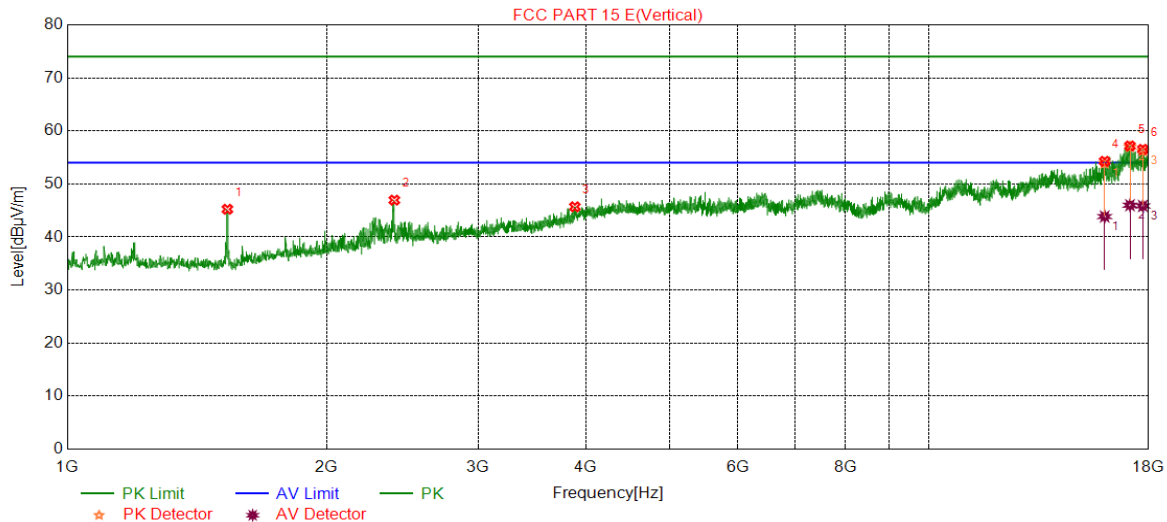




Test Mode	Channel	Polarization	Verdict
11N20	40	Vertical	PASS

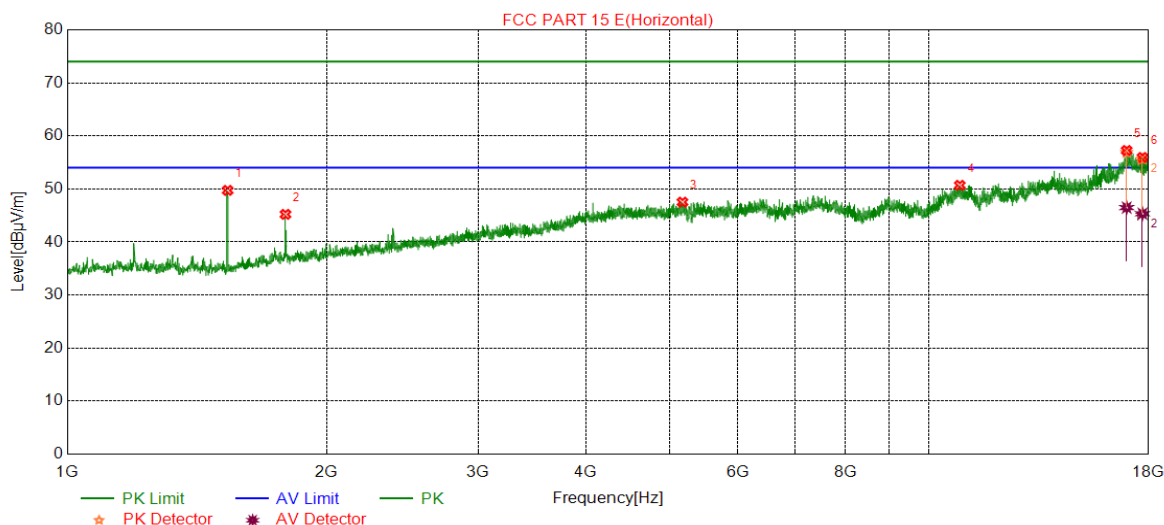


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1534.5058	50.26	-5.03	45.23	74.00	-28.77	peak
2	2397.2329	47.97	-1.02	46.95	74.00	-27.05	peak
3	3884.3141	40.64	5.05	45.69	74.00	-28.31	peak
4	16004.4157	37.25	17.01	54.26	74.00	-19.74	peak
		26.84	17.01	43.85	54.00	-10.15	average
5	17125.8535	37.83	19.33	57.16	74.00	-16.84	peak
		26.66	19.33	45.99	54.00	-8.01	average
6	17723.9538	37.27	19.25	56.52	74.00	-17.48	peak
		26.61	19.25	45.86	54.00	-8.14	average

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW can refer to section 6.1.
6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N20	48	Horizontal	PASS

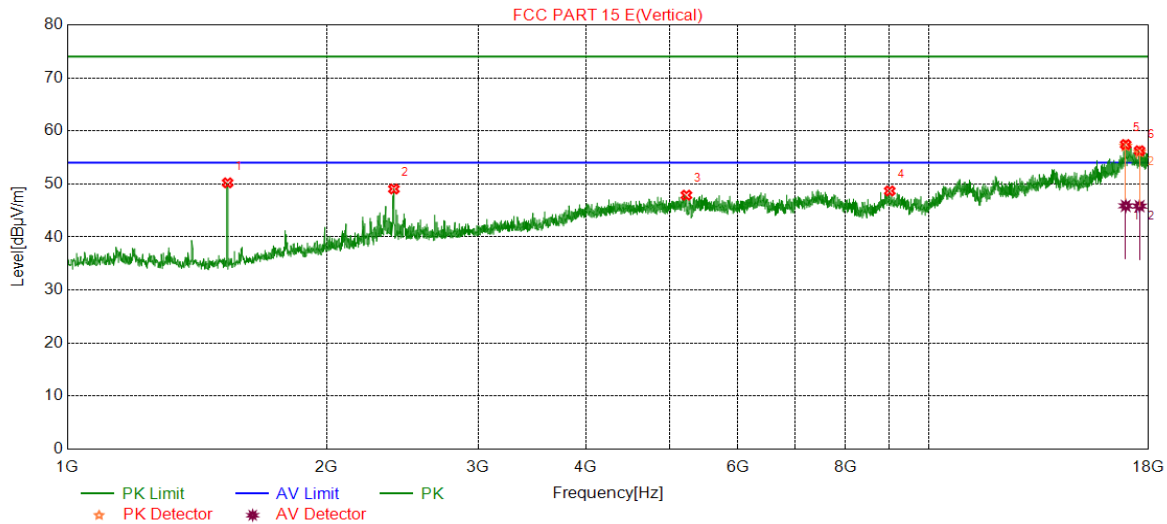


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1535.4226	54.69	-4.96	49.73	74.00	-24.27	peak
2	1792.1320	48.78	-3.57	45.21	74.00	-28.79	peak
3	5177.9463	40.31	7.20	47.51	74.00	-26.49	peak
4	10866.8945	37.90	12.78	50.68	74.00	-23.32	peak
5	16974.4124	36.95	20.30	57.25	74.00	-16.75	peak
		26.18	20.30	46.48	54.00	-7.52	average
6	17706.7011	37.50	18.44	55.94	74.00	-18.06	peak
		26.89	18.44	45.33	54.00	-8.67	average

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW can refer to section 6.1.
6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N20	48	Vertical	PASS

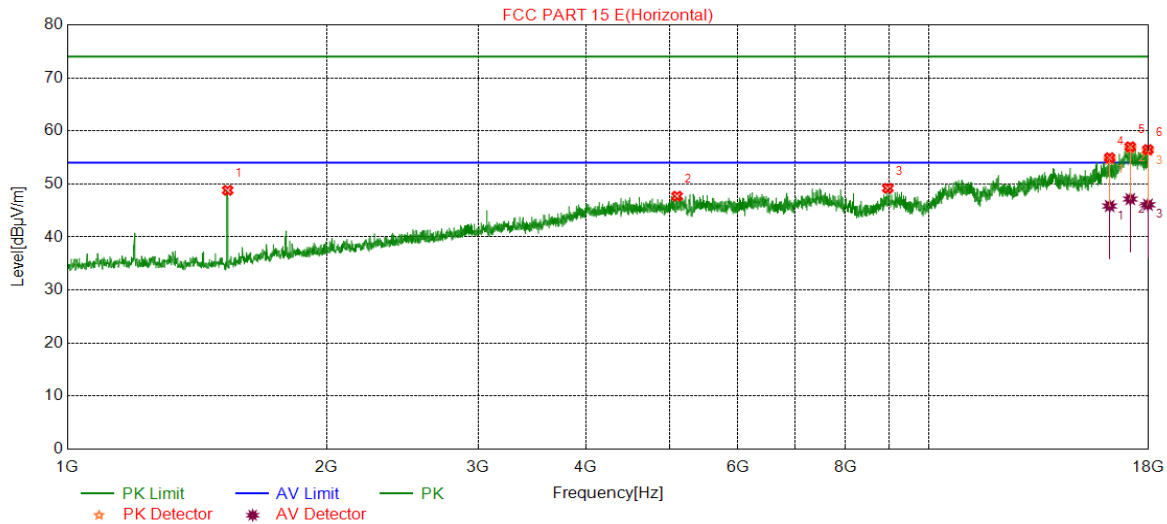


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1535.4226	55.17	-4.96	50.21	74.00	-23.79	peak
2	2394.4824	50.06	-1.01	49.05	74.00	-24.95	peak
3	5232.9555	40.62	7.26	47.88	74.00	-26.12	peak
4	9011.2519	38.72	9.96	48.68	74.00	-25.32	peak
5	16930.3217	38.01	19.42	57.43	74.00	-16.57	peak
		26.45	19.42	45.87	54.00	-8.13	average
6	17570.5951	36.96	19.30	56.26	74.00	-17.74	peak
		26.52	19.30	45.82	54.00	-8.18	average

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW can refer to section 6.1.
6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N20	52	Horizontal	PASS

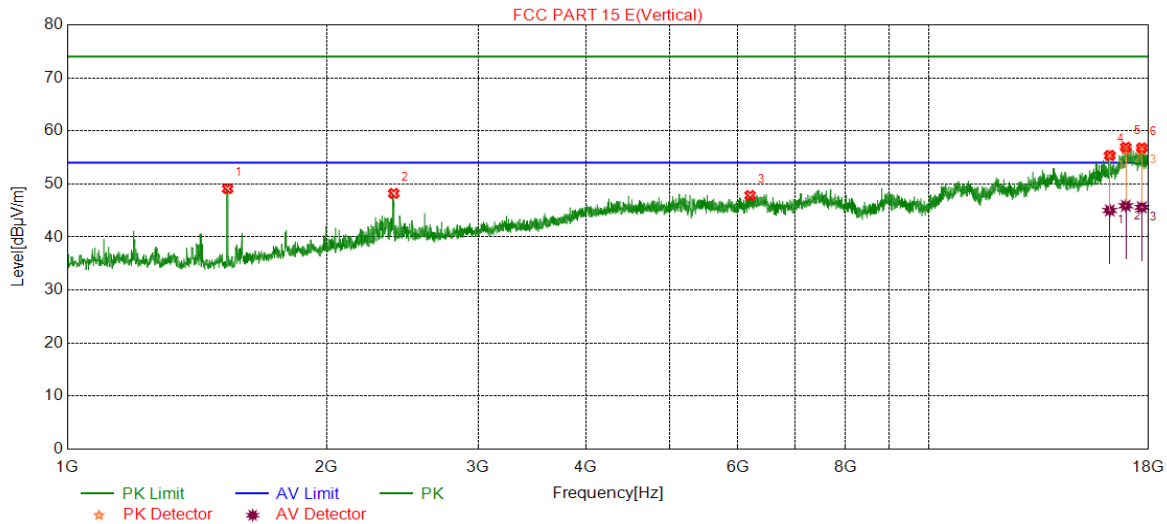


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1535.4226	53.76	-4.96	48.80	74.00	-25.20	peak
2	5103.6839	40.63	7.06	47.69	74.00	-26.31	peak
3	8965.2442	39.69	9.49	49.18	74.00	-24.82	peak
4	16219.1199	36.97	17.97	54.94	74.00	-19.06	peak
		27.87	17.97	45.84	54.00	-8.16	average
5	17139.2732	37.54	19.47	57.01	74.00	-16.99	peak
		27.68	19.47	47.15	54.00	-6.85	average
6	17965.4942	37.39	19.08	56.47	74.00	-17.53	peak
		27.00	19.08	46.08	54.00	-7.92	average

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW can refer to section 6.1.
6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N20	52	Vertical	PASS

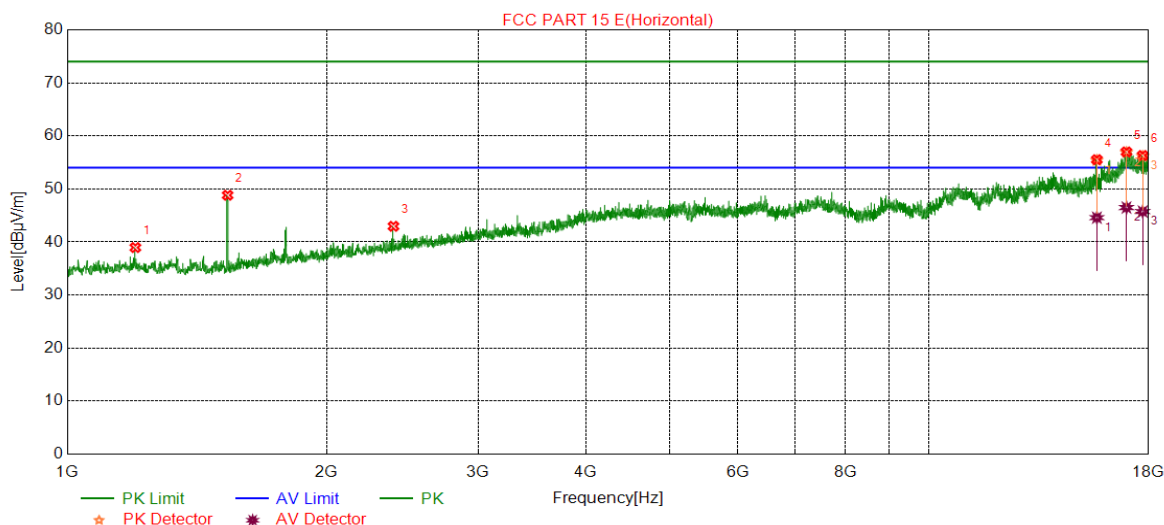


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1535.4226	54.06	-4.96	49.10	74.00	-24.90	peak
2	2393.5656	49.23	-1.02	48.21	74.00	-25.79	peak
3	6204.7841	39.88	7.95	47.83	74.00	-26.17	peak
4	16224.8708	36.86	18.52	55.38	74.00	-18.62	peak
		26.49	18.52	45.01	54.00	-8.99	average
5	16934.1557	37.40	19.52	56.92	74.00	-17.08	peak
		26.37	19.52	45.89	54.00	-8.11	average
6	17676.0293	38.30	18.50	56.80	74.00	-17.20	peak
		27.10	18.50	45.60	54.00	-8.40	average

