

# Test Report No.10048903 001

## Appendix D: Radiated and Mains Spurious Emission Data

(File: 10048903AppendixD)

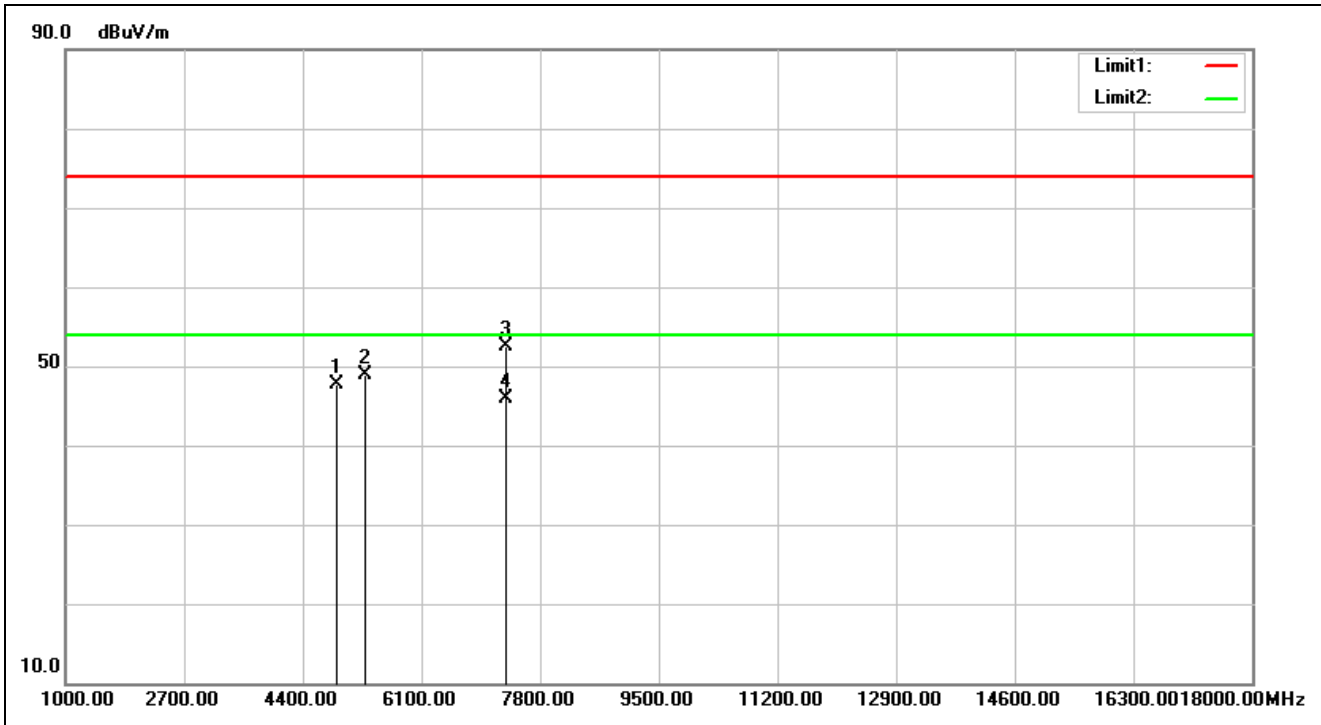
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# Spurious Emissions, TX Mode, 1-18G

