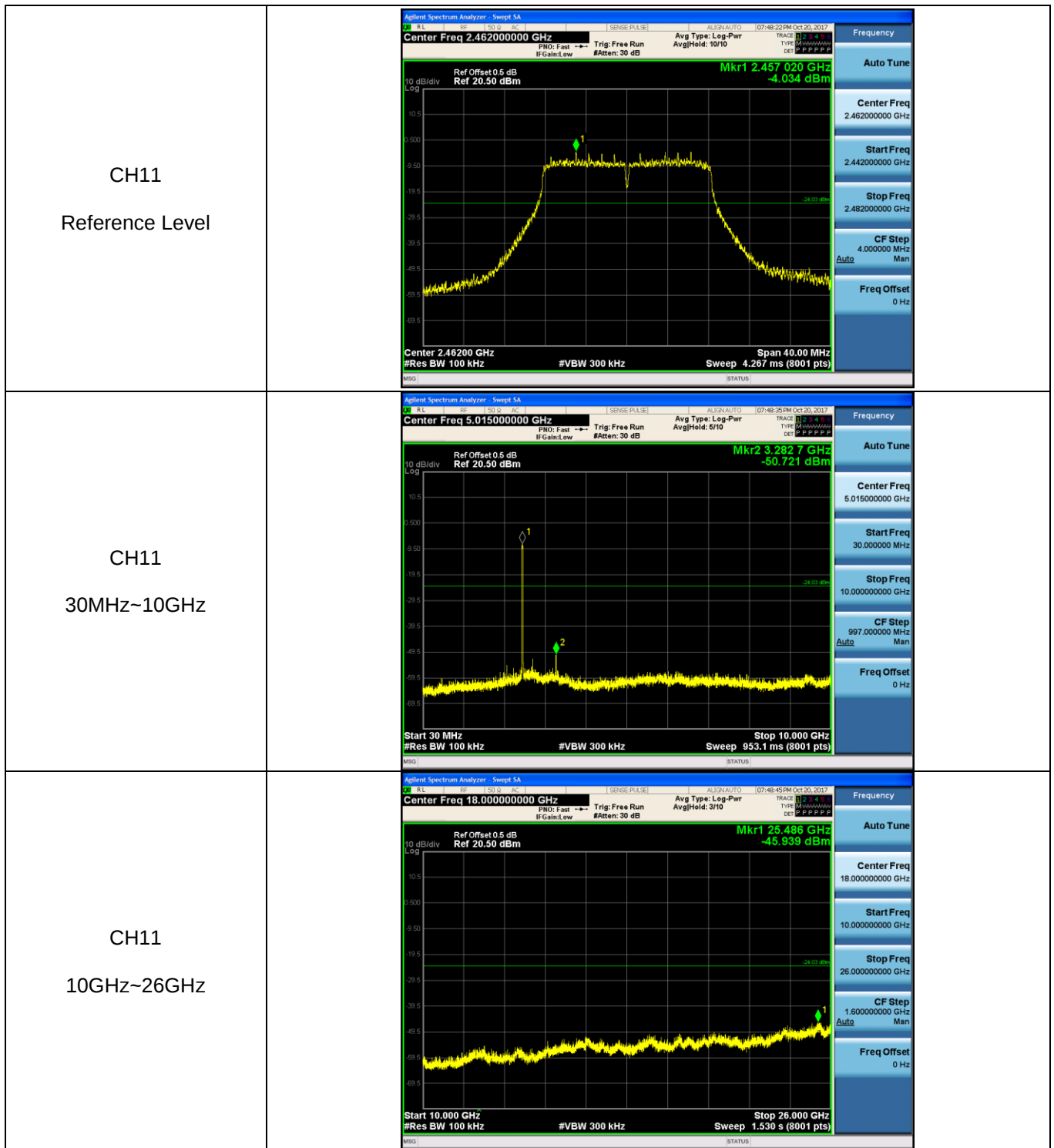
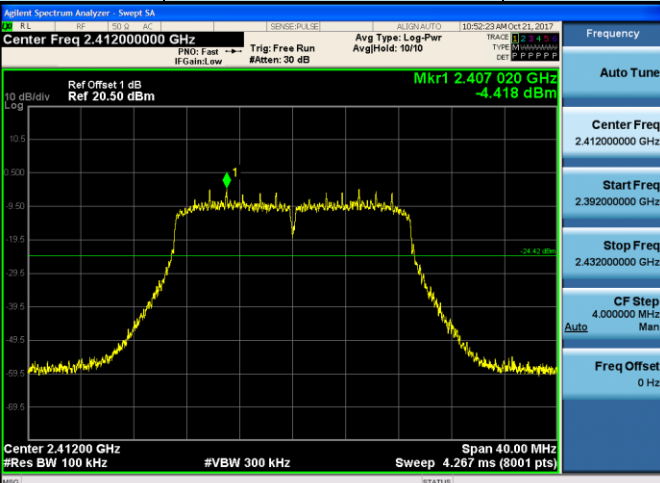
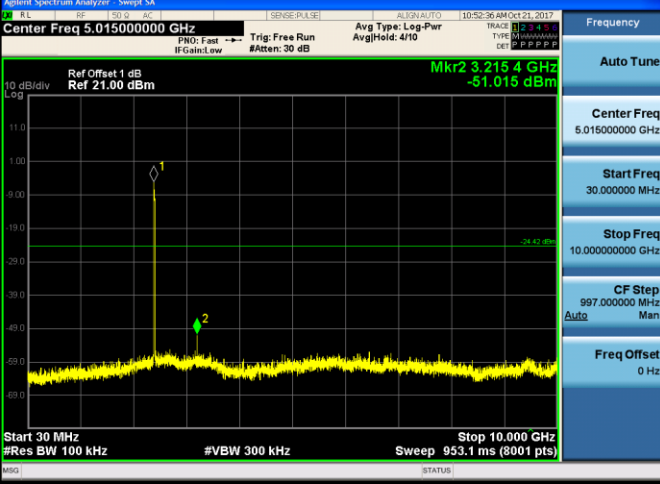
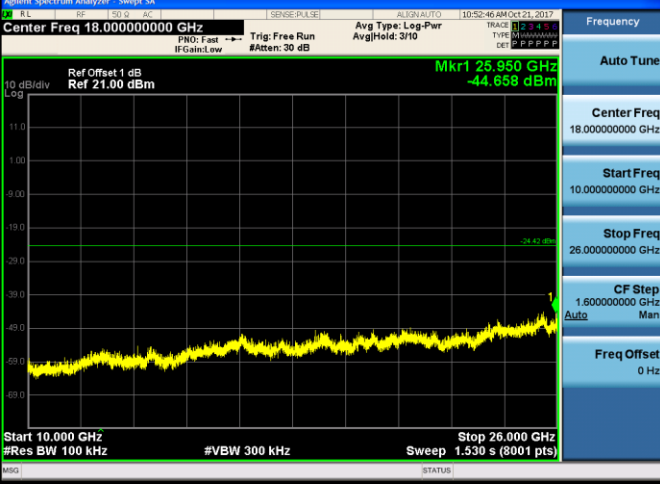
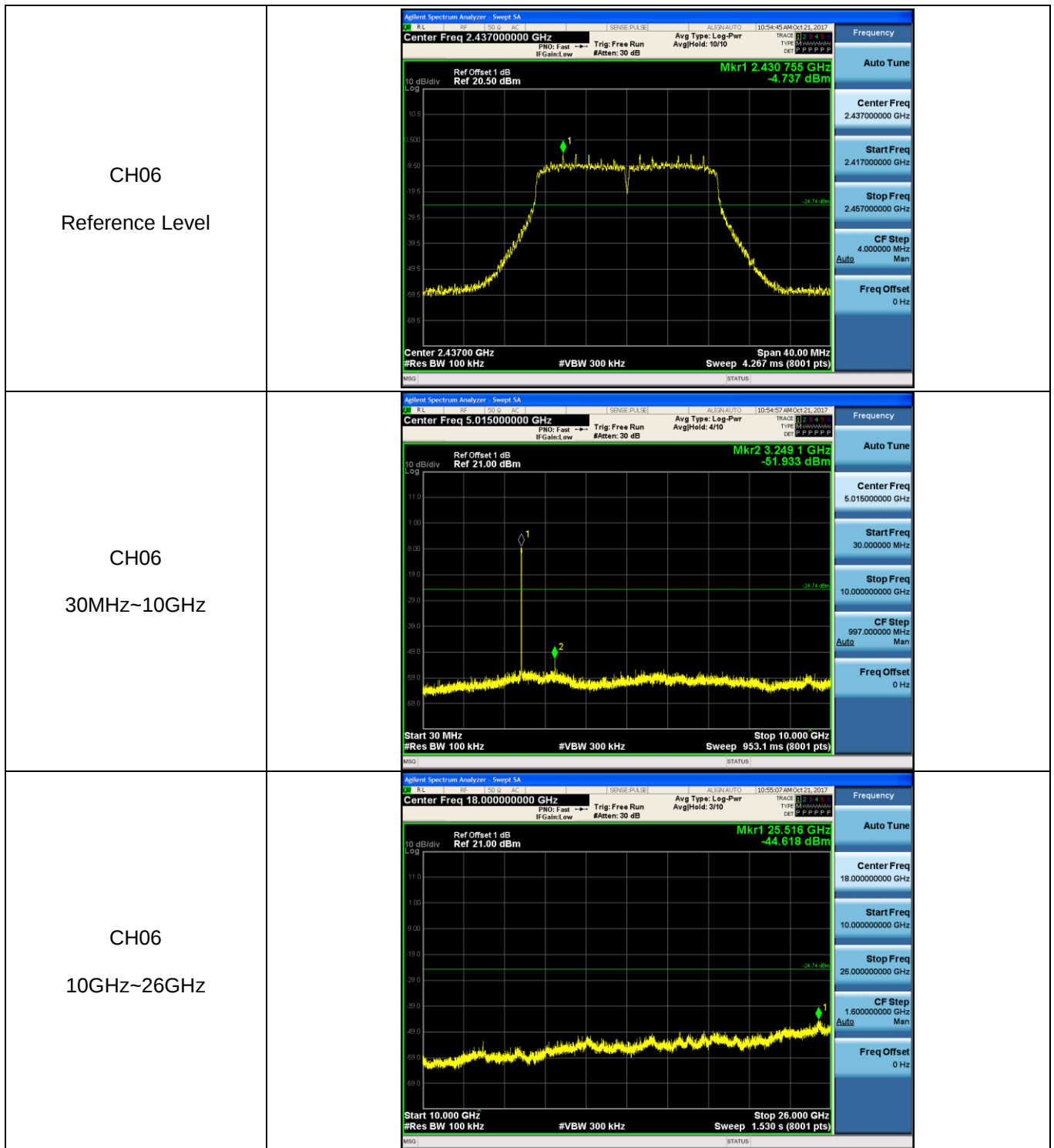