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW can refer to section 6.1.
6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N20	56	Horizontal	PASS

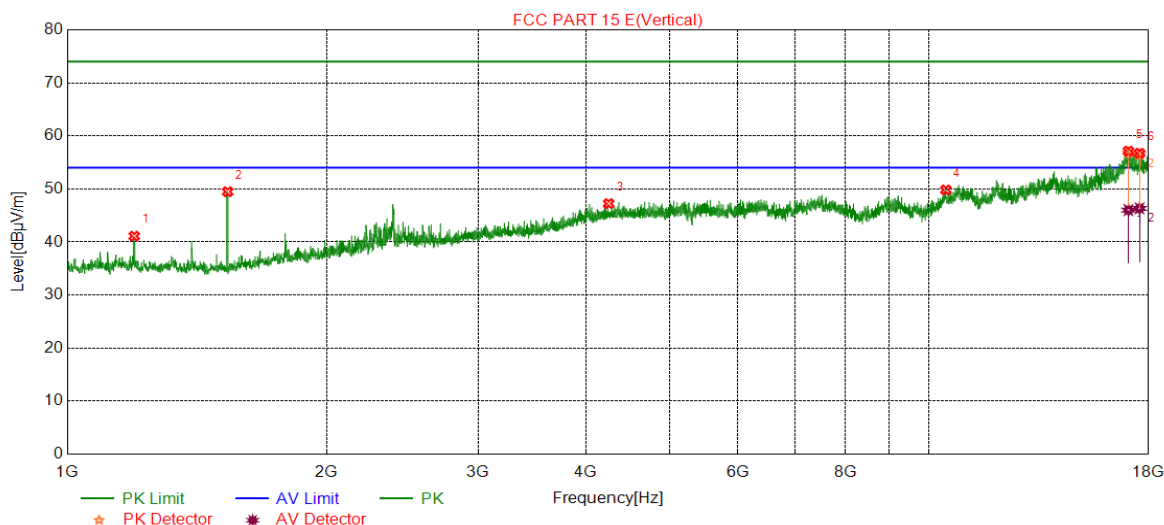


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1199.8666	43.91	-4.96	38.95	74.00	-35.05	peak
2	1535.4226	53.77	-4.96	48.81	74.00	-25.19	peak
3	2391.7320	43.98	-1.02	42.96	74.00	-31.04	peak
4	15674.6958	37.90	17.62	55.52	74.00	-18.48	peak
		26.97	17.62	44.59	54.00	-9.41	average
5	16964.8275	36.52	20.46	56.98	74.00	-17.02	peak
		26.03	20.46	46.49	54.00	-7.51	average
6	17716.2860	37.24	19.06	56.30	74.00	-17.70	peak
		26.68	19.06	45.74	54.00	-8.26	average

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW can refer to section 6.1.
6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N20	56	Vertical	PASS

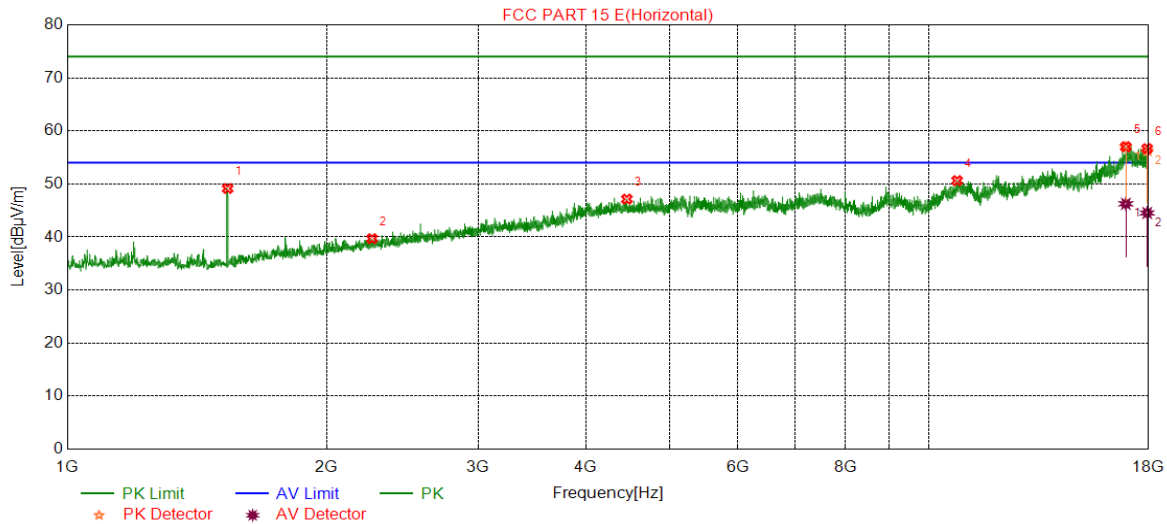


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1196.1994	46.12	-5.02	41.10	74.00	-32.90	peak
2	1535.4226	54.44	-4.96	49.48	74.00	-24.52	peak
3	4251.0418	41.10	6.13	47.23	74.00	-26.77	peak
4	10470.0783	37.63	12.19	49.82	74.00	-24.18	peak
5	17054.9258	37.17	19.96	57.13	74.00	-16.87	peak
		26.05	19.96	46.01	54.00	-7.99	average
6	17570.5951	37.43	19.30	56.73	74.00	-17.27	peak
		27.03	19.30	46.33	54.00	-7.67	average

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW can refer to section 6.1.
6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N20	64	Horizontal	PASS

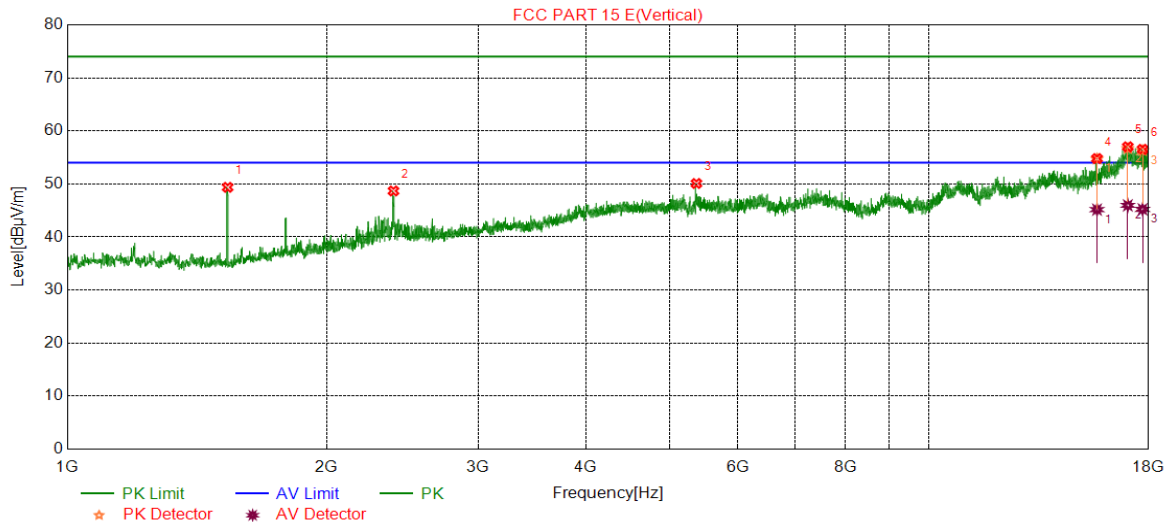


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1535.4226	54.10	-4.96	49.14	74.00	-24.86	peak
2	2258.7931	40.92	-1.24	39.68	74.00	-34.32	peak
3	4463.7440	40.79	6.35	47.14	74.00	-26.86	peak
4	10788.2981	37.90	12.72	50.62	74.00	-23.38	peak
5	16936.0727	37.45	19.57	57.02	74.00	-16.98	peak
		26.69	19.57	46.26	54.00	-7.74	average
6	17930.9885	38.21	18.45	56.66	74.00	-17.34	peak
		26.08	18.45	44.53	54.00	-9.47	average

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW can refer to section 6.1.
6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N20	64	Vertical	PASS

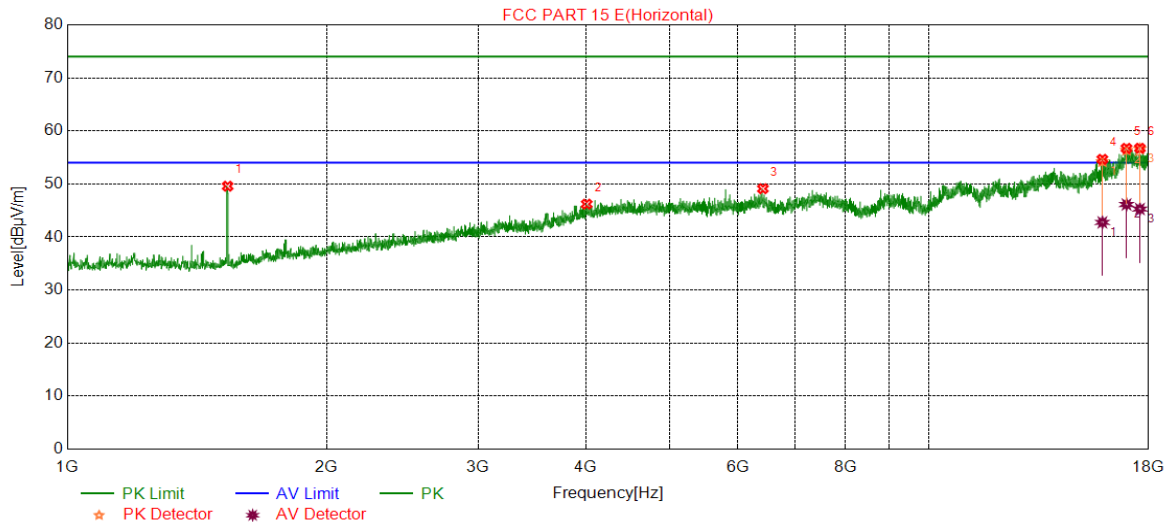


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1535.4226	54.32	-4.96	49.36	74.00	-24.64	peak
2	2391.7320	49.70	-1.02	48.68	74.00	-25.32	peak
3	5375.0625	42.74	7.35	50.09	74.00	-23.91	peak
4	15680.4467	36.87	17.92	54.79	74.00	-19.21	peak
		27.24	17.92	45.16	54.00	-8.84	average
5	17026.1710	37.54	19.46	57.00	74.00	-17.00	peak
		26.50	19.46	45.96	54.00	-8.04	average
6	17710.5351	37.91	18.61	56.52	74.00	-17.48	peak
		26.60	18.61	45.21	54.00	-8.79	average

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW can refer to section 6.1.
6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N20	100	Horizontal	PASS

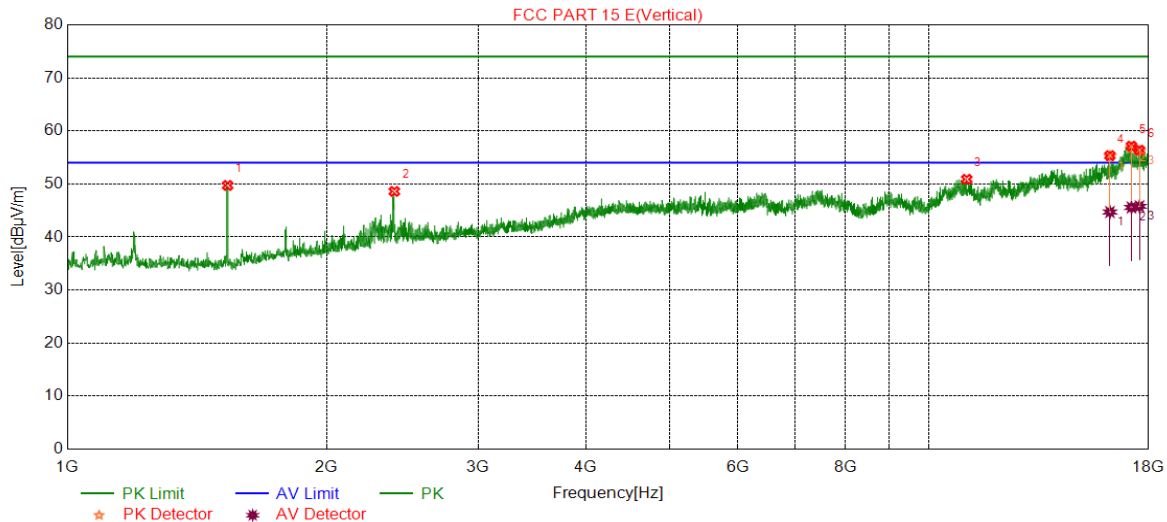


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1535.4226	54.59	-5.02	49.57	74.00	-24.43	peak
2	4009.0015	41.07	5.13	46.20	74.00	-27.80	peak
3	6420.2367	39.09	10.01	49.10	74.00	-24.90	peak
4	15906.6493	37.88	16.76	54.64	74.00	-19.36	peak
		25.99	16.76	42.75	54.00	-11.25	average
5	16966.7436	36.14	20.57	56.71	74.00	-17.29	peak
		25.56	20.57	46.13	54.00	-7.87	average
6	17585.9306	37.99	18.74	56.73	74.00	-17.27	peak
		26.53	18.74	45.27	54.00	-8.73	average

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW can refer to section 6.1.
6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N20	100	Vertical	PASS

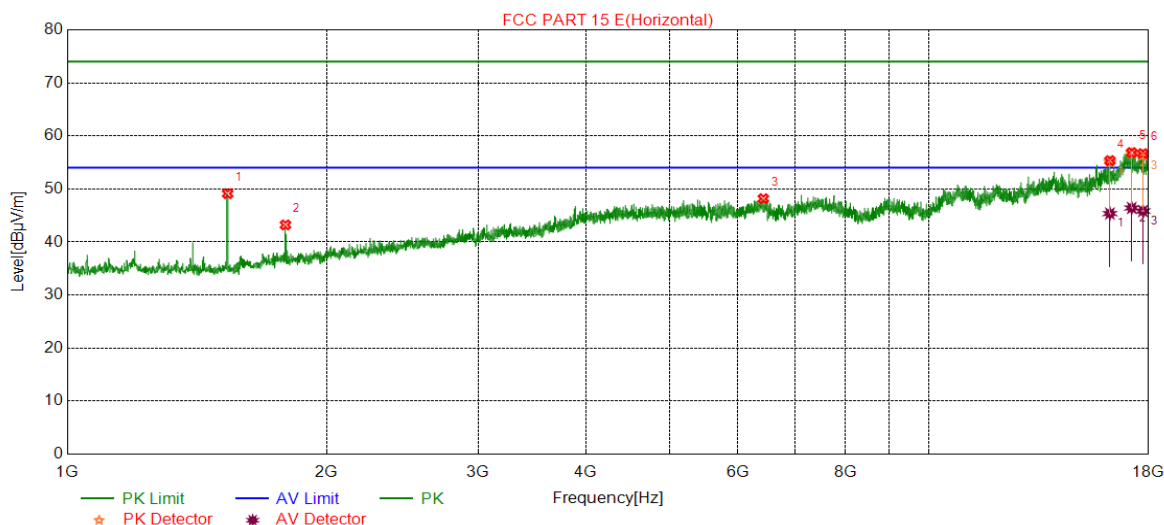


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1535.4226	54.74	-5.02	49.72	74.00	-24.28	peak
2	2397.2329	49.61	-1.02	48.59	74.00	-25.41	peak
3	11070.0890	38.20	12.68	50.88	74.00	-23.12	peak
4	16232.5372	36.63	18.71	55.34	74.00	-18.66	peak
		26.00	18.71	44.71	54.00	-9.29	average
5	17191.0311	37.99	19.14	57.13	74.00	-16.87	peak
		26.43	19.14	45.57	54.00	-8.43	average
6	17564.8438	37.43	18.94	56.37	74.00	-17.63	peak
		26.84	18.94	45.78	54.00	-8.22	average

