

TEST REPORT

Product : MOBILE PHONE
Trade mark : ROKiT
Model/Type reference : IO Pro
Serial Number : N/A
Report Number : EED32K00215409
FCC ID : 2AQNZ-IOPRO
Date of Issue : Sep. 03, 2018
Test Standards : 47 CFR Part 2
47 CFR Part 27
Test result : PASS

Prepared for:

ROKIT Corp Limited

**ROK House, Kingswood Business Park, Holyhead Road, Albrighton,
Wolverhampton, United Kingdom, WV73AU**

Prepared by:

**Centre Testing International Group Co., Ltd.
Hongwei Industrial Zone, Bao'an 70 District,
Shenzhen, Guangdong, China**

TEL: +86-755-3368 3668

FAX: +86-755-3368 3385

Tested by:

Peter

Peter (Test Project)

Compiled by:

Tom - chen

Tom chen (Project Engineer)

Reviewed by:

Kevin Yang

Kevin yang (Reviewer)

Approved by:

Sheek Luo

Sheek Luo (Lab supervisor)

Date:

Sep. 03, 2018

Check No.:3096342807



2 Version

Version No.	Date	Description
00	Sep. 03, 2018	Original

3 Test Summary

LTE Band 12			
Test Item	Test Requirement	Test method	Result
Conducted output power	Part 2.1046(a) /Part 27.50(c)	TIA-603-E-2016 & KDB 971168 D01v03r01	PASS
Effective Radiated Power of Transmitter(EIRP)	Part 2.1046(a) / Part 27.50(c)	TIA-603-E-2016 & KDB 971168 D01v03r01	PASS
99% & 26dB Occupied Bandwidth	Part 2.1049(h)	KDB 971168 D01v03r01	PASS
Band Edge at antenna terminals	Part 2.1051/ Part 27.53(g)	KDB 971168 D01v03r01	PASS
Spurious emissions at antenna terminals	Part 2.1051/ Part 27.53(g)	TIA-603-E-2016 & KDB 971168 D01v03r01	PASS
Field strength of spurious radiation	Part 2.1053/ Part 27.53(g)	TIA-603-E-2016 & KDB 971168 D01v03r01	PASS
Frequency stability	Part 2.1055/Part 27.54	TIA-603-E-2016 & KDB 971168 D01v03r01	PASS

Remark:

The tested samples and the sample information are provided by the client.

Tx: In this whole report Tx (or tx) means Transmitter.

Rx: In this whole report Rx (or rx) means Receiver.

RF: In this whole report RF means Radiated Frequency.

CH: In this whole report CH means channel.

Volt: In this whole report Volt means Voltage.

Temp: In this whole report Temp means Temperature.

Humid: In this whole report Humid means humidity.

Press: In this whole report Press means Pressure.

N/A: In this whole report not application

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5 Test Requirement

5.1 Test setup

5.1.1 For Radiated Emissions test setup

Radiated Emissions setup:

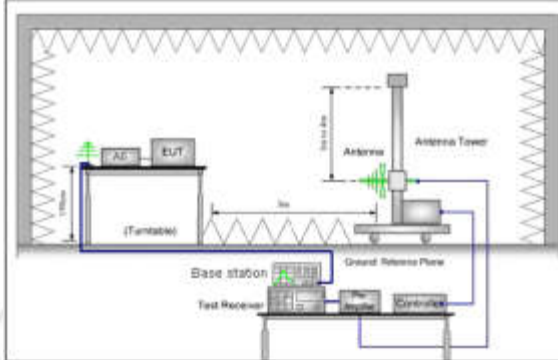


Figure 1.30MHz to 1GHz

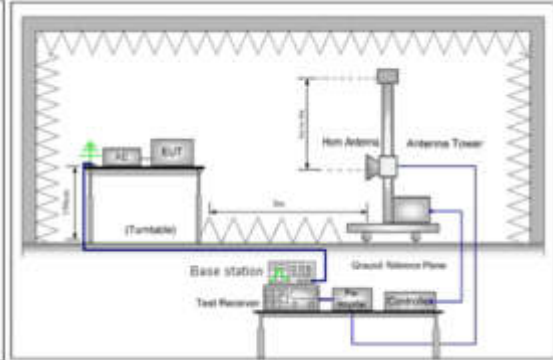


Figure 2. above 1GHz

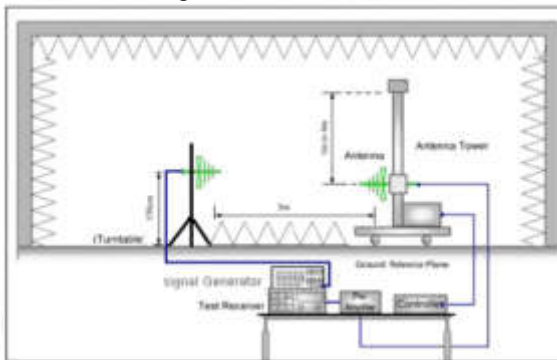


Figure 1. 30MHz to 1GHz

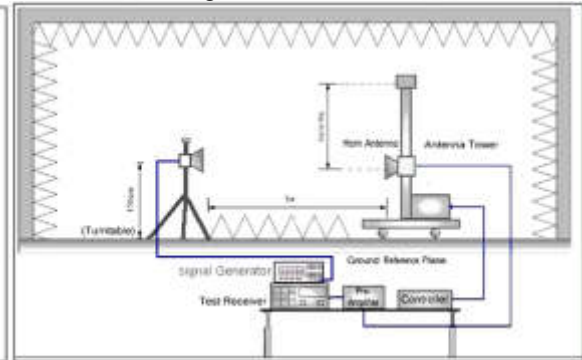


Figure 2. above 1GHz

5.2 Test Environment

Operating Environment:

Temperature:	25.0 °C
Humidity:	56 % RH
Atmospheric Pressure:	1010mbar

5.3 Test Condition

Test channel:

Test Mode	Test Frequency ID	Bandwidth (MHz)	Number [UL]	Frequency of Uplink(MHz)	Number [DL]	Frequency of Downlink(MHz)
LTE band 12 TX:699 to 716 MHz RX 729 to746 MHz	Low Range	1.4	23017	699.7	5017	729.7
		3	23025	700.5	5025	730.5
		5	23035	701.5	5035	731.5
		10	23060	704	5060	734
	Mid Range	1.4/3/5/10	23095	707.5	5095	737.5
	High Range	1.4	23173	715.3	5173	745.3
		3	23165	714.5	5165	744.5
		5	23155	713.5	5155	743.5
		10	23130	711	5130	741

6 General Information

6.1 Client Information

Applicant:	ROKIT Corp Limited
Address of Applicant:	ROK House, Kingswood Business Park, Holyhead Road, Albrighton, Wolverhampton, United Kingdom, WV73AU
Manufacturer:	ROKIT Corp Limited
Address of Manufacturer:	ROK House, Kingswood Business Park, Holyhead Road, Albrighton, Wolverhampton, United Kingdom, WV73AU
Factory:	Shenzhen Newsun Technology Co., Ltd
Address of Factory:	5th Floor, A1 Building, Zhongtai Information Technology Industrial Park, No. 2 Dezheng Road, Shilong Community, Shiyan Street, Baoan District, Shenzhen, China

6.2 General Description of EUT

Product Name:	MOBILE PHONE
Model No.(EUT):	IO Pro
Trade mark:	ROKIT
EUT Supports Radios application:	<p>BT4.0, 2.1+EDR: 2402MHz to 2480MHz</p> <p>WiFi: IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz</p> <p>IEEE 802.11n(HT40): 2422MHz to 2452MHz</p> <p>GPS: 1559MHz to 1610MHz</p> <p>GSM/GPRS/EDGE 850: Tx:824.20 -848.80MHz; Rx: 869.20 – 893.80MHz</p> <p>GSM/GPRS/EDGE 1900: Tx:1850.20 – 1909.80MHz; Rx:1930.20 – 1989.80MHz</p> <p>CDMA BC0: Tx:824-849MHz; Rx:869-894MHz</p> <p>CDMA BC1: Tx:1850-1910MHz; Rx:1930-1990MHz</p> <p>CDMA BC10: TX:817.25-823.975MHz, RX:862.25-868.975MHz</p> <p>1xEVDO BC0: Tx:824-849MHz; Rx:869-894MHz</p> <p>1xEVDO BC0: Tx:1850-1910MHz; Rx:1930-1990MHz</p> <p>1xEVDO BC0: TX:817.25-823.975MHz, RX:862.25-868.975MHz</p> <p>WCDMA/HSDPA/HSUPA/HSPA+(Down Link) Band V: Tx:826.40 -846.60MHz; Rx: 871.40 – 891.60MHz</p> <p>WCDMA/HSDPA/HSUPA/HSPA+(Down Link) Band IV: Tx:1710-1755MHz; Rx: 2110-2155MHz</p> <p>WCDMA/HSDPA/HSUPA/HSPA+(Down Link) Band II: Tx:1852.40 – 1907.60MHz; Rx:1932.40 – 1987.60MHz</p> <p>LTE Band 2: TX:1850MHz to 1910MHz RX:1930MHz to 1990MHz.</p> <p>LTE Band 4: TX:1710MHz to 1755MHz RX:2110MHz to 2155MHz.</p> <p>LTE Band 5: TX:824MHz to 849MHz RX:869MHz to 894MHz.</p>

	LTE Band 12: TX:698MHz to 716MHz RX:729MHz to 746MHz. LTE Band 17: TX:704MHz to 716MHz RX:734MHz to 746MHz.
Power Supply:	DC 5V by USB port
	Li-ion Battery 3.85V, 3850mAh, 14.822Wh
Firmware version:	MOLY.LR12A.R2.MP.V36.9(manufacturer declare)
Hardware version:	V0(manufacturer declare)
USB cable:	100cm(shielded)
Sample Received Date:	Aug. 08, 2018
Sample tested Date:	Aug. 08, 2018 to Aug. 29, 2018

6.3 Product Specification subjective to this standard

Frequency Band:	LTE Band 12: TX:698MHz to 716MHz RX:729MHz to 746MHz.
Modulation Type:	QPSK, 16QAM
Sample Type:	mobile production
Antenna Type:	MONOPOLE
Antenna Gain:	-5dBi
Test Voltage:	DC 3.85V

6.4 Description of Support Units

The EUT has been tested independently.

6.5 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

6.6 Deviation from Standards

None.

6.7 Abnormalities from Standard Conditions

None.

6.8 Other Information Requested by the Customer

None.

6.9 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty
1	Radio Frequency	7.9×10^{-8}
2	RF power, conducted	0.31dB (30MHz-1GHz)
		0.57dB (1GHz-18GHz)
3	Radiated Spurious emission test	4.5dB (30MHz-1GHz)
		4.8dB (1GHz-12.75GHz)
4	Conduction emission	3.6dB (9kHz to 150kHz)
		3.2dB (150kHz to 30MHz)
5	Temperature test	0.64°C
6	Humidity test	2.8%
7	DC power voltages	0.025%

7 Equipment List

Communication RF test system					
Equipment	Manufacturer	Model No.	Serial Number	Cal. Date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
Spectrum Analyzer	Agilent	E4440A	MY46185649	11-16-2017	11-15-2018
Signal Generator	Agilent	E4438C	MY45095744	03-13-2018	03-12-2019
Communication test set	Agilent	E5515C	GB47050534	03-16-2018	03-15-2019
Signal Generator	Keysight	E8257D	MY53401106	03-13-2018	03-12-2019
Communication test set	R&S	CMW500	152394	03-16-2018	03-15-2019
High-pass filter	Sinoscite	FL3CX03WG18 NM12-0398-002	---	01-10-2018	01-09-2019
High-pass filter	MICRO-TRONICS	SPA-F-63029-4	---	01-10-2018	01-09-2019
band rejection filter	Sinoscite	FL5CX01CA09C L12-0395-001	---	01-10-2018	01-09-2019
band rejection filter	Sinoscite	FL5CX01CA08C L12-0393-001	---	01-10-2018	01-09-2019
band rejection filter	Sinoscite	FL5CX02CA04C L12-0396-002	---	01-10-2018	01-09-2019
band rejection filter	Sinoscite	FL5CX02CA03C L12-0394-001	---	01-10-2018	01-09-2019
DC Power	Keysight	E3642A	MY54426112	03-13-2018	03-12-2019
DC Power	Keysight	E3642A	MY54426115	03-13-2018	03-12-2019
PC-2	Lenovo	R4960d	---	01-10-2018	01-09-2019
PC-3	Lenovo	R4960d	---	01-10-2018	01-09-2019
RF control unit	JS Tonscend	JS0806-1	158060004	03-13-2018	03-12-2019
DC power Box	JS Tonscend	JS0806-4	158060007	03-13-2018	03-12-2019
LTE Automatic test software	JS Tonscend	JS1120-1	---	03-30-2018	03-29-2019
WCDMA Automatic test software	JS Tonscend	JS1120-3	---	03-30-2018	03-29-2019
GSM Automatic test software	JS Tonscend	JS1120-3	---	03-30-2018	03-29-2019

3M Semi/full-anechoic Chamber					
Equipment	Manufacturer	Model No.	Serial Number	Cal. date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
3M Chamber & Accessory Equipment	TDK	SAC-3	---	06-04-2016	06-03-2019
TRILOG Broadband Antenna	Schwarzbeck	VULB9163	9163-401	04-26-2018	04-25-2019
TRILOG Broadband Antenna	Schwarzbeck	VULB9163	9163-618	07-30-2018	07-29-2019
Microwave Preamplifier	Agilent	8449B	3008A02425	08-21-2018	08-20-2019
Microwave Preamplifier	Tonscend	EMC051845SE	980380	01-19-2018	01-18-2019
Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-1869	04-25-2018	04-23-2021
Double ridge horn antenna	A.H.SYSTEMS	SAS-574	6042	06-05-2018	06-04-2021
Pre-amplifier	A.H.SYSTEMS	PAP-1840-60	6041	06-05-2018	06-04-2021
Loop Antenna	ETS	6502	00071730	06-22-2017	06-21-2019
Spectrum Analyzer	R&S	FSP40	100416	05-11-2018	05-10-2019
Receiver	R&S	ESCI	100435	05-25-2018	05-24-2019
Multi device Controller	matur	NCD/070/10711112	---	01-10-2018	01-09-2019
LISN	schwarzbeck	NNBM8125	81251547	05-11-2018	05-10-2019
LISN	schwarzbeck	NNBM8125	81251548	05-11-2018	05-10-2019
Signal Generator	Agilent	E4438C	MY45095744	03-13-2018	03-12-2019
Signal Generator	Keysight	E8257D	MY53401106	03-13-2018	03-12-2019
Temperature/ Humidity Indicator	TAYLOR	1451	1905	05-02-2018	05-01-2019
Communication test set	Agilent	E5515C	GB47050534	03-16-2018	03-15-2019
Cable line	Fulai(7M)	SF106	5219/6A	01-10-2018	01-09-2019
Cable line	Fulai(6M)	SF106	5220/6A	01-10-2018	01-09-2019
Cable line	Fulai(3M)	SF106	5216/6A	01-10-2018	01-09-2019
Cable line	Fulai(3M)	SF106	5217/6A	01-10-2018	01-09-2019
Communication test set	R&S	CMW500	104466	02-05-2018	02-04-2019
High-pass filter	Sinoscite	FL3CX03WG18 NM12-0398-002	---	01-10-2018	01-09-2019
High-pass filter	MICRO-TRONICS	SPA-F-63029-4	---	01-10-2018	01-09-2019
band rejection filter	Sinoscite	FL5CX01CA09 CL12-0395-001	---	01-10-2018	01-09-2019
band rejection filter	Sinoscite	FL5CX01CA08 CL12-0393-001	---	01-10-2018	01-09-2019
band rejection filter	Sinoscite	FL5CX02CA04 CL12-0396-002	---	01-10-2018	01-09-2019
band rejection filter	Sinoscite	FL5CX02CA03 CL12-0394-001	---	01-10-2018	01-09-2019

8 Radio Technical Requirements Specification

Reference documents for testing:

No.	Identity	Document Title
1	PART 22 (2015)	PART 22 – PUBLIC MOBILE SERVICES Subpart H – Cellular Radiotelephone Service
2	PART 24 (2015)	PART 24 – PERSONAL COMMUNICATIONS SERVICES Subpart E – Broadband PCS
3	PART 27 (2015)	PART 27 – MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES Subpart C – Technical Standards
3	PART 2 (2015)	Frequency allocations and radio treaty matters; general rules and regulations
4	TIA-603-E-2016	Land Mobile FM or PM -Communications Equipment -Measurement and Performance Standards
5	KDB971168 D01	KDB971168 D01 Power Meas License Digital Systems v03r01

Test Results List:

Test Requirement	Test method	Test item	Verdict	Note
Part 2.1046(a)/ Part 27.50(c)	TIA-603-E-2016& KDB 971168 D01v03r01	Conducted output power	PASS	Appendix A)
Part 2.1046(a)/ Part 27.50(g)	TIA-603-E-2016& KDB 971168 D01v03r01	Effective Radiated Power of Transmitter(ERP)	PASS	Appendix A)
Part 2.1049(h)	KDB 971168 D01v03r01	99% & 26dB Occupied Bandwidth	PASS	Appendix B)
Part 2.1051/ Part 27.53(g)	KDB 971168 D01v03r01	Band Edge at antenna terminals	PASS	Appendix C)
Part 2.1051/ Part 27.53(g)	TIA-603-E-2016& KDB 971168 D01v03r01	Spurious emissions at antenna terminals	PASS	Appendix D)
Part 2.1055/ Part 27.54	TIA-603-E-2016& KDB 971168 D01v03r01	Frequency stability	PASS	Appendix E)
Part 2.1053/ Part 2.1057/ Part 27.53(h)	TIA-603-E-2016& KDB 971168 D01v03r01	Field strength of spurious radiation	PASS	Appendix F)

Appendix A) Conducted Output Power and Effective (Isotropic) Radiated Power

<p>Description of the Conducted Output Power Measurement and ERP/EIRP Measurement:</p>	<p>A system simulator was used to establish communication with the EUT. Its parameters were set to force the EUT transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.</p> <p>According to KDB 412172 D01 Power Approach $EIRP = P_T + G_T - L_c$, $ERP = EIRP - 2.15$, where P_T = transmitter output power in dBm G_T = gain of the transmitting antenna in dBi L_c = signal attenuation in the connecting cable between the transmitter and antenna in dB</p>				
<p>Measurement Procedure:</p>	<ol style="list-style-type: none"> 1. The transmitter output port was connected to the system simulator. 2. Set EUT at maximum power through the system simulator. 3. Select lowest, middle, and highest channels for each band and different modulation. 4. Measure and record the power level from the system simulator. 				
<p>Limit:</p>	<table border="1"> <tr> <td data-bbox="424 860 600 904">Mode</td> <td data-bbox="600 860 1056 904">LTE band 12</td> </tr> <tr> <td data-bbox="424 904 600 949">Limit</td> <td data-bbox="600 904 1056 949">34.77dBm (3W)</td> </tr> </table>	Mode	LTE band 12	Limit	34.77dBm (3W)
Mode	LTE band 12				
Limit	34.77dBm (3W)				

Channel Bandwidth: 1.4 MHz						
Modulation	Channel	RB Configuration		Average Power [dBm]	ERP [dBm]	Verdict
		Size	Offset			
QPSK	LCH	1	0	23.59	16.44	PASS
		1	3	23.73	16.58	PASS
		1	5	23.63	16.48	PASS
		3	0	23.69	16.54	PASS
		3	2	23.70	16.55	PASS
		3	3	23.71	16.56	PASS
		6	0	22.64	15.49	PASS
	MCH	1	0	23.34	16.19	PASS
		1	3	23.41	16.26	PASS
		1	5	23.30	16.15	PASS
		3	0	23.46	16.31	PASS
		3	2	23.46	16.31	PASS
		3	3	23.46	16.31	PASS
		6	0	22.41	15.26	PASS
	HCH	1	0	23.19	16.04	PASS
		1	3	23.33	16.18	PASS
		1	5	23.22	16.07	PASS
		3	0	23.34	16.19	PASS
		3	2	23.34	16.19	PASS
		3	3	23.31	16.16	PASS
		6	0	22.28	15.13	PASS
16QAM	LCH	1	0	22.80	15.65	PASS
		1	3	22.94	15.79	PASS
		1	5	22.80	15.65	PASS
		3	0	23.70	16.55	PASS
		3	2	23.71	16.56	PASS
		3	3	23.72	16.57	PASS
		6	0	21.69	14.54	PASS
	MCH	1	0	22.56	15.41	PASS
		1	3	22.69	15.54	PASS
		1	5	22.57	15.42	PASS
		3	0	23.47	16.32	PASS
		3	2	23.48	16.33	PASS
		3	3	23.43	16.28	PASS

		6	0	21.49	14.34	PASS
	HCH	1	0	22.41	15.26	PASS
		1	3	22.71	15.56	PASS
		1	5	22.41	15.26	PASS
		3	0	23.34	16.19	PASS
		3	2	23.31	16.16	PASS
		3	3	23.33	16.18	PASS
		6	0	21.33	14.18	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz							
Modulation	Channel	RB Configuration		Average Power [dBm]	ERP [dBm]	Verdict	
		Size	Offset				
QPSK	LCH	1	0	23.51	16.36	PASS	
		1	7	23.56	16.41	PASS	
		1	14	23.47	16.32	PASS	
		8	0	22.61	15.46	PASS	
		8	4	22.62	15.47	PASS	
		8	7	22.60	15.45	PASS	
		15	0	22.60	15.45	PASS	
		MCH	1	0	23.36	16.21	PASS
	1		7	23.36	16.21	PASS	
	1		14	23.34	16.19	PASS	
	8		0	22.42	15.27	PASS	
	8		4	22.44	15.29	PASS	
	8		7	22.44	15.29	PASS	
	15		0	22.46	15.31	PASS	
	HCH		1	0	23.37	16.22	PASS
		1	7	23.37	16.22	PASS	
		1	14	23.38	16.23	PASS	
		8	0	22.36	15.21	PASS	
		8	4	22.38	15.23	PASS	
		8	7	22.39	15.24	PASS	
		15	0	22.41	15.26	PASS	
		16QAM	LCH	1	0	22.83	15.68
	1			7	22.81	15.66	PASS
	1			14	22.76	15.61	PASS
8	0			22.63	15.48	PASS	

		8	4	22.64	15.49	PASS
		8	7	22.60	15.45	PASS
		15	0	21.69	14.54	PASS
	MCH	1	0	22.67	15.52	PASS
		1	7	22.57	15.42	PASS
		1	14	22.53	15.38	PASS
		8	0	22.45	15.30	PASS
		8	4	22.44	15.29	PASS
		8	7	22.42	15.27	PASS
		15	0	21.49	14.34	PASS
	HCH	1	0	22.62	15.47	PASS
		1	7	22.55	15.40	PASS
		1	14	22.58	15.43	PASS
		8	0	22.37	15.22	PASS
		8	4	22.38	15.23	PASS
8		7	22.40	15.25	PASS	
15		0	21.40	14.25	PASS	

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz						
Modulation	Channel	RB Configuration		Average Power [dBm]	ERP [dBm]	Verdict
		Size	Offset			
QPSK	LCH	1	0	23.56	16.41	PASS
		1	12	23.58	16.43	PASS
		1	24	23.43	16.28	PASS
		12	0	22.66	15.51	PASS
		12	6	22.66	15.51	PASS
		12	13	22.51	15.36	PASS
		25	0	22.58	15.43	PASS
	MCH	1	0	23.39	16.24	PASS
		1	12	23.44	16.29	PASS
		1	24	23.27	16.12	PASS
		12	0	22.43	15.28	PASS
		12	6	22.45	15.30	PASS
		12	13	22.41	15.26	PASS
		25	0	22.48	15.33	PASS
	HCH	1	0	23.24	16.09	PASS
1		12	23.41	16.26	PASS	

		1	24	23.30	16.15	PASS
		12	0	22.48	15.33	PASS
		12	6	22.50	15.35	PASS
		12	13	22.34	15.19	PASS
		25	0	22.47	15.32	PASS
16QAM	LCH	1	0	22.61	15.46	PASS
		1	12	22.65	15.50	PASS
		1	24	22.52	15.37	PASS
		12	0	22.66	15.51	PASS
		12	6	22.62	15.47	PASS
		12	13	22.50	15.35	PASS
		25	0	21.64	14.49	PASS
	MCH	1	0	22.48	15.33	PASS
		1	12	22.52	15.37	PASS
		1	24	22.33	15.18	PASS
		12	0	22.43	15.28	PASS
		12	6	22.54	15.39	PASS
		12	13	22.51	15.36	PASS
		25	0	21.51	14.36	PASS
	HCH	1	0	22.36	15.21	PASS
		1	12	22.45	15.30	PASS
		1	24	22.35	15.20	PASS
		12	0	22.49	15.34	PASS
		12	6	22.48	15.33	PASS
		12	13	22.34	15.19	PASS
		25	0	21.48	14.33	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz						
Modulation	Channel	RB Configuration		Average Power [dBm]	ERP [dBm]	Verdict
		Size	Offset			
QPSK	LCH	1	0	23.60	16.45	PASS
		1	24	23.56	16.41	PASS
		1	49	23.27	16.12	PASS
		25	0	22.74	15.59	PASS
		25	12	22.74	15.59	PASS
		25	25	22.61	15.46	PASS
		50	0	22.65	15.50	PASS

16QAM	MCH	1	0	23.41	16.26	PASS	
		1	24	23.43	16.28	PASS	
		1	49	23.27	16.12	PASS	
		25	0	22.50	15.35	PASS	
		25	12	22.48	15.33	PASS	
		25	25	22.45	15.30	PASS	
		50	0	22.50	15.35	PASS	
		HCH	1	0	23.37	16.22	PASS
	1		24	23.34	16.19	PASS	
	1		49	23.33	16.18	PASS	
	25		0	22.41	15.26	PASS	
	25		12	22.43	15.28	PASS	
	25		25	22.26	15.11	PASS	
	50		0	22.38	15.23	PASS	
	LCH		1	0	22.83	15.68	PASS
		1	24	22.84	15.69	PASS	
		1	49	22.57	15.42	PASS	
		25	0	22.73	15.58	PASS	
		25	12	22.75	15.60	PASS	
		25	25	22.59	15.44	PASS	
		50	0	21.68	14.53	PASS	
		MCH	1	0	22.72	15.57	PASS
			1	24	22.74	15.59	PASS
			1	49	22.55	15.40	PASS
			25	0	22.51	15.36	PASS
			25	12	22.51	15.36	PASS
			25	25	22.46	15.31	PASS
			50	0	21.49	14.34	PASS
HCH	1		0	22.69	15.54	PASS	
	1	24	22.67	15.52	PASS		
	1	49	22.58	15.43	PASS		
	25	0	22.36	15.21	PASS		
	25	12	22.41	15.26	PASS		
	25	25	22.28	15.13	PASS		
	50	0	21.34	14.19	PASS		

Appendix B) 26dB Bandwidth and Occupied Bandwidth

Test Result

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	6	0	1.0764	1.241	PASS
	MCH	6	0	1.0749	1.243	PASS
	HCH	6	0	1.0738	1.232	PASS
16QAM	LCH	6	0	1.0777	1.260	PASS
	MCH	6	0	1.0784	1.253	PASS
	HCH	6	0	1.0753	1.253	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	15	0	2.6679	2.862	PASS
	MCH	15	0	2.6672	2.844	PASS
	HCH	15	0	2.6731	2.832	PASS
16QAM	LCH	15	0	2.6766	2.853	PASS
	MCH	15	0	2.6783	2.863	PASS
	HCH	15	0	2.6776	2.865	PASS

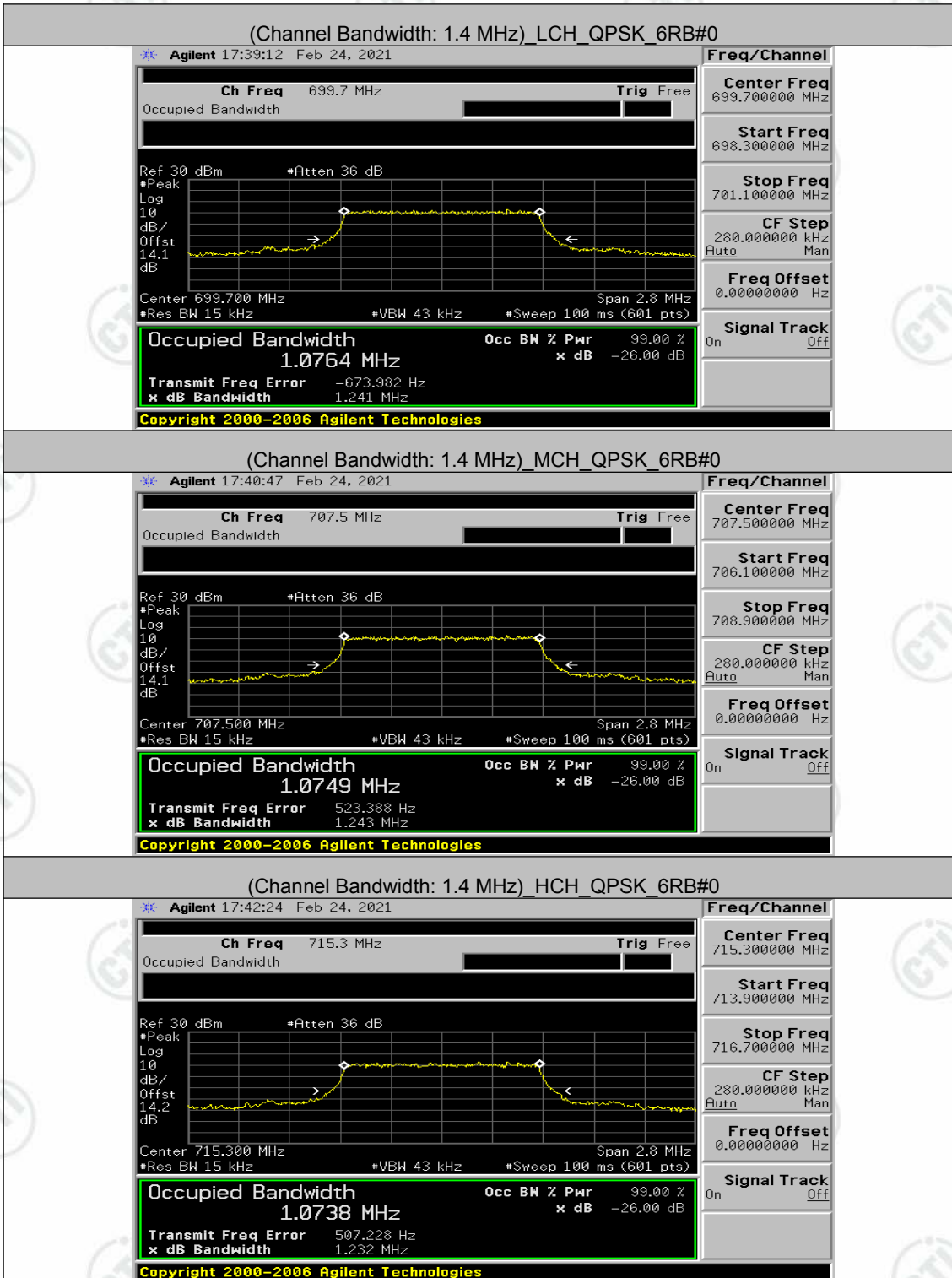
Channel Bandwidth: 5 MHz

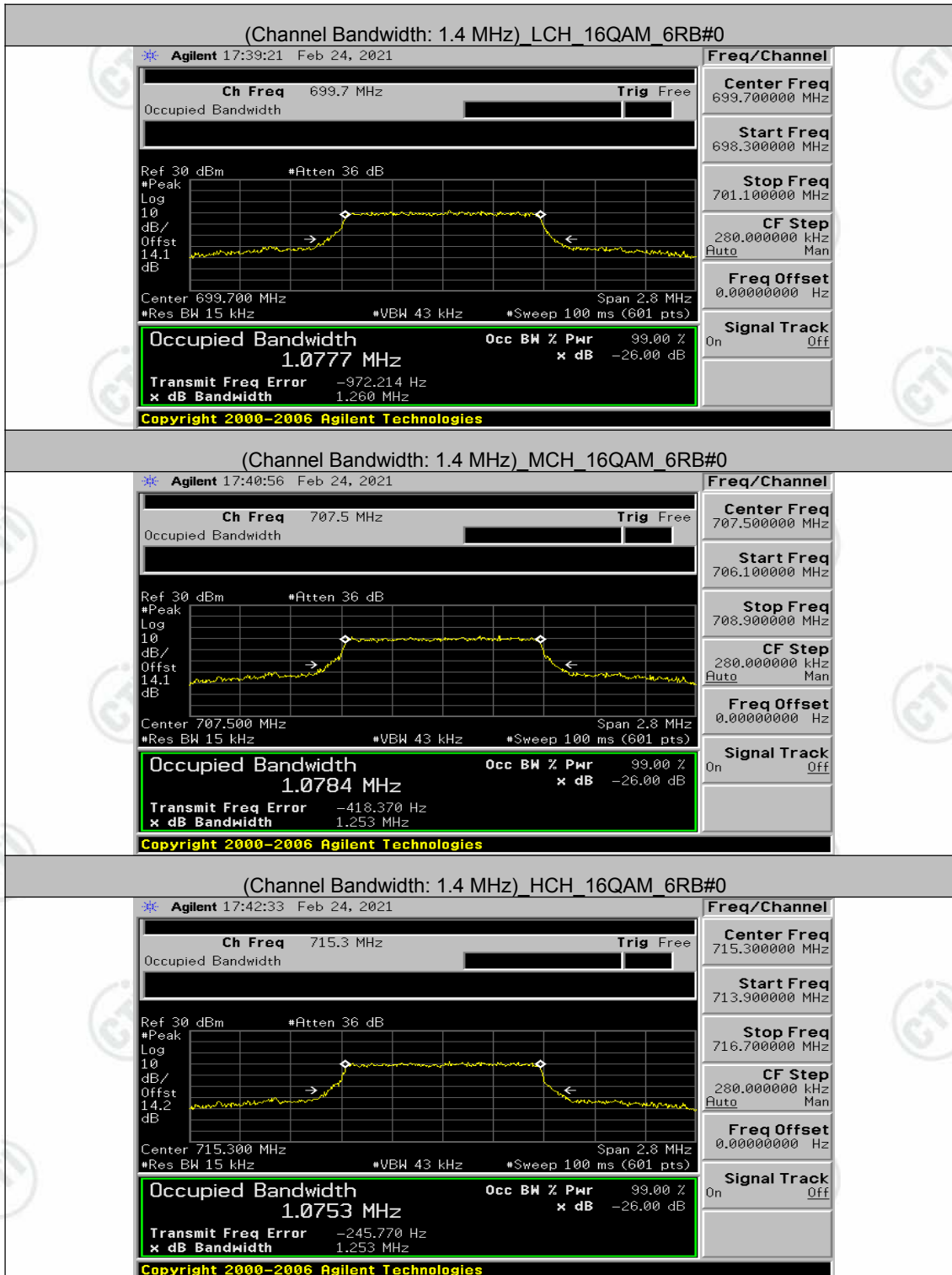
Channel Bandwidth: 5 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	25	0	4.4887	5.068	PASS
	MCH	25	0	4.4950	5.095	PASS
	HCH	25	0	4.4979	5.071	PASS
16QAM	LCH	25	0	4.4714	4.959	PASS
	MCH	25	0	4.4704	4.970	PASS
	HCH	25	0	4.4707	4.986	PASS

Channel Bandwidth: 10 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	50	0	8.9930	9.918	PASS
	MCH	50	0	8.9466	9.804	PASS
	HCH	50	0	8.9357	9.857	PASS
16QAM	LCH	50	0	8.9593	9.969	PASS
	MCH	50	0	8.9354	9.716	PASS
	HCH	50	0	8.9353	9.852	PASS

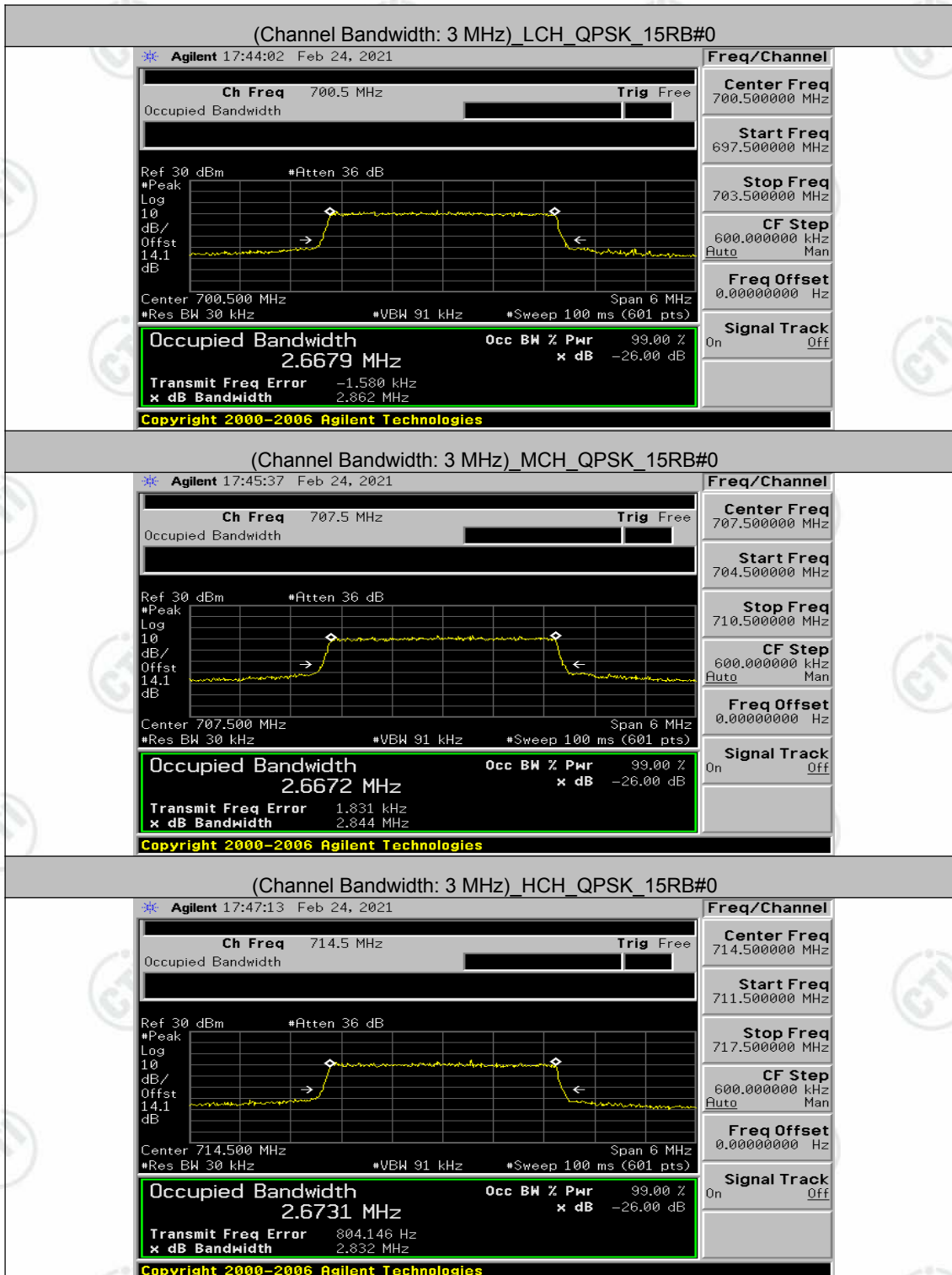
Test Graphs

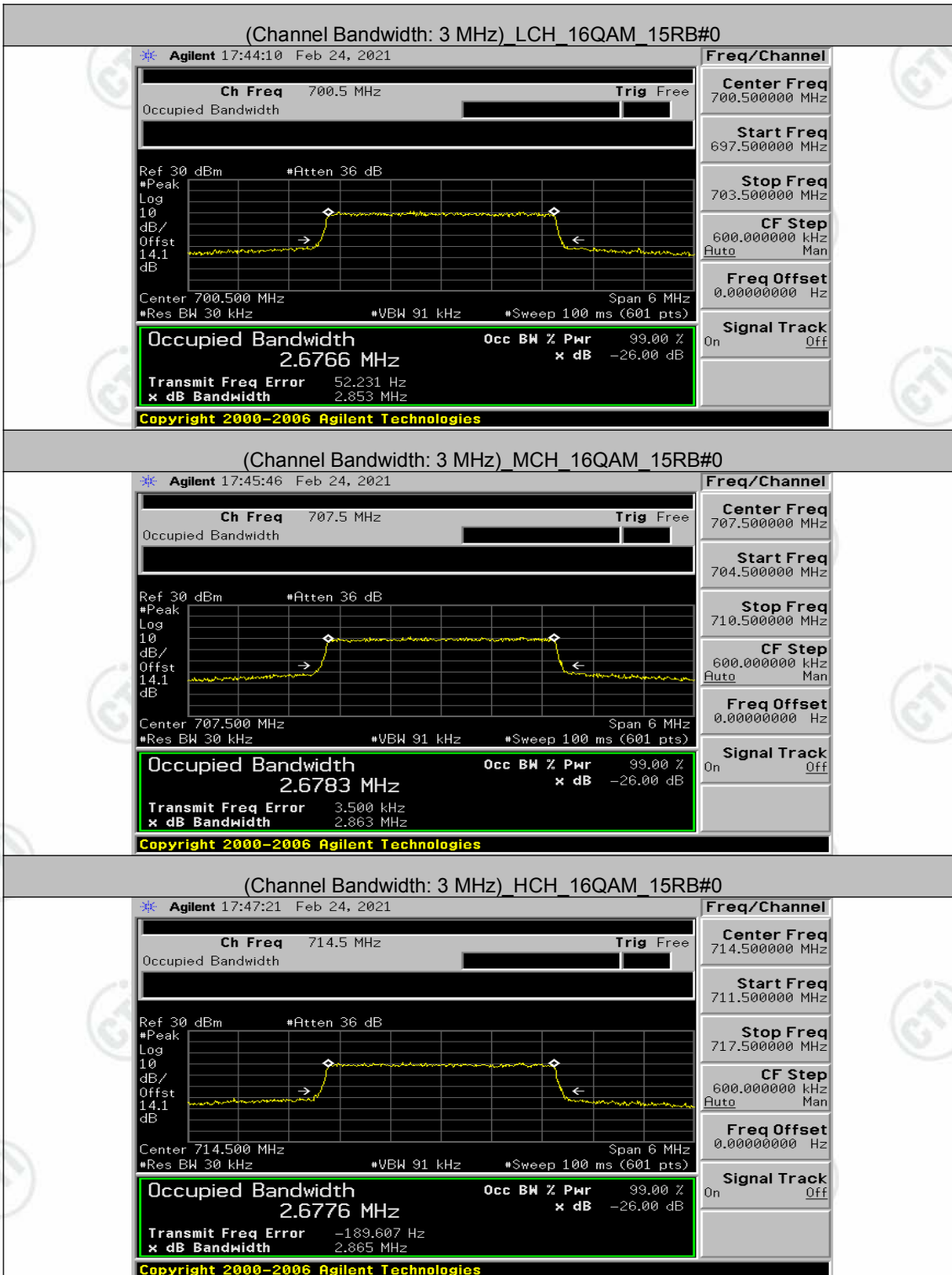
Channel Bandwidth: 1.4 MHz



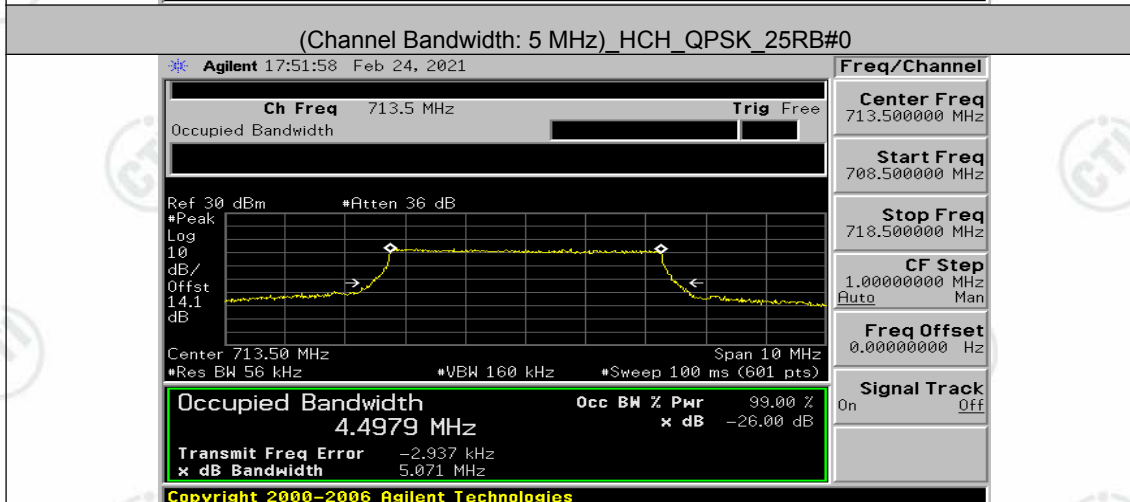
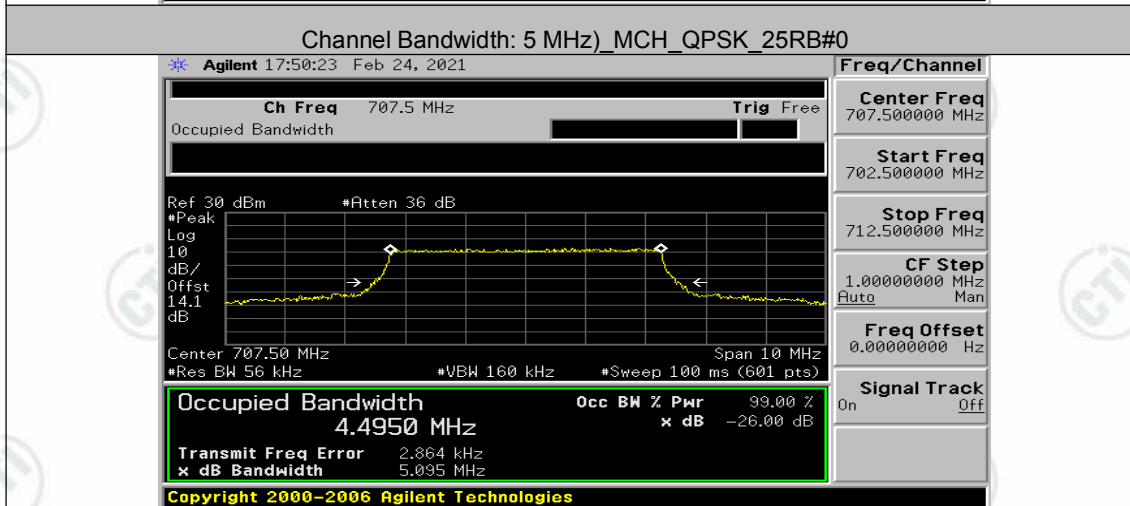
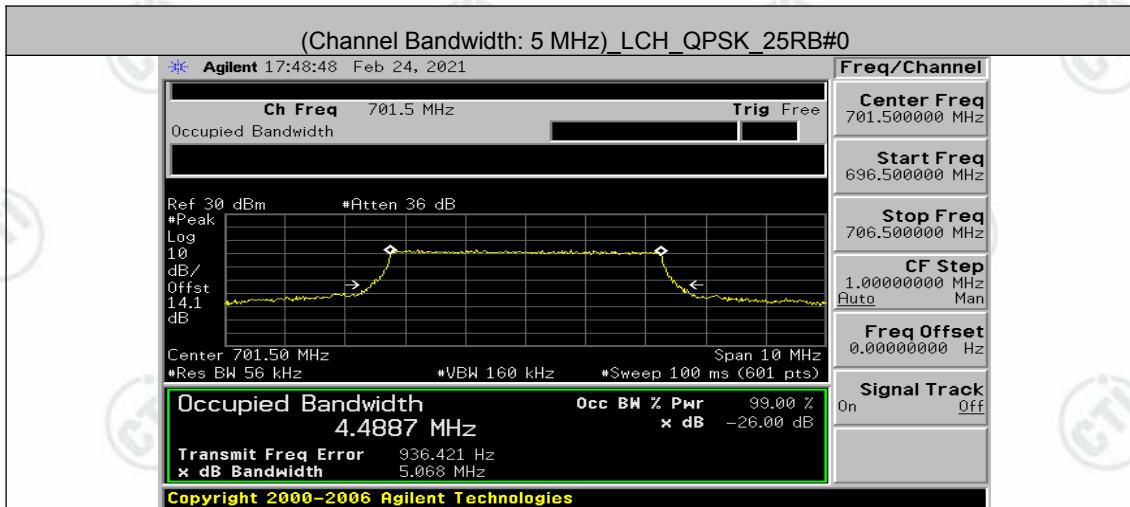


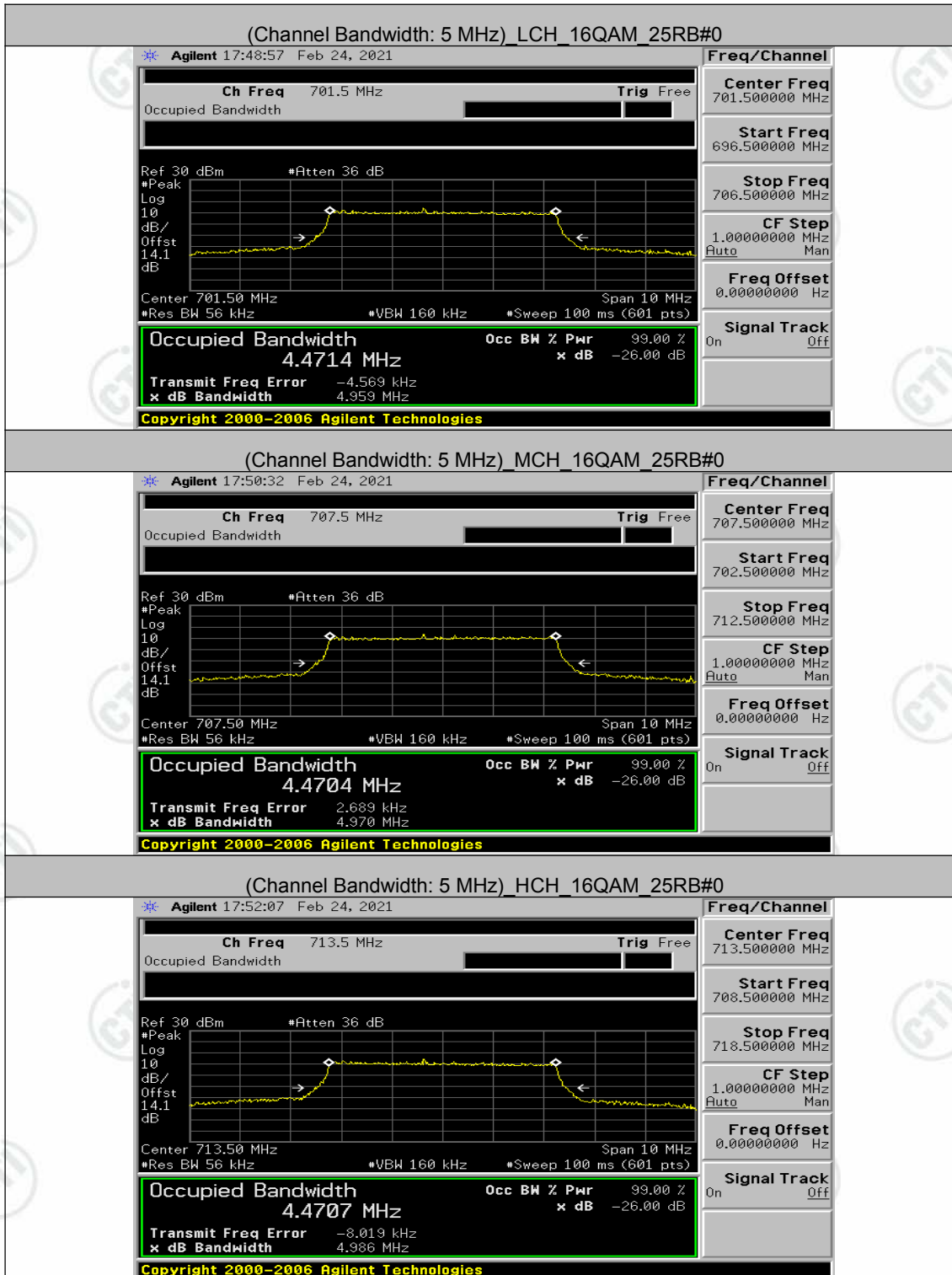
Channel Bandwidth: 3 MHz



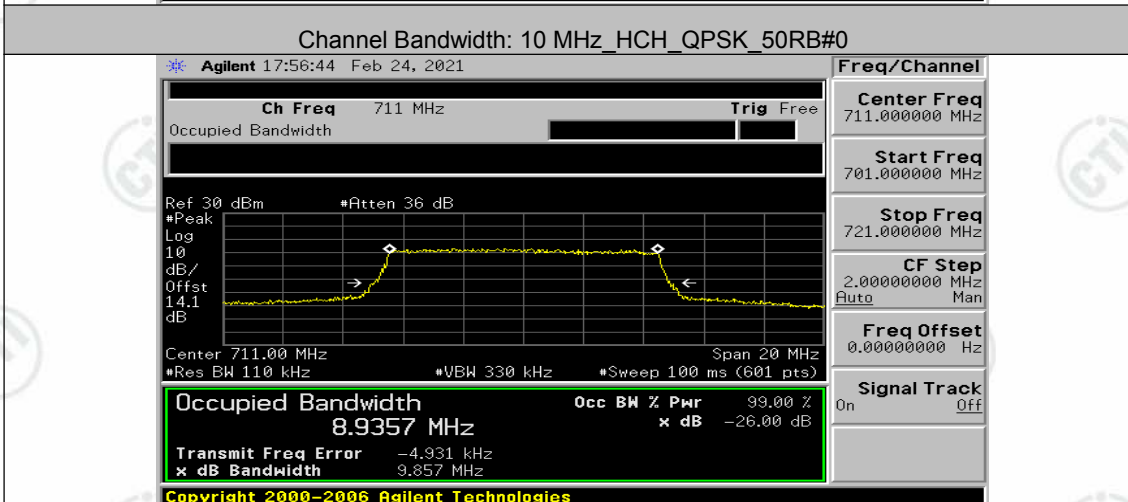
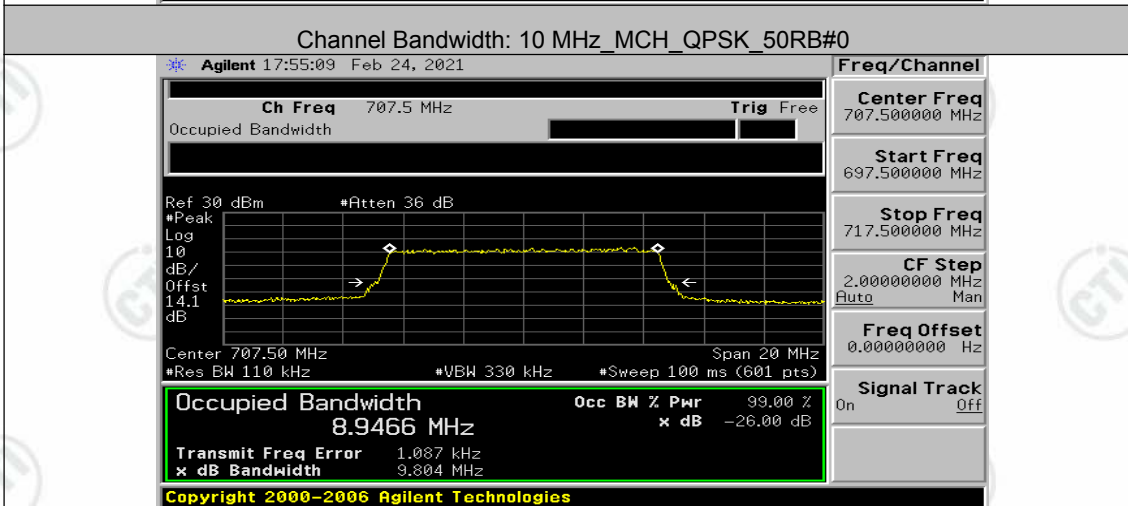
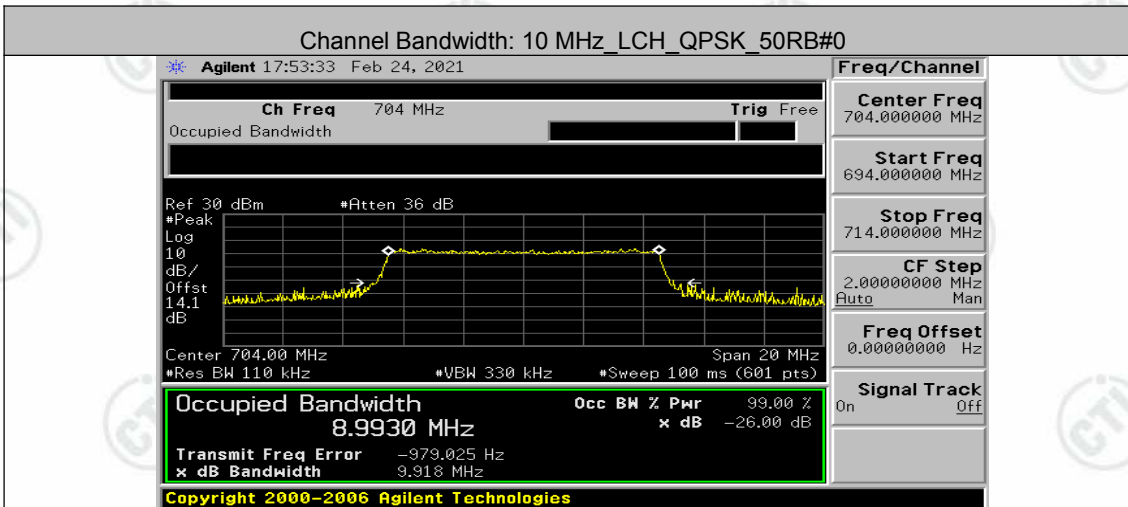


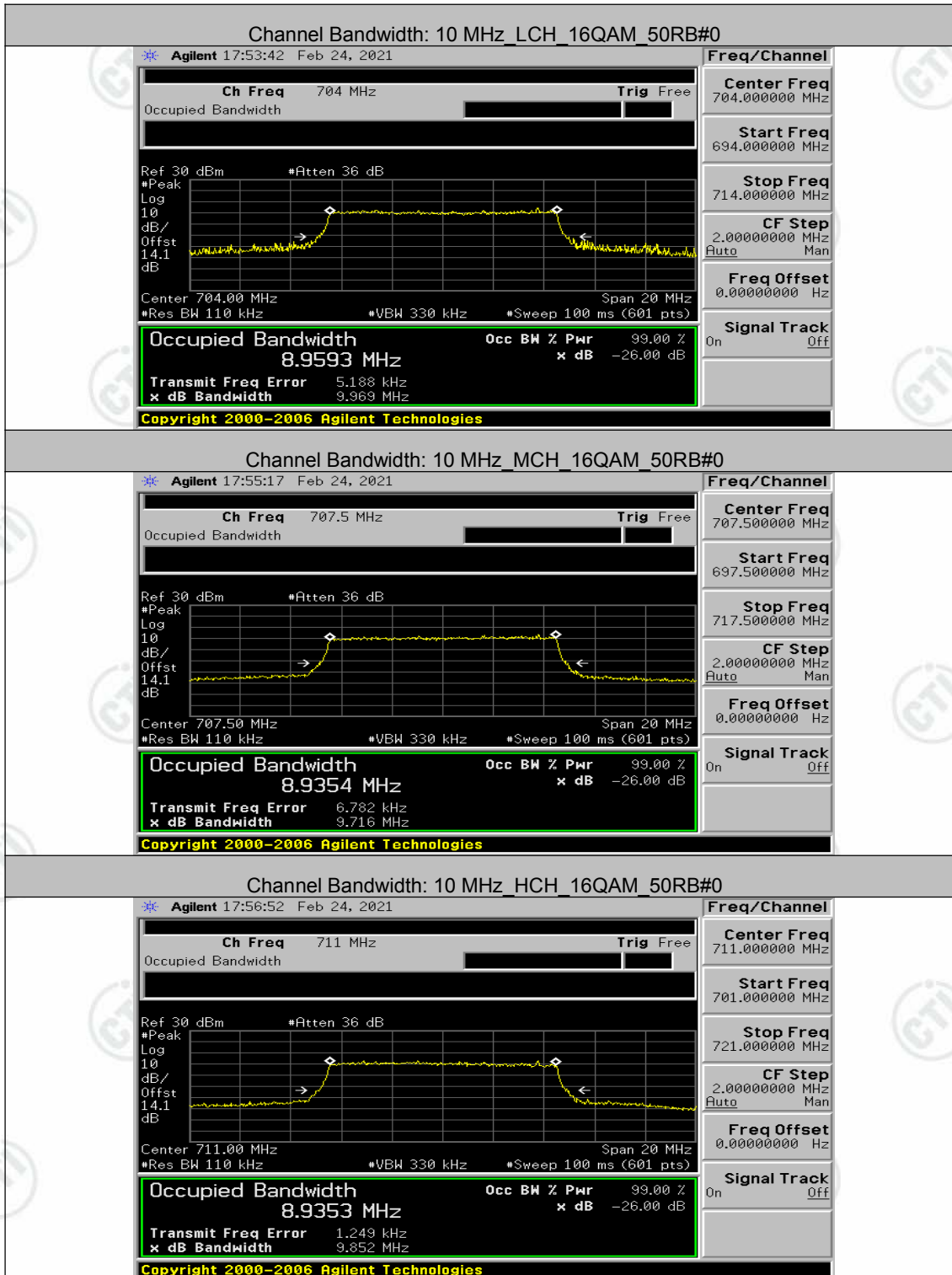
Channel Bandwidth: 5 MHz





Channel Bandwidth: 10 MHz

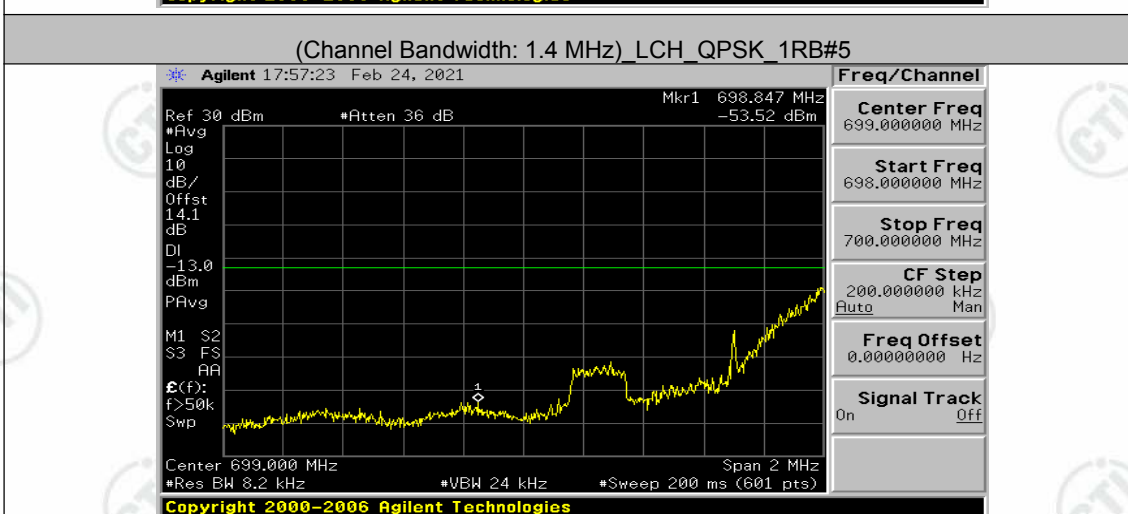
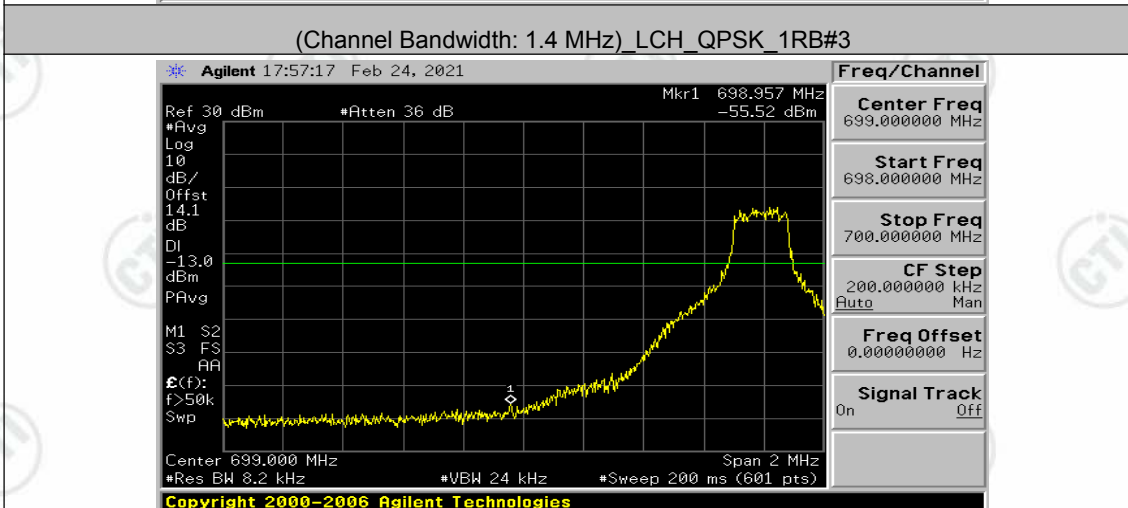
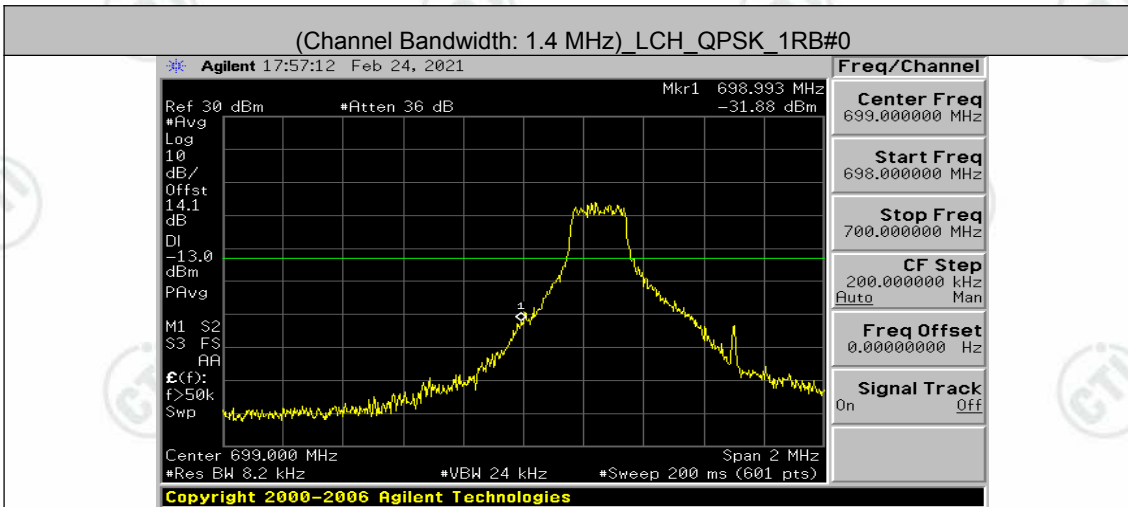


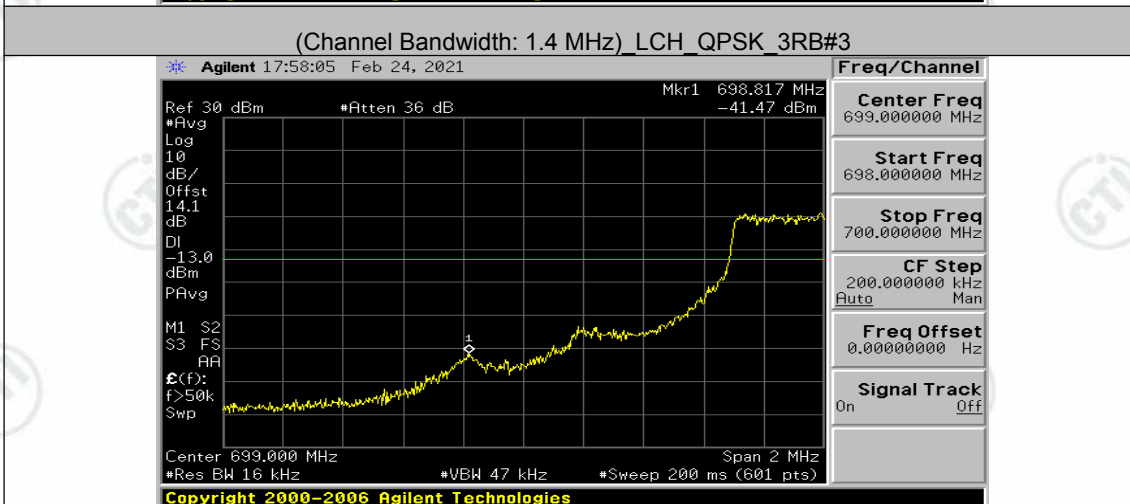
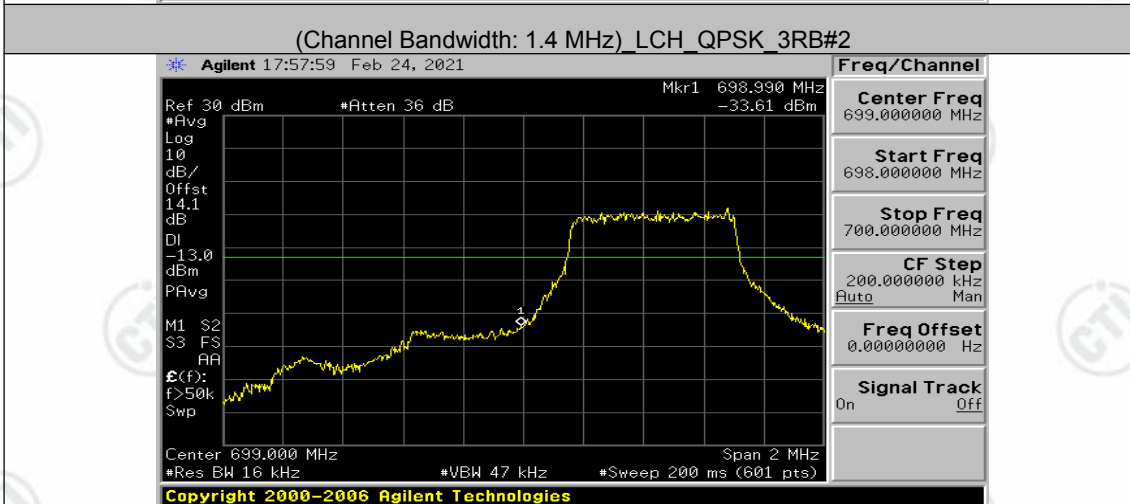
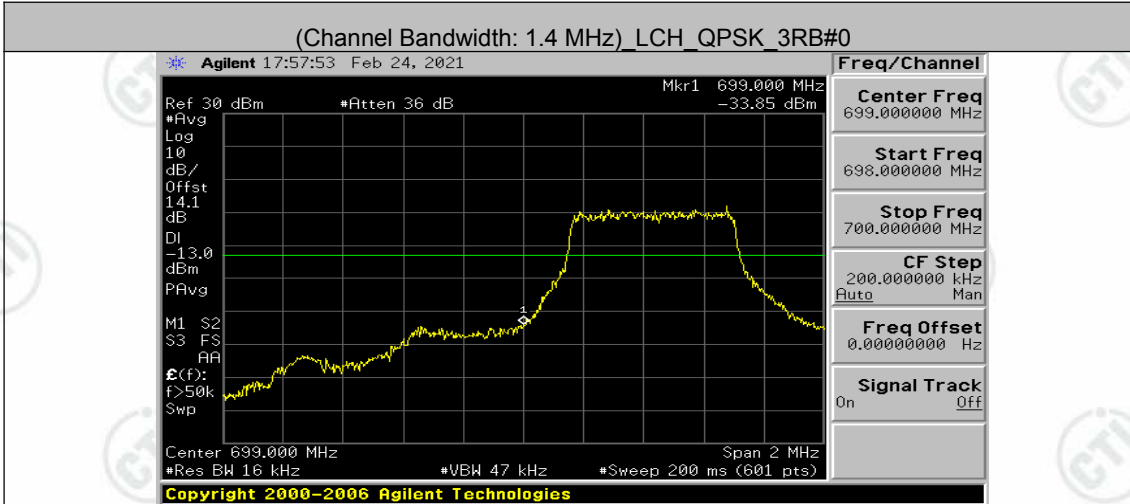


