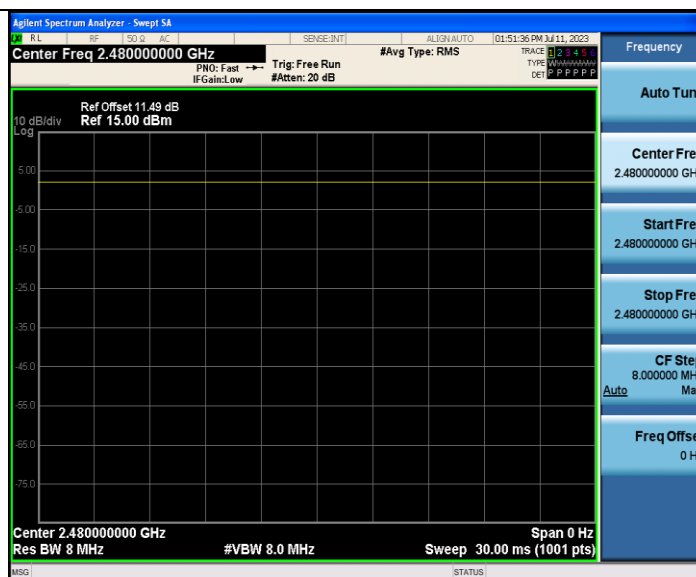
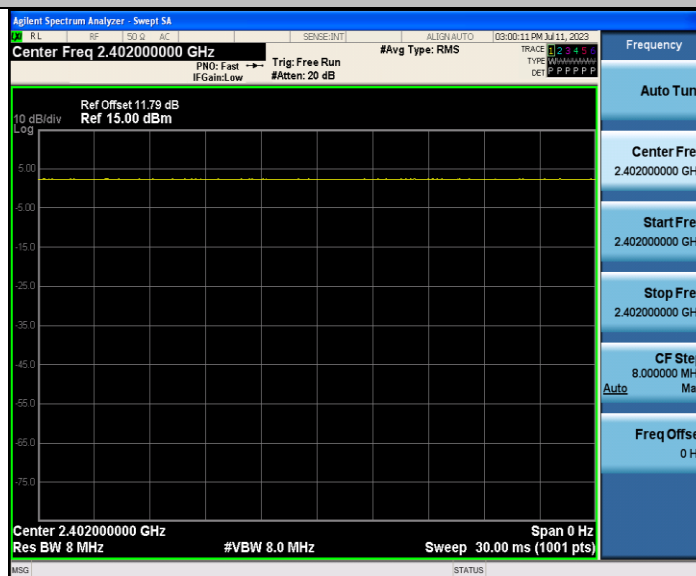
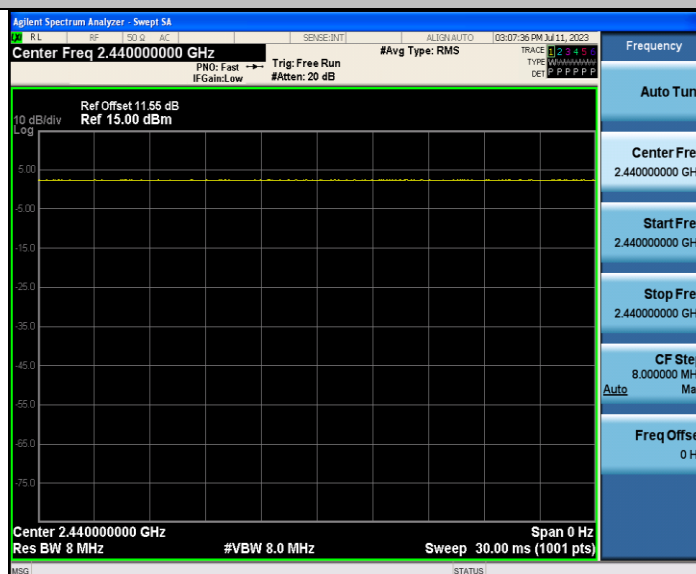




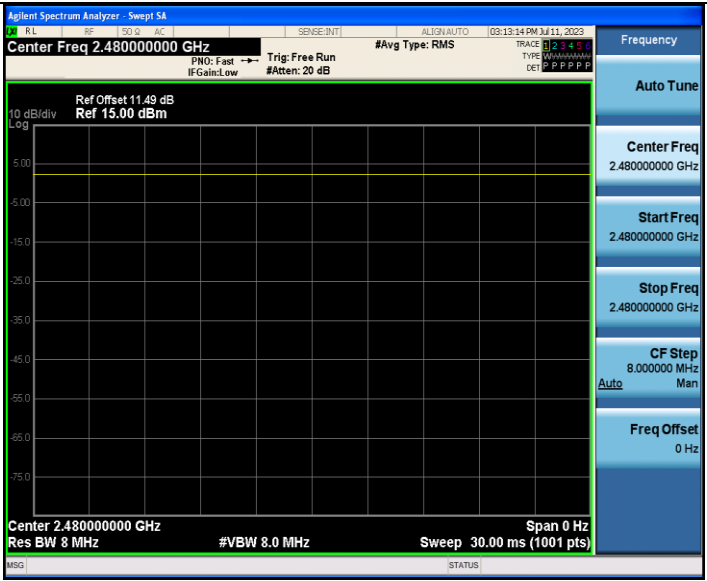
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440

