

Test Report No.50058585 001

Appendix D: Radiated and Mains Spurious Emission Data

(File: 50058585AppendixD)

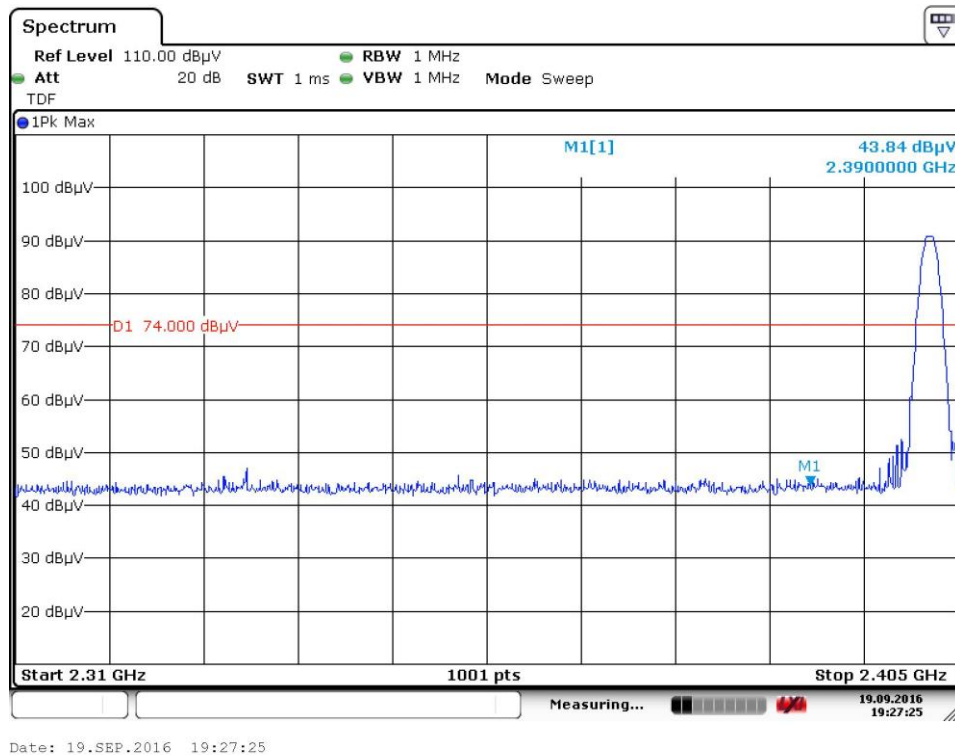
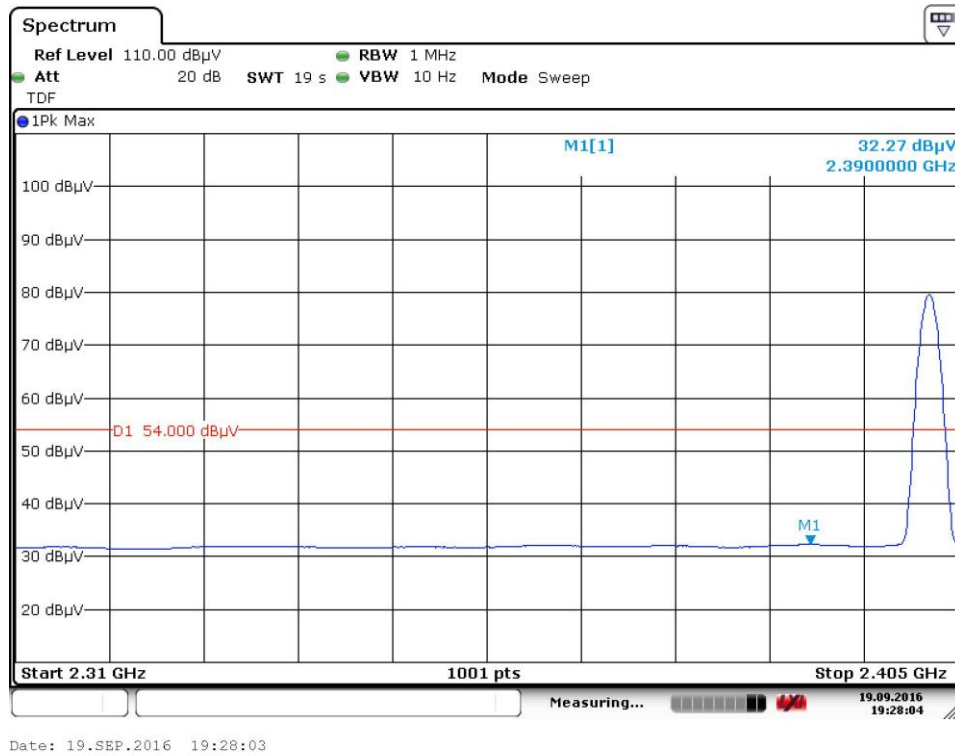
Contents

Spurious Emissions, Band Edges, 2.35-2.5G	2
Spurious Emissions, TX Mode, 1-18G.....	10
Spurious Emissions, TX Mode, 18-26G.....	22
Spurious Emissions, TX Mode, 30M-1G	34
Spurious Emissions, RX Mode, 1-18G	36
Spurious Emissions, RX Mode, 18-26G	38
Spurious Emissions, RX Mode, 30M-1G	40
Spurious Emissions, Mains, 150kHz - 30MHz	42

Spurious Emissions, Band Edges, 2.35-2.5G

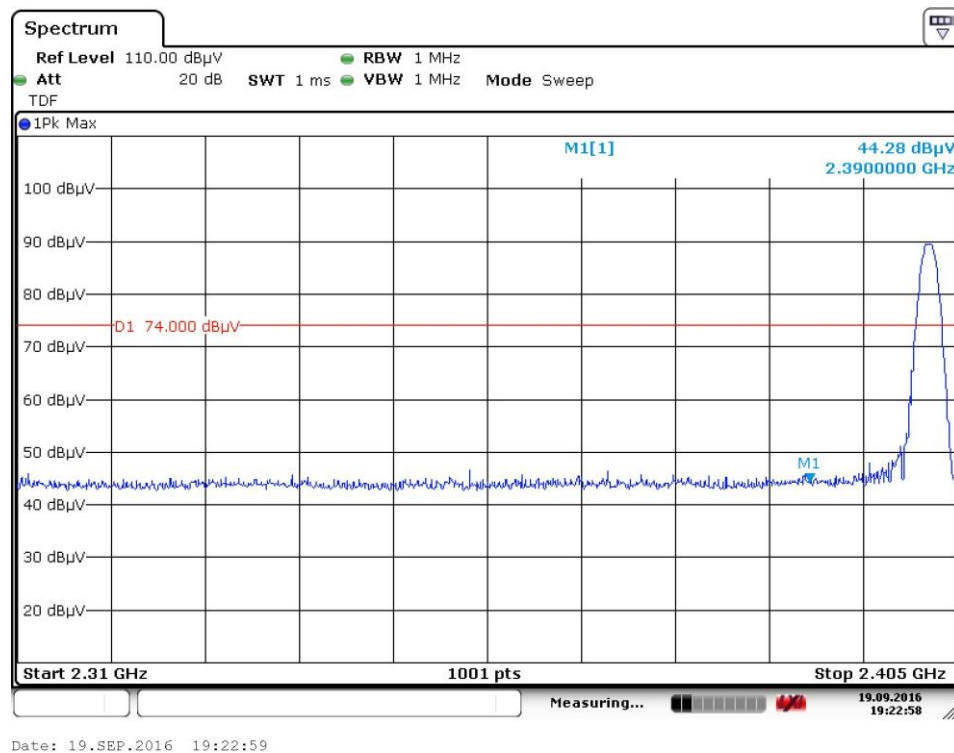
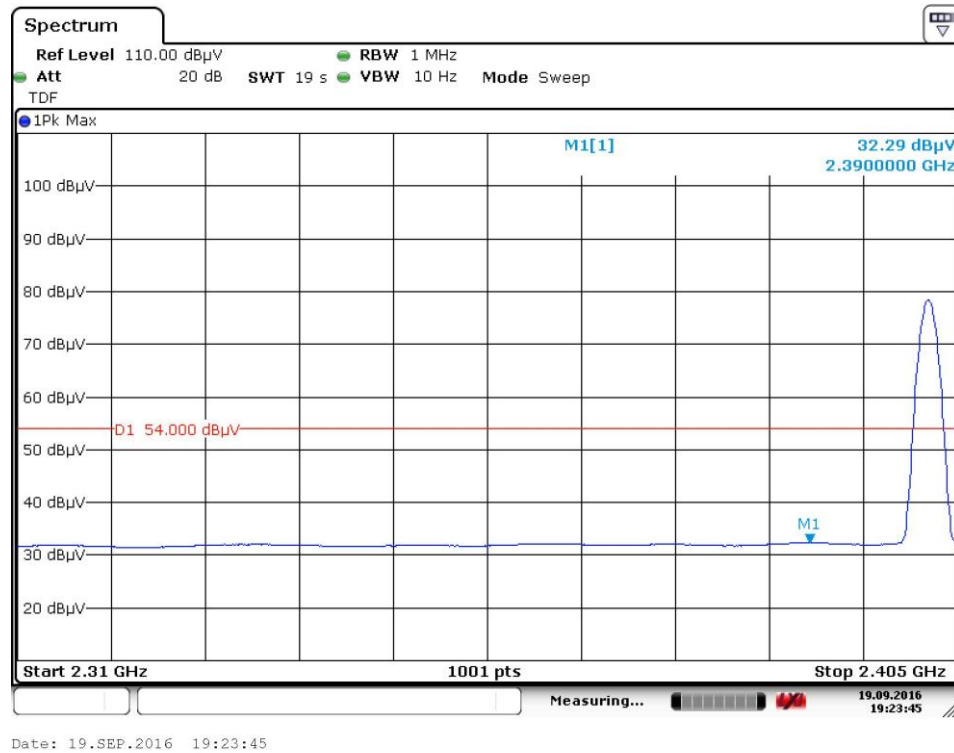
Radiated Bandedge (GFSK)

Low Channel (Hor)



Spurious Emissions, Band Edge, 2.35-2.5G

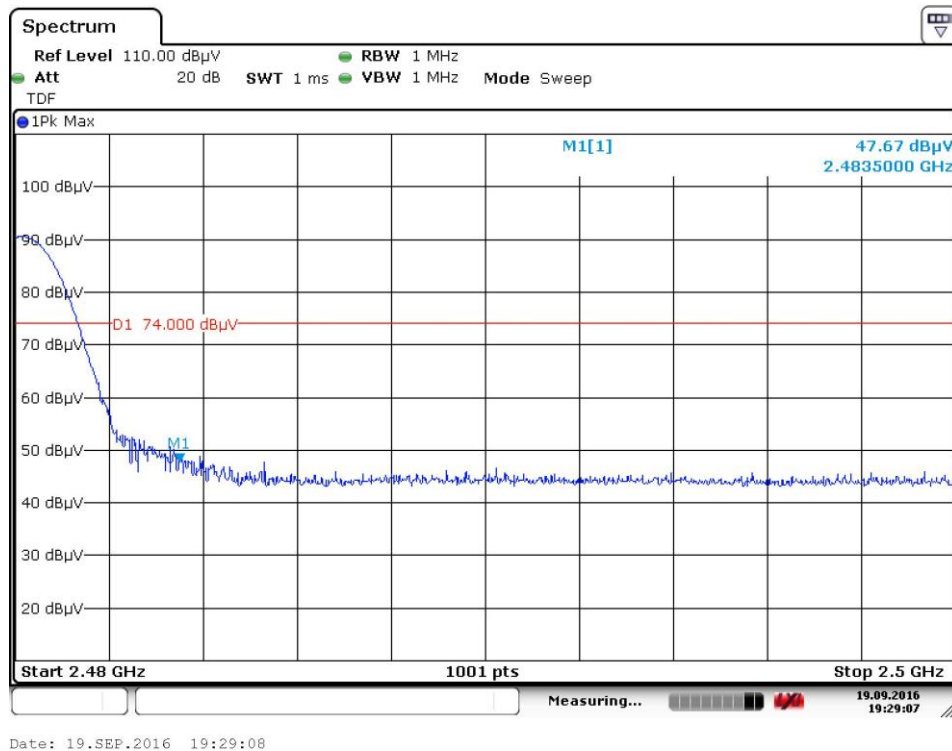
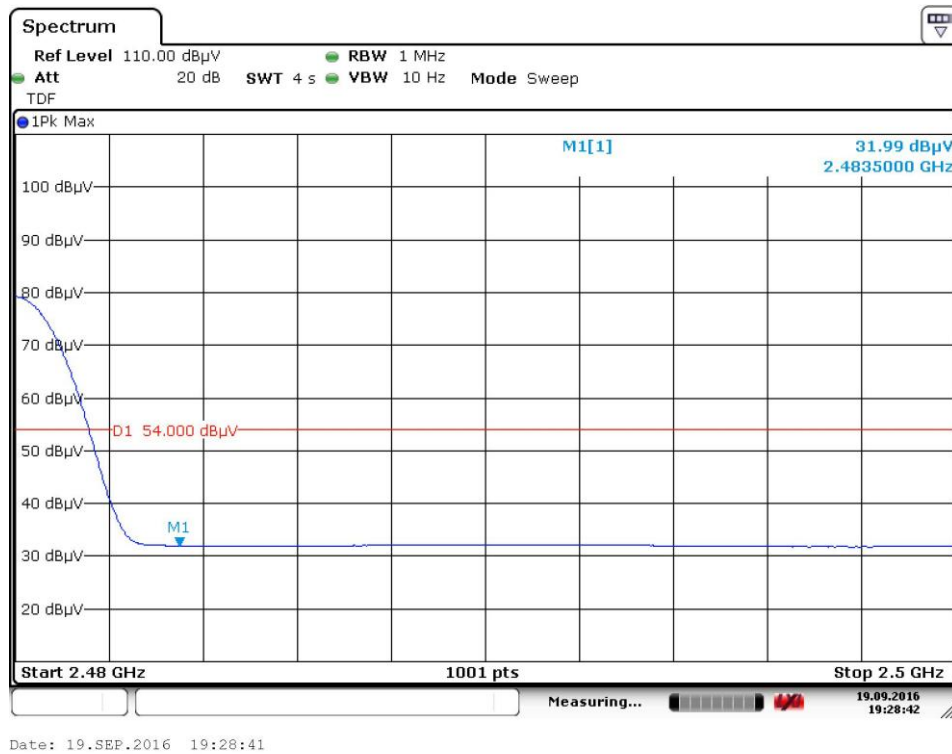
Low Channel (Ver)



Spurious Emissions, Band Edge, 2.35-2.5G

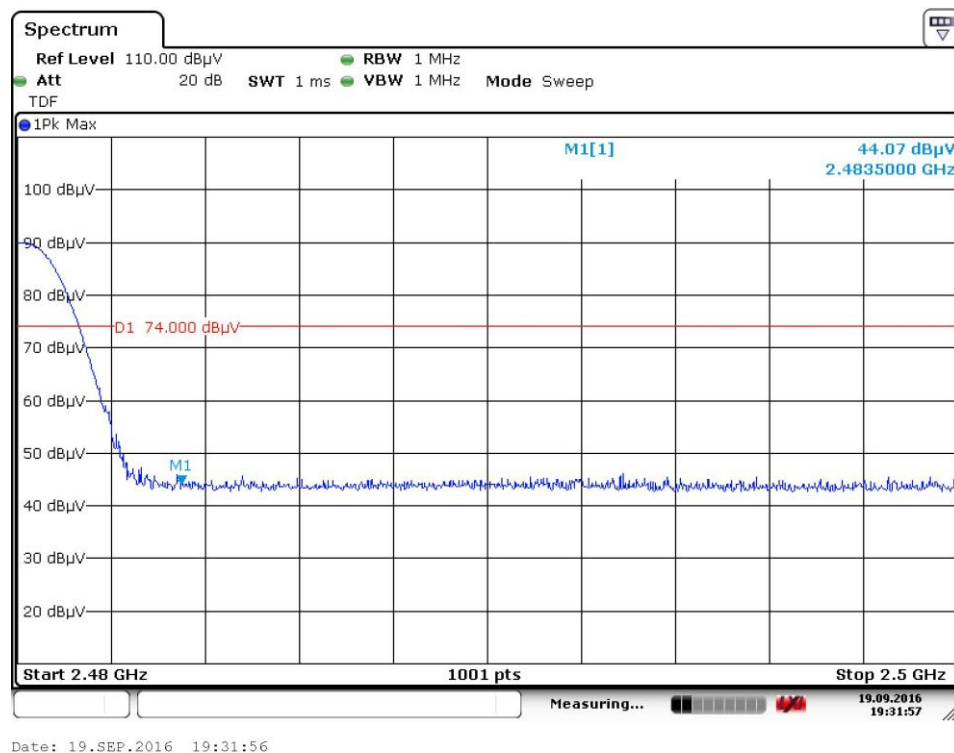
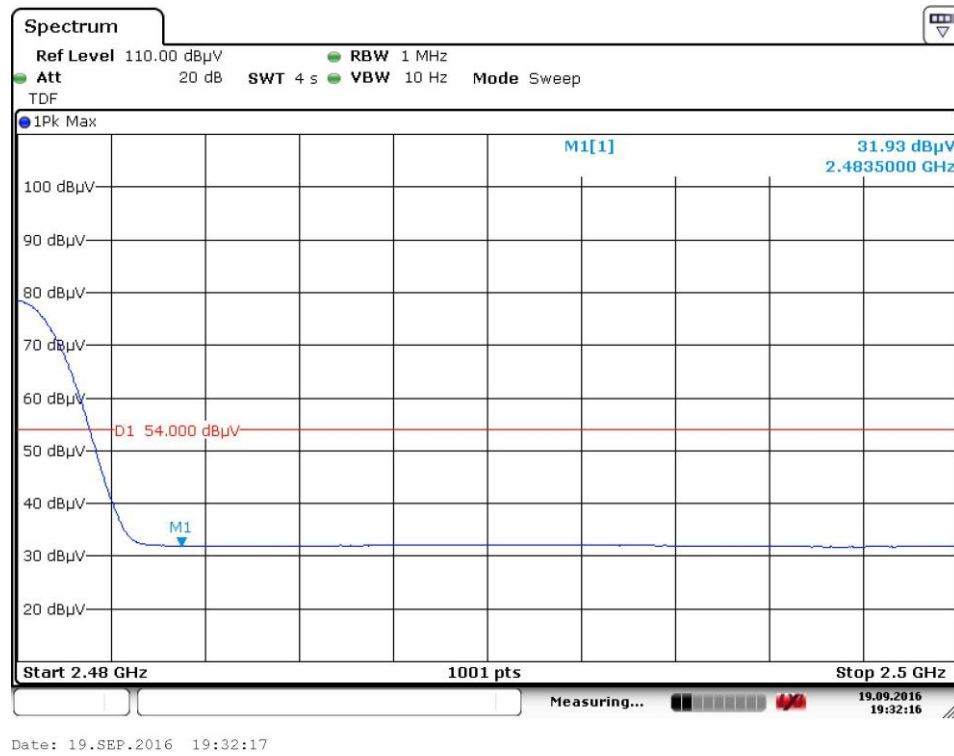
Radiated Bandedge (GFSK)

High Channel (Hor)