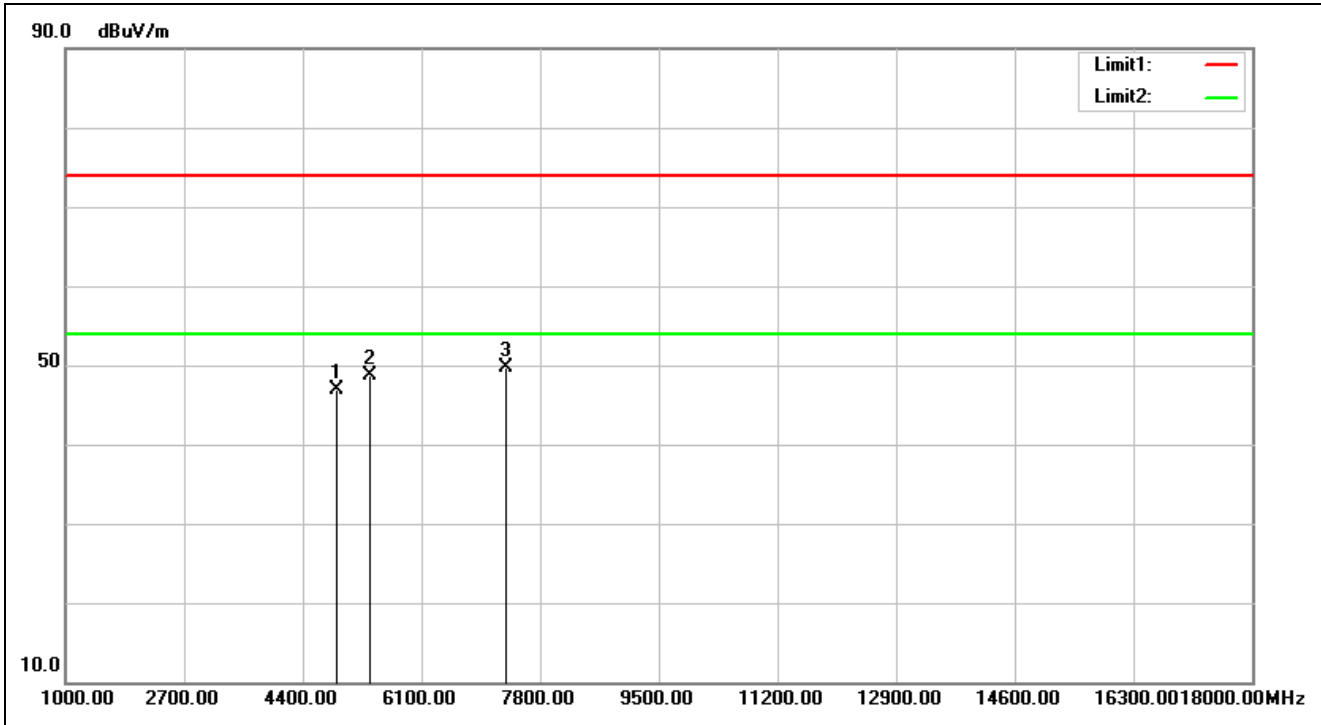


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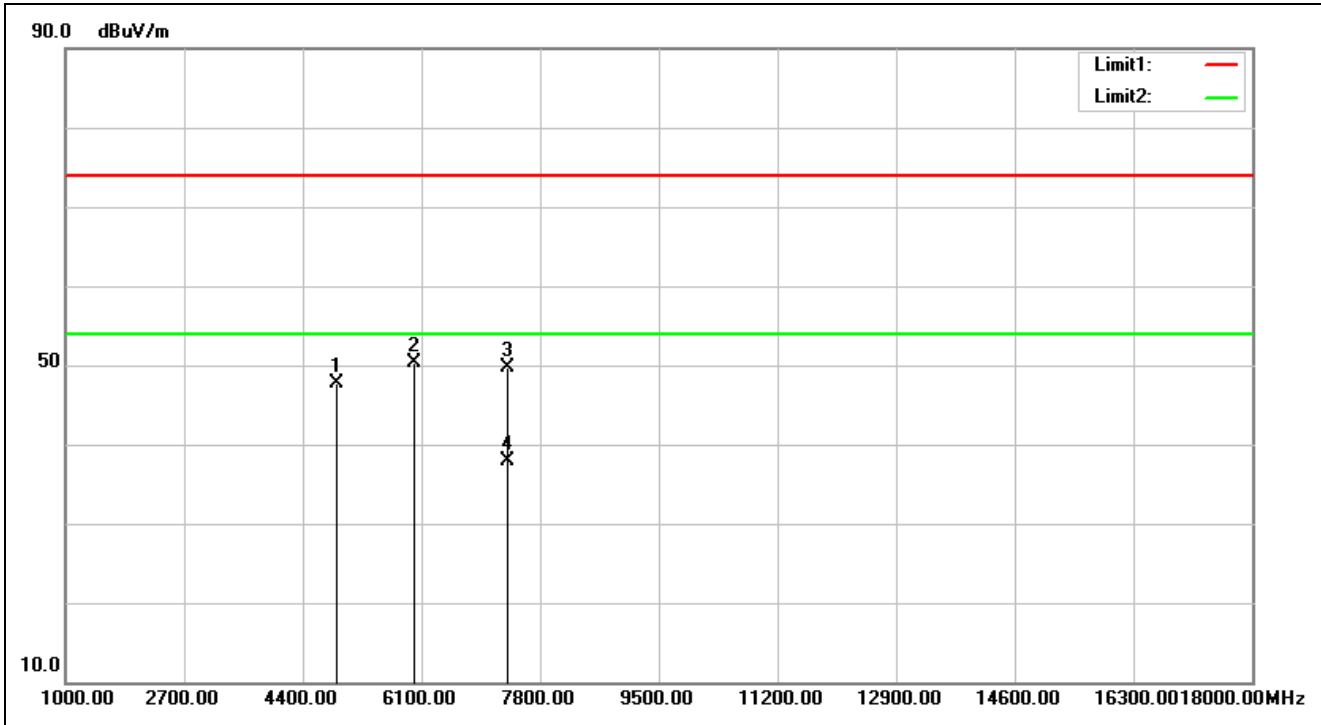
<b>Service No.:</b>	<b>114036404-FCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/8/7 13:51:47</b>
<b>Applicant:</b>	<b>Nedap</b>	<b>Test Rating:</b>	<b>DC 120V</b>
<b>Product:</b>	<b>Transit Ultimate</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>20.1(°C)/50%</b>
<b>Model No.:</b>	<b>9215689</b>	<b>Test Engineer:</b>	<b>Sam Su</b>
<b>Test Mode:</b>	<b>2438.4</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	4876.800	-2.16	49.86	47.70	74.00	-26.30	peak		0	
2	5284.000	-0.33	49.24	48.91	74.00	-25.09	peak	100	31	
3	7315.200	6.11	46.33	52.44	74.00	-21.56	peak	100	45	
4	7315.200	6.11	39.85	45.96	54.00	-8.04	AVG			



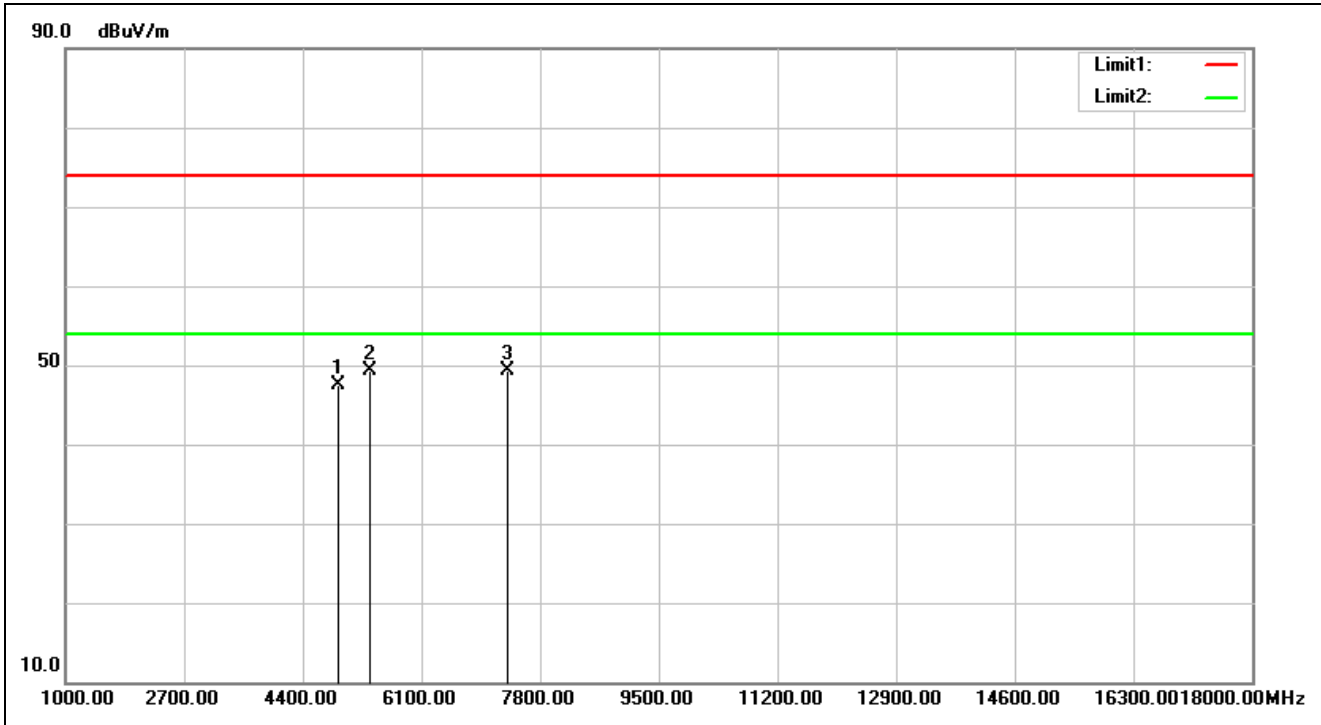
<b>Service No.:</b>	<b>114036404-FCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/8/7 13:52:49</b>
<b>Applicant:</b>	<b>Nedap</b>	<b>Test Rating:</b>	<b>DC 120V</b>
<b>Product:</b>	<b>Transit Ultimate</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>20.1(°C)/50%</b>
<b>Model No.:</b>	<b>9215689</b>	<b>Test Engineer:</b>	<b>Sam Su</b>
<b>Test Mode:</b>	<b>2438.4</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	4876.800	-2.16	49.02	46.86	74.00	-27.14	peak			
2	5369.000	0.12	48.51	48.63	74.00	-25.37	peak	100	16	
3	7315.200	6.11	43.55	49.66	74.00	-24.34	peak			