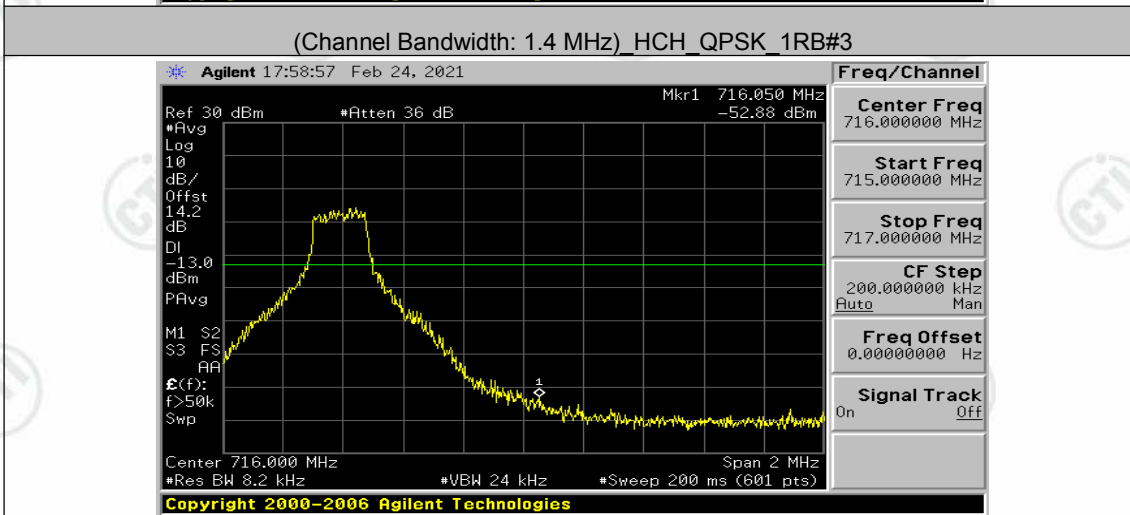
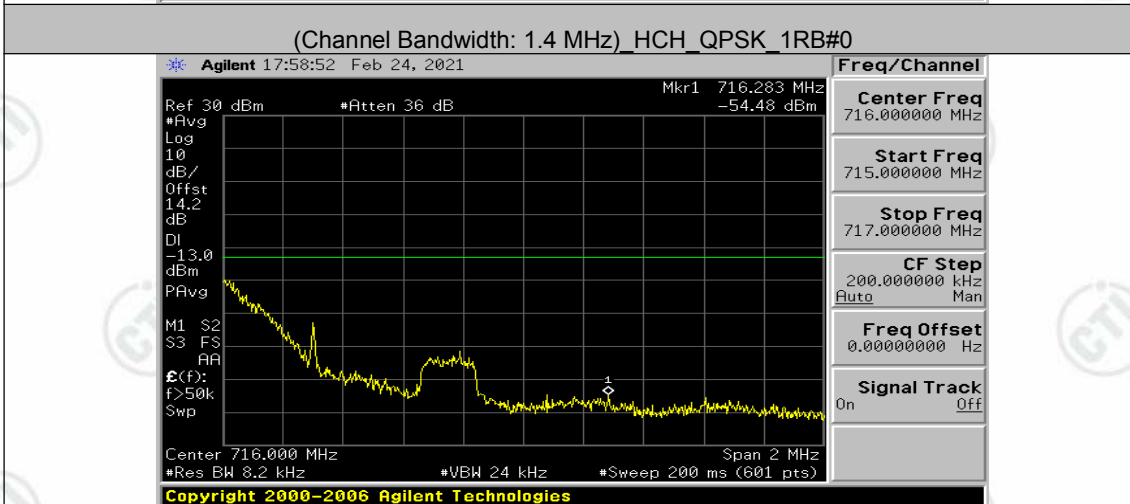
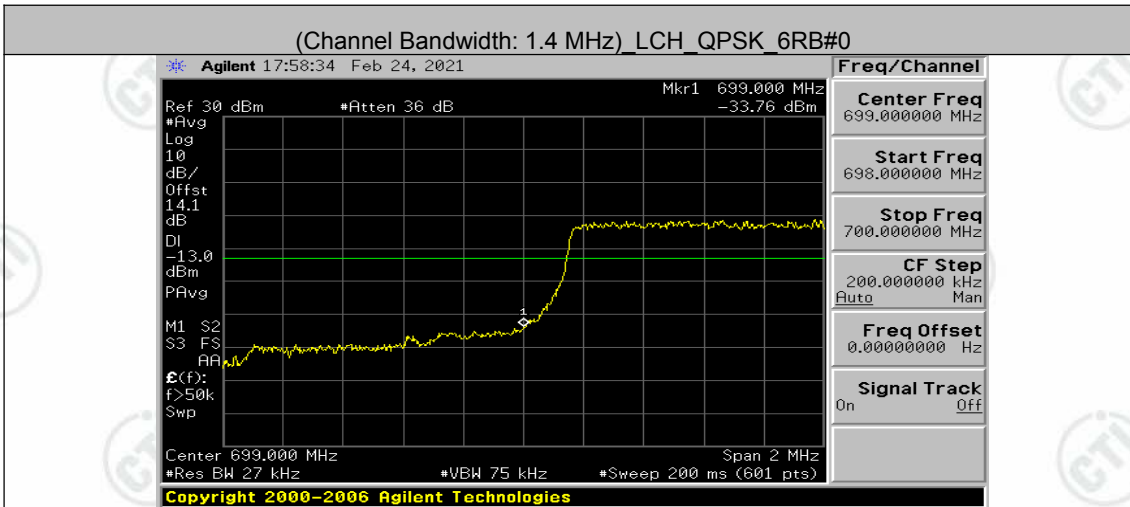
Appendix C) Band Edge

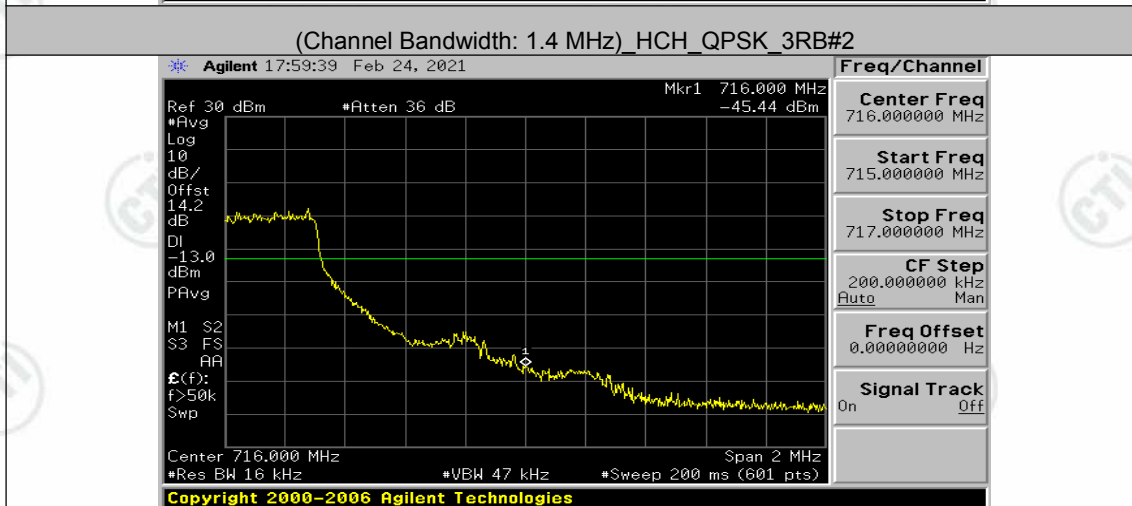
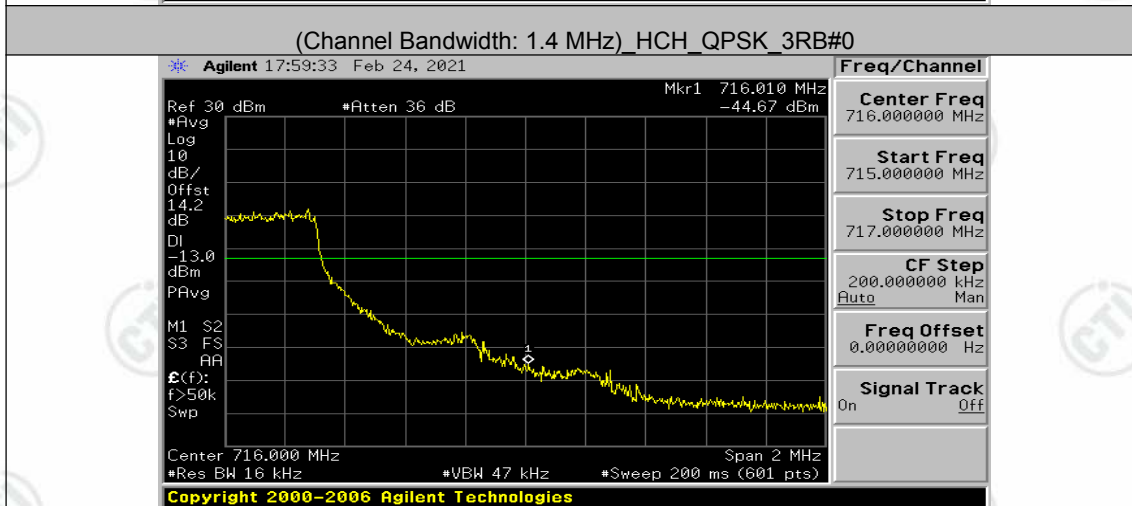
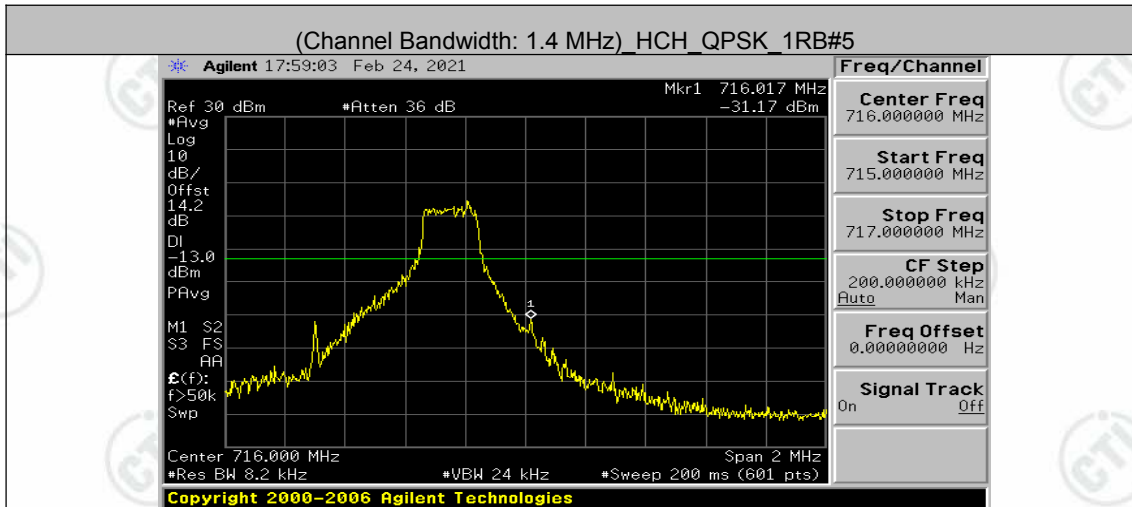
Test Graphs

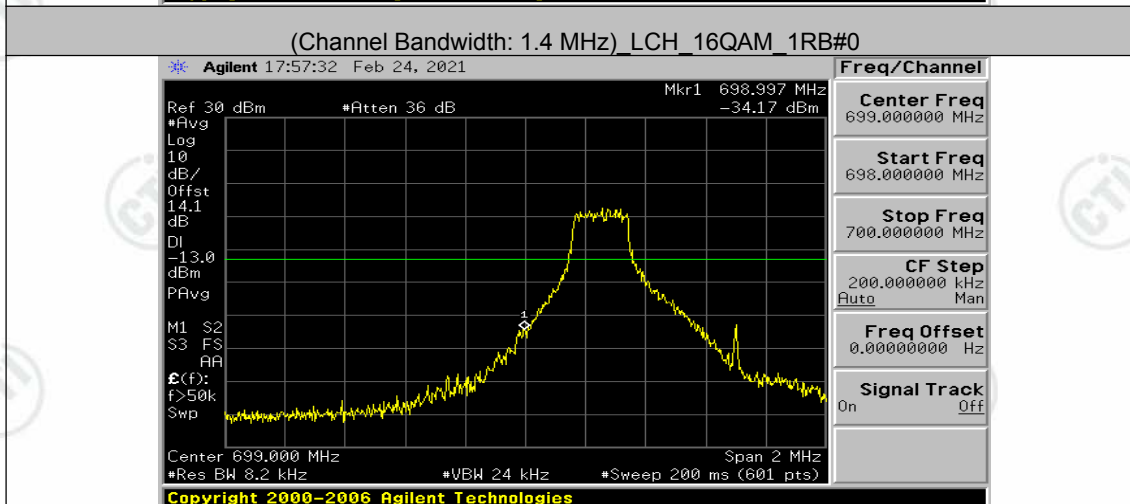
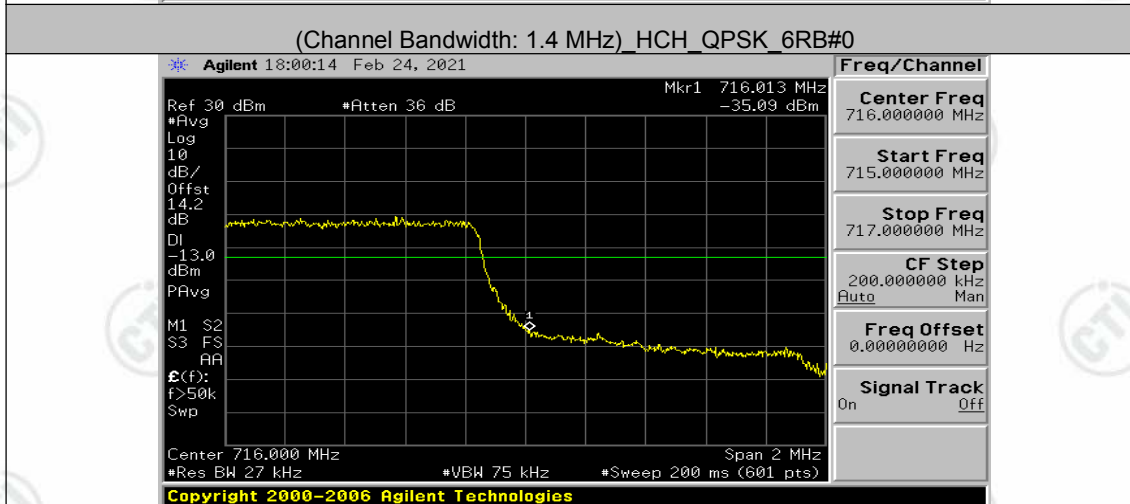
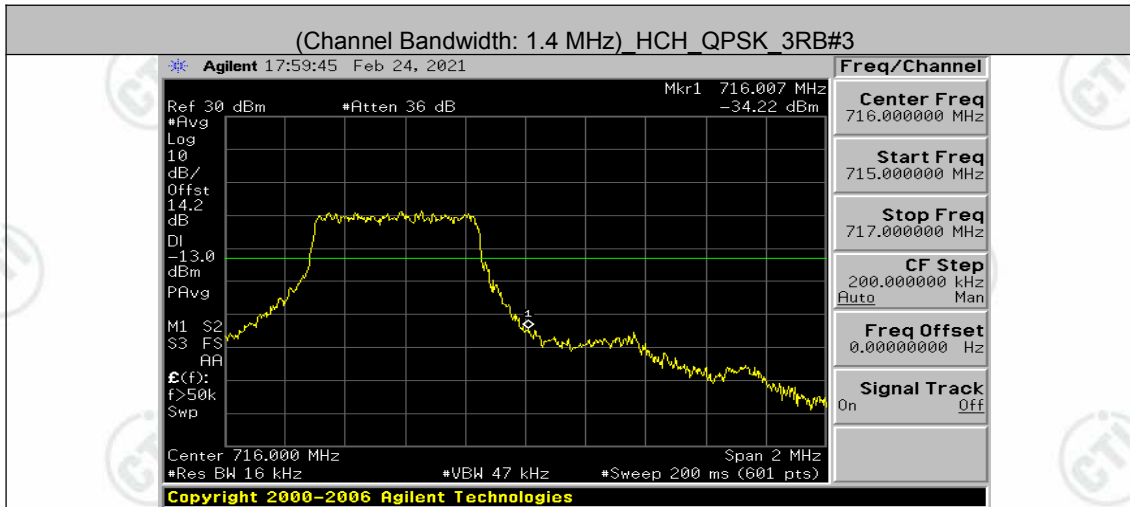
Channel Bandwidth: 1.4 MHz

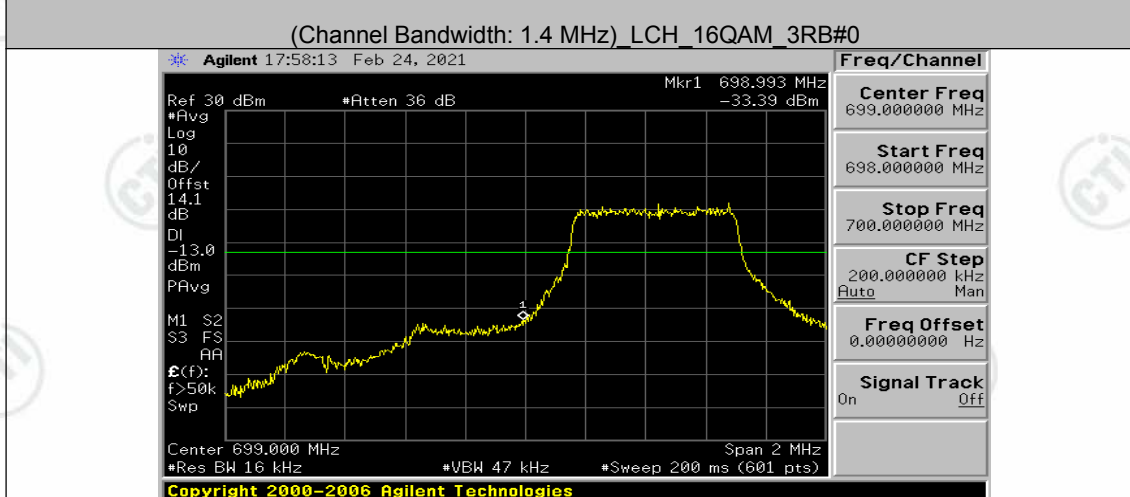
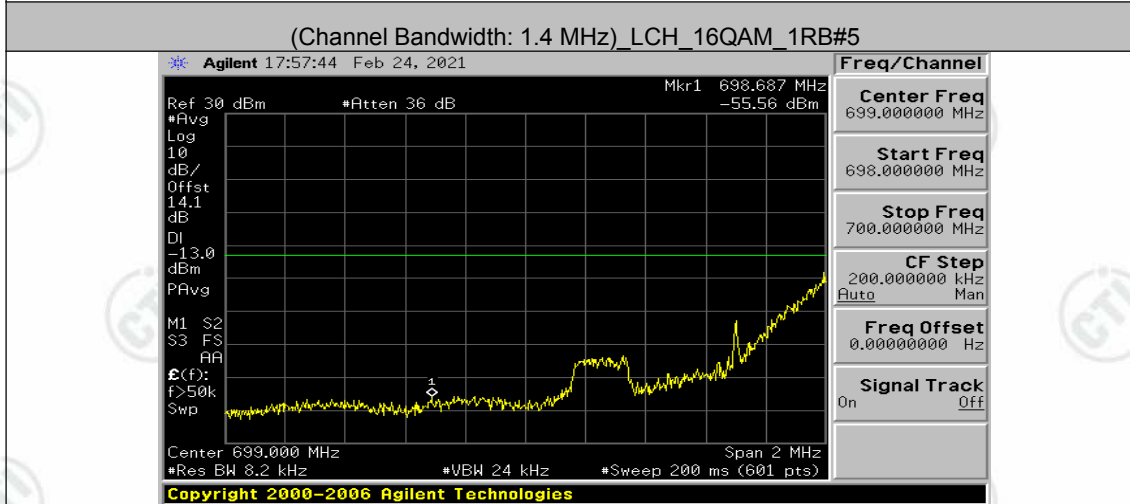
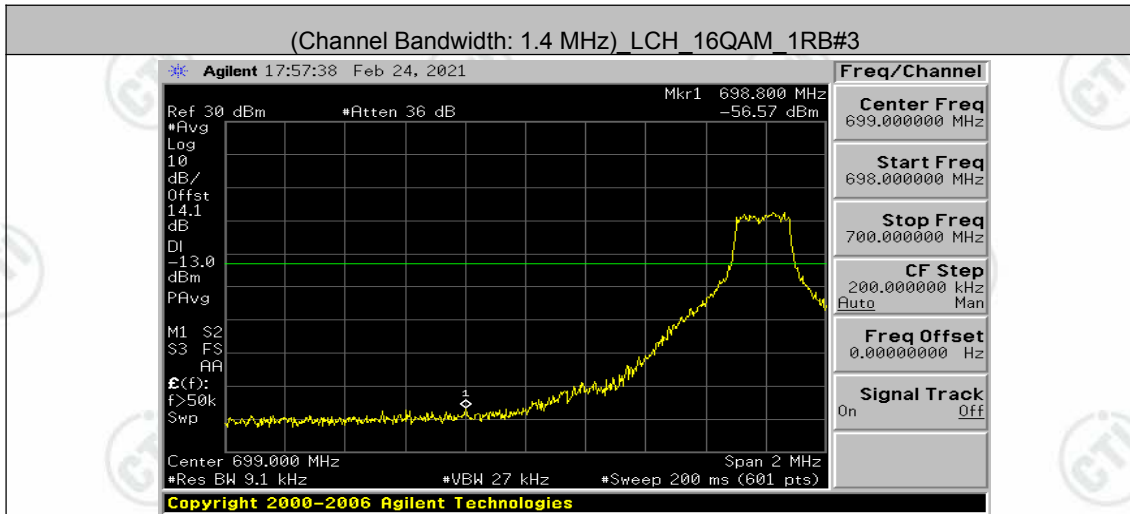


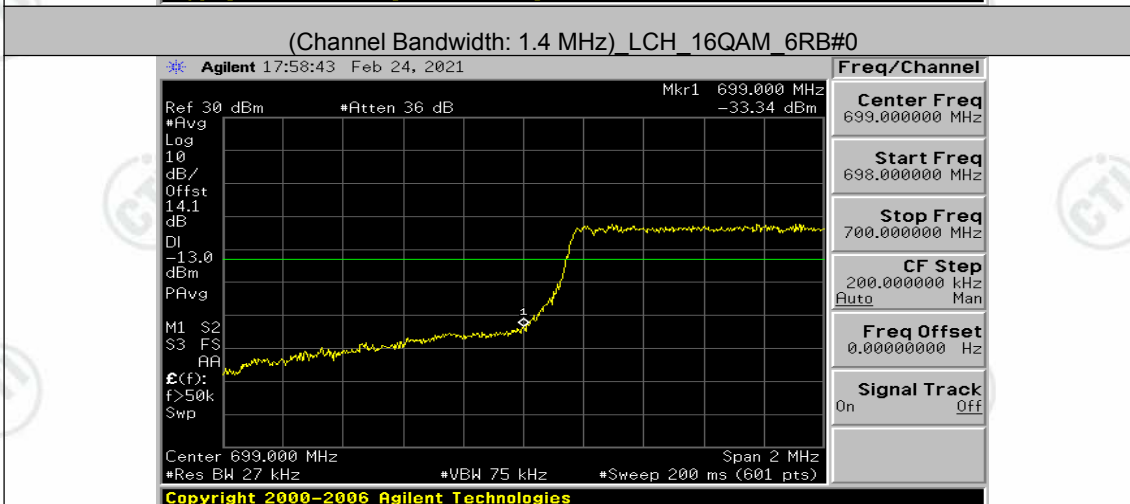
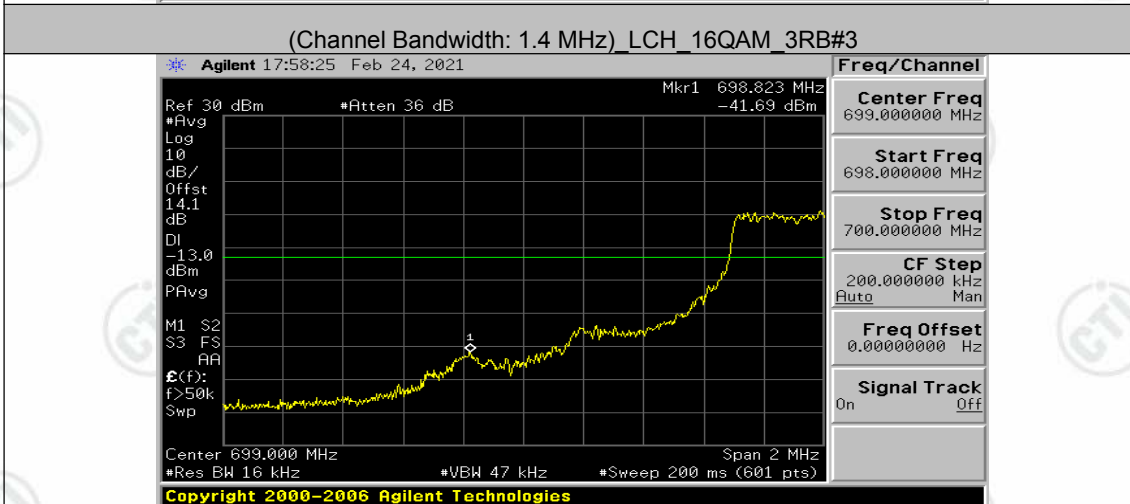
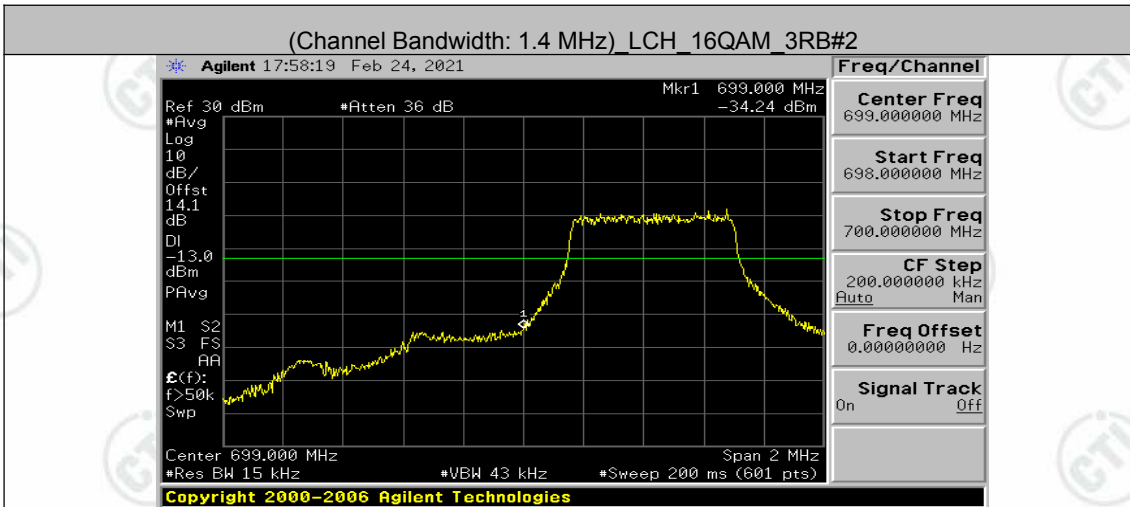


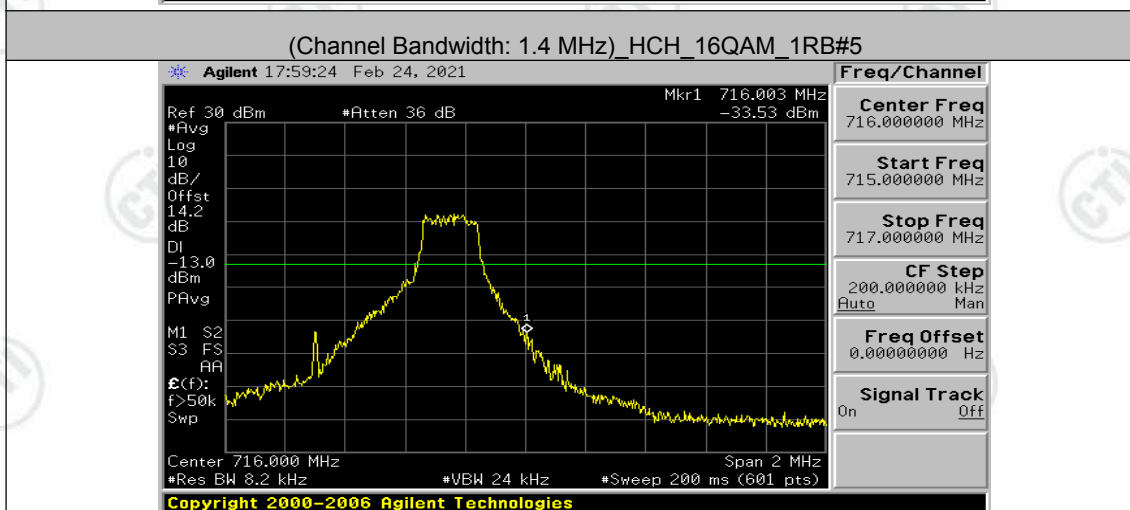
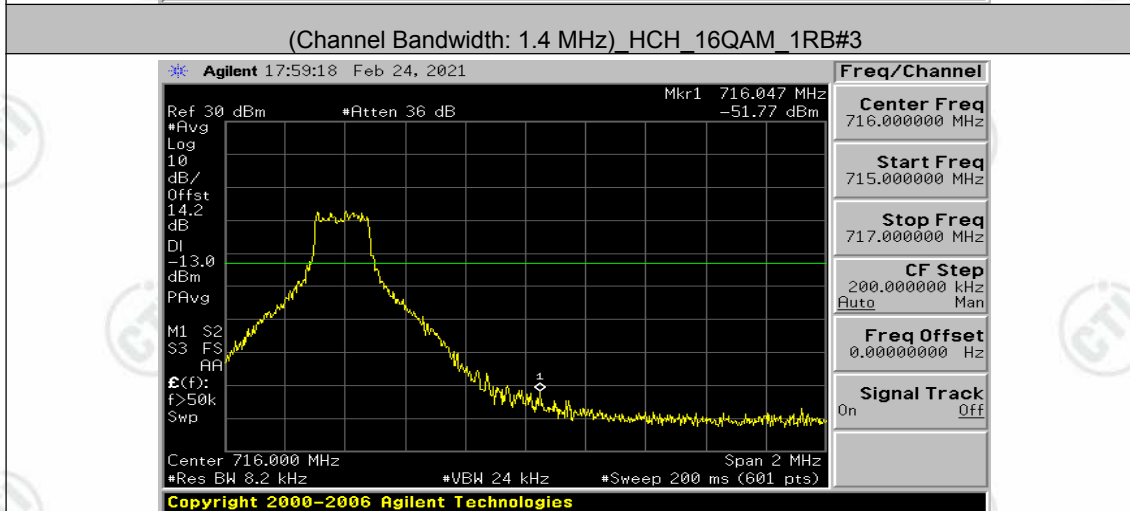
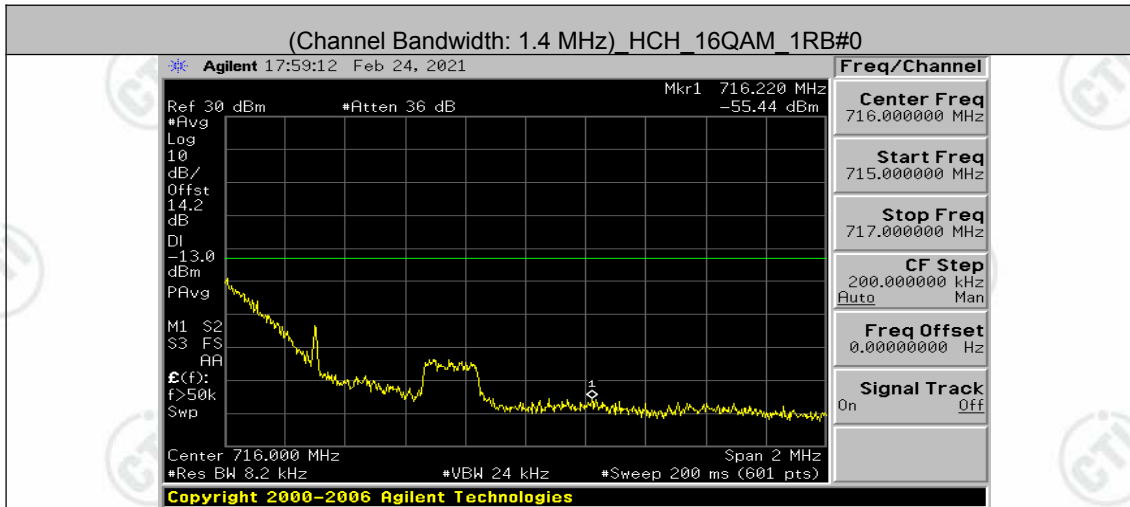


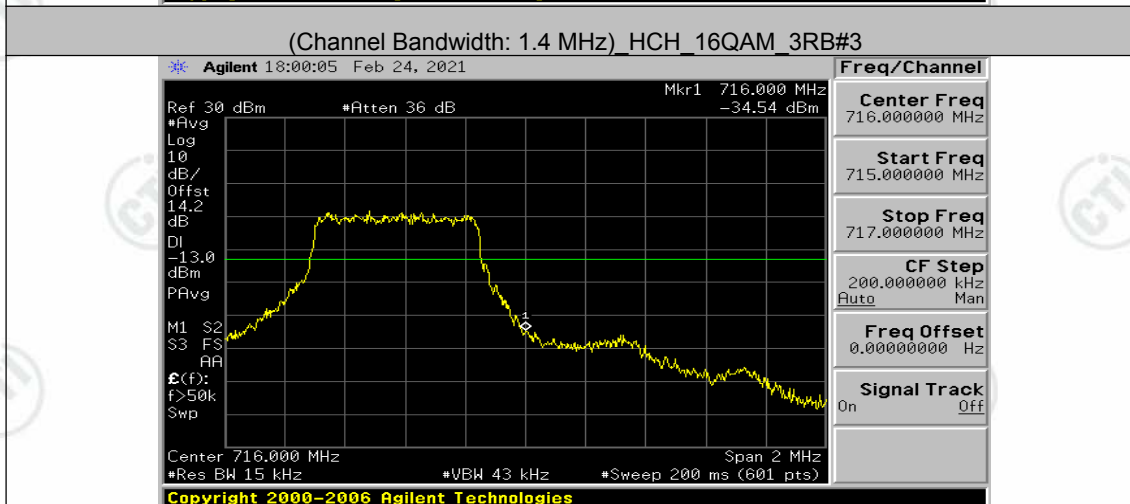
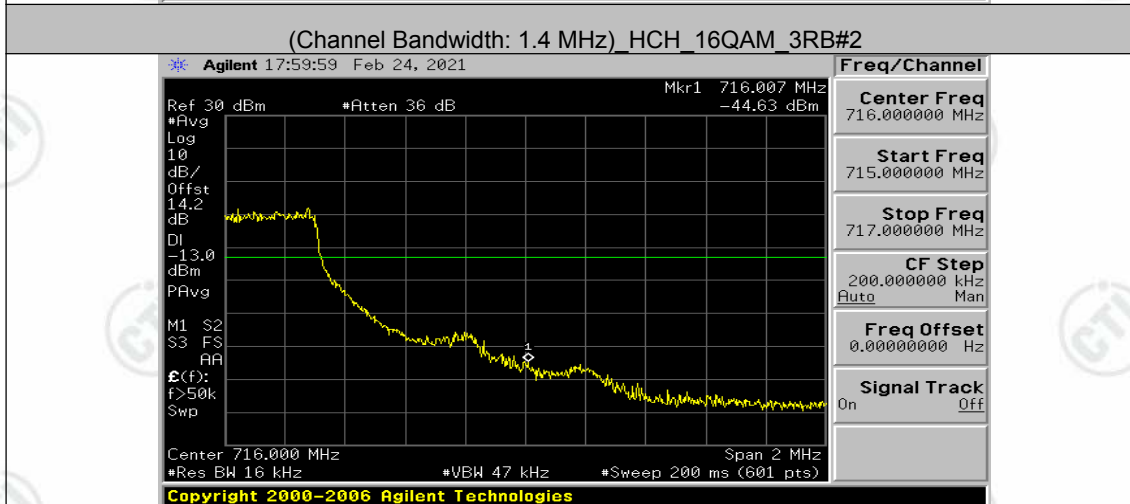
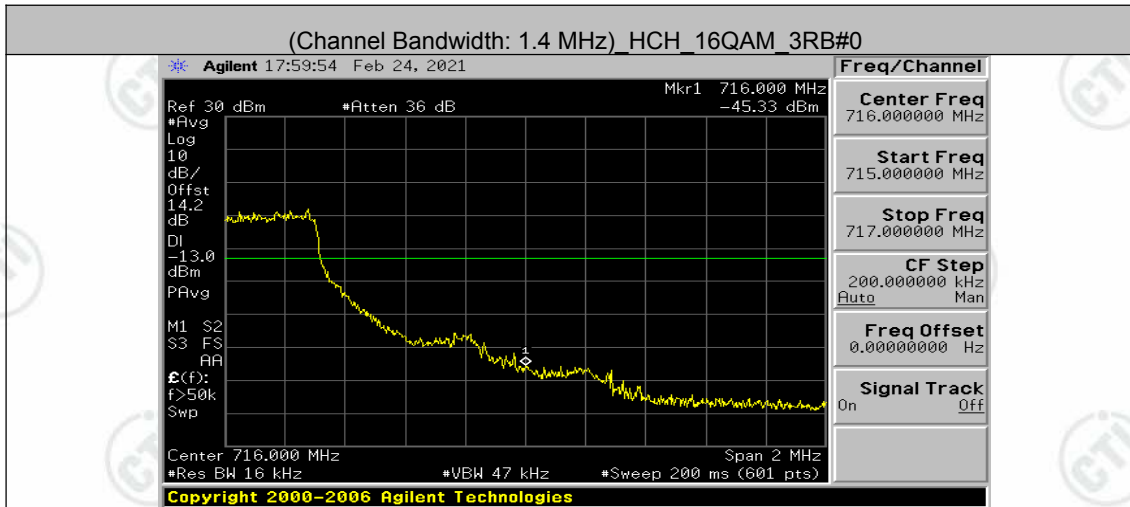


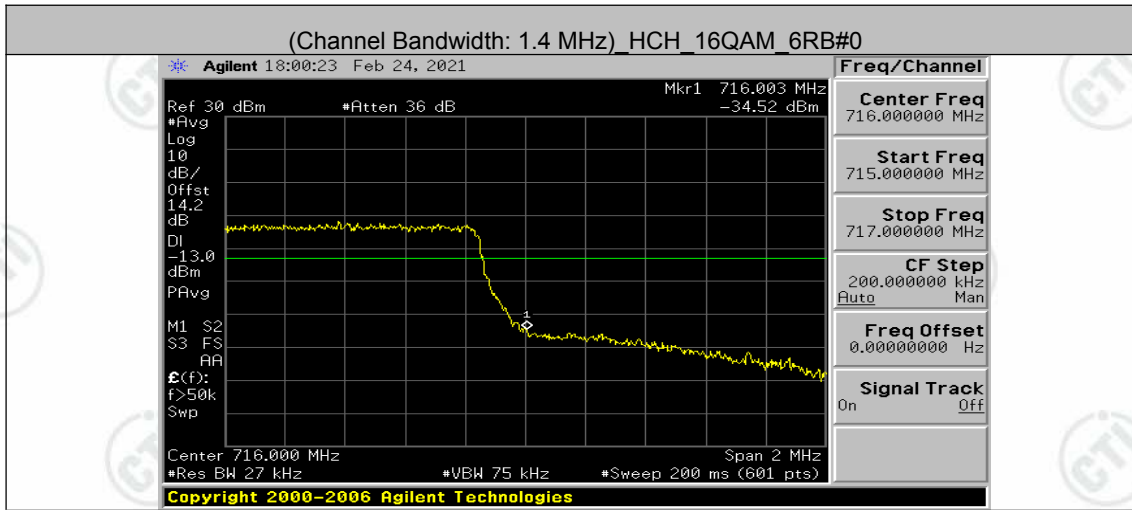




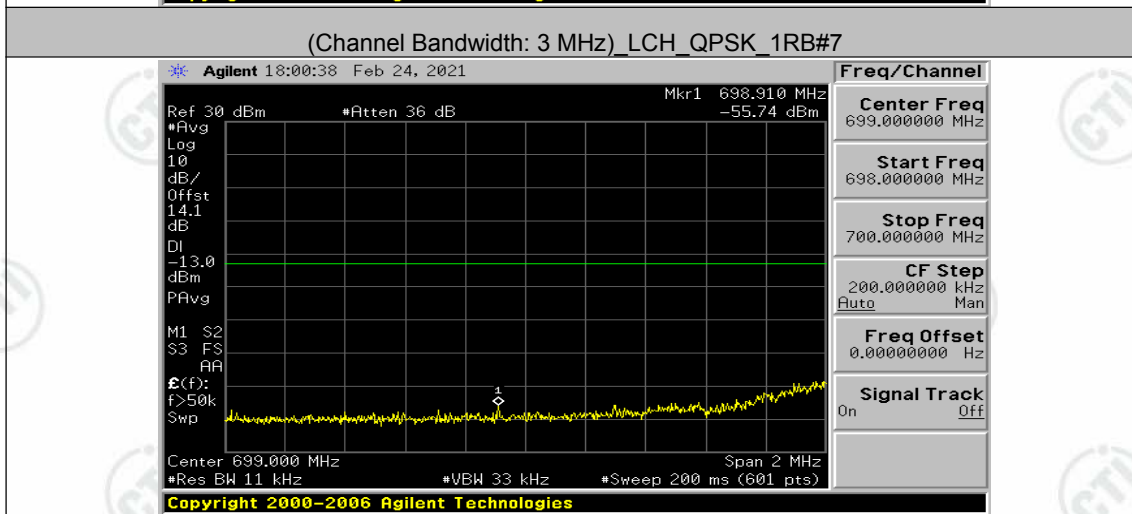
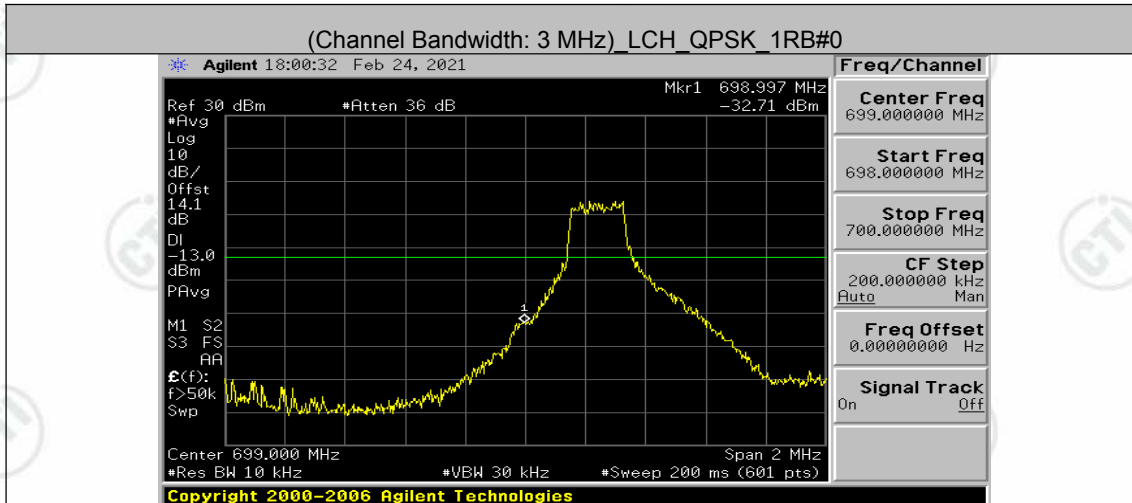


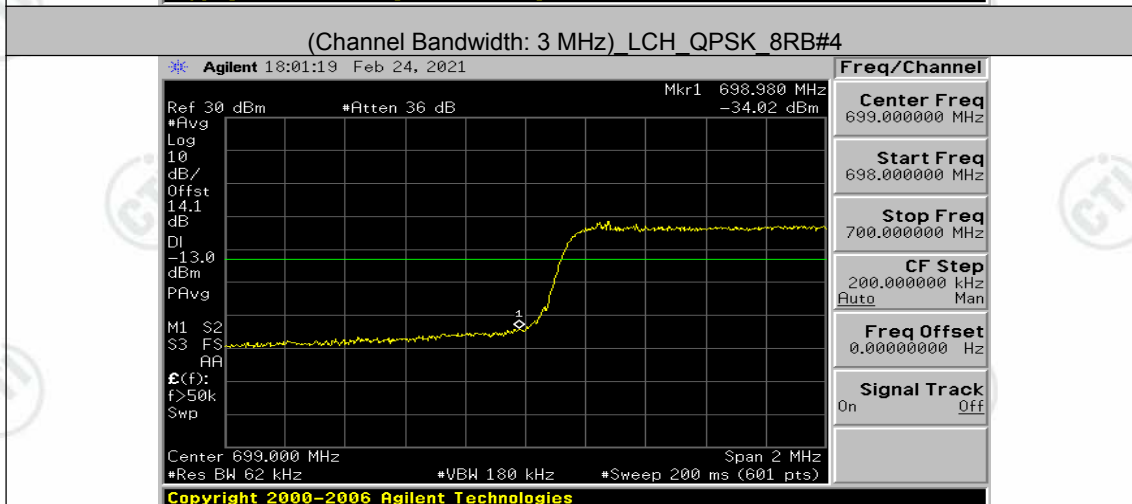
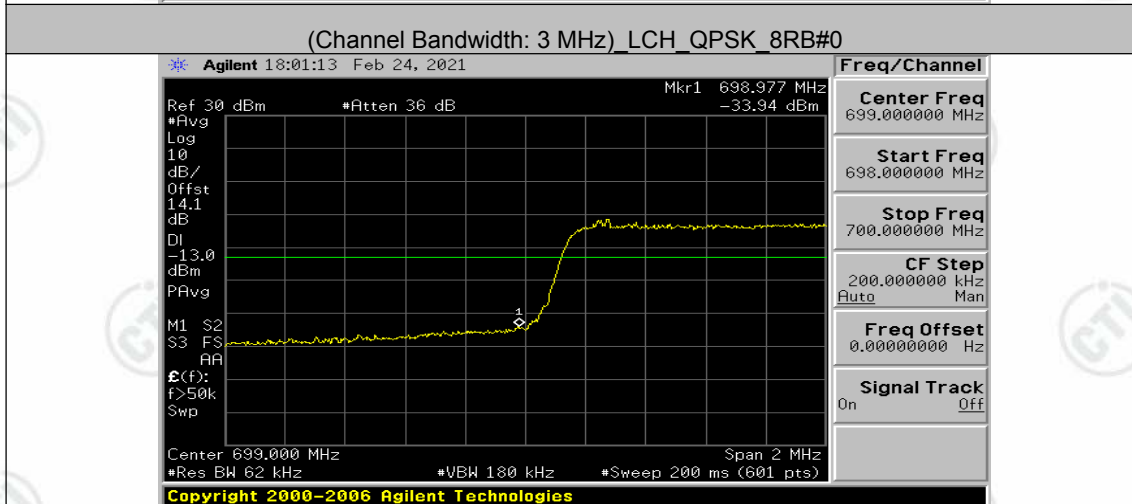
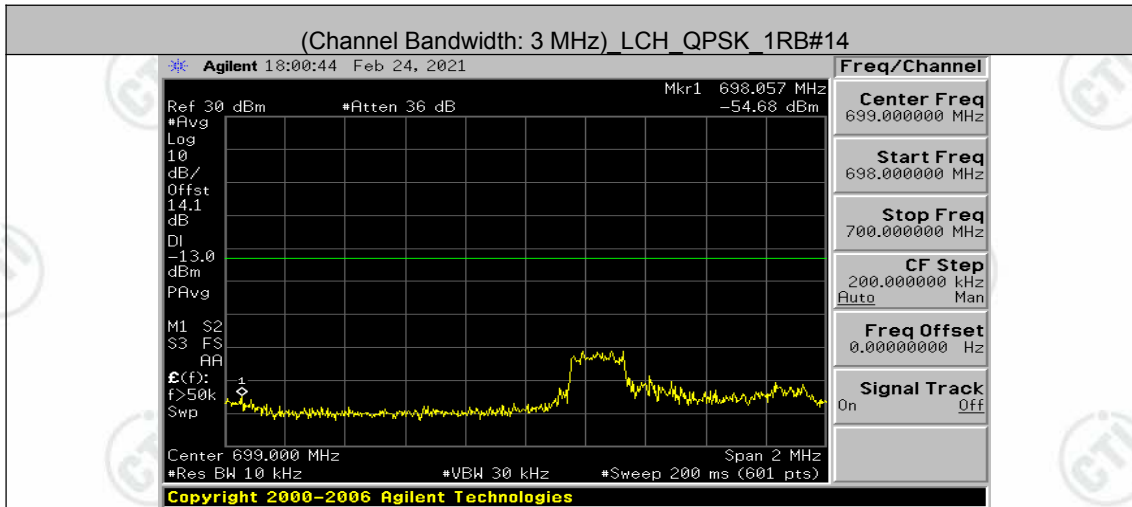


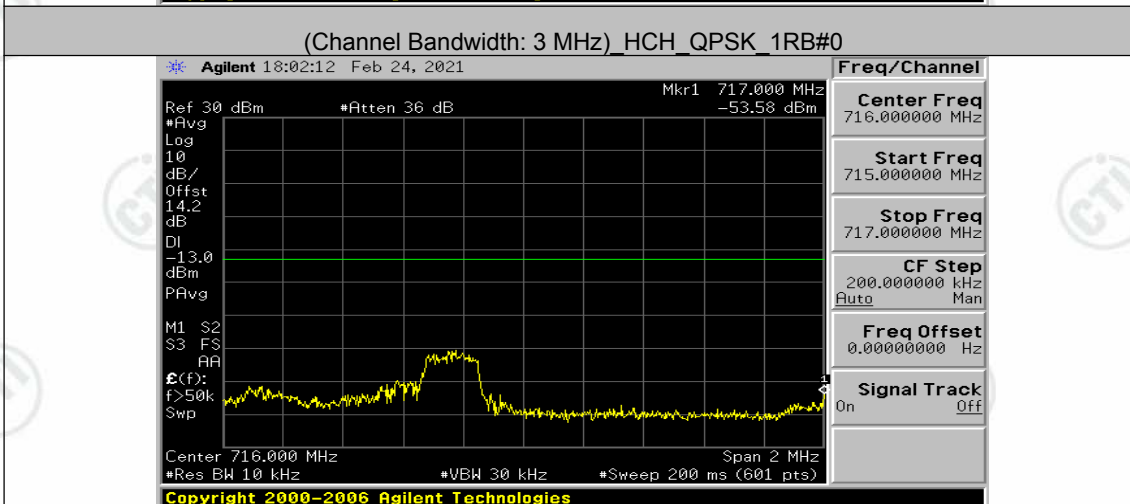
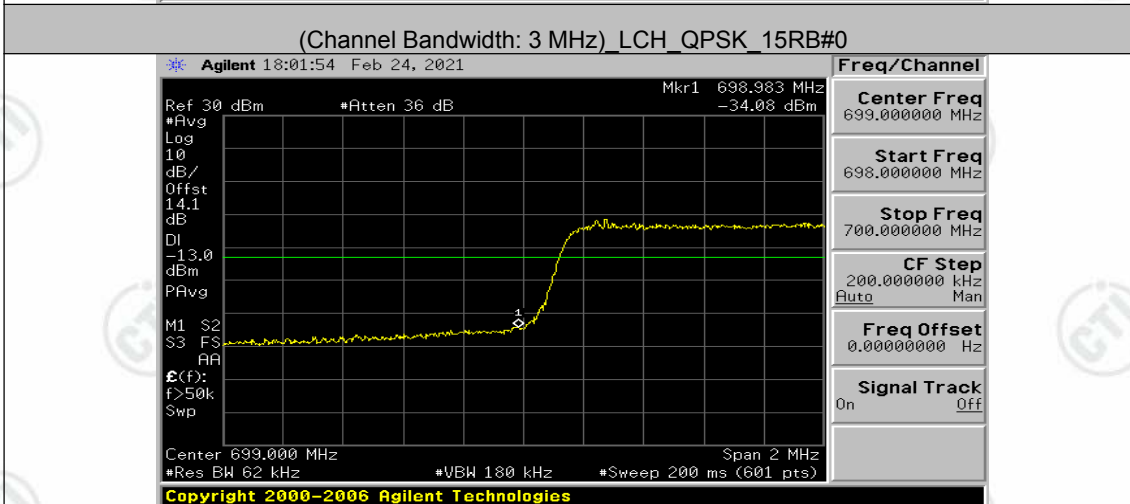
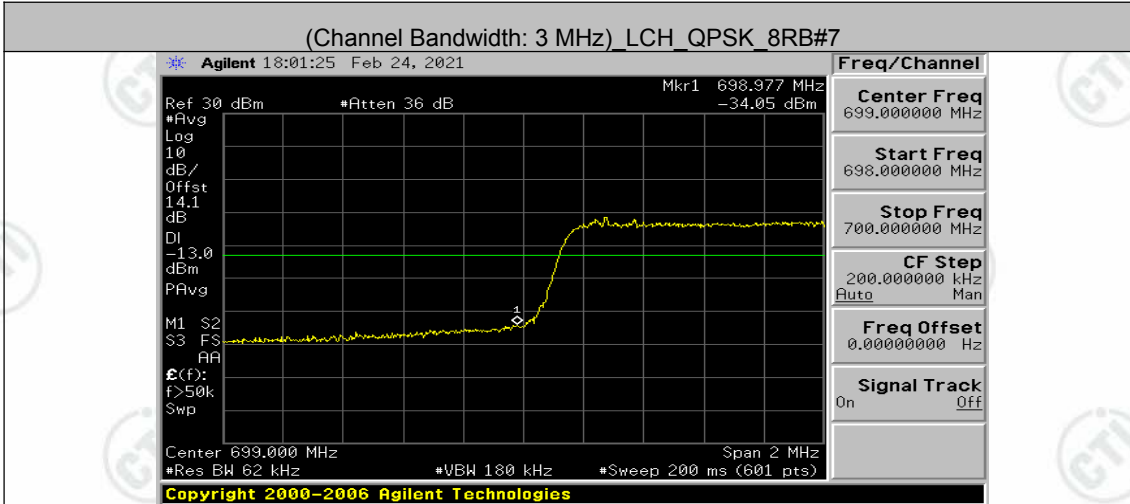


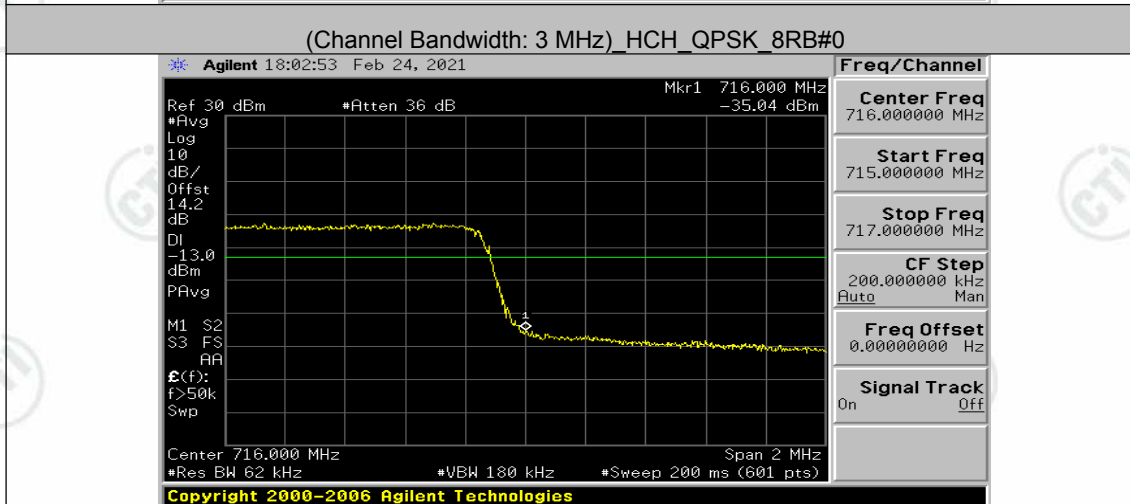
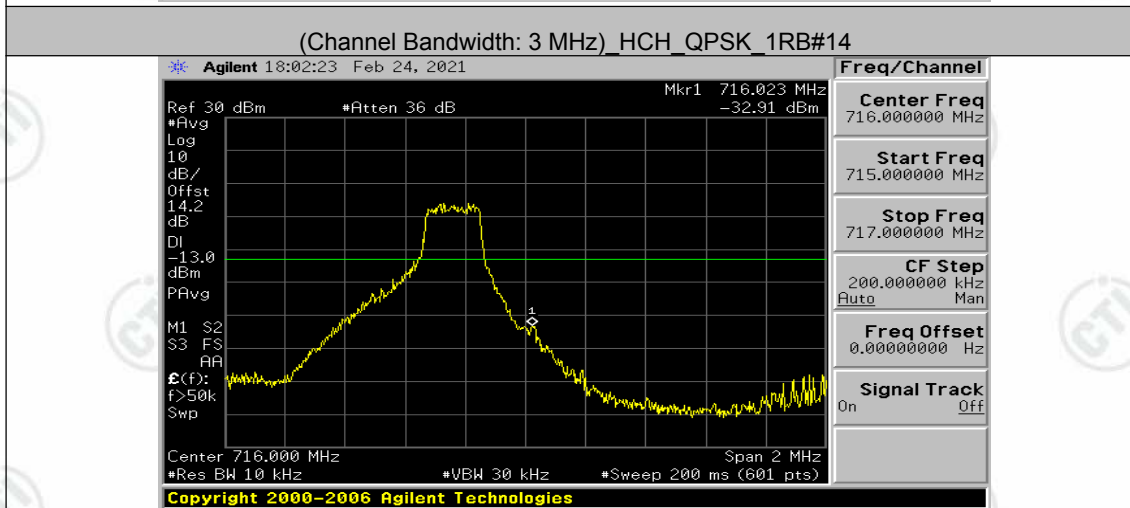
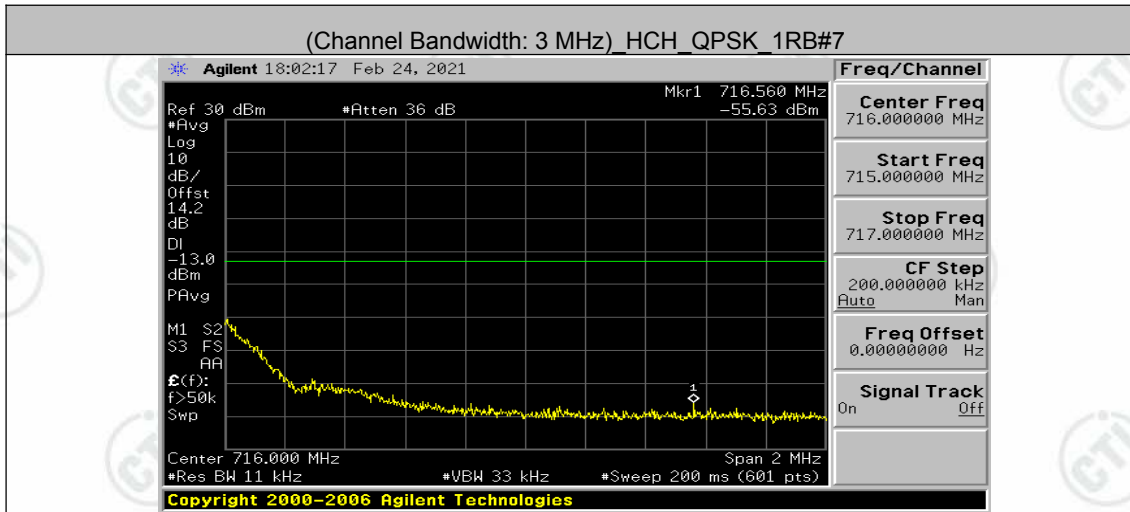


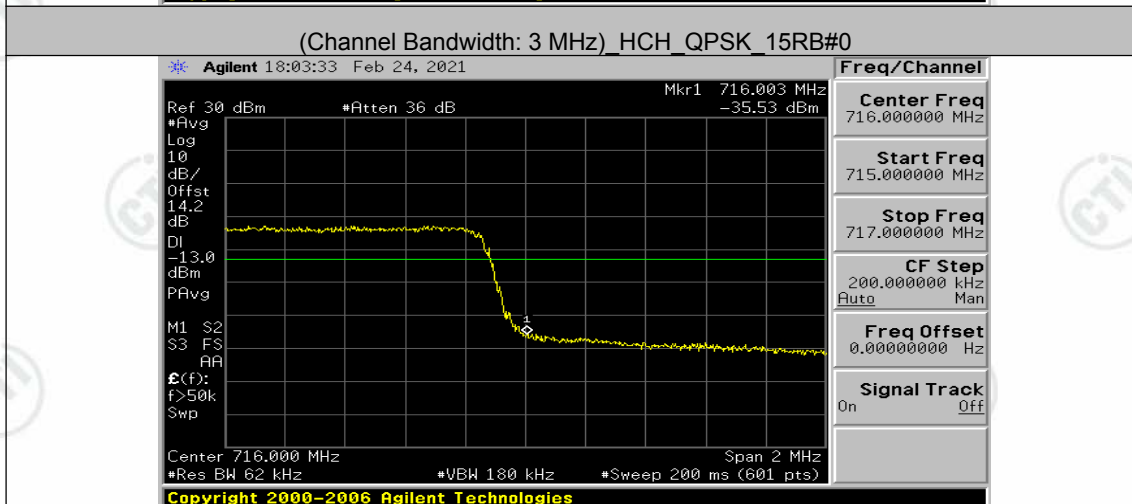
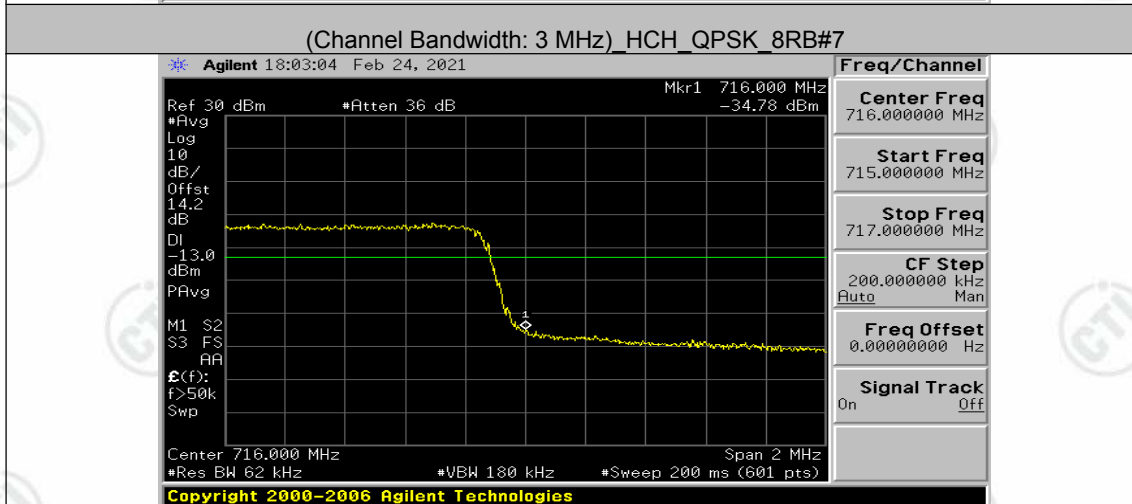
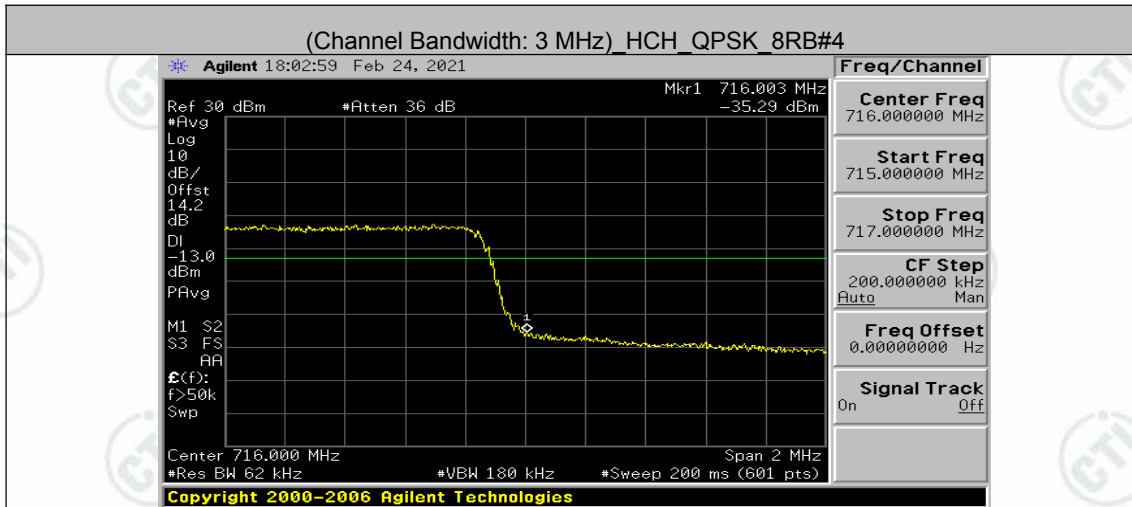
Channel Bandwidth: 3 MHz

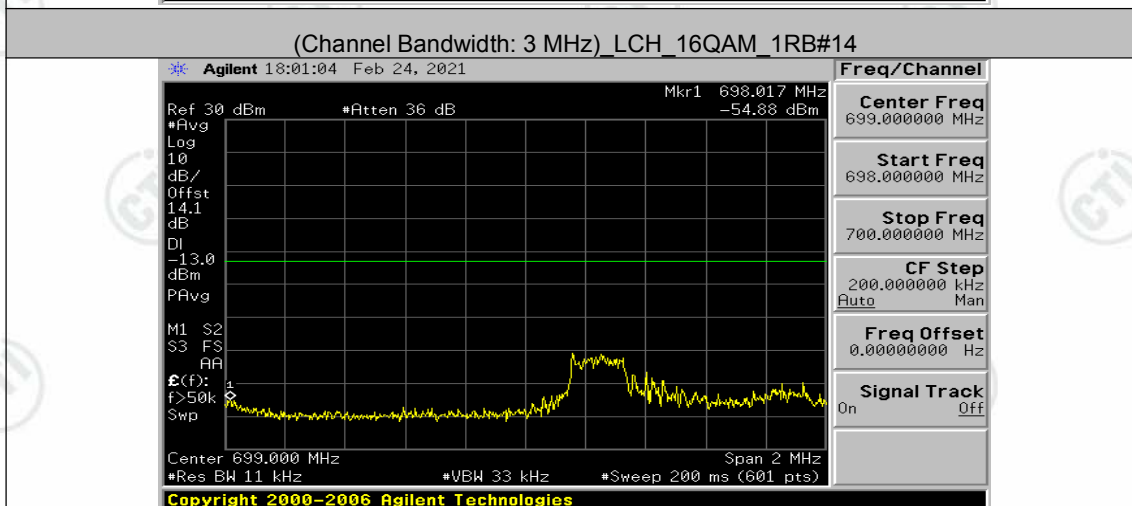
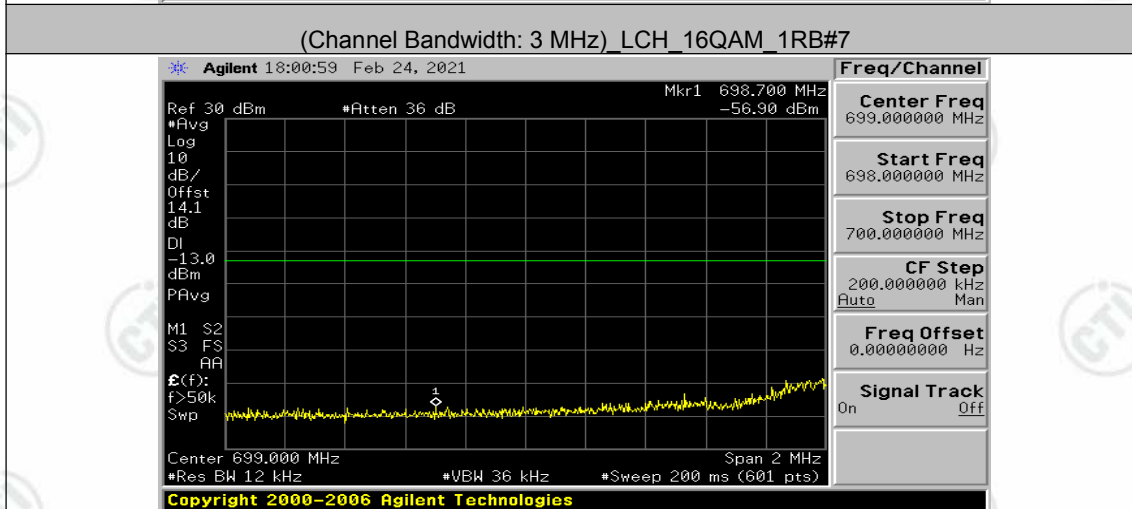
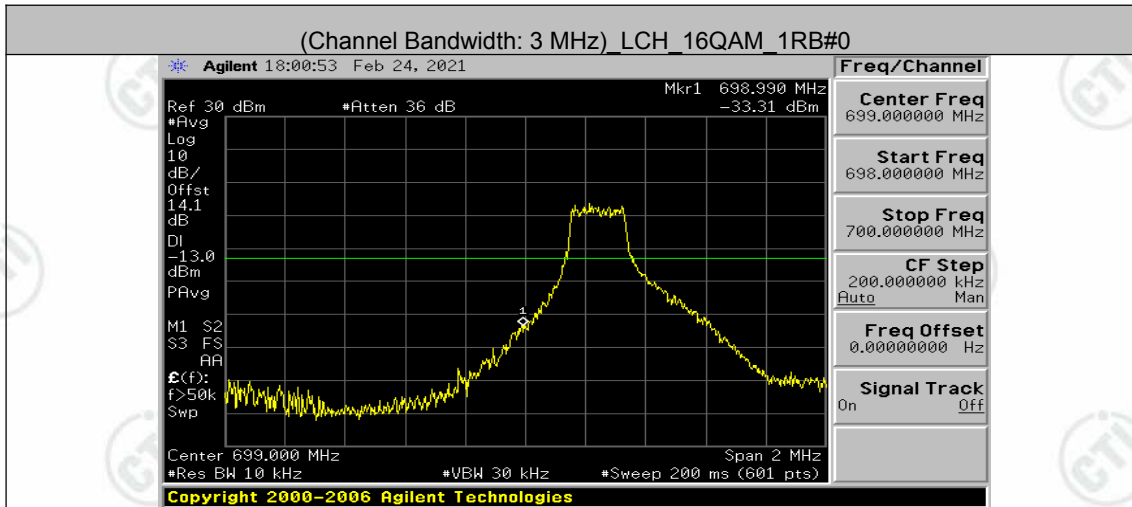


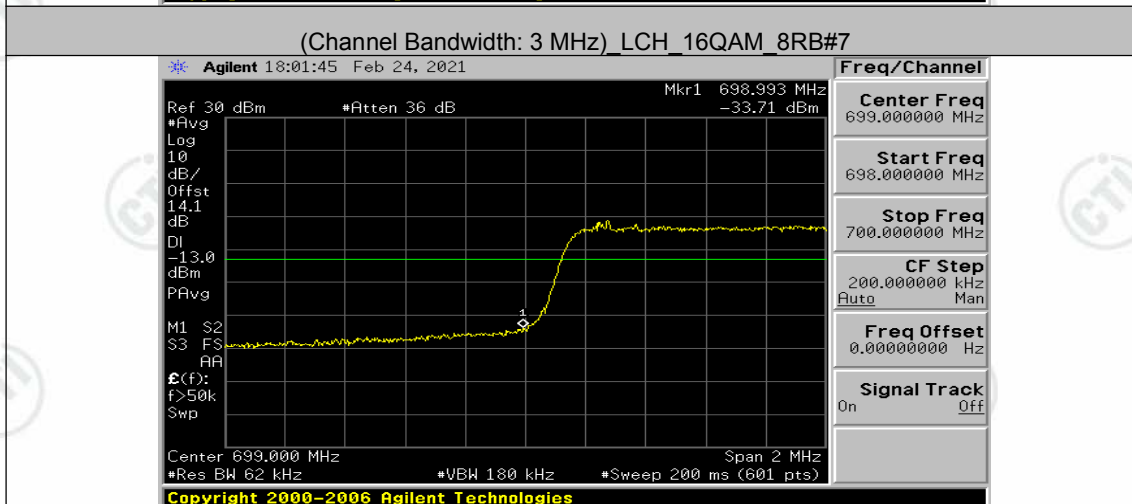
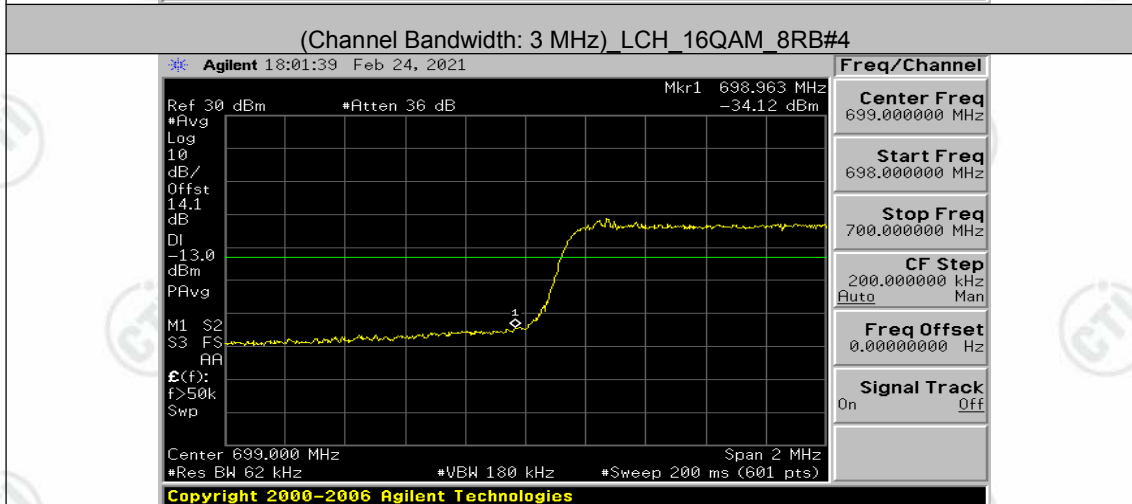
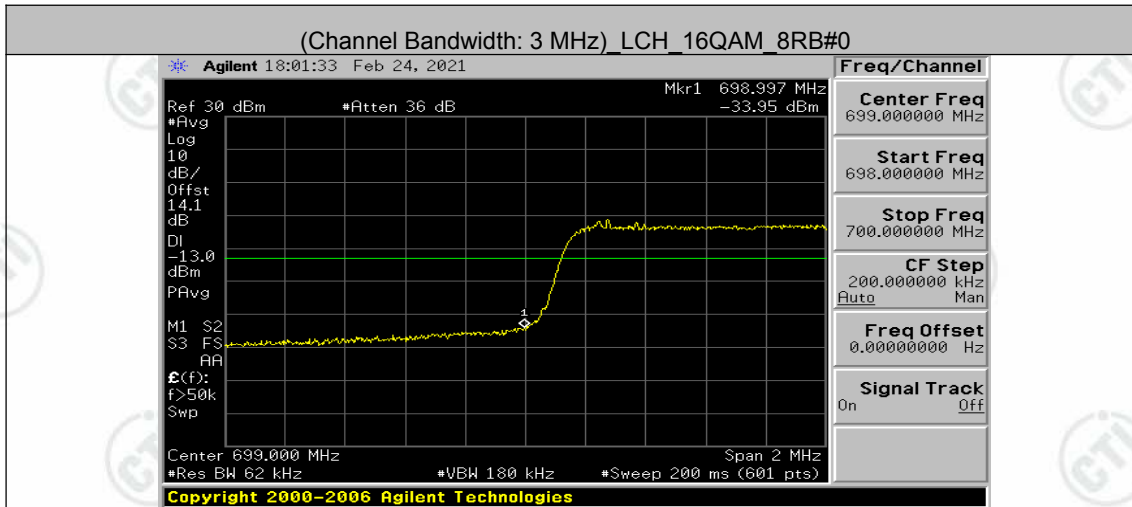