Spurious Emissions, Band Edge, 2.35-2.5G

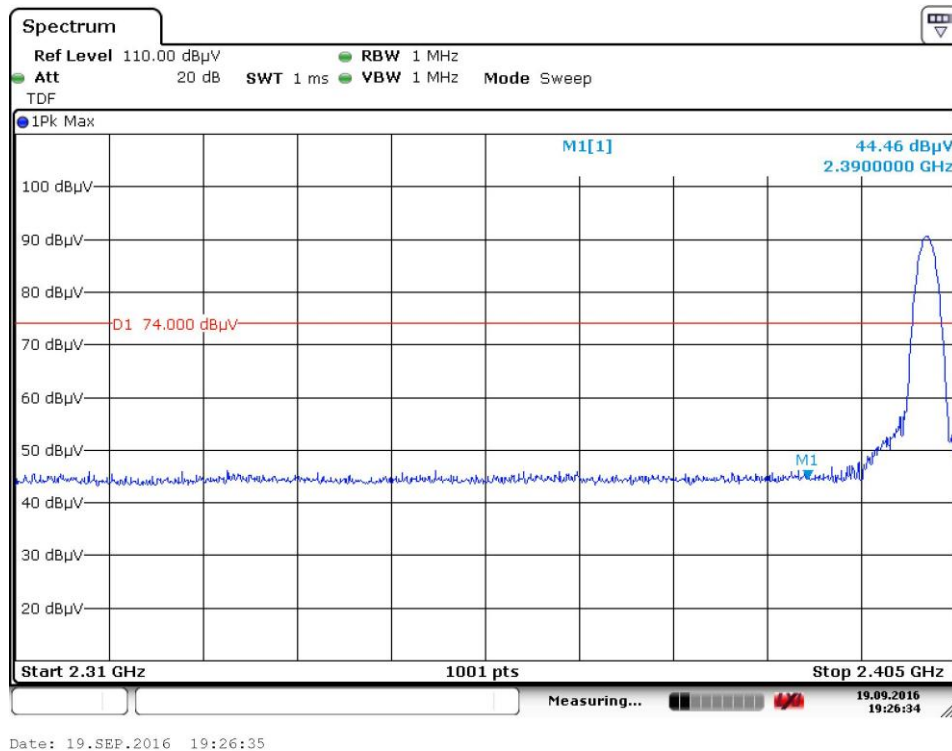
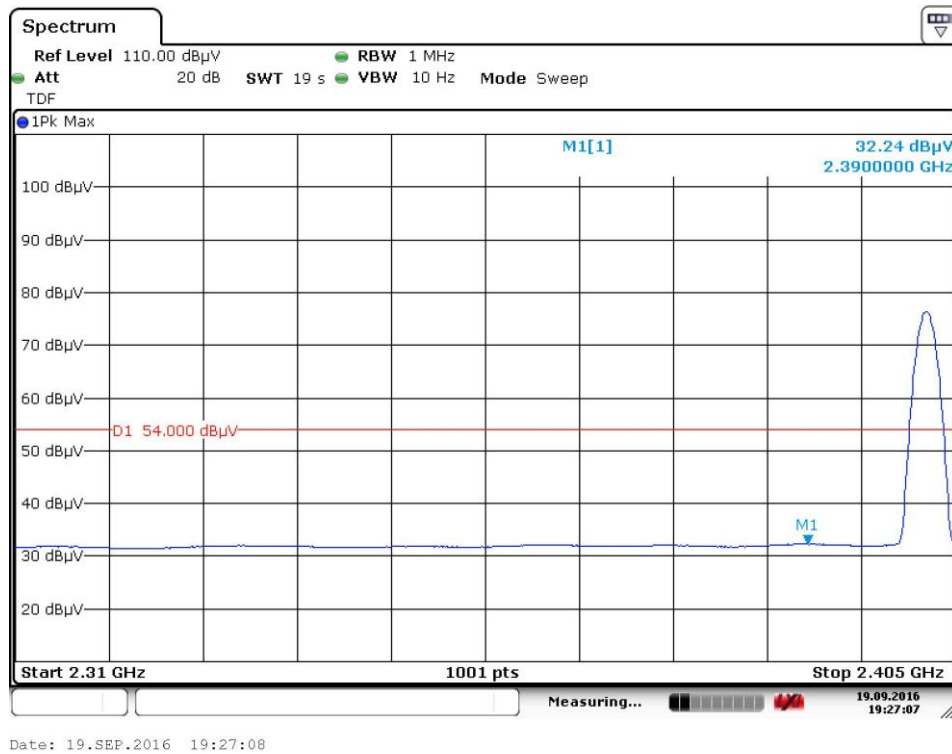
High Channel (Ver)



Spurious Emissions, Band Edge, 2.35-2.5G

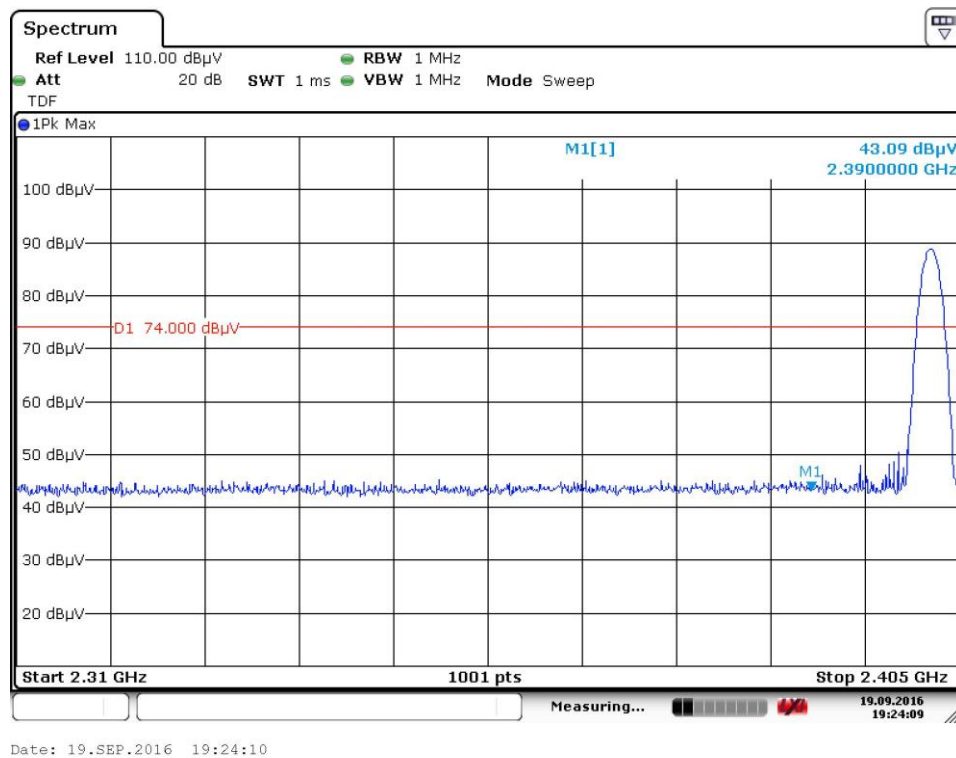
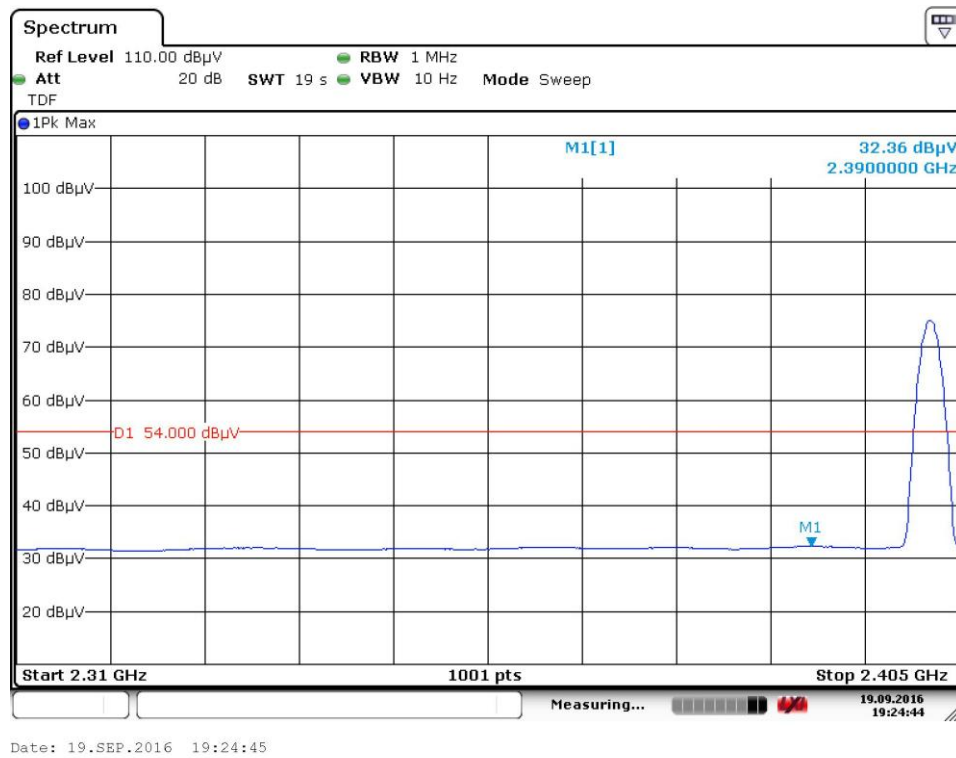
Radiated Bandedge (8DPSK)

Low Channel (Hor)



Spurious Emissions, Band Edge, 2.35-2.5G

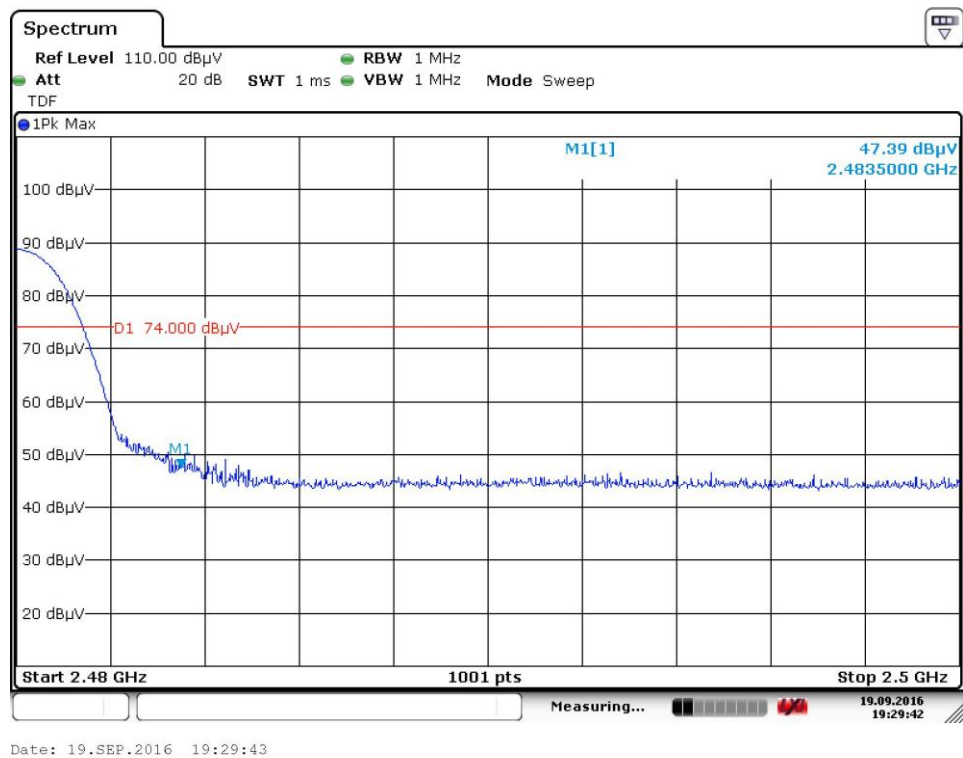
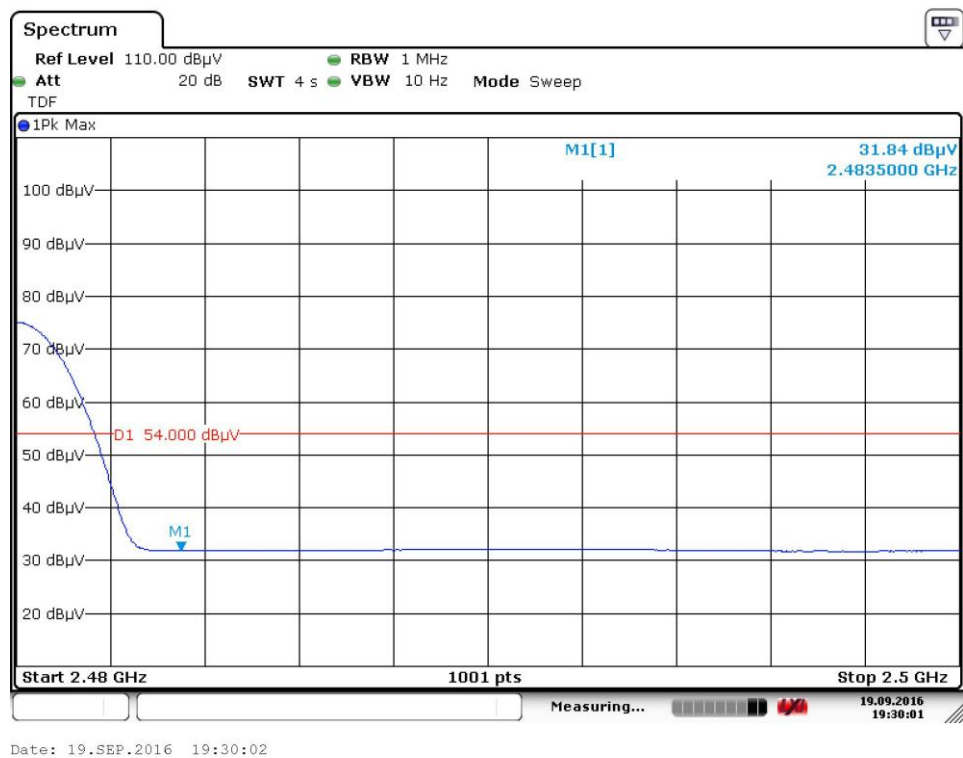
Low Channel (Ver)



Spurious Emissions, Band Edge, 2.35-2.5G

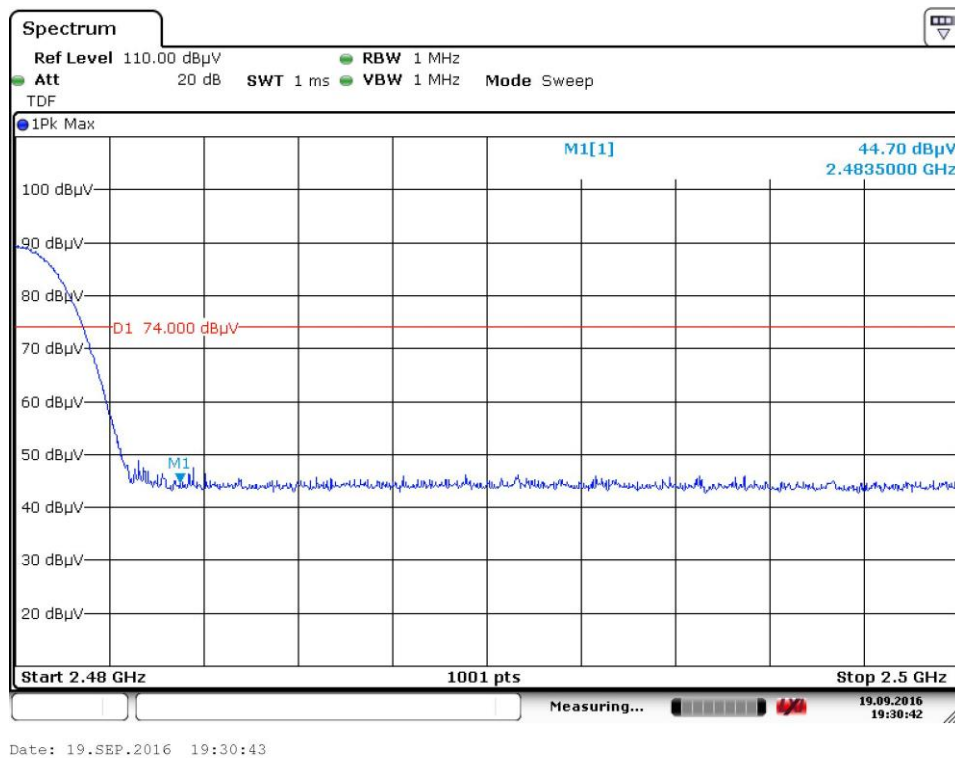
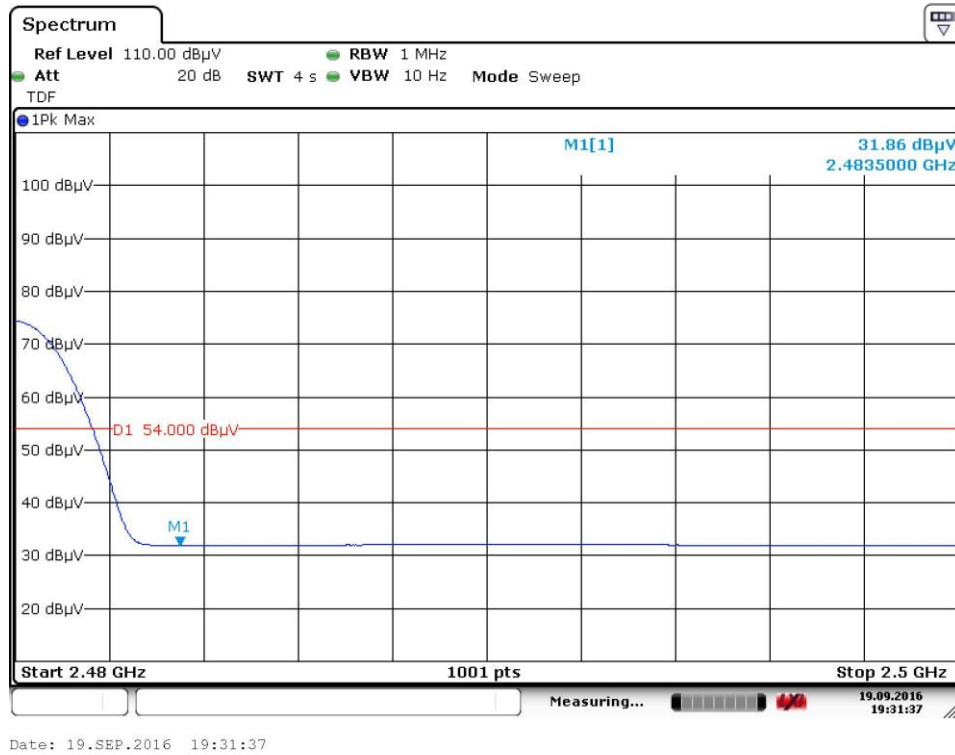
Radiated Bandedge (8DPSK)

High Channel (Hor)



Spurious Emissions, Band Edge, 2.35-2.5G

High Channel (Ver)



