

Report No.: AAEMT/RF/231110-04-03

FCC RADIO TEST REPORT

Part 15 subpart E

FCC ID: 2AZOI12XIH

Report Reference No.....: AAEMT/RF/231110-04-03

Date of issue.....: 2024-01-17

Testing Laboratory.....: AA Electro Magnetic Test Laboratory Private Limited

Address: Plot No 174, Udyog Vihar - Phase 4, Sector 18,
Gurgaon, Haryana, India

Applicant's name: HFCL limited

Address: Plot No. 38, Institutional Area, Sector 32, Gurugram,
Haryana-122001, India

Manufacturer.....: HFCL limited

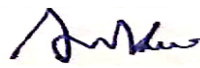
Plot No. 38, Institutional Area, Sector 32, Gurugram,
Haryana-122001, India

Test item description.....: Wi-Fi 6 Dual Band 8x8:8 Indoor Access Point with Integrated
Antenna (6 dBi) [DC powered]

Trade Mark: 

Model/Type reference: ion12xi_h

Ratings: Input For EUT: DC+12V,5A(max)

Prepared By: (+ signature) Ankur Kumar 

Reviewed & Approved by: (+ signature) 

Dr. Lenin Raja (Authorized Representative) (/ lenin83/)

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TEST REPORT DECLARE

Applicant	:	HFCL limited
Address	:	Plot No. 38, Institutional Area, Sector 32, Gurugram, Haryana-122001, India
Equipment under Test	:	Wi-Fi 6 Dual Band 8x8:8 Indoor Access Point with Integrated Antenna (6 dBi) [DC powered]
Model No	:	ion12xi_h
Trade Mark	:	
Manufacturer	:	HFCL limited
Address	:	Plot No. 38, Institutional Area, Sector 32, Gurugram, Haryana-122001, India

Test Standard Used: FCC Part 15E 15.407

Test procedure used: ANSI C63.10-2013 and KDB 789033 D02 General UNII Test Procedures New Rules v02r01 .

We Declare:

The equipment described above is tested by AA Electro Magnetic Test Laboratory Private Limited and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and AA Electro Magnetic Test Laboratory Private Limited is assumed of full responsibility for the accuracy and completeness of these tests.

After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above FCC standards.

Report No:	AAEMT/RF/231110-04-03		
Date of Test:	Nov. 10, 2023~ Jan. 05, 2024	Date of Report:	Jan. 17, 2024

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of AA Electro Magnetic Test Laboratory Private Limited

Report No.: AAEMT/RF/231110-04-03

1. SUMMARY OF TEST RESULTS

The EUT have been tested according to the applicable standards as referenced below.		
FCC Part15 (15.407) , Subpart E		
Description of Test Item	Standard	Results
AC Power Line Conducted Emissions	FCC §15.207/ RSS-Gen	PASS
Spurious Radiated Emissions	FCC §15.209(a), 15.407(b)	PASS
26 dB and 99% Emission Bandwidth	FCC §15.407(a)	PASS
Maximum Conducted Output Power	FCC §407(a) (1)	PASS
Band Edges	FCC §2.1051, §15.407(b)	PASS
Power Spectral Density	FCC §15.407(a)(1)	PASS
Spurious Emissions at Antenna Terminals	FCC §2.1051, §15.407(b)	PASS
Antenna Requirement	FCC §15.203	PASS

2. GENERAL TEST INFORMATION

2.1. DESCRIPTION OF EUT

EUT Name	:	Wi-Fi 6 Dual Band 8x8:8 Indoor Access Point with Integrated Antenna (6 dBi) [DC powered]
Model Number	:	ion12xi_h
Power supply	:	Input For EUT: DC+12V,5A(max)
Operation frequency	:	WiFi: 802.11a/n (HT20)/ac (VHT20)/ax (HE20): 5180MHz~5240MHz; 5745MHz~5825MHz 802.11n (HT40)/ac (VHT40)/ax (HE40): 5190MHz~5230MHz; 5755MHz~5795MHz 802.11ac (VHT80)/ax (HE80):5210MHz; 5775MHz
Modulation	:	802.11a/n: BPSK/QPSK/16QAM/64QAM 802.11ac/ax: BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM
Data Rate	:	802.11a:6,9,12,18,24,36,48,54Mbps; 802.11ac(VHT20):MCS0-MCS9 802.11ac(VHT40/80):MCS0-MCS9 802.11n(VHT20):MCS0-MCS9; 802.11n(VHT40):MCS0-MCS9; 802.11ax(HE20/40/80):MCS0-MCS11
Antenna Type	:	Folded Monopole
Antenna gain	:	5 dBi
Antenna Function Description	:	802.11a 802.11n20/ac20/ax20 802.11n40/ac40/ax40 802.11ac80/ax80 ANT0,ANT1,ANT2,ANT3, ANT4,ANT5,ANT6,ANT7
H/W No.	:	C1
S/W No.	:	1.0.0.25
Battery	:	N/A
Date of Receipt	:	Nov. 11, 2023
Condition of Sample on receipt	:	Good
Note:	:	1 .For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual. 2. Antenna gain and antenna type provided by manufacturer.
Opinions and Interpretations:	:	See the specific Note / Annexure if any in the whole /full report.

Channel List							
802.11a/n/ac/ax (20MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	40	5200	44	5220	48	5240
149	5745	153	5765	157	5785	161	5805
165	5825	--	--	--	--	--	--
802.11n/ac/ax (40MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230	151	5755	159	5795
802.11ac/ax (80MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	-	-	-	-	155	5775

2.2. ACCESSORIES OF EUT

Description of Accessories	Shielded Type	Ferrite Core	Length
DC Adaptor	-	-	1m unshielded Cable

2.3. ASSISTANT EQUIPMENT USED FOR TEST

Description of Assistant equipment	Manufacturer	Model number or Type	EMC Compliance	SN
Laptop	DELL	Latitude 3490	-	5M2Z1W2

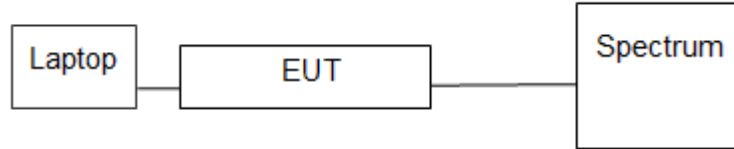
3.EQUIPMENT'S LIST FOR ALL TEST ITEMS

No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal.Due Date
1	Spectrum Analyzer	Rohde and Schwarz	FSP	101163	2022/02/08	2024/02/07
2	Loop antenna	DAZE Beijing	ZN30900C	18052	2021/09/15	2023/09/15
3	Hi power horn antenna	DAZE Beijing	ZN30700	18012	2021/09/15	2023/09/15
4	MXA Signal Analyzer	Keysight	N9020A	6272323218	2022/07/27	2023/07/26
5	Horn antenna	DAZE Beijing	ZN30703	18005	2021/09/15	2023/09/15
6	Pre amplifier	KELIANDA	LNA-0009295	-	2023/01/13	2024/01/13
7	Pre amplifier	KELIANDA	CF-00218	-	2023/01/13	2024/01/13
8	Biconical Antenna	DAZE Beijing	ZN30505C	17038	2021/09/15	2023/09/15
9	EMI-RECEIVER	Schwarzbeck	FCKL	1528194	2023/01/13	2024/01/13
10	LISN	Kyoritsu	KNW-407	8-1789-5	2023/01/13	2024/01/13

11	Network-LISN	SCHWAR ZBECK	NNBM8125	81251314	2023/01/13	2024/01/13
12	Network-LISN	SCHWAR ZBECK	NNBM8125	81251315	2023/01/13	2024/01/13
13	PULSELIMITER	Rohde and Schwarz	ESH3-Z2	100681	2023/01/13	2024/01/13
14	50Ω Coaxial Switch	DAIWA	1565157	-	2023/01/13	2024/01/13
15	50Ω Coaxial Switch	-	-	-	2023/01/13	2024/01/13
16	Wireless signal power meter	DARE!!	RPR3006W	RFSW190220	2023/01/13	2024/01/13
17	Signal Generator	KEYSIGHT	N5181A	512071	2023/01/13	2024/01/13

18	RF Vector Signal Generator	Keysight	N5182B	512094	2023/01/13	2024/01/13
19	Spectrum analyzer	R&S	FSV-40N	101385	2023/01/13	2024/01/13
20	Radio Communication Tester	R&S	CMW 500	124589	2021/09/15	2023/09/15
21	Signal Generator	R&S	SMP02	837017/004 836593/005	2021/09/15	2023/09/15
22	DC Regulated Power	Mettravi	RPS-3005	669076	2022/12/13	2023/12/12
23	Climatic Chamber	Sunrise Scientific Instruments	-	-	2022/11/22	2023/11/21
24	Attenuators	AGILENT	8494B	-	-	-
25	Attenuators	AGILENT	8495B	-	-	-
26	Wireless signal power meter	Dare	RPR 3006W	RSW190220	2023/01/13	2024/01/13

3.1. BLOCK DIAGRAM OF EUT CONFIGURATION FOR TEST



3.2. TEST ENVIRONMENT CONDITIONS

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	21-25°C
Humidity range:	40-75%
Pressure range:	86-106kPa

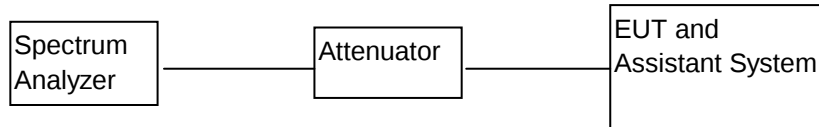
3.3. MEASUREMENT UNCERTAINTY

No.	Item	Uncertainty
1	Conducted Emission Test	2.70dB
2	Radiated Emission Test	3.09dB
3	RF power, conducted	2.46dB
4	RF power density, conducted	2.24dB
5	Spurious emissions, conducted	2.71dB
6	All emissions, radiated(<1G)	3.08dB
7	All emissions, radiated(>1G)	3.09dB

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

4. POWER SPECTRAL DENSITY TEST

4.1. BLOCK DIAGRAM OF TEST SETUP



4.2. APPLIED PROCEDURES / LIMIT

According to FCC §15.407(a)(3)

For the band 5.15-5.25 GHz,

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omni directional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi..

4.3. TEST PROCEDURE

(For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 KHz bandwidth, the following adjustments to the procedures apply:

- a) Set $RBW \geq 1/T$, where T is defined in section II.B.1.a).
- b) Set $VBW \geq 3$ RBW.
- c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/RBW)$ to the measured result, whereas RBW (< 500 KHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
- d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add $10\log(1\text{MHz}/RBW)$ to the measured result, whereas RBW (< 1 MHz) is the reduced resolution bandwidth of spectrum analyzer set during measurement.
- e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note: As a practical matter, it is recommended to use reduced RBW of 100 KHz for the sections 5.c) and 5.d) above, since RBW=100 KHz is available on nearly all spectrum analyzers.

4.4. TEST RESULT:

Antenna 0:

CH. No.	Frequency	Power density (dBm/MHz)	Limit (dBm/MHz)	Result
TX 802.11a Mode				
CH36	5180	14.55	17	Pass
CH40	5200	14.91	17	Pass
CH48	5240	15.53	17	Pass
TX 802.11n20 Mode				
CH36	5180	13.68	17	Pass
CH40	5200	14.89	17	Pass
CH48	5240	15.79	17	Pass
TX 802.11n40 Mode				
CH38	5190	11.49	17	Pass
CH46	5230	12.29	17	Pass
TX 802.11ac20 Mode				
CH36	5180	14.28	17	Pass
CH40	5200	14.83	17	Pass
CH48	5240	14.91	17	Pass
TX 802.11ac40 Mode				
CH38	5190	11.23	17	Pass
CH46	5230	11.88	17	Pass
TX 802.11ac80 Mode				
CH42	5210	8.45	17	Pass
TX 802.11ax20 Mode				
CH36	5180	15.03	17	Pass
CH40	5200	15.09	17	Pass
CH48	5240	16.39	17	Pass
TX 802.11ax40 Mode				
CH38	5190	12.62	17	Pass
CH46	5230	12.77	17	Pass
TX 802.11ax80 Mode				
CH42	5210	9.09	17	Pass

CH. No.	Frequency	Limit (dBm/500KHz)	Limit (dBm/500KHz)	Result
TX 802.11a Mode				
CH 149	5745	9.84	30	Pass
CH 157	5785	10.06	30	Pass
CH 165	5825	10.36	30	Pass
TX 802.11n20 Mode				
CH 149	5745	9.89	30	Pass
CH 157	5785	10.44	30	Pass
CH 165	5825	9.88	30	Pass
TX 802.11n40 Mode				
CH151	5755	9.37	30	Pass
CH159	5795	7.84	30	Pass
TX 802.11ac20 Mode				
CH 149	5745	9.66	30	Pass
CH 157	5785	10.36	30	Pass
CH 165	5825	10.67	30	Pass
TX 802.11ac40 Mode				
CH151	5755	9.23	30	Pass
CH159	5795	8.17	30	Pass
TX 802.11ac80 Mode				
CH155	5775	7.97	30	Pass
TX 802.11ax20 Mode				
CH 149	5745	10.44	30	Pass
CH 157	5785	10.65	30	Pass
CH 165	5825	10.42	30	Pass
TX 802.11ax40 Mode				
CH151	5755	9.63	30	Pass
CH159	5795	8.10	30	Pass
TX 802.11ax80 Mode				
CH155	5775	8.67	30	Pass

Antenna 1:

CH. No.	Frequency	Power density (dBm/MHz)	Limit (dBm/MHz)	Result
TX 802.11a Mode				
CH36	5180	13.53	17	Pass
CH40	5200	14.04	17	Pass
CH48	5240	15.15	17	Pass
TX 802.11n20 Mode				
CH36	5180	13.93	17	Pass
CH40	5200	14.20	17	Pass
CH48	5240	14.75	17	Pass
TX 802.11n40 Mode				
CH38	5190	11.47	17	Pass
CH46	5230	12.45	17	Pass
TX 802.11ac20 Mode				
CH36	5180	13.59	17	Pass
CH40	5200	14.64	17	Pass
CH48	5240	14.43	17	Pass
TX 802.11ac40 Mode				
CH38	5190	10.88	17	Pass
CH46	5230	11.13	17	Pass
TX 802.11ac80 Mode				
CH42	5210	8.04	17	Pass
TX 802.11ax20 Mode				
CH36	5180	14.55	17	Pass
CH40	5200	14.84	17	Pass
CH48	5240	15.63	17	Pass
TX 802.11ax40 Mode				
CH38	5190	11.58	17	Pass
CH46	5230	13.02	17	Pass
TX 802.11ax80 Mode				
CH42	5210	8.96	17	Pass

CH. No.	Frequency	Limit (dBm/500KHz)	Limit (dBm/500KHz)	Result
TX 802.11a Mode				
CH 149	5745	9.23	30	Pass
CH 157	5785	9.70	30	Pass
CH 165	5825	9.63	30	Pass
TX 802.11n20 Mode				
CH 149	5745	9.51	30	Pass
CH 157	5785	9.31	30	Pass
CH 165	5825	9.34	30	Pass
TX 802.11n40 Mode				
CH151	5755	7.85	30	Pass
CH159	5795	6.43	30	Pass
TX 802.11ac20 Mode				
CH 149	5745	9.89	30	Pass
CH 157	5785	9.34	30	Pass
CH 165	5825	10.14	30	Pass
TX 802.11ac40 Mode				
CH151	5755	8.09	30	Pass
CH159	5795	6.54	30	Pass
TX 802.11ac80 Mode				
CH155	5775	6.47	30	Pass
TX 802.11ax20 Mode				
CH 149	5745	10.26	30	Pass
CH 157	5785	9.99	30	Pass
CH 165	5825	10.70	30	Pass
TX 802.11ax40 Mode				
CH151	5755	9.07	30	Pass
CH159	5795	7.45	30	Pass
TX 802.11ax80 Mode				
CH155	5775	7.38	30	Pass

Antenna 2:

CH. No.	Frequency	Power density (dBm/MHz)	Limit (dBm/MHz)	Result
TX 802.11a Mode				
CH36	5180	14.32	17	Pass
CH40	5200	14.77	17	Pass
CH48	5240	14.99	17	Pass
TX 802.11n20 Mode				
CH36	5180	13.87	17	Pass
CH40	5200	14.32	17	Pass
CH48	5240	14.76	17	Pass
TX 802.11n40 Mode				
CH38	5190	10.92	17	Pass
CH46	5230	11.94	17	Pass
TX 802.11ac20 Mode				
CH36	5180	13.73	17	Pass
CH40	5200	13.87	17	Pass
CH48	5240	15.00	17	Pass
TX 802.11ac40 Mode				
CH38	5190	11.36	17	Pass
CH46	5230	11.83	17	Pass
TX 802.11ac80 Mode				
CH42	5210	7.94	17	Pass
TX 802.11ax20 Mode				
CH36	5180	15.40	17	Pass
CH40	5200	15.08	17	Pass
CH48	5240	16.25	17	Pass
TX 802.11ax40 Mode				
CH38	5190	12.40	17	Pass
CH46	5230	12.83	17	Pass
TX 802.11ax80 Mode				
CH42	5210	9.46	17	Pass

CH. No.	Frequency	Limit (dBm/500KHz)	Limit (dBm/500KHz)	Result
TX 802.11a Mode				
CH 149	5745	10.02	30	Pass
CH 157	5785	9.67	30	Pass
CH 165	5825	10.74	30	Pass
TX 802.11n20 Mode				
CH 149	5745	10.11	30	Pass
CH 157	5785	9.31	30	Pass
CH 165	5825	10.43	30	Pass
TX 802.11n40 Mode				
CH151	5755	7.95	30	Pass
CH159	5795	7.00	30	Pass
TX 802.11ac20 Mode				
CH 149	5745	10.36	30	Pass
CH 157	5785	9.38	30	Pass
CH 165	5825	10.86	30	Pass
TX 802.11ac40 Mode				
CH151	5755	7.69	30	Pass
CH159	5795	6.36	30	Pass
TX 802.11ac80 Mode				
CH155	5775	6.45	30	Pass
TX 802.11ax20 Mode				
CH 149	5745	10.42	30	Pass
CH 157	5785	10.51	30	Pass
CH 165	5825	10.77	30	Pass
TX 802.11ax40 Mode				
CH151	5755	9.14	30	Pass
CH159	5795	7.83	30	Pass
TX 802.11ax80 Mode				
CH155	5775	8.09	30	Pass

Antenna 3:

CH. No.	Frequency	Power density (dBm/MHz)	Limit (dBm/MHz)	Result
TX 802.11a Mode				
CH36	5180	14.12	17	Pass
CH40	5200	14.32	17	Pass
CH48	5240	14.79	17	Pass
TX 802.11n20 Mode				
CH36	5180	13.58	17	Pass
CH40	5200	14.12	17	Pass
CH48	5240	15.28	17	Pass
TX 802.11n40 Mode				
CH38	5190	11.35	17	Pass
CH46	5230	12.24	17	Pass
TX 802.11ac20 Mode				
CH36	5180	13.37	17	Pass
CH40	5200	14.01	17	Pass
CH48	5240	14.57	17	Pass
TX 802.11ac40 Mode				
CH38	5190	11.09	17	Pass
CH46	5230	11.64	17	Pass
TX 802.11ac80 Mode				
CH42	5210	8.00	17	Pass
TX 802.11ax20 Mode				
CH36	5180	15.00	17	Pass
CH40	5200	15.71	17	Pass
CH48	5240	15.80	17	Pass
TX 802.11ax40 Mode				
CH38	5190	11.82	17	Pass
CH46	5230	12.94	17	Pass
TX 802.11ax80 Mode				
CH42	5210	9.22	17	Pass

CH. No.	Frequency	Limit (dBm/500KHz)	Limit (dBm/500KHz)	Result
TX 802.11a Mode				
CH 149	5745	9.18	30	Pass
CH 157	5785	9.50	30	Pass
CH 165	5825	9.33	30	Pass
TX 802.11n20 Mode				
CH 149	5745	8.88	30	Pass
CH 157	5785	8.97	30	Pass
CH 165	5825	9.93	30	Pass
TX 802.11n40 Mode				
CH151	5755	7.70	30	Pass
CH159	5795	6.04	30	Pass
TX 802.11ac20 Mode				
CH 149	5745	9.56	30	Pass
CH 157	5785	9.64	30	Pass
CH 165	5825	9.05	30	Pass
TX 802.11ac40 Mode				
CH151	5755	8.15	30	Pass
CH159	5795	6.54	30	Pass
TX 802.11ac80 Mode				
CH155	5775	6.78	30	Pass
TX 802.11ax20 Mode				
CH 149	5745	10.68	30	Pass
CH 157	5785	10.49	30	Pass
CH 165	5825	10.56	30	Pass
TX 802.11ax40 Mode				
CH151	5755	8.83	30	Pass
CH159	5795	7.10	30	Pass
TX 802.11ax80 Mode				
CH155	5775	7.26	30	Pass

Antenna 4:

CH. No.	Frequency	Power density (dBm/MHz)	Limit (dBm/MHz)	Result
TX 802.11a Mode				
CH36	5180	14.42	17	Pass
CH40	5200	14.74	17	Pass
CH48	5240	15.52	17	Pass
TX 802.11n20 Mode				
CH36	5180	14.28	17	Pass
CH40	5200	14.49	17	Pass
CH48	5240	15.75	17	Pass
TX 802.11n40 Mode				
CH38	5190	11.32	17	Pass
CH46	5230	11.77	17	Pass
TX 802.11ac20 Mode				
CH36	5180	13.57	17	Pass
CH40	5200	14.41	17	Pass
CH48	5240	15.13	17	Pass
TX 802.11ac40 Mode				
CH38	5190	11.55	17	Pass
CH46	5230	12.15	17	Pass
TX 802.11ac80 Mode				
CH42	5210	8.01	17	Pass
TX 802.11ax20 Mode				
CH36	5180	15.04	17	Pass
CH40	5200	15.26	17	Pass
CH48	5240	15.81	17	Pass
TX 802.11ax40 Mode				
CH38	5190	12.33	17	Pass
CH46	5230	13.63	17	Pass
TX 802.11ax80 Mode				
CH42	5210	10.25	17	Pass

CH. No.	Frequency	Limit (dBm/500KHz)	Limit (dBm/500KHz)	Result
TX 802.11a Mode				
CH 149	5745	9.11	30	Pass
CH 157	5785	9.98	30	Pass
CH 165	5825	9.31	30	Pass
TX 802.11n20 Mode				
CH 149	5745	9.98	30	Pass
CH 157	5785	9.86	30	Pass
CH 165	5825	10.27	30	Pass
TX 802.11n40 Mode				
CH151	5755	8.79	30	Pass
CH159	5795	6.68	30	Pass
TX 802.11ac20 Mode				
CH 149	5745	10.00	30	Pass
CH 157	5785	9.64	30	Pass
CH 165	5825	9.63	30	Pass
TX 802.11ac40 Mode				
CH151	5755	9.61	30	Pass
CH159	5795	7.16	30	Pass
TX 802.11ac80 Mode				
CH155	5775	7.30	30	Pass
TX 802.11ax20 Mode				
CH 149	5745	10.42	30	Pass
CH 157	5785	10.55	30	Pass
CH 165	5825	10.35	30	Pass
TX 802.11ax40 Mode				
CH151	5755	9.37	30	Pass
CH159	5795	8.14	30	Pass
TX 802.11ax80 Mode				
CH155	5775	8.80	30	Pass

Antenna 5:

CH. No.	Frequency	Power density (dBm/MHz)	Limit (dBm/MHz)	Result
TX 802.11a Mode				
CH36	5180	13.66	17	Pass
CH40	5200	14.56	17	Pass
CH48	5240	15.07	17	Pass
TX 802.11n20 Mode				
CH36	5180	13.85	17	Pass
CH40	5200	14.46	17	Pass
CH48	5240	14.62	17	Pass
TX 802.11n40 Mode				
CH38	5190	10.87	17	Pass
CH46	5230	11.23	17	Pass
TX 802.11ac20 Mode				
CH36	5180	13.98	17	Pass
CH40	5200	13.91	17	Pass
CH48	5240	14.96	17	Pass
TX 802.11ac40 Mode				
CH38	5190	11.19	17	Pass
CH46	5230	10.90	17	Pass
TX 802.11ac80 Mode				
CH42	5210	7.61	17	Pass
TX 802.11ax20 Mode				
CH36	5180	14.66	17	Pass
CH40	5200	14.73	17	Pass
CH48	5240	15.10	17	Pass
TX 802.11ax40 Mode				
CH38	5190	11.80	17	Pass
CH46	5230	12.41	17	Pass
TX 802.11ax80 Mode				
CH42	5210	8.63	17	Pass

CH. No.	Frequency	Limit (dBm/500KHz)	Limit (dBm/500KHz)	Result
TX 802.11a Mode				
CH 149	5745	9.94	30	Pass
CH 157	5785	10.37	30	Pass
CH 165	5825	10.17	30	Pass
TX 802.11n20 Mode				
CH 149	5745	9.59	30	Pass
CH 157	5785	9.48	30	Pass
CH 165	5825	9.66	30	Pass
TX 802.11n40 Mode				
CH151	5755	7.89	30	Pass
CH159	5795	6.92	30	Pass
TX 802.11ac20 Mode				
CH 149	5745	9.94	30	Pass
CH 157	5785	9.88	30	Pass
CH 165	5825	10.63	30	Pass
TX 802.11ac40 Mode				
CH151	5755	8.04	30	Pass
CH159	5795	6.79	30	Pass
TX 802.11ac80 Mode				
CH155	5775	6.26	30	Pass
TX 802.11ax20 Mode				
CH 149	5745	10.27	30	Pass
CH 157	5785	10.14	30	Pass
CH 165	5825	10.52	30	Pass
TX 802.11ax40 Mode				
CH151	5755	8.79	30	Pass
CH159	5795	8.98	30	Pass
TX 802.11ax80 Mode				
CH155	5775	7.38	30	Pass

Antenna 6:

CH. No.	Frequency	Power density (dBm/MHz)	Limit (dBm/MHz)	Result
TX 802.11a Mode				
CH36	5180	14.47	17	Pass
CH40	5200	14.86	17	Pass
CH48	5240	14.74	17	Pass
TX 802.11n20 Mode				
CH36	5180	13.88	17	Pass
CH40	5200	15.03	17	Pass
CH48	5240	14.42	17	Pass
TX 802.11n40 Mode				
CH38	5190	11.41	17	Pass
CH46	5230	11.48	17	Pass
TX 802.11ac20 Mode				
CH36	5180	14.62	17	Pass
CH40	5200	14.70	17	Pass
CH48	5240	15.35	17	Pass
TX 802.11ac40 Mode				
CH38	5190	11.42	17	Pass
CH46	5230	11.45	17	Pass
TX 802.11ac80 Mode				
CH42	5210	8.07	17	Pass
TX 802.11ax20 Mode				
CH36	5180	14.62	17	Pass
CH40	5200	15.66	17	Pass
CH48	5240	15.95	17	Pass
TX 802.11ax40 Mode				
CH38	5190	12.41	17	Pass
CH46	5230	13.14	17	Pass
TX 802.11ax80 Mode				
CH42	5210	9.86	17	Pass

CH. No.	Frequency	Limit (dBm/500KHz)	Limit (dBm/500KHz)	Result
TX 802.11a Mode				
CH 149	5745	10.29	30	Pass
CH 157	5785	8.98	30	Pass
CH 165	5825	10.40	30	Pass
TX 802.11n20 Mode				
CH 149	5745	9.47	30	Pass
CH 157	5785	9.66	30	Pass
CH 165	5825	10.04	30	Pass
TX 802.11n40 Mode				
CH151	5755	8.77	30	Pass
CH159	5795	6.88	30	Pass
TX 802.11ac20 Mode				
CH 149	5745	10.13	30	Pass
CH 157	5785	8.94	30	Pass
CH 165	5825	10.40	30	Pass
TX 802.11ac40 Mode				
CH151	5755	8.68	30	Pass
CH159	5795	7.36	30	Pass
TX 802.11ac80 Mode				
CH155	5775	6.70	30	Pass
TX 802.11ax20 Mode				
CH 149	5745	10.13	30	Pass
CH 157	5785	10.48	30	Pass
CH 165	5825	10.64	30	Pass
TX 802.11ax40 Mode				
CH151	5755	8.37	30	Pass
CH159	5795	7.24	30	Pass
TX 802.11ax80 Mode				
CH155	5775	7.37	30	Pass

Antenna 7:

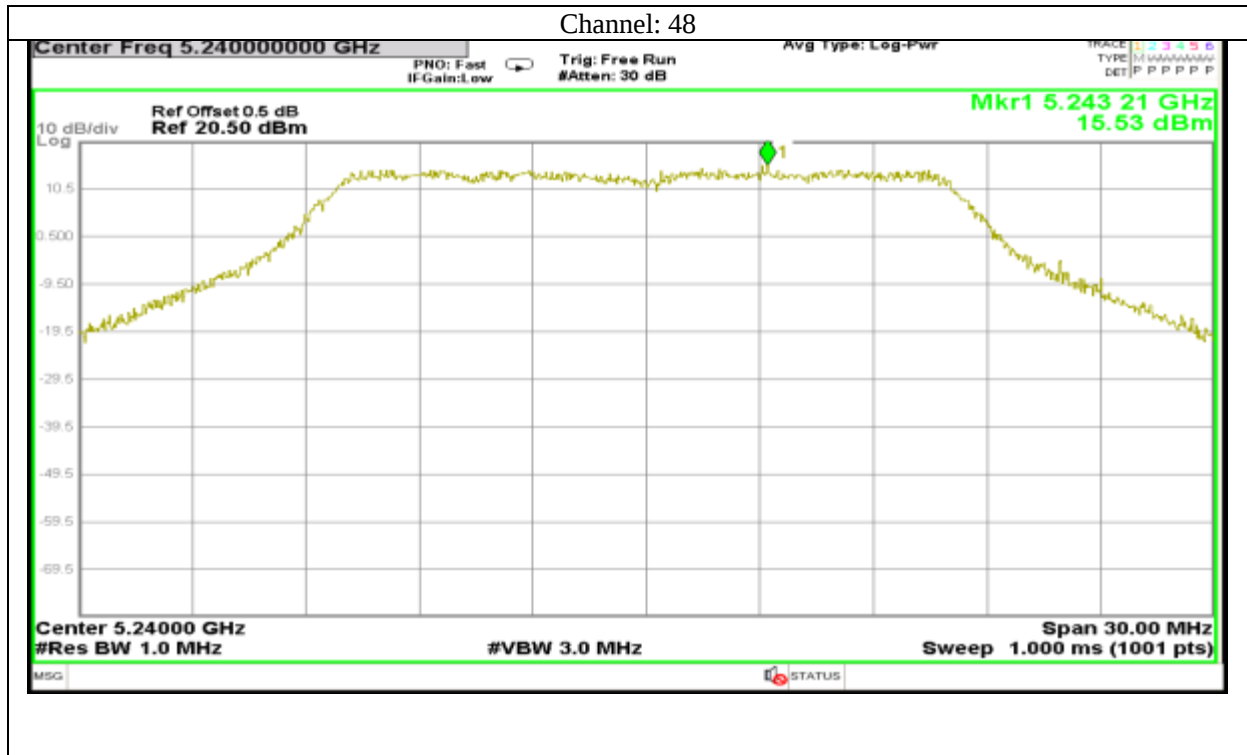
CH. No.	Frequency	Power density (dBm/MHz)	Limit (dBm/MHz)	Result
TX 802.11a Mode				
CH36	5180	14.11	17	Pass
CH40	5200	14.73	17	Pass
CH48	5240	15.24	17	Pass
TX 802.11n20 Mode				
CH36	5180	13.91	17	Pass
CH40	5200	14.84	17	Pass
CH48	5240	14.90	17	Pass
TX 802.11n40 Mode				
CH38	5190	11.73	17	Pass
CH46	5230	11.61	17	Pass
TX 802.11ac20 Mode				
CH36	5180	13.91	17	Pass
CH40	5200	14.46	17	Pass
CH48	5240	14.71	17	Pass
TX 802.11ac40 Mode				
CH38	5190	11.09	17	Pass
CH46	5230	11.43	17	Pass
TX 802.11ac80 Mode				
CH42	5210	8.78	17	Pass
TX 802.11ax20 Mode				
CH36	5180	14.51	17	Pass
CH40	5200	15.32	17	Pass
CH48	5240	16.04	17	Pass
TX 802.11ax40 Mode				
CH38	5190	12.73	17	Pass
CH46	5230	12.73	17	Pass
TX 802.11ax80 Mode				
CH42	5210	9.23	17	Pass

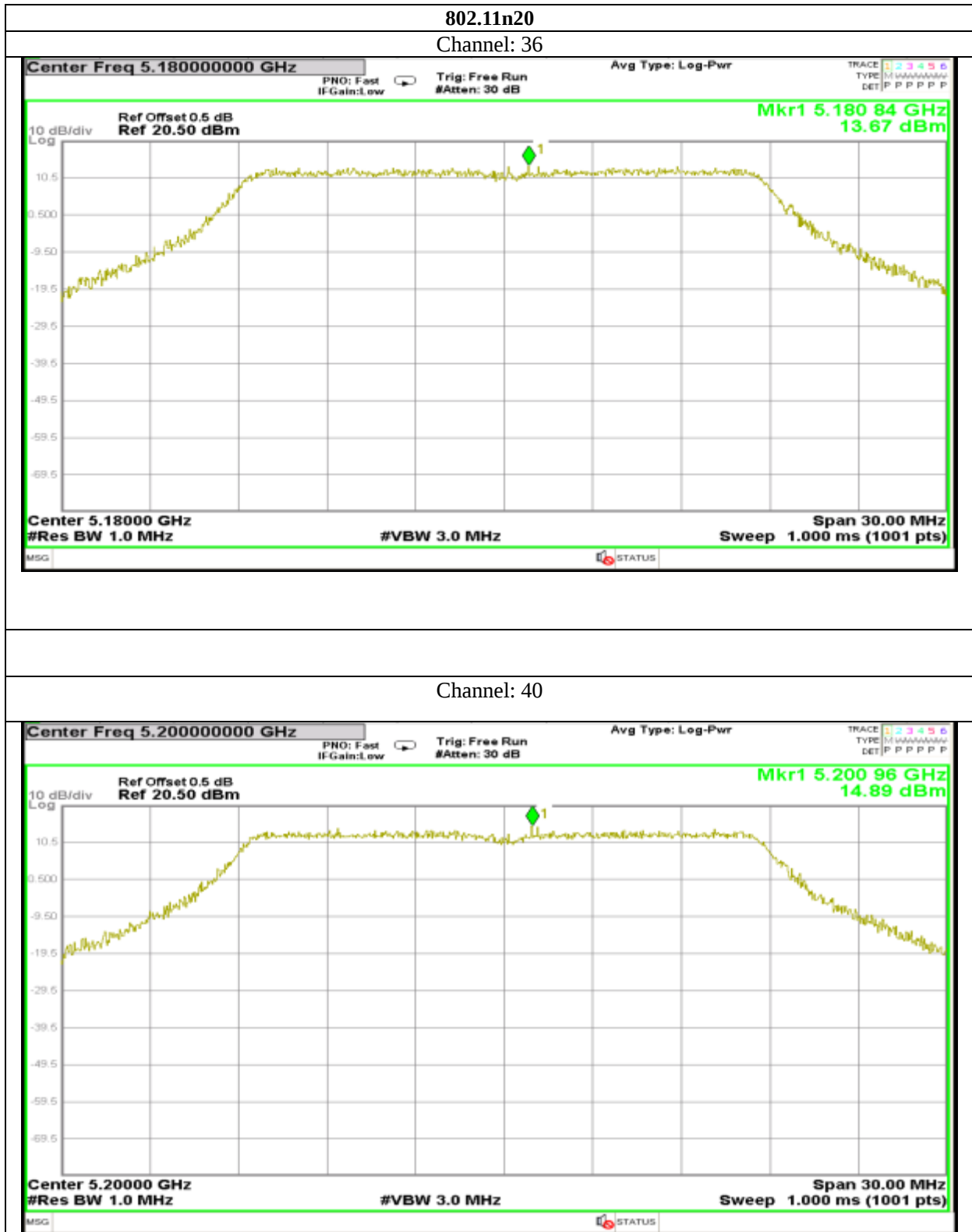
CH. No.	Frequency	Limit (dBm/500KHz)	Limit (dBm/500KHz)	Result
TX 802.11a Mode				
CH 149	5745	9.23	30	Pass
CH 157	5785	8.64	30	Pass
CH 165	5825	9.35	30	Pass
TX 802.11n20 Mode				
CH 149	5745	8.44	30	Pass
CH 157	5785	9.12	30	Pass
CH 165	5825	9.02	30	Pass
TX 802.11n40 Mode				
CH151	5755	8.19	30	Pass
CH159	5795	6.35	30	Pass
TX 802.11ac20 Mode				
CH 149	5745	9.04	30	Pass
CH 157	5785	8.94	30	Pass
CH 165	5825	9.14	30	Pass
TX 802.11ac40 Mode				
CH151	5755	8.41	30	Pass
CH159	5795	5.73	30	Pass
TX 802.11ac80 Mode				
CH155	5775	6.17	30	Pass
TX 802.11ax20 Mode				
CH 149	5745	10.45	30	Pass
CH 157	5785	9.75	30	Pass
CH 165	5825	10.42	30	Pass
TX 802.11ax40 Mode				
CH151	5755	8.93	30	Pass
CH159	5795	7.93	30	Pass
TX 802.11ax80 Mode				
CH155	5775	8.01	30	Pass

Test plots as followed

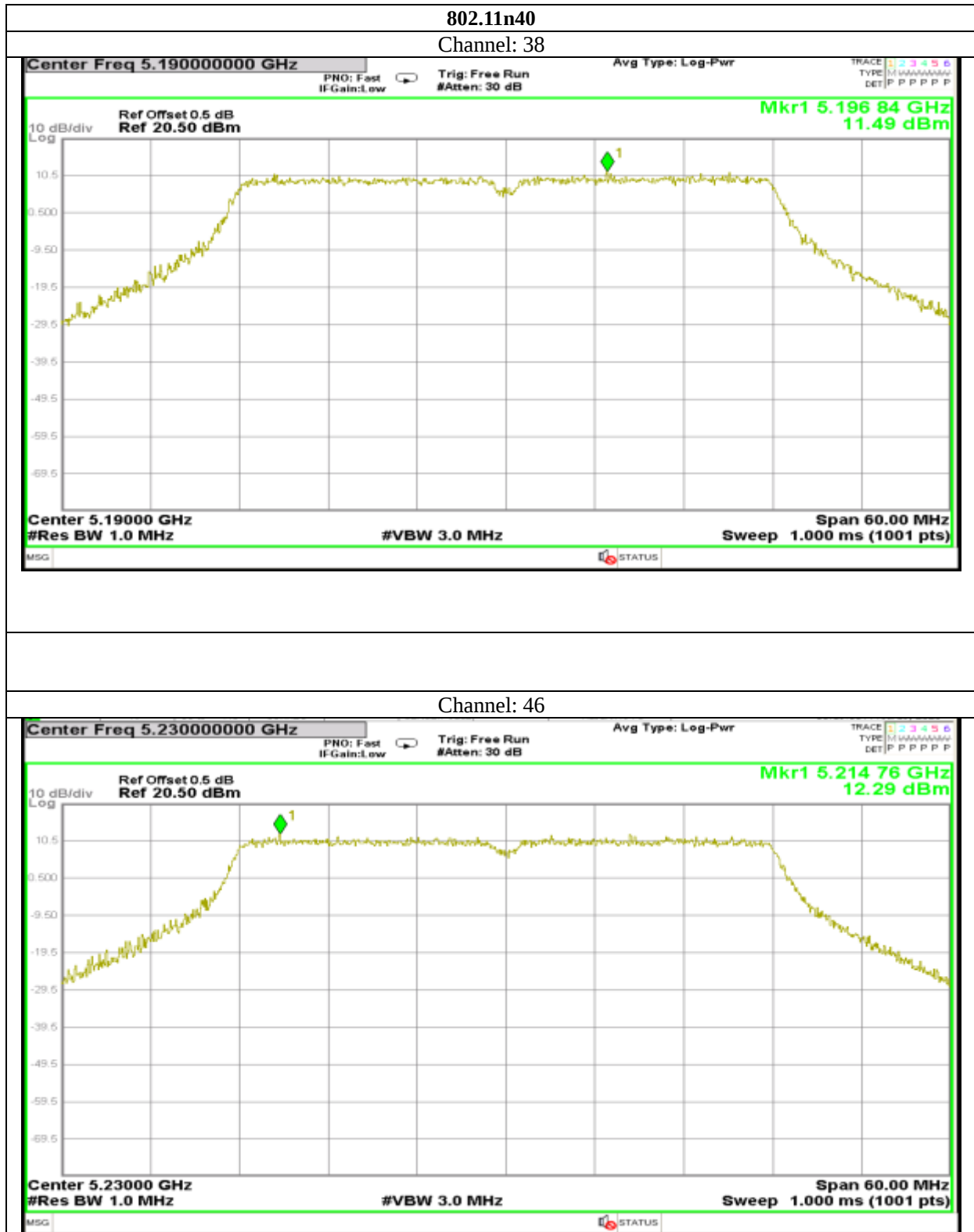
Antenna 0:





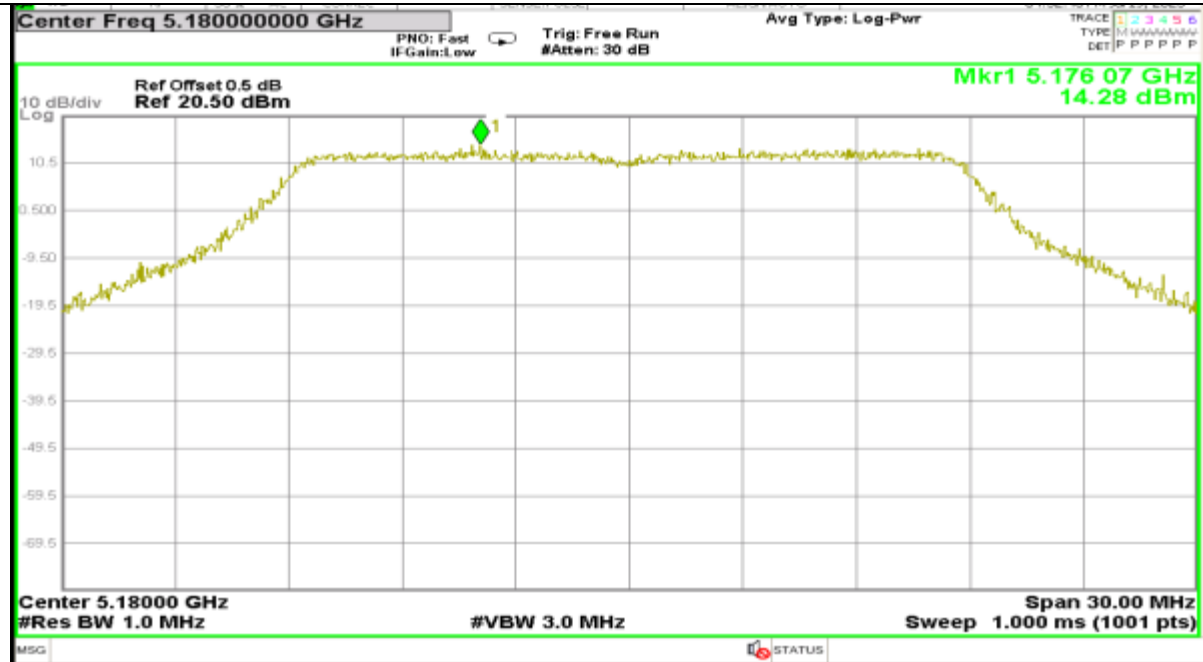




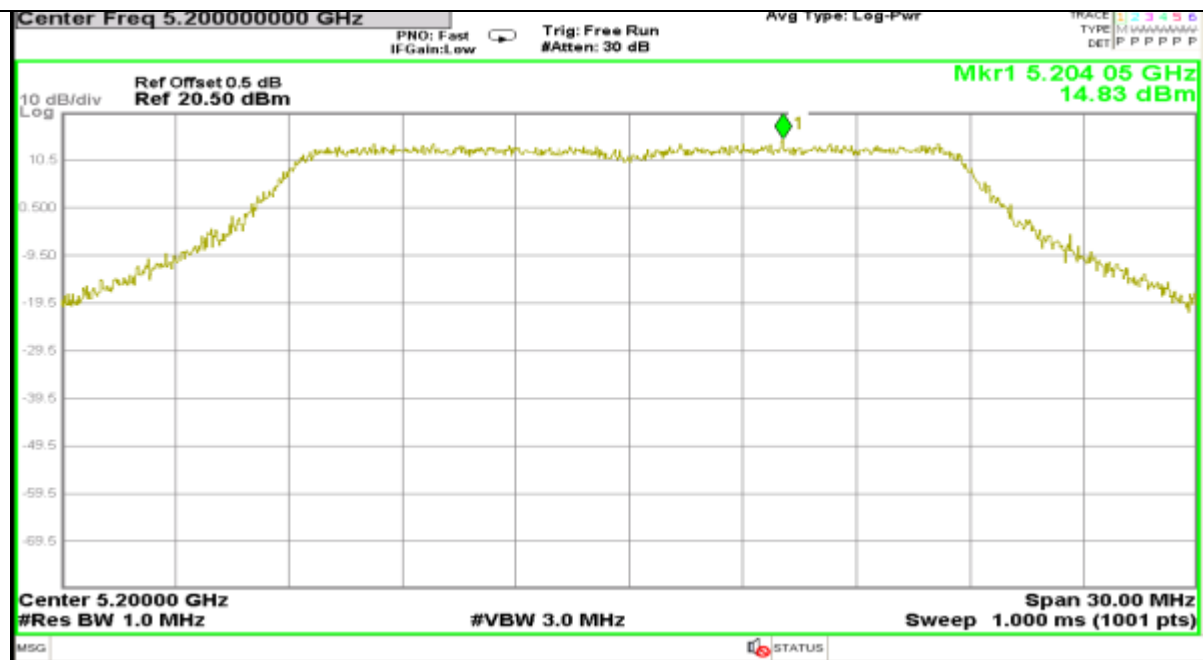


802.11ac20

Channel: 36



Channel: 40



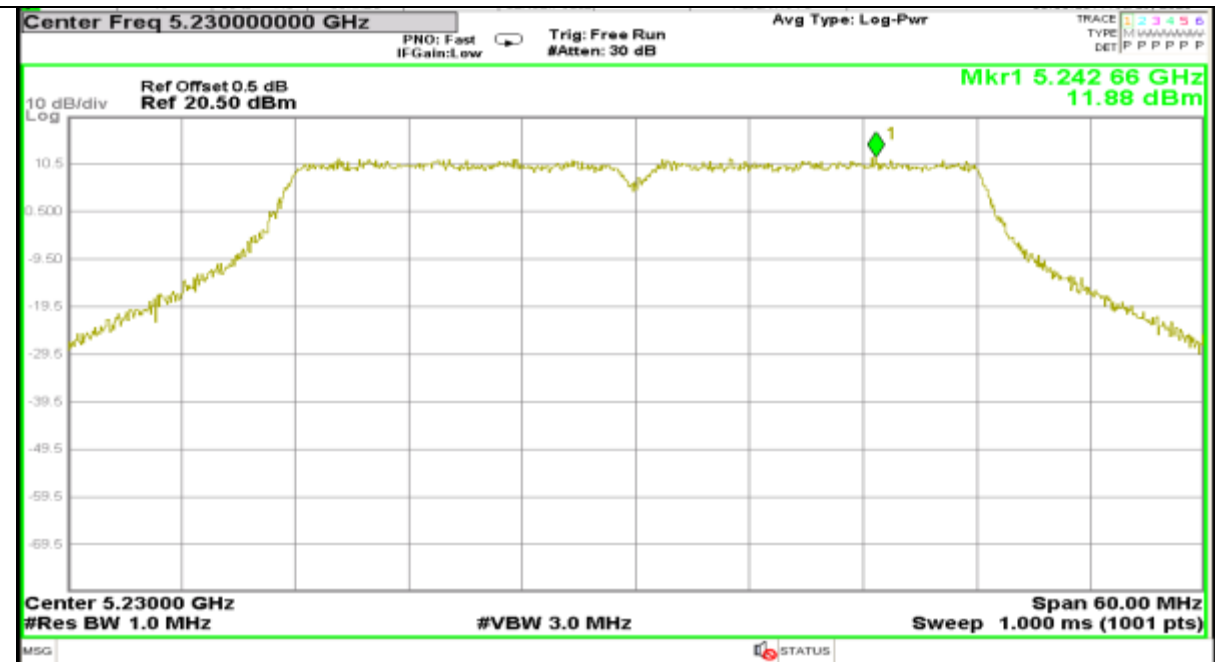


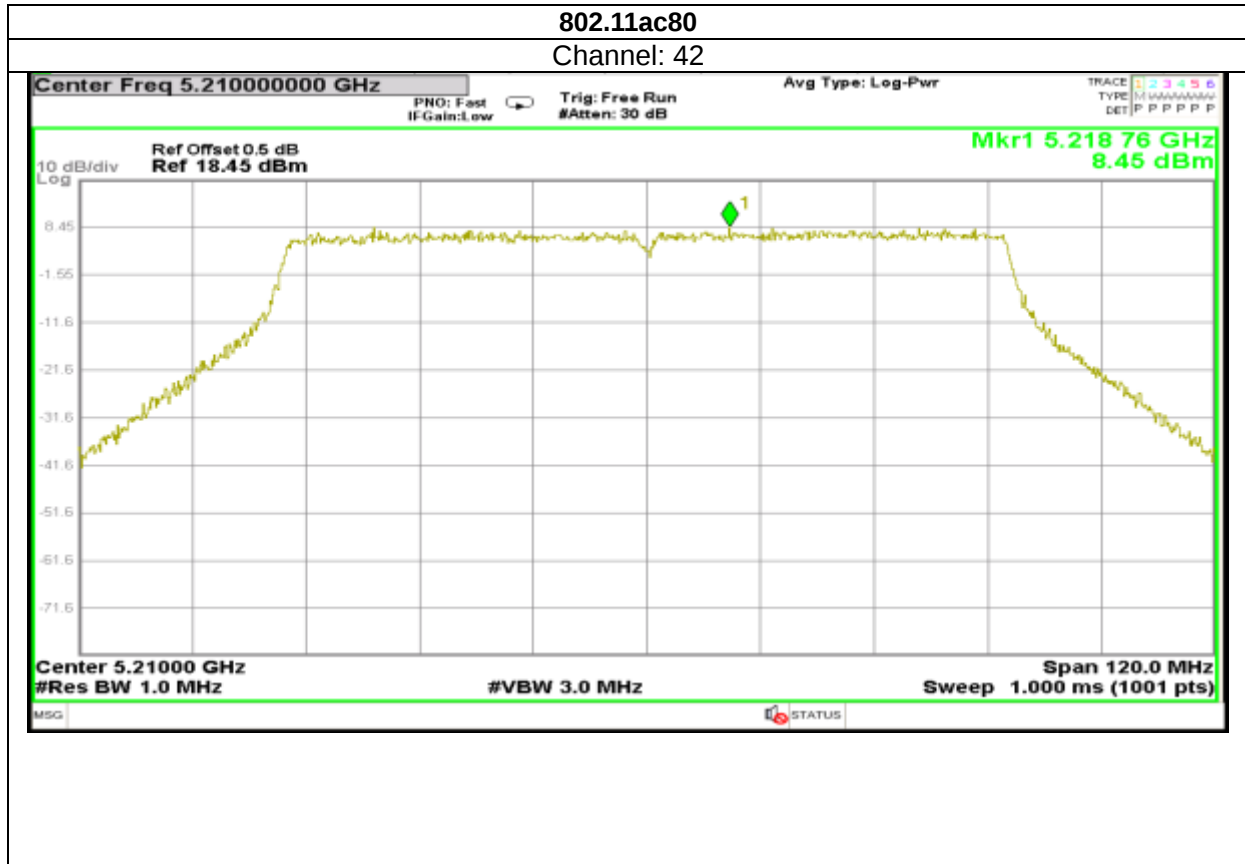
802.11ac40

Channel: 38

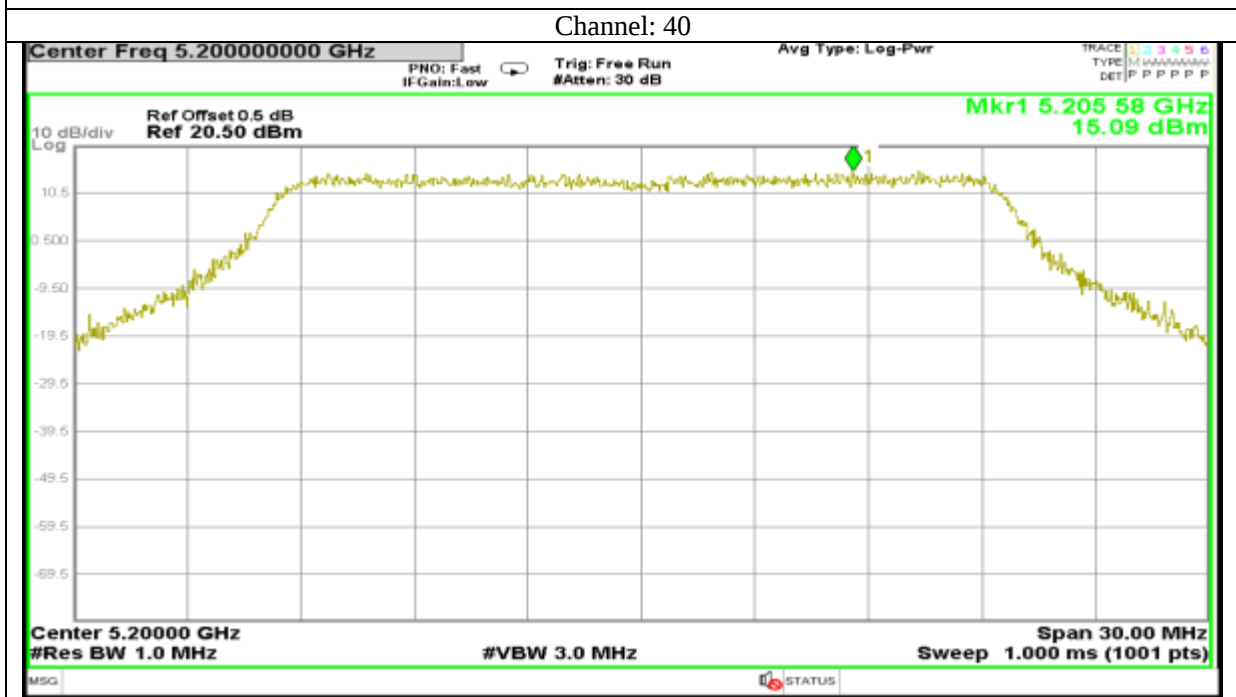
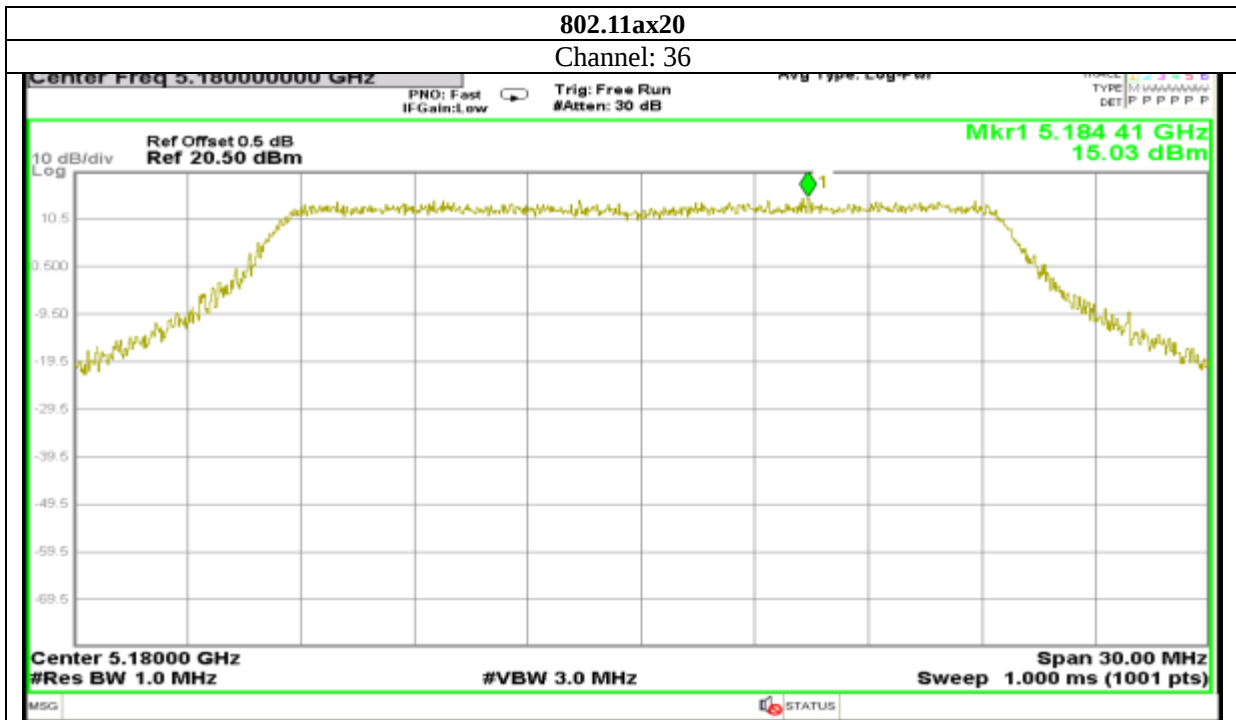


