

# Test Report No.50058586 001

## Appendix D: Radiated and Mains Spurious Emission Data

(File: 50058586AppendixD)

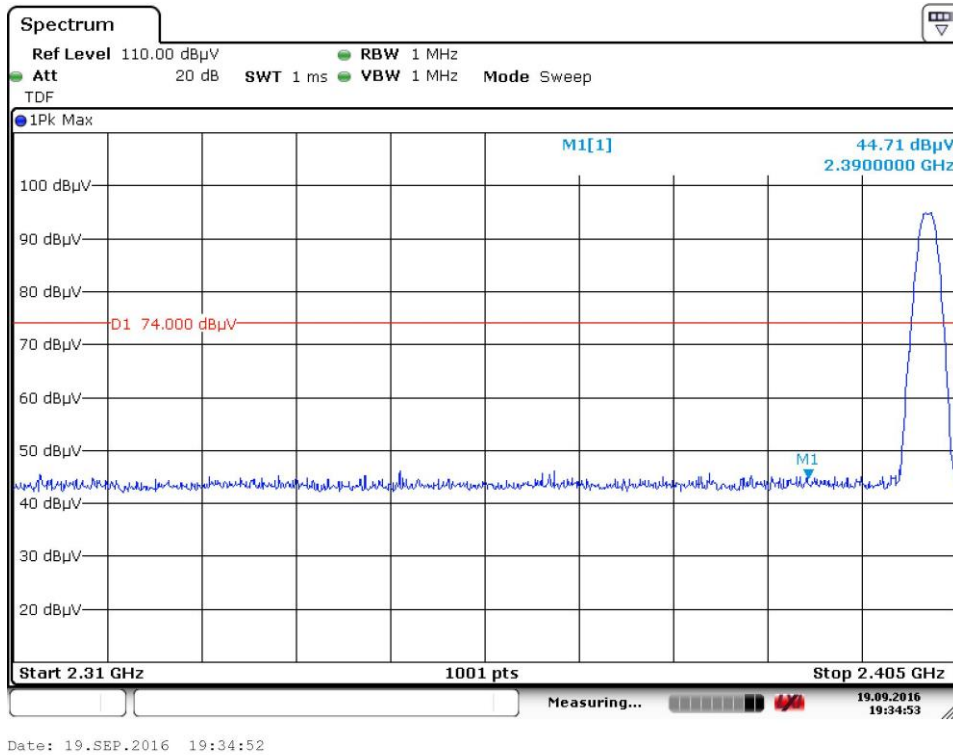
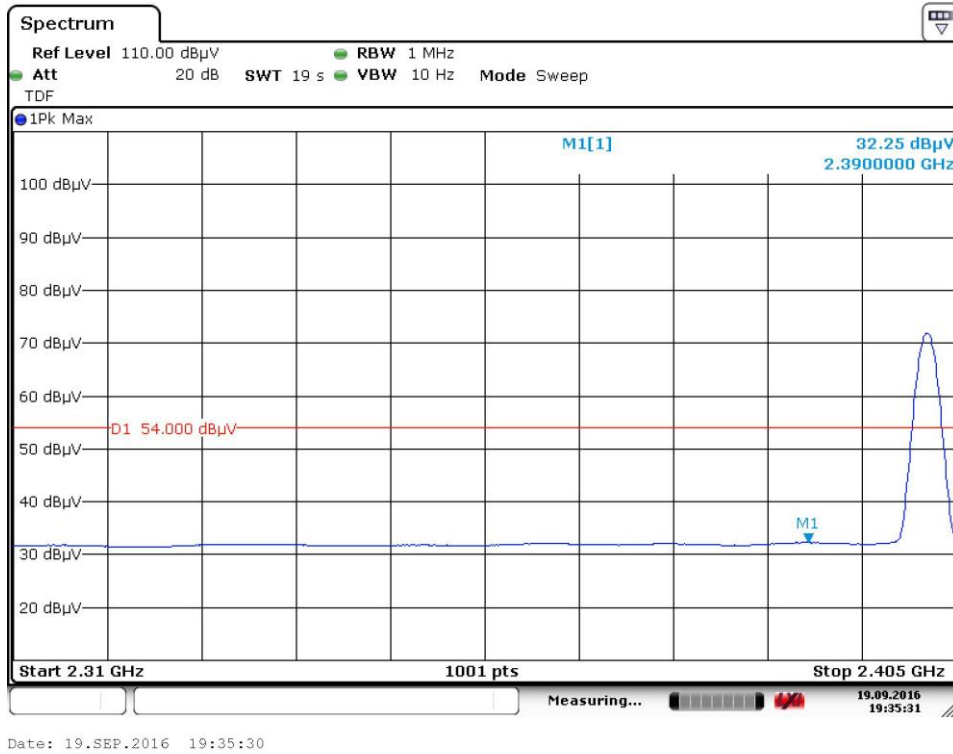
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# Spurious Emissions, Band Edges, 2.35-2.5G

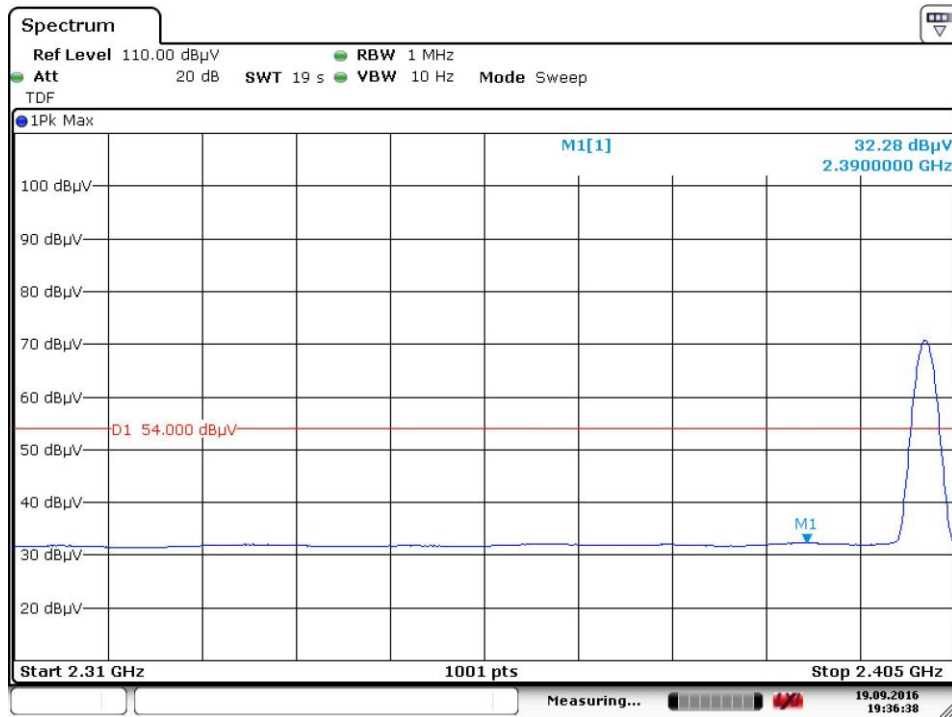
## Radiated Bandedge (GFSK)

### Low Channel (Hor)

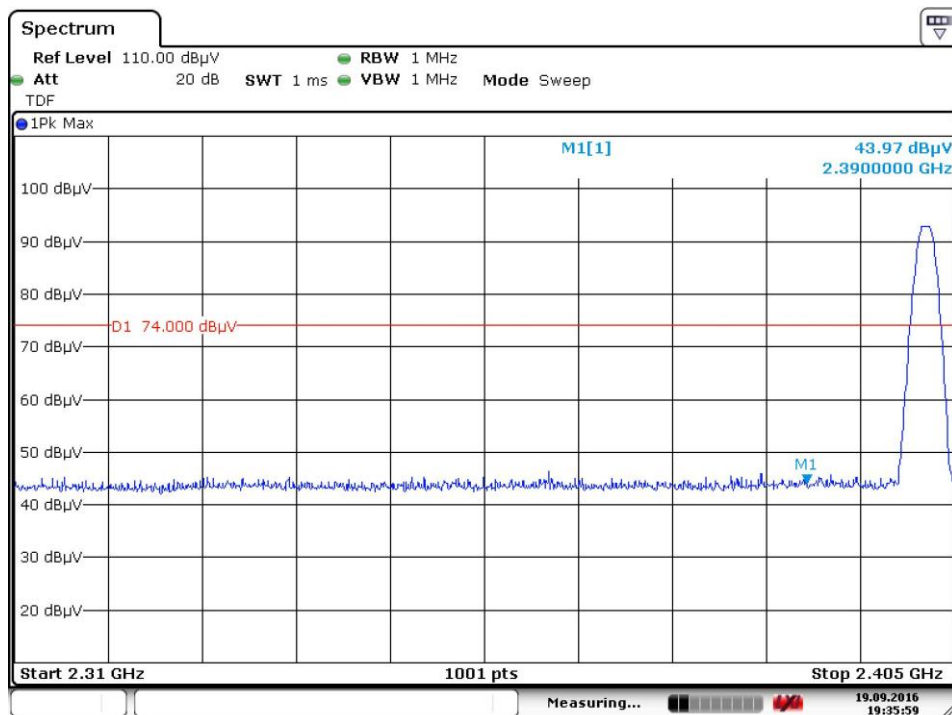


# Spurious Emissions, Band Edge, 2.35-2.5G

## Low Channel (Ver)



Date: 19.SEP.2016 19:36:38

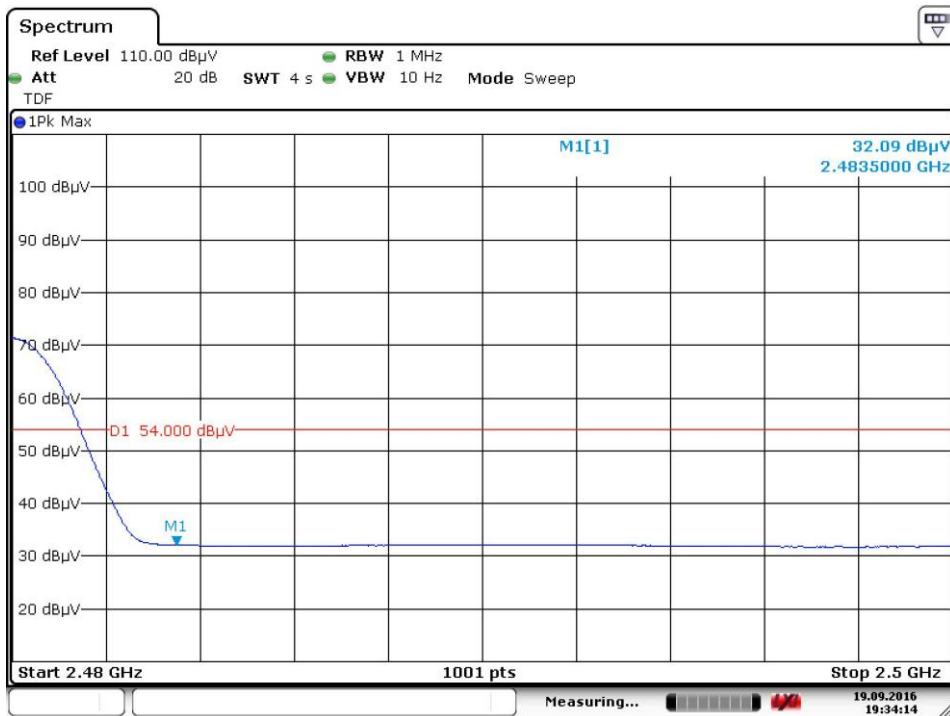


Date: 19.SEP.2016 19:35:58

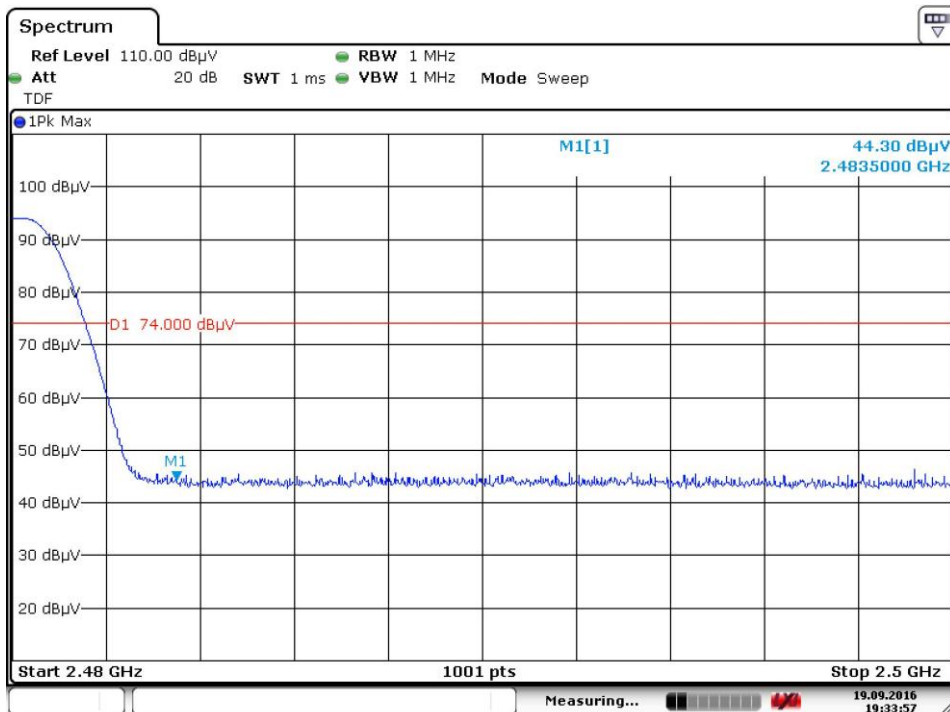
## Spurious Emissions, Band Edge, 2.35-2.5G