Spurious Emissions, Band Edge, 2.35-2.5G

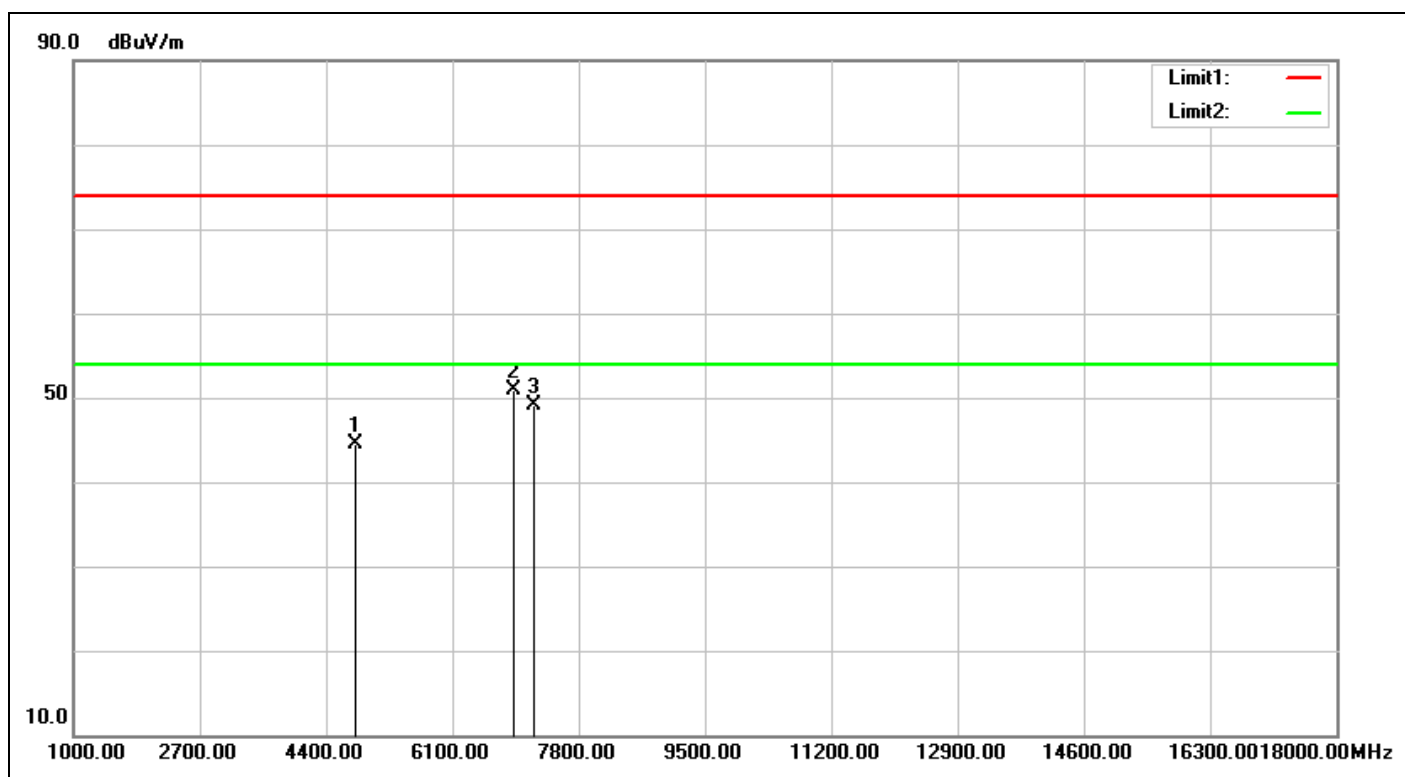
Spurious Emissions, TX Mode, 1-18G



TUV Taiwan

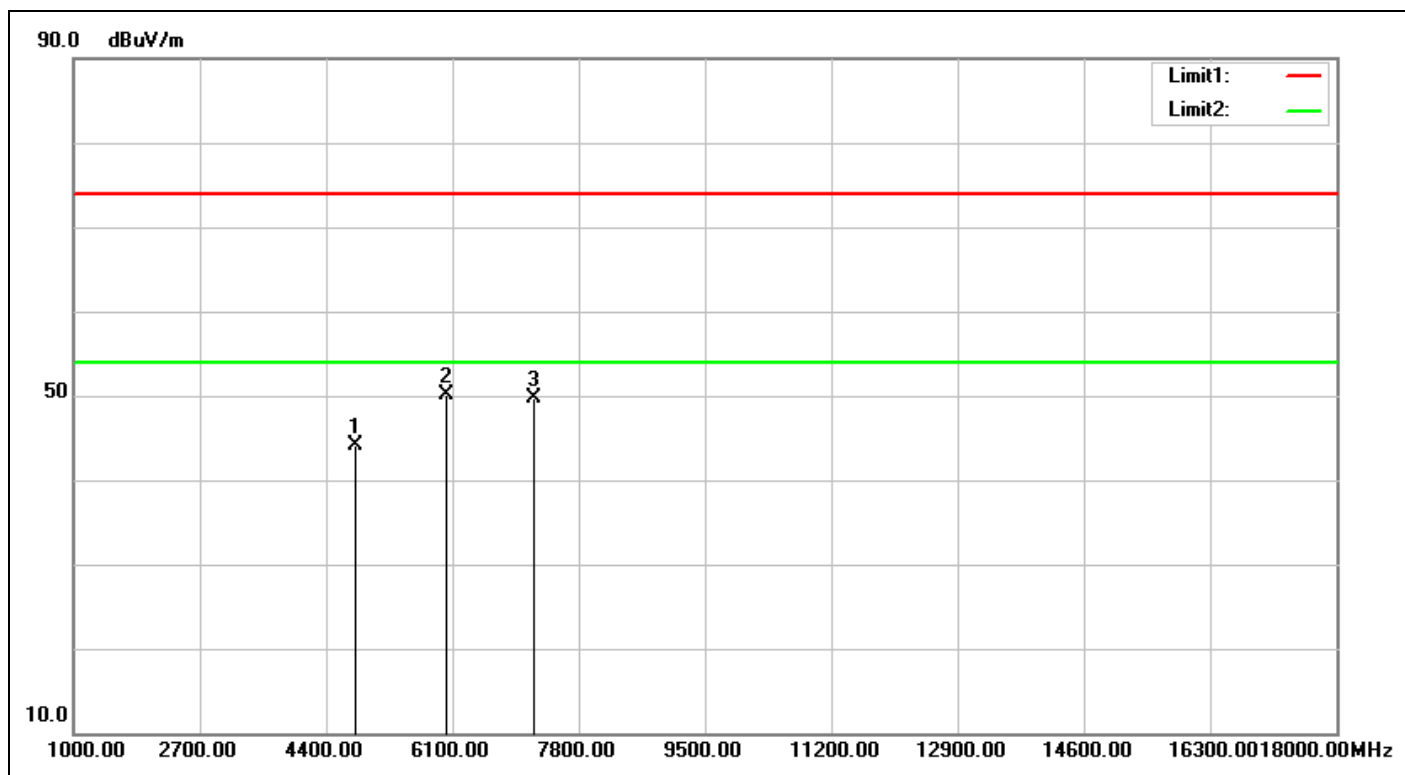
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



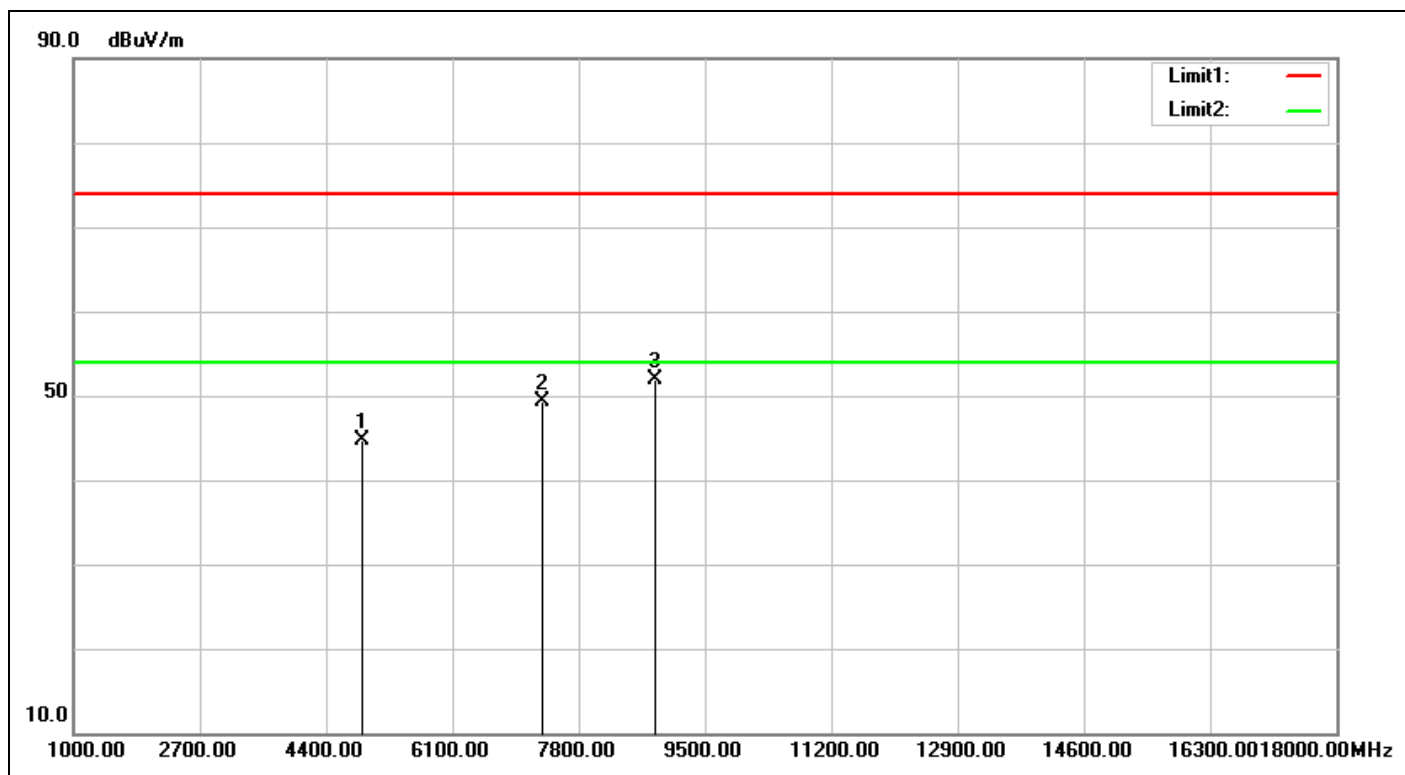
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/19 19:52:09
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%) :	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2402-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	-2.64	47.06	44.42	74.00	-29.58	peak			
2	6916.000	5.07	45.82	50.89	74.00	-23.11	peak	100	11	
3	7206.000	5.57	43.60	49.17	74.00	-24.83	peak			



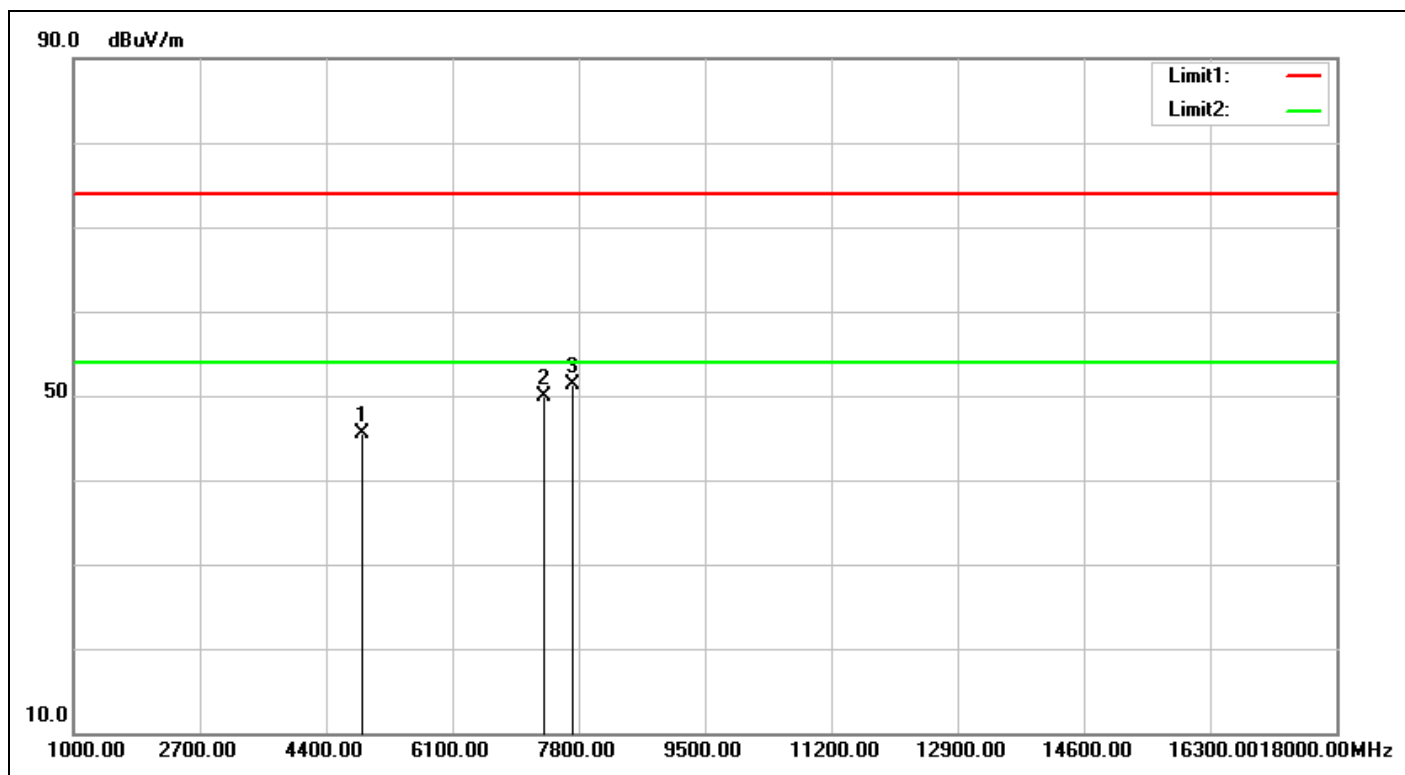
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/19 19:53:12
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%)	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2402-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	-2.64	46.84	44.20	74.00	-29.80	peak			
2	6015.000	3.98	46.14	50.12	74.00	-23.88	peak	100	307	
3	7206.000	5.57	44.10	49.67	74.00	-24.33	peak			



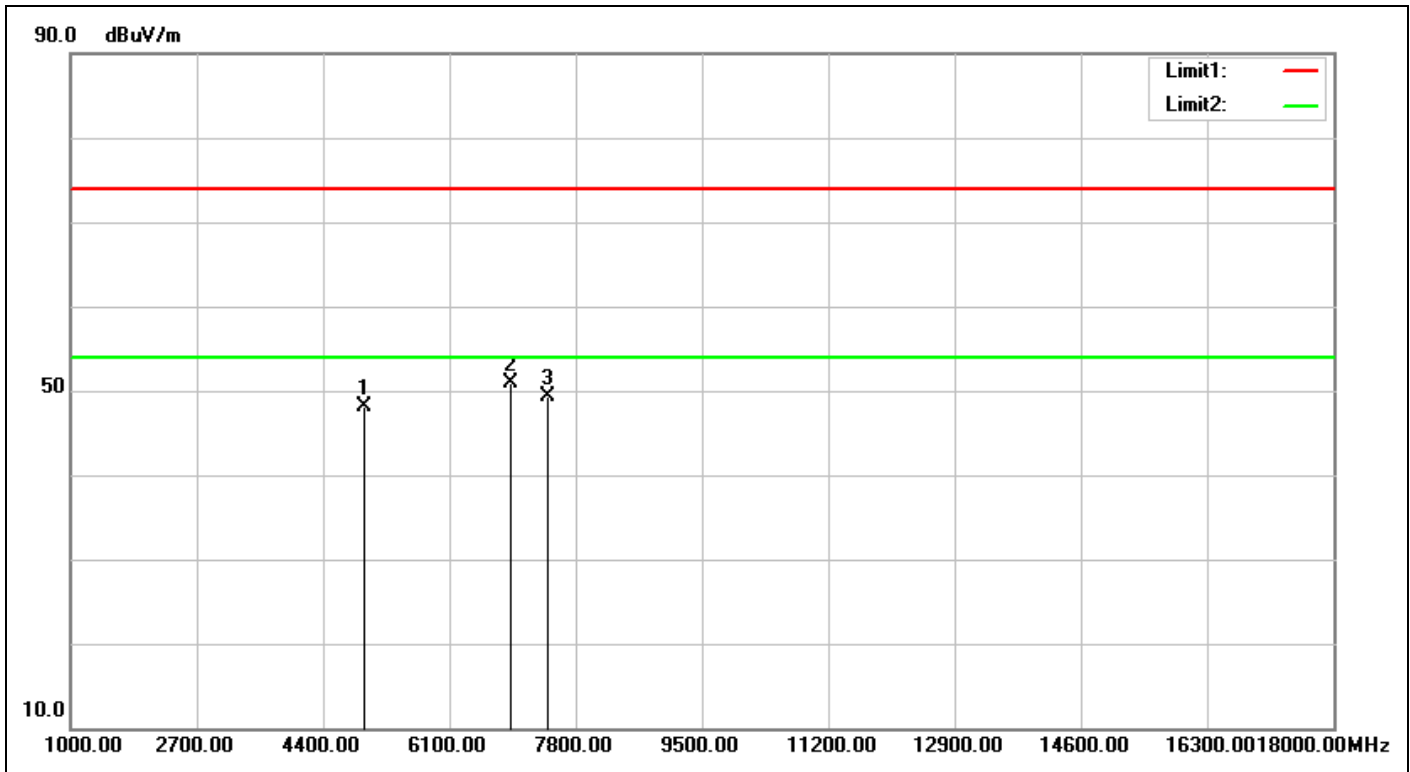
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/19 19:55:16
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%)	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2441-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4882.000	-2.47	47.08	44.61	74.00	-29.39	peak			
2	7323.000	5.91	43.47	49.38	74.00	-24.62	peak			
3	8837.000	6.78	45.08	51.86	74.00	-22.14	peak	100	14	



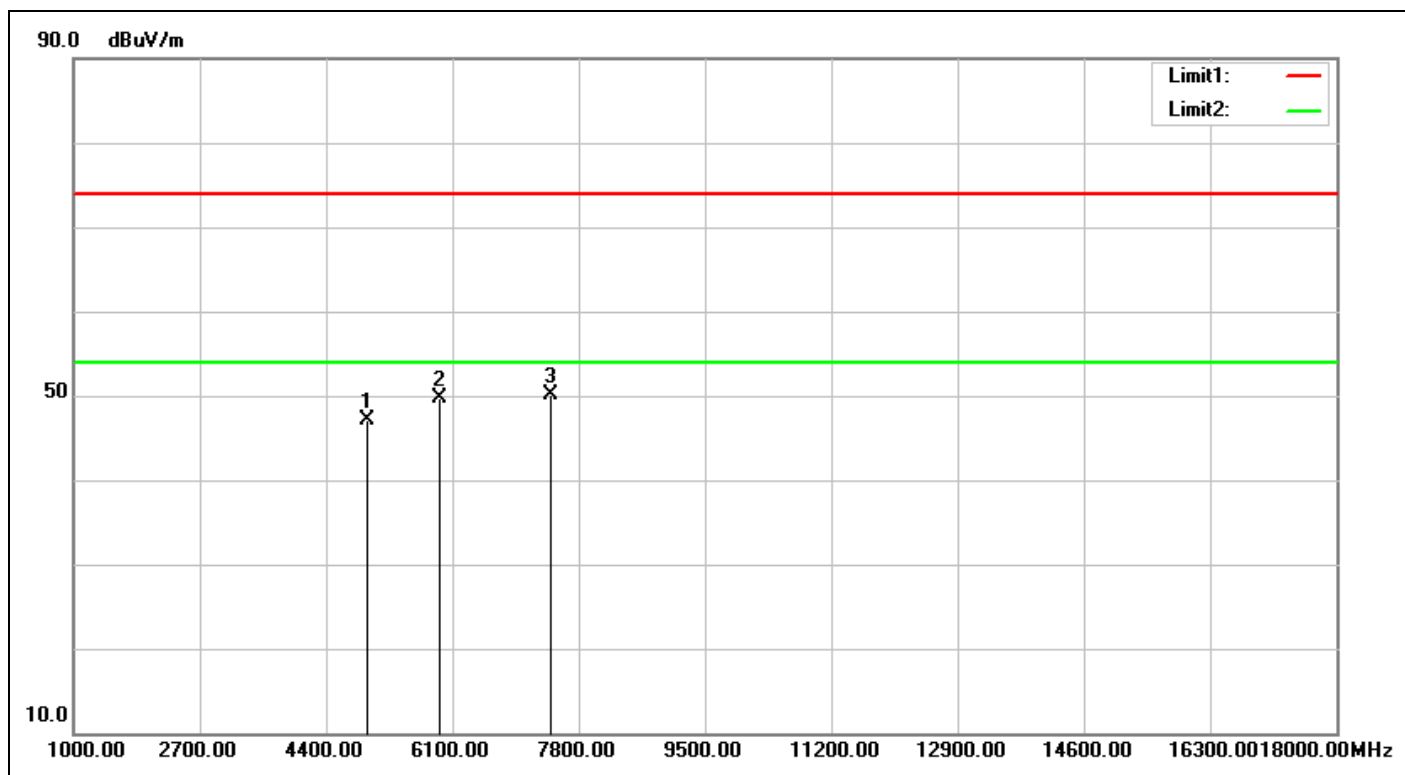
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/19 19:56:19
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%)	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2441-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4882.000	-2.47	48.00	45.53	74.00	-28.47	peak			
2	7323.000	5.91	43.98	49.89	74.00	-24.11	peak			
3	7715.000	6.39	44.97	51.36	74.00	-22.64	peak	100	313	