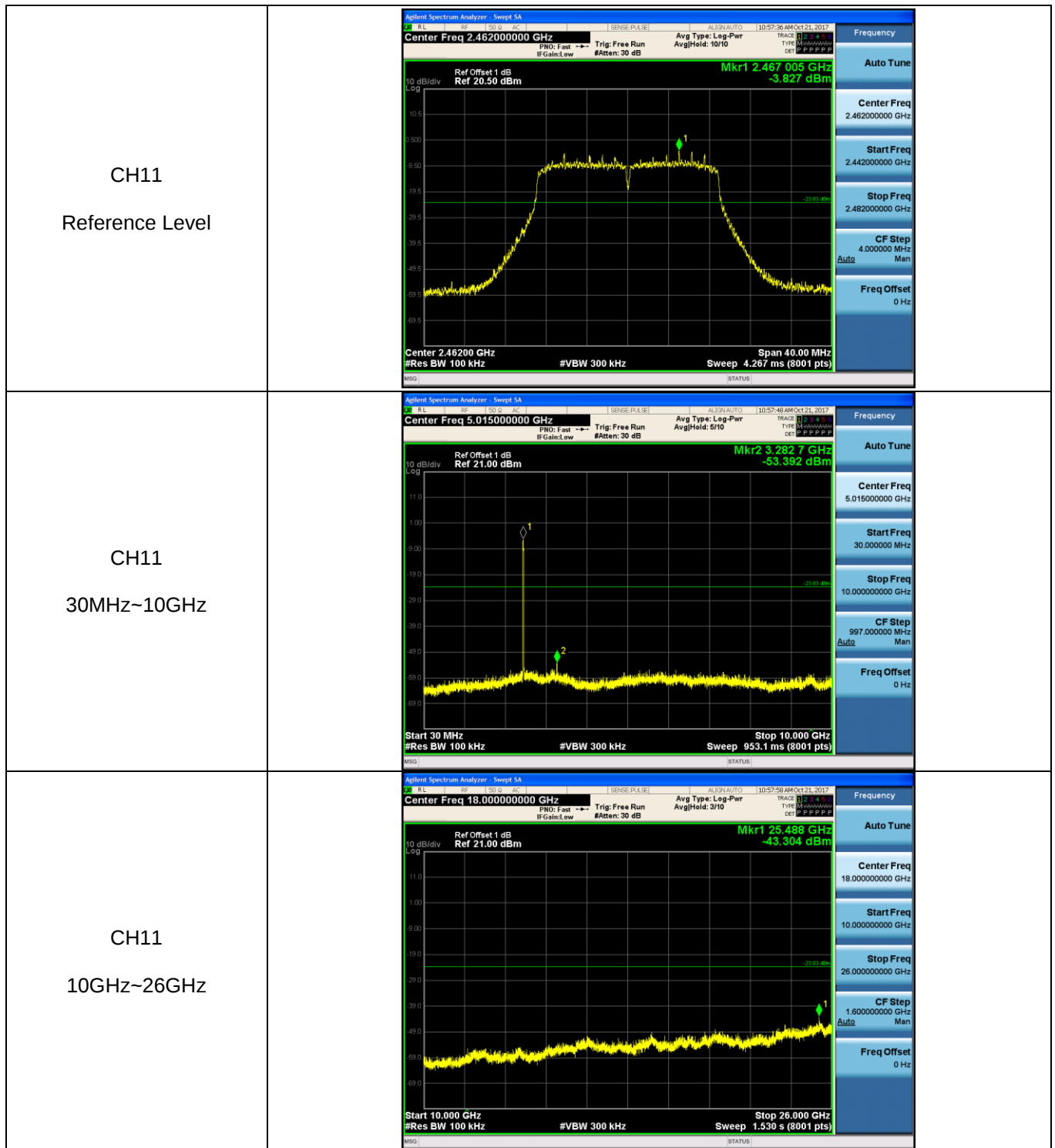
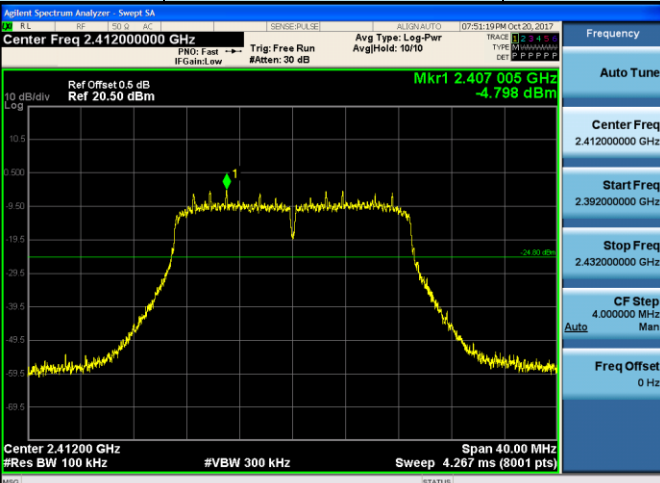
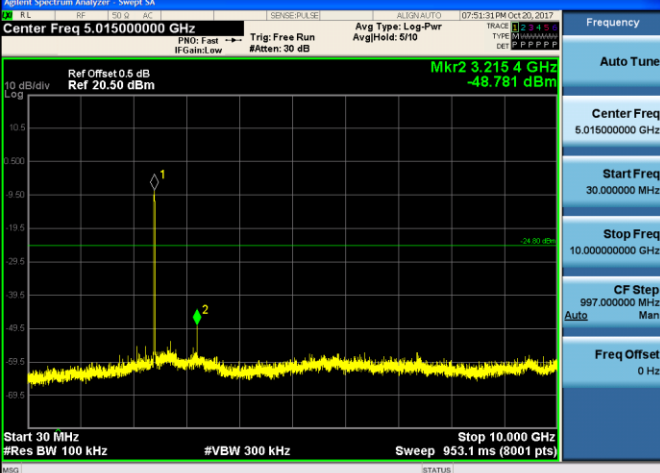
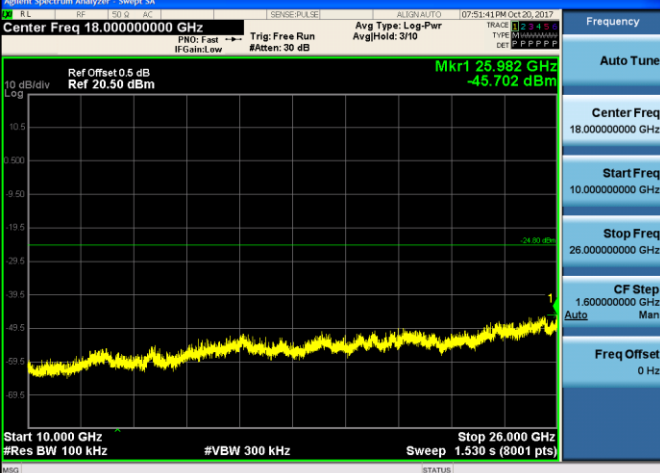