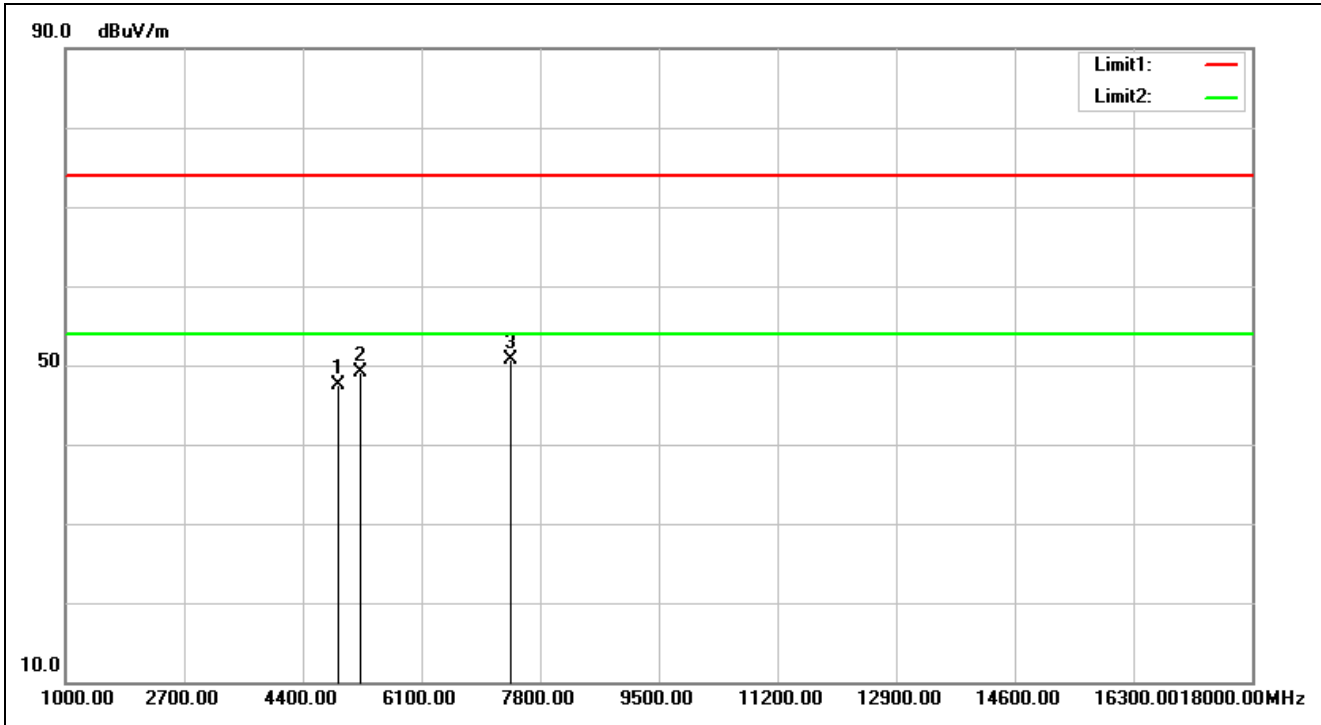
<b>Service No.:</b>	<b>114036404-FCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/8/7 13:58:03</b>
<b>Applicant:</b>	<b>Nedap</b>	<b>Test Rating:</b>	<b>DC 120V</b>
<b>Product:</b>	<b>Transit Ultimate</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>20.1(°C)/50%</b>
<b>Model No.:</b>	<b>9215689</b>	<b>Test Engineer:</b>	<b>Sam Su</b>
<b>Test Mode:</b>	<b>2448</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	4896.000	-2.11	49.87	47.76	74.00	-26.24	peak			
2	5998.000	4.07	46.24	50.31	74.00	-23.69	peak	100	297	
3	7344.000	6.19	43.50	49.69	74.00	-24.31	peak			
4	7344.000	6.19	31.63	37.82	54.00	-16.18	AVG	100	357	



