

4.4.8 Test Results (Mode 2)

Non-Beamforming Mode

802.11b

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	18.41	18.46	18.57	18.60	283.877	24.53	30.00	Pass
6	2437	18.69	18.36	18.35	18.44	280.724	24.48	30.00	Pass
11	2462	18.55	18.62	18.54	18.64	288.956	24.61	30.00	Pass

Note: 1. Antenna gain = 4dBi < 6dBi, so the power limit shall not be reduced.

802.11g

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	17.62	17.57	17.79	17.46	230.793	23.63	30.00	Pass
6	2437	21.54	21.53	21.82	21.49	577.777	27.62	30.00	Pass
11	2462	18.59	18.53	18.76	18.65	292.007	24.65	30.00	Pass

Note: 1. Antenna gain = 4dBi < 6dBi, so the power limit shall not be reduced.

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	18.25	18.17	18.12	18.01	260.554	24.16	30.00	Pass
6	2437	21.49	21.42	21.19	21.09	539.656	27.32	30.00	Pass
11	2462	17.56	17.92	17.79	17.71	238.098	23.77	30.00	Pass

Note: 1. Antenna gain = 4dBi < 6dBi, so the power limit shall not be reduced.

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	16.67	16.81	16.57	16.78	187.462	22.73	30.00	Pass
6	2437	18.61	18.73	18.58	18.73	294.011	24.68	30.00	Pass
9	2452	16.38	16.42	16.30	16.28	172.424	22.37	30.00	Pass

Note: 1. Antenna gain = 4dBi < 6dBi, so the power limit shall not be reduced.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	18.52	18.31	18.27	18.14	271.191	24.33	30.00	Pass
6	2437	21.62	21.55	21.26	21.18	552.98	27.43	30.00	Pass
11	2462	17.68	18.04	17.86	17.83	244.061	23.87	30.00	Pass

Note: 1. Antenna gain = 4dBi < 6dBi, so the power limit shall not be reduced.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	16.75	16.89	16.68	16.91	191.83	22.83	30.00	Pass
6	2437	18.71	18.83	18.72	18.89	302.605	24.81	30.00	Pass
9	2452	16.43	16.48	16.39	16.36	175.22	22.44	30.00	Pass

Note: 1. Antenna gain = 4dBi < 6dBi, so the power limit shall not be reduced.

Beamforming Mode

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	18.25	18.17	18.12	18.01	260.554	24.16	25.98	Pass
6	2437	19.86	19.81	19.49	19.47	369.979	25.68	25.98	Pass
11	2462	17.56	17.92	17.79	17.71	238.098	23.77	25.98	Pass

Note: 1. Directional gain = $4\text{dBi} + 10\log(4) = 10.02\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30 - (10.02 - 6) = 25.98\text{dBm}$.

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	16.67	16.81	16.57	16.78	187.462	22.73	25.98	Pass
6	2437	18.61	18.73	18.58	18.73	294.011	24.68	25.98	Pass
9	2452	16.38	16.42	16.30	16.28	172.424	22.37	25.98	Pass

Note: 1. Directional gain = $4\text{dBi} + 10\log(4) = 10.02\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30 - (10.02 - 6) = 25.98\text{dBm}$.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	18.52	18.31	18.27	18.14	271.191	24.33	25.98	Pass
6	2437	19.98	19.92	19.62	19.55	379.494	25.79	25.98	Pass
11	2462	17.96	17.89	17.61	17.58	238.991	23.78	25.98	Pass

Note: 1. Directional gain = $4\text{dBi} + 10\log(4) = 10.02\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30 - (10.02 - 6) = 25.98\text{dBm}$.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	16.75	16.89	16.68	16.91	191.83	22.83	25.98	Pass
6	2437	18.71	18.83	18.72	18.89	302.605	24.81	25.98	Pass
9	2452	16.43	16.48	16.39	16.36	175.22	22.44	25.98	Pass

Note: 1. Directional gain = $4\text{dBi} + 10\log(4) = 10.02\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30 - (10.02 - 6) = 25.98\text{dBm}$.

4.4.9 Test Results (Mode 3)

Non-Beamforming Mode

802.11b

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	20.57	20.52	20.43	20.73	455.457	26.58	28.00	Pass
6	2437	20.55	20.48	20.44	20.77	455.249	26.58	28.00	Pass
11	2462	20.53	20.71	20.52	20.76	462.584	26.65	28.00	Pass

Note: 1. Antenna gain = 8dBi > 6dBi, so the power limit shall be reduced to $30-(8-6) = 28.00\text{dBm}$.

802.11g

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	18.11	18.12	18.35	18.03	261.502	24.17	28.00	Pass
6	2437	20.69	20.65	20.89	20.59	470.66	26.73	28.00	Pass
11	2462	17.64	17.66	17.78	17.68	235.014	23.71	28.00	Pass

Note: 1. Antenna gain = 8dBi > 6dBi, so the power limit shall be reduced to $30-(8-6) = 28.00\text{dBm}$.

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	16.52	16.32	16.31	16.27	172.85	22.38	28.00	Pass
6	2437	20.41	20.43	20.18	20.12	427.342	26.31	28.00	Pass
11	2462	16.45	16.59	16.22	16.49	176.206	22.46	28.00	Pass

Note: 1. Antenna gain = 8dBi > 6dBi, so the power limit shall be reduced to $30-(8-6) = 28.00\text{dBm}$.

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	15.33	15.58	15.34	15.51	140.021	21.46	28.00	Pass
6	2437	16.71	16.83	16.71	16.73	189.055	22.77	28.00	Pass
9	2452	15.51	15.68	15.34	15.64	143.388	21.57	28.00	Pass

Note: 1. Antenna gain = 8dBi > 6dBi, so the power limit shall be reduced to $30-(8-6) = 28.00\text{dBm}$.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	16.65	16.45	16.44	16.39	178.002	22.50	28.00	Pass
6	2437	20.62	20.61	20.32	20.25	443.997	26.47	28.00	Pass
11	2462	16.58	16.72	16.34	16.62	181.461	22.59	28.00	Pass

Note: 1. Antenna gain = 8dBi > 6dBi, so the power limit shall be reduced to $30-(8-6) = 28.00\text{dBm}$.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	15.42	15.63	15.46	15.61	142.941	21.55	28.00	Pass
6	2437	16.82	16.97	16.83	16.85	194.47	22.89	28.00	Pass
9	2452	15.63	15.82	15.48	15.76	147.743	21.70	28.00	Pass

Note: 1. Antenna gain = 8dBi > 6dBi, so the power limit shall be reduced to $30-(8-6) = 28.00\text{dBm}$.

Beamforming Mode

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	15.96	15.77	15.71	15.69	151.51	21.80	21.98	Pass
6	2437	15.89	15.84	15.63	15.52	149.39	21.74	21.98	Pass
11	2462	15.72	15.93	15.62	15.82	151.169	21.79	21.98	Pass

Note: 1. Directional gain = $8\text{dBi} + 10\log(4) = 14.02\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(14.02-6) = 21.98\text{dBm}$.

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	15.33	15.58	15.34	15.51	140.021	21.46	21.98	Pass
6	2437	15.73	15.91	15.76	15.79	152.007	21.82	21.98	Pass
9	2452	15.51	15.68	15.34	15.64	143.388	21.57	21.98	Pass

Note: 1. Directional gain = $8\text{dBi} + 10\log(4) = 14.02\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(14.02-6) = 21.98\text{dBm}$.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	16.05	15.86	15.84	15.76	154.861	21.90	21.98	Pass
6	2437	16.01	15.98	15.75	15.67	154.012	21.88	21.98	Pass
11	2462	15.86	16.04	15.73	15.97	155.675	21.92	21.98	Pass

Note: 1. Directional gain = $8\text{dBi} + 10\log(4) = 14.02\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30 - (14.02 - 6) = 21.98\text{dBm}$.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	15.42	15.63	15.46	15.61	142.941	21.55	21.98	Pass
6	2437	15.85	16.03	15.87	15.92	156.267	21.94	21.98	Pass
9	2452	15.63	15.82	15.48	15.76	147.743	21.70	21.98	Pass

Note: 1. Directional gain = $8\text{dBi} + 10\log(4) = 14.02\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30 - (14.02 - 6) = 21.98\text{dBm}$.

4.4.10 Test Results (Mode 4)

Non-Beamforming Mode

802.11b

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	20.57	20.52	20.43	20.73	455.457	26.58	27.00	Pass
6	2437	20.55	20.48	20.44	20.77	455.249	26.58	27.00	Pass
11	2462	20.53	20.71	20.52	20.76	462.584	26.65	27.00	Pass

Note: 1. Antenna gain = 9dBi > 6dBi , so the power limit shall be reduced to $30-(9-6) = 27.00\text{dBm}$.

802.11g

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	18.73	18.54	18.86	18.59	295.285	24.70	27.00	Pass
6	2437	20.69	20.65	20.89	20.59	470.66	26.73	27.00	Pass
11	2462	16.92	16.66	16.98	16.65	191.675	22.83	27.00	Pass

Note: 1. Antenna gain = 9dBi > 6dBi , so the power limit shall be reduced to $30-(9-6) = 27.00\text{dBm}$.

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	16.72	16.75	16.49	16.32	181.725	22.59	27.00	Pass
6	2437	20.92	20.95	20.75	20.62	482.242	26.83	27.00	Pass
11	2462	17.49	17.57	17.03	16.93	213.036	23.28	27.00	Pass

Note: 1. Antenna gain = 9dBi > 6dBi , so the power limit shall be reduced to $30-(9-6) = 27.00\text{dBm}$.

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	16.32	16.39	16.22	16.29	170.845	22.33	27.00	Pass
6	2437	17.24	17.19	17.36	17.22	212.5	23.27	27.00	Pass
9	2452	14.71	14.82	14.70	15.02	121.2	20.84	27.00	Pass

Note: 1. Antenna gain = 9dBi > 6dBi , so the power limit shall be reduced to 30-(9-6) = 27.00dBm.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	16.83	16.88	16.63	16.49	187.539	22.73	27.00	Pass
6	2437	21.02	21.11	20.82	20.75	495.227	26.95	27.00	Pass
11	2462	17.62	17.71	17.18	17.01	219.304	23.41	27.00	Pass

Note: 1. Antenna gain = 9dBi > 6dBi , so the power limit shall be reduced to 30-(9-6) = 27.00dBm.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	16.43	16.52	16.34	16.42	175.734	22.45	27.00	Pass
6	2437	17.39	17.33	17.49	17.32	218.959	23.40	27.00	Pass
9	2452	14.83	14.99	14.77	15.16	124.76	20.96	27.00	Pass

Note: 1. Antenna gain = 9dBi > 6dBi , so the power limit shall be reduced to 30-(9-6) = 27.00dBm.

Beamforming Mode

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	14.71	14.73	14.43	14.39	114.509	20.59	20.98	Pass
6	2437	14.89	14.91	14.56	14.45	118.243	20.73	20.98	Pass
11	2462	14.92	15.01	14.62	14.51	119.964	20.79	20.98	Pass

Note: 1. Directional gain = $9\text{dBi} + 10\log(4) = 15.02\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(9.02-6) = 20.98\text{dBm}$.

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	14.82	14.86	14.63	14.69	119.443	20.77	20.98	Pass
6	2437	14.68	14.69	14.81	14.59	117.864	20.71	20.98	Pass
9	2452	14.71	14.82	14.70	15.02	121.2	20.84	20.98	Pass

Note: 1. Directional gain = $9\text{dBi} + 10\log(4) = 15.02\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(9.02-6) = 20.98\text{dBm}$.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	14.78	14.86	14.57	14.42	116.992	20.68	20.98	Pass
6	2437	14.96	15.01	14.67	14.57	120.979	20.83	20.98	Pass
11	2462	15.03	15.11	14.71	14.62	122.829	20.89	20.98	Pass

Note: 1. Directional gain = $9\text{dBi} + 10\log(4) = 15.02\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(9.02-6) = 20.98\text{dBm}$.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	14.91	14.98	14.76	14.81	122.643	20.89	20.98	Pass
6	2437	14.76	14.77	14.93	14.70	120.544	20.81	20.98	Pass
9	2452	14.83	14.99	14.77	15.16	124.76	20.96	20.98	Pass

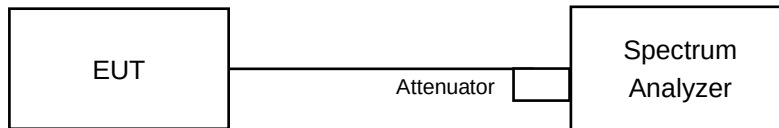
Note: 1. Directional gain = $9\text{dBi} + 10\log(4) = 15.02\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(9.02-6) = 20.98\text{dBm}$.

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

- Measure the duty cycle (x).
- 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.
- Do not use sweep triggering. Allow sweep to "free run".
- Employ trace averaging (RMS) mode over a minimum of 100 traces.
- Use the peak marker function to determine the maximum amplitude level.
- Add $10 \log (1/x)$, where x is the duty cycle measured in step (a), to the measured PSD to compute the average PSD during the actual transmission time.

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)				Duty Factor (dB)	Total PSD (mW/3kHz)	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Pass / Fail
		Chain0	Chain1	Chain2	Chain3					
1	2412	-12.10	-14.56	-13.33	-16.15	1.17	0.21919	-6.59	-5.02	PASS
6	2437	-13.60	-14.58	-16.66	-14.52	1.17	0.17729	-7.51	-5.02	PASS
11	2462	-14.47	-12.99	-16.80	-16.01	1.17	0.17276	-7.63	-5.02	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 = $13\text{dBi} + 10\log(4) = 19.02\text{dBi} < 6\text{dBi}$, so the power density limit shall be reduced to $8-(19.02-6) = -5.02\text{dBm}$
 3. Refer to section 3.3 for duty cycle spectrum plot.

802.11g

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	Chain2	Chain3					
1	2412	-14.61	-15.80	-15.86	-16.26	0.38	0.12054	-9.19	-5.02	PASS
6	2437	-14.81	-15.80	-15.48	-16.62	0.38	0.11938	-9.23	-5.02	PASS
11	2462	-14.84	-16.02	-15.20	-16.12	0.38	0.12267	-9.11	-5.02	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 = $13\text{dBi} + 10\log(4) = 19.02\text{dBi} < 6\text{dBi}$, so the power density limit shall be reduced to $8-(19.02-6) = -5.02\text{dBm}$
 3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

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	Chain2	Chain3					
1	2412	-17.47	-17.48	-19.15	-18.54	0.19	0.06473	-11.89	-5.02	PASS
6	2437	-16.29	-17.29	-17.90	-17.90	0.19	0.07797	-11.08	-5.02	PASS
11	2462	-17.23	-16.13	-19.32	-18.62	0.19	0.07184	-11.44	-5.02	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 = $13\text{dBi} + 10\log(4) = 19.02\text{dBi} < 6\text{dBi}$, so the power density limit shall be reduced to $8 - (19.02 - 6) = -5.02\text{dBm}$
 3. Refer to section 3.3 for duty cycle spectrum plot.

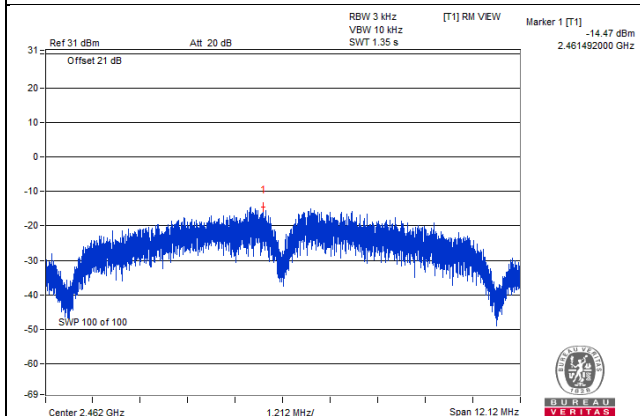
802.11ax (HE40)

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	Chain2	Chain3					
3	2422	-19.80	-20.81	-21.11	-23.61	0.30	0.033111	-14.80	-5.02	PASS
6	2437	-19.64	-19.40	-20.16	-21.75	0.30	0.041475	-13.82	-5.02	PASS
9	2452	-19.88	-20.15	-21.29	-21.88	0.30	0.036316	-14.40	-5.02	PASS

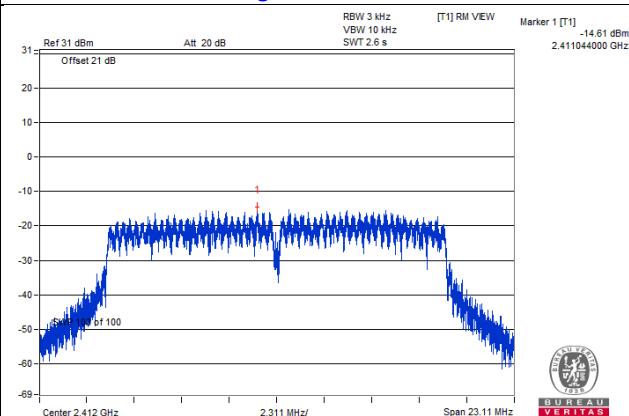
- Note:**
1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
 2. Directional gain = $13\text{dBi} + 10\log(4) = 19.02\text{dBi} < 6\text{dBi}$, so the power density limit shall be reduced to $8 - (19.02 - 6) = -5.02\text{dBm}$
 3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

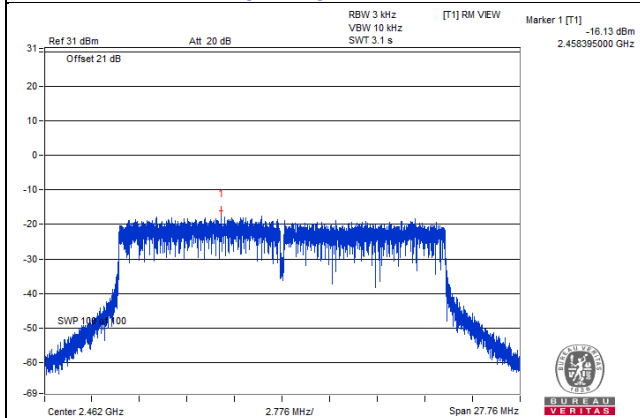
802.11b / Chain 0: CH1



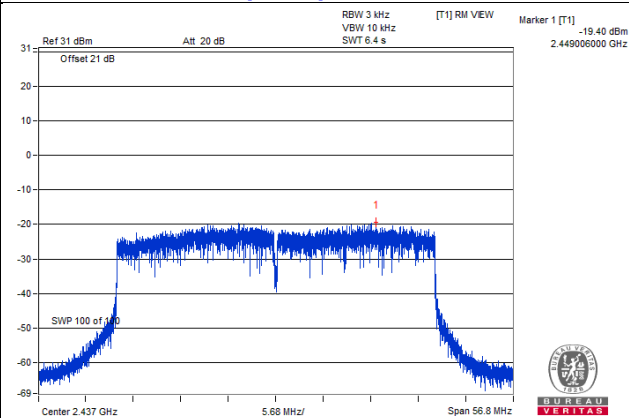
802.11g / Chain 0 : CH1



802.11ax (HE20) / Chain 1: CH11



802.11ax (HE40) / Chain 1: CH6



4.5.8 Test Results (Mode 2)

802.11b

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	Chain2	Chain3					
1	2412	-13.20	-13.09	-15.90	-14.90	1.17	0.20301	-6.92	3.98	PASS
6	2437	-13.59	-14.50	-14.85	-13.58	1.17	0.20406	-6.90	3.98	PASS
11	2462	-13.90	-14.20	-14.05	-15.41	1.17	0.19236	-7.16	3.98	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 = $4\text{dBi} + 10\log(4) = 10.02\text{dBi} < 6\text{dBi}$, so the power density limit shall be reduced to $8-(10.02-6) = 3.98\text{dBm}$
 3. Refer to section 3.3 for duty cycle spectrum plot.

802.11g

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	Chain2	Chain3					
1	2412	-15.44	-14.81	-15.00	-15.71	0.38	0.13101	-8.83	3.98	PASS
6	2437	-11.72	-11.64	-12.43	-12.45	0.38	0.2726	-5.64	3.98	PASS
11	2462	-13.08	-14.27	-14.31	-14.16	0.38	0.17679	-7.53	3.98	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 = $4\text{dBi} + 10\log(4) = 10.02\text{dBi} < 6\text{dBi}$, so the power density limit shall be reduced to $8-(10.02-6) = 3.98\text{dBm}$
 3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

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	Chain2	Chain3					
1	2412	-17.15	-17.05	-17.72	-16.46	0.19	0.08205	-10.86	3.98	PASS
6	2437	-13.14	-14.88	-14.66	-14.20	0.19	0.16018	-7.95	3.98	PASS
11	2462	-16.93	-16.74	-17.80	-17.82	0.19	0.07795	-11.08	3.98	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 = $4\text{dBi} + 10\log(4) = 10.02\text{dBi} < 6\text{dBi}$, so the power density limit shall be reduced to $8 - (10.02 - 6) = 3.98\text{dBm}$
 3. Refer to section 3.3 for duty cycle spectrum plot.

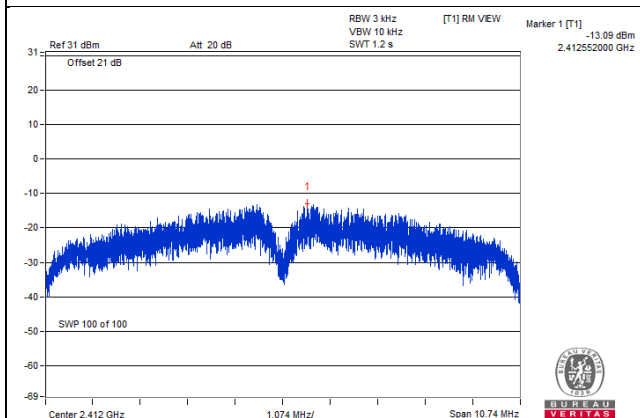
802.11ax (HE40)

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	Chain2	Chain3					
3	2422	-20.48	-21.93	-20.95	-21.88	0.30	0.032057	-14.94	3.98	PASS
6	2437	-18.58	-19.55	-19.64	-19.81	0.30	0.04963	-13.04	3.98	PASS
9	2452	-20.14	-22.16	-20.86	-21.46	0.30	0.033372	-14.77	3.98	PASS

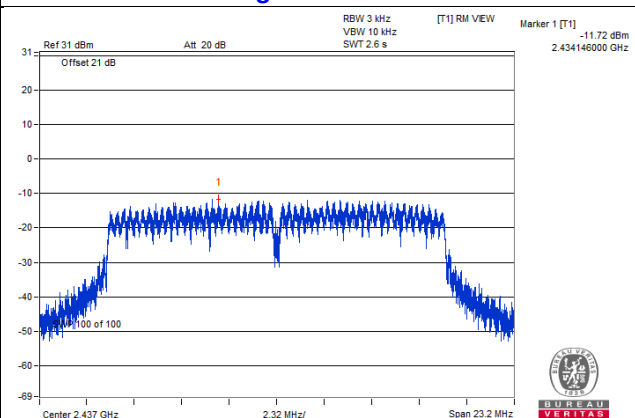
- Note:**
1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
 2. Directional gain = $4\text{dBi} + 10\log(4) = 10.02\text{dBi} < 6\text{dBi}$, so the power density limit shall be reduced to $8 - (10.02 - 6) = 3.98\text{dBm}$
 3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

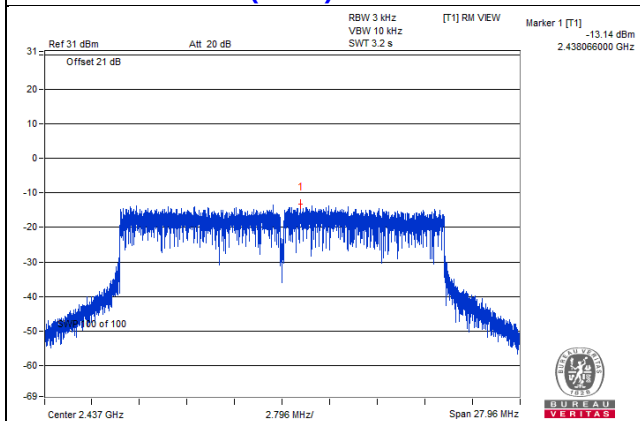
802.11b / Chain 1: CH1



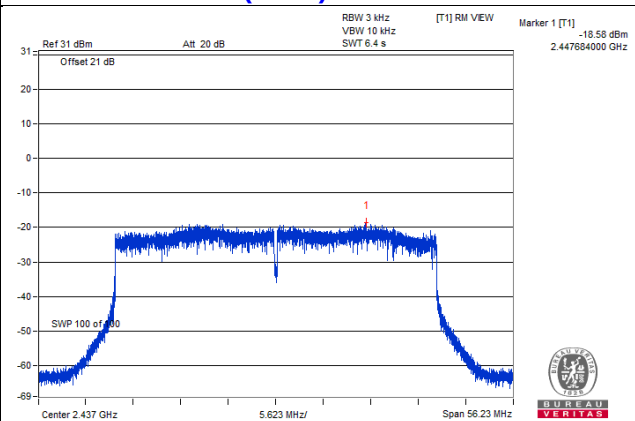
802.11g / Chain 0 : CH6



802.11ax (HE20) / Chain 0: CH6



802.11ax (HE40) / Chain 0: CH6



4.5.9 Test Results (Mode 3)

802.11b

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	Chain2	Chain3					
1	2412	-11.09	-13.32	-12.99	-13.90	1.17	0.282	-5.50	-0.02	PASS
6	2437	-11.64	-12.80	-10.54	-12.63	1.17	0.34562	-4.61	-0.02	PASS
11	2462	-12.00	-10.64	-13.39	-10.84	1.17	0.36357	-4.39	-0.02	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 = $8\text{dBi} + 10\log(4) = 14.02\text{dBi} < 6\text{dBi}$, so the power density limit shall be reduced to $8 - (14.02 - 6) = -0.02\text{dBm}$
 3. Refer to section 3.3 for duty cycle spectrum plot.

802.11g

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	Chain2	Chain3					
1	2412	-15.22	-15.57	-15.08	-15.16	0.38	0.13017	-8.85	-0.02	PASS
6	2437	-11.18	-12.85	-12.91	-12.57	0.38	0.25592	-5.92	-0.02	PASS
11	2462	-15.60	-15.80	-15.33	-14.58	0.38	0.12871	-8.90	-0.02	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 = $8\text{dBi} + 10\log(4) = 14.02\text{dBi} < 6\text{dBi}$, so the power density limit shall be reduced to $8 - (14.02 - 6) = -0.02\text{dBm}$
 3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

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	Chain2	Chain3					
1	2412	-19.19	-19.50	-19.29	-19.85	0.19	0.04745	-13.24	-0.02	PASS
6	2437	-15.40	-15.61	-16.05	-15.25	0.19	0.11602	-9.35	-0.02	PASS
11	2462	-18.64	-18.72	-18.97	-19.55	0.19	0.05317	-12.74	-0.02	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 = 8dBi + 10log(4) =14.02dBi < 6dBi, so the power density limit shall be reduced to 8-(14.02-6) = -0.02dBm
 3. Refer to section 3.3 for duty cycle spectrum plot.

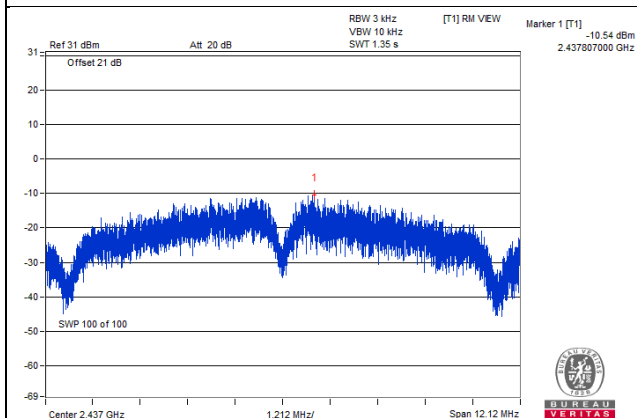
802.11ax (HE40)

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	Chain2	Chain3					
3	2422	-23.35	-22.75	-23.18	-23.62	0.30	0.020472	-16.89	-0.02	PASS
6	2437	-21.05	-21.73	-21.24	-20.93	0.30	0.032345	-14.90	-0.02	PASS
9	2452	-22.88	-24.02	-22.14	-23.10	0.30	0.021583	-16.66	-0.02	PASS

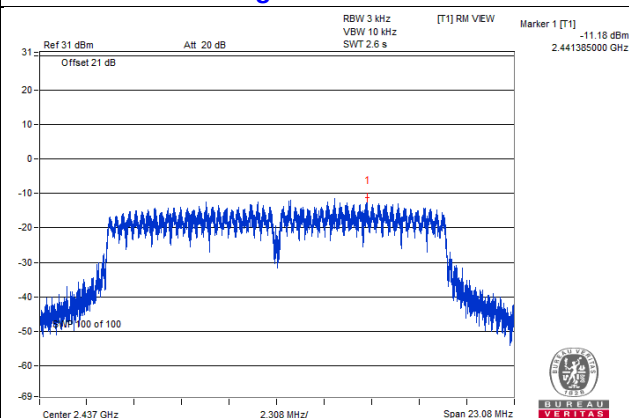
- Note:**
1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
 2. Directional gain = 8dBi + 10log(4) =14.02dBi < 6dBi, so the power density limit shall be reduced to 8-(14.02-6) = -0.02dBm
 3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

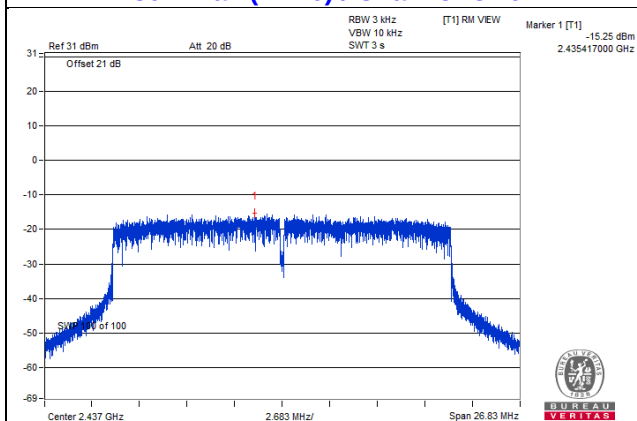
802.11b / Chain 2: CH6



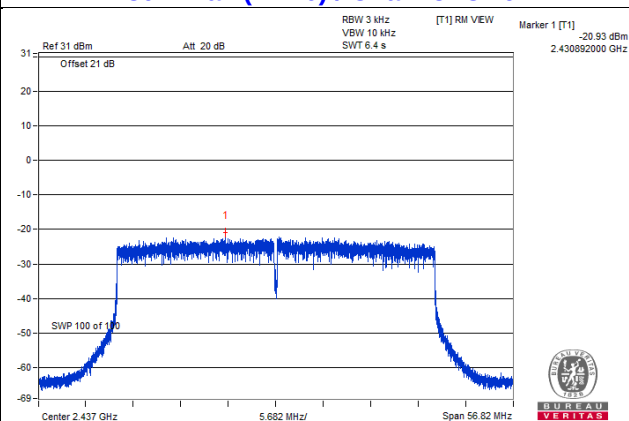
802.11g / Chain 0 : CH6



802.11ax (HE20) / Chain 3: CH6



802.11ax (HE40) / Chain 3: CH6



4.5.10 Test Results (Mode 4)

802.11b

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	Chain2	Chain3					
1	2412	-11.09	-13.32	-12.99	-13.90	1.17	0.282	-5.50	-1.02	PASS
6	2437	-11.64	-12.80	-10.54	-12.63	1.17	0.34562	-4.61	-1.02	PASS
11	2462	-12.00	-10.64	-13.39	-10.84	1.17	0.36357	-4.39	-1.02	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 = $9\text{dBi} + 10\log(4) = 15.02\text{dBi} < 6\text{dBi}$, so the power density limit shall be reduced to $8-(15.02-6) = -1.02\text{dBm}$
 3. Refer to section 3.3 for duty cycle spectrum plot.

802.11g

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	Chain2	Chain3					
1	2412	-14.15	-13.97	-14.43	-14.44	0.38	0.16427	-7.84	-1.02	PASS
6	2437	-11.18	-12.85	-12.91	-12.57	0.38	0.25592	-5.92	-1.02	PASS
11	2462	-15.31	-16.37	-14.78	-15.27	0.38	0.12599	-9.00	-1.02	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 = $9\text{dBi} + 10\log(4) = 15.02\text{dBi} < 6\text{dBi}$, so the power density limit shall be reduced to $8-(15.02-6) = -1.02\text{dBm}$
 3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

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	Chain2	Chain3					
1	2412	-18.92	-16.90	-17.77	-18.74	0.19	0.06618	-11.79	-1.02	PASS
6	2437	-14.92	-14.37	-13.50	-14.51	0.19	0.15557	-8.08	-1.02	PASS
11	2462	-17.70	-18.14	-18.24	-18.01	0.19	0.06599	-11.81	-1.02	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 = $9\text{dBi} + 10\log(4) = 15.02\text{dBi} < 6\text{dBi}$, so the power density limit shall be reduced to $8-(15.02-6) = -1.02\text{dBm}$
 3. Refer to section 3.3 for duty cycle spectrum plot.

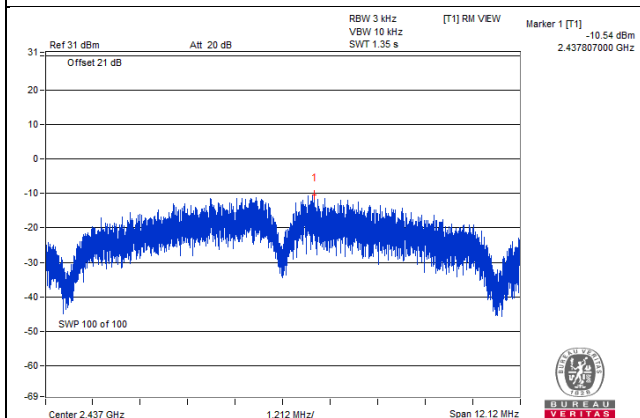
802.11ax (HE40)

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	Chain2	Chain3					
3	2422	-21.34	-22.10	-20.67	-20.96	0.30	0.032284	-14.91	-1.02	PASS
6	2437	-18.50	-21.60	-20.38	-20.96	0.30	0.040998	-13.87	-1.02	PASS
9	2452	-22.95	-23.72	-23.17	-22.76	0.30	0.020843	-16.81	-1.02	PASS

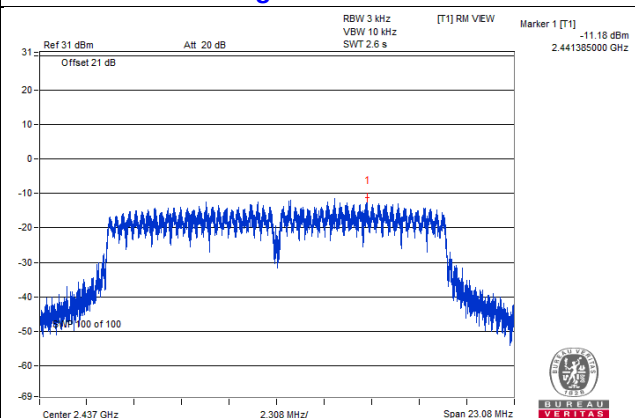
- Note:**
1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
 2. Directional gain = $9\text{dBi} + 10\log(4) = 15.02\text{dBi} < 6\text{dBi}$, so the power density limit shall be reduced to $8-(15.02-6) = -1.02\text{dBm}$
 3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

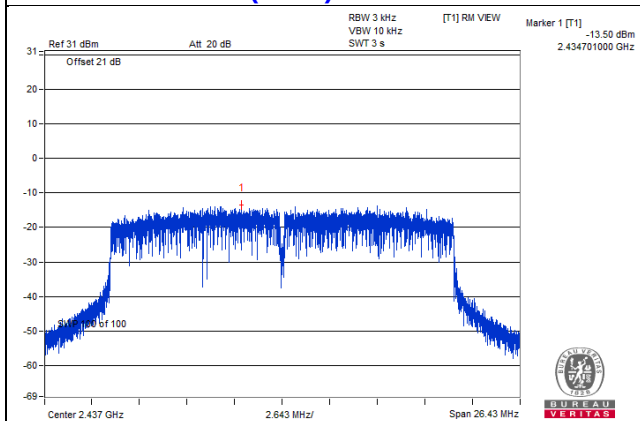
802.11b / Chain 2: CH6



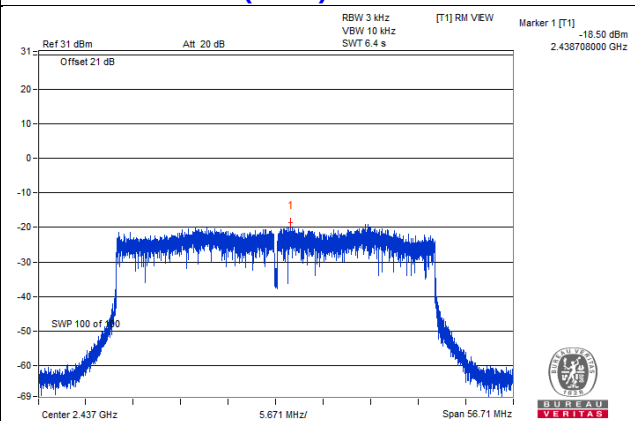
802.11g / Chain 0 : CH6



802.11ax (HE20) / Chain 2: CH6



802.11ax (HE40) / Chain 0: CH6

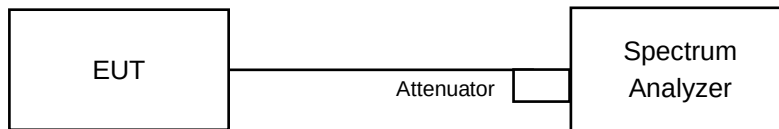


4.6 Conducted Out of Band Emission Measurement

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

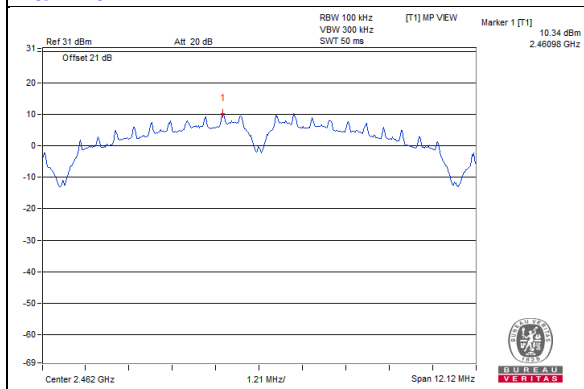
Same as Item 4.3.6

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.