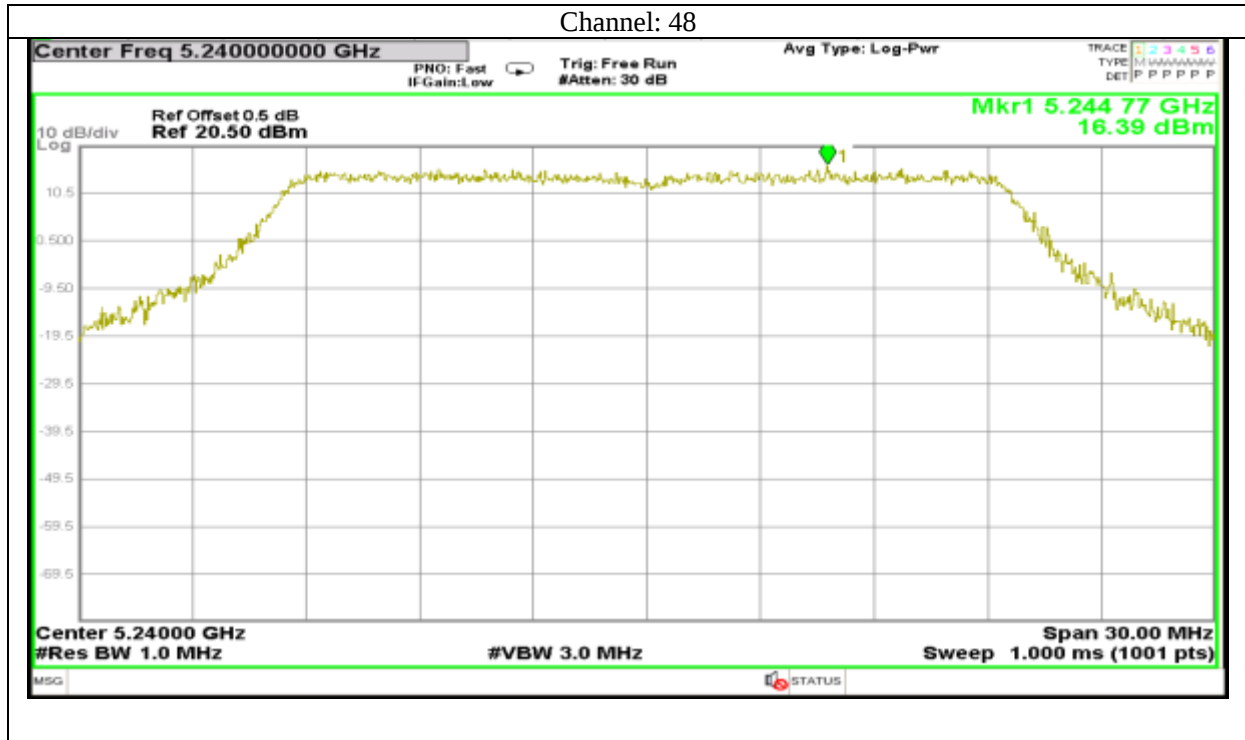
Channel: 46





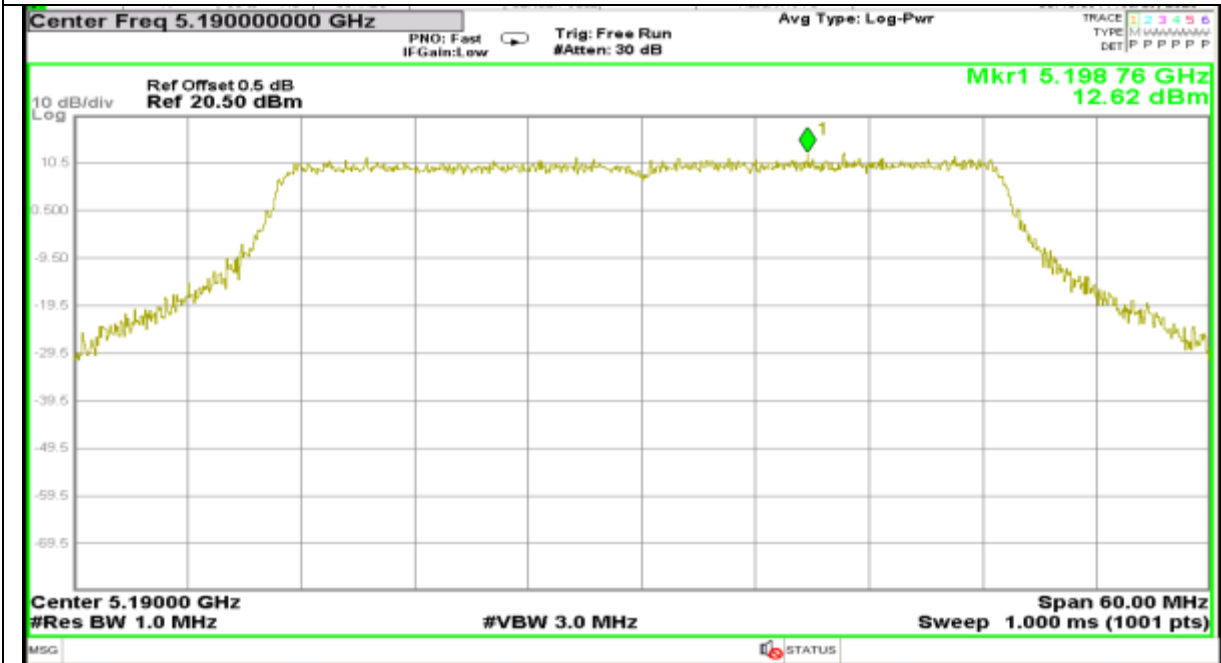
Report No.: AAEMT/RF/231110-04-03



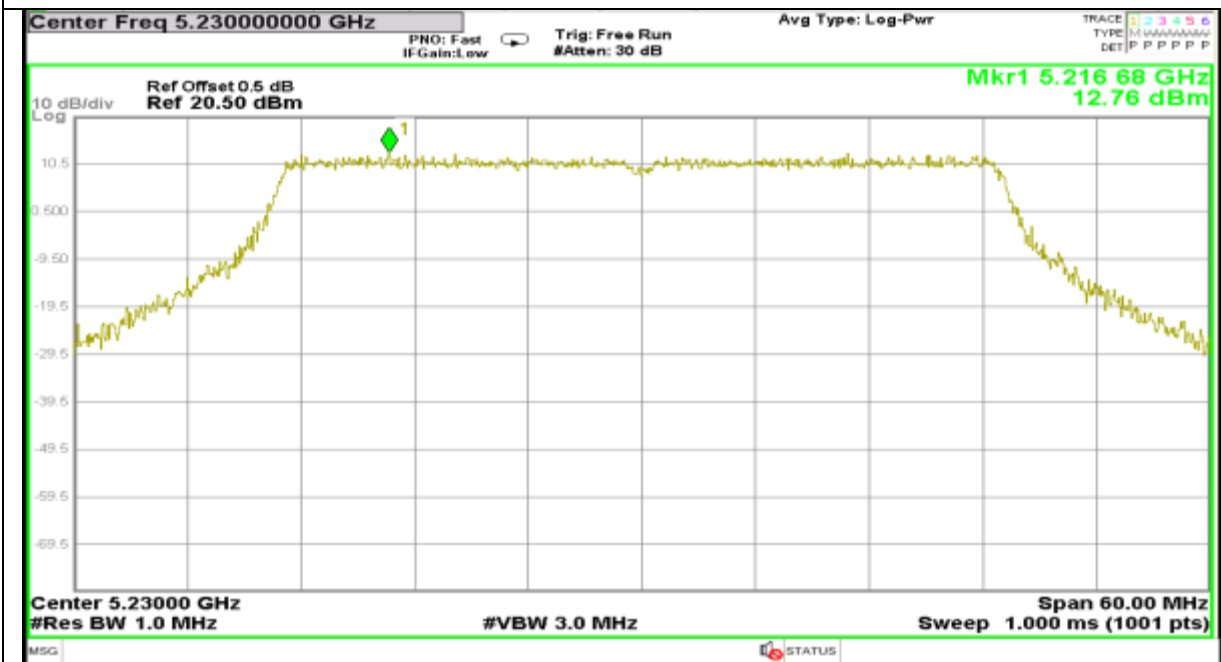


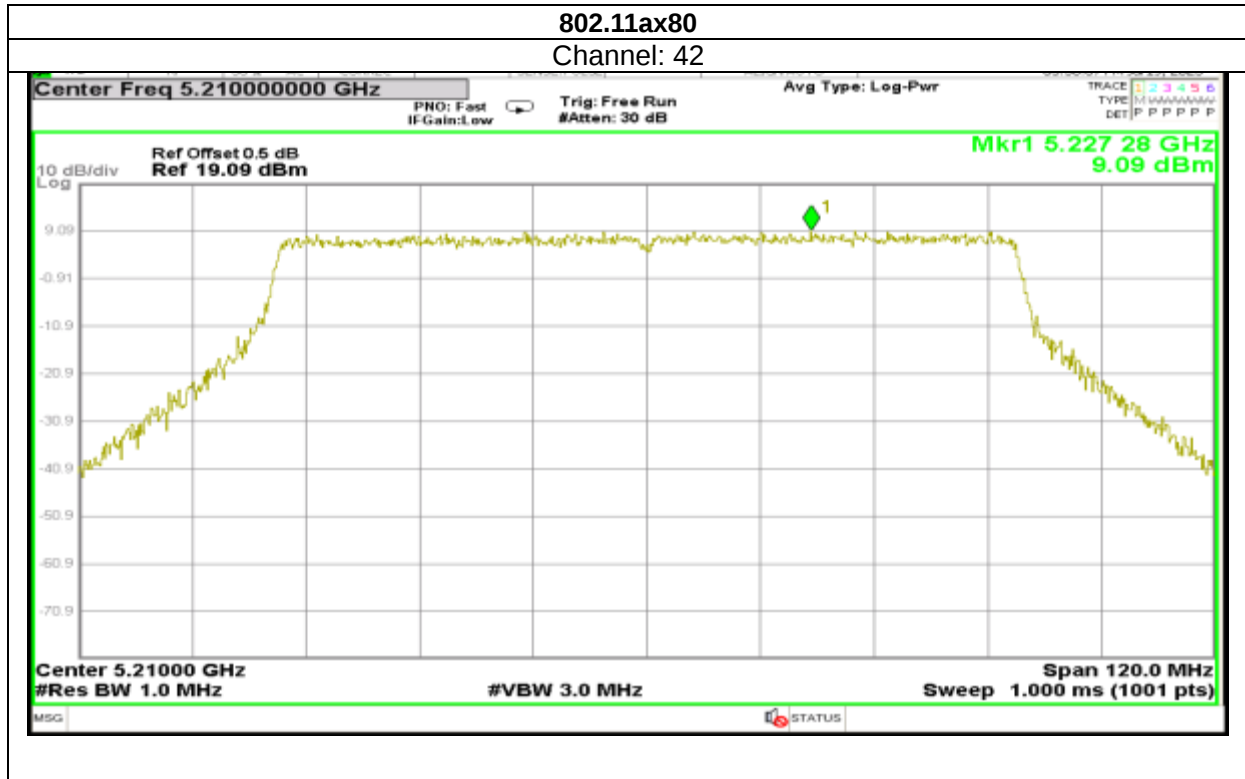
802.11ax40

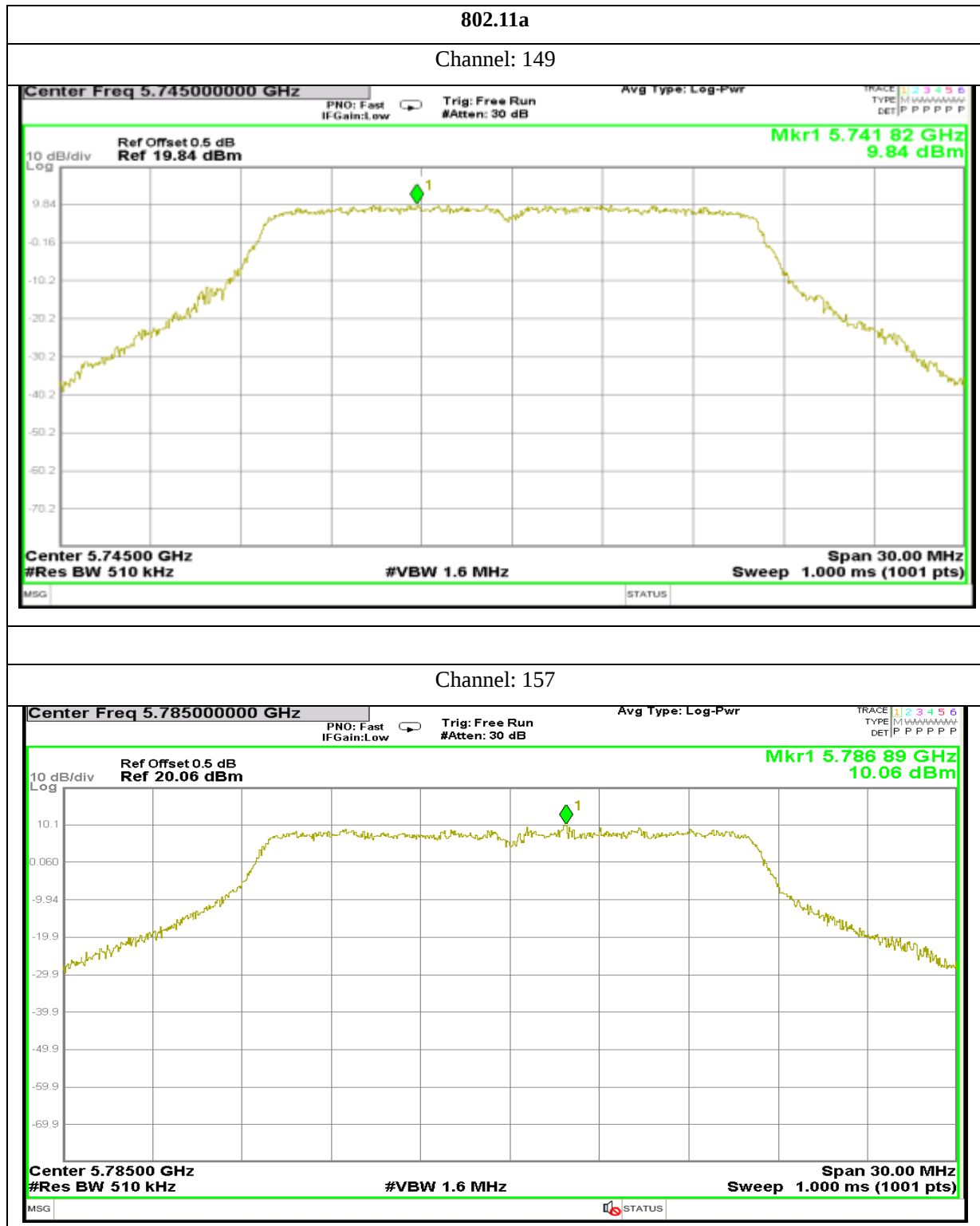
Channel: 38



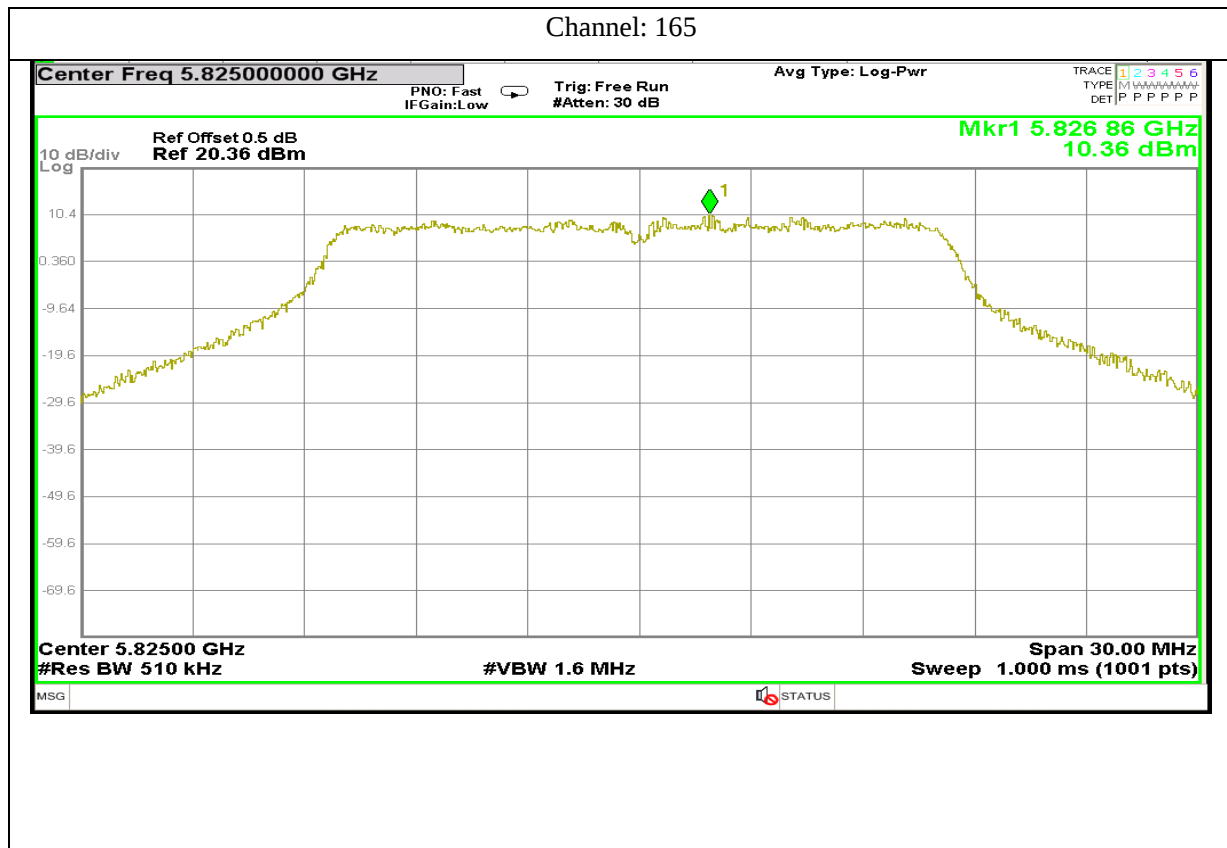
Channel: 46

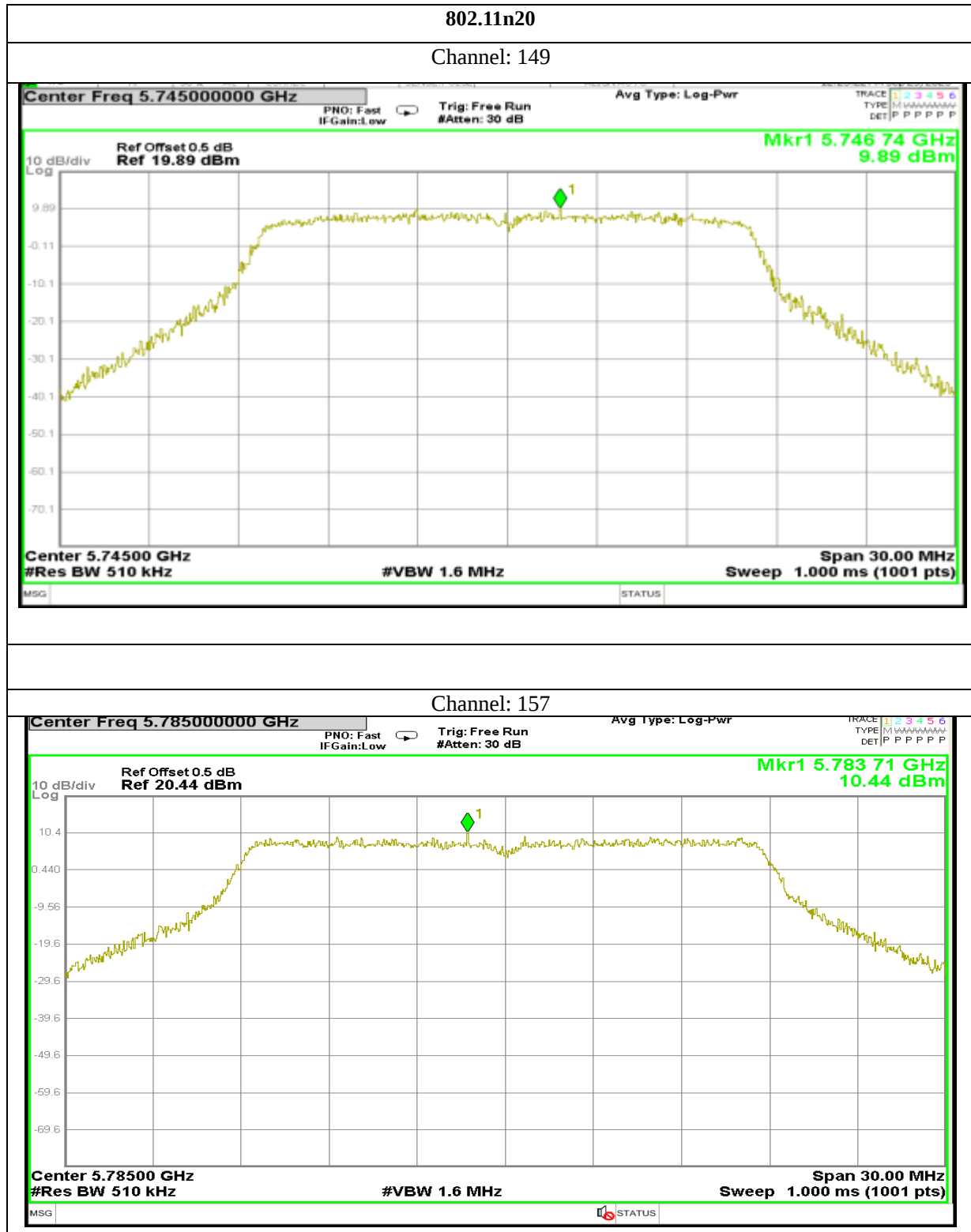


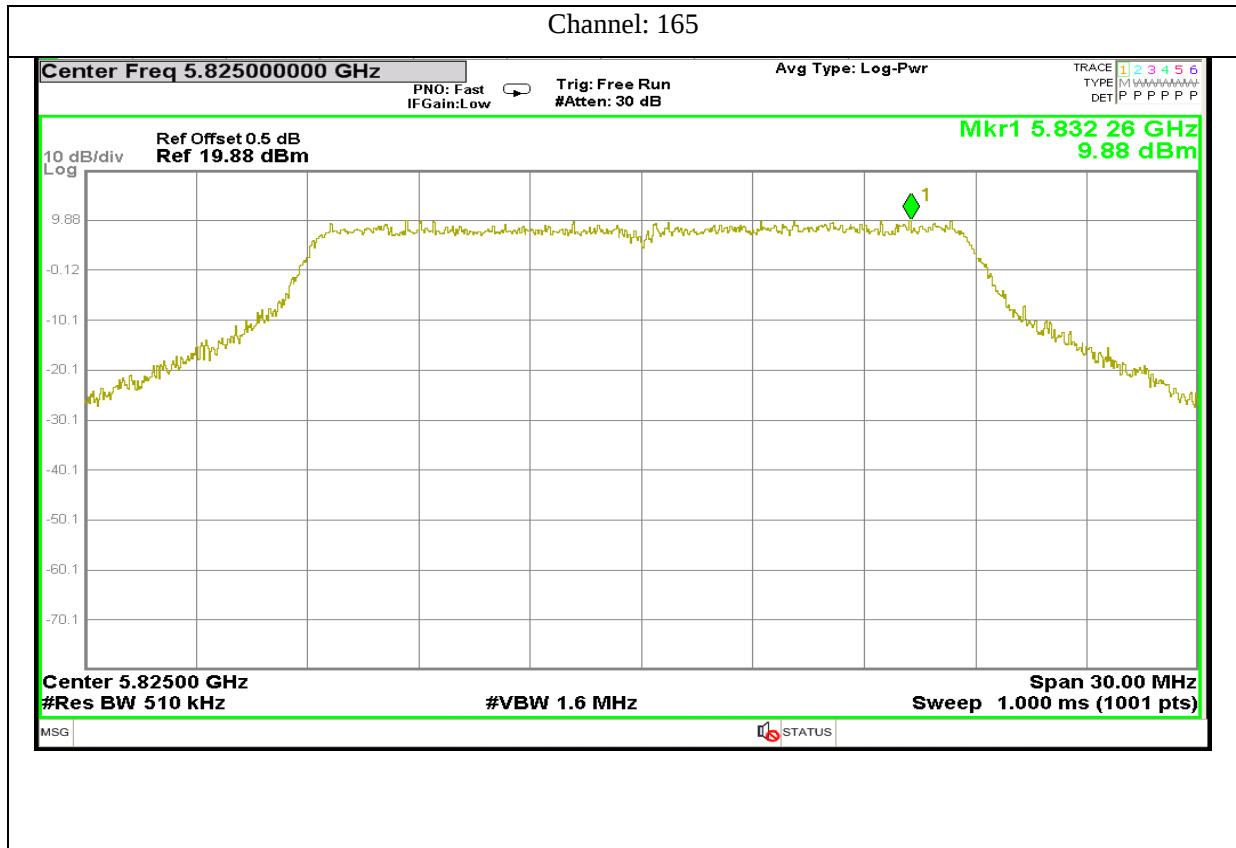




Report No.: AAEMT/RF/231110-04-03

