

# Test Report No.10052224 10052232 001

## Appendix D: Radiated and Mains Spurious Emission Data

(File: 10052224 10052232AppendixD)

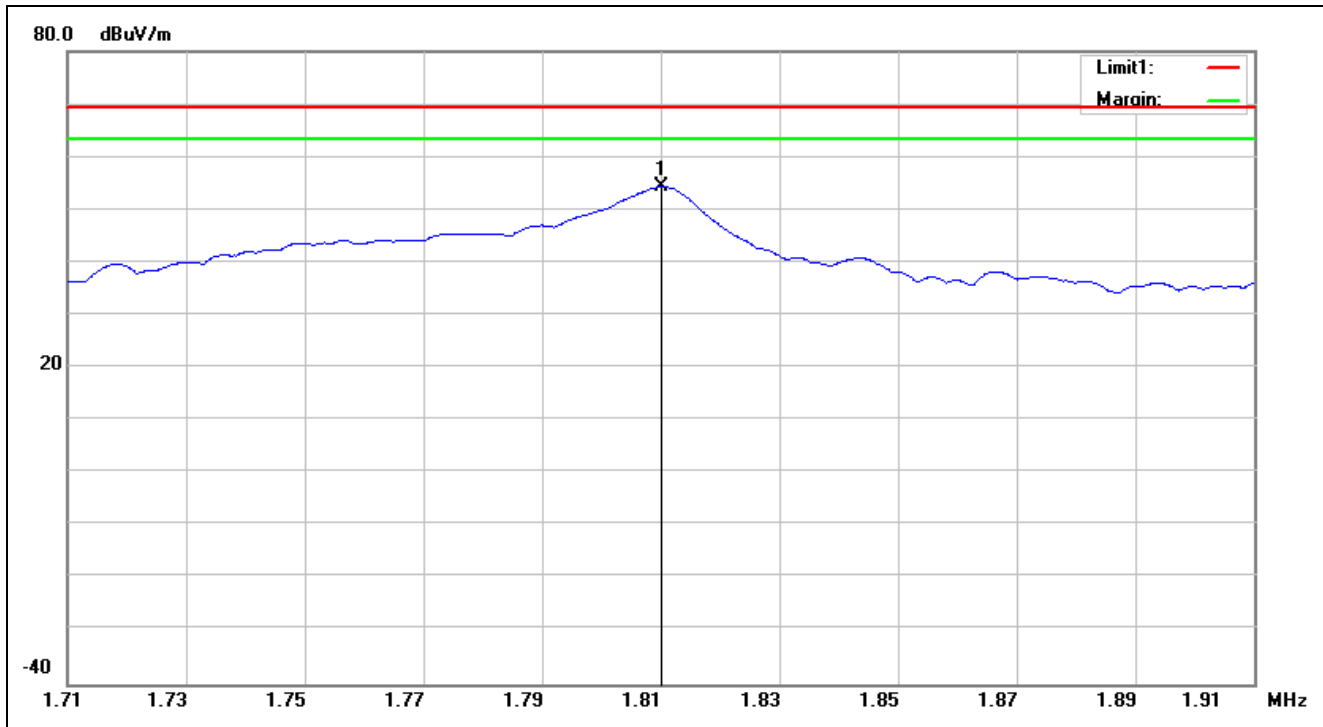
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# Emissions, Fundamental