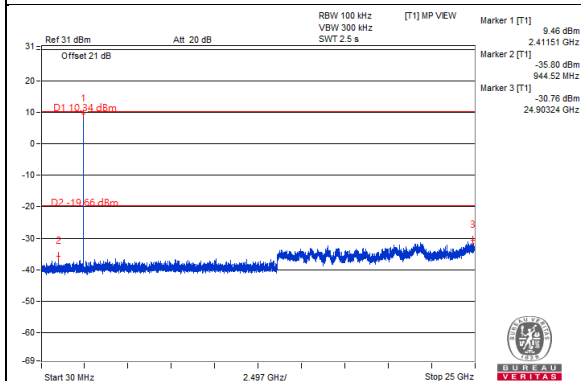
For Mode 1 802.11b

Maximum REF

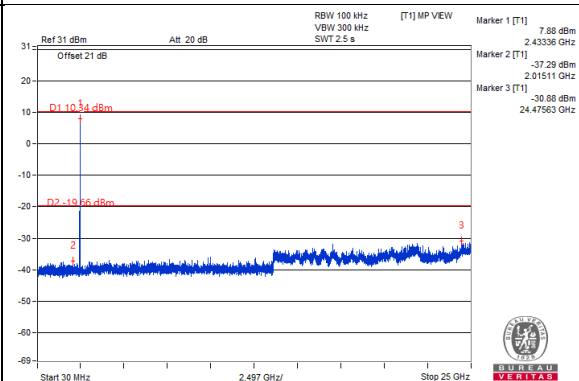


Chain 0

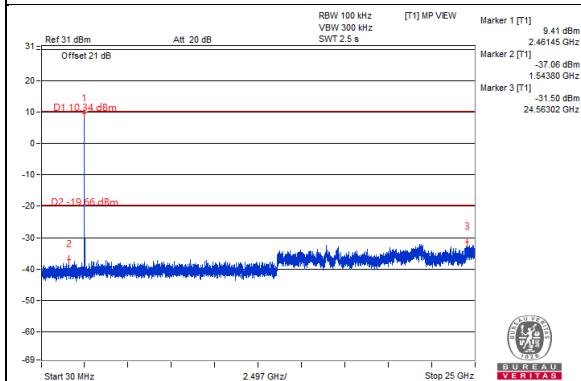
CH 1



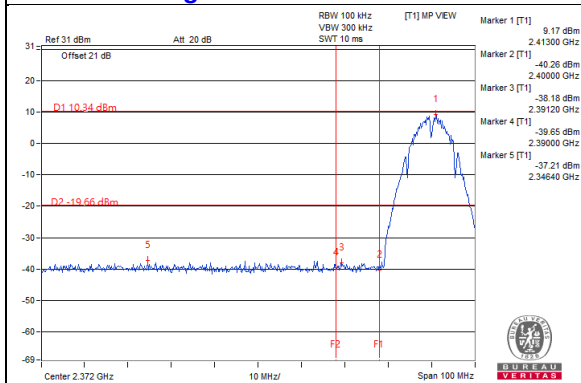
CH 6



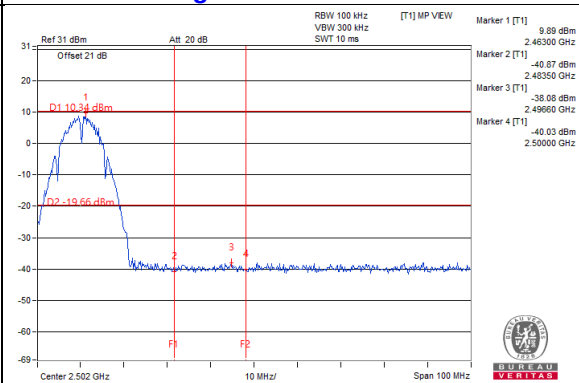
CH 11



CH 1 Band edge

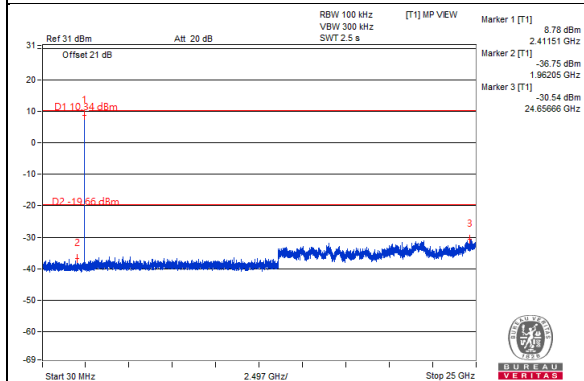


CH 11 Band edge

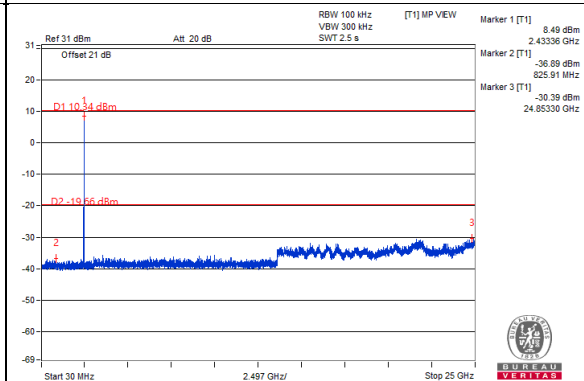


Chain 1

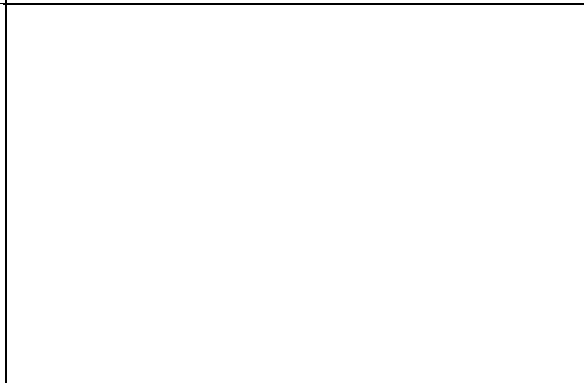
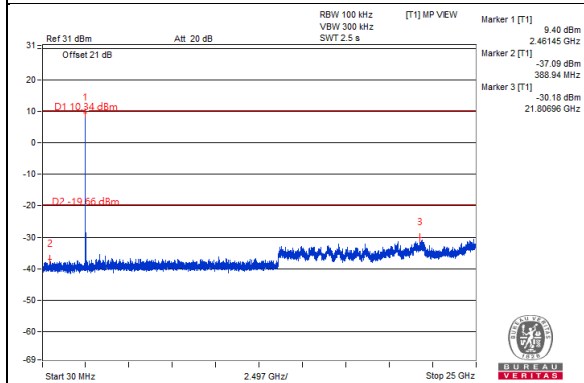
CH 1



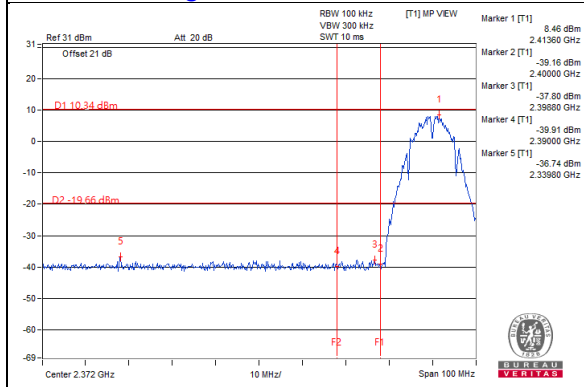
CH 6



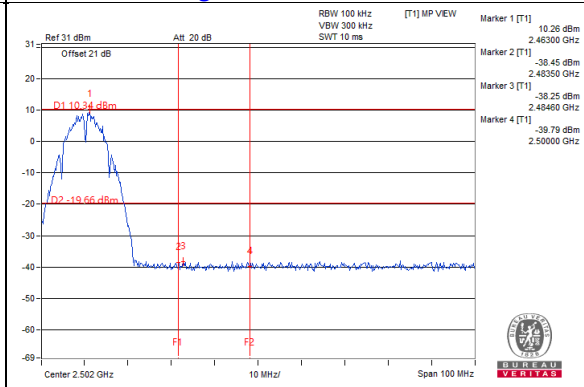
CH 11



CH 1 Band edge

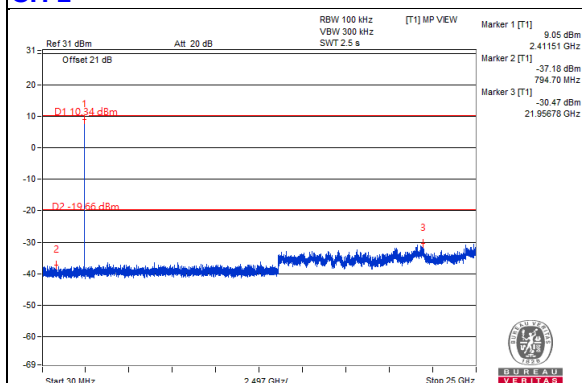


CH 11 Band edge

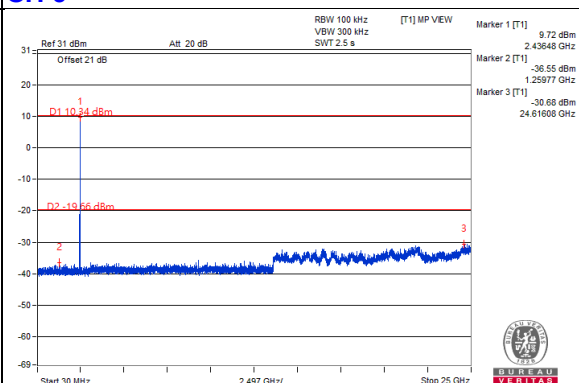


Chain 2

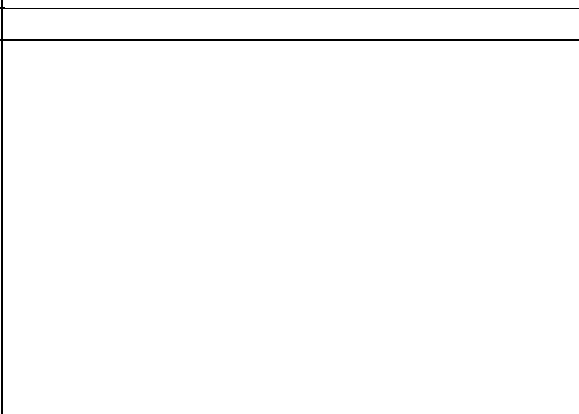
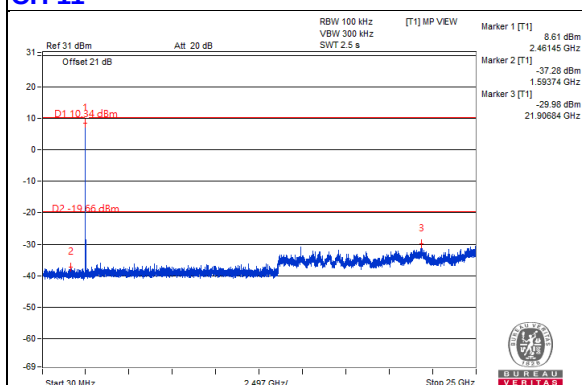
CH 1



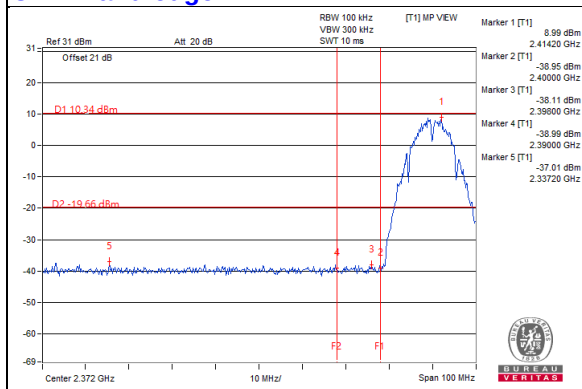
CH 6



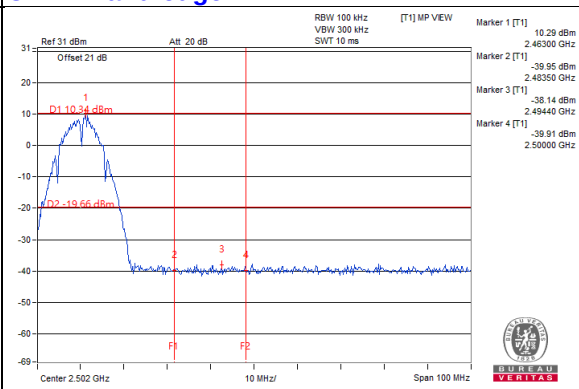
CH 11



CH 1 Band edge

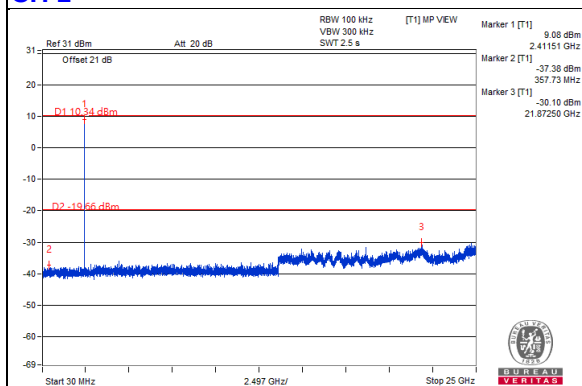


CH 11 Band edge

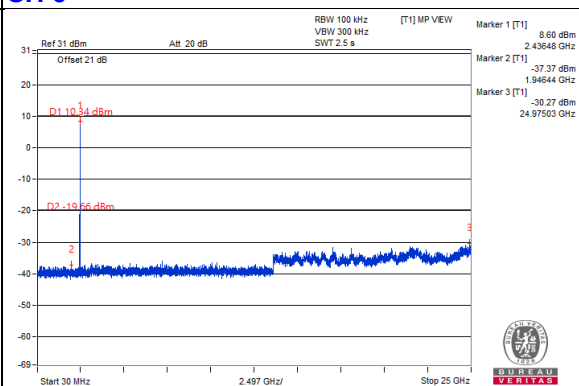


Chain 3

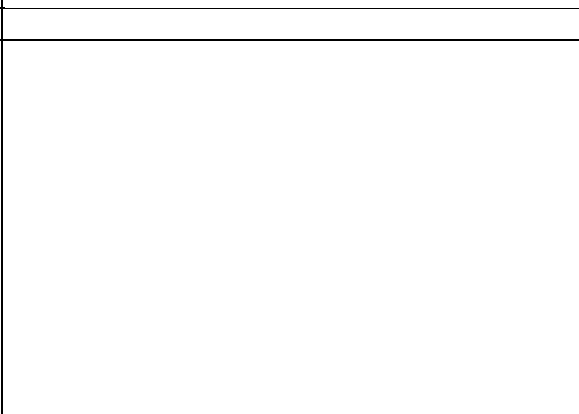
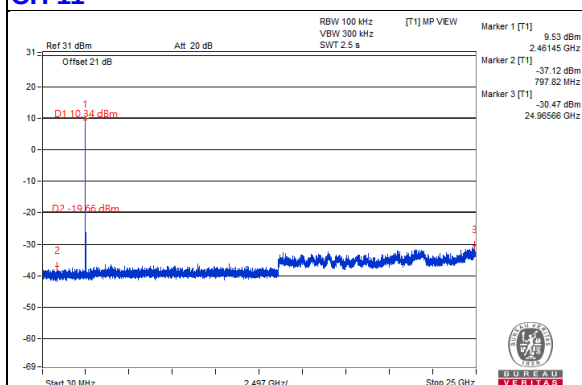
CH 1



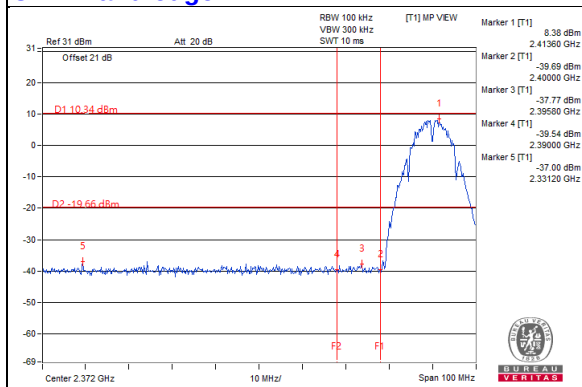
CH 6



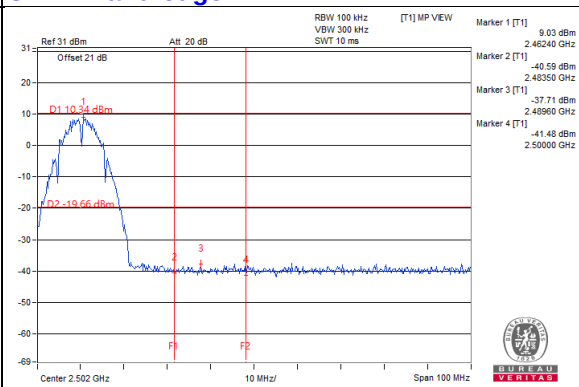
CH 11



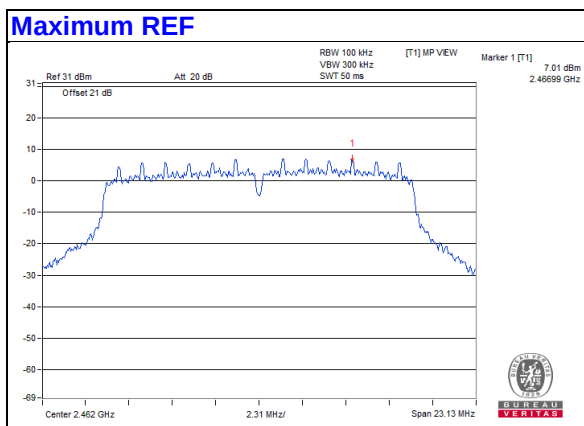
CH 1 Band edge



CH 11 Band edge

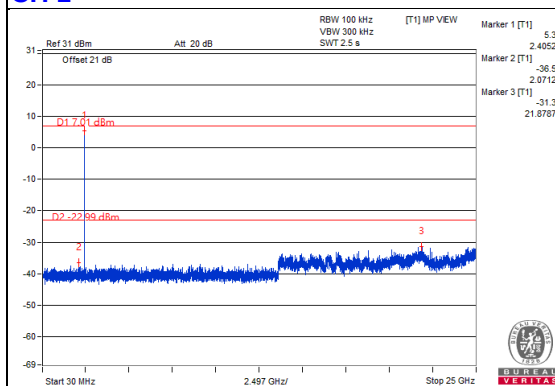


802.11g

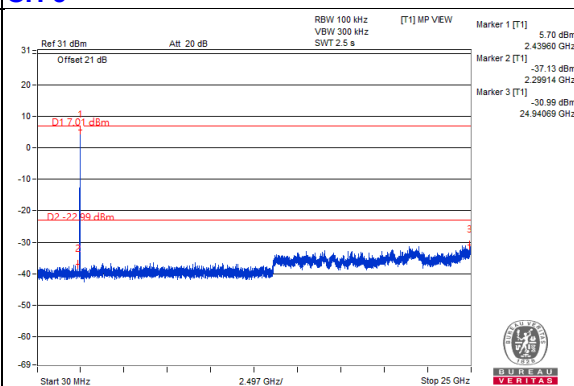


Chain 0

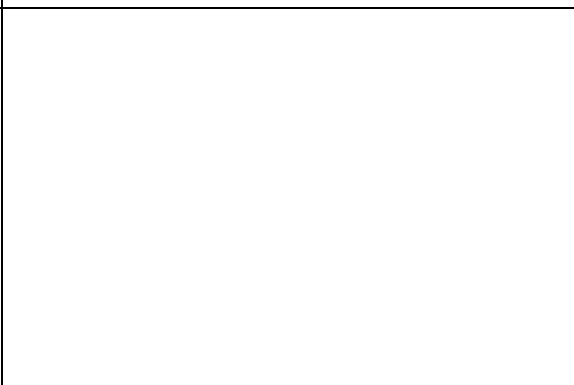
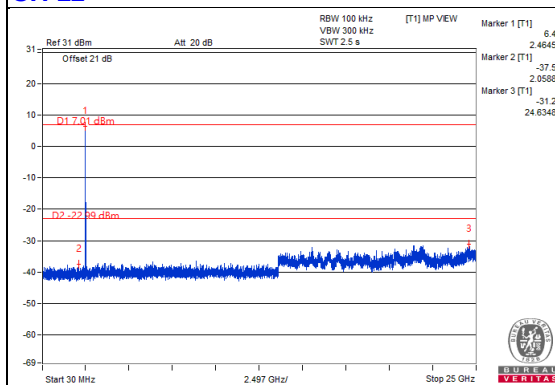
CH 1



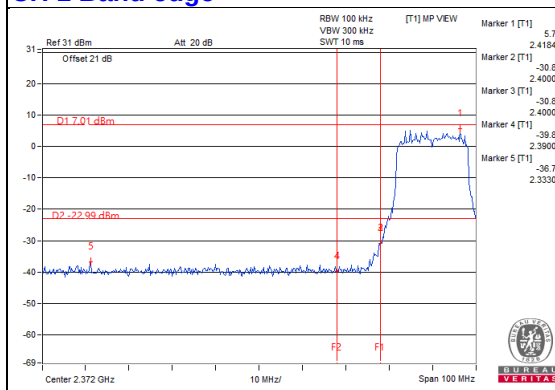
CH 6



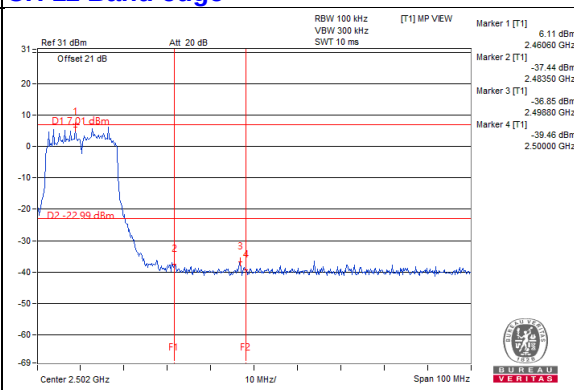
CH 11



CH 1 Band edge

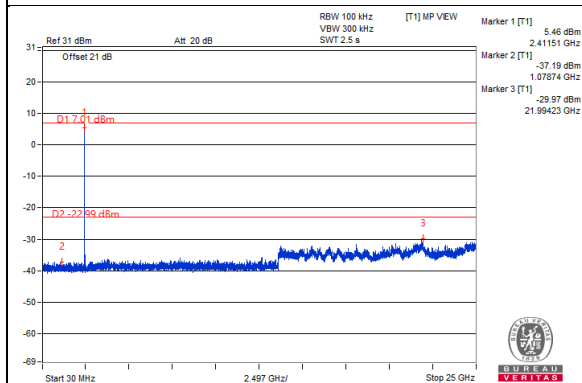


CH 11 Band edge

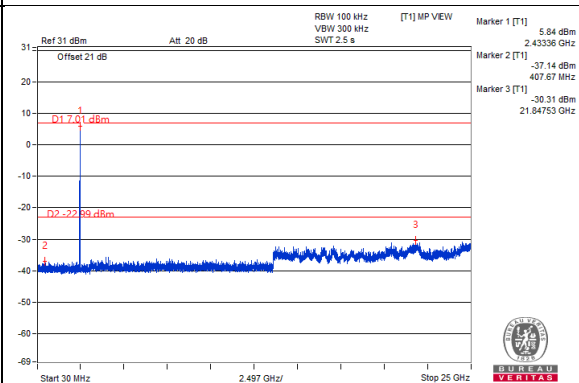


Chain 1

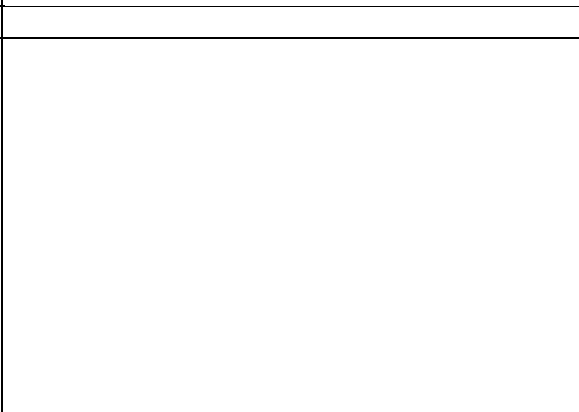
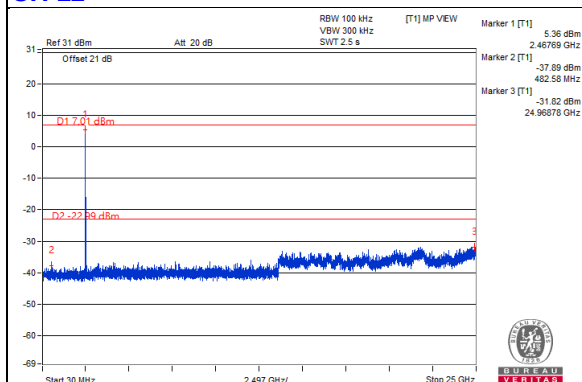
CH 1



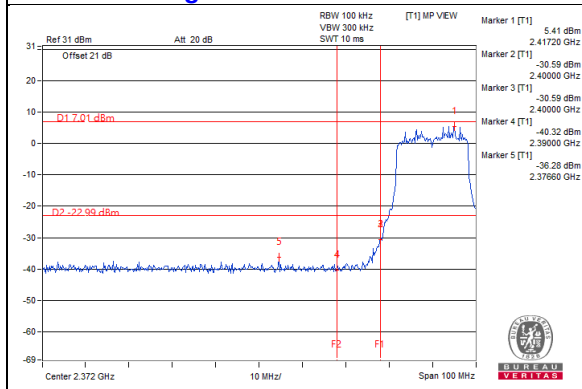
CH 6



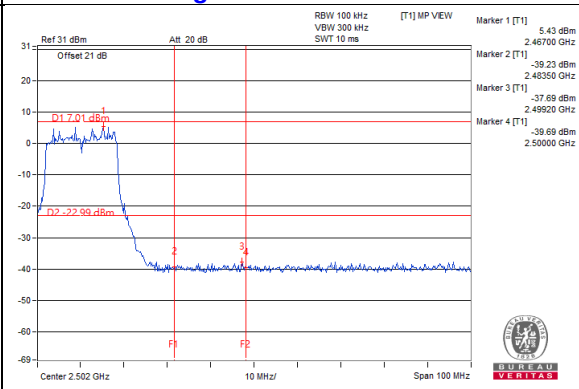
CH 11



CH 1 Band edge

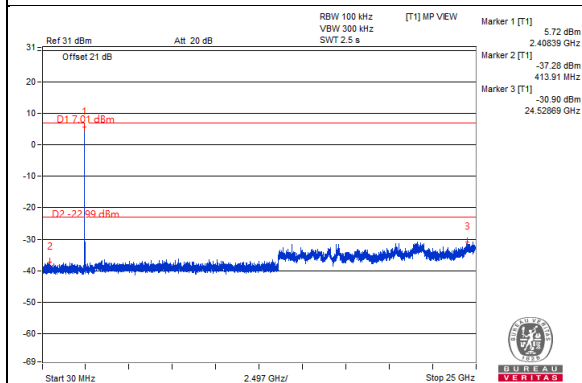


CH 11 Band edge

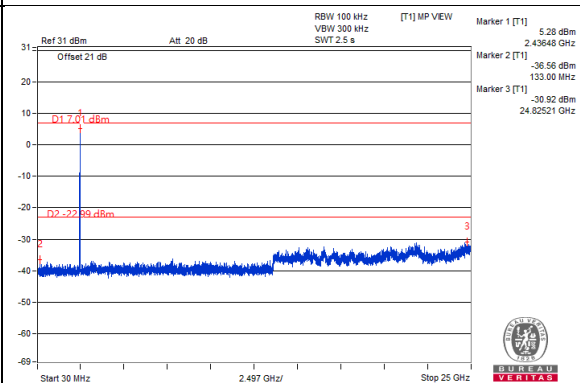


Chain 2

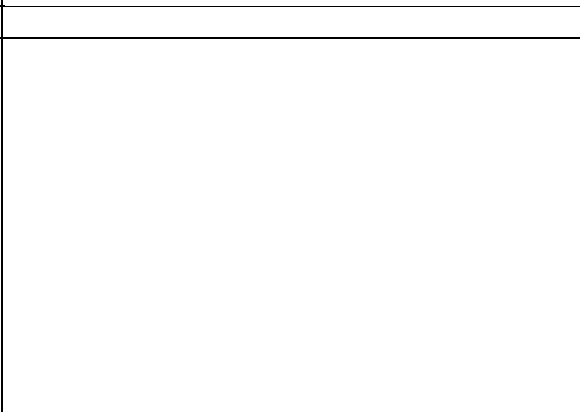
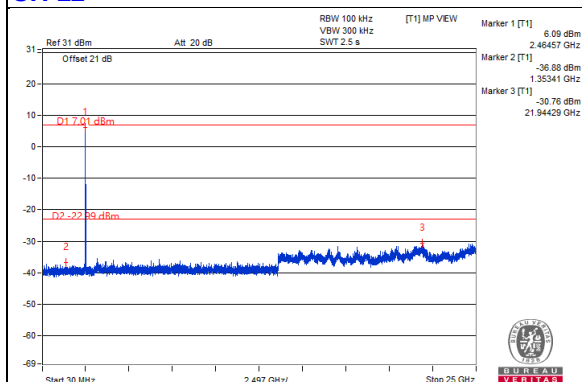
CH 1



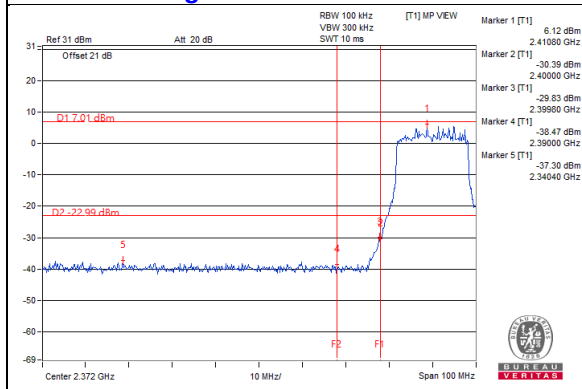
CH 6



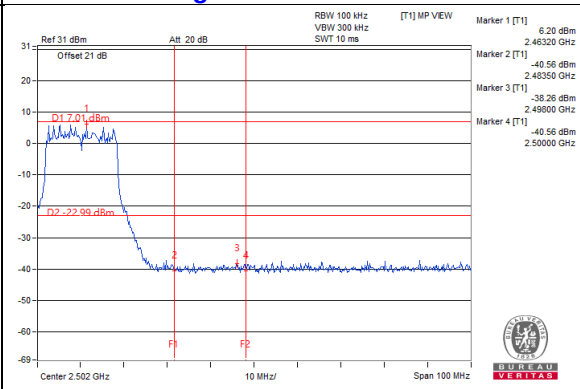
CH 11



CH 1 Band edge

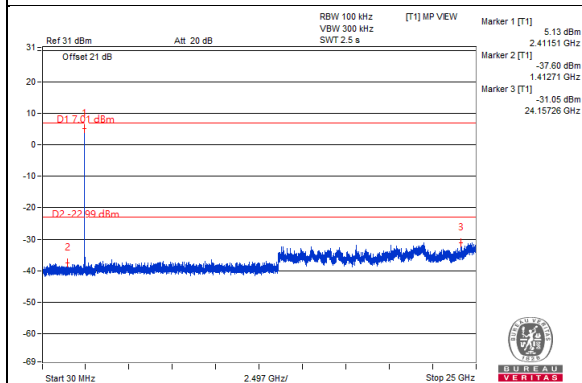


CH 11 Band edge

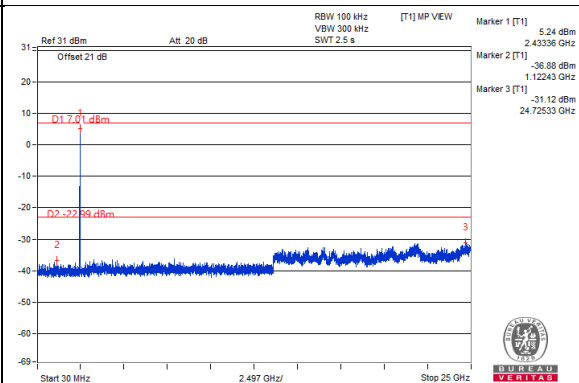


Chain 3

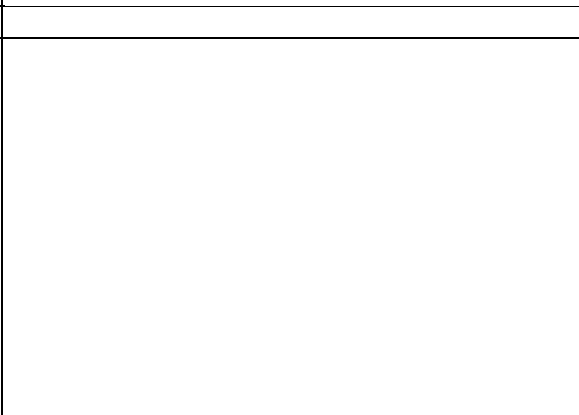
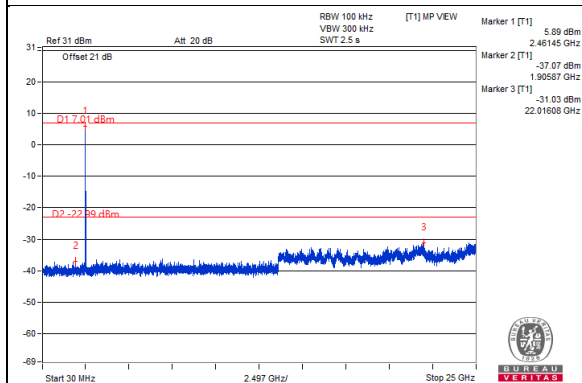
CH 1



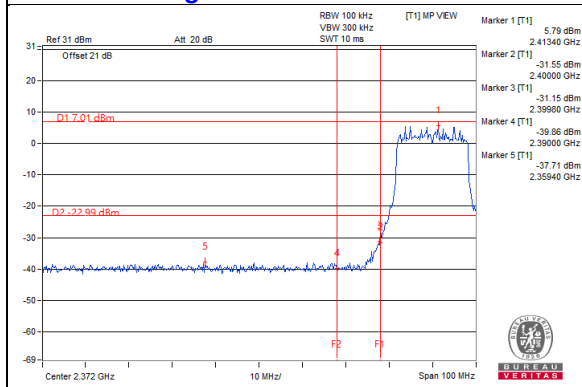
CH 6



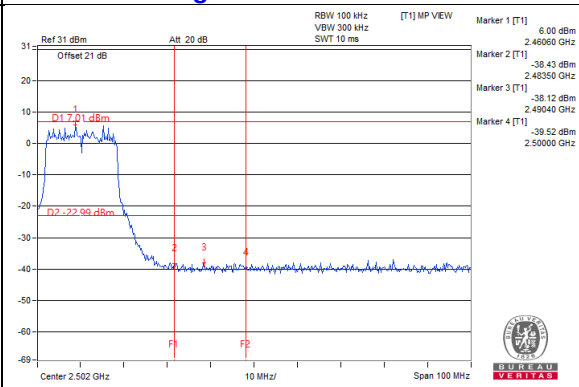
CH 11



CH 1 Band edge

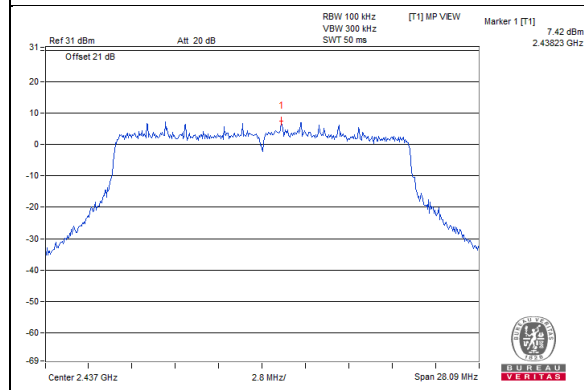


CH 11 Band edge



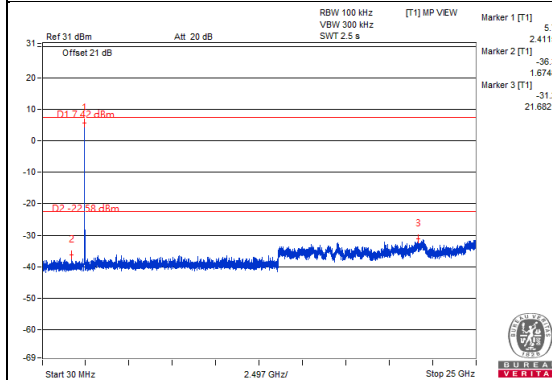
802.11ax (HE20)

Maximum REF

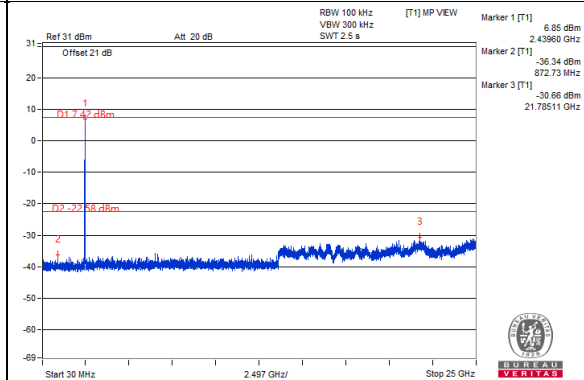


Chain 0

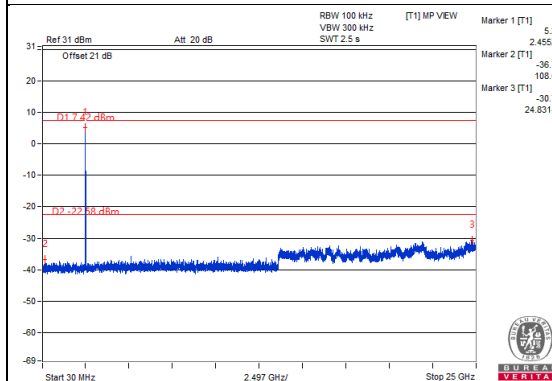
CH 1



CH 6



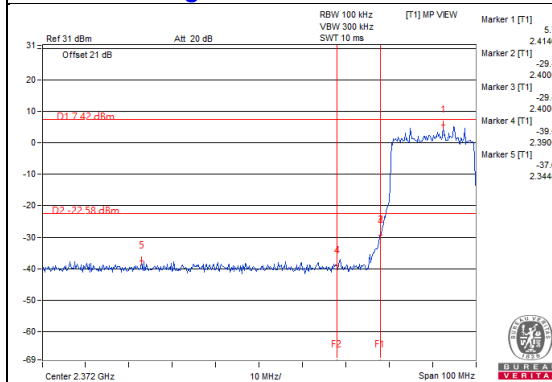
CH 11



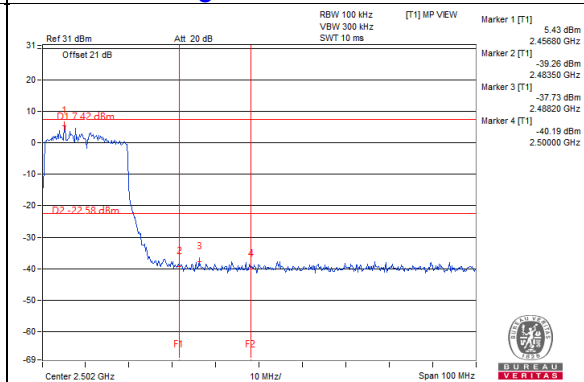
CH 11



CH 1 Band edge

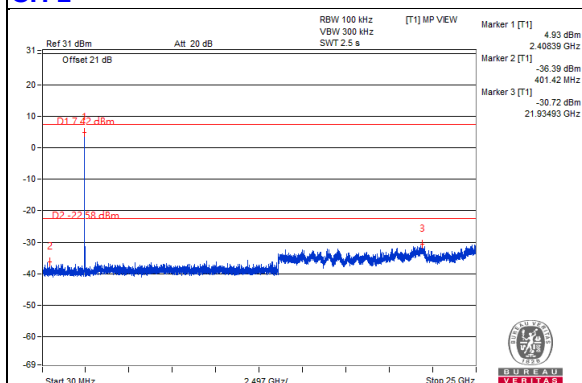


CH 11 Band edge

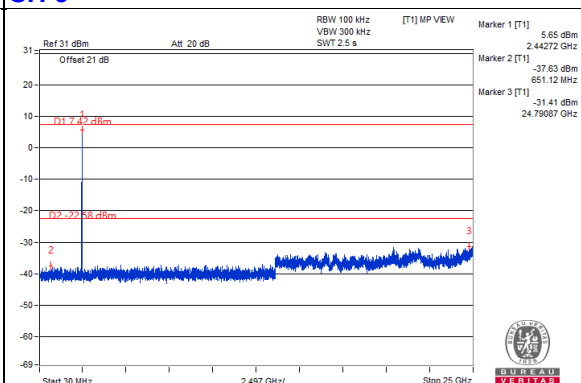


Chain 1

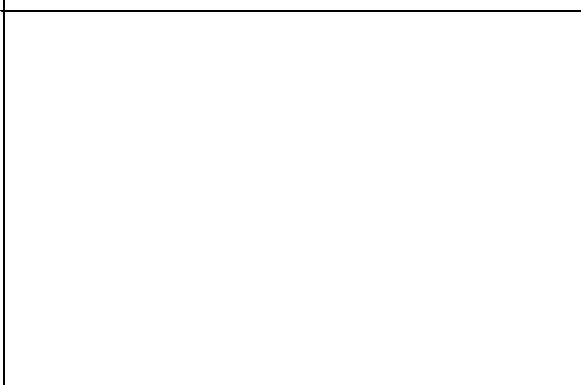
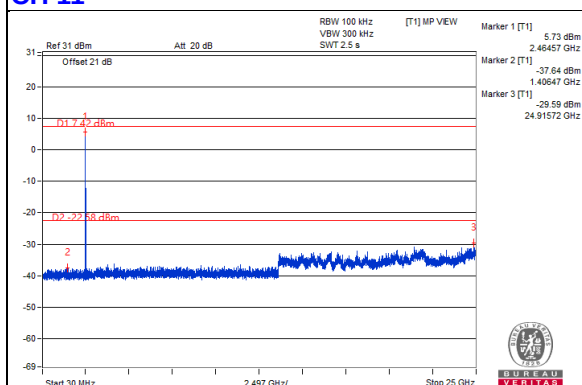
CH 1