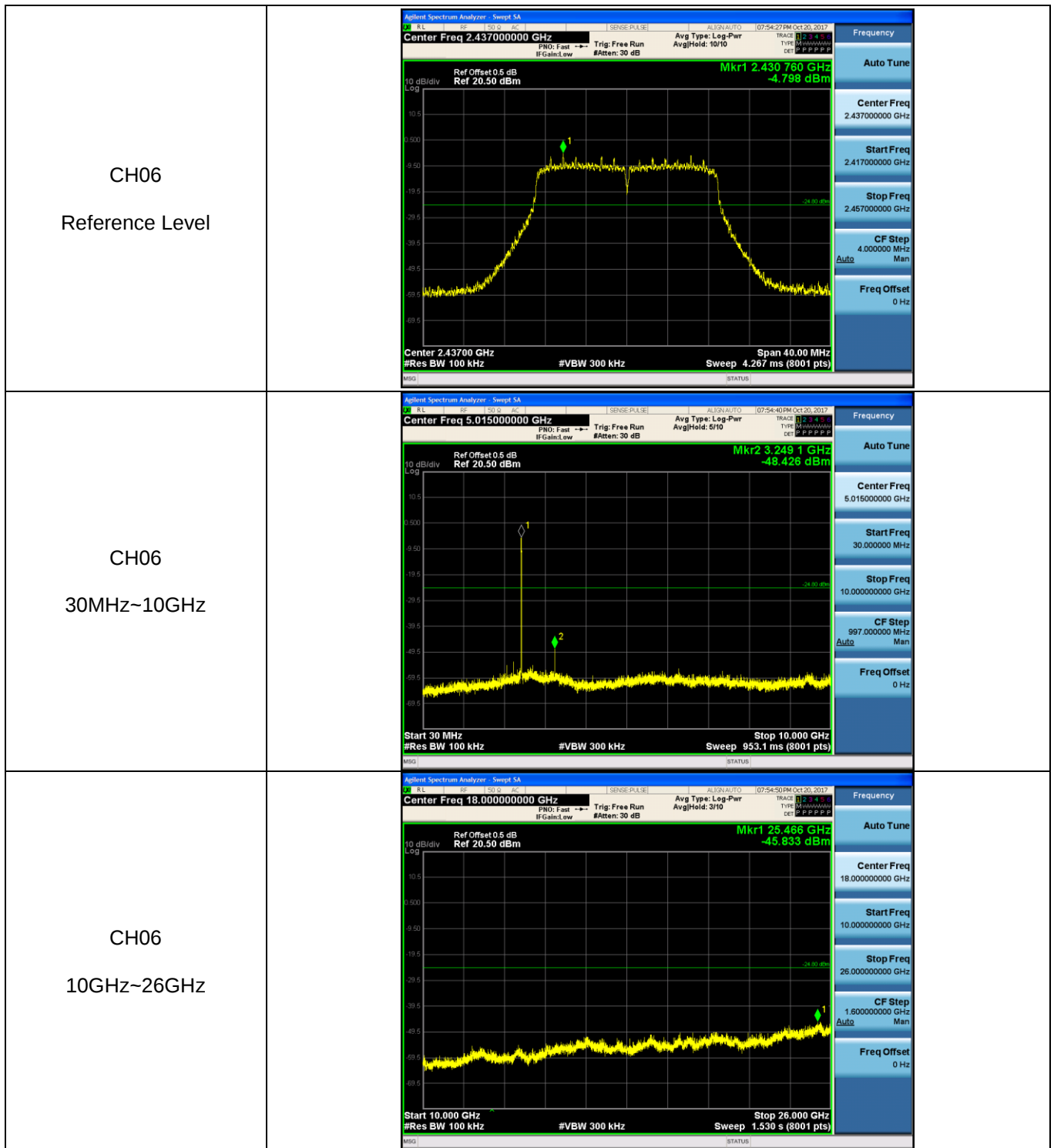


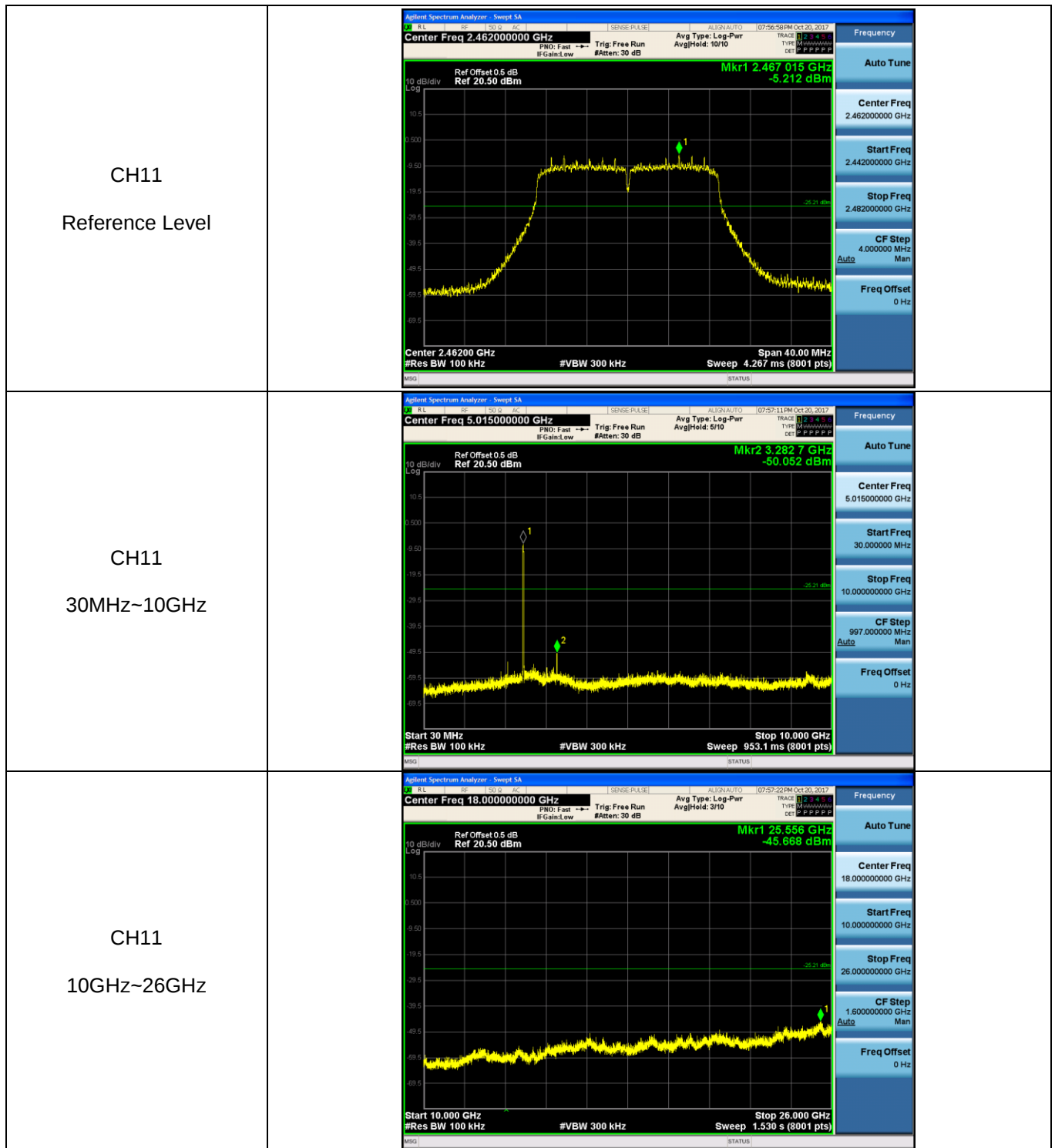
Test Item:	SE	Type:	802.11 n(HT20) / Ant0
CH01 Reference Level			
CH01 30MHz~10GHz			
CH01 10GHz~26GHz			