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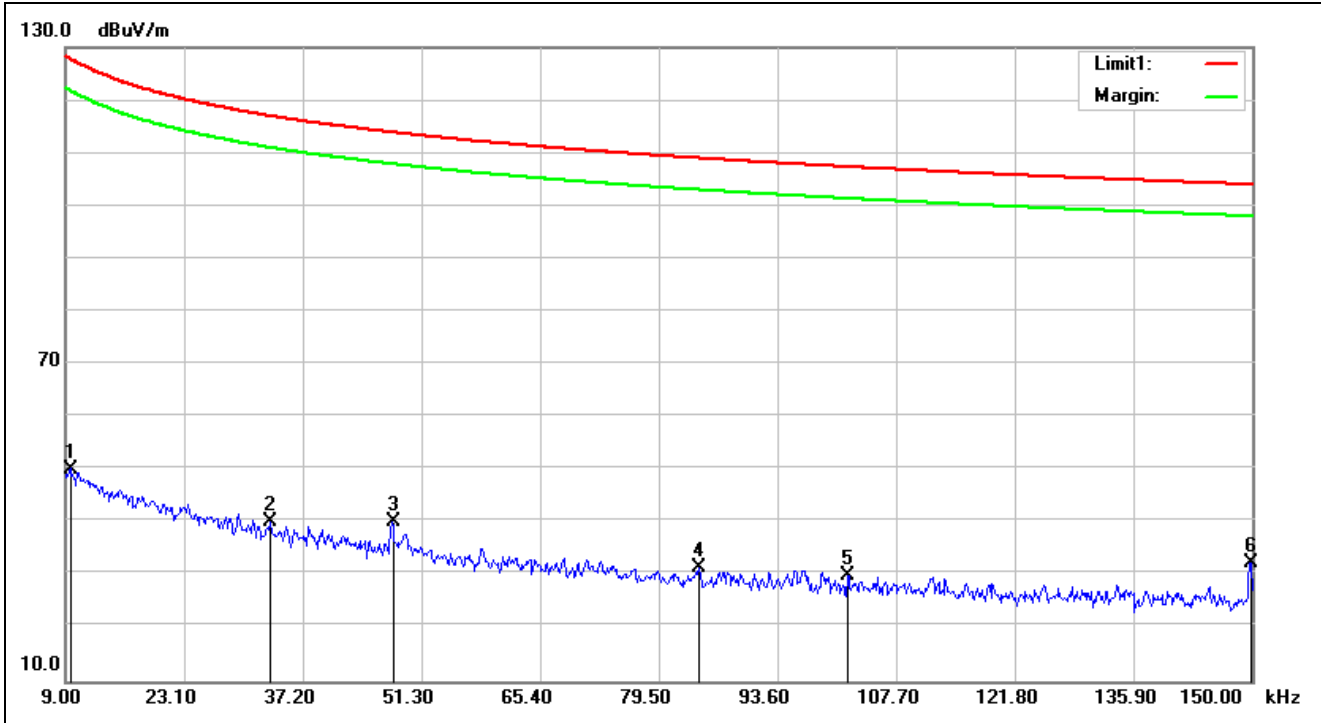
<b>Service No.:</b>	114037412-NCC	<b>Test Distance:</b>	3m
<b>Test Standard:</b>	NCC2.8_9k-1G_3m	<b>Ant. Polarization:</b>	
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2015/7/29 17:04:05
<b>Applicant:</b>	Wacom	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Touch Pen	<b>Temp.(°C)/Hum.(%):</b>	23.6(°C)/52%
<b>Model No.:</b>	Juniper	<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>	Fundamental field strength		
<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	1.8134	19.29	35.08	54.37	69.50	-15.13	QP		0	

# Spurious Emissions, TX Mode, 9-150k



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<b>Service No.:</b>	<b>114037412-NCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>NCC2.8_9k-1G_3m</b>	<b>Ant. Polarization:</b>	
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/7/29 16:37:18</b>
<b>Applicant:</b>	<b>Wacom</b>	<b>Test Rating:</b>	<b>DC 3V</b>
<b>Product:</b>	<b>Touch Pen</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>23.6(°C)/52%</b>
<b>Model No.:</b>	<b>Juniper</b>	<b>Test Engineer:</b>	<b>Hugo Chang</b>
<b>Test Mode:</b>	<b>TX</b>		
<b>Remark:</b>			

