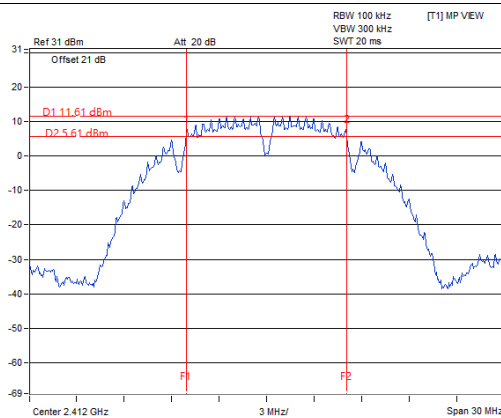
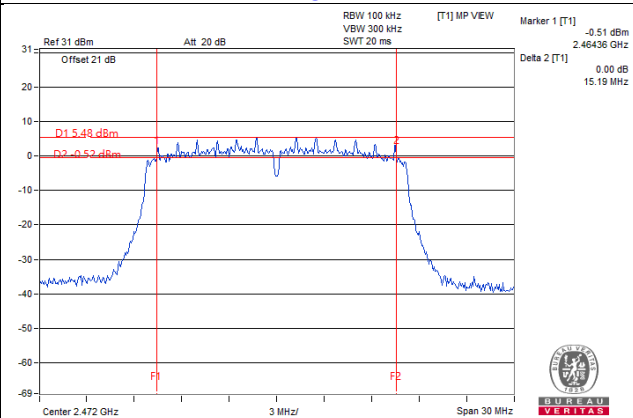


Spectrum Plot of Worst Value

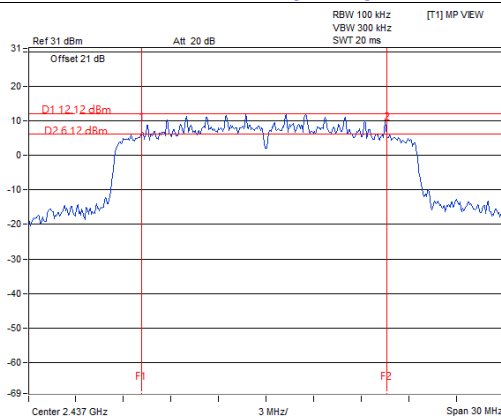
802.11b / CH1



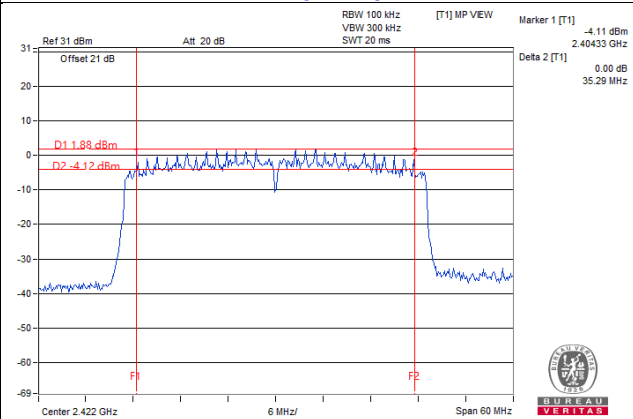
802.11g / CH13



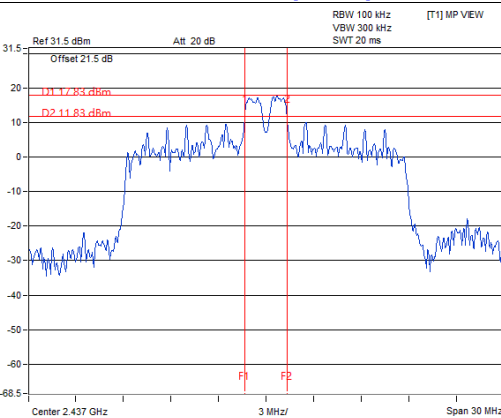
802.11ax (HE20) / CH6



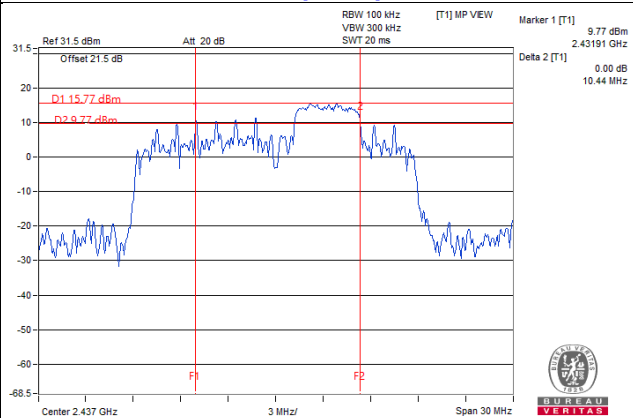
802.11ax (HE40) / CH3



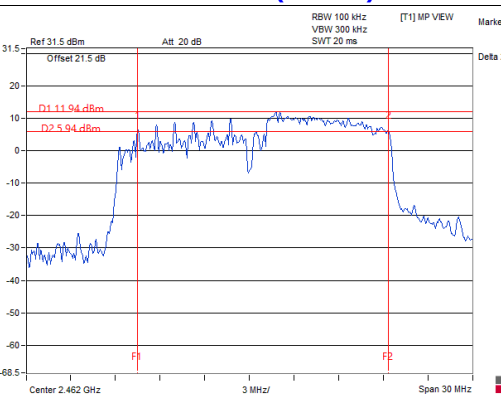
802.11ax (RU26) / CH6



802.11ax (RU52) / CH6



802.11ax (RU106) / CH11



4.4 Conducted Output Power Measurement

4.4.1 Limits of Conducted Output Power Measurement

For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

Per KDB 662911 D01 Multiple Transmitter Output Method of conducted output power measurement on IEEE 802.11 devices,

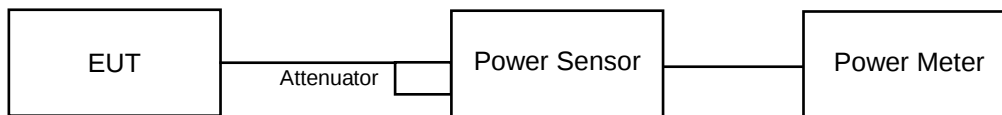
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

Array Gain = $5 \log(N_{ANT}/N_{SS})$ dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

For power measurements on all other devices: Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedures

Average power sensor was used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

Same as Item 4.3.6.

4.4.7 Test Results (Mode 1)

CDD Mode

802.11b

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	20.17	20.03	204.685	23.11	30.00	Pass
6	2437	21.25	21.41	271.709	24.34	30.00	Pass
11	2462	17.09	17.13	102.81	20.12	30.00	Pass
12	2467	14.46	14.89	58.757	17.69	30.00	Pass
13	2472	11.80	12.20	31.731	15.01	30.00	Pass

802.11g

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	17.23	17.30	106.548	20.28	30.00	Pass
6	2437	21.82	22.41	326.235	25.14	30.00	Pass
11	2462	17.03	17.16	102.466	20.11	30.00	Pass
12	2467	14.09	14.11	51.408	17.11	30.00	Pass
13	2472	13.54	13.59	45.45	16.58	30.00	Pass

VHT20

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	16.38	16.56	88.741	19.48	30.00	Pass
6	2437	21.05	21.65	273.568	24.37	30.00	Pass
11	2462	16.03	16.08	80.638	19.07	30.00	Pass
12	2467	14.46	14.73	57.642	17.61	30.00	Pass
13	2472	13.28	13.58	44.085	16.44	30.00	Pass

VHT40

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	14.43	14.68	57.11	17.57	30.00	Pass
6	2437	15.76	16.65	83.908	19.24	30.00	Pass
9	2452	13.65	14.16	49.235	16.92	30.00	Pass
10	2457	12.63	13.03	38.414	15.84	30.00	Pass
11	2462	12.43	12.91	37.042	15.69	30.00	Pass

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	16.60	16.74	92.915	19.68	30.00	Pass
6	2437	21.24	21.88	287.215	24.58	30.00	Pass
11	2462	16.21	16.27	84.147	19.25	30.00	Pass
12	2467	14.68	14.96	60.709	17.83	30.00	Pass
13	2472	13.49	13.79	46.269	16.65	30.00	Pass

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	14.61	14.90	59.81	17.77	30.00	Pass
6	2437	15.95	16.88	88.108	19.45	30.00	Pass
9	2452	13.78	14.38	51.294	17.10	30.00	Pass
10	2457	12.87	13.25	40.499	16.07	30.00	Pass
11	2462	12.66	13.12	38.962	15.91	30.00	Pass

802.11ax (RU26)

RU Configuration	Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
			Chain 0	Chain 0				
26/0	1	2412	17.77	17.88	121.217	20.84	30.00	Pass
26/4	6	2437	21.84	22.22	319.481	25.04	30.00	Pass
26/8	11	2462	17.53	17.33	110.699	20.44	30.00	Pass
26/8	12	2467	15.04	14.81	62.185	17.94	30.00	Pass
26/8	13	2472	10.12	9.54	19.275	12.85	30.00	Pass

802.11ax (RU52)

RU Configuration	Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
			Chain 0	Chain 0				
52/37	1	2412	17.76	18.04	123.383	20.91	30.00	Pass
52/39	6	2437	21.85	22.35	324.9	25.12	30.00	Pass
52/40	11	2462	18.27	18.12	132.006	21.21	30.00	Pass
52/40	12	2467	16.76	16.53	92.402	19.66	30.00	Pass
52/40	13	2472	9.75	9.07	17.513	12.43	30.00	Pass

802.11ax (RU106)

RU Configuration	Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
			Chain 0	Chain 0				
106/53	1	2412	18.47	18.44	140.13	21.47	30.00	Pass
106/53	6	2437	22.08	22.26	329.703	25.18	30.00	Pass
106/54	11	2462	19.25	19.11	165.61	22.19	30.00	Pass
106/54	12	2467	13.68	13.11	43.799	16.41	30.00	Pass
106/54	13	2472	8.30	7.65	12.582	11.00	30.00	Pass

Beamforming Mode

VHT20

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	16.38	16.56	88.741	19.48	29.49	Pass
6	2437	21.05	21.65	273.568	24.37	29.49	Pass
11	2462	16.03	16.08	80.638	19.07	29.49	Pass
12	2467	14.46	14.73	57.642	17.61	29.49	Pass
13	2472	13.28	13.58	44.085	16.44	29.49	Pass

Note: Directional gain = 3.5 dBi +10 log(2) = 6.51dBi > 6dBi , so the power limit shall be reduced to 30-(6.51-6) = 29.49dBm.

VHT40

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	14.43	14.68	57.11	17.57	29.49	Pass
6	2437	15.76	16.65	83.908	19.24	29.49	Pass
9	2452	13.65	14.16	49.235	16.92	29.49	Pass
10	2457	12.63	13.03	38.414	15.84	29.49	Pass
11	2462	12.43	12.91	37.042	15.69	29.49	Pass

Note: Directional gain = 3.5 dBi +10 log(2) = 6.51dBi > 6dBi , so the power limit shall be reduced to 30-(6.51-6) = 29.49dBm.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	16.60	16.74	92.915	19.68	29.49	Pass
6	2437	21.24	21.88	287.215	24.58	29.49	Pass
11	2462	16.21	16.27	84.147	19.25	29.49	Pass
12	2467	14.68	14.96	60.709	17.83	29.49	Pass
13	2472	13.49	13.79	46.269	16.65	29.49	Pass

Note: Directional gain = 3.5 dBi +10 log(2) = 6.51dBi > 6dBi , so the power limit shall be reduced to 30-(6.51-6) = 29.49dBm.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	14.61	14.90	59.81	17.77	29.49	Pass
6	2437	15.95	16.88	88.108	19.45	29.49	Pass
9	2452	13.78	14.38	51.294	17.10	29.49	Pass
10	2457	12.87	13.25	40.499	16.07	29.49	Pass
11	2462	12.66	13.12	38.962	15.91	29.49	Pass

Note: Directional gain = 3.5 dBi +10 log(2) = 6.51dBi > 6dBi , so the power limit shall be reduced to 30-(6.51-6) = 29.49dBm.

4.4.8 Test Results (Mode 2)

802.11b

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
1	2412	139.637	21.45	30	Pass
6	2437	174.181	22.41	30	Pass
11	2462	135.831	21.33	30	Pass
12	2467	69.984	18.45	30	Pass
13	2472	22.751	13.57	30	Pass

802.11g

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
1	2412	95.719	19.81	30	Pass
6	2437	196.789	22.94	30	Pass
11	2462	77.268	18.88	30	Pass
12	2467	56.885	17.55	30	Pass
13	2472	45.29	16.56	30	Pass

VHT20

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
1	2412	85.901	19.34	30	Pass
6	2437	166.341	22.21	30	Pass
11	2462	74.645	18.73	30	Pass
12	2467	51.05	17.08	30	Pass
13	2472	42.17	16.25	30	Pass

VHT40

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
3	2422	36.475	15.62	30	Pass
6	2437	59.293	17.73	30	Pass
9	2452	24.66	13.92	30	Pass
10	2457	24.155	13.83	30	Pass
11	2462	22.131	13.45	30	Pass

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
1	2412	90.365	19.56	30	Pass
6	2437	174.985	22.43	30	Pass
11	2462	78.705	18.96	30	Pass
12	2467	53.088	17.25	30	Pass
13	2472	43.954	16.43	30	Pass

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
3	2422	38.194	15.82	30	Pass
6	2437	61.944	17.92	30	Pass
9	2452	25.942	14.14	30	Pass
10	2457	25.351	14.04	30	Pass
11	2462	23.281	13.67	30	Pass

802.11ax (RU26)

RU Configuration	Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
26/0	1	2412	82.035	19.14	30.00	Pass
26/4	6	2437	167.494	22.24	30.00	Pass
26/8	11	2462	78.343	18.94	30.00	Pass
26/8	12	2467	42.364	16.27	30.00	Pass
26/8	13	2472	9.908	9.96	30.00	Pass

802.11ax (RU52)

RU Configuration	Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
52/37	1	2412	88.105	19.45	30.00	Pass
52/39	6	2437	174.985	22.43	30.00	Pass
52/40	11	2462	99.083	19.96	30.00	Pass
52/40	12	2467	60.674	17.83	30.00	Pass
52/40	13	2472	11.641	10.66	30.00	Pass

802.11ax (RU106)

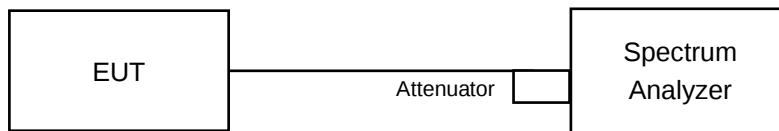
RU Configuration	Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
106/53	1	2412	110.662	20.44	30.00	Pass
106/53	6	2437	173.78	22.40	30.00	Pass
106/54	11	2462	108.643	20.36	30.00	Pass
106/54	12	2467	73.451	18.66	30.00	Pass
106/54	13	2472	14.223	11.53	30.00	Pass

4.5 Power Spectral Density Measurement

4.5.1 Limits of Power Spectral Density Measurement

The Maximum of Power Spectral Density Measurement is 8dBm in any 3 kHz.

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

- Set instrument center frequency to DTS channel center frequency.
- Set span to at least 1.5 times the OBW.
- Set RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- Set VBW $\geq 3 \times \text{RBW}$.
- Detector = power averaging (RMS) or sample detector (when RMS not available).
- Ensure that the number of measurement points in the sweep $\geq 2 \times \text{span}/\text{RBW}$.
- Sweep time = auto couple.
- Employ trace averaging (RMS) mode over a minimum of 100 traces.
- Use the peak marker function to determine the maximum amplitude level.

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

Same as Item 4.3.6

4.5.7 Test Results (Mode 1)

802.11b

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)		Total PSD (mW/3kHz)	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Pass / Fail
		Chain 0	Chain 1				
1	2412	-10.78	-11.37	0.15668	-8.05	7.49	PASS
6	2437	-10.71	-8.92	0.2133	-6.71	7.49	PASS
11	2462	-13.38	-14.40	0.08222	-10.85	7.49	PASS
12	2467	-16.80	-13.69	0.06368	-11.96	7.49	PASS
13	2472	-19.91	-17.53	0.02786	-15.55	7.49	PASS

- Note:**
1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
 2. Directional gain = 3.5 dBi + 10log(2) = 6.51 dBi, so the power density limit shall be reduced to 8-(6.51-6) = 7.49dBm.

802.11g

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/3kHz)		Duty Factor (dB)	Total PSD (mW/3kHz)	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Pass / Fail
		Chain 0	Chain 1					
1	2412	-13.75	-13.52	0.16	0.08995	-10.46	7.49	PASS
6	2437	-8.90	-8.66	0.16	0.2748	-5.61	7.49	PASS
11	2462	-13.34	-14.23	0.16	0.0873	-10.59	7.49	PASS
12	2467	-13.15	-16.60	0.16	0.07295	-11.37	7.49	PASS
13	2472	-12.78	-16.82	0.16	0.07621	-11.18	7.49	PASS

- Note:**
1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
 2. Directional gain = 3.5 dBi + 10log(2) = 6.51 dBi, so the power density limit shall be reduced to 8-(6.51-6) = 7.49dBm.
 3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/3kHz)		Duty Factor (dB)	Total PSD (mW/3kHz)	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Pass / Fail
		Chain 0	Chain 1					
1	2412	-15.40	-13.54	0.12	0.07516	-11.24	7.49	PASS
6	2437	-10.40	-8.81	0.12	0.22909	-6.40	7.49	PASS
11	2462	-15.46	-15.43	0.12	0.05875	-12.31	7.49	PASS
12	2467	-16.28	-15.40	0.12	0.05383	-12.69	7.49	PASS
13	2472	-18.36	-17.00	0.12	0.03548	-14.50	7.49	PASS

- Note:**
1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
 2. Directional gain = 3.5 dBi + 10log(2) = 6.51 dBi, so the power density limit shall be reduced to 8-(6.51-6) = 7.49dBm.
 3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/3kHz)		Duty Factor (dB)	Total PSD (mW/3kHz)	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Pass / Fail
		Chain 0	Chain 1					
3	2422	-18.30	-18.55	0.12	0.02958	-15.29	7.49	PASS
6	2437	-18.89	-17.51	0.12	0.03148	-15.02	7.49	PASS
9	2452	-20.58	-20.02	0.12	0.019231	-17.16	7.49	PASS
10	2457	-21.89	-19.93	0.12	0.0171	-17.67	7.49	PASS
11	2462	-16.40	-20.31	0.12	0.033113	-14.80	7.49	PASS

- Note:**
1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
 2. Directional gain = 3.5 dBi + 10log(2) = 6.51 dBi, so the power density limit shall be reduced to 8-(6.51-6) = 7.49dBm.
 3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (RU26)

RU Configuration	Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)		Duty Factor (dB)	Total PSD (mW/3kHz)	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Pass / Fail
			Chain0	Chain1					
26/0	1	2412	-7.42	-7.40	0.10	0.3715	-4.30	7.49	PASS
26/4	6	2437	-3.62	-3.35	0.10	0.9183	-0.37	7.49	PASS
26/8	11	2462	-8.11	-8.25	0.10	0.3112	-5.07	7.49	PASS
26/8	12	2467	-10.88	-10.86	0.10	0.16749	-7.76	7.49	PASS
26/8	13	2472	-15.56	-15.79	0.10	0.05546	-12.56	7.49	PASS

- Note:**
1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
 2. Directional gain = 3.5 dBi + 10log(2) = 6.51 dBi, so the power density limit shall be reduced to 8-(6.51-6) = 7.49dBm.
 3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (RU52)

RU Configuration	Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)		Duty Factor (dB)	Total PSD (mW/3kHz)	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Pass / Fail
			Chain0	Chain1					
52/37	1	2412	-8.37	-8.61	0.10	0.2897	-5.38	7.49	PASS
52/39	6	2437	-5.92	-5.89	0.10	0.526	-2.79	7.49	PASS
52/40	11	2462	-9.45	-7.67	0.10	0.2911	-5.36	7.49	PASS
52/40	12	2467	-10.55	0.05	0.10	1.1246	0.51	7.49	PASS
52/40	13	2472	-14.79	-18.35	0.10	0.04898	-13.10	7.49	PASS

- Note:**
1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
 2. Directional gain = 3.5 dBi + 10log(2) = 6.51 dBi, so the power density limit shall be reduced to 8-(6.51-6) = 7.49dBm.
 3. Refer to section 3.3 for duty cycle spectrum plot.

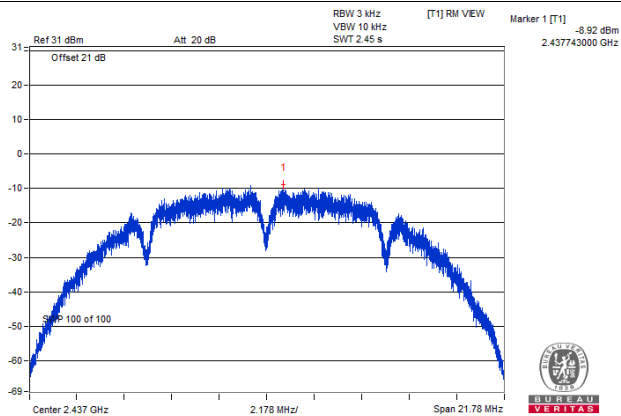
802.11ax (RU106)

RU Configuration	Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)		Duty Factor (dB)	Total PSD (mW/3kHz)	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Pass / Fail
			Chain0	Chain1					
106/53	1	2412	-10.63	-9.99	0.12	0.19187	-7.17	7.49	PASS
106/53	6	2437	-7.30	-7.45	0.12	0.3767	-4.24	7.49	PASS
106/54	11	2462	-10.33	-9.95	0.12	0.19907	-7.01	7.49	PASS
106/54	12	2467	-15.79	-10.73	0.12	0.11402	-9.43	7.49	PASS
106/54	13	2472	-21.43	-21.65	0.12	0.014421	-18.41	7.49	PASS

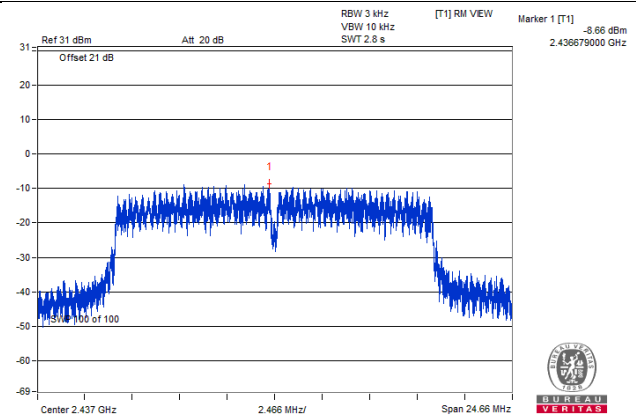
- Note:**
1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
 2. Directional gain = 3.5 dBi + 10log(2) = 6.51 dBi, so the power density limit shall be reduced to 8-(6.51-6) = 7.49dBm.
 3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

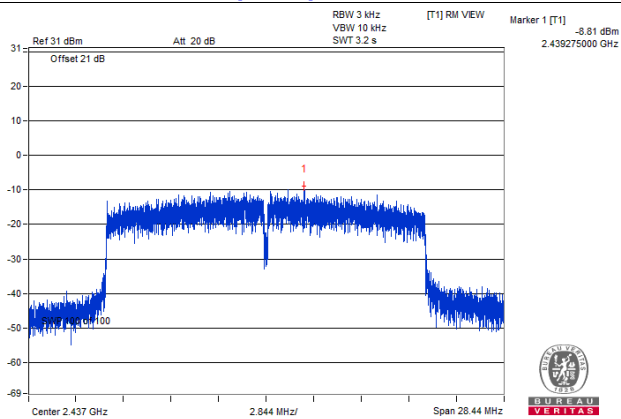
802.11b / Chain 1: CH6



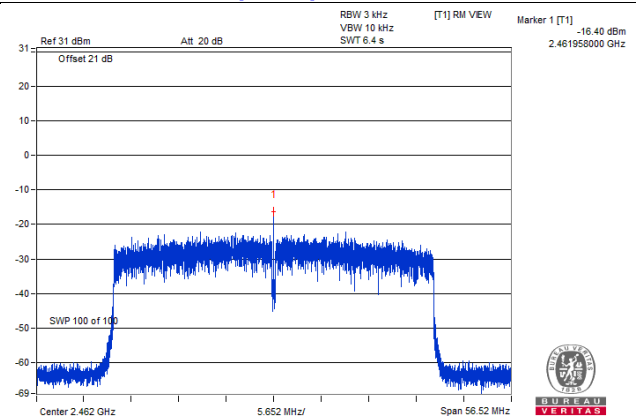
802.11g / Chain 1 : CH6



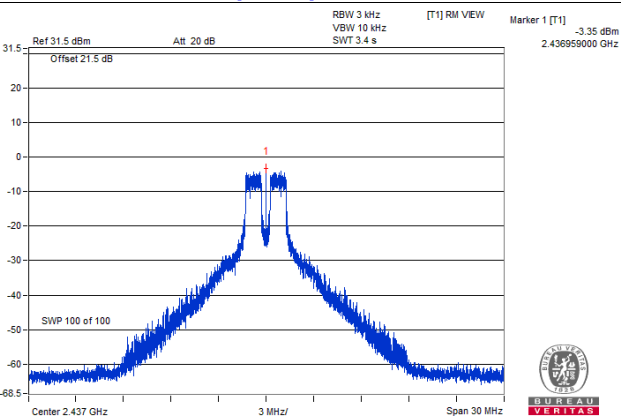
802.11ax (HE20) / Chain 1: CH6



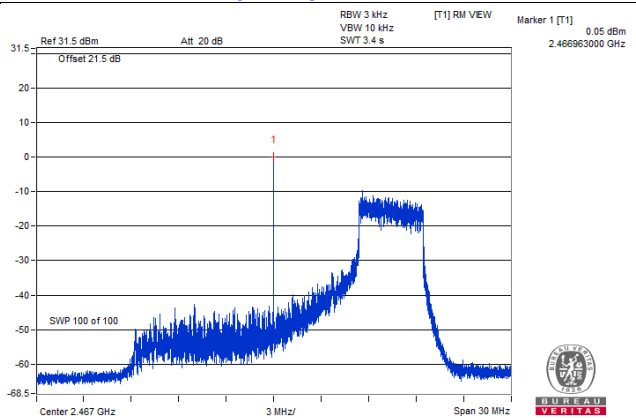
802.11ax (HE40) / Chain 0: CH11



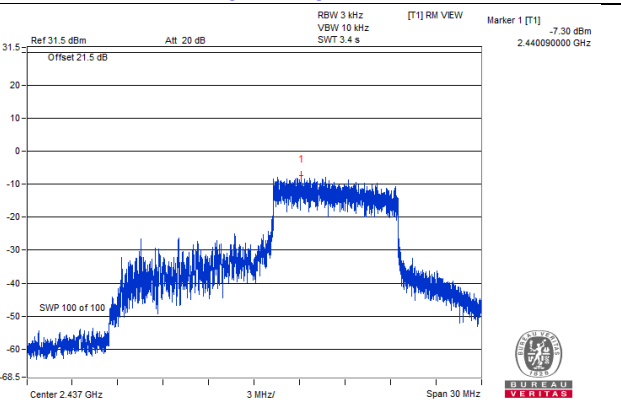
802.11ax (RU26) / Chain 1: CH6



802.11ax (RU52) / Chain 1: CH12



802.11ax (RU106) / Chain 0: CH6



4.5.8 Test Results (Mode 2)

802.11b

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2412	-9.32	8	Pass
6	2437	-9.02	8	Pass
11	2462	-9.60	8	Pass
12	2467	-13.08	8	Pass
13	2472	-16.83	8	Pass