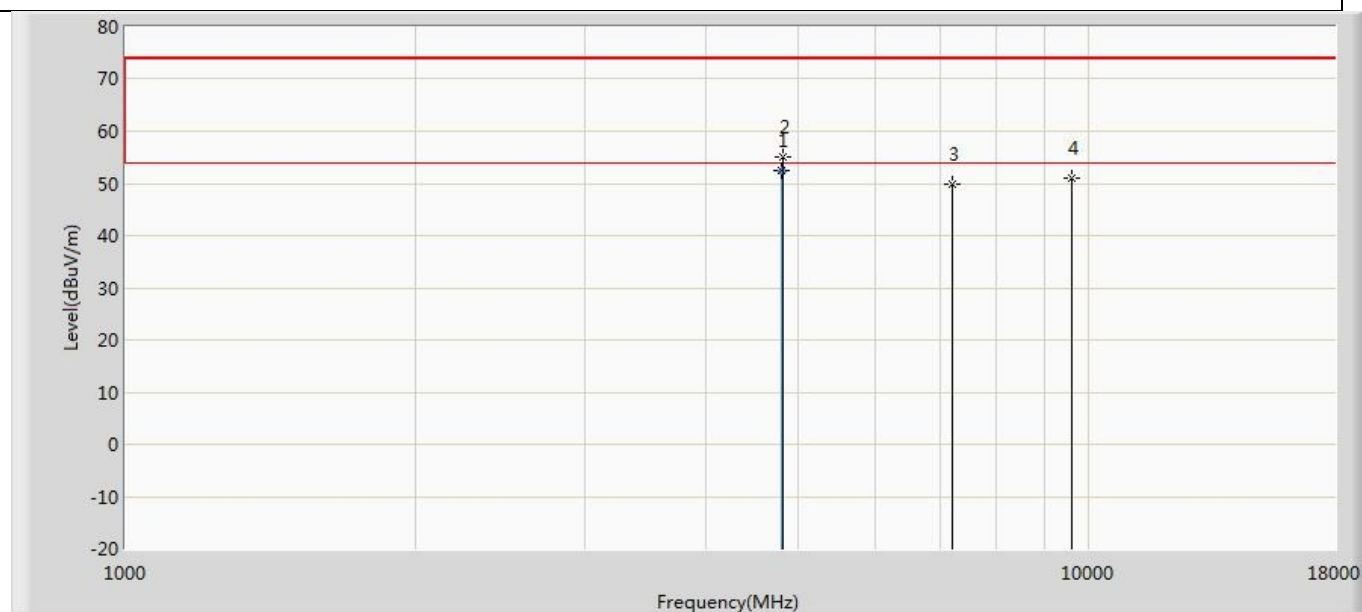


BLE_2M_Ant1_2480



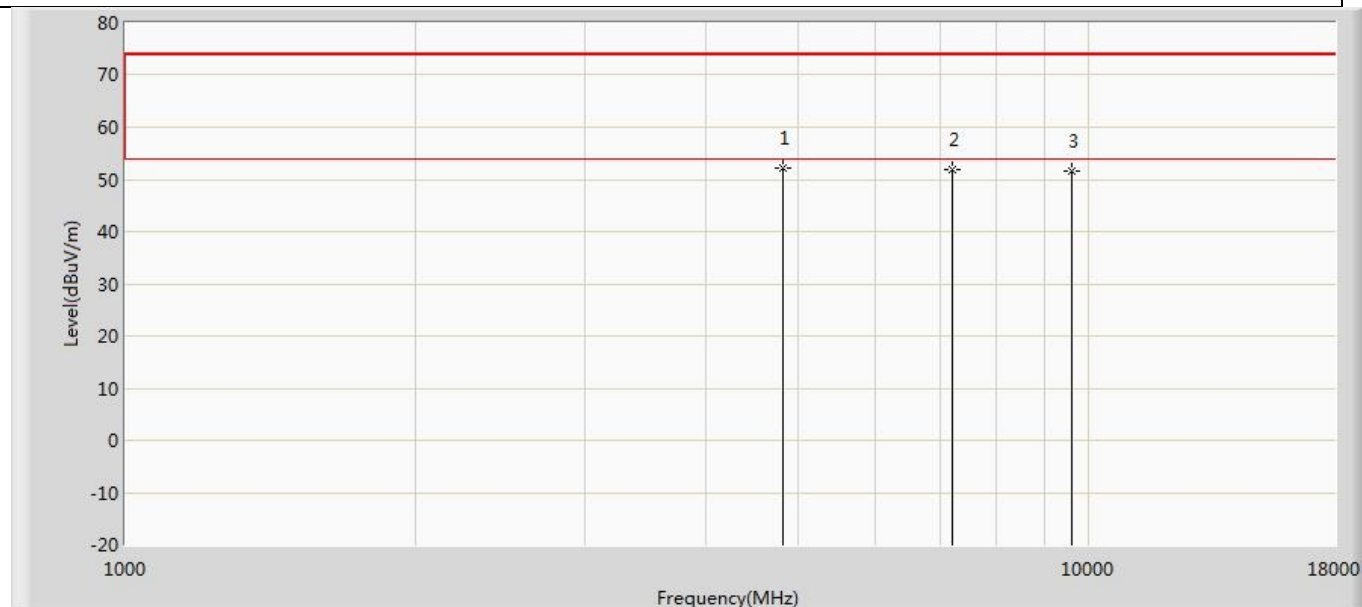
Appendix H: Emissions in Restricted Bands

Profile: 2360669R	Page No.: 13
Engineer: Pengchengyang	
Site: AC5	Time: 2023/07/14 - 20:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LocoTag	Power: Battery
Note: Mode 1 : Transmit at 2402MHz by LE_1Mbps	



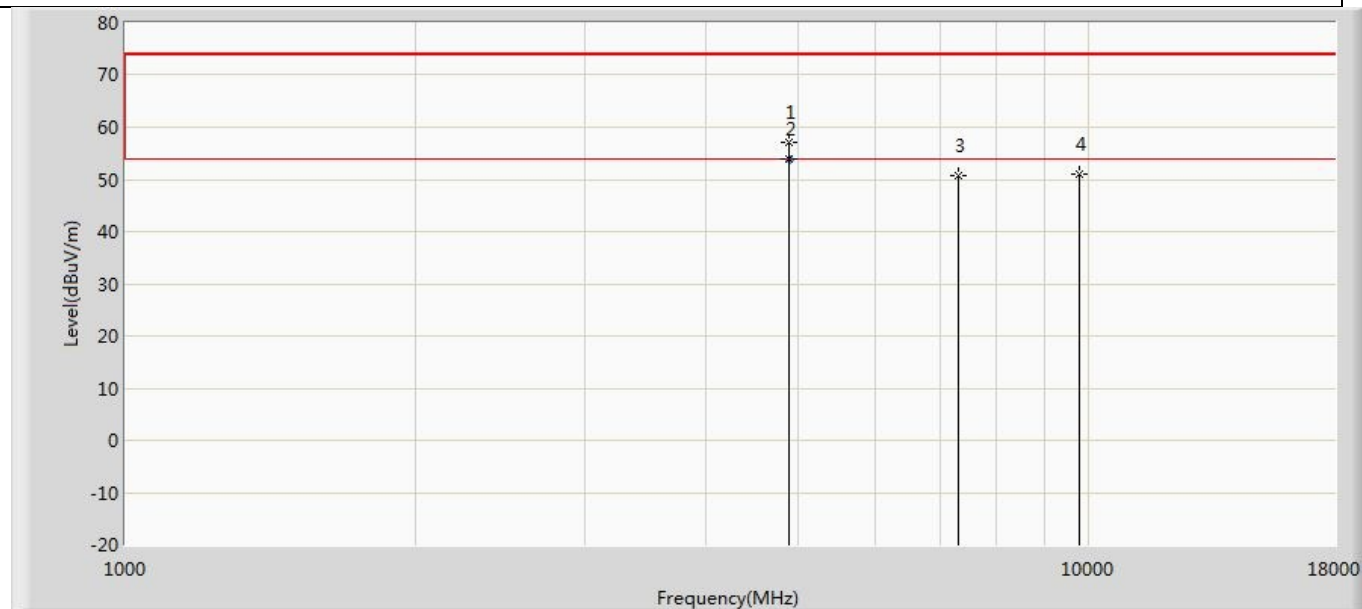
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4804.160	52.414	66.560	-1.586	54.000	-14.146	AV
2		4808.000	55.162	69.250	-18.838	74.000	-14.088	PK
3		7205.000	49.989	58.367	-24.011	74.000	-8.378	PK
4		9608.000	51.050	54.399	-22.950	74.000	-3.349	PK

