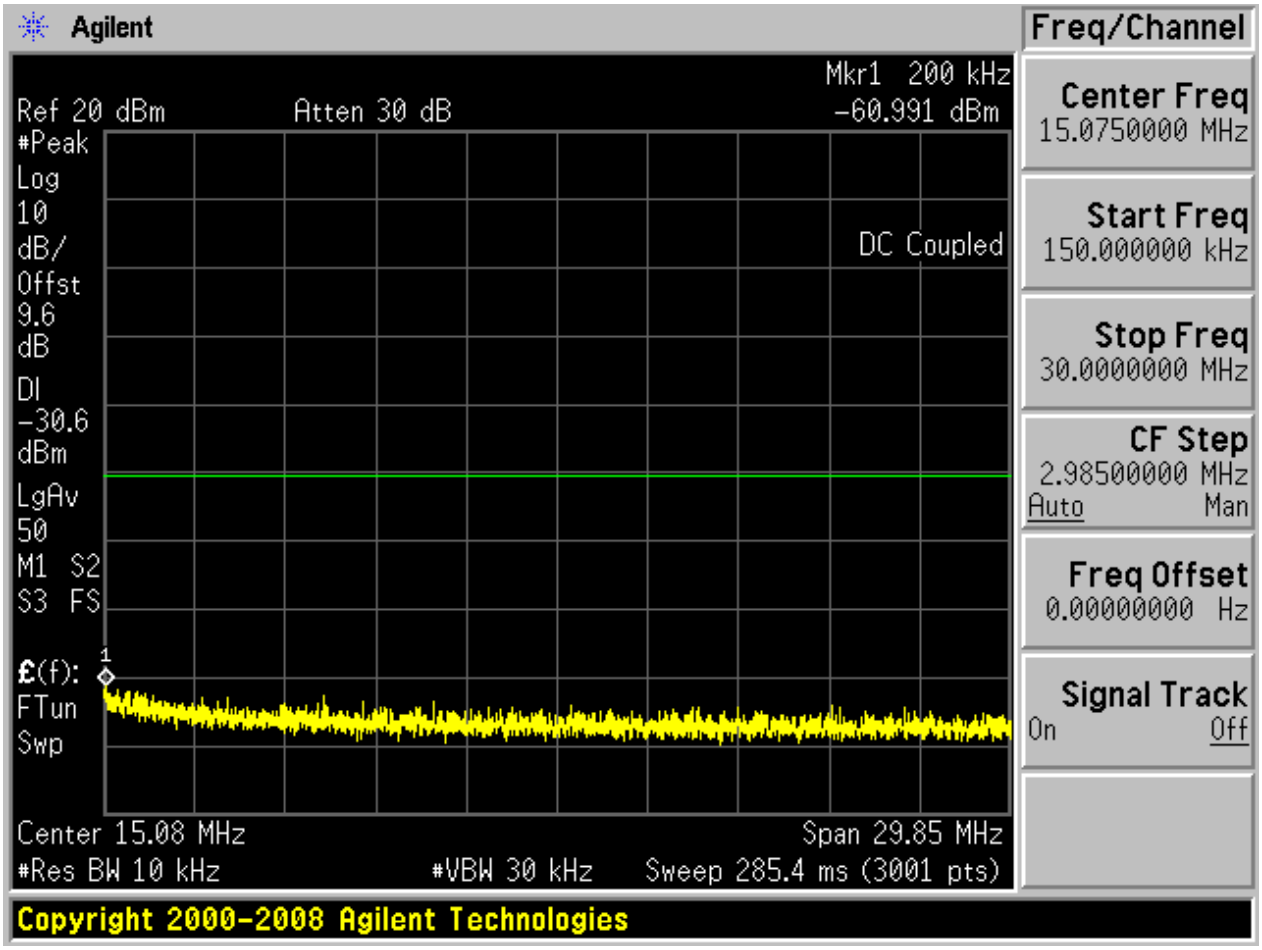
2.6.2 Puw:

9k - 150k



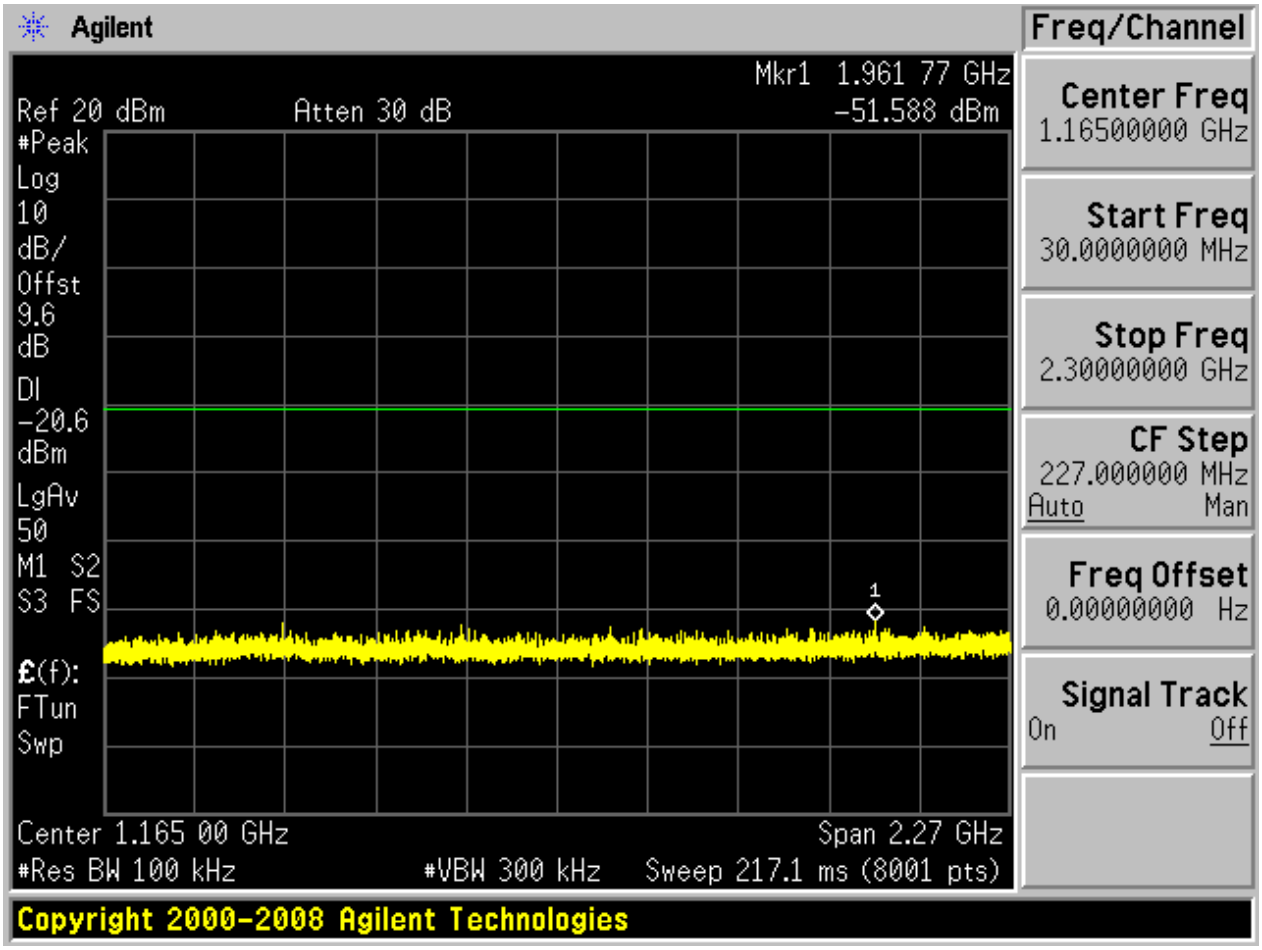
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



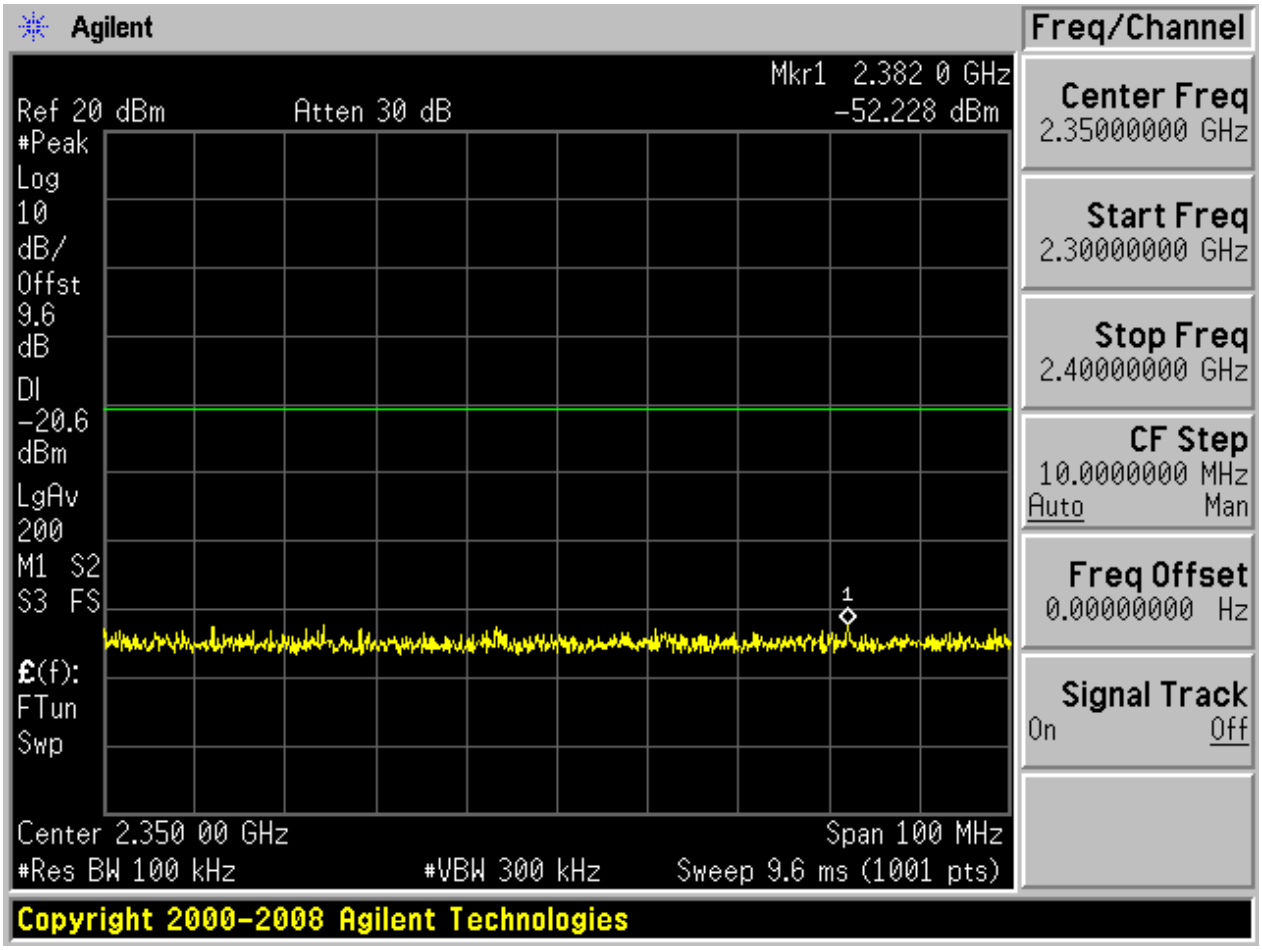
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



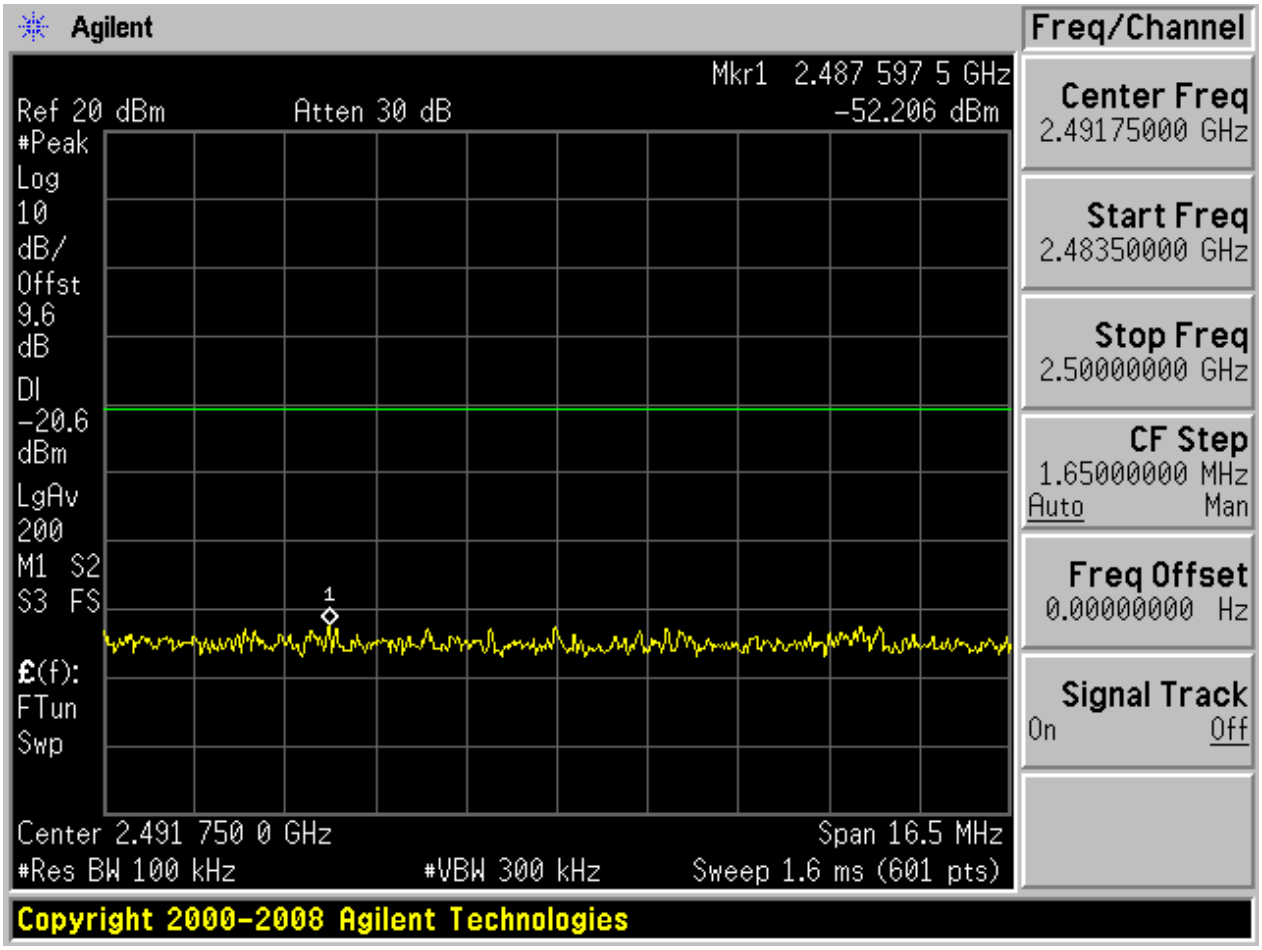
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



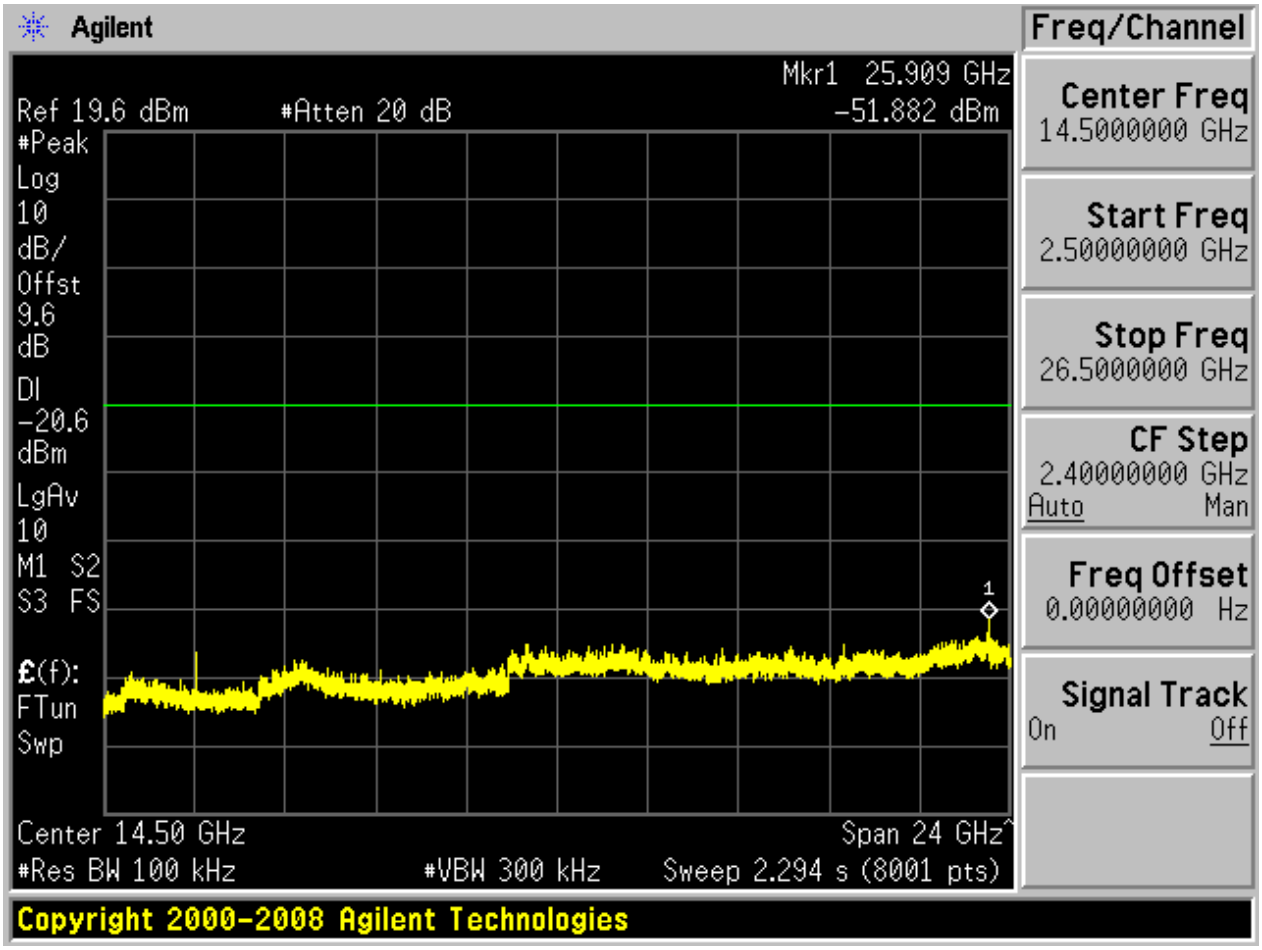
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

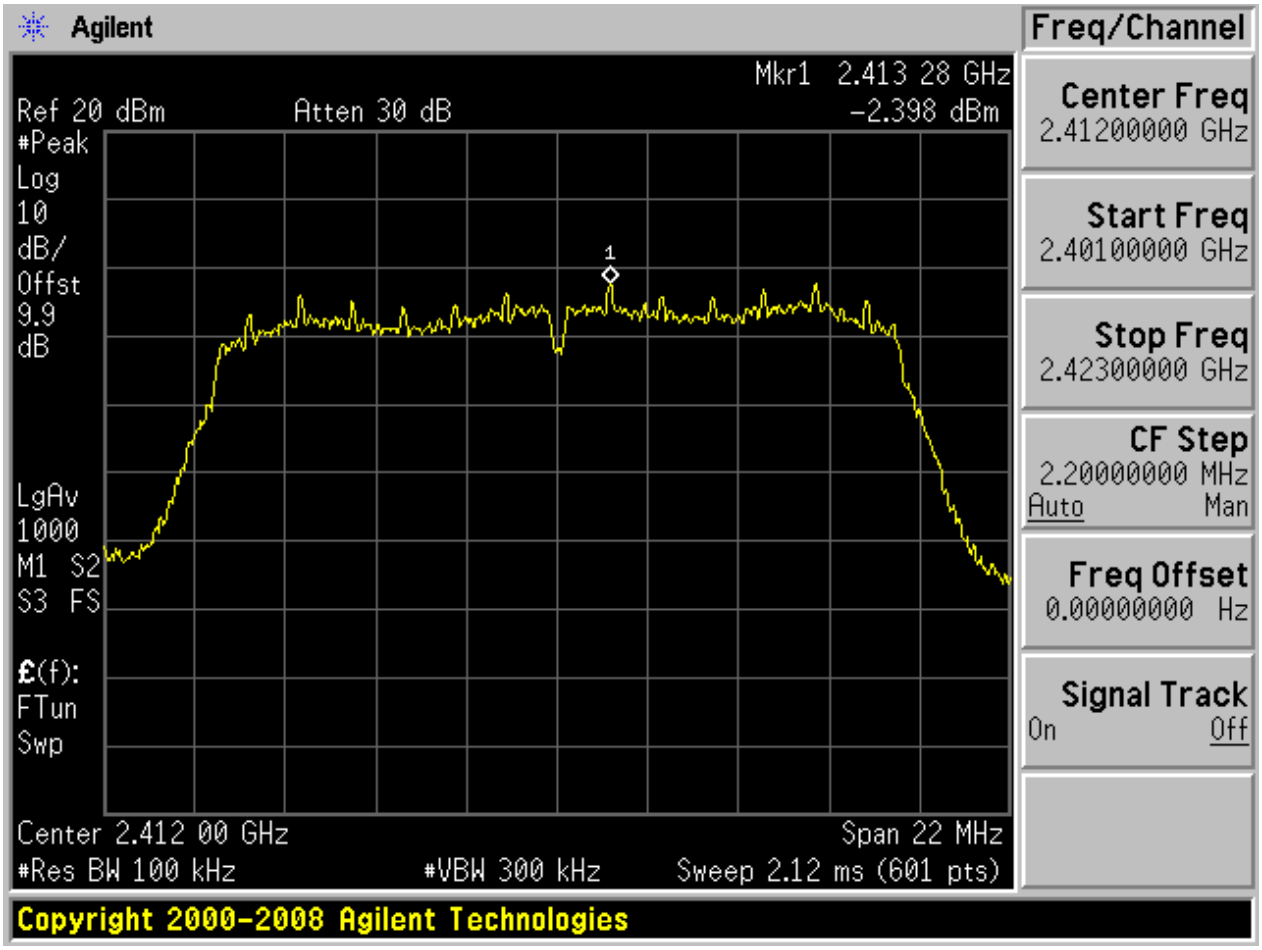
2.5G - 26.5G



Copyright © Huawei Technologies Co., Ltd.

2.7 11G_B@Ant1

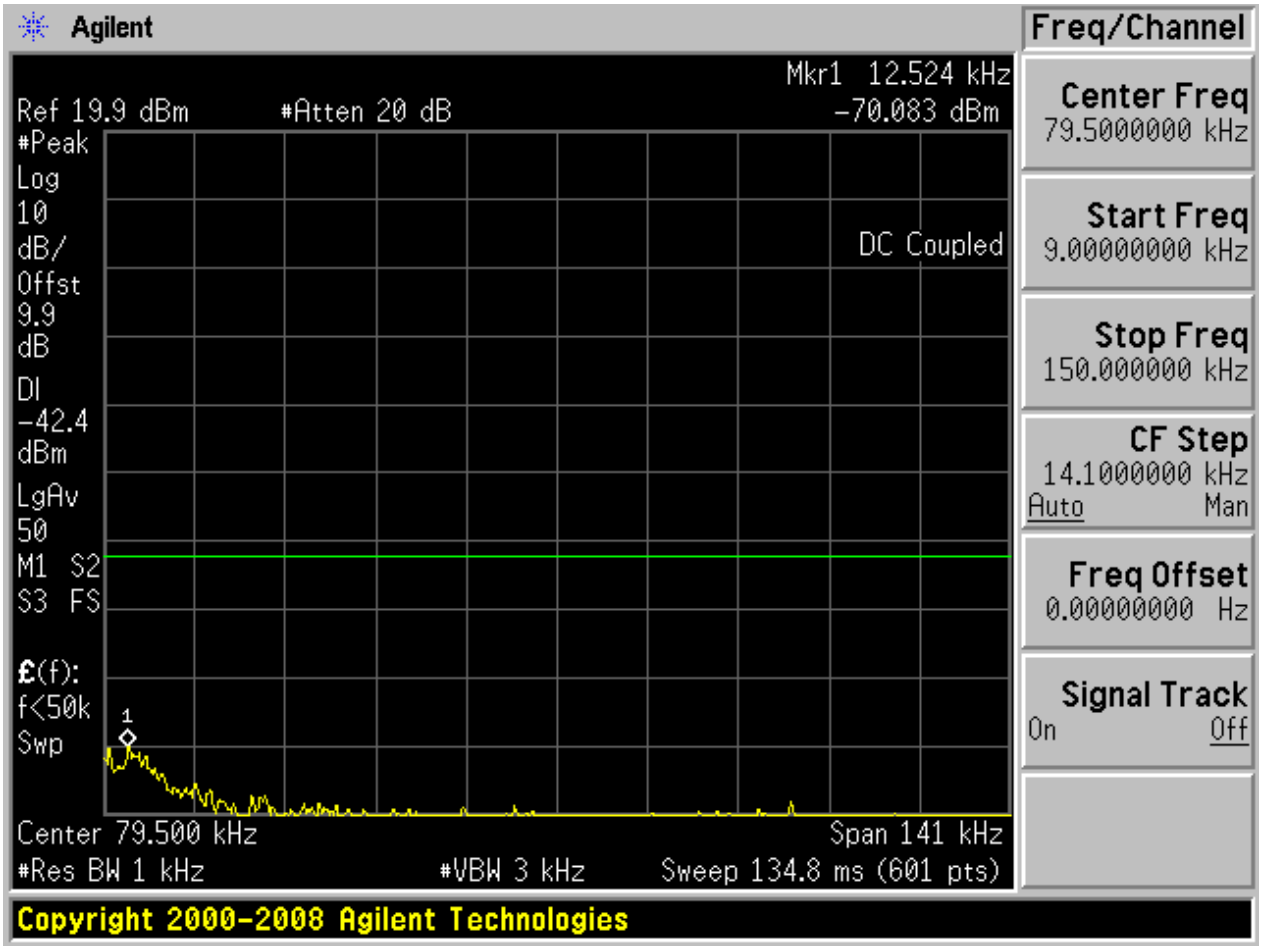
2.7.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

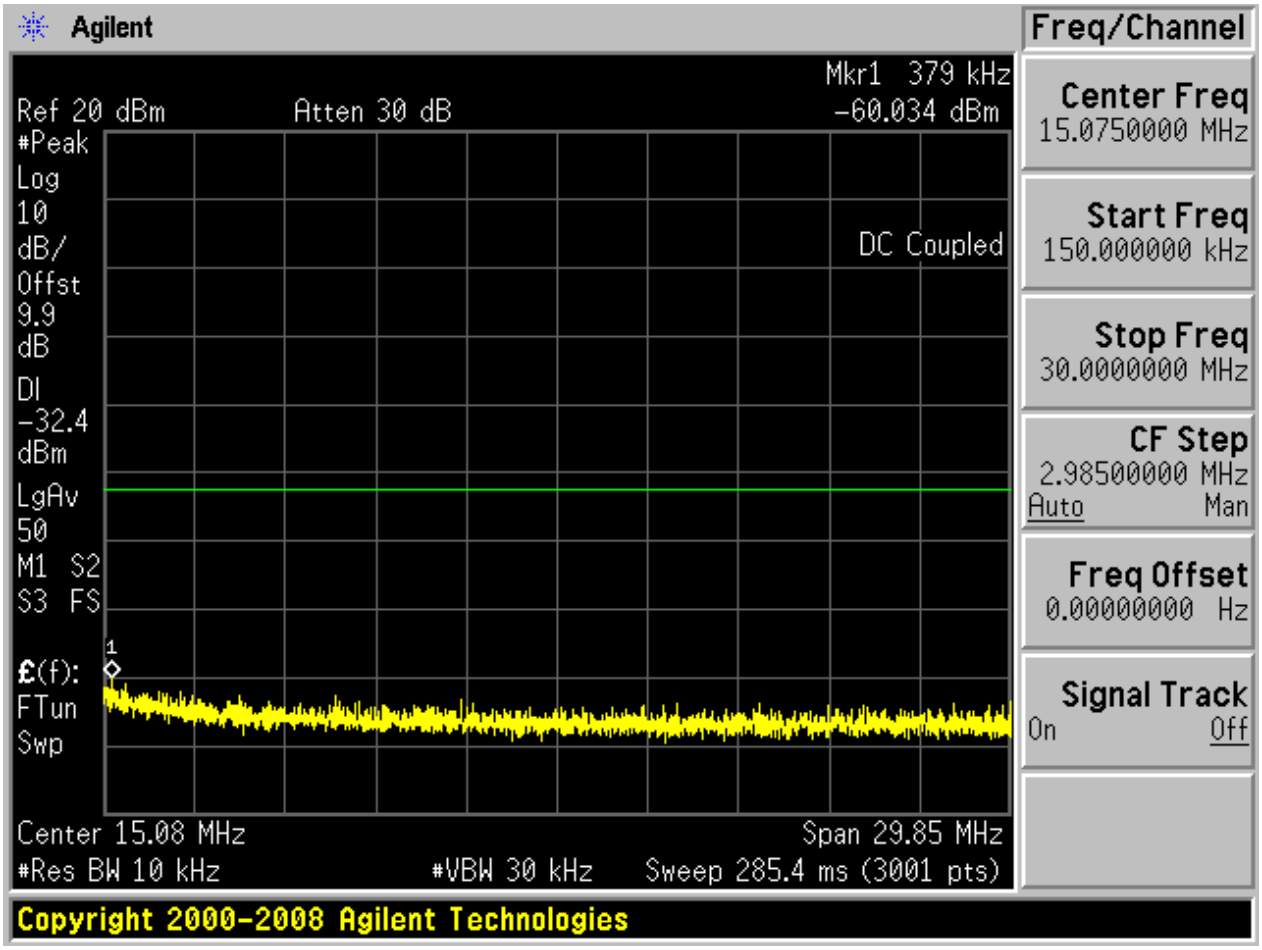
2.7.2 Puw:

9k - 150k



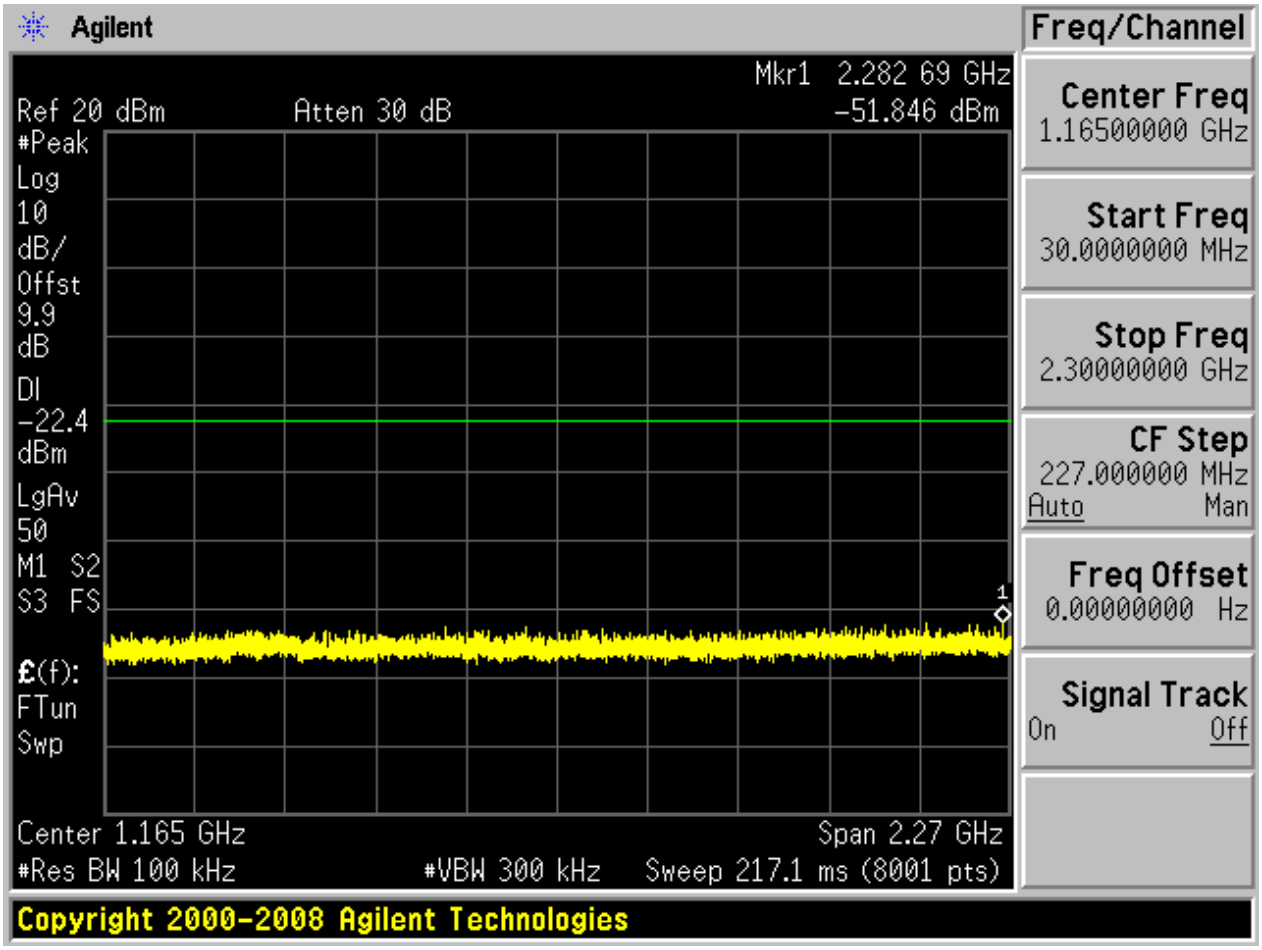
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



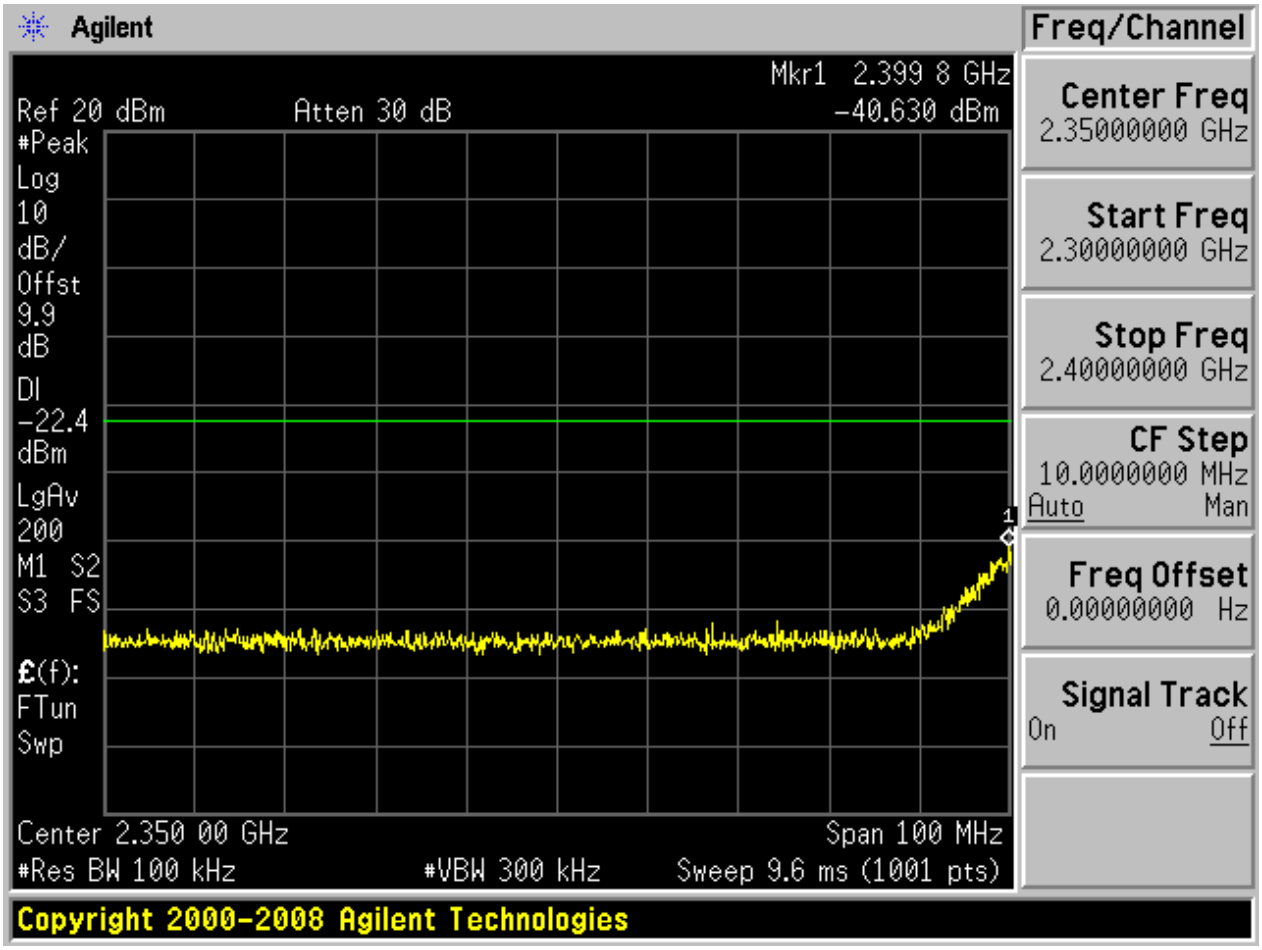
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



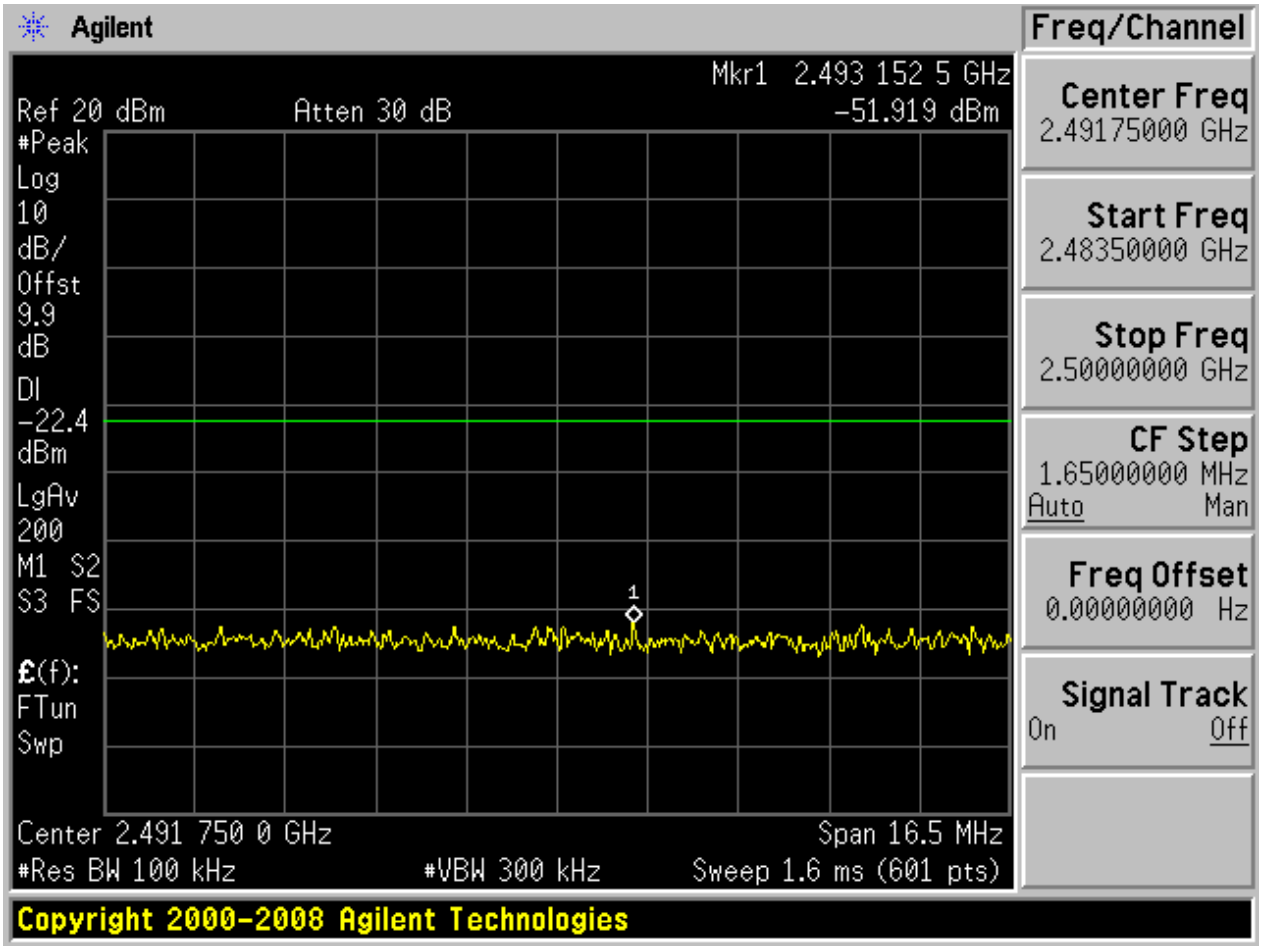
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



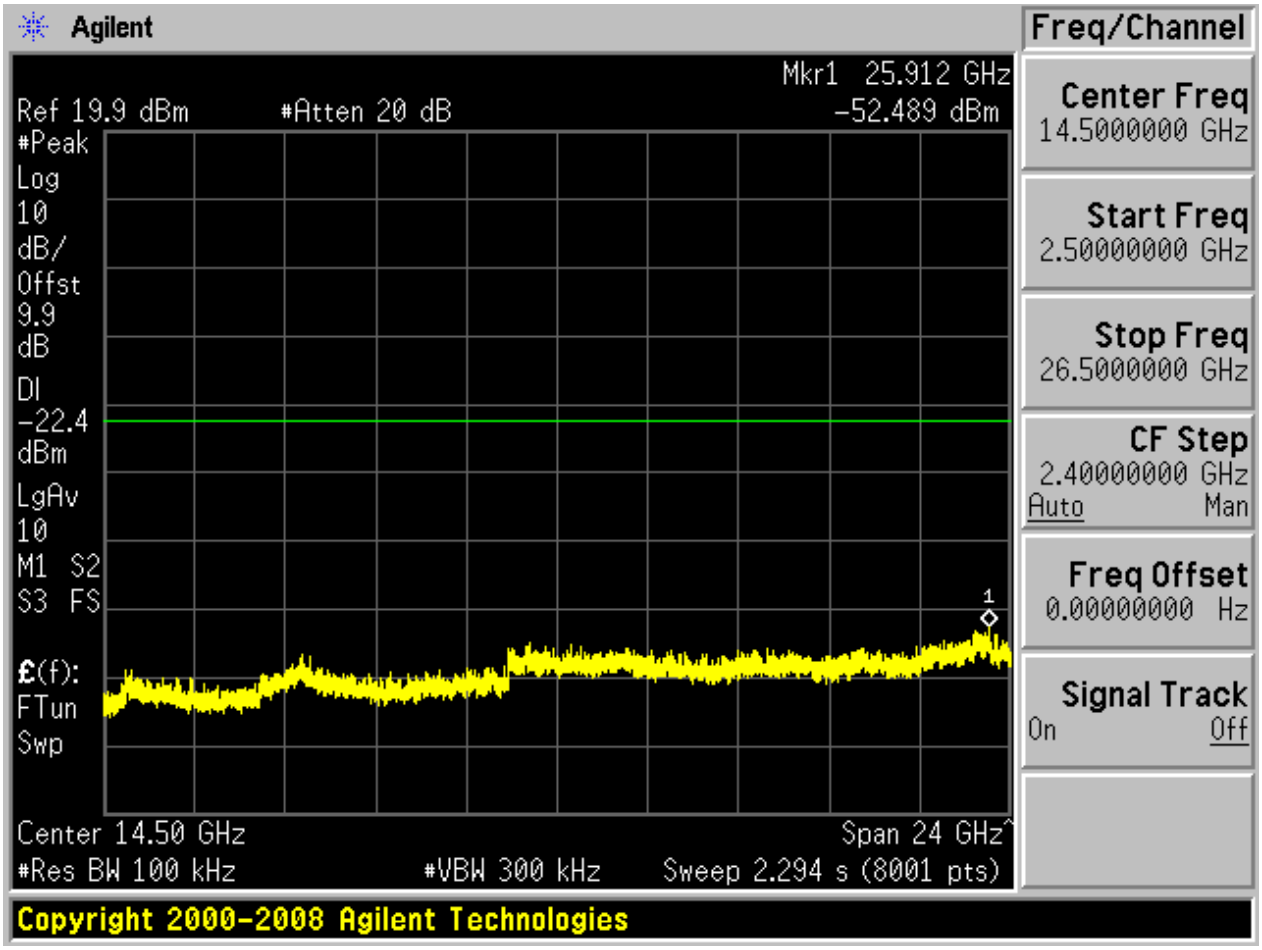
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Copyright © Huawei Technologies Co., Ltd.

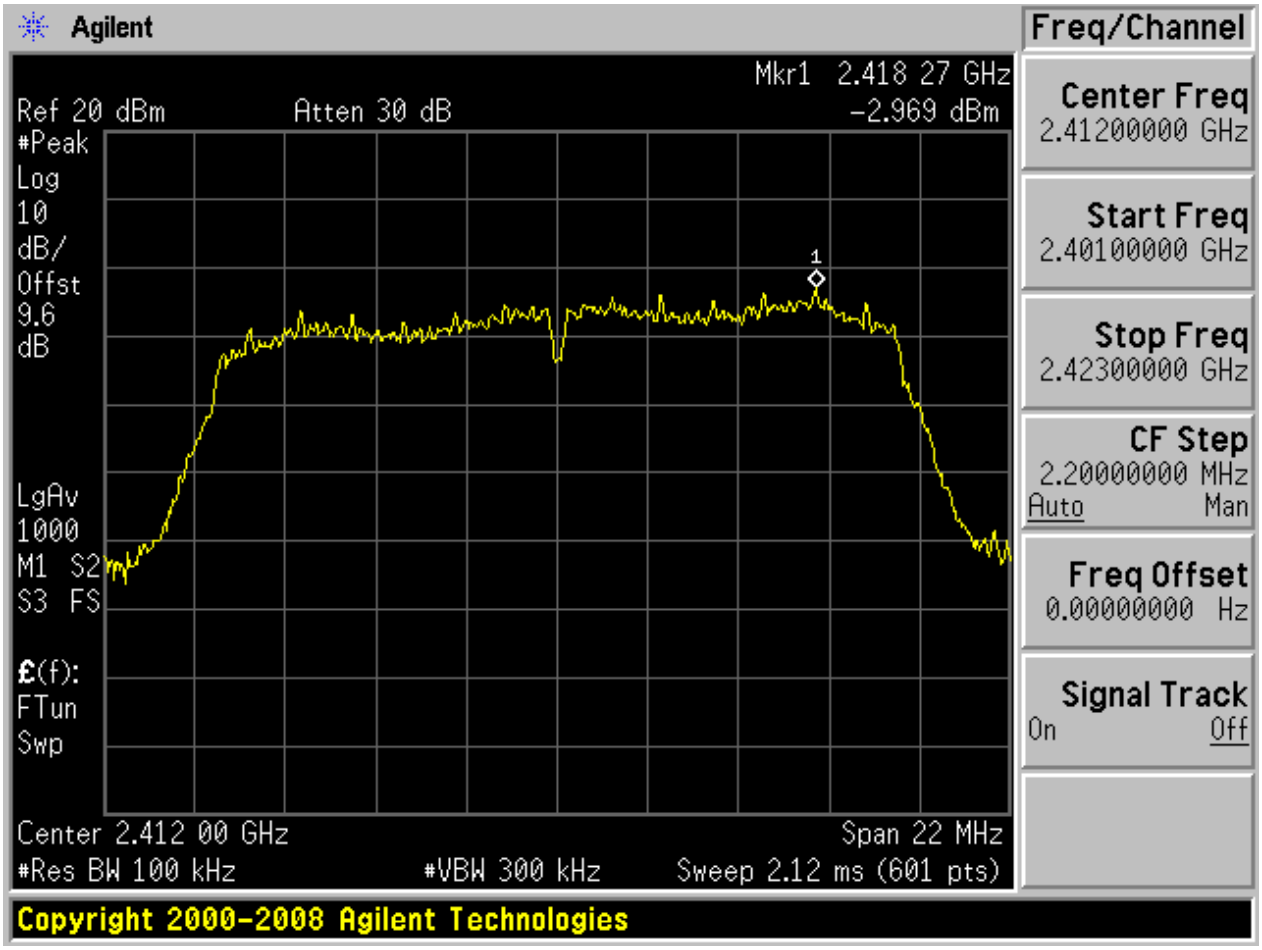
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.8 11G_B@Ant2

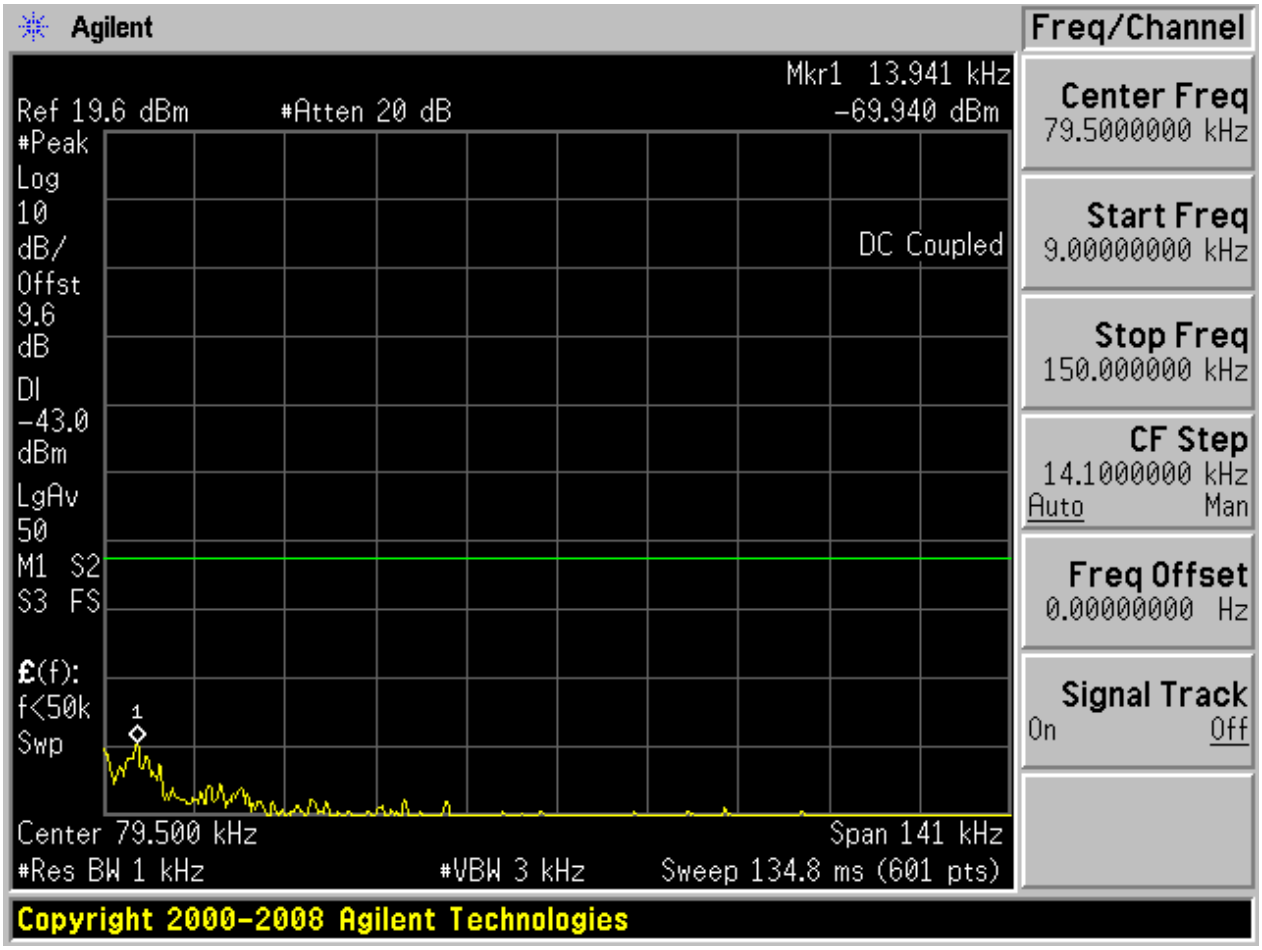
2.8.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

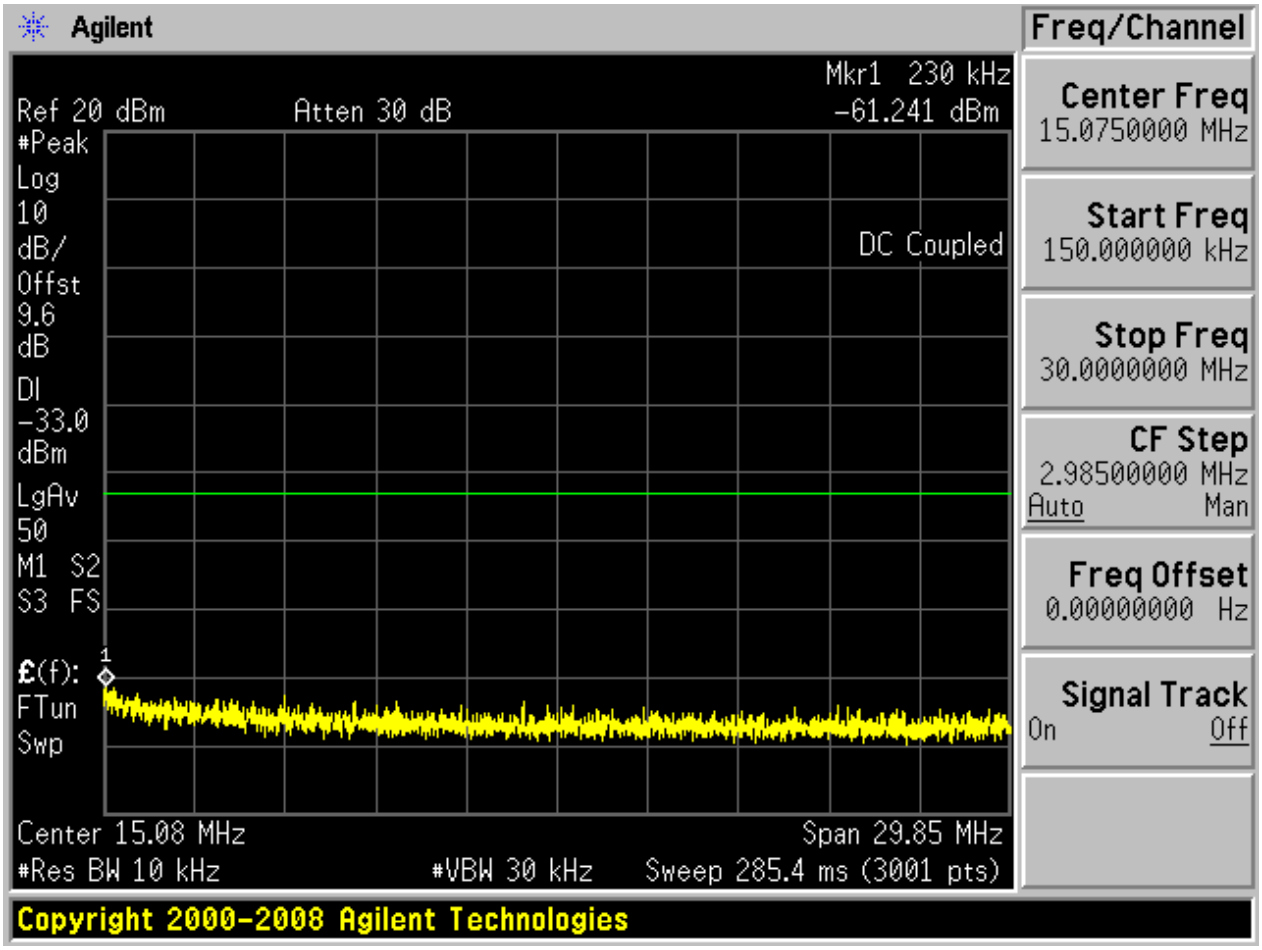
2.8.2 Puw:

9k - 150k



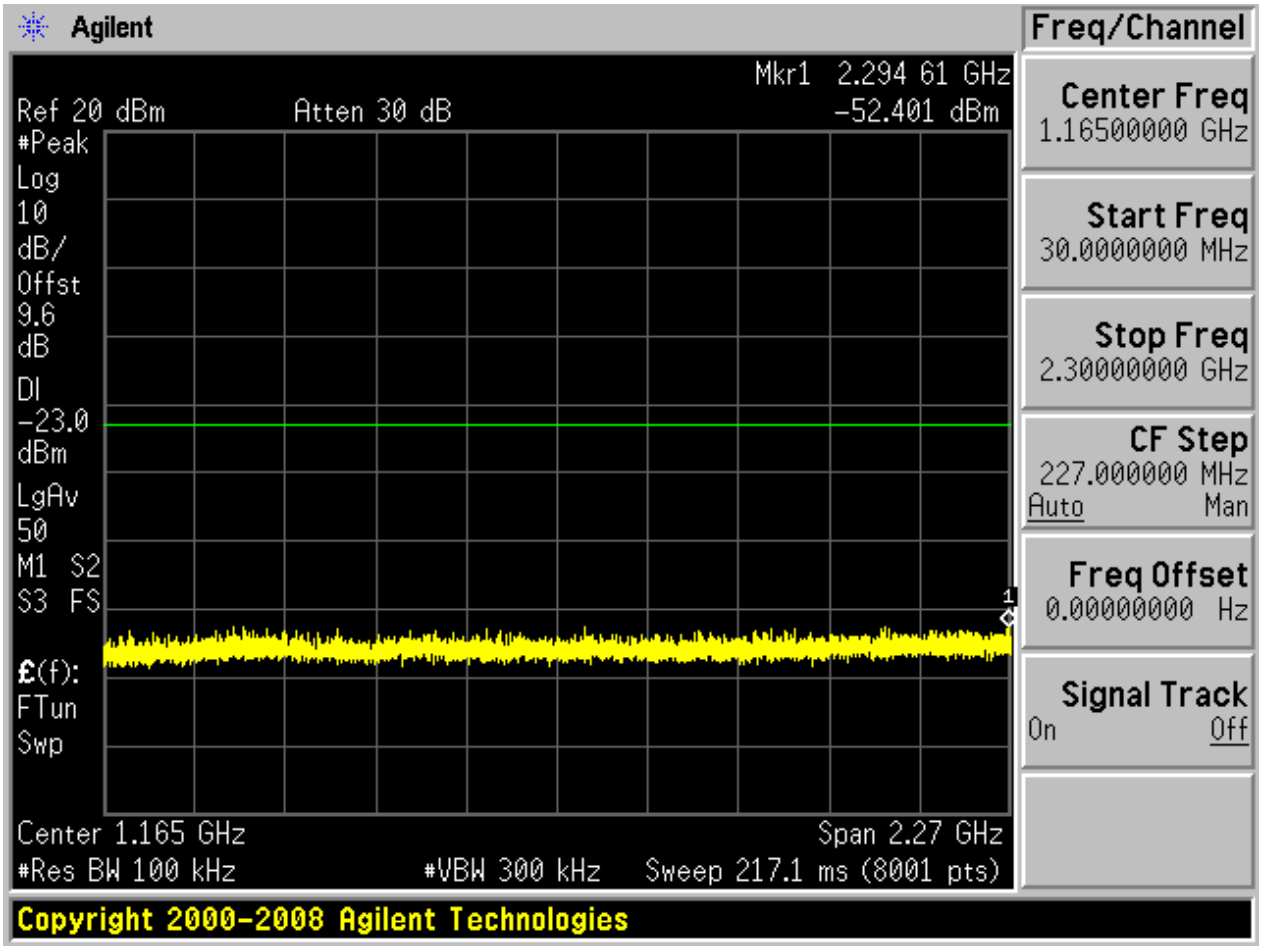
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



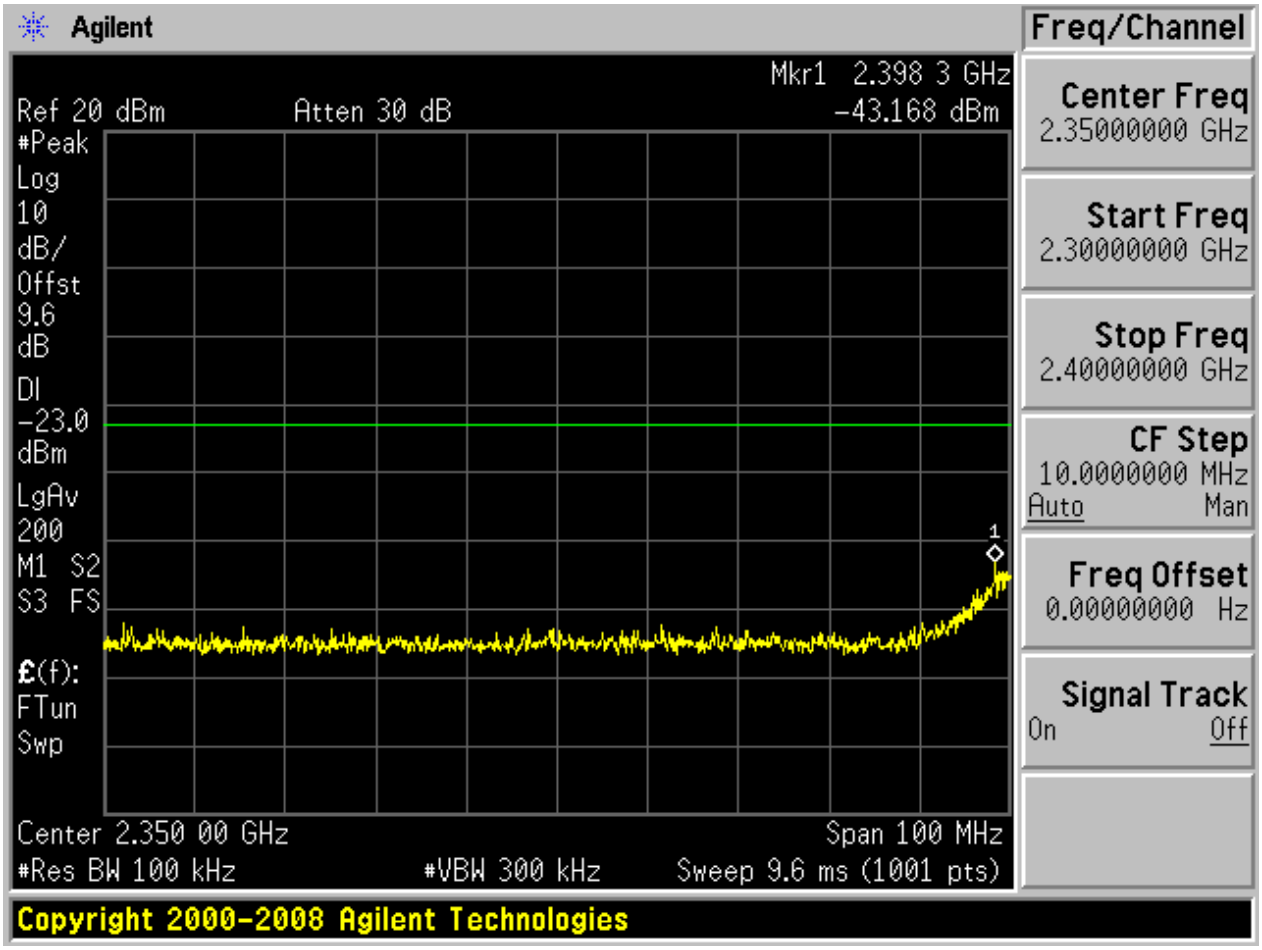
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



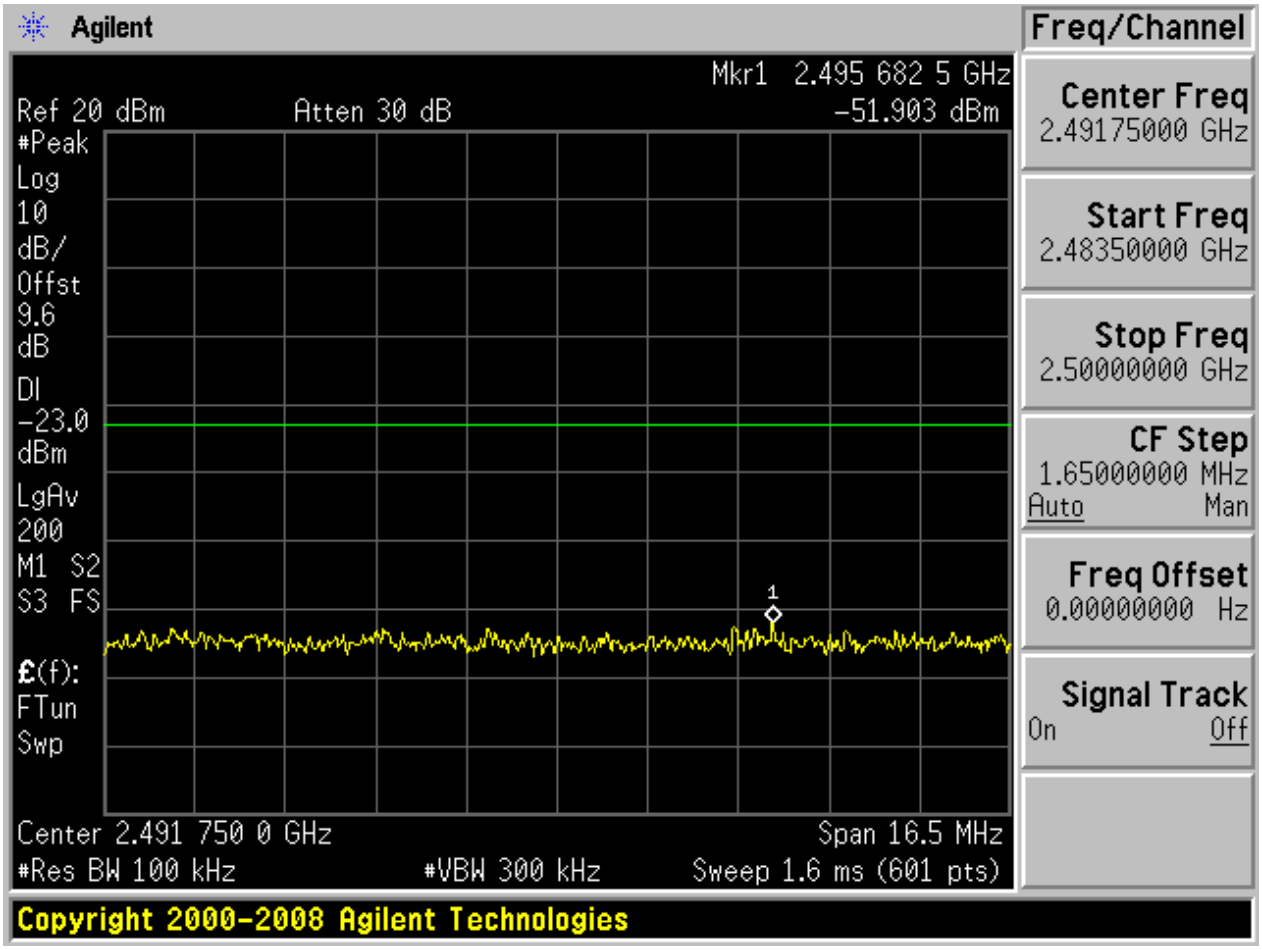
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



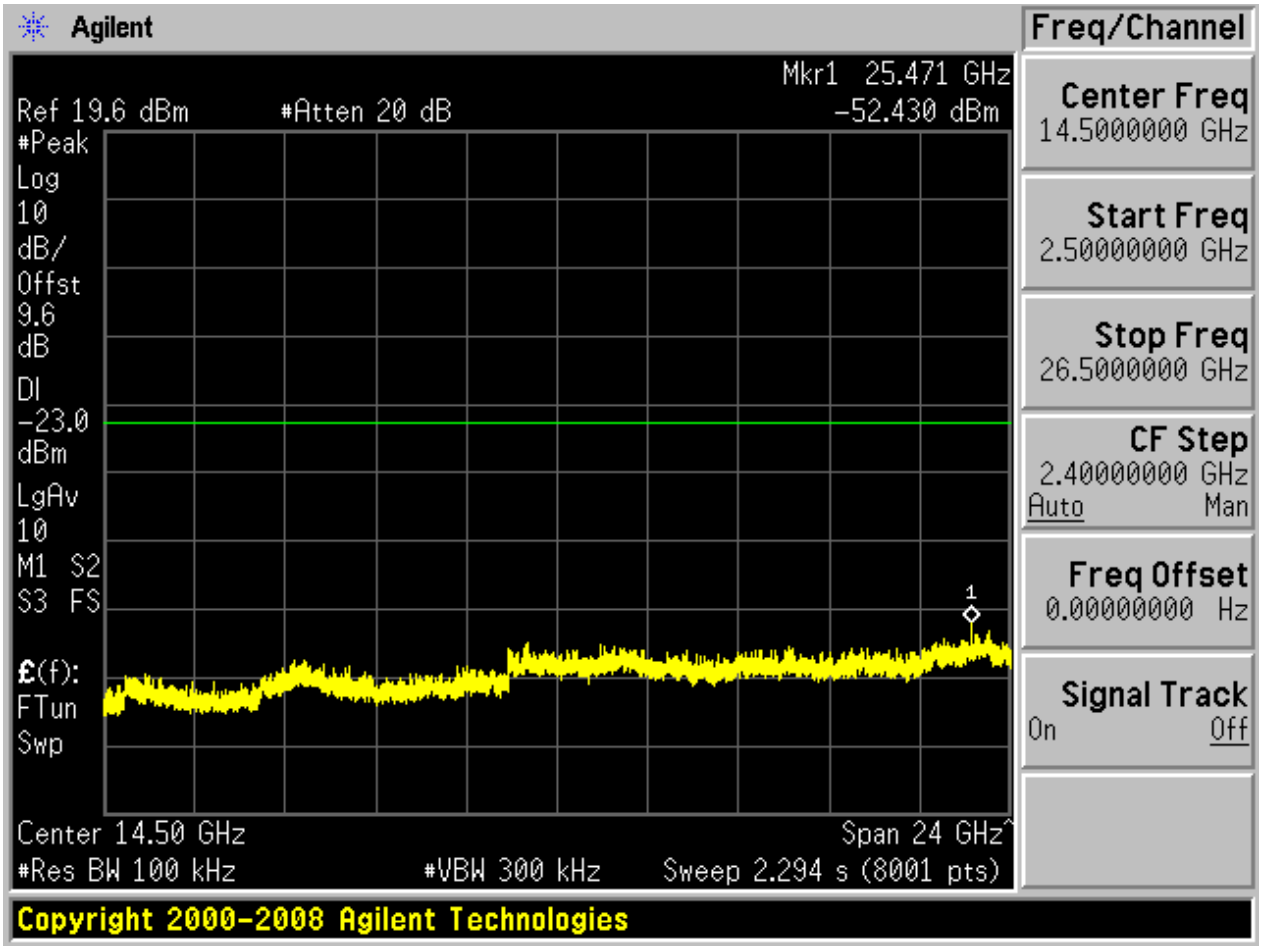
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

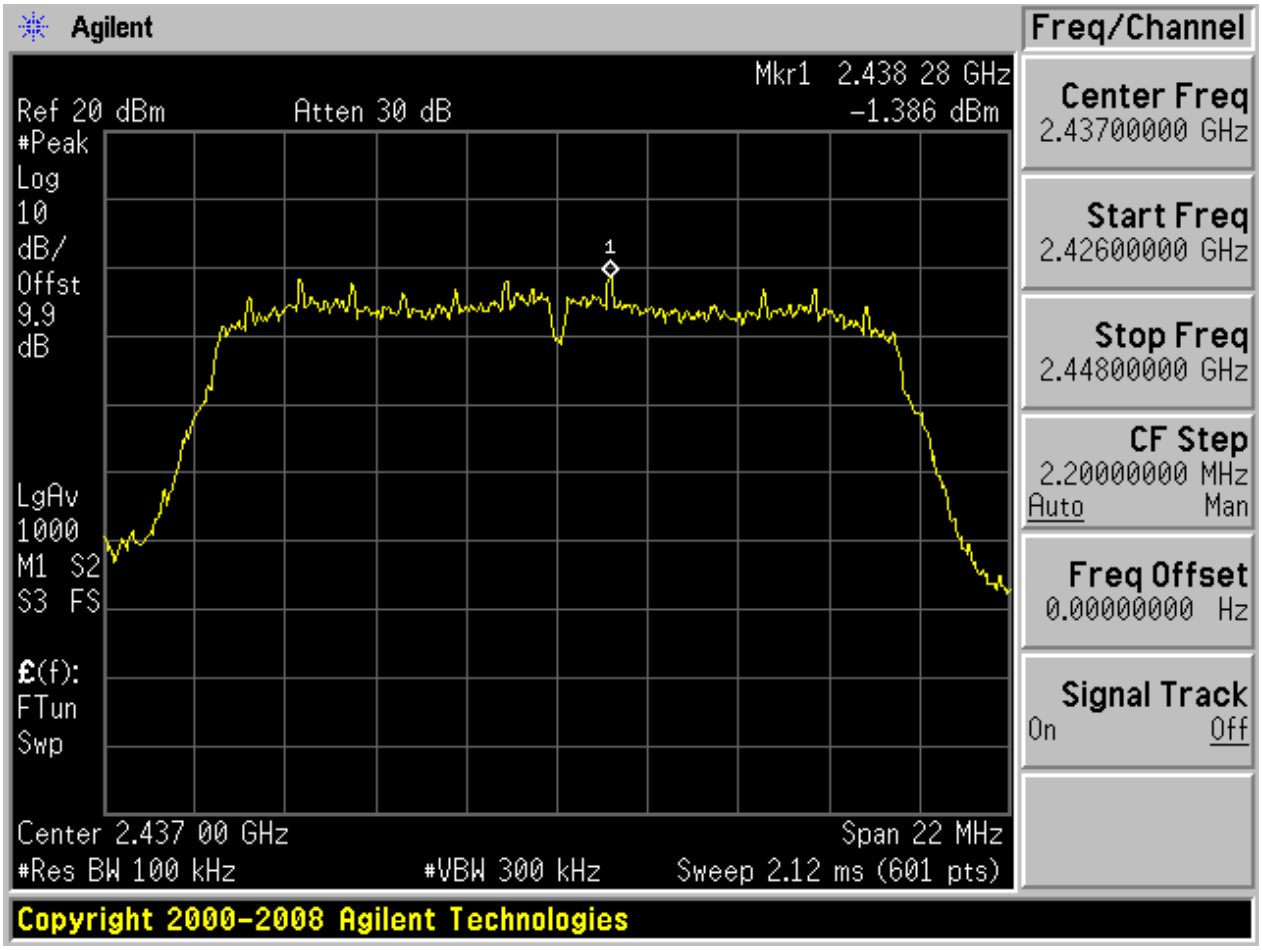
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.9 11G_M@Ant1

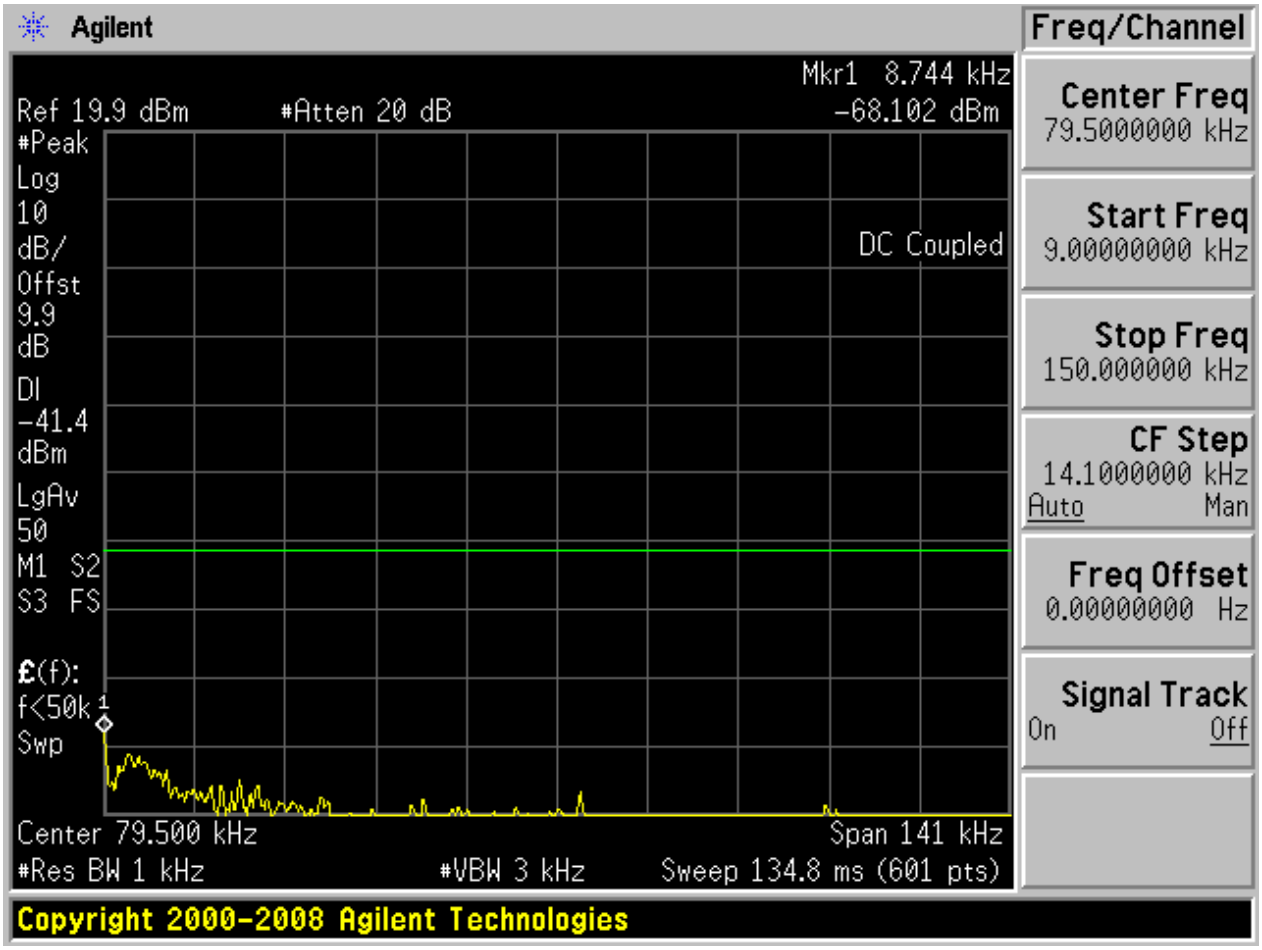
2.9.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

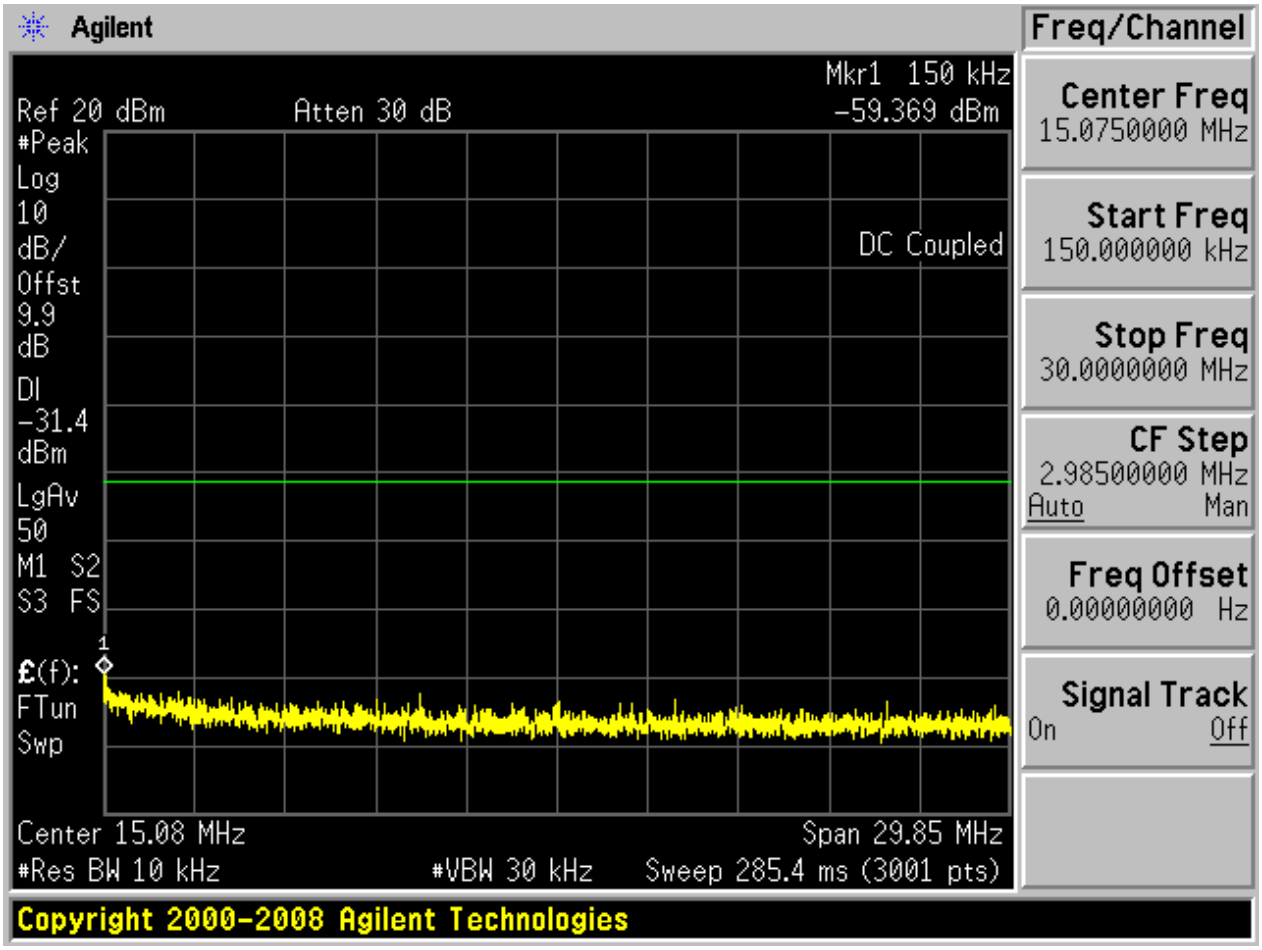
2.9.2 Puw:

9k - 150k



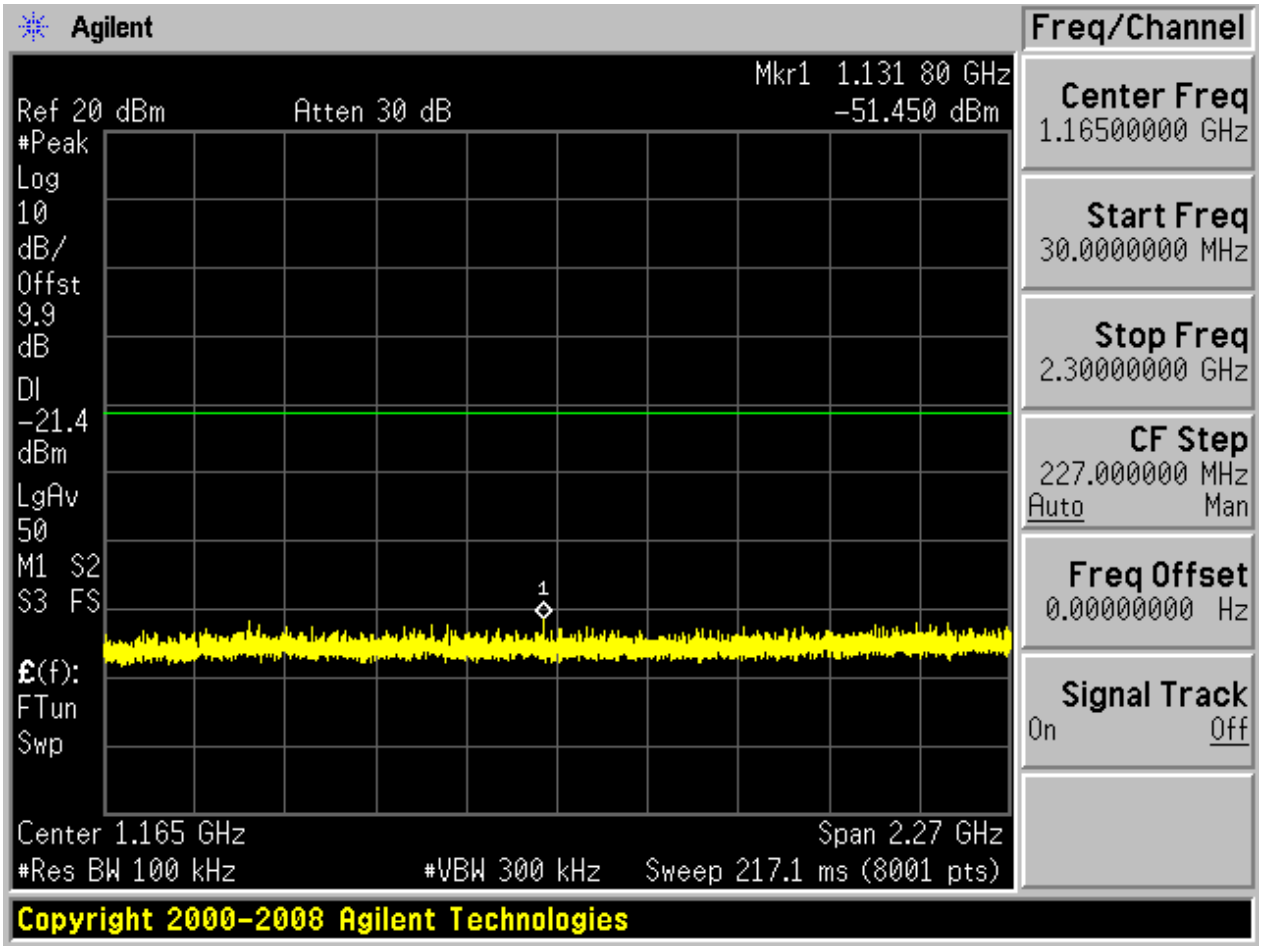
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



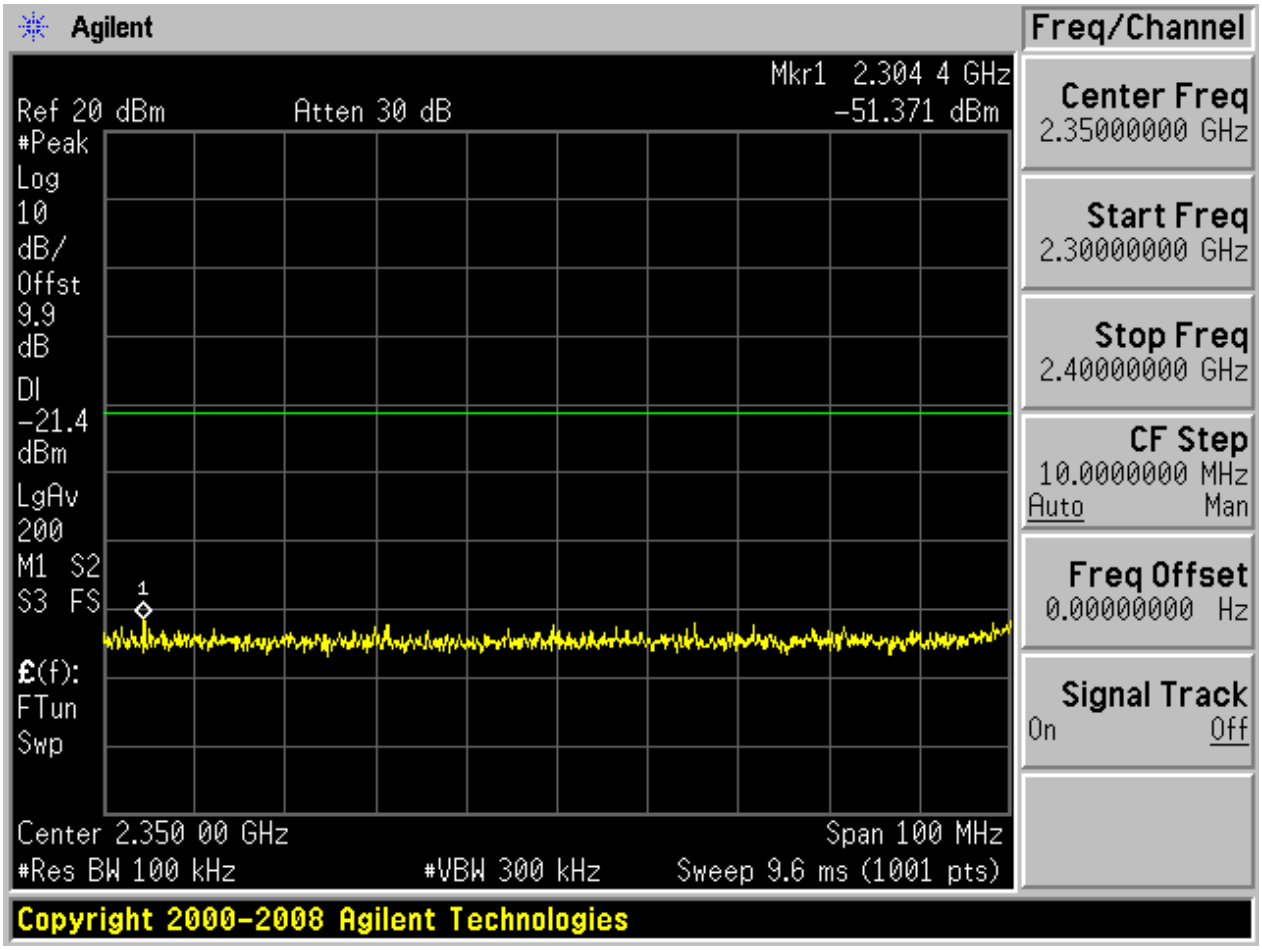
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



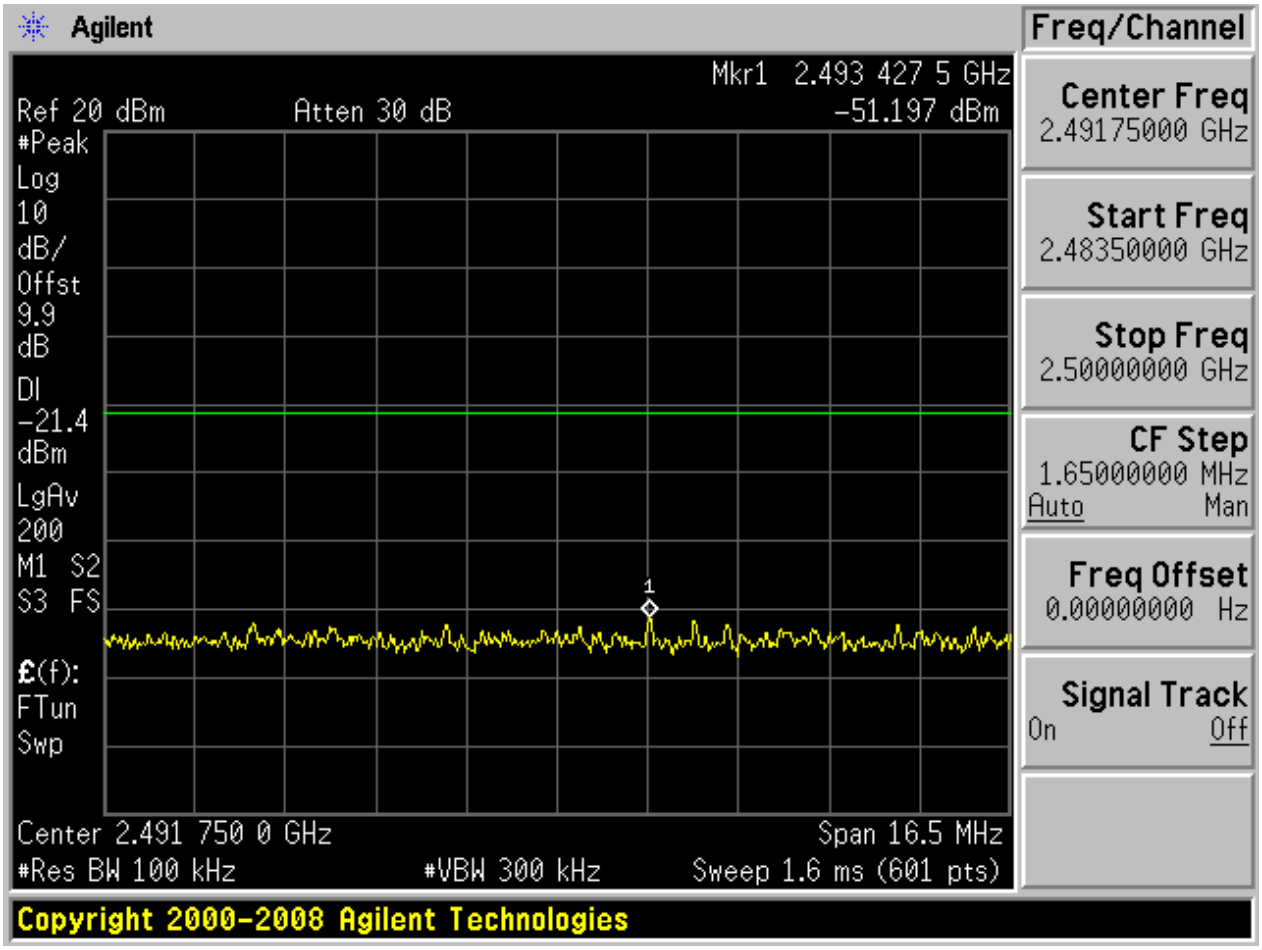
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



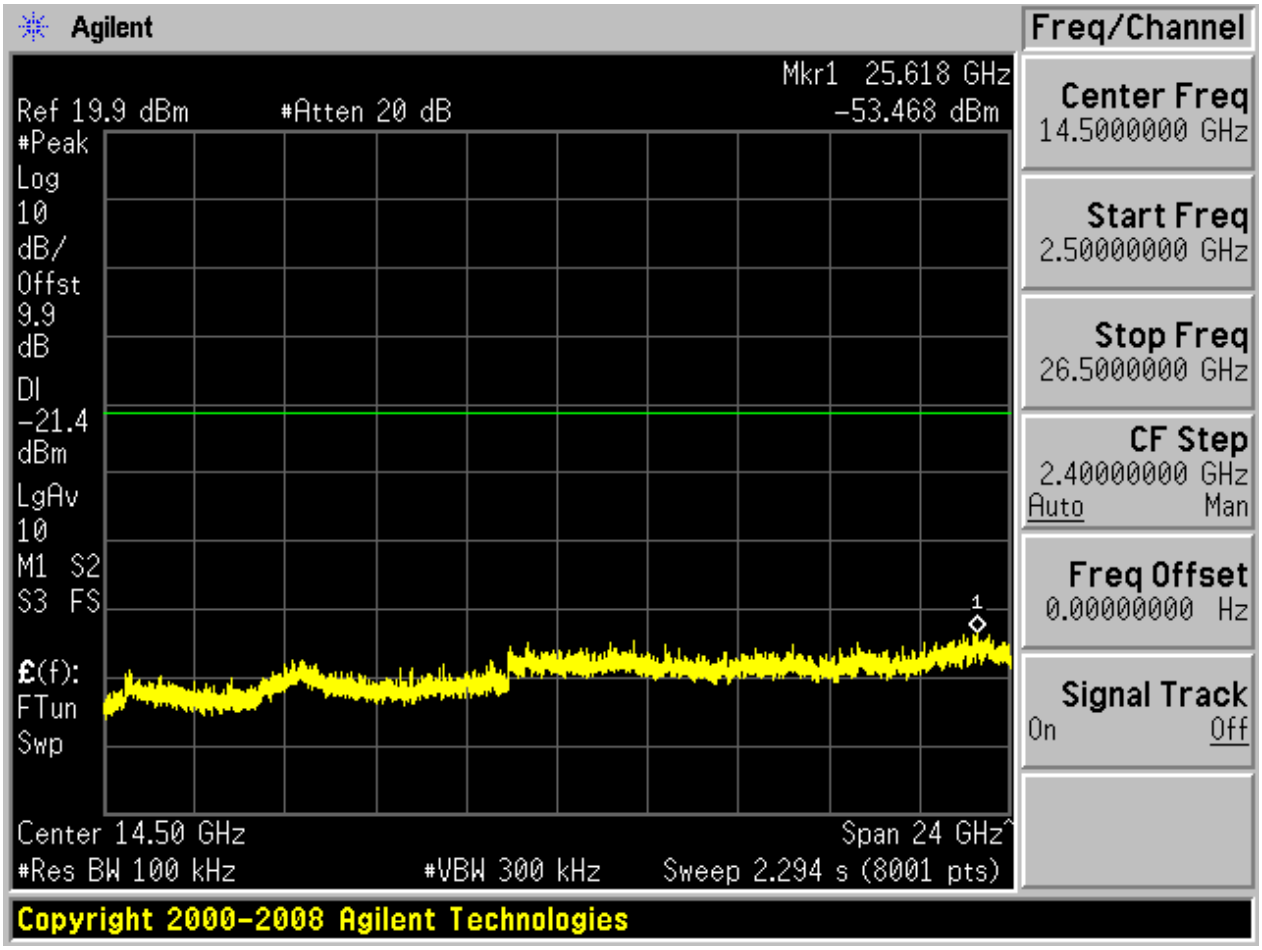
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Copyright © Huawei Technologies Co., Ltd.