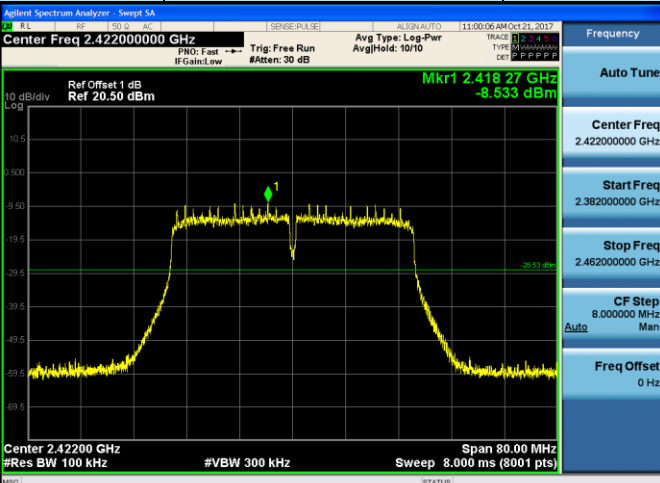
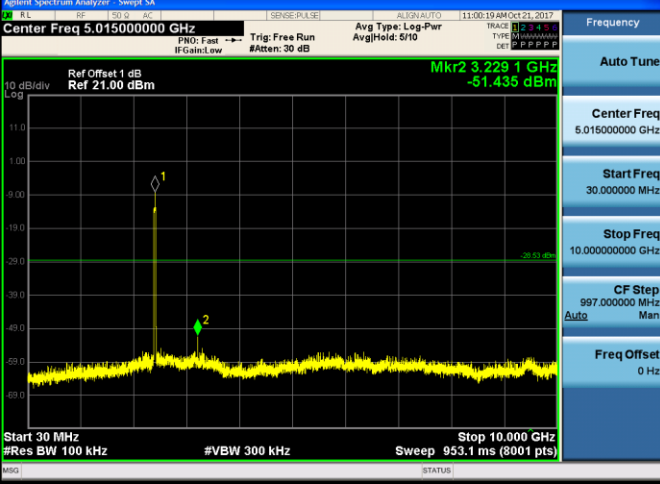
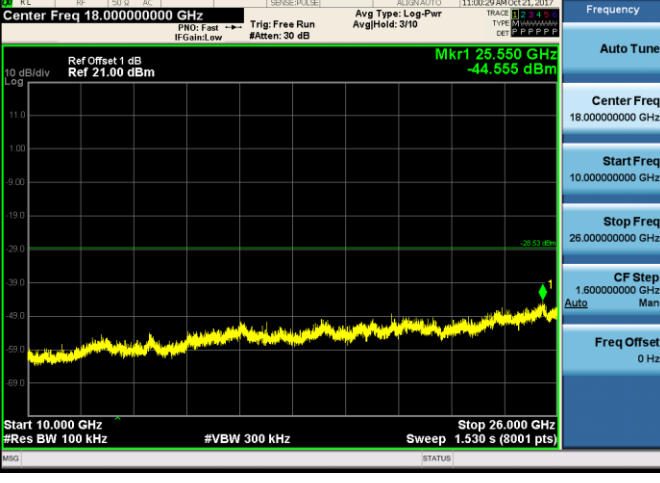


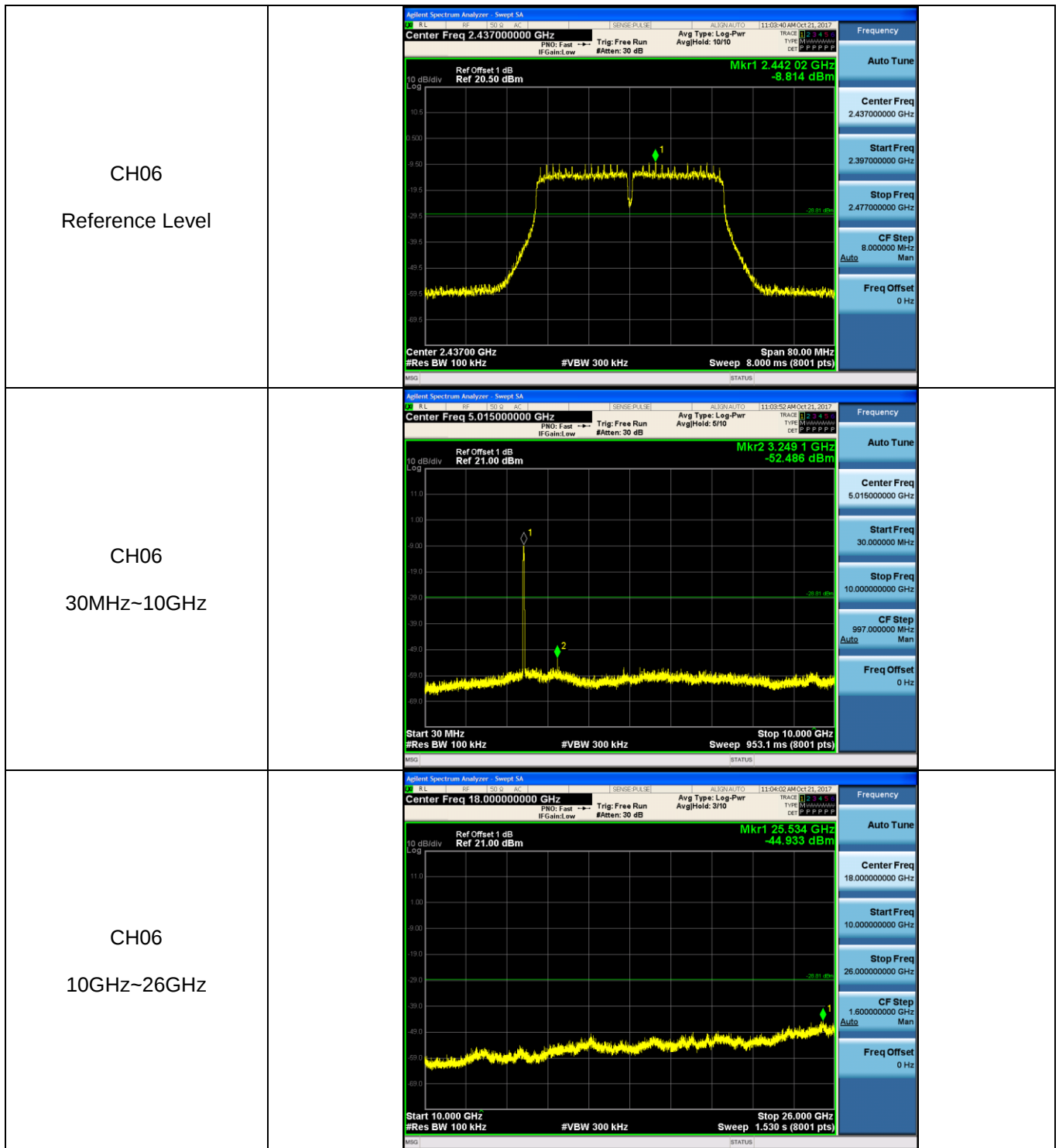


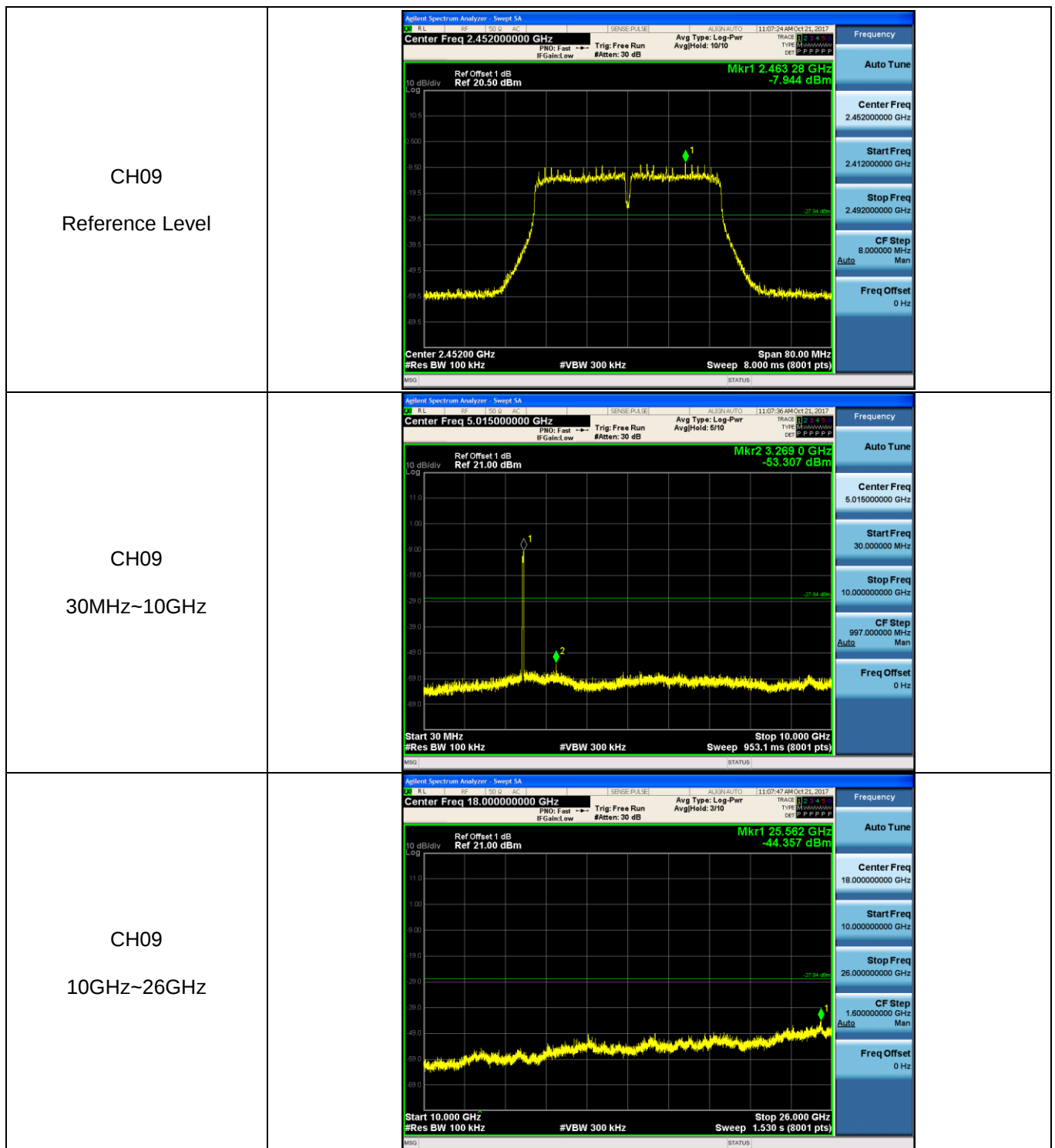
Test Item:	SE	Type:	802.11 n(HT20) / Ant1
CH01 Reference Level			
CH01 30MHz~10GHz			
CH01 10GHz~26GHz			