# Radiated Bandedge (GFSK)

## High Channel (Hor)



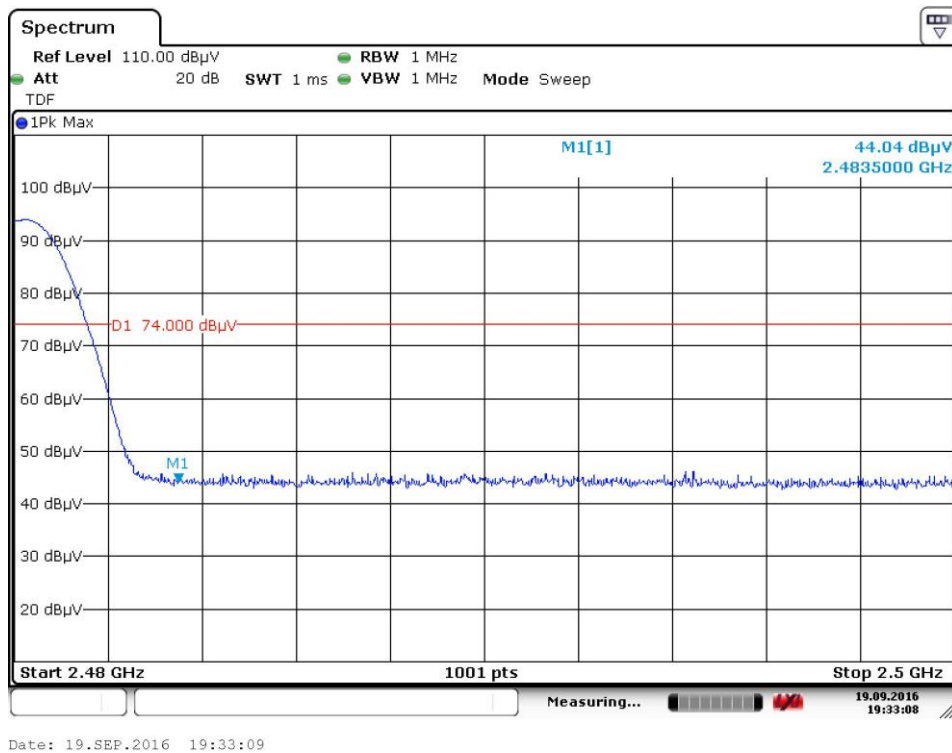
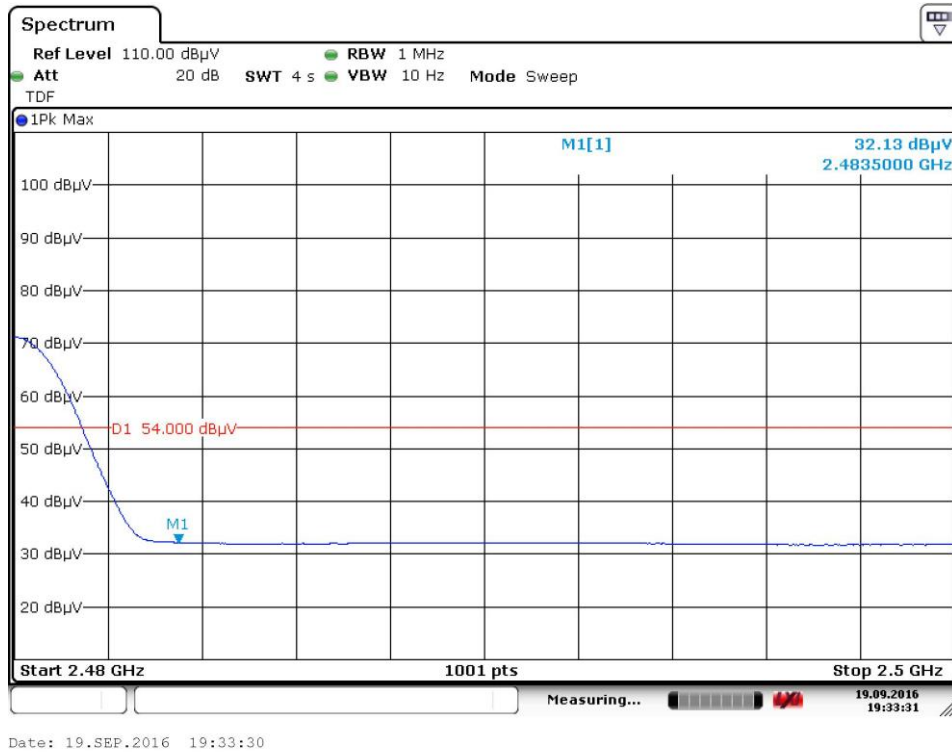
Date: 19.SEP.2016 19:34:13



Date: 19.SEP.2016 19:33:57

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

# High Channel (Ver)



# Spurious Emissions, Band Edge, 2.35-2.5G

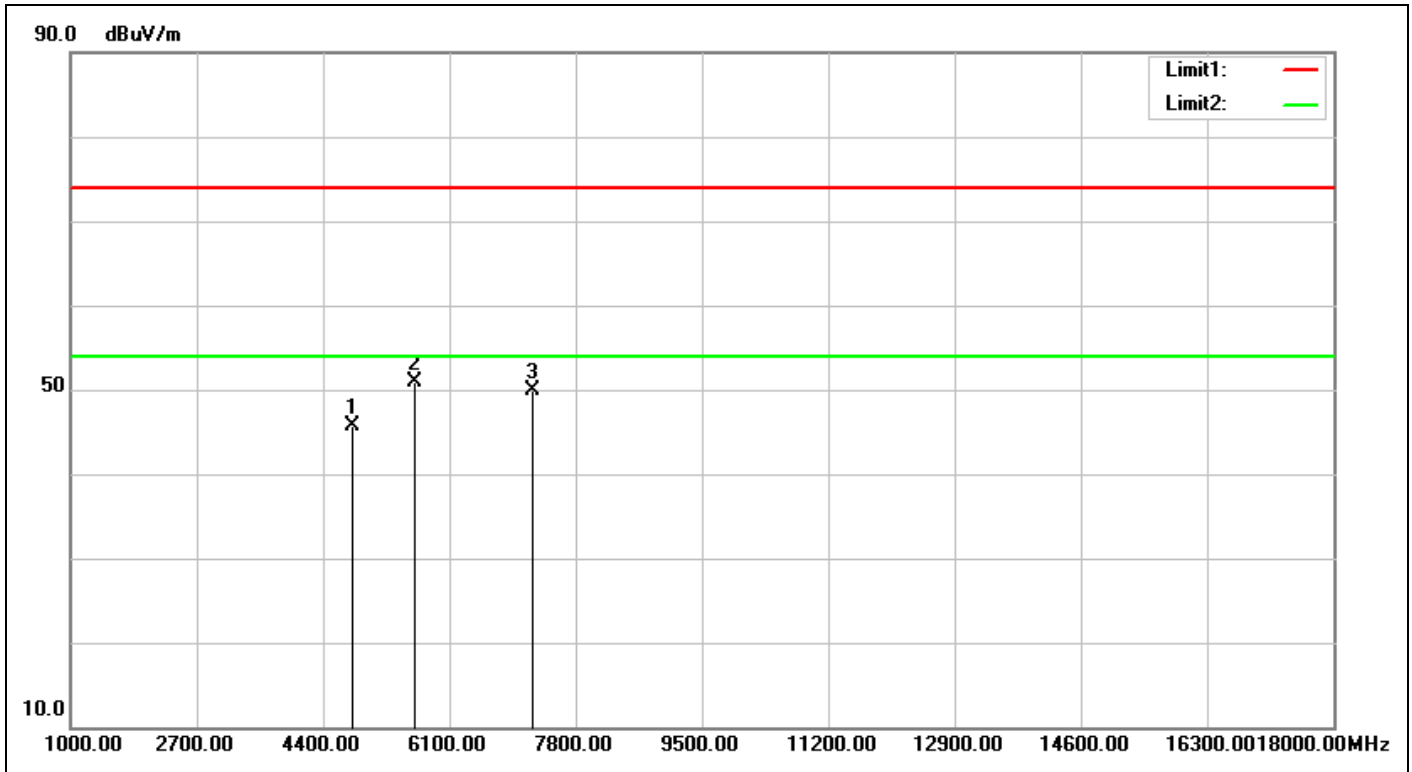
# Spurious Emissions, TX Mode, 1-18G



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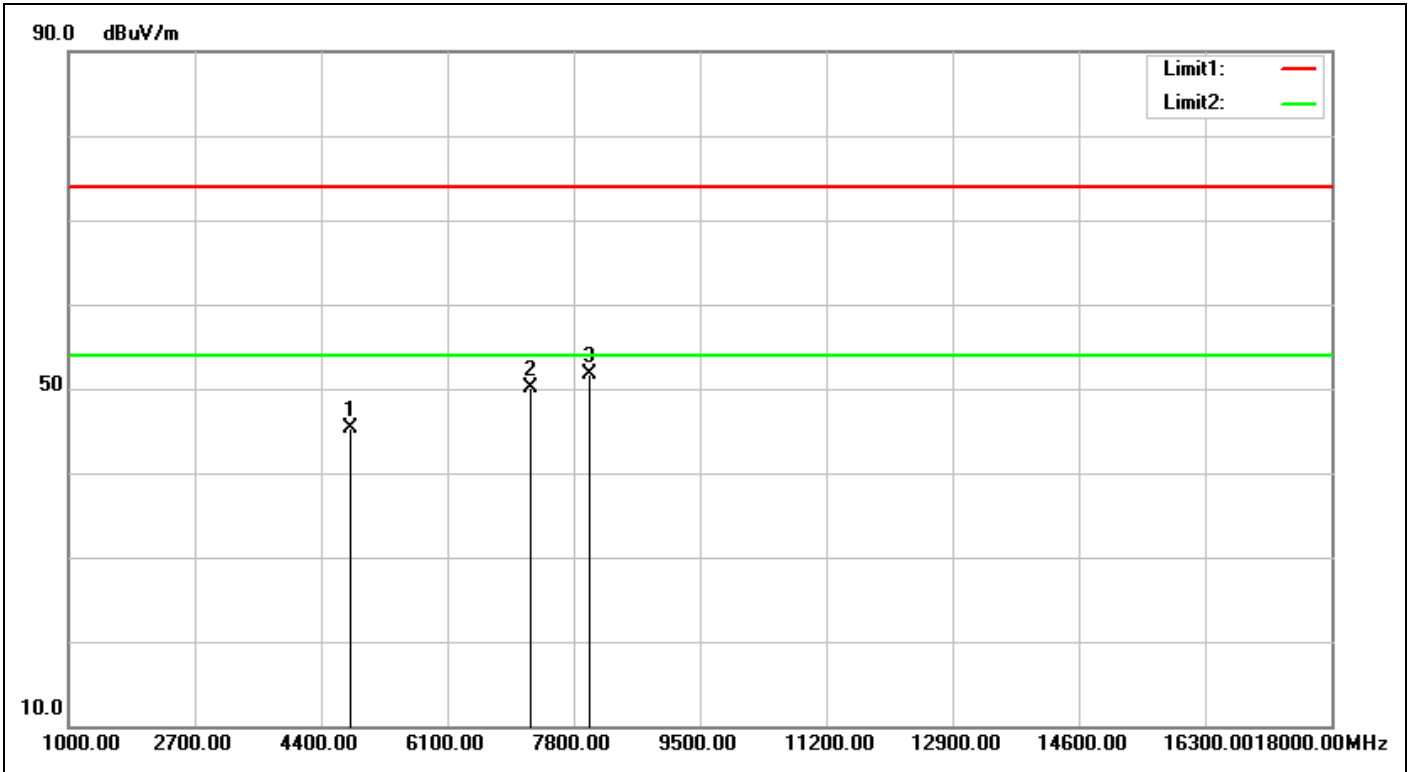
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