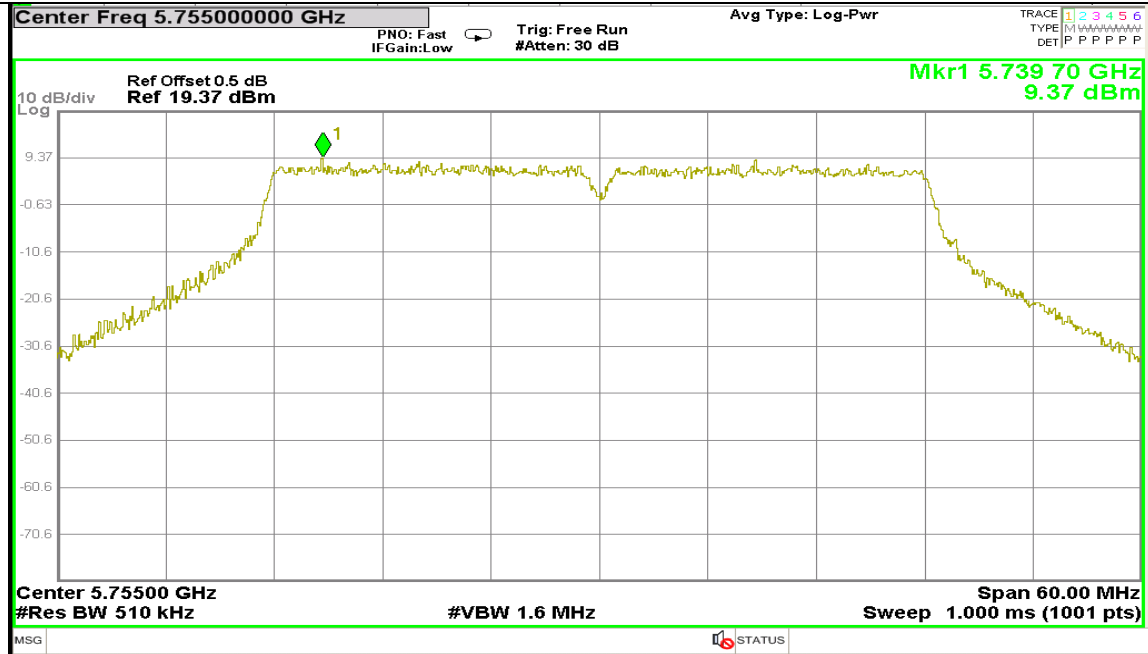




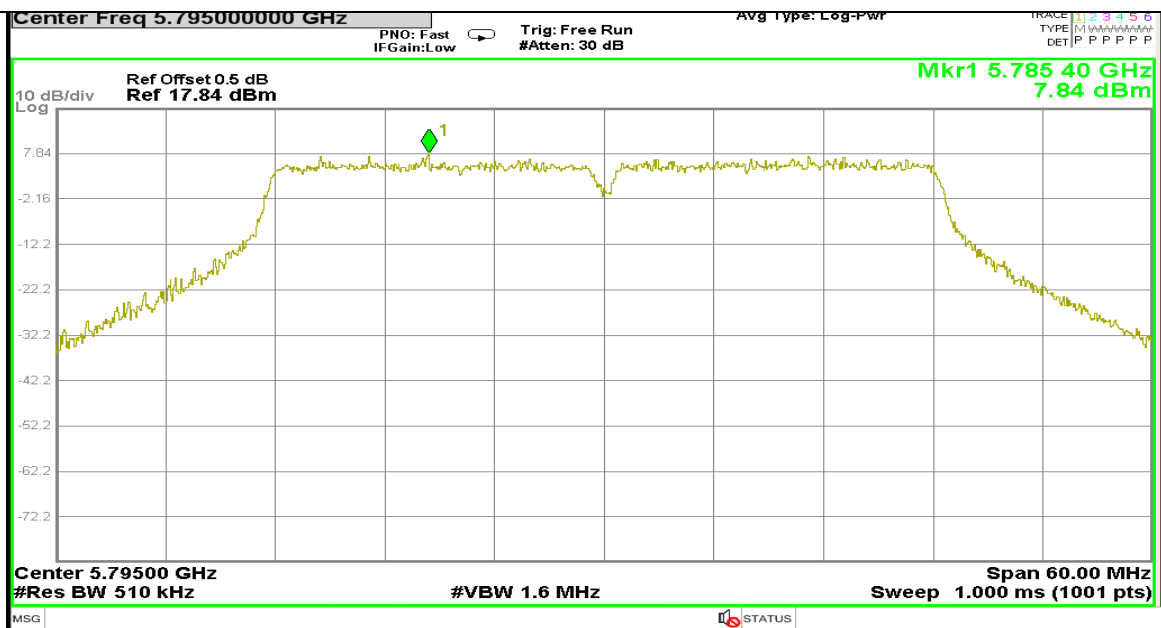


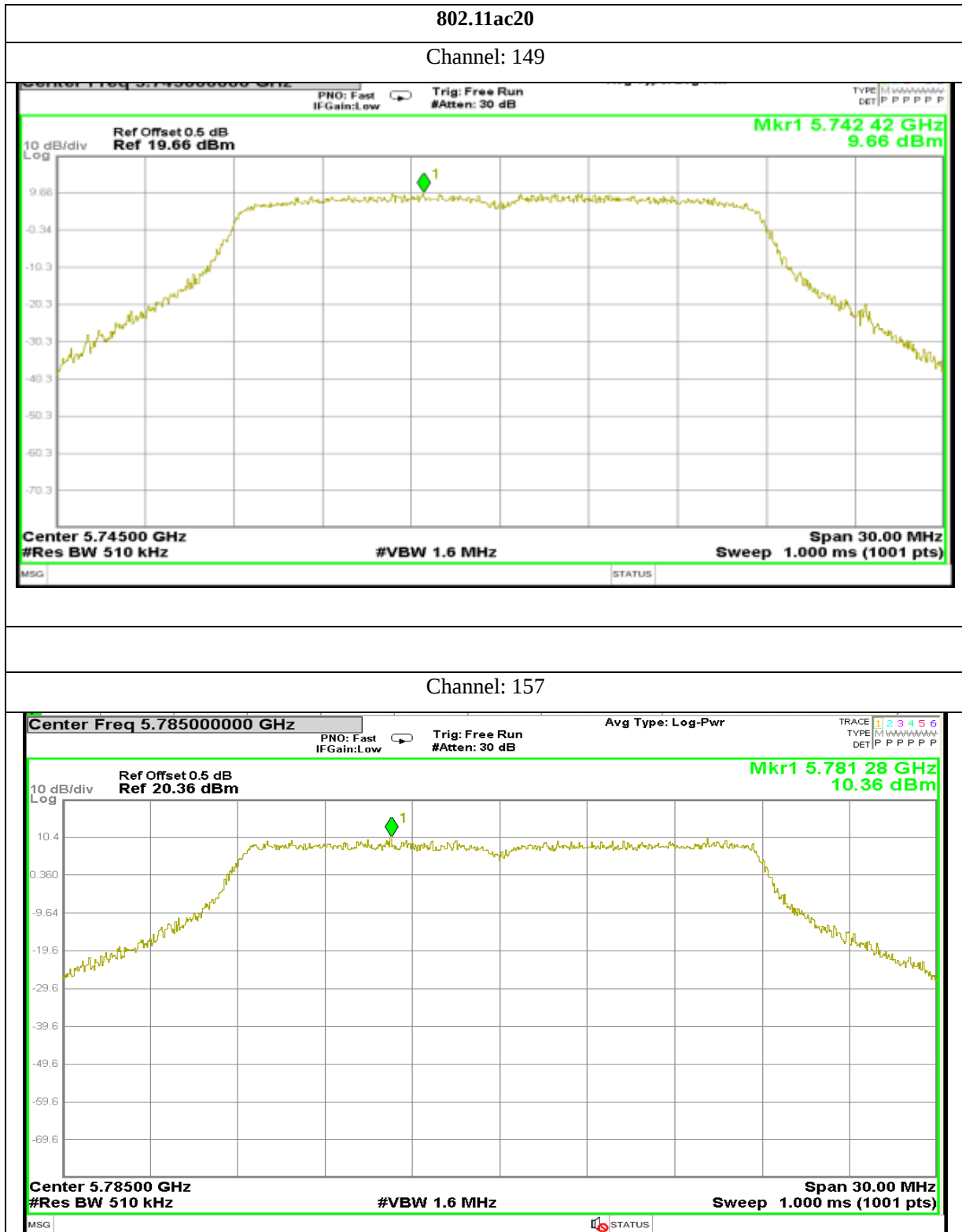
802.11n40

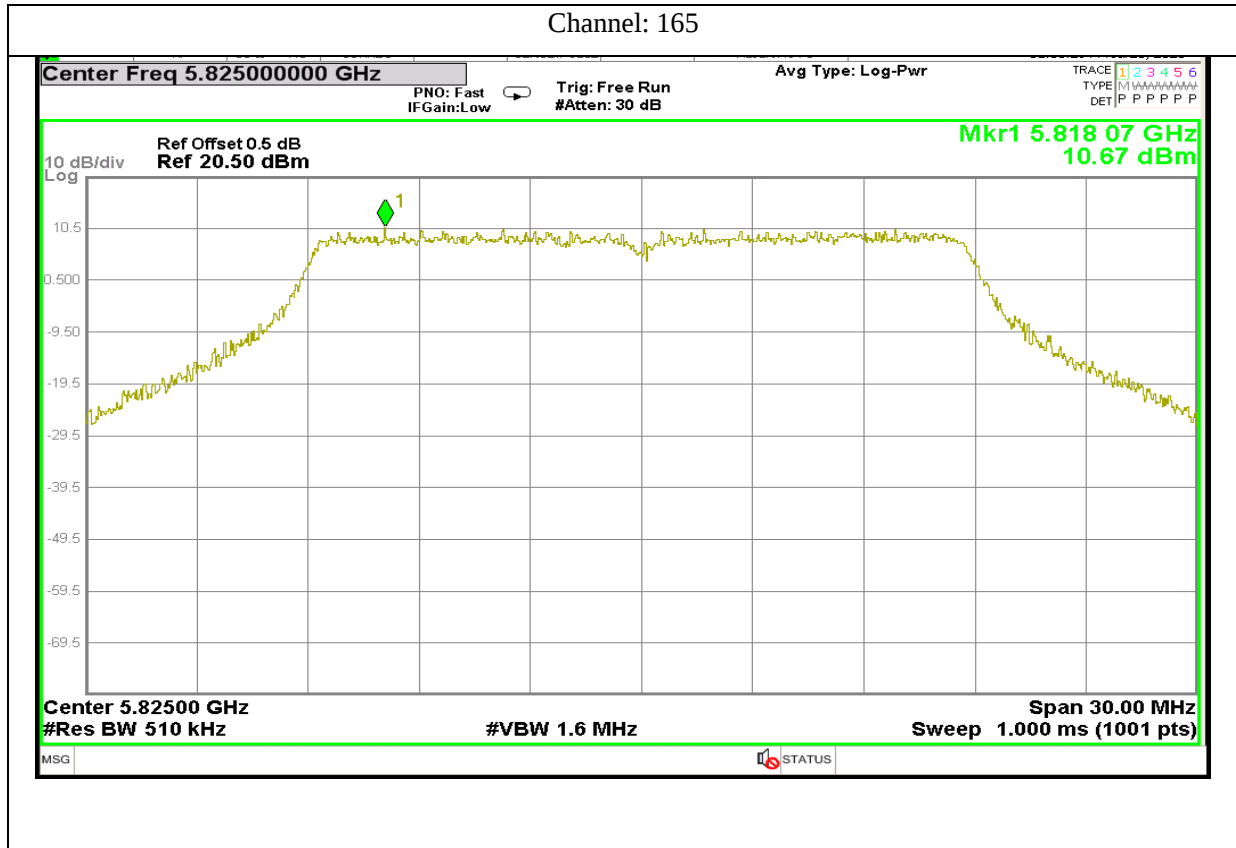
Channel: 151



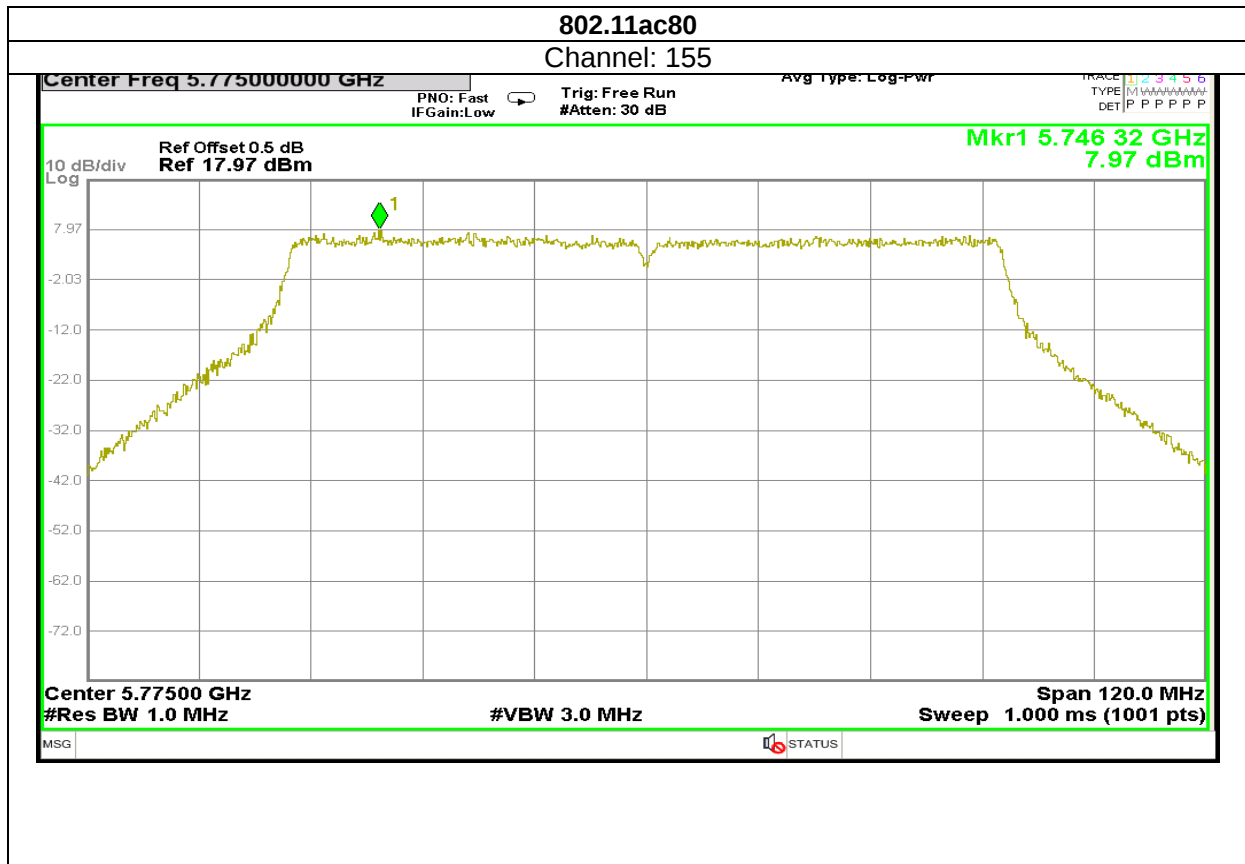
Channel: 159

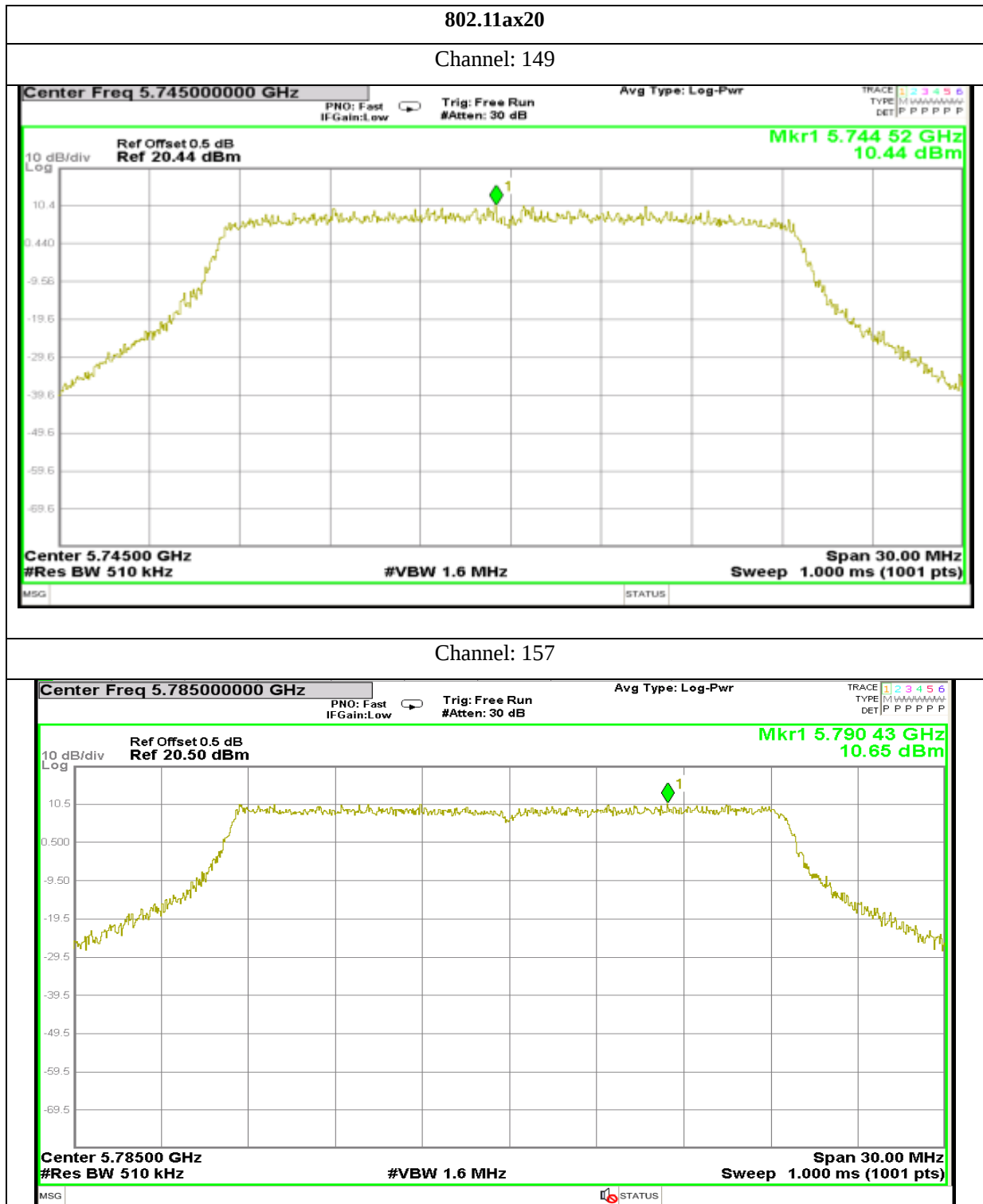


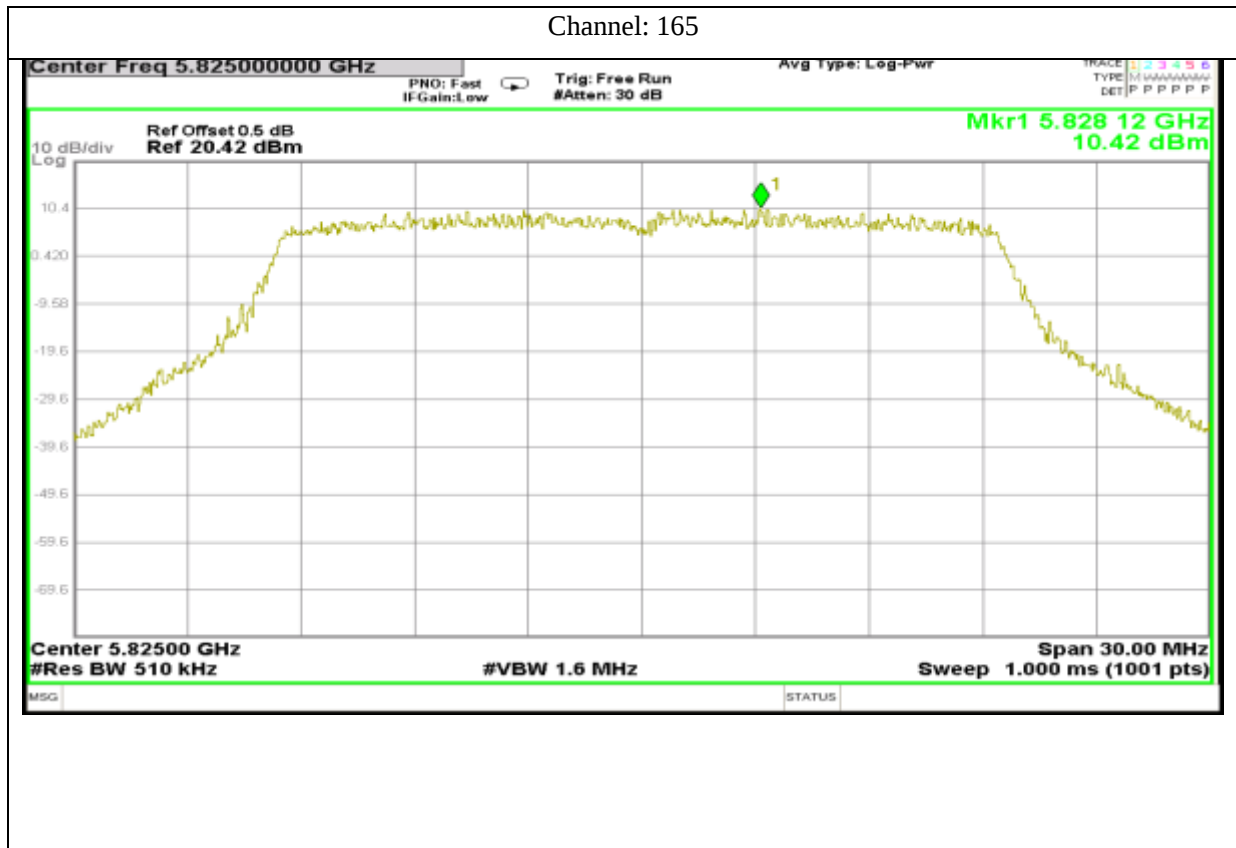




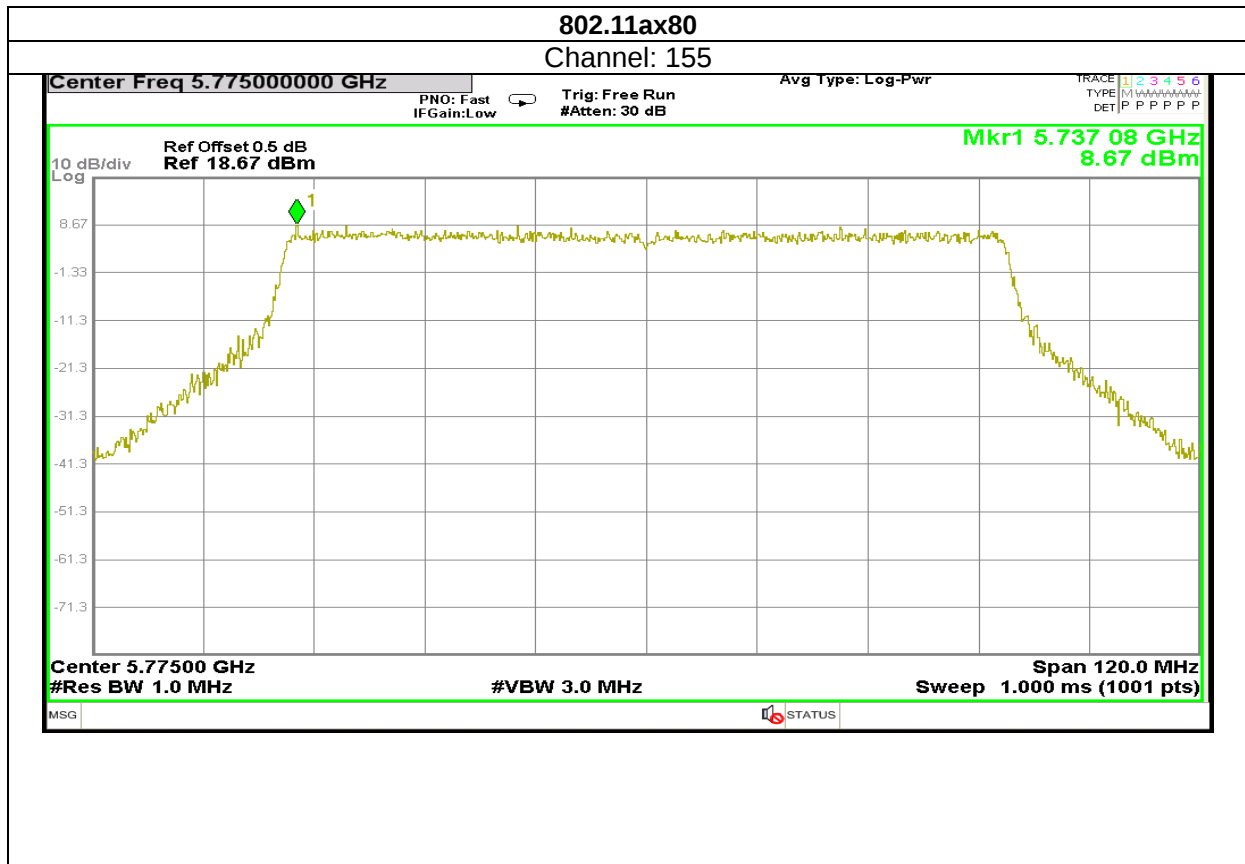




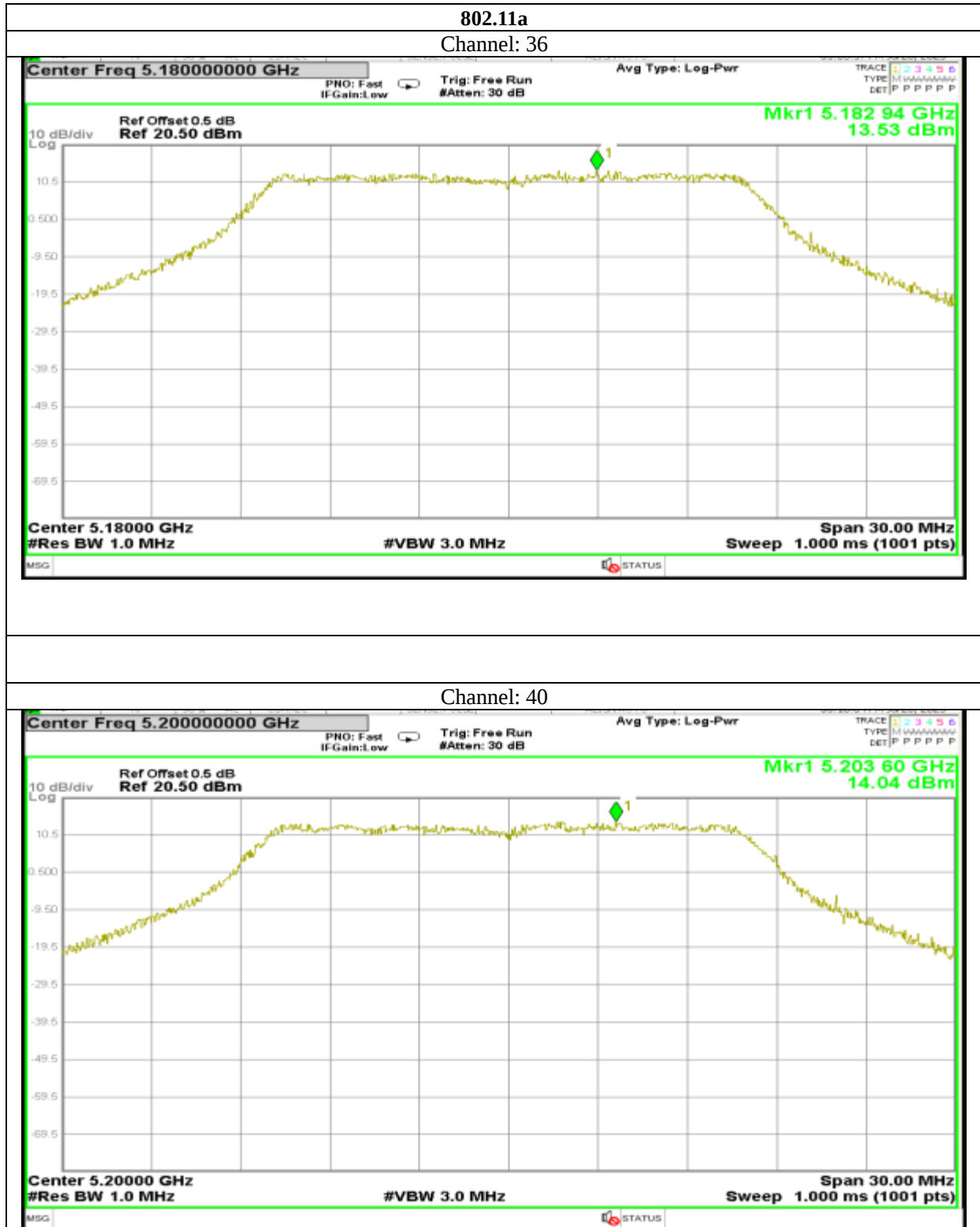


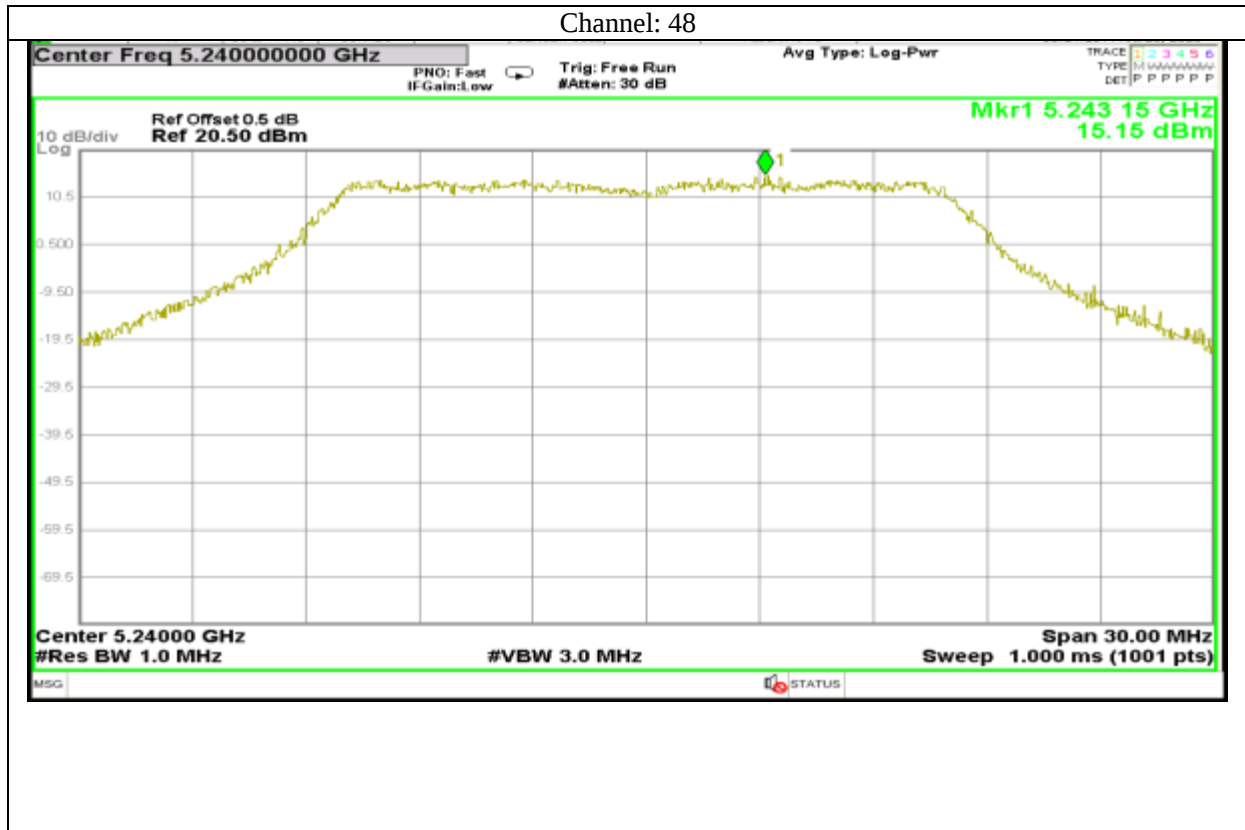


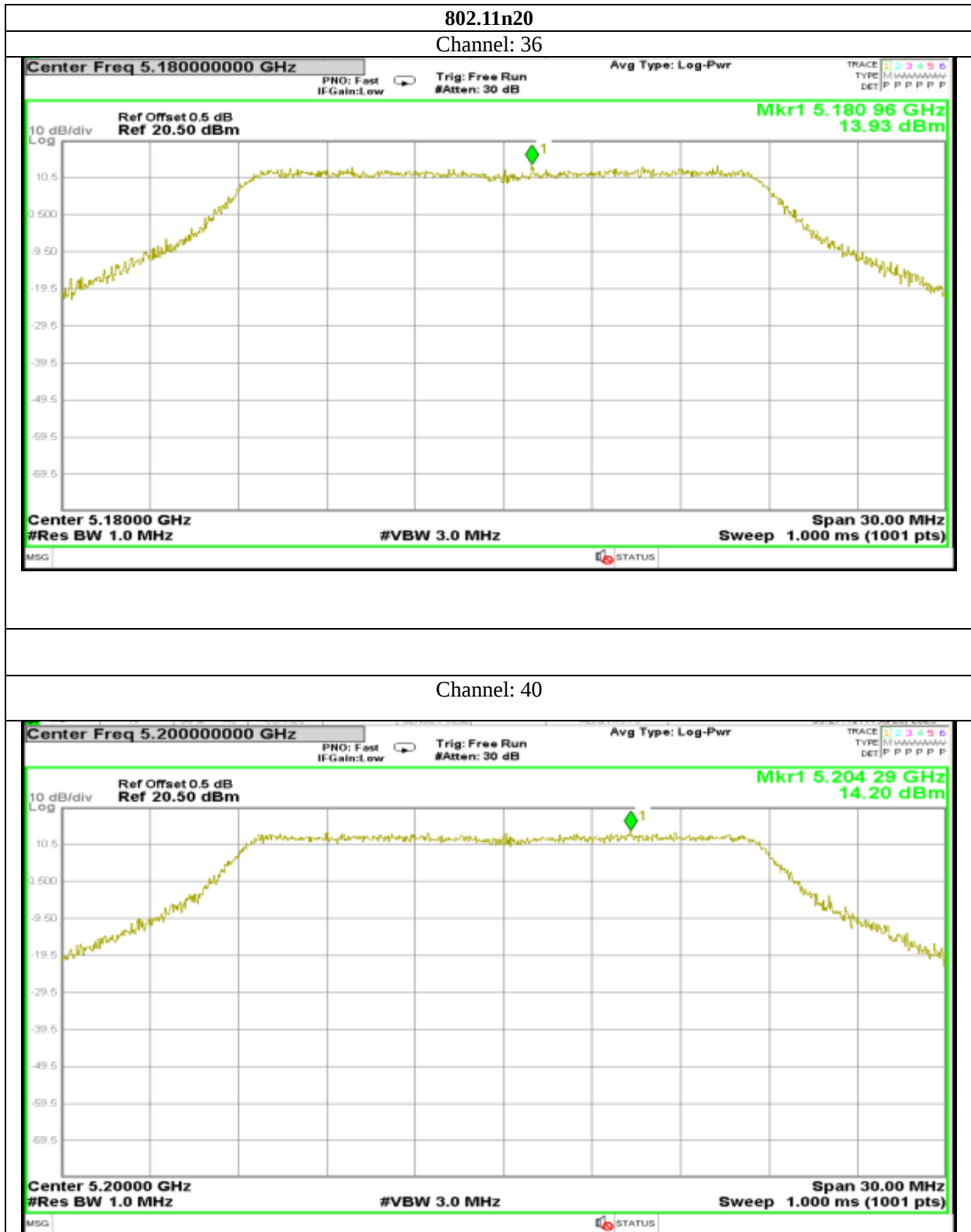