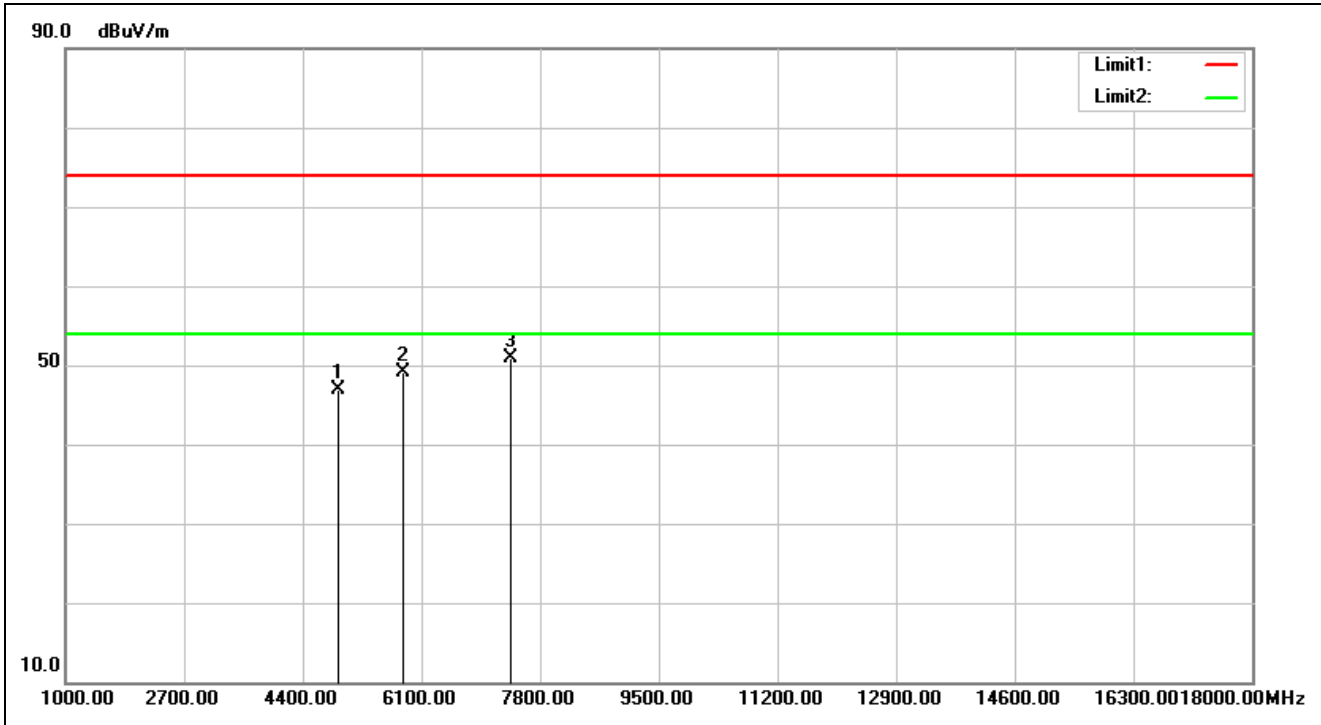
Service No.:	114036404-FCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2015/8/7 13:59:06
Applicant:	Nedap	Test Rating:	DC 120V
Product:	Transit Ultimate	Temp.(°C)/Hum.(%):	20.1(°C)/50%
Model No.:	9215689	Test Engineer:	Sam Su
Test Mode:	2448		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4896.000	-2.11	49.55	47.44	74.00	-26.56	peak			
2	5352.000	0.03	49.36	49.39	74.00	-24.61	peak	100	360	
3	7344.000	6.19	43.06	49.25	74.00	-24.75	peak			



Service No.:	114036404-FCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2015/8/7 14:02:49
Applicant:	Nedap	Test Rating:	DC 120V
Product:	Transit Ultimate	Temp.(°C)/Hum.(%):	20.1(°C)/50%
Model No.:	9215689	Test Engineer:	Sam Su
Test Mode:	2457		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4914.000	-2.06	49.60	47.54	74.00	-26.46	peak			
2	5233.000	-0.62	49.64	49.02	74.00	-24.98	peak	100	216	
3	7371.000	6.28	44.49	50.77	74.00	-23.23	peak			



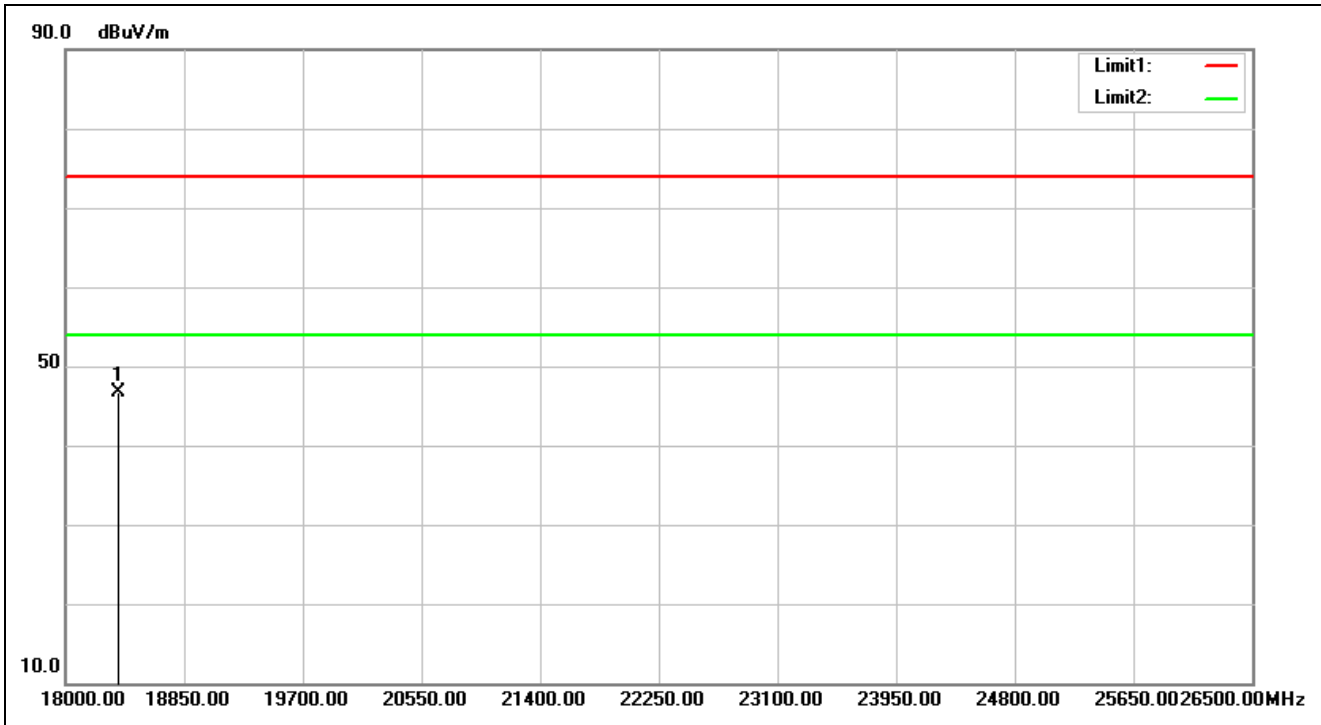
Service No.:	114036404-FCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2015/8/7 14:03:52
Applicant:	Nedap	Test Rating:	DC 120V
Product:	Transit Ultimate	Temp.(°C)/Hum.(%):	20.1(°C)/50%
Model No.:	9215689	Test Engineer:	Sam Su
Test Mode:	2457		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4914.000	-2.06	48.96	46.90	74.00	-27.10	peak			
2	5845.000	3.07	46.07	49.14	74.00	-24.86	peak	100	267	
3	7371.000	6.28	44.56	50.84	74.00	-23.16	peak			