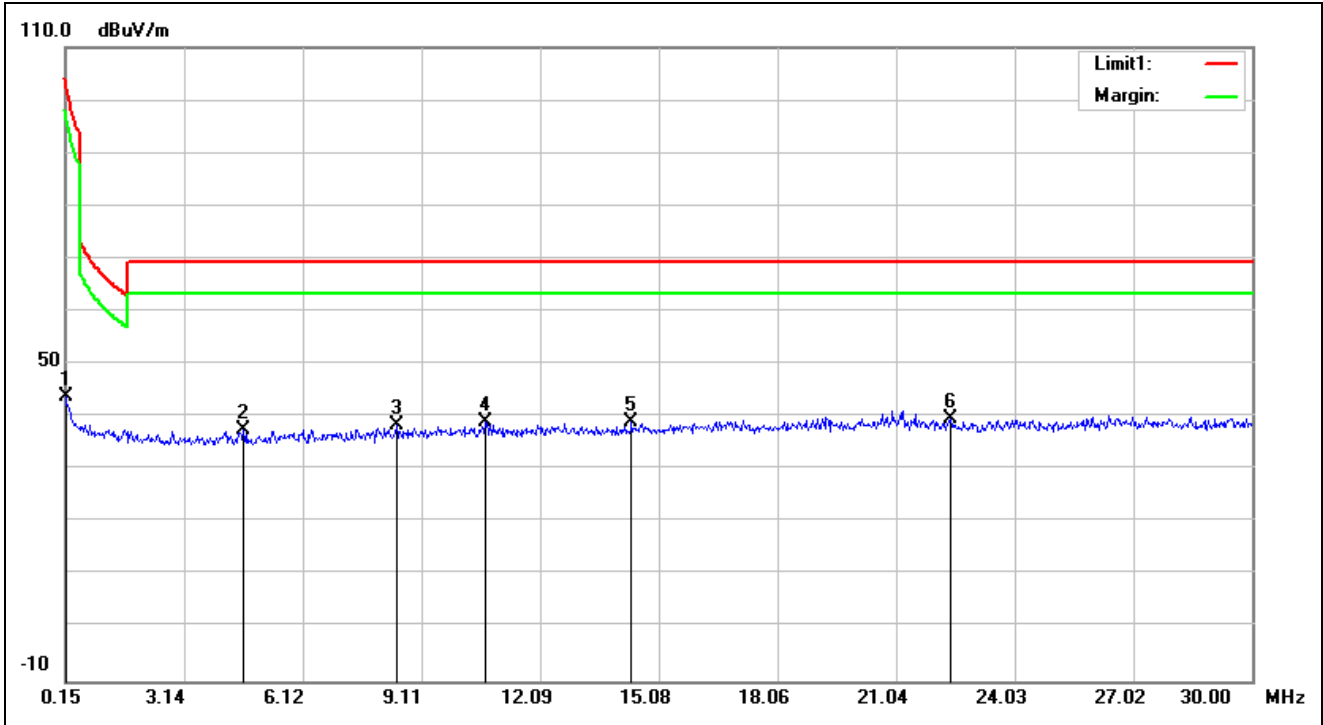
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.0096	20.33	29.87	50.20	127.75	-77.55	QP		0	
2	0.0334	20.28	19.83	40.11	116.99	-76.88	QP		0	
3	0.0478	19.71	20.39	40.10	113.89	-73.79	QP		0	
4	0.0843	19.36	12.18	31.54	108.99	-77.45	QP		0	
5	0.1019	19.24	10.67	29.91	107.36	-77.45	QP		0	
6	0.1497	19.25	13.17	32.42	104.03	-71.61	QP		0	

# Spurious Emissions, TX Mode, 1-10G

# Spurious Emissions, TX Mode, 150k-30M



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<b>Service No.:</b>	<b>114037412-NCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>NCC2.8_9k-1G_3m</b>	<b>Ant. Polarization:</b>	
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/7/29 16:41:14</b>
<b>Applicant:</b>	<b>Wacom</b>	<b>Test Rating:</b>	<b>DC 3V</b>
<b>Product:</b>	<b>Touch Pen</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>23.6(°C)/52%</b>
<b>Model No.:</b>	<b>Juniper</b>	<b>Test Engineer:</b>	<b>Hugo Chang</b>
<b>Test Mode:</b>	<b>TX</b>		
<b>Remark:</b>			

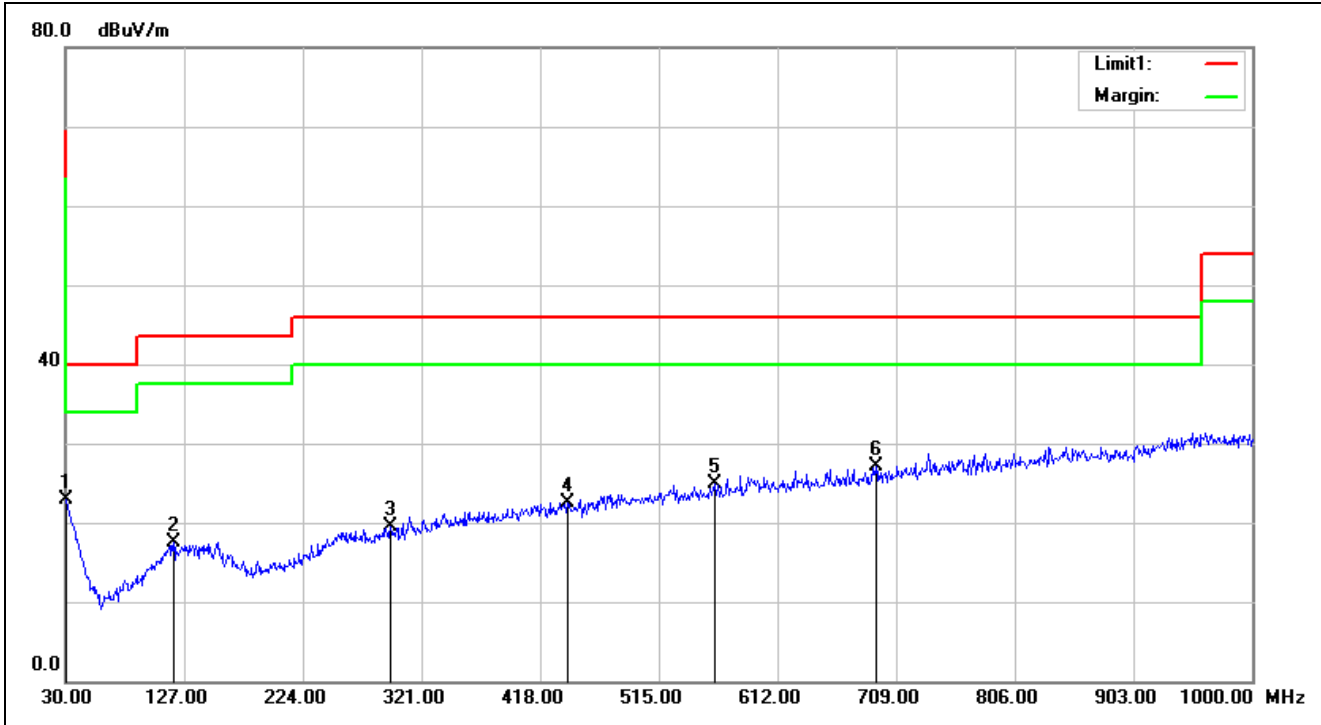
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.1500	19.25	24.68	43.93	104.02	-60.09	QP			
2	4.6275	19.58	17.85	37.43	69.50	-32.07	QP			
3	8.4780	20.25	18.25	38.50	69.50	-31.00	QP			
4	10.7169	20.58	18.33	38.91	69.50	-30.59	QP			
5	14.3885	21.05	18.02	39.07	69.50	-30.43	QP			
6	22.4179	21.88	17.72	39.60	69.50	-29.90	QP			