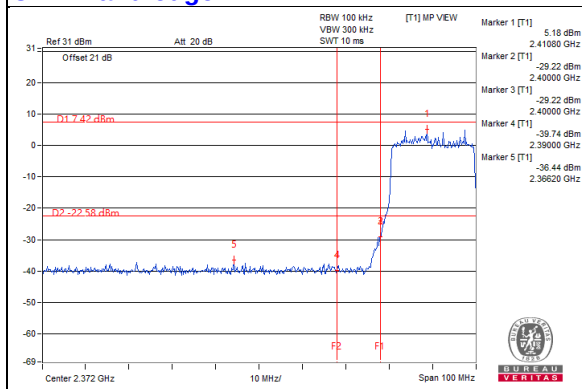
CH 6



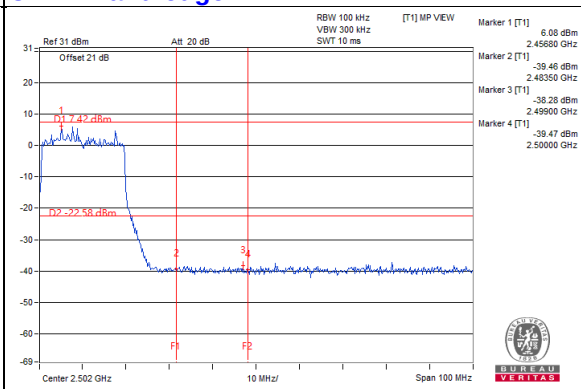
CH 11



CH 1 Band edge

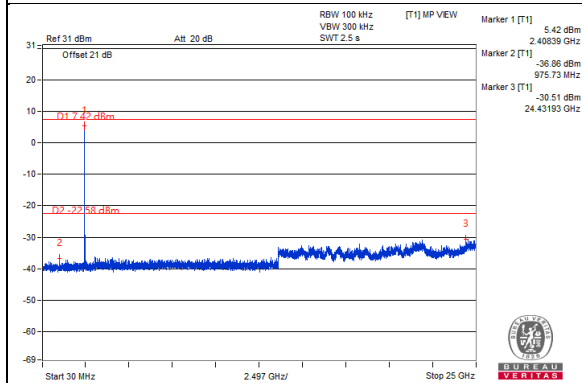


CH 11 Band edge

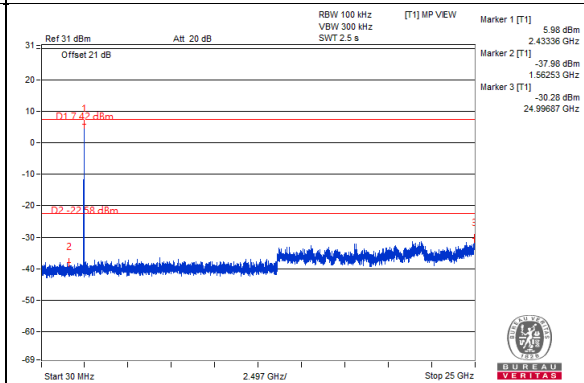


Chain 2

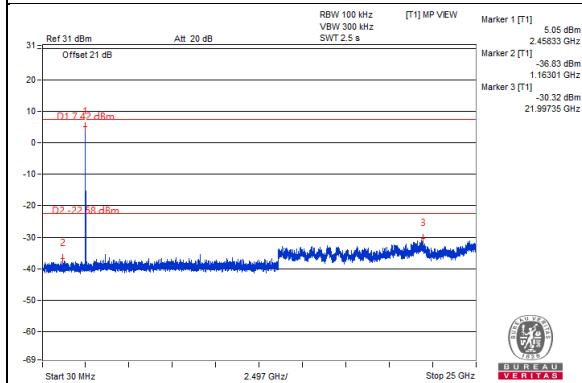
CH 1



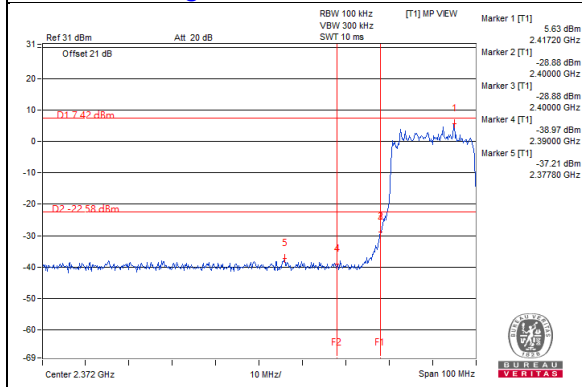
CH 6



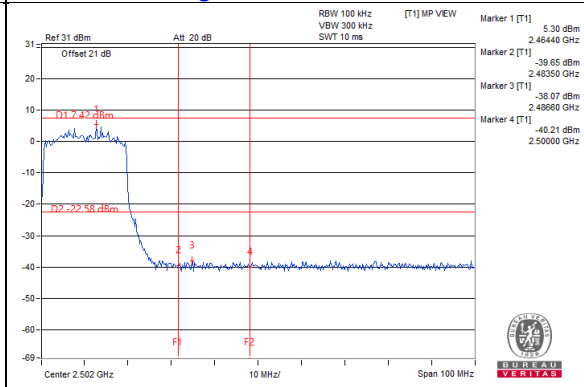
CH 11



CH 1 Band edge

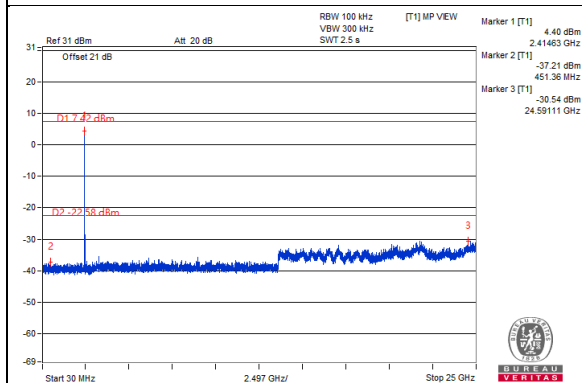


CH 11 Band edge

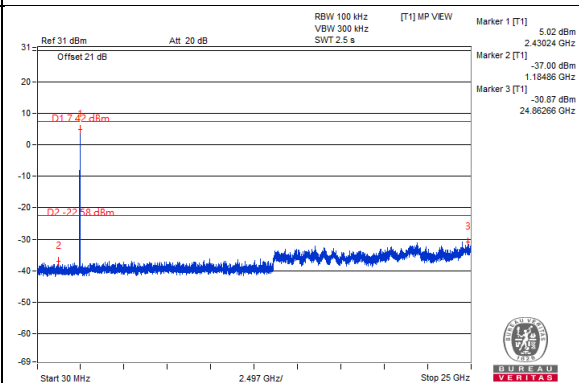


Chain 3

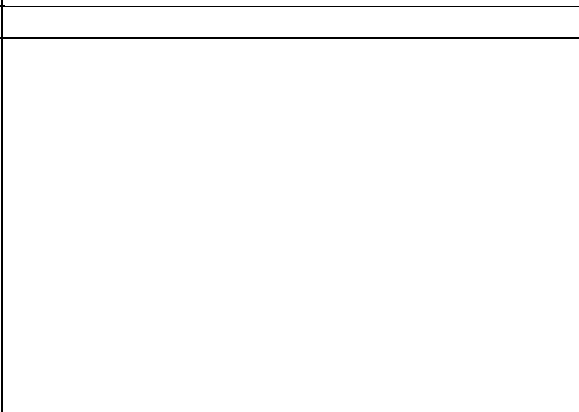
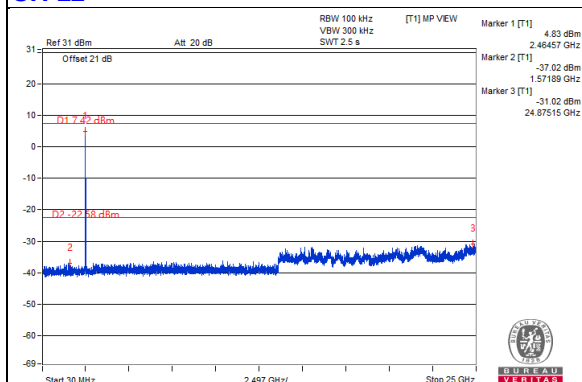
CH 1



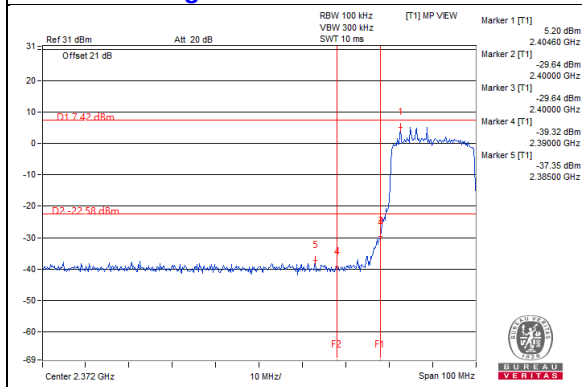
CH 6



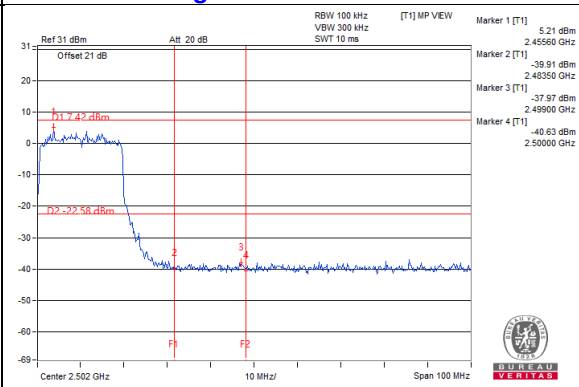
CH 11



CH 1 Band edge

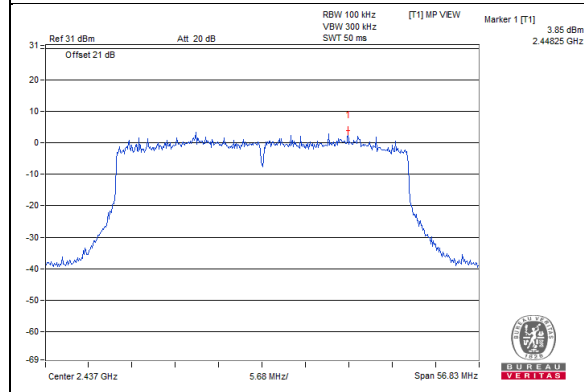


CH 11 Band edge



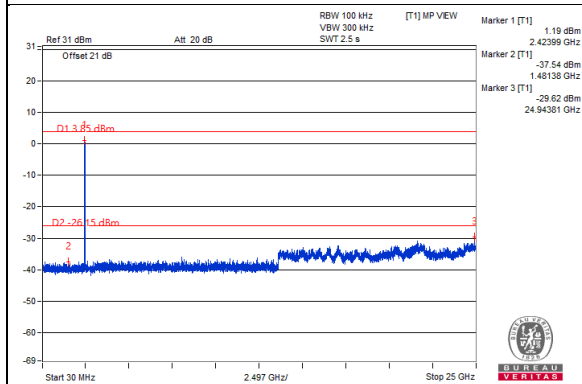
802.11ax (HE40)

Maximum REF

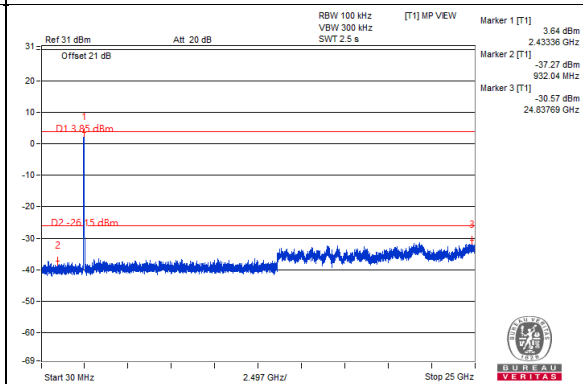


Chain 0

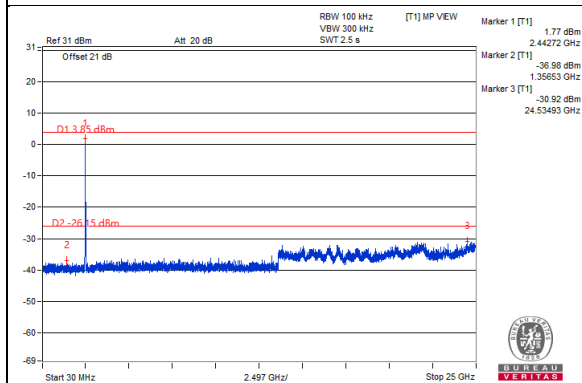
CH 3



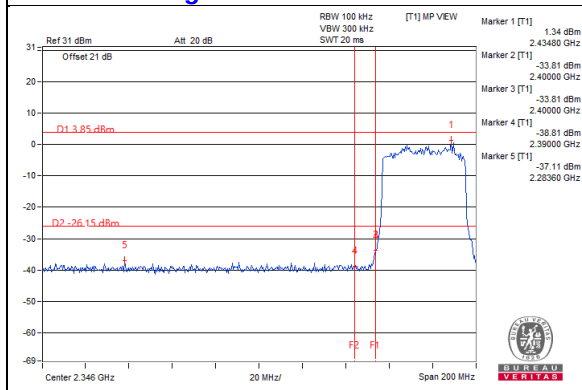
CH 6



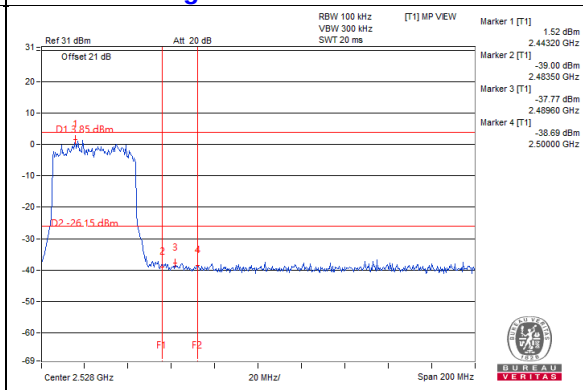
CH 9



CH 3 Band edge

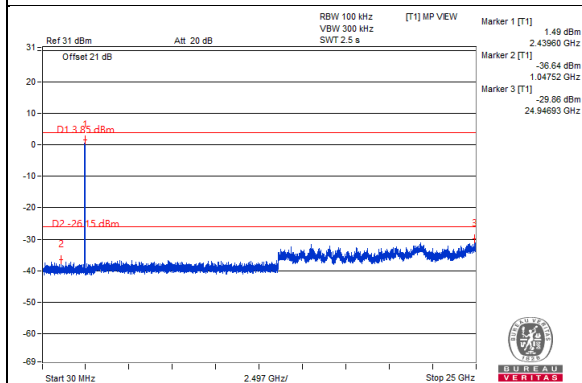


CH 9 Band edge

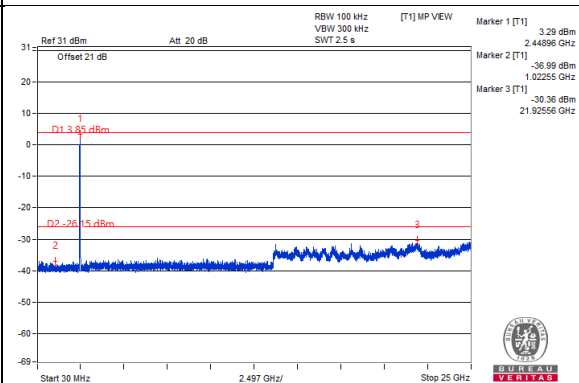


Chain 1

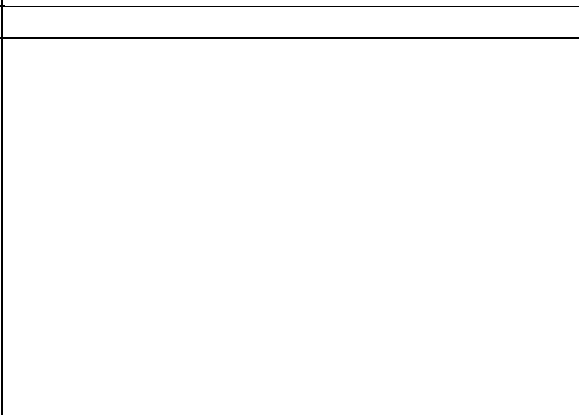
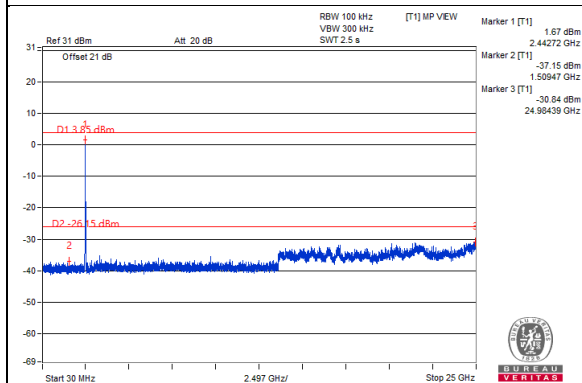
CH 3



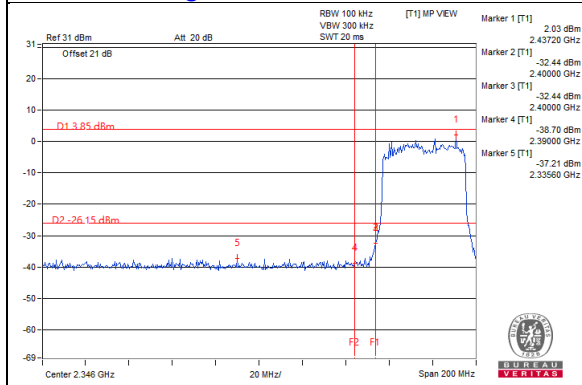
CH 6



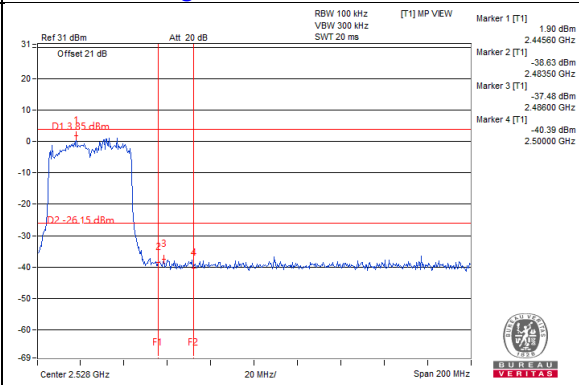
CH 9



CH 3 Band edge

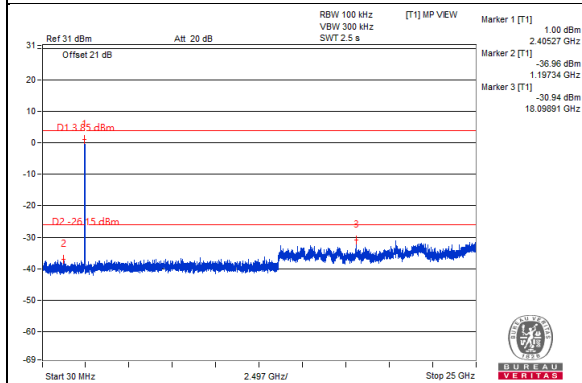


CH 9 Band edge

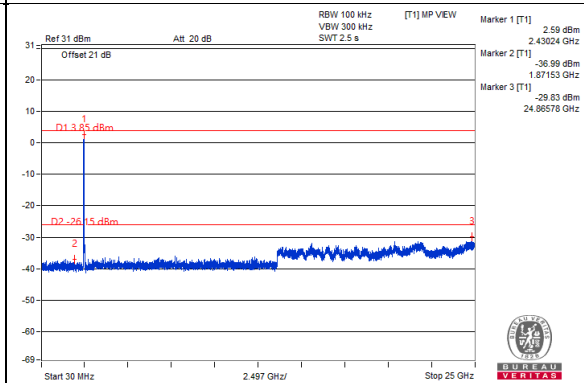


Chain 2

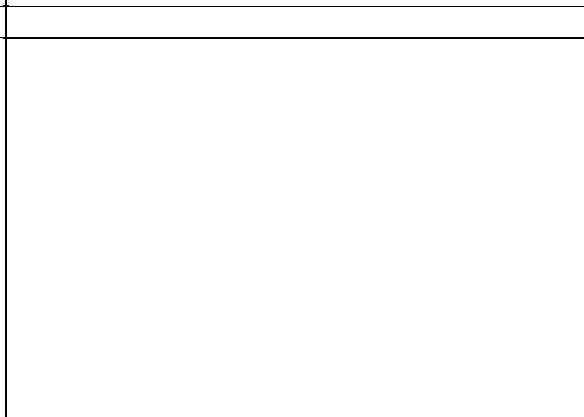
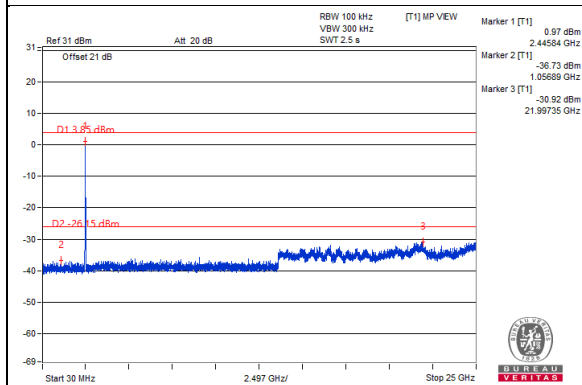
CH 3



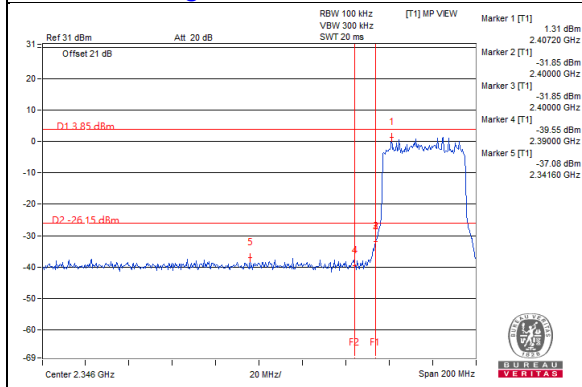
CH 6



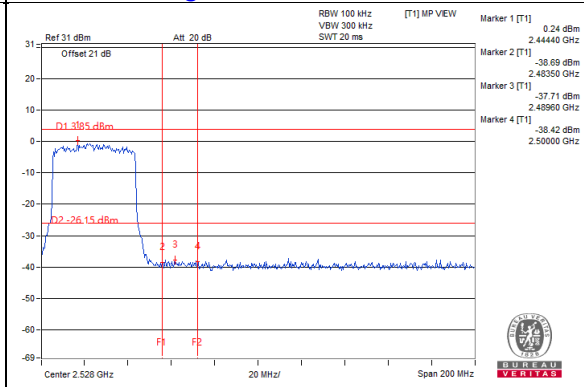
CH 9



CH 3 Band edge

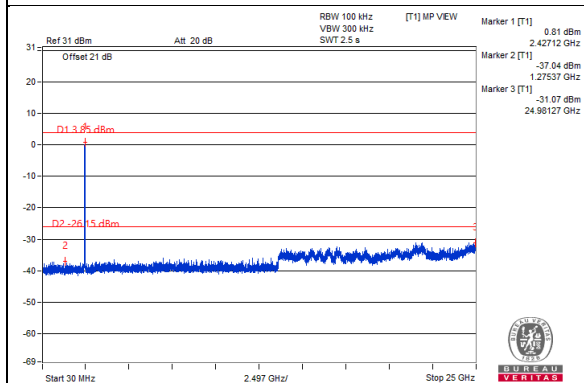


CH 9 Band edge

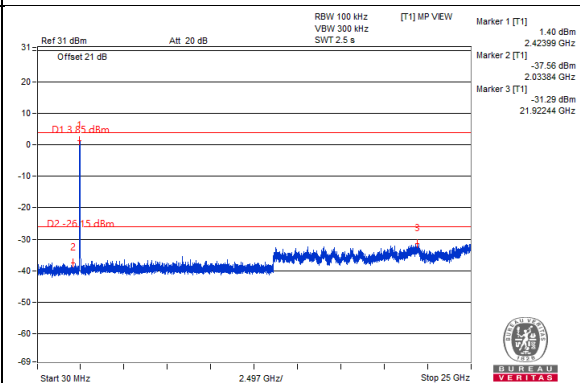


Chain 3

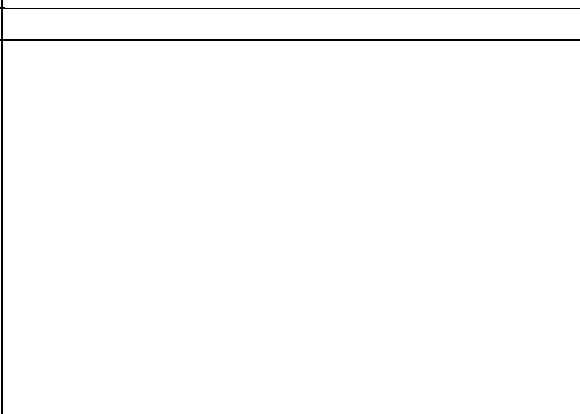
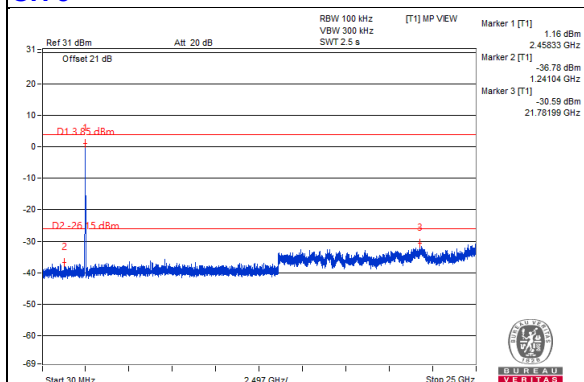
CH 3



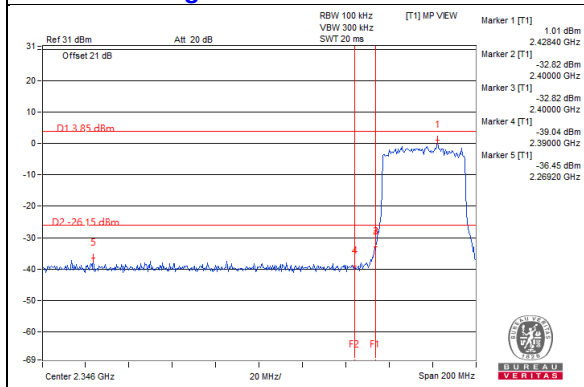
CH 6



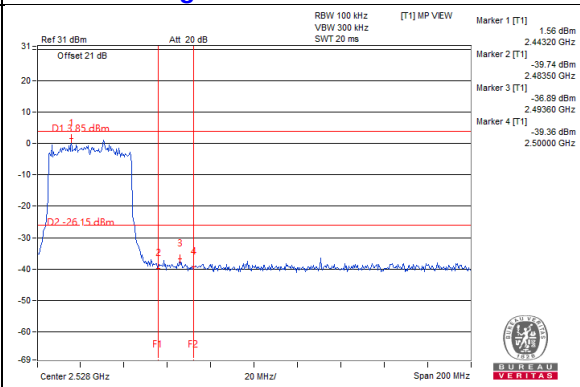
CH 9



CH 3 Band edge



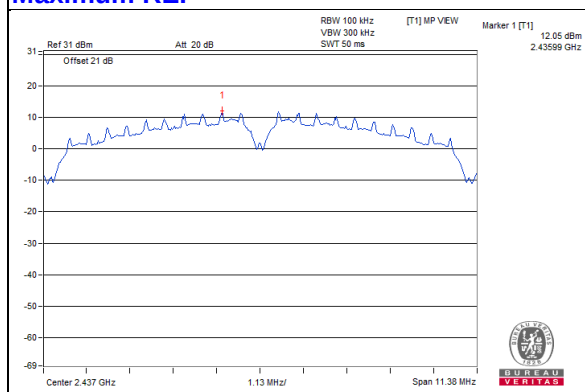
CH 9 Band edge



For Mode 2

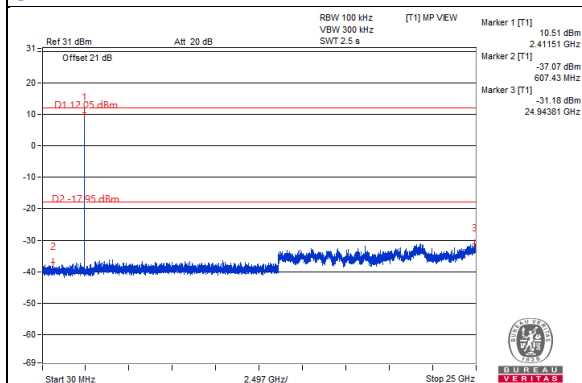
802.11b

Maximum REF

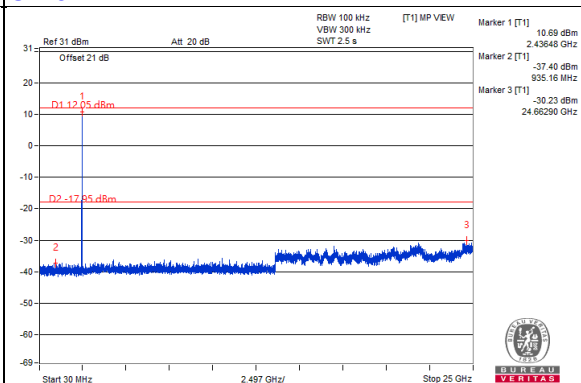


Chain 0

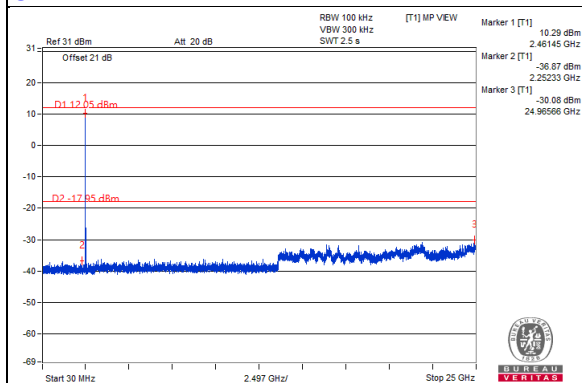
CH 1



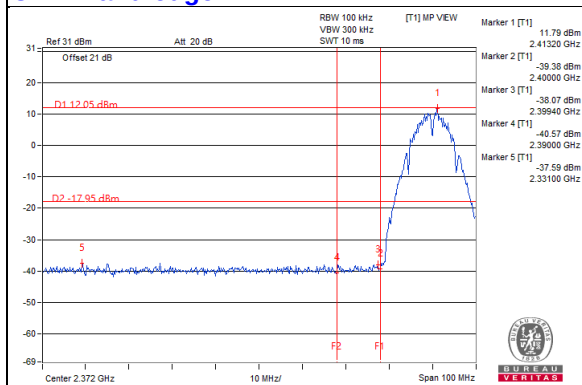
CH 6



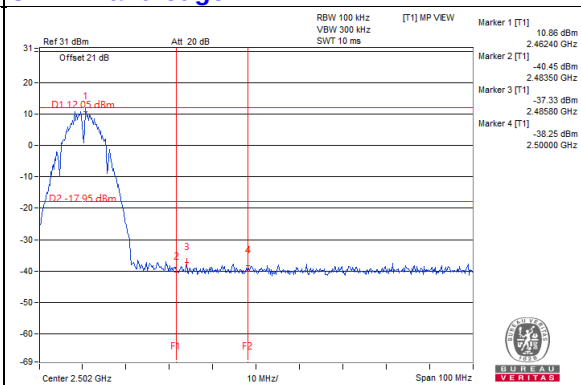
CH 11



CH 1 Band edge

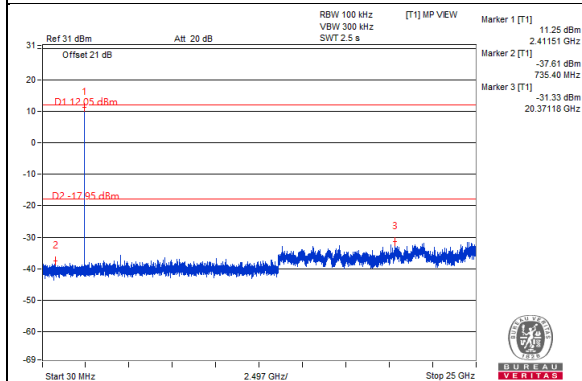


CH 11 Band edge

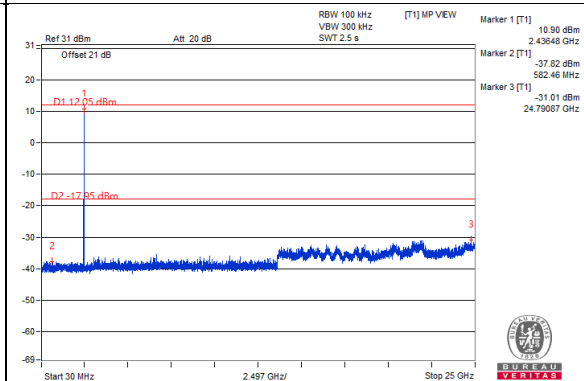


Chain 1

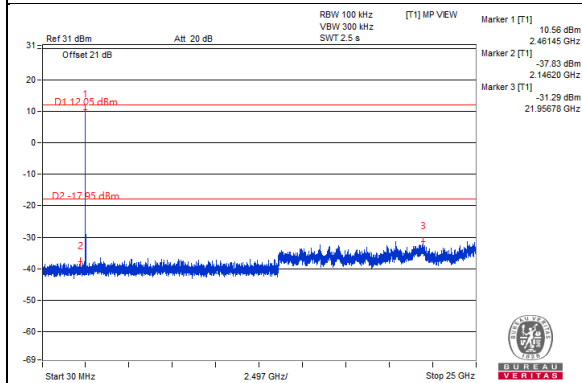
CH 1



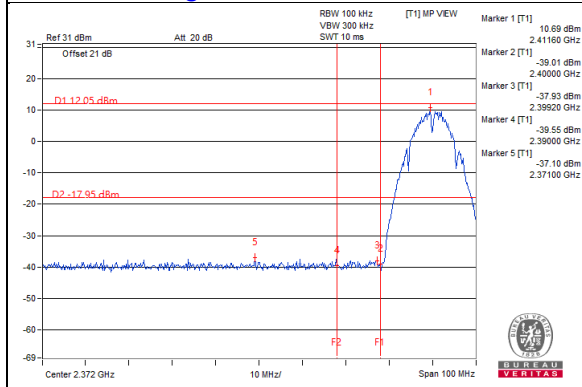
CH 6



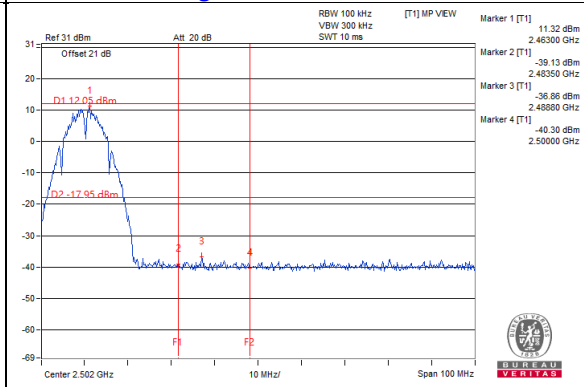
CH 11



CH 1 Band edge

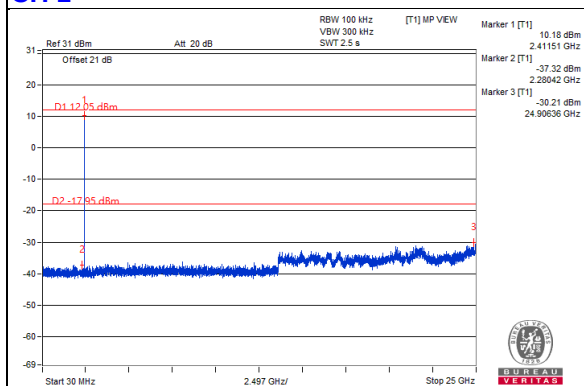


CH 11 Band edge

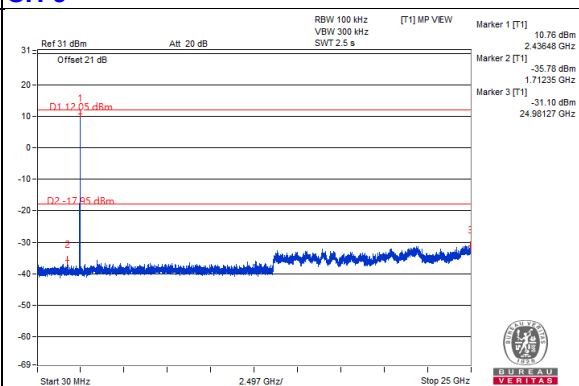


Chain 2

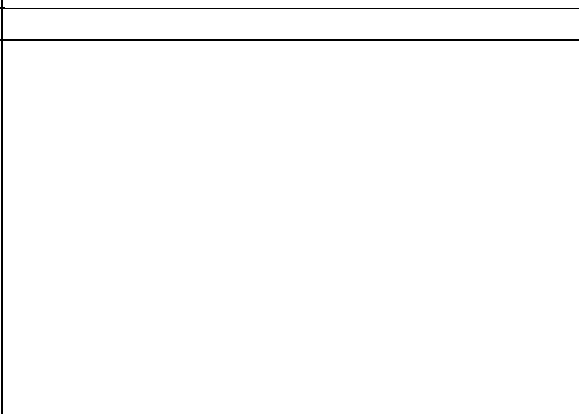
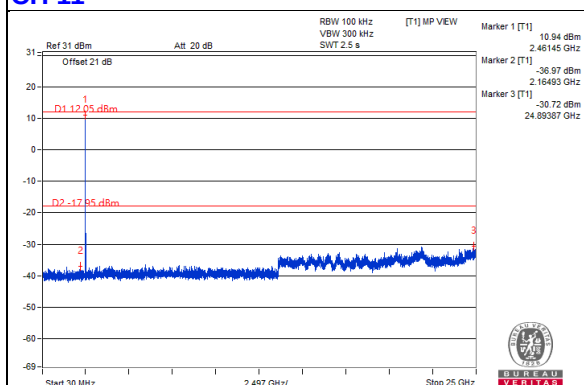
CH 1



