

#### 4.4.7 Test Results

Mode A

CDD Mode

802.11b

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	22.12	23.05	23.54	22.59	772.261	28.88	30	Pass
6	2437	22.29	23.21	23.57	22.52	785.004	28.95	30	Pass
11	2462	20.52	21.28	21.92	20.82	523.374	27.19	30	Pass

802.11g

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	18.42	19.39	19.91	18.98	333.415	25.23	30	Pass
6	2437	21.60	22.49	22.97	22.23	687.225	28.37	30	Pass
11	2462	17.14	18.22	18.51	17.71	248.113	23.95	30	Pass

802.11n (HT20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	17.77	18.28	19.41	18.41	283.779	24.53	30	Pass
6	2437	21.41	22.64	22.91	22.07	678.509	28.32	30	Pass
11	2462	15.07	16.26	16.41	15.54	153.965	21.87	30	Pass

802.11n (HT40)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	15.83	16.58	17.18	16.38	179.472	22.54	30	Pass
6	2437	17.07	18.03	18.56	17.74	245.675	23.90	30	Pass
9	2452	15.10	15.79	15.45	14.48	133.42	21.25	30	Pass

802.11ac (VHT20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	17.80	18.31	19.43	18.44	285.543	24.56	30	Pass
6	2437	21.45	22.66	22.94	22.10	683.108	28.34	30	Pass
11	2462	15.09	16.29	16.45	15.56	154.977	21.90	30	Pass

802.11ac (VHT40)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	15.85	16.60	17.20	16.42	180.502	22.56	30	Pass
6	2437	17.11	18.05	18.58	17.76	247.045	23.93	30	Pass
9	2452	15.15	15.82	15.52	14.56	135.15	21.31	30	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	17.82	18.33	19.45	18.46	286.861	24.58	30	Pass
6	2437	21.49	22.68	22.98	22.12	687.821	28.37	30	Pass
11	2462	15.11	16.32	16.47	15.59	155.874	21.93	30	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	15.88	16.64	17.22	16.45	181.738	22.59	30	Pass
6	2437	17.15	18.09	18.62	17.80	249.331	23.97	30	Pass
9	2452	15.23	15.99	15.66	14.63	138.915	21.43	30	Pass

## Beamforming Mode

### 802.11ac (VHT20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	15.79	16.36	17.02	16.33	174.487	22.42	23.98	Pass
6	2437	15.81	16.49	17.11	16.34	177.129	22.48	23.98	Pass
11	2462	14.56	15.75	15.90	15.01	136.76	21.36	23.98	Pass

Note: Directional gain = 6.0 dBi + 10log(4) = 12.02 dBi > 6 dBi , so the power limit shall be reduced to 30-(12.02-6) = 23.98 dBm.

### 802.11ac (VHT40)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	15.75	16.52	17.06	16.42	177.127	22.48	23.98	Pass
6	2437	15.67	16.61	17.18	16.28	177.414	22.49	23.98	Pass
9	2452	13.22	13.97	13.65	12.61	87.348	19.41	23.98	Pass

Note: Directional gain = 6.0 dBi + 10log(4) = 12.02 dBi > 6 dBi , so the power limit shall be reduced to 30-(12.02-6) = 23.98 dBm.

### 802.11ax (HE20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	15.88	16.44	17.10	16.39	177.619	22.49	23.98	Pass
6	2437	15.89	16.52	17.16	16.48	180.152	22.56	23.98	Pass
11	2462	14.60	15.80	15.93	15.04	137.949	21.40	23.98	Pass

Note: Directional gain = 6.0 dBi + 10log(4) = 12.02 dBi > 6 dBi , so the power limit shall be reduced to 30-(12.02-6) = 23.98 dBm.

### 802.11ax (HE40)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	15.83	16.58	17.12	16.45	179.461	22.54	23.98	Pass
6	2437	15.71	16.64	17.21	16.35	179.125	22.53	23.98	Pass
9	2452	13.26	14.02	13.70	12.67	88.353	19.46	23.98	Pass

Note: Directional gain = 6.0 dBi + 10log(4) = 12.02 dBi > 6 dBi , so the power limit shall be reduced to 30-(12.02-6) = 23.98 dBm.

Mode B

CDD Mode

802.11b

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	15.03	16.02	16.30	15.51	150.058	21.76	22	Pass
6	2437	15.06	16.07	16.25	15.59	150.914	21.79	22	Pass
11	2462	15.02	15.92	15.89	15.33	143.787	21.58	22	Pass

Note: Directional gain = 14 dBi > 6 dBi , so the power limit shall be reduced to  $30-(14-6) = 22.00$  dBm.

802.11g

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	14.82	15.77	16.23	15.52	145.717	21.64	22	Pass
6	2437	15.02	16.11	16.38	15.86	154.6	21.89	22	Pass
11	2462	12.16	13.37	13.63	12.98	81.099	19.09	22	Pass

Note: Directional gain = 14 dBi > 6 dBi , so the power limit shall be reduced to  $30-(14-6) = 22.00$  dBm.

802.11n (HT20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	14.68	15.88	16.25	15.58	146.413	21.66	22	Pass
6	2437	14.88	16.15	16.37	15.65	152.05	21.82	22	Pass
11	2462	9.87	10.88	11.41	10.45	46.879	16.71	22	Pass

Note: Directional gain = 14 dBi > 6 dBi , so the power limit shall be reduced to  $30-(14-6) = 22.00$  dBm.

802.11n (HT40)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	14.15	15.14	15.82	14.82	127.194	21.04	22	Pass
6	2437	14.08	15.02	15.41	14.55	120.618	20.81	22	Pass
9	2452	8.66	9.69	10.36	9.15	35.743	15.53	22	Pass

Note: Directional gain = 14 dBi > 6 dBi , so the power limit shall be reduced to  $30-(14-6) = 22.00$  dBm.

### 802.11ac (VHT20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	14.69	15.91	16.26	15.60	147.013	21.67	22	Pass
6	2437	14.91	16.17	16.38	15.66	152.638	21.84	22	Pass
11	2462	9.98	10.94	11.54	10.55	47.977	16.81	22	Pass

Note: Directional gain = 14 dBi > 6 dBi , so the power limit shall be reduced to  $30-(14-6) = 22.00$  dBm.

### 802.11ac (VHT40)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	14.21	15.21	15.92	15.02	130.406	21.15	22	Pass
6	2437	14.15	15.11	15.52	14.69	123.525	20.92	22	Pass
9	2452	8.71	9.72	10.41	9.21	36.133	15.58	22	Pass

Note: Directional gain = 14 dBi > 6 dBi , so the power limit shall be reduced to  $30-(14-6) = 22.00$  dBm.

### 802.11ax (HE20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	14.72	15.94	16.28	15.63	147.934	21.70	22	Pass
6	2437	14.93	16.19	16.40	15.69	153.428	21.86	22	Pass
11	2462	10.01	11.03	11.60	10.64	48.742	16.88	22	Pass

Note: Directional gain = 14 dBi > 6 dBi , so the power limit shall be reduced to  $30-(14-6) = 22.00$  dBm.

### 802.11ax (HE40)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	14.41	15.36	16.01	15.15	134.598	21.29	22	Pass
6	2437	14.25	15.21	15.66	14.82	126.949	21.04	22	Pass
9	2452	8.89	9.83	10.52	9.33	37.203	15.71	22	Pass

Note: Directional gain = 14 dBi > 6 dBi , so the power limit shall be reduced to  $30-(14-6) = 22.00$  dBm.

## Beamforming Mode

### 802.11ac (VHT20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	8.77	9.71	10.31	9.18	35.907	15.55	15.98	Pass
6	2437	8.71	9.58	10.39	9.15	35.67	15.52	15.98	Pass
11	2462	8.71	9.69	10.48	9.20	36.228	15.59	15.98	Pass

Note: Directional gain =  $14.0 \text{ dBi} + 10\log(4) = 20.02\text{dBi} > 6 \text{ dBi}$  , so the power limit shall be reduced to  $30 - (20.02 - 6) = 15.98 \text{ dBm}$ .

### 802.11ac (VHT40)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	8.78	9.81	10.45	9.20	36.532	15.63	15.98	Pass
6	2437	8.74	9.77	10.48	9.20	36.448	15.62	15.98	Pass
9	2452	8.71	9.71	10.41	9.28	36.247	15.59	15.98	Pass

Note: Directional gain =  $14.0 \text{ dBi} + 10\log(4) = 20.02\text{dBi} > 6 \text{ dBi}$  , so the power limit shall be reduced to  $30 - (20.02 - 6) = 15.98 \text{ dBm}$ .

### 802.11ax (HE20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	8.88	9.79	10.47	9.21	36.735	15.65	15.98	Pass
6	2437	8.79	9.69	10.45	9.18	36.251	15.59	15.98	Pass
11	2462	8.81	9.71	10.50	9.21	36.514	15.62	15.98	Pass

Note: Directional gain =  $14.0 \text{ dBi} + 10\log(4) = 20.02\text{dBi} > 6 \text{ dBi}$  , so the power limit shall be reduced to  $30 - (20.02 - 6) = 15.98 \text{ dBm}$ .

### 802.11ax (HE40)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	8.78	9.81	10.45	9.20	36.532	15.63	15.98	Pass
6	2437	8.88	9.82	10.51	9.28	37.039	15.69	15.98	Pass
9	2452	8.89	9.83	10.52	9.33	37.203	15.71	15.98	Pass

Note: Directional gain =  $14.0 \text{ dBi} + 10\log(4) = 20.02\text{dBi} > 6 \text{ dBi}$  , so the power limit shall be reduced to  $30 - (20.02 - 6) = 15.98 \text{ dBm}$ .

Mode C

CDD Mode

802.11b

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	18.81	20.05	20.28	19.57	374.423	25.73	28	Pass
6	2437	19.05	20.23	20.48	19.58	388.26	25.89	28	Pass
11	2462	18.95	20.38	20.32	19.40	382.41	25.83	28	Pass

Note: Directional gain = 8 dBi > 6 dBi , so the power limit shall be reduced to  $30-(8-6) = 28.00$  dBm.

802.11g

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	18.54	19.61	20.01	19.13	344.938	25.38	28	Pass
6	2437	21.22	22.16	22.55	21.71	625.01	27.96	28	Pass
11	2462	16.62	17.91	18.35	17.63	234.055	23.69	28	Pass

Note: Directional gain = 8 dBi > 6 dBi , so the power limit shall be reduced to  $30-(8-6) = 28.00$  dBm.

802.11n (HT20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	18.23	18.67	18.92	18.05	281.957	24.50	28	Pass
6	2437	21.01	22.14	22.61	21.55	615.143	27.89	28	Pass
11	2462	14.02	15.31	15.63	14.82	126.096	21.01	28	Pass

Note: Directional gain = 8 dBi > 6 dBi , so the power limit shall be reduced to  $30-(8-6) = 28.00$  dBm.

802.11n (HT40)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	15.70	16.56	17.18	16.43	178.637	22.52	28	Pass
6	2437	17.12	18.14	18.73	17.72	250.487	23.99	28	Pass
9	2452	13.93	15.10	15.02	14.52	117.159	20.69	28	Pass

Note: Directional gain = 8 dBi > 6 dBi , so the power limit shall be reduced to  $30-(8-6) = 28.00$  dBm.

### 802.11ac (VHT20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	18.31	18.73	18.95	18.13	285.946	24.56	28	Pass
6	2437	21.10	22.22	22.68	21.62	626.114	27.97	28	Pass
11	2462	14.13	15.41	15.71	14.91	128.849	21.10	28	Pass

Note: Directional gain = 8 dBi > 6 dBi , so the power limit shall be reduced to  $30-(8-6) = 28.00$  dBm.

### 802.11ac (VHT40)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	15.74	16.60	17.22	16.50	180.597	22.57	28	Pass
6	2437	17.18	18.19	18.77	17.74	252.922	24.03	28	Pass
9	2452	14.02	15.15	15.12	14.63	119.518	20.77	28	Pass

Note: Directional gain = 8 dBi > 6 dBi , so the power limit shall be reduced to  $30-(8-6) = 28.00$  dBm.

### 802.11ax (HE20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	18.36	18.79	19.02	18.20	290.101	24.63	28	Pass
6	2437	21.10	22.22	22.68	21.62	626.114	27.97	28	Pass
11	2462	14.21	15.55	15.81	15.07	132.499	21.22	28	Pass

Note: Directional gain = 8 dBi > 6 dBi , so the power limit shall be reduced to  $30-(8-6) = 28.00$  dBm.

### 802.11ax (HE40)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	15.78	16.63	17.28	16.54	182.408	22.61	28	Pass
6	2437	17.23	18.21	18.83	17.79	255.567	24.08	28	Pass
9	2452	14.10	15.22	15.46	14.74	123.911	20.93	28	Pass

Note: Directional gain = 8 dBi > 6 dBi , so the power limit shall be reduced to  $30-(8-6) = 28.00$  dBm.



## Beamforming Mode

### 802.11ac (VHT20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	14.80	15.91	16.22	15.51	146.636	21.66	21.98	Pass
6	2437	14.72	15.95	16.17	15.52	146.048	21.64	21.98	Pass
11	2462	14.13	15.41	15.71	14.91	128.849	21.10	21.98	Pass

Note: Directional gain =  $8.0 \text{ dBi} + 10\log(4) = 14.02\text{dBi} > 6 \text{ dBi}$  , so the power limit shall be reduced to  $30 - (14.02 - 6) = 21.98 \text{ dBm}$ .

### 802.11ac (VHT40)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	14.68	15.90	16.18	15.59	146.001	21.64	21.98	Pass
6	2437	14.70	15.85	16.08	15.57	144.58	21.60	21.98	Pass
9	2452	12.52	13.67	13.87	13.23	86.562	19.37	21.98	Pass

Note: Directional gain =  $8.0 \text{ dBi} + 10\log(4) = 14.02\text{dBi} > 6 \text{ dBi}$  , so the power limit shall be reduced to  $30 - (14.02 - 6) = 21.98 \text{ dBm}$ .

### 802.11ax (HE20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	14.85	15.96	16.27	15.59	148.584	21.72	21.98	Pass
6	2437	14.80	16.03	16.21	15.58	148.21	21.71	21.98	Pass
11	2462	14.21	15.55	15.81	15.07	132.499	21.22	21.98	Pass

Note: Directional gain =  $8.0 \text{ dBi} + 10\log(4) = 14.02\text{dBi} > 6 \text{ dBi}$  , so the power limit shall be reduced to  $30 - (14.02 - 6) = 21.98 \text{ dBm}$ .

### 802.11ax (HE40)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	14.73	15.94	16.21	15.62	147.24	21.68	21.98	Pass
6	2437	14.73	15.91	16.14	15.60	146.134	21.65	21.98	Pass
9	2452	12.56	13.71	13.92	13.28	87.468	19.42	21.98	Pass

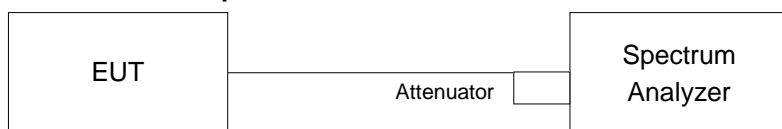
Note: Directional gain =  $8.0 \text{ dBi} + 10\log(4) = 14.02\text{dBi} > 6 \text{ dBi}$  , so the power limit shall be reduced to  $30 - (14.02 - 6) = 21.98 \text{ dBm}$ .

## 4.5 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

For Average Power (Duty cycle < 98%)

- a. Measure the duty cycle (x).
- b. Set instrument center frequency to DTS channel center frequency.
- c. Set span to at least 1.5 times the OBW.
- d. Set RBW to:  $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$ .
- e. Set VBW  $\geq 3 \times \text{RBW}$ .
- f. Detector = power averaging (RMS) or sample detector (when RMS not available).
- g. Ensure that the number of measurement points in the sweep  $\geq 2 \times \text{span}/\text{RBW}$ .
- h. Sweep time = auto couple.
- i. Do not use sweep triggering. Allow sweep to “free run”.
- j. Employ trace averaging (RMS) mode over a minimum of 100 traces.
- k. Use the peak marker function to determine the maximum amplitude level.
- l. 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 A

802.11b

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/3kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-8.15	6.02	0.12	-2.01	1.98	Pass
	6	2437	-7.95	6.02	0.12	-1.81	1.98	Pass
	11	2462	-9.7	6.02	0.12	-3.56	1.98	Pass
1	1	2412	-7.27	6.02	0.12	-1.13	1.98	Pass
	6	2437	-7.1	6.02	0.12	-0.96	1.98	Pass
	11	2462	-9.02	6.02	0.12	-2.88	1.98	Pass
2	1	2412	-6.72	6.02	0.12	-0.58	1.98	Pass
	6	2437	-6.62	6.02	0.12	-0.48	1.98	Pass
	11	2462	-8.24	6.02	0.12	-2.1	1.98	Pass
3	1	2412	-6.66	6.02	0.12	-0.52	1.98	Pass
	6	2437	-7.95	6.02	0.12	-1.81	1.98	Pass
	11	2462	-9.7	6.02	0.12	-3.56	1.98	Pass

Note:

- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add  $10 \log (N_{ANT})$  dB.
- Directional gain =  $6.0 \text{ dBi} + 10 \log(4) = 12.02 \text{ dBi} > 6 \text{ dBi}$  , so the power density limit shall be reduced to  $8 - (12.02 - 6) = 1.98 \text{ dBm}$ .
- Refer to section 3.3 for duty cycle spectrum plot.

802.11g

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/3kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-14.78	6.02	0.28	-8.48	1.98	Pass
	6	2437	-11.57	6.02	0.28	-5.27	1.98	Pass
	11	2462	-15.9	6.02	0.28	-9.6	1.98	Pass
1	1	2412	-13.84	6.02	0.28	-7.54	1.98	Pass
	6	2437	-10.69	6.02	0.28	-4.39	1.98	Pass
	11	2462	-14.97	6.02	0.28	-8.67	1.98	Pass
2	1	2412	-13.35	6.02	0.28	-7.05	1.98	Pass
	6	2437	-10.23	6.02	0.28	-3.93	1.98	Pass
	11	2462	-14.69	6.02	0.28	-8.39	1.98	Pass
3	1	2412	-14.27	6.02	0.28	-7.97	1.98	Pass
	6	2437	-11.57	6.02	0.28	-5.27	1.98	Pass
	11	2462	-15.9	6.02	0.28	-9.6	1.98	Pass

Note:

- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add  $10 \log (N_{ANT})$  dB.
- Directional gain =  $6.0 \text{ dBi} + 10\log(4) = 12.02 \text{ dBi} > 6 \text{ dBi}$  , so the power density limit shall be reduced to  $8 - (12.02 - 6) = 1.98 \text{ dBm}$ .
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/3kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-15.85	6.02	0.3	-9.53	1.98	Pass
	6	2437	-12.19	6.02	0.3	-5.87	1.98	Pass
	11	2462	-18.52	6.02	0.3	-12.2	1.98	Pass
1	1	2412	-15.31	6.02	0.3	-8.99	1.98	Pass
	6	2437	-10.93	6.02	0.3	-4.61	1.98	Pass
	11	2462	-17.28	6.02	0.3	-10.96	1.98	Pass
2	1	2412	-14.21	6.02	0.3	-7.89	1.98	Pass
	6	2437	-10.67	6.02	0.3	-4.35	1.98	Pass
	11	2462	-17.22	6.02	0.3	-10.9	1.98	Pass
3	1	2412	-15.25	6.02	0.3	-8.93	1.98	Pass
	6	2437	-12.19	6.02	0.3	-5.87	1.98	Pass
	11	2462	-18.52	6.02	0.3	-12.2	1.98	Pass

Note:

- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add  $10 \log (N_{ANT})$  dB.
- Directional gain =  $6.0 \text{ dBi} + 10\log(4) = 12.02 \text{ dBi} > 6 \text{ dBi}$  , so the power density limit shall be reduced to  $8 - (12.02 - 6) = 1.98 \text{ dBm}$ .
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

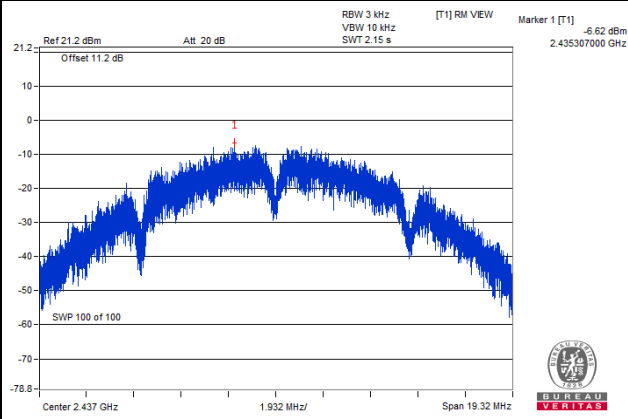
TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/3kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
0	3	2422	-19.49	6.02	0.25	-13.22	1.98	Pass
	6	2437	-18.24	6.02	0.25	-11.97	1.98	Pass
	9	2452	-18.77	6.02	0.25	-12.5	1.98	Pass
1	3	2422	-18.72	6.02	0.25	-12.45	1.98	Pass
	6	2437	-17.27	6.02	0.25	-11	1.98	Pass
	9	2452	-19.42	6.02	0.25	-13.15	1.98	Pass
2	3	2422	-18.11	6.02	0.25	-11.84	1.98	Pass
	6	2437	-16.75	6.02	0.25	-10.48	1.98	Pass
	9	2452	-19.77	6.02	0.25	-13.5	1.98	Pass
3	3	2422	-18.8	6.02	0.25	-12.53	1.98	Pass
	6	2437	-18.24	6.02	0.25	-11.97	1.98	Pass
	9	2452	-18.77	6.02	0.25	-12.5	1.98	Pass

Note:

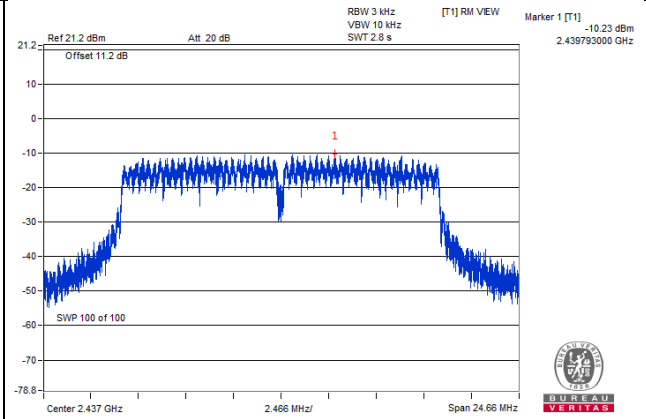
- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add  $10 \log (N_{ANT})$  dB.
- Directional gain =  $6.0 \text{ dBi} + 10\log(4) = 12.02 \text{ dBi} > 6 \text{ dBi}$  , so the power density limit shall be reduced to  $8 - (12.02 - 6) = 1.98 \text{ dBm}$ .
- Refer to section 3.3 for duty cycle spectrum plot.

### Spectrum Plot of Worst Value

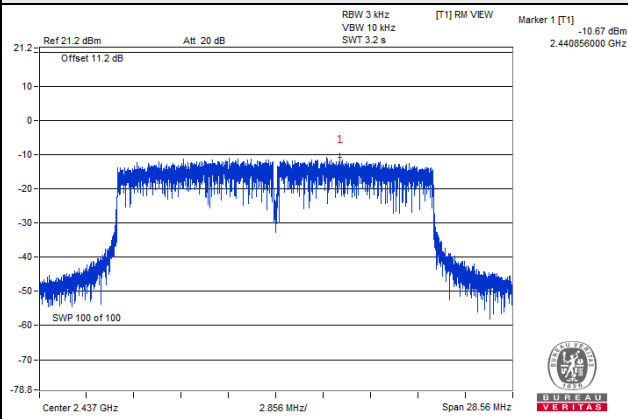
#### 802.11b



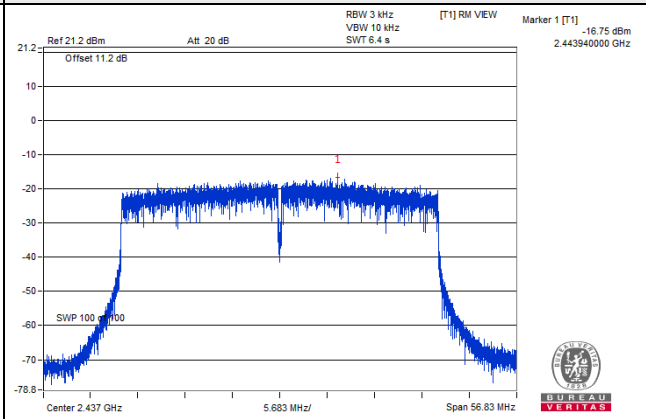
#### 802.11g



#### 802.11ax (HE20)



#### 802.11ax (HE40)



Mode B

802.11b

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/3kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-16	6.02	0.12	-9.86	-6.02	Pass
	6	2437	-15.95	6.02	0.12	-9.81	-6.02	Pass
	11	2462	-16.03	6.02	0.12	-9.89	-6.02	Pass
1	1	2412	-15.04	6.02	0.12	-8.9	-6.02	Pass
	6	2437	-14.96	6.02	0.12	-8.82	-6.02	Pass
	11	2462	-15.09	6.02	0.12	-8.95	-6.02	Pass
2	1	2412	-14.76	6.02	0.12	-8.62	-6.02	Pass
	6	2437	-14.88	6.02	0.12	-8.74	-6.02	Pass
	11	2462	-15.25	6.02	0.12	-9.11	-6.02	Pass
3	1	2412	-15.54	6.02	0.12	-9.4	-6.02	Pass
	6	2437	-15.95	6.02	0.12	-9.81	-6.02	Pass
	11	2462	-16.03	6.02	0.12	-9.89	-6.02	Pass

Note:

- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add  $10 \log (N_{ANT})$  dB.
- Directional gain =  $14.0 \text{ dBi} + 10 \log(4) = 20.02 \text{ dBi} > 6 \text{ dBi}$  , so the power density limit shall be reduced to  $8 - (20.02 - 6) = -6.02 \text{ dBm}$ .
- Refer to section 3.3 for duty cycle spectrum plot.



802.11g

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/3kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-17.46	6.02	0.28	-11.16	-6.02	Pass
	6	2437	-17.22	6.02	0.28	-10.92	-6.02	Pass
	11	2462	-20.05	6.02	0.28	-13.75	-6.02	Pass
1	1	2412	-16.46	6.02	0.28	-10.16	-6.02	Pass
	6	2437	-16.12	6.02	0.28	-9.82	-6.02	Pass
	11	2462	-18.86	6.02	0.28	-12.56	-6.02	Pass
2	1	2412	-15.99	6.02	0.28	-9.69	-6.02	Pass
	6	2437	-15.81	6.02	0.28	-9.51	-6.02	Pass
	11	2462	-18.58	6.02	0.28	-12.28	-6.02	Pass
3	1	2412	-16.73	6.02	0.28	-10.43	-6.02	Pass
	6	2437	-17.22	6.02	0.28	-10.92	-6.02	Pass
	11	2462	-20.05	6.02	0.28	-13.75	-6.02	Pass

Note:

- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add  $10 \log (N_{ANT})$  dB.
- Directional gain =  $14.0 \text{ dBi} + 10\log(4) = 20.02 \text{ dBi} > 6 \text{ dBi}$  , so the power density limit shall be reduced to  $8-(20.02-6) = -6.02 \text{ dBm}$ .
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/3kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-18.68	6.02	0.3	-12.36	-6.02	Pass
	6	2437	-18.42	6.02	0.3	-12.1	-6.02	Pass
	11	2462	-23.32	6.02	0.3	-17	-6.02	Pass
1	1	2412	-17.41	6.02	0.3	-11.09	-6.02	Pass
	6	2437	-17.22	6.02	0.3	-10.9	-6.02	Pass
	11	2462	-22.33	6.02	0.3	-16.01	-6.02	Pass
2	1	2412	-17.14	6.02	0.3	-10.82	-6.02	Pass
	6	2437	-17.08	6.02	0.3	-10.76	-6.02	Pass
	11	2462	-21.89	6.02	0.3	-15.57	-6.02	Pass
3	1	2412	-17.77	6.02	0.3	-11.45	-6.02	Pass
	6	2437	-18.42	6.02	0.3	-12.1	-6.02	Pass
	11	2462	-23.32	6.02	0.3	-17	-6.02	Pass

Note:

- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add  $10 \log (N_{ANT})$  dB.
- Directional gain =  $14.0 \text{ dBi} + 10\log(4) = 20.02 \text{ dBi} > 6 \text{ dBi}$  , so the power density limit shall be reduced to  $8-(20.02-6) = -6.02 \text{ dBm}$ .
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

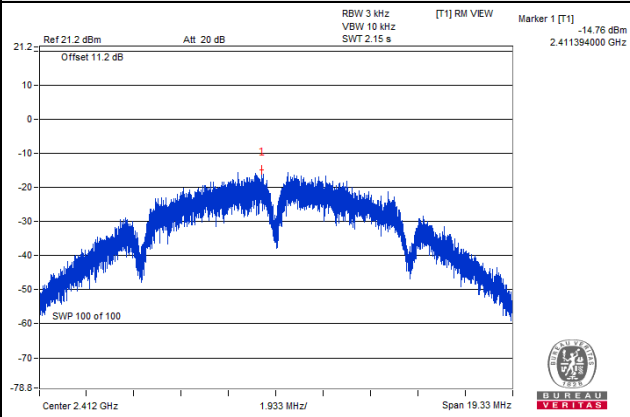
TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/3kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
0	3	2422	-22.39	6.02	0.25	-16.12	-6.02	Pass
	6	2437	-22.57	6.02	0.25	-16.3	-6.02	Pass
	9	2452	-27.91	6.02	0.25	-21.64	-6.02	Pass
1	3	2422	-21.44	6.02	0.25	-15.17	-6.02	Pass
	6	2437	-21.54	6.02	0.25	-15.27	-6.02	Pass
	9	2452	-26.95	6.02	0.25	-20.68	-6.02	Pass
2	3	2422	-20.78	6.02	0.25	-14.51	-6.02	Pass
	6	2437	-21.09	6.02	0.25	-14.82	-6.02	Pass
	9	2452	-26.24	6.02	0.25	-19.97	-6.02	Pass
3	3	2422	-21.6	6.02	0.25	-15.33	-6.02	Pass
	6	2437	-22.57	6.02	0.25	-16.3	-6.02	Pass
	9	2452	-27.91	6.02	0.25	-21.64	-6.02	Pass

Note:

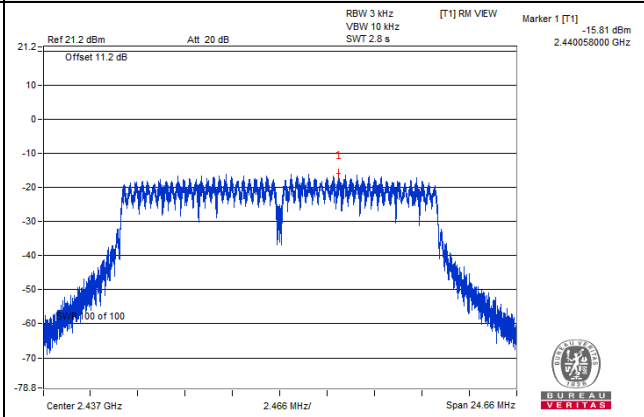
- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add  $10 \log (N_{ANT})$  dB.
- Directional gain =  $14.0 \text{ dBi} + 10 \log(4) = 20.02 \text{ dBi} > 6 \text{ dBi}$  , so the power density limit shall be reduced to  $8 - (20.02 - 6) = -6.02 \text{ dBm}$ .
- Refer to section 3.3 for duty cycle spectrum plot.

### Spectrum Plot of Worst Value

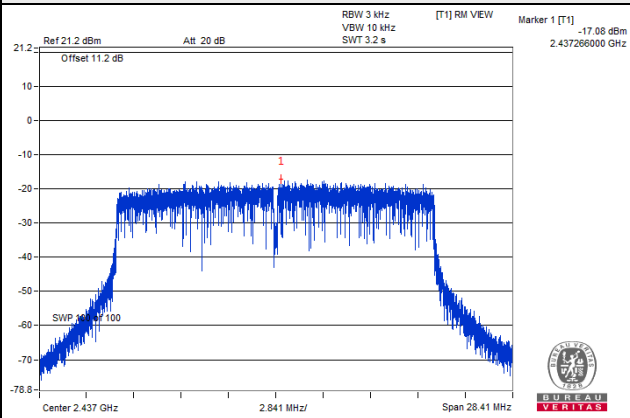
#### 802.11b



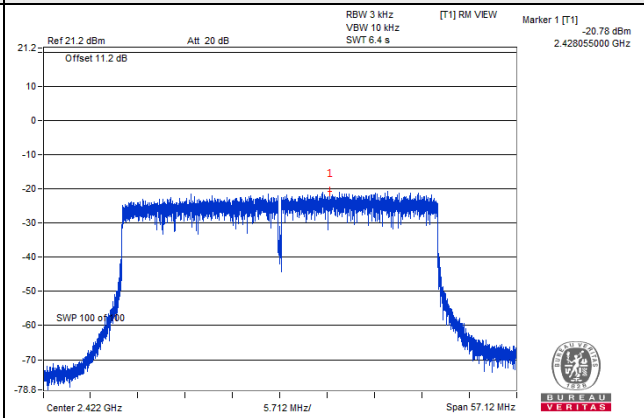
#### 802.11g



#### 802.11ax (HE20)



#### 802.11ax (HE40)



Mode C

802.11b

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/3kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-9.67	6.02	0.12	-3.53	-0.02	Pass
	6	2437	-9.52	6.02	0.12	-3.38	-0.02	Pass
	11	2462	-9.57	6.02	0.12	-3.43	-0.02	Pass
1	1	2412	-8.57	6.02	0.12	-2.43	-0.02	Pass
	6	2437	-8.61	6.02	0.12	-2.47	-0.02	Pass
	11	2462	-8.6	6.02	0.12	-2.46	-0.02	Pass
2	1	2412	-8.58	6.02	0.12	-2.44	-0.02	Pass
	6	2437	-8.57	6.02	0.12	-2.43	-0.02	Pass
	11	2462	-8.63	6.02	0.12	-2.49	-0.02	Pass
3	1	2412	-8.67	6.02	0.12	-2.53	-0.02	Pass
	6	2437	-9.52	6.02	0.12	-3.38	-0.02	Pass
	11	2462	-9.57	6.02	0.12	-3.43	-0.02	Pass

Note:

- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add  $10 \log (N_{ANT})$  dB.
- Directional gain =  $8.0 \text{ dBi} + 10 \log(4) = 14.02 \text{ dBi} > 6 \text{ dBi}$  , so the power density limit shall be reduced to  $8 - (14.02 - 6) = -0.02 \text{ dBm}$ .
- Refer to section 3.3 for duty cycle spectrum plot.

802.11g

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/3kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-12.91	6.02	0.28	-6.61	-0.02	Pass
	6	2437	-10.18	6.02	0.28	-3.88	-0.02	Pass
	11	2462	-14.63	6.02	0.28	-8.33	-0.02	Pass
1	1	2412	-11.88	6.02	0.28	-5.58	-0.02	Pass
	6	2437	-9.3	6.02	0.28	-3	-0.02	Pass
	11	2462	-13.63	6.02	0.28	-7.33	-0.02	Pass
2	1	2412	-11.36	6.02	0.28	-5.06	-0.02	Pass
	6	2437	-8.81	6.02	0.28	-2.51	-0.02	Pass
	11	2462	-12.98	6.02	0.28	-6.68	-0.02	Pass
3	1	2412	-12.19	6.02	0.28	-5.89	-0.02	Pass
	6	2437	-10.18	6.02	0.28	-3.88	-0.02	Pass
	11	2462	-14.63	6.02	0.28	-8.33	-0.02	Pass

Note:

- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add  $10 \log (N_{ANT})$  dB.
- Directional gain =  $8.0 \text{ dBi} + 10\log(4) = 14.02 \text{ dBi} > 6 \text{ dBi}$  , so the power density limit shall be reduced to  $8 - (14.02 - 6) = -0.02 \text{ dBm}$ .
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/3kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-15.81	6.02	0.2	-9.59	-0.02	Pass
	6	2437	-13.05	6.02	0.2	-6.83	-0.02	Pass
	11	2462	-19.98	6.02	0.2	-13.76	-0.02	Pass
1	1	2412	-15.42	6.02	0.2	-9.2	-0.02	Pass
	6	2437	-12.68	6.02	0.2	-6.46	-0.02	Pass
	11	2462	-18.62	6.02	0.2	-12.4	-0.02	Pass
2	1	2412	-15.23	6.02	0.2	-9.01	-0.02	Pass
	6	2437	-13.54	6.02	0.2	-7.32	-0.02	Pass
	11	2462	-20.38	6.02	0.2	-14.16	-0.02	Pass
3	1	2412	-16.09	6.02	0.2	-9.87	-0.02	Pass
	6	2437	-13.05	6.02	0.2	-6.83	-0.02	Pass
	11	2462	-19.98	6.02	0.2	-13.76	-0.02	Pass

Note:

- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add  $10 \log (N_{ANT})$  dB.
- Directional gain =  $8.0 \text{ dBi} + 10\log(4) = 14.02 \text{ dBi} > 6 \text{ dBi}$  , so the power density limit shall be reduced to  $8 - (14.02 - 6) = -0.02 \text{ dBm}$ .
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

TX chain	Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/3kHz)	10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
0	3	2422	-20.6	6.02	0.2	-14.38	-0.02	Pass
	6	2437	-19.16	6.02	0.2	-12.94	-0.02	Pass
	9	2452	-22.41	6.02	0.2	-16.19	-0.02	Pass
1	3	2422	-19.73	6.02	0.2	-13.51	-0.02	Pass
	6	2437	-18.1	6.02	0.2	-11.88	-0.02	Pass
	9	2452	-21.3	6.02	0.2	-15.08	-0.02	Pass
2	3	2422	-19.14	6.02	0.2	-12.92	-0.02	Pass
	6	2437	-17.58	6.02	0.2	-11.36	-0.02	Pass
	9	2452	-21.06	6.02	0.2	-14.84	-0.02	Pass
3	3	2422	-19.88	6.02	0.2	-13.66	-0.02	Pass
	6	2437	-19.16	6.02	0.2	-12.94	-0.02	Pass
	9	2452	-22.41	6.02	0.2	-16.19	-0.02	Pass

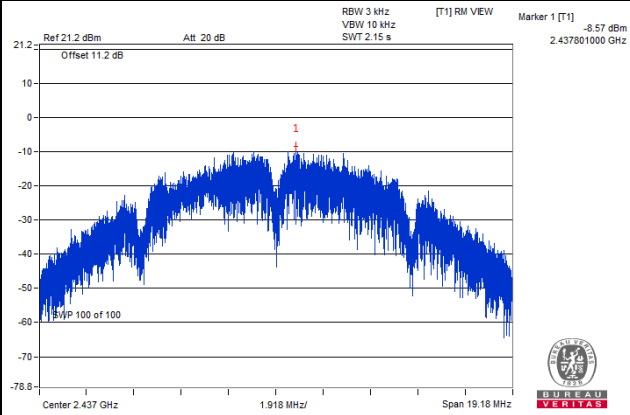
Note:

- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add  $10 \log(N_{ANT})$  dB.
- Directional gain =  $8.0 \text{ dBi} + 10\log(4) = 14.02 \text{ dBi} > 6 \text{ dBi}$  , so the power density limit shall be reduced to  $8 - (14.02 - 6) = -0.02 \text{ dBm}$ .
- Refer to section 3.3 for duty cycle spectrum plot.

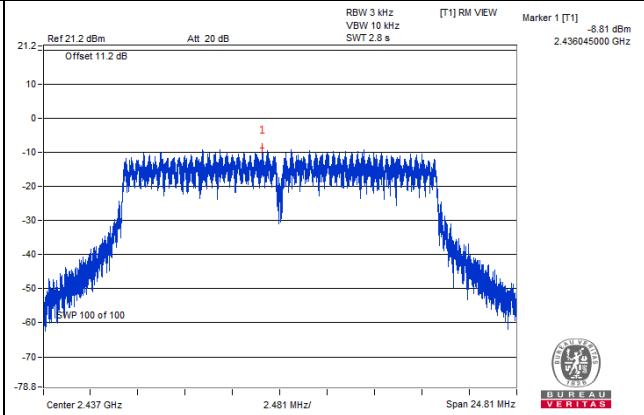


### Spectrum Plot of Worst Value

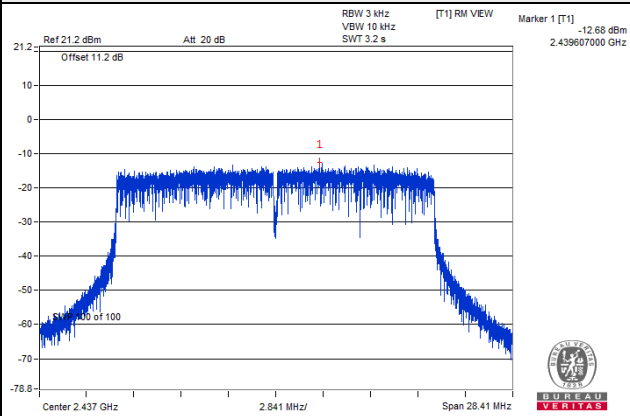
#### 802.11b



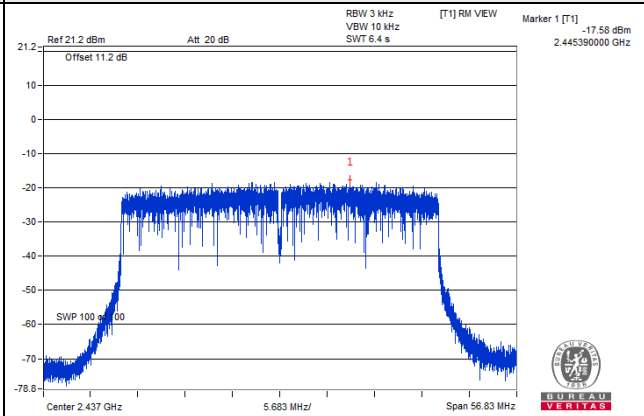
#### 802.11g



#### 802.11ax (HE20)



#### 802.11ax (HE40)

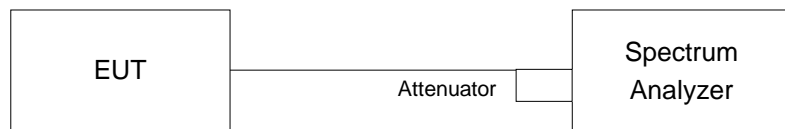


## 4.6 Conducted Out of Band Emission Measurement

### 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

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

#### MEASUREMENT PROCEDURE OOB

- Set RBW = 100 kHz.
- Set VBW  $\geq$  300 kHz.
- Detector = peak.
- Sweep = auto couple.
- Trace Mode = max hold.
- Allow trace to fully stabilize.
- 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

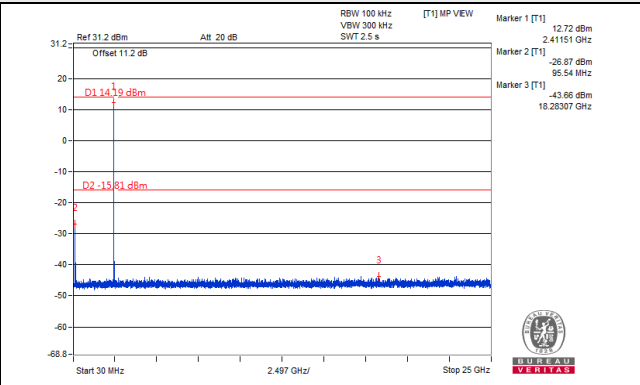
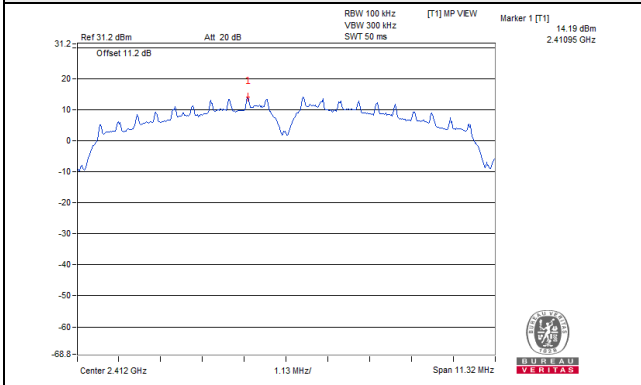
The conducted emission test is performed on each TX port of operating mode without summing or adding  $10\log(N)$  since the limit is relative emission limit.

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.