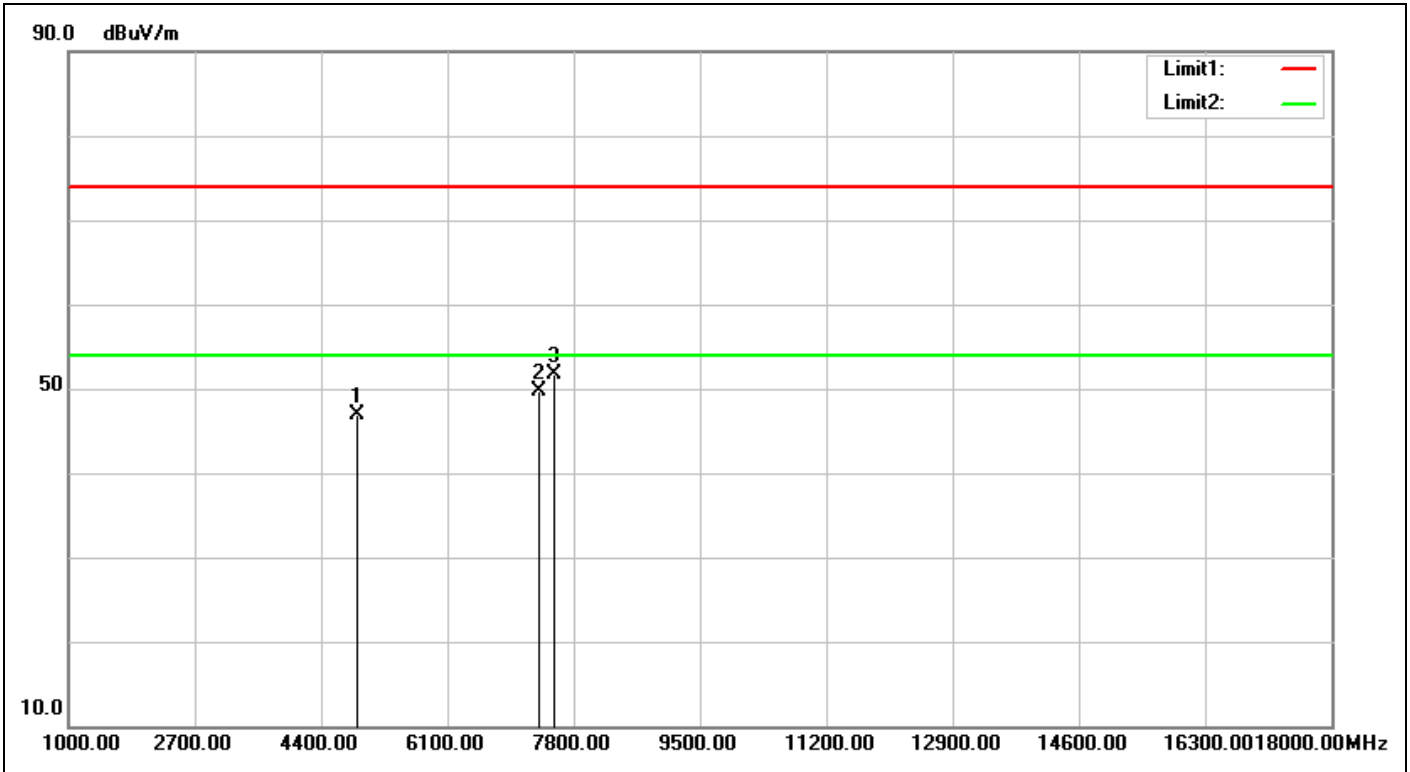
<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 19:40:23</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2402-TX</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	4804.000	-2.64	48.37	45.73	74.00	-28.27	peak		0	
2	5641.000	1.42	49.41	50.83	74.00	-23.17	peak	100	52	
3	7206.000	5.57	44.30	49.87	74.00	-24.13	peak		0	



<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 19:41:25</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2402-TX</b>		
<b>Remark:</b>			

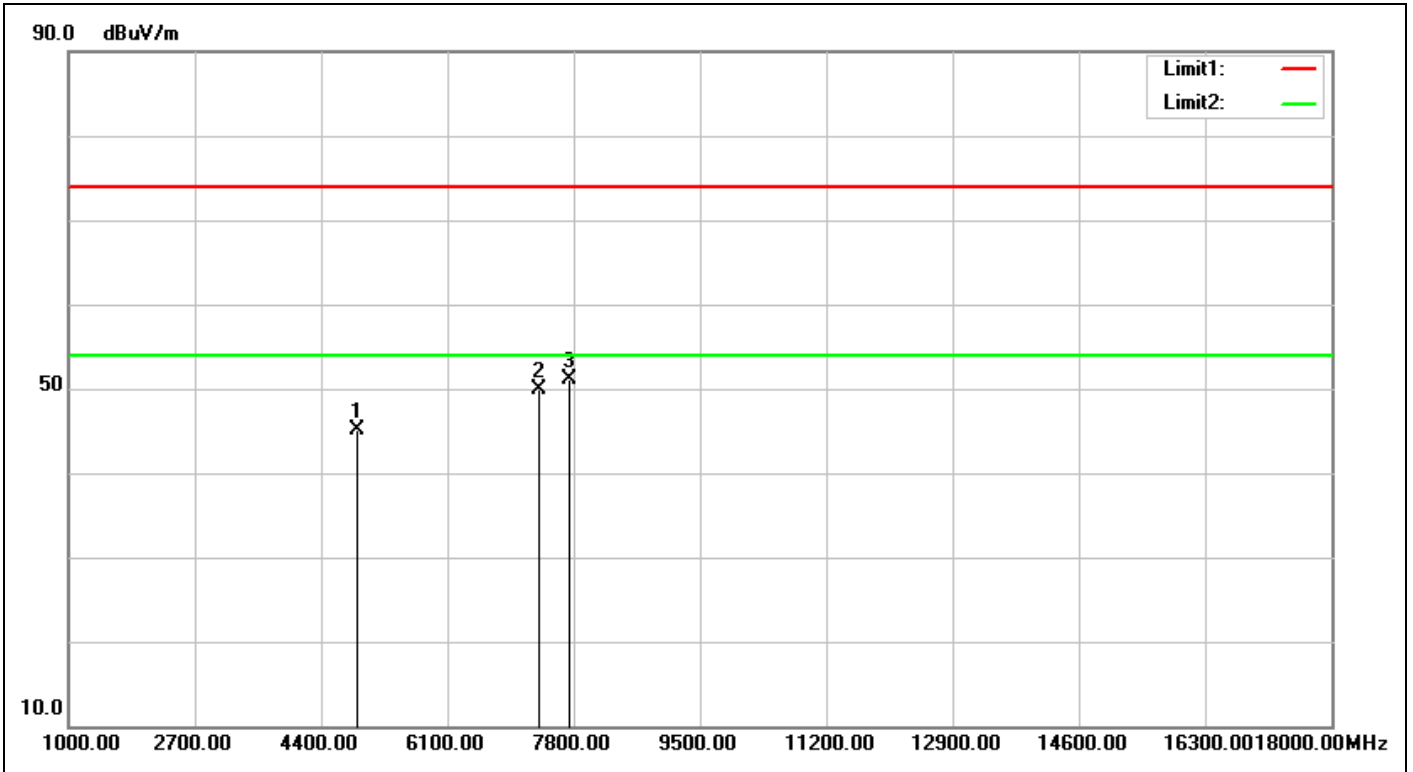
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4804.000	-2.64	47.97	45.33	74.00	-28.67	peak			
2	7206.000	5.57	44.59	50.16	74.00	-23.84	peak			
3	8004.000	6.36	45.27	51.63	74.00	-22.37	peak	100	161	



<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 19:43:25</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-TX</b>		
<b>Remark:</b>			

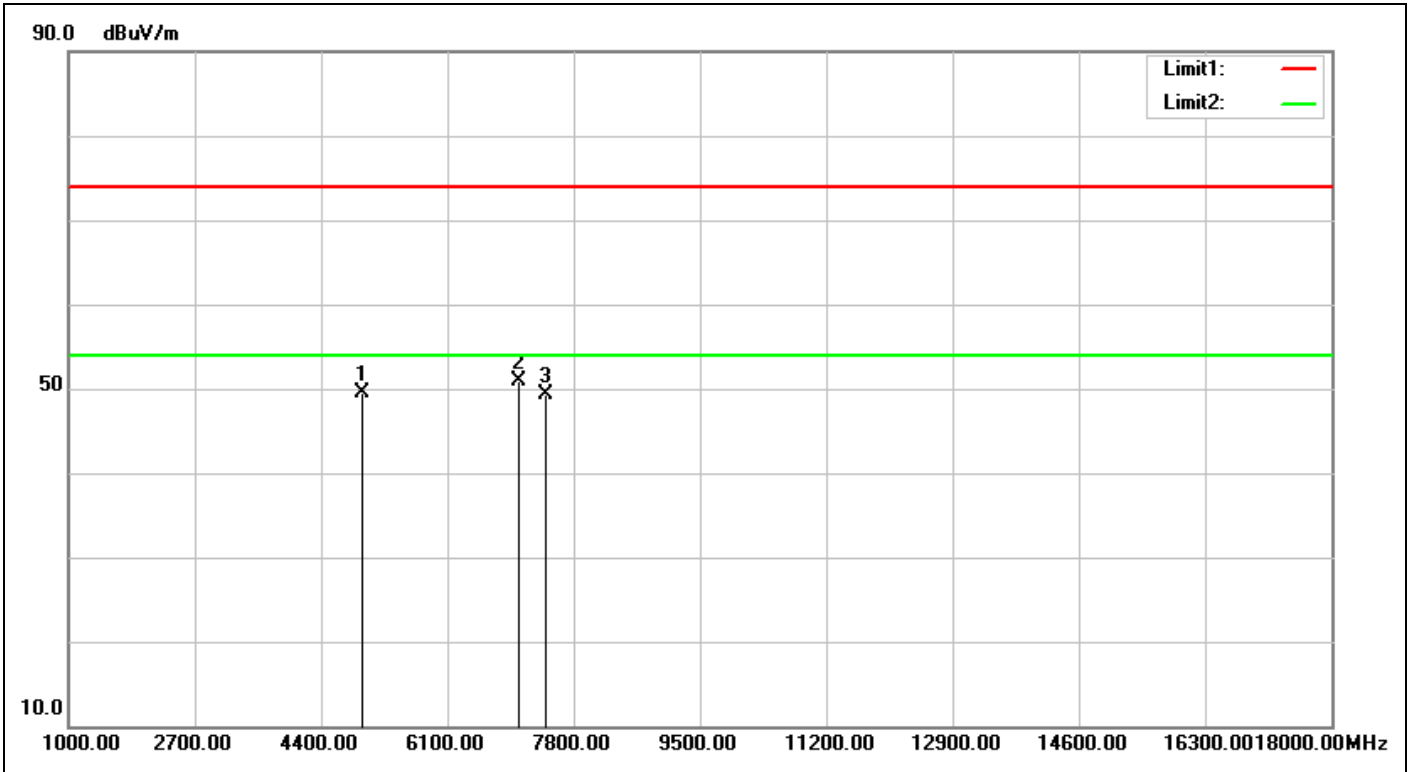
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4880.000	-2.47	49.31	46.84	74.00	-27.16	peak			
2	7320.000	5.90	43.79	49.69	74.00	-24.31	peak			
3	7545.000	6.42	45.19	51.61	74.00	-22.39	peak	100	82	





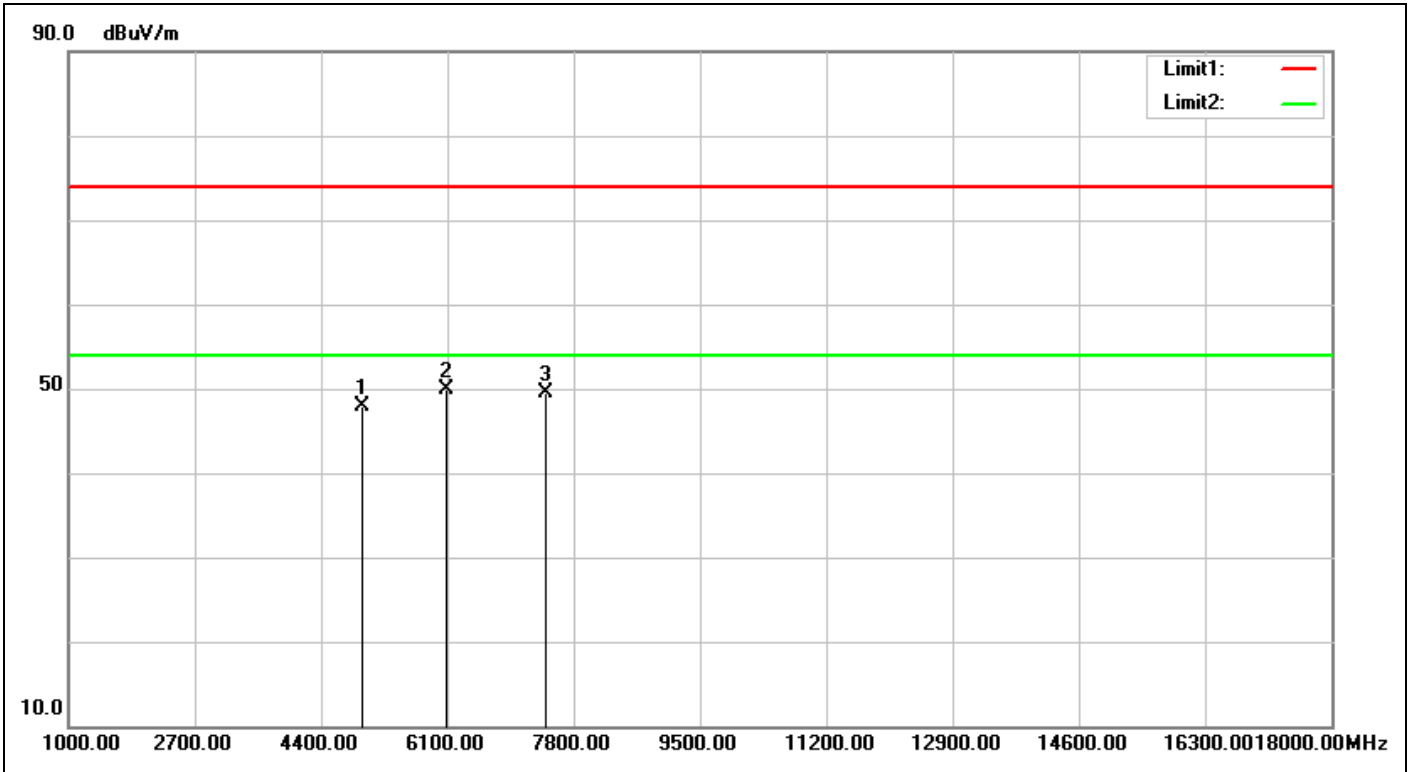
<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 19:44:27</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-TX</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	4880.000	-2.47	47.66	45.19	74.00	-28.81	peak			
2	7320.000	5.90	43.93	49.83	74.00	-24.17	peak			
3	7749.000	6.39	44.64	51.03	74.00	-22.97	peak	100	0	