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW can refer to section 6.1.
6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N20	116	Horizontal	PASS

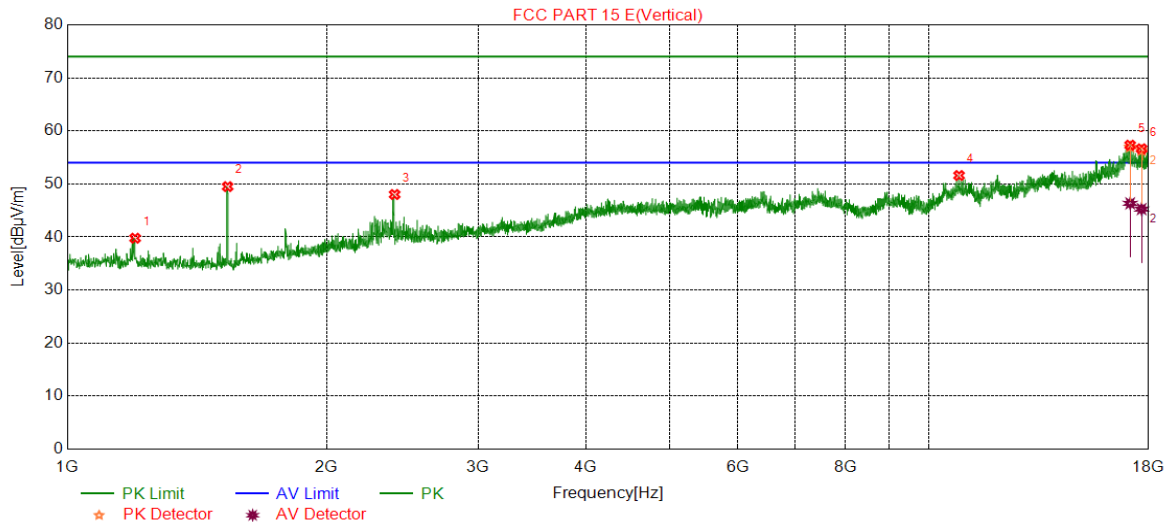


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1535.4226	54.14	-5.02	49.12	74.00	-24.88	peak
2	1792.1320	46.80	-3.58	43.22	74.00	-30.78	peak
3	6428.4881	38.27	9.89	48.16	74.00	-25.84	peak
4	16230.6202	36.40	18.93	55.33	74.00	-18.67	peak
		26.43	18.93	45.36	54.00	-8.64	average
5	17204.4501	37.42	19.43	56.85	74.00	-17.15	peak
		26.98	19.43	46.41	54.00	-7.59	average
6	17727.7877	37.50	19.16	56.66	74.00	-17.34	peak
		26.68	19.16	45.84	54.00	-8.16	average

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW can refer to section 6.1.
6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N20	116	Vertical	PASS

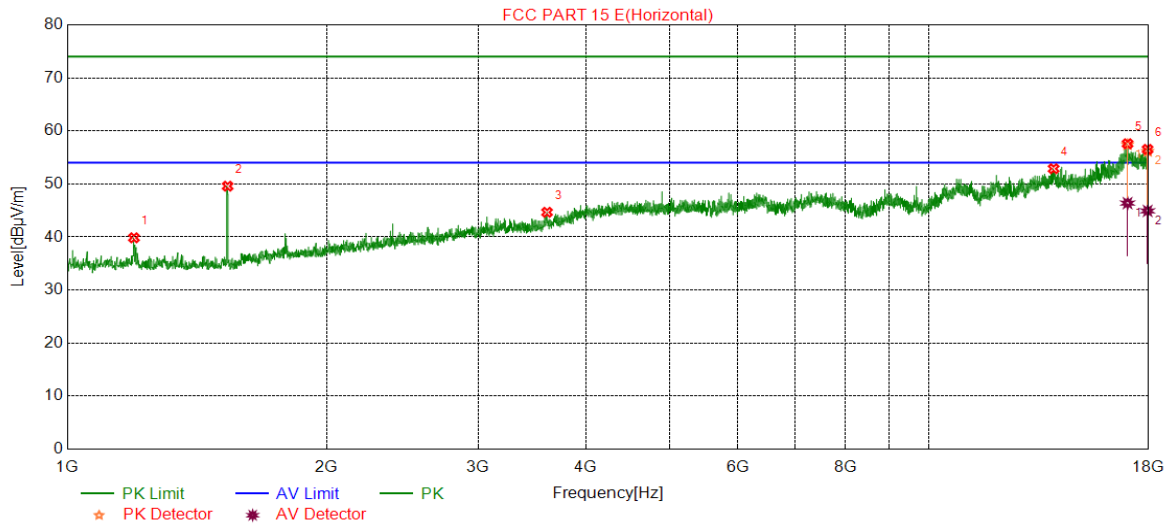


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1198.9498	44.68	-4.91	39.77	74.00	-34.23	peak
2	1535.4226	54.52	-5.02	49.50	74.00	-24.50	peak
3	2399.0665	49.01	-1.00	48.01	74.00	-25.99	peak
4	10845.8014	38.69	12.90	51.59	74.00	-22.41	peak
5	17133.5215	37.82	19.49	57.31	74.00	-16.69	peak
		26.85	19.49	46.34	54.00	-7.66	average
6	17666.4441	37.68	18.95	56.63	74.00	-17.37	peak
		26.31	18.95	45.26	54.00	-8.74	average

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW can refer to section 6.1.
6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N20	140	Horizontal	PASS

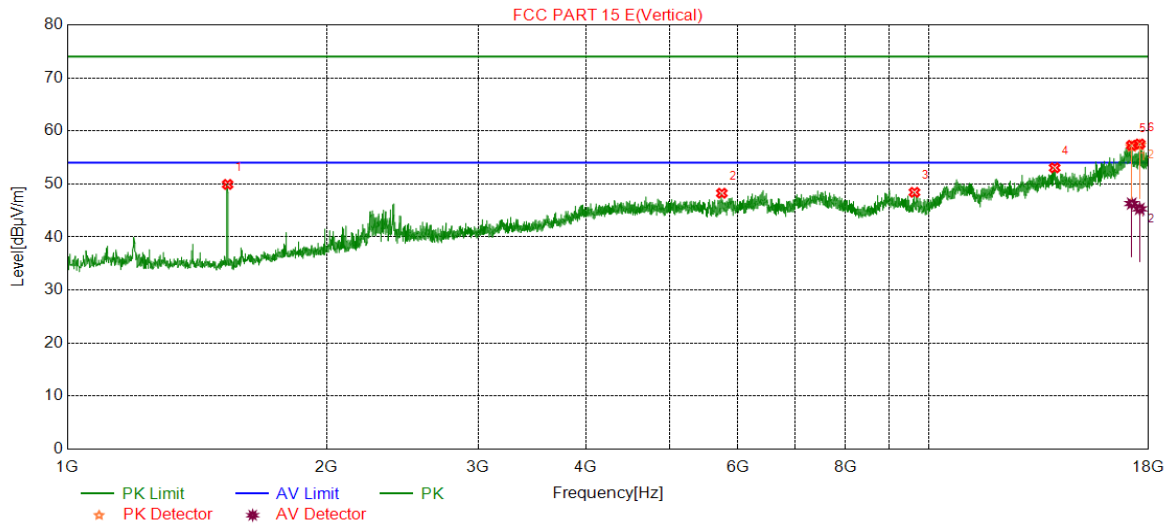


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1195.2825	44.86	-5.01	39.85	74.00	-34.15	peak
2	1535.4226	54.60	-5.02	49.58	74.00	-24.42	peak
3	3605.6009	41.06	3.60	44.66	74.00	-29.34	peak
4	13962.8236	37.60	15.27	52.87	74.00	-21.13	peak
5	17014.6683	37.90	19.68	57.58	74.00	-16.42	peak
		26.70	19.68	46.38	54.00	-7.62	average
6	17952.0753	37.77	18.75	56.52	74.00	-17.48	peak
		26.17	18.75	44.92	54.00	-9.08	average

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW can refer to section 6.1.
6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N20	140	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1535.4226	54.93	-5.02	49.91	74.00	-24.09	peak
2	5752.7921	40.94	7.31	48.25	74.00	-25.75	peak
3	9626.5972	39.35	9.07	48.42	74.00	-25.58	peak
4	14003.0804	37.07	15.97	53.04	74.00	-20.96	peak
5	17204.4501	37.85	19.43	57.28	74.00	-16.72	peak
		26.87	19.43	46.30	54.00	-7.70	average
6	17576.3457	38.52	19.01	57.53	74.00	-16.47	peak
		26.29	19.01	45.30	54.00	-8.70	average

Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

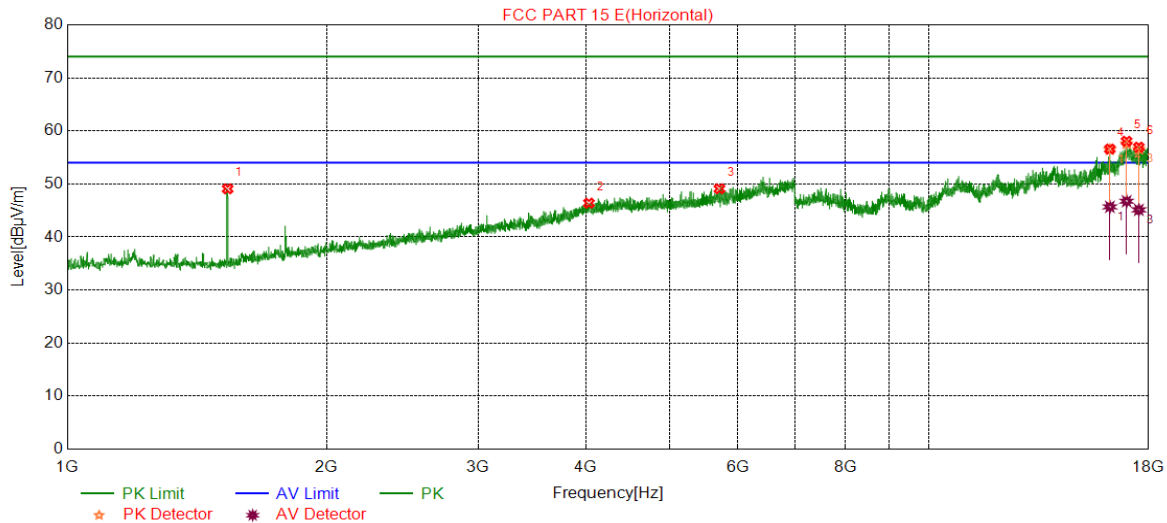
4. Peak: Peak detector.

5. AVG: VBW can refer to section 6.1.

6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.

7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Test Mode	Channel	Polarization	Verdict
11N20	149	Horizontal	PASS

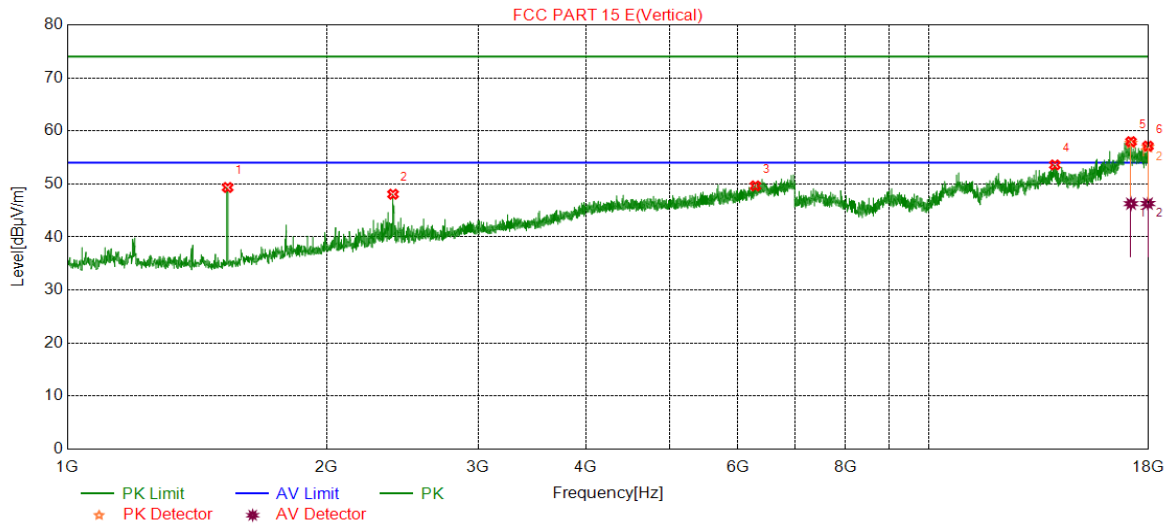


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1535.4226	54.51	-5.43	49.08	74.00	-24.92	peak
2	4032.8388	41.37	5.01	46.38	74.00	-27.62	peak
3	5716.1194	41.88	7.21	49.09	74.00	-24.91	peak
4	16228.7048	37.70	18.88	56.58	74.00	-17.42	peak
		26.80	18.88	45.68	54.00	-8.32	average
5	16970.5784	37.35	20.71	58.06	74.00	-15.94	peak
		26.03	20.71	46.74	54.00	-7.26	average
6	17536.0893	39.14	17.80	56.94	74.00	-17.06	peak
		27.31	17.80	45.11	54.00	-8.89	average

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW can refer to section 6.1.
6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N20	149	Vertical	PASS