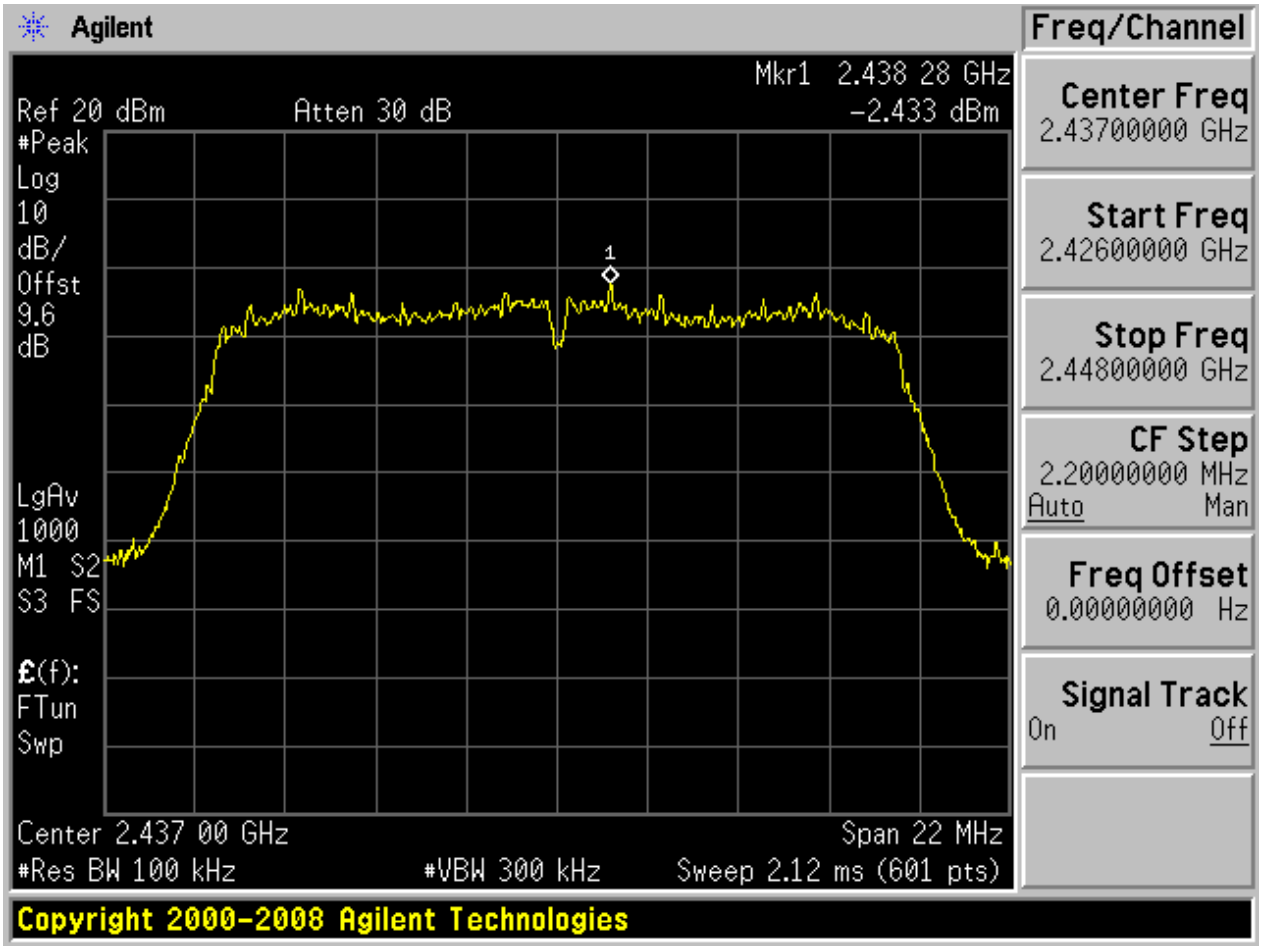
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.10 11G_M@Ant2

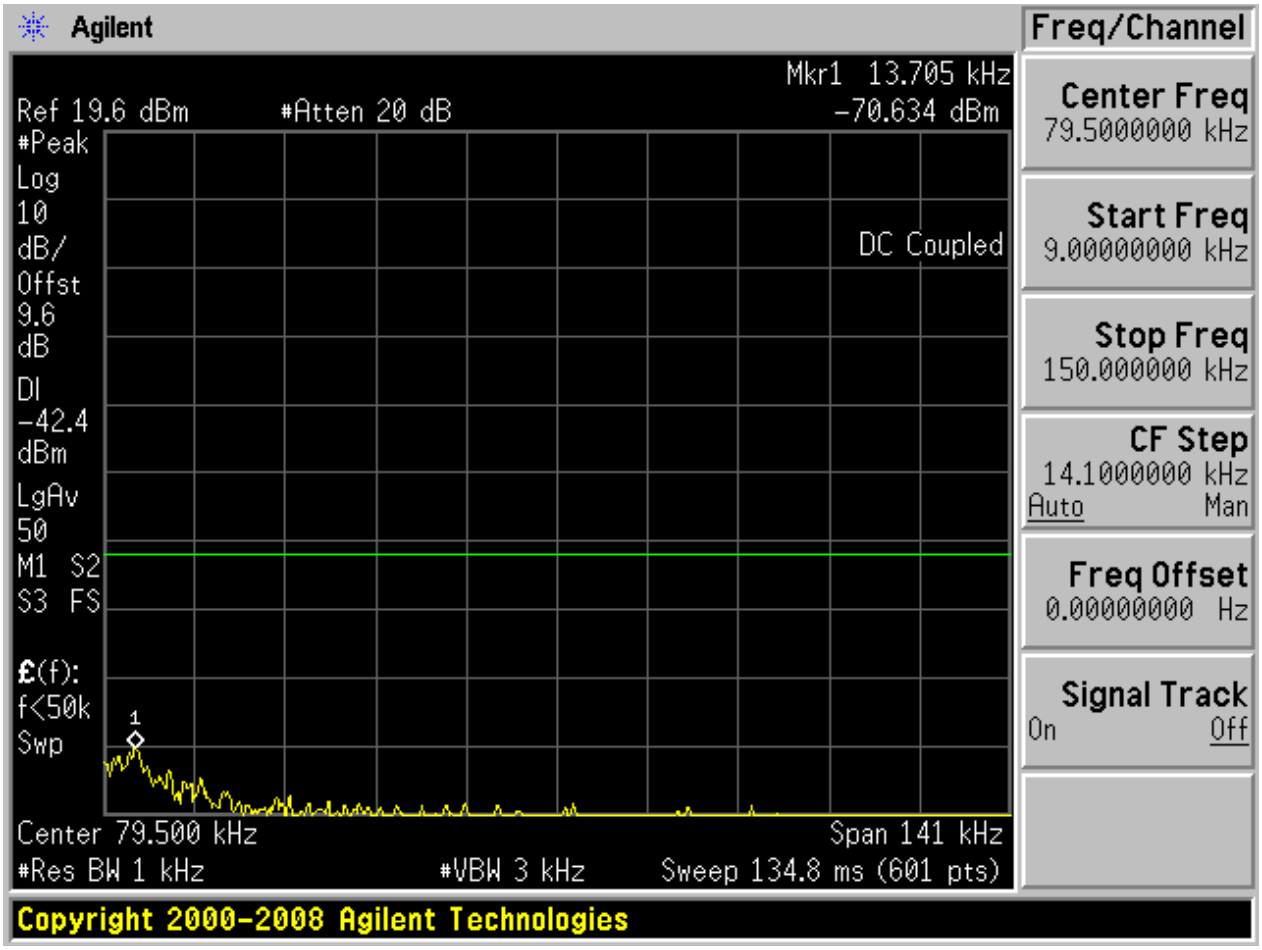
2.10.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

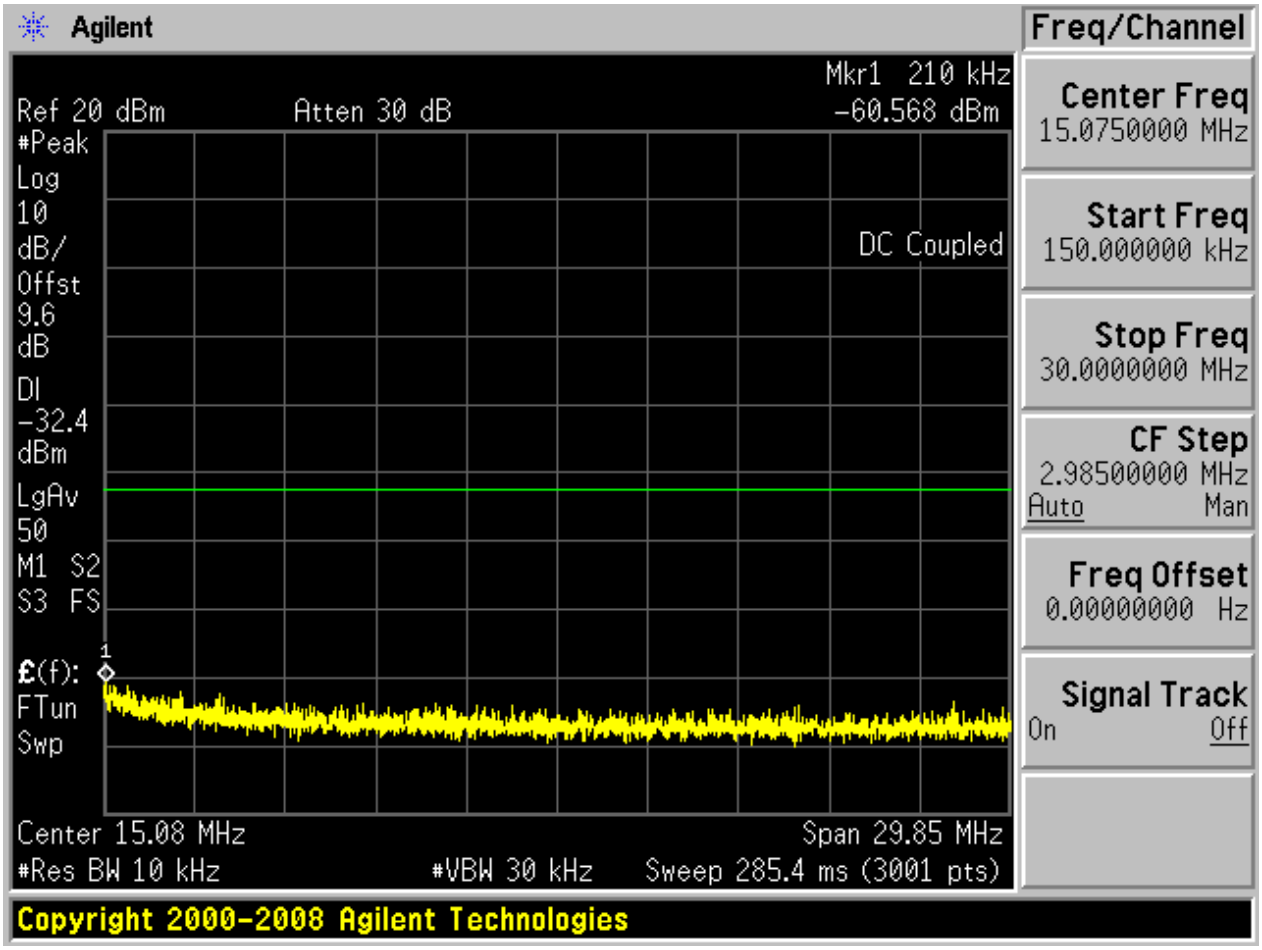
2.10.2 Puw:

9k - 150k



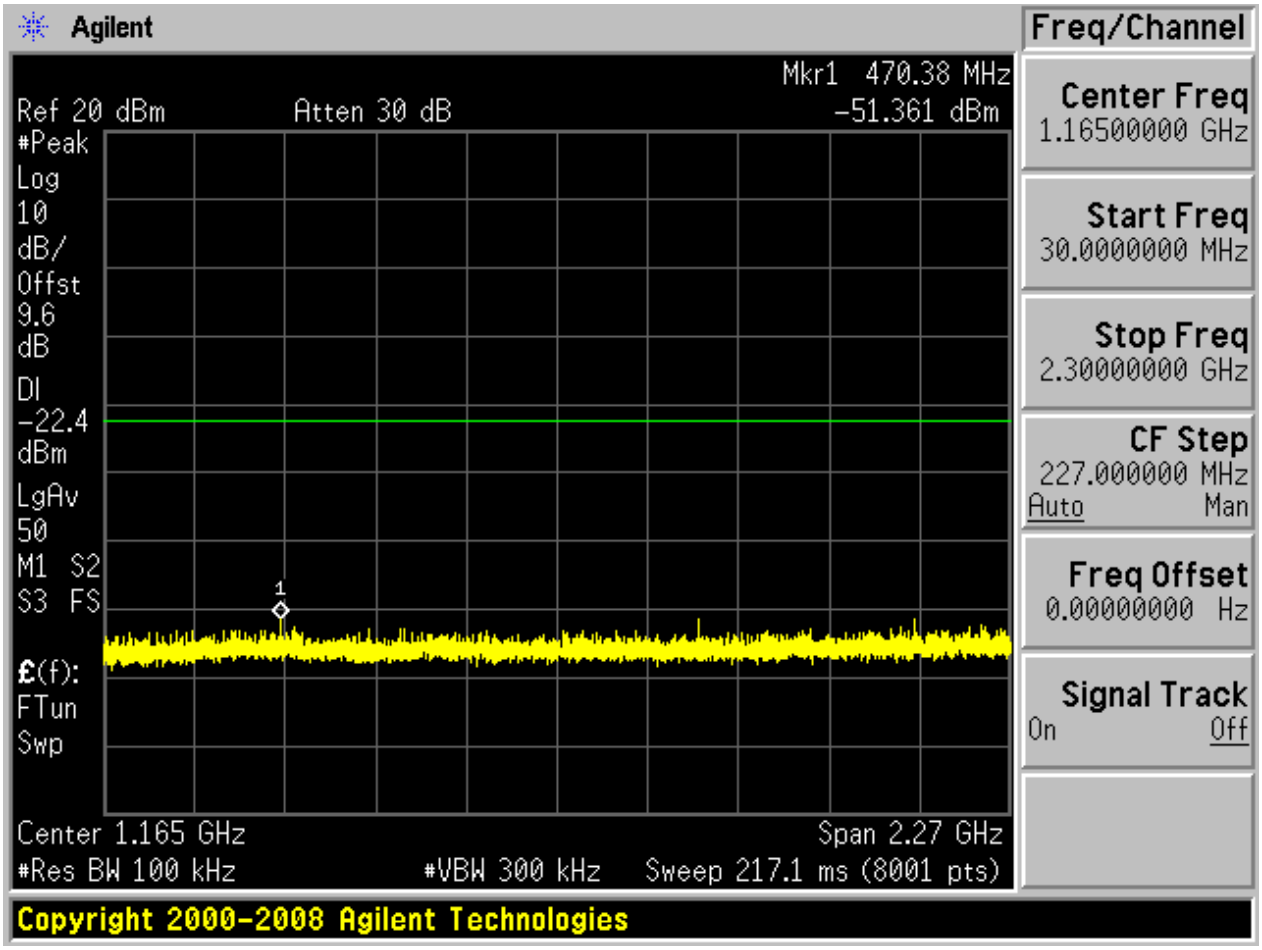
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



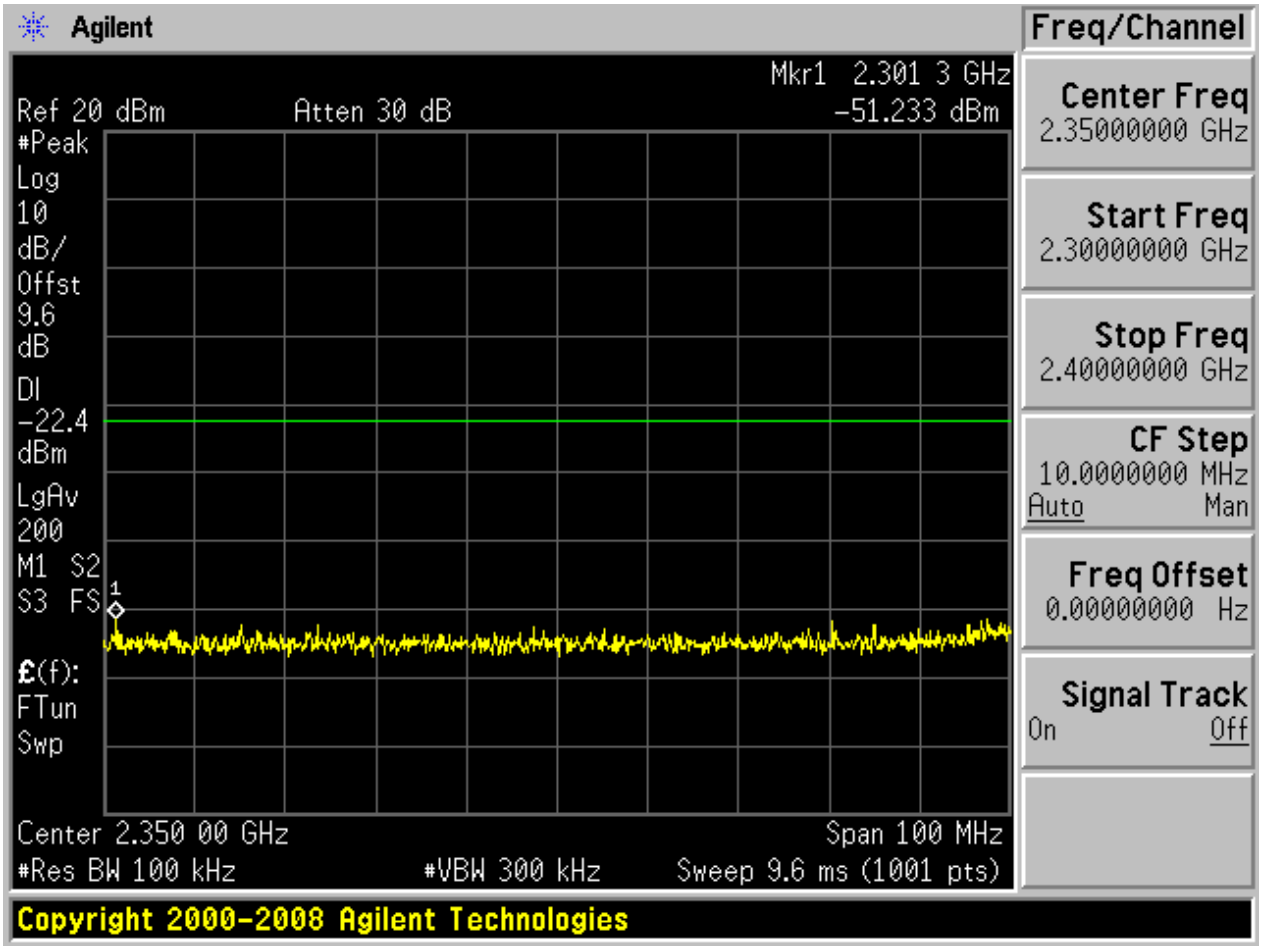
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



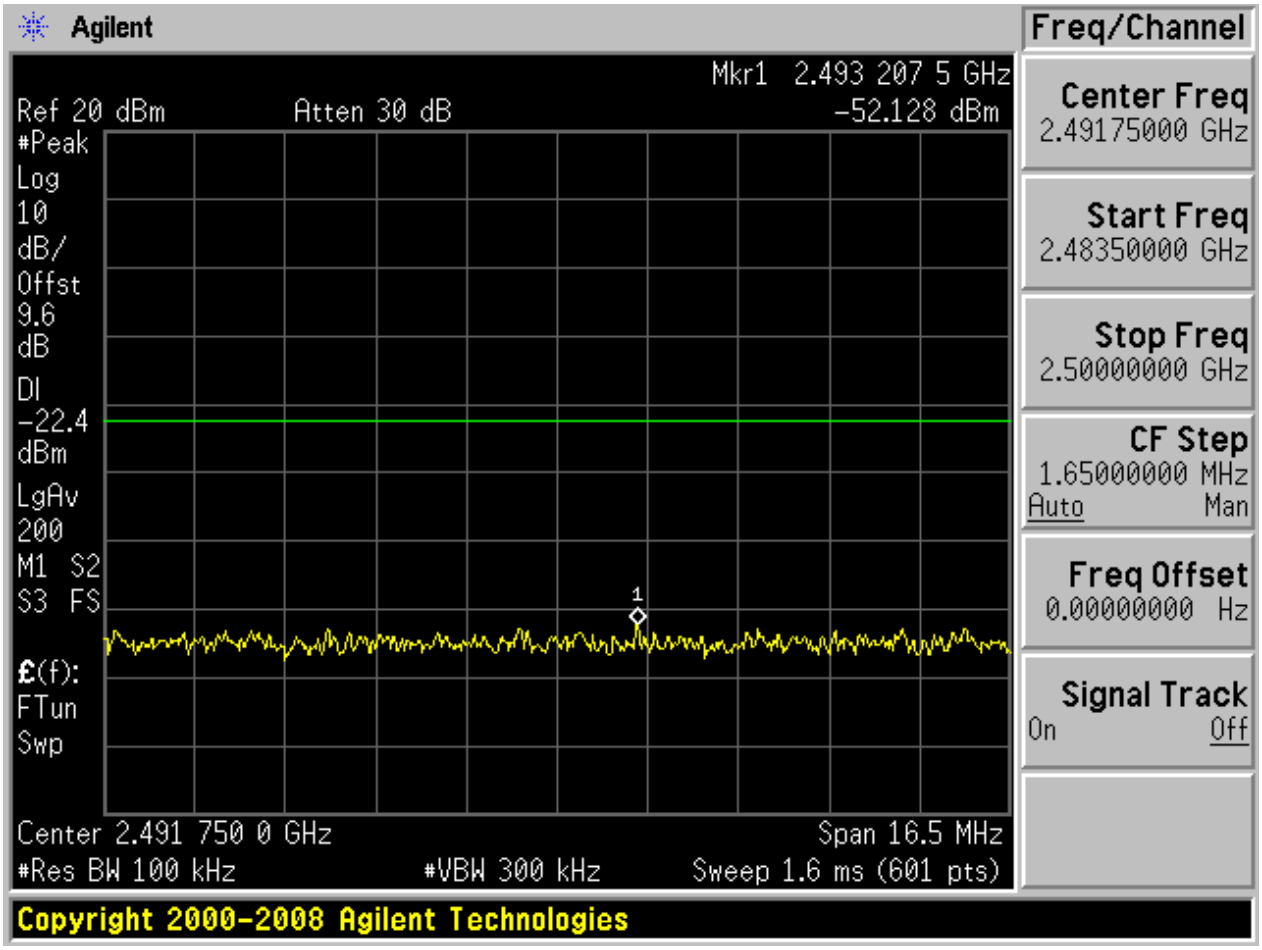
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



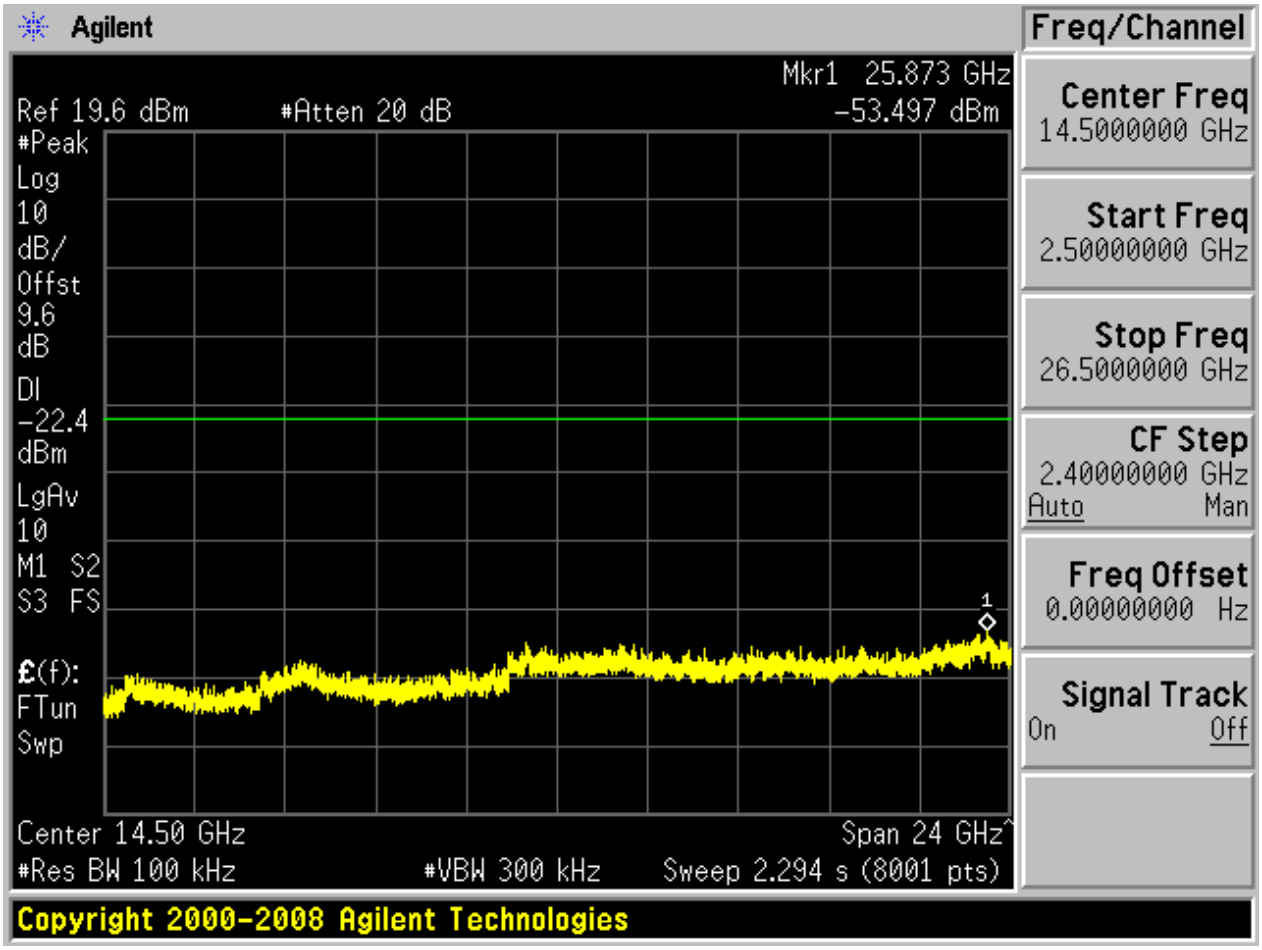
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Copyright © Huawei Technologies Co., Ltd.

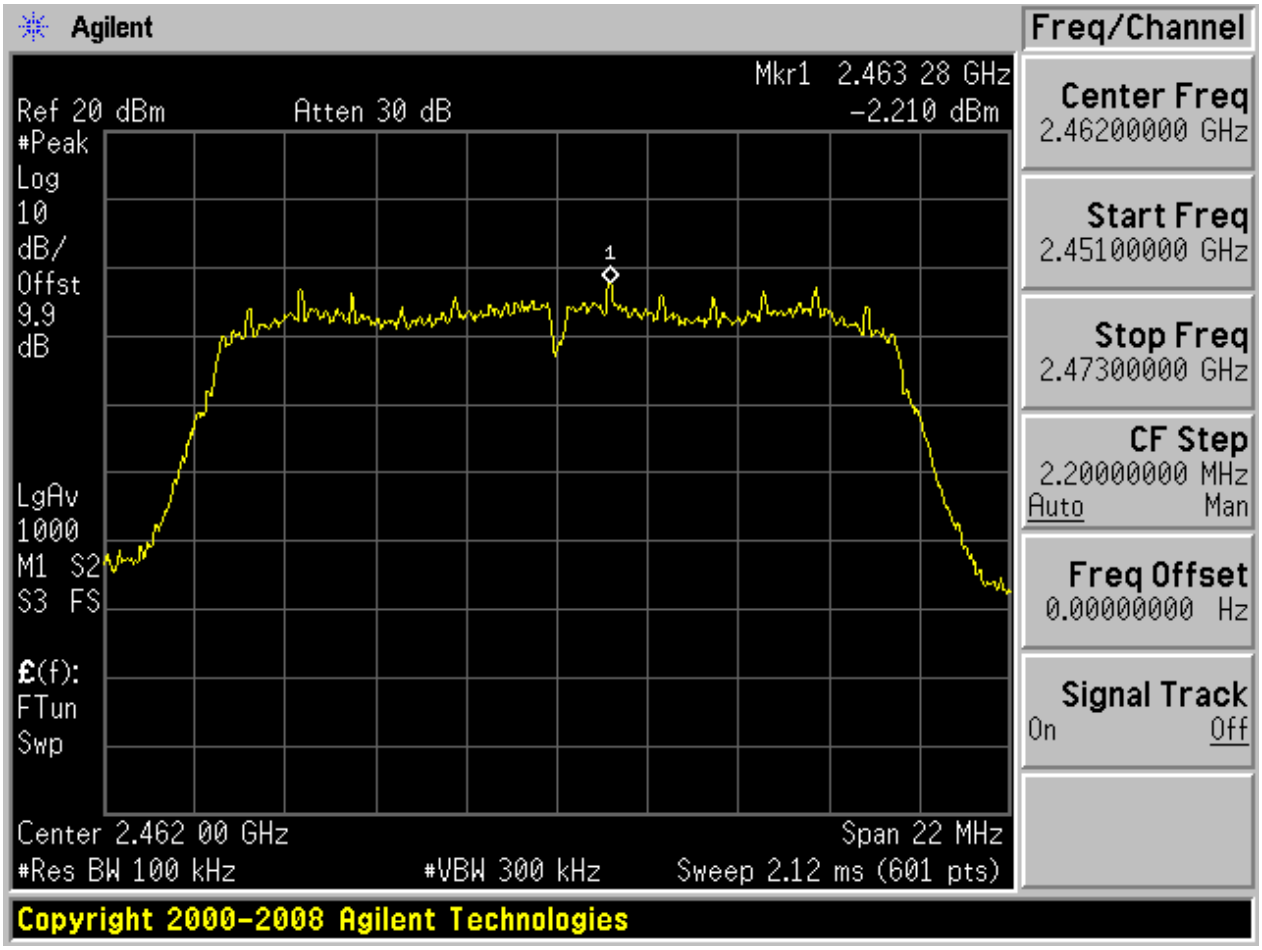
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.11 11G_T@Ant1

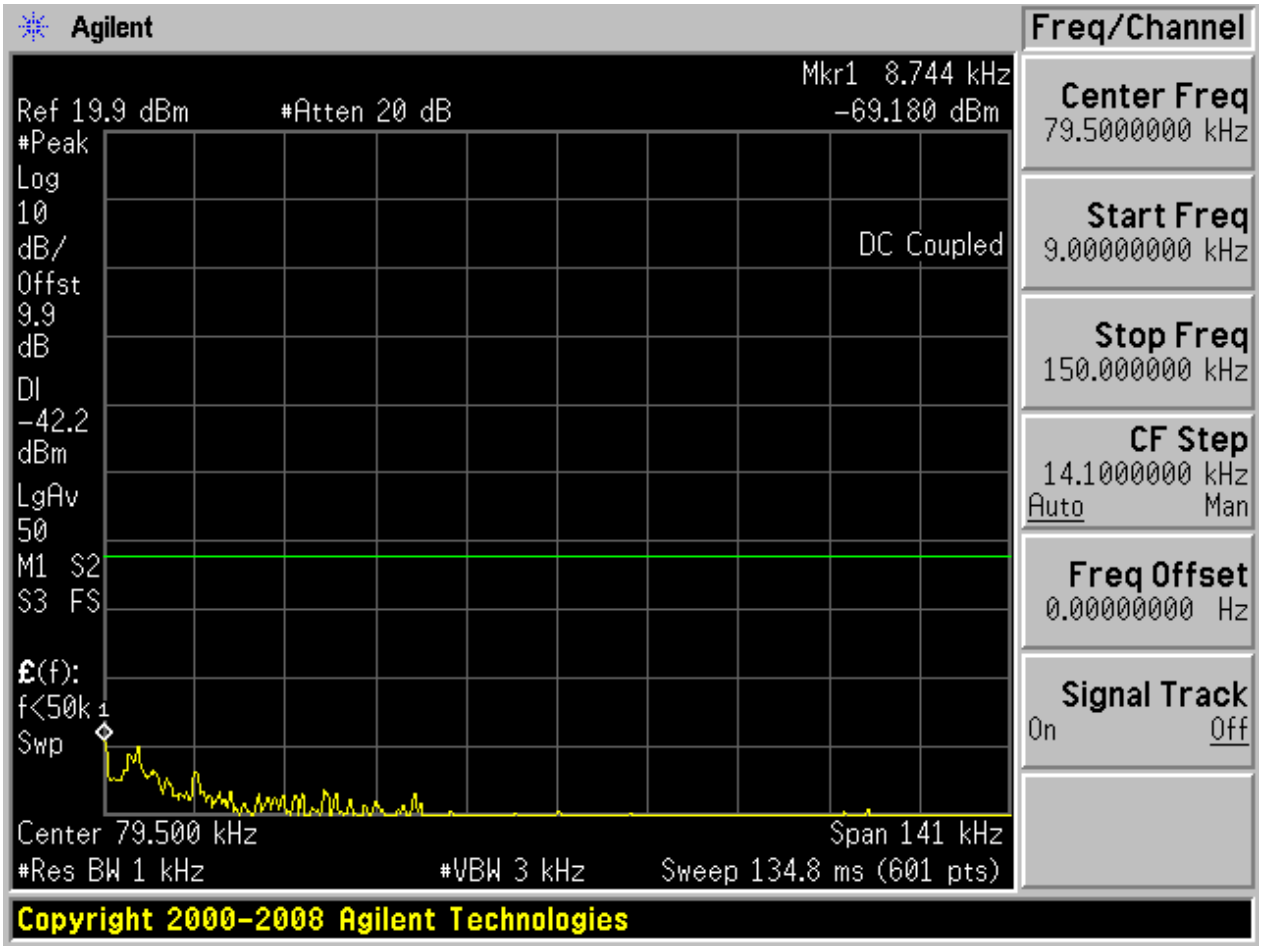
2.11.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

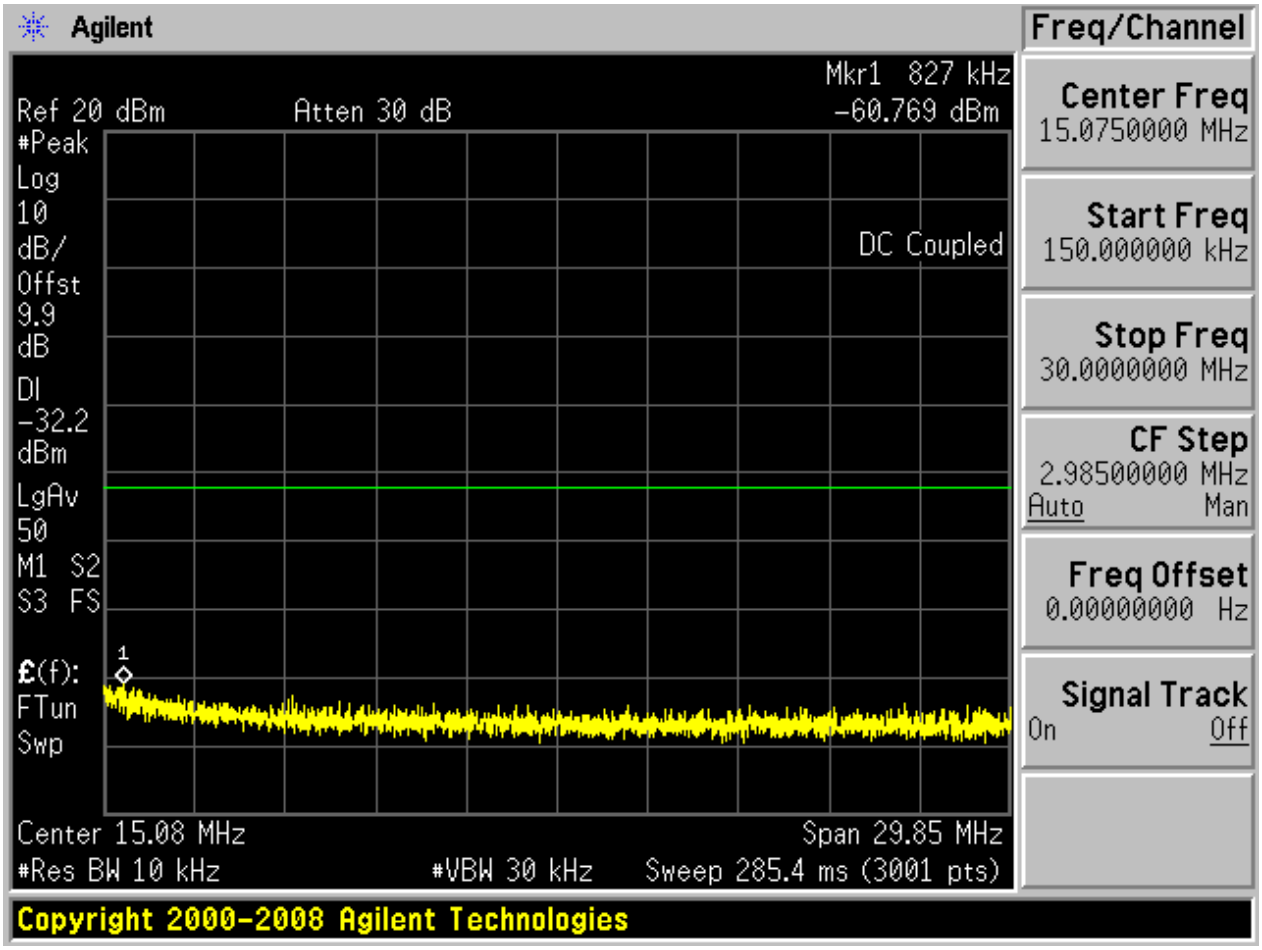
2.11.2 Puw:

9k - 150k



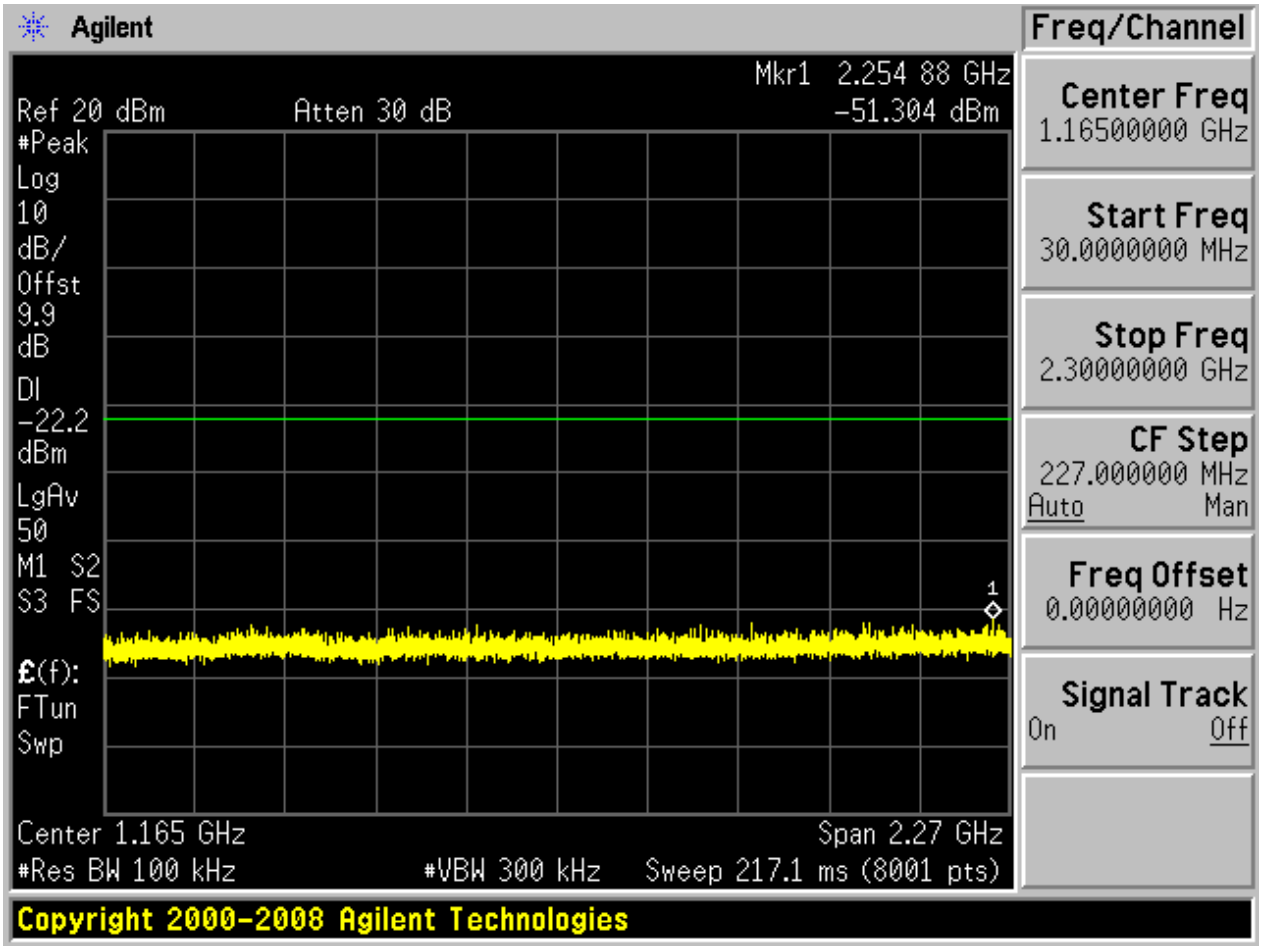
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



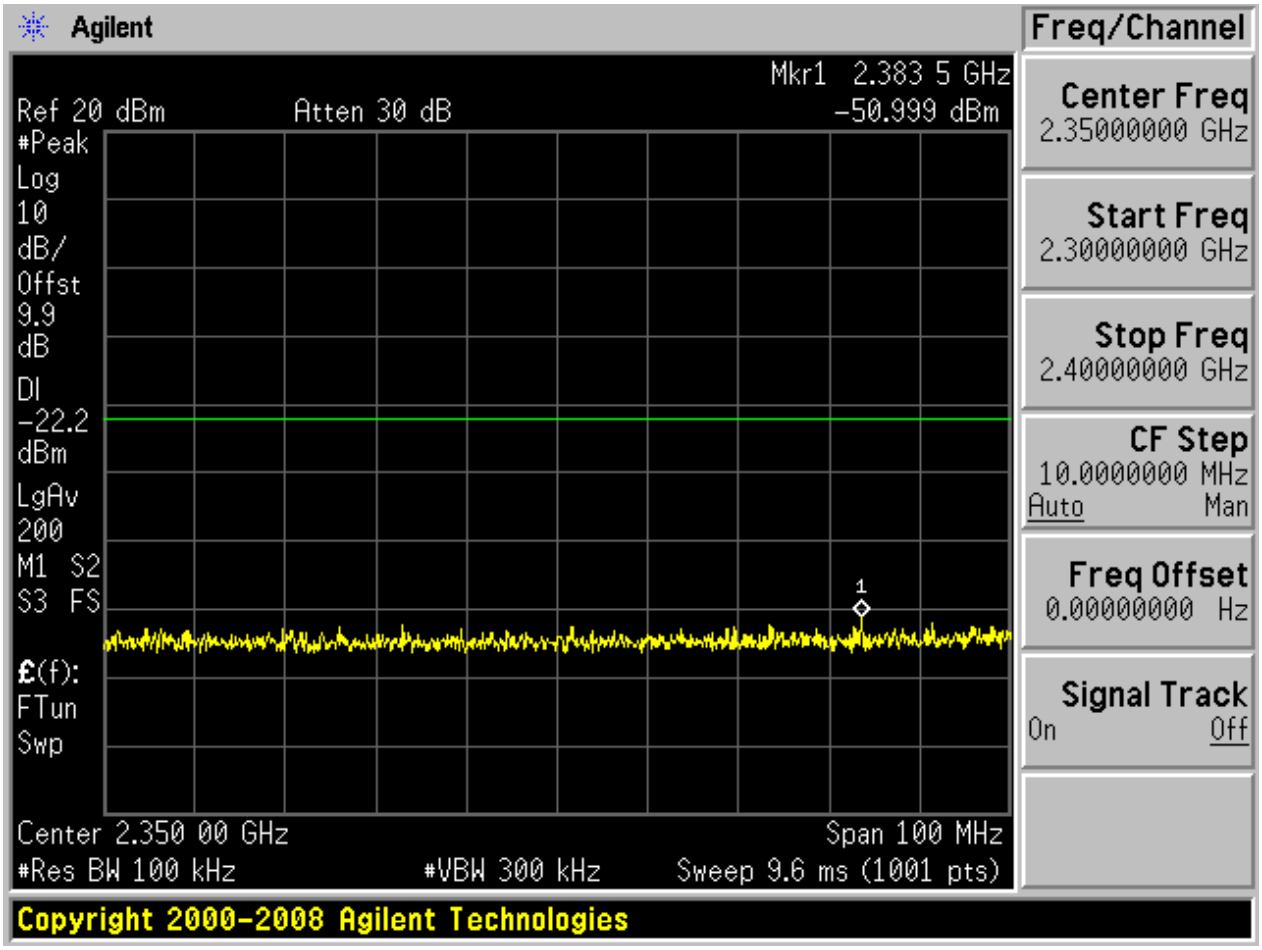
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



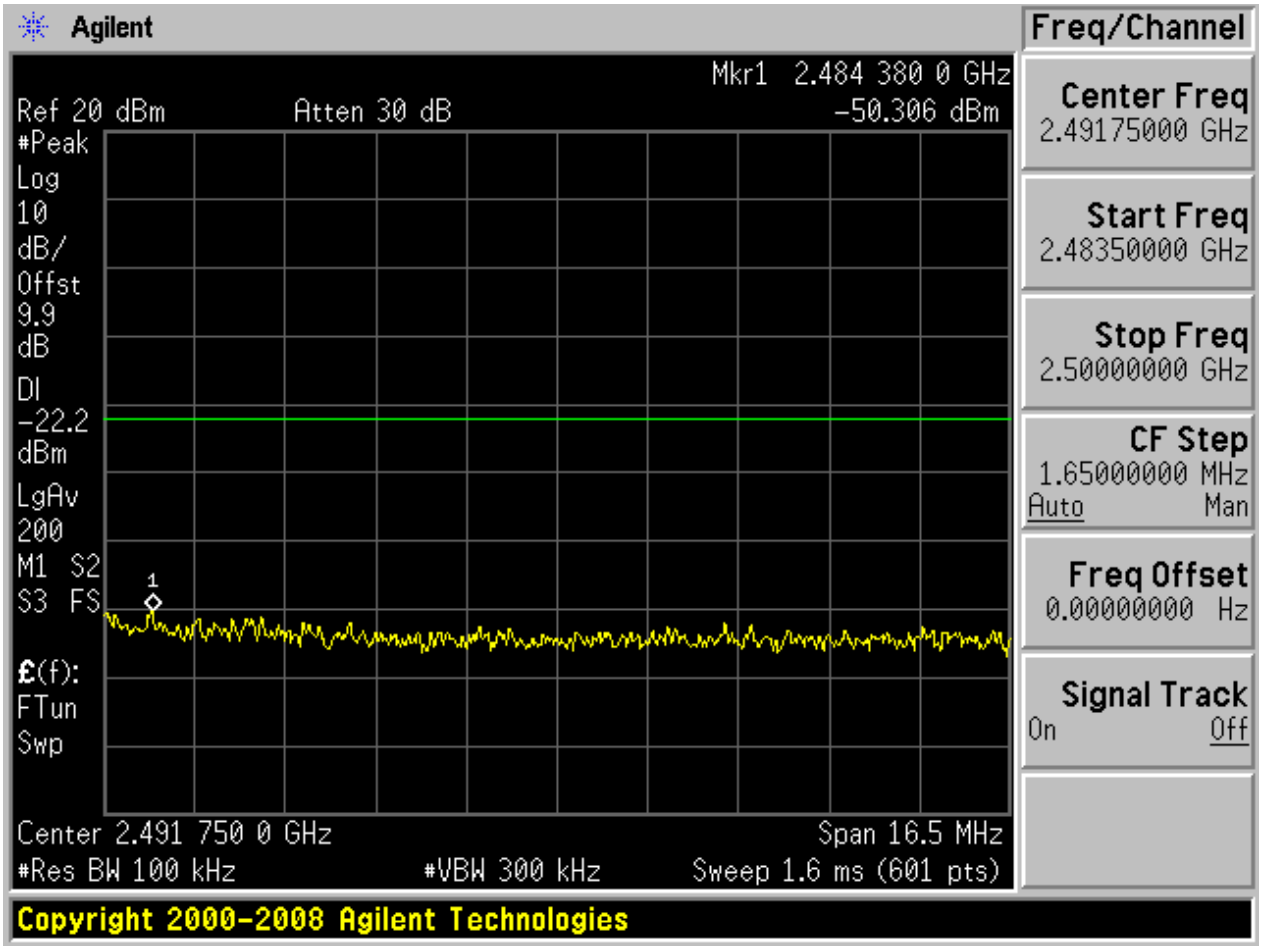
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



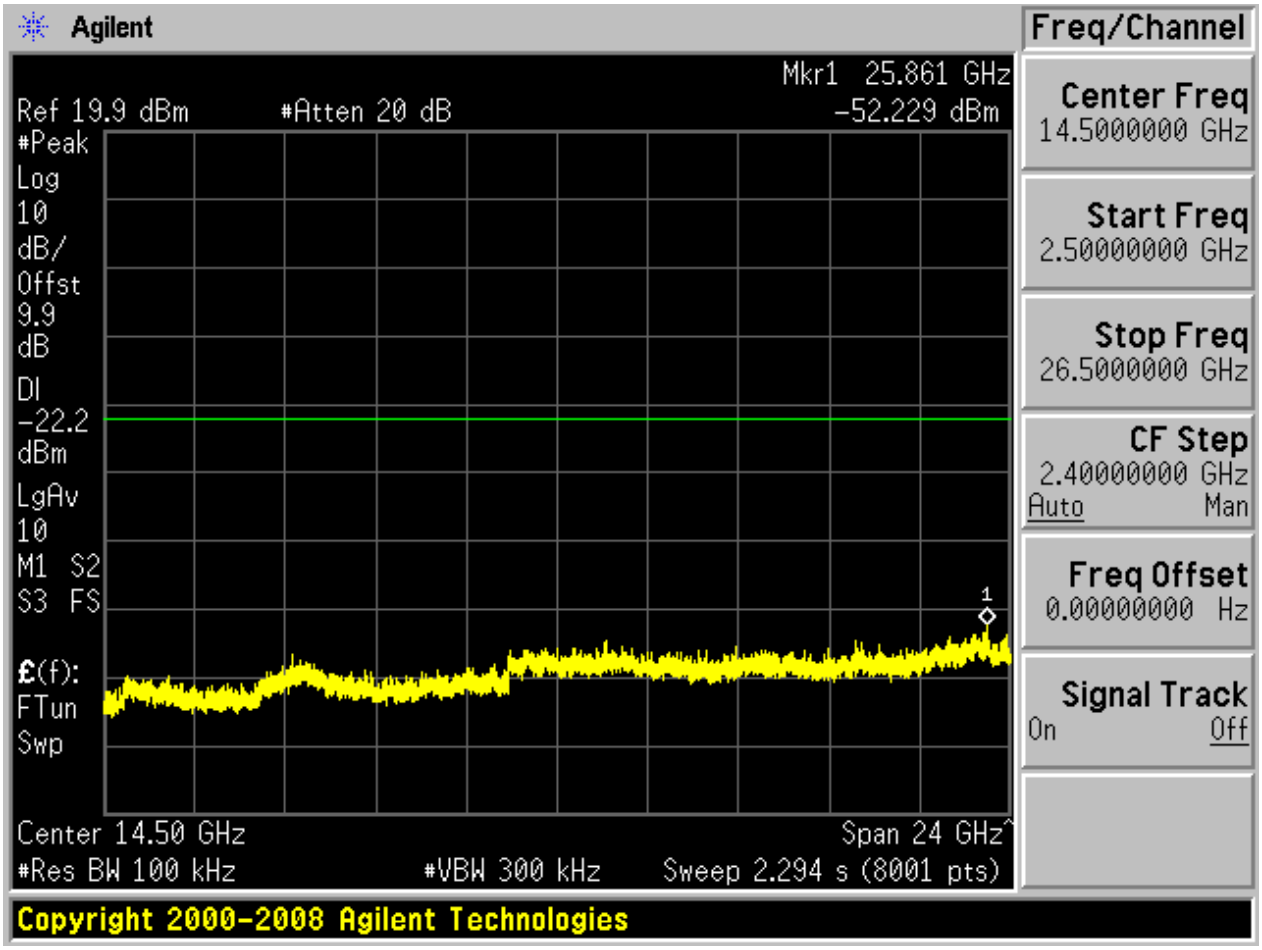
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Copyright © Huawei Technologies Co., Ltd.

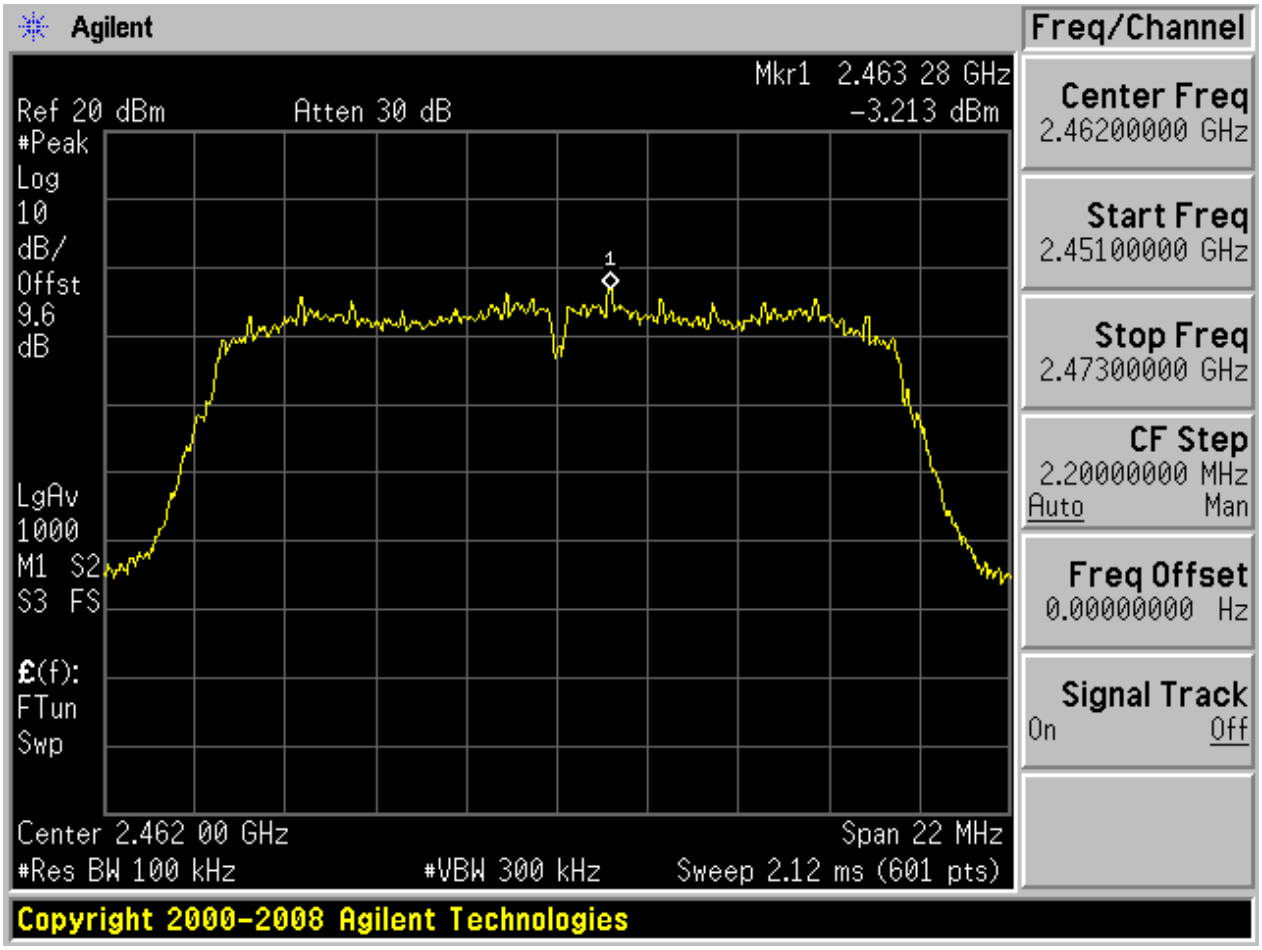
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.12 11G_T@Ant2

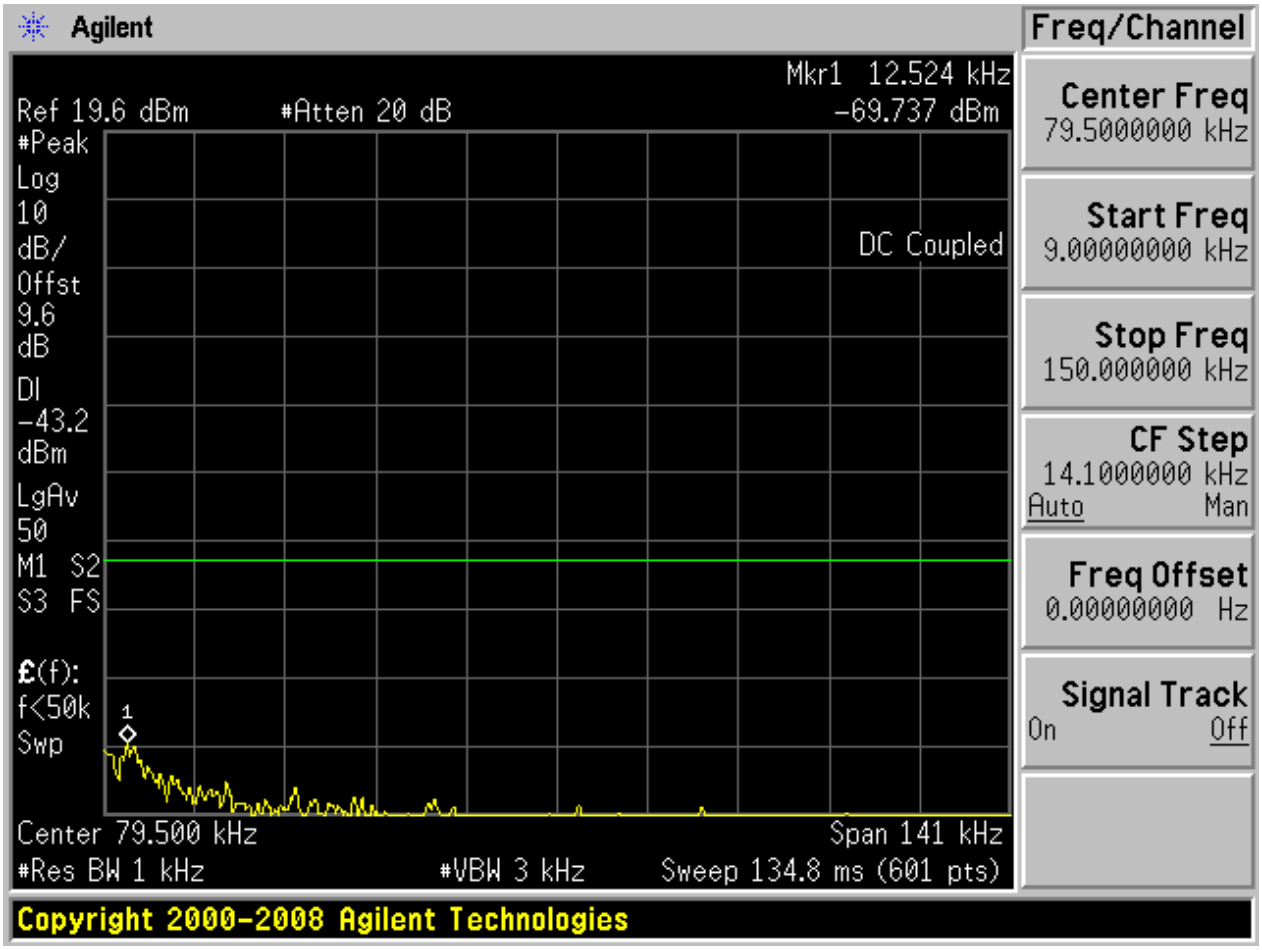
2.12.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

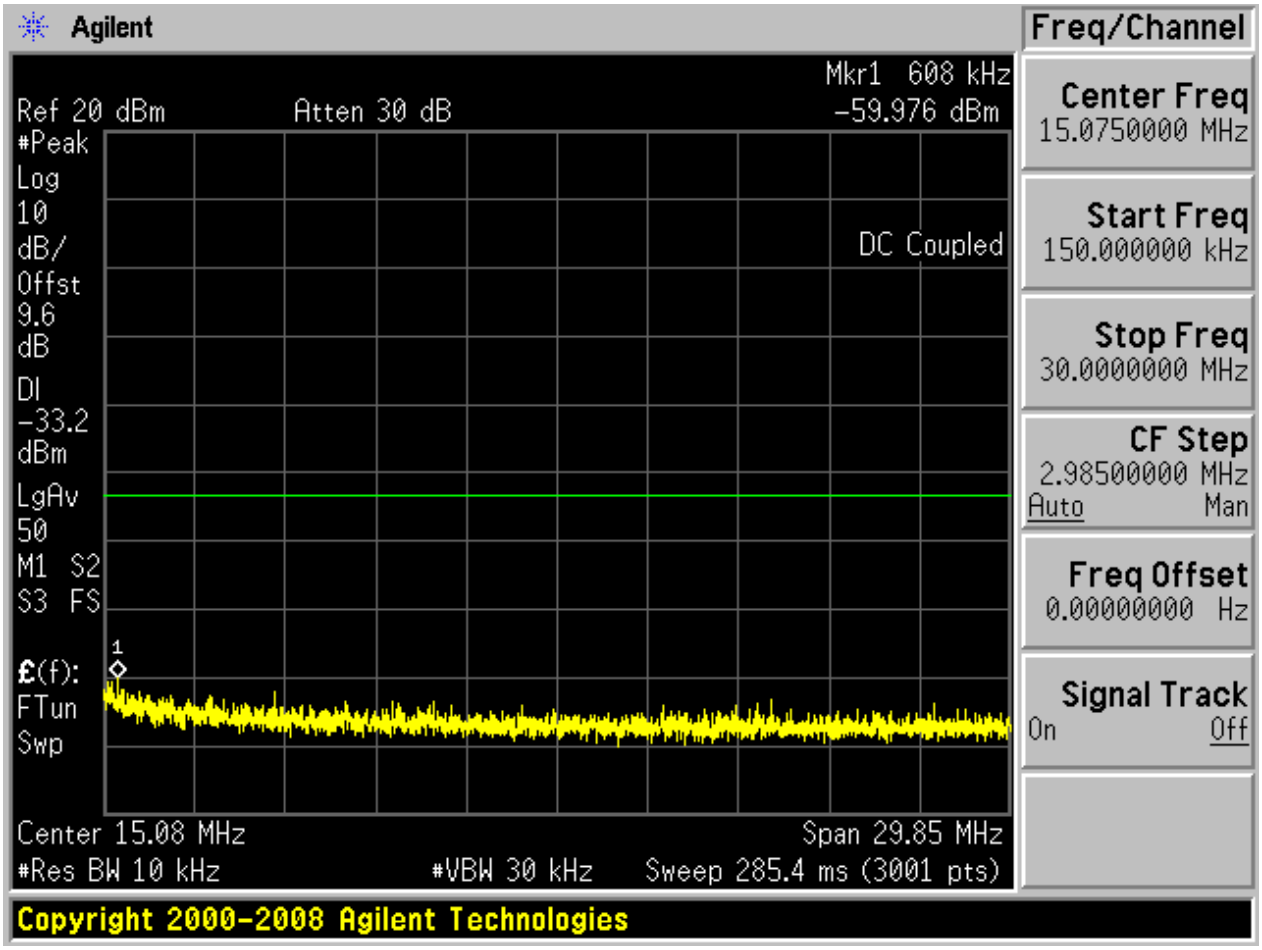
2.12.2 Puw:

9k - 150k



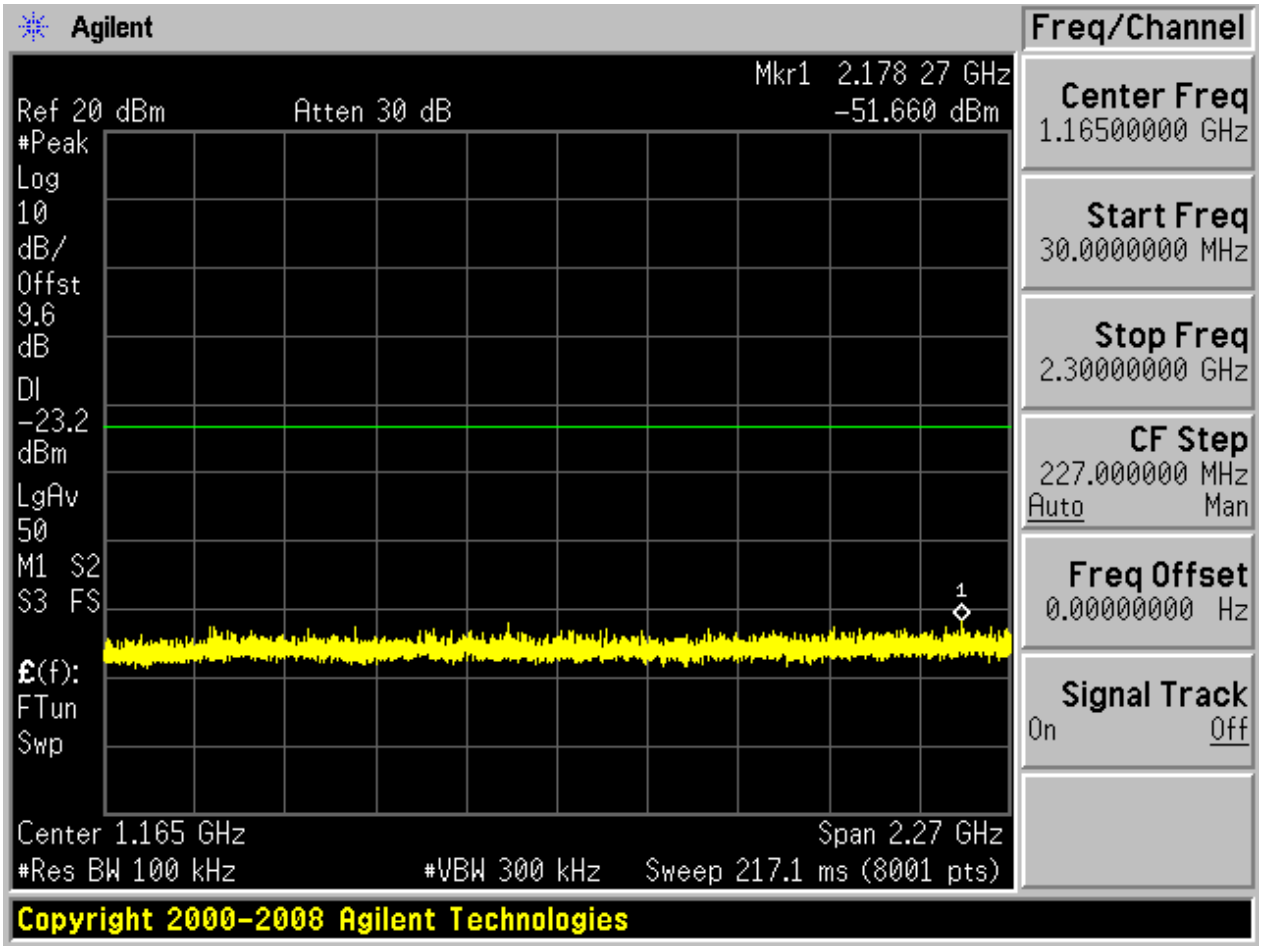
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



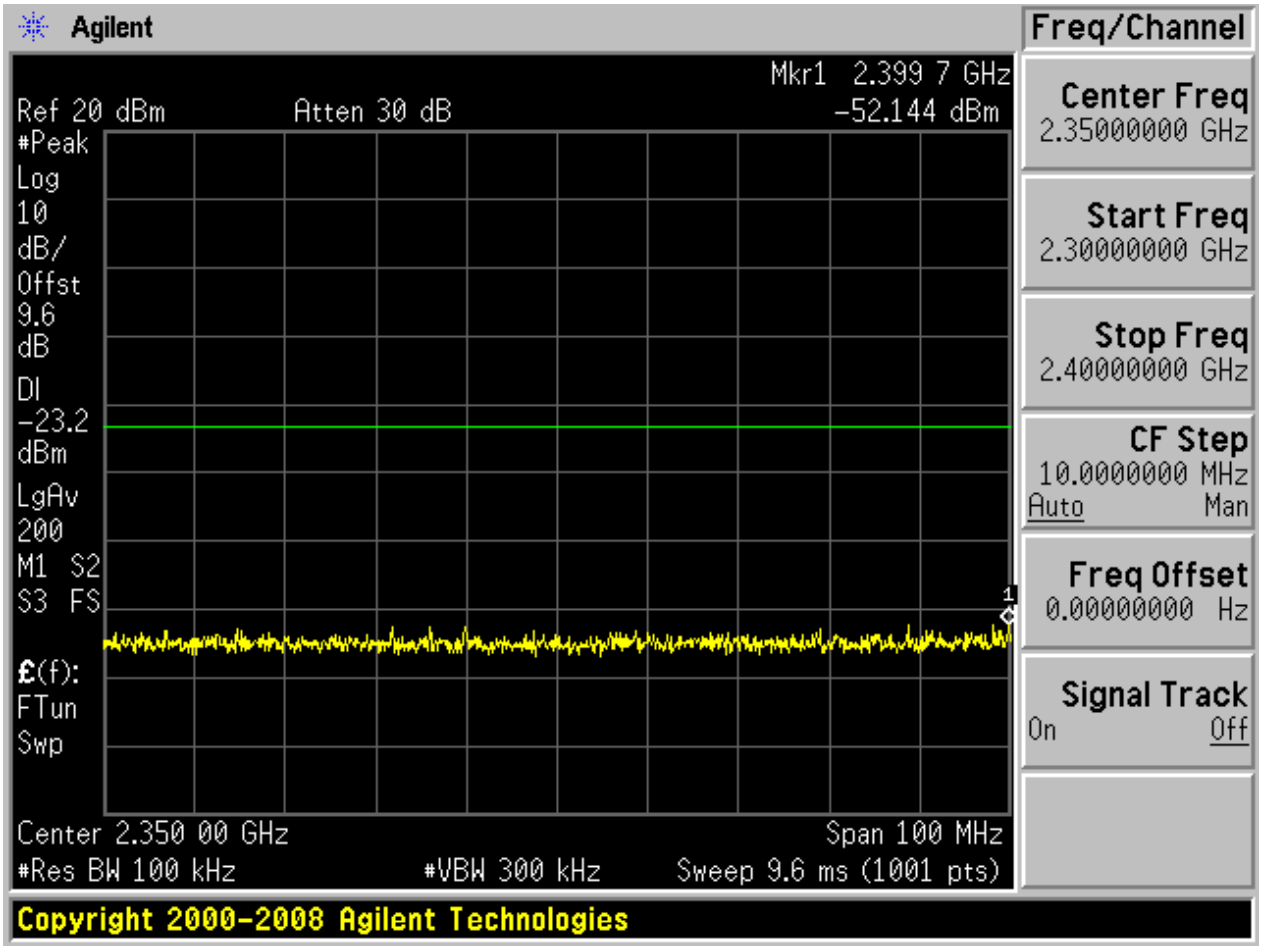
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



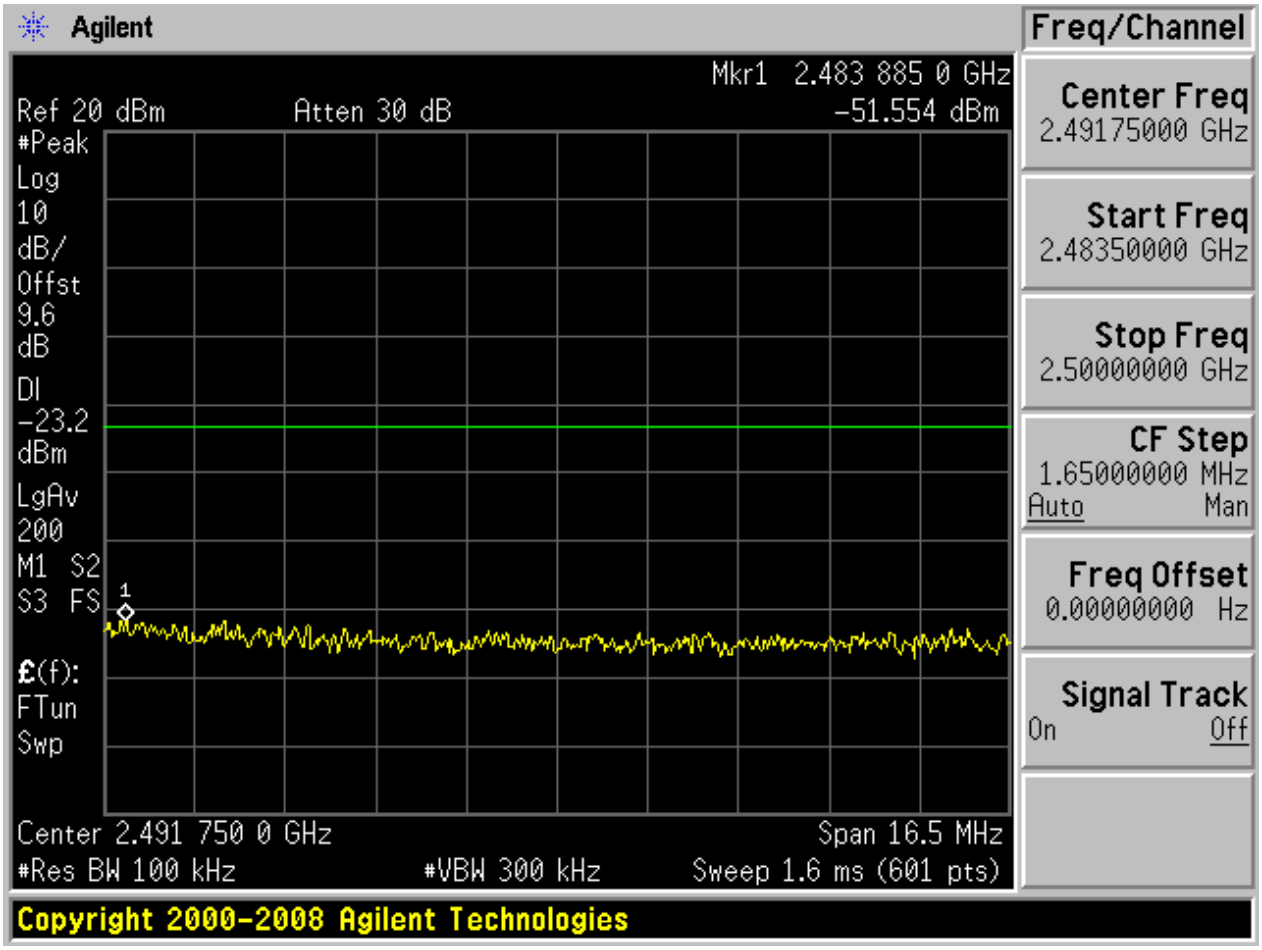
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



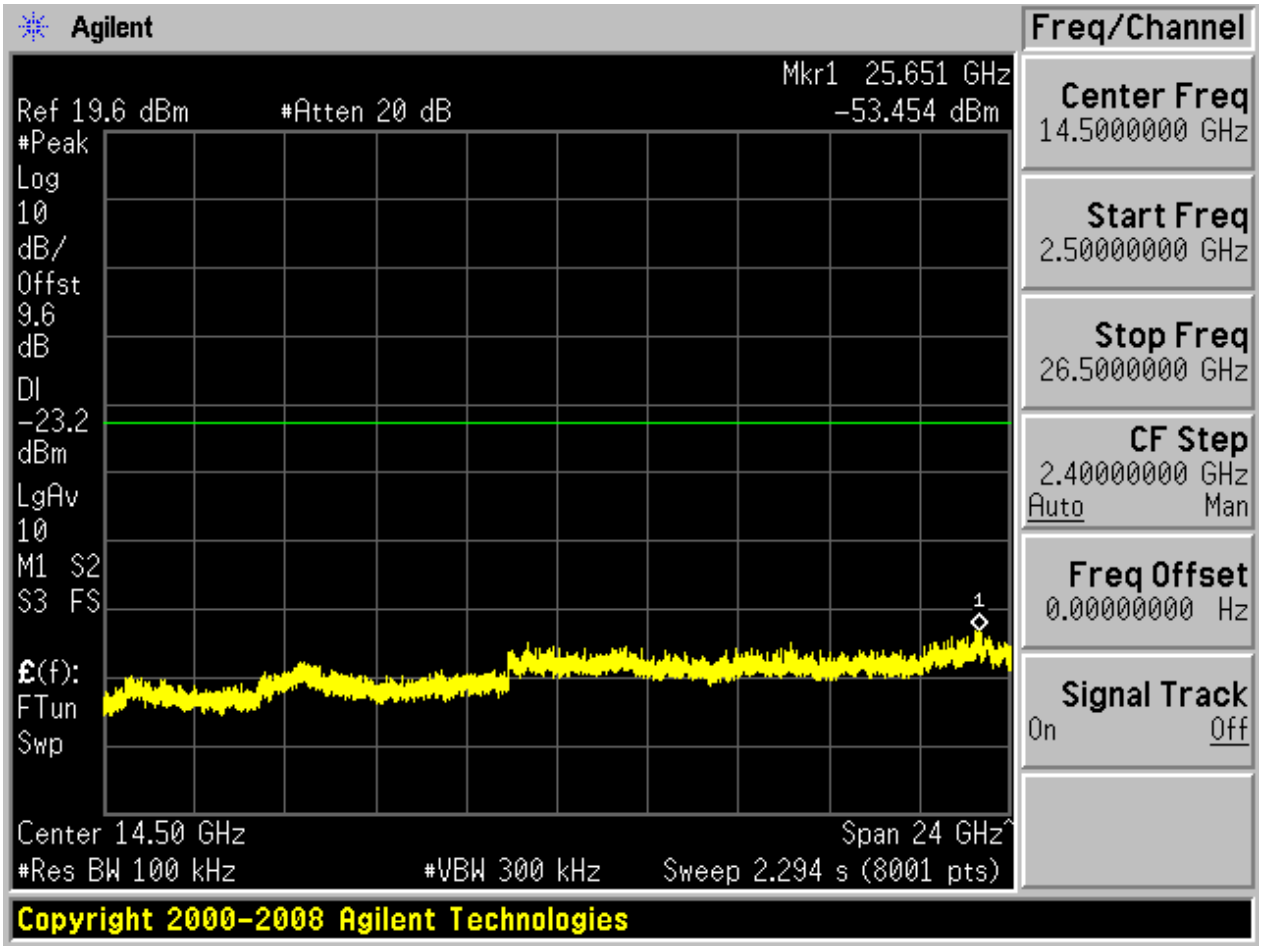
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Copyright © Huawei Technologies Co., Ltd.

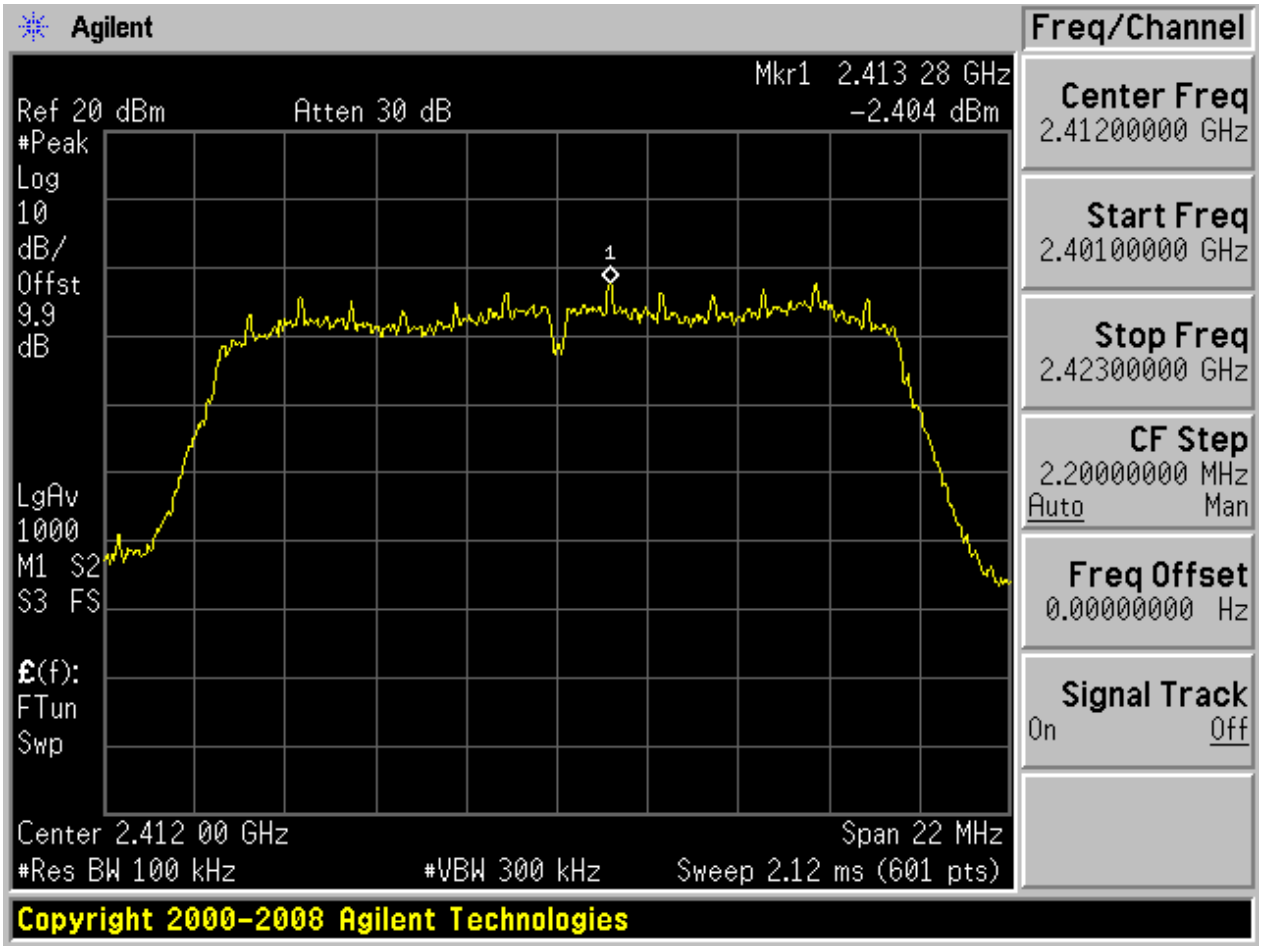
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.13 11N20_B@Ant1

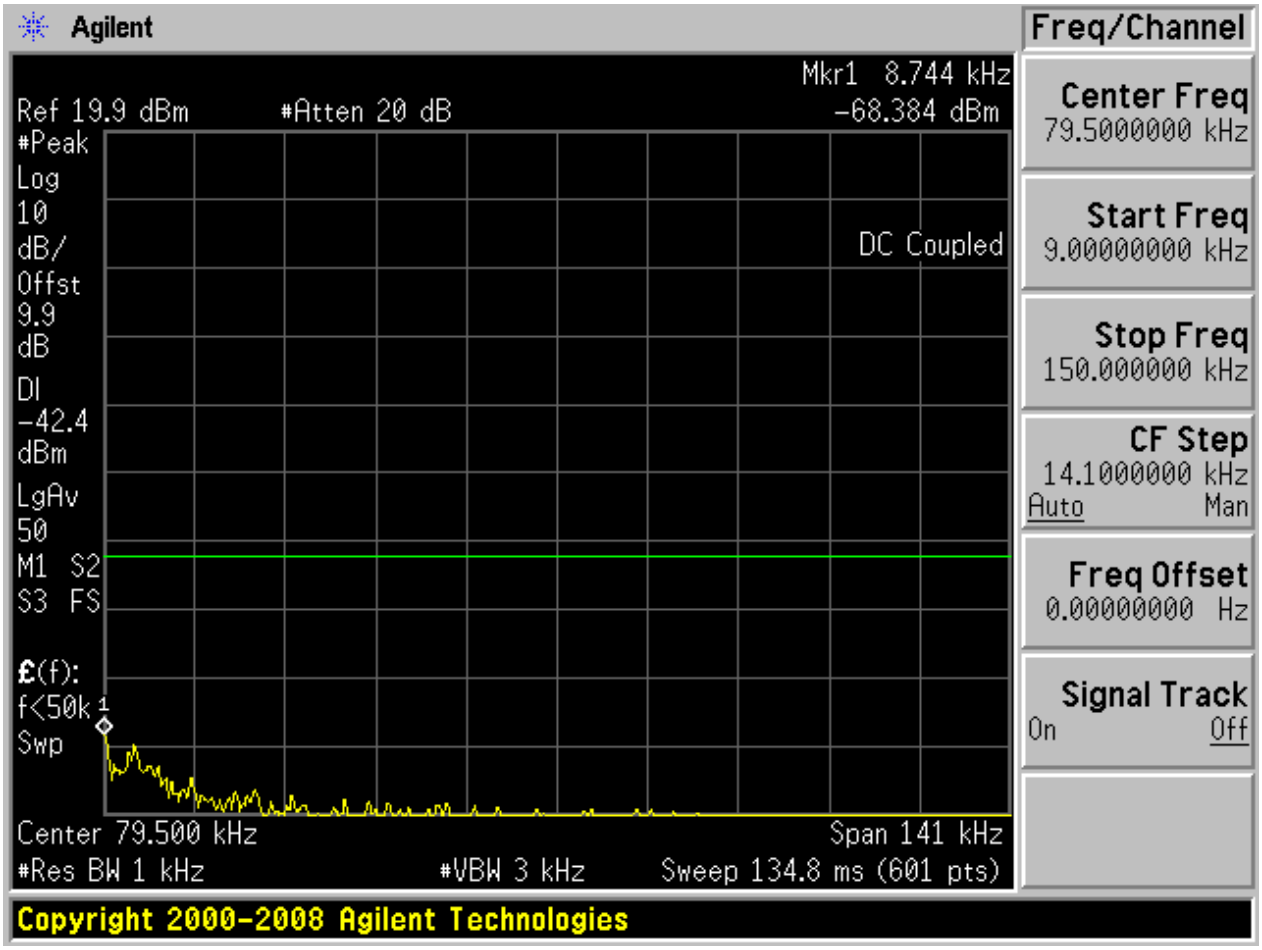
2.13.1 Pref:



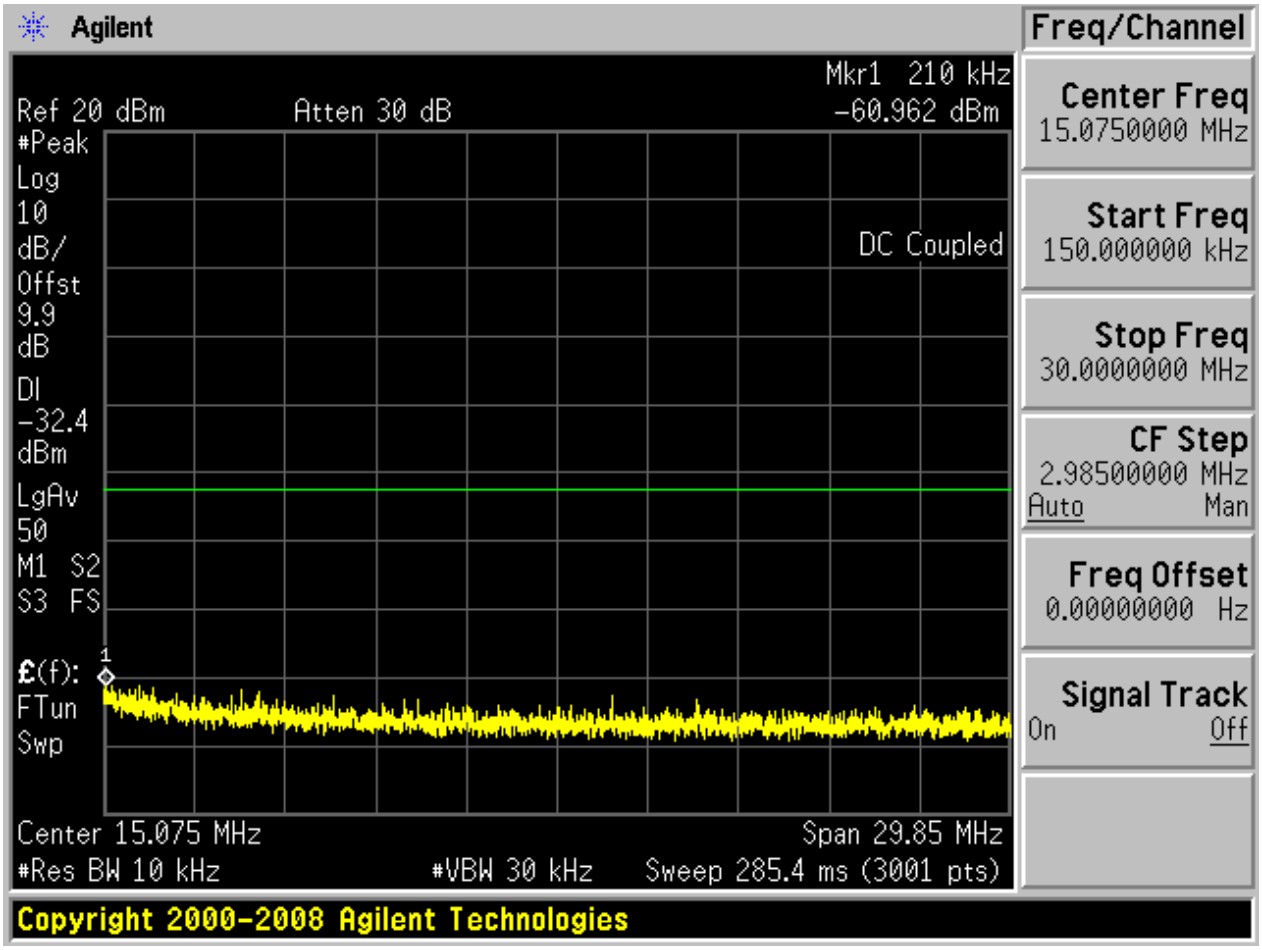
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.13.2 Puw:

9k - 150k

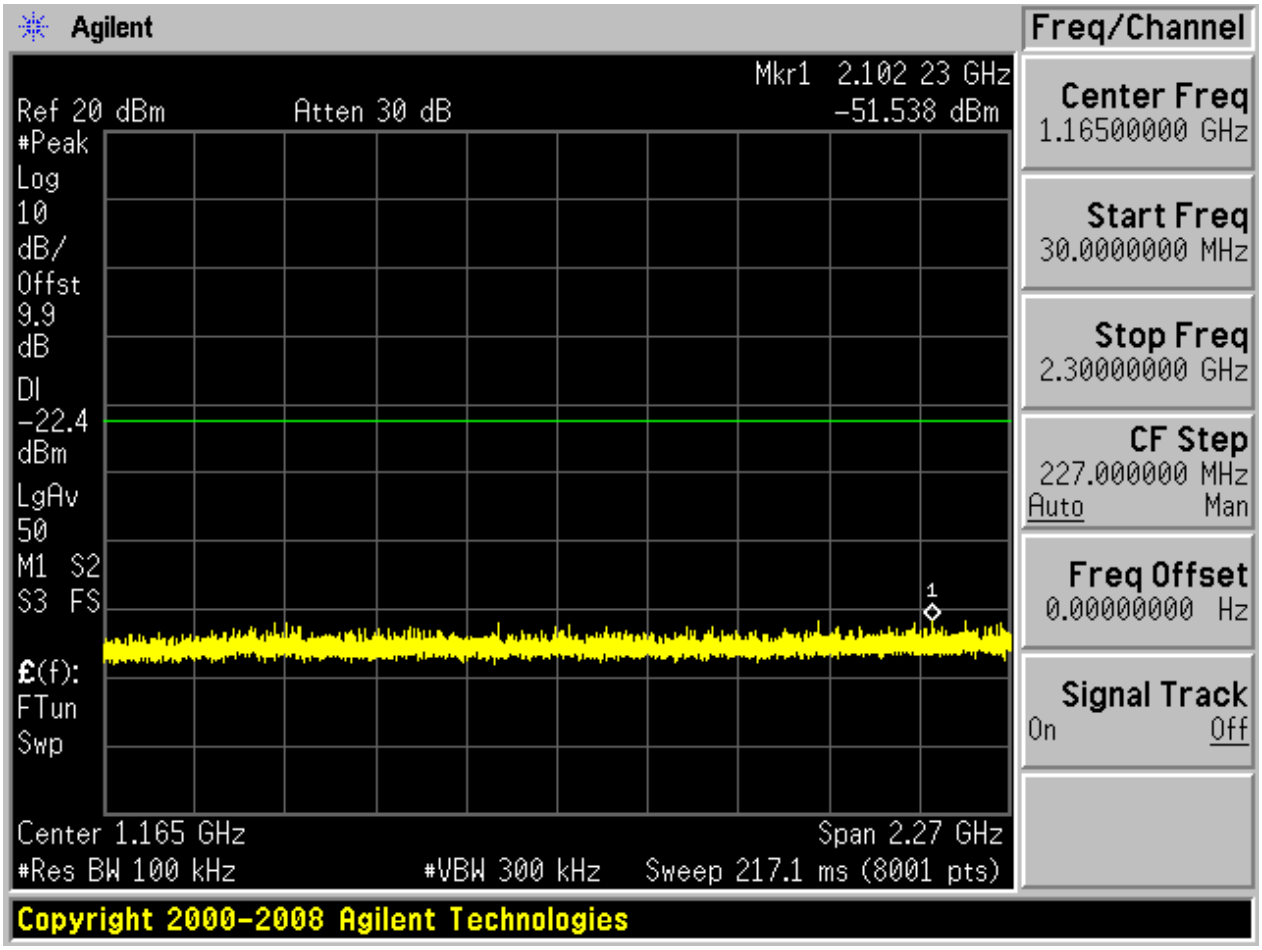


150k - 30M



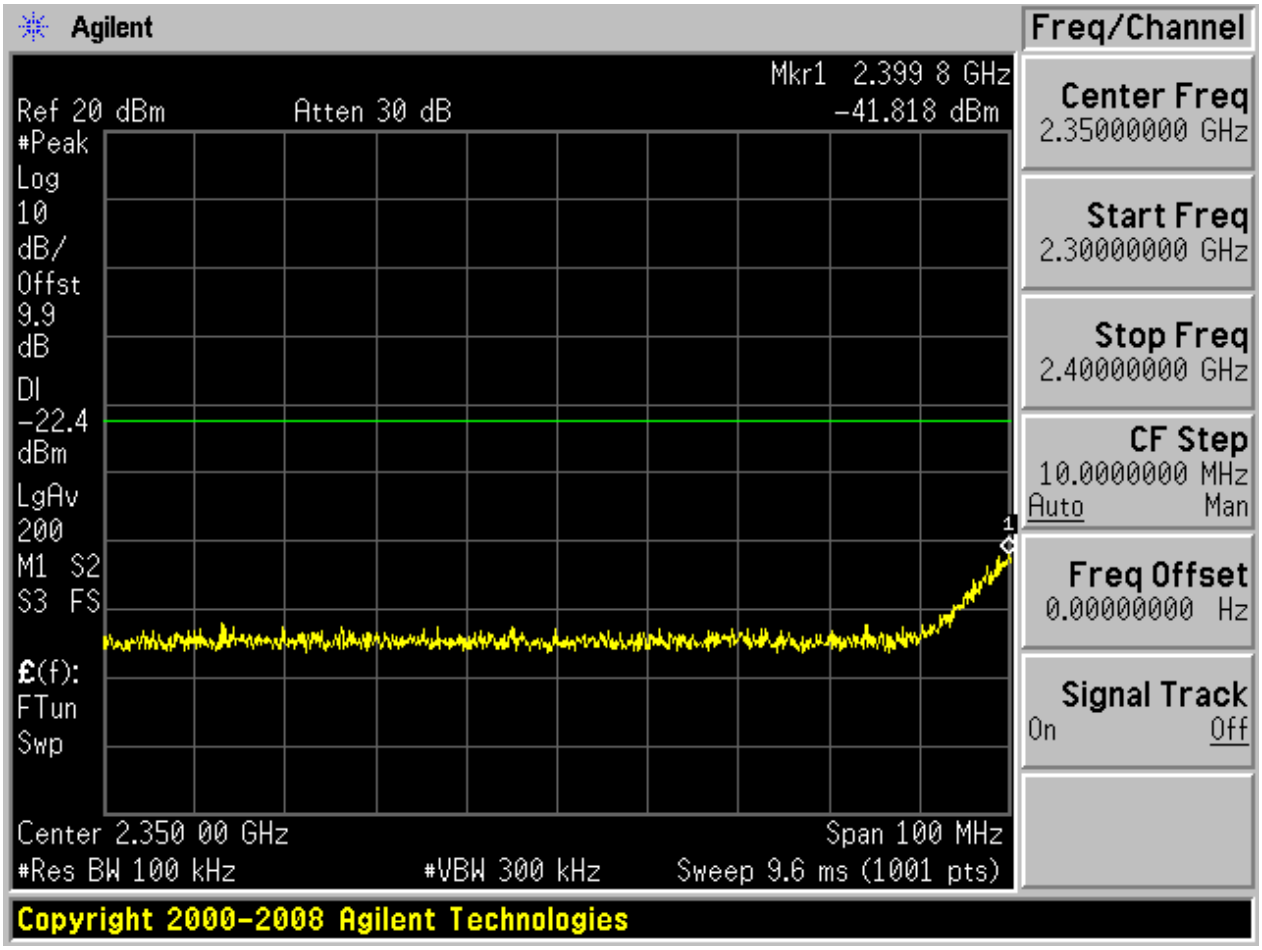
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



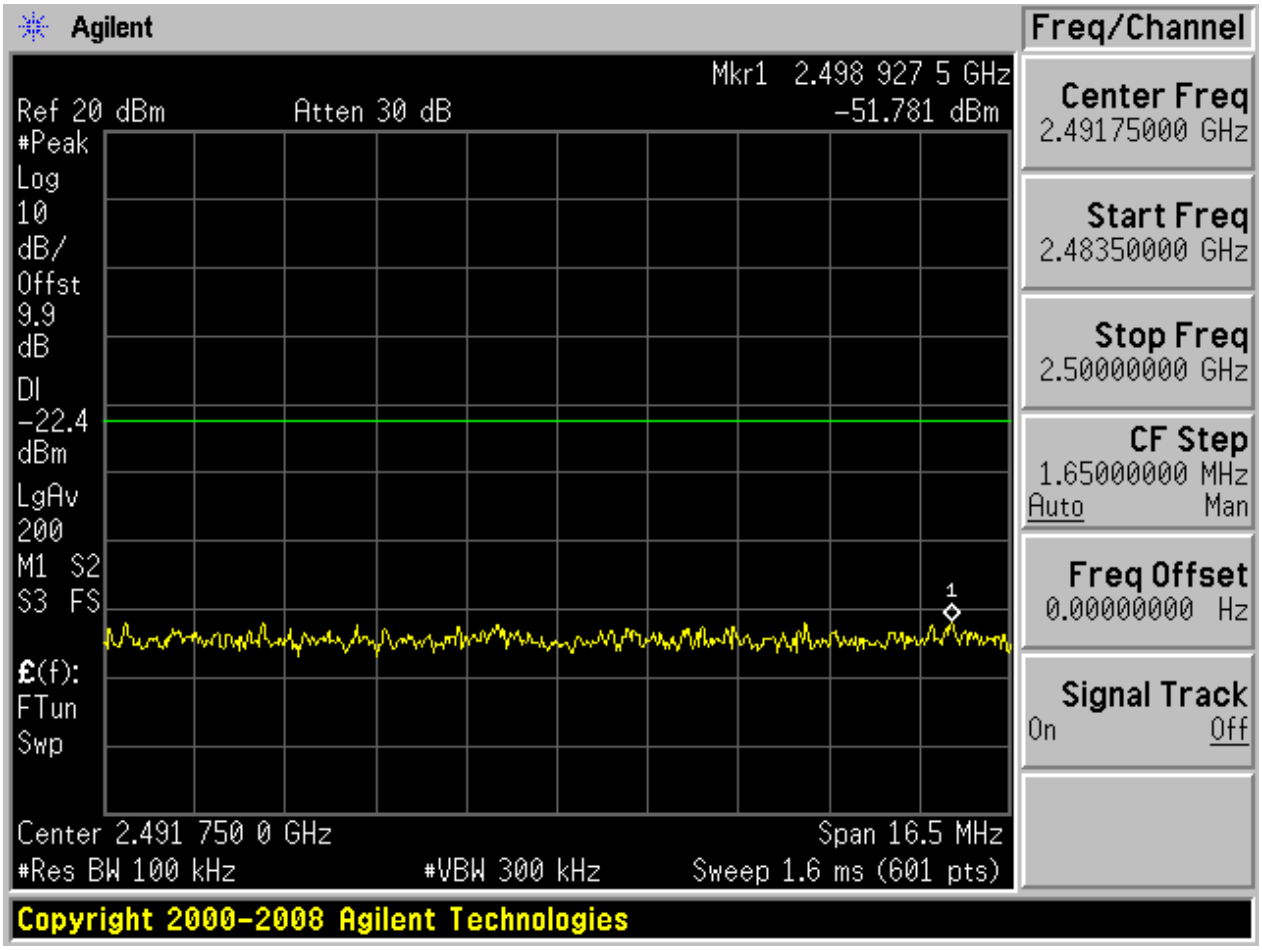
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



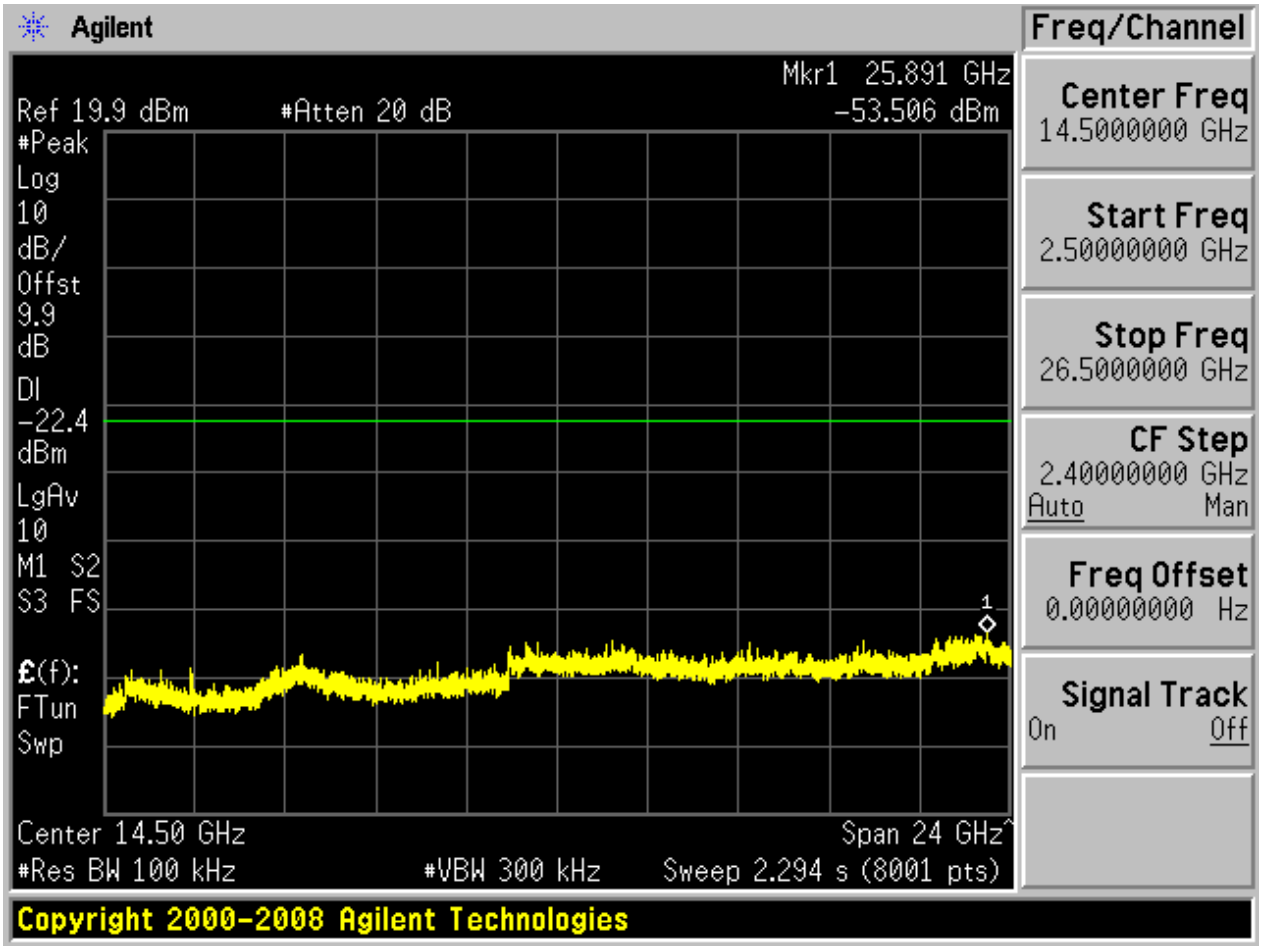
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

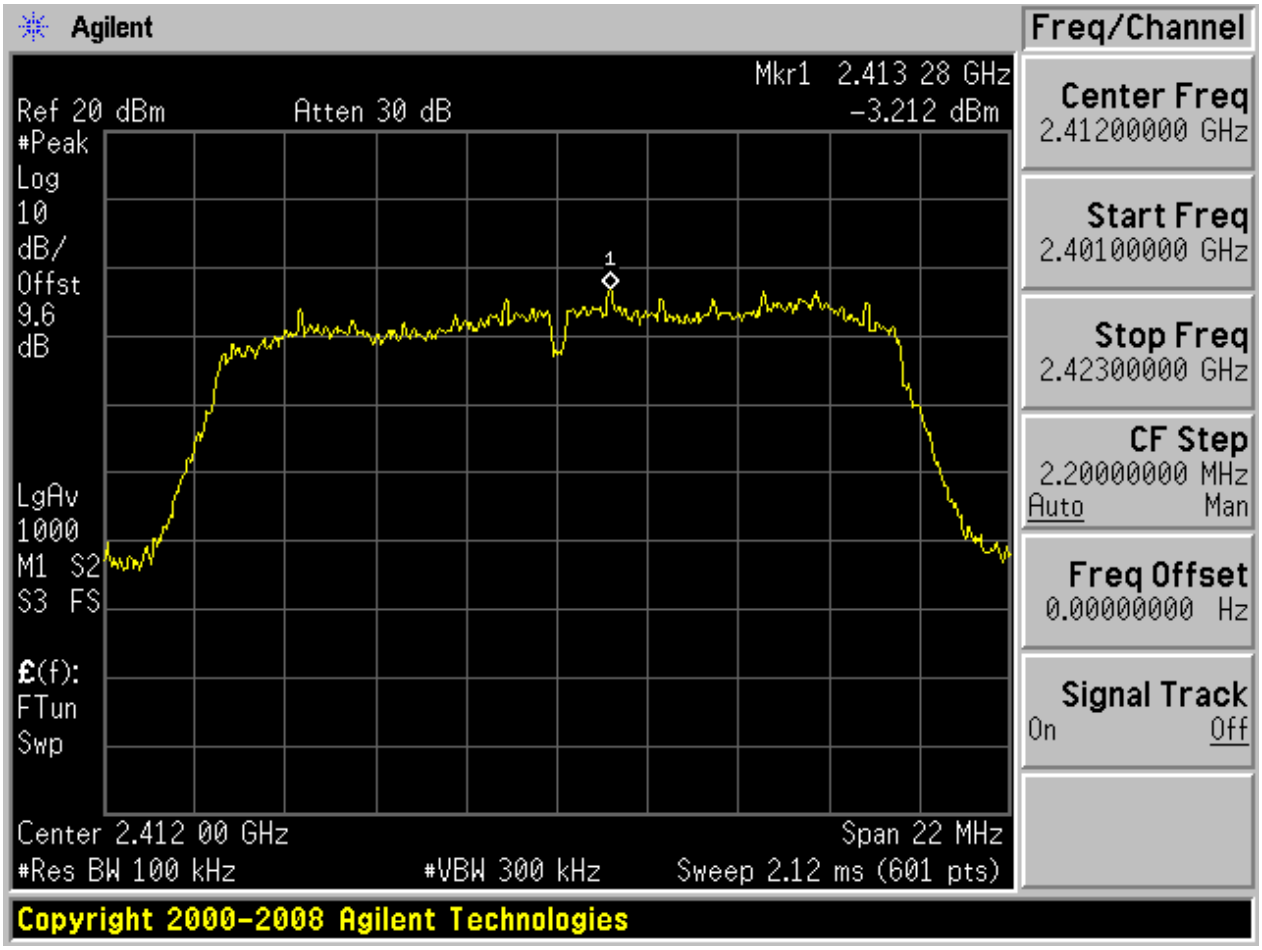
2.5G - 26.5G



Copyright © Huawei Technologies Co., Ltd.

2.14 11N20_B@Ant2

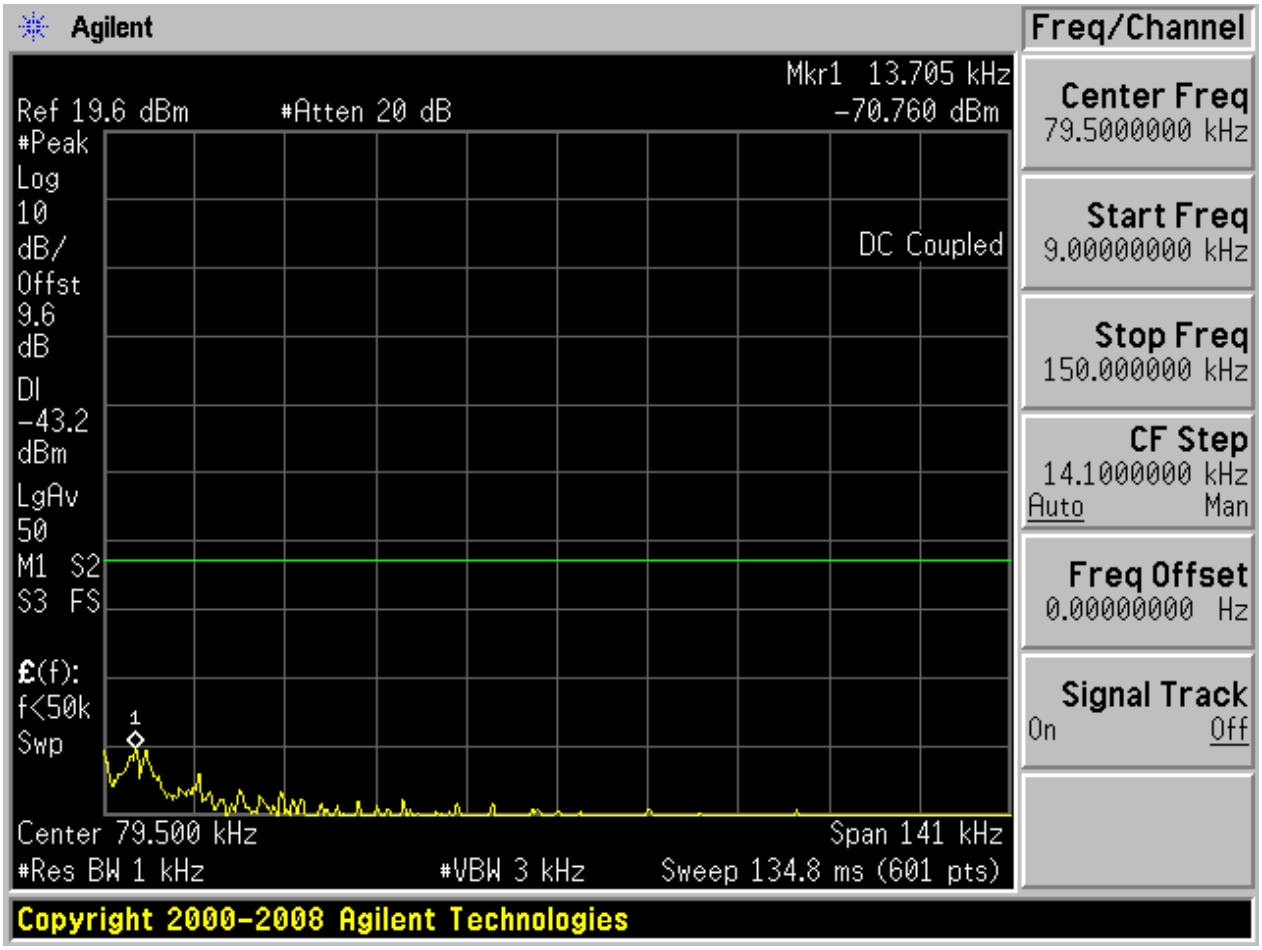
2.14.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

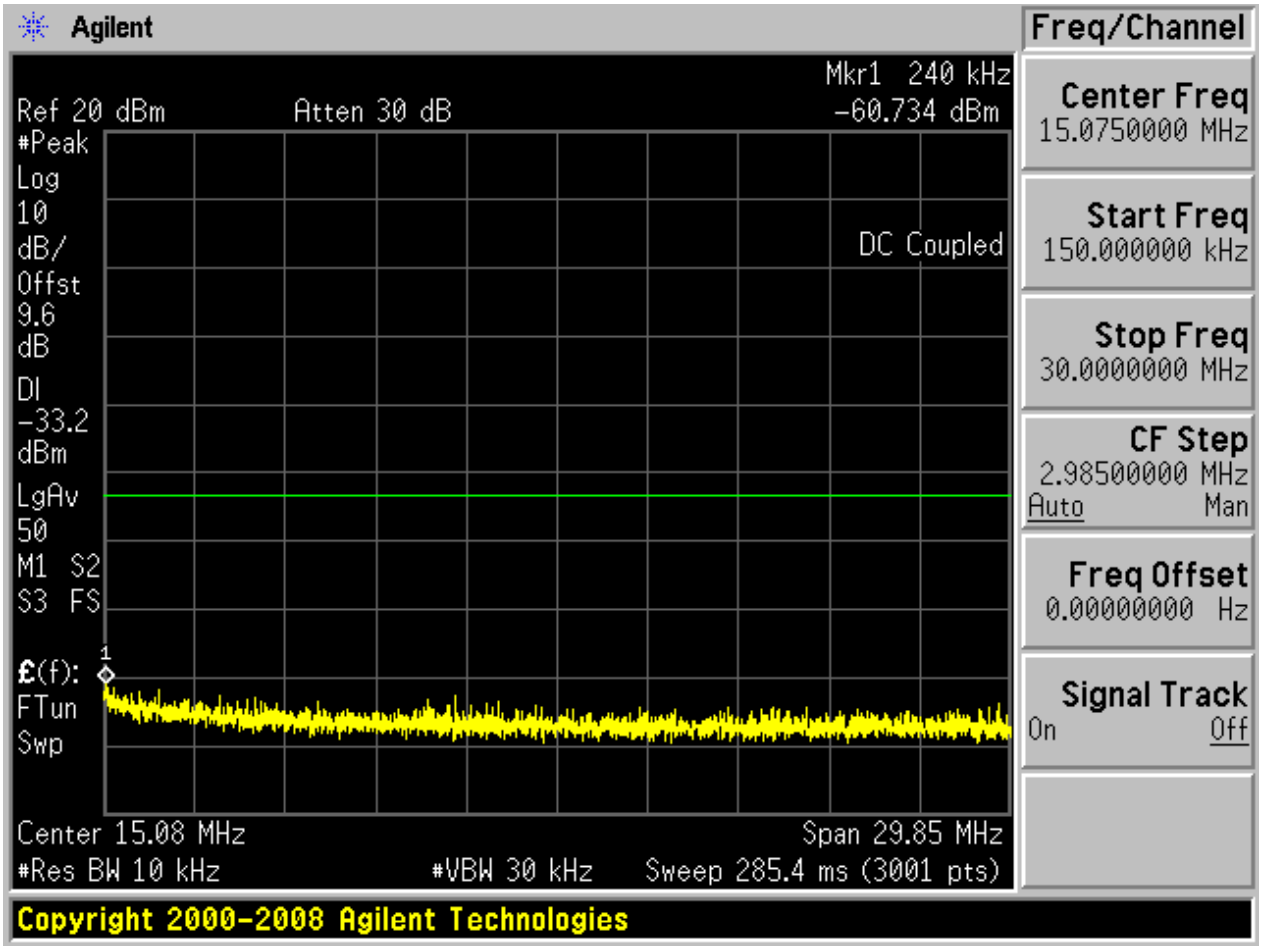
2.14.2 Puw:

9k - 150k



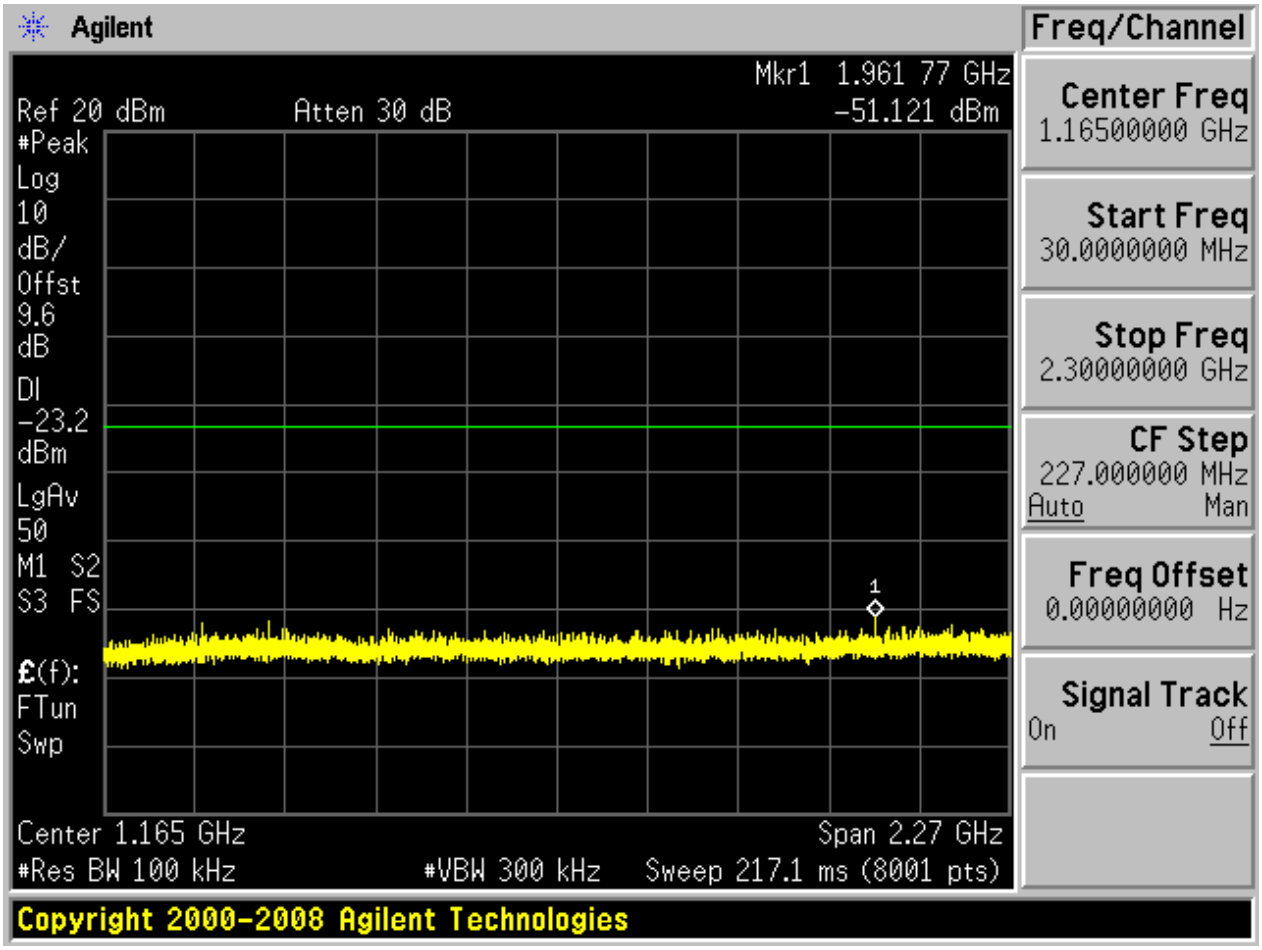
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



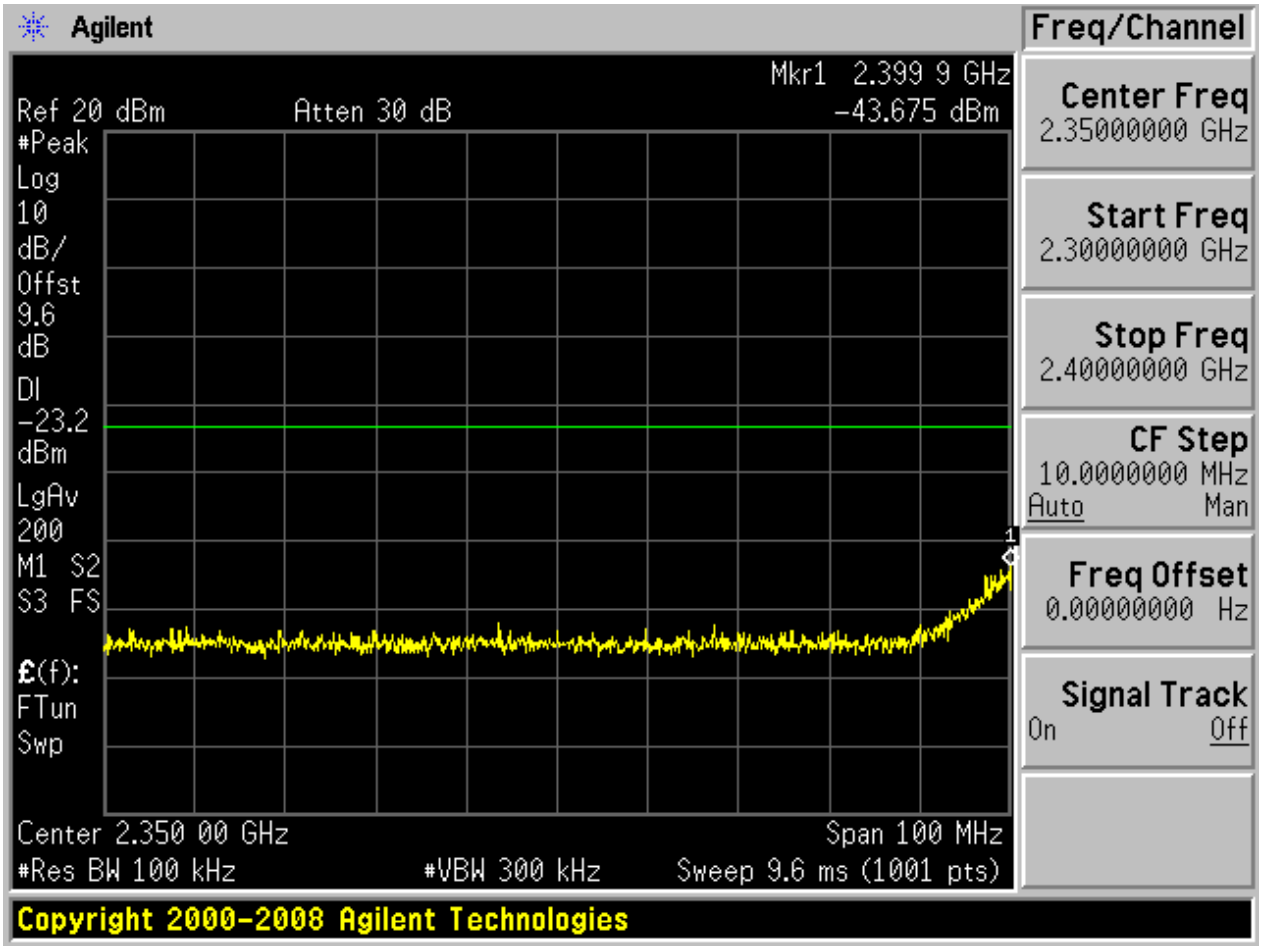
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



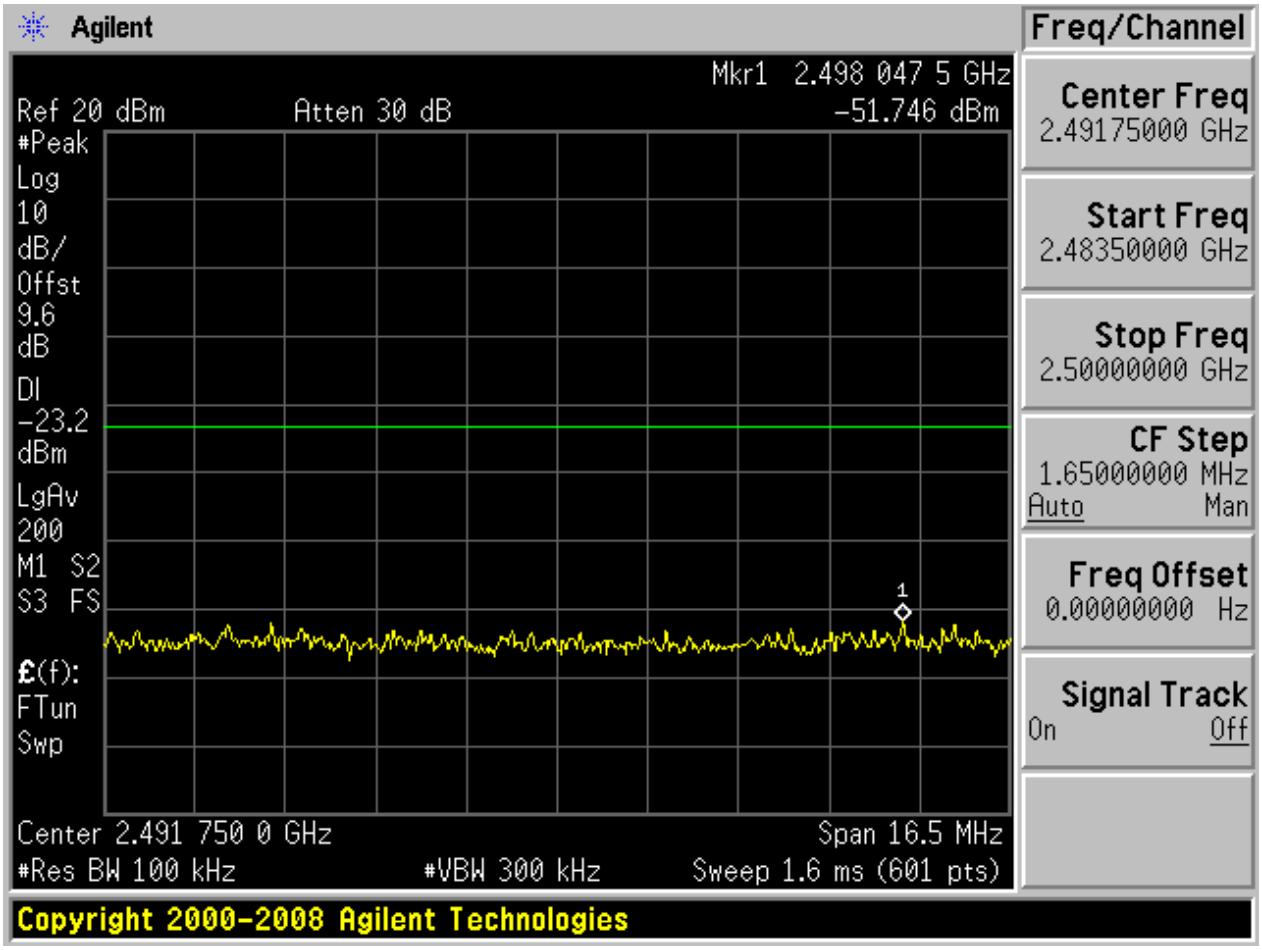
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



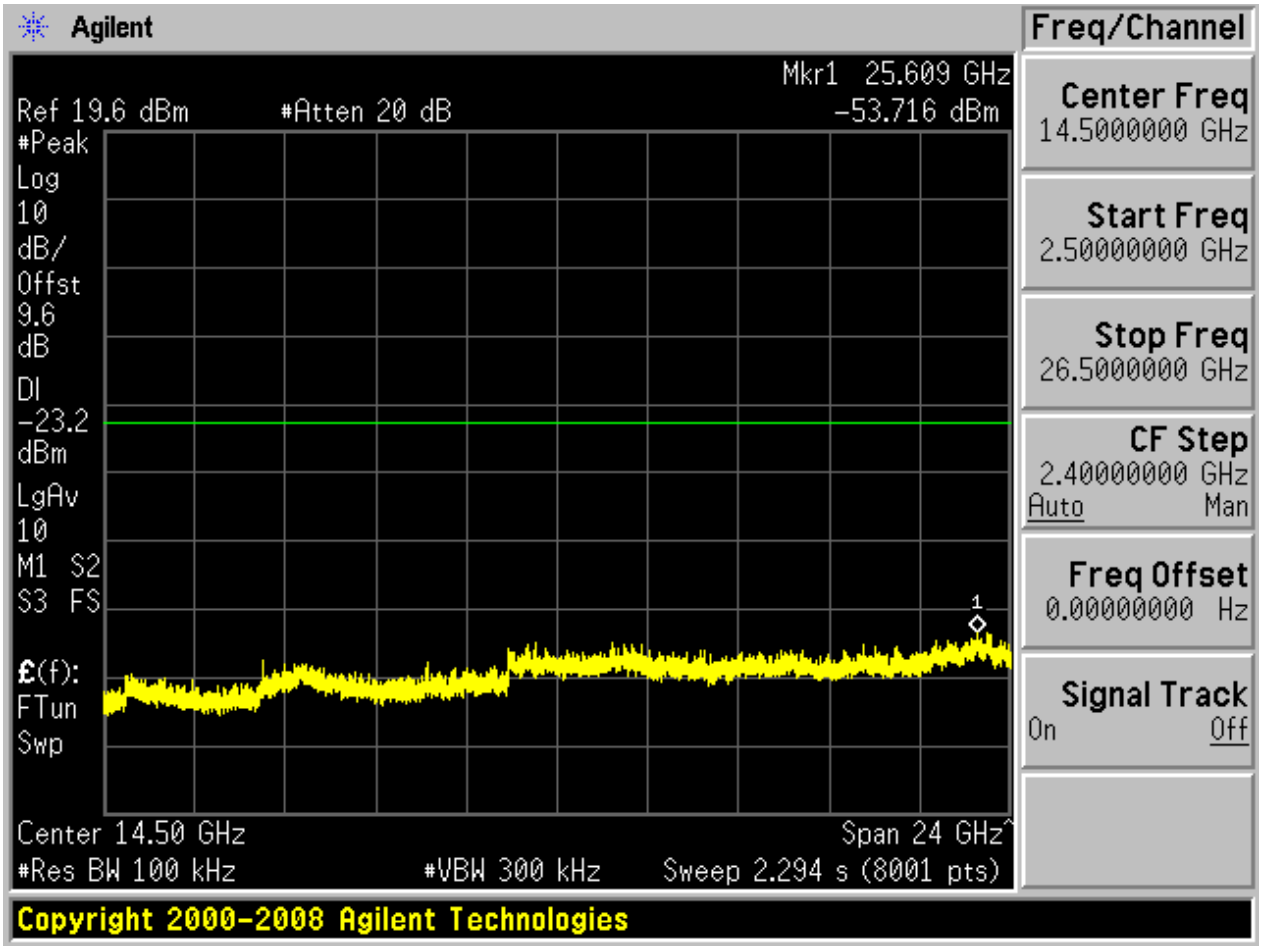
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Copyright © Huawei Technologies Co., Ltd.