# Spurious Emissions, RX Mode, 1-10G

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



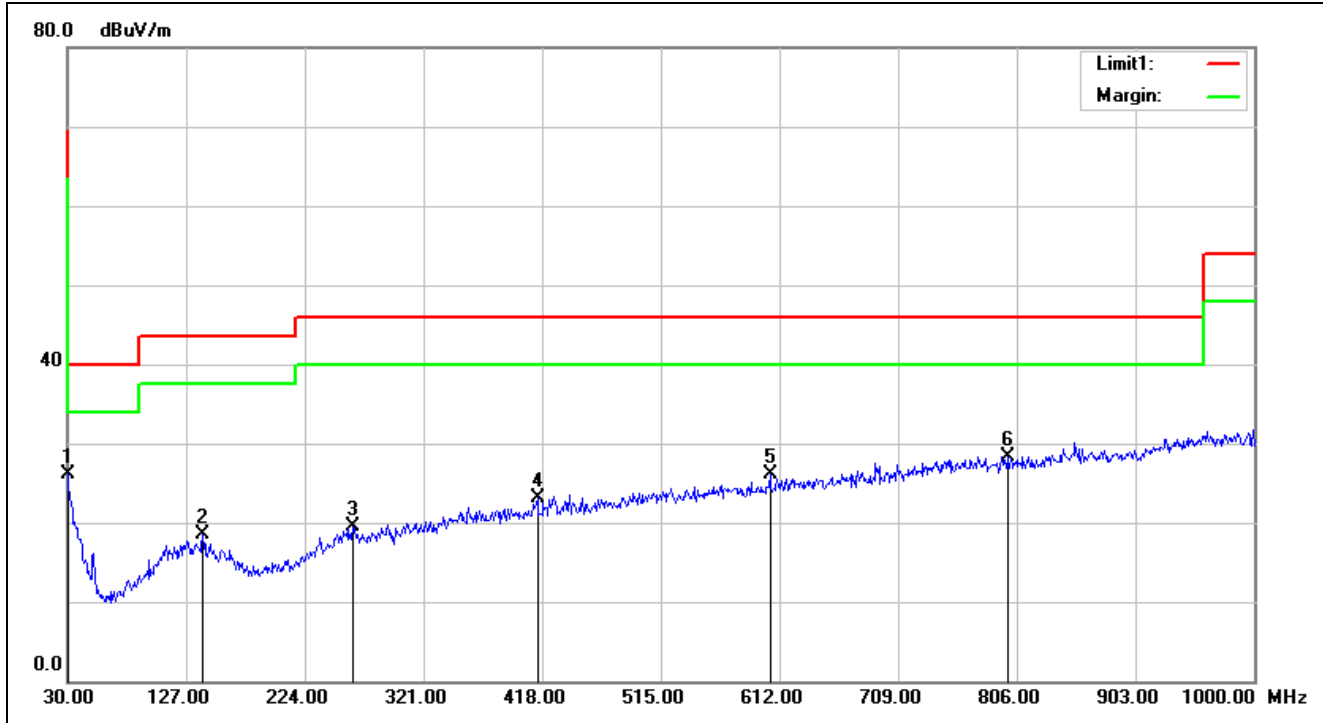
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<b>Service No.:</b>	114037412-NCC	<b>Test Distance:</b>	3m
<b>Test Standard:</b>	NCC2.8_9k-1G_3m	<b>Ant. Polarization:</b>	Horizontal
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2015/7/29 17:13:47
<b>Applicant:</b>	Wacom	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Touch Pen	<b>Temp.(°C)/Hum.(%):</b>	23.6(°C)/52%
<b>Model No.:</b>	Juniper	<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>	TX		
<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	30.9699	-6.59	29.59	23.00	40.00	-17.00	QP	100	236	
2	118.2699	-13.11	30.58	17.47	43.50	-26.03	QP	100	324	
3	295.7799	-10.49	30.00	19.51	46.00	-26.49	QP	100	271	
4	440.3100	-8.03	30.58	22.55	46.00	-23.45	QP	100	199	
5	560.5900	-6.57	31.38	24.81	46.00	-21.19	QP	100	358	
6	692.5099	-4.95	32.00	27.05	46.00	-18.95	QP	100	338	