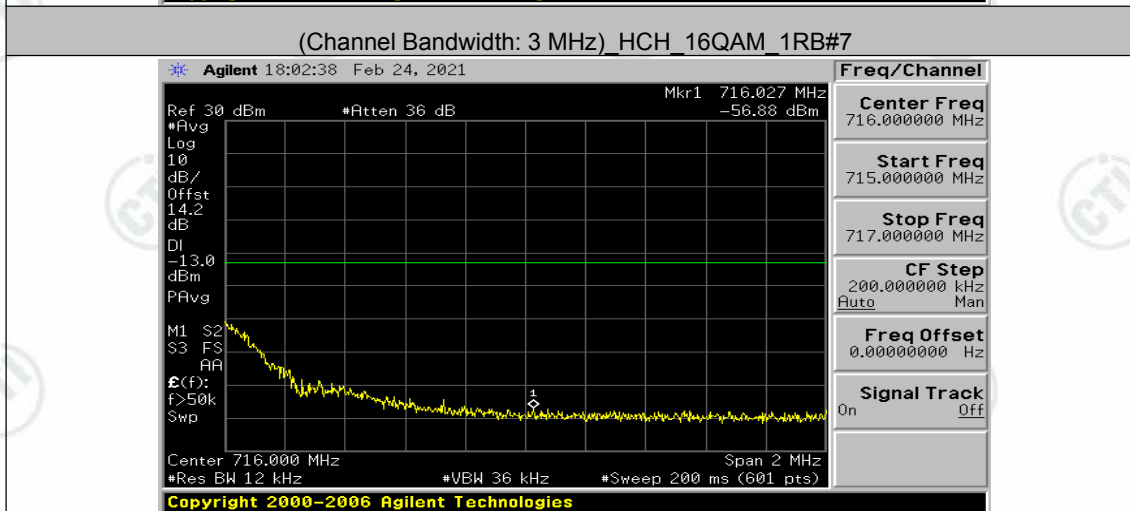
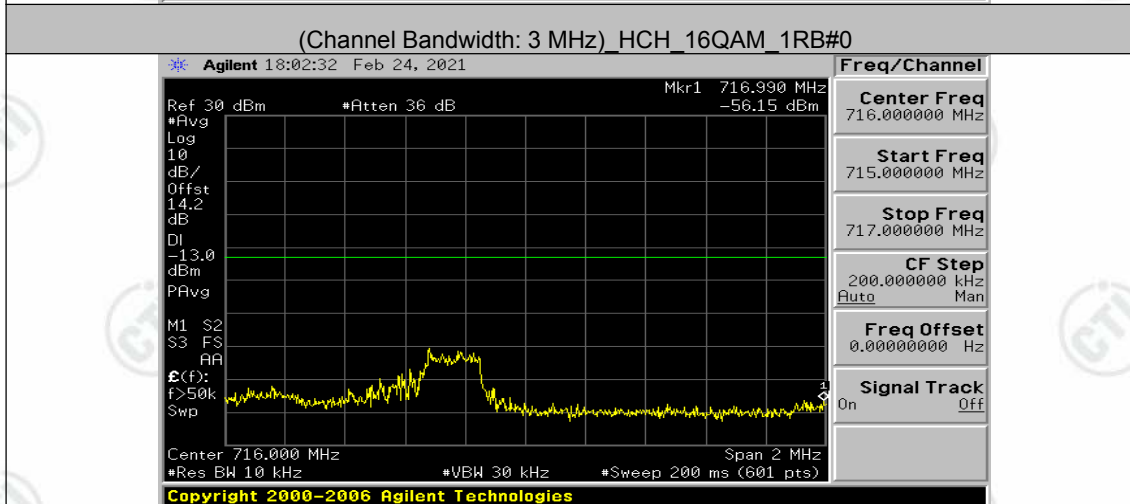
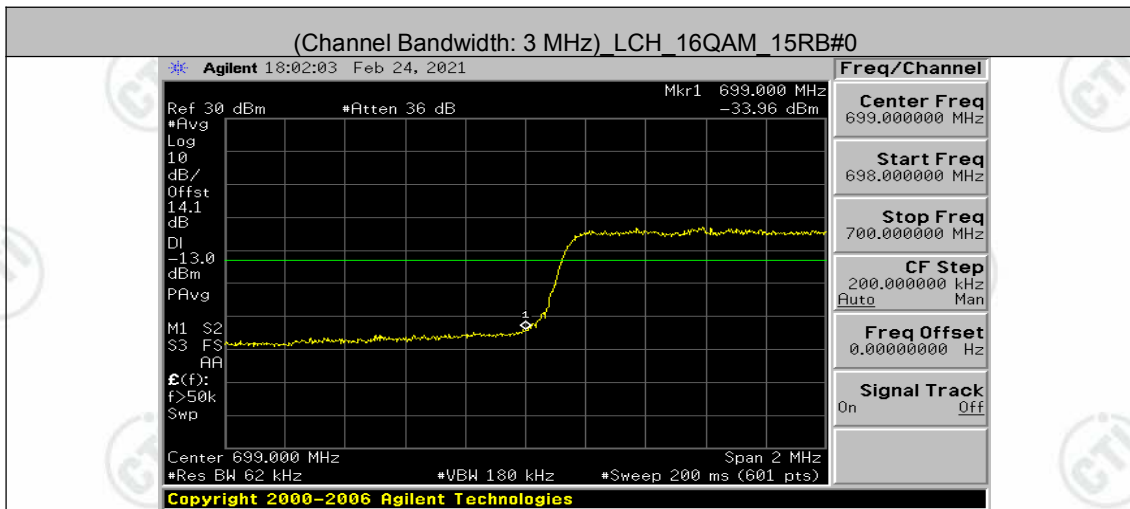


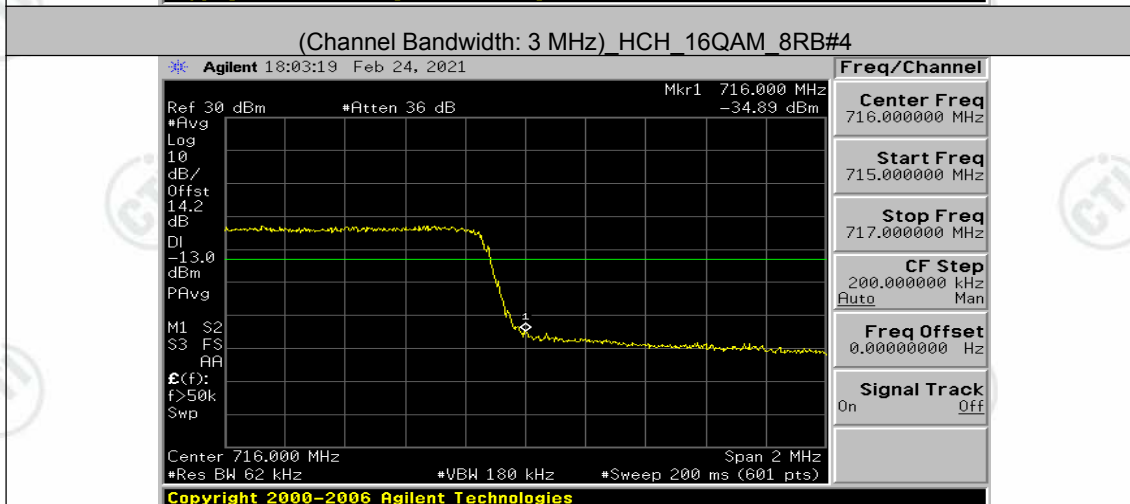
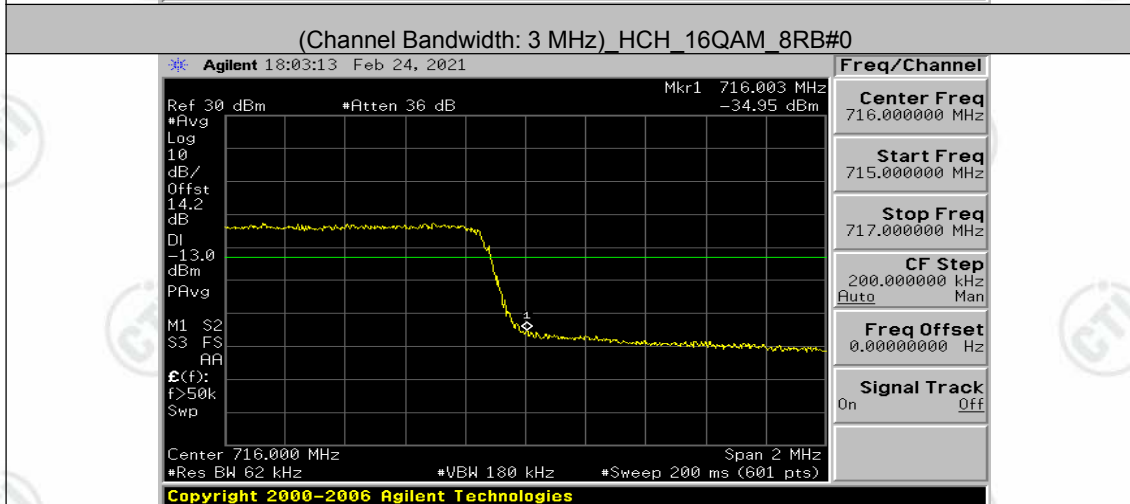
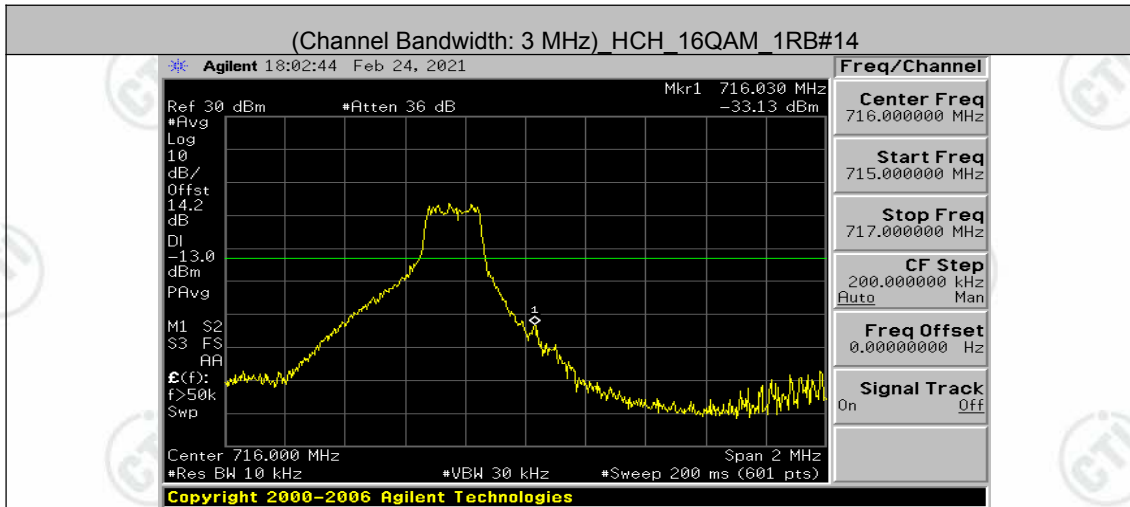


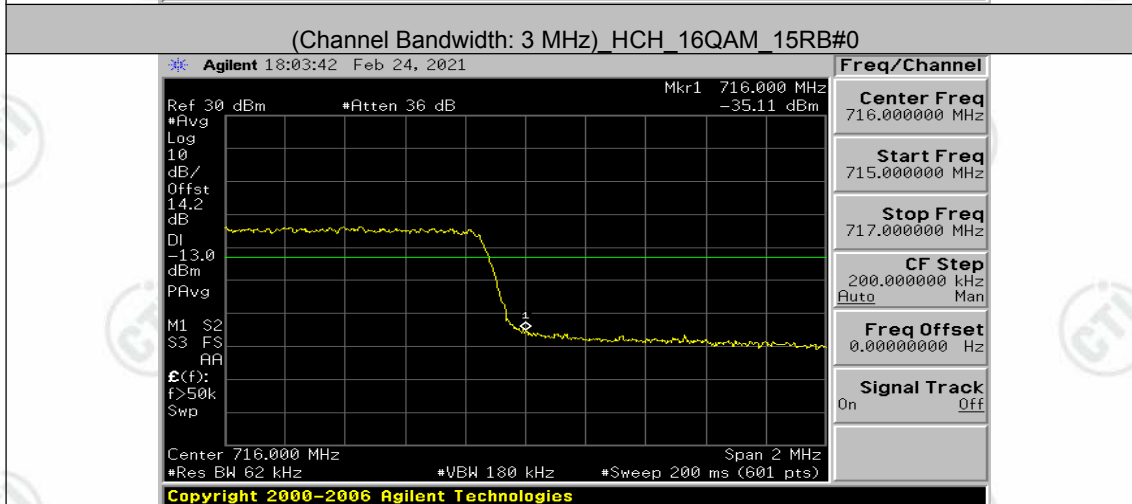
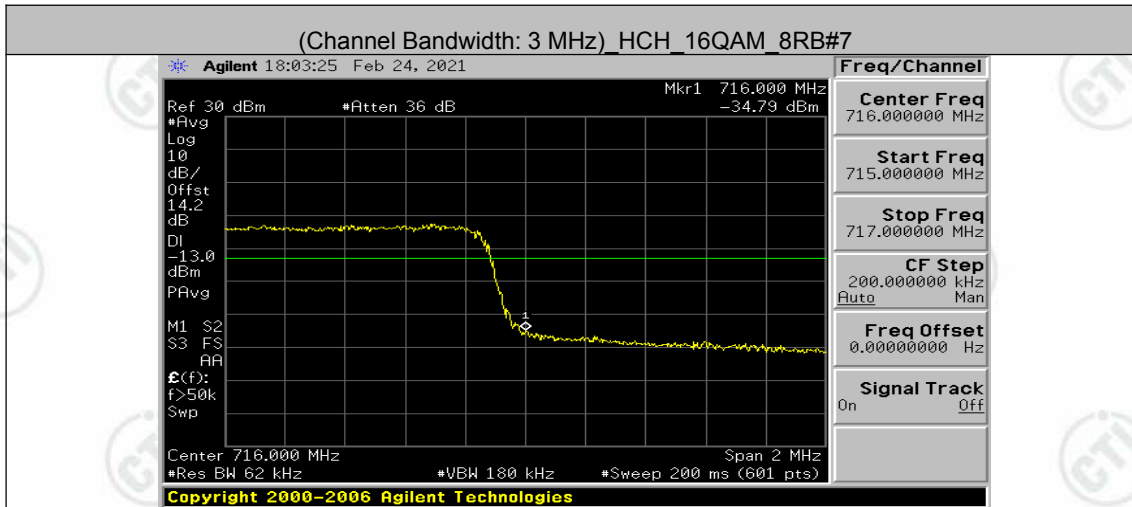




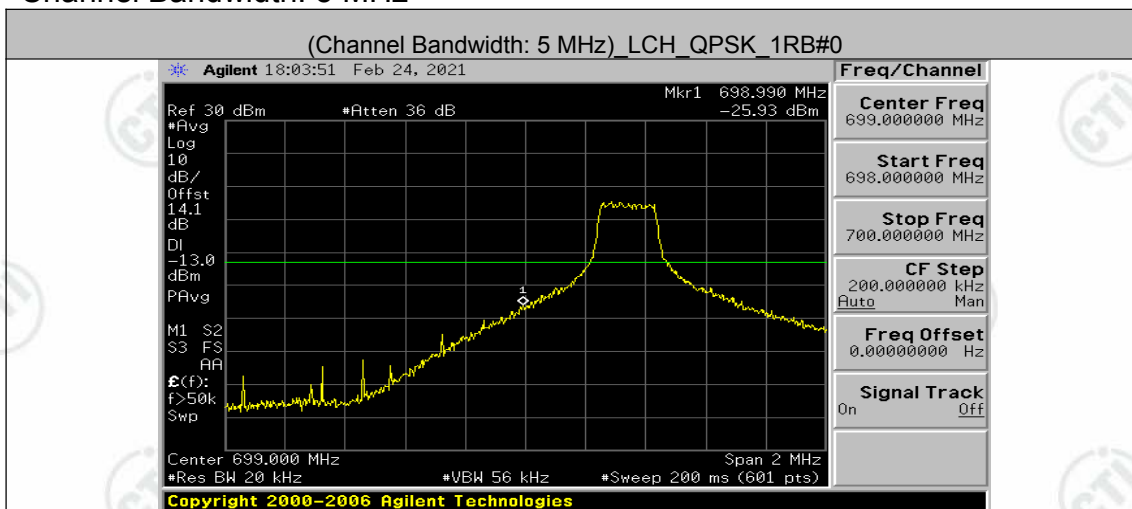


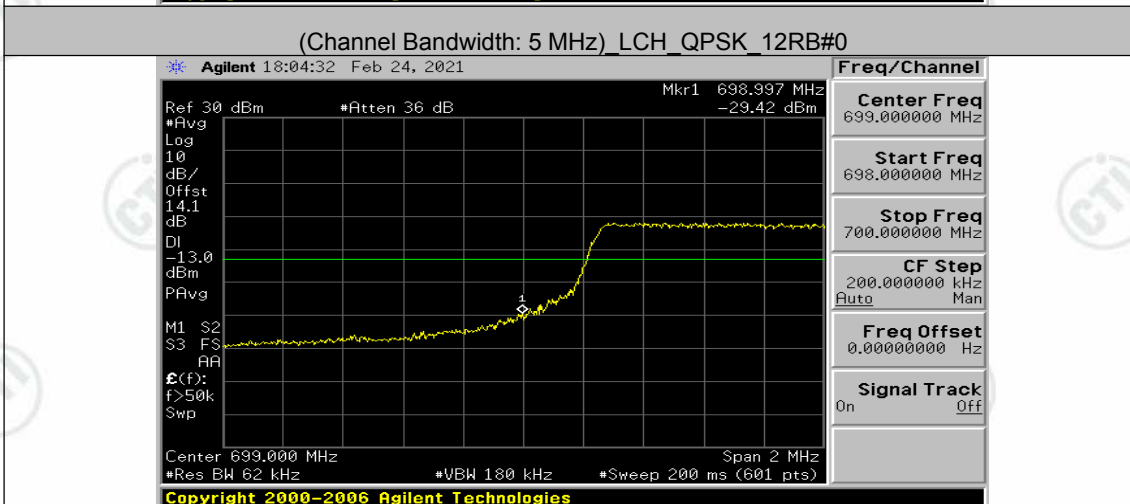
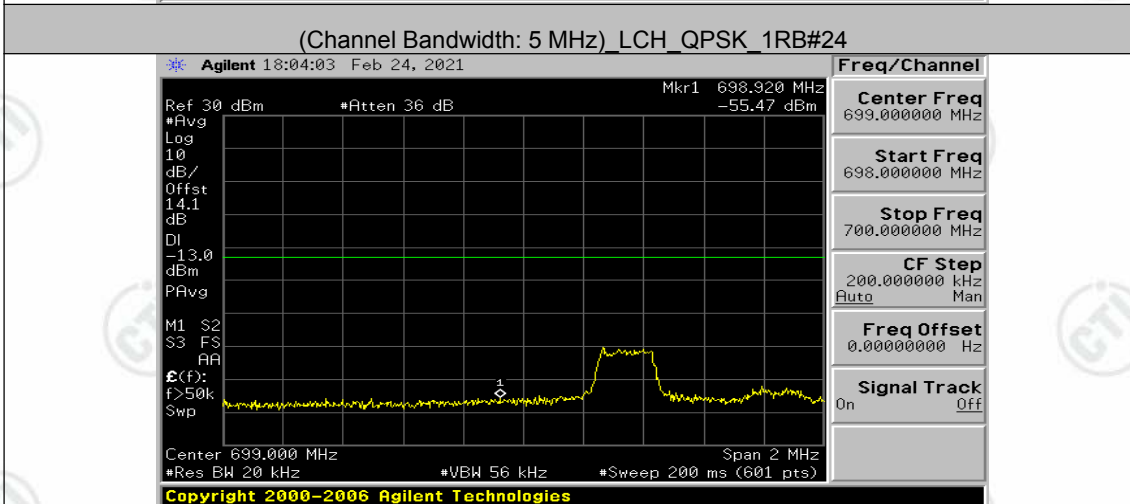
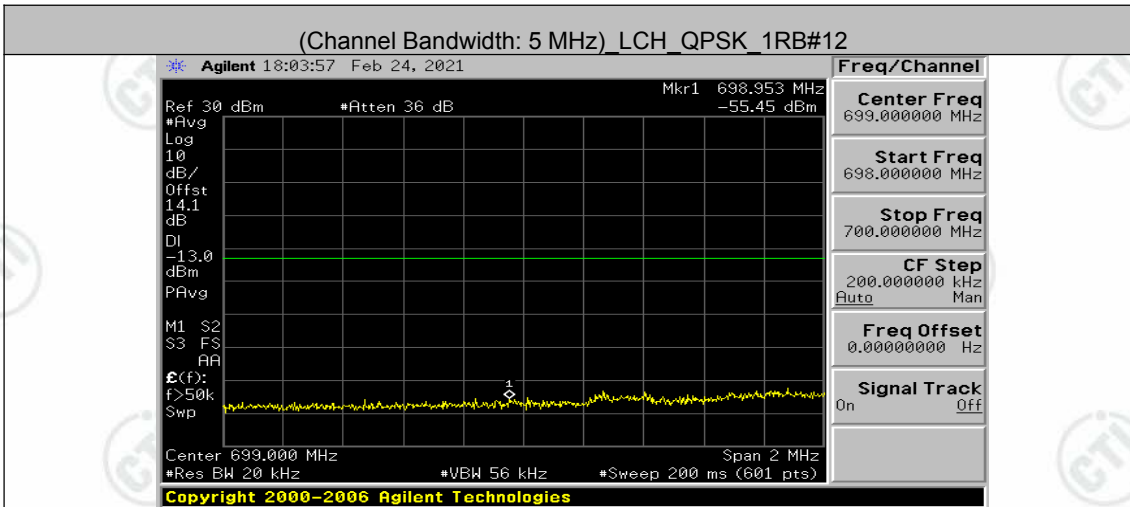


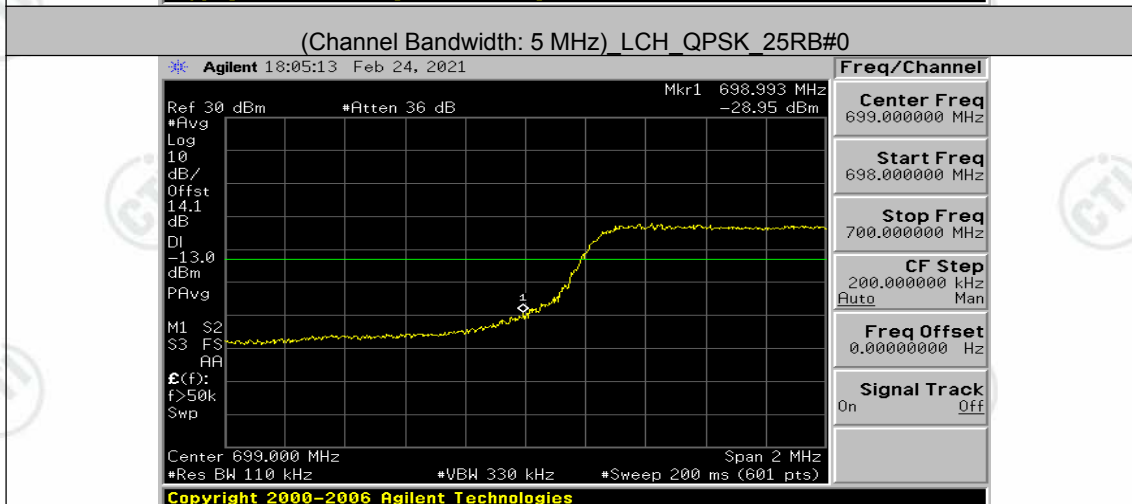
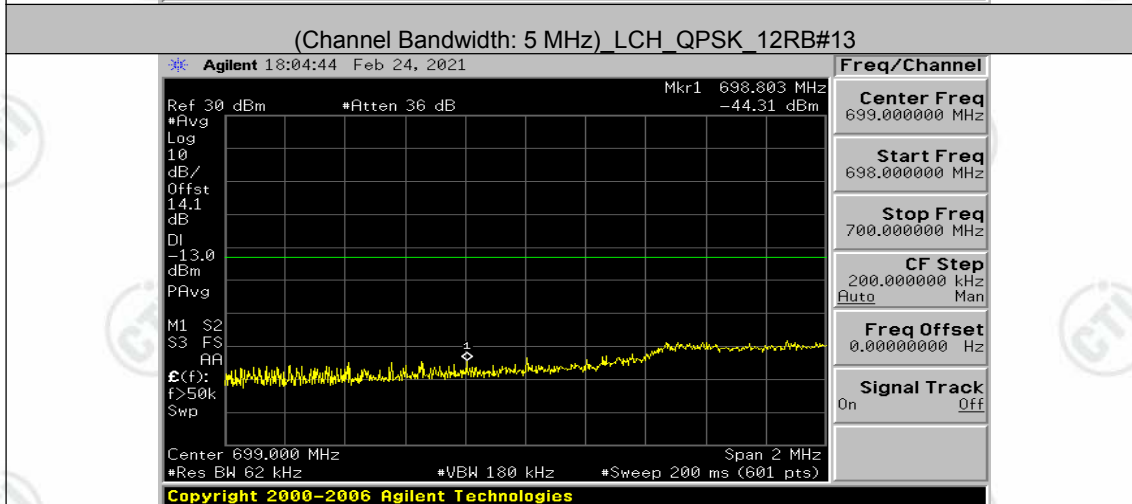
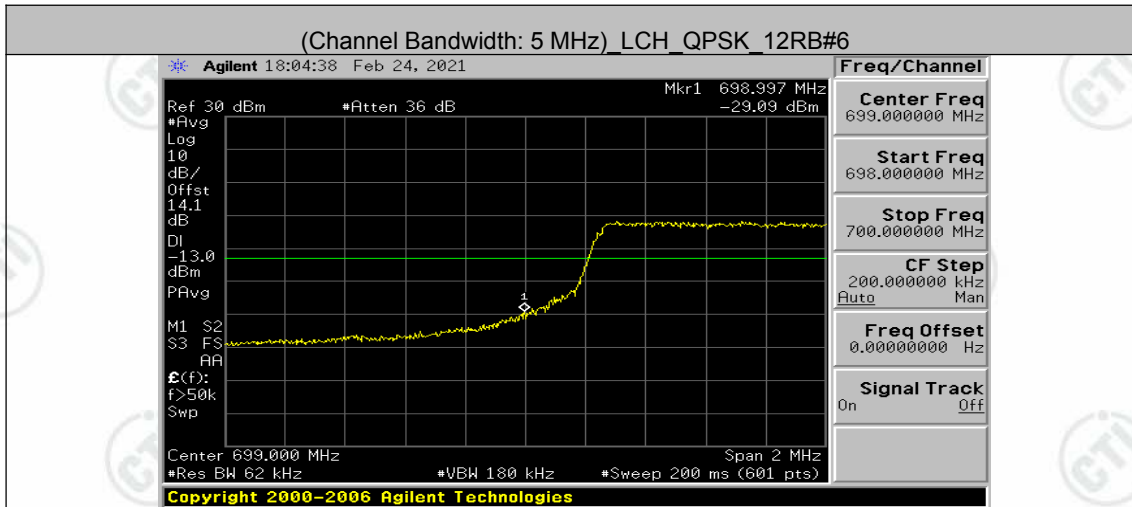


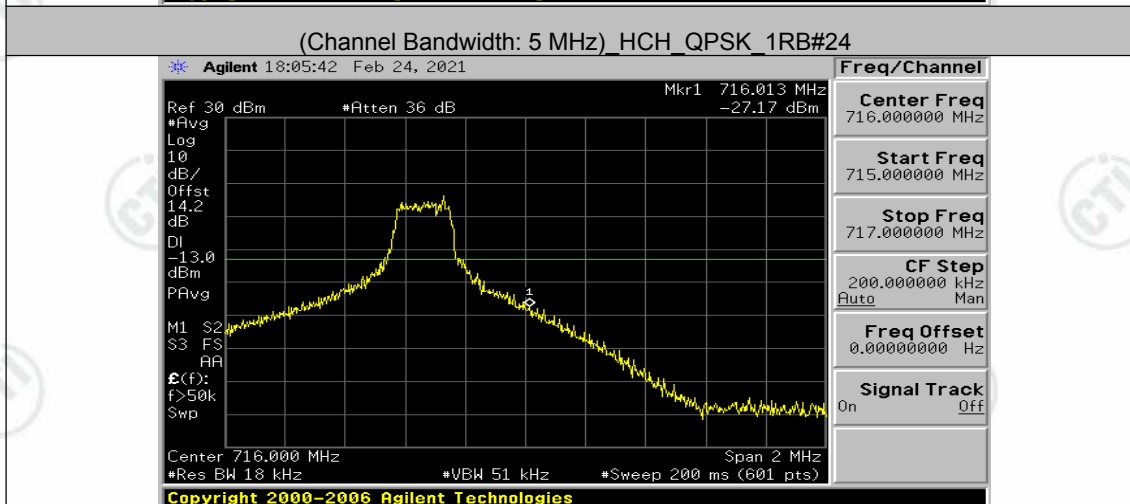
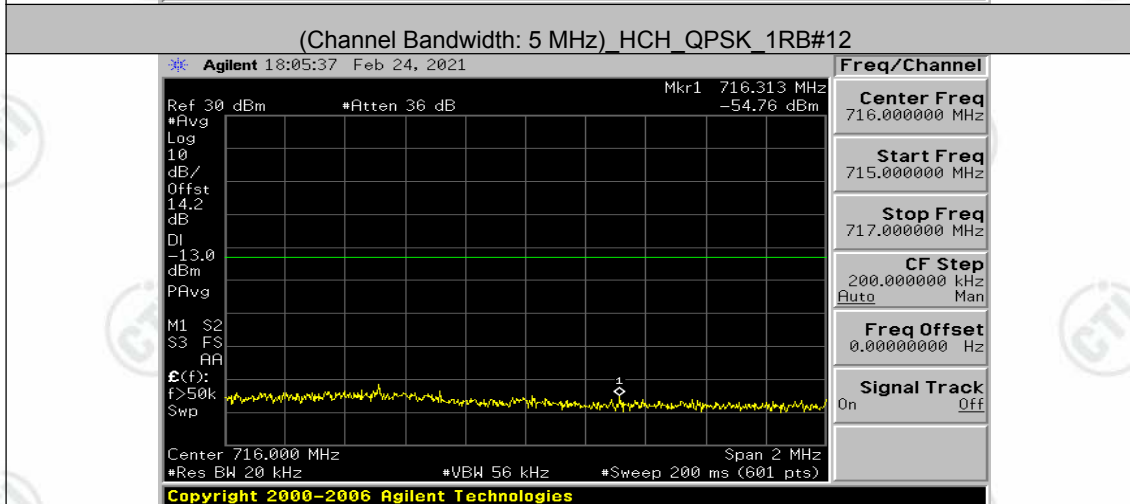
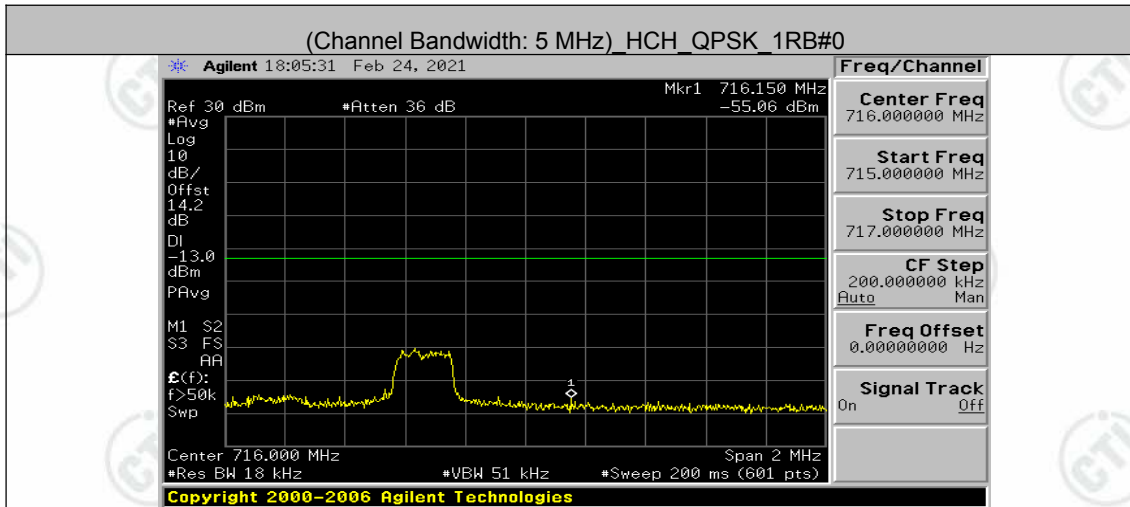


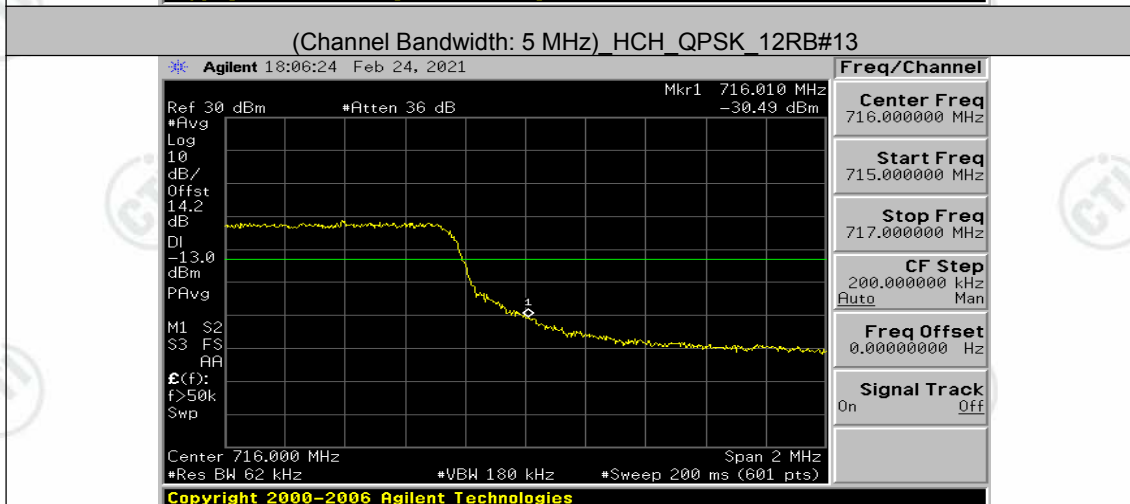
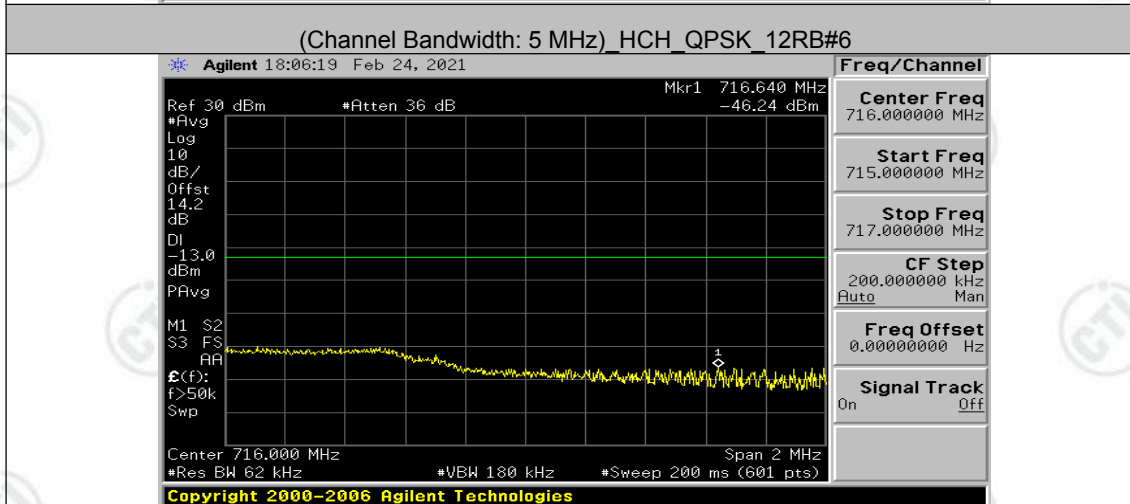
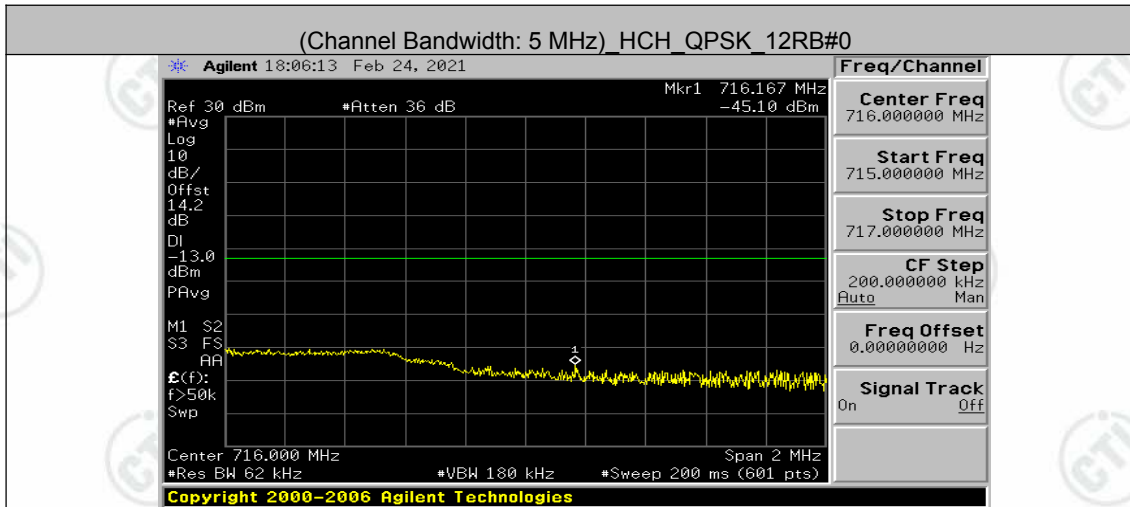
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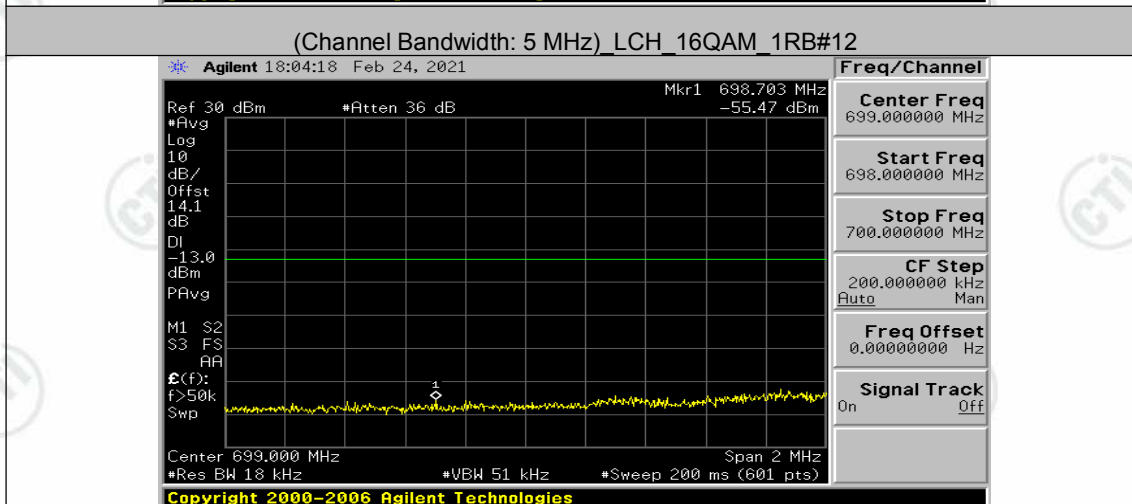
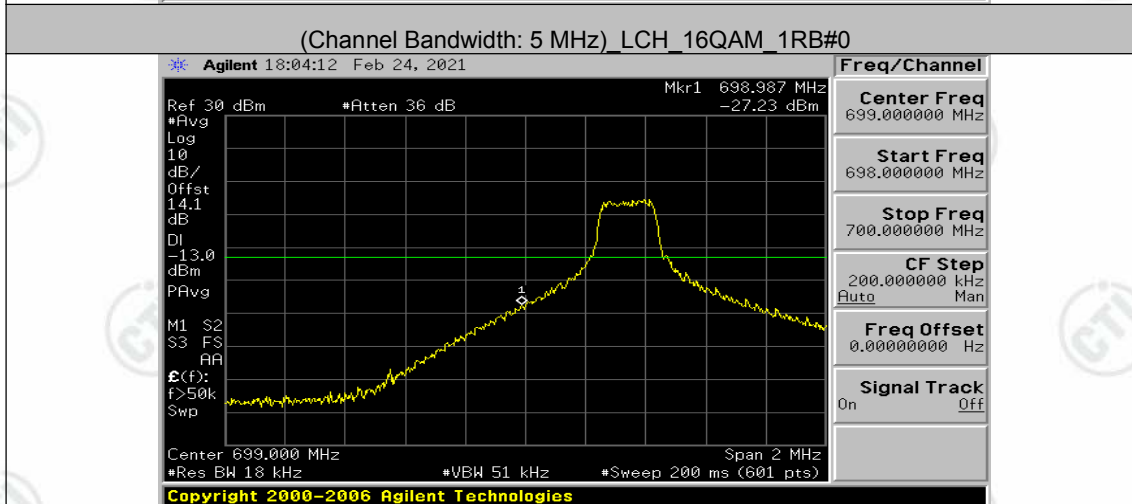
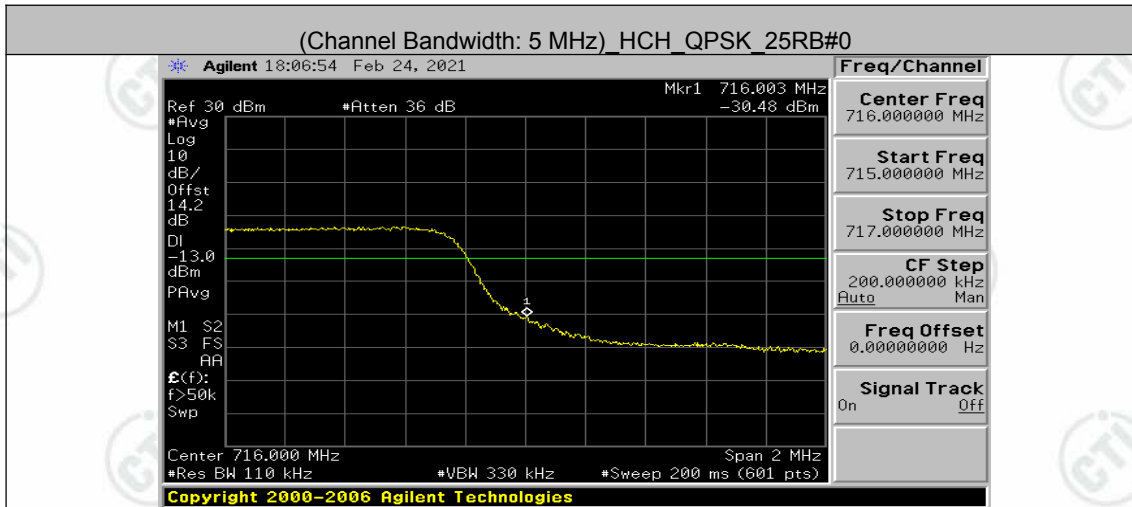


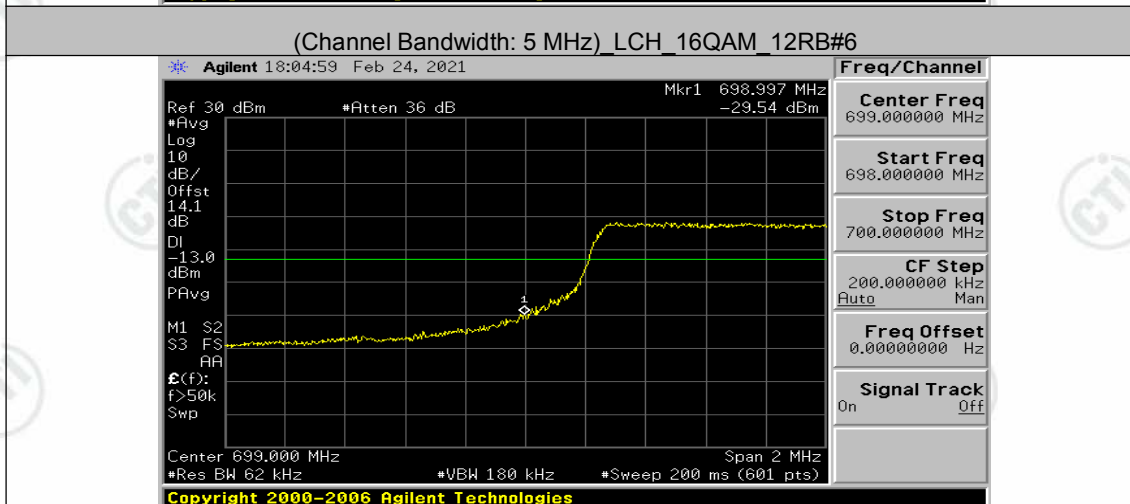
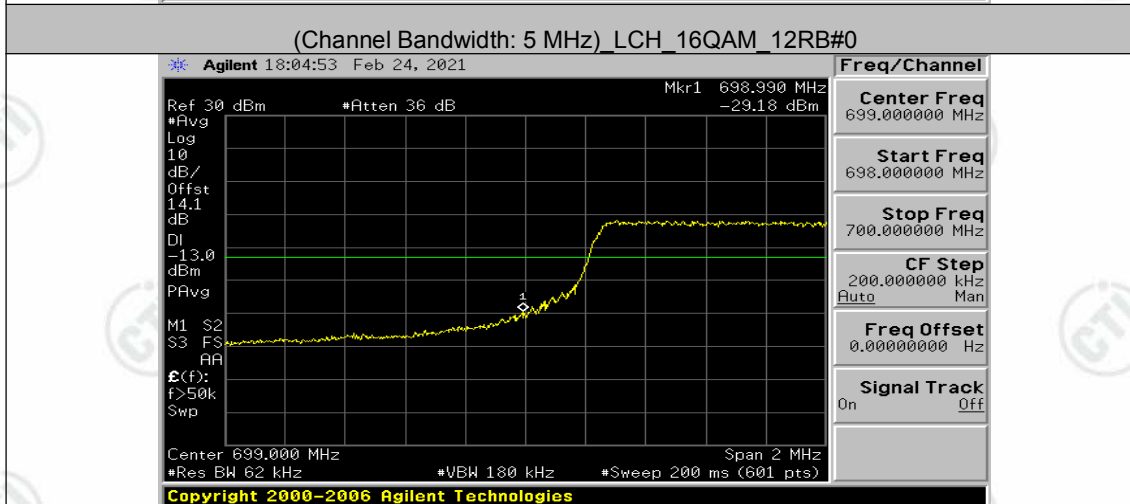
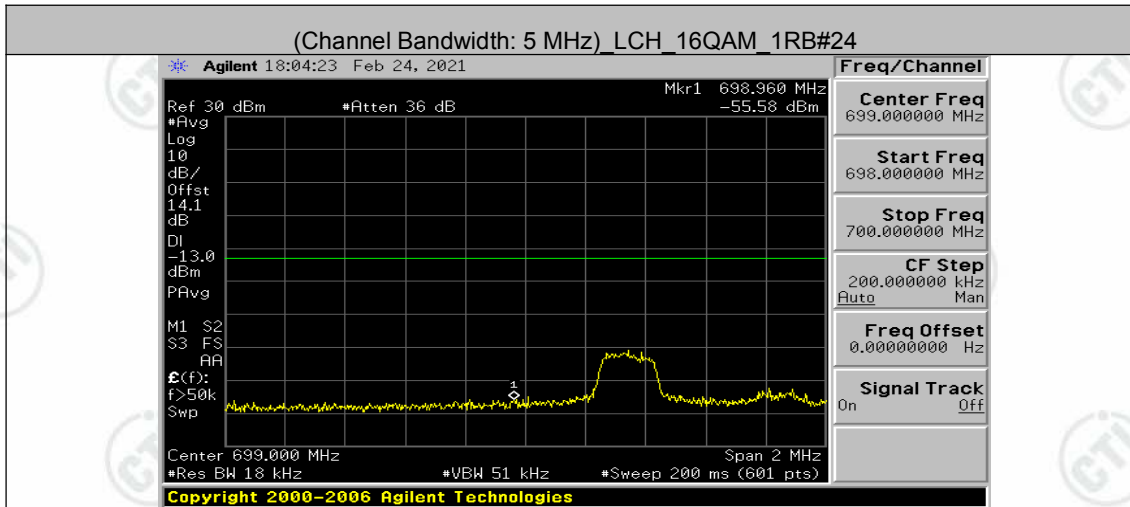


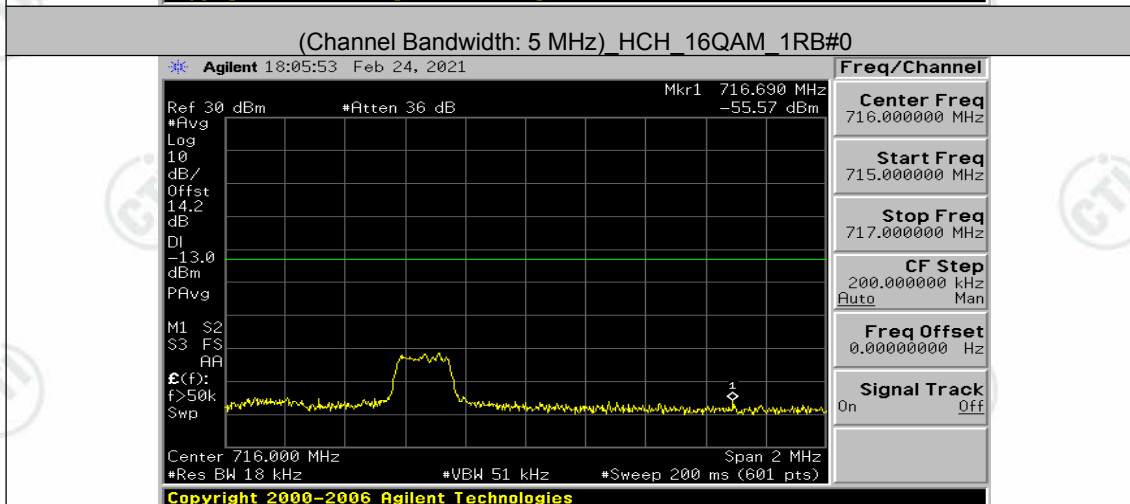
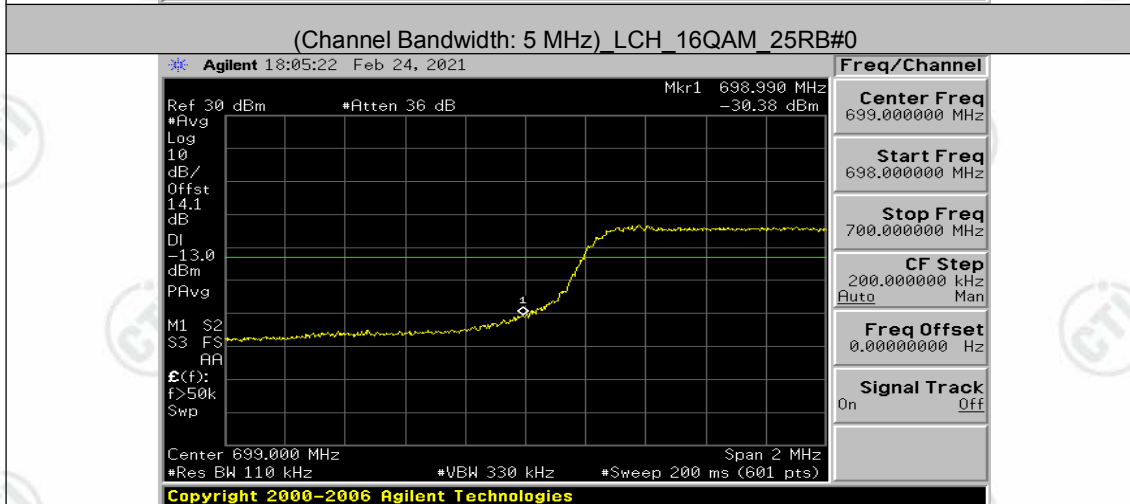
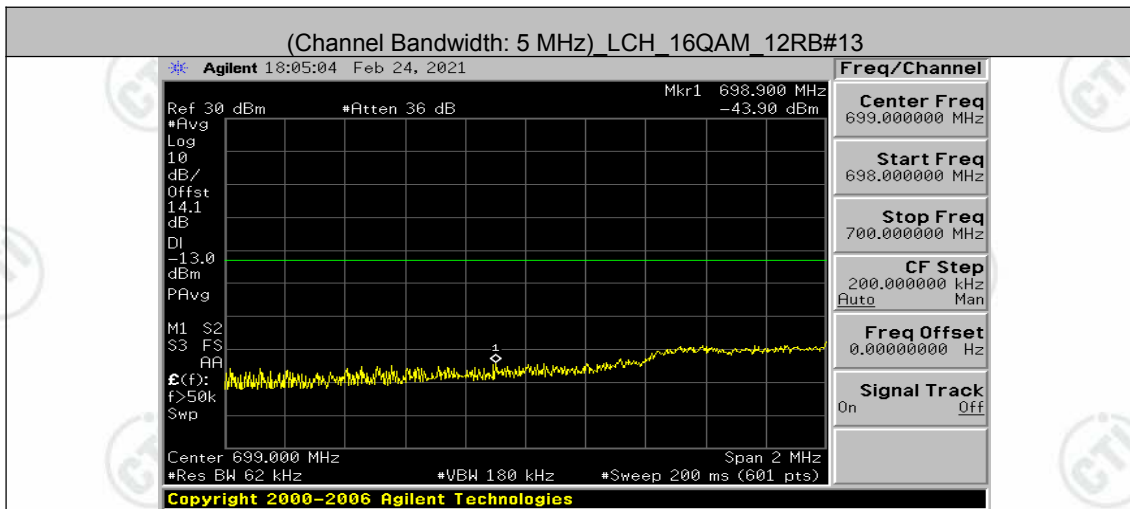


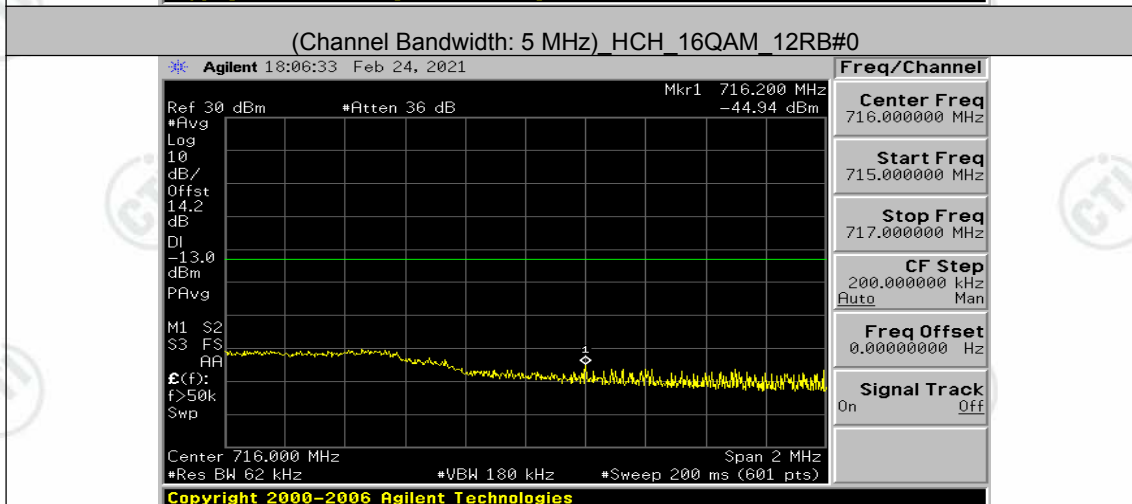
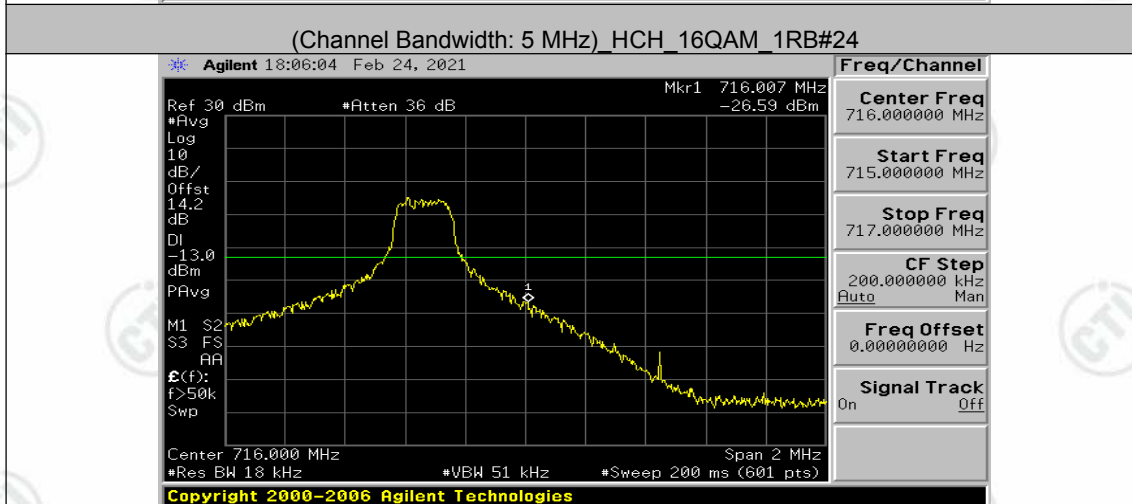
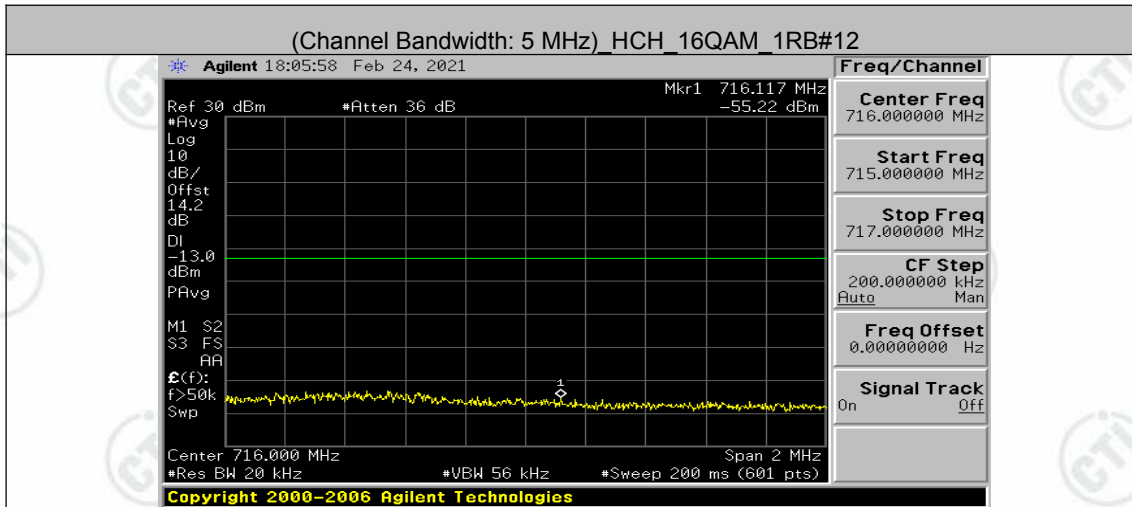


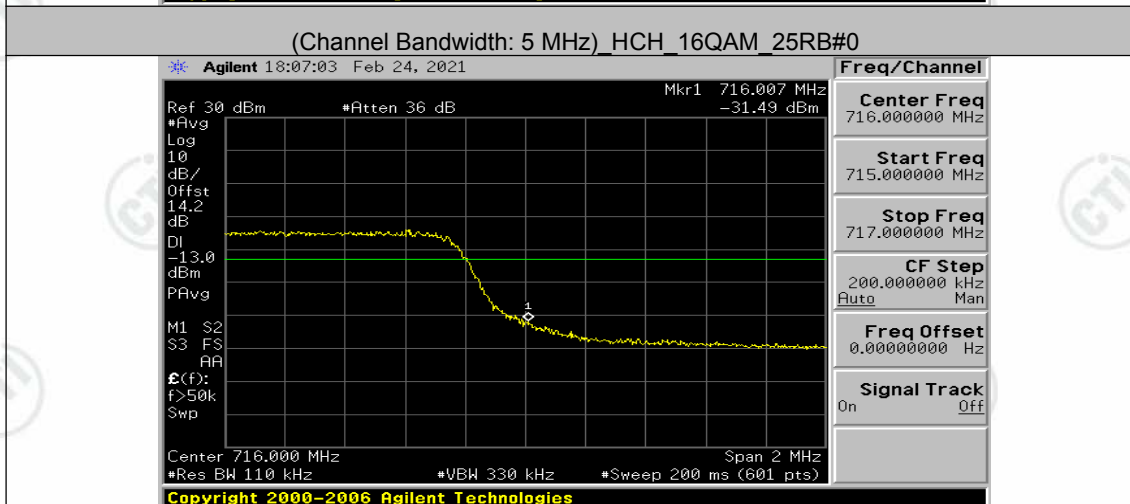
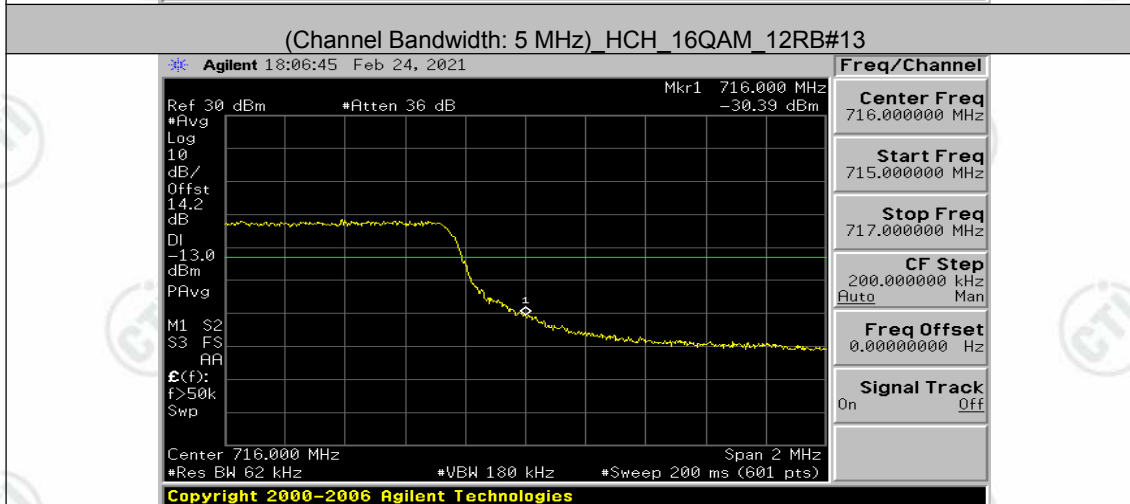
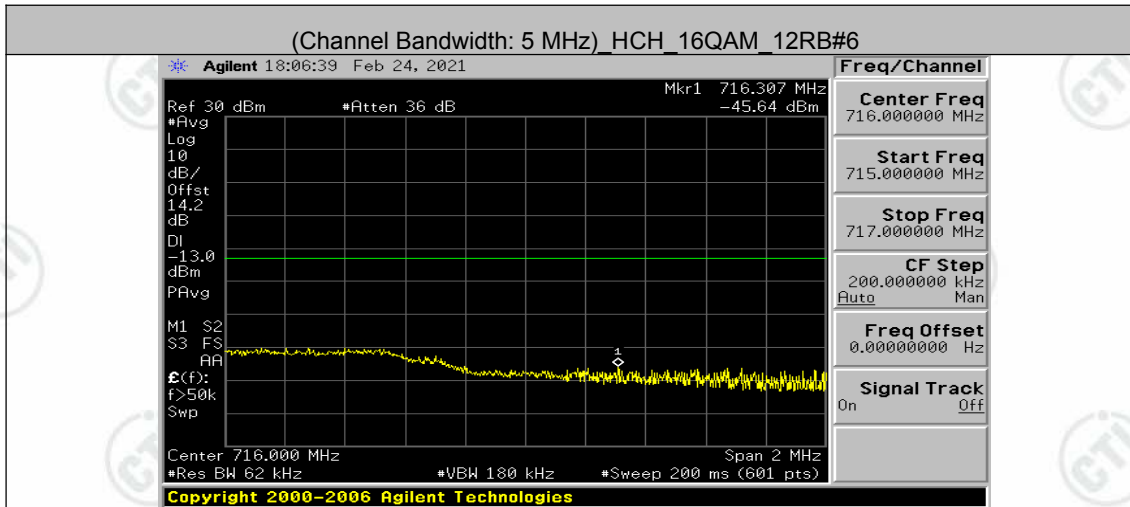


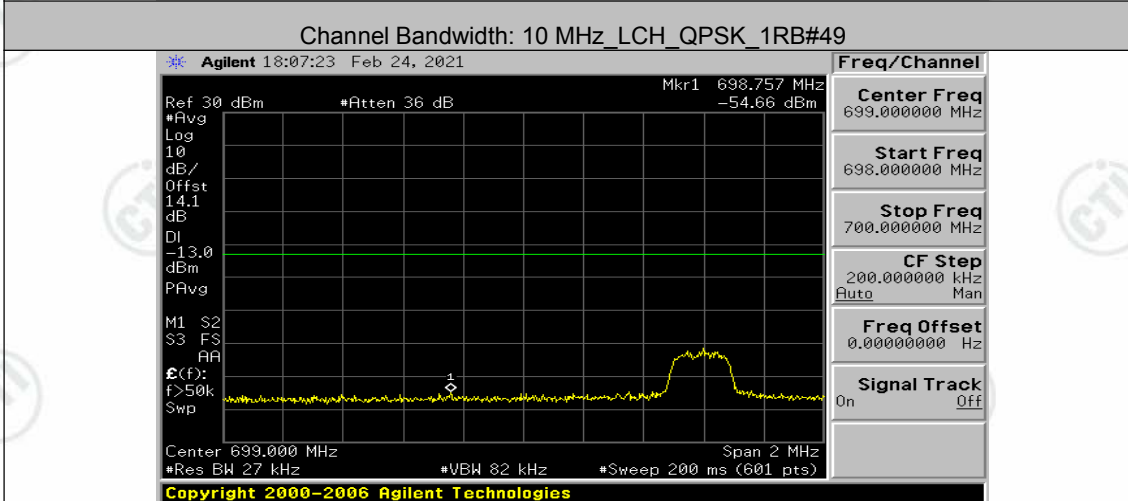
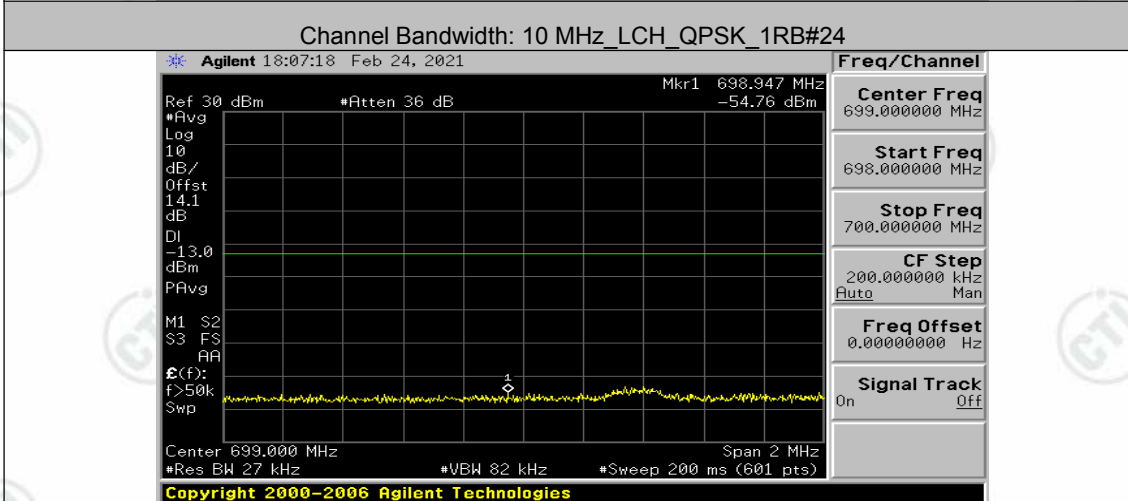
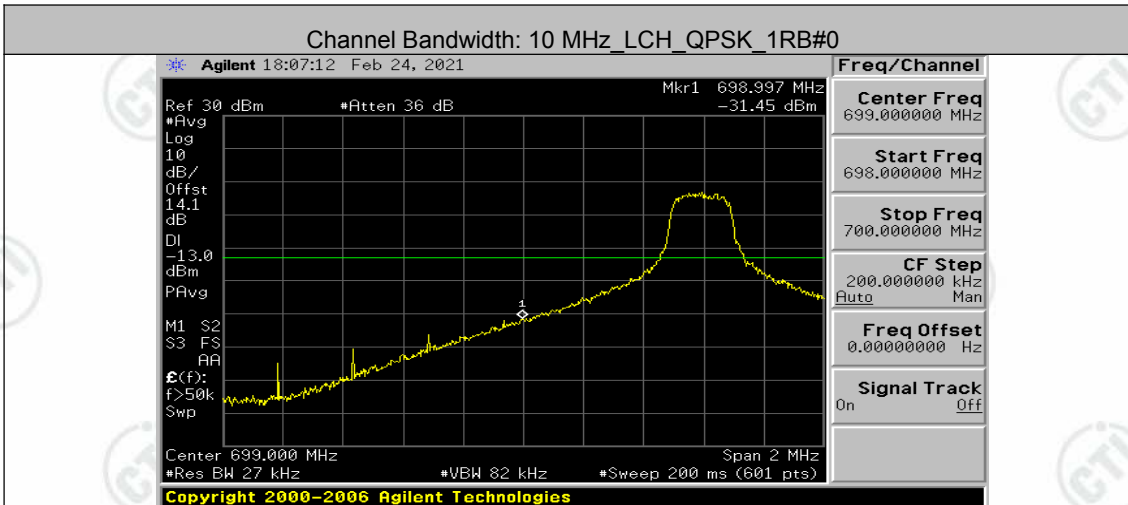


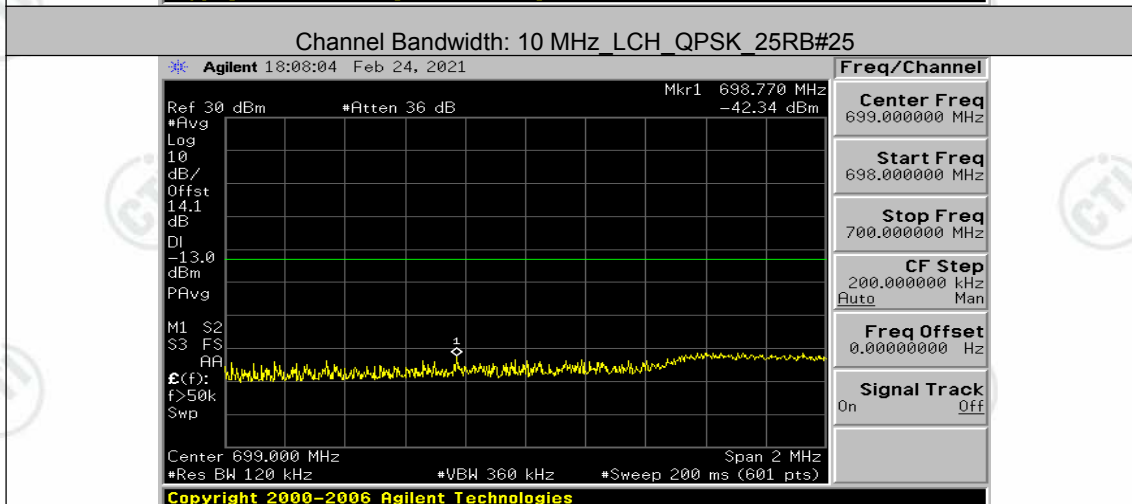
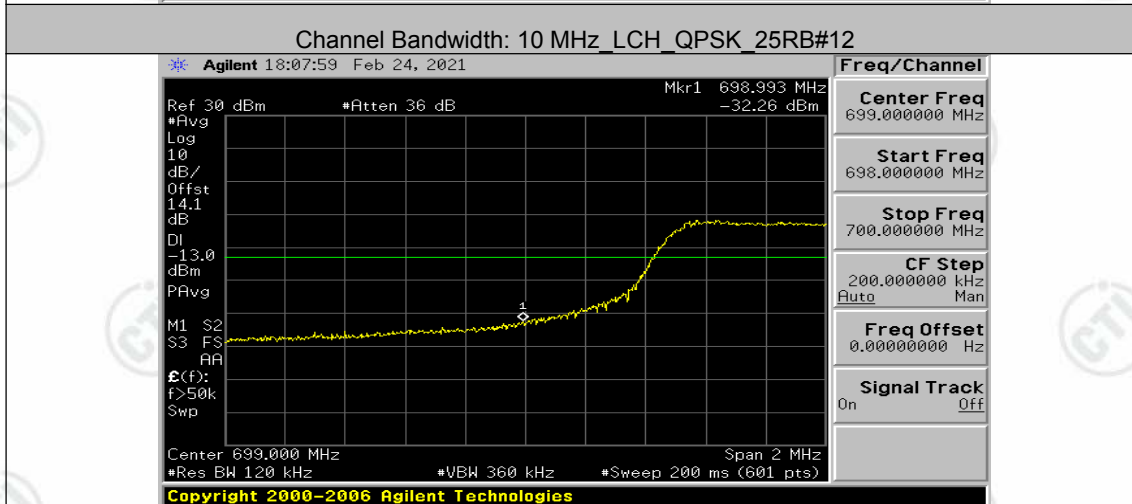
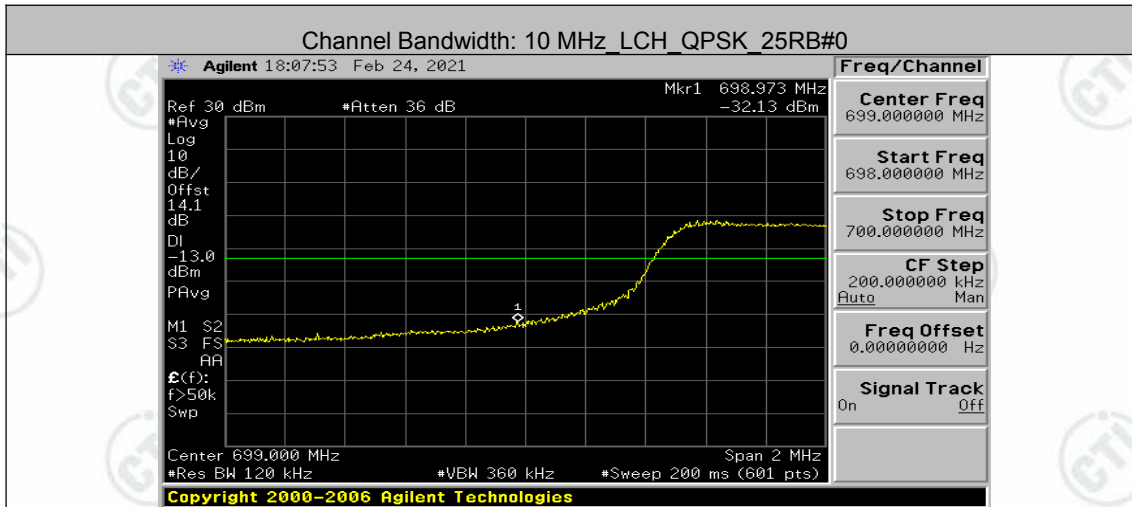