Profile: 2360669R	Page No.: 14
Engineer: Pengchengyang	
Site: AC5	Time: 2023/07/14 - 20:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LocoTag	Power: Battery
Note: Mode 1 : Transmit at 2402MHz by LE_1Mbps	



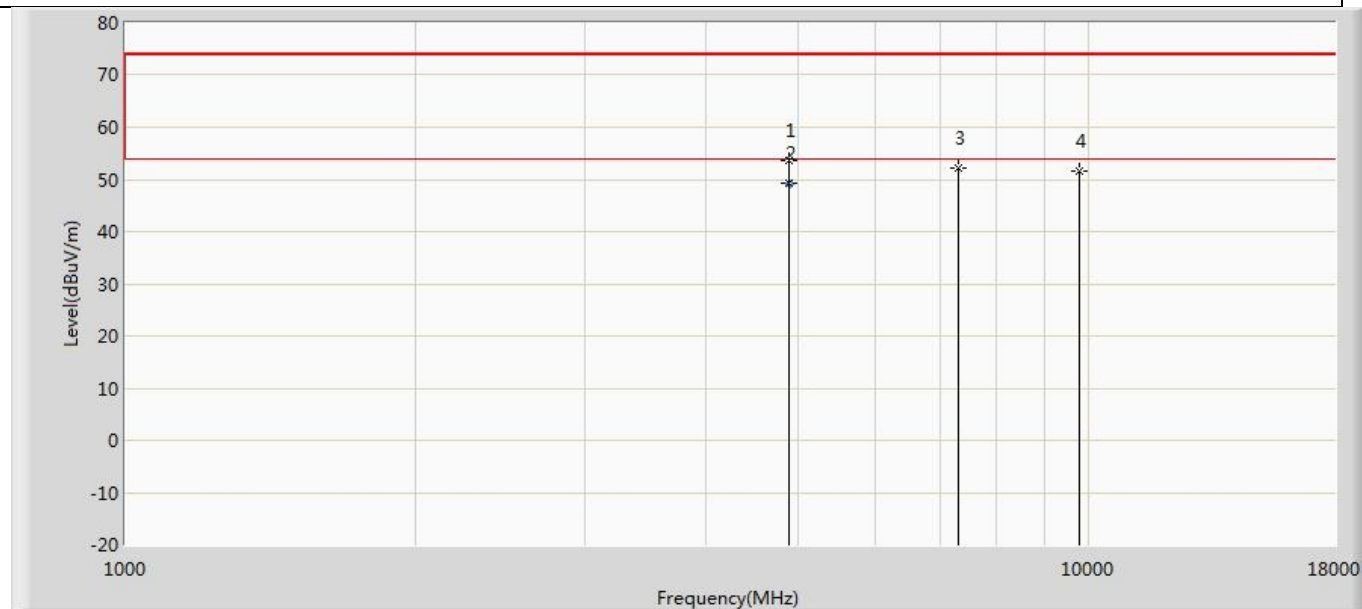
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4808.000	52.171	66.259	-21.829	74.000	-14.088	PK
2		7205.000	51.830	60.208	-22.170	74.000	-8.378	PK
3		9608.000	51.693	55.042	-22.307	74.000	-3.349	PK

Profile: 2360669R	Page No.: 15
Engineer: Pengchengyang	
Site: AC5	Time: 2023/07/14 - 20:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LocoTag	Power: Battery
Note: Mode 1 : Transmit at 2440MHz by LE_1Mbps	



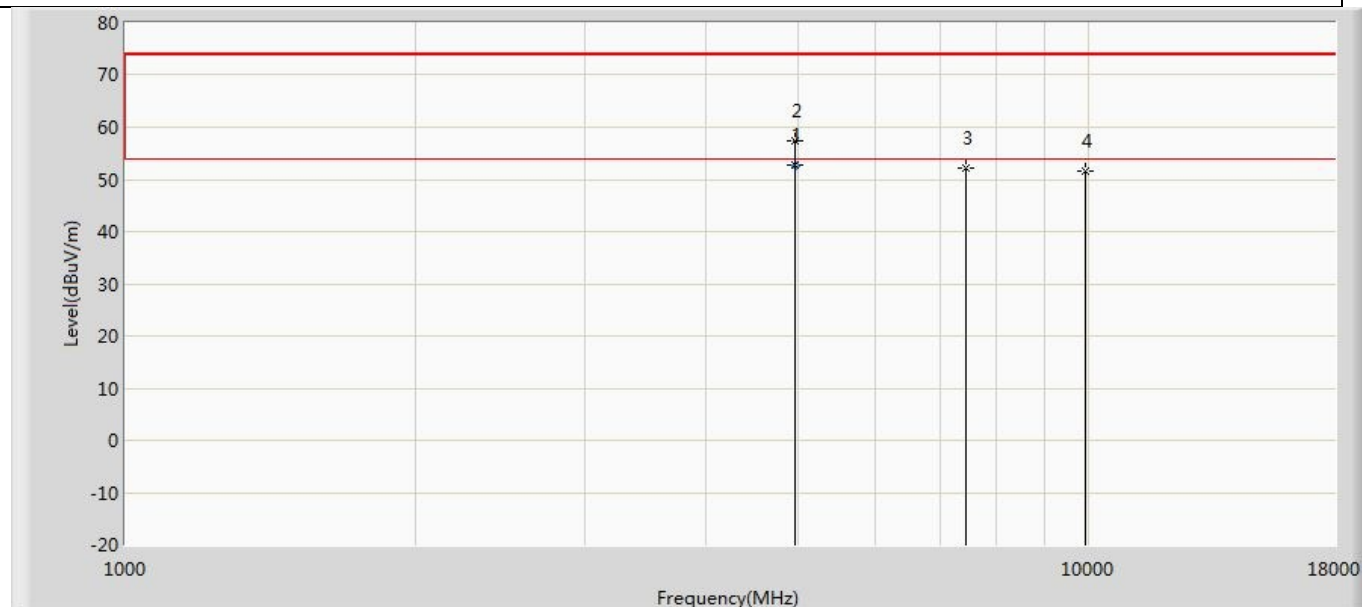
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4876.000	57.031	70.711	-16.969	74.000	-13.680	PK
2	*	4880.090	53.885	67.570	-0.115	54.000	-13.685	AV
3		7324.000	50.653	59.026	-23.347	74.000	-8.373	PK
4		9760.000	51.061	54.524	-22.939	74.000	-3.463	PK