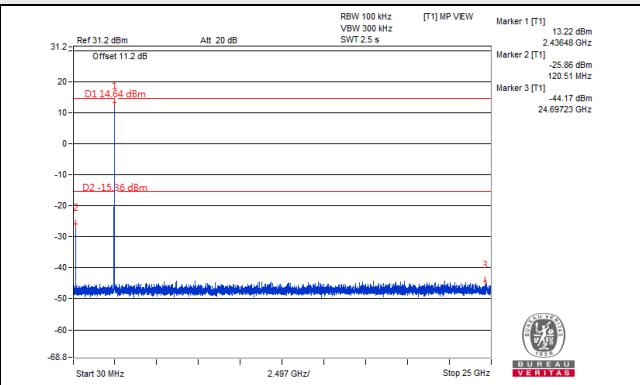
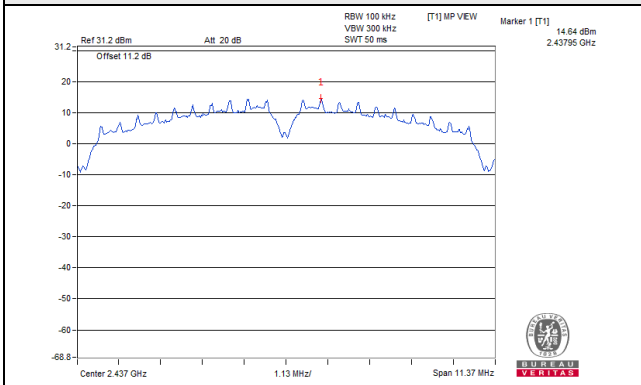
Mode A

802.11b\_Chain 0

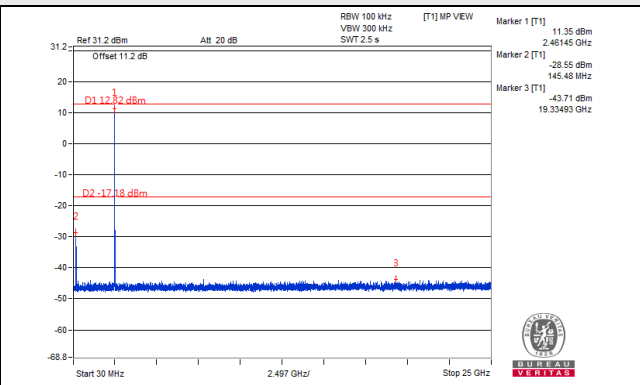
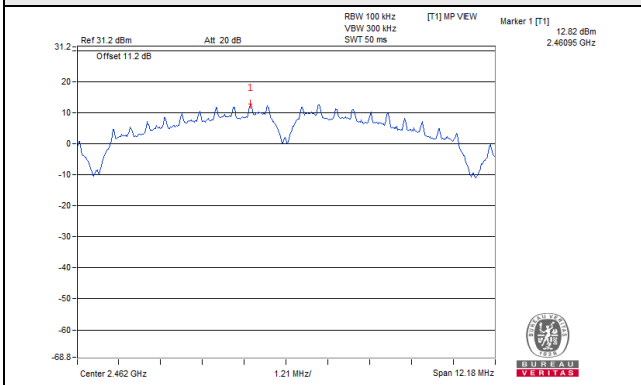
CH 1



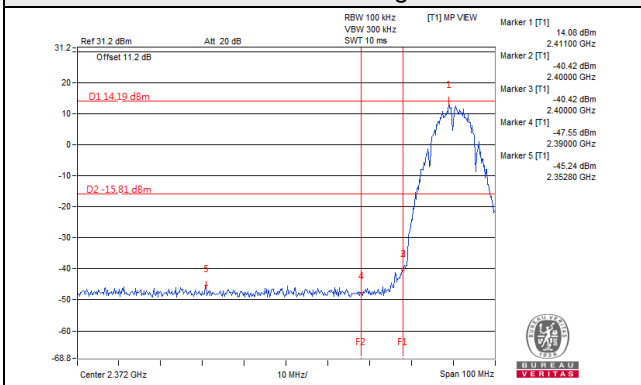
CH 6



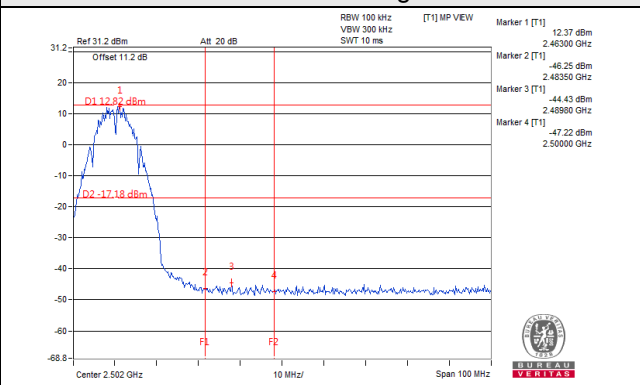
CH 11



CH 1 Band edge

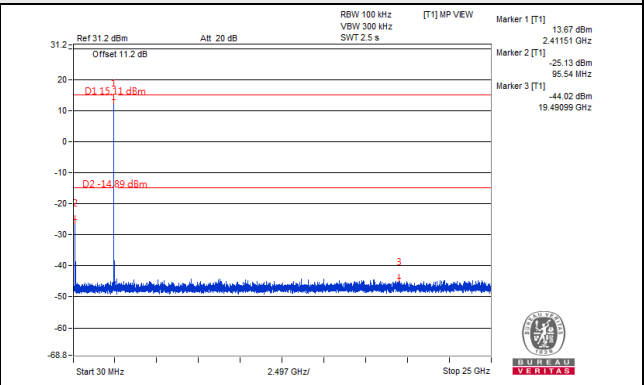
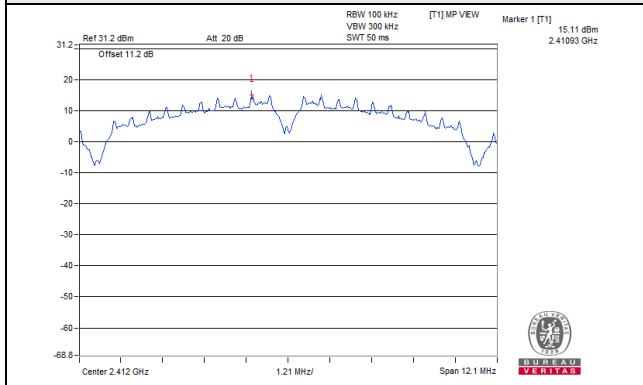


CH 11 Band edge

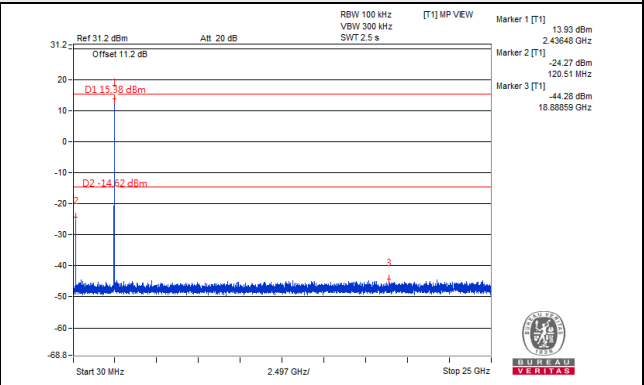
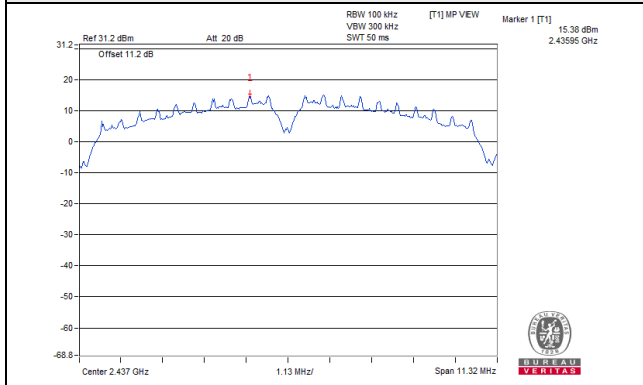


802.11b\_Chain 1

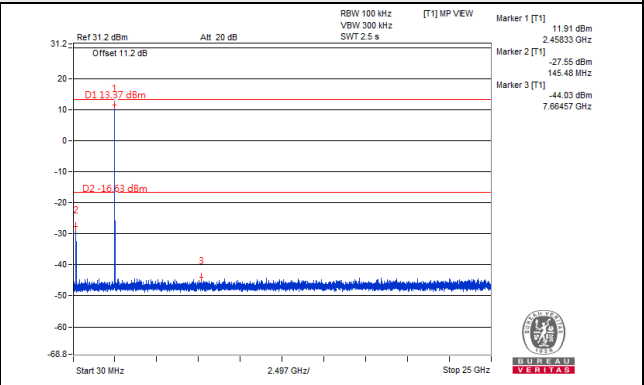
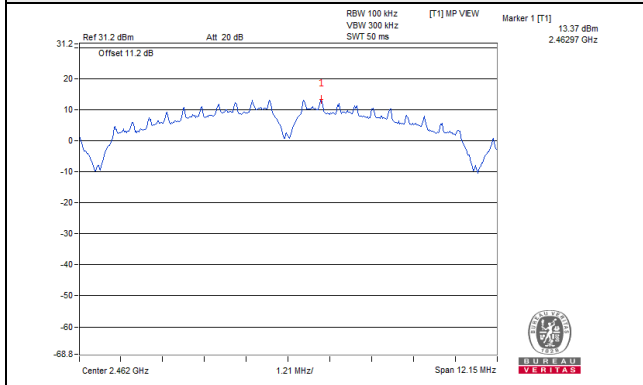
CH 1



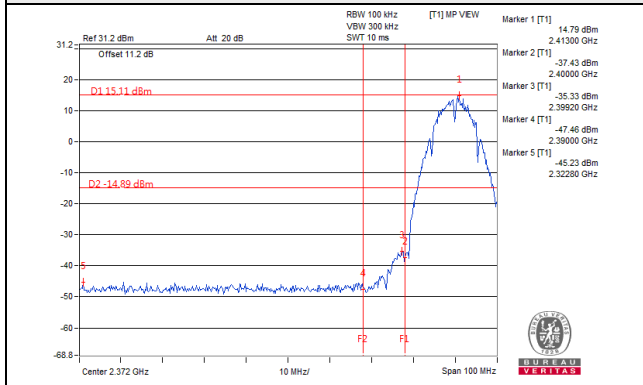
CH 6



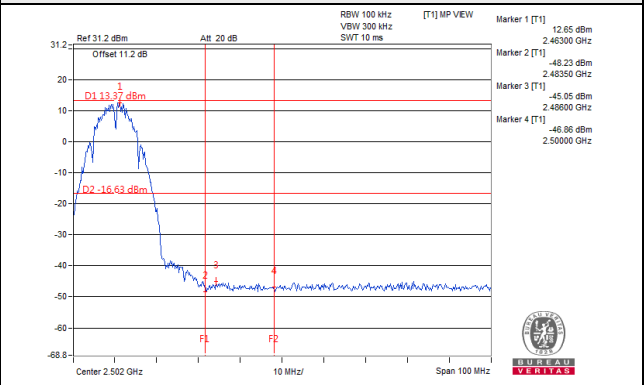
CH 11



CH 1 Band edge

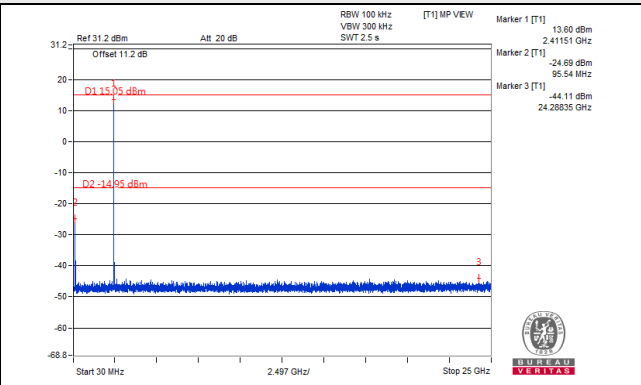
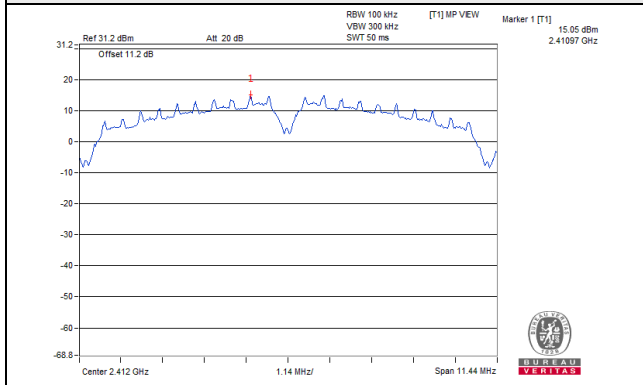


CH 11 Band edge

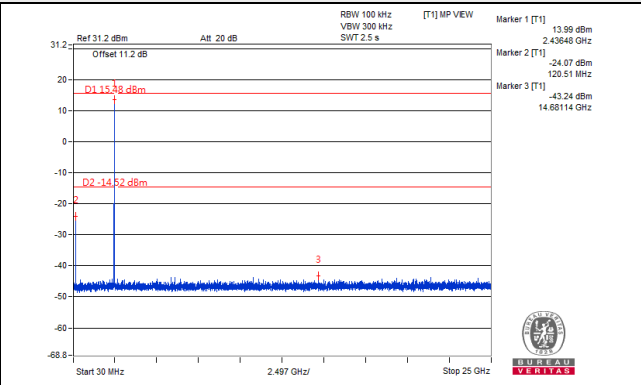
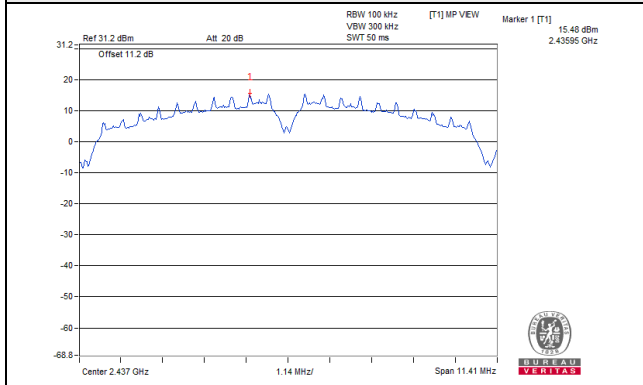


802.11b\_Chain 2

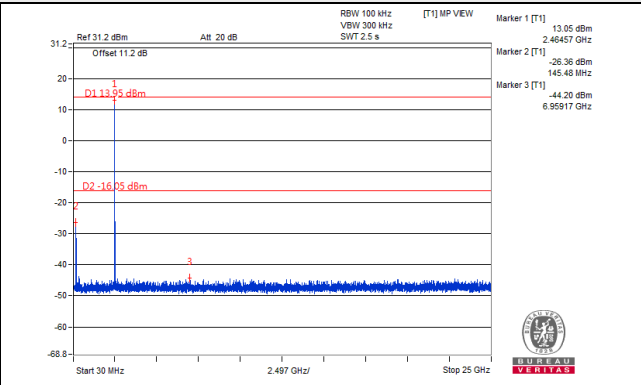
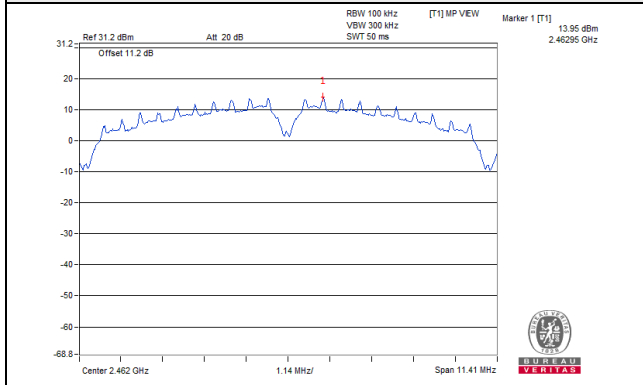
CH 1



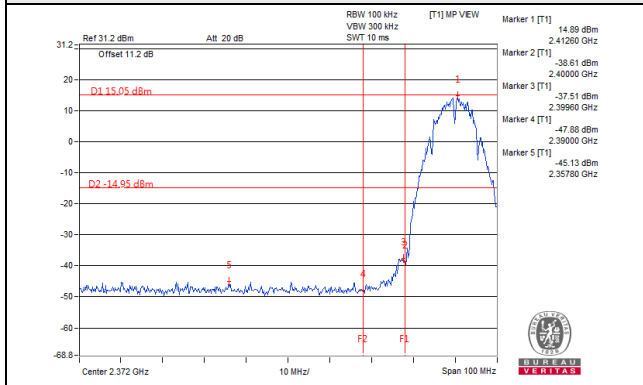
CH 6



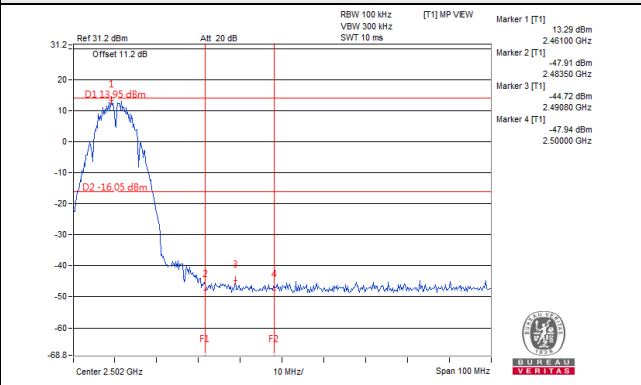
CH 11



CH 1 Band edge

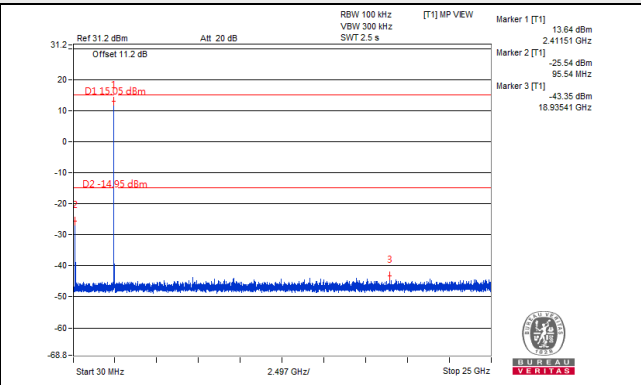
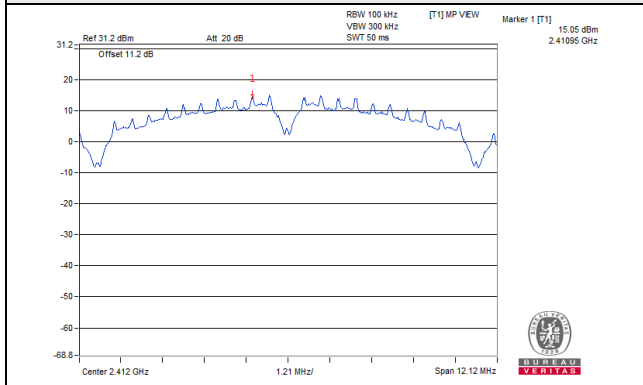


CH 11 Band edge

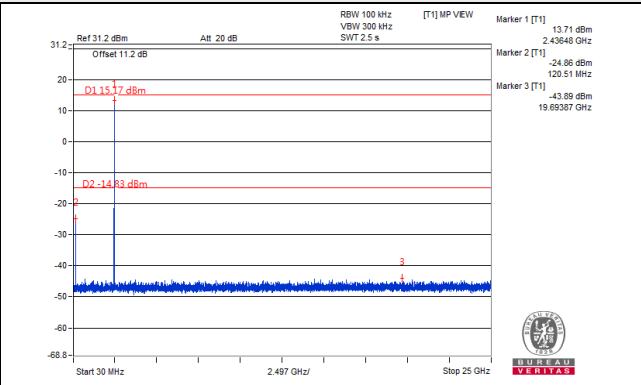
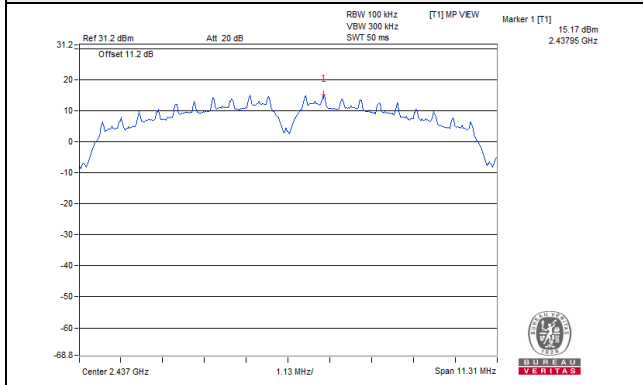


802.11b\_Chain 3

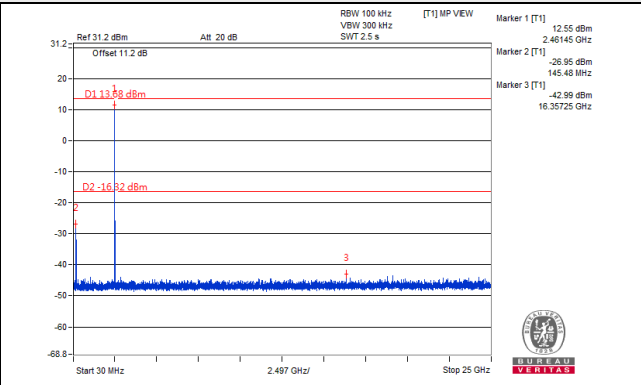
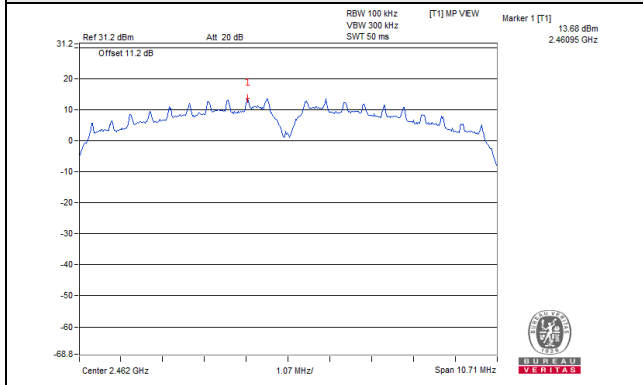
CH 1



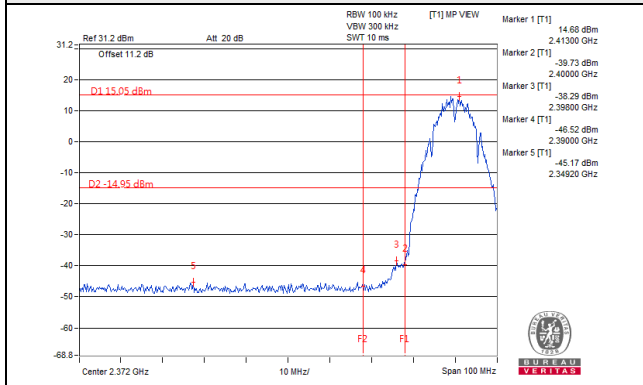
CH 6



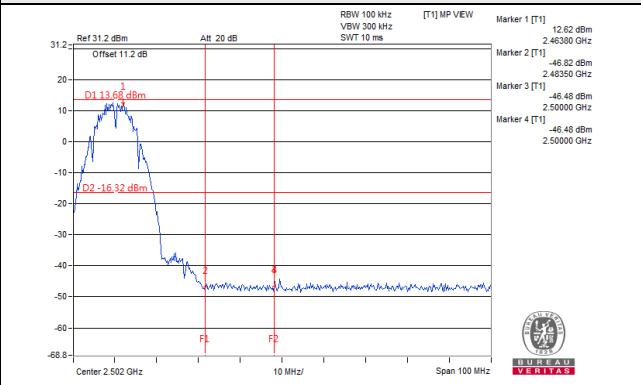
CH 11



CH 1 Band edge

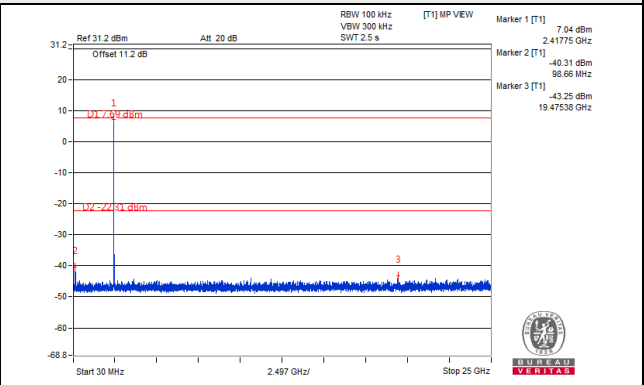
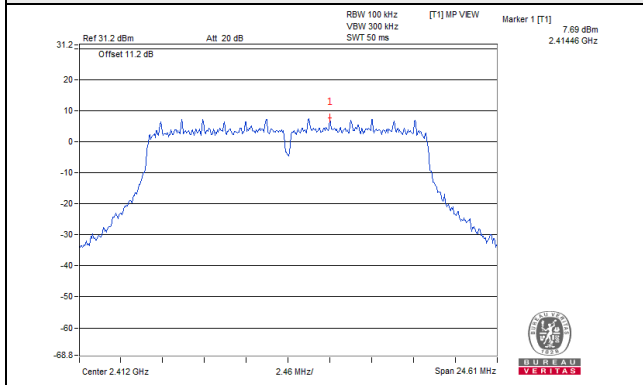


CH 11 Band edge

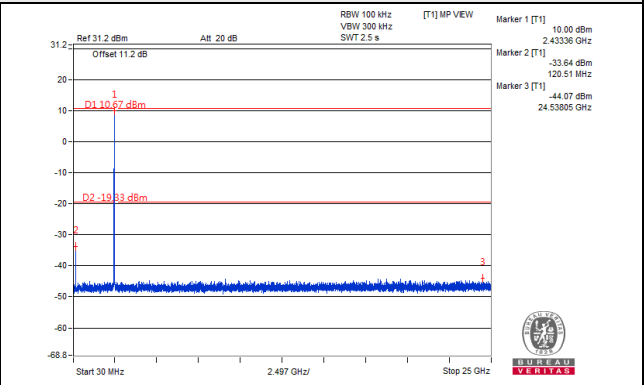
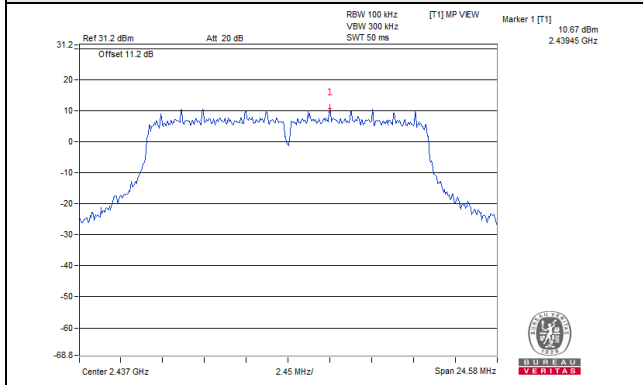


802.11g\_Chain 0

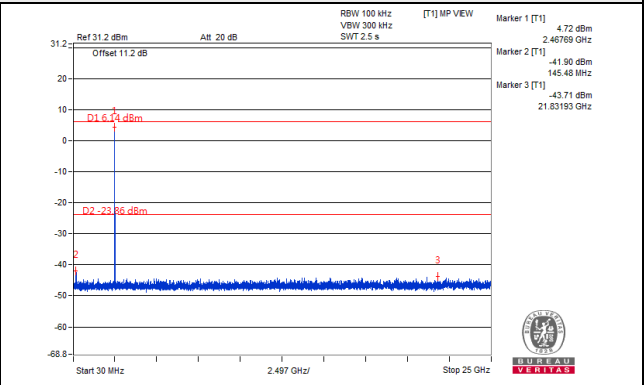
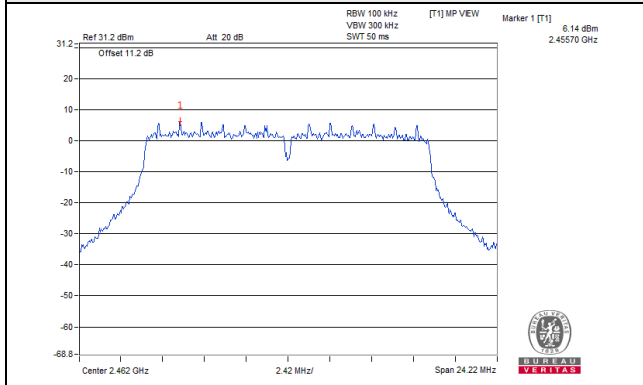
CH 1



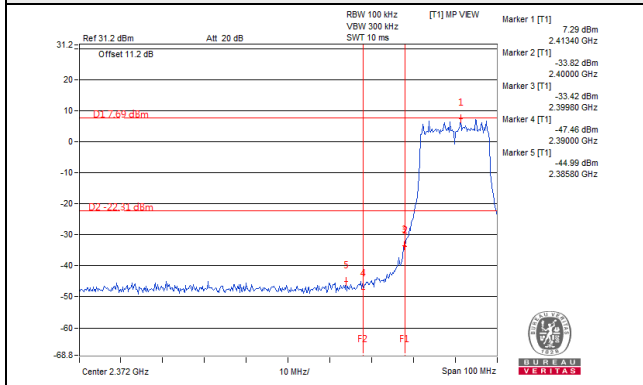
CH 6



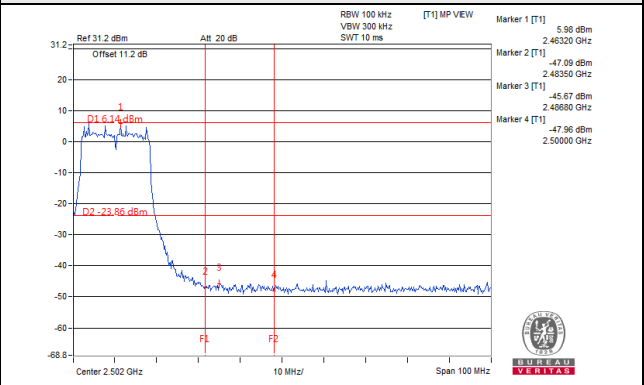
CH 11



CH 1 Band edge

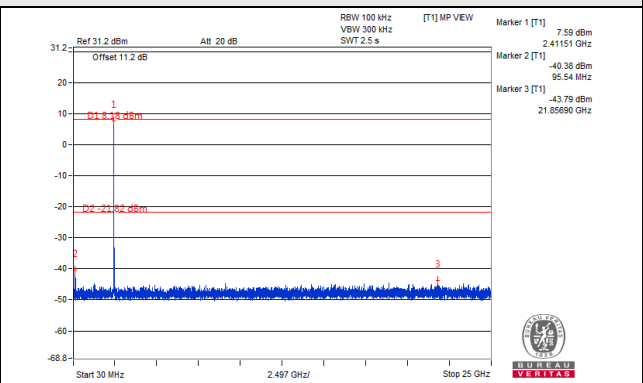
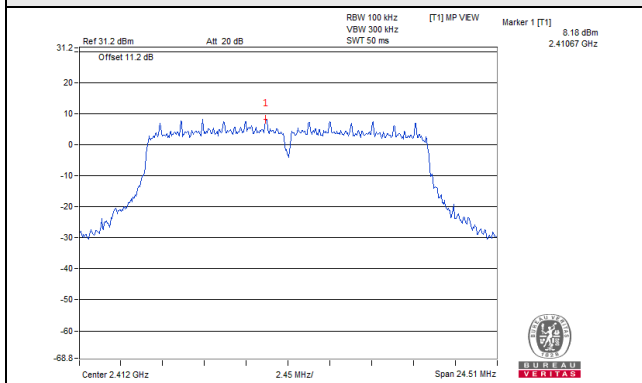


CH 11 Band edge

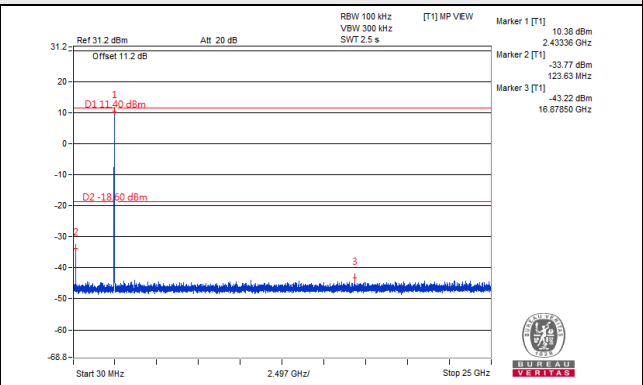
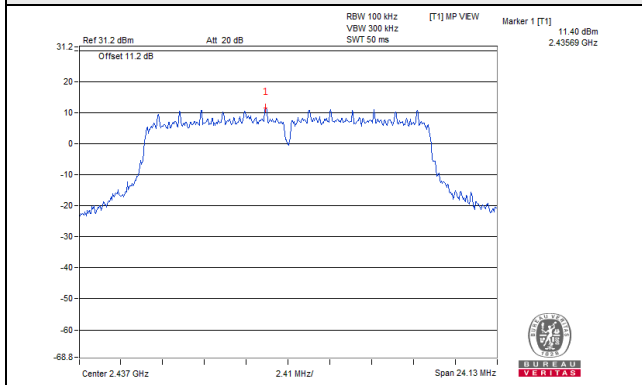


802.11g\_Chain 1

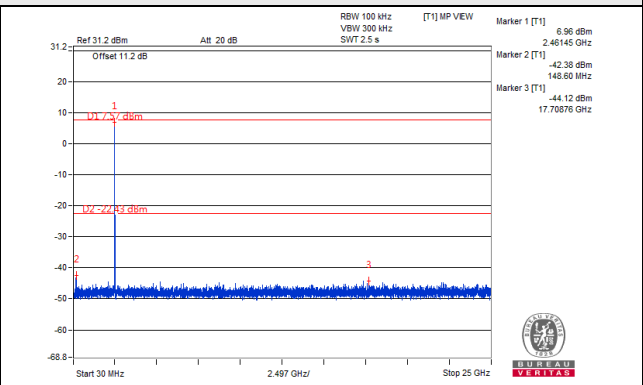
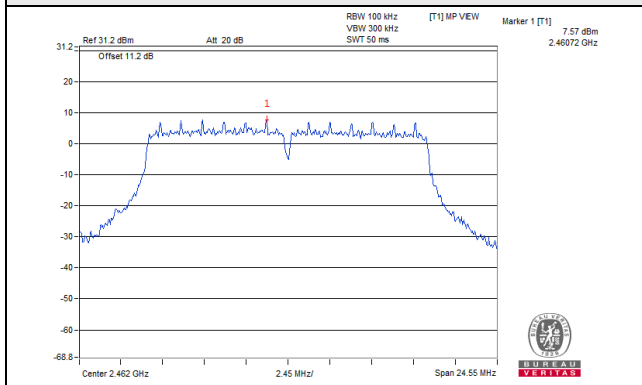
CH 1



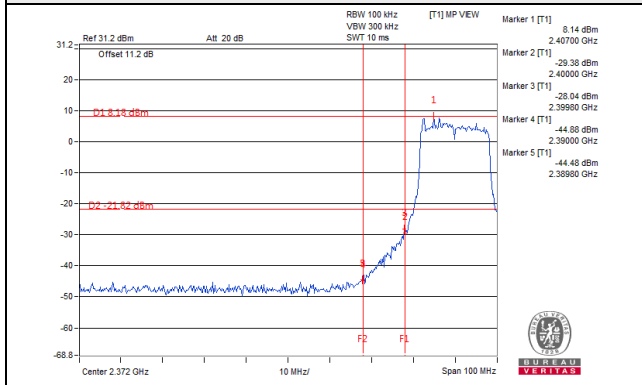
CH 6



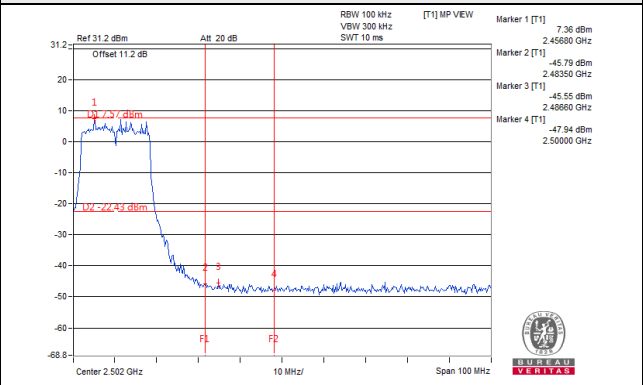
CH 11



CH 1 Band edge



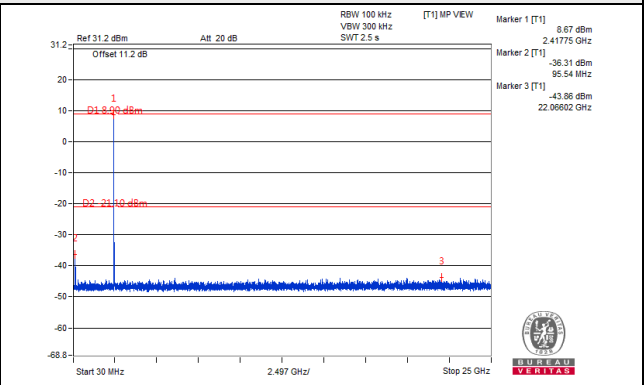
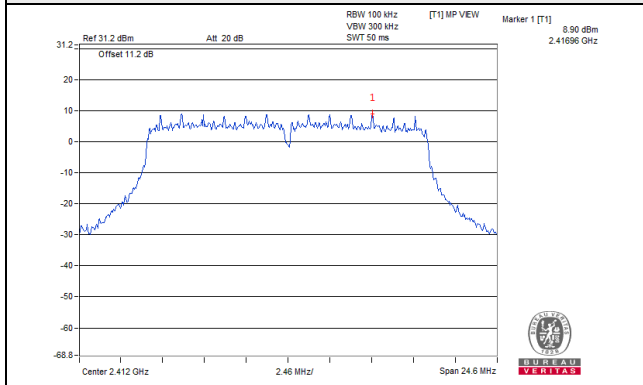
CH 11 Band edge



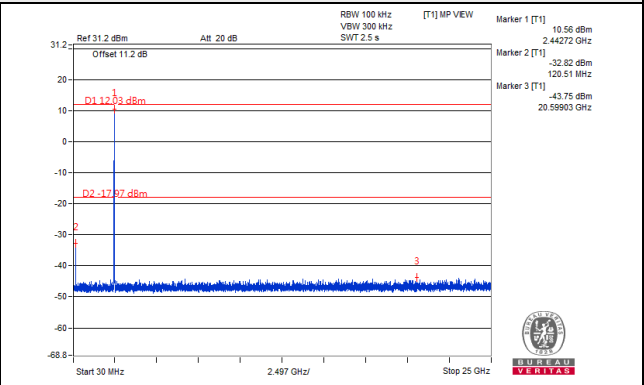
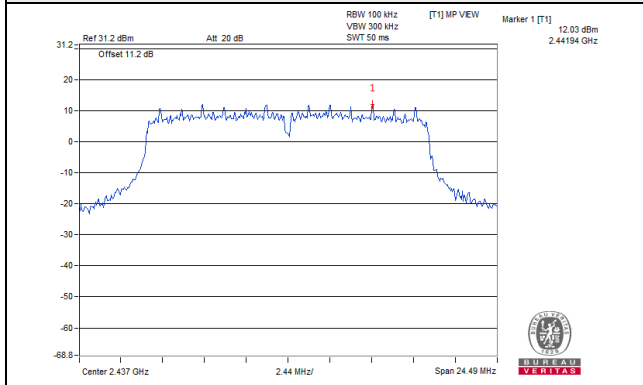


# 802.11g\_Chain 2

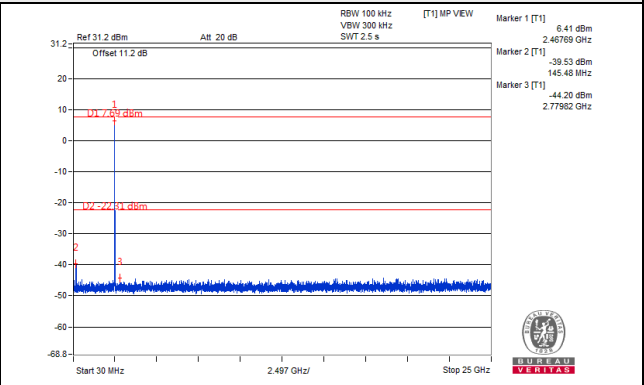
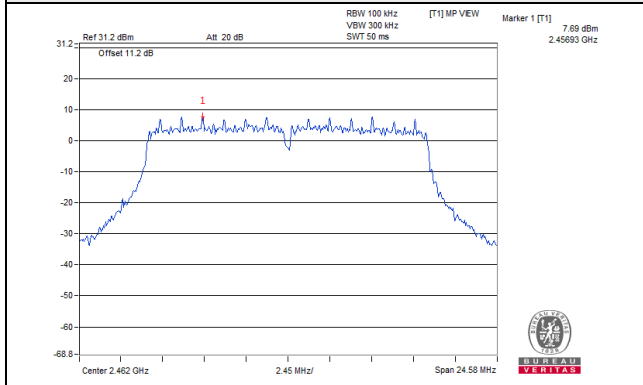
## CH 1



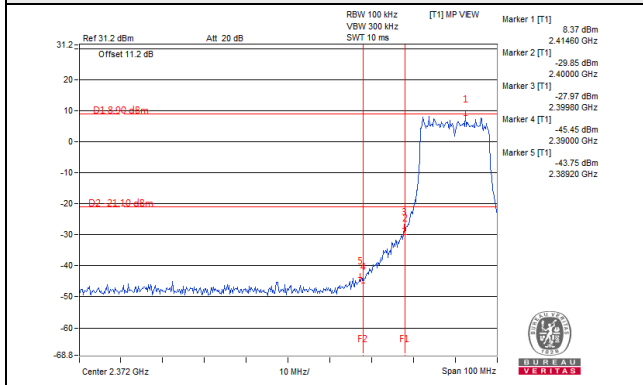
## CH 6



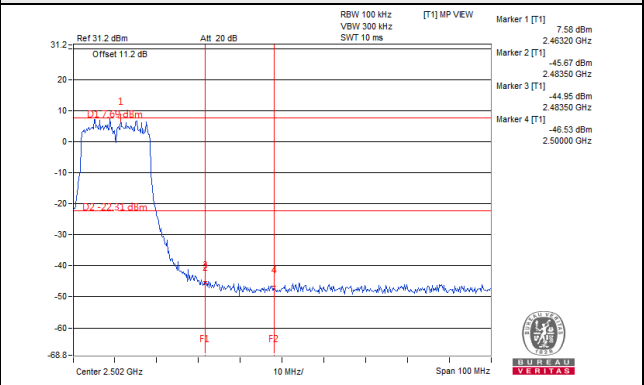
## CH 11



## CH 1 Band edge

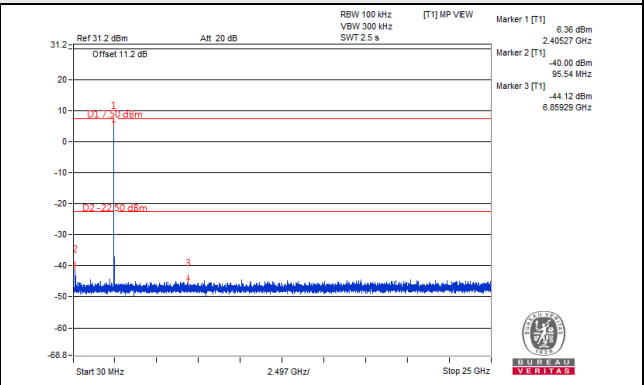
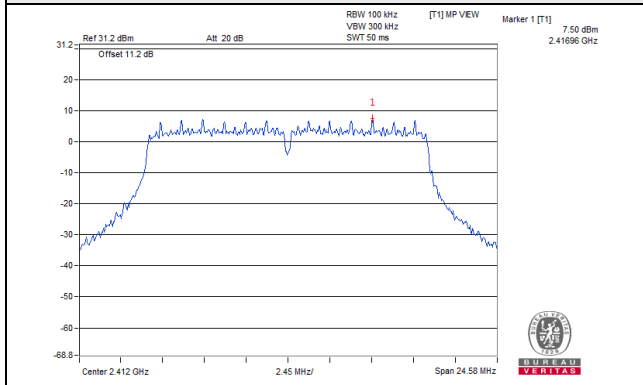


## CH 11 Band edge

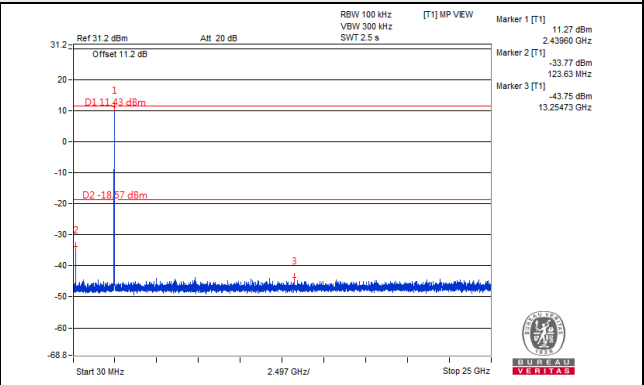
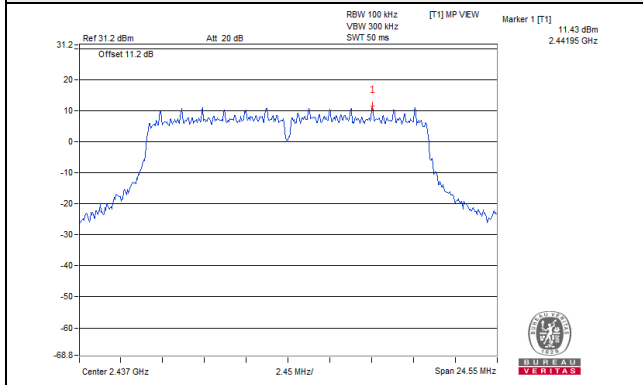


# 802.11g\_Chain 3

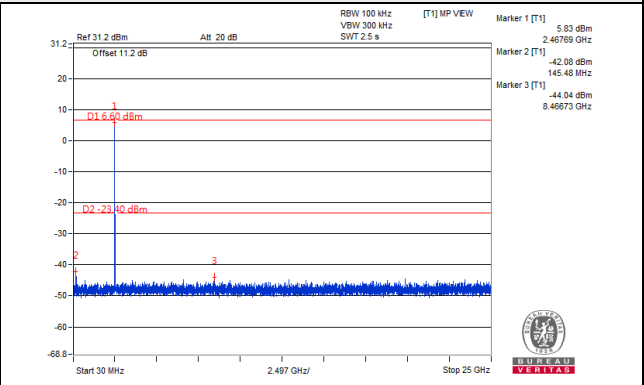
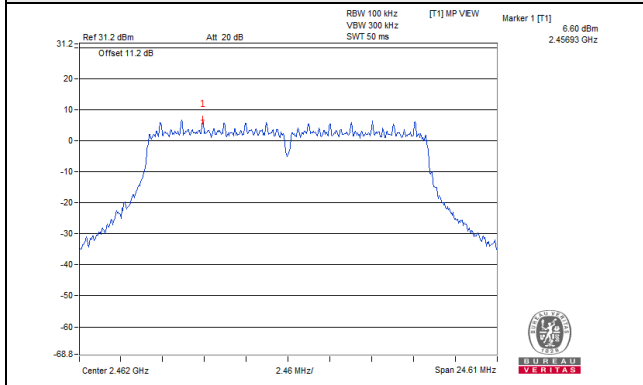
## CH 1



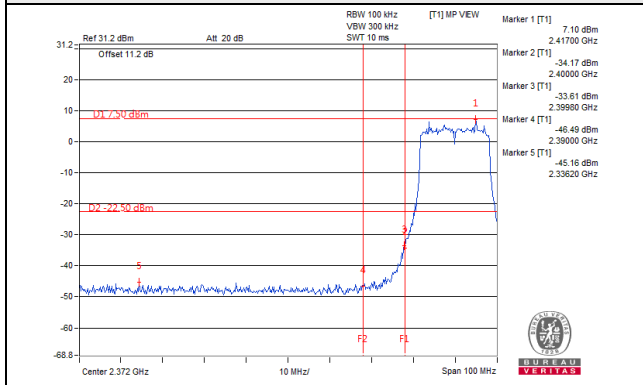
## CH 6



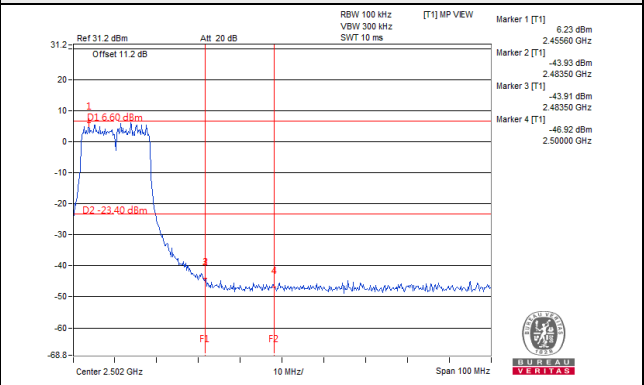
## CH 11



## CH 1 Band edge

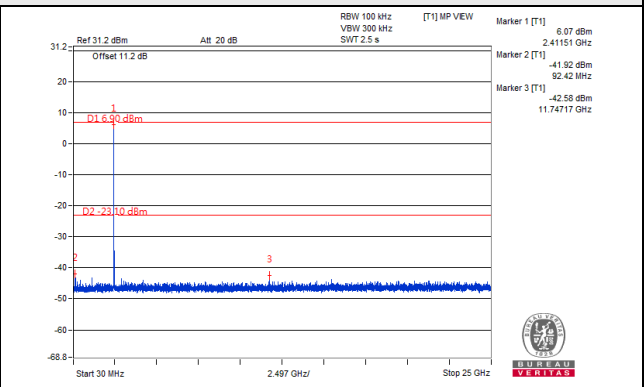
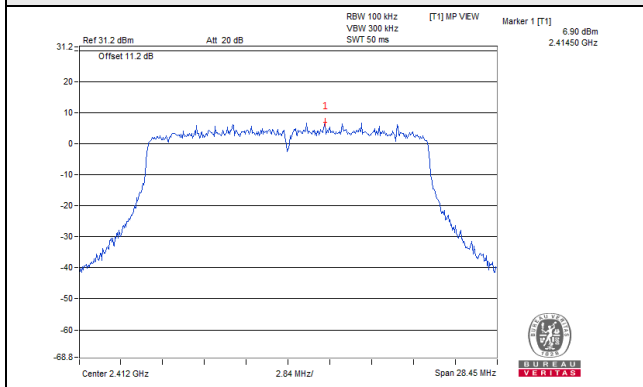


## CH 11 Band edge

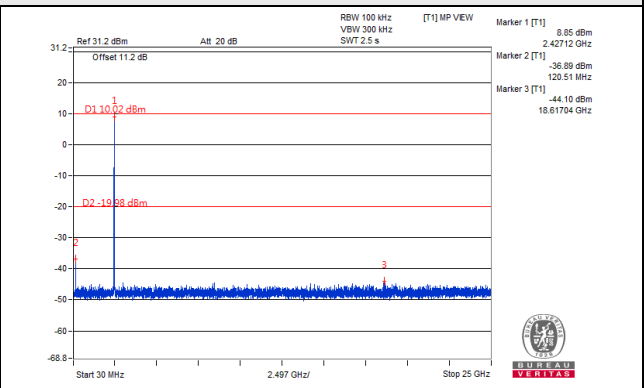
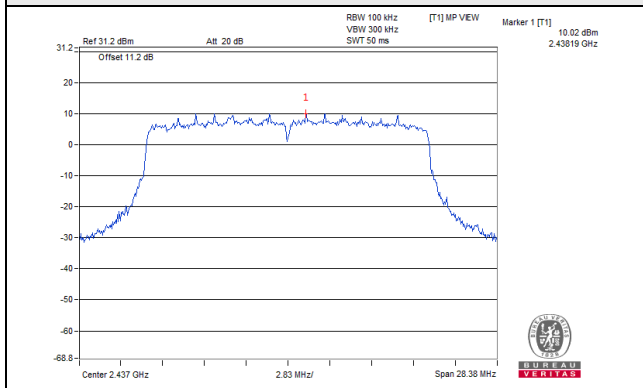


802.11ax (HE20)\_Chain 0

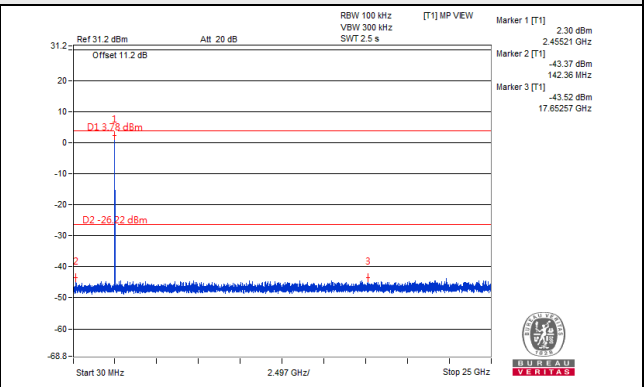
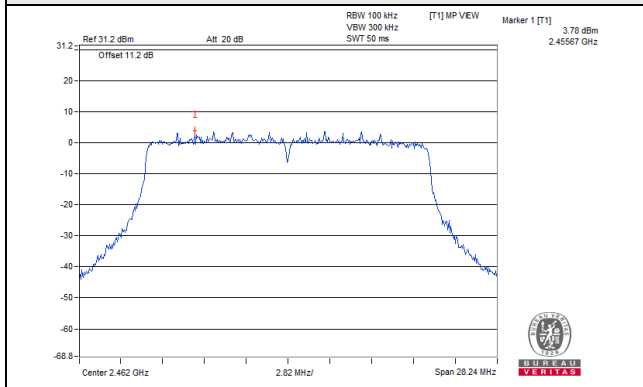
CH 1



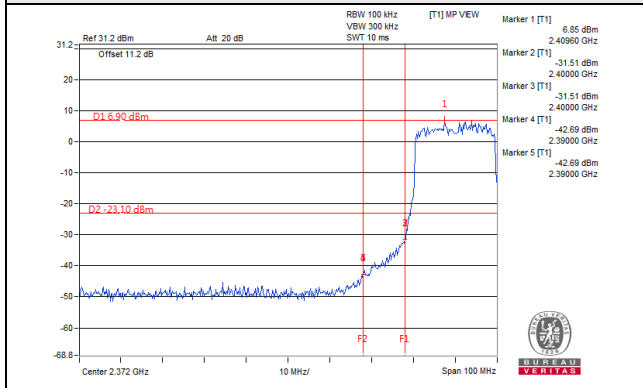
CH 6



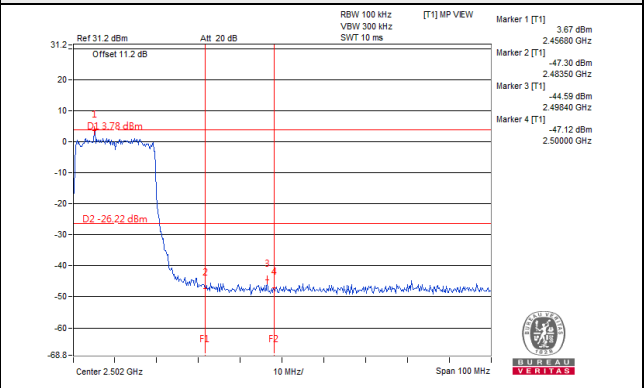
CH 11



CH 1 Band edge

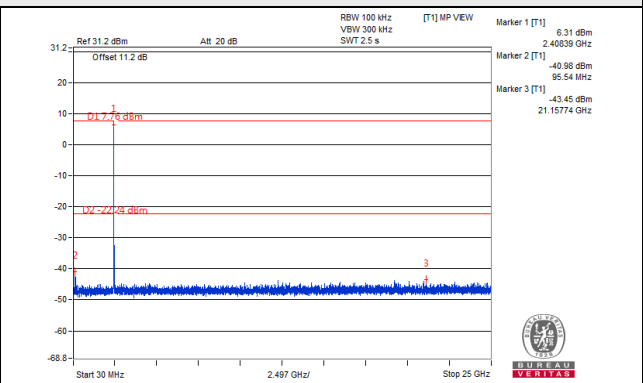
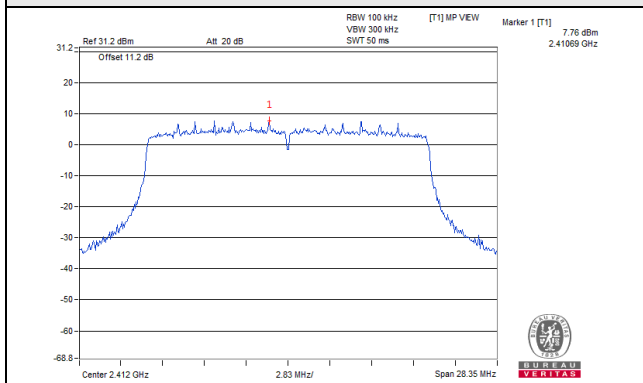


CH 11 Band edge

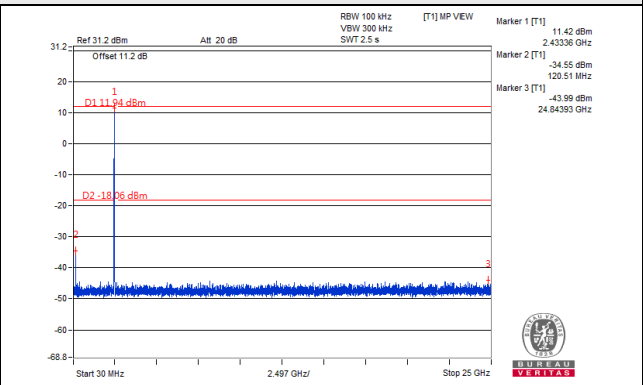
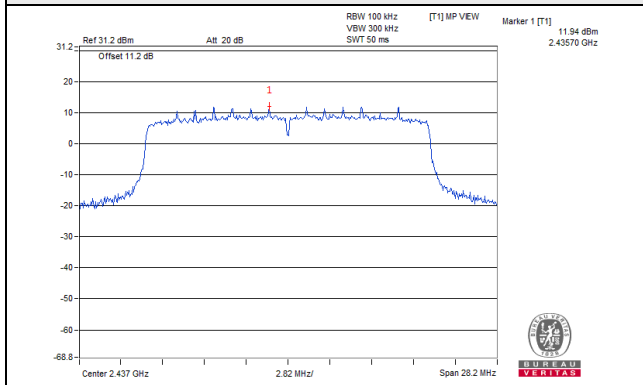


802.11ax (HE20)\_Chain 1

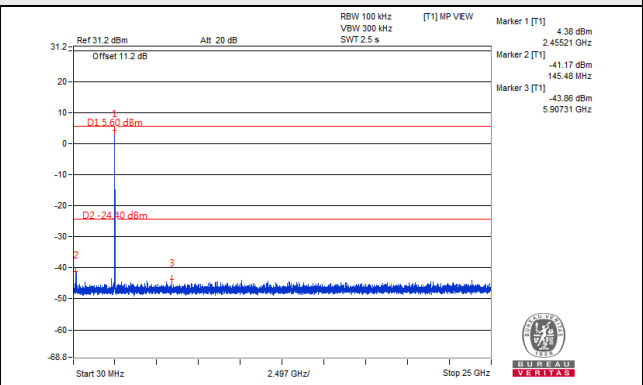
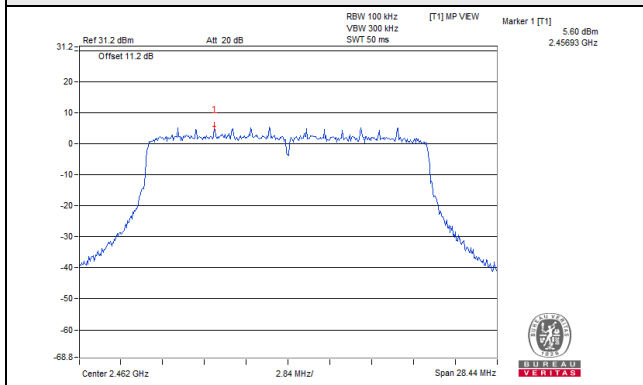
CH 1