<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 19:46:18</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2480-TX</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	4960.000	-2.30	51.78	49.48	74.00	-24.52	peak			
2	7052.000	5.13	45.69	50.82	74.00	-23.18	peak	100	191	
3	7440.000	6.24	43.12	49.36	74.00	-24.64	peak			



<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 19:47:20</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2480-TX</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	4960.000	-2.30	50.26	47.96	74.00	-26.04	peak			
2	6083.000	4.20	45.63	49.83	74.00	-24.17	peak	100	92	
3	7440.000	6.24	43.25	49.49	74.00	-24.51	peak			

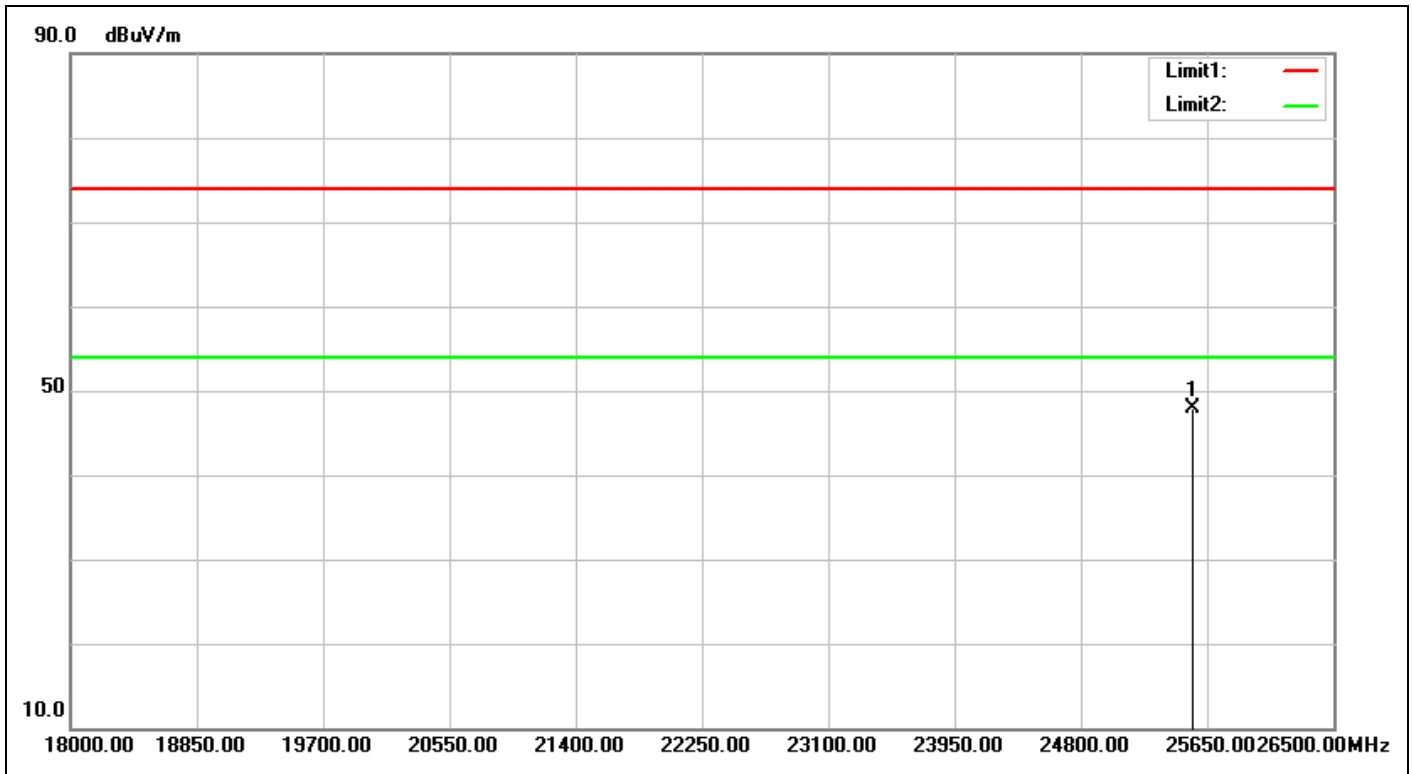
# Spurious Emissions, TX Mode, 18-26G



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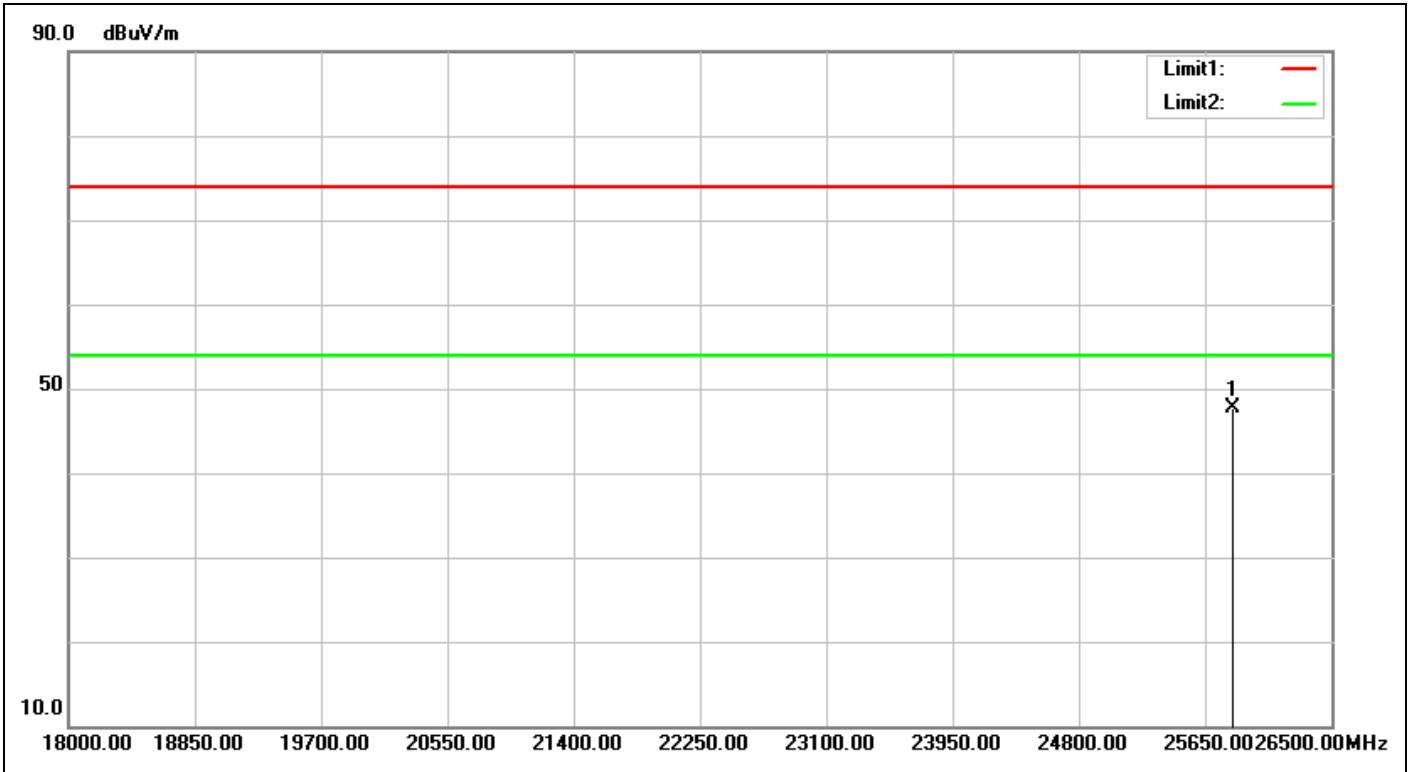
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



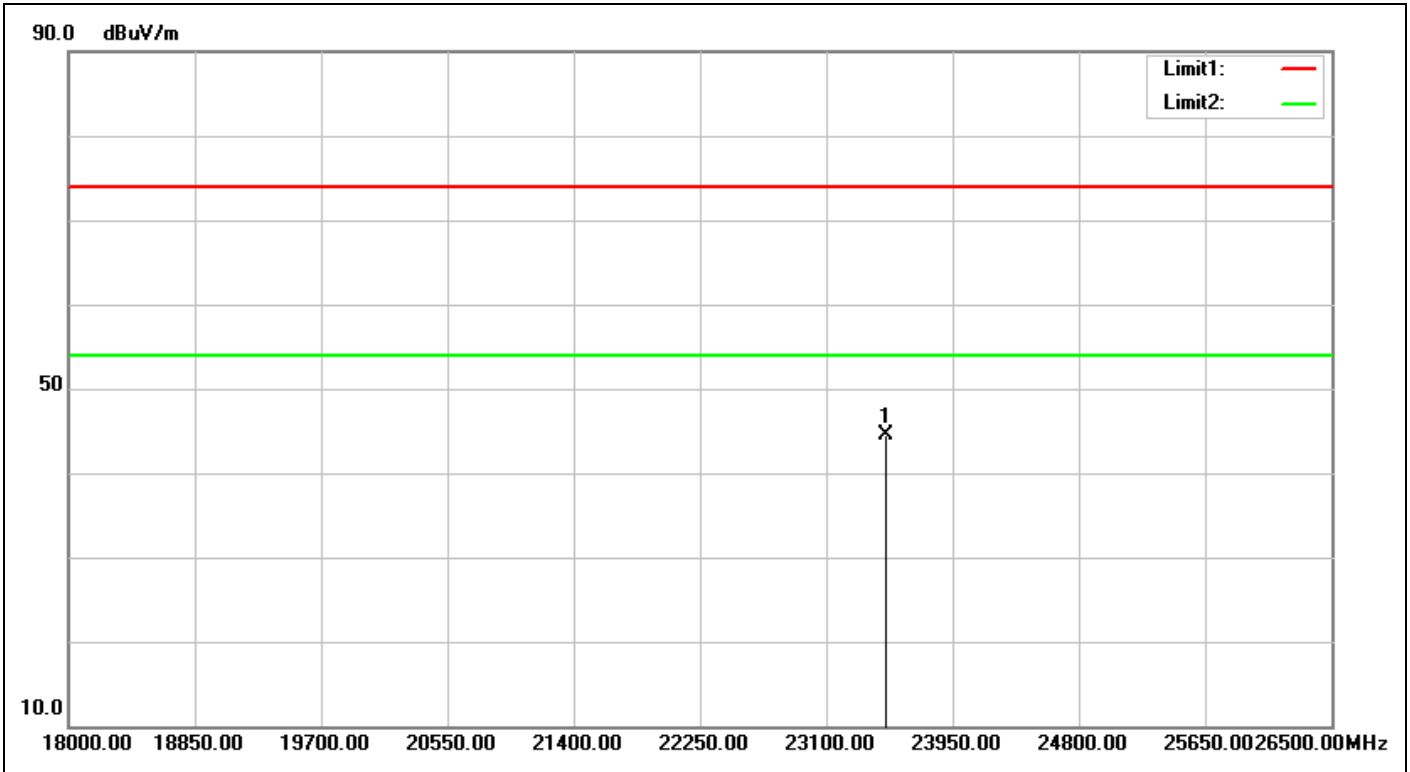
<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 20:17:30</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2402-TX</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	25556.500	31.57	16.24	47.81	74.00	-26.19	peak		0	



