

Test Report No.50058781 001

Appendix D: Radiated and Mains Spurious Emission Data

(File: 50058781AppendixD)

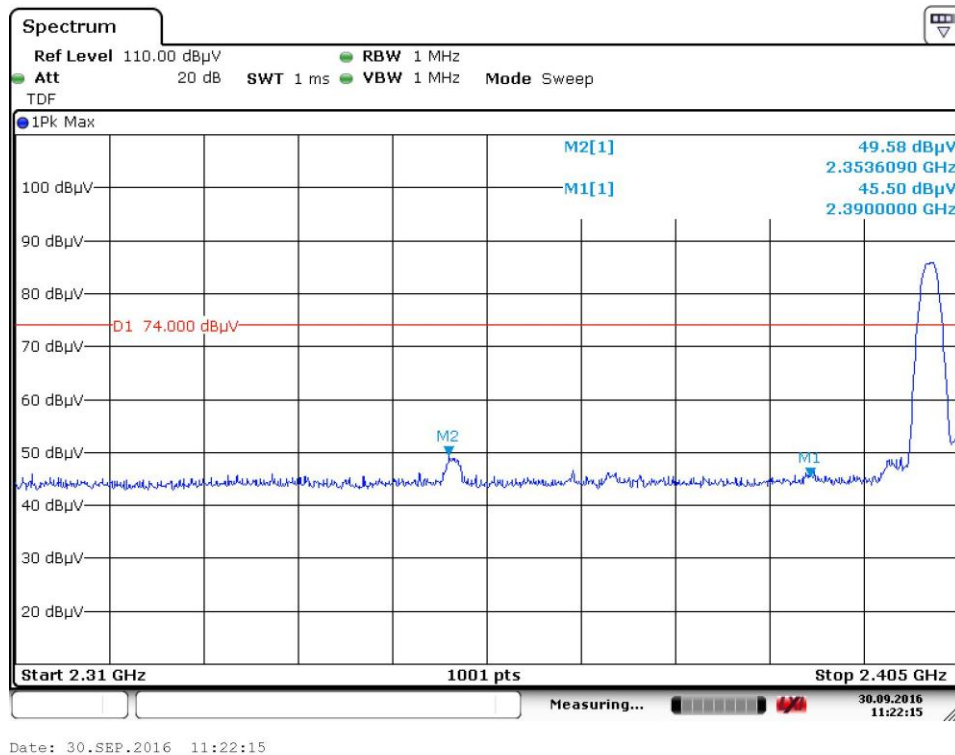
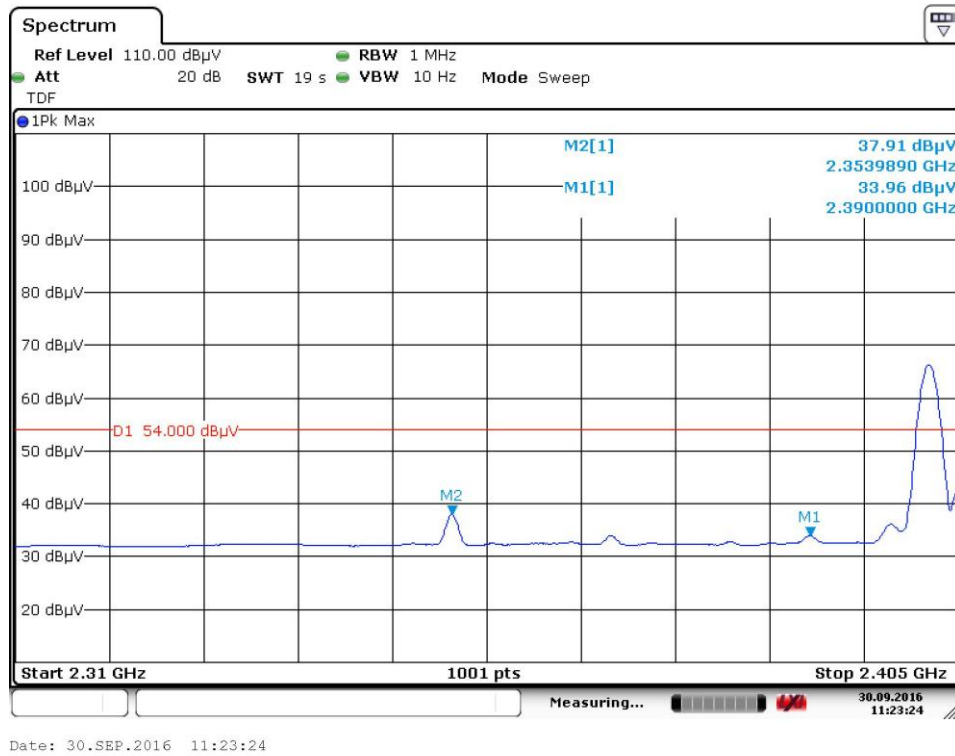
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Spurious Emissions, Band Edges, 2.35-2.5G

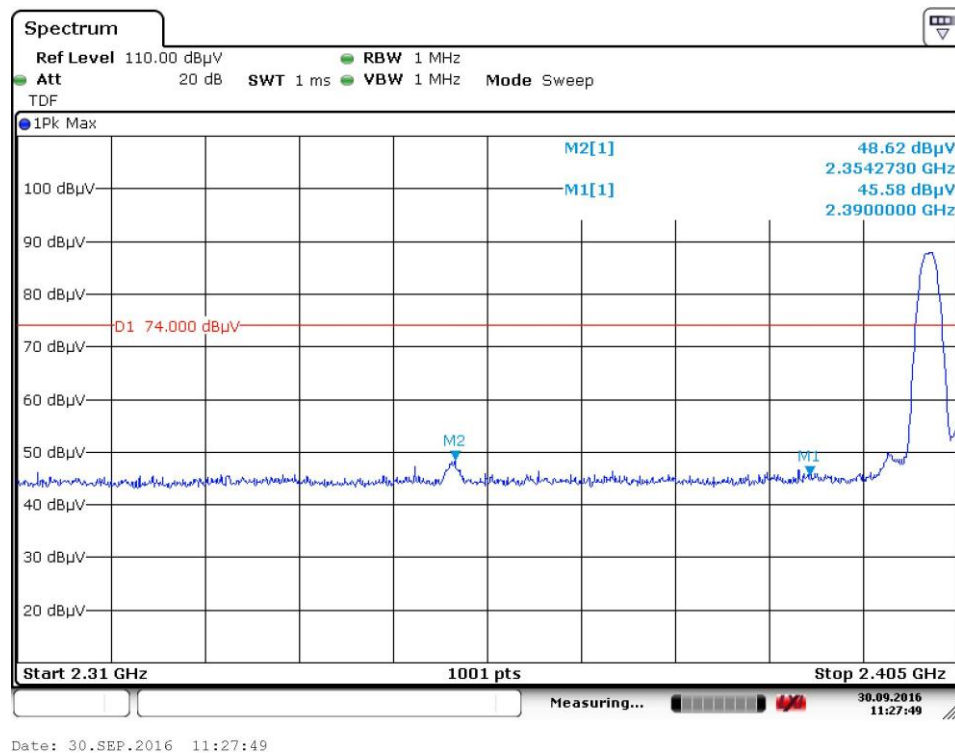
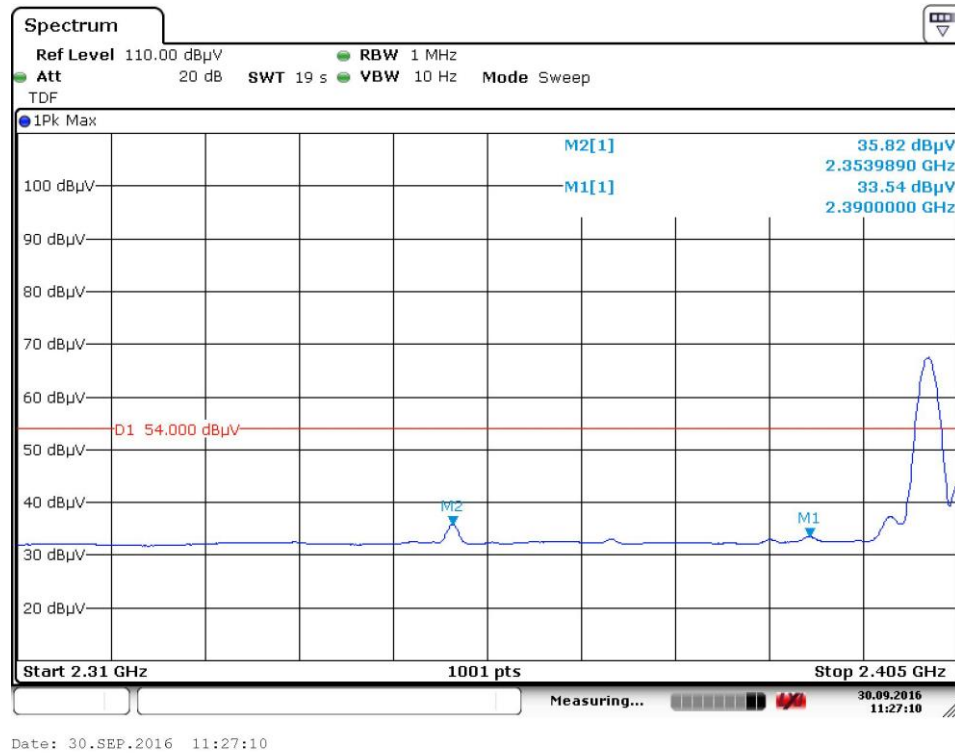
Radiated Bandedge (GFSK)