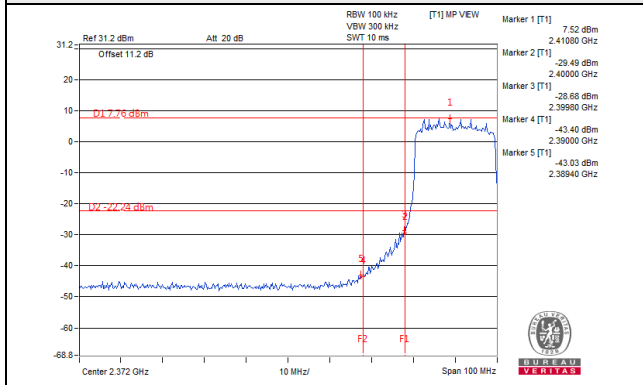
CH 6



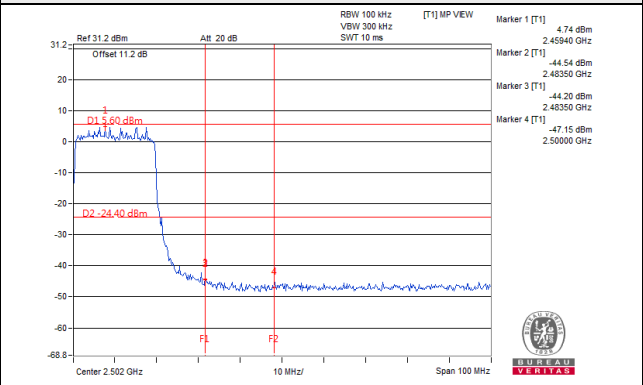
CH 11



CH 1 Band edge

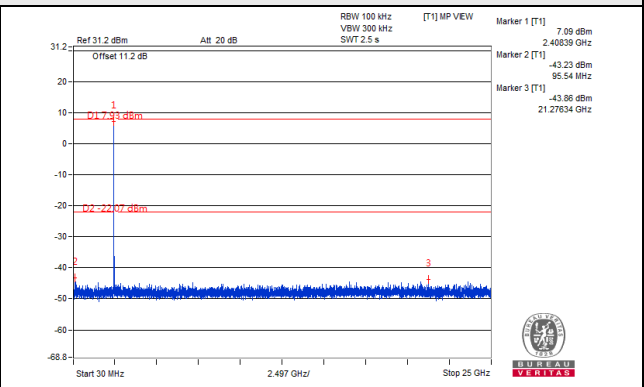
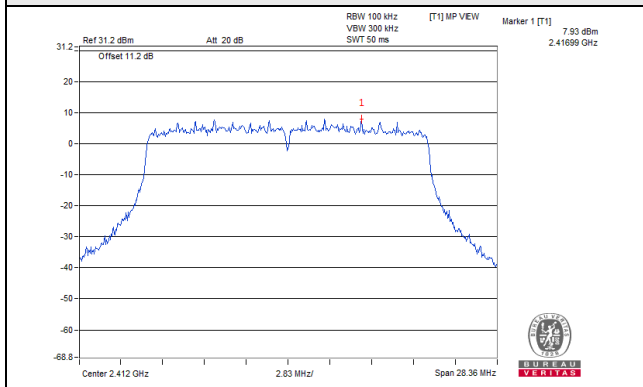


CH 11 Band edge

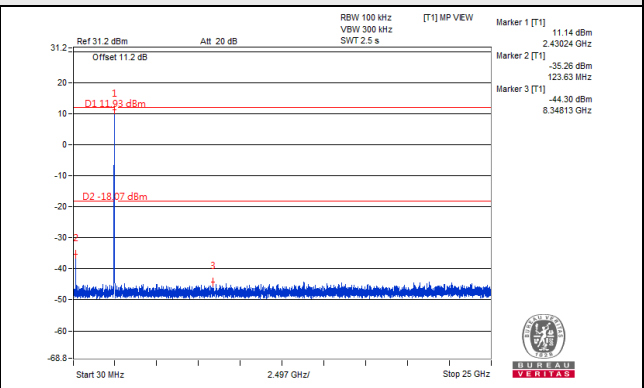
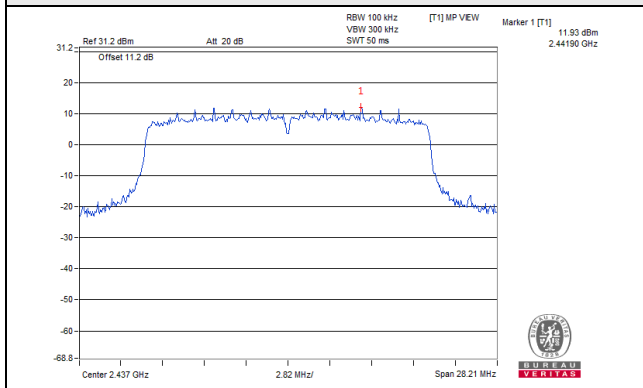


802.11ax (HE20)\_Chain 2

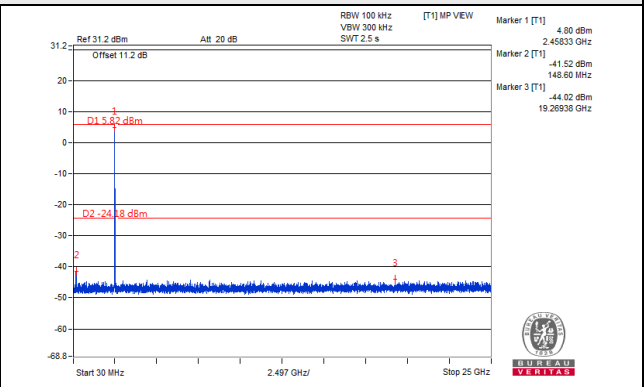
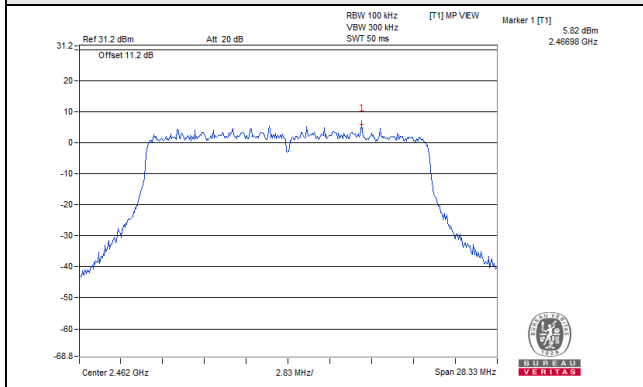
CH 1



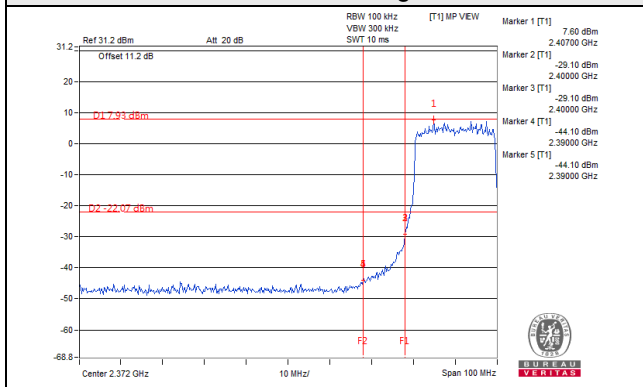
CH 6



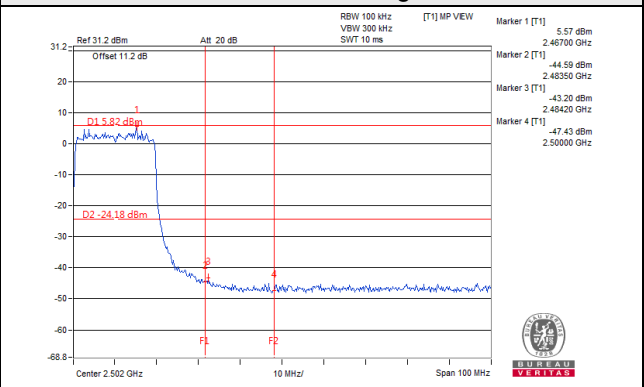
CH 11



CH 1 Band edge

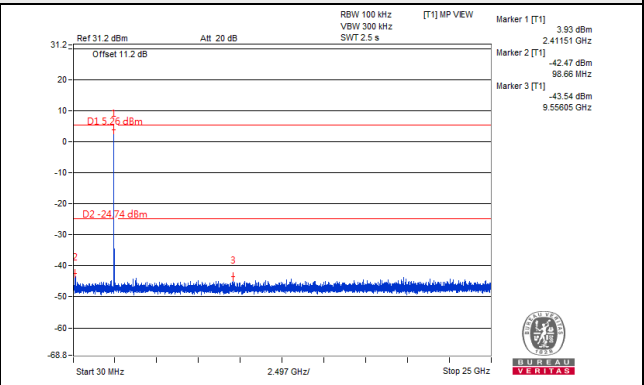
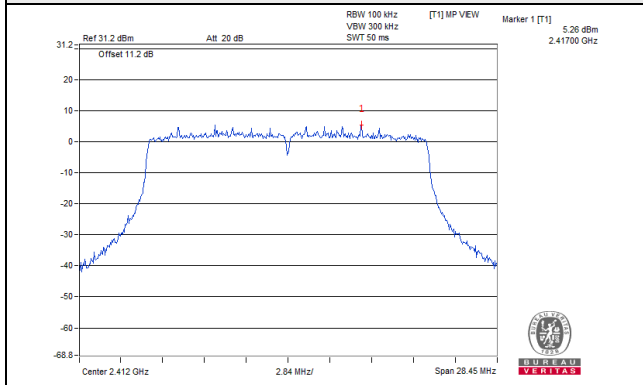


CH 11 Band edge

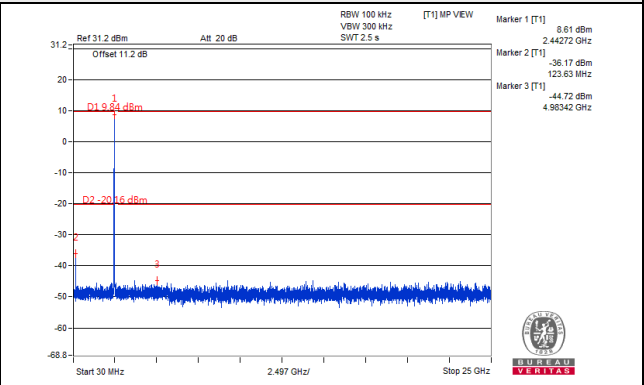
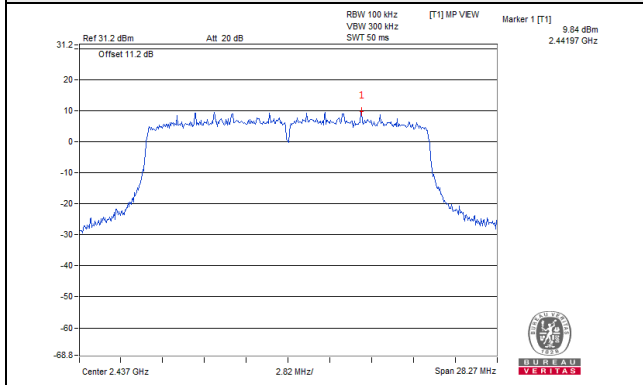


# 802.11ax (HE20)\_Chain 3

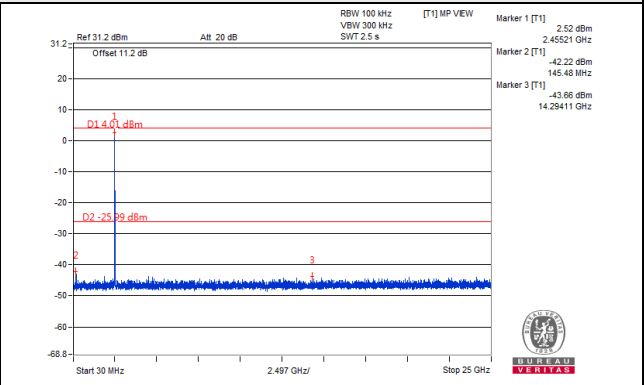
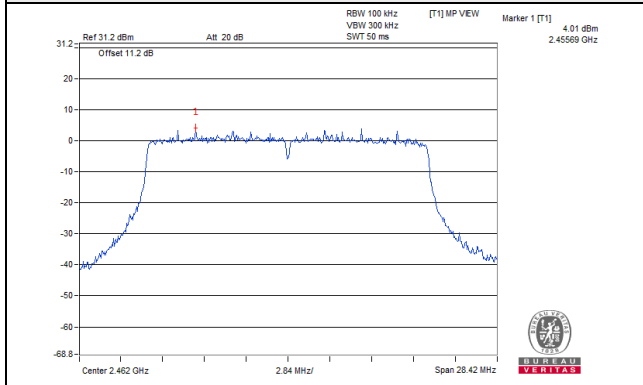
## CH 1



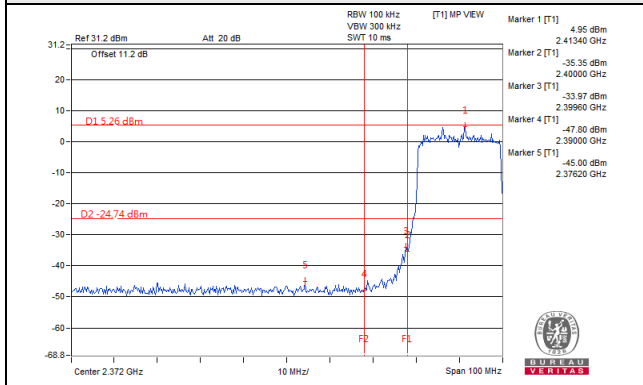
## CH 6



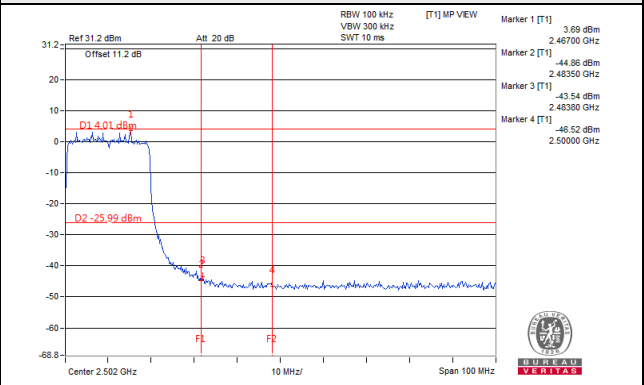
## CH 11



## CH 1 Band edge

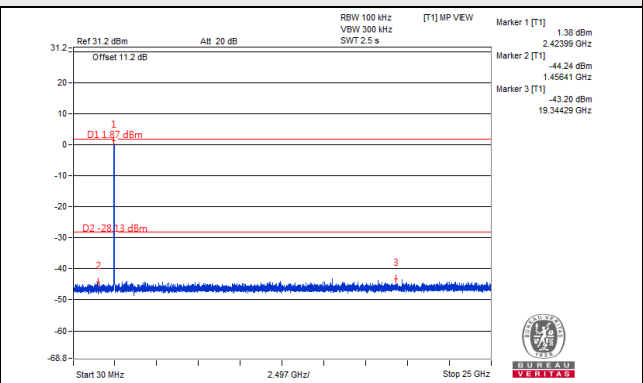
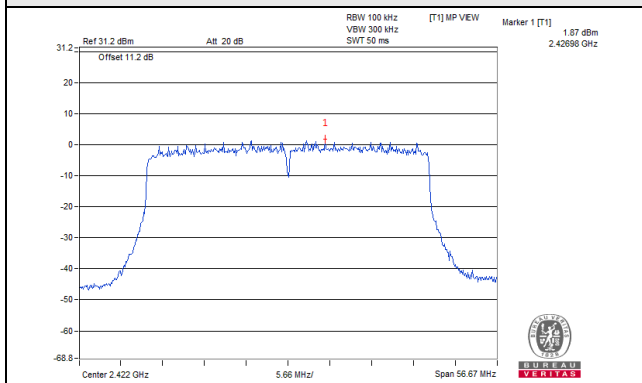


## CH 11 Band edge

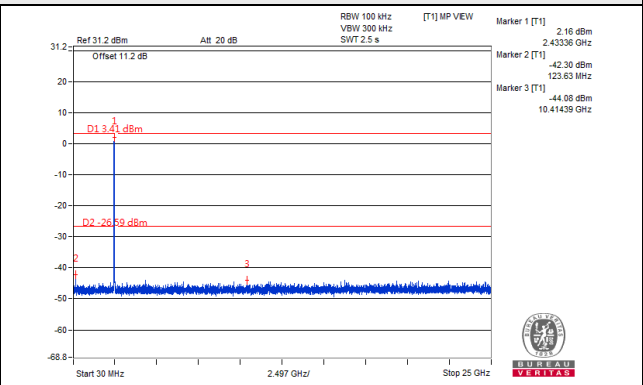
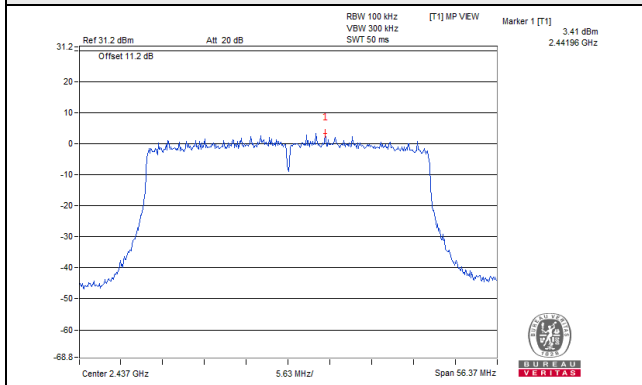


802.11ax (HE40)\_Chain 0

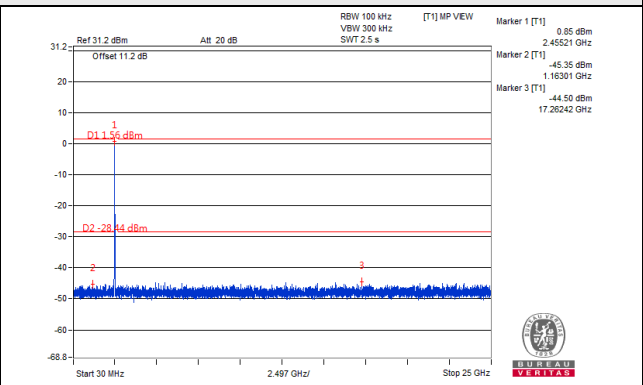
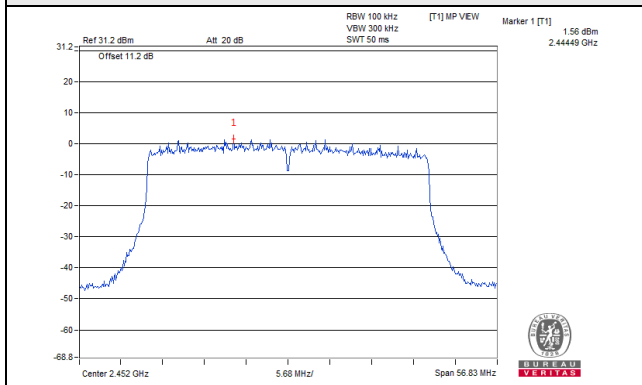
CH 3



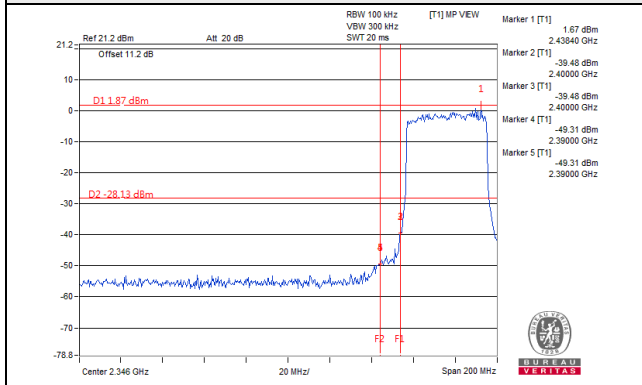
CH 6



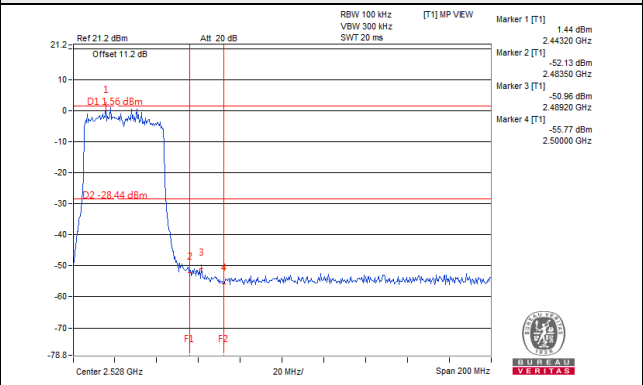
CH 9



CH 3 Band edge

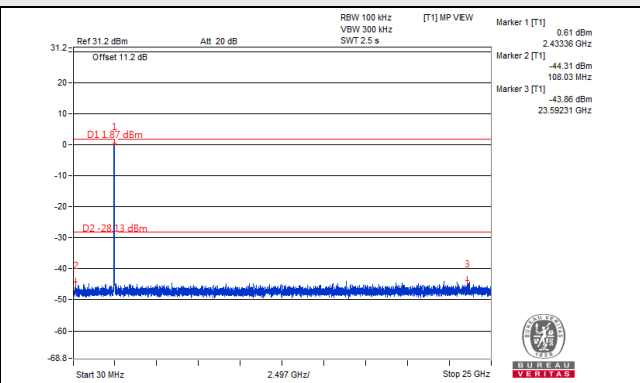
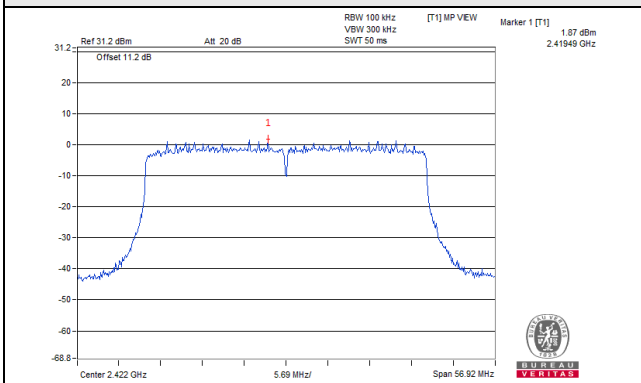


CH 9 Band edge

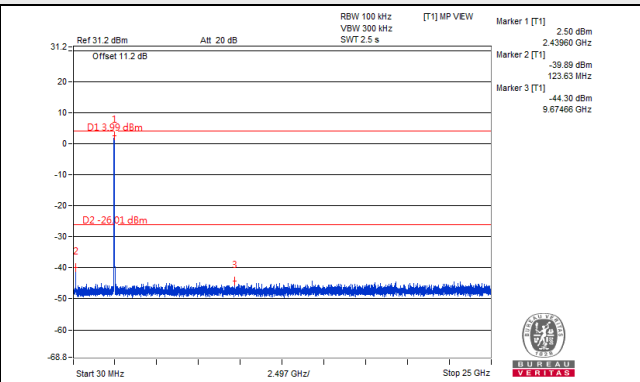
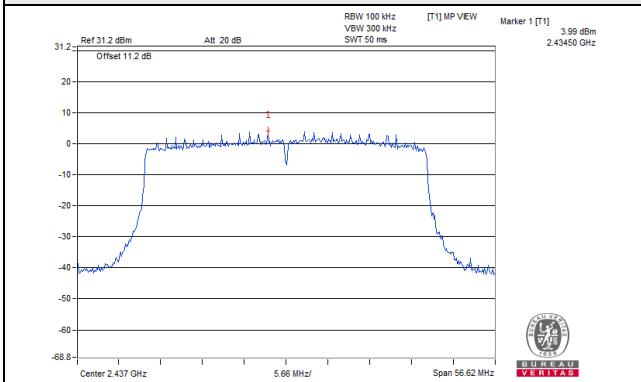


802.11ax (HE40)\_Chain 1

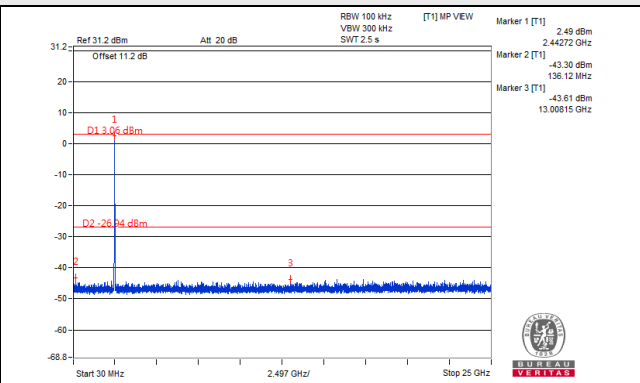
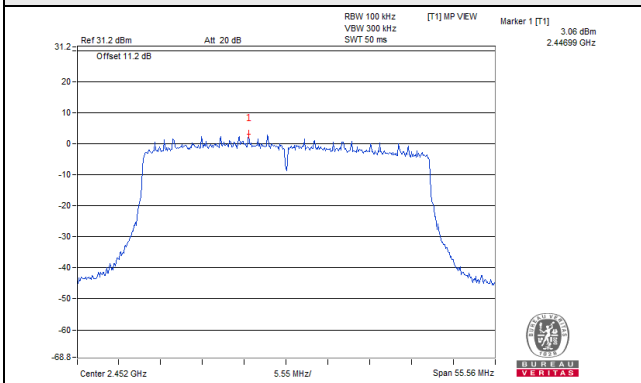
CH 3



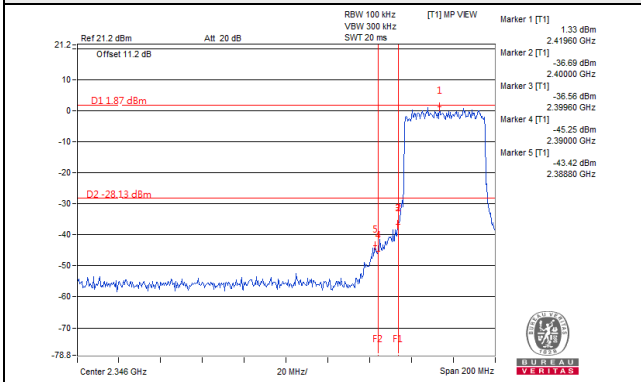
CH 6



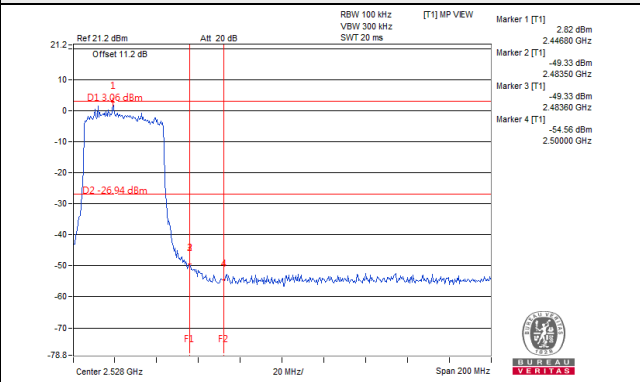
CH 9



CH 3 Band edge

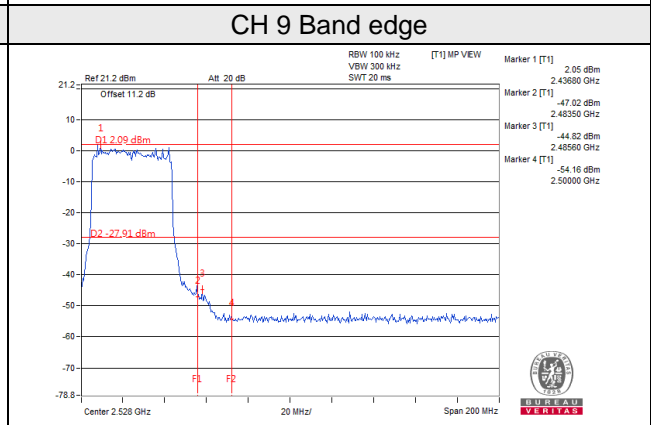
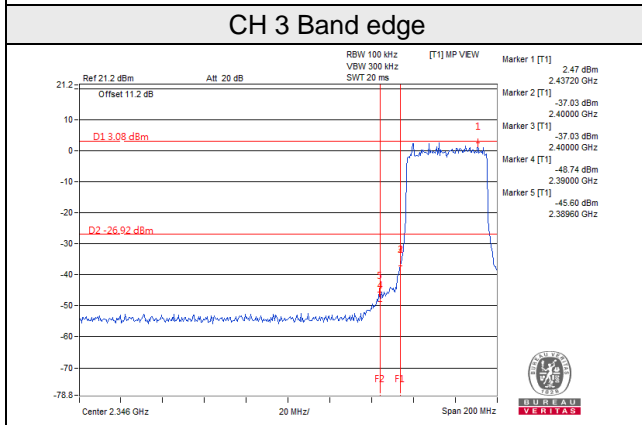
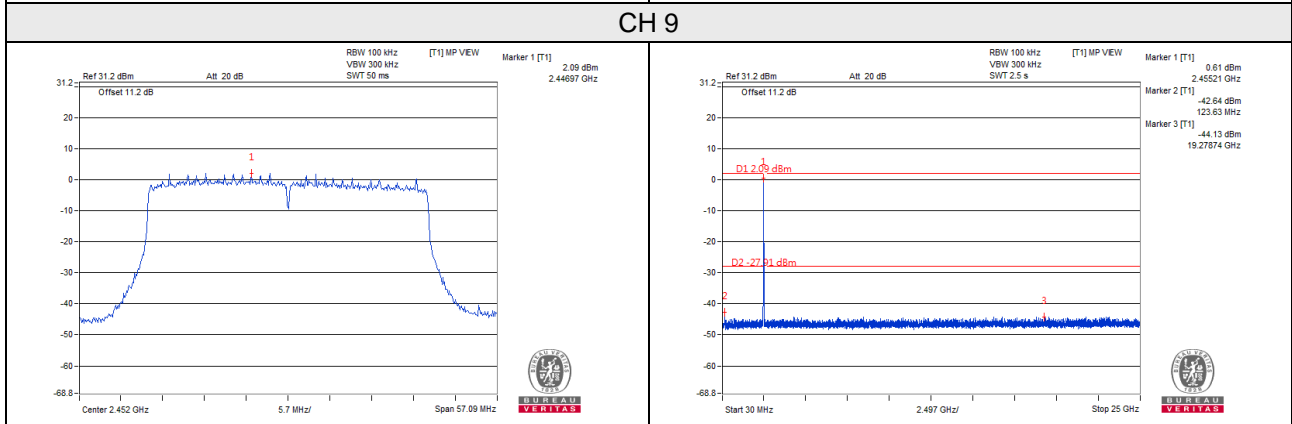
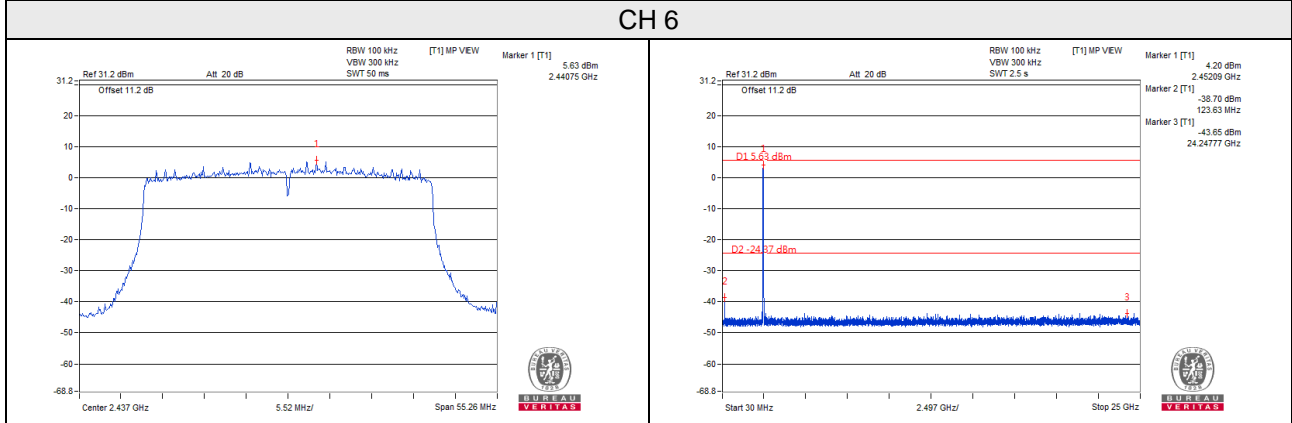
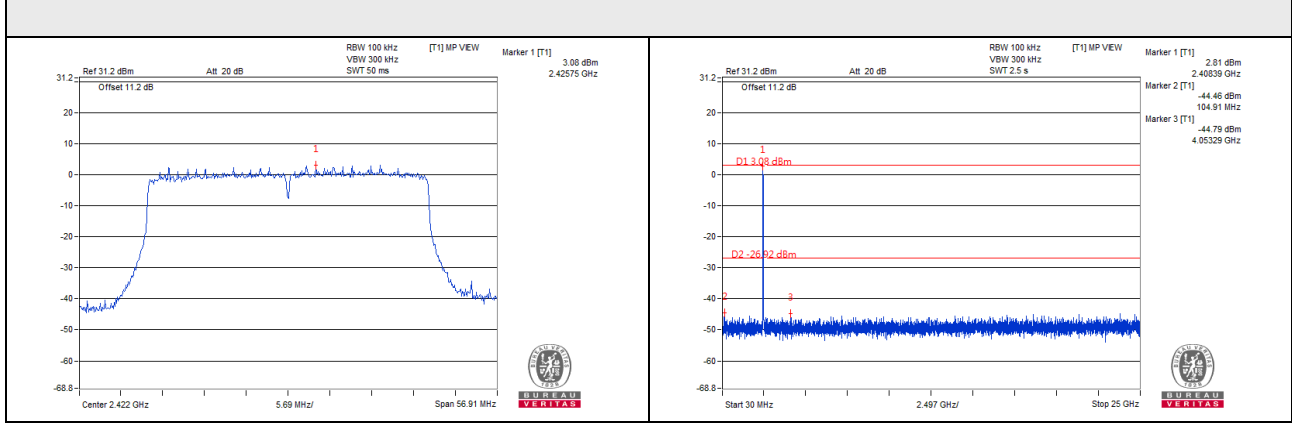


CH 9 Band edge



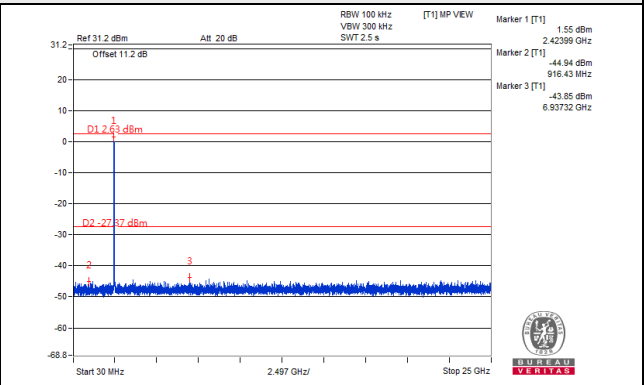
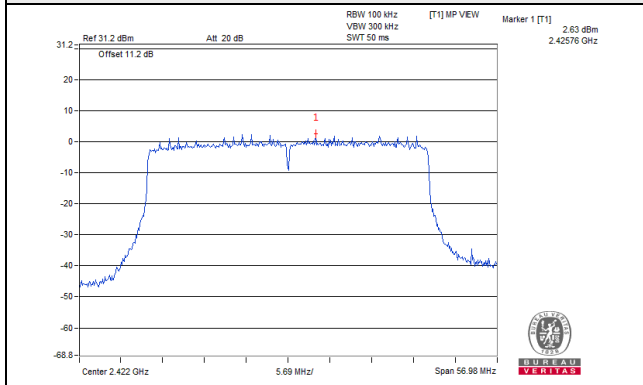


# 802.11ax (HE40)\_Chain 2

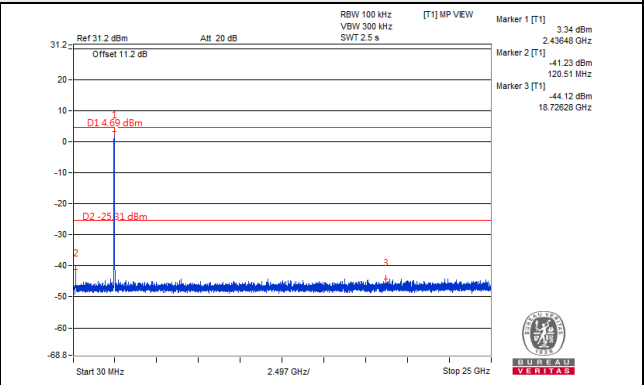
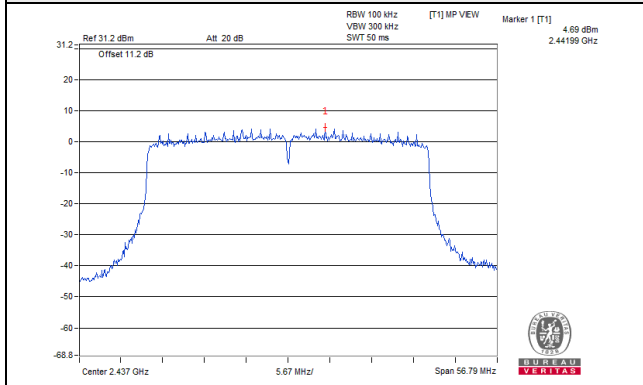


# 802.11ax (HE40)\_Chain 3

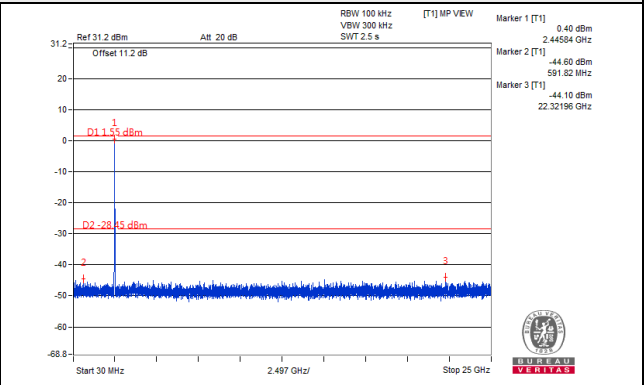
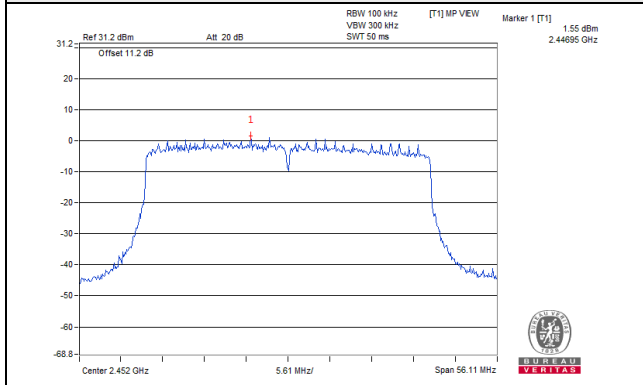
## CH 3



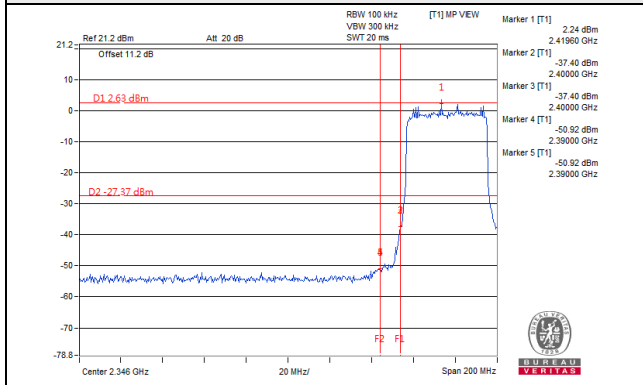
## CH 6



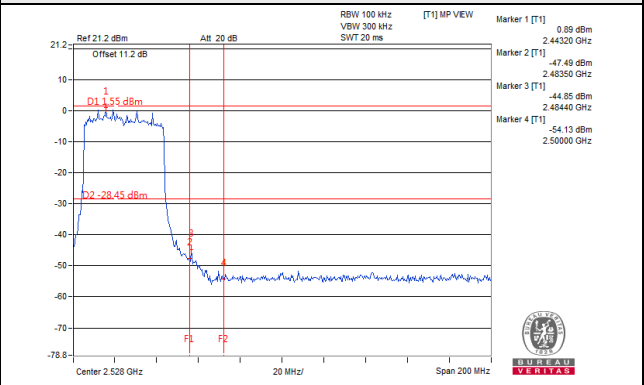
## CH 9



## CH 3 Band edge

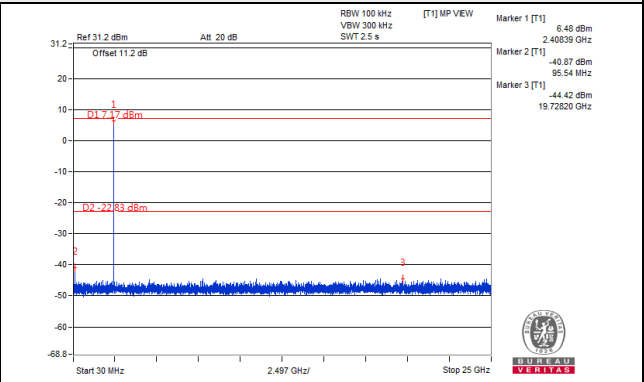
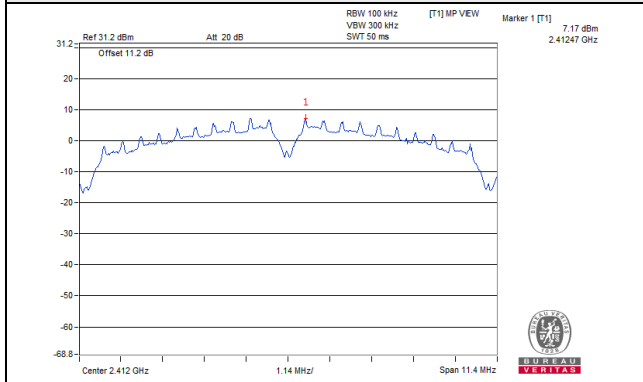


## CH 9 Band edge

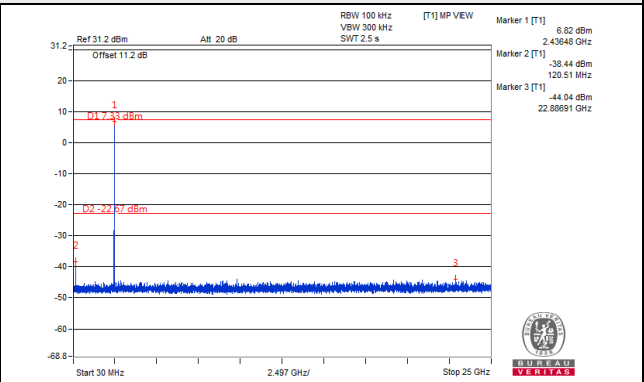
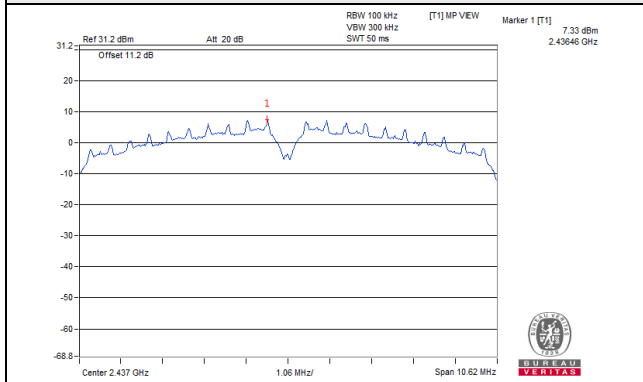


Mode B  
802.11b\_Chain 0

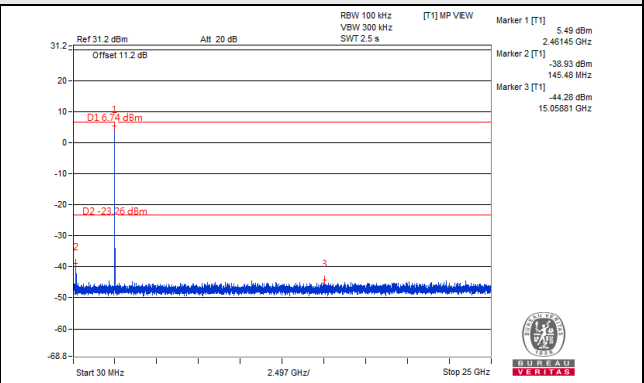
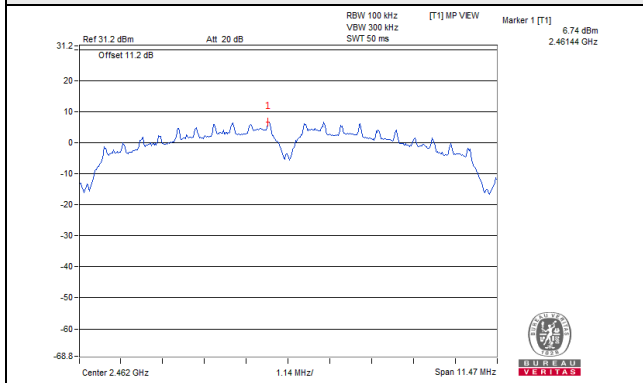
CH 1



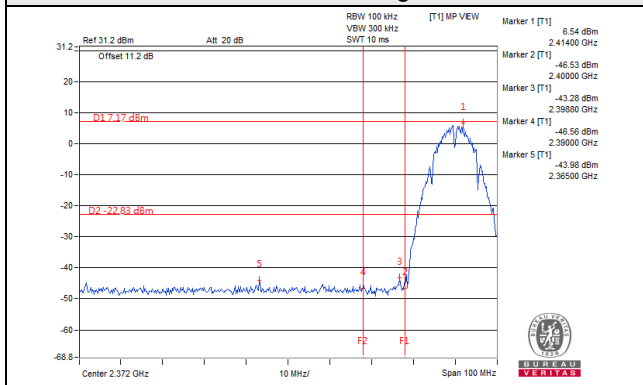
CH 6



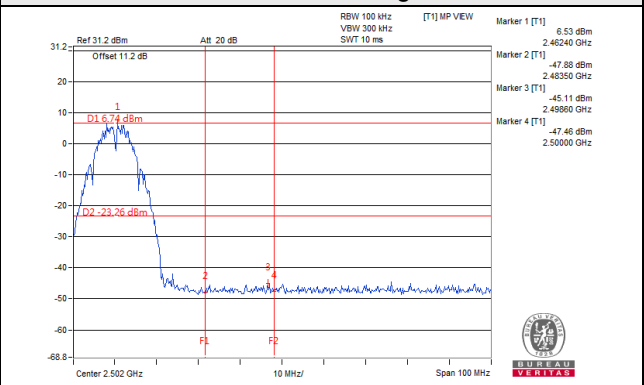
CH 11



CH 1 Band edge

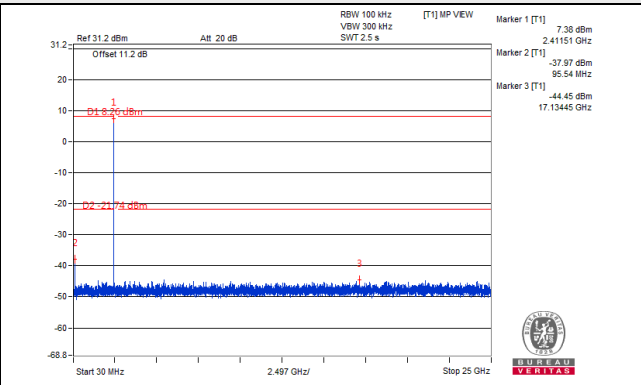
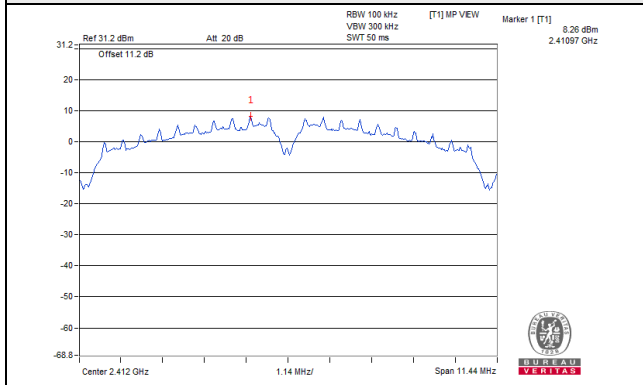


CH 11 Band edge

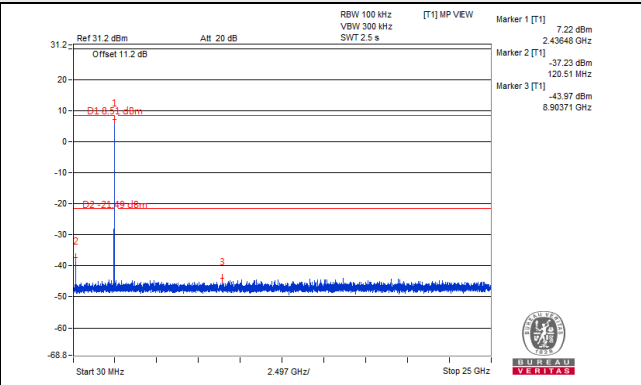
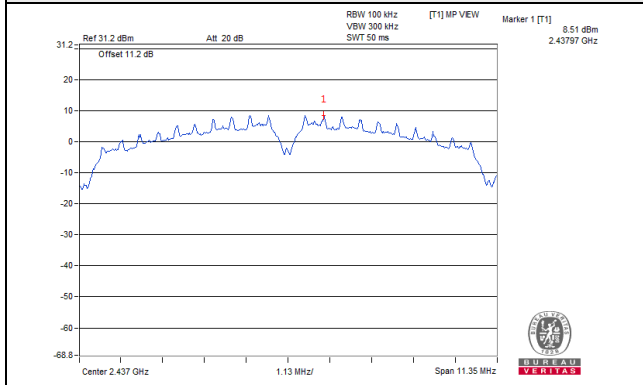


802.11b\_Chain 1

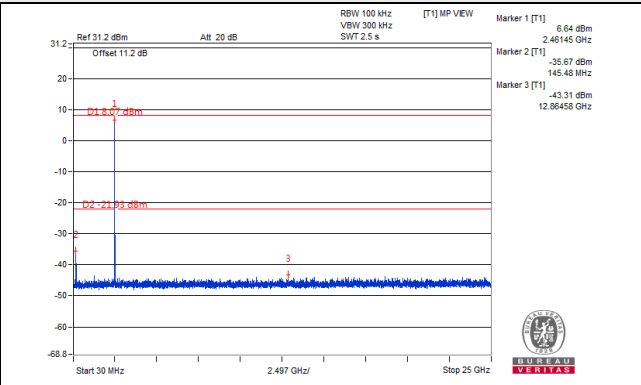
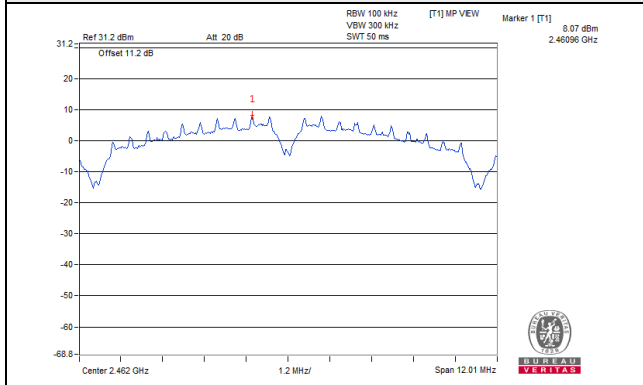
CH 1