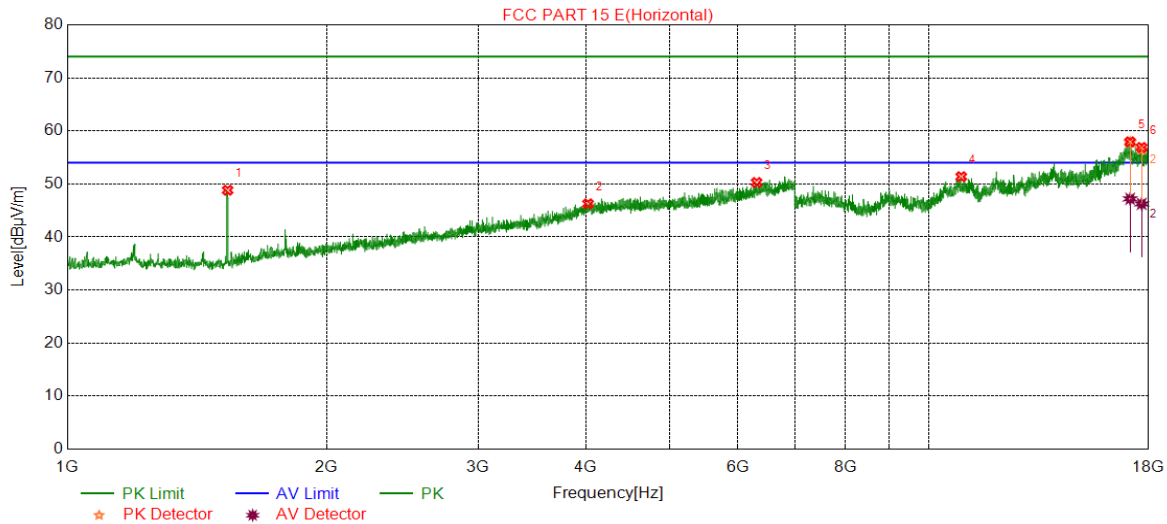


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1535.4226	54.76	-5.43	49.33	74.00	-24.67	peak
2	2388.9815	49.46	-1.40	48.06	74.00	-25.94	peak
3	6292.7988	41.41	8.22	49.63	74.00	-24.37	peak
4	14012.6688	37.64	15.94	53.58	74.00	-20.42	peak
5	17171.8620	39.29	18.68	57.97	74.00	-16.03	peak
		27.60	18.68	46.28	54.00	-7.72	average
6	17965.4942	38.05	19.08	57.13	74.00	-16.87	peak
		27.22	19.08	46.30	54.00	-7.70	average

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW can refer to section 6.1.
6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N20	157	Horizontal	PASS

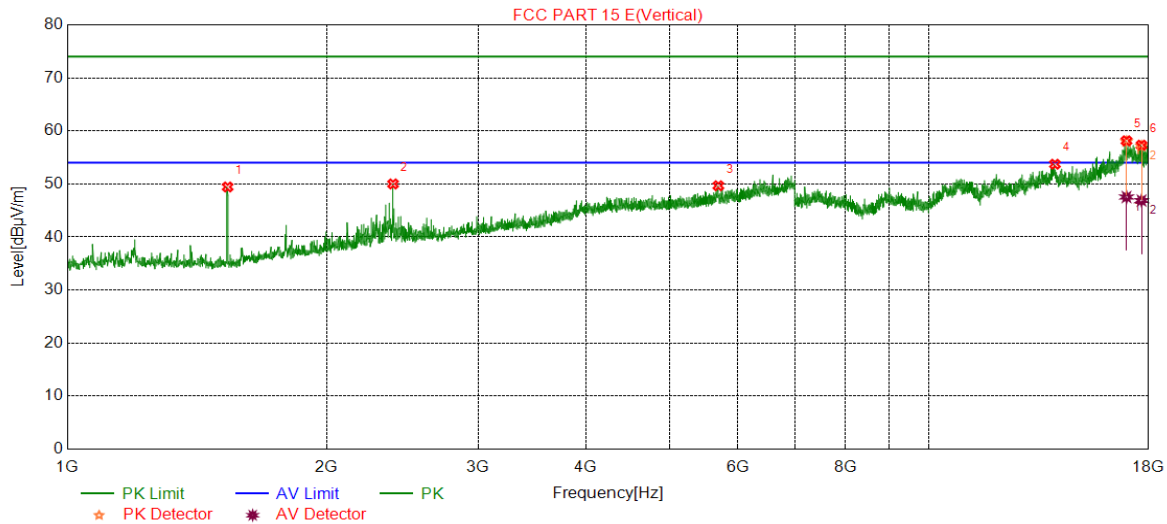


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1535.4226	54.24	-5.43	48.81	74.00	-25.19	peak
2	4023.6706	41.39	4.87	46.26	74.00	-27.74	peak
3	6312.9688	41.97	8.30	50.27	74.00	-23.73	peak
4	10909.0682	38.62	12.75	51.37	74.00	-22.63	peak
5	17131.6053	38.44	19.50	57.94	74.00	-16.06	peak
		27.69	19.50	47.19	54.00	-6.81	average
6	17668.3614	37.97	18.91	56.88	74.00	-17.12	peak
		27.33	18.91	46.24	54.00	-7.76	average

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW can refer to section 6.1.
6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N20	157	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1535.4226	54.86	-5.43	49.43	74.00	-24.57	peak
2	2388.9815	51.40	-1.40	50.00	74.00	-24.00	peak
3	5699.6166	42.46	7.20	49.66	74.00	-24.34	peak
4	14012.6688	37.78	15.94	53.72	74.00	-20.28	peak
5	16966.7445	37.56	20.57	58.13	74.00	-15.87	peak
		26.96	20.57	47.53	54.00	-6.47	average
6	17662.6104	38.27	19.04	57.31	74.00	-16.69	peak
		27.83	19.04	46.87	54.00	-7.13	average

Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

4. Peak: Peak detector.

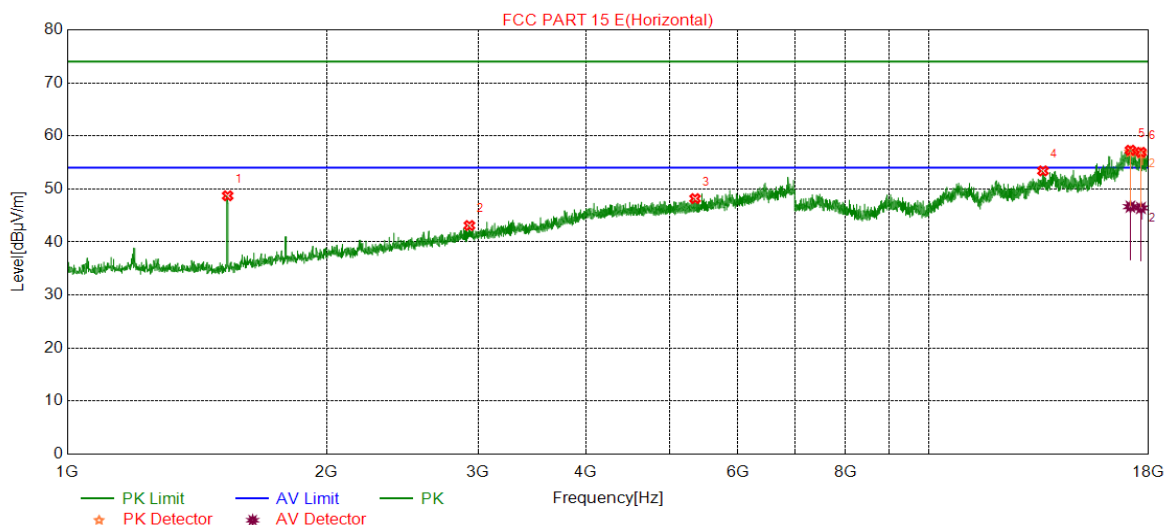
5. AVG: VBW can refer to section 6.1.

6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.

7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N20	165	Horizontal	PASS

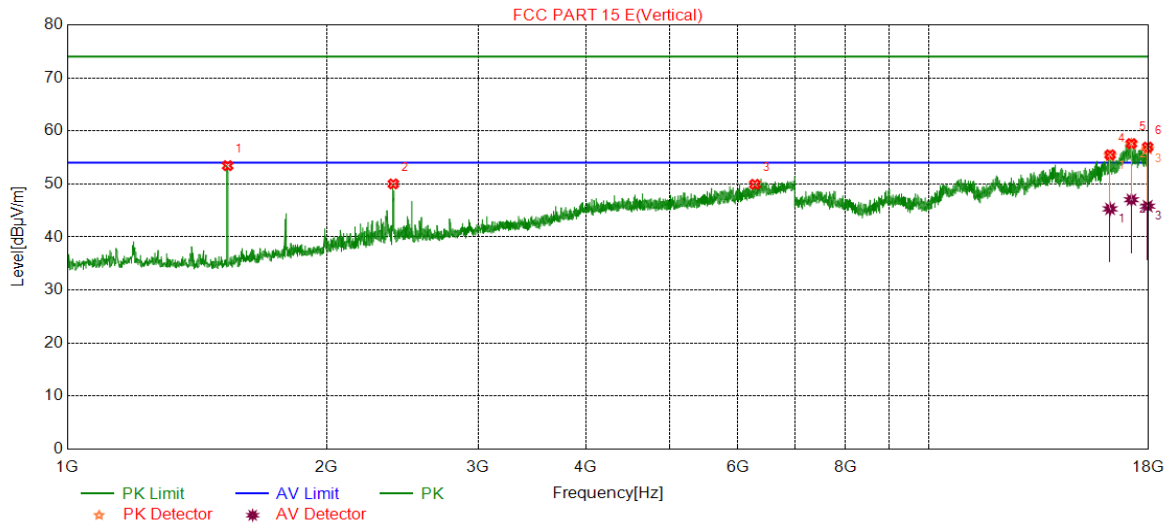


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1535.4226	54.14	-5.43	48.71	74.00	-25.29	peak
2	2929.9050	42.12	0.99	43.11	74.00	-30.89	peak
3	5355.8093	41.87	6.31	48.18	74.00	-25.82	peak
4	13571.7620	38.92	14.48	53.40	74.00	-20.60	peak
5	17145.0242	38.11	19.19	57.30	74.00	-16.70	peak
		27.47	19.19	46.66	54.00	-7.34	average
6	17635.7726	38.62	18.29	56.91	74.00	-17.09	peak
		28.12	18.29	46.41	54.00	-7.59	average

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW can refer to section 6.1.
6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N20	165	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1535.4226	58.87	-5.43	53.44	74.00	-20.56	peak
2	2390.8151	51.39	-1.38	50.01	74.00	-23.99	peak
3	6283.6306	41.88	8.05	49.93	74.00	-24.07	peak
4	16238.2897	37.43	18.06	55.49	74.00	-18.51	peak
		27.24	18.06	45.30	54.00	-8.70	average
5	17191.0318	38.47	19.14	57.61	74.00	-16.39	peak
		27.88	19.14	47.02	54.00	-6.98	average
6	17953.9923	38.10	18.84	56.94	74.00	-17.06	peak
		26.98	18.84	45.82	54.00	-8.18	average

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
4. Peak: Peak detector.
5. AVG: VBW can refer to section 6.1.
6. For below 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 6GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



6.6. SPURIOUS EMISSIONS 18~26.5GHz

Test Result Table:

Test Mode	Test Antenna	Channel	Puw(dBm)	Verdict
11A	Antenna1	64	<Limit	PASS

Remark:

Remark:

1) Pre-testing both antenna1 and antenna2, and find the antenna 1 which is worse case. So only the data of worse case is shown in this test report.

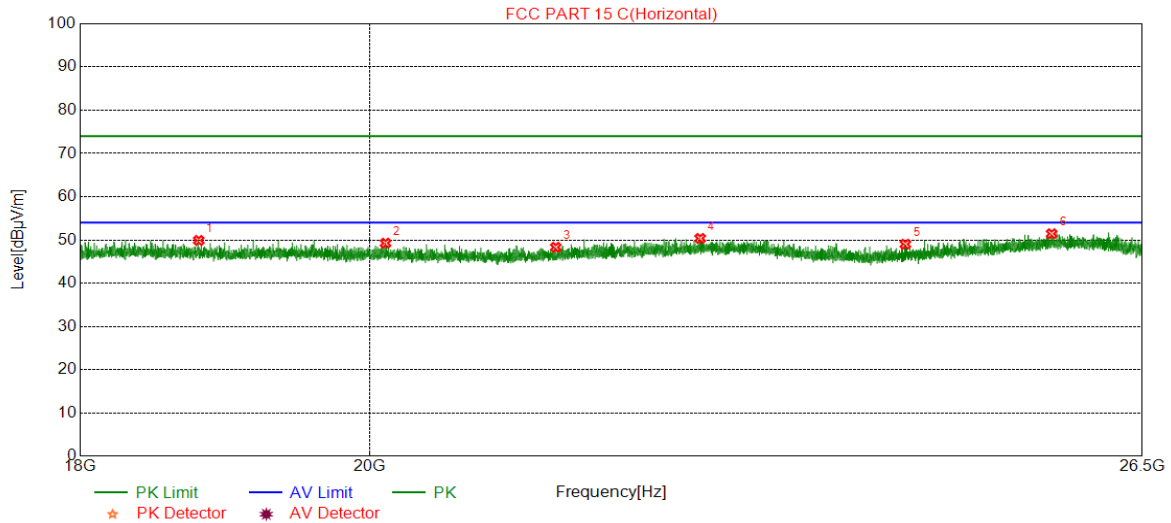
2) Pre-testing all test modes and channels, find the channel 64 of 11A mode which is the worst case, so only the data of this mode is included in the test report

3) For this product, it has two antennas, antenna1 and antenna2, but the ant1 and ant2 can't transmitter at the same time under all test modes. That's this product not support MIMO function, just support diversity function.



SPURIOUS EMISSIONS 18GHz TO 26.5GHz (THE WORST-CASE CONFIGURATION)

Test Mode	Channel	Polarization	Verdict
11A	64	Horizontal	PASS

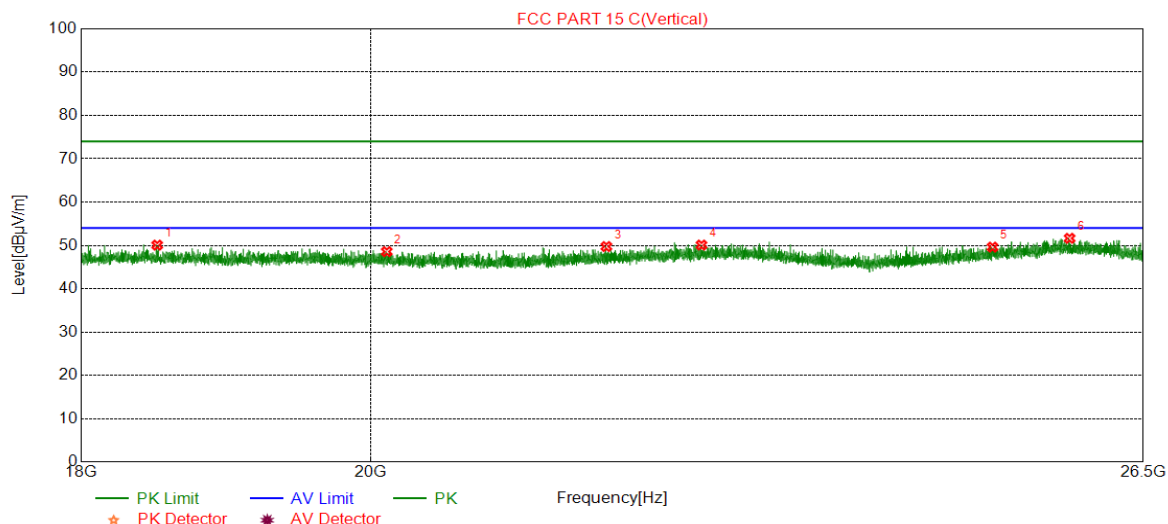


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	18793.1293	50.94	-1.05	49.89	74.00	-24.11	peak
2	20116.7117	49.81	-0.55	49.26	74.00	-24.74	peak
3	21403.7404	48.92	-0.61	48.31	74.00	-25.69	peak
4	22559.8560	49.48	0.87	50.35	74.00	-23.65	peak
5	24311.0311	49.84	-0.82	49.02	74.00	-24.98	peak
6	25641.4141	50.36	1.08	51.44	74.00	-22.56	peak

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. For duty cycle, please refer to clause 6.1.
4. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands, so all the test point were deemed to comply with the limits list in the standard.