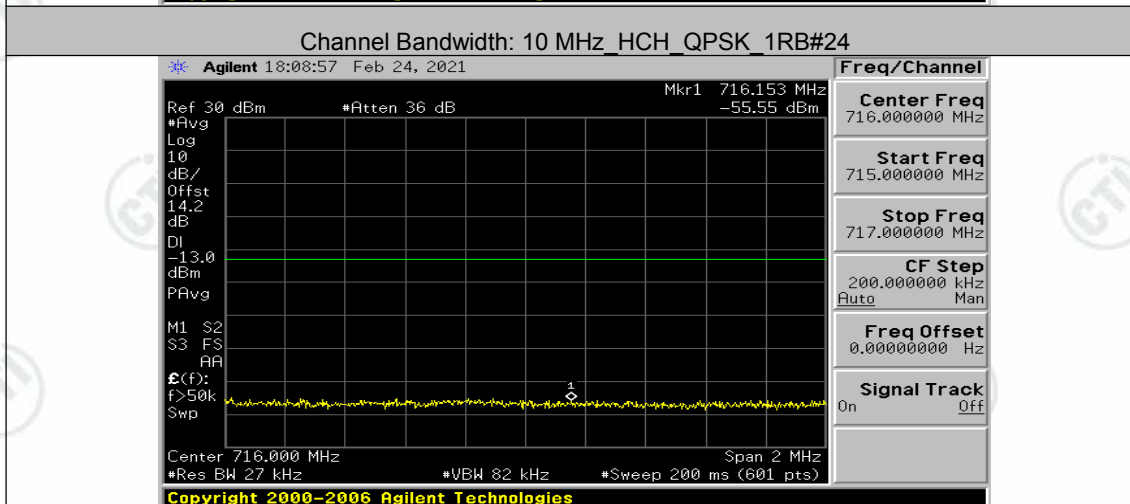
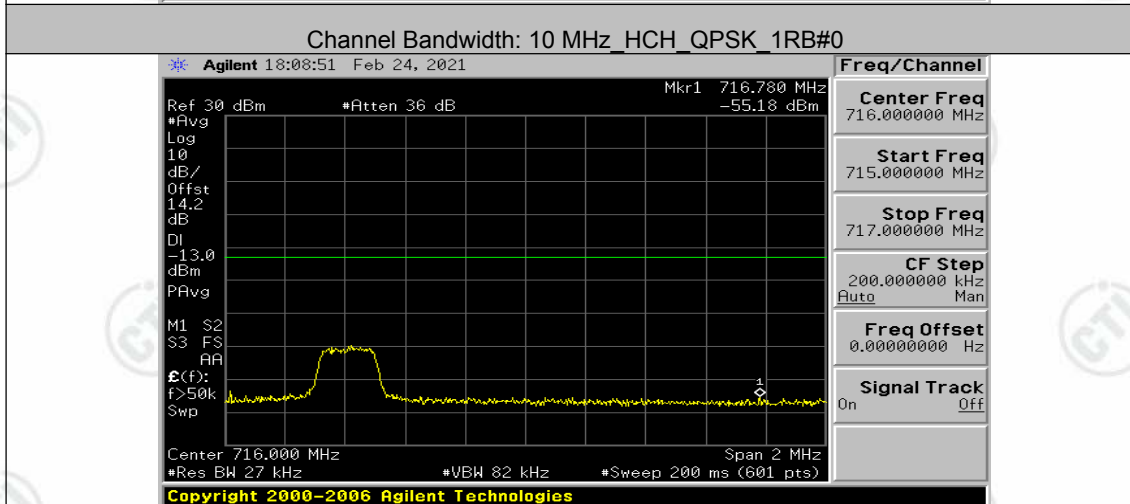
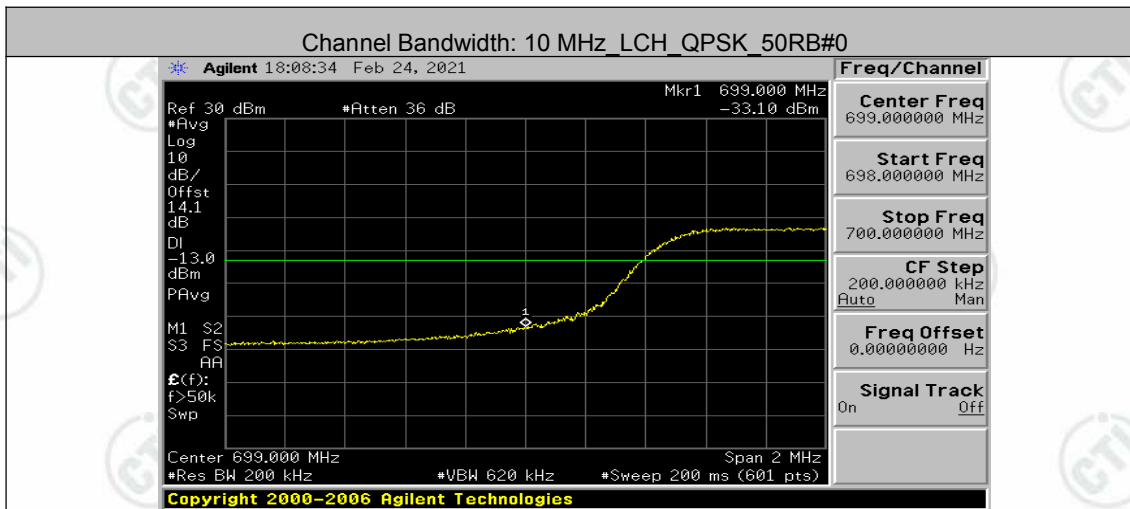


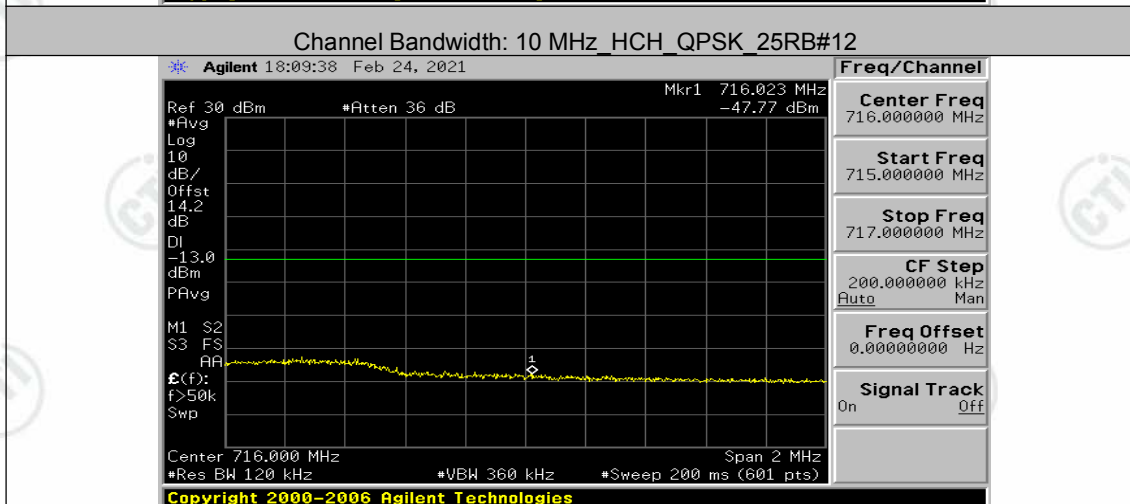
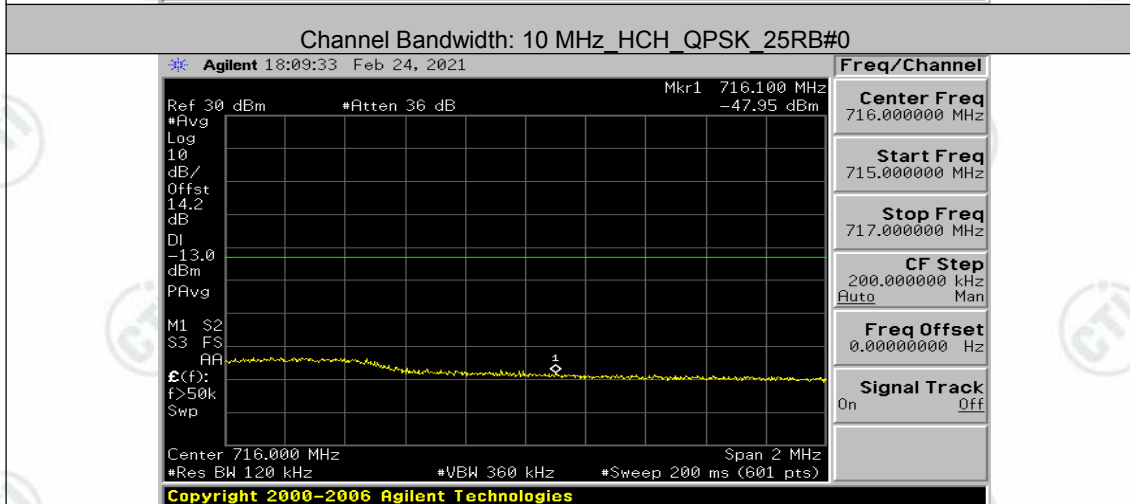
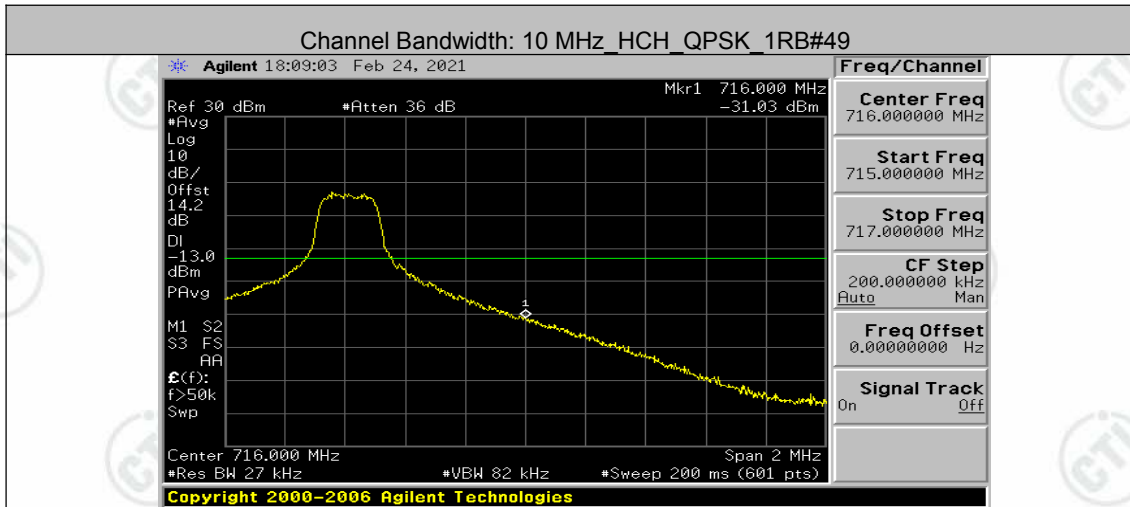


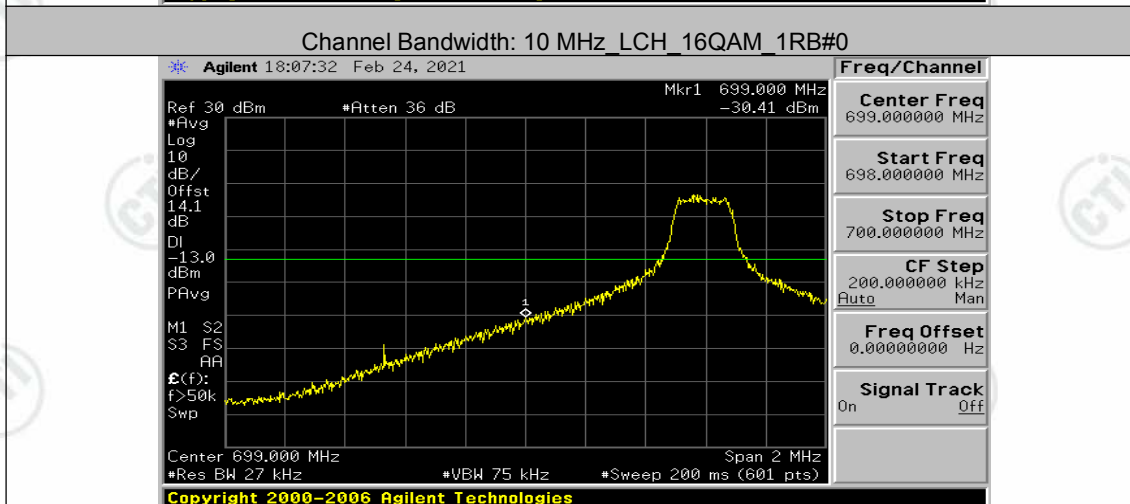
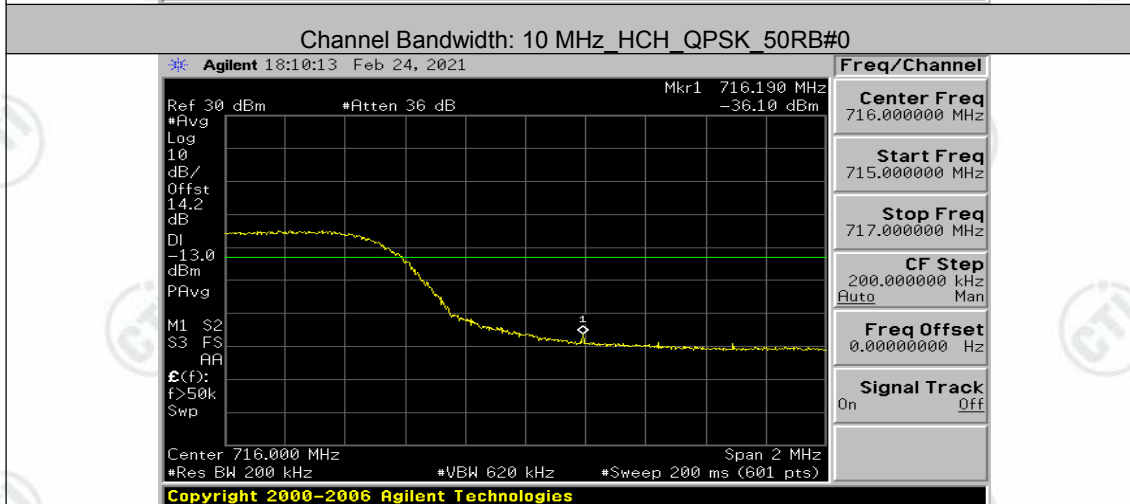
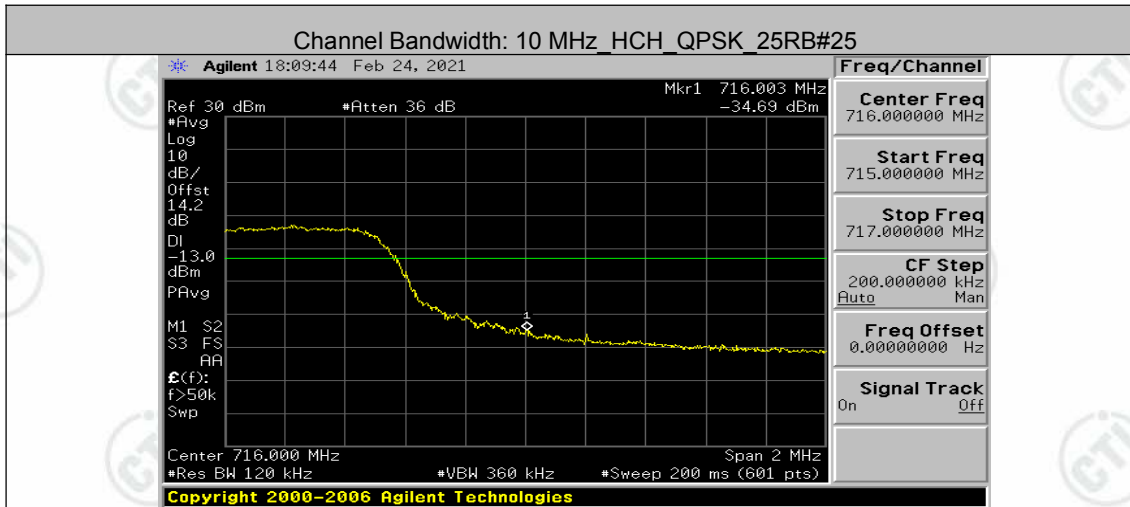


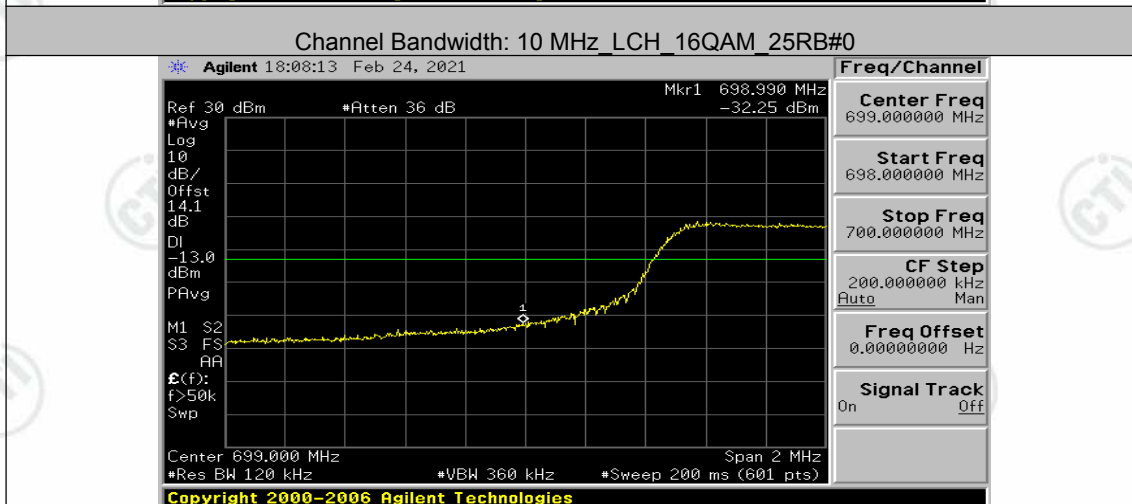
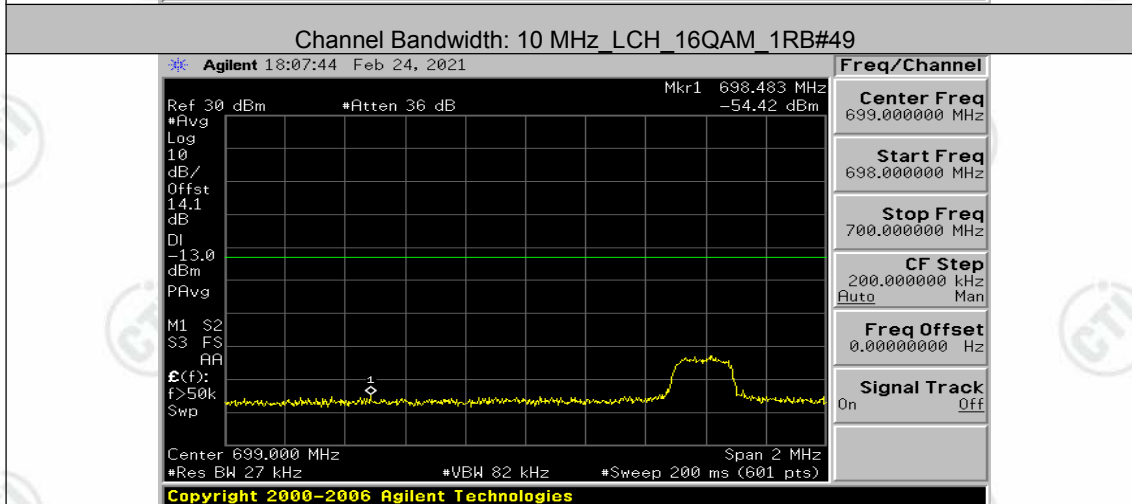
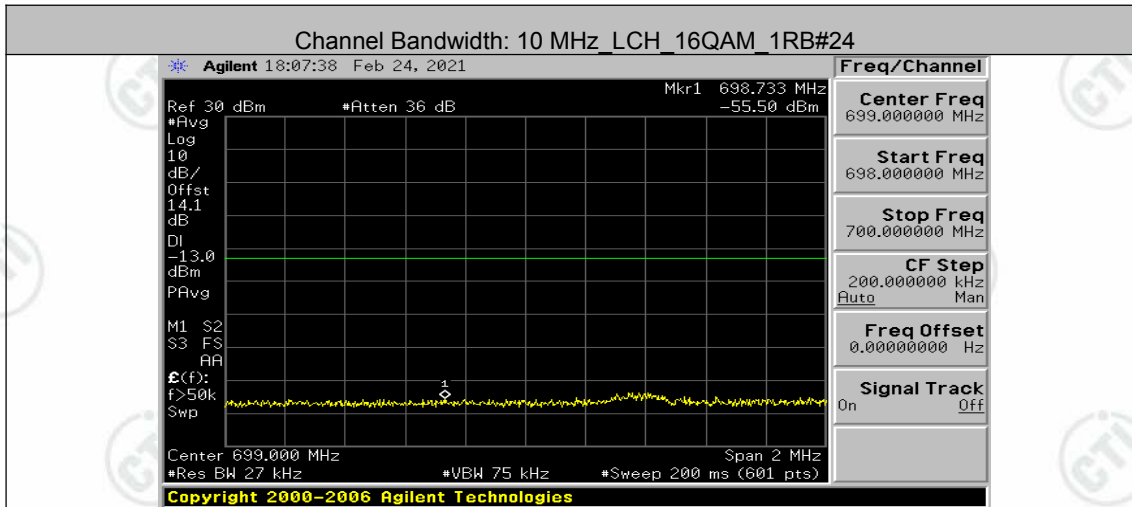


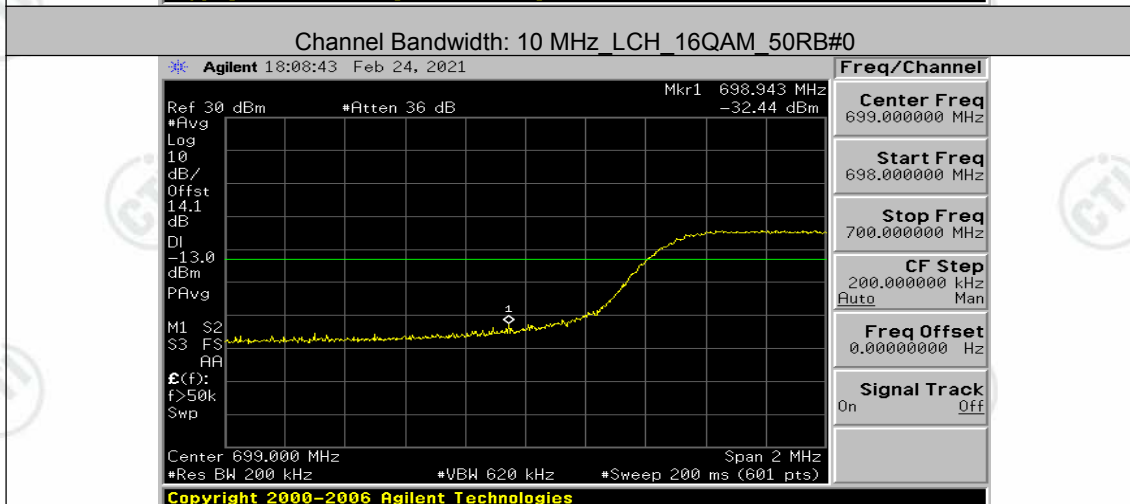
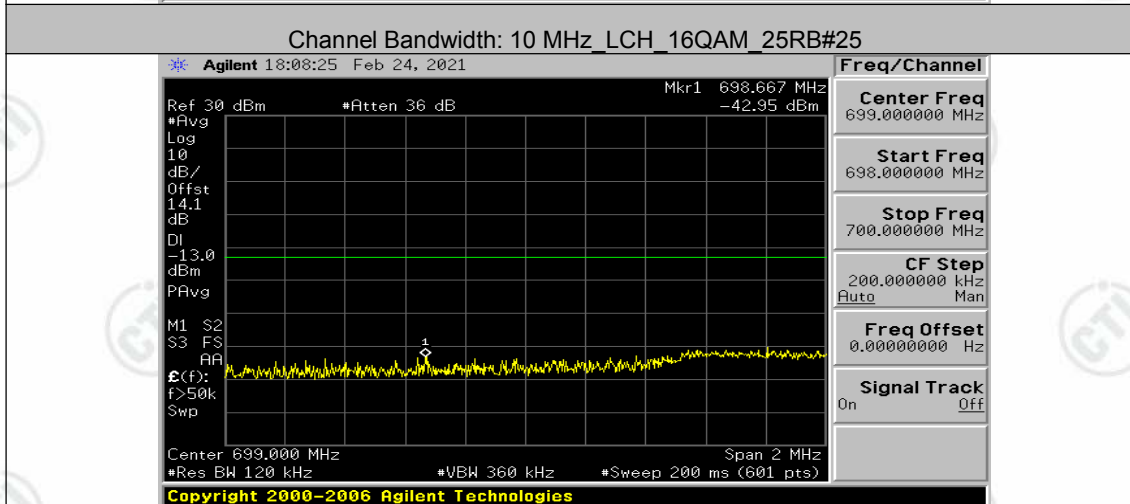
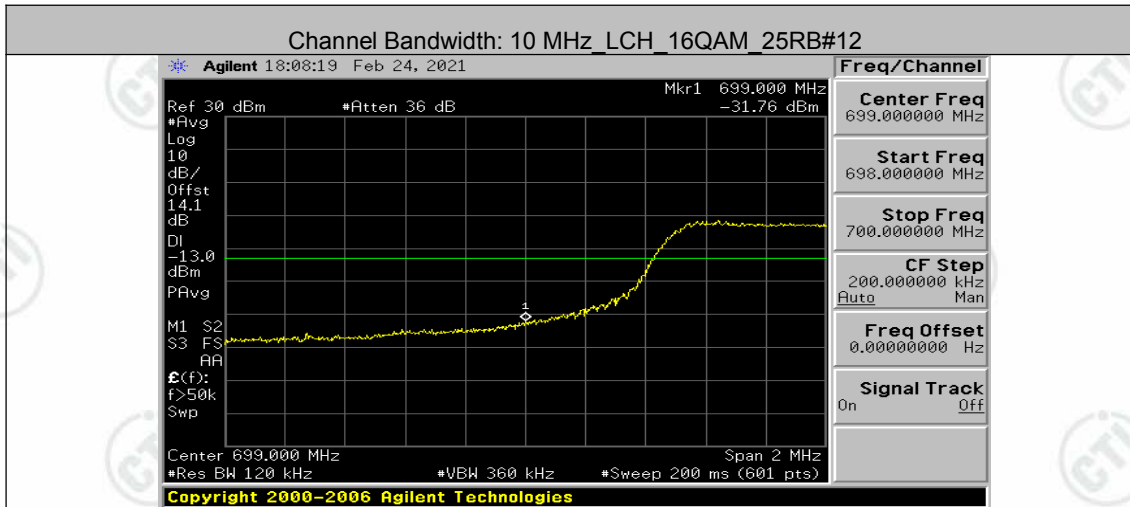


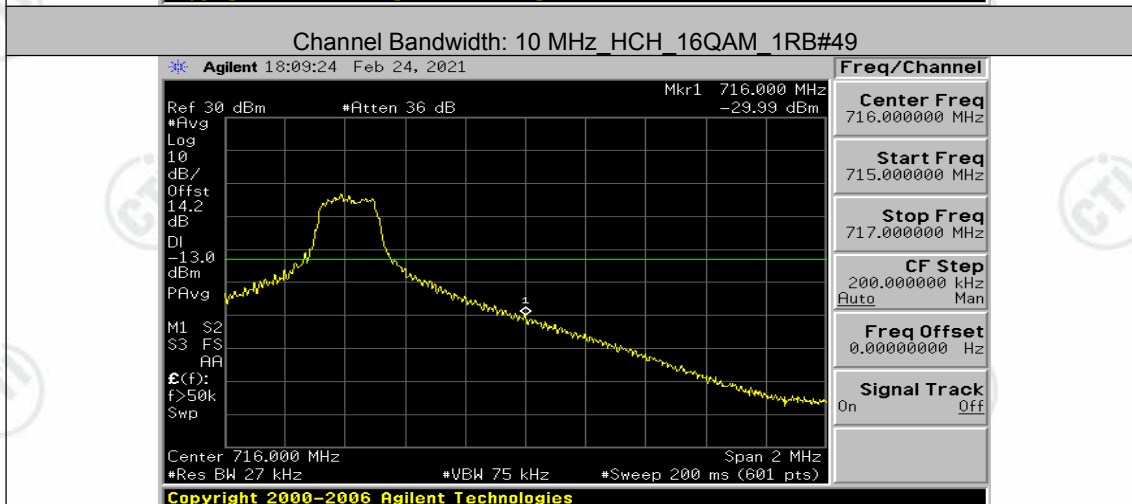
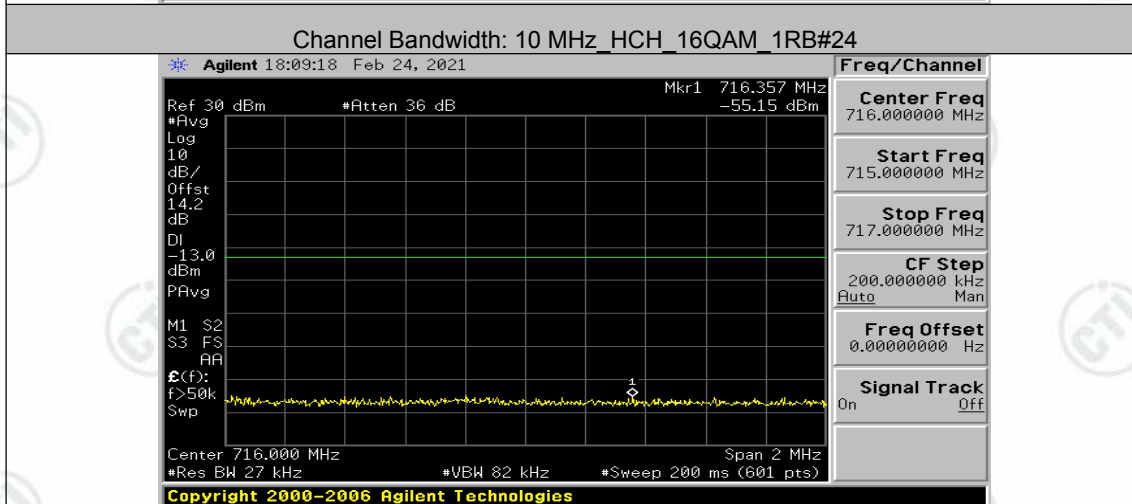
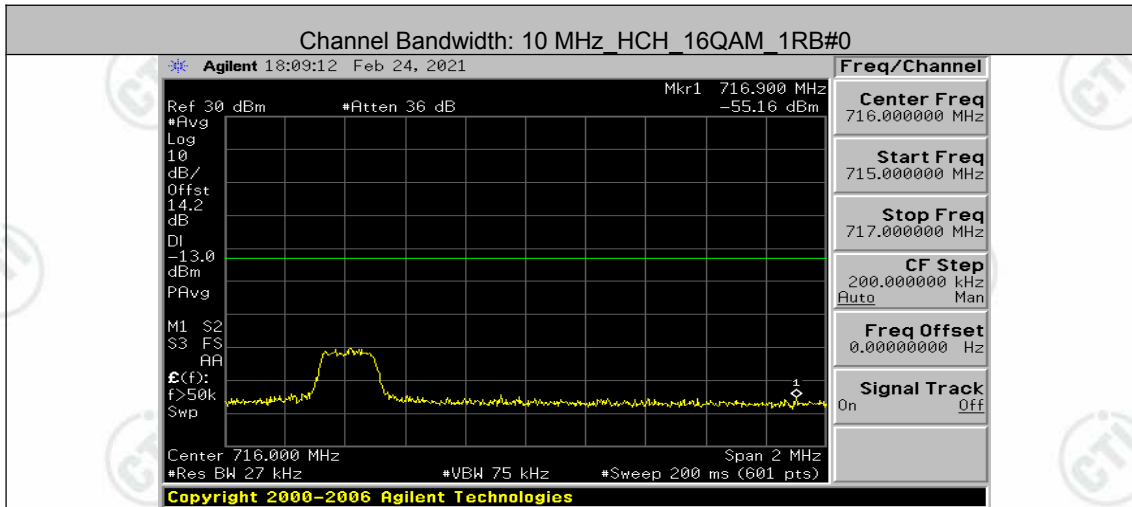


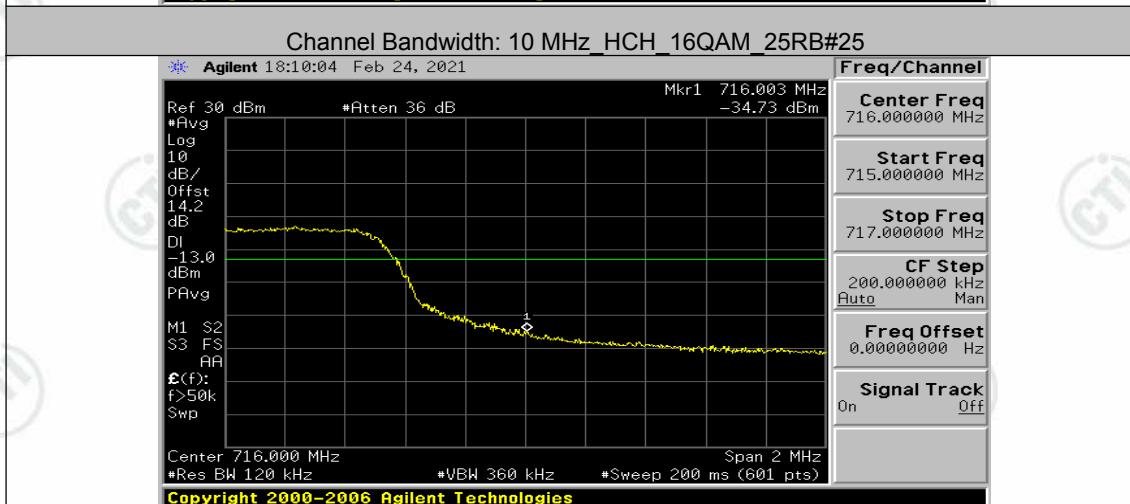
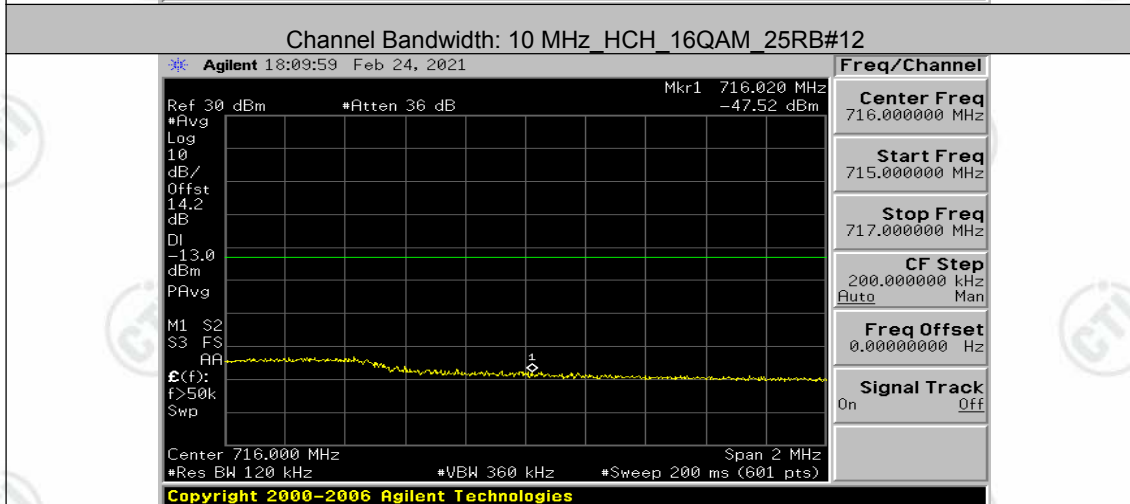
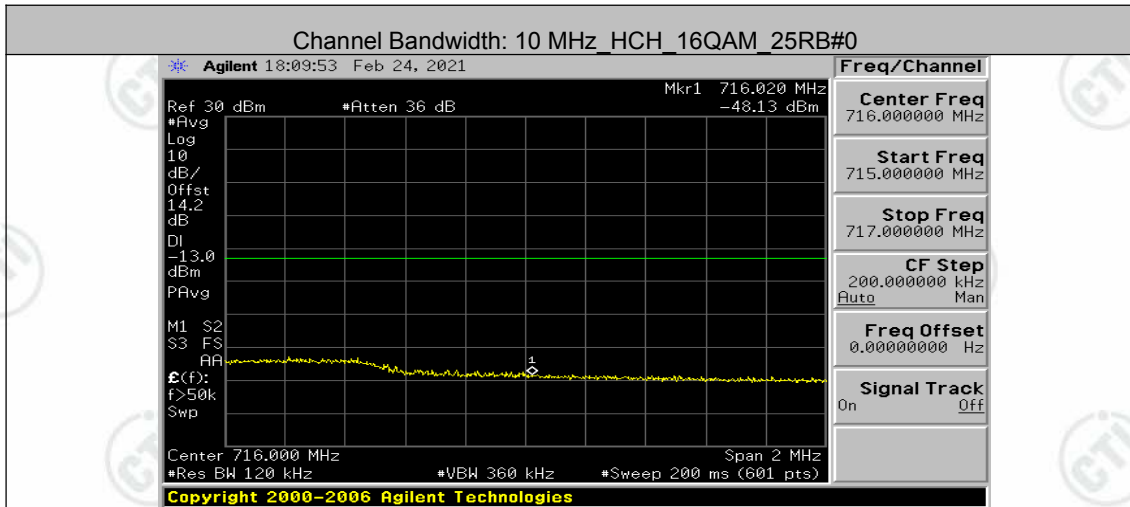