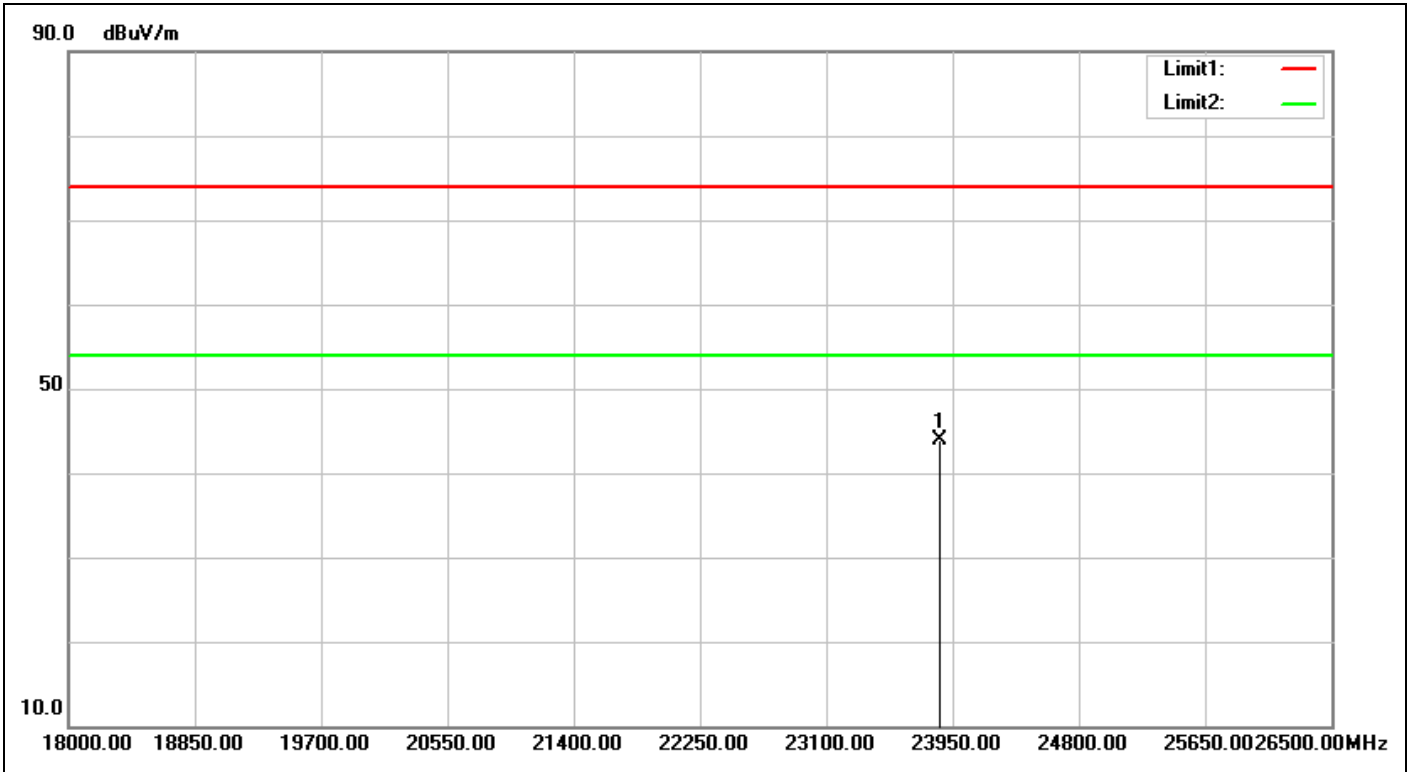
<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 20:17:50</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2402-TX</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	25837.000	31.76	15.86	47.62	74.00	-26.38	peak			



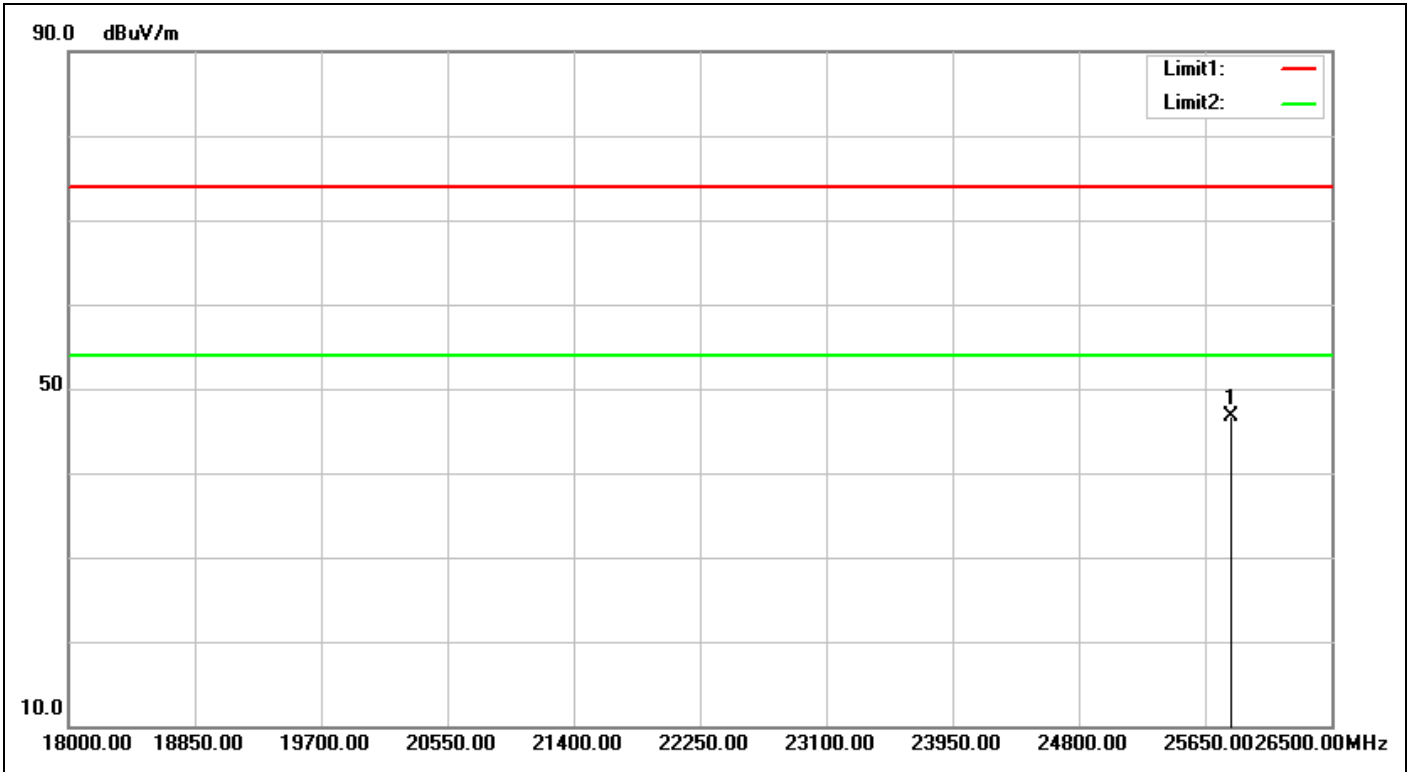
<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 20:18:07</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-TX</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	23499.500	30.01	14.59	44.60	74.00	-29.40	peak			



<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 20:19:08</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-TX</b>		
<b>Remark:</b>			

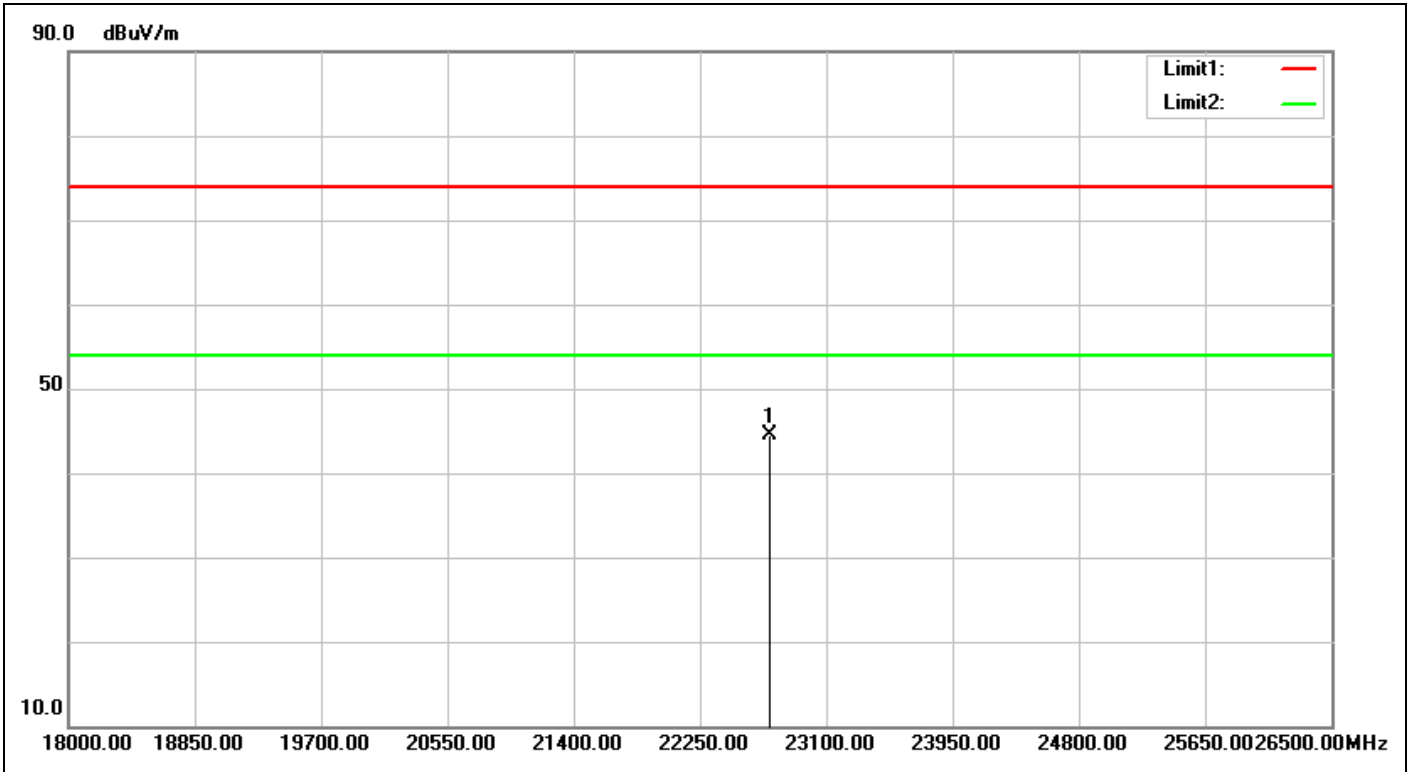
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	23865.000	30.12	13.73	43.85	74.00	-30.15	peak			



<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 20:19:34</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2480-TX</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	25828.500	31.76	14.92	46.68	74.00	-27.32	peak			





<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 20:20:04</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2480-TX</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	22717.500	29.90	14.66	44.56	74.00	-29.44	peak			