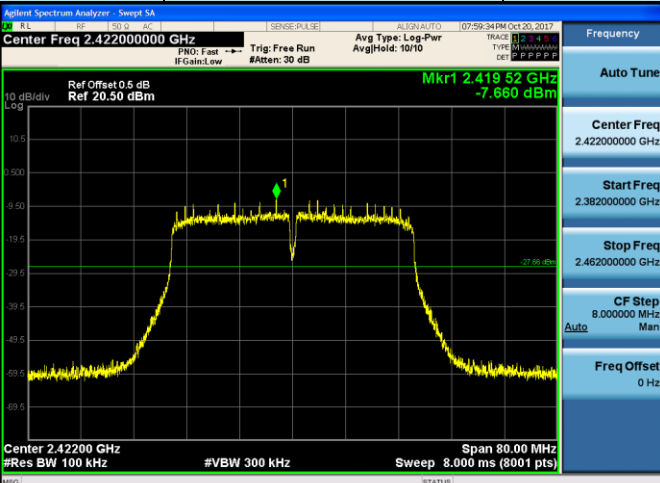
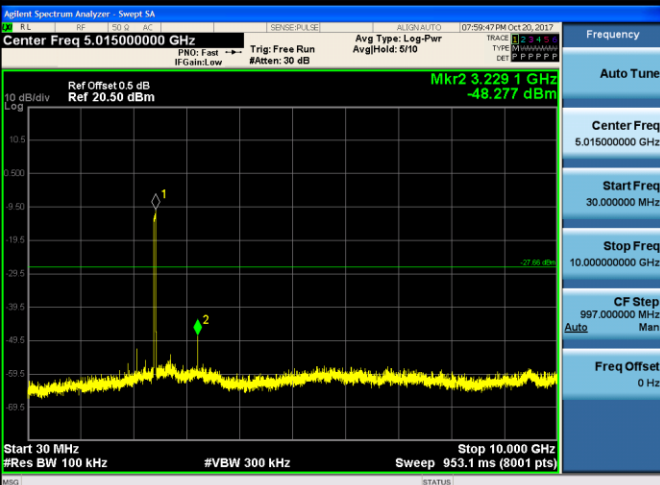
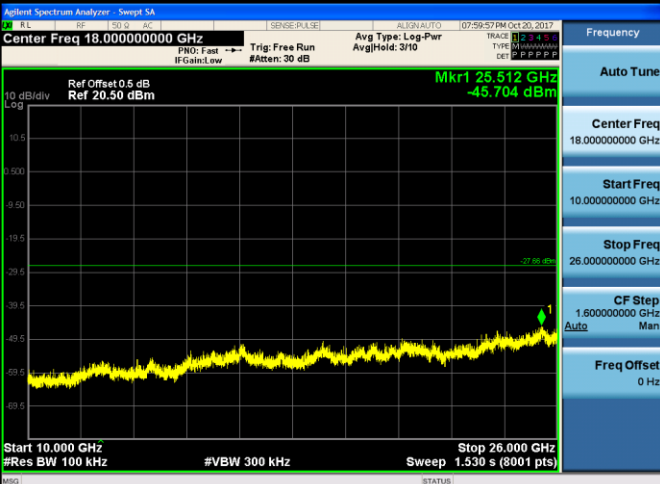