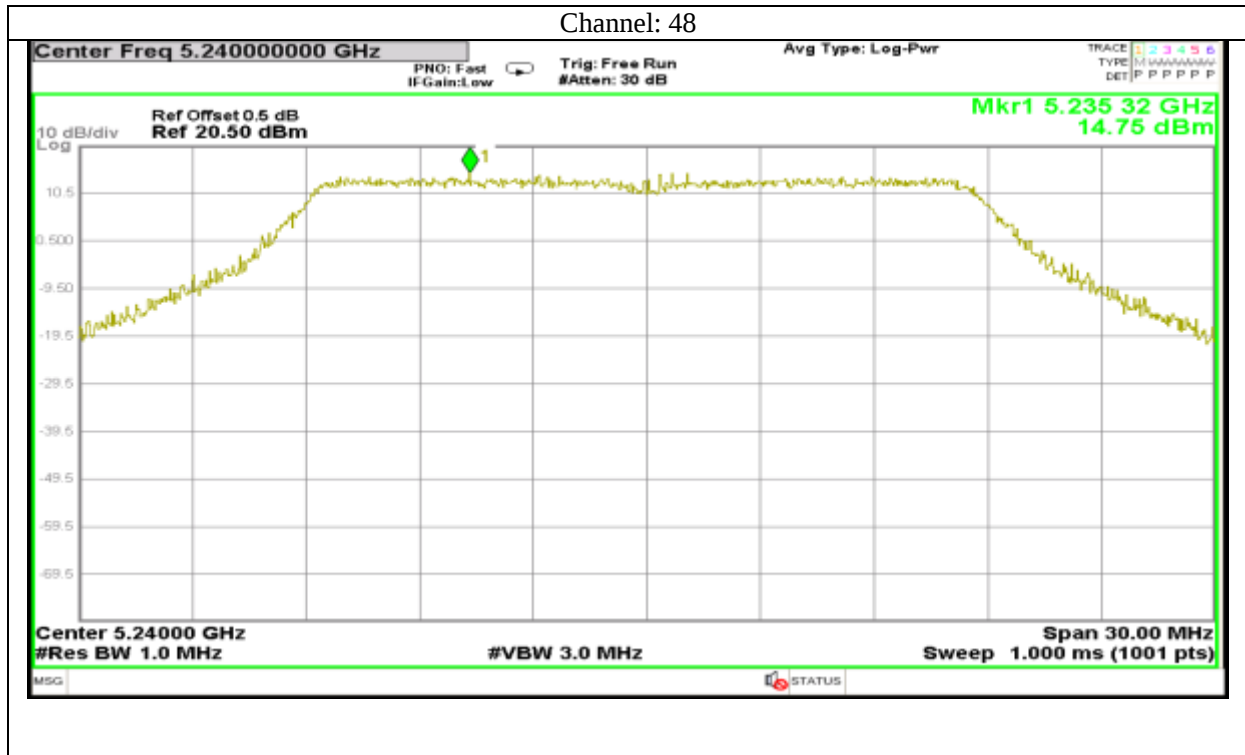


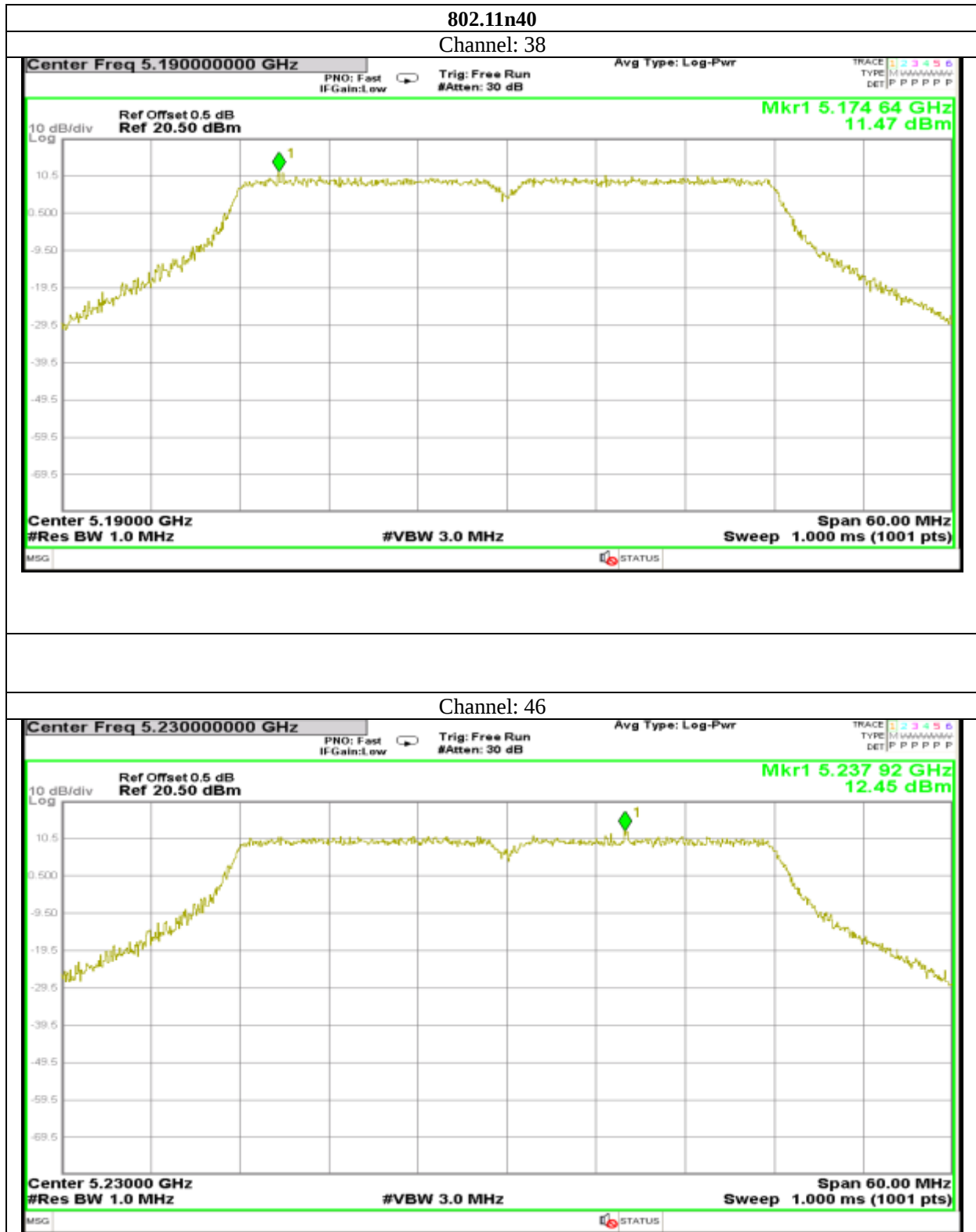
Antenna 1:





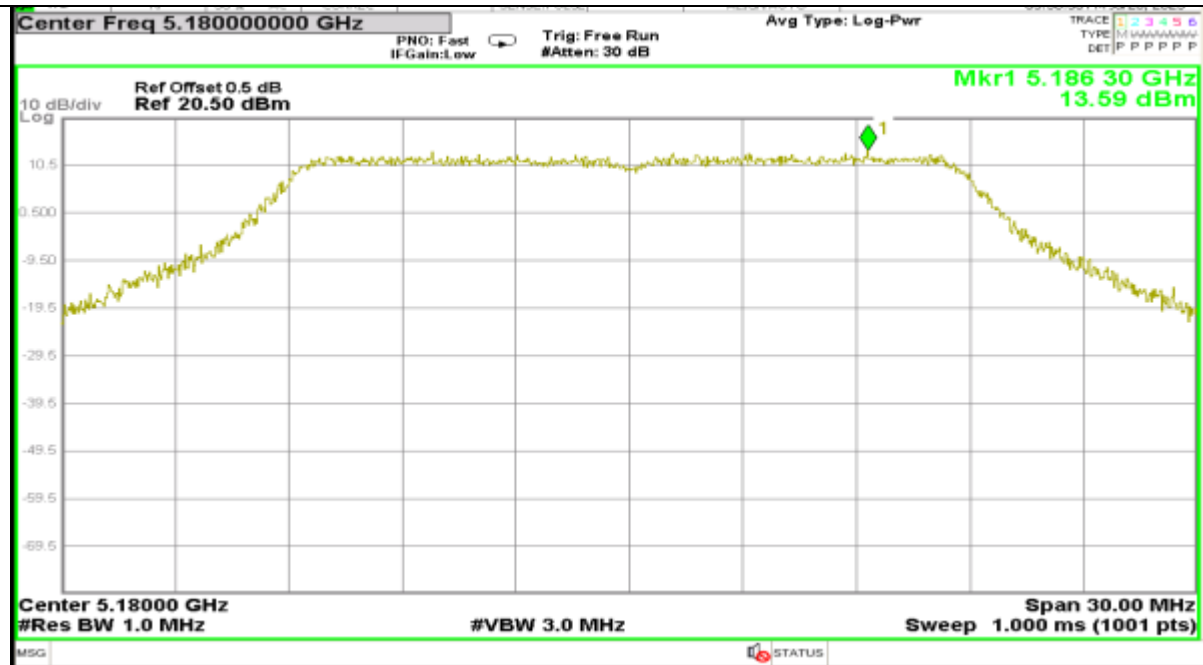




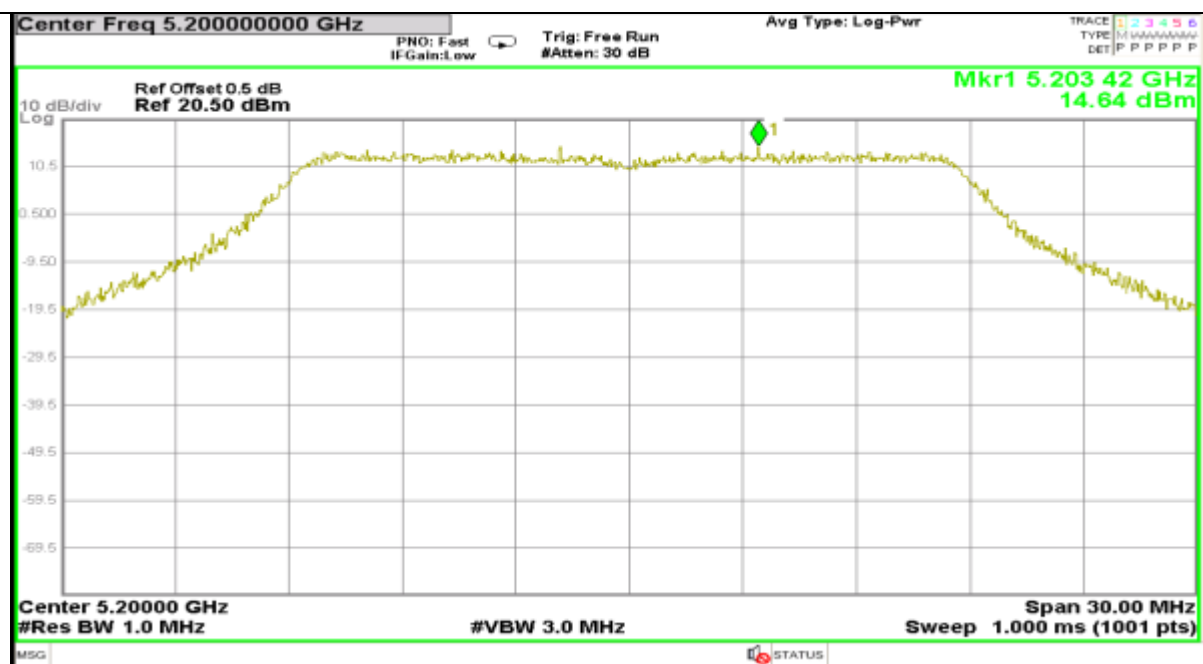


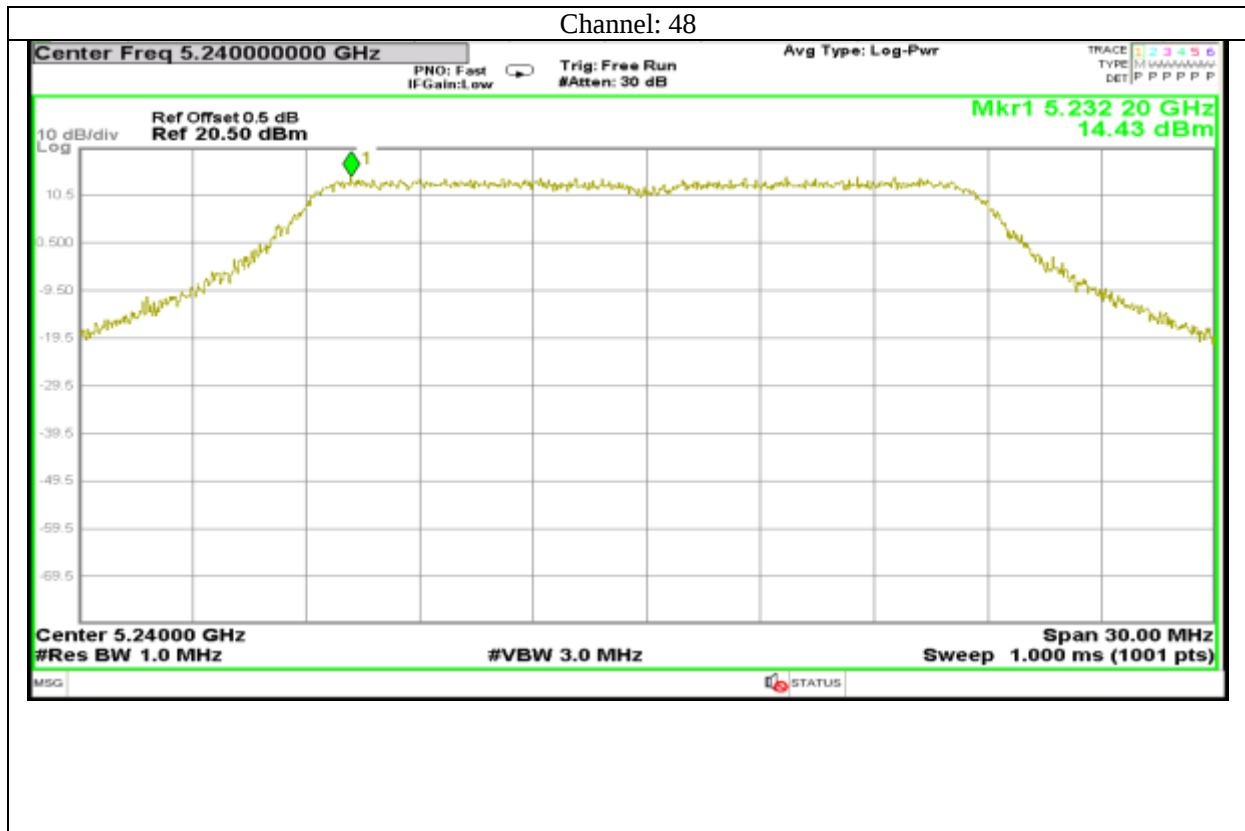
802.11ac20

Channel: 36



Channel: 40



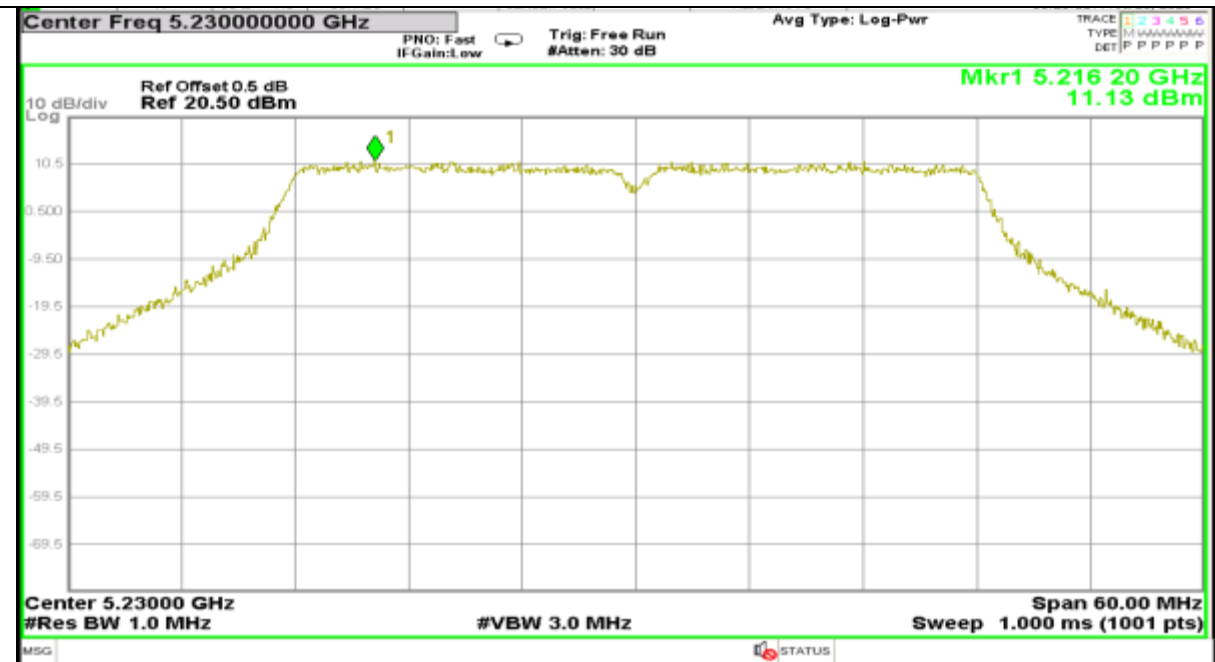


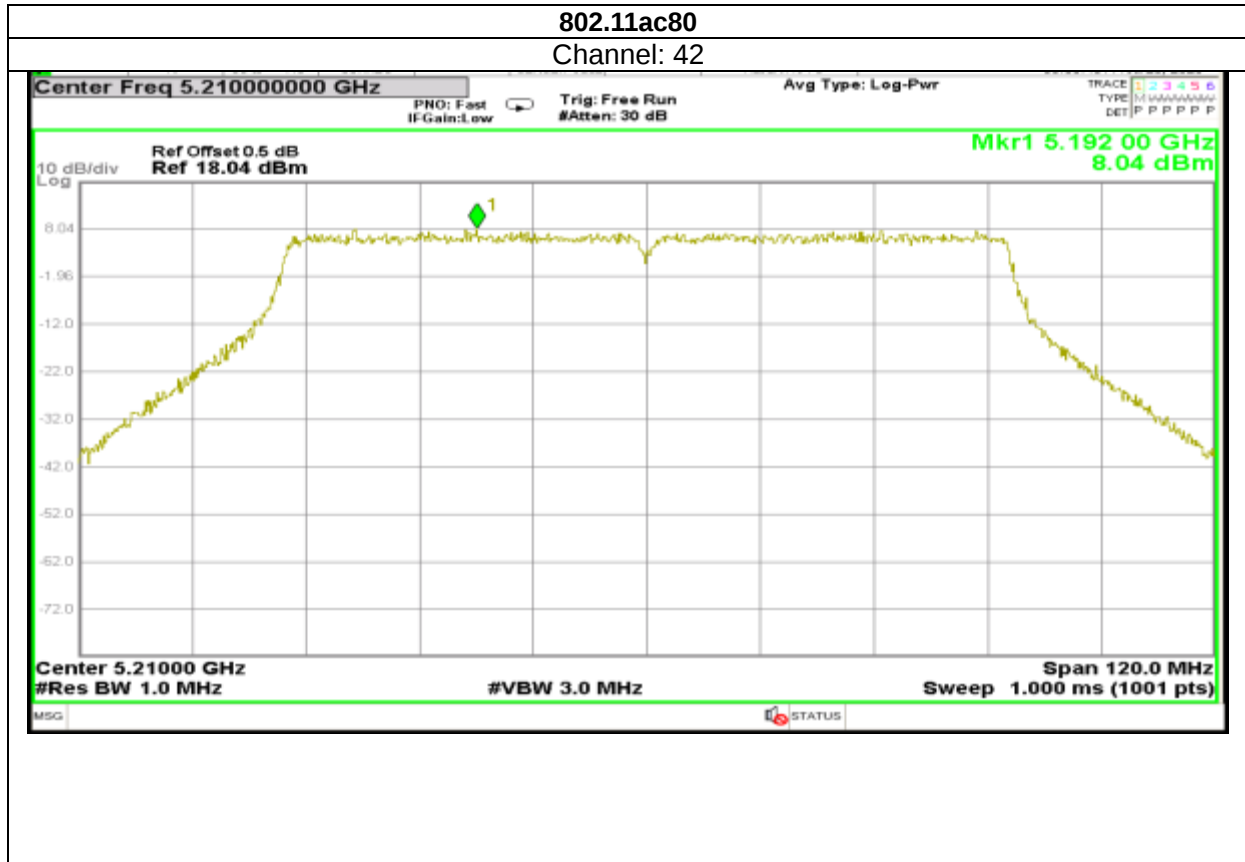
802.11ac40

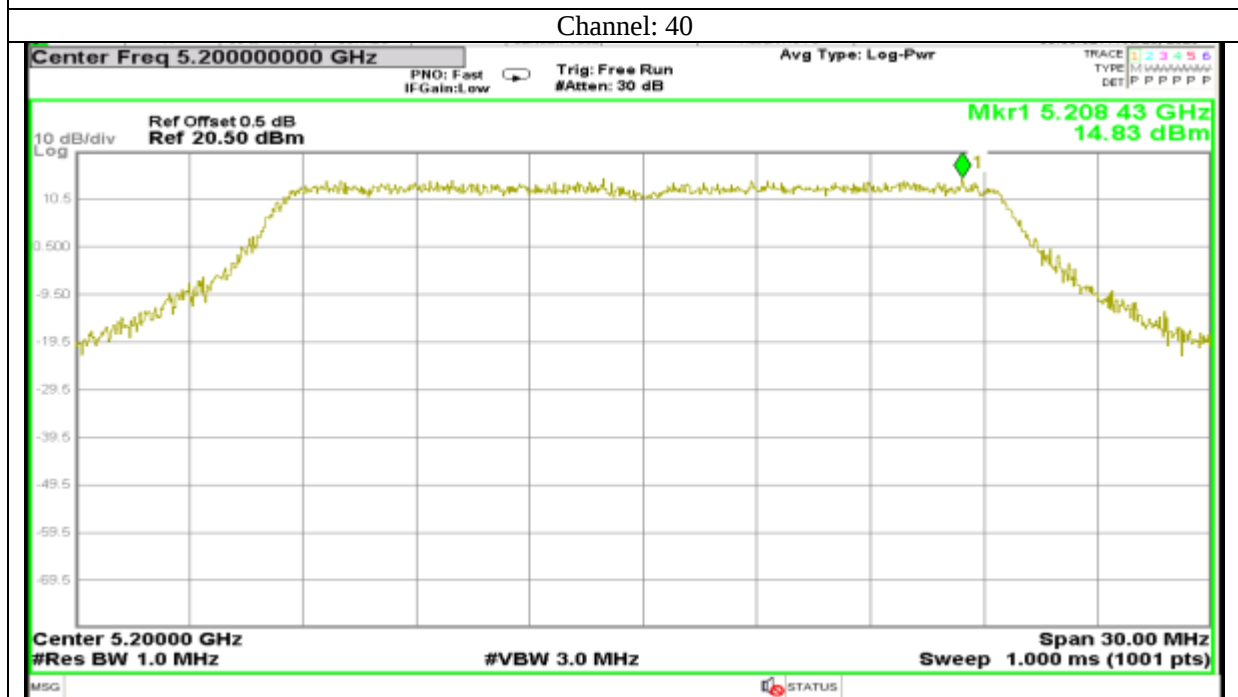
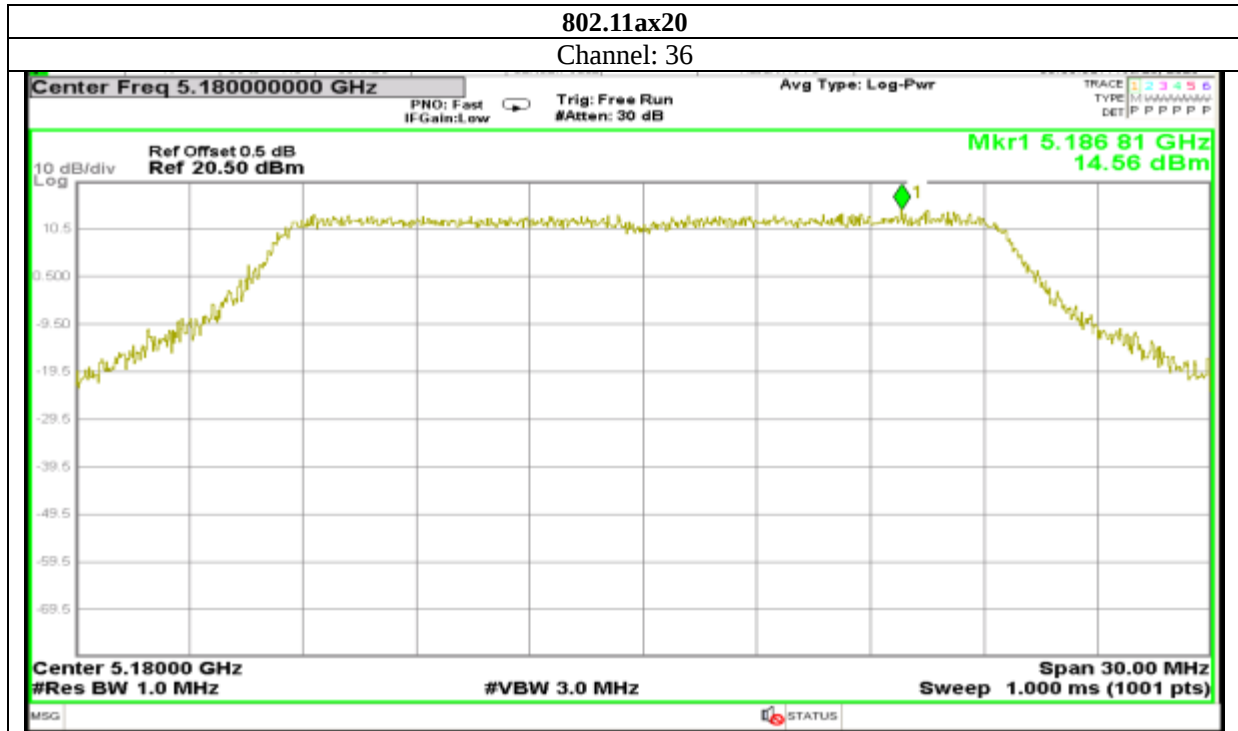
Channel: 38