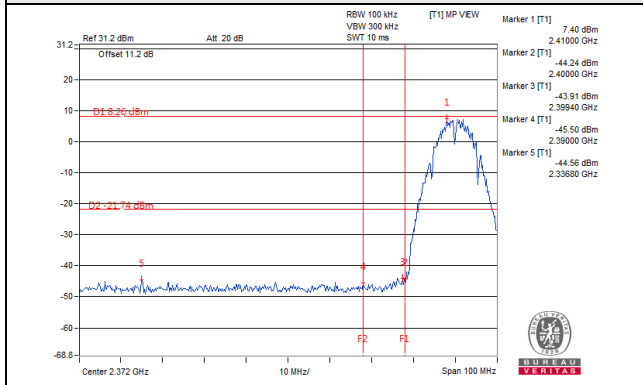
CH 6



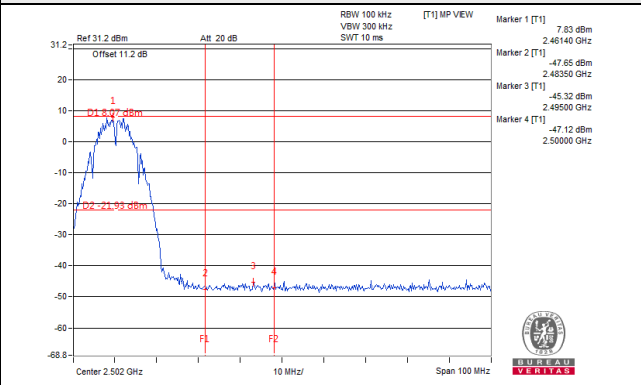
CH 11



CH 1 Band edge

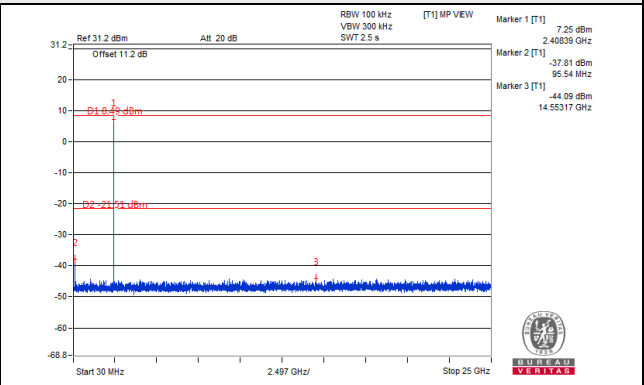
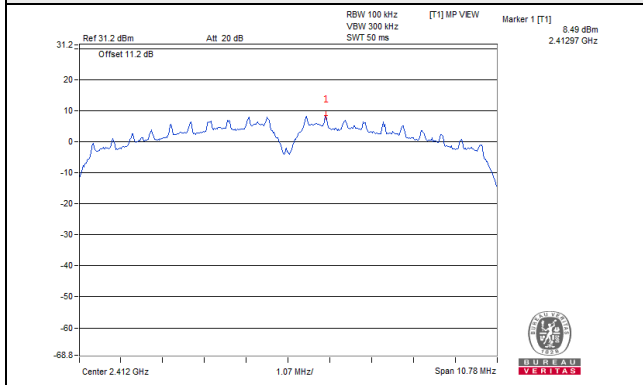


CH 11 Band edge

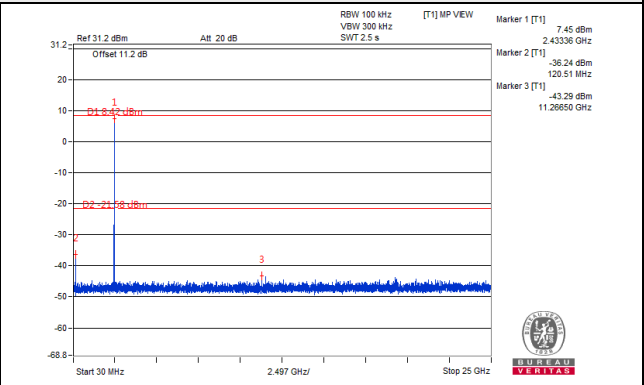
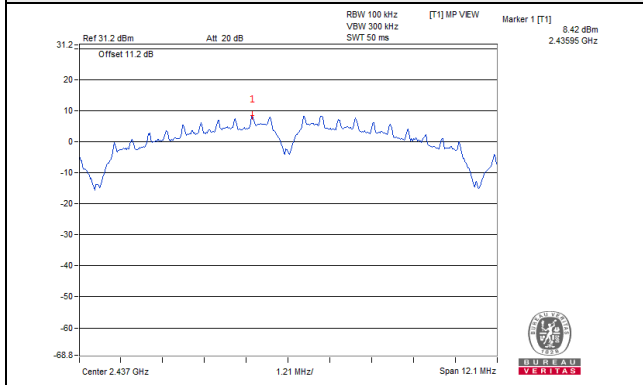


802.11b\_Chain 2

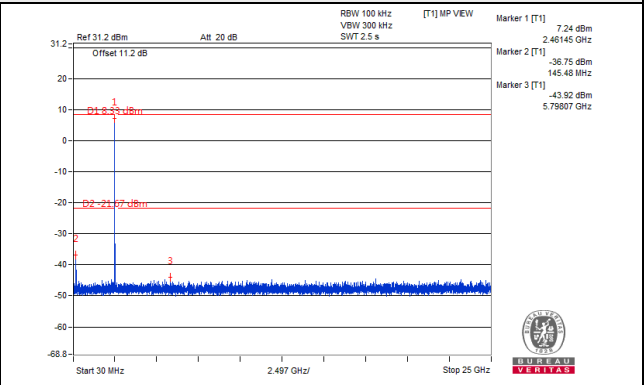
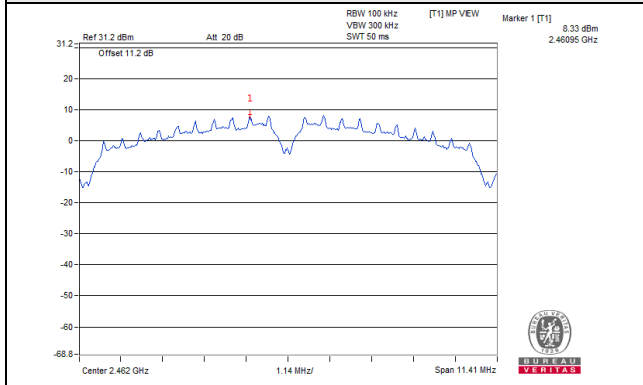
CH 1



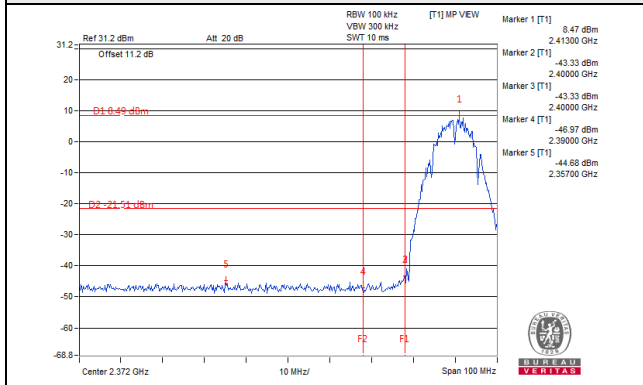
CH 6



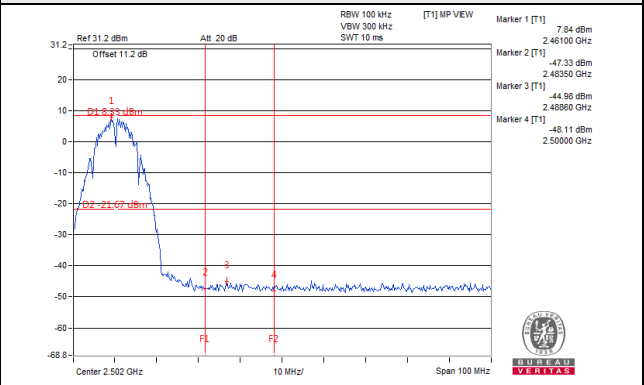
CH 11



CH 1 Band edge

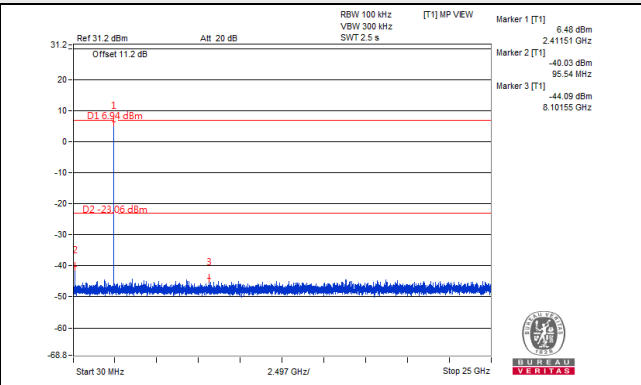
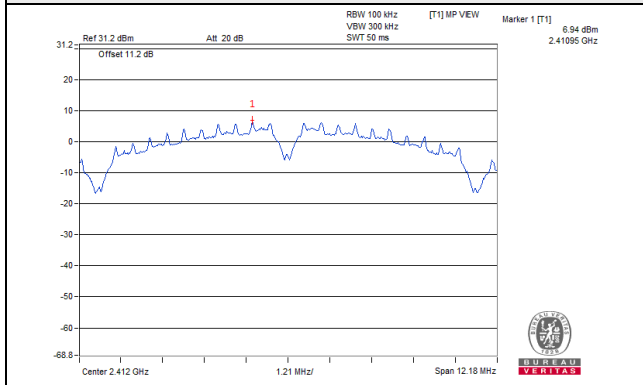


CH 11 Band edge

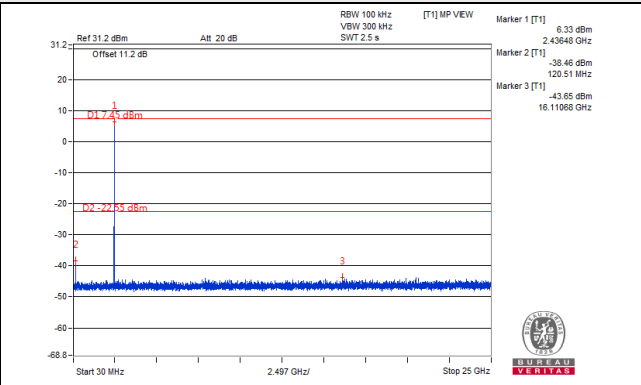
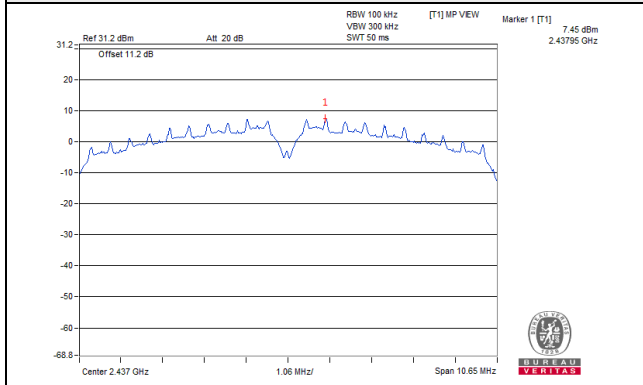


802.11b\_Chain 3

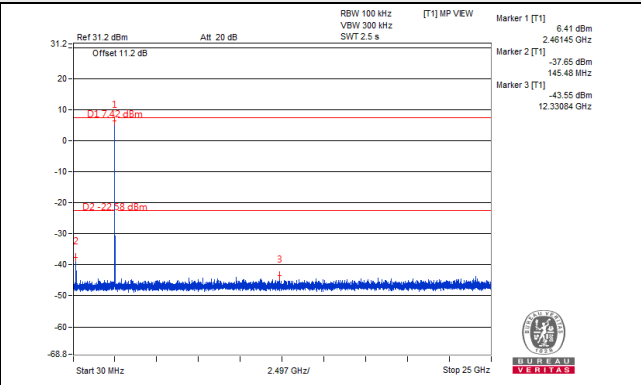
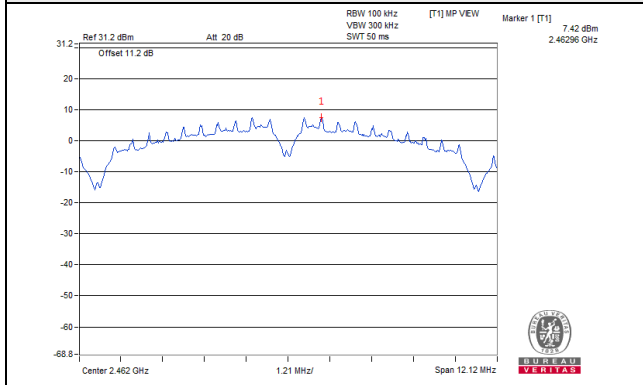
CH 1



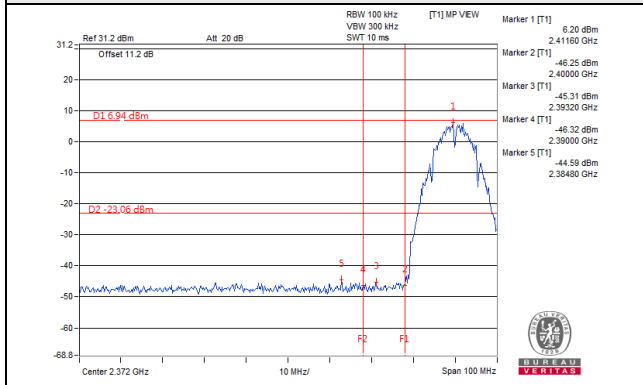
CH 6



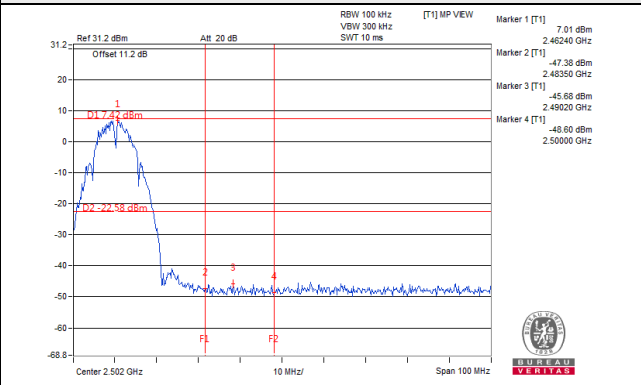
CH 11



CH 1 Band edge

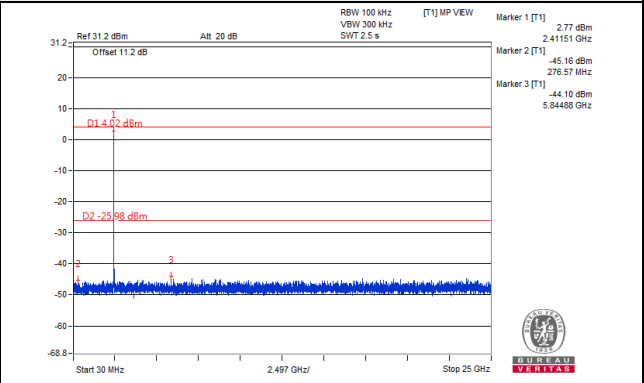
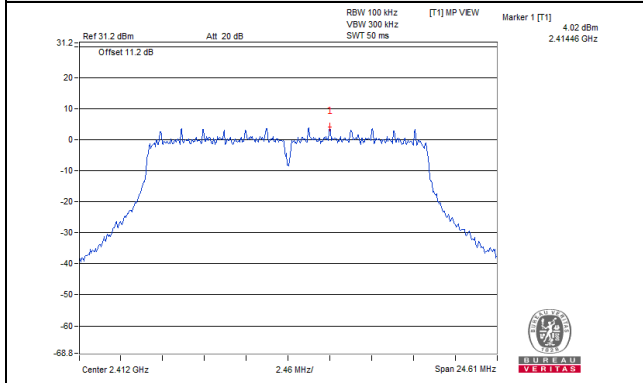


CH 11 Band edge

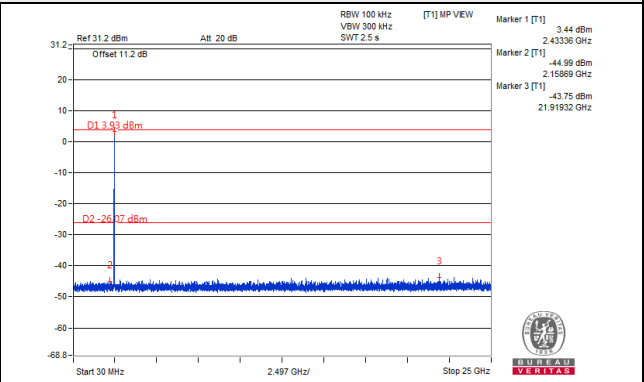
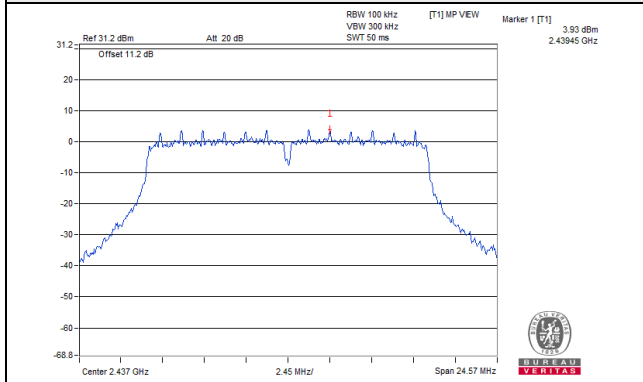


802.11g\_Chain 0

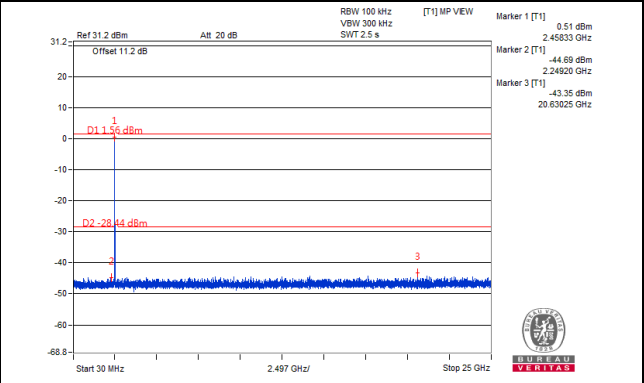
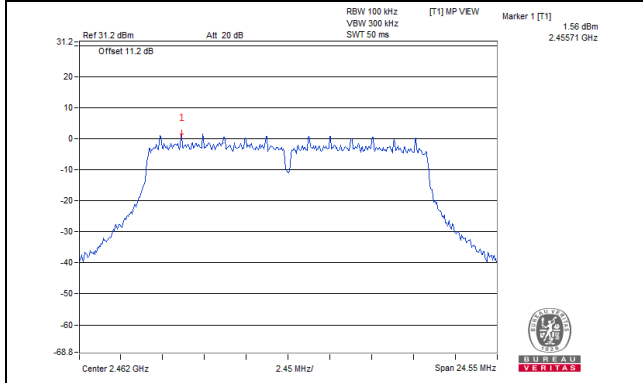
CH 1



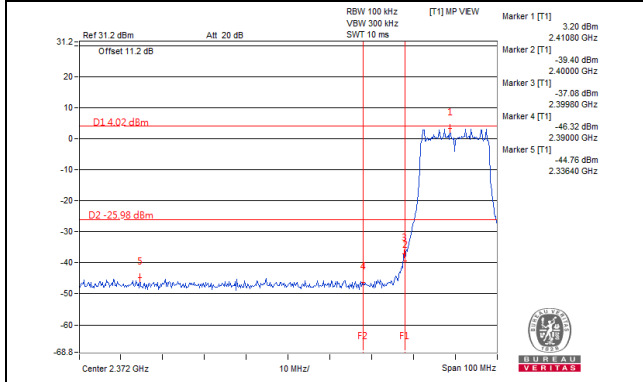
CH 6



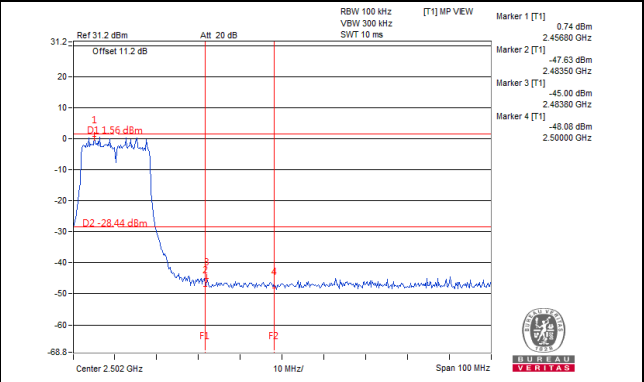
CH 11



CH 1 Band edge

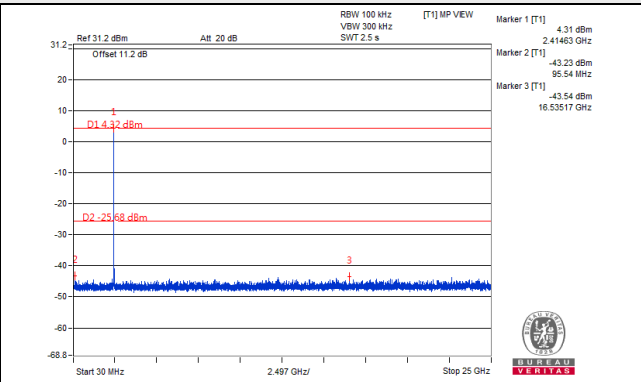
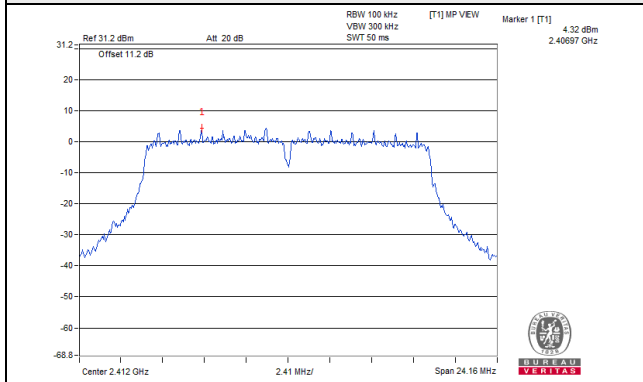


CH 11 Band edge

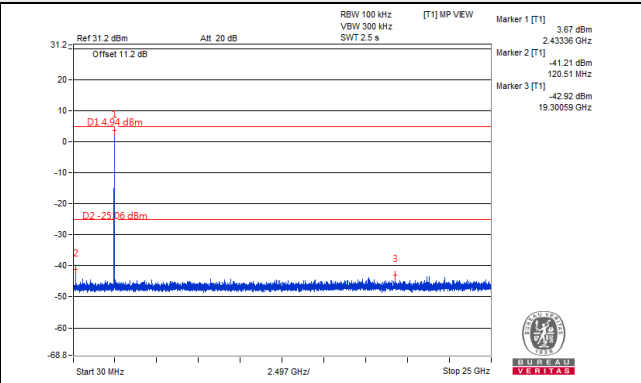
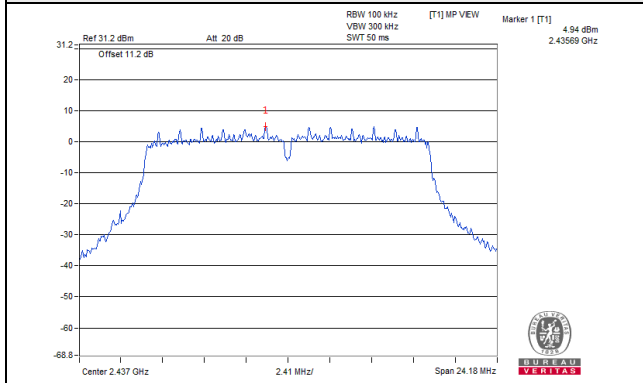


802.11g\_Chain 1

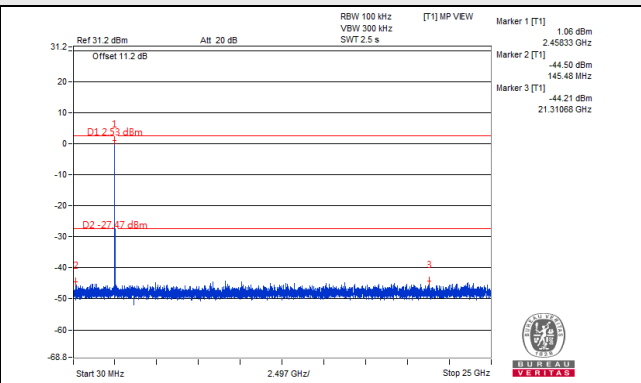
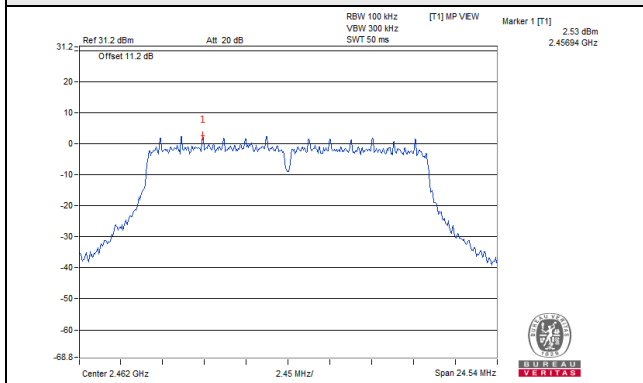
CH 1



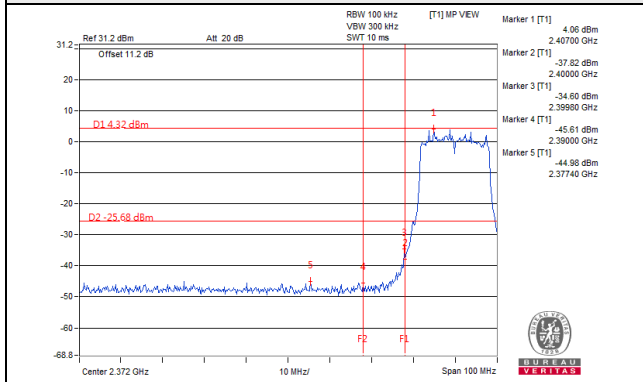
CH 6



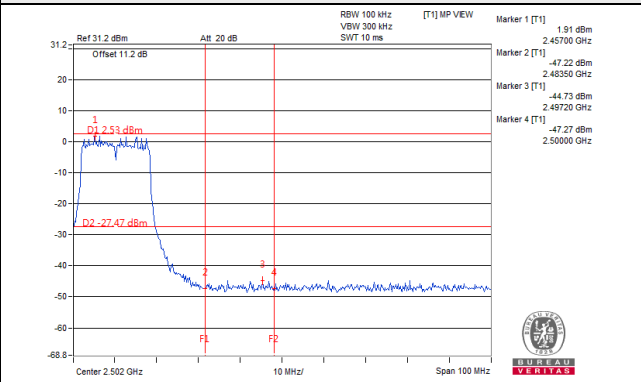
CH 11



CH 1 Band edge



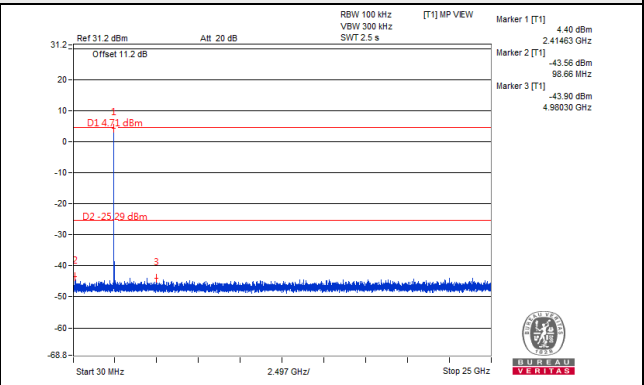
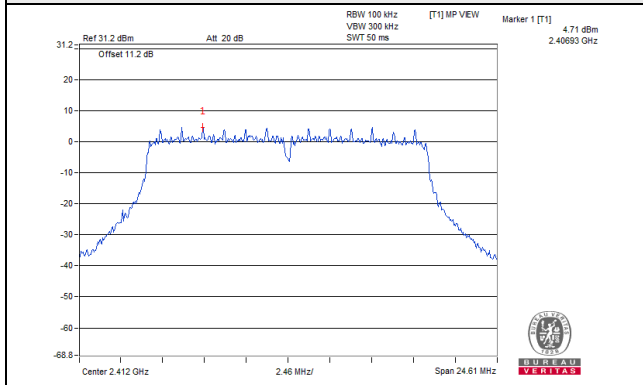
CH 11 Band edge



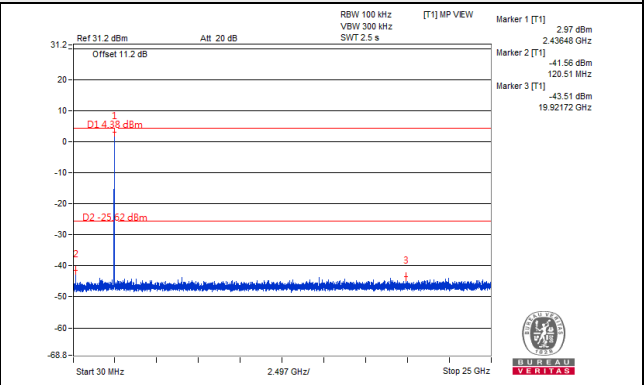
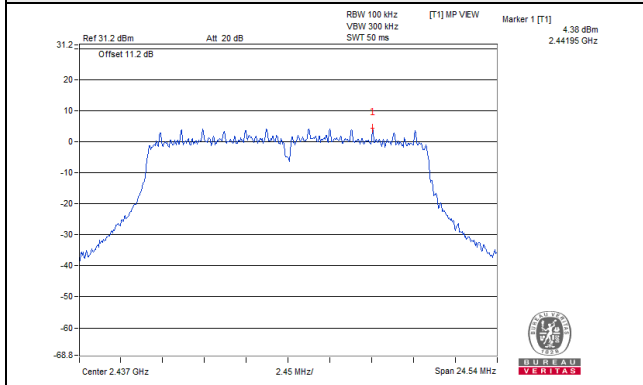


802.11g\_Chain 2

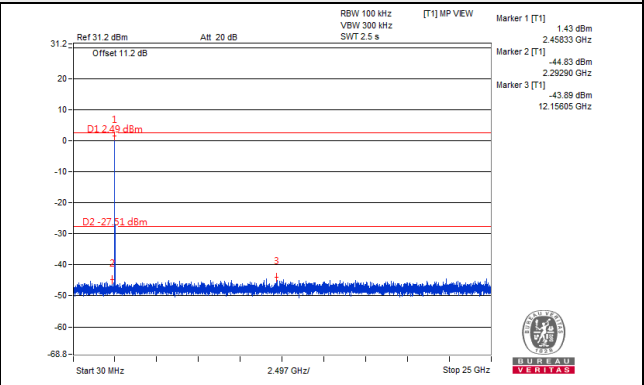
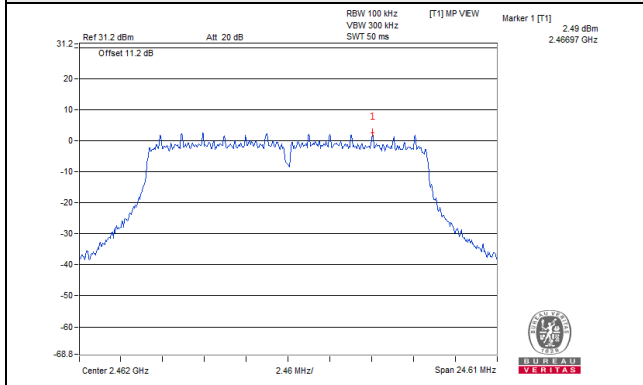
CH 1



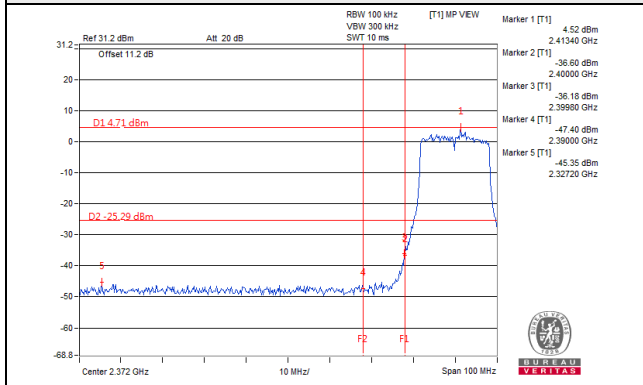
CH 6



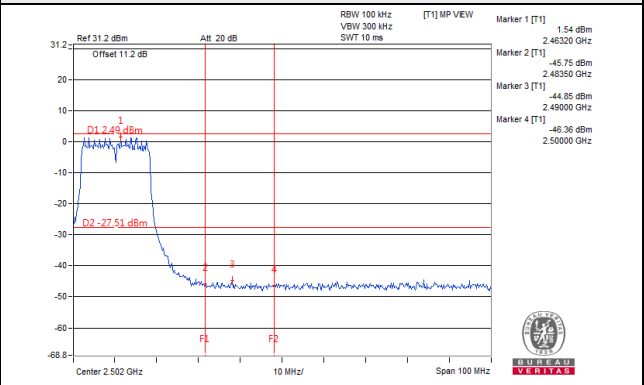
CH 11



CH 1 Band edge

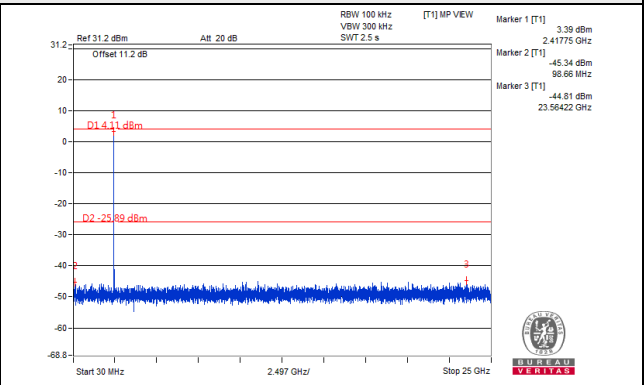
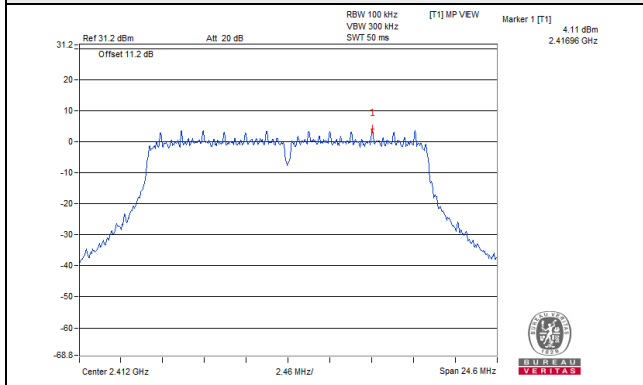


CH 11 Band edge

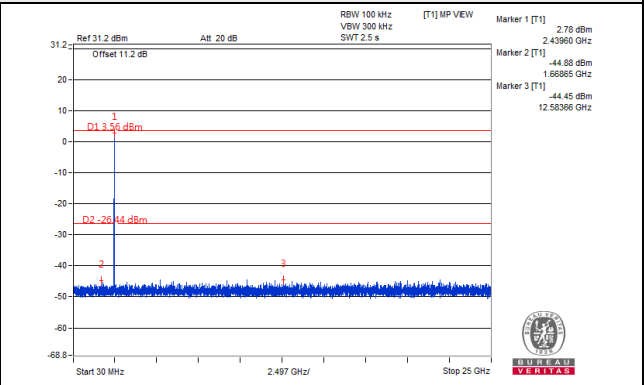
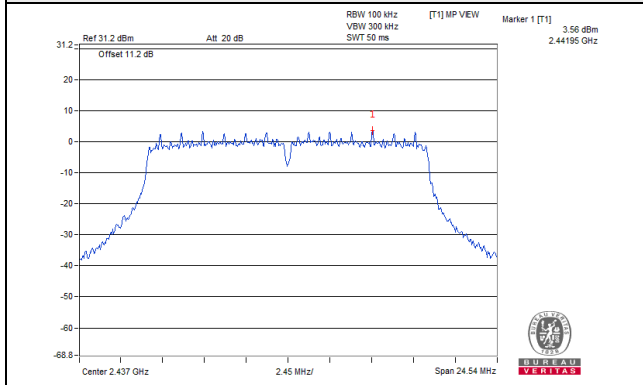


802.11g\_Chain 3

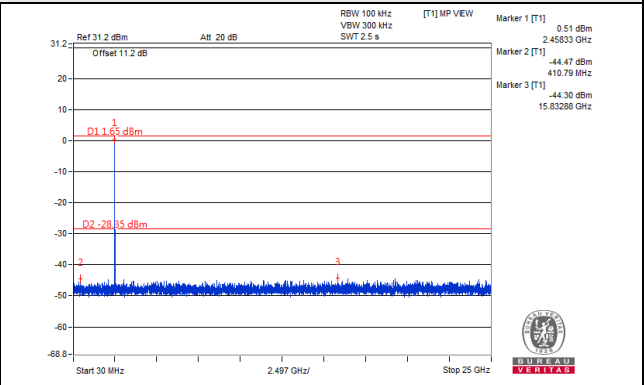
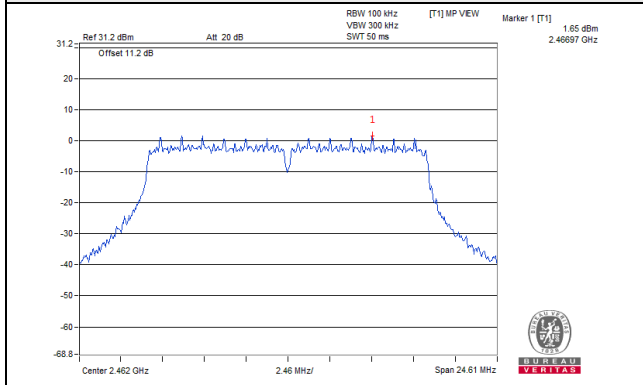
CH 1



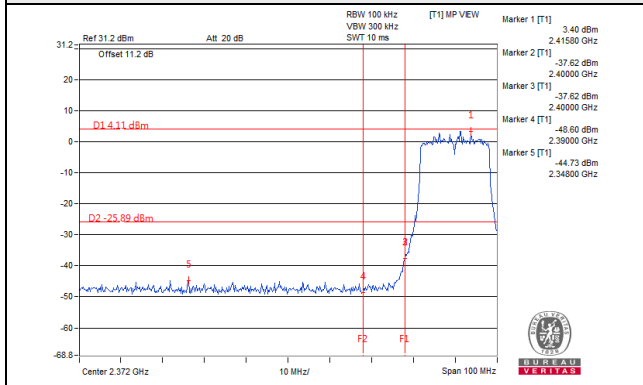
CH 6



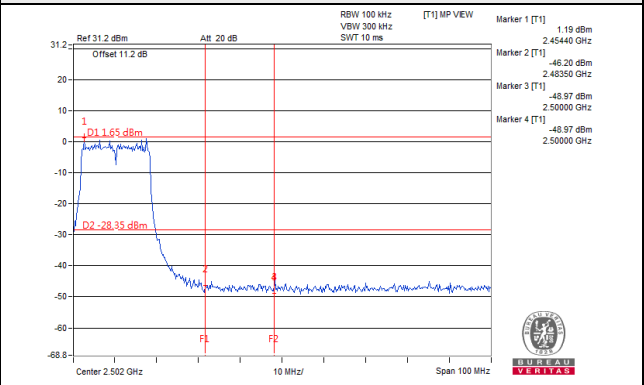
CH 11



CH 1 Band edge

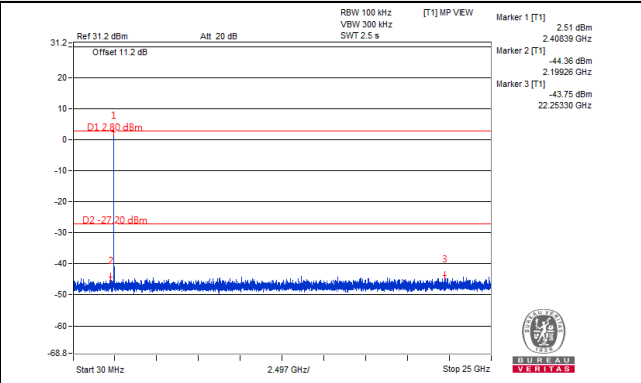
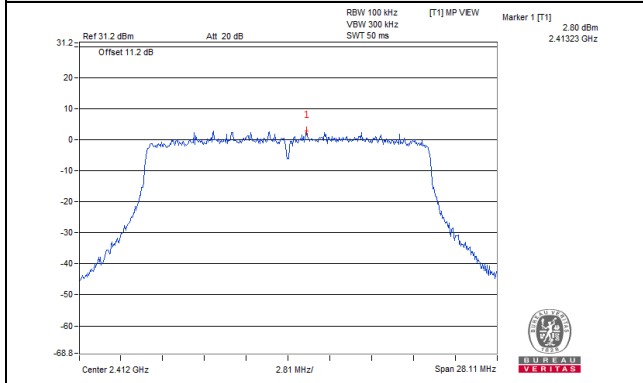


CH 11 Band edge

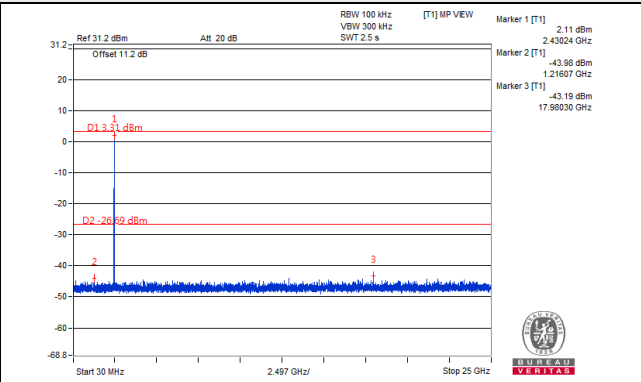
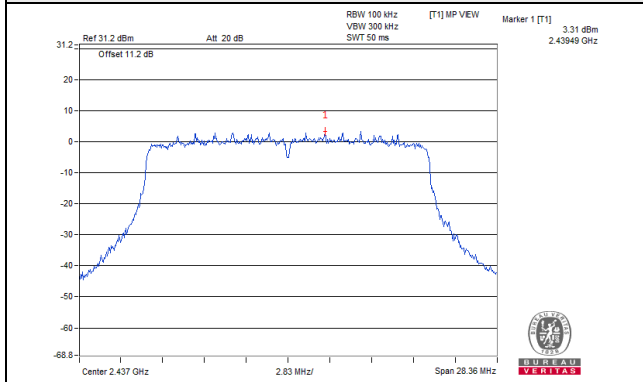


# 802.11ax (HE20)\_Chain 0

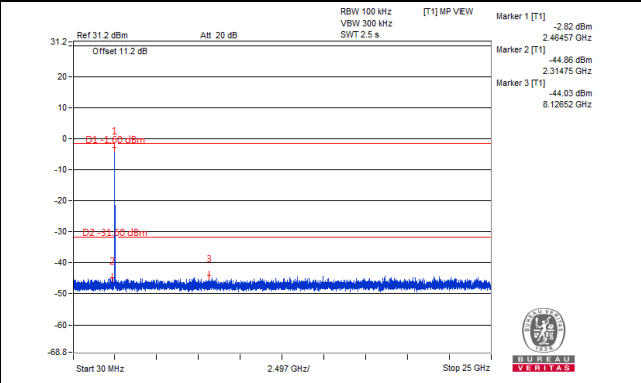
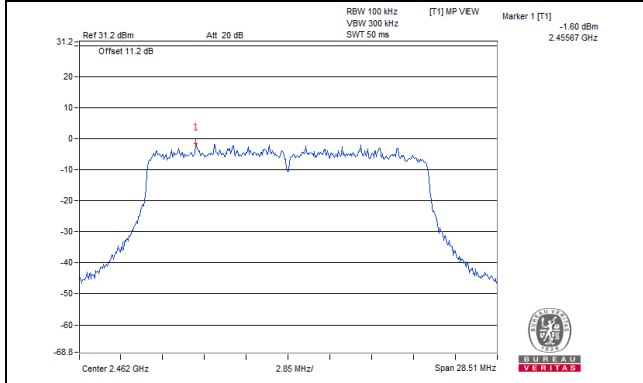
## CH 1



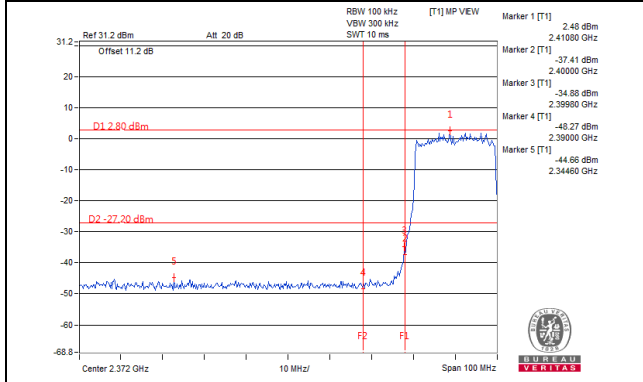
## CH 6



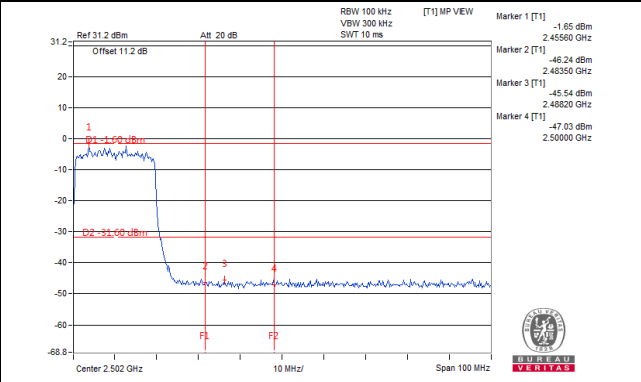
## CH 11



## CH 1 Band edge

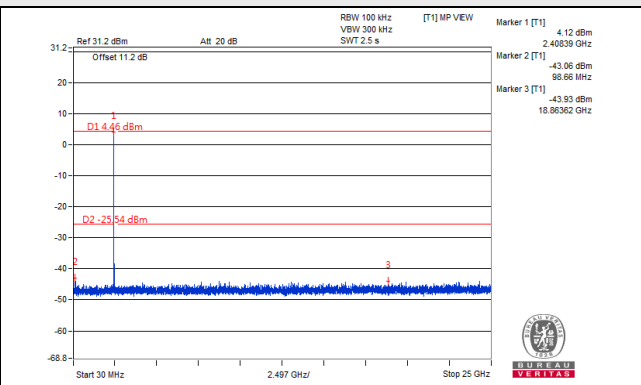
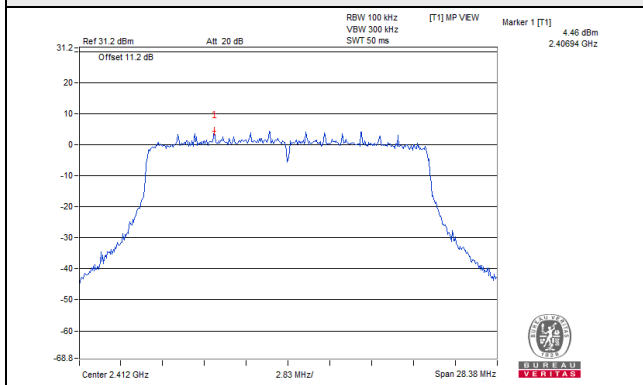


## CH 11 Band edge

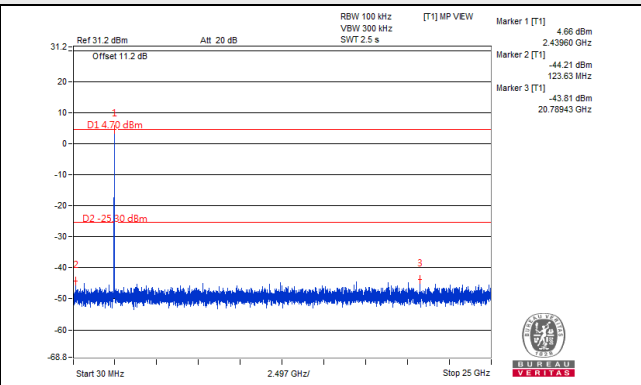
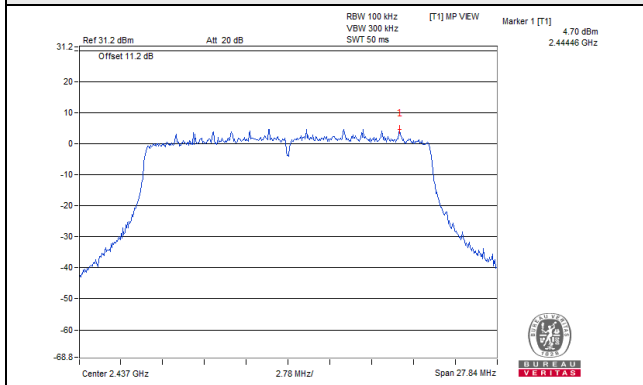


802.11ax (HE20)\_Chain 1

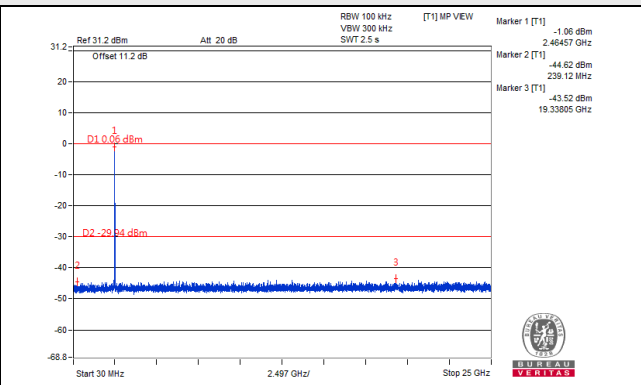
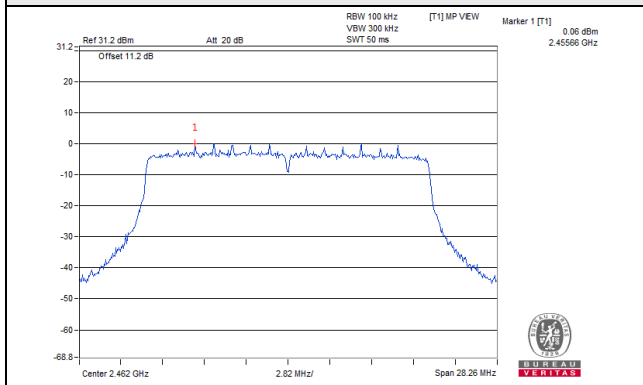
CH 1