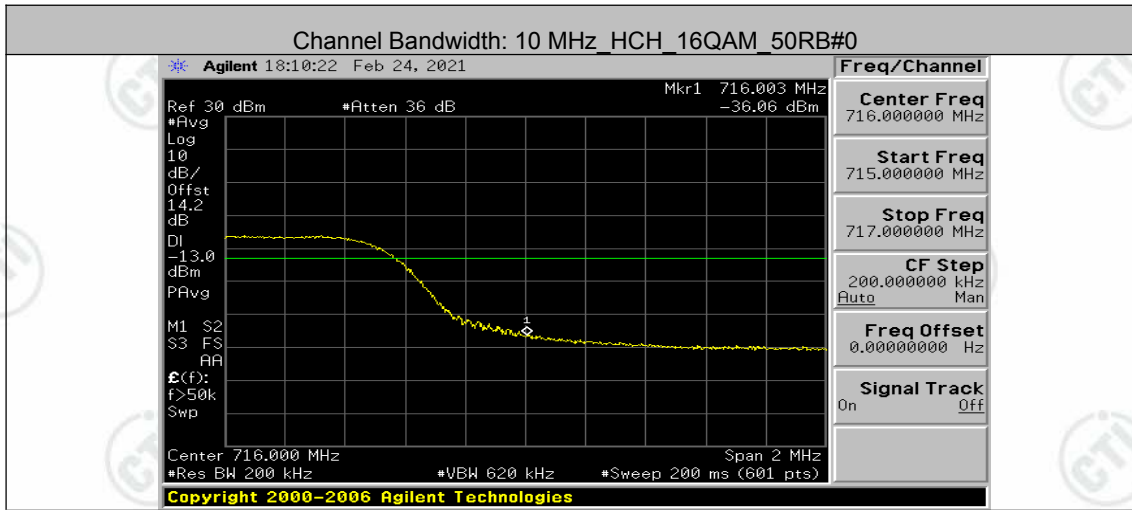








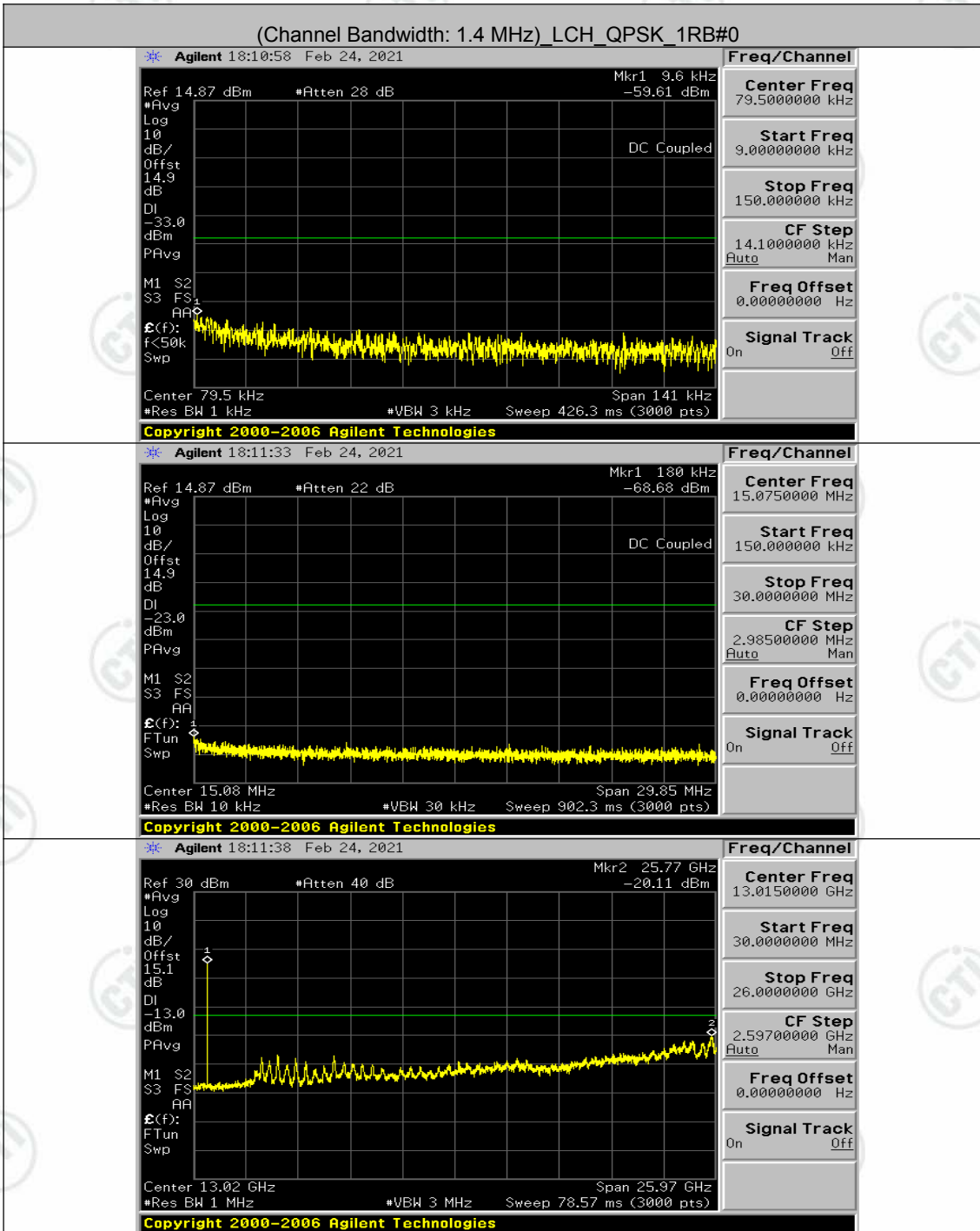


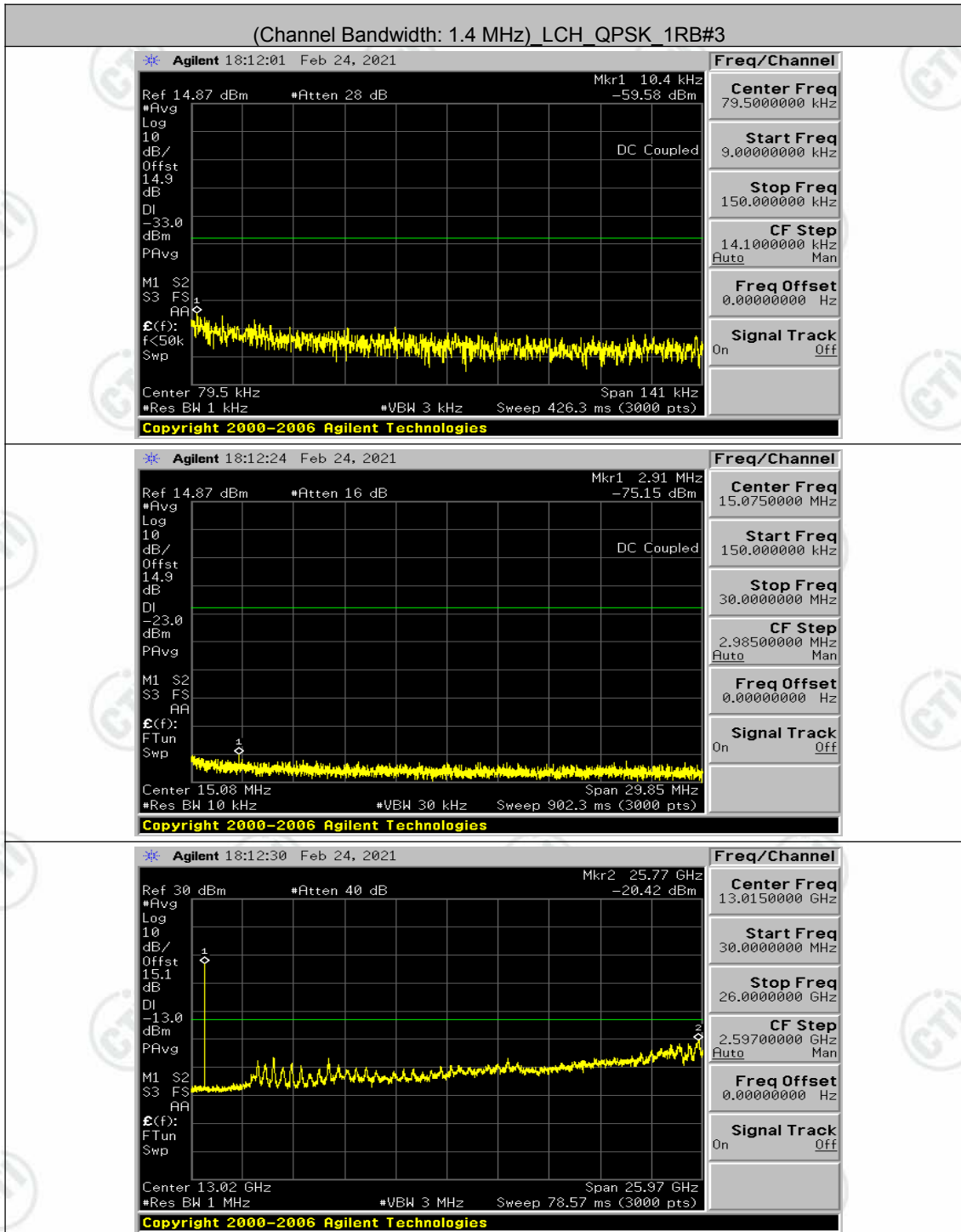


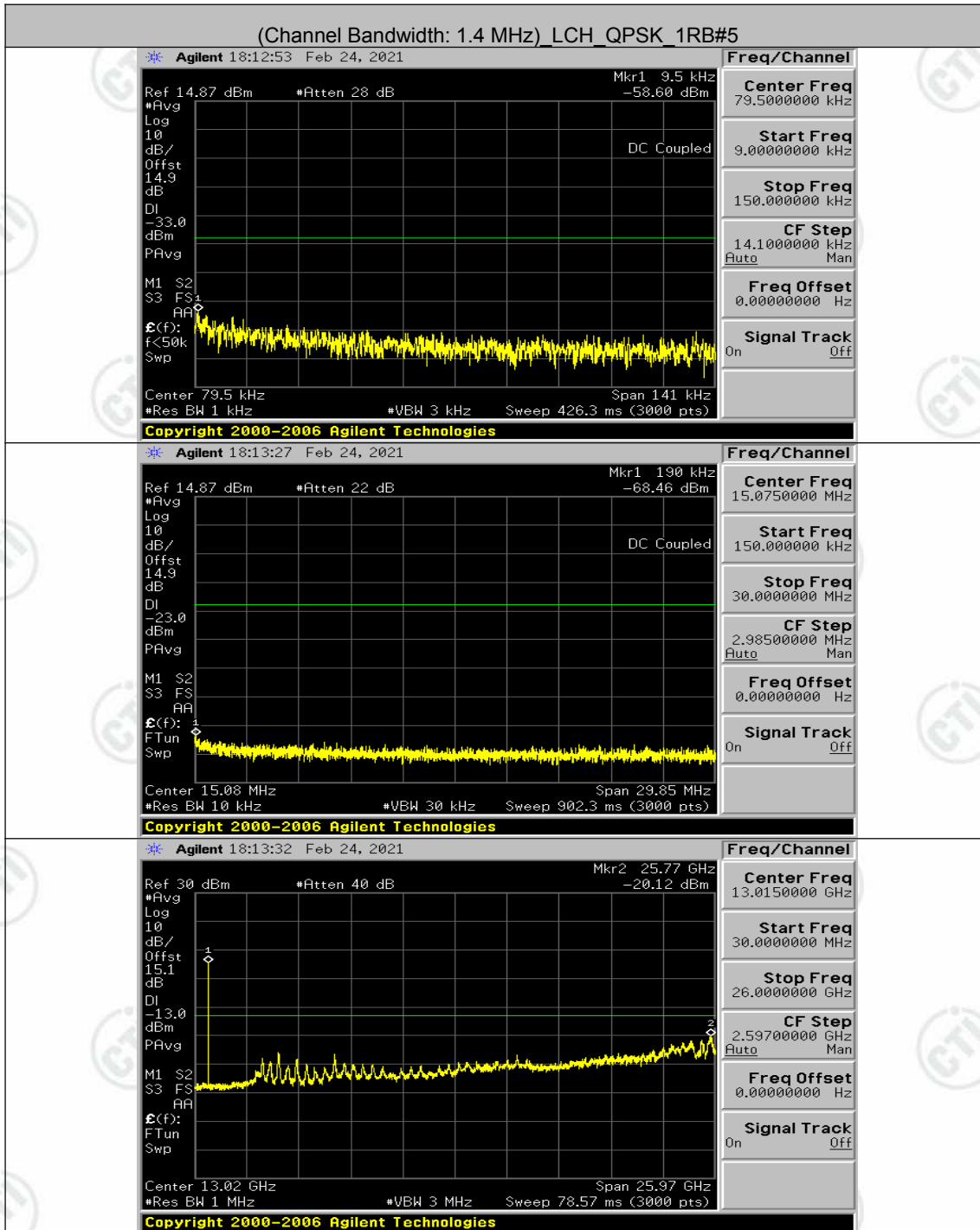
Appendix D) Conducted Spurious Emission

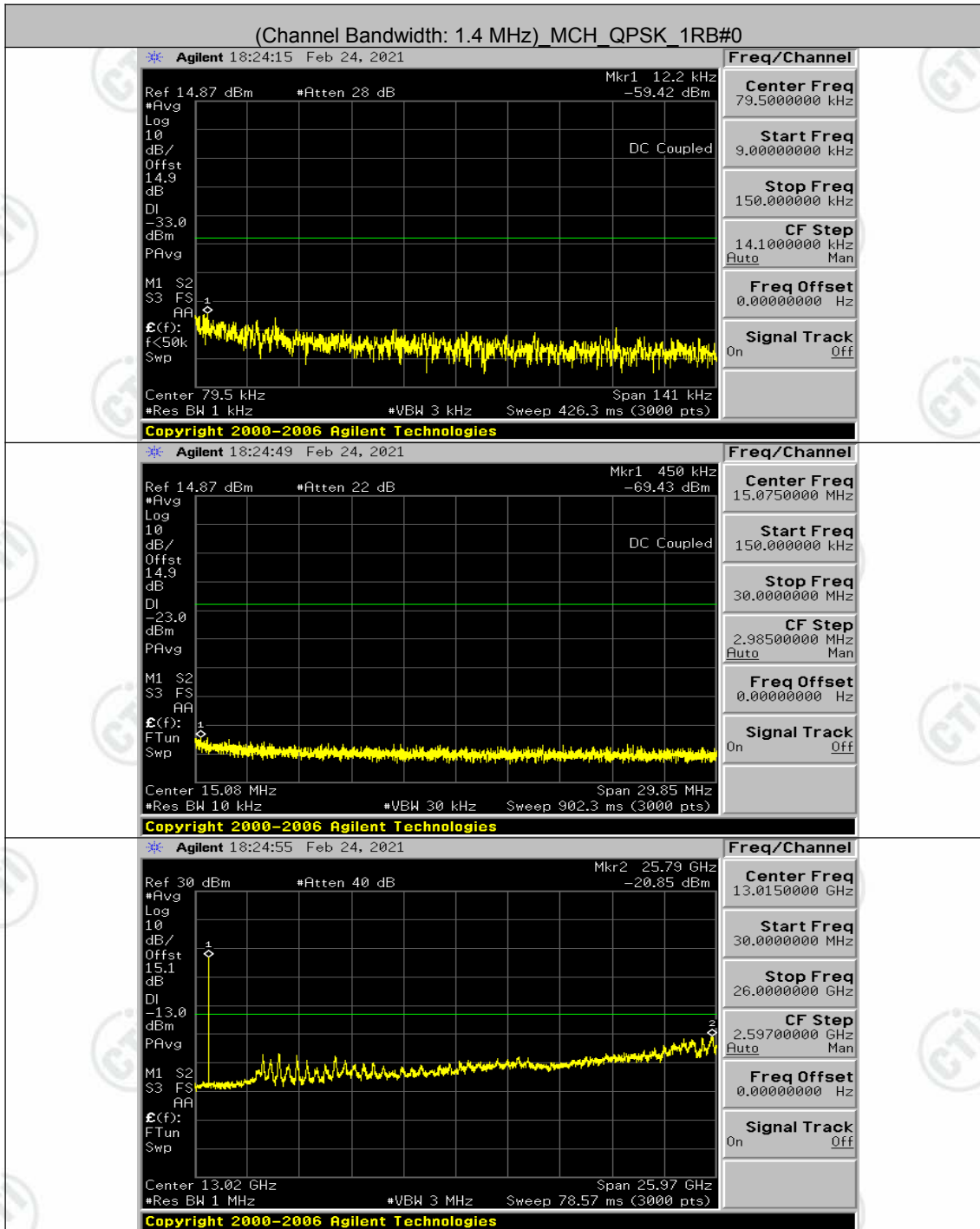
Test Graphs

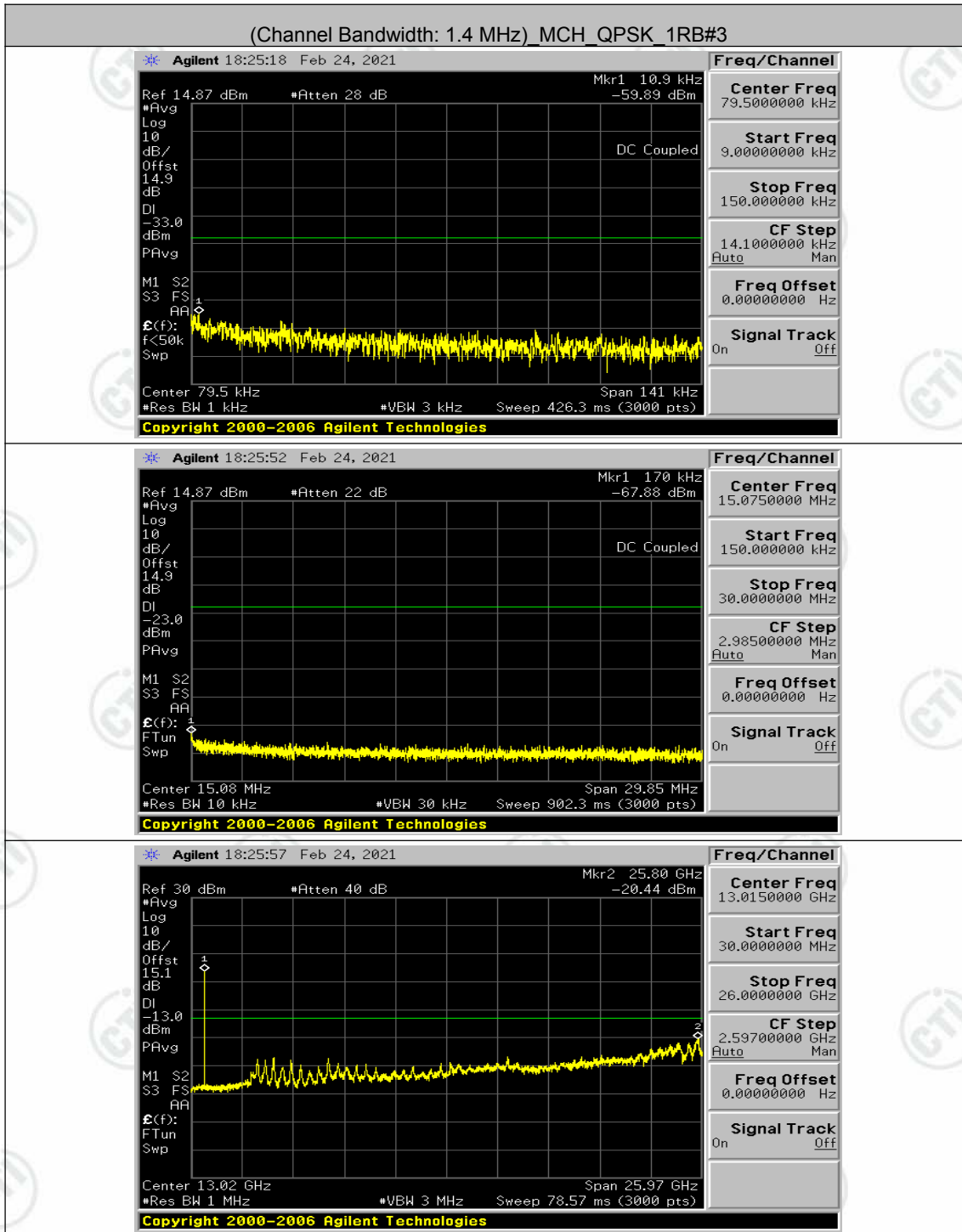
Channel Bandwidth: 1.4 MHz

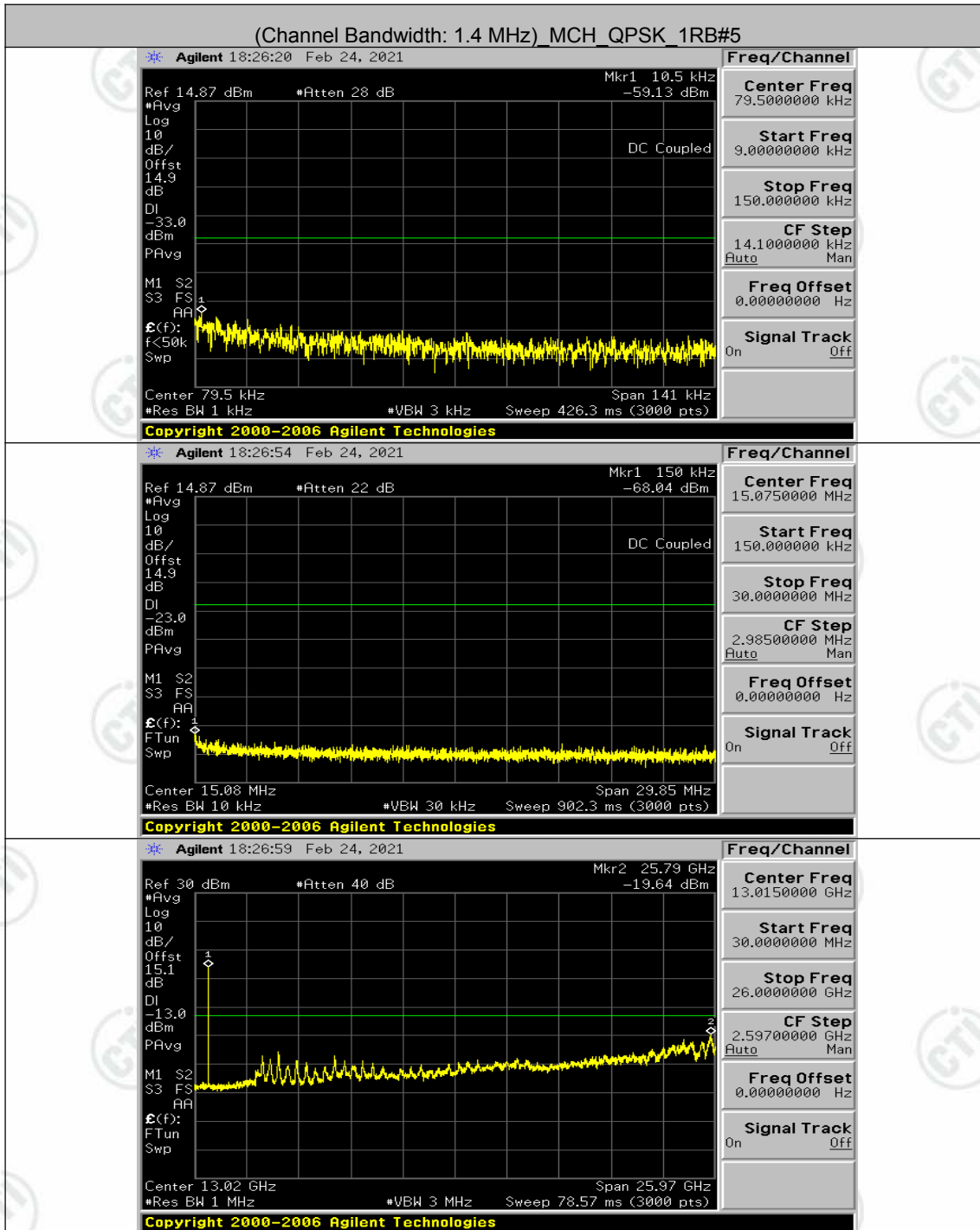


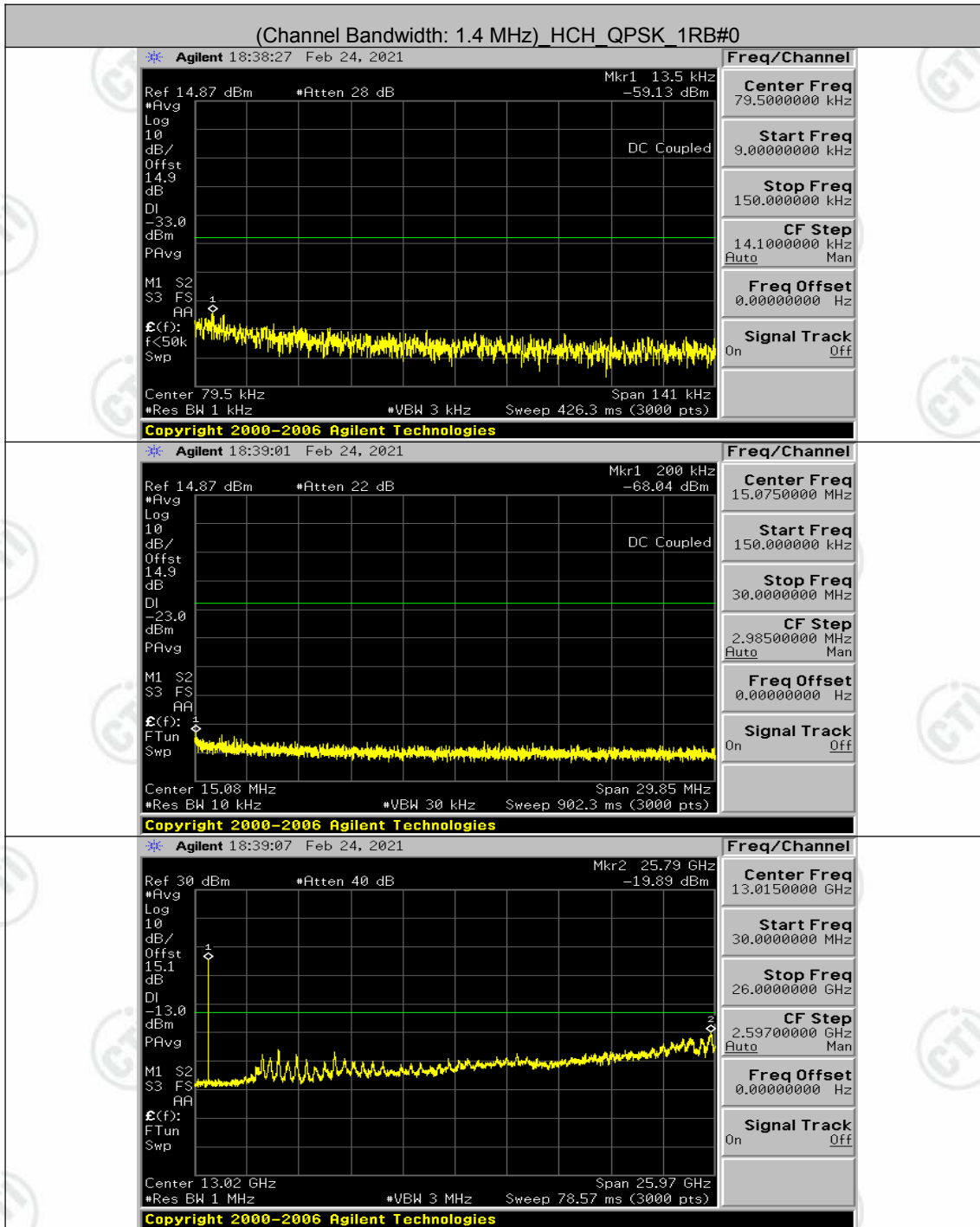


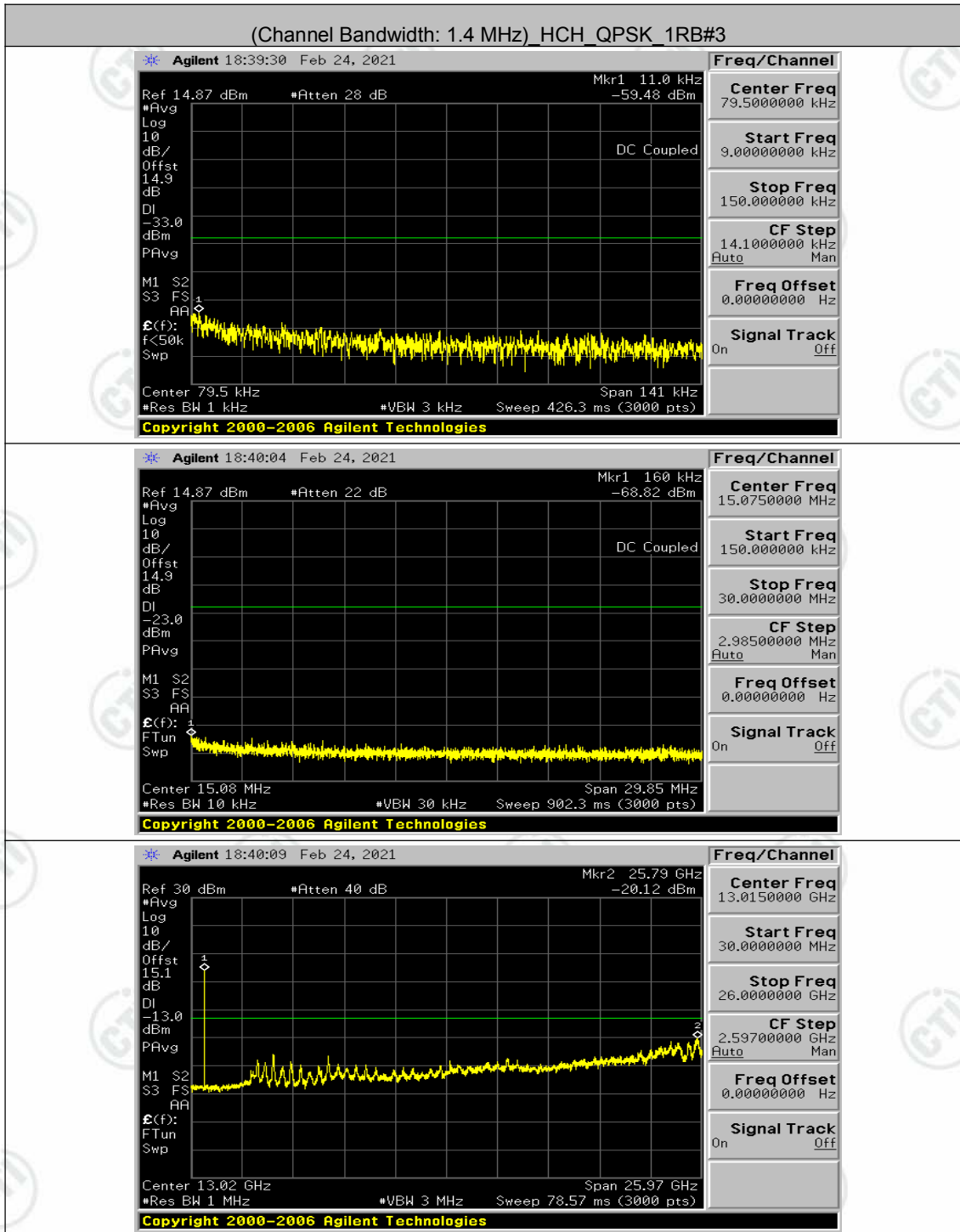


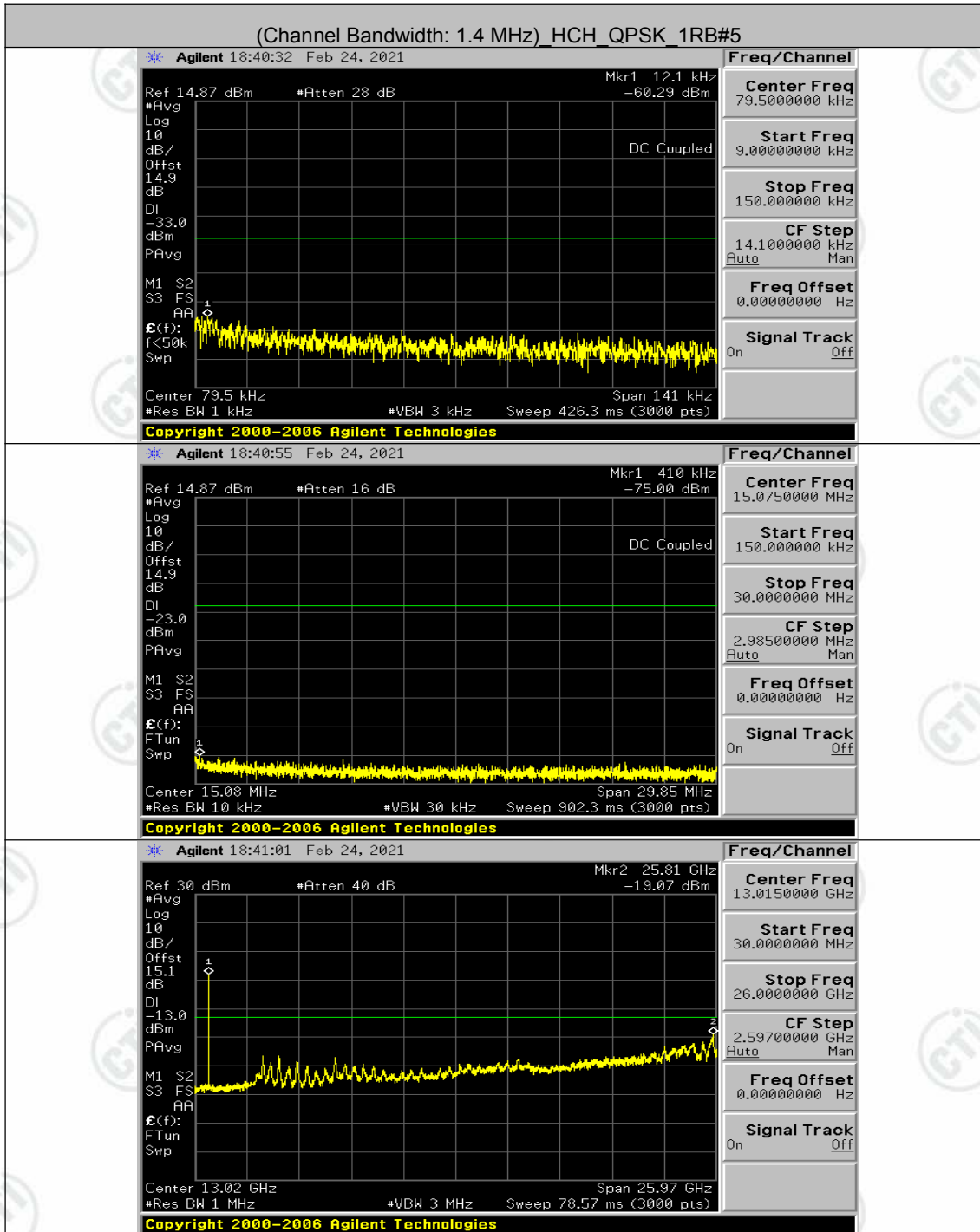


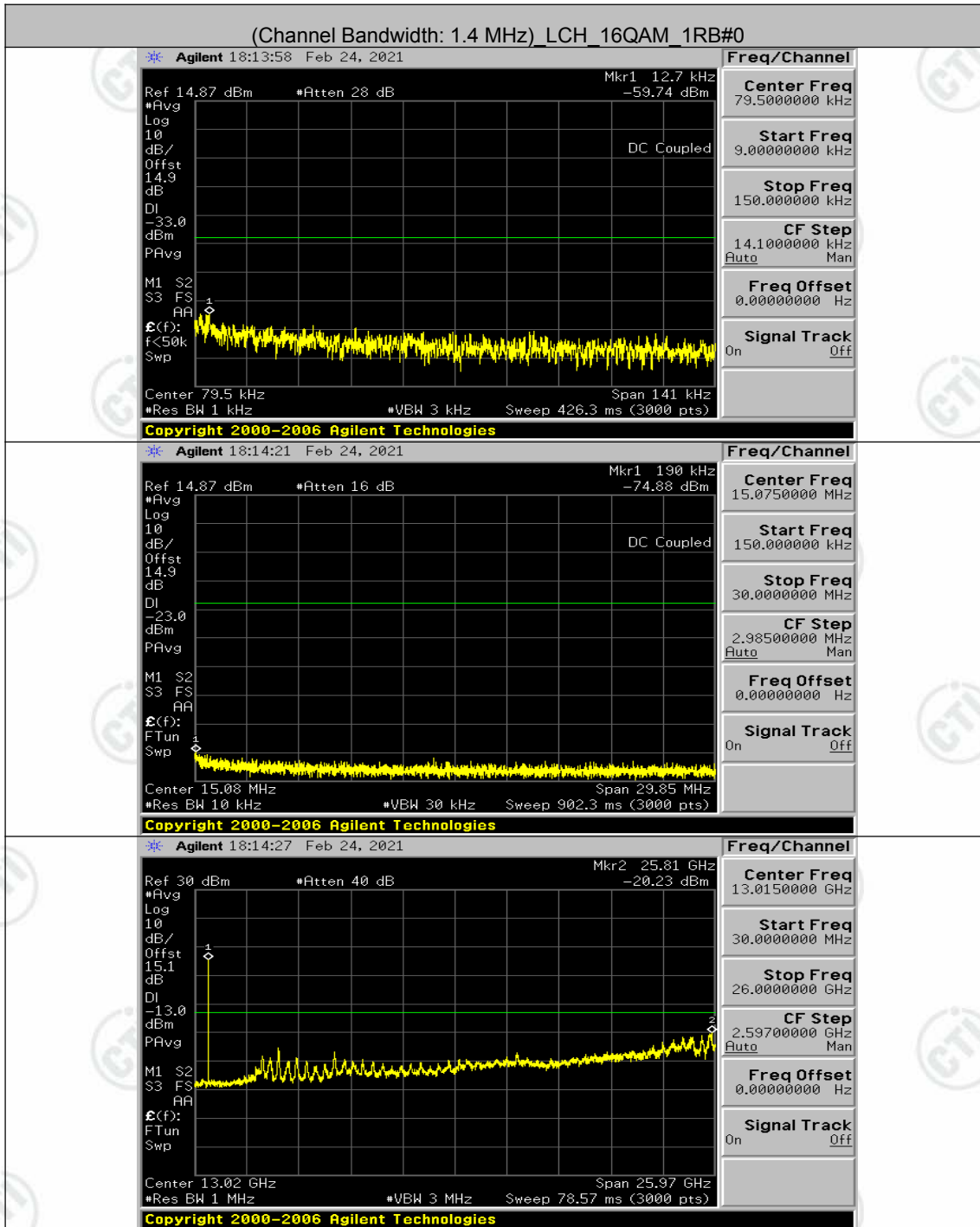


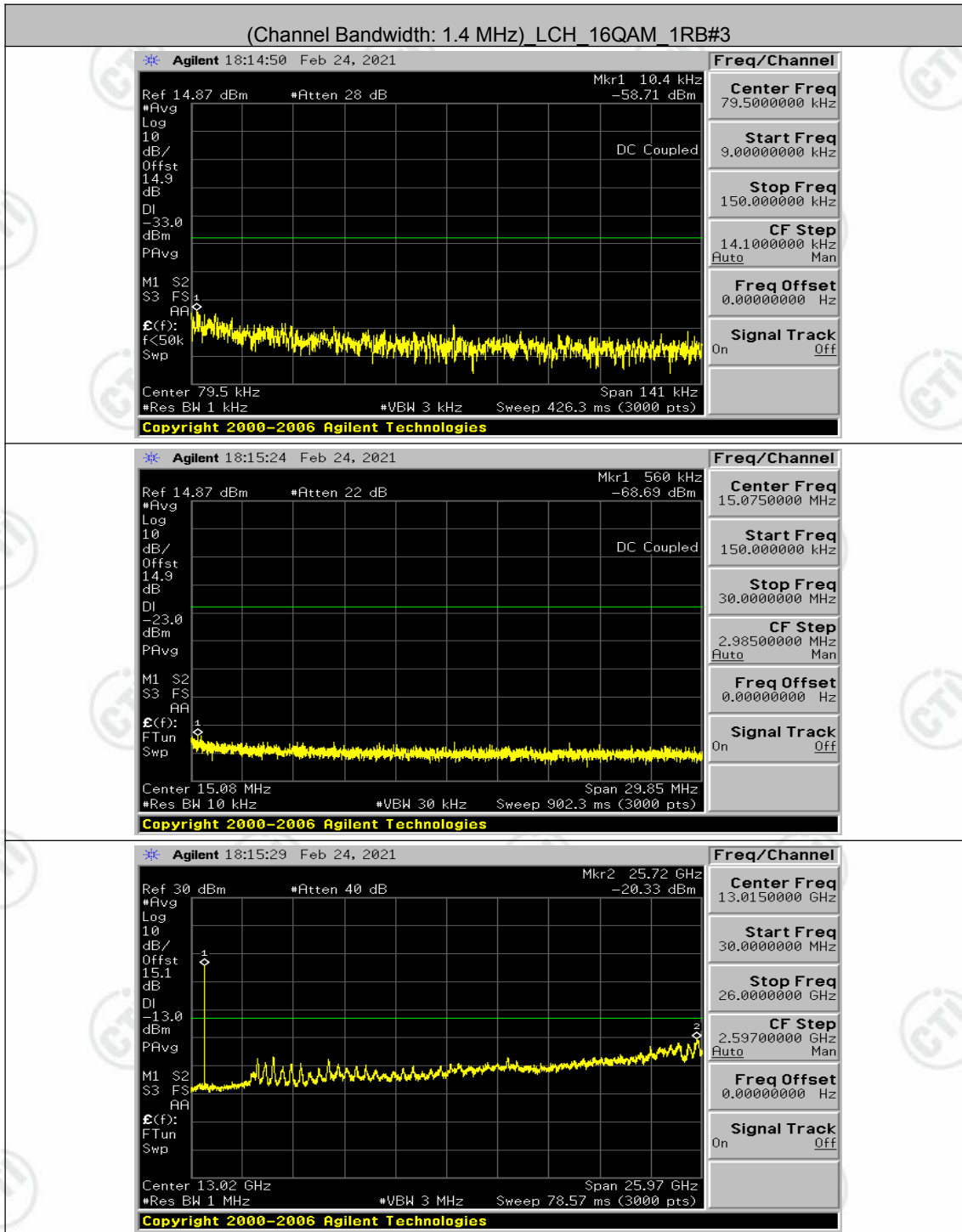


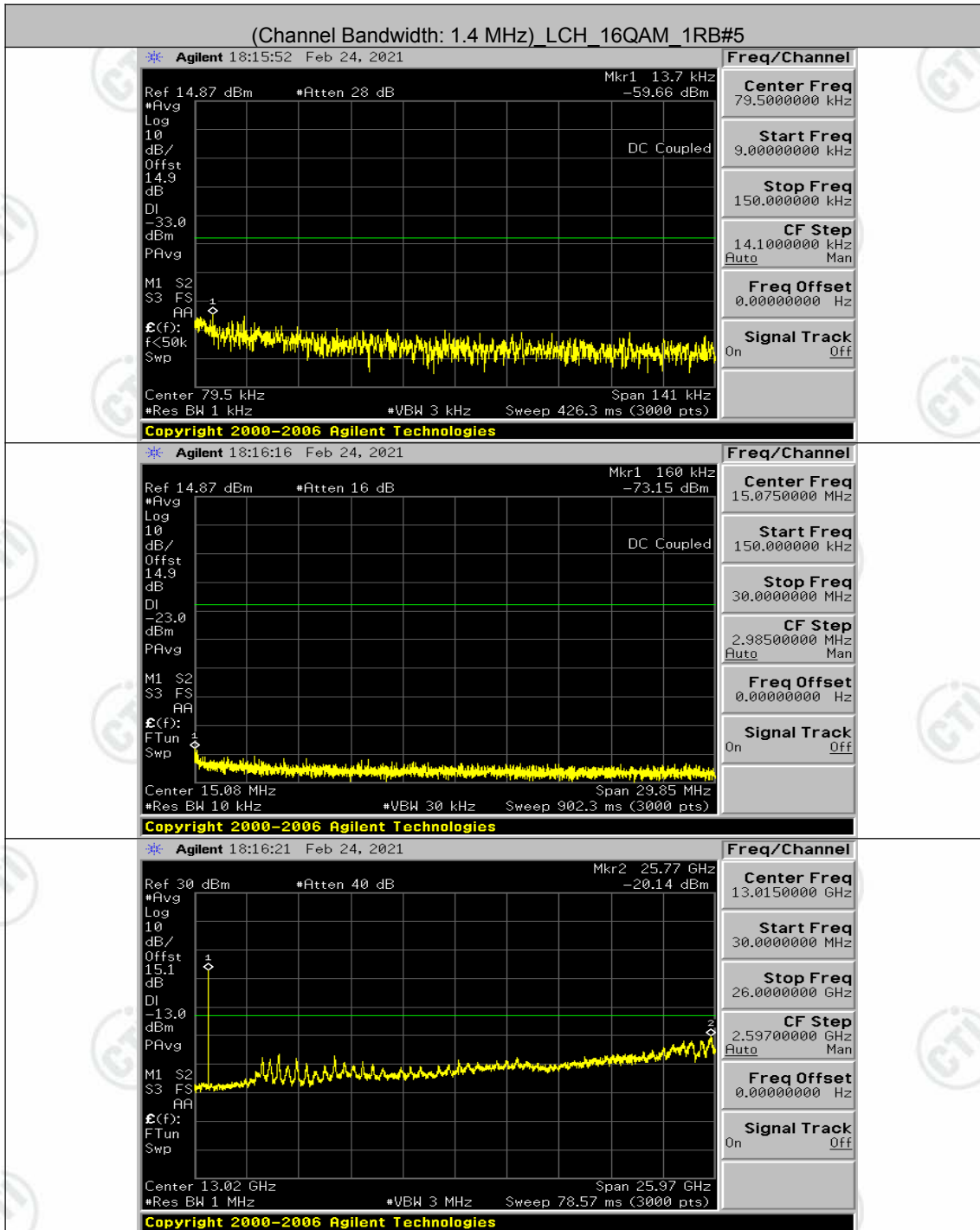


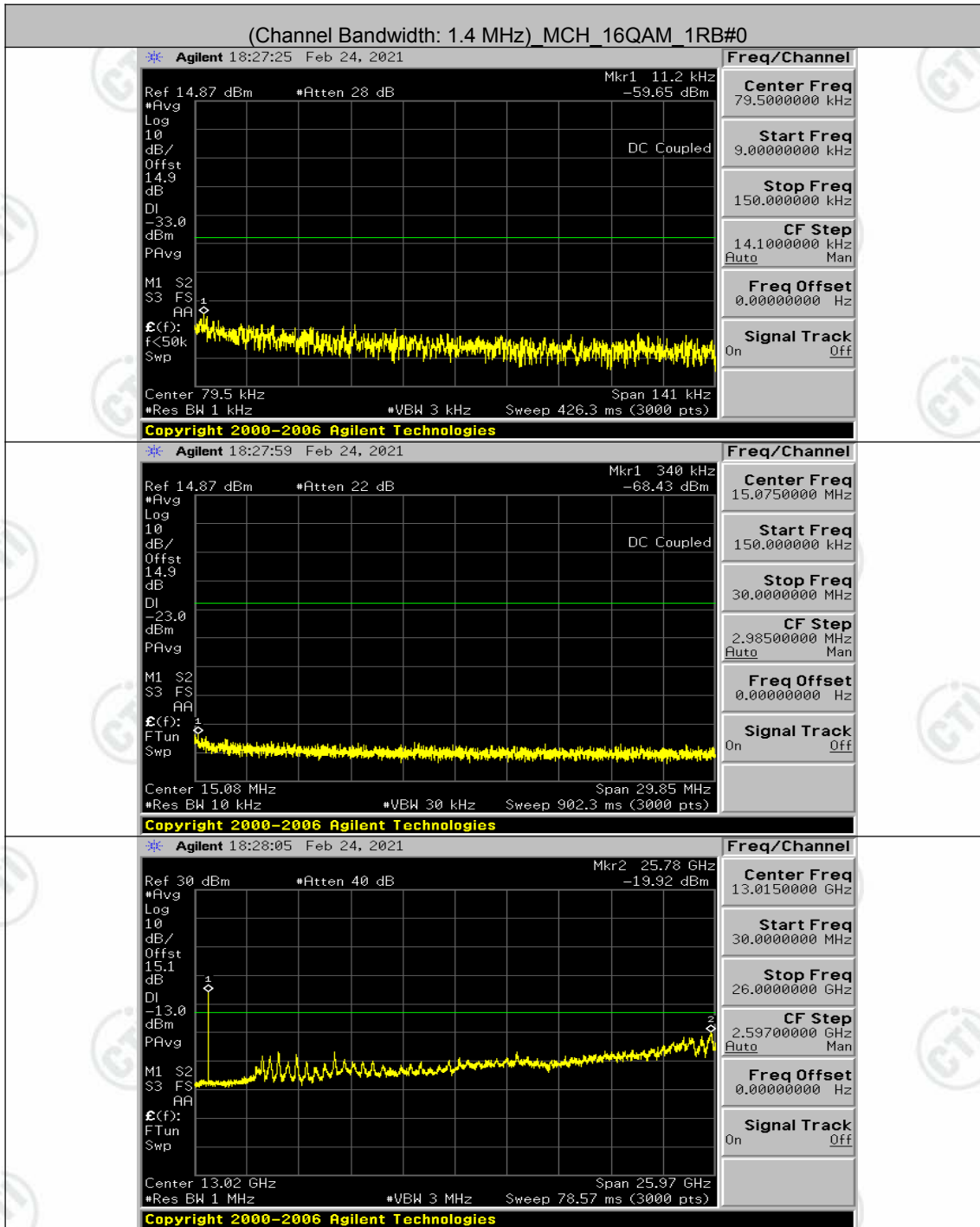


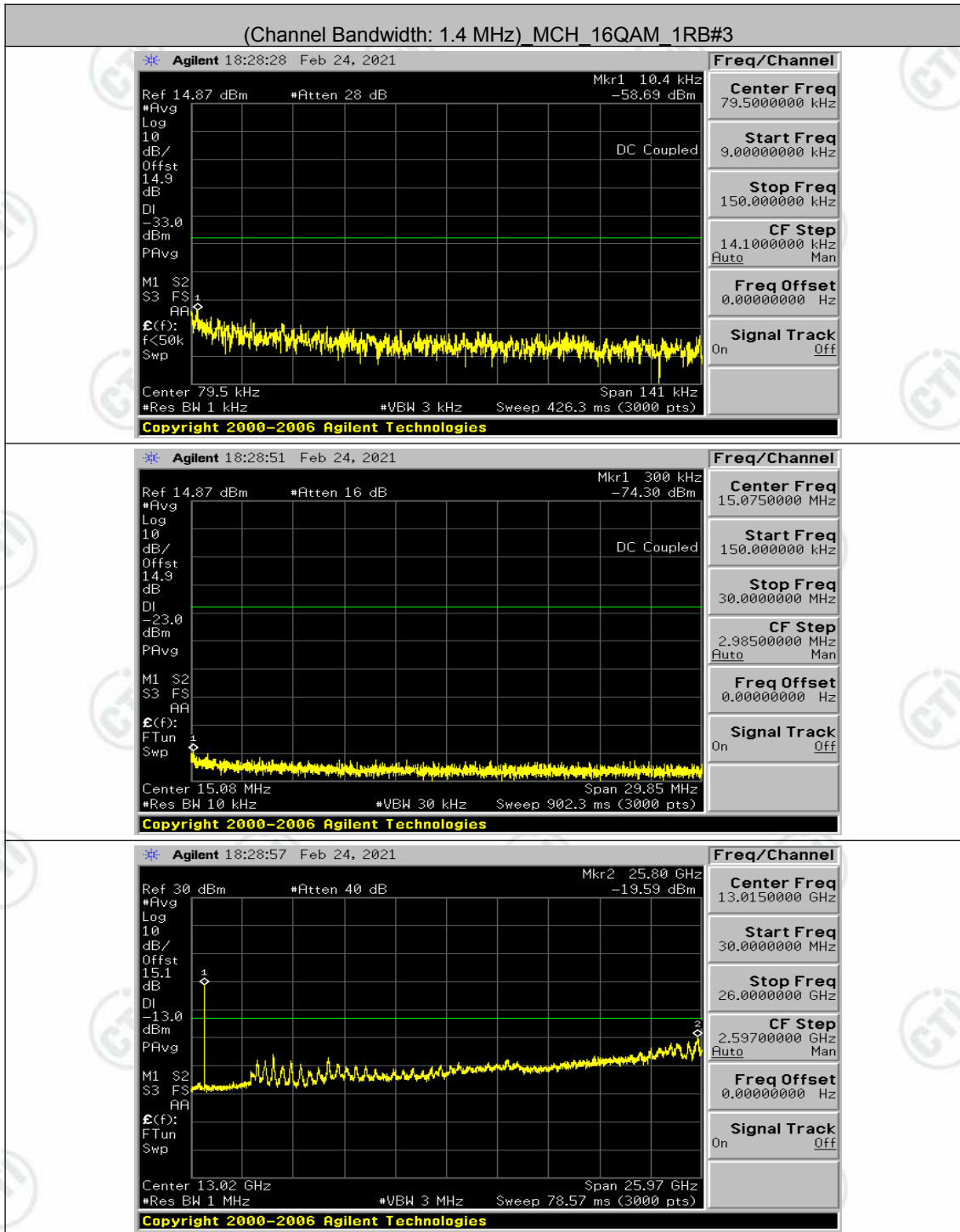


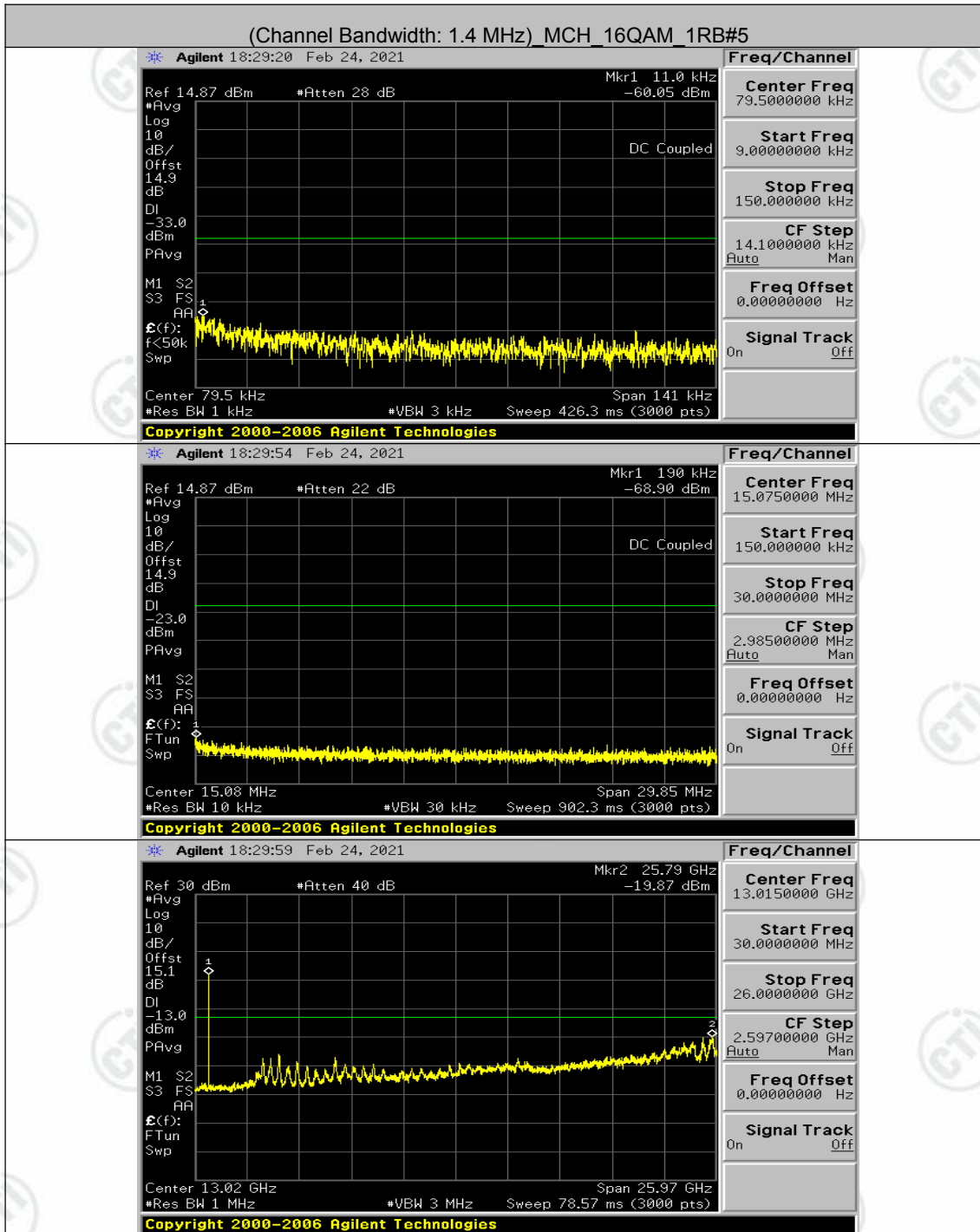


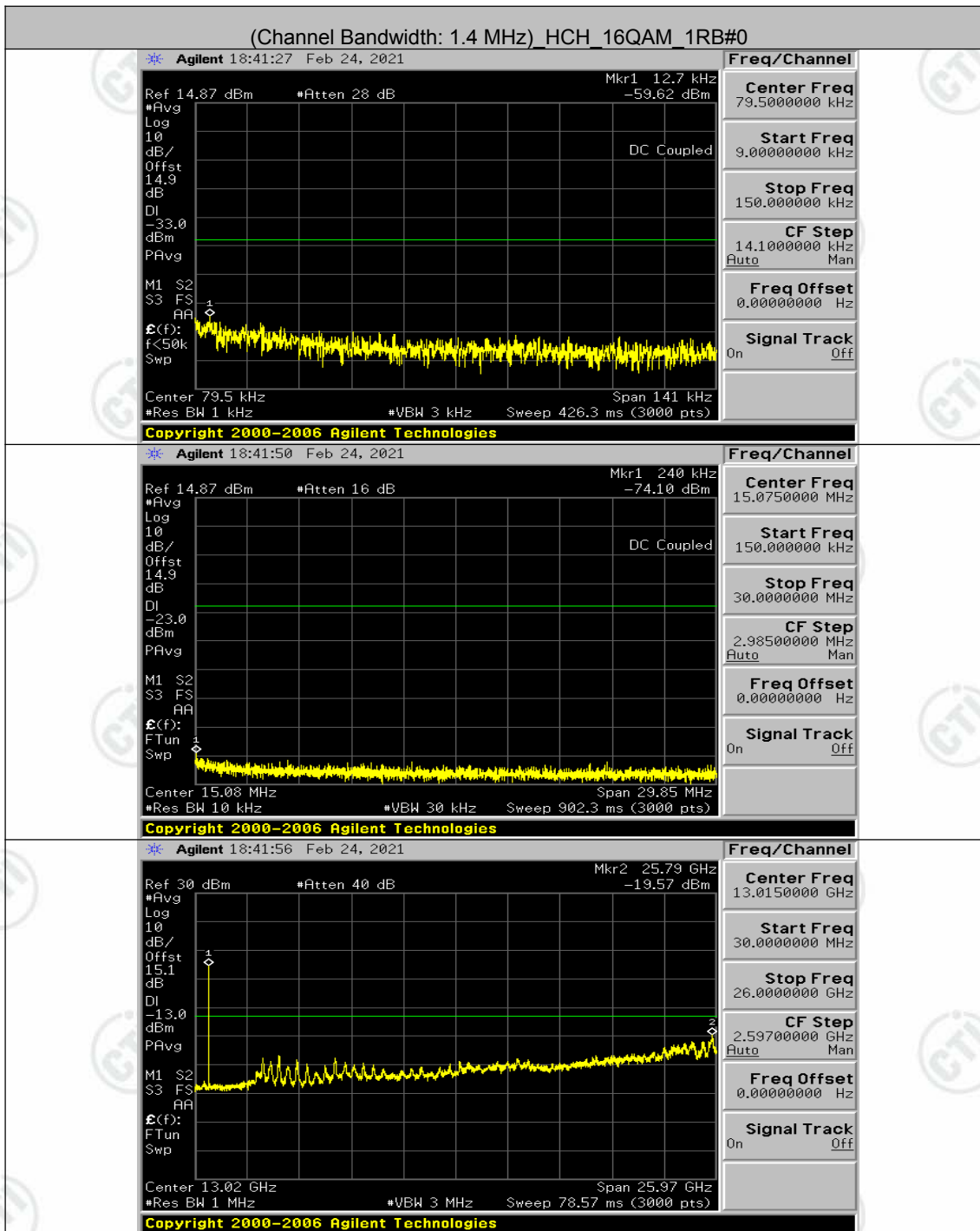


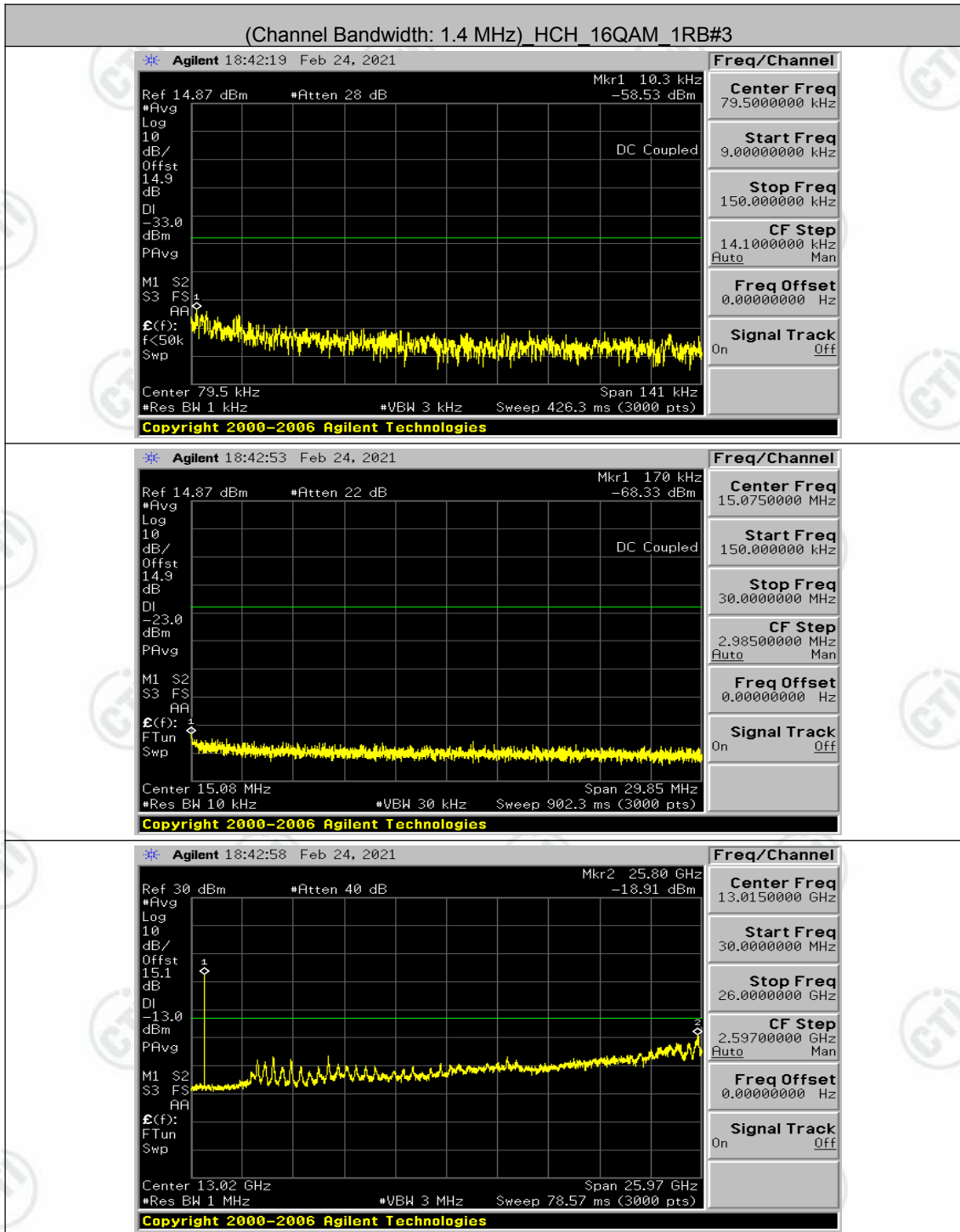


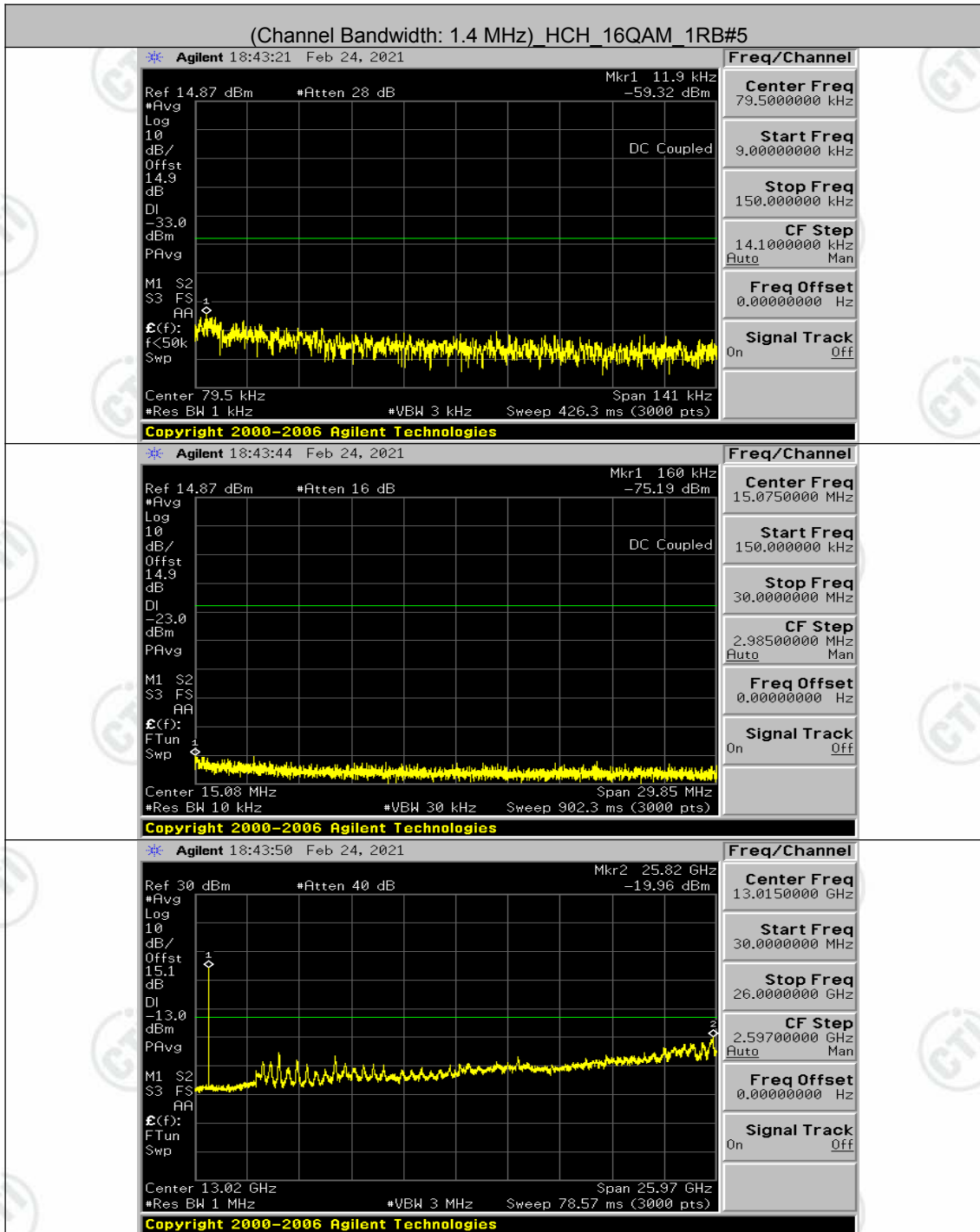




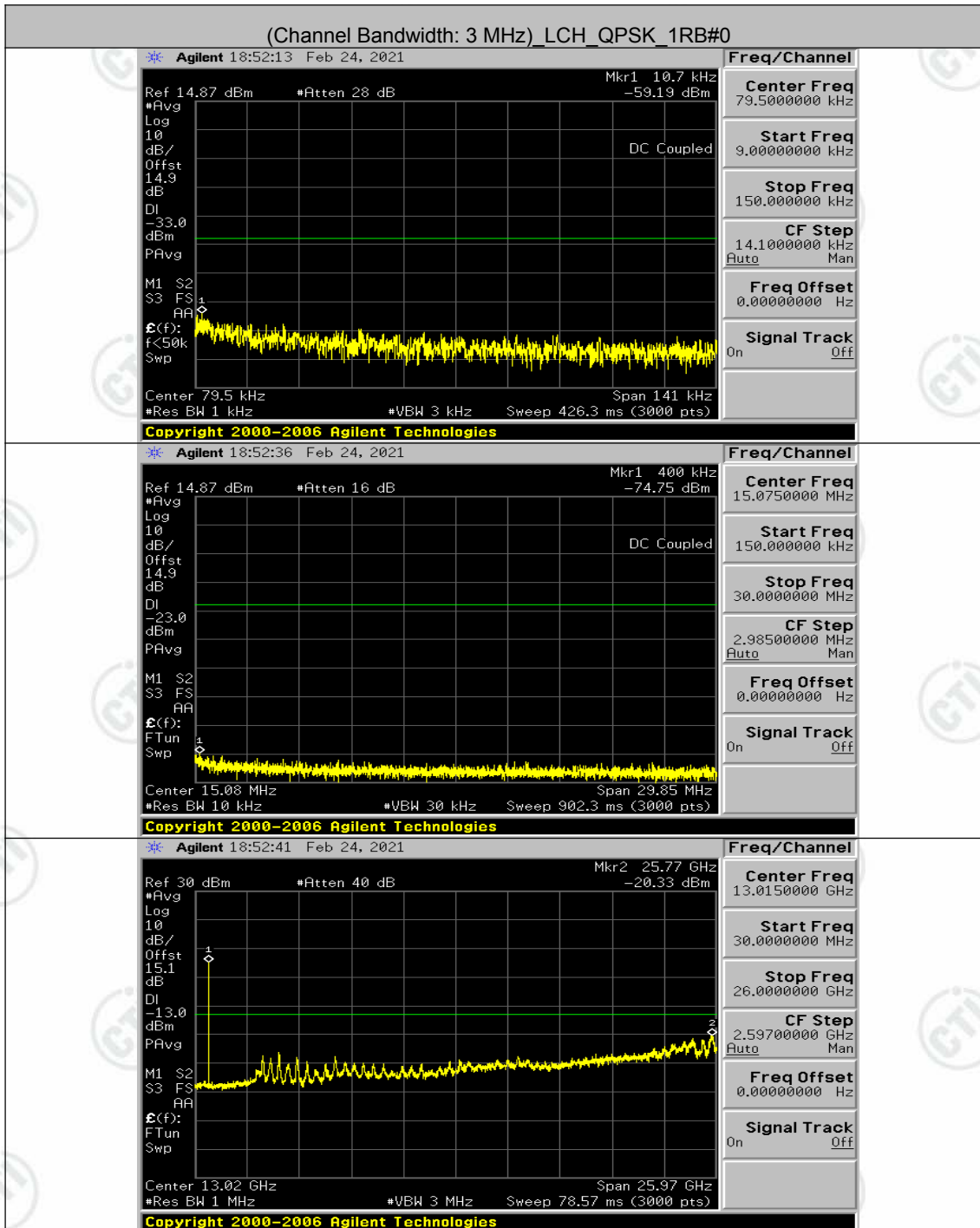


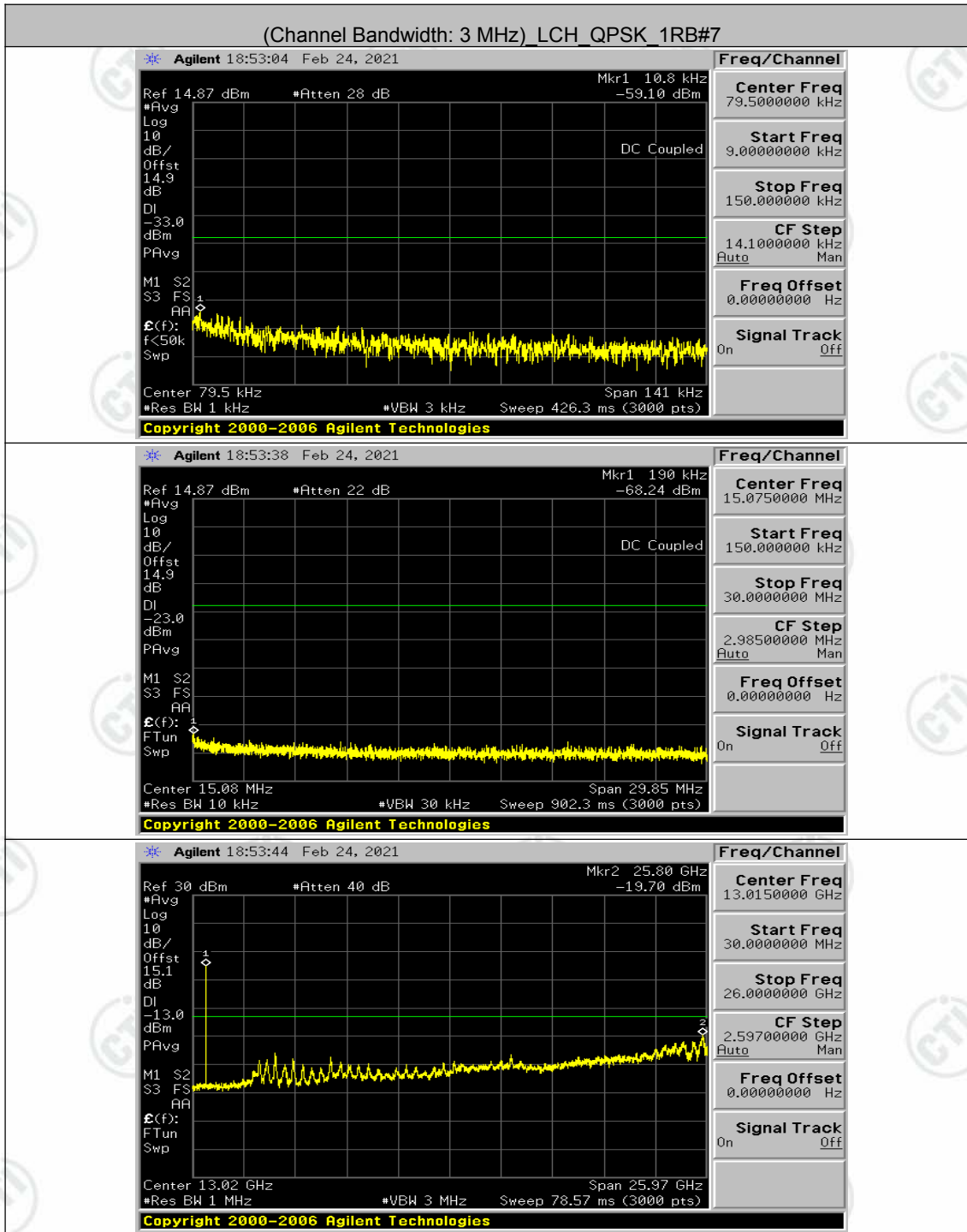


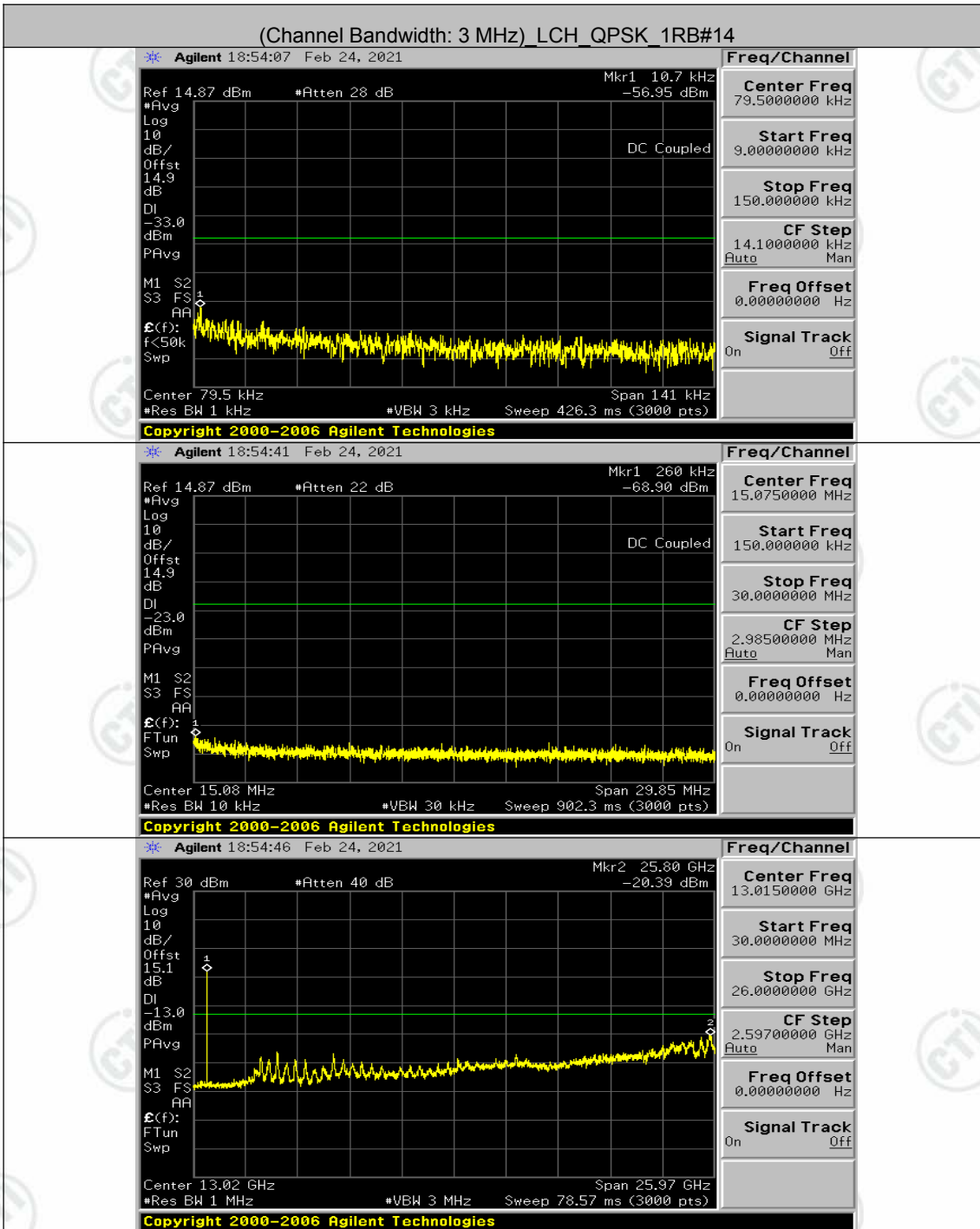


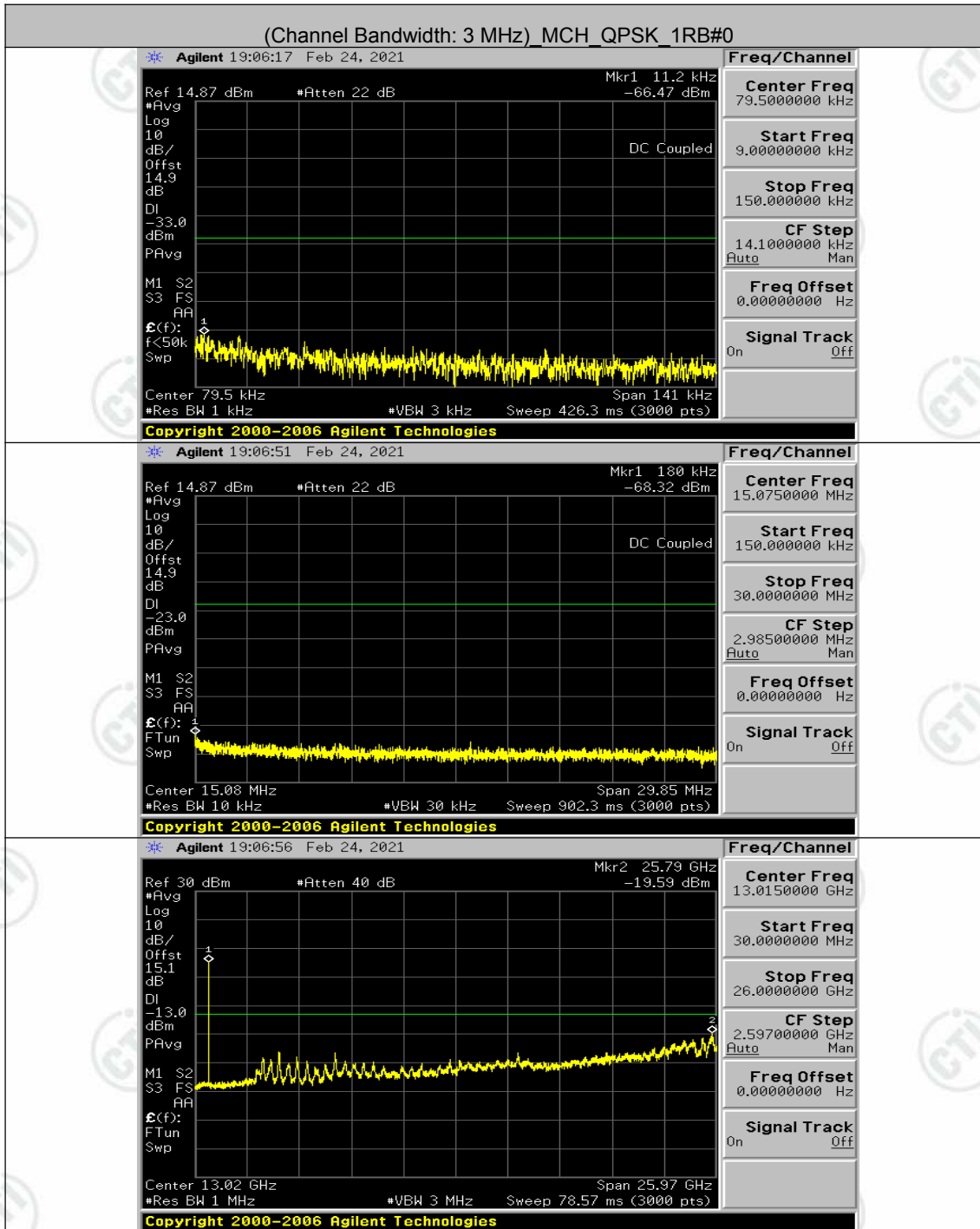


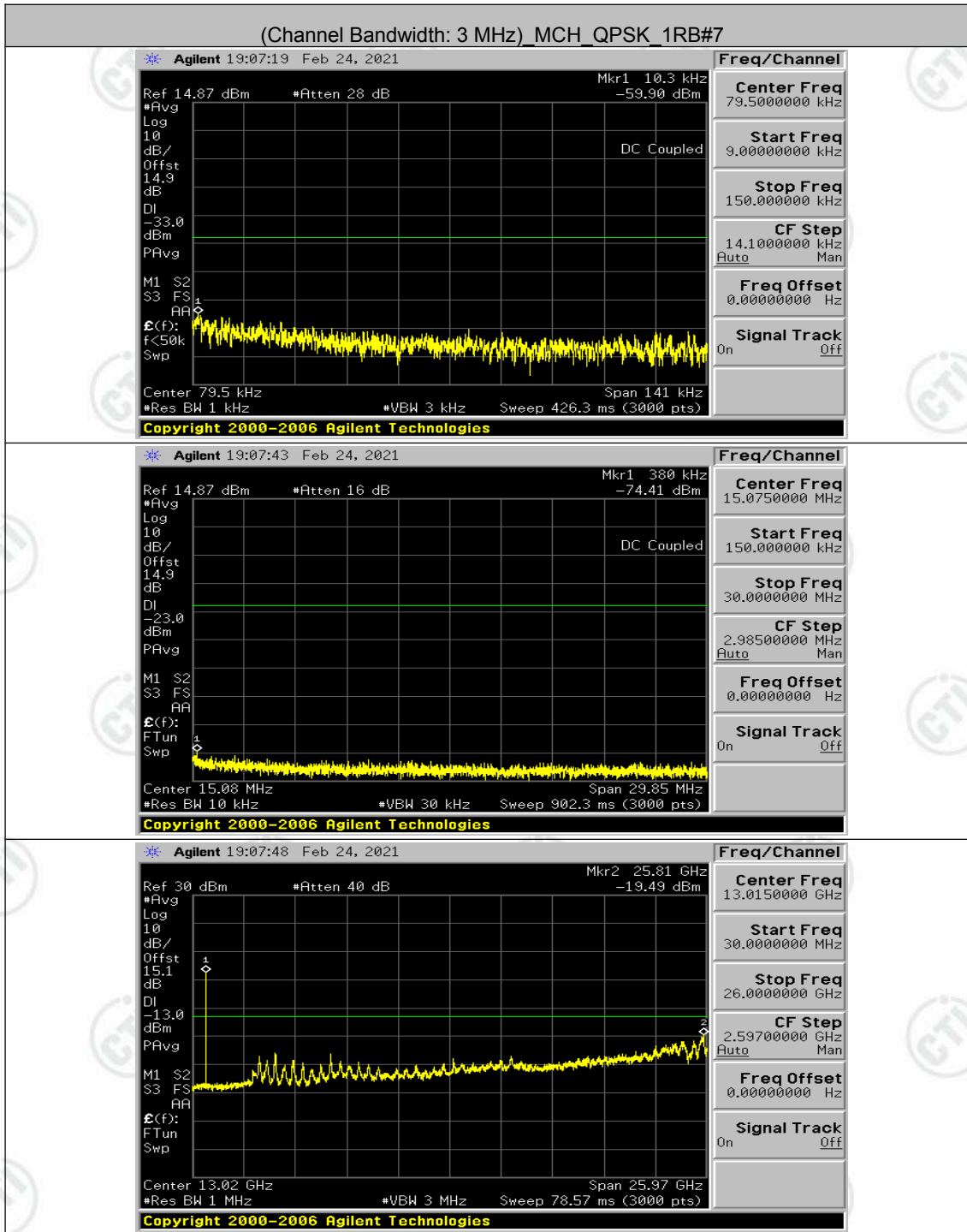