802.11g

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2412	-8.68	8	Pass
6	2437	-8.32	8	Pass
11	2462	-12.45	8	Pass
12	2467	-13.23	8	Pass
13	2472	-13.73	8	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2412	-11.56	8	Pass
6	2437	-8.60	8	Pass
11	2462	-12.34	8	Pass
12	2467	-13.95	8	Pass
13	2472	-13.10	8	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
3	2422	-18.26	8	Pass
6	2437	-16.35	8	Pass
9	2452	-19.91	8	Pass
10	2457	-20.80	8	Pass
11	2462	-21.02	8	Pass

802.11ax (RU26)

RU Configuration	Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
26/0	1	2412	-5.40	8	Pass
26/4	6	2437	-2.54	8	Pass
26/8	11	2462	-6.95	8	Pass
26/8	12	2467	-9.53	8	Pass
26/8	13	2472	-16.28	8	Pass

802.11ax (RU52)

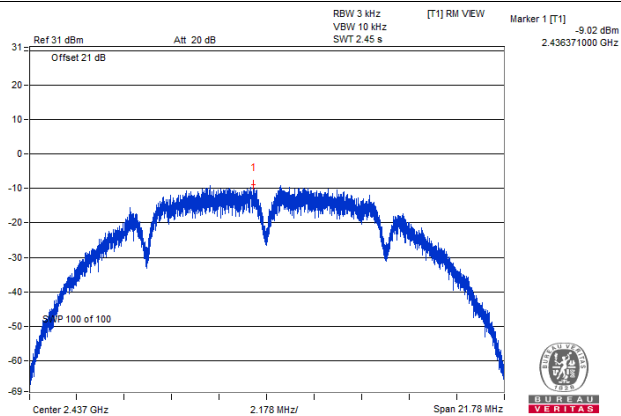
RU Configuration	Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
52/37	1	2412	-8.01	8	Pass
52/39	6	2437	-4.89	8	Pass
52/40	11	2462	-7.03	8	Pass
52/40	12	2467	-9.10	8	Pass
52/40	13	2472	-5.52	8	Pass

802.11ax (RU106)

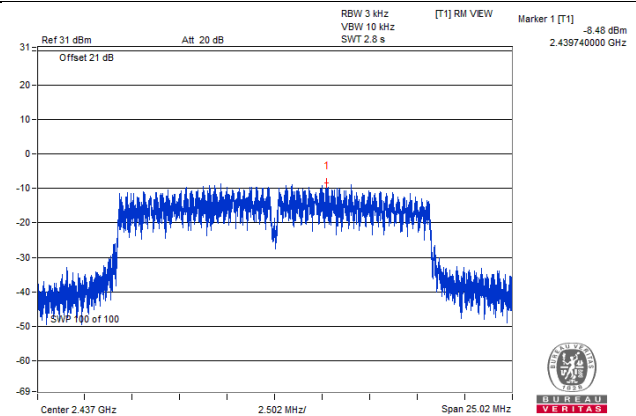
RU Configuration	Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
106/53	1	2412	-8.98	8	Pass
106/53	6	2437	-3.33	8	Pass
106/54	11	2462	-9.16	8	Pass
106/54	12	2467	-10.69	8	Pass
106/54	13	2472	-18.48	8	Pass

Spectrum Plot of Worst Value

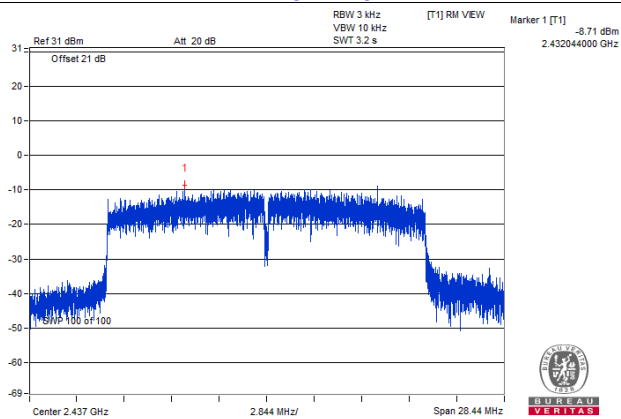
802.11b / CH6



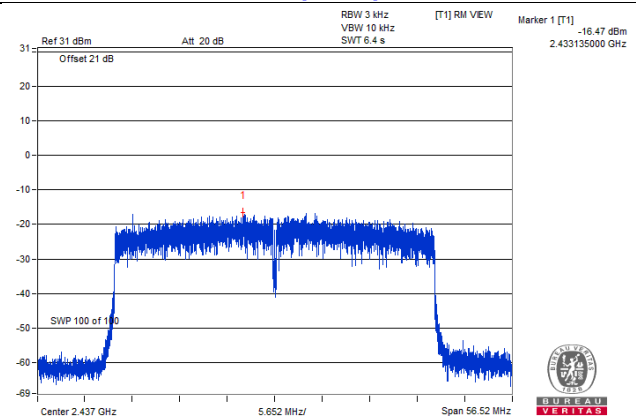
802.11g / CH6



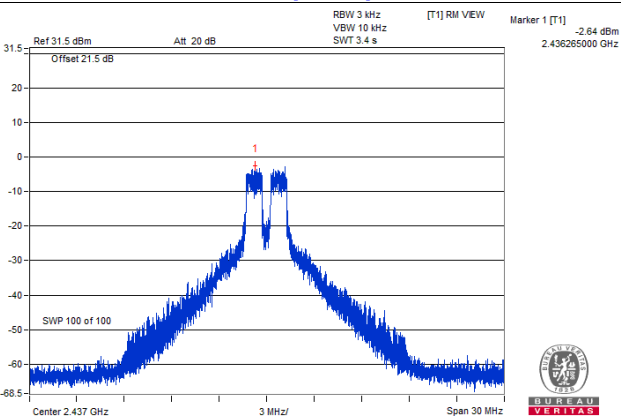
802.11ax (HE20) / CH6



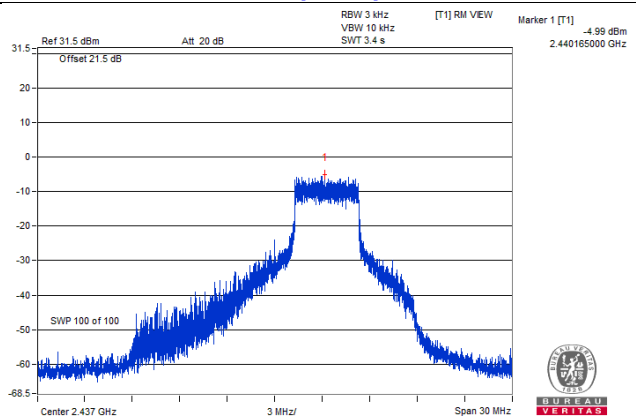
802.11ax (HE40) / CH6



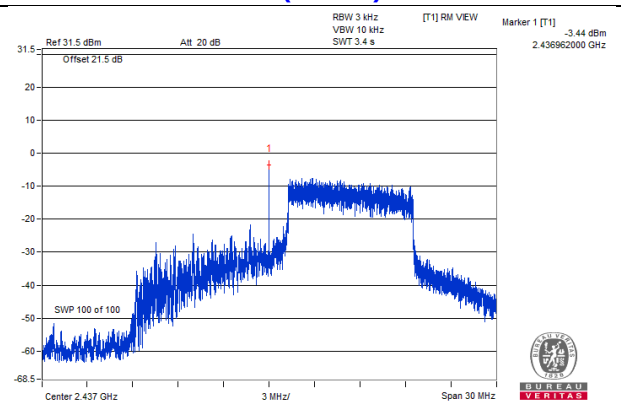
802.11ax (RU26) / CH6



802.11ax (RU52) / CH6



802.11ax (RU106) / CH6

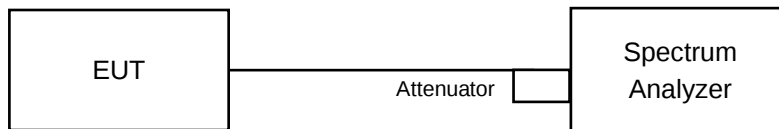


4.6 Conducted Out of Band Emission Measurement

4.6.1 Limits of Conducted Out of Band Emission Measurement

Below -30dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

MEASUREMENT PROCEDURE REF

1. Set the RBW = 100 kHz.
2. Set the VBW $\geq$ 300 kHz.
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOB

1. Set RBW = 100 kHz.
2. Set VBW $\geq$ 300 kHz.
3. Detector = peak.
4. Sweep = auto couple.
5. Trace Mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum amplitude level.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

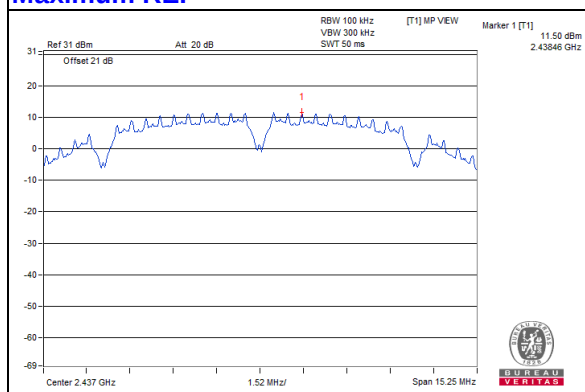
Same as Item 4.3.6

4.6.7 Test Results

The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 30dB offset below D1. It shows compliance with the requirement.