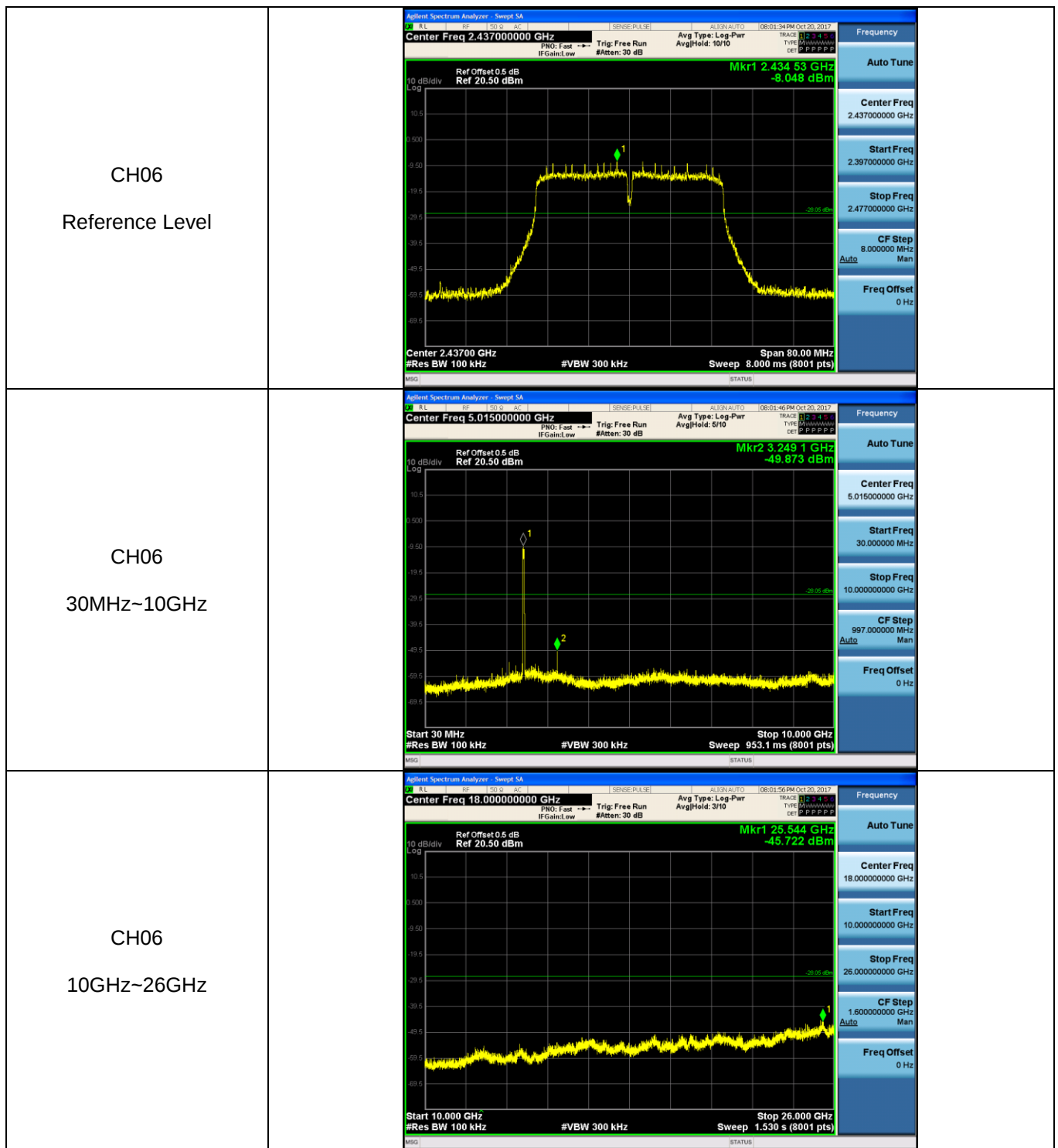


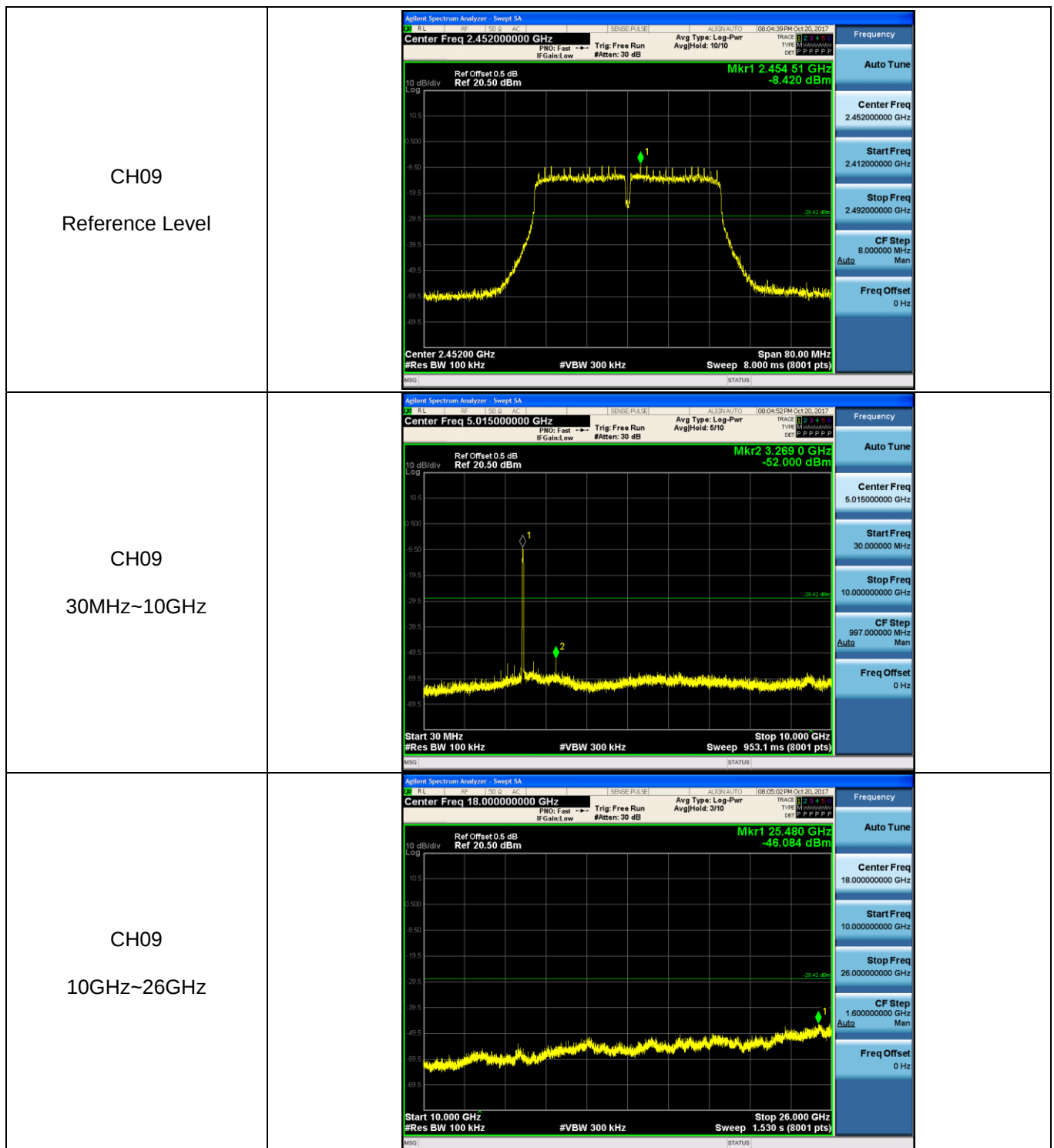
Test Item:	SE	Type:	802.11 n(HT40) / Ant0
CH03 Reference Level			Frequency Auto Tune Center Freq 2.422000000 GHz Start Freq 2.382000000 GHz Stop Freq 2.462000000 GHz CF Step 8.000000 MHz Auto Man Freq Offset 0 Hz
CH03 30MHz~10GHz			Frequency Auto Tune Center Freq 5.015000000 GHz Start Freq 30.000000 MHz Stop Freq 10.000000000 GHz CF Step 997.000000 MHz Auto Man Freq Offset 0 Hz
CH01 10GHz~26GHz			Frequency Auto Tune Center Freq 18.000000000 GHz Start Freq 10.000000000 GHz Stop Freq 26.000000000 GHz CF Step 1.600000000 GHz Auto Man Freq Offset 0 Hz





Test Item:	SE	Type:	802.11 n(HT40) / Ant1
CH03 Reference Level			
CH03 30MHz~10GHz			
CH01 10GHz~26GHz			





5.8. Spurious Emissions (Radiated)

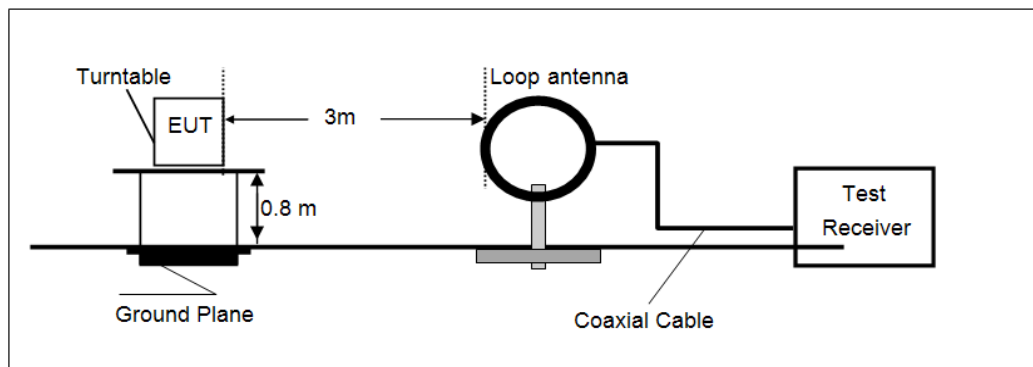
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.209

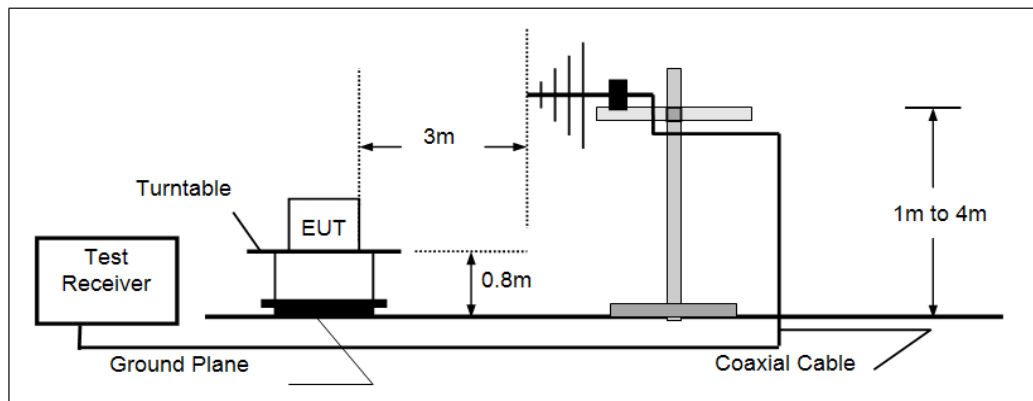
Frequency	Limit (dBuV/m @3m)	Value
30MHz-88MHz	40.00	Quasi-peak
88MHz-216MHz	43.50	Quasi-peak
216MHz-960MHz	46.00	Quasi-peak
960MHz-1GHz	54.00	Quasi-peak
Above 1GHz	54.00	Average
	74.00	Peak

TEST CONFIGURATION

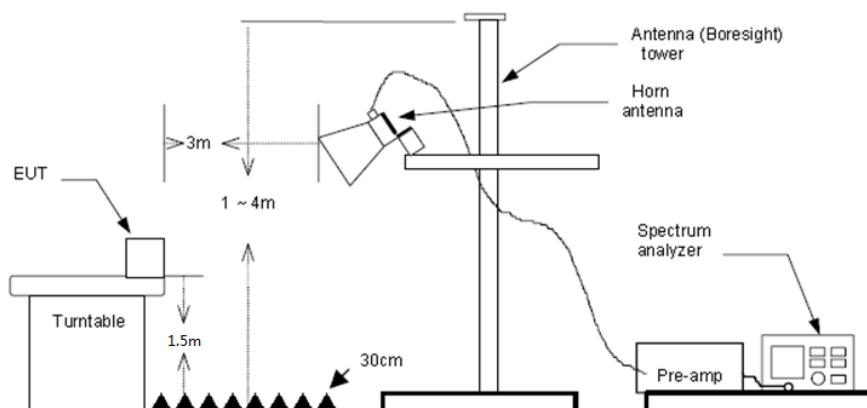
➤ 9kHz ~30MHz



➤ 30MHz ~ 1GHz



➤ Above 1GHz



TEST PROCEDURE

1. The EUT was tested according to ANSI C63.10:2013 for compliance to FCC 47CFR 15.247 requirements.
2. The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna.
5. Use the following spectrum analyzer settings
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Below 1GHz, RBW=120kHz, VBW=300kHz, Sweep=auto, Detector function=peak, Trace=max hold;
If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
 - (3) Above 1GHz, RBW=1MHz, VBW=3MHz PEAK detector for Peak value.
RBW=1MHz, VBW=3MHz RMS detector for Average value.

TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

Note:

- 1) Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
- 2) The emission levels of other frequencies are very lower than the limit and not show in test report.