# Spurious Emissions, RX Mode, 1-10G



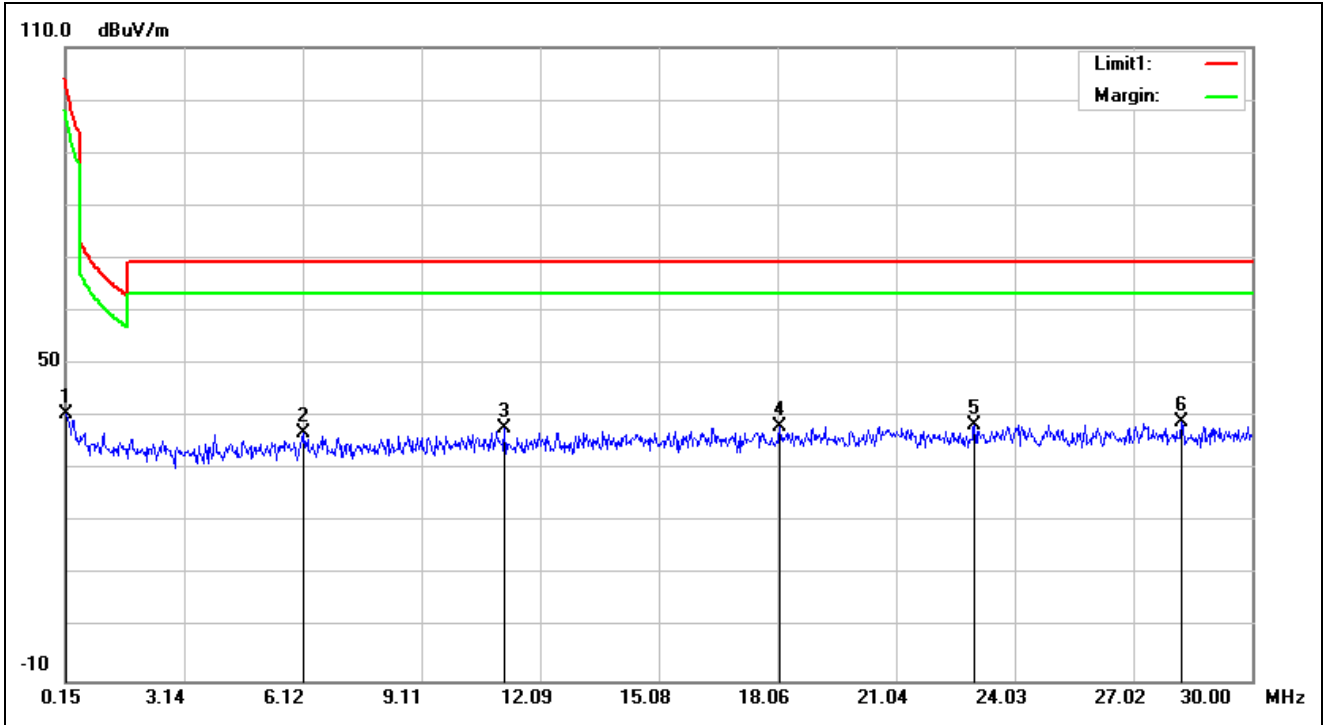
Service No.:	114037412-NCC	Test Distance:	3m
Test Standard:	NCC2.8_9k-1G_3m	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2015/7/29 17:14:50
Applicant:	Wacom	Test Rating:	DC 3V
Product:	Touch Pen	Temp.(°C)/Hum.(%):	23.6(°C)/52%
Model No.:	Juniper	Test Engineer:	Hugo Chang
Test Mode:	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	-6.03	32.16	26.13	40.00	-13.87	QP	100	227	
2	140.5800	-12.77	31.24	18.47	43.50	-25.03	QP	100	86	
3	262.8000	-10.99	30.56	19.57	46.00	-26.43	QP	100	0	
4	414.1200	-8.38	31.49	23.11	46.00	-22.89	QP	100	224	
5	604.2400	-5.83	31.90	26.07	46.00	-19.93	QP	100	202	
6	798.2400	-3.32	31.66	28.34	46.00	-17.66	QP	100	14	