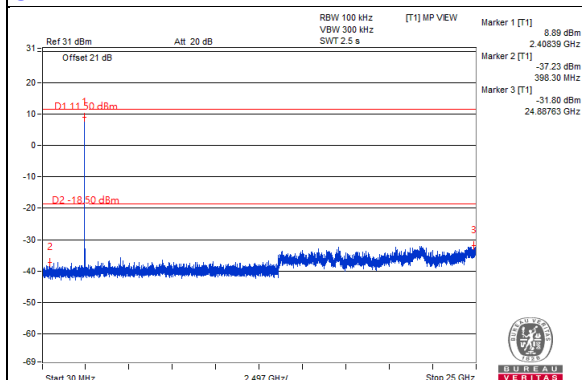
For Mode 1 802.11b

Maximum REF

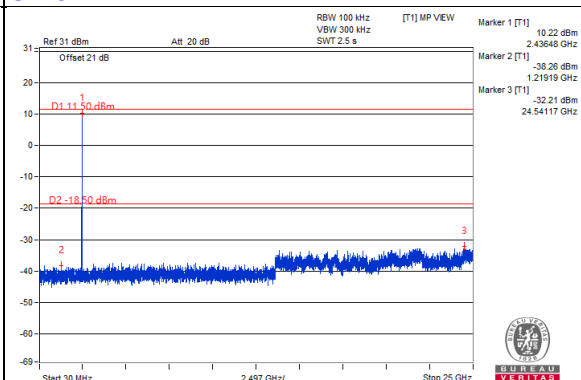


Chain 0

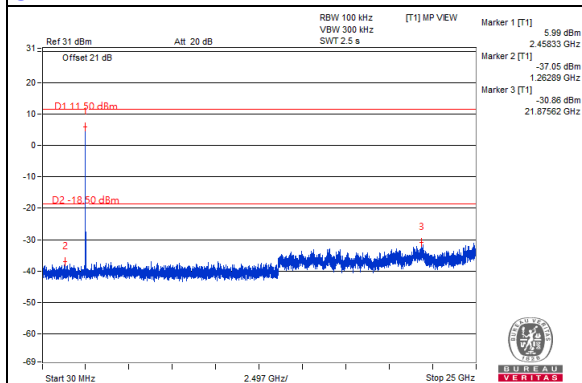
CH 1



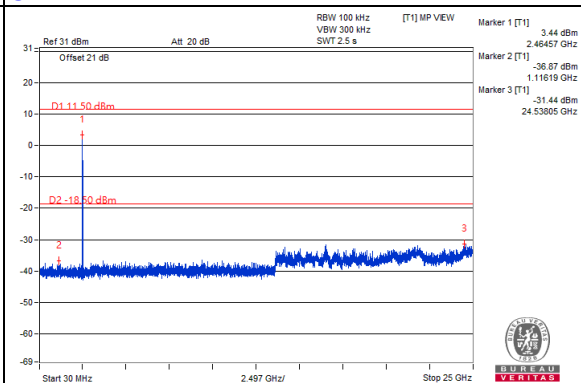
CH 6



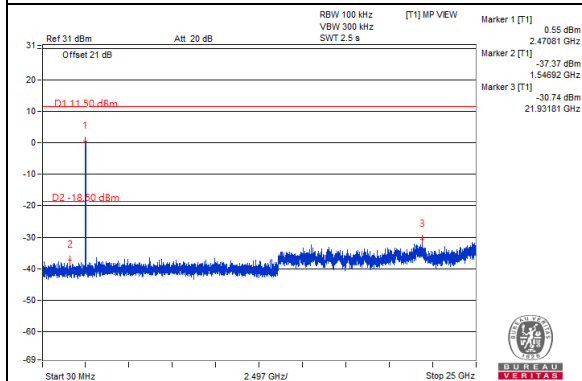
CH 11



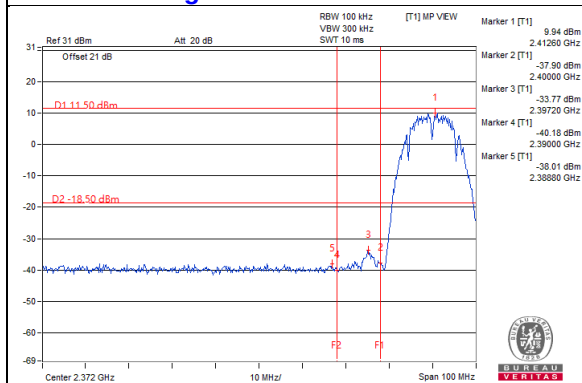
CH 12



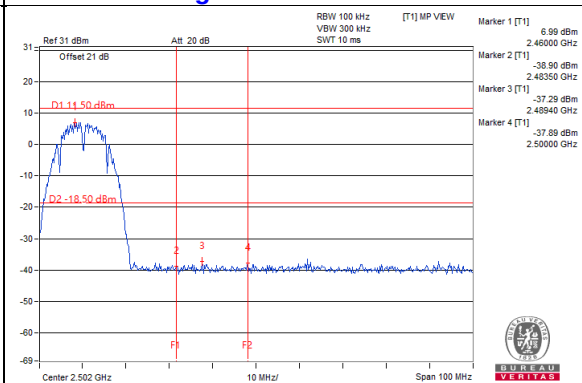
CH 13



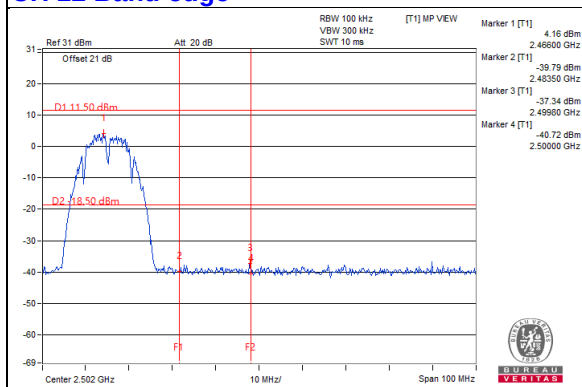
CH 1 Band edge



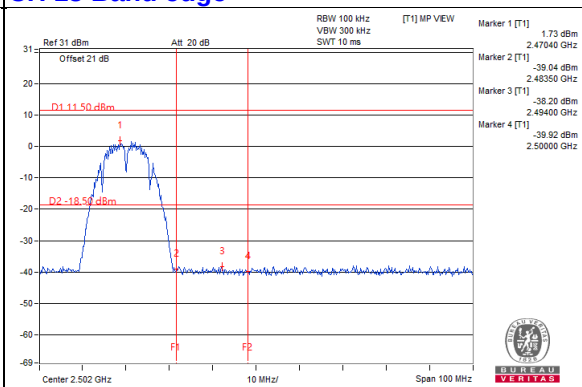
CH 11 Band edge



CH 12 Band edge

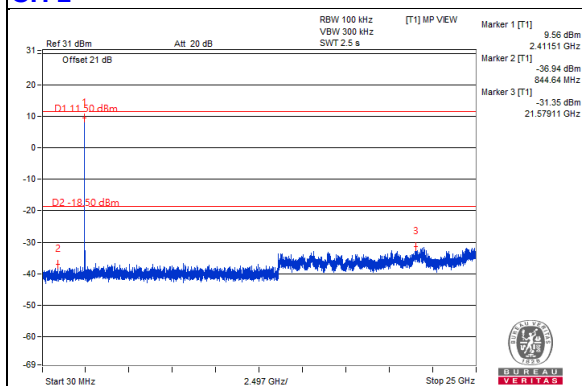


CH 13 Band edge

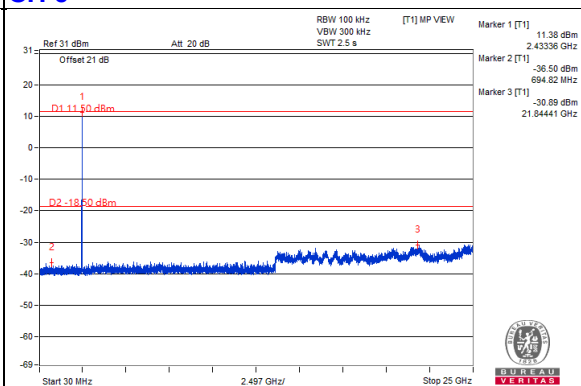


Chain 1

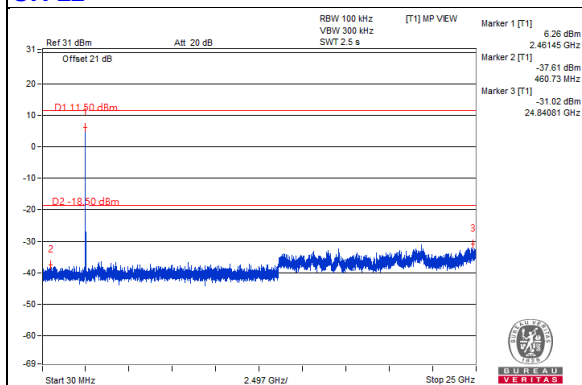
CH 1



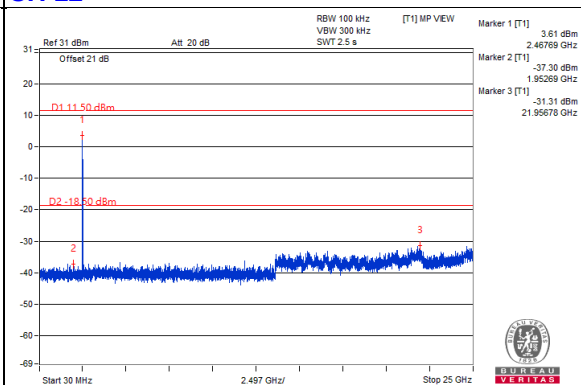
CH 6



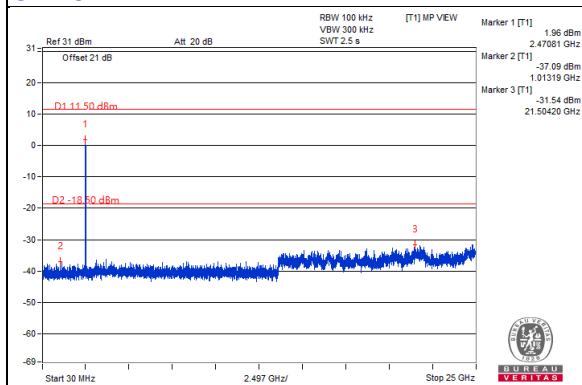
CH 11



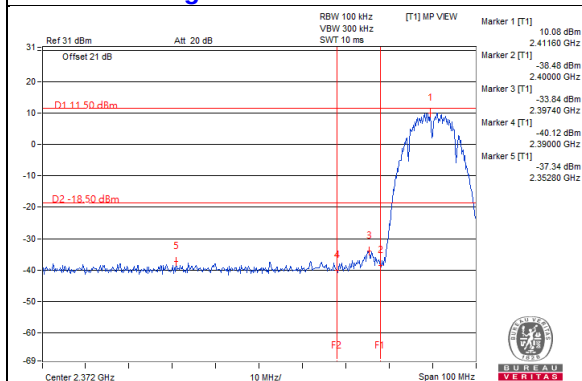
CH 12



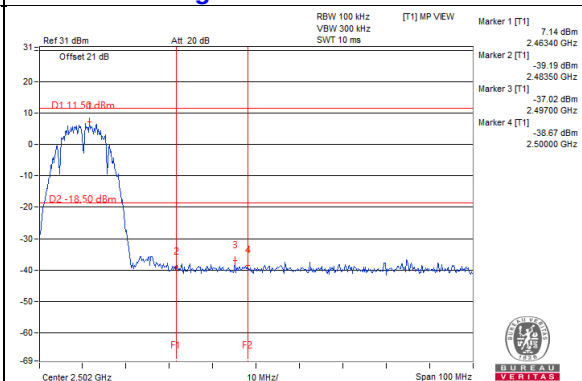
CH 13



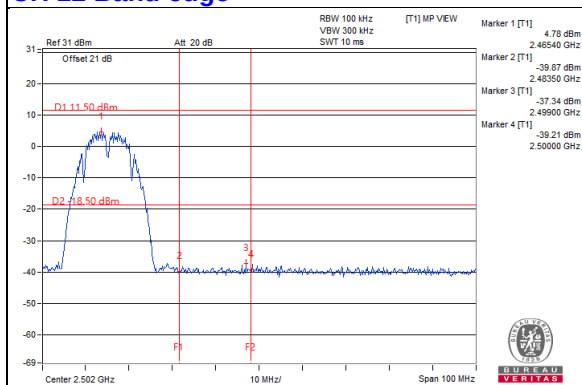
CH 1 Band edge



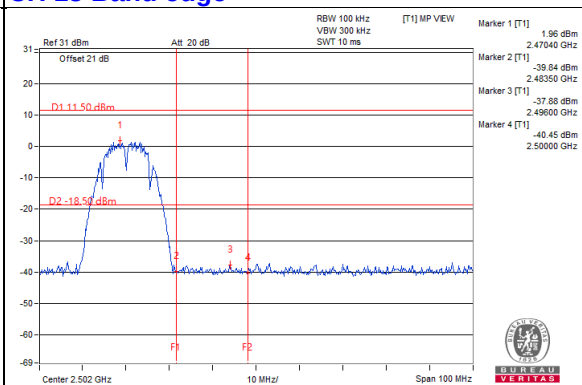
CH 11 Band edge



CH 12 Band edge

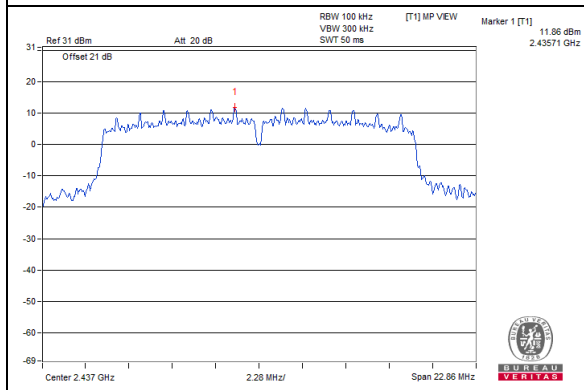


CH 13 Band edge



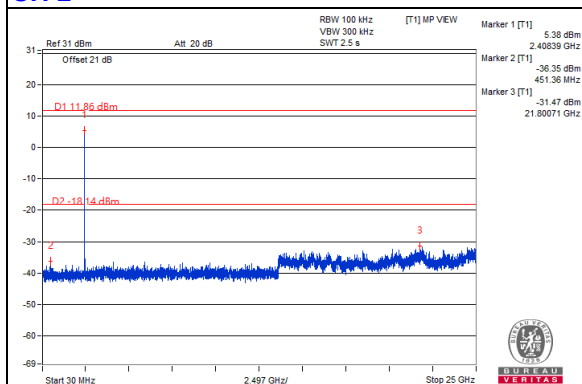
802.11g

Maximum REF

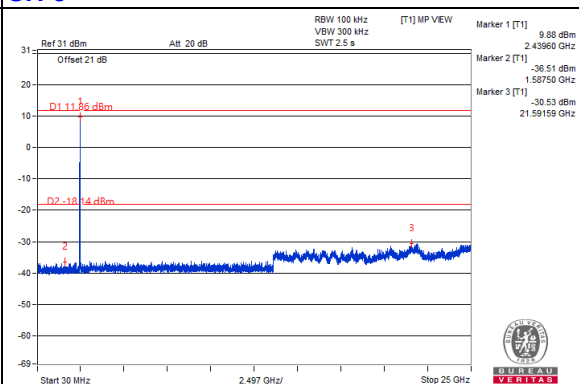


Chain 0

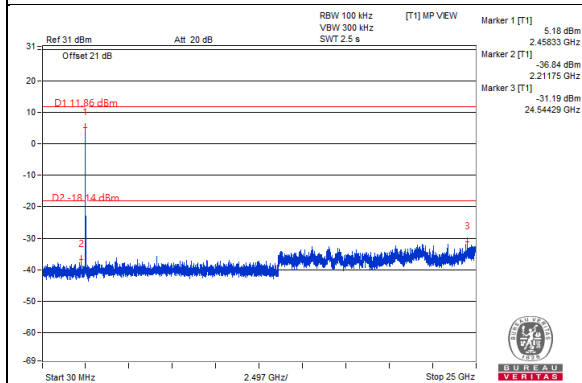
CH 1



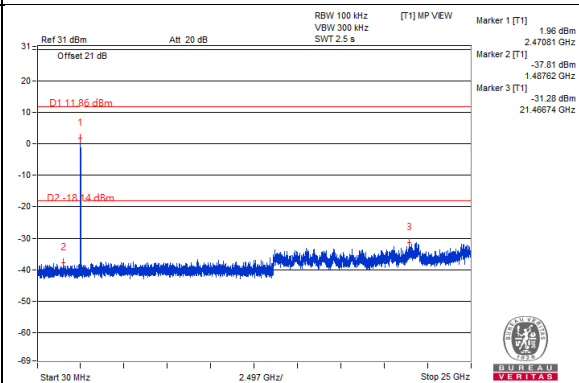
CH 6



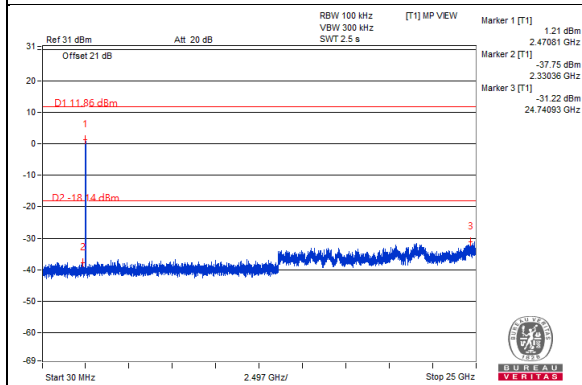
CH 11



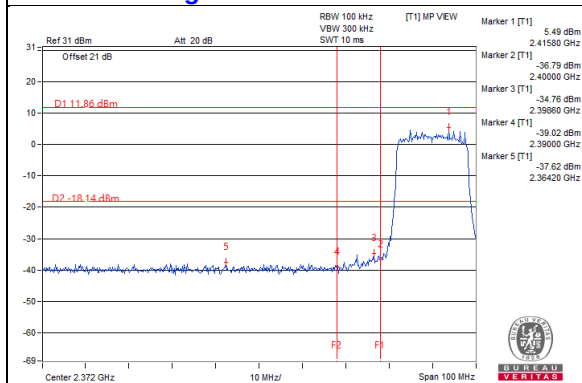
CH 12



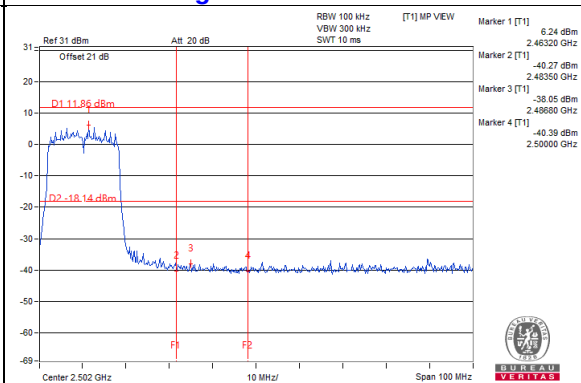
CH 13



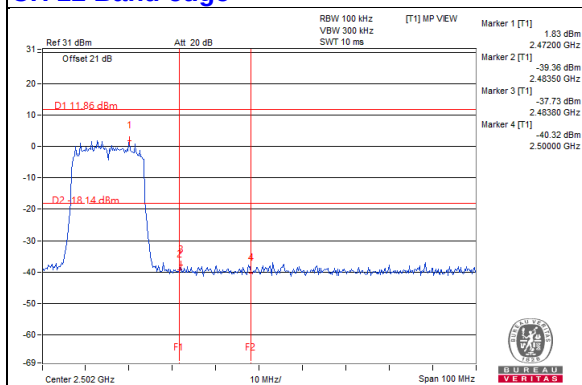
CH 1 Band edge



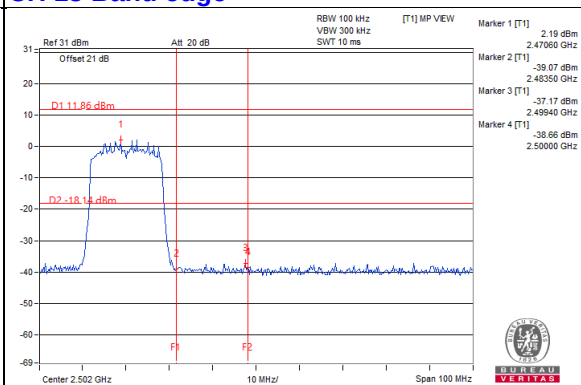
CH 11 Band edge



CH 12 Band edge

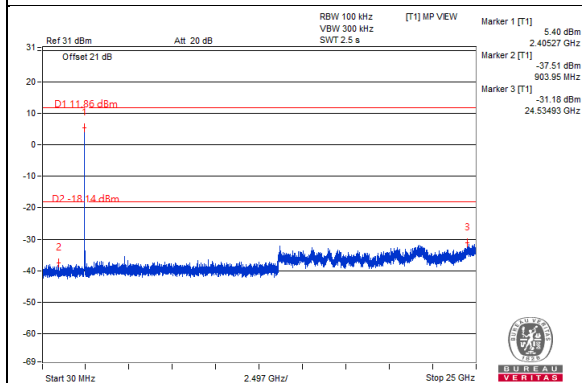


CH 13 Band edge

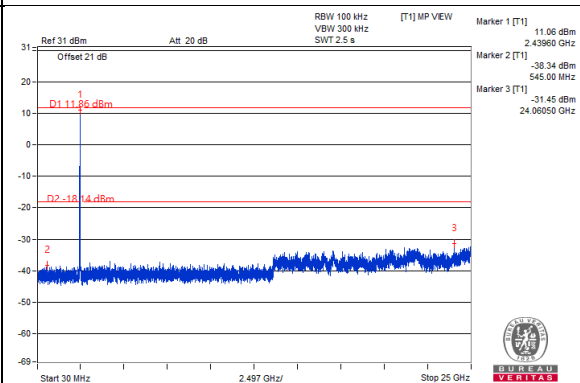


Chain 1

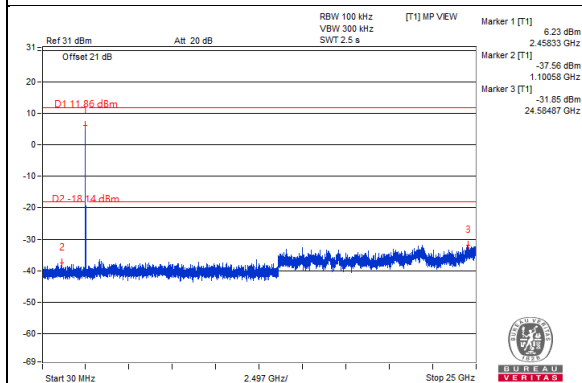
CH 1



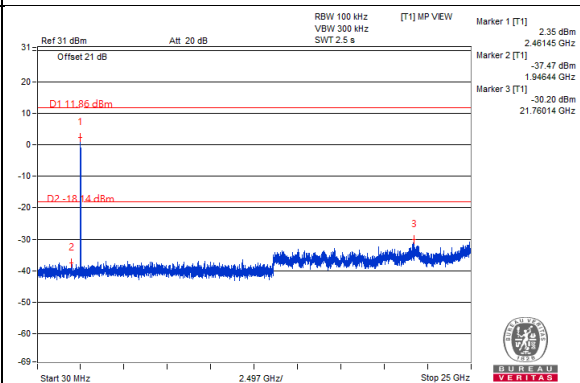
CH 6



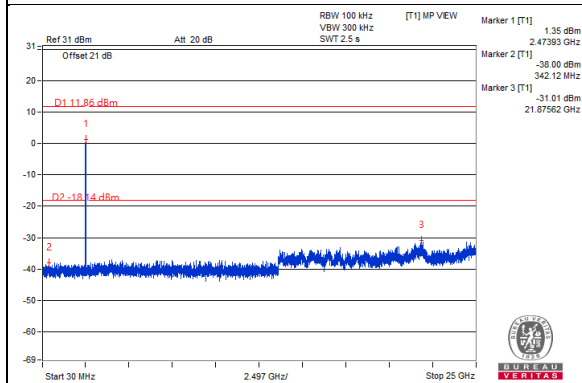
CH 11



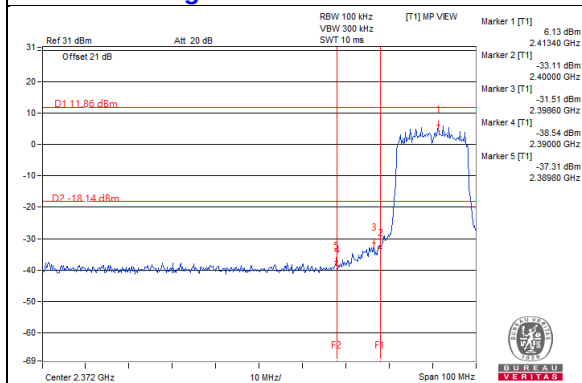
CH 12



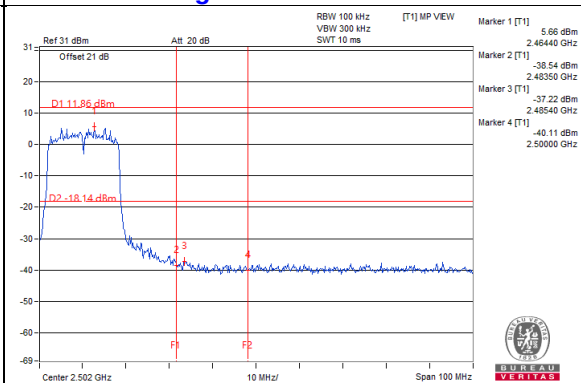
CH 13



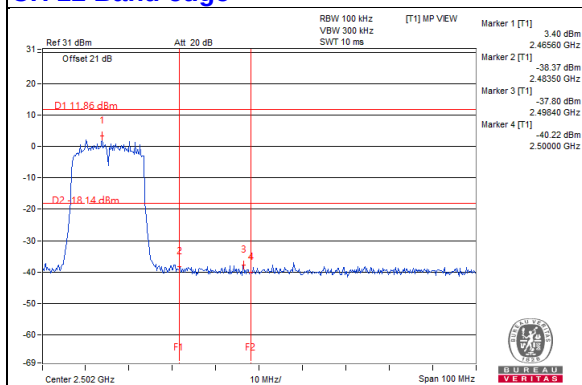
CH 1 Band edge



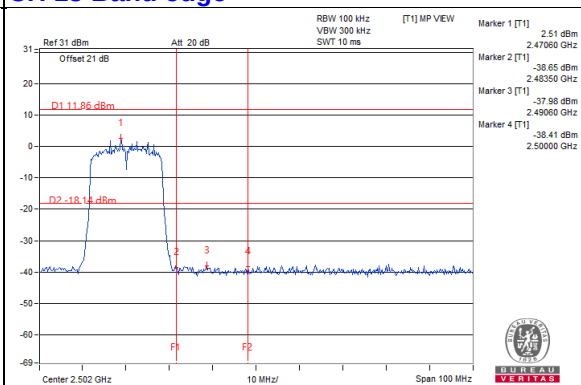
CH 11 Band edge



CH 12 Band edge

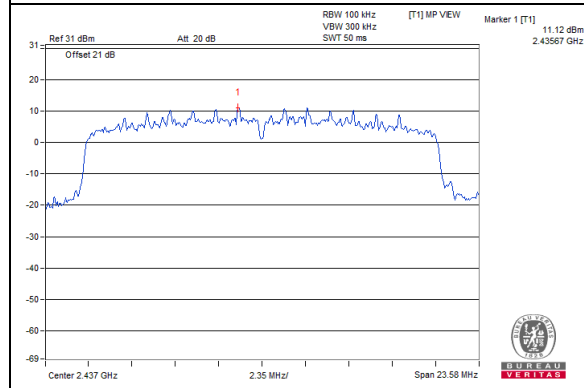


CH 13 Band edge



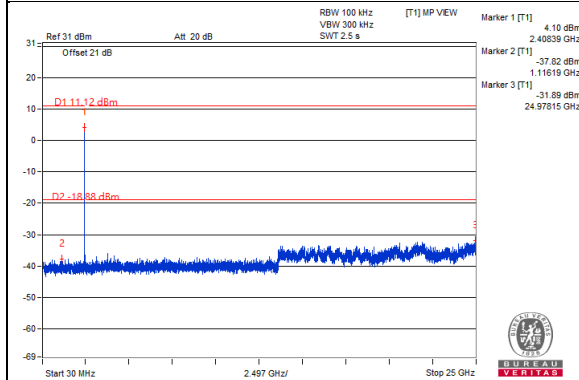
802.11ax (HE20)

Maximum REF

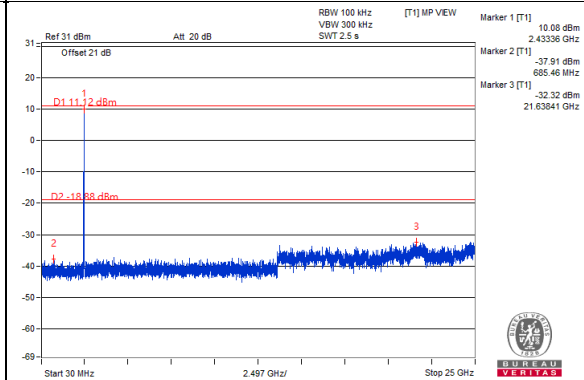


Chain 0

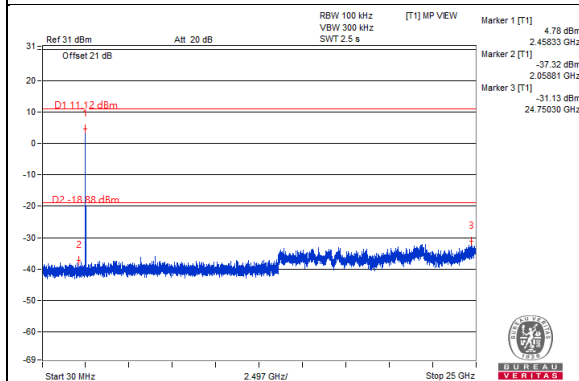
CH 1



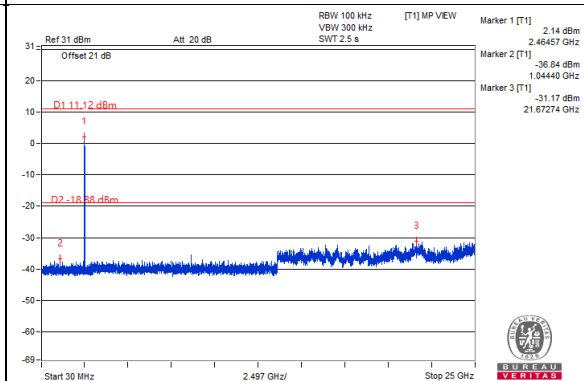
CH 6



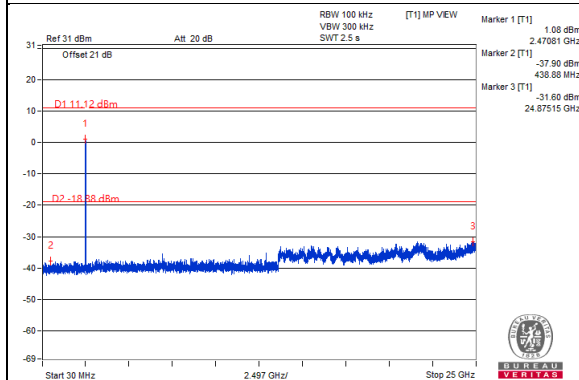
CH 11



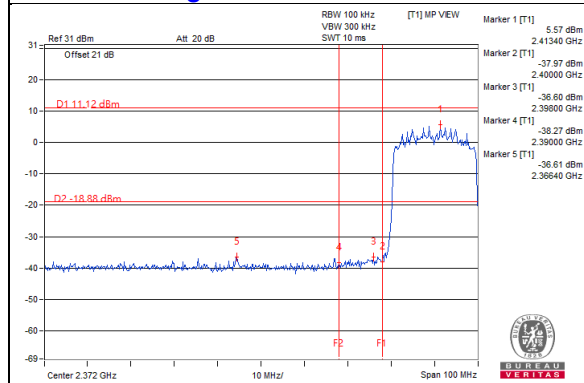
CH 12



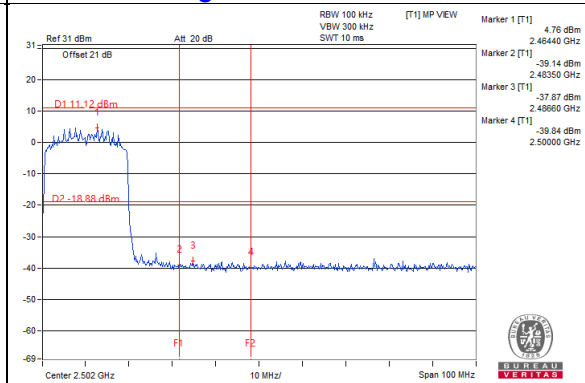
CH 13



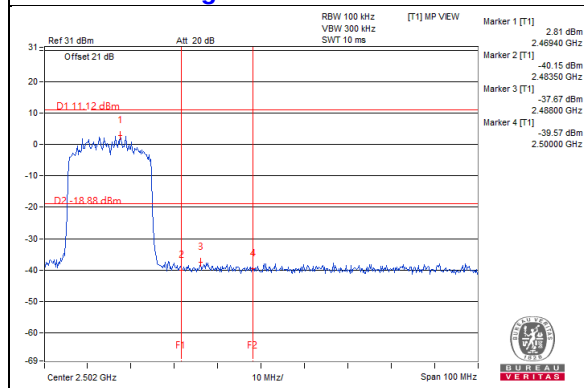
CH 1 Band edge



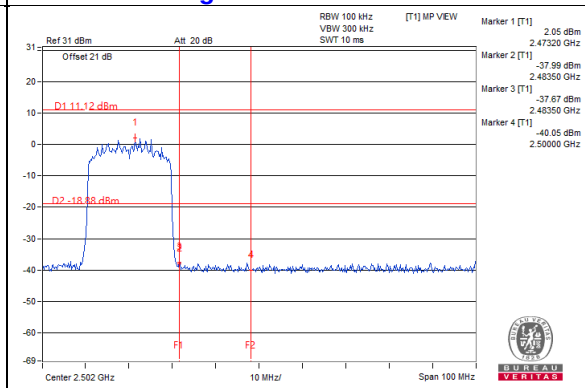
CH 11 Band edge



CH 12 Band edge

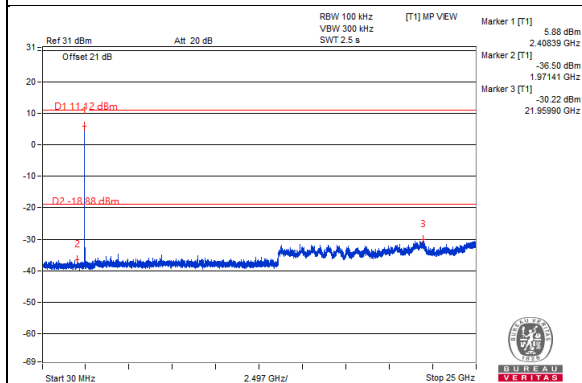


CH 13 Band edge

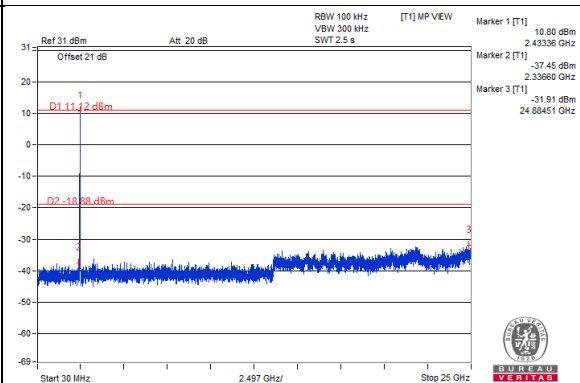


Chain 1

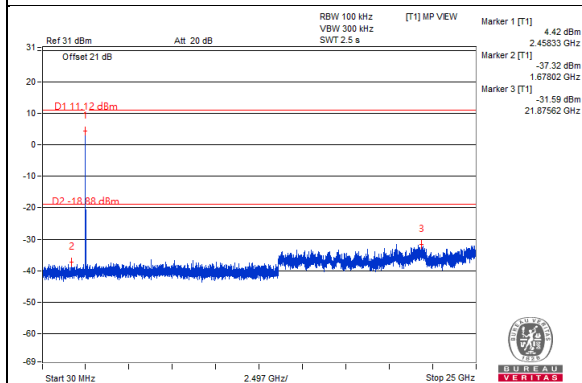
CH 1



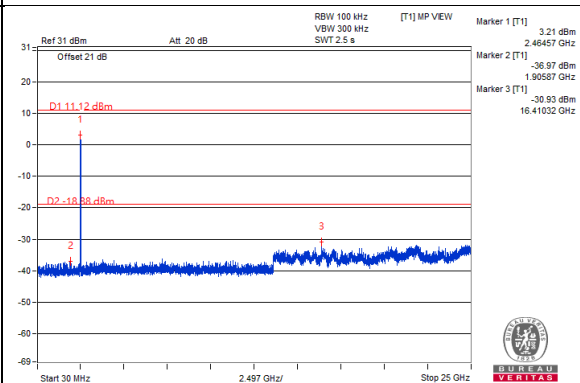
CH 6



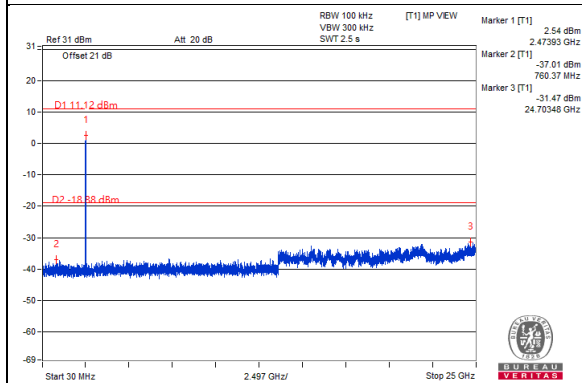
CH 11



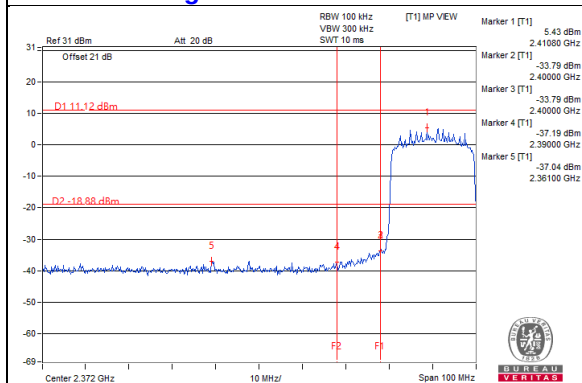
CH 12



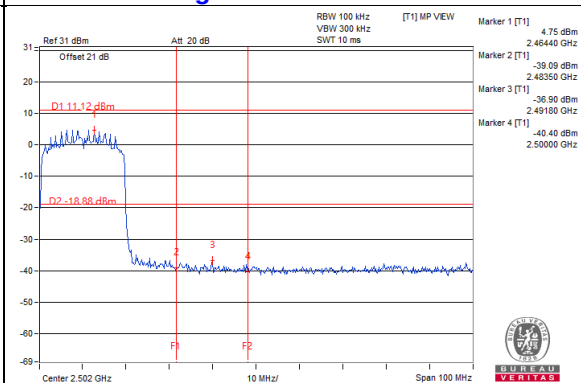
CH 13



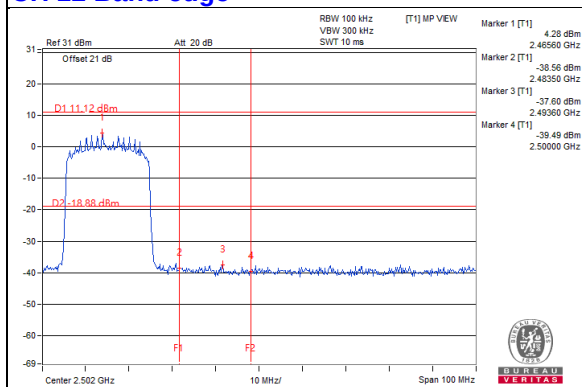
CH 1 Band edge



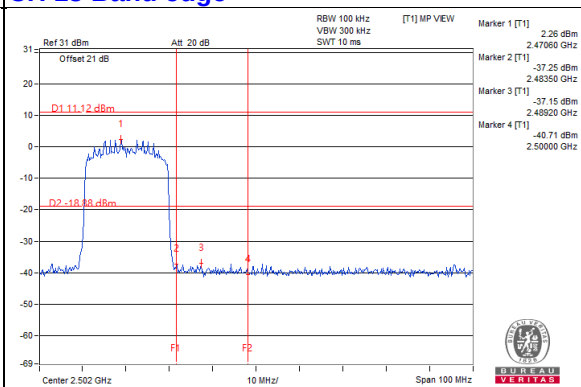
CH 11 Band edge



CH 12 Band edge

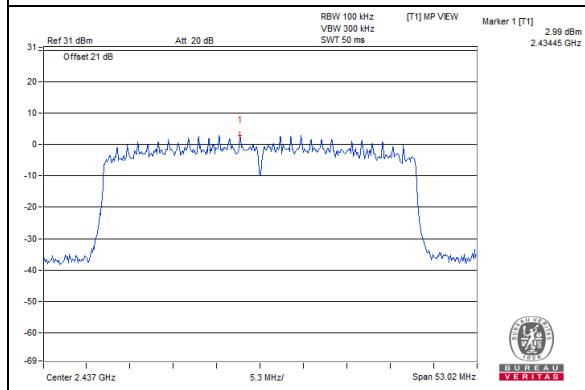


CH 13 Band edge



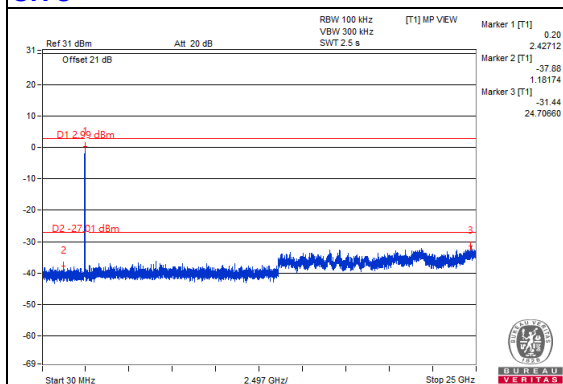
802.11ax (HE40)

