

Test Report No.50135911 001

Appendix D: Radiated and Mains Spurious Emission Data

(File: 50135911AppendixD)

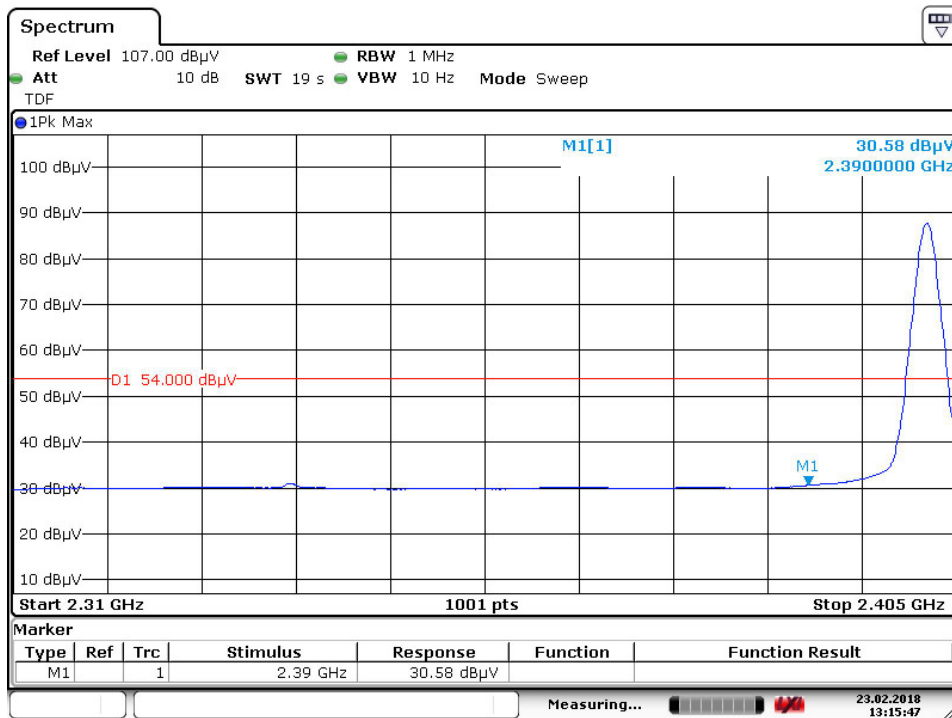
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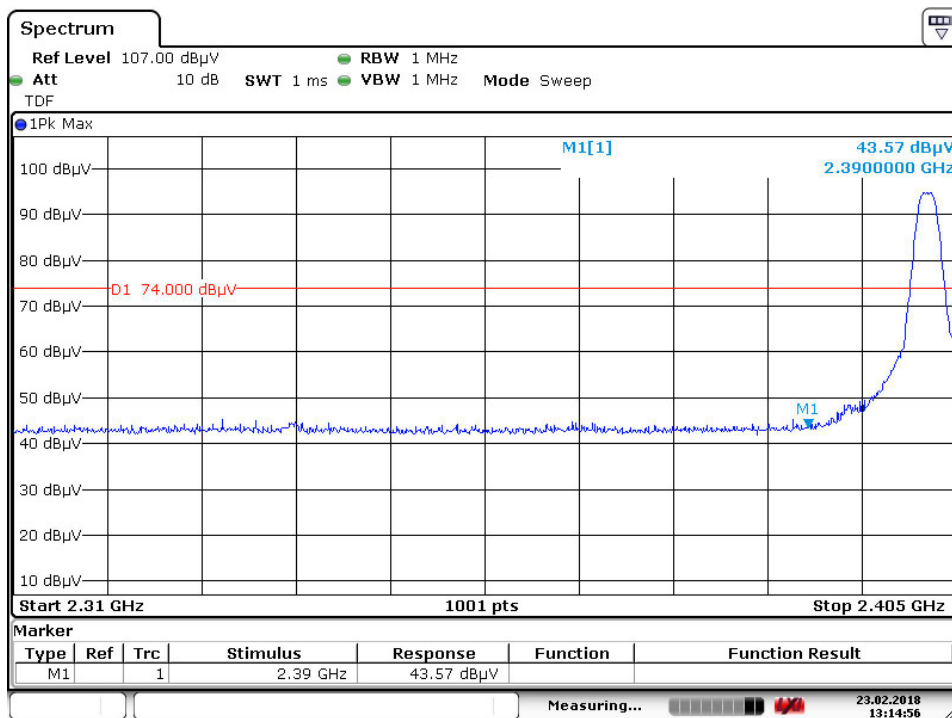
Radiated Emissions, Band Edges

Radiated Bandedge (GFSK), BLE

Low Channel (Hor)



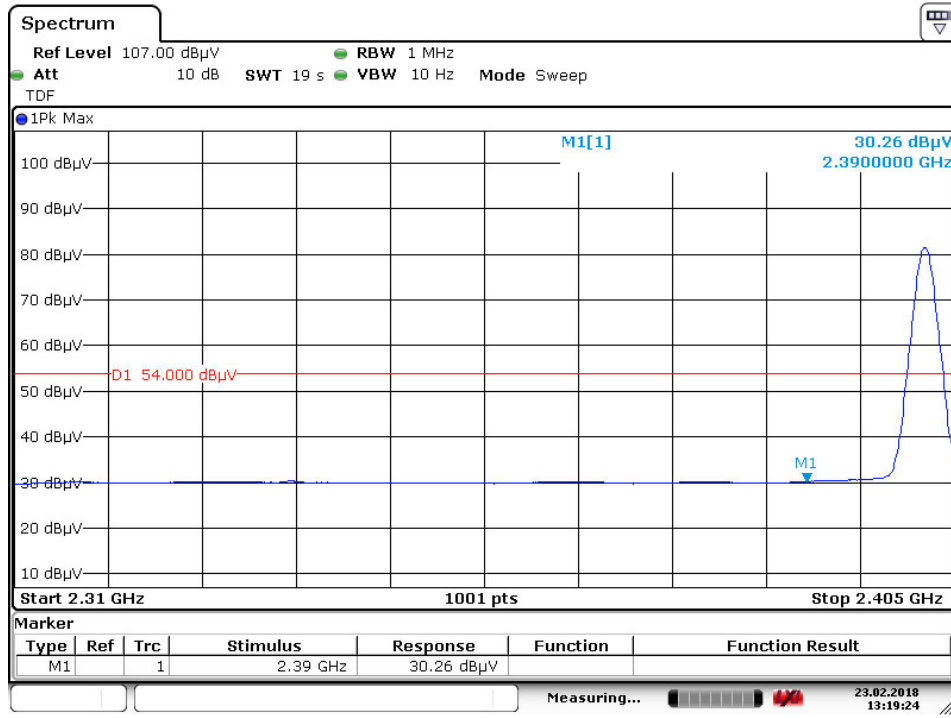
Date: 23.FEB.2018 13:15:46



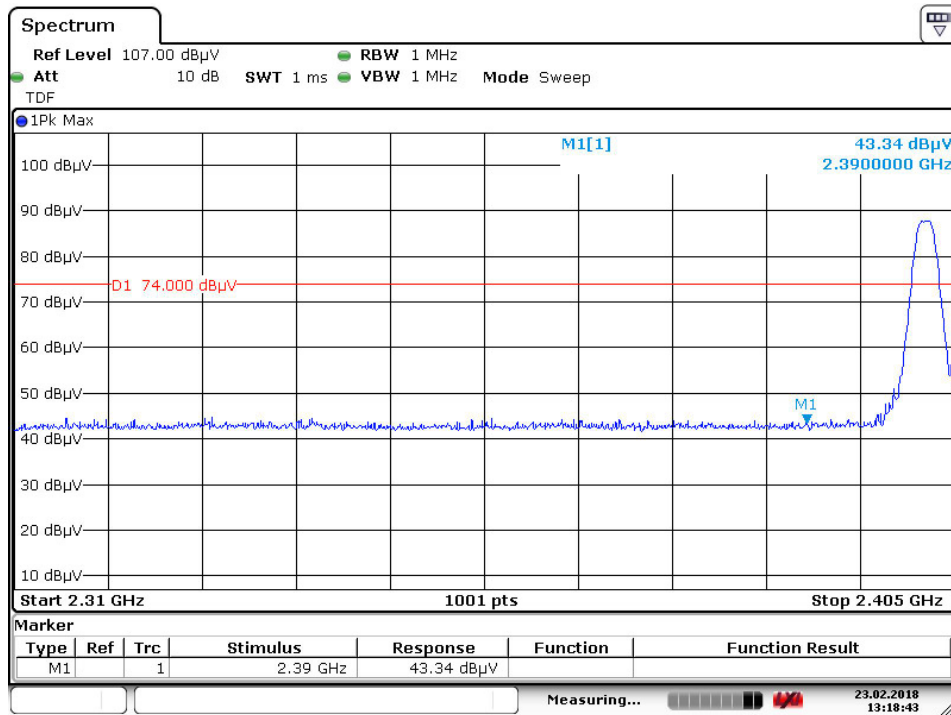
Date: 23.FEB.2018 13:14:56

Spurious Emissions, Band Edge, 2.35-2.5G

Low Channel (Ver)



Date: 23.FEB.2018 13:19:24

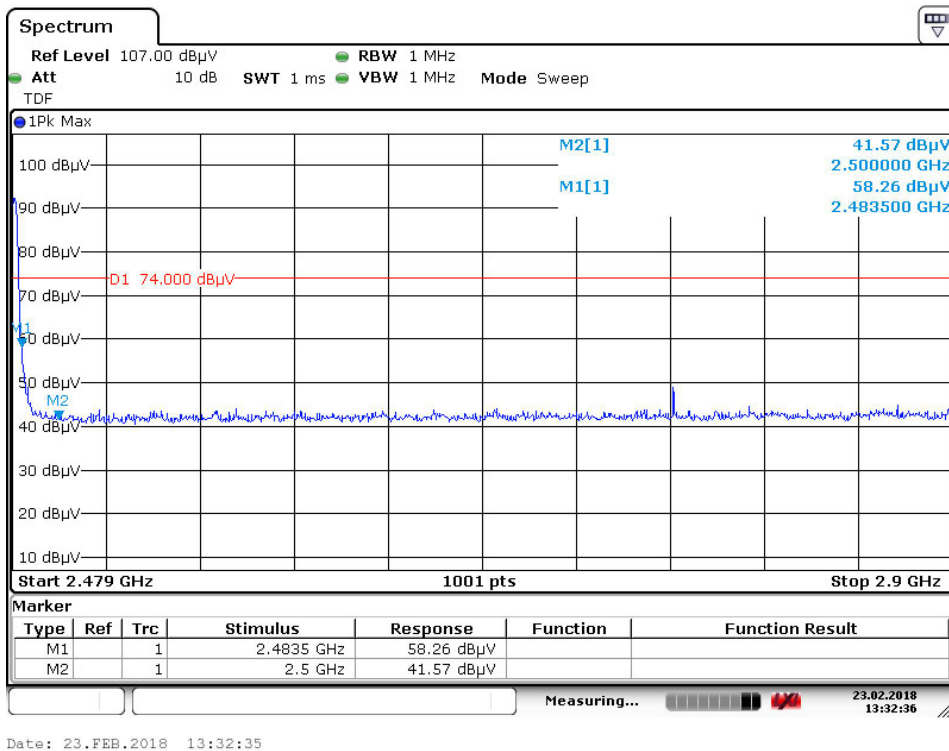
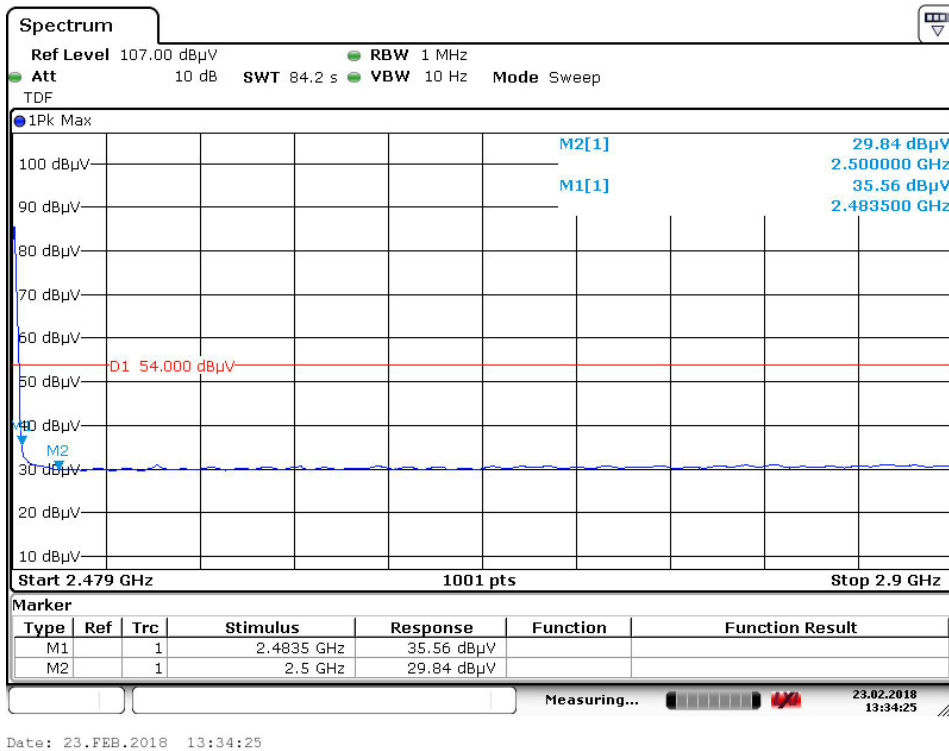