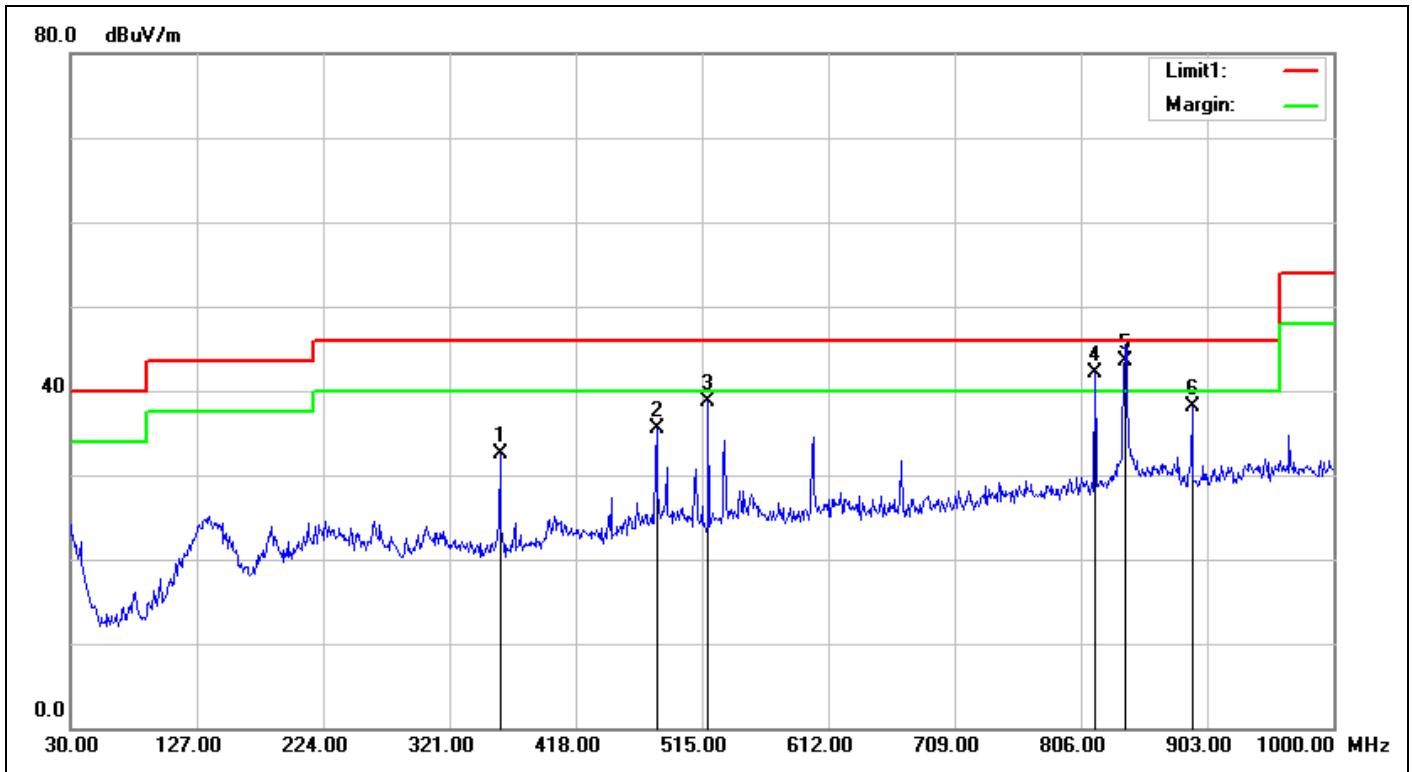
# Spurious Emissions, TX Mode, 30M-1G



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

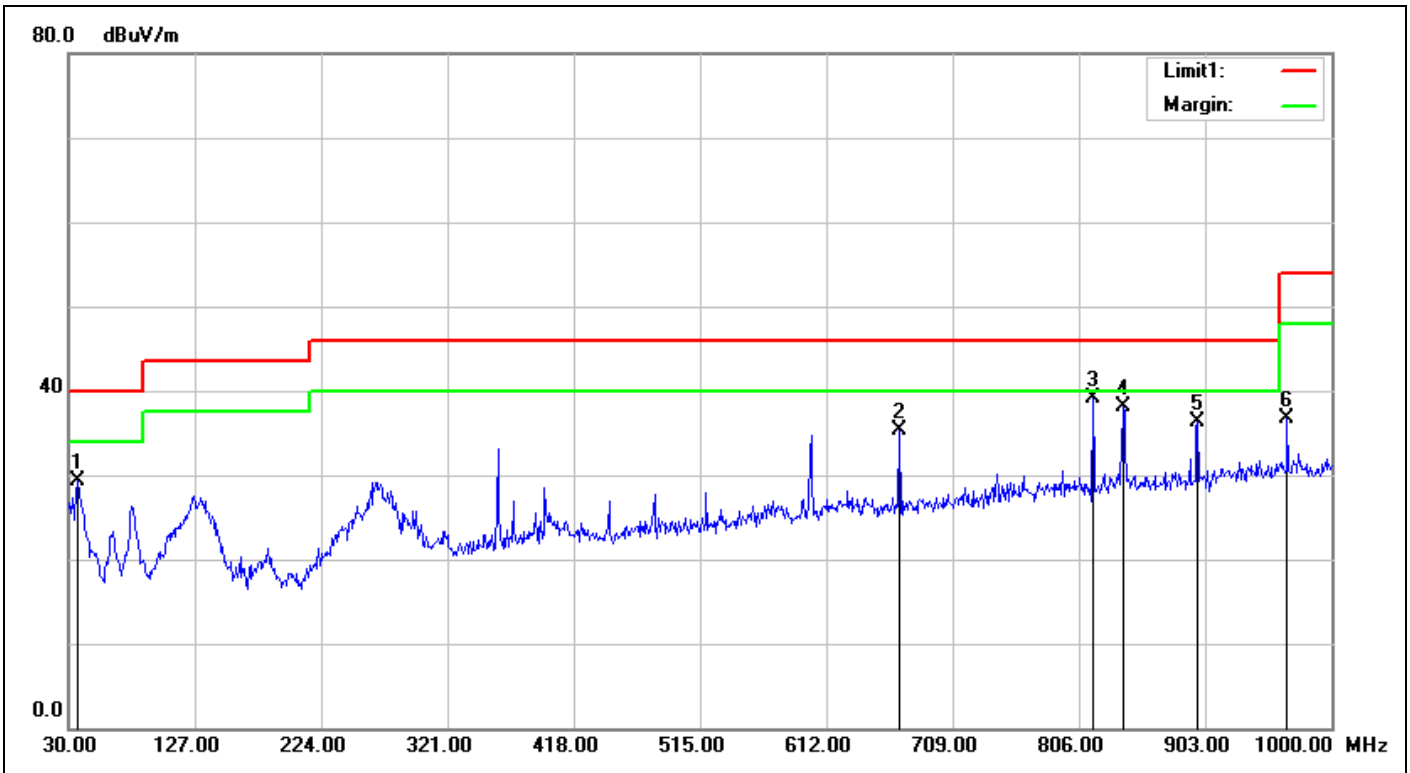
Tel:+886-2172-7000 fax:+886-2528-0018



<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Class B 3M Radiation</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 21:02:26</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-TX</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	359.8000	-3.30	35.80	32.50	46.00	-13.50	QP	100	123	
2	480.0800	-1.62	37.09	35.47	46.00	-10.53	QP	100	168	
3	519.8500	-1.13	39.87	38.74	46.00	-7.26	QP	100	134	
4	816.6700	3.11	38.92	42.03	46.00	-3.97	QP	100	142	
5	839.9500	3.51	39.96	43.47	46.00	-2.53	QP	100	139	
6	891.3600	4.07	34.13	38.20	46.00	-7.80	QP	100	341	

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



<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Class B 3M Radiation</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 21:03:30</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-TX</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	36.7900	-3.96	33.32	29.36	40.00	-10.64	QP	100	158	
2	668.2600	0.73	34.65	35.38	46.00	-10.62	QP	100	247	
3	816.6700	3.11	36.01	39.12	46.00	-6.88	QP	100	358	
4	839.9500	3.51	34.53	38.04	46.00	-7.96	QP	100	0	
5	897.1800	4.12	32.21	36.33	46.00	-9.67	QP	100	301	
6	966.0500	5.53	31.10	36.63	54.00	-17.37	QP	100	80	

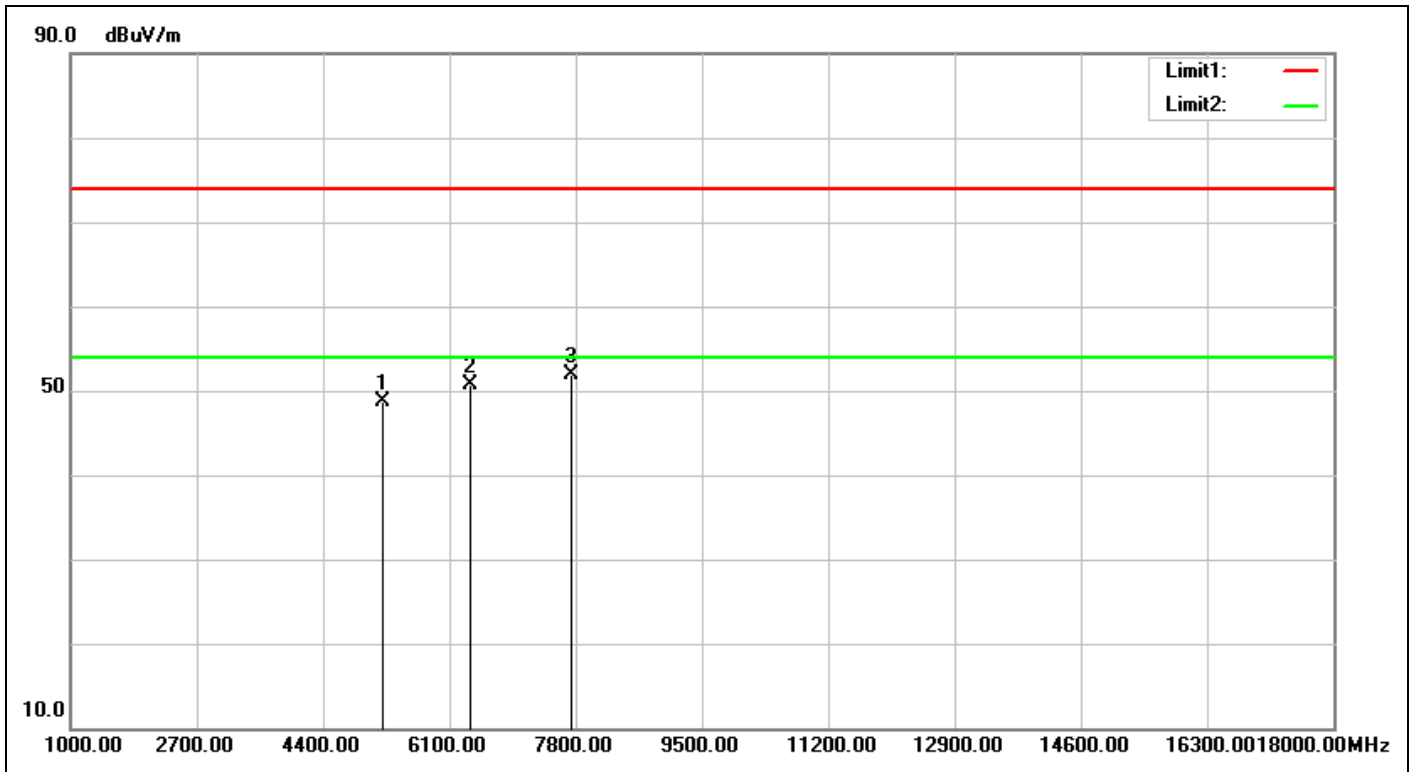
# Spurious Emissions, RX Mode, 1-18G



TUV Taiwan

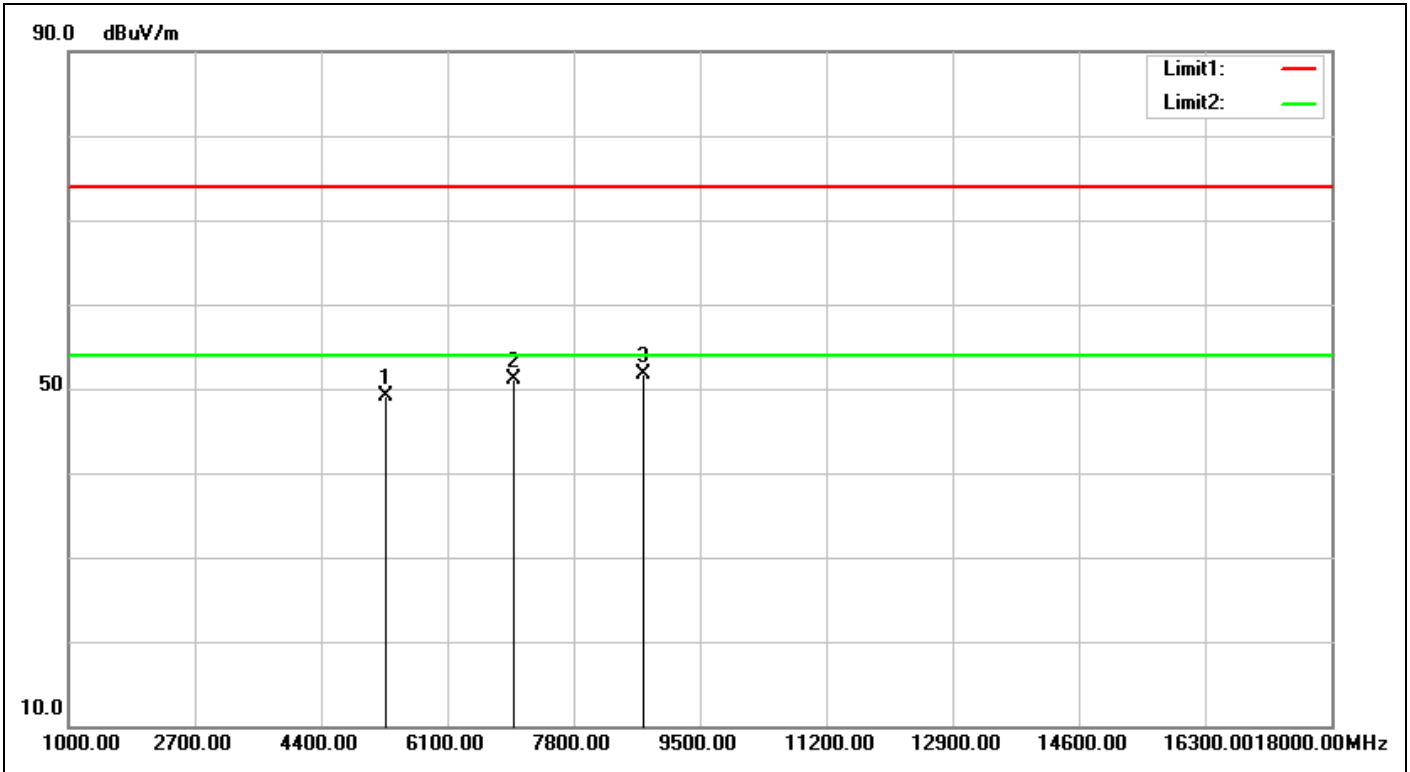
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 19:49:15</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-RX</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	5199.000	-1.15	49.81	48.66	74.00	-25.34	peak	100	171	
2	6372.000	5.11	45.56	50.67	74.00	-23.33	peak	100	55	
3	7732.000	6.40	45.47	51.87	74.00	-22.13	peak	100	301	