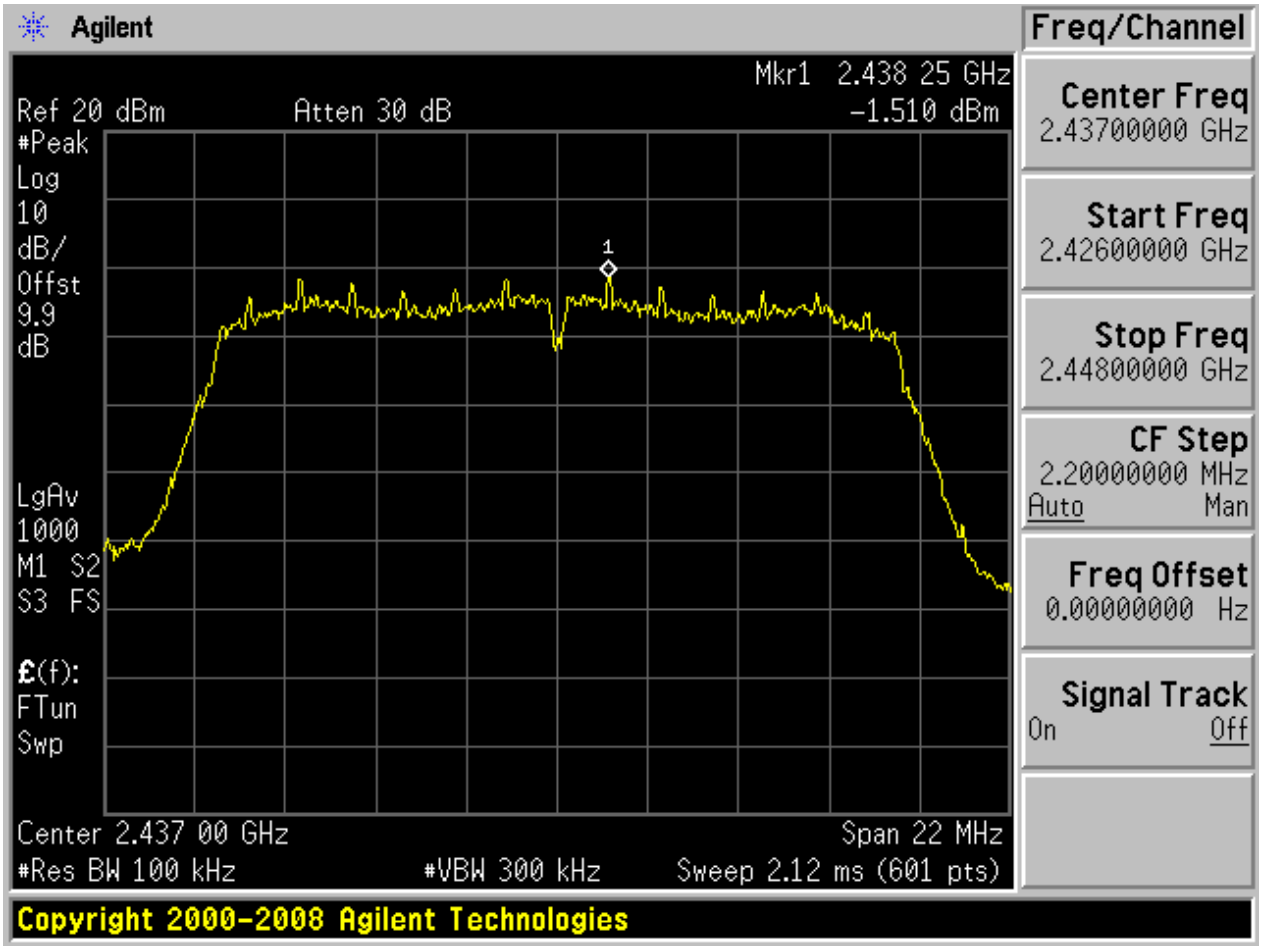
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.15 11N20_M@Ant1

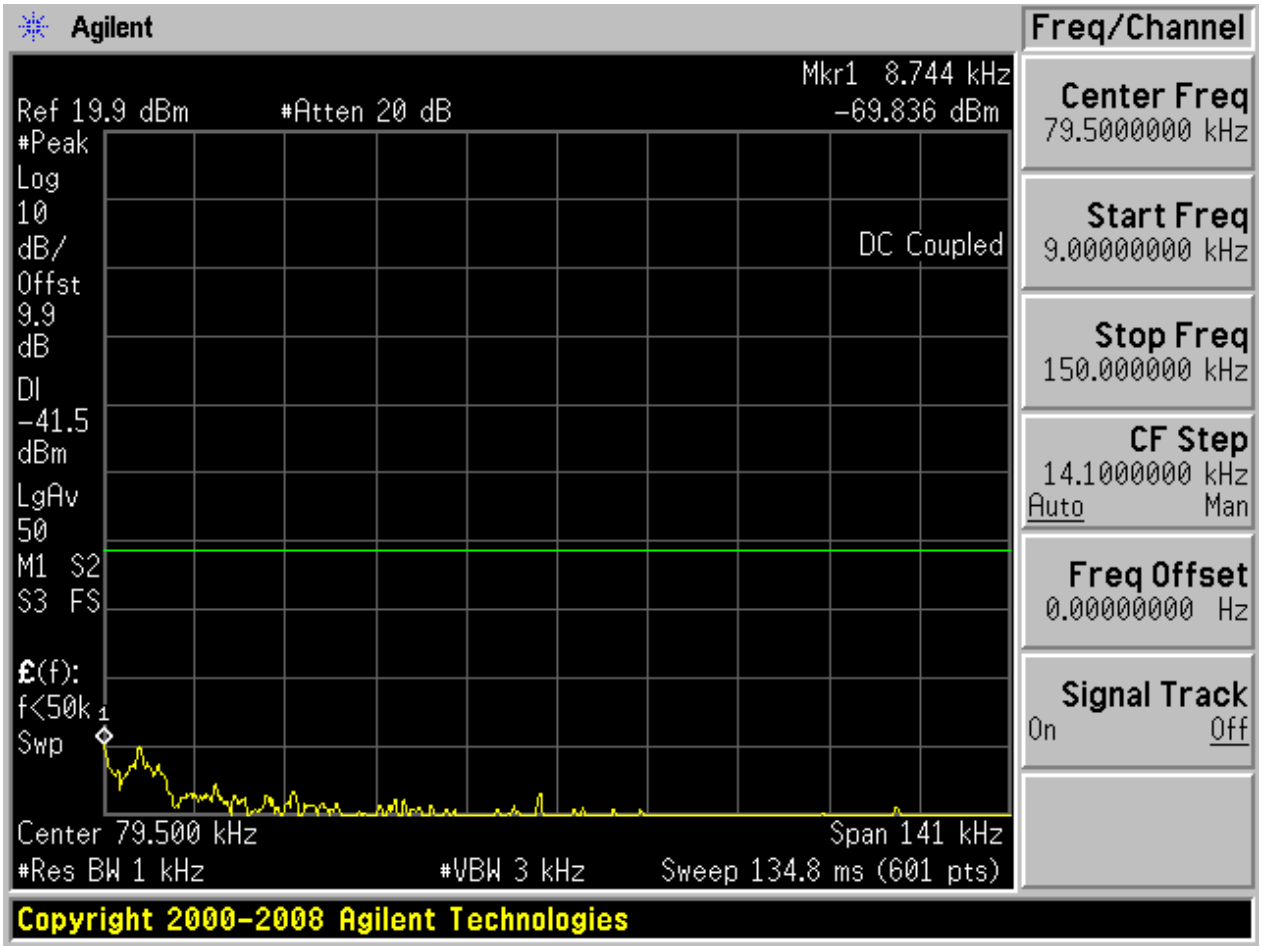
2.15.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

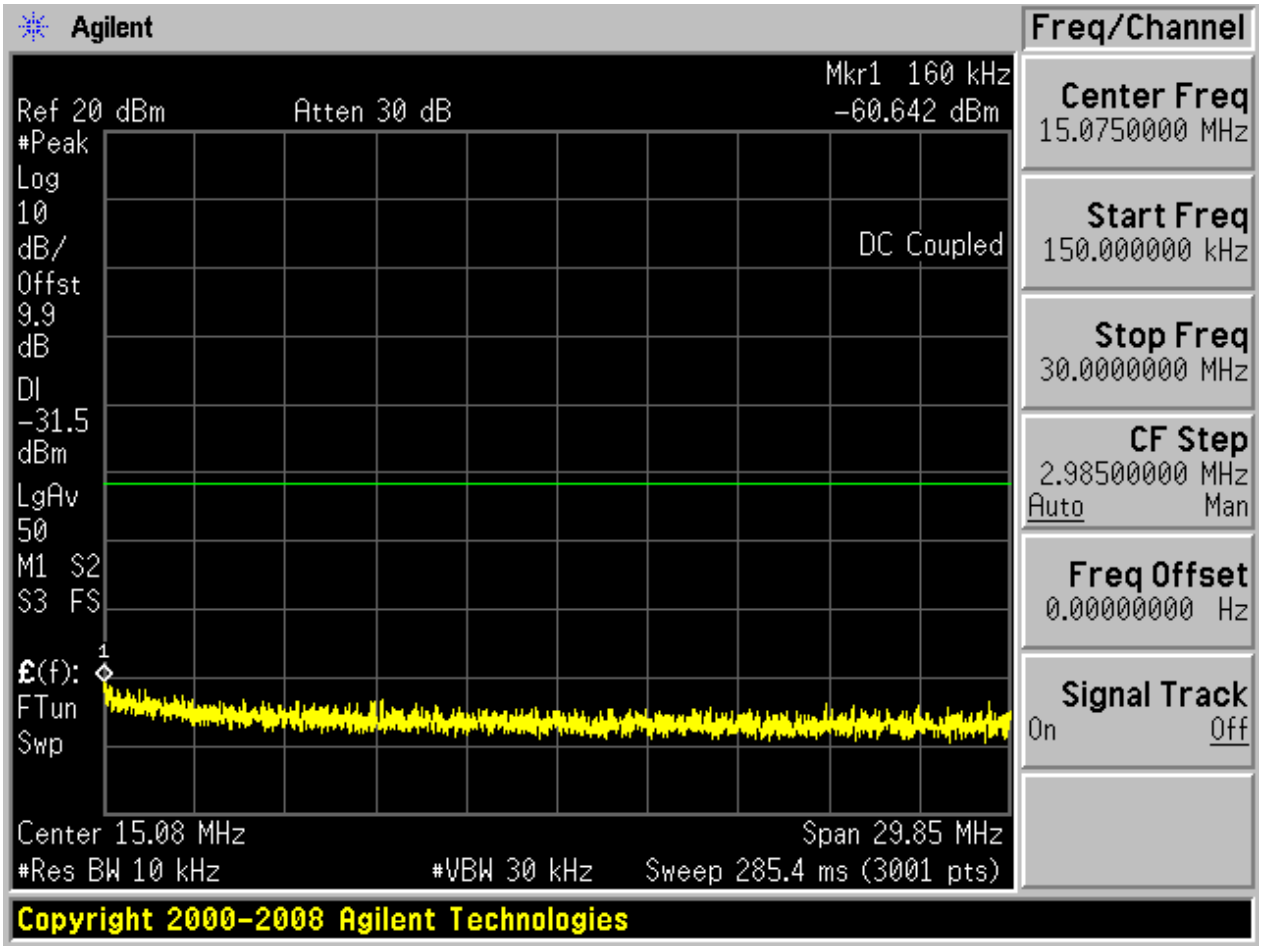
2.15.2 Puw:

9k - 150k



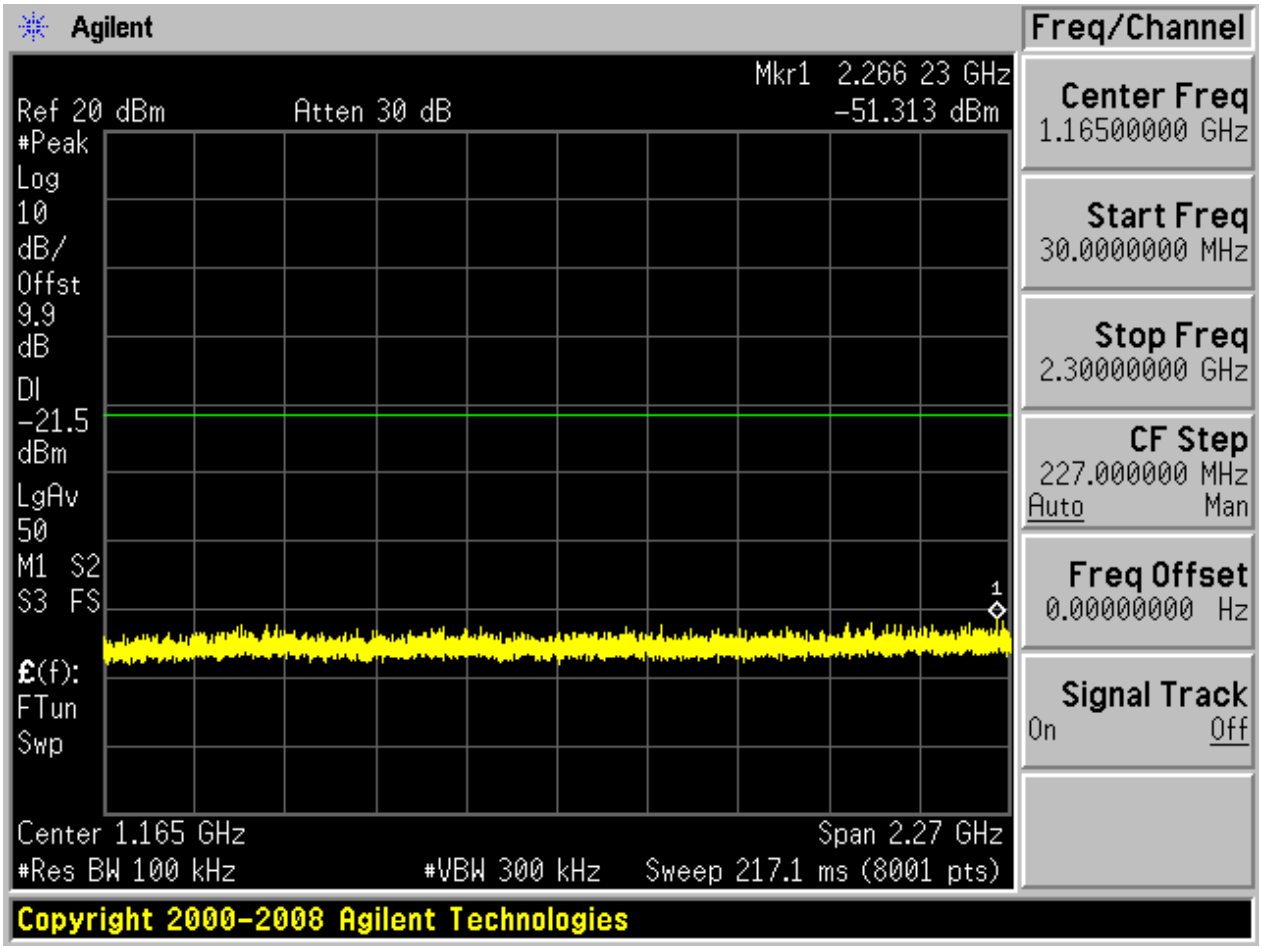
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



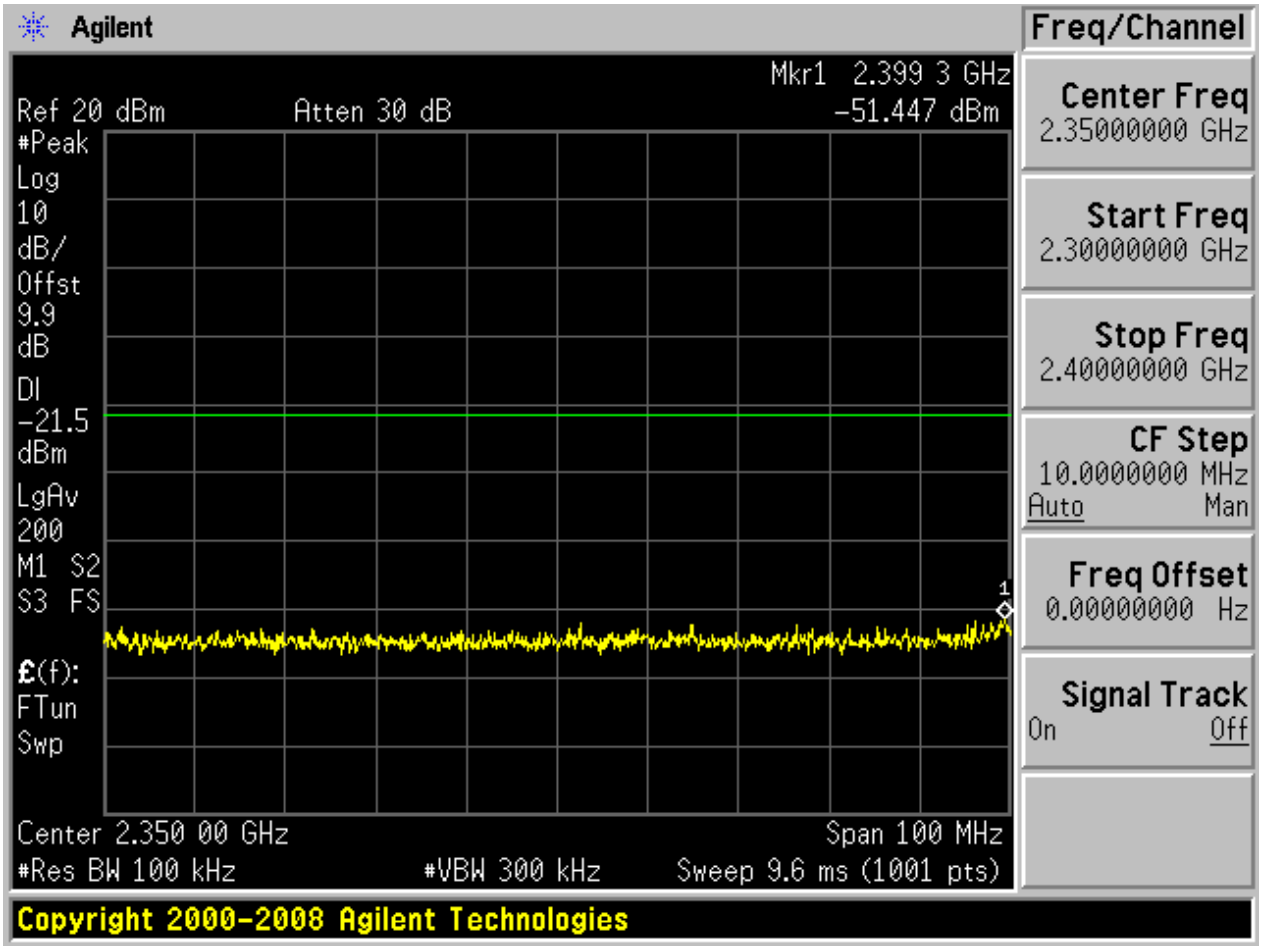
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



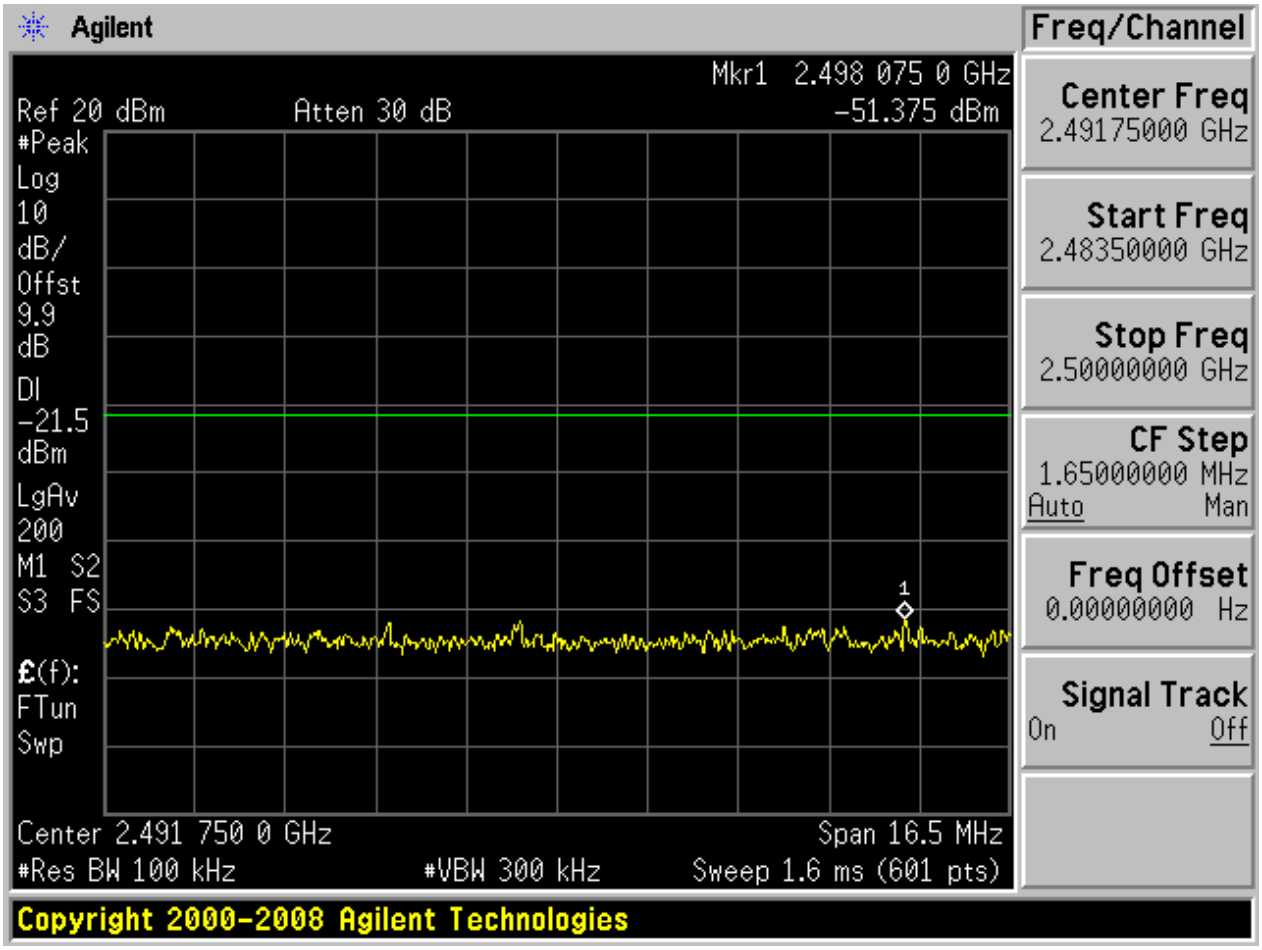
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



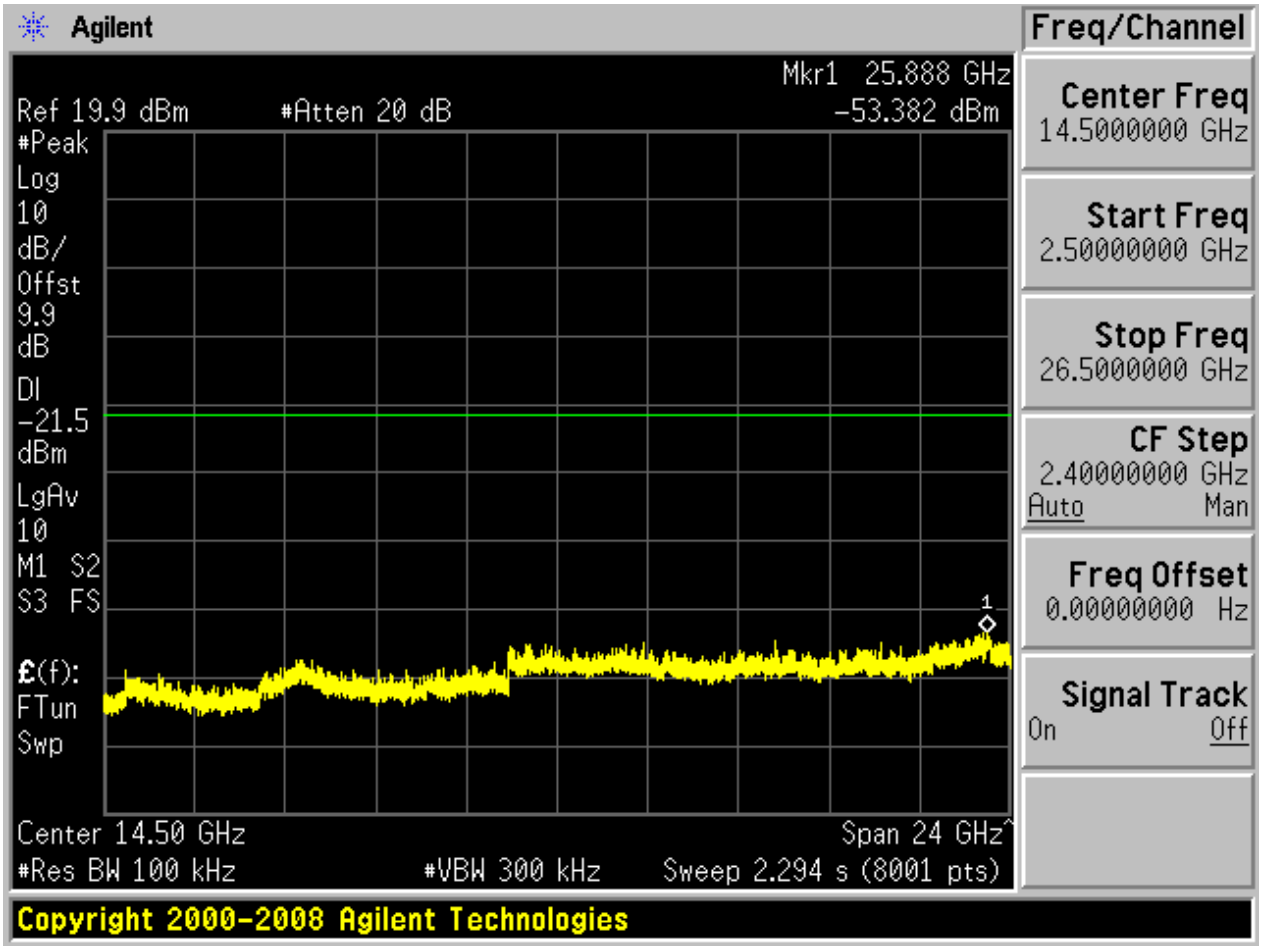
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

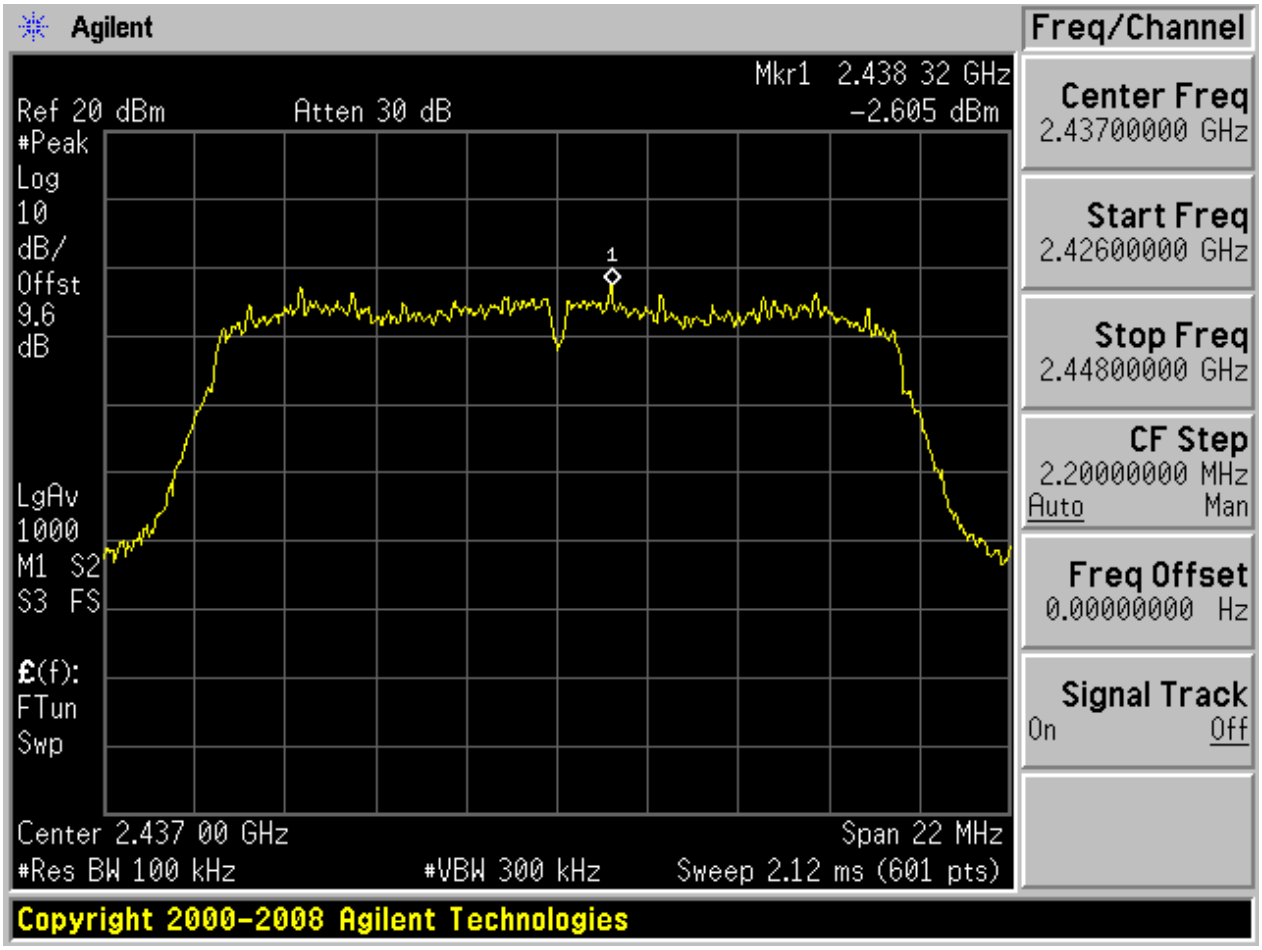
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.16 11N20_M@Ant2

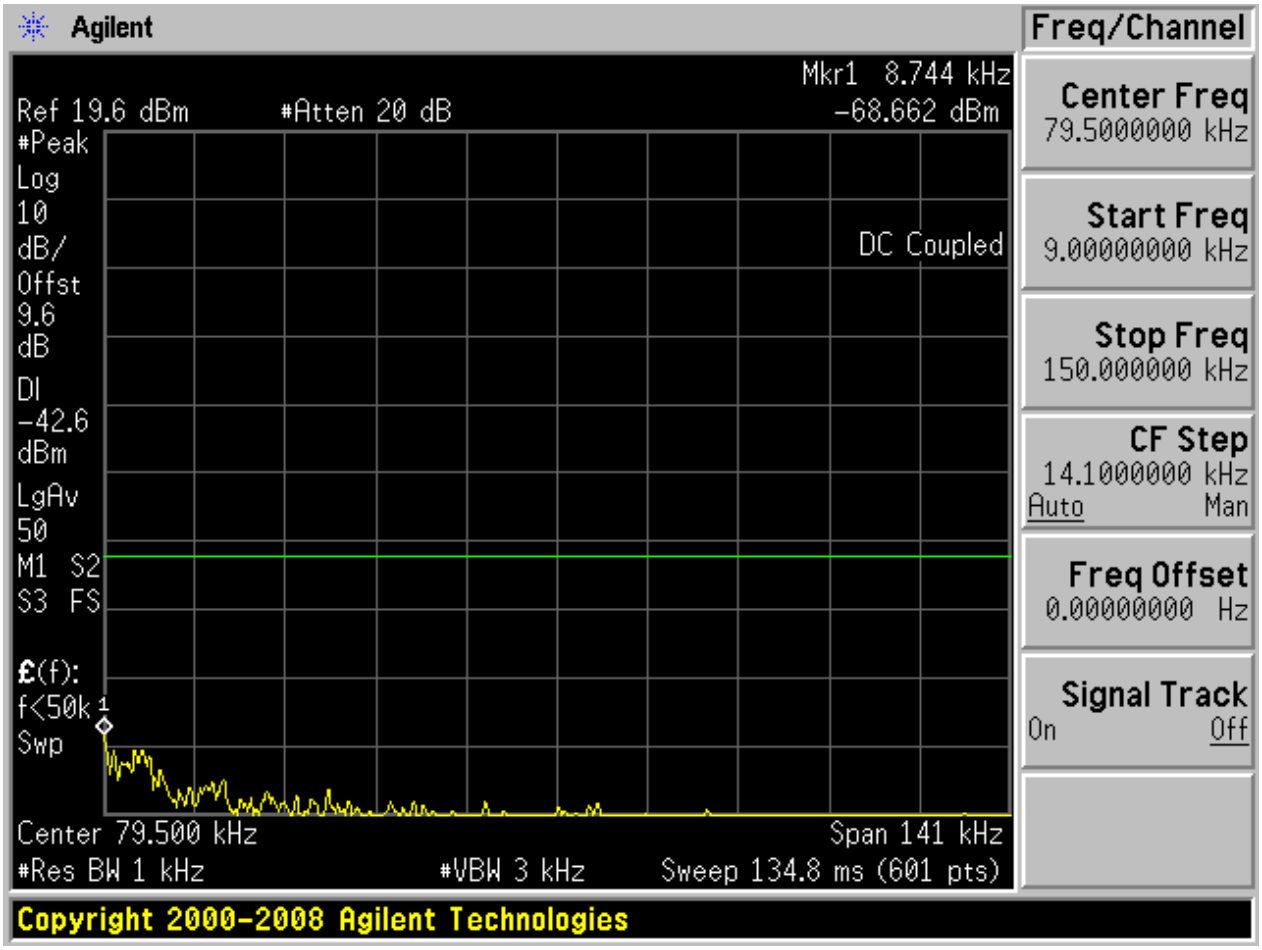
2.16.1 Pref:



Copyright © Huawei Technologies Co., Ltd.

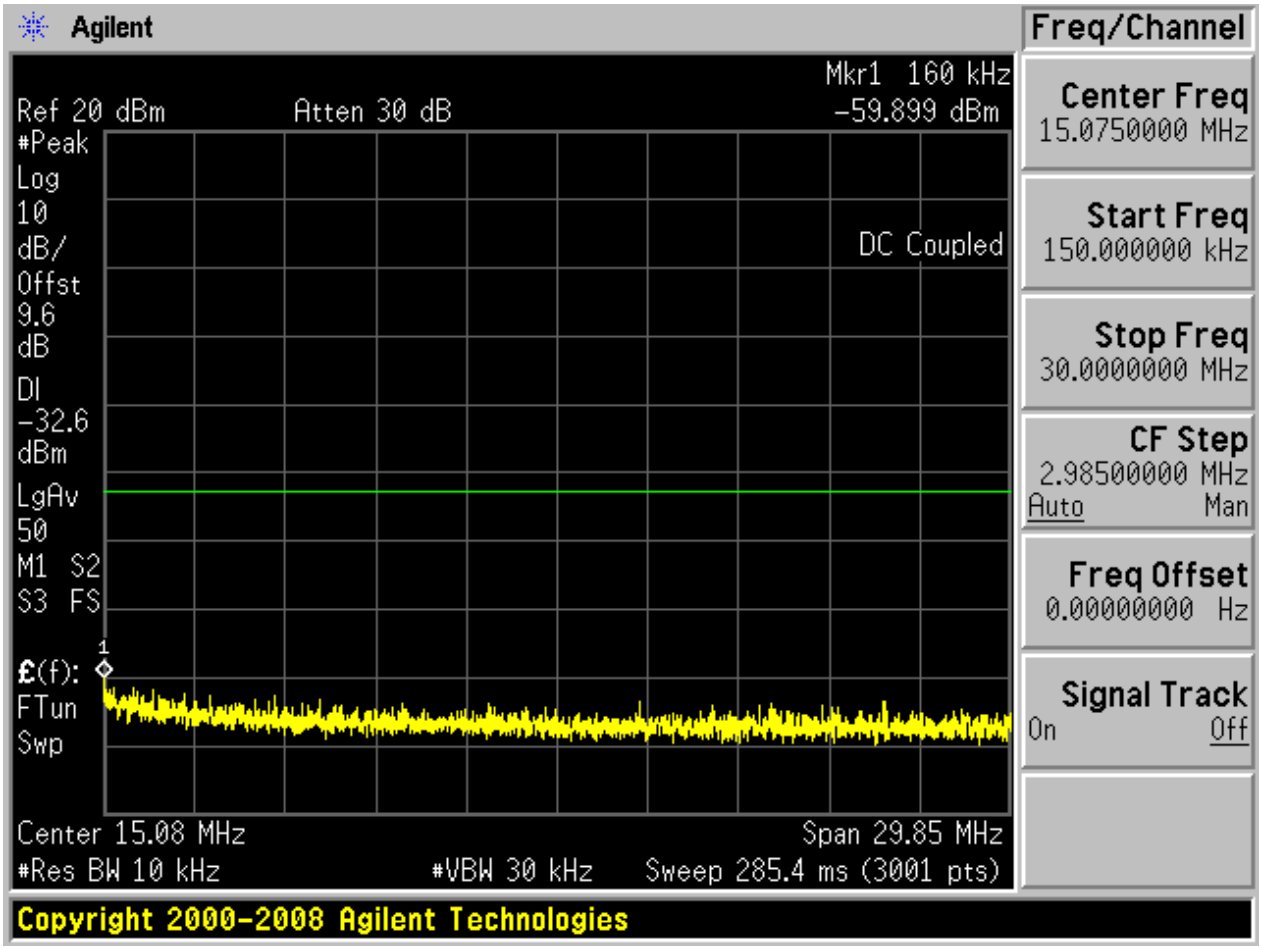
2.16.2 Puw:

9k - 150k



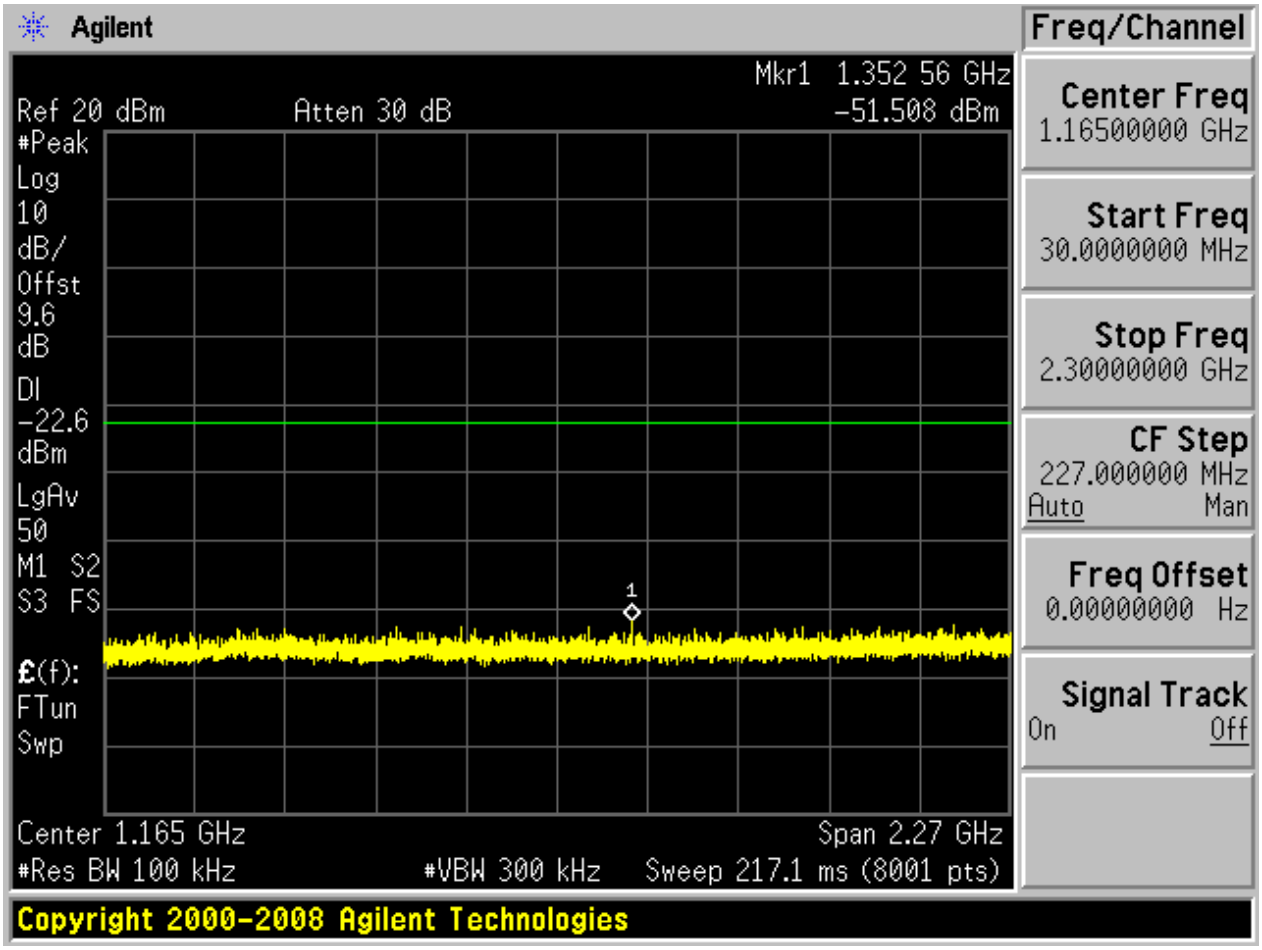
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



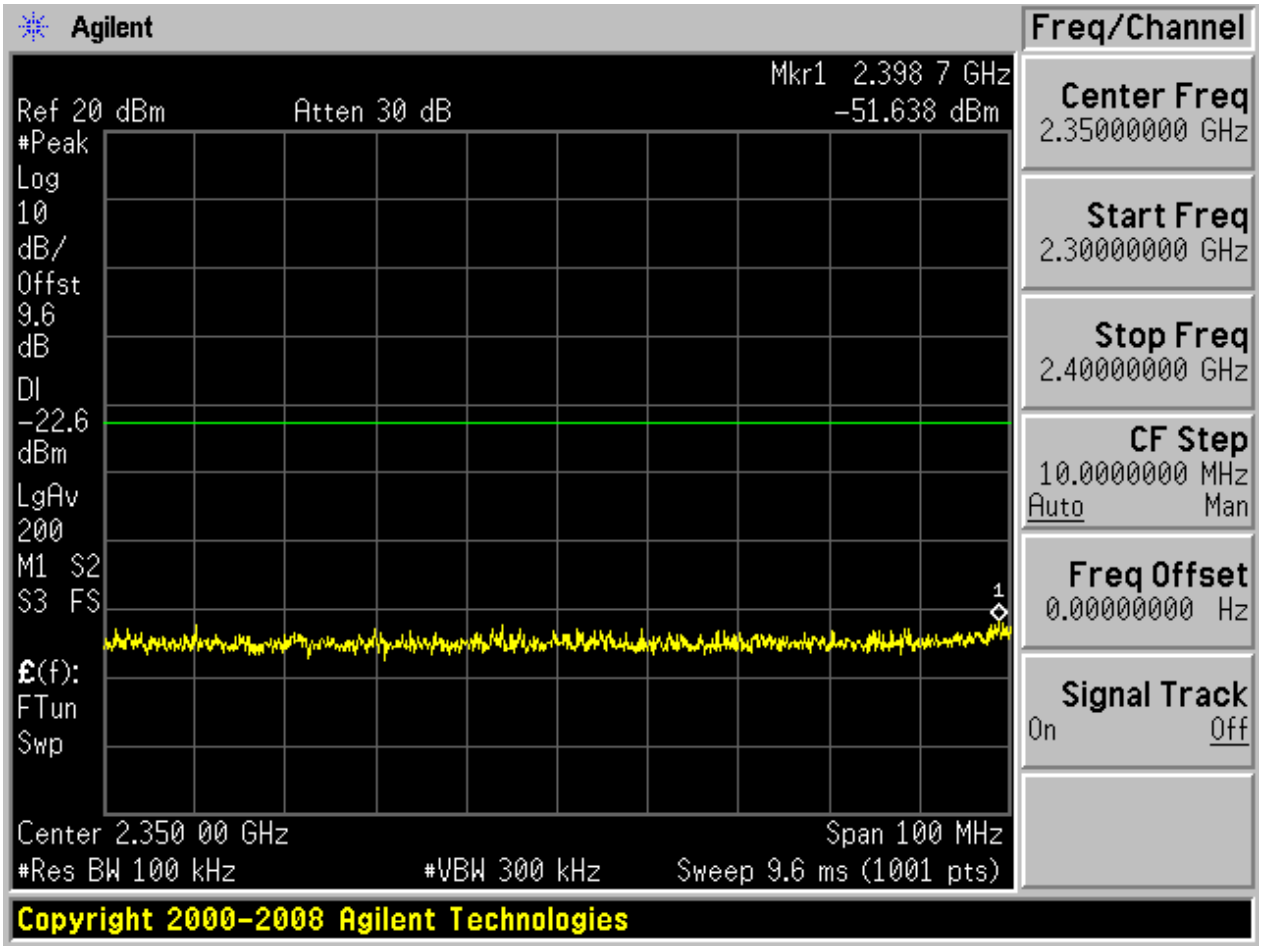
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



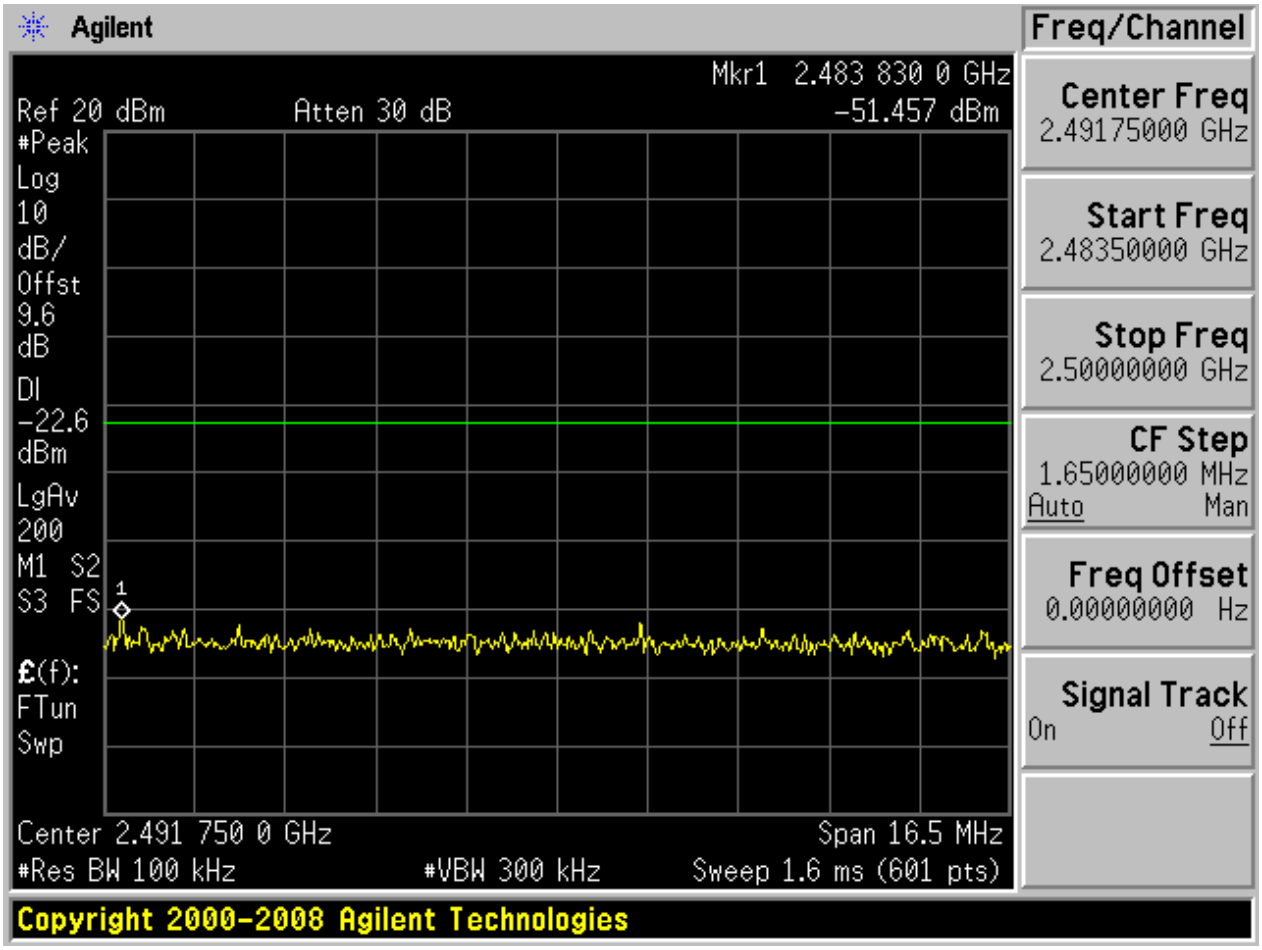
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



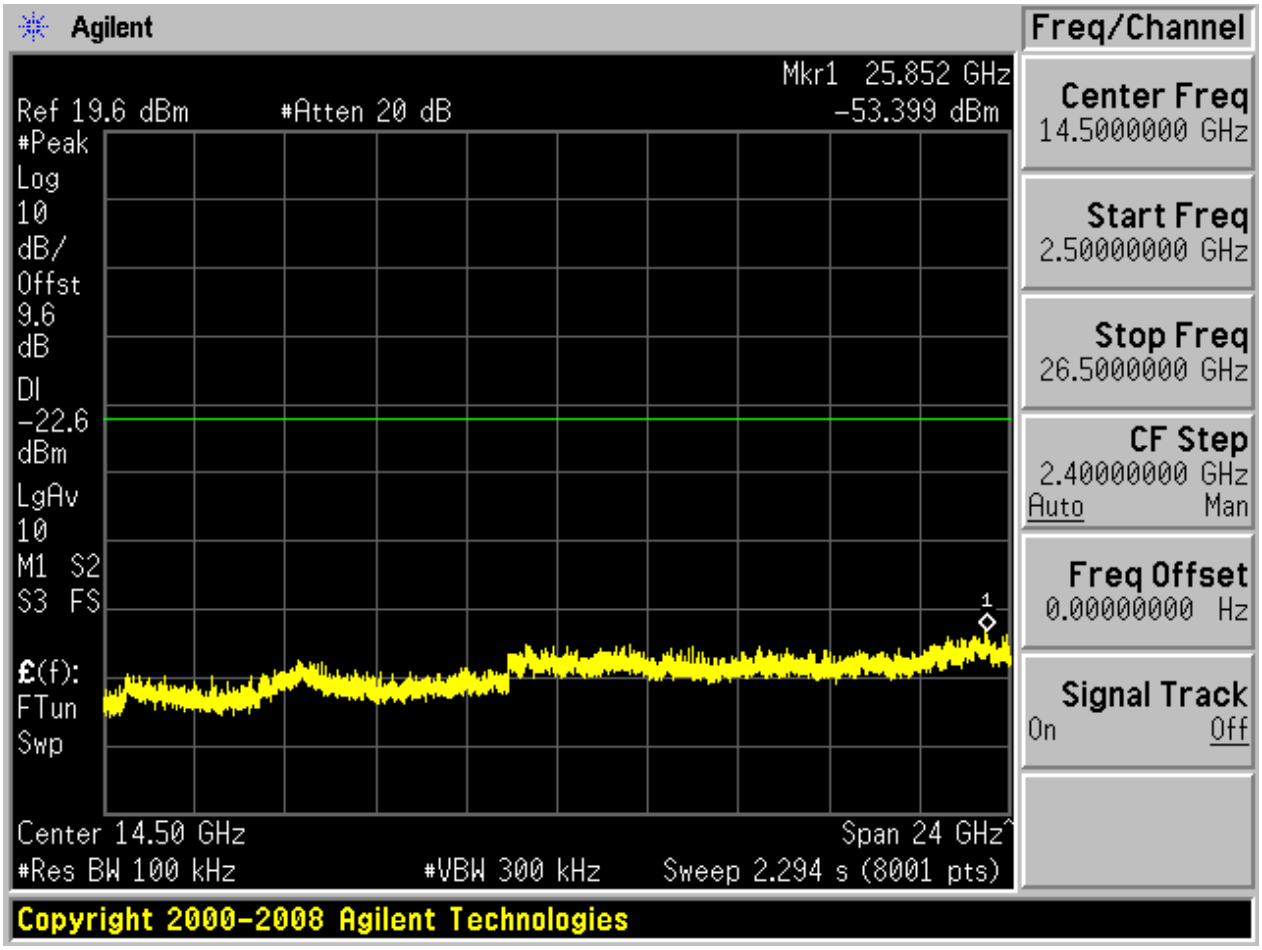
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

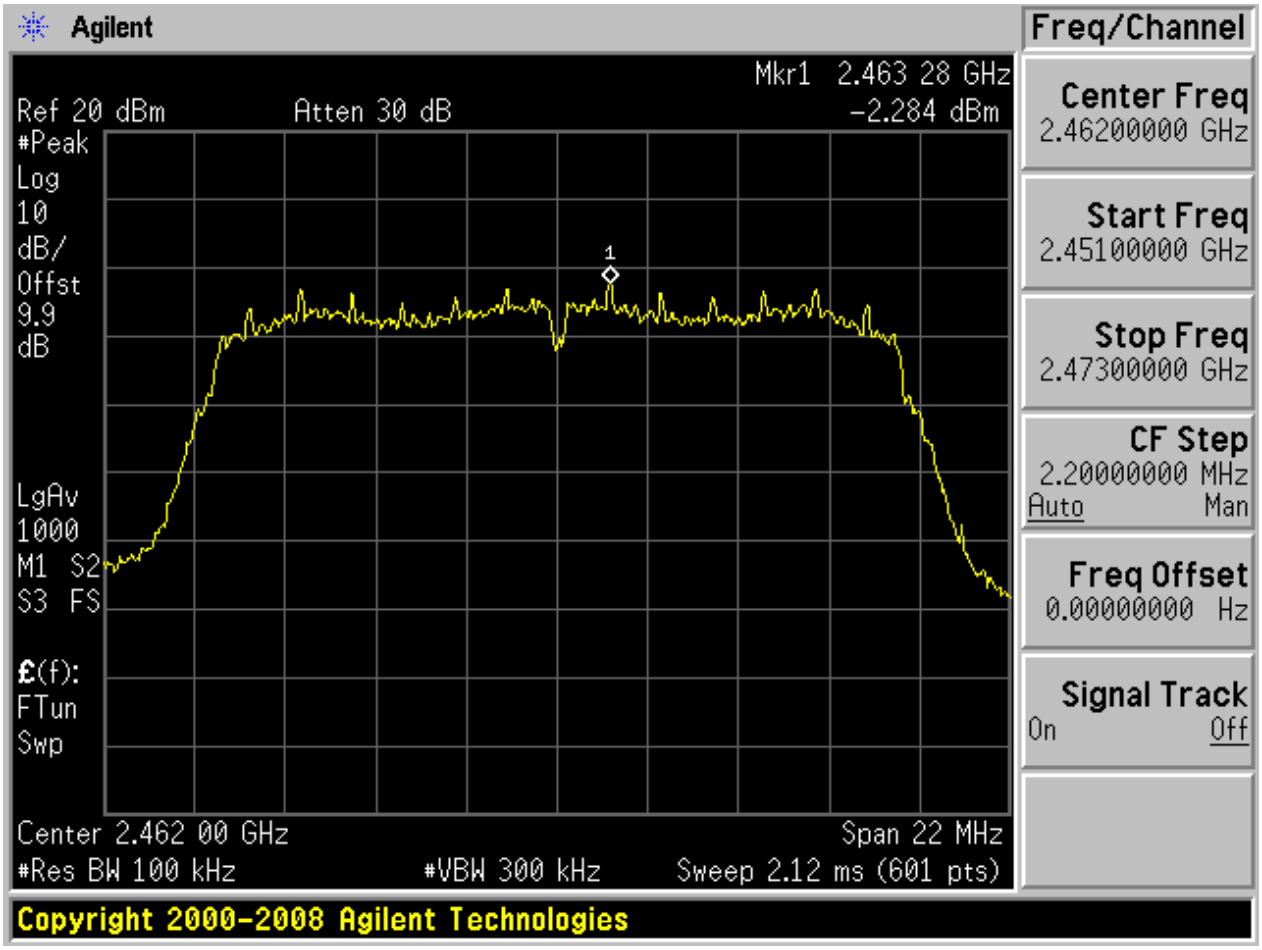
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.17 11N20_T@Ant1

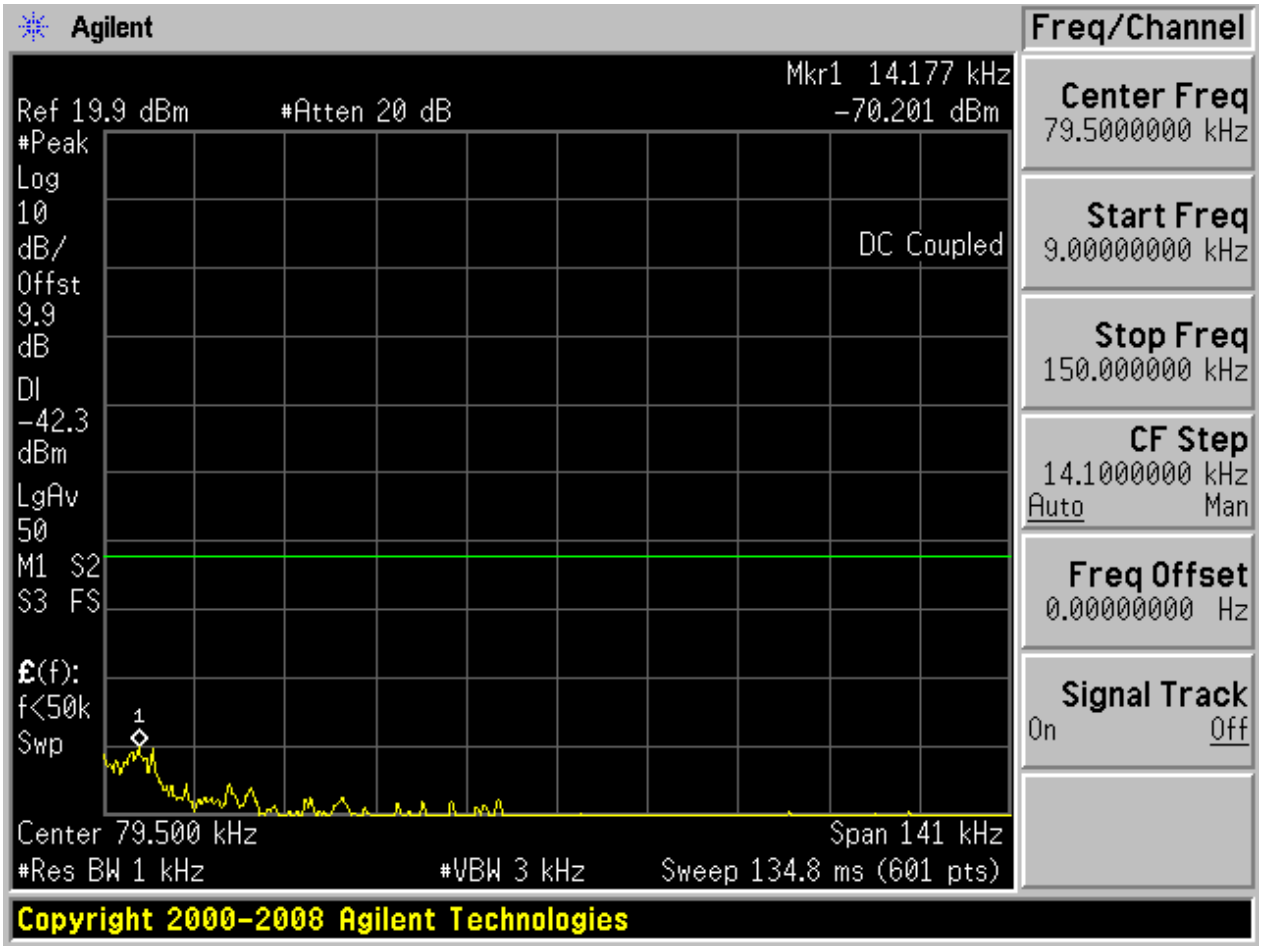
2.17.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

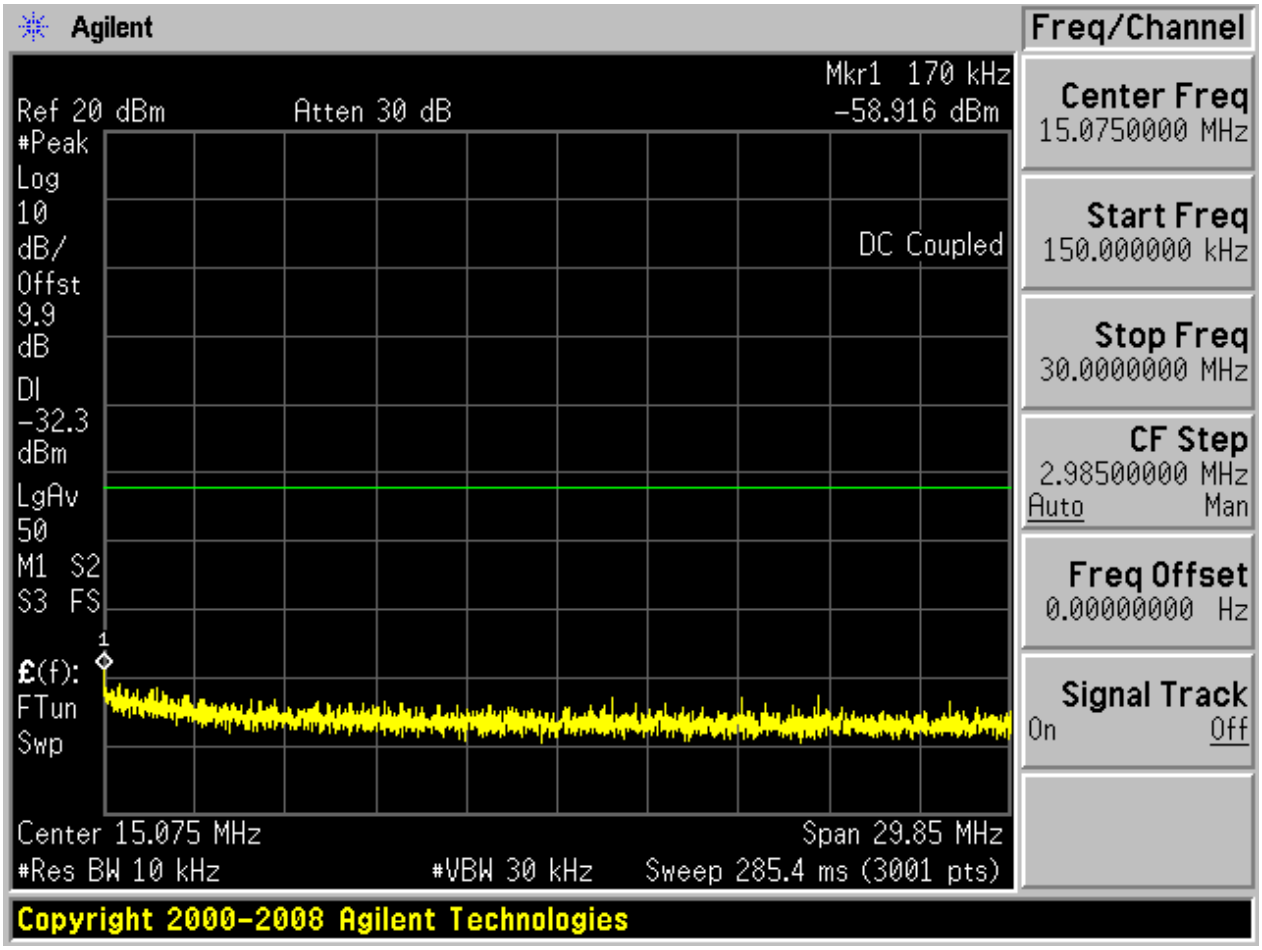
2.17.2 Puw:

9k - 150k



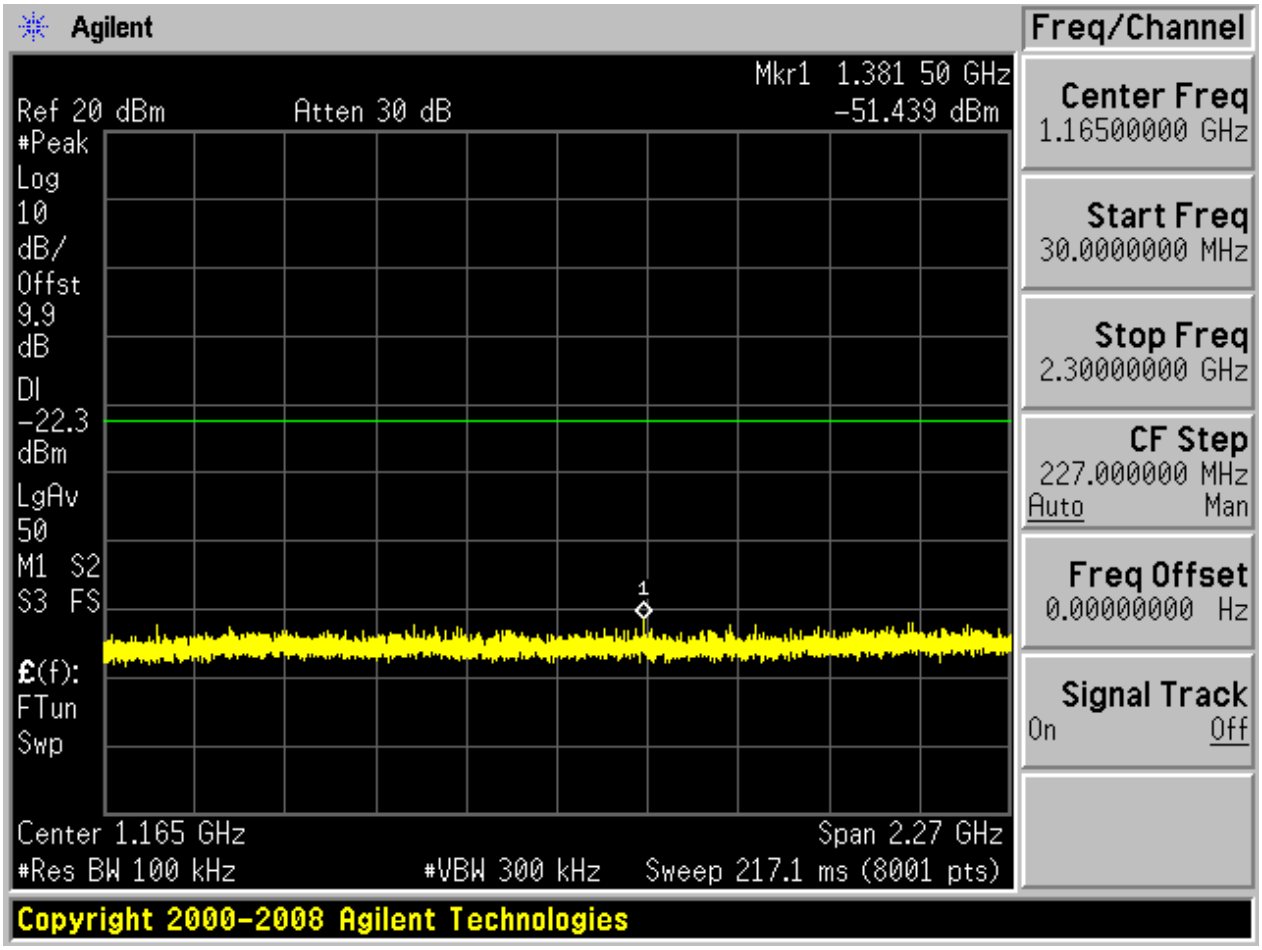
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



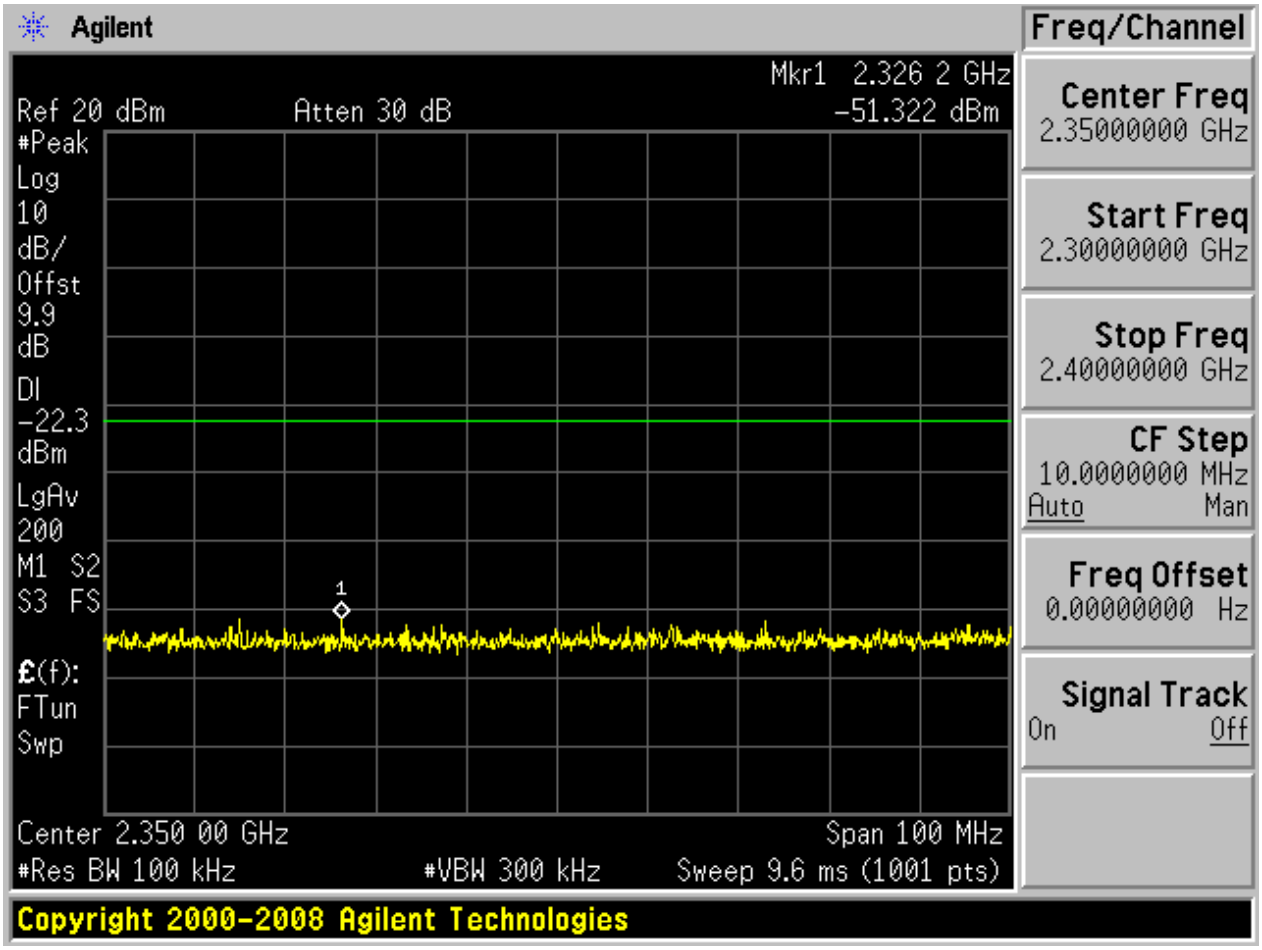
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



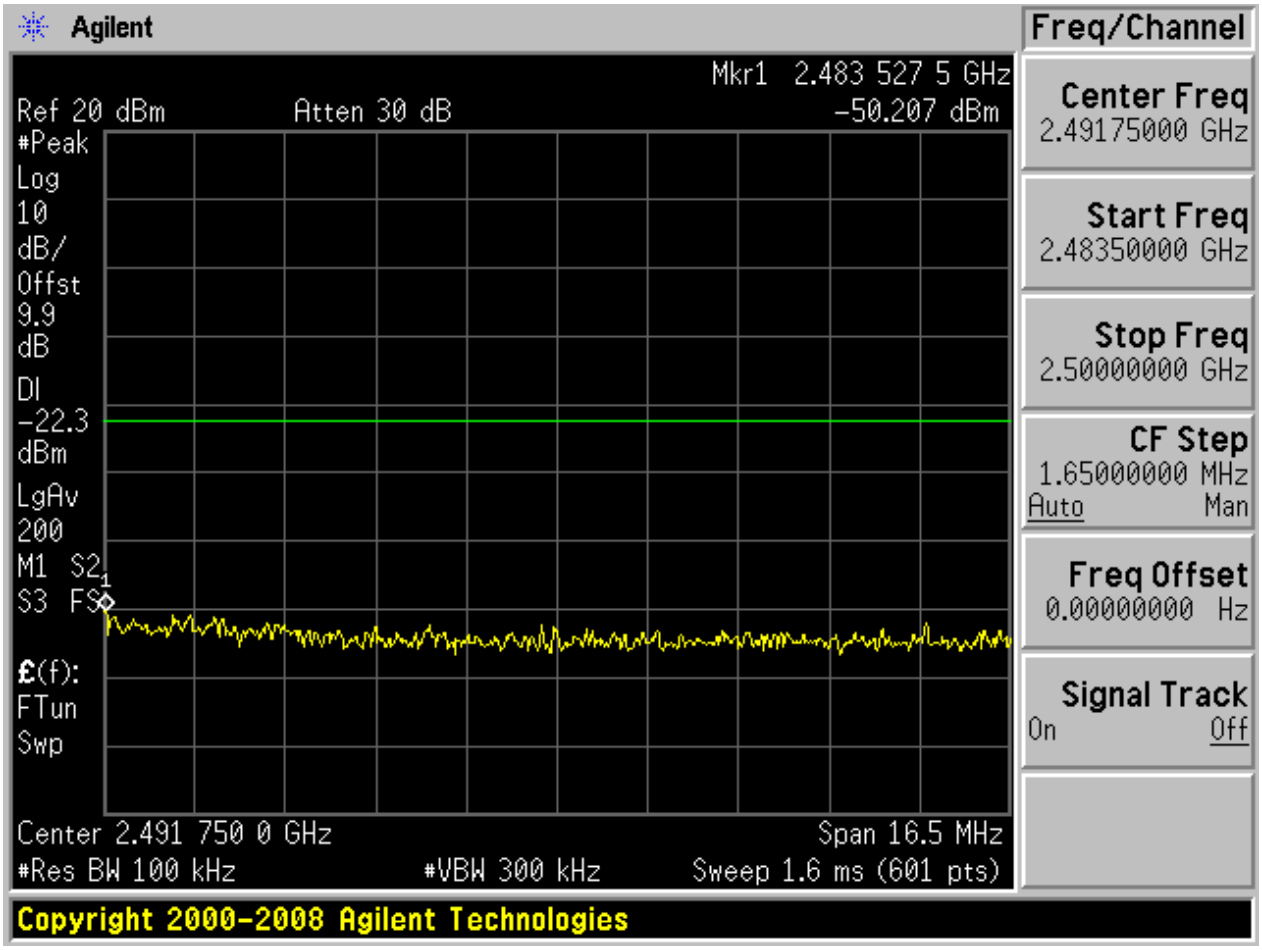
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



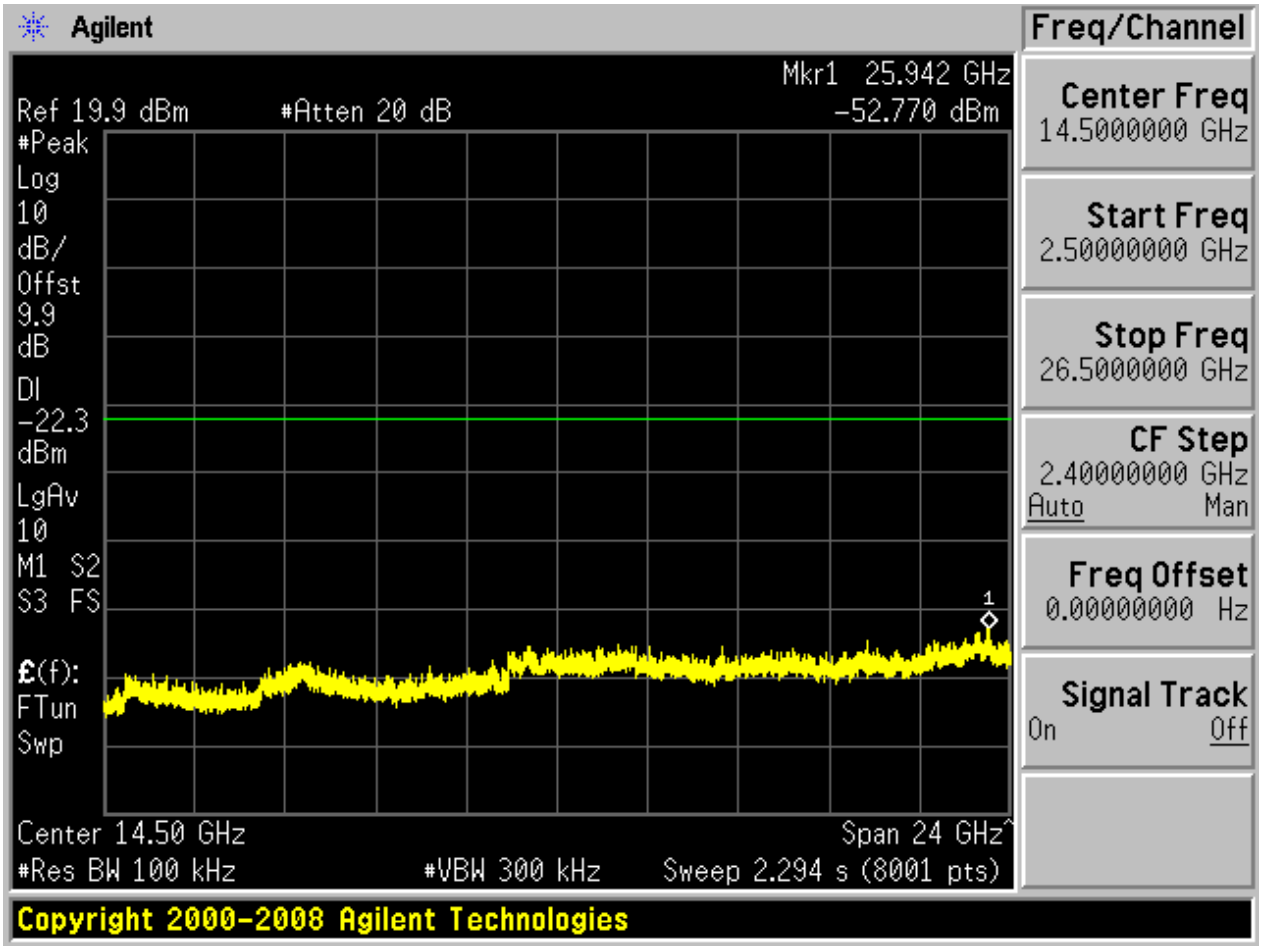
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Copyright © Huawei Technologies Co., Ltd.

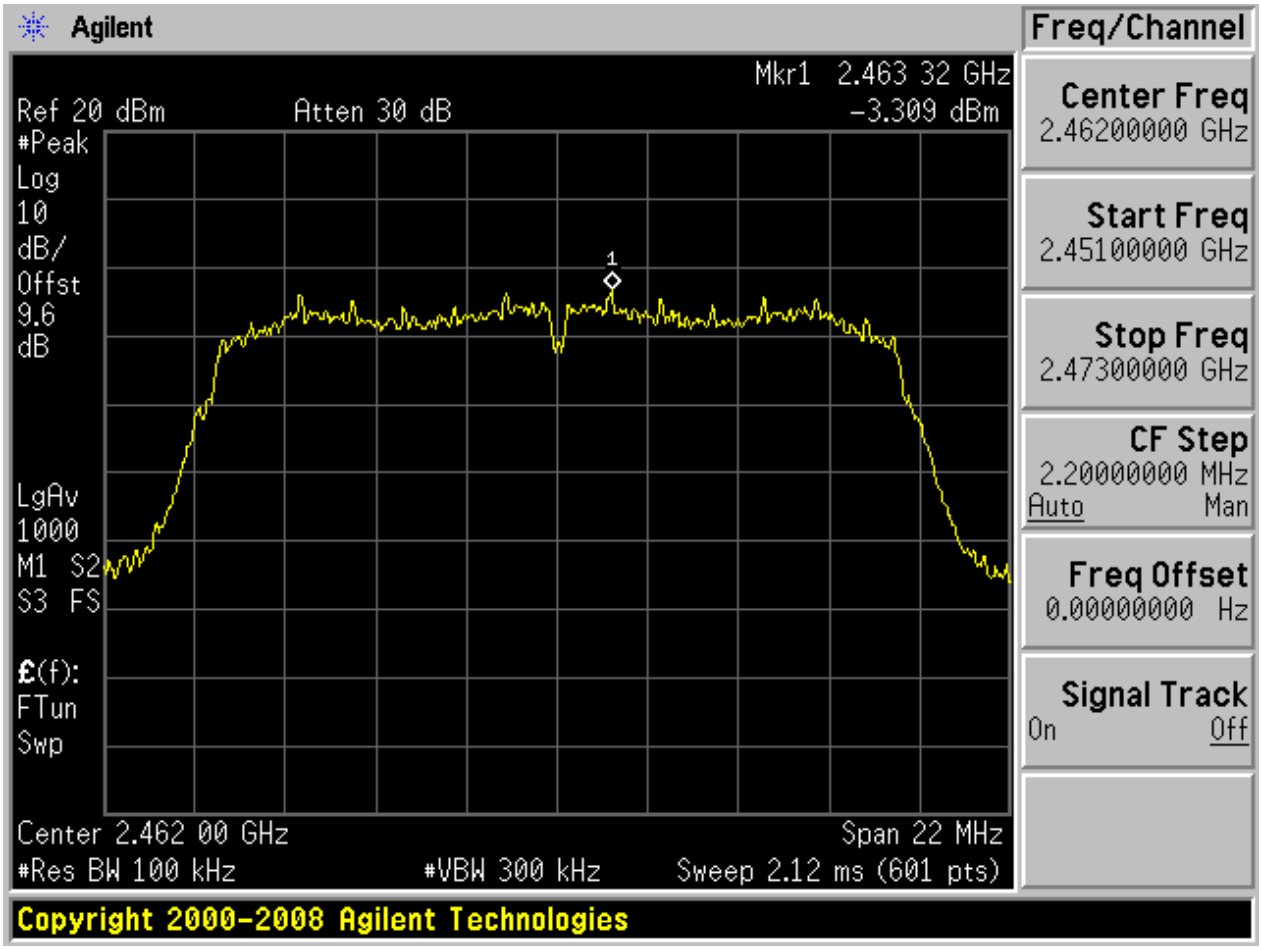
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.18 11N20_T@Ant2

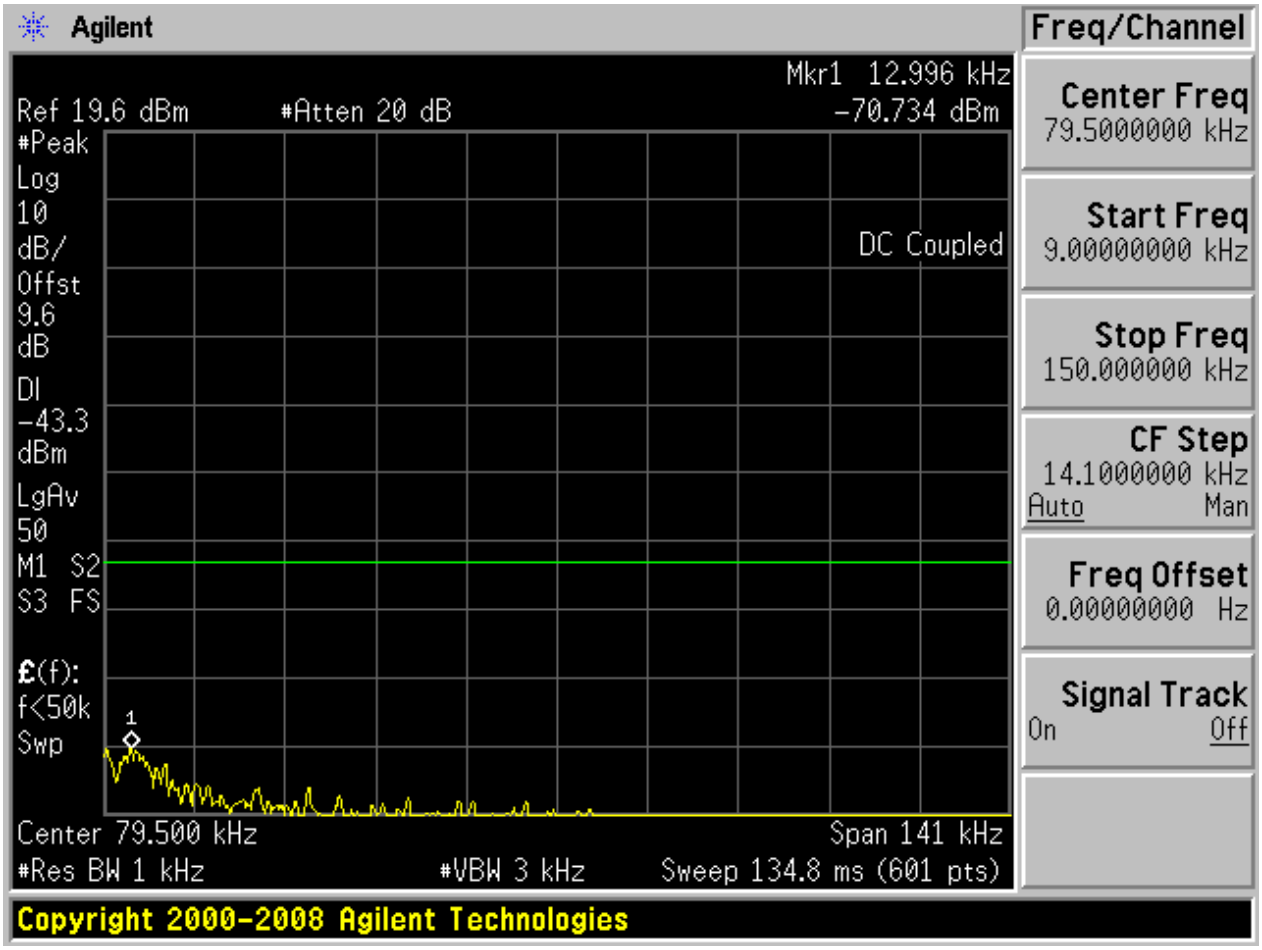
2.18.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

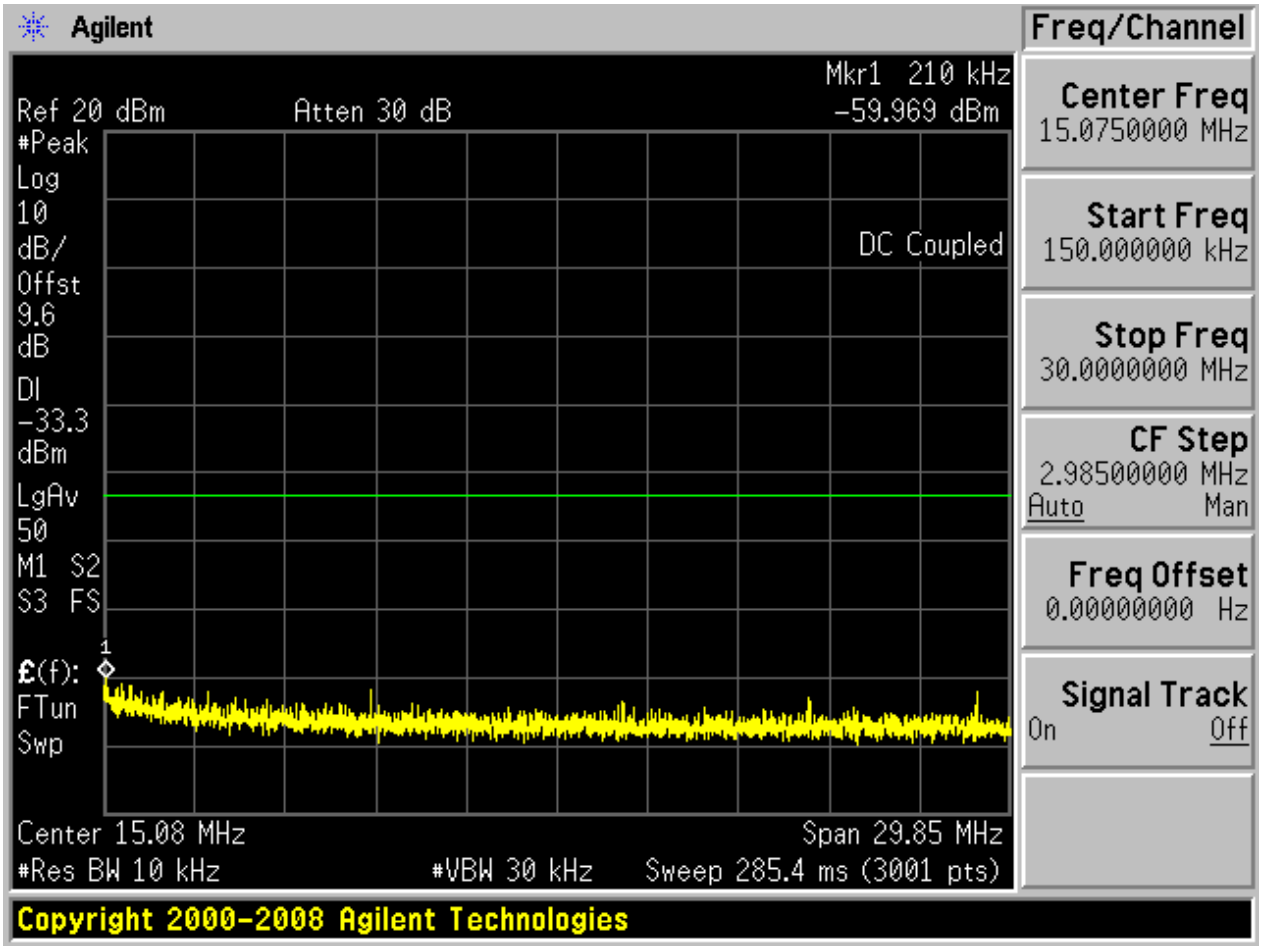
2.18.2 Puw:

9k - 150k



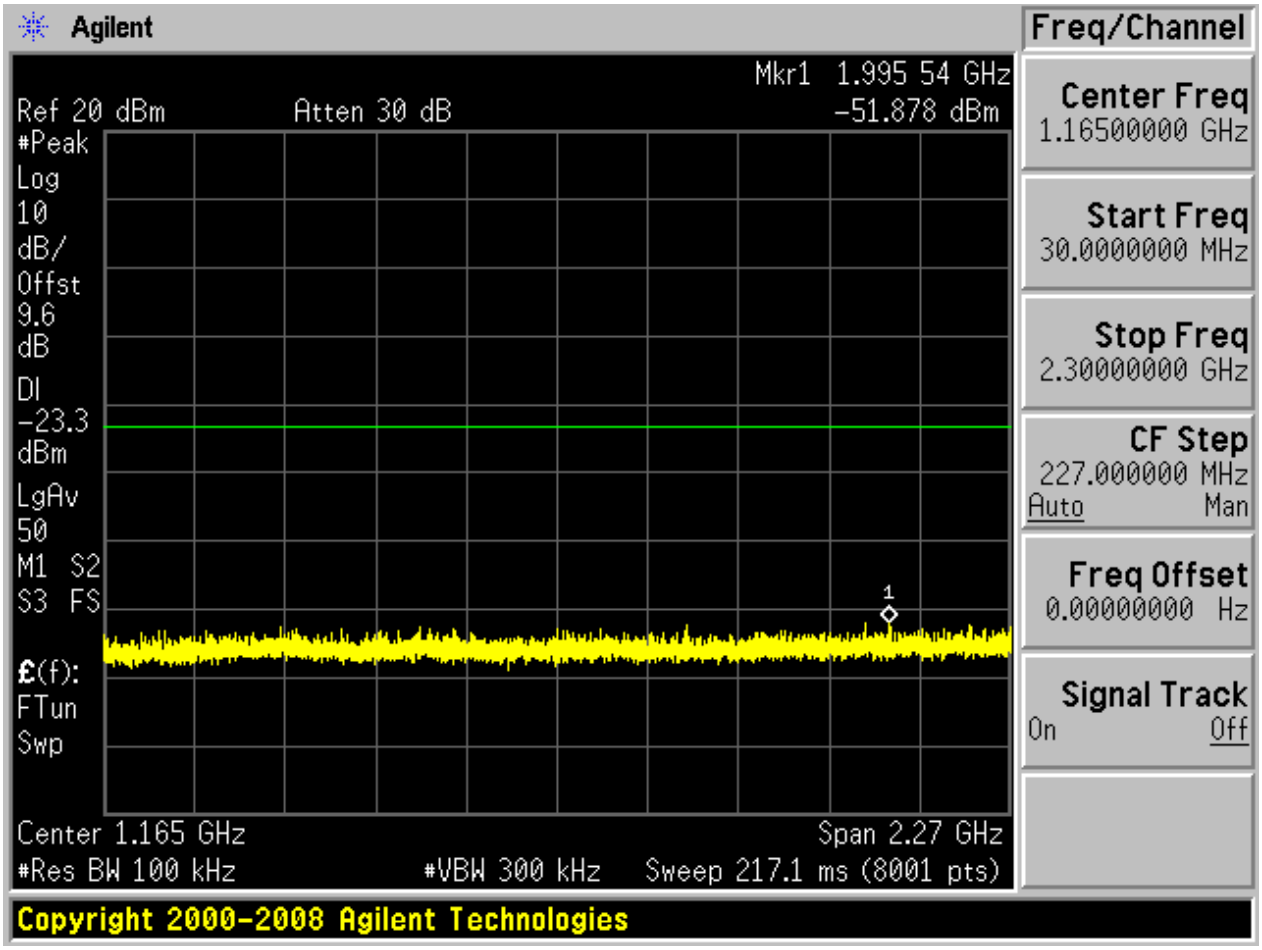
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



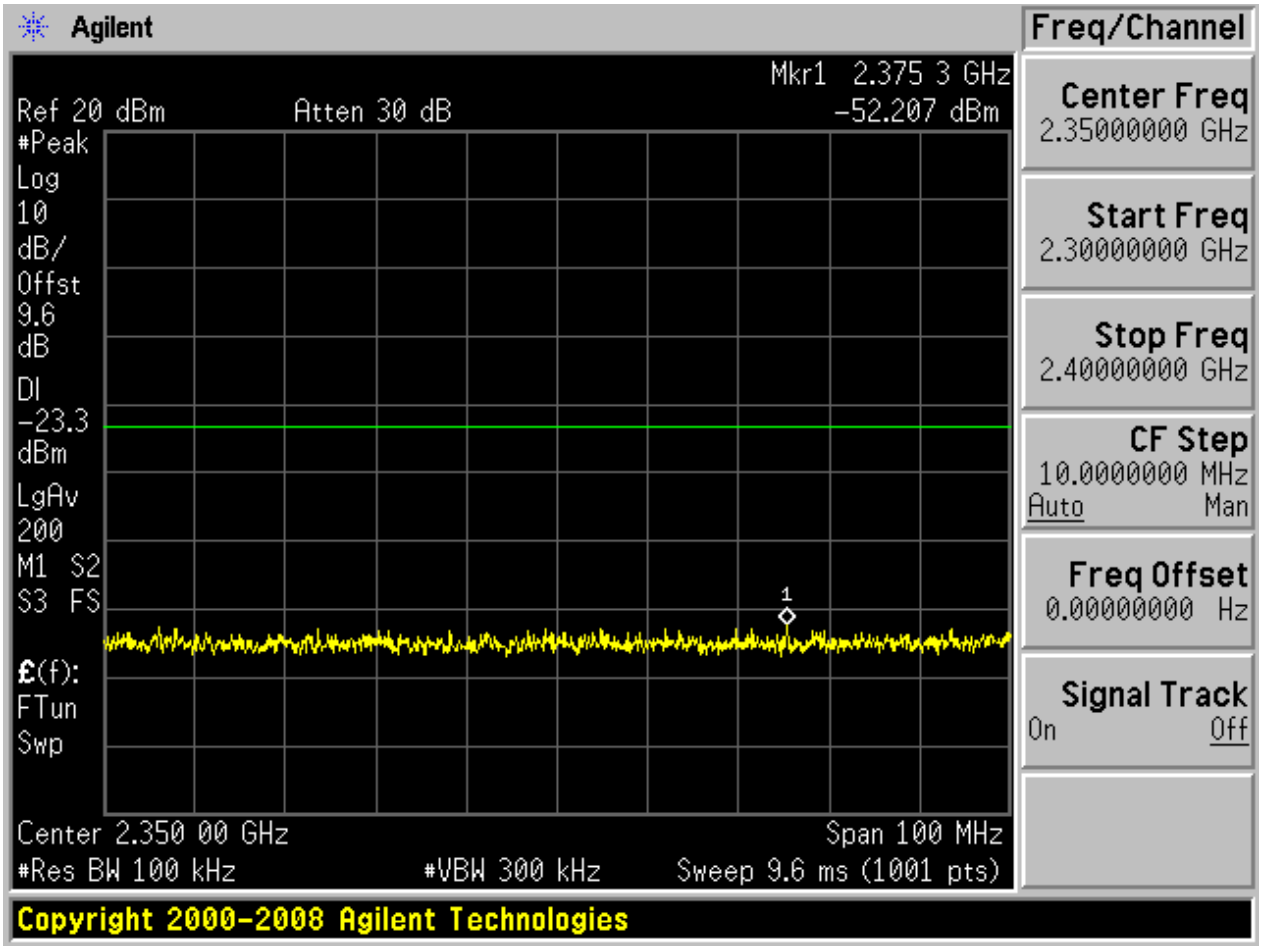
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



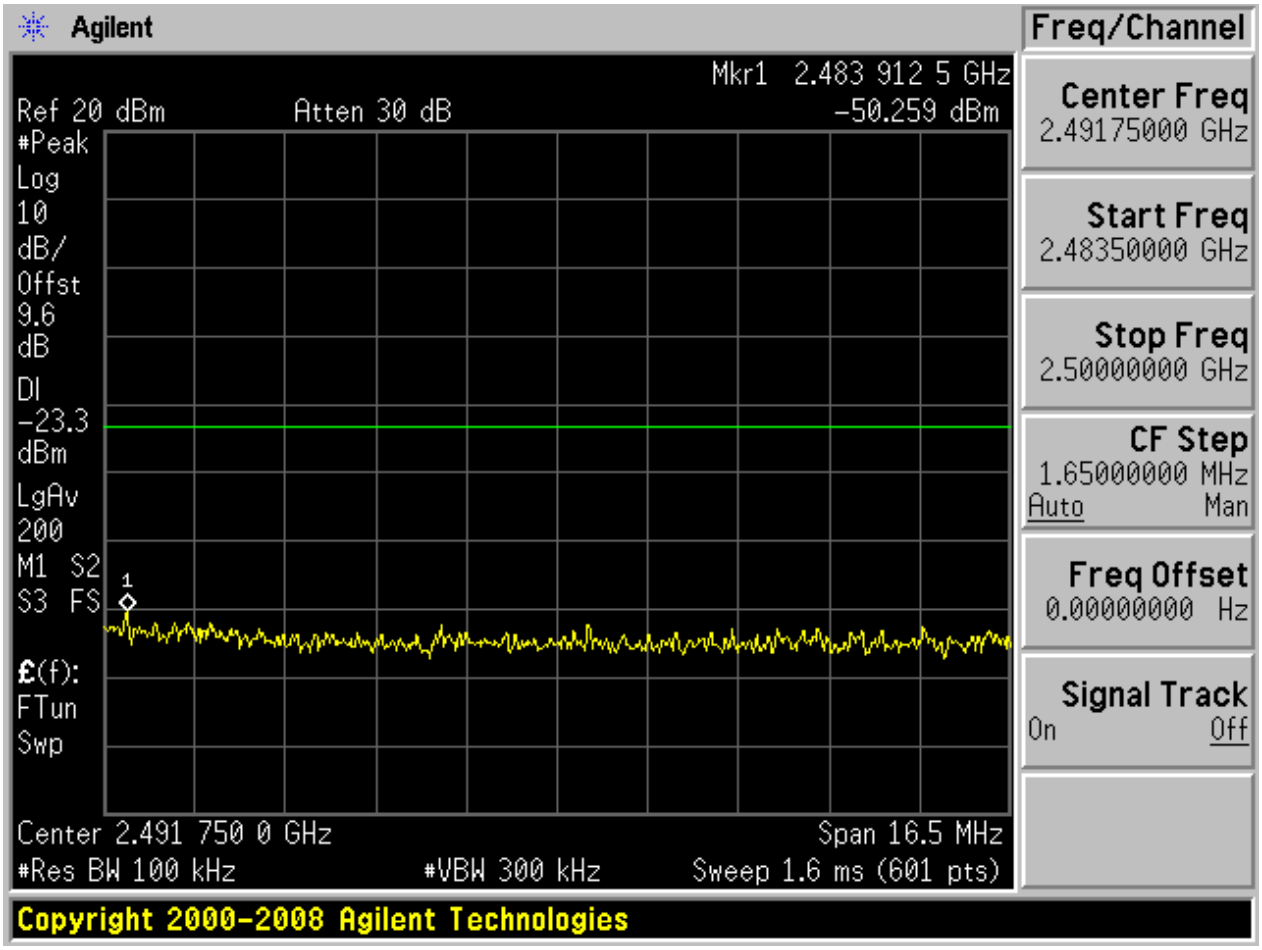
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



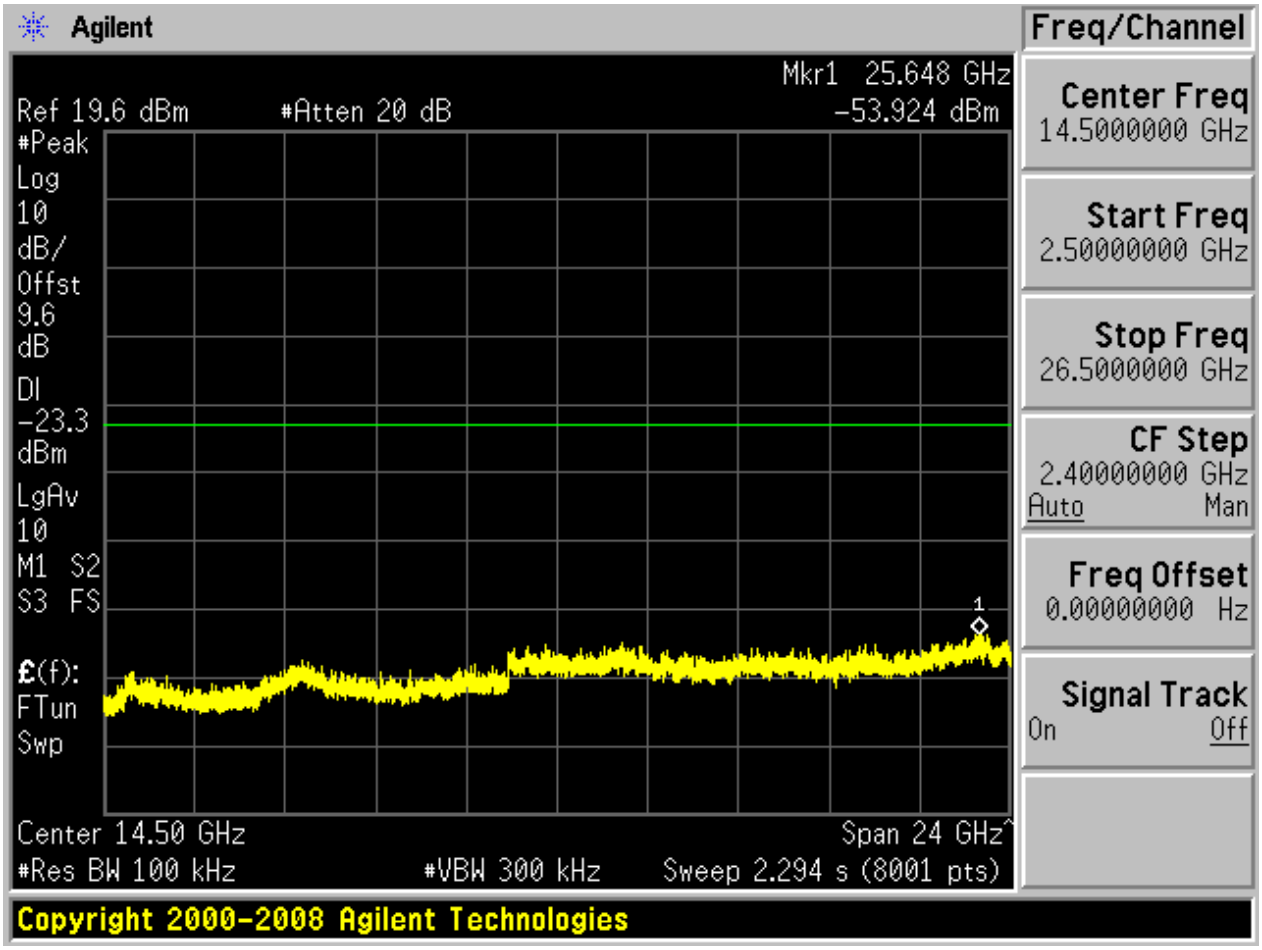
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Copyright © Huawei Technologies Co., Ltd.