Profile: 2360669R	Page No.: 16
Engineer: Pengchengyang	
Site: AC5	Time: 2023/07/14 - 20:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LocoTag	Power: Battery
Note: Mode 1 : Transmit at 2440MHz by LE_1Mbps	



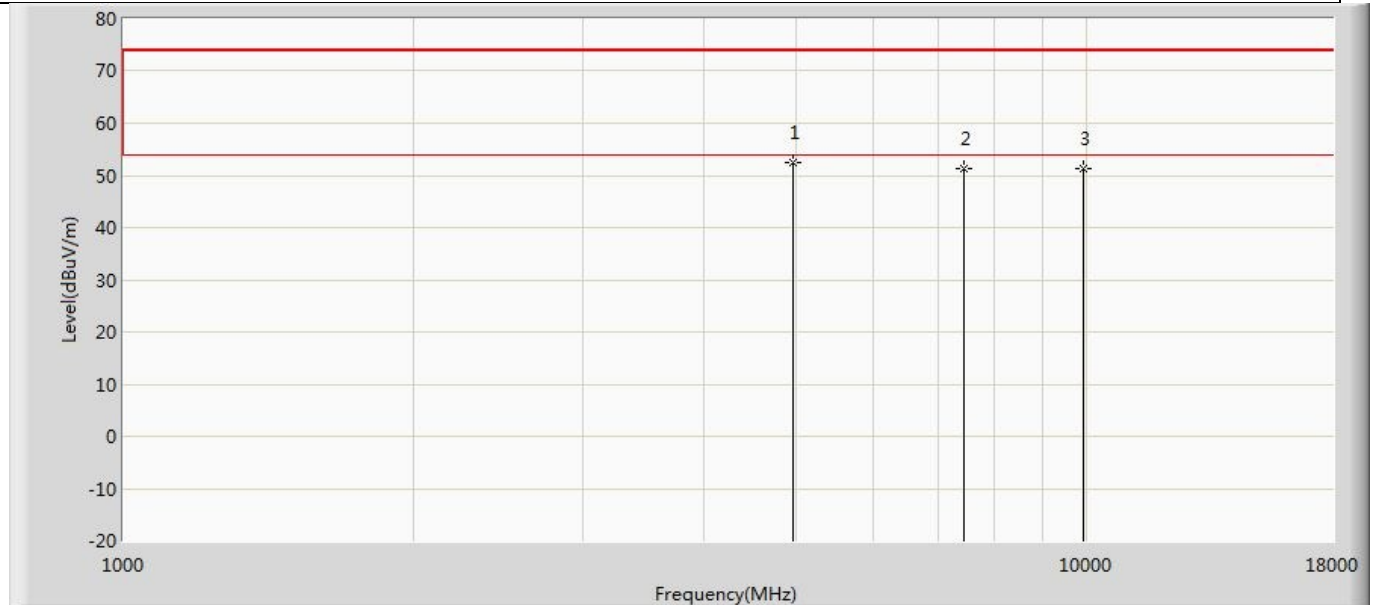
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4876.000	53.508	67.188	-20.492	74.000	-13.680	PK
2	*	4880.530	49.301	62.987	-4.699	54.000	-13.686	AV
3		7324.000	52.132	60.505	-21.868	74.000	-8.373	PK
4		9760.000	51.645	55.108	-22.355	74.000	-3.463	PK

Profile: 2360669R	Page No.: 17
Engineer: Pengchengyang	
Site: AC5	Time: 2023/07/14 - 20:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LocoTag	Power: Battery
Note: Mode 1 : Transmit at 2480MHz by LE_1Mbps	



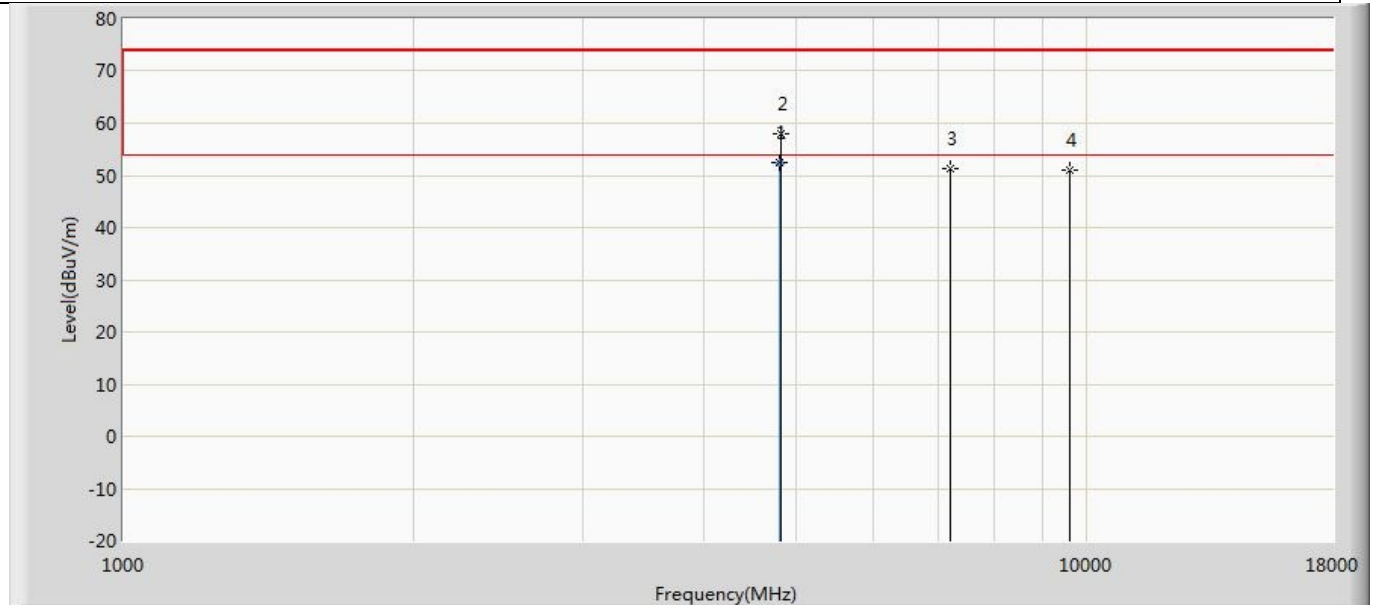
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4960.200	52.861	66.380	-1.139	54.000	-13.520	AV
2		4961.000	57.459	70.968	-16.541	74.000	-13.509	PK
3		7443.000	52.082	60.091	-21.918	74.000	-8.009	PK
4		9920.000	51.609	54.560	-22.391	74.000	-2.951	PK

