

# Test Report No.10040239 001

## Appendix D: Radiated Spurious Emission Data

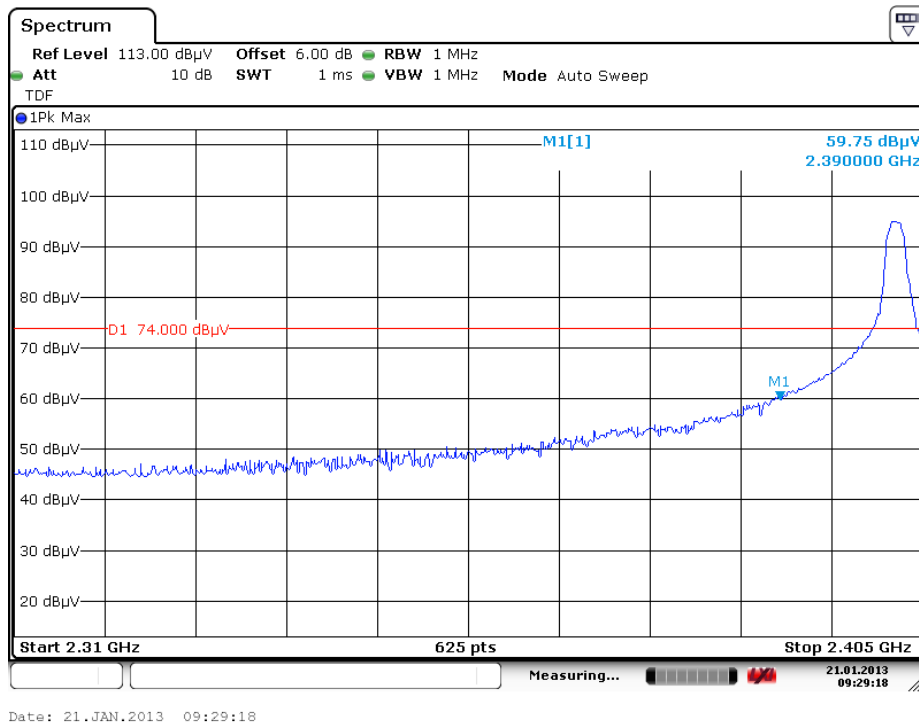
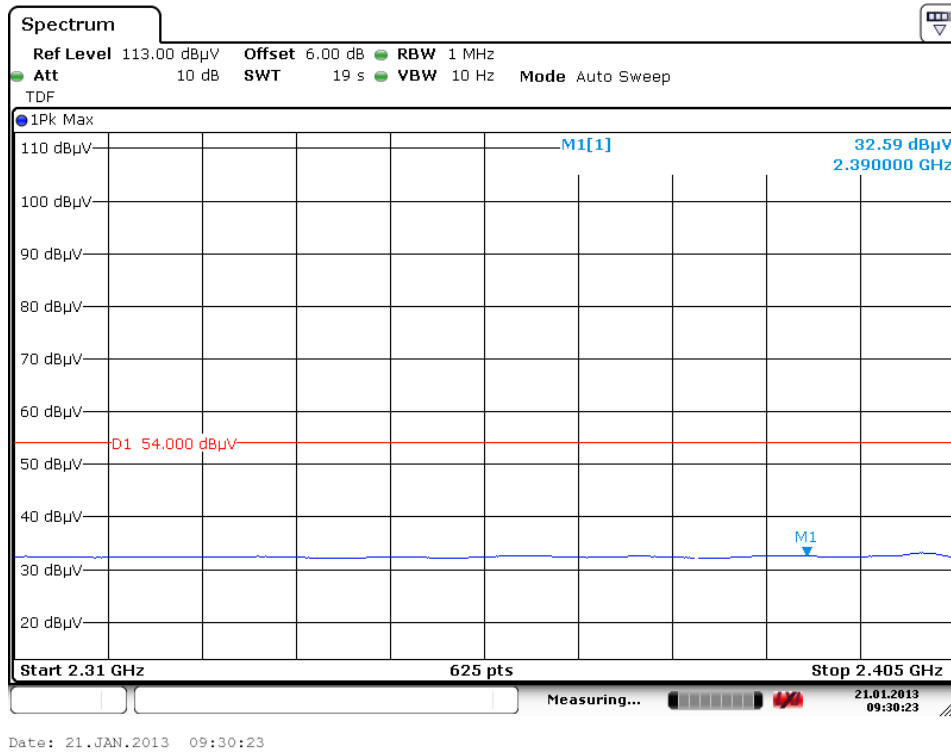
(File: 10040239AppendixD)

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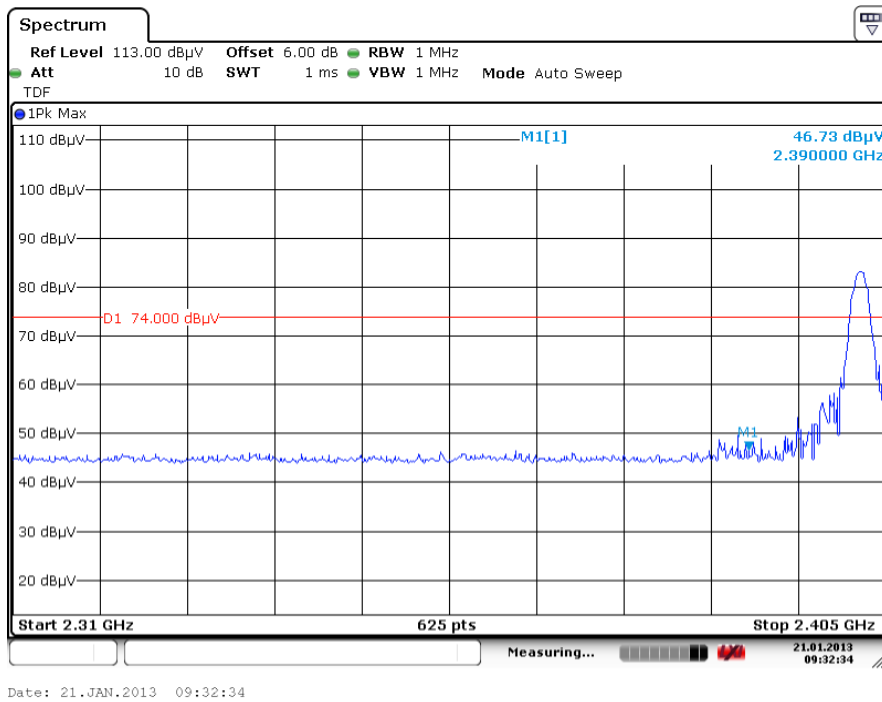
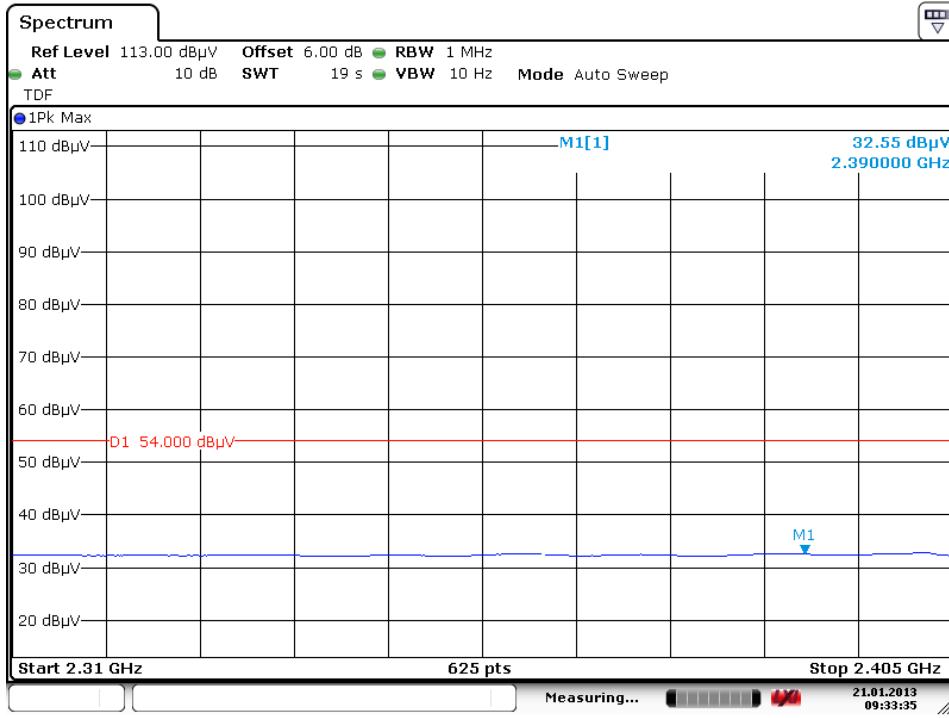
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# Radiated Bandedge (GFSK)