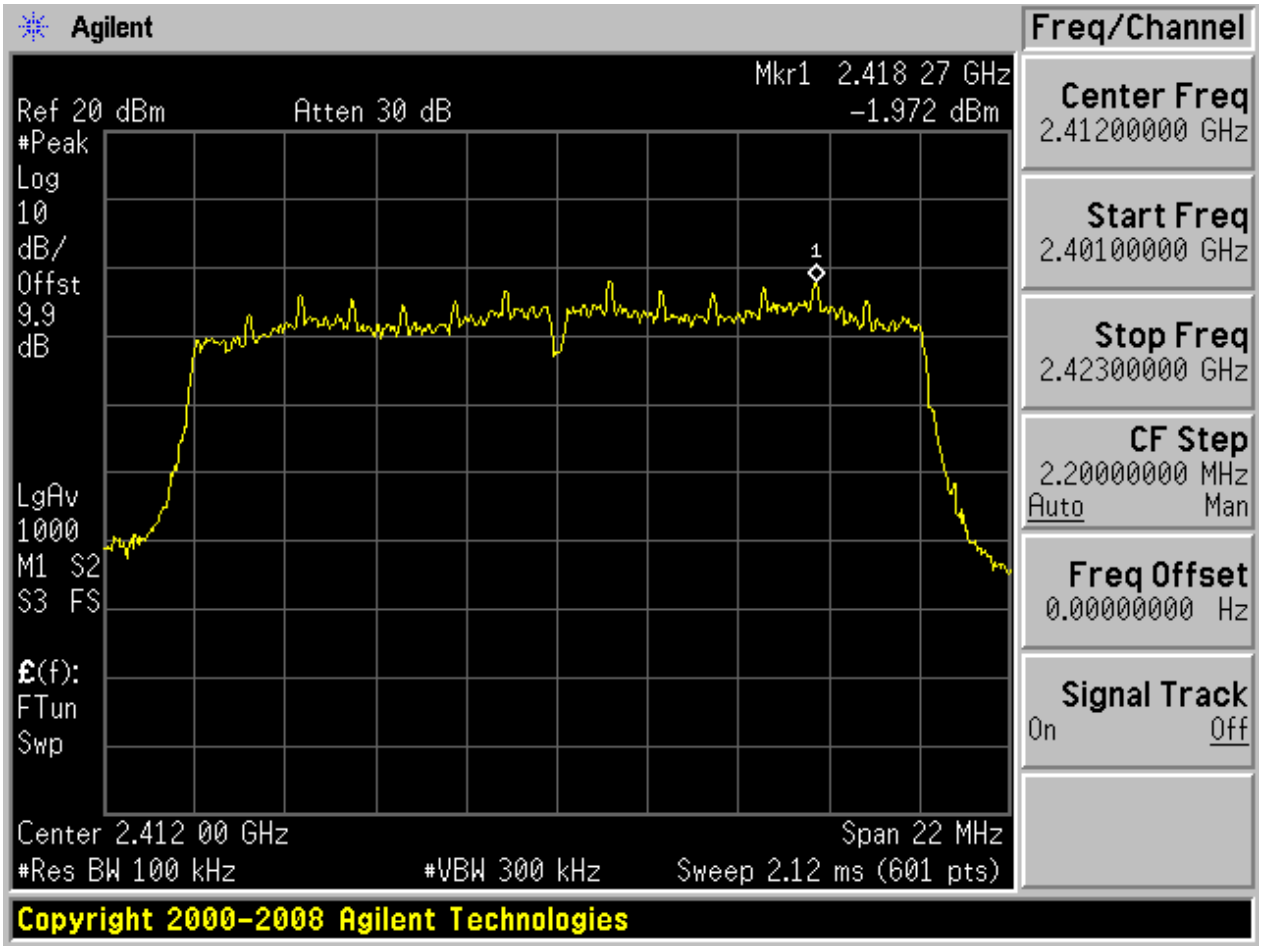
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.19 11N20m_B@Ant1

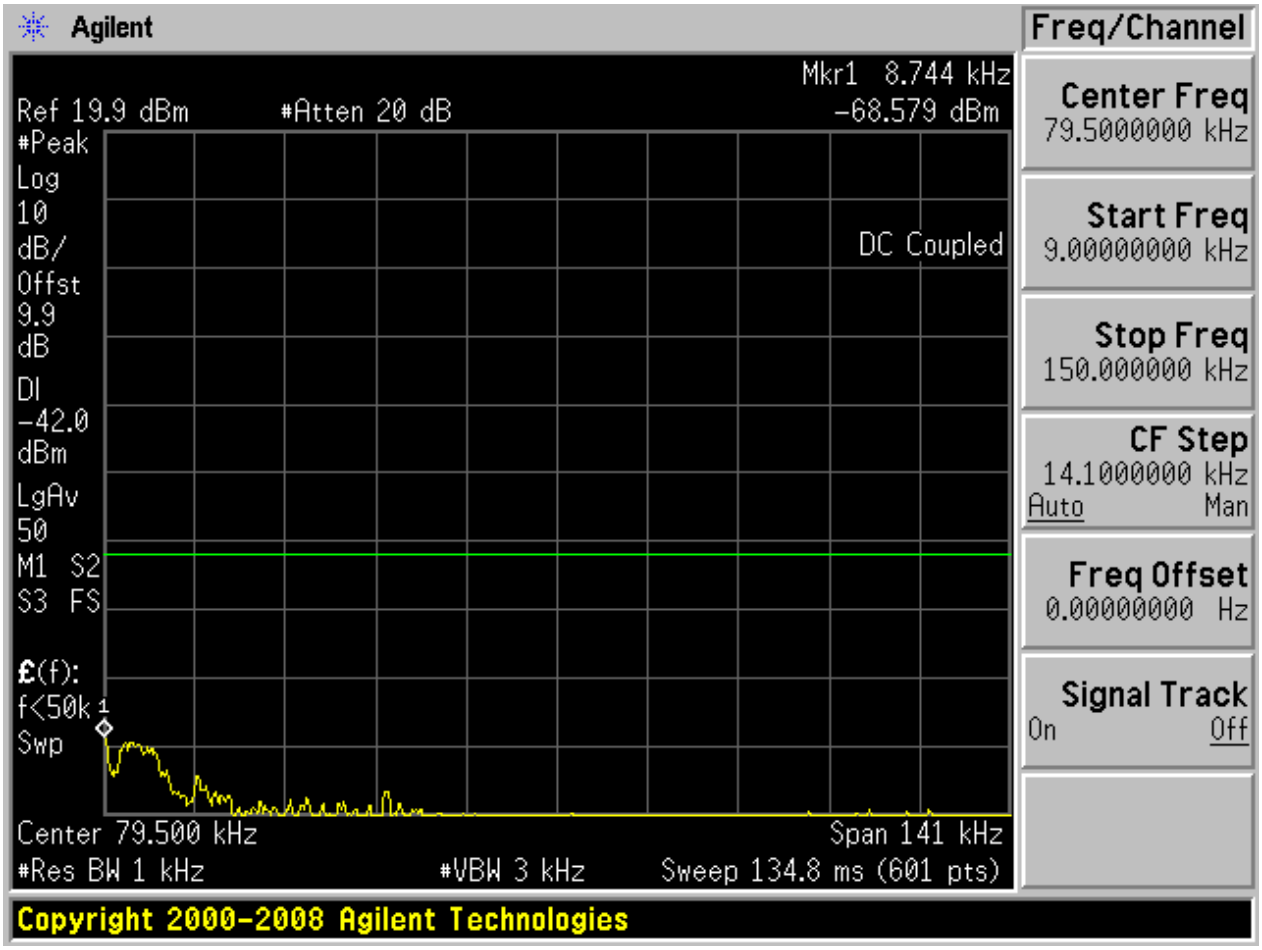
2.19.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

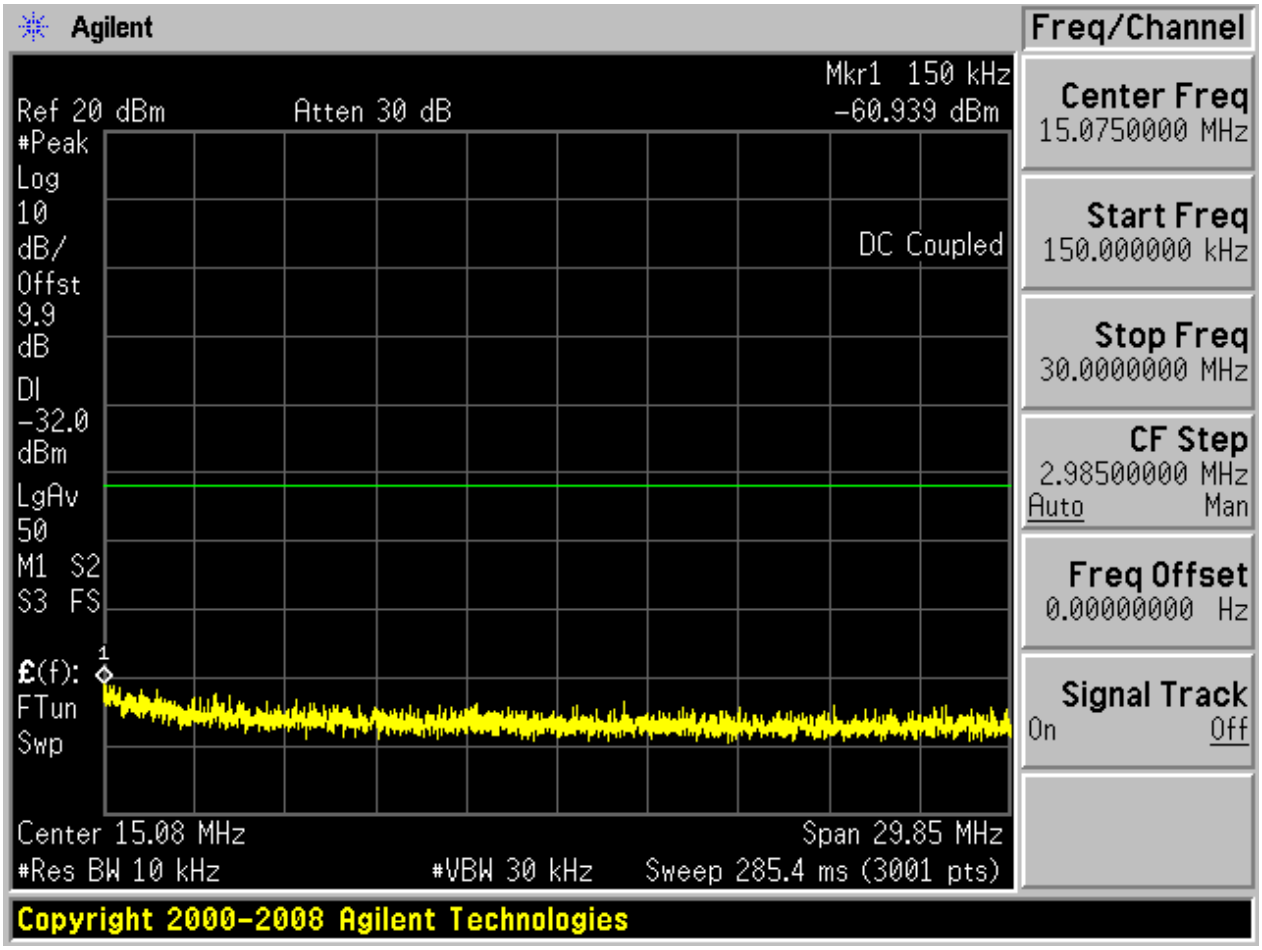
2.19.2 Puw:

9k - 150k

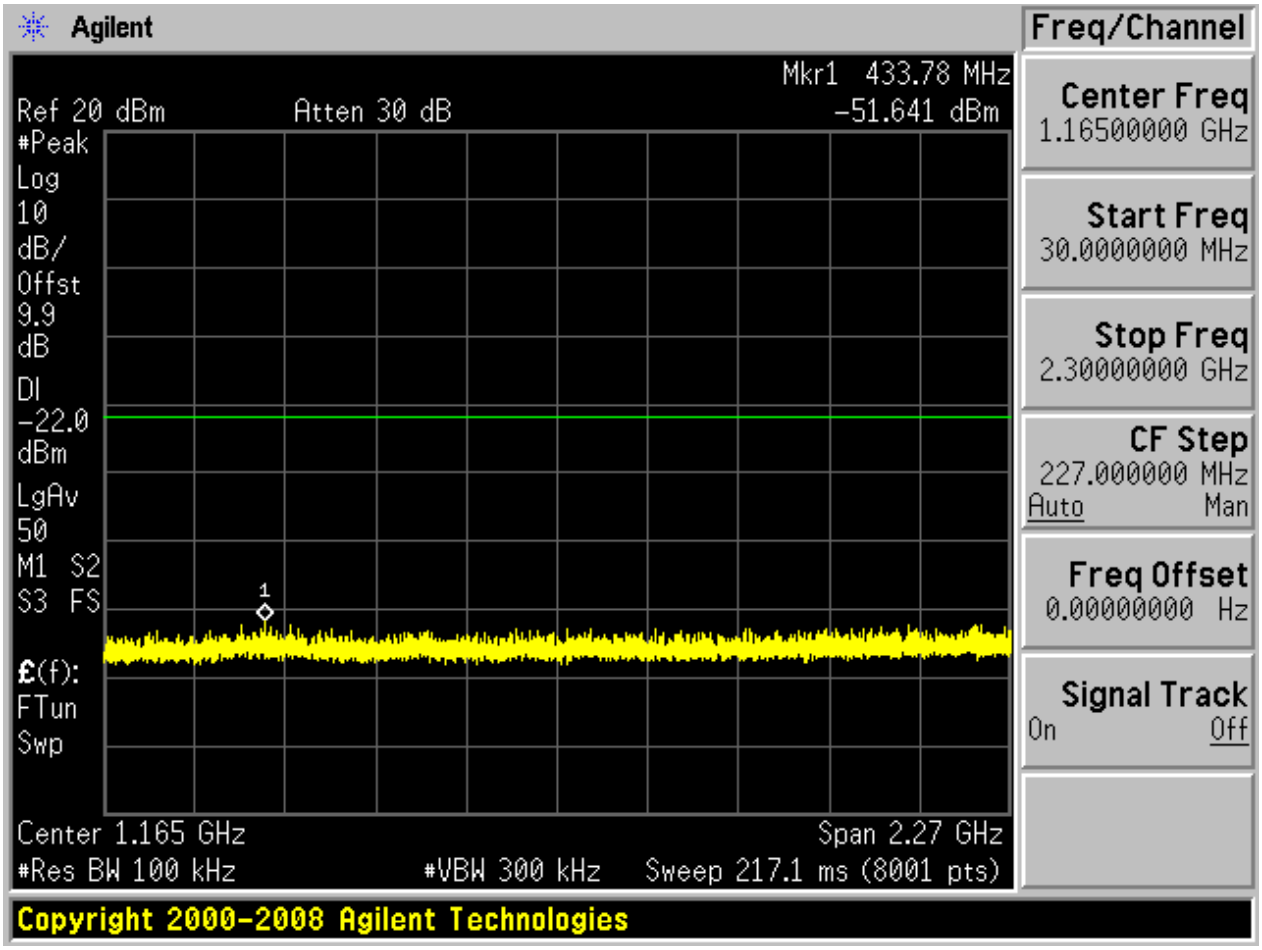


Copyright © Huawei Technologies Co., Ltd.

150k - 30M

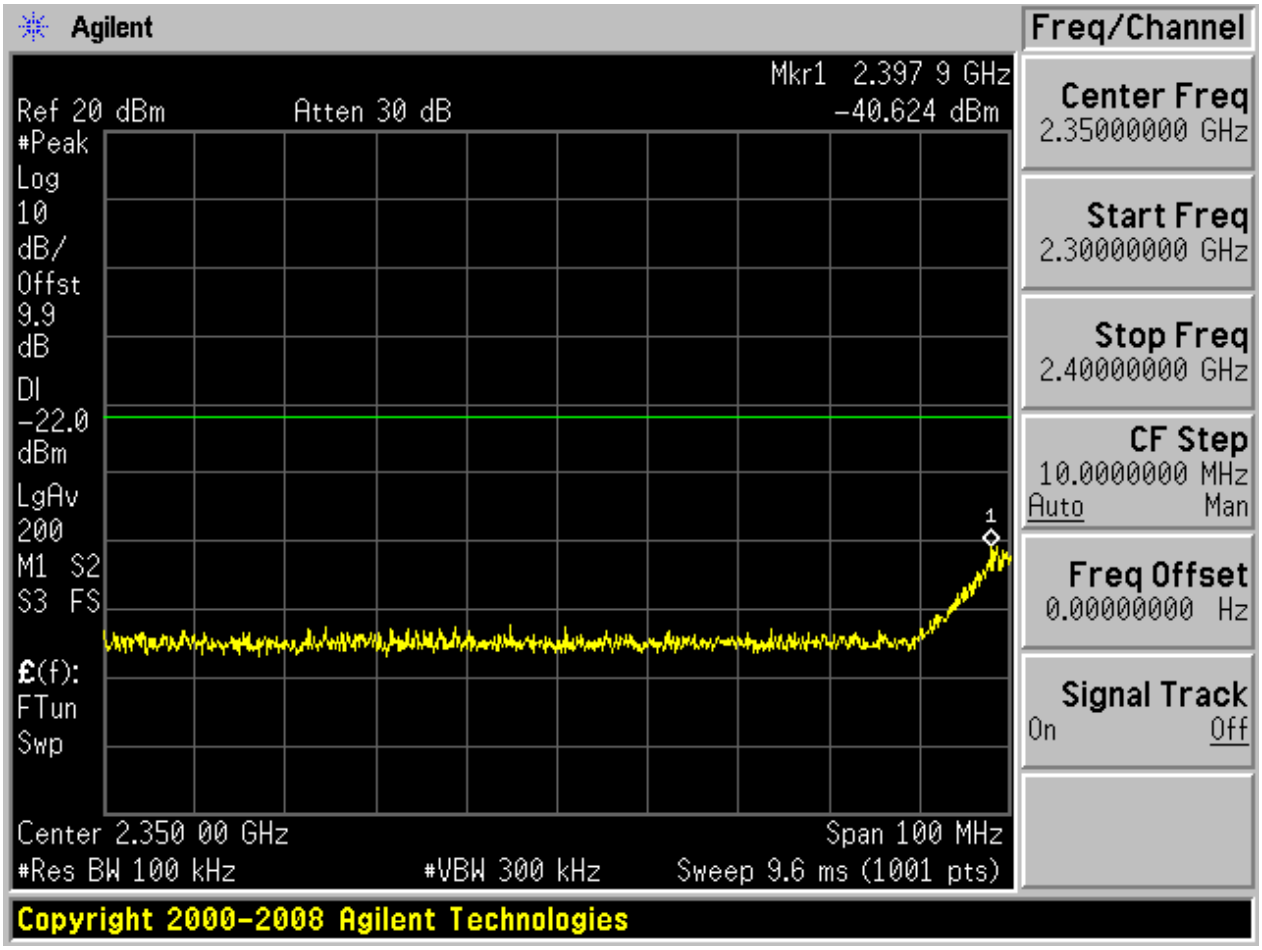

Agilent
Freq/Channel
Mkr1 150 kHz
Ref 20 dBm
Atten 30 dB
-60.939 dBm
#Peak
Log
10
dB/
Offst
9.9
dB
Dl
-32.0
dBm
LgAv
50
M1 S2
S3 FS
DC Coupled
£(f):
FTun
Swp
Center Freq
15.0750000 MHz
Start Freq
150.000000 kHz
Stop Freq
30.0000000 MHz
CF Step
2.98500000 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Center 15.08 MHz
Span 29.85 MHz
#Res BW 10 kHz
#VBW 30 kHz
Sweep 285.4 ms (3001 pts)
Copyright 2000-2008 Agilent Technologies

30M - 2.3G



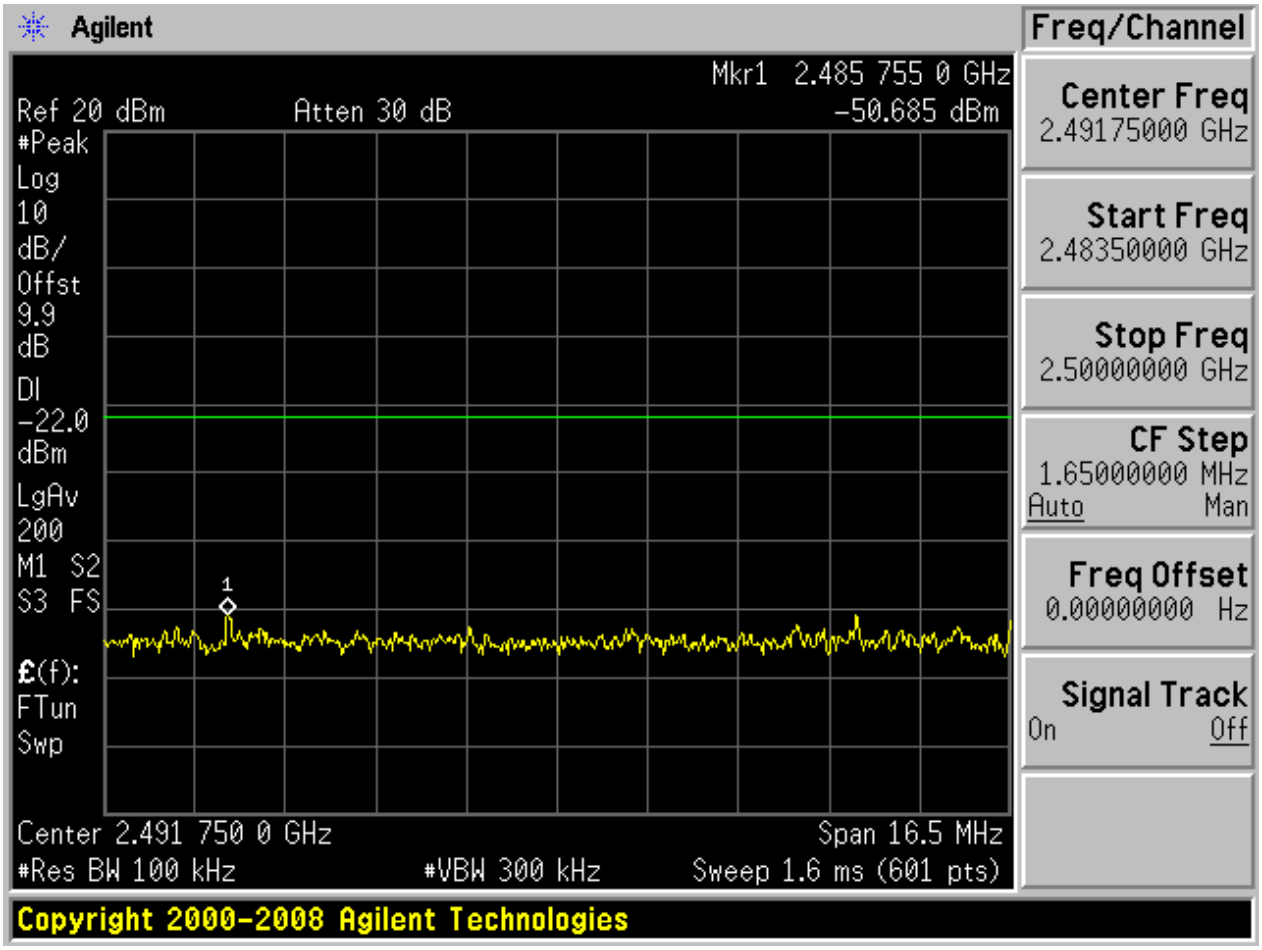
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



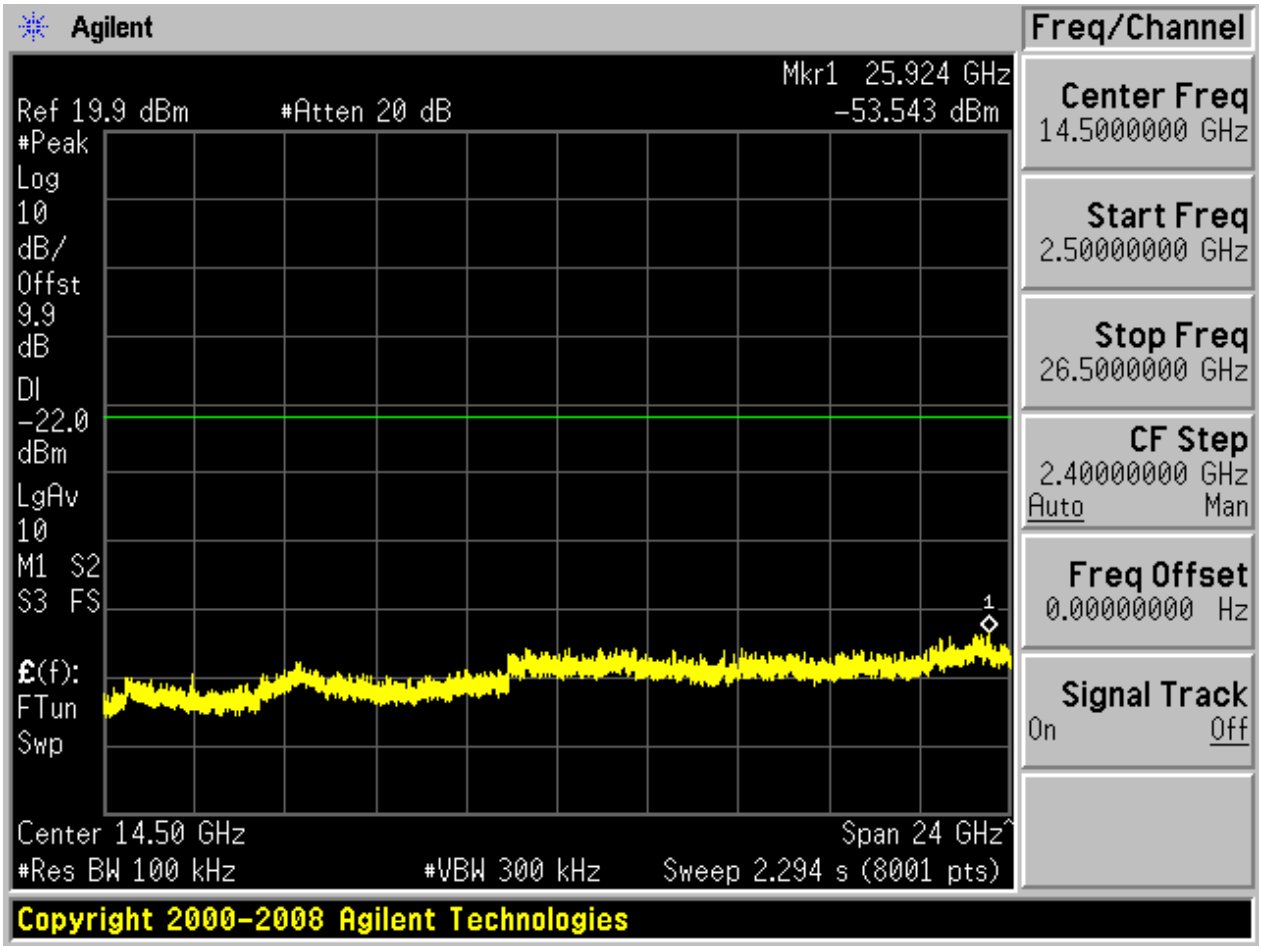
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

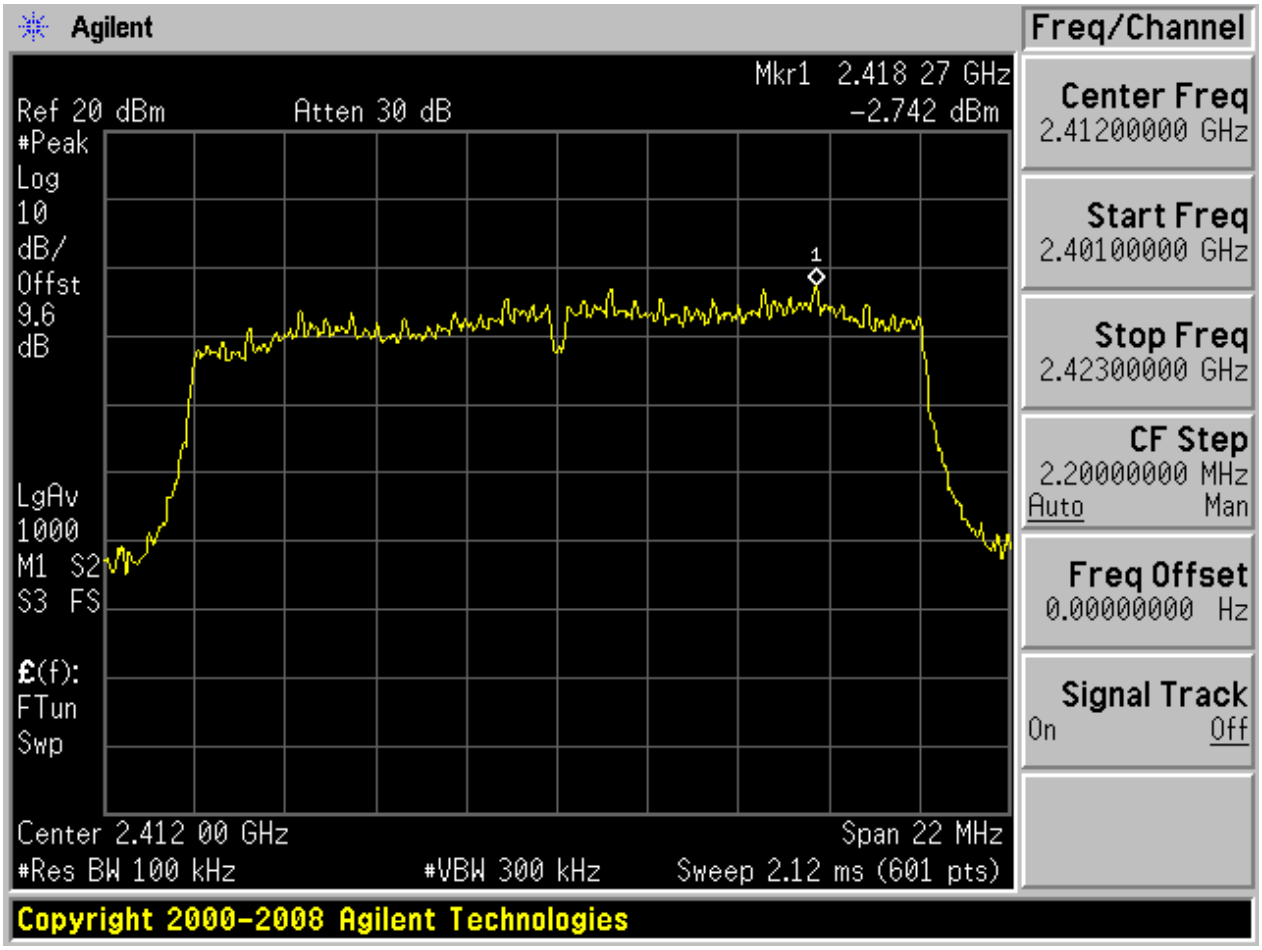
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.20 11N20m_B@Ant2

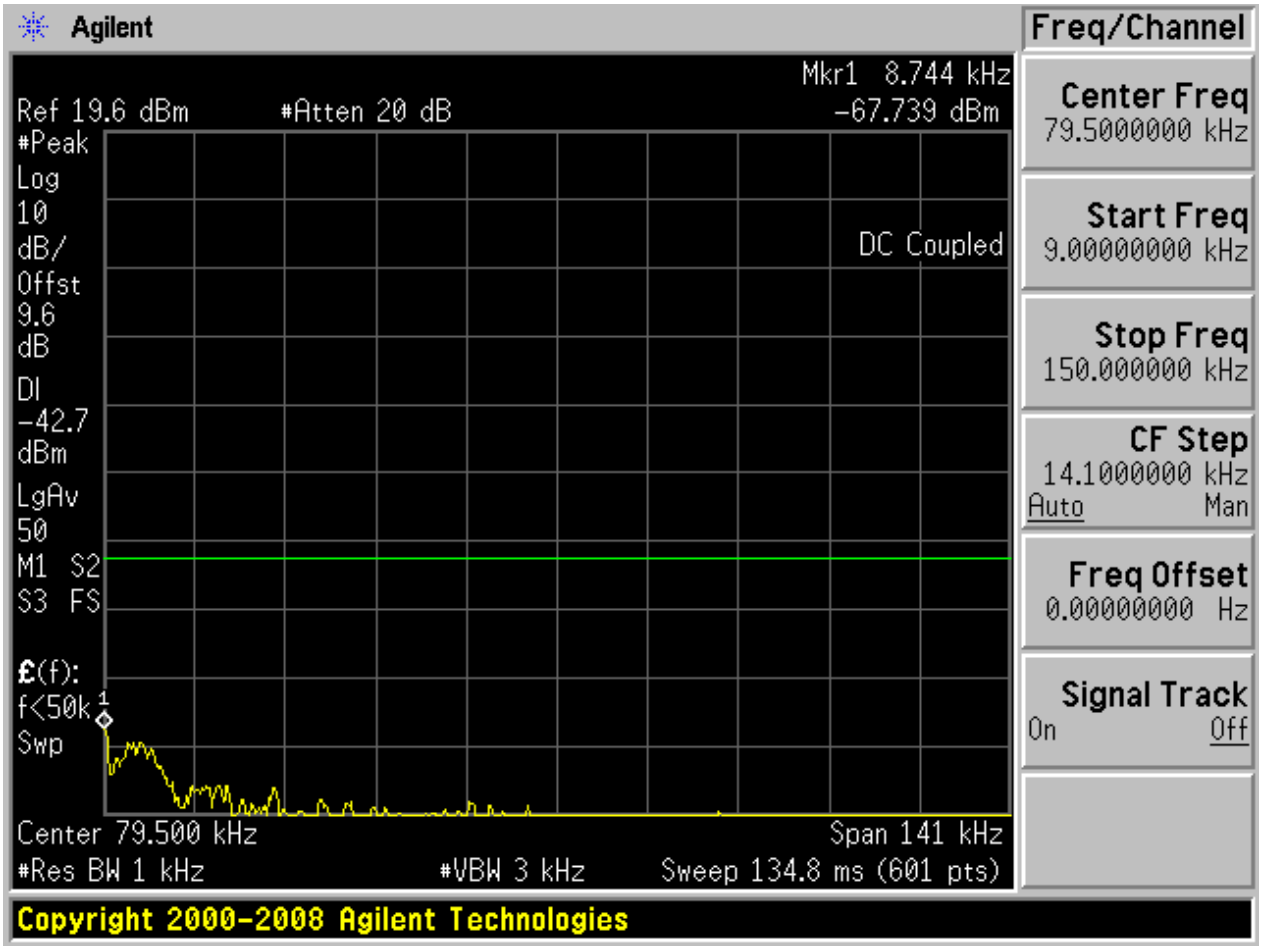
2.20.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

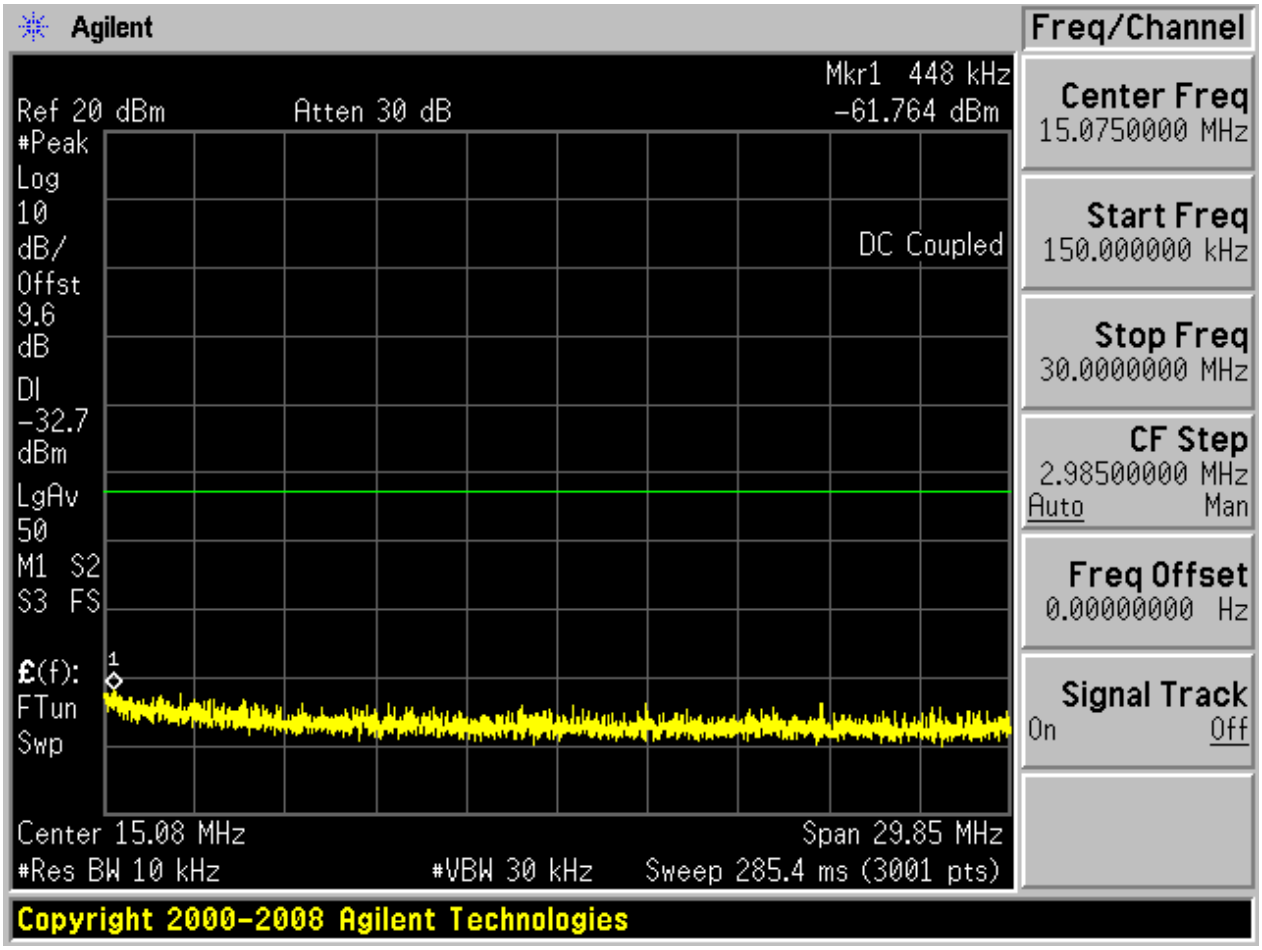
2.20.2 Puw:

9k - 150k



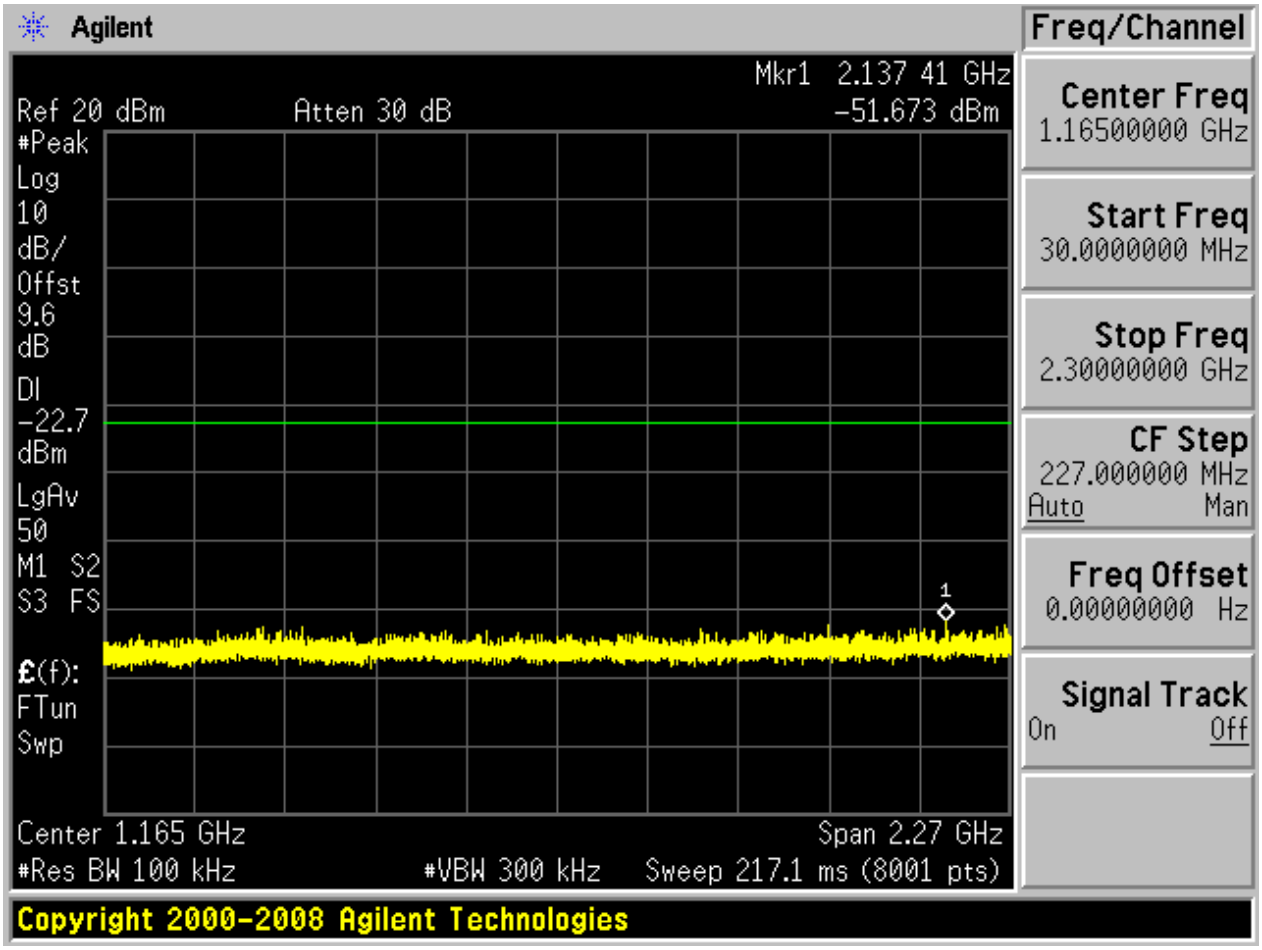
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



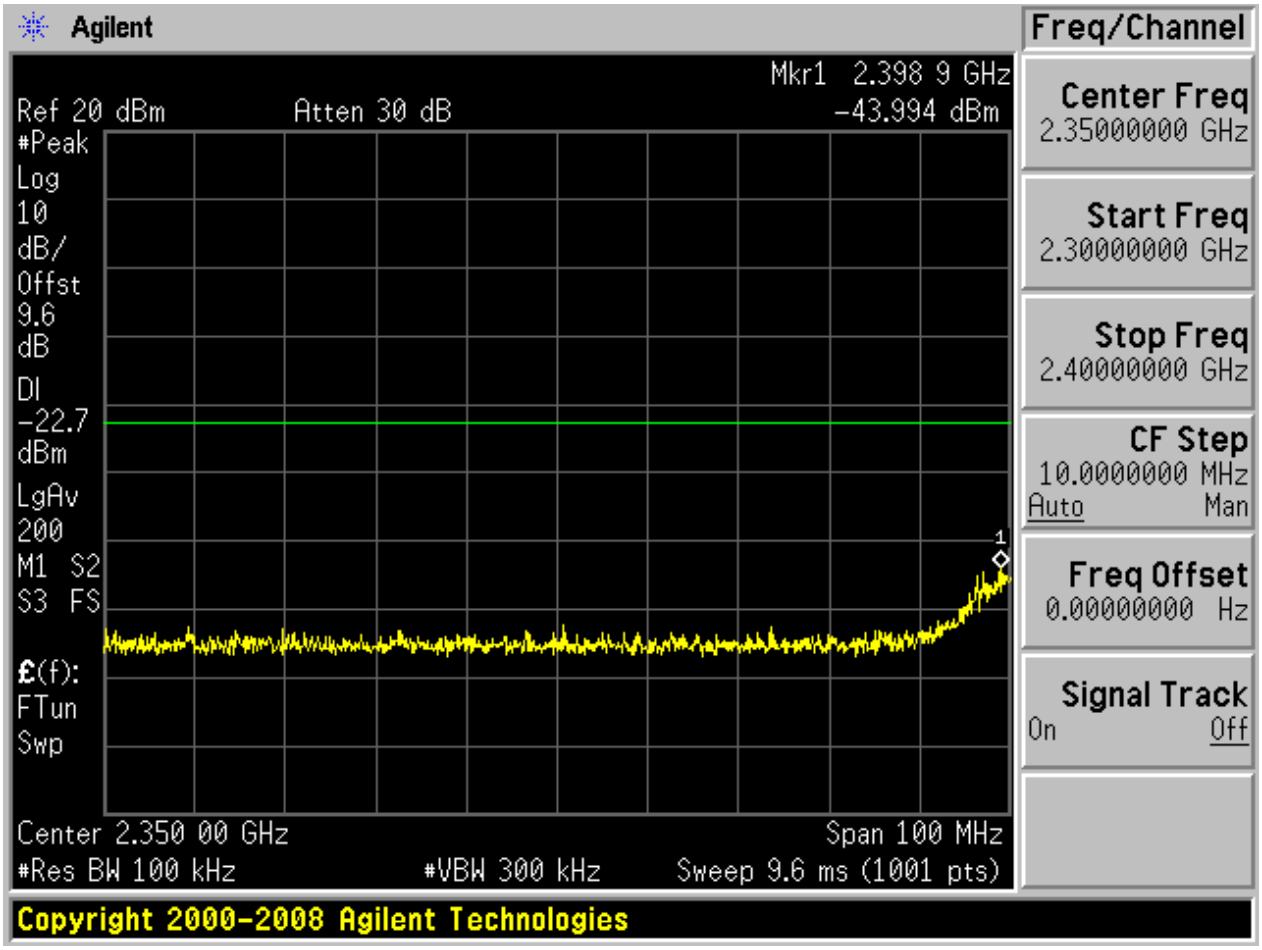
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



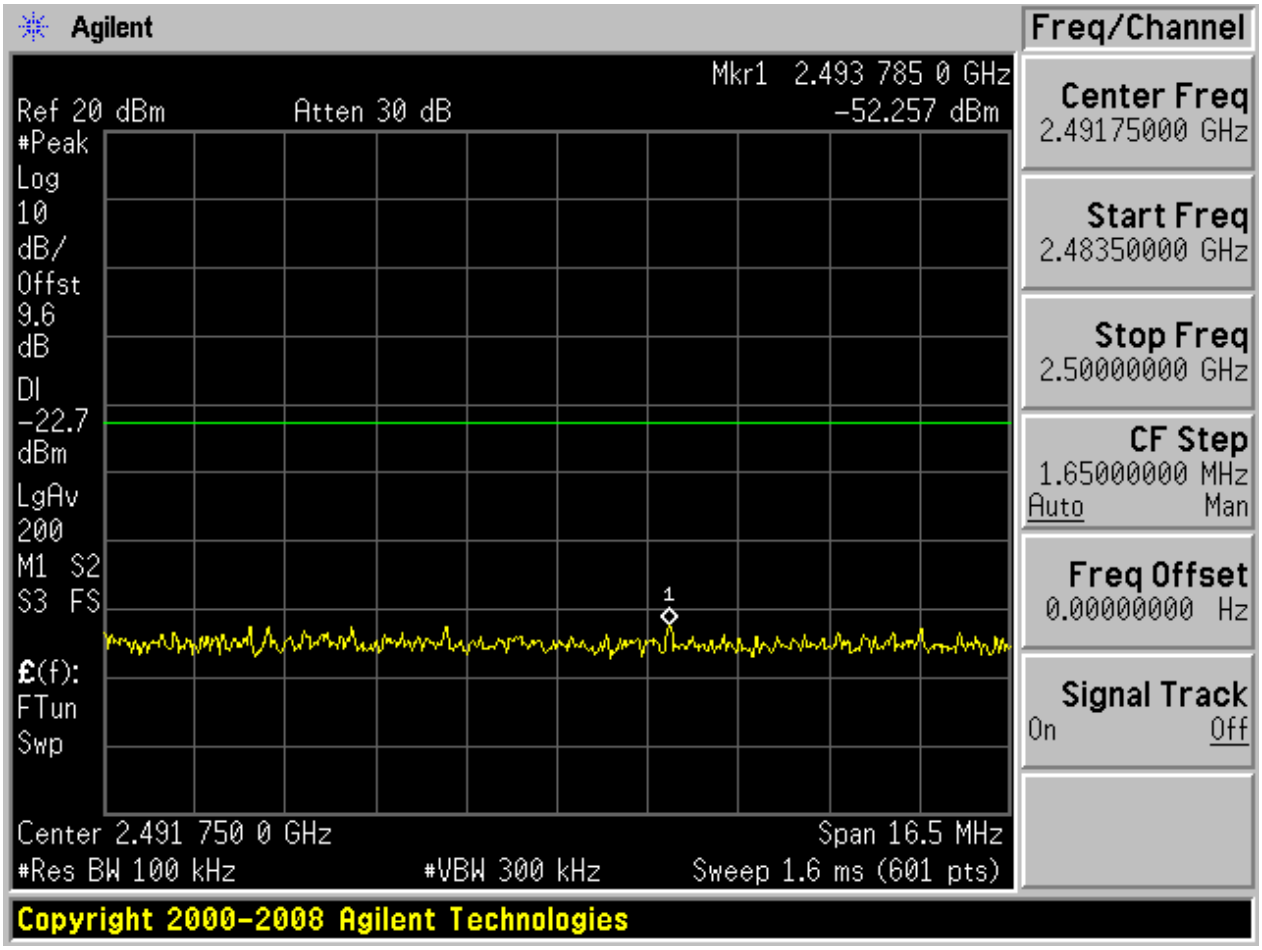
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



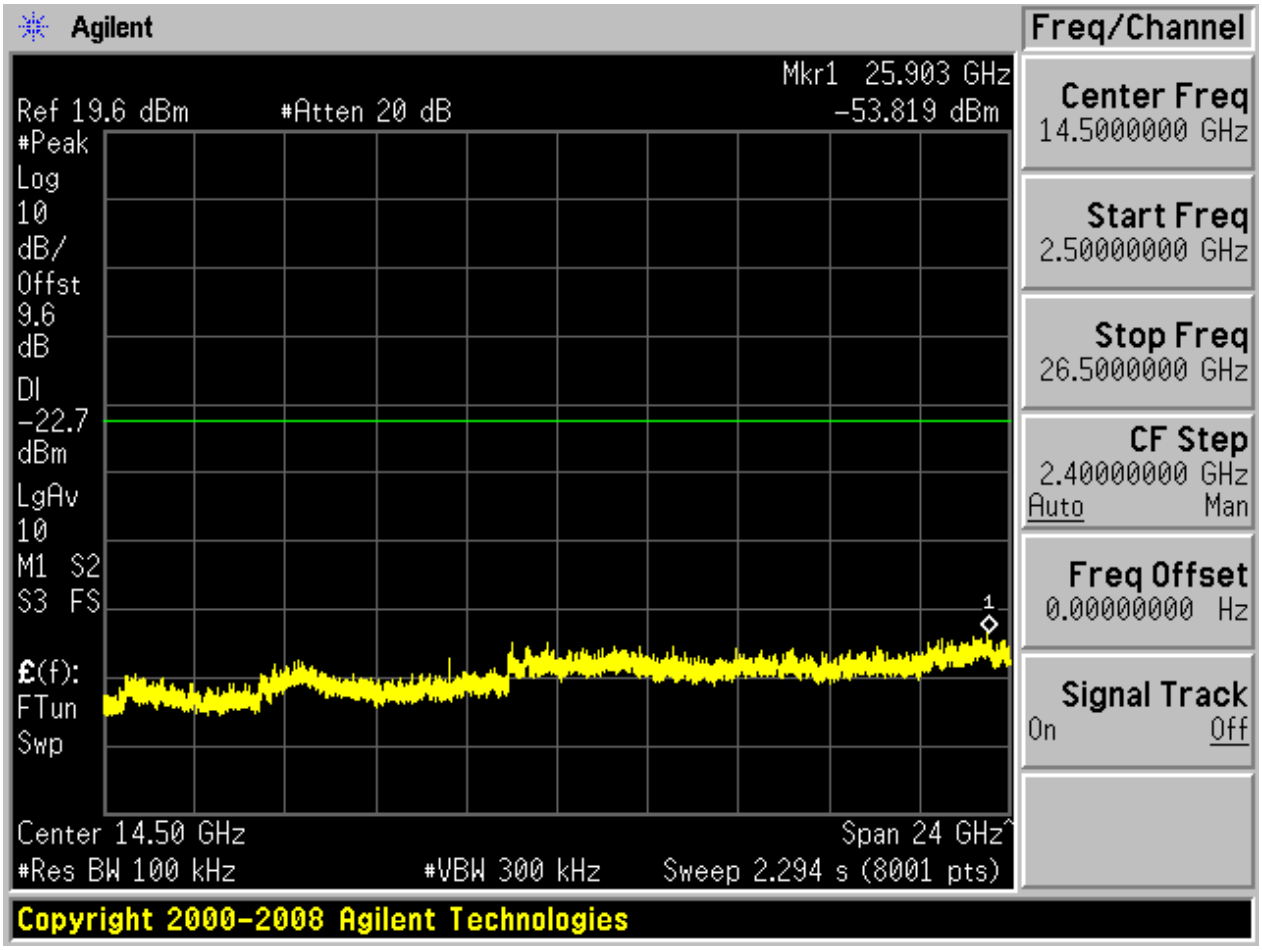
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

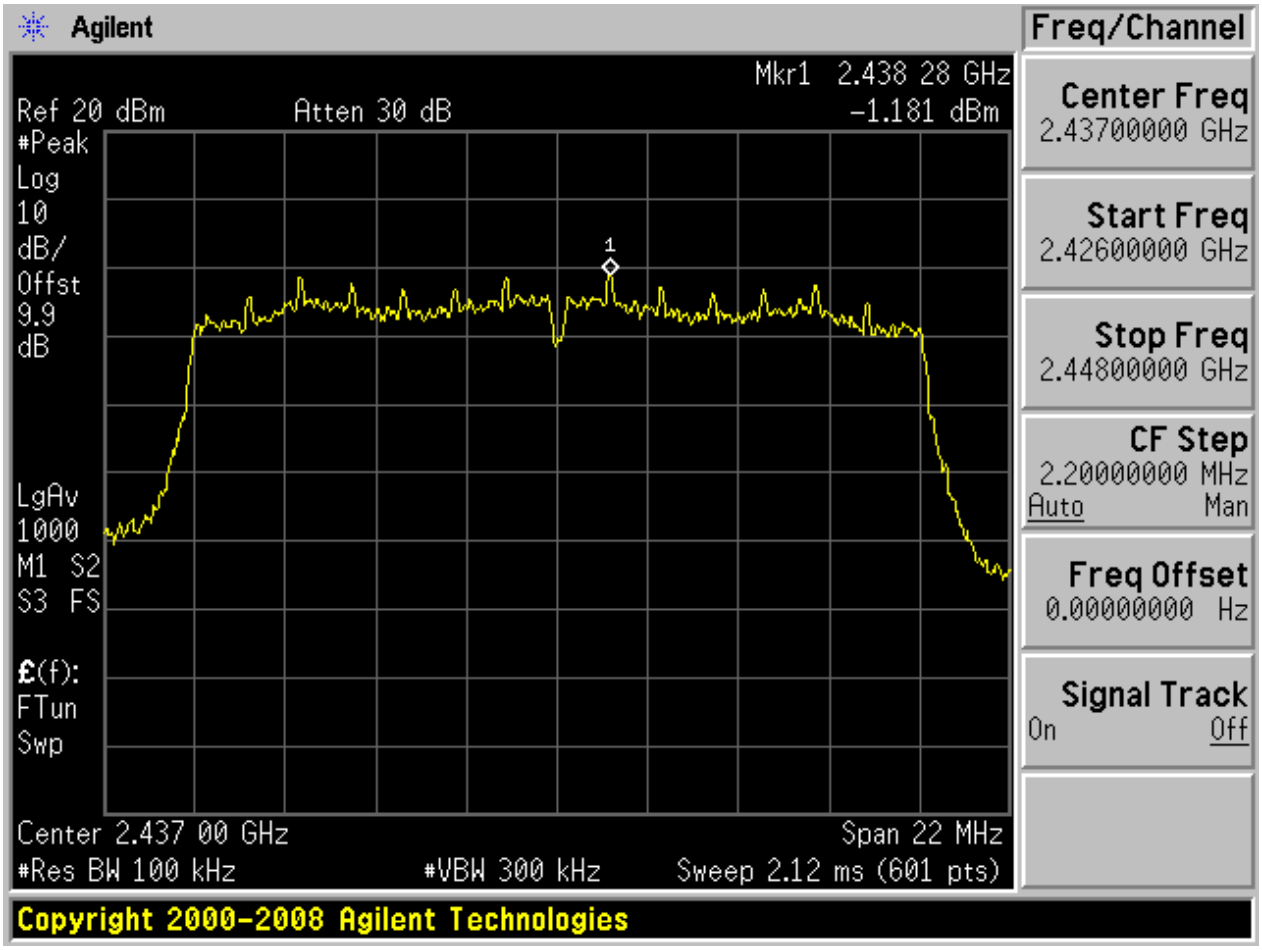
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.21 11N20m_M@Ant1

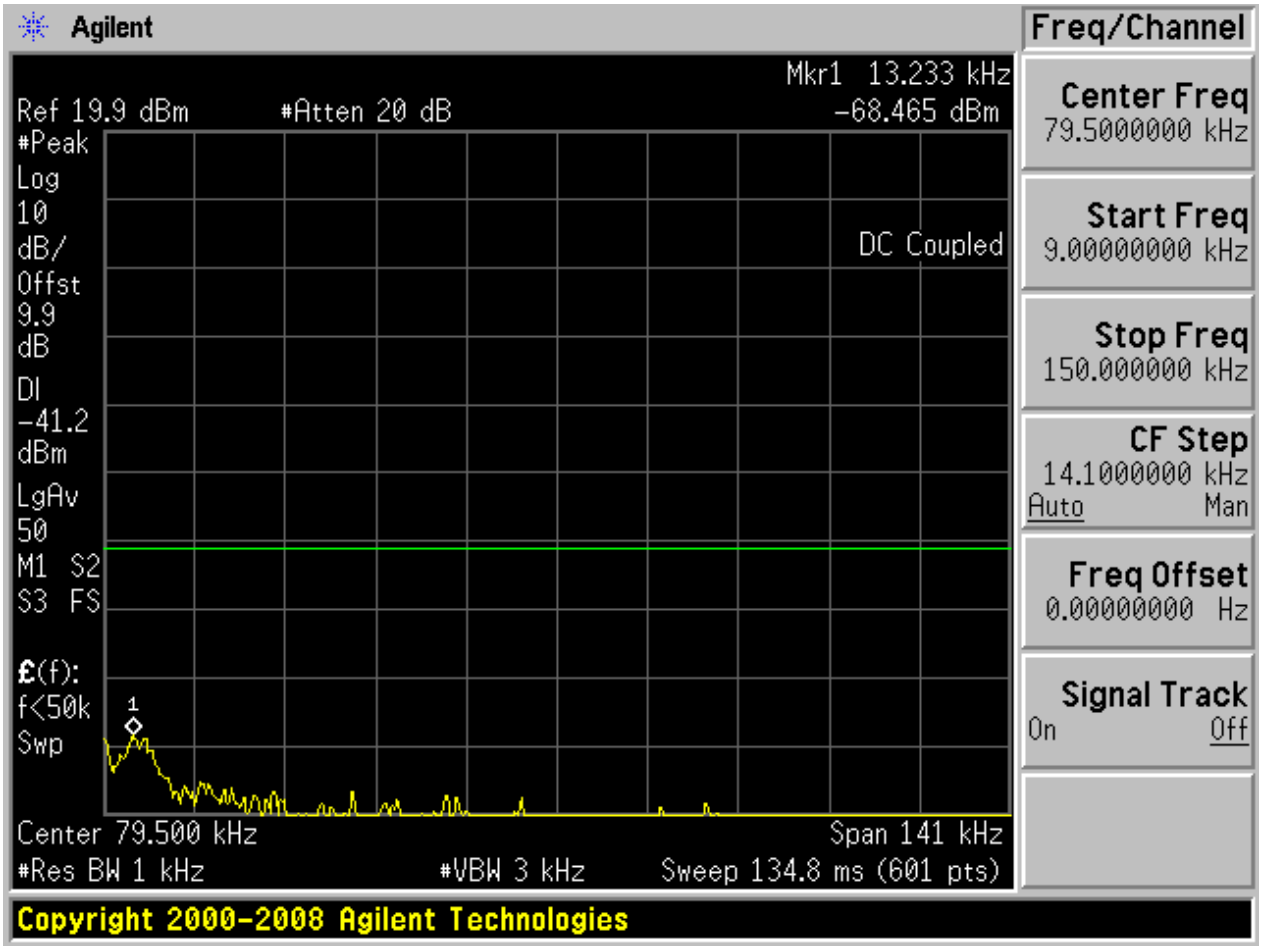
2.21.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

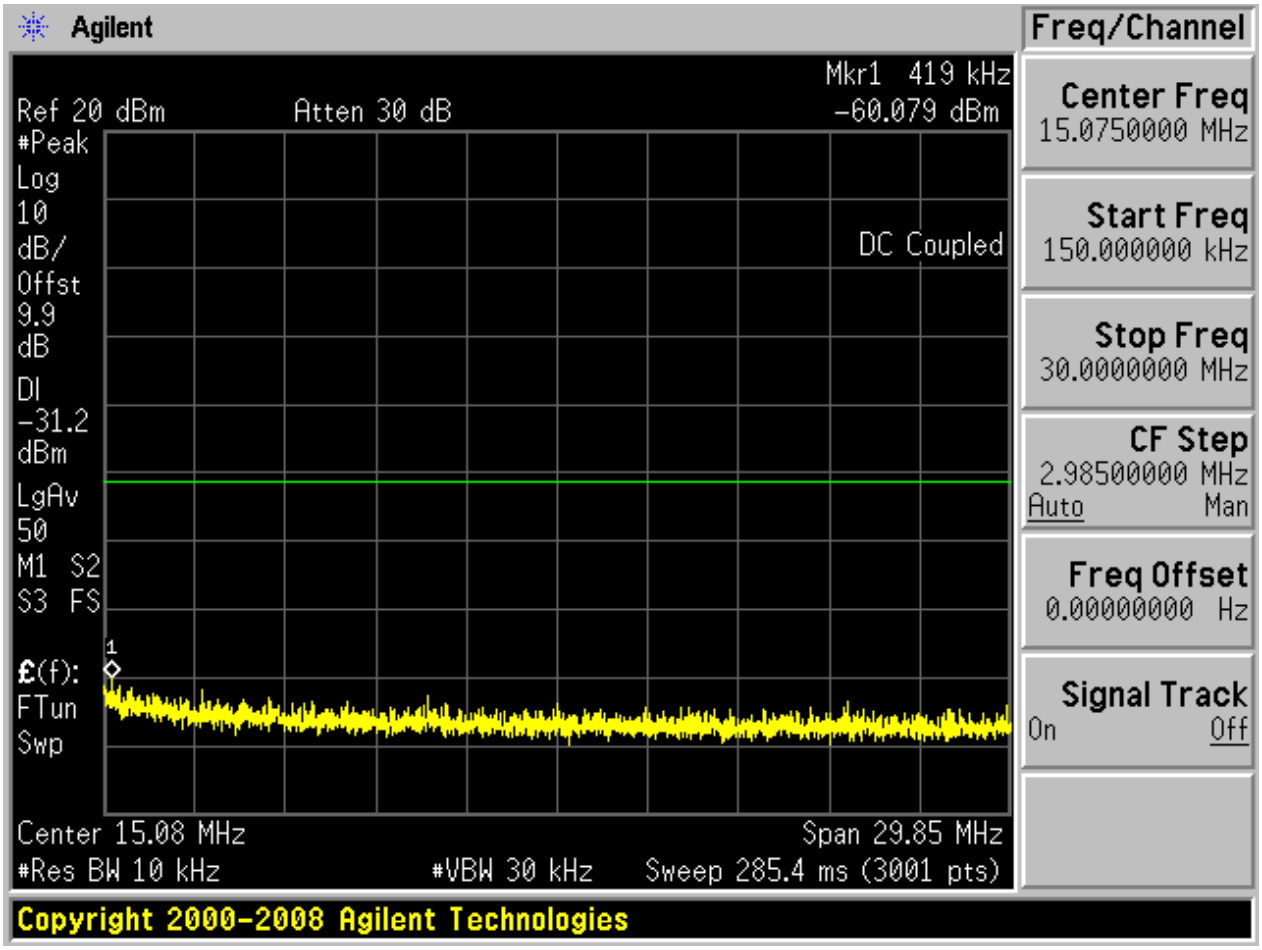
2.21.2 Puw:

9k - 150k



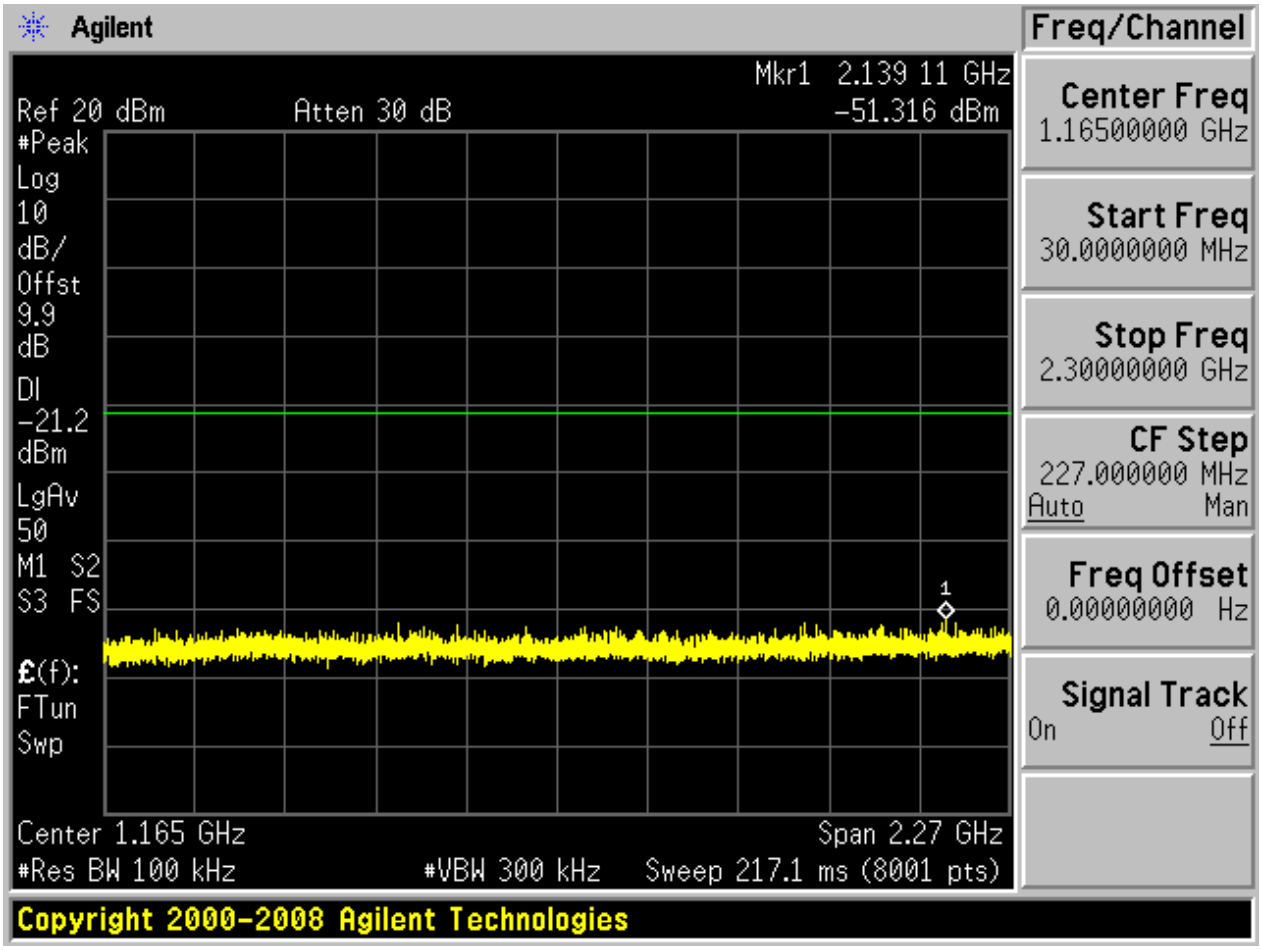
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



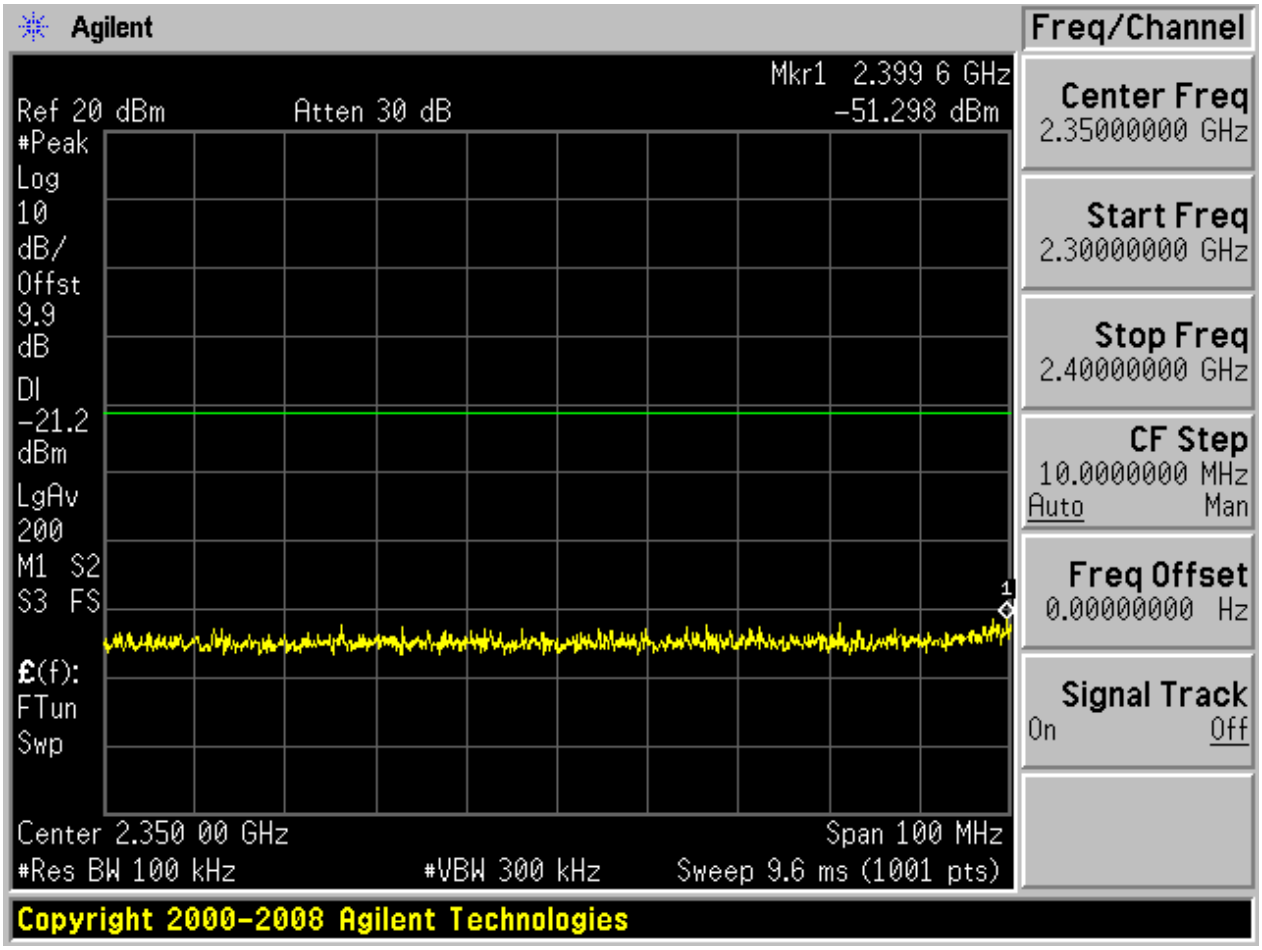
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



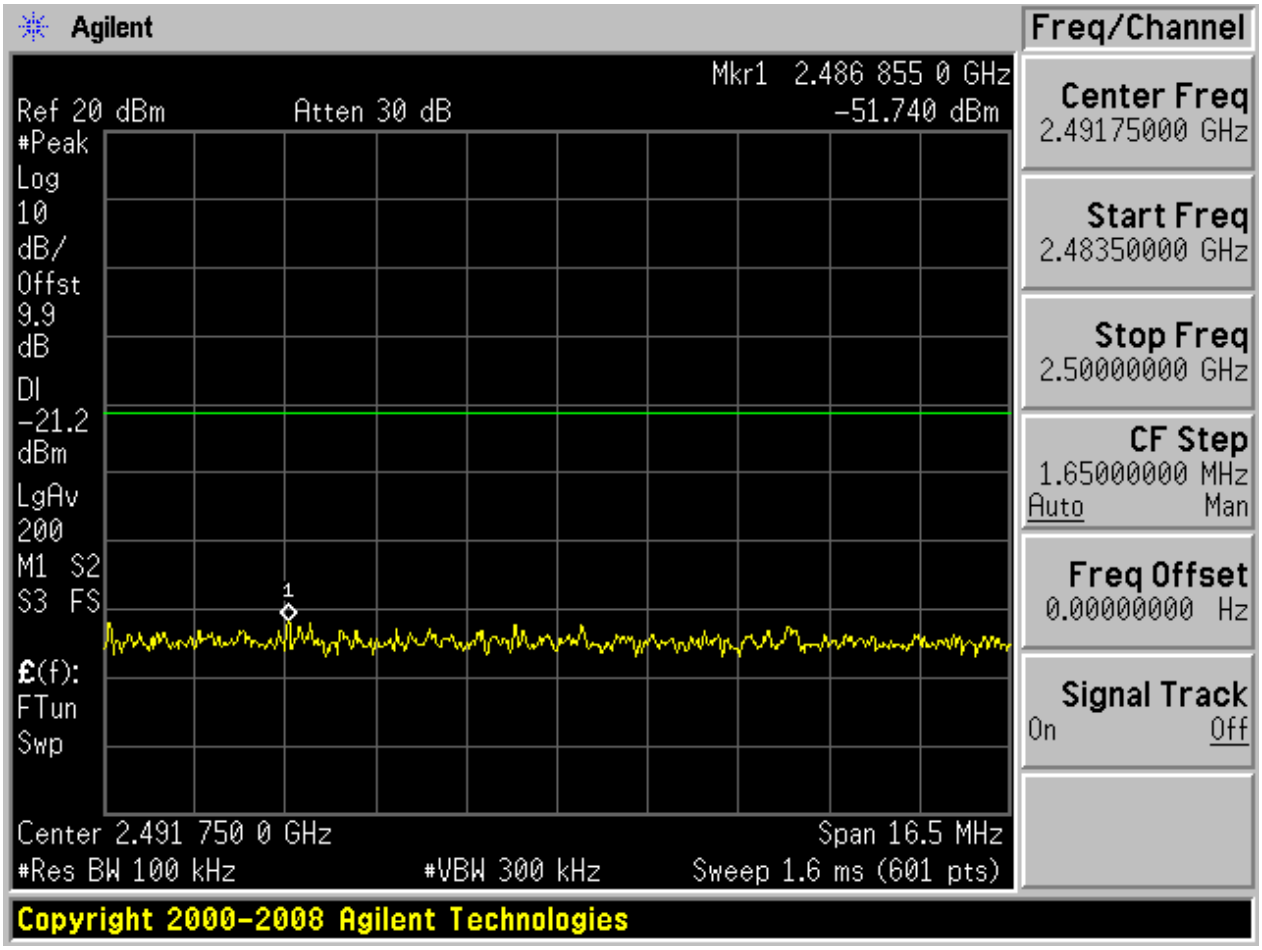
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



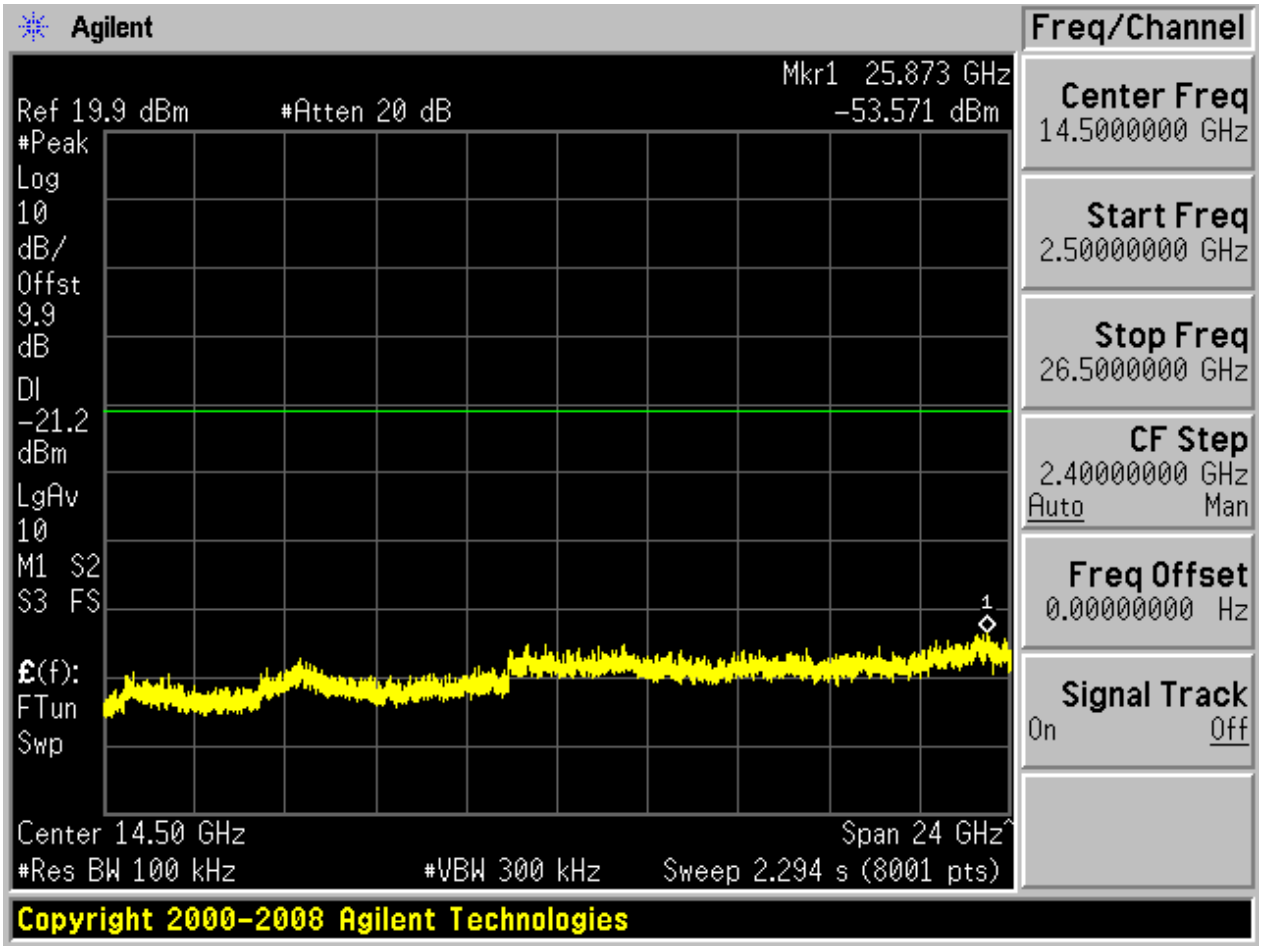
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

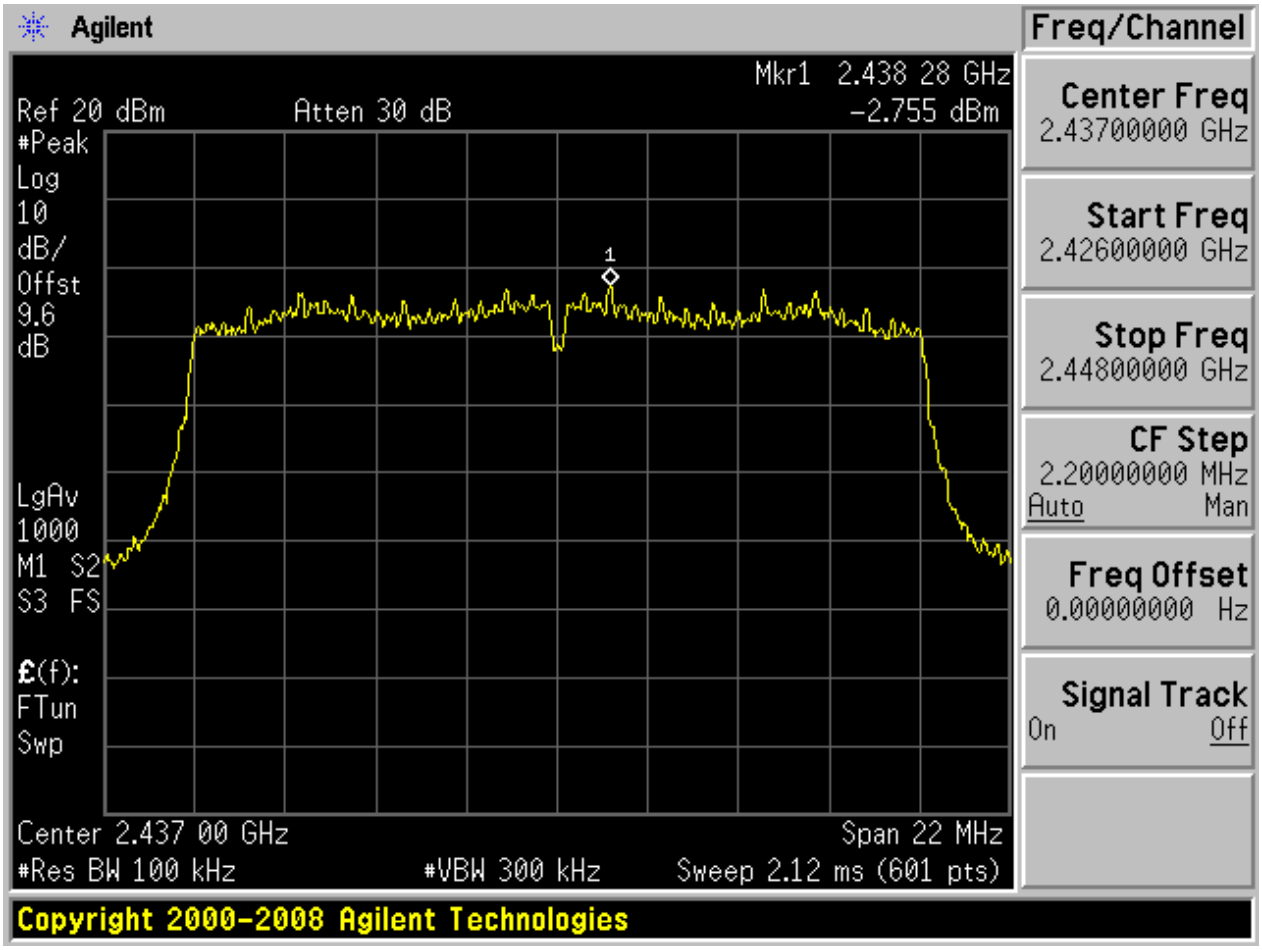
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.22 11N20m_M@Ant2

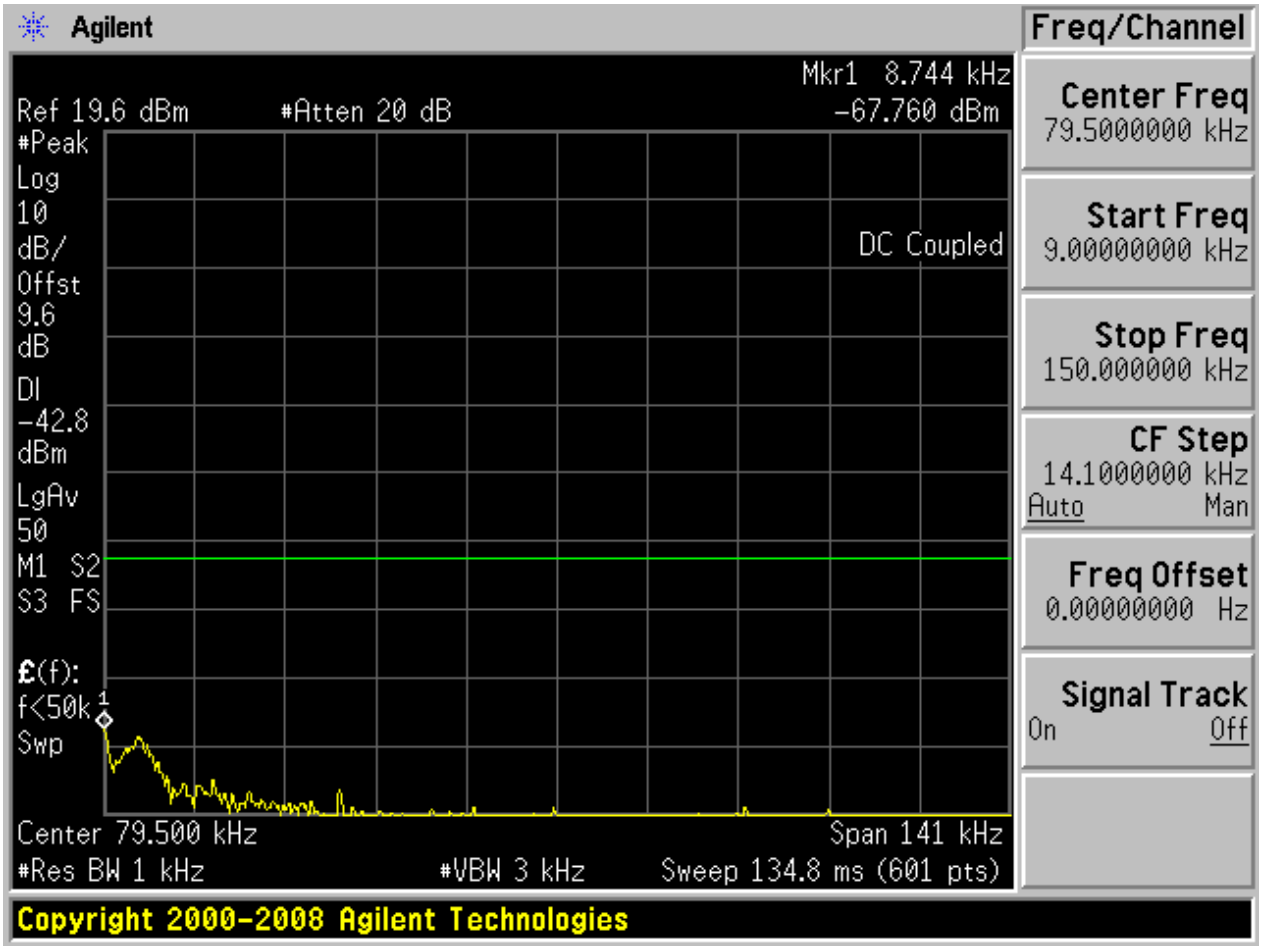
2.22.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

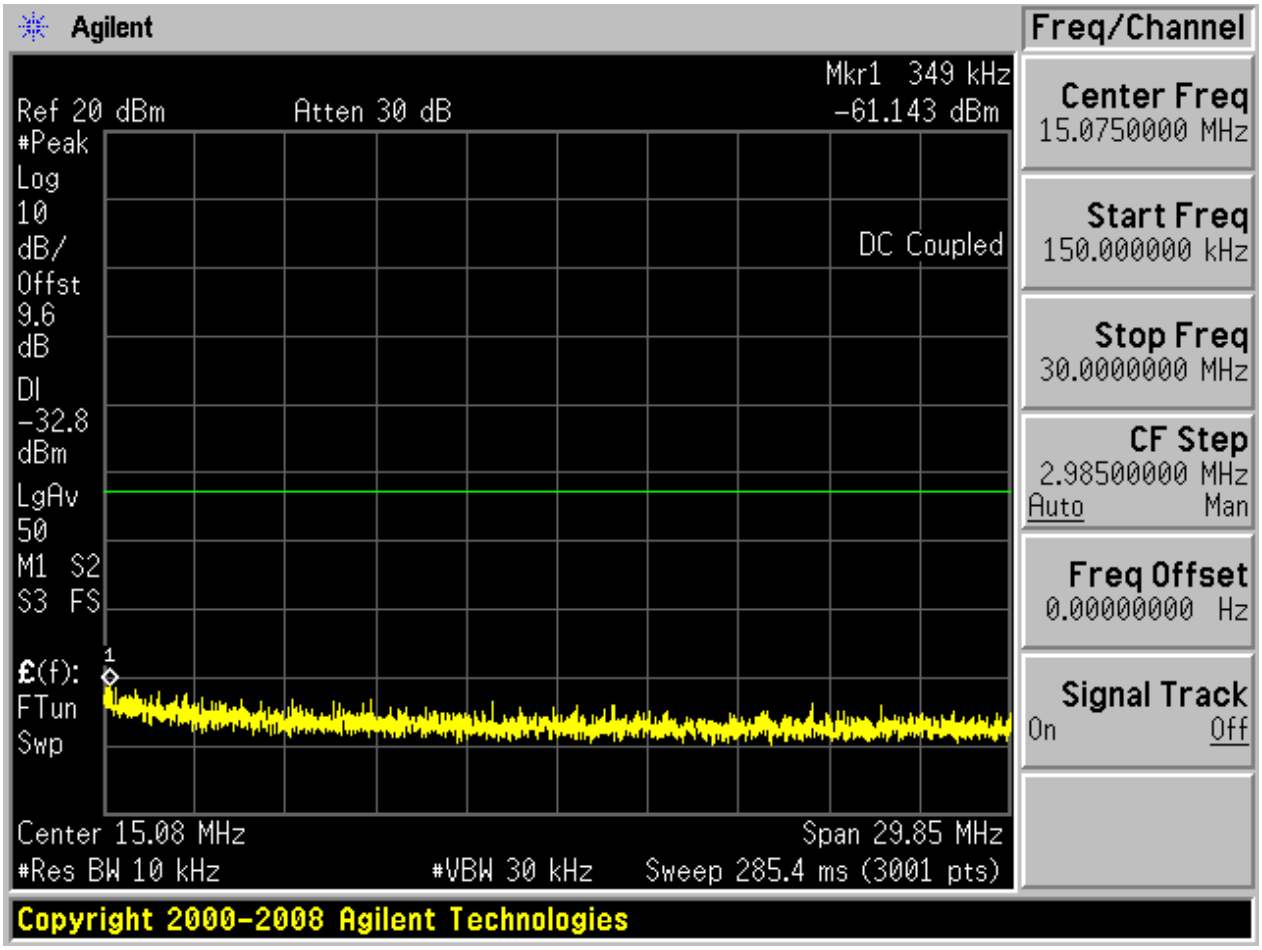
2.22.2 Puw:

9k - 150k



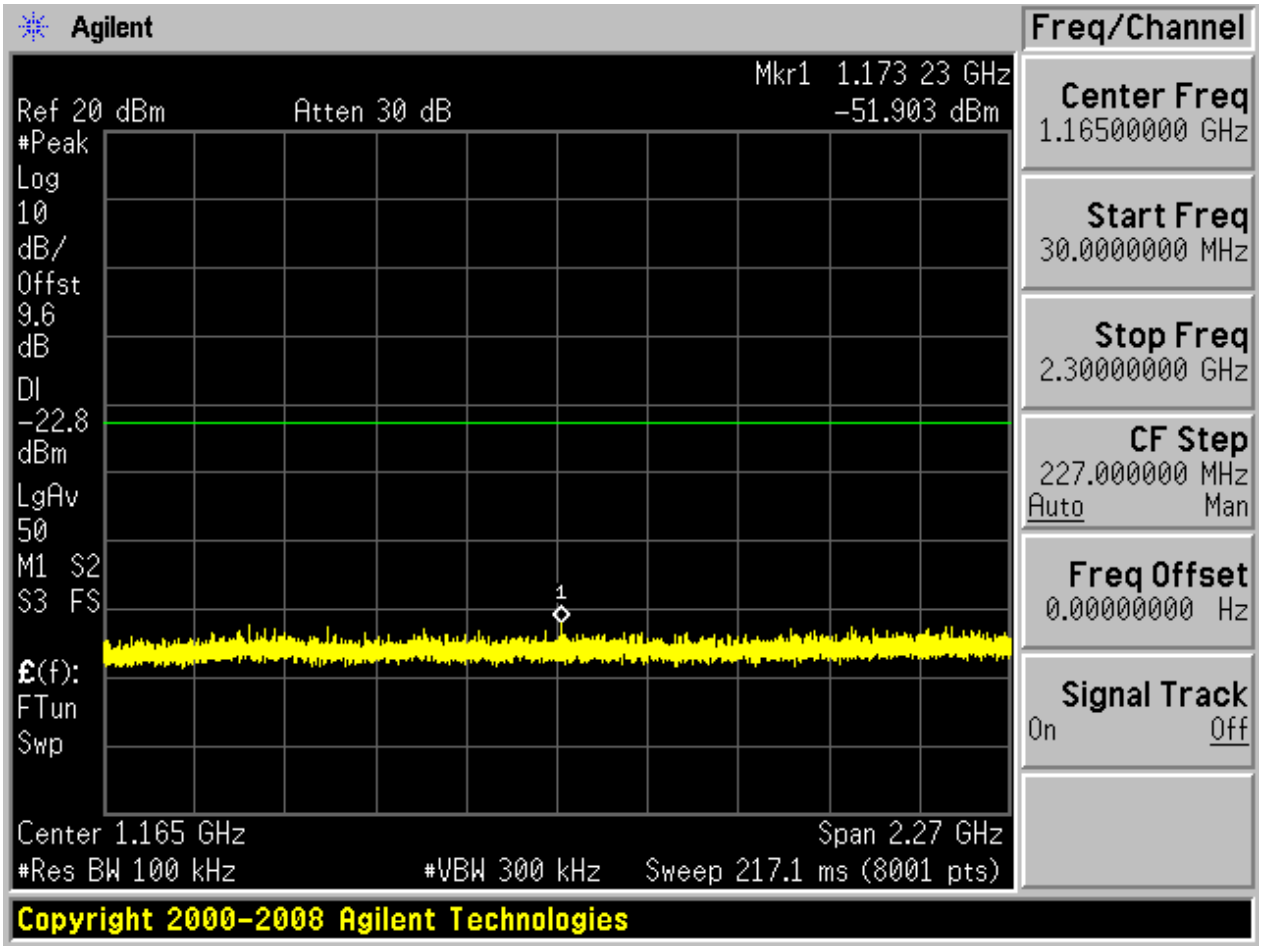
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



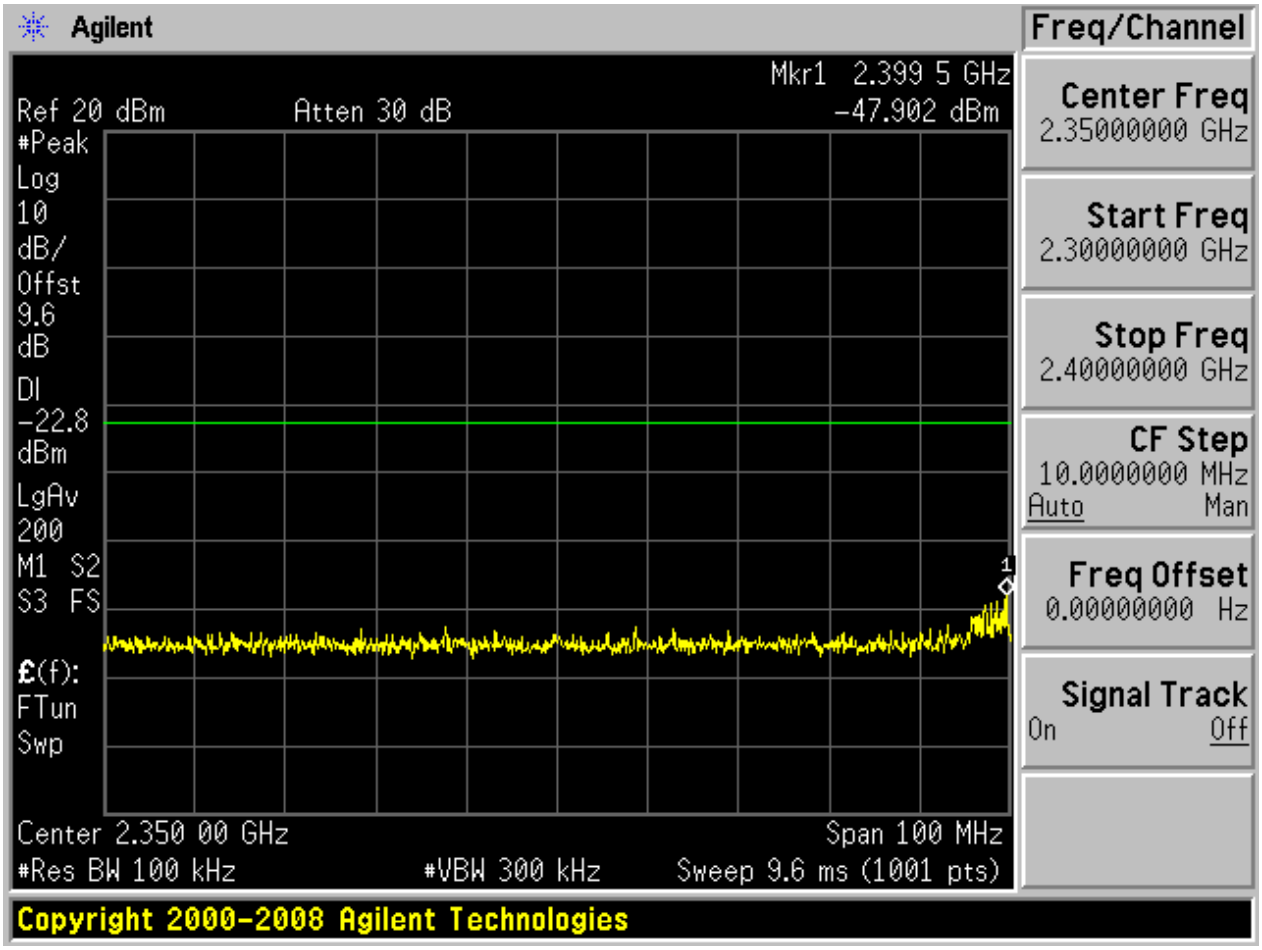
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



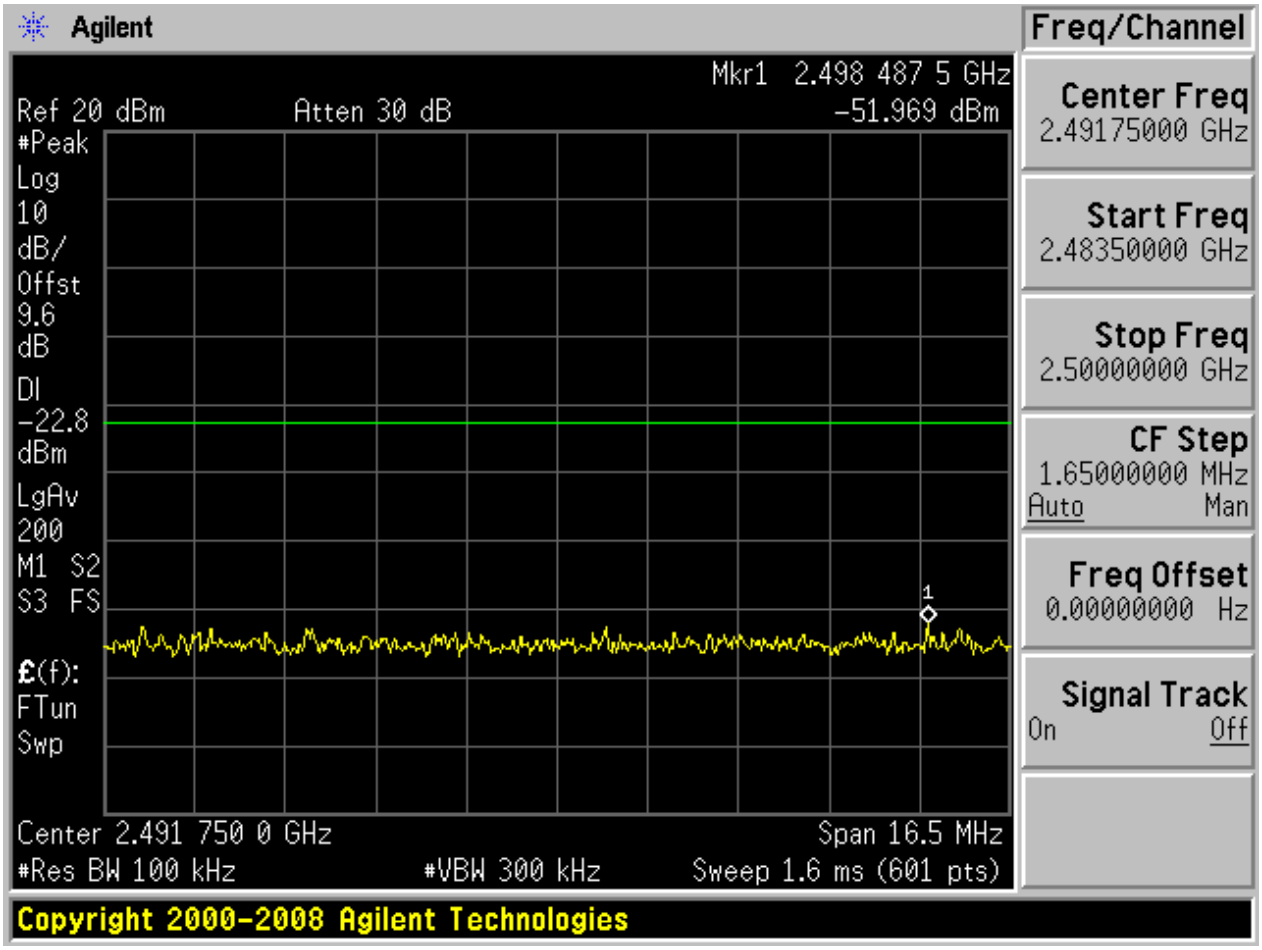
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



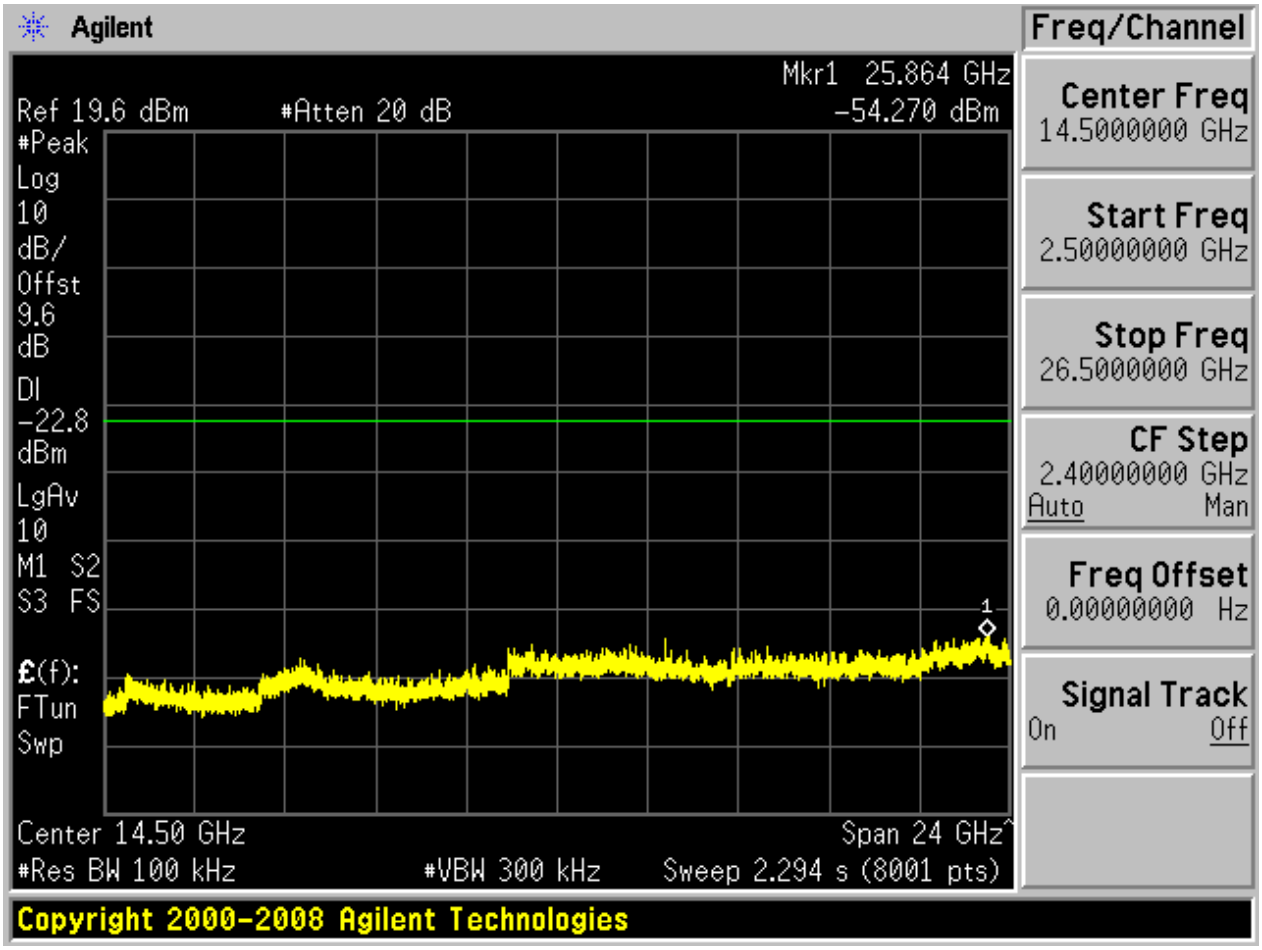
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Copyright © Huawei Technologies Co., Ltd.

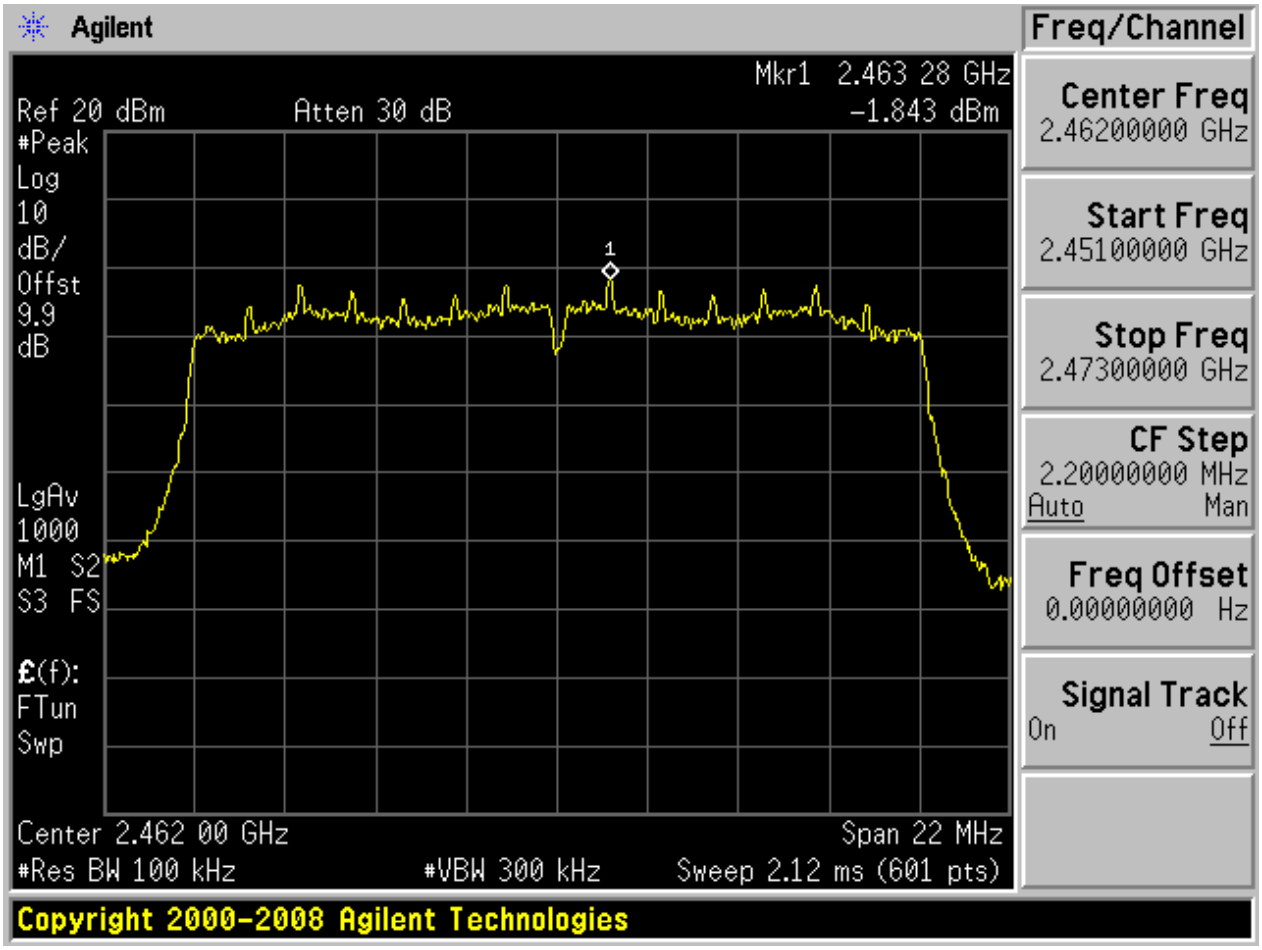
2.5G - 26.5G



Copyright © Huawei Technologies Co., Ltd.