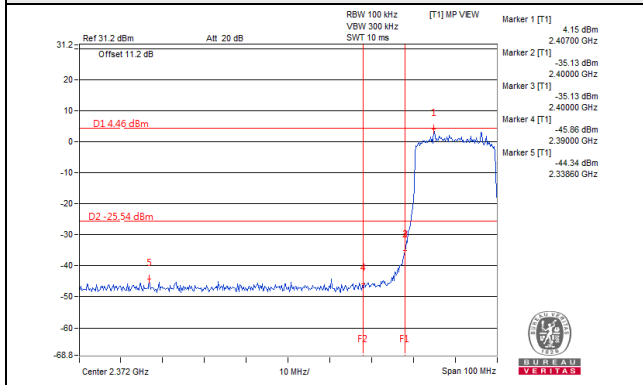
CH 6



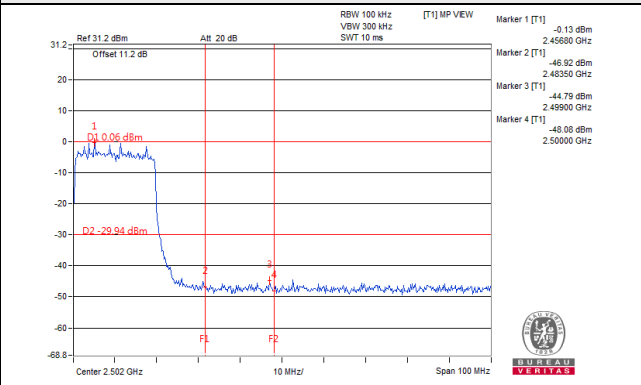
CH 11



CH 1 Band edge

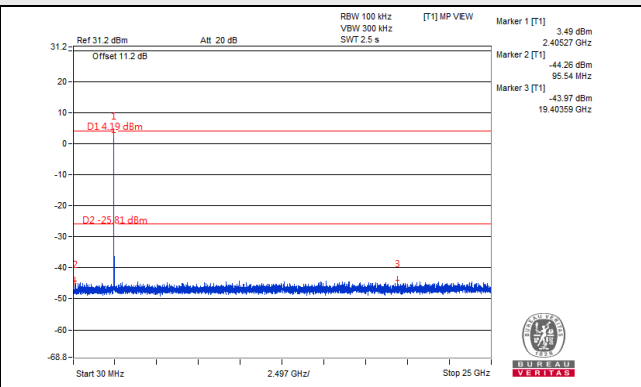
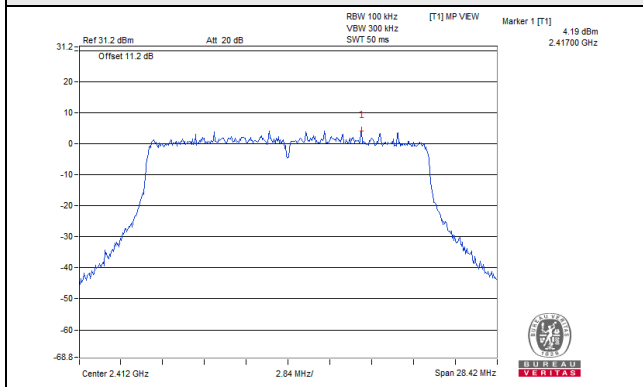


CH 11 Band edge

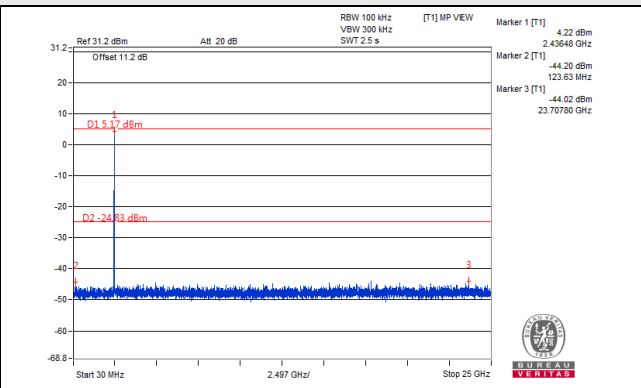
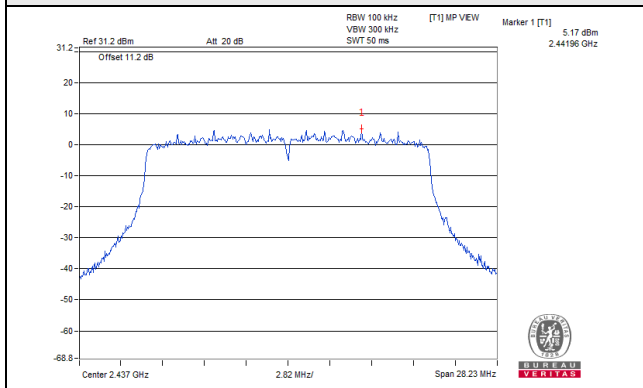


802.11ax (HE20)\_Chain 2

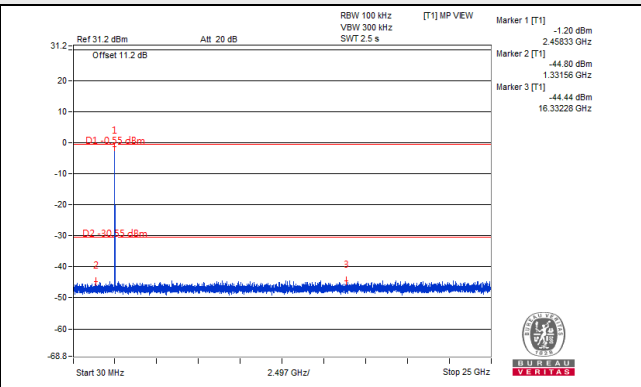
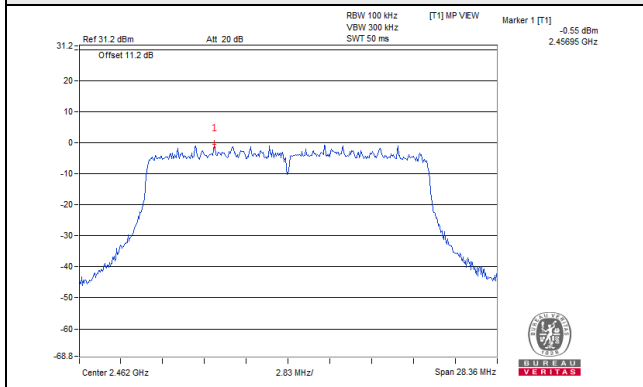
CH 1



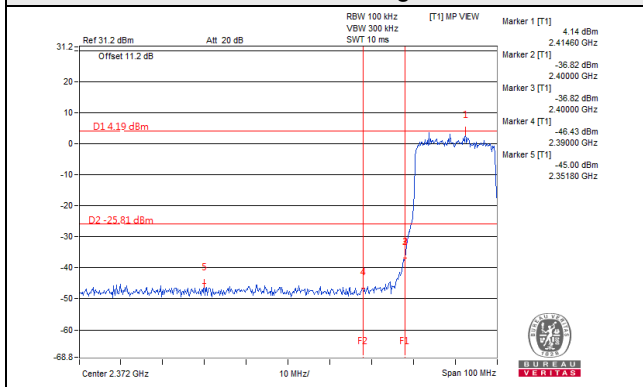
CH 6



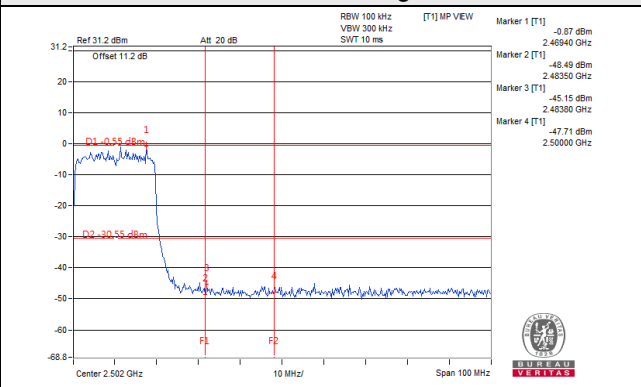
CH 11



CH 1 Band edge

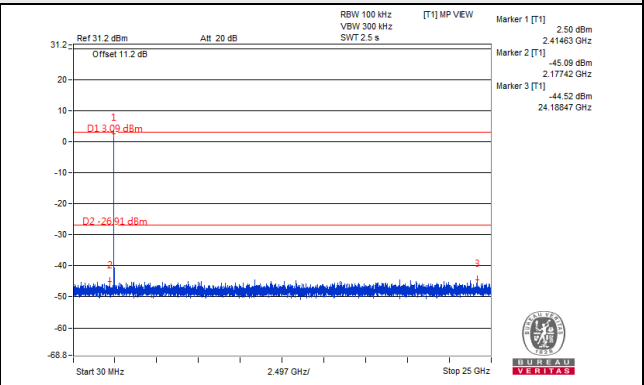
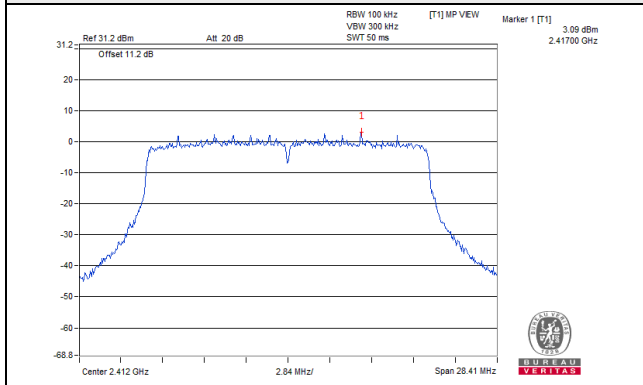


CH 11 Band edge

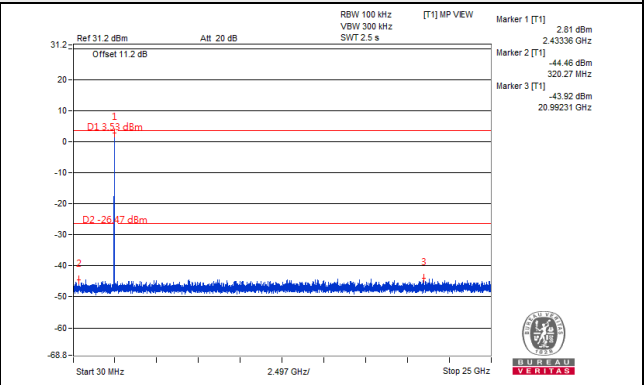
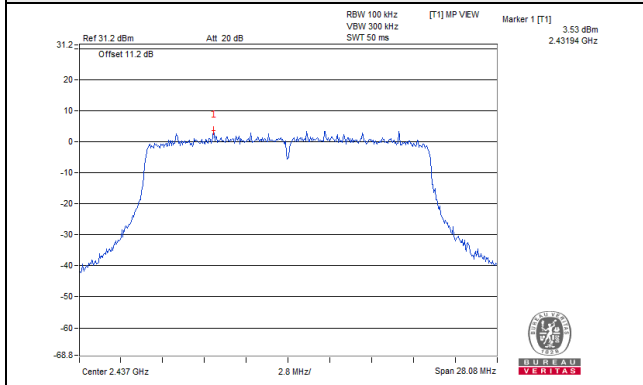


# 802.11ax (HE20)\_Chain 3

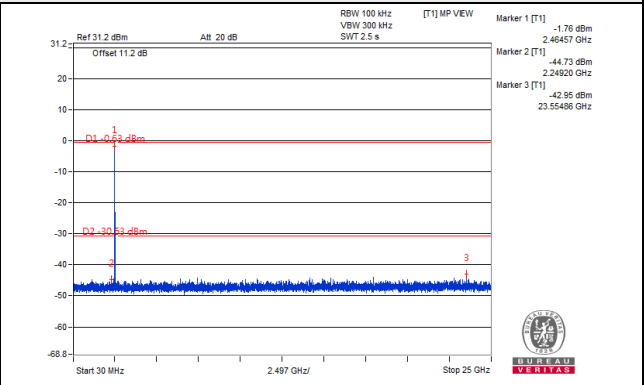
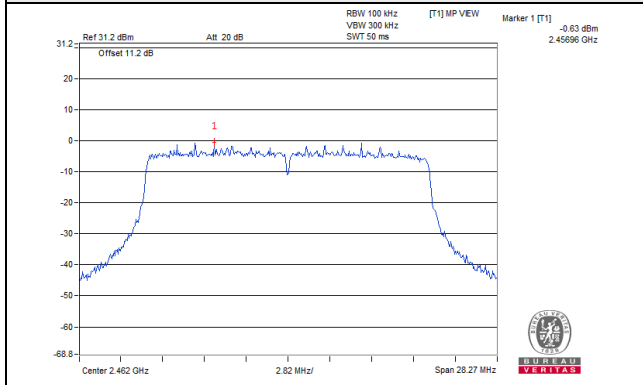
## CH 1



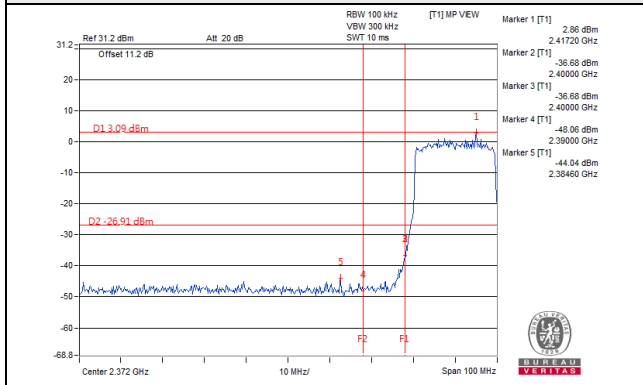
## CH 6



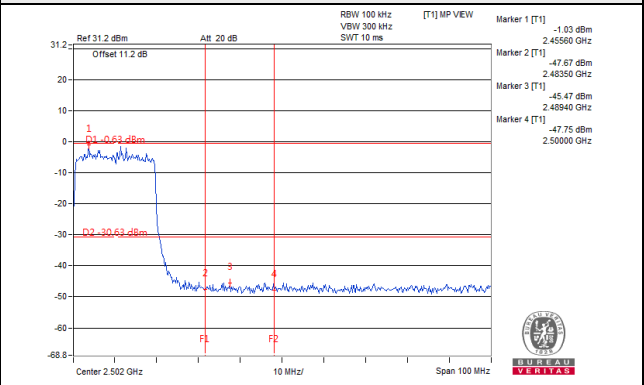
## CH 11



## CH 1 Band edge

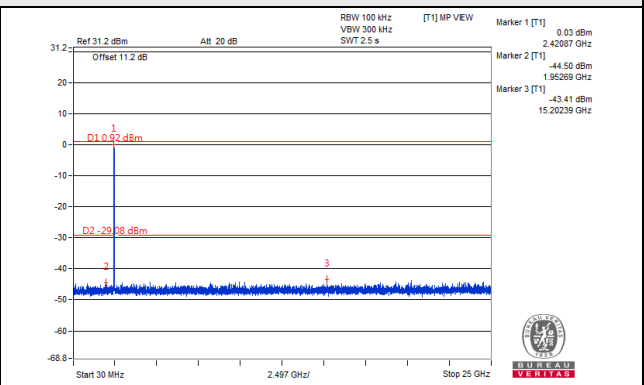
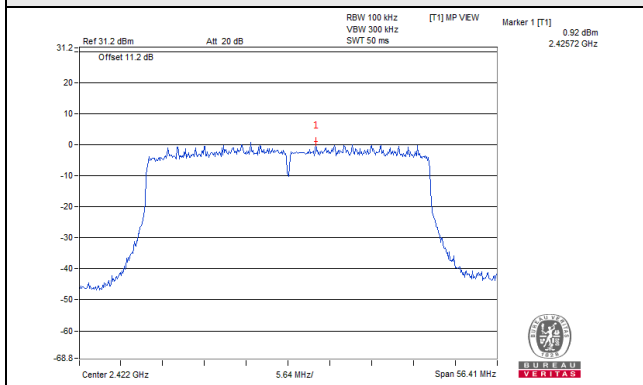


## CH 11 Band edge

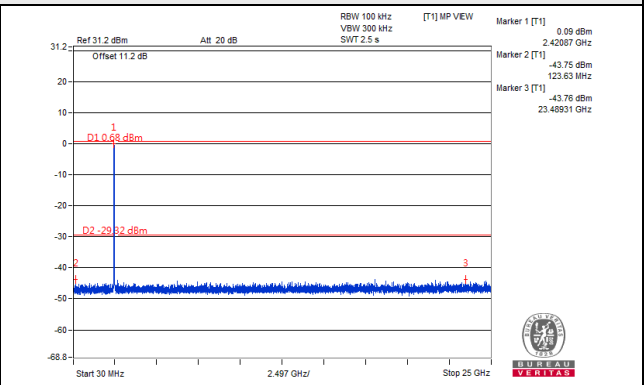
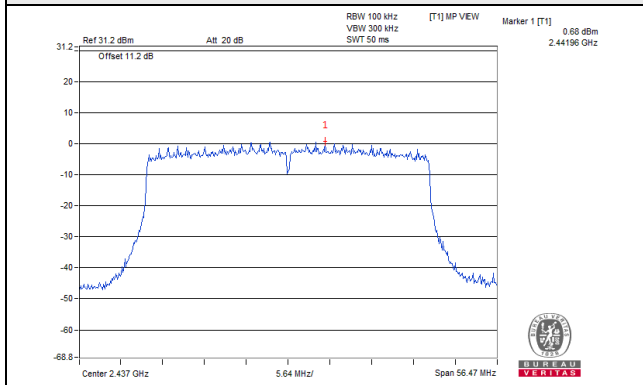


802.11ax (HE40)\_Chain 0

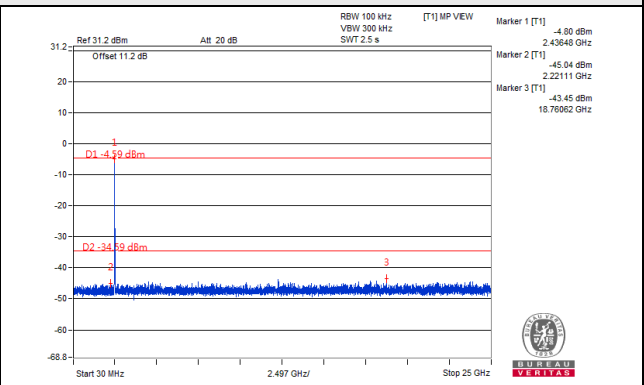
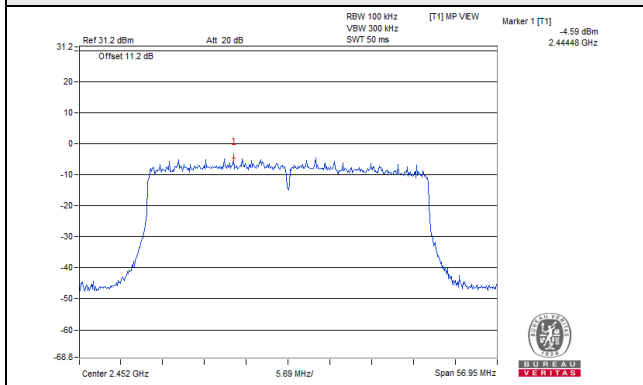
CH 3



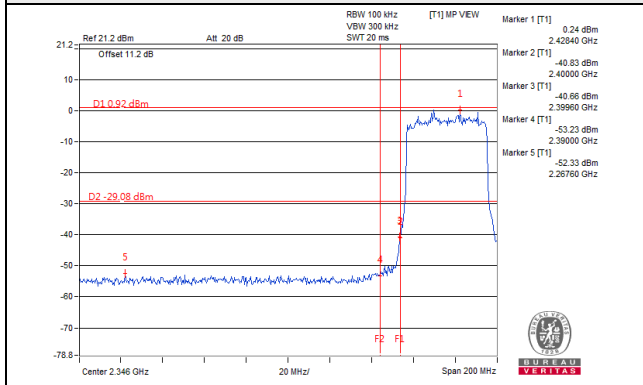
CH 6



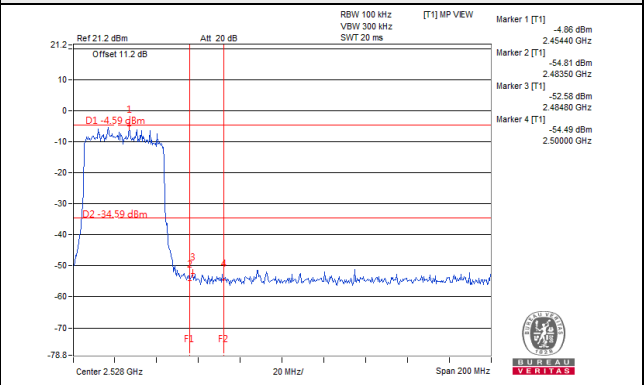
CH 9



CH 3 Band edge

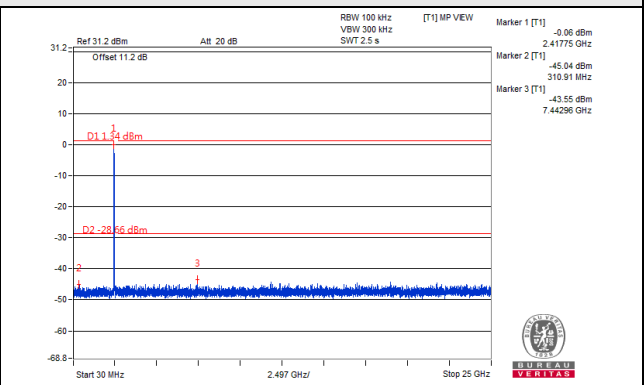
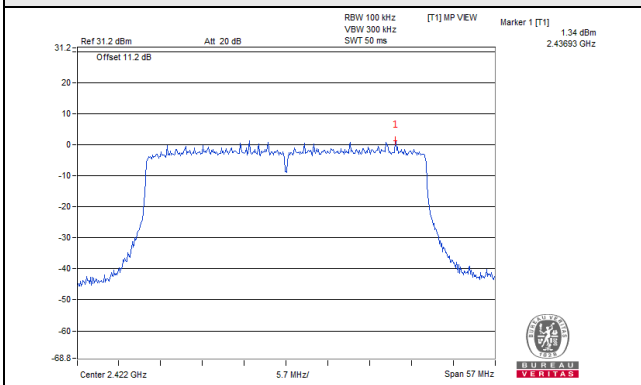


CH 9 Band edge

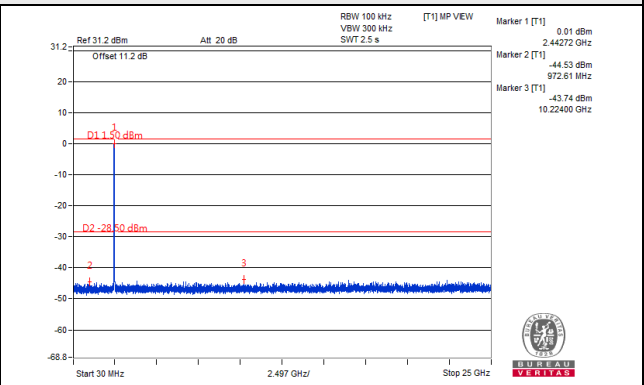
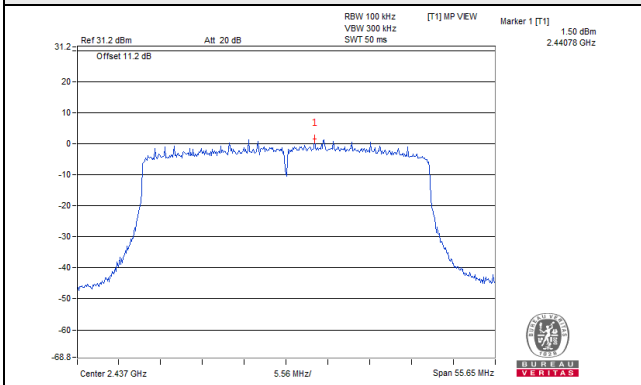


802.11ax (HE40)\_Chain 1

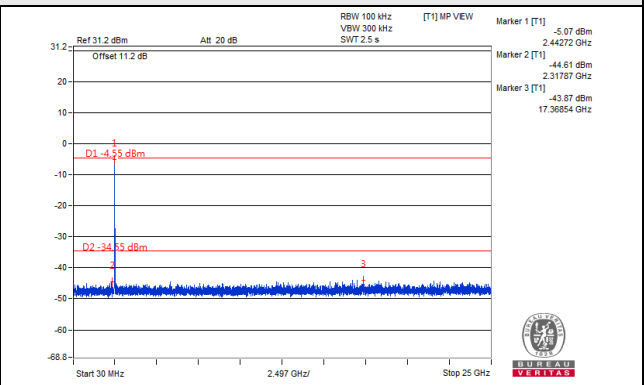
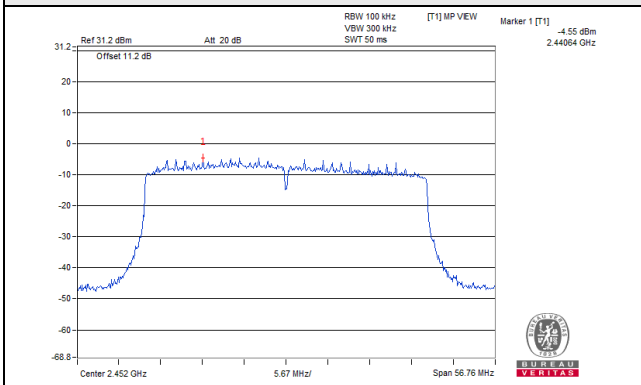
CH 3



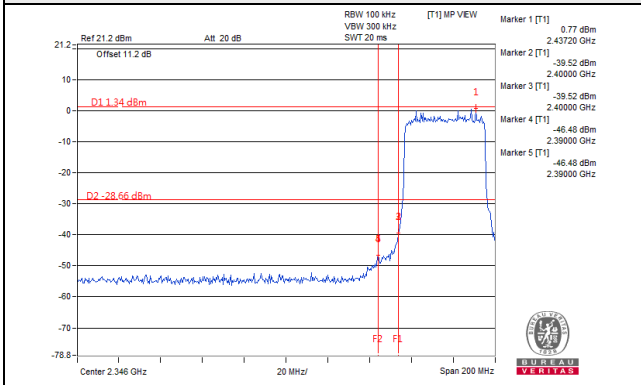
CH 6



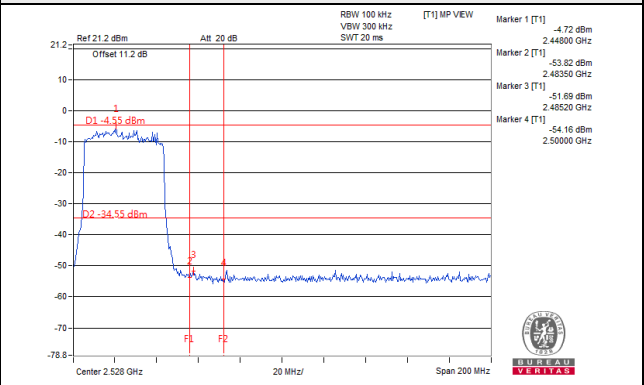
CH 9



CH 3 Band edge

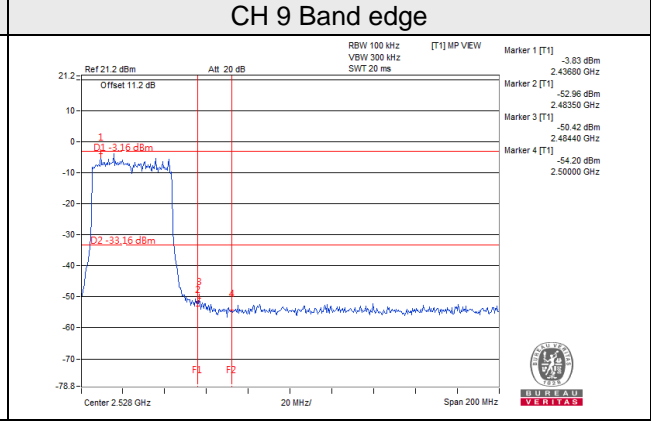
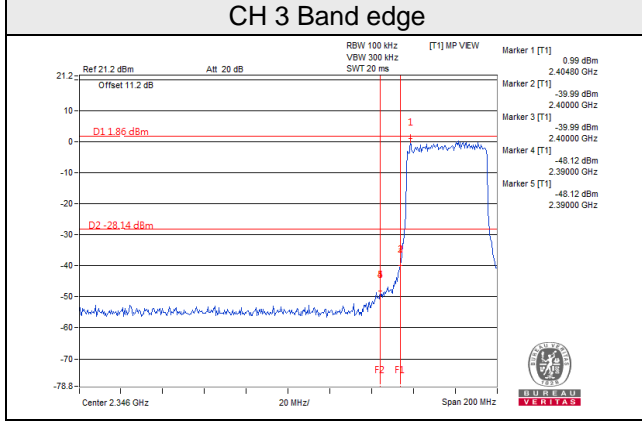
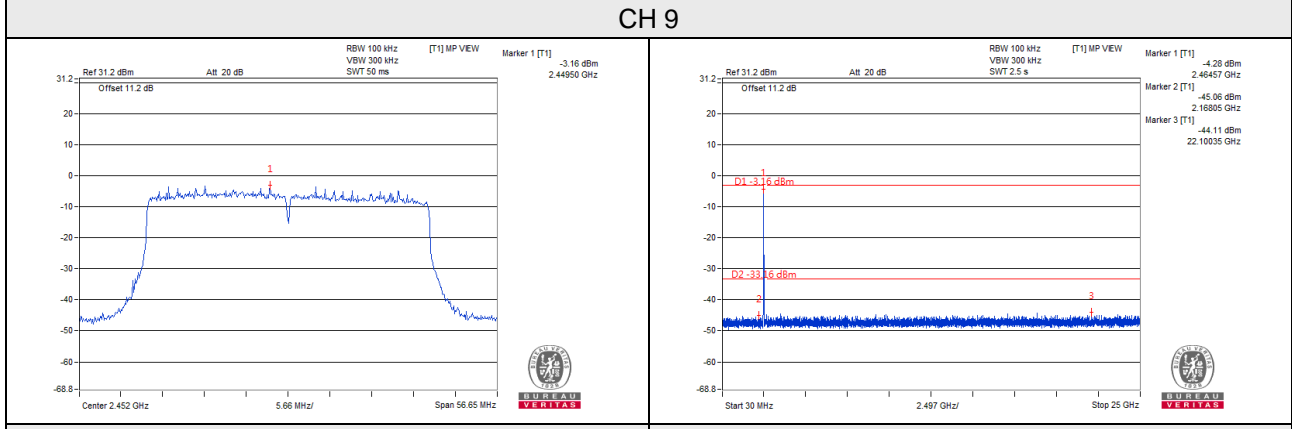
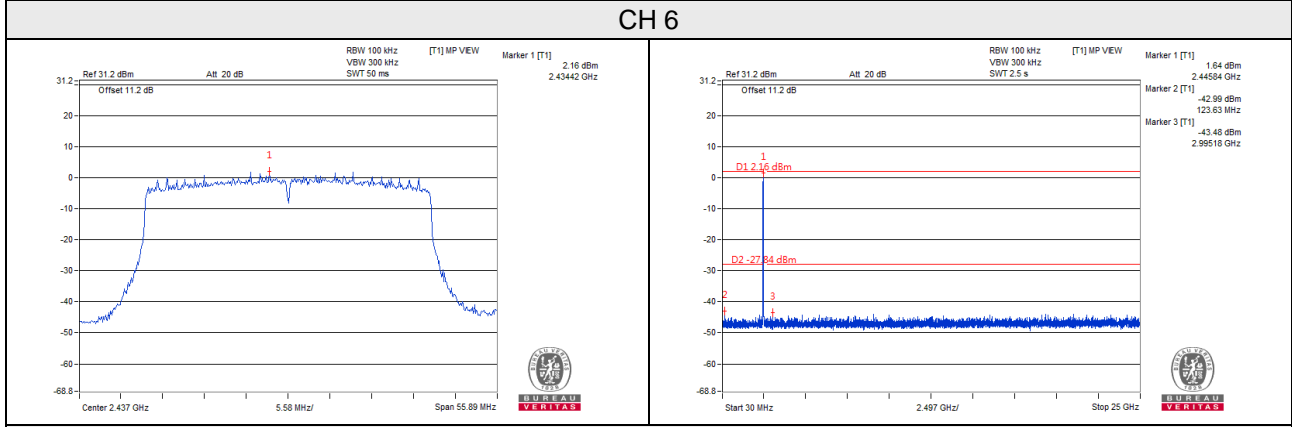
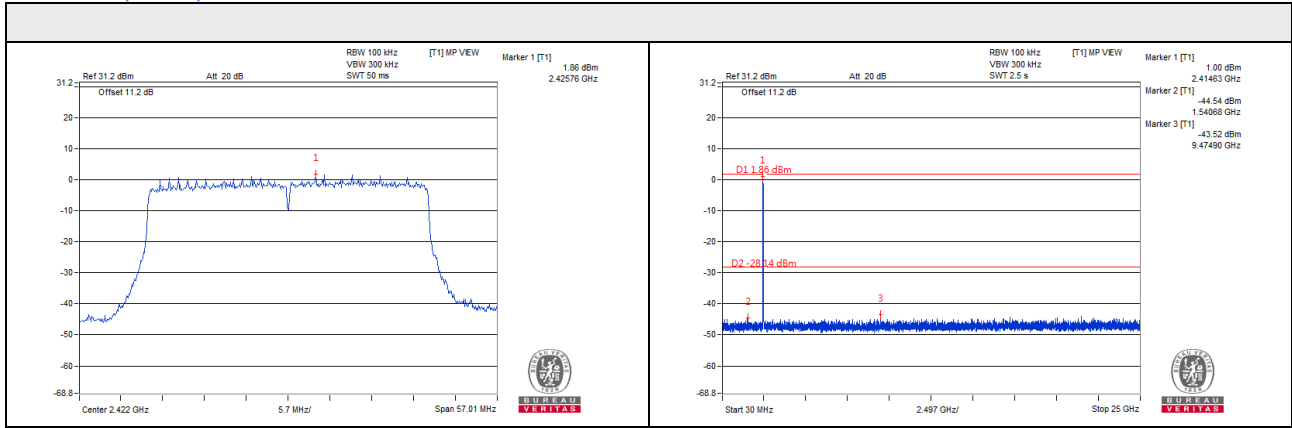


CH 9 Band edge



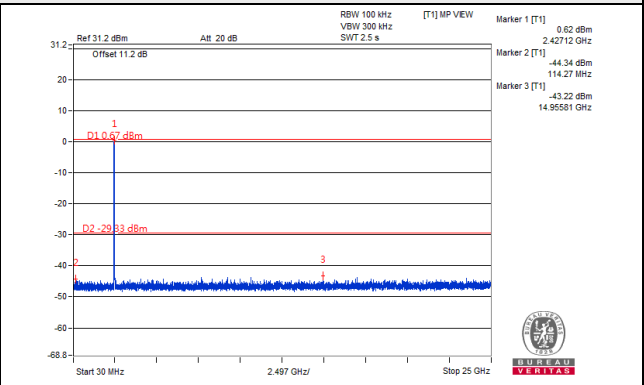
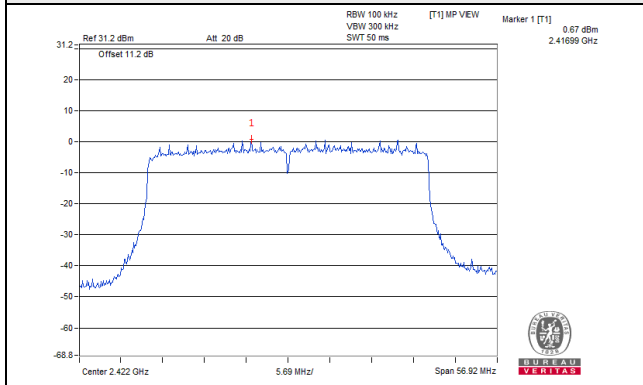


# 802.11ax (HE40)\_Chain 2

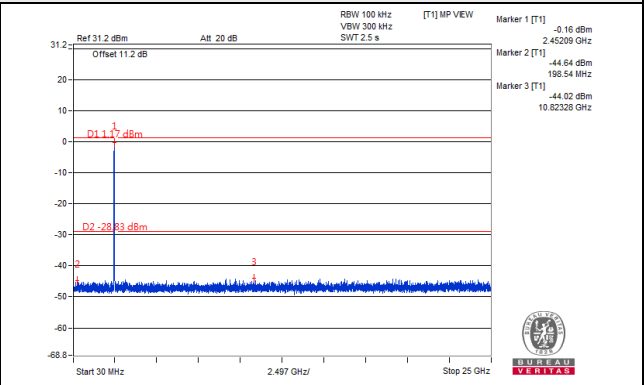
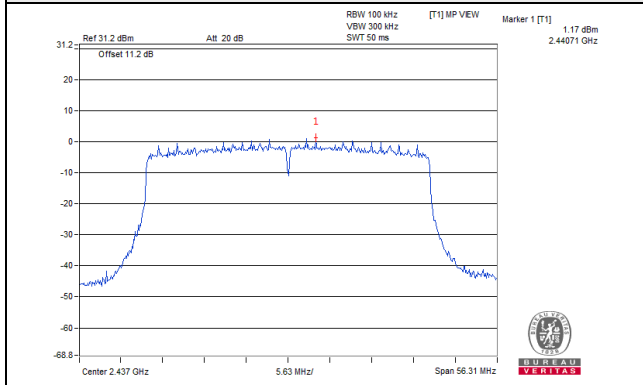


# 802.11ax (HE40)\_Chain 3

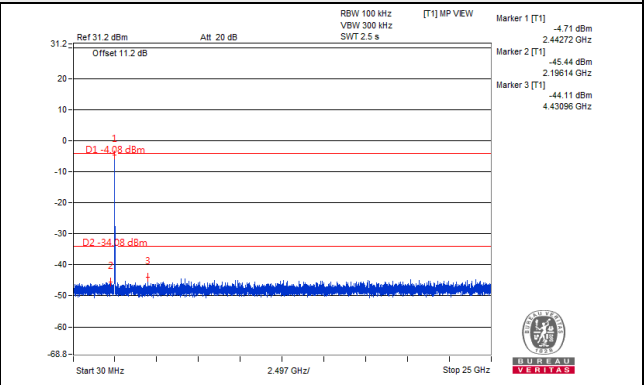
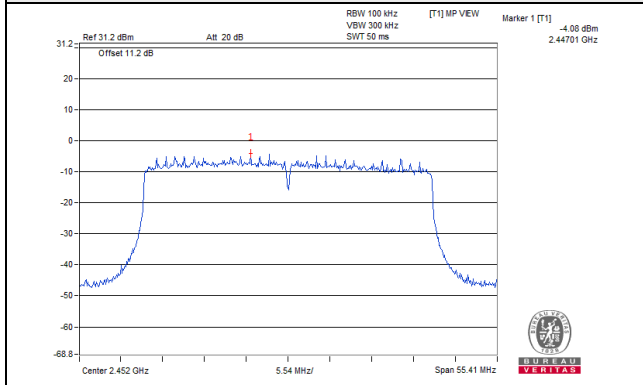
## CH 3



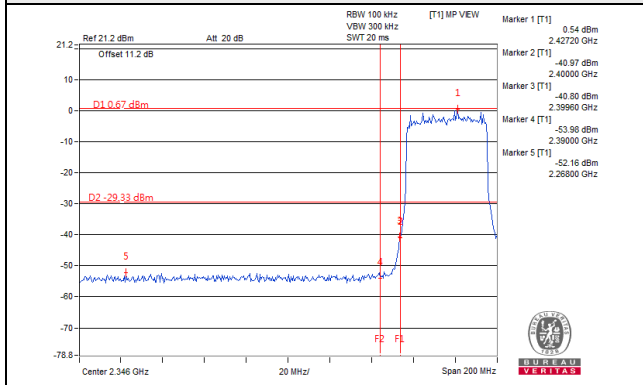
## CH 6



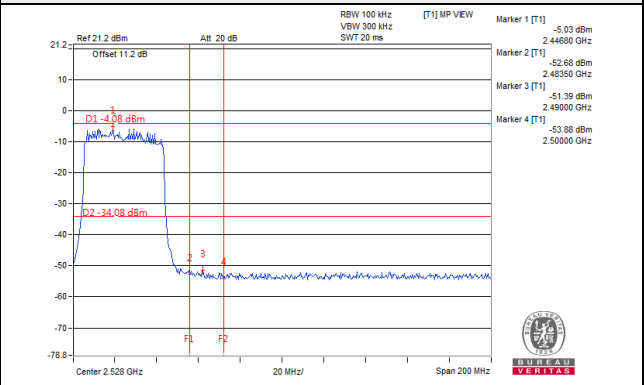
## CH 9



## CH 3 Band edge

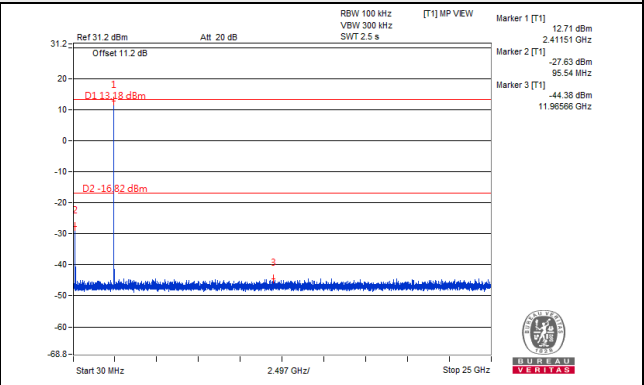
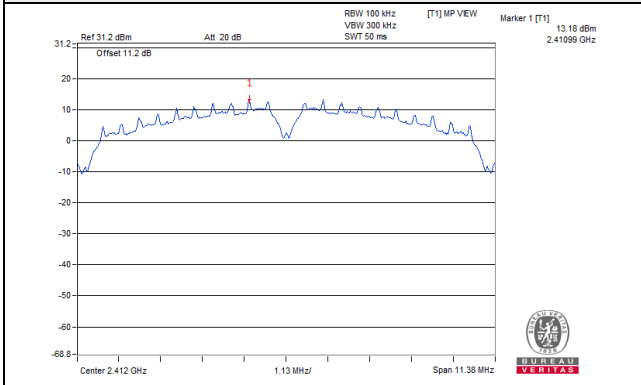


## CH 9 Band edge

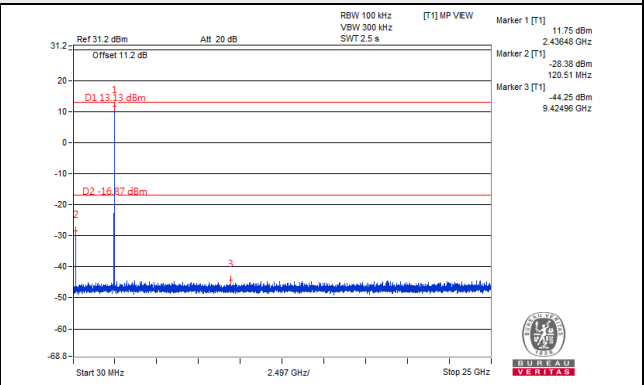
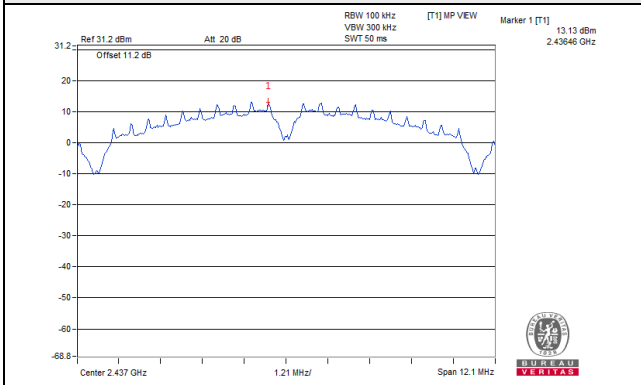


Mode C  
802.11b\_Chain 0

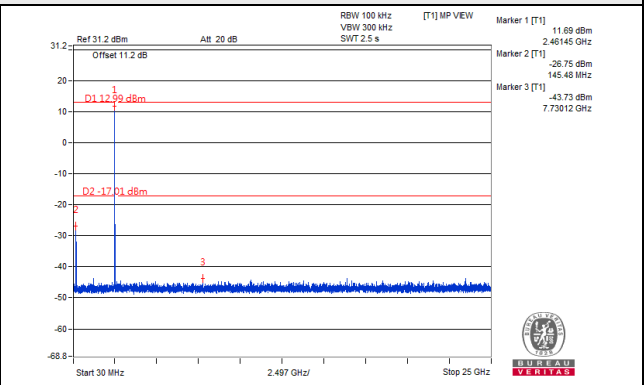
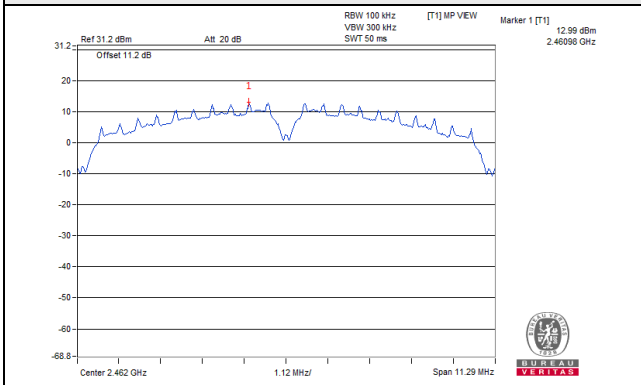
CH 1



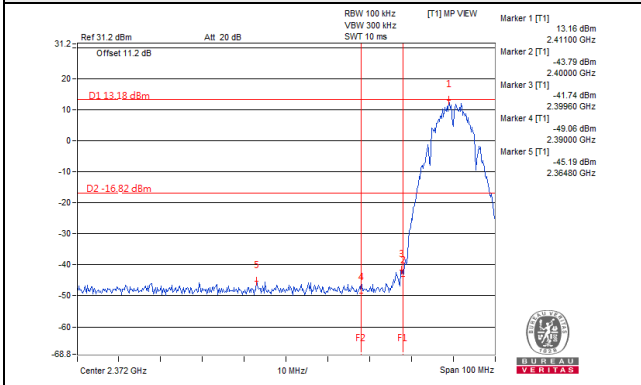
CH 6



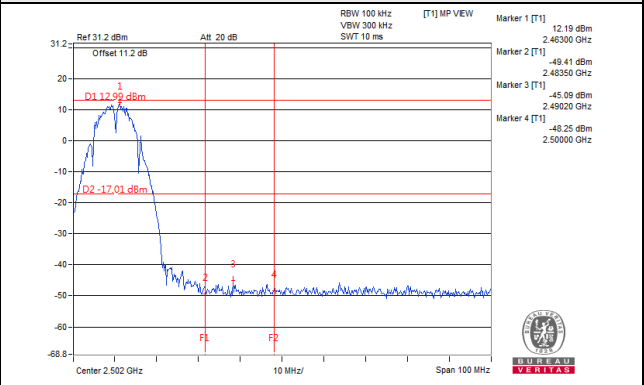
CH 11



CH 1 Band edge

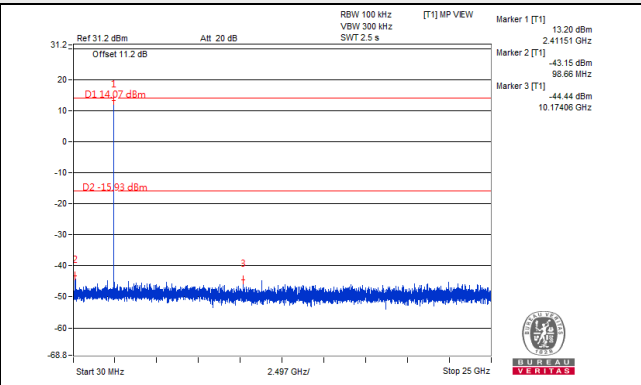
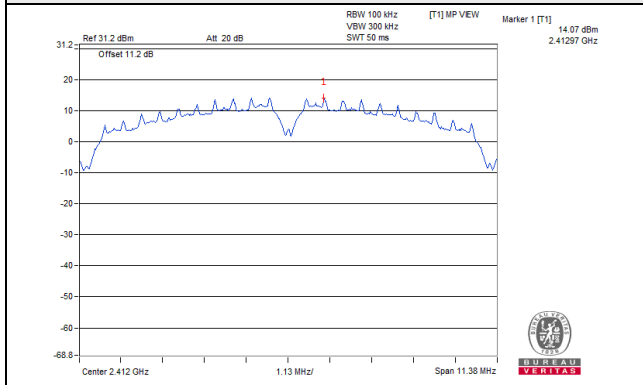


CH 11 Band edge

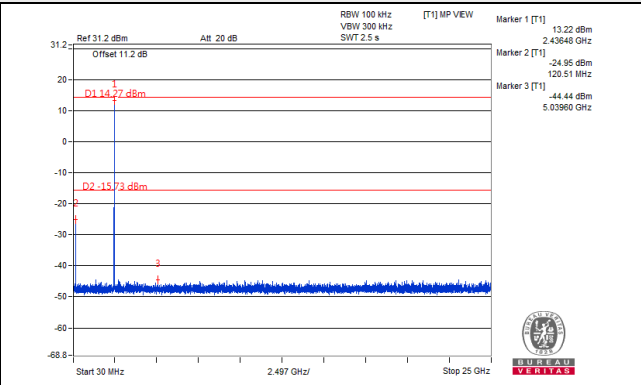
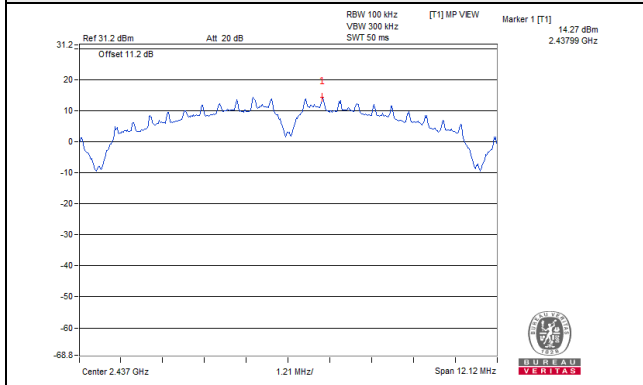


802.11b\_Chain 1

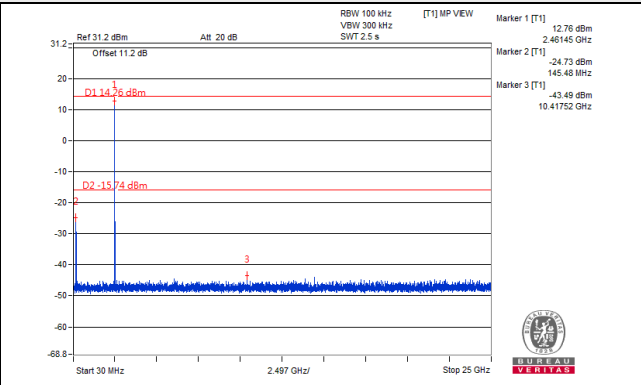
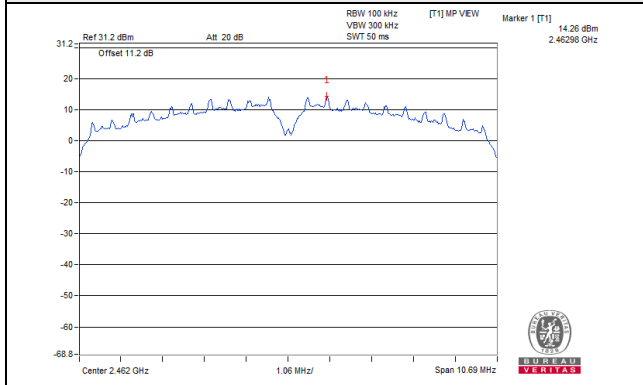
CH 1