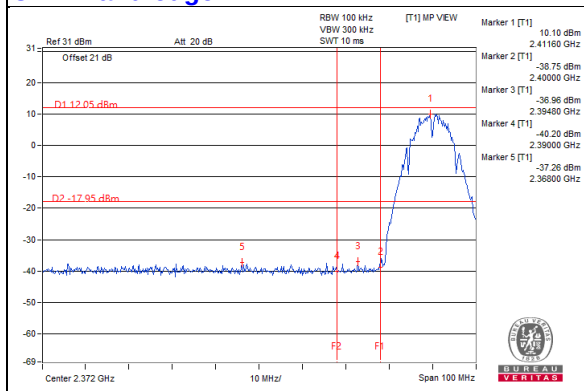
CH 6



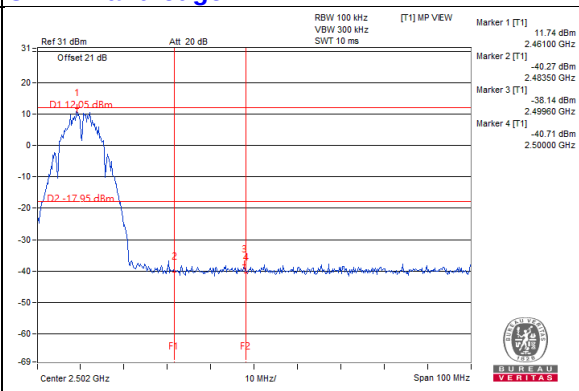
CH 11



CH 1 Band edge

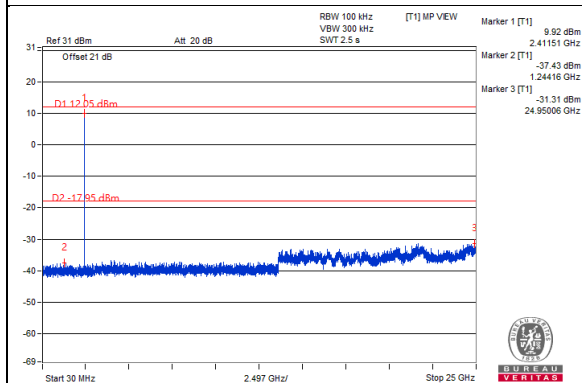


CH 11 Band edge

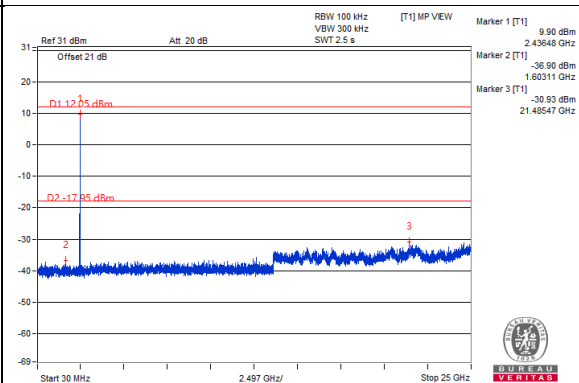


Chain 3

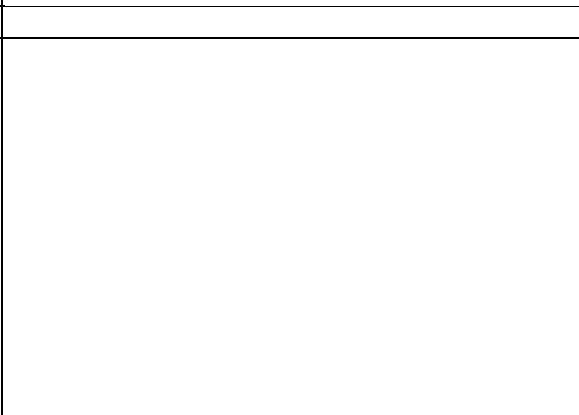
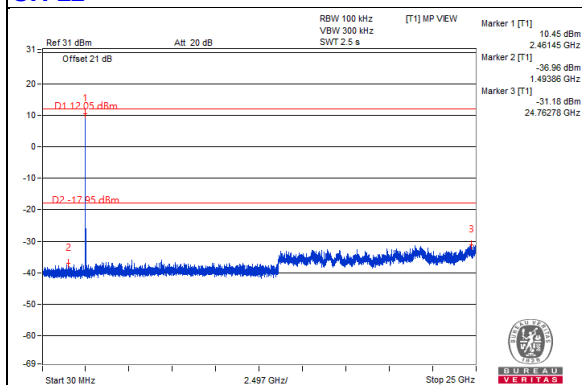
CH 1



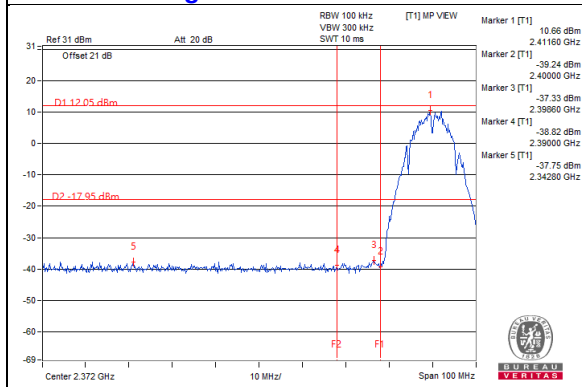
CH 6



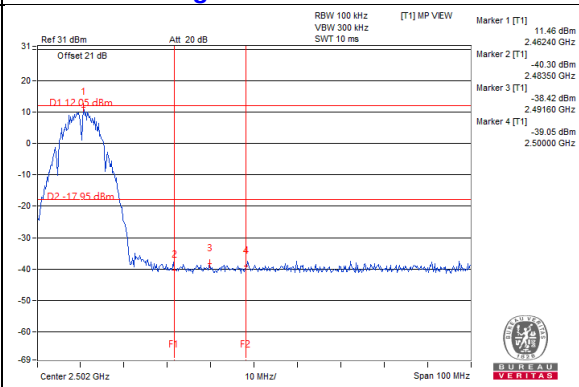
CH 11



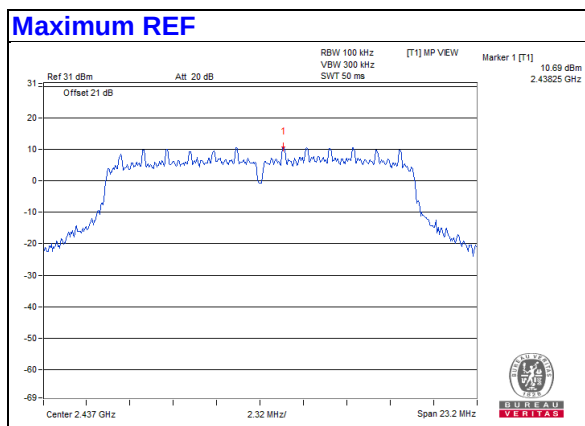
CH 1 Band edge



CH 11 Band edge

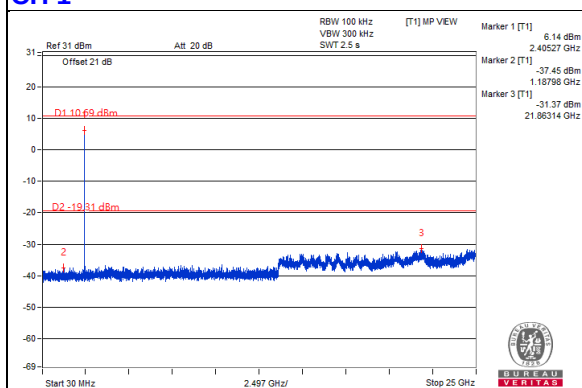


802.11g

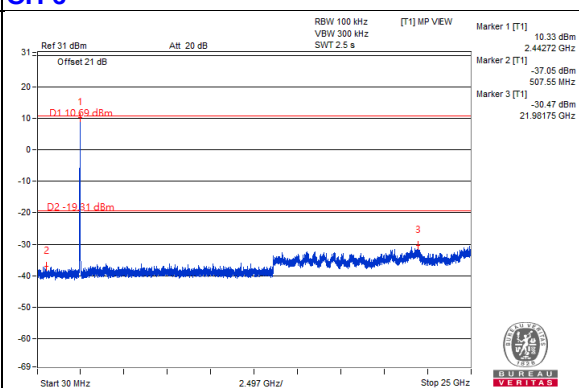


Chain 0

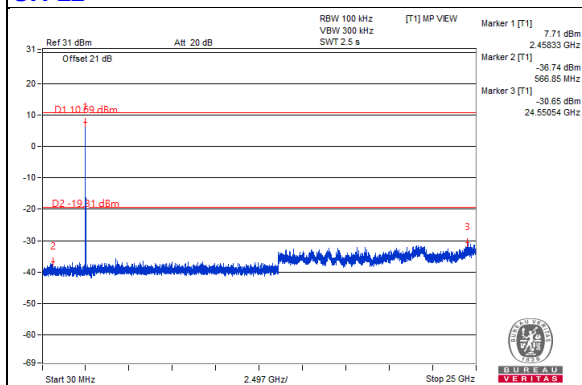
CH 1



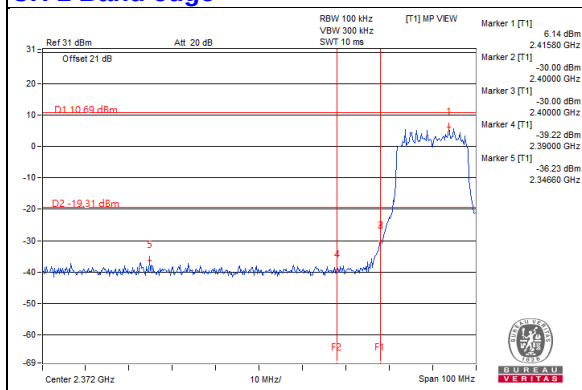
CH 6



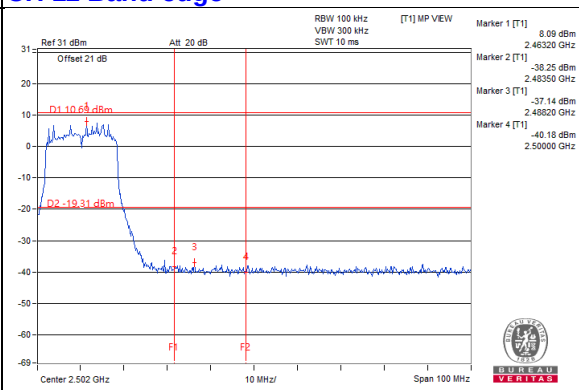
CH 11



CH 1 Band edge

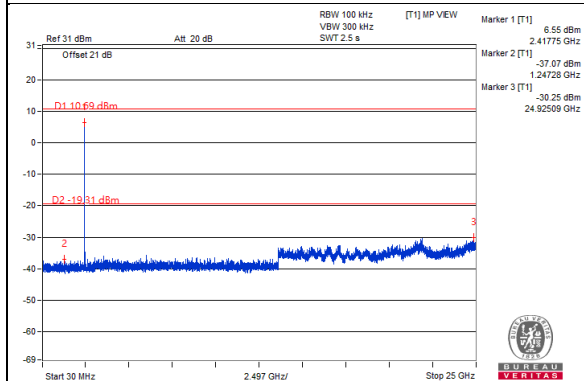


CH 11 Band edge

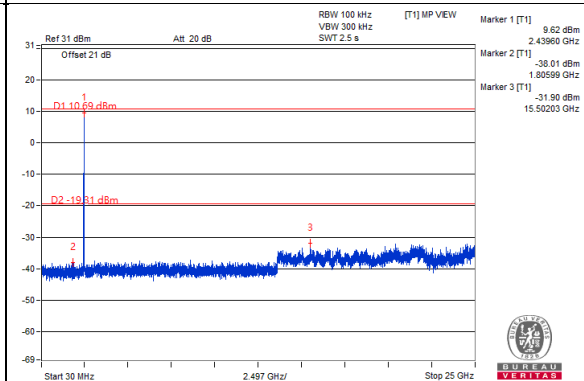


Chain 1

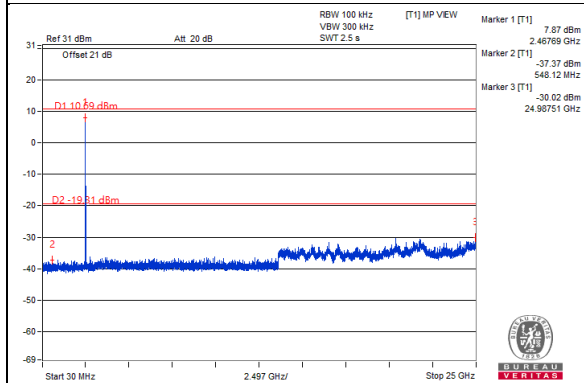
CH 1



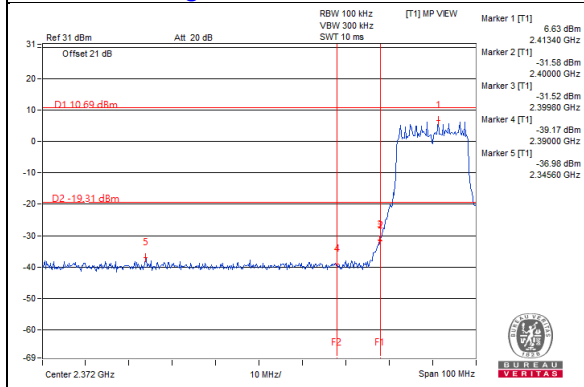
CH 6



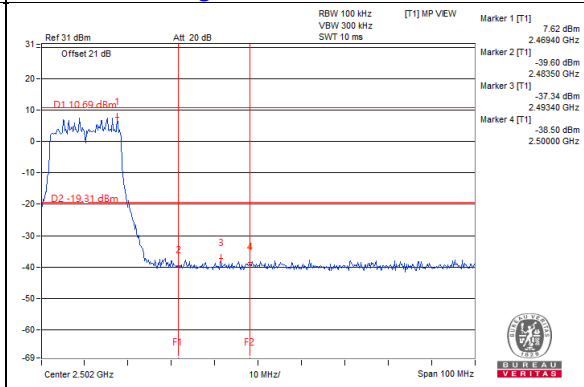
CH 11



CH 1 Band edge

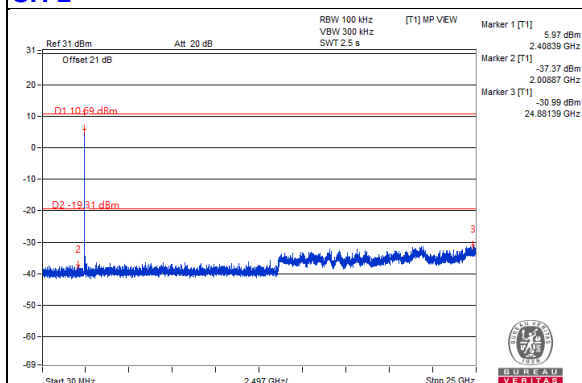


CH 11 Band edge

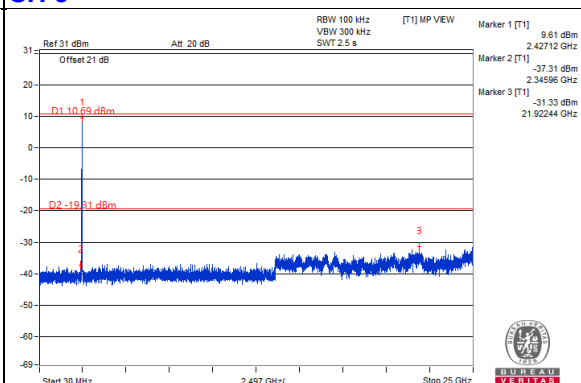


Chain 2

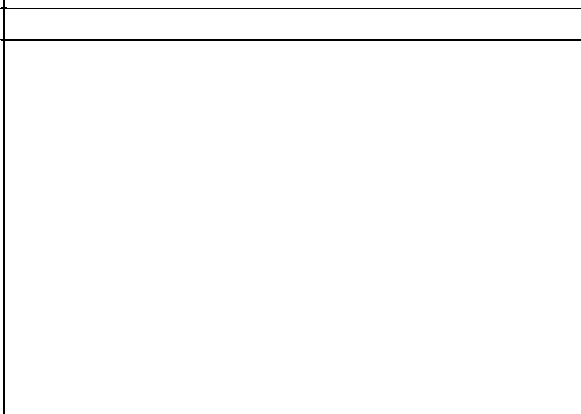
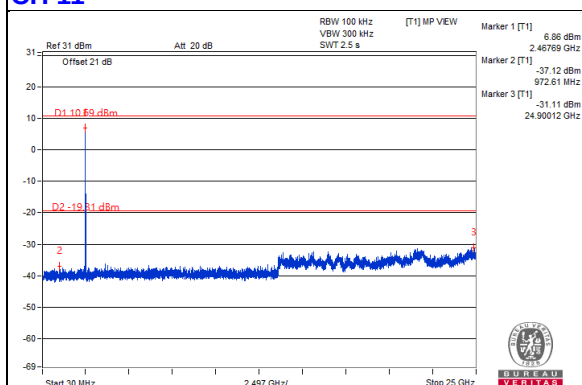
CH 1



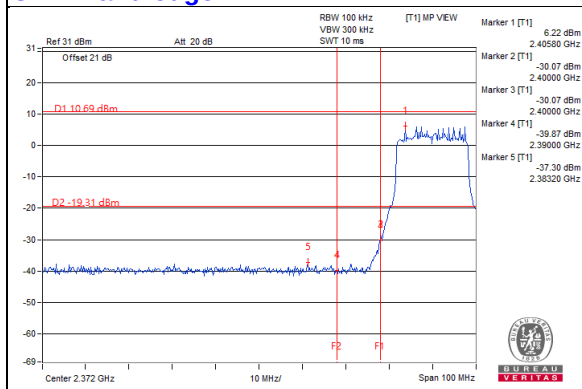
CH 6



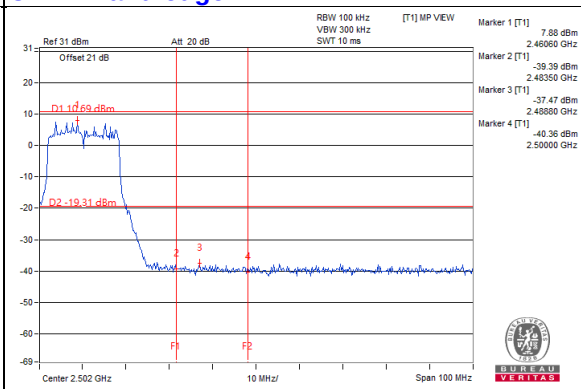
CH 11



CH 1 Band edge

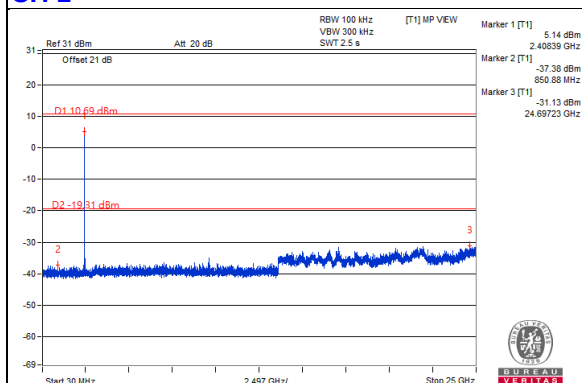


CH 11 Band edge

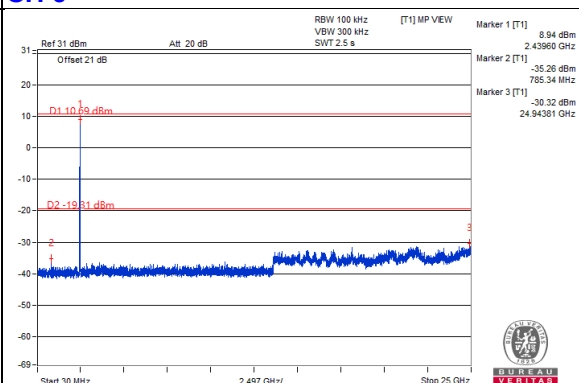


Chain 3

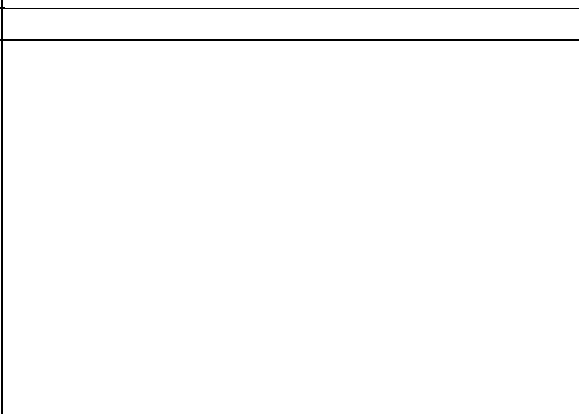
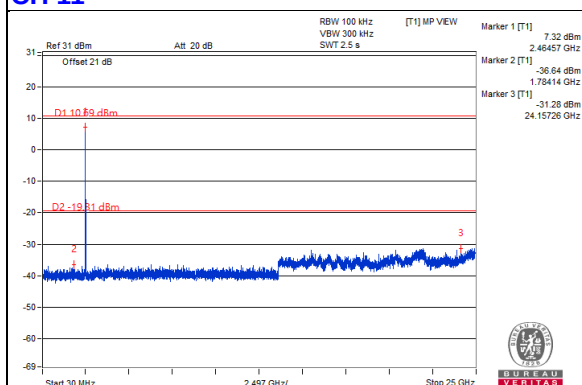
CH 1



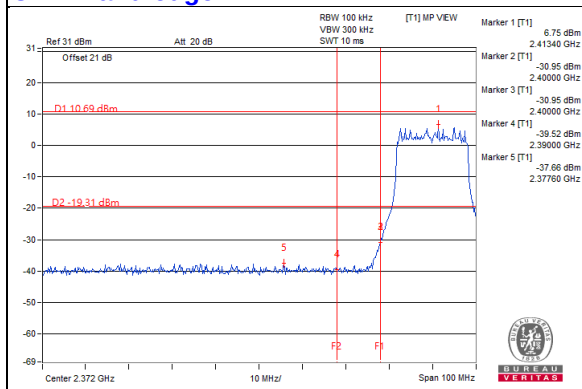
CH 6



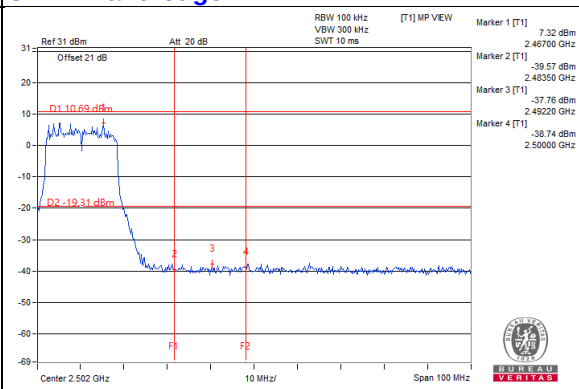
CH 11



CH 1 Band edge

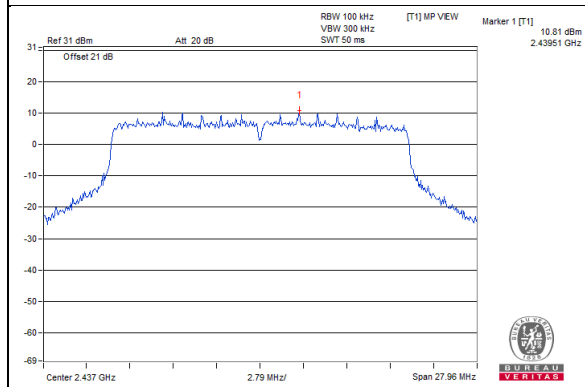


CH 11 Band edge



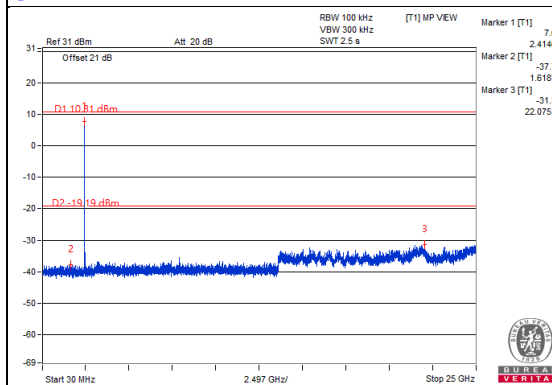
802.11ax (HE20)

Maximum REF

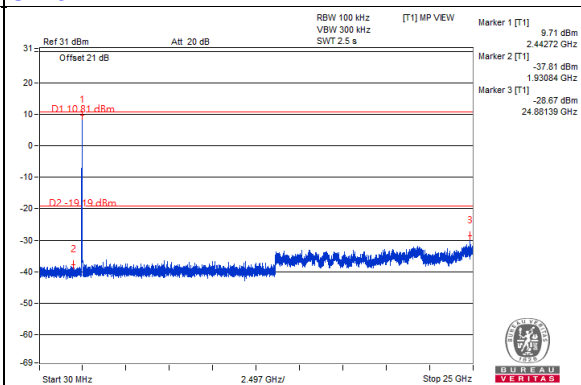


Chain 0

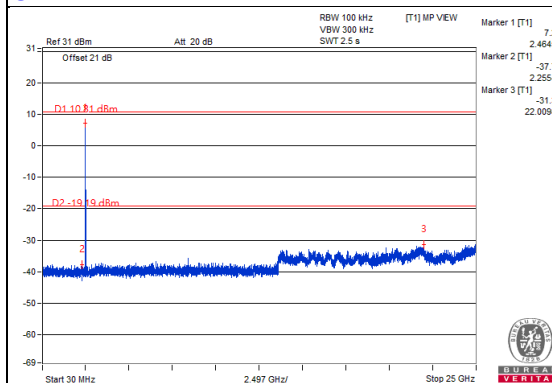
CH 1



CH 6



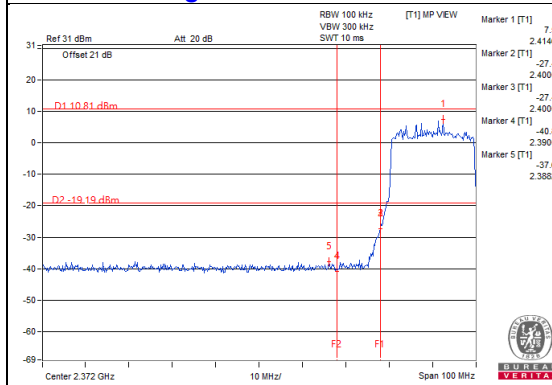
CH 11



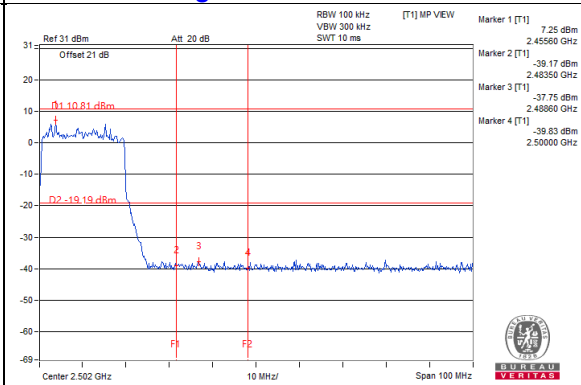
CH 11 Band edge



CH 1 Band edge

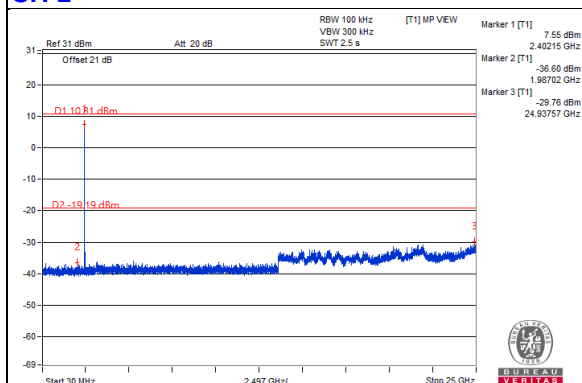


CH 11 Band edge

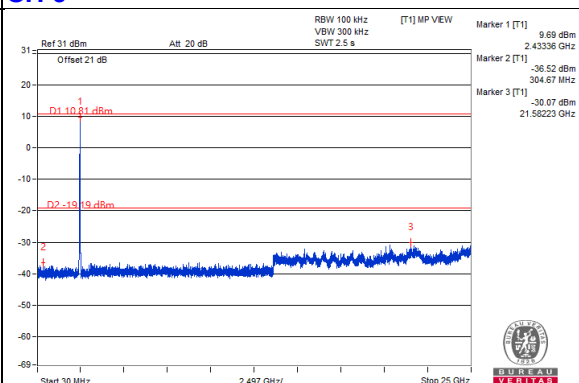


Chain 1

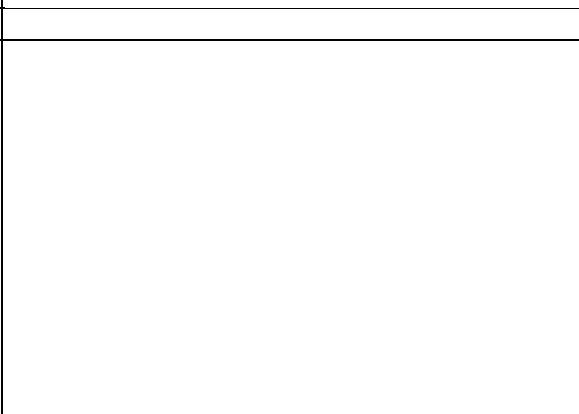
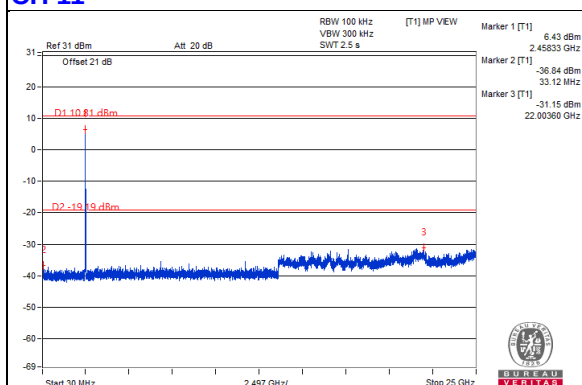
CH 1



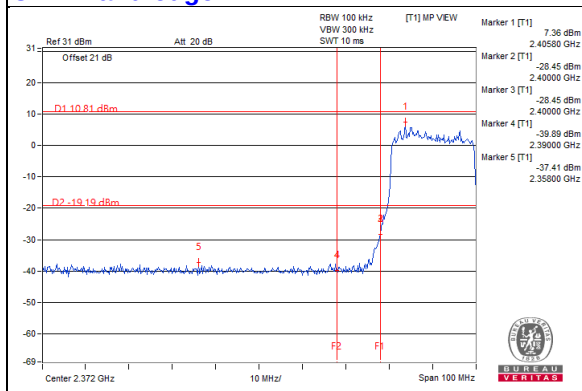
CH 6



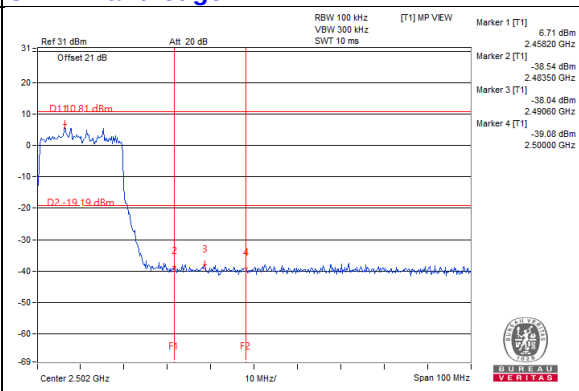
CH 11



CH 1 Band edge

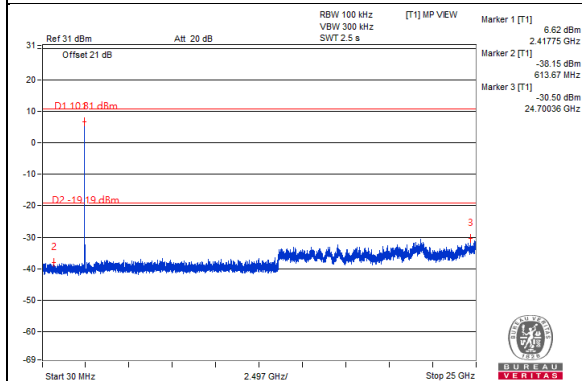


CH 11 Band edge

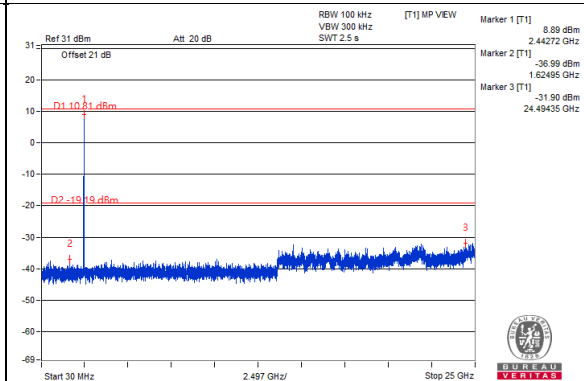


Chain 2

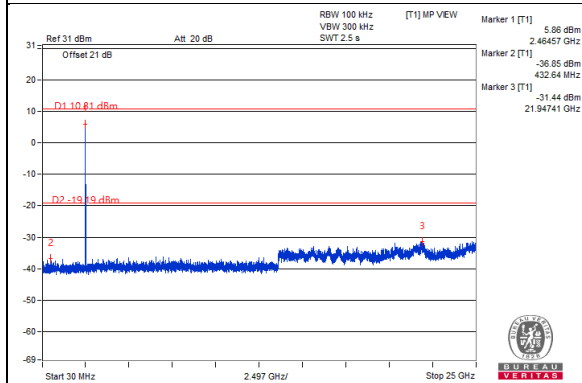
CH 1



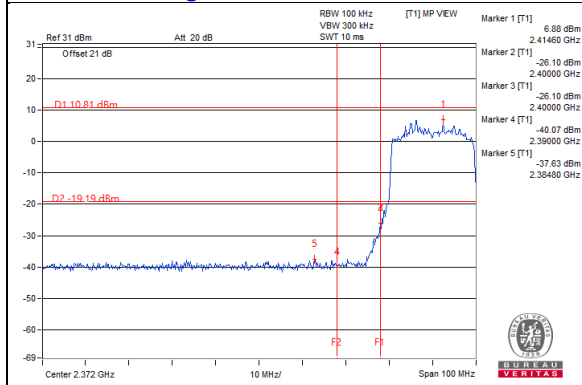
CH 6



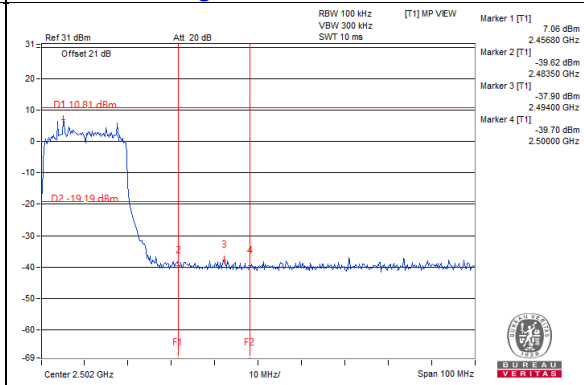
CH 11



CH 1 Band edge

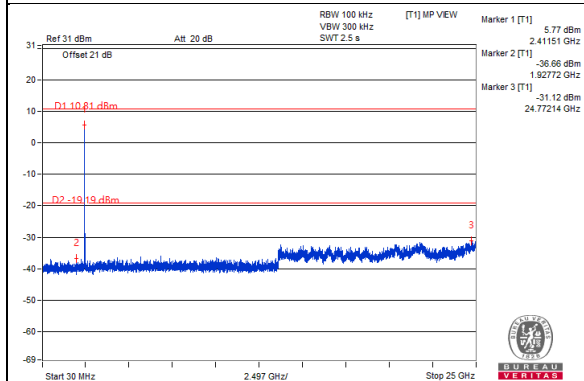


CH 11 Band edge

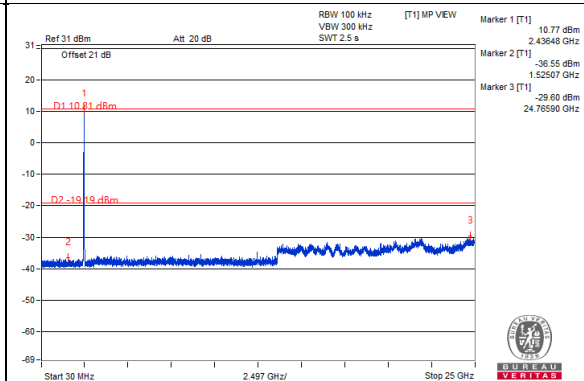


Chain 3

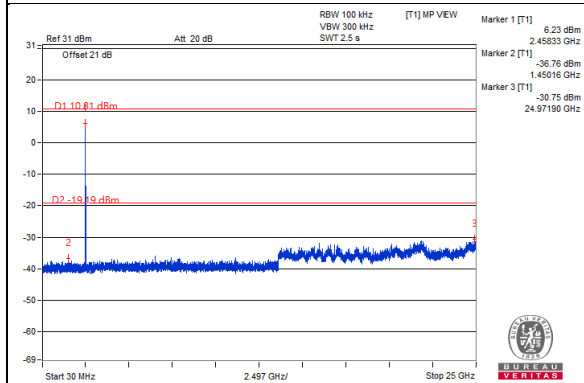
CH 1



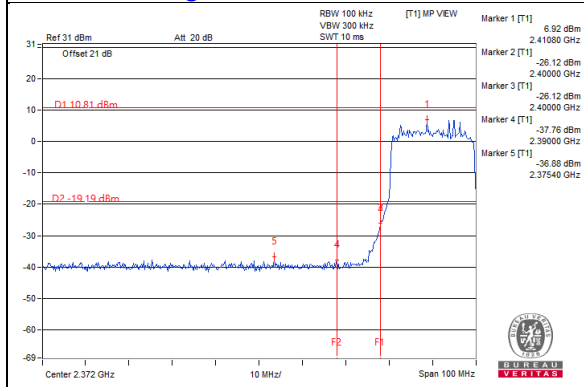
CH 6



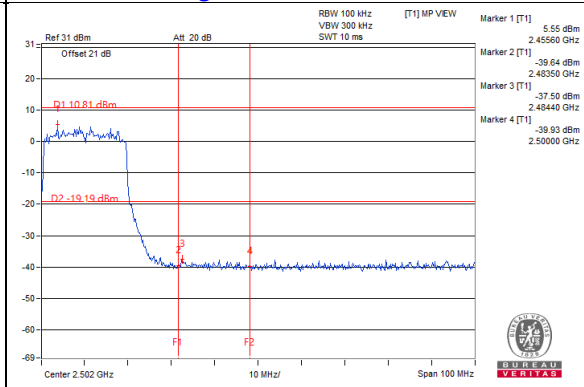
CH 11



CH 1 Band edge

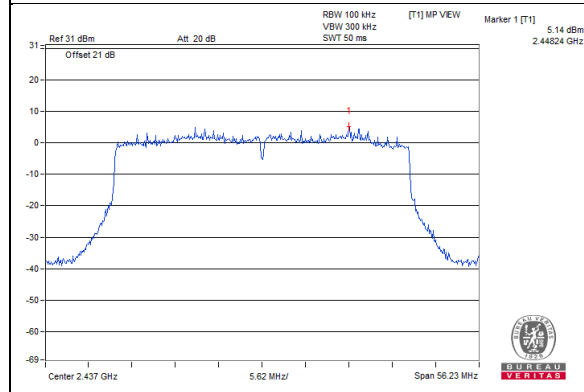


CH 11 Band edge



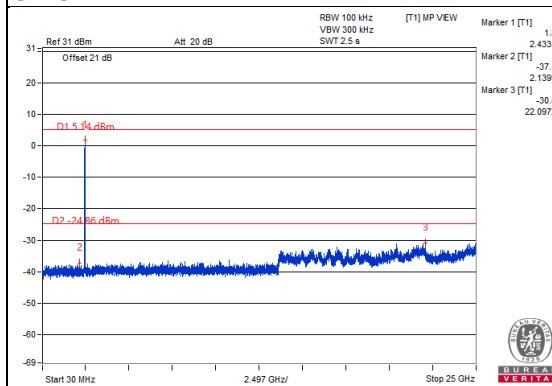
802.11ax (HE40)