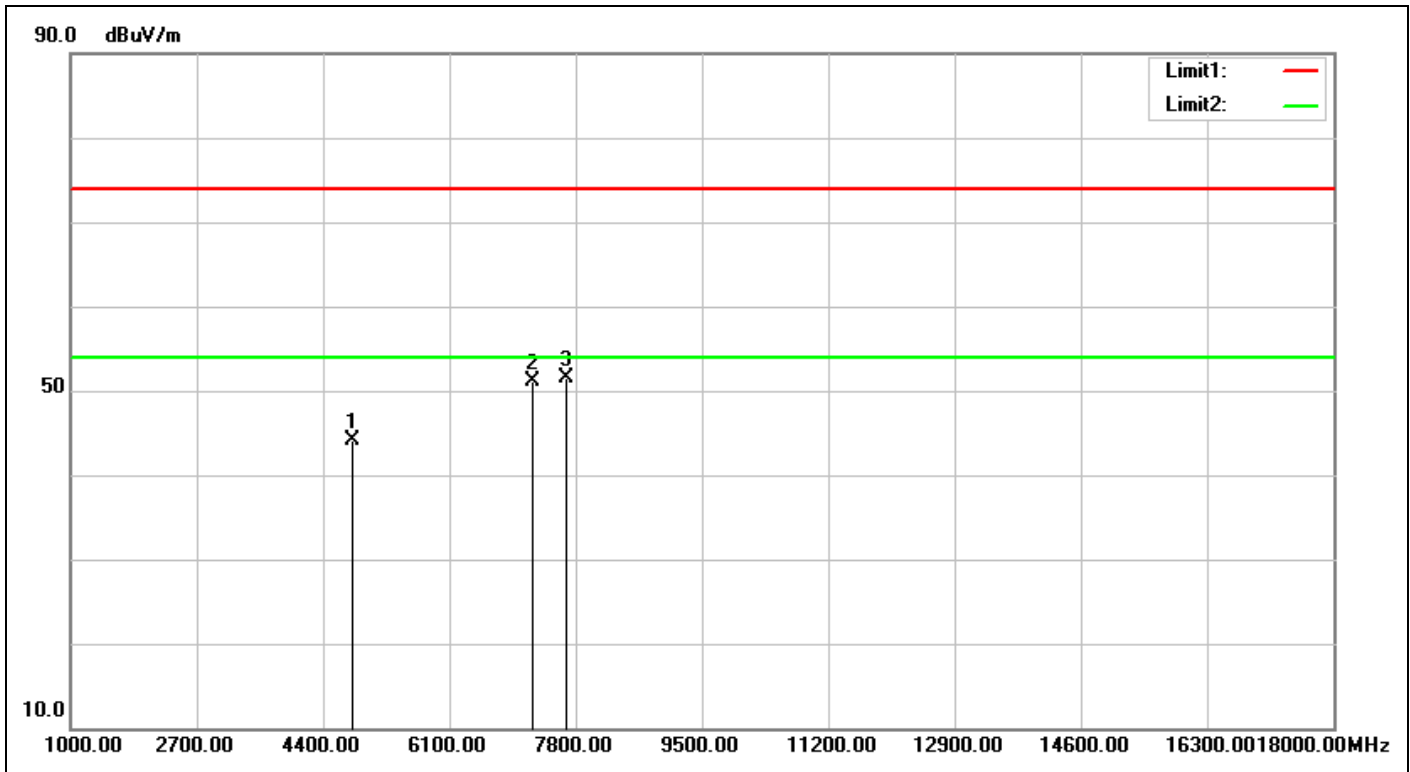
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/19 19:58:00
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%) :	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2480-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	-2.30	50.45	48.15	74.00	-25.85	peak			
2	6916.000	5.07	45.88	50.95	74.00	-23.05	peak	100	119	
3	7440.000	6.24	43.13	49.37	74.00	-24.63	peak			



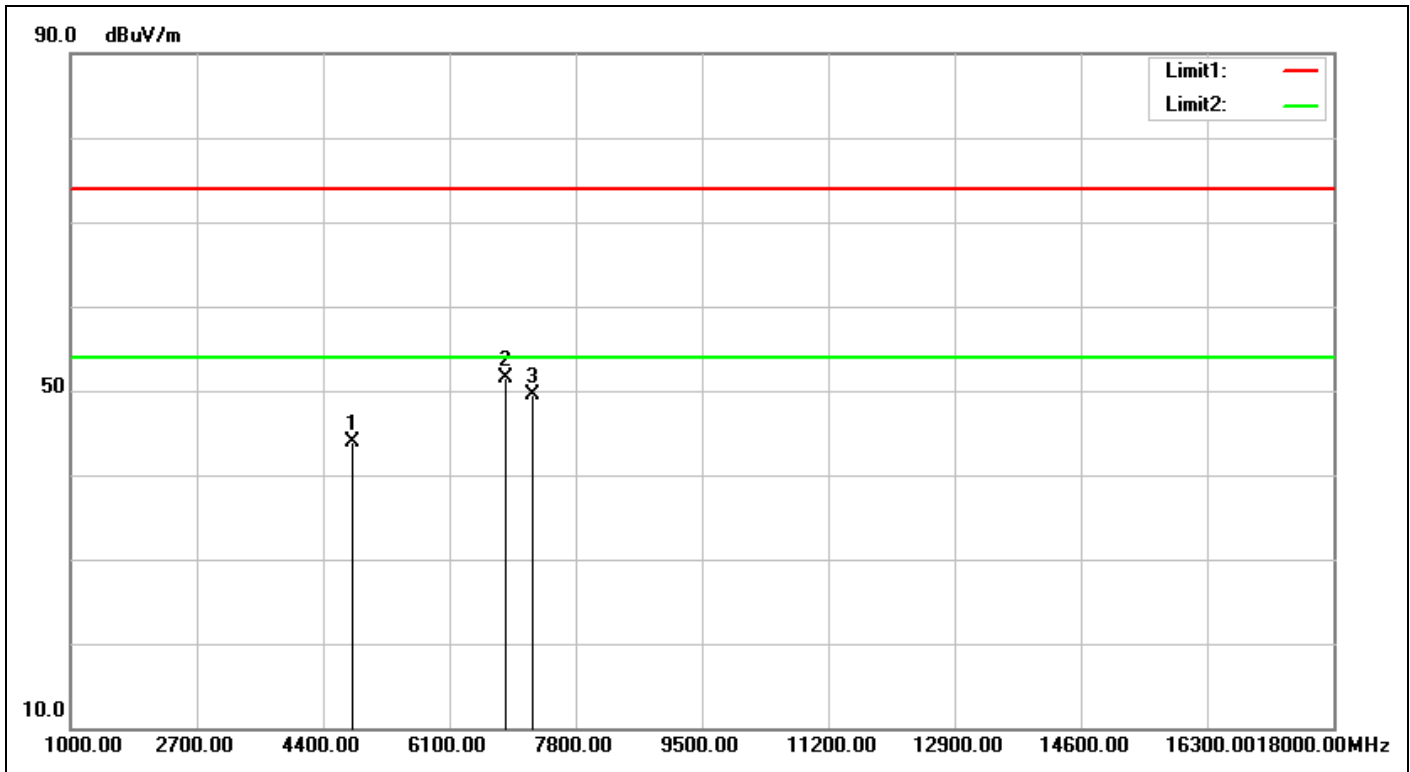
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/19 19:59:02
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%)	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2480-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	-2.30	49.44	47.14	74.00	-26.86	peak			
2	5930.000	3.44	46.34	49.78	74.00	-24.22	peak	100	349	
3	7440.000	6.24	43.86	50.10	74.00	-23.90	peak			



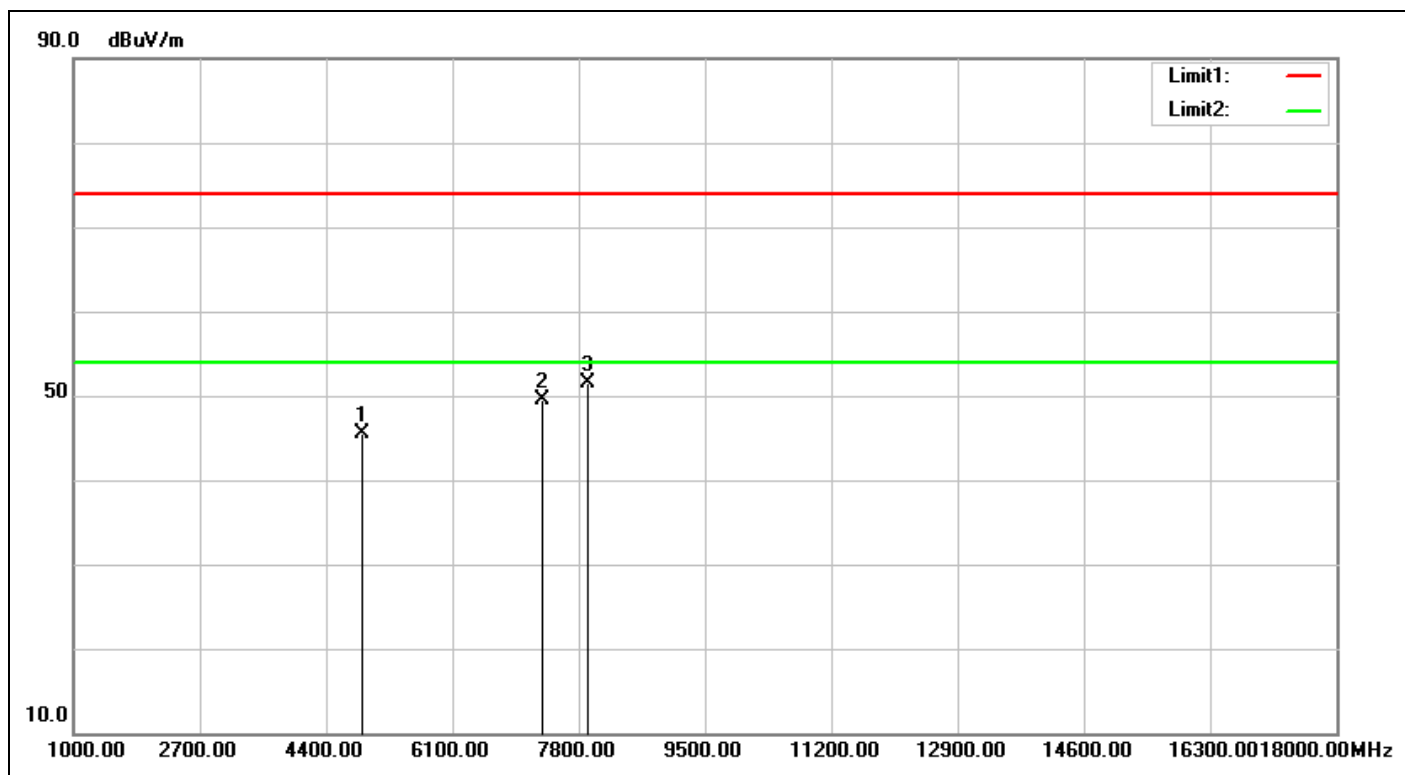
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/19 20:01:01
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%) :	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	3DH5-2402-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	-2.64	46.65	44.01	74.00	-29.99	peak			
2	7206.000	5.57	45.52	51.09	74.00	-22.91	peak			
3	7664.000	6.39	45.19	51.58	74.00	-22.42	peak	100	307	



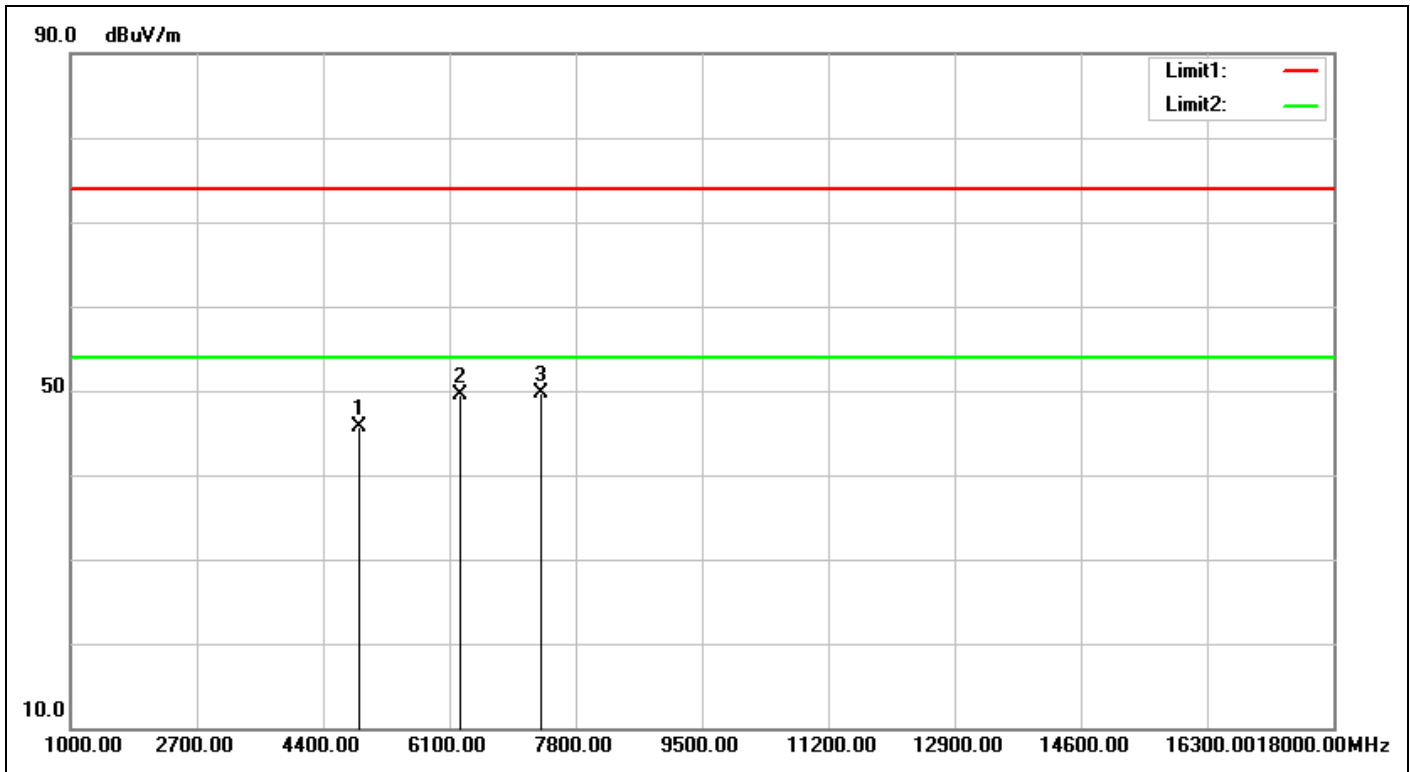
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/19 20:02:04
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%) :	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	3DH5-2402-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	-2.64	46.58	43.94	74.00	-30.06	peak			
2	6865.000	5.12	46.36	51.48	74.00	-22.52	peak	100	335	
3	7206.000	5.57	43.99	49.56	74.00	-24.44	peak			



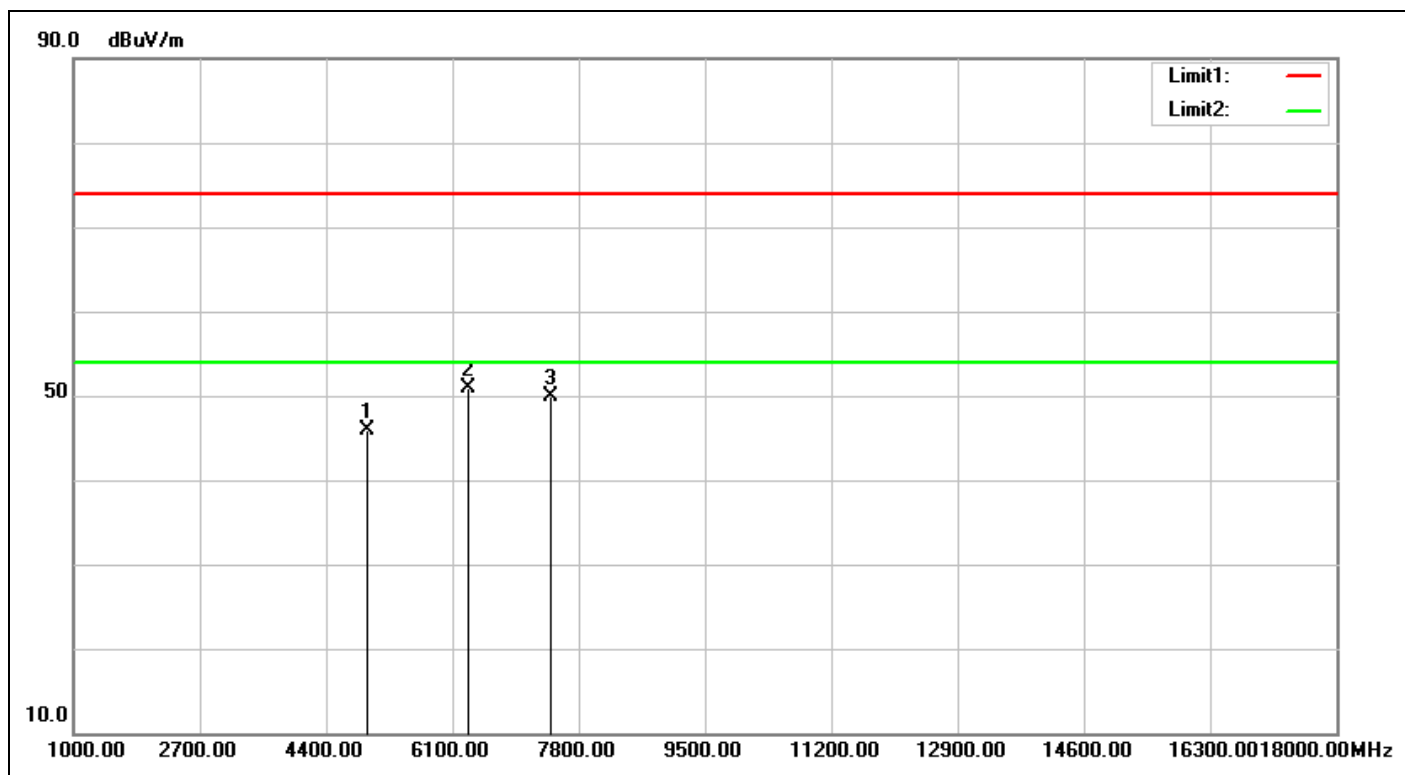
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/19 20:03:40
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%)	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	3DH5-2441-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4882.000	-2.47	47.89	45.42	74.00	-28.58	peak			
2	7323.000	5.91	43.53	49.44	74.00	-24.56	peak			
3	7919.000	6.36	45.15	51.51	74.00	-22.49	peak	100	0	



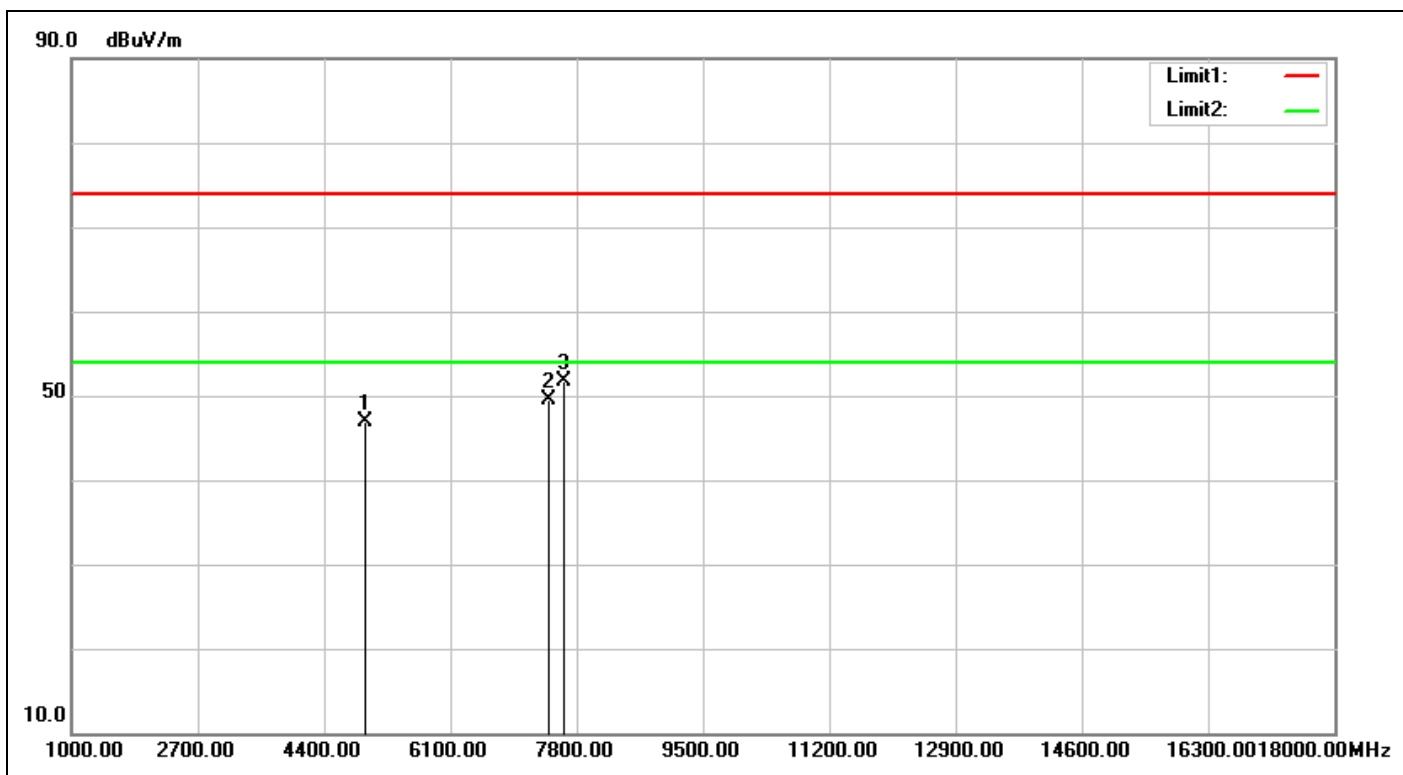
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/19 20:04:43
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%):	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	3DH5-2441-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4882.000	-2.47	48.10	45.63	74.00	-28.37	peak			
2	6253.000	4.73	44.78	49.51	74.00	-24.49	peak	100	39	
3	7323.000	5.91	43.89	49.80	74.00	-24.20	peak			



Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/19 20:06:19
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%)	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	3DH5-2480-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	-2.30	48.15	45.85	74.00	-28.15	peak			
2	6321.000	4.94	45.98	50.92	74.00	-23.08	peak	100	262	
3	7440.000	6.24	43.70	49.94	74.00	-24.06	peak			



Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/19 20:07:22
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%):	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	3DH5-2480-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	-2.30	49.24	46.94	74.00	-27.06	peak			
2	7440.000	6.24	43.33	49.57	74.00	-24.43	peak			
3	7630.000	6.41	45.27	51.68	74.00	-22.32	peak	100	275	

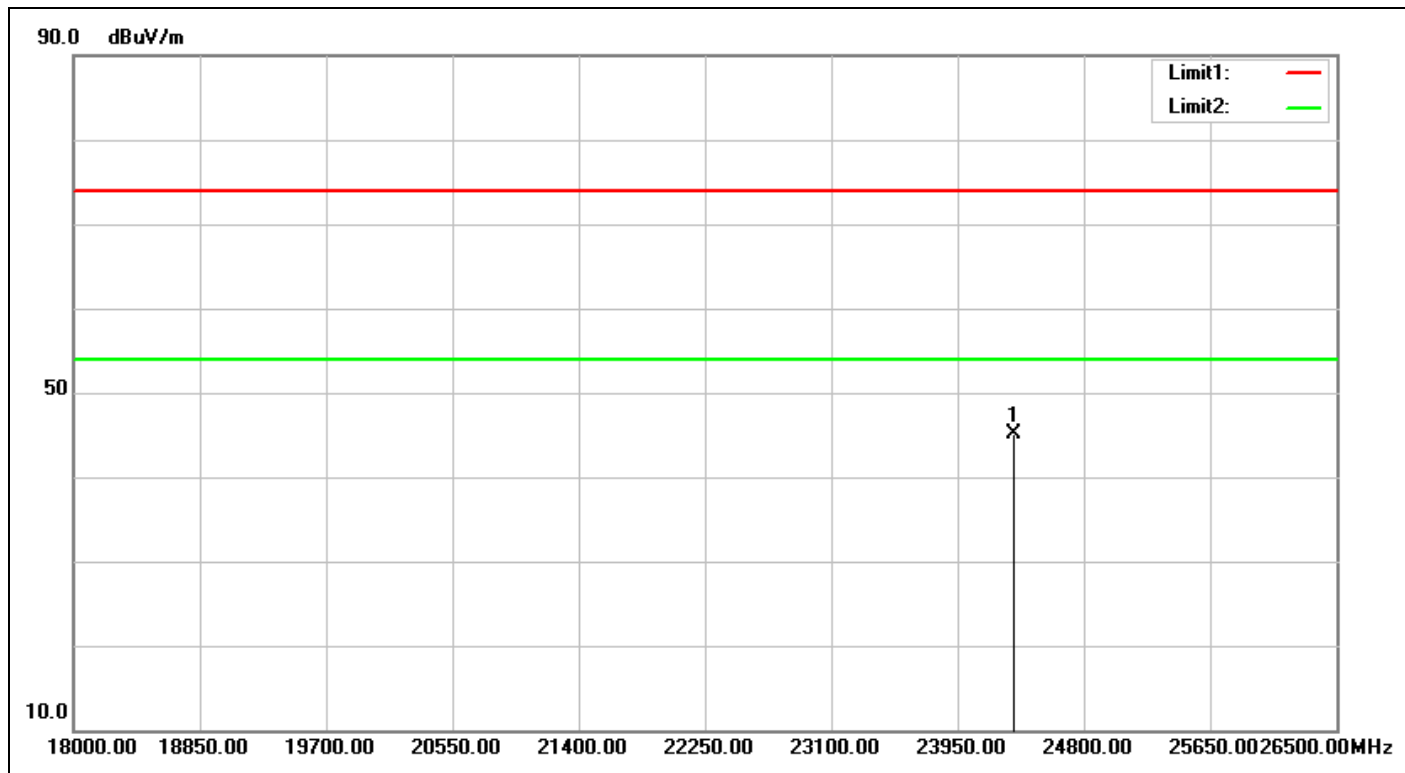
Spurious Emissions, TX Mode, 18-26G



TUV Taiwan

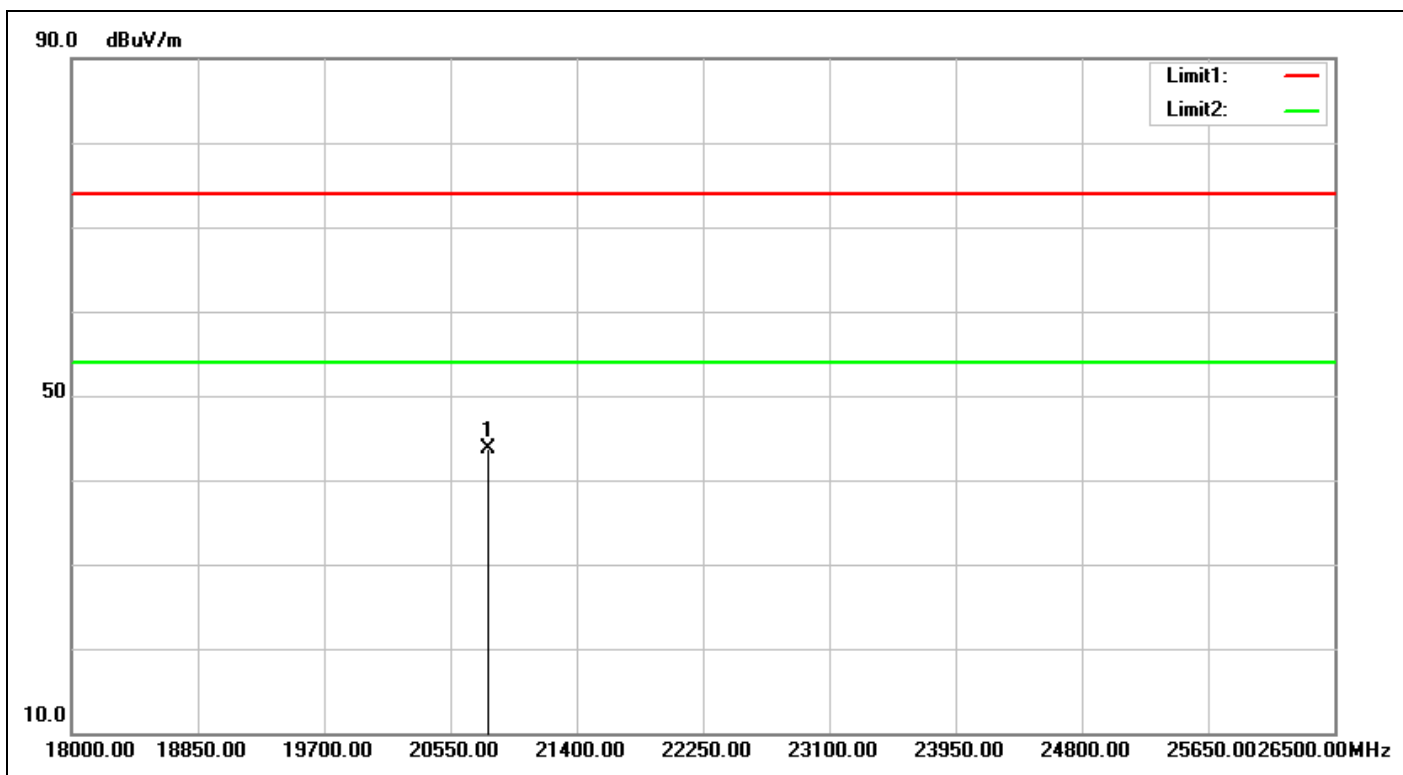
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



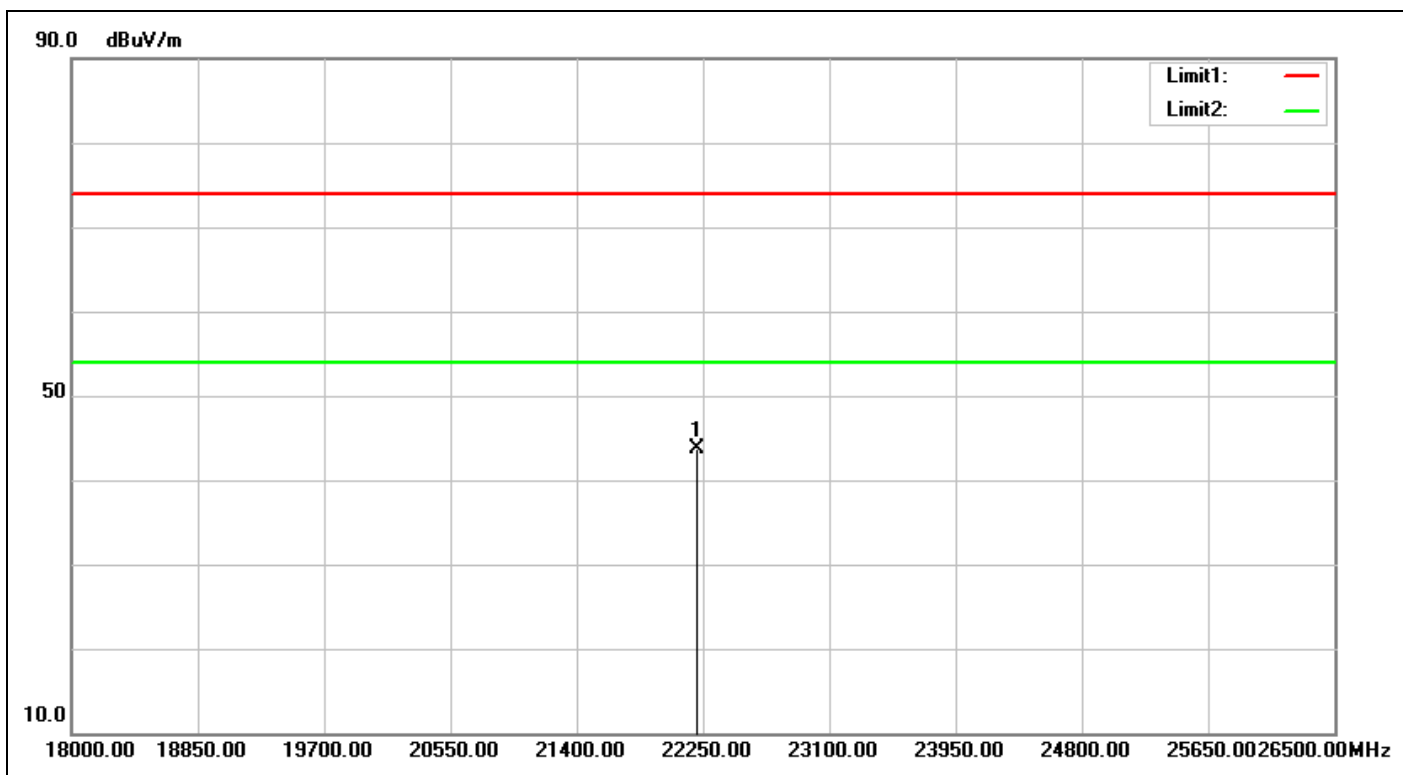
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/19 20:21:12
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%)	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2402-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	24324.000	30.54	14.53	45.07	74.00	-28.93	peak			



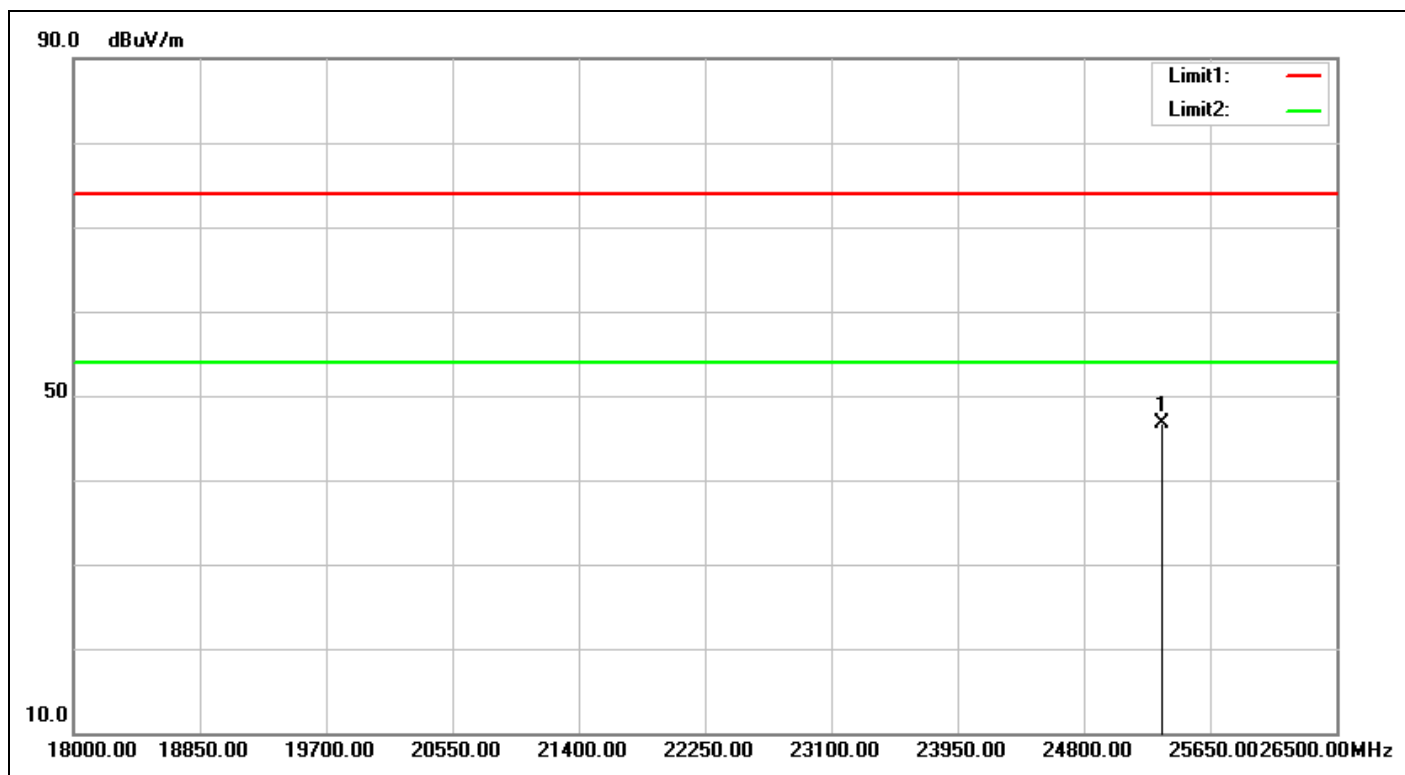
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/19 20:22:03
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%):	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2402-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	20805.000	29.81	13.87	43.68	74.00	-30.32	peak			



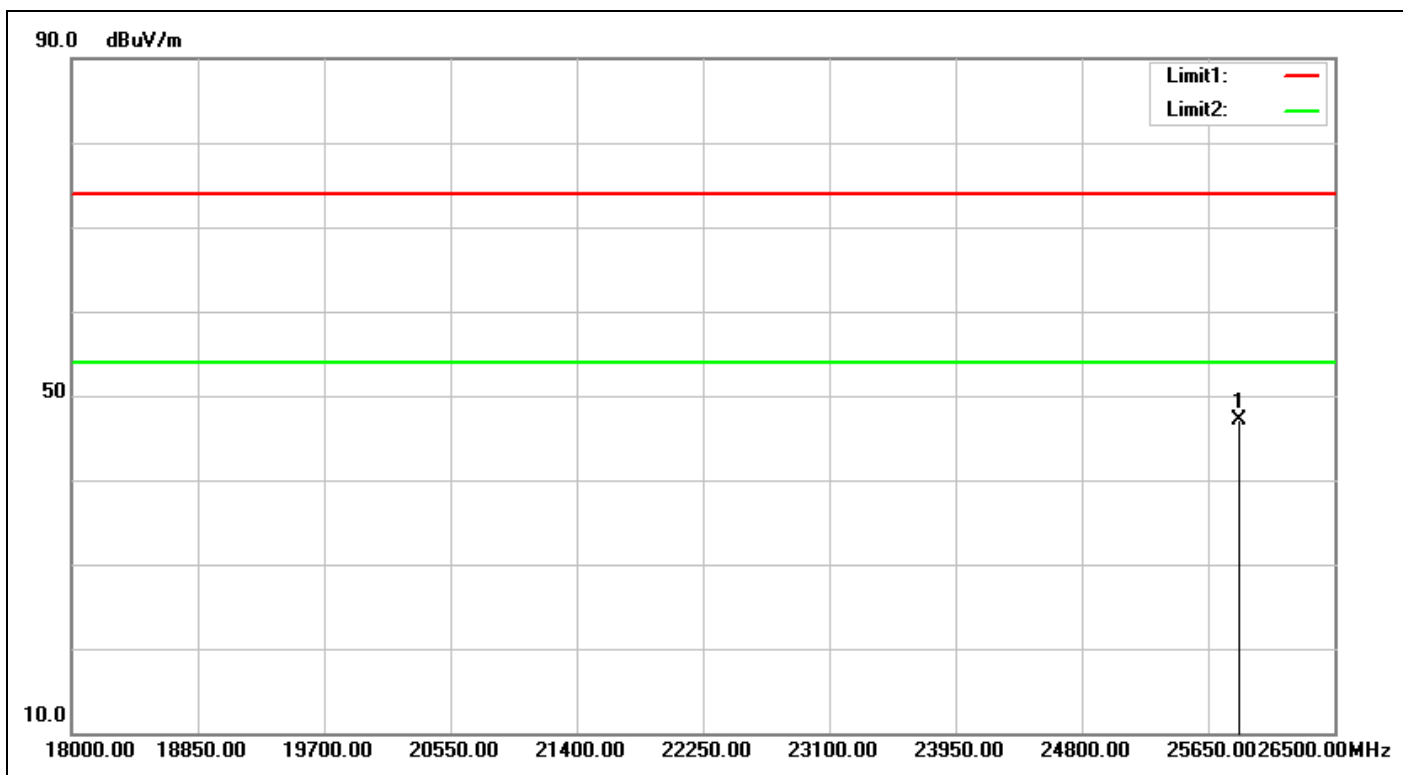
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/19 20:22:11
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%):	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2441-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22207.500	29.77	13.93	43.70	74.00	-30.30	peak			