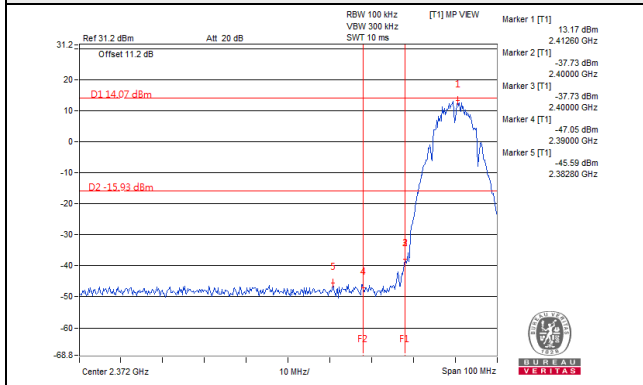
CH 6



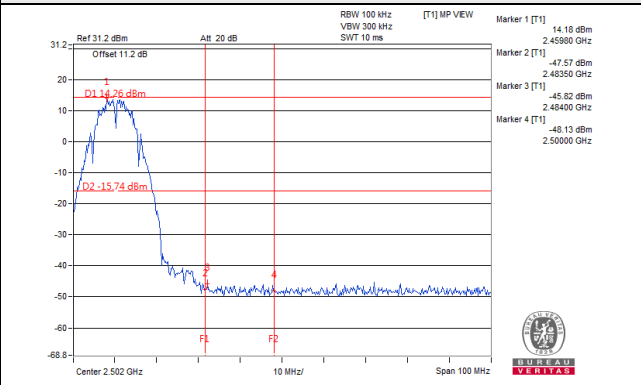
CH 11



CH 1 Band edge

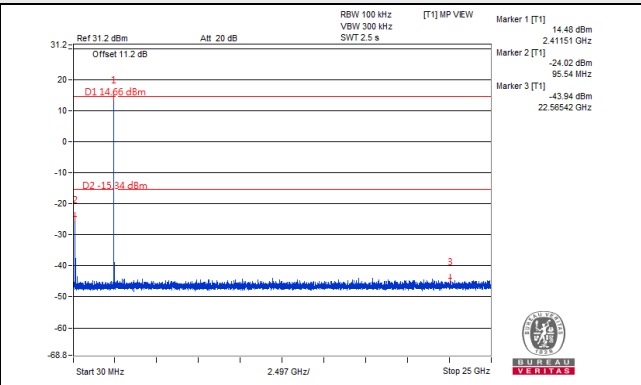
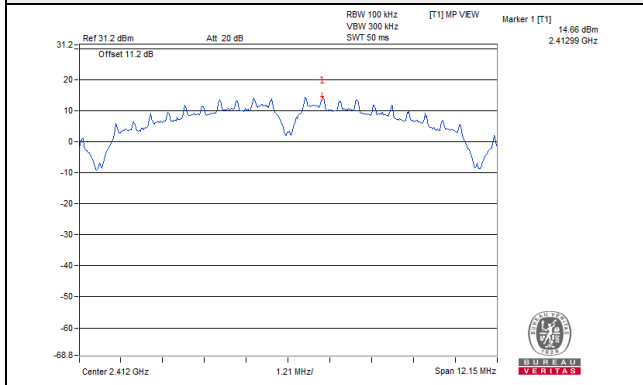


CH 11 Band edge

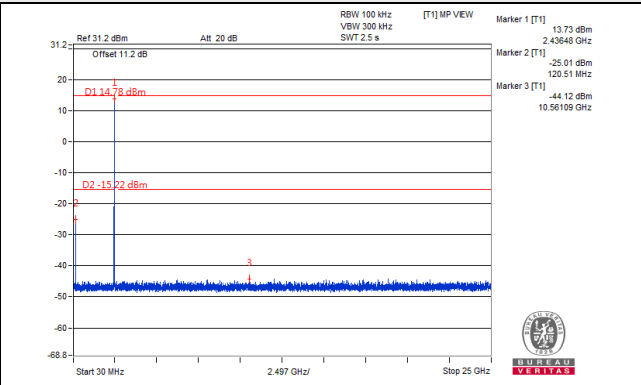
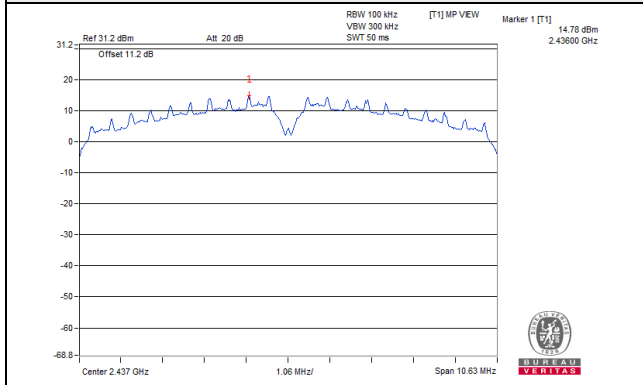


802.11b\_Chain 2

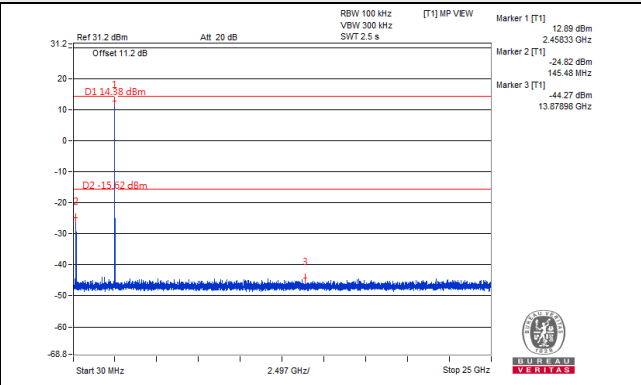
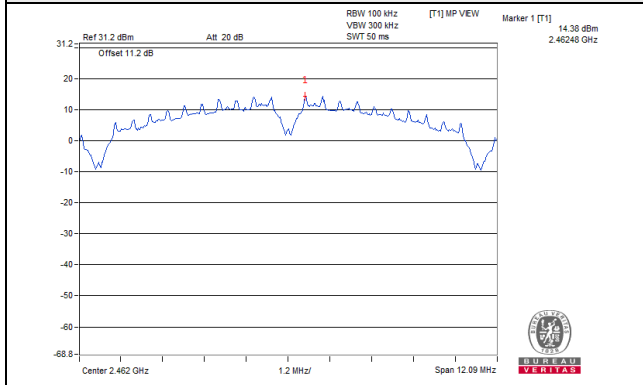
CH 1



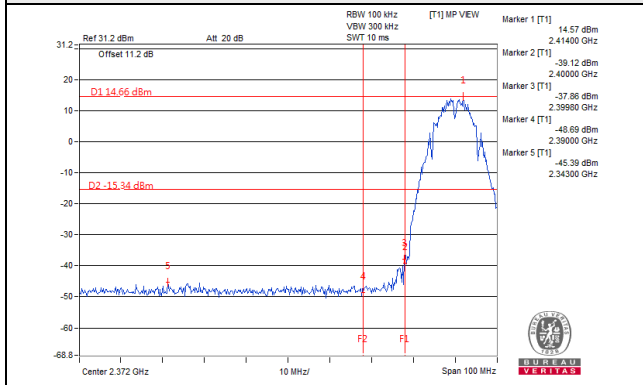
CH 6



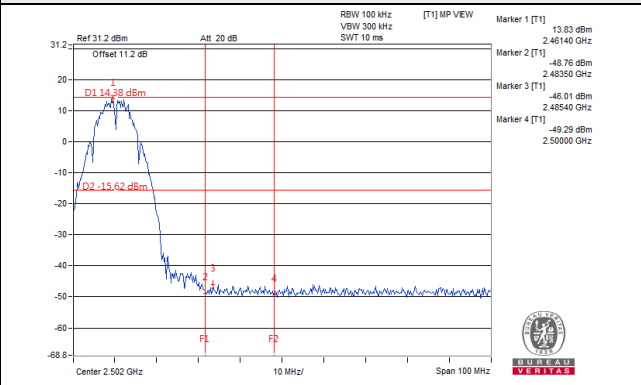
CH 11



CH 1 Band edge

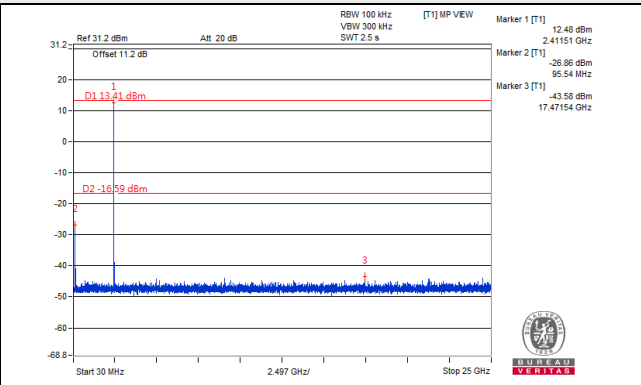
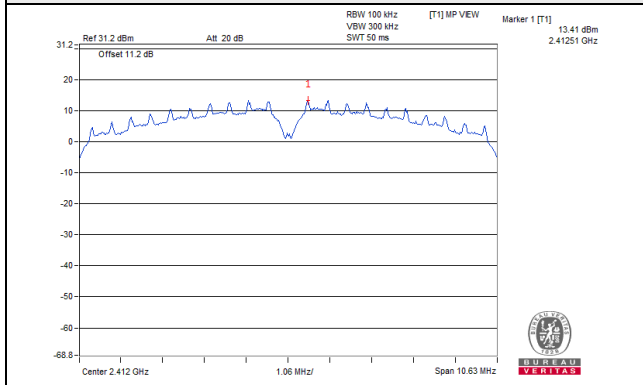


CH 11 Band edge

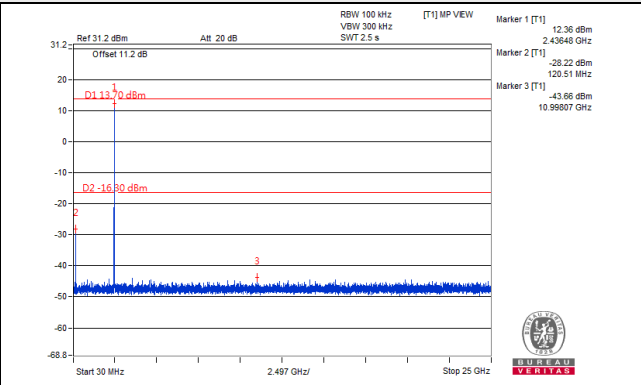
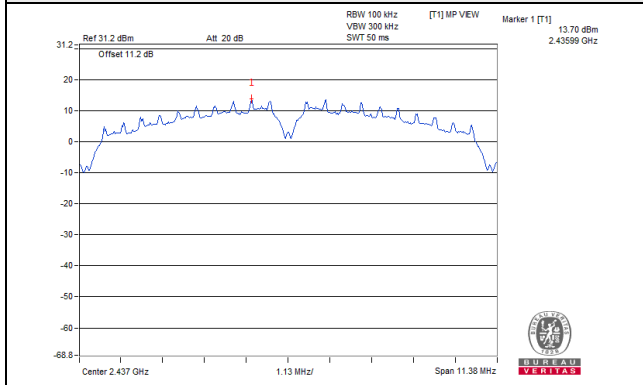


802.11b\_Chain 3

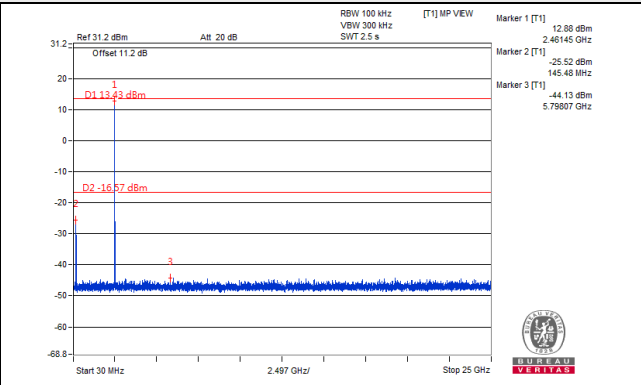
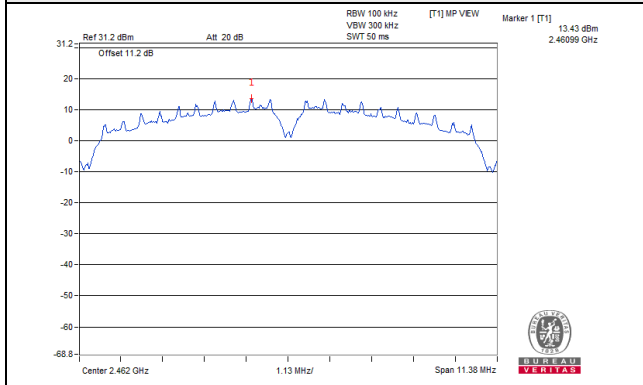
CH 1



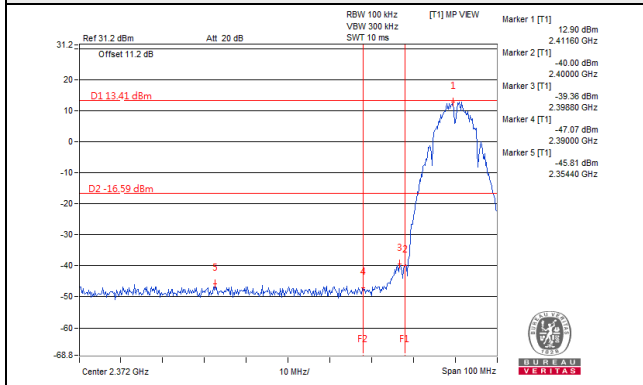
CH 6



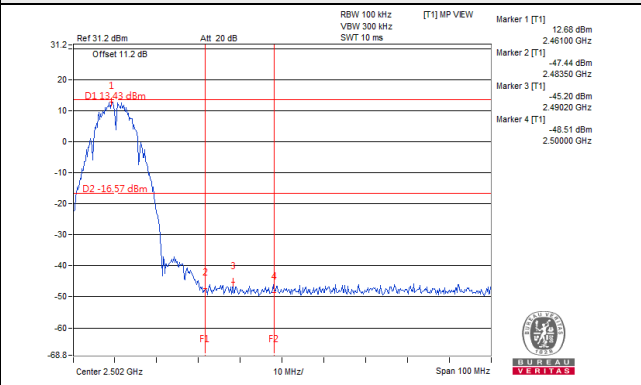
CH 11



CH 1 Band edge

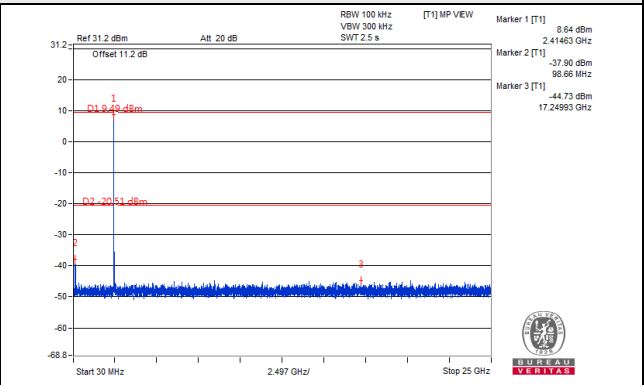
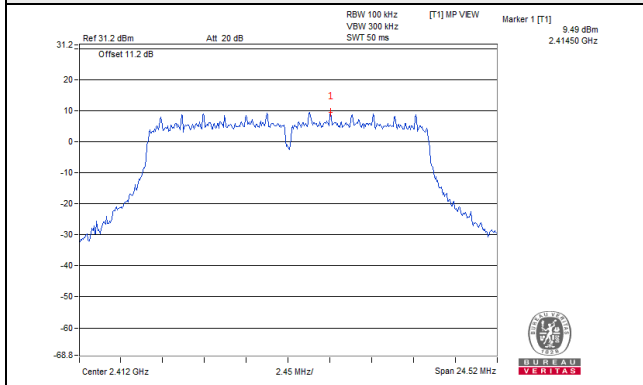


CH 11 Band edge

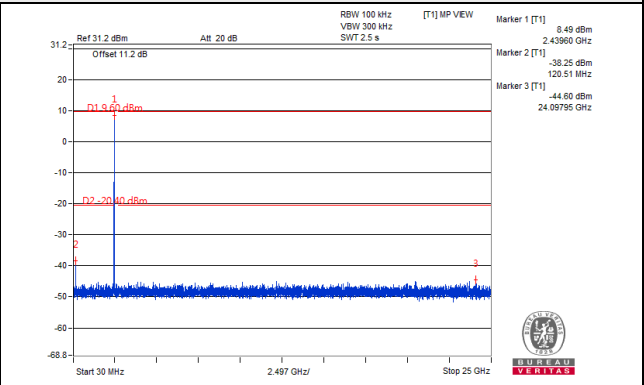
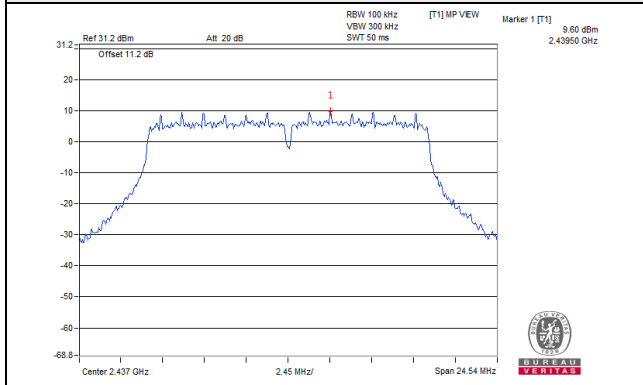


802.11g\_Chain 0

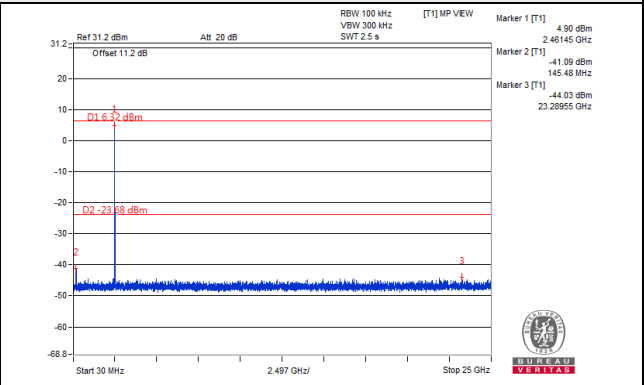
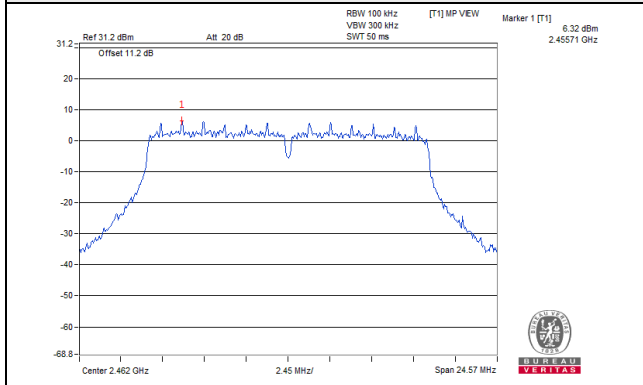
CH 1



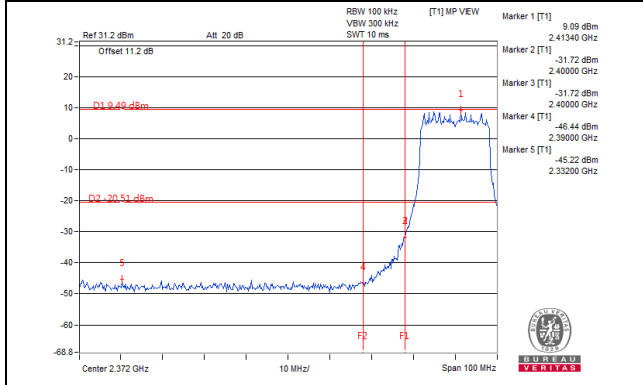
CH 6



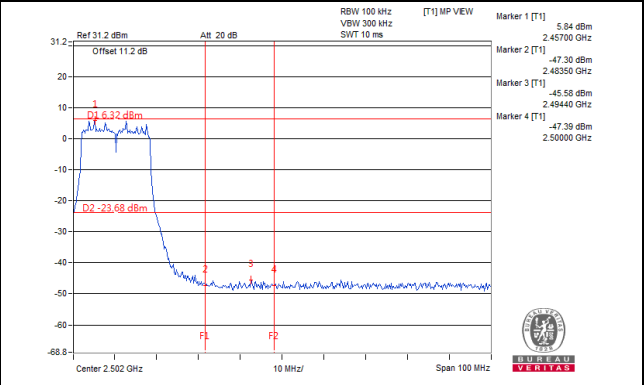
CH 11



CH 1 Band edge

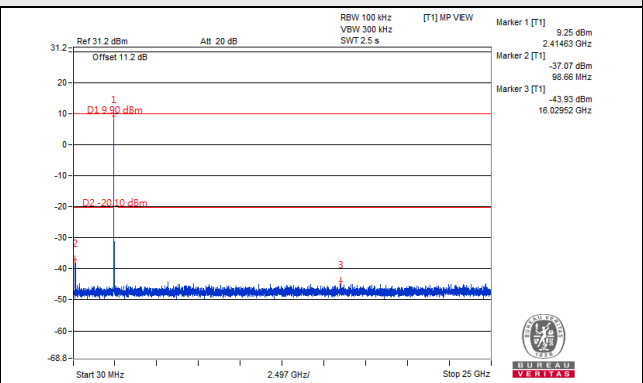
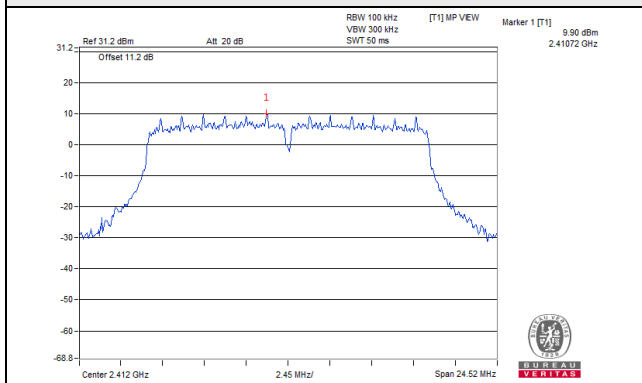


CH 11 Band edge

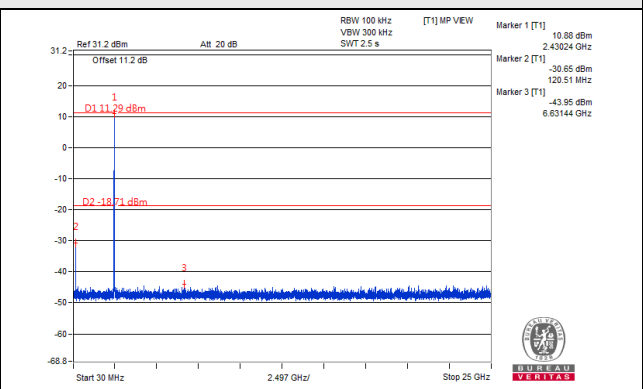
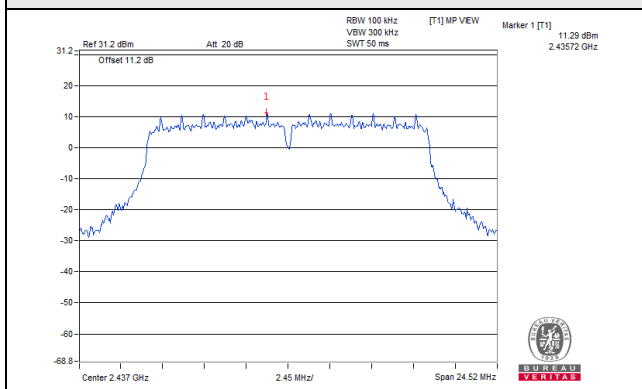


802.11g\_Chain 1

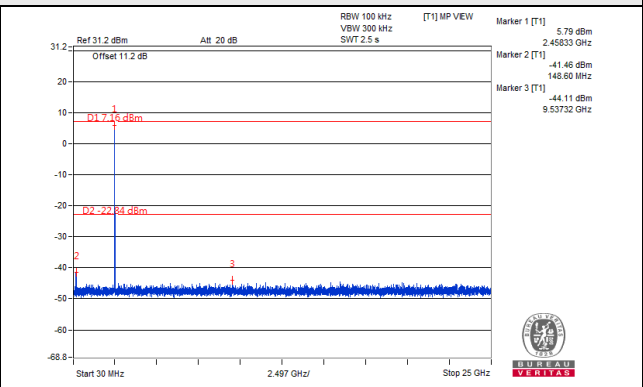
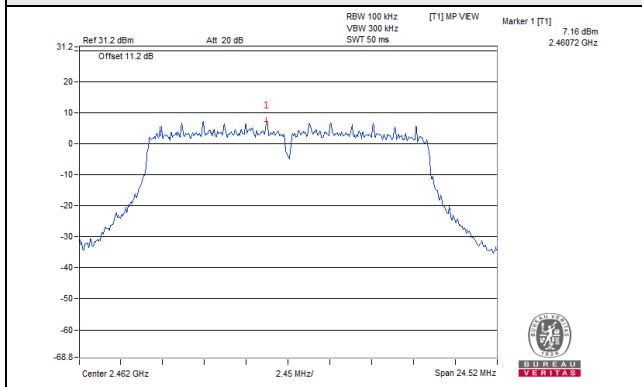
CH 1



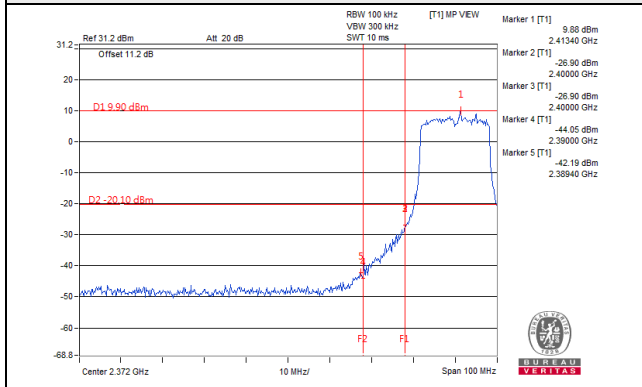
CH 6



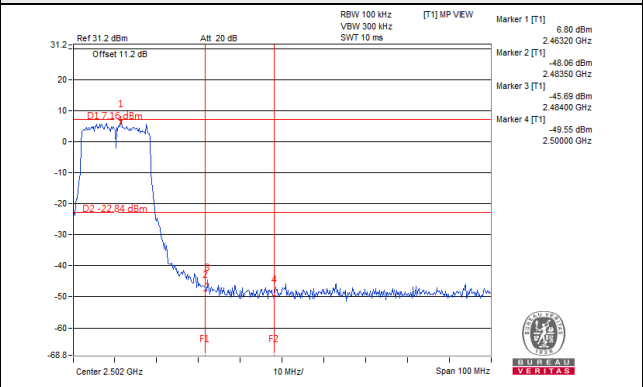
CH 11



CH 1 Band edge



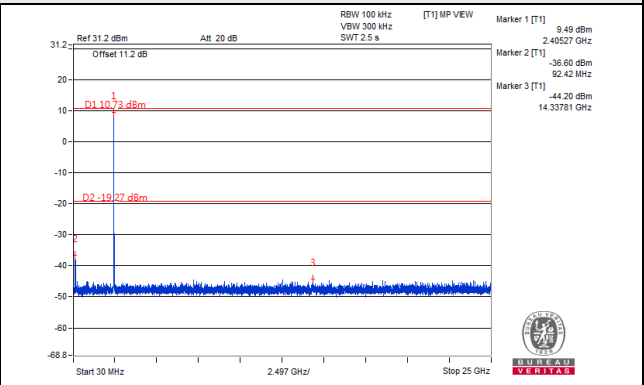
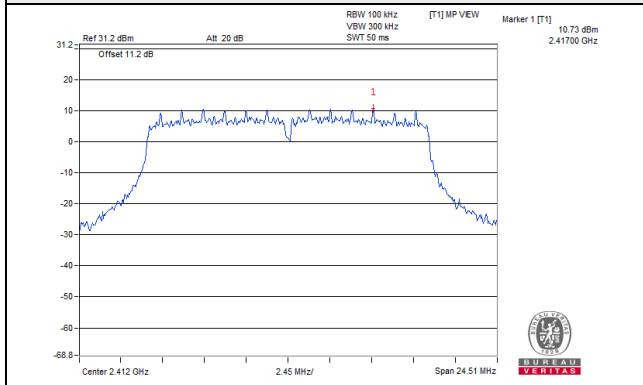
CH 11 Band edge



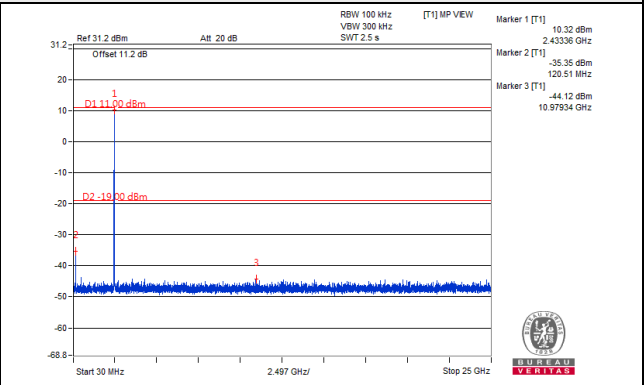
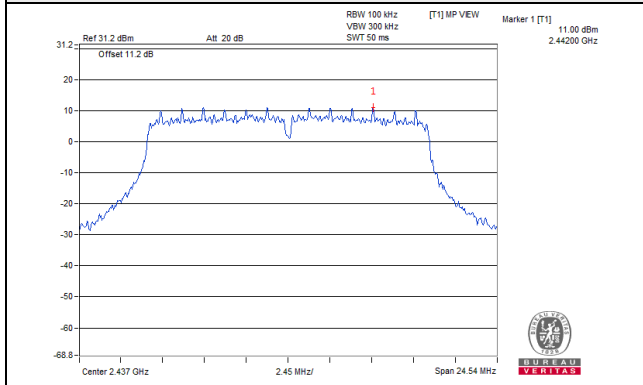


# 802.11g\_Chain 2

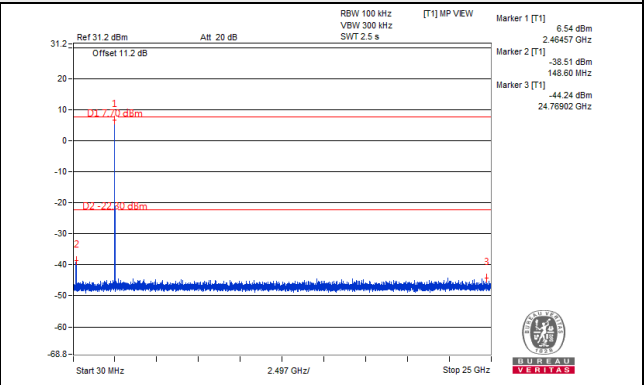
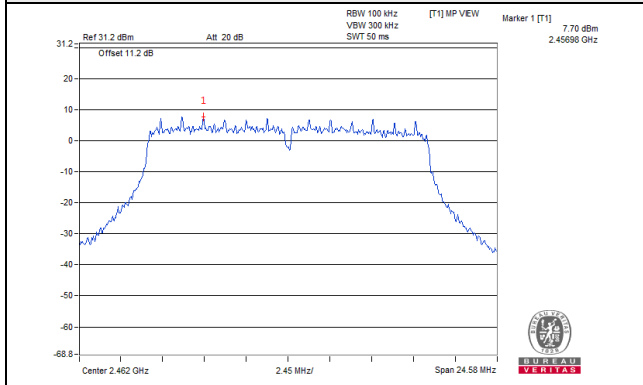
## CH 1



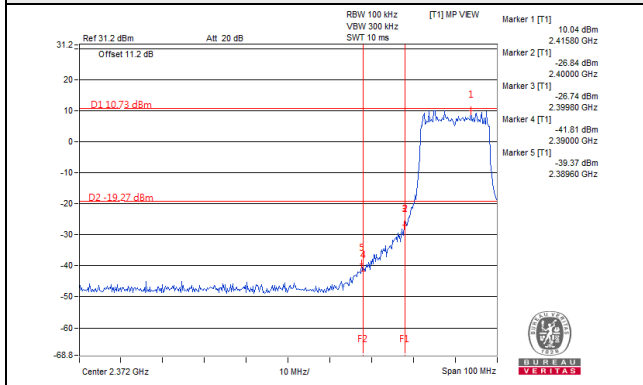
## CH 6



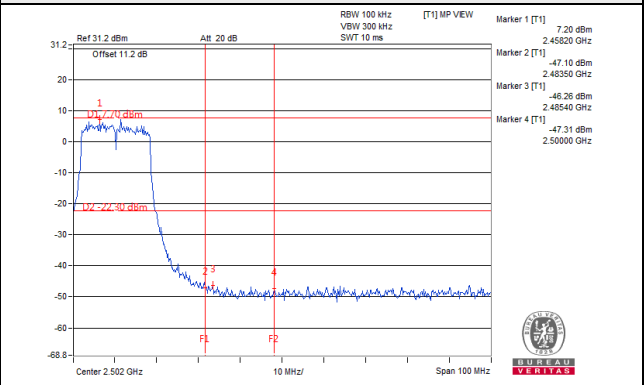
## CH 11



## CH 1 Band edge

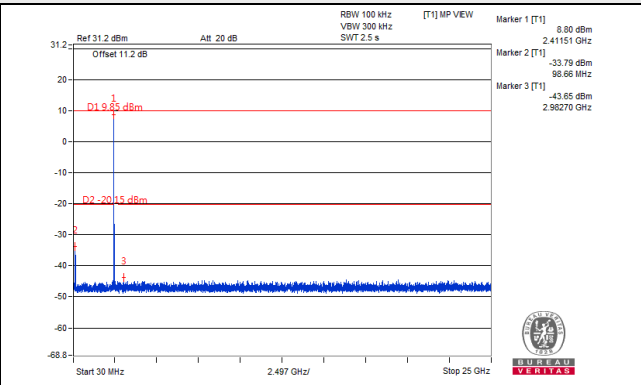
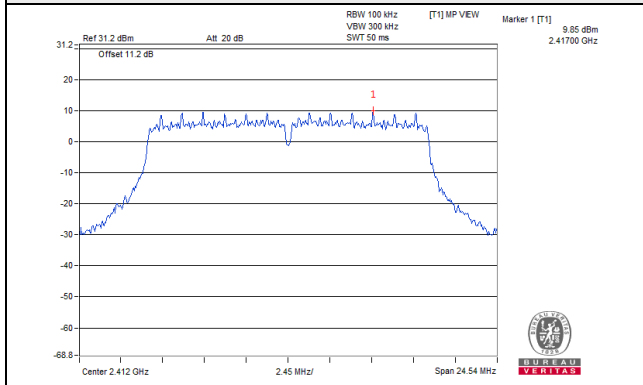


## CH 11 Band edge

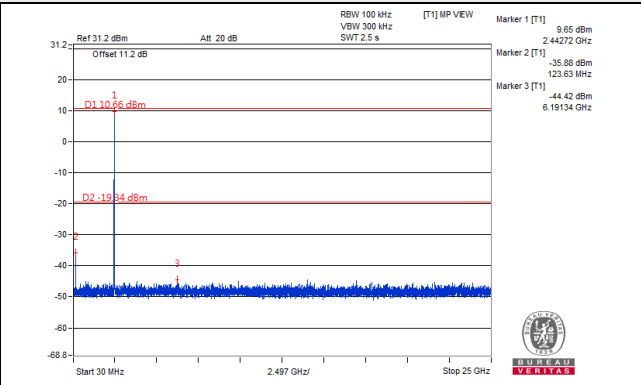
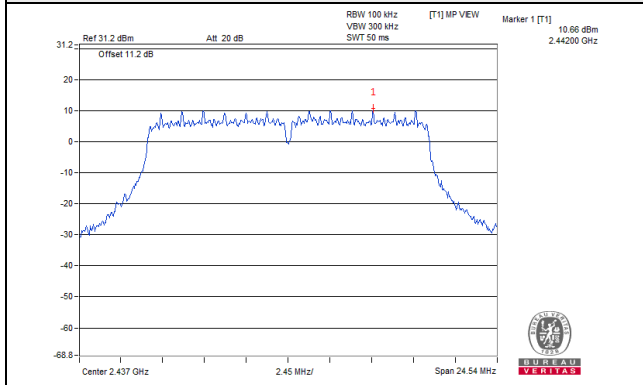


# 802.11g\_Chain 3

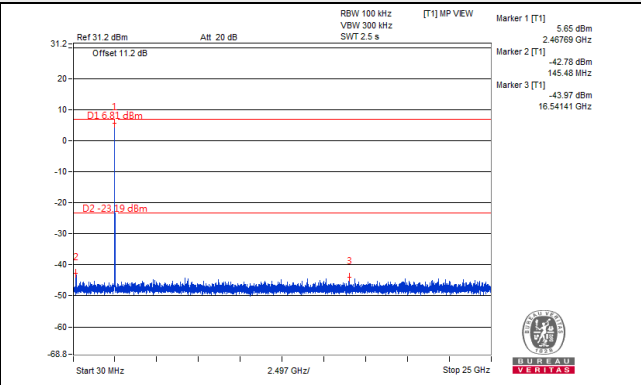
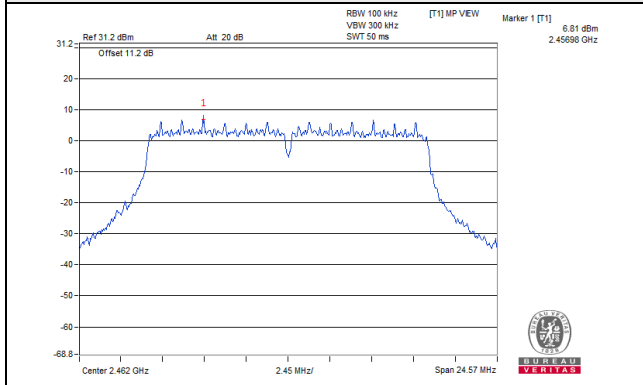
## CH 1



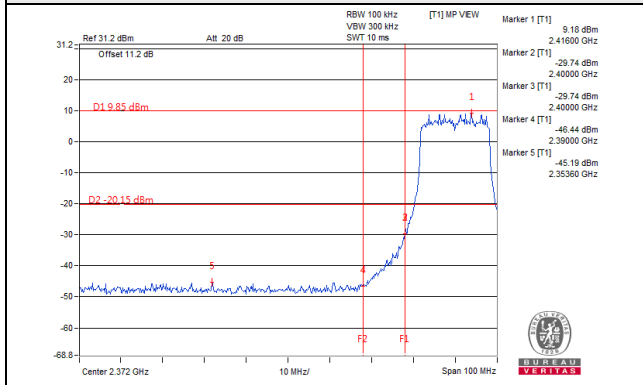
## CH 6



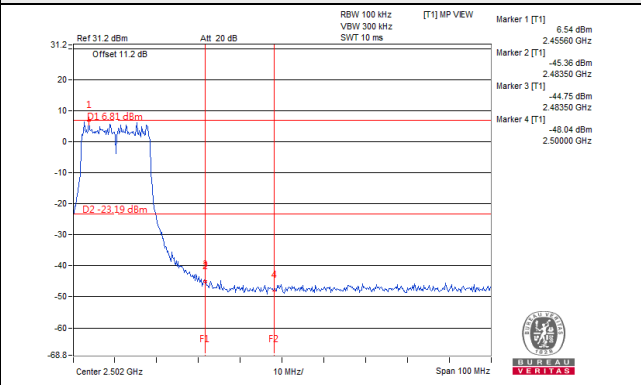
## CH 11



## CH 1 Band edge

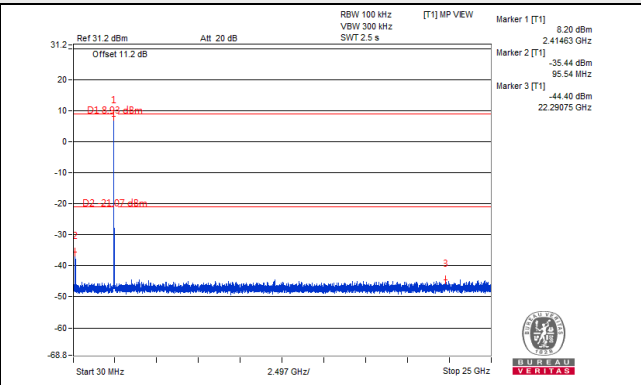
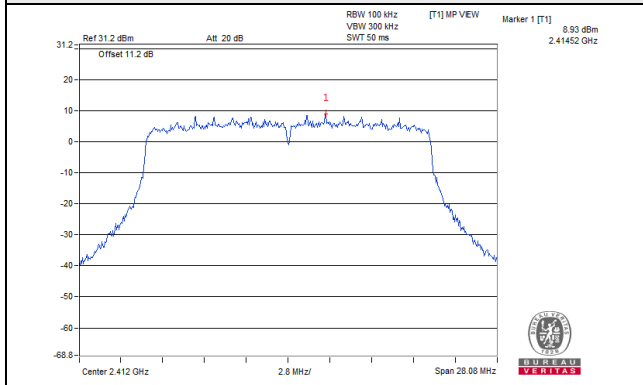


## CH 11 Band edge

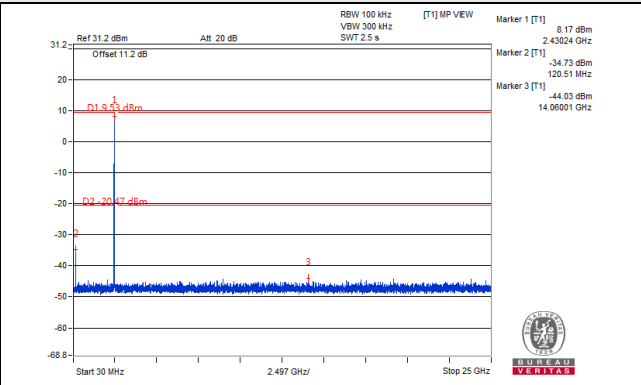
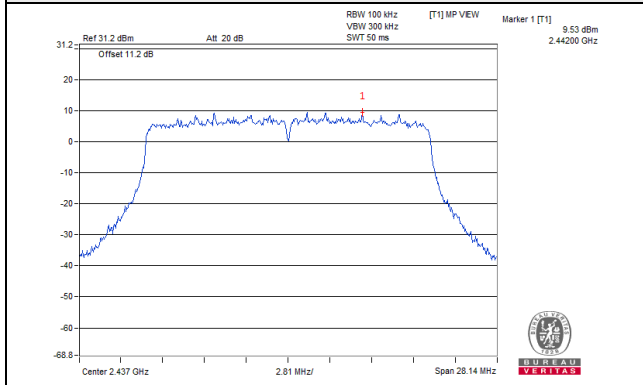


802.11ax (HE20)\_Chain 0

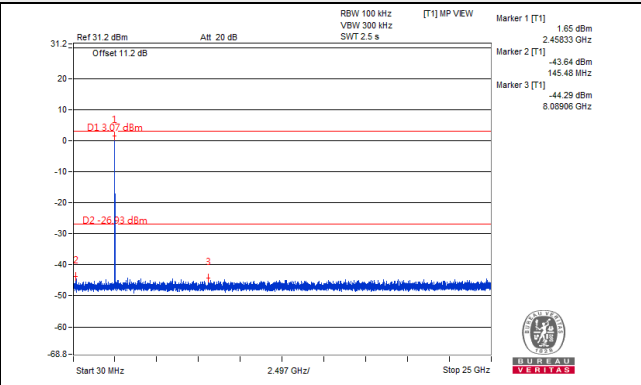
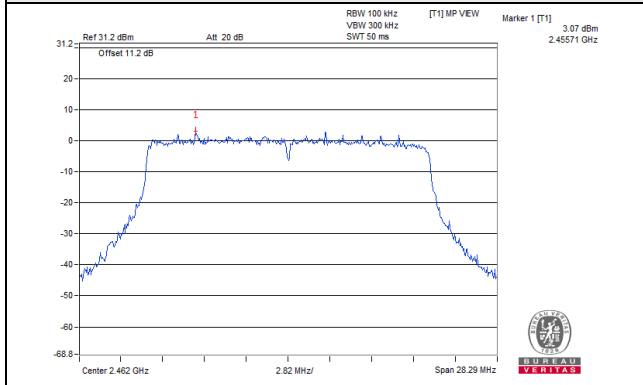
CH 1



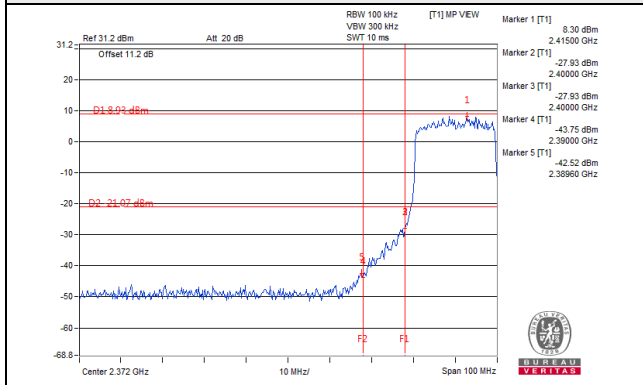
CH 6



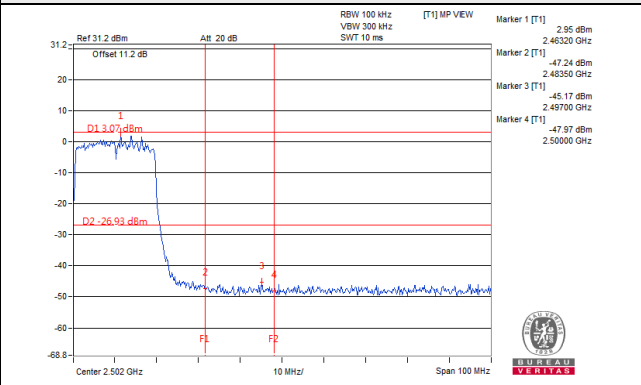
CH 11



CH 1 Band edge

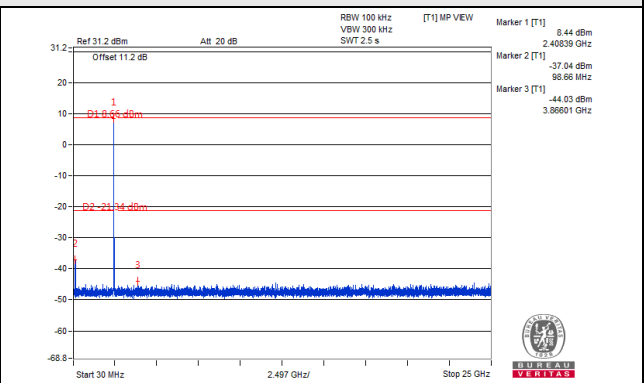
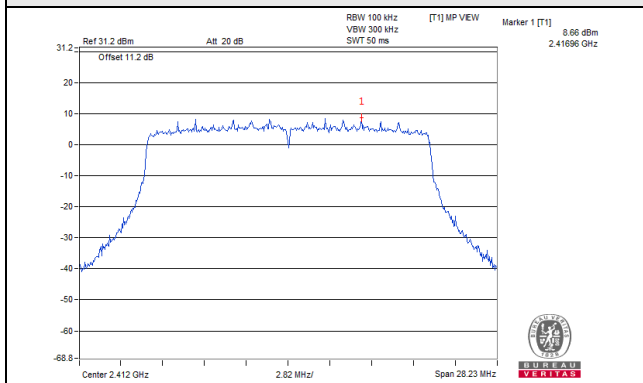


CH 11 Band edge

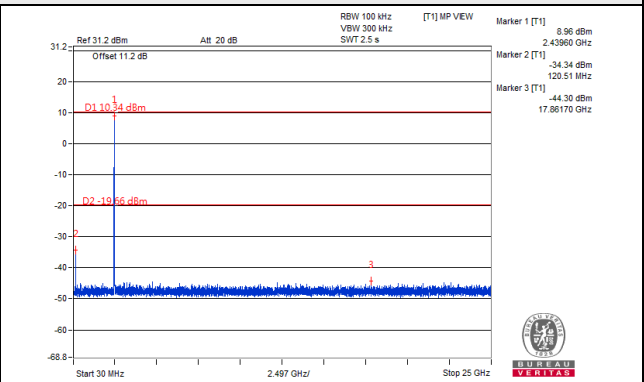
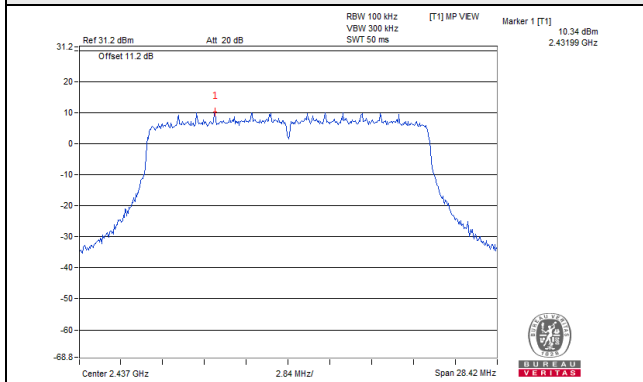


802.11ax (HE20)\_Chain 1

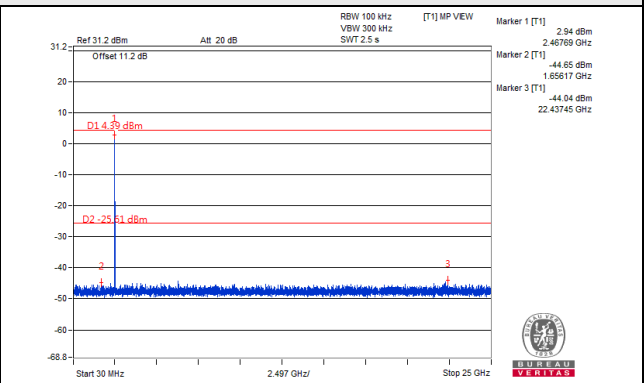
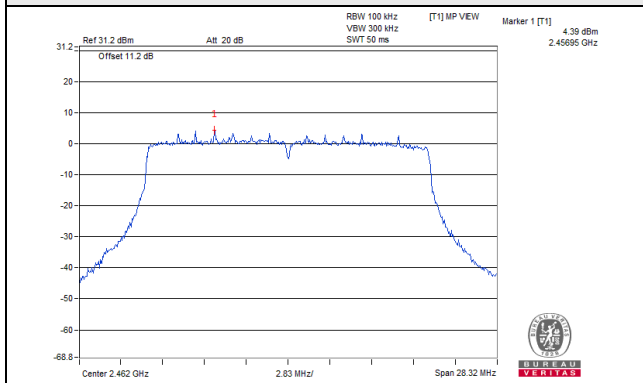
CH 1



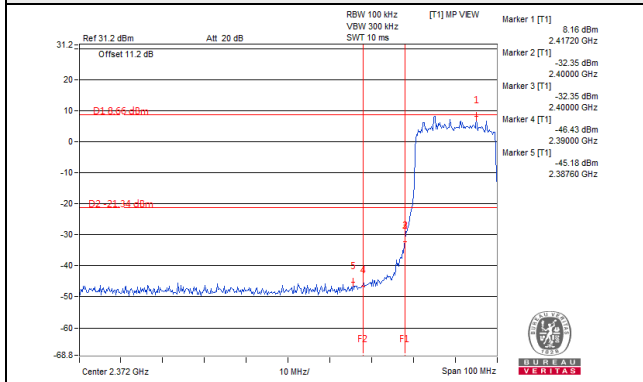
CH 6



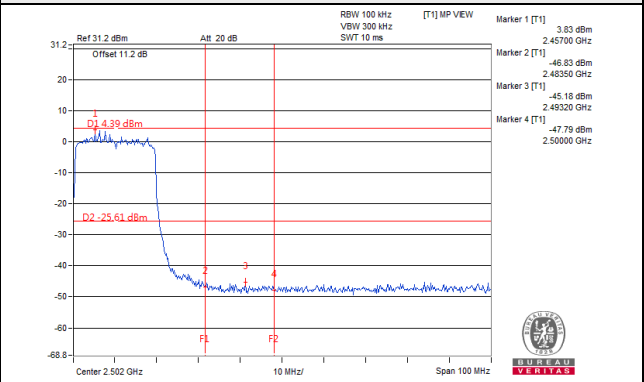
CH 11



CH 1 Band edge

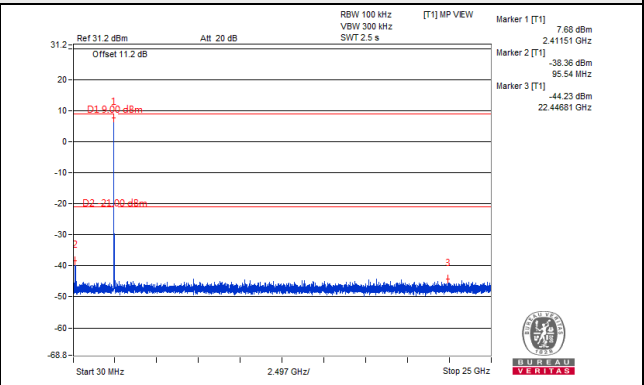
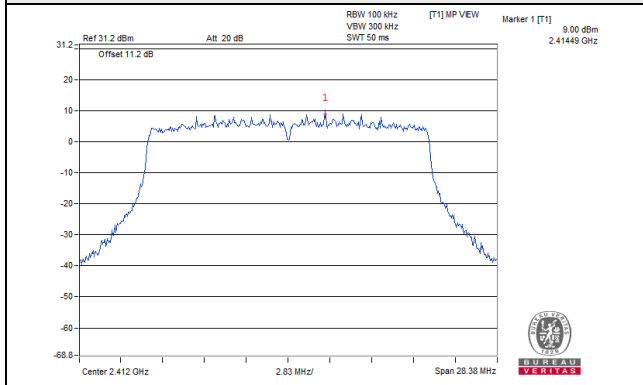