Maximum REF

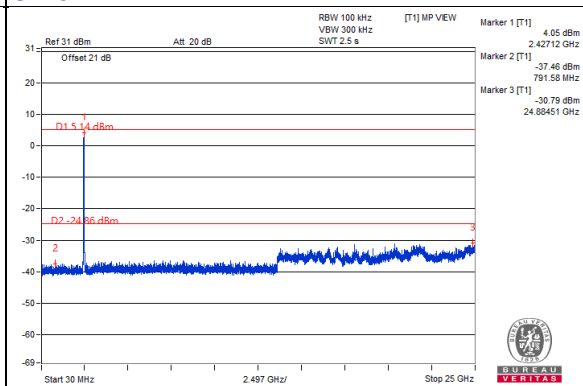


Chain 0

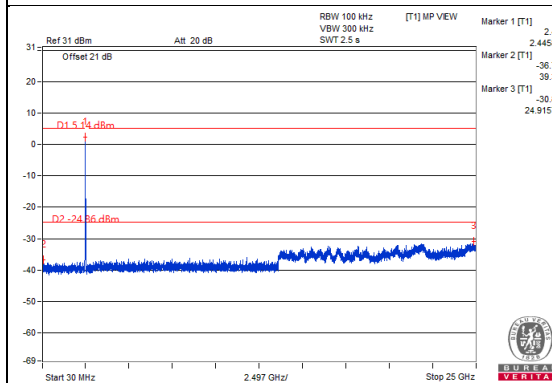
CH 3



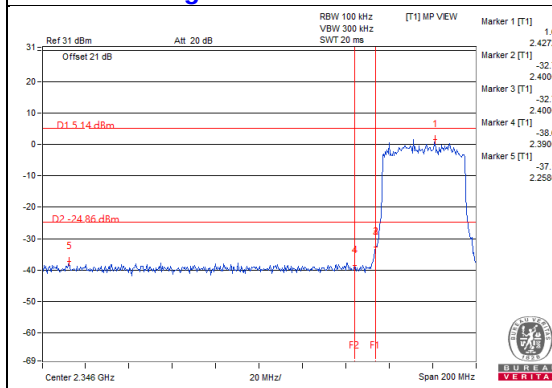
CH 6



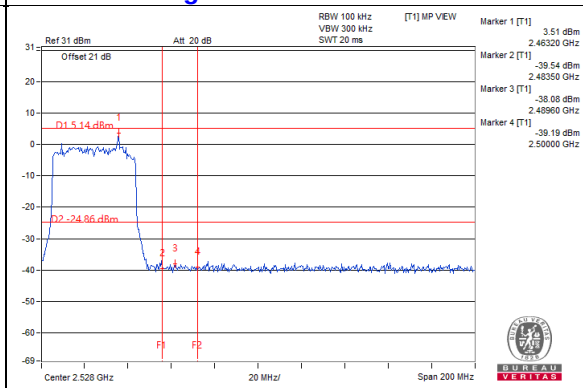
CH 9



CH 3 Band edge

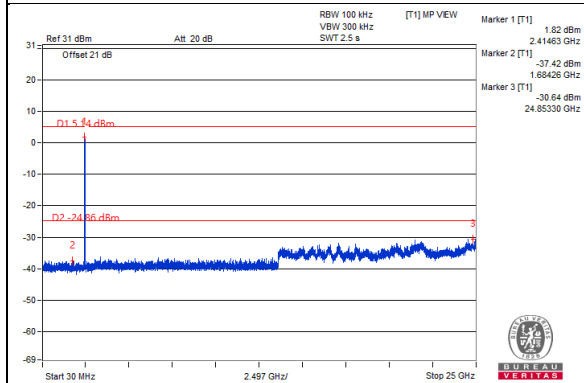


CH 9 Band edge

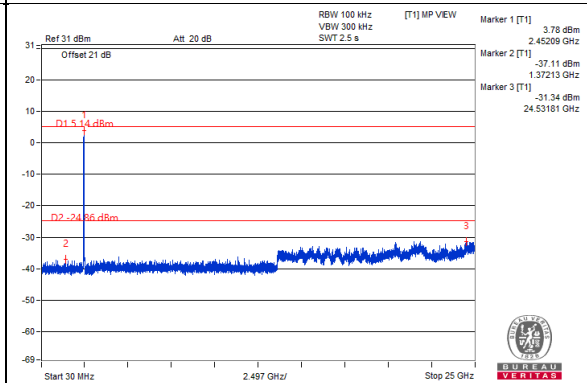


Chain 1

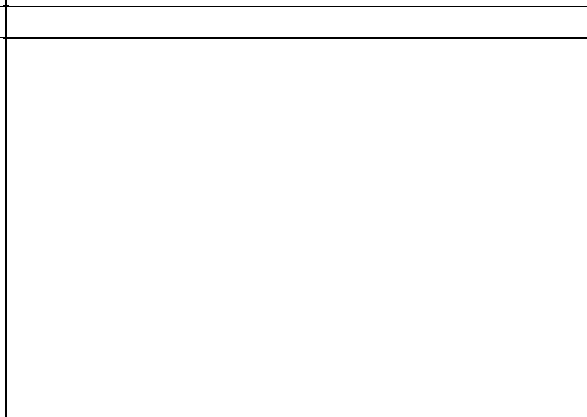
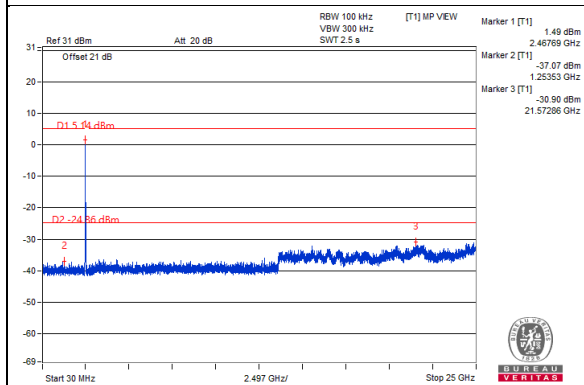
CH 3



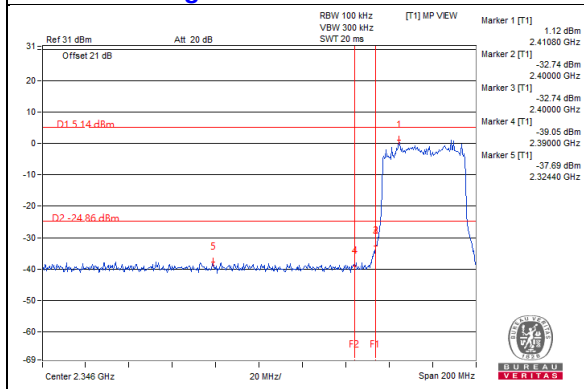
CH 6



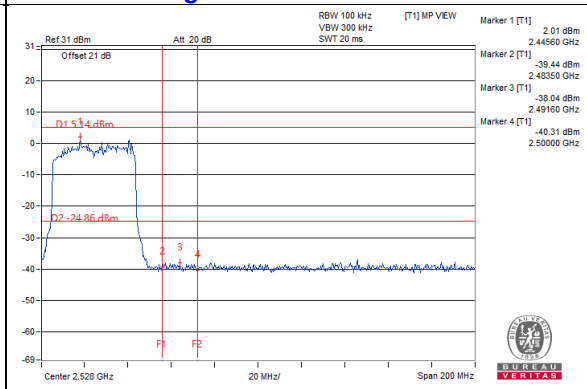
CH 9



CH 3 Band edge

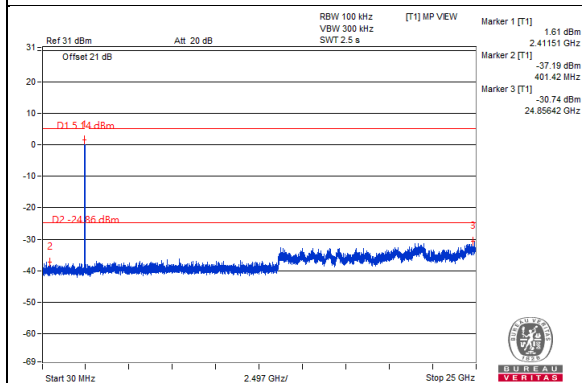


CH 9 Band edge

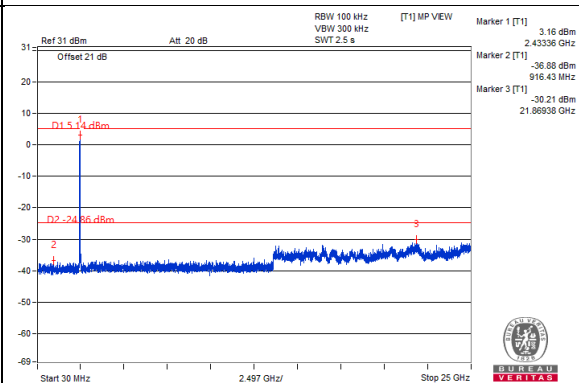


Chain 2

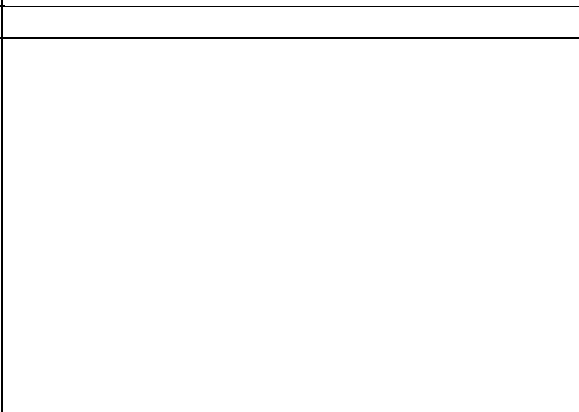
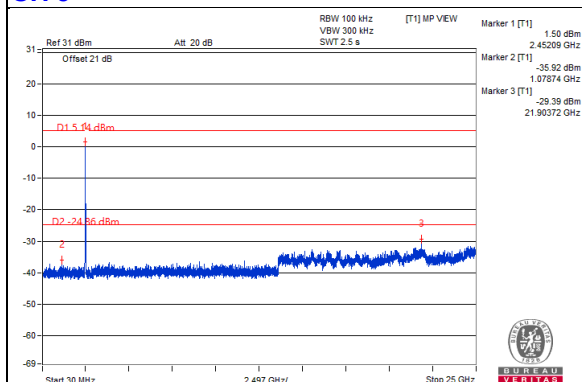
CH 3



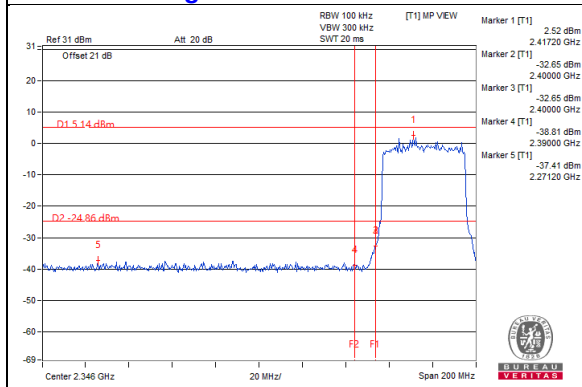
CH 6



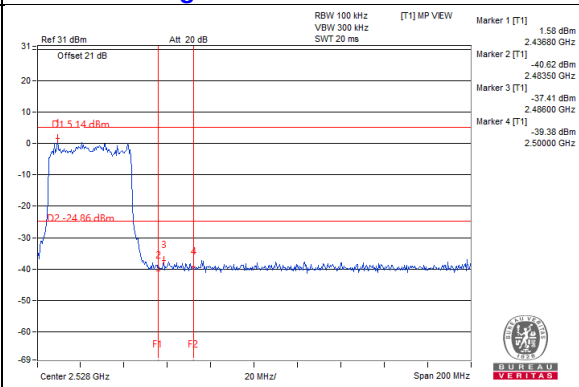
CH 9



CH 3 Band edge

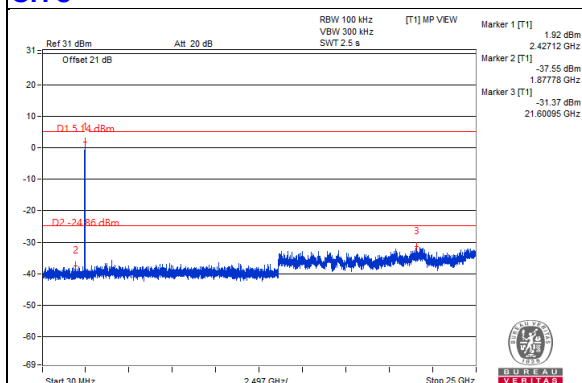


CH 9 Band edge

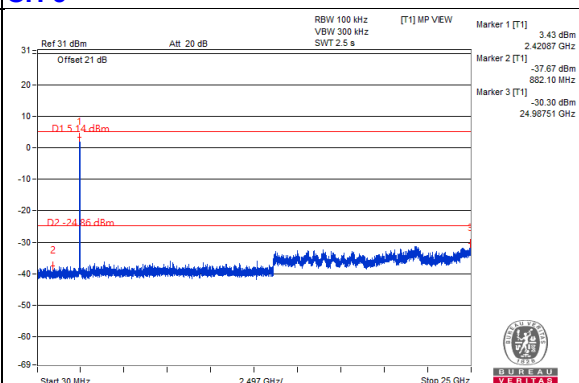


Chain 3

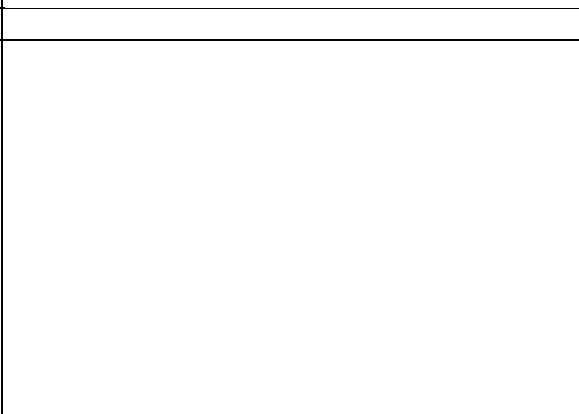
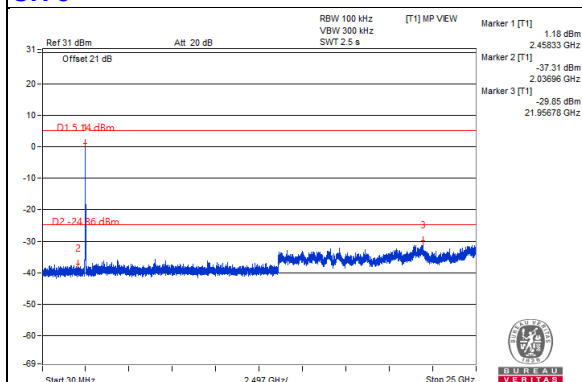
CH 3



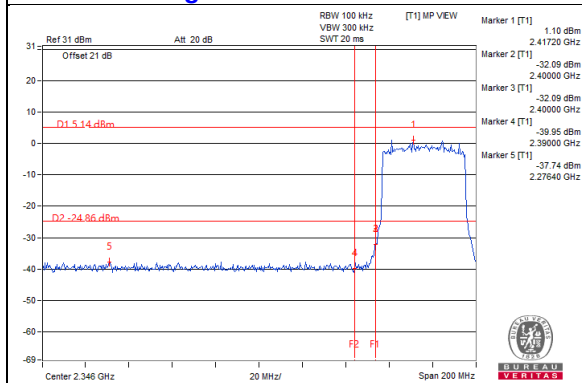
CH 6



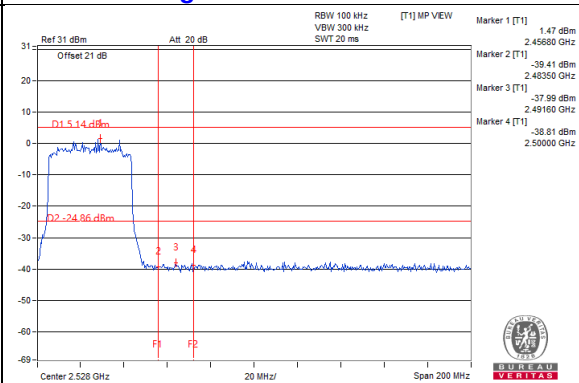
CH 9



CH 3 Band edge

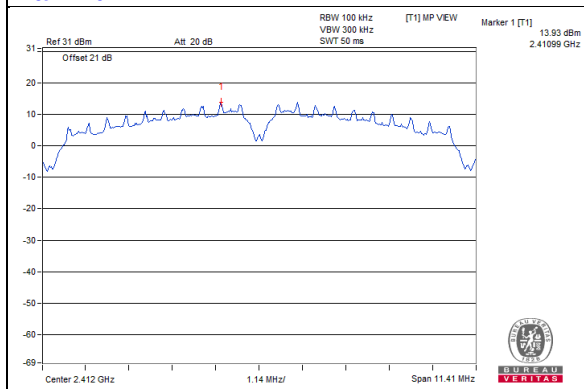


CH 9 Band edge



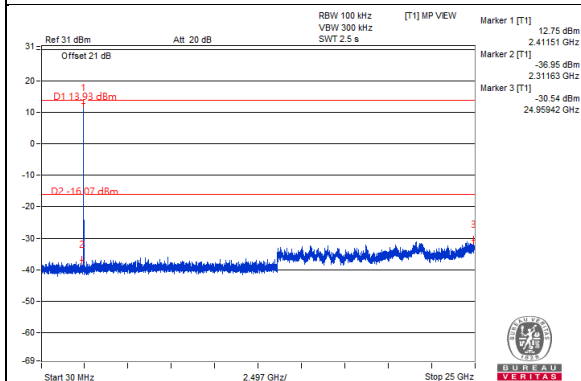
For Mode 3 802.11b

Maximum REF

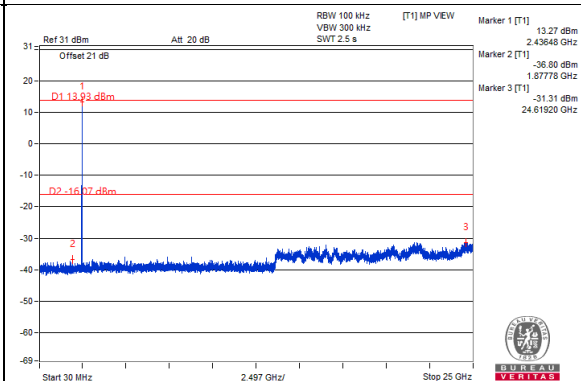


Chain 0

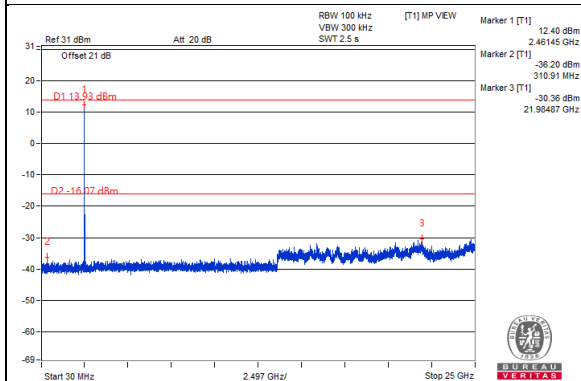
CH 1



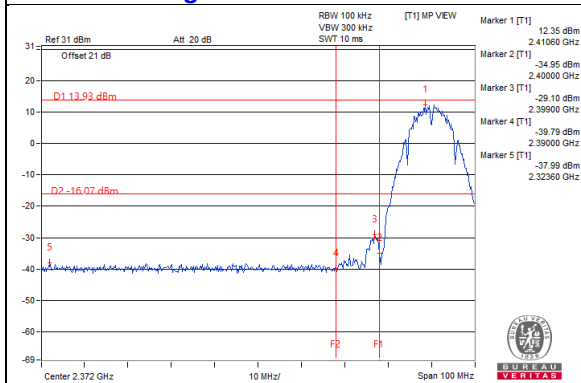
CH 6



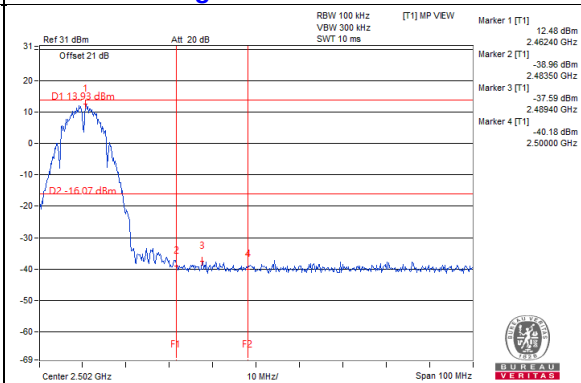
CH 11



CH 1 Band edge

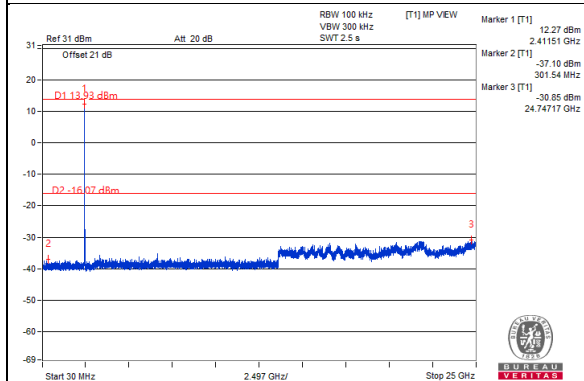


CH 11 Band edge

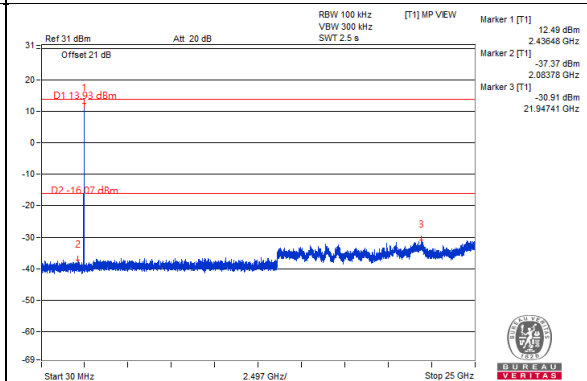


Chain 1

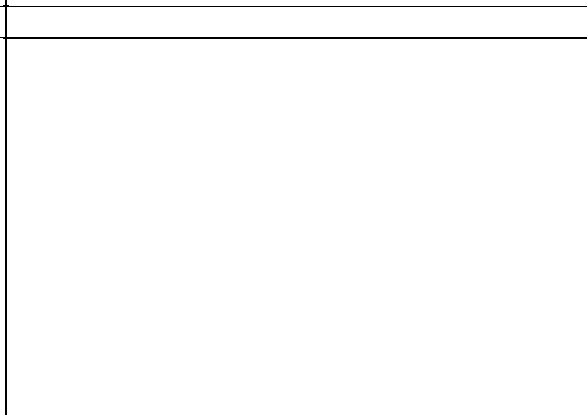
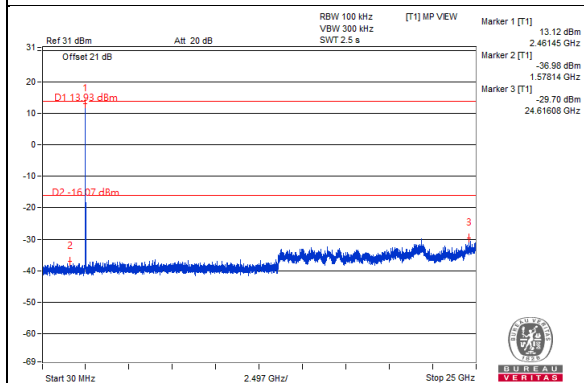
CH 1



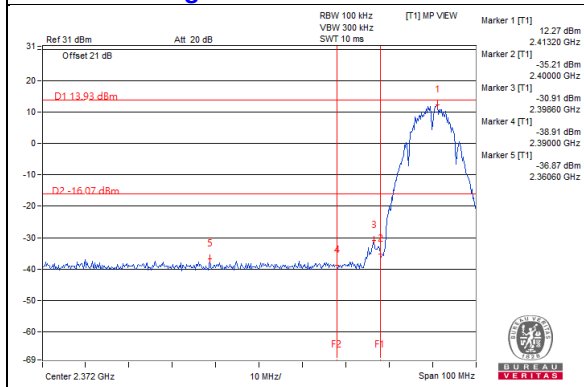
CH 6



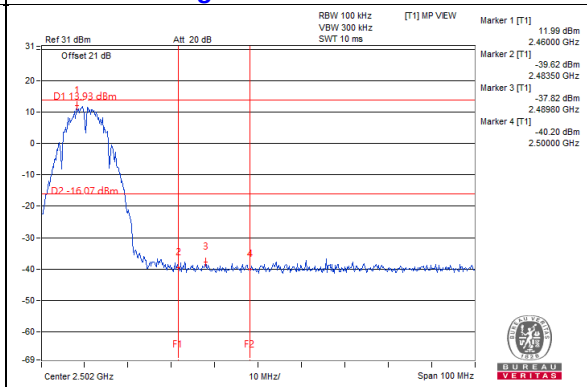
CH 11



CH 1 Band edge

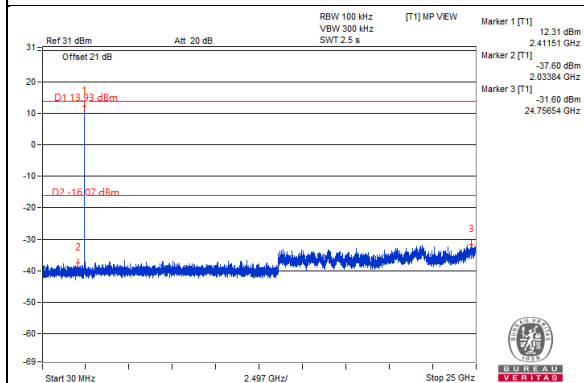


CH 11 Band edge

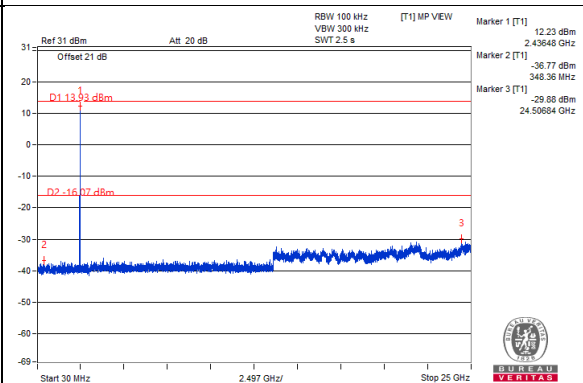


Chain 2

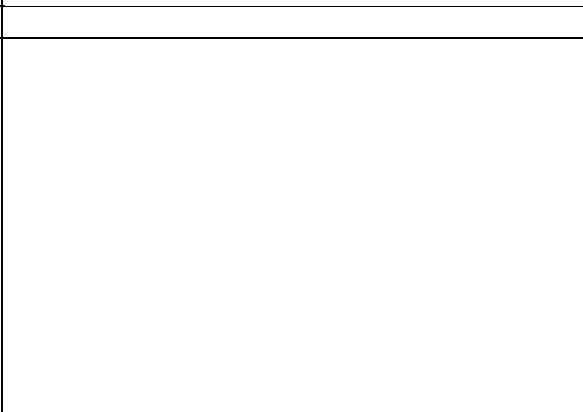
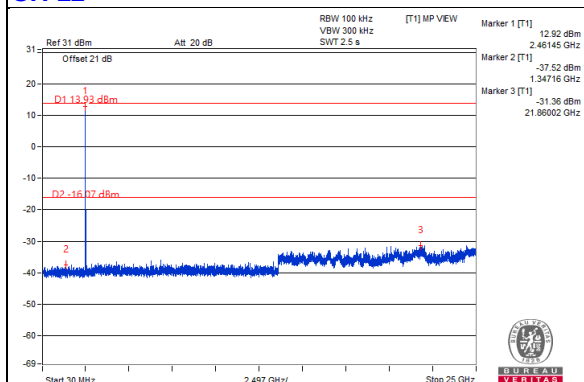
CH 1



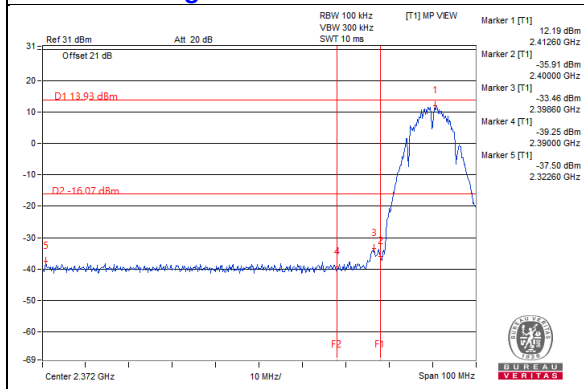
CH 6



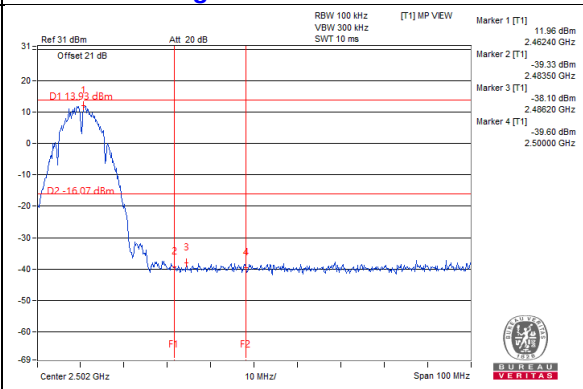
CH 11



CH 1 Band edge

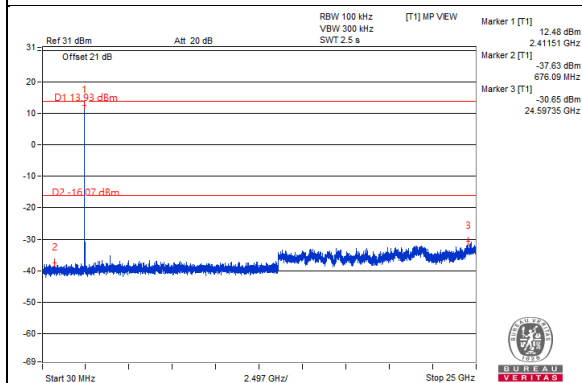


CH 11 Band edge

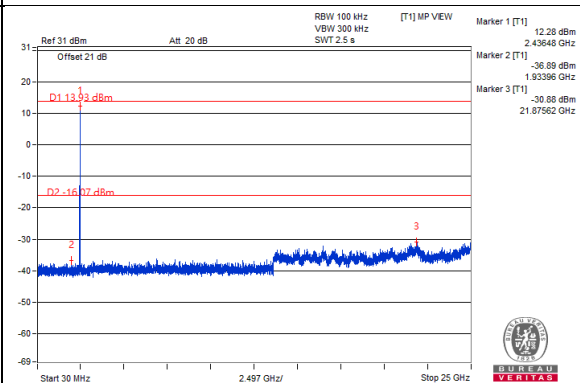


Chain 3

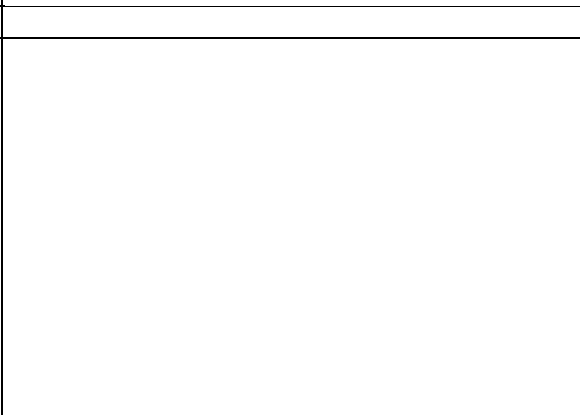
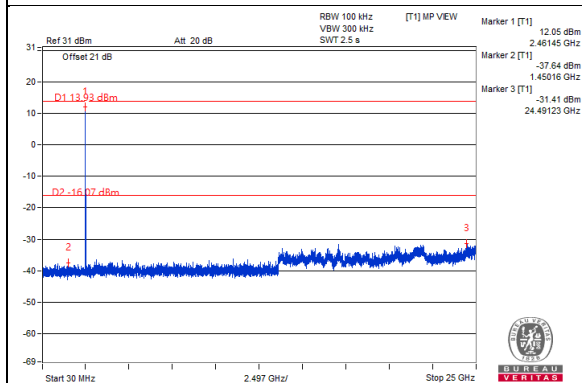
CH 1