Low Channel (Hor)



Spurious Emissions, Band Edge, 2.35-2.5G

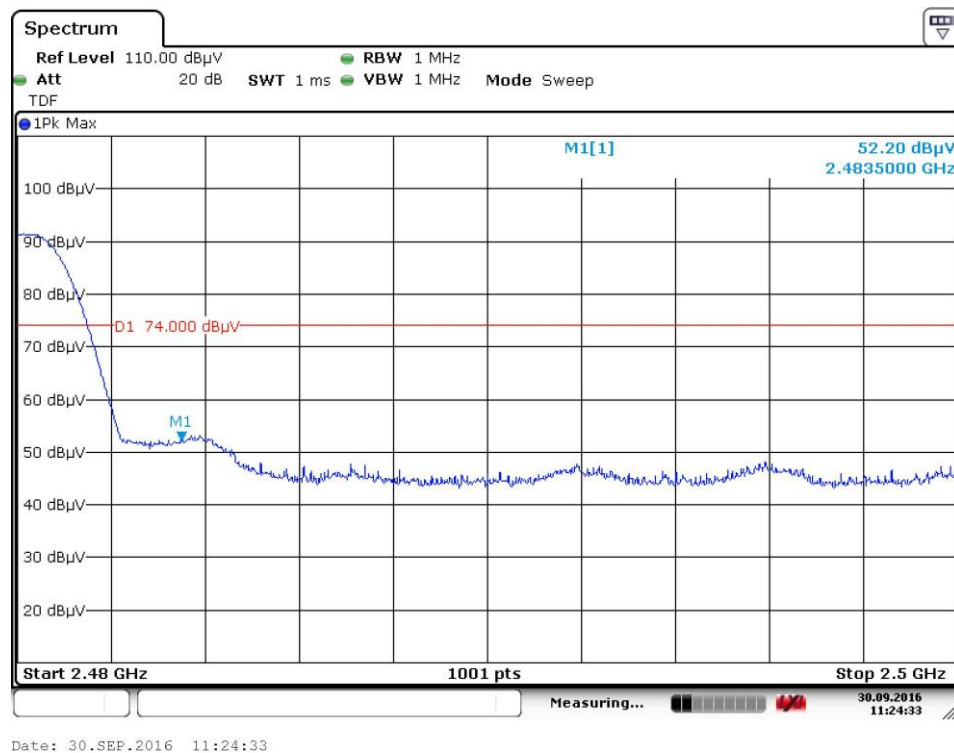
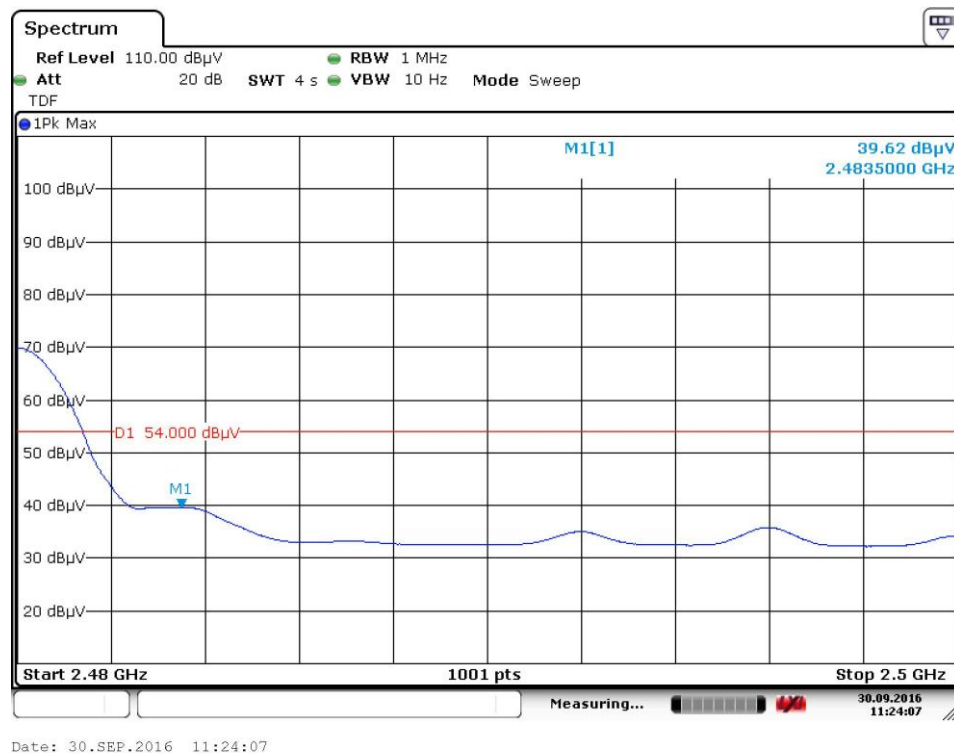
Low Channel (Ver)



Spurious Emissions, Band Edge, 2.35-2.5G

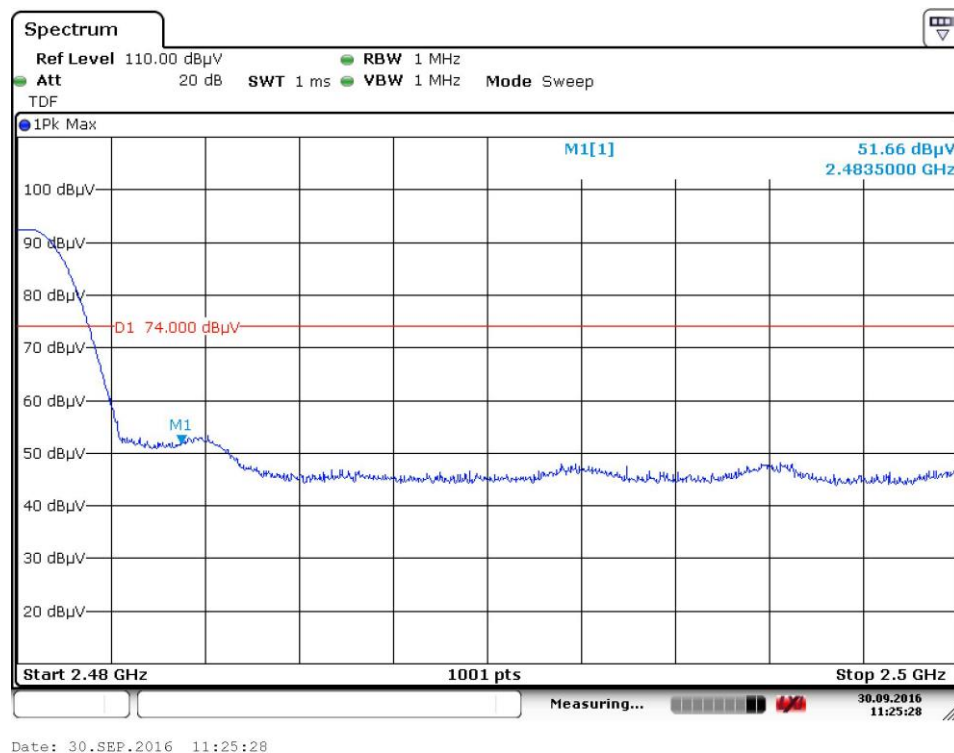
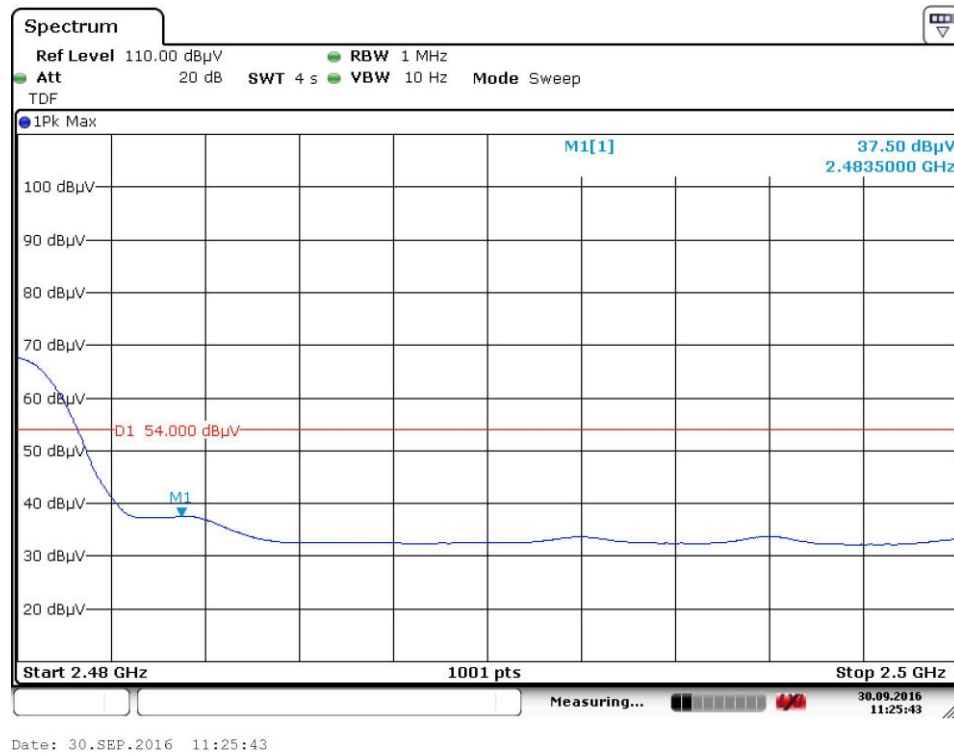
Radiated Bandedge (GFSK)

High Channel (Hor)