Profile: 2360669R	Page No.: 18
Engineer: Pengchengyang	
Site: AC5	Time: 2023/07/14 - 20:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LocoTag	Power: Battery
Note: Mode 1 : Transmit at 2480MHz by LE_1Mbps	



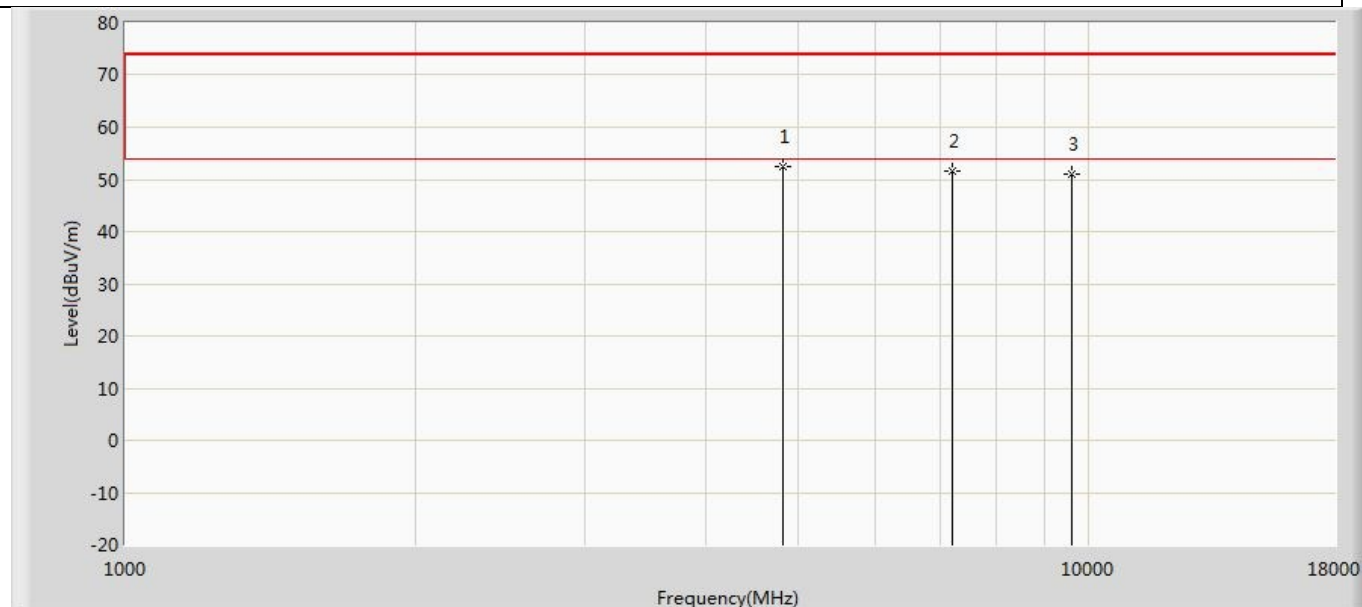
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4961.000	52.471	65.980	-21.529	74.000	-13.509	PK
2		7443.000	51.375	59.384	-22.625	74.000	-8.009	PK
3		9920.000	51.433	54.384	-22.567	74.000	-2.951	PK

Profile: 2360669R	Page No.: 19
Engineer: Pengchengyang	
Site: AC5	Time: 2023/07/14 - 20:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LocoTag	Power: Battery
Note: Mode 2 : Transmit at 2402MHz by LE_2Mbps	



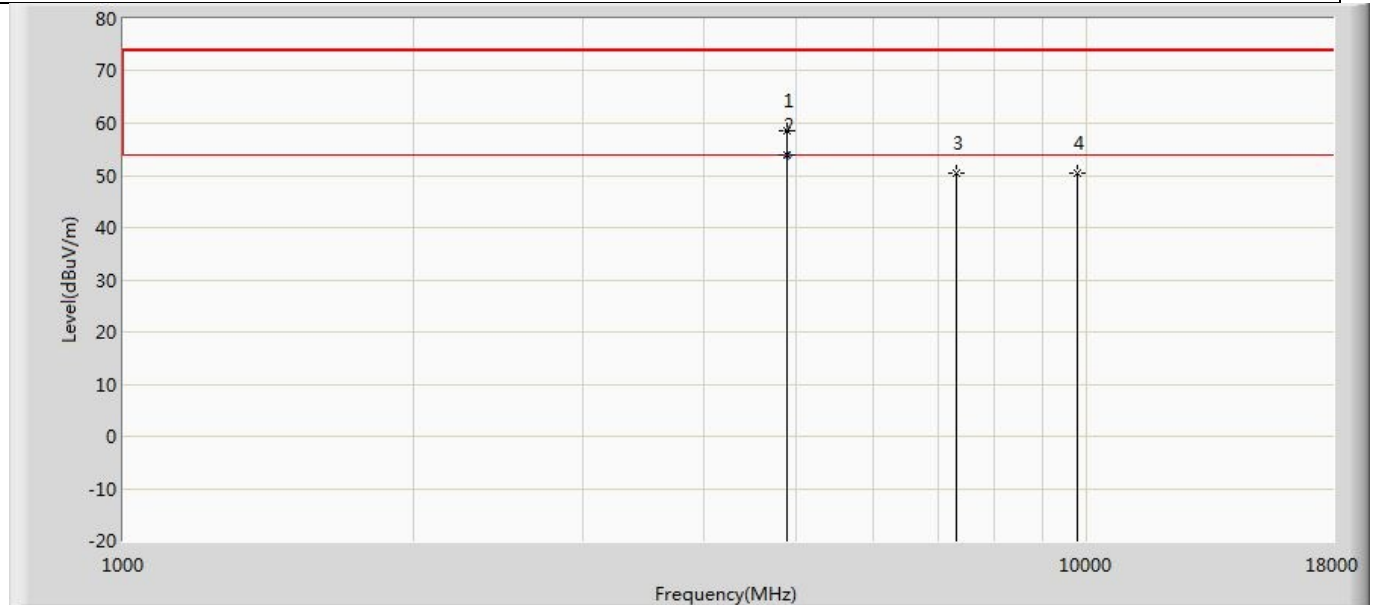
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4804.870	52.355	66.490	-1.645	54.000	-14.134	AV
2		4808.000	57.870	71.958	-16.130	74.000	-14.088	PK
3		7205.000	51.286	59.664	-22.714	74.000	-8.378	PK
4		9608.000	50.919	54.268	-23.081	74.000	-3.349	PK