Maximum REF

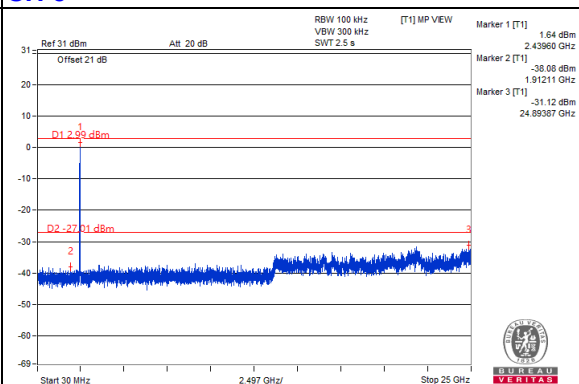


Chain 0

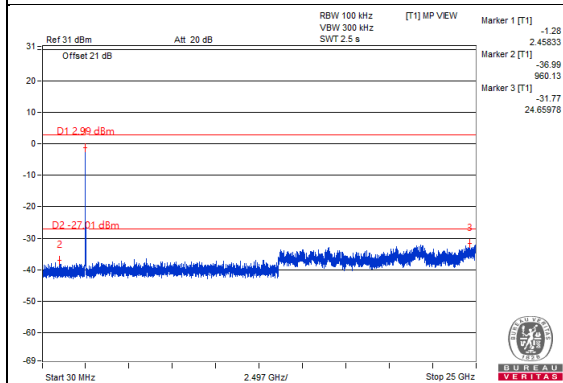
CH 3



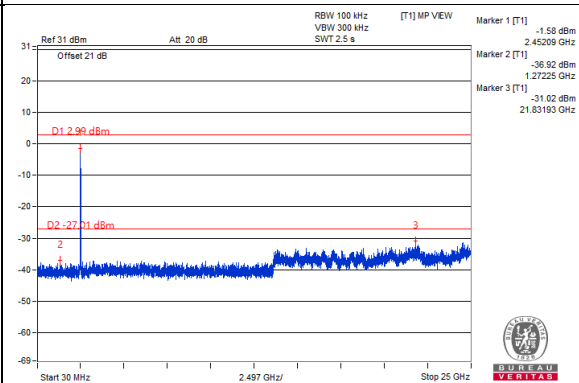
CH 6



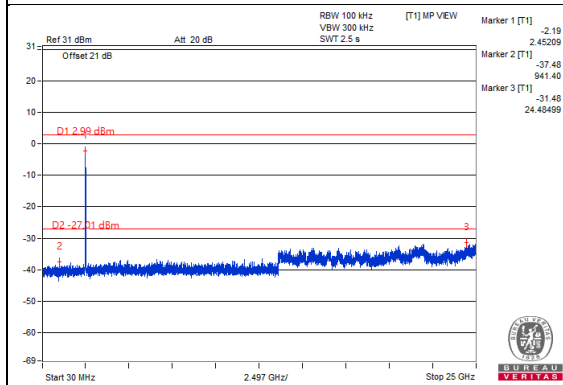
CH 9



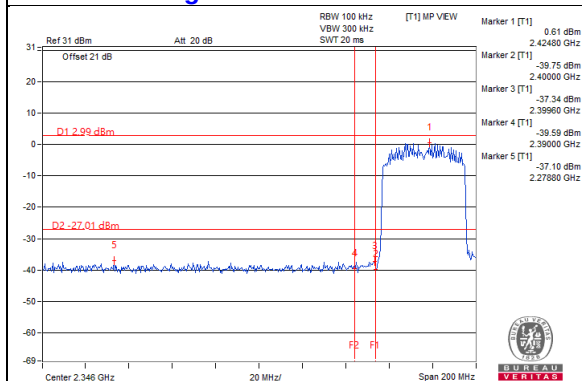
CH 10



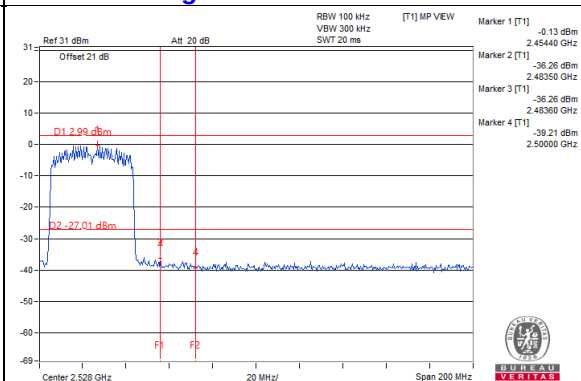
CH 11



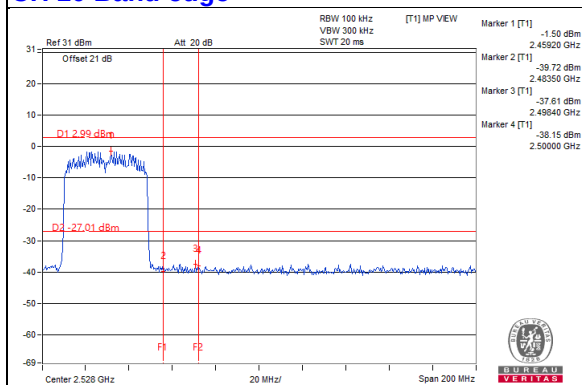
CH 3 Band edge



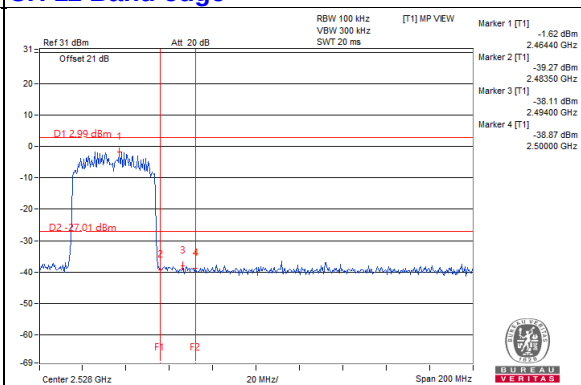
CH 9 Band edge



CH 10 Band edge

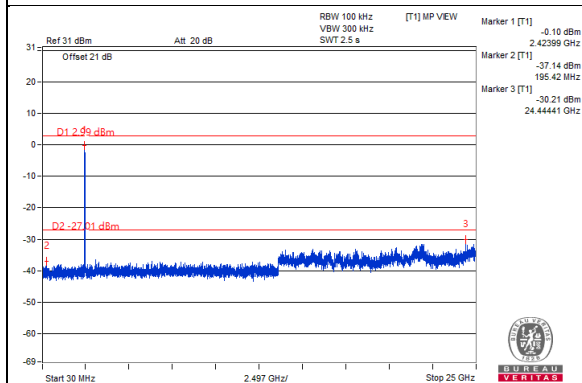


CH 11 Band edge

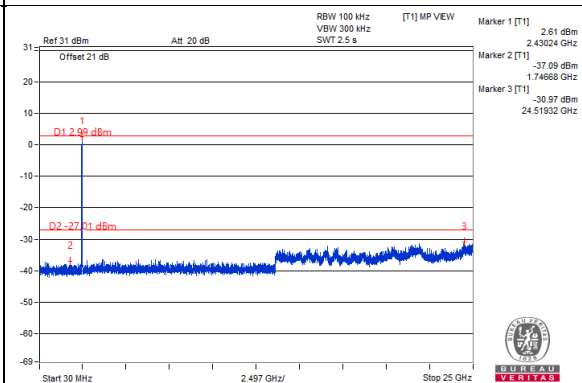


Chain 1

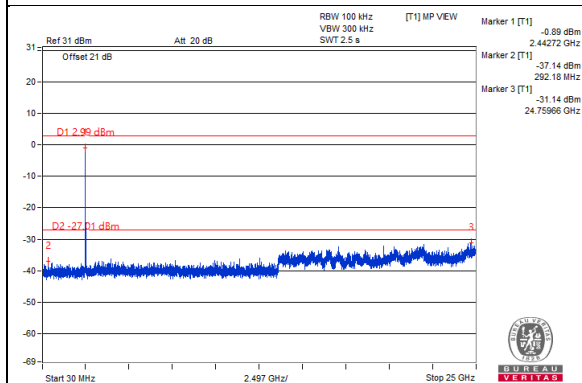
CH 3



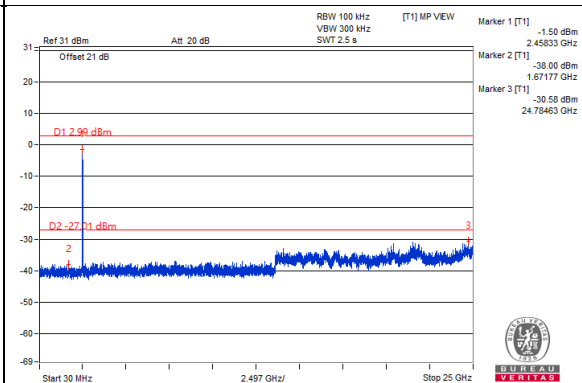
CH 6



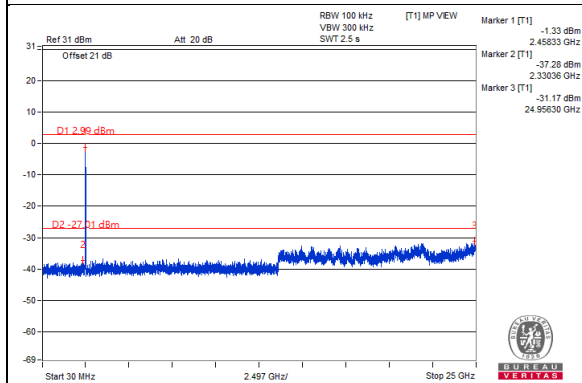
CH 9



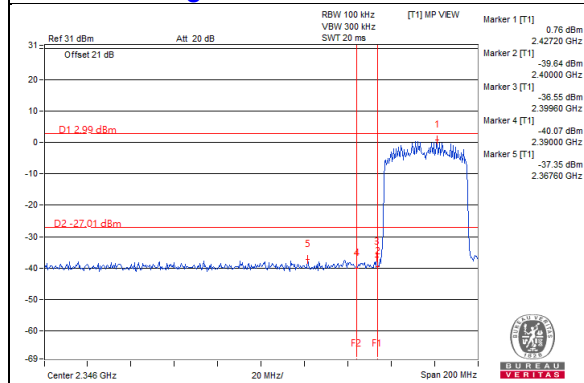
CH 10



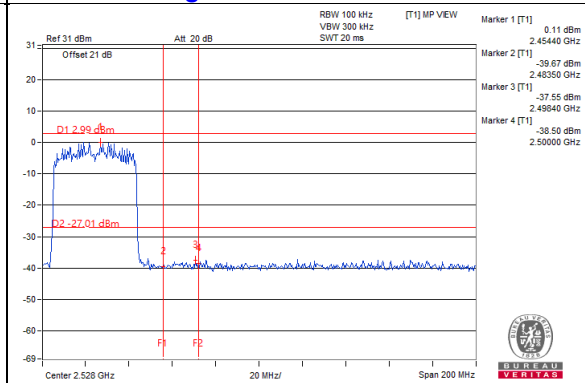
CH 11



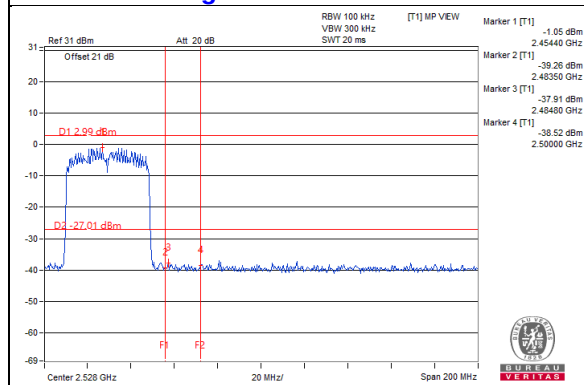
CH 3 Band edge



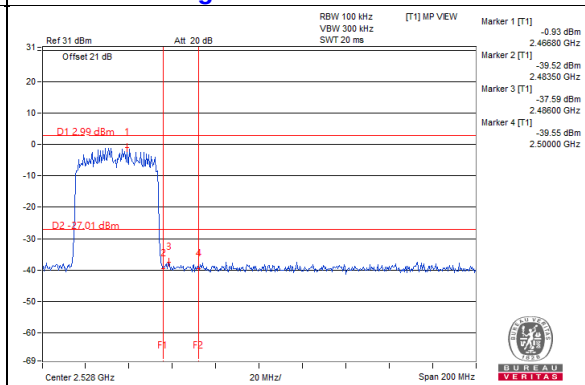
CH 9 Band edge



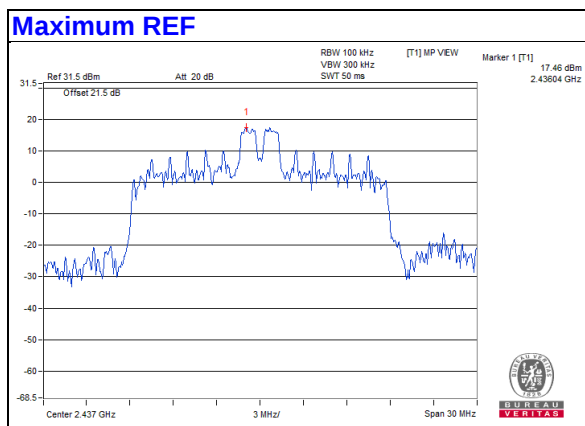
CH 10 Band edge



CH 11 Band edge

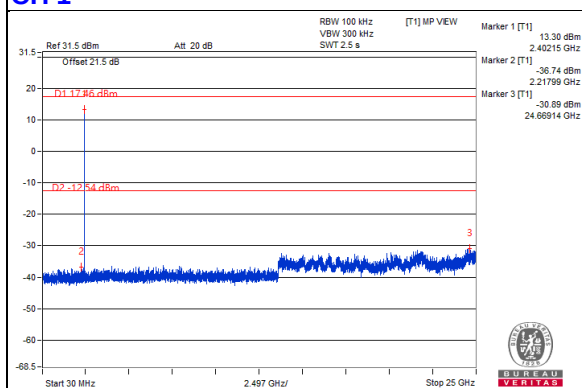


802.11ax (RU26)

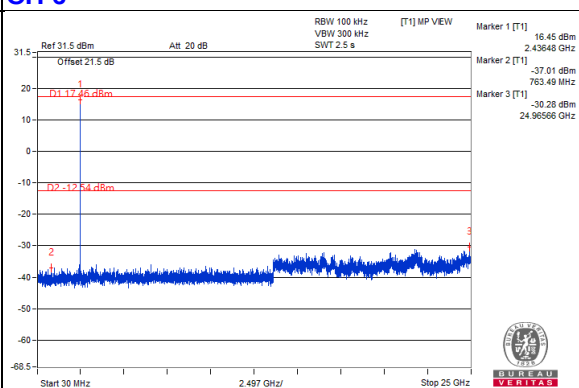


Chain 0

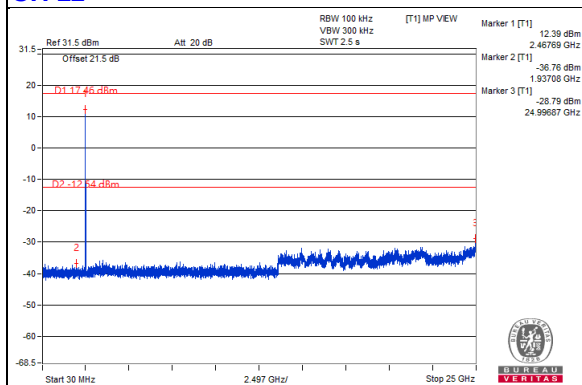
CH 1



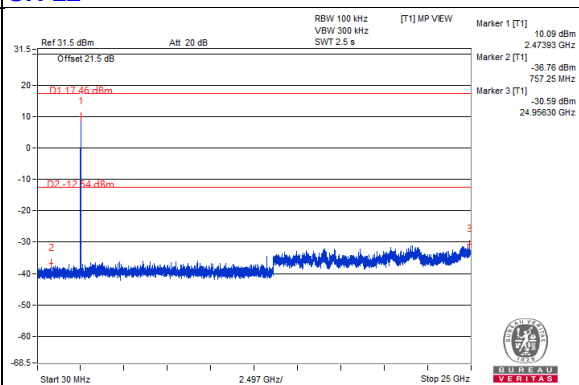
CH 6



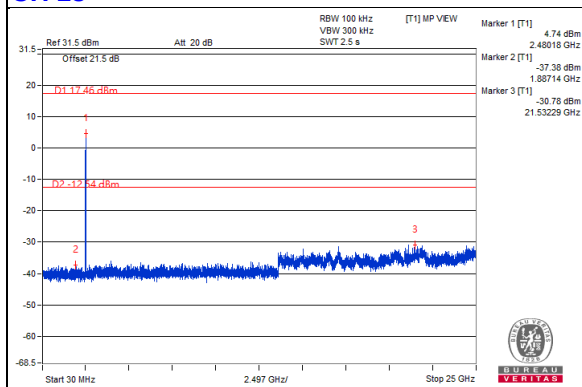
CH 11



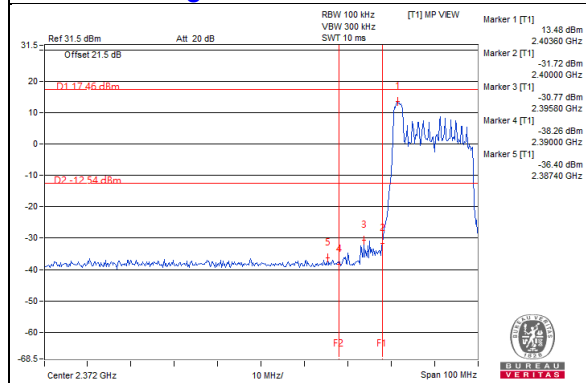
CH 12



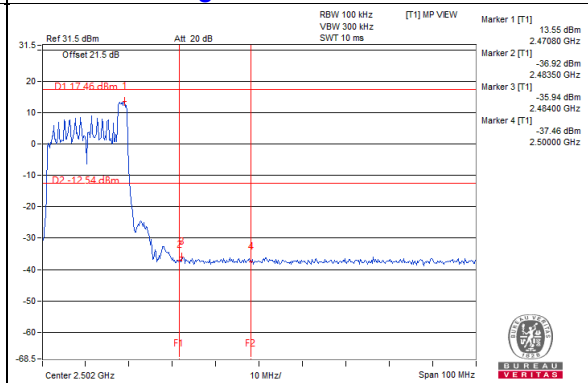
CH 13



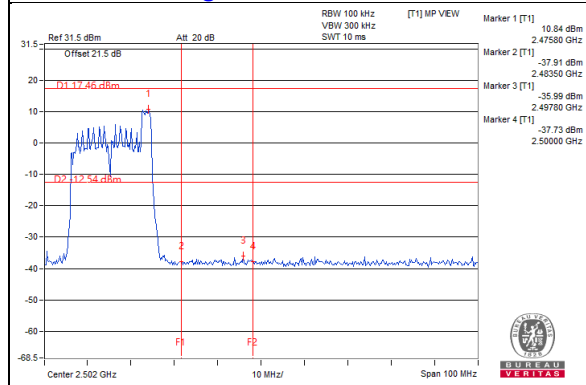
CH 1 Band edge



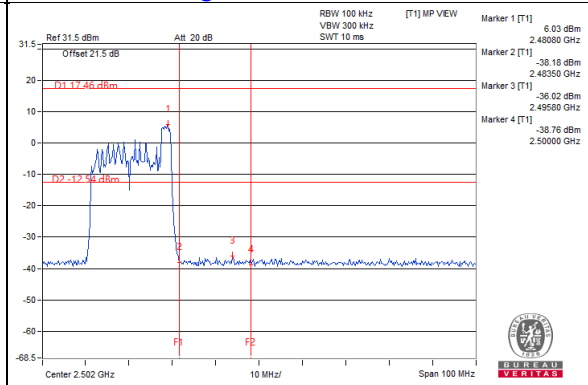
CH 11 Band edge



CH 12 Band edge

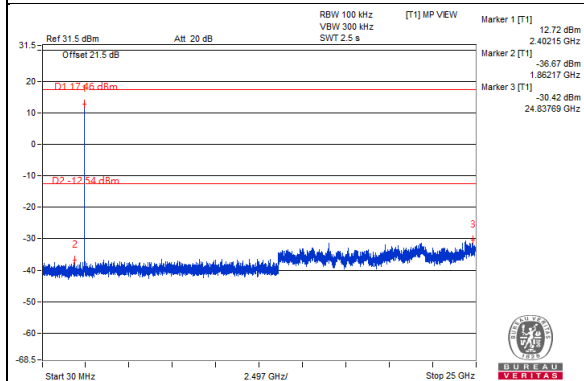


CH 13 Band edge

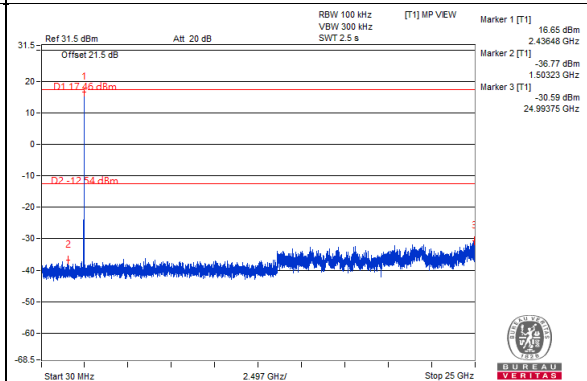


Chain 1

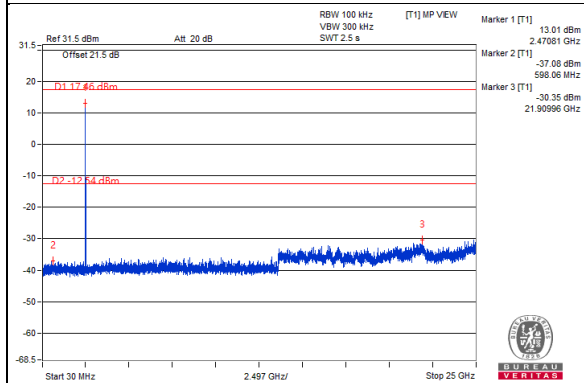
CH 1



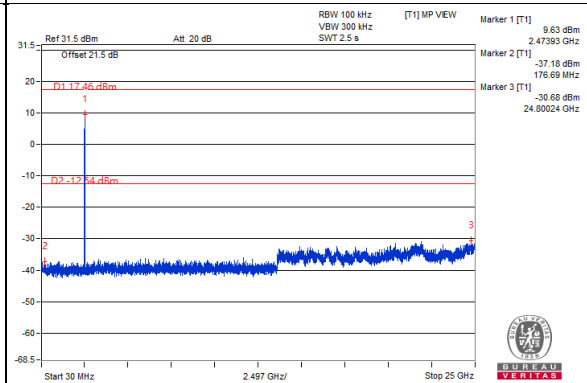
CH 6



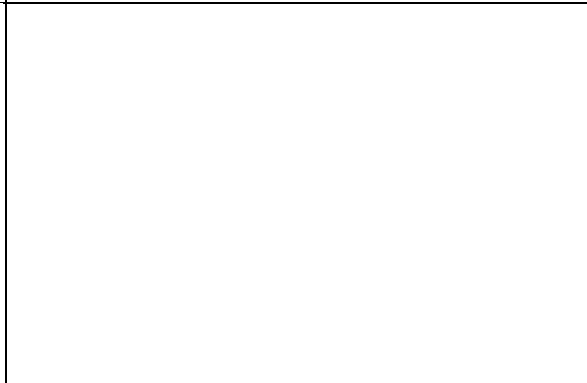
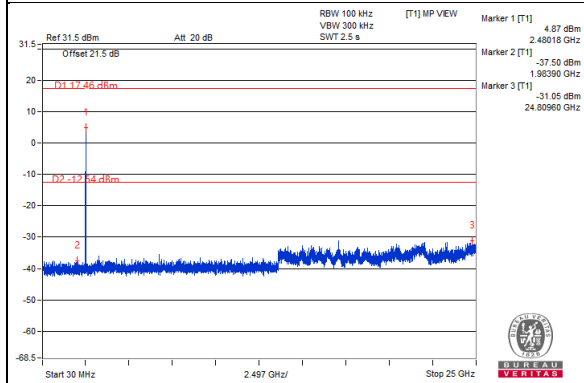
CH 11