2.23 11N20m_T@Ant1

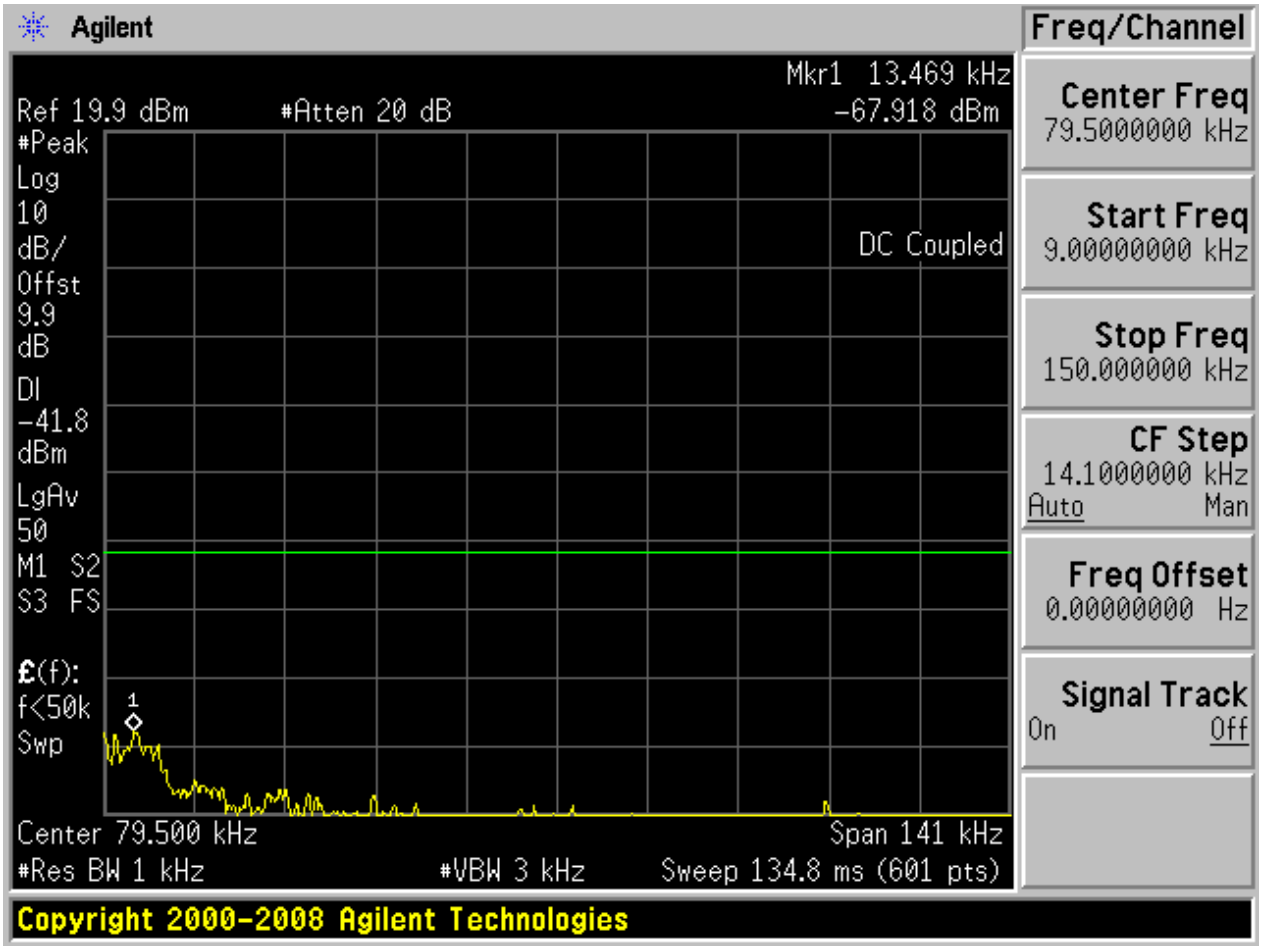
2.23.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

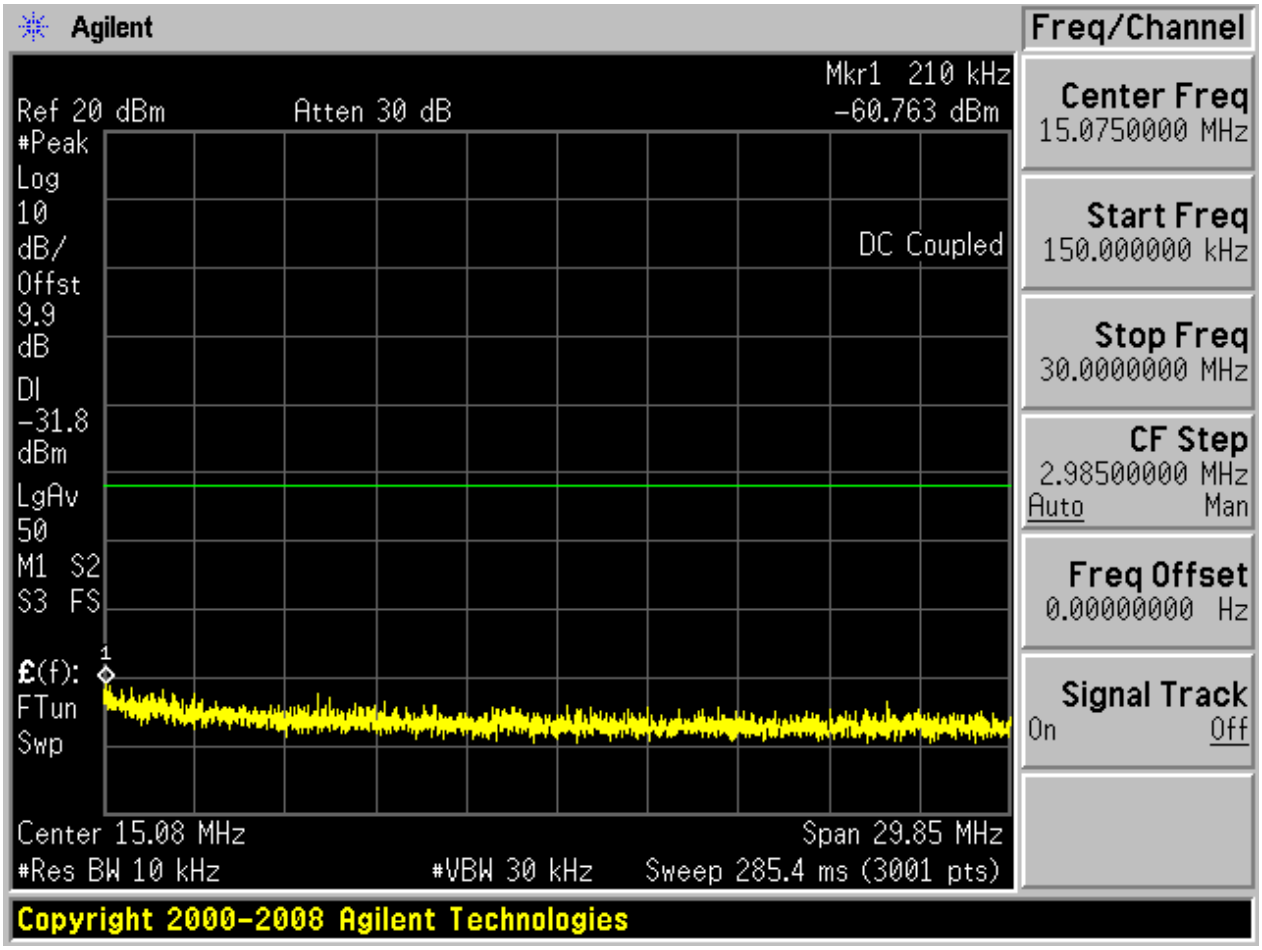
2.23.2 Puw:

9k - 150k



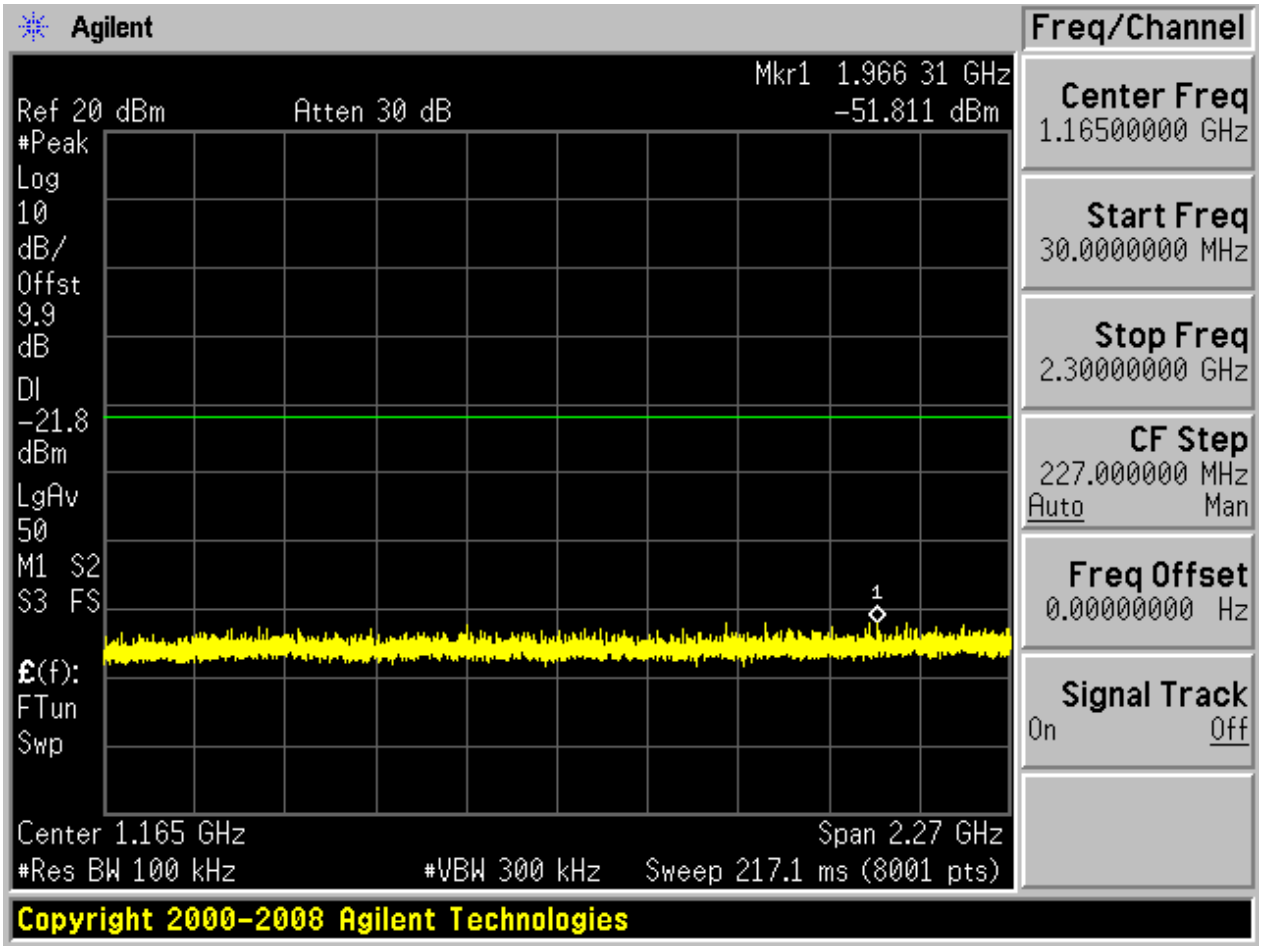
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



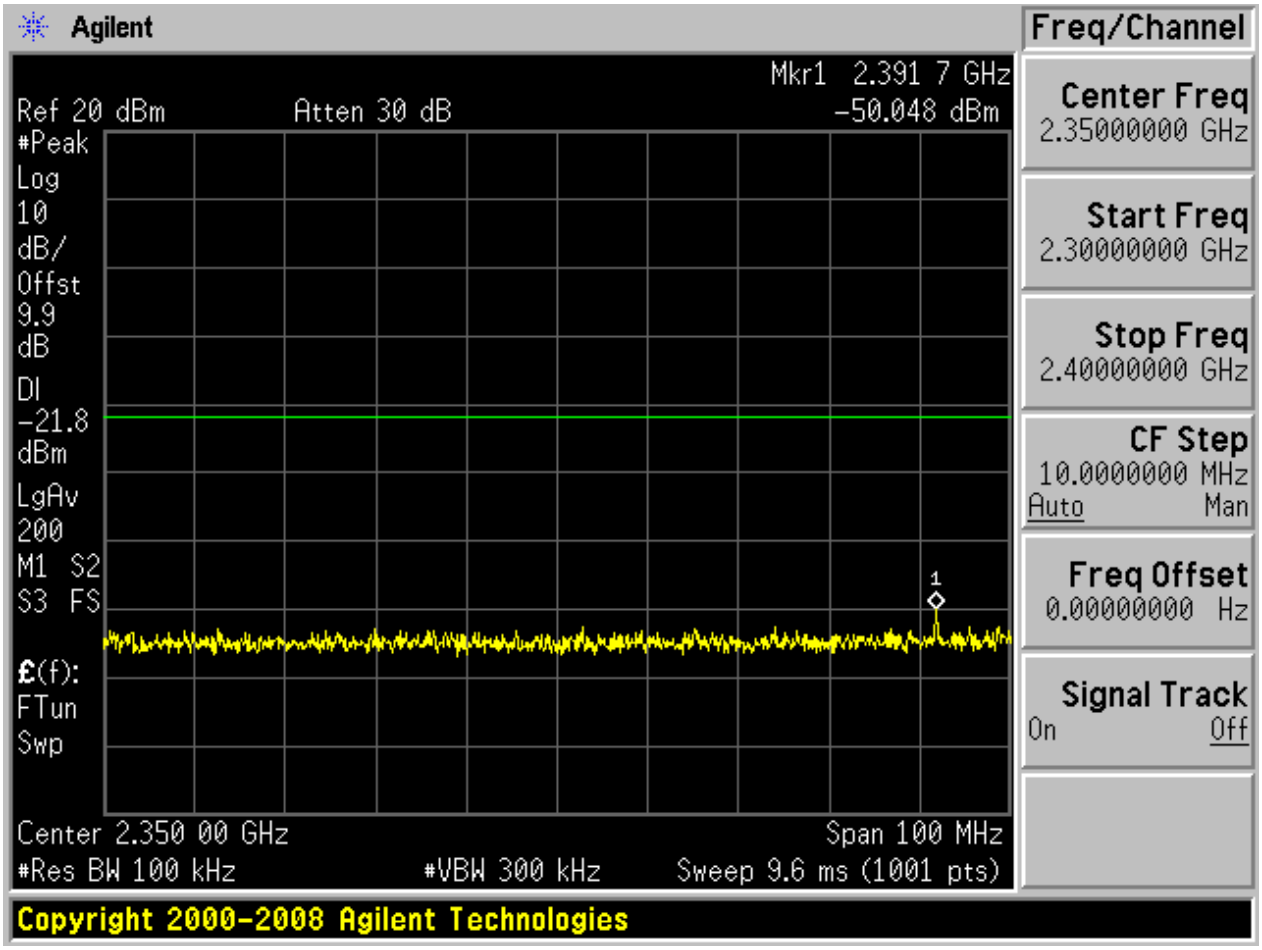
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



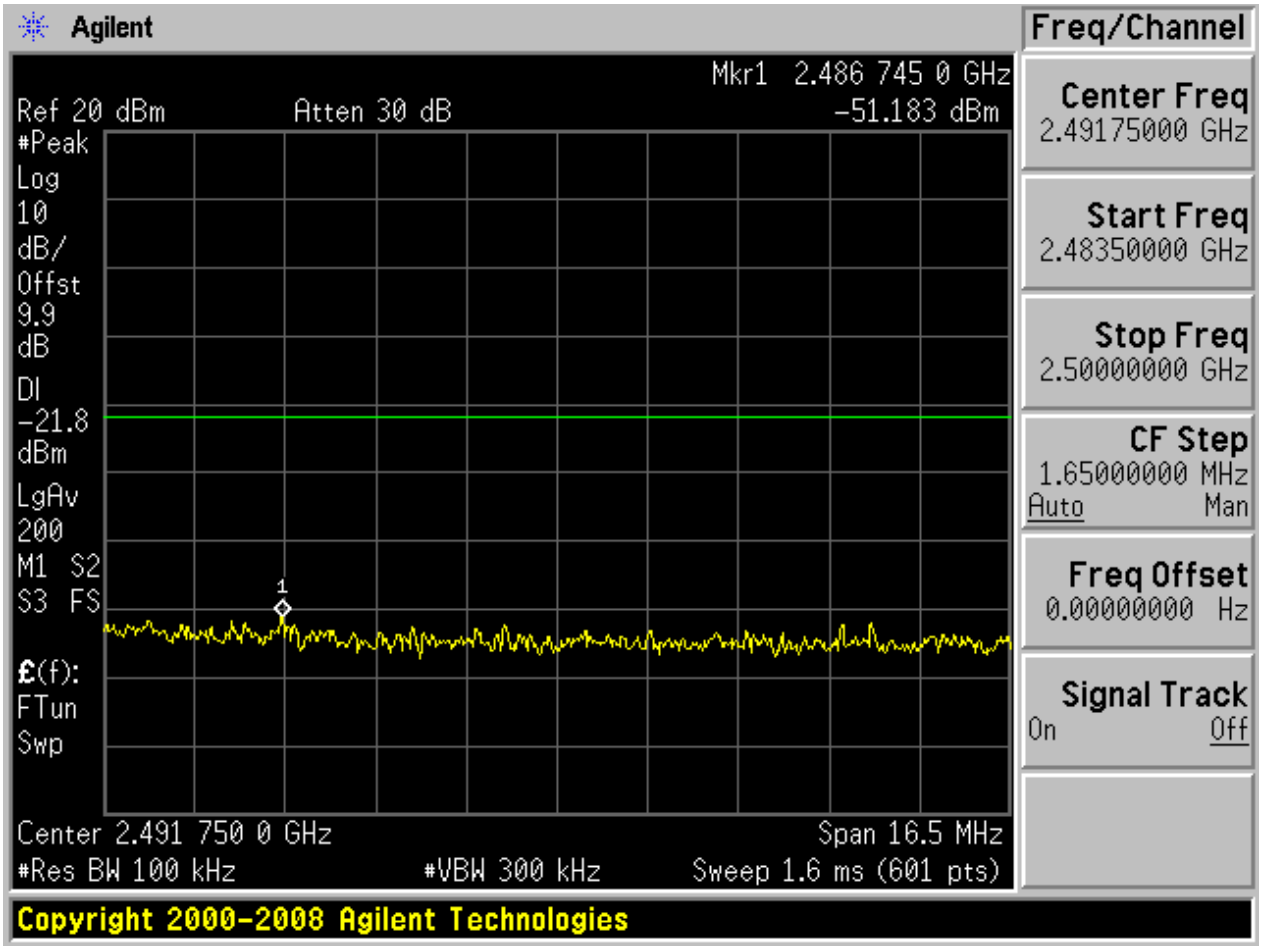
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



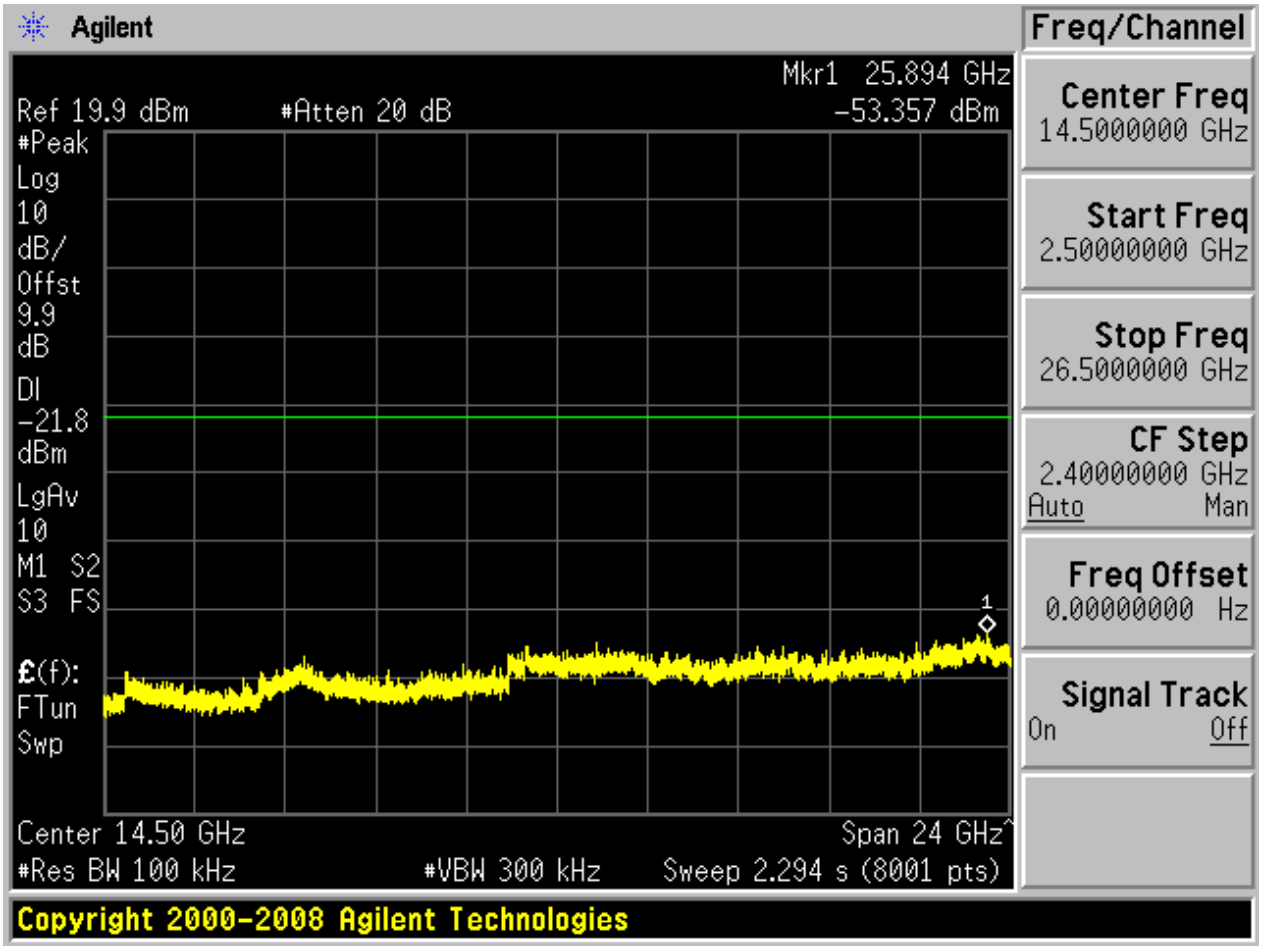
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

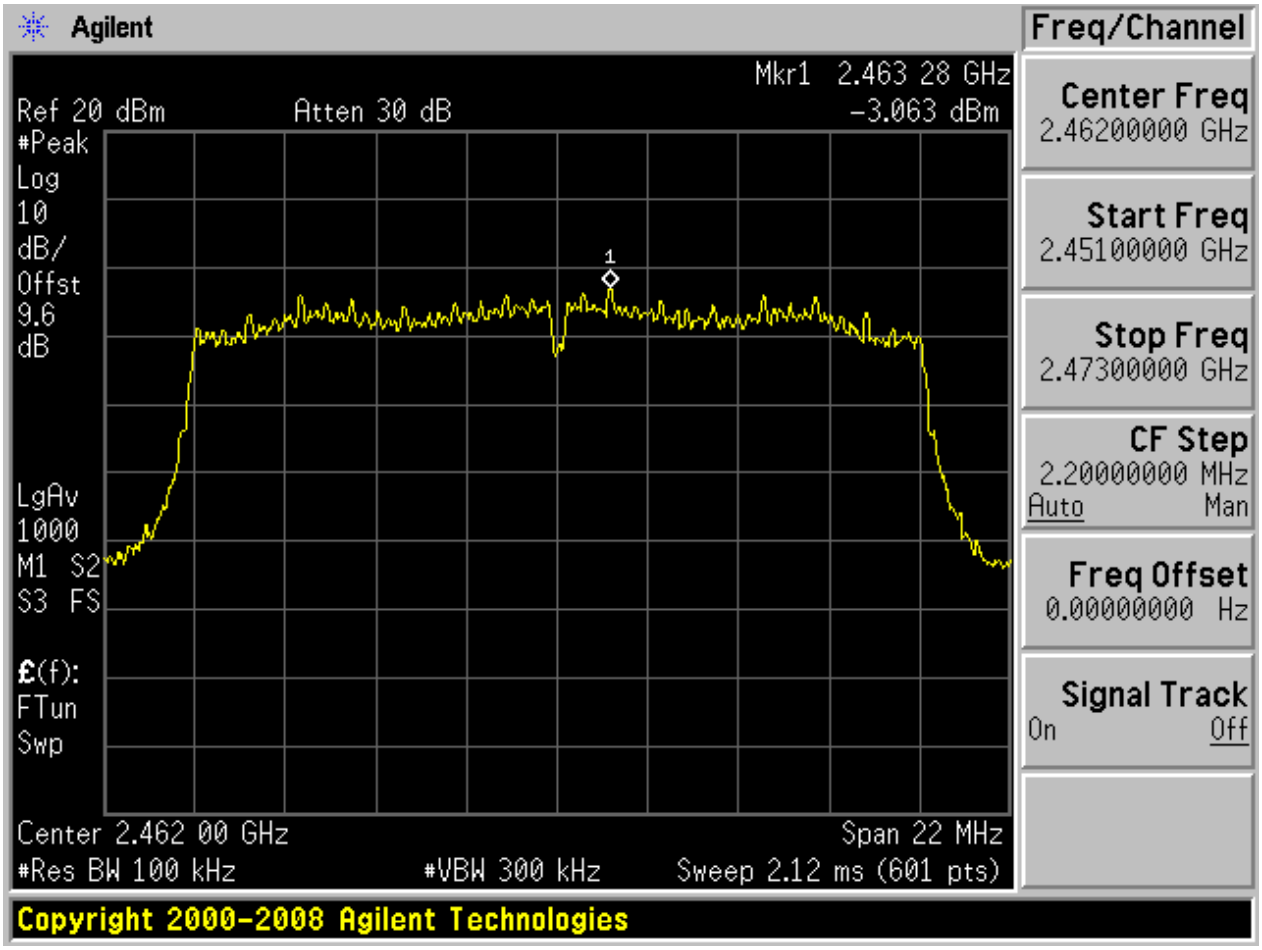
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.24 11N20m_T@Ant2

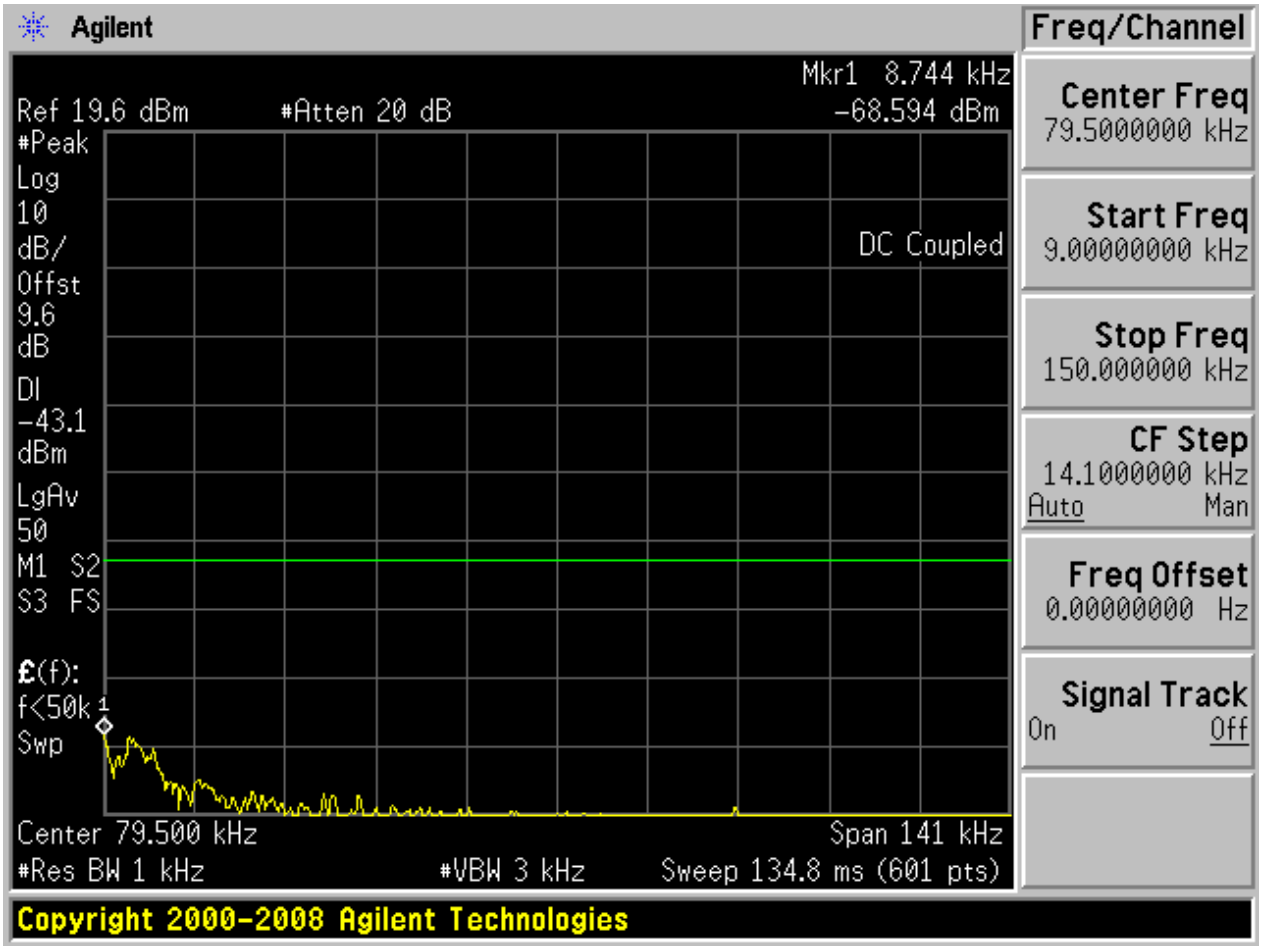
2.24.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

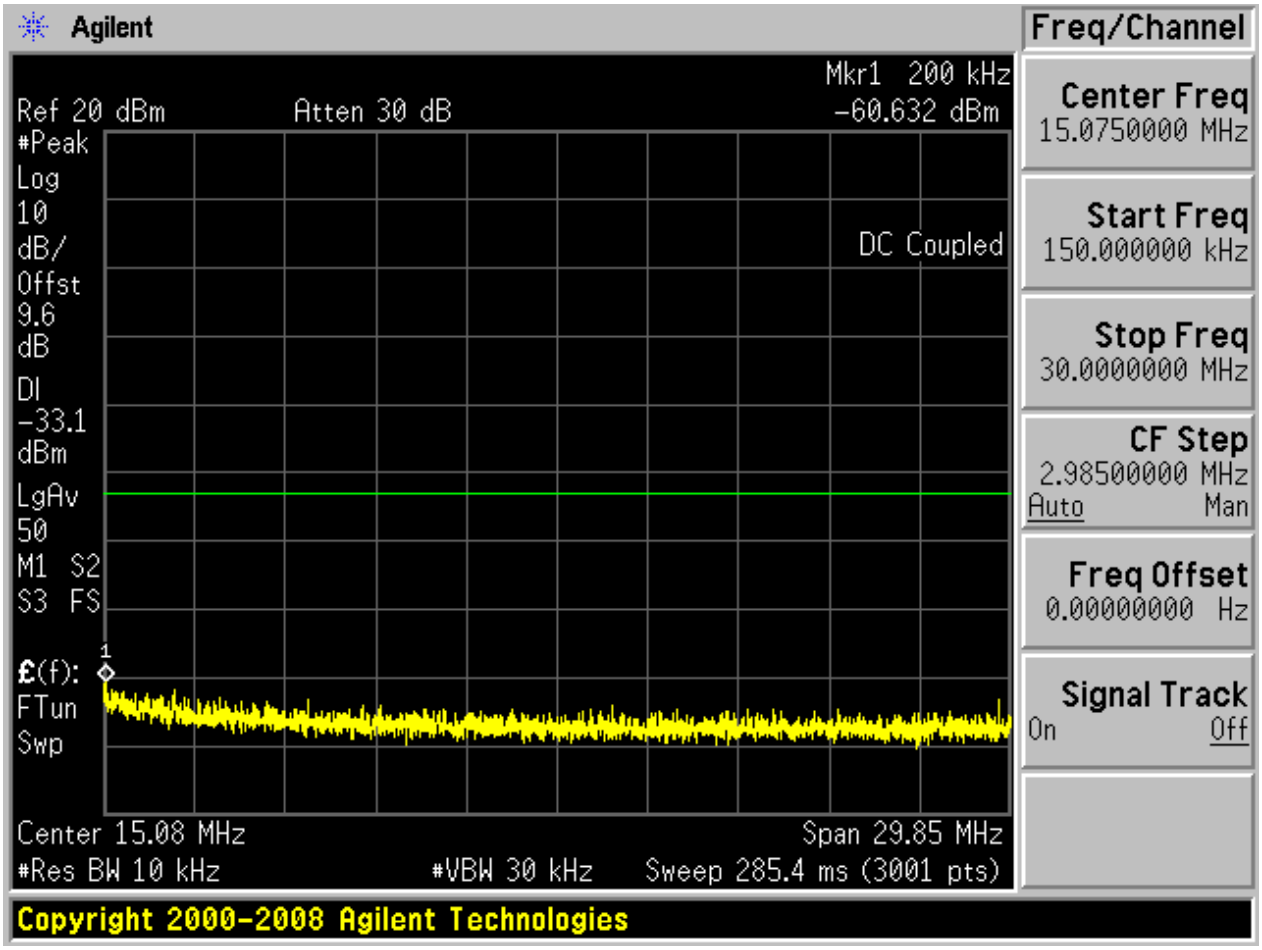
2.24.2 Puw:

9k - 150k



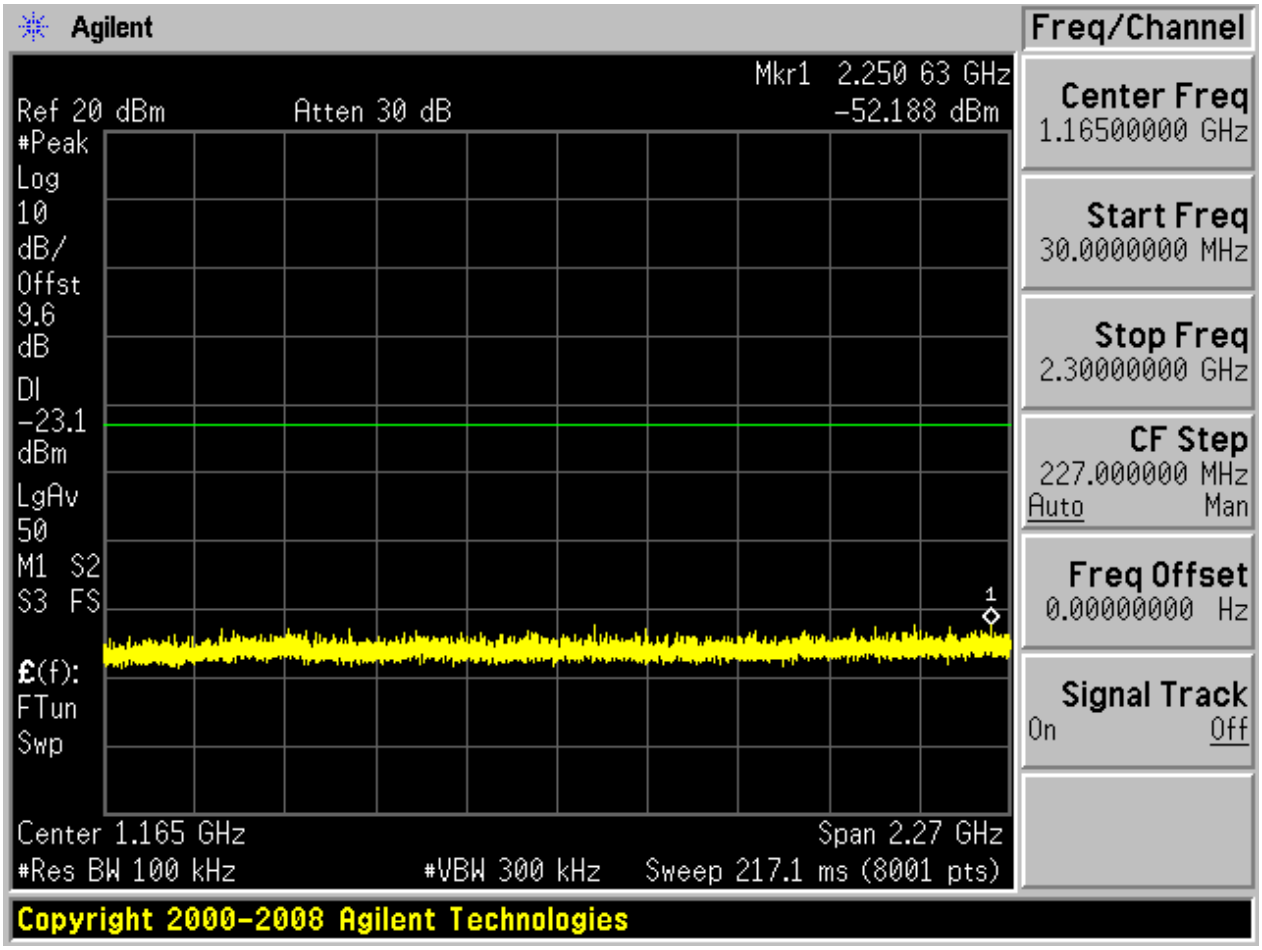
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



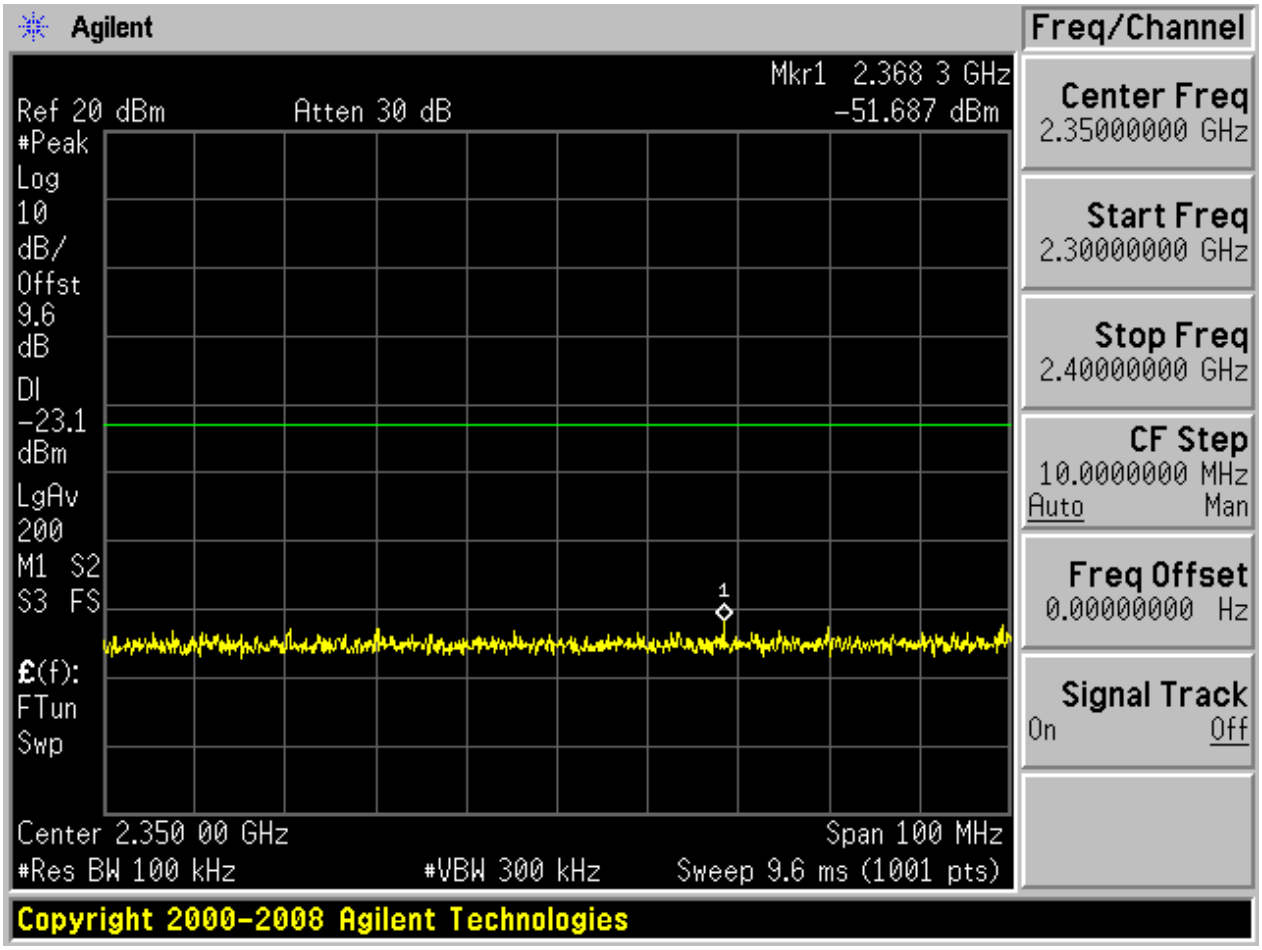
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



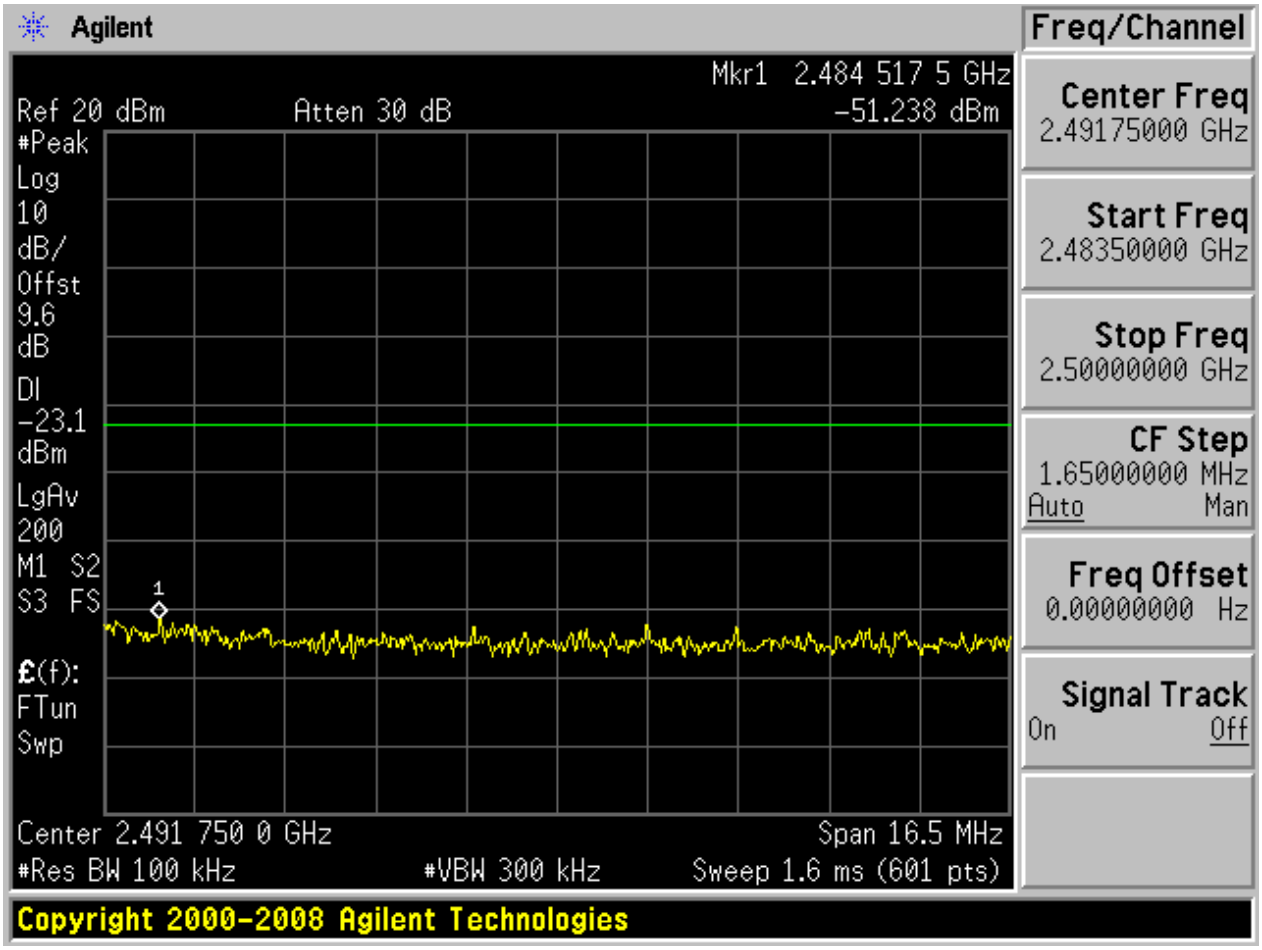
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



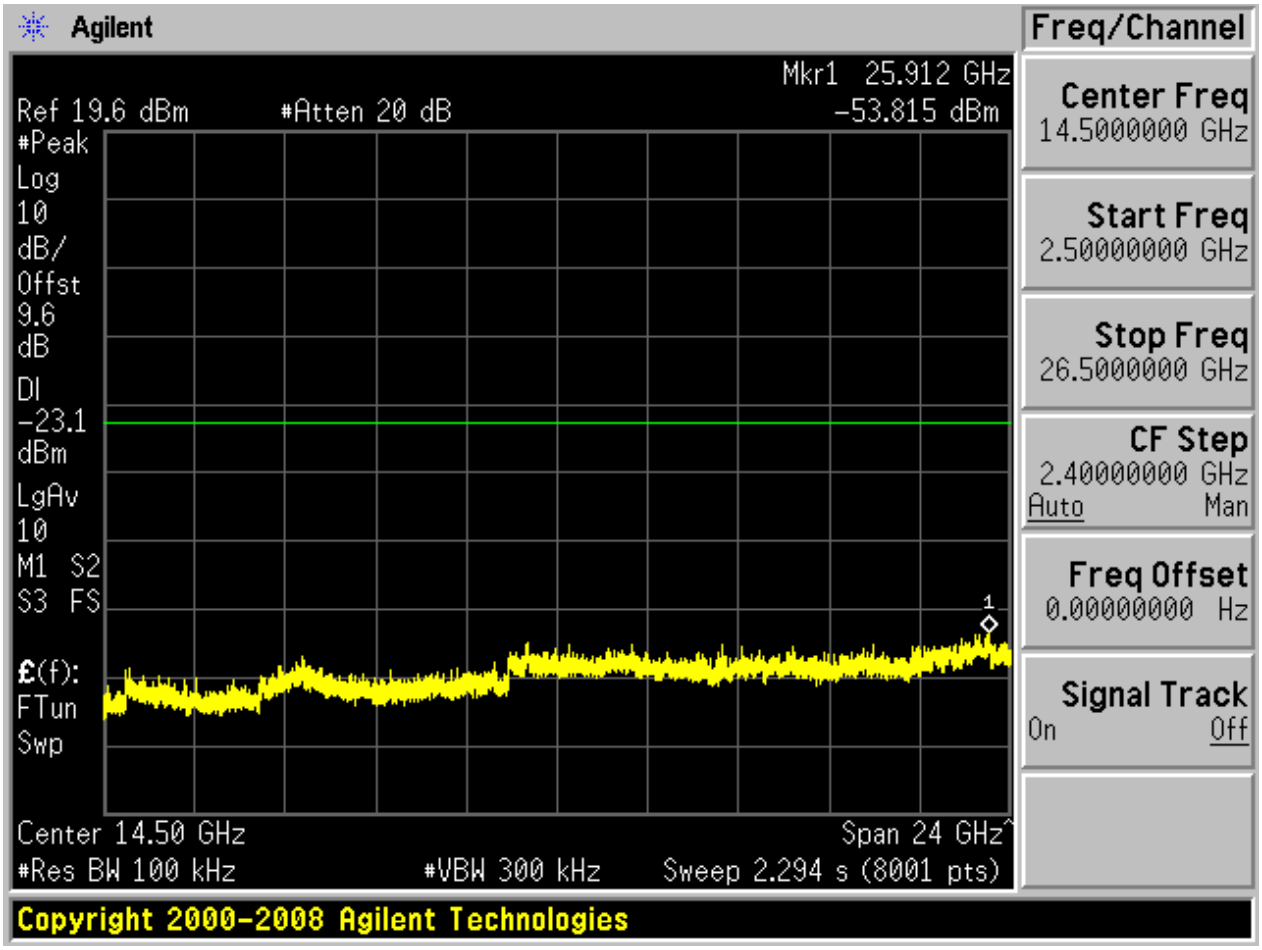
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

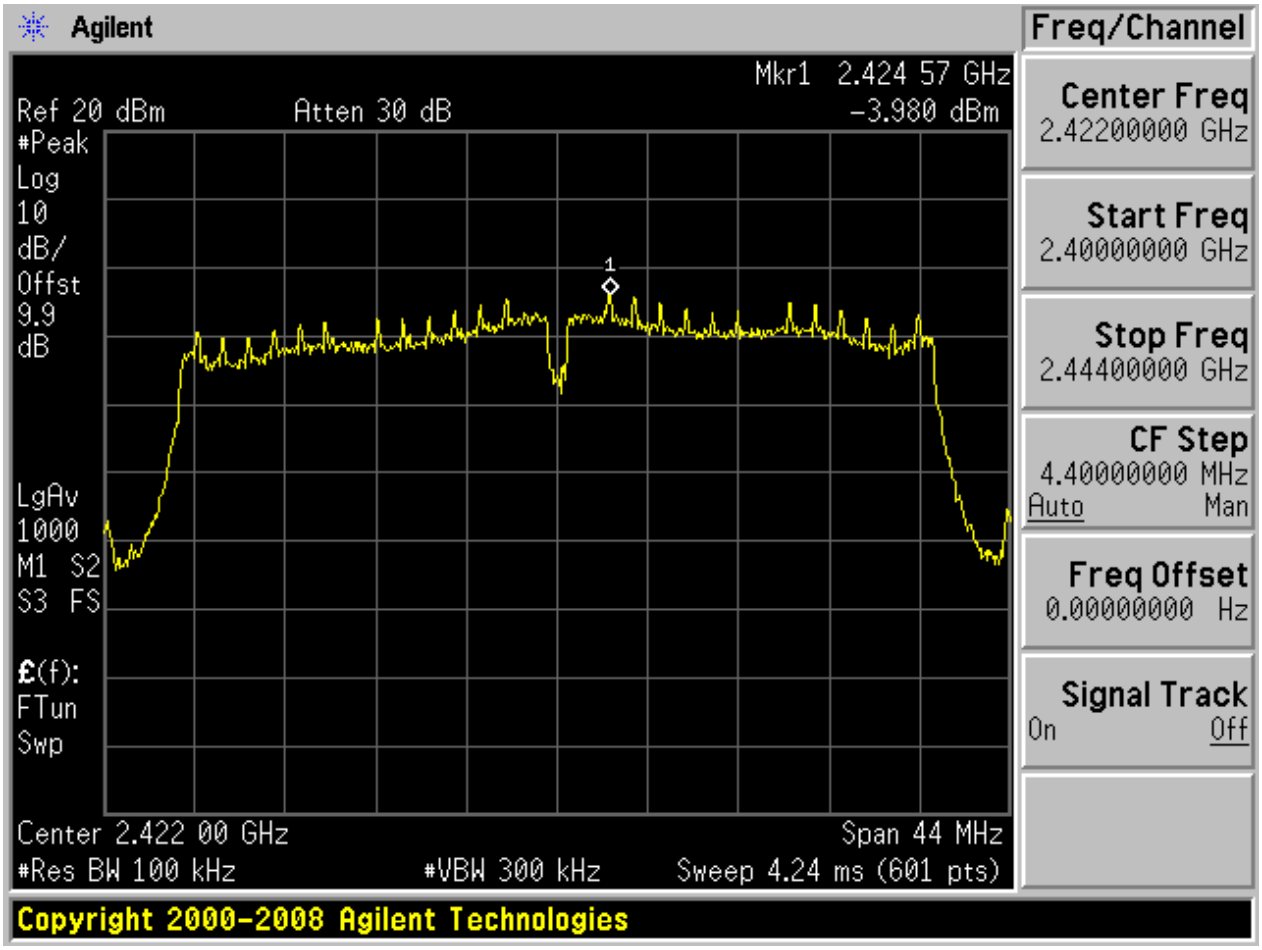
2.5G - 26.5G



Copyright © Huawei Technologies Co., Ltd.

2.25 11N40_B@Ant1

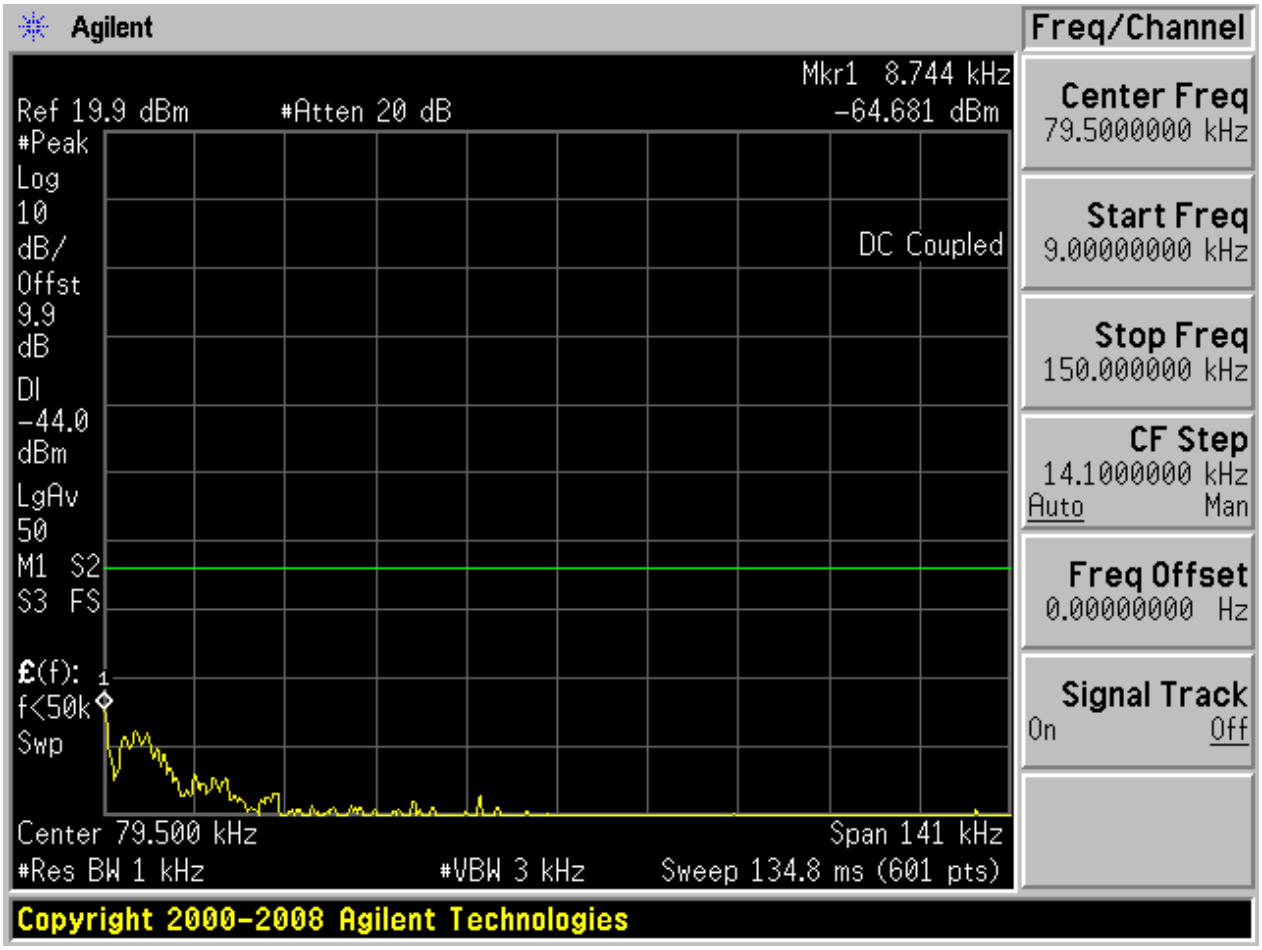
2.25.1 Pref:



Copyright © Huawei Technologies Co., Ltd.

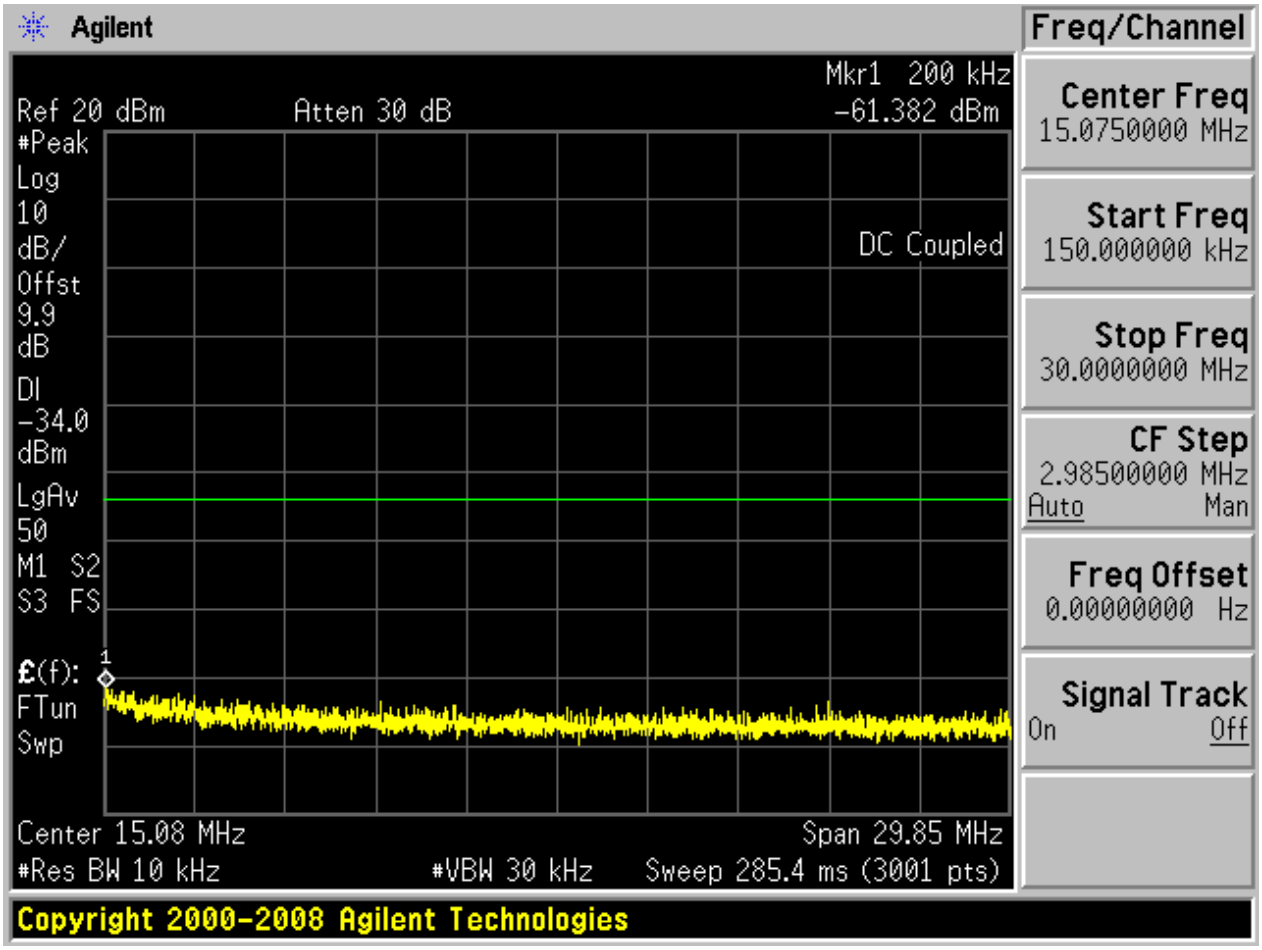
2.25.2 Puw:

9k - 150k



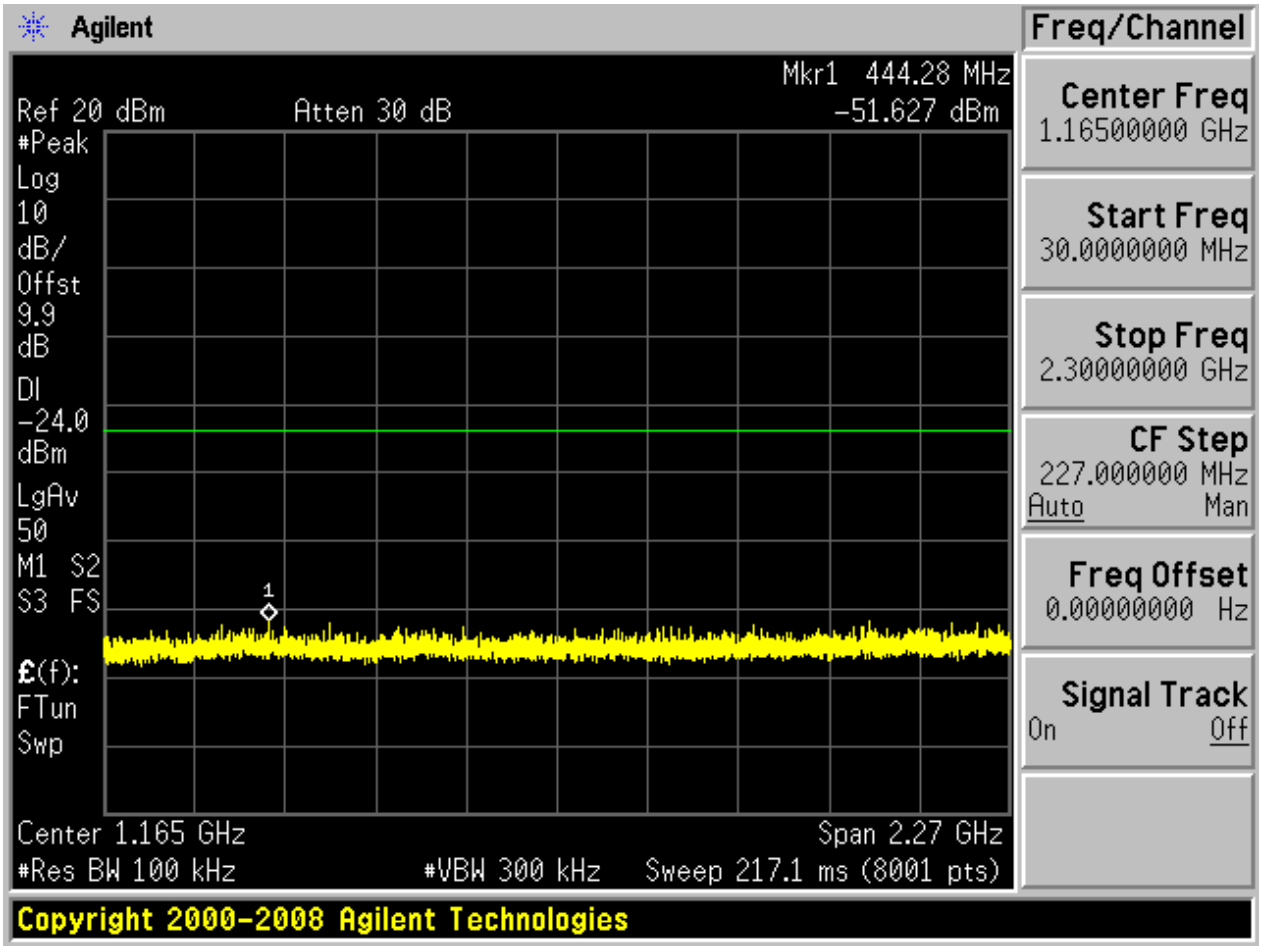
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



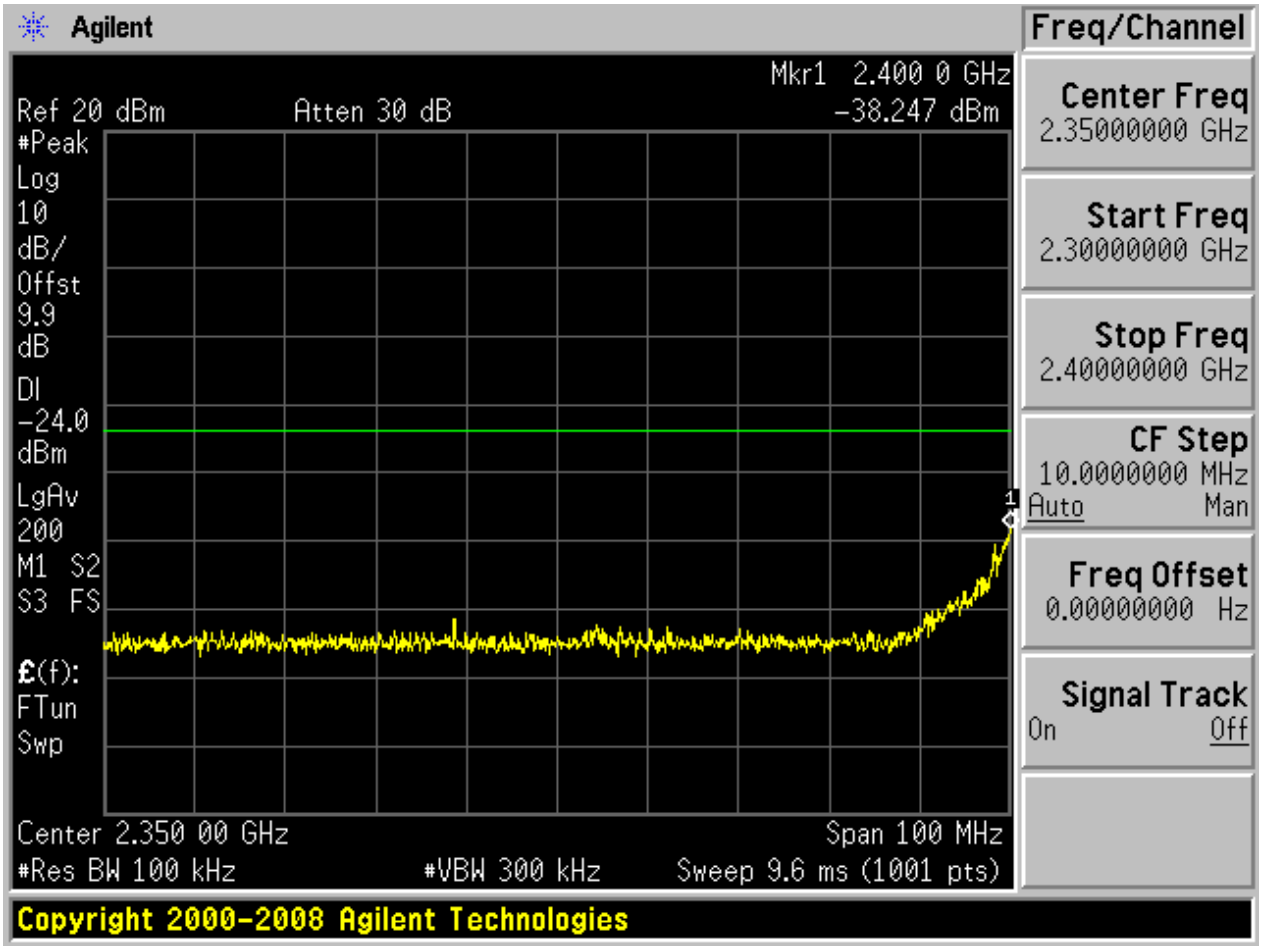
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



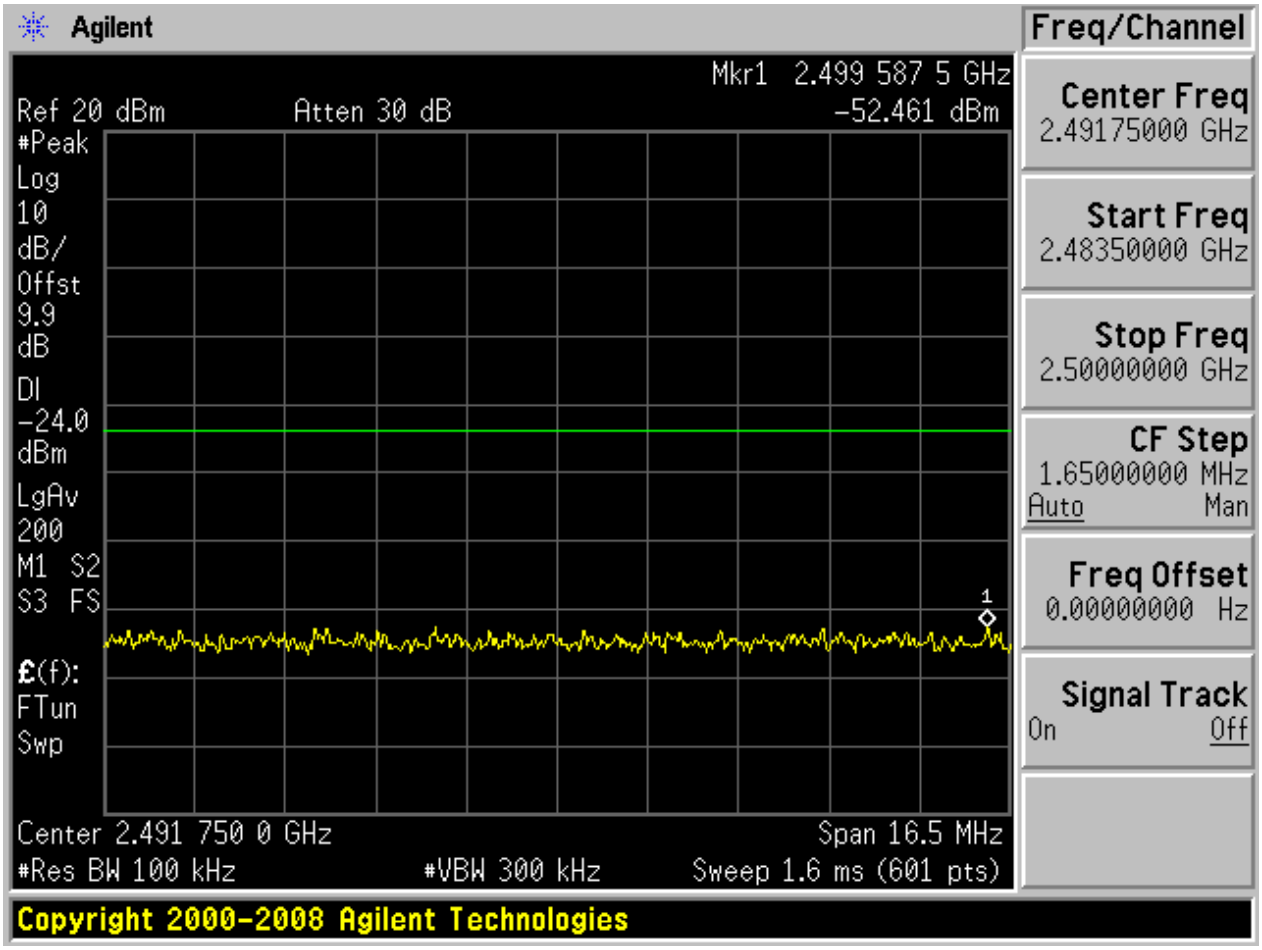
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



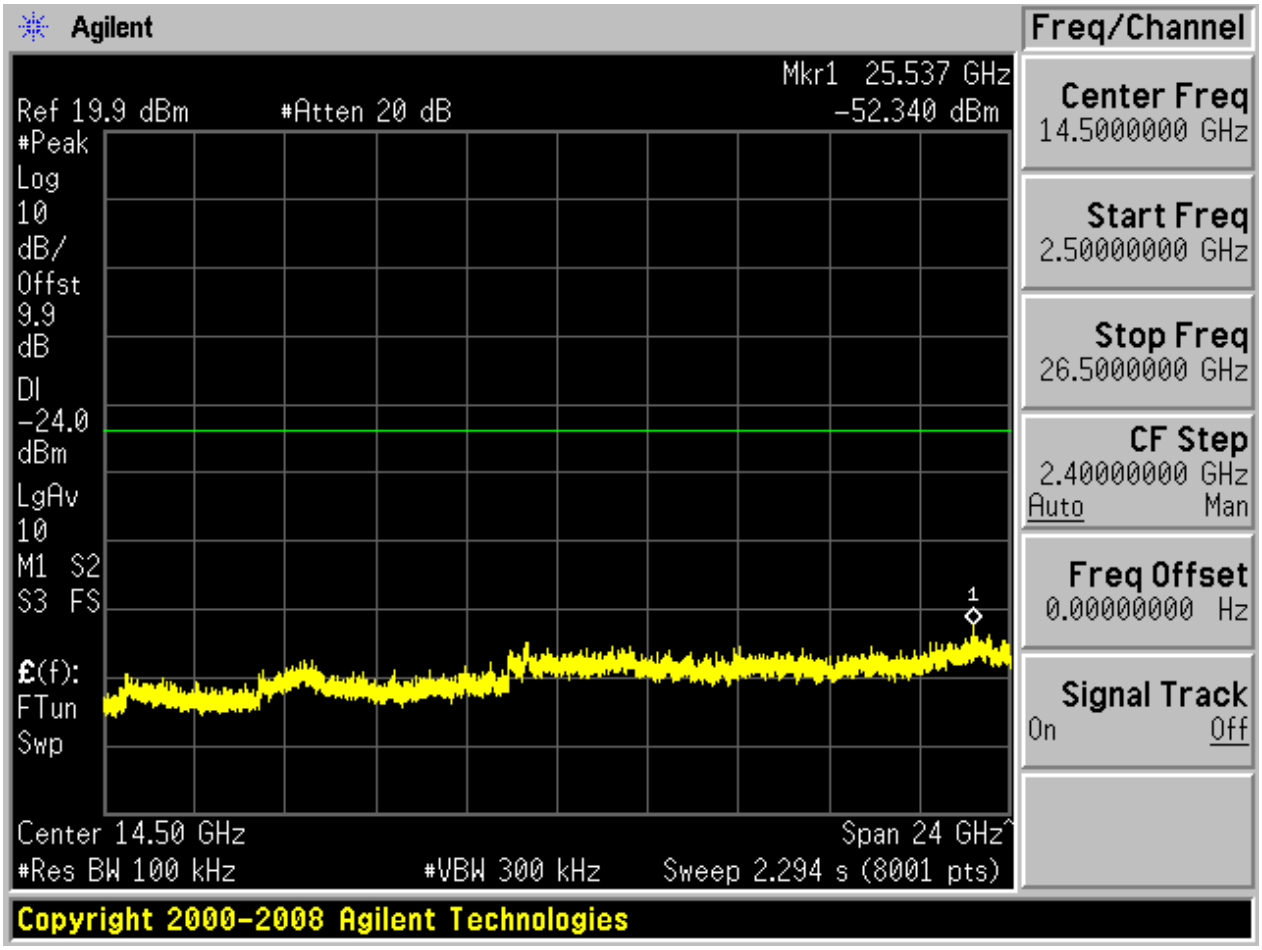
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Copyright © Huawei Technologies Co., Ltd.

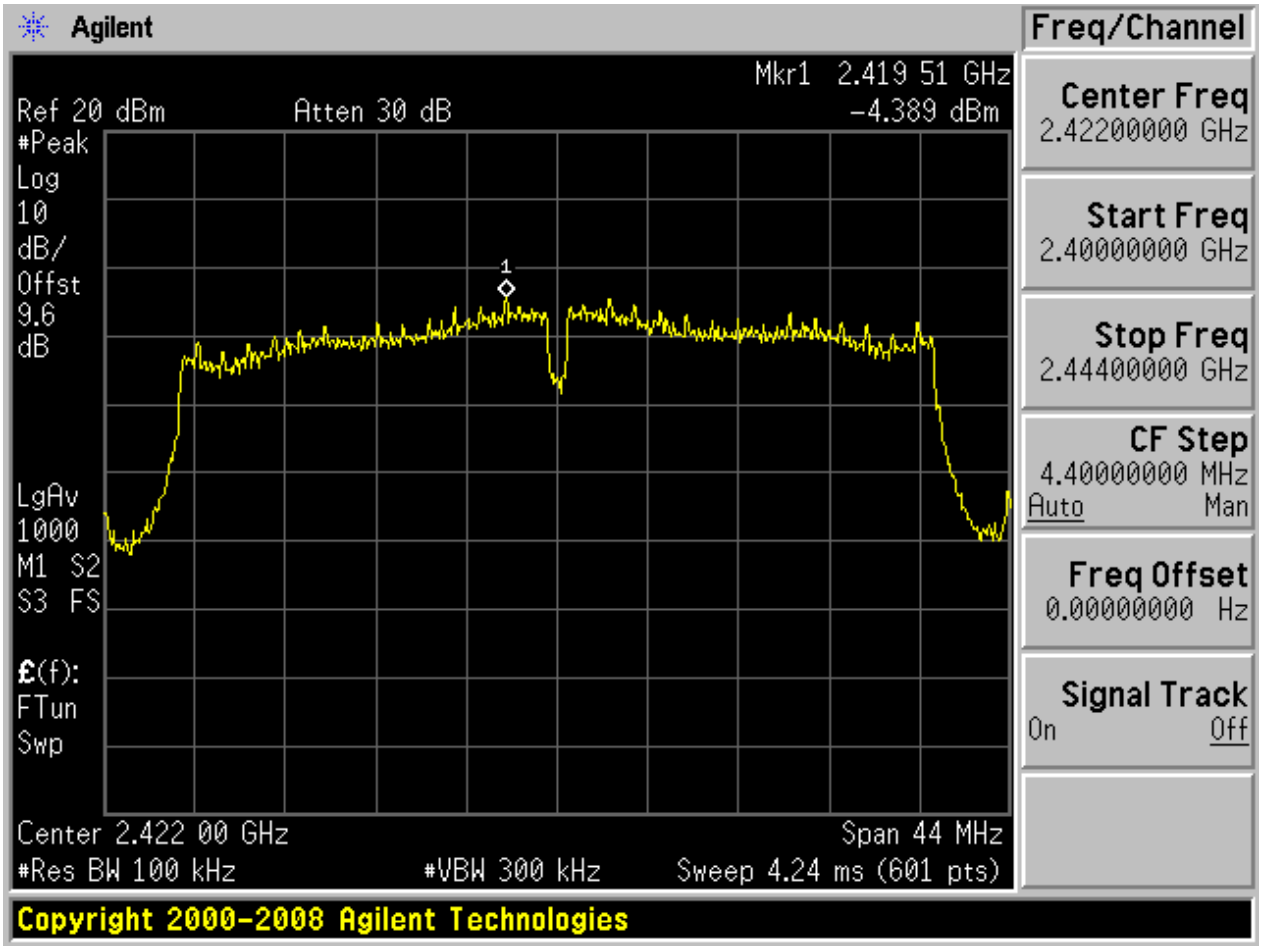
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.26 11N40_B@Ant2

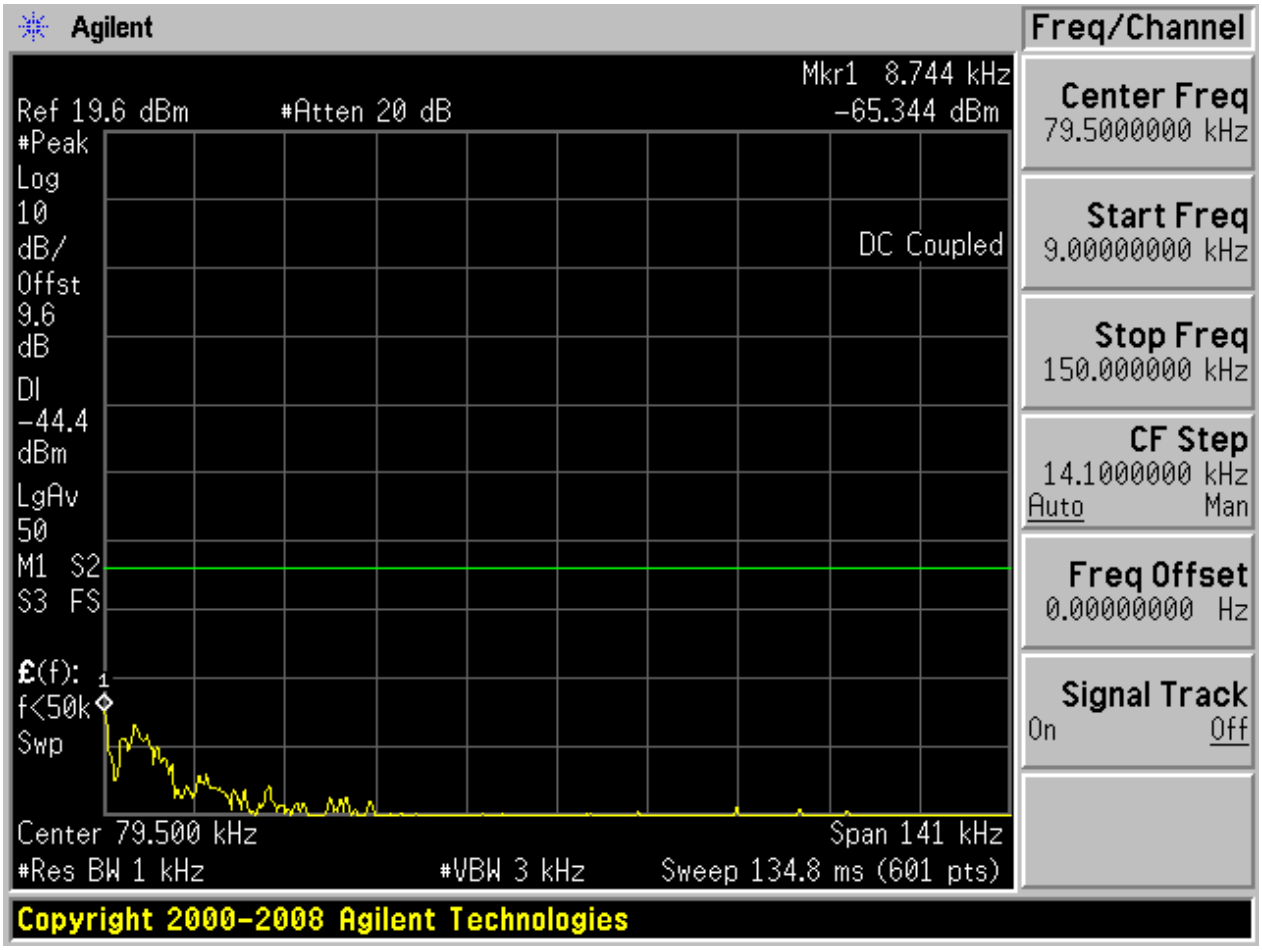
2.26.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

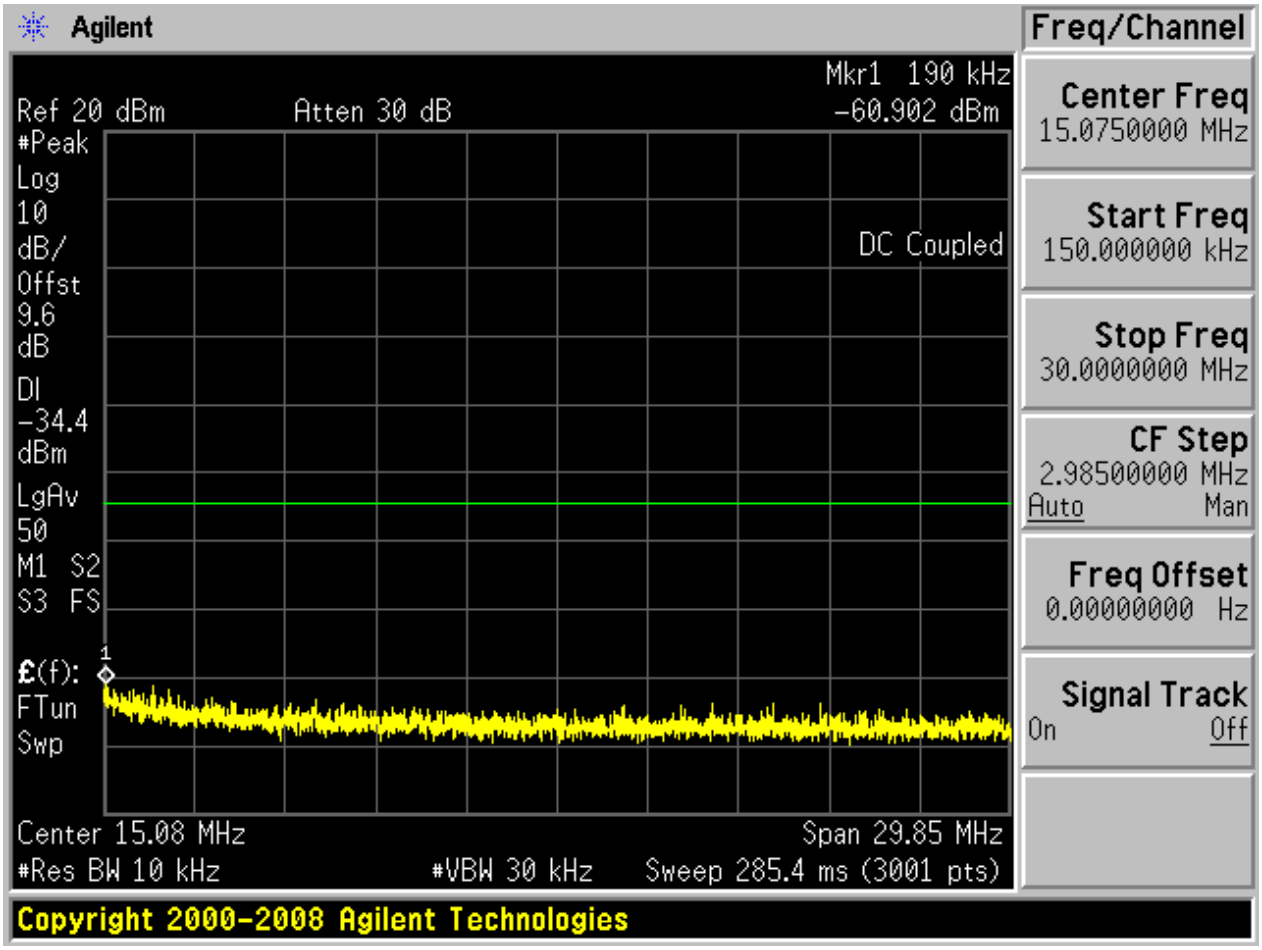
2.26.2 Puw:

9k - 150k



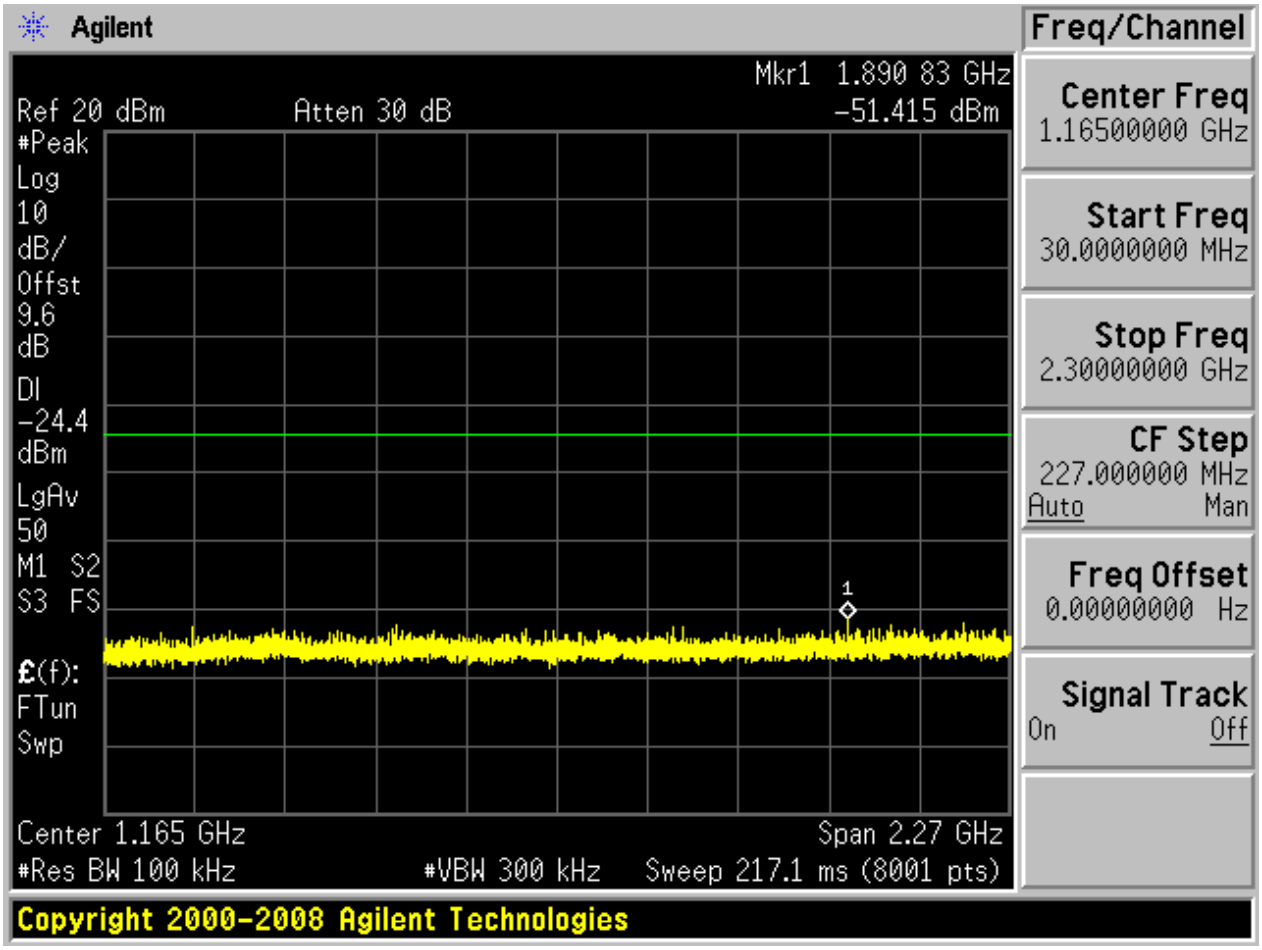
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



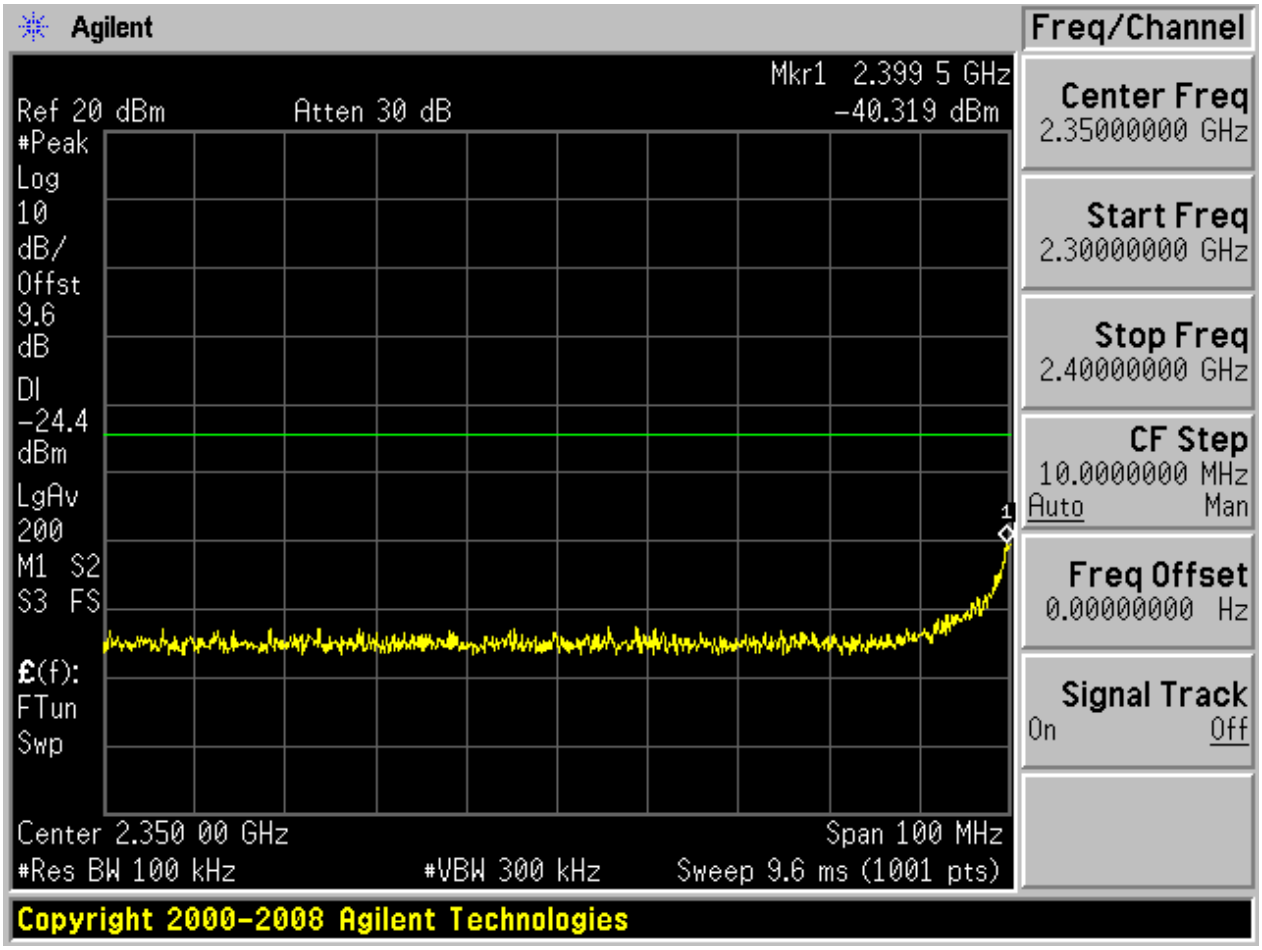
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



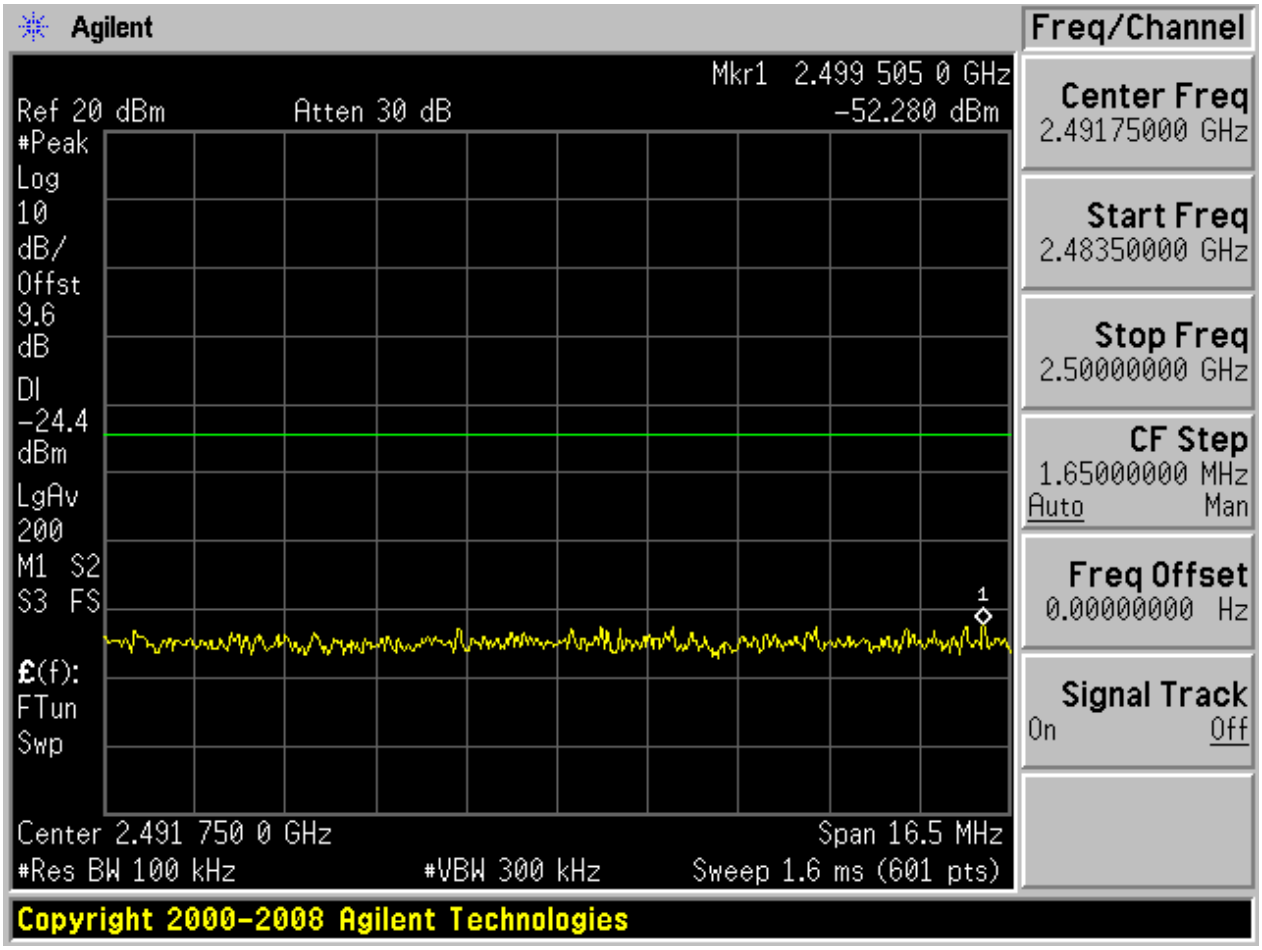
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



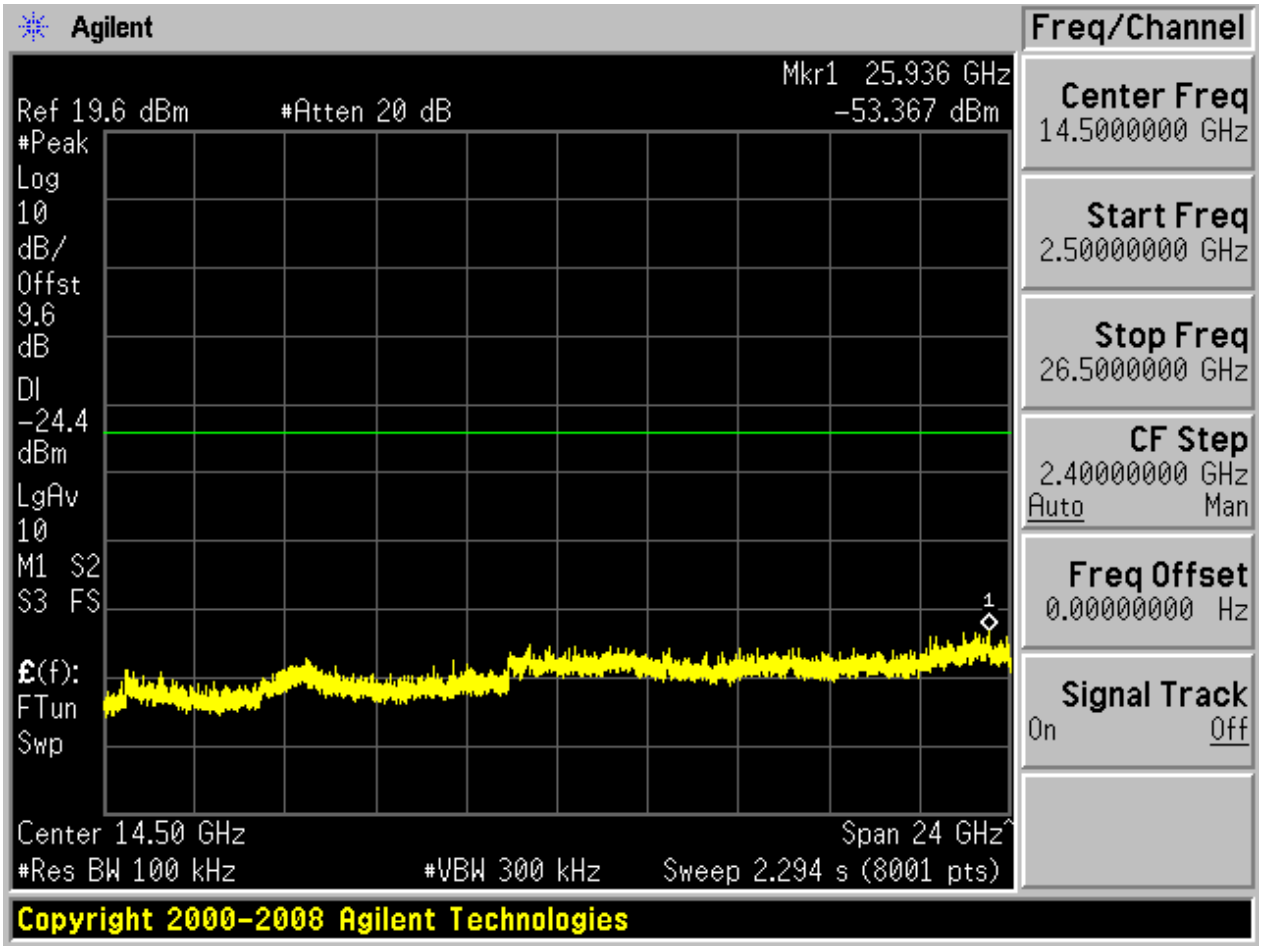
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

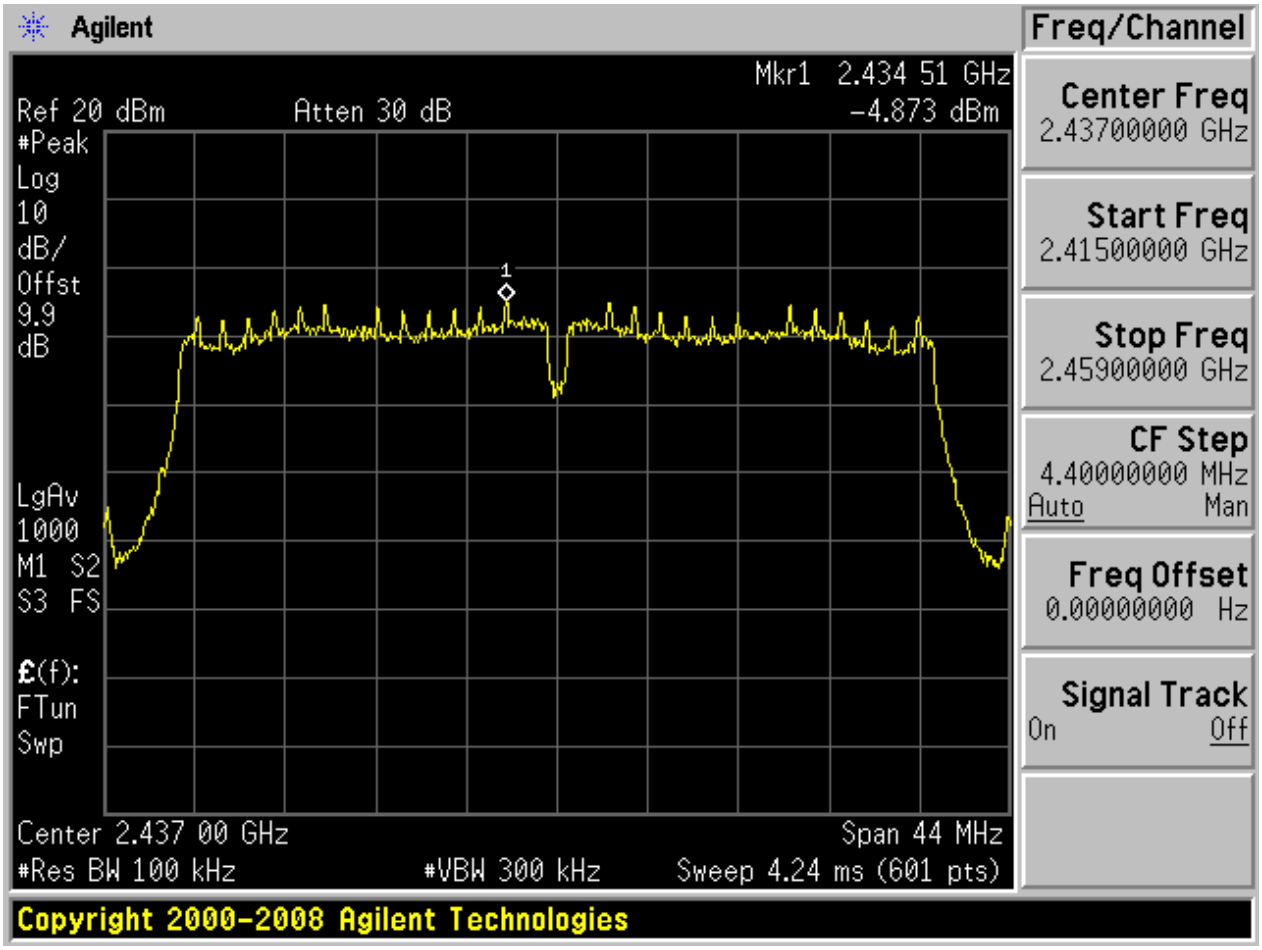
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.27 11N40_M@Ant1

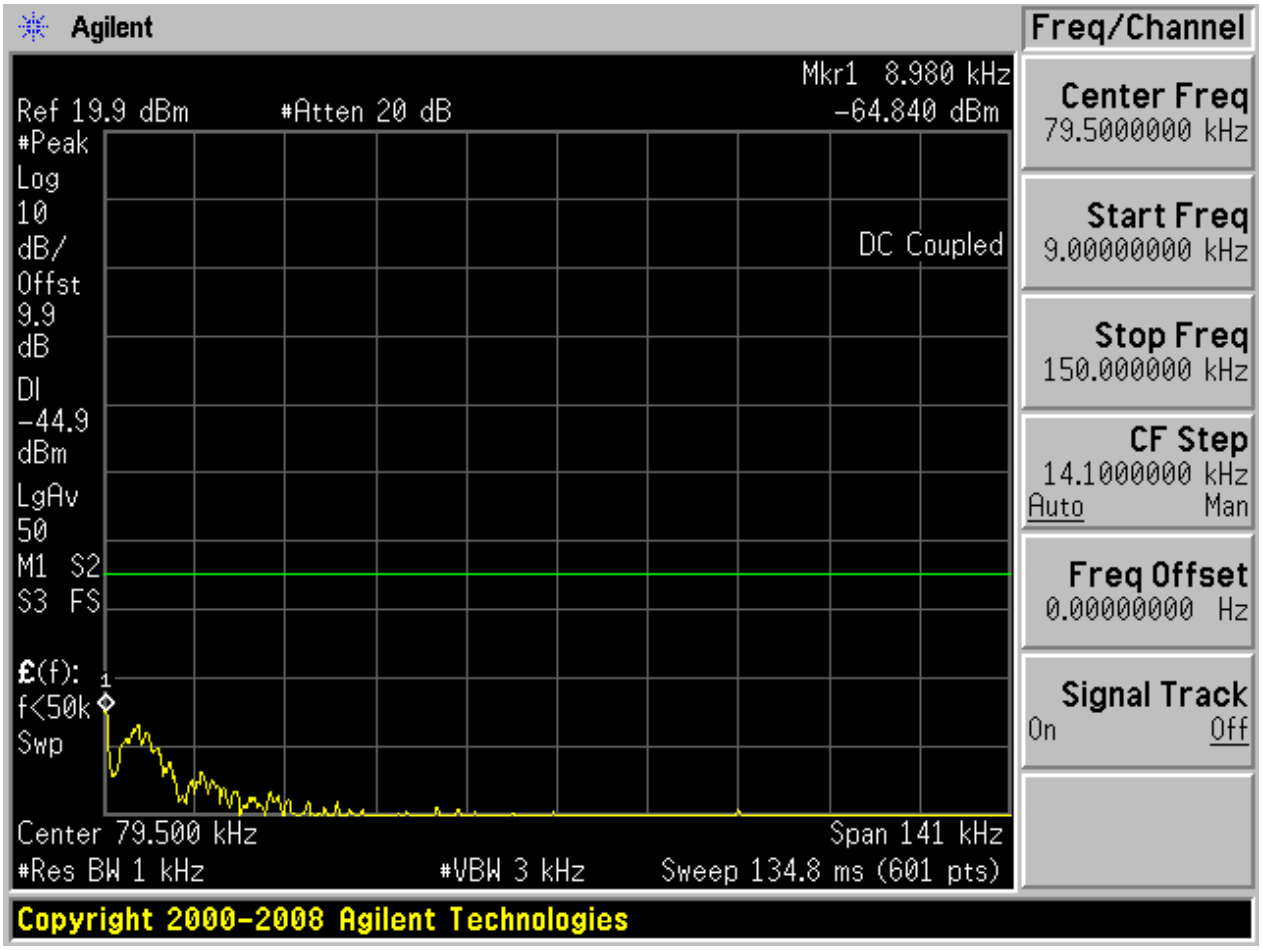
2.27.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