➤ **9kHz ~ 30MHz**

The EUT was pre-scanned the frequency band (9kHz~30MHz), found the radiated level lower than the limit, so don't show on the report.

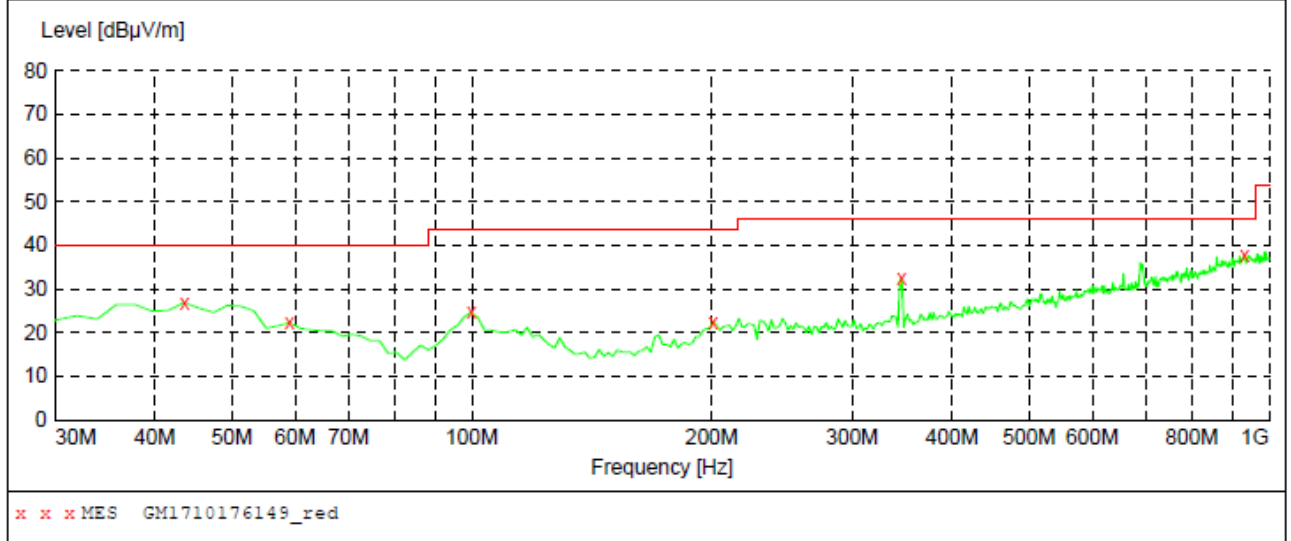
➤ **30MHz ~1000MHz**

Have pre-scan all modulation mode, found the 802.11b mode CH01 which it was worst case, so only the worst case's data on the test report.

➤ 30MHz ~ 1GHz

Polarization:

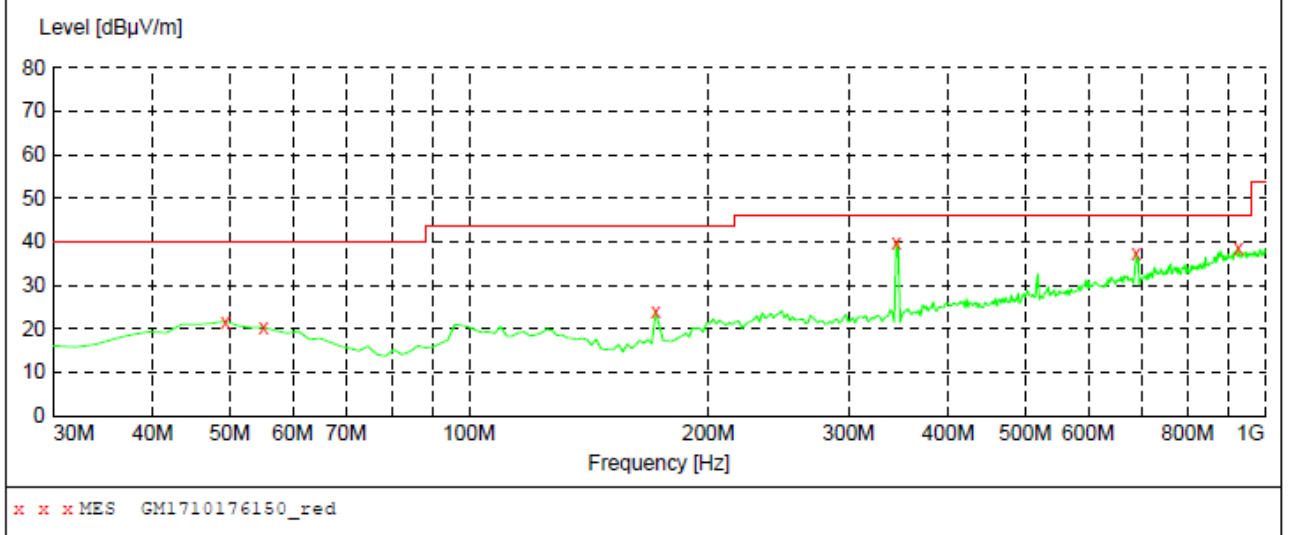
Vertical



Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
43.580000	26.90	-9.1	40.0	13.1	QP	100.0	84.00	VERTICAL
59.100000	22.20	-9.8	40.0	17.8	QP	100.0	0.00	VERTICAL
99.840000	24.70	-10.6	43.5	18.8	QP	100.0	112.00	VERTICAL
200.720000	22.50	-9.9	43.5	21.0	QP	100.0	216.00	VERTICAL
346.220000	32.30	-5.4	46.0	13.7	QP	100.0	96.00	VERTICAL
932.100000	37.90	7.1	46.0	8.1	QP	100.0	333.00	VERTICAL

Polarization:

Horizontal



Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
49.400000	21.70	-8.7	40.0	18.3	QP	100.0	50.00	HORIZONTAL
55.220000	20.40	-9.2	40.0	19.6	QP	300.0	316.00	HORIZONTAL
171.620000	23.80	-12.9	43.5	19.7	QP	100.0	279.00	HORIZONTAL
344.280000	39.60	-5.5	46.0	6.4	QP	100.0	130.00	HORIZONTAL
689.600000	37.30	2.4	46.0	8.7	QP	300.0	251.00	HORIZONTAL
926.280000	38.70	7.1	46.0	7.3	QP	300.0	95.00	HORIZONTAL

➤ **Above 1 GHz**

Note: Pre-scan 802.11b SISO mode, 802.11g SISO mode, 802.11n(HT20) MIMO mode, 802.11n(HT40) mode MIMO mode, and found the 802.11b SISO mode CH1 which it is worse case, so only show the test data for worse case.

802.11b					CH01				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
3216.84	48.04	28.70	7.74	38.23	46.25	74.00	-27.75	Vertical	Peak
3561.64	42.99	29.19	8.21	38.32	42.07	74.00	-31.93	Vertical	Peak
4821.76	46.54	31.56	9.55	36.90	50.75	74.00	-23.25	Vertical	Peak
5732.97	33.69	31.77	10.48	35.50	40.44	74.00	-33.56	Vertical	Peak
2972.75	40.02	28.57	7.47	38.25	37.81	74.00	-36.19	Horizontal	Peak
3561.64	47.59	29.19	8.21	38.32	46.67	74.00	-27.33	Horizontal	Peak
3863.90	47.37	29.66	8.59	38.19	47.43	74.00	-26.57	Horizontal	Peak
4821.76	37.04	31.56	9.55	36.90	41.25	74.00	-32.75	Horizontal	Peak

802.11b					CH06				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
1948.25	47.54	25.79	6.19	37.26	42.26	74.00	-31.74	Vertical	Peak
3561.64	46.68	29.19	8.21	38.32	45.76	74.00	-28.24	Vertical	Peak
4871.10	43.53	31.46	9.59	36.76	47.82	74.00	-26.18	Vertical	Peak
5204.40	37.65	31.49	9.84	36.21	42.77	74.00	-31.23	Vertical	Peak
2972.75	41.96	28.57	7.47	38.25	39.75	74.00	-34.25	Horizontal	Peak
3561.64	47.39	29.19	8.21	38.32	46.47	74.00	-27.53	Horizontal	Peak
3863.90	46.57	29.66	8.59	38.19	46.63	74.00	-27.37	Horizontal	Peak
5204.40	39.18	31.49	9.84	36.21	44.30	74.00	-29.70	Horizontal	Peak

802.11b					CH11				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
1943.29	47.72	25.74	6.18	37.25	42.39	74.00	-31.61	Vertical	Peak
3283.02	48.00	28.30	7.82	38.35	45.77	74.00	-28.23	Vertical	Peak
3561.64	46.41	29.19	8.21	38.32	45.49	74.00	-28.51	Vertical	Peak
4920.96	44.74	31.42	9.62	36.62	49.16	74.00	-24.84	Vertical	Peak
1884.83	41.63	25.31	6.09	37.21	35.82	74.00	-38.18	Horizontal	Peak
3283.02	40.59	28.30	7.82	38.35	38.36	74.00	-35.64	Horizontal	Peak
3561.64	48.63	29.19	8.21	38.32	47.71	74.00	-26.29	Horizontal	Peak
3863.90	48.40	29.66	8.59	38.19	48.46	74.00	-25.54	Horizontal	Peak