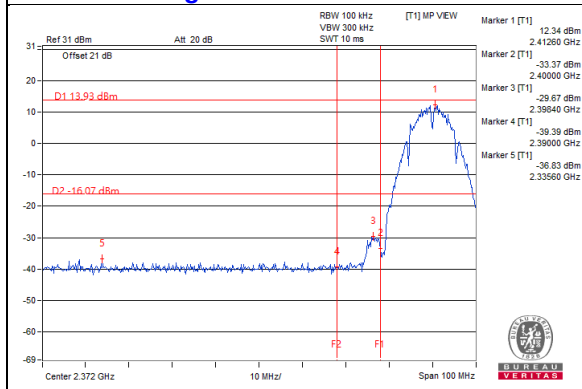
CH 6



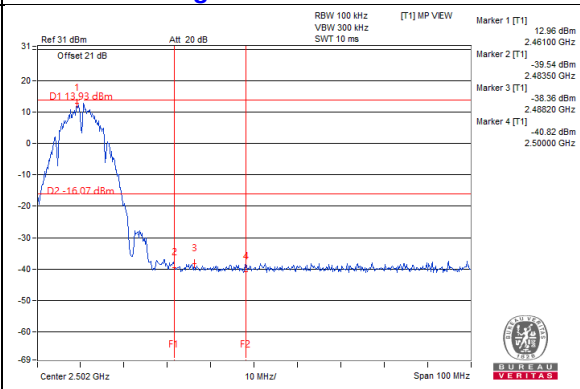
CH 11



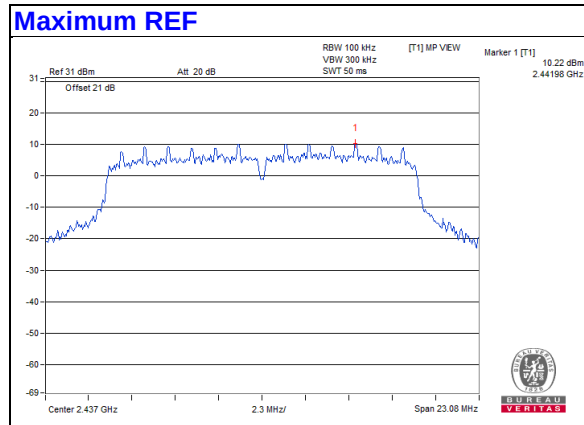
CH 1 Band edge



CH 11 Band edge

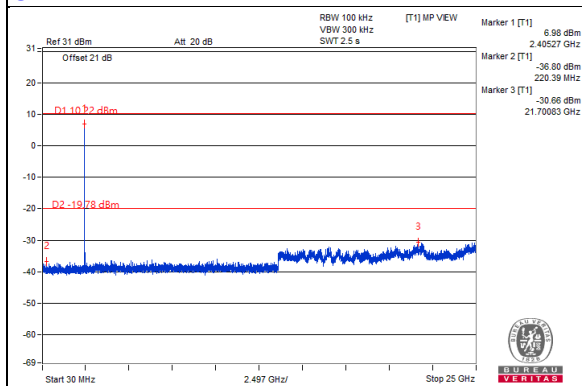


802.11g

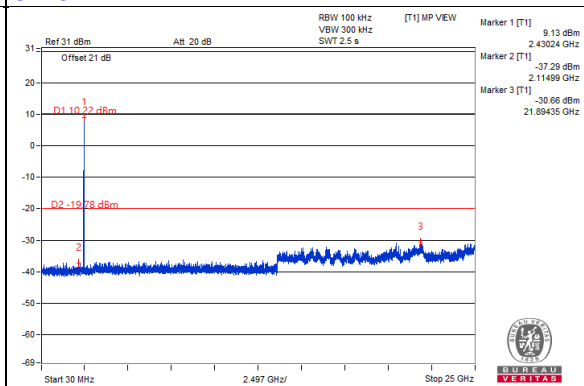


Chain 0

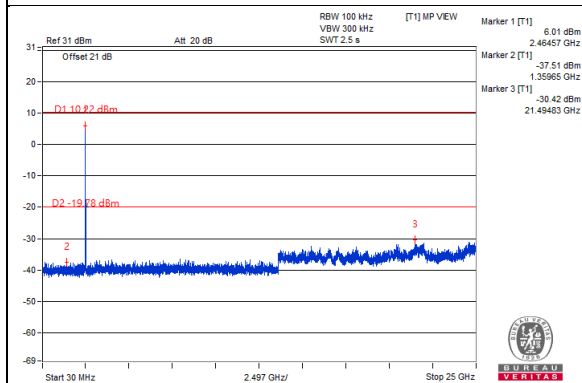
CH 1



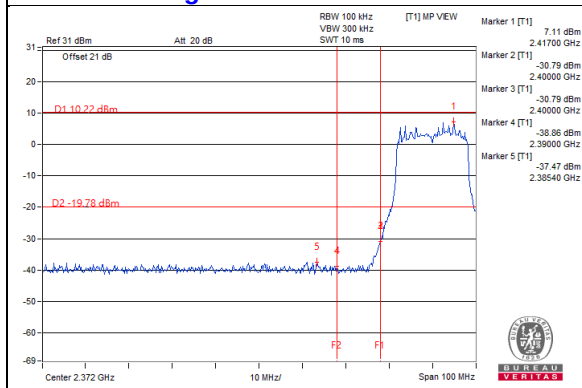
CH 6



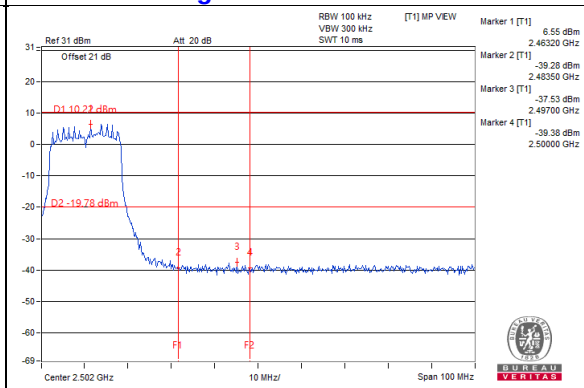
CH 11



CH 1 Band edge

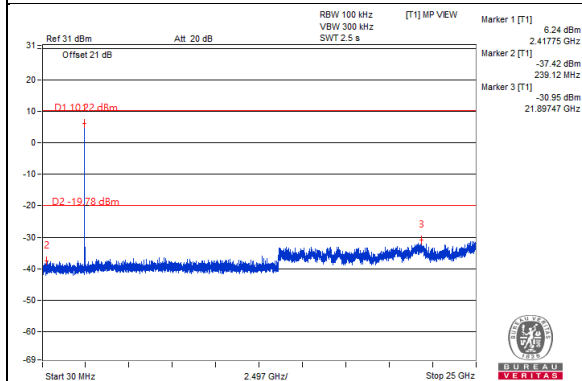


CH 11 Band edge

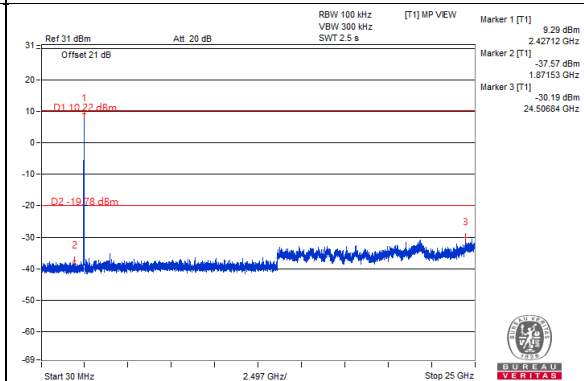


Chain 1

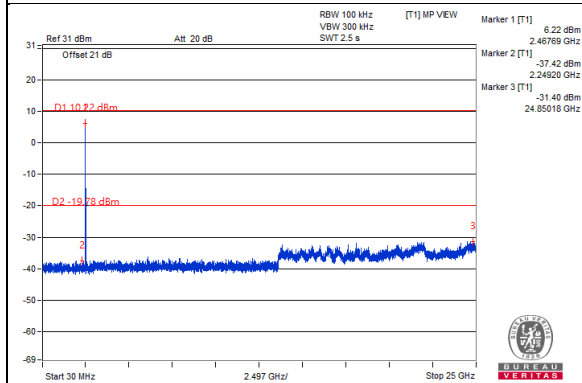
CH 1



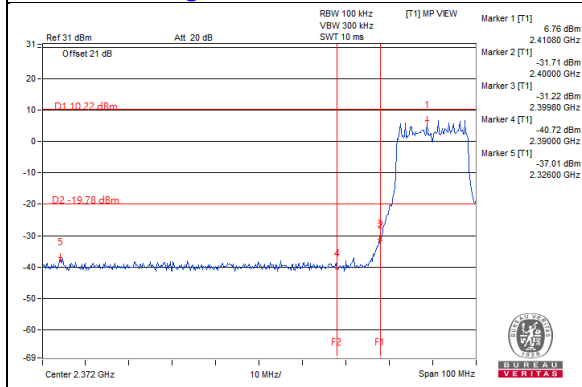
CH 6



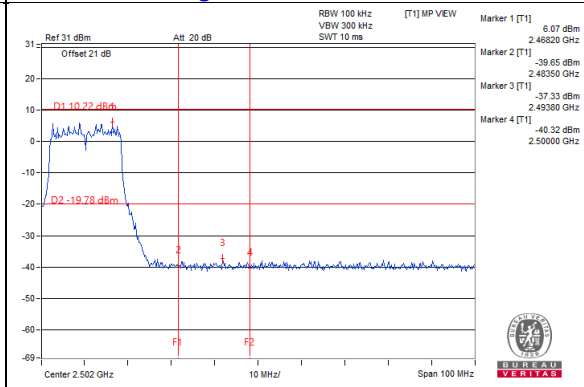
CH 11



CH 1 Band edge

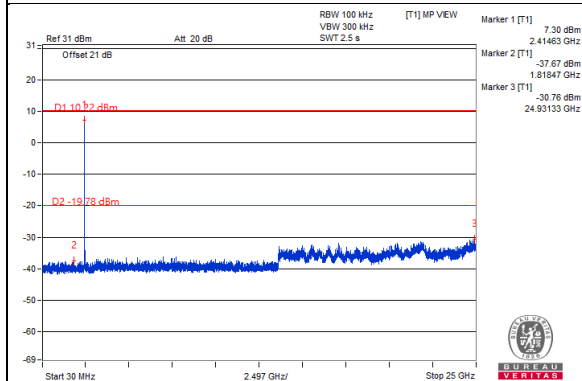


CH 11 Band edge

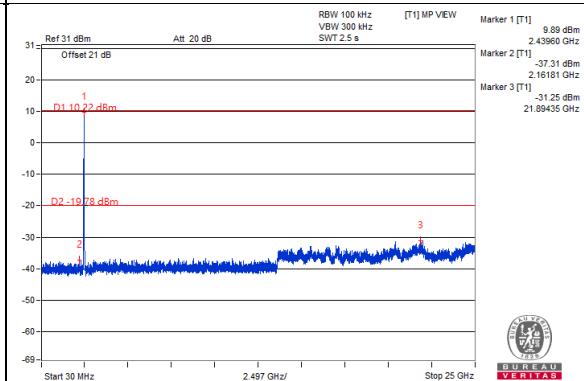


Chain 2

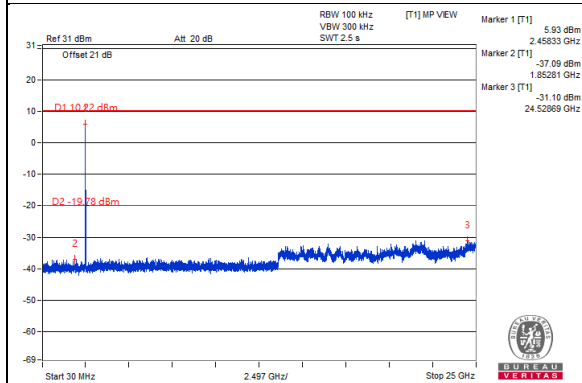
CH 1



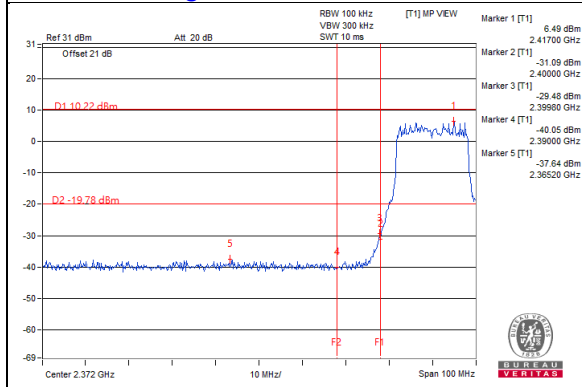
CH 6



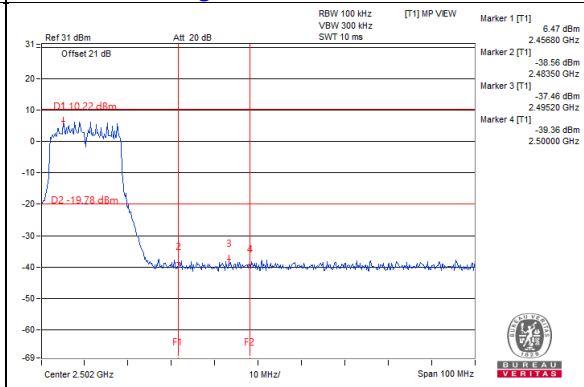
CH 11



CH 1 Band edge

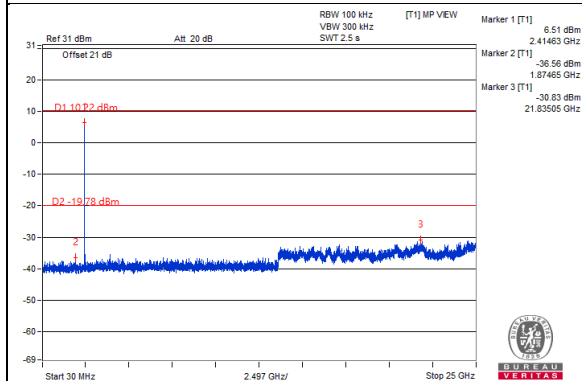


CH 11 Band edge

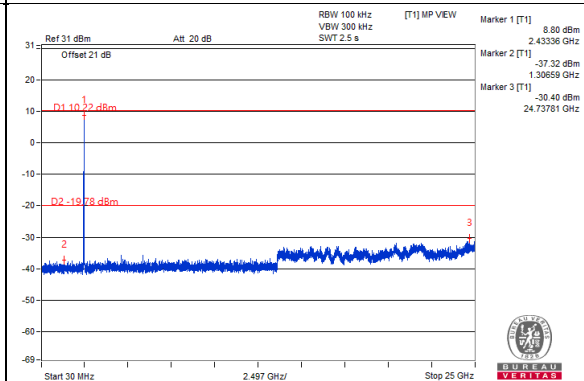


Chain 3

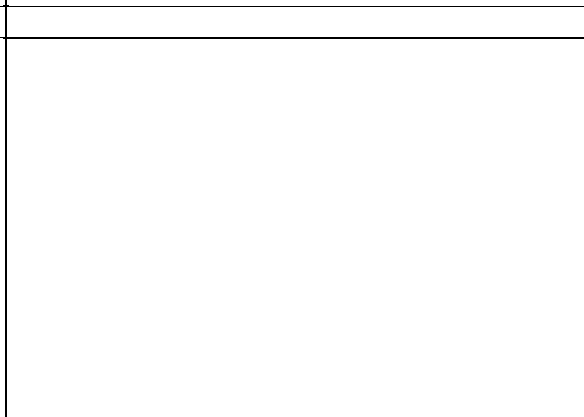
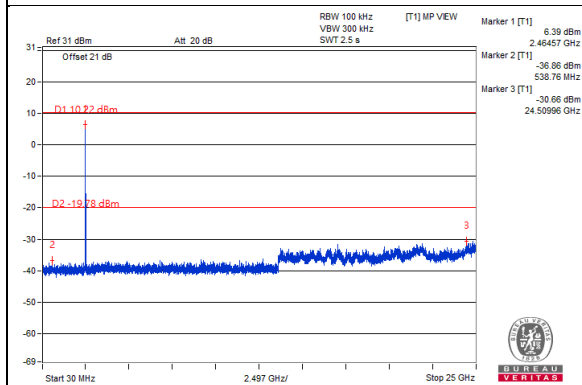
CH 1



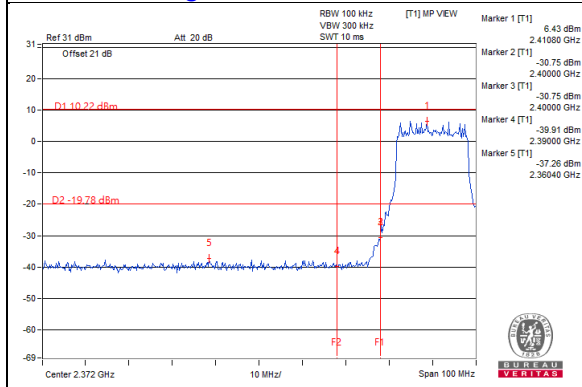
CH 6



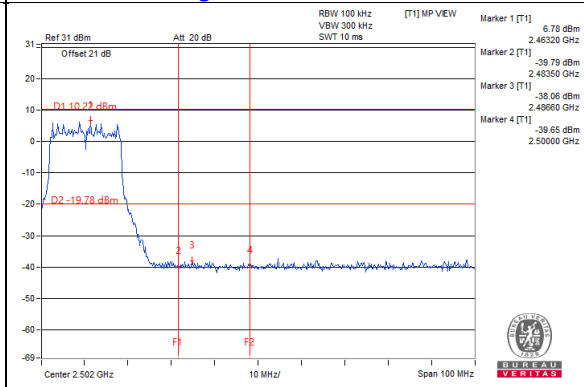
CH 11



CH 1 Band edge

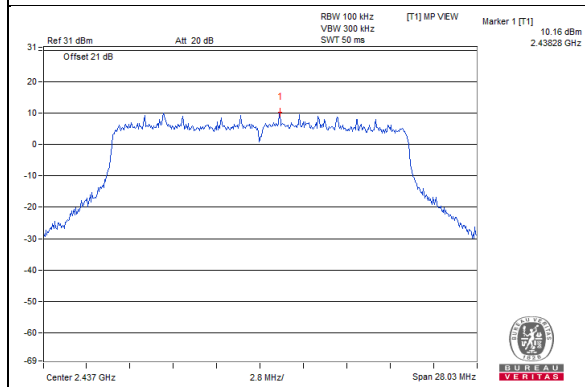


CH 11 Band edge



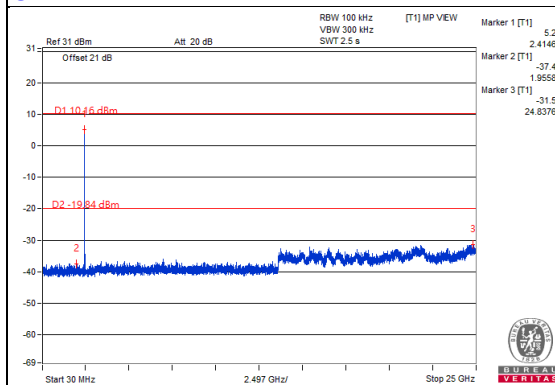
802.11ax (HE20)

Maximum REF

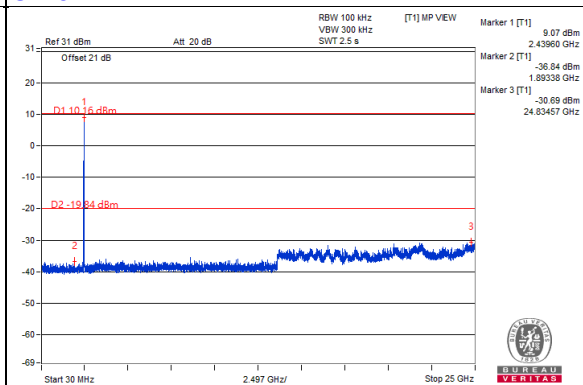


Chain 0

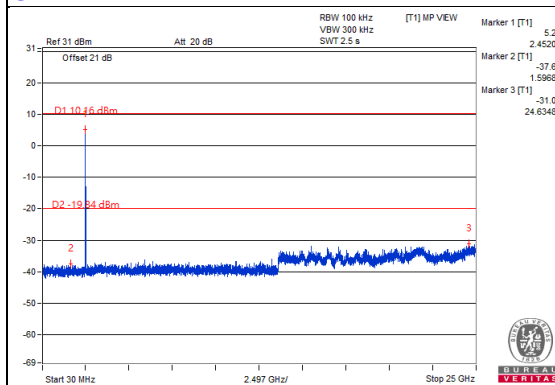
CH 1



CH 6



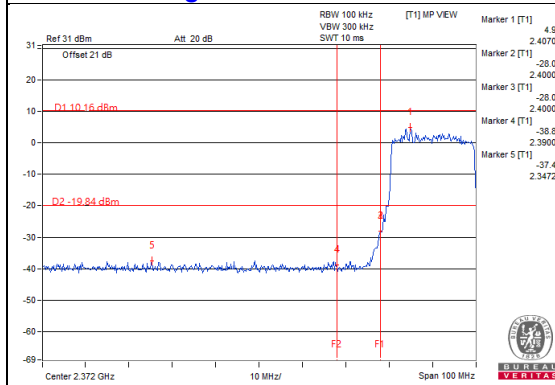
CH 11



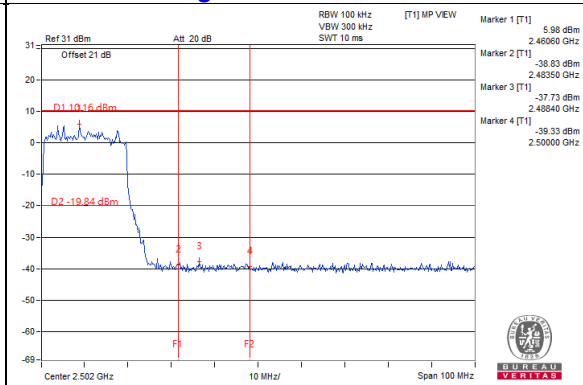
CH 11



CH 1 Band edge

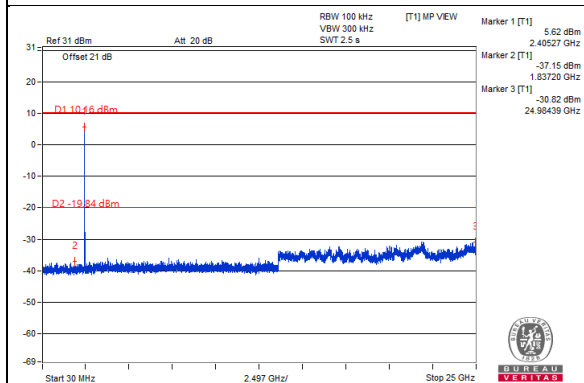


CH 11 Band edge

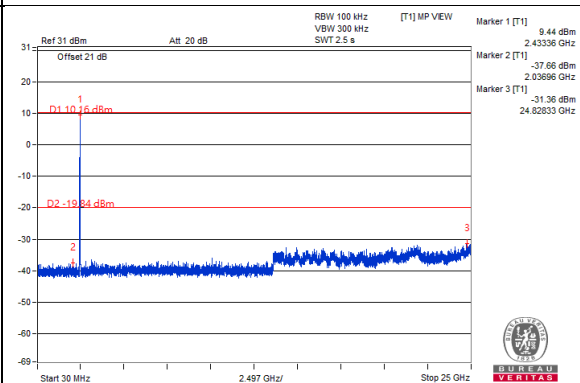


Chain 1

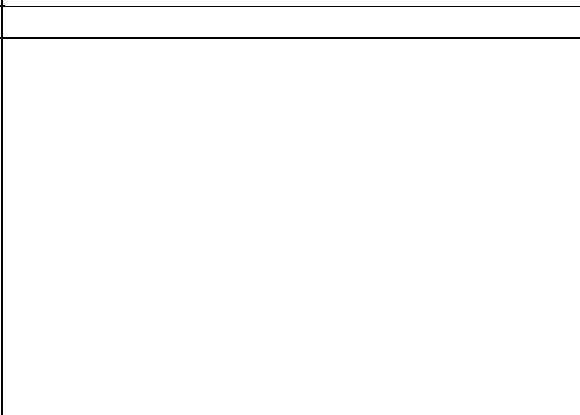
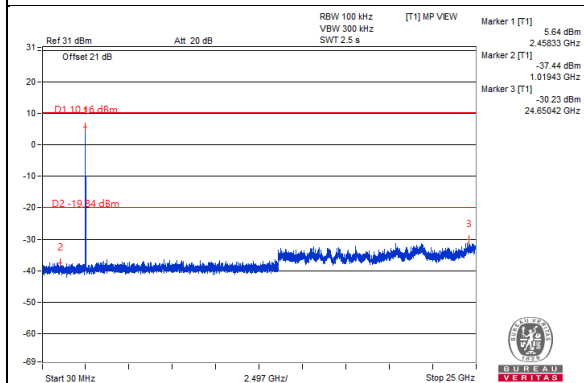
CH 1



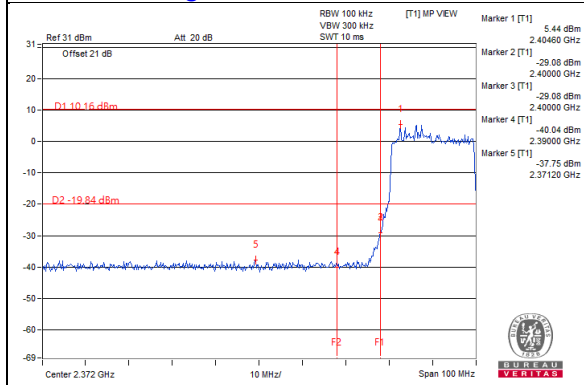
CH 6



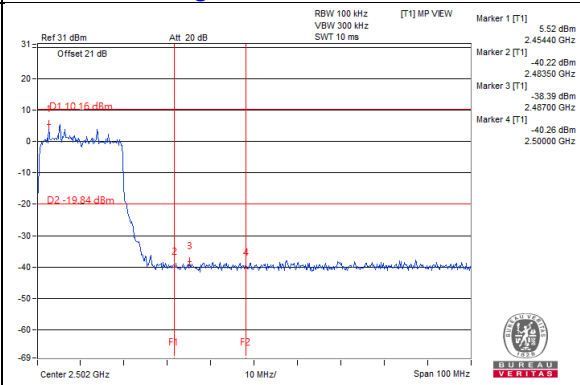
CH 11



CH 1 Band edge

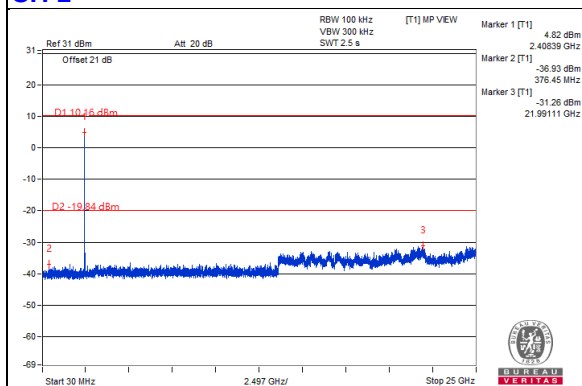


CH 11 Band edge

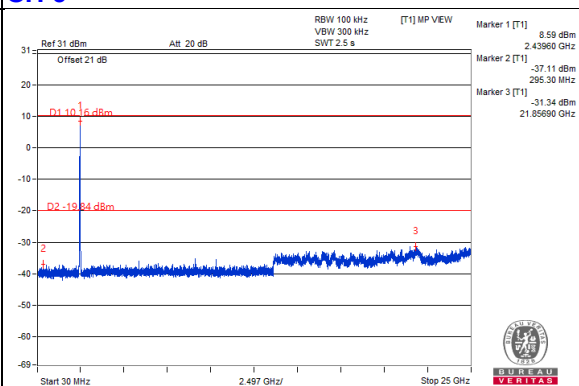


Chain 2

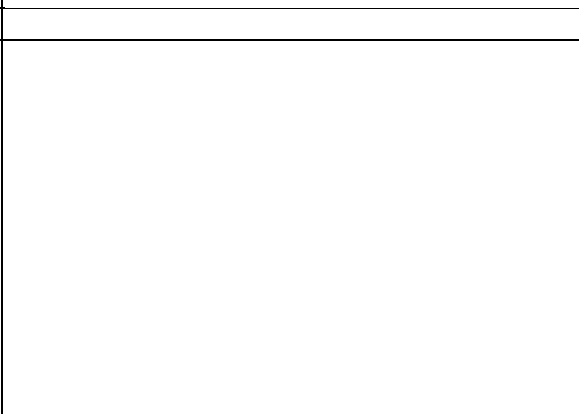
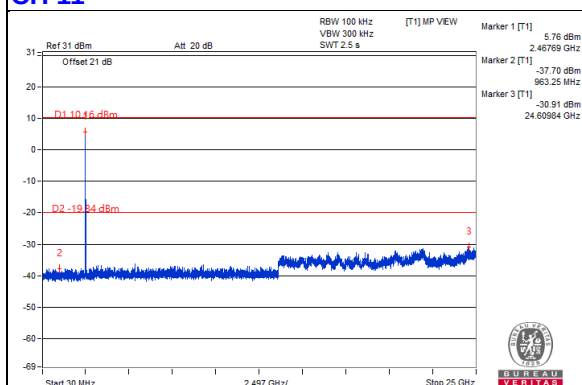
CH 1



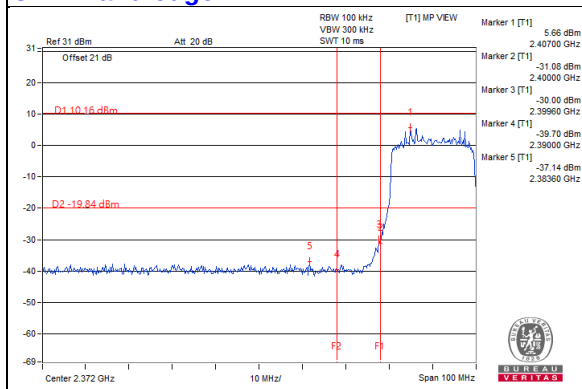
CH 6



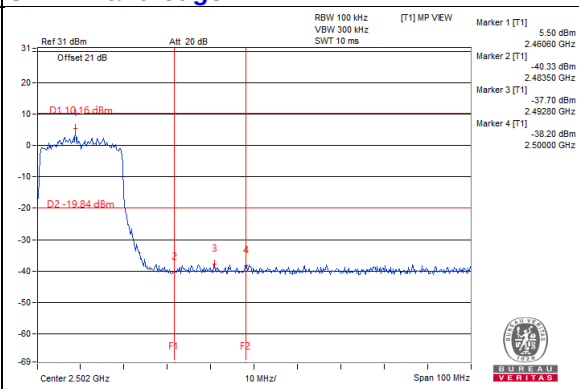
CH 11



CH 1 Band edge

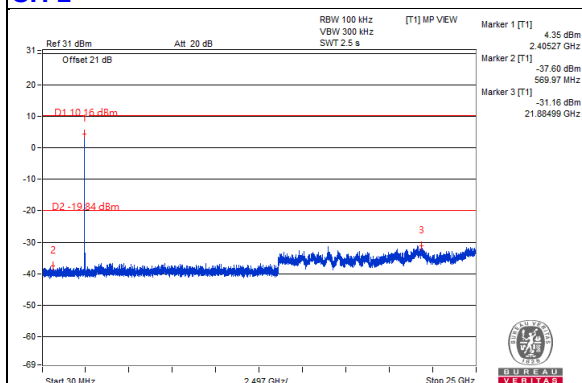


CH 11 Band edge

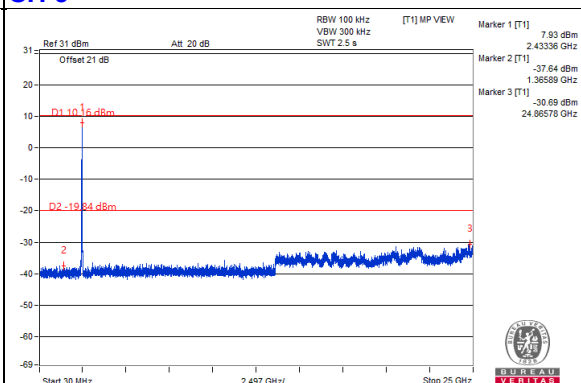


Chain 3

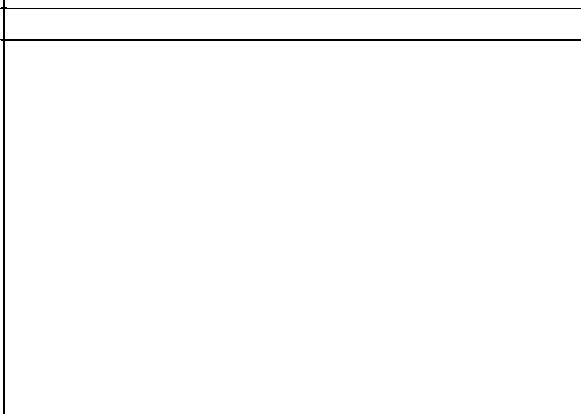
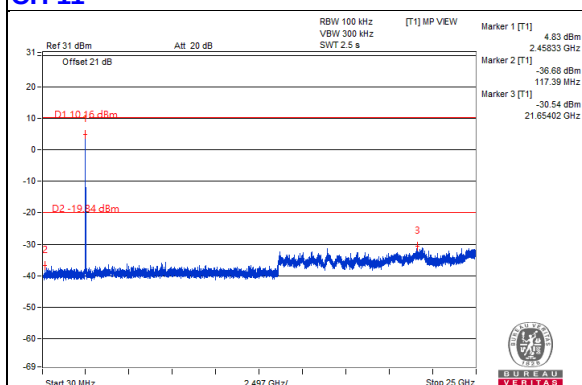
CH 1



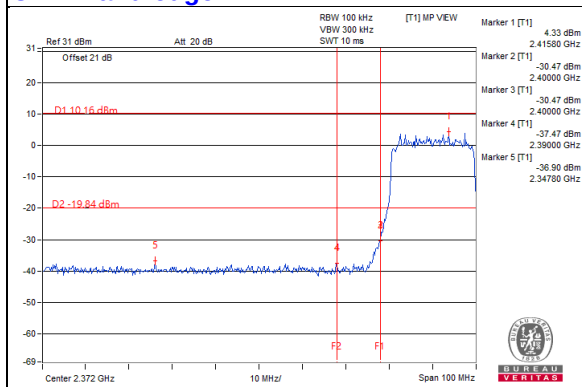
CH 6



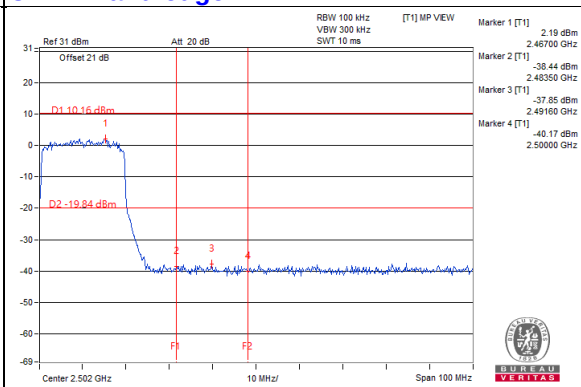
CH 11



CH 1 Band edge

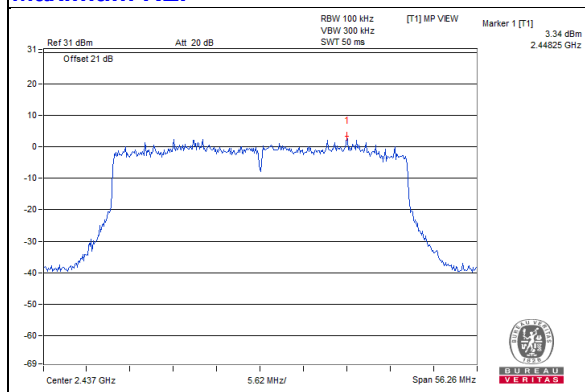


CH 11 Band edge



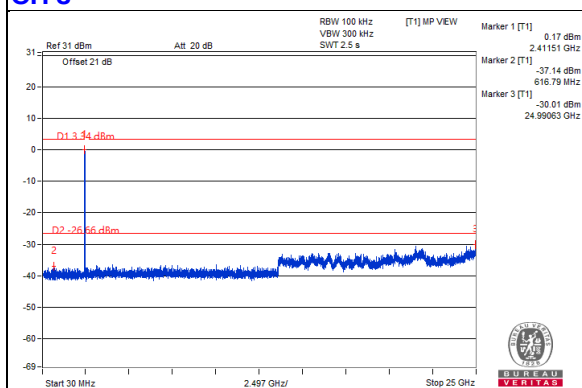
802.11ax (HE40)

Maximum REF

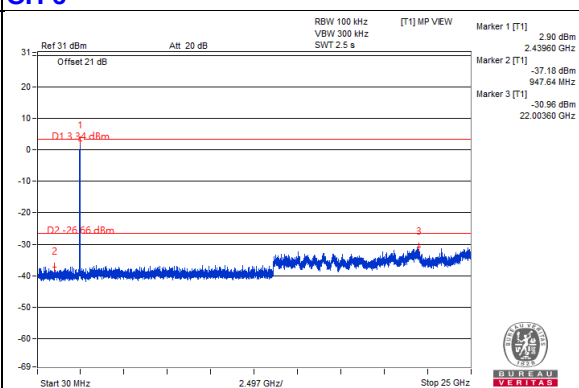


Chain 0

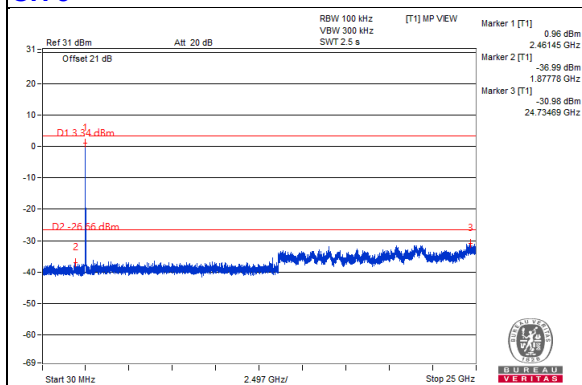
CH 3



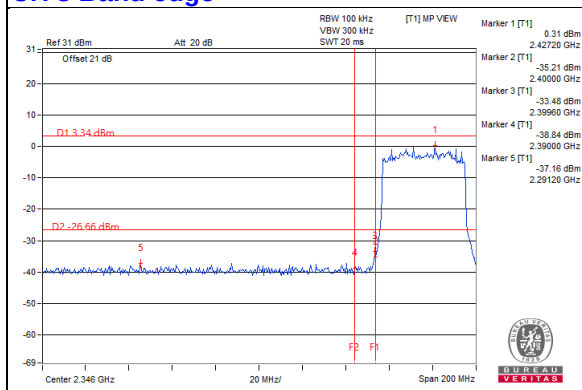
CH 6



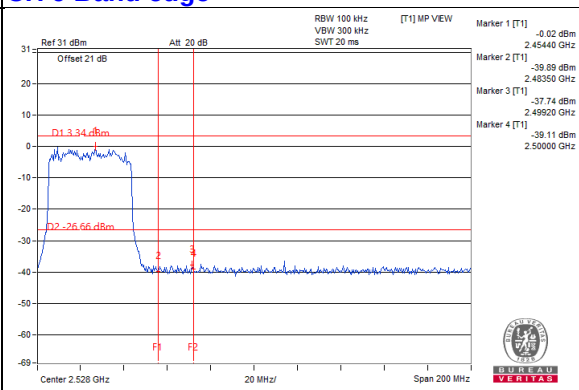
CH 9



CH 3 Band edge

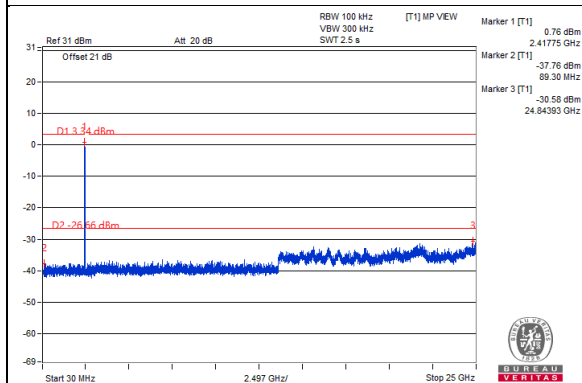


CH 9 Band edge

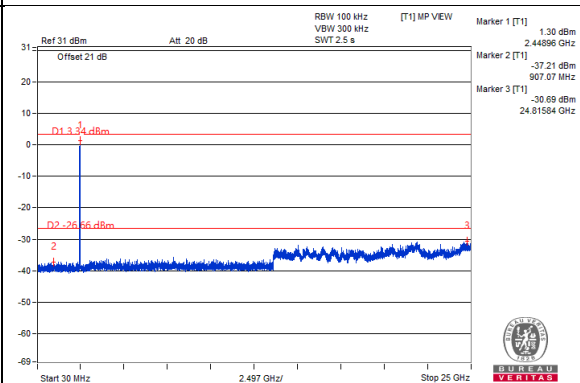


Chain 1

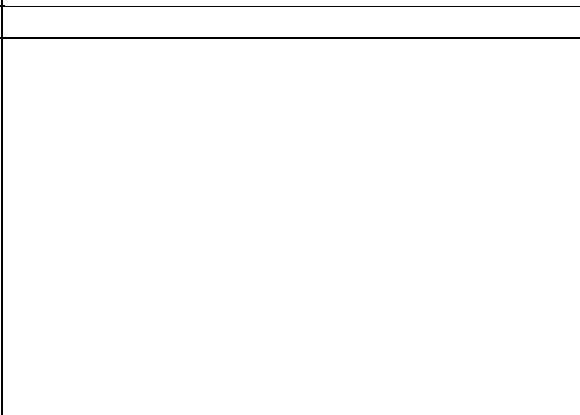
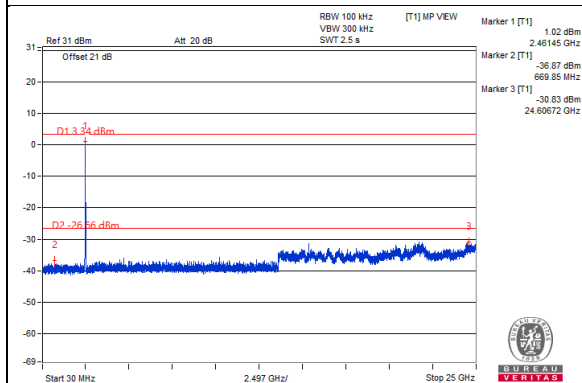
CH 3