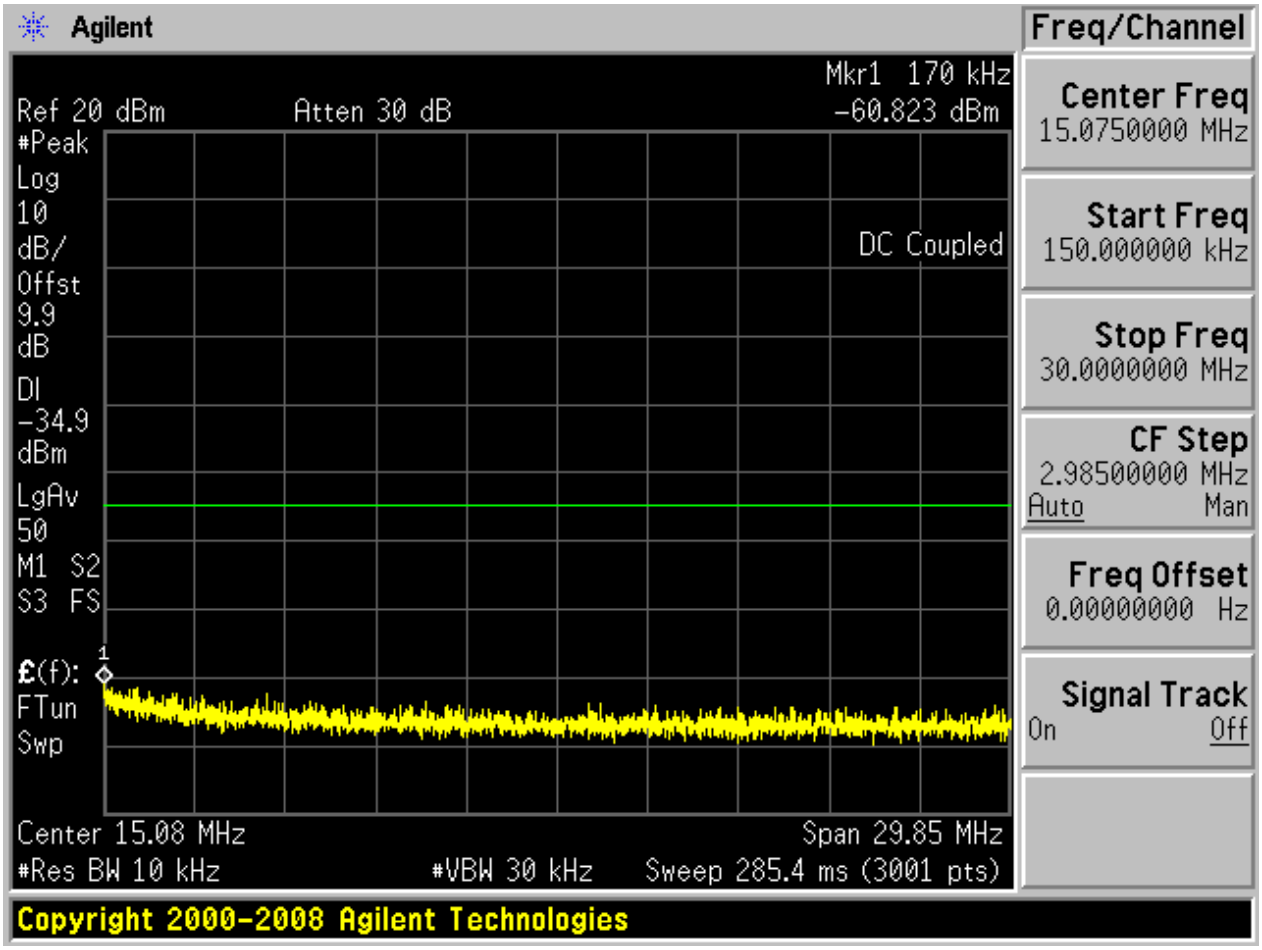
2.27.2 Puw:

9k - 150k



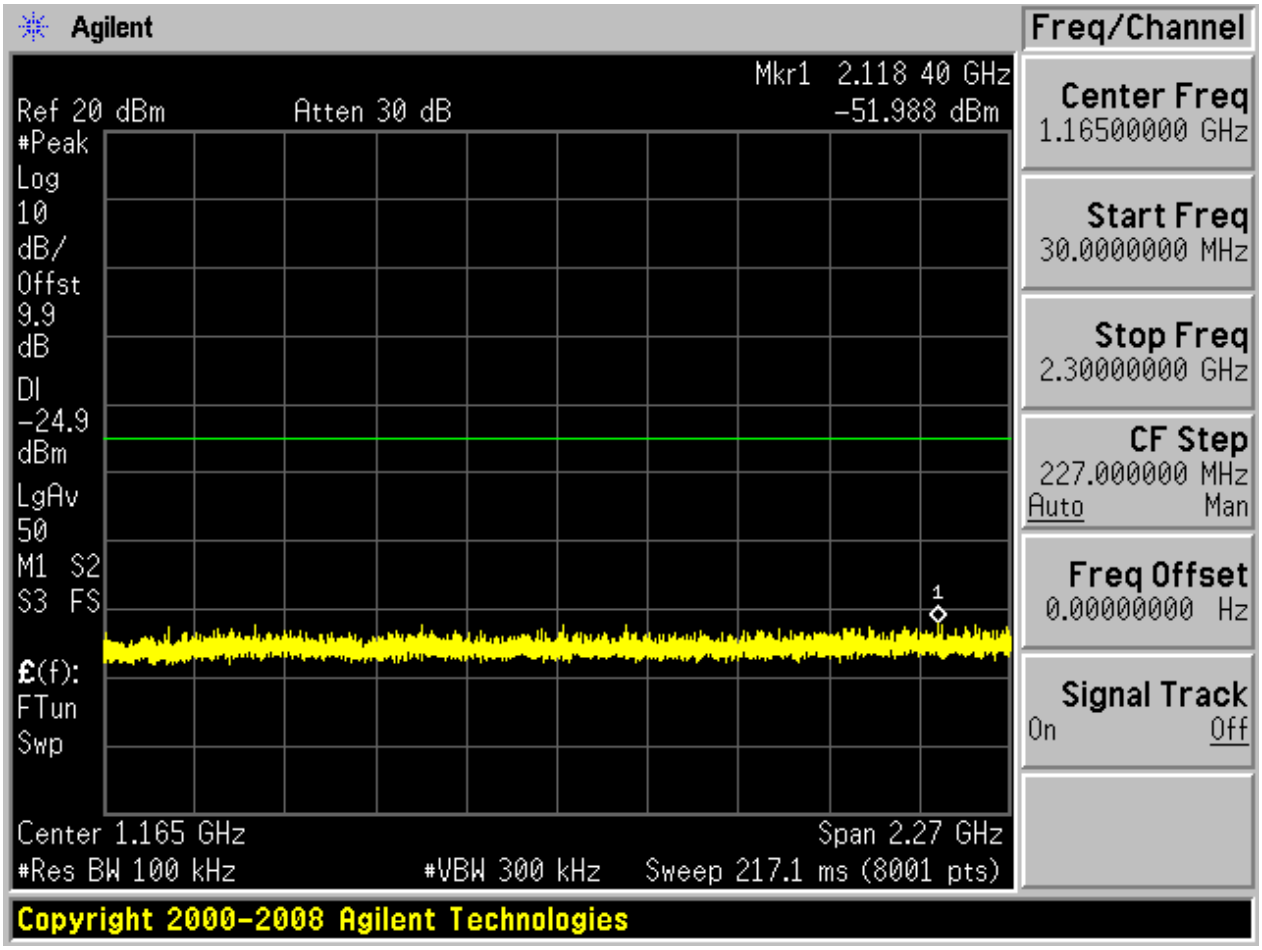
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



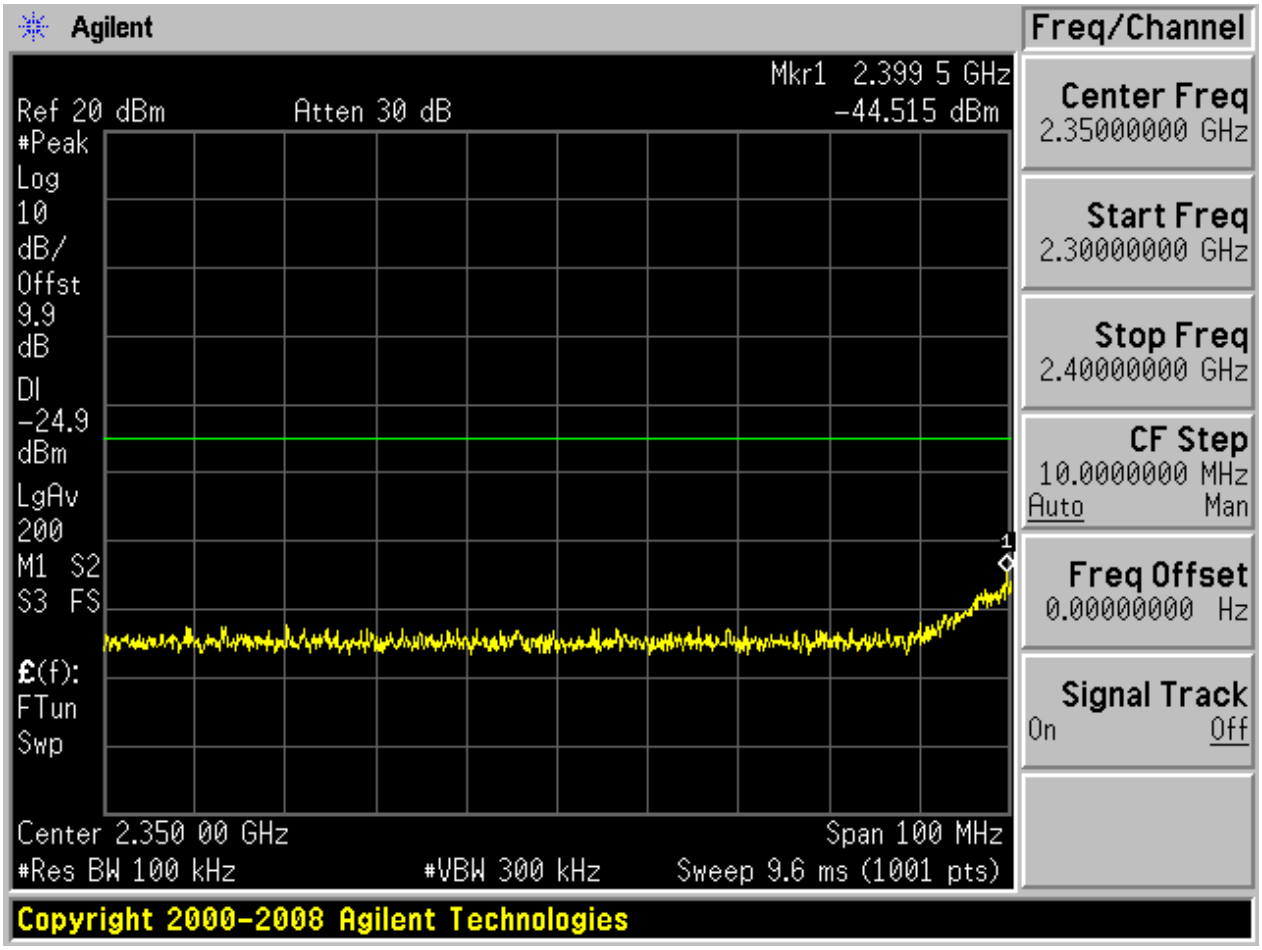
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



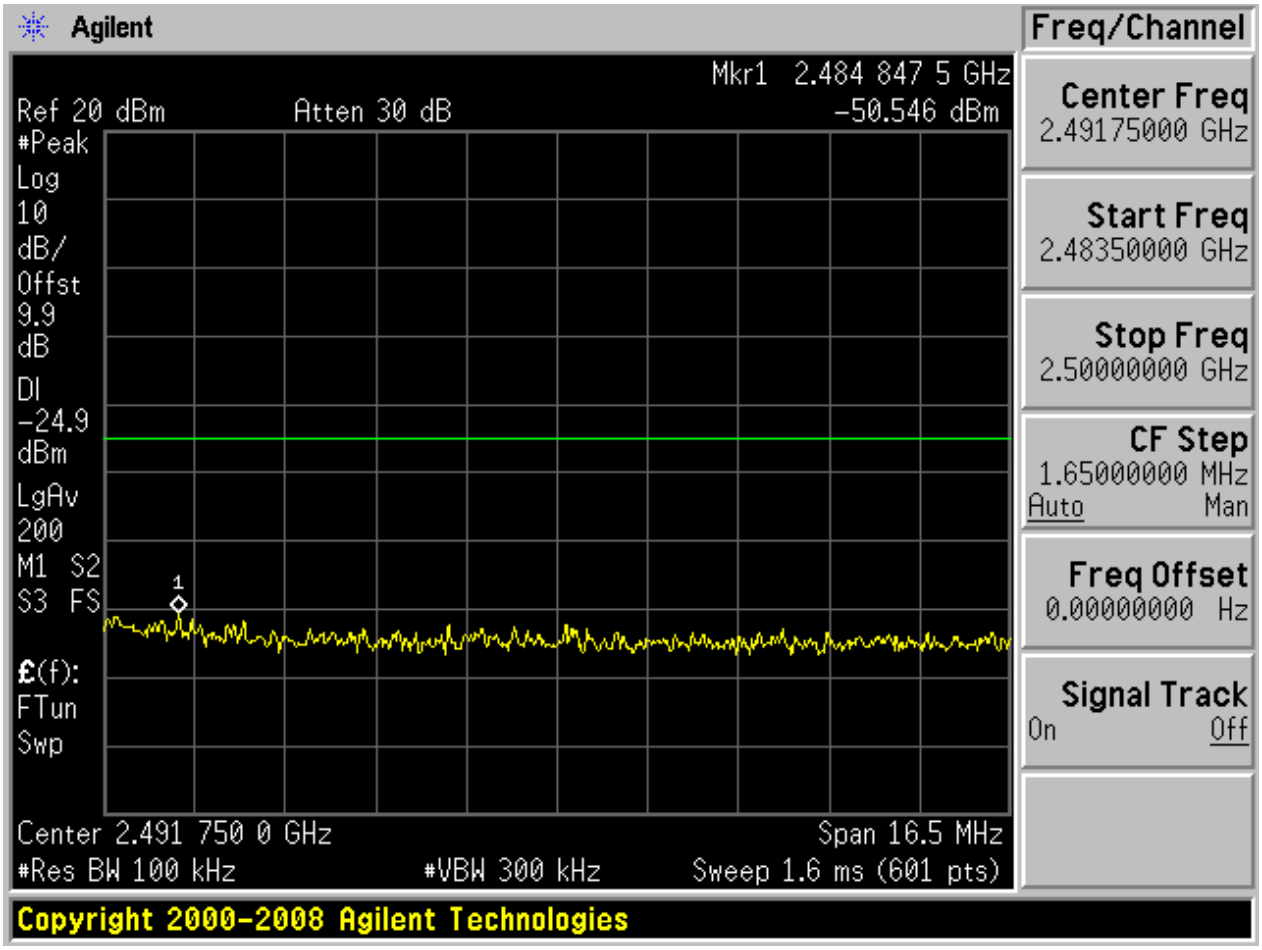
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



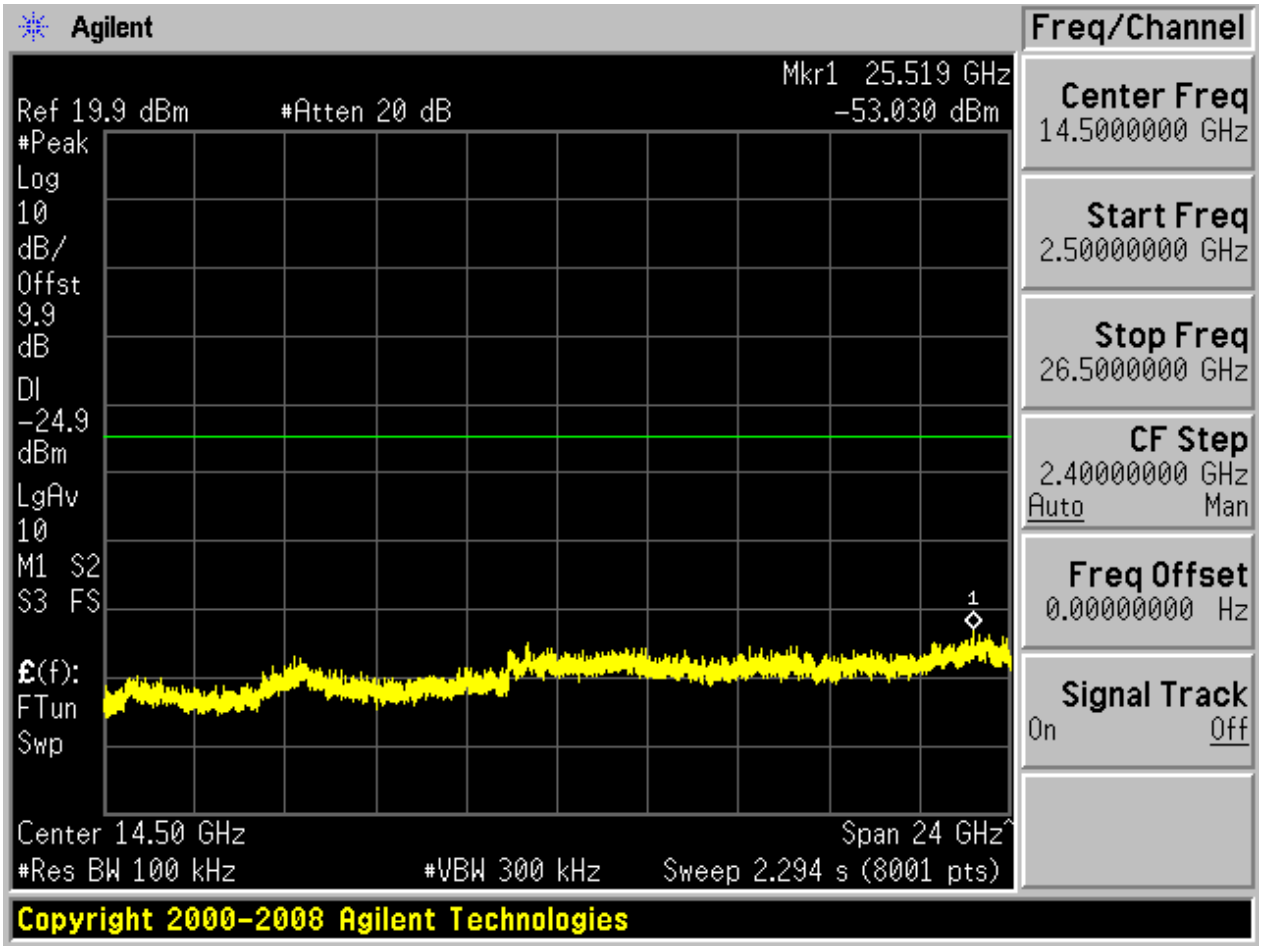
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

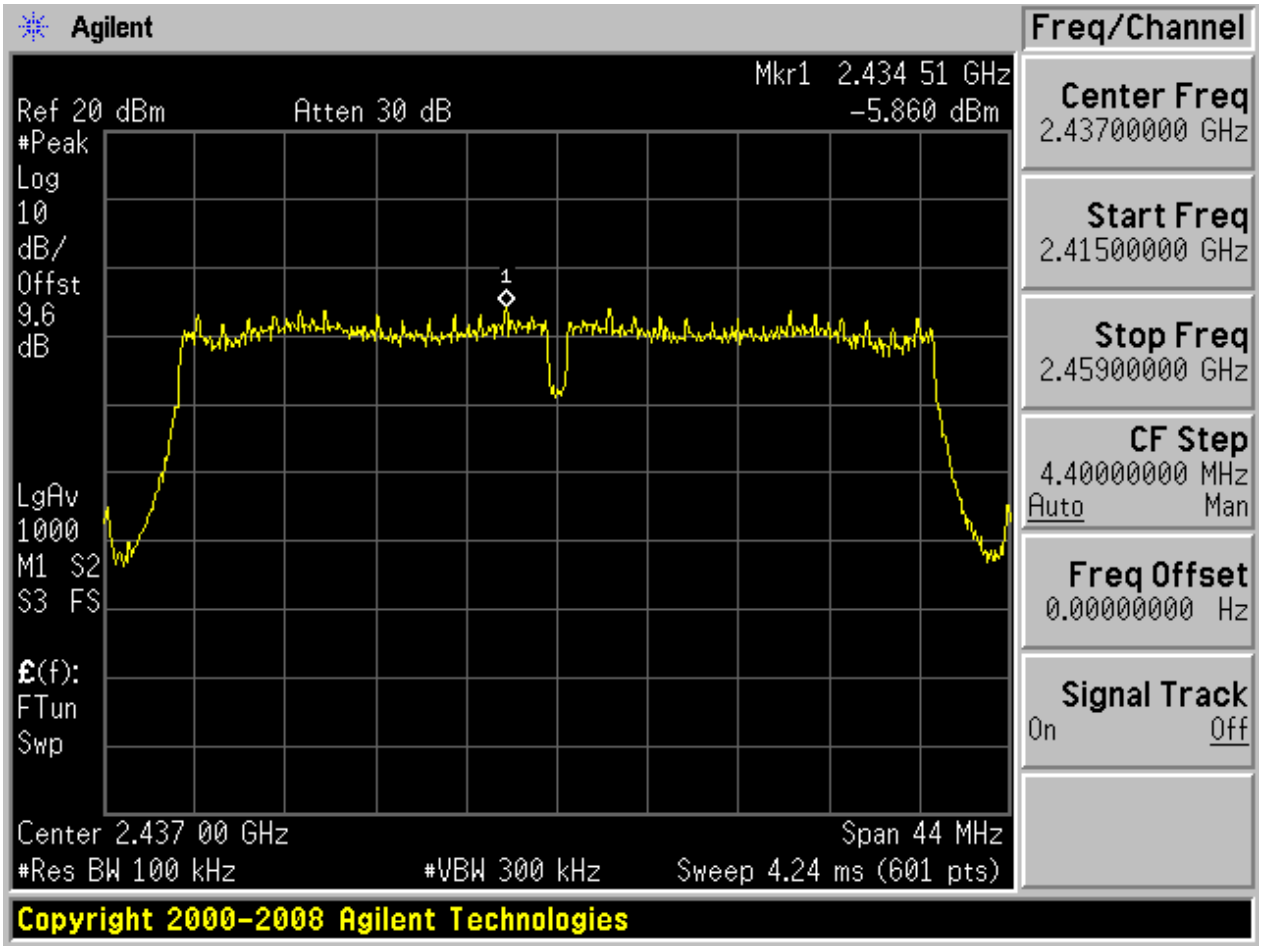
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.28 11N40_M@Ant2

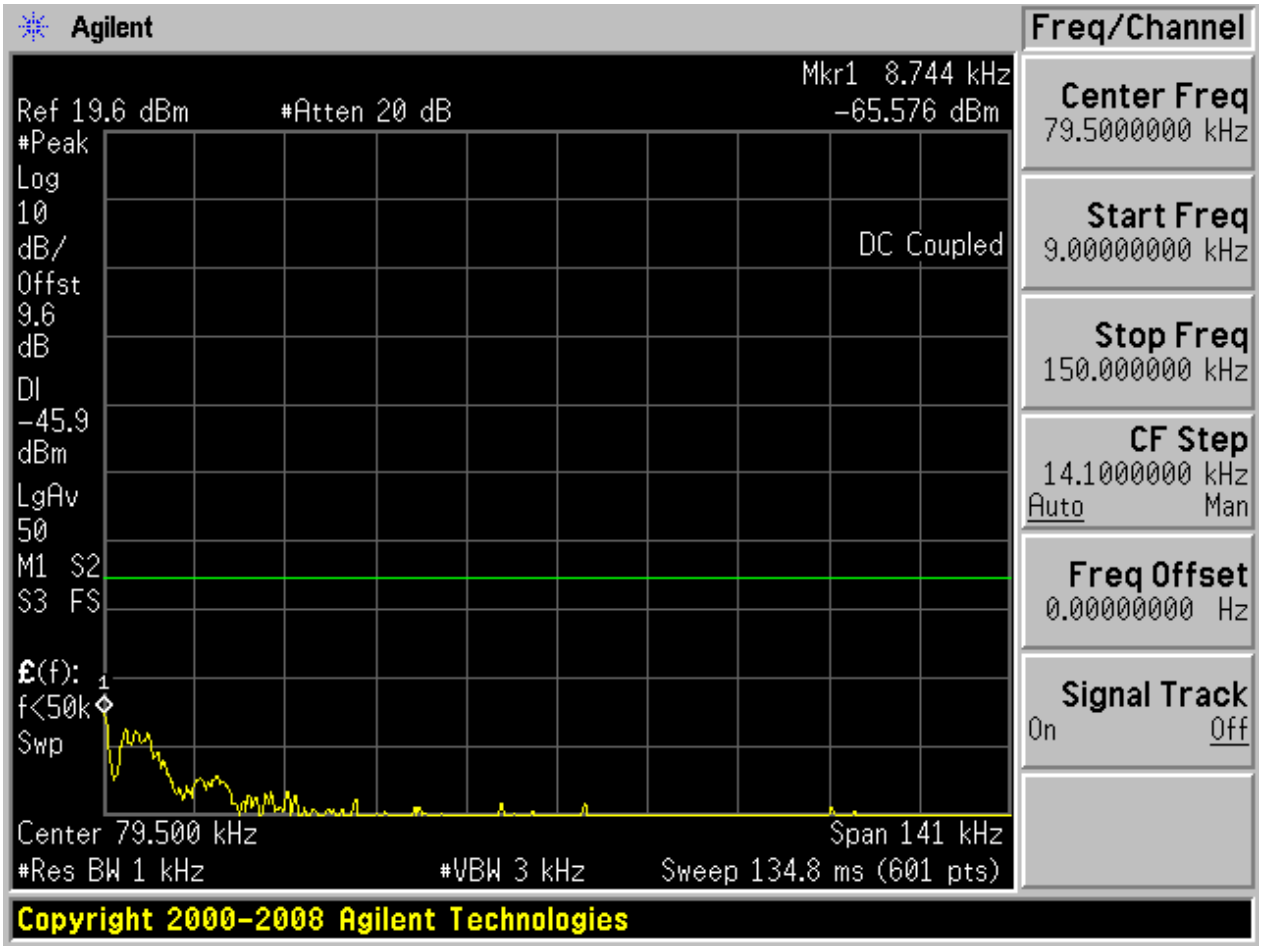
2.28.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

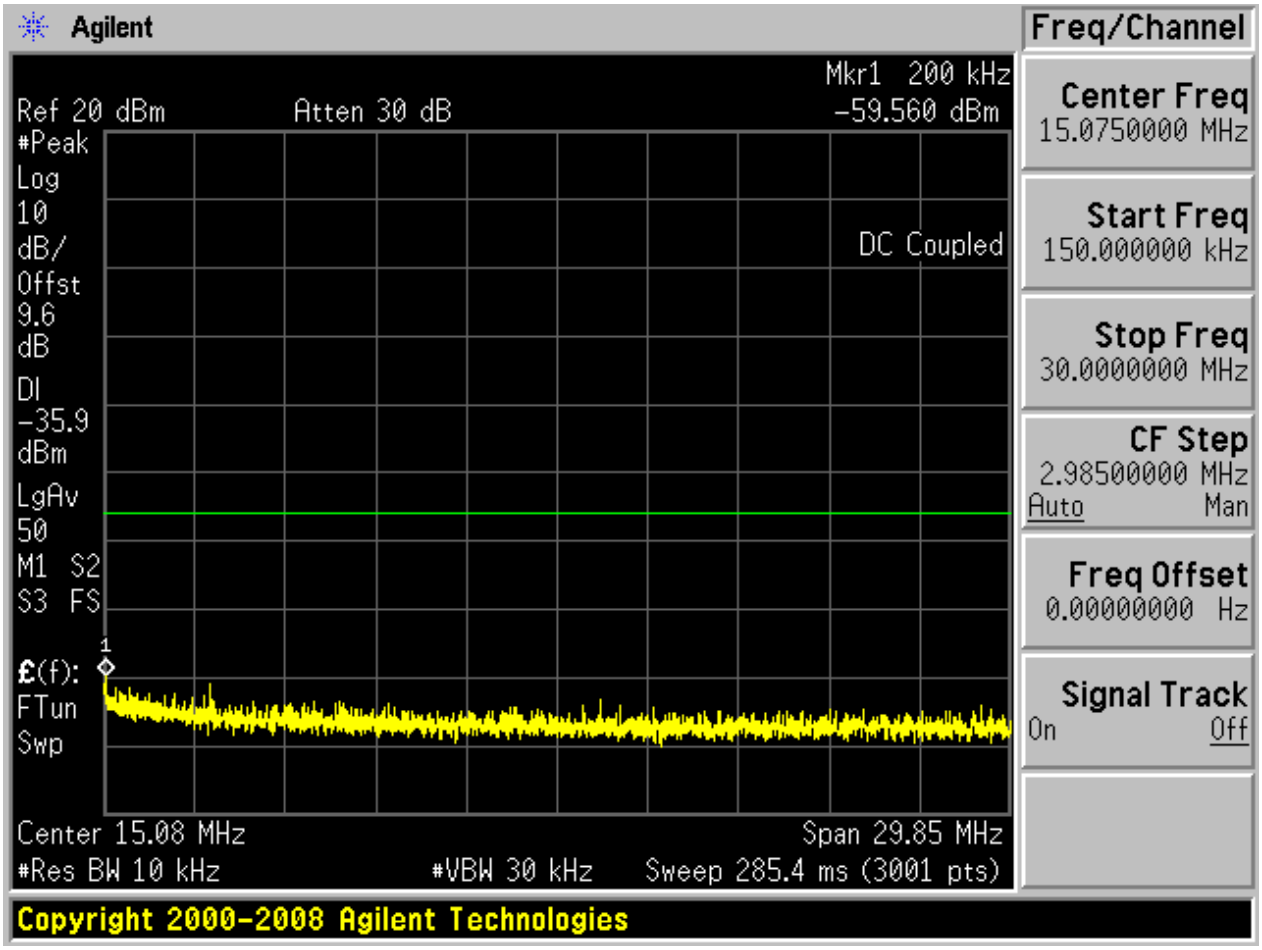
2.28.2 Puw:

9k - 150k



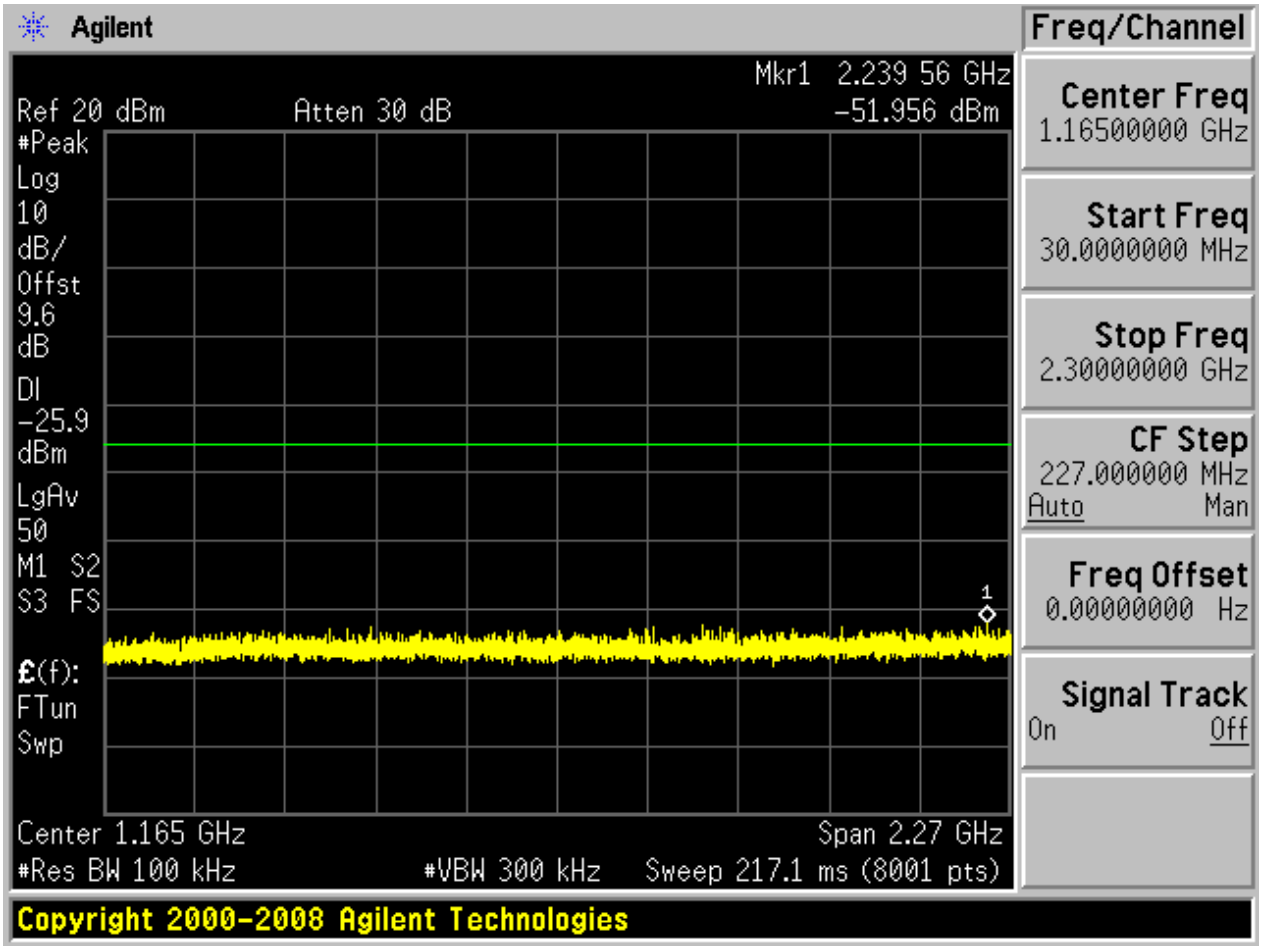
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



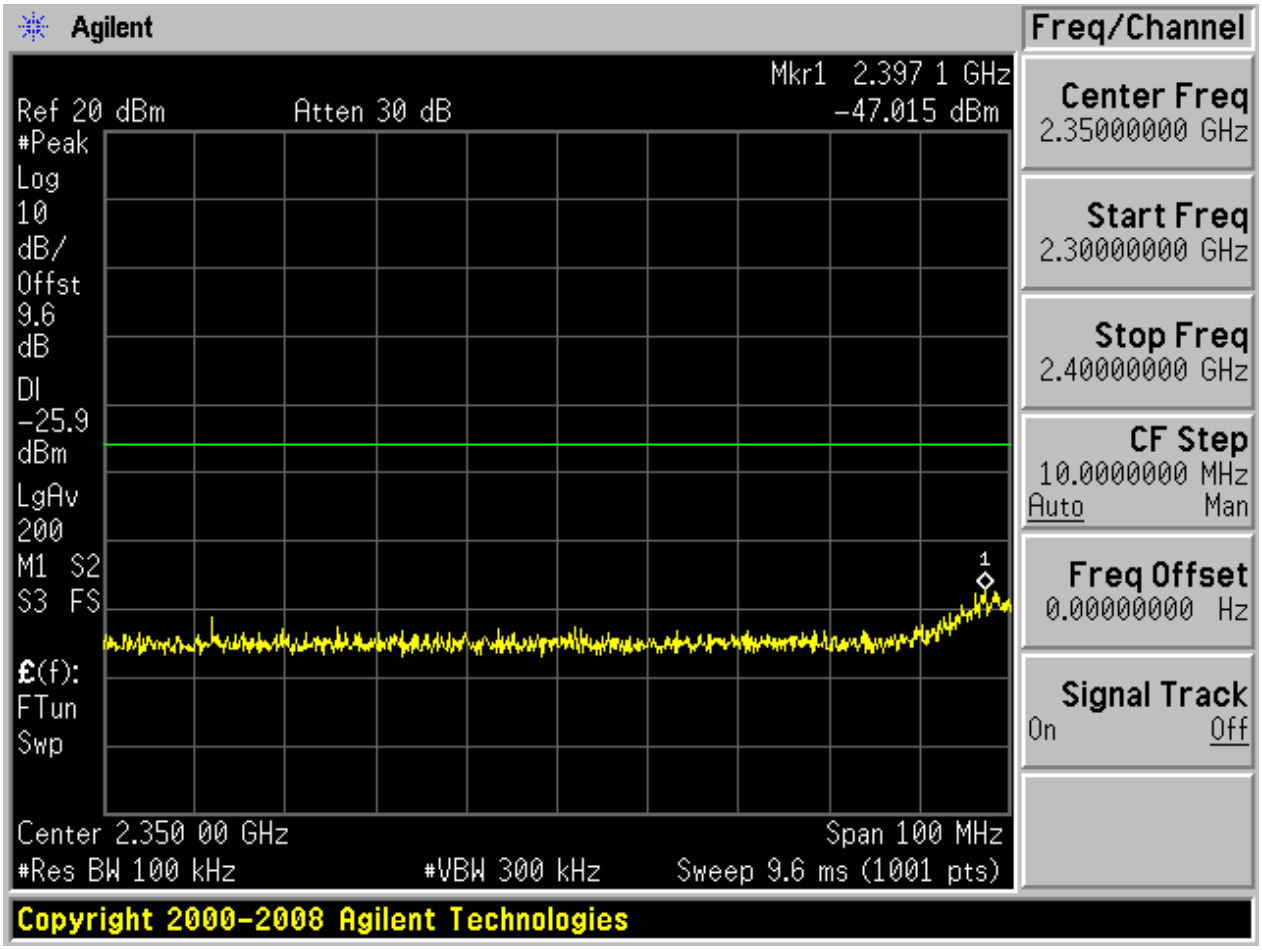
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



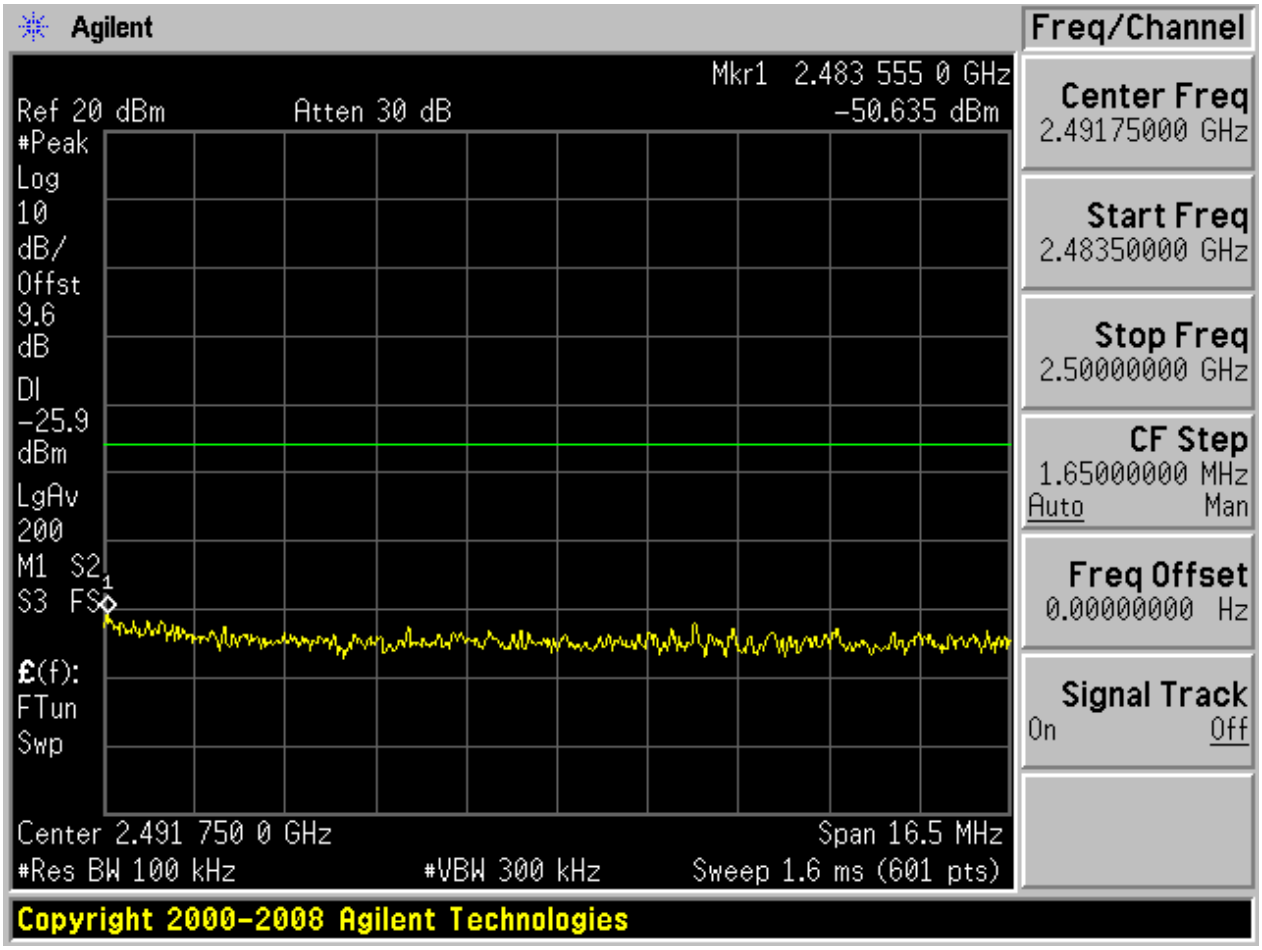
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



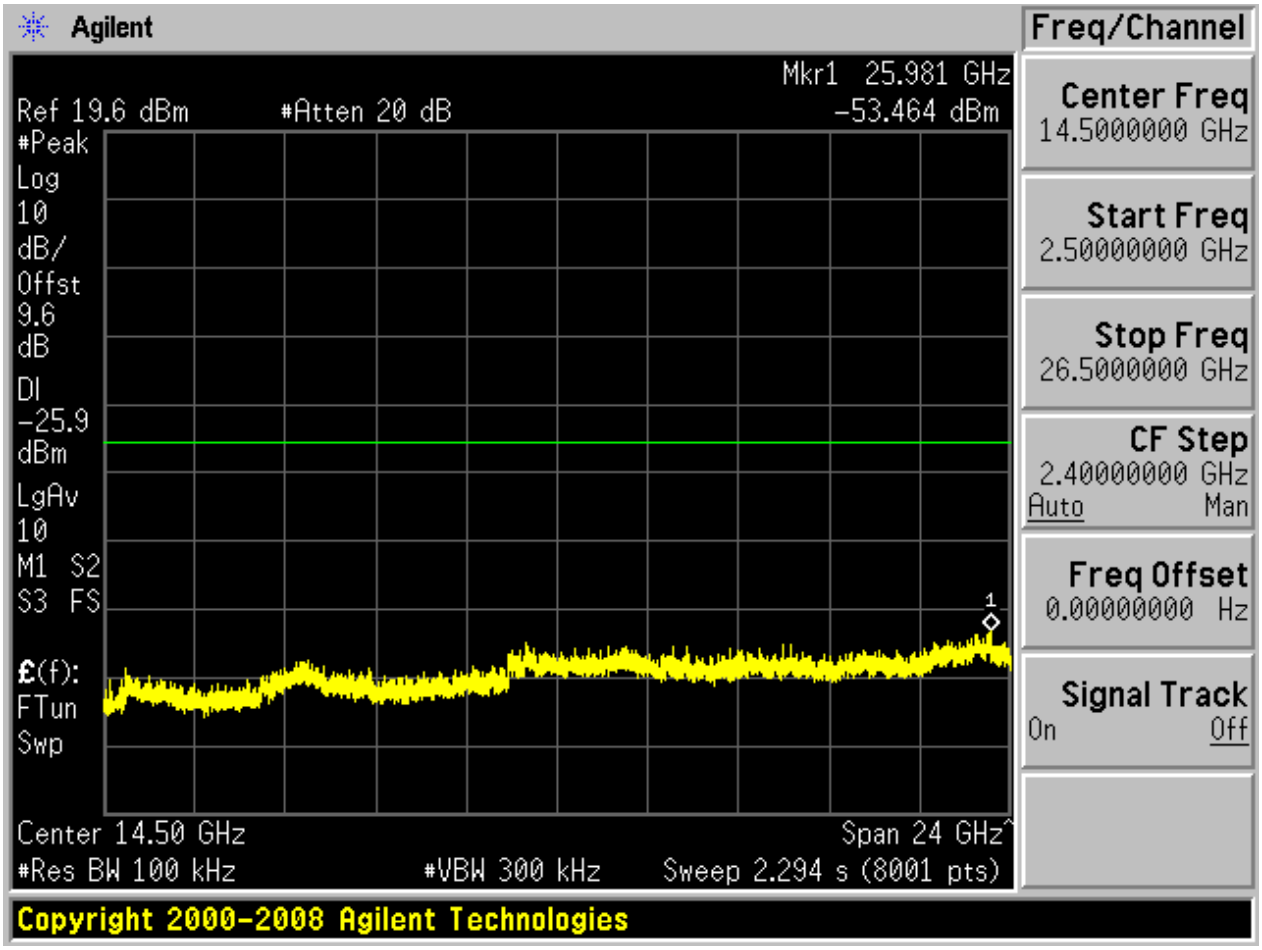
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

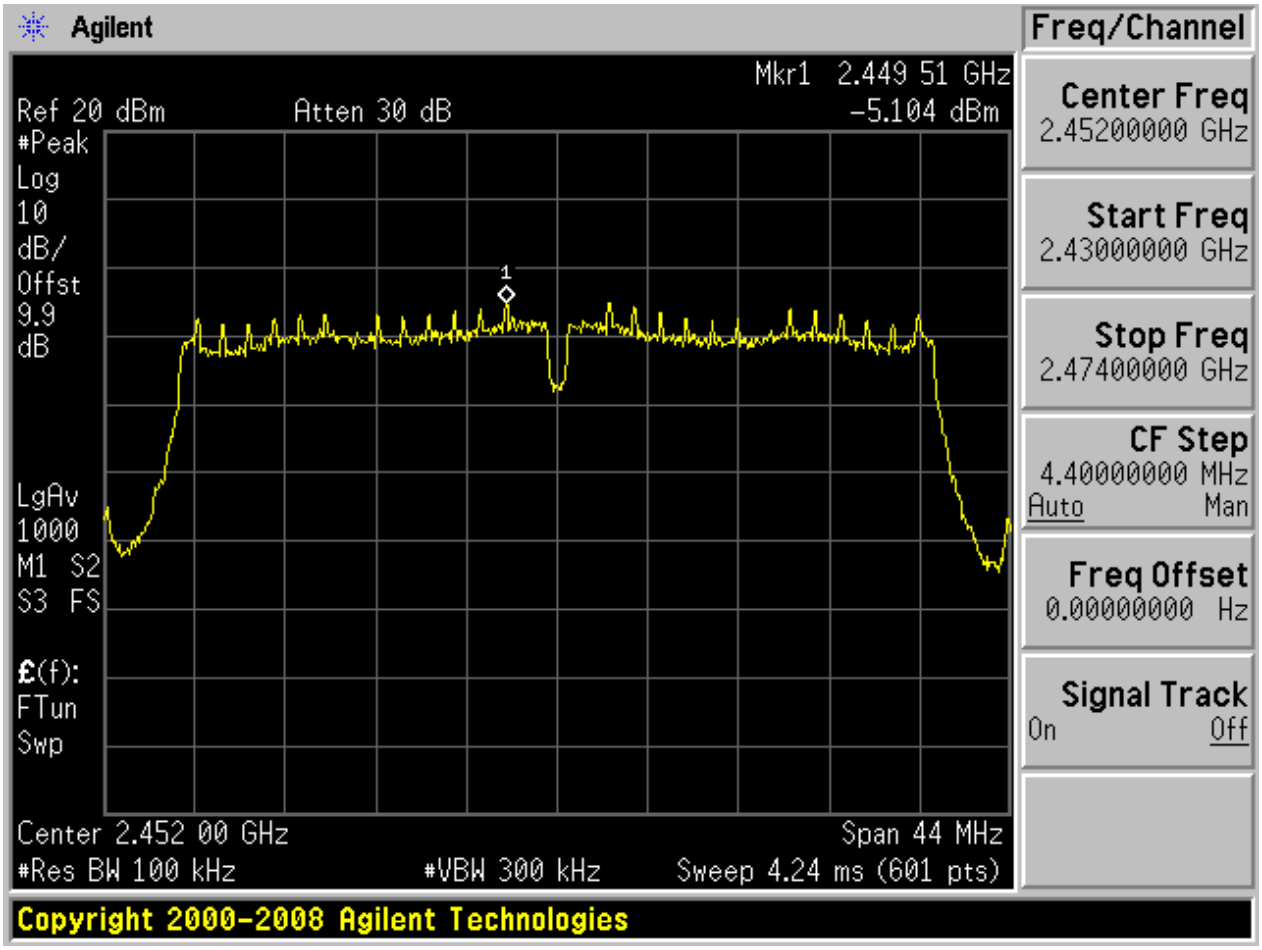
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.29 11N40_T@Ant1

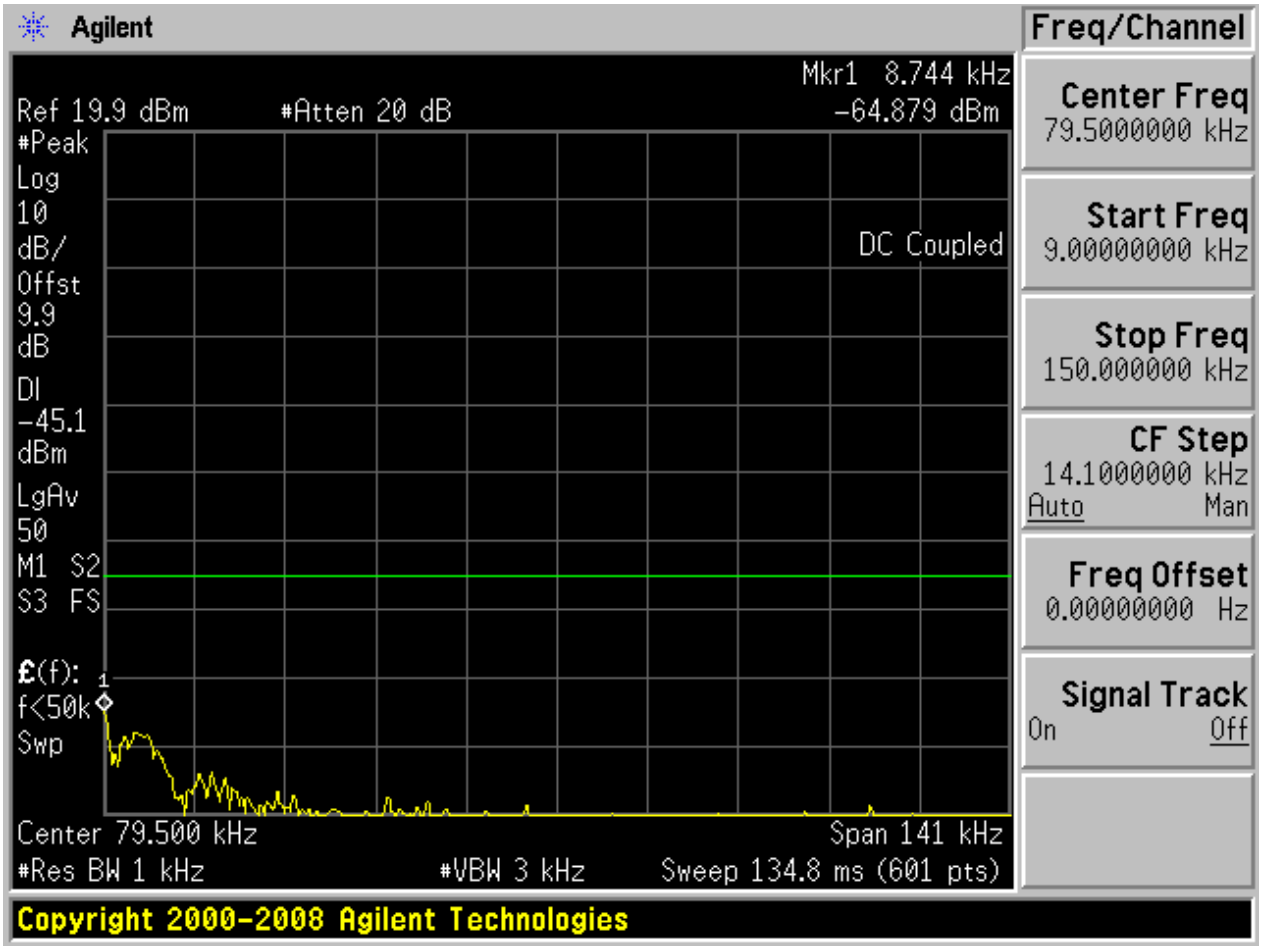
2.29.1 Pref:



Copyright © Huawei Technologies Co., Ltd.

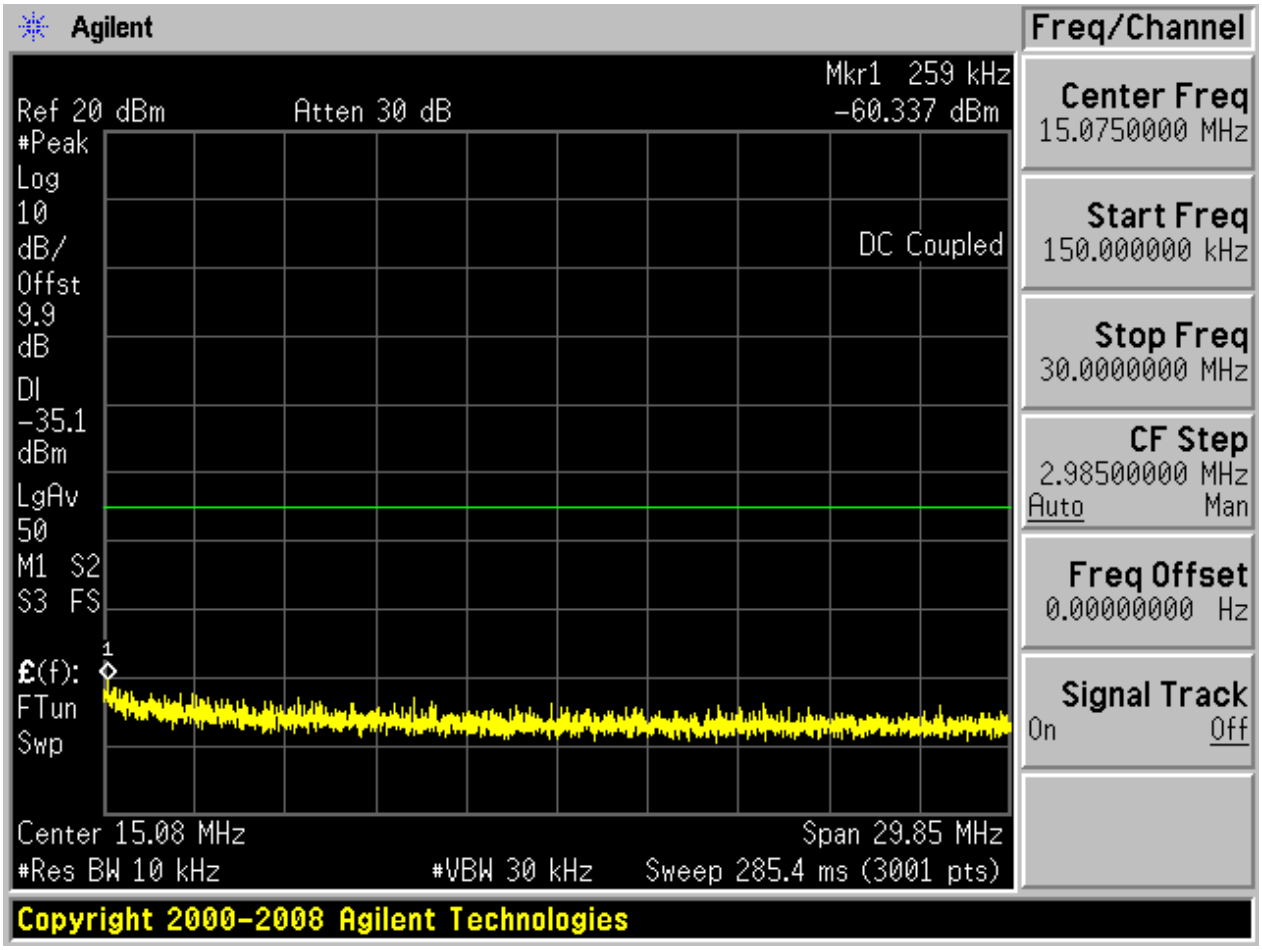
2.29.2 Puw:

9k - 150k



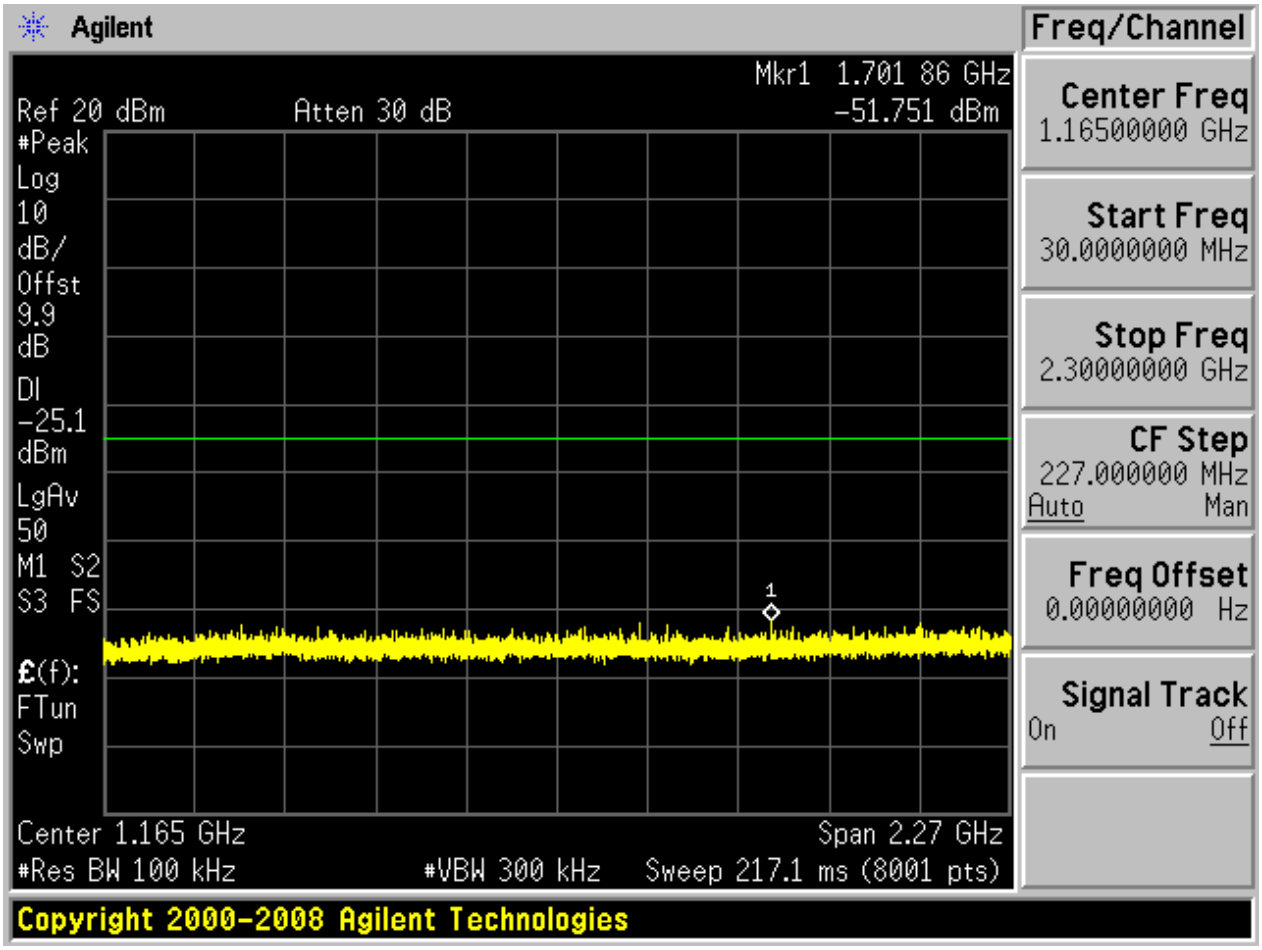
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



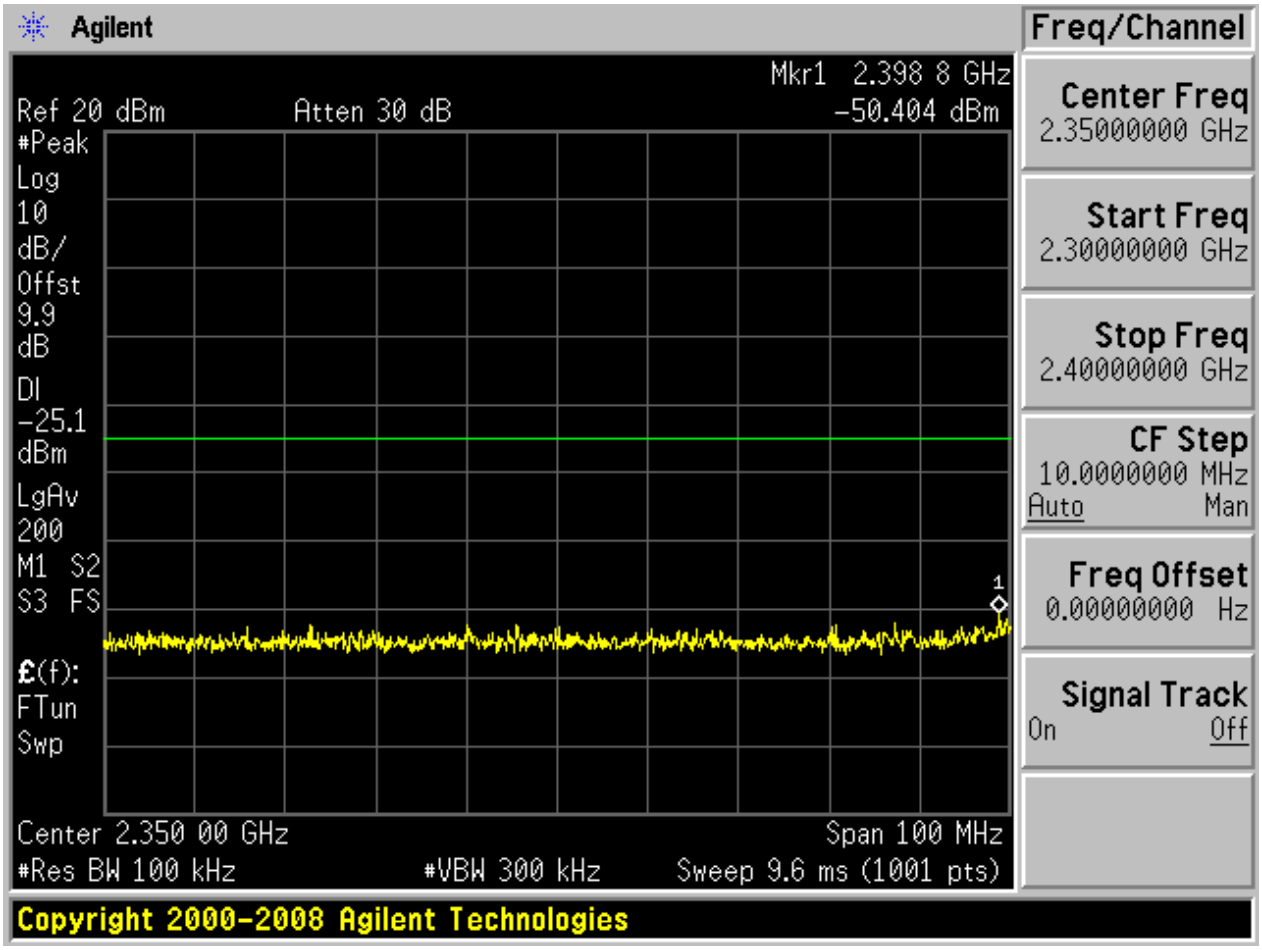
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



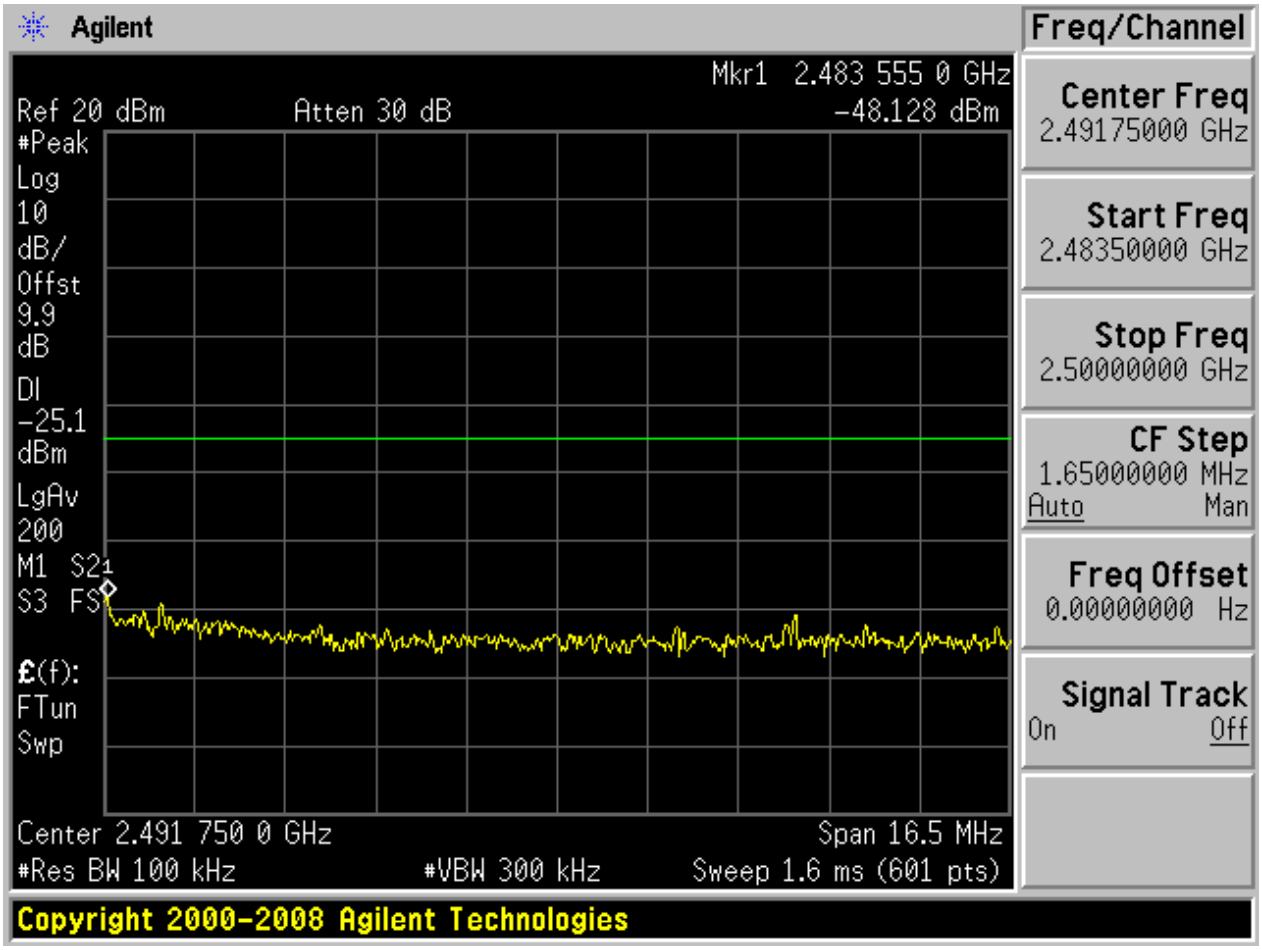
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



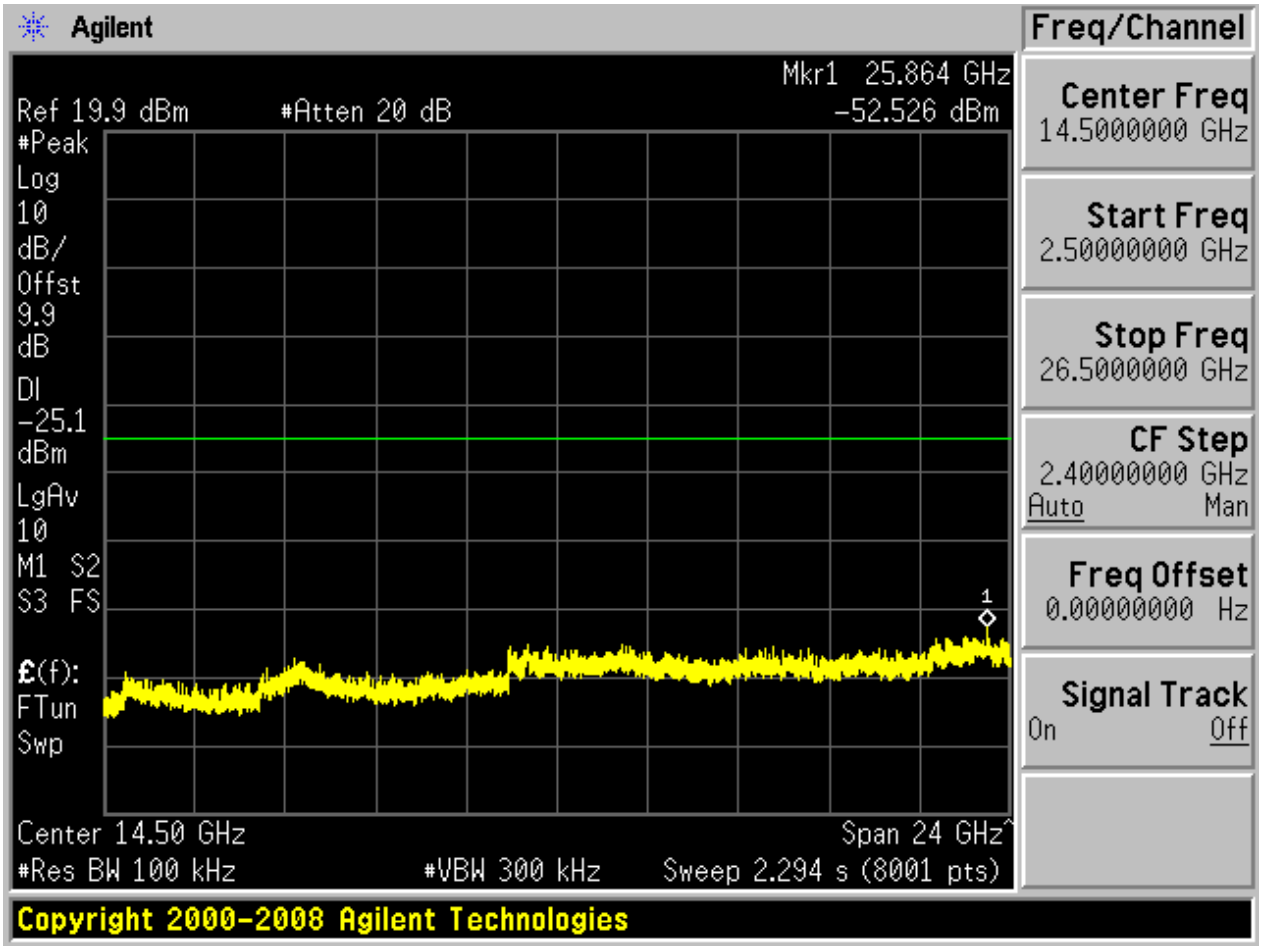
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

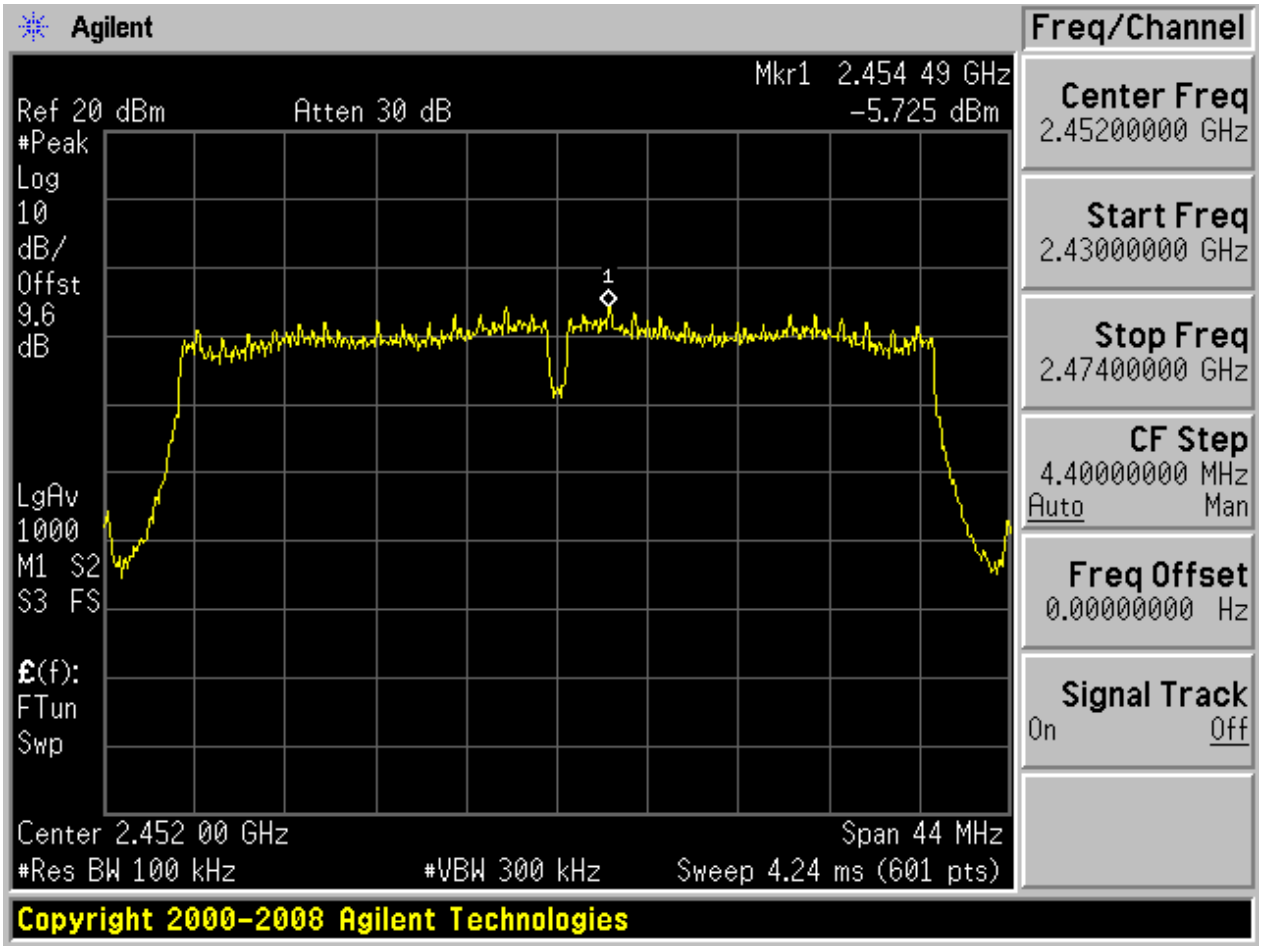
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.30 11N40_T@Ant2

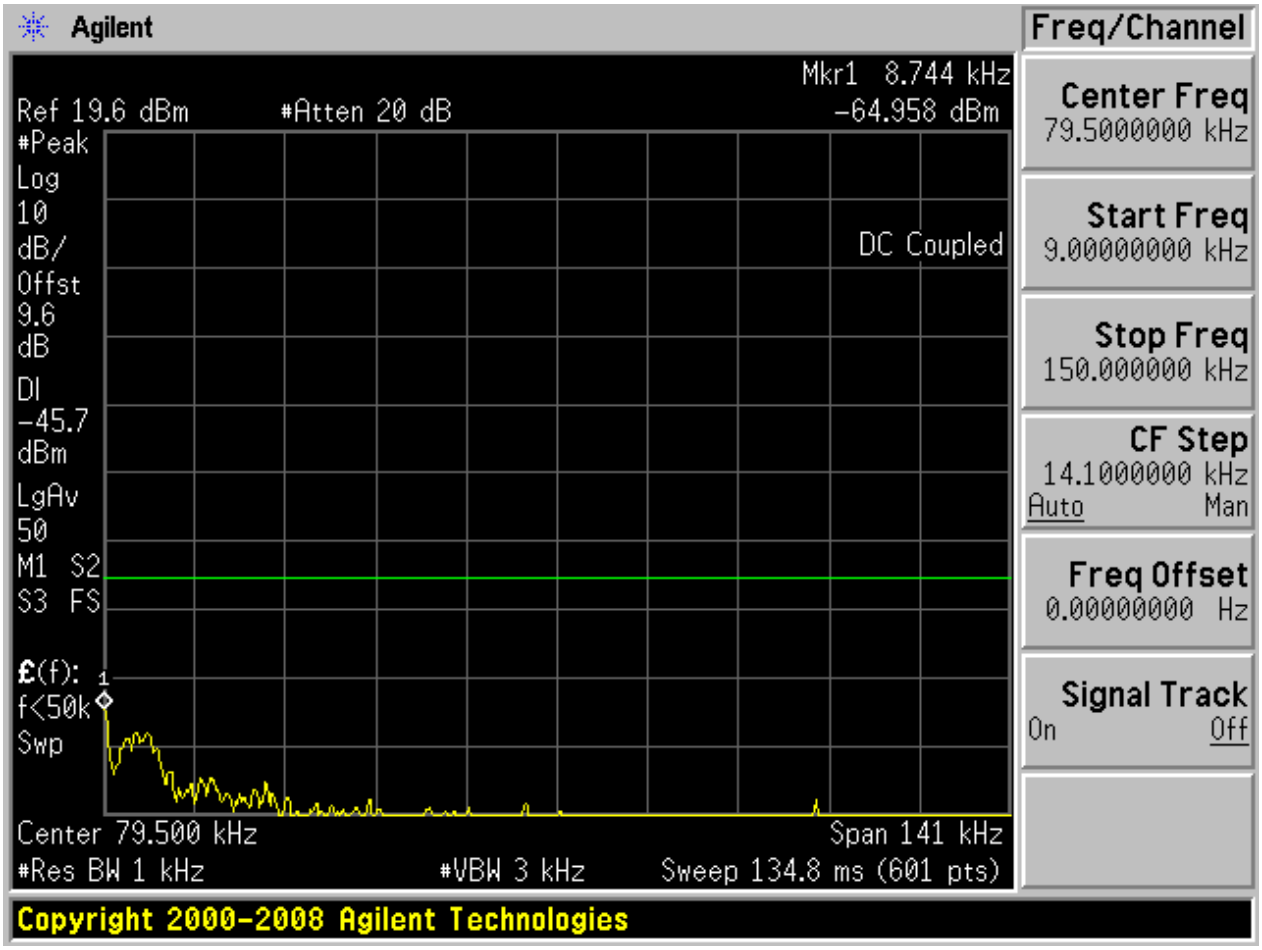
2.30.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

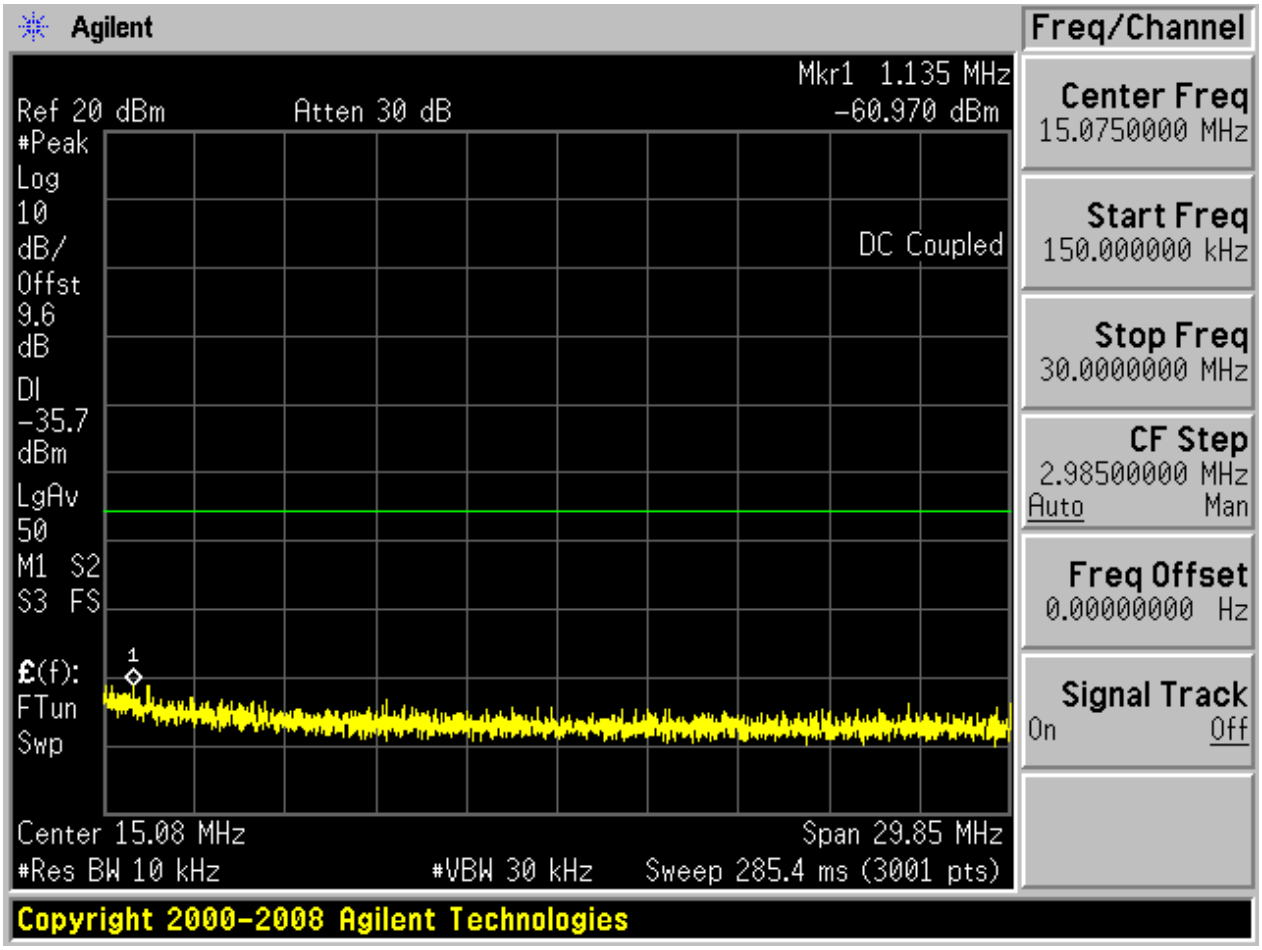
2.30.2 Puw:

9k - 150k



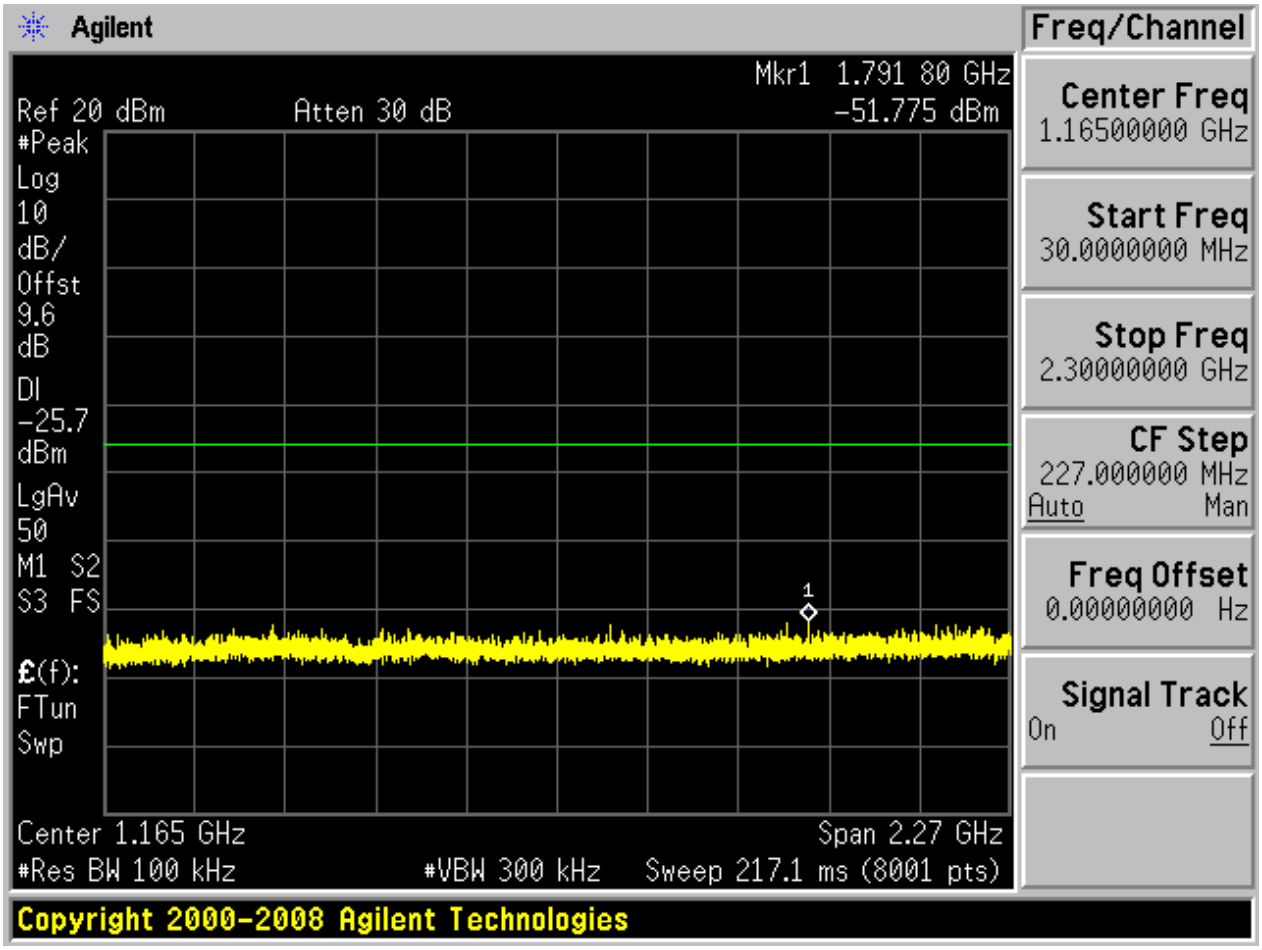
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



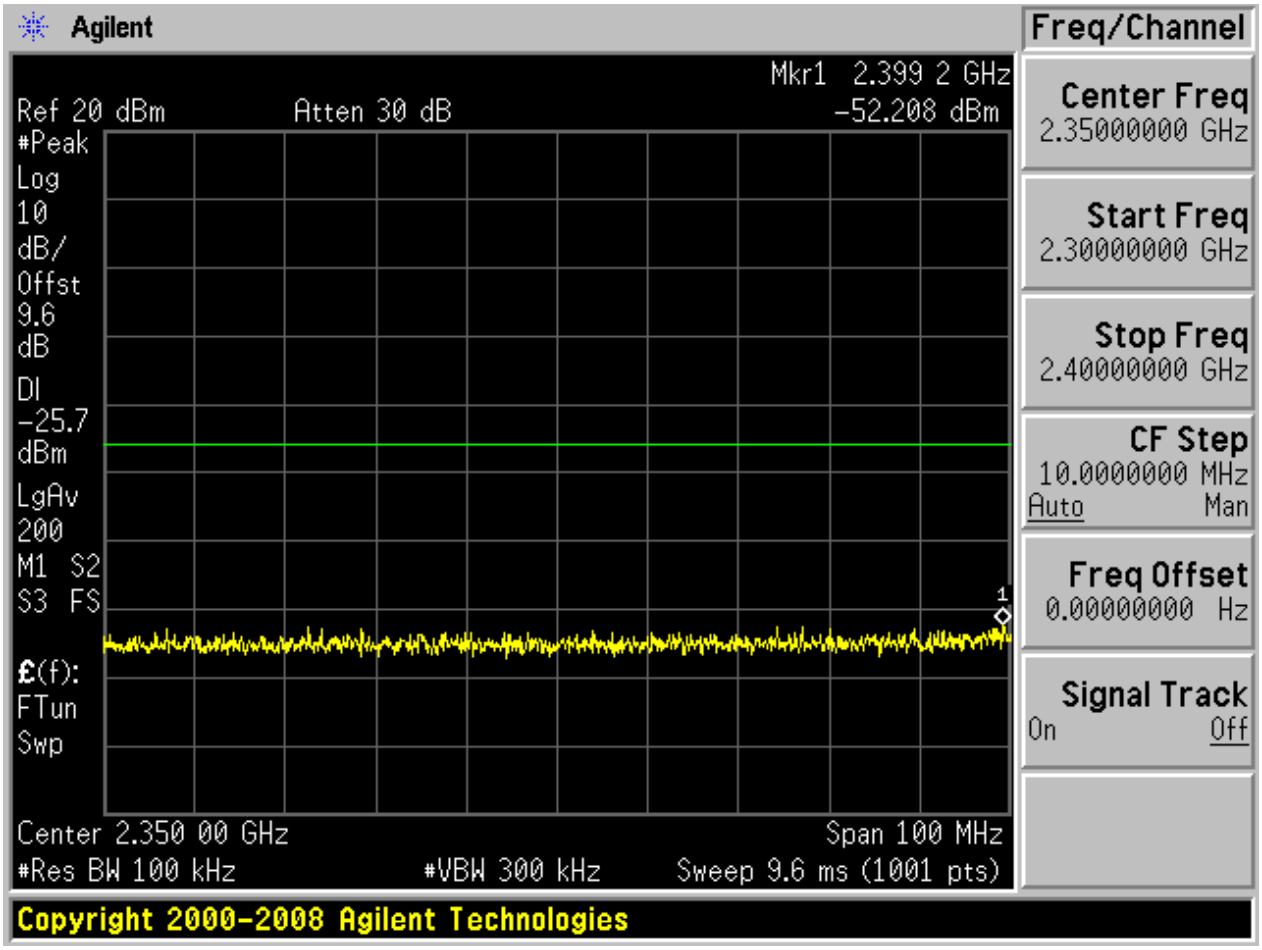
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



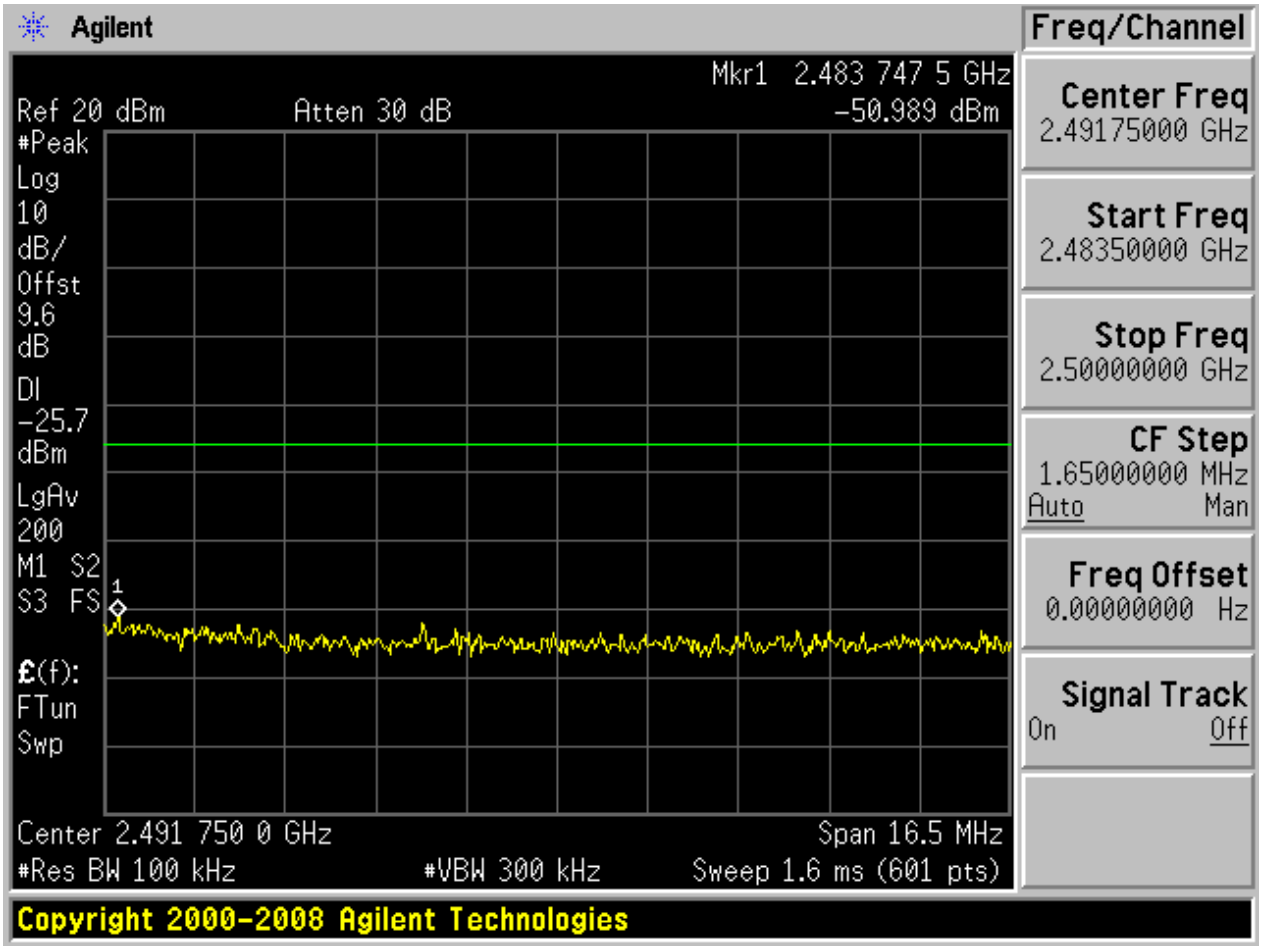
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



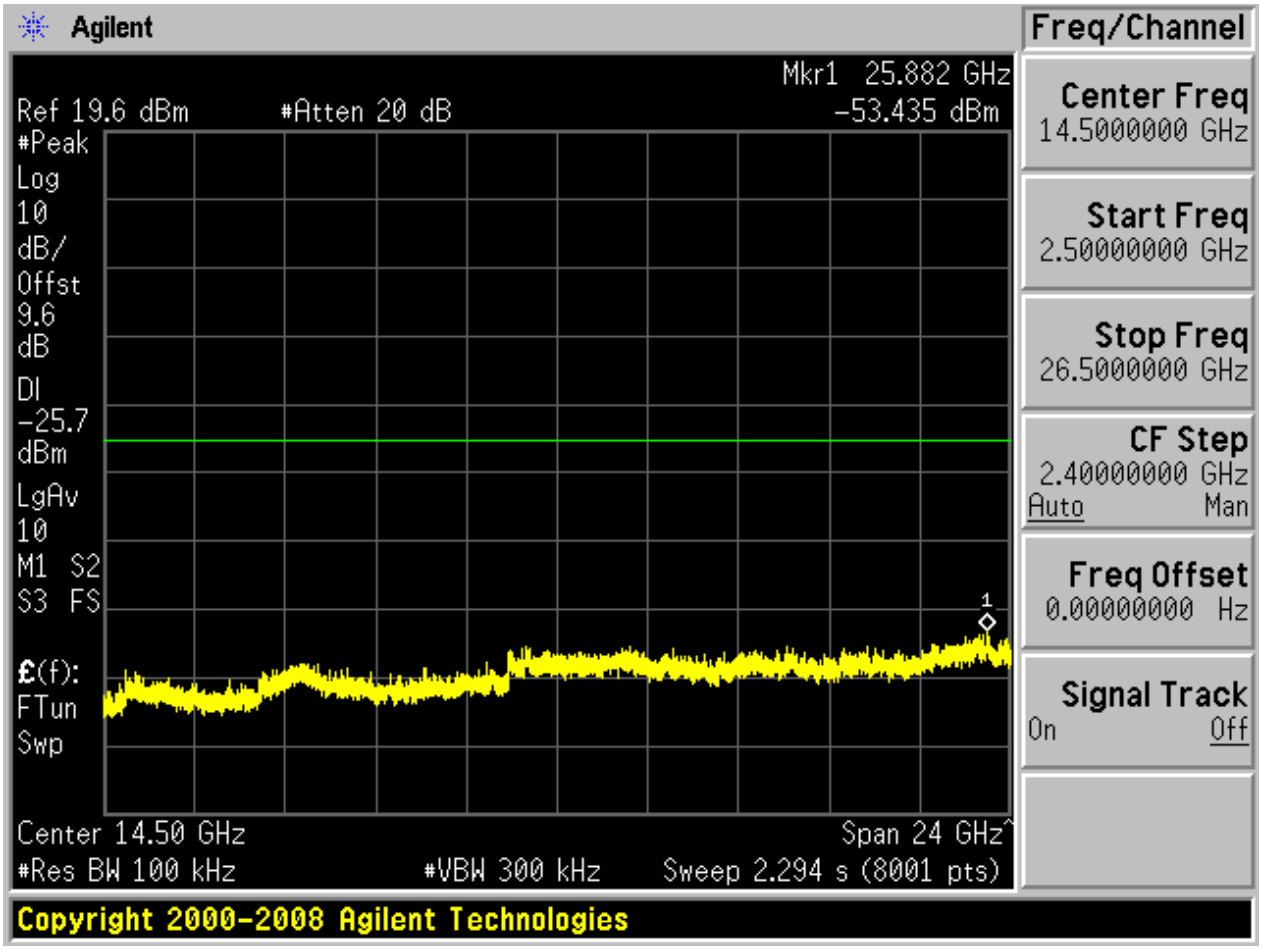
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

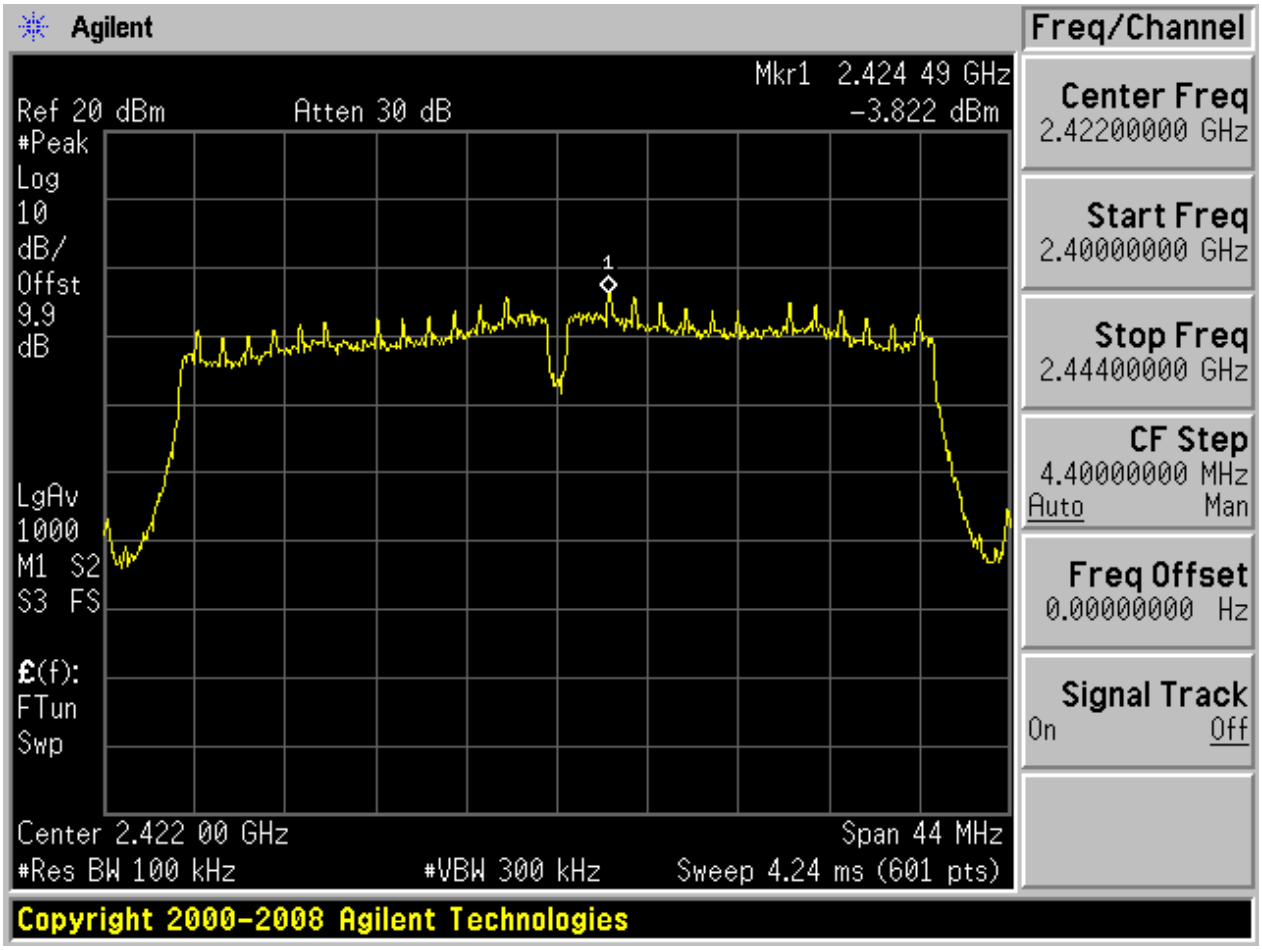
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.31 11N40m_B@Ant1

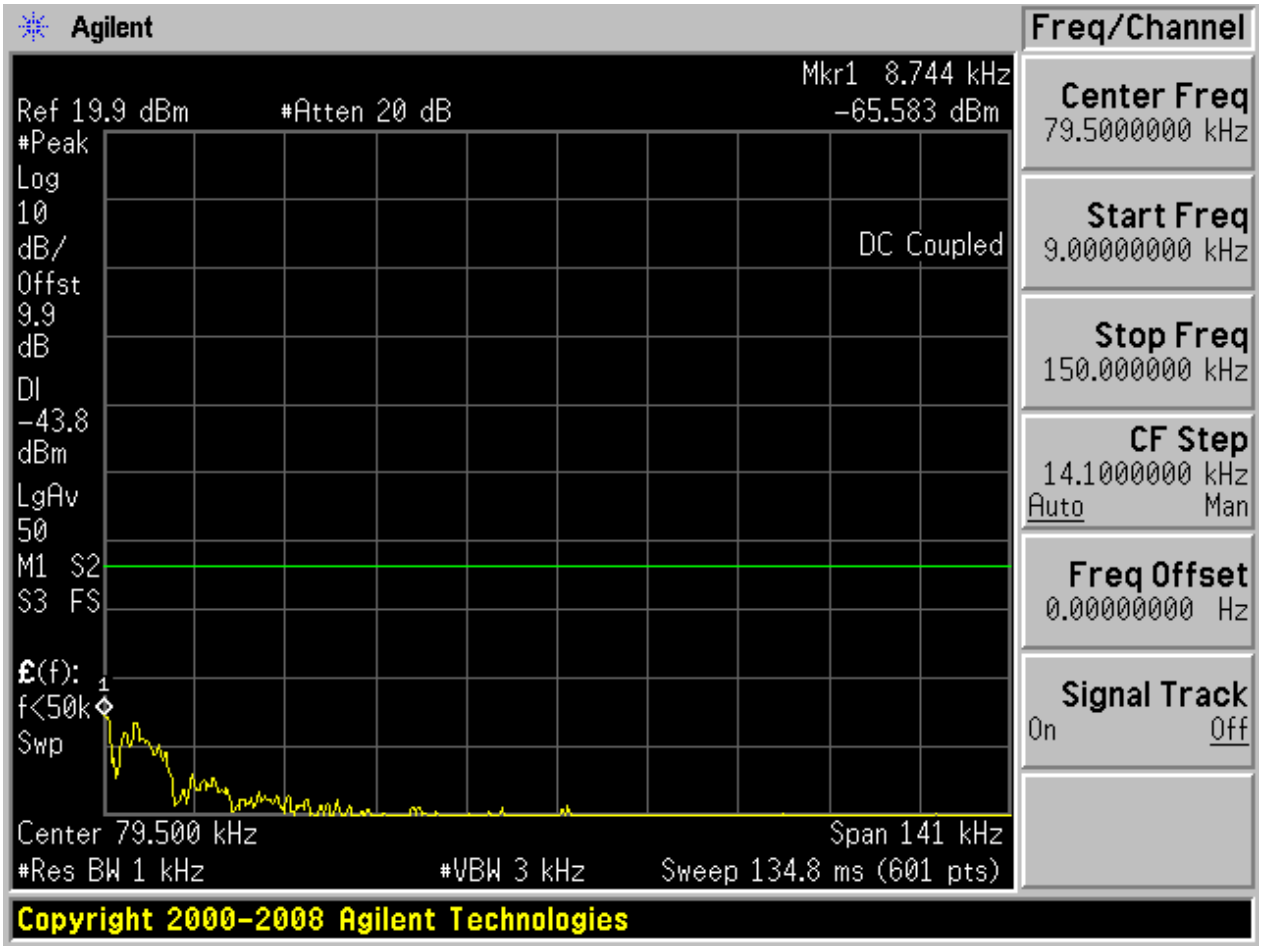
2.31.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

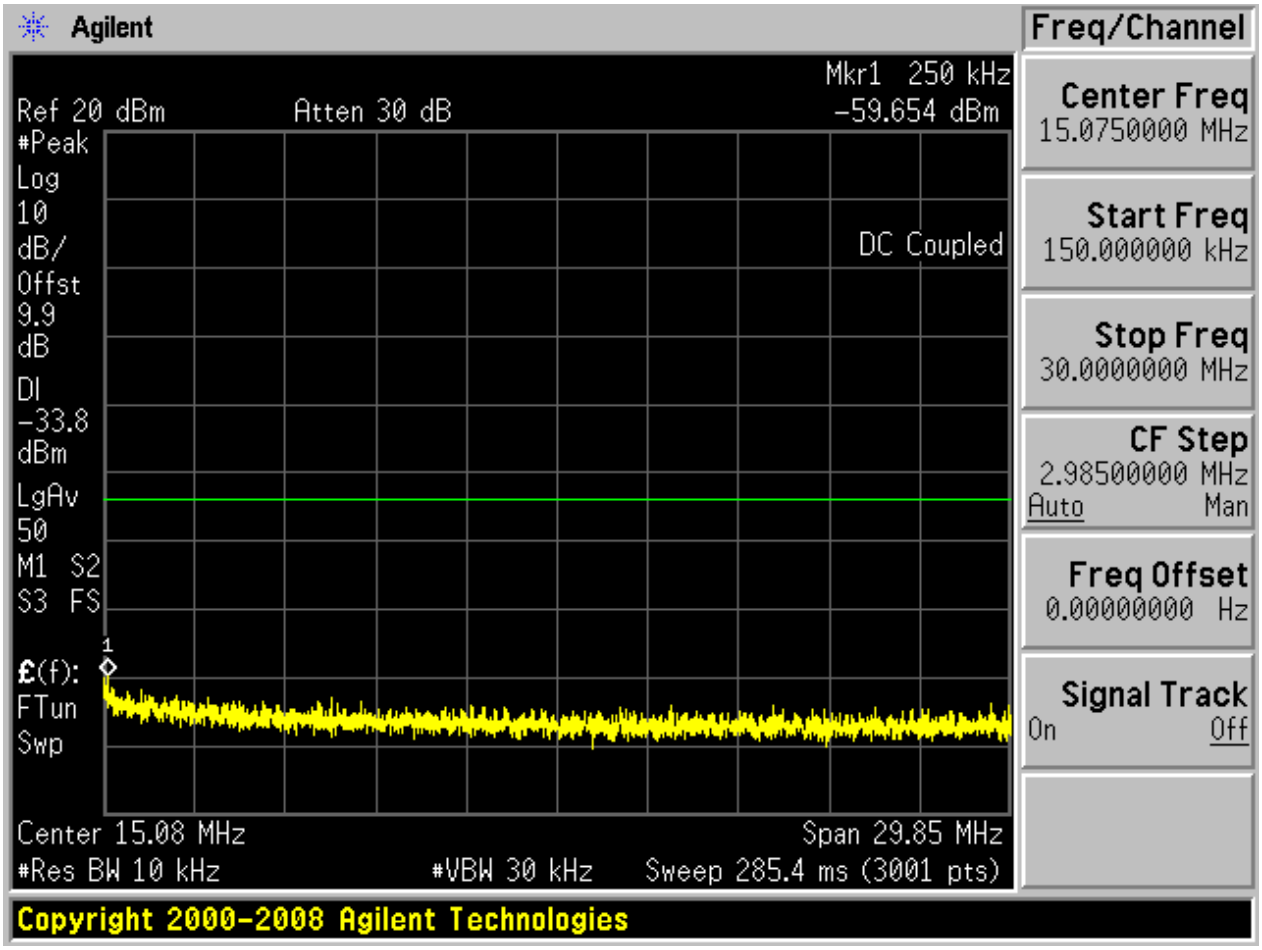
2.31.2 Puw:

9k - 150k



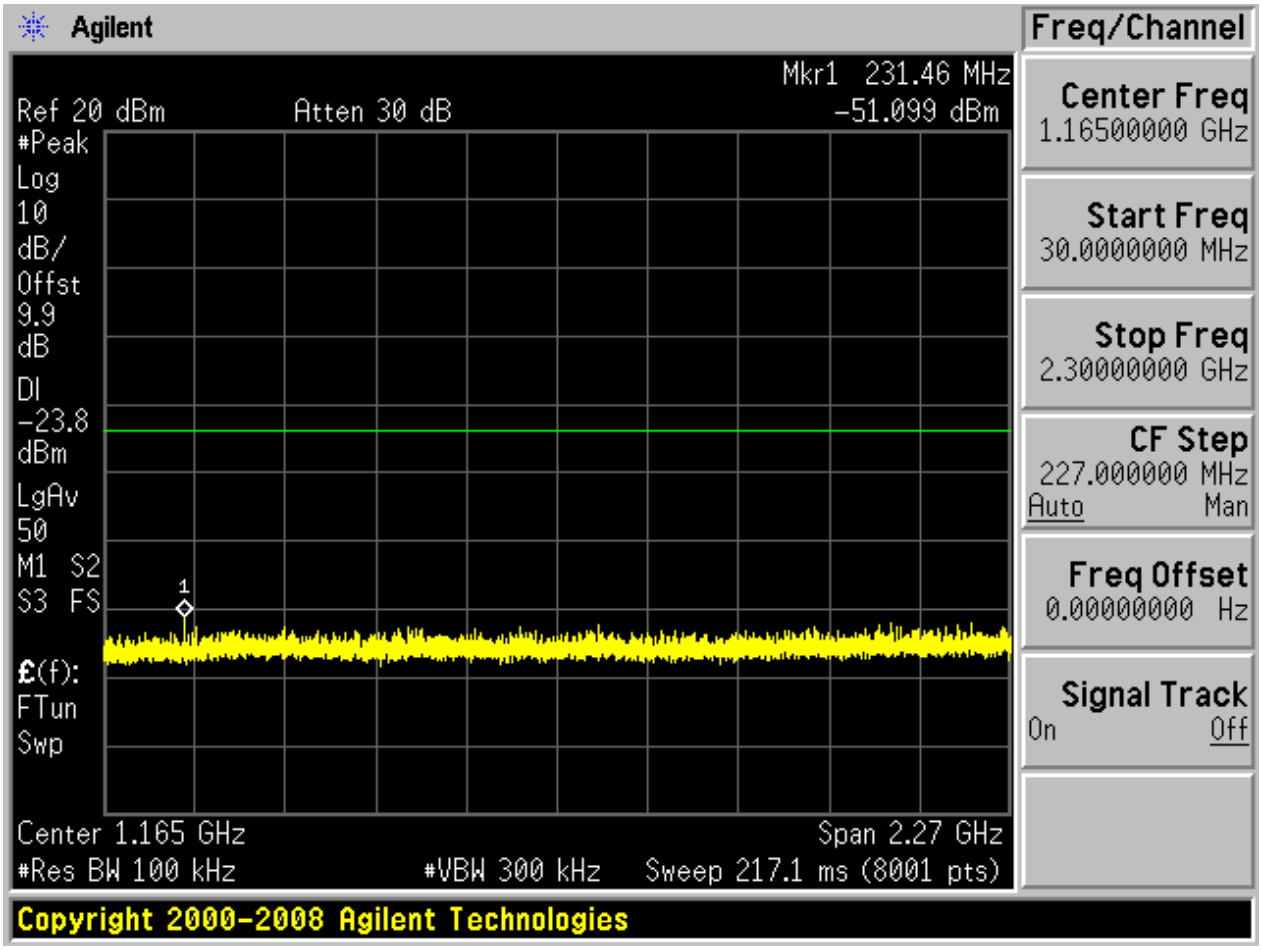
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