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The peak level is lower than average limit(54 dBuV/m), this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

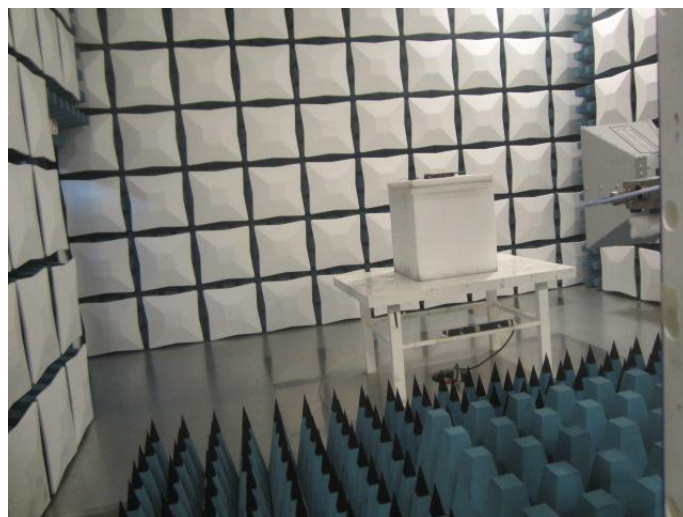
6. TEST SETUP PHOTOS

Conducted Emissions



Radiated Emissions





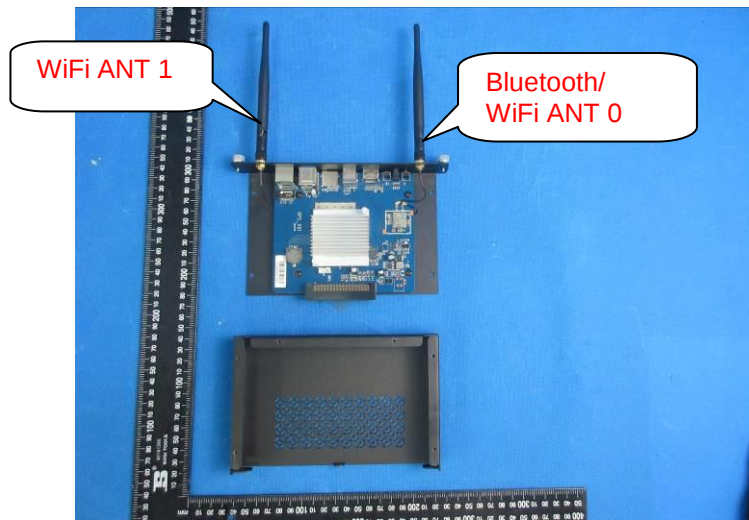
7. EXTERANAL AND INTERNAL PHOTOS

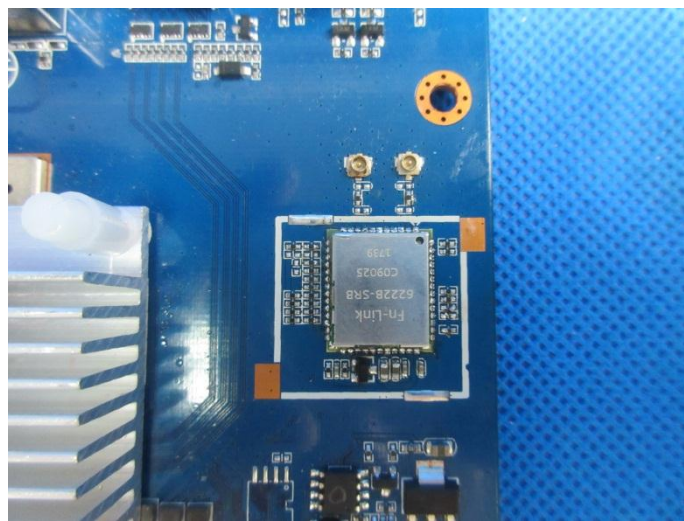
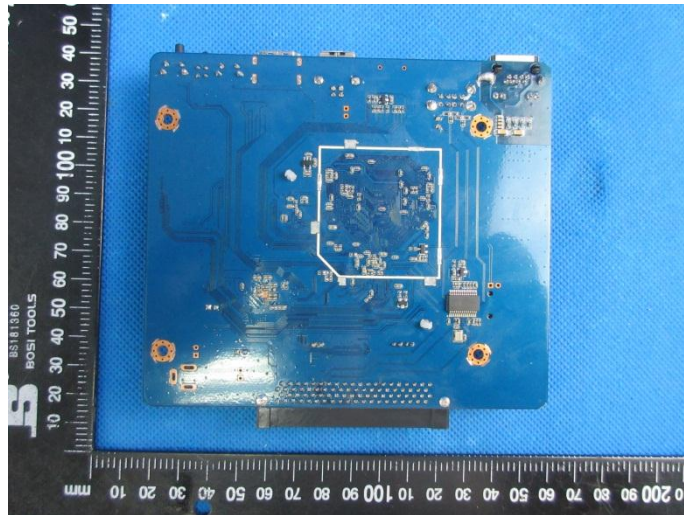
EXTERANAL PHOTOS

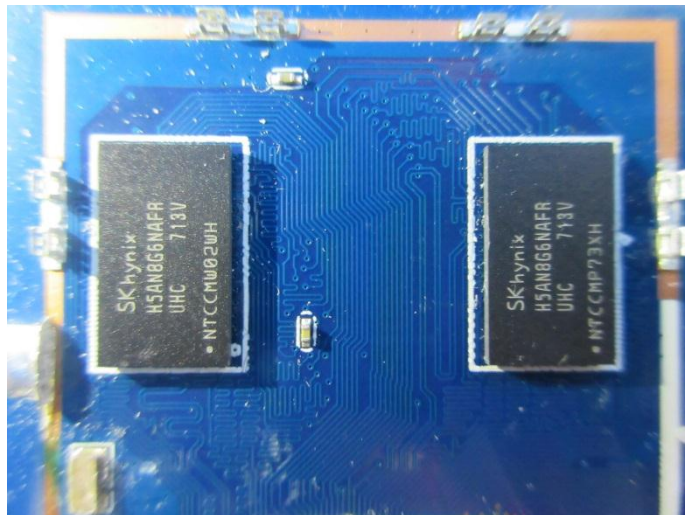
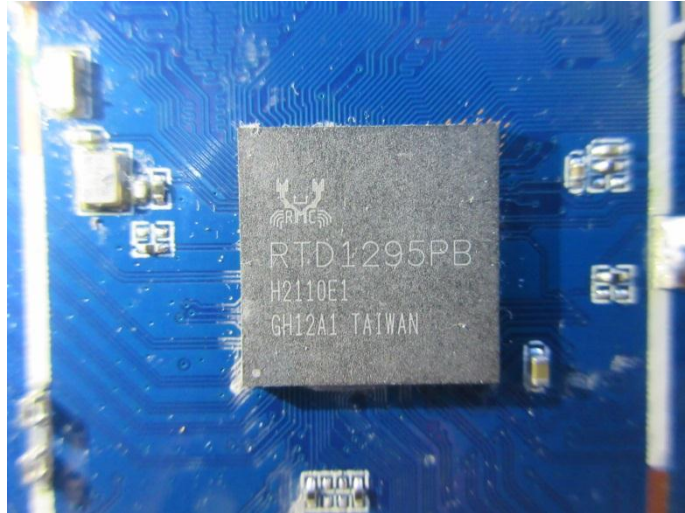


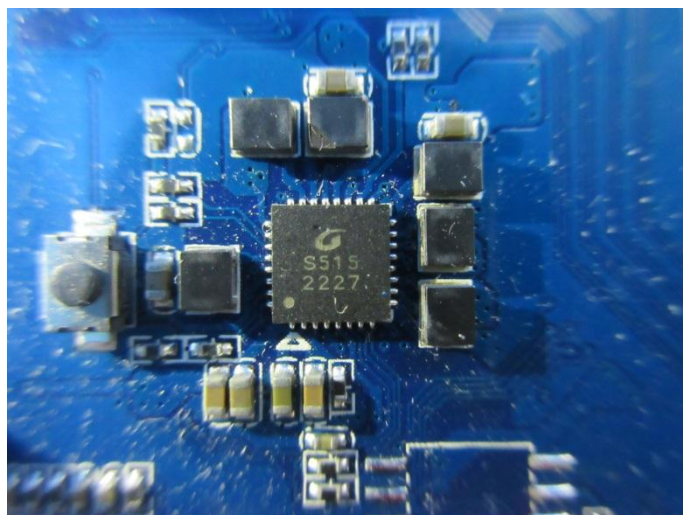


INTERNAL PHOTOS









.....End of Report.....