Date: 23.FEB.2018 13:18:43

Spurious Emissions, Band Edge, 2.35-2.5G

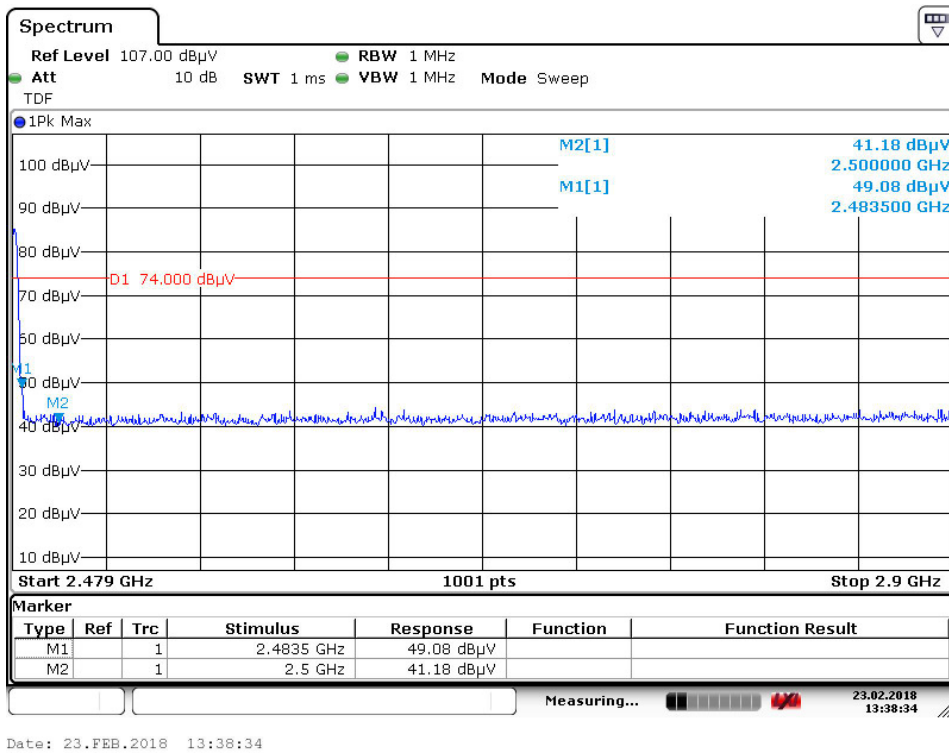
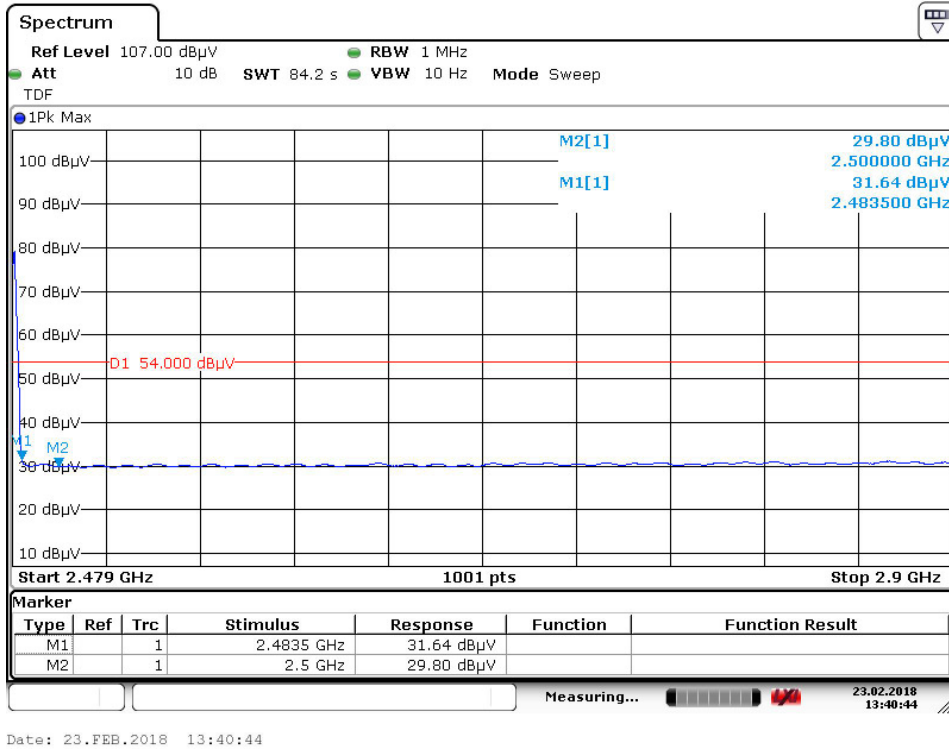
Radiated Bandedge (GFSK)

High Channel (Hor)



Spurious Emissions, Band Edge, 2.35-2.5G

High Channel (Ver)

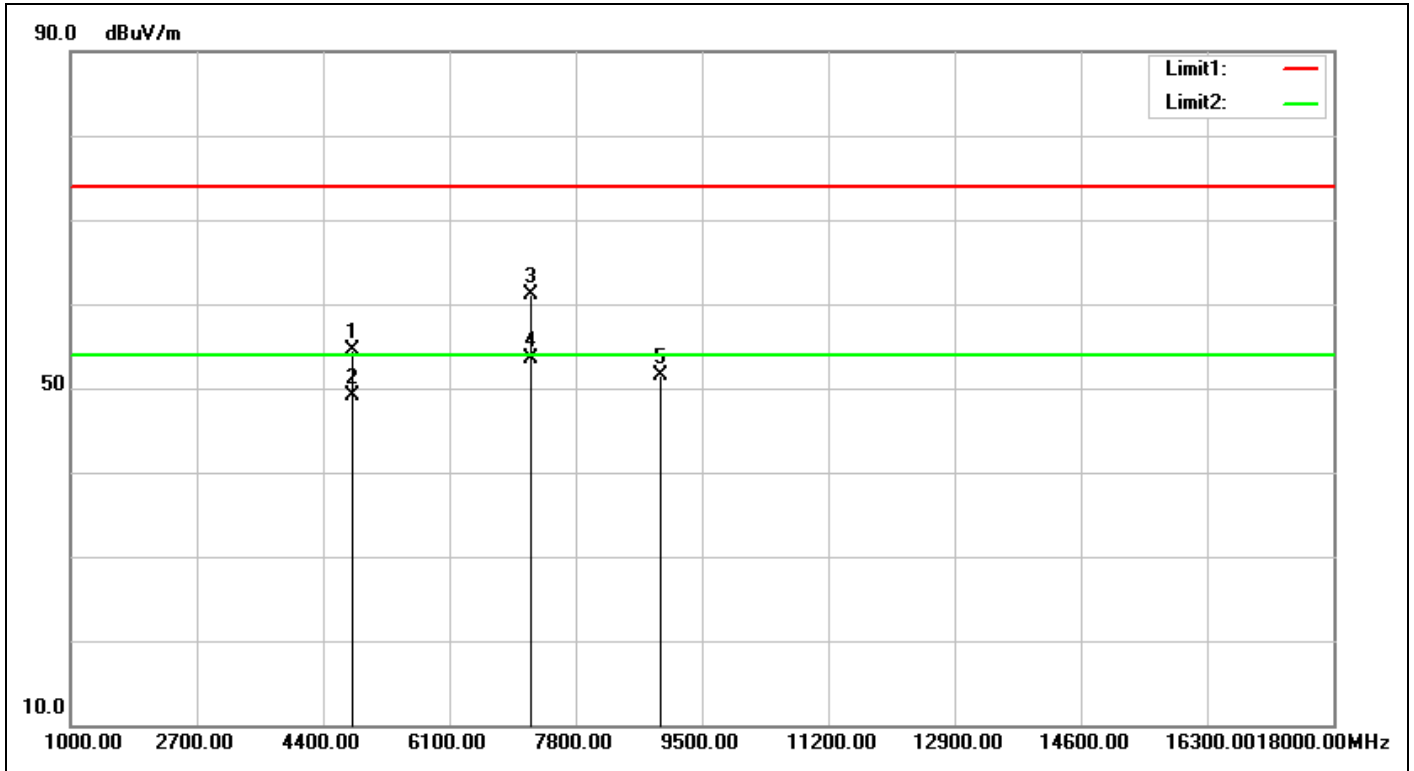


Spurious Emissions, Band Edge, 2.35-2.5G

Spurious Emissions, TX Mode, 1-18G

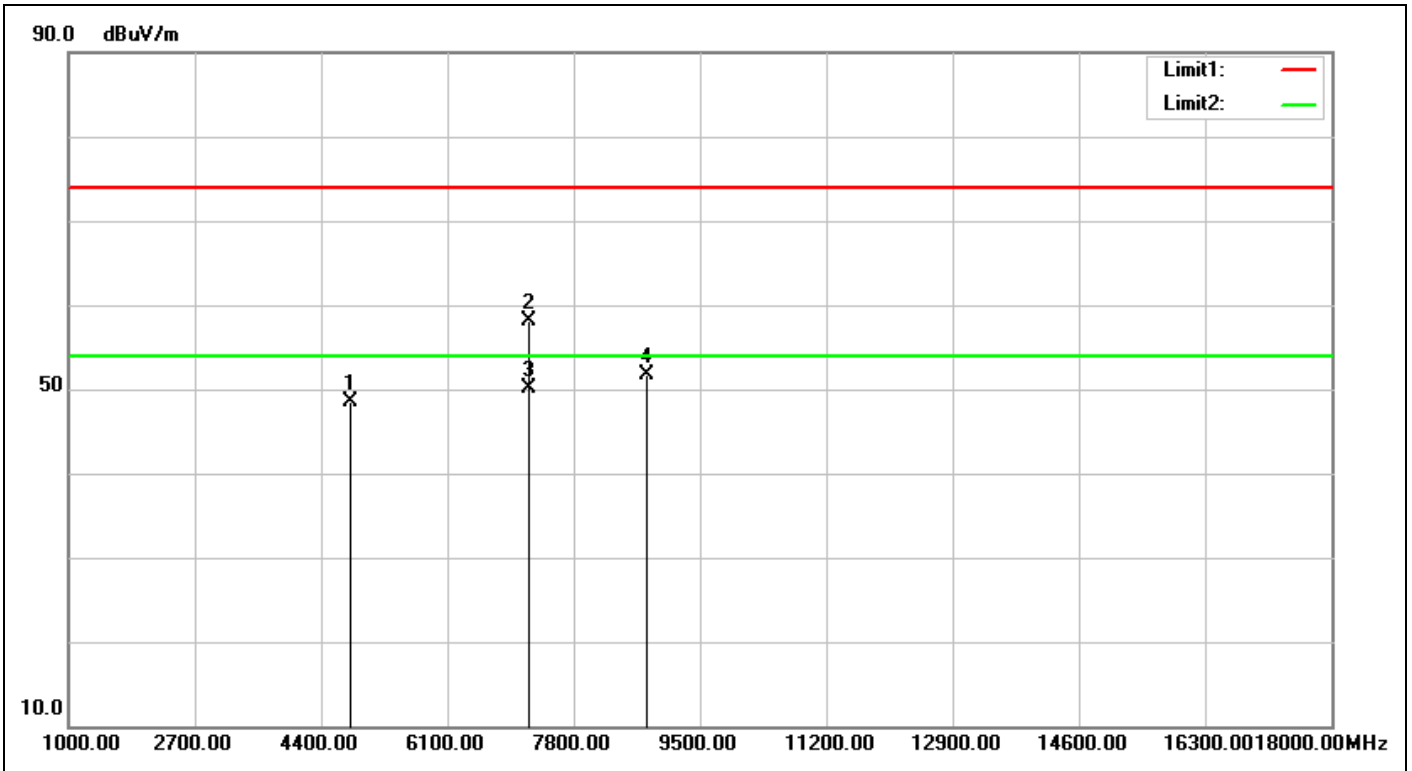


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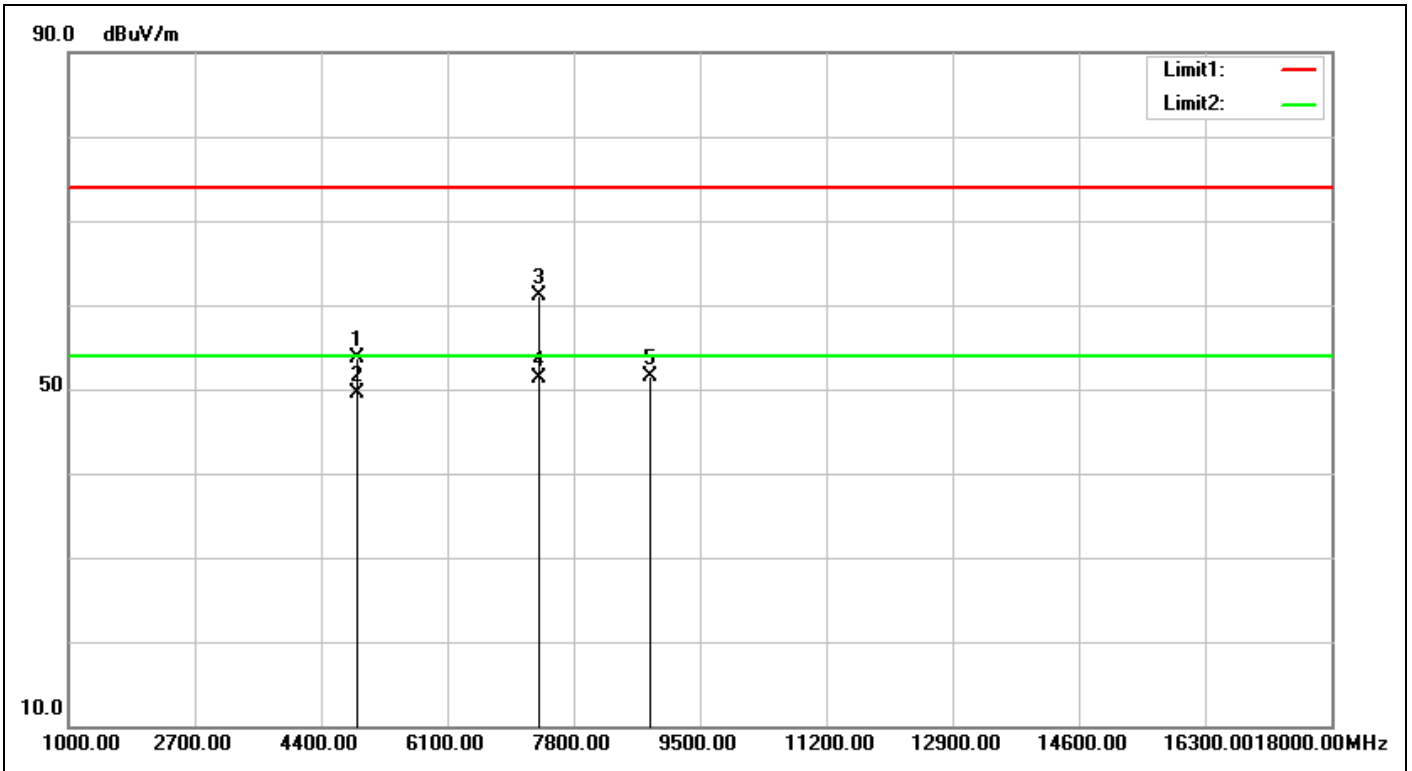
Service No.:	114070584	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/2/23 11:24:51
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	19.1(°C)/61%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2402-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4804.000	-2.72	57.14	54.42	74.00	-19.58	peak	100	148	
2	4804.000	-2.72	51.92	49.20	54.00	-4.80	AVG	100	148	
3	7206.000	5.25	55.93	61.18	74.00	-12.82	peak	100	217	
4	7206.000	5.25	48.33	53.58	54.00	-0.42	AVG	100	217	
5	8939.000	6.43	45.05	51.48	74.00	-22.52	peak	100	114	