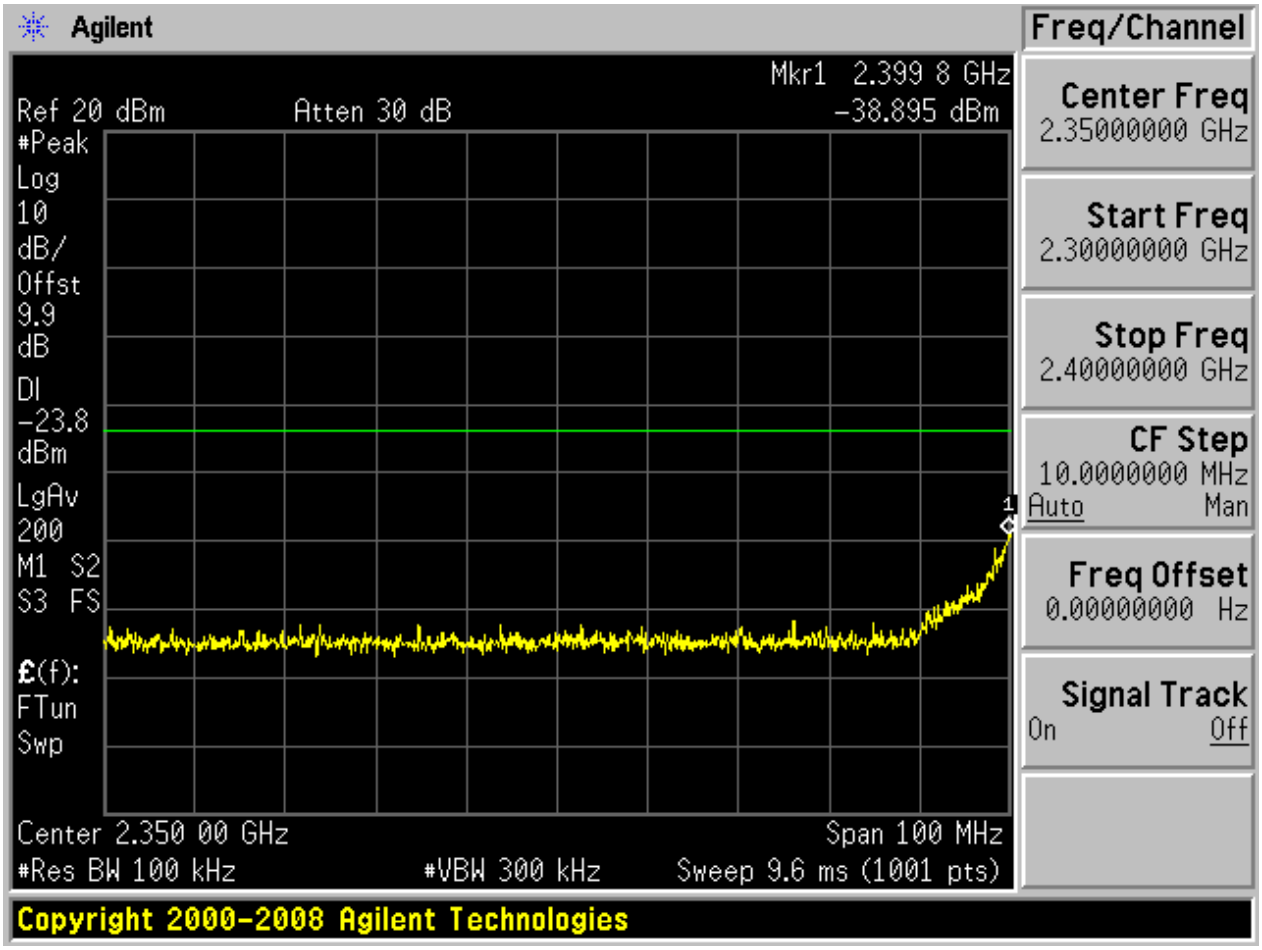
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



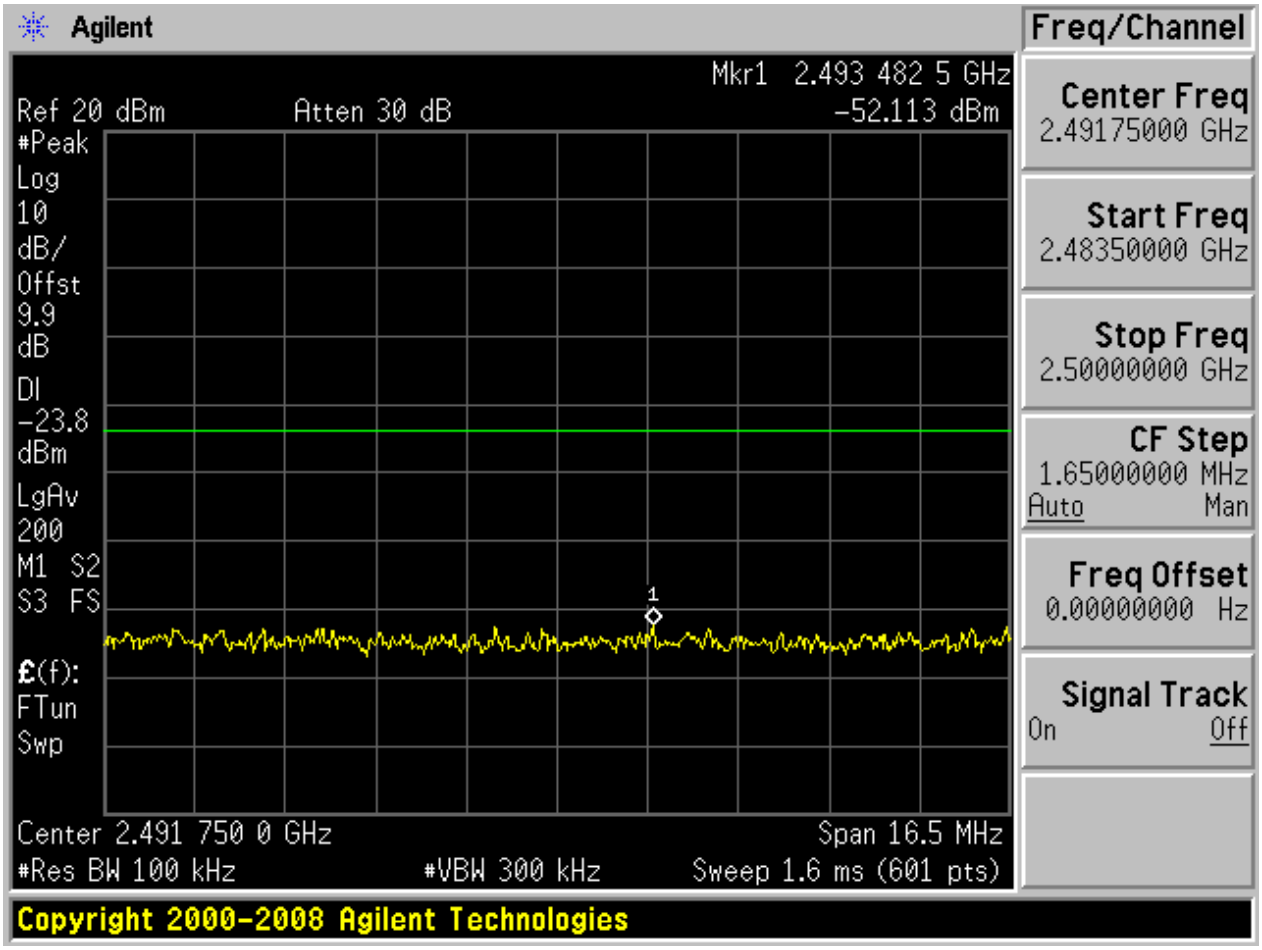
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



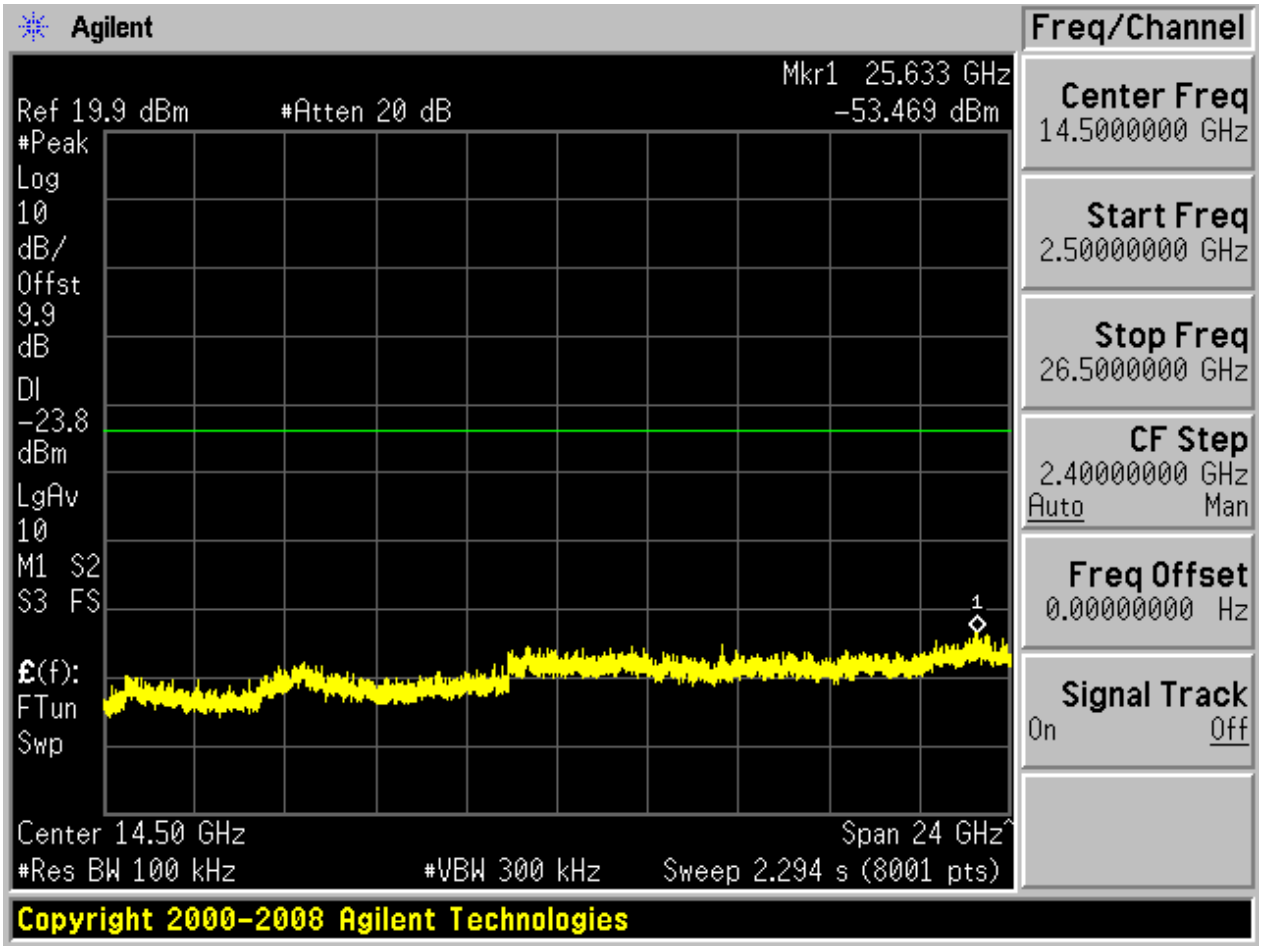
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

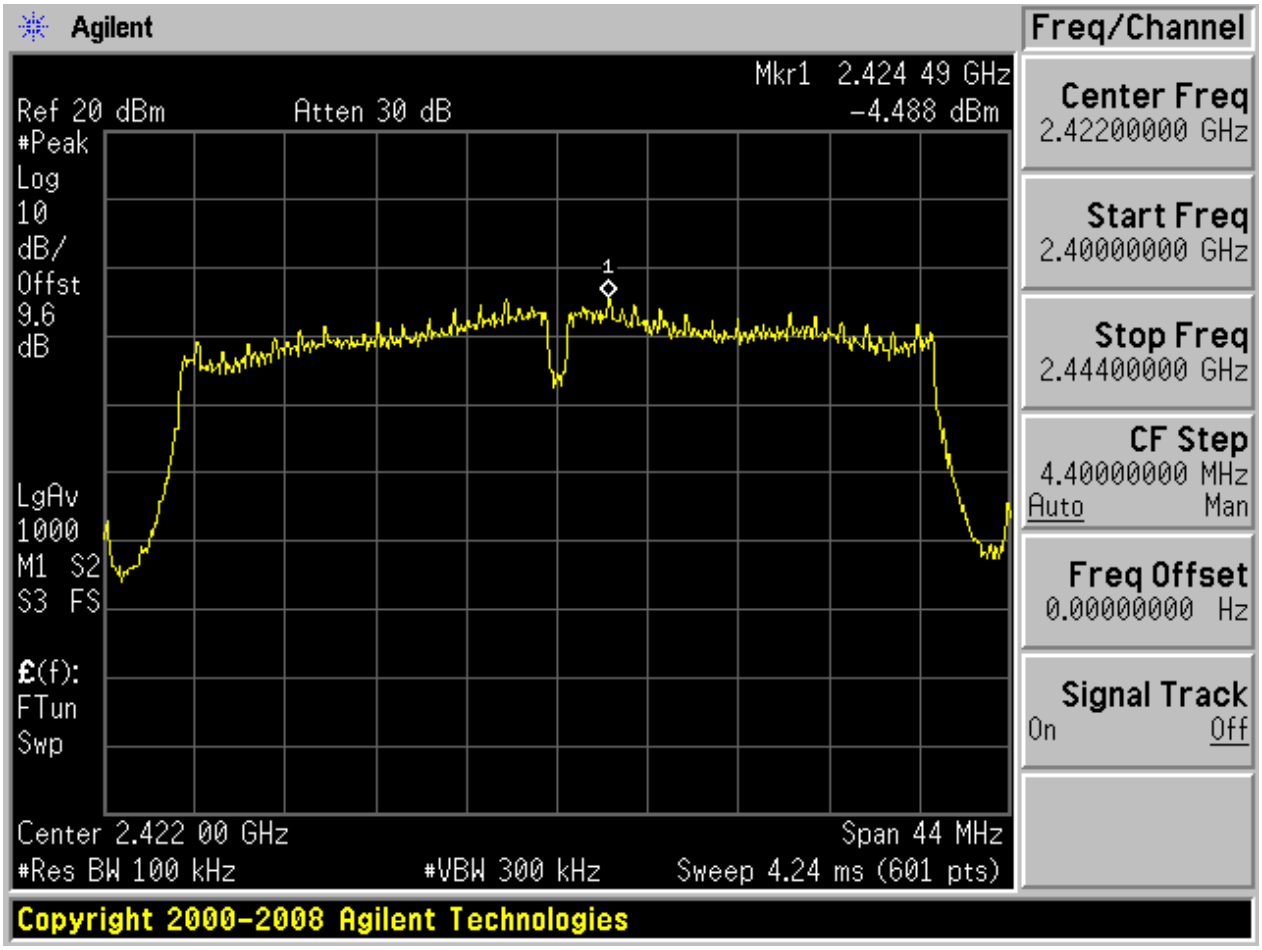
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.32 11N40m_B@Ant2

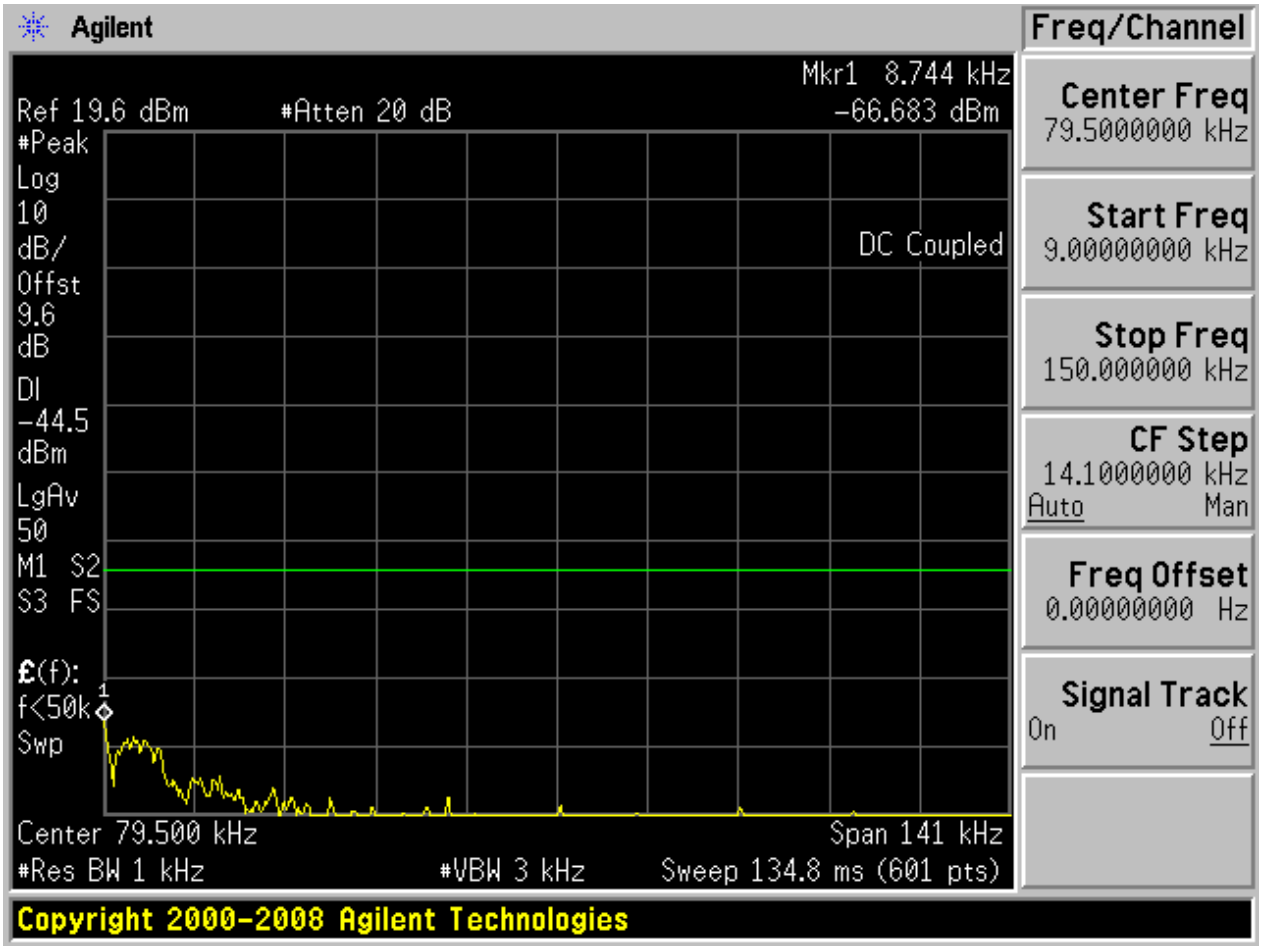
2.32.1 Pref:



Copyright © Huawei Technologies Co., Ltd.

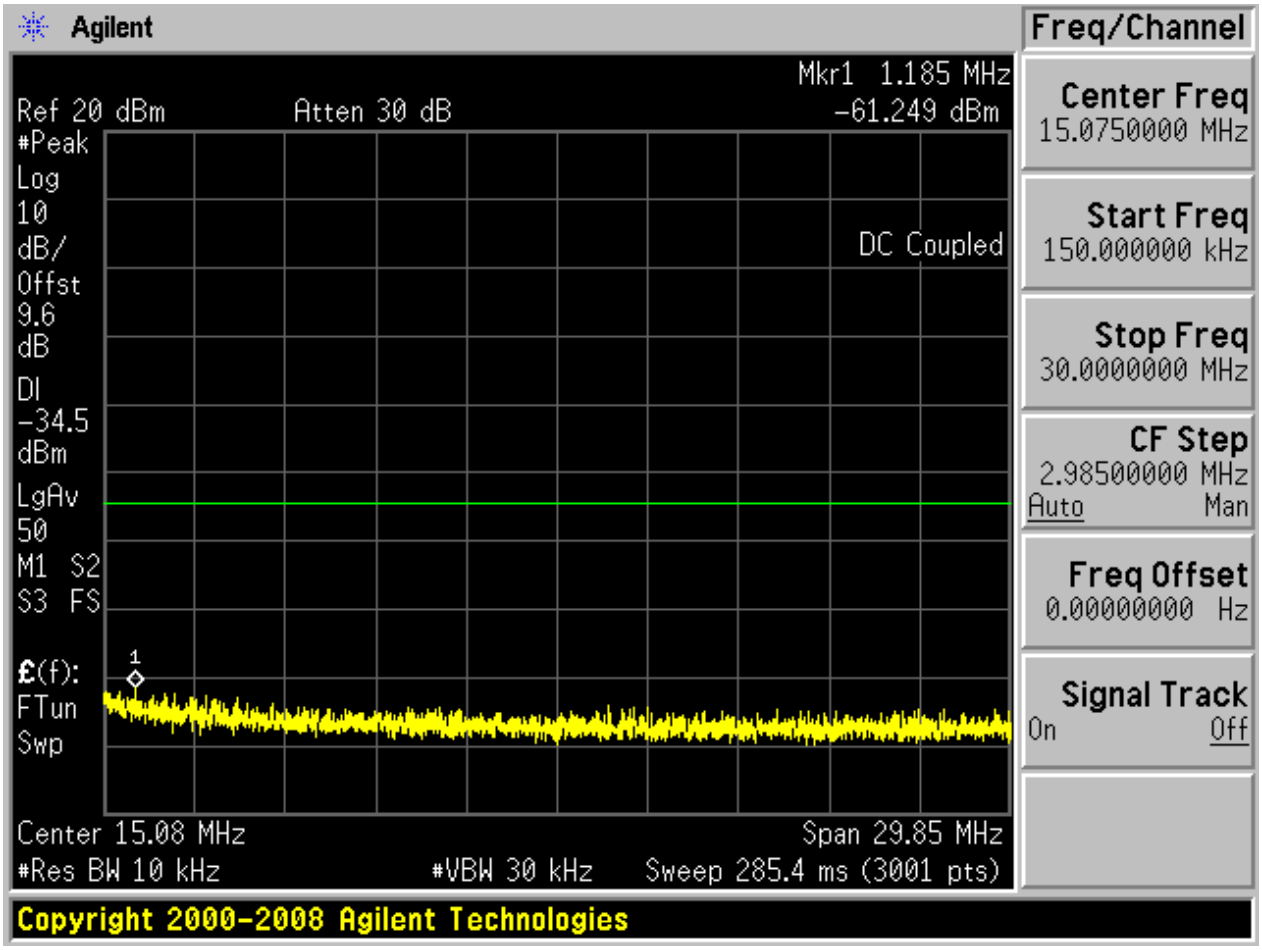
2.32.2 Puw:

9k - 150k



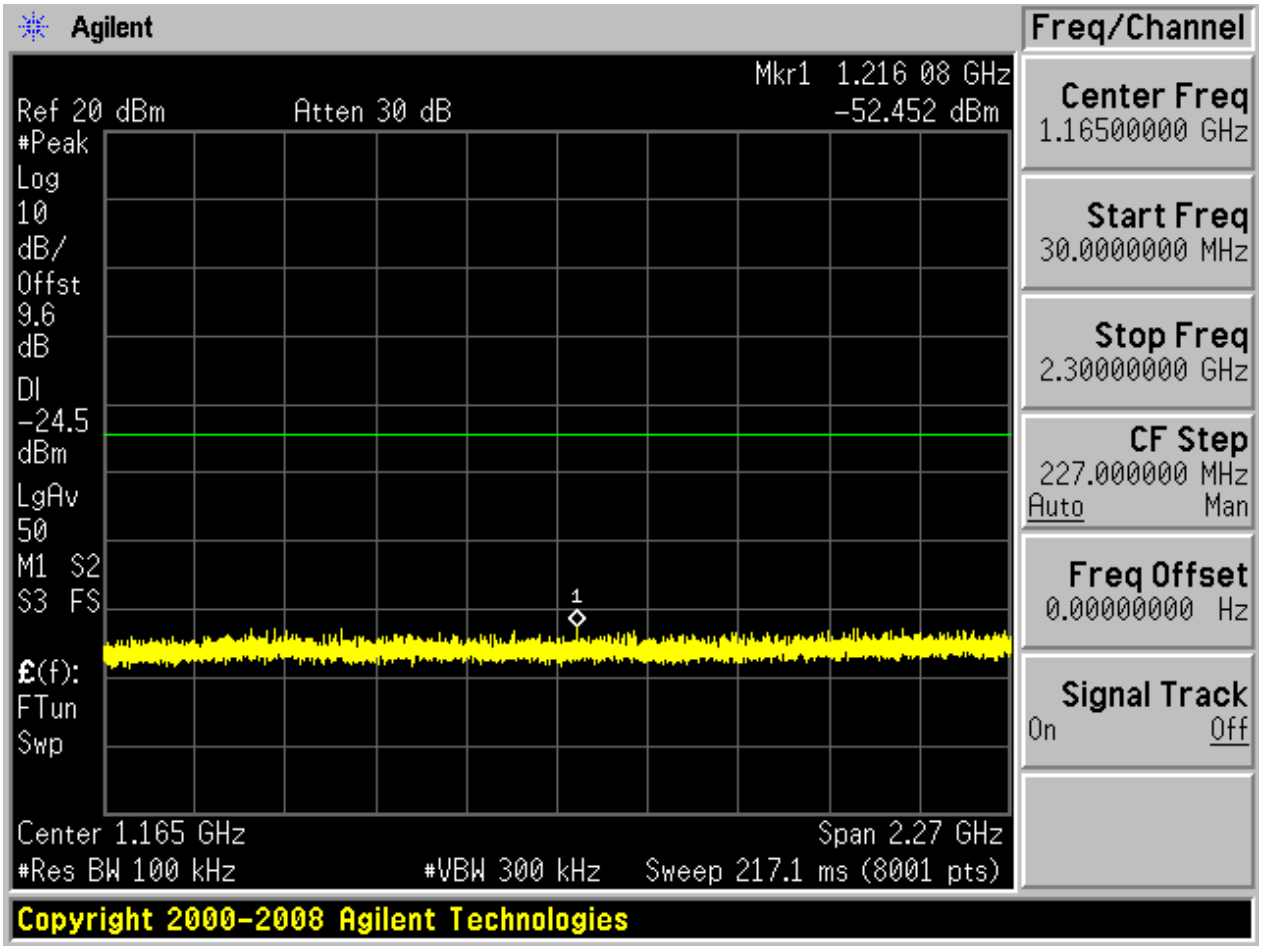
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



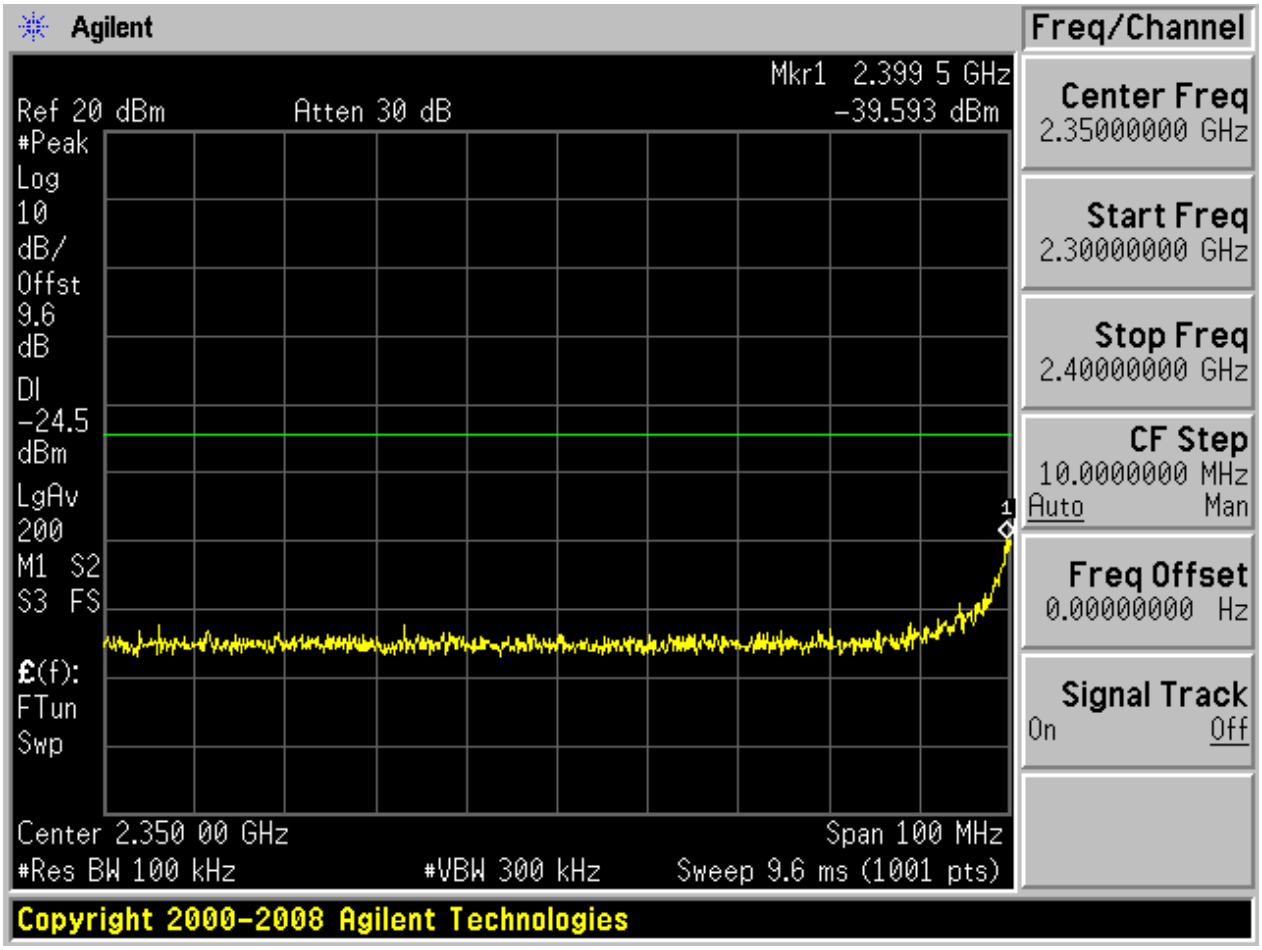
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



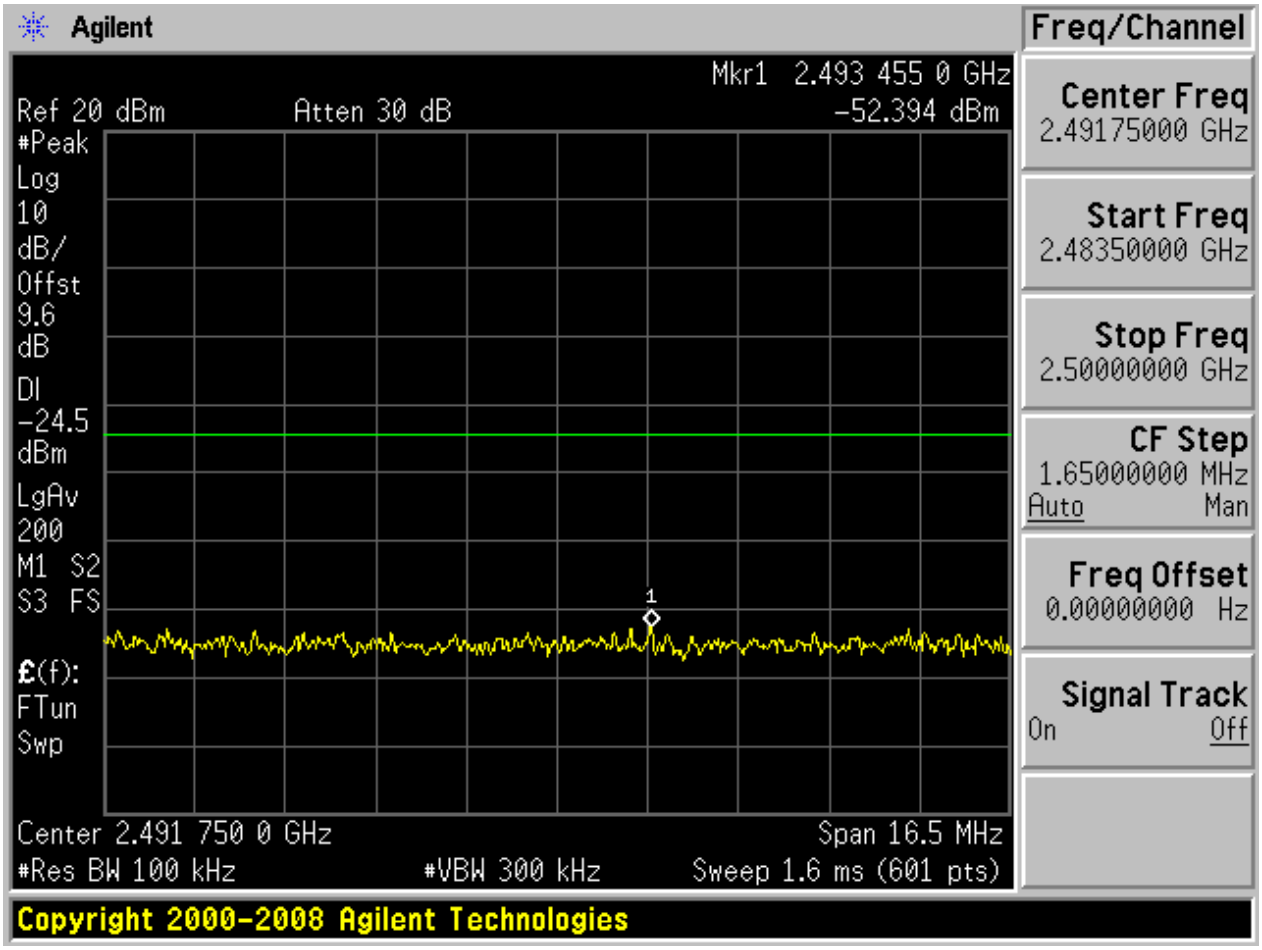
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



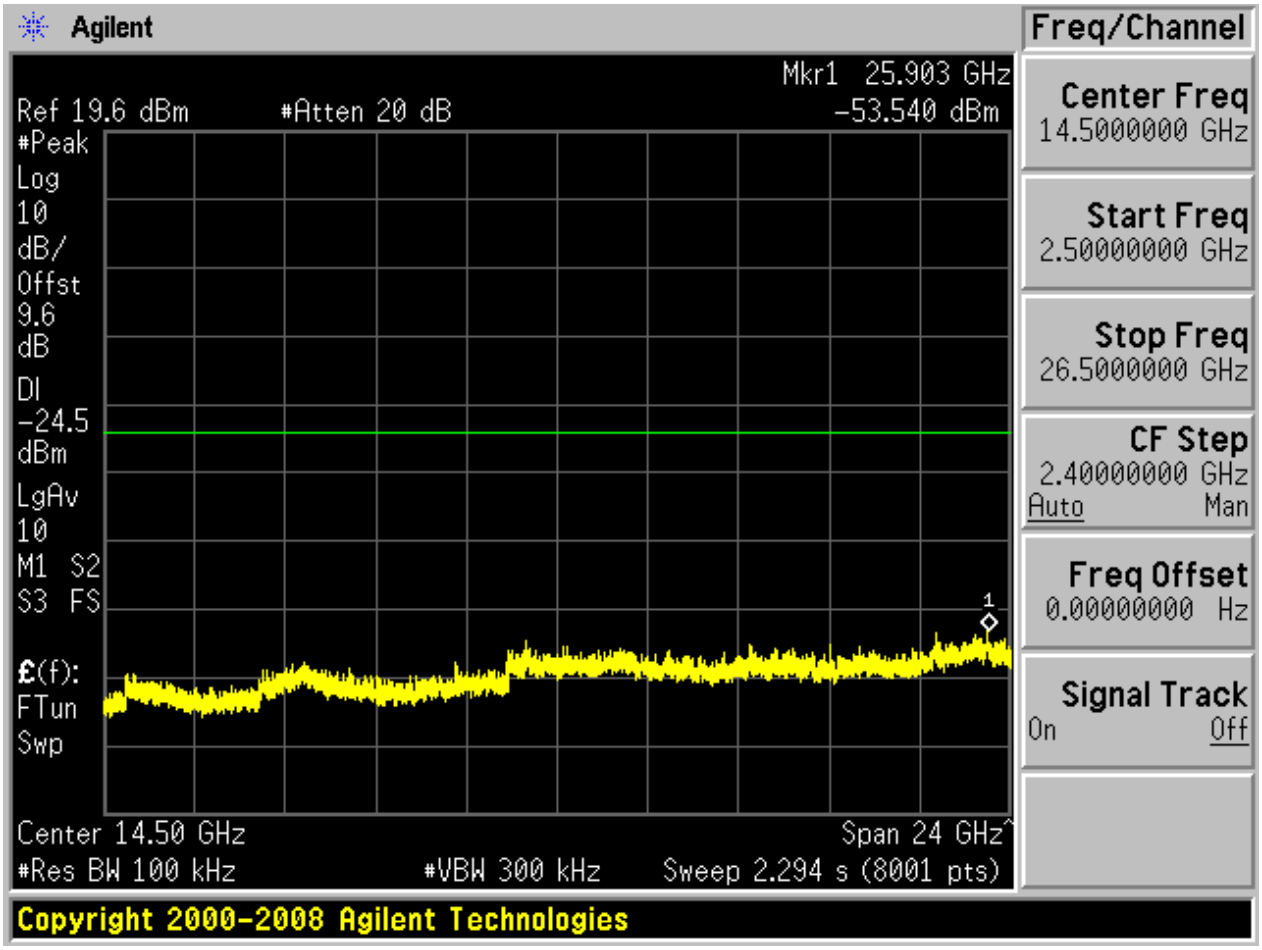
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

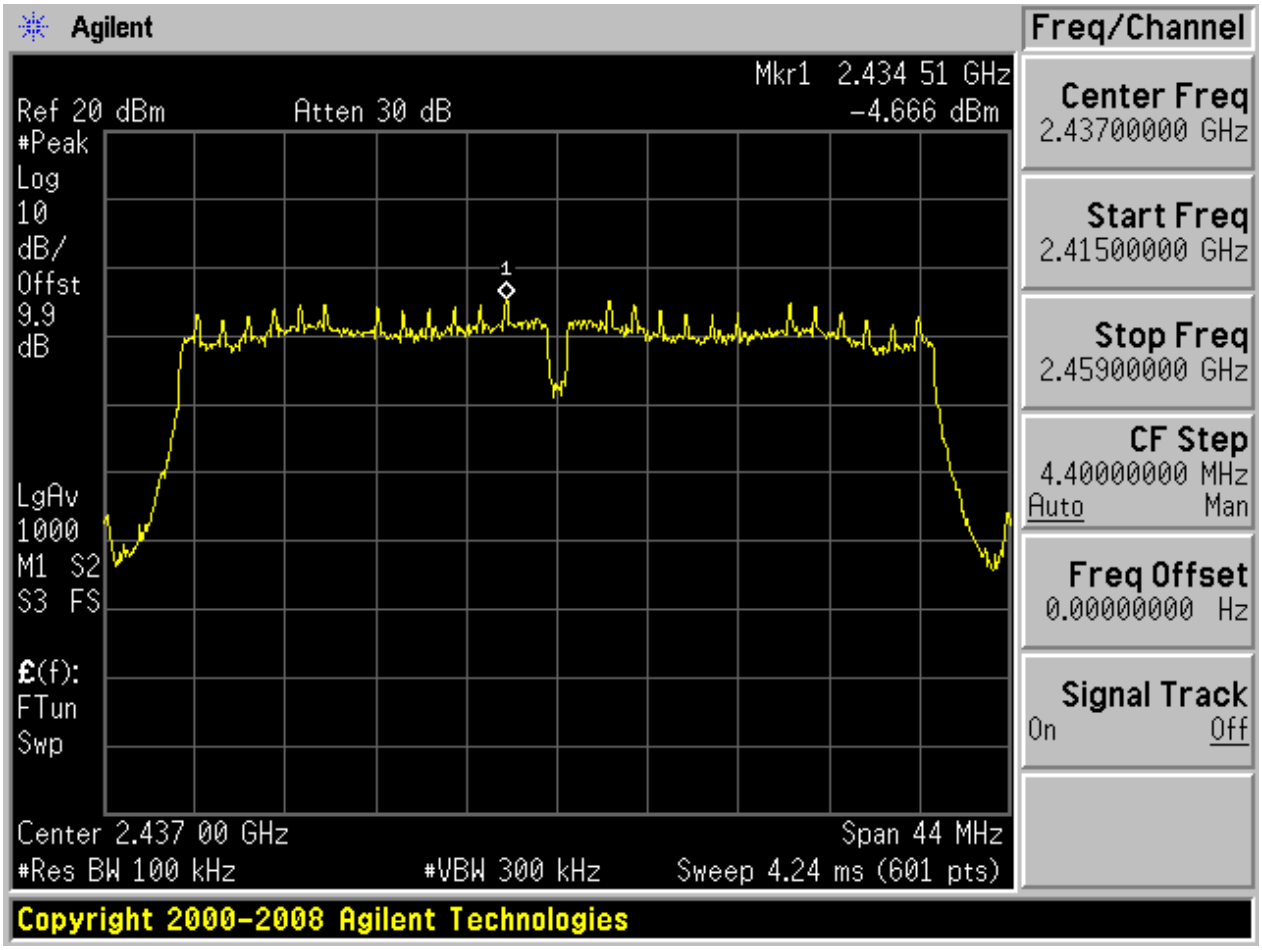
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.33 11N40m_M@Ant1

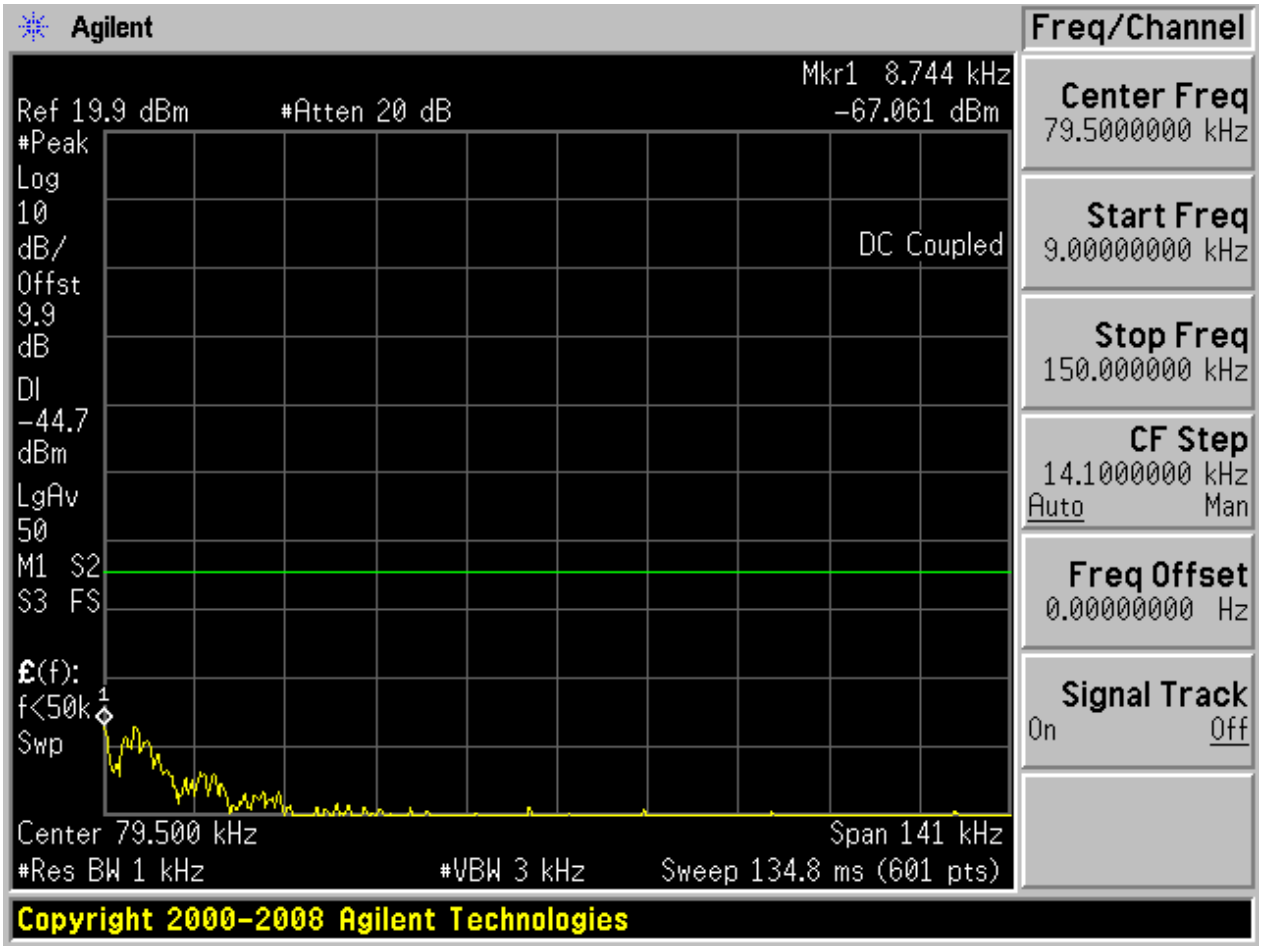
2.33.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

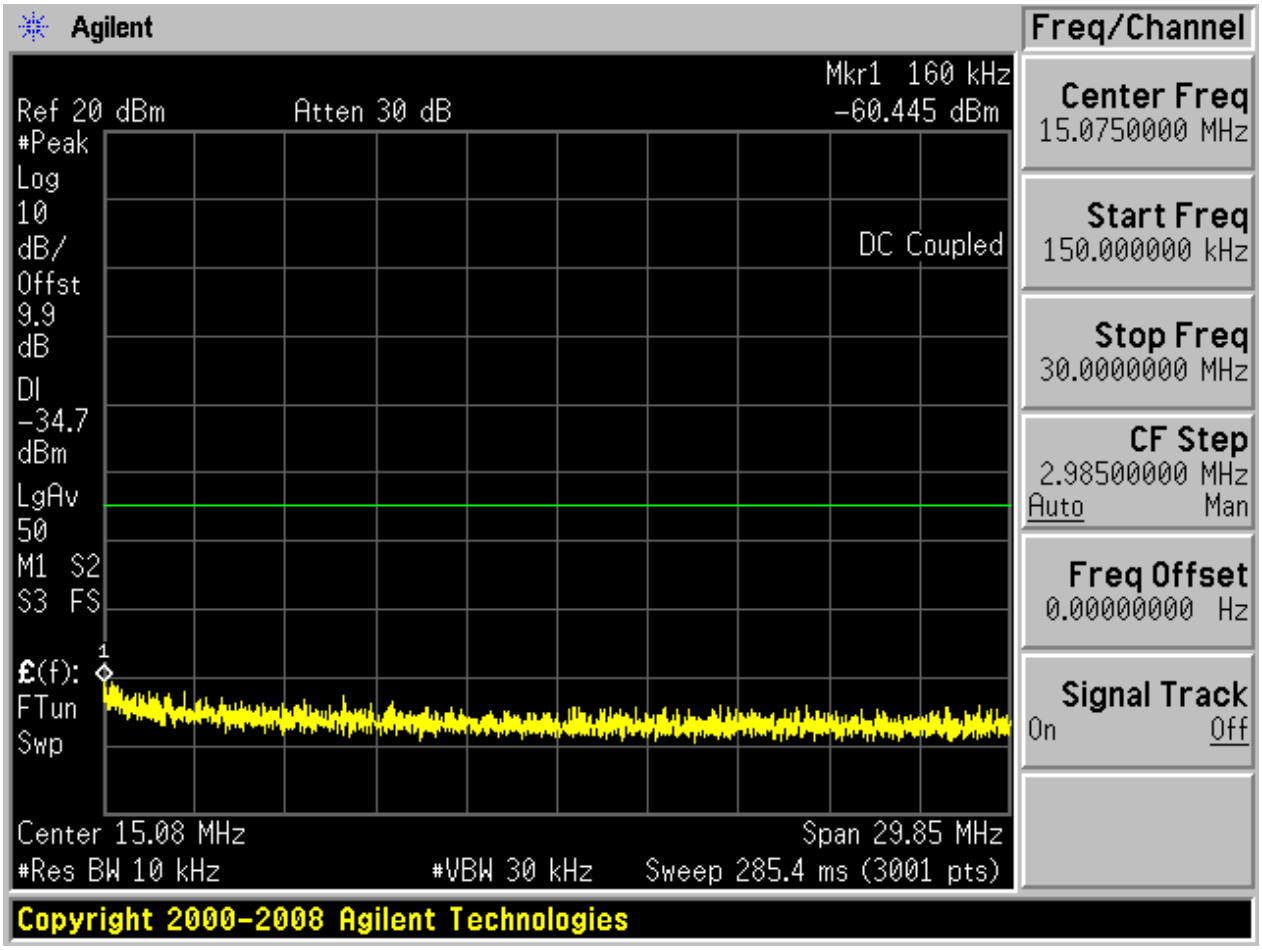
2.33.2 Puw:

9k - 150k



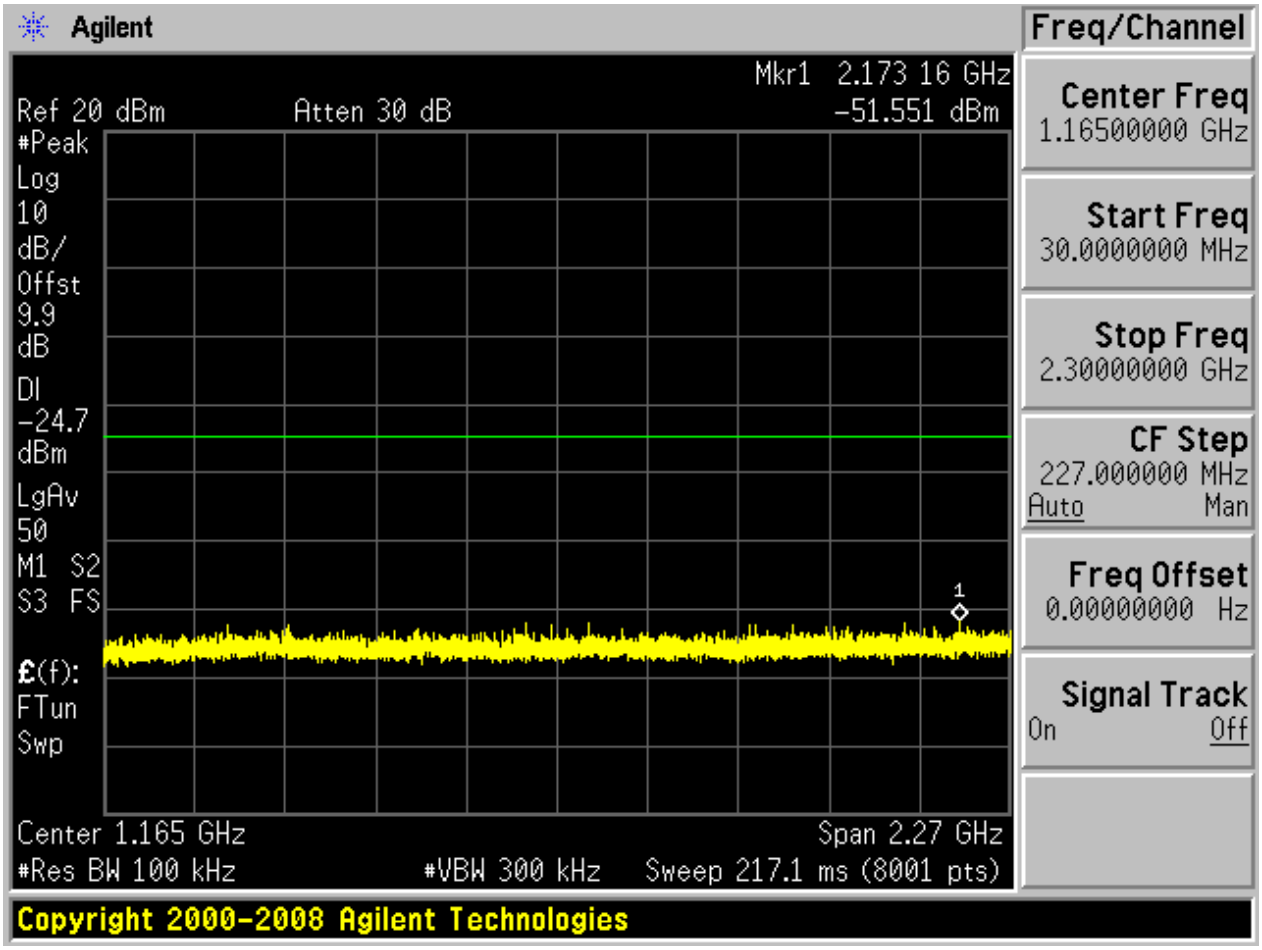
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



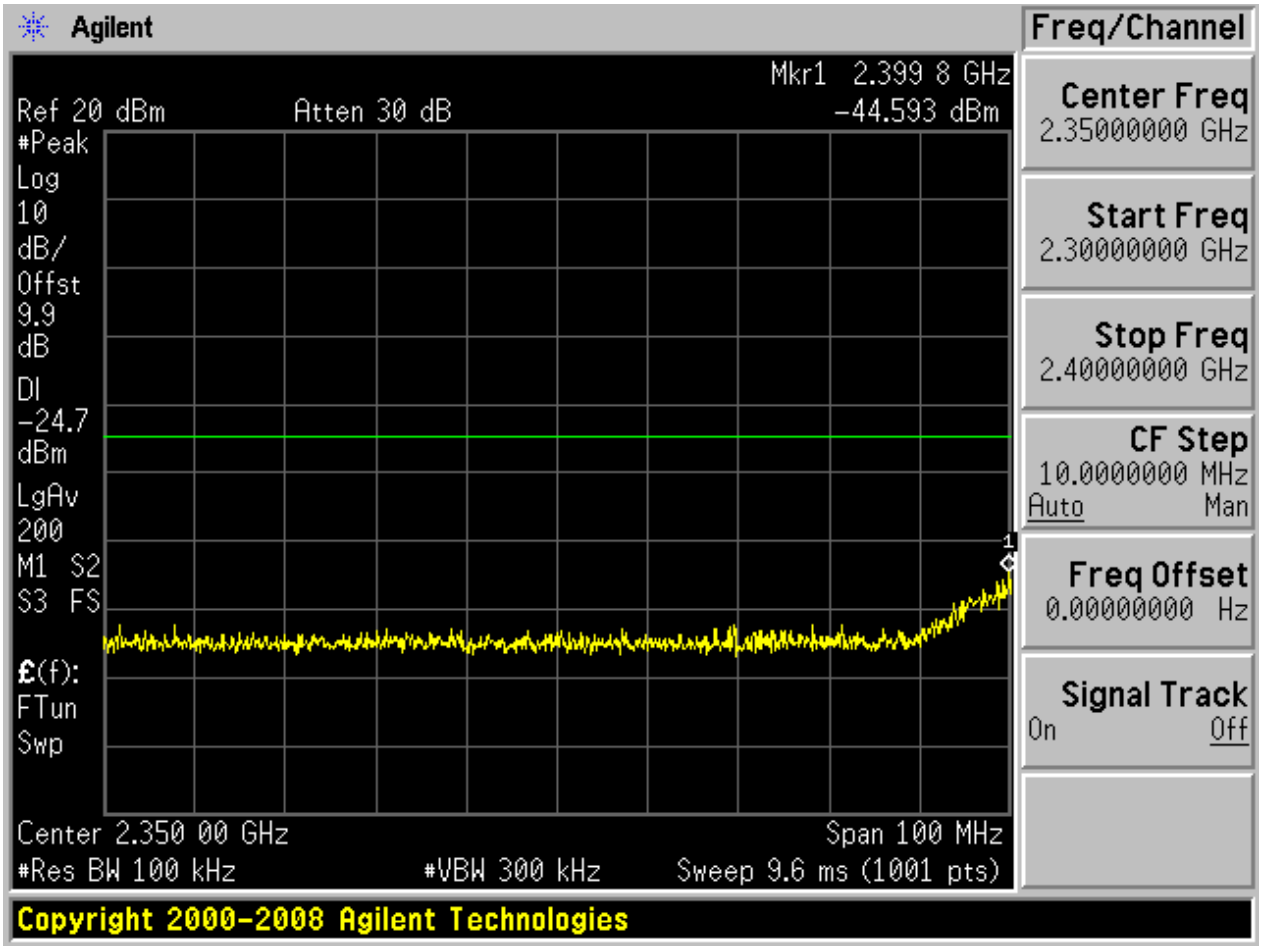
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



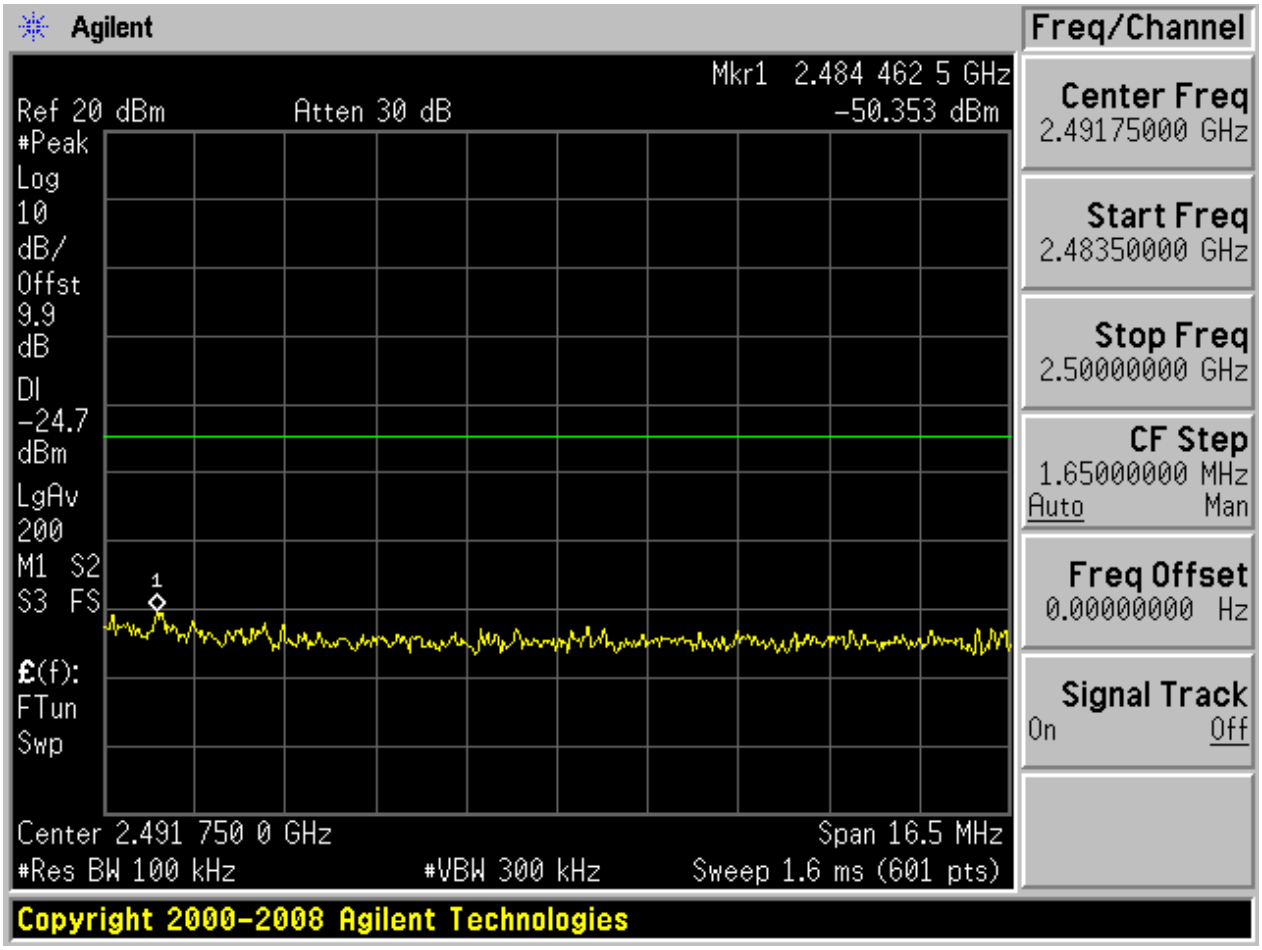
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



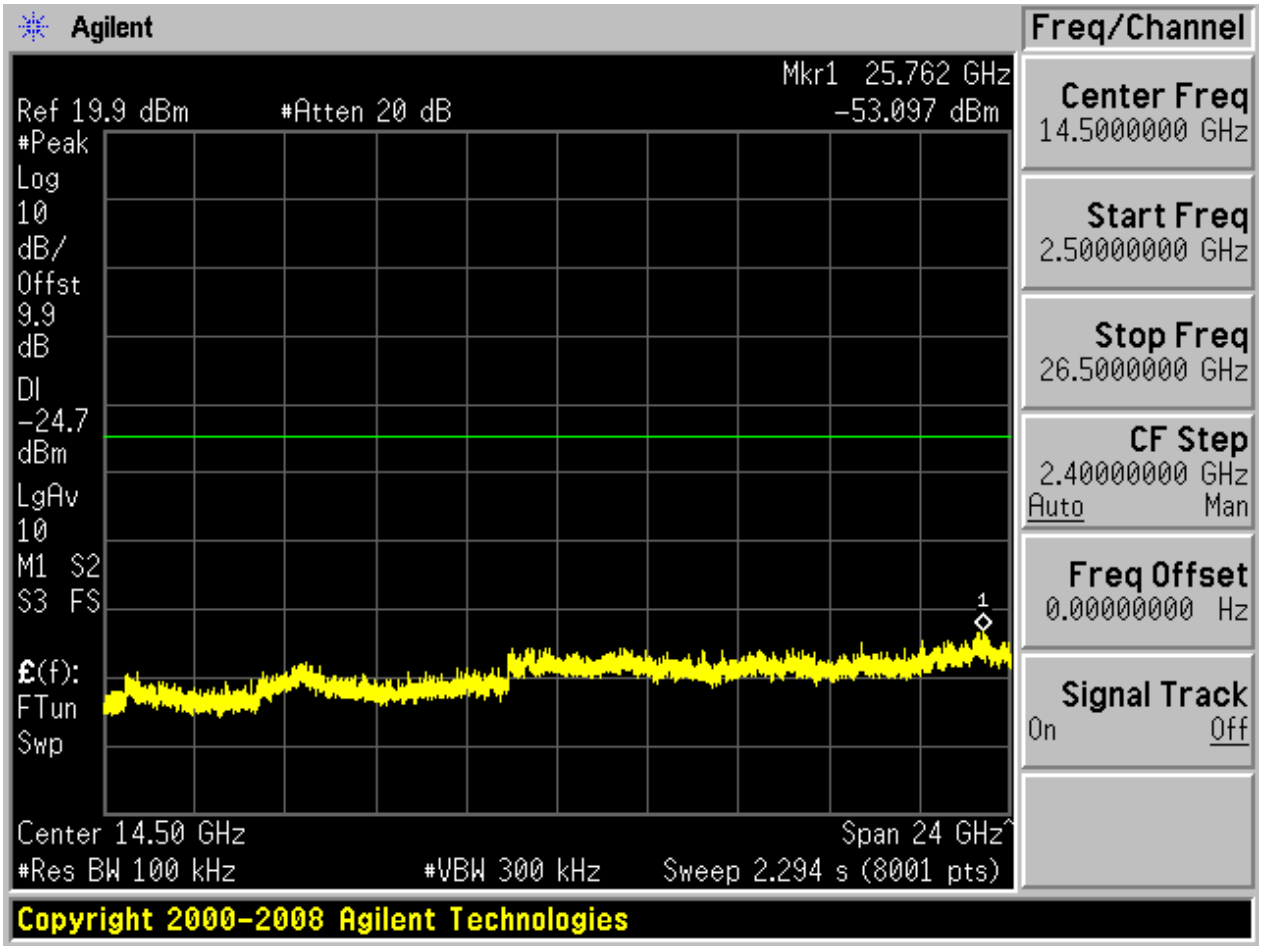
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

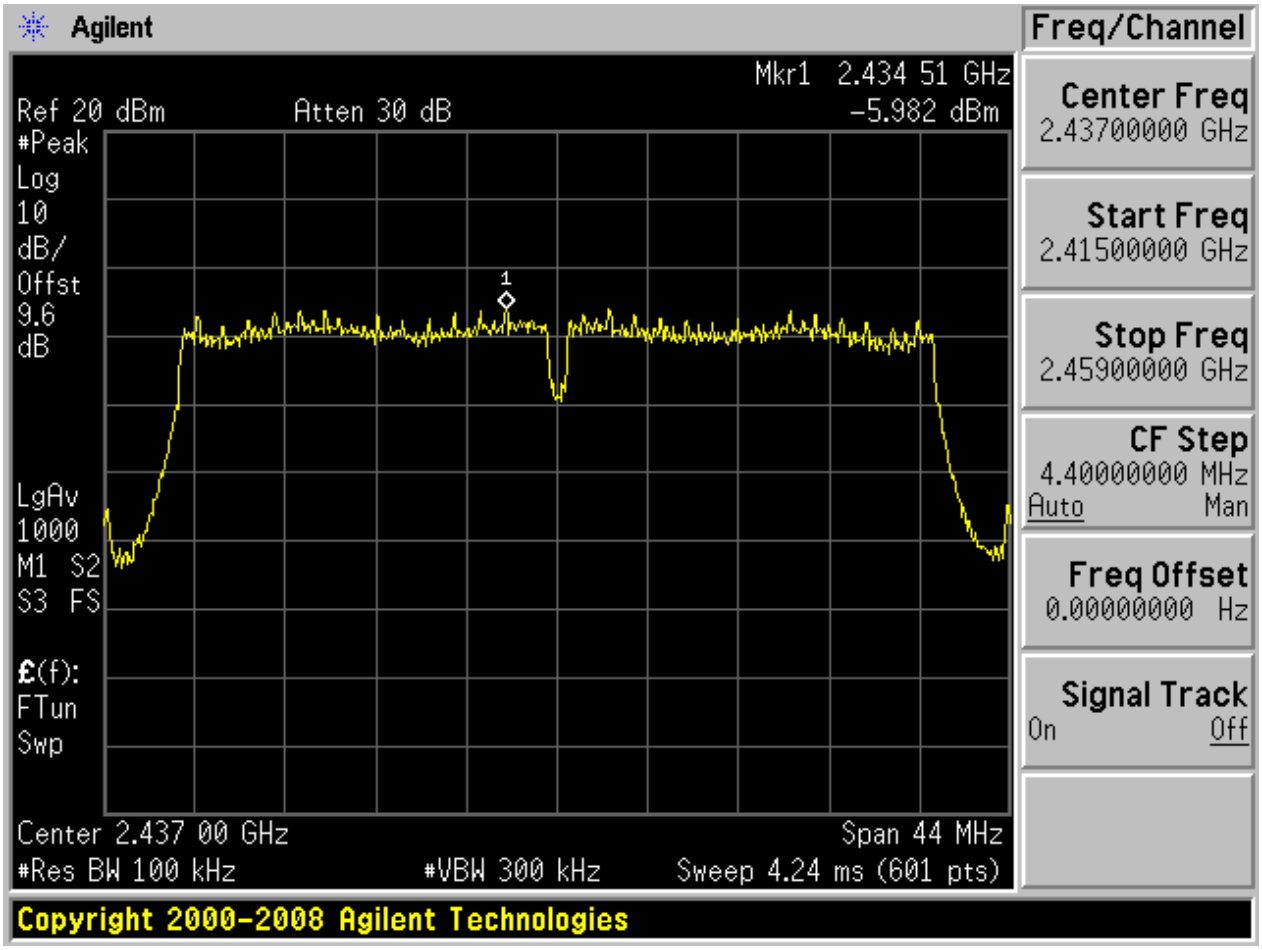
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.34 11N40m_M@Ant2

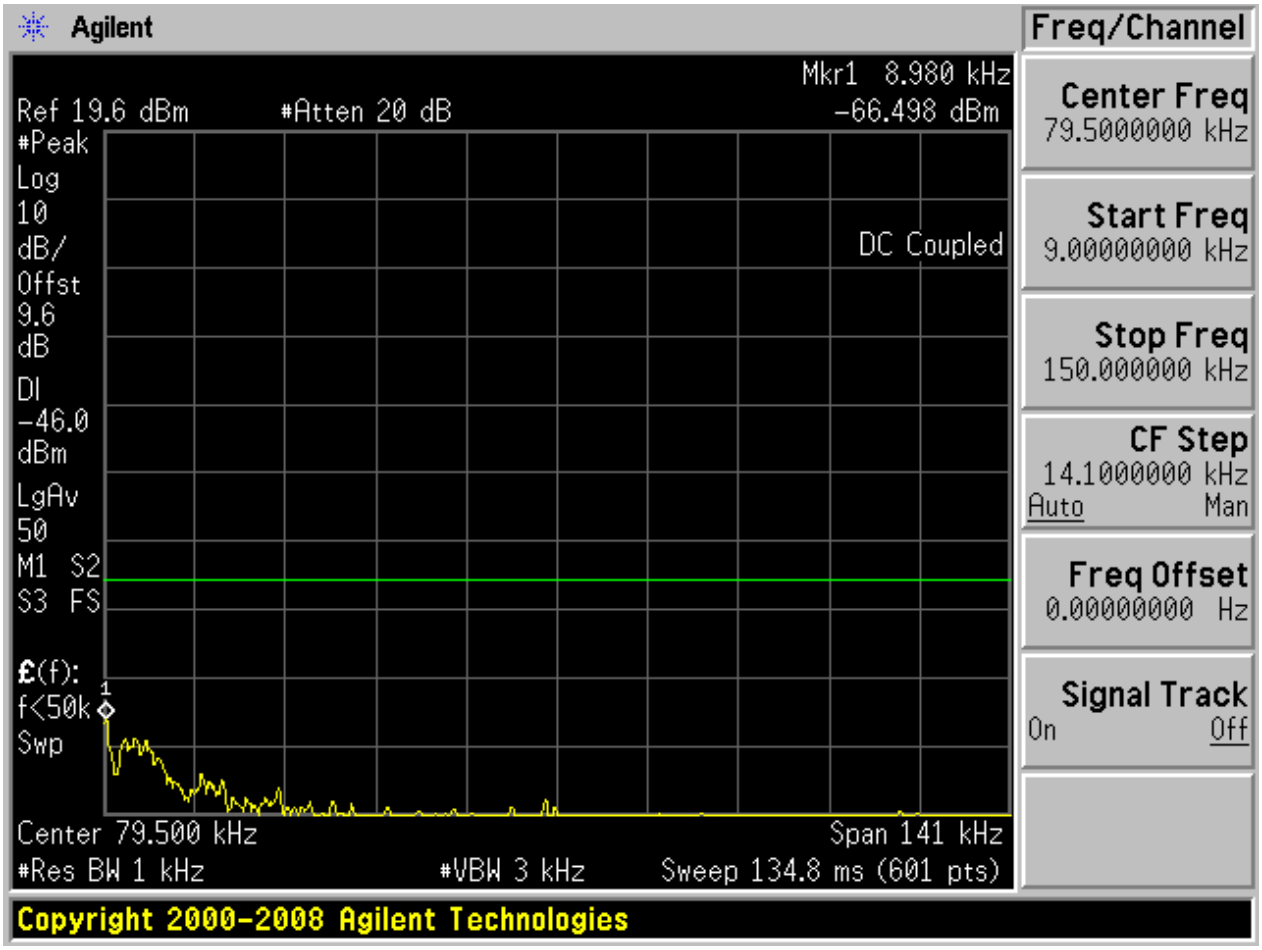
2.34.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

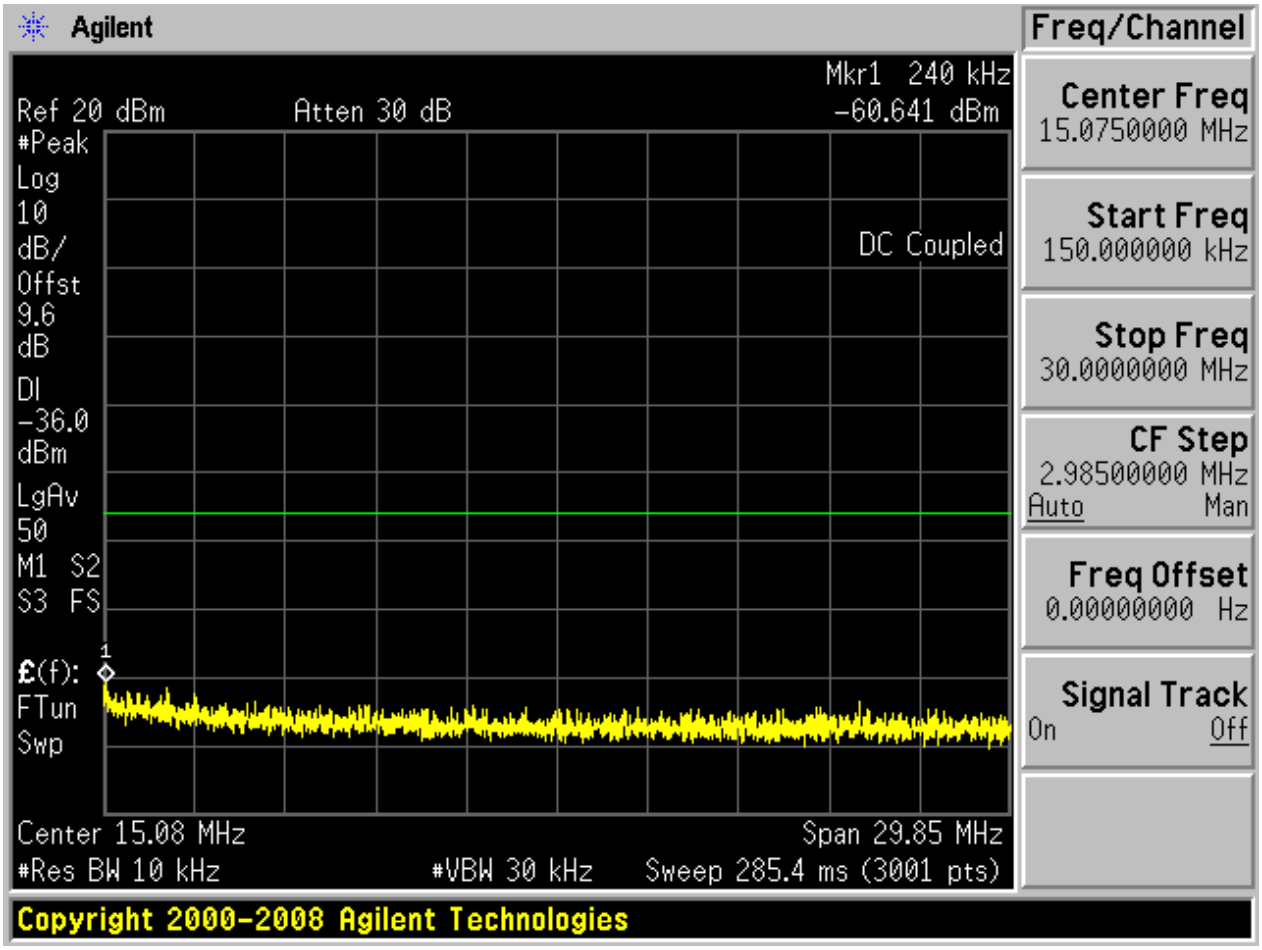
2.34.2 Puw:

9k - 150k



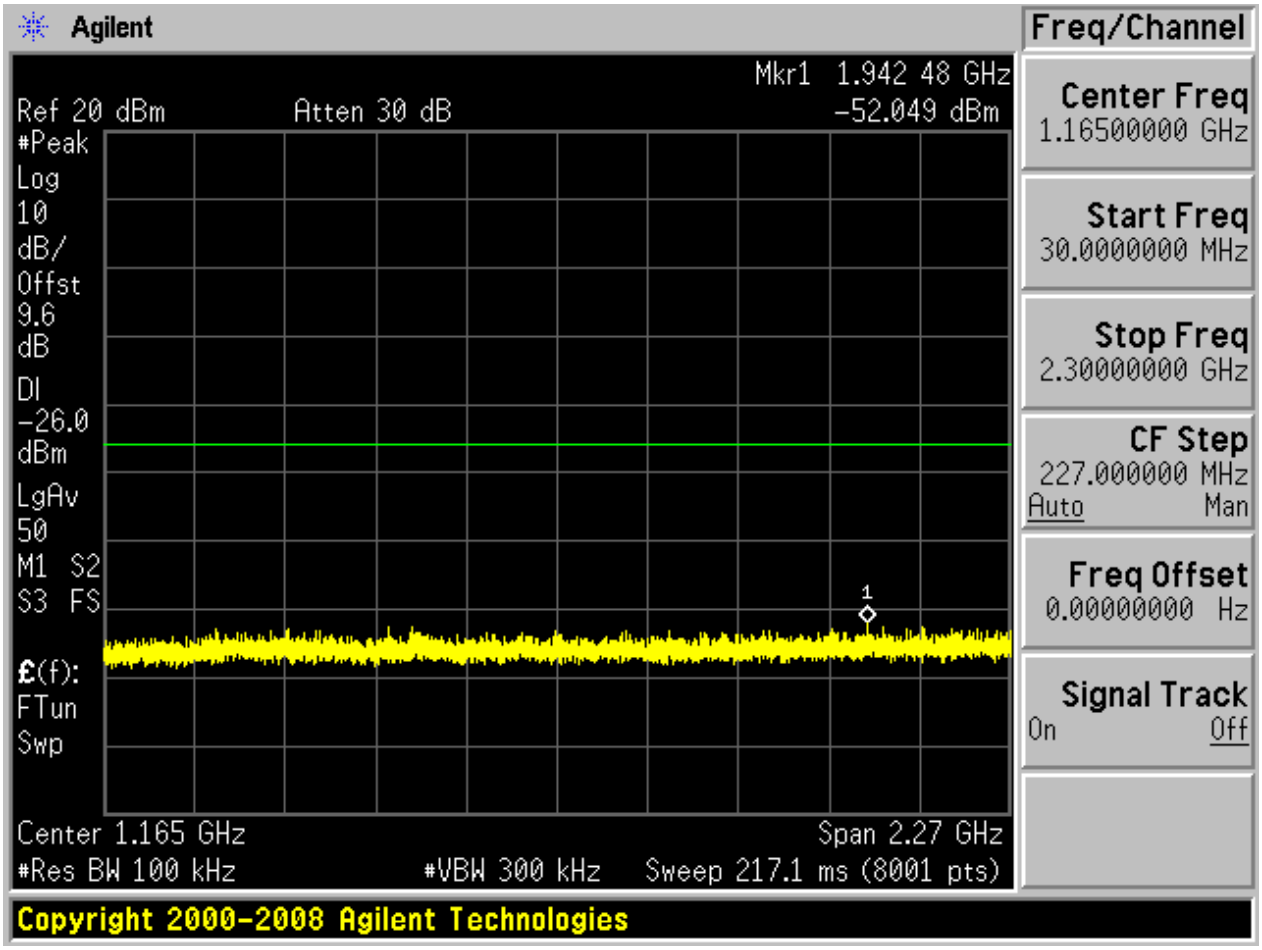
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



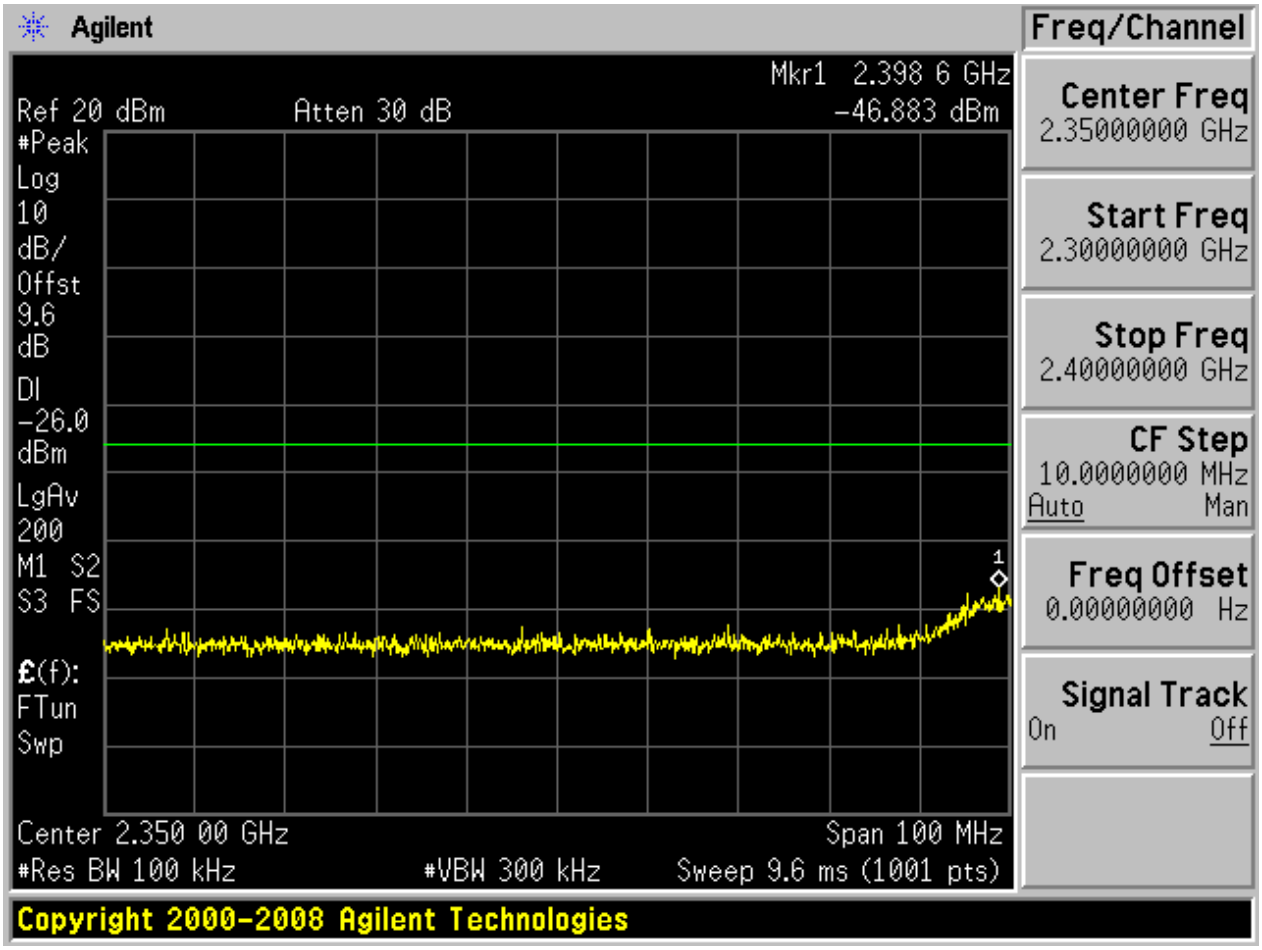
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



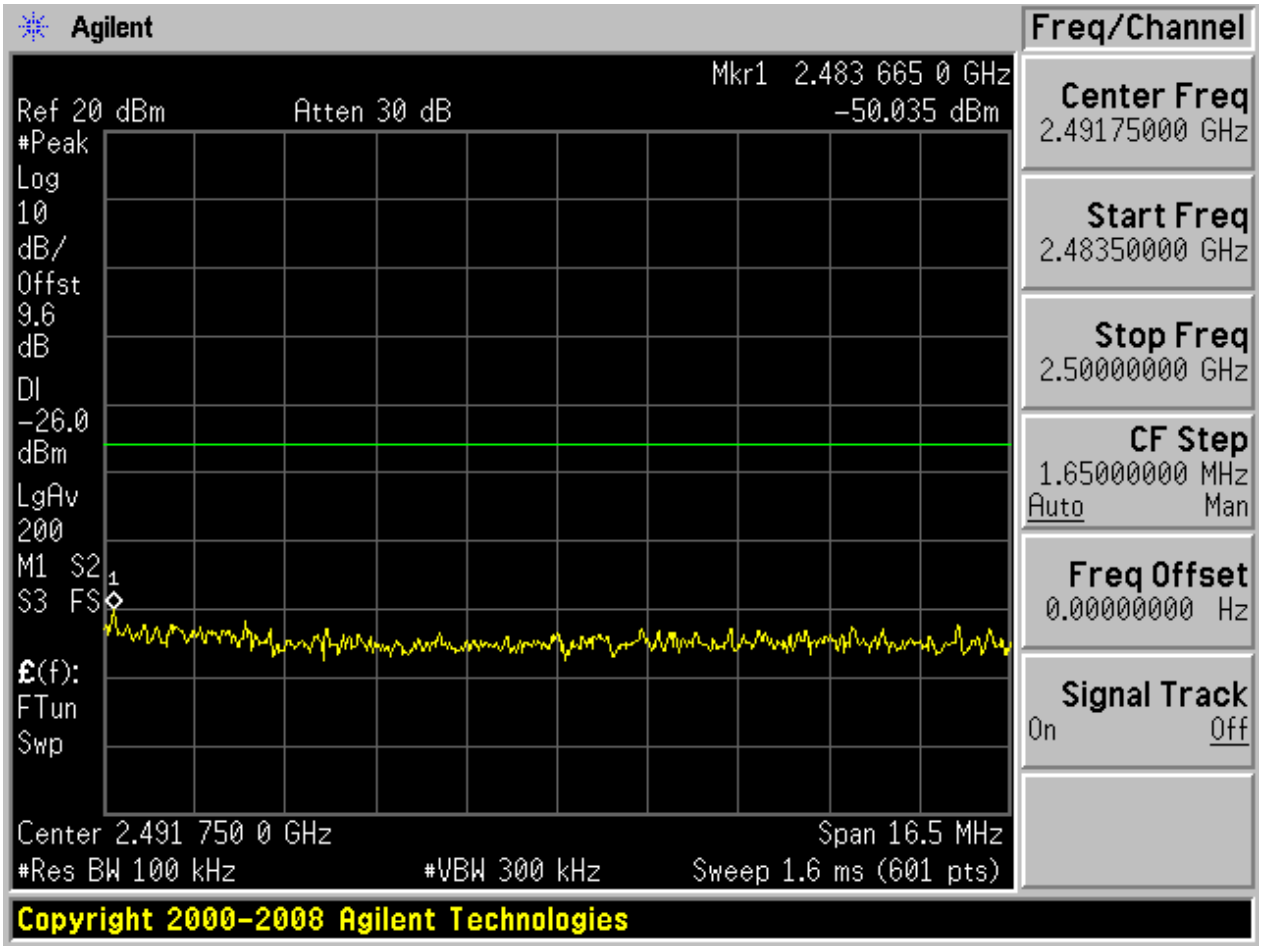
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



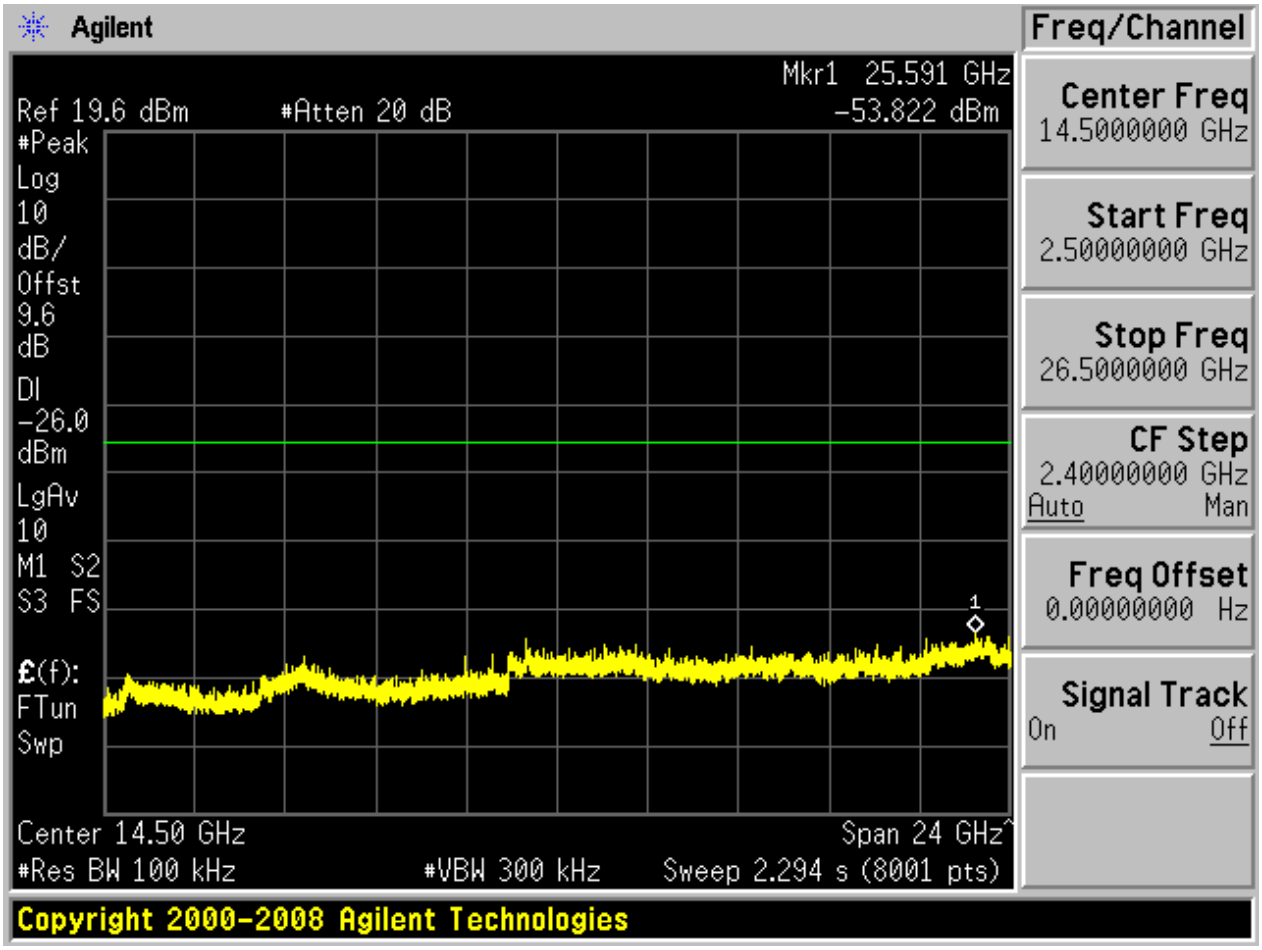
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

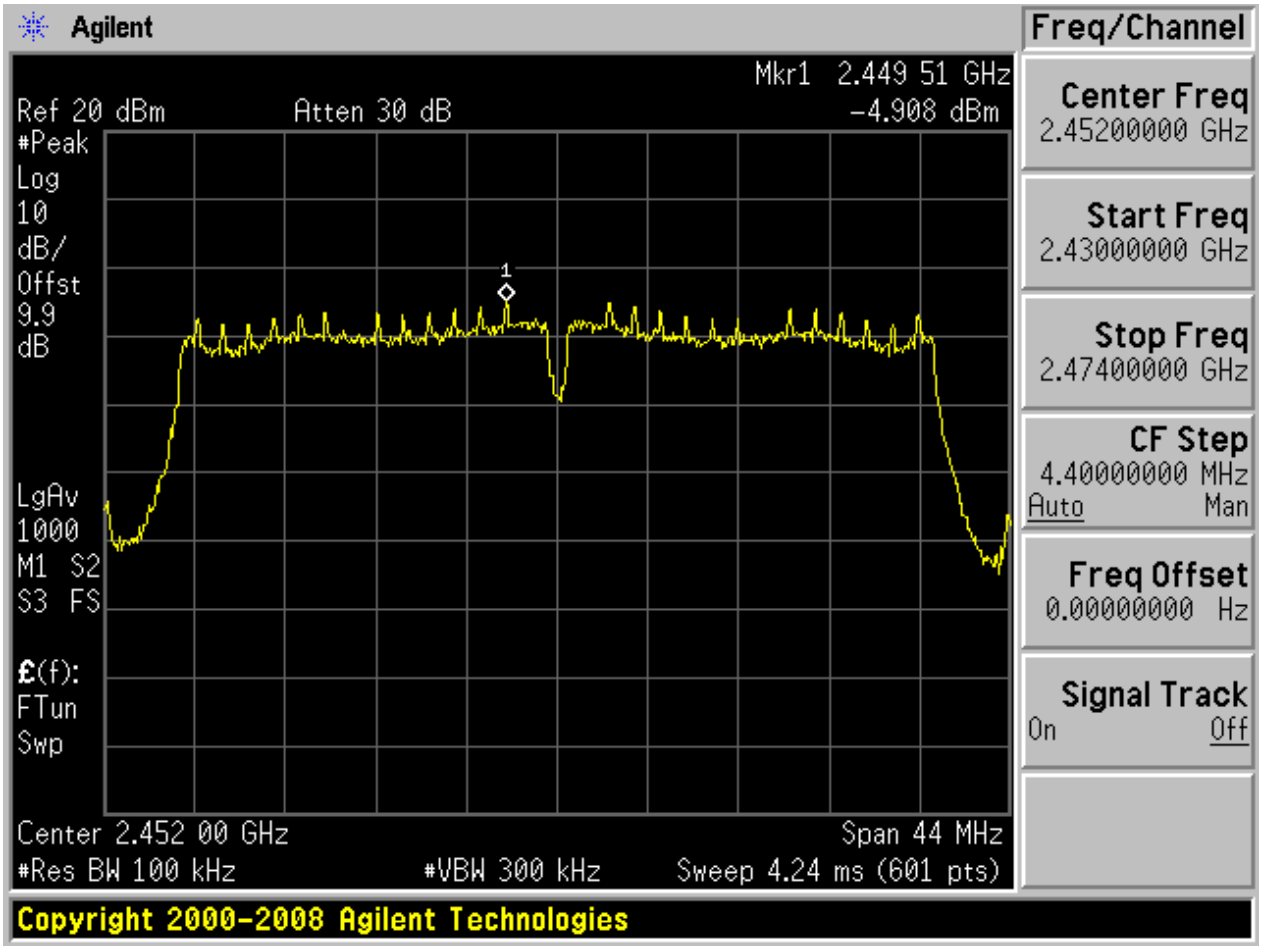
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.35 11N40m_T@Ant1

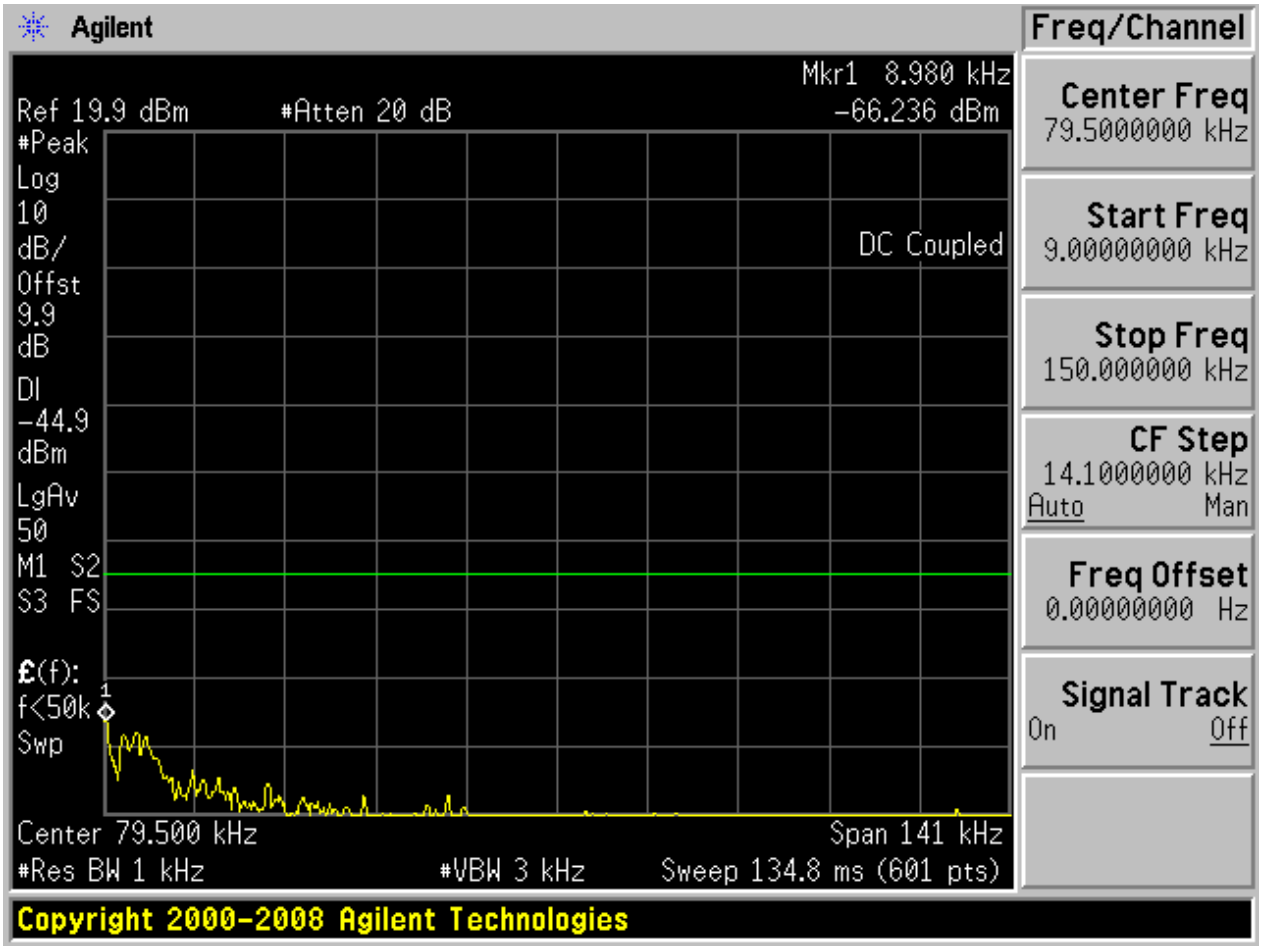
2.35.1 Pref:



Copyright © Huawei Technologies Co., Ltd.