CH 11 Band edge

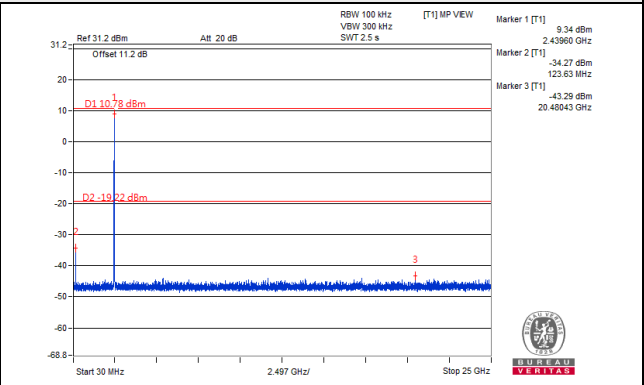
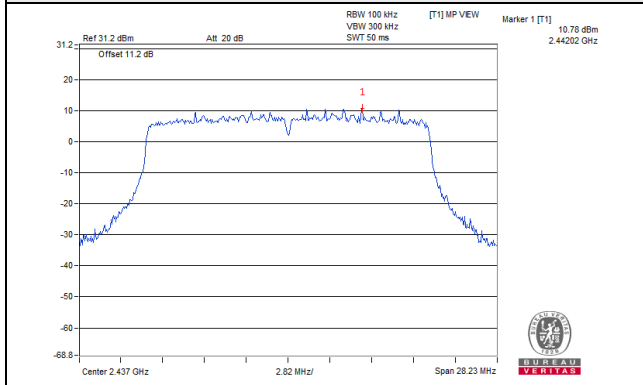


802.11ax (HE20)\_Chain 2

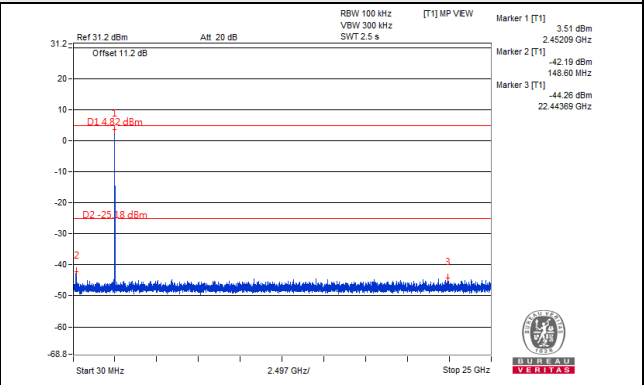
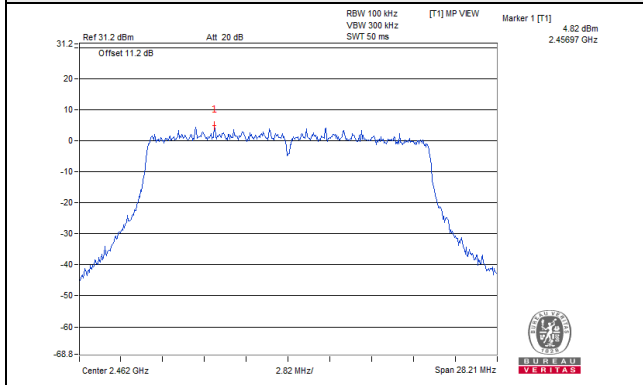
CH 1



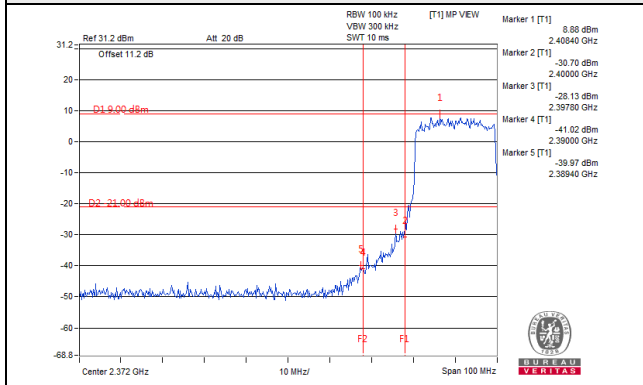
CH 6



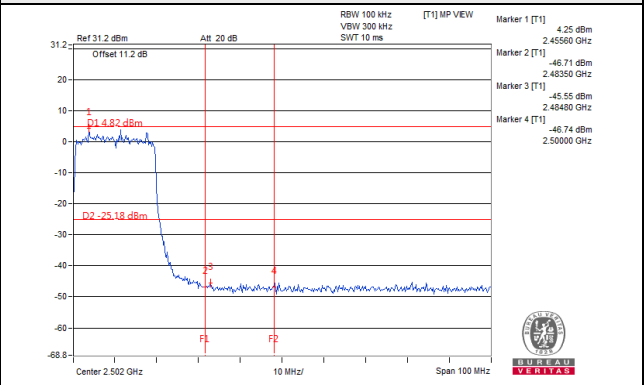
CH 11



CH 1 Band edge

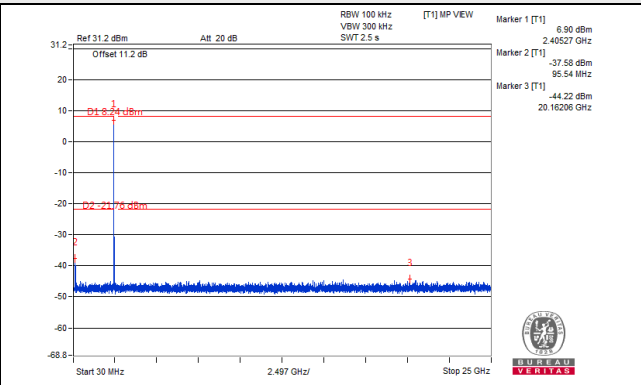
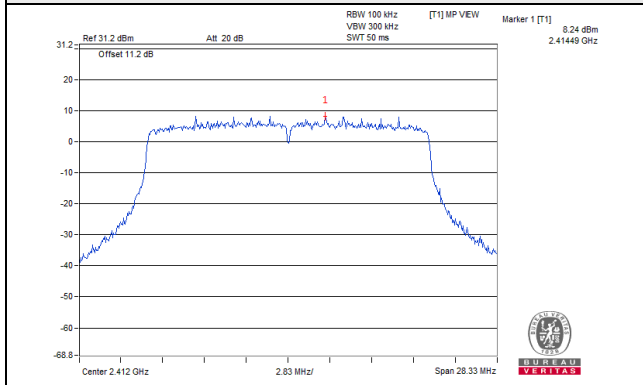


CH 11 Band edge

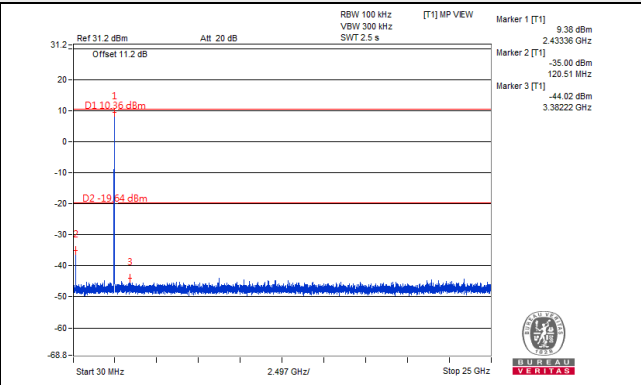
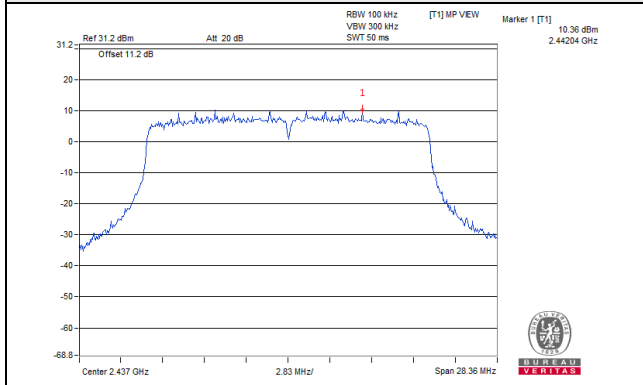


802.11ax (HE20)\_Chain 3

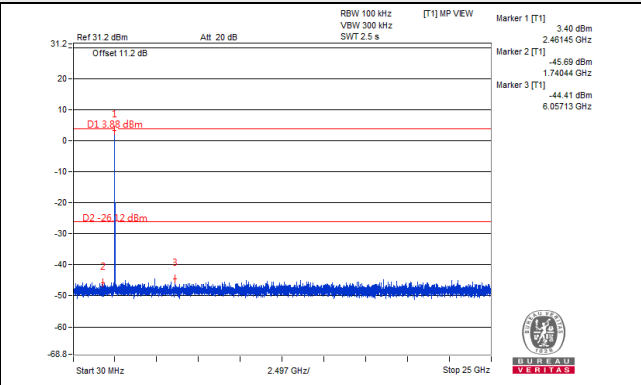
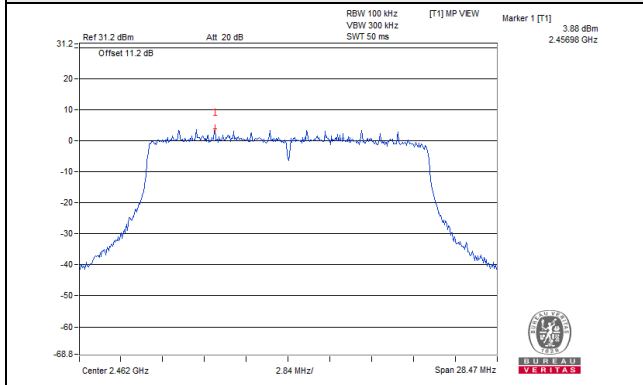
CH 1



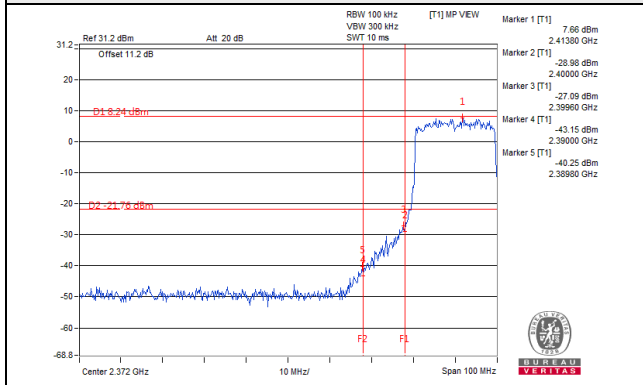
CH 6



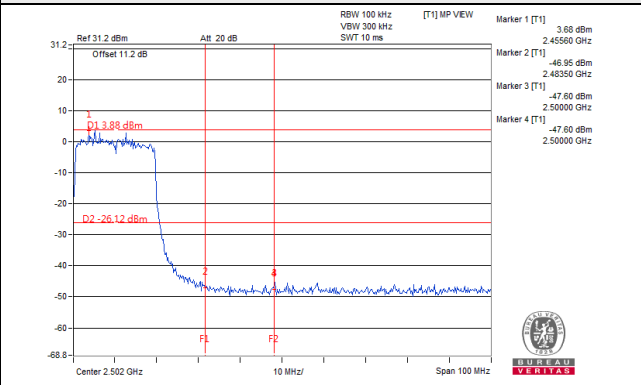
CH 11



CH 1 Band edge

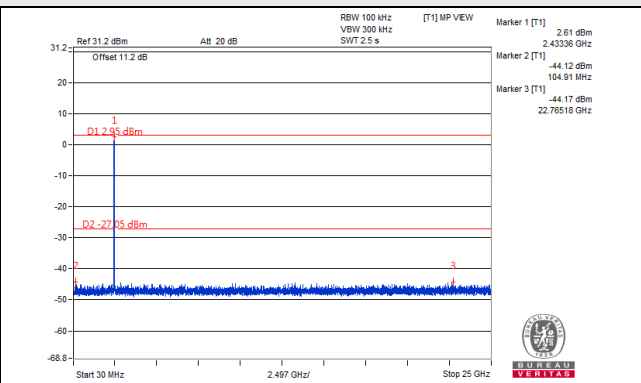
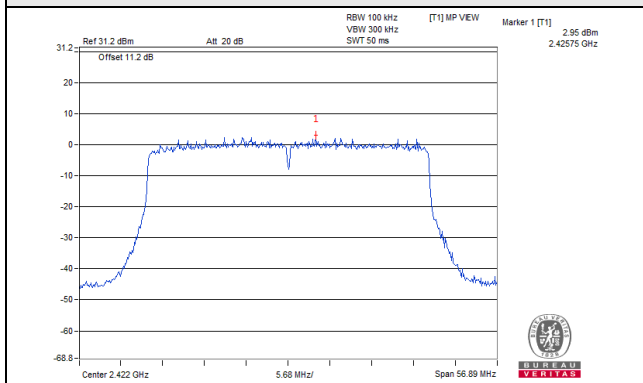


CH 11 Band edge

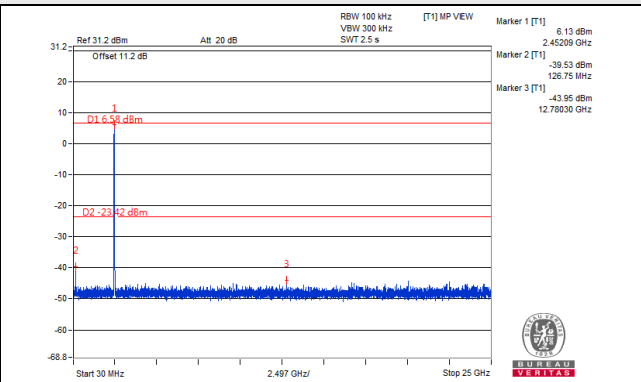
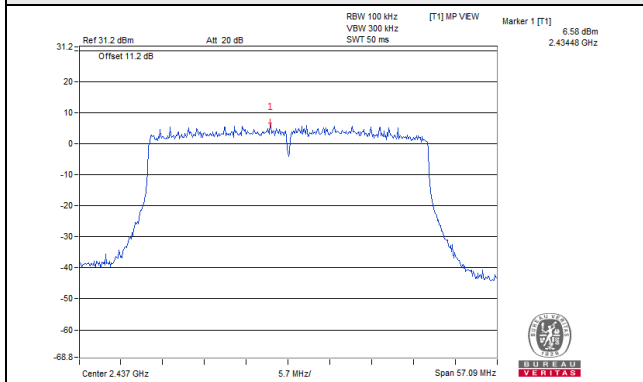


# 802.11ax (HE40)\_Chain 0

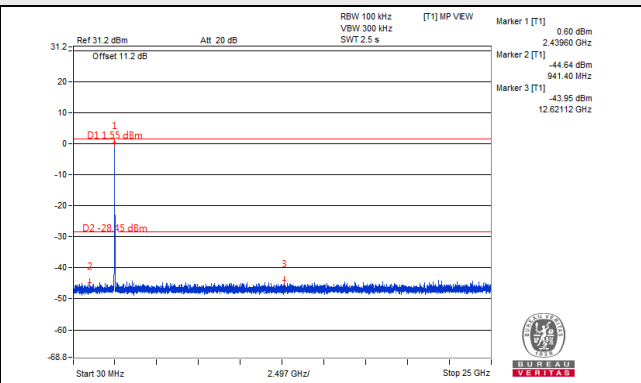
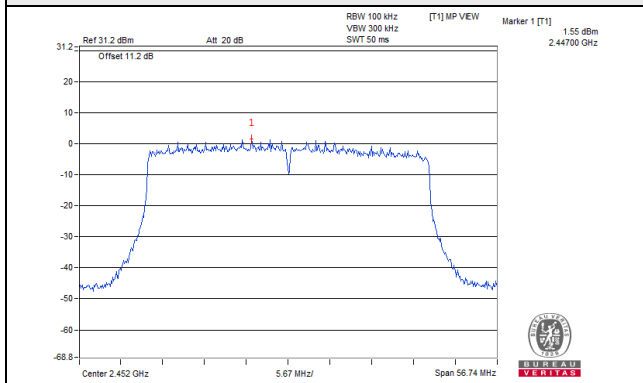
## CH 3



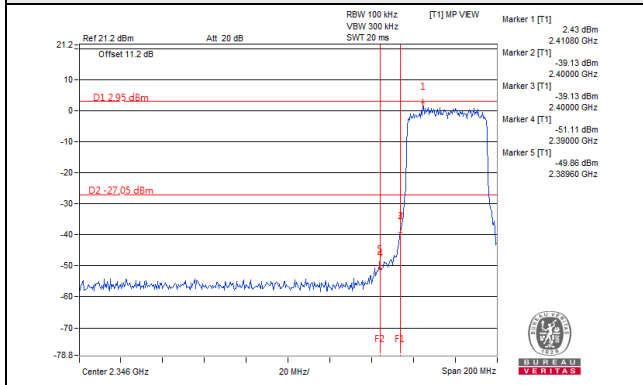
## CH 6



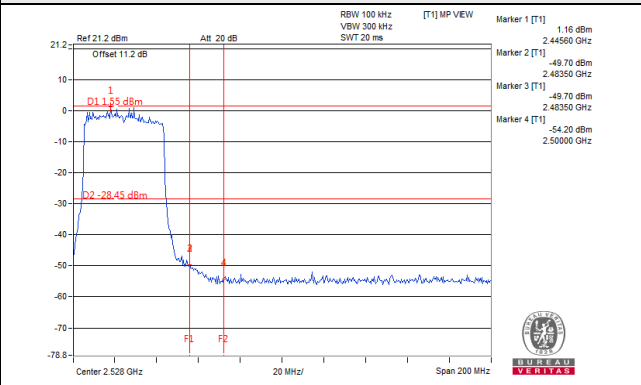
## CH 9



## CH 3 Band edge

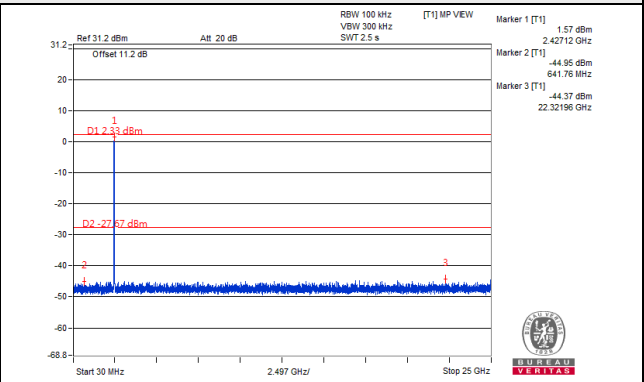
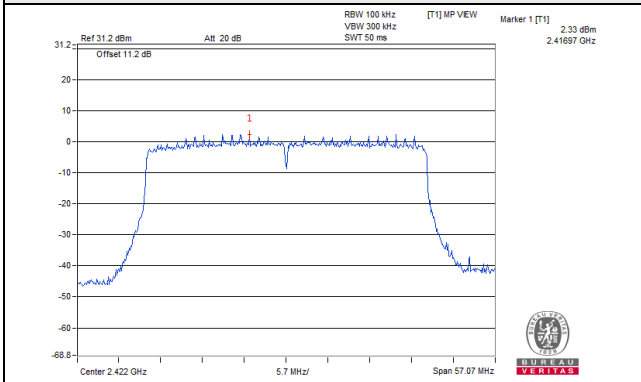


## CH 9 Band edge

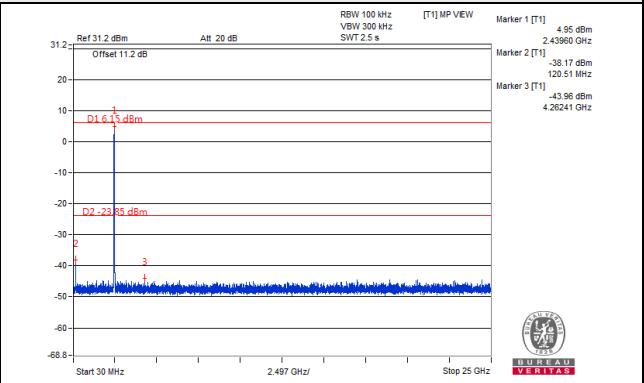
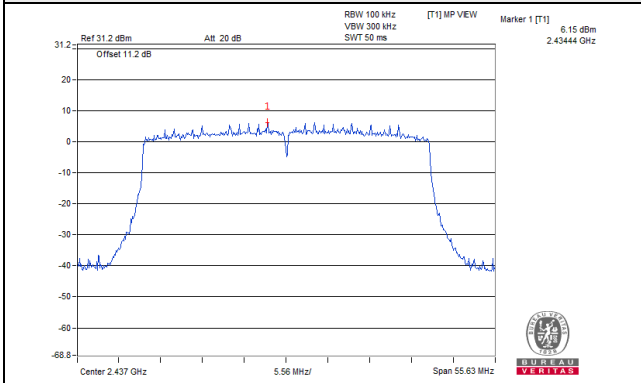


# 802.11ax (HE40)\_Chain 1

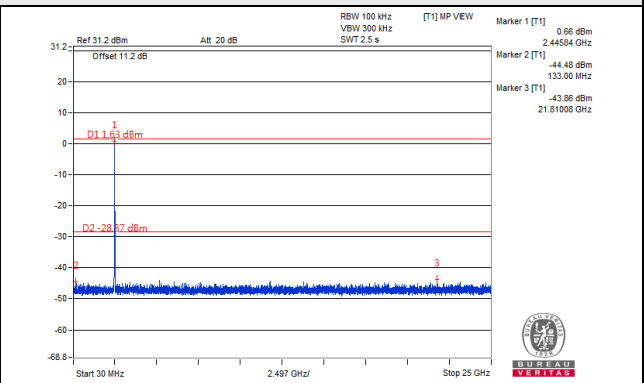
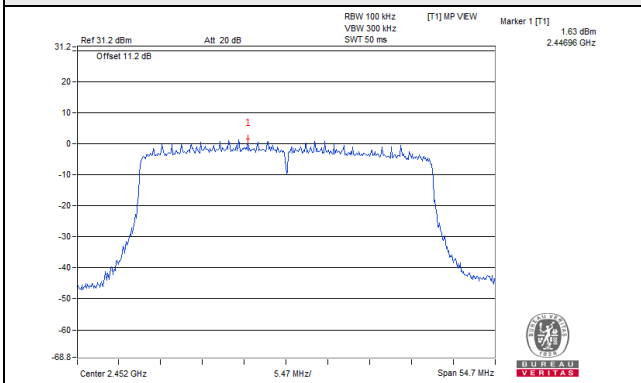
## CH 3



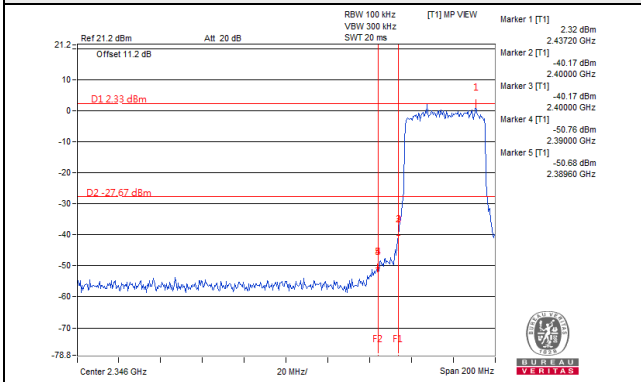
## CH 6



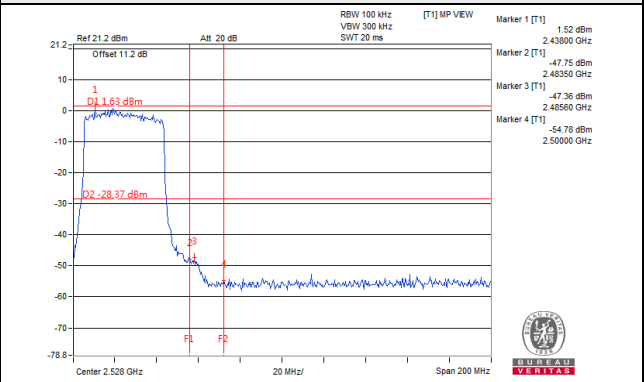
## CH 9



## CH 3 Band edge

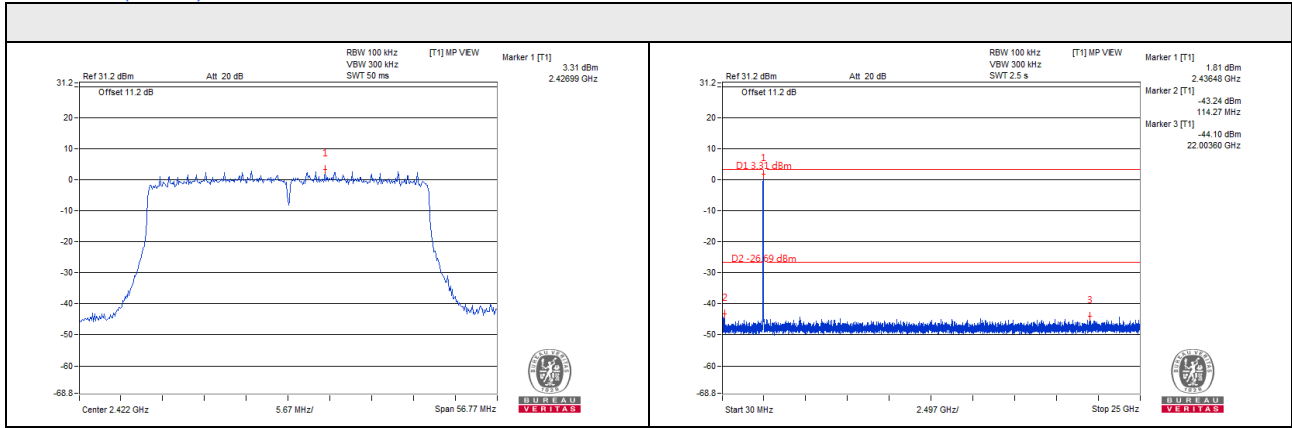


## CH 9 Band edge

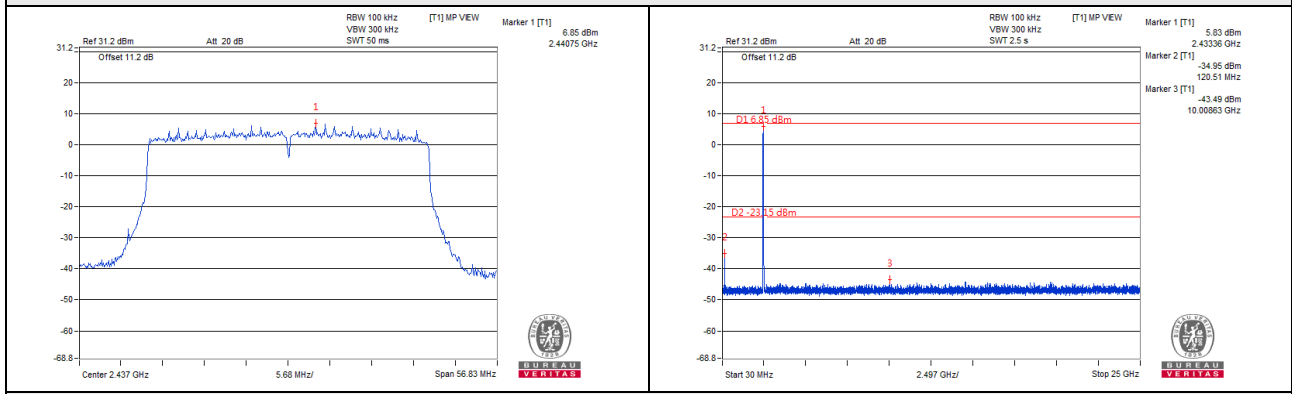




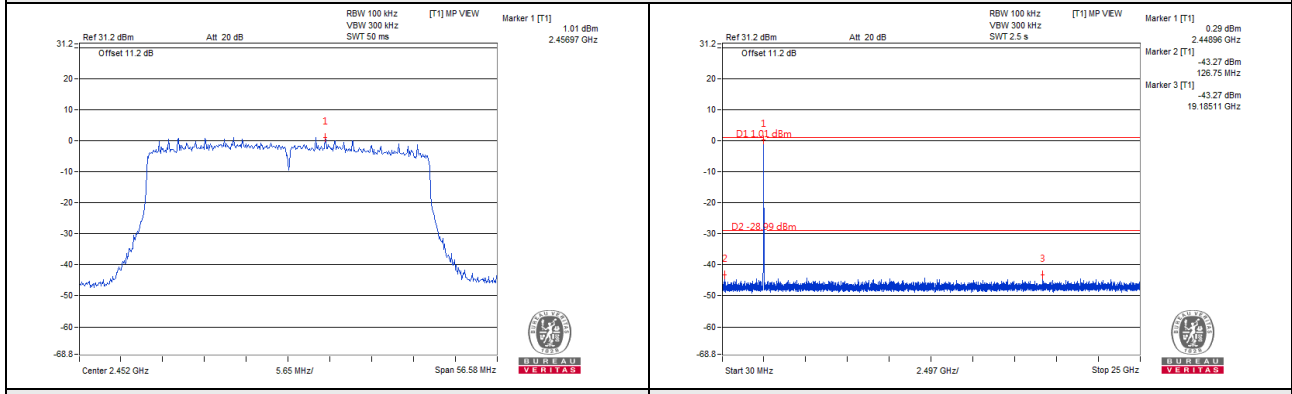
# 802.11ax (HE40)\_Chain 2



## CH 6

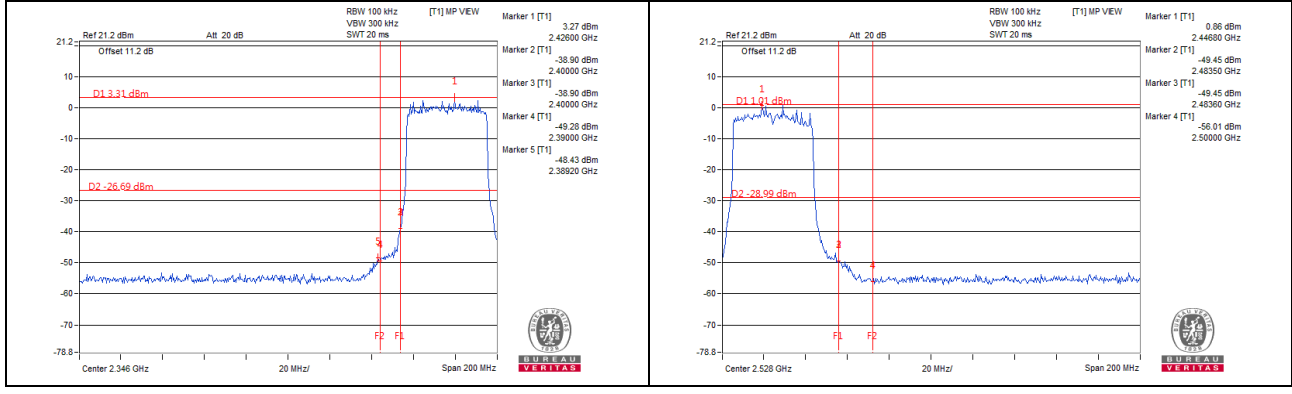


## CH 9



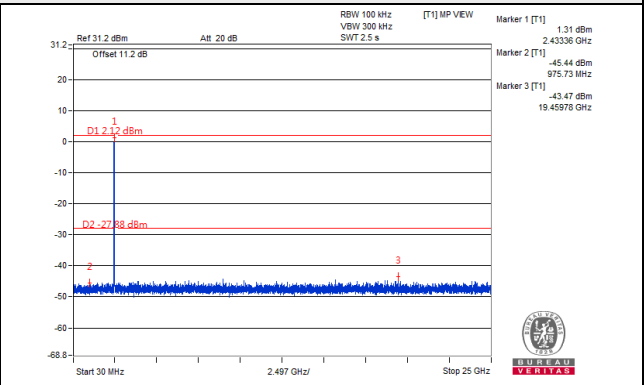
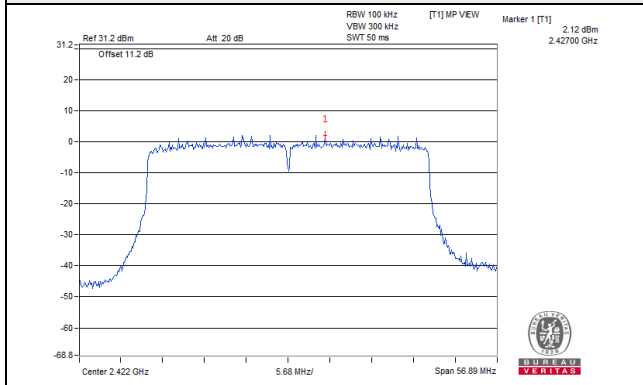
## CH 3 Band edge

## CH Band edge

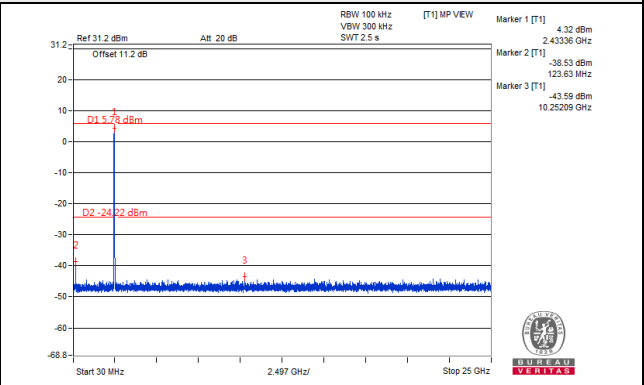
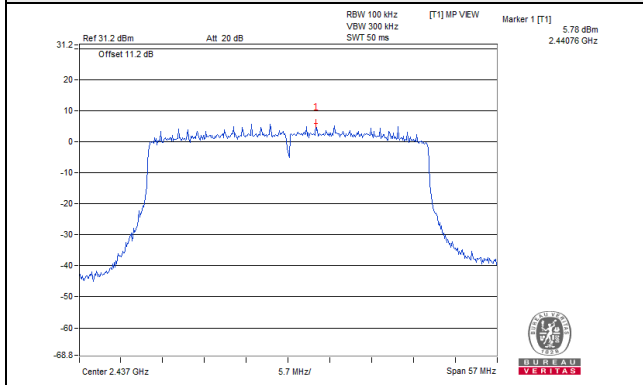


# 802.11ax (HE40)\_Chain 3

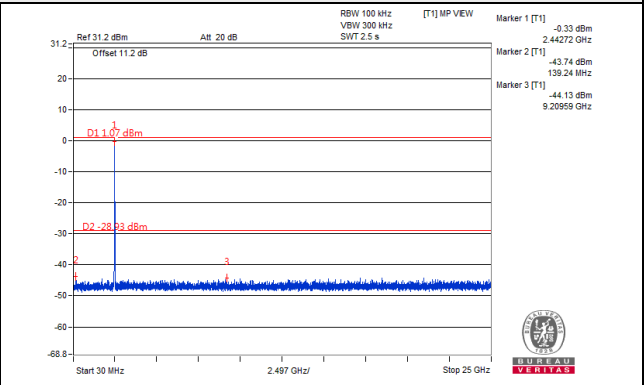
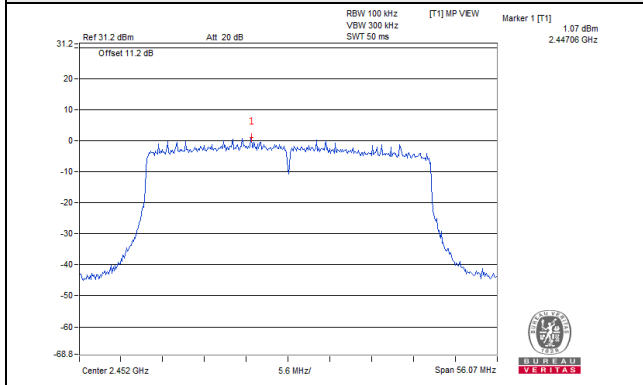
## CH 3



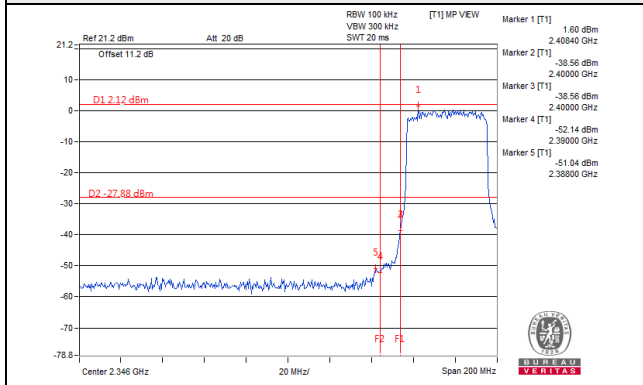
## CH 6



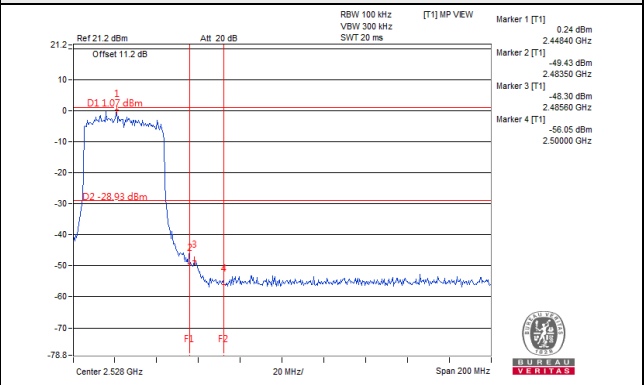
## CH 9



## CH 3 Band edge

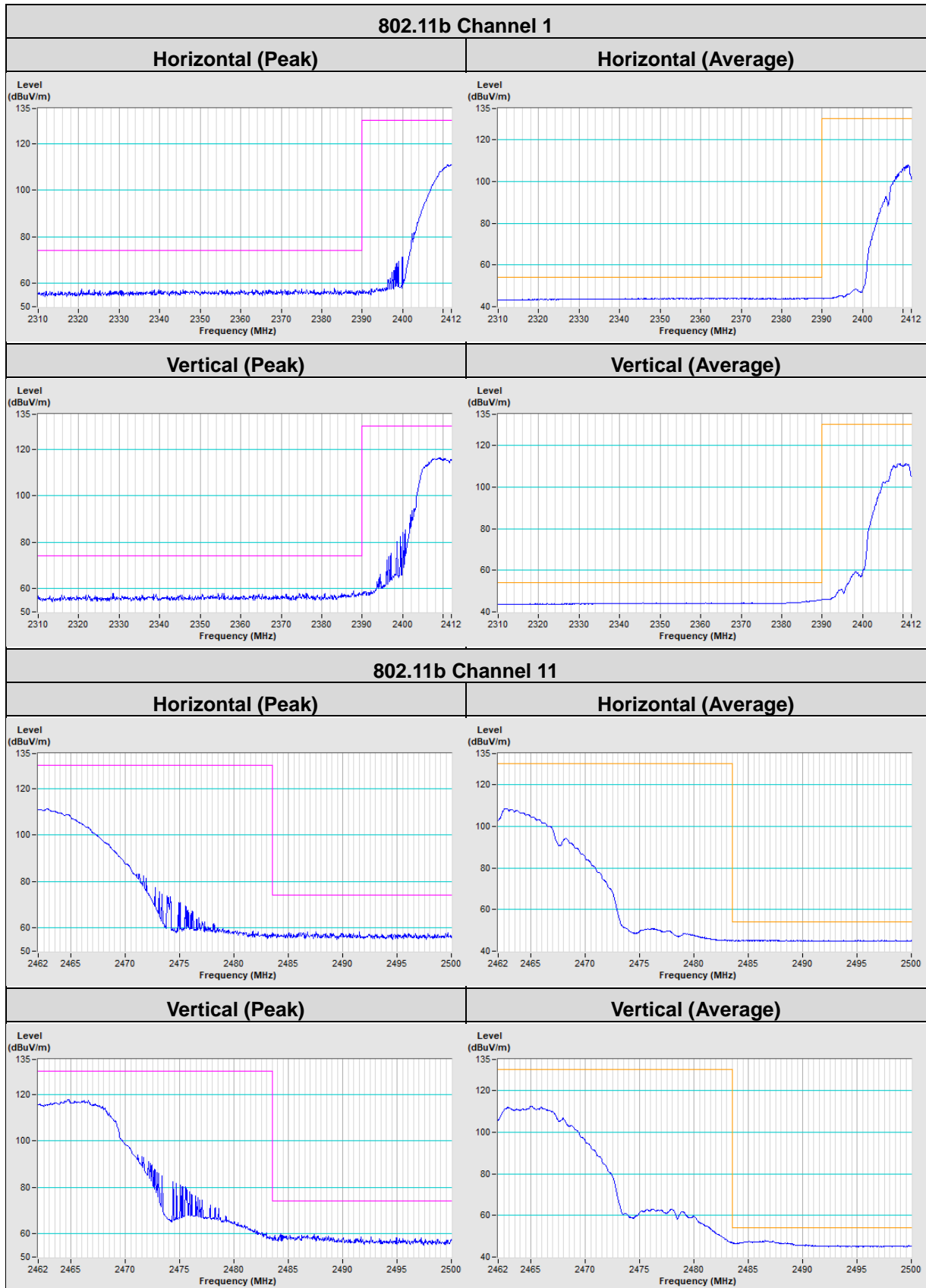


## CH 9 Band edge

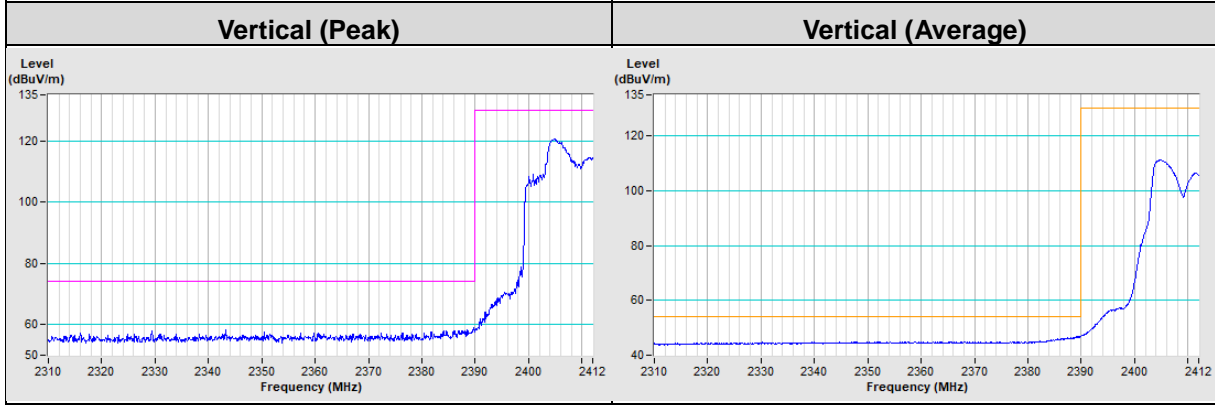
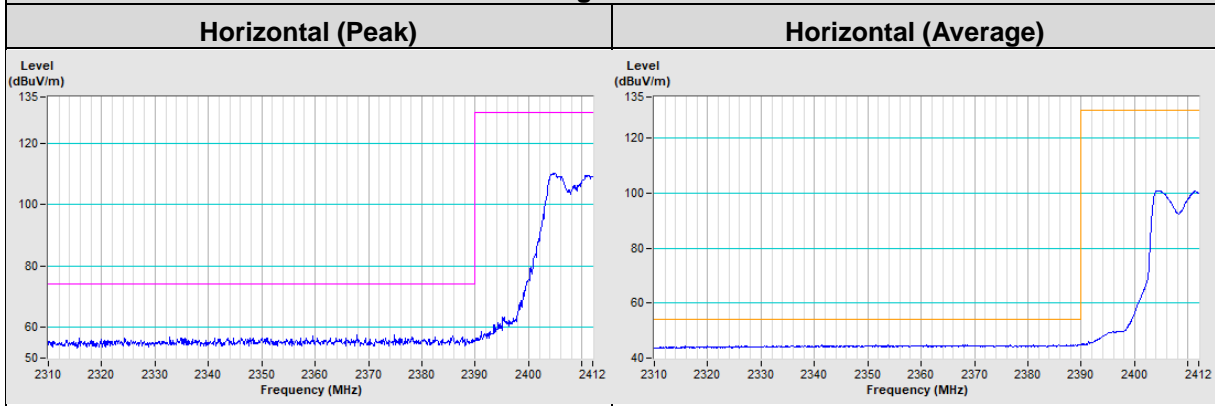


# Annex A - Band Edge Measurement

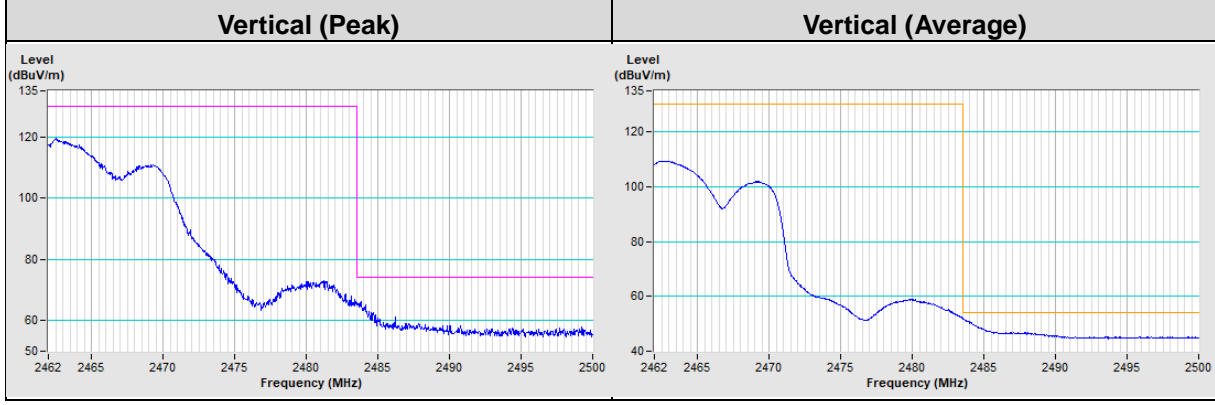
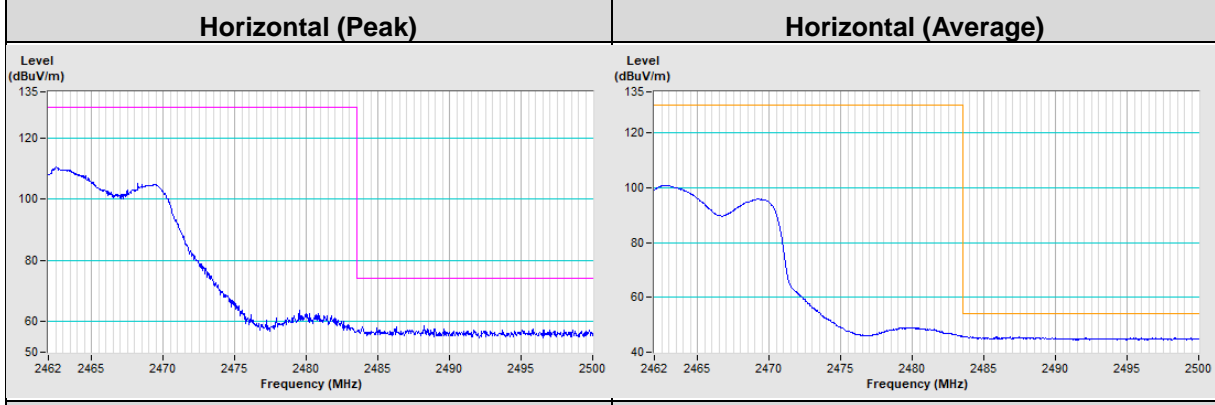
Mode A