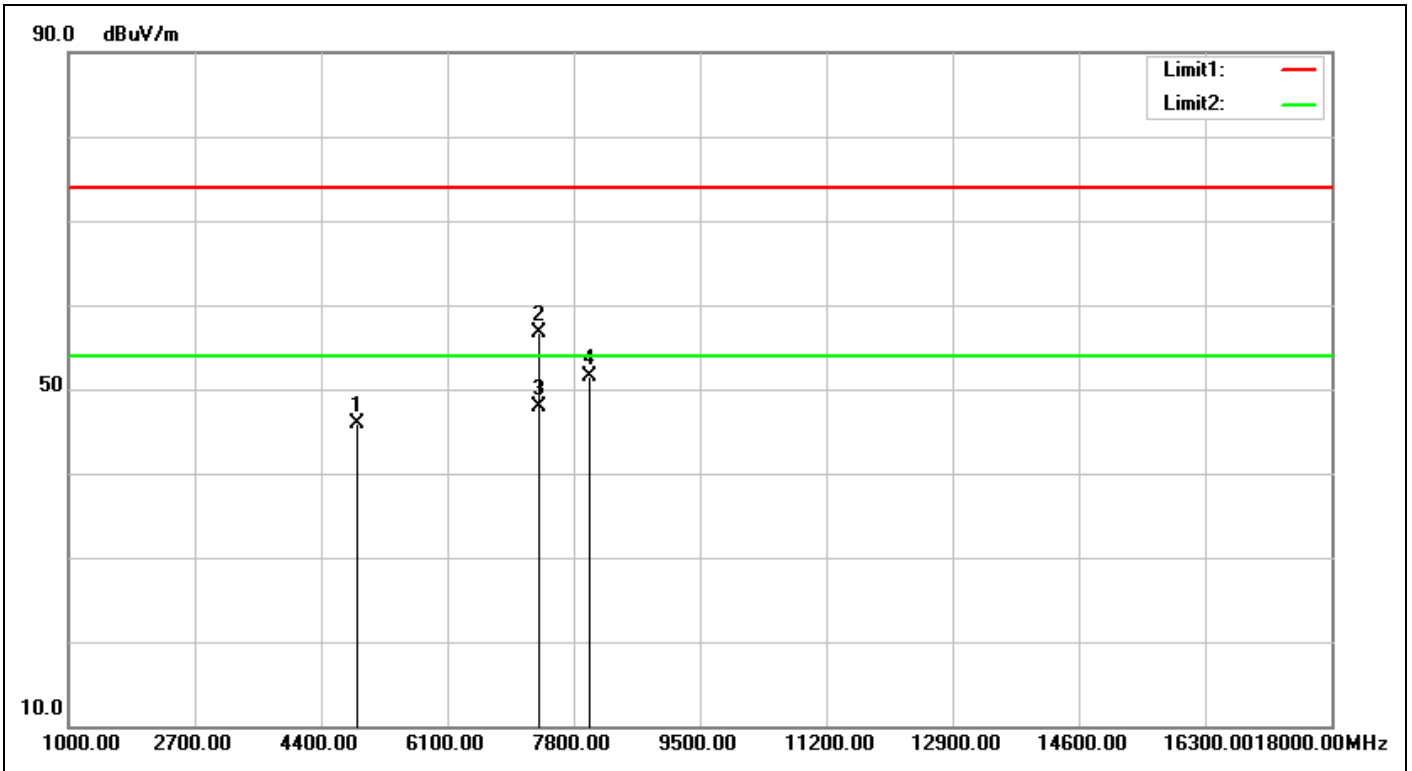
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Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/2/23 11:25:54
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	19.1(°C)/61%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2402-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4804.000	-2.72	51.32	48.60	74.00	-25.40	peak	100	108	
2	7206.000	5.25	52.94	58.19	74.00	-15.81	peak	100	85	
3	7206.000	5.25	44.95	50.20	54.00	-3.80	AVG	100	85	
4	8786.000	6.42	45.34	51.76	74.00	-22.24	peak	100	16	



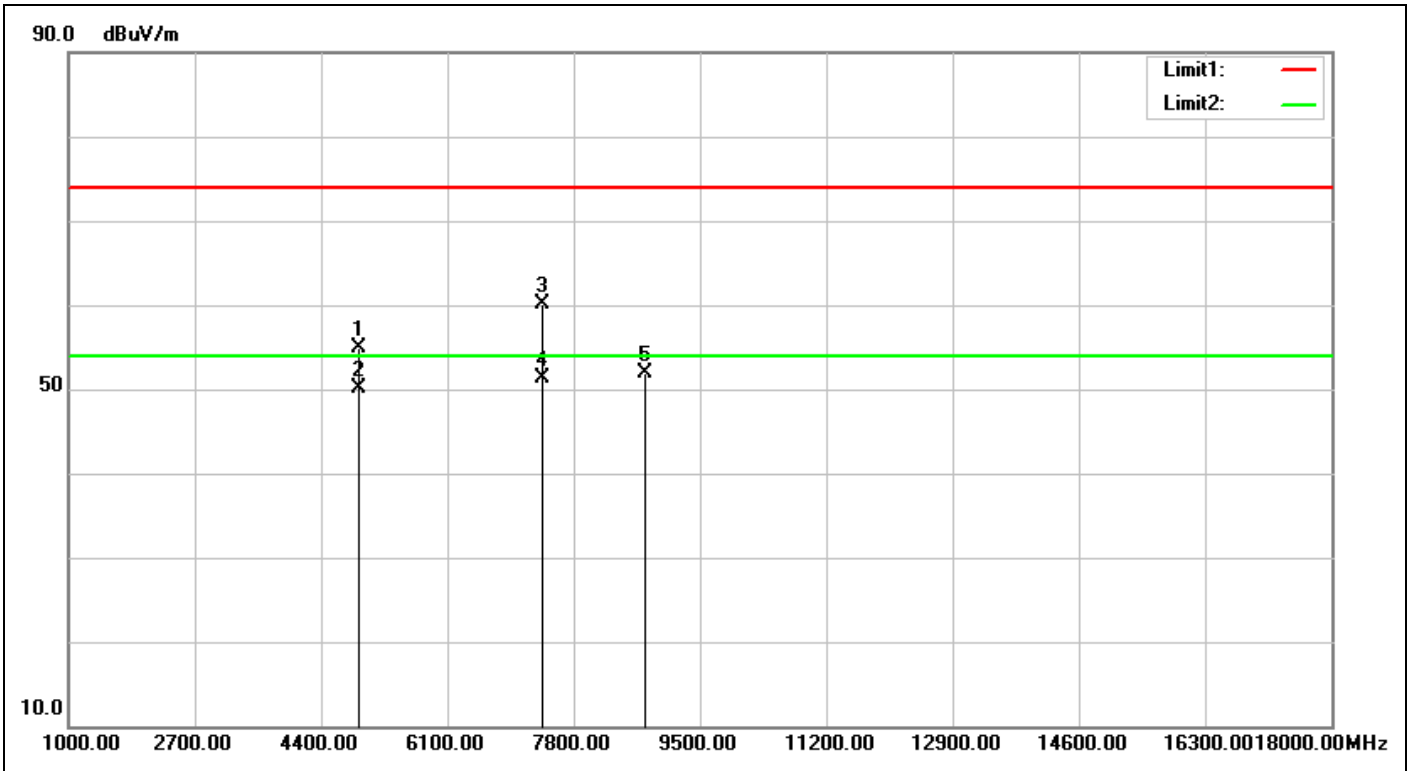
Service No.:	114070584	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/2/23 11:35:07
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	19.1(°C)/61%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2440-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4880.000	-2.50	56.23	53.73	74.00	-20.27	peak	100	153	
2	4880.000	-2.50	51.96	49.46	54.00	-4.54	AVG	100	153	
3	7320.000	5.54	55.62	61.16	74.00	-12.84	peak	100	214	
4	7320.000	5.54	45.86	51.40	54.00	-2.60	AVG	100	214	
5	8820.000	6.41	45.11	51.52	74.00	-22.48	peak	100	39	



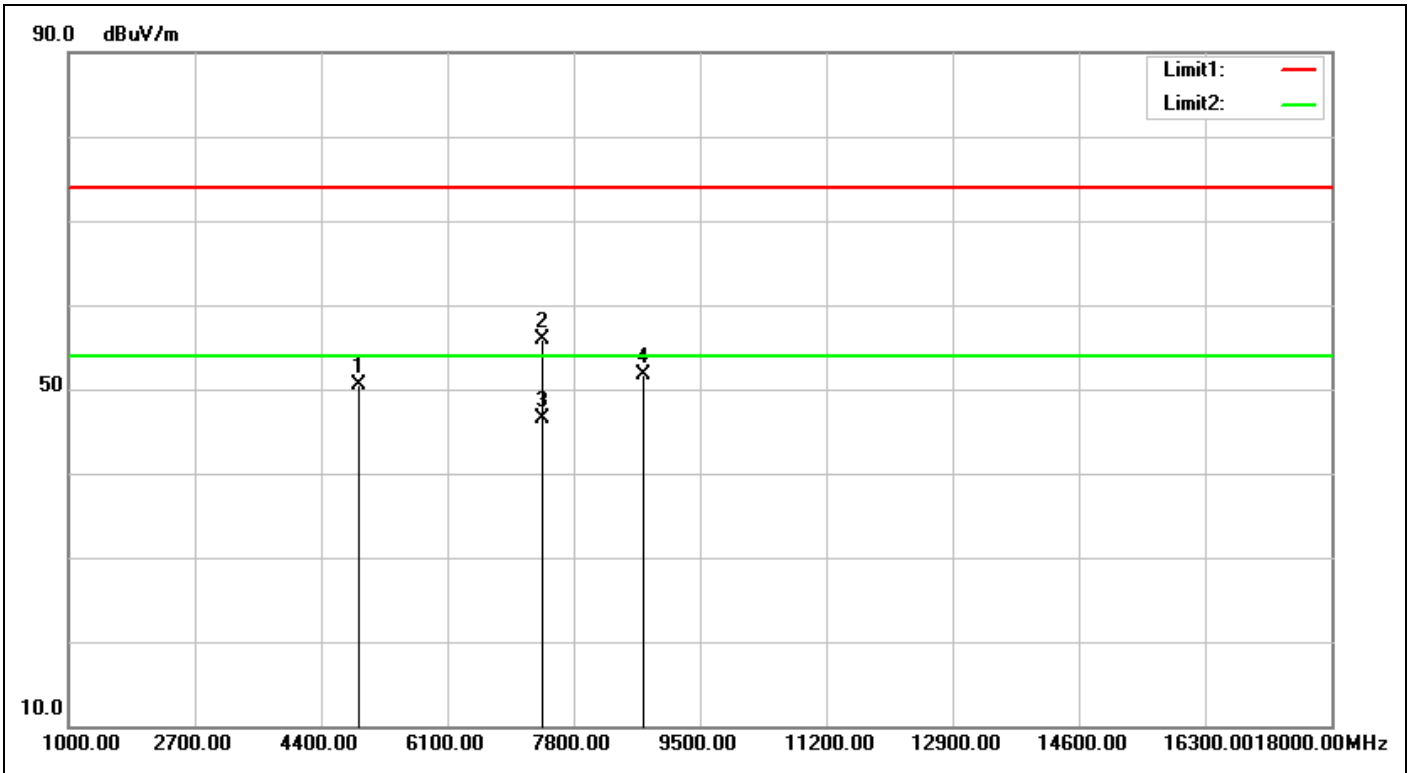
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Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/2/23 11:36:09
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	19.1(°C)/61%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2440-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4880.000	-2.50	48.49	45.99	74.00	-28.01	peak			
2	7320.000	5.54	51.20	56.74	74.00	-17.26	peak	100	85	
3	7320.000	5.54	42.30	47.84	54.00	-6.16	AVG	100	85	
4	8021.000	5.85	45.70	51.55	74.00	-22.45	peak	100	312	



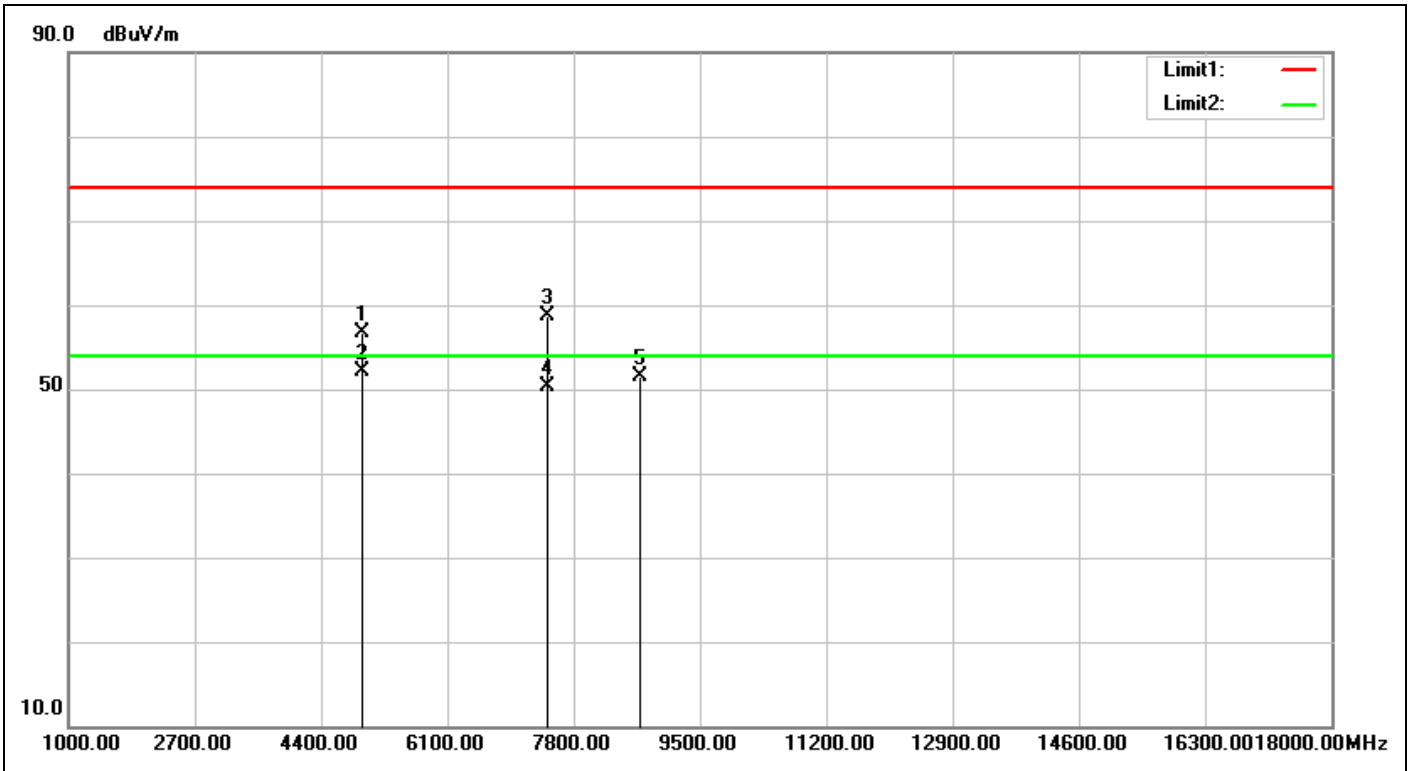
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Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/2/23 11:44:09
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	19.1(°C)/61%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2457-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4914.000	-2.40	57.35	54.95	74.00	-19.05	peak	100	317	
2	4914.000	-2.40	52.57	50.17	54.00	-3.83	AVG	100	317	
3	7371.000	5.67	54.38	60.05	74.00	-13.95	peak	100	252	
4	7371.000	5.67	45.63	51.30	54.00	-2.70	AVG	100	252	
5	8752.000	6.41	45.40	51.81	74.00	-22.19	peak	100	92	