## Low Channel (Hor)

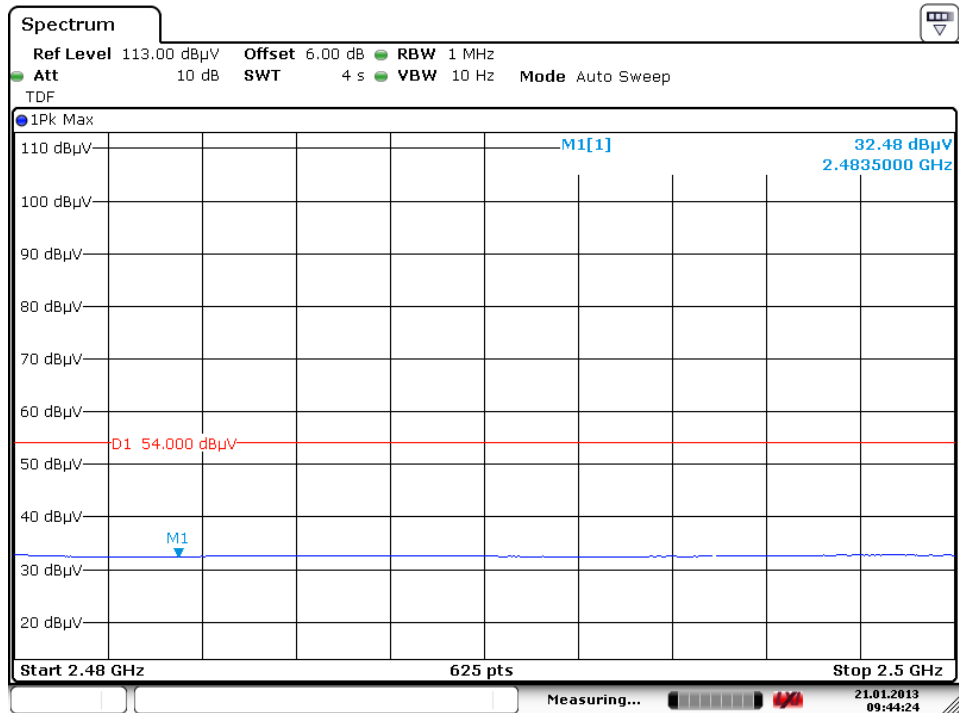


# Low Channel (Ver)

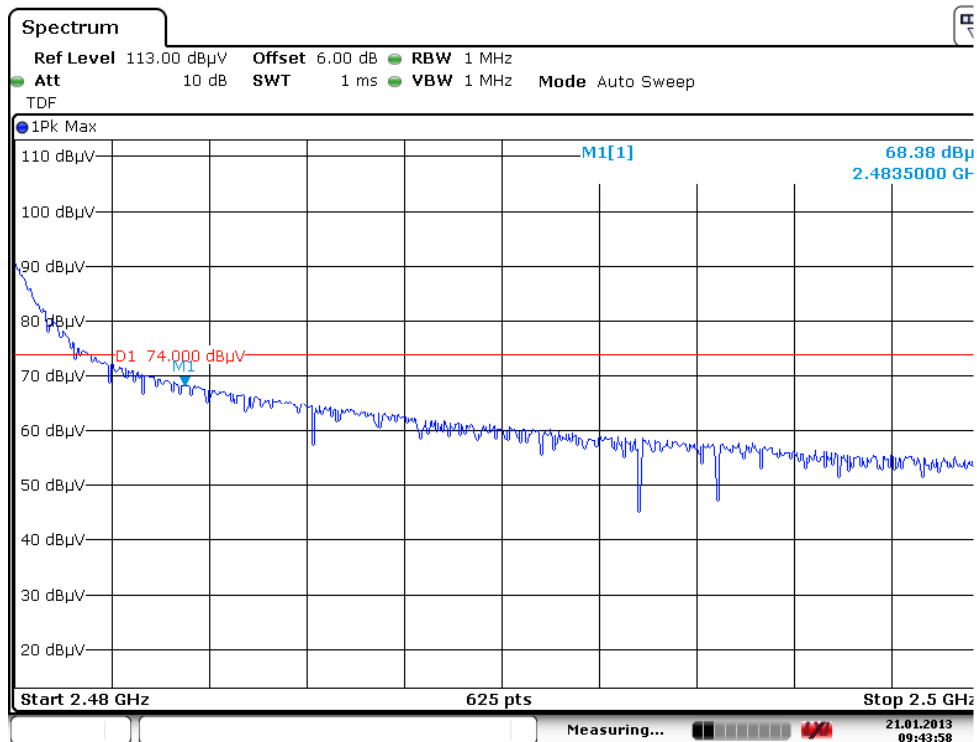


# Radiated Bandedge (GFSK)

## High Channel (Hor)

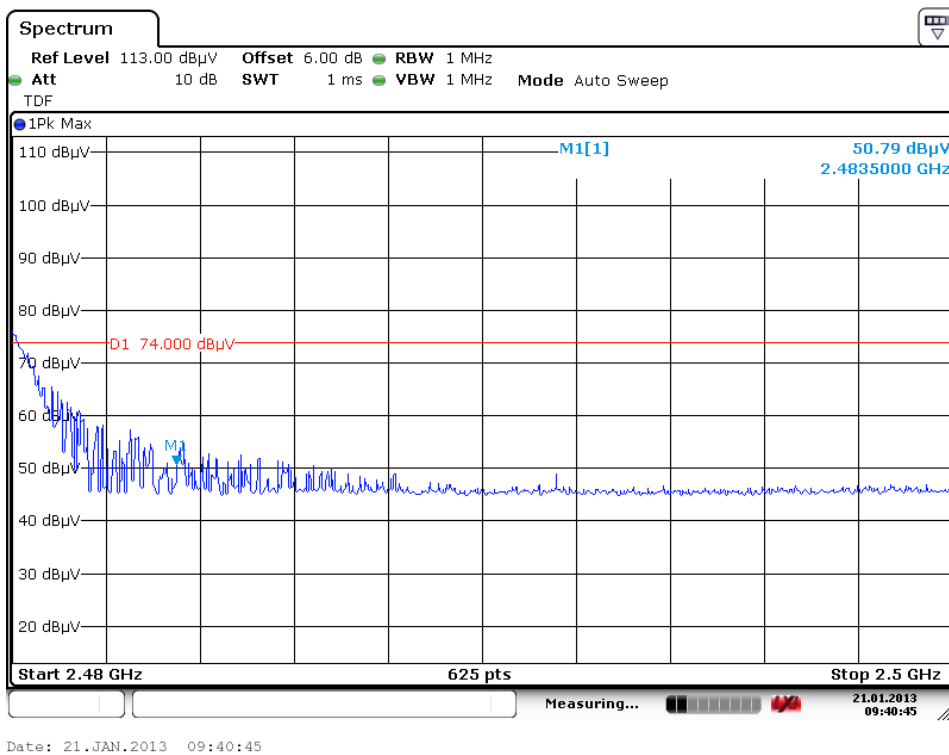
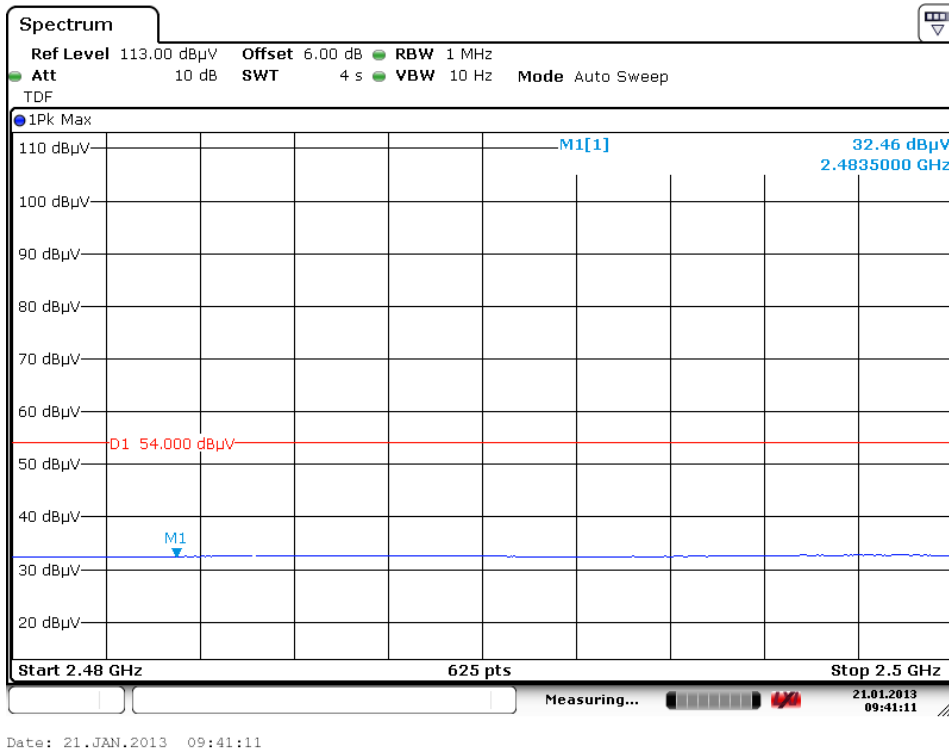