# Spurious Emissions, RX Mode, 9k-30M



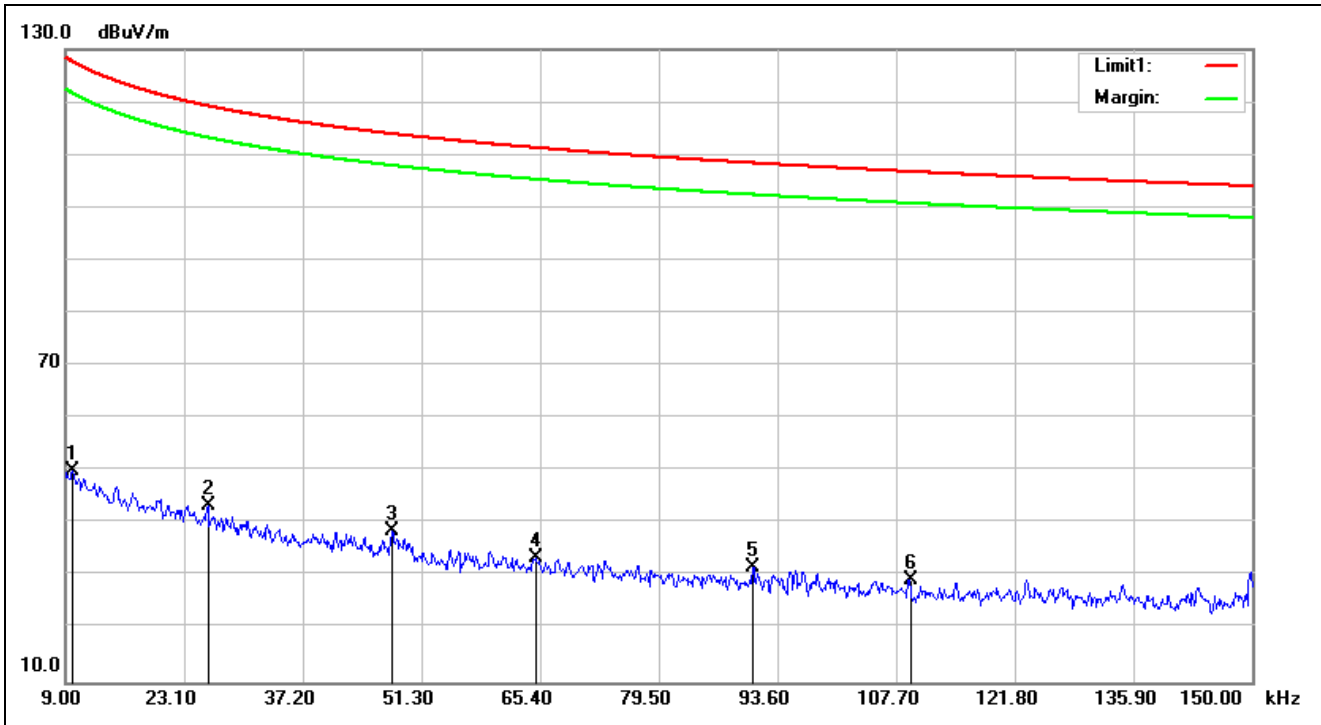
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<b>Service No.:</b>	114037412-NCC	<b>Test Distance:</b>	3m
<b>Test Standard:</b>	NCC2.8_9k-1G_3m	<b>Ant. Polarization:</b>	
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2015/7/29 16:42:03
<b>Applicant:</b>	Wacom	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Touch Pen	<b>Temp.(°C)/Hum.(%):</b>	23.6(°C)/52%
<b>Model No.:</b>	Juniper	<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>	RX		
<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	0.1799	19.25	21.17	40.42	102.47	-62.05	QP		0	
2	6.1498	19.88	16.98	36.86	69.50	-32.64	QP		0	
3	11.1945	20.64	17.07	37.71	69.50	-31.79	QP		0	
4	18.1197	21.51	16.75	38.26	69.50	-31.24	QP		0	
5	23.0151	21.91	16.51	38.42	69.50	-31.08	QP		0	
6	28.2388	22.19	16.90	39.09	69.50	-30.41	QP		0	