Profile: 2360669R	Page No.: 20
Engineer: Pengchengyang	
Site: AC5	Time: 2023/07/14 - 20:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LocoTag	Power: Battery
Note: Mode 2 : Transmit at 2402MHz by LE_2Mbps	



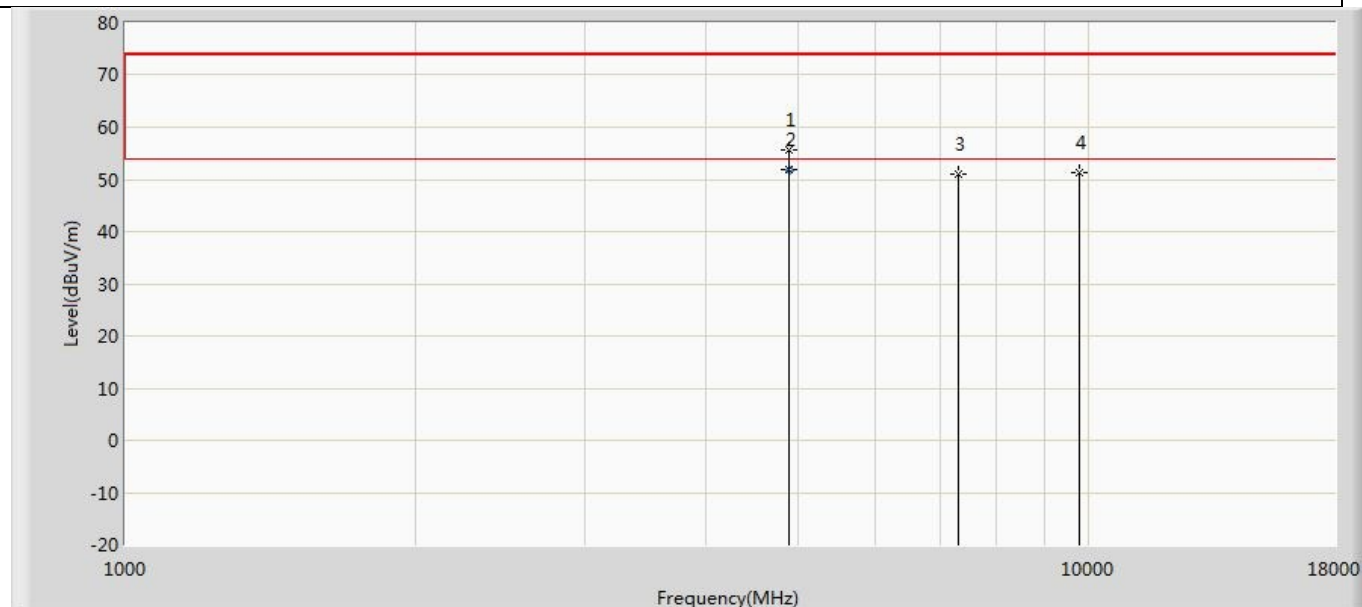
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4808.000	52.358	66.446	-21.642	74.000	-14.088	PK
2		7205.000	51.491	59.869	-22.509	74.000	-8.378	PK
3		9608.000	50.908	54.257	-23.092	74.000	-3.349	PK

Profile: 2360669R	Page No.: 21
Engineer: Pengchengyang	
Site: AC5	Time: 2023/07/14 - 20:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LocoTag	Power: Battery
Note: Mode 2 : Transmit at 2440MHz by LE_2Mbps	



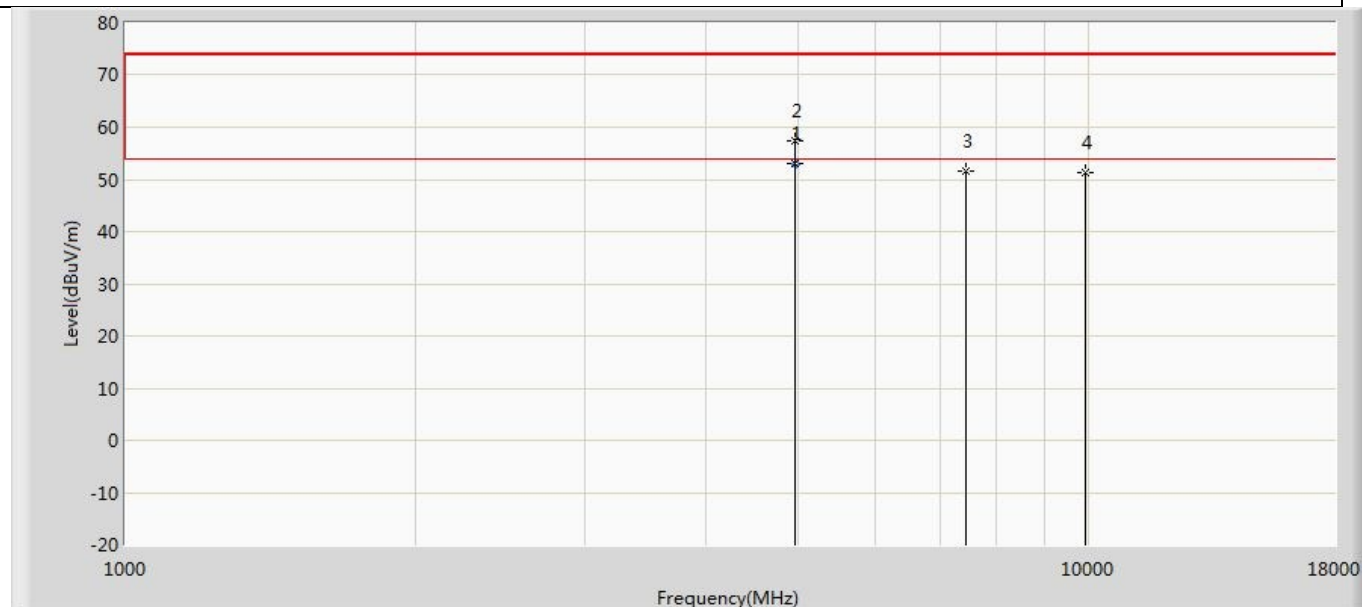
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4876.000	58.406	72.086	-15.594	74.000	-13.680	PK
2	*	4880.850	53.816	67.502	-0.184	54.000	-13.687	AV
3		7324.000	50.473	58.846	-23.527	74.000	-8.373	PK
4		9760.000	50.324	53.787	-23.676	74.000	-3.463	PK