Date: 21.JAN.2013 09:44:24



Date: 21.JAN.2013 09:43:58

# High Channel (Ver)



## Spurious Emissions, Band Edge, 2.35-2.5G

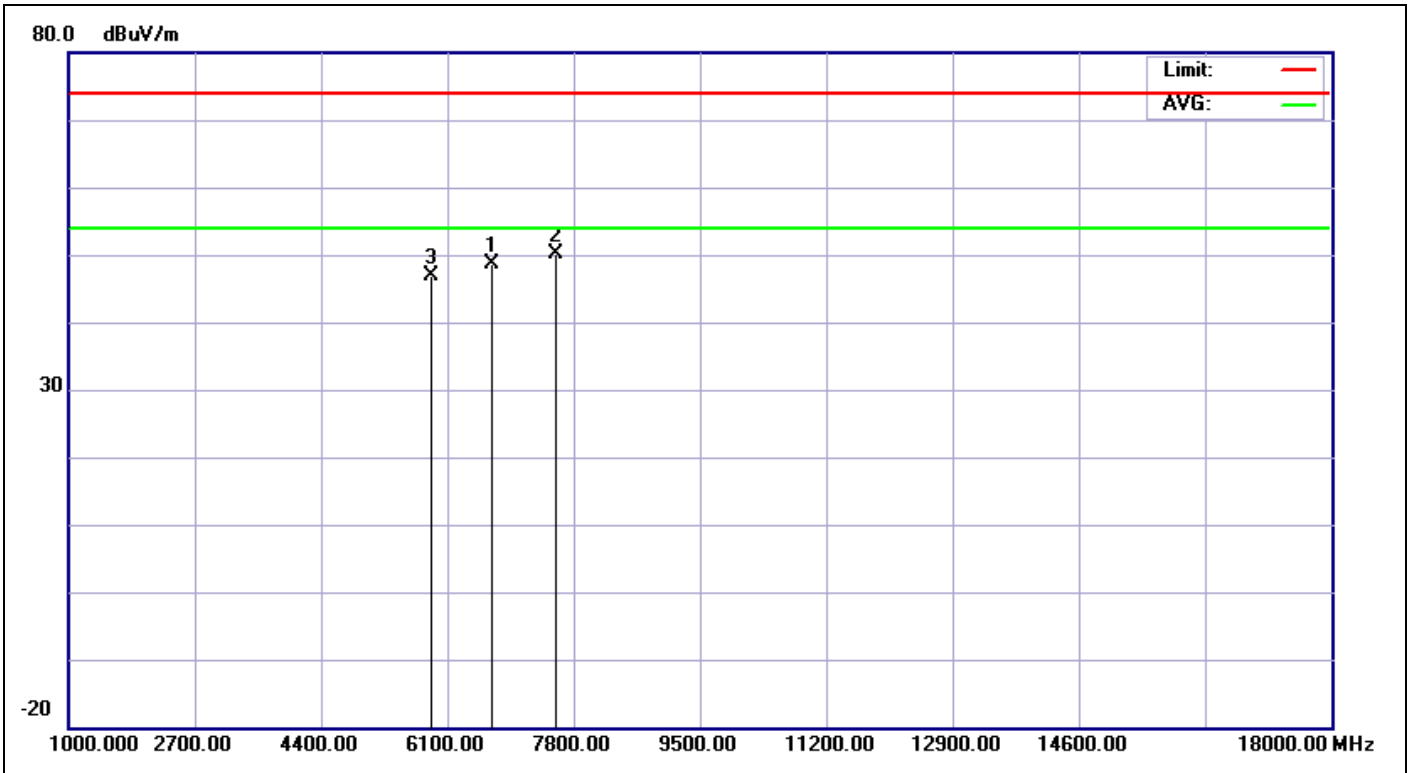
# Spurious Emissions, TX Mode, 1-18G



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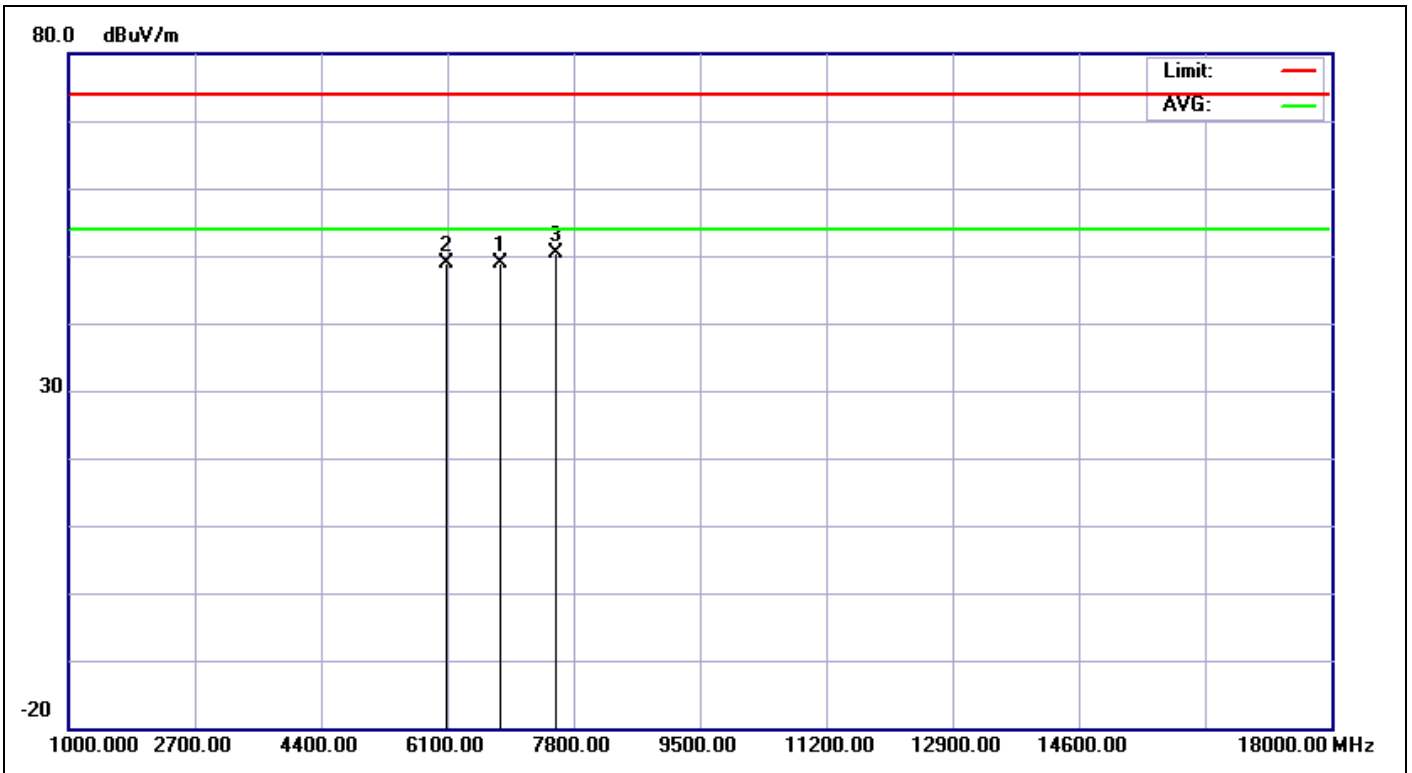
11F., No.758, Sec.4 Bade Road, Songshan Dist, Taipei City 105

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



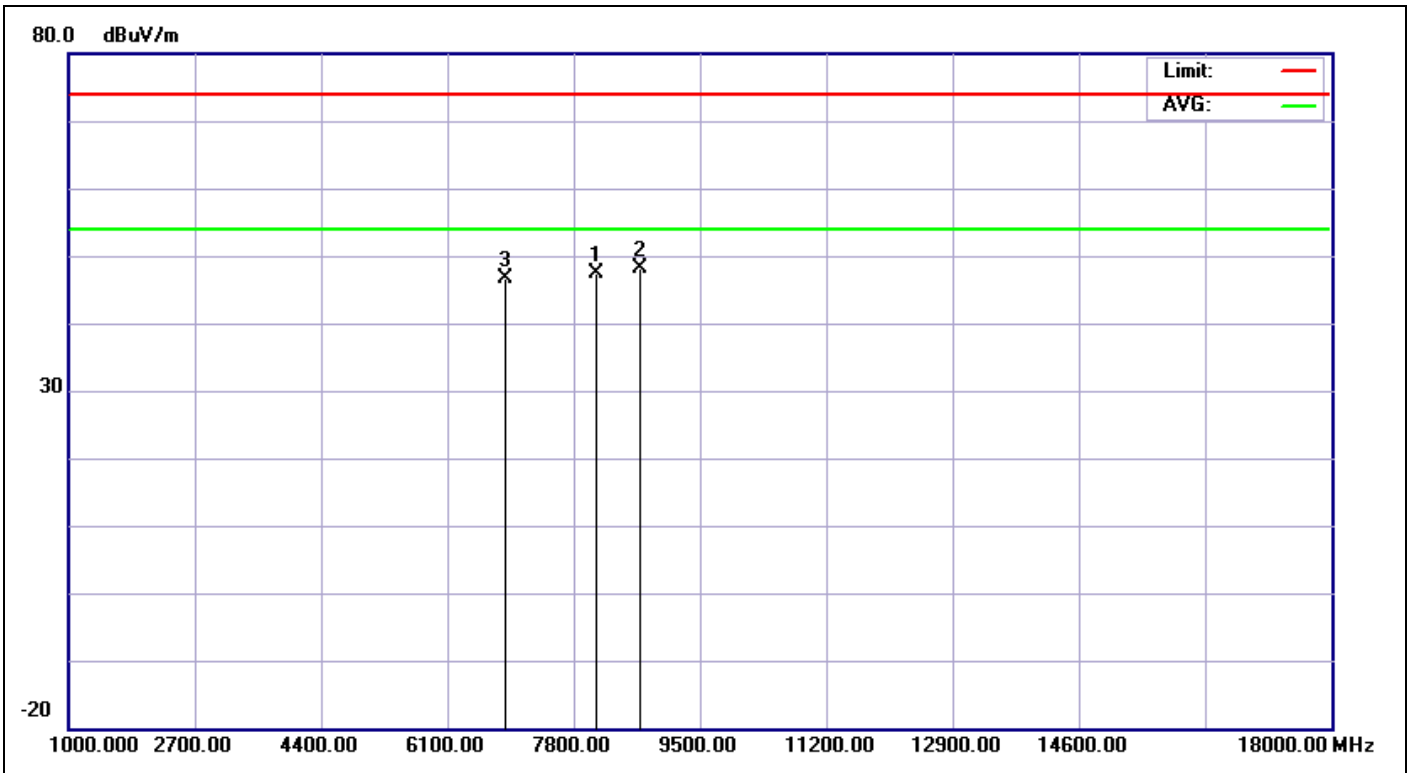
<b>Service No.:</b>	114005073	<b>Test Distance:</b>	3M
<b>Test Standard:</b>	FCC above 1G PEAK	<b>Ant. Polarization:</b>	Horizontal
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2013/1/21 AM 09:53:05
<b>Applicant:</b>	Lenovo	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Wireless Mouse	<b>Temp.(°C)/Hum.(%):</b>	21(°C)/57%
<b>Model No.:</b>		<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>	CH2402		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	6698.000	5.18	43.35	48.53	74.00	-25.47	peak	100	360	
2	7569.000	7.55	42.51	50.06	74.00	-23.94	peak	100	360	
3	5882.000	1.99	44.92	46.91	74.00	-27.09	peak	100	360	