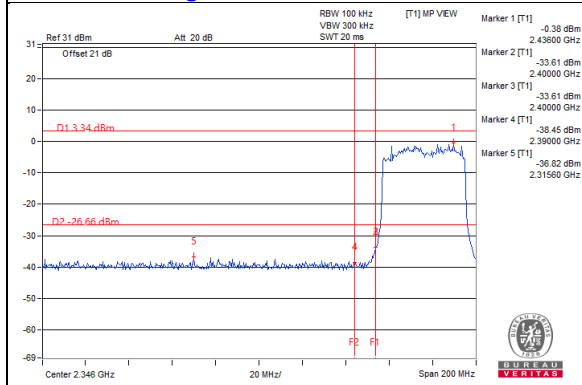
CH 6



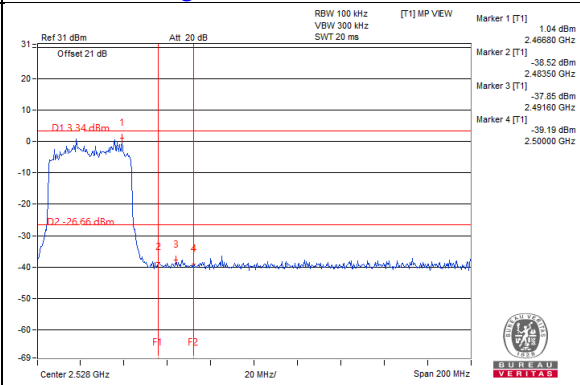
CH 9



CH 3 Band edge

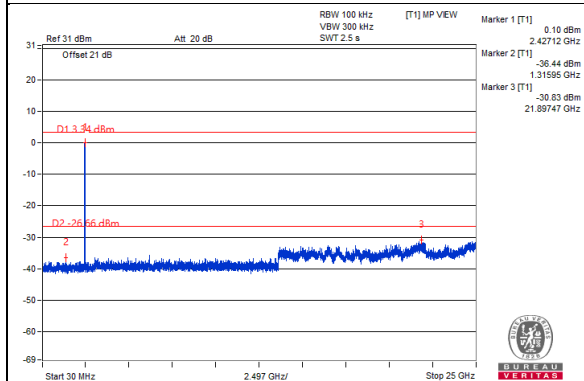


CH 9 Band edge

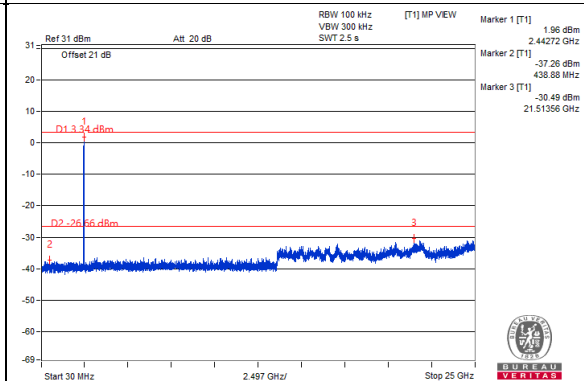


Chain 2

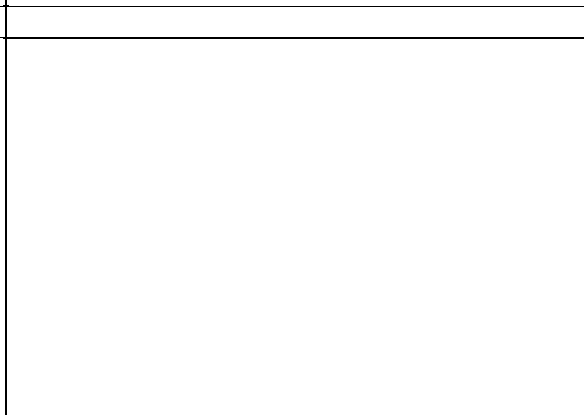
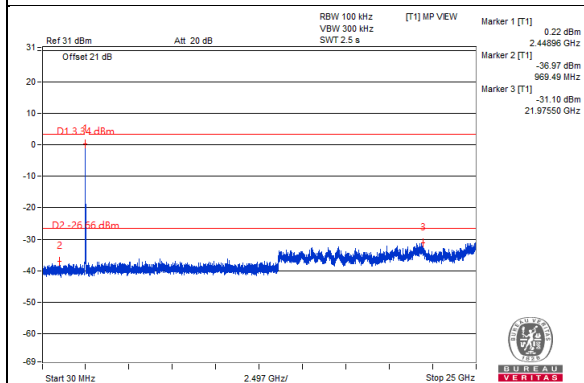
CH 3



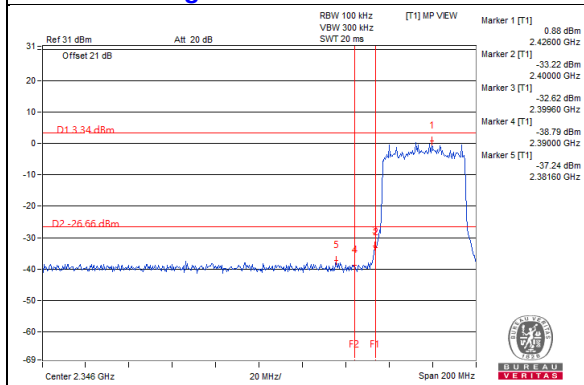
CH 6



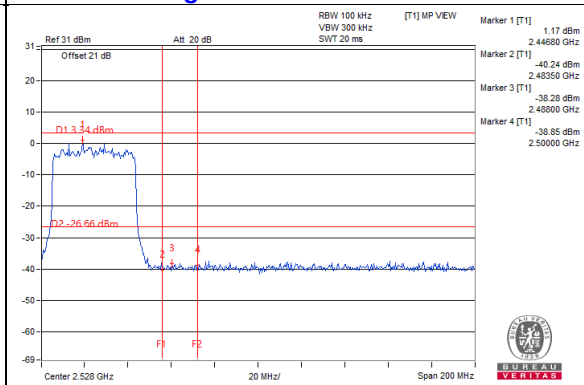
CH 9



CH 3 Band edge

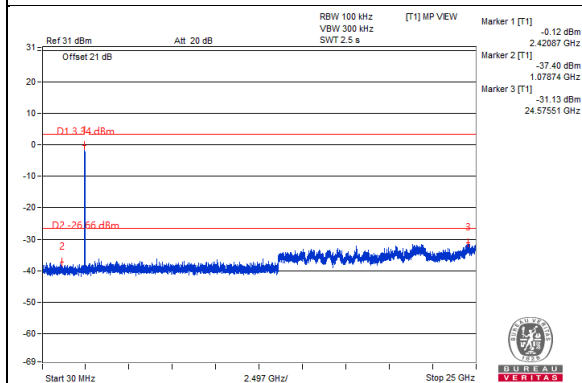


CH 9 Band edge

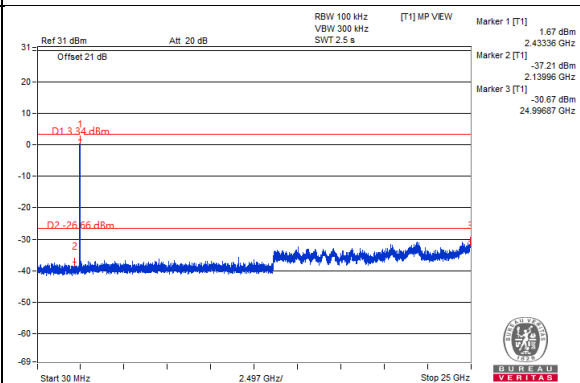


Chain 3

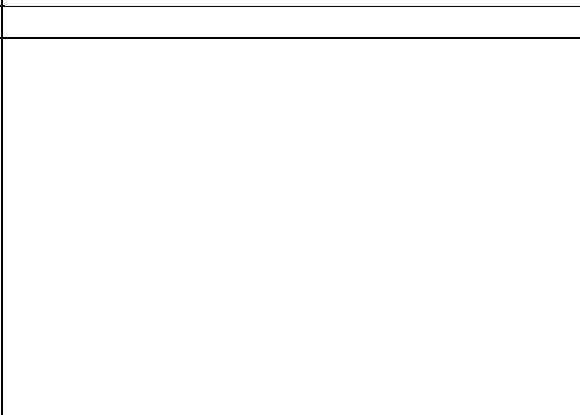
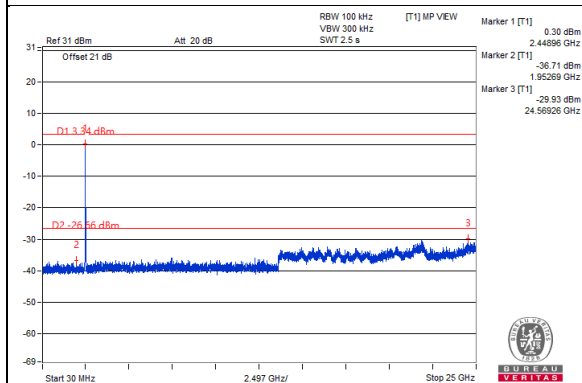
CH 3



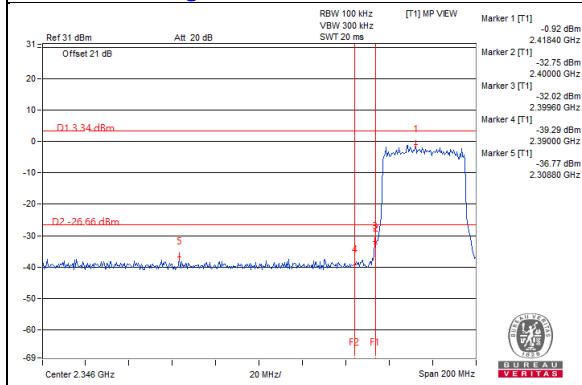
CH 6



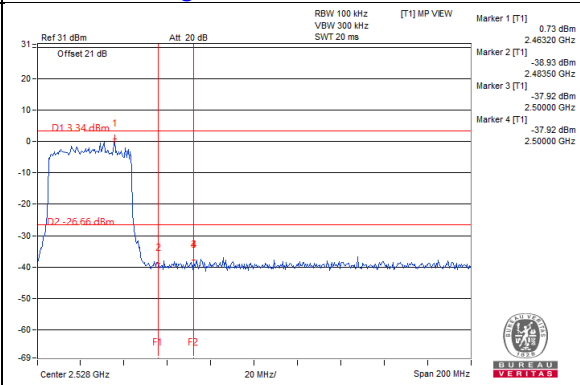
CH 9



CH 3 Band edge

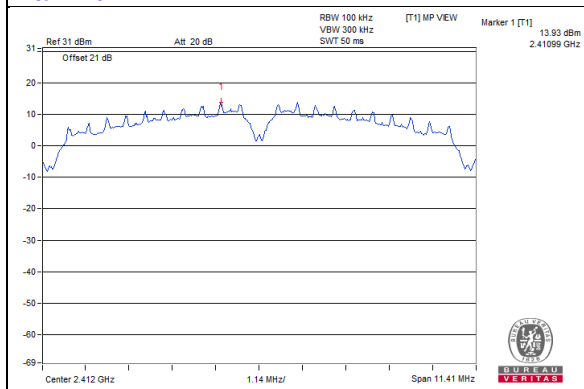


CH 9 Band edge



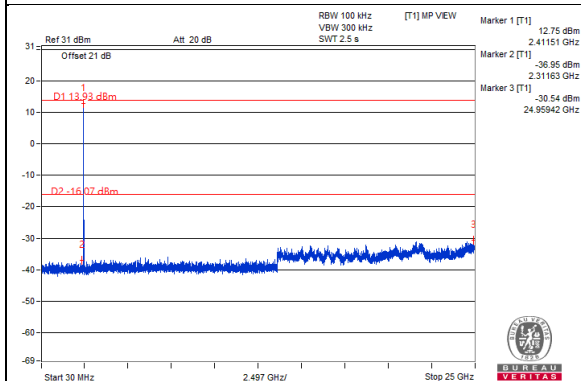
For Mode 4 802.11b

Maximum REF

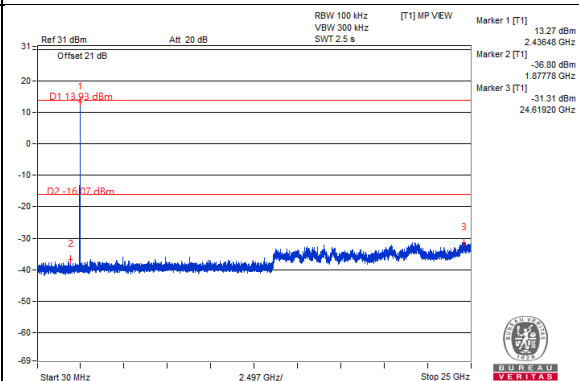


Chain 0

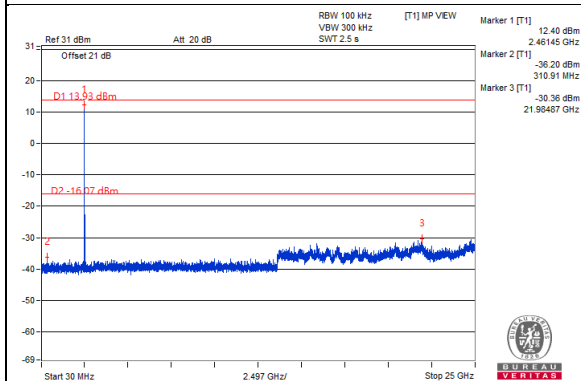
CH 1



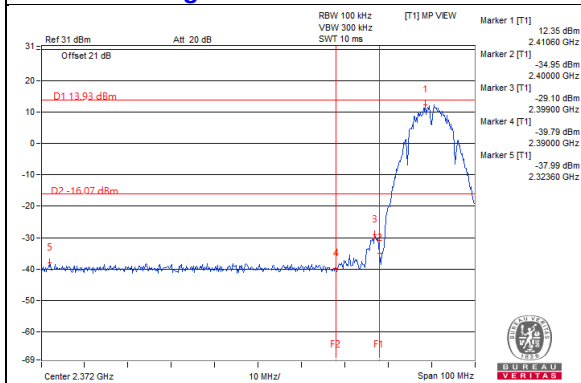
CH 6



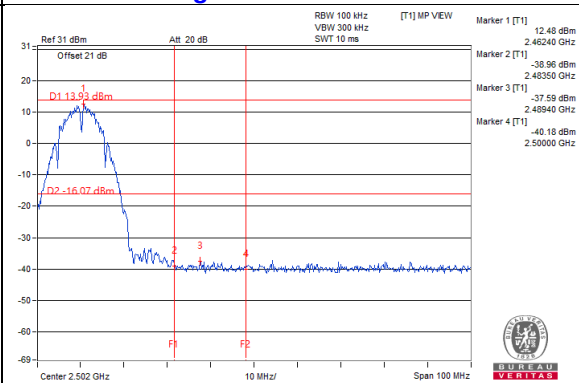
CH 11



CH 1 Band edge

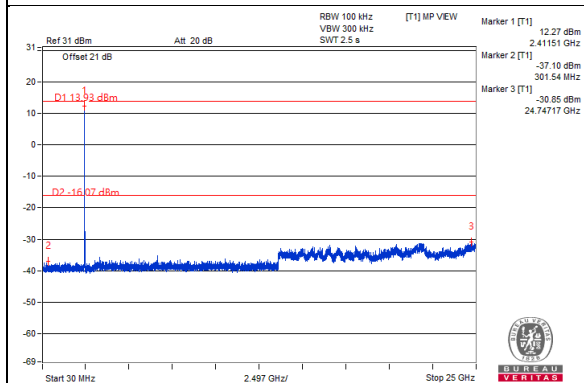


CH 11 Band edge

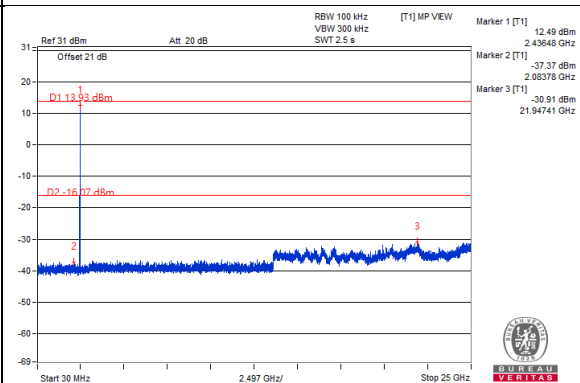


Chain 1

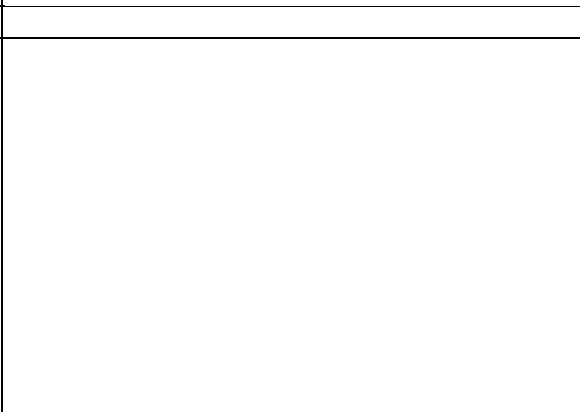
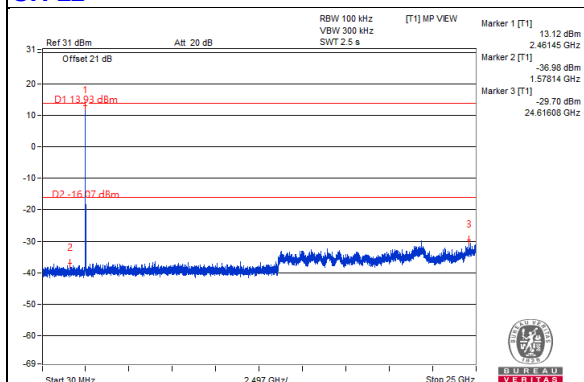
CH 1



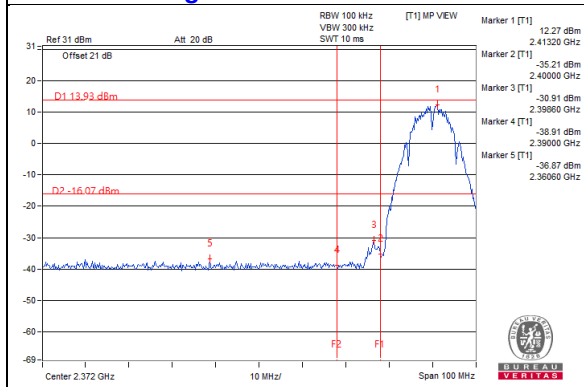
CH 6



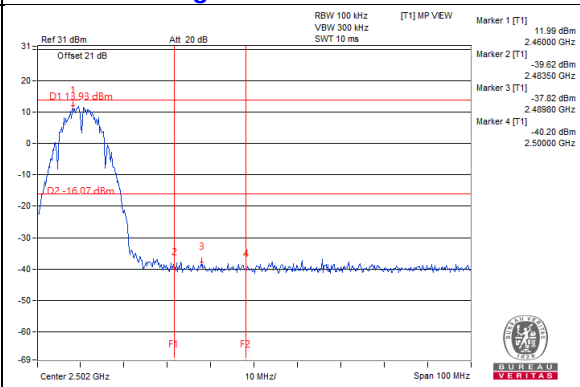
CH 11



CH 1 Band edge

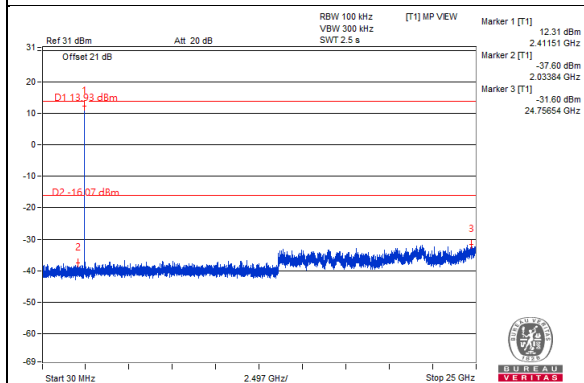


CH 11 Band edge

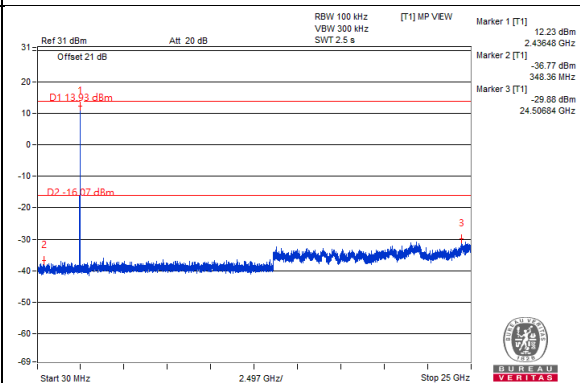


Chain 2

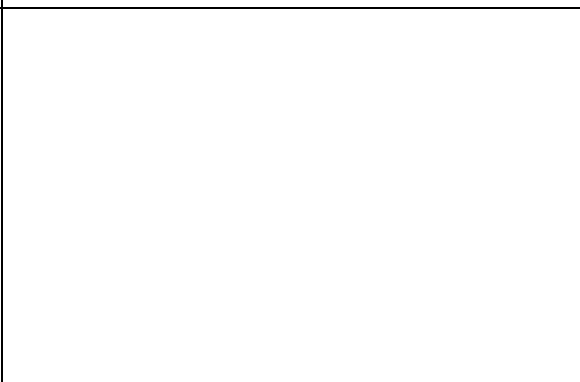
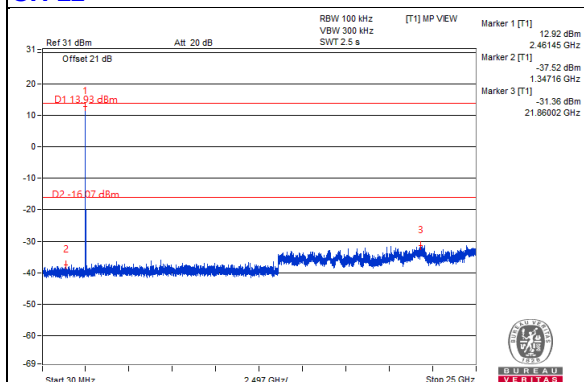
CH 1



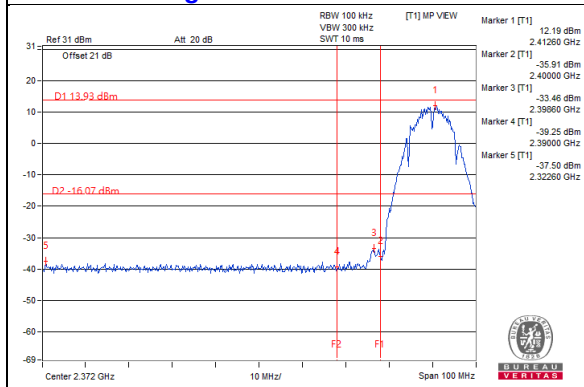
CH 6



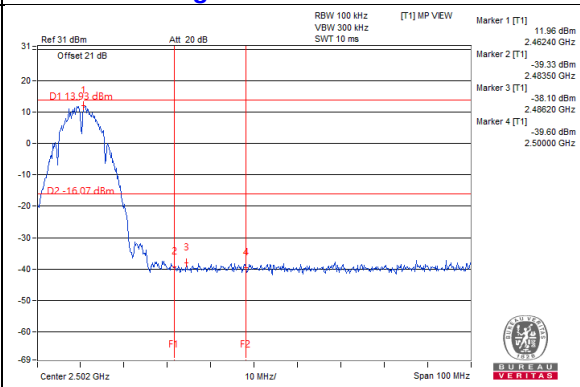
CH 11



CH 1 Band edge

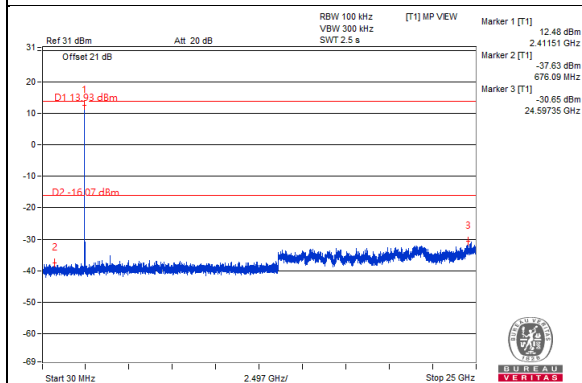


CH 11 Band edge

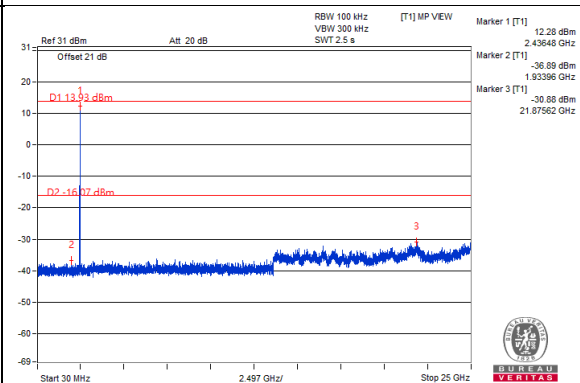


Chain 3

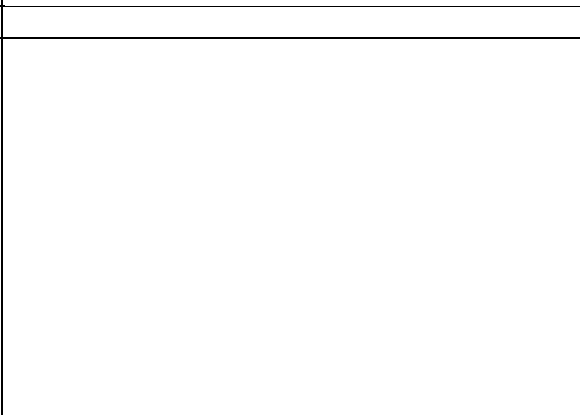
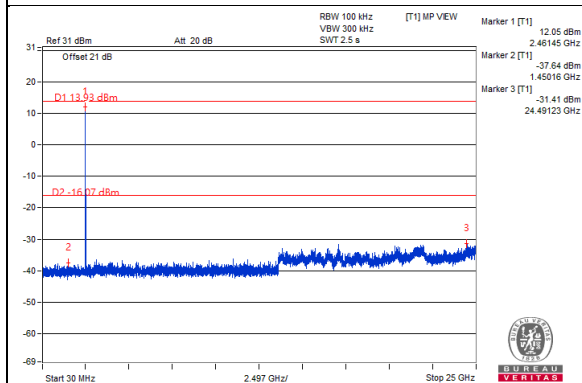
CH 1



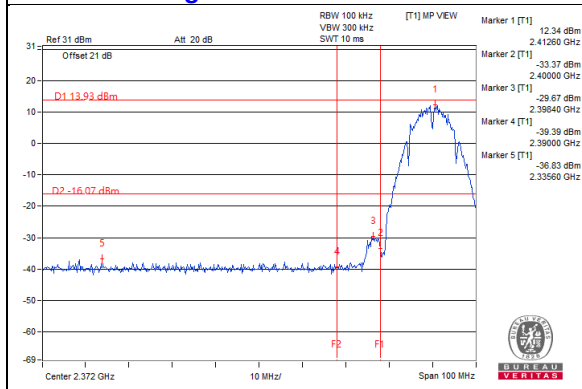
CH 6



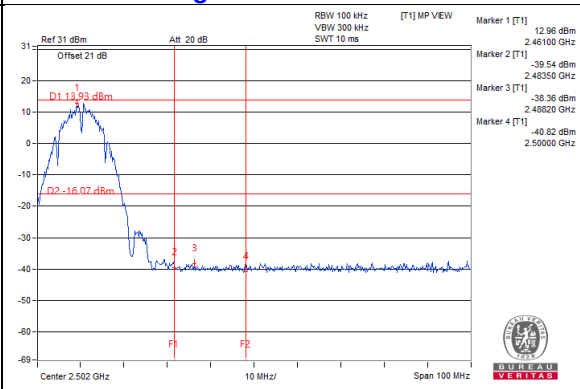
CH 11



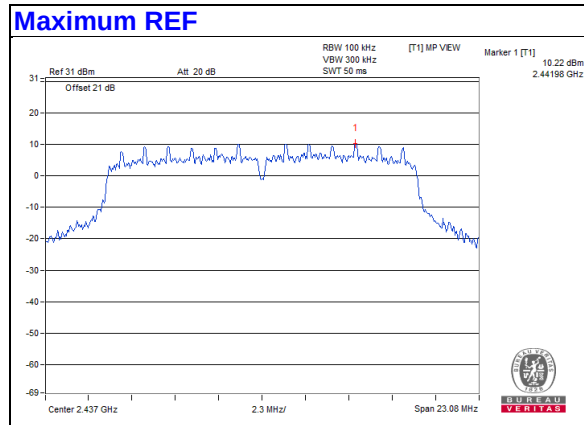
CH 1 Band edge



CH 11 Band edge

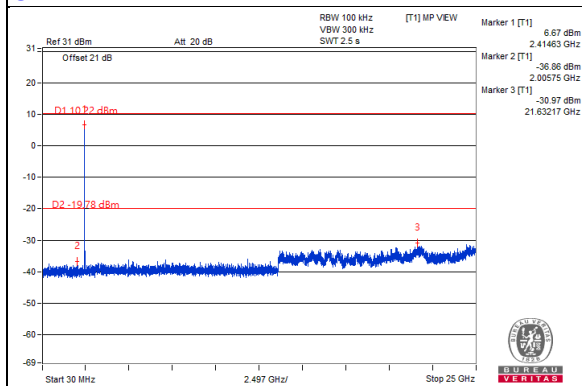


802.11g

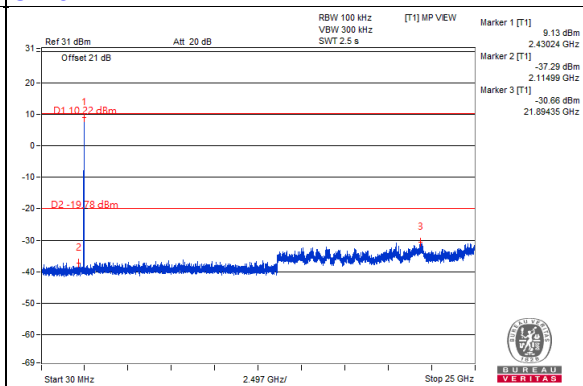


Chain 0

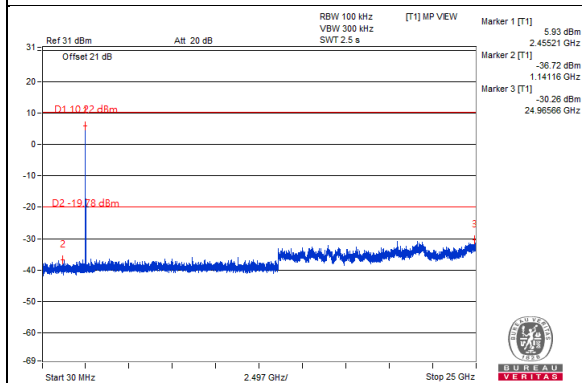
CH 1



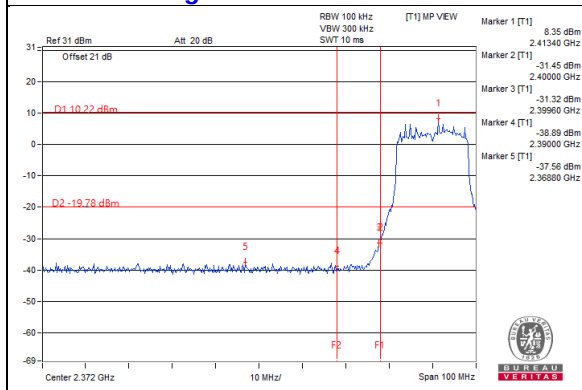
CH 6



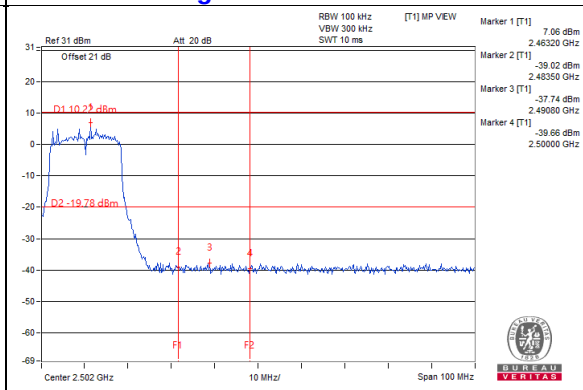
CH 11



CH 1 Band edge

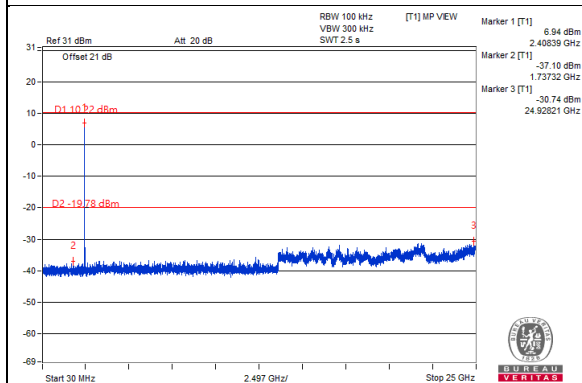


CH 11 Band edge

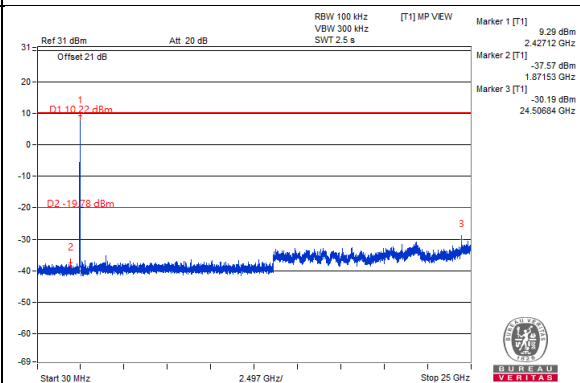


Chain 1

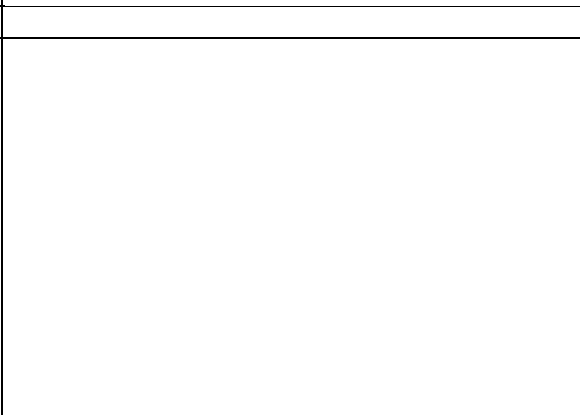
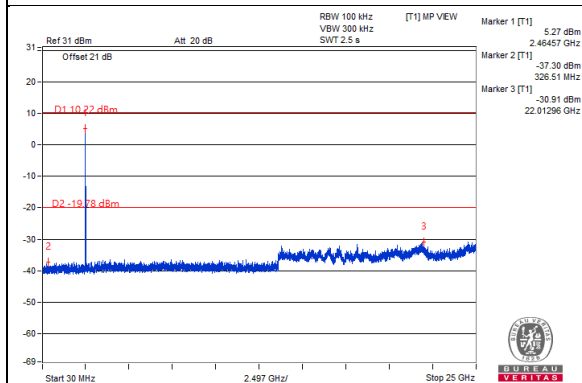
CH 1



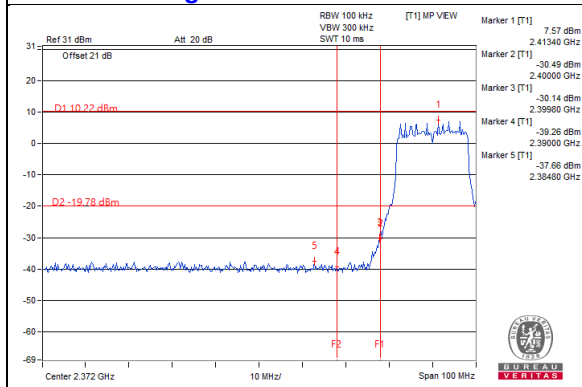
CH 6



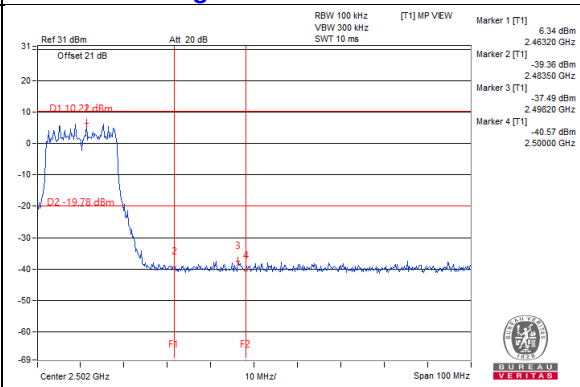
CH 11



CH 1 Band edge

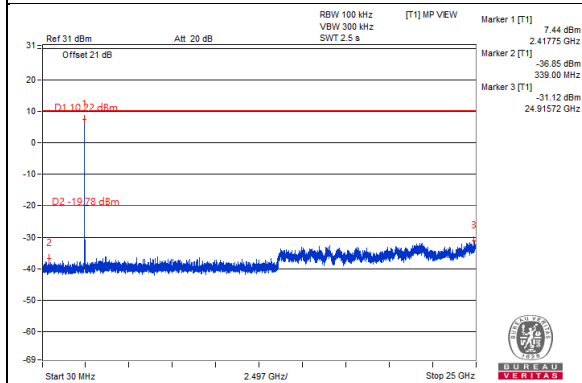


CH 11 Band edge

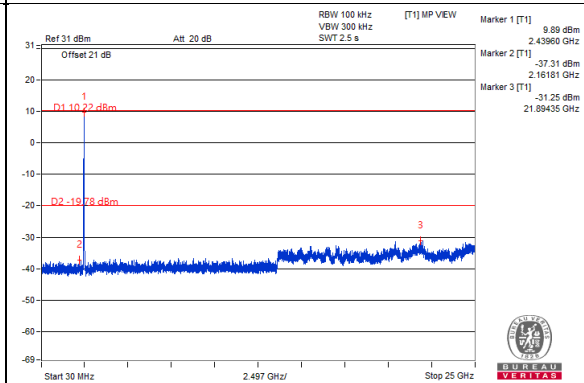


Chain 2

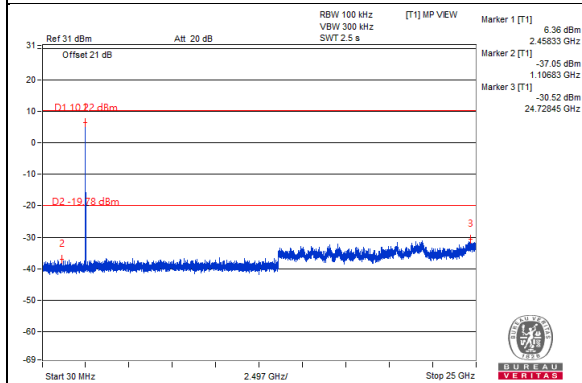
CH 1



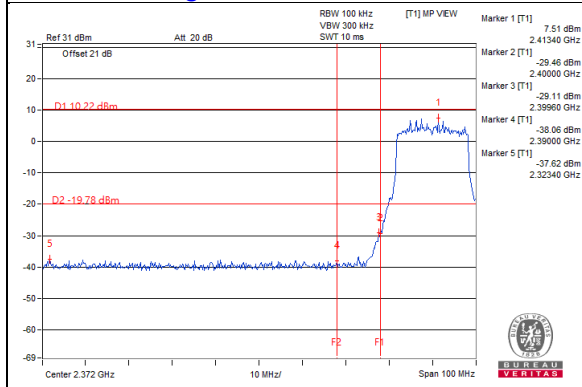
CH 6



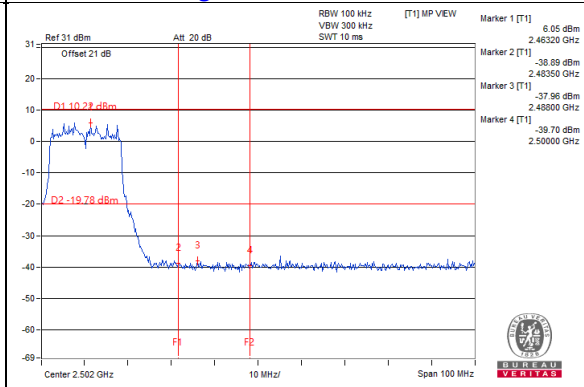
CH 11



CH 1 Band edge

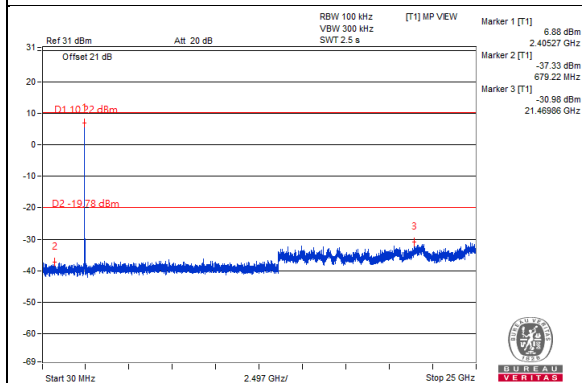


CH 11 Band edge

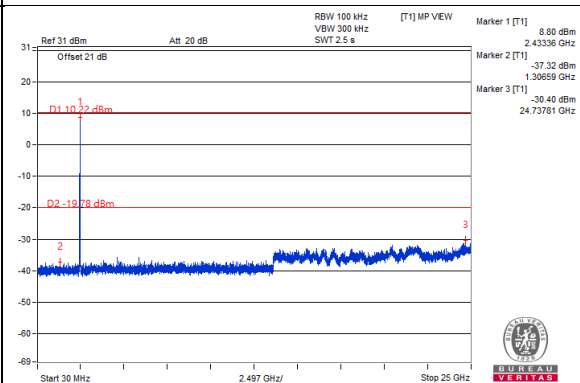


Chain 3

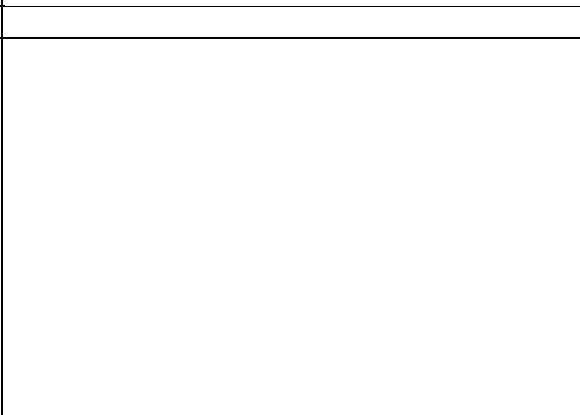
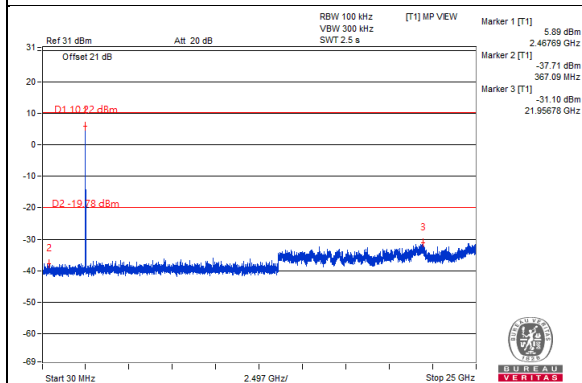
CH 1