Channel: 46







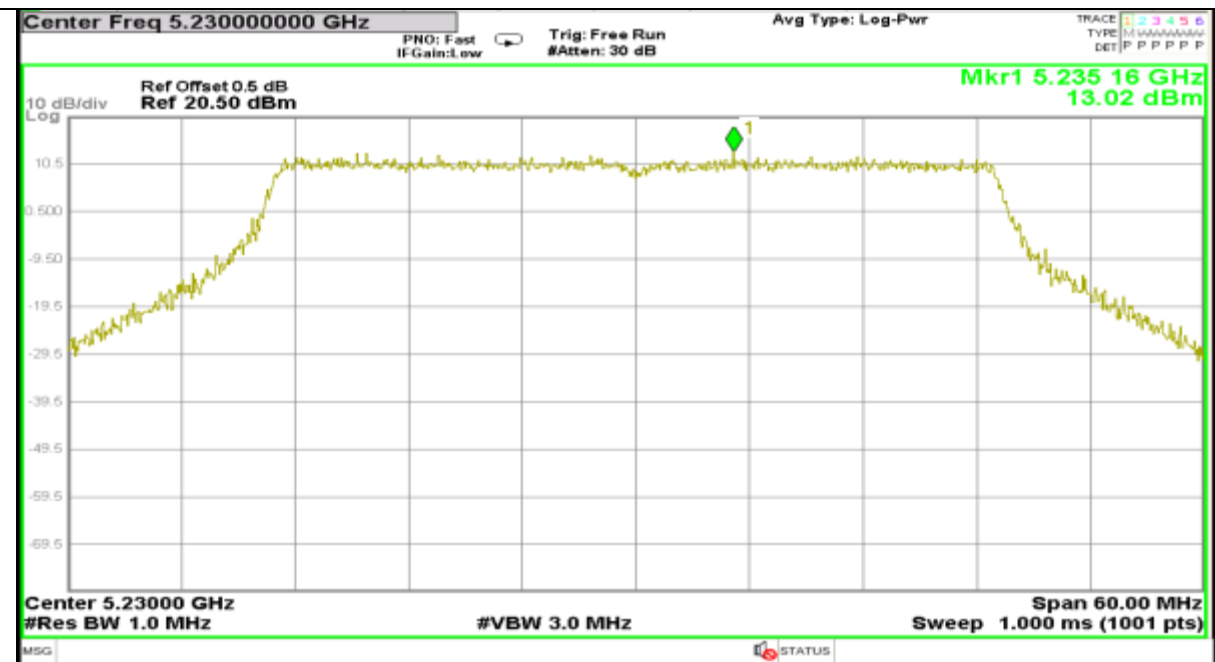


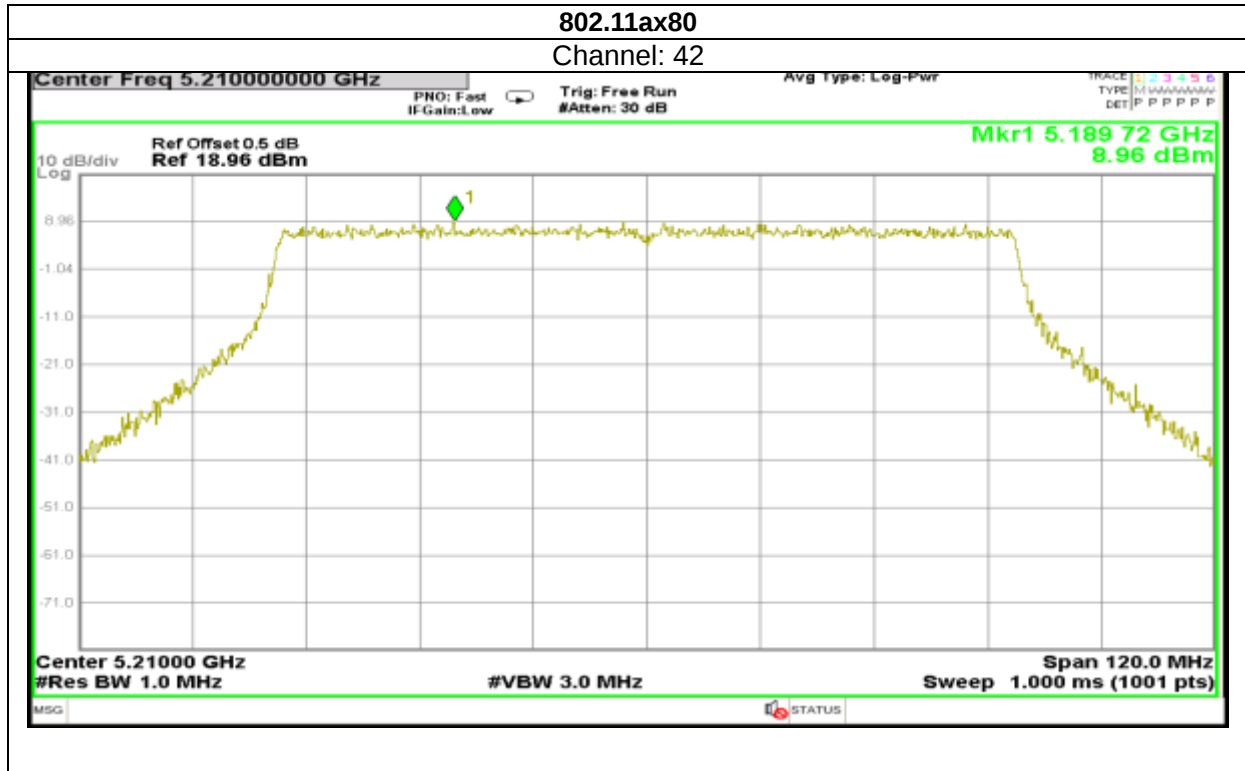
802.11ax40

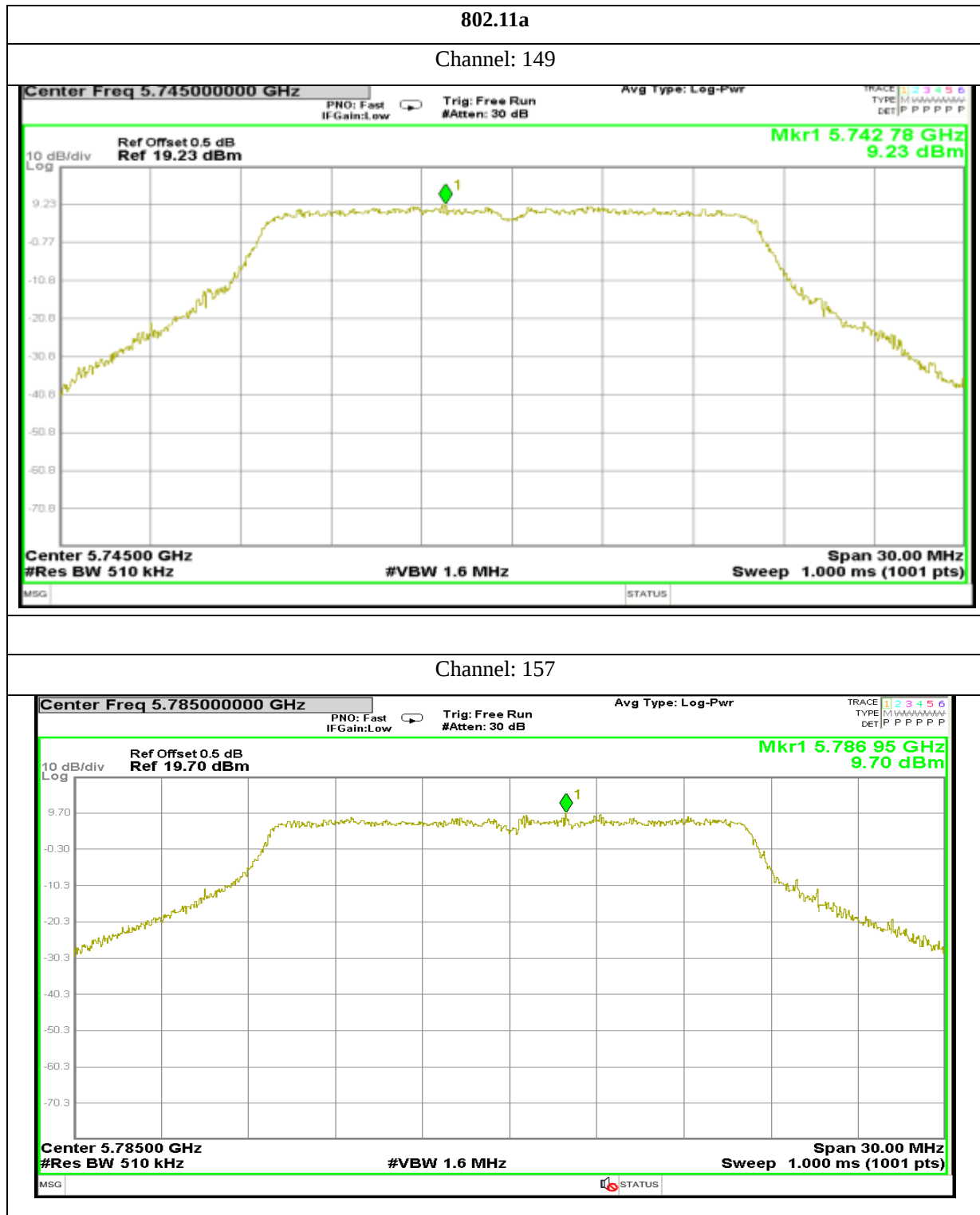
Channel: 38

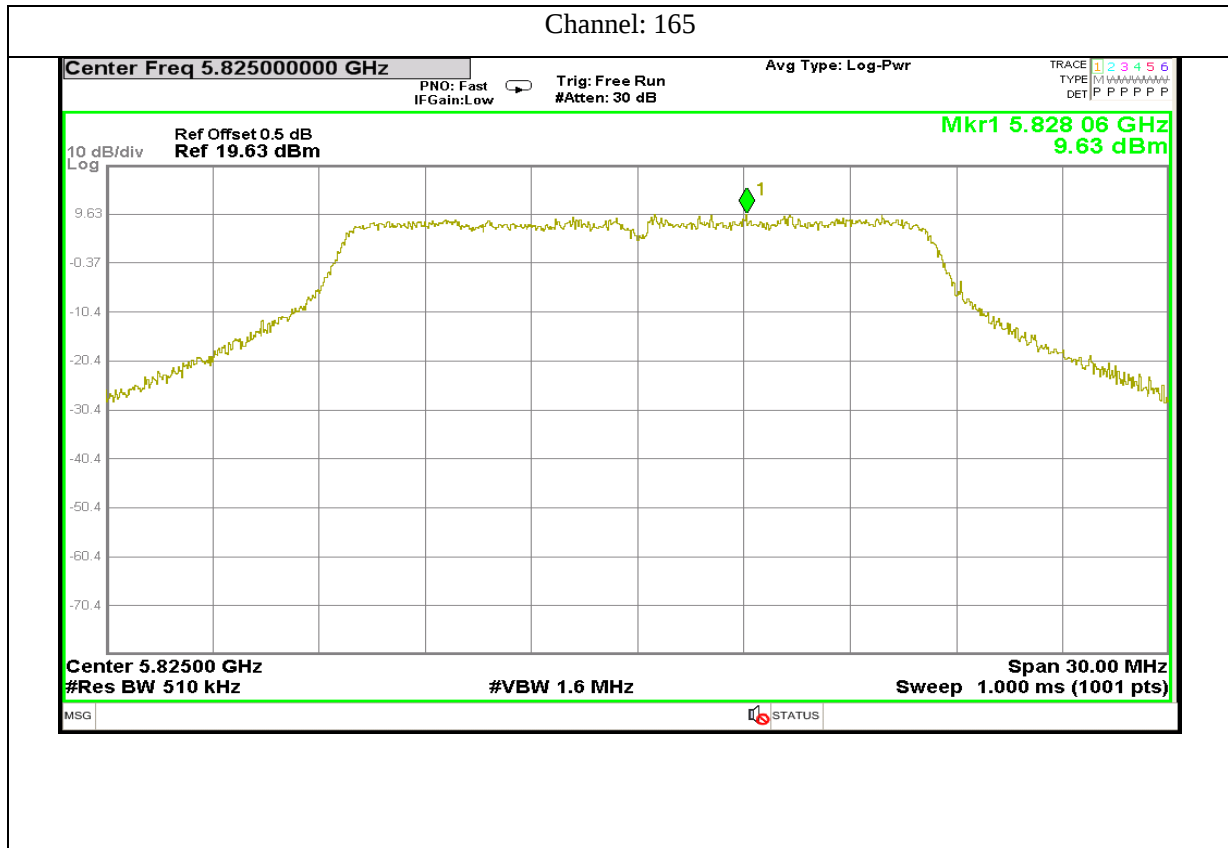


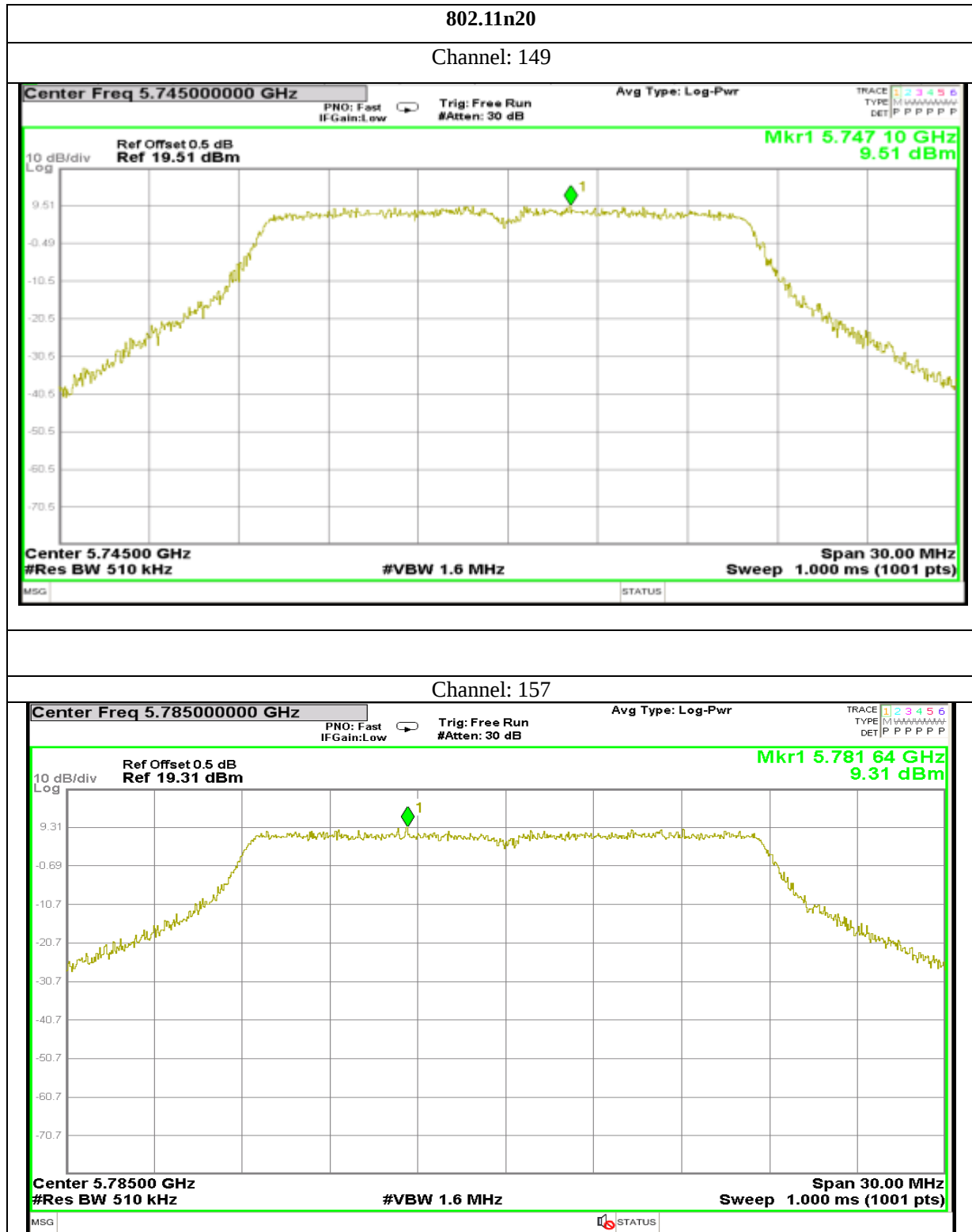
Channel: 46

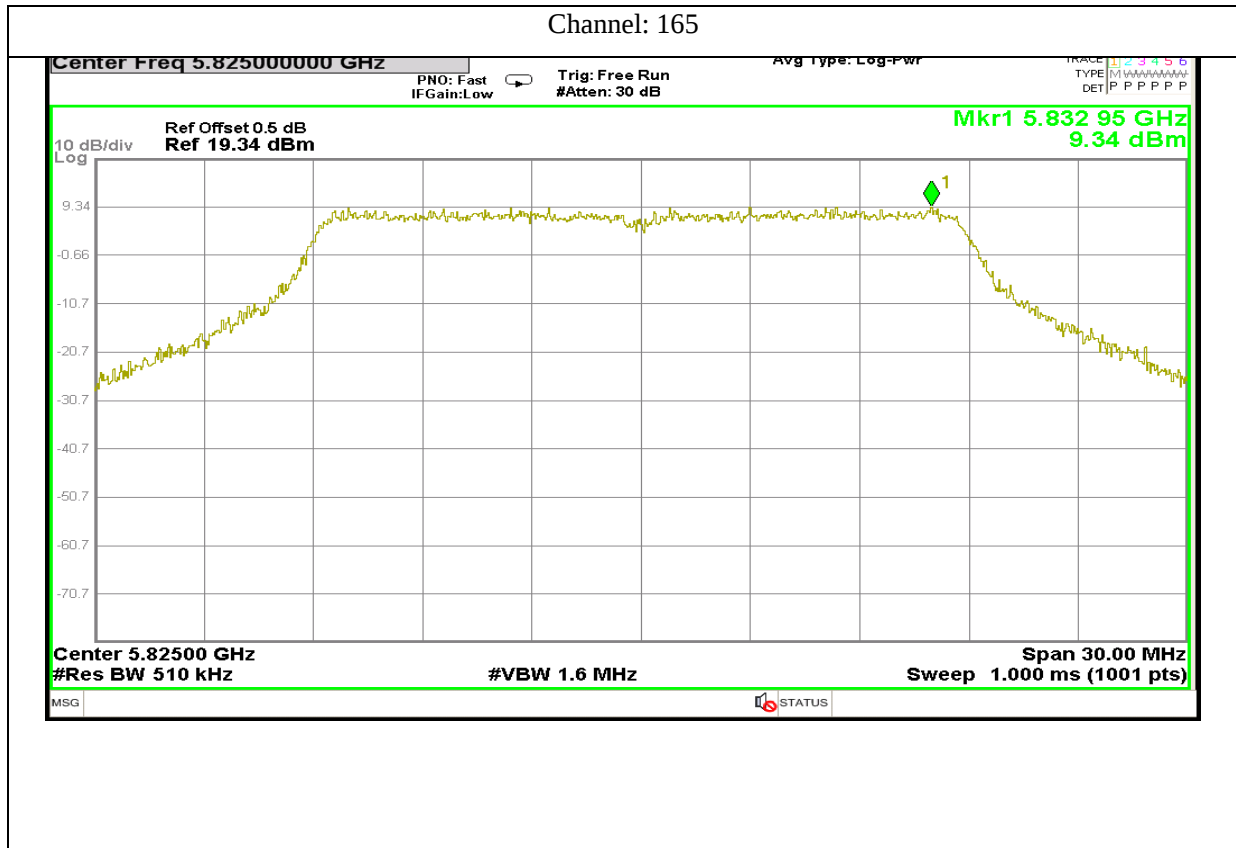


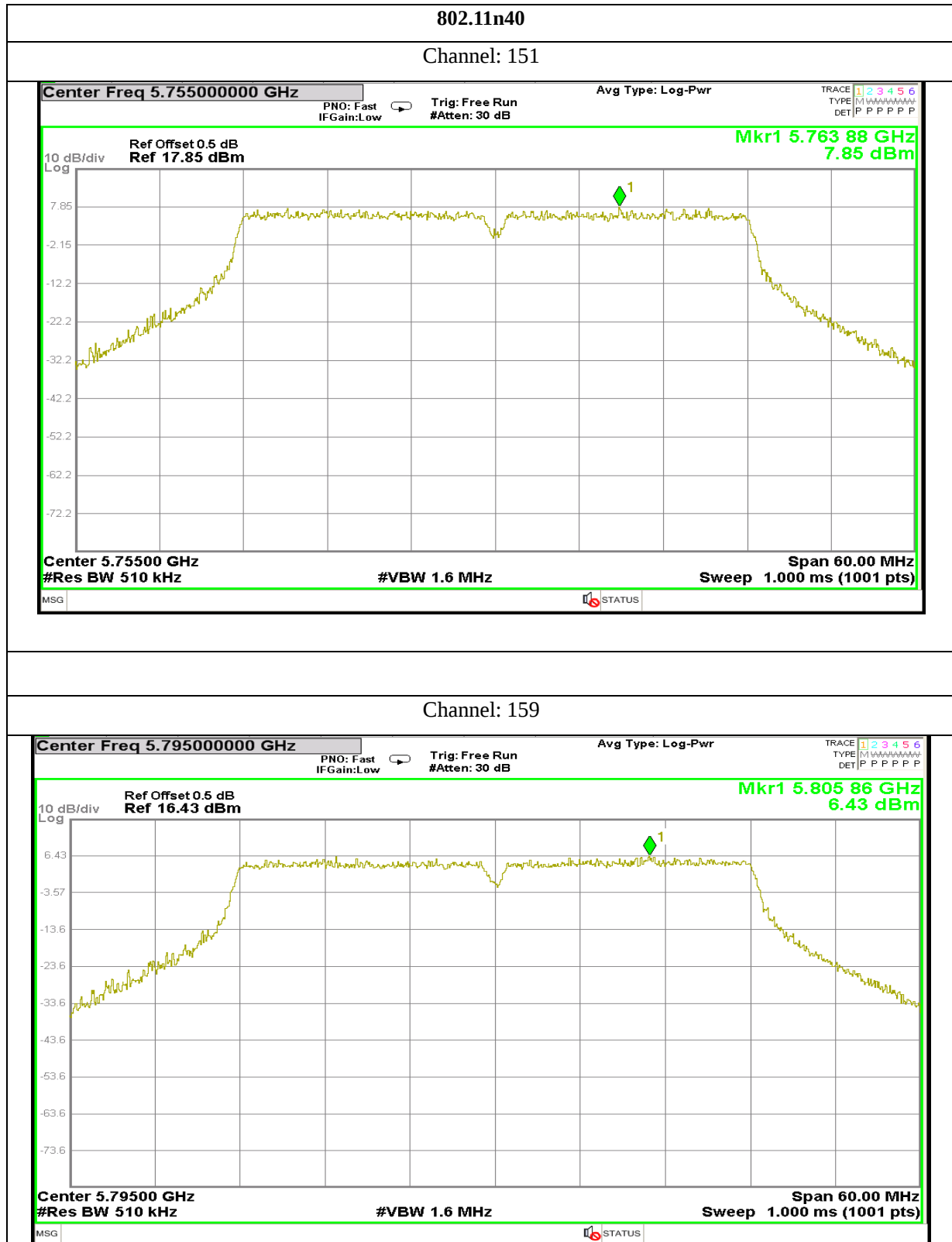






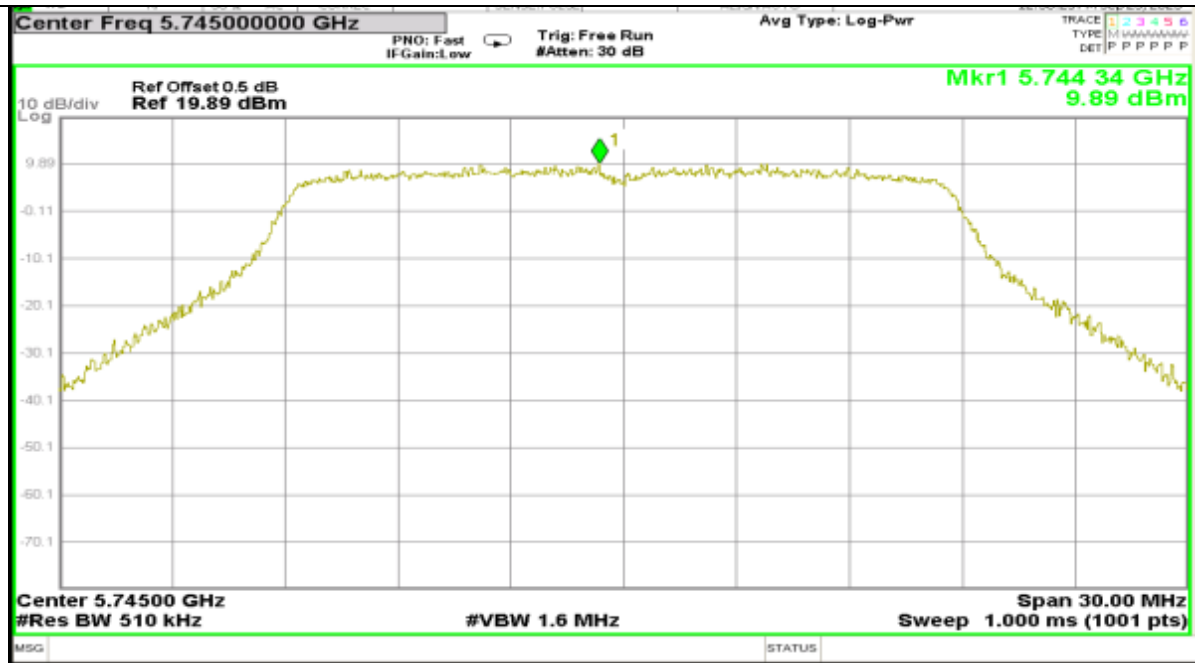






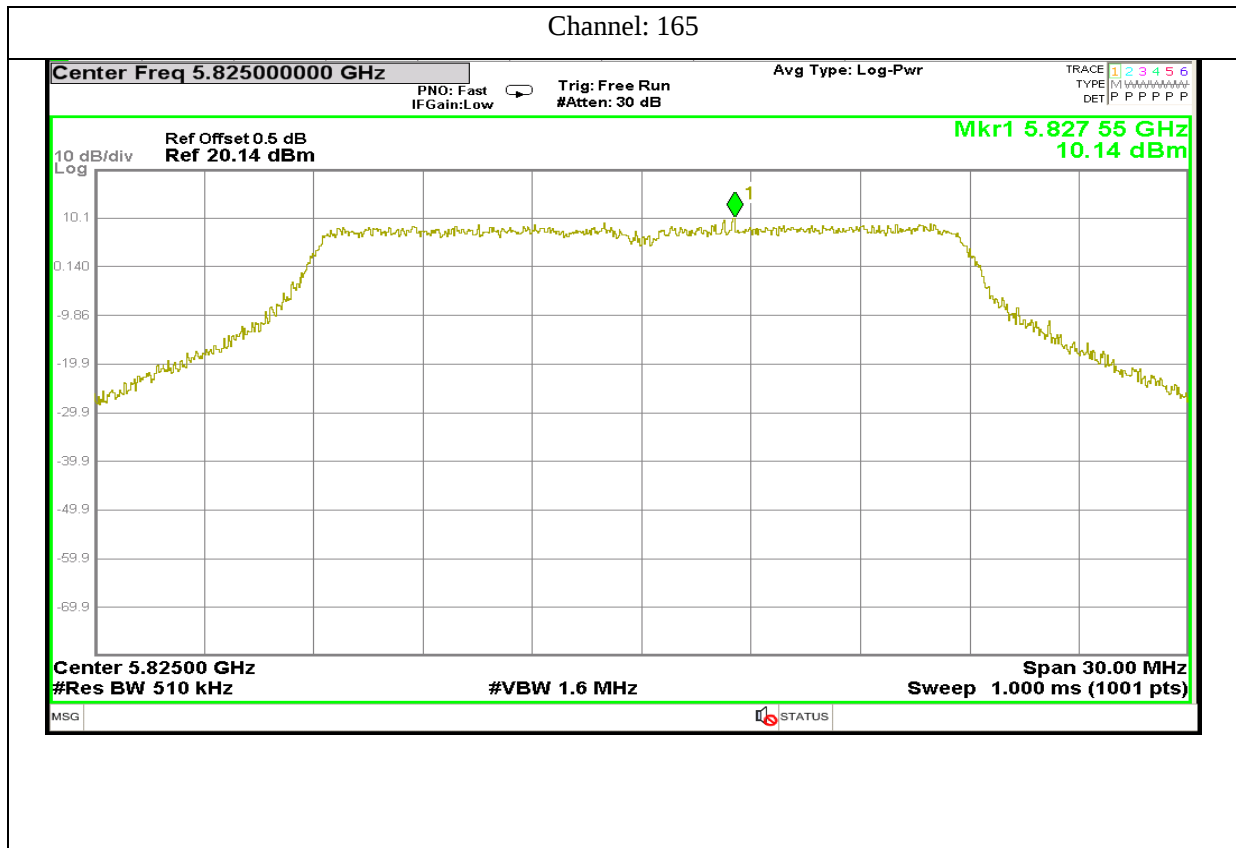
802.11ac20