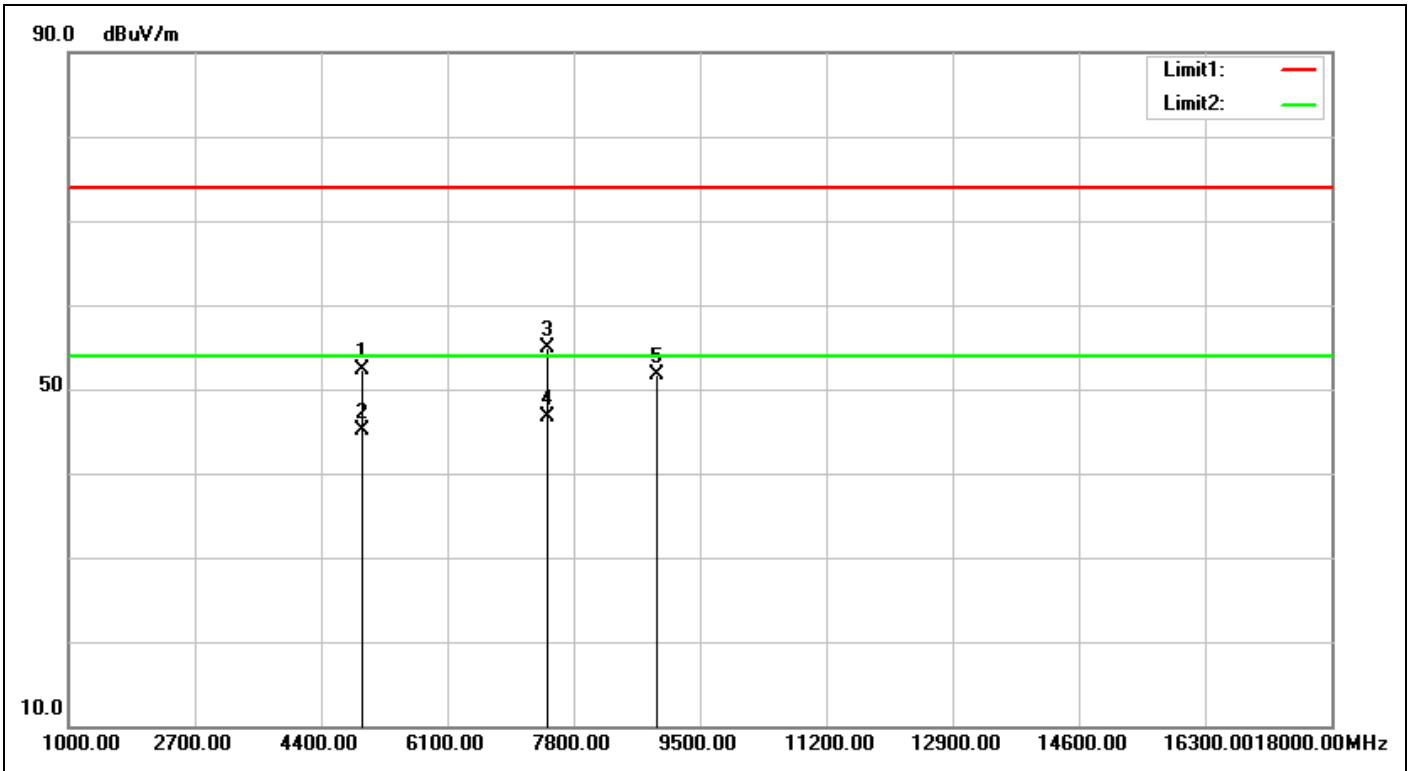
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Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/2/23 11:45:11
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	19.1(°C)/61%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2457-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4914.000	-2.40	52.91	50.51	74.00	-23.49	peak	100	107	
2	7371.000	5.67	50.32	55.99	74.00	-18.01	peak	100	85	
3	7371.000	5.67	40.83	46.50	54.00	-7.50	AVG	100	85	
4	8735.000	6.40	45.21	51.61	74.00	-22.39	peak	100	360	



Service No.:	114070584	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/2/23 11:09:56
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	19.1(°C)/61%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2480-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4960.000	-2.28	59.04	56.76	74.00	-17.24	peak	100	139	
2	4960.000	-2.28	54.42	52.14	54.00	-1.86	AVG	100	139	
3	7440.000	5.84	52.86	58.70	74.00	-15.30	peak	100	250	
4	7440.000	5.84	44.53	50.37	54.00	-3.63	AVG	100	250	
5	8701.000	6.41	45.19	51.60	74.00	-22.40	peak	100	342	



Service No.:	114070584	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/2/23 11:10:59
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	19.1(°C)/61%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2480-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4960.000	-2.28	54.55	52.27	74.00	-21.73	peak	100	24	
2	4960.000	-2.28	47.47	45.19	54.00	-8.81	AVG	100	24	
3	7440.000	5.84	49.10	54.94	74.00	-19.06	peak	100	82	
4	7440.000	5.84	40.82	46.66	54.00	-7.34	AVG	100	82	
5	8922.000	6.42	45.36	51.78	74.00	-22.22	peak	100	138	

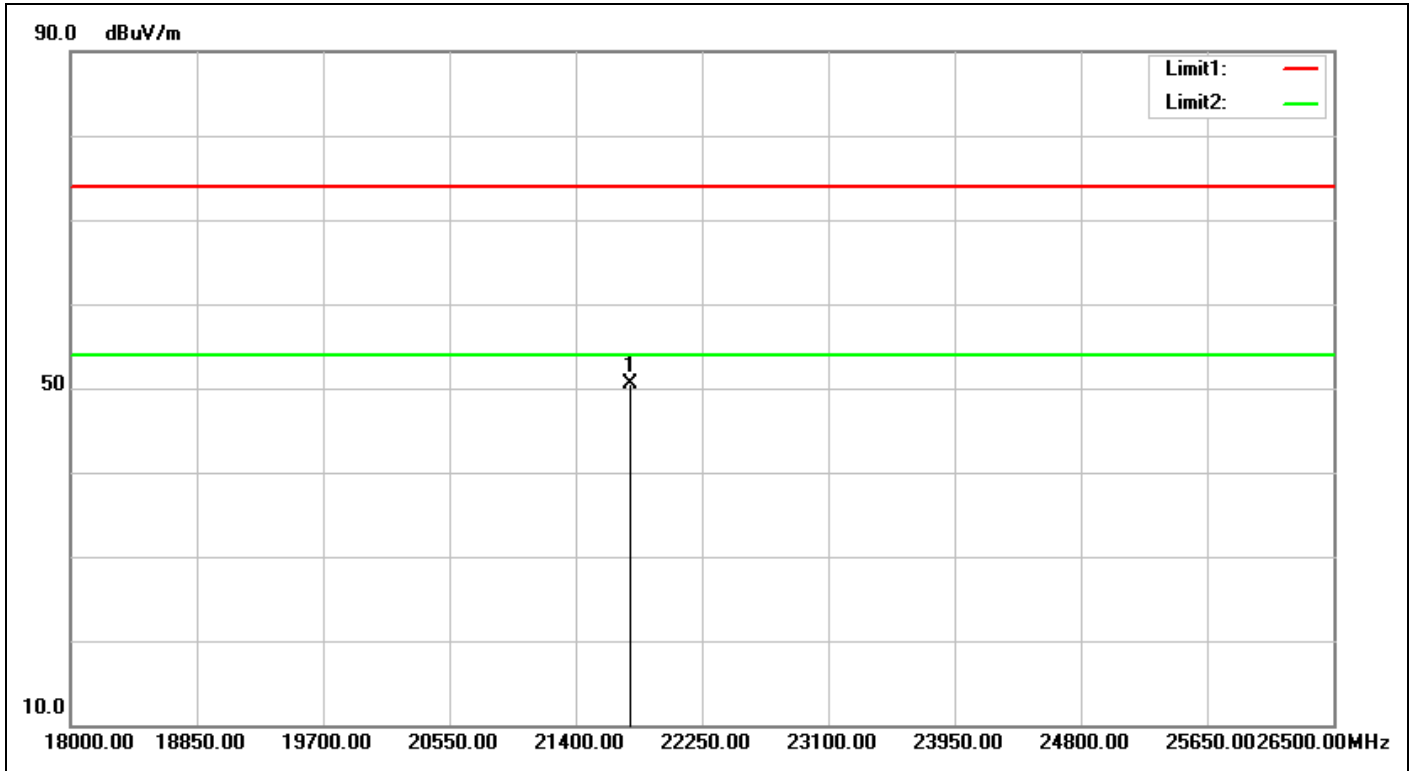
Spurious Emissions, TX Mode, 18-26G



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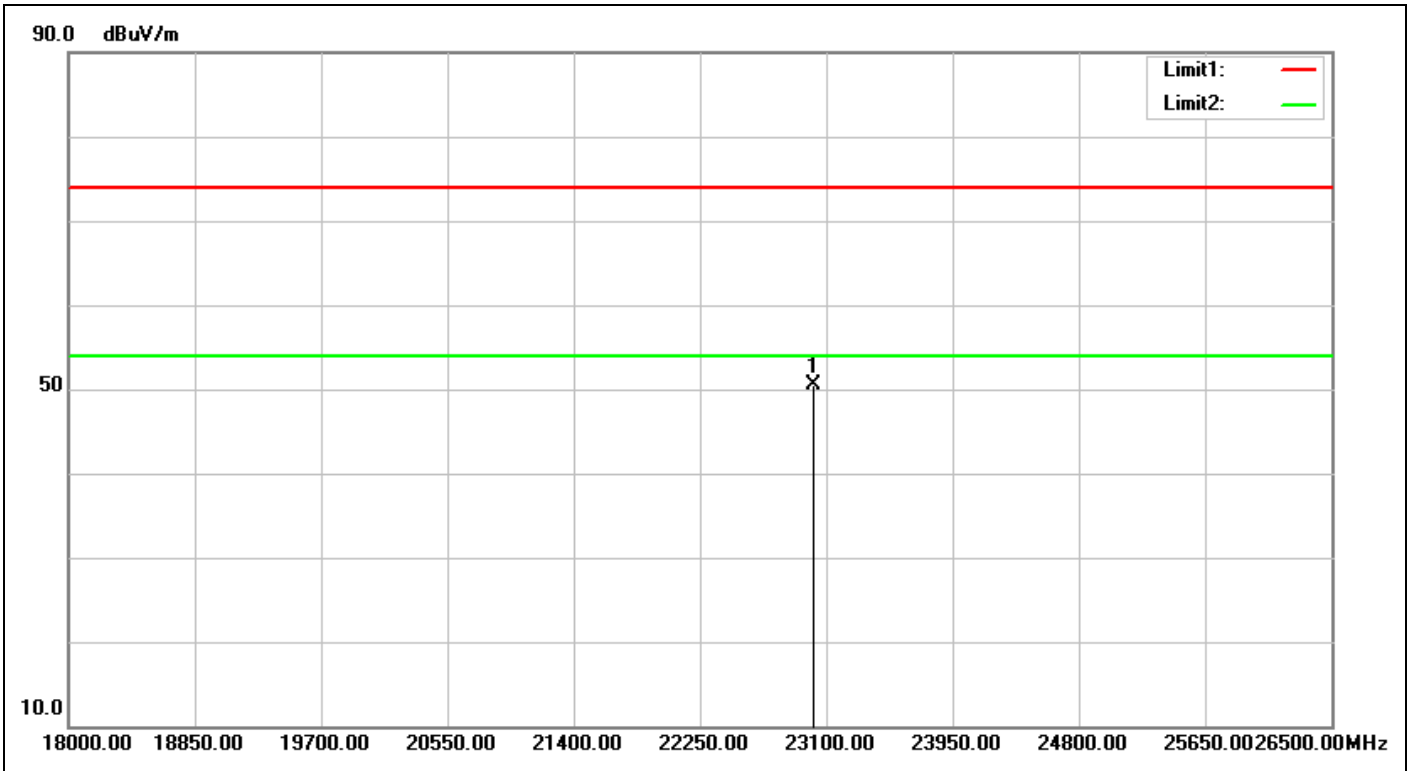
11F., No.758, Sec.4 Bade Road, Songshan Dist, Taipei City 105

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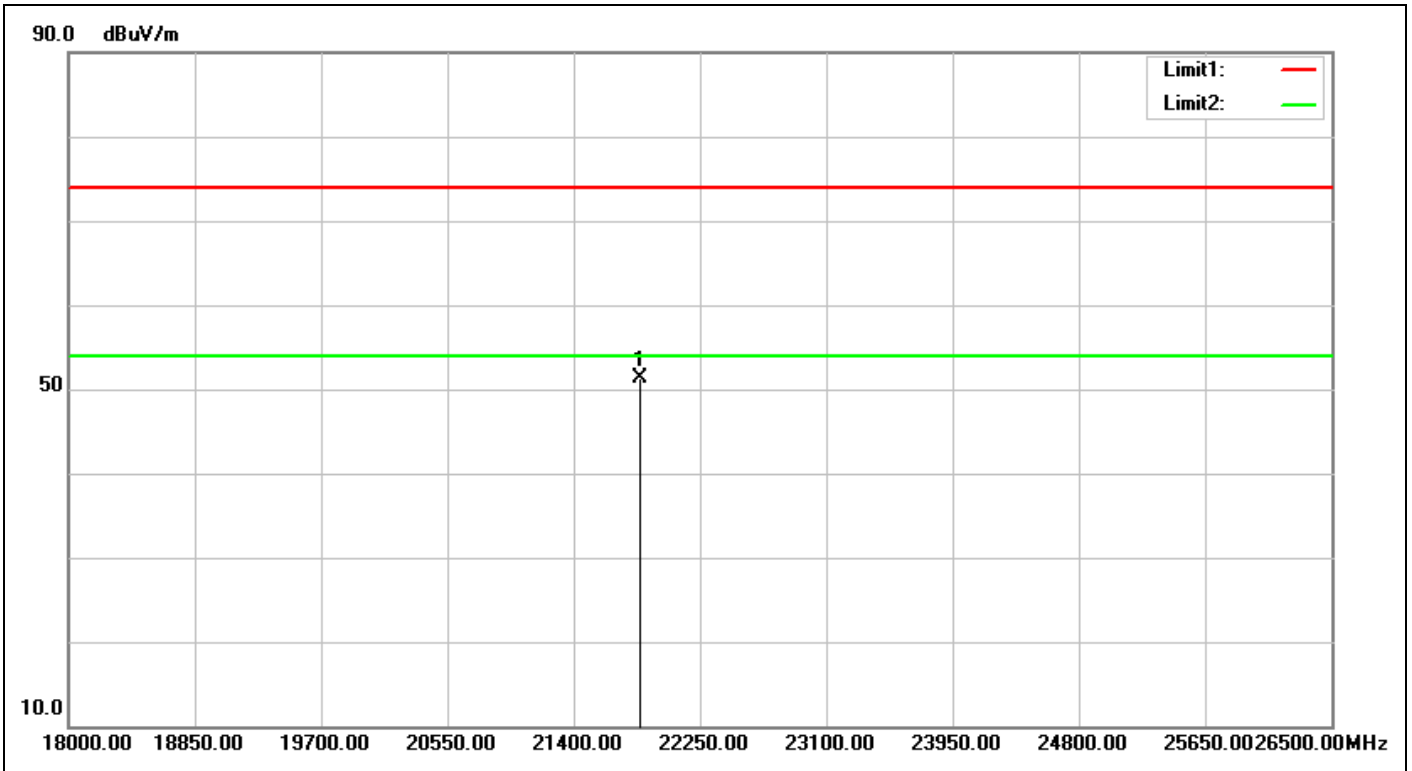
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Test item:	Radiation Emission	Test Time:	2018/2/23 15:03:45
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	19.2(°C)/61%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2402-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21765.500	32.73	17.75	50.48	74.00	-23.52	peak		0	