Channel Bandwidth: 3 MHz

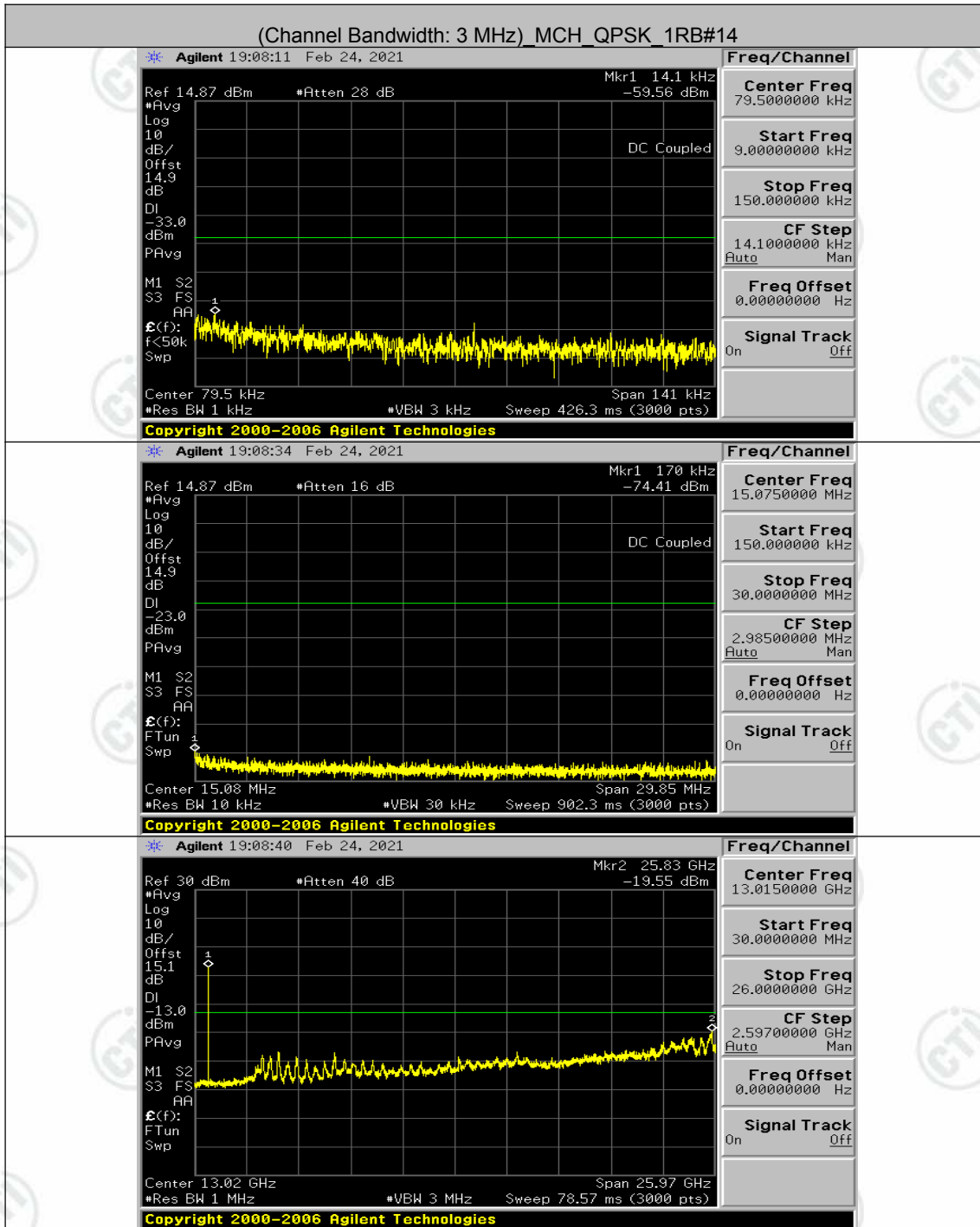


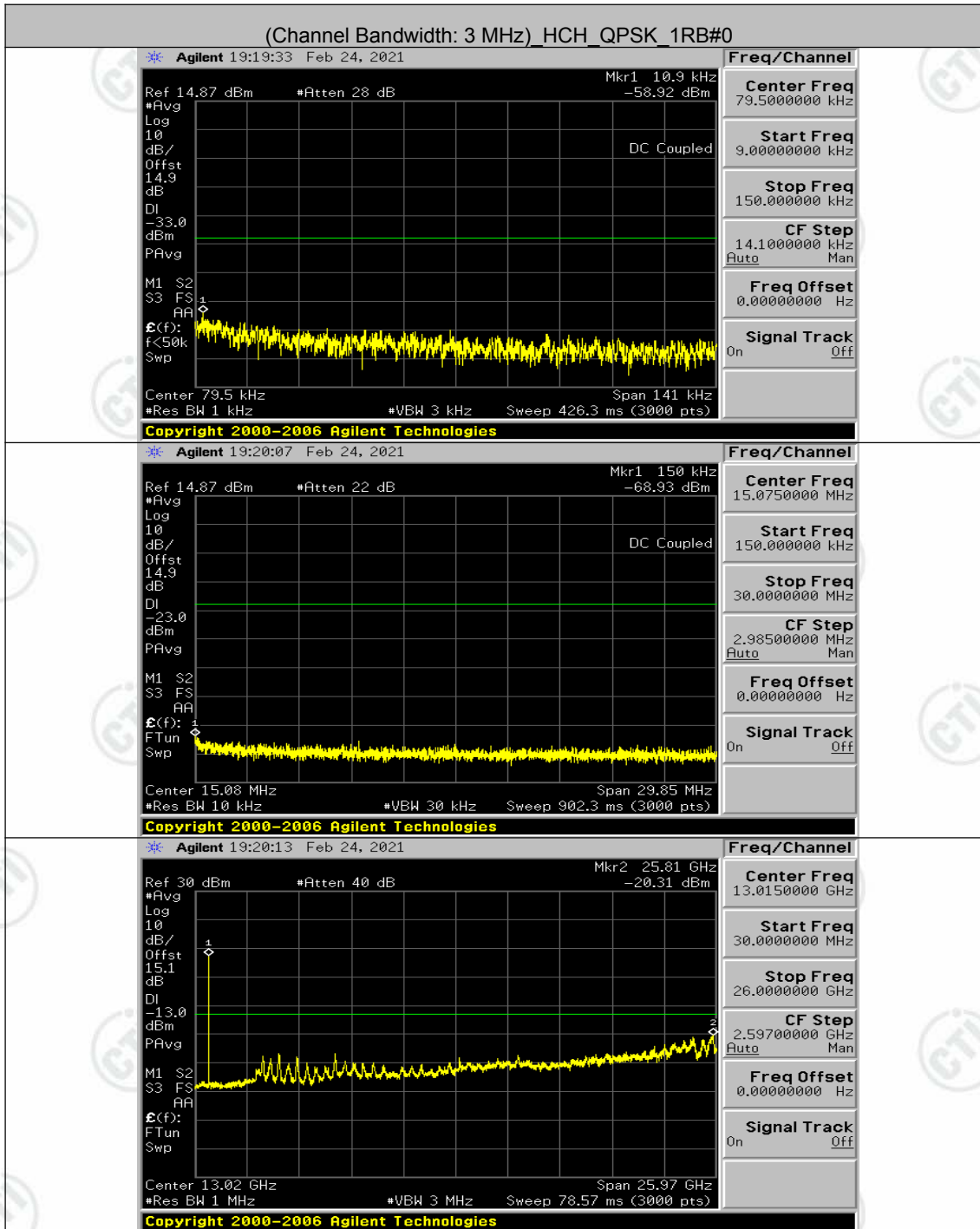


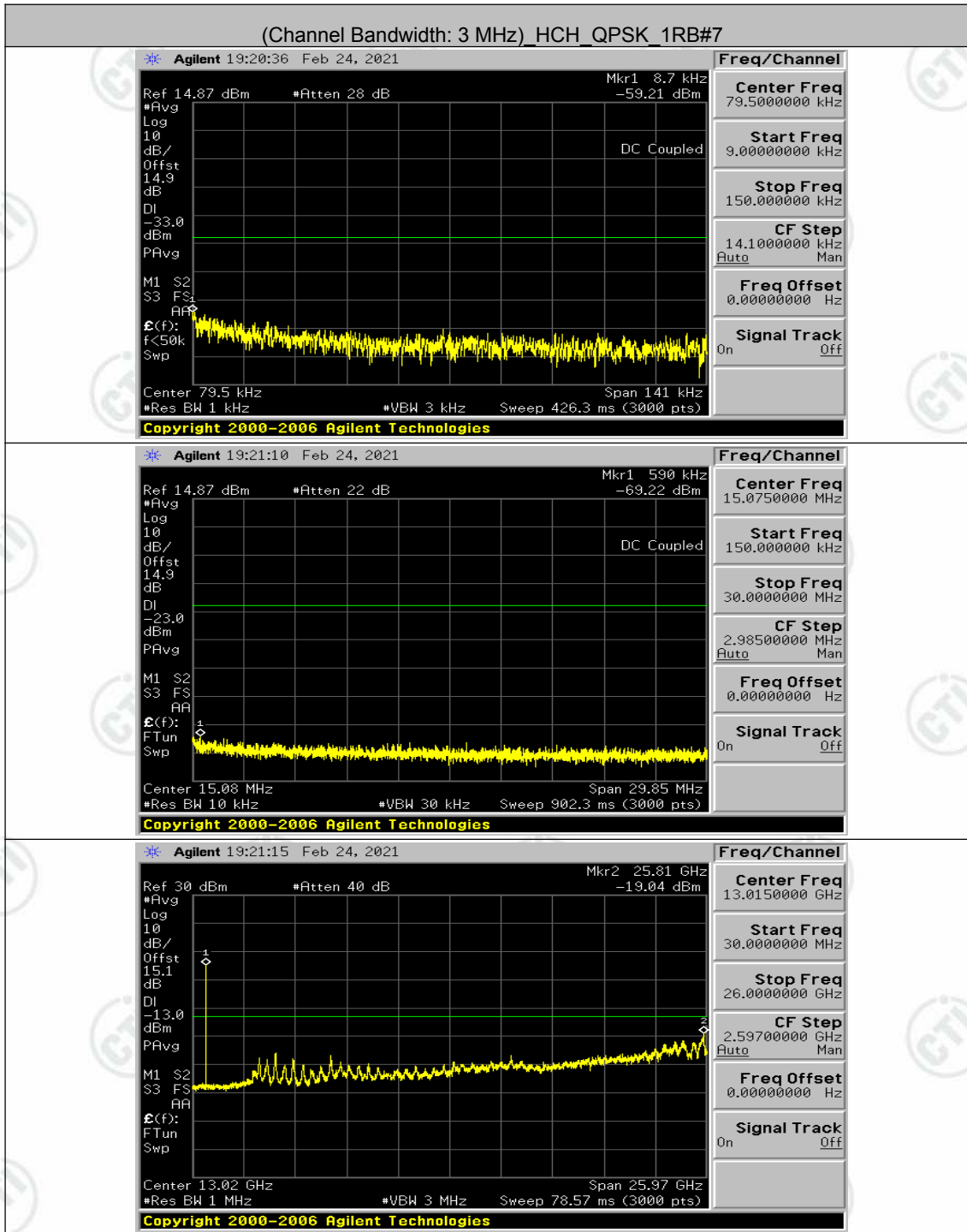


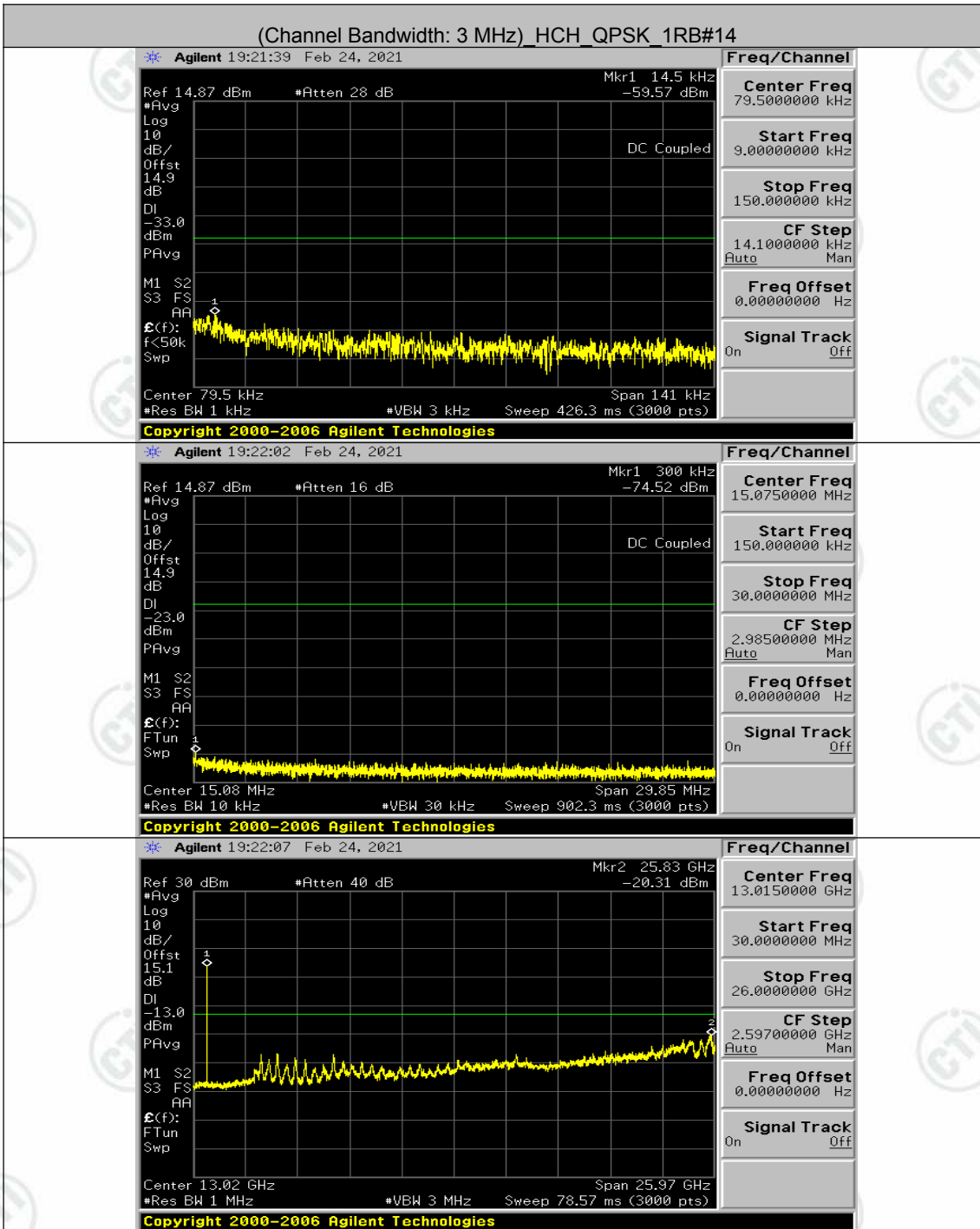


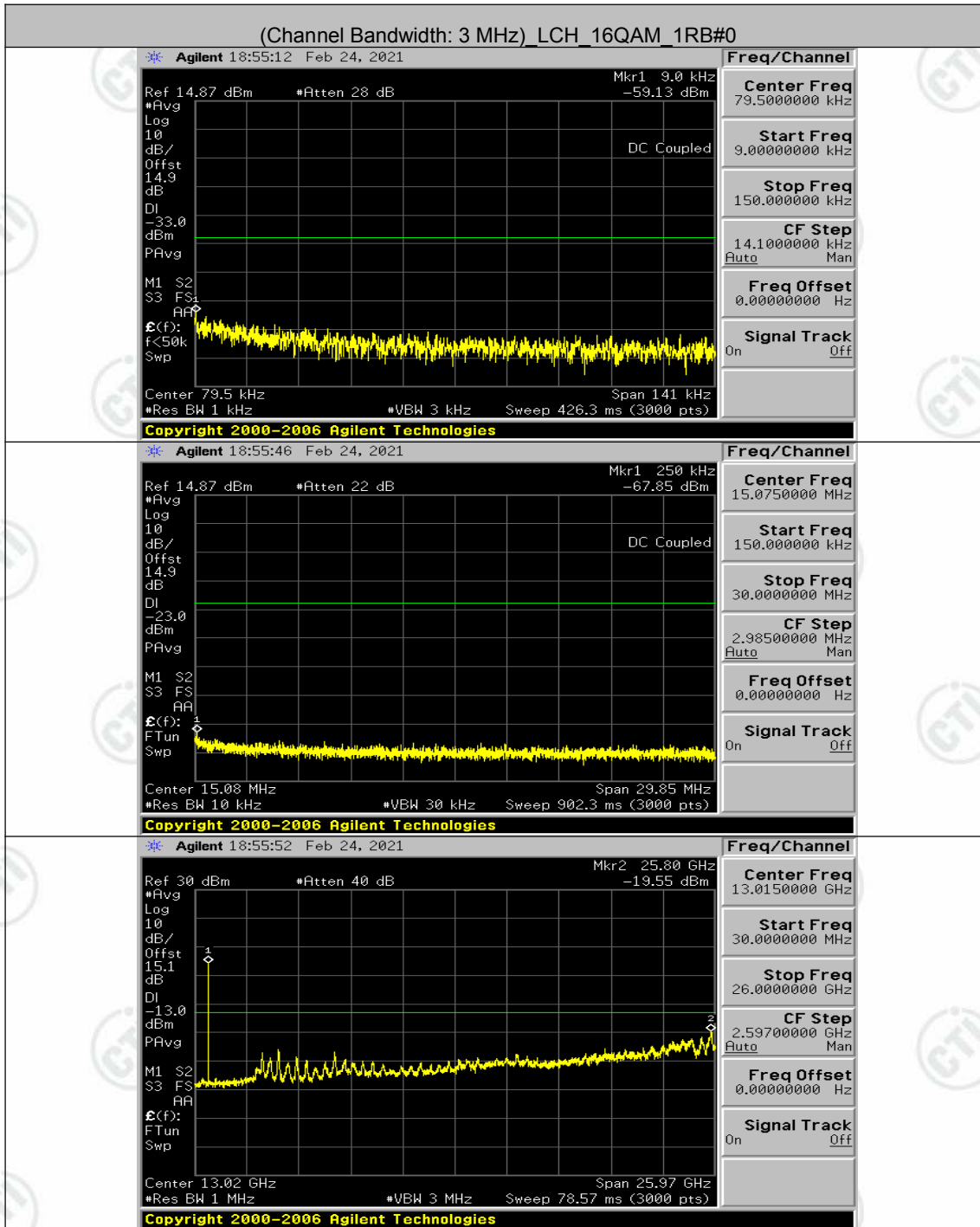


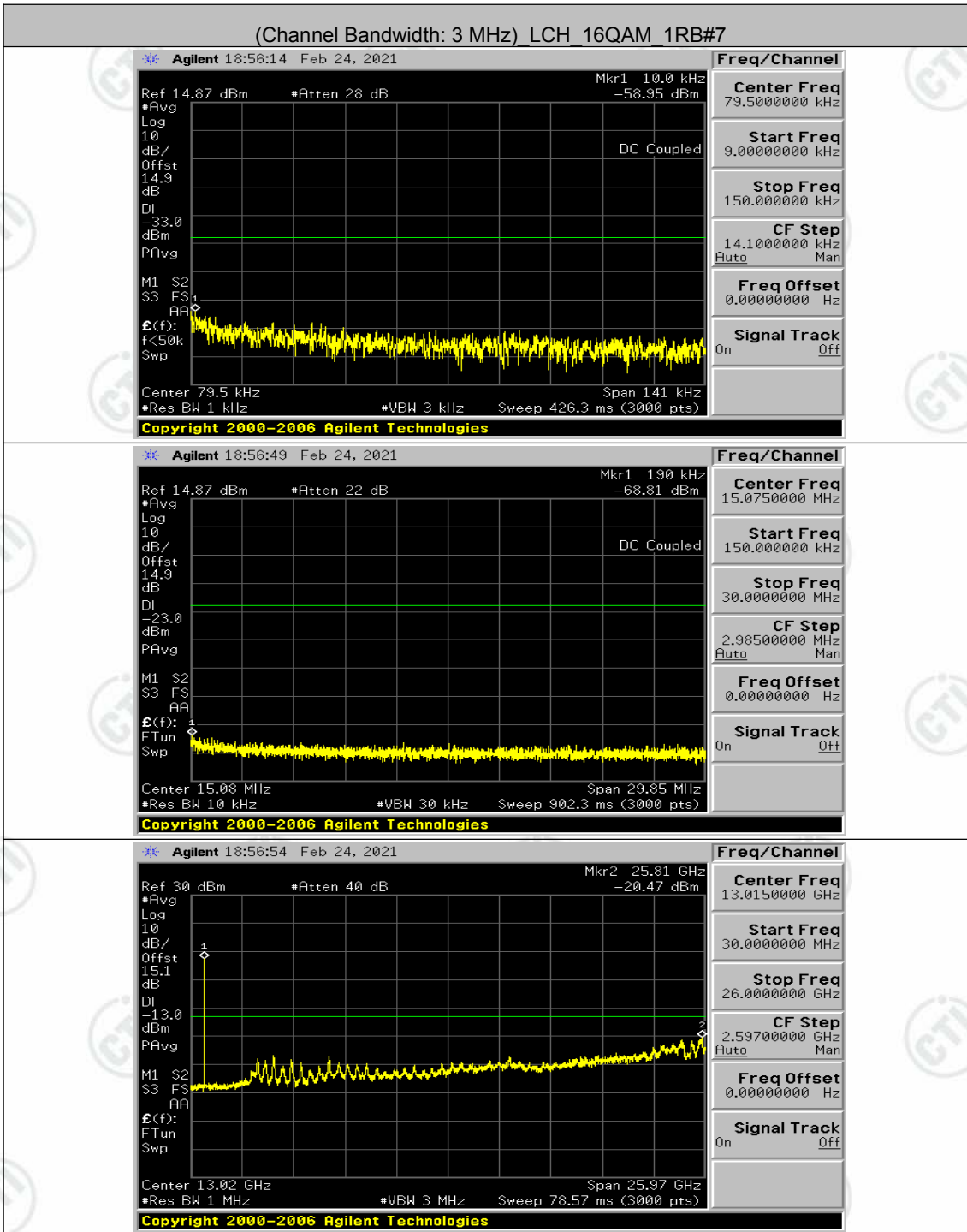


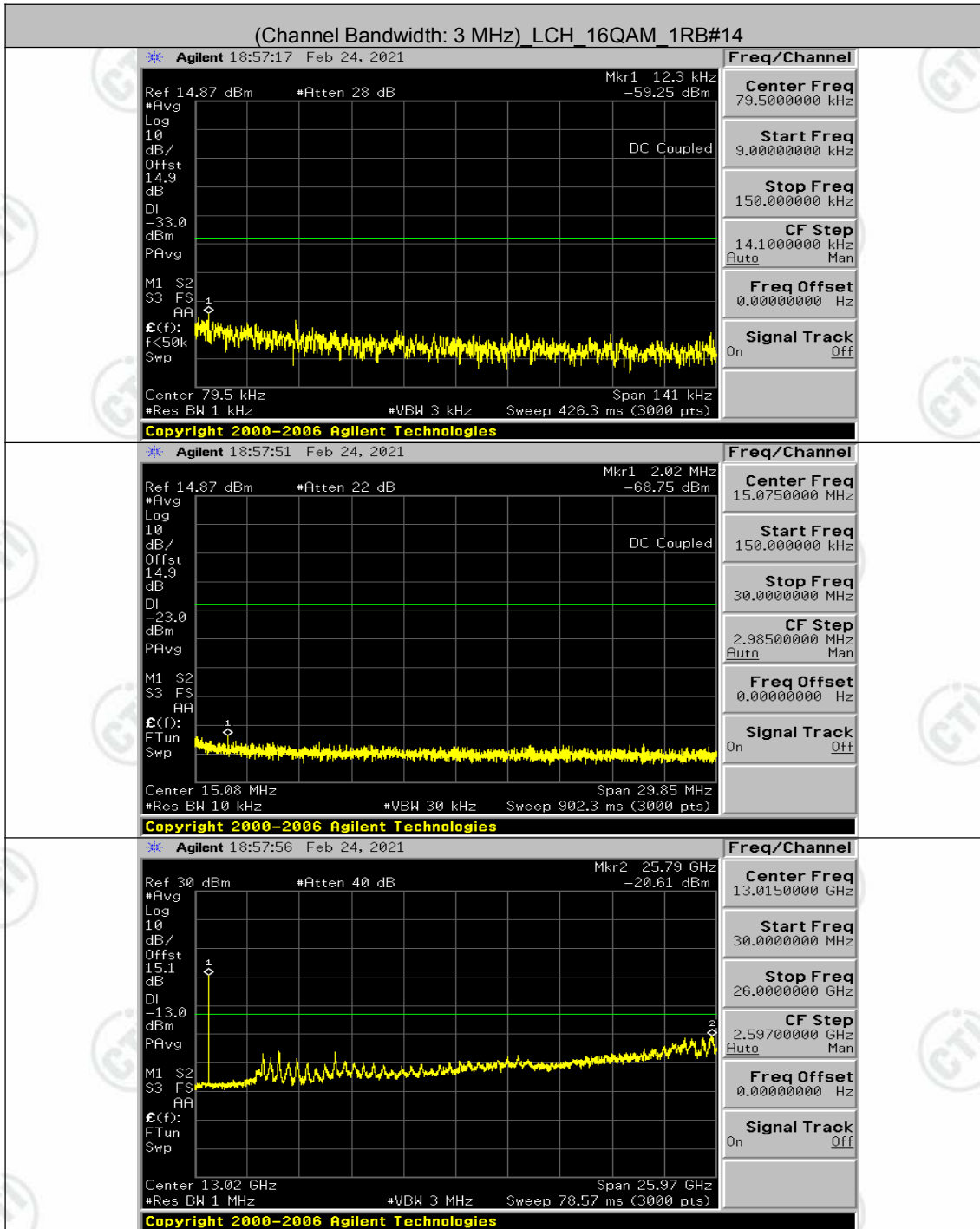


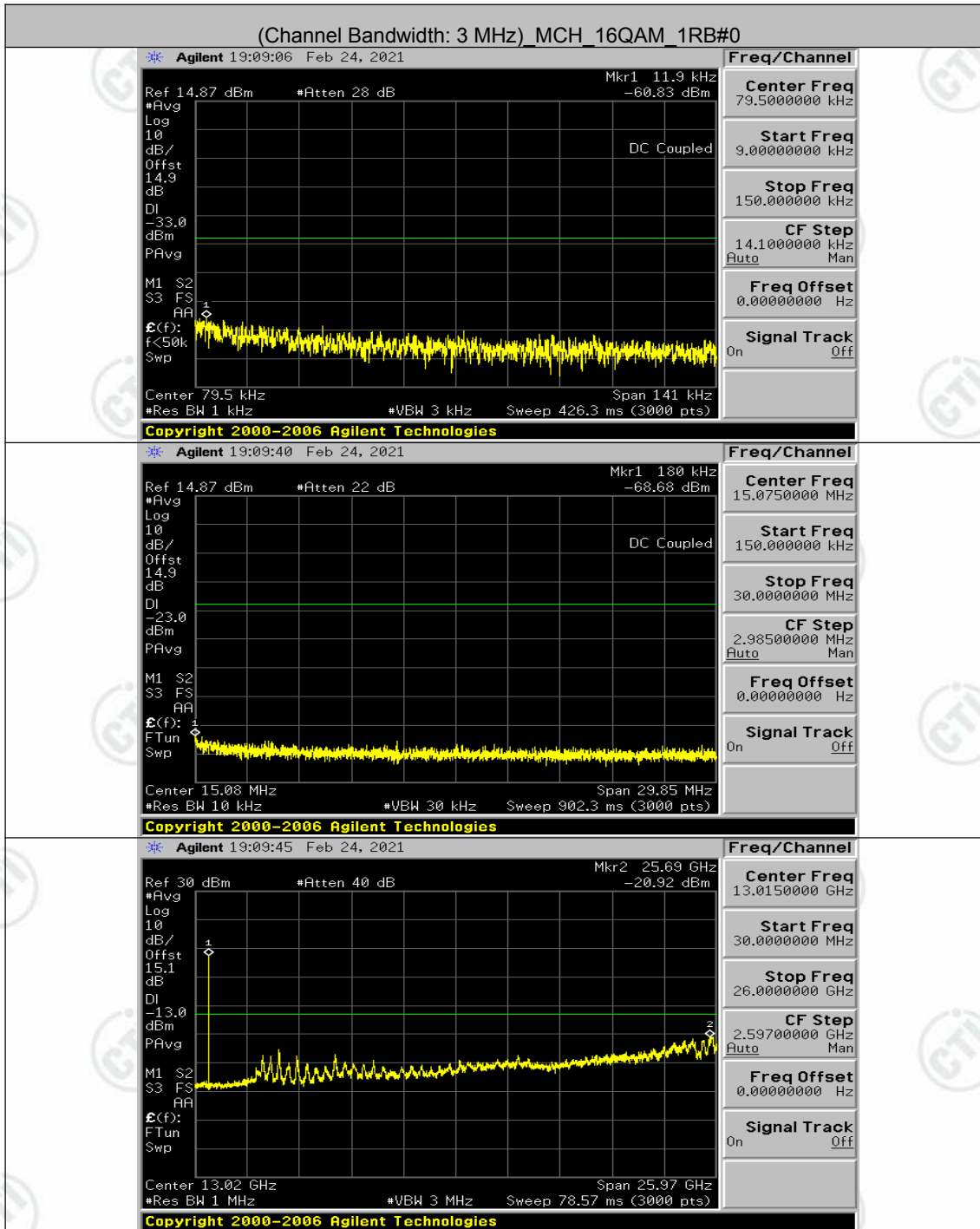


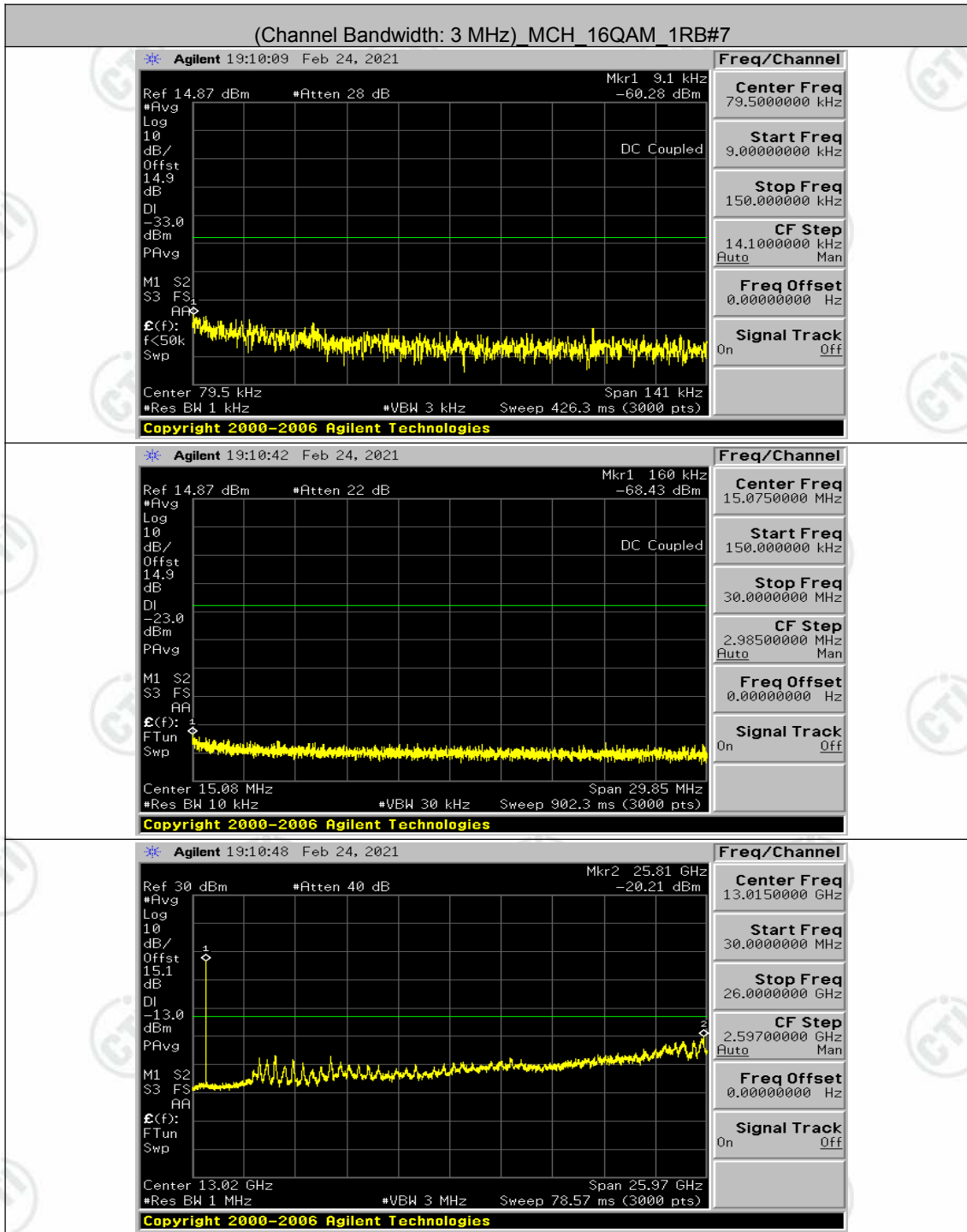


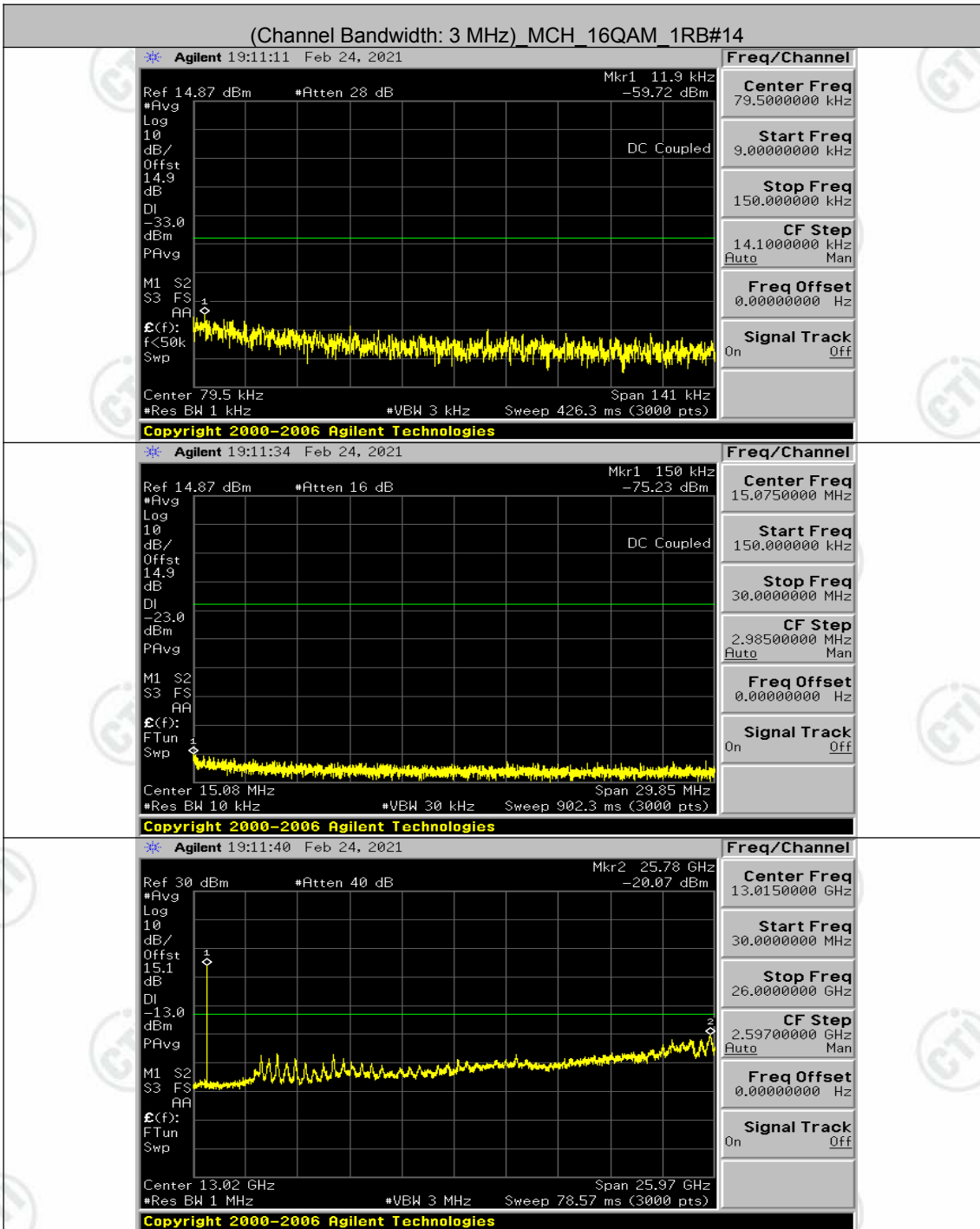


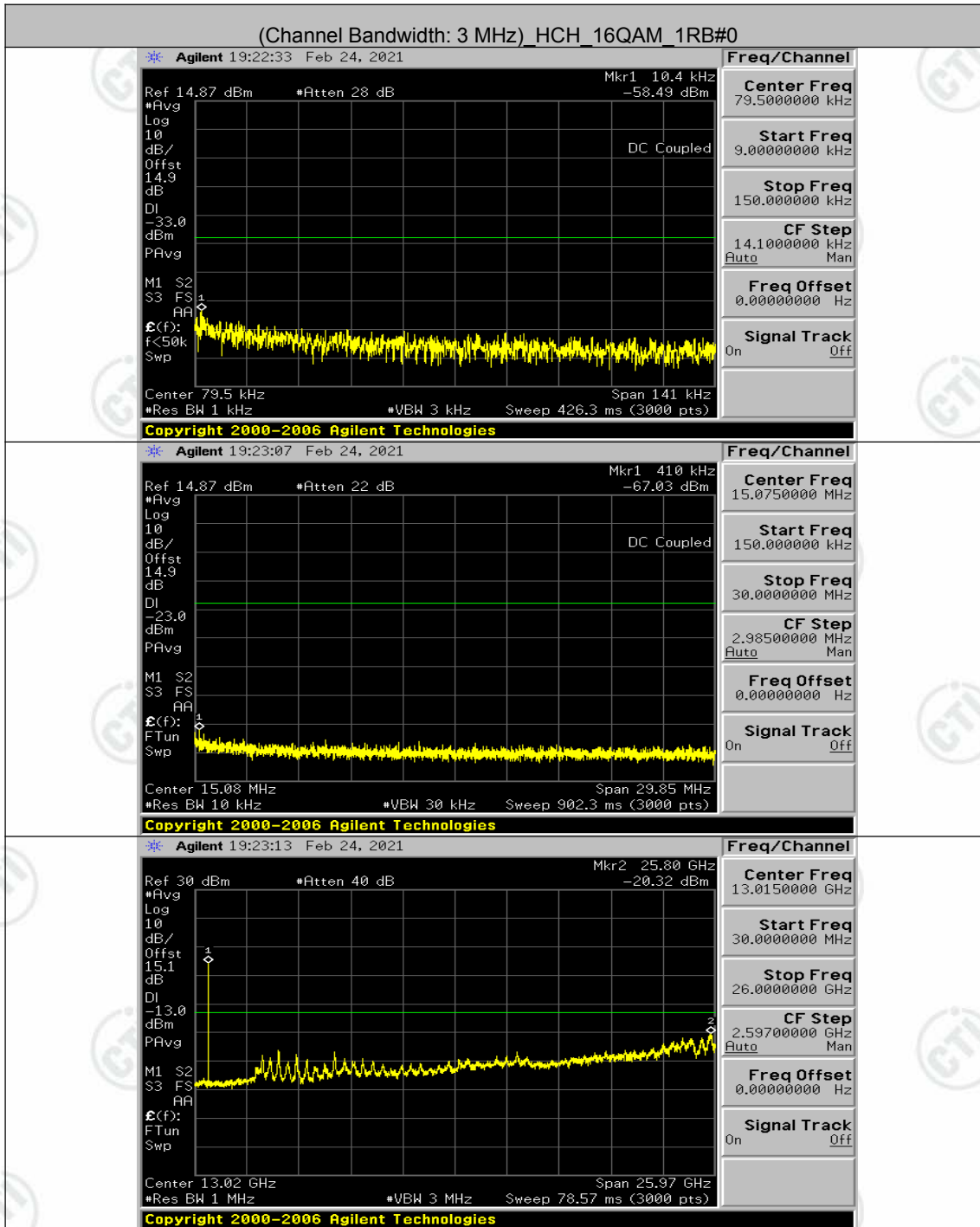


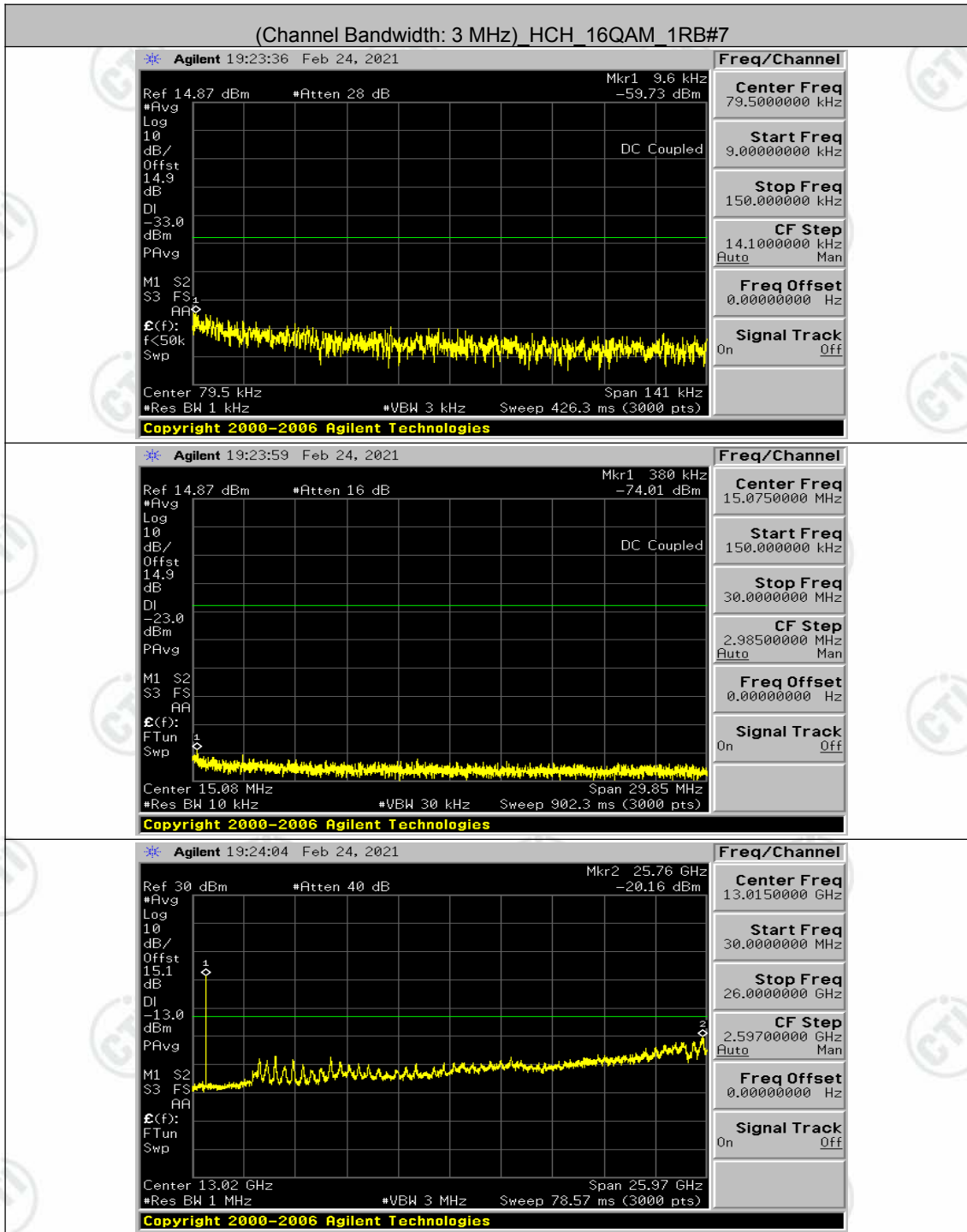


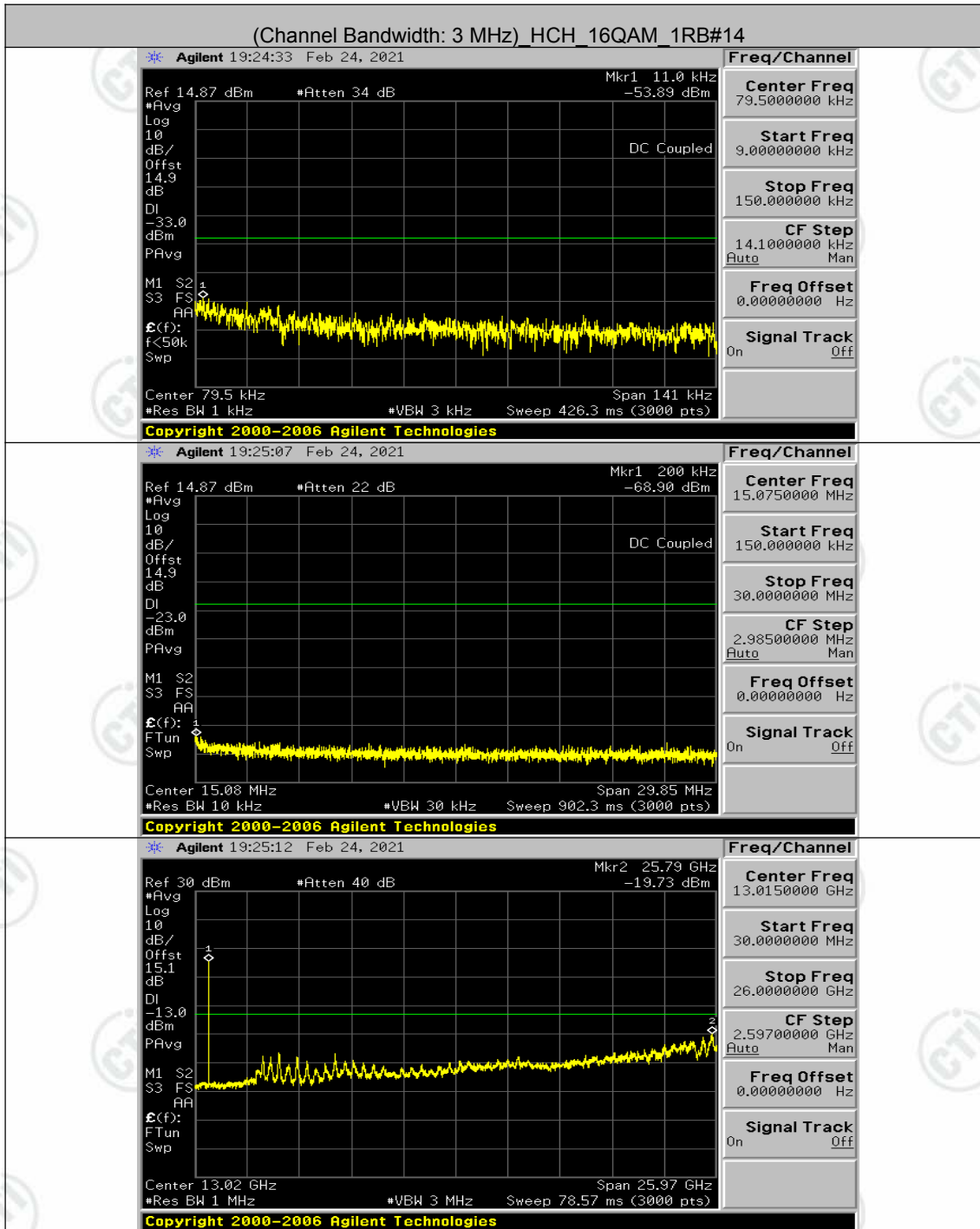


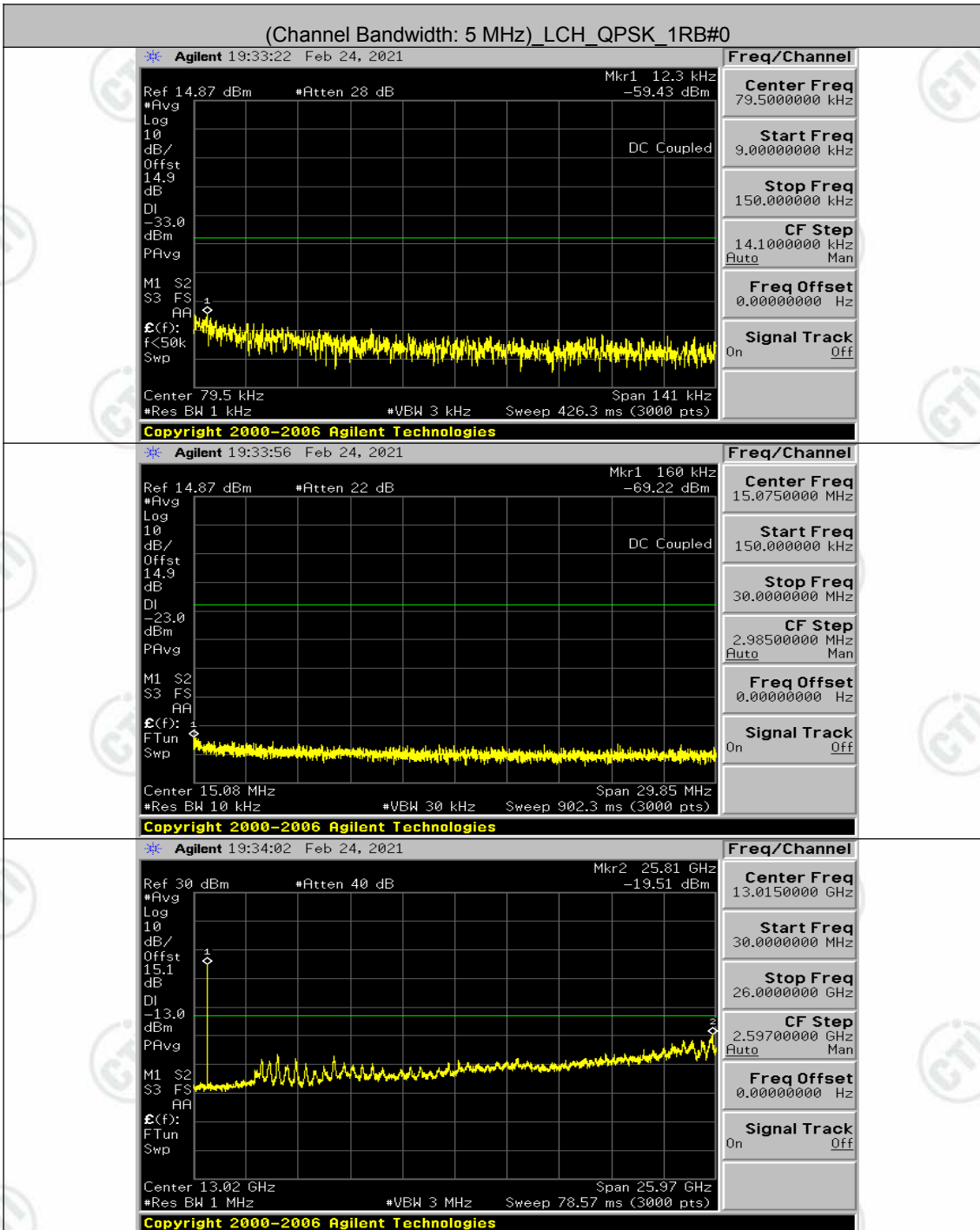


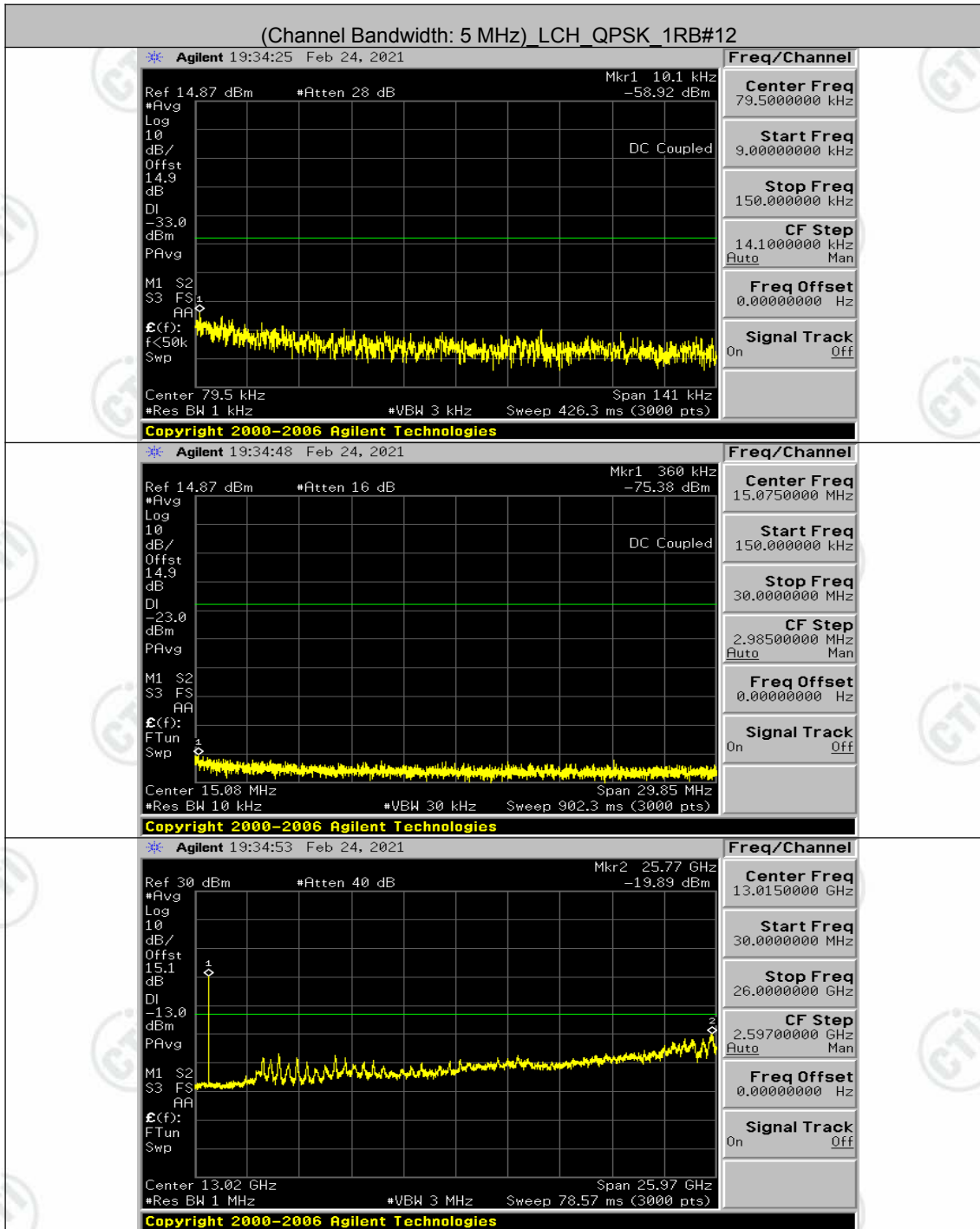


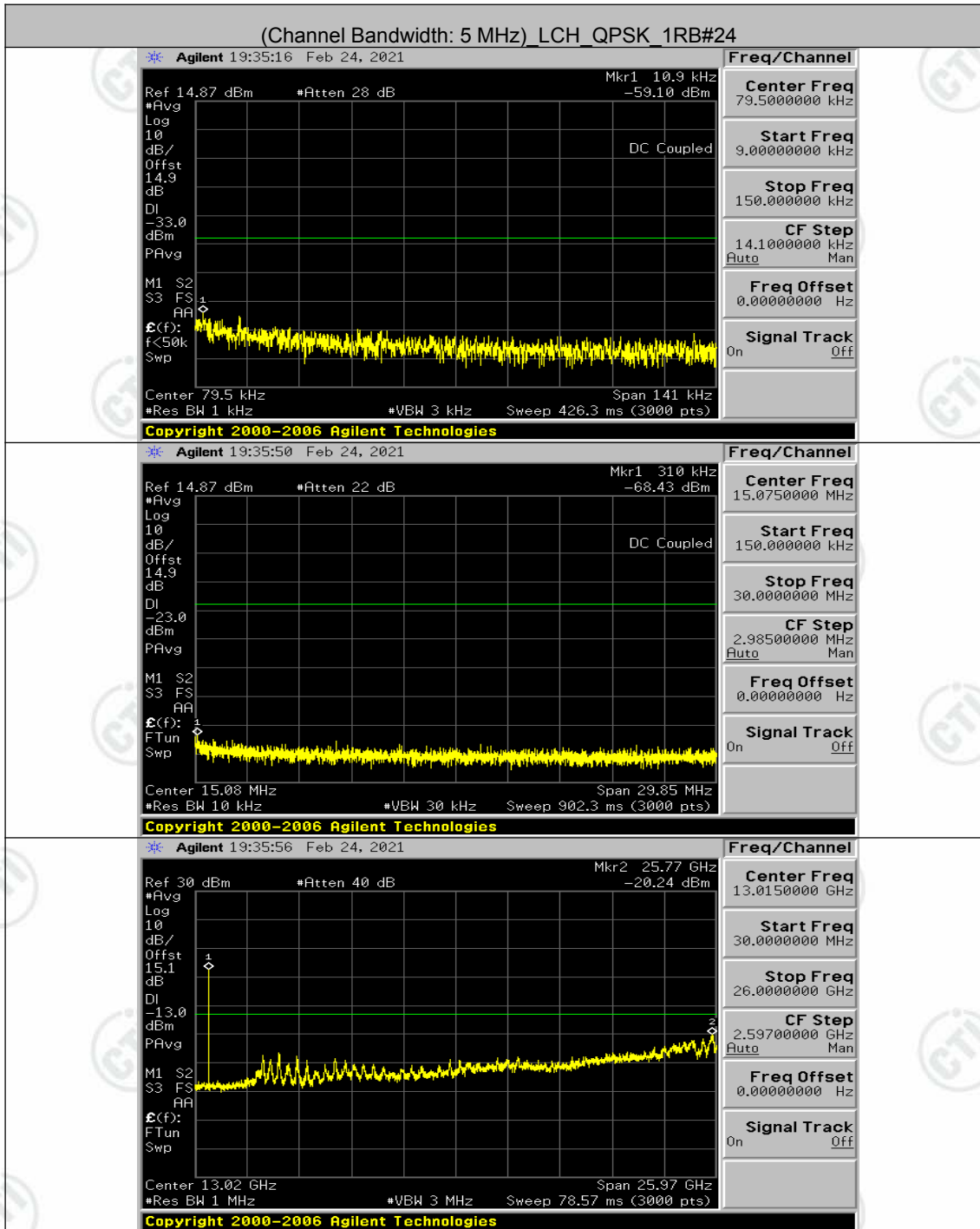


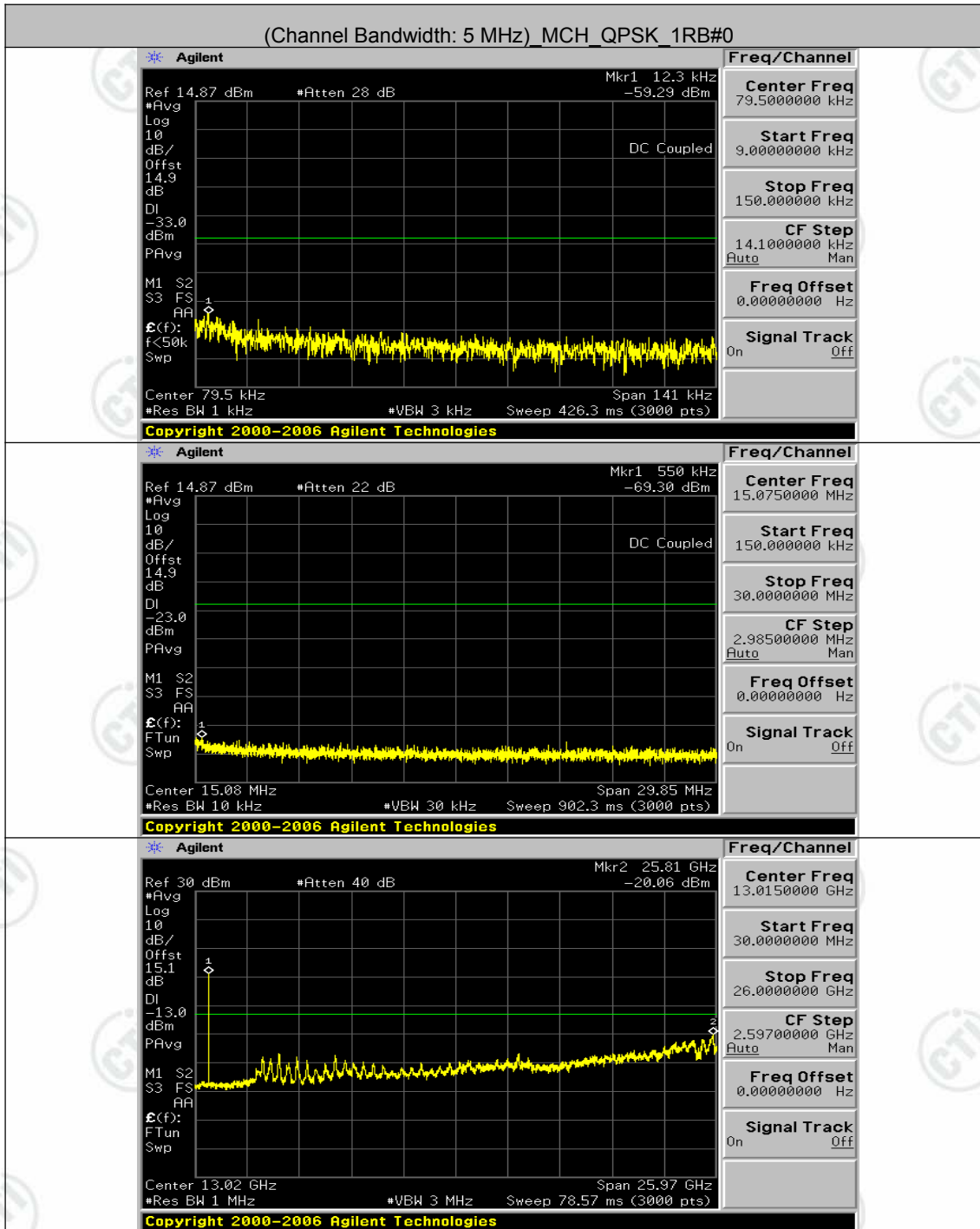


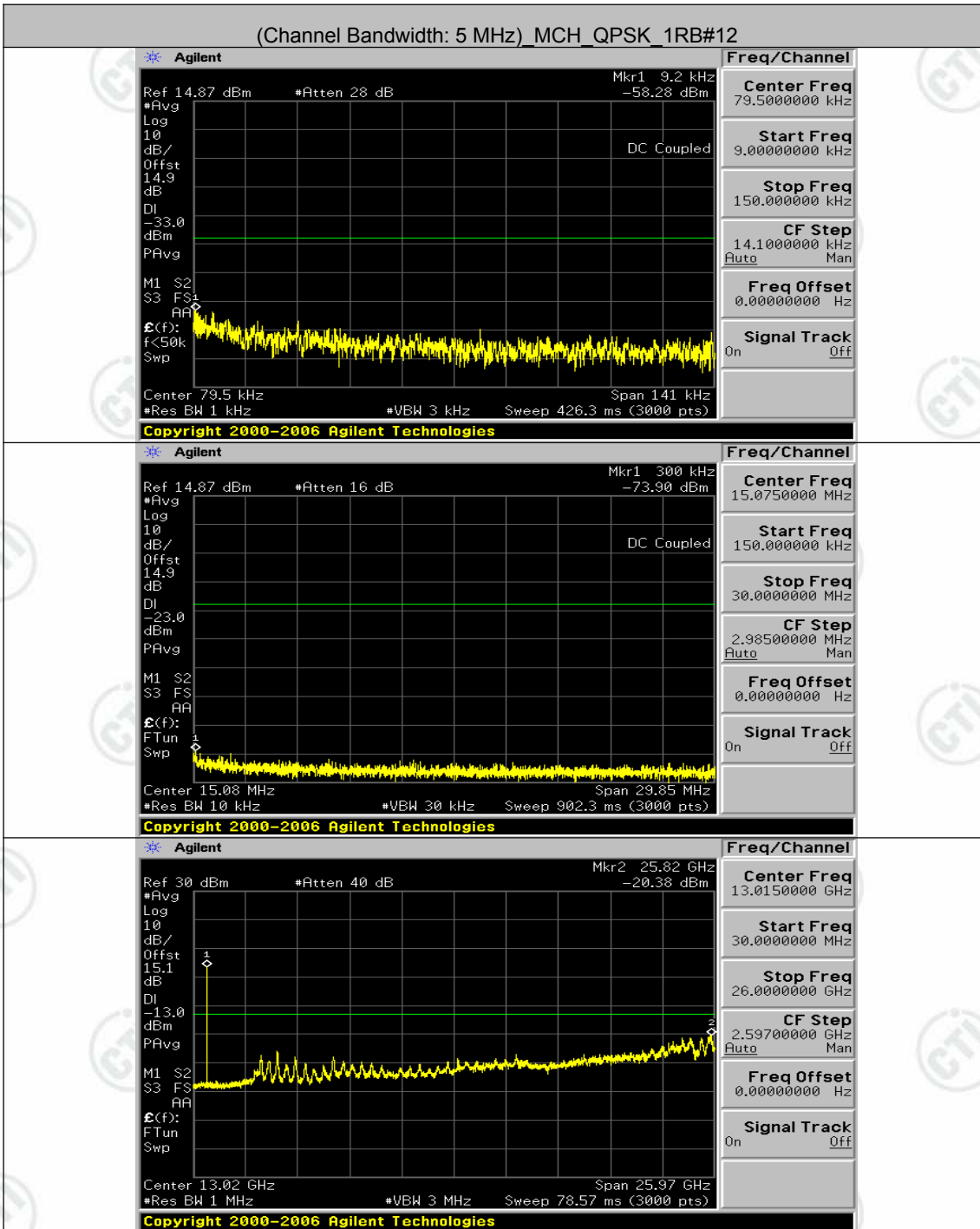


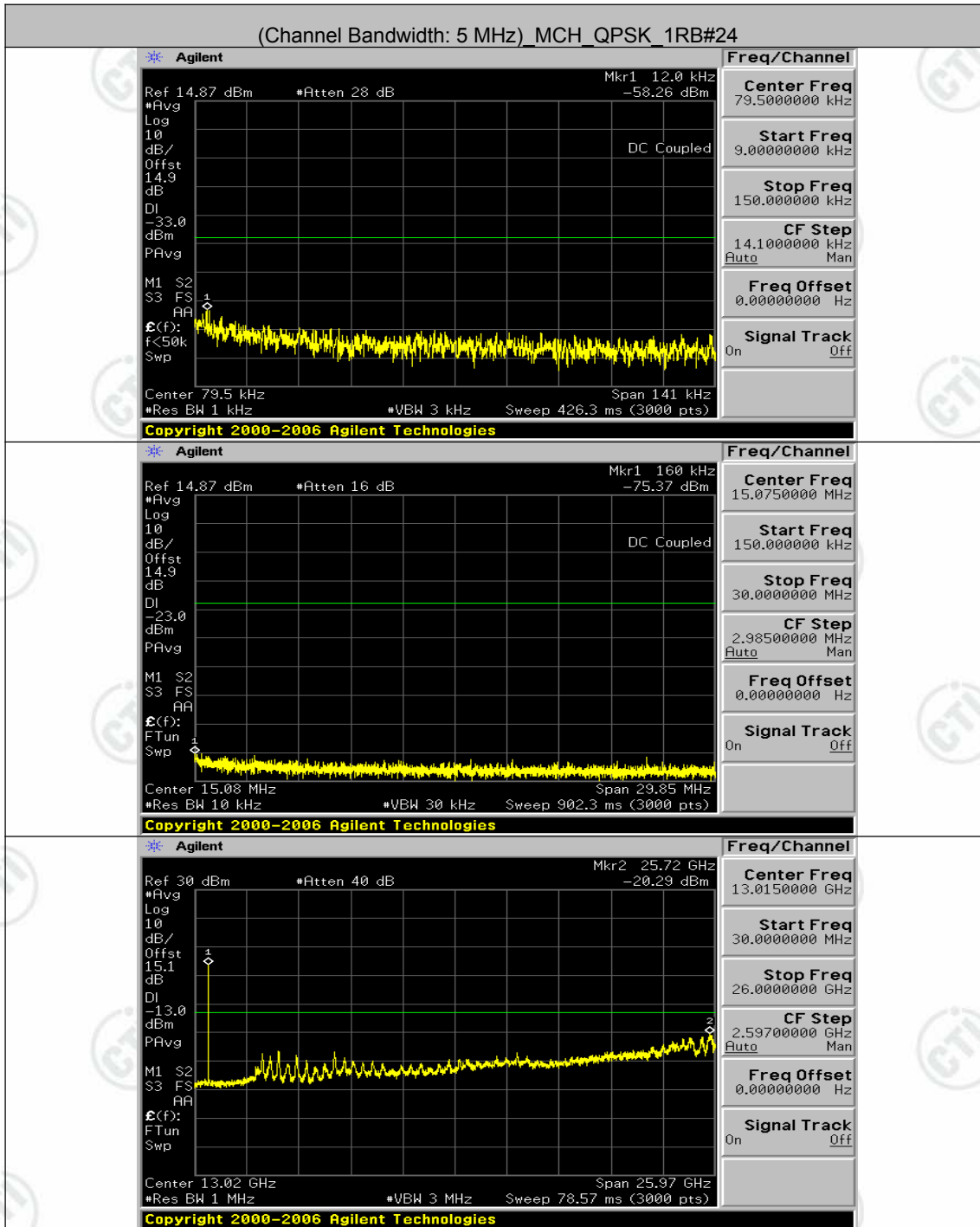


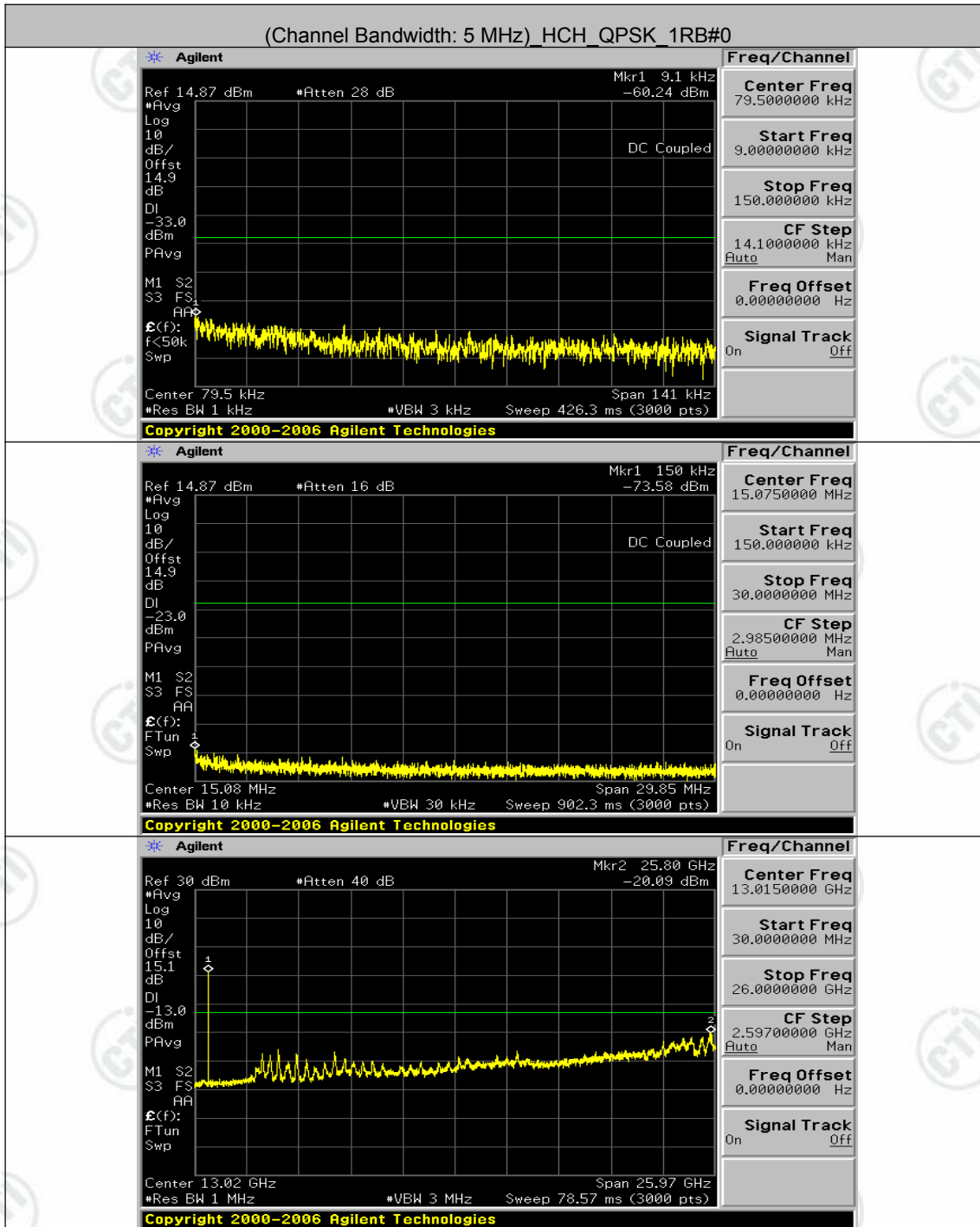


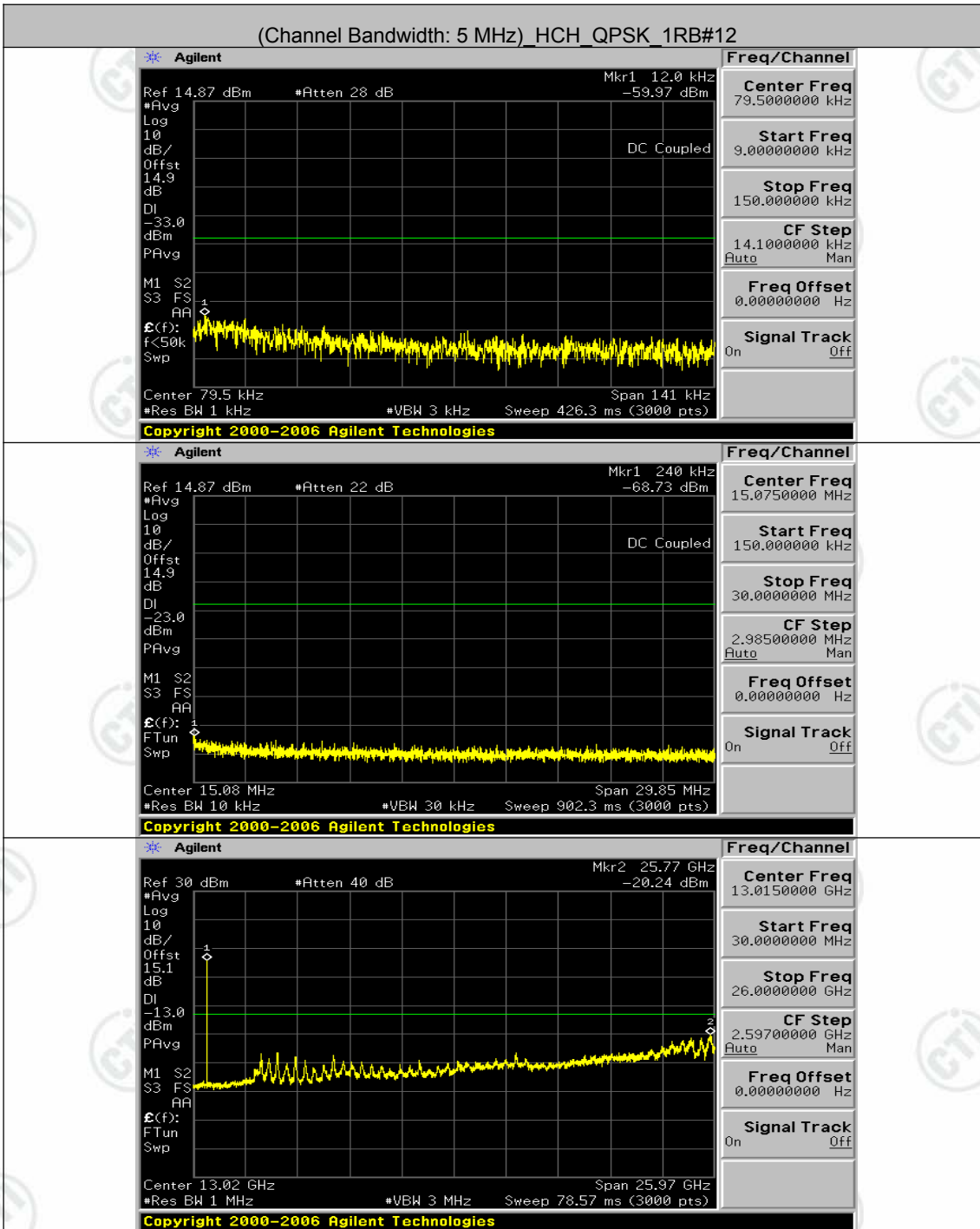


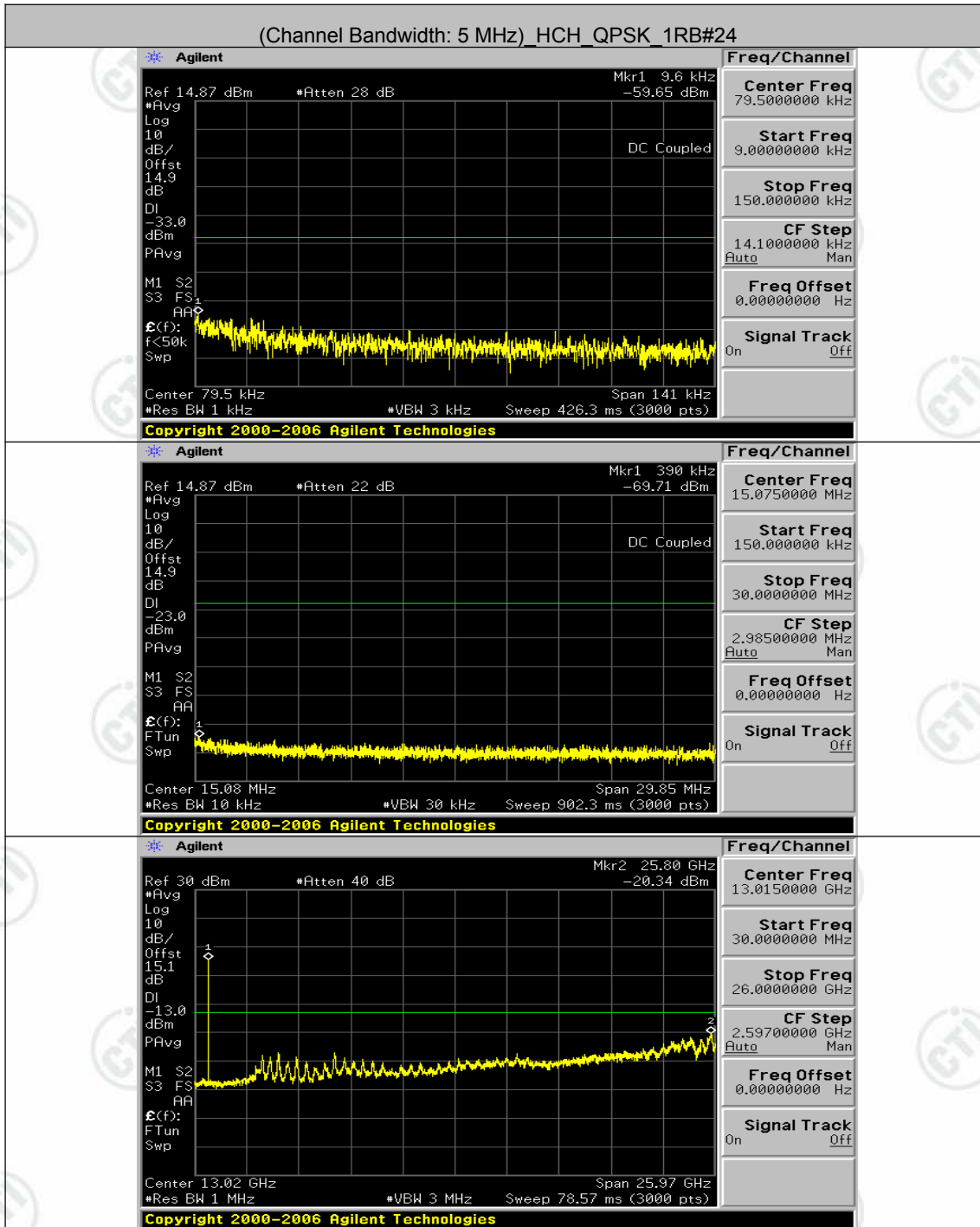


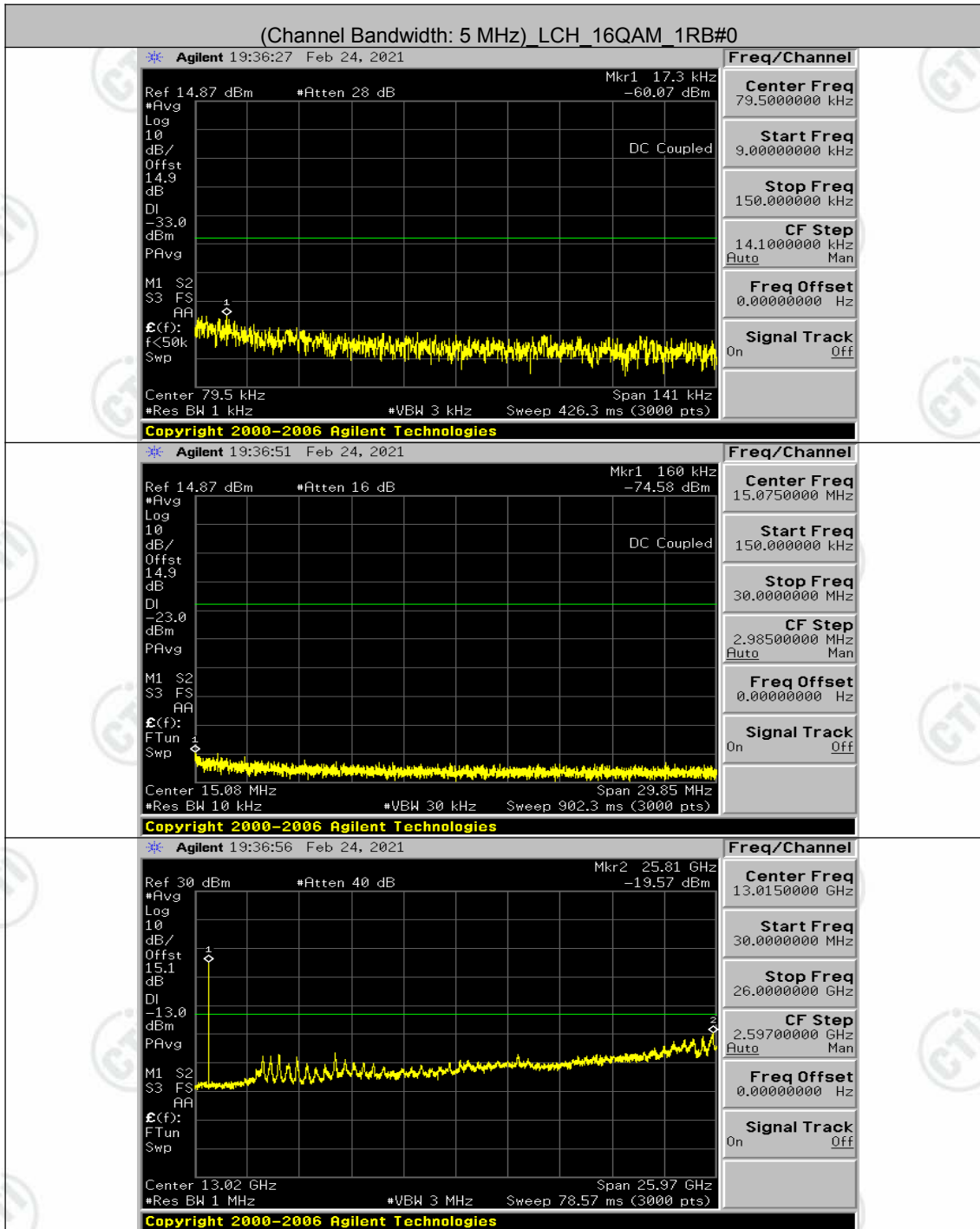


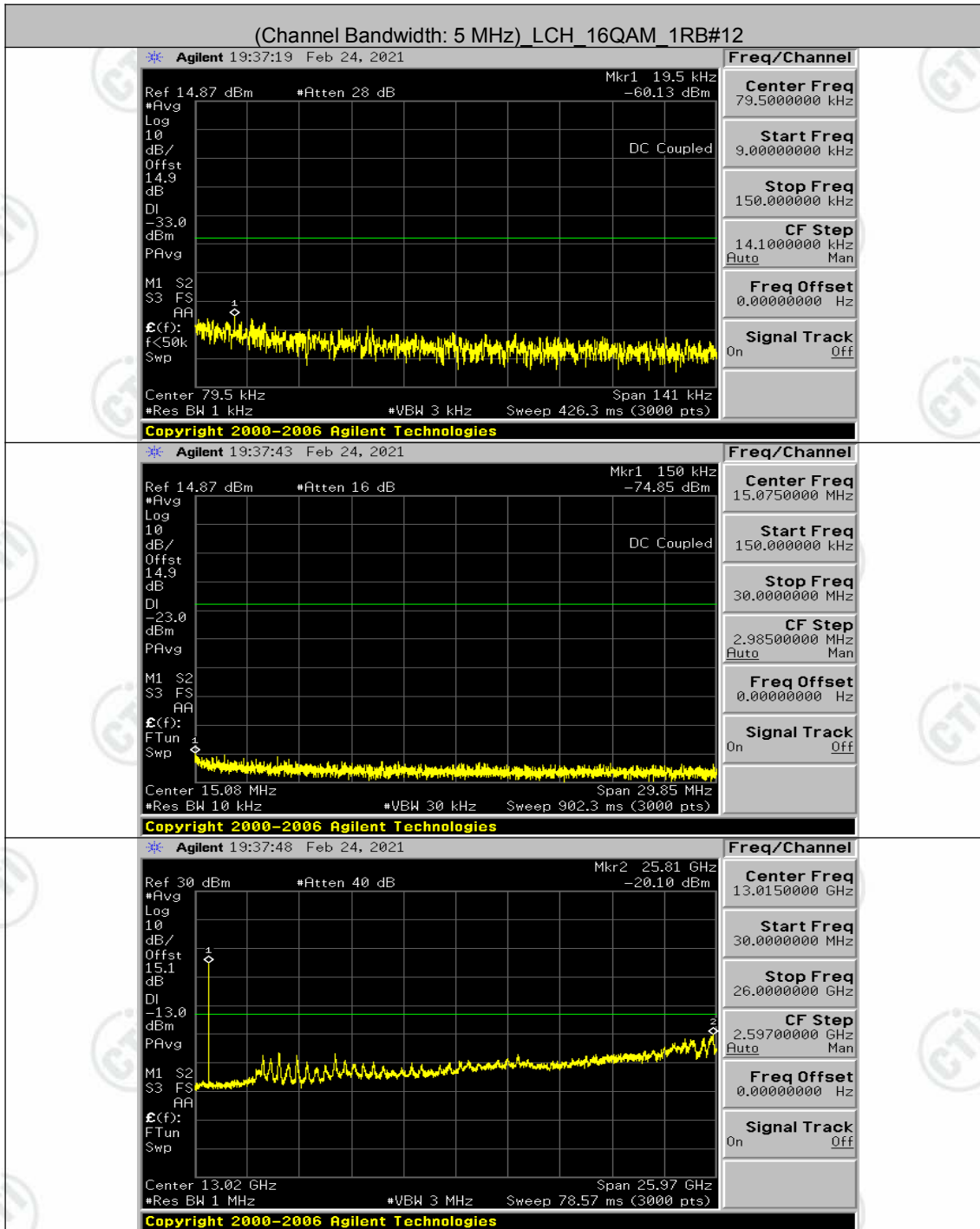


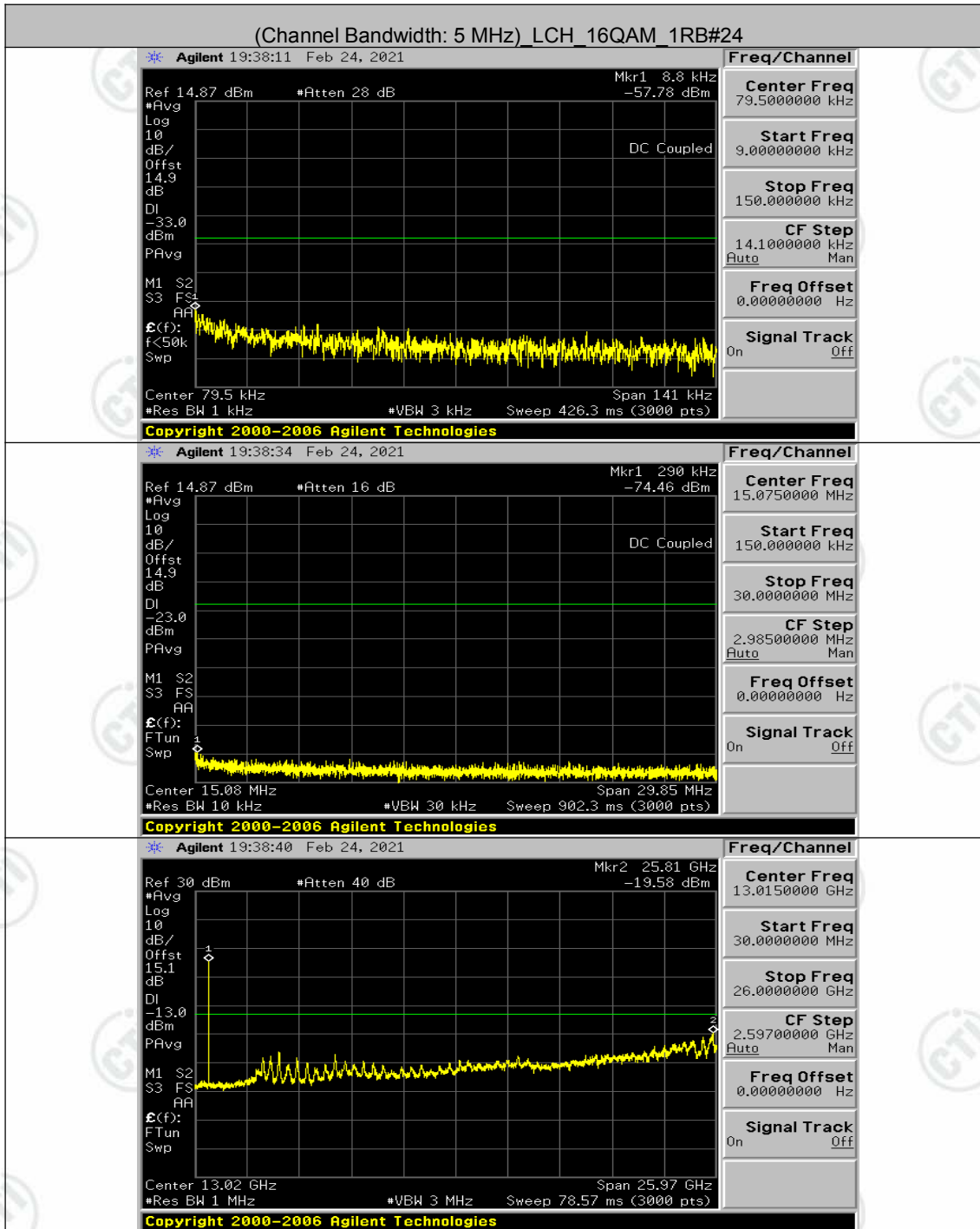


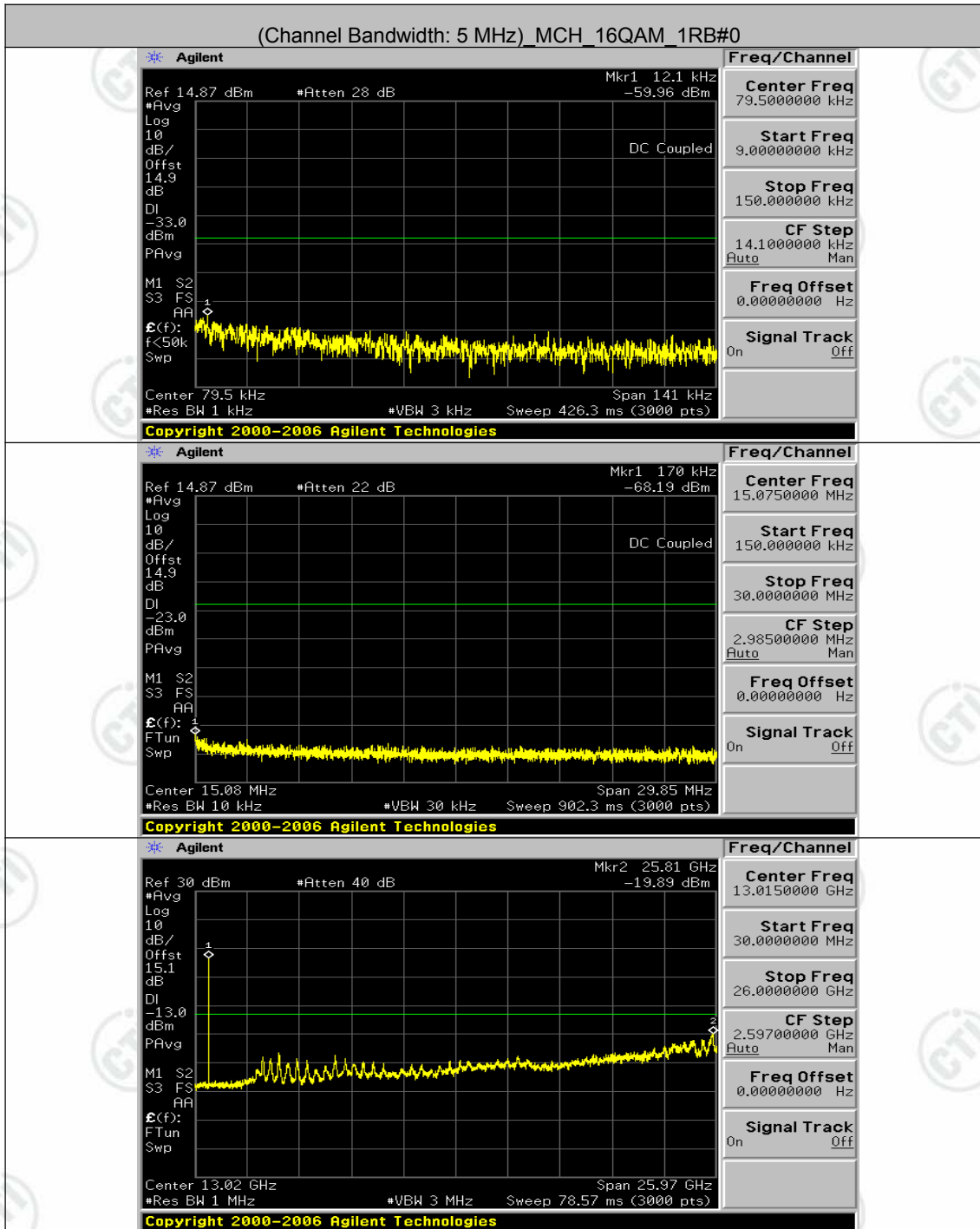