Test Mode	Channel	Polarization	Verdict
11A	64	Horizontal	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	18504.1004	51.00	-0.94	50.06	74.00	-23.94	peak
2	20118.4118	49.11	-0.55	48.56	74.00	-25.44	peak
3	21793.9294	49.84	-0.11	49.73	74.00	-24.27	peak
4	22562.4062	49.21	0.87	50.08	74.00	-23.92	peak
5	25085.4585	49.44	0.16	49.60	74.00	-24.40	peak
6	25800.3800	50.30	1.34	51.64	74.00	-22.36	peak

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. For duty cycle, please refer to clause 6.1.
4. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands, so all the test point were deemed to comply with the limits list in the standard.



6.7. SPURIOUS EMISSIONS 26.5~40GHz

Test Result Table:

Test Mode	Test Antenna	Channel	Puw(dBm)	Verdict
11A	Antenna1	64	<Limit	PASS

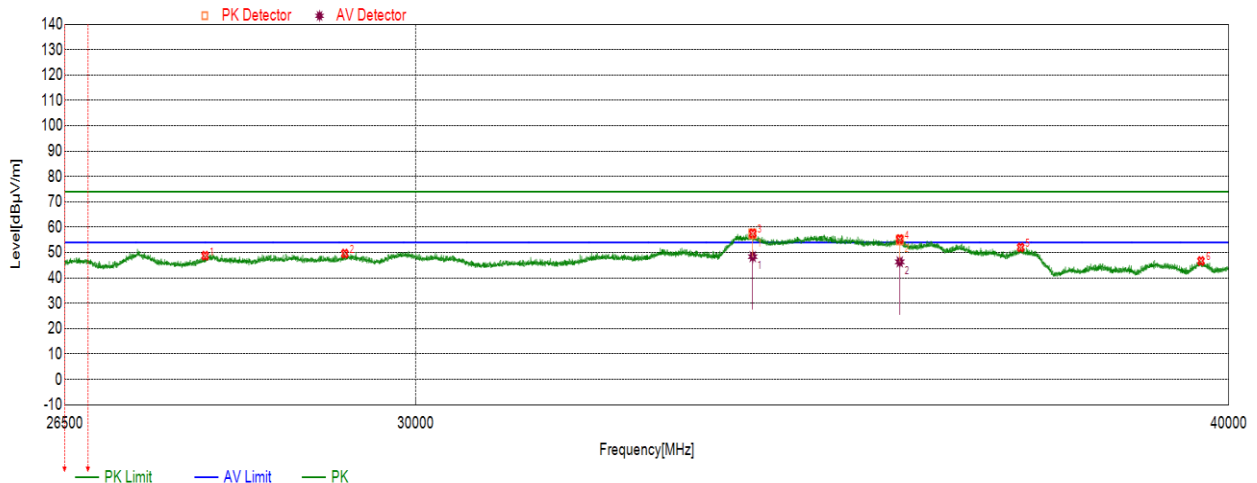
Remark:

Remark:

- 1) Pre-testing both antenna1 and antenna2, and find the antenna 1 which is worse case. So only the data of worse case is shown in this test report.
- 2) Pre-testing all test modes and channels, find the channel 64 of 11A mode which is the worst case, so only the data of this mode is included in the test report
- 3) For this product, it has two antennas, antenna1 and antenna2, but the ant1 and ant2 can't transmitter at the same time under all test modes. That's this product not support MIMO function, just support diversity function.

6.8. SPURIOUS EMISSIONS 26.5GHz TO 40GHz (WORST-CASE CONFIGURATION)

Test Mode	Channel	Polarization	Verdict
11A	64	Horizontal	PASS



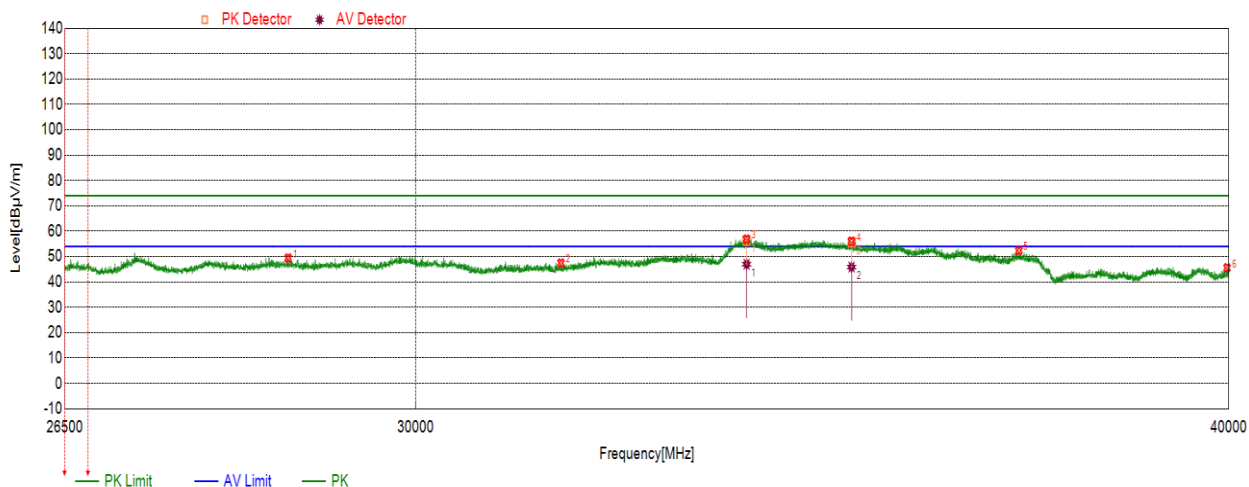
No.	Frequency (MHz)	Reading Level (dBμV/m)	Correct Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	27847.4347	62.72	-13.97	48.75	74.00	-25.25	peak
2	29258.3258	62.94	-13.32	49.62	74.00	-24.38	peak
3	33800.1800	63.09	-5.57	57.52	74.00	-16.48	peak
		53.97	-5.57	48.40	54.00	-5.60	average
4	35605.3105	59.51	-4.21	55.30	74.00	-18.70	peak
		50.57	-4.21	46.36	54.00	-7.64	Average
5	37162.0162	56.78	-4.74	52.04	74.00	-21.96	peak
6	39609.8110	54.03	-7.34	46.69	74.00	-27.31	peak

Note:

1. Peak: Peak detector.
2. For duty cycle, please refer to clause 6.1.
3. Owing to the highest peak level lower more than 15 dBm with the Highest limit(74 dBμV/m) of unwanted emission out of the restricted bands, so all the test point were deemed to comply with the limits list in the standard.



Test Mode	Channel	Polarization	Verdict
11A	64	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	28677.7678	63.00	-13.60	49.40	74.00	-24.60	peak
2	31583.2583	62.57	-15.14	47.43	74.00	-26.57	peak
3	33727.2727	62.34	-5.51	56.83	74.00	-17.17	peak
		52.49	-5.51	46.98	54.00	-7.02	average
4	35003.1503	60.74	-4.77	55.97	74.00	-18.03	peak
		50.64	-4.77	45.87	54.00	-8.13	Average
5	37137.7138	57.23	-4.91	52.32	74.00	-21.68	peak
6	39977.0477	53.06	-7.47	45.58	74.00	-28.42	peak

Note:

1. Peak: Peak detector.
2. For duty cycle, please refer to clause 6.1.
3. Owing to the highest peak level lower more than 15 dBm with the Highest limit(74 dBuV/m) of unwanted emission out of the restricted bands, so all the test point were deemed to comply with the limits list in the standard.



6.9. SPURIOUS EMISSIONS 30M ~ 1 GHz

Test Result Table:

Test Mode	Test Antenna	Channel	Puw(dBm)	Verdict
11A	Antenna1	64	<Limit	PASS

Remark:

Remark:

1) Pre-testing both antenna1 and antenna2, and find the antenna 1 which is worse case. So only the data of worse case is shown in this test report.

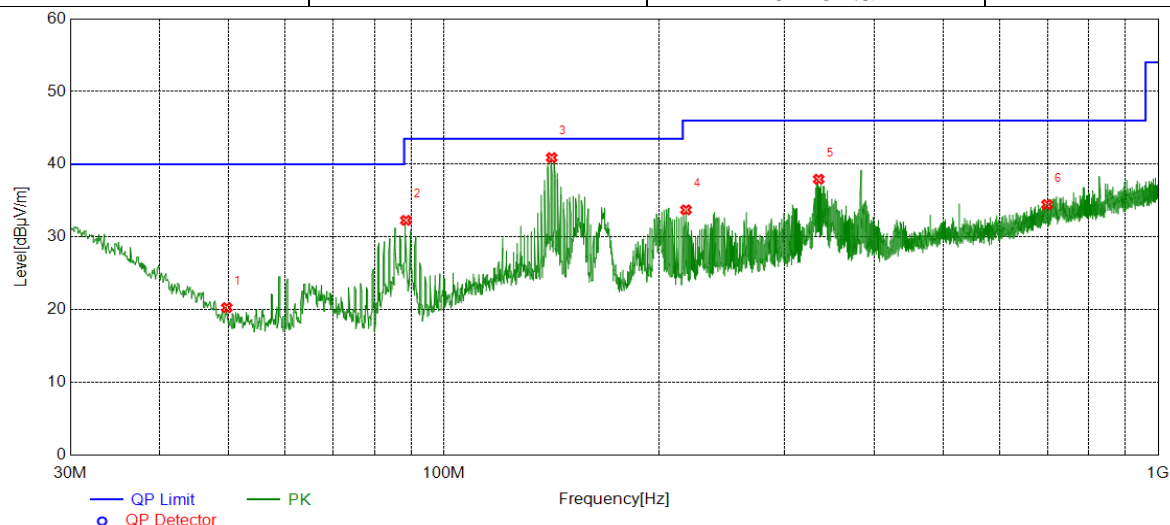
2) Pre-testing all test modes and channels, find the channel 64 of 11A mode which is the worst case, so only the data of this mode is included in the test report

3) For this product, it has two antennas, antenna1 and antenna2, but the ant1 and ant2 can't transmitter at the same time under all test modes. That's this product not support MIMO function, just support diversity function.



SPURIOUS EMISSIONS 26.5GHz TO 40GHz (WORST-CASE CONFIGURATION)

Test Mode	Channel	Polarization	Verdict
11A	64	Horizontal	PASS

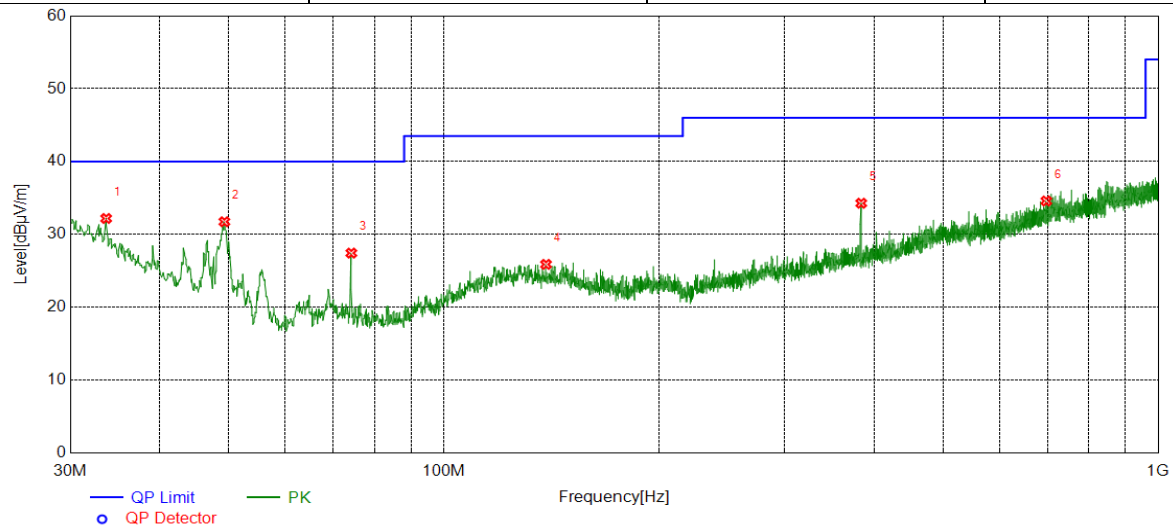


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	49.6930	5.39	14.89	20.28	40.00	-19.72	peak
2	88.4969	17.70	14.59	32.29	43.50	-11.21	peak
3	141.5612	20.80	20.11	40.91	43.50	-2.59	peak
4	218.2958	15.65	18.08	33.73	46.00	-12.27	peak
5	334.8045	16.30	21.64	37.94	46.00	-8.06	peak
6	698.6879	6.00	28.46	34.46	46.00	-11.54	peak

Note: 1. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
2. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.
3. Measurement = Reading Level + Correct Factor.



Test Mode	Channel	Polarization	Verdict
11A	64	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	33.6864	7.36	24.83	32.19	40.00	-7.81	peak
2	49.3049	16.62	15.12	31.74	40.00	-8.26	peak
3	74.2364	12.67	14.77	27.44	40.00	-12.56	peak
4	139.0389	5.66	20.23	25.89	43.50	-17.61	peak
5	383.9884	11.48	22.80	34.28	46.00	-11.72	peak
6	697.2327	6.16	28.43	34.59	46.00	-11.41	peak

Note: 1. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
2. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.
3. Measurement = Reading Level + Correct Factor.