<b>Service No.:</b>	114005073	<b>Test Distance:</b>	3M
<b>Test Standard:</b>	FCC above 1G PEAK	<b>Ant. Polarization:</b>	Vertical
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2013/1/21 AM 09:51:22
<b>Applicant:</b>	Lenovo	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Wireless Mouse	<b>Temp.(°C)/Hum.(%):</b>	21(°C)/57%
<b>Model No.:</b>		<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>	CH2402		
<b>Remark:</b>			

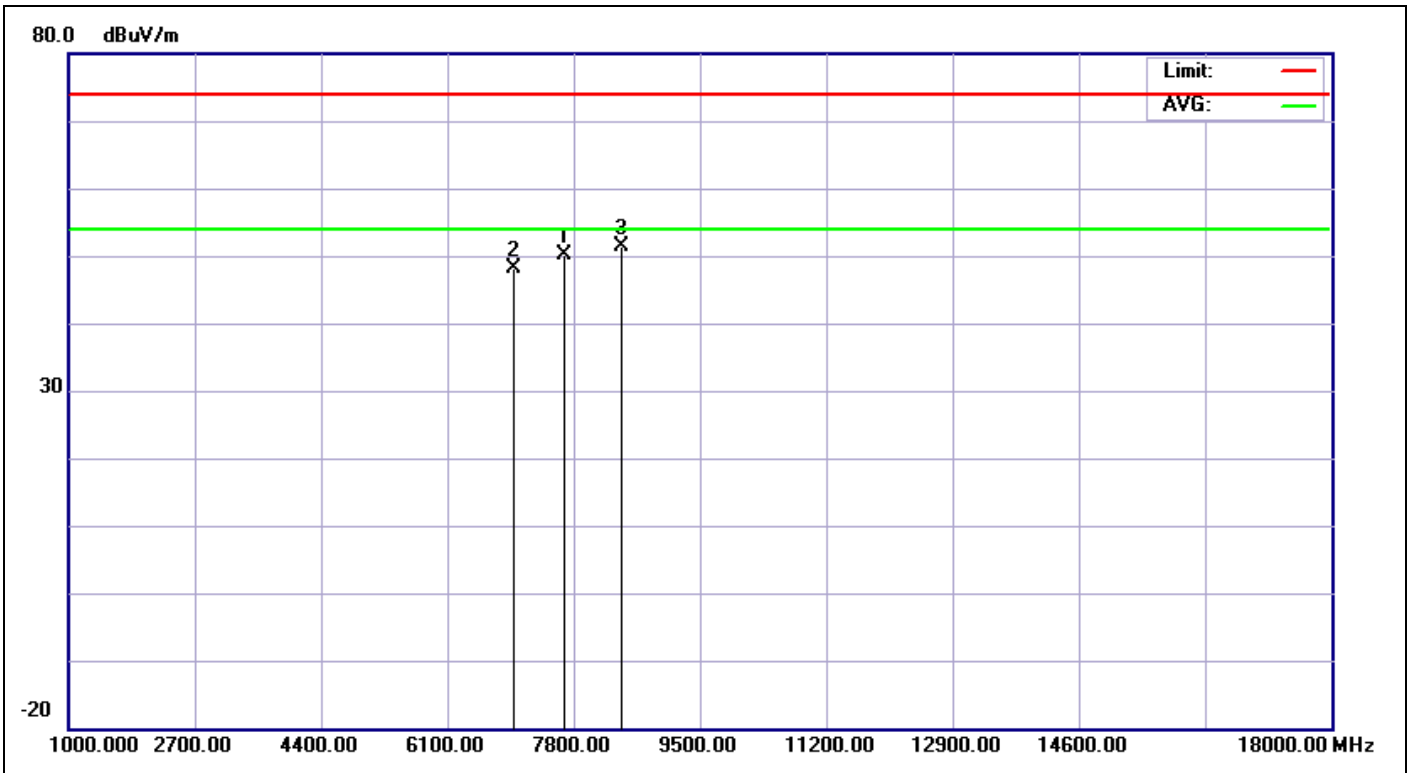
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	6807.000	5.30	43.58	48.88	74.00	-25.12	peak	100	360	
2	6100.000	3.21	45.61	48.82	74.00	-25.18	peak	100	360	
3	7569.000	7.55	42.71	50.26	74.00	-23.74	peak	100	360	



<b>Service No.:</b>	114005073	<b>Test Distance:</b>	3M
<b>Test Standard:</b>	FCC above 1G PEAK	<b>Ant. Polarization:</b>	Horizontal
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2013/1/21 AM 10:03:21
<b>Applicant:</b>	Lenovo	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Wireless Mouse	<b>Temp.(°C)/Hum.(%):</b>	21(°C)/57%
<b>Model No.:</b>		<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>	CH2441		
<b>Remark:</b>			

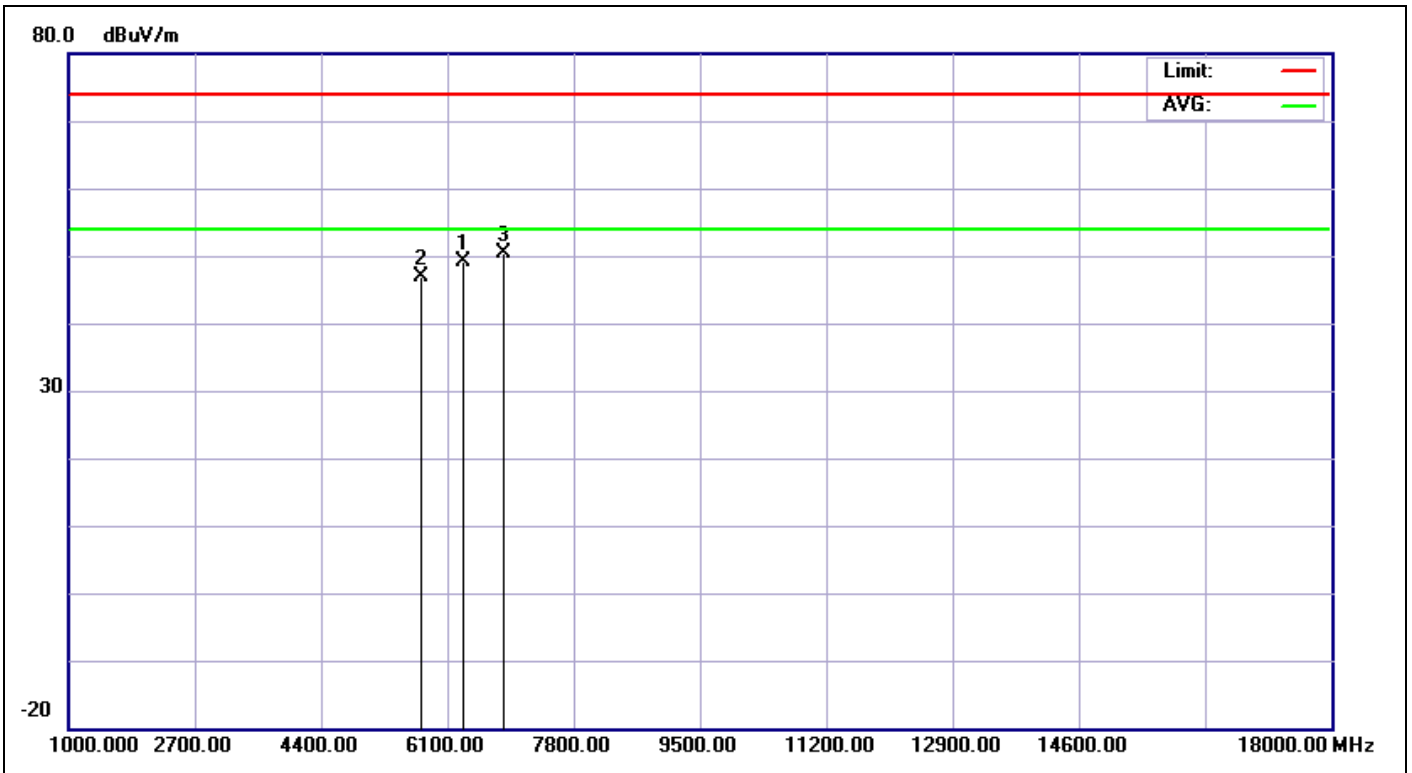
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	8113.000	7.51	39.97	47.48	74.00	-26.52	peak	100	360	
2	8684.000	7.92	40.28	48.20	74.00	-25.80	peak	100	360	
3	6889.000	5.41	41.26	46.67	74.00	-27.33	peak	100	360	