# Spurious Emissions, TX Mode, 18-26G



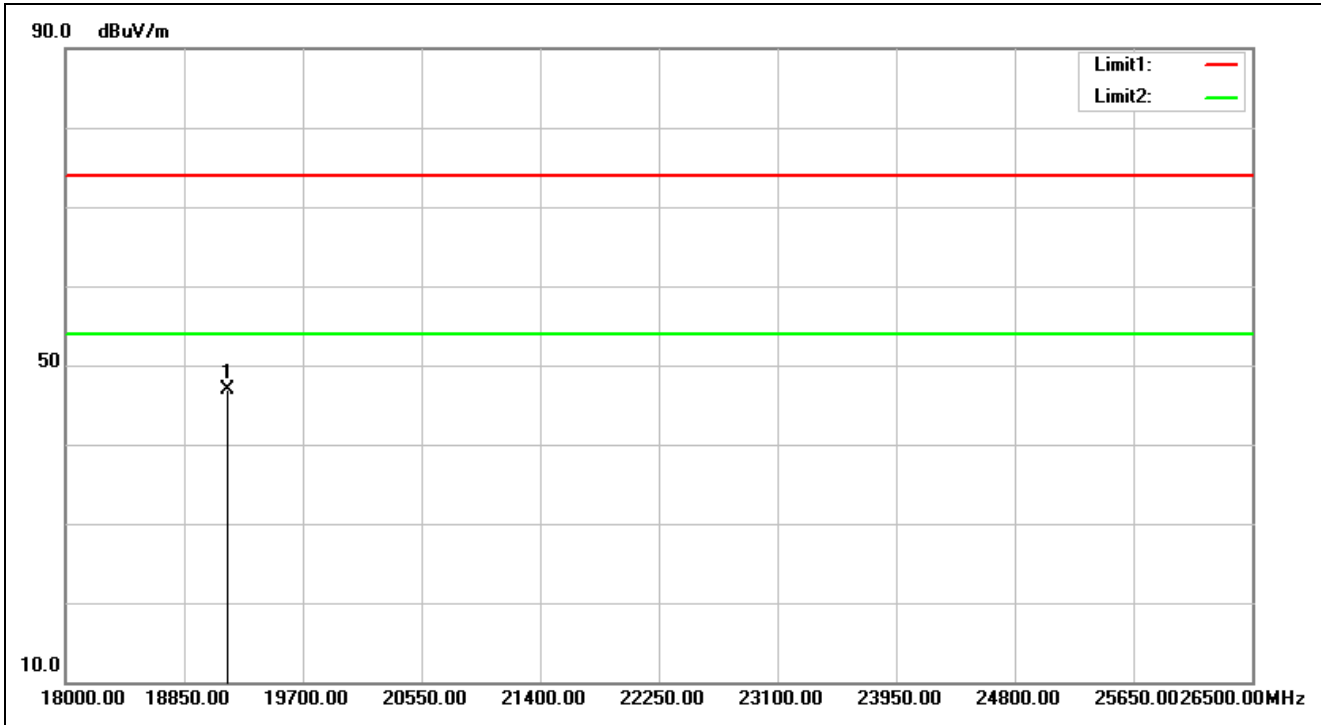
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 Tel:+886-2172-7000 fax:+886-2528-0018



<b>Service No.:</b>	<b>114036404-FCC</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>2015/8/7 11:42:12</b>
<b>Applicant:</b>	<b>Nedap</b>	<b>Test Rating:</b>	<b>DC 120V</b>
<b>Product:</b>	<b>Transit Ultimate</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>20.1(°C)/50%</b>
<b>Model No.:</b>	<b>9215689</b>	<b>Test Engineer:</b>	<b>Sam Su</b>
<b>Test Mode:</b>	<b>2438.4</b>		
<b>Remark:</b>			

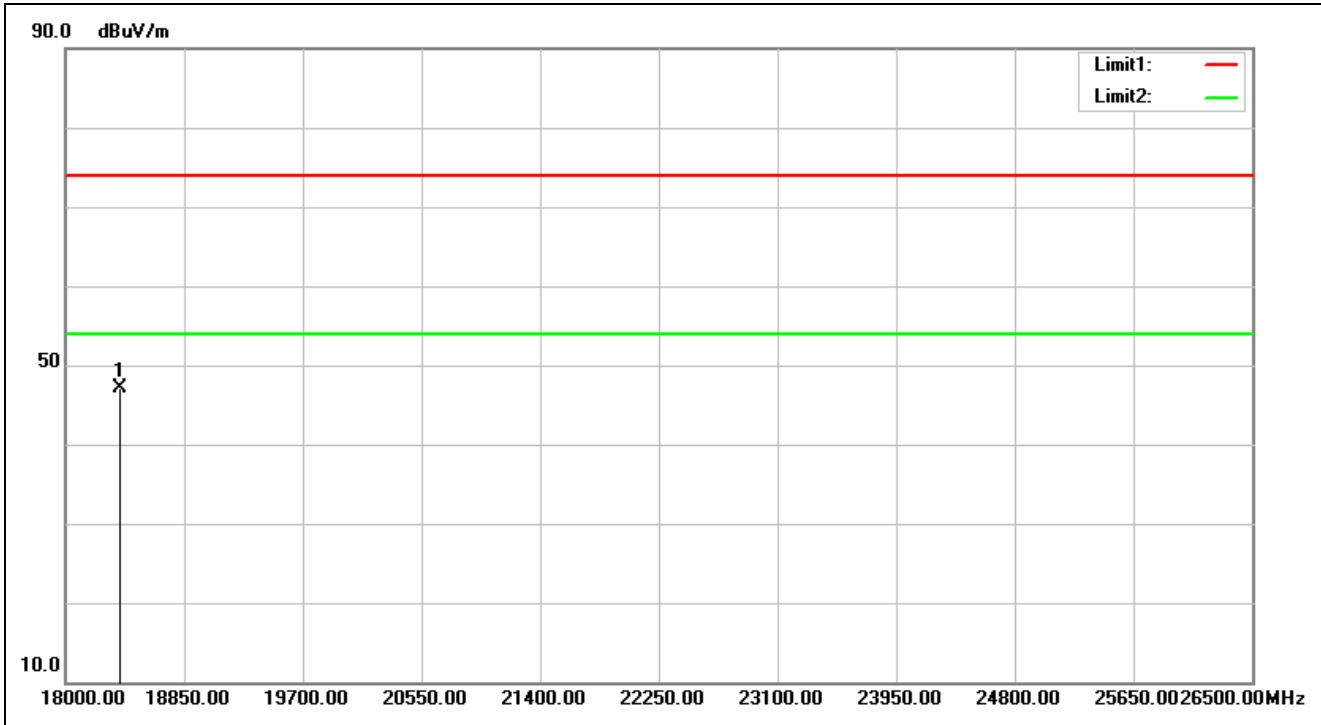
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	18382.500	28.29	18.34	46.63	74.00	-27.37	peak		0	