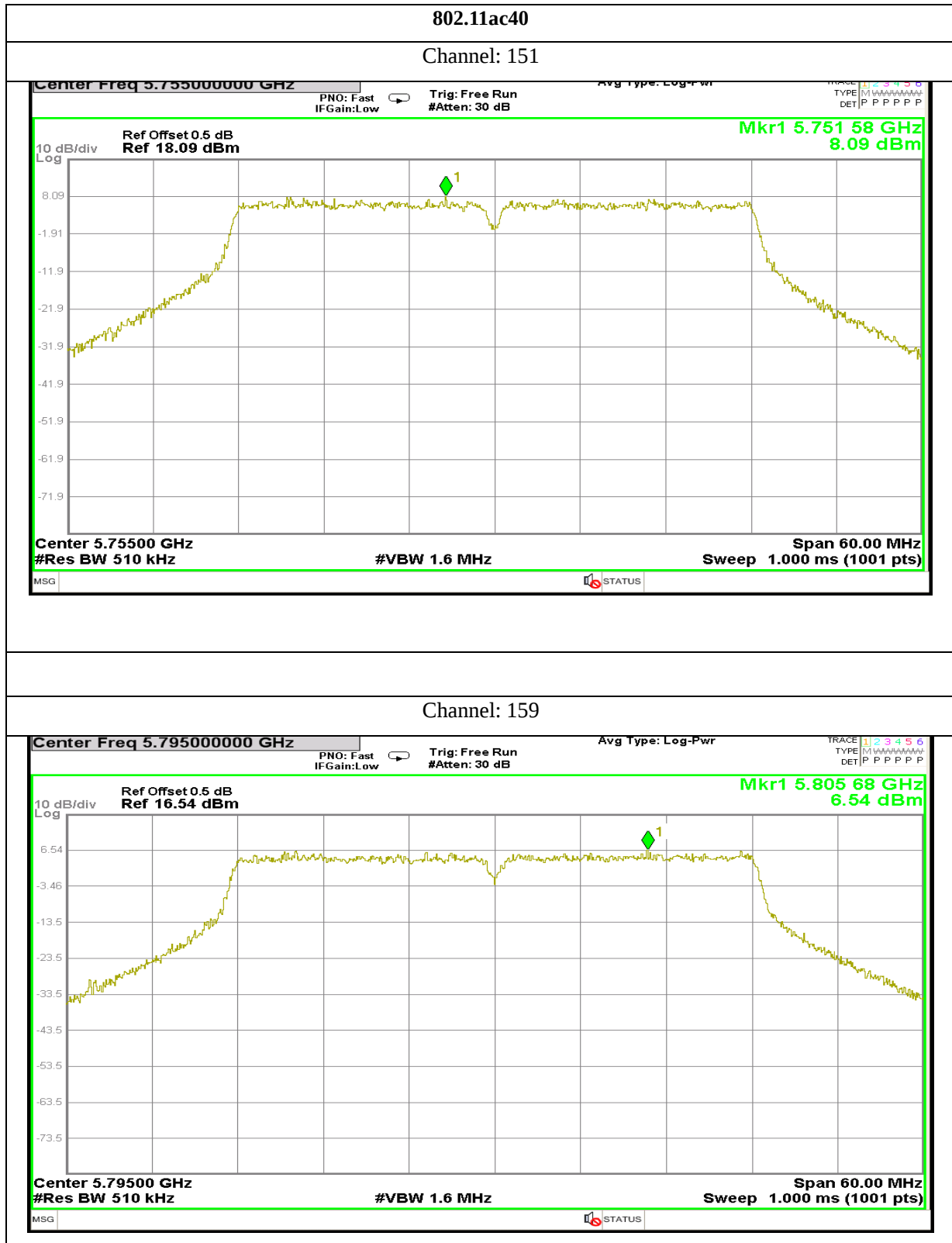
Channel: 149

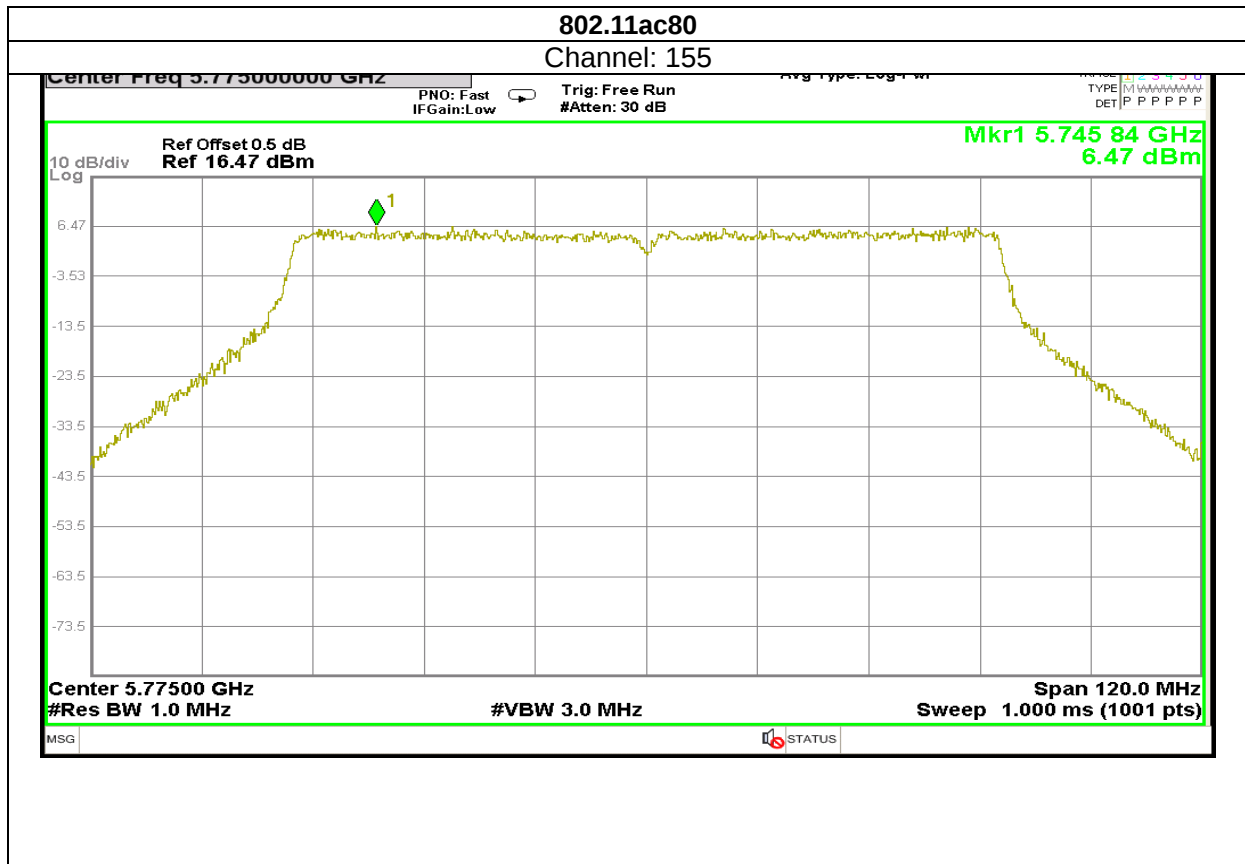


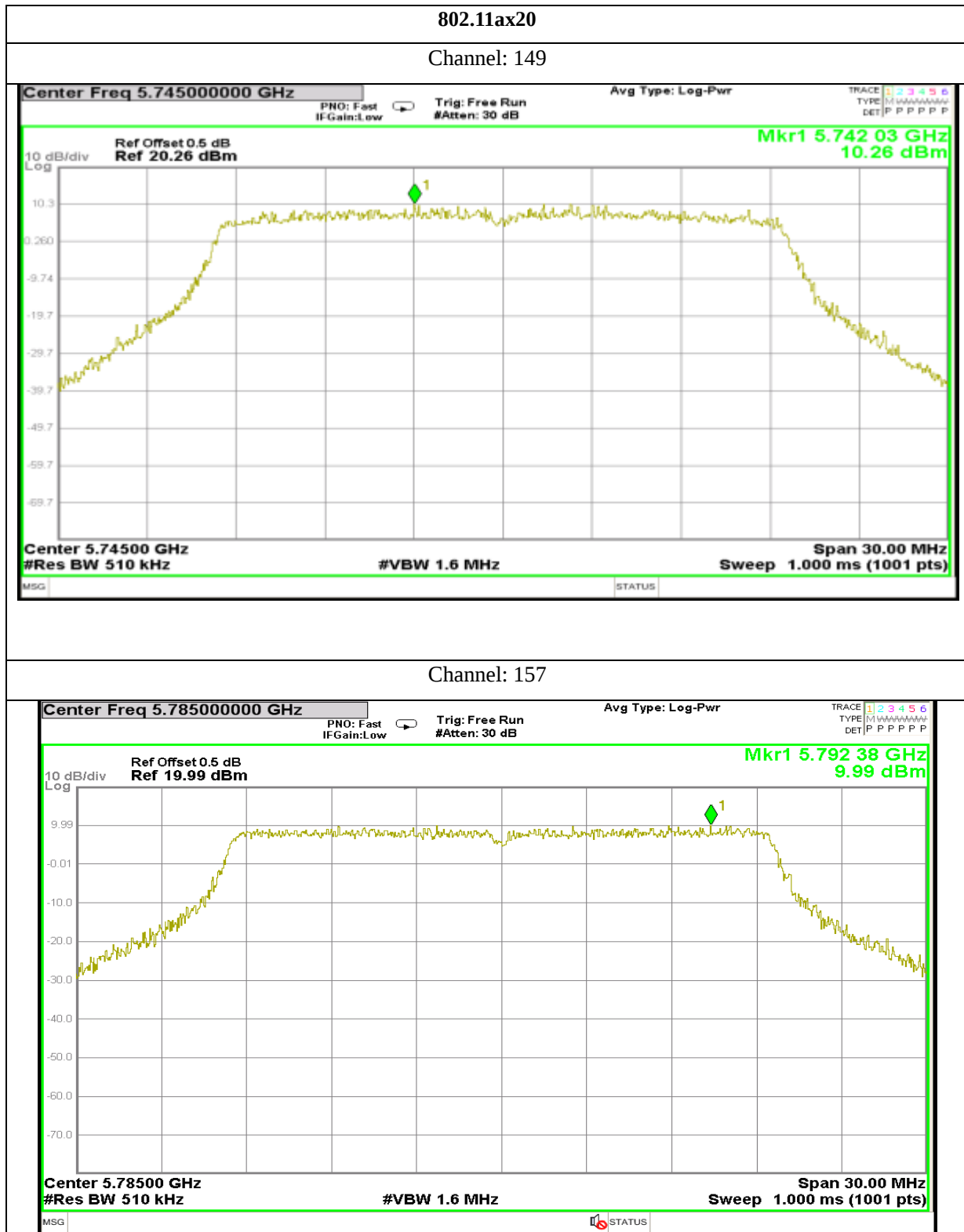
Channel: 157

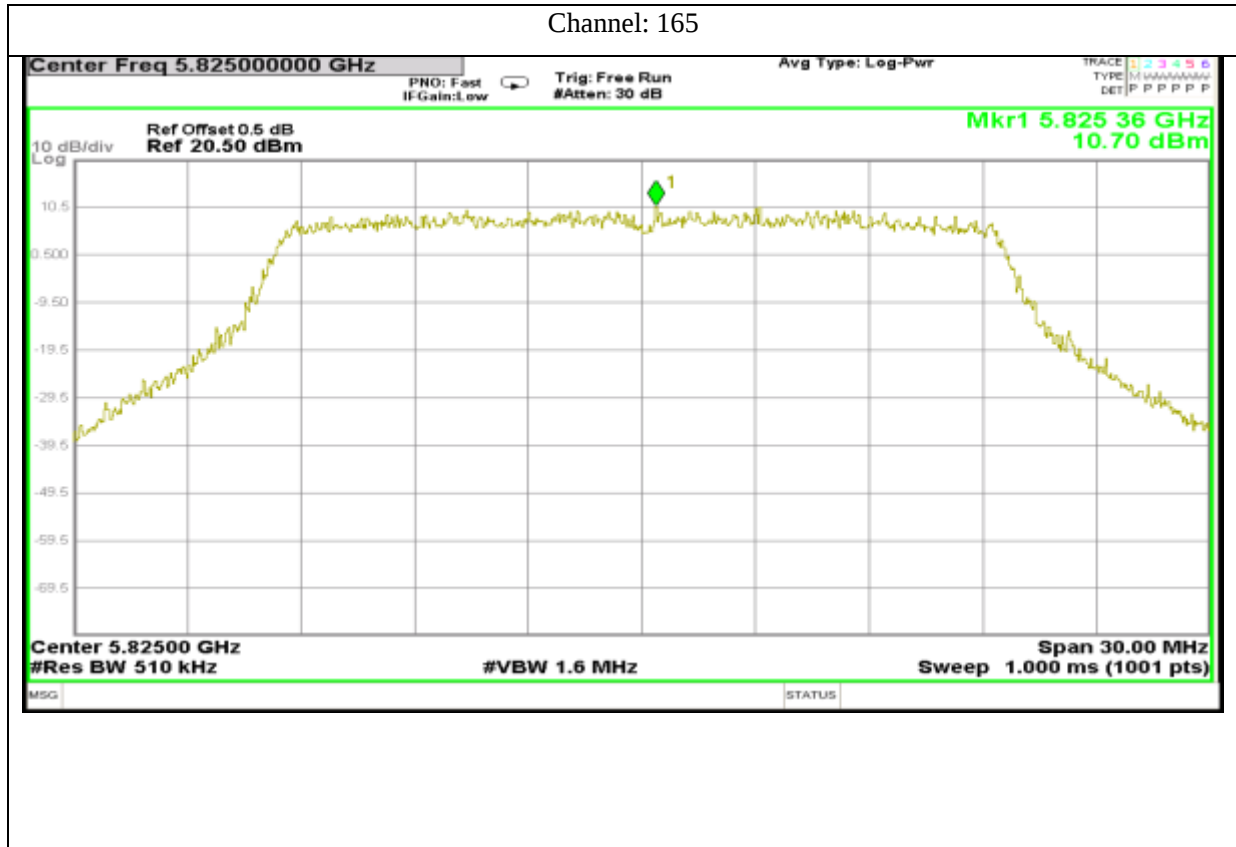


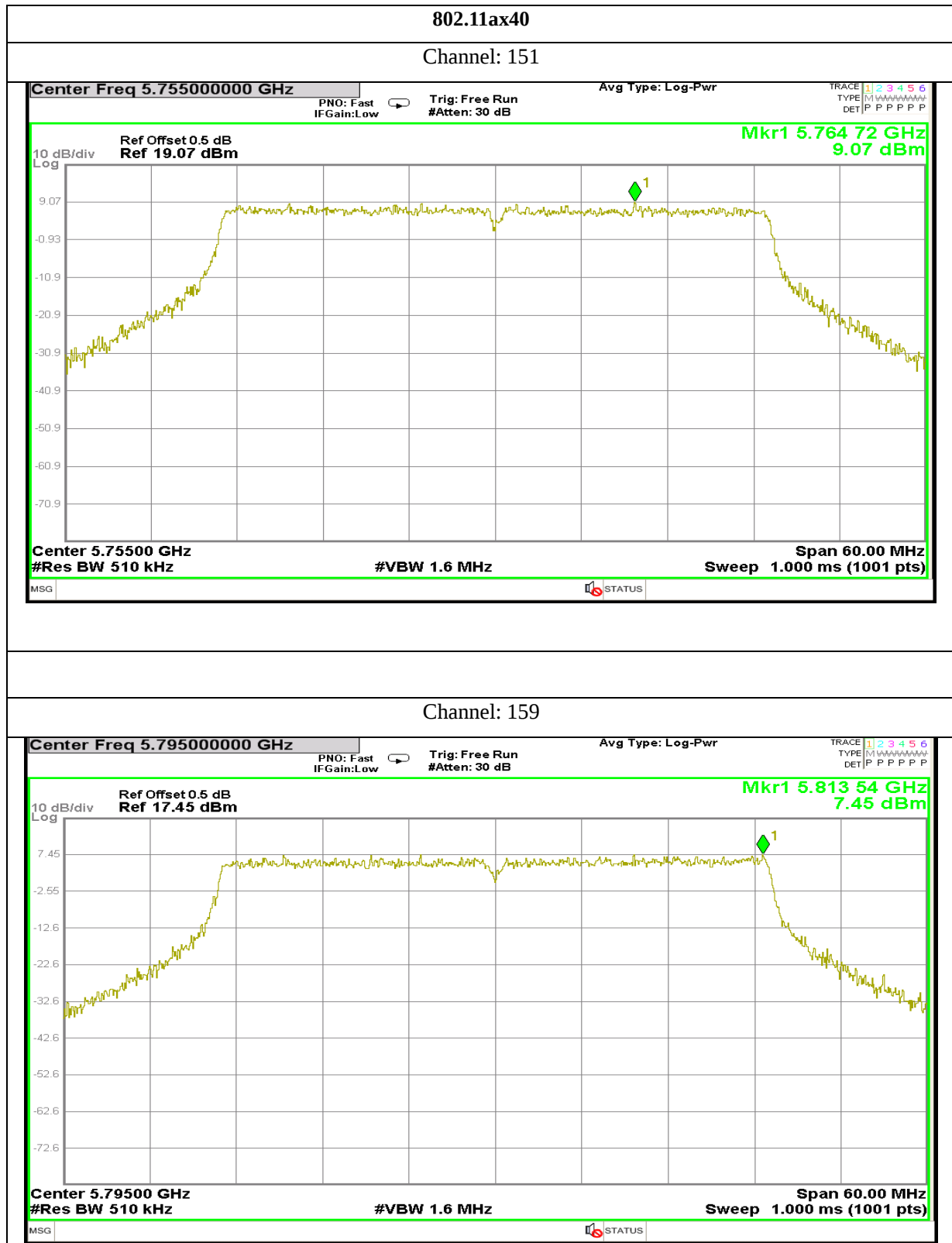


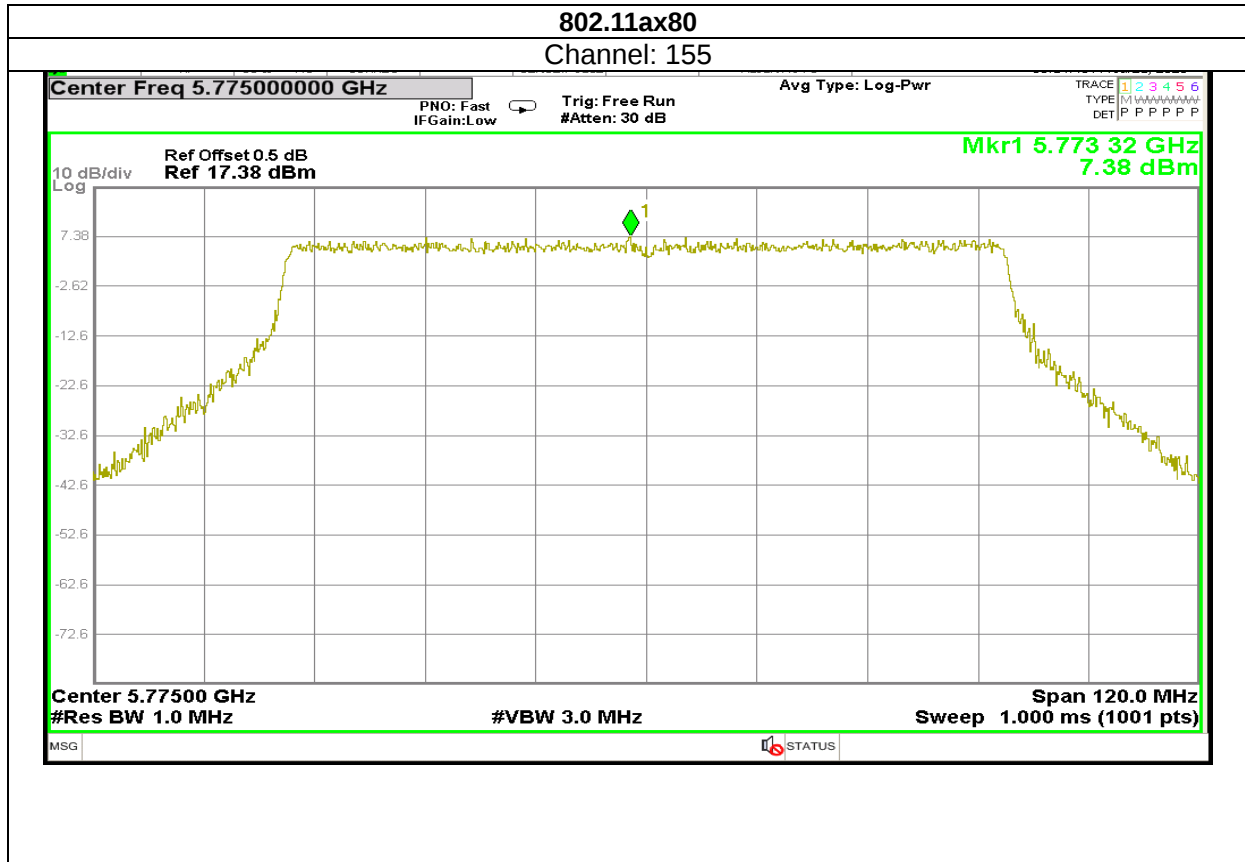




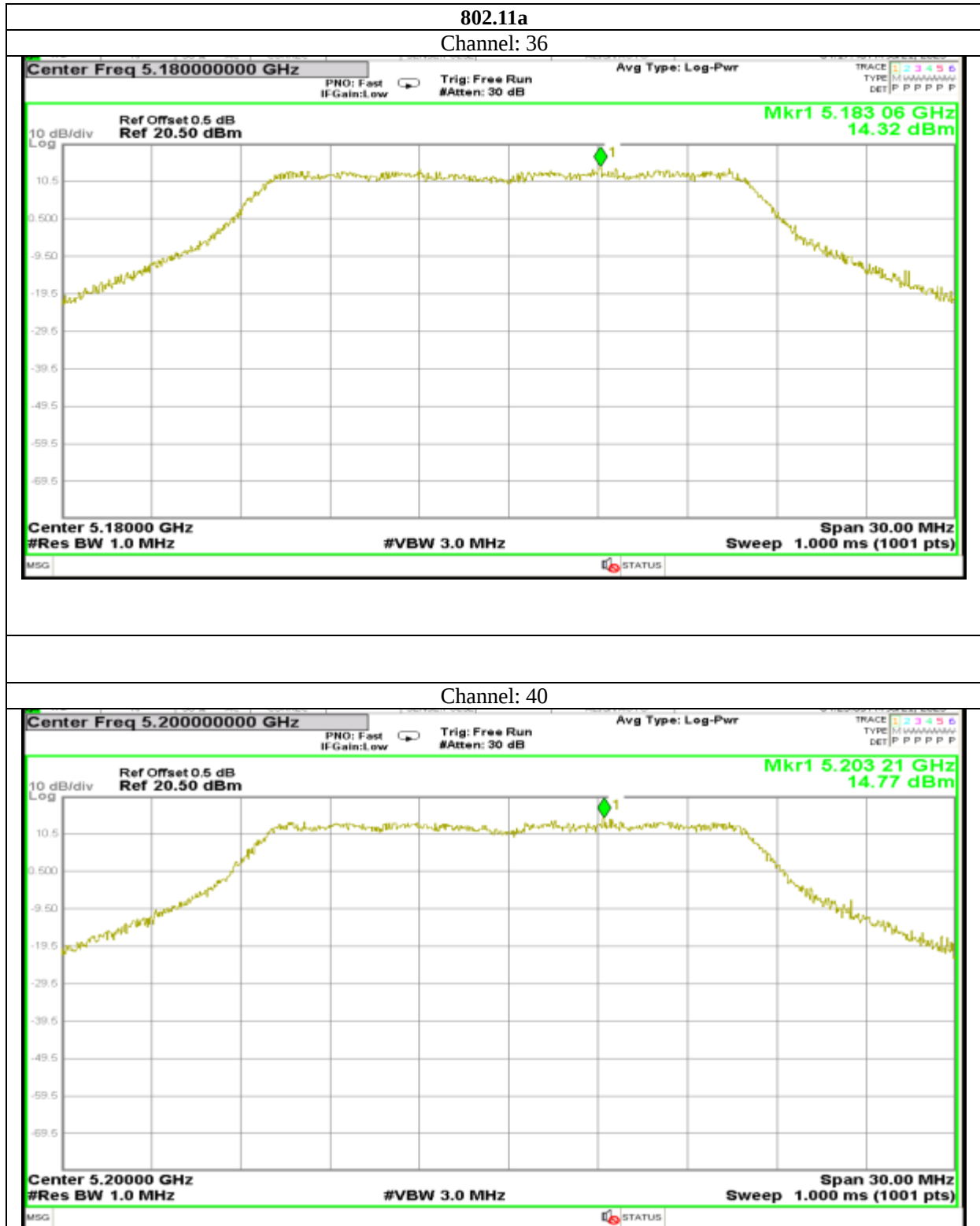




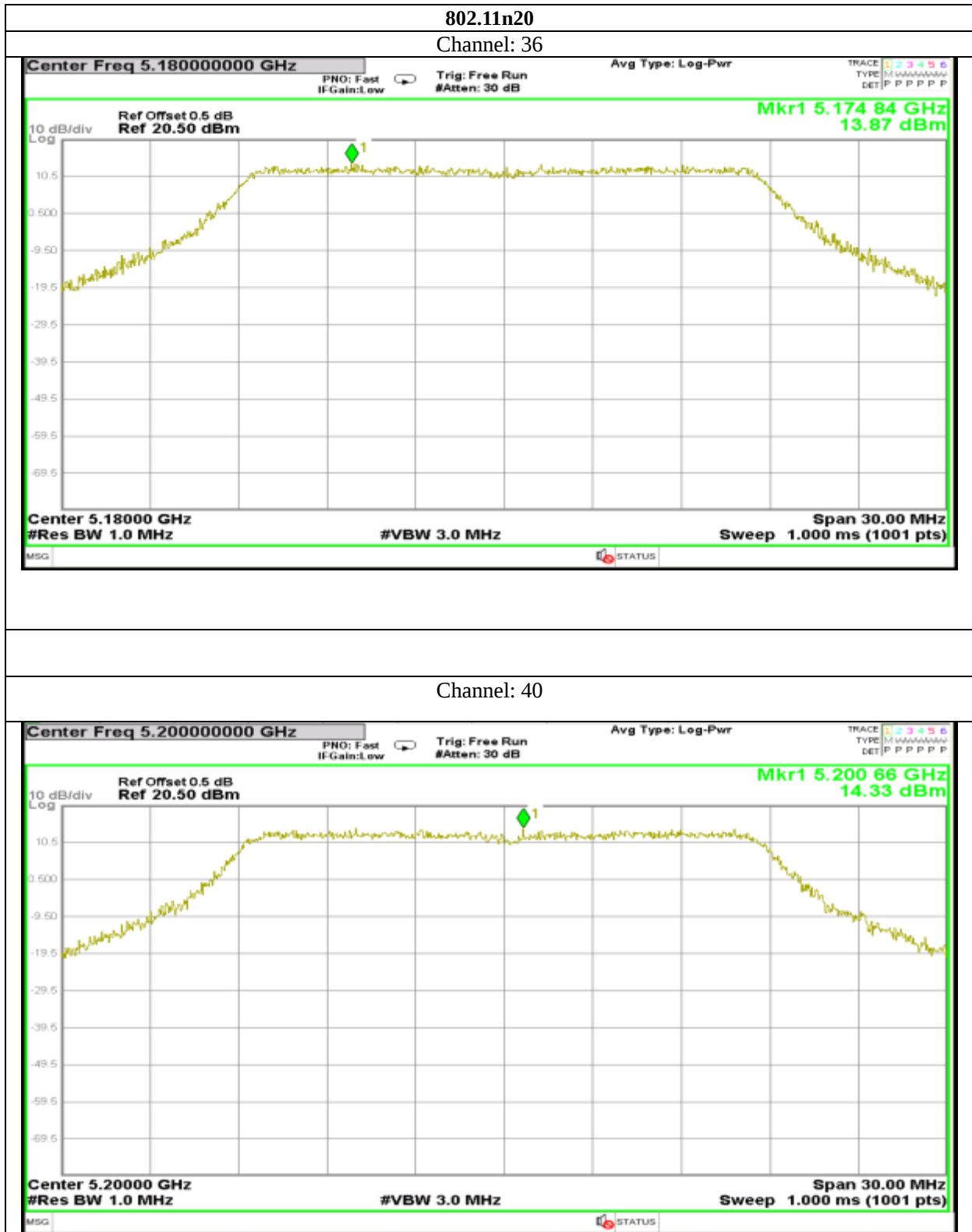




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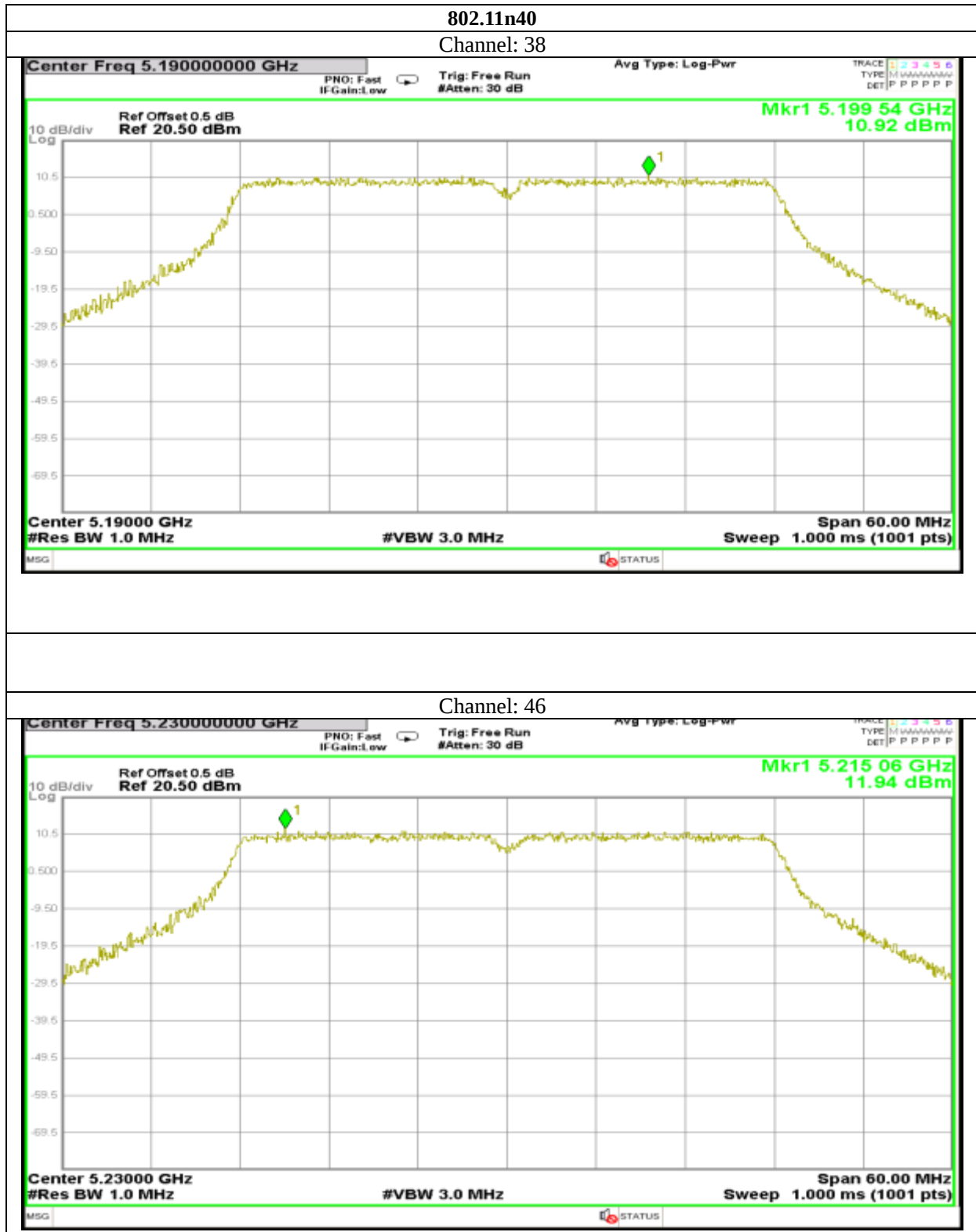