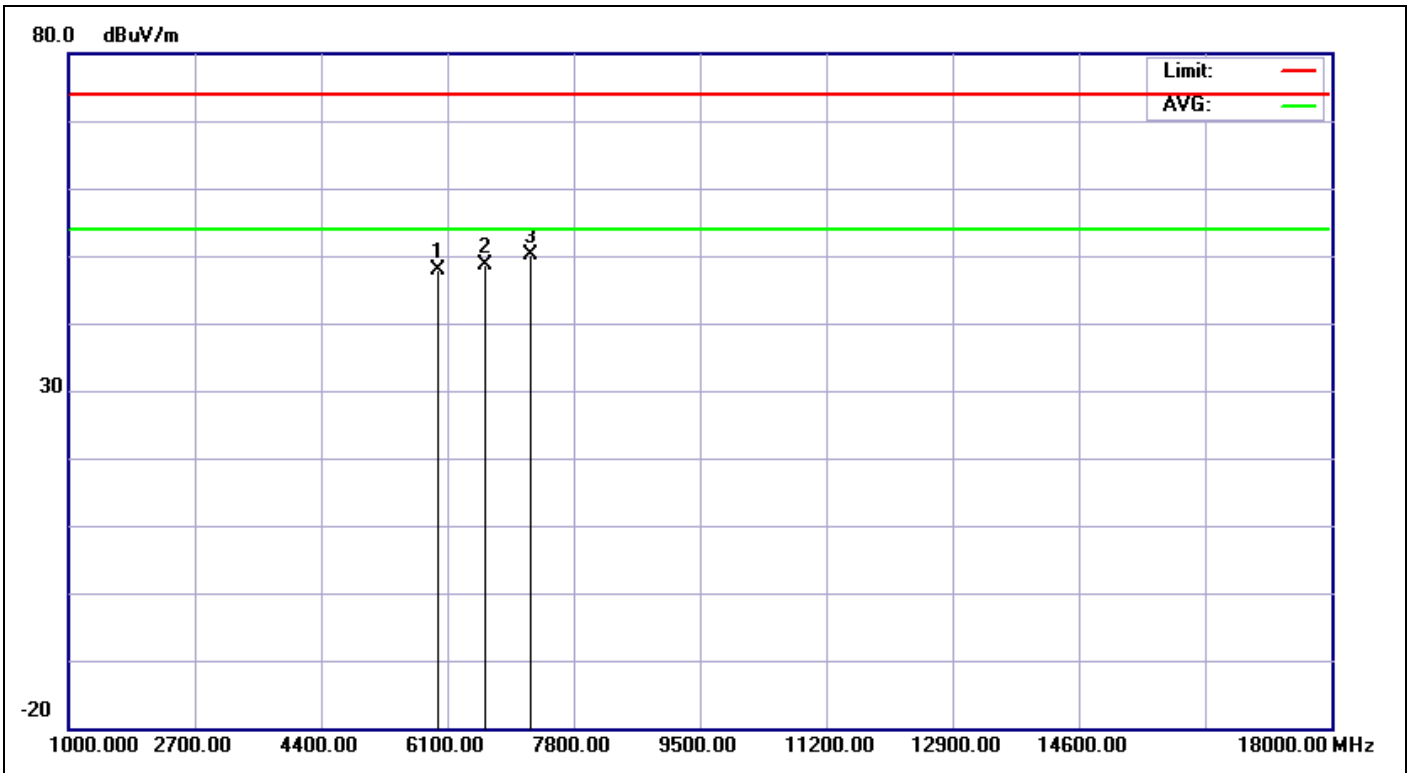
<b>Service No.:</b>	114005073	<b>Test Distance:</b>	3M
<b>Test Standard:</b>	FCC above 1G PEAK	<b>Ant. Polarization:</b>	Vertical
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2013/1/21 AM 10:03:54
<b>Applicant:</b>	Lenovo	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Wireless Mouse	<b>Temp.(°C)/Hum.(%):</b>	21(°C)/57%
<b>Model No.:</b>		<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>	CH2441		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	7678.000	7.53	42.71	50.24	74.00	-23.76	peak	100	360	
2	6998.000	5.53	42.68	48.21	74.00	-25.79	peak	100	360	
3	8439.000	7.64	43.85	51.49	74.00	-22.51	peak	100	360	



<b>Service No.:</b>	114005073	<b>Test Distance:</b>	3M
<b>Test Standard:</b>	FCC above 1G PEAK	<b>Ant. Polarization:</b>	Horizontal
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2013/1/21 AM 09:43:52
<b>Applicant:</b>	Lenovo	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Wireless Mouse	<b>Temp.(°C)/Hum.(%):</b>	21(°C)/57%
<b>Model No.:</b>		<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>	CH2479		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	6318.000	4.15	44.89	49.04	74.00	-24.96	peak	100	360	
2	5746.000	1.08	45.92	47.00	74.00	-27.00	peak	100	360	
3	6862.000	5.38	45.04	50.42	74.00	-23.58	peak	100	360	



<b>Service No.:</b>	114005073	<b>Test Distance:</b>	3M
<b>Test Standard:</b>	FCC above 1G PEAK	<b>Ant. Polarization:</b>	Vertical
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2013/1/21 AM 09:49:24
<b>Applicant:</b>	Lenovo	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Wireless Mouse	<b>Temp.(°C)/Hum.(%):</b>	21(°C)/57%
<b>Model No.:</b>		<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>	CH2479		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	5964.000	2.55	45.28	47.83	74.00	-26.17	peak	100	360	
2	6617.000	5.08	43.44	48.52	74.00	-25.48	peak	100	360	
3	7215.000	6.40	43.84	50.24	74.00	-23.76	peak	100	360	