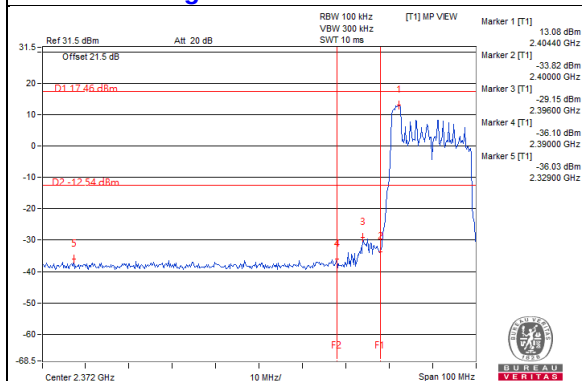
CH 12



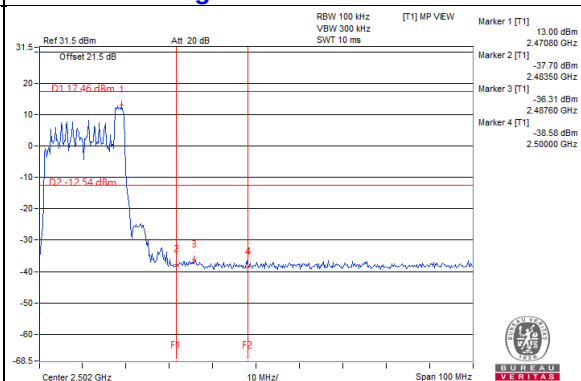
CH 13



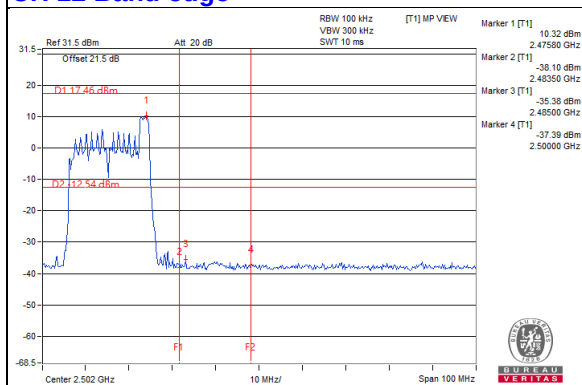
CH 1 Band edge



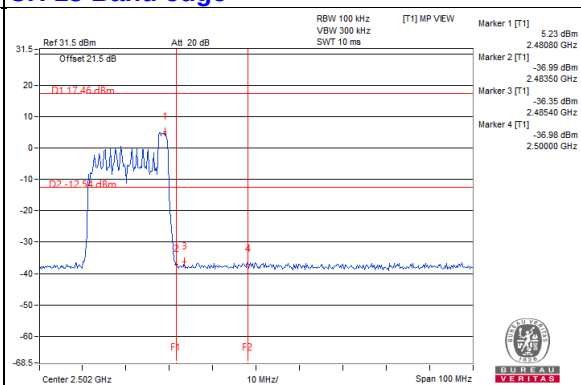
CH 11 Band edge



CH 12 Band edge

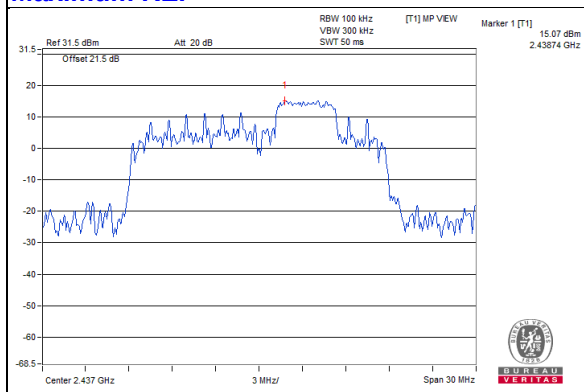


CH 13 Band edge



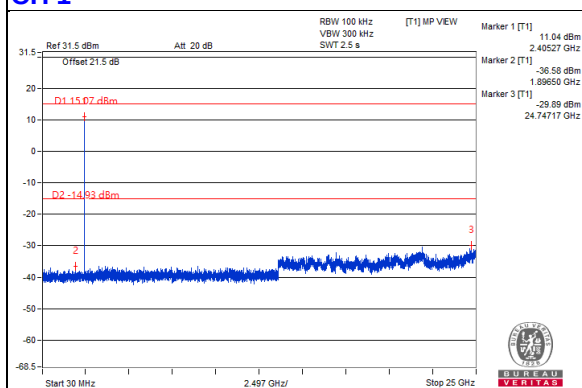
802.11ax (RU52)

Maximum REF

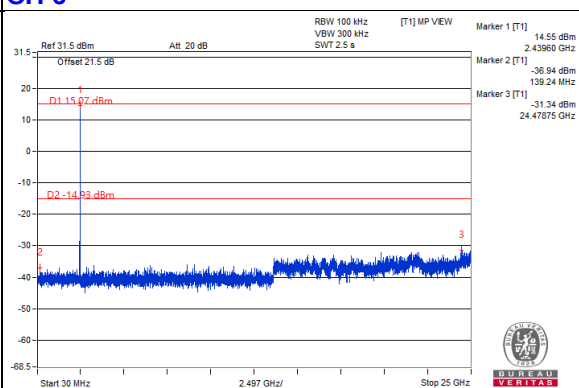


Chain 0

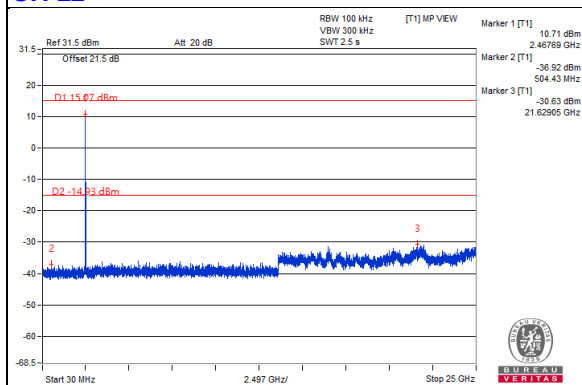
CH 1



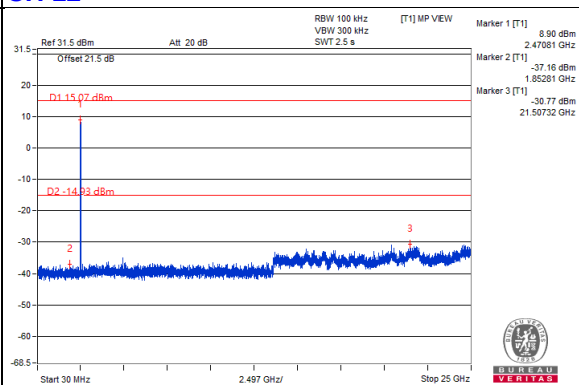
CH 6



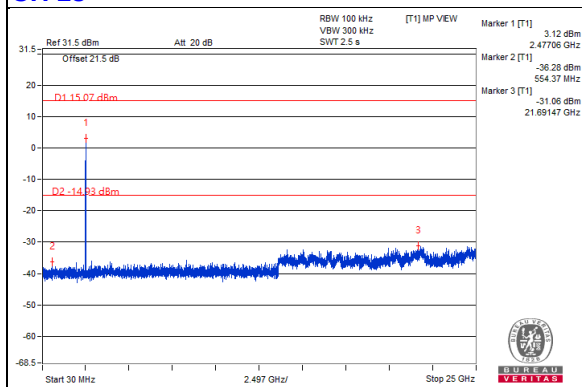
CH 11



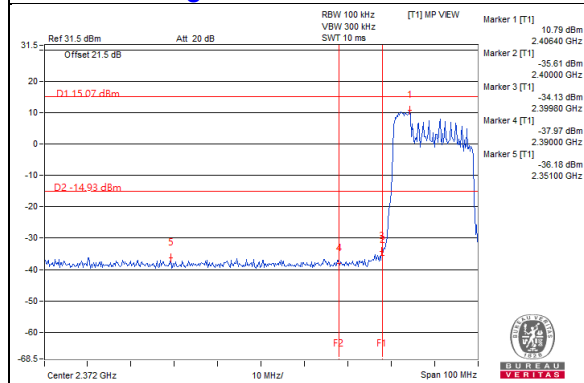
CH 12



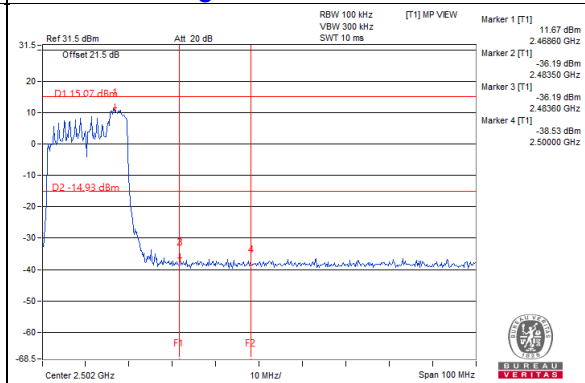
CH 13



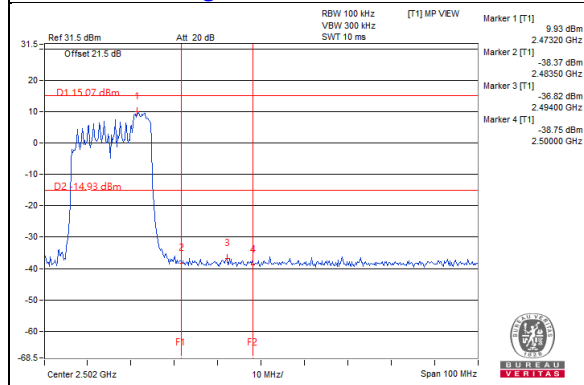
CH 1 Band edge



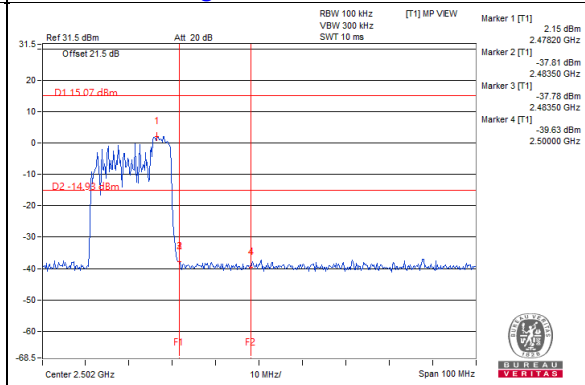
CH 11 Band edge



CH 12 Band edge

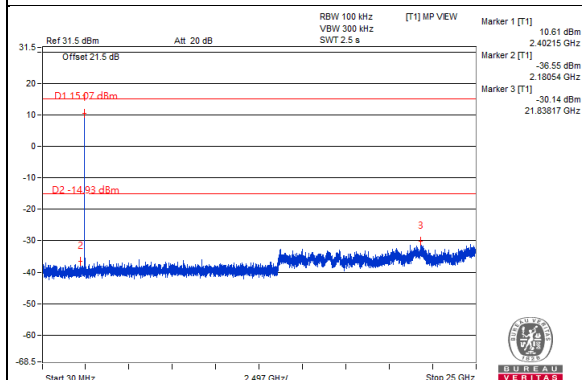


CH 13 Band edge

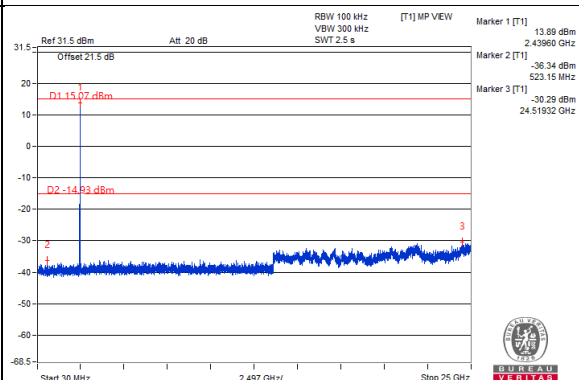


Chain 1

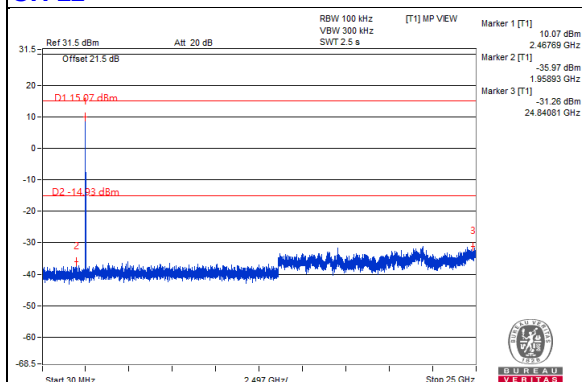
CH 1



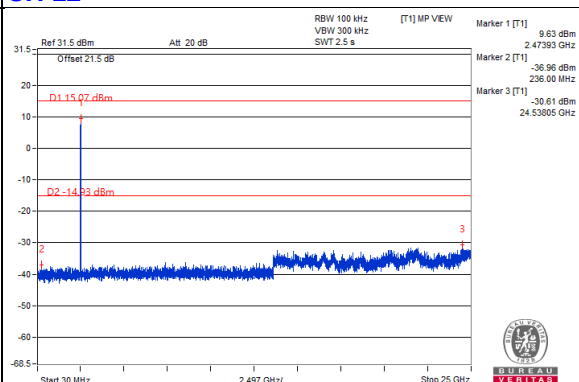
CH 6



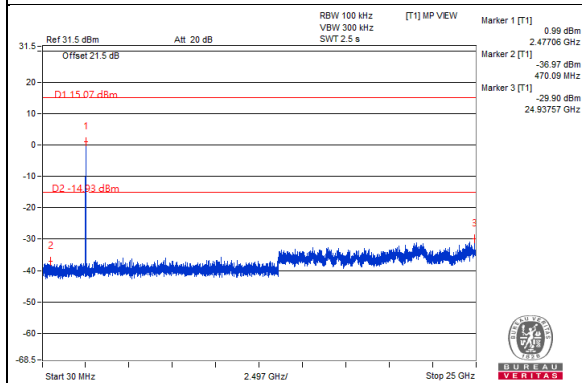
CH 11



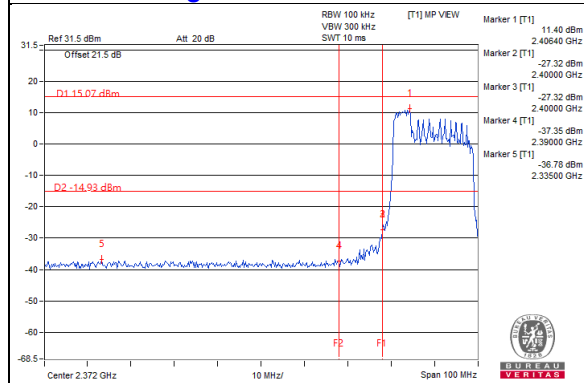
CH 12



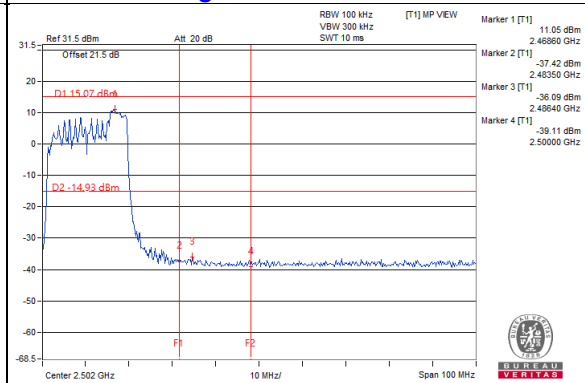
CH 13



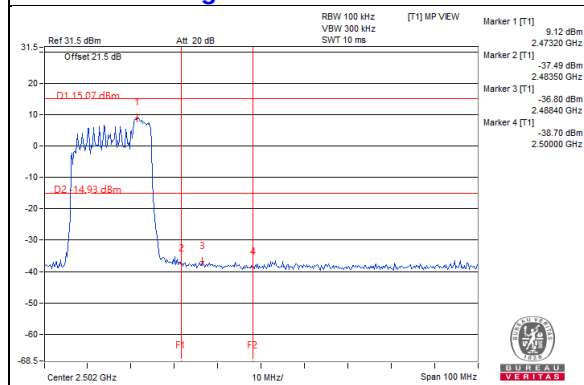
CH 1 Band edge



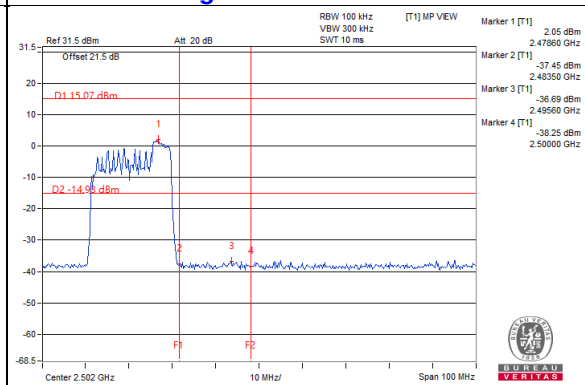
CH 11 Band edge



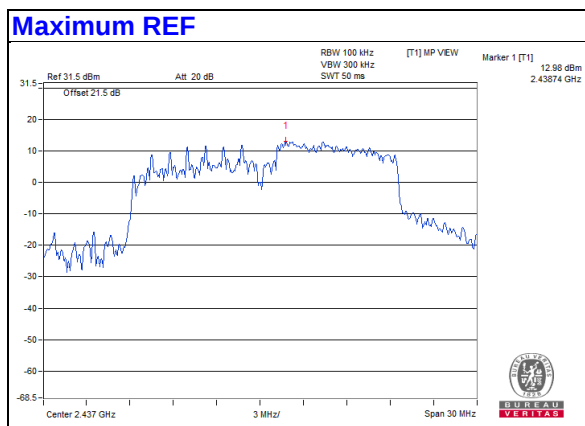
CH 12 Band edge



CH 13 Band edge

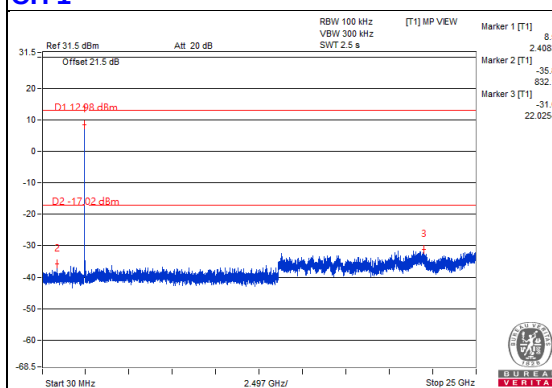


802.11ax (RU106)