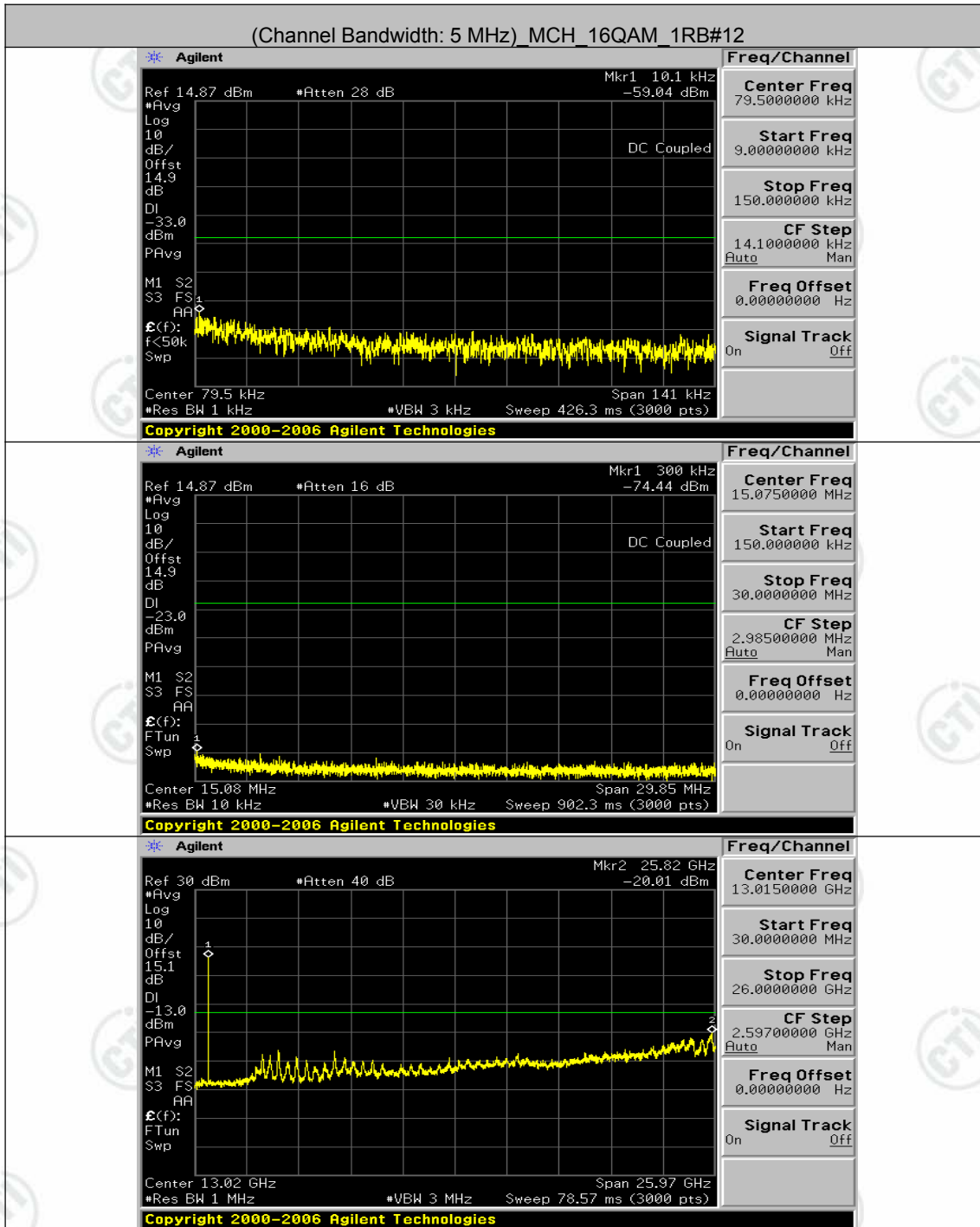


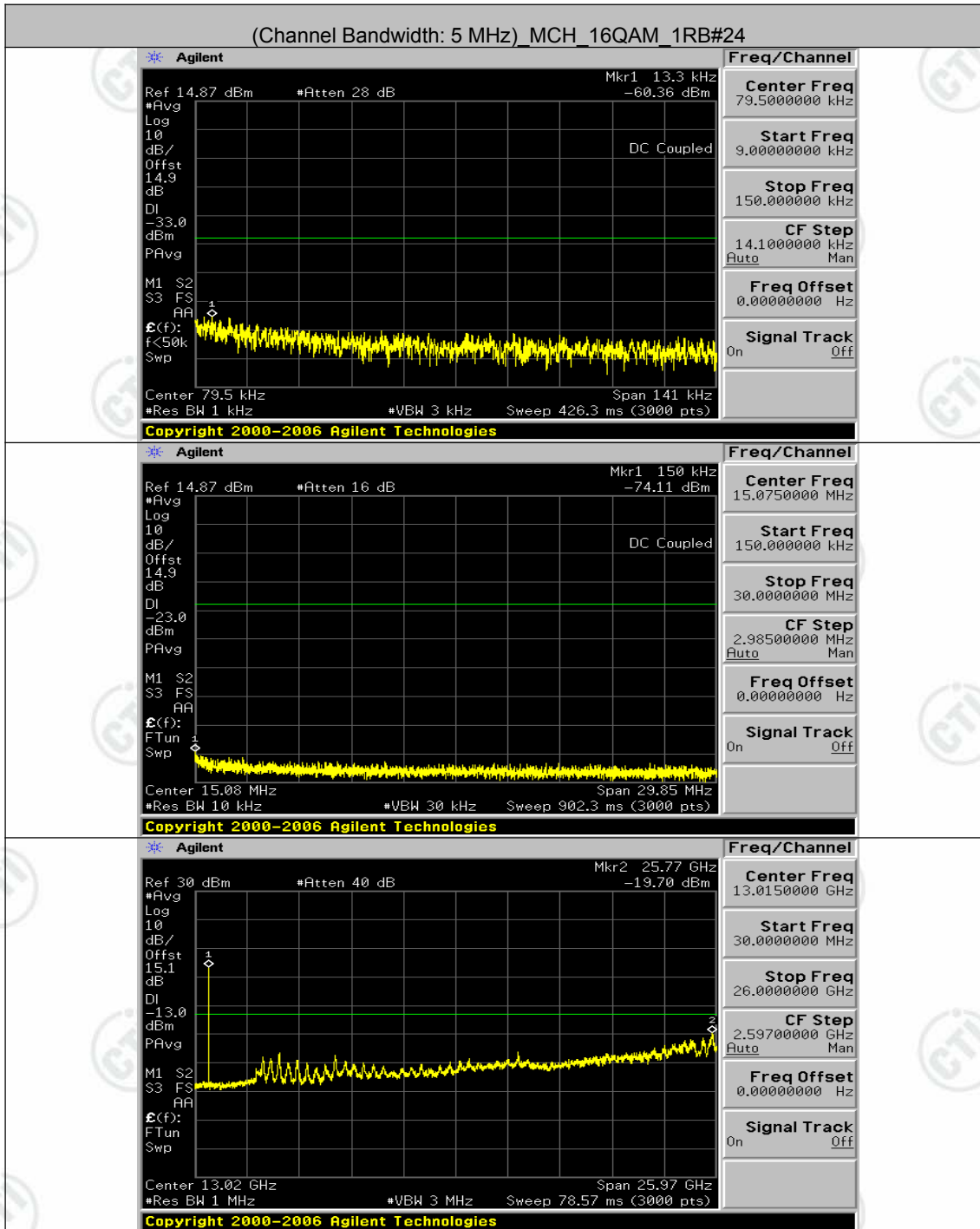


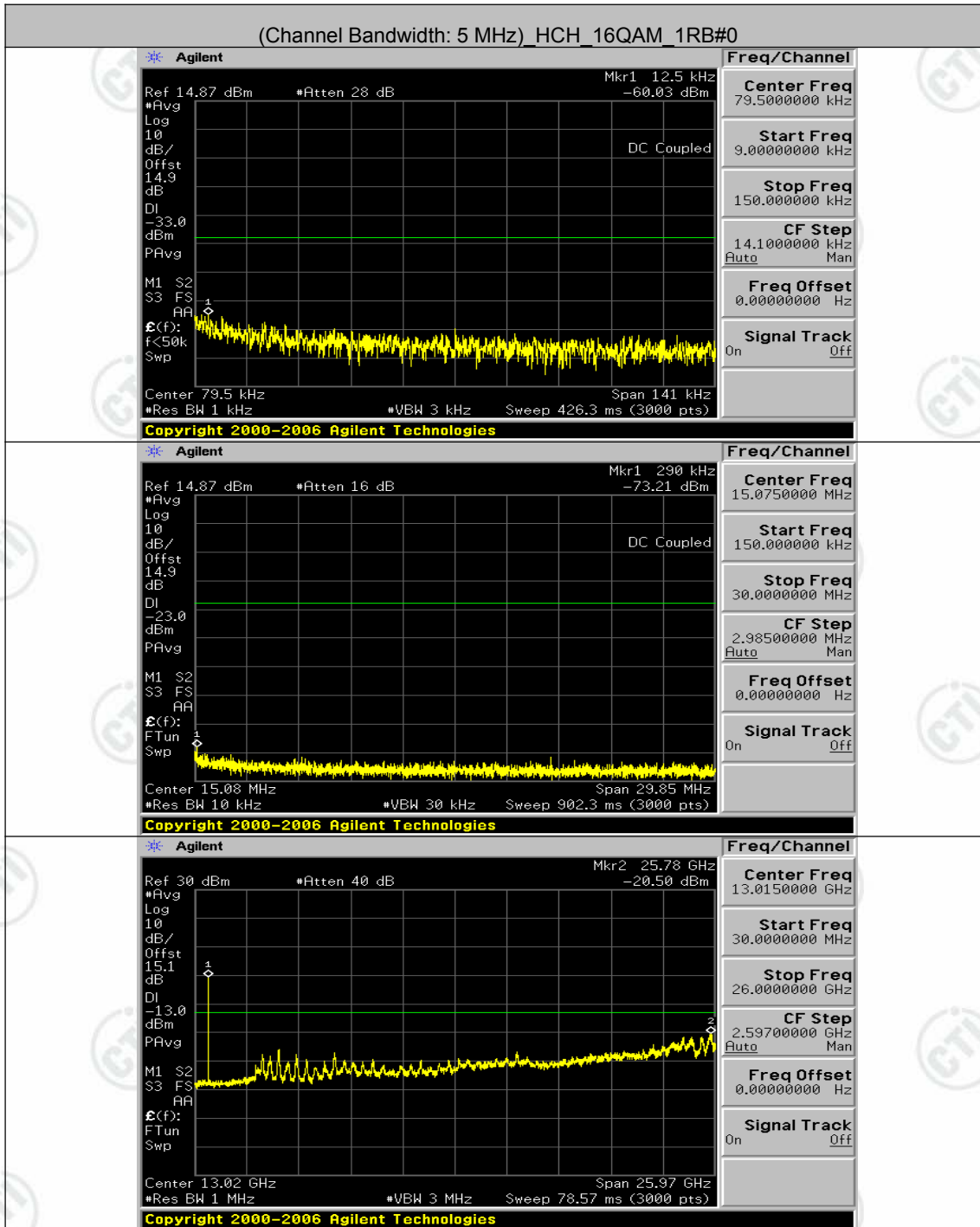


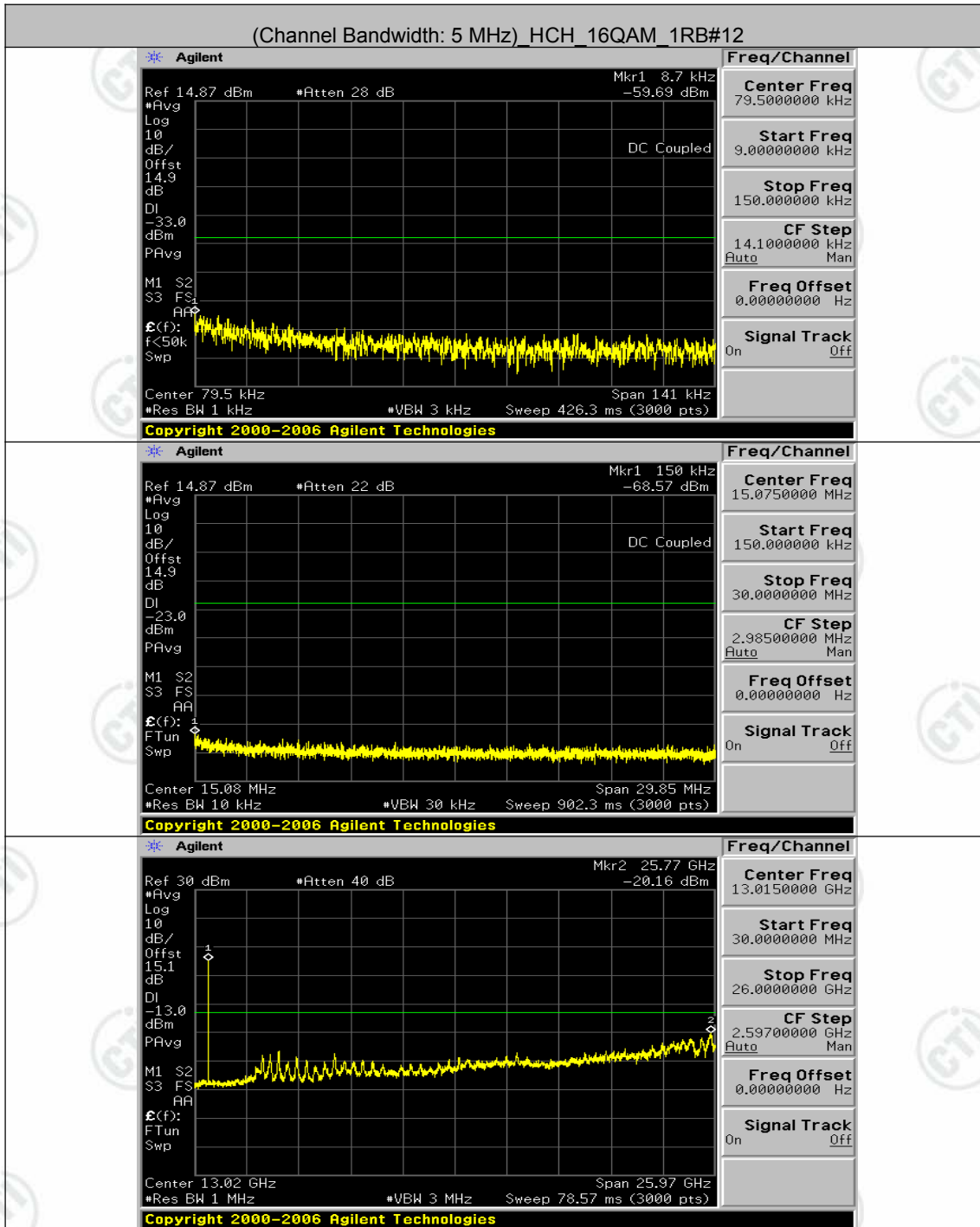


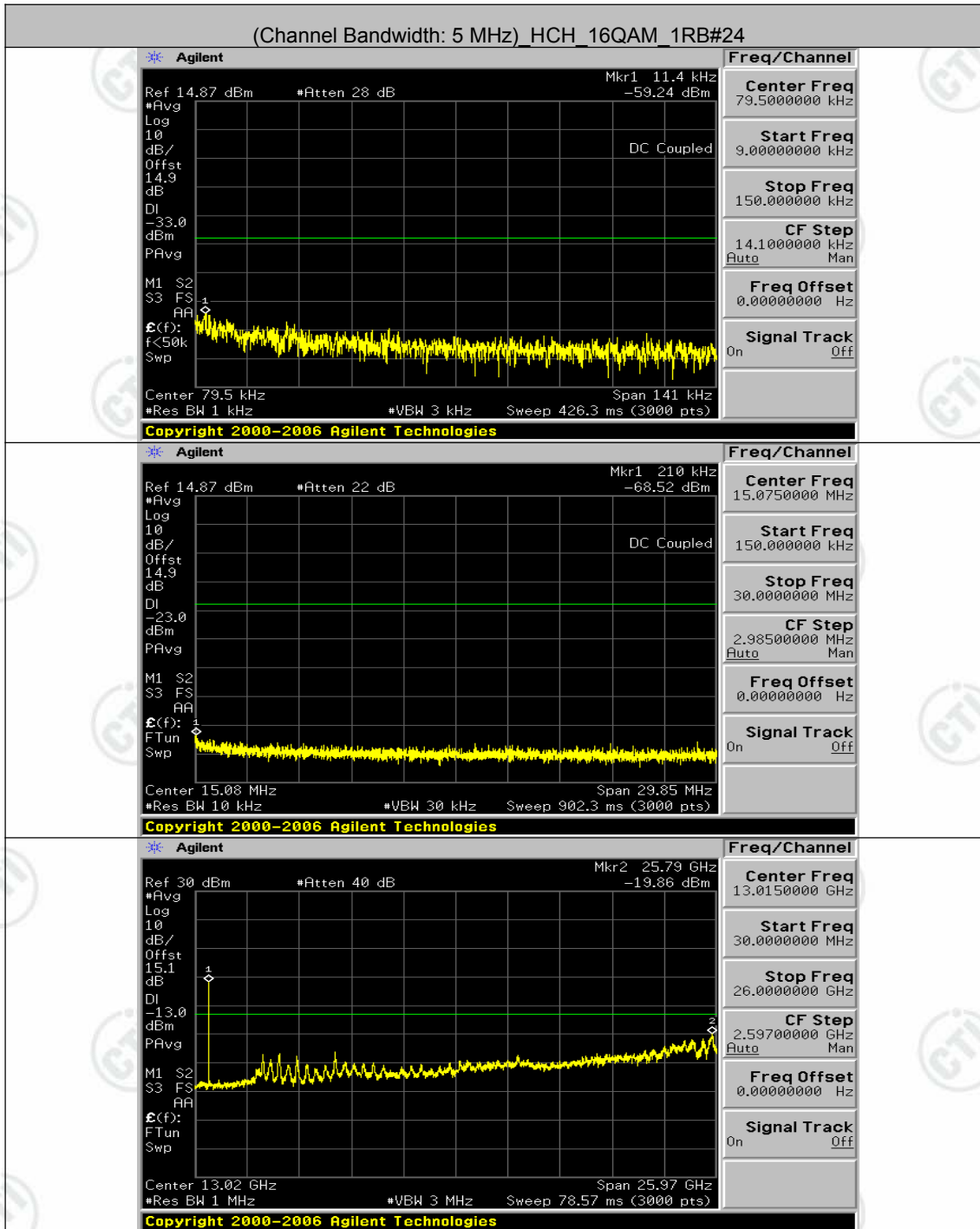




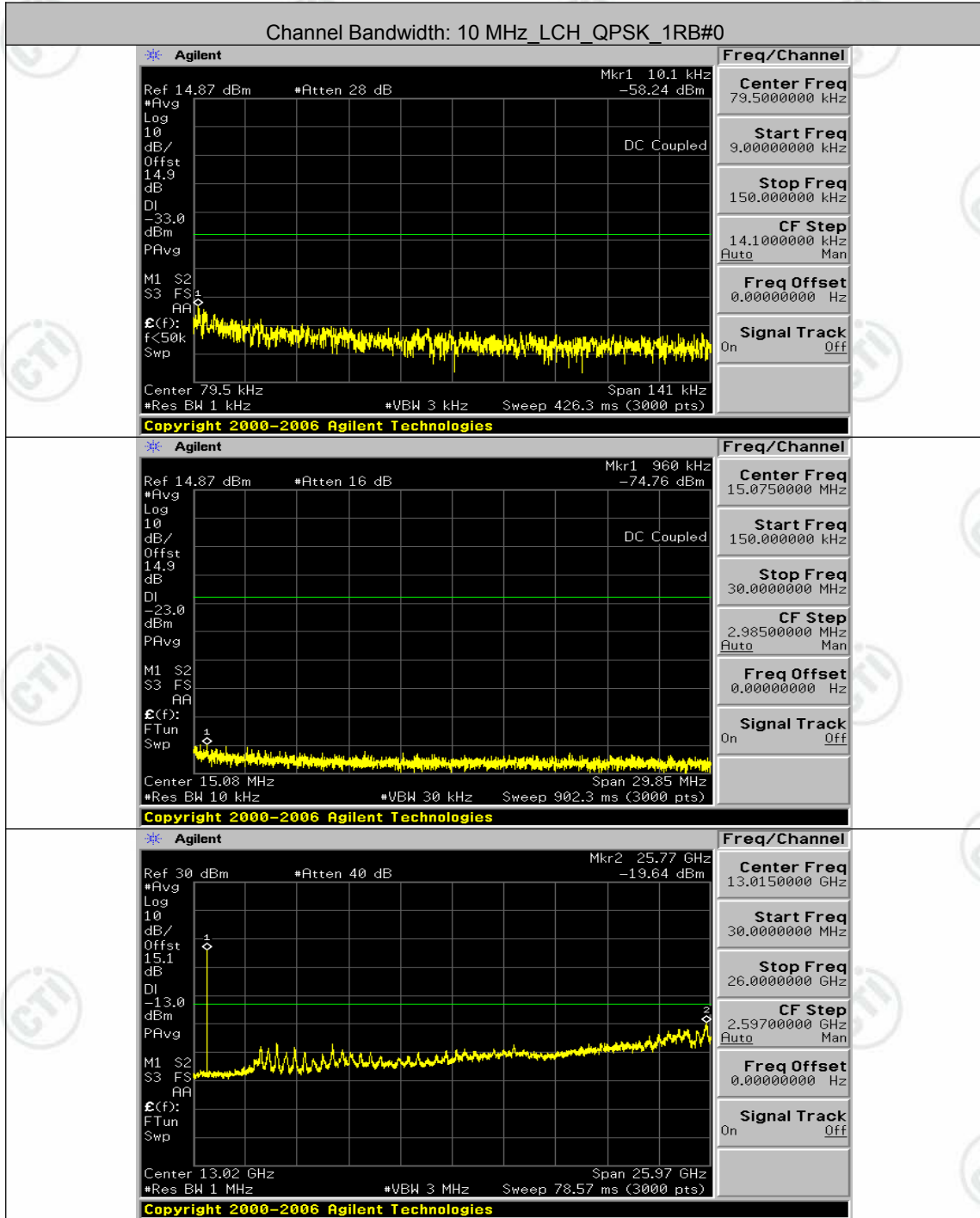


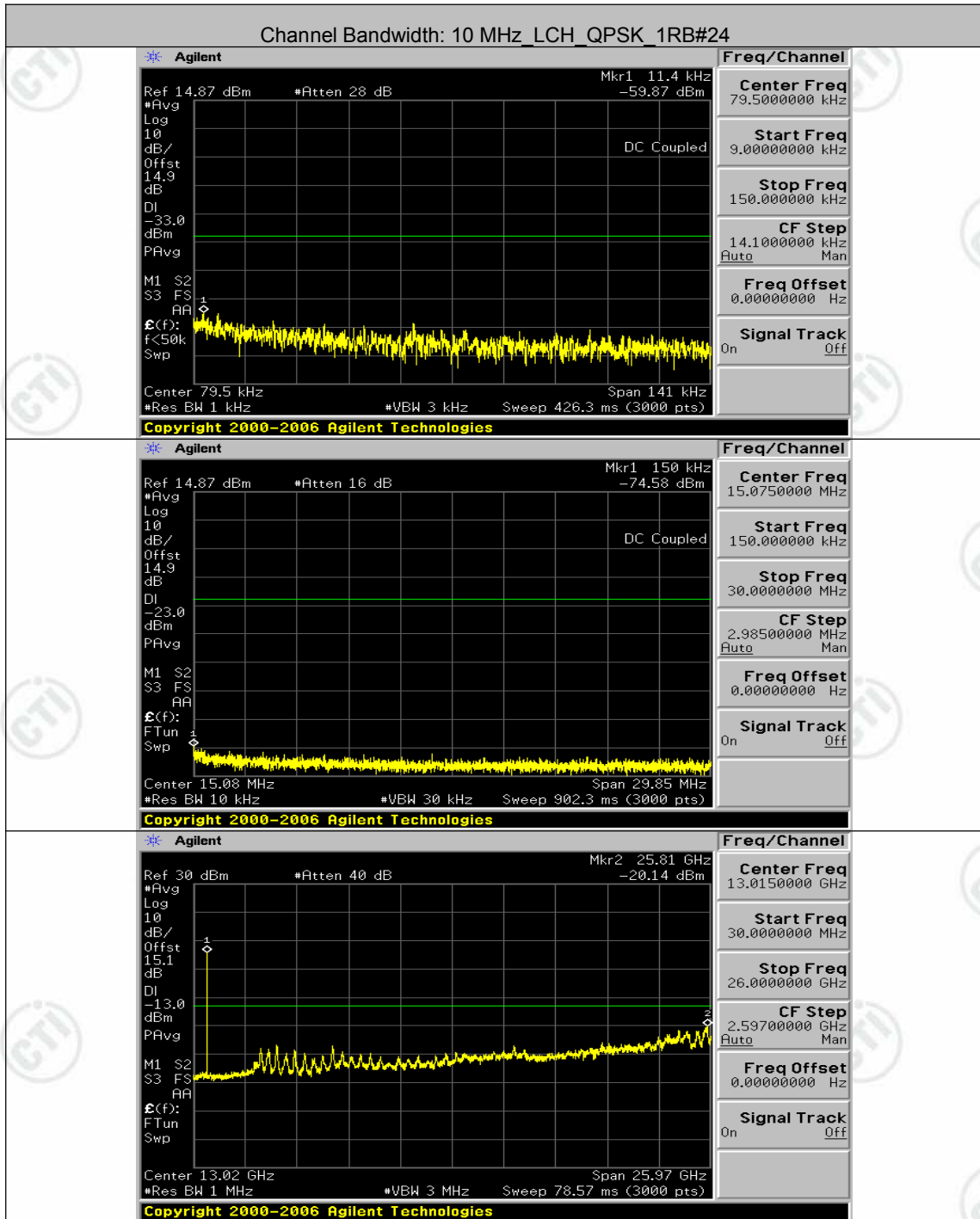


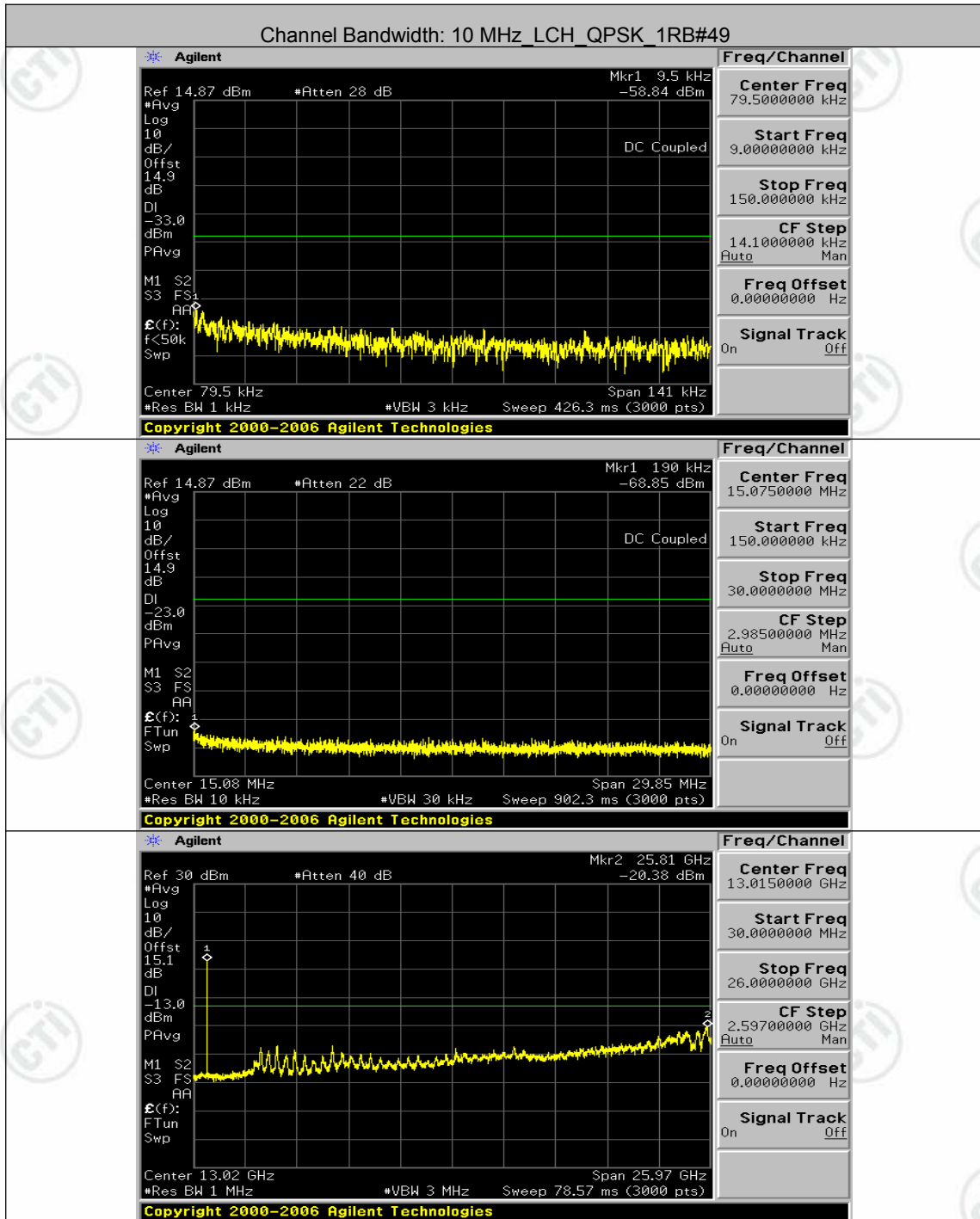


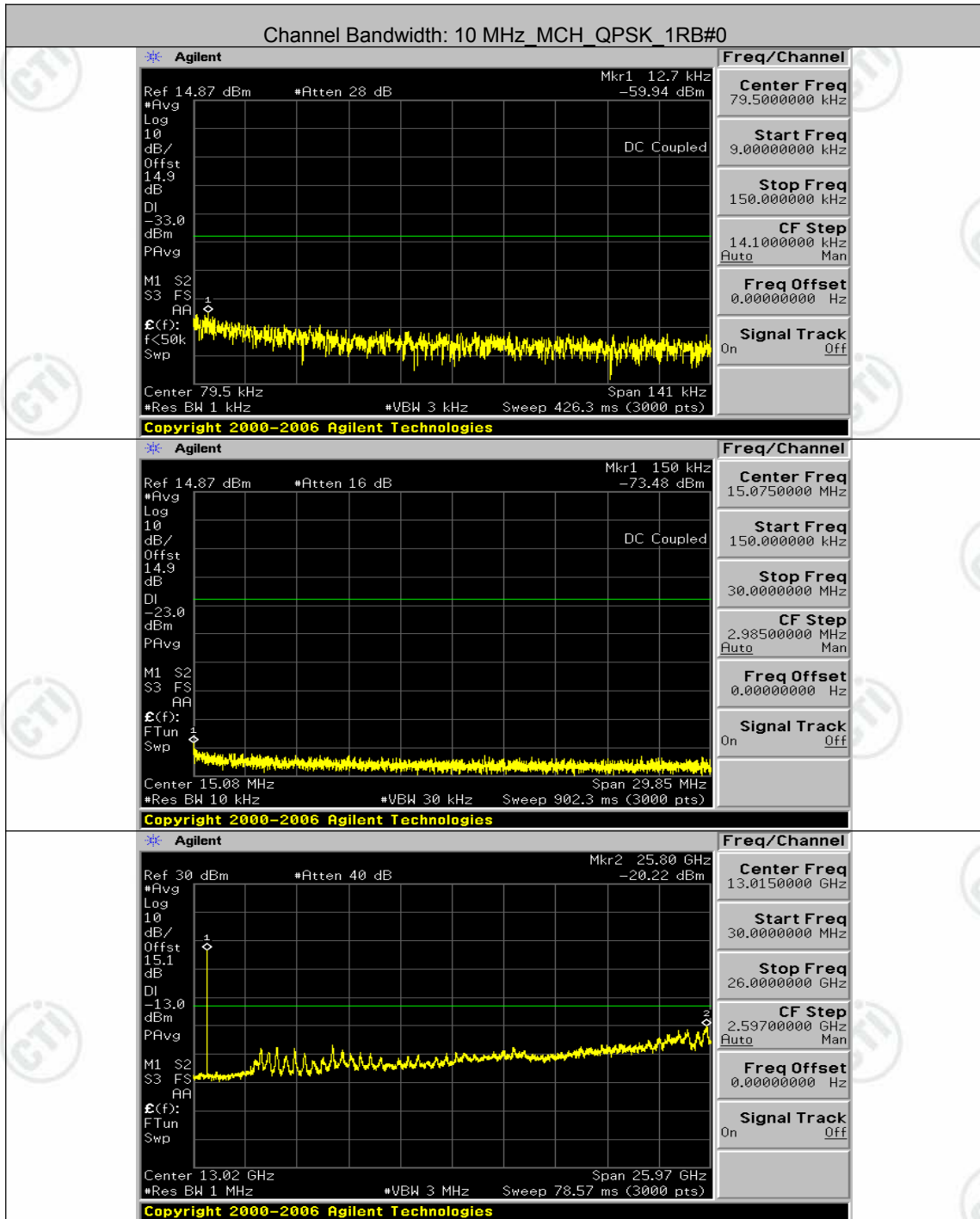


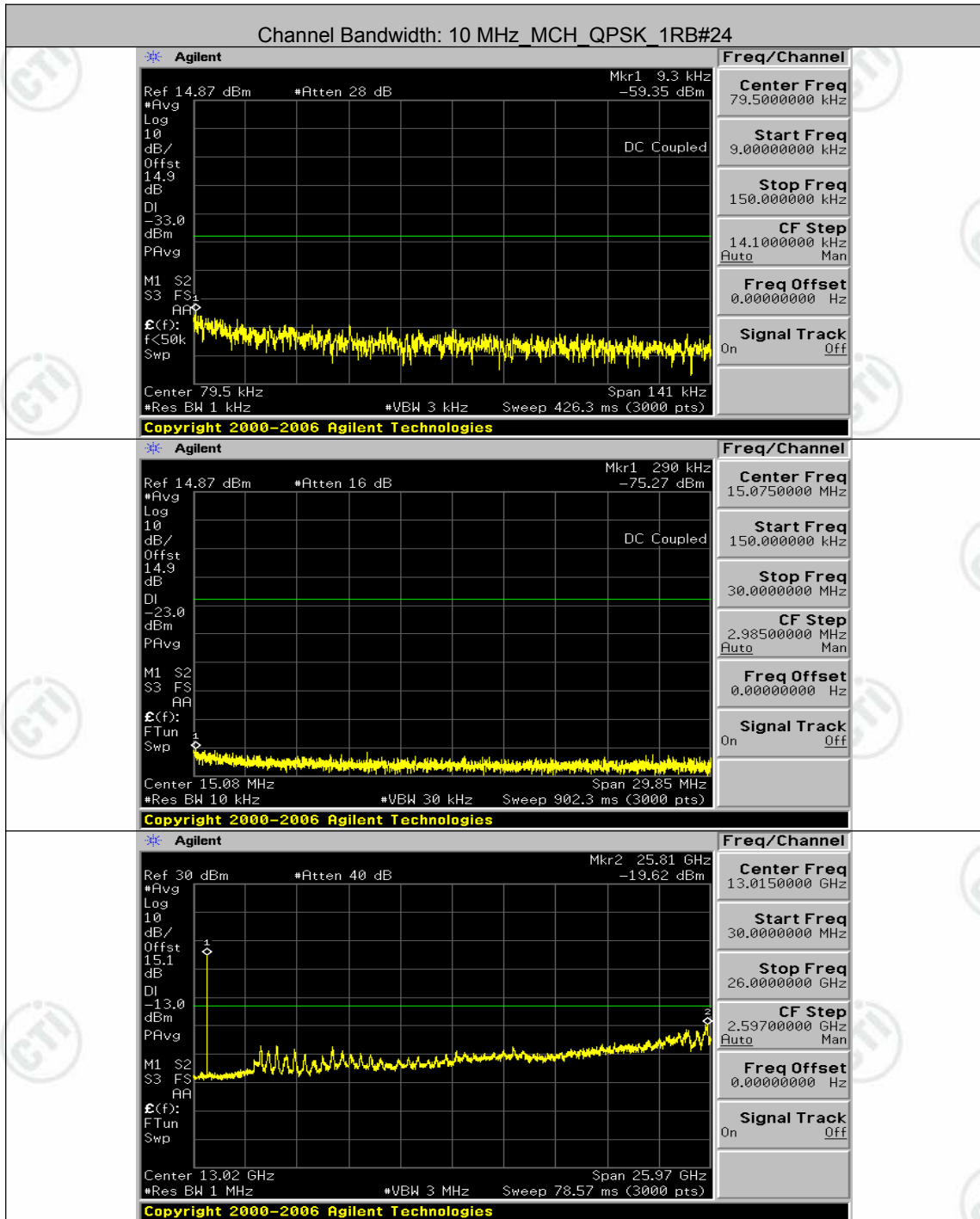
Channel Bandwidth: 10 MHz

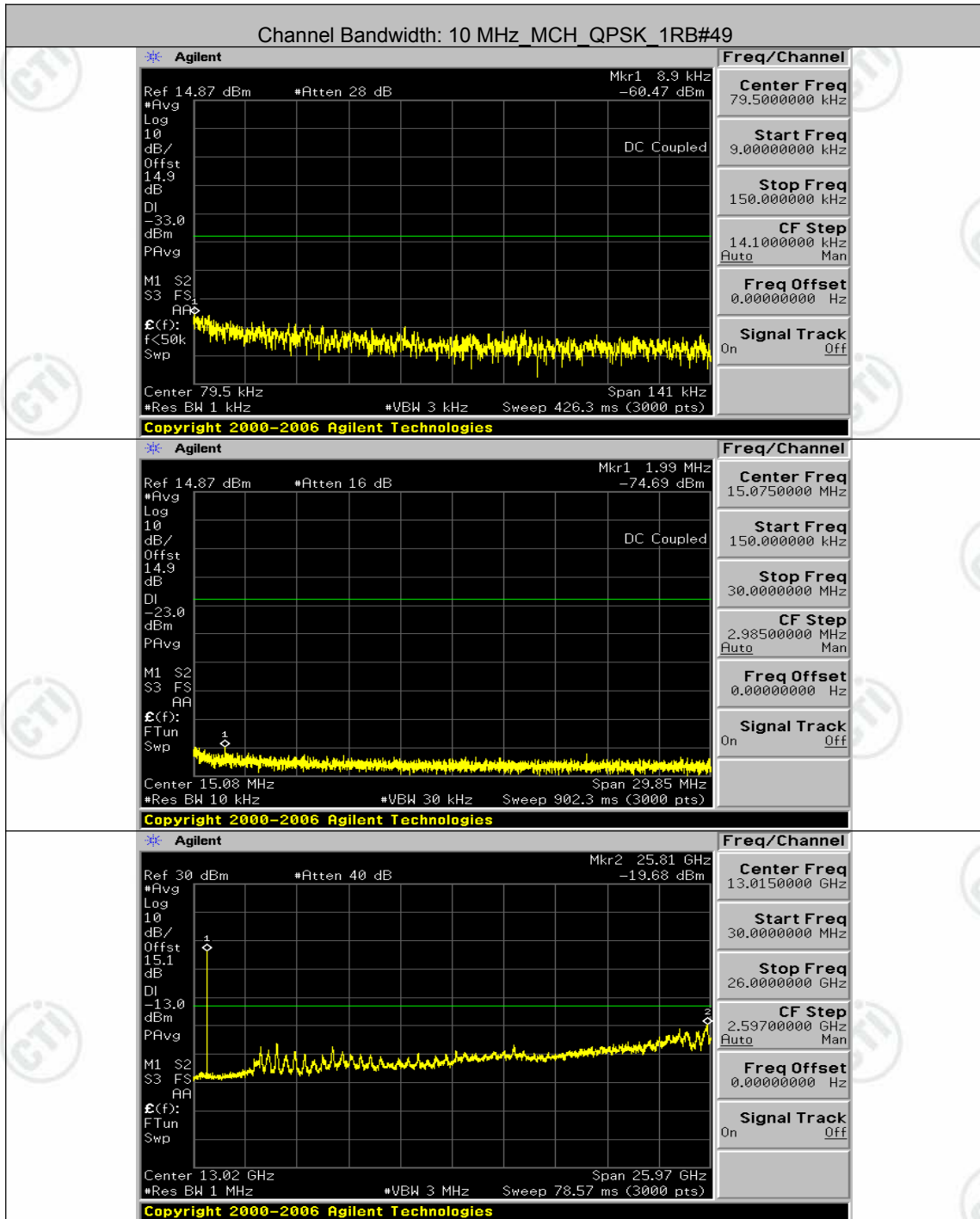


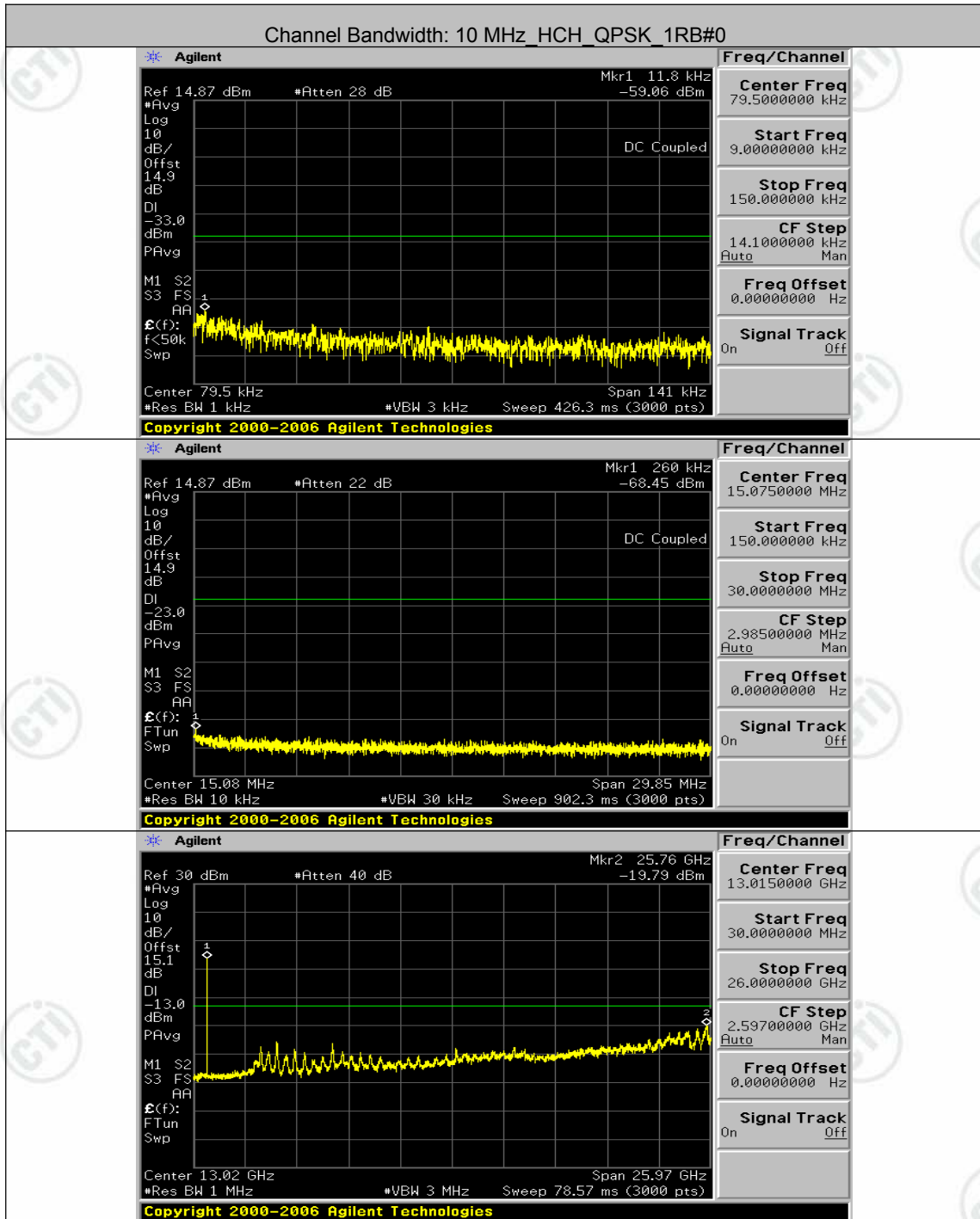


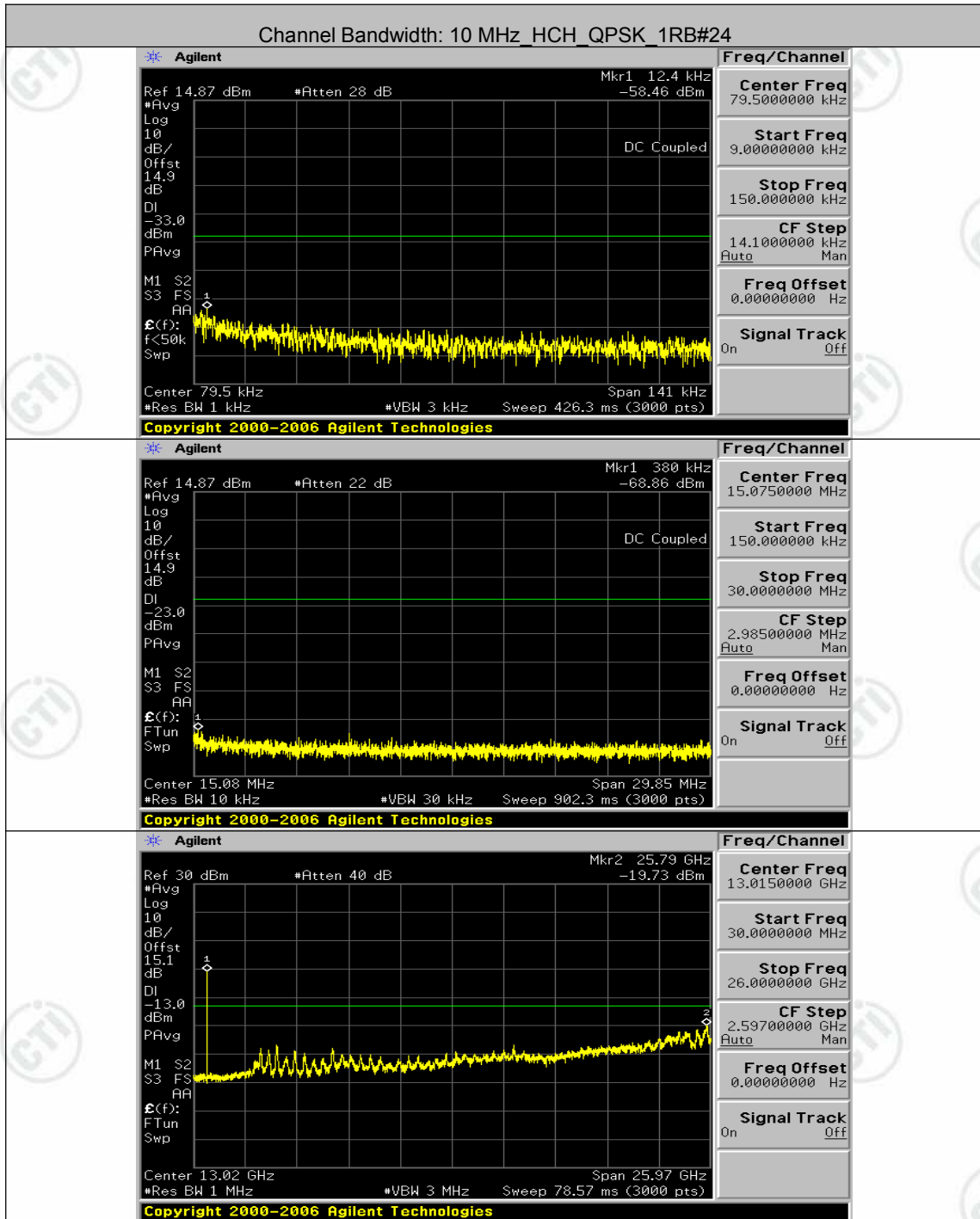


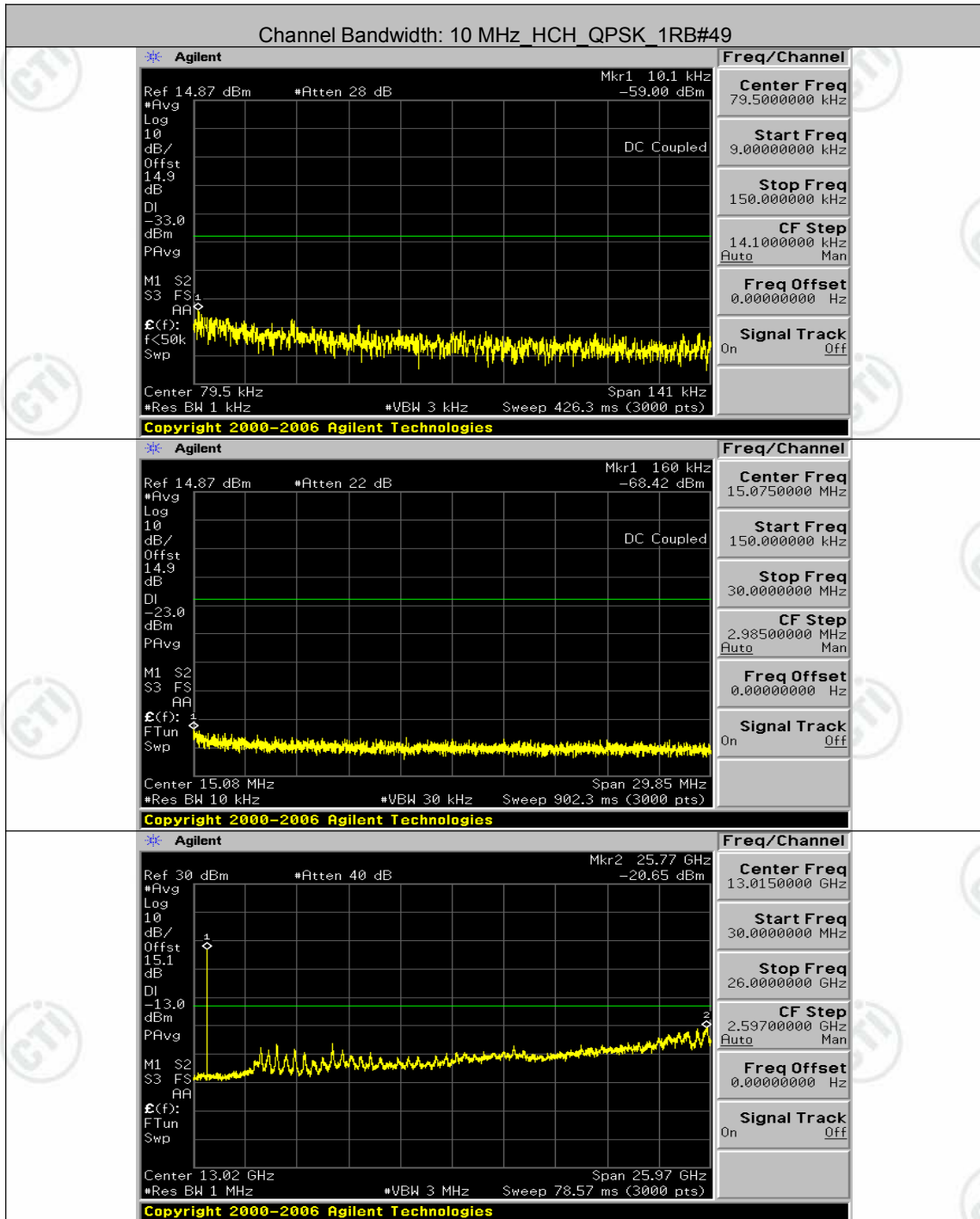


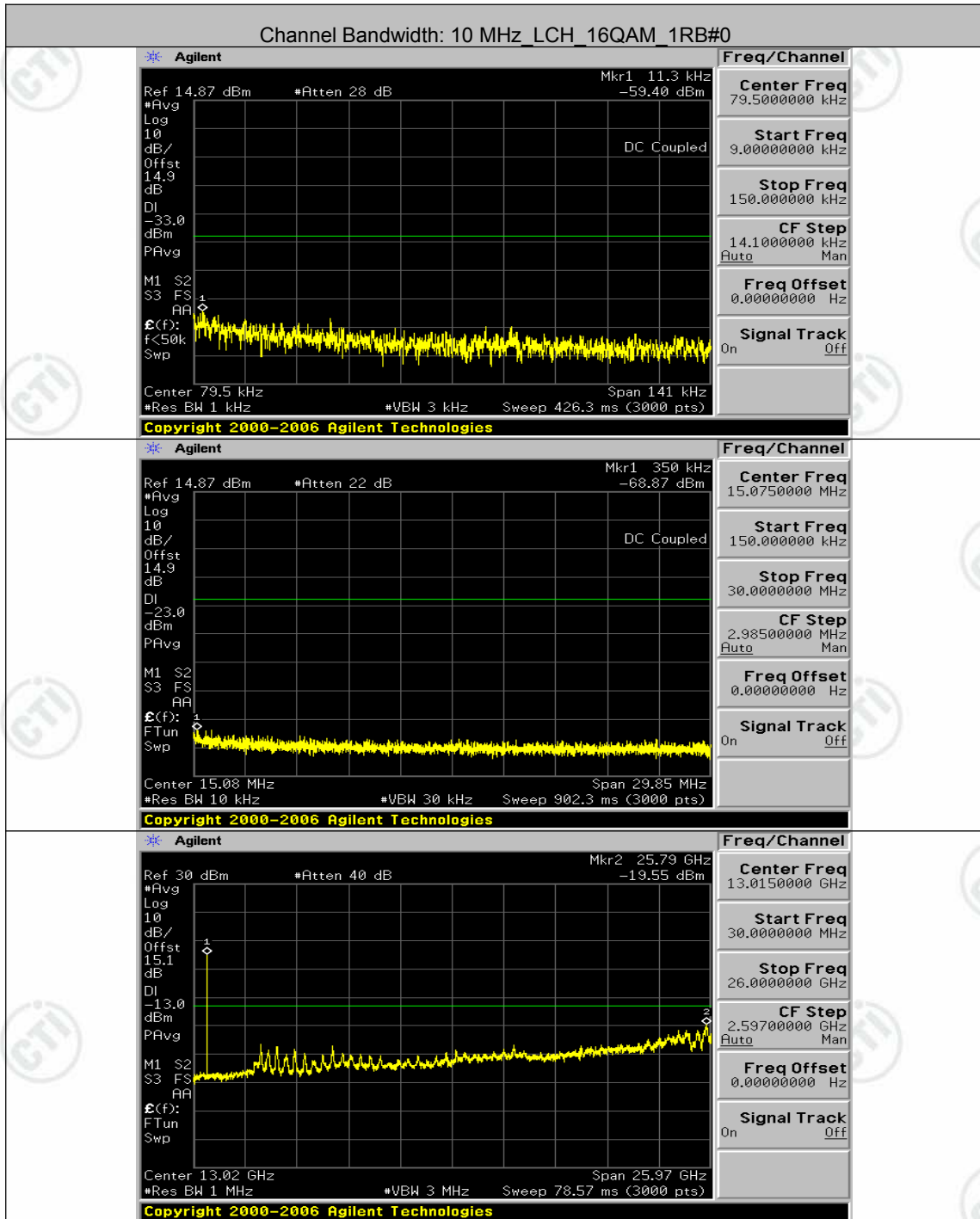


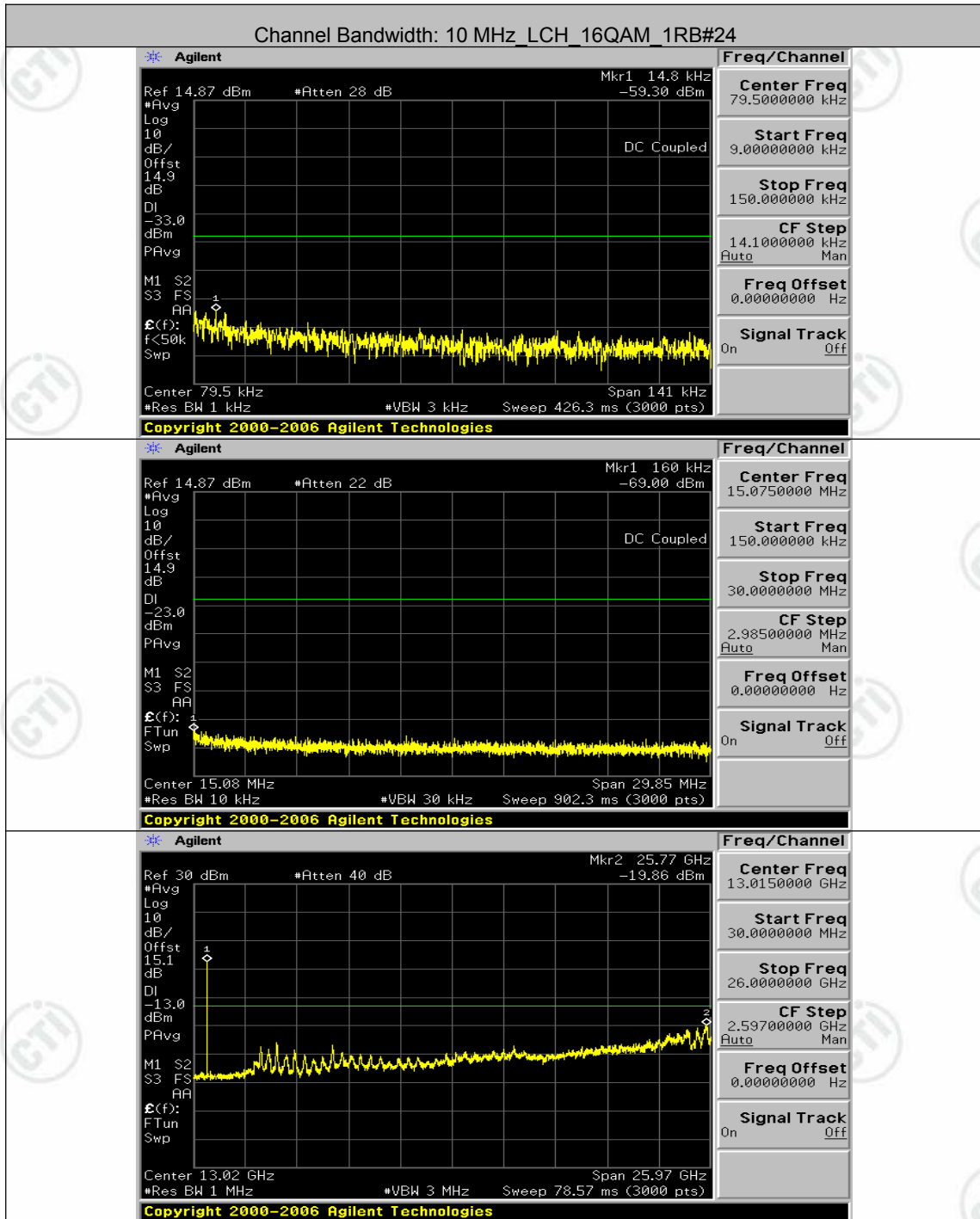


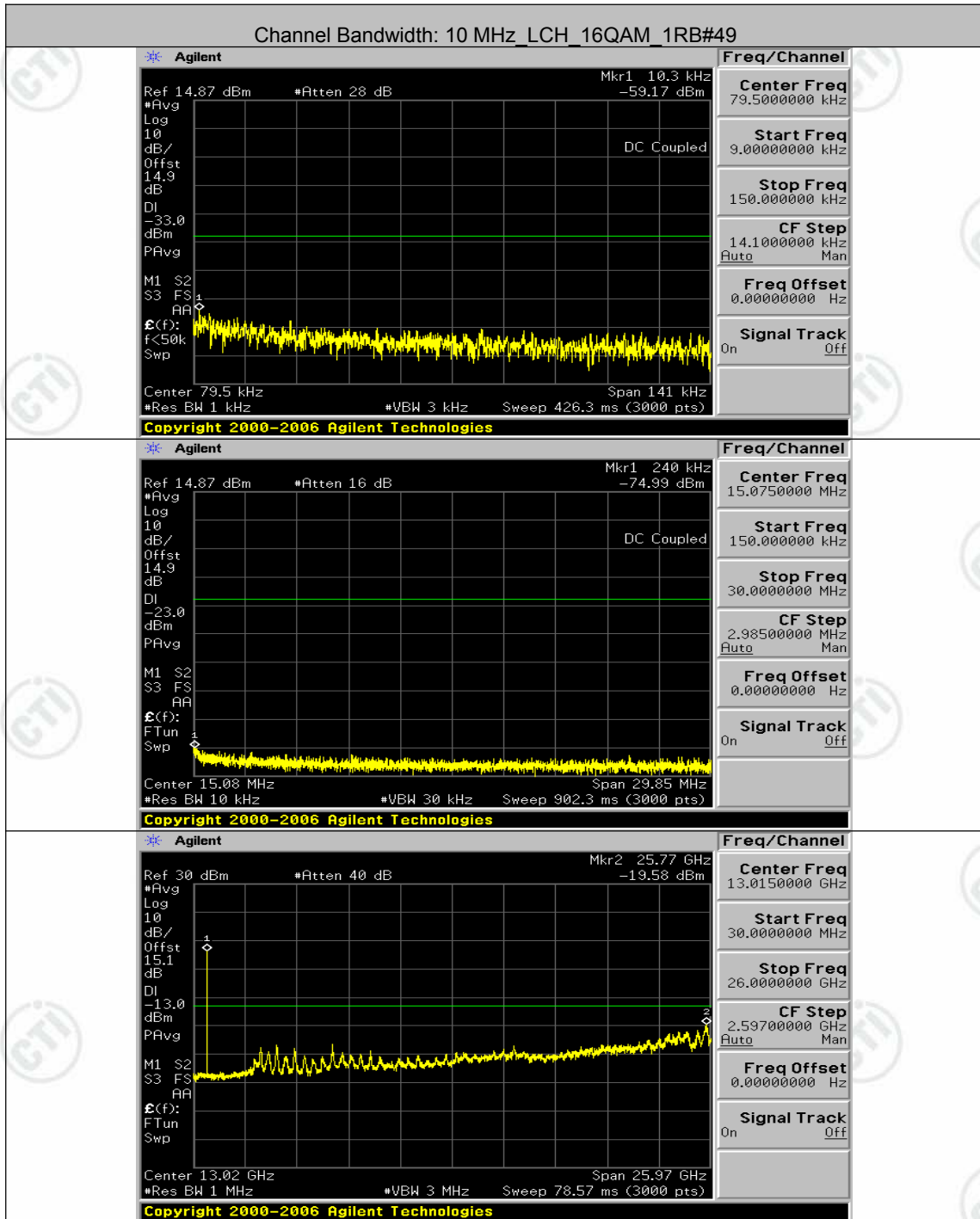


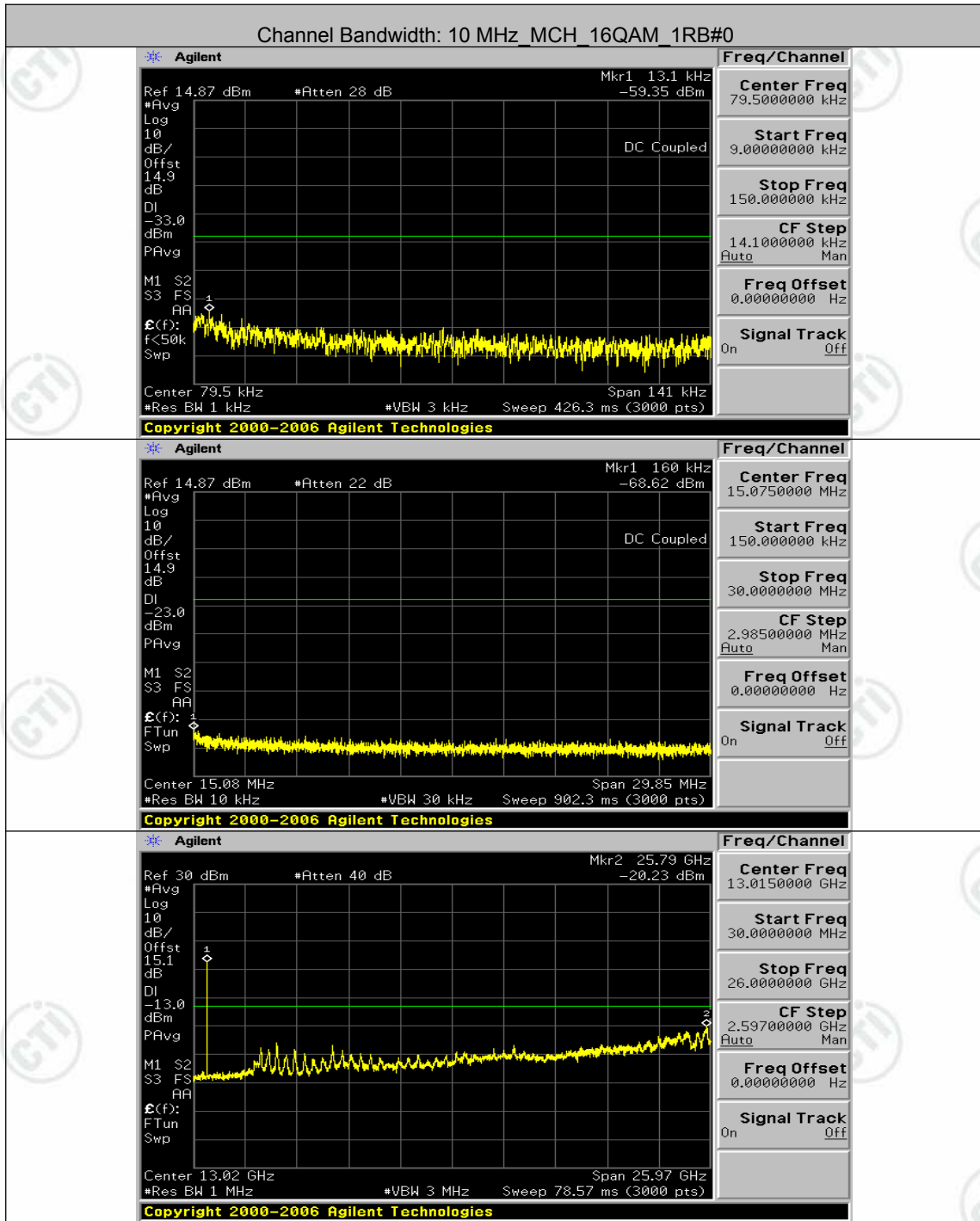


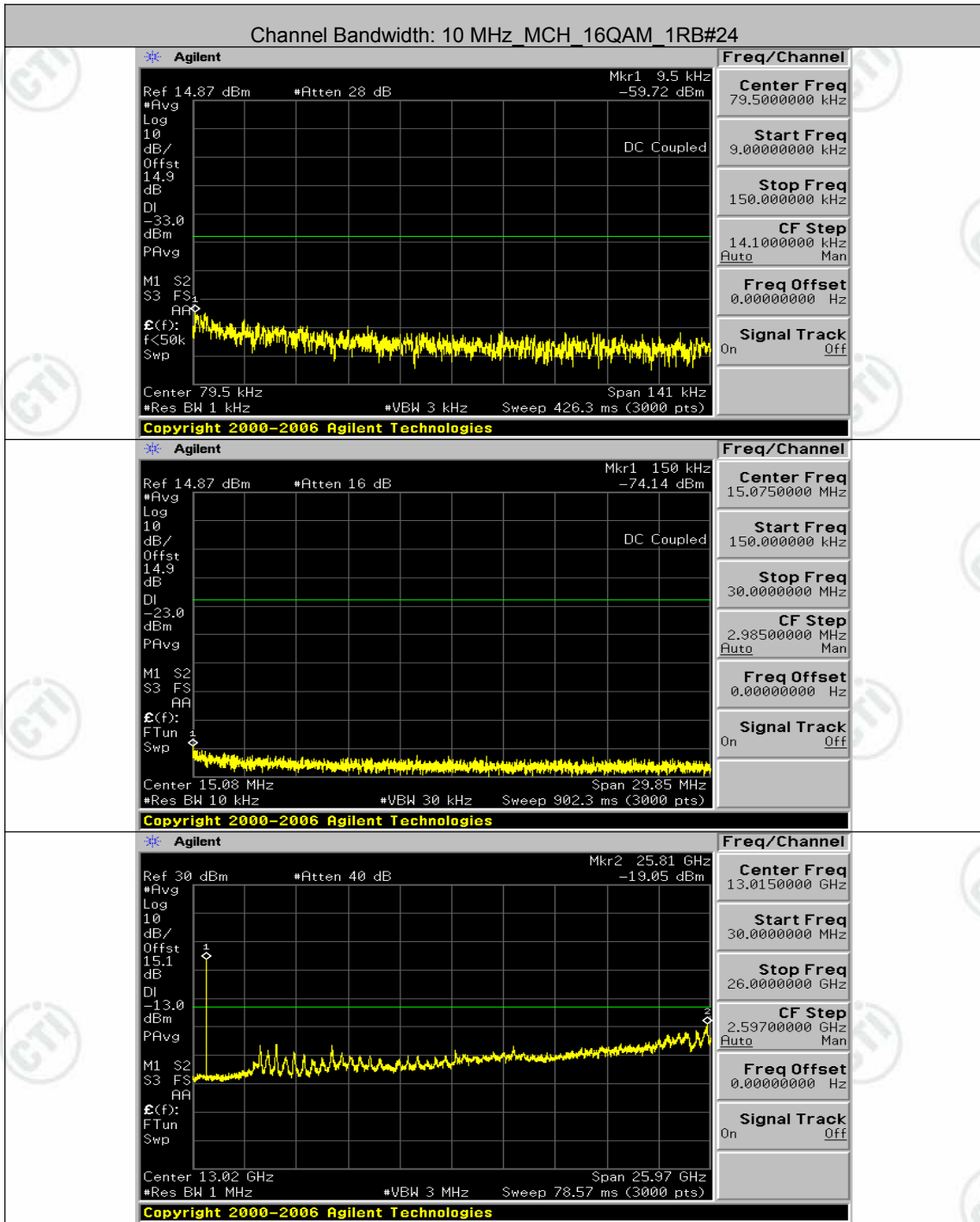


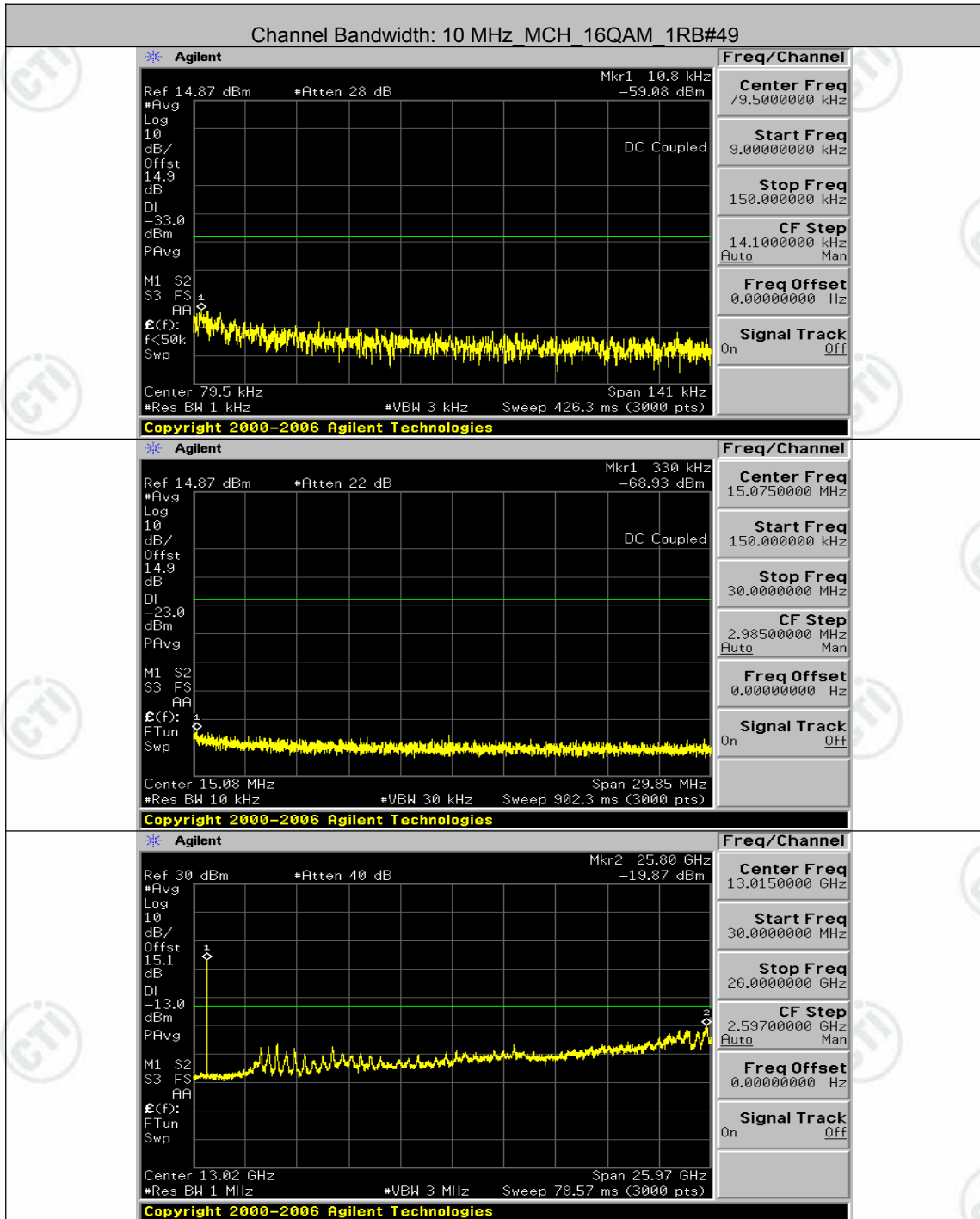


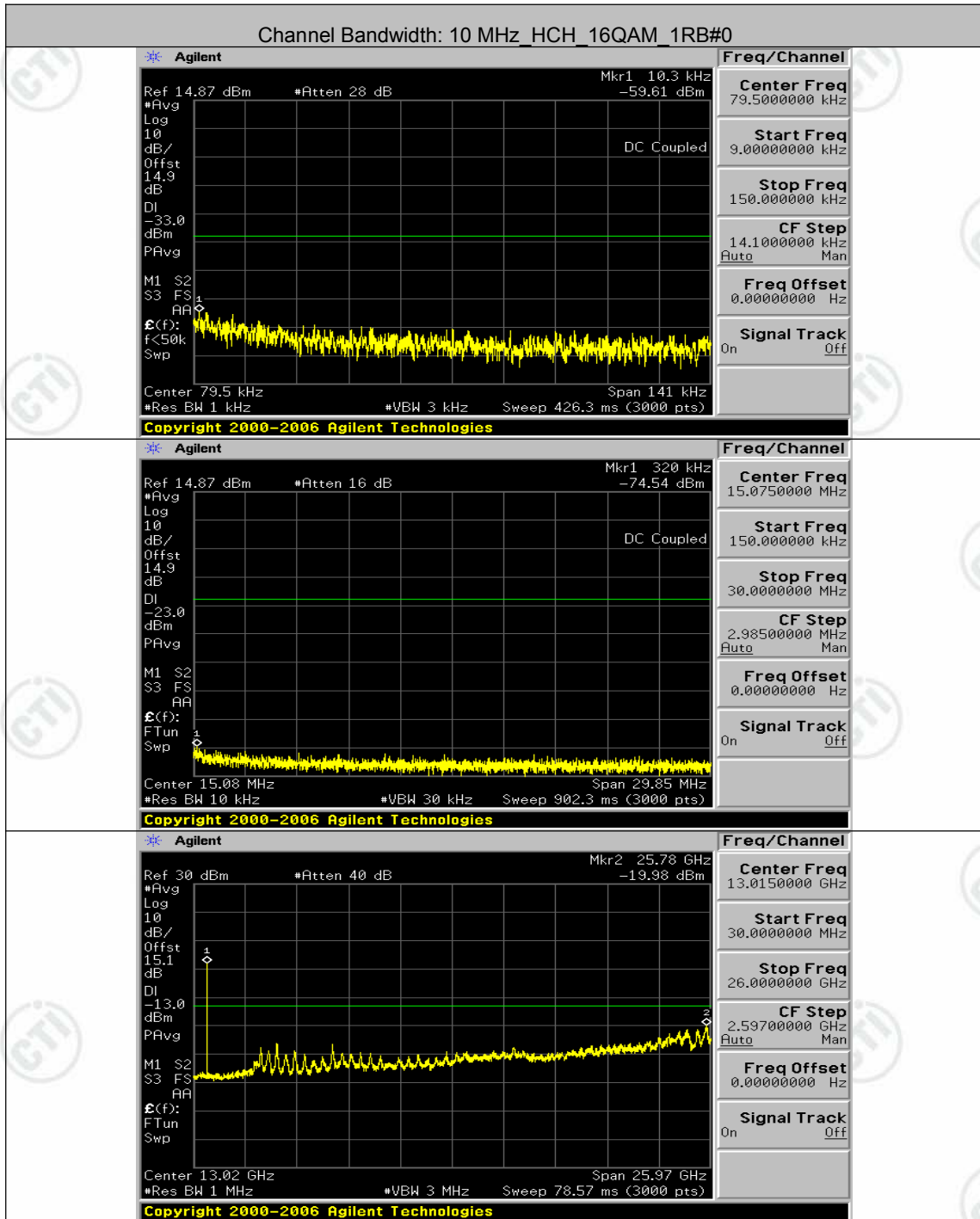


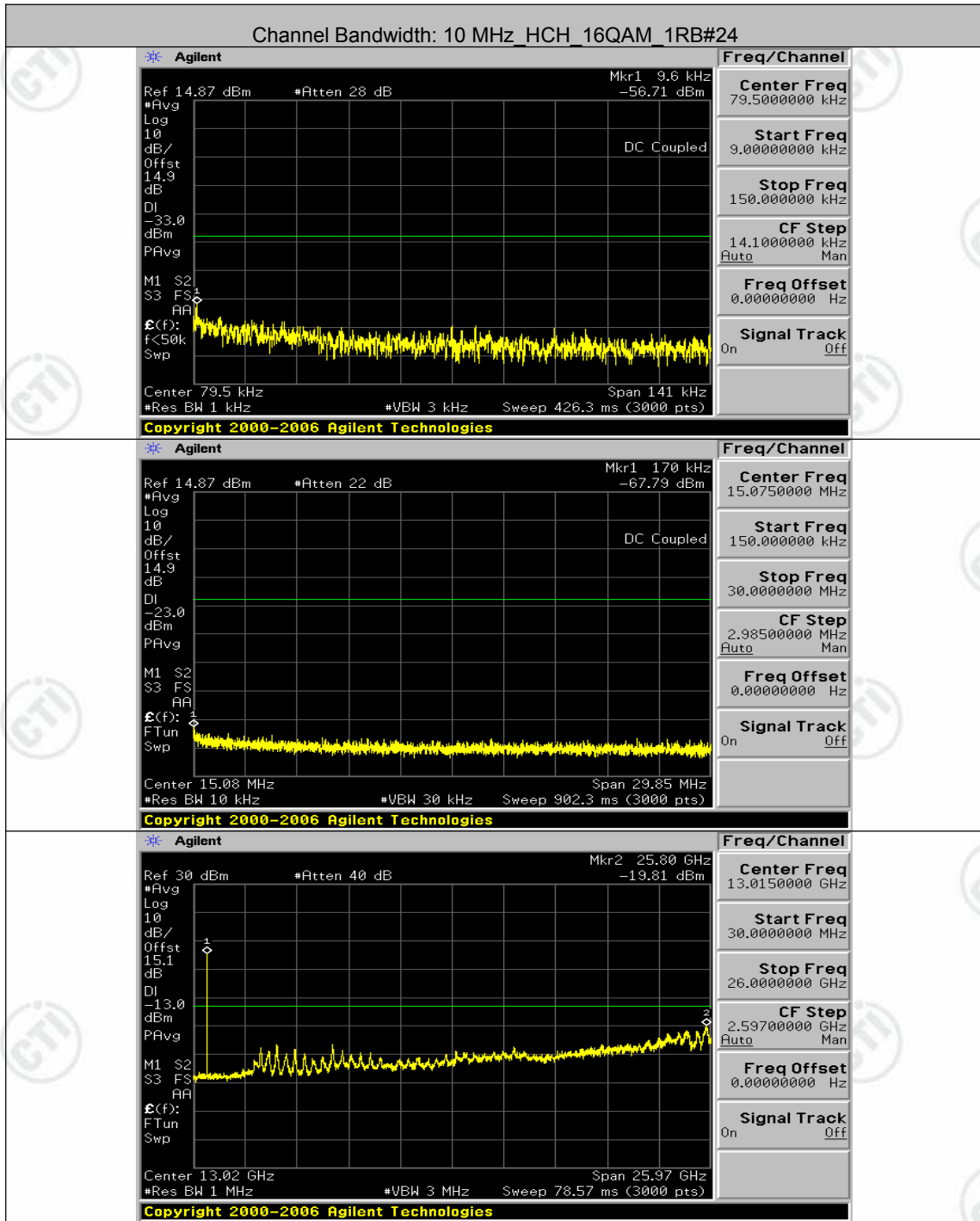


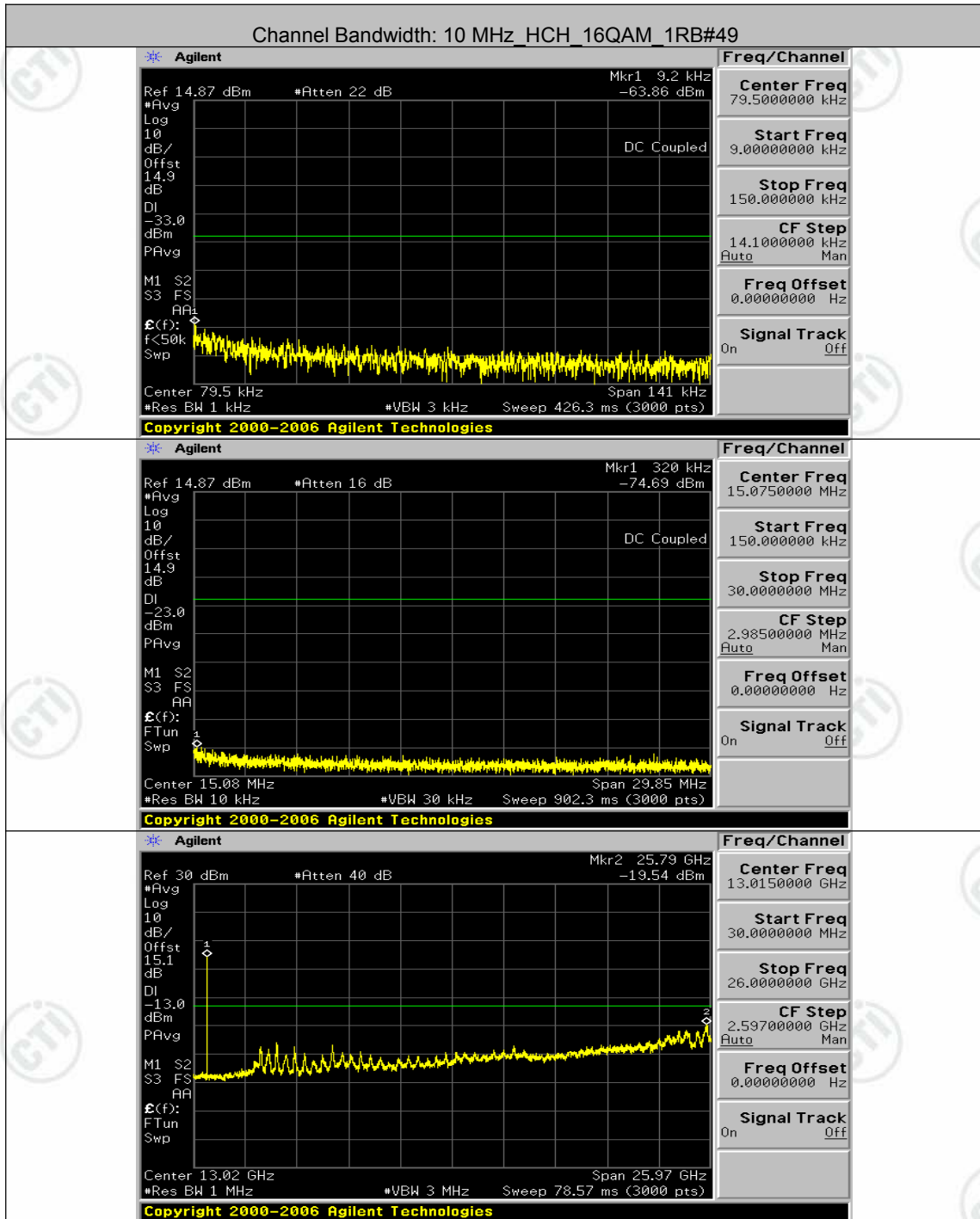












Appendix E) Frequency Stability

Test Result

(VL is 3.5V, VN is 3.85V, VH is 4.35V)