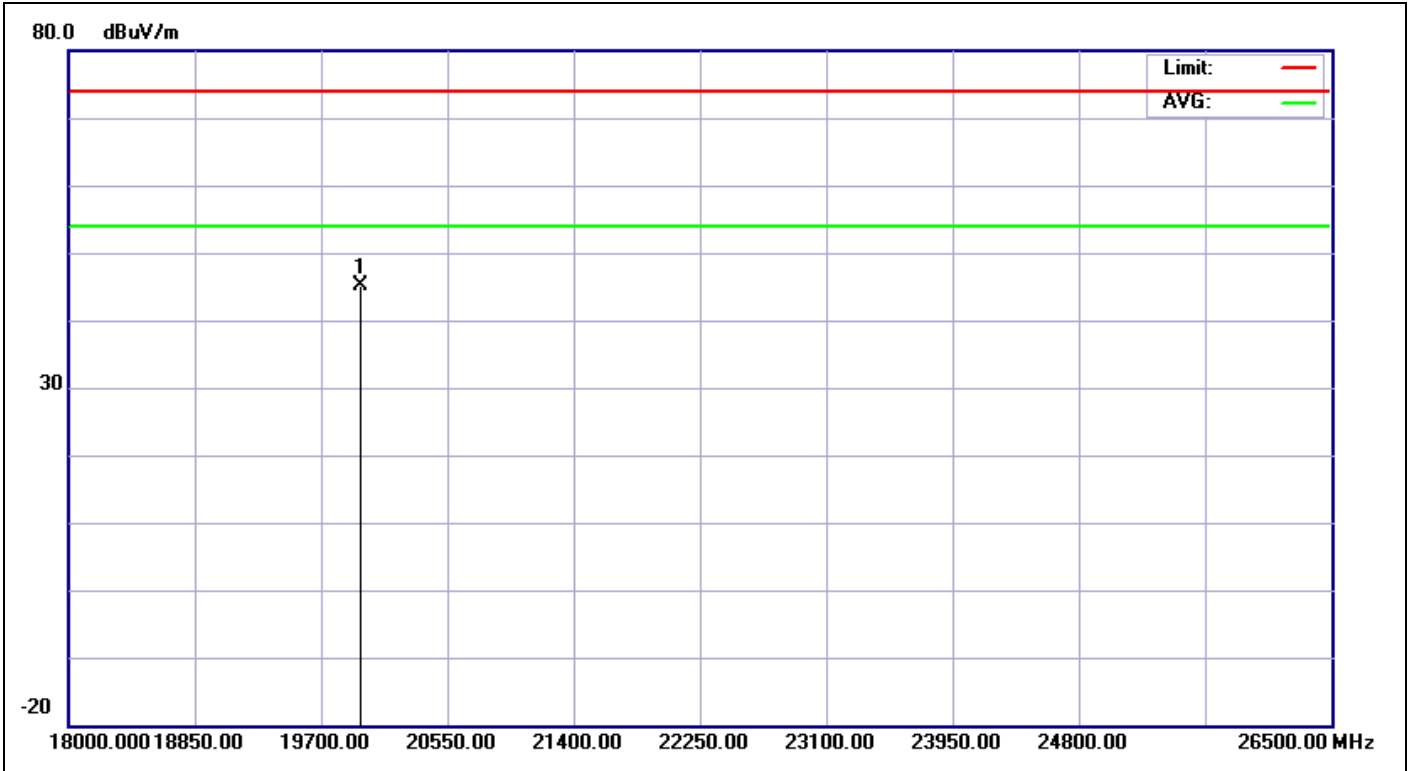
# Spurious Emissions, TX Mode, 18-26G



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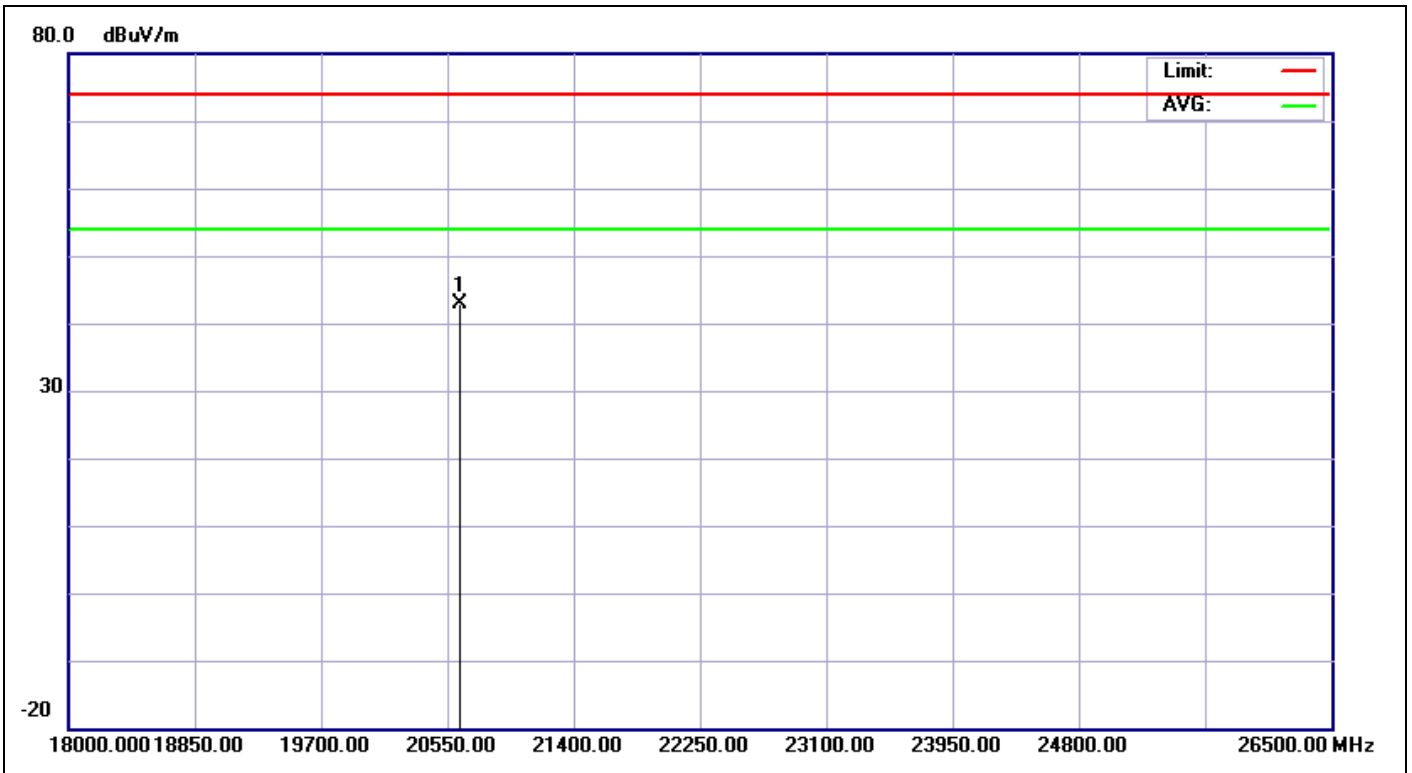
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



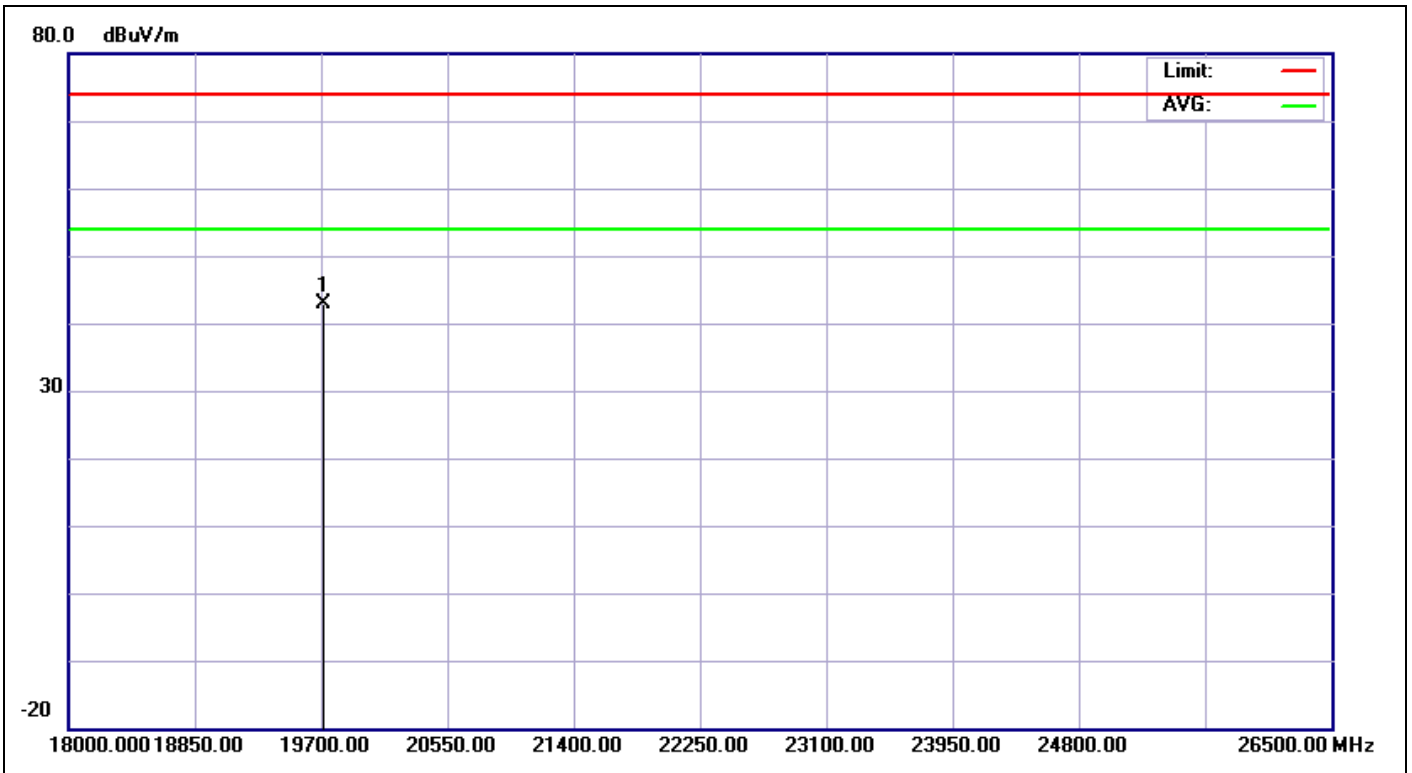
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<b>Test Standard:</b>	FCC above 1G PEAK	<b>Ant. Polarization:</b>	Horizontal
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2013/1/21 AM 10:16:57
<b>Applicant:</b>	Lenovo	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Wireless Mouse	<b>Temp.(°C)/Hum.(%):</b>	21(°C)/57%
<b>Model No.:</b>		<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>	CH2402		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	19965.000	26.24	18.97	45.21	74.00	-28.79	peak	100	360	



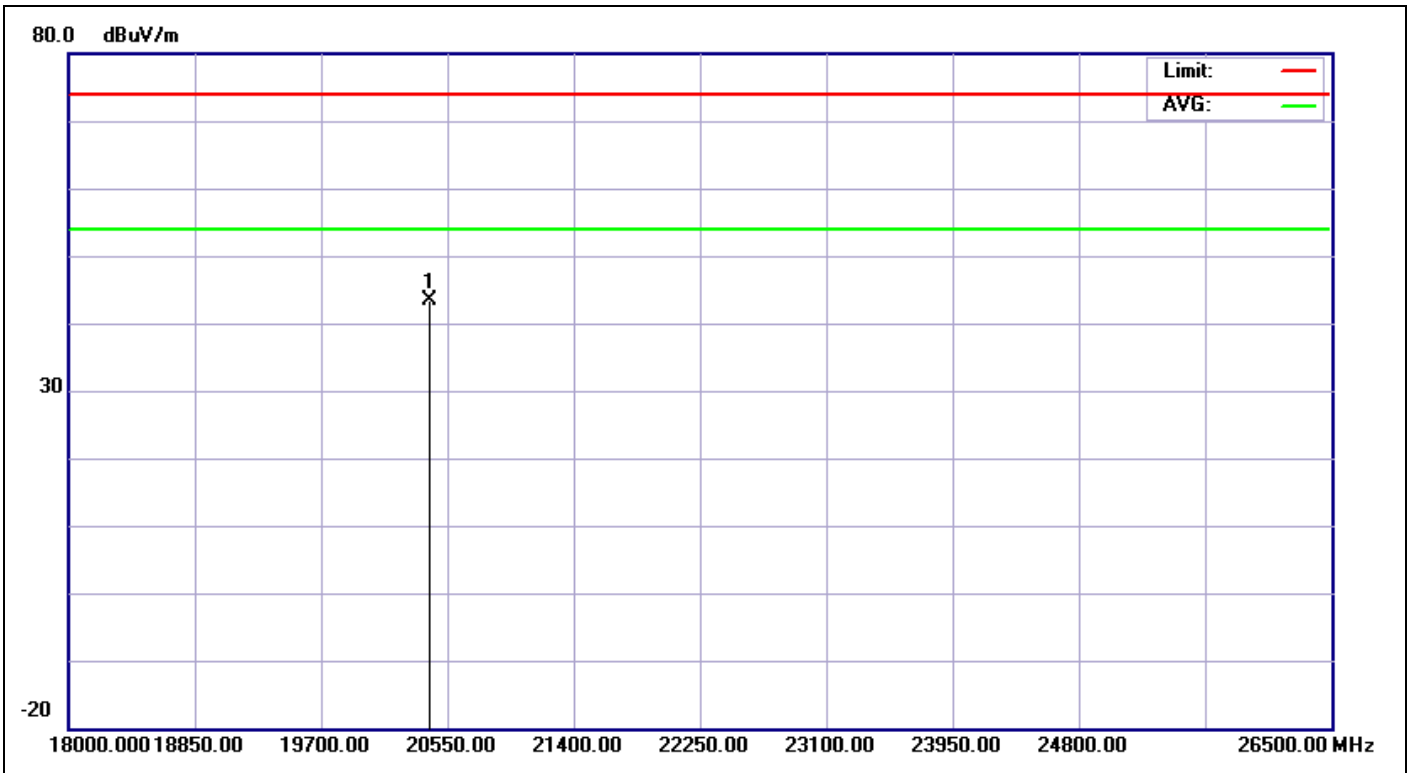
<b>Service No.:</b>	114005073	<b>Test Distance:</b>	3M
<b>Test Standard:</b>	FCC above 1G PEAK	<b>Ant. Polarization:</b>	Vertical
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2013/1/21 AM 10:17:46
<b>Applicant:</b>	Lenovo	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Wireless Mouse	<b>Temp.(°C)/Hum.(%):</b>	21(°C)/57%
<b>Model No.:</b>		<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>	CH2402		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	20632.000	26.26	16.59	42.85	74.00	-31.15	peak	100	360	