<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 19:50:18</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-RX</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	5267.000	-0.79	49.86	49.07	74.00	-24.93	peak	100	153	
2	6984.000	4.99	46.15	51.14	74.00	-22.86	peak	100	288	
3	8735.000	6.73	45.02	51.75	74.00	-22.25	peak	100	1	

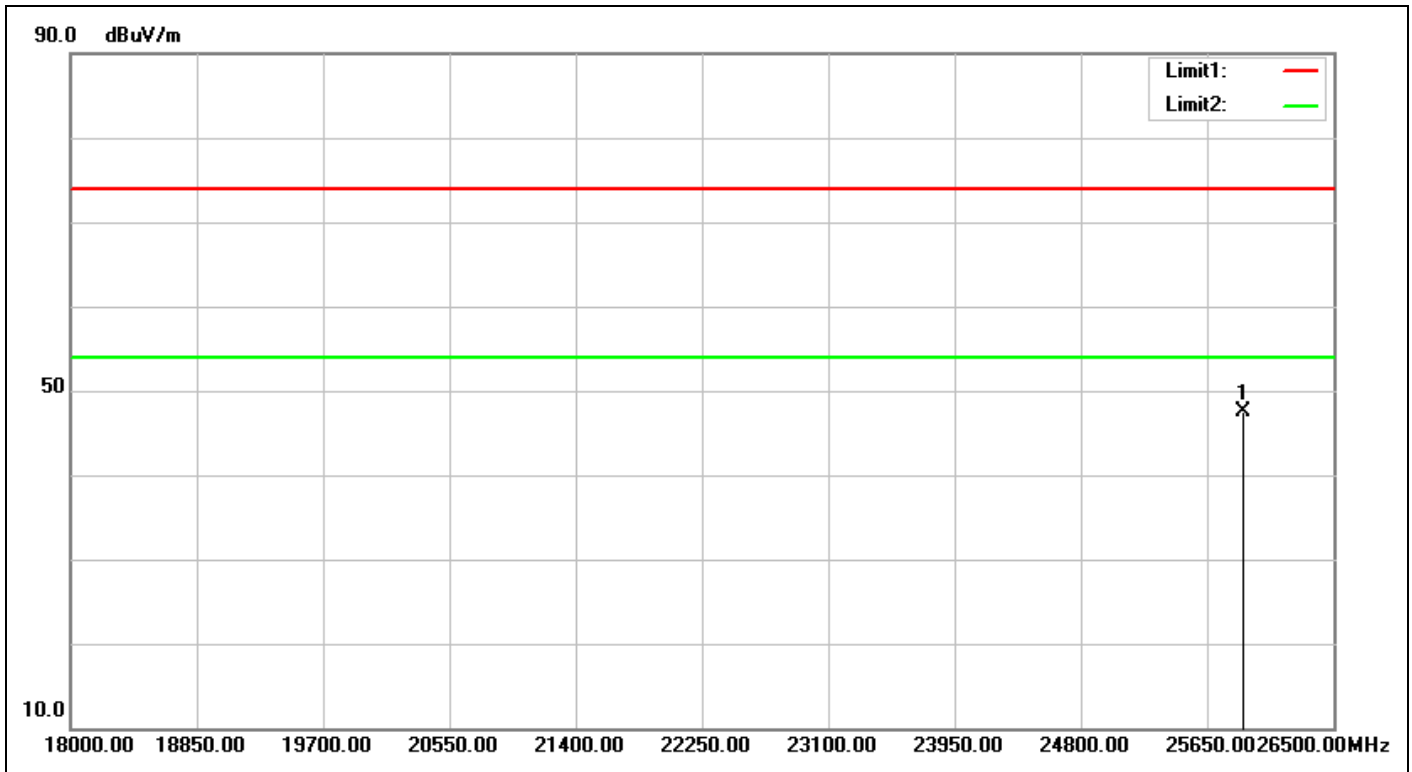
# Spurious Emissions, RX Mode, 18-26G



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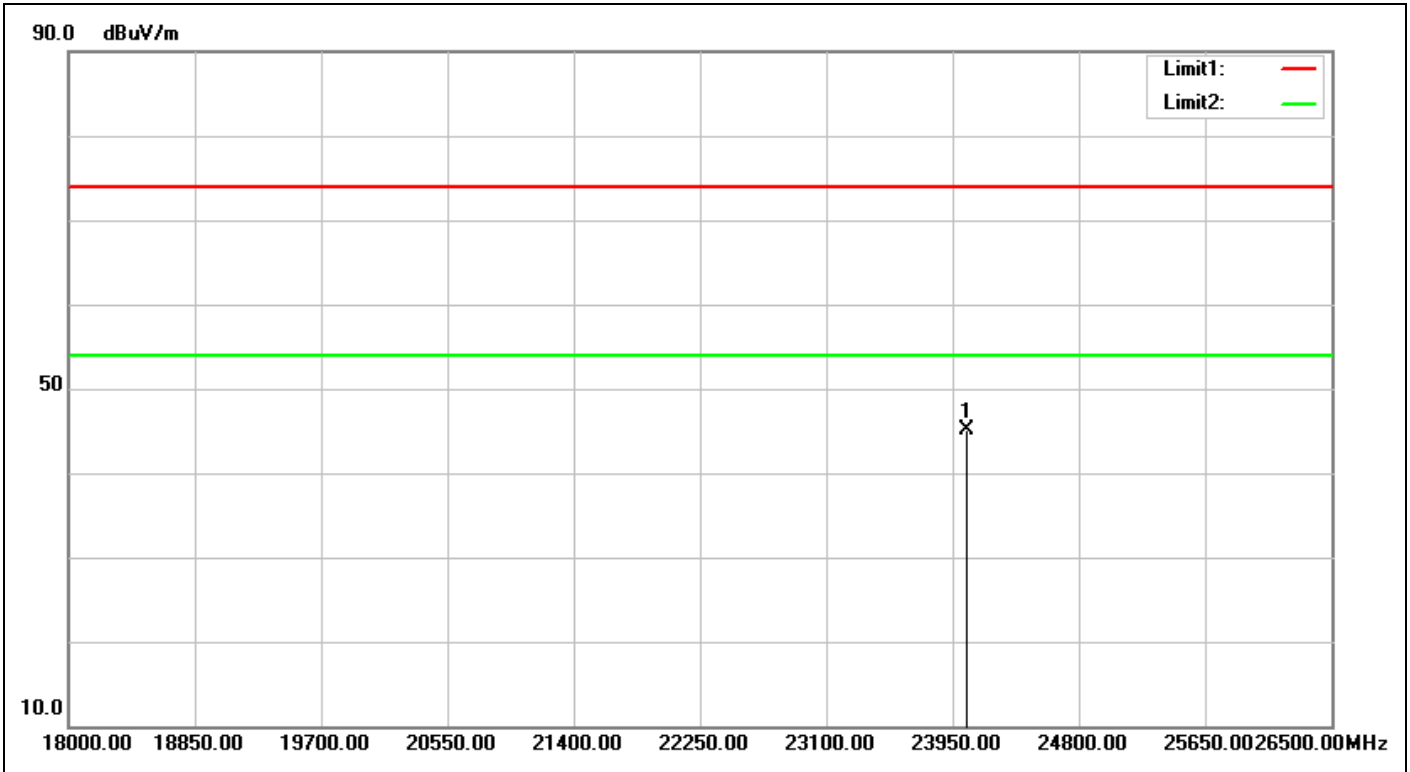
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 20:20:21</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-RX</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	25896.500	31.79	15.68	47.47	74.00	-26.53	peak			



<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 20:20:30</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-RX</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	24043.500	30.21	14.82	45.03	74.00	-28.97	peak			