Spurious Emissions, Band Edge, 2.35-2.5G

High Channel (Ver)



Spurious Emissions, Band Edge, 2.35-2.5G

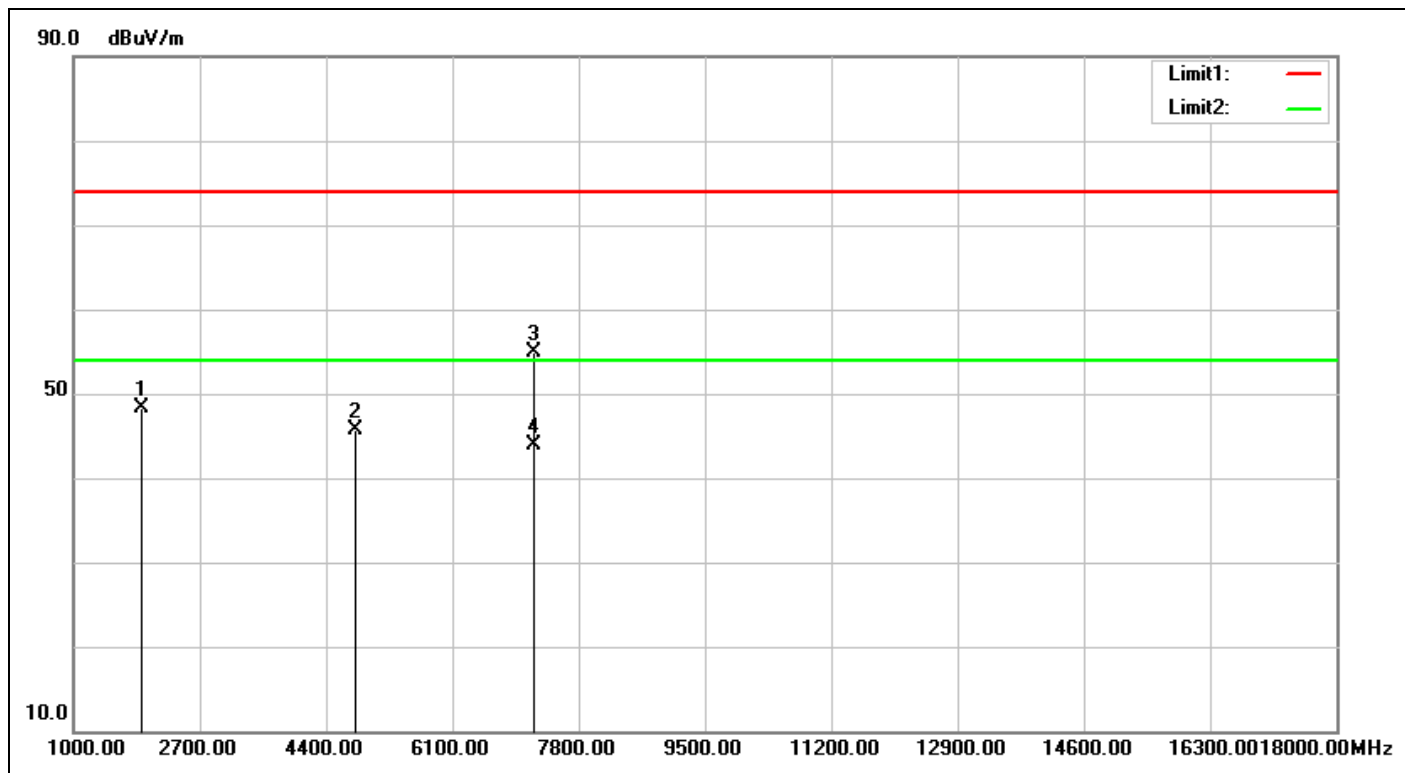
Spurious Emissions, TX Mode, 1-18G



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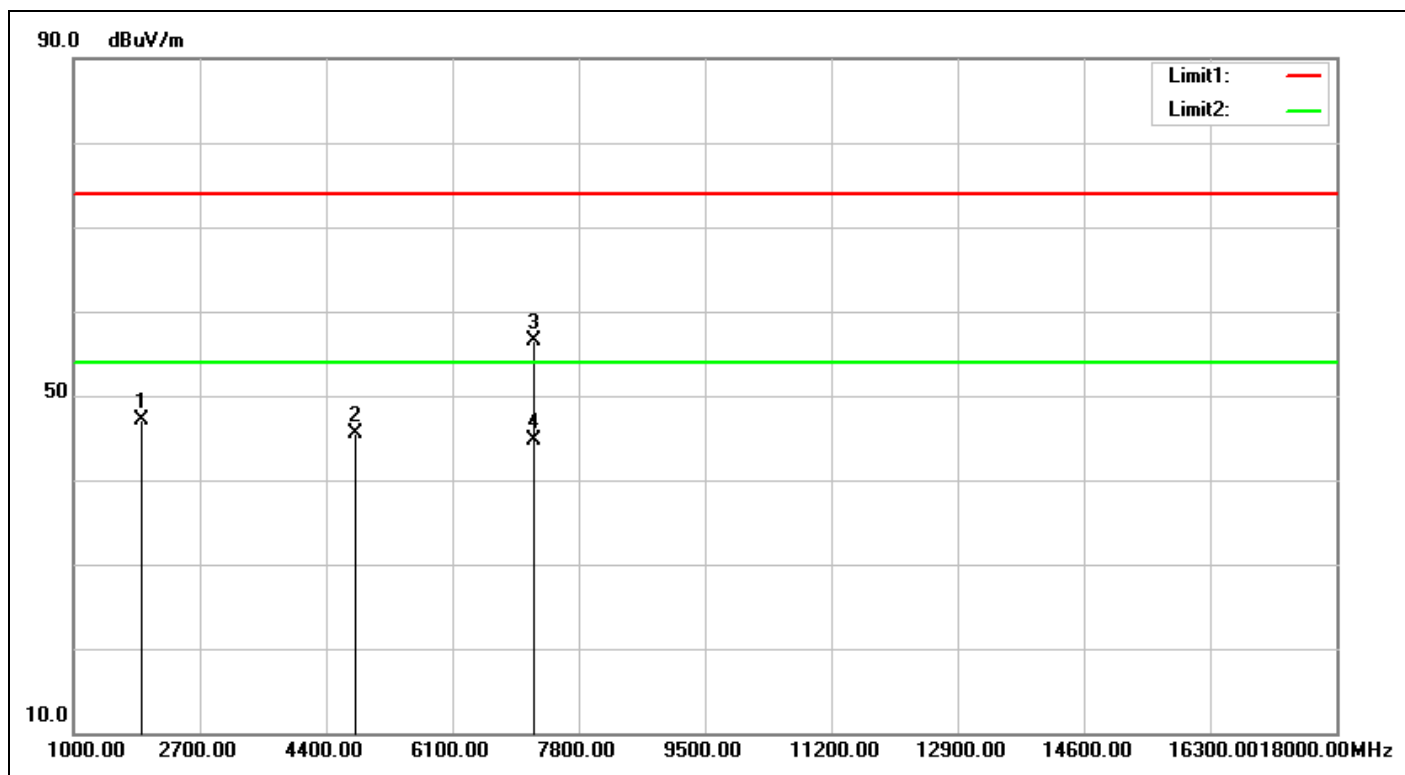
Tel:+886-2172-7000 fax:+886-2528-0018



Service No.:	114055943-FCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/30 11:30:50
Applicant:	Vencer	Test Rating:	DC 1.5V
Product:	Bluetooth Plant Sensor	Temp.(°C)/Hum.(%):	23.5(°C)/65%
Model No.:	VR-2100	Test Engineer:	George Yang
Test Mode:	2402-TX		
Remark:			