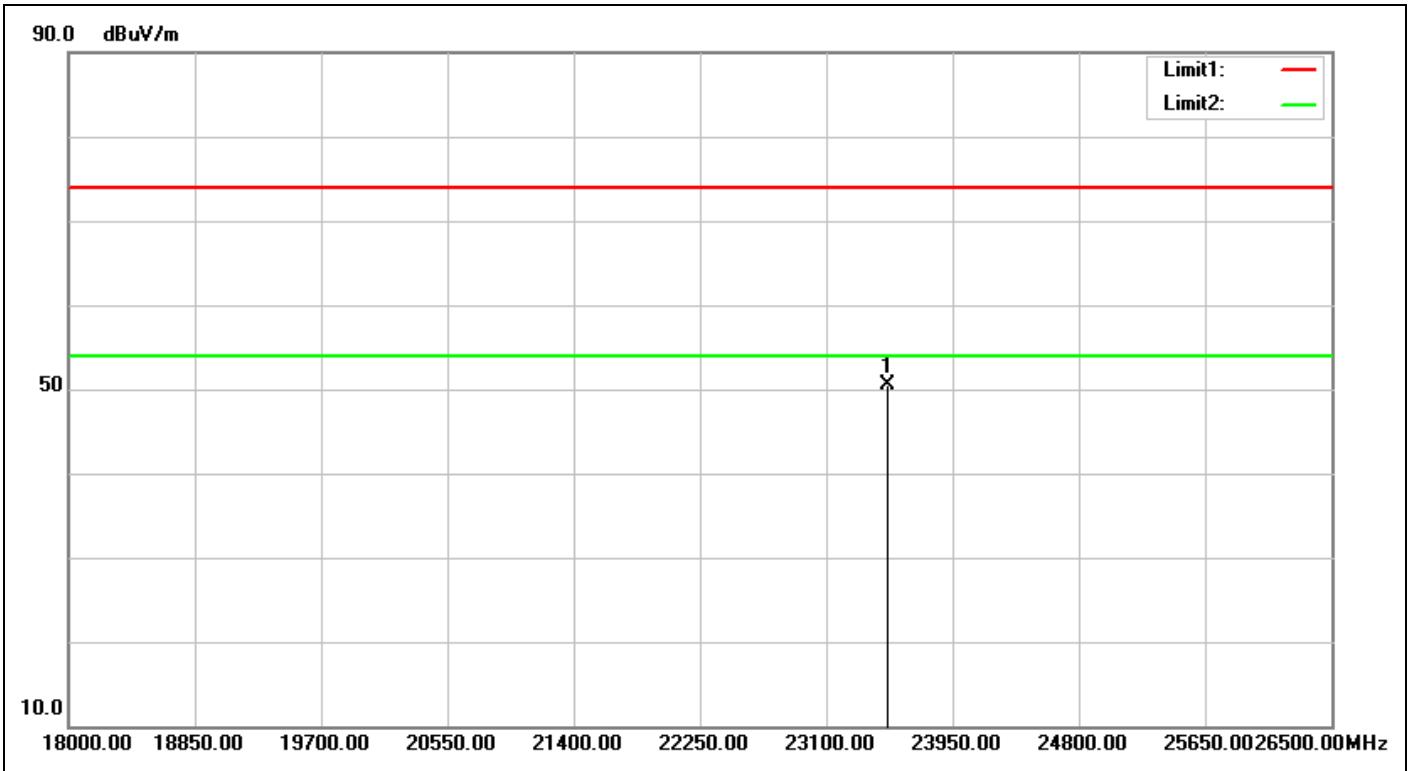
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Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/2/23 15:03:51
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	19.2(°C)/61%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2402-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	23015.000	32.82	17.75	50.57	74.00	-23.43	peak			



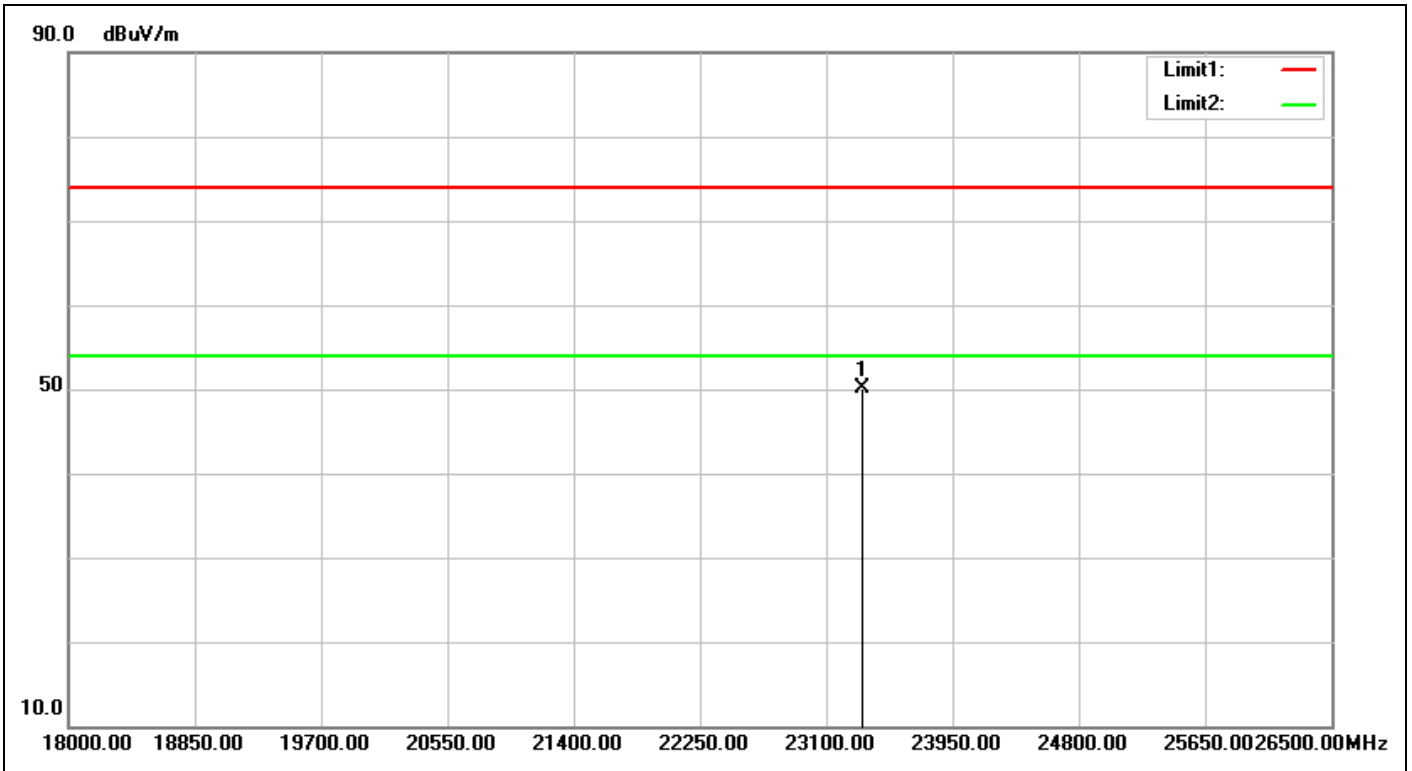
Service No.:	114070584	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/2/23 15:06:39
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	19.2(°C)/61%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2440-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21842.000	32.68	18.58	51.26	74.00	-22.74	peak			



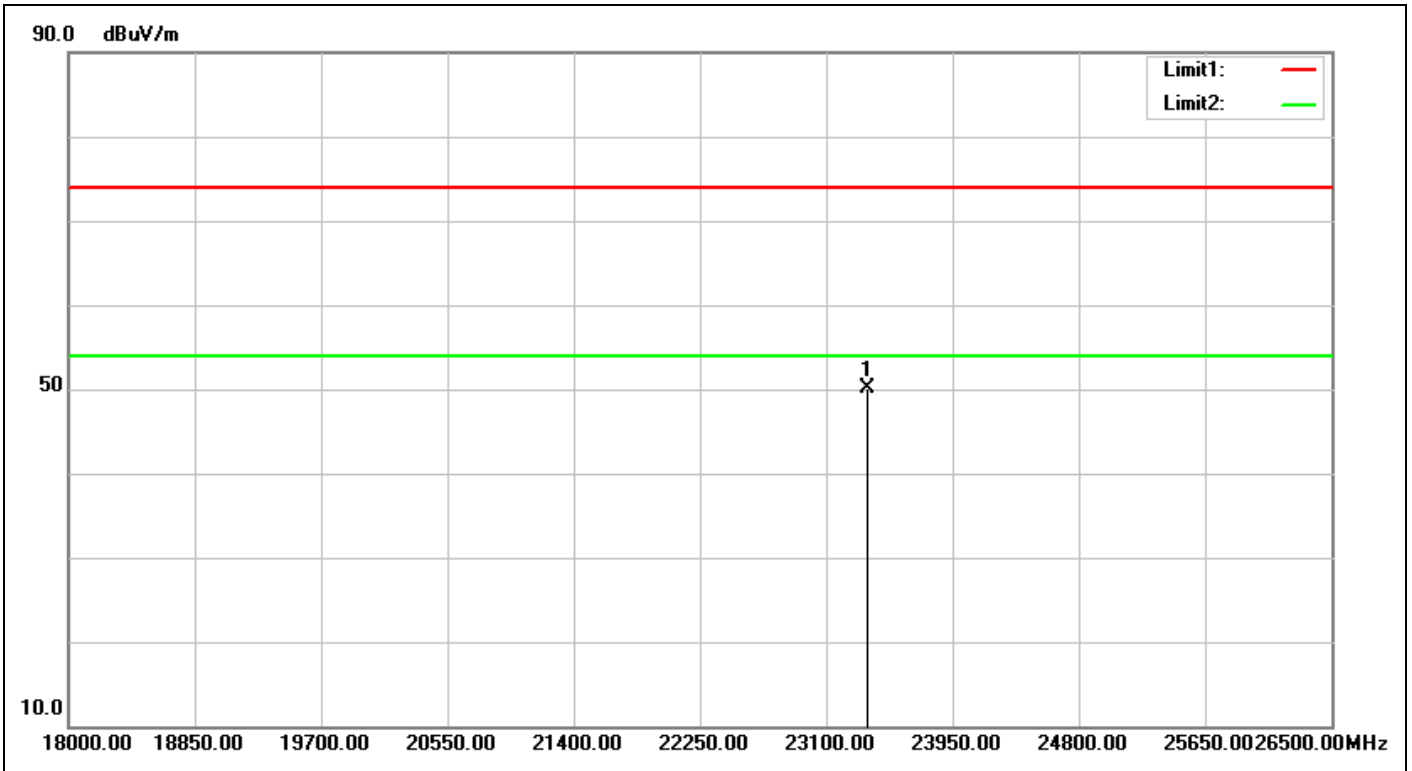
Service No.:	114070584	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/2/23 15:06:45
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	19.2(°C)/61%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2440-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	23508.000	33.26	17.18	50.44	74.00	-23.56	peak			



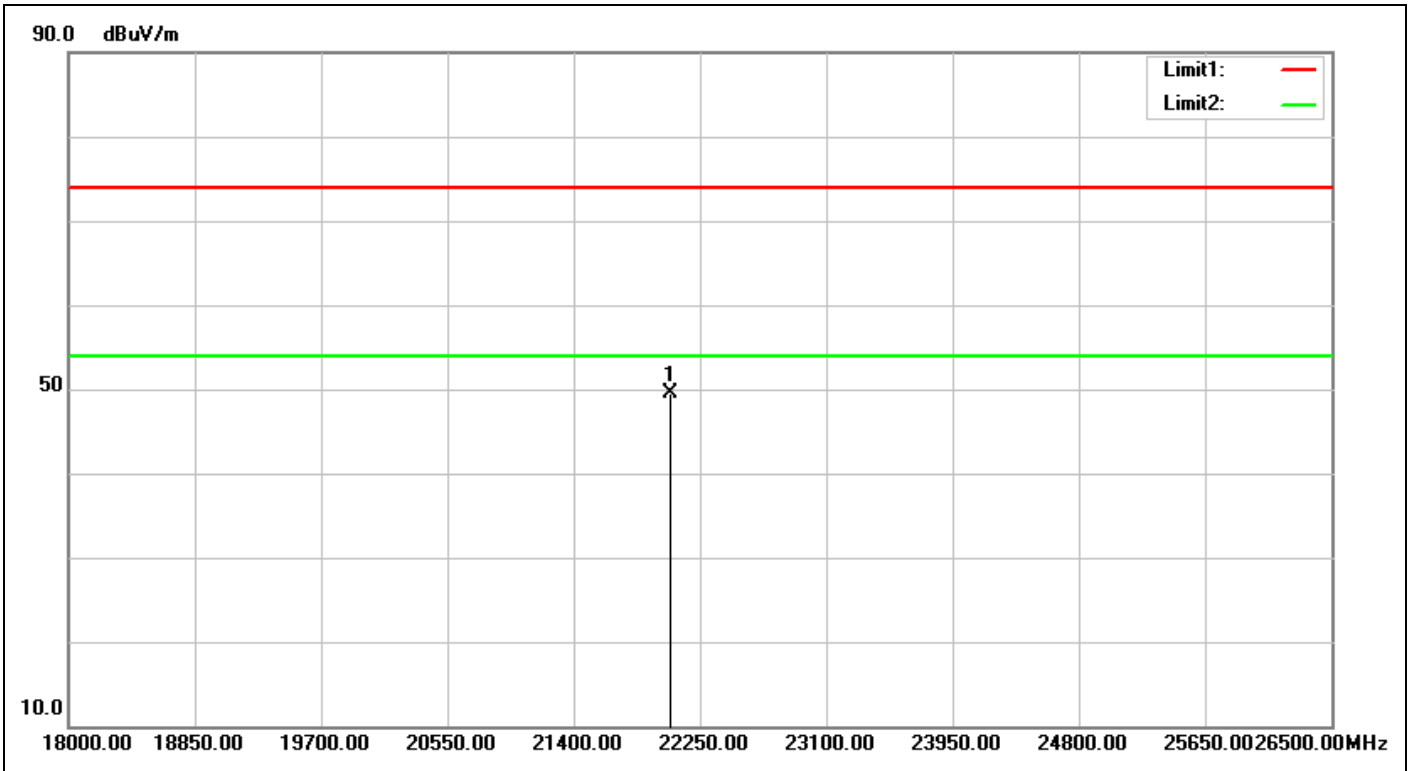
Service No.:	114070584	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/2/23 15:07:26
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	19.2(°C)/61%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2457-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	23338.000	33.12	17.00	50.12	74.00	-23.88	peak			