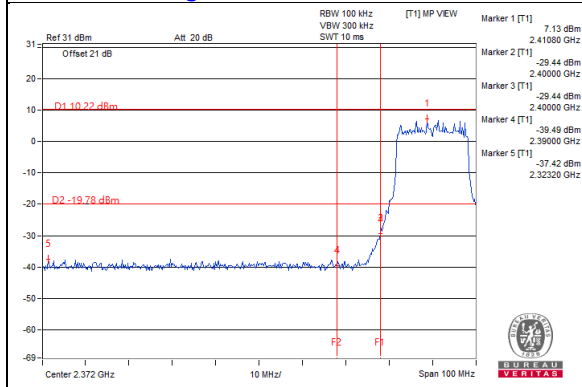
CH 6



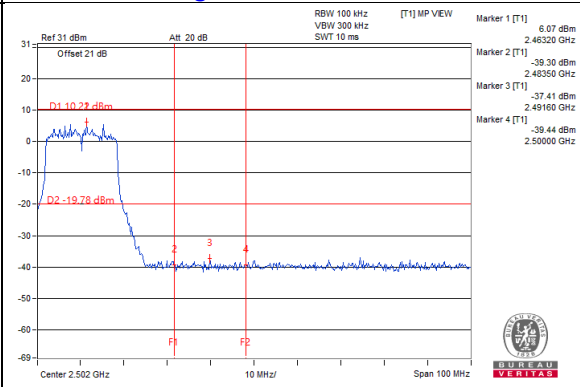
CH 11



CH 1 Band edge

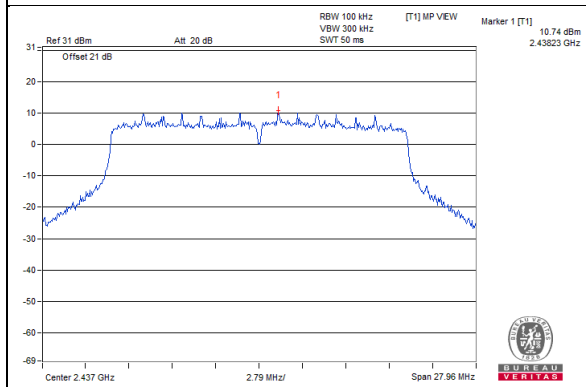


CH 11 Band edge



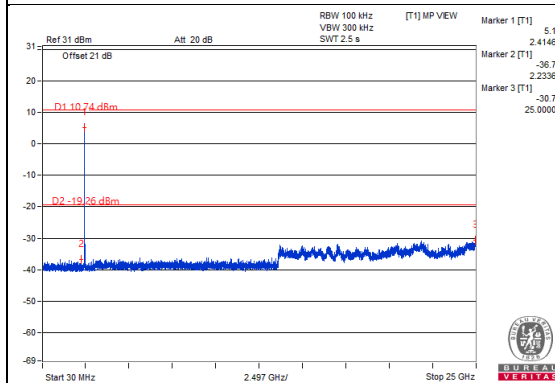
802.11ax (HE20)

Maximum REF

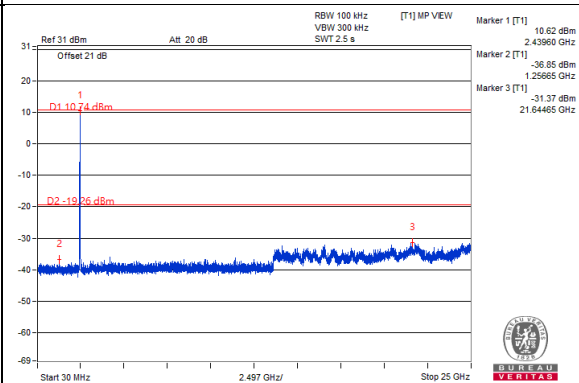


Chain 0

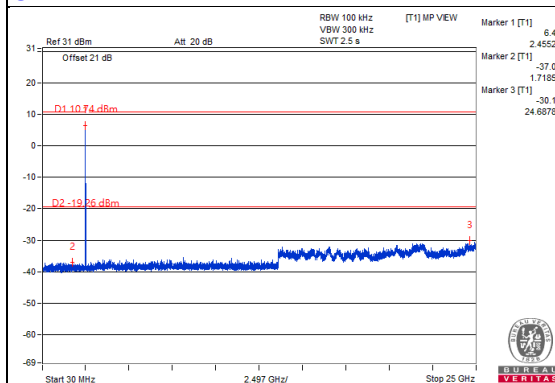
CH 1



CH 6



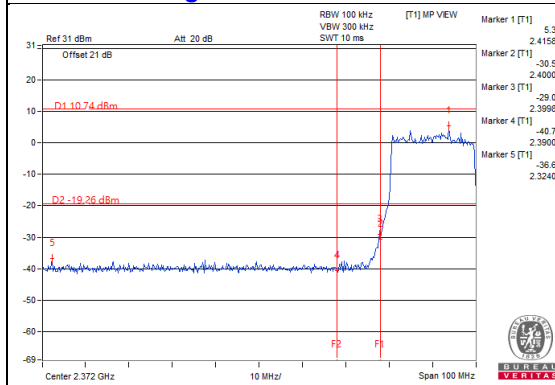
CH 11



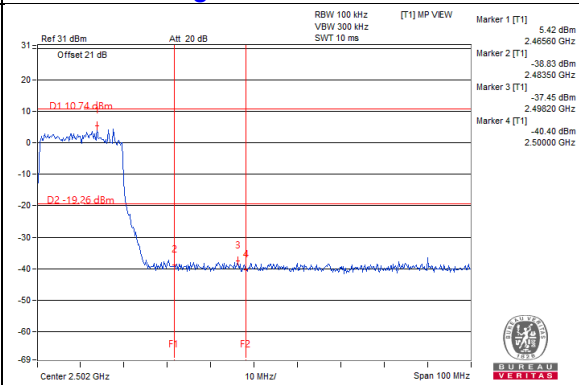
CH 11 Band edge



CH 1 Band edge

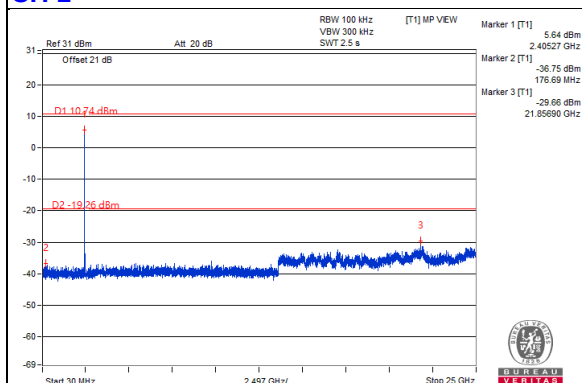


CH 11 Band edge

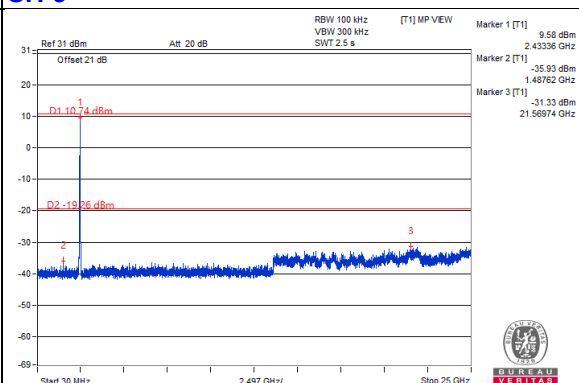


Chain 1

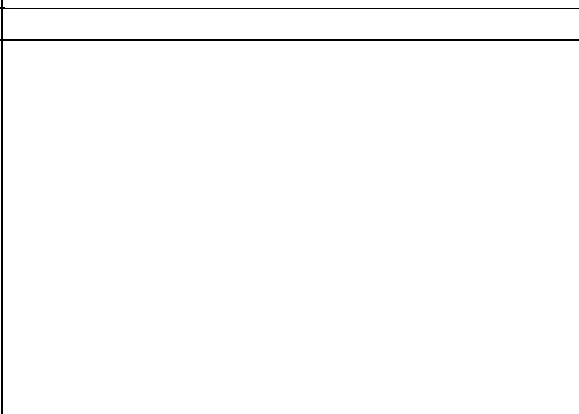
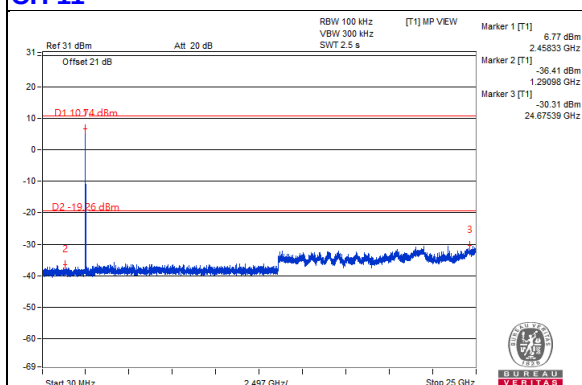
CH 1



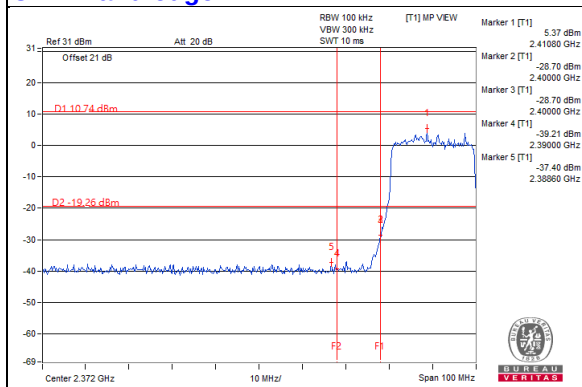
CH 6



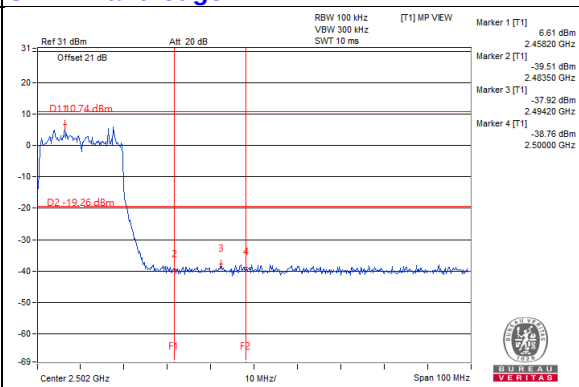
CH 11



CH 1 Band edge

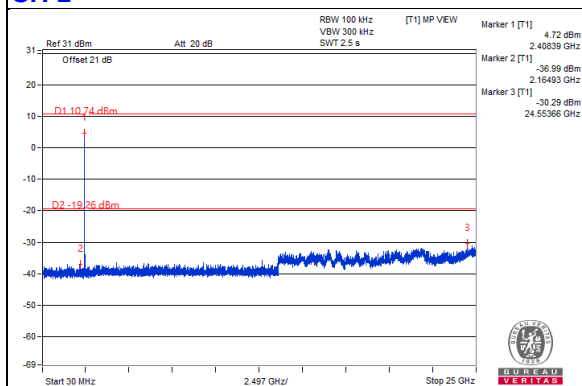


CH 11 Band edge

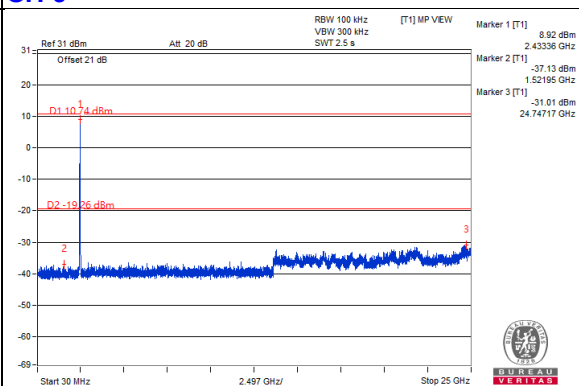


Chain 2

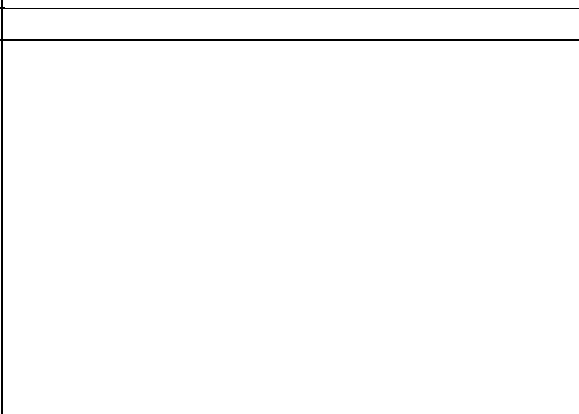
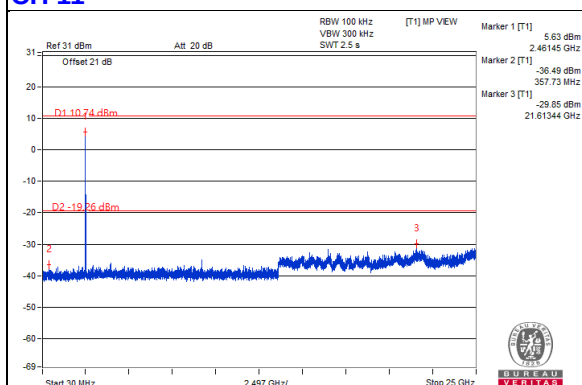
CH 1



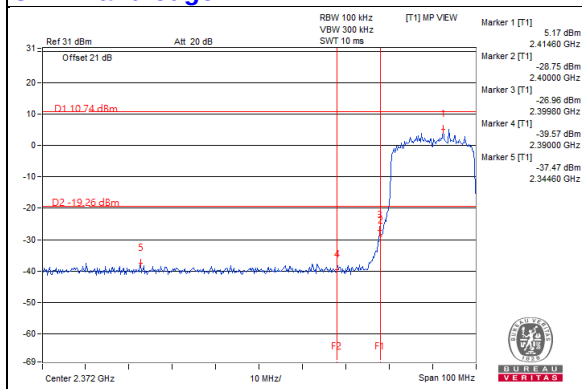
CH 6



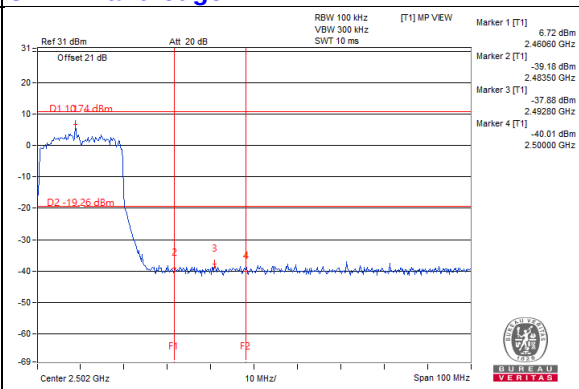
CH 11



CH 1 Band edge

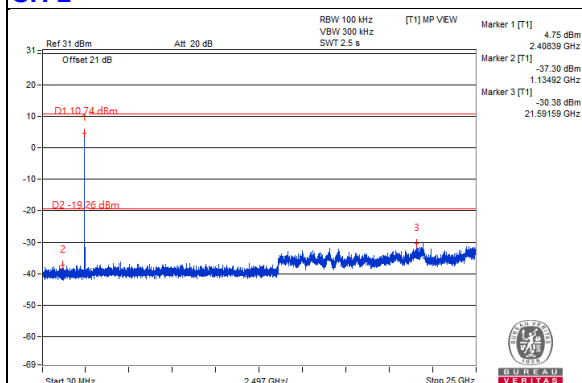


CH 11 Band edge

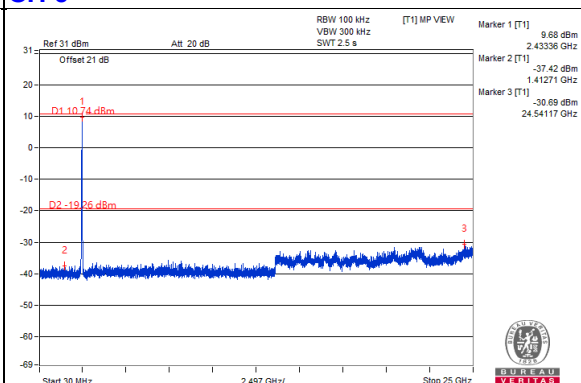


Chain 3

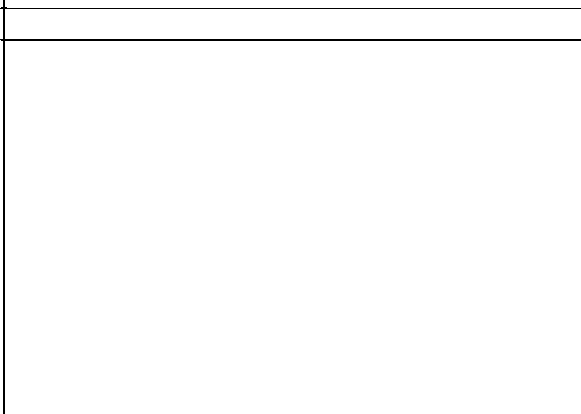
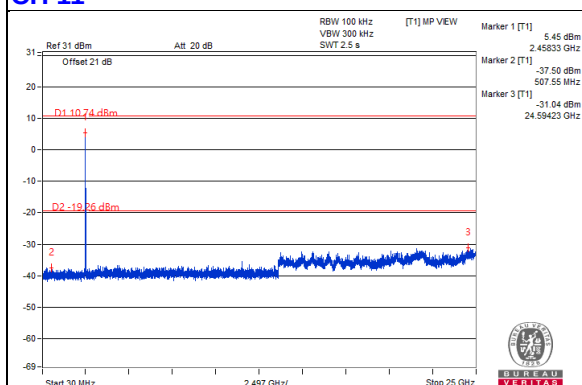
CH 1



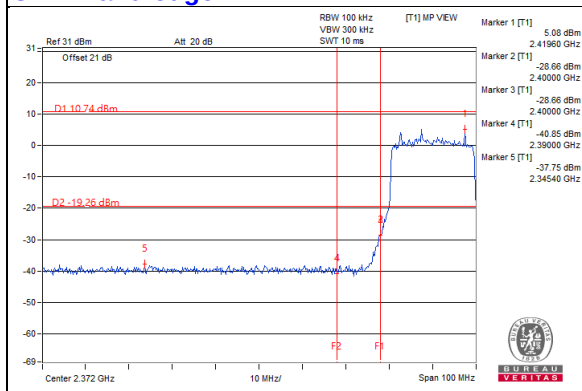
CH 6



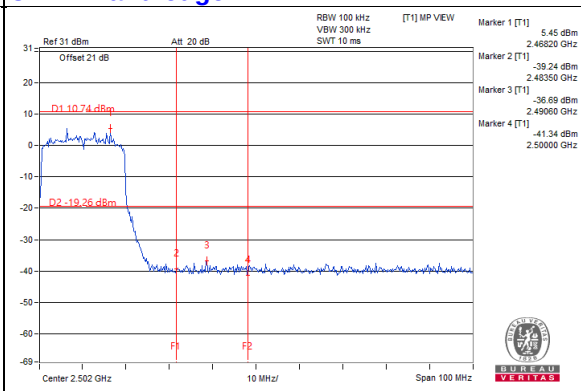
CH 11



CH 1 Band edge

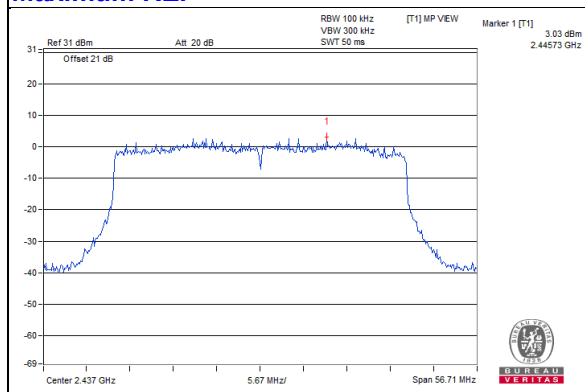


CH 11 Band edge



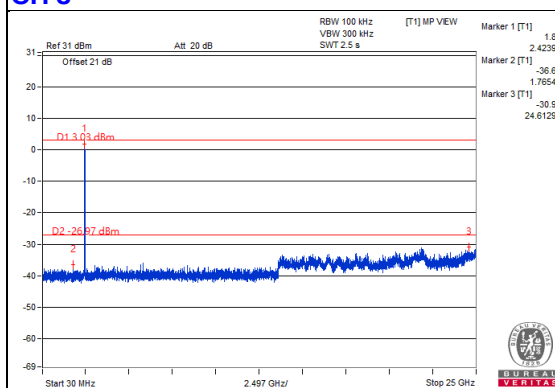
802.11ax (HE40)

Maximum REF

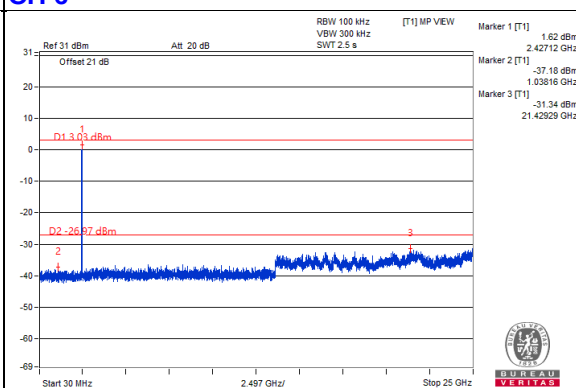


Chain 0

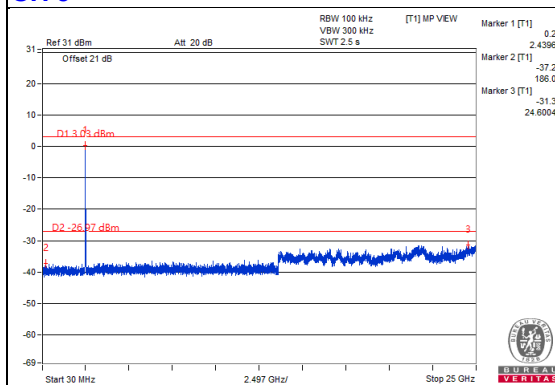
CH 3



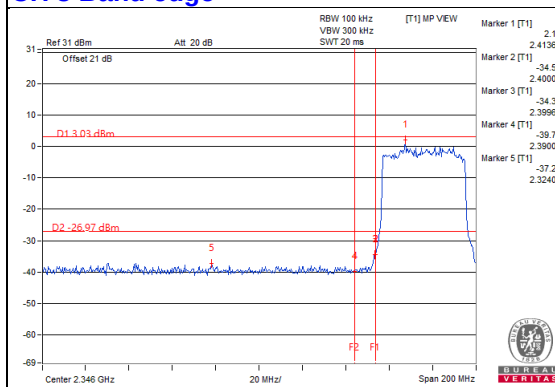
CH 6



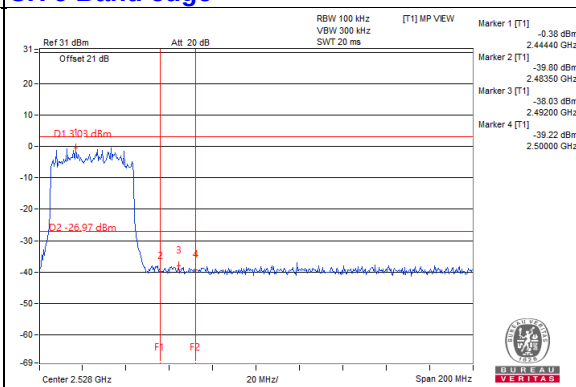
CH 9



CH 3 Band edge

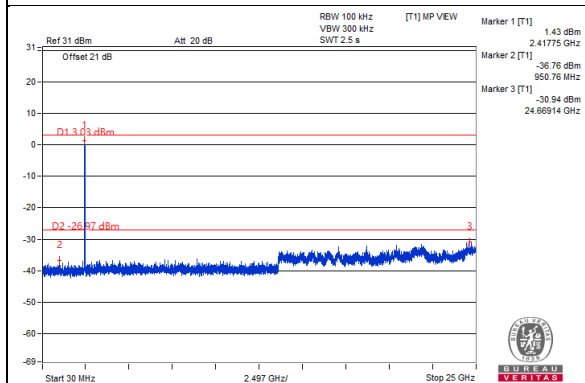


CH 9 Band edge

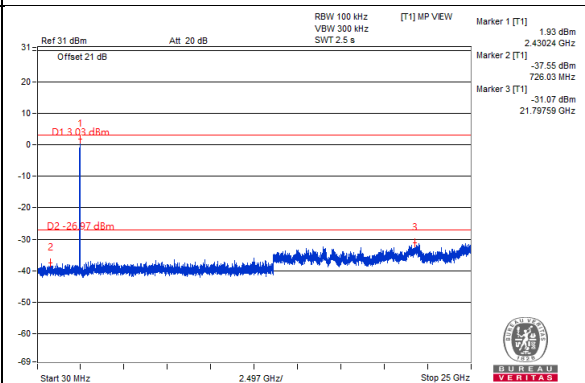


Chain 1

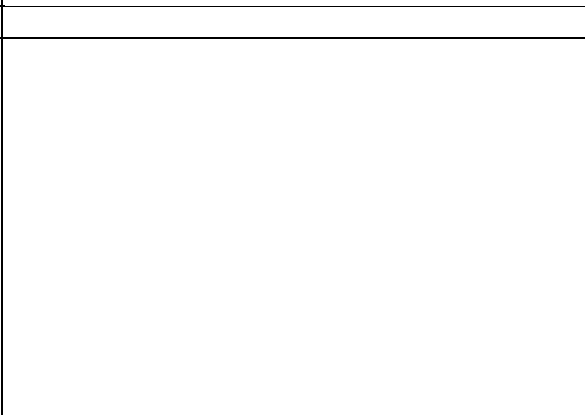
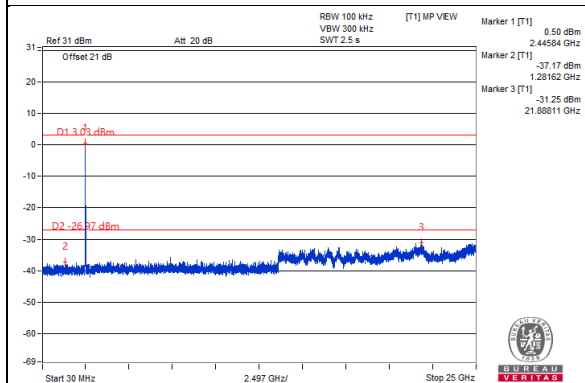
CH 3



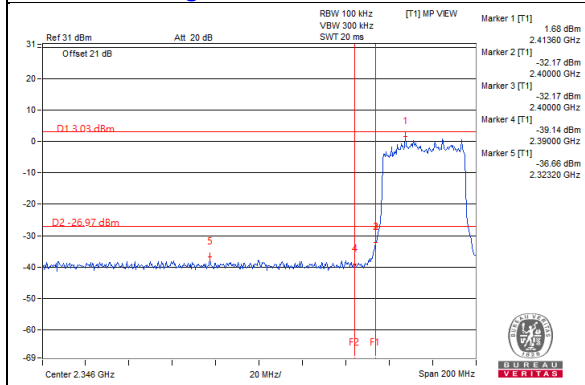
CH 6



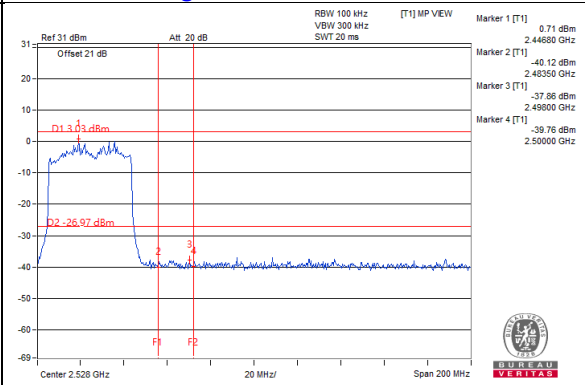
CH 9



CH 3 Band edge

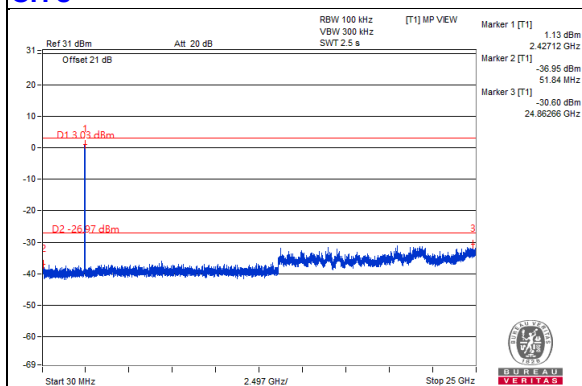


CH 9 Band edge

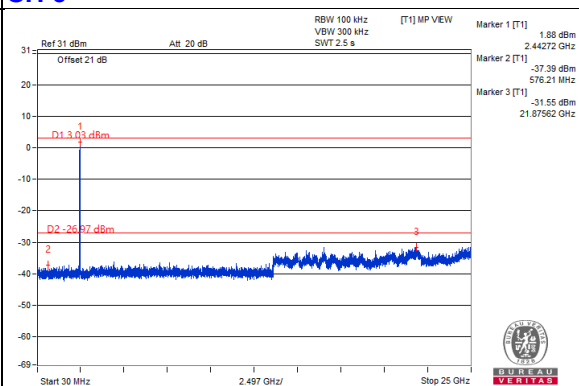


Chain 2

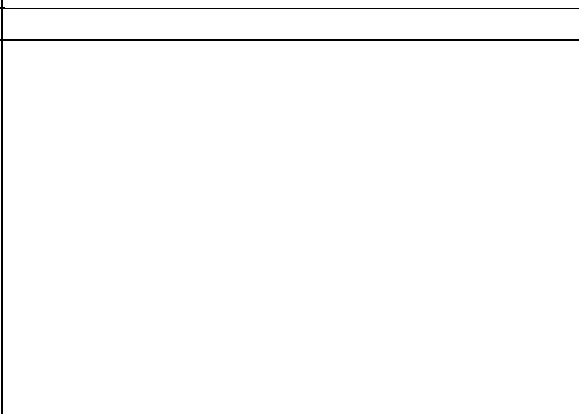
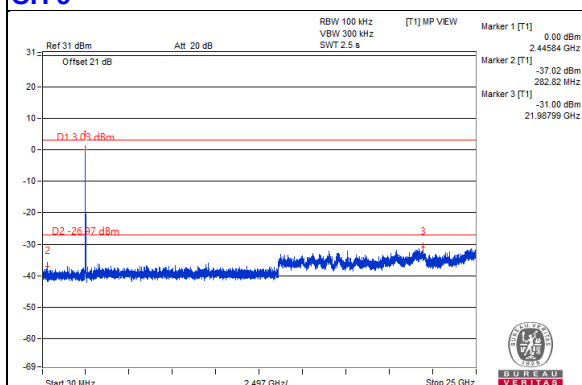
CH 3



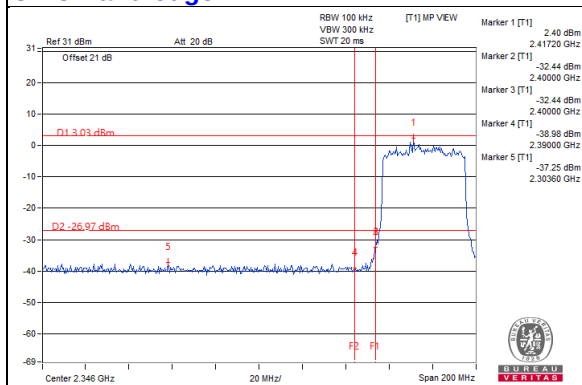
CH 6



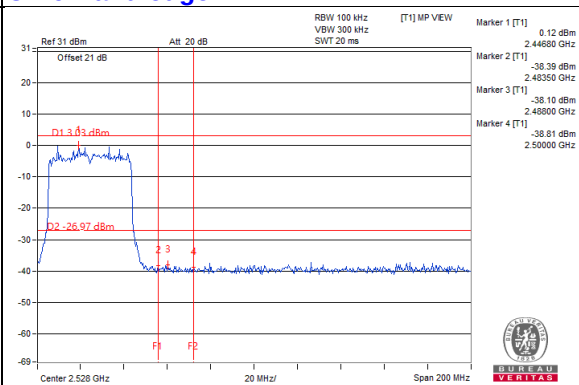
CH 9



CH 3 Band edge

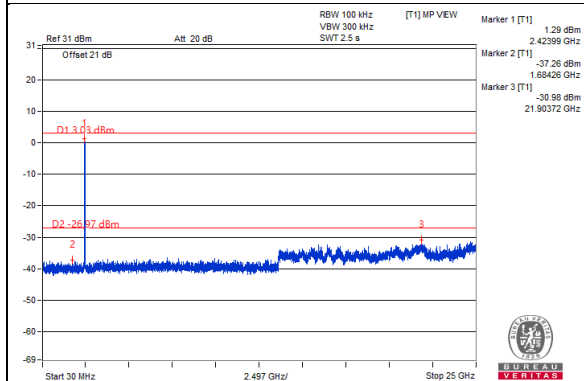


CH 9 Band edge

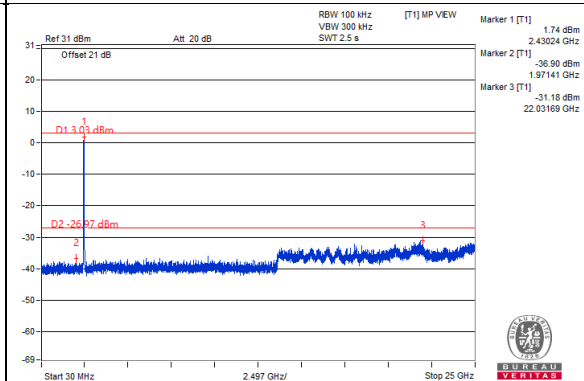


Chain 3

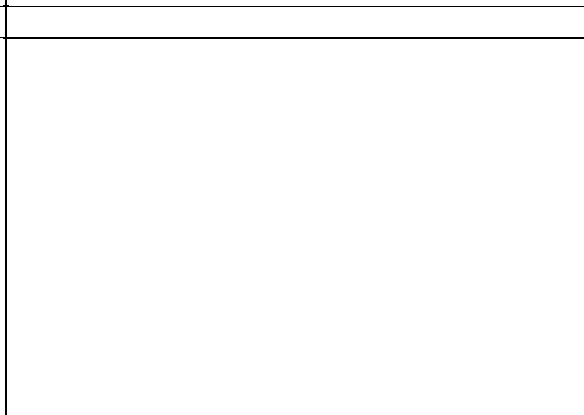
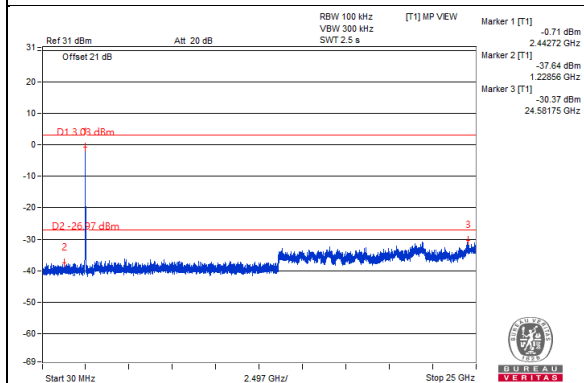
CH 3



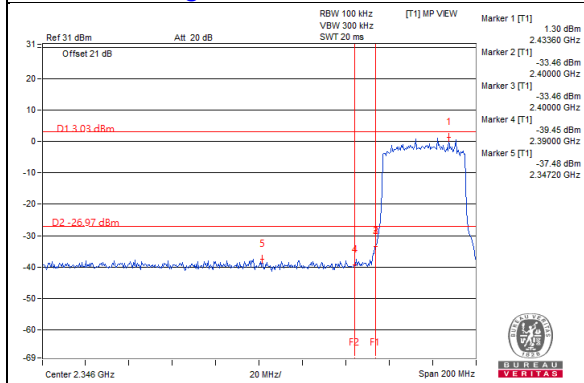
CH 6



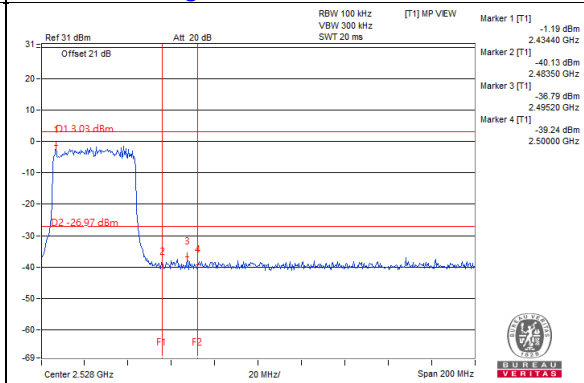
CH 9



CH 3 Band edge



CH 9 Band edge



5 Pictures of Test Arrangements

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

Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

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