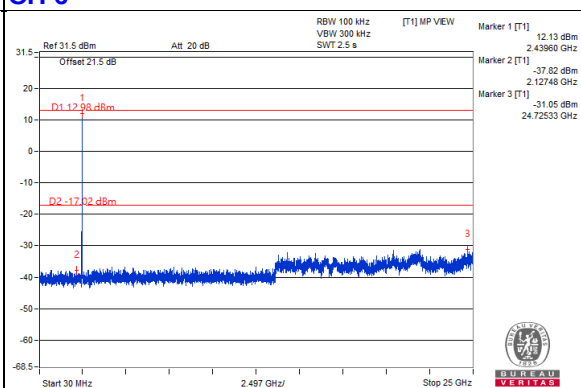


Chain 0

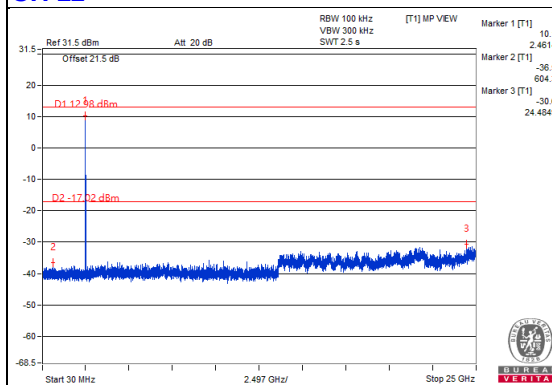
CH 1



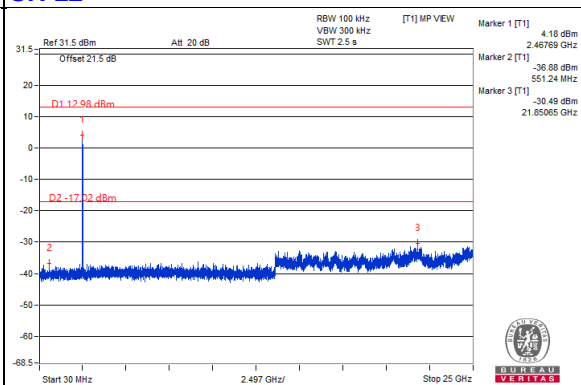
CH 6



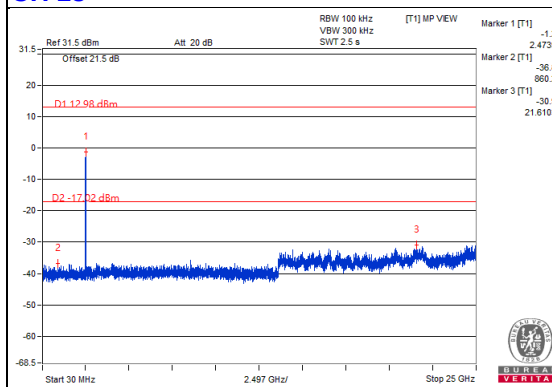
CH 11



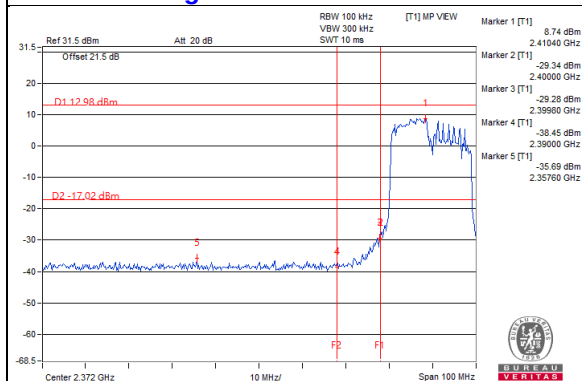
CH 12



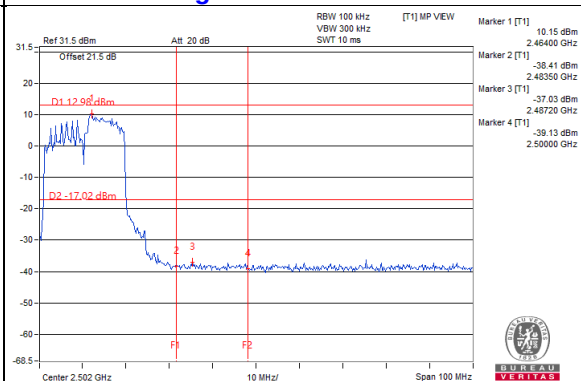
CH 13



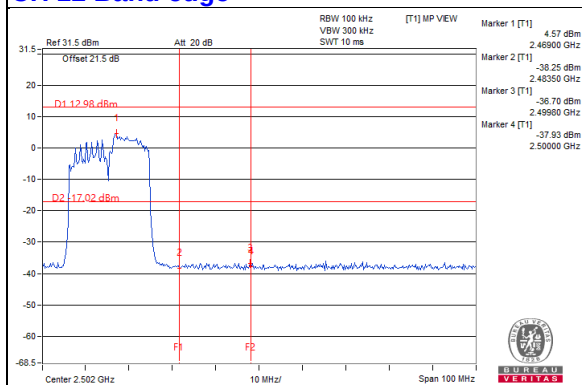
CH 1 Band edge



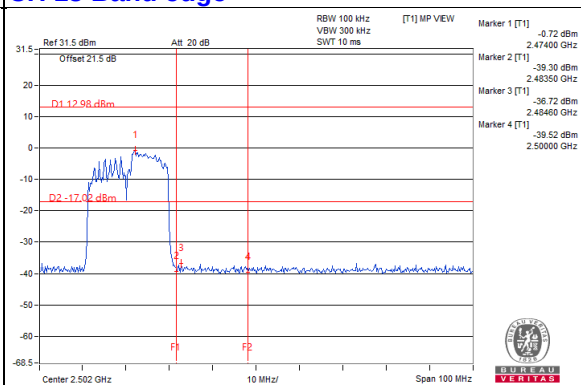
CH 11 Band edge



CH 12 Band edge

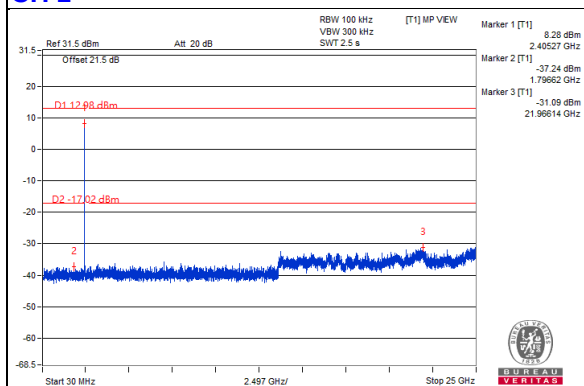


CH 13 Band edge

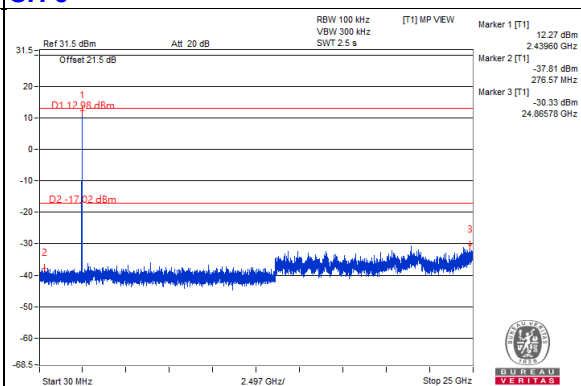


Chain 1

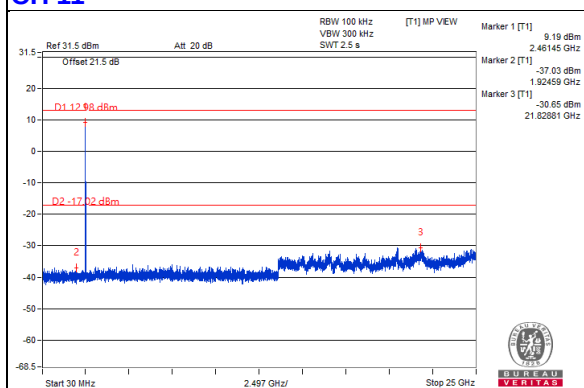
CH 1



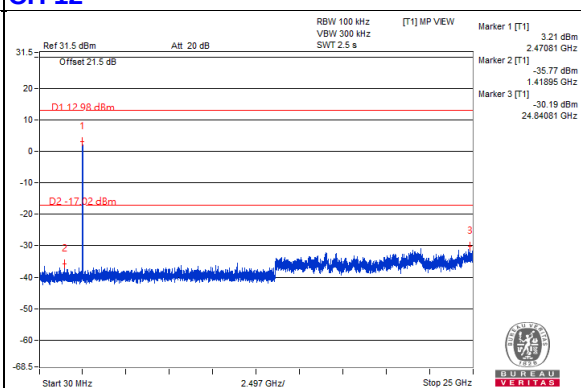
CH 6



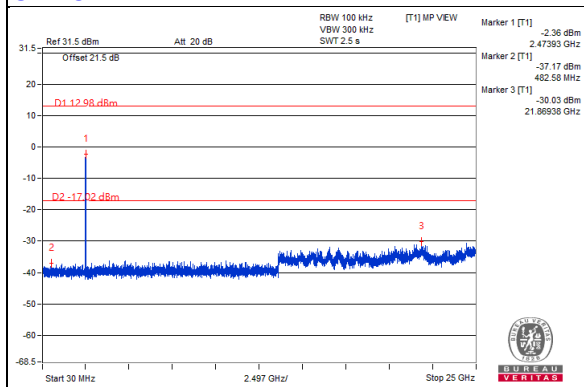
CH 11



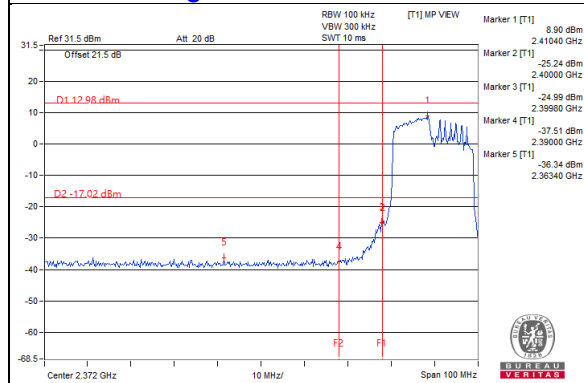
CH 12



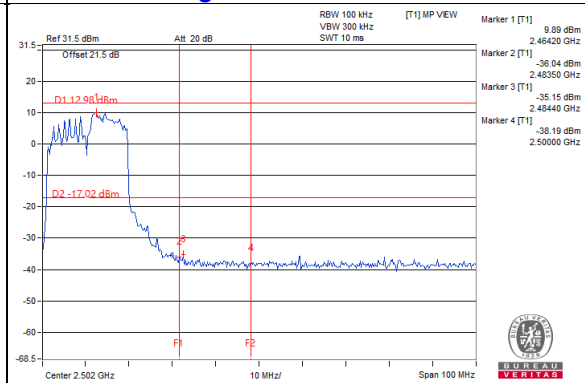
CH 13



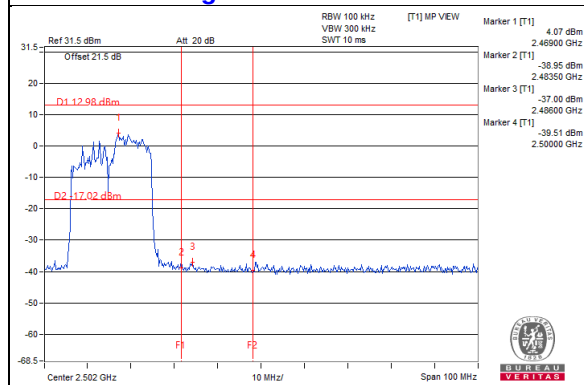
CH 1 Band edge



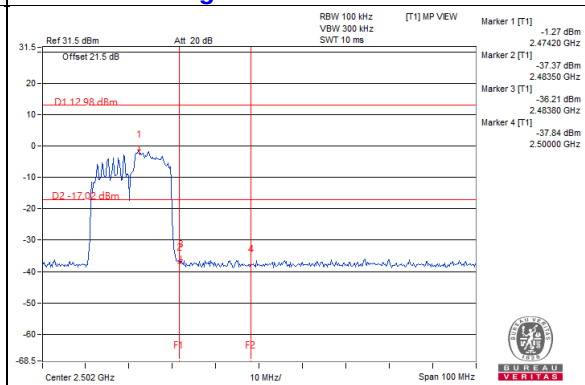
CH 11 Band edge



CH 12 Band edge



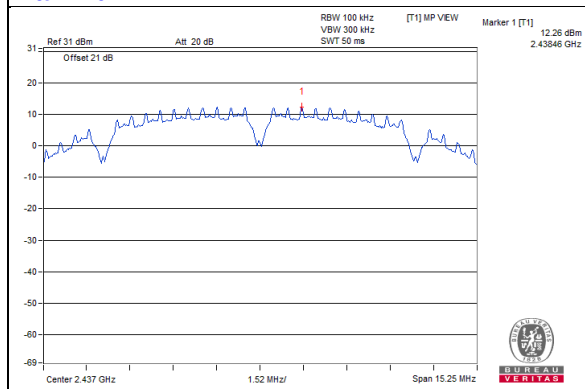
CH 13 Band edge



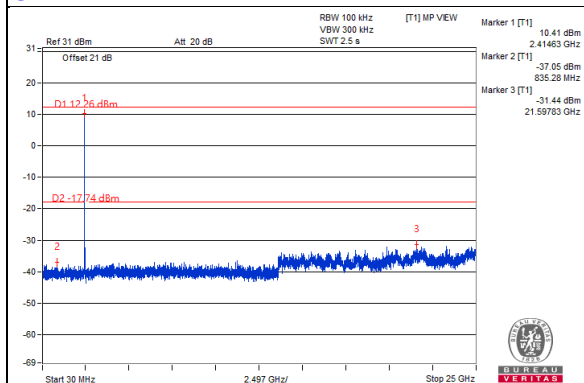
For Mode 2

802.11b

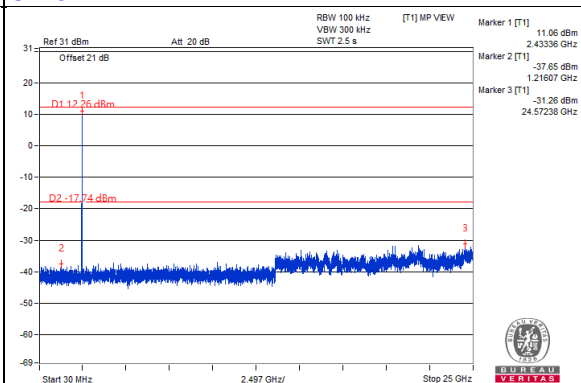
Maximum REF



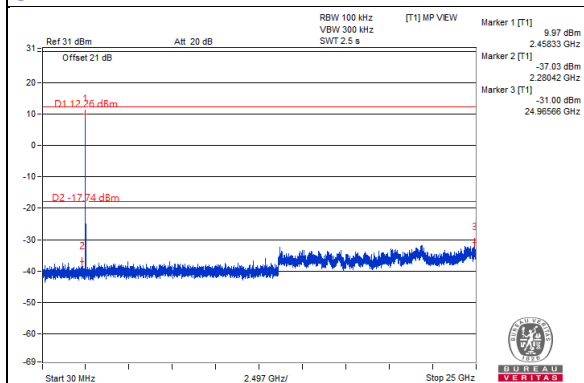
CH 1



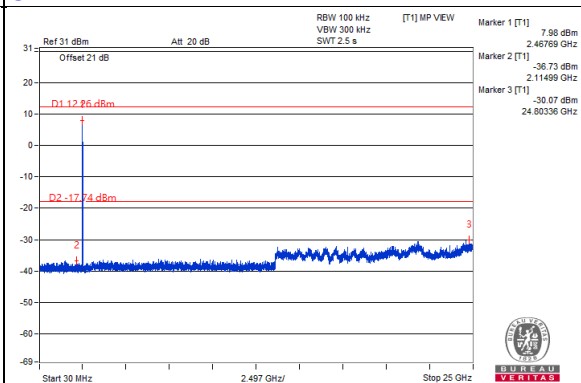
CH 6



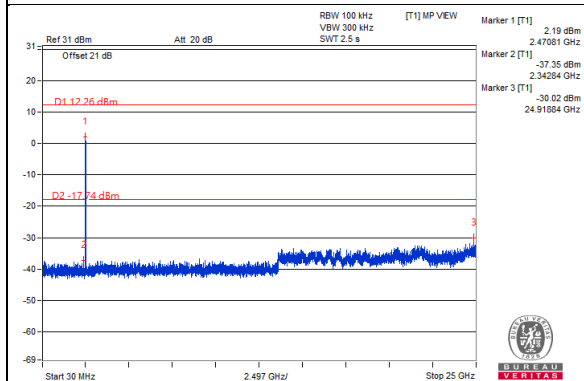
CH 11



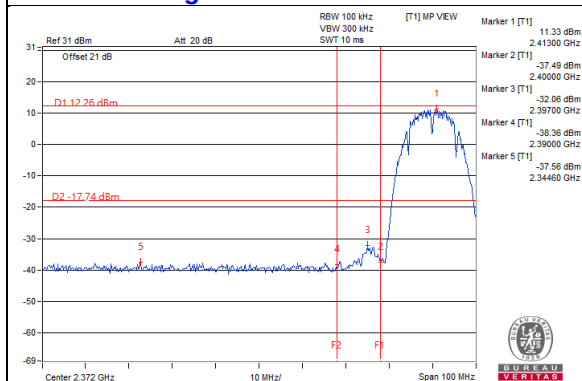
CH 12



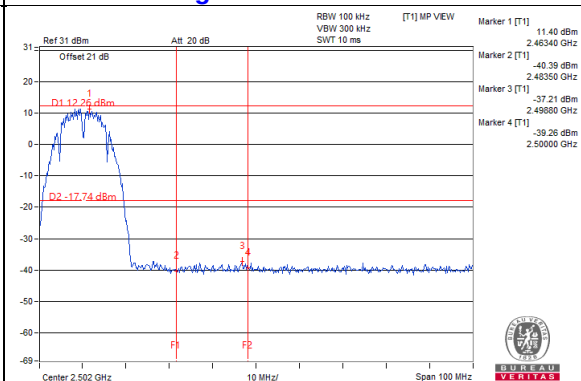
CH 13



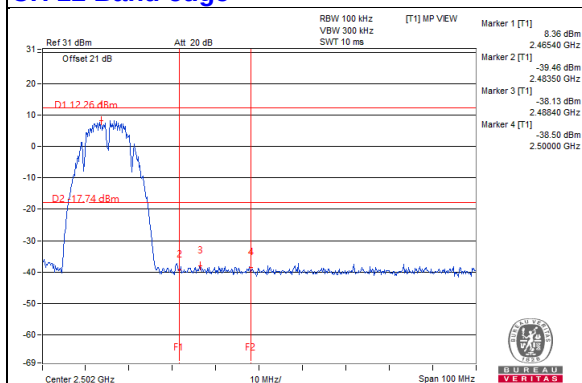
CH 1 Band edge



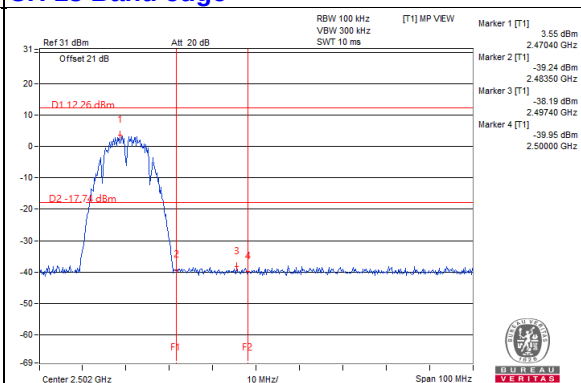
CH 11 Band edge



CH 12 Band edge

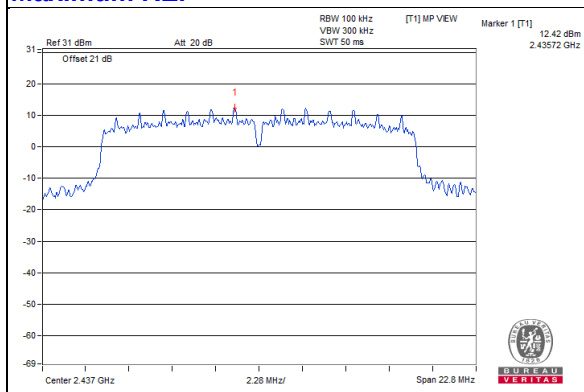


CH 13 Band edge

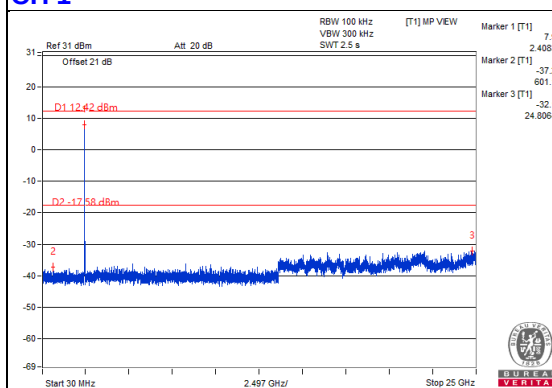


802.11g

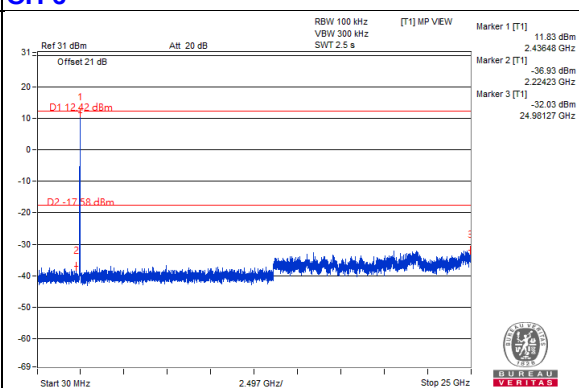
Maximum REF



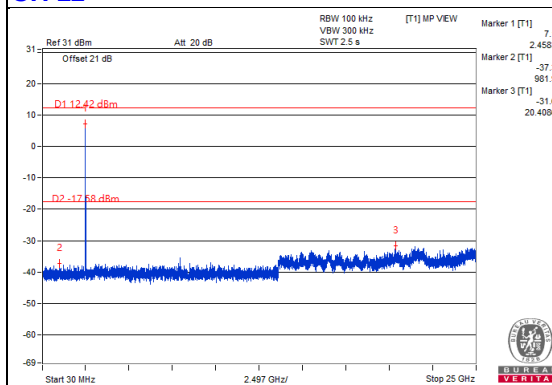
CH 1



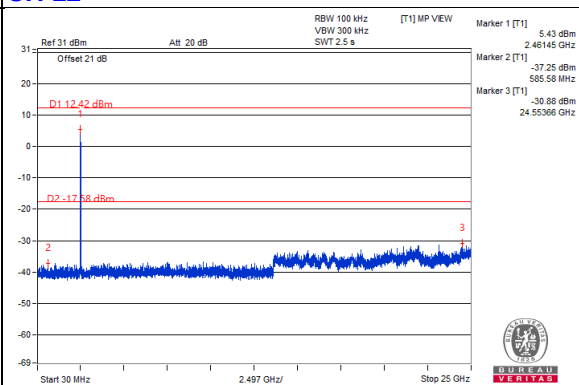
CH 6



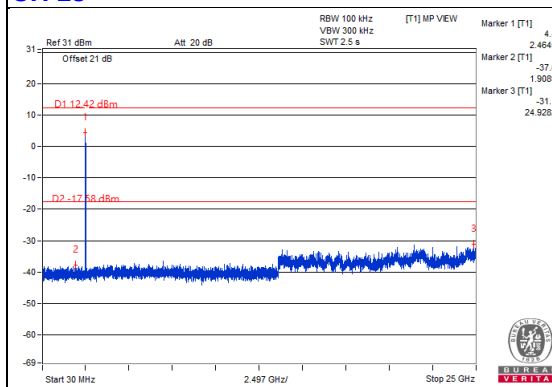
CH 11



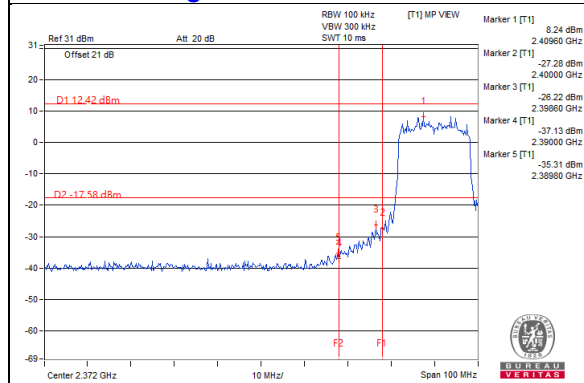
CH 12



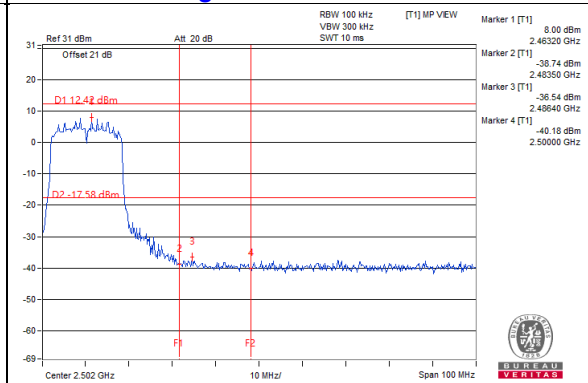
CH 13



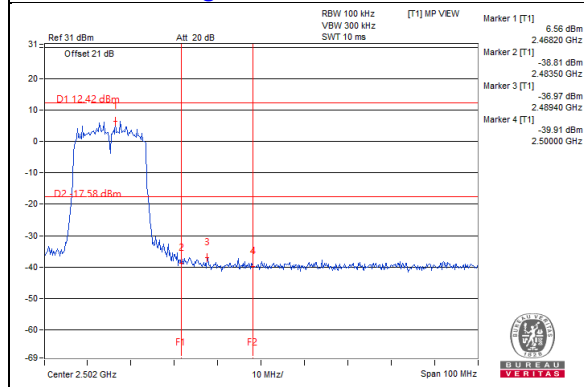
CH 1 Band edge



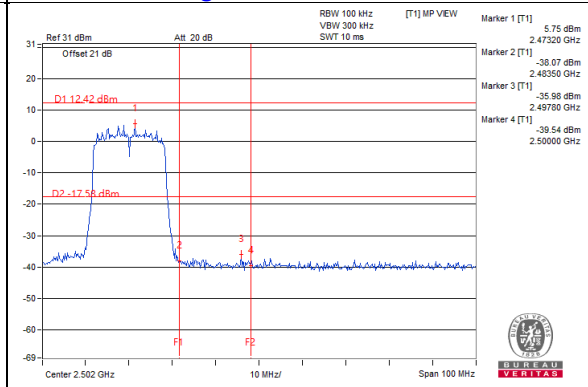
CH 11 Band edge



CH 12 Band edge

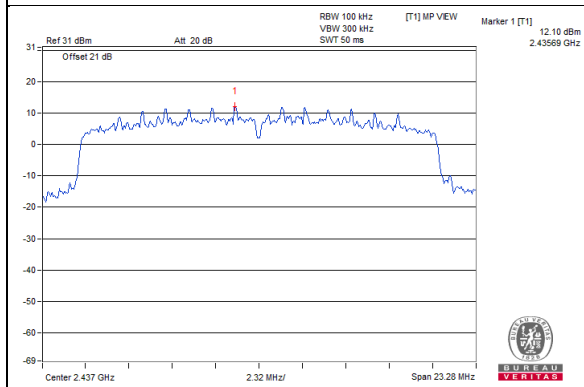


CH 13 Band edge

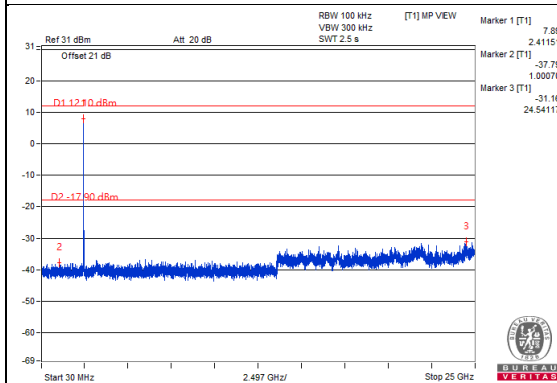


802.11ax (HE20)