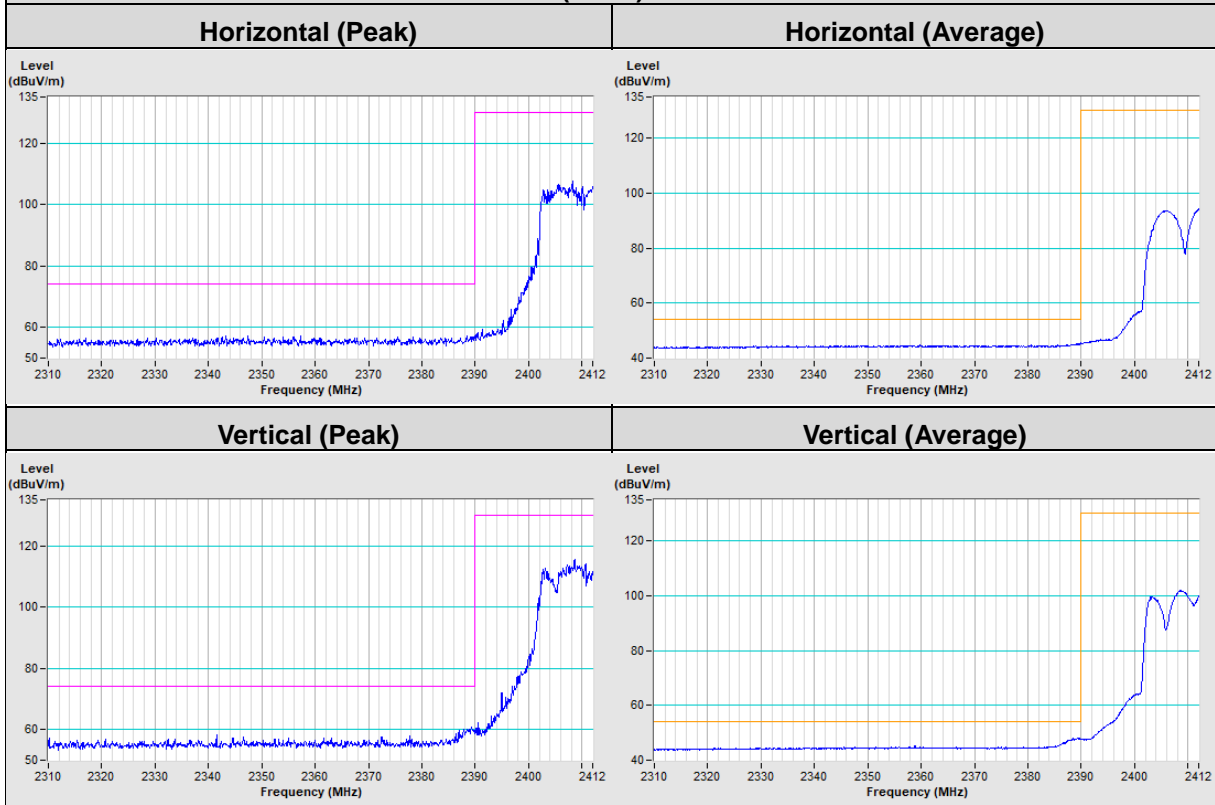
### 802.11g Channel 1



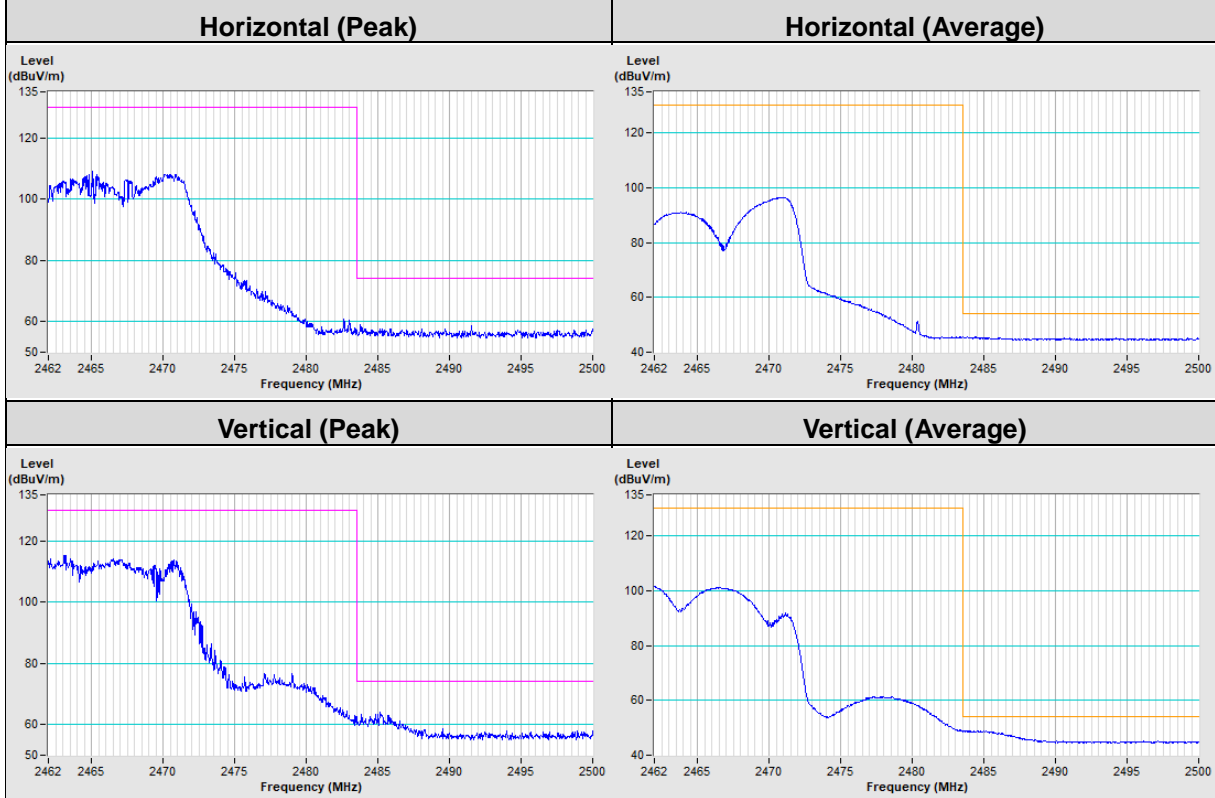
### 802.11g Channel 11



### 802.11ax (HE20) Channel 1

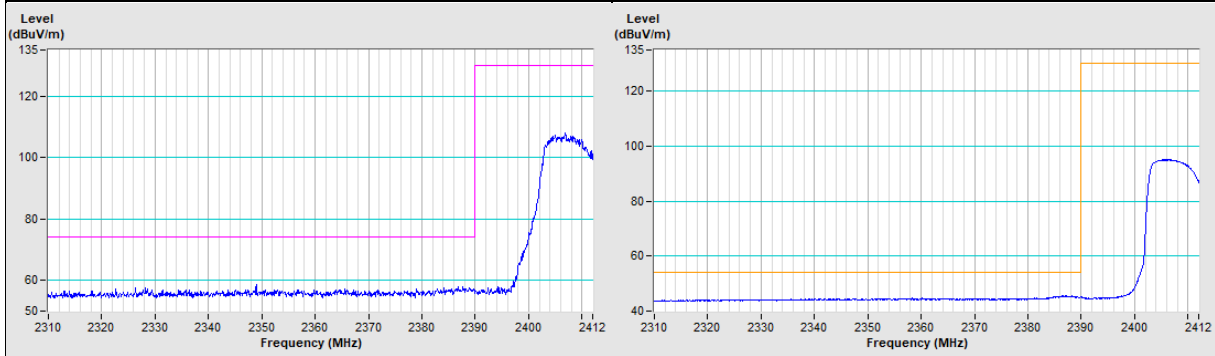


### 802.11ax (HE20) Channel 11

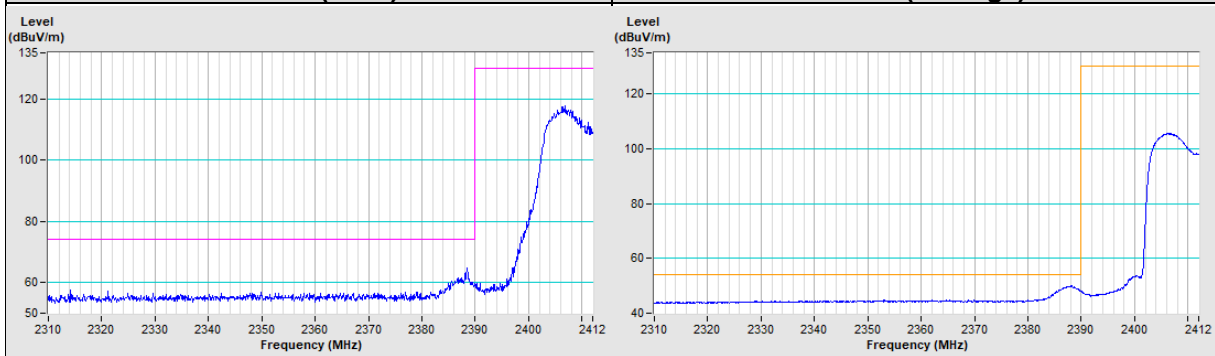


### 802.11ax (HE40) Channel 3

<b>Horizontal (Peak)</b>	<b>Horizontal (Average)</b>
--------------------------	-----------------------------

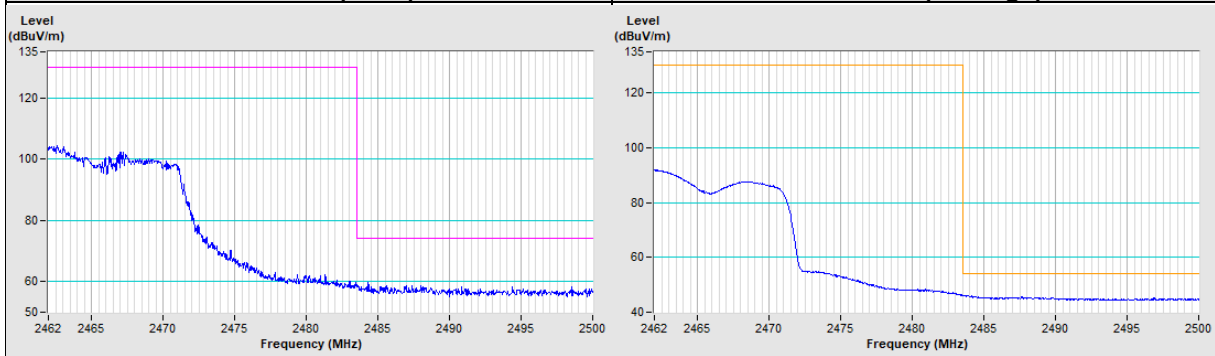


<b>Vertical (Peak)</b>	<b>Vertical (Average)</b>
------------------------	---------------------------

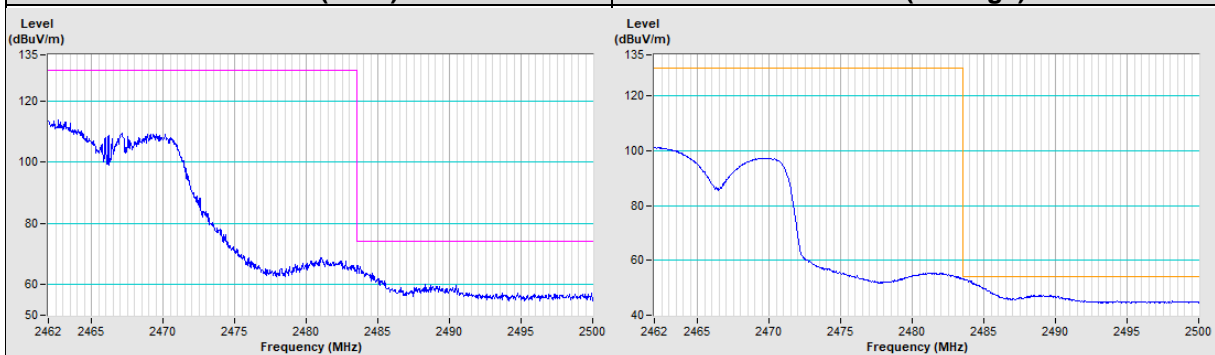


### 802.11ax (HE40) Channel 9

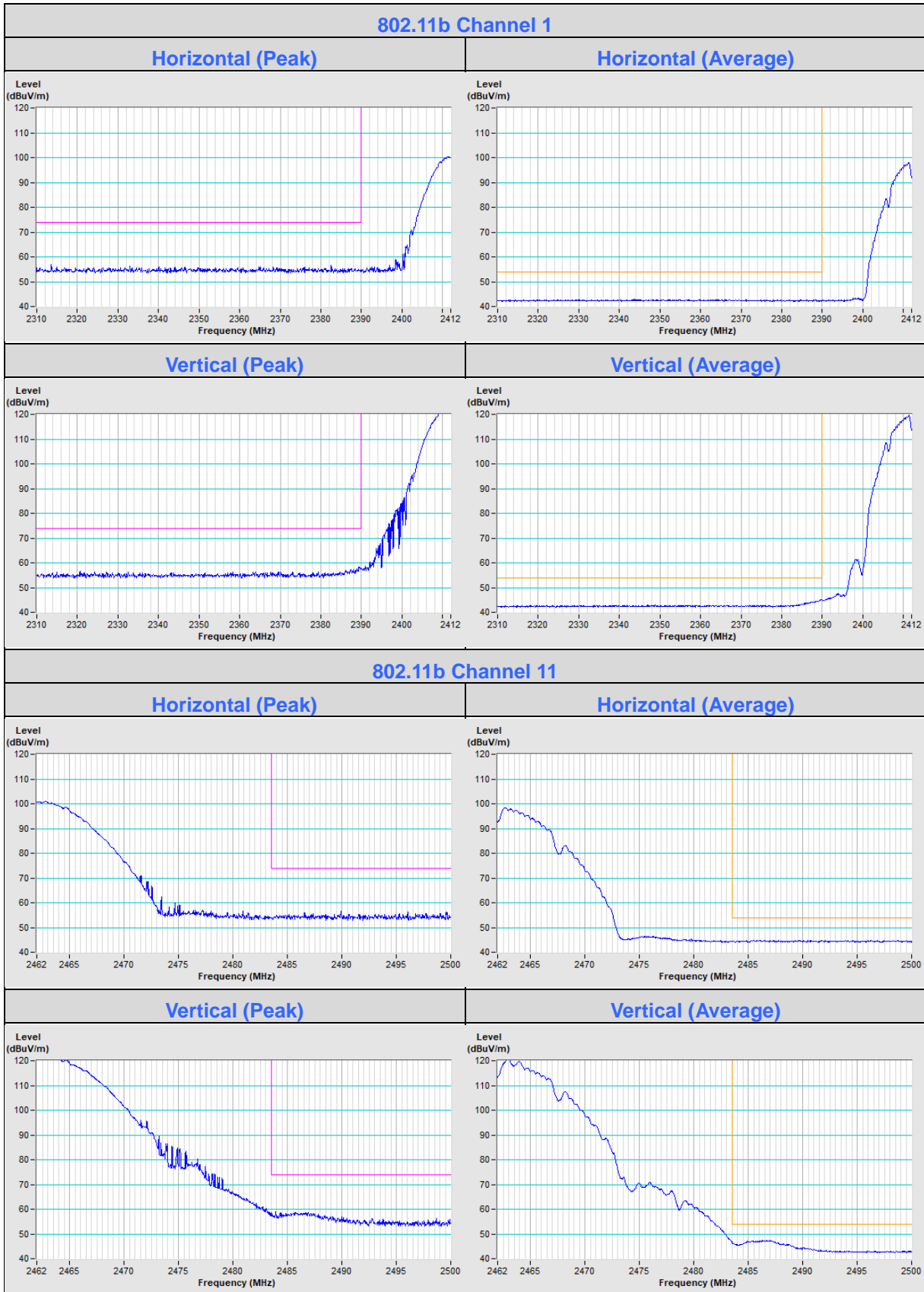
<b>Horizontal (Peak)</b>	<b>Horizontal (Average)</b>
--------------------------	-----------------------------

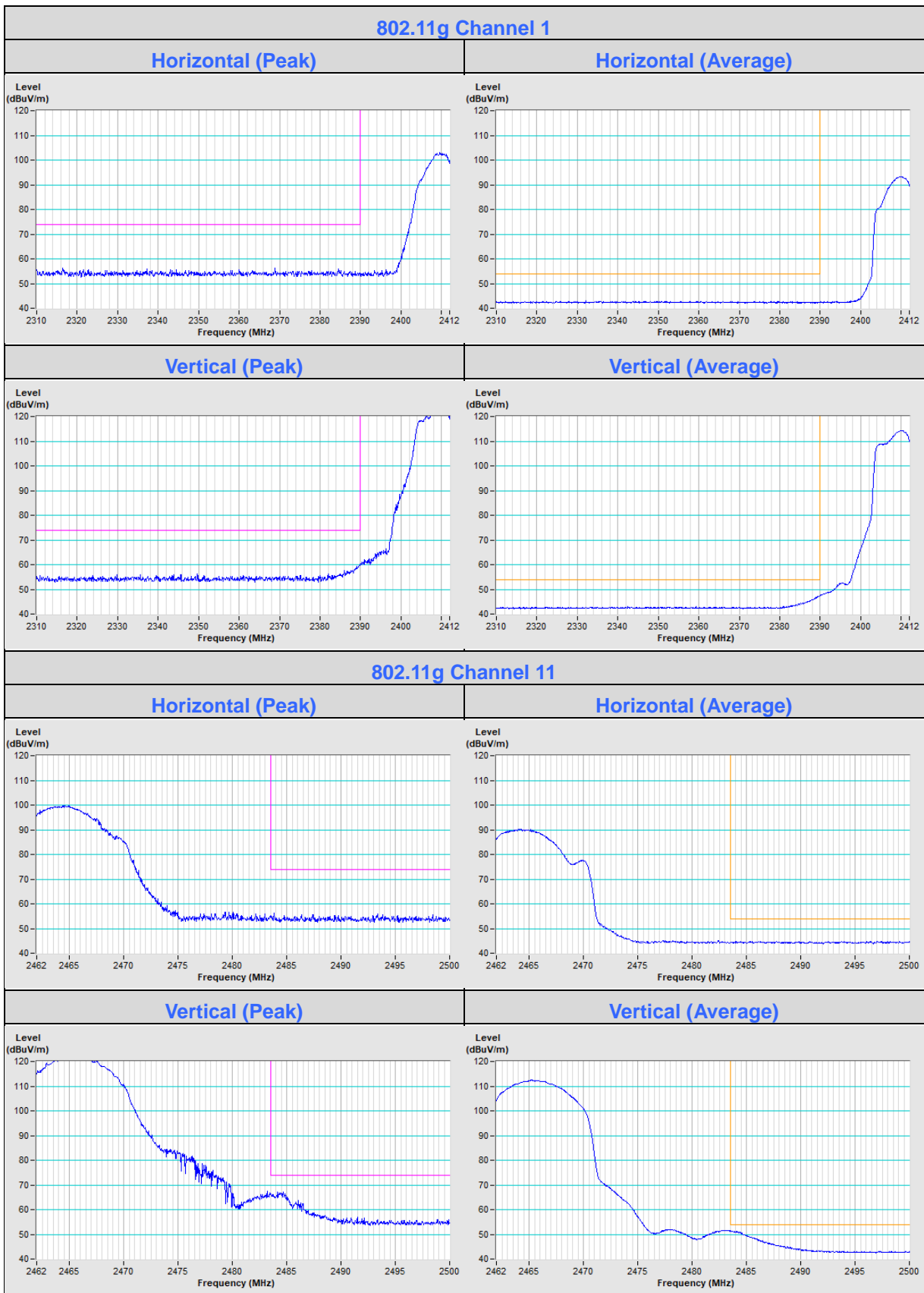


<b>Vertical (Peak)</b>	<b>Vertical (Average)</b>
------------------------	---------------------------



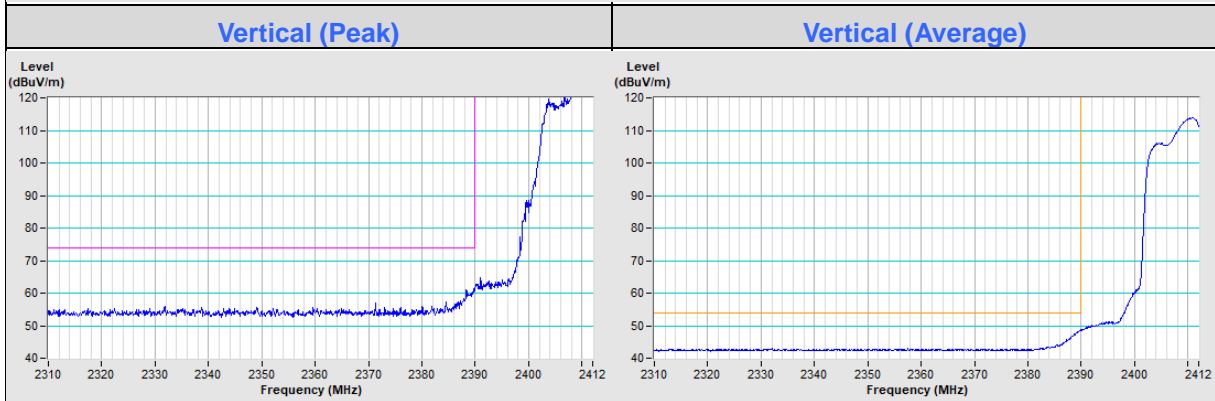
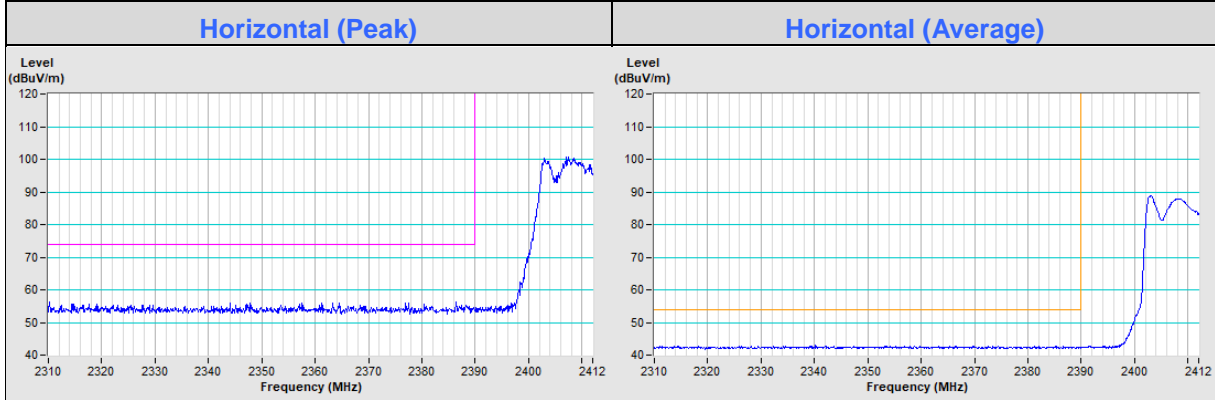
Mode B



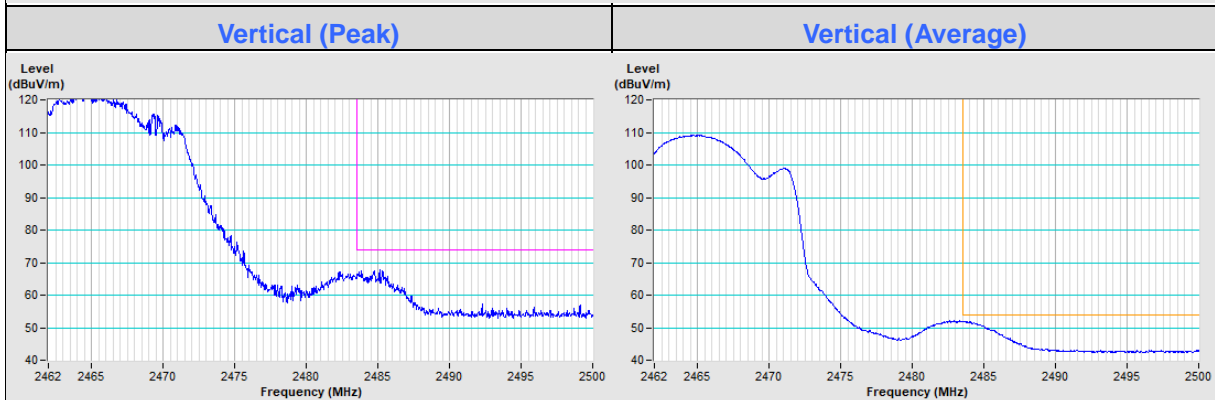
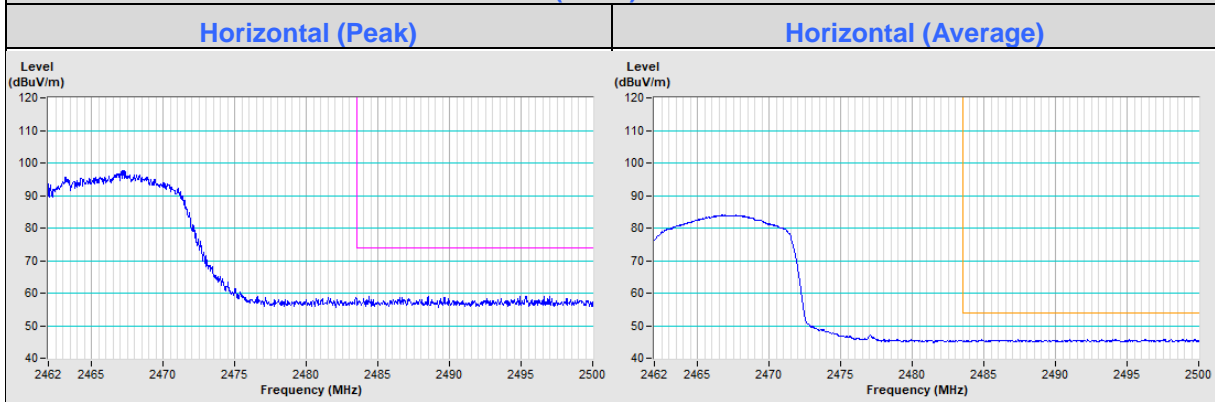




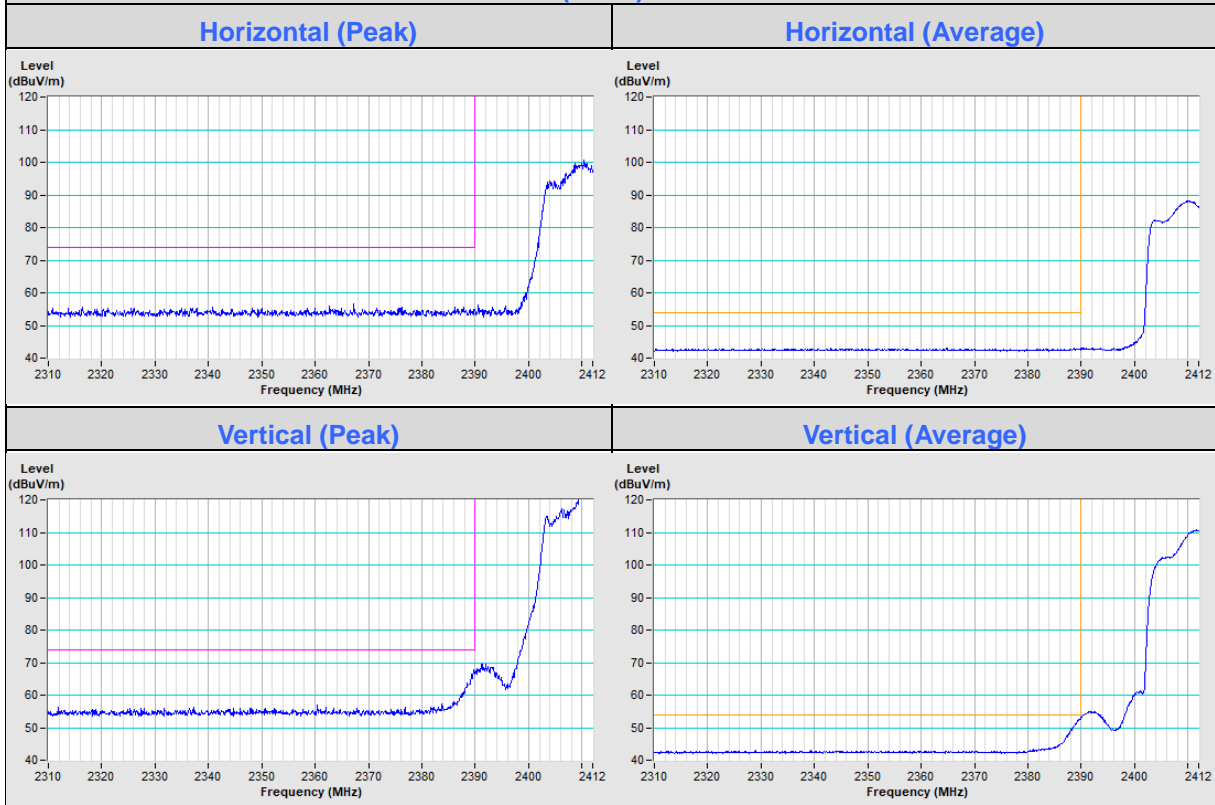
### 802.11ax (HE20) Channel 1



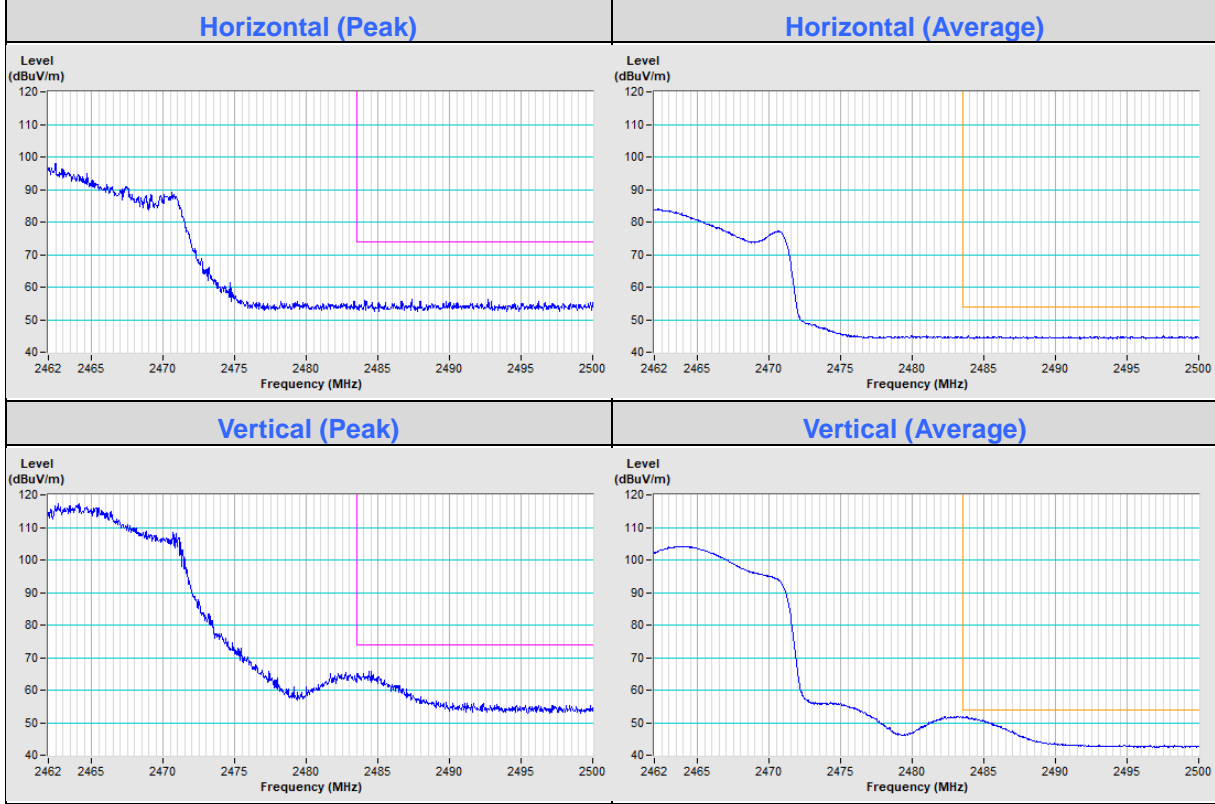
### 802.11ax (HE20) Channel 11



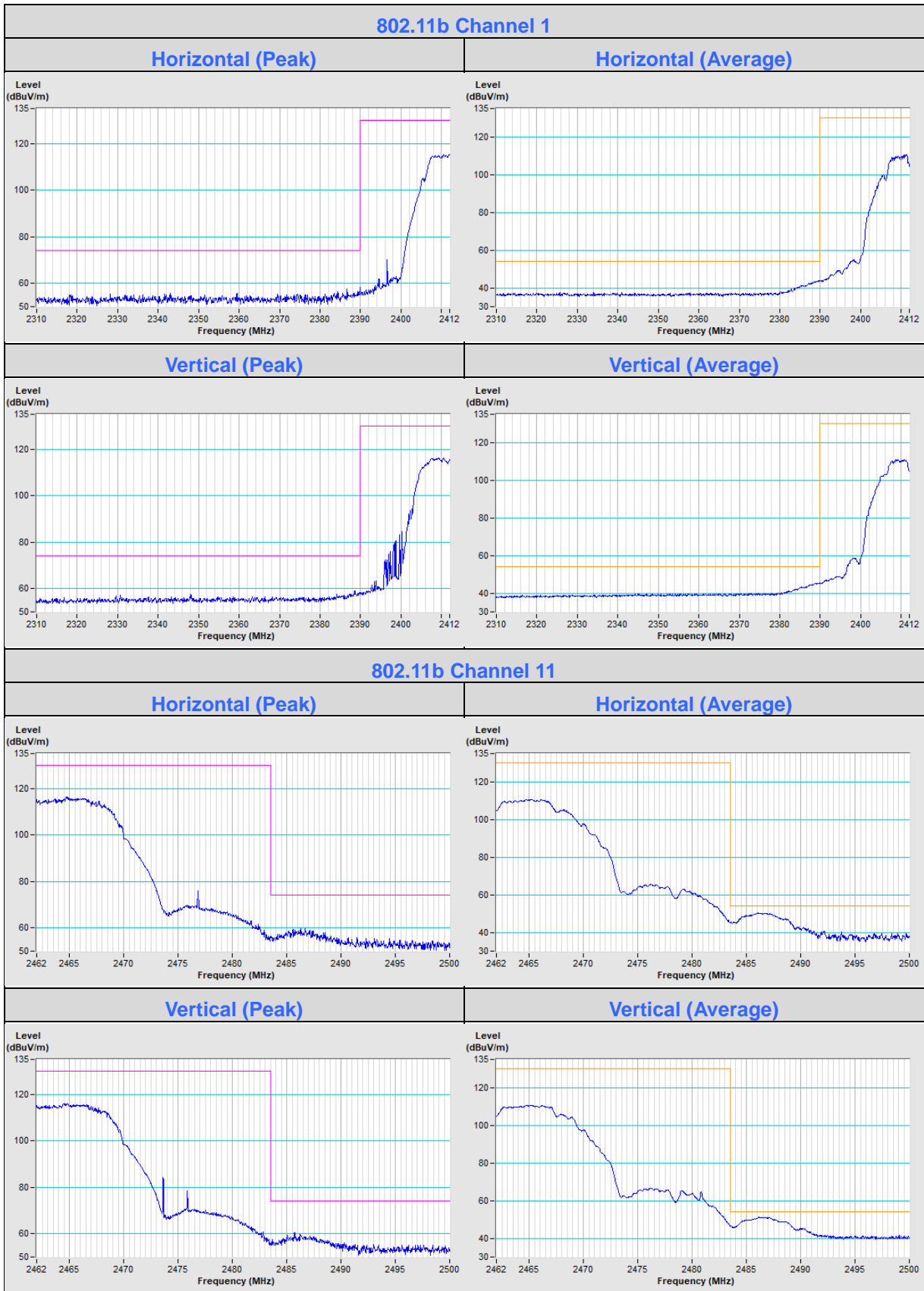
### 802.11ax (HE40) Channel 3

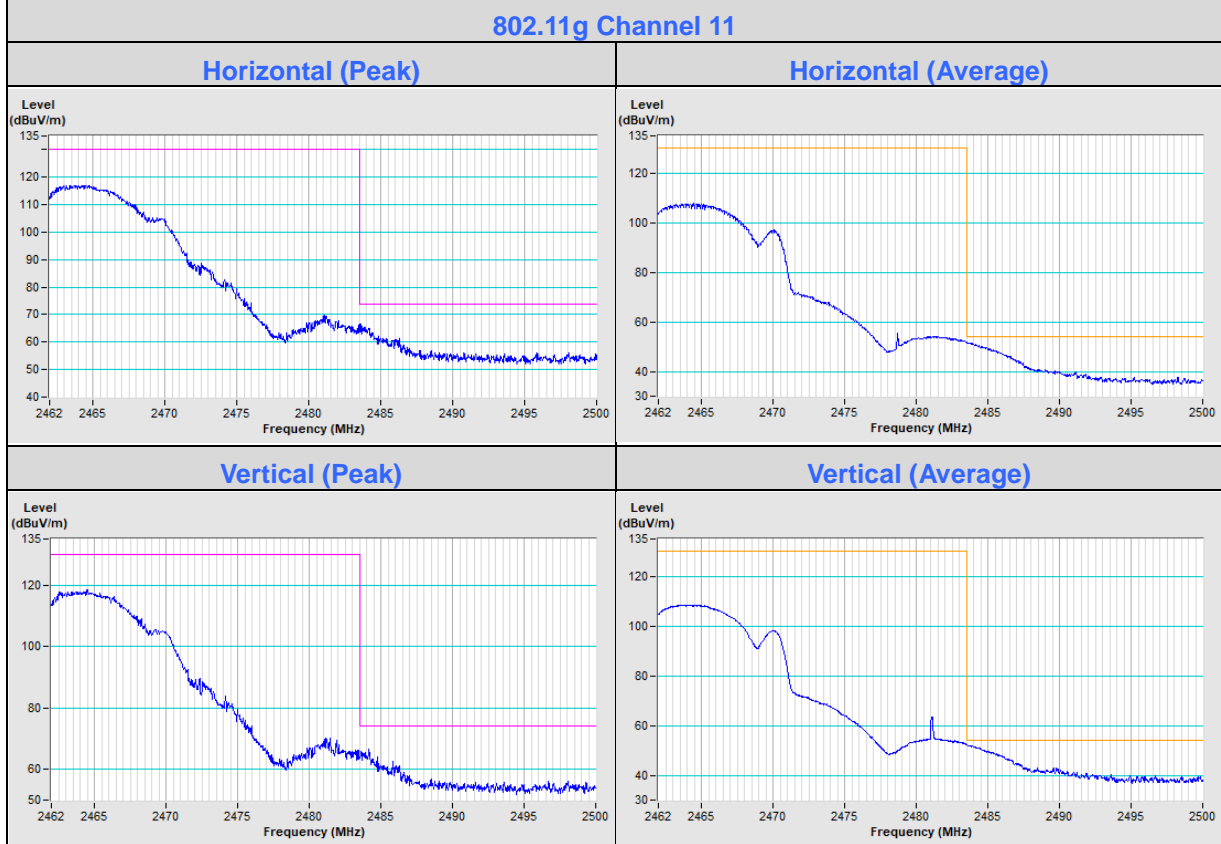
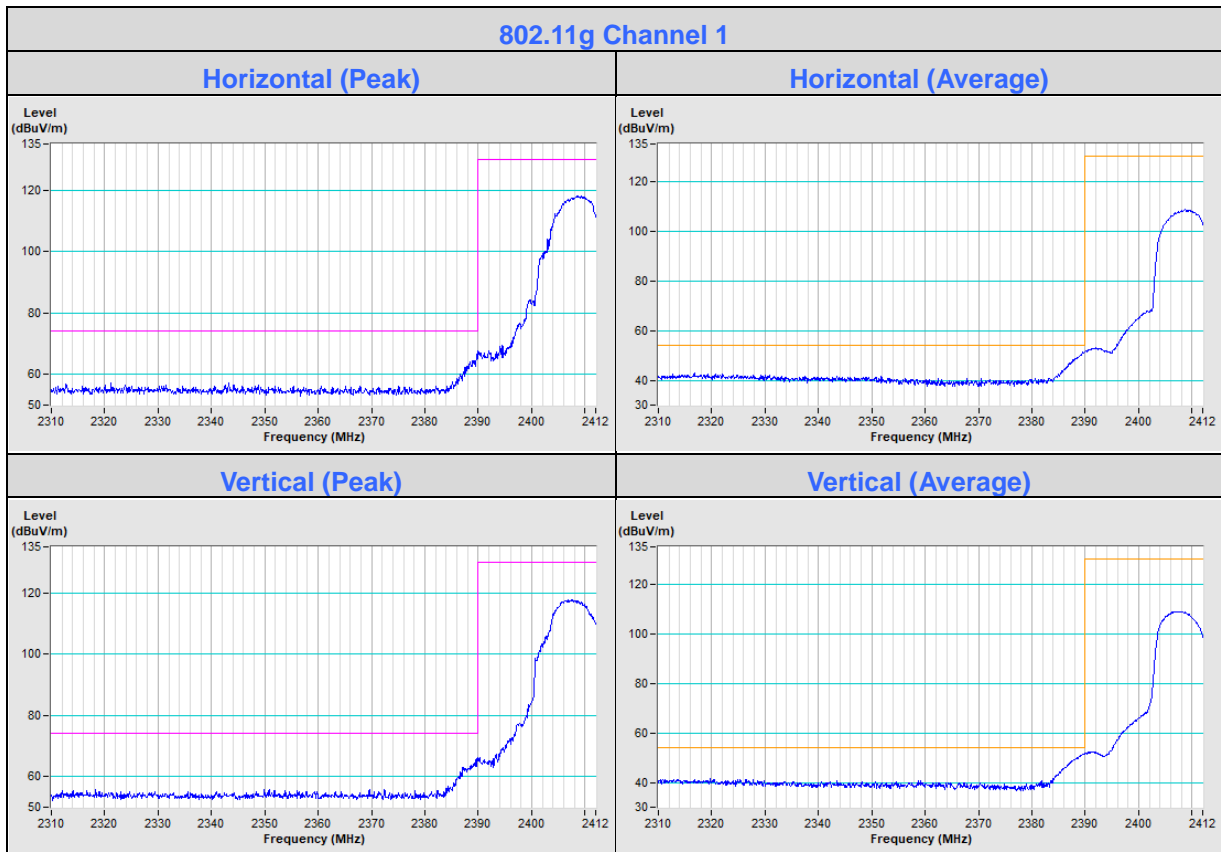


### 802.11ax (HE40) Channel 9

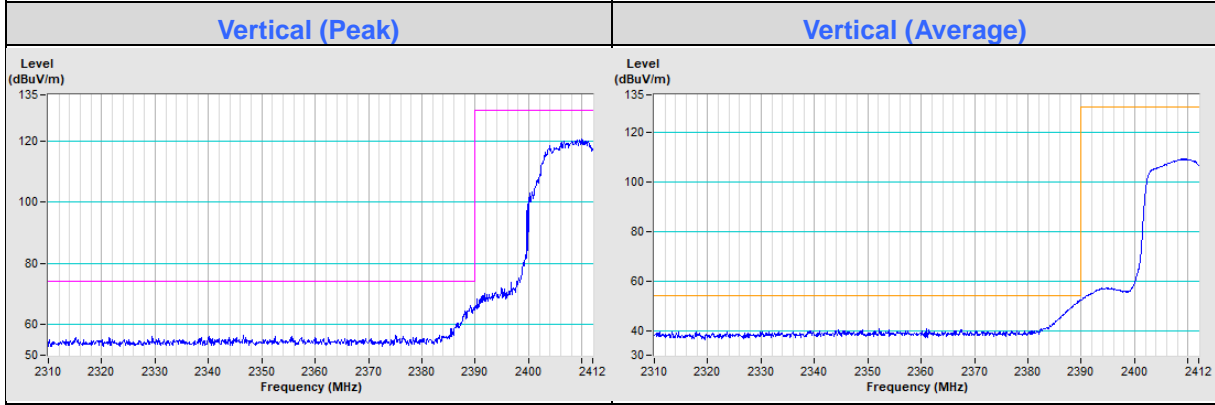
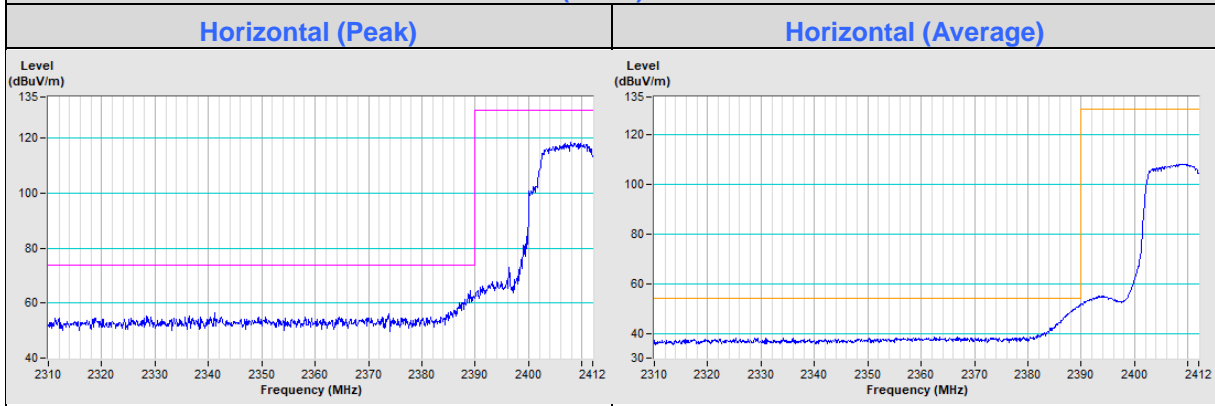


Mode C

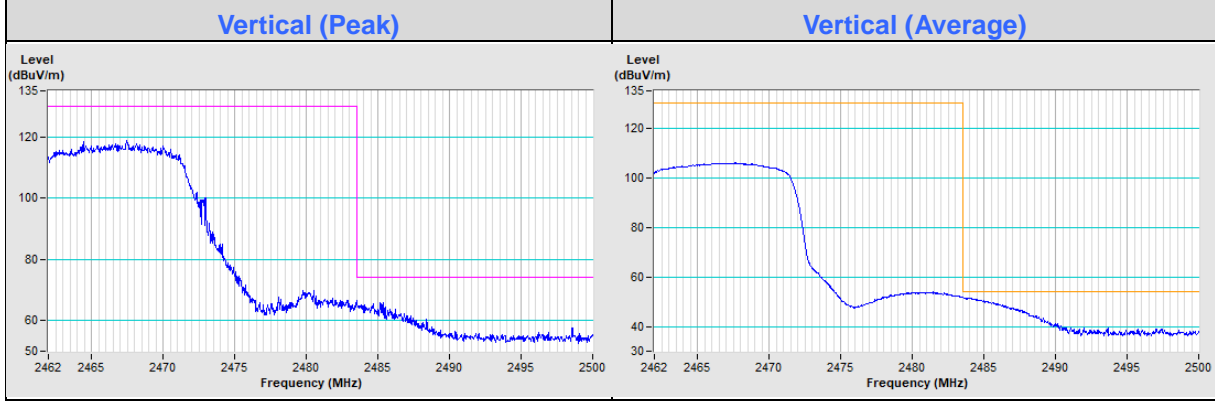
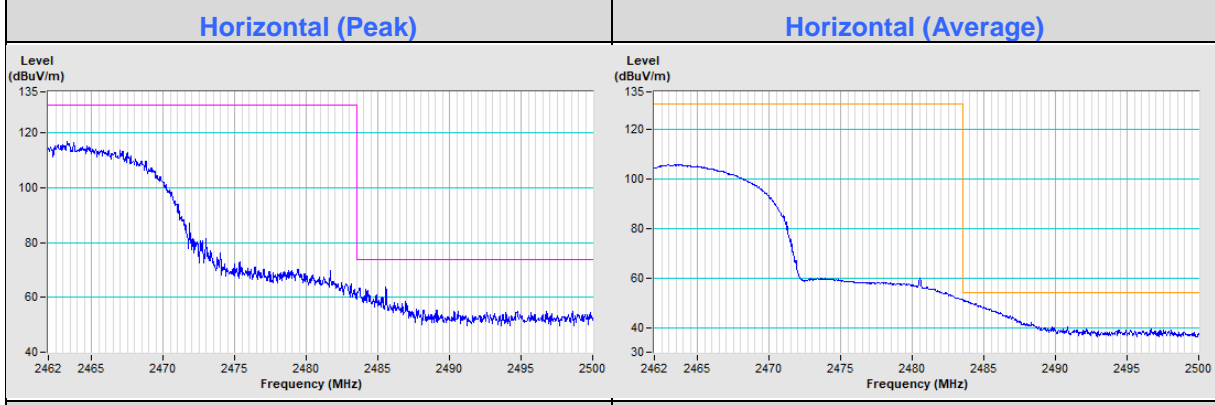




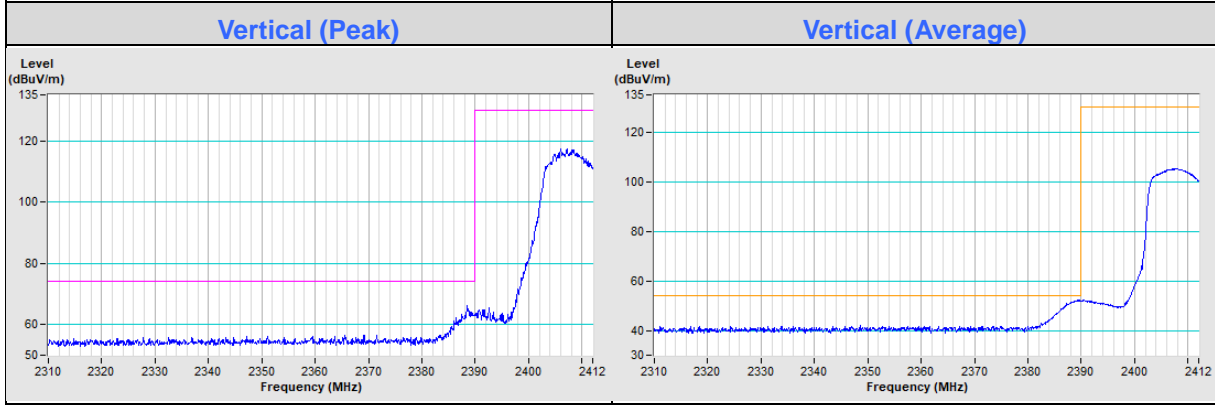
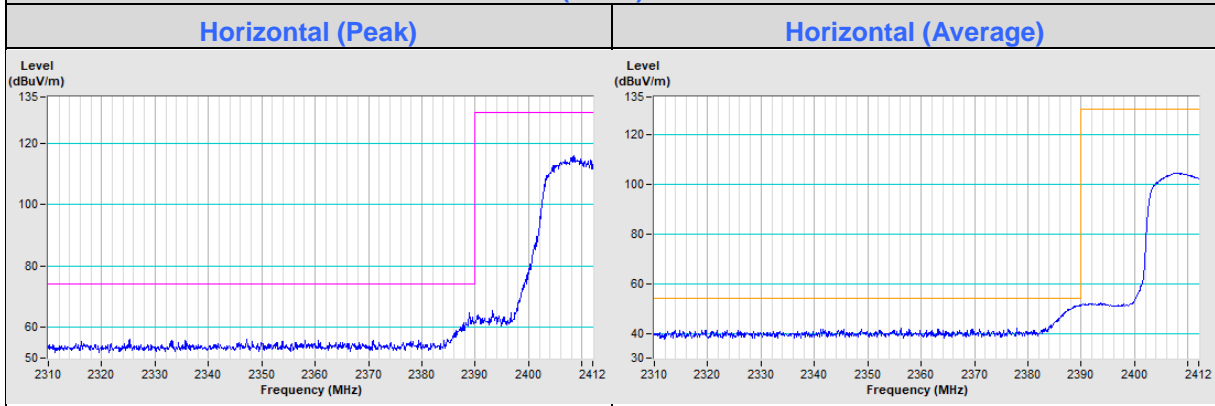
### 802.11ax (HE20) Channel 1



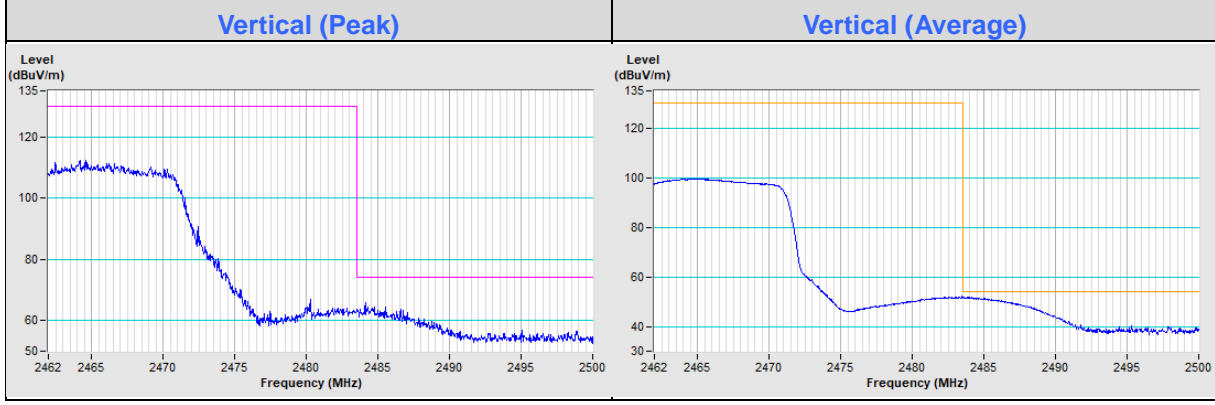
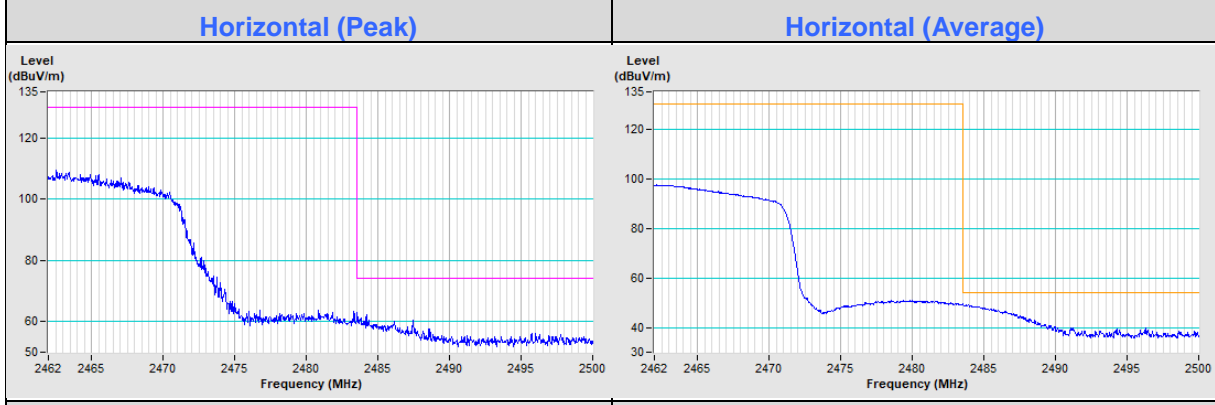
### 802.11ax (HE20) Channel 11



### 802.11ax (HE40) Channel 3



### 802.11ax (HE40) Channel 9



## 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 and approved according to ISO/IEC 17025.

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**Web Site:** [www.bureauveritas-adt.com](http://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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