6.10. SPURIOUS EMISSIONS BELOW 30M (WORST-CASE CONFIGURATION)

Test Result Table:

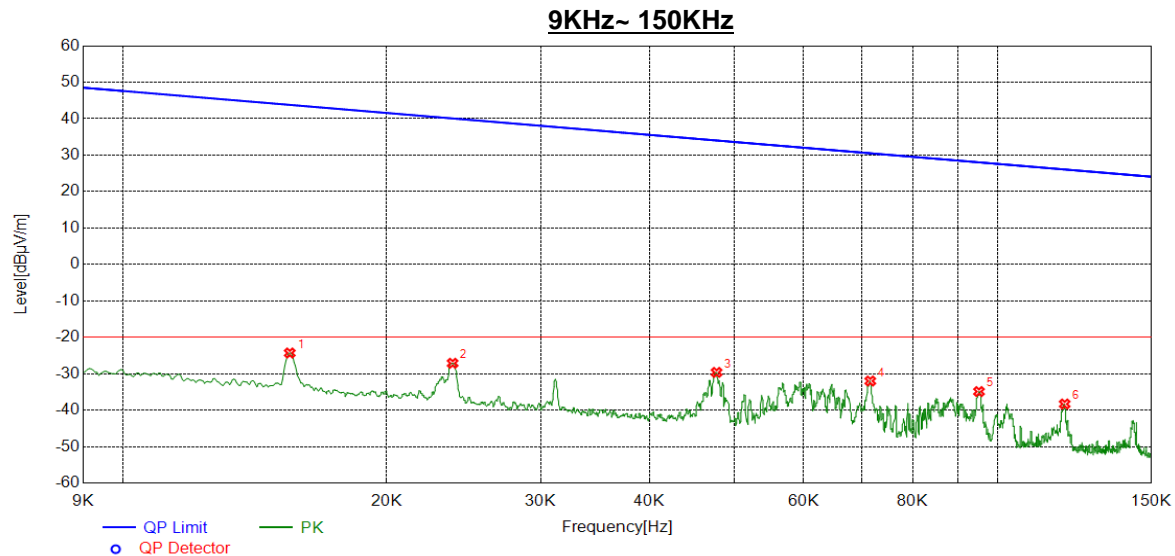
Test Mode	Test Antenna	Channel	Puw(dBm)	Verdict
11A	Antenna1	64	<Limit	PASS

Remark:

Remark:

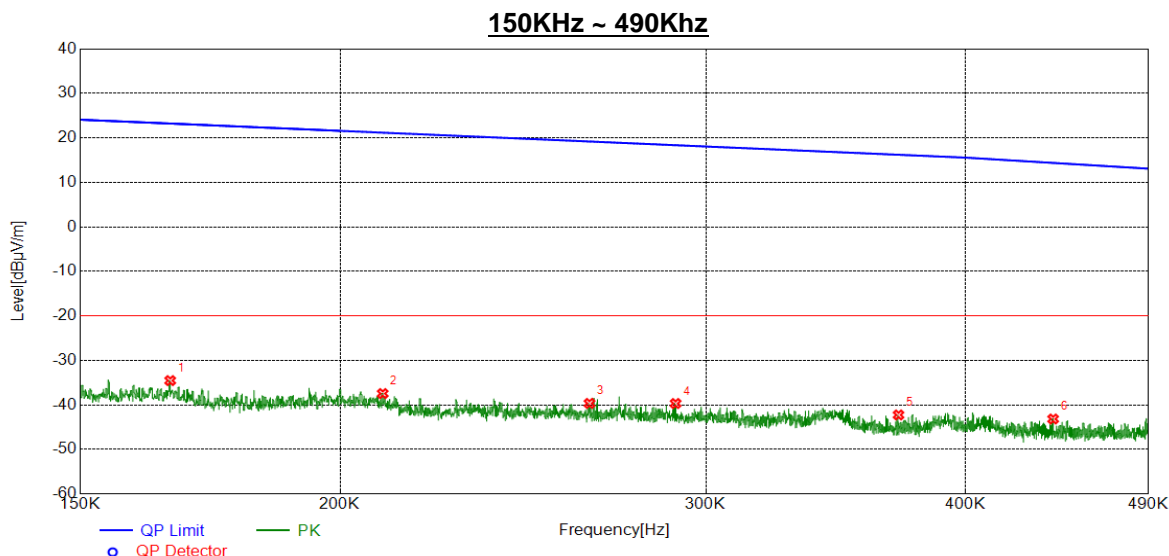
- 1) Pre-testing both antenna1 and antenna2, and find the antenna 1 which is worse case. So only the data of worse case is shown in this test report.
- 2) Pre-testing all test modes and channels, find the channel 64 of 11A mode which is the worst case, so only the data of this mode is included in the test report
- 3) For this product, it has two antennas, antenna1 and antenna2, but the ant1 and ant2 can't transmitter at the same time under all test modes. That's this product not support MIMO function, just support diversity function.

SPURIOUS EMISSIONS 9KHz TO 30MHz (WORST-CASE CONFIGURATION-FACE ON)



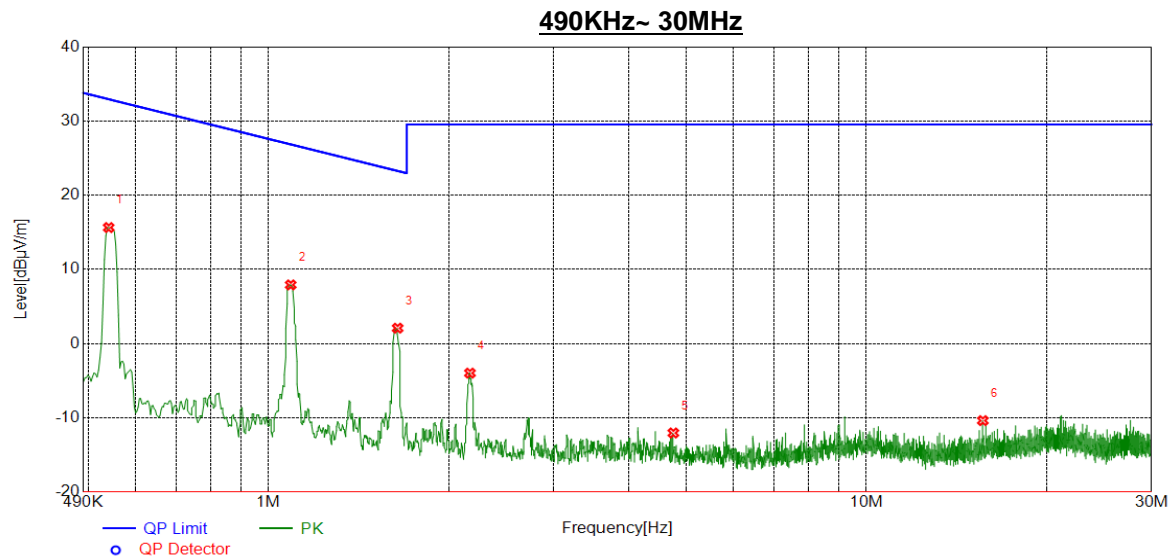
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0155	36.56	-60.87	-24.31	43.77	-68.08	peak
2	0.0238	33.64	-60.76	-27.12	40.07	-67.19	peak
3	0.0477	31.29	-60.92	-29.63	34.03	-63.66	peak
4	0.0715	29.28	-61.28	-32.00	30.52	-62.52	peak
5	0.0952	25.88	-60.77	-34.89	28.03	-62.92	peak
6	0.1193	22.56	-60.87	-38.31	26.07	-64.38	peak

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
3. All 3 polarizations(Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1657	26.63	-61.16	-34.53	23.22	-57.75	peak
2	0.2097	23.48	-60.93	-37.45	21.17	-58.62	peak
3	0.2637	21.07	-60.72	-39.65	19.18	-58.83	peak
4	0.2901	21.02	-60.70	-39.68	18.35	-58.03	peak
5	0.3714	18.38	-60.63	-42.25	16.20	-58.45	peak
6	0.4408	17.41	-60.57	-43.16	14.37	-57.53	peak

- Note: 1. Measurement = Reading Level + Correct Factor.
 2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
 3. All 3 polarizations(Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.5402	36.17	-20.53	15.64	32.95	-17.31	peak
2	1.0891	28.20	-20.29	7.91	26.87	-18.96	peak
3	1.6440	22.29	-20.21	2.08	23.29	-21.21	peak
4	2.1722	16.23	-20.21	-3.98	29.54	-33.52	peak
5	4.7546	8.07	-20.12	-12.05	29.54	-41.59	peak
6	15.6597	8.55	-18.93	-10.38	29.54	-39.92	peak

- Note: 1. Measurement = Reading Level + Correct Factor.
 2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
 3. All 3 polarizations(Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report



7. FREQUENCY STABILITY

LIMITS

The frequency of the carrier signal shall be maintained within band of operation

TEST SETUP AND PROCEDURE

Connect the UUT to the spectrum analyser and use the following settings:

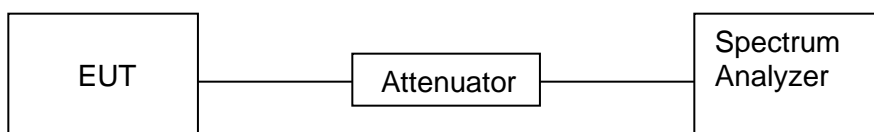
Center Frequency	The center frequency of the channel under test
Detector	PEAK
RBW	10kHz
VBW	$\geq 3 \times \text{RBW}$
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

Allow the trace to stabilize, find the peak value of the power envelope and record the frequency, then calculated the frequency drift.

The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

The extreme temperature is -10°C~45°C.

TEST SETUP





TEST RESULTS

1) For UNII-1(THE WORST CASE-ANTENNA1)

Frequency Error vs. Voltage									
802.11N:5200MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
TN	VL	5200.09	17.31	5199.96	-8.65	5199.99	-2.88	5199.97	-5.77
TN	VN	5200.00	0.00	5200.05	8.65	5200.02	2.88	5200.00	0.00
TN	VH	5200.02	2.88	5199.96	-8.65	5199.82	-34.62	5199.88	-23.08

Frequency Error vs. Temperature									
802.11N:5200MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
50	VN	5260.08	14.26	5200.03	5.77	5199.97	-5.77	5199.96	-8.65
40	VN	5260.00	0.00	5199.97	-5.77	5199.99	-2.88	5199.96	-8.65
30	VN	5259.93	-14.26	5200.02	2.88	5200.03	5.77	5200.00	0.00
20	VN	5260.08	14.26	5200.06	11.54	5199.97	-5.77	5200.03	5.77
10	VN	5260.00	0.00	5200.00	0.00	5200.02	2.88	5199.94	-11.54
0	VN	5259.93	-14.26	5199.94	-11.54	5199.96	-8.65	5199.99	-2.88
-10	VN	5260.08	14.26	5199.98	-3.85	5200.02	2.88	5200.00	0.00
-20	VN	5260.00	0.00	5200.00	0.00	5199.97	-5.77	5200.09	17.31

Note : All the modulation and channels had been tested, but only the worst data recorded in the report.



2) For UNII-2A

Frequency Error vs. Voltage									
802.11N:5260MHz									
Temp.	Volt.	0 Minut		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
TN	VL	5260.05	8.56	5260.00	0.00	5260.08	14.26	5260.02	2.85
TN	VN	5259.91	-17.11	5260.03	5.70	5260.00	0.00	5260.09	17.11
TN	VH	5260.02	2.85	5260.09	17.11	5259.93	-14.26	5260.02	2.85

Frequency Error vs. Temperature									
802.11N:5260MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
50	VN	5260.05	8.56	5260.03	5.70	5260.08	14.26	5260.00	0.00
40	VN	5259.97	-5.70	5260.09	17.11	5260.05	8.56	5260.00	0.00
30	VN	5260.08	14.26	5260.08	14.26	5259.97	-5.70	5260.00	0.00
20	VN	5260.08	14.26	5260.03	5.70	5260.02	2.85	5260.03	5.70
10	VN	5260.00	0.00	5260.05	8.56	5260.00	0.00	5260.09	17.11
0	VN	5260.02	2.85	5260.02	2.85	5260.06	11.41	5260.11	19.96
-10	VN	5260.05	8.56	5260.05	8.56	5260.03	5.70	5260.03	5.70
-20	VN	5260.02	2.85	5260.00	0.00	5259.91	-17.11	5260.02	2.85

Note : All the modulation and channels had been tested, but only the worst data recorded in the report.



3) For UNII-2C

Frequency Error vs. Voltage									
802.11N:5500MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
TN	VL	5500.03	5.45	5500.08	13.64	5500.03	5.45	5500.02	2.73
TN	VN	5499.99	-2.73	5500.06	10.91	5500.09	16.36	5499.87	-24.55
TN	VH	5500.02	2.73	5500.03	5.45	5579.96	-8.06	5500.06	10.91

Frequency Error vs. Temperature									
802.11N:5500MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
50	VN	5499.99	-2.73	5500.03	5.45	5500.00	0.00	5500.03	5.45
40	VN	5500.05	8.18	5500.05	8.18	5499.88	-21.82	5499.97	-5.45
30	VN	5500.05	8.18	5499.96	-8.18	5499.97	-5.45	5500.06	10.91
20	VN	5499.93	-13.64	5499.99	-2.73	5499.97	-5.45	5499.96	-8.18
10	VN	5499.97	-5.45	5499.99	-2.73	5500.02	2.73	5500.00	0.00
0	VN	5499.93	-13.64	5500.11	19.09	5499.97	-5.45	5499.99	-2.73
-10	VN	5500.08	13.64	5500.00	0.00	5499.94	-10.91	5500.02	2.73
-20	VN	5500.03	5.45	5499.91	-16.36	5500.06	10.91	5499.91	-16.36

Note : All the modulation and channels had been tested, but only the worst data recorded in the report.



4) For UNII-3

Frequency Error vs. Voltage									
802.11N:5785MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
TN	VL	5785.08	12.96	5785.03	5.19	5784.97	-5.19	5784.91	-15.56
TN	VN	5784.93	-12.96	5785.00	0.00	5785.05	7.78	5785.03	5.19
TN	VH	5784.97	-5.19	5784.96	-7.78	5785.03	5.19	5785.03	5.19

Frequency Error vs. Temperature									
802.11N:5785MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
50	VN	5784.96	-7.78	5784.94	-10.37	5785.11	18.15	5785.00	0.00
40	VN	5785.05	7.78	5784.97	-5.19	5784.91	-15.56	5785.09	15.56
30	VN	5785.00	0.00	5785.00	0.00	5785.03	5.19	5784.97	-5.19
20	VN	5784.97	-5.19	5784.99	-2.59	5784.91	-15.56	5785.00	0.00
10	VN	5784.94	-10.37	5784.96	-7.79	5785.03	5.19	5785.00	0.00
0	VN	5785.03	5.19	5785.00	0.00	5785.00	0.00	5785.05	7.78
-10	VN	5784.93	-12.96	5784.99	-2.59	5784.97	-5.19	5785.06	10.37
-20	VN	5784.94	-10.37	5784.93	-12.96	5785.03	5.19	5785.03	5.19

Note : All the modulation and channels had been tested, but only the worst data recorded in the report.

8. DYNAMIC FREQUENCY SELECTION

APPLICABILITY OF DFS REQUIREMENTS

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	<input type="checkbox"/> Master	<input checked="" type="checkbox"/> Client Without Radar Detection	<input type="checkbox"/> Client With Radar Detection
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	<input type="checkbox"/> Master Device or Client with Radar Detection	<input checked="" type="checkbox"/> Client Without Radar Detection
DFS Detection Threshold	Yes	Not required
Channel Closing Transmission Time	Yes	Yes
Channel Move Time	Yes	Yes
U-NII Detection Bandwidth	Yes	Not required

Additional requirements for devices with multiple bandwidth modes	<input type="checkbox"/> Master Device or Client with Radar Detection	<input checked="" type="checkbox"/> Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required
Note: Frequencies selected for statistical performance check should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.		

LIMITS

(1) DFS Detection Thresholds

Table 3: DFS Detection Thresholds for Master Devices and Client Devices With Radar Detection

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP \geq 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm

Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.
Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.
Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.