Profile: 2360669R	Page No.: 22
Engineer: Pengchengyang	
Site: AC5	Time: 2023/07/14 - 20:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LocoTag	Power: Battery
Note: Mode 2 : Transmit at 2440MHz by LE_2Mbps	



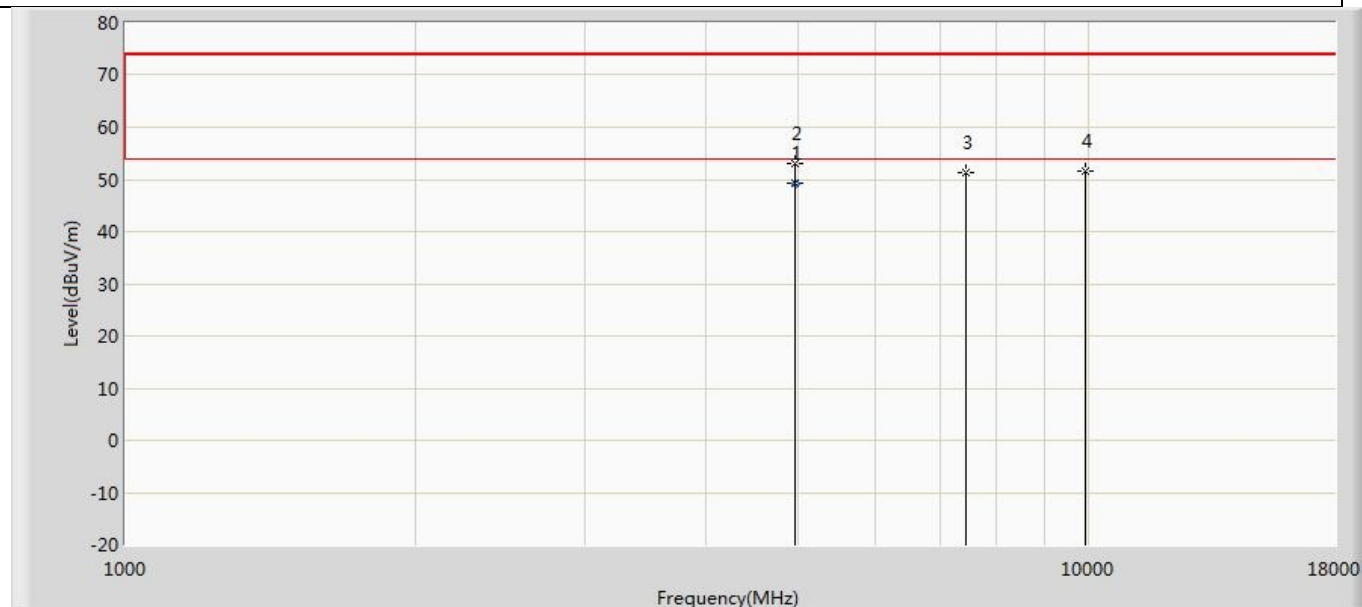
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4876.000	55.711	69.391	-18.289	74.000	-13.680	PK
2	*	4879.200	51.756	65.440	-2.244	54.000	-13.685	AV
3		7324.000	51.122	59.495	-22.878	74.000	-8.373	PK
4		9760.000	51.240	54.703	-22.760	74.000	-3.463	PK

Profile: 2360669R	Page No.: 23
Engineer: Pengchengyang	
Site: AC5	Time: 2023/07/14 - 20:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LocoTag	Power: Battery
Note: Mode 2 : Transmit at 2480MHz by LE_2Mbps	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4960.540	53.109	66.624	-0.891	54.000	-13.514	AV
2		4961.000	57.526	71.035	-16.474	74.000	-13.509	PK
3		7443.000	51.465	59.474	-22.535	74.000	-8.009	PK
4		9920.000	51.306	54.257	-22.694	74.000	-2.951	PK

Profile: 2360669R	Page No.: 24
Engineer: Pengchengyang	
Site: AC5	Time: 2023/07/14 - 20:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LocoTag	Power: Battery
Note: Mode 2 : Transmit at 2480MHz by LE_2Mbps	