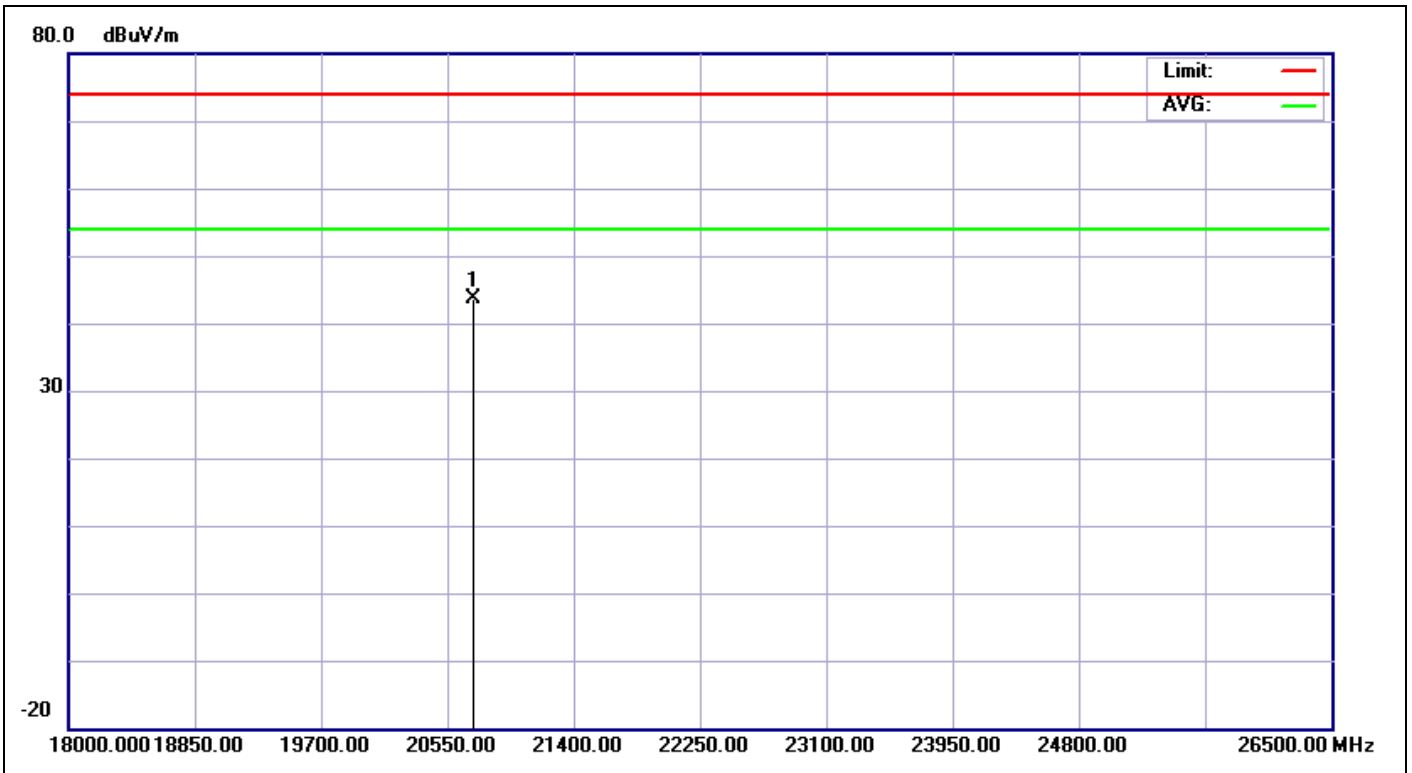
<b>Service No.:</b>	114005073	<b>Test Distance:</b>	3M
<b>Test Standard:</b>	FCC above 1G PEAK	<b>Ant. Polarization:</b>	Horizontal
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2013/1/21 AM 10:18:14
<b>Applicant:</b>	Lenovo	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Wireless Mouse	<b>Temp.(°C)/Hum.(%):</b>	21(°C)/57%
<b>Model No.:</b>		<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>	CH2441		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	19720.000	25.90	17.05	42.95	74.00	-31.05	peak	100	360	



<b>Service No.:</b>	114005073	<b>Test Distance:</b>	3M
<b>Test Standard:</b>	FCC above 1G PEAK	<b>Ant. Polarization:</b>	Vertical
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2013/1/21 AM 10:18:45
<b>Applicant:</b>	Lenovo	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Wireless Mouse	<b>Temp.(°C)/Hum.(%):</b>	21(°C)/57%
<b>Model No.:</b>		<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>	CH2441		
<b>Remark:</b>			

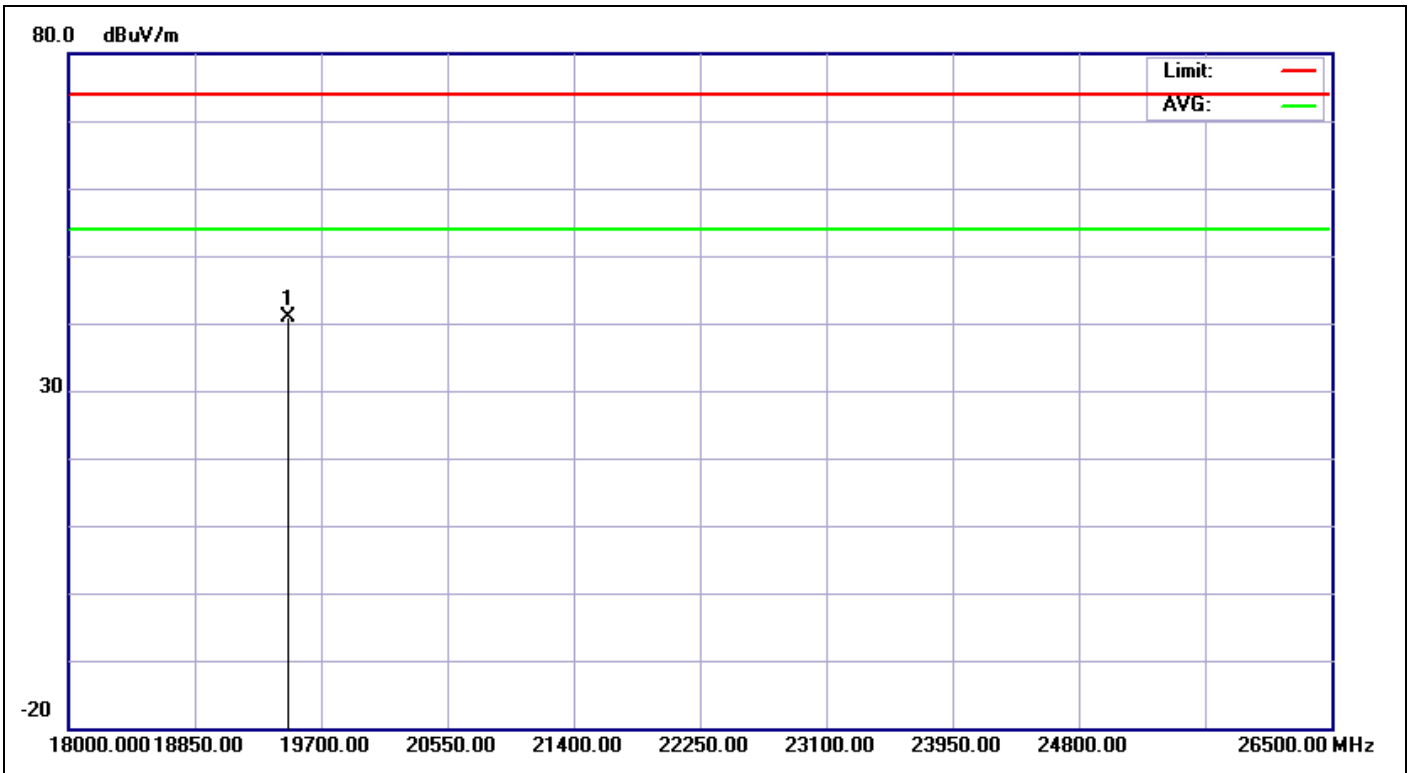
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1	20428.000	26.61	16.73	43.34	74.00	-30.66	peak	100	360	



<b>Service No.:</b>	114005073	<b>Test Distance:</b>	3M
<b>Test Standard:</b>	FCC above 1G PEAK	<b>Ant. Polarization:</b>	Horizontal
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2013/1/21 AM 10:19:10
<b>Applicant:</b>	Lenovo	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Wireless Mouse	<b>Temp.(°C)/Hum.(%):</b>	21(°C)/57%
<b>Model No.:</b>		<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>	CH2479		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	20727.000	25.97	17.76	43.73	74.00	-30.27	peak	100	360	