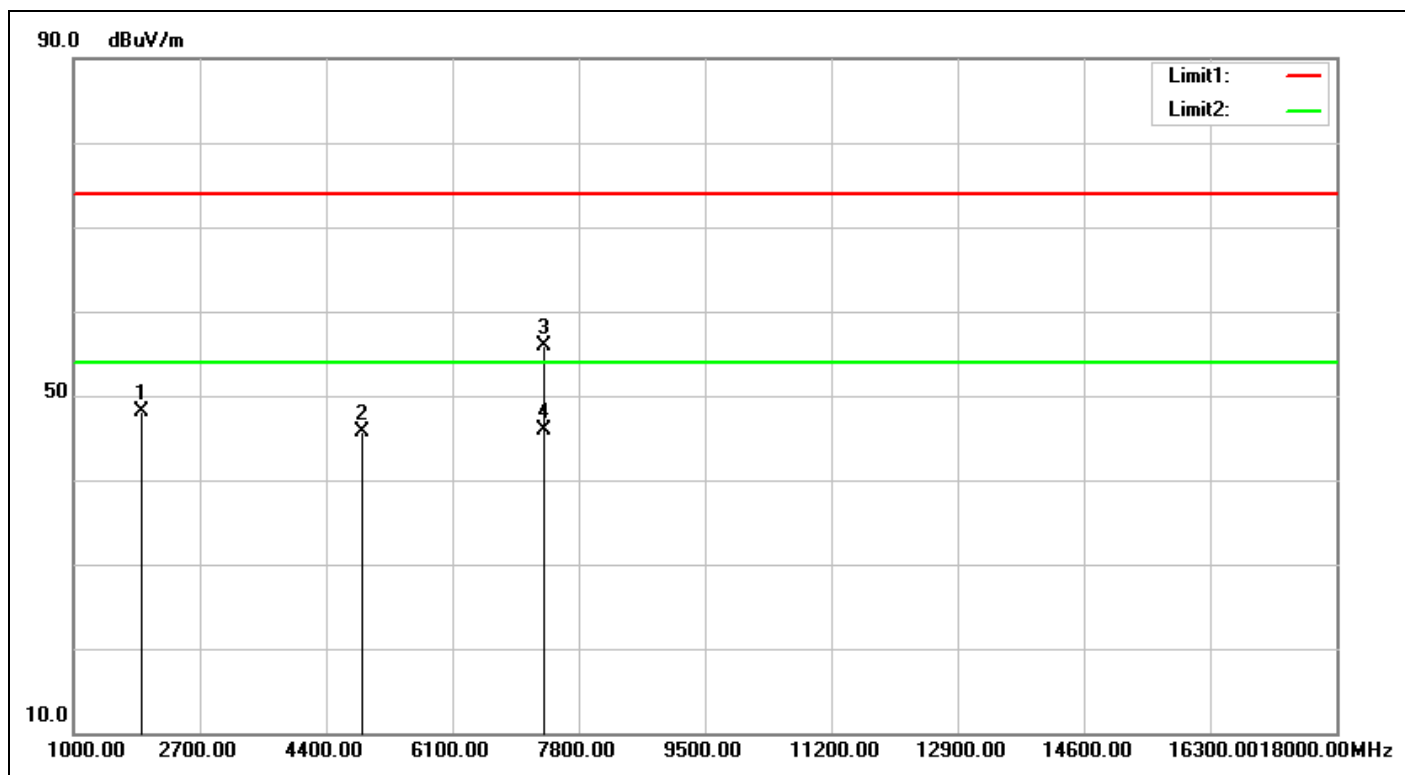
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1918.000	-7.67	56.05	48.38	74.00	-25.62	peak	100	27	
2	4804.000	-2.64	48.30	45.66	74.00	-28.34	peak		0	
3	7206.000	5.57	49.40	54.97	74.00	-19.03	peak	100	240	
4	7206.000	5.57	38.30	43.87	54.00	-10.13	AVG	100	240	

Spurious Emissions, TX Mode, 1-18G



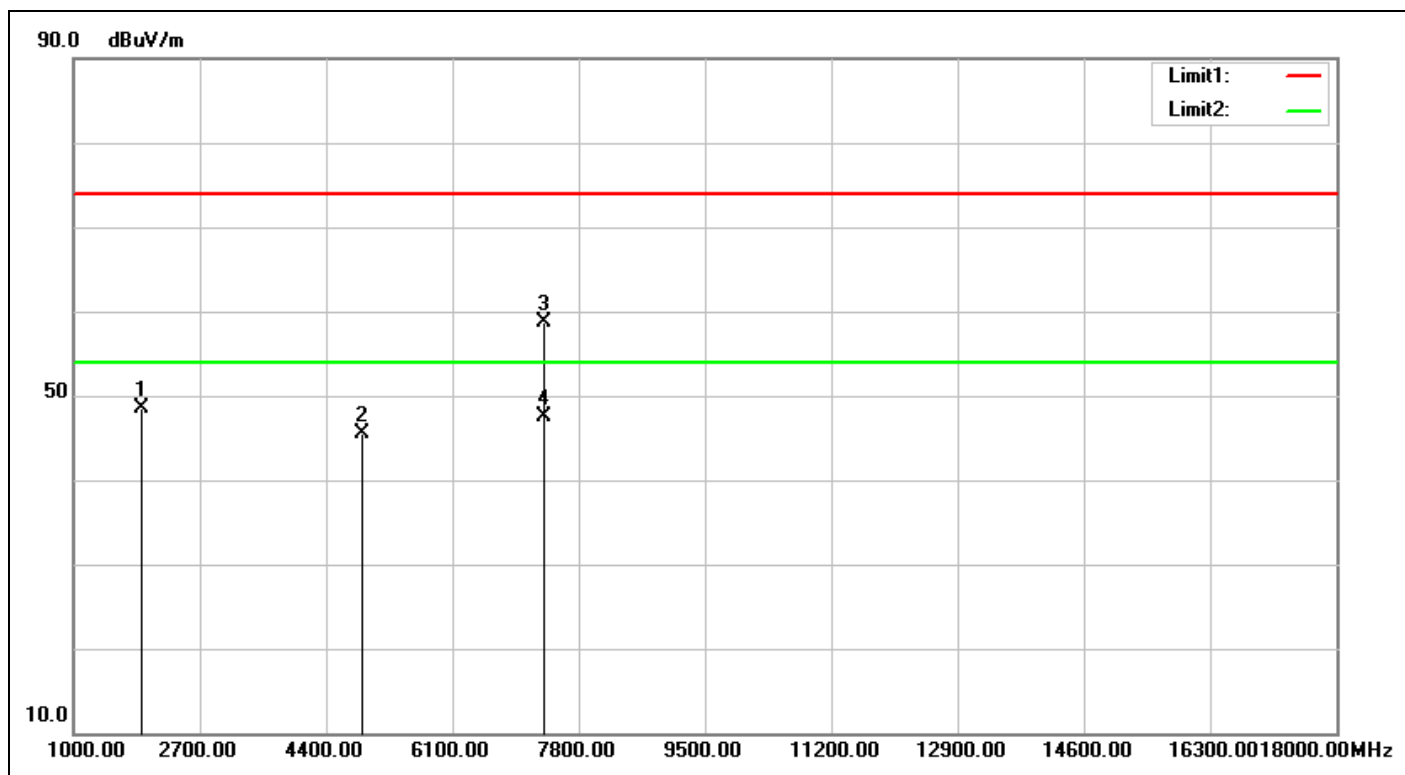
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Test item:	Radiation Emission	Test Time:	2016/9/30 11:31:52
Applicant:	Vencer	Test Rating:	DC 1.5V
Product:	Bluetooth Plant Sensor	Temp.(°C)/Hum.(%)	23.5(°C)/65%
Model No.:	VR-2100	Test Engineer:	George Yang
Test Mode:	2402-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1918.000	-7.67	54.80	47.13	74.00	-26.87	peak	100	267	
2	4804.000	-2.64	48.09	45.45	74.00	-28.55	peak			
3	7206.000	5.57	51.02	56.59	74.00	-17.41	peak	100	275	
4	7206.000	5.57	39.10	44.67	54.00	-9.33	AVG	100	275	



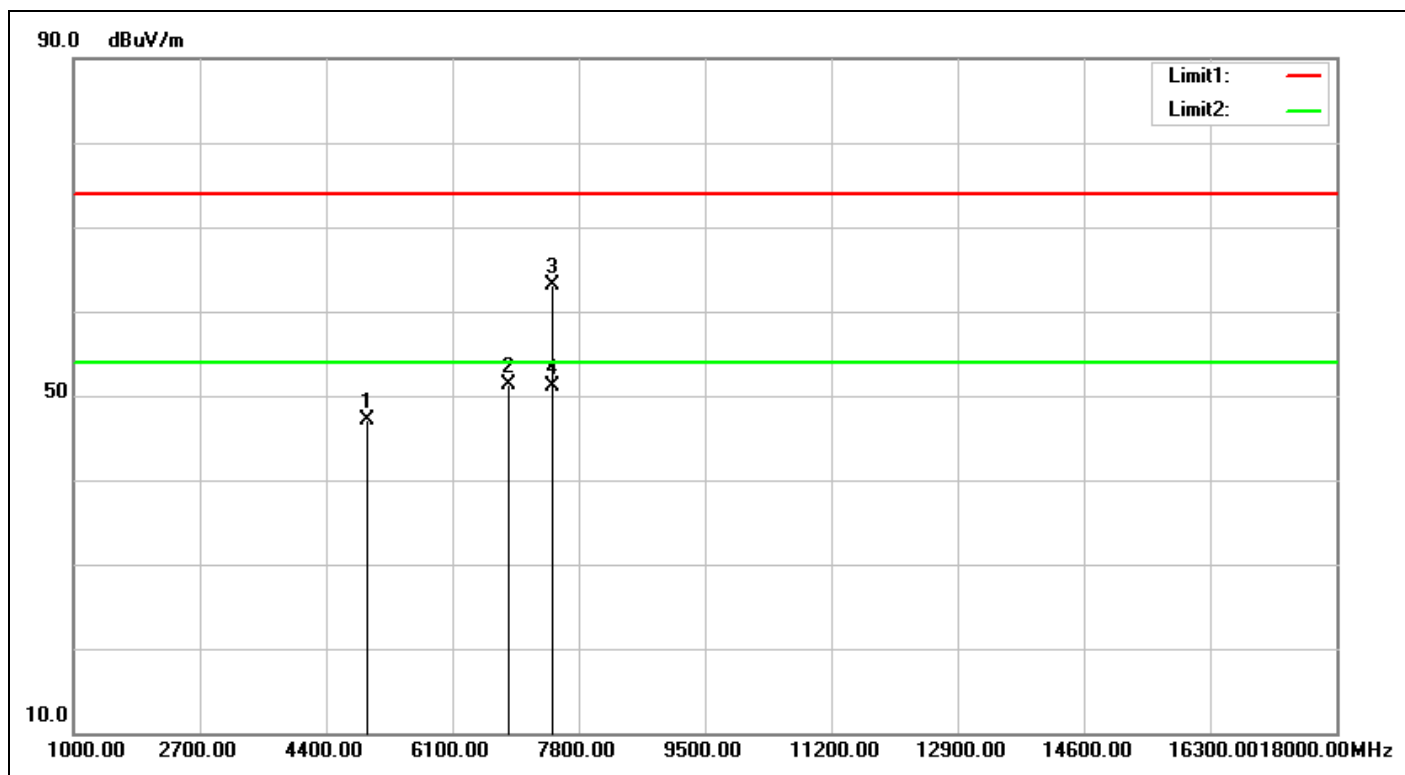
Service No.:	114055943-FCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/30 11:35:07
Applicant:	Vencer	Test Rating:	DC 1.5V
Product:	Bluetooth Plant Sensor	Temp.(°C)/Hum.(%)	23.5(°C)/65%
Model No.:	VR-2100	Test Engineer:	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	1918.000	-7.67	55.81	48.14	74.00	-25.86	peak	100	26	
2	4880.000	-2.47	48.12	45.65	74.00	-28.35	peak			
3	7320.000	5.90	50.06	55.96	74.00	-18.04	peak	100	240	
4	7320.000	5.90	40.10	46.00	54.00	-8.00	AVG	100	240	