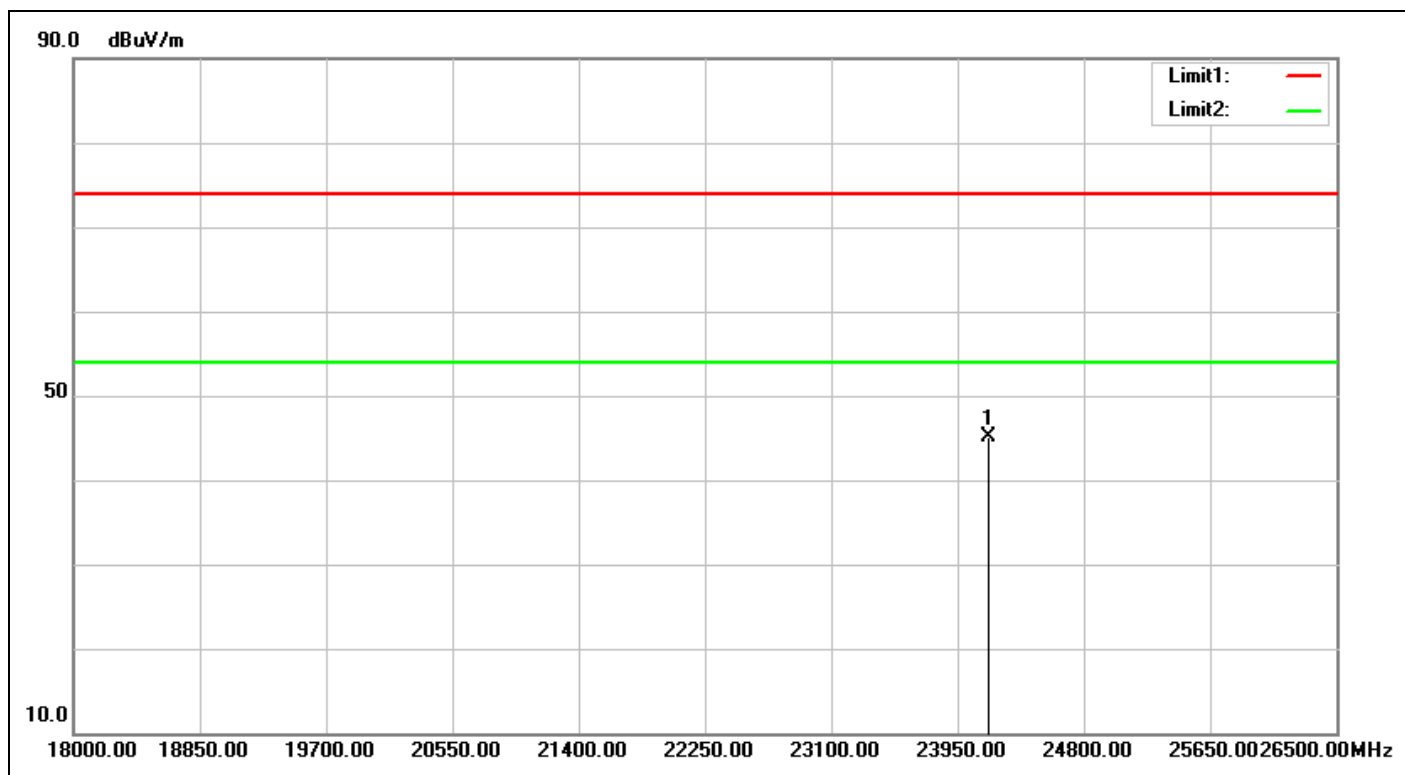
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/19 20:22:26
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%):	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2441-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	25327.000	31.48	15.19	46.67	74.00	-27.33	peak			



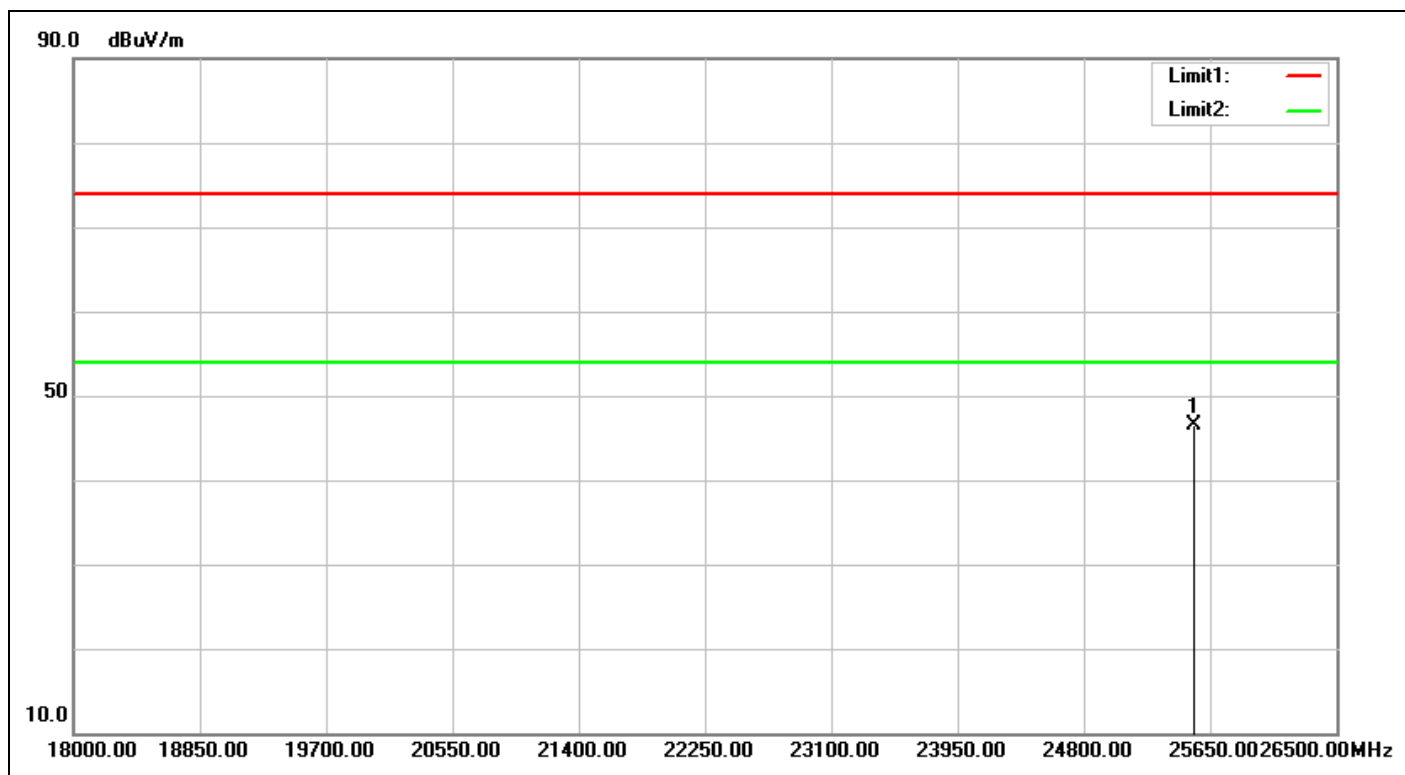
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/19 20:22:34
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%):	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2480-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	25862.500	31.77	15.33	47.10	74.00	-26.90	peak			



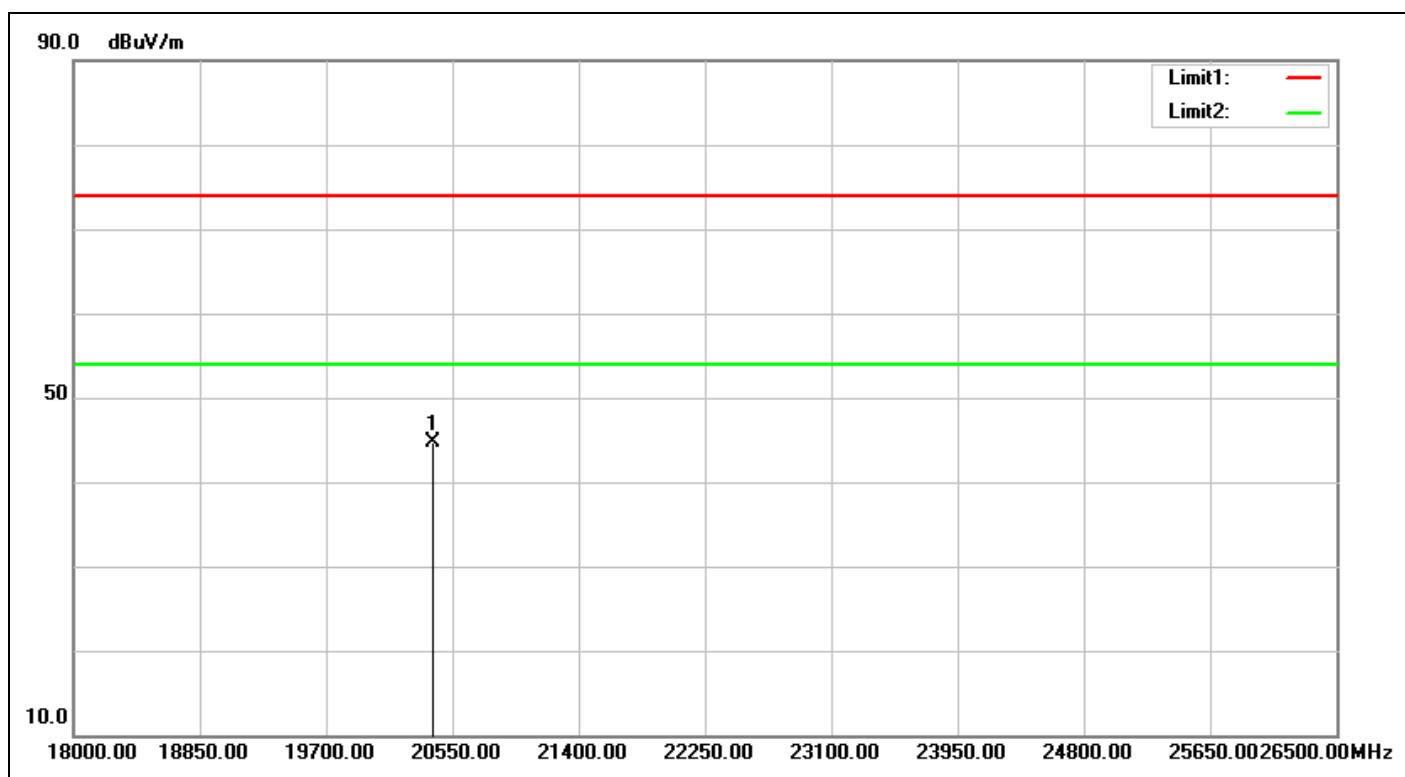
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/19 20:22:49
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%):	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2480-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	24154.000	30.34	14.76	45.10	74.00	-28.90	peak			



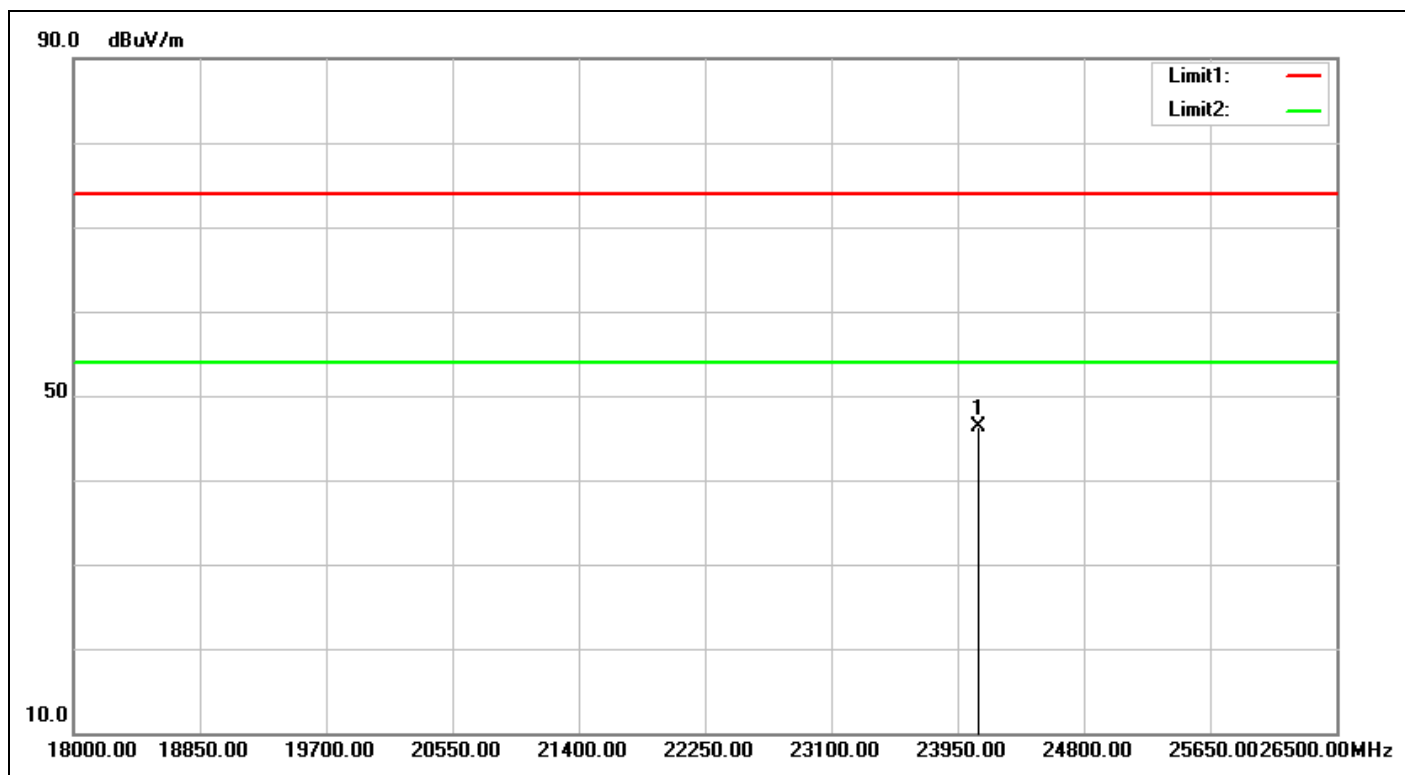
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/19 20:24:42
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%):	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	3DH5-2402-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	25539.500	31.57	14.94	46.51	74.00	-27.49	peak			



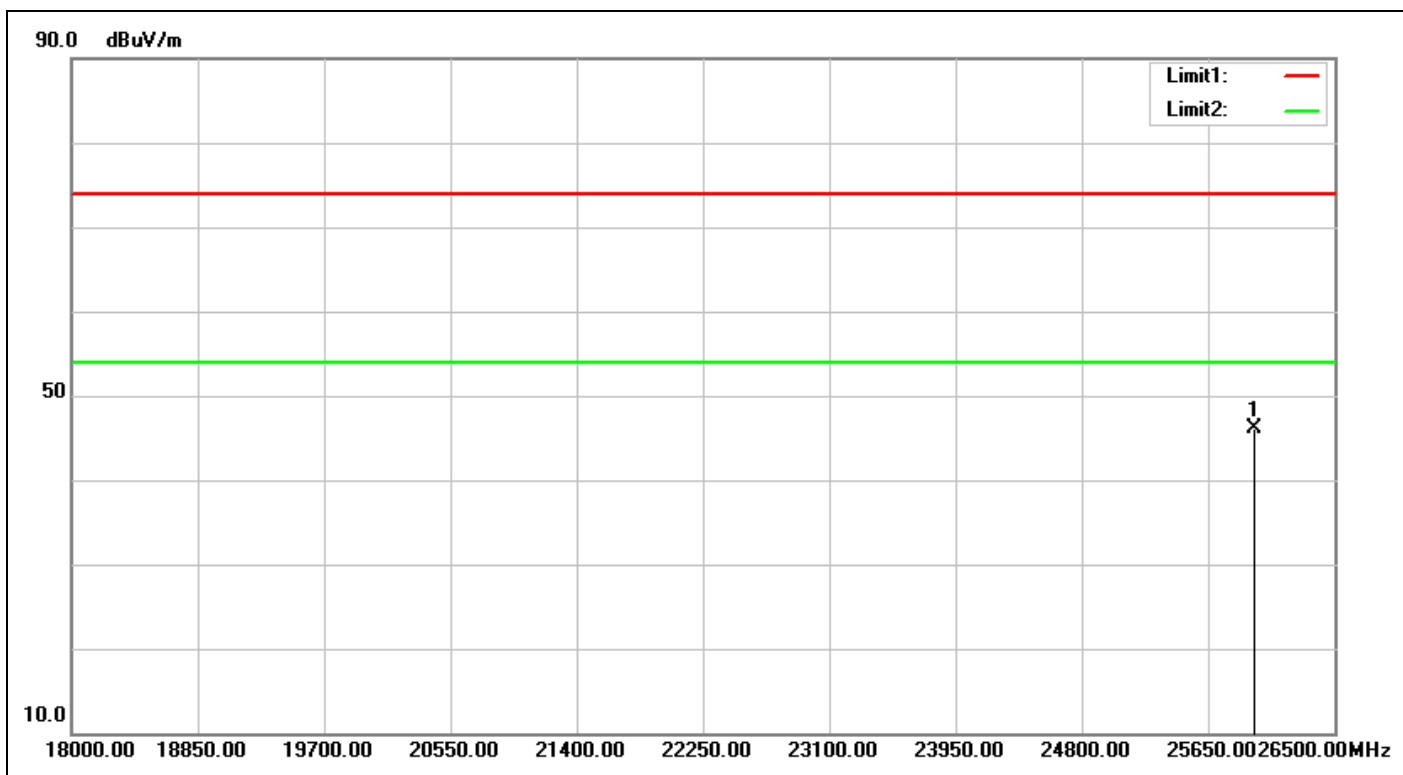
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/19 20:24:52
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%):	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	3DH5-2402-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	20422.500	29.85	14.88	44.73	74.00	-29.27	peak			



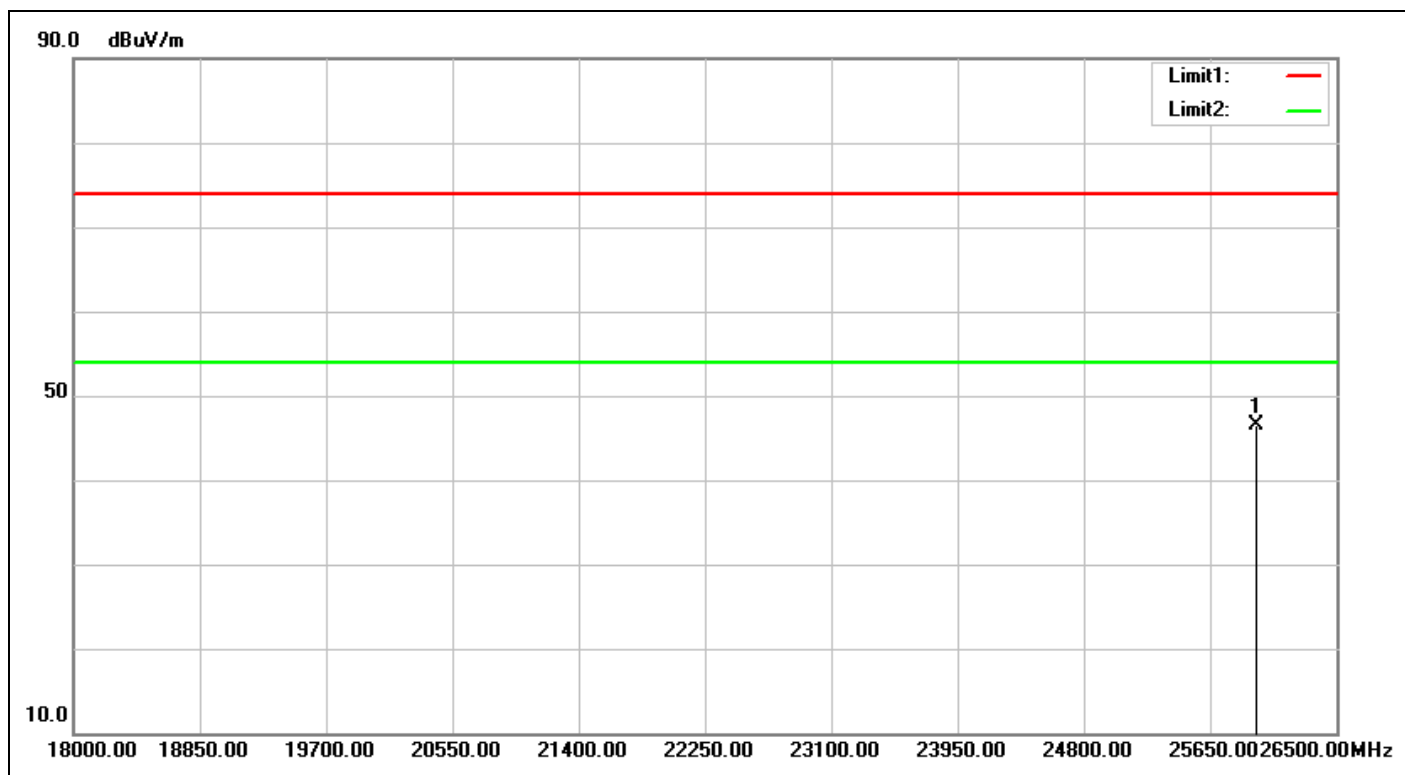
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/19 20:25:22
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%):	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	3DH5-2441-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	24086.000	30.26	15.99	46.25	74.00	-27.75	peak			