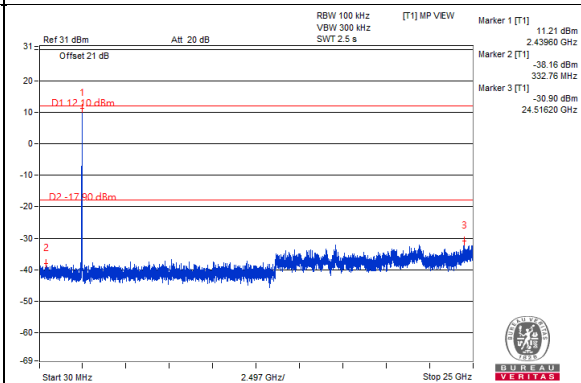
Maximum REF



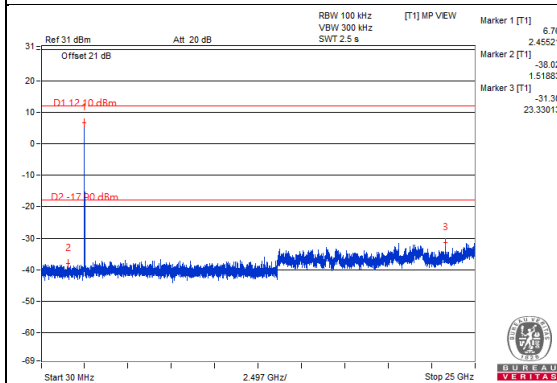
CH 1



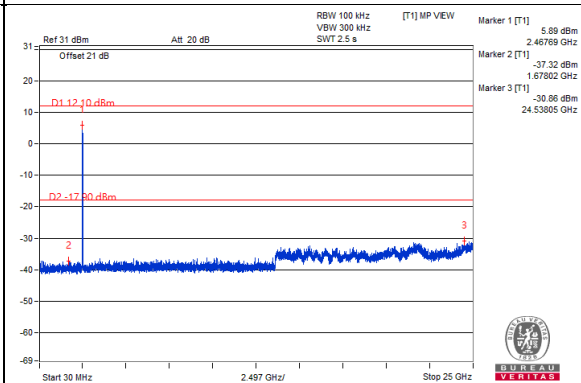
CH 6



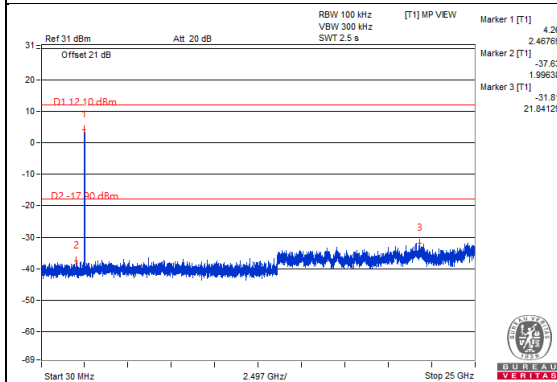
CH 11



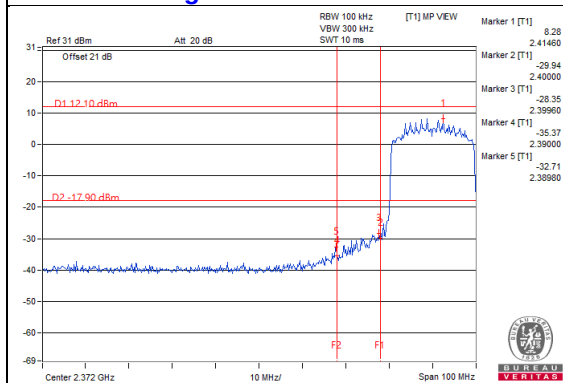
CH 12



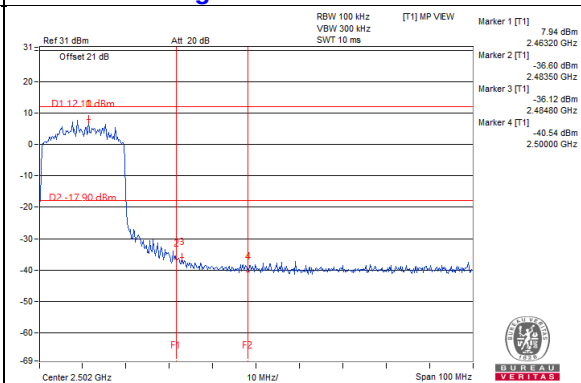
CH 13



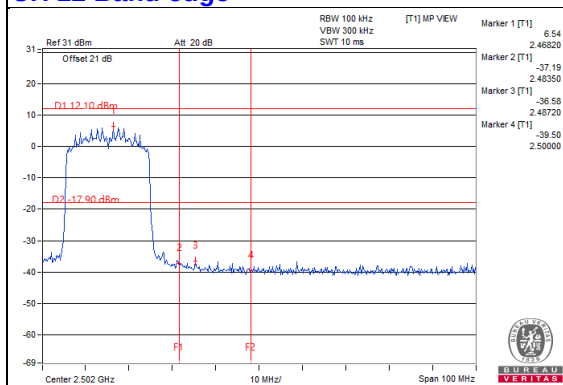
CH 1 Band edge



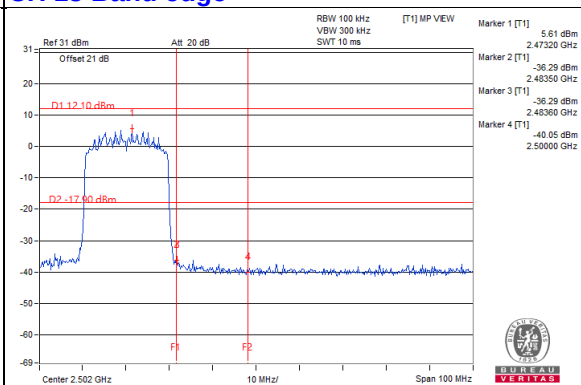
CH 11 Band edge



CH 12 Band edge

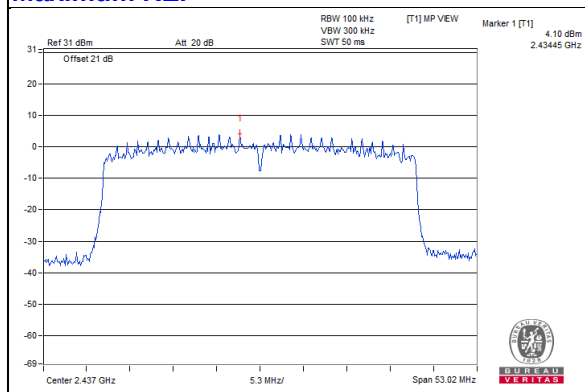


CH 13 Band edge

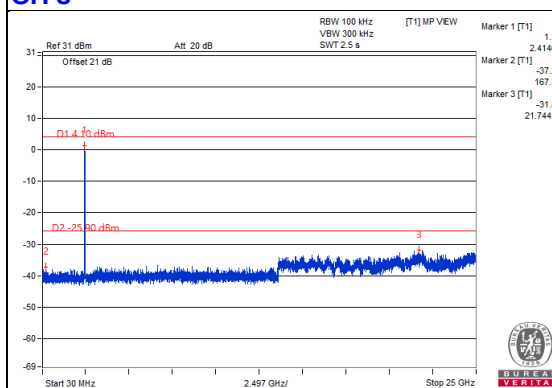


802.11ax (HE40)

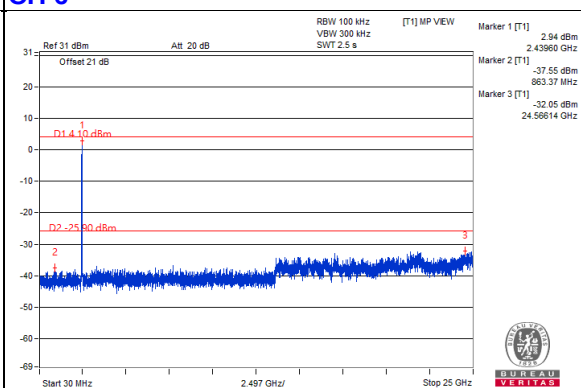
Maximum REF



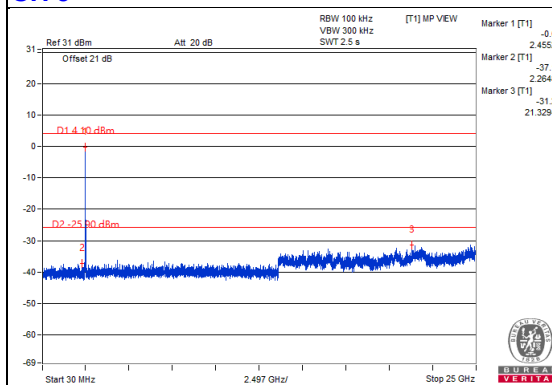
CH 3



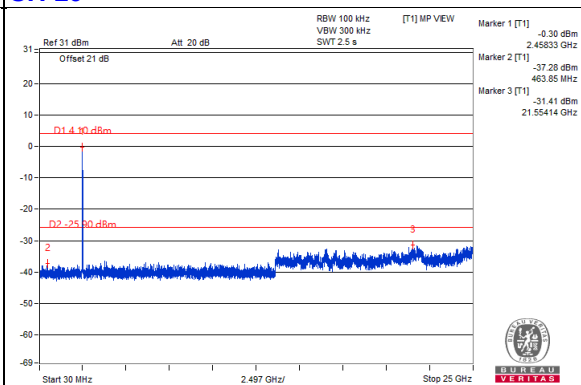
CH 6



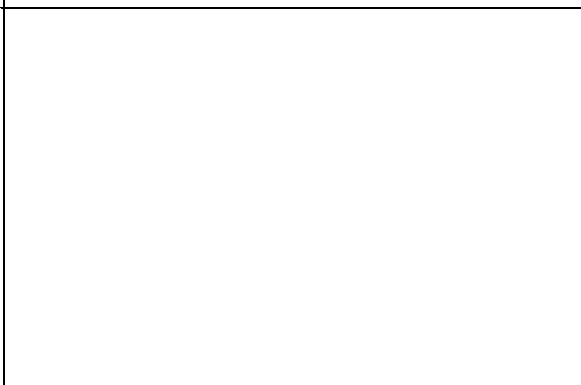
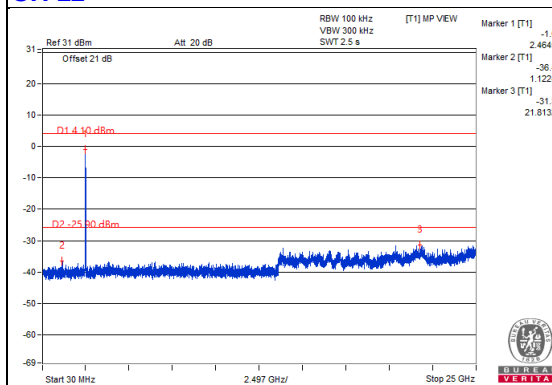
CH 9



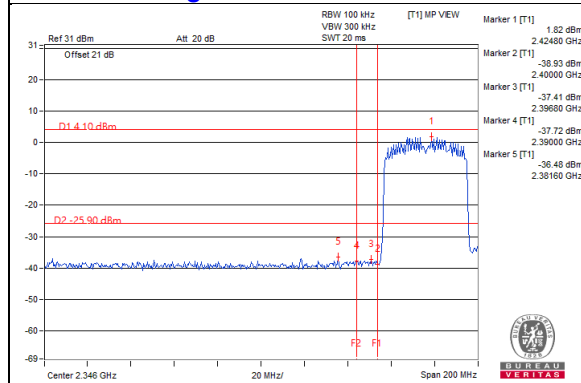
CH 10



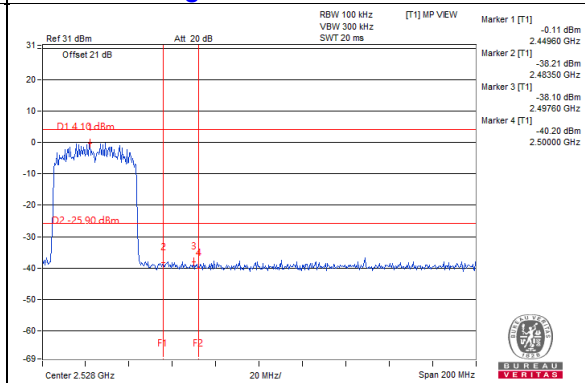
CH 11



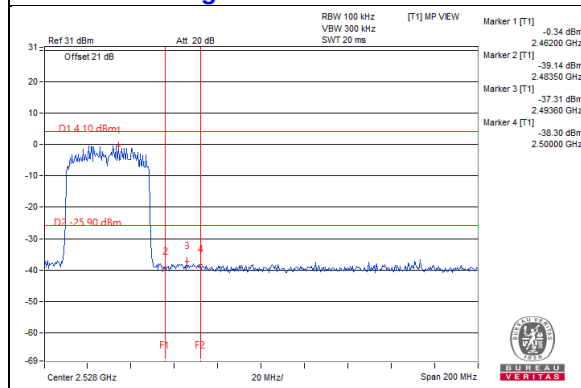
CH 3 Band edge



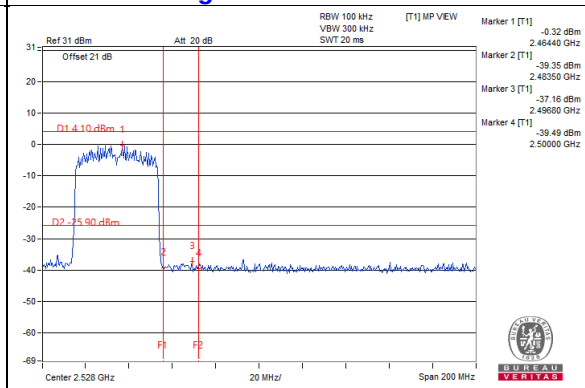
CH 9 Band edge



CH 10 Band edge

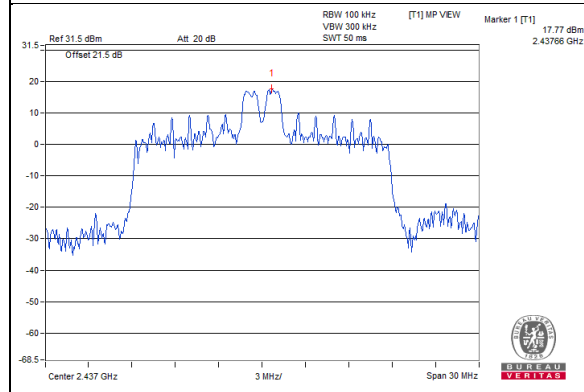


CH 11 Band edge

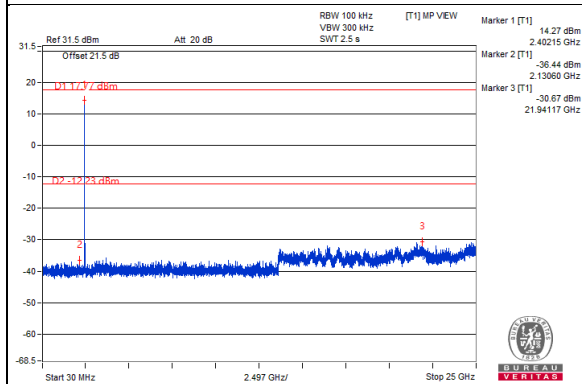


802.11ax (RU26)

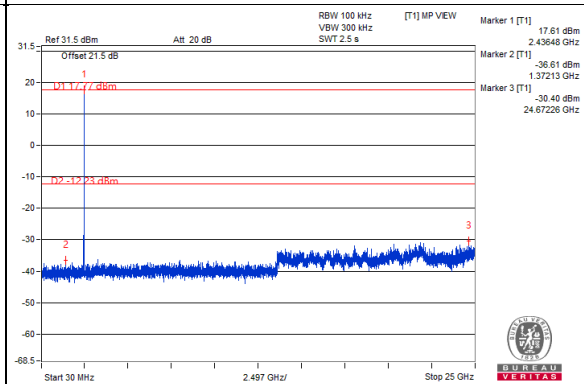
Maximum REF



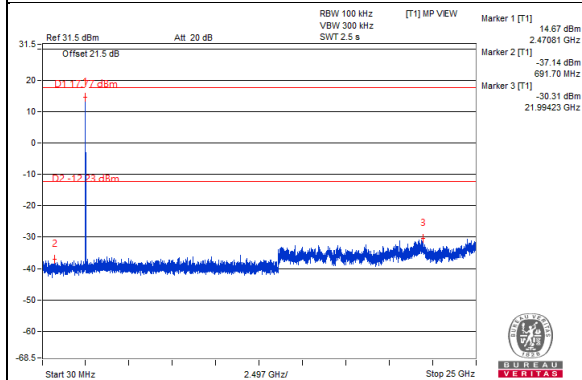
CH 1



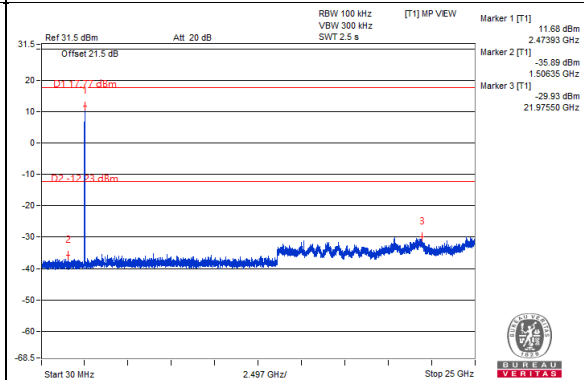
CH 6



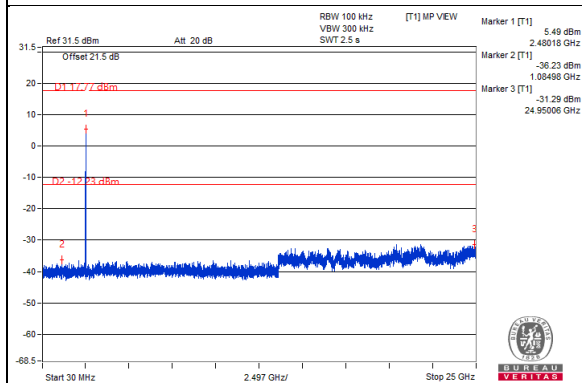
CH 11



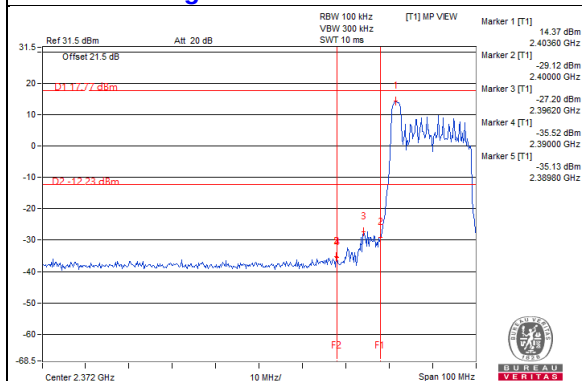
CH 12



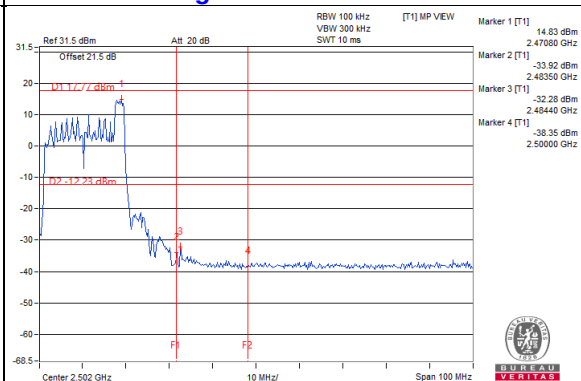
CH 13



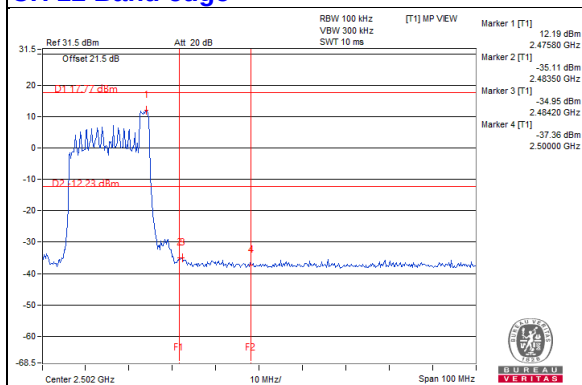
CH 1 Band edge



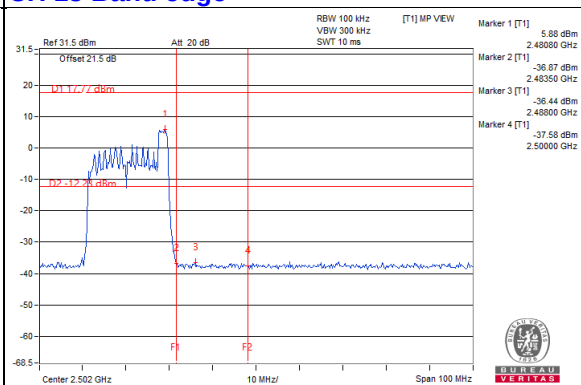
CH 11 Band edge



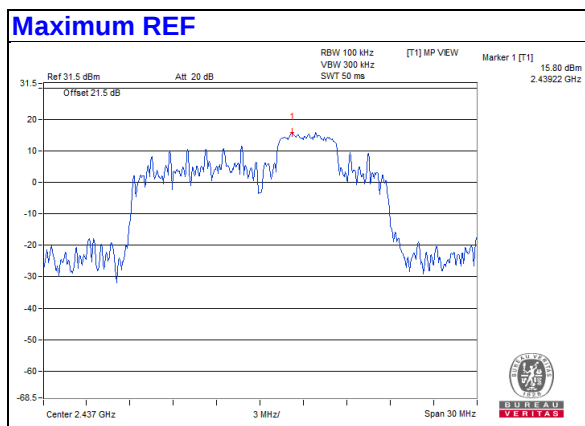
CH 12 Band edge



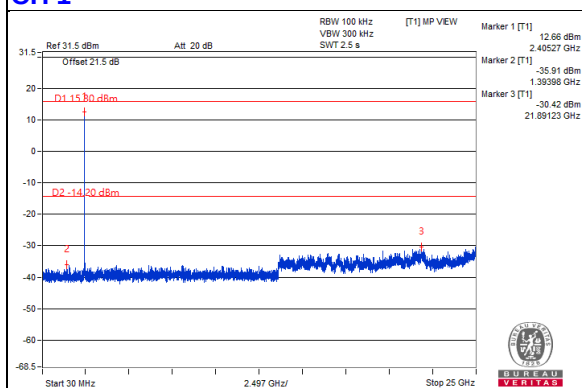
CH 13 Band edge



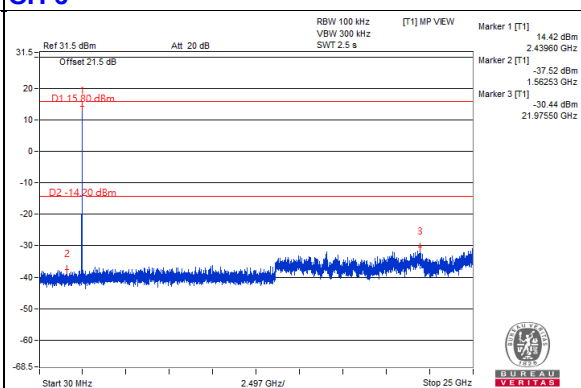
802.11ax (RU52)



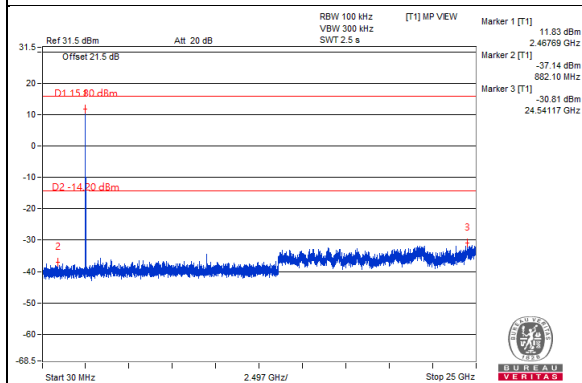
CH 1



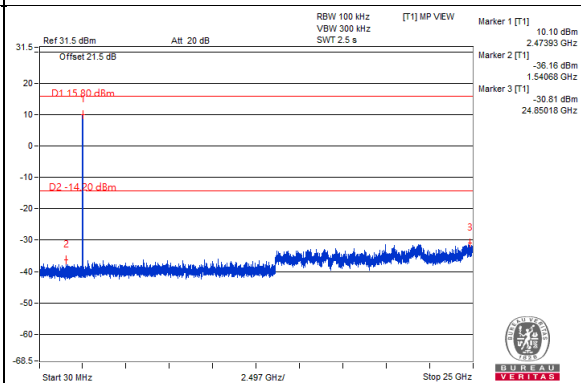
CH 6



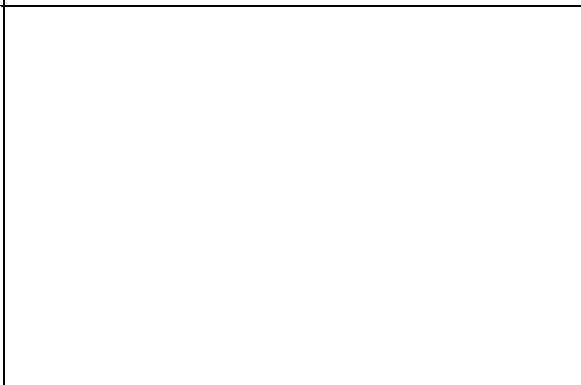
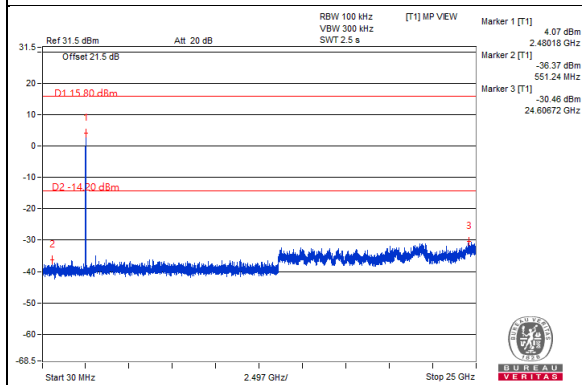
CH 11



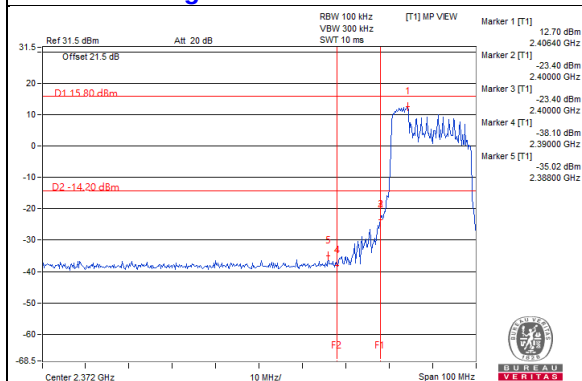
CH 12



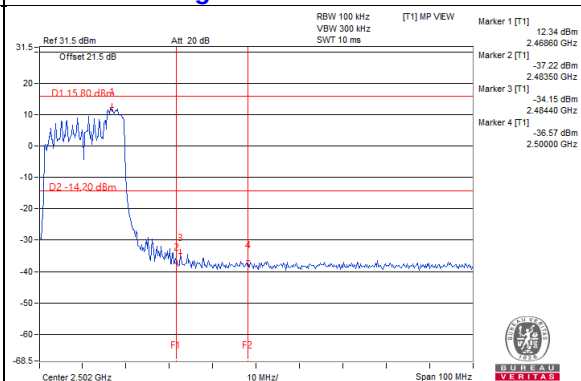
CH 13



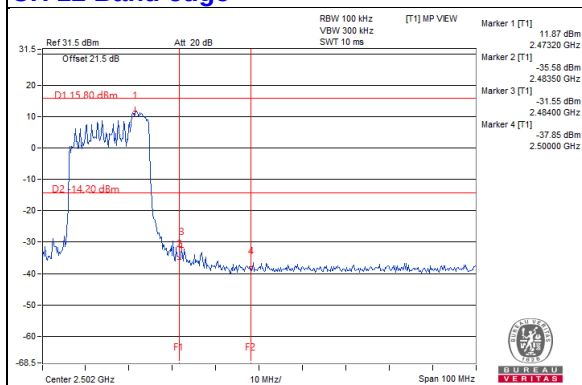
CH 1 Band edge



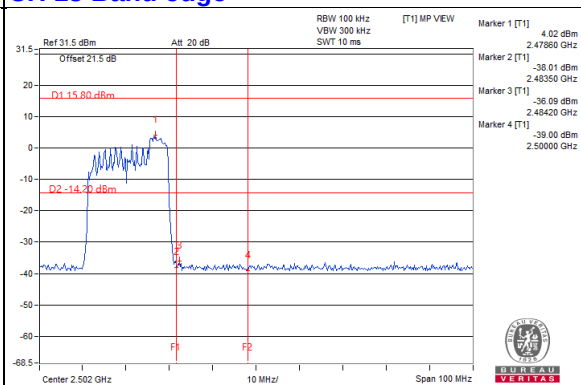
CH 11 Band edge



CH 12 Band edge

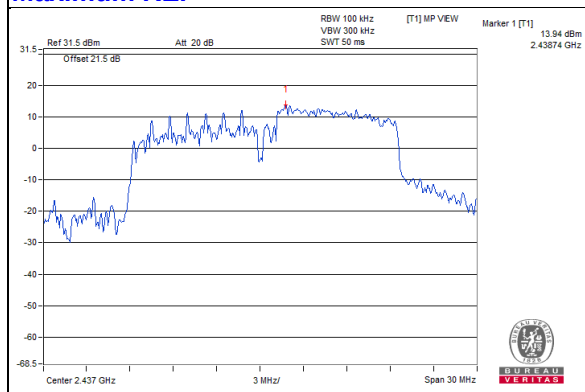


CH 13 Band edge

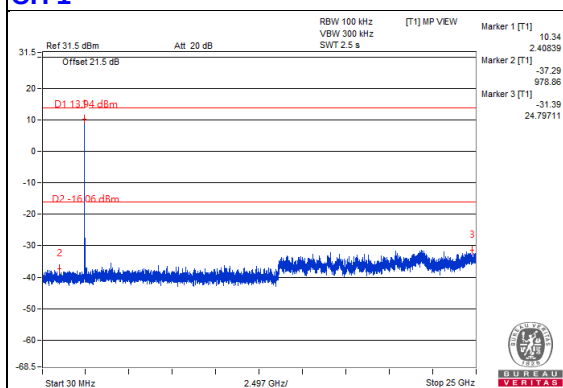


802.11ax (RU106)