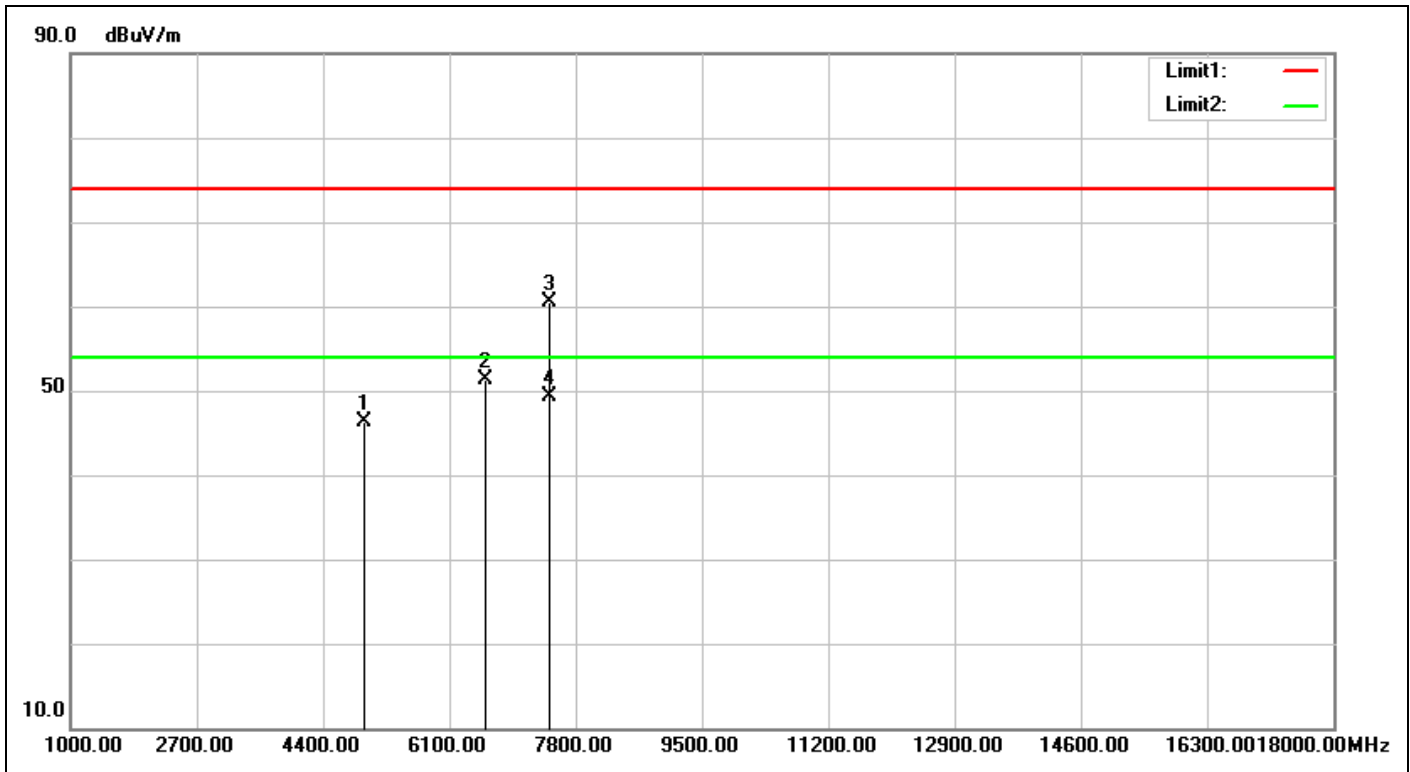
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Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/30 11:36:09
Applicant:	Vencer	Test Rating:	DC 1.5V
Product:	Bluetooth Plant Sensor	Temp.(°C)/Hum.(%)	23.5(°C)/65%
Model No.:	VR-2100	Test Engineer:	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	1918.000	-7.67	56.09	48.42	74.00	-25.58	peak	100	321	
2	4880.000	-2.47	48.01	45.54	74.00	-28.46	peak			
3	7320.000	5.90	52.81	58.71	74.00	-15.29	peak	100	266	
4	7320.000	5.90	41.70	47.60	54.00	-6.40	AVG	100	266	



Service No.:	114055943-FCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/30 14:30:14
Applicant:	Vencer	Test Rating:	DC 1.5V
Product:	Bluetooth Plant Sensor	Temp.(°C)/Hum.(%):	23.5(°C)/53%
Model No.:	VR-2100	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	-3.29	50.31	47.02	74.00	-26.98	peak		0	
2	6865.000	4.08	47.27	51.35	74.00	-22.65	peak	100	100	
3	7440.000	5.20	57.97	63.17	74.00	-10.83	peak	100	164	
4	7440.000	5.20	45.90	51.10	54.00	-2.90	AVG	100	164	



Service No.:	114055943-FCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/30 14:31:17
Applicant:	Vencer	Test Rating:	DC 1.5V
Product:	Bluetooth Plant Sensor	Temp.(°C)/Hum.(%):	23.5(°C)/53%
Model No.:	VR-2100	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	-3.29	49.61	46.32	74.00	-27.68	peak			
2	6576.000	4.41	46.87	51.28	74.00	-22.72	peak	100	30	
3	7440.000	5.20	55.25	60.45	74.00	-13.55	peak	100	75	
4	7440.000	5.20	44.13	49.33	54.00	-4.67	AVG	100	75	