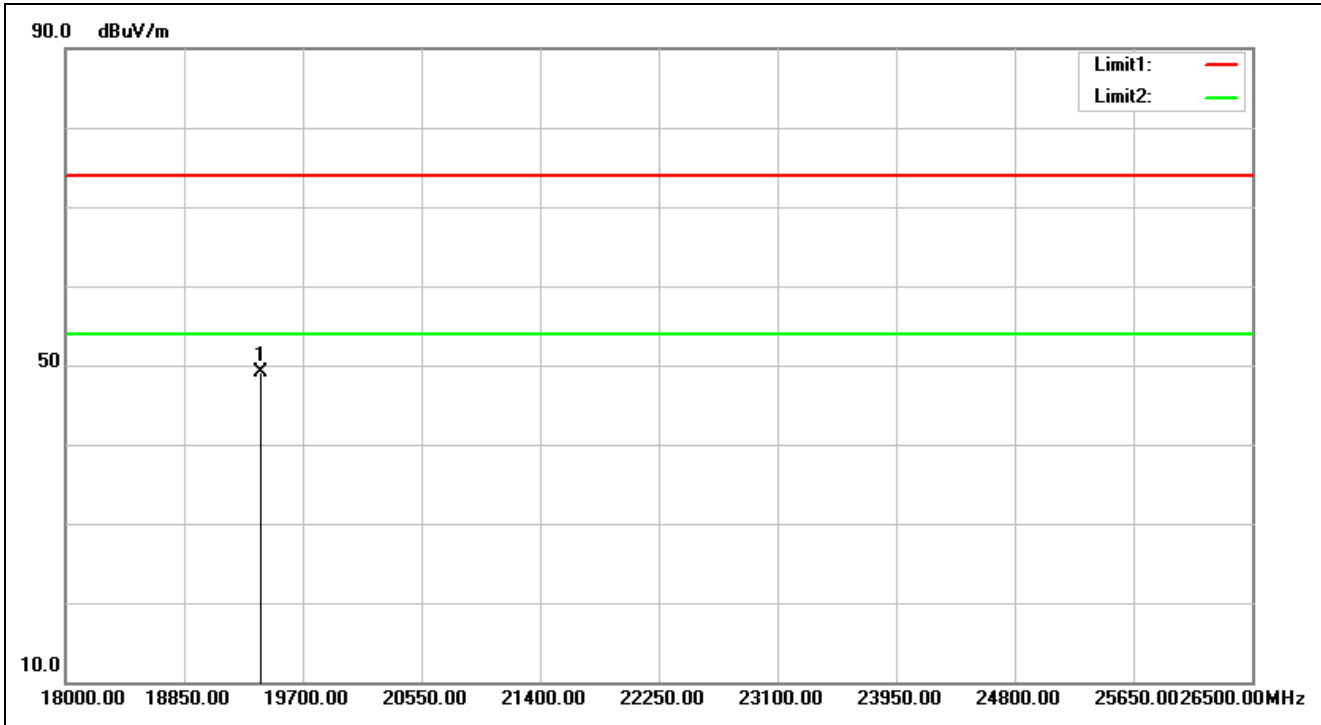
<b>Service No.:</b>	<b>114036404-FCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/8/7 11:43:31</b>
<b>Applicant:</b>	<b>Nedap</b>	<b>Test Rating:</b>	<b>DC 120V</b>
<b>Product:</b>	<b>Transit Ultimate</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>20.1(°C)/50%</b>
<b>Model No.:</b>	<b>9215689</b>	<b>Test Engineer:</b>	<b>Sam Su</b>
<b>Test Mode:</b>	<b>2438.4</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	19156.000	28.90	17.95	46.85	74.00	-27.15	peak			



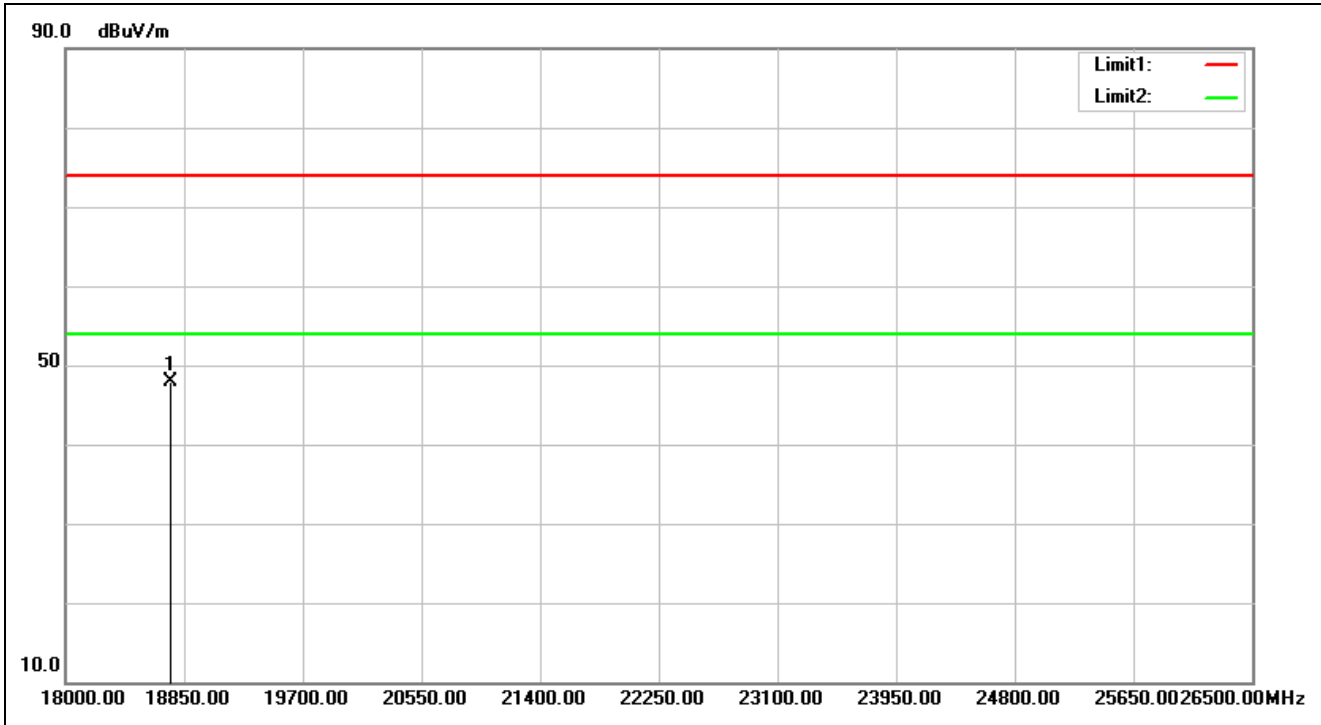
<b>Service No.:</b>	<b>114036404-FCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/8/7 11:43:43</b>
<b>Applicant:</b>	<b>Nedap</b>	<b>Test Rating:</b>	<b>DC 120V</b>
<b>Product:</b>	<b>Transit Ultimate</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>20.1(°C)/50%</b>
<b>Model No.:</b>	<b>9215689</b>	<b>Test Engineer:</b>	<b>Sam Su</b>
<b>Test Mode:</b>	<b>2448</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	18391.000	28.28	18.84	47.12	74.00	-26.88	peak			