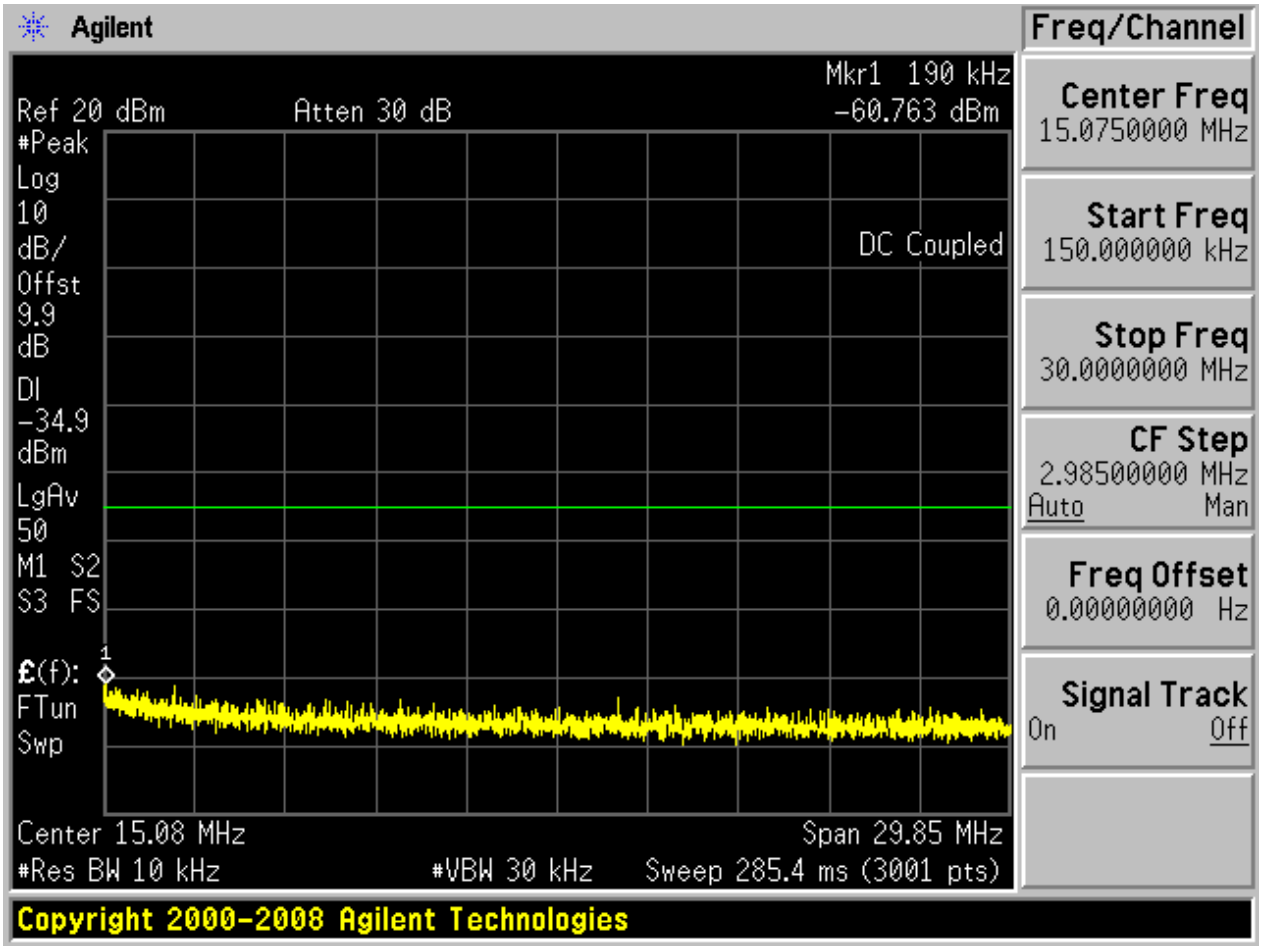
2.35.2 Puw:

9k - 150k



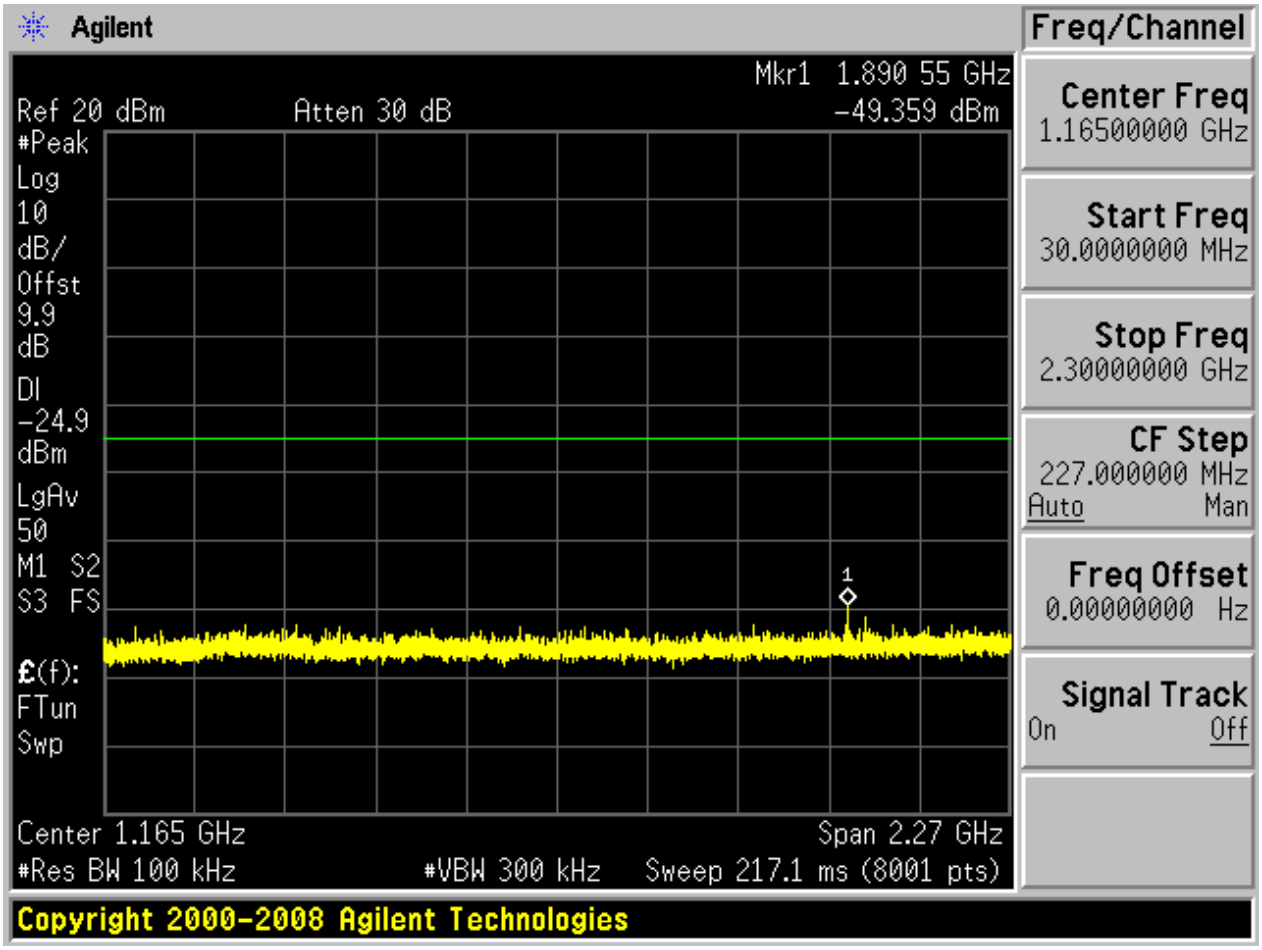
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



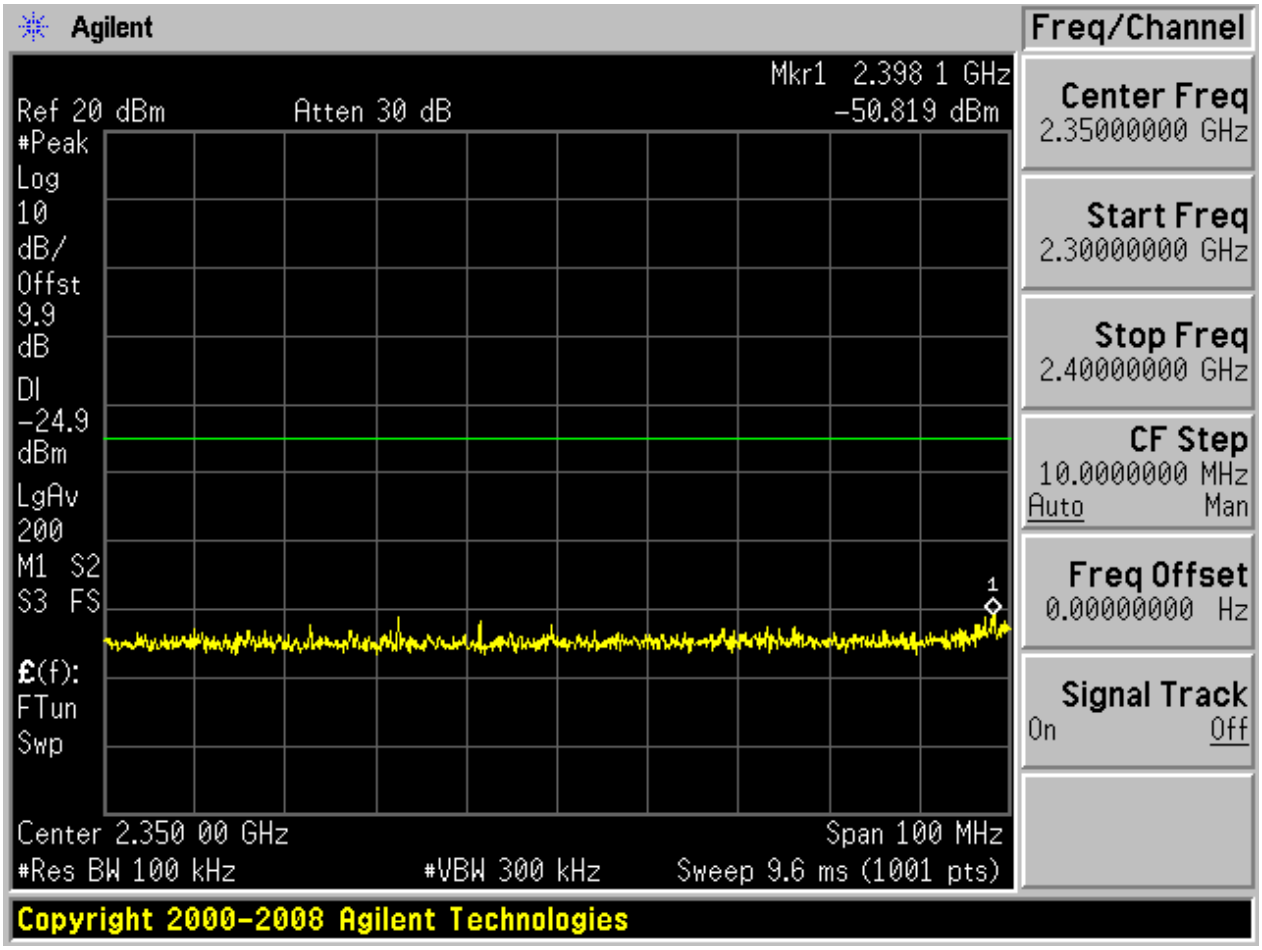
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



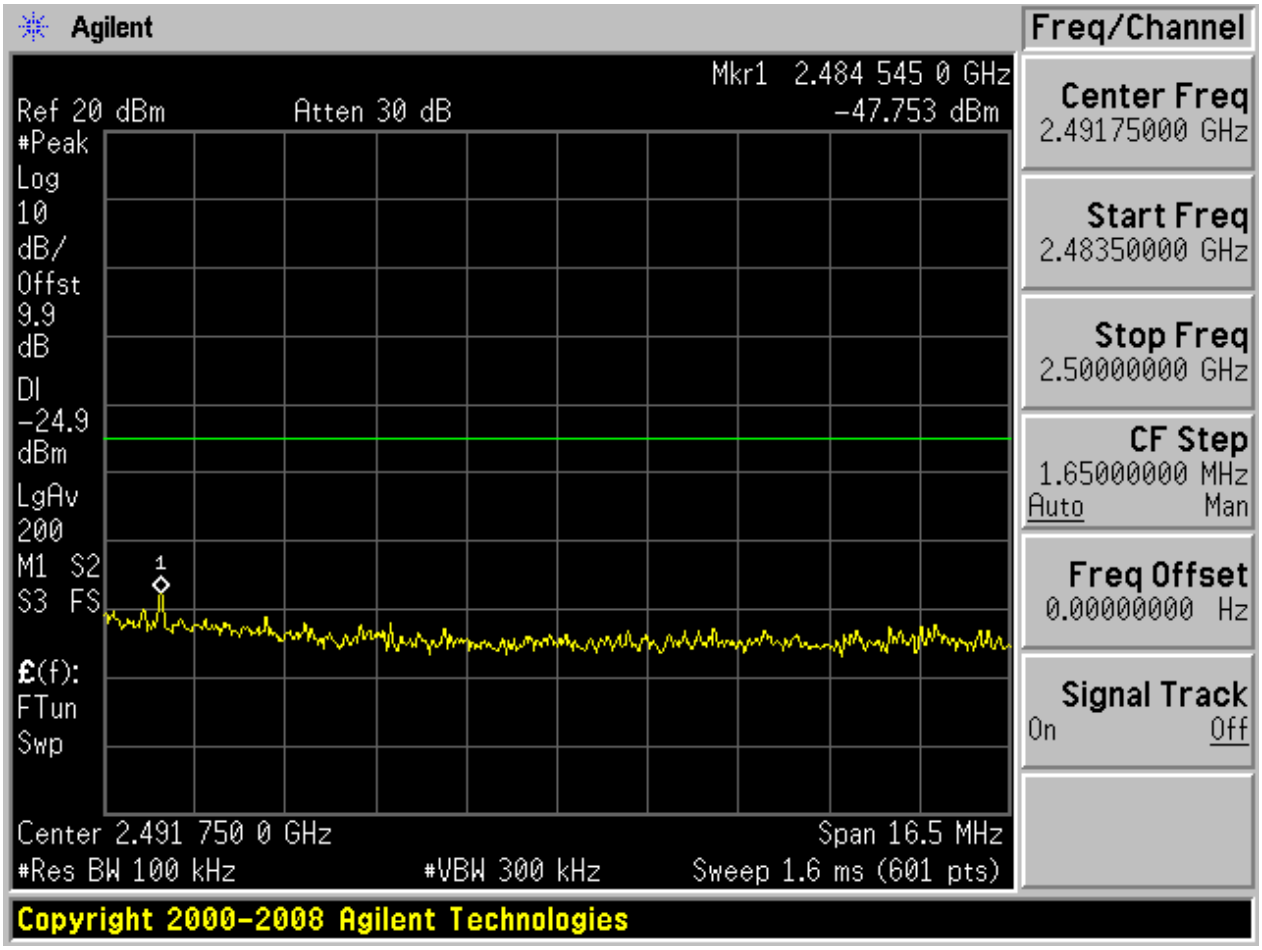
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



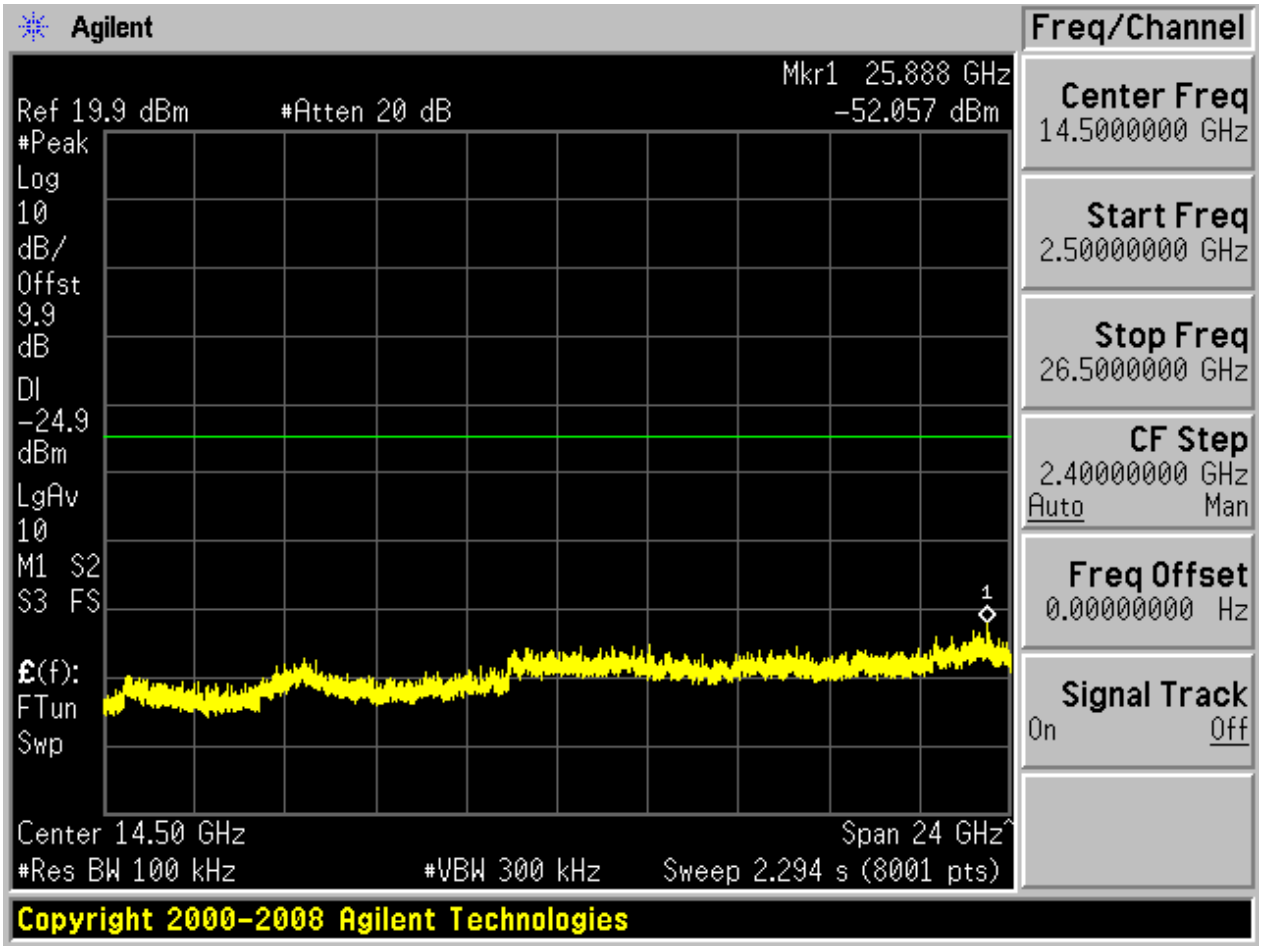
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

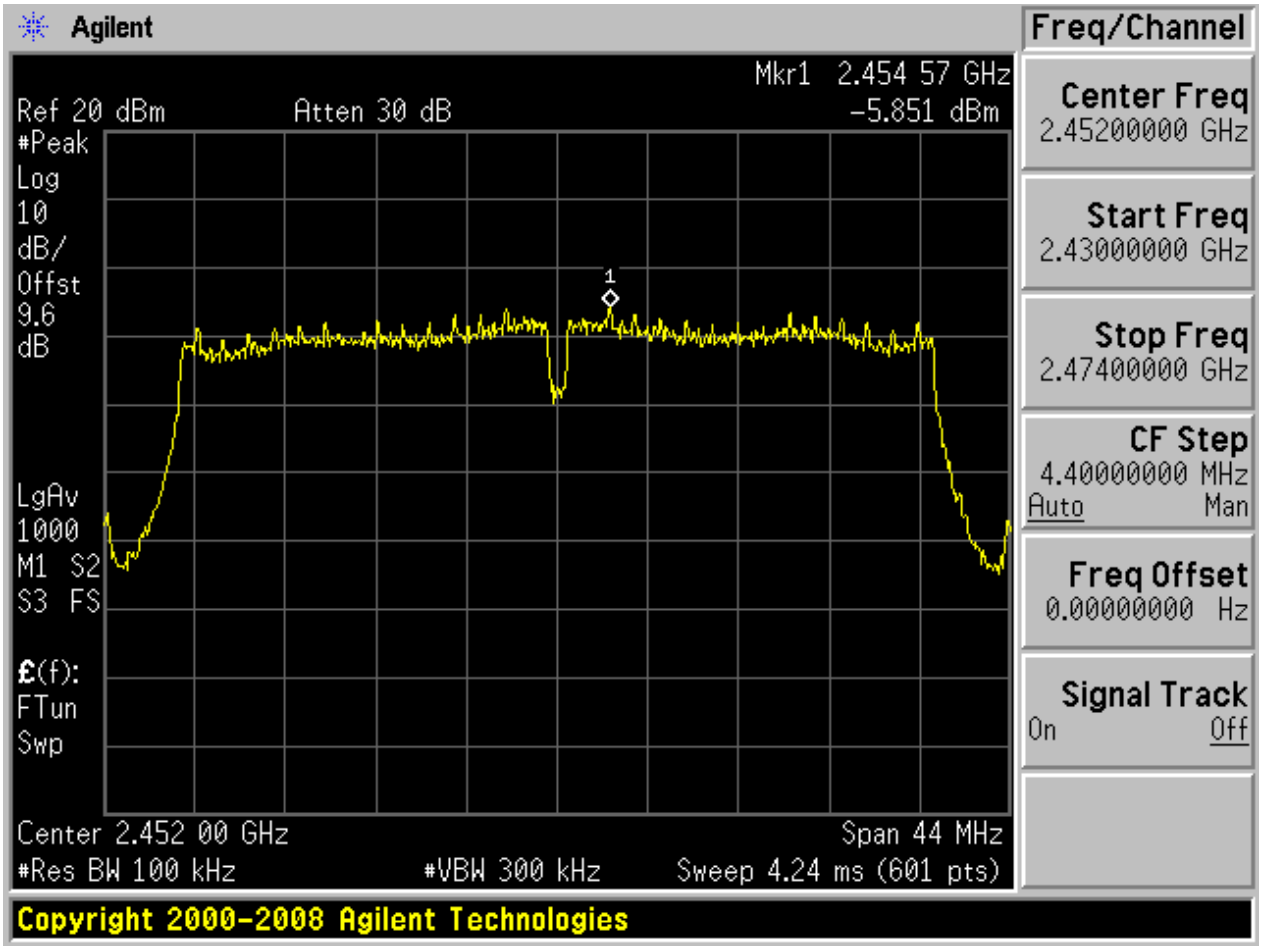
2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.36 11N40m_T@Ant2

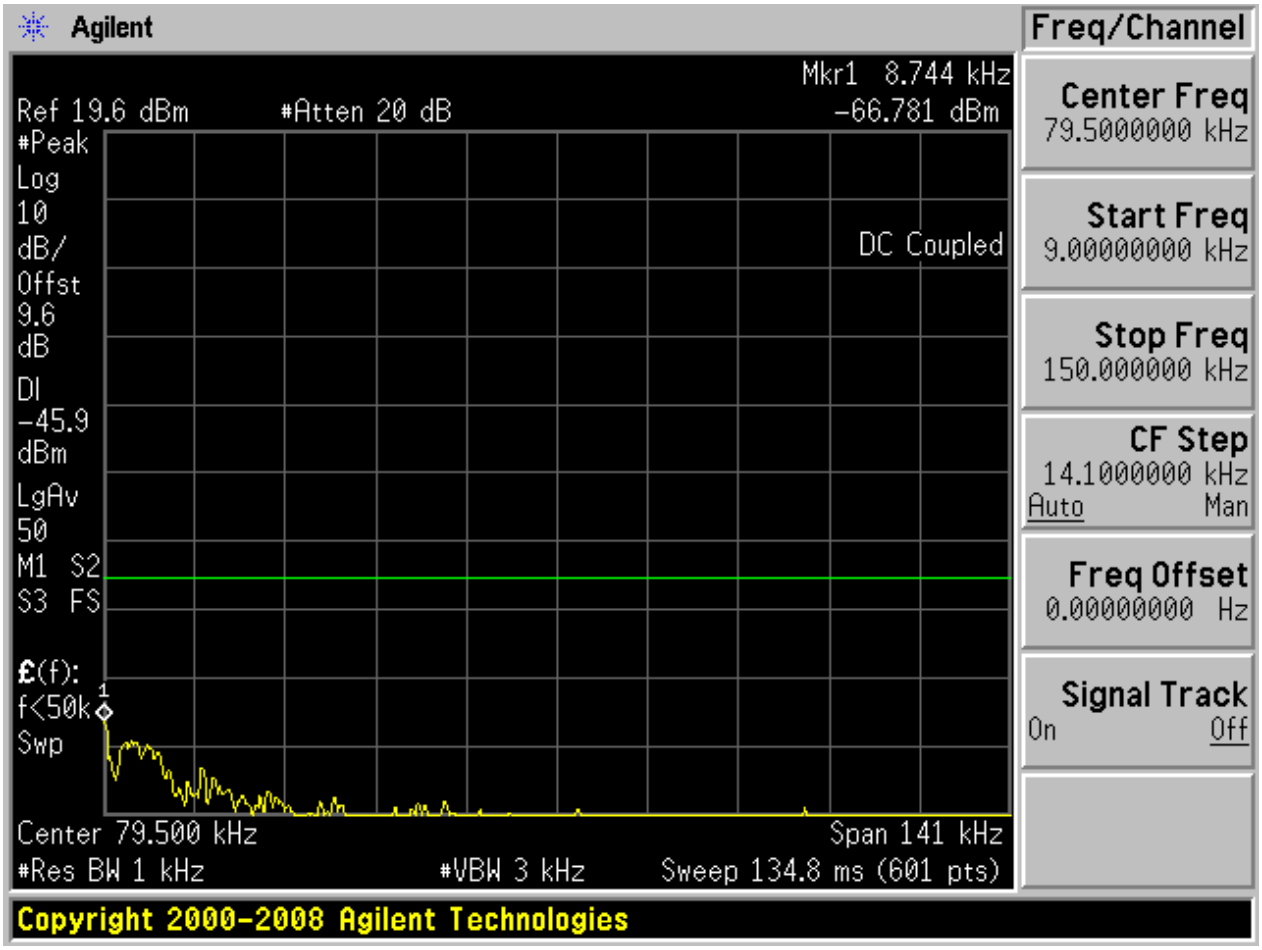
2.36.1 Pref:



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

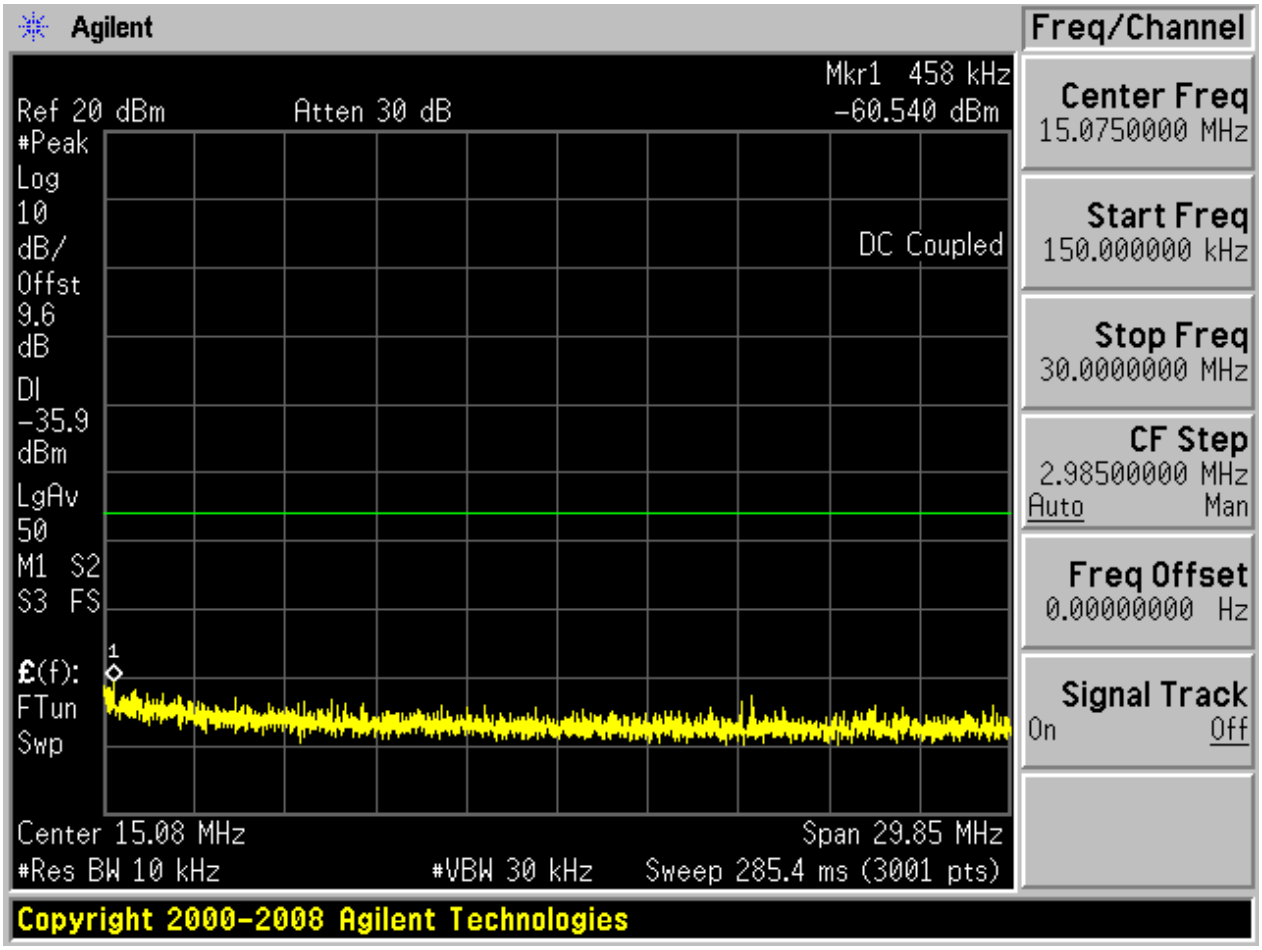
2.36.2 Puw:

9k - 150k



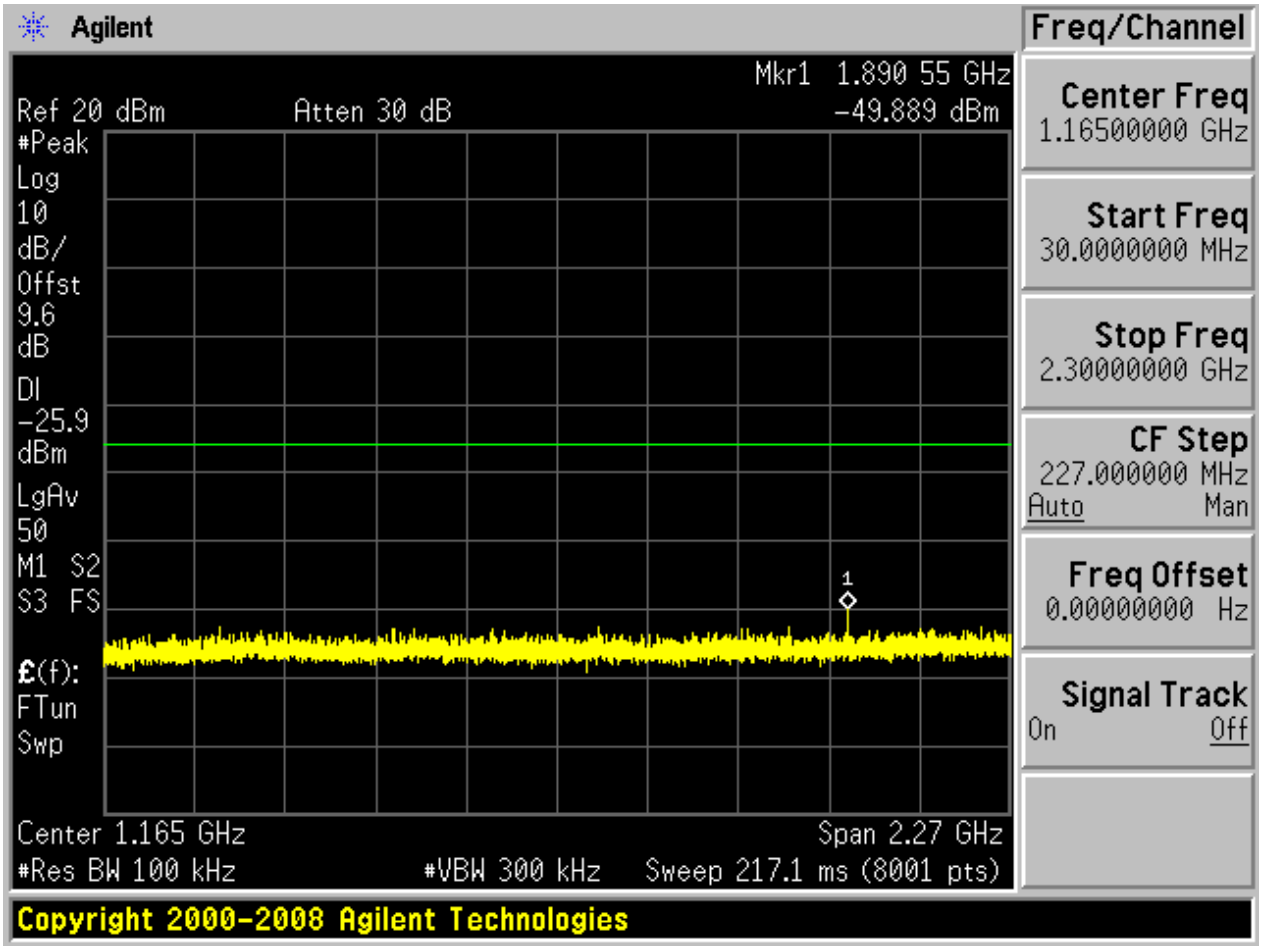
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

150k - 30M



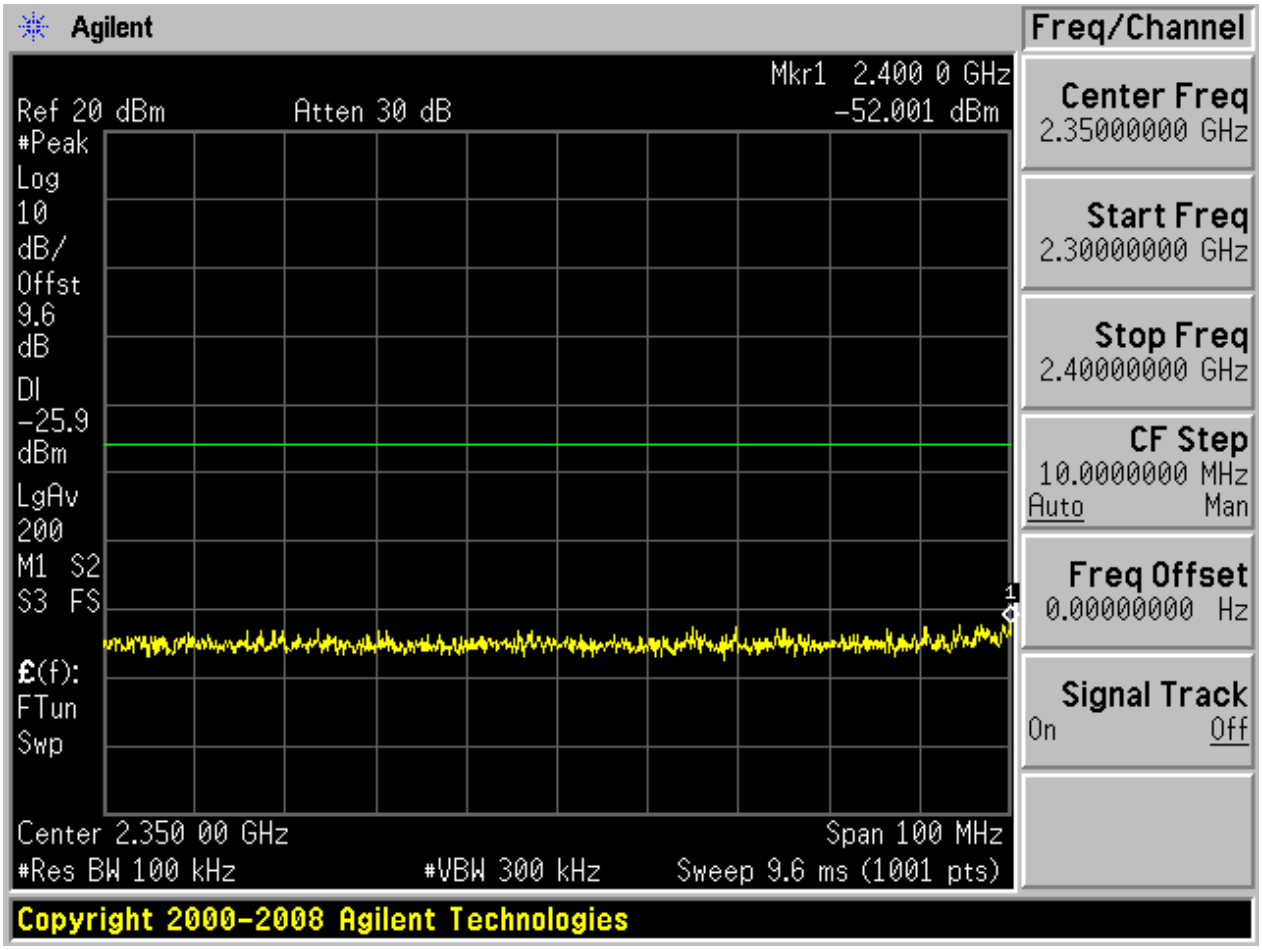
Copyright © Huawei Technologies Co., Ltd.

30M - 2.3G



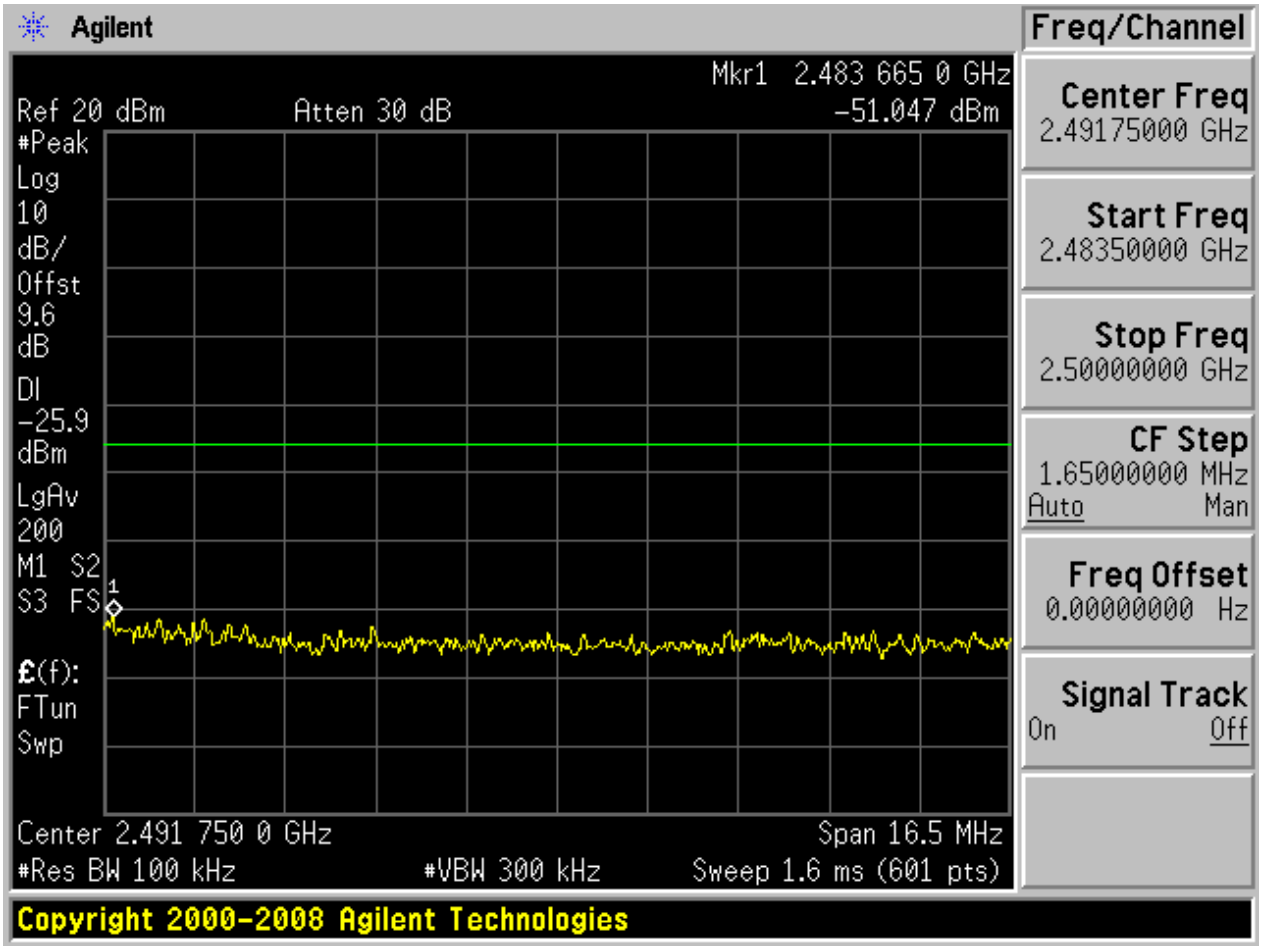
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.3G - 2.4G



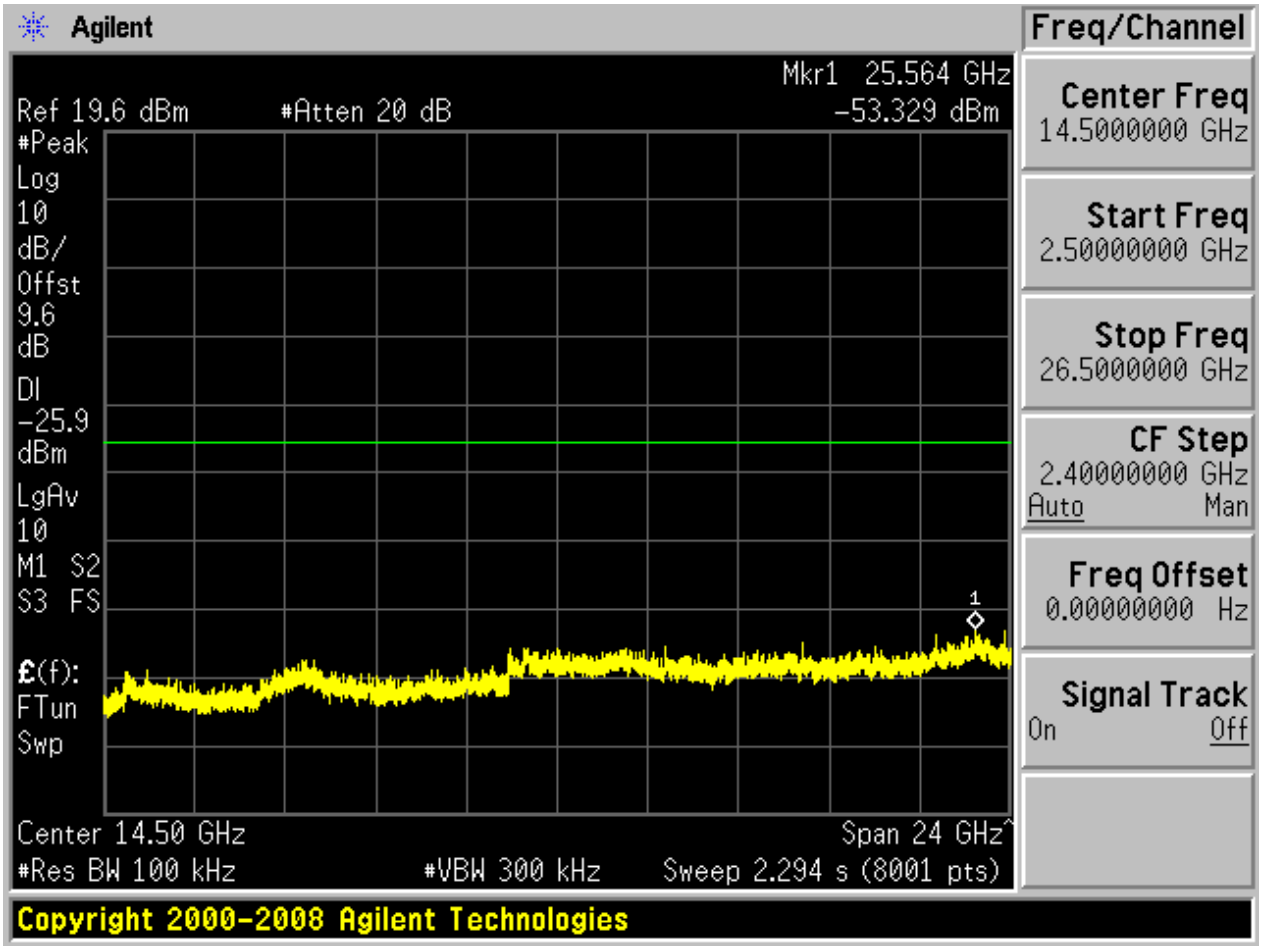
Copyright © Huawei Technologies Co., Ltd.

2.4835G - 2.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

2.5G - 26.5G



Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

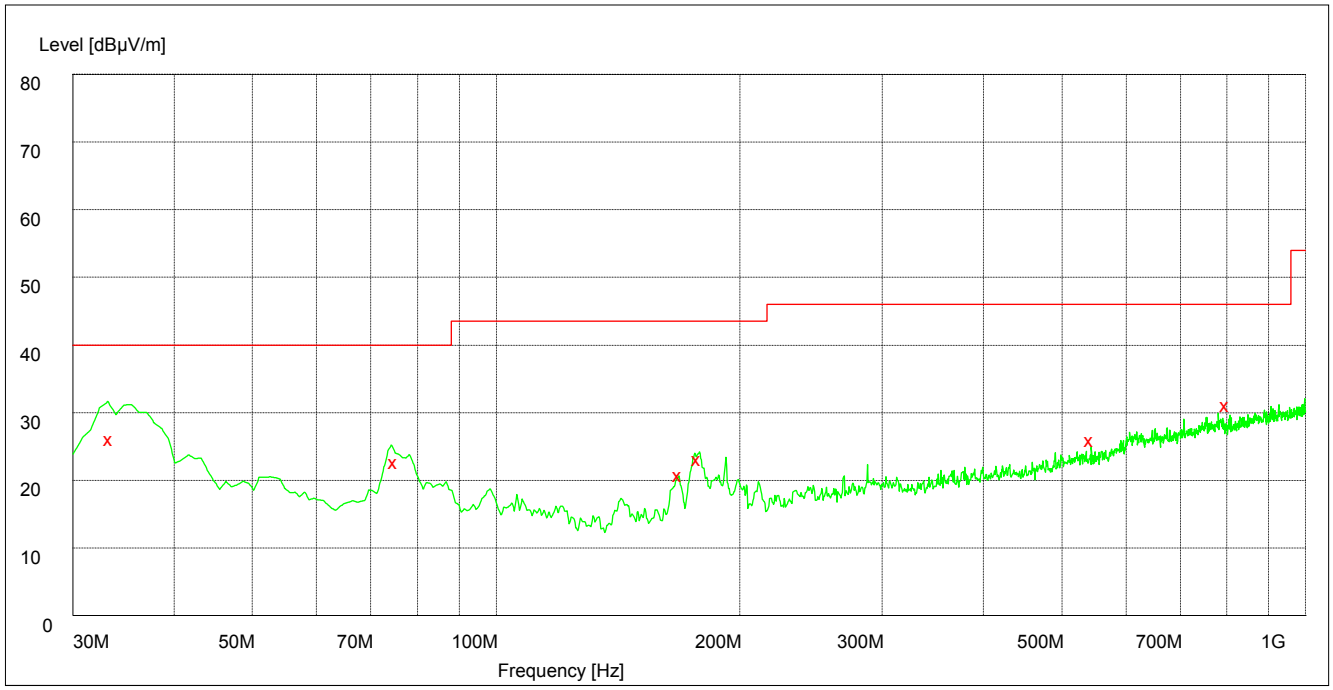
Appendix F: Radiated Spurious Emission & Spurious in Restricted Band

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Part 1: Testing Range of “30 MHz to 1 GHz”

Note 1: The test results and plot for testing range of “30 MHz to 1 GHz” showed as below is the WORST case for all Test Modes and Channels**.** This range will not be presented for each Test Mode and each Channel.

Note 2: The emissions in this range are mainly from the Platform Device (Notepad PC and its ancillary components).

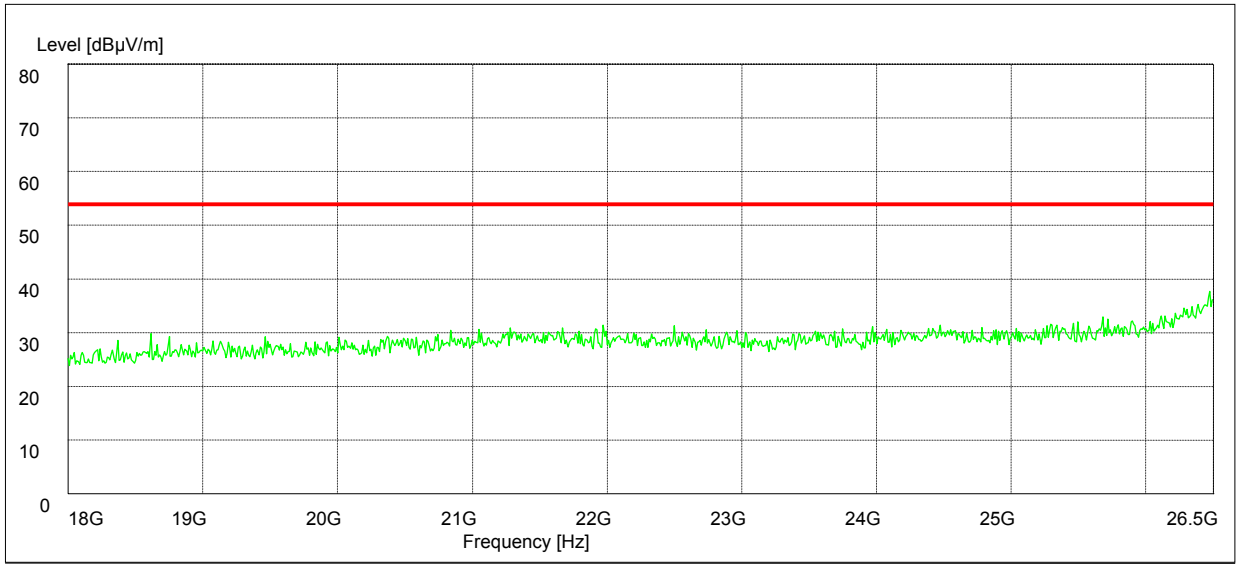


MEASUREMENT RESULT: QP Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarisation
33.480000	27.40	14.8	40.0	12.6	101.0	207.00	VERTICAL
73.560000	21.80	10.7	40.0	18.2	100.0	121.00	VERTICAL
167.940000	21.00	10.5	43.5	22.5	102.0	326.00	VERTICAL
177.360000	23.60	11.0	43.5	19.9	102.0	322.00	VERTICAL
544.260000	27.20	19.8	46.0	18.8	111.0	106.00	HORIZONTAL
801.060000	31.40	23.5	46.0	14.6	101.0	151.00	HORIZONTAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Part 2: Testing Range of “18 GHz to 26.5 GHz”



Note: No peak found in pre-test.

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Part 3: Testing Range of "2.3GHz to 2.5GHz"

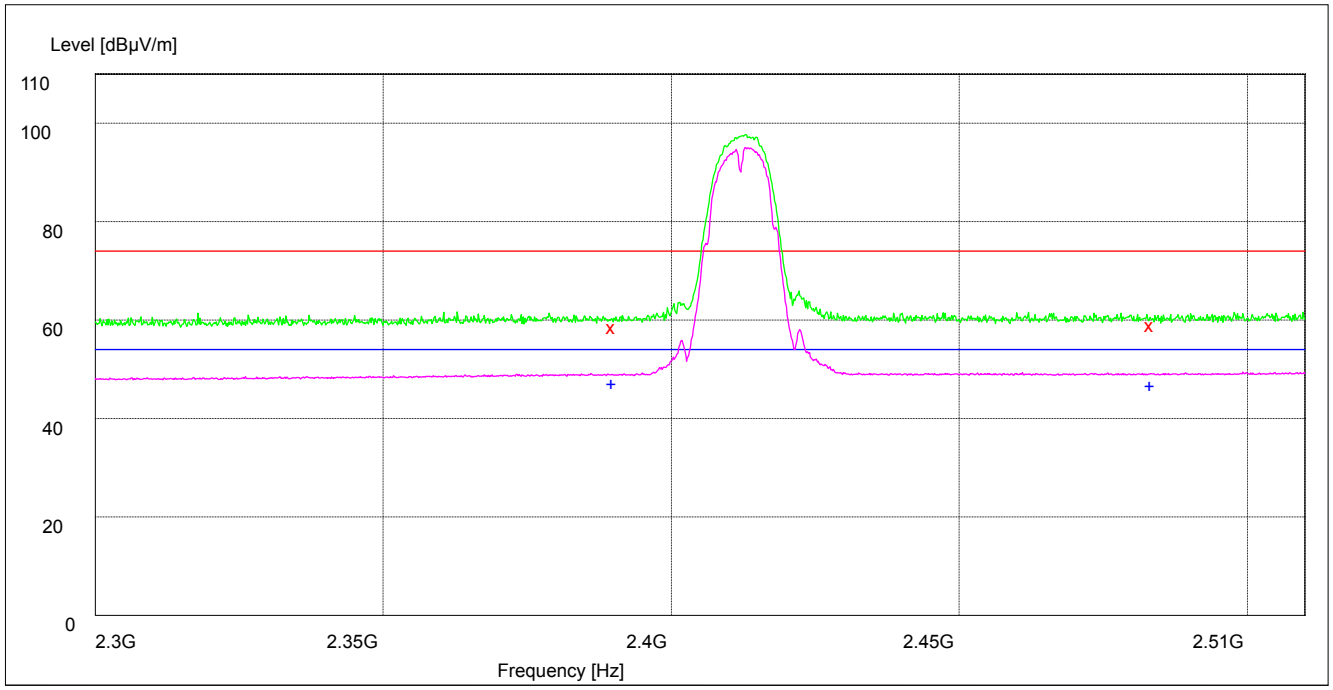
Note 1: The testing range of "2.3 GHz to 2.5 GHz" is for checking radiated emissions located in restricted bands near the EUT operating bands.

Note 2: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dBμV/m) and Average Limit (54 dBμV/m).

Note 3: The peak spike exceeds the limit line is EUT's operating frequency.

Test Mode: 11B / SISO-Antenna 1

Channel 01



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

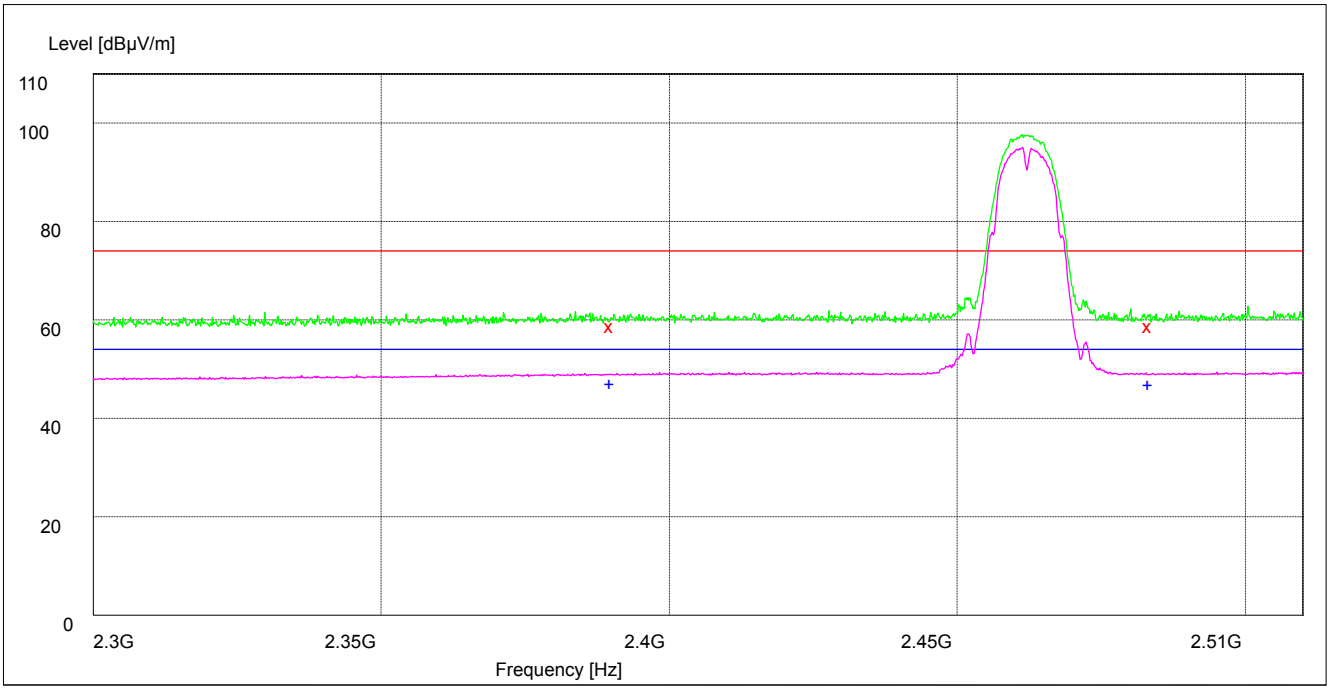
Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.50	34.8	74.0	13.5	131.0	45.00	HORIZONTAL
2483.500000	60.80	35.1	74.0	13.2	108.0	170.00	HORIZONTAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.80	34.8	54.0	5.2	150.0	359.00	HORIZONTAL
2483.500000	48.50	35.1	54.0	5.5	100.0	224.00	HORIZONTAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Channel 11



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.60	34.8	74.0	13.4	134.0	65.00	HORIZONTAL
2483.500000	60.70	35.1	74.0	13.3	100.0	302.00	HORIZONTAL

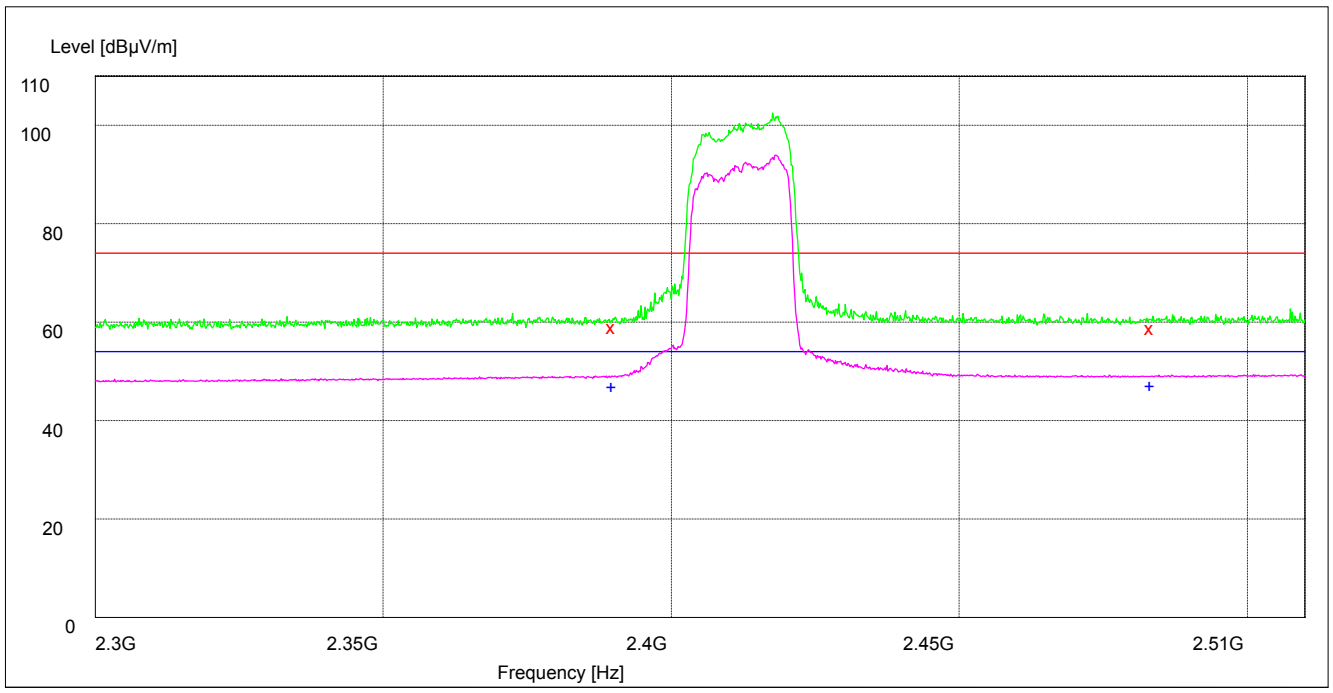
MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.80	34.8	54.0	5.2	142.0	56.00	VERTICAL
2483.500000	48.70	35.1	54.0	5.3	100.0	280.00	VERTICAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Test Mode: 11G / SISO-Antenna 1

Channel 01



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

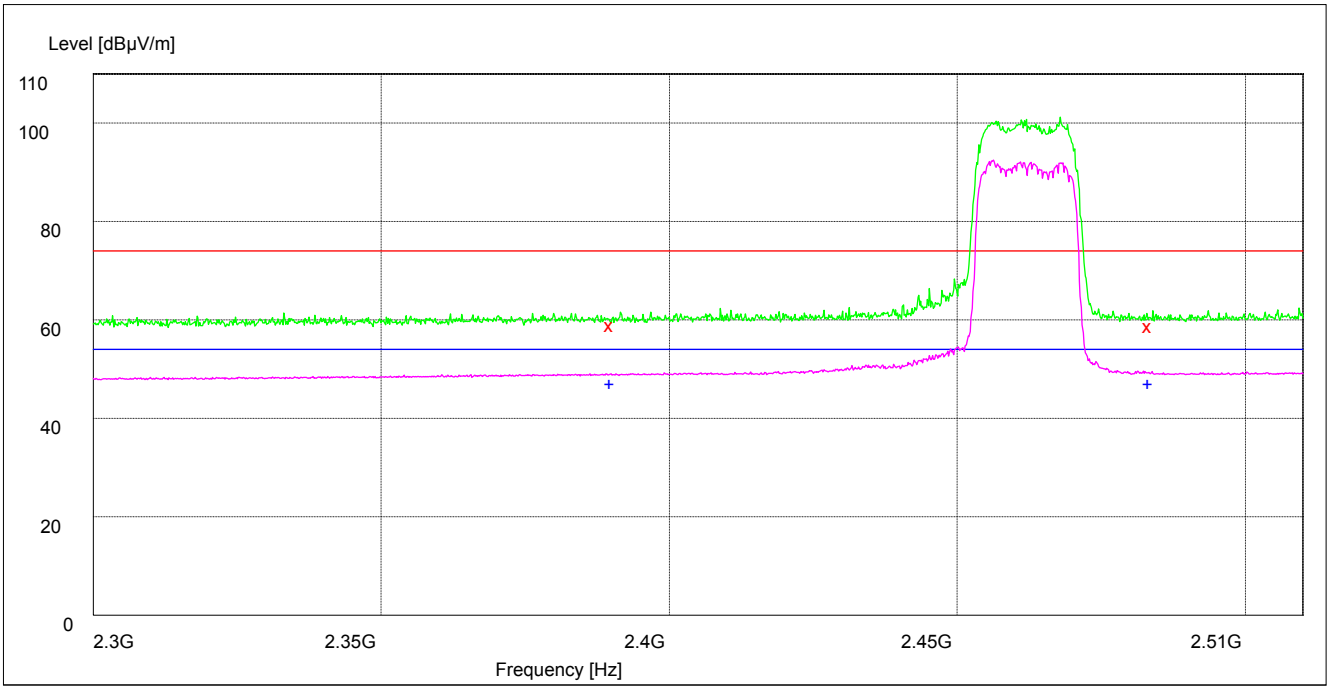
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.80	34.8	74.0	13.2	150.0	312.00	VERTICAL
2483.500000	60.70	35.1	74.0	13.3	148.0	168.00	HORIZONTAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.70	34.8	54.0	5.3	122.0	288.00	HORIZONTAL
2483.500000	48.90	35.1	54.0	5.1	100.0	207.00	HORIZONTAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Channel 11



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.90	34.8	74.0	13.1	131.0	72.00	VERTICAL
2483.500000	60.60	35.1	74.0	13.4	123.0	85.00	HORIZONTAL

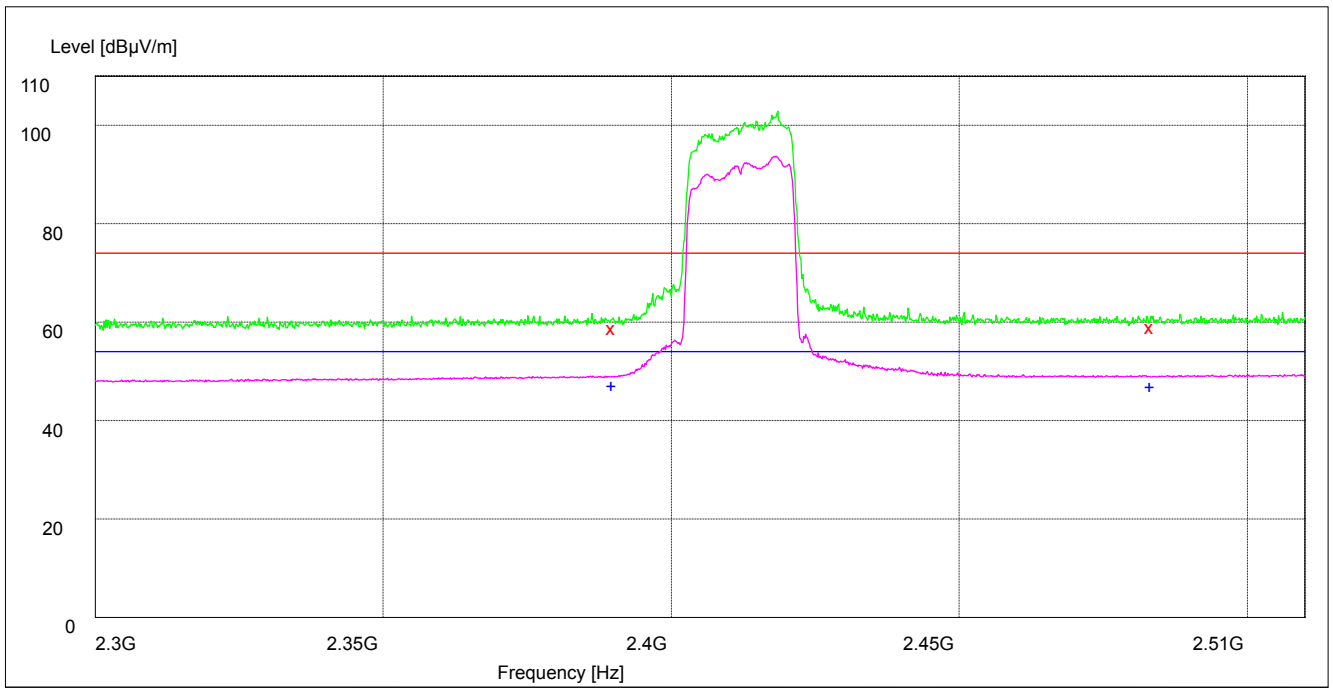
MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.80	34.8	54.0	5.2	131.0	342.00	VERTICAL
2483.500000	48.90	35.1	54.0	5.1	100.0	220.00	HORIZONTAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Test Mode: 11N-20M / SISO-Antenna 1

Channel 01



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

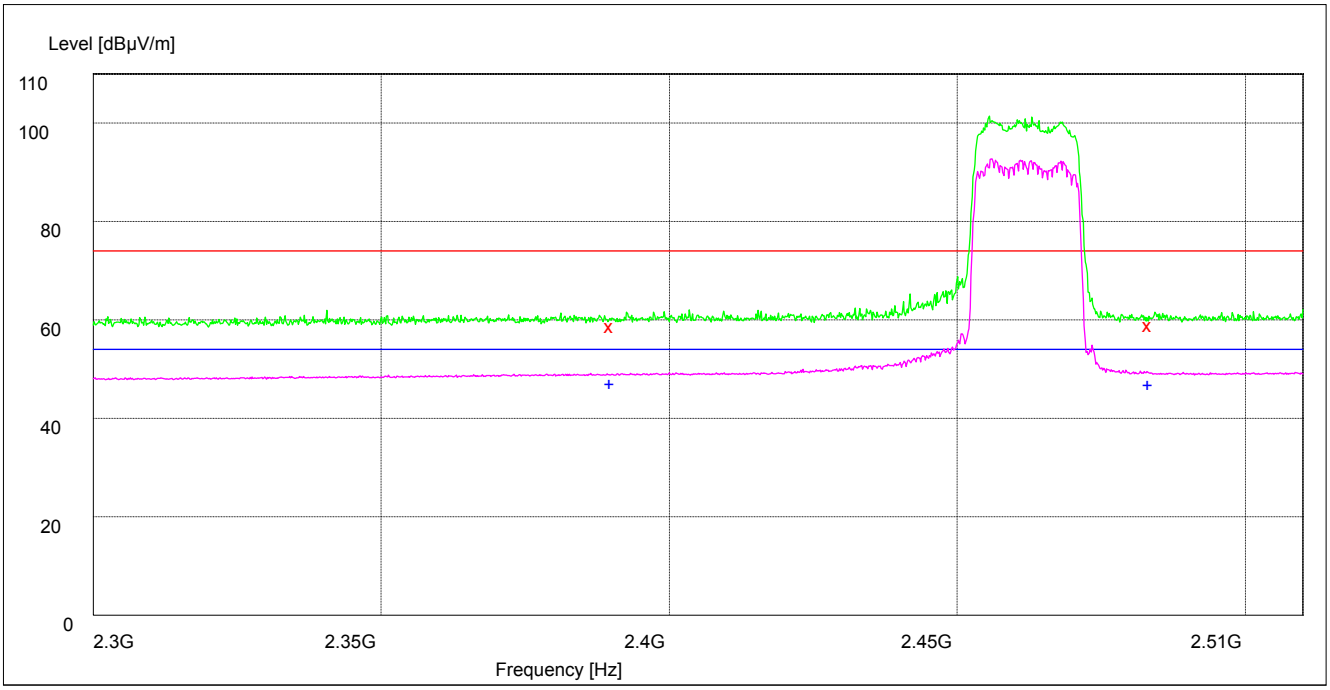
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.60	34.8	74.0	13.4	150.0	308.00	VERTICAL
2483.500000	60.80	35.1	74.0	13.2	100.0	263.00	VERTICAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.90	34.8	54.0	5.1	115.0	38.00	VERTICAL
2483.500000	48.70	35.1	54.0	5.3	100.0	95.00	HORIZONTAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Channel 11



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.50	34.8	74.0	13.5	150.0	122.00	HORIZONTAL
2483.500000	60.80	35.1	74.0	13.2	100.0	44.00	VERTICAL

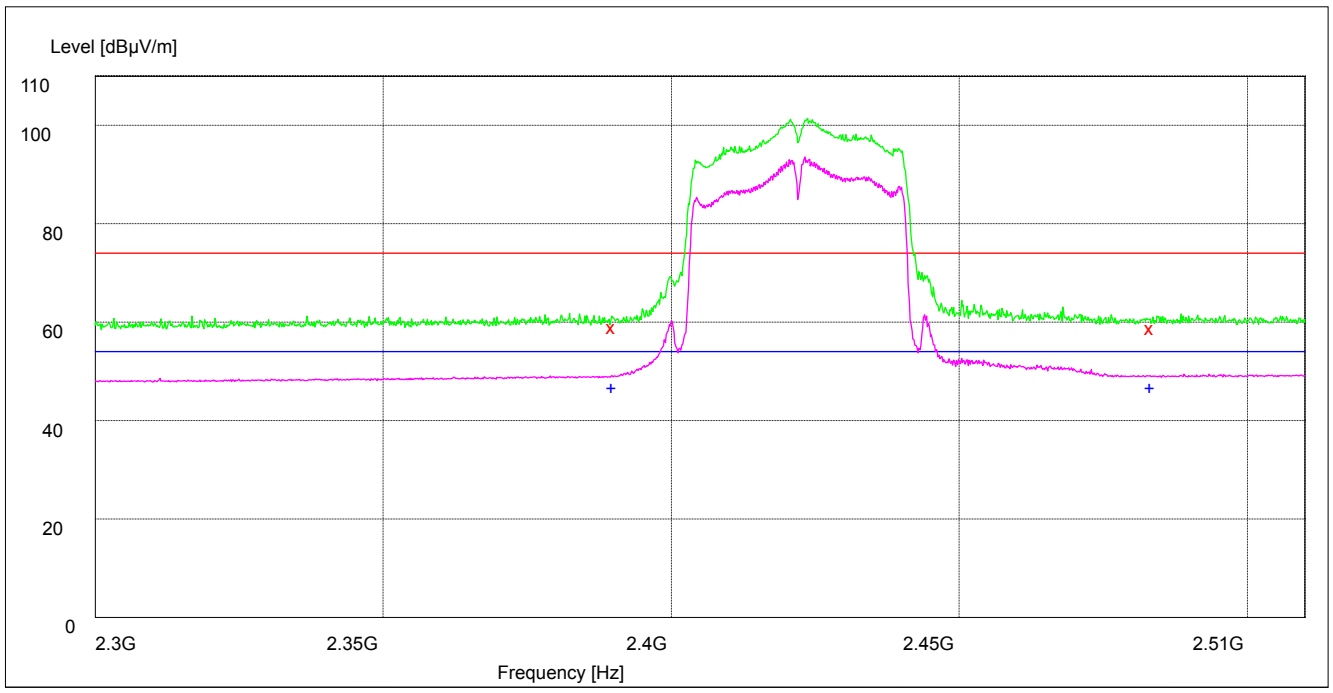
MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.80	34.8	54.0	5.2	101.0	281.00	HORIZONTAL
2483.500000	48.60	35.1	54.0	5.4	100.0	220.00	HORIZONTAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Test Mode: 11N-40M / SISO-Antenna 1

Channel 03



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

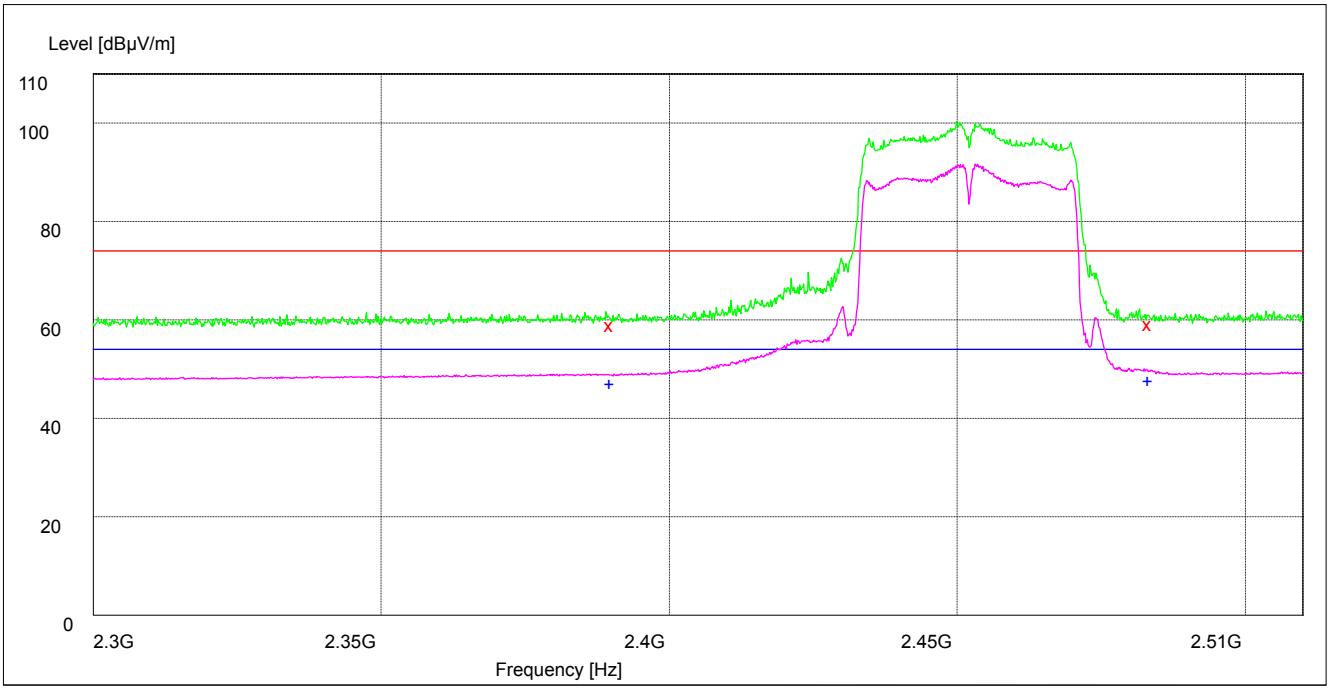
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.80	34.8	74.0	13.7	138.0	354.00	VERTICAL
2483.500000	60.60	35.1	74.0	13.4	100.0	41.00	HORIZONTAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.40	34.8	54.0	5.6	109.0	36.00	VERTICAL
2483.500000	48.50	35.1	54.0	5.5	100.0	218.00	HORIZONTAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Channel 09



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.80	34.8	74.0	13.2	100.0	133.00	VERTICAL
2483.500000	61.00	35.1	74.0	13.0	100.0	220.00	HORIZONTAL

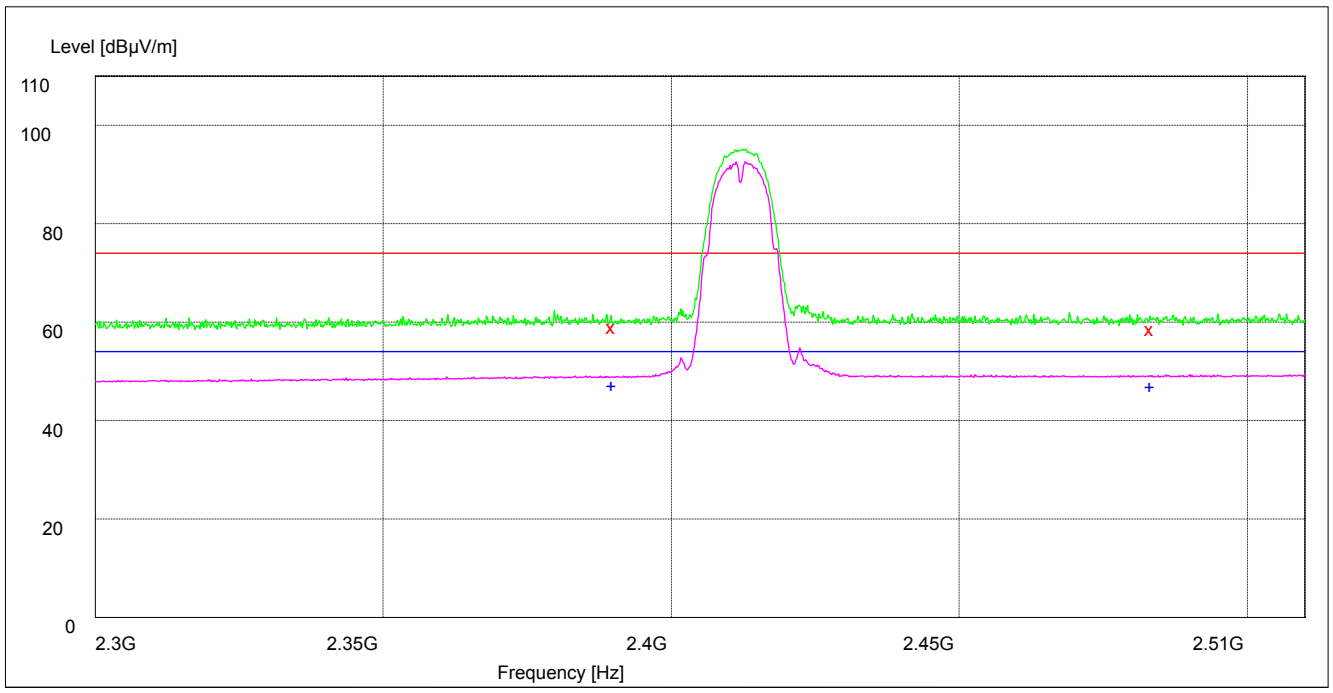
MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.90	34.8	54.0	5.1	150.0	173.00	VERTICAL
2483.500000	49.30	35.1	54.0	4.7	100.0	221.00	HORIZONTAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Test Mode: 11B / SISO-Antenna 2

Channel 01



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

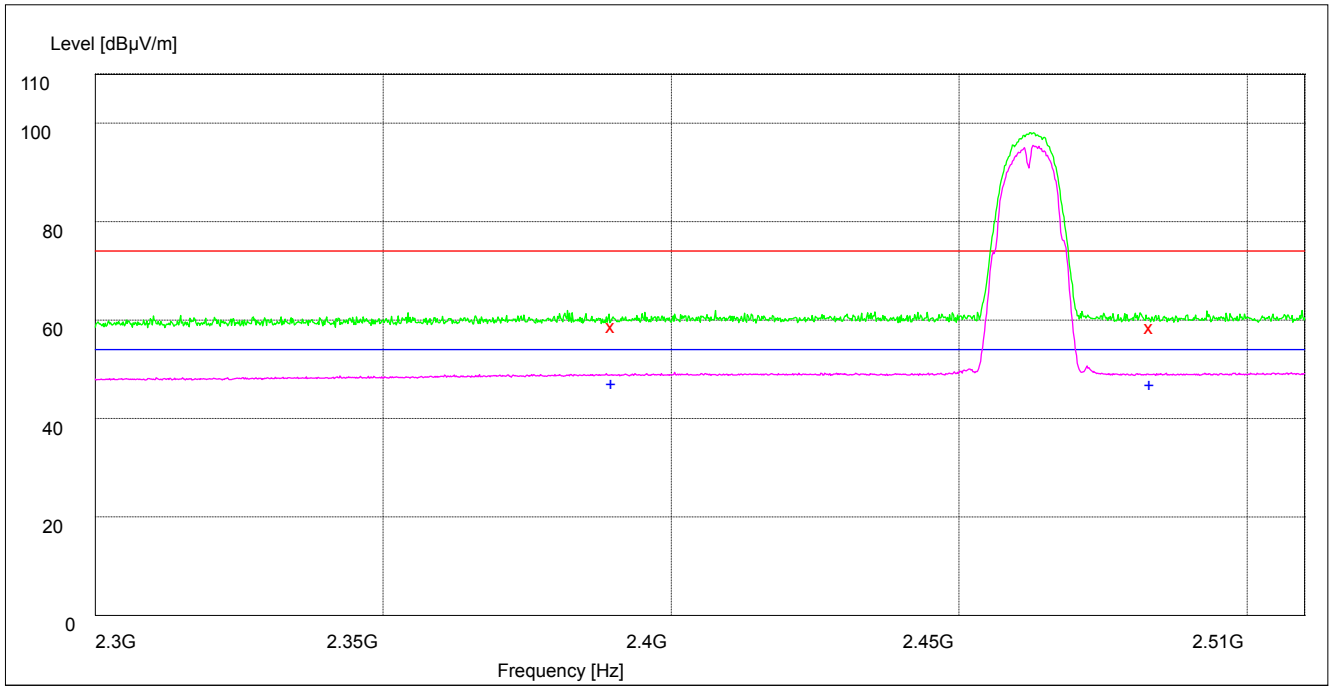
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.80	34.8	74.0	13.2	101.0	110.00	VERTICAL
2483.500000	60.40	35.1	74.0	13.6	138.0	144.00	HORIZONTAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.80	34.8	54.0	5.2	100.0	11.00	HORIZONTAL
2483.500000	48.70	35.1	54.0	5.3	100.0	262.00	VERTICAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Channel 11



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.80	34.8	74.0	13.2	100.0	276.00	HORIZONTAL
2483.500000	60.50	35.1	74.0	13.5	100.0	355.00	VERTICAL

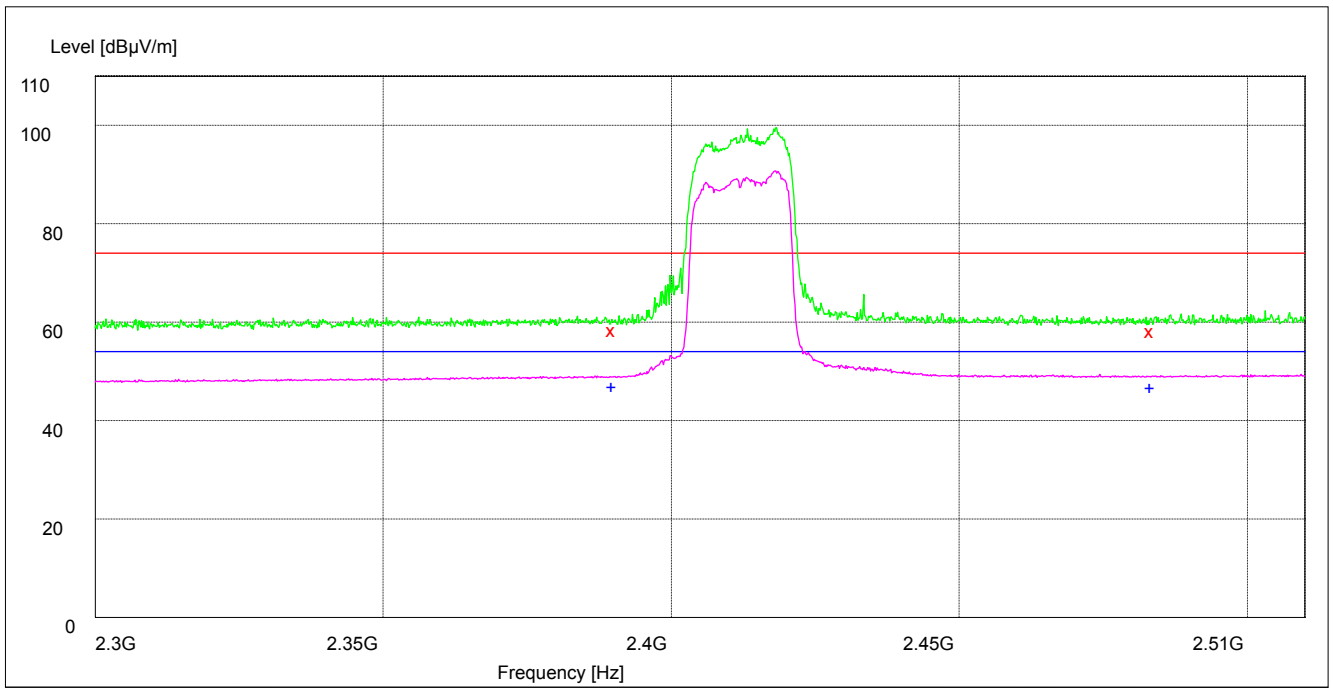
MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.80	34.8	54.0	5.2	150.0	85.00	HORIZONTAL
2483.500000	48.70	35.1	54.0	5.3	143.0	252.00	VERTICAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Test Mode: 11G / SISO-Antenna 2

Channel 01



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

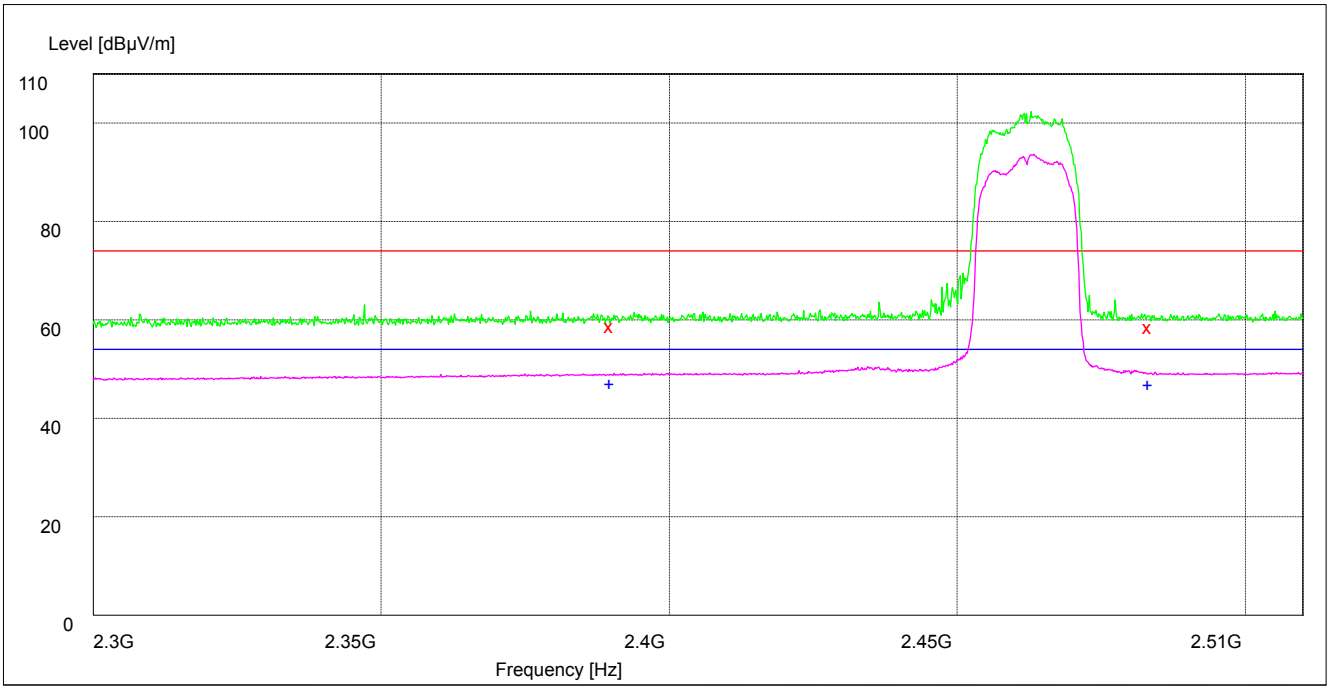
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.20	34.8	74.0	12.8	110.0	281.00	HORIZONTAL
2483.500000	60.00	35.1	74.0	14.0	150.0	209.00	VERTICAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.70	34.8	54.0	5.3	141.0	298.00	VERTICAL
2483.500000	48.50	35.1	54.0	5.5	130.0	324.00	VERTICAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Channel 11



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.60	34.8	74.0	13.4	100.0	231.00	VERTICAL
2483.500000	60.30	35.1	74.0	13.7	145.0	166.00	VERTICAL

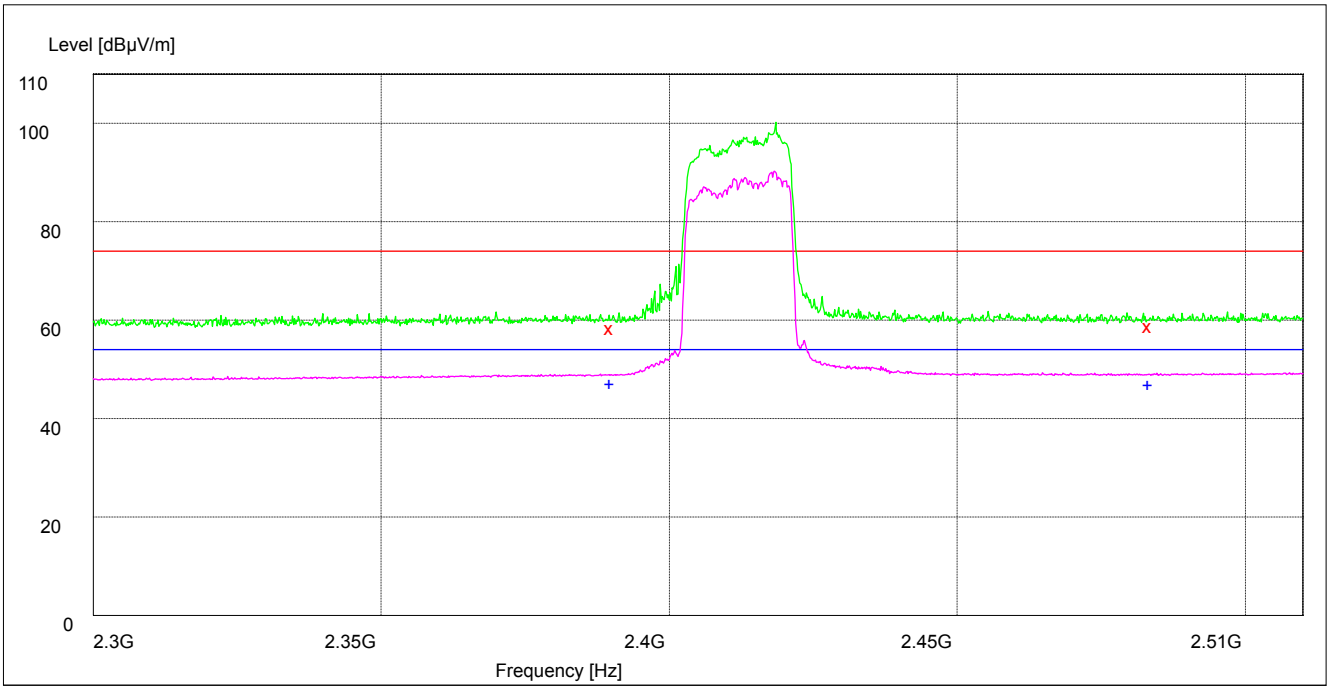
MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.90	34.8	54.0	5.1	100.0	0.00	VERTICAL
2483.500000	48.70	35.1	54.0	5.3	102.0	20.00	HORIZONTAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Test Mode: 11N-20M / SISO-Antenna 2

Channel 01



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

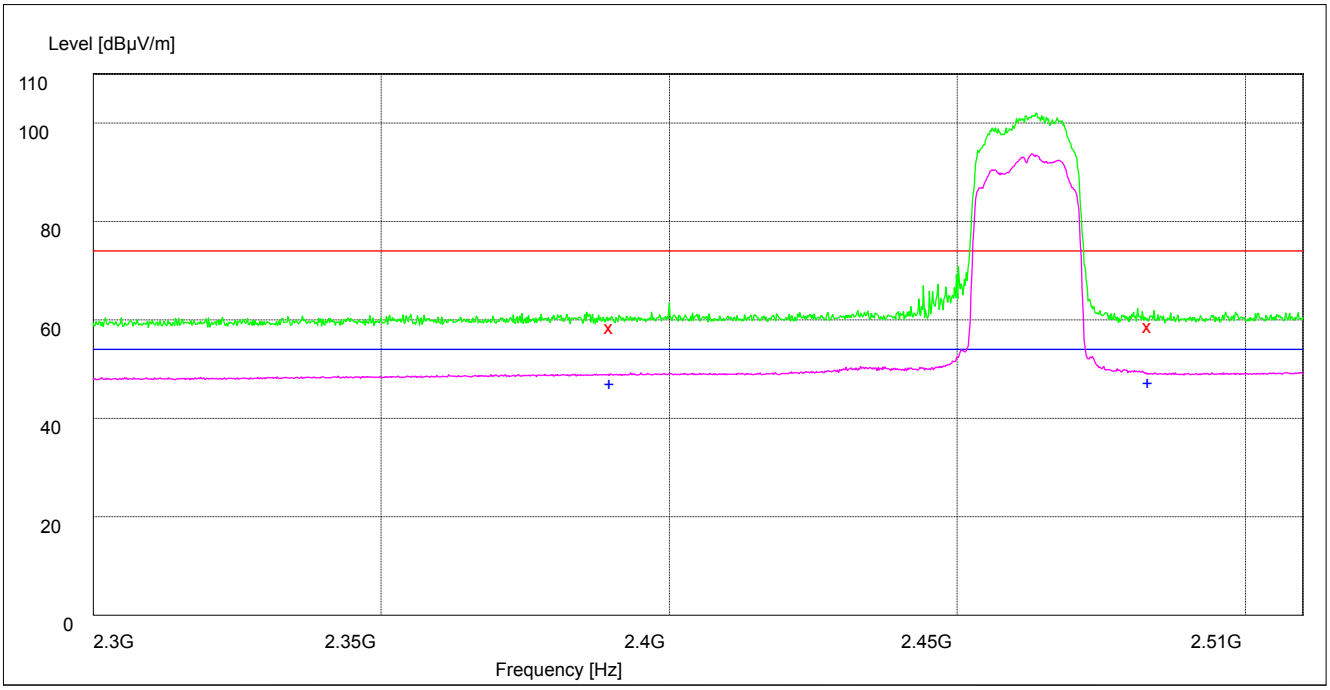
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.30	34.8	74.0	13.7	138.0	333.00	VERTICAL
2483.500000	60.70	35.1	74.0	13.3	100.0	293.00	HORIZONTAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.90	34.8	54.0	5.1	100.0	212.00	HORIZONTAL
2483.500000	48.60	35.1	54.0	5.4	100.0	158.00	HORIZONTAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Channel 11



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.40	34.8	74.0	13.6	109.0	5.00	VERTICAL
2483.500000	60.50	35.1	74.0	13.5	125.0	263.00	VERTICAL

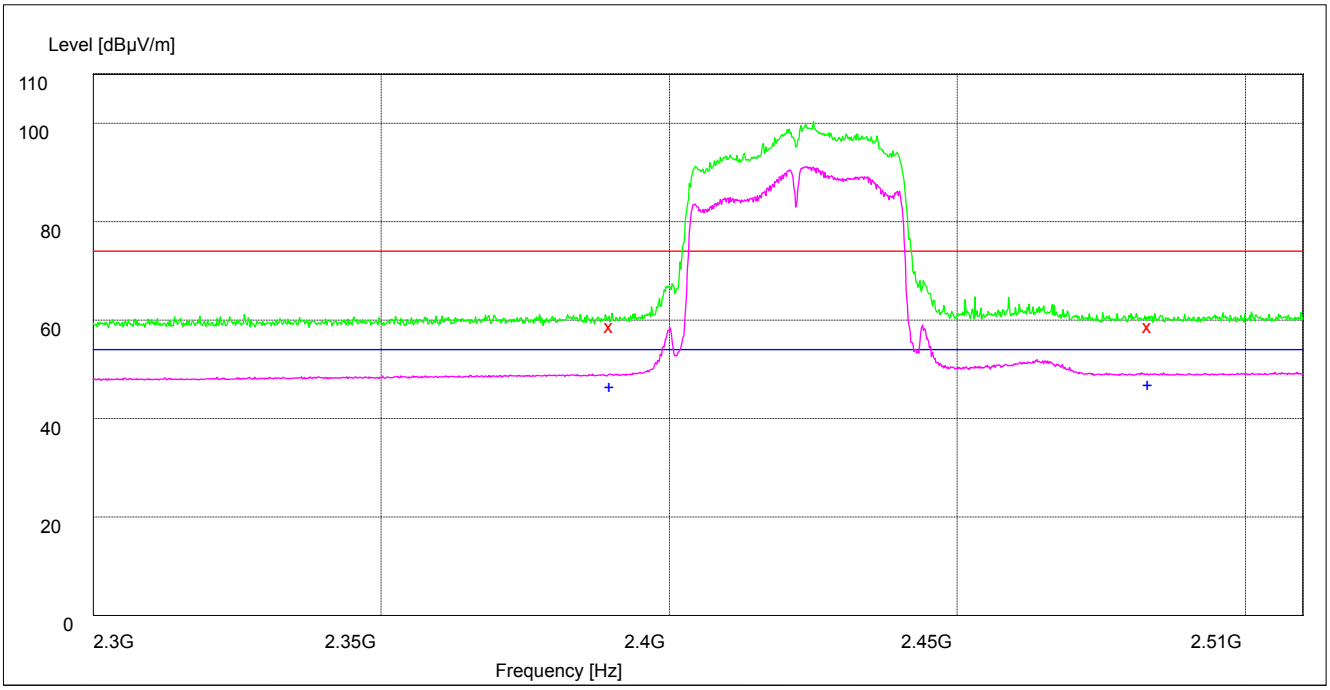
MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.80	34.8	54.0	5.2	150.0	193.00	HORIZONTAL
2483.500000	49.10	35.1	54.0	4.9	100.0	152.00	HORIZONTAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Test Mode: 11N-40M / SISO-Antenna 2

Channel 03



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

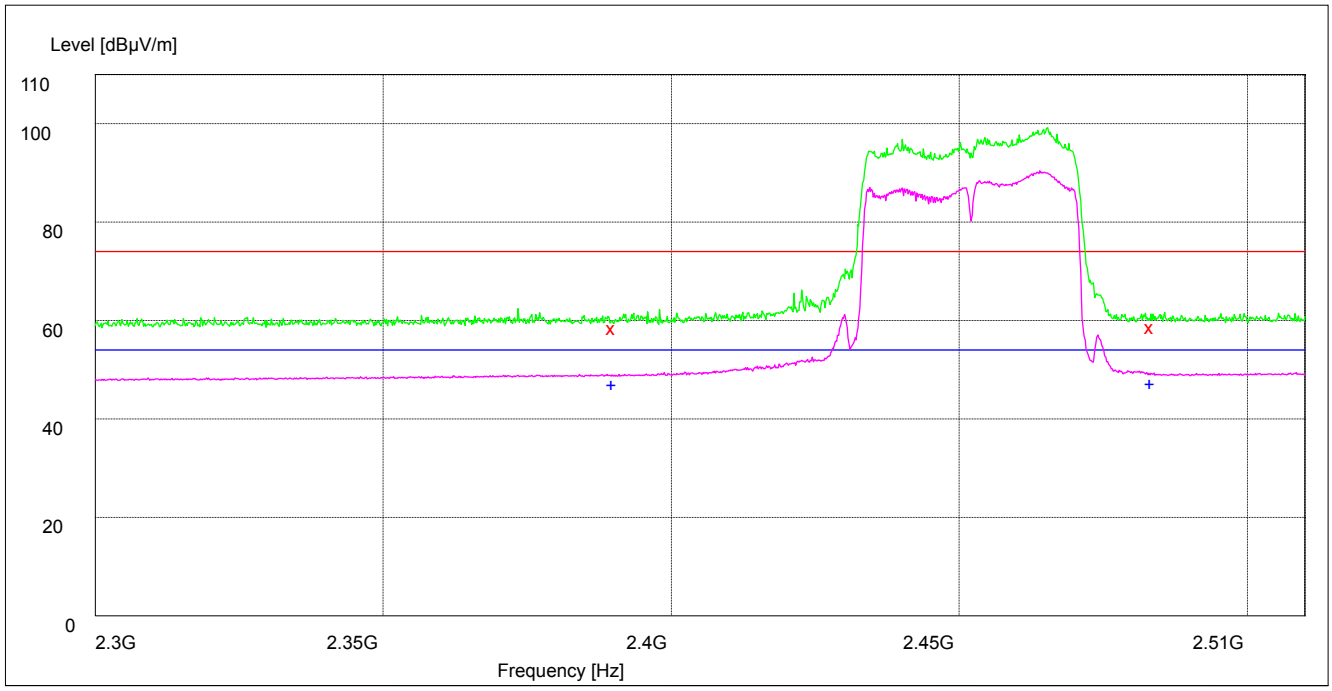
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.70	34.8	74.0	13.3	147.0	246.00	VERTICAL
2483.500000	60.60	35.1	74.0	13.4	100.0	104.00	HORIZONTAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.30	34.8	54.0	5.7	100.0	138.00	HORIZONTAL
2483.500000	48.70	35.1	54.0	5.3	100.0	183.00	VERTICAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Channel 09



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.40	34.8	74.0	13.6	139.0	186.00	HORIZONTAL
2483.500000	60.60	35.1	74.0	13.4	122.0	344.00	VERTICAL

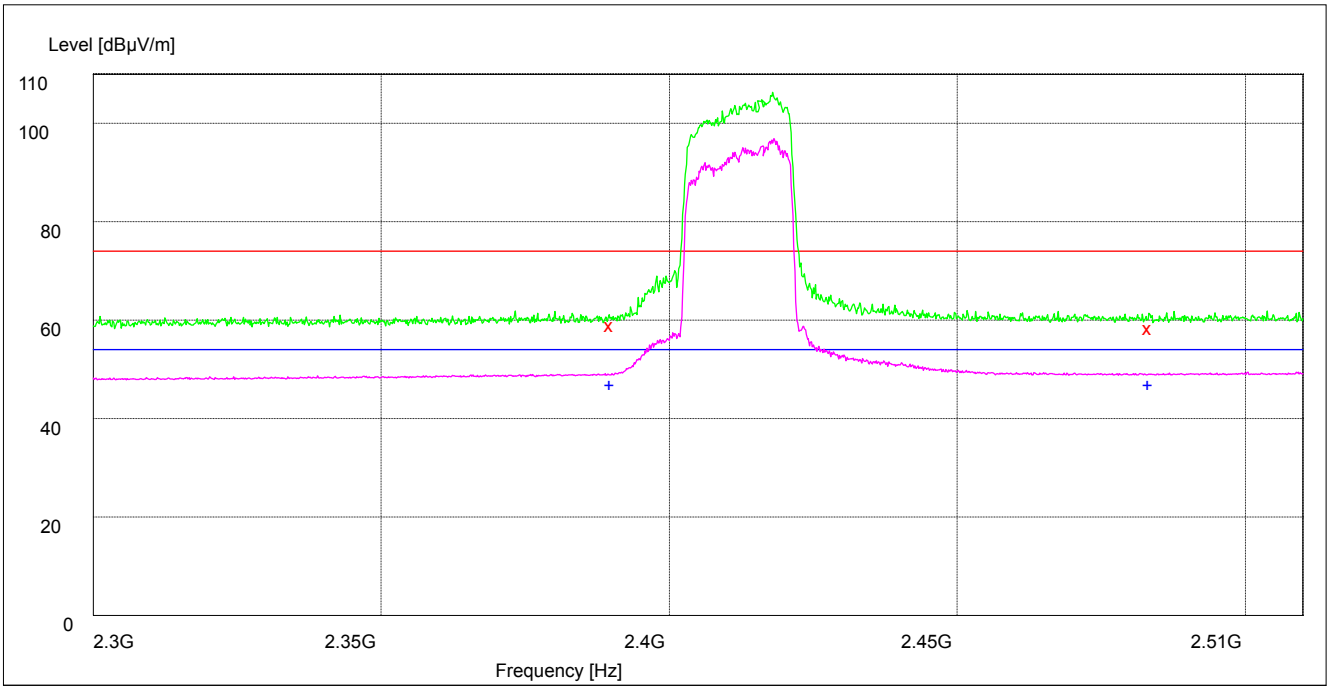
MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.80	34.8	54.0	5.2	101.0	262.00	VERTICAL
2483.500000	48.90	35.1	54.0	5.1	150.0	120.00	VERTICAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Test Mode: 11N-20M / MIMO

Channel 01



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

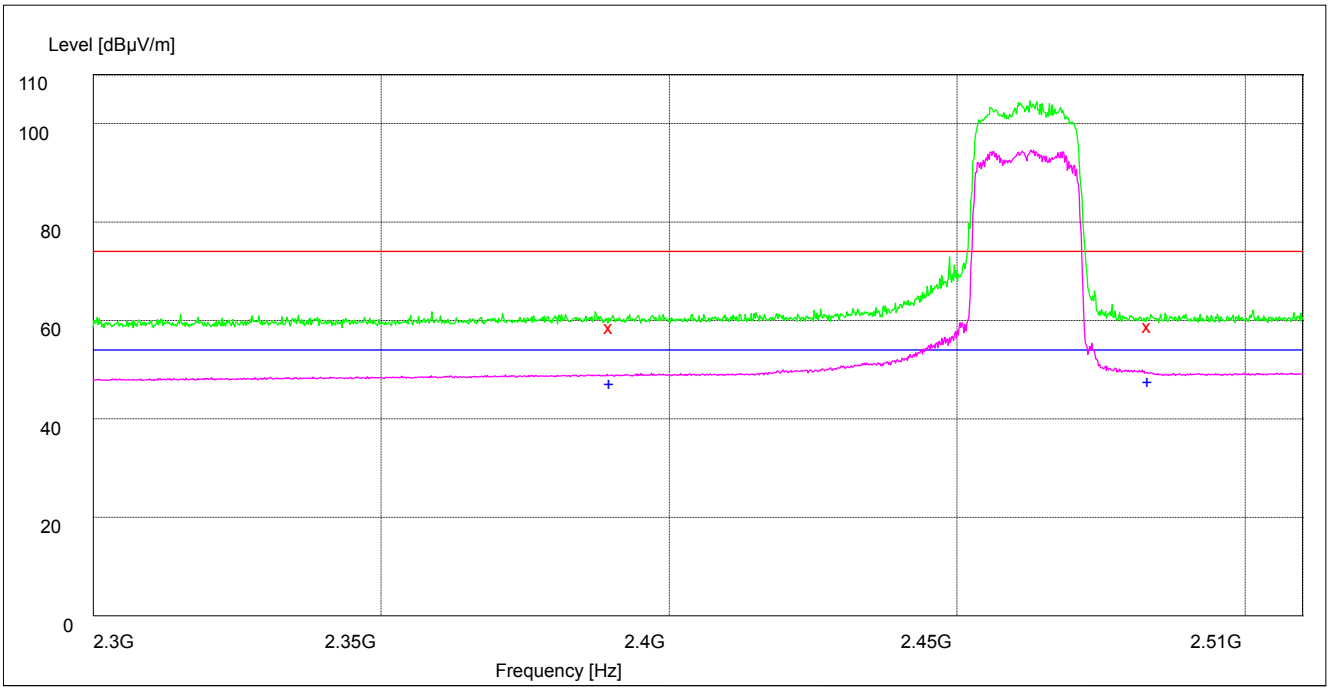
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.90	34.8	74.0	13.1	110.0	292.00	VERTICAL
2483.500000	60.30	35.1	74.0	13.7	111.0	217.00	VERTICAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.70	34.8	54.0	5.3	124.0	68.00	HORIZONTAL
2483.500000	48.70	35.1	54.0	5.3	100.0	74.00	HORIZONTAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Channel 11



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.50	34.8	74.0	13.5	150.0	100.00	HORIZONTAL
2483.500000	60.80	35.1	74.0	13.2	100.0	221.00	HORIZONTAL

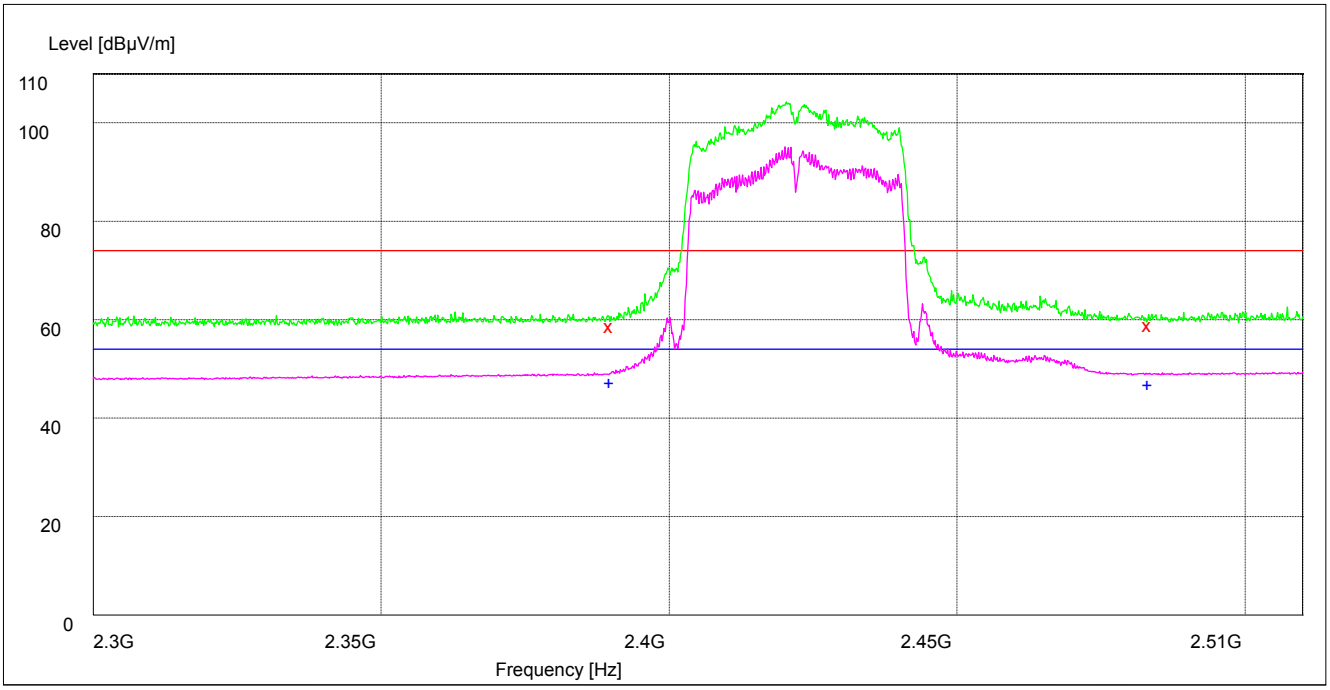
MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.90	34.8	54.0	5.1	100.0	170.00	HORIZONTAL
2483.500000	49.30	35.1	54.0	4.7	100.0	190.00	HORIZONTAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Test Mode: 11N-40M / MIMO

Channel 03



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

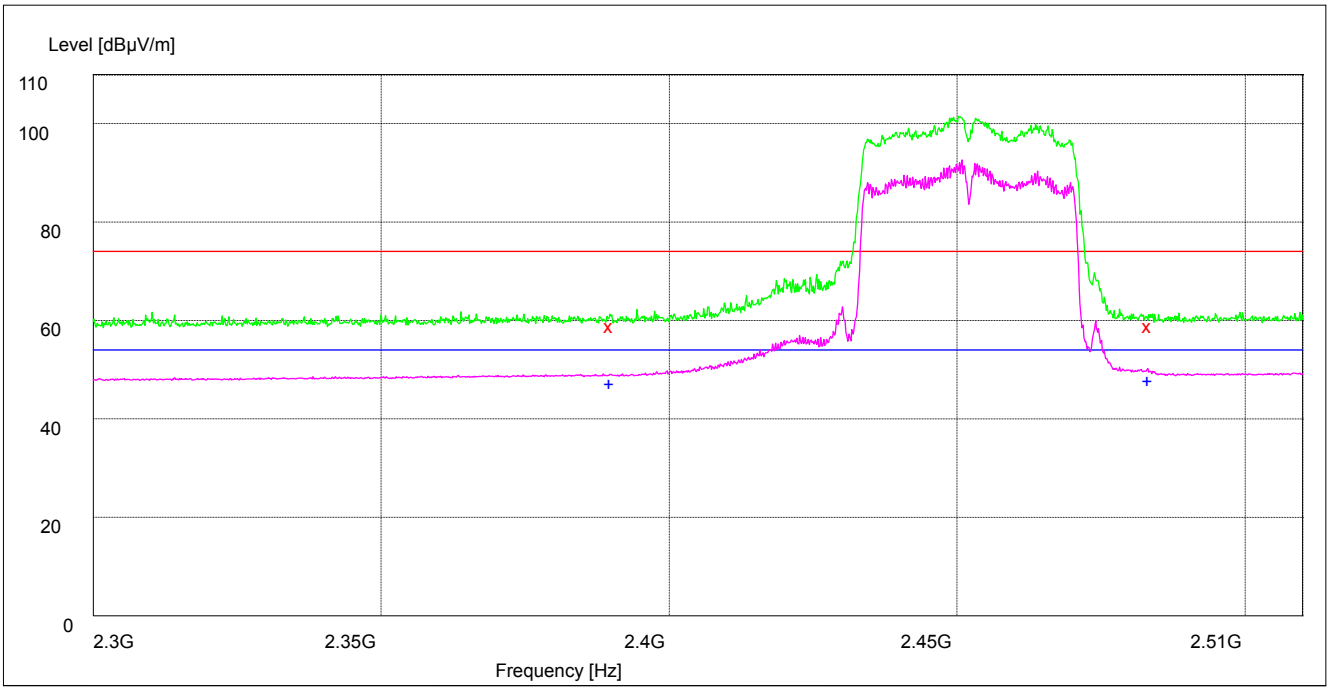
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.60	34.8	74.0	13.4	100.0	42.00	VERTICAL
2483.500000	60.70	35.1	74.0	13.3	150.0	175.00	HORIZONTAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.90	34.8	54.0	5.1	103.0	136.00	VERTICAL
2483.500000	48.50	35.1	54.0	5.5	103.0	219.00	HORIZONTAL

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Channel 09



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	60.70	34.8	74.0	13.3	103.0	5.00	HORIZONTAL
2483.500000	60.80	35.1	74.0	13.2	103.0	260.00	VERTICAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.90	34.8	54.0	5.1	126.0	28.00	VERTICAL
2483.500000	49.50	35.1	54.0	4.5	100.0	221.00	HORIZONTAL

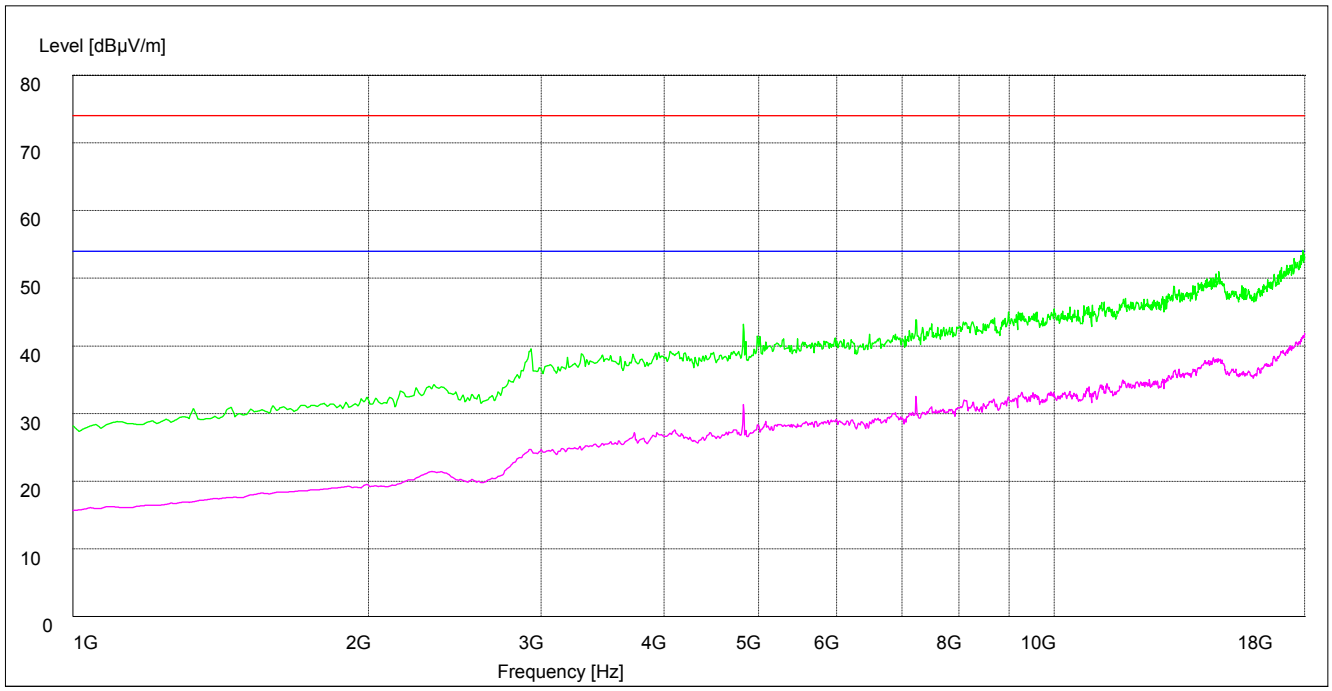
Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Part 4: Testing Range of “1 GHz to 18 GHz”

Note 1: The test results and plot for testing range of “1 GHz to 18 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.

Note 2: The testing range of “1 GHz to 18 GHz” is for checking radiated emissions located in restricted bands faraway from the EUT operating bands.

Note 3: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dBμV/m) and Average Limit (54 dBμV/m).

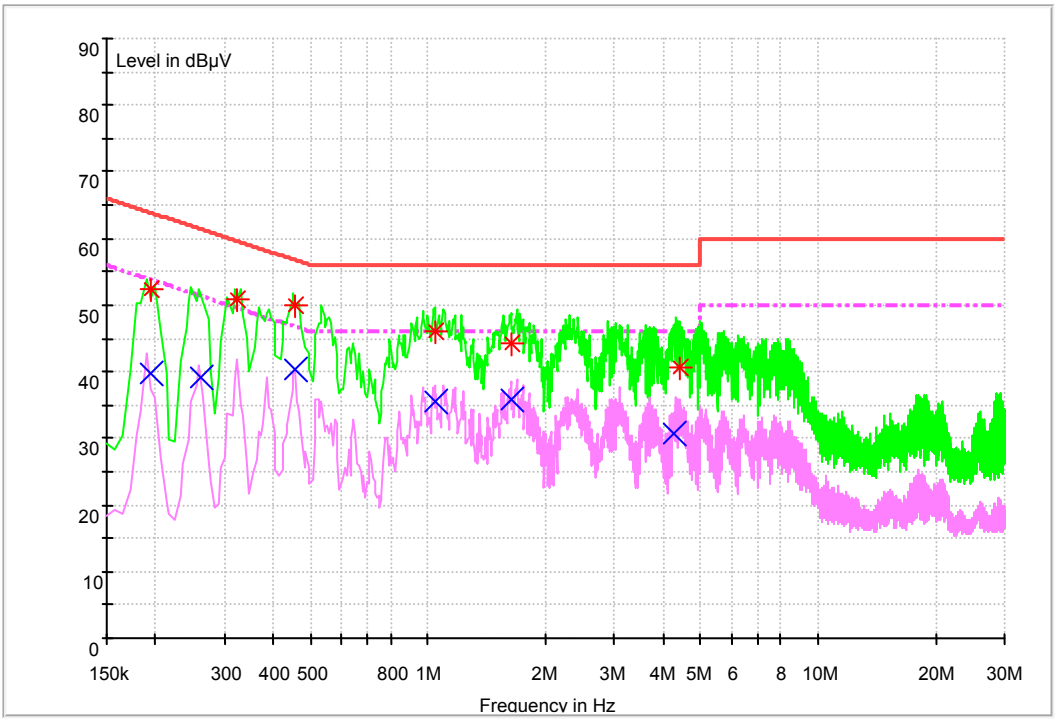


Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Appendix G: Conducted Emission at Power Port

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.

Channel 6



MEASUREMENT RESULT: QP Detector

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.194883	52.4	9.7	63.8	11.4	N	FLO
0.324214	51.0	9.7	59.6	8.6	N	FLO
0.455944	50.1	9.7	56.8	6.7	N	FLO
1.040948	46.0	9.7	56.0	10.0	N	FLO
1.626818	44.2	9.7	56.0	11.8	N	FLO
4.409636	40.5	9.8	56.0	15.5	N	FLO

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.195636	39.8	9.7	53.8	14.0	N	FLO
0.260839	39.1	9.7	51.4	12.3	N	FLO
0.455490	40.4	9.7	46.8	6.4	N	FLO
1.042020	35.7	9.7	46.0	10.3	N	FLO
1.636942	35.8	9.7	46.0	10.2	N	FLO
4.255916	30.7	9.8	46.0	15.3	N	FLO

END

Huawei Proprietary and Confidential
Copyright © Huawei Technologies Co., Ltd.