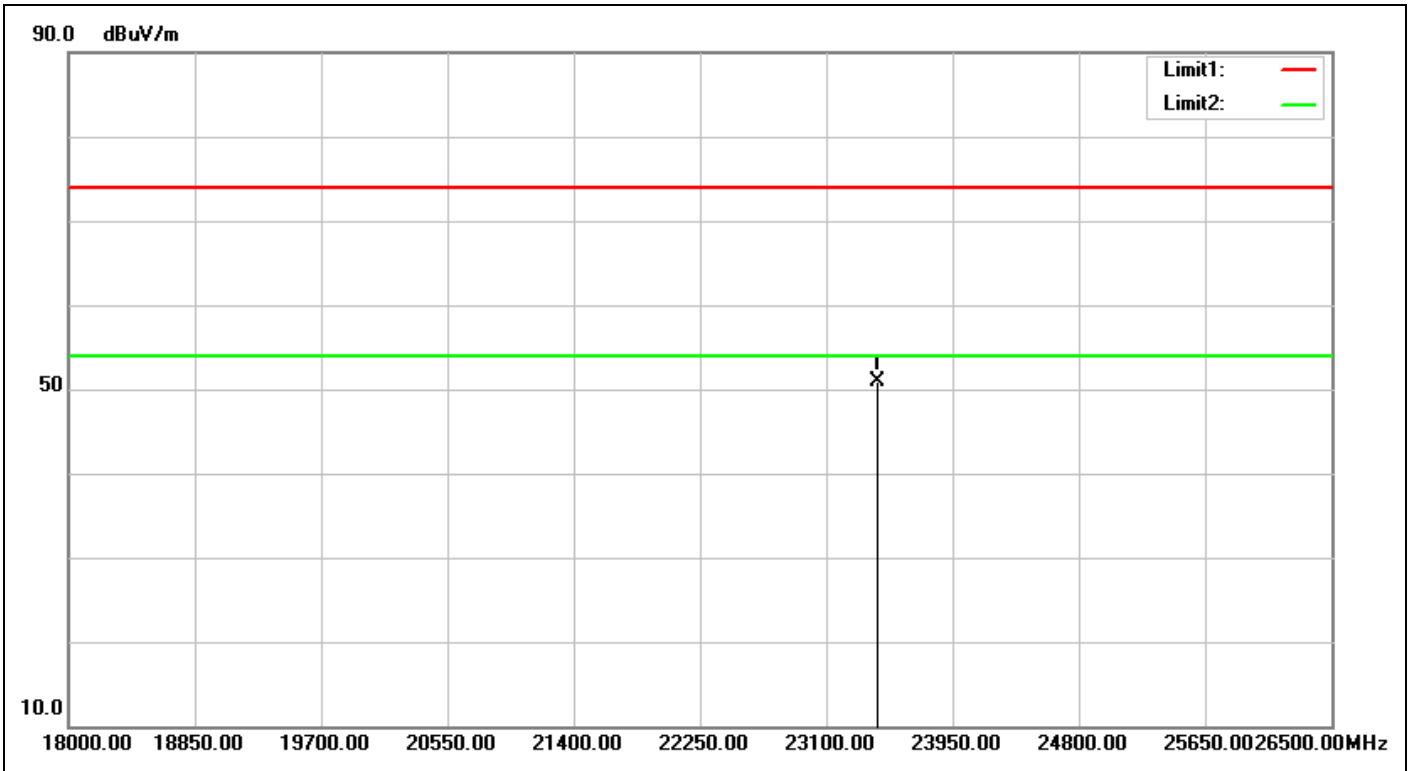
Service No.:	114070584	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/2/23 15:07:33
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	19.2(°C)/61%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2457-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	23372.000	33.15	16.96	50.11	74.00	-23.89	peak			



Service No.:	114070584	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/2/23 15:08:02
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	19.2(°C)/61%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2480-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22054.500	32.59	16.91	49.50	74.00	-24.50	peak			



Service No.:	114070584	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/2/23 15:08:09
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	19.2(°C)/61%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2480-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	23448.500	33.22	17.63	50.85	74.00	-23.15	peak			

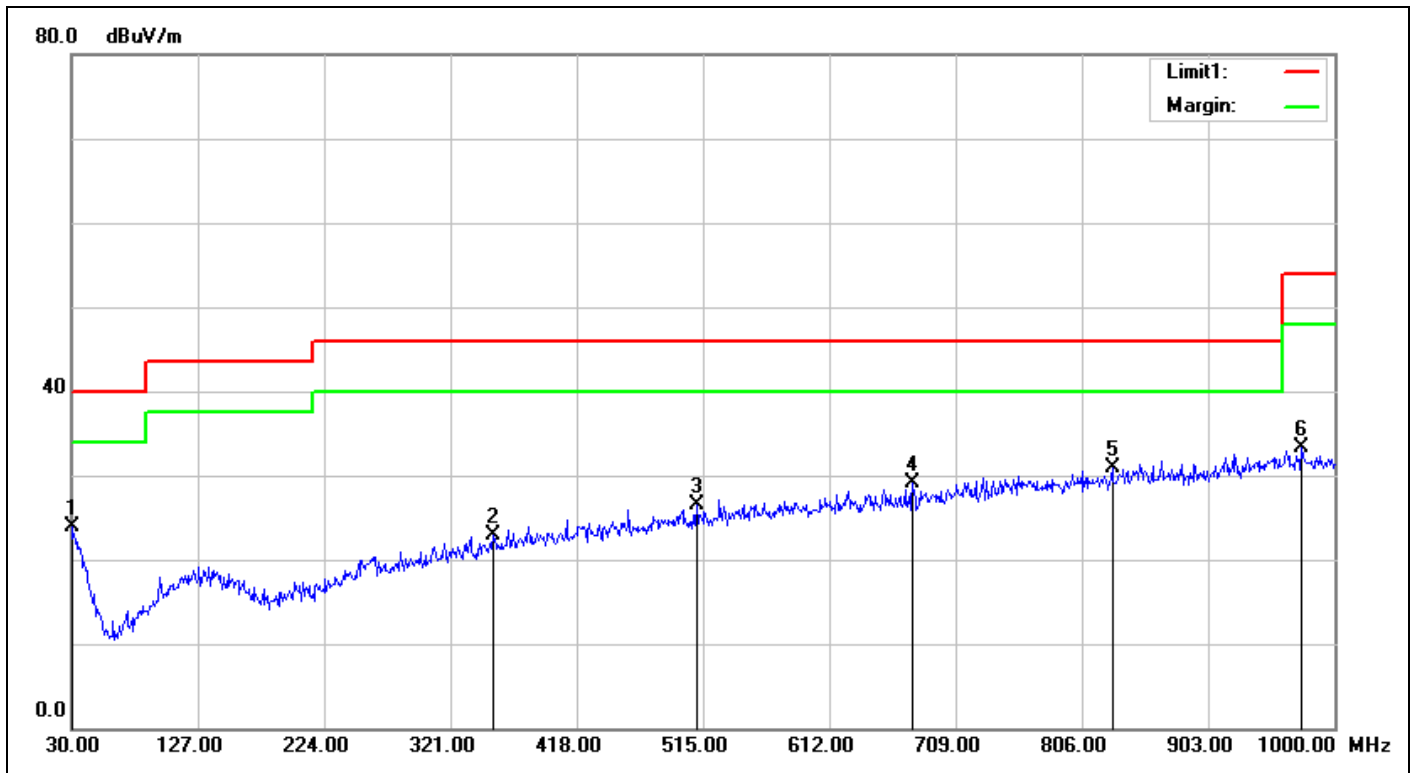
Spurious Emissions, TX Mode, 30M-1G



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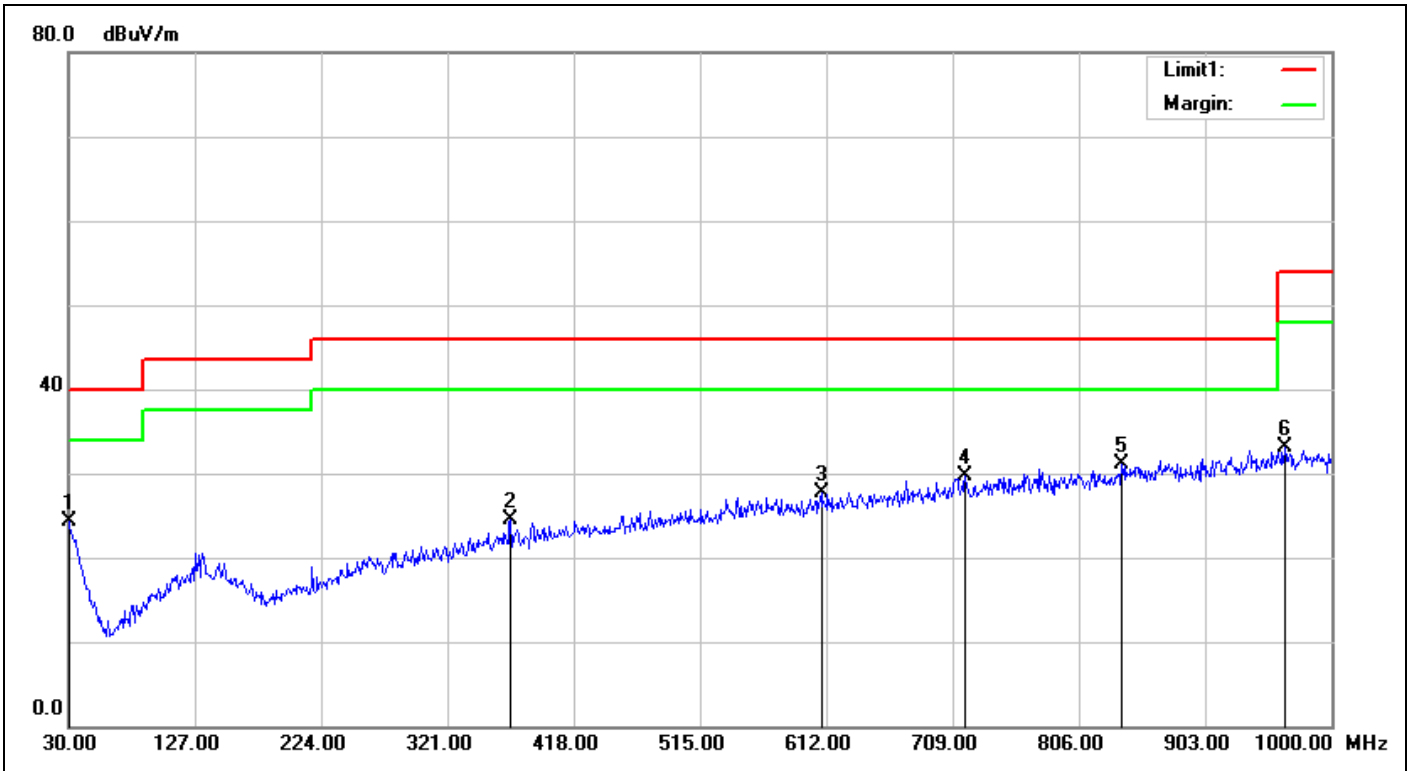
11F., No.758, Sec.4 Bade Road, Songshan Dist, Taipei City 105

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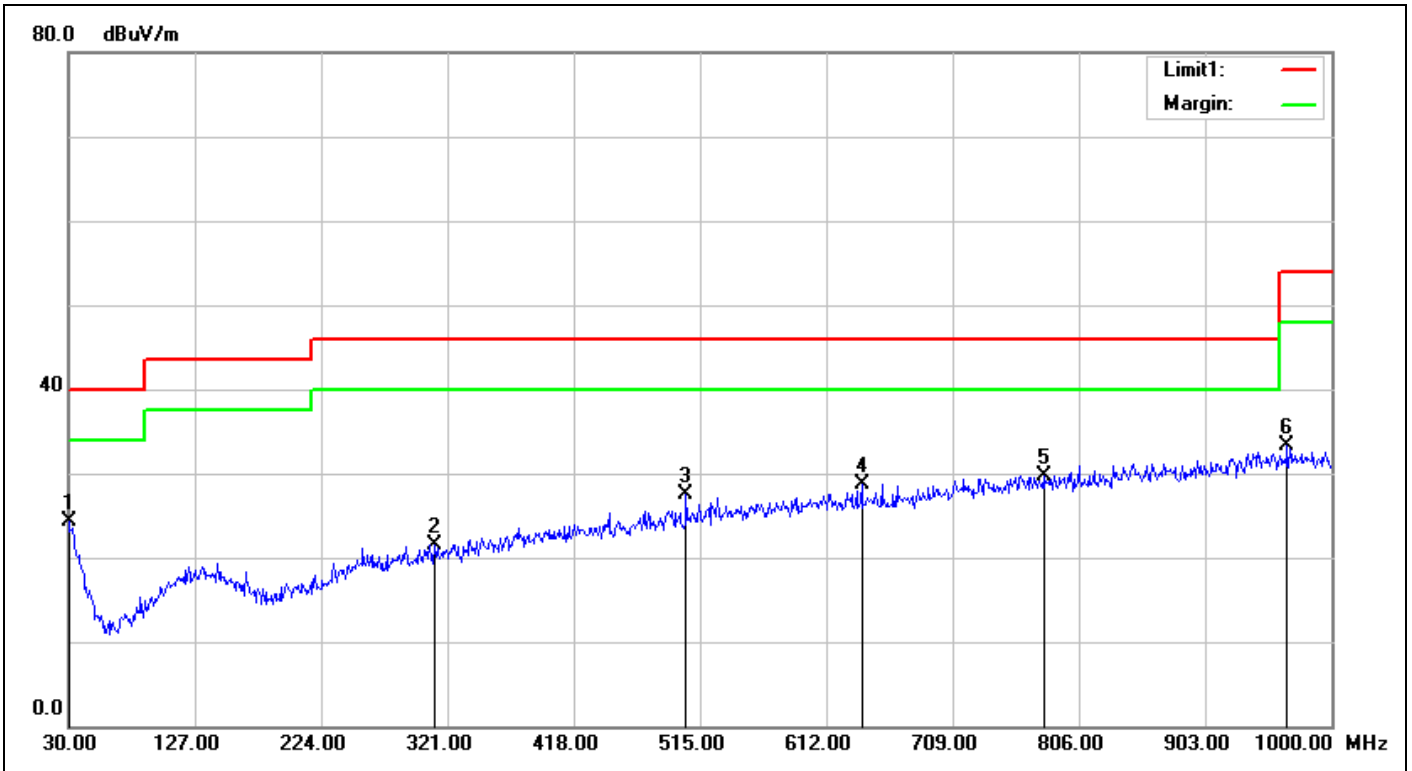
Service No.:	114070584	Test Distance:	3m
Test Standard:	FCC Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/2/23 15:53:07
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	21.2(°C)/59%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2440-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	30.0000	-0.25	24.09	23.84	40.00	-16.16	QP	100	330	
2	353.9800	-3.27	26.18	22.91	46.00	-23.09	QP	100	166	
3	510.1499	-1.04	27.51	26.47	46.00	-19.53	QP	100	260	
4	676.0198	0.91	28.13	29.04	46.00	-16.96	QP	100	357	
5	829.2799	3.33	27.49	30.82	46.00	-15.18	QP	100	212	
6	974.7799	5.61	27.65	33.26	54.00	-20.74	QP	100	82	