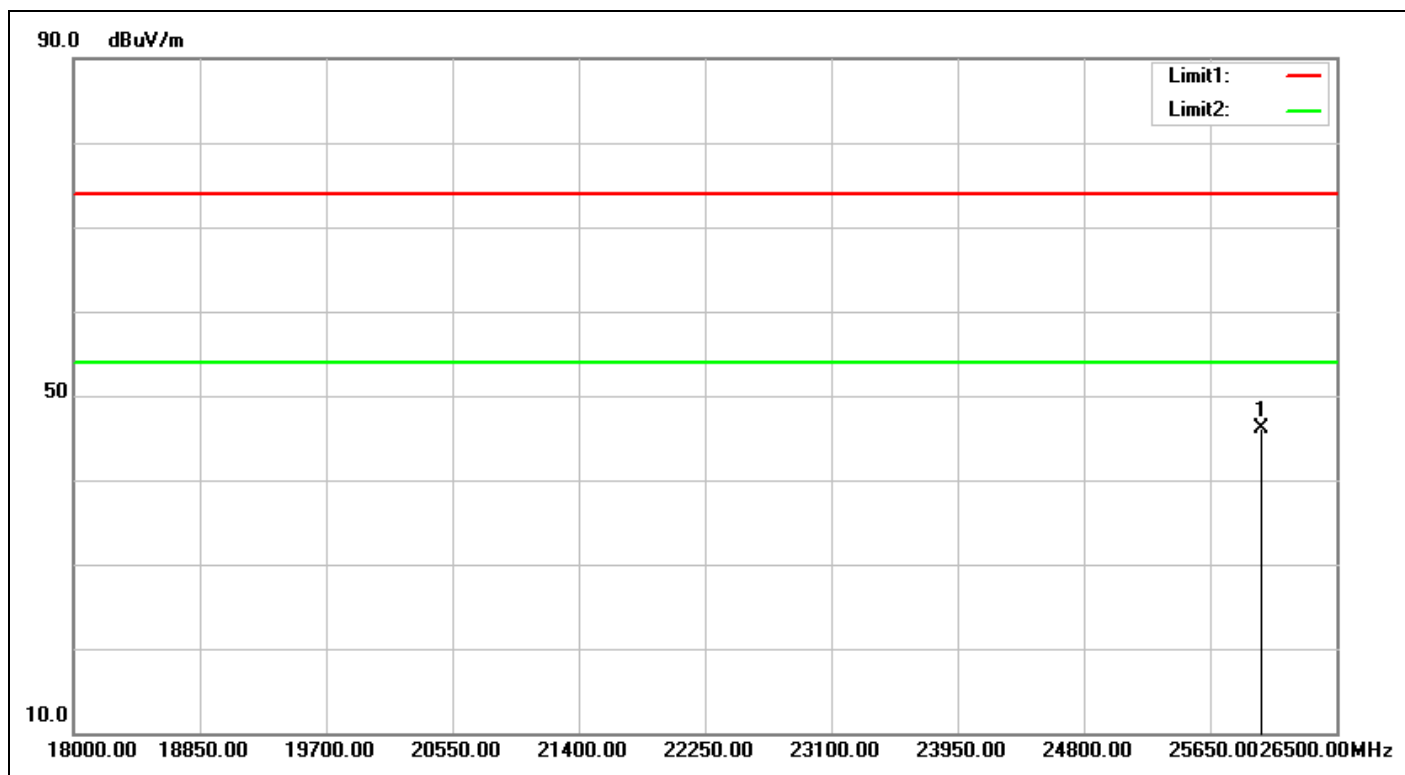
Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/19 20:25:32
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%):	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	3DH5-2441-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	25956.000	31.83	14.36	46.19	74.00	-27.81	peak			



Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/19 20:25:46
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%):	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	3DH5-2480-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	25964.500	31.84	14.66	46.50	74.00	-27.50	peak			



Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/19 20:25:56
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%):	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	3DH5-2480-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	25990.000	31.85	14.35	46.20	74.00	-27.80	peak			

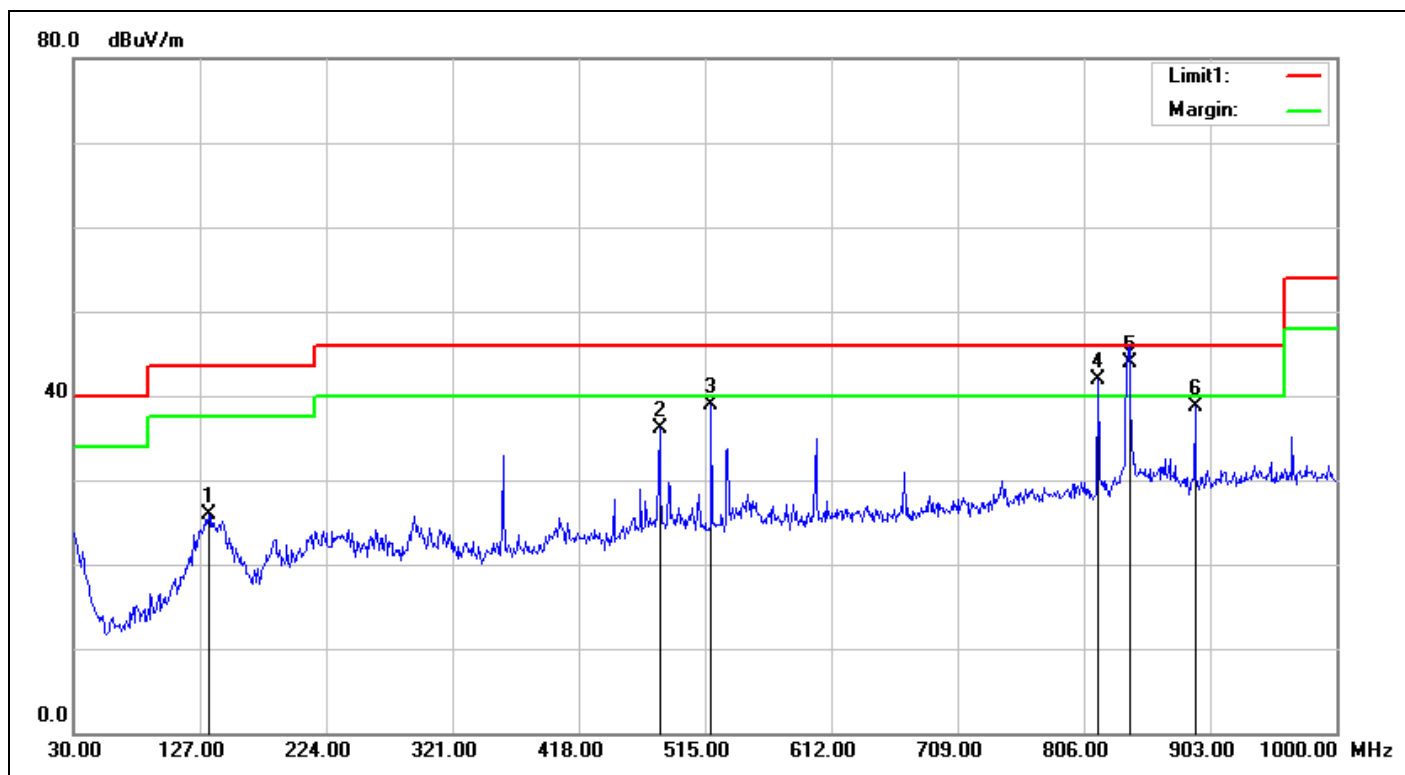
Spurious Emissions, TX Mode, 30M-1G



TUV Taiwan

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

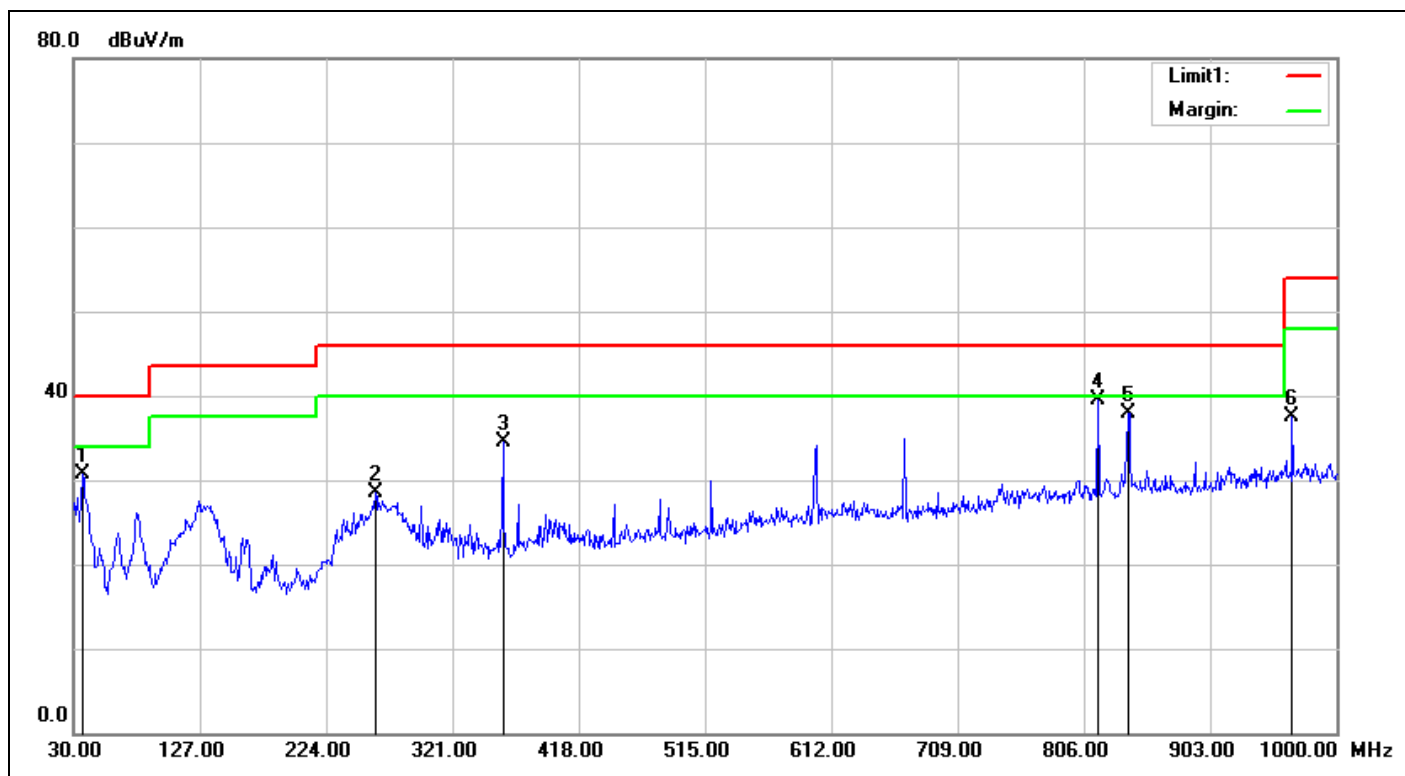
Tel: +886-2172-7000 fax: +886-2528-0018



Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/19 20:56:42
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%)	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2441-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	133.7900	-6.97	32.80	25.83	43.50	-17.67	QP	100	248	
2	480.0800	-1.62	37.69	36.07	46.00	-9.93	QP	100	123	
3	519.8500	-1.13	40.05	38.92	46.00	-7.08	QP	100	126	
4	816.6700	3.11	38.83	41.94	46.00	-4.06	QP	100	134	
5	840.9200	3.53	40.45	43.98	46.00	-2.02	QP	100	139	
6	891.3600	4.07	34.69	38.76	46.00	-7.24	QP	100	54	

Spurious Emissions, TX Mode, 30M-1G



Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Class B 3M Radiation	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/19 20:57:46
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%):	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2441-TX		
Remark:			

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	34.62	30.66	40.00	-9.34	QP	100	240	
2	261.8300	-4.96	33.52	28.56	46.00	-17.44	QP	100	264	
3	359.8000	-3.30	37.88	34.58	46.00	-11.42	QP	100	253	
4	816.6700	3.11	36.37	39.48	46.00	-6.52	QP	100	0	
5	839.9500	3.51	34.46	37.97	46.00	-8.03	QP	100	0	
6	966.0500	5.53	31.91	37.44	54.00	-16.56	QP	100	81	

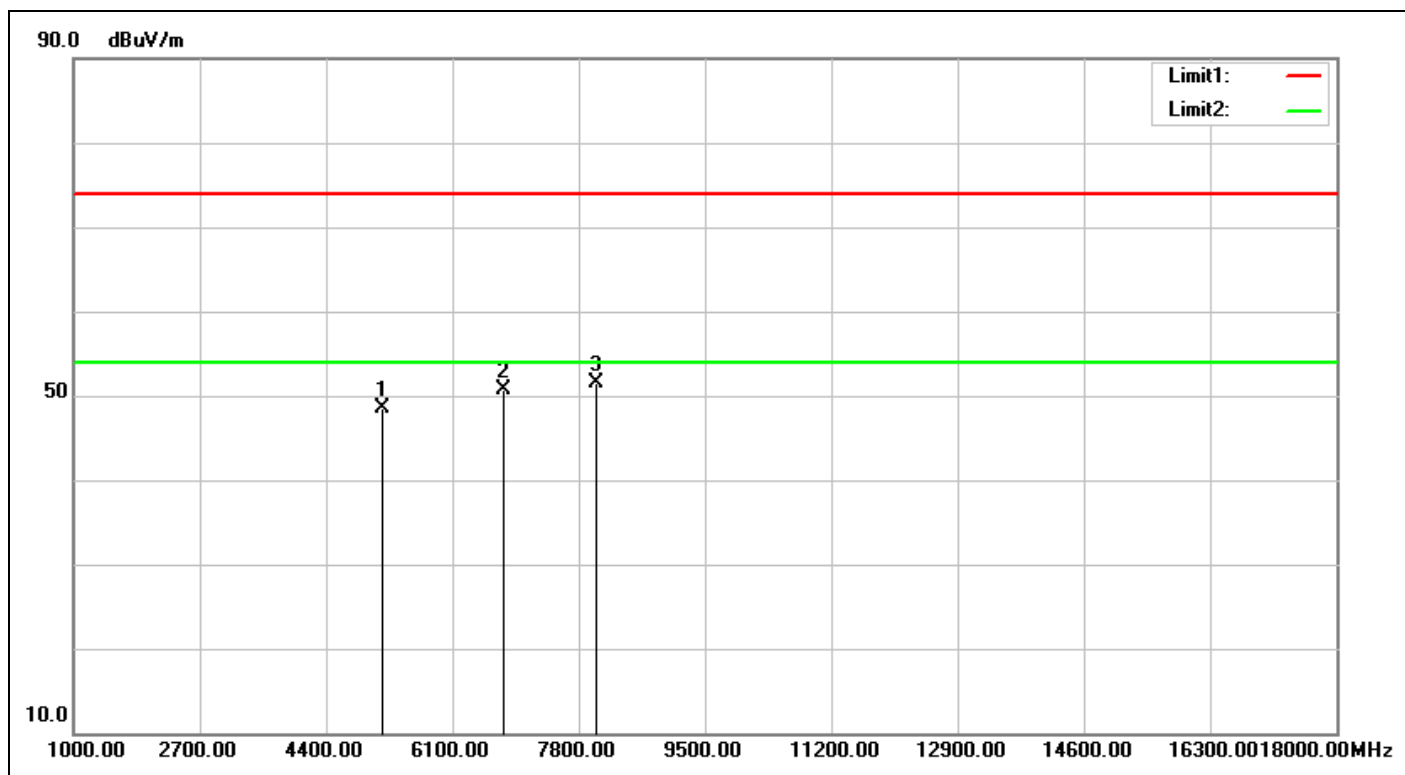
Spurious Emissions, RX Mode, 1-18G



TUV Taiwan

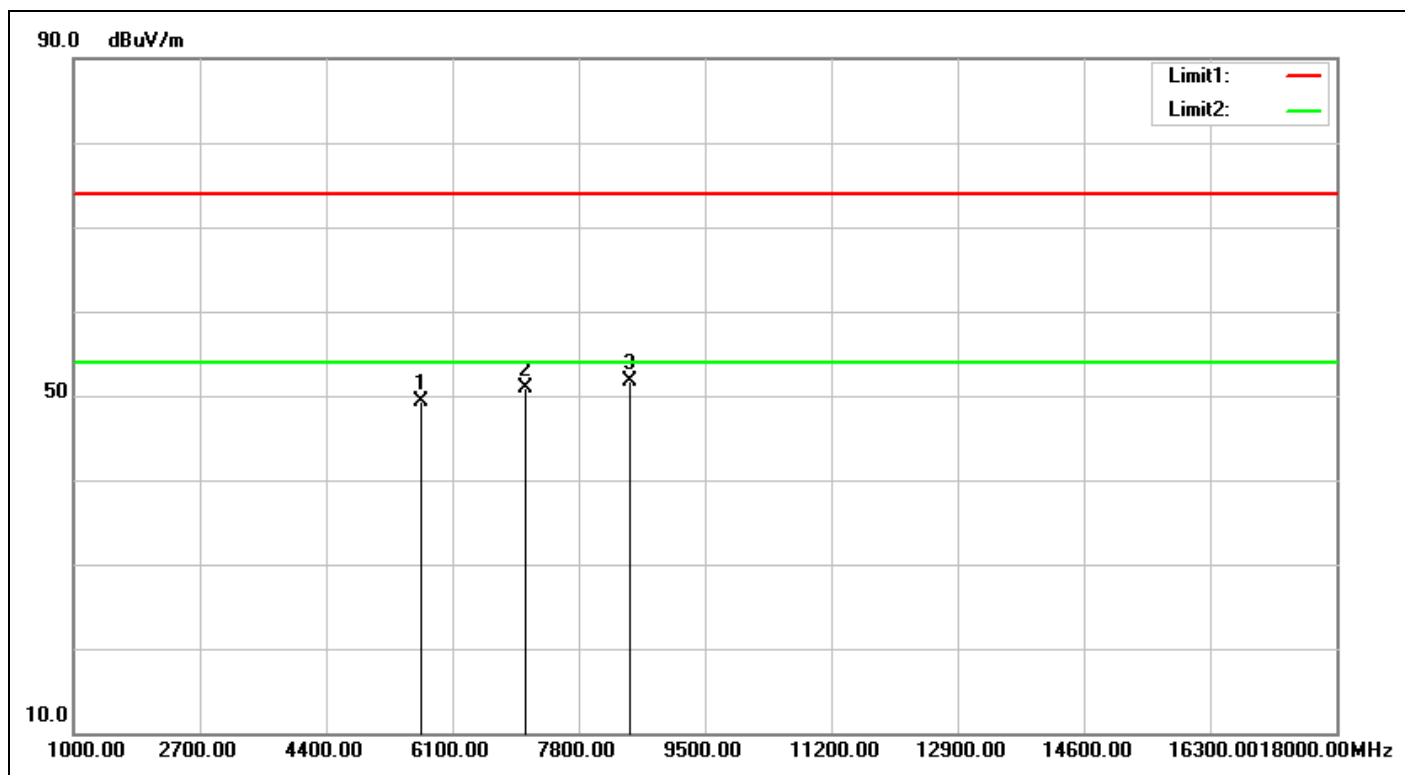
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/19 20:09:18
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%):	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2441-RX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	5148.000	-1.42	50.00	48.58	74.00	-25.42	peak	100	221	
2	6797.000	5.20	45.50	50.70	74.00	-23.30	peak	100	50	
3	8038.000	6.38	45.03	51.41	74.00	-22.59	peak	100	102	



Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/19 20:10:21
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%):	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2441-RX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	5675.000	1.66	47.58	49.24	74.00	-24.76	peak	100	319	
2	7086.000	5.22	45.61	50.83	74.00	-23.17	peak	100	15	
3	8480.000	6.62	45.11	51.73	74.00	-22.27	peak	100	67	