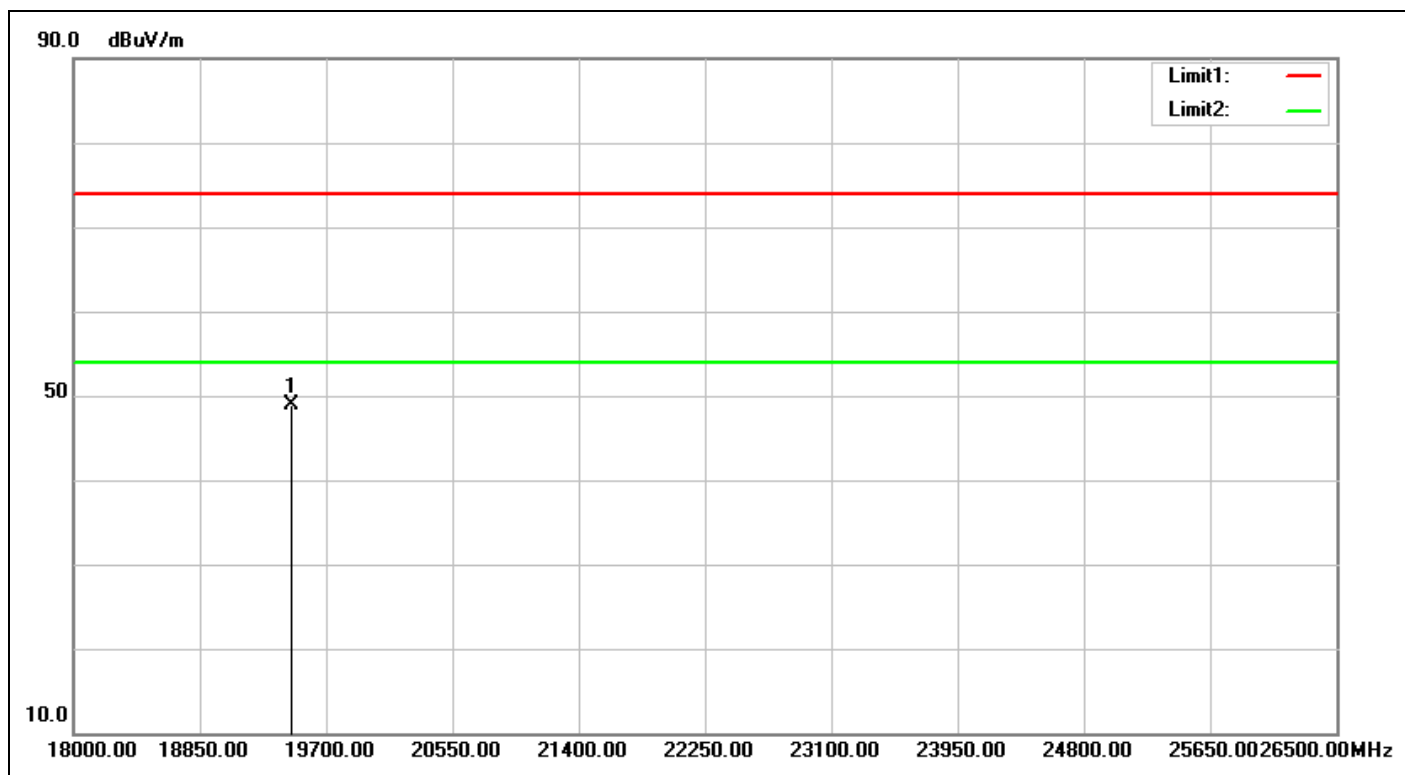
Spurious Emissions, TX Mode, 18-26G



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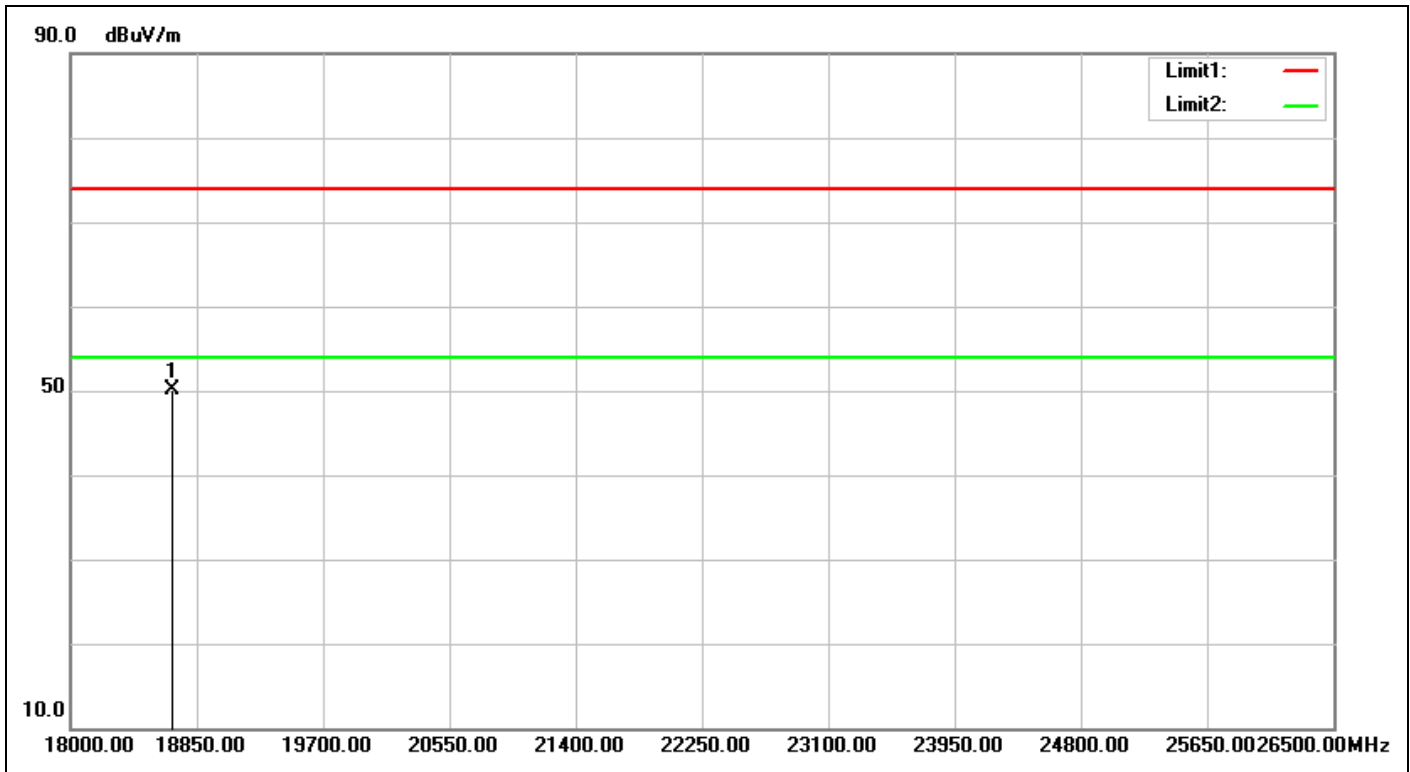
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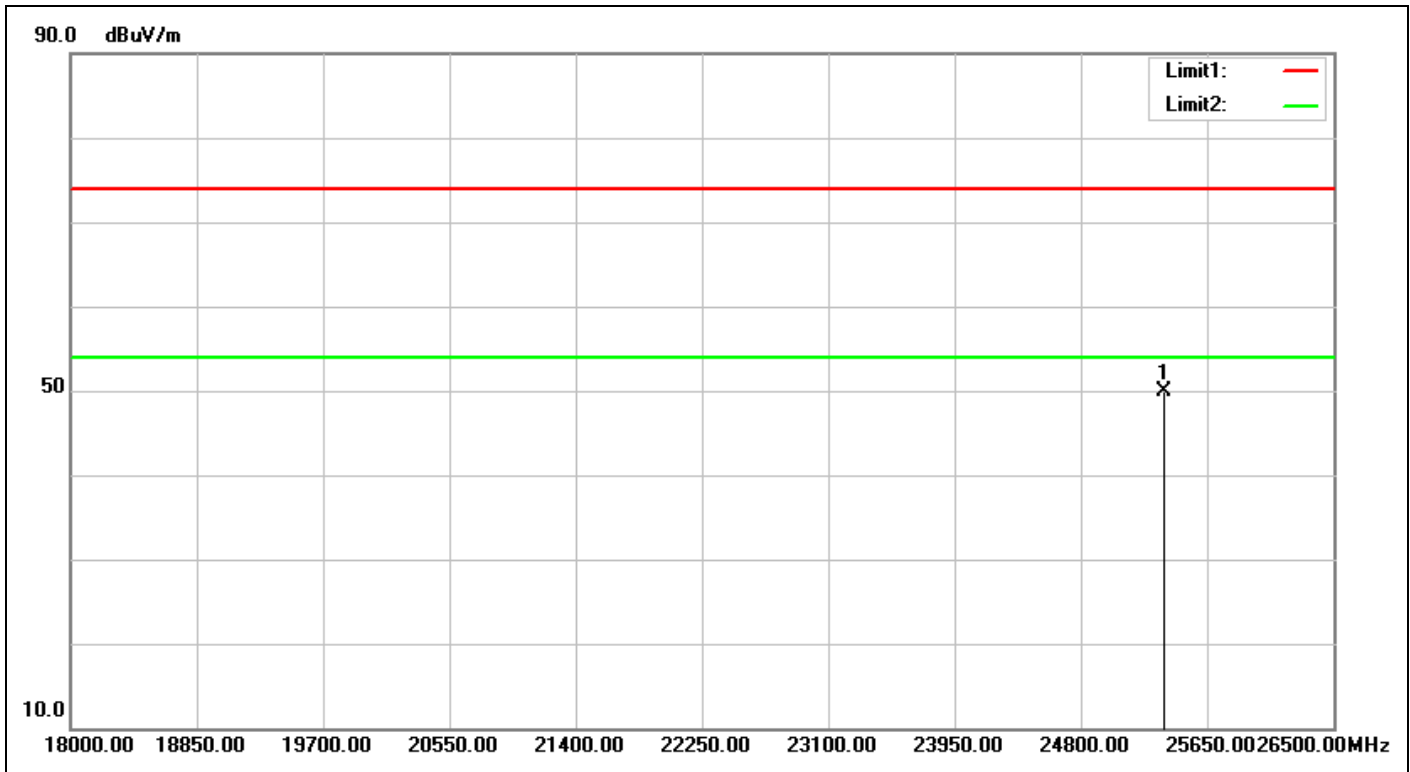
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Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/30 13:05:27
Applicant:	Vencer	Test Rating:	DC 1.5V
Product:	Bluetooth Plant Sensor	Temp.(°C)/Hum.(%)	23.5(°C)/65%
Model No.:	VR-2100	Test 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	19470.500	29.58	19.23	48.81	74.00	-25.19	peak		0	



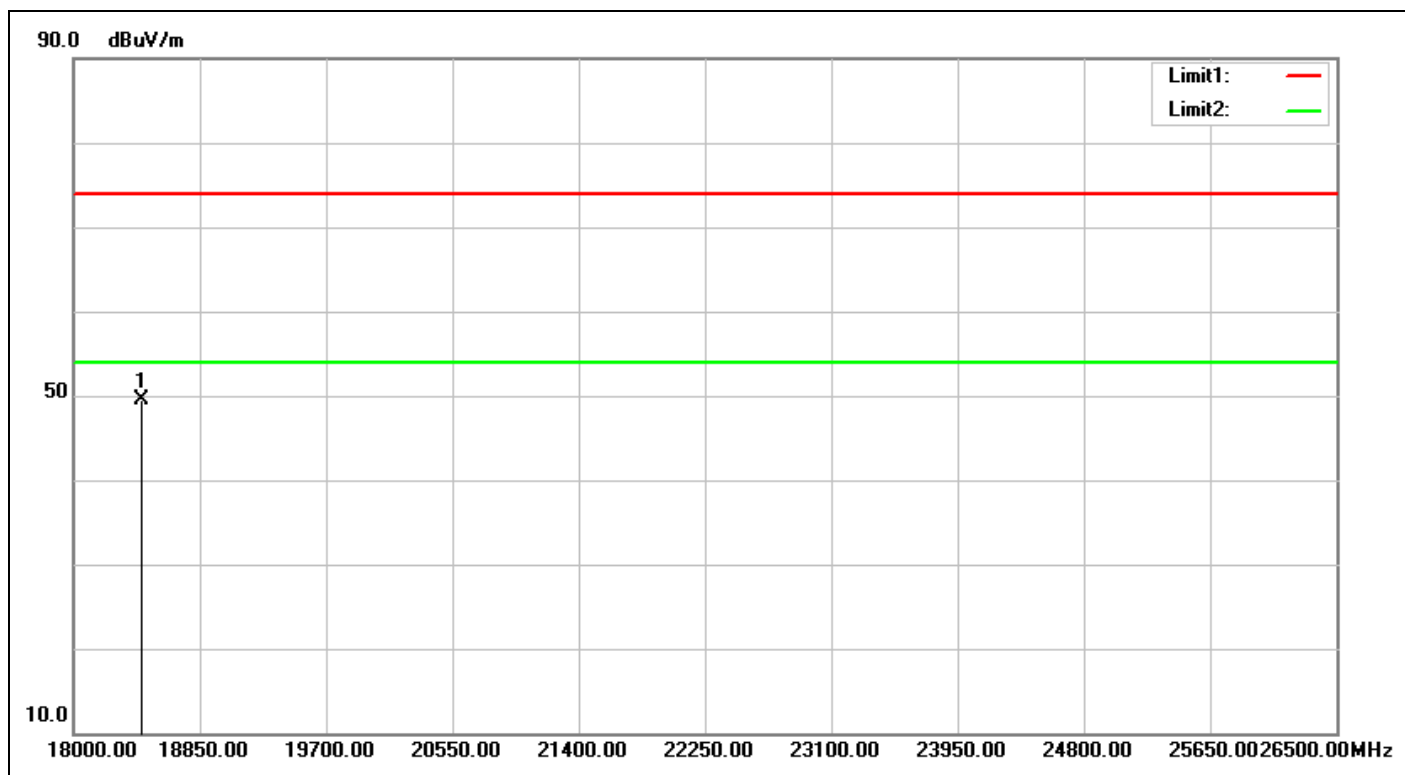
Service No.:	114055943-FCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/30 13:05:37
Applicant:	Vencer	Test Rating:	DC 1.5V
Product:	Bluetooth Plant Sensor	Temp.(°C)/Hum.(%):	23.5(°C)/65%
Model No.:	VR-2100	Test Engineer:	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	18688.500	29.18	21.00	50.18	74.00	-23.82	peak			