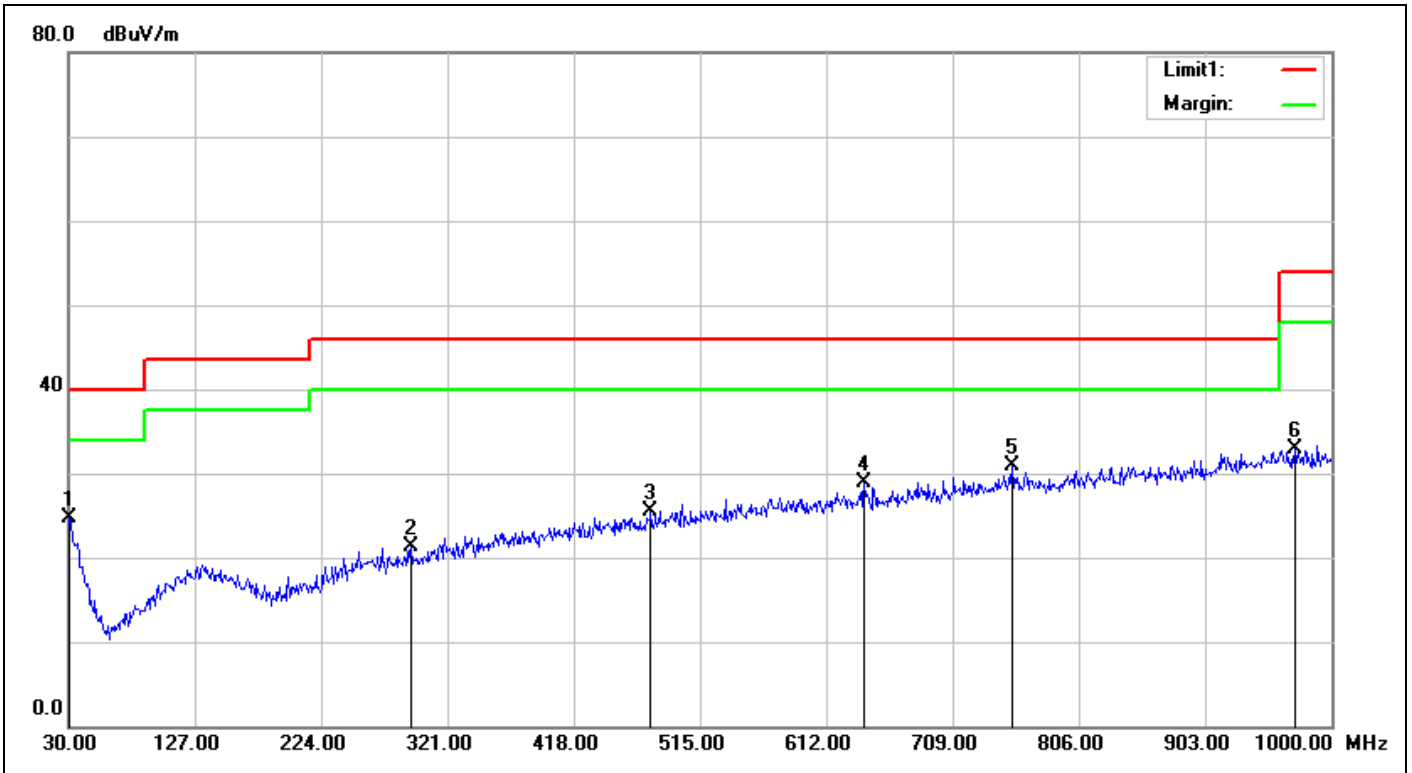
Service No.:	114070584	Test Distance:	3m
Test Standard:	FCC Class B 3M Radiation	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/2/23 15:54:04
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	21.2(°C)/59%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2440-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	30.0000	-0.25	24.61	24.36	40.00	-15.64	QP	100	255	
2	369.5000	-2.98	27.57	24.59	46.00	-21.41	QP	100	177	
3	608.1200	0.15	27.46	27.61	46.00	-18.39	QP	100	225	
4	718.7000	1.68	28.12	29.80	46.00	-16.20	QP	100	98	
5	838.9800	3.50	27.64	31.14	46.00	-14.86	QP	100	122	
6	964.1100	5.56	27.45	33.01	54.00	-20.99	QP	100	107	



Service No.:	114070584	Test Distance:	3m
Test Standard:	FCC Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/2/23 16:05:22
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	21.2(°C)/59%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2457-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	30.0000	-0.25	24.65	24.40	40.00	-15.60	QP	100	112	
2	311.3000	-4.29	25.88	21.59	46.00	-24.41	QP	100	79	
3	504.3299	-1.11	28.57	27.46	46.00	-18.54	QP	100	194	
4	639.1599	0.42	28.27	28.69	46.00	-17.31	QP	100	15	
5	778.8400	2.60	27.20	29.80	46.00	-16.20	QP	100	321	
6	966.0499	5.57	27.73	33.30	54.00	-20.70	QP	100	9	



Service No.:	114070584	Test Distance:	3m
Test Standard:	FCC Class B 3M Radiation	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/2/23 16:06:19
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	21.2(°C)/59%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2457-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	30.9700	-0.79	25.44	24.65	40.00	-15.35	QP	100	1	
2	292.8700	-4.73	25.95	21.22	46.00	-24.78	QP	100	127	
3	477.1700	-1.52	27.00	25.48	46.00	-20.52	QP	100	248	
4	641.1000	0.44	28.49	28.93	46.00	-17.07	QP	100	193	
5	754.5900	2.41	28.52	30.93	46.00	-15.07	QP	100	93	
6	971.8700	5.60	27.36	32.96	54.00	-21.04	QP	100	312	

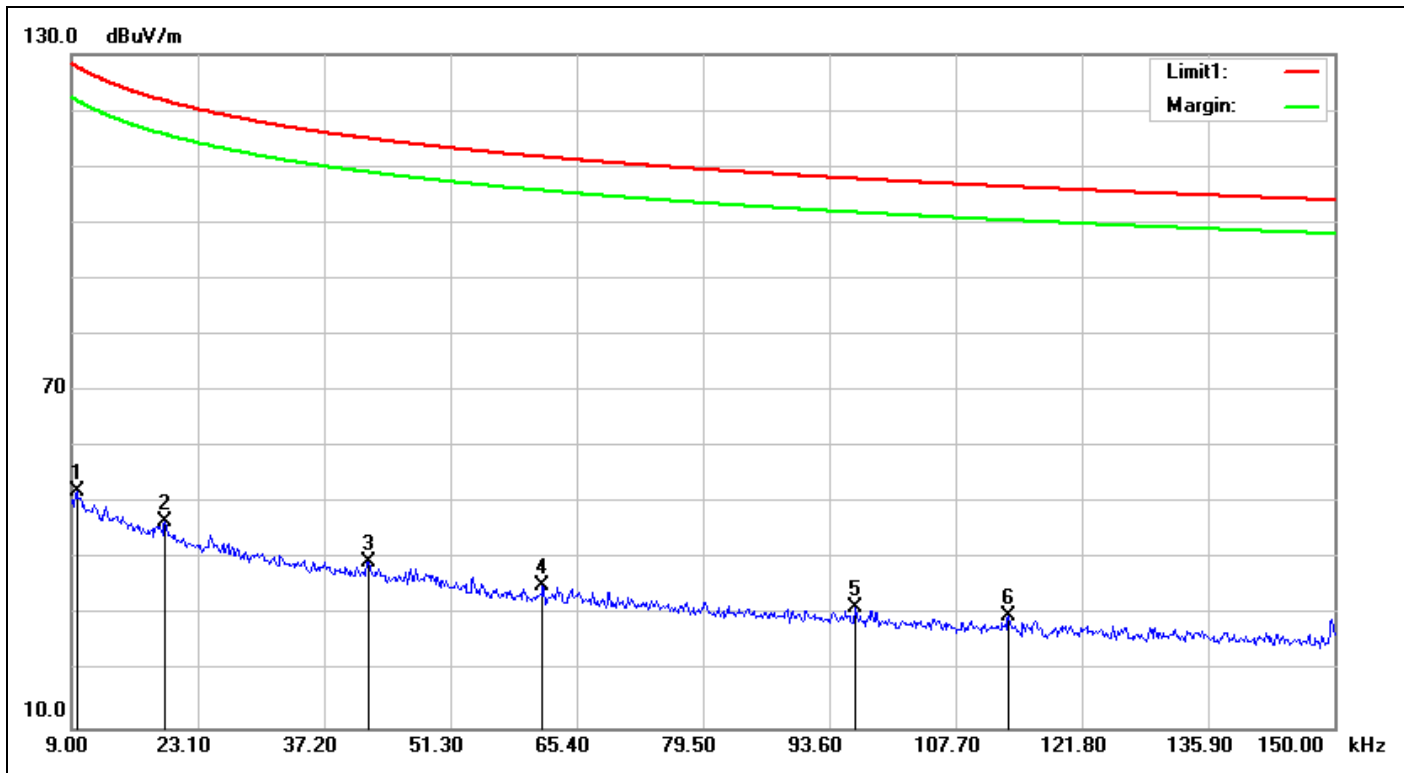
Spurious Emissions, TX Mode, 9k-30M



TUV Rheinland Taiwan Ltd.

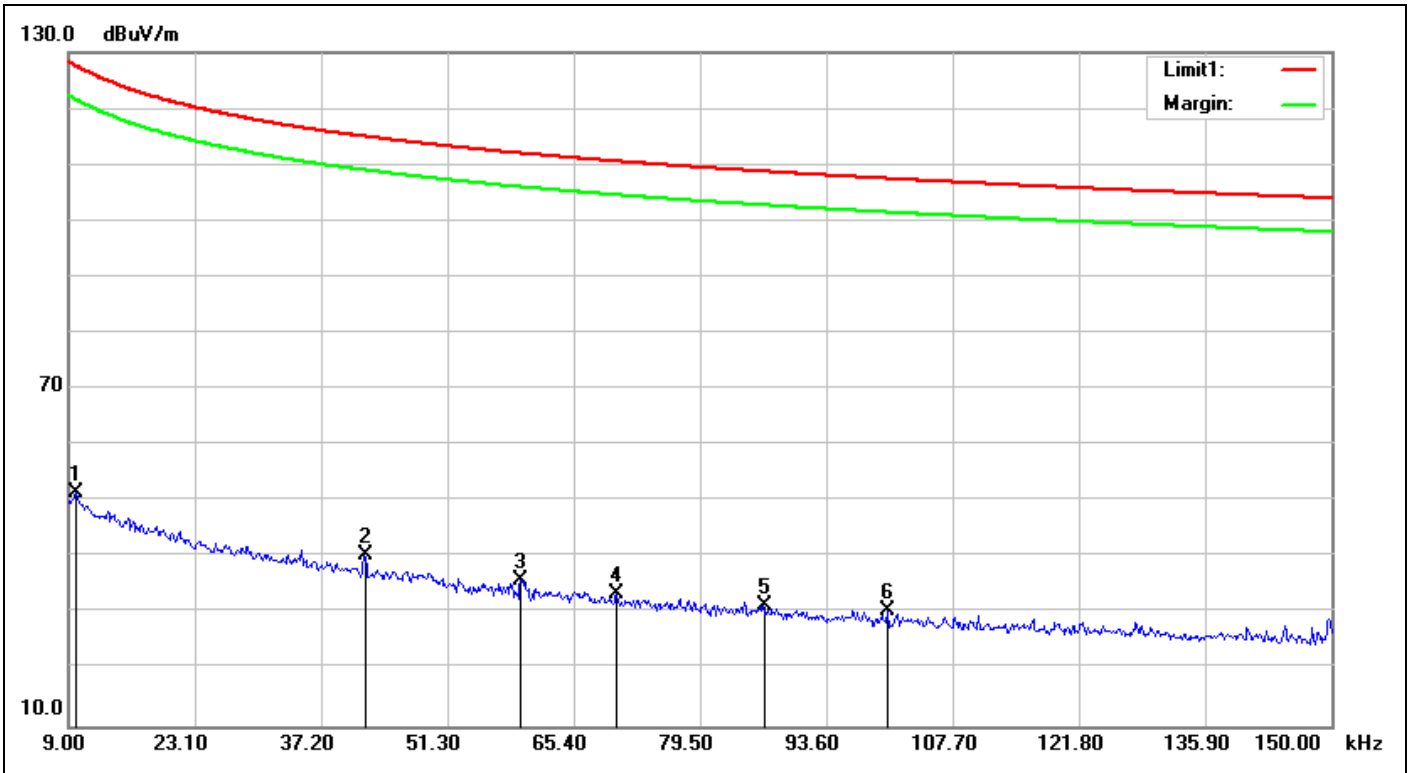
11F., No.758, Sec.4 Bade Road, Songshan Dist, Taipei City 105