(2) DFS Response Requirements

Table 4: DFS Response Requirement Values

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.
Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required facilitating a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.
Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

PARAMETERS OF RADAR TEST WAVEFORMS

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

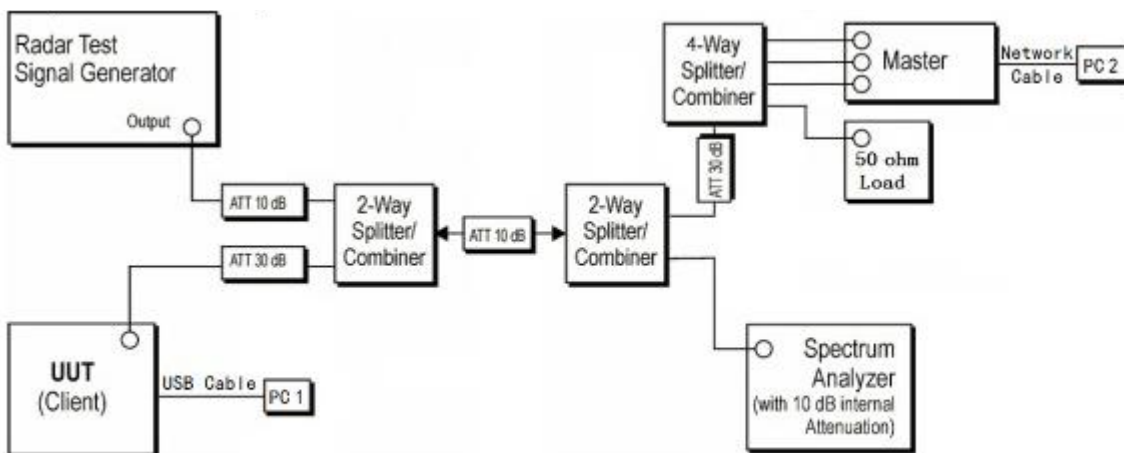
Table 5 Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A	Roundup $\left\{ \left(\frac{1}{360} \right)^* \right\}$	60%	30
		Test B			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120
Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests. Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A					

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B. Test aggregate is average of the percentage of successful detections of short pulse radar types 1-4

TEST SETUP

Setup for Client with injection at the Master





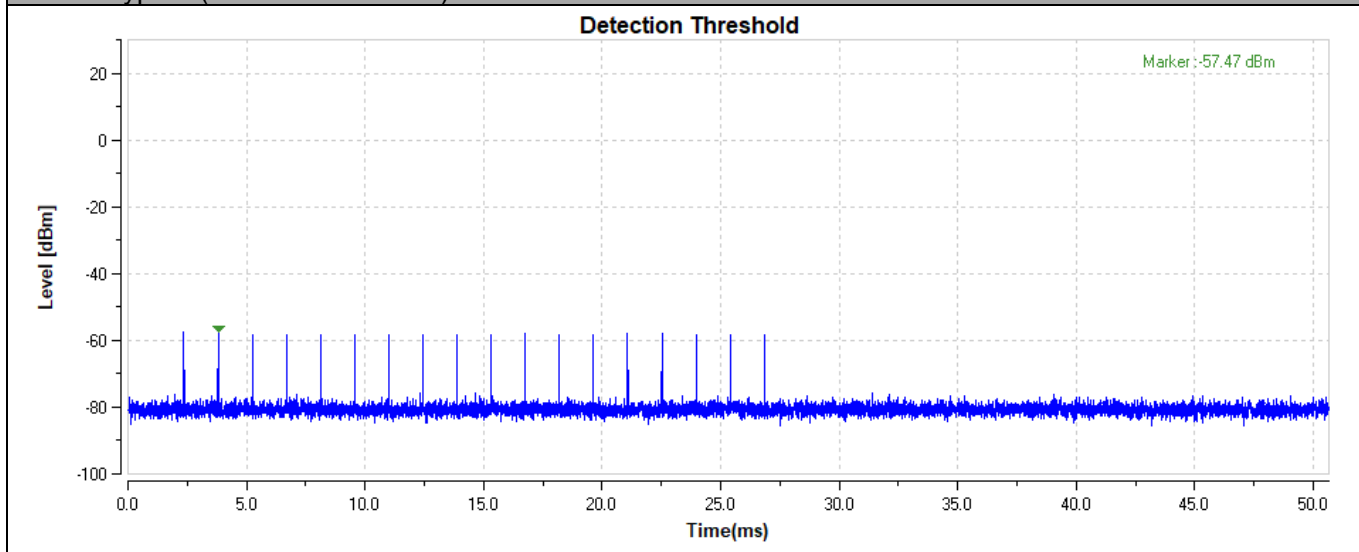
TEST RESULTS

DFS Detection Threshold levels

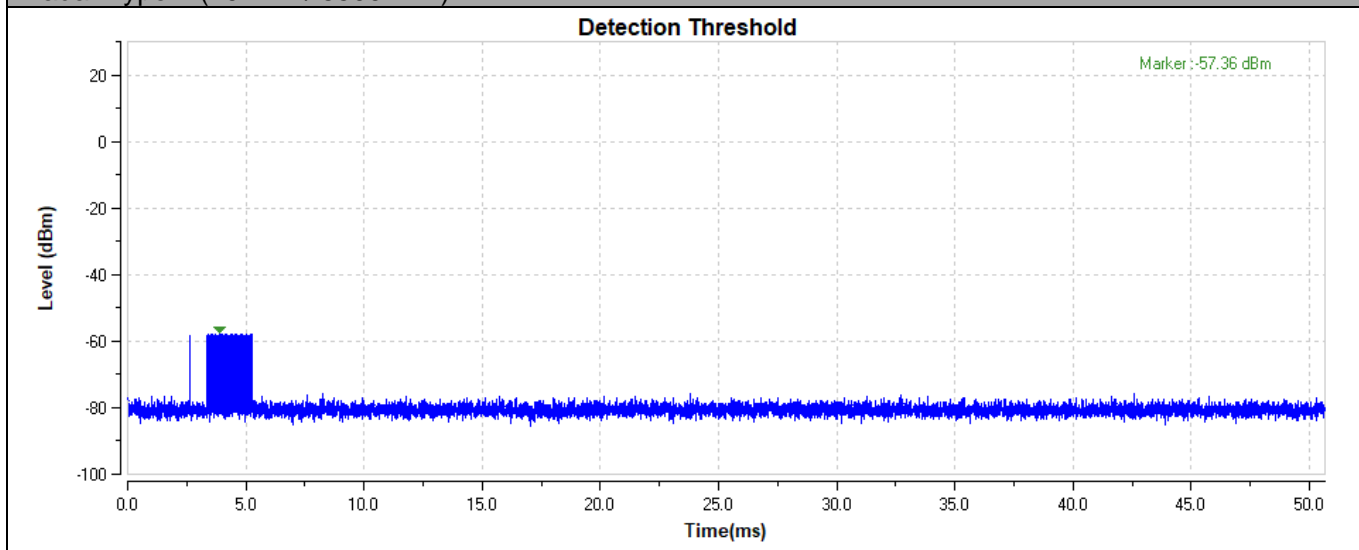
DFS Threshold Level: -57.42

The Interference **Radar Detection Threshold Level** is $(-62.0\text{dBm}) + (3.58 [\text{dBi}]) + \{1 \text{ dB}\} = -57.42 \text{ dBm}$. That had been taken into account the master output power range and antenna gain.

Radar Type 0 (20MHz / 5500MHz)

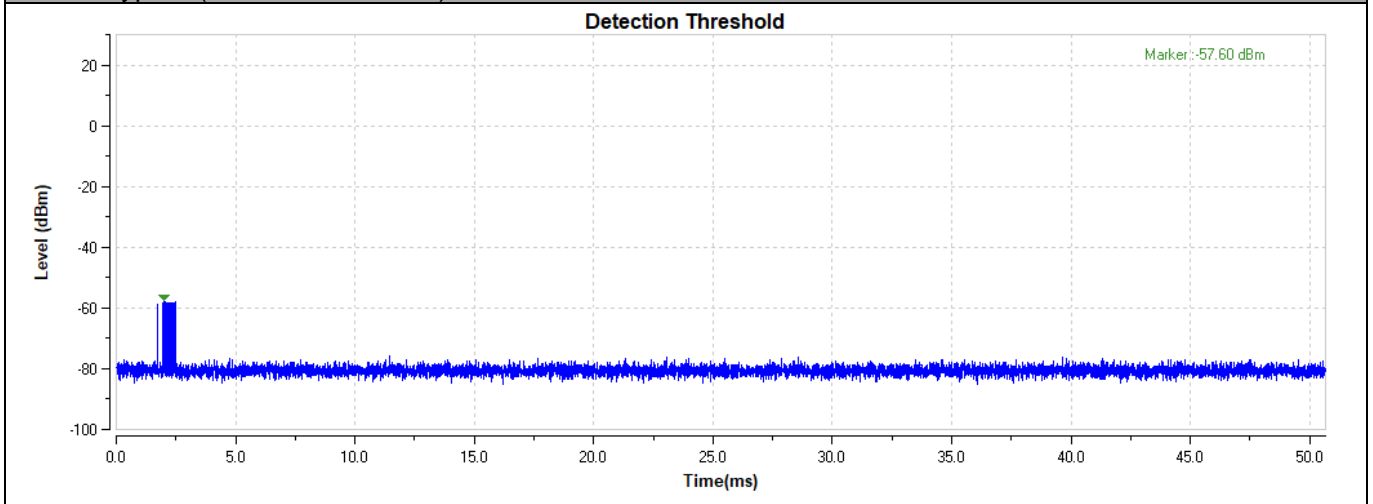


Radar Type 1 (20MHz / 5500MHz)

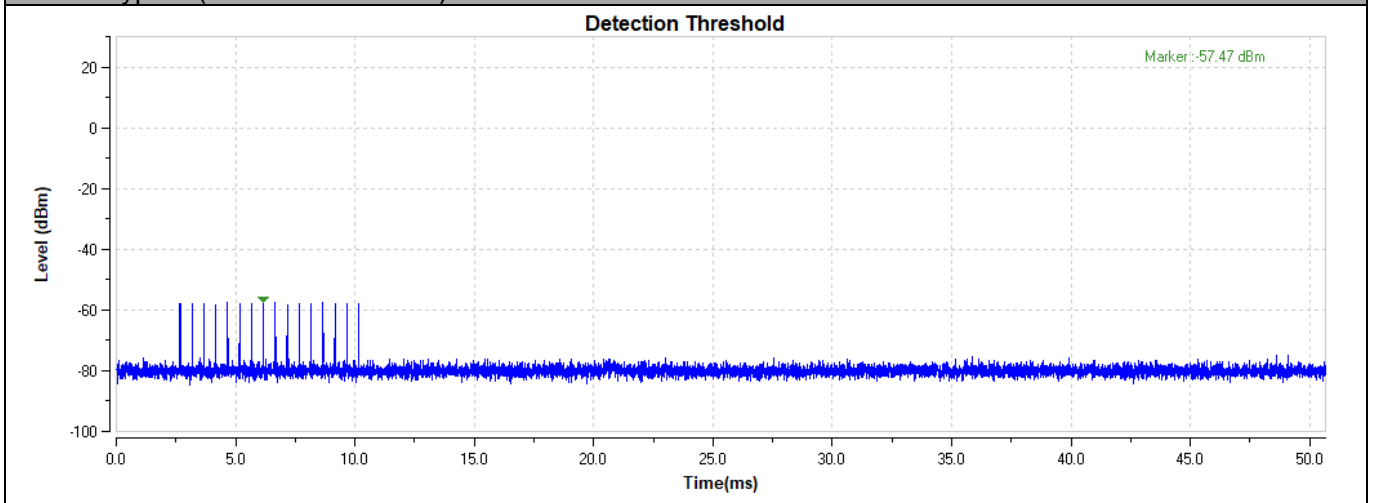


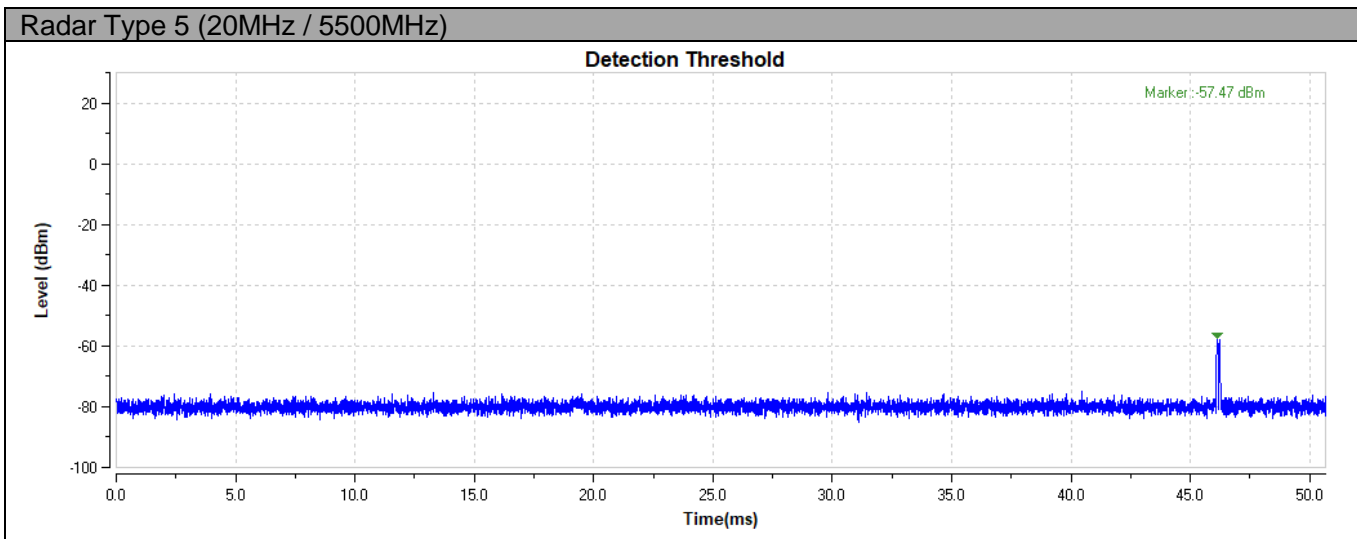
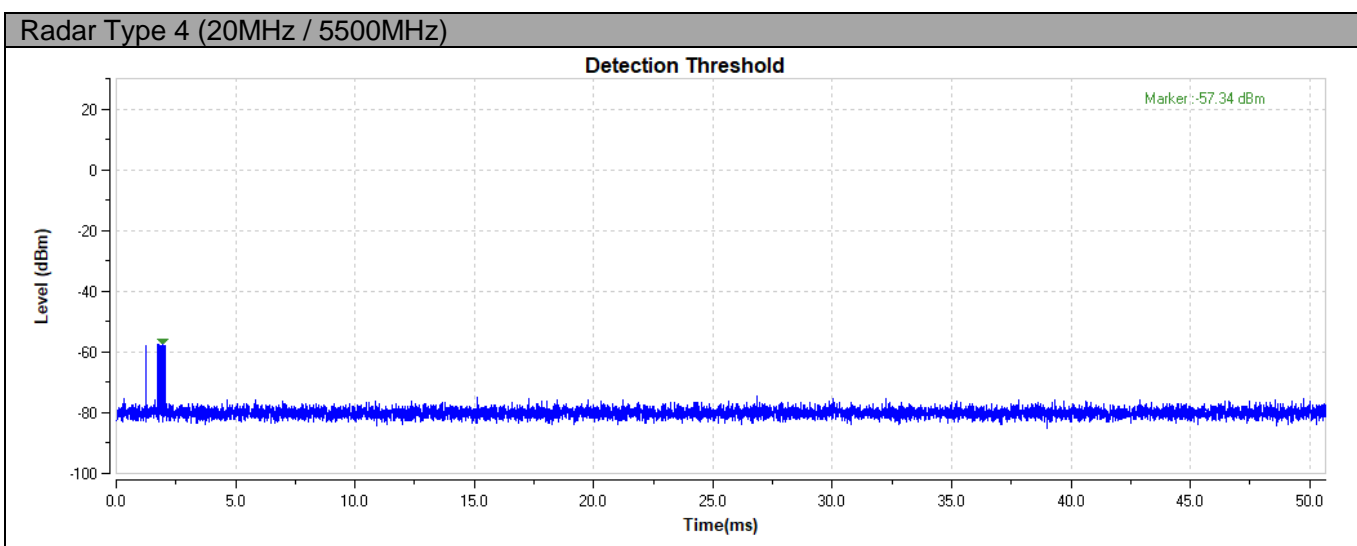