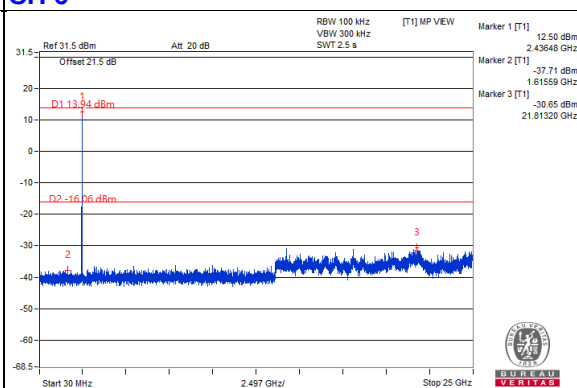
Maximum REF



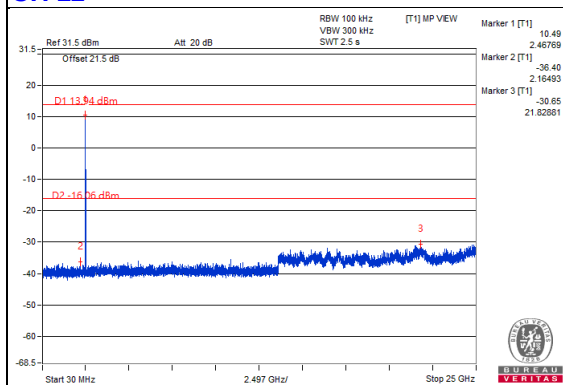
CH 1



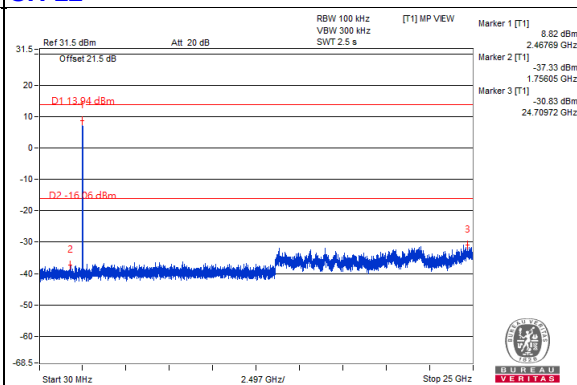
CH 6



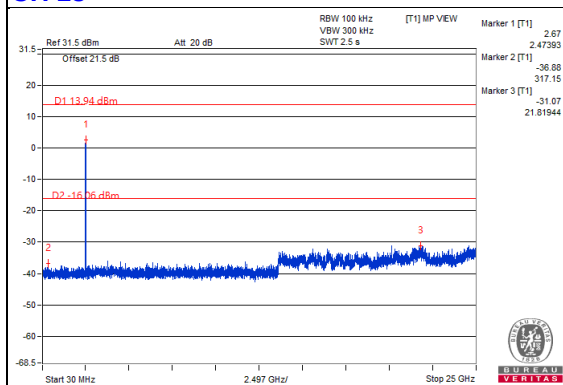
CH 11



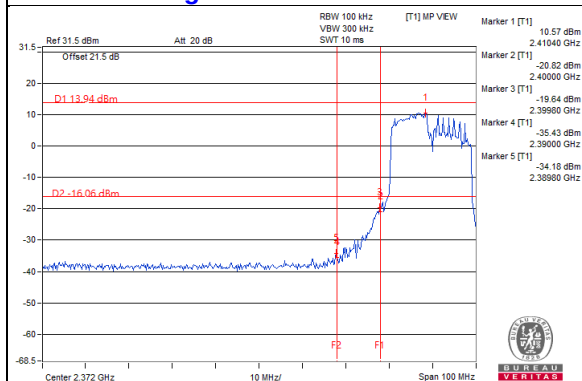
CH 12



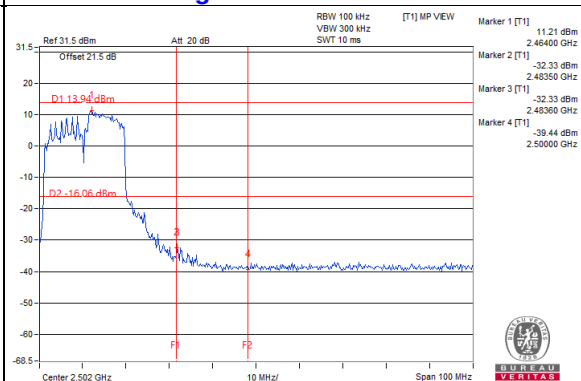
CH 13



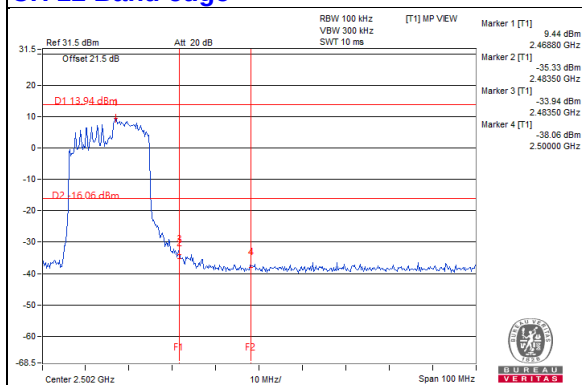
CH 1 Band edge



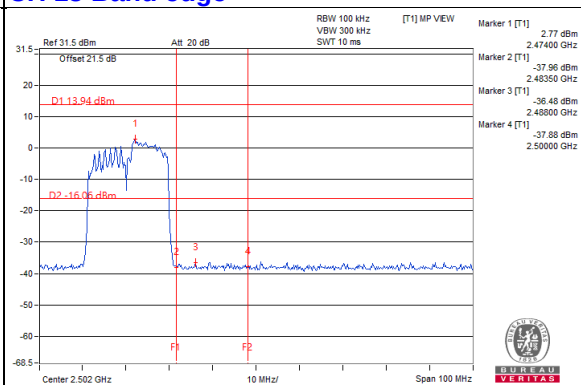
CH 11 Band edge



CH 12 Band edge



CH 13 Band edge



5 Pictures of Test Arrangements

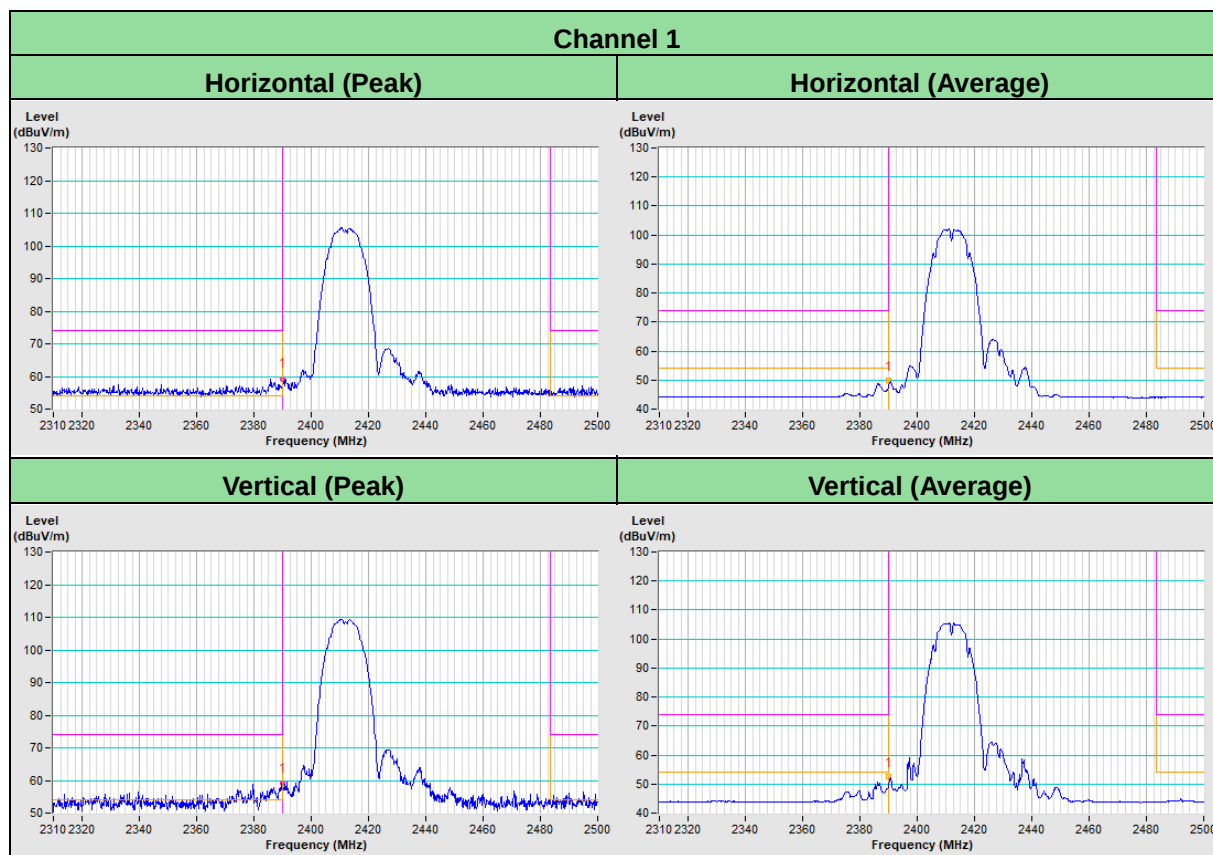
Please refer to the attached file (Test Setup Photo).

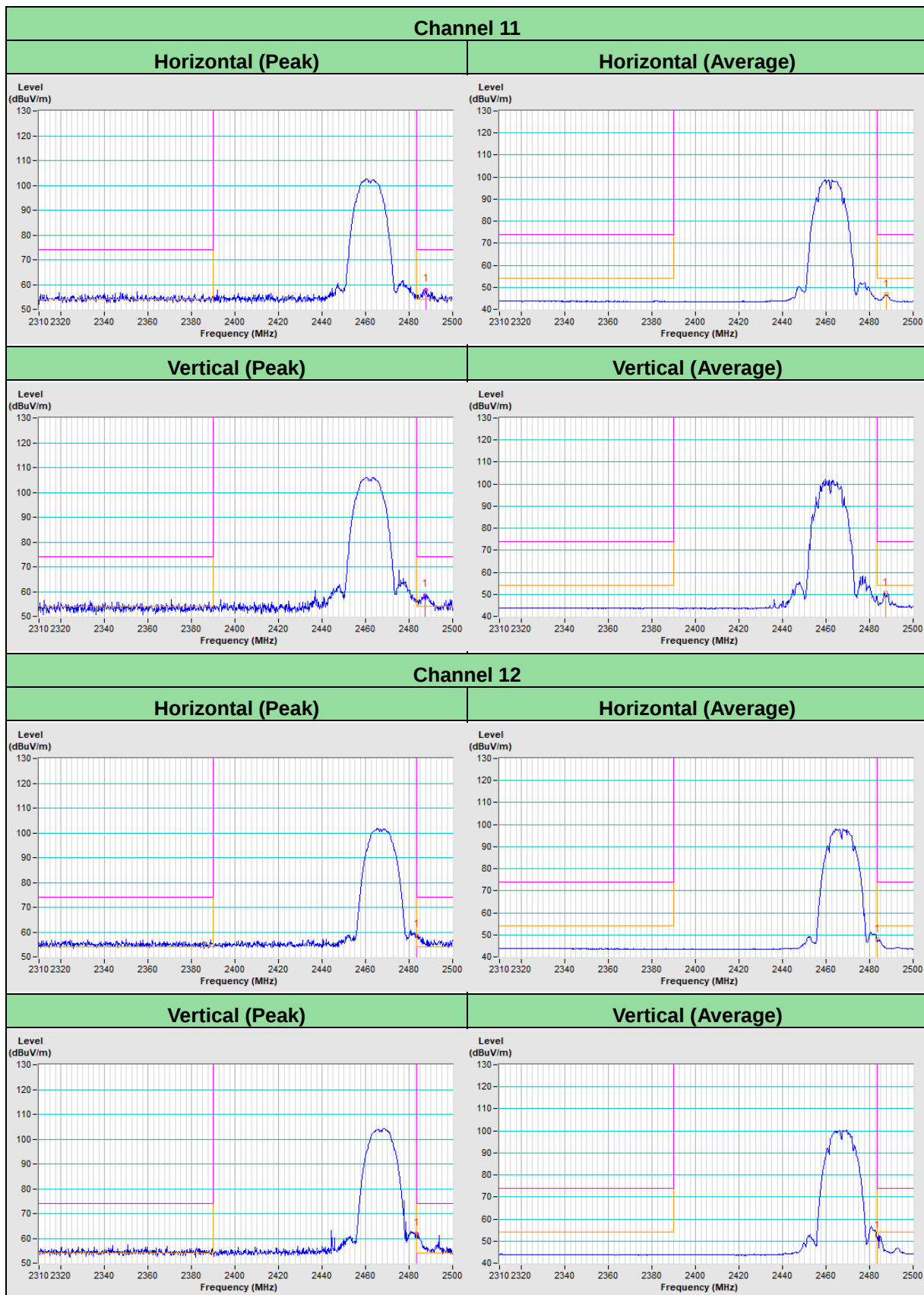
Annex A - Band-Edge Measurement

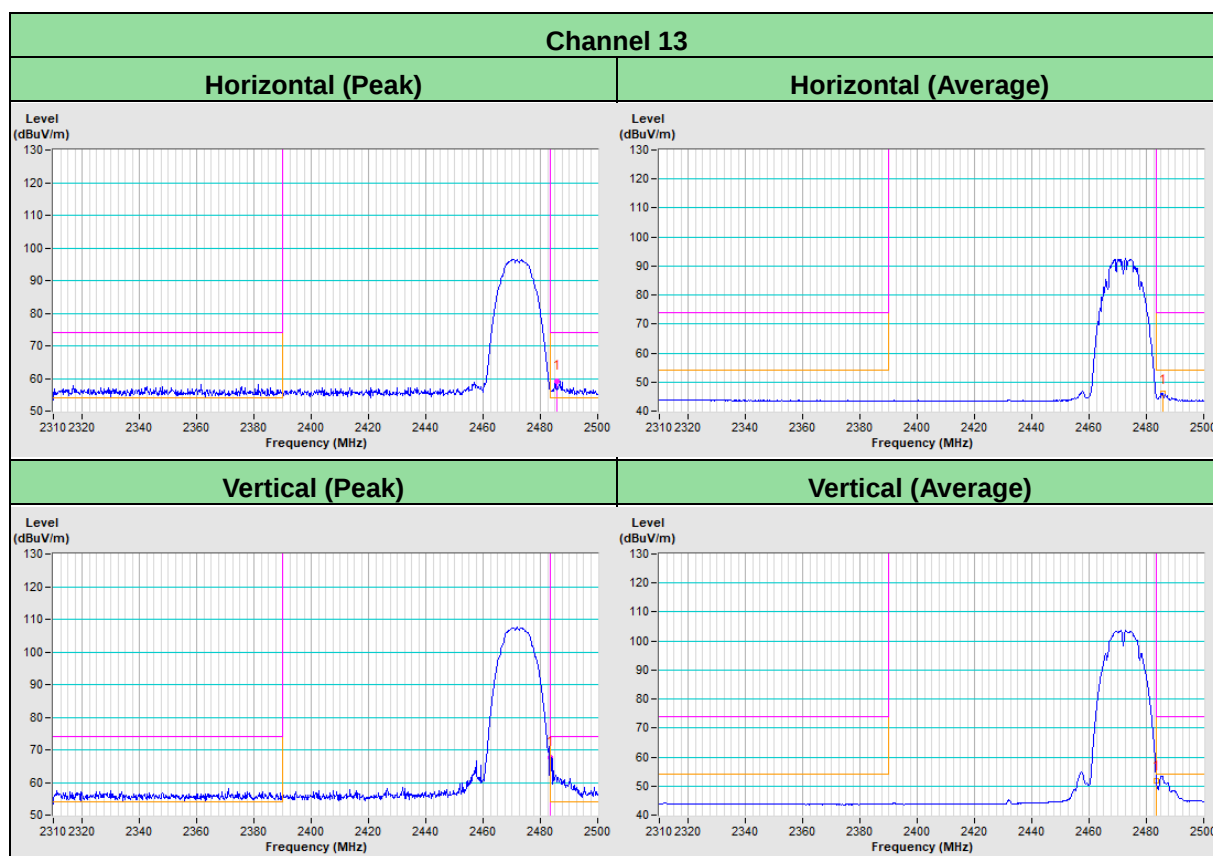
Annex A.1 - Test Results (Mode 1)

Dipole Antenna

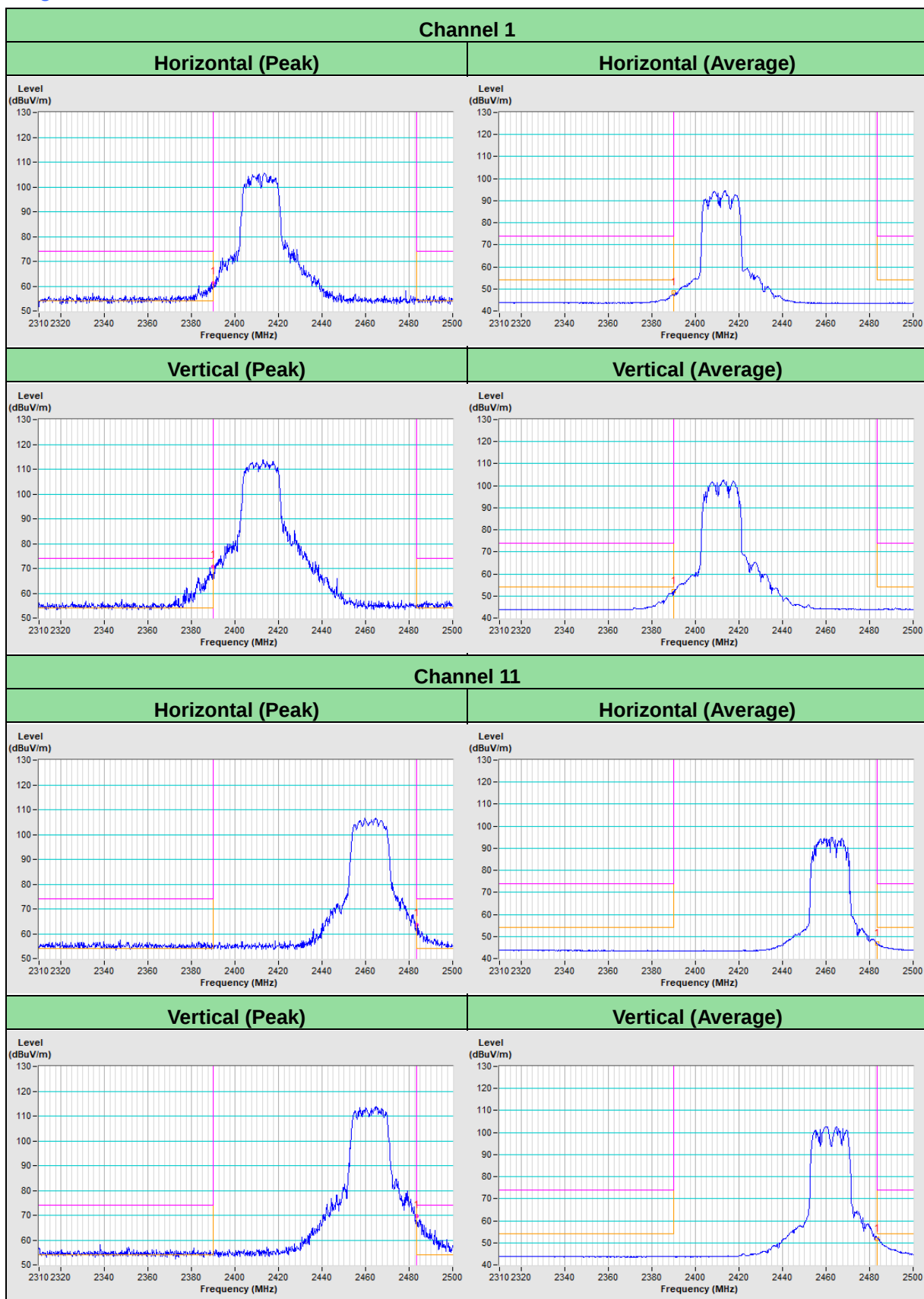
802.11b

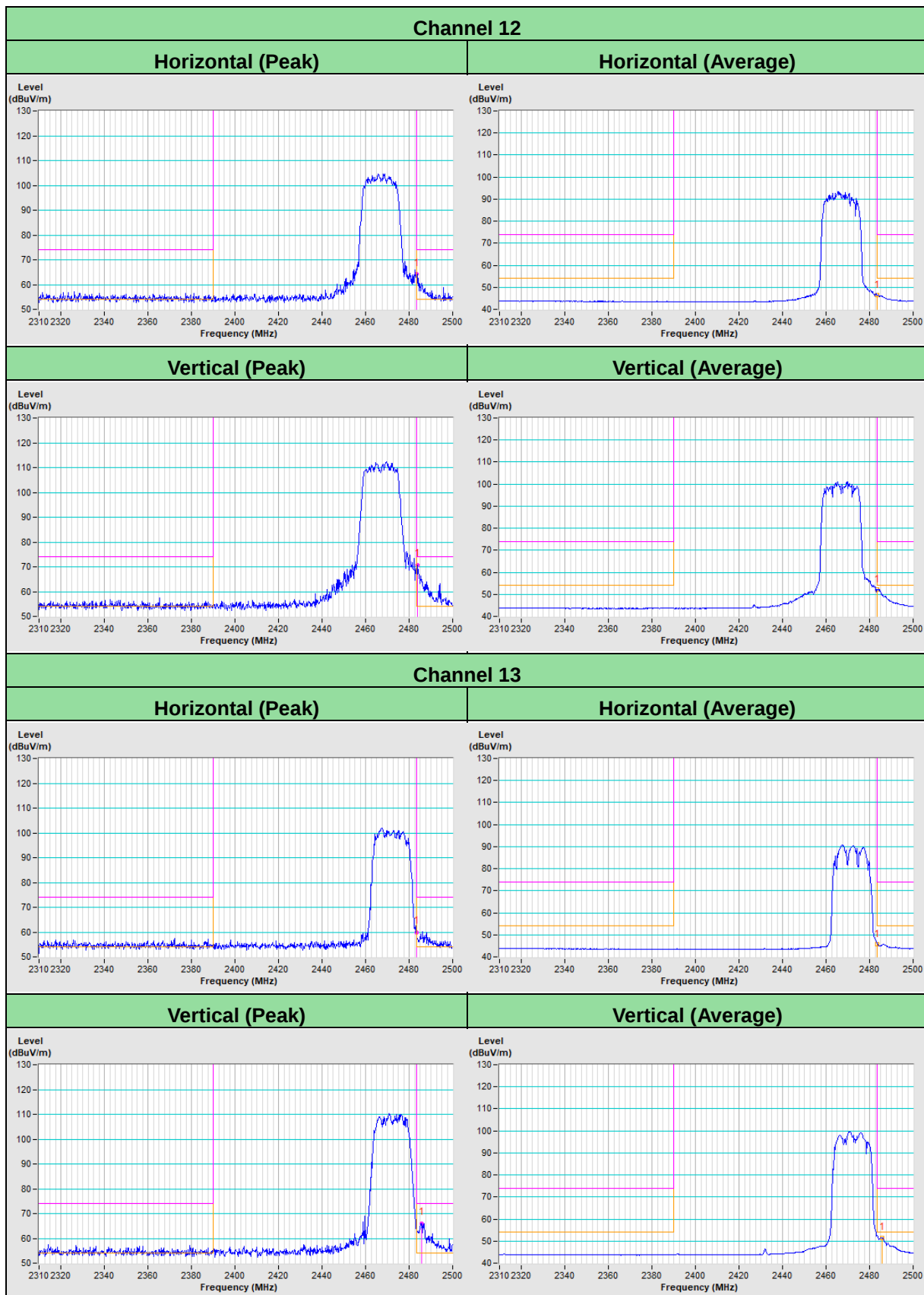






802.11g





802.11ax (HE20)