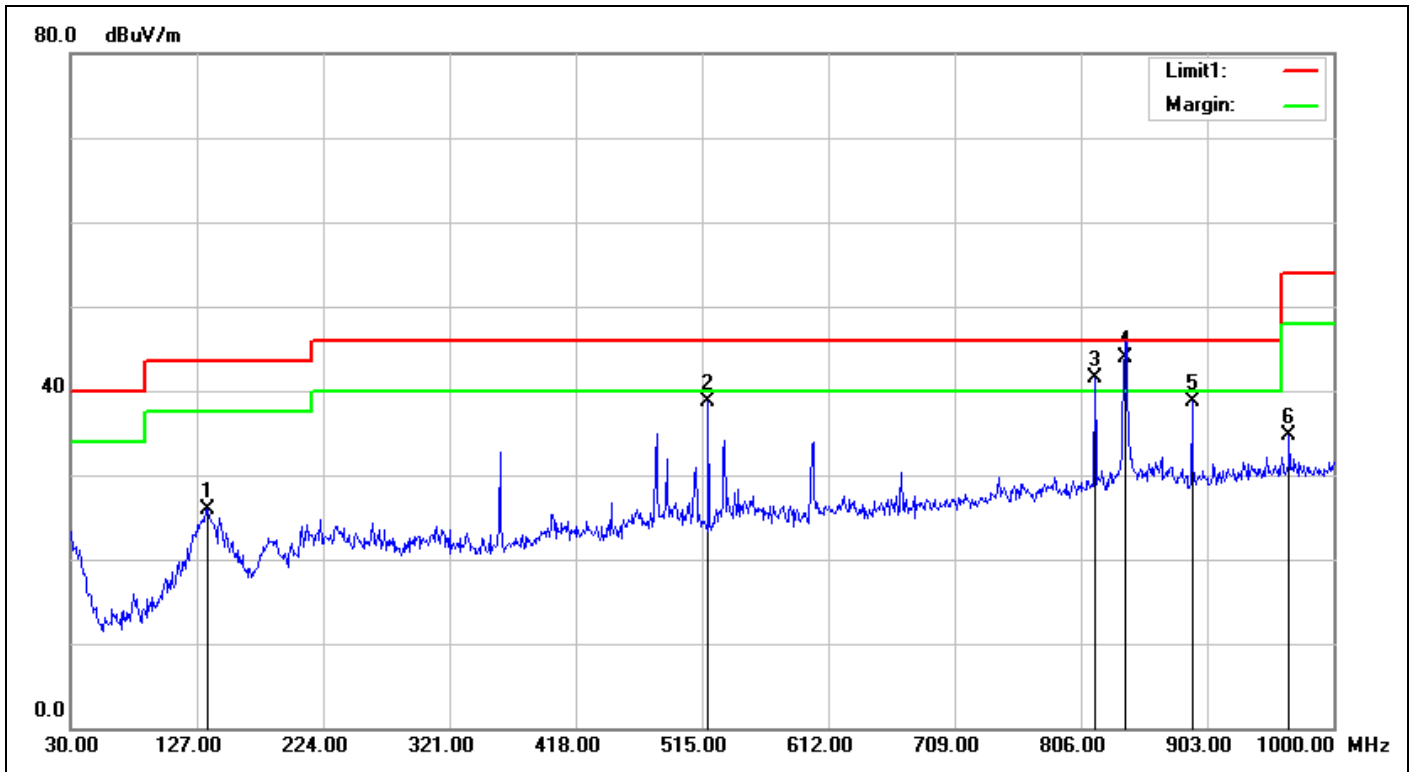
# Spurious Emissions, RX Mode, 30M-1G



**TUV Taiwan**

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

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

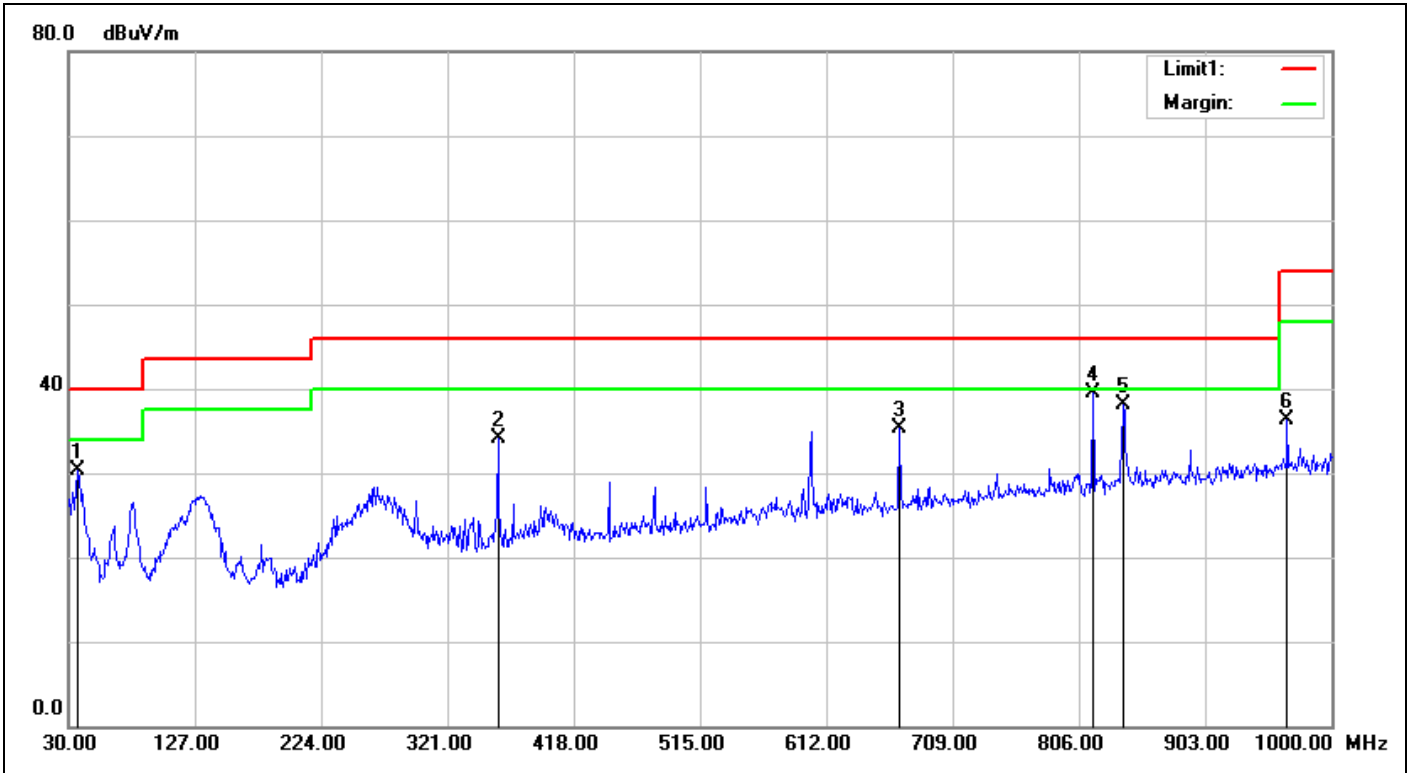


<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Class B 3M Radiation</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 21:05:54</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-RX</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	135.7300	-6.99	32.86	25.87	43.50	-17.63	QP	100	224	
2	519.8500	-1.13	39.78	38.65	46.00	-7.35	QP	100	118	
3	816.6700	3.11	38.44	41.55	46.00	-4.45	QP	100	129	
4	839.9500	3.51	40.39	43.90	46.00	-2.10	QP	100	160	
5	891.3600	4.07	34.63	38.70	46.00	-7.30	QP	100	147	
6	966.0500	5.53	29.08	34.61	54.00	-19.39	QP	100	129	

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

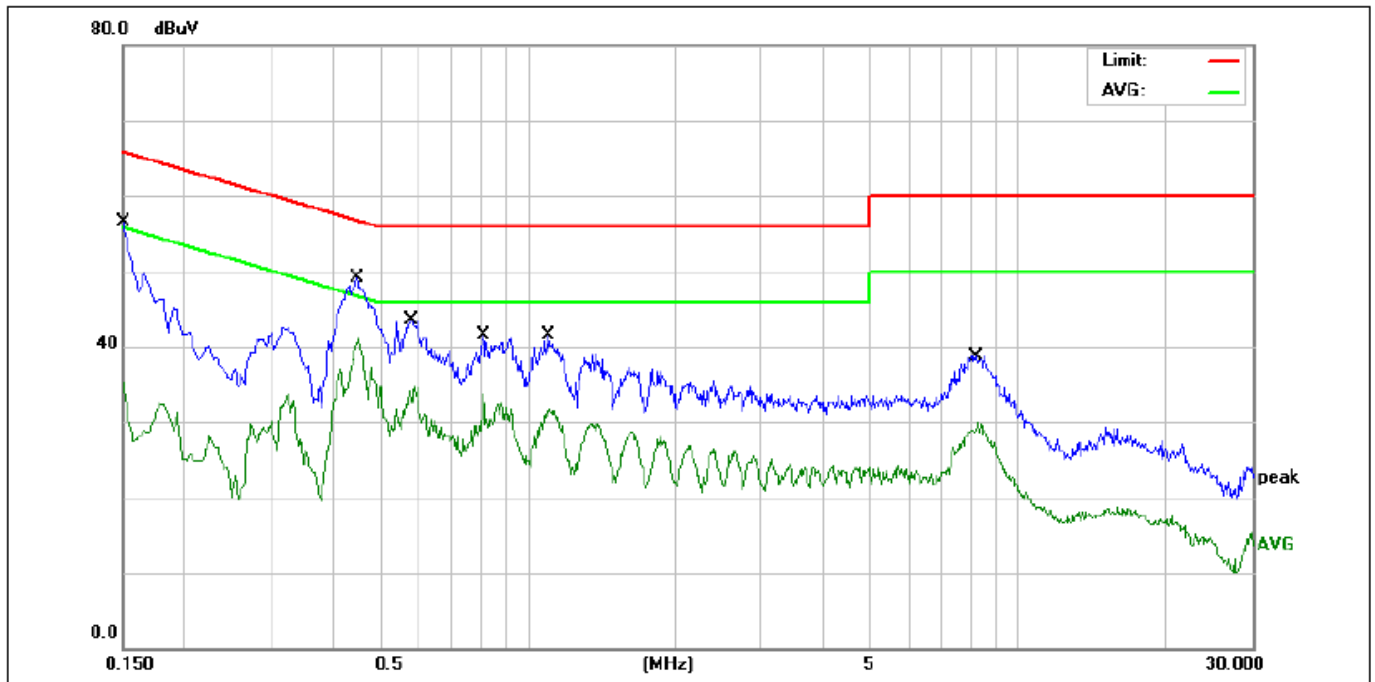




<b>Service No.:</b>	<b>114054306</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Class B 3M Radiation</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2016/9/19 21:06:58</b>
<b>Applicant:</b>	<b>TUV SZ(Lenovo)</b>	<b>Test Rating:</b>	<b>AC 110V/60Hz</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>27.3(°C)/65%</b>
<b>Model No.:</b>	<b>M123</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-RX</b>		
<b>Remark:</b>			

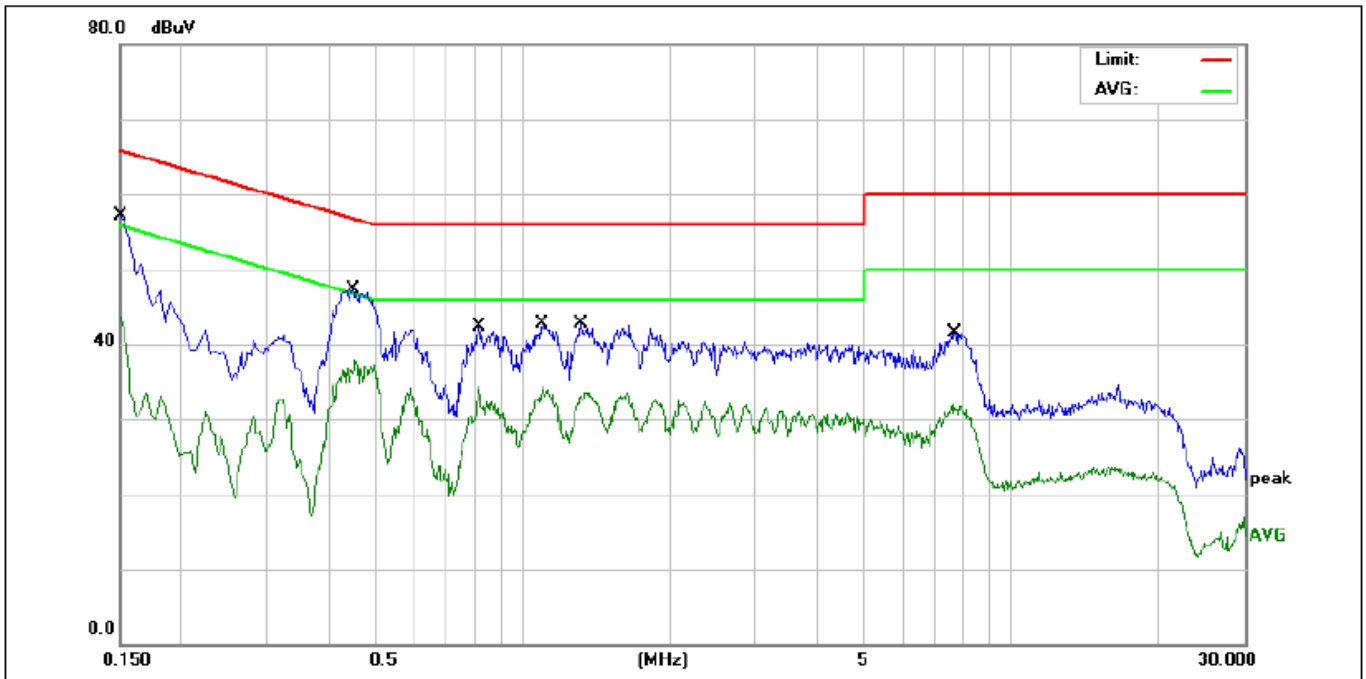
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	36.7900	-3.96	34.24	30.28	40.00	-9.72	QP	100	126	
2	359.8000	-3.30	37.44	34.14	46.00	-11.86	QP	100	259	
3	668.2600	0.73	34.48	35.21	46.00	-10.79	QP	100	240	
4	816.6700	3.11	36.38	39.49	46.00	-6.51	QP	100	0	
5	839.9500	3.51	34.56	38.07	46.00	-7.93	QP	100	14	
6	966.0500	5.53	30.72	36.25	54.00	-17.75	QP	100	83	

# Mains Spurious Emissions



<b>Service No.:</b>	<b>114054306</b>	<b>Phase:</b>	<b>N</b>
<b>Test Standard:</b>	<b>FCC Class B Conduction (QP)</b>	<b>Power Rating:</b>	<b>AC 120V/60Hz</b>
<b>Test item:</b>	<b>Conducted Emission</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>25.8(°C)/41%</b>
<b>Applicant:</b>	<b>TUV SZ (Lenovo)</b>	<b>Test Engineer:</b>	<b>Freeman Wang</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>		
<b>Model No.:</b>	<b>M123</b>		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor ( )	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1500	9.73	42.47	52.20	65.99	-13.79	QP	P	
2	0.1500	9.73	22.31	32.04	55.99	-23.95	AVG	P	
3	0.4500	9.68	35.96	45.64	56.87	-11.23	QP	P	
4	0.4500	9.68	29.07	38.75	46.87	-8.12	AVG	P	
5	0.5820	9.69	30.77	40.46	56.00	-15.54	QP	P	
6	0.5820	9.69	23.47	33.16	46.00	-12.84	AVG	P	
7	0.8139	9.69	29.09	38.78	56.00	-17.22	QP	P	
8	0.8139	9.69	23.67	33.36	46.00	-12.64	AVG	P	
9	1.1100	9.70	27.30	37.00	56.00	-19.00	QP	P	
10	1.1100	9.70	21.22	30.92	46.00	-15.08	AVG	P	
11	8.2020	9.79	24.02	33.81	60.00	-26.19	QP	P	
12	8.2020	9.79	18.09	27.88	50.00	-22.12	AVG	P	



<b>Service No.:</b>	<b>114054306</b>	<b>Phase:</b>	<b>L1</b>
<b>Test Standard:</b>	<b>FCC Class B Conduction (QP)</b>	<b>Power Rating:</b>	<b>AC 120V/60Hz</b>
<b>Test item:</b>	<b>Conducted Emission</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>25.8(°C)/41%</b>
<b>Applicant:</b>	<b>TUV SZ (Lenovo)</b>	<b>Test Engineer:</b>	<b>Freeman Wang</b>
<b>Product:</b>	<b>ThinkPad Stack Mobile Projector</b>		
<b>Model No.:</b>	<b>M123</b>		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor ()	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1500	9.78	40.14	49.92	65.99	-16.07	QP	P	
2	0.1500	9.78	23.30	33.08	55.99	-22.91	AVG	P	
3	0.4500	9.75	34.92	44.67	56.87	-12.20	QP	P	
4	0.4500	9.75	27.36	37.11	46.87	-9.76	AVG	P	
5	0.8139	9.75	29.84	39.59	56.00	-16.41	QP	P	
6	0.8139	9.75	24.28	34.03	46.00	-11.97	AVG	P	
7	1.0940	9.75	29.22	38.97	56.00	-17.03	QP	P	
8	1.0940	9.75	23.21	32.96	46.00	-13.04	AVG	P	
9	1.3220	9.76	28.50	38.26	56.00	-17.74	QP	P	
10	1.3220	9.76	22.73	32.49	46.00	-13.51	AVG	P	
11	7.6580	9.84	26.58	36.42	60.00	-23.58	QP	P	
12	7.6580	9.84	20.59	30.43	50.00	-19.57	AVG	P	