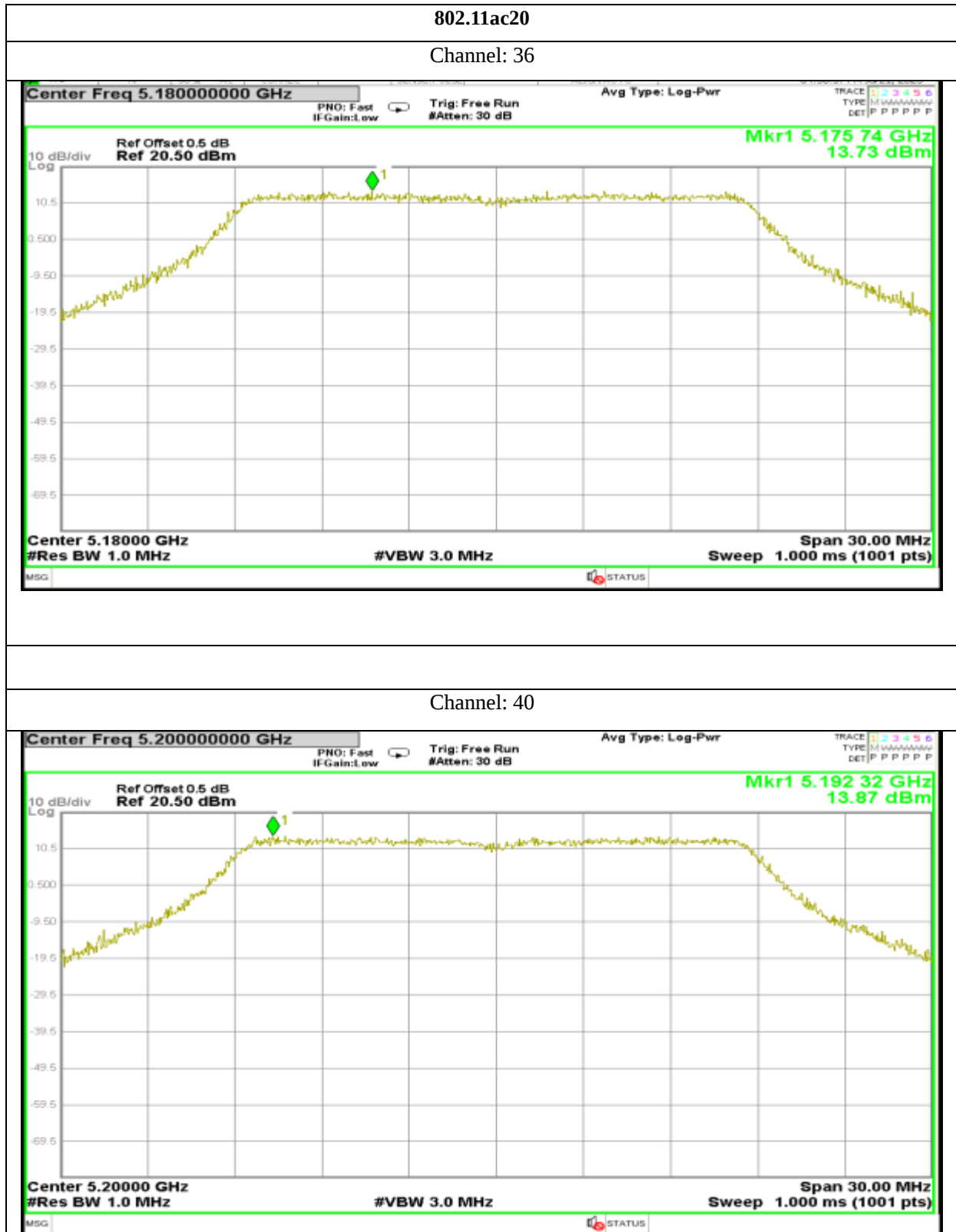




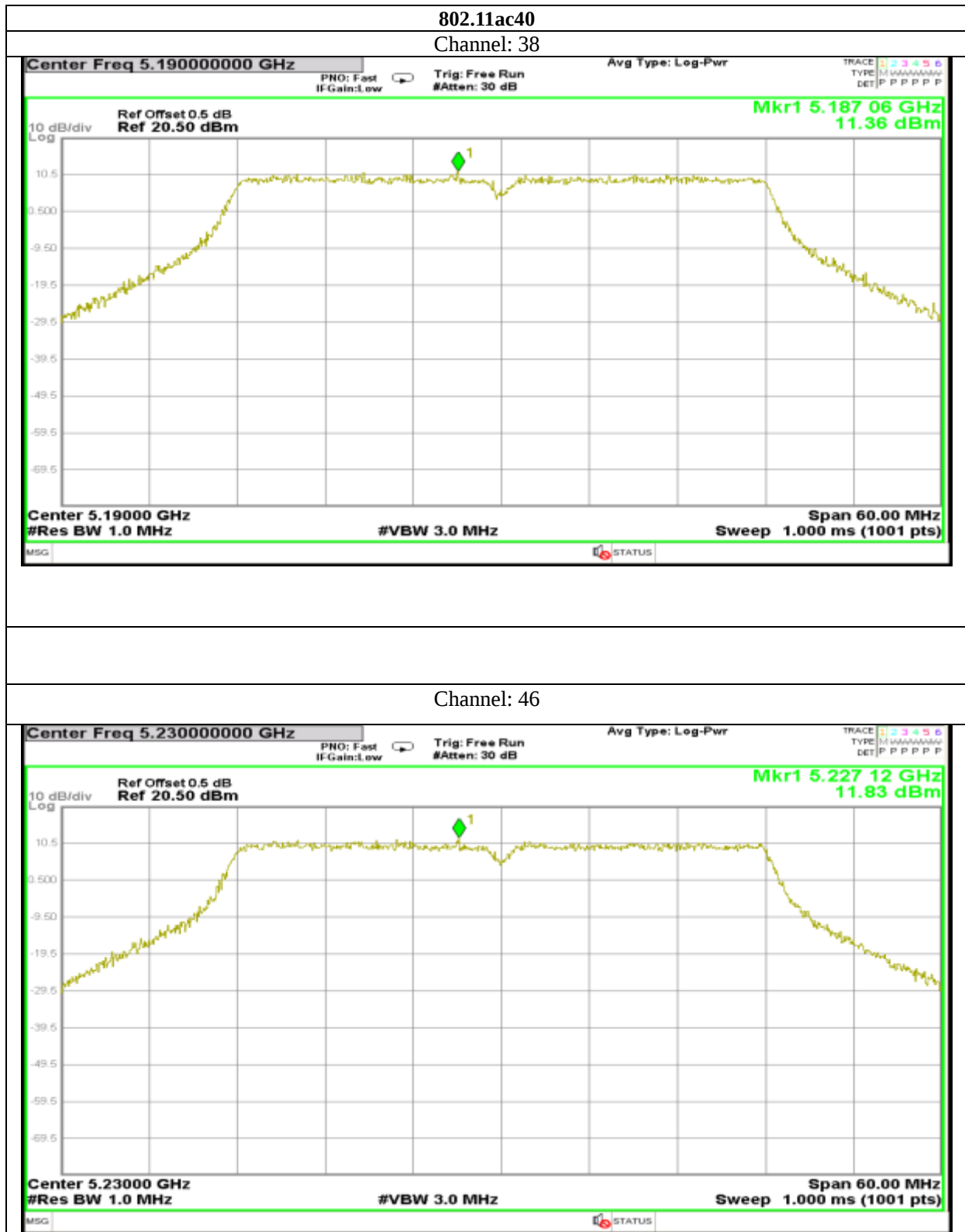
Report No.: AAEMT/RF/231110-04-03

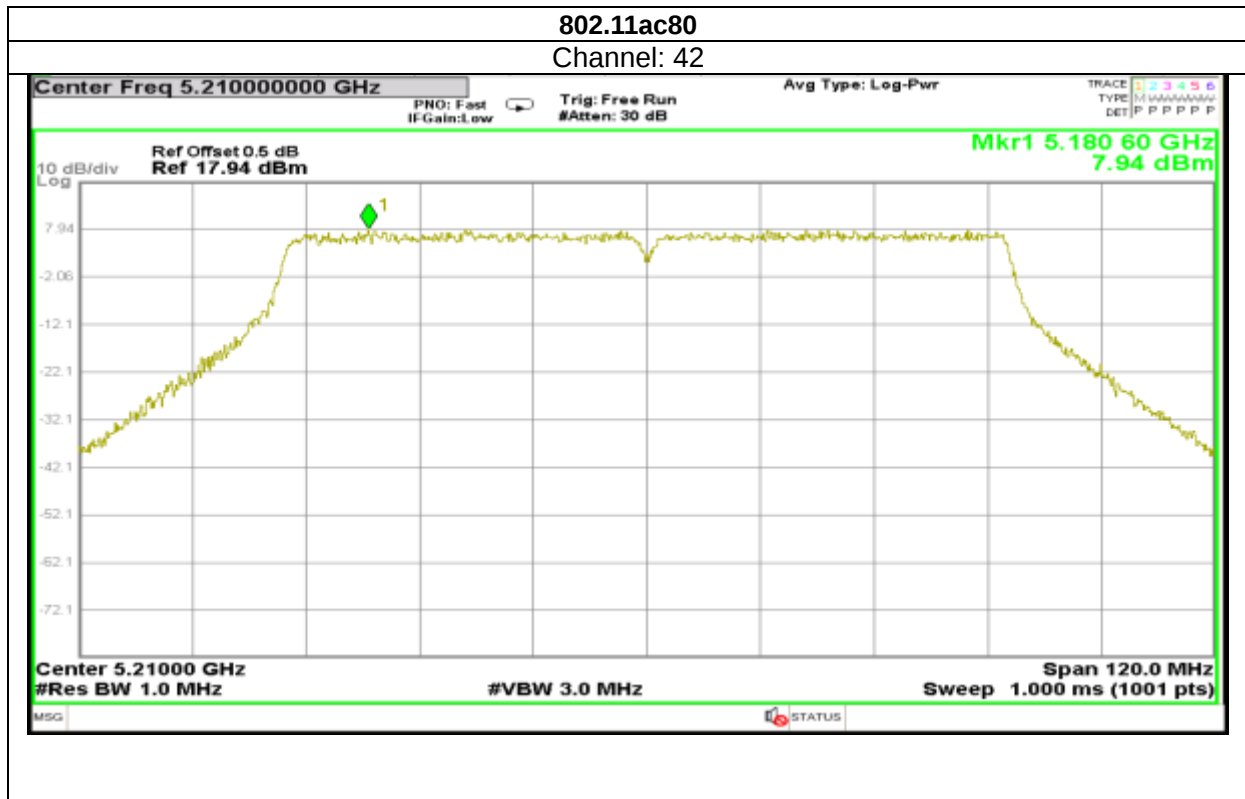


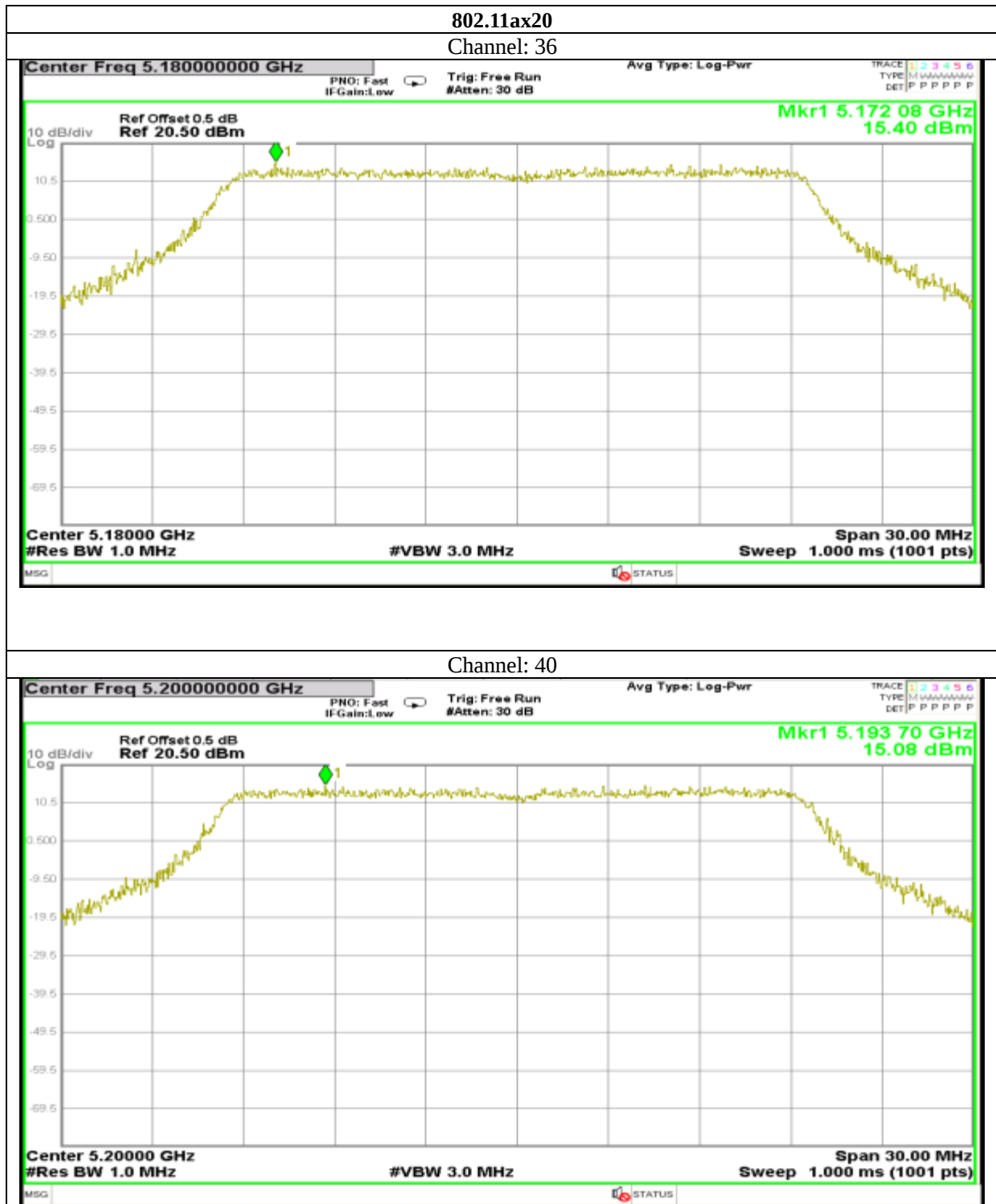


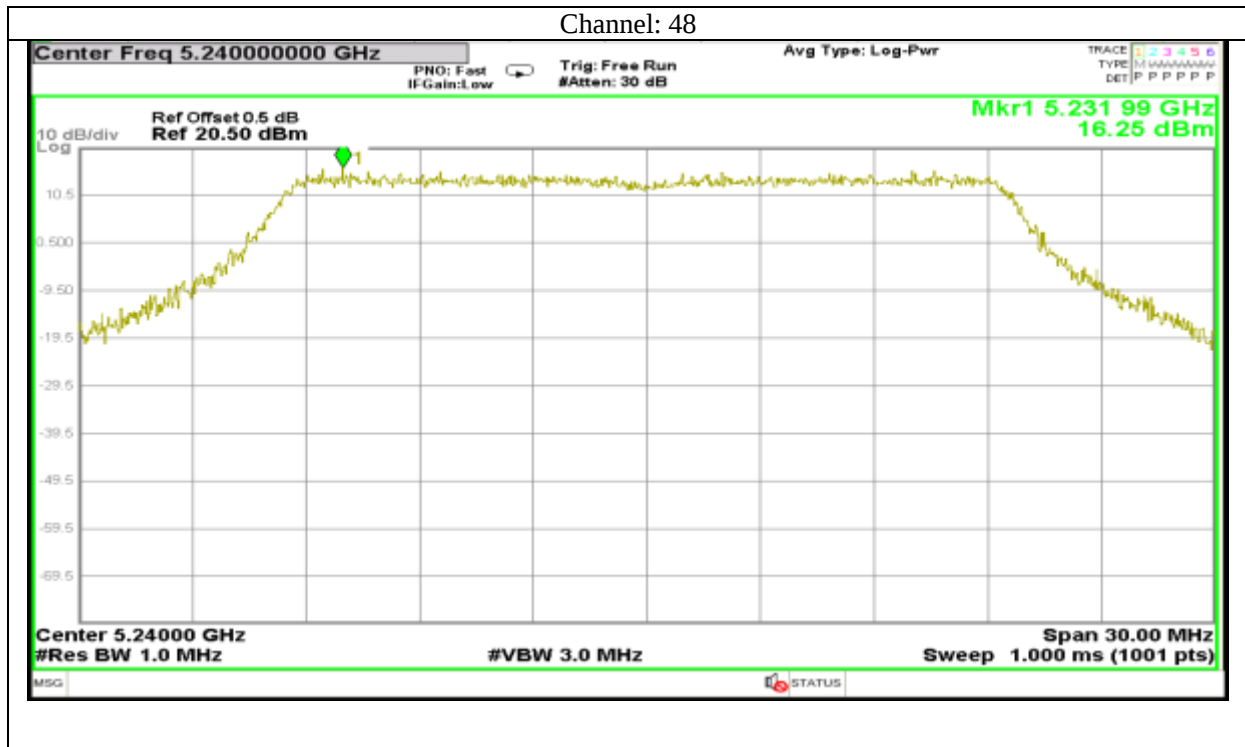




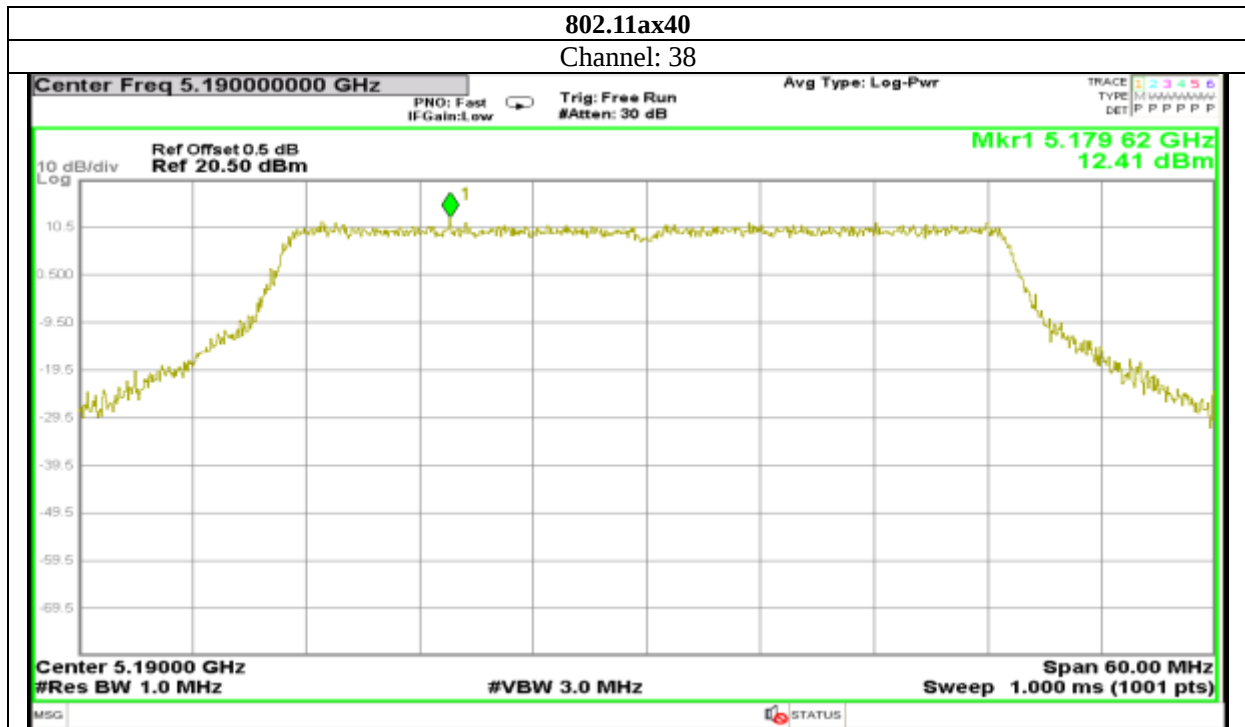






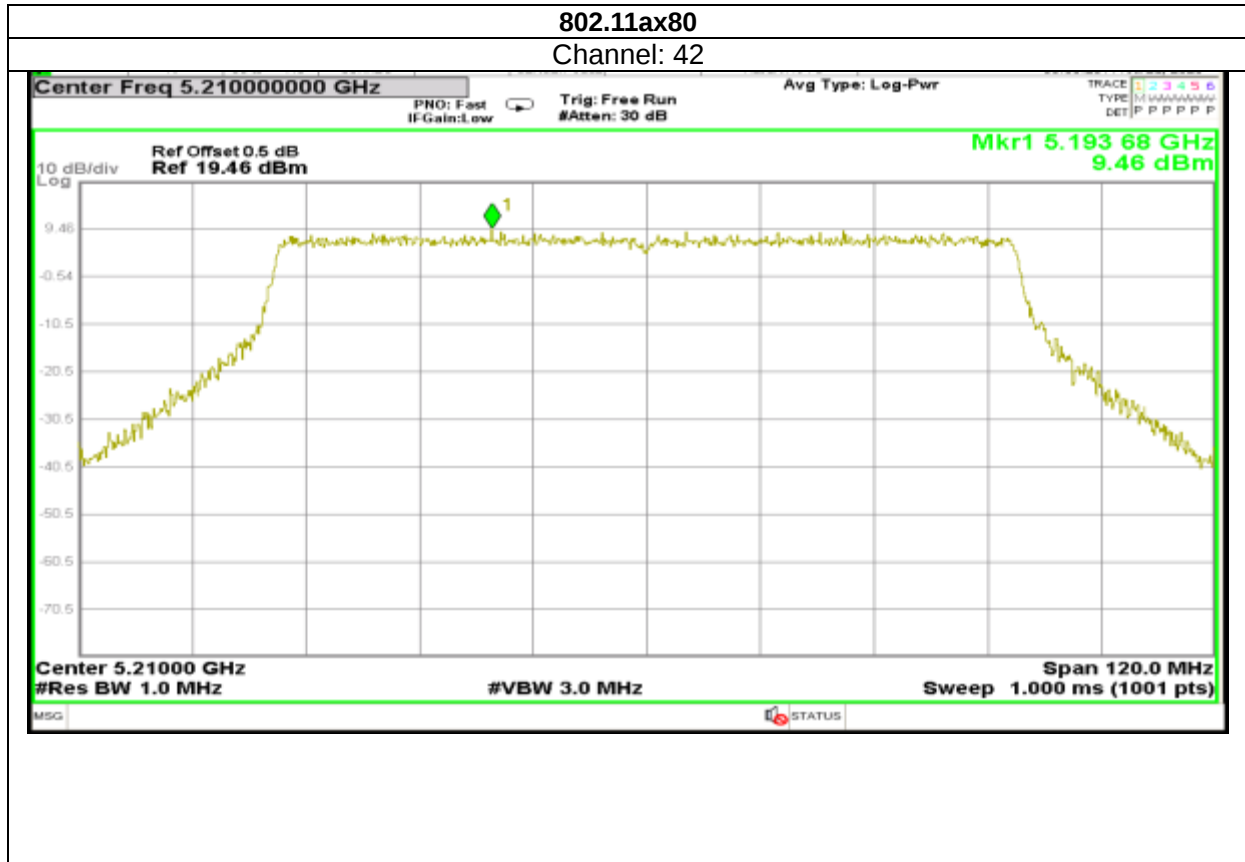


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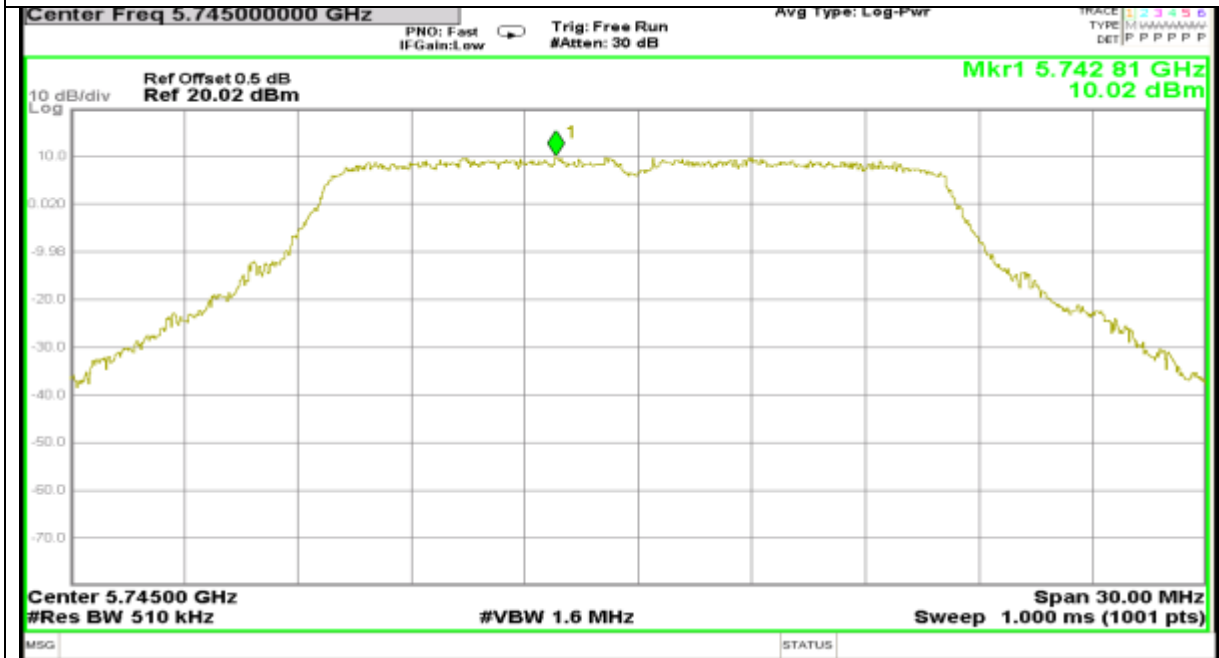
Channel: 46





802.11a

Channel: 149



Channel: 157