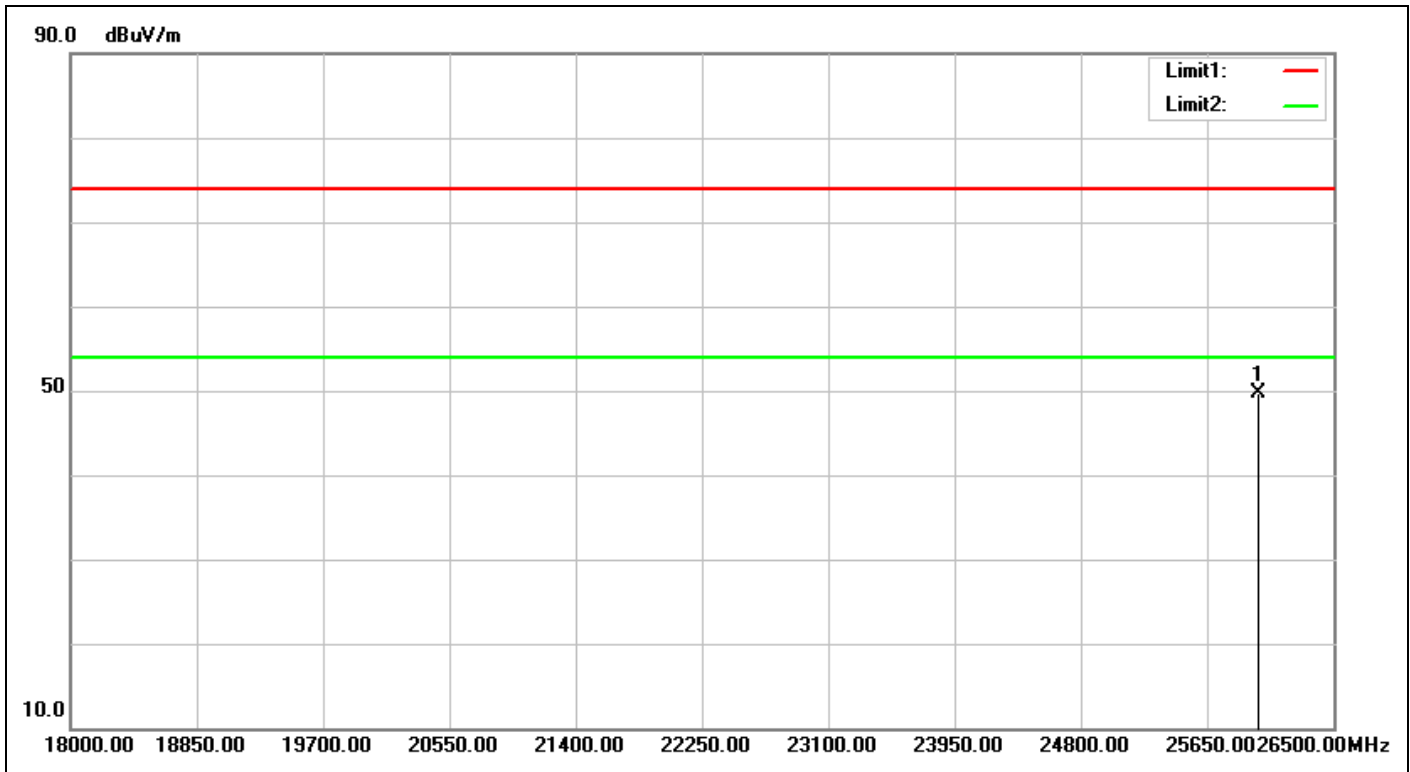
Service No.:	114055943-FCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/30 13:05:51
Applicant:	Vencer	Test Rating:	DC 1.5V
Product:	Bluetooth Plant Sensor	Temp.(°C)/Hum.(%):	23.5(°C)/65%
Model No.:	VR-2100	Test Engineer:	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	25361.000	31.48	18.35	49.83	74.00	-24.17	peak			



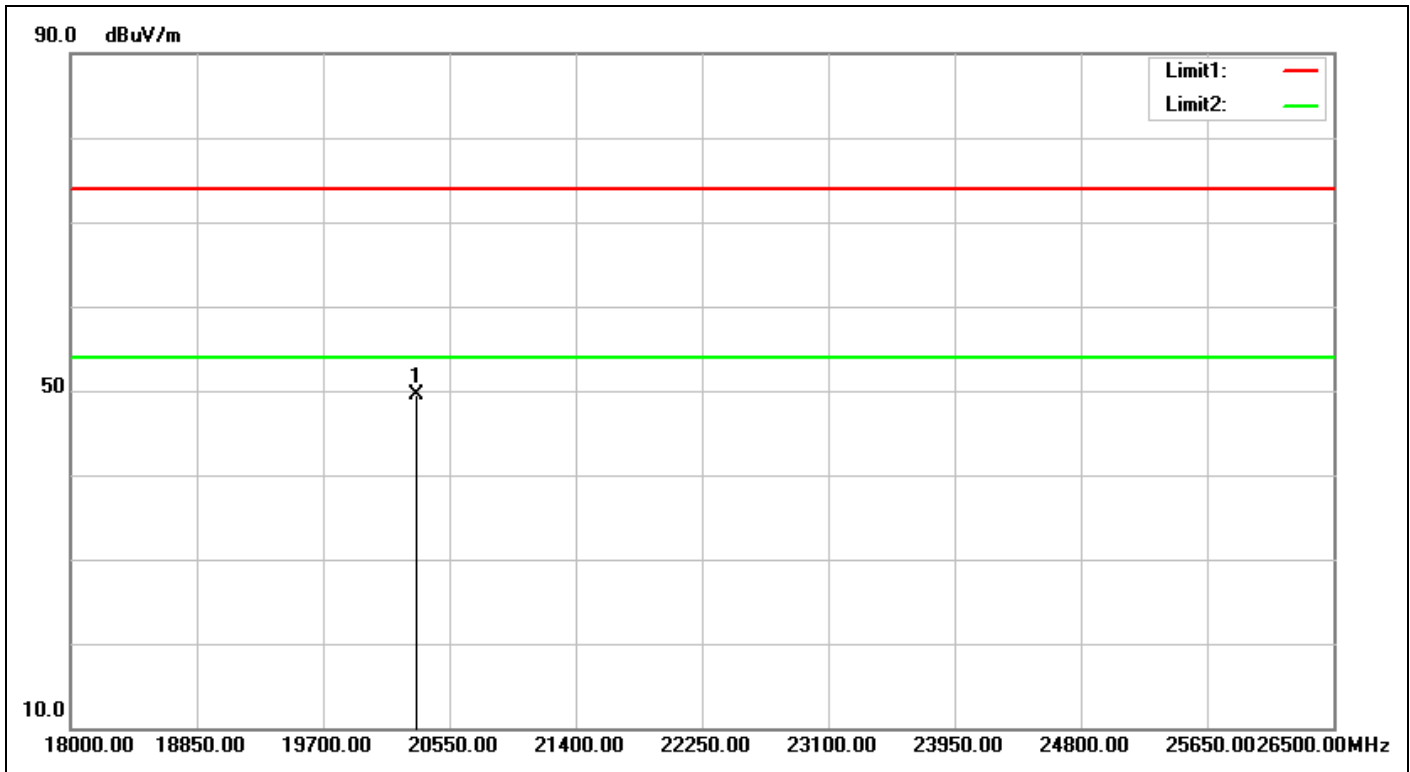
Service No.:	114055943-FCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/30 13:06:02
Applicant:	Vencer	Test Rating:	DC 1.5V
Product:	Bluetooth Plant Sensor	Temp.(°C)/Hum.(%):	23.5(°C)/65%
Model No.:	VR-2100	Test Engineer:	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	18459.000	29.07	20.37	49.44	74.00	-24.56	peak			