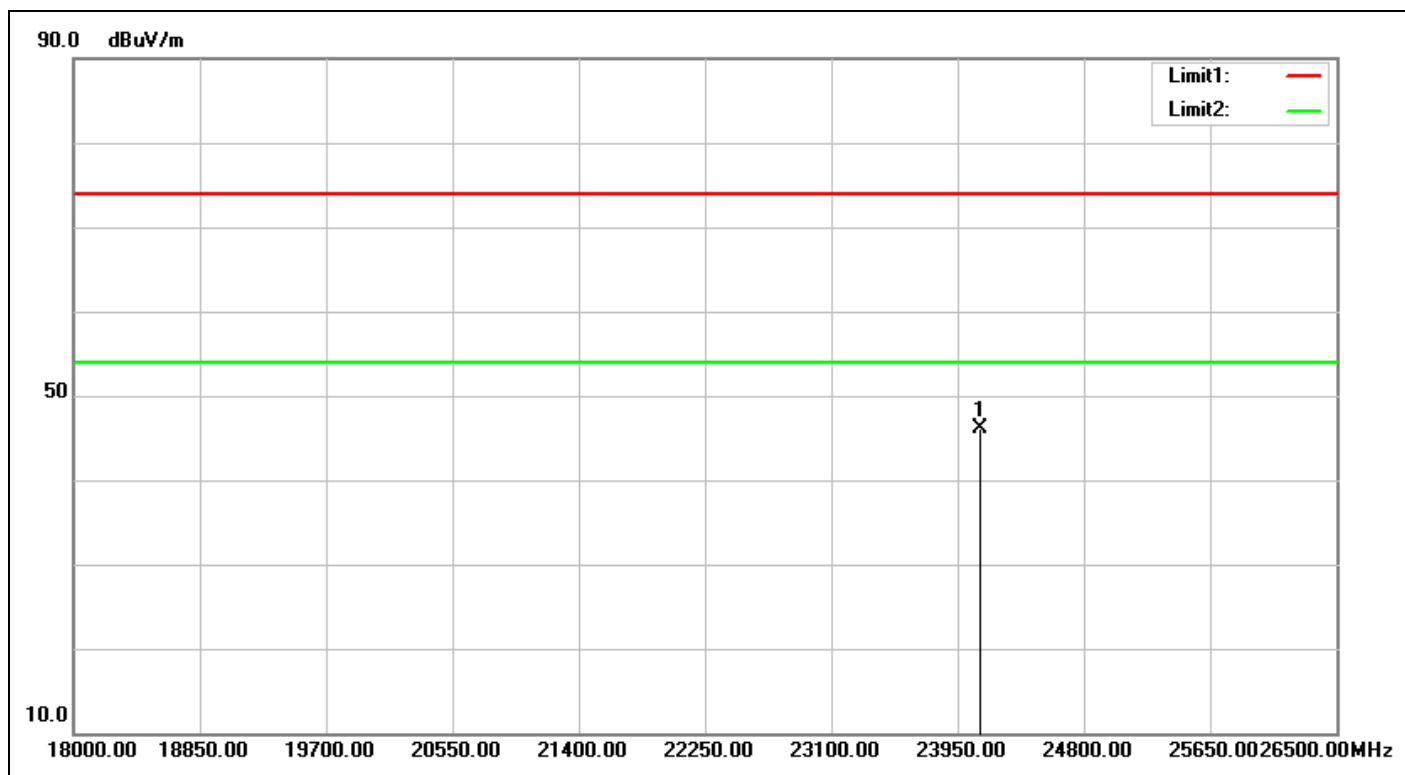
Spurious Emissions, RX Mode, 18-26G



TUV Taiwan

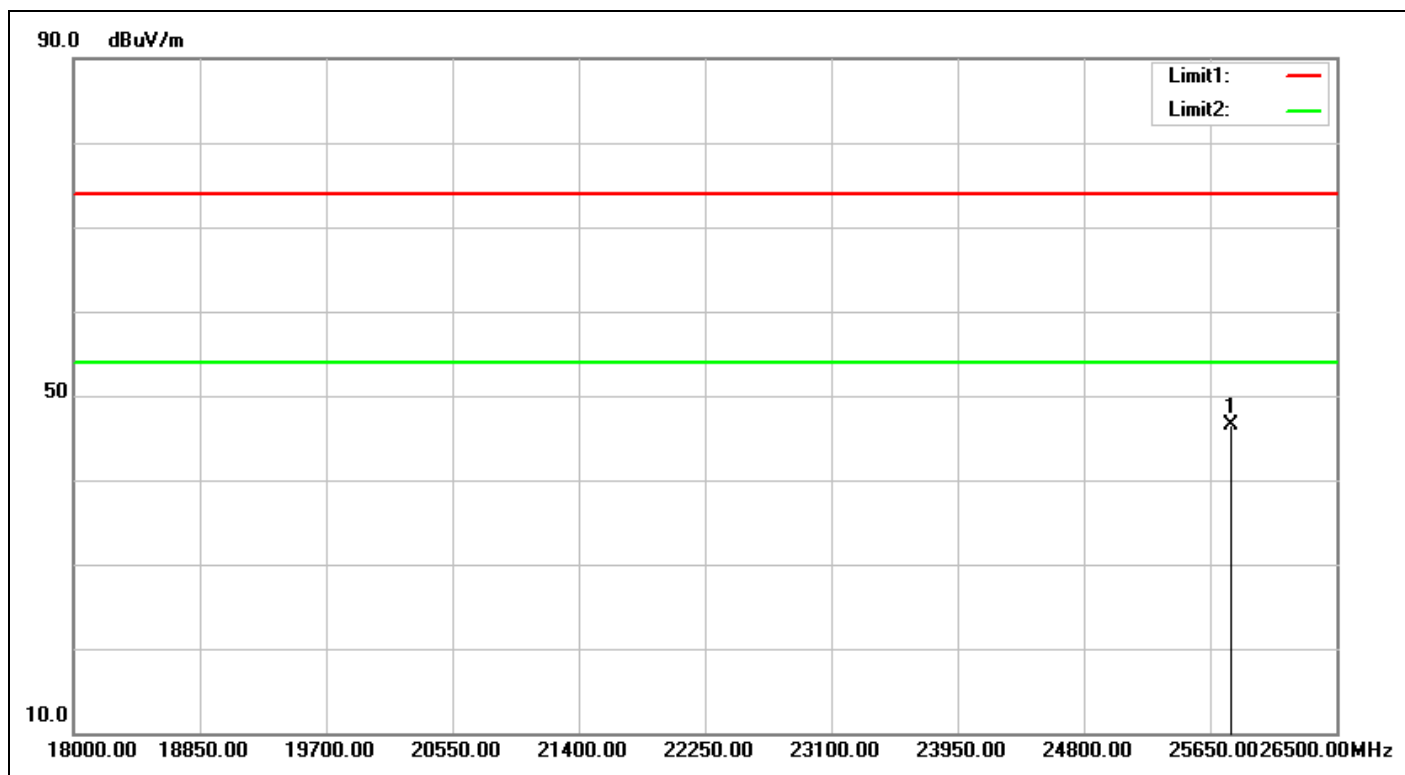
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/19 20:26:14
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%)	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2441-RX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	24103.000	30.27	15.93	46.20	74.00	-27.80	peak			



Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/19 20:26:24
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%):	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2441-RX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	25786.000	31.72	14.81	46.53	74.00	-27.47	peak			

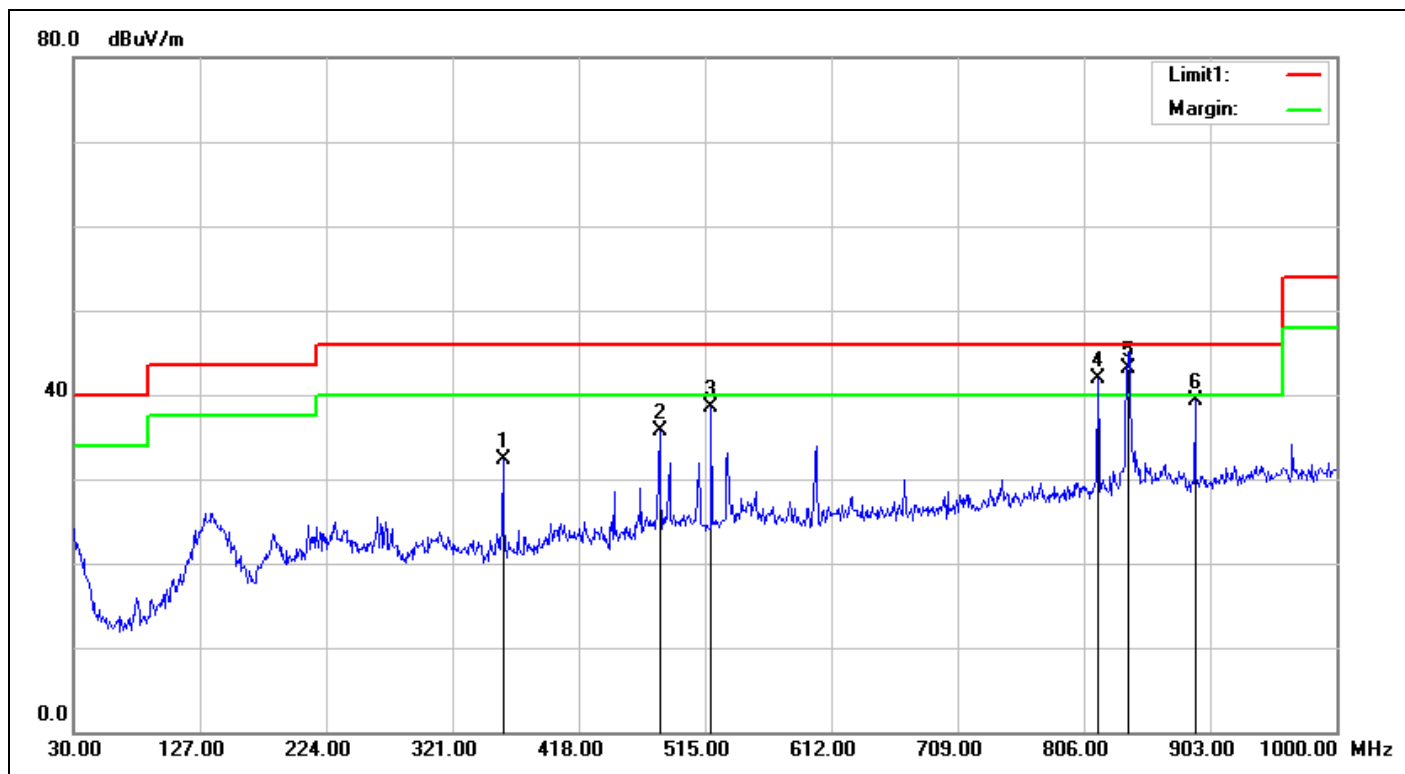
Spurious Emissions, RX Mode, 30M-1G



TUV Taiwan

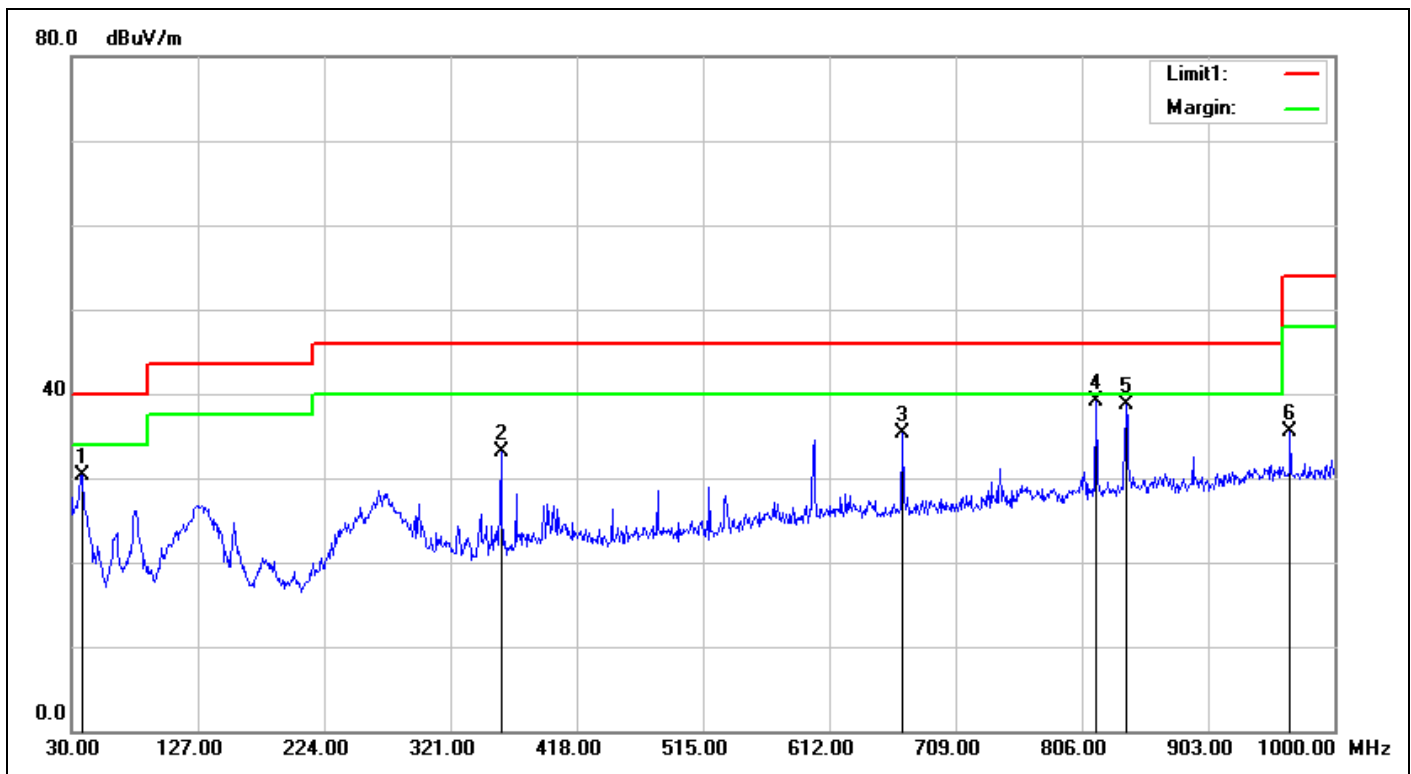
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2016/9/19 20:59:31
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%):	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2441-RX		
Remark:			

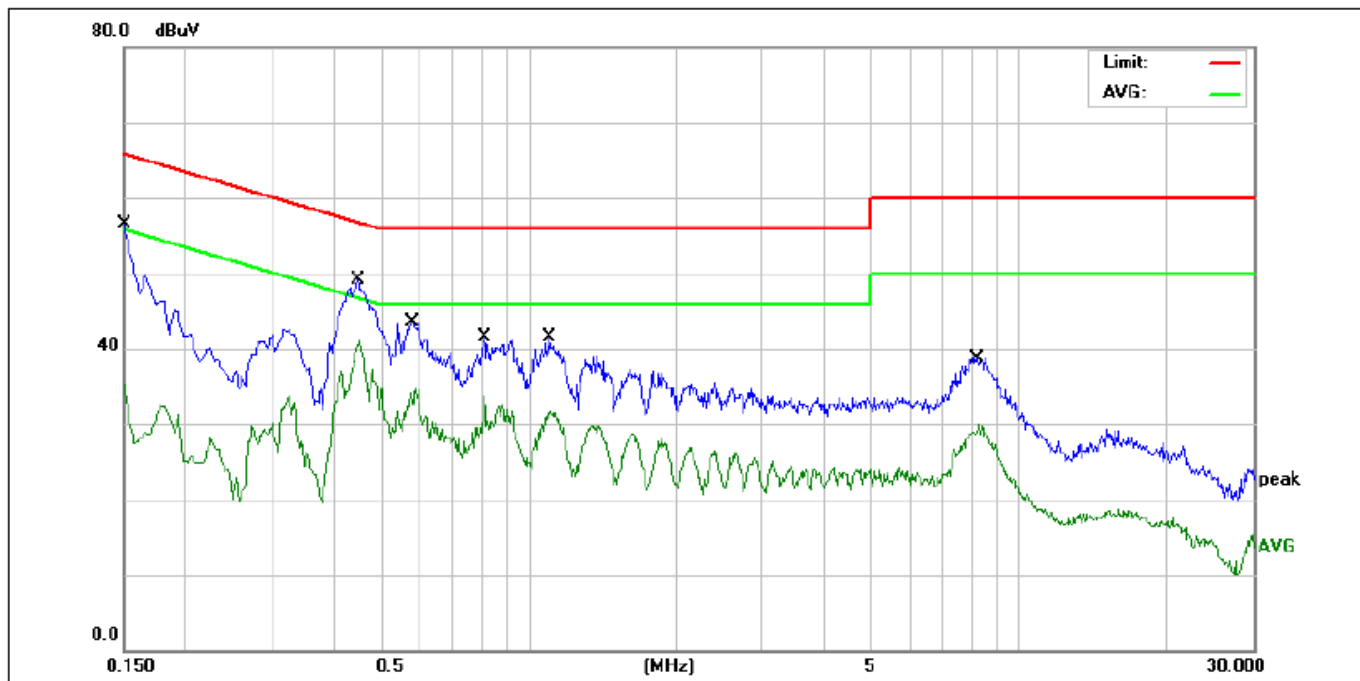
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	359.8000	-3.30	35.70	32.40	46.00	-13.60	QP	100	126	
2	480.0800	-1.62	37.27	35.65	46.00	-10.35	QP	100	24	
3	519.8500	-1.13	39.57	38.44	46.00	-7.56	QP	100	139	
4	816.6700	3.11	38.73	41.84	46.00	-4.16	QP	100	141	
5	839.9500	3.51	39.64	43.15	46.00	-2.85	QP	100	149	
6	891.3600	4.07	35.21	39.28	46.00	-6.72	QP	100	356	



Service No.:	114054306	Test Distance:	3m
Test Standard:	FCC Class B 3M Radiation	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2016/9/19 21:00:34
Applicant:	TUV SZ(Lenovo)	Test Rating:	AC 110V/60Hz
Product:	ThinkPad Stack Mobile Projector	Temp.(°C)/Hum.(%):	27.3(°C)/65%
Model No.:	M123	Test Engineer:	George Yang
Test Mode:	1DH5-2441-RX		
Remark:			

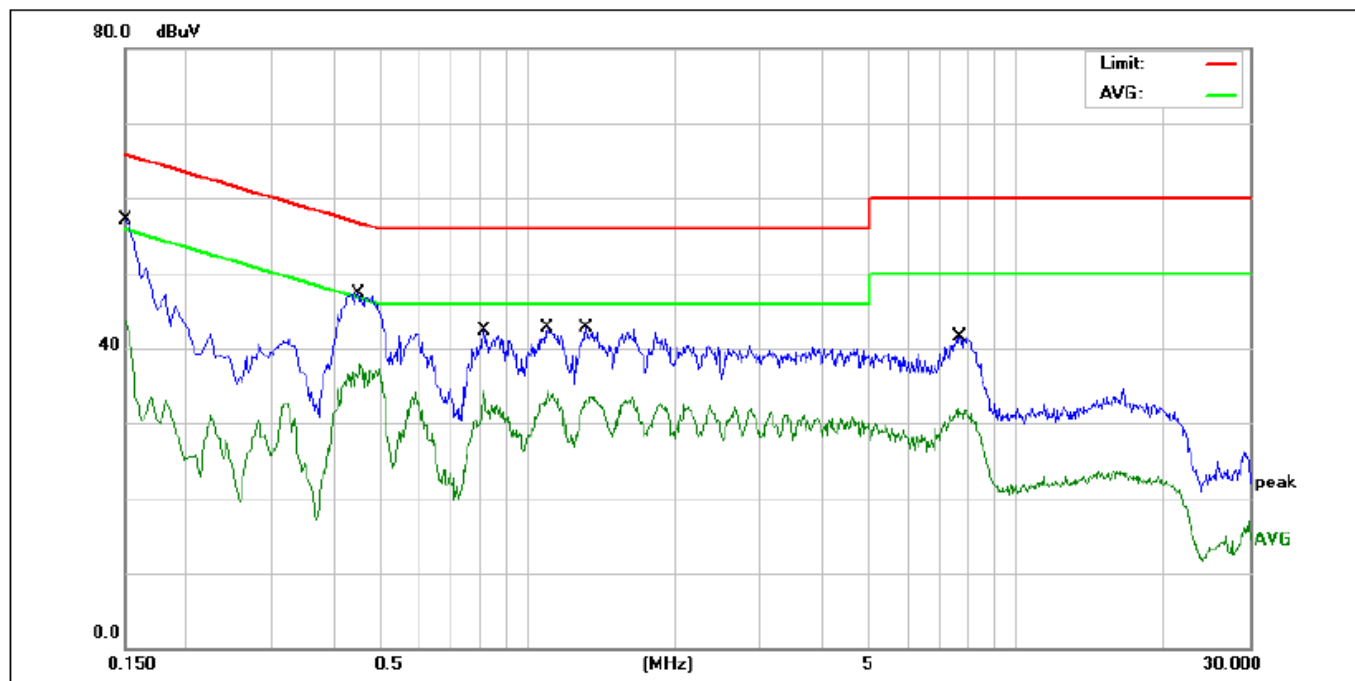
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	38.7300	-5.07	35.44	30.37	40.00	-9.63	QP	100	211	
2	359.8000	-3.30	36.50	33.20	46.00	-12.80	QP	100	283	
3	668.2600	0.73	34.65	35.38	46.00	-10.62	QP	100	245	
4	816.6700	3.11	36.07	39.18	46.00	-6.82	QP	100	359	
5	839.9500	3.51	35.13	38.64	46.00	-7.36	QP	100	6	
6	966.0500	5.53	29.94	35.47	54.00	-18.53	QP	100	160	

Mains Spurious Emissions



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

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	



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

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	