# Spurious Emissions, RX Mode, 1-10G



Service No.:	114037412-NCC	Test Distance:	3m
Test Standard:	NCC2.8_9k-1G_3m	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2015/7/29 16:43:28
Applicant:	Wacom	Test Rating:	DC 3V
Product:	Touch Pen	Temp.(°C)/Hum.(%):	23.6(°C)/52%
Model No.:	Juniper	Test Engineer:	Hugo Chang
Test Mode:	RX		
Remark:			

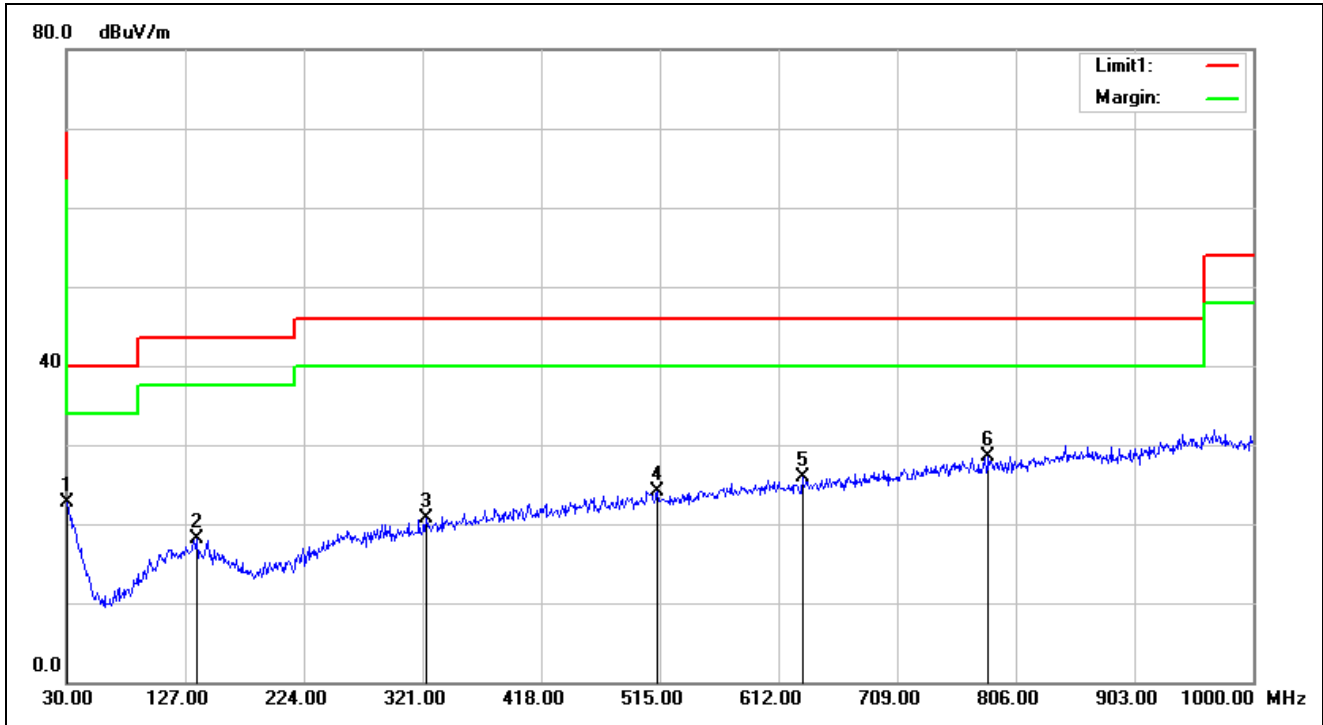
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.0098	20.42	29.78	50.20	127.67	-77.47	QP			
2	0.0259	20.45	22.91	43.36	119.25	-75.89	QP			
3	0.0478	19.71	19.07	38.78	113.95	-75.17	QP			
4	0.0648	19.51	14.03	33.54	111.31	-77.77	QP			
5	0.0906	19.32	12.39	31.71	108.41	-76.70	QP			
6	0.1093	19.24	10.23	29.47	106.79	-77.32	QP			