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-5.58	-0.007973	± 2.5	PASS
		VN	TN	-5.21	-0.007442	± 2.5	PASS
		VH	TN	-12.32	-0.017603	± 2.5	PASS
	MCH	VL	TN	0.11	0.000162	± 2.5	PASS
		VN	TN	-5.39	-0.007623	± 2.5	PASS
		VH	TN	-5.97	-0.008431	± 2.5	PASS
	HCH	VL	TN	-4.51	-0.006300	± 2.5	PASS
		VN	TN	-2.13	-0.002980	± 2.5	PASS
		VH	TN	-6.78	-0.009479	± 2.5	PASS
16QAM	LCH	VL	TN	-5.28	-0.007544	± 2.5	PASS
		VN	TN	-5.02	-0.007176	± 2.5	PASS
		VH	TN	-3.75	-0.005356	± 2.5	PASS
	MCH	VL	TN	-3.25	-0.004590	± 2.5	PASS
		VN	TN	-6.17	-0.008714	± 2.5	PASS
		VH	TN	-8.34	-0.011788	± 2.5	PASS
	HCH	VL	TN	-9.67	-0.013519	± 2.5	PASS
		VN	TN	-2.85	-0.003980	± 2.5	PASS
		VH	TN	-4.25	-0.005940	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-4.28	-0.006113	± 2.5	PASS
		VN	-20	-7.12	-0.010181	± 2.5	PASS
		VN	-10	-1.97	-0.002821	± 2.5	PASS
		VN	0	-10.39	-0.014843	± 2.5	PASS
		VN	10	-6.54	-0.009343	± 2.5	PASS
		VN	20	-5.89	-0.008423	± 2.5	PASS
		VN	30	-4.81	-0.006869	± 2.5	PASS
		VN	40	-7.15	-0.010222	± 2.5	PASS
		VN	50	-7.45	-0.010652	± 2.5	PASS
	MCH	VN	-30	-4.89	-0.006915	± 2.5	PASS
		VN	-20	-8.23	-0.011626	± 2.5	PASS
		VN	-10	-5.56	-0.007865	± 2.5	PASS
		VN	0	-8.34	-0.011788	± 2.5	PASS
		VN	10	-8.74	-0.012354	± 2.5	PASS
		VN	20	-7.45	-0.010534	± 2.5	PASS
		VN	30	-6.25	-0.008836	± 2.5	PASS
		VN	40	-7.72	-0.010918	± 2.5	PASS
		VN	50	-7.44	-0.010514	± 2.5	PASS
	HCH	VN	-30	-9.28	-0.012979	± 2.5	PASS
		VN	-20	-9.61	-0.013439	± 2.5	PASS
		VN	-10	-5.11	-0.007140	± 2.5	PASS
		VN	0	-4.26	-0.005960	± 2.5	PASS

		VN	10	-10.79	-0.015079	± 2.5	PASS
		VN	20	-3.05	-0.004260	± 2.5	PASS
		VN	30	-3.72	-0.005200	± 2.5	PASS
		VN	40	-7.37	-0.010299	± 2.5	PASS
		VN	50	-6.88	-0.009619	± 2.5	PASS
16QAM	LCH	VN	-30	-7.30	-0.010427	± 2.5	PASS
		VN	-20	-7.70	-0.010999	± 2.5	PASS
		VN	-10	-6.61	-0.009445	± 2.5	PASS
		VN	0	-3.33	-0.004764	± 2.5	PASS
		VN	10	-2.05	-0.002924	± 2.5	PASS
		VN	20	-3.46	-0.004948	± 2.5	PASS
		VN	30	-8.61	-0.012308	± 2.5	PASS
		VN	40	-1.23	-0.001758	± 2.5	PASS
	VN	50	-22.49	-0.032139	± 2.5	PASS	
	MCH	VN	-30	-1.69	-0.002386	± 2.5	PASS
		VN	-20	-6.78	-0.009584	± 2.5	PASS
		VN	-10	-3.79	-0.005358	± 2.5	PASS
		VN	0	-4.91	-0.006935	± 2.5	PASS
		VN	10	-11.93	-0.016863	± 2.5	PASS
		VN	20	-5.98	-0.008452	± 2.5	PASS
		VN	30	-2.56	-0.003619	± 2.5	PASS
		VN	40	-5.71	-0.008067	± 2.5	PASS
	VN	50	-3.16	-0.004468	± 2.5	PASS	
	HCH	VN	-30	-8.38	-0.011719	± 2.5	PASS
		VN	-20	-5.94	-0.008299	± 2.5	PASS
		VN	-10	-10.87	-0.015199	± 2.5	PASS
		VN	0	-8.28	-0.011579	± 2.5	PASS
		VN	10	-3.05	-0.004260	± 2.5	PASS
		VN	20	-5.14	-0.007180	± 2.5	PASS
		VN	30	-7.60	-0.010619	± 2.5	PASS
		VN	40	-1.10	-0.001540	± 2.5	PASS
	VN	50	-5.06	-0.007080	± 2.5	PASS	

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz+							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-2.32	-0.003308	± 2.5	PASS
		VN	TN	-9.18	-0.013110	± 2.5	PASS
		VH	TN	-5.05	-0.007209	± 2.5	PASS
	MCH	VL	TN	-2.73	-0.003862	± 2.5	PASS
		VN	TN	-9.58	-0.013547	± 2.5	PASS
		VH	TN	-7.55	-0.010676	± 2.5	PASS
	HCH	VL	TN	-3.98	-0.005566	± 2.5	PASS
		VN	TN	-5.85	-0.008189	± 2.5	PASS
		VH	TN	-4.58	-0.006407	± 2.5	PASS
16QAM	LCH	VL	TN	-4.36	-0.006228	± 2.5	PASS
		VN	TN	-7.67	-0.010946	± 2.5	PASS
		VH	TN	-5.15	-0.007352	± 2.5	PASS
	MCH	VL	TN	-3.12	-0.004408	± 2.5	PASS

Modulation	Channel	Temperature						
		Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict	
HCH	HCH	VN	TN	-6.49	-0.009180	± 2.5	PASS	
		VH	TN	-2.68	-0.003781	± 2.5	PASS	
		VL	TN	-4.29	-0.006006	± 2.5	PASS	
		VN	TN	-7.15	-0.010011	± 2.5	PASS	
		VH	TN	-8.98	-0.012573	± 2.5	PASS	
QPSK	LCH	VN	-30	-6.69	-0.009557	± 2.5	PASS	
		VN	-20	-1.85	-0.002634	± 2.5	PASS	
		VN	-10	-2.93	-0.004186	± 2.5	PASS	
		VN	0	-8.85	-0.012641	± 2.5	PASS	
		VN	10	-9.27	-0.013233	± 2.5	PASS	
		VN	20	-9.46	-0.013498	± 2.5	PASS	
		VN	30	-4.61	-0.006576	± 2.5	PASS	
		VN	40	-8.78	-0.012539	± 2.5	PASS	
	MCH	VN	50	-4.89	-0.006984	± 2.5	PASS	
		VN	-30	-6.32	-0.008937	± 2.5	PASS	
		VN	-20	-8.33	-0.011768	± 2.5	PASS	
		VN	-10	-5.62	-0.007946	± 2.5	PASS	
		VN	0	-5.52	-0.007805	± 2.5	PASS	
		VN	10	-5.55	-0.007845	± 2.5	PASS	
		VN	20	-7.95	-0.011242	± 2.5	PASS	
		VN	30	-7.84	-0.011080	± 2.5	PASS	
	HCH	VN	40	-4.29	-0.006066	± 2.5	PASS	
		VN	50	-4.59	-0.006490	± 2.5	PASS	
		VN	-30	-5.11	-0.007148	± 2.5	PASS	
		VN	-20	-6.57	-0.009190	± 2.5	PASS	
		VN	-10	-4.25	-0.005946	± 2.5	PASS	
		VN	0	-5.06	-0.007087	± 2.5	PASS	
		VN	10	-7.31	-0.010231	± 2.5	PASS	
		VN	20	-7.21	-0.010091	± 2.5	PASS	
	16QAM	LCH	VN	30	-7.90	-0.011052	± 2.5	PASS
			VN	40	-5.66	-0.007928	± 2.5	PASS
			VN	50	-4.11	-0.005746	± 2.5	PASS
			VN	-30	-3.68	-0.005248	± 2.5	PASS
VN			-20	-7.34	-0.010476	± 2.5	PASS	
VN			-10	-3.91	-0.005575	± 2.5	PASS	
VN			0	-7.14	-0.010190	± 2.5	PASS	
VN			10	-3.25	-0.004636	± 2.5	PASS	
MCH		VN	20	-6.32	-0.009026	± 2.5	PASS	
		VN	30	-5.15	-0.007352	± 2.5	PASS	
		VN	40	-2.39	-0.003410	± 2.5	PASS	
		VN	50	-4.98	-0.007107	± 2.5	PASS	
		VN	-30	-3.69	-0.005217	± 2.5	PASS	
		VN	-20	-8.67	-0.012253	± 2.5	PASS	
		VN	-10	-8.71	-0.012314	± 2.5	PASS	
		VN	0	-6.85	-0.009685	± 2.5	PASS	
		VN	10	-6.55	-0.009260	± 2.5	PASS	
		VN	20	-3.58	-0.005055	± 2.5	PASS	
		VN	30	-7.97	-0.011262	± 2.5	PASS	

	HCH	VN	40	-5.19	-0.007340	± 2.5	PASS
		VN	50	-7.95	-0.011242	± 2.5	PASS
		VN	-30	-3.89	-0.005446	± 2.5	PASS
		VN	-20	-6.09	-0.008529	± 2.5	PASS
		VN	-10	-9.18	-0.012854	± 2.5	PASS
		VN	0	-3.49	-0.004885	± 2.5	PASS
		VN	10	-10.24	-0.014335	± 2.5	PASS
		VN	20	-4.82	-0.006747	± 2.5	PASS
		VN	30	-11.52	-0.016117	± 2.5	PASS
		VN	40	-8.15	-0.011412	± 2.5	PASS
		VN	50	-7.31	-0.010231	± 2.5	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-8.47	-0.012072	± 2.5	PASS
		VN	TN	-9.06	-0.012908	± 2.5	PASS
		VH	TN	-7.07	-0.010074	± 2.5	PASS
	MCH	VL	TN	-5.25	-0.007420	± 2.5	PASS
		VN	TN	-4.25	-0.006005	± 2.5	PASS
		VH	TN	-6.92	-0.009786	± 2.5	PASS
	HCH	VL	TN	-9.96	-0.013954	± 2.5	PASS
		VN	TN	-1.53	-0.002145	± 2.5	PASS
		VH	TN	-5.32	-0.007458	± 2.5	PASS
16QAM	LCH	VL	TN	-3.50	-0.004996	± 2.5	PASS
		VN	TN	-4.31	-0.006138	± 2.5	PASS
		VH	TN	-10.61	-0.015131	± 2.5	PASS
	MCH	VL	TN	-5.78	-0.008169	± 2.5	PASS
		VN	TN	-4.48	-0.006329	± 2.5	PASS
		VH	TN	-2.85	-0.004024	± 2.5	PASS
	HCH	VL	TN	-6.95	-0.009744	± 2.5	PASS
		VN	TN	-6.19	-0.008681	± 2.5	PASS
		VH	TN	-10.74	-0.015057	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-5.81	-0.008279	± 2.5	PASS
		VN	-20	-8.05	-0.011481	± 2.5	PASS
		VN	-10	-7.18	-0.010237	± 2.5	PASS
		VN	0	-2.59	-0.003691	± 2.5	PASS
		VN	10	-2.65	-0.003773	± 2.5	PASS
		VN	20	-8.10	-0.011542	± 2.5	PASS
		VN	30	-2.90	-0.004140	± 2.5	PASS
		VN	40	-1.17	-0.001672	± 2.5	PASS
	MCH	VN	50	-2.86	-0.004078	± 2.5	PASS
		VN	-30	-2.45	-0.003457	± 2.5	PASS
		VN	-20	-2.25	-0.003174	± 2.5	PASS
		VN	-10	-3.71	-0.005237	± 2.5	PASS
		VN	0	-4.15	-0.005864	± 2.5	PASS

	VN	10	-2.26	-0.003195	± 2.5	PASS	
		20	-4.53	-0.006409	± 2.5	PASS	
		30	-3.76	-0.005318	± 2.5	PASS	
		40	-3.56	-0.005035	± 2.5	PASS	
		50	-3.38	-0.004772	± 2.5	PASS	
	HCH	VN	-30	-4.21	-0.005894	± 2.5	PASS
		VN	-20	-8.23	-0.011528	± 2.5	PASS
		VN	-10	-6.15	-0.008621	± 2.5	PASS
		VN	0	-6.02	-0.008441	± 2.5	PASS
		VN	10	-5.81	-0.008140	± 2.5	PASS
		VN	20	-7.78	-0.010907	± 2.5	PASS
		VN	30	-6.68	-0.009363	± 2.5	PASS
		VN	40	-4.55	-0.006376	± 2.5	PASS
		VN	50	-3.29	-0.004611	± 2.5	PASS
16QAM	LCH	VN	-30	-5.06	-0.007219	± 2.5	PASS
		VN	-20	-5.97	-0.008504	± 2.5	PASS
		VN	-10	-8.55	-0.012195	± 2.5	PASS
		VN	0	-3.02	-0.004303	± 2.5	PASS
		VN	10	-6.92	-0.009870	± 2.5	PASS
		VN	20	-11.27	-0.016069	± 2.5	PASS
		VN	30	-6.32	-0.009013	± 2.5	PASS
		VN	40	-8.01	-0.011420	± 2.5	PASS
	MCH	VN	50	-6.67	-0.009503	± 2.5	PASS
		VN	-30	-4.86	-0.006875	± 2.5	PASS
		VN	-20	-7.04	-0.009948	± 2.5	PASS
		VN	-10	-1.77	-0.002507	± 2.5	PASS
		VN	0	-8.01	-0.011323	± 2.5	PASS
		VN	10	-5.22	-0.007380	± 2.5	PASS
		VN	20	-9.74	-0.013769	± 2.5	PASS
		VN	30	-8.08	-0.011424	± 2.5	PASS
	HCH	VN	40	-5.05	-0.007137	± 2.5	PASS
		VN	50	-7.94	-0.011222	± 2.5	PASS
		VN	-30	-2.80	-0.003930	± 2.5	PASS
		VN	-20	-3.42	-0.004792	± 2.5	PASS
		VN	-10	-5.15	-0.007218	± 2.5	PASS
		VN	0	-5.89	-0.008260	± 2.5	PASS
		VN	10	-6.61	-0.009263	± 2.5	PASS
		VN	20	-3.53	-0.004952	± 2.5	PASS
	VN	30	-4.86	-0.006817	± 2.5	PASS	
	VN	40	-6.42	-0.009002	± 2.5	PASS	
	VN	50	-4.36	-0.006115	± 2.5	PASS	

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-7.00	-0.009936	± 2.5	PASS
		VN	TN	-4.03	-0.005730	± 2.5	PASS
		VH	TN	-5.25	-0.007457	± 2.5	PASS
	MCH	VL	TN	-2.86	-0.004044	± 2.5	PASS

	HCH	VN	TN	-3.96	-0.005601	± 2.5	PASS
		VH	TN	-4.29	-0.006066	± 2.5	PASS
		VL	TN	-7.07	-0.009939	± 2.5	PASS
		VN	TN	-7.10	-0.009979	± 2.5	PASS
		VH	TN	-9.30	-0.013078	± 2.5	PASS
16QAM	LCH	VL	TN	-2.35	-0.003332	± 2.5	PASS
		VN	TN	-2.29	-0.003251	± 2.5	PASS
		VH	TN	-2.78	-0.003942	± 2.5	PASS
	MCH	VL	TN	-6.19	-0.008755	± 2.5	PASS
		VN	TN	-7.40	-0.010453	± 2.5	PASS
		VH	TN	-2.93	-0.004145	± 2.5	PASS
	HCH	VL	TN	-5.05	-0.007102	± 2.5	PASS
		VN	TN	-4.01	-0.005634	± 2.5	PASS
		VH	TN	-4.78	-0.006720	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-7.15	-0.010160	± 2.5	PASS
		VN	-20	-8.73	-0.012395	± 2.5	PASS
		VN	-10	-5.34	-0.007579	± 2.5	PASS
		VN	0	-5.14	-0.007295	± 2.5	PASS
		VN	10	-5.15	-0.007315	± 2.5	PASS
		VN	20	-7.14	-0.010140	± 2.5	PASS
		VN	30	-8.13	-0.011542	± 2.5	PASS
		VN	40	-5.81	-0.008250	± 2.5	PASS
	MCH	VN	-30	-6.61	-0.009341	± 2.5	PASS
		VN	-20	-5.38	-0.007602	± 2.5	PASS
		VN	-10	-6.54	-0.009240	± 2.5	PASS
		VN	0	-6.18	-0.008735	± 2.5	PASS
		VN	10	-5.78	-0.008169	± 2.5	PASS
		VN	20	-9.68	-0.013688	± 2.5	PASS
		VN	30	-4.23	-0.005985	± 2.5	PASS
		VN	40	-8.44	-0.011929	± 2.5	PASS
	HCH	VN	50	-8.55	-0.012091	± 2.5	PASS
		VN	-30	-2.25	-0.003159	± 2.5	PASS
		VN	-20	-6.41	-0.009014	± 2.5	PASS
		VN	-10	-5.78	-0.008128	± 2.5	PASS
		VN	0	-7.78	-0.010945	± 2.5	PASS
		VN	10	-8.41	-0.011830	± 2.5	PASS
		VN	20	-8.34	-0.011730	± 2.5	PASS
		VN	30	-8.68	-0.012213	± 2.5	PASS
16QAM	LCH	VN	40	-2.68	-0.003762	± 2.5	PASS
		VN	50	-7.05	-0.009919	± 2.5	PASS
		VN	-30	-1.93	-0.002743	± 2.5	PASS
		VN	-20	-3.03	-0.004308	± 2.5	PASS
		VN	-10	-3.69	-0.005243	± 2.5	PASS
		VN	0	-5.18	-0.007356	± 2.5	PASS
		VN	10	-3.69	-0.005243	± 2.5	PASS
VN	20	-0.70	-0.000996	± 2.5	PASS		
VN	30	-2.30	-0.003271	± 2.5	PASS		

		VN	40	-2.93	-0.004166	± 2.5	PASS
		VN	50	-3.60	-0.005121	± 2.5	PASS
	MCH	VN	-30	-7.47	-0.010554	± 2.5	PASS
		VN	-20	-5.88	-0.008310	± 2.5	PASS
		VN	-10	-2.85	-0.004024	± 2.5	PASS
		VN	0	-3.12	-0.004408	± 2.5	PASS
		VN	10	-4.22	-0.005965	± 2.5	PASS
		VN	20	-9.68	-0.013688	± 2.5	PASS
		VN	30	-5.69	-0.008047	± 2.5	PASS
		VN	40	-7.84	-0.011080	± 2.5	PASS
		VN	50	-7.62	-0.010777	± 2.5	PASS
		HCH	VN	-30	-5.15	-0.007243	± 2.5
	VN		-20	-2.06	-0.002897	± 2.5	PASS
	VN		-10	-1.23	-0.001730	± 2.5	PASS
	VN		0	-2.49	-0.003501	± 2.5	PASS
	VN		10	-5.32	-0.007485	± 2.5	PASS
	VN		20	-6.08	-0.008551	± 2.5	PASS
	VN		30	-9.88	-0.013903	± 2.5	PASS
	VN		40	-10.03	-0.014104	± 2.5	PASS
	VN		50	-9.37	-0.013178	± 2.5	PASS

Appendix F) Field strength of spurious radiation

Receiver Setup:	<table border="1"> <thead> <tr> <th>Frequency</th> <th>Detector</th> <th>RBW</th> <th>VBW</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td>0.009MHz-30MHz</td> <td>Peak</td> <td>10kHz</td> <td>30kHz</td> <td>Peak</td> </tr> <tr> <td>30MHz-1GHz</td> <td>Peak</td> <td>120kHz</td> <td>300kHz</td> <td>Peak</td> </tr> <tr> <td>Above 1GHz</td> <td>Peak</td> <td>1MHz</td> <td>3MHz</td> <td>Peak</td> </tr> </tbody> </table>	Frequency	Detector	RBW	VBW	Remark	0.009MHz-30MHz	Peak	10kHz	30kHz	Peak	30MHz-1GHz	Peak	120kHz	300kHz	Peak	Above 1GHz	Peak	1MHz	3MHz	Peak
Frequency	Detector	RBW	VBW	Remark																	
0.009MHz-30MHz	Peak	10kHz	30kHz	Peak																	
30MHz-1GHz	Peak	120kHz	300kHz	Peak																	
Above 1GHz	Peak	1MHz	3MHz	Peak																	
Measurement Procedure:	<ol style="list-style-type: none"> 1. Scan up to 10th harmonic, find the maximum radiation frequency to measure. 2. The technique used to find the Spurious Emissions of the transmitter was the antenna substitution method. Substitution method was performed to determine the actual ERP/EIRP emission levels of the EUT. <p>Test procedure as below:</p> <ol style="list-style-type: none"> 1) The EUT was powered ON and placed on a 1.5m high table at a 3 meter fully Anechoic Chamber. The antenna of the transmitter was extended to its maximum length. modulation mode and the measuring receiver shall be tuned to the frequency of the transmitter under test. 2) The EUT was set 3 meters(above 18GHz the distance is 1 meter) away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3) The disturbance of the transmitter was maximized on the test receiver display by raising and lowering from 1m to 4m the receive antenna and by rotating through 360° the turntable. After the fundamental emission was maximized, a field strength measurement was made. 4) Steps 1) to 3) were performed with the EUT and the receive antenna in both vertical and horizontal polarization. 5) The transmitter was then removed and replaced with another antenna. The center of the antenna was approximately at the same location as the center of the transmitter. 6) A signal at the disturbance was fed to the substitution antenna by means of a non-radiating cable. With both the substitution and the receive antennas horizontally polarized, the receive antenna was raised and lowered to obtain a maximum reading at the test receiver. The level of the signal generator was adjusted until the measured field strength level in step 3) is obtained for this set of conditions. 7) The output power into the substitution antenna was then measured. 8) Steps 6) and 7) were repeated with both antennas polarized. 9) Calculate power in dBm by the following formula: $\text{ERP(dBm)} = \text{Pg(dBm)} - \text{cable loss (dB)} + \text{antenna gain (dBi)}$ $\text{EIRP(dBm)} = \text{Pg(dBm)} - \text{cable loss (dB)} + \text{antenna gain (dBi)}$ $\text{EIRP} = \text{ERP} + 2.15\text{dB}$ where: Pg is the generator output power into the substitution antenna. 10) Test the EUT in the lowest channel, the middle channel the Highest channel 11) The radiation measurements are performed in X, Y, Z axis positioning for EUT operation mode, And found the X axis positioning which it is worse case. 12) Repeat above procedures until all frequencies measured was complete. 																				
Limit:	Attenuated at least 43+10log(P)																				

Test Data:
QPSK

Mode:		LTE Traffic						
Band:		12	Channel:			23017		
Remark:		1.4M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	57.9859	150	229	-86.05	-13.00	73.05	Pass	Horizontal
2	120.0205	150	196	-84.13	-13.00	71.13	Pass	Horizontal
3	184.2862	150	263	-86.14	-13.00	73.14	Pass	Horizontal
4	269.9900	150	44	-82.40	-13.00	69.40	Pass	Horizontal
5	360.0105	150	1	-82.74	-13.00	69.74	Pass	Horizontal
6	625.0278	150	177	-82.11	-13.00	69.11	Pass	Horizontal
7	1399.4000	150	162	-58.08	-13.00	45.08	Pass	Horizontal
8	2099.1000	150	15	-60.99	-13.00	47.99	Pass	Horizontal
9	2798.8000	150	129	-59.10	-13.00	46.10	Pass	Horizontal
10	3192.0192	150	317	-56.59	-13.00	43.59	Pass	Horizontal
11	9704.1704	150	338	-52.23	-13.00	39.23	Pass	Horizontal
12	11771.3771	150	255	-51.79	-13.00	38.79	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:			23017		
Remark:		1.4M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	53.8147	150	241	-71.94	-13.00	58.94	Pass	Vertical
2	71.9061	150	142	-75.67	-13.00	62.67	Pass	Vertical
3	184.3347	150	128	-77.53	-13.00	64.53	Pass	Vertical
4	190.0095	150	1	-80.18	-13.00	67.18	Pass	Vertical
5	208.8769	150	292	-72.44	-13.00	59.44	Pass	Vertical
6	360.0105	150	1	-81.51	-13.00	68.51	Pass	Vertical
7	1399.4000	150	109	-55.00	-13.00	42.00	Pass	Vertical
8	2099.1000	150	193	-60.51	-13.00	47.51	Pass	Vertical
9	2798.8000	150	207	-58.71	-13.00	45.71	Pass	Vertical
10	3000.0000	150	114	-58.08	-13.00	45.08	Pass	Vertical
11	9699.6700	150	84	-52.88	-13.00	39.88	Pass	Vertical
12	11804.3804	150	175	-52.07	-13.00	39.07	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:			23095		
Remark:		1.4M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	50.5650	150	64	-78.88	-13.00	65.88	Pass	Horizontal
2	117.4984	150	30	-79.18	-13.00	66.18	Pass	Horizontal
3	208.8769	150	334	-81.56	-13.00	68.56	Pass	Horizontal
4	269.9900	150	64	-79.76	-13.00	66.76	Pass	Horizontal
5	360.0105	150	146	-78.51	-13.00	65.51	Pass	Horizontal
6	625.0763	150	30	-75.46	-13.00	62.46	Pass	Horizontal
7	1296.8297	150	247	-48.64	-13.00	35.64	Pass	Horizontal
8	1415.0000	150	146	-51.26	-13.00	38.26	Pass	Horizontal
9	2122.5000	150	112	-50.26	-13.00	37.26	Pass	Horizontal
10	2830.0000	150	281	-49.84	-13.00	36.84	Pass	Horizontal
11	4993.6994	150	266	-48.30	-13.00	35.30	Pass	Horizontal
12	9687.6688	150	153	-41.69	-13.00	28.69	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:			23095		
Remark:		1.4M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	48.7704	150	306	-65.68	-13.00	52.68	Pass	Vertical
2	71.8576	150	175	-70.98	-13.00	57.98	Pass	Vertical
3	190.0095	150	1	-76.98	-13.00	63.98	Pass	Vertical
4	208.8769	150	161	-69.81	-13.00	56.81	Pass	Vertical
5	359.9620	150	95	-77.80	-13.00	64.80	Pass	Vertical
6	576.6708	150	1	-75.33	-13.00	62.33	Pass	Vertical
7	1233.8234	150	274	-49.08	-13.00	36.08	Pass	Vertical
8	1415.0000	150	259	-50.14	-13.00	37.14	Pass	Vertical
9	2122.5000	150	339	-49.88	-13.00	36.88	Pass	Vertical
10	2830.0000	150	62	-50.47	-13.00	37.47	Pass	Vertical
11	6457.8458	150	74	-46.60	-13.00	33.60	Pass	Vertical
12	11787.8788	150	358	-41.23	-13.00	28.23	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:			23173		
Remark:		1.4M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	62.6676	150	360	-88.56	-13.00	75.56	Pass	Horizontal
2	119.9166	150	117	-88.31	-13.00	75.31	Pass	Horizontal
3	184.2814	150	172	-90.03	-13.00	77.03	Pass	Horizontal
4	269.9933	150	68	-87.11	-13.00	74.11	Pass	Horizontal
5	359.9100	150	19	-87.66	-13.00	74.66	Pass	Horizontal
6	625.1317	150	158	-83.88	-13.00	70.88	Pass	Horizontal
7	1312.4625	150	360	-59.12	-13.00	46.12	Pass	Horizontal
8	1430.6000	150	303	-57.29	-13.00	44.29	Pass	Horizontal
9	2145.9000	150	360	-60.07	-13.00	47.07	Pass	Horizontal
10	2861.2000	150	303	-59.42	-13.00	46.42	Pass	Horizontal
11	6345.3345	150	127	-58.15	-13.00	45.15	Pass	Horizontal
12	9704.1704	150	168	-52.74	-13.00	39.74	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:			23173		
Remark:		1.4M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	53.2878	150	96	-74.47	-13.00	61.47	Pass	Vertical
2	71.7239	150	158	-79.33	-13.00	66.33	Pass	Vertical
3	151.9373	150	172	-88.13	-13.00	75.13	Pass	Vertical
4	184.2814	150	283	-82.89	-13.00	69.89	Pass	Vertical
5	208.8630	150	145	-78.48	-13.00	65.48	Pass	Vertical
6	359.9100	150	34	-86.47	-13.00	73.47	Pass	Vertical
7	1430.6000	150	124	-56.16	-13.00	43.16	Pass	Vertical
8	2145.9000	150	241	-60.20	-13.00	47.20	Pass	Vertical
9	2861.2000	150	137	-59.45	-13.00	46.45	Pass	Vertical
10	3001.5002	150	359	-56.56	-13.00	43.56	Pass	Vertical
11	4656.1656	150	270	-58.83	-13.00	45.83	Pass	Vertical
12	8156.0156	150	0	-53.97	-13.00	40.97	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:			23025		
Remark:		3M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	55.2698	150	231	-85.49	-13.00	72.49	Pass	Horizontal
2	119.9720	150	331	-84.13	-13.00	71.13	Pass	Horizontal
3	184.2862	150	360	-85.88	-13.00	72.88	Pass	Horizontal
4	269.9900	150	44	-82.59	-13.00	69.59	Pass	Horizontal
5	360.0105	150	1	-81.82	-13.00	68.82	Pass	Horizontal
6	625.0763	150	164	-79.85	-13.00	66.85	Pass	Horizontal
7	1312.8313	150	97	-58.52	-13.00	45.52	Pass	Horizontal
8	1401.0000	150	1	-58.09	-13.00	45.09	Pass	Horizontal
9	2101.5000	150	298	-60.72	-13.00	47.72	Pass	Horizontal
10	2802.0000	150	112	-58.97	-13.00	45.97	Pass	Horizontal
11	6366.3366	150	308	-57.69	-13.00	44.69	Pass	Horizontal
12	9714.6715	150	101	-52.00	-13.00	39.00	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:			23025		
Remark:		3M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	52.6506	150	264	-71.40	-13.00	58.40	Pass	Vertical
2	71.8576	150	178	-75.64	-13.00	62.64	Pass	Vertical
3	184.3347	150	346	-77.58	-13.00	64.58	Pass	Vertical
4	208.8769	150	231	-72.59	-13.00	59.59	Pass	Vertical
5	289.9730	150	1	-82.45	-13.00	69.45	Pass	Vertical
6	360.0105	150	77	-80.90	-13.00	67.90	Pass	Vertical
7	1401.0000	150	96	-55.63	-13.00	42.63	Pass	Vertical
8	2101.5000	150	129	-60.53	-13.00	47.53	Pass	Vertical
9	2802.0000	150	111	-58.78	-13.00	45.78	Pass	Vertical
10	4660.6661	150	93	-58.61	-13.00	45.61	Pass	Vertical
11	6361.8362	150	185	-58.04	-13.00	45.04	Pass	Vertical
12	9710.1710	150	93	-52.79	-13.00	39.79	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:			23095		
Remark:		3M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	58.0344	150	259	-79.63	-13.00	66.63	Pass	Horizontal
2	119.9720	150	96	-78.92	-13.00	65.92	Pass	Horizontal
3	184.2862	150	16	-81.83	-13.00	68.83	Pass	Horizontal
4	269.9900	150	63	-77.99	-13.00	64.99	Pass	Horizontal
5	359.9620	150	128	-77.38	-13.00	64.38	Pass	Horizontal
6	618.3829	150	77	-75.40	-13.00	62.40	Pass	Horizontal
7	1194.4194	150	325	-49.27	-13.00	36.27	Pass	Horizontal
8	1415.0000	150	357	-51.75	-13.00	38.75	Pass	Horizontal
9	2122.5000	150	227	-50.37	-13.00	37.37	Pass	Horizontal
10	2830.0000	150	292	-49.12	-13.00	36.12	Pass	Horizontal
11	4566.1566	150	124	-47.47	-13.00	34.47	Pass	Horizontal
12	9680.1680	150	196	-41.48	-13.00	28.48	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:			23095		
Remark:		3M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	52.5051	150	194	-65.93	-13.00	52.93	Pass	Vertical
2	71.9061	150	30	-71.14	-13.00	58.14	Pass	Vertical
3	200.0010	150	339	-75.96	-13.00	62.96	Pass	Vertical
4	208.8769	150	226	-70.12	-13.00	57.12	Pass	Vertical
5	416.4188	150	357	-77.51	-13.00	64.51	Pass	Vertical
6	627.6954	150	241	-75.16	-13.00	62.16	Pass	Vertical
7	1415.0000	150	95	-51.31	-13.00	38.31	Pass	Vertical
8	2122.5000	150	357	-50.28	-13.00	37.28	Pass	Vertical
9	2830.0000	150	259	-49.82	-13.00	36.82	Pass	Vertical
10	3058.5059	150	63	-45.77	-13.00	32.77	Pass	Vertical
11	5028.2028	150	298	-47.93	-13.00	34.93	Pass	Vertical
12	11775.8776	150	84	-40.97	-13.00	27.97	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:			23165		
Remark:		3M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	62.6676	150	343	-88.62	-13.00	75.62	Pass	Horizontal
2	119.9166	150	337	-87.34	-13.00	74.34	Pass	Horizontal
3	184.2814	150	360	-90.03	-13.00	77.03	Pass	Horizontal
4	269.9933	150	47	-87.25	-13.00	74.25	Pass	Horizontal
5	359.9100	150	123	-87.12	-13.00	74.12	Pass	Horizontal
6	625.1317	150	47	-84.01	-13.00	71.01	Pass	Horizontal
7	1429.0000	150	302	-55.24	-13.00	42.24	Pass	Horizontal
8	2143.5000	150	47	-60.23	-13.00	47.23	Pass	Horizontal
9	2858.0000	150	123	-59.59	-13.00	46.59	Pass	Horizontal
10	3019.5020	150	66	-56.98	-13.00	43.98	Pass	Horizontal
11	5134.7135	150	46	-58.77	-13.00	45.77	Pass	Horizontal
12	9696.6697	150	291	-52.68	-13.00	39.68	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:			23165		
Remark:		3M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	52.6409	150	179	-74.76	-13.00	61.76	Pass	Vertical
2	71.7239	150	96	-78.63	-13.00	65.63	Pass	Vertical
3	83.3678	150	241	-81.98	-13.00	68.98	Pass	Vertical
4	184.2814	150	206	-82.47	-13.00	69.47	Pass	Vertical
5	208.8630	150	200	-78.25	-13.00	65.25	Pass	Vertical
6	359.9100	150	1	-85.81	-13.00	72.81	Pass	Vertical
7	1429.0000	150	89	-54.78	-13.00	41.78	Pass	Vertical
8	2143.5000	150	249	-60.52	-13.00	47.52	Pass	Vertical
9	2858.0000	150	256	-59.65	-13.00	46.65	Pass	Vertical
10	3004.5005	150	341	-56.42	-13.00	43.42	Pass	Vertical
11	3510.0510	150	35	-57.93	-13.00	44.93	Pass	Vertical
12	8150.0150	150	341	-53.79	-13.00	40.79	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:			23035		
Remark:		5M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	57.9859	150	44	-85.60	-13.00	72.60	Pass	Horizontal
2	119.9720	150	357	-83.64	-13.00	70.64	Pass	Horizontal
3	184.3347	150	226	-85.72	-13.00	72.72	Pass	Horizontal
4	269.9900	150	44	-82.39	-13.00	69.39	Pass	Horizontal
5	360.0105	150	1	-83.09	-13.00	70.09	Pass	Horizontal
6	625.0278	150	1	-80.89	-13.00	67.89	Pass	Horizontal
7	1403.0000	150	142	-59.07	-13.00	46.07	Pass	Horizontal
8	2104.5000	150	226	-60.17	-13.00	47.17	Pass	Horizontal
9	2806.0000	150	208	-58.54	-13.00	45.54	Pass	Horizontal
10	4665.1665	150	329	-58.45	-13.00	45.45	Pass	Horizontal
11	6463.8464	150	134	-57.81	-13.00	44.81	Pass	Horizontal
12	9702.6703	150	0	-52.25	-13.00	39.25	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:			23035		
Remark:		5M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	52.7476	150	194	-71.82	-13.00	58.82	Pass	Vertical
2	71.9061	150	307	-75.14	-13.00	62.14	Pass	Vertical
3	184.3347	150	95	-77.20	-13.00	64.20	Pass	Vertical
4	208.8769	150	226	-72.45	-13.00	59.45	Pass	Vertical
5	360.0105	150	2	-81.22	-13.00	68.22	Pass	Vertical
6	411.4231	150	339	-80.77	-13.00	67.77	Pass	Vertical
7	1298.4298	150	2	-59.27	-13.00	46.27	Pass	Vertical
8	1403.0000	150	95	-57.54	-13.00	44.54	Pass	Vertical
9	2104.5000	150	307	-60.32	-13.00	47.32	Pass	Vertical
10	2806.0000	150	357	-58.45	-13.00	45.45	Pass	Vertical
11	4561.6562	150	155	-58.57	-13.00	45.57	Pass	Vertical
12	9723.6724	150	289	-52.63	-13.00	39.63	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:			23095		
Remark:		5M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	48.8189	150	126	-79.81	-13.00	66.81	Pass	Horizontal
2	120.0205	150	353	-79.68	-13.00	66.68	Pass	Horizontal
3	184.3347	150	360	-81.74	-13.00	68.74	Pass	Horizontal
4	270.0385	150	29	-79.47	-13.00	66.47	Pass	Horizontal
5	359.9620	150	15	-78.60	-13.00	65.60	Pass	Horizontal
6	953.9712	150	141	-70.39	-13.00	57.39	Pass	Horizontal
7	1234.4234	150	44	-49.18	-13.00	36.18	Pass	Horizontal
8	1415.0000	150	335	-52.74	-13.00	39.74	Pass	Horizontal
9	2122.5000	150	270	-49.56	-13.00	36.56	Pass	Horizontal
10	2830.0000	150	288	-49.61	-13.00	36.61	Pass	Horizontal
11	3189.0189	150	116	-45.84	-13.00	32.84	Pass	Horizontal
12	9668.1668	150	349	-42.00	-13.00	29.00	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:			23095		
Remark:		5M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	48.7219	150	321	-65.32	-13.00	52.32	Pass	Vertical
2	71.9061	150	109	-70.51	-13.00	57.51	Pass	Vertical
3	184.3347	150	94	-75.03	-13.00	62.03	Pass	Vertical
4	208.8769	150	238	-71.42	-13.00	58.42	Pass	Vertical
5	411.4231	150	206	-77.69	-13.00	64.69	Pass	Vertical
6	831.4056	150	109	-70.08	-13.00	57.08	Pass	Vertical
7	1415.0000	150	271	-50.71	-13.00	37.71	Pass	Vertical
8	2122.5000	150	44	-51.02	-13.00	38.02	Pass	Vertical
9	2830.0000	150	354	-50.01	-13.00	37.01	Pass	Vertical
10	3516.0516	150	217	-46.78	-13.00	33.78	Pass	Vertical
11	5539.7540	150	339	-47.62	-13.00	34.62	Pass	Vertical
12	9738.6739	150	0	-41.45	-13.00	28.45	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:			23155		
Remark:		5M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	62.3441	150	215	-89.04	-13.00	76.04	Pass	Horizontal
2	119.9166	150	215	-87.69	-13.00	74.69	Pass	Horizontal
3	184.2814	150	348	-90.58	-13.00	77.58	Pass	Horizontal
4	269.9933	150	48	-87.57	-13.00	74.57	Pass	Horizontal
5	359.9100	150	282	-86.62	-13.00	73.62	Pass	Horizontal
6	625.1317	150	164	-84.11	-13.00	71.11	Pass	Horizontal
7	1427.0000	150	148	-58.60	-13.00	45.60	Pass	Horizontal
8	2140.5000	150	231	-60.47	-13.00	47.47	Pass	Horizontal
9	2854.0000	150	164	-59.90	-13.00	46.90	Pass	Horizontal
10	3013.5014	150	314	-57.02	-13.00	44.02	Pass	Horizontal
11	4665.1665	150	350	-58.79	-13.00	45.79	Pass	Horizontal
12	9696.6697	150	265	-52.96	-13.00	39.96	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:			23155		
Remark:		5M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	51.0237	150	39	-74.56	-13.00	61.56	Pass	Vertical
2	71.7239	150	123	-79.11	-13.00	66.11	Pass	Vertical
3	184.2814	150	289	-82.42	-13.00	69.42	Pass	Vertical
4	208.8630	150	248	-78.06	-13.00	65.06	Pass	Vertical
5	290.0467	150	248	-87.84	-13.00	74.84	Pass	Vertical
6	359.9100	150	6	-86.46	-13.00	73.46	Pass	Vertical
7	1427.0000	150	89	-57.52	-13.00	44.52	Pass	Vertical
8	2140.5000	150	172	-60.67	-13.00	47.67	Pass	Vertical
9	2854.0000	150	22	-59.78	-13.00	46.78	Pass	Vertical
10	3000.0000	150	107	-58.19	-13.00	45.19	Pass	Vertical
11	4665.1665	150	131	-58.65	-13.00	45.65	Pass	Vertical
12	9701.1701	150	266	-53.43	-13.00	40.43	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:			23060		
Remark:		10M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	63.0787	150	63	-85.63	-13.00	72.63	Pass	Horizontal
2	119.9720	150	63	-83.51	-13.00	70.51	Pass	Horizontal
3	184.2862	150	307	-85.37	-13.00	72.37	Pass	Horizontal
4	269.9900	150	63	-83.34	-13.00	70.34	Pass	Horizontal
5	360.0105	150	1	-82.30	-13.00	69.30	Pass	Horizontal
6	625.0278	150	162	-80.49	-13.00	67.49	Pass	Horizontal
7	1312.6313	150	30	-58.47	-13.00	45.47	Pass	Horizontal
8	1408.0000	150	143	-60.64	-13.00	47.64	Pass	Horizontal
9	2112.0000	150	358	-59.98	-13.00	46.98	Pass	Horizontal
10	2816.0000	150	30	-59.18	-13.00	46.18	Pass	Horizontal
11	5041.7042	150	226	-58.32	-13.00	45.32	Pass	Horizontal
12	9698.1698	150	186	-52.20	-13.00	39.20	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:			23060		
Remark:		10M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	51.3411	150	273	-71.62	-13.00	58.62	Pass	Vertical
2	71.8576	150	44	-75.58	-13.00	62.58	Pass	Vertical
3	184.2862	150	110	-77.56	-13.00	64.56	Pass	Vertical
4	208.8769	150	292	-72.41	-13.00	59.41	Pass	Vertical
5	360.0105	150	77	-81.94	-13.00	68.94	Pass	Vertical
6	411.4231	150	357	-81.81	-13.00	68.81	Pass	Vertical
7	1408.0000	150	110	-58.91	-13.00	45.91	Pass	Vertical
8	2112.0000	150	161	-59.91	-13.00	46.91	Pass	Vertical
9	2816.0000	150	208	-58.54	-13.00	45.54	Pass	Vertical
10	4662.1662	150	104	-58.55	-13.00	45.55	Pass	Vertical
11	7725.4725	150	115	-54.96	-13.00	41.96	Pass	Vertical
12	11798.3798	150	237	-51.68	-13.00	38.68	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:			23095		
Remark:		10M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	57.6949	150	110	-79.36	-13.00	66.36	Pass	Horizontal
2	120.0205	150	307	-79.21	-13.00	66.21	Pass	Horizontal
3	184.3347	150	95	-82.40	-13.00	69.40	Pass	Horizontal
4	269.9900	150	194	-80.10	-13.00	67.10	Pass	Horizontal
5	360.0105	150	1	-78.52	-13.00	65.52	Pass	Horizontal
6	625.0278	150	292	-75.87	-13.00	62.87	Pass	Horizontal
7	1415.0000	150	227	-52.45	-13.00	39.45	Pass	Horizontal
8	2122.5000	150	208	-50.54	-13.00	37.54	Pass	Horizontal
9	2714.7715	150	259	-46.53	-13.00	33.53	Pass	Horizontal
10	2830.0000	150	143	-49.59	-13.00	36.59	Pass	Horizontal
11	5160.2160	150	247	-47.22	-13.00	34.22	Pass	Horizontal
12	9696.6697	150	339	-41.64	-13.00	28.64	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:			23095		
Remark:		10M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	52.5051	150	306	-64.86	-13.00	51.86	Pass	Vertical
2	71.9546	150	77	-71.79	-13.00	58.79	Pass	Vertical
3	184.3347	150	274	-75.61	-13.00	62.61	Pass	Vertical
4	208.8769	150	160	-71.15	-13.00	58.15	Pass	Vertical
5	290.0215	150	142	-78.46	-13.00	65.46	Pass	Vertical
6	360.0105	150	1	-77.97	-13.00	64.97	Pass	Vertical
7	1415.0000	150	44	-52.89	-13.00	39.89	Pass	Vertical
8	1422.4422	150	109	-47.10	-13.00	34.10	Pass	Vertical
9	2122.5000	150	15	-50.33	-13.00	37.33	Pass	Vertical
10	2830.0000	150	193	-48.91	-13.00	35.91	Pass	Vertical
11	6481.8482	150	298	-47.29	-13.00	34.29	Pass	Vertical
12	9677.1677	150	287	-41.89	-13.00	28.89	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:			23130		
Remark:		10M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	62.9910	150	359	-88.76	-13.00	75.76	Pass	Horizontal
2	119.9166	150	206	-87.71	-13.00	74.71	Pass	Horizontal
3	184.2814	150	181	-90.19	-13.00	77.19	Pass	Horizontal
4	269.9933	150	23	-88.22	-13.00	75.22	Pass	Horizontal
5	359.9100	150	15	-86.85	-13.00	73.85	Pass	Horizontal
6	625.1317	150	173	-84.90	-13.00	71.90	Pass	Horizontal
7	1312.8626	150	114	-59.14	-13.00	46.14	Pass	Horizontal
8	1422.0000	150	315	-57.90	-13.00	44.90	Pass	Horizontal
9	2133.0000	150	164	-59.94	-13.00	46.94	Pass	Horizontal
10	2844.0000	150	173	-59.65	-13.00	46.65	Pass	Horizontal
11	4660.6661	150	107	-58.75	-13.00	45.75	Pass	Horizontal
12	9708.6709	150	71	-52.79	-13.00	39.79	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:			23130		
Remark:		10M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	53.2878	150	290	-74.89	-13.00	61.89	Pass	Vertical
2	71.7239	150	197	-79.27	-13.00	66.27	Pass	Vertical
3	184.2814	150	48	-83.04	-13.00	70.04	Pass	Vertical
4	208.8630	150	106	-78.17	-13.00	65.17	Pass	Vertical
5	290.0467	150	315	-87.39	-13.00	74.39	Pass	Vertical
6	359.9100	150	106	-86.37	-13.00	73.37	Pass	Vertical
7	1422.0000	150	115	-56.45	-13.00	43.45	Pass	Vertical
8	2133.0000	150	231	-60.08	-13.00	47.08	Pass	Vertical
9	2844.0000	150	359	-59.58	-13.00	46.58	Pass	Vertical
10	3015.0015	150	107	-56.57	-13.00	43.57	Pass	Vertical
11	4654.6655	150	327	-58.63	-13.00	45.63	Pass	Vertical
12	9759.6760	150	266	-53.32	-13.00	40.32	Pass	Vertical

16QAM

Mode:		LTE Traffic						
Band:		12	Channel:		23017			
Remark:		1.4M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	71.8576	150	310	-88.85	-13.00	75.85	Pass	Horizontal
2	149.9950	150	330	-90.23	-13.00	77.23	Pass	Horizontal
3	233.4677	150	263	-91.16	-13.00	78.16	Pass	Horizontal
4	430.0965	150	330	-84.28	-13.00	71.28	Pass	Horizontal
5	519.9715	150	310	-84.49	-13.00	71.49	Pass	Horizontal
6	919.6800	150	229	-78.32	-13.00	65.32	Pass	Horizontal
7	1399.4000	150	162	-58.68	-13.00	45.68	Pass	Horizontal
8	2099.1000	150	15	-61.29	-13.00	48.29	Pass	Horizontal
9	2798.8000	150	129	-59.40	-13.00	46.40	Pass	Horizontal
10	3907.5908	150	184	-59.58	-13.00	46.58	Pass	Horizontal
11	6385.8386	150	174	-58.23	-13.00	45.23	Pass	Horizontal
12	10229.2229	150	143	-53.91	-13.00	40.91	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:		23017			
Remark:		1.4M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	43.1442	150	324	-74.15	-13.00	61.15	Pass	Vertical
2	83.5467	150	226	-80.11	-13.00	67.11	Pass	Vertical
3	250.0070	150	160	-86.67	-13.00	73.67	Pass	Vertical
4	399.9765	150	193	-84.16	-13.00	71.16	Pass	Vertical
5	625.0278	150	77	-81.81	-13.00	68.81	Pass	Vertical
6	875.0578	150	128	-76.96	-13.00	63.96	Pass	Vertical
7	1399.4000	150	109	-55.40	-13.00	42.40	Pass	Vertical
8	2099.1000	150	193	-61.01	-13.00	48.01	Pass	Vertical
9	2798.8000	150	207	-59.41	-13.00	46.41	Pass	Vertical
10	4660.6661	150	2	-59.53	-13.00	46.53	Pass	Vertical
11	7203.4203	150	32	-57.36	-13.00	44.36	Pass	Vertical
12	11291.3291	150	185	-54.56	-13.00	41.56	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:				23095	
Remark:		1.4M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	47.8004	150	30	-80.41	-13.00	67.41	Pass	Horizontal
2	93.7322	150	16	-81.42	-13.00	68.42	Pass	Horizontal
3	250.0070	150	360	-83.52	-13.00	70.52	Pass	Horizontal
4	499.9885	150	30	-79.20	-13.00	66.20	Pass	Horizontal
5	665.5758	150	198	-75.81	-13.00	62.81	Pass	Horizontal
6	912.0651	150	360	-72.37	-13.00	59.37	Pass	Horizontal
7	1415.0000	150	146	-51.76	-13.00	38.76	Pass	Horizontal
8	2122.5000	150	112	-50.56	-13.00	37.56	Pass	Horizontal
9	2830.0000	150	281	-50.64	-13.00	37.64	Pass	Horizontal
10	4993.6994	150	266	-49.30	-13.00	36.30	Pass	Horizontal
11	8460.5461	150	162	-44.68	-13.00	31.68	Pass	Horizontal
12	11447.3447	150	153	-43.88	-13.00	30.88	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:				23095	
Remark:		1.4M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	48.7704	150	306	-65.68	-13.00	52.68	Pass	Vertical
2	71.8576	150	175	-70.98	-13.00	57.98	Pass	Vertical
3	190.0095	150	1	-76.98	-13.00	63.98	Pass	Vertical
4	208.8769	150	161	-69.81	-13.00	56.81	Pass	Vertical
5	359.9620	150	95	-77.80	-13.00	64.80	Pass	Vertical
6	576.6708	150	1	-75.33	-13.00	62.33	Pass	Vertical
7	1233.8234	150	274	-49.08	-13.00	36.08	Pass	Vertical
8	1415.0000	150	259	-50.14	-13.00	37.14	Pass	Vertical
9	2122.5000	150	339	-49.88	-13.00	36.88	Pass	Vertical
10	2830.0000	150	62	-50.47	-13.00	37.47	Pass	Vertical
11	6457.8458	150	74	-46.60	-13.00	33.60	Pass	Vertical
12	11787.8788	150	358	-41.23	-13.00	28.23	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:				23173	
Remark:		1.4M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	49.7299	150	227	-90.18	-13.00	77.18	Pass	Horizontal
2	111.1837	150	357	-88.93	-13.00	75.93	Pass	Horizontal
3	170.0500	150	41	-94.12	-13.00	81.12	Pass	Horizontal
4	346.0020	150	214	-89.57	-13.00	76.57	Pass	Horizontal
5	556.2387	150	89	-87.86	-13.00	74.86	Pass	Horizontal
6	894.5582	150	179	-81.69	-13.00	68.69	Pass	Horizontal
7	1430.6000	150	303	-59.17	-13.00	46.17	Pass	Horizontal
8	1765.7532	150	255	-62.17	-13.00	49.17	Pass	Horizontal
9	2145.9000	150	360	-58.26	-13.00	45.26	Pass	Horizontal
10	2861.2000	150	303	-58.73	-13.00	45.73	Pass	Horizontal
11	5140.7141	150	321	-59.07	-13.00	46.07	Pass	Horizontal
12	8922.5923	150	310	-54.53	-13.00	41.53	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:				23173	
Remark:		1.4M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	43.2611	150	165	-76.96	-13.00	63.96	Pass	Vertical
2	119.9166	150	152	-88.03	-13.00	75.03	Pass	Vertical
3	249.9400	150	110	-91.16	-13.00	78.16	Pass	Vertical
4	411.3371	150	172	-86.89	-13.00	73.89	Pass	Vertical
5	586.6422	150	110	-86.36	-13.00	73.36	Pass	Vertical
6	884.5315	150	110	-80.18	-13.00	67.18	Pass	Vertical
7	1430.6000	150	124	-56.76	-13.00	43.76	Pass	Vertical
8	2145.9000	150	241	-59.14	-13.00	46.14	Pass	Vertical
9	2861.2000	150	137	-60.15	-13.00	47.15	Pass	Vertical
10	4471.6472	150	280	-59.92	-13.00	46.92	Pass	Vertical
11	7092.4092	150	87	-57.29	-13.00	44.29	Pass	Vertical
12	10407.7408	150	280	-54.50	-13.00	41.50	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:				23025	
Remark:		3M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	52.6506	150	346	-86.38	-13.00	73.38	Pass	Horizontal
2	130.0120	150	15	-86.64	-13.00	73.64	Pass	Horizontal
3	208.8769	150	212	-88.21	-13.00	75.21	Pass	Horizontal
4	313.3997	150	44	-86.63	-13.00	73.63	Pass	Horizontal
5	465.1638	150	246	-85.07	-13.00	72.07	Pass	Horizontal
6	926.0338	150	331	-77.57	-13.00	64.57	Pass	Horizontal
7	1312.8313	150	97	-59.02	-13.00	46.02	Pass	Horizontal
8	1401.0000	150	1	-58.59	-13.00	45.59	Pass	Horizontal
9	2101.5000	150	298	-61.42	-13.00	48.42	Pass	Horizontal
10	2802.0000	150	112	-59.67	-13.00	46.67	Pass	Horizontal
11	5802.2802	150	338	-59.65	-13.00	46.65	Pass	Horizontal
12	8160.5161	150	70	-55.21	-13.00	42.21	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:				23025	
Remark:		3M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	51.5351	150	312	-72.61	-13.00	59.61	Pass	Vertical
2	83.4982	150	15	-80.59	-13.00	67.59	Pass	Vertical
3	159.7440	150	279	-83.74	-13.00	70.74	Pass	Vertical
4	310.0045	150	360	-84.88	-13.00	71.88	Pass	Vertical
5	411.4231	150	264	-81.69	-13.00	68.69	Pass	Vertical
6	893.3432	150	197	-76.04	-13.00	63.04	Pass	Vertical
7	1401.0000	150	96	-55.93	-13.00	42.93	Pass	Vertical
8	2101.5000	150	129	-60.93	-13.00	47.93	Pass	Vertical
9	2802.0000	150	111	-59.18	-13.00	46.18	Pass	Vertical
10	4660.6661	150	93	-59.01	-13.00	46.01	Pass	Vertical
11	6361.8362	150	185	-58.44	-13.00	45.44	Pass	Vertical
12	9710.1710	150	93	-53.19	-13.00	40.19	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:				23095	
Remark:		3M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	55.9003	150	227	-80.03	-13.00	67.03	Pass	Horizontal
2	81.1701	150	274	-82.40	-13.00	69.40	Pass	Horizontal
3	151.9836	150	16	-83.87	-13.00	70.87	Pass	Horizontal
4	303.9902	150	227	-80.40	-13.00	67.40	Pass	Horizontal
5	429.2720	150	340	-78.68	-13.00	65.68	Pass	Horizontal
6	584.1402	150	128	-76.53	-13.00	63.53	Pass	Horizontal
7	1415.0000	150	357	-51.35	-13.00	38.35	Pass	Horizontal
8	2122.5000	150	227	-49.87	-13.00	36.87	Pass	Horizontal
9	2830.0000	150	292	-49.02	-13.00	36.02	Pass	Horizontal
10	4257.1257	150	145	-48.94	-13.00	35.94	Pass	Horizontal
11	7110.4110	150	94	-45.72	-13.00	32.72	Pass	Horizontal
12	11340.8341	150	308	-42.67	-13.00	29.67	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:				23095	
Remark:		3M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	43.4352	150	306	-69.06	-13.00	56.06	Pass	Vertical
2	83.4497	150	274	-75.28	-13.00	62.28	Pass	Vertical
3	151.9836	150	62	-80.05	-13.00	67.05	Pass	Vertical
4	332.8006	150	259	-80.43	-13.00	67.43	Pass	Vertical
5	578.5139	150	77	-76.33	-13.00	63.33	Pass	Vertical
6	891.6456	150	161	-70.14	-13.00	57.14	Pass	Vertical
7	1415.0000	150	95	-51.31	-13.00	38.31	Pass	Vertical
8	2122.5000	150	357	-50.28	-13.00	37.28	Pass	Vertical
9	2830.0000	150	259	-49.82	-13.00	36.82	Pass	Vertical
10	4539.1539	150	256	-48.57	-13.00	35.57	Pass	Vertical
11	7711.9712	150	84	-45.26	-13.00	32.26	Pass	Vertical
12	12288.9289	150	287	-42.33	-13.00	29.33	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:				23165	
Remark:		3M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	57.8159	150	89	-89.04	-13.00	76.04	Pass	Horizontal
2	129.9433	150	220	-90.66	-13.00	77.66	Pass	Horizontal
3	208.8630	150	47	-93.38	-13.00	80.38	Pass	Horizontal
4	339.5332	150	274	-89.17	-13.00	76.17	Pass	Horizontal
5	520.0133	150	220	-87.84	-13.00	74.84	Pass	Horizontal
6	911.7006	150	226	-81.95	-13.00	68.95	Pass	Horizontal
7	1429.0000	150	302	-55.85	-13.00	42.85	Pass	Horizontal
8	2143.5000	150	47	-61.29	-13.00	48.29	Pass	Horizontal
9	2858.0000	150	123	-56.79	-13.00	43.79	Pass	Horizontal
10	4471.6472	150	148	-59.45	-13.00	46.45	Pass	Horizontal
11	5800.7801	150	239	-59.10	-13.00	46.10	Pass	Horizontal
12	8871.5872	150	358	-54.55	-13.00	41.55	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:				23165	
Remark:		3M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	57.8159	150	283	-78.86	-13.00	65.86	Pass	Vertical
2	83.3678	150	241	-82.08	-13.00	69.08	Pass	Vertical
3	159.6999	150	290	-88.13	-13.00	75.13	Pass	Vertical
4	249.9400	150	13	-91.07	-13.00	78.07	Pass	Vertical
5	588.9063	150	241	-86.04	-13.00	73.04	Pass	Vertical
6	884.5315	150	193	-80.37	-13.00	67.37	Pass	Vertical
7	1429.0000	150	89	-54.78	-13.00	41.78	Pass	Vertical
8	2143.5000	150	249	-58.27	-13.00	45.27	Pass	Vertical
9	2858.0000	150	256	-59.38	-13.00	46.38	Pass	Vertical
10	3909.0909	150	260	-59.89	-13.00	46.89	Pass	Vertical
11	6493.8494	150	56	-57.96	-13.00	44.96	Pass	Vertical
12	9909.6910	150	158	-53.89	-13.00	40.89	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:				23035	
Remark:		5M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	62.8846	150	339	-85.80	-13.00	72.80	Pass	Horizontal
2	101.2501	150	357	-86.88	-13.00	73.88	Pass	Horizontal
3	159.9865	150	30	-88.21	-13.00	75.21	Pass	Horizontal
4	208.8769	150	62	-89.17	-13.00	76.17	Pass	Horizontal
5	500.0370	150	77	-84.58	-13.00	71.58	Pass	Horizontal
6	875.0578	150	208	-78.40	-13.00	65.40	Pass	Horizontal
7	1403.0000	150	142	-59.27	-13.00	46.27	Pass	Horizontal
8	2104.5000	150	226	-60.57	-13.00	47.57	Pass	Horizontal
9	2806.0000	150	208	-59.04	-13.00	46.04	Pass	Horizontal
10	4665.1665	150	329	-58.95	-13.00	45.95	Pass	Horizontal
11	7114.9115	150	298	-56.98	-13.00	43.98	Pass	Horizontal
12	11189.3189	150	115	-53.83	-13.00	40.83	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:				23035	
Remark:		5M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	43.3382	150	357	-74.52	-13.00	61.52	Pass	Vertical
2	89.9975	150	128	-84.23	-13.00	71.23	Pass	Vertical
3	125.0163	150	259	-86.12	-13.00	73.12	Pass	Vertical
4	190.0095	150	357	-80.12	-13.00	67.12	Pass	Vertical
5	289.9730	150	325	-82.19	-13.00	69.19	Pass	Vertical
6	562.5566	150	357	-83.08	-13.00	70.08	Pass	Vertical
7	1403.0000	150	95	-57.94	-13.00	44.94	Pass	Vertical
8	2104.5000	150	307	-61.02	-13.00	48.02	Pass	Vertical
9	2806.0000	150	357	-59.15	-13.00	46.15	Pass	Vertical
10	4561.6562	150	155	-59.27	-13.00	46.27	Pass	Vertical
11	7713.4713	150	278	-56.08	-13.00	43.08	Pass	Vertical
12	11201.3201	150	94	-54.09	-13.00	41.09	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:			23095		
Remark:		5M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	55.1243	150	270	-80.46	-13.00	67.46	Pass	Horizontal
2	106.7793	150	94	-80.35	-13.00	67.35	Pass	Horizontal
3	178.6599	150	270	-83.94	-13.00	70.94	Pass	Horizontal
4	310.0045	150	159	-82.10	-13.00	69.10	Pass	Horizontal
5	454.6387	150	206	-79.26	-13.00	66.26	Pass	Horizontal
6	571.0931	150	126	-77.81	-13.00	64.81	Pass	Horizontal
7	1415.0000	150	335	-53.44	-13.00	40.44	Pass	Horizontal
8	2122.5000	150	270	-50.26	-13.00	37.26	Pass	Horizontal
9	2830.0000	150	288	-50.51	-13.00	37.51	Pass	Horizontal
10	5046.2046	150	339	-48.33	-13.00	35.33	Pass	Horizontal
11	8846.0846	150	349	-43.50	-13.00	30.50	Pass	Horizontal
12	12362.4362	150	76	-42.77	-13.00	29.77	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:			23095		
Remark:		5M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	56.4823	150	159	-70.18	-13.00	57.18	Pass	Vertical
2	89.9005	150	94	-77.31	-13.00	64.31	Pass	Vertical
3	131.7096	150	271	-81.81	-13.00	68.81	Pass	Vertical
4	250.0555	150	141	-82.34	-13.00	69.34	Pass	Vertical
5	458.7129	150	271	-78.58	-13.00	65.58	Pass	Vertical
6	960.0825	150	126	-69.90	-13.00	56.90	Pass	Vertical
7	1198.6199	150	141	-50.90	-13.00	37.90	Pass	Vertical
8	1415.0000	150	271	-51.61	-13.00	38.61	Pass	Vertical
9	2122.5000	150	44	-51.92	-13.00	38.92	Pass	Vertical
10	2830.0000	150	354	-50.81	-13.00	37.81	Pass	Vertical
11	3787.5788	150	187	-49.05	-13.00	36.05	Pass	Vertical
12	8871.5872	150	319	-43.79	-13.00	30.79	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:				23155	
Remark:		5M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	57.8159	150	248	-89.22	-13.00	76.22	Pass	Horizontal
2	129.9433	150	306	-90.17	-13.00	77.17	Pass	Horizontal
3	208.8630	150	39	-92.72	-13.00	79.72	Pass	Horizontal
4	340.5035	150	339	-89.90	-13.00	76.90	Pass	Horizontal
5	520.0133	150	148	-87.86	-13.00	74.86	Pass	Horizontal
6	910.7302	150	139	-82.12	-13.00	69.12	Pass	Horizontal
7	1427.0000	150	148	-58.80	-13.00	45.80	Pass	Horizontal
8	2140.5000	150	231	-59.13	-13.00	46.13	Pass	Horizontal
9	2854.0000	150	164	-60.19	-13.00	47.19	Pass	Horizontal
10	4300.6301	150	302	-59.98	-13.00	46.98	Pass	Horizontal
11	6370.8371	150	277	-58.52	-13.00	45.52	Pass	Horizontal
12	9009.6010	150	82	-54.99	-13.00	41.99	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:				23155	
Remark:		5M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	48.4361	150	289	-76.20	-13.00	63.20	Pass	Vertical
2	159.6999	150	289	-87.90	-13.00	74.90	Pass	Vertical
3	233.4445	150	172	-91.06	-13.00	78.06	Pass	Vertical
4	333.0644	150	139	-90.05	-13.00	77.05	Pass	Vertical
5	411.3371	150	331	-86.53	-13.00	73.53	Pass	Vertical
6	885.5018	150	289	-80.22	-13.00	67.22	Pass	Vertical
7	1427.0000	150	89	-57.42	-13.00	44.42	Pass	Vertical
8	2140.5000	150	172	-60.87	-13.00	47.87	Pass	Vertical
9	2854.0000	150	22	-59.98	-13.00	46.98	Pass	Vertical
10	3198.0198	150	327	-57.70	-13.00	44.70	Pass	Vertical
11	4471.6472	150	204	-59.08	-13.00	46.08	Pass	Vertical
12	7680.4680	150	10	-55.21	-13.00	42.21	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:				23060	
Remark:		10M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	51.3411	150	143	-86.27	-13.00	73.27	Pass	Horizontal
2	99.9890	150	274	-86.61	-13.00	73.61	Pass	Horizontal
3	250.0070	150	96	-89.23	-13.00	76.23	Pass	Horizontal
4	412.6841	150	227	-85.38	-13.00	72.38	Pass	Horizontal
5	500.0370	150	227	-84.67	-13.00	71.67	Pass	Horizontal
6	876.8523	150	129	-79.42	-13.00	66.42	Pass	Horizontal
7	1408.0000	150	143	-61.14	-13.00	48.14	Pass	Horizontal
8	2112.0000	150	358	-60.48	-13.00	47.48	Pass	Horizontal
9	2816.0000	150	30	-59.88	-13.00	46.88	Pass	Horizontal
10	5806.7807	150	94	-59.92	-13.00	46.92	Pass	Horizontal
11	8543.0543	150	216	-54.93	-13.00	41.93	Pass	Horizontal
12	11163.8164	150	165	-54.09	-13.00	41.09	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:				23060	
Remark:		10M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	43.4352	150	15	-74.63	-13.00	61.63	Pass	Vertical
2	159.7440	150	95	-82.71	-13.00	69.71	Pass	Vertical
3	190.0095	150	143	-80.35	-13.00	67.35	Pass	Vertical
4	411.4231	150	357	-82.21	-13.00	69.21	Pass	Vertical
5	625.0763	150	226	-81.83	-13.00	68.83	Pass	Vertical
6	888.2989	150	161	-77.51	-13.00	64.51	Pass	Vertical
7	1408.0000	150	110	-59.58	-13.00	46.58	Pass	Vertical
8	2112.0000	150	161	-59.11	-13.00	46.11	Pass	Vertical
9	2816.0000	150	208	-56.95	-13.00	43.95	Pass	Vertical
10	5679.2679	150	165	-59.99	-13.00	46.99	Pass	Vertical
11	8535.5536	150	196	-54.89	-13.00	41.89	Pass	Vertical
12	12597.9598	150	23	-54.22	-13.00	41.22	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:				23095	
Remark:		10M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	51.5836	150	227	-81.07	-13.00	68.07	Pass	Horizontal
2	90.5310	150	143	-81.55	-13.00	68.55	Pass	Horizontal
3	173.0822	150	1	-84.77	-13.00	71.77	Pass	Horizontal
4	295.8418	150	194	-81.39	-13.00	68.39	Pass	Horizontal
5	484.4192	150	15	-78.75	-13.00	65.75	Pass	Horizontal
6	923.7057	150	143	-72.60	-13.00	59.60	Pass	Horizontal
7	1415.0000	150	227	-51.26	-13.00	38.26	Pass	Horizontal
8	1850.2850	150	357	-51.38	-13.00	38.38	Pass	Horizontal
9	2122.5000	150	208	-52.14	-13.00	39.14	Pass	Horizontal
10	2830.0000	150	143	-48.83	-13.00	35.83	Pass	Horizontal
11	4302.1302	150	73	-49.04	-13.00	36.04	Pass	Horizontal
12	8721.5722	150	226	-43.92	-13.00	30.92	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:				23095	
Remark:		10M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	51.0016	150	109	-66.72	-13.00	53.72	Pass	Vertical
2	94.8477	150	175	-77.36	-13.00	64.36	Pass	Vertical
3	159.7440	150	193	-79.79	-13.00	66.79	Pass	Vertical
4	250.0555	150	128	-80.65	-13.00	67.65	Pass	Vertical
5	346.5753	150	274	-80.52	-13.00	67.52	Pass	Vertical
6	889.4145	150	109	-70.50	-13.00	57.50	Pass	Vertical
7	1415.0000	150	44	-49.82	-13.00	36.82	Pass	Vertical
8	2122.5000	150	15	-49.16	-13.00	36.16	Pass	Vertical
9	2830.0000	150	193	-47.91	-13.00	34.91	Pass	Vertical
10	5055.2055	150	349	-48.71	-13.00	35.71	Pass	Vertical
11	7281.4281	150	308	-45.84	-13.00	32.84	Pass	Vertical
12	10401.7402	150	318	-42.95	-13.00	29.95	Pass	Vertical

Mode:		LTE Traffic						
Band:		12	Channel:				23130	
Remark:		10M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	57.8159	150	307	-89.41	-13.00	76.41	Pass	Horizontal
2	139.9700	150	1	-91.64	-13.00	78.64	Pass	Horizontal
3	346.9723	150	82	-89.81	-13.00	76.81	Pass	Horizontal
4	436.2421	150	1	-89.43	-13.00	76.43	Pass	Horizontal
5	625.1317	150	173	-85.20	-13.00	72.20	Pass	Horizontal
6	920.4335	150	164	-82.10	-13.00	69.10	Pass	Horizontal
7	1422.0000	150	315	-59.00	-13.00	46.00	Pass	Horizontal
8	2133.0000	150	164	-59.57	-13.00	46.57	Pass	Horizontal
9	2844.0000	150	173	-57.49	-13.00	44.49	Pass	Horizontal
10	5044.7045	150	339	-59.92	-13.00	46.92	Pass	Horizontal
11	7680.4680	150	1	-56.38	-13.00	43.38	Pass	Horizontal
12	10400.2400	150	180	-54.96	-13.00	41.96	Pass	Horizontal

Mode:		LTE Traffic						
Band:		12	Channel:				23130	
Remark:		10M						
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	57.8159	150	298	-78.78	-13.00	65.78	Pass	Vertical
2	76.2521	150	123	-83.45	-13.00	70.45	Pass	Vertical
3	190.1034	150	340	-85.73	-13.00	72.73	Pass	Vertical
4	290.0467	150	315	-87.49	-13.00	74.49	Pass	Vertical
5	604.4315	150	64	-86.54	-13.00	73.54	Pass	Vertical
6	889.3831	150	64	-80.61	-13.00	67.61	Pass	Vertical
7	1422.0000	150	115	-56.65	-13.00	43.65	Pass	Vertical
8	2133.0000	150	231	-60.42	-13.00	47.42	Pass	Vertical
9	2844.0000	150	359	-57.60	-13.00	44.60	Pass	Vertical
10	3901.5902	150	180	-59.75	-13.00	46.75	Pass	Vertical
11	7101.4101	150	327	-56.85	-13.00	43.85	Pass	Vertical
12	8970.5971	150	217	-54.59	-13.00	41.59	Pass	Vertical

Note:

Scan from 9kHz to 25GHz, the disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

PHOTOGRAPHS OF TEST SETUP

Test model No.: IO Pro



Radiated spurious emission Test Setup-1(Below 1GHz)



Radiated spurious emission Test Setup-2(Above 1GHz)

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No.EED32K00215401 for EUT external and internal photos.

*** End of Report ***

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