Radar Type 2 (20MHz / 5500MHz)



Radar Type 3 (20MHz / 5500MHz)



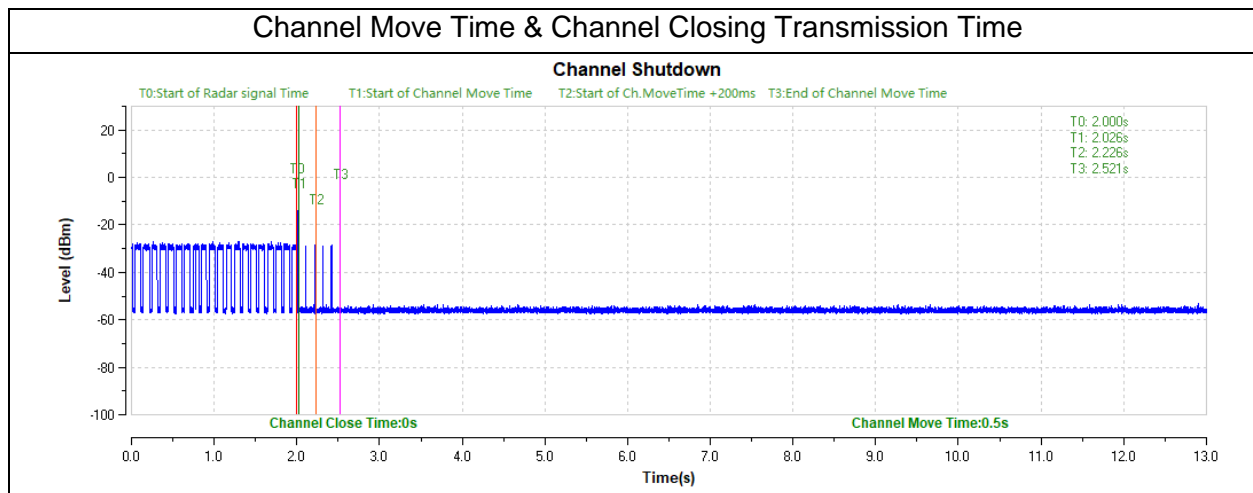




Test Data

BW/Channel	Test Item	Test Result	Limit	Results
20MHz / 5500MHz	Channel Move Time	0.5S	<10 s	pass
	Channel Closing Transmission Time	0 s	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period.	pass

Test plots as follows:

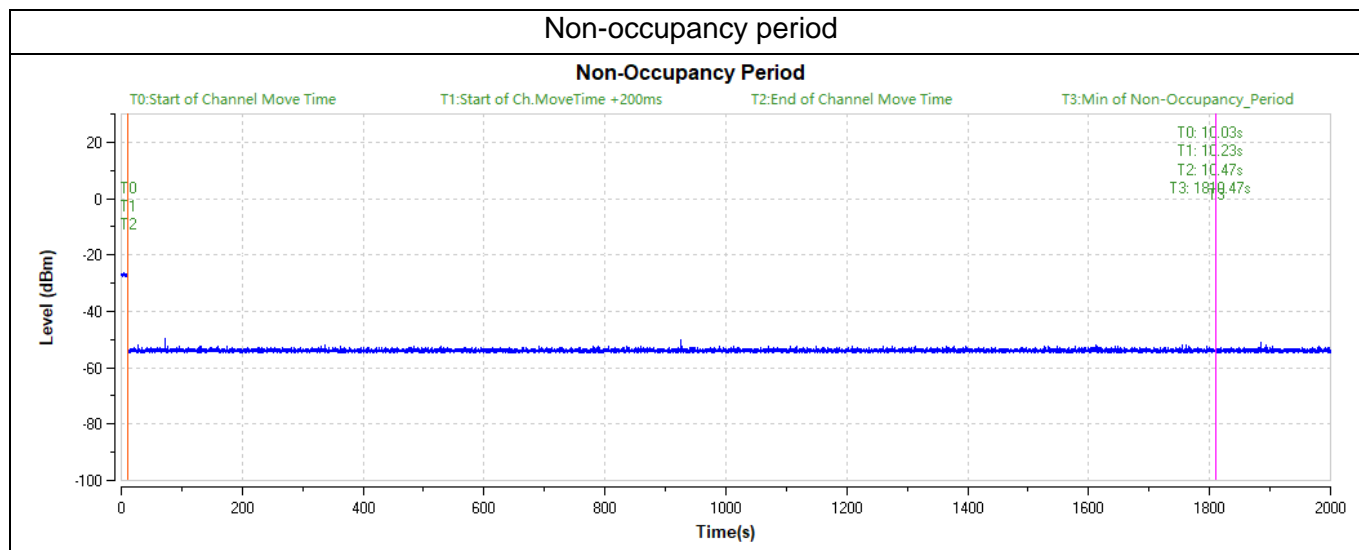


Note 1: All the modulation and channels had been tested, but only the worst data recorded in the report.



BW/Channel	Test Item	Limit	Results
20MHz / 5500MHz	Non-occupancy period	>1800 s	pass

Test plots as follows:



Note 1: All the modulation and channels had been tested, but only the worst data recorded in the report.

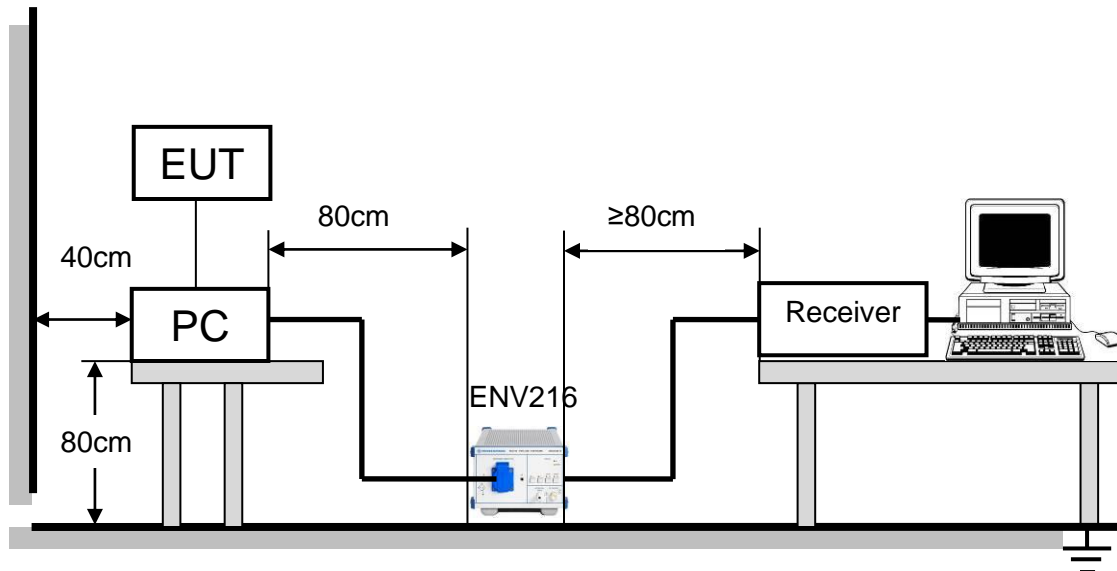
9. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

Please refer to FCC §15.207 (a)

FREQUENCY (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

TEST SETUP AND PROCEDURE



The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 7 and 13 of ANSI C63.10-2013. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.



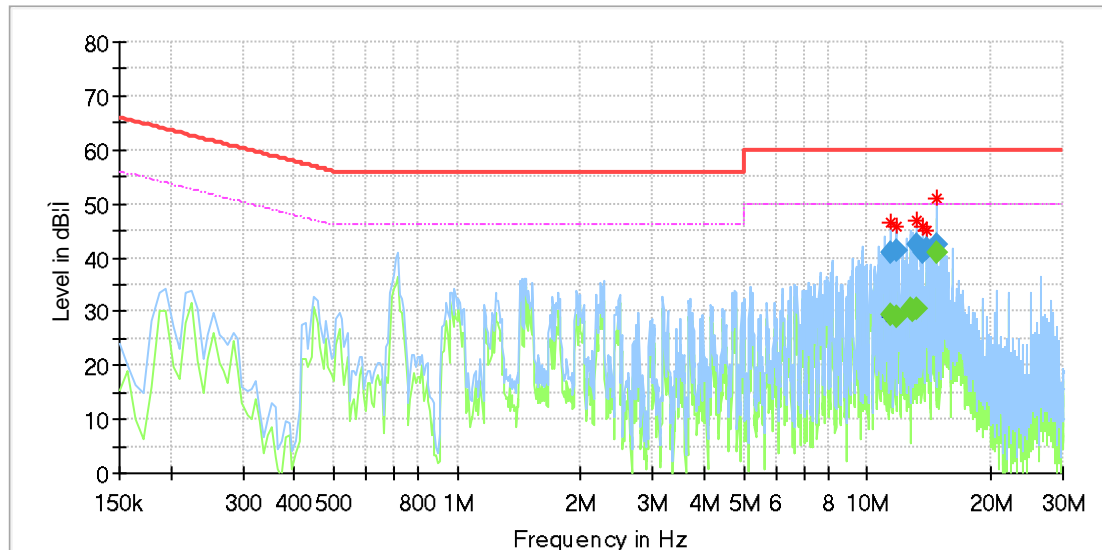
TEST RESULT(WORST-CASE CONFIGURATION)

Test Mode	Test Antenna	Channel	Puw(dBm)	Verdict
11A	Antenna1	64	<Limit	PASS

Remark:

- 1) Pre-testing both antenna1 and antenna2, and find the antenna 1 which is worse case. So only the data of worse case is shown in this test report.
- 2) Pre-testing all test modes and channels, find the channel 64 of 11A mode which is the worst case, so only the data of this mode is included in the test report

LINE L RESULTS (LOW CHANNEL)

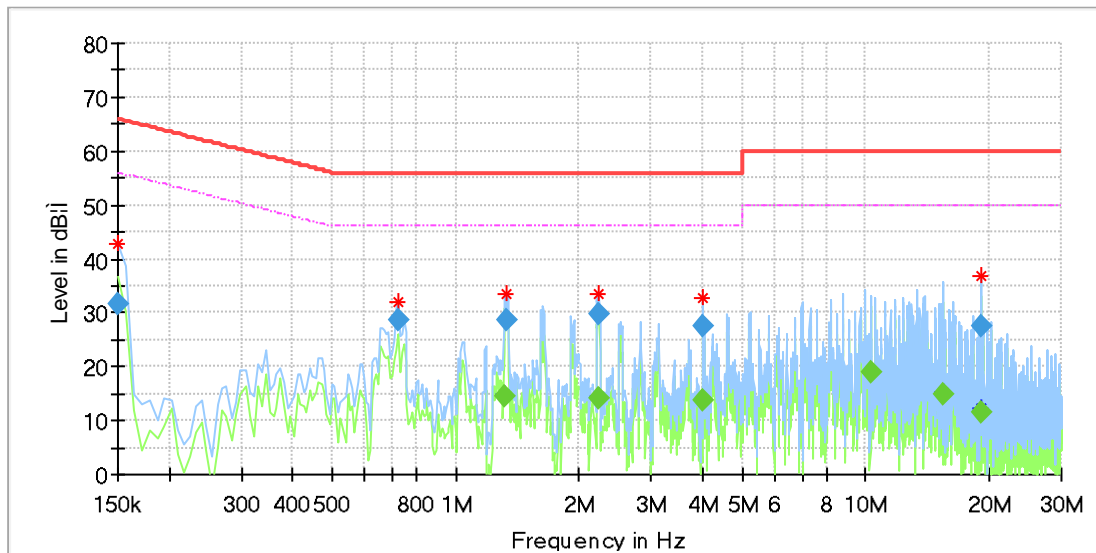


Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
11.448225	40.88	---	60.00	19.12	1000.0	9.000	L1	OFF	9.6
11.448225	---	29.25	50.00	20.75	1000.0	9.000	L1	OFF	9.6
11.731800	41.13	---	60.00	18.87	1000.0	9.000	L1	OFF	9.6
11.731800	---	29.20	50.00	20.80	1000.0	9.000	L1	OFF	9.6
12.716850	---	30.47	50.00	19.53	1000.0	9.000	L1	OFF	9.6
12.940725	---	30.12	50.00	19.88	1000.0	9.000	L1	OFF	9.6
13.201913	42.49	---	60.00	17.51	1000.0	9.000	L1	OFF	9.6
13.216838	---	30.49	50.00	19.51	1000.0	9.000	L1	OFF	9.6
13.709363	41.10	---	60.00	18.90	1000.0	9.000	L1	OFF	9.6
13.948163	41.72	---	60.00	18.28	1000.0	9.000	L1	OFF	9.6
14.701875	42.40	---	60.00	17.60	1000.0	9.000	L1	OFF	9.6
14.709338	---	40.93	50.00	9.07	1000.0	9.000	L1	OFF	9.6

Note:

1. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
3. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

LINE N RESULTS (LOW CHANNEL)



Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.150000	31.70	---	66.00	34.30	1000.0	9.000	N	OFF	9.5
0.724613	28.53	---	56.00	27.47	1000.0	9.000	N	OFF	9.5
1.321613	---	14.51	46.00	31.49	1000.0	9.000	N	OFF	9.6
1.336538	28.71	---	56.00	27.29	1000.0	9.000	N	OFF	9.6
2.224575	---	14.19	46.00	31.81	1000.0	9.000	N	OFF	9.6
2.232038	29.88	---	56.00	26.12	1000.0	9.000	N	OFF	9.6
4.008113	27.44	---	56.00	28.56	1000.0	9.000	N	OFF	9.6
4.015575	---	13.77	46.00	32.23	1000.0	9.000	N	OFF	9.6
10.291538	---	19.02	50.00	30.98	1000.0	9.000	N	OFF	9.8
15.380963	---	15.02	50.00	34.98	1000.0	9.000	N	OFF	9.6
19.104750	---	11.53	50.00	38.47	1000.0	9.000	N	OFF	9.8
19.104750	27.40	---	60.00	32.60	1000.0	9.000	N	OFF	9.8

Note:

1. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
3. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

10. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

Please refer to FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC §15.247(b)(4)

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

ANTENNA CONNECTOR

EUT has a EUT with two PCB Antennas.

ANTENNA GAIN

The antenna gain of EUT is less than 6 dBi.

END OF REPORT