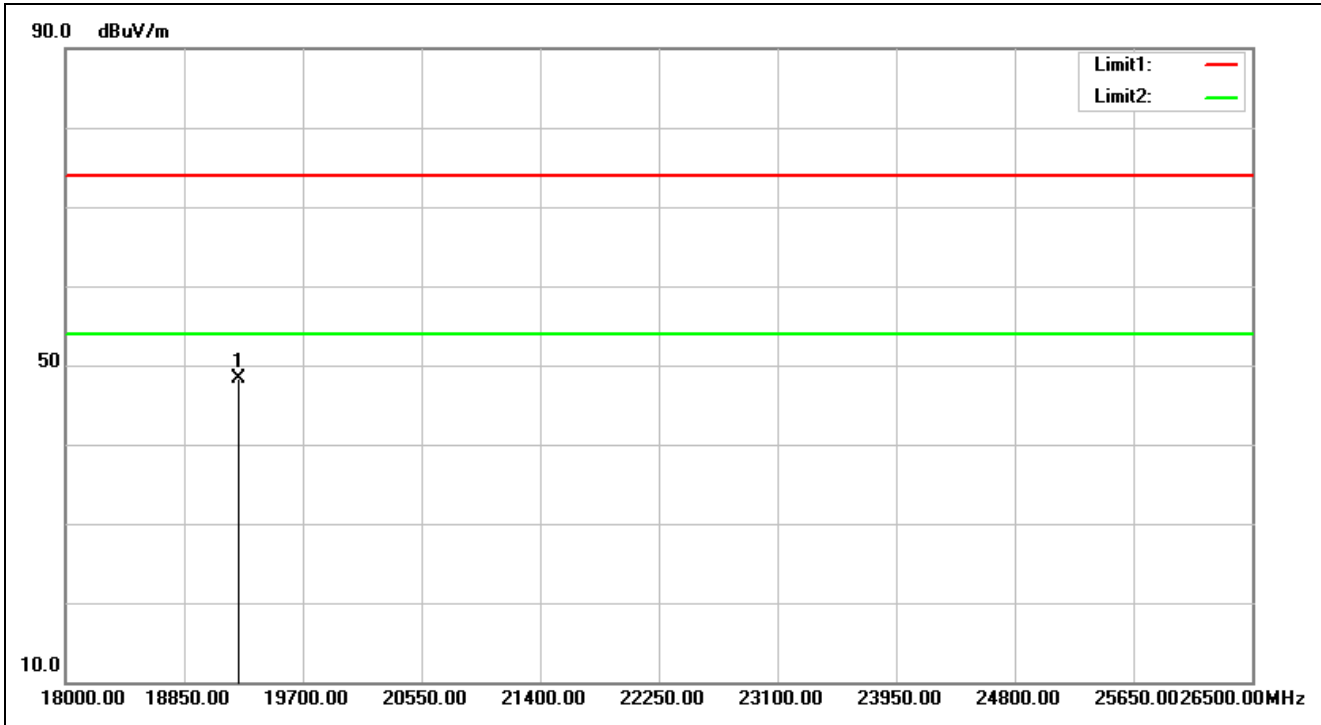
<b>Service No.:</b>	<b>114036404-FCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/8/7 11:46:46</b>
<b>Applicant:</b>	<b>Nedap</b>	<b>Test Rating:</b>	<b>DC 120V</b>
<b>Product:</b>	<b>Transit Ultimate</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>20.1(°C)/50%</b>
<b>Model No.:</b>	<b>9215689</b>	<b>Test Engineer:</b>	<b>Sam Su</b>
<b>Test Mode:</b>	<b>2448</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	19394.000	28.94	20.08	49.02	74.00	-24.98	peak			



<b>Service No.:</b>	<b>114036404-FCC</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>2015/8/7 11:46:58</b>
<b>Applicant:</b>	<b>Nedap</b>	<b>Test Rating:</b>	<b>DC 120V</b>
<b>Product:</b>	<b>Transit Ultimate</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>20.1(°C)/50%</b>
<b>Model No.:</b>	<b>9215689</b>	<b>Test Engineer:</b>	<b>Sam Su</b>
<b>Test Mode:</b>	<b>2457</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	18756.500	28.62	19.20	47.82	74.00	-26.18	peak			



<b>Service No.:</b>	<b>114036404-FCC</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>2015/8/7 11:48:17</b>
<b>Applicant:</b>	<b>Nedap</b>	<b>Test Rating:</b>	<b>DC 120V</b>
<b>Product:</b>	<b>Transit Ultimate</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>20.1(°C)/50%</b>
<b>Model No.:</b>	<b>9215689</b>	<b>Test Engineer:</b>	<b>Sam Su</b>
<b>Test Mode:</b>	<b>2457</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	19241.000	28.92	19.32	48.24	74.00	-25.76	peak			