Tel:+886-2172-7000 fax:+886-2528-0018



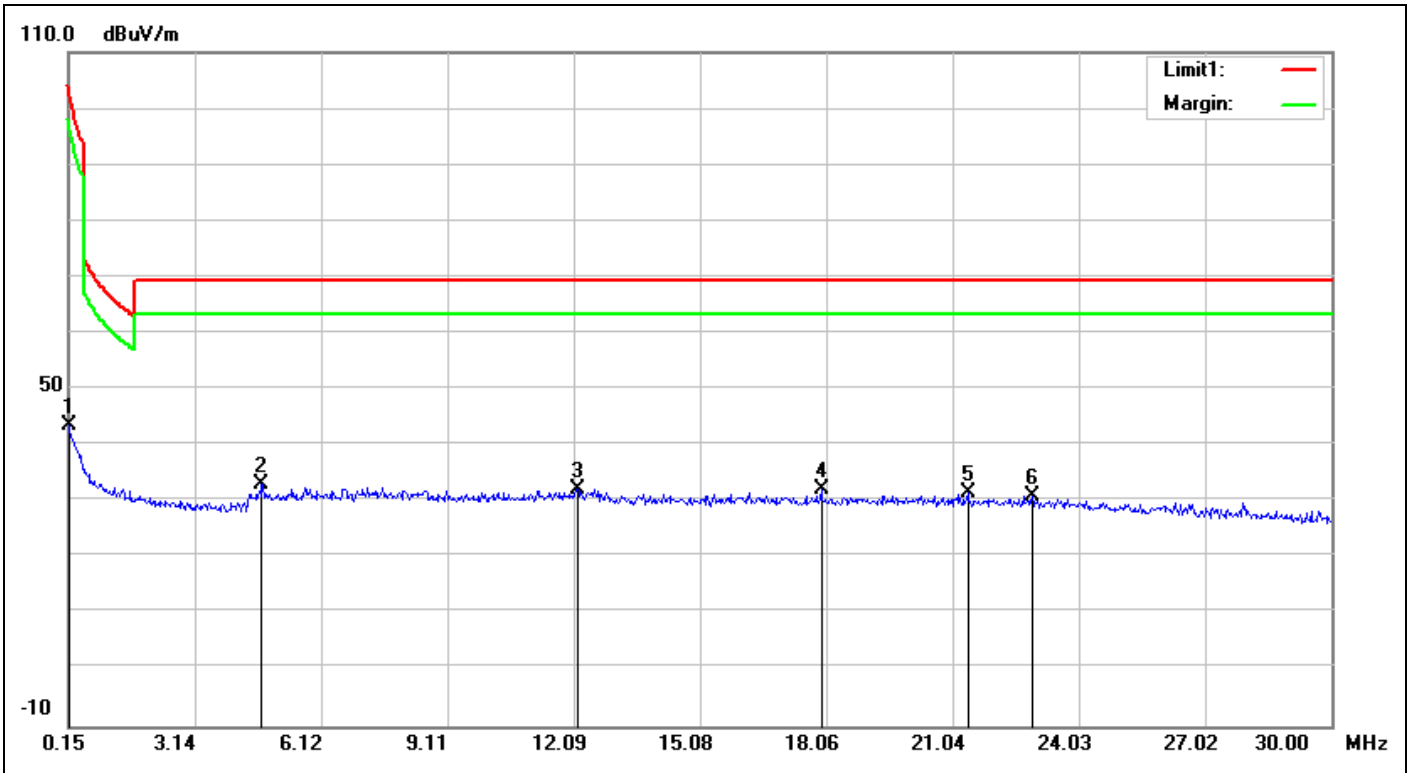
Service No.:	114070584	Test Distance:	3m
Test Standard:	FCC15.209_9k-1G_3m	Ant. Polarization:	
Test item:	Radiation Emission	Test Time:	2018/2/23 16:11:56
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	21.2(°C)/59%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2440-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.0095	19.76	32.25	52.01	127.84	-75.83	QP	100	259	
2	0.0194	20.02	26.77	46.79	121.68	-74.89	QP	100	358	
3	0.0421	19.70	19.83	39.53	114.99	-75.46	QP	100	51	
4	0.0615	19.36	15.91	35.27	111.71	-76.44	QP	100	262	
5	0.0965	19.15	12.38	31.53	107.83	-76.30	QP	100	15	
6	0.1136	19.12	10.77	29.89	106.42	-76.53	QP	100	214	



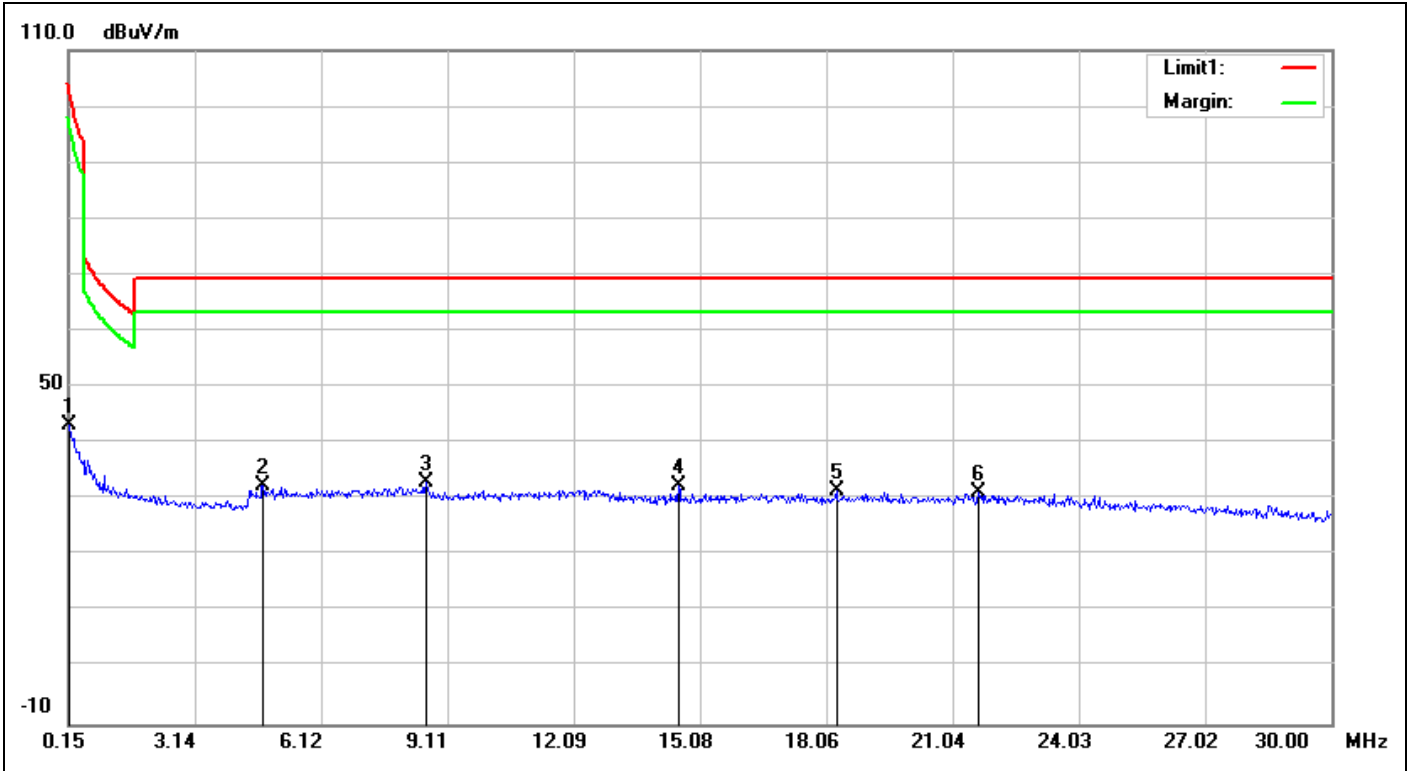
Service No.:	114070584	Test Distance:	3m
Test Standard:	FCC15.209_9k-1G_3m	Ant. Polarization:	
Test item:	Radiation Emission	Test Time:	2018/2/23 16:12:53
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	21.2(°C)/59%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2457-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.0098	19.86	31.58	51.44	127.57	-76.13	QP	100	359	
2	0.0420	19.71	20.61	40.32	115.01	-74.69	QP	100	240	
3	0.0595	19.37	16.54	35.91	112.00	-76.09	QP	100	309	
4	0.0702	19.31	14.32	33.63	110.57	-76.94	QP	100	249	
5	0.0866	19.21	12.11	31.32	108.76	-77.44	QP	100	309	
6	0.1004	19.13	11.53	30.66	107.48	-76.82	QP	100	359	



Service No.:	114070584	Test Distance:	3m
Test Standard:	FCC15.209_9k-1G_3m	Ant. Polarization:	
Test item:	Radiation Emission	Test Time:	2018/2/23 16:15:58
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	21.2(°C)/59%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2440-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.1499	19.08	24.46	43.54	104.02	-60.48	QP	100	40	
2	4.7170	19.58	13.39	32.97	69.50	-36.53	QP	100	180	
3	12.1795	20.60	11.50	32.10	69.50	-37.40	QP	100	289	
4	17.9404	21.62	10.40	32.02	69.50	-37.48	QP	100	49	
5	21.4031	22.07	9.36	31.43	69.50	-38.07	QP	100	128	
6	22.9255	22.18	8.82	31.00	69.50	-38.50	QP	100	168	



Service No.:	114070584	Test Distance:	3m
Test Standard:	FCC15.209_9k-1G_3m	Ant. Polarization:	
Test item:	Radiation Emission	Test Time:	2018/2/23 16:16:55
Applicant:	Zentan Technology Co., Ltd.	Test Rating:	DC 3.3V
Product:	Bluetooth And ANT+ Wireless Module	Temp.(°C)/Hum.(%):	21.2(°C)/59%
Model No.:	ZR7	Test Engineer:	George Yang
Test Mode:	2457-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.1500	19.08	24.12	43.20	104.02	-60.82	QP	100	231	
2	4.7469	19.60	12.87	32.47	69.50	-37.03	QP	100	125	
3	8.5976	20.09	13.04	33.13	69.50	-36.37	QP	100	347	
4	14.5676	21.03	11.35	32.38	69.50	-37.12	QP	100	260	
5	18.2988	21.68	9.90	31.58	69.50	-37.92	QP	100	160	
6	21.6420	22.10	9.08	31.18	69.50	-38.32	QP	100	113	

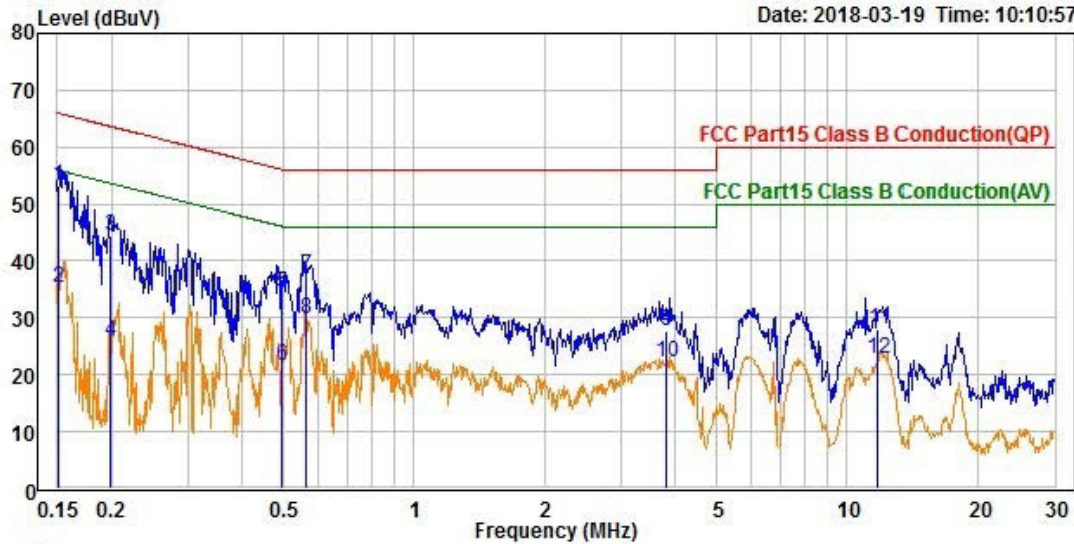
Mains, 150kHz - 30MHz



TUV Rheinland Taiwan Ltd.
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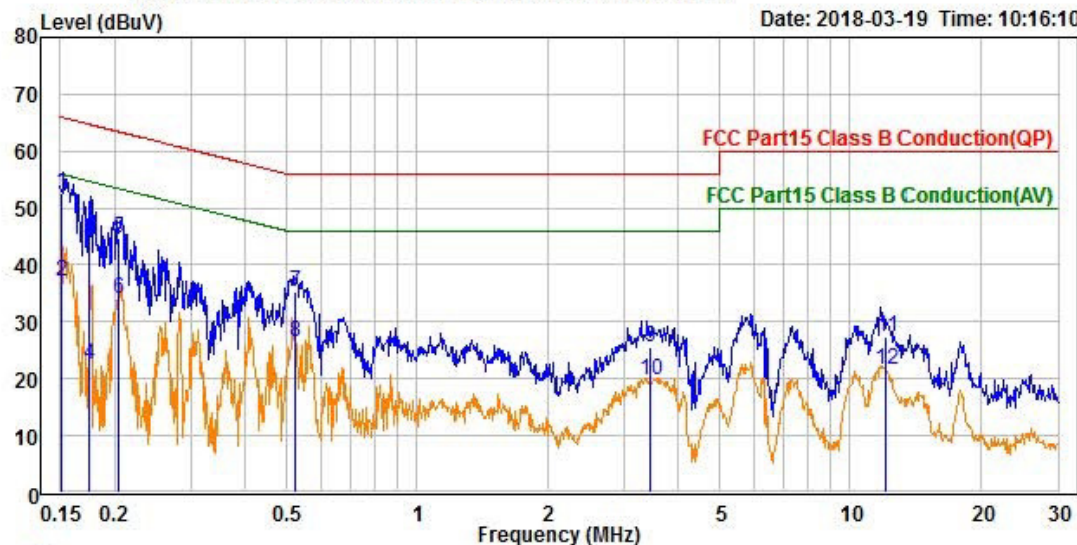


Trace: 1
 Site : Conduction room
 Condition : FCC Part15 Class B Conduction(QP) line1
 Test Engineer: George Yang
 Applicant : Zentan Technology Co., Ltd.
 Product : Bluetooth And ANT+ Wireless Module
 Model No. : ZR7
 Test Rating : 120Vac/60Hz
 Tmp/Hum : 23.2 °C / 48%
 Memo : Mains

	Read Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.150	43.60	9.65	53.25	65.99	-12.74	QP
2	0.150	25.63	9.65	35.28	55.99	-20.71	Average
3	0.199	34.62	9.65	44.27	63.64	-19.37	QP
4	0.199	16.08	9.65	25.73	53.64	-27.91	Average
5	0.495	24.65	9.66	34.31	56.08	-21.77	QP
6	0.495	11.79	9.66	21.45	46.08	-24.63	Average
7	0.561	27.90	9.66	37.56	56.00	-18.44	QP
8	0.561	20.23	9.66	29.89	46.00	-16.11	Average
9	3.818	18.05	9.71	27.76	56.00	-28.24	QP
10	3.818	12.43	9.71	22.14	46.00	-23.86	Average
11	11.792	18.15	9.80	27.95	60.00	-32.05	QP
12	11.792	13.02	9.80	22.82	50.00	-27.18	Average

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Date: 2018-03-19 Time: 10:16:10



Trace: 1
 Site : Conduction room
 Condition : FCC Part15 Class B Conduction(QP) neutral
 Test Engineer: George Yang
 Applicant : Zentan Technology Co., Ltd.
 Product : Bluetooth And ANT+ Wireless Module
 Model No. : ZR7
 Test Rating : 120Vac/60Hz
 Tmp/Hum : 23.2 °C / 48%
 Memo : Mains

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.150	43.01	9.66	52.67	65.99	-13.32	QP
2	0.150	27.58	9.66	37.24	55.99	-18.75	Average
3	0.174	34.67	9.66	44.33	64.76	-20.43	QP
4	0.174	12.94	9.66	22.60	54.76	-32.16	Average
5	0.205	35.07	9.66	44.73	63.42	-18.69	QP
6	0.205	24.31	9.66	33.97	53.42	-19.45	Average
7	0.523	25.54	9.66	35.20	56.00	-20.80	QP
8	0.523	16.74	9.66	26.40	46.00	-19.60	Average
9	3.464	15.76	9.72	25.48	56.00	-30.52	QP
10	3.464	9.90	9.72	19.62	46.00	-26.38	Average
11	12.155	17.44	9.83	27.27	60.00	-32.73	QP
12	12.155	11.90	9.83	21.73	50.00	-28.27	Average