Service No.:	114055943-FCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/30 13:06:16
Applicant:	Vencer	Test Rating:	DC 1.5V
Product:	Bluetooth Plant Sensor	Temp.(°C)/Hum.(%):	23.5(°C)/65%
Model No.:	VR-2100	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	25998.500	31.86	17.80	49.66	74.00	-24.34	peak			



Service No.:	114055943-FCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/30 13:06:25
Applicant:	Vencer	Test Rating:	DC 1.5V
Product:	Bluetooth Plant Sensor	Temp.(°C)/Hum.(%):	23.5(°C)/65%
Model No.:	VR-2100	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	20329.000	29.83	19.63	49.46	74.00	-24.54	peak			

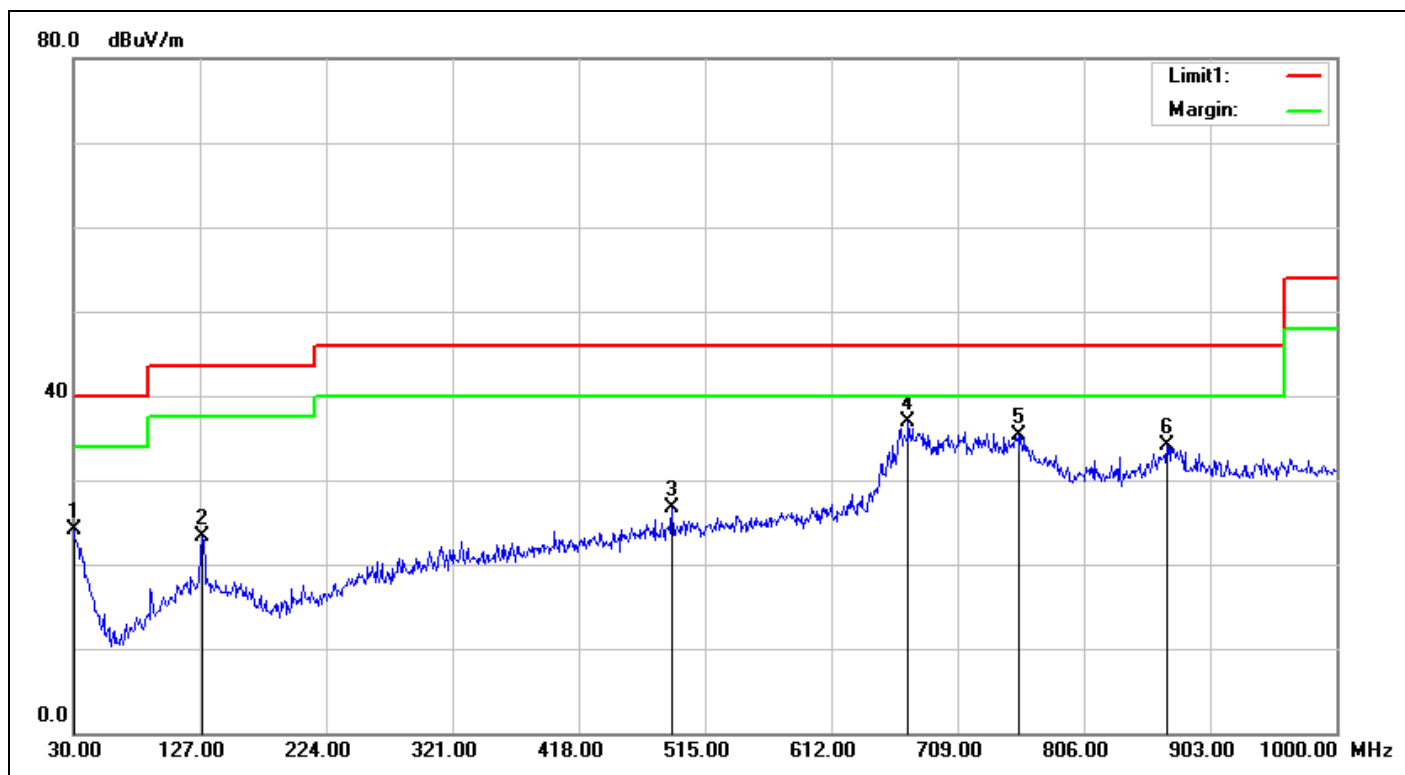
Spurious Emissions, TX Mode, 30M-1G



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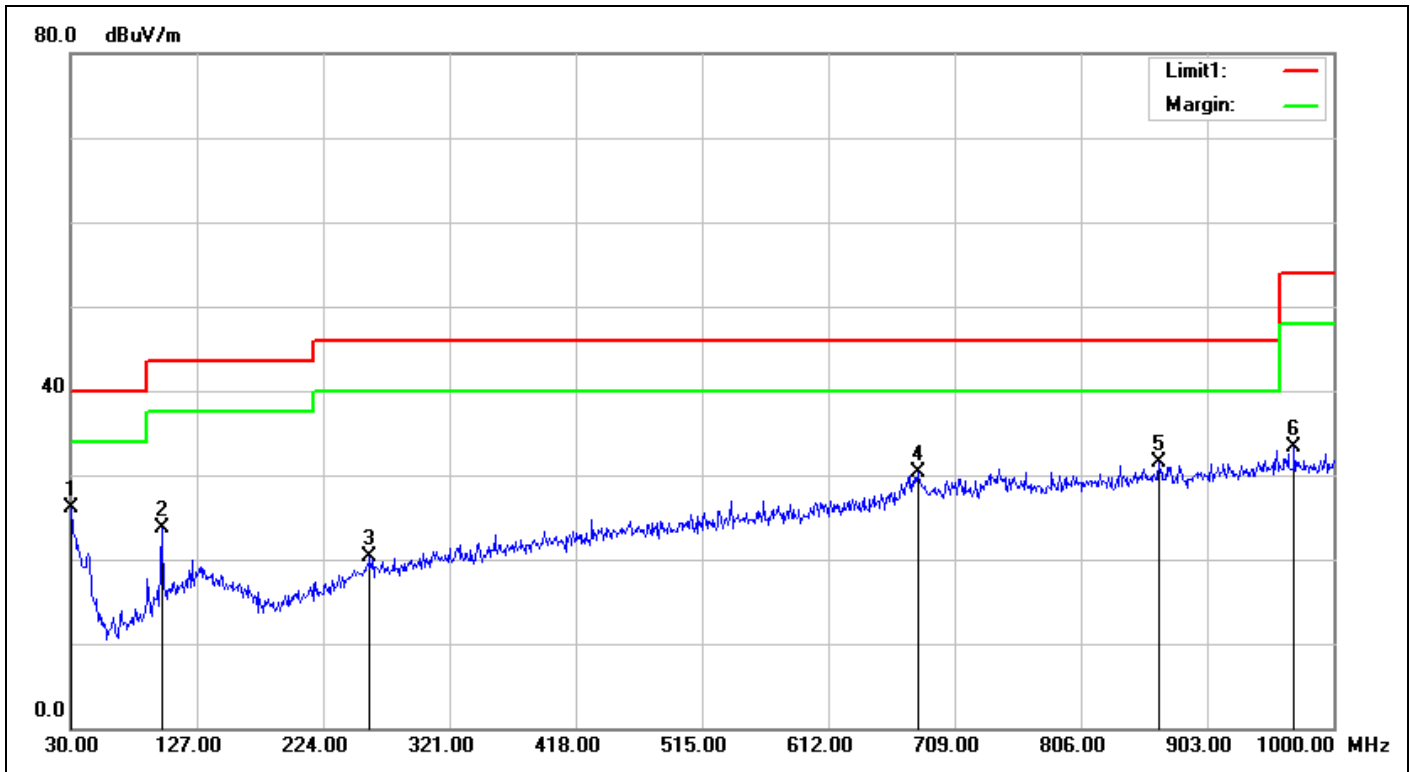
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Tel:+886-2172-7000 fax:+886-2528-0018



Service No.:	114055943-FCC	Test Distance:	3m
Test Standard:	FCC Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/30 13:17:31
Applicant:	Vencer	Test Rating:	DC 1.5V
Product:	Bluetooth Plant Sensor	Temp.(°C)/Hum.(%):	23.5(°C)/65%
Model No.:	VR-2100	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	-0.07	24.22	24.15	40.00	-15.85	QP	100	10	
2	128.9400	-7.00	30.21	23.21	43.50	-20.29	QP	100	274	
3	489.7800	-1.49	28.21	26.72	46.00	-19.28	QP	100	354	
4	671.1700	0.77	36.18	36.95	46.00	-9.05	QP	100	112	
5	755.5599	2.39	32.88	35.27	46.00	-10.73	QP	100	58	
6	870.0200	3.87	30.22	34.09	46.00	-11.91	QP	100	272	



Service No.:	114055943-FCC	Test Distance:	3m
Test Standard:	FCC Class B 3M Radiation	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/30 13:18:35
Applicant:	Vencer	Test Rating:	DC 1.5V
Product:	Bluetooth Plant Sensor	Temp.(°C)/Hum.(%)	23.5(°C)/65%
Model No.:	VR-2100	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	30.9700	-0.62	26.67	26.05	40.00	-13.95	QP	100	27	
2	99.8400	-9.48	33.25	23.77	43.50	-19.73	QP	100	114	
3	259.8900	-4.89	25.22	20.33	46.00	-25.67	QP	100	44	
4	680.8700	0.87	29.47	30.34	46.00	-15.66	QP	100	210	
5	866.1400	3.84	27.65	31.49	46.00	-14.51	QP	100	202	
6	969.9300	5.57	27.83	33.40	54.00	-20.60	QP	100	1	