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

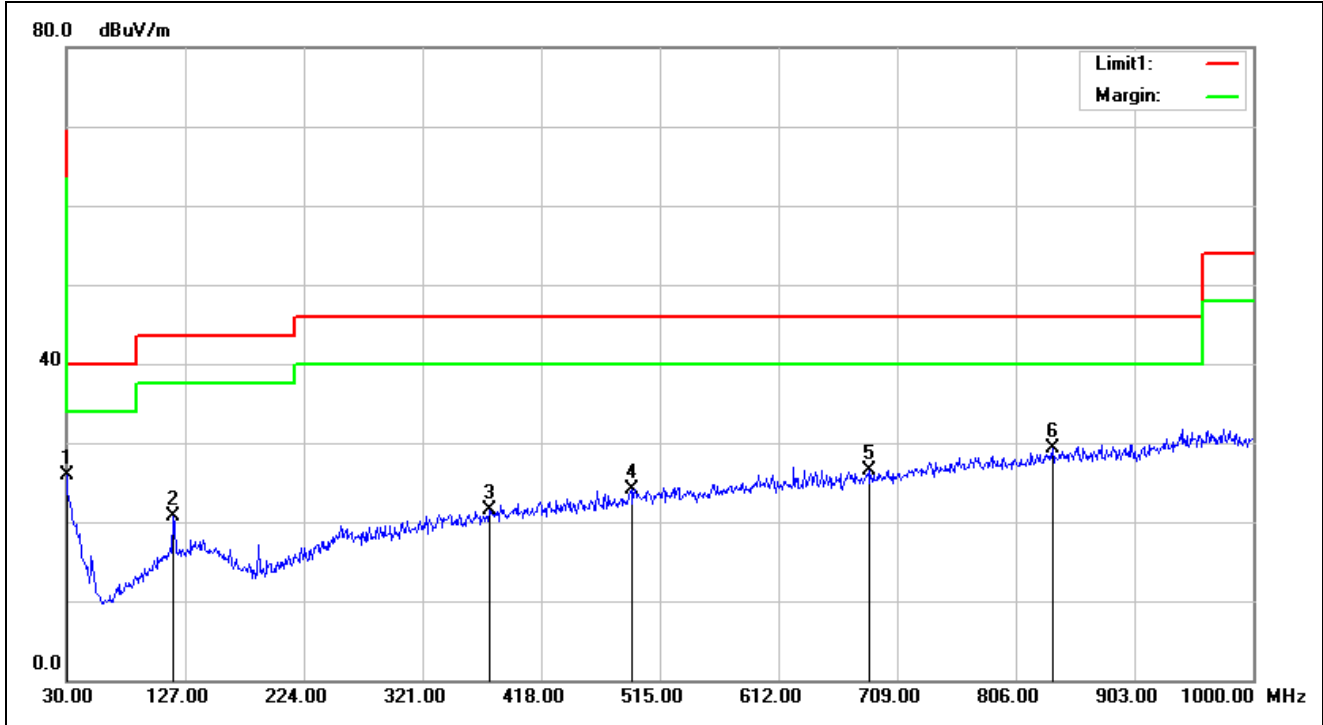


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<b>Service No.:</b>	114037412-NCC	<b>Test Distance:</b>	3m
<b>Test Standard:</b>	NCC2.8_9k-1G_3m	<b>Ant. Polarization:</b>	Horizontal
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2015/7/29 17:17:12
<b>Applicant:</b>	Wacom	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Touch Pen	<b>Temp.(°C)/Hum.(%):</b>	23.6(°C)/52%
<b>Model No.:</b>	Juniper	<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>	RX		
<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	-6.03	28.83	22.80	40.00	-17.20	QP	100	0	
2	136.6999	-12.75	30.94	18.19	43.50	-25.31	QP	100	155	
3	323.9100	-9.86	30.56	20.70	46.00	-25.30	QP	100	250	
4	513.0599	-7.12	31.21	24.09	46.00	-21.91	QP	100	258	
5	631.3999	-5.56	31.50	25.94	46.00	-20.06	QP	100	330	
6	783.6900	-3.44	31.87	28.43	46.00	-17.57	QP	100	142	



Service No.:	114037412-NCC	Test Distance:	3m
Test Standard:	NCC2.8_9k-1G_3m	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2015/7/29 17:18:15
Applicant:	Wacom	Test Rating:	DC 3V
Product:	Touch Pen	Temp.(°C)/Hum.(%):	23.6(°C)/52%
Model No.:	Juniper	Test Engineer:	Hugo Chang
Test Mode:	RX		
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	-6.03	31.87	25.84	40.00	-14.16	QP	100	119	
2	117.2999	-13.18	33.86	20.68	43.50	-22.82	QP	100	33	
3	375.3199	-8.90	30.44	21.54	46.00	-24.46	QP	100	221	
4	491.7200	-7.36	31.49	24.13	46.00	-21.87	QP	100	75	
5	685.7199	-5.03	31.53	26.50	46.00	-19.50	QP	100	257	
6	836.0700	-2.54	31.89	29.35	46.00	-16.65	QP	100	257	