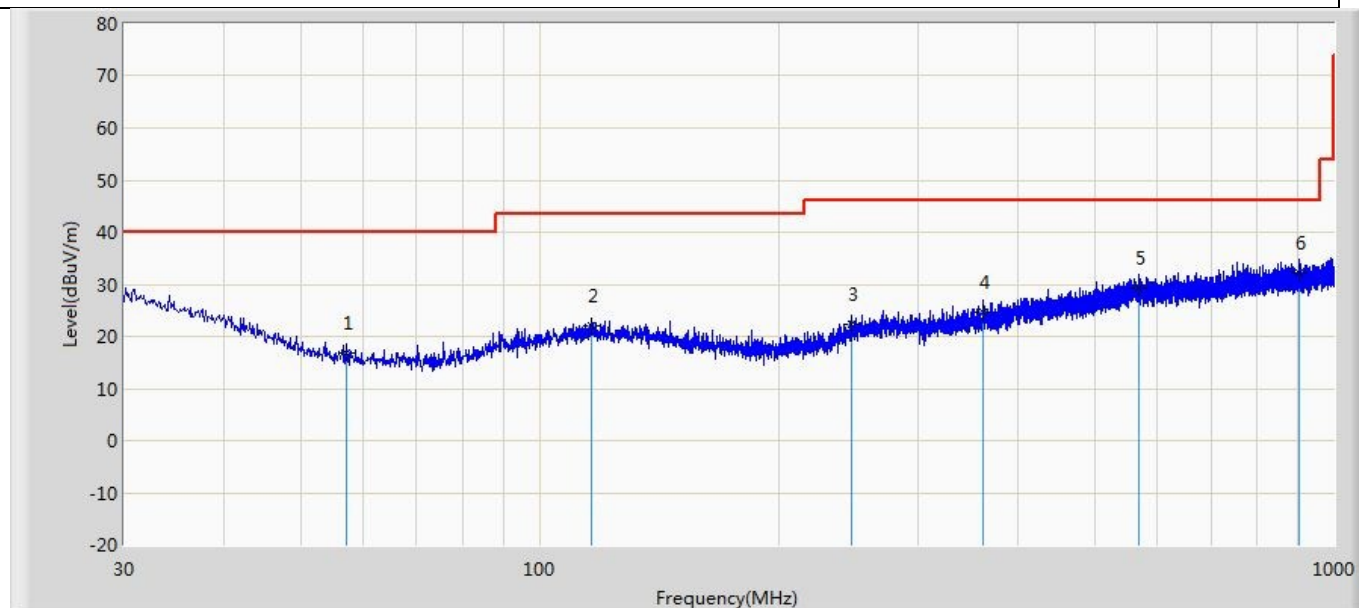
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4960.240	49.220	62.739	-4.780	54.000	-13.519	AV
2		4961.000	53.156	66.665	-20.844	74.000	-13.509	PK
3		7443.000	51.338	59.347	-22.662	74.000	-8.009	PK
4		9920.000	51.700	54.651	-22.300	74.000	-2.951	PK

Note:

1. Measured Level = Reading Level + Factor.
2. The test frequency range, 9kHz~30MHz, worst case are at least 20dB below the limits, therefore no data appear in the report.
3. The test frequency range, 18GHz~26GHz test result on peak is lower than average limit, all is the noise base, therefore no data appear in the report.
4. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

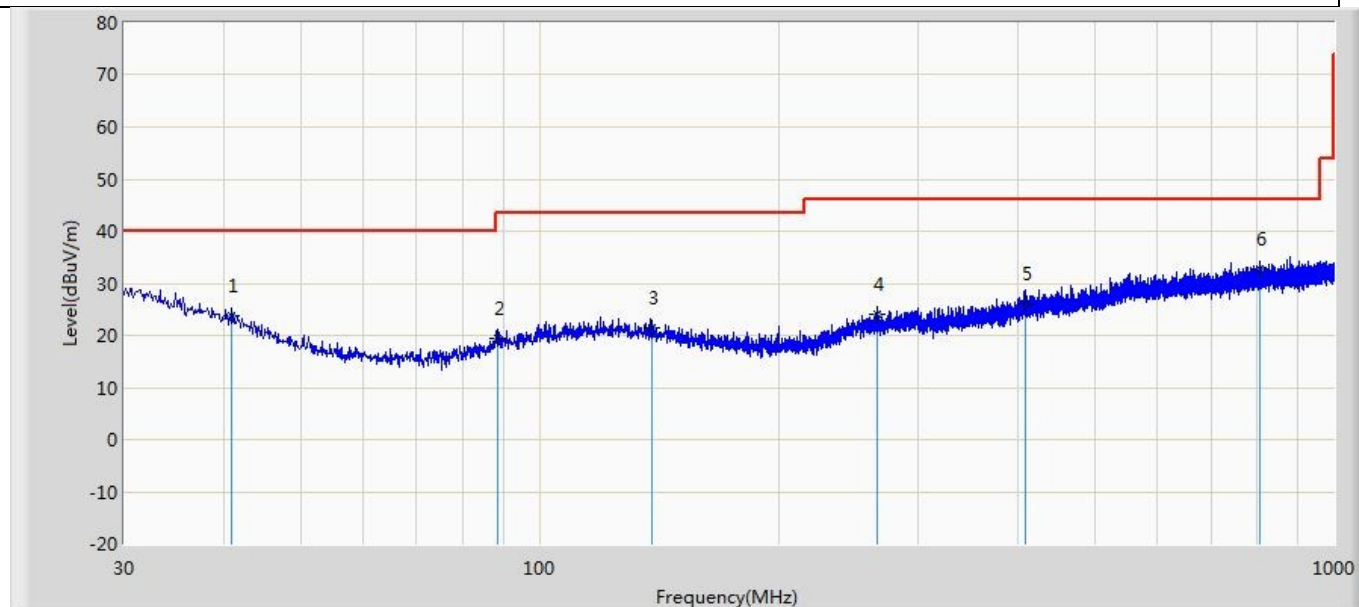
The worst case of Radiated Emission below 1GHz :

Profile: 2360669R	Page No.: 21
Engineer: Pengchengyang	
Site: AC2	Time: 2023/07/14 - 00:01
Limit: FCC_Part 15.109_RE (3m)_Class B	Margin: 0
Probe: CBL6112B_2933(30-1000MHz)	Polarity: Horizontal
EUT: LocoTrack Primary	Power: Battery
Note: Mode 1 : Transmit at 2402MHz by LE_1MHz	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		57.039	16.954	3.422	-23.046	40.000	13.532	QP
2		116.451	21.973	3.176	-21.527	43.500	18.798	QP
3		247.523	22.420	2.852	-23.580	46.000	19.568	QP
4		361.983	24.495	2.089	-21.505	46.000	22.406	QP
5		567.622	29.388	2.287	-16.612	46.000	27.101	QP
6	*	904.334	32.288	2.787	-13.712	46.000	29.501	QP

Profile: 2360669R	Page No.: 22
Engineer: Pengchengyang	
Site: AC2	Time: 2023/07/14 - 00:01
Limit: FCC_Part 15.109_RE (3m)_Class B	Margin: 0
Probe: CBL6112B_2933(30-1000MHz)	Polarity: Vertical
EUT: LocoTrack Primary	Power: Battery
Note: Mode 1 : Transmit at 2402MHz by LE_1MHz	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		41.034	23.910	3.724	-16.090	40.000	20.186	QP
2		88.442	19.390	3.738	-24.110	43.500	15.652	QP
3		138.398	21.400	3.160	-22.100	43.500	18.240	QP
4		266.559	23.945	3.641	-22.055	46.000	20.304	QP
5		409.027	26.166	2.195	-19.834	46.000	23.971	QP
6	*	807.940	32.632	3.604	-13.368	46.000	29.028	QP

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp)

he End