<b>Service No.:</b>	114005073	<b>Test Distance:</b>	3M
<b>Test Standard:</b>	FCC above 1G PEAK	<b>Ant. Polarization:</b>	Vertical
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2013/1/21 AM 10:19:44
<b>Applicant:</b>	Lenovo	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Wireless Mouse	<b>Temp.(°C)/Hum.(%):</b>	21(°C)/57%
<b>Model No.:</b>		<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>	CH2479		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	19476.000	25.59	15.21	40.80	74.00	-33.20	peak	100	360	

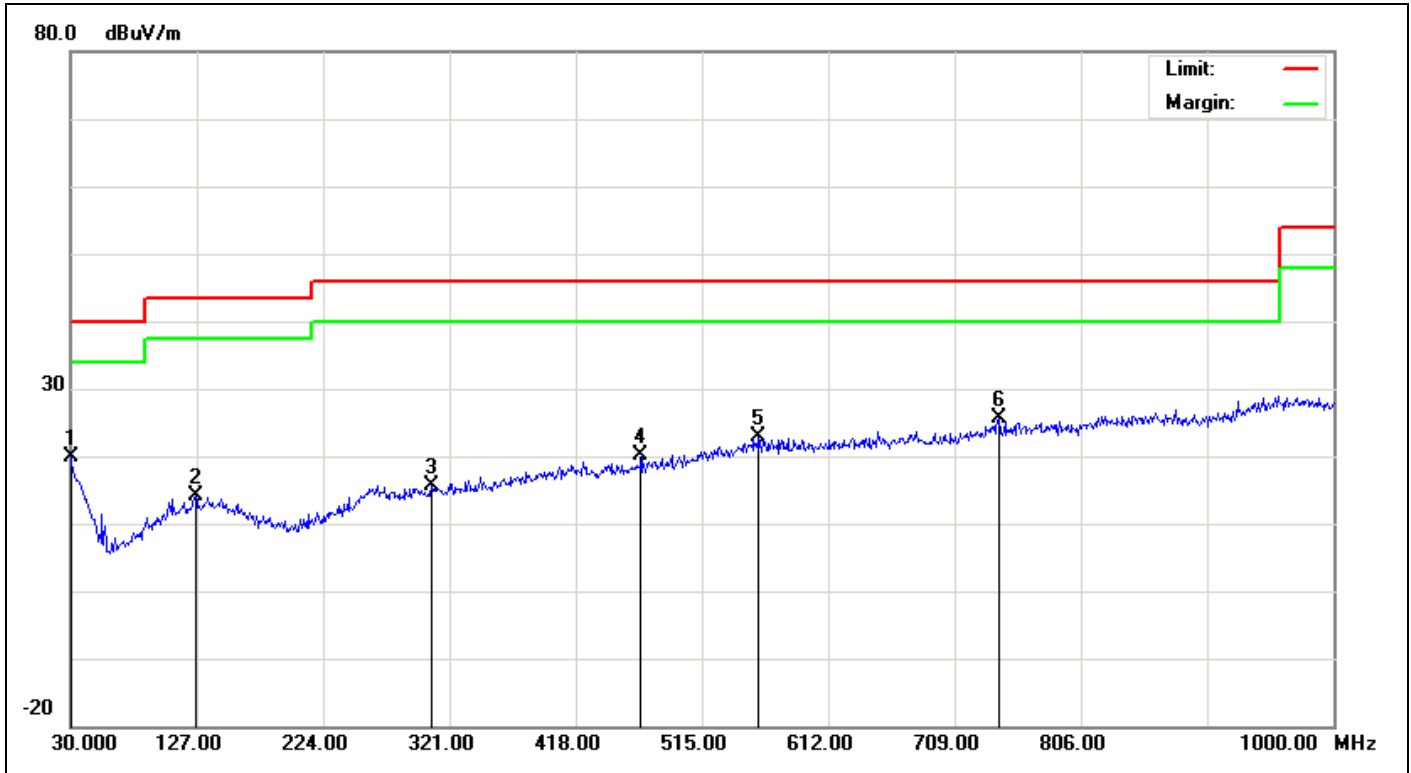
# Spurious Emissions, TX Mode, 30M-1G



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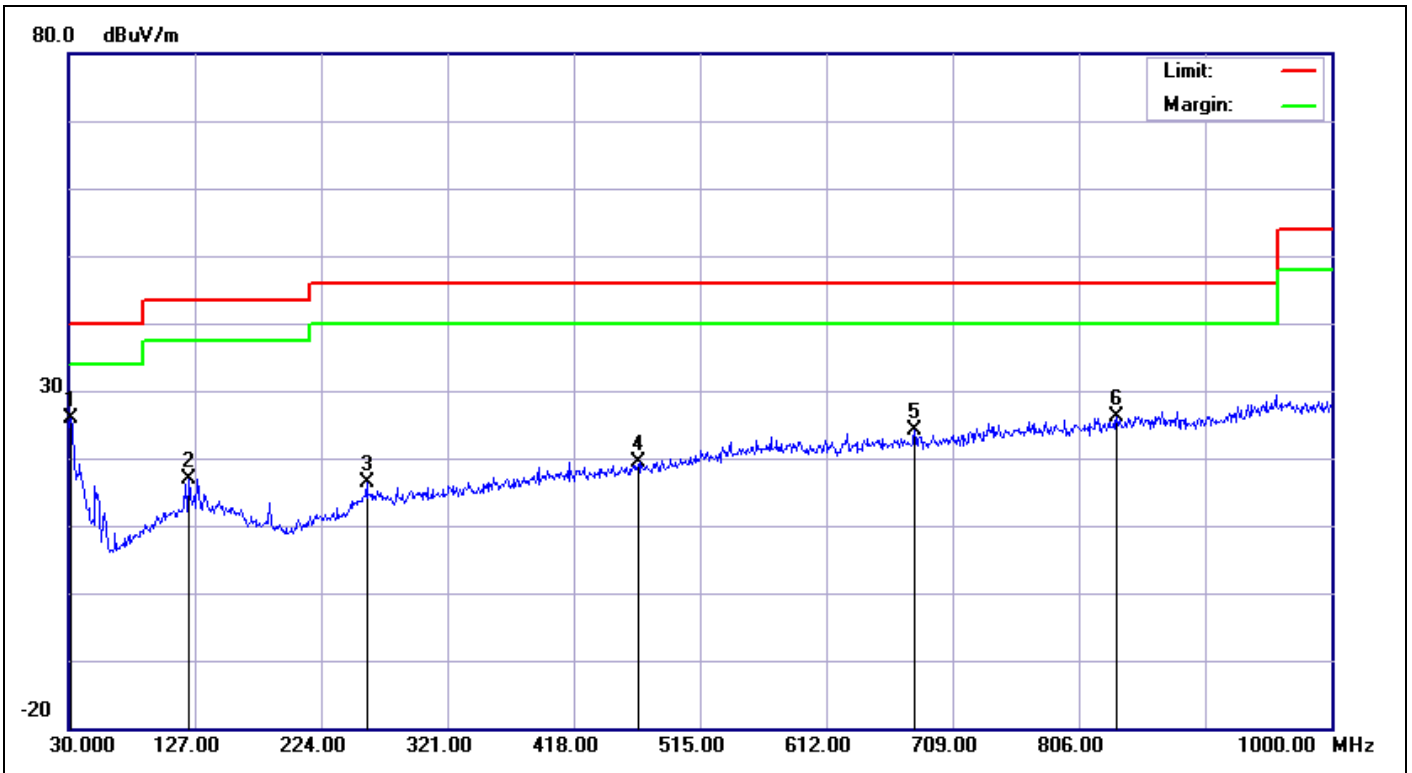
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



<b>Service No.:</b>	114005073	<b>Test Distance:</b>	3M
<b>Test Standard:</b>	FCC Class B 3M Radiation	<b>Ant. Polarization:</b>	Horizontal
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2013/1/21 AM 09:00:32
<b>Applicant:</b>	Lenovo	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Wireless Mouse	<b>Temp.(°C)/Hum.(%):</b>	21(°C)/57%
<b>Model No.:</b>		<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>			
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	30.0000	-7.72	27.59	19.87	40.00	-20.13	QP	100	360	
2	126.0300	-13.84	28.09	14.25	43.50	-29.25	QP	100	58	
3	307.4200	-11.12	26.78	15.66	46.00	-30.34	QP	300	360	
4	468.4399	-8.29	28.54	20.25	46.00	-25.75	QP	300	0	
5	558.6499	-5.89	28.83	22.94	46.00	-23.06	QP	100	0	
6	742.9500	-3.56	29.13	25.57	46.00	-20.43	QP	300	0	



<b>Service No.:</b>	114005073	<b>Test Distance:</b>	3M
<b>Test Standard:</b>	FCC Class B 3M Radiation	<b>Ant. Polarization:</b>	Vertical
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2013/1/21 AM 09:04:29
<b>Applicant:</b>	Lenovo	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Wireless Mouse	<b>Temp.(°C)/Hum.(%):</b>	21(°C)/57%
<b>Model No.:</b>		<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>			
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	31.9400	-8.86	34.70	25.84	40.00	-14.16	QP	100	360	
2	122.1500	-13.99	30.83	16.84	43.50	-26.66	QP	300	276	
3	258.9200	-11.56	27.83	16.27	46.00	-29.73	QP	200	360	
4	468.4399	-8.29	27.57	19.28	46.00	-26.72	QP	300	0	
5	679.8999	-5.07	29.14	24.07	46.00	-21.93	QP	200	360	
6	835.1000	-2.37	28.55	26.18	46.00	-19.82	QP	200	360	