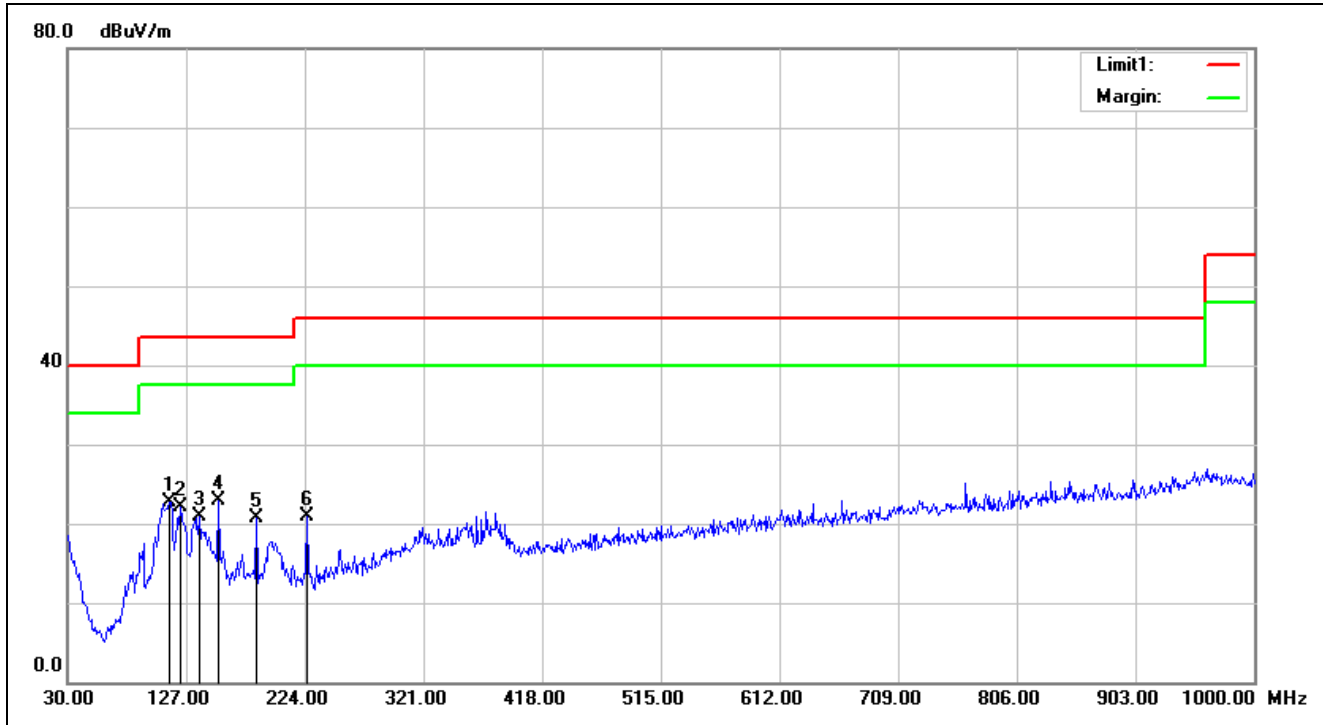
# Spurious Emissions, TX Mode, 30M-1G



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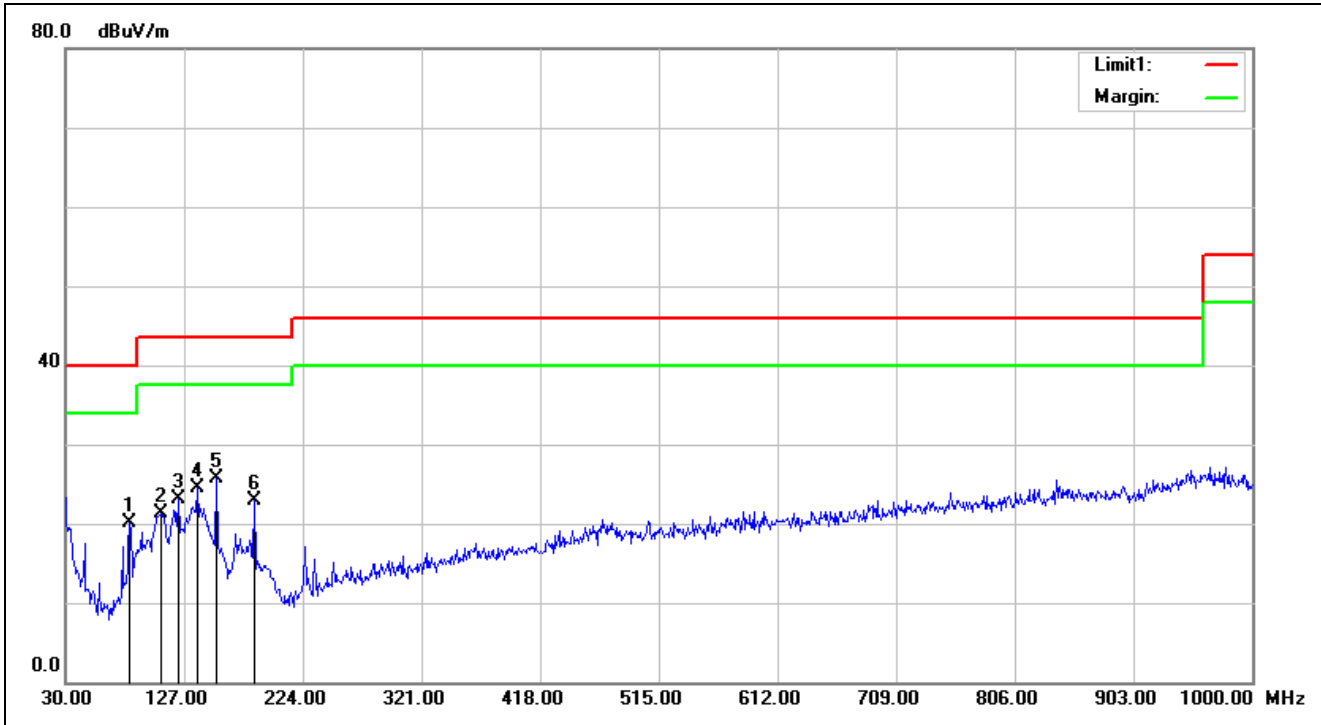
Tel:+886-2172-7000 fax:+886-2528-0018



Service No.:	114036404-FCC	Test Distance:	3m
Test Standard:	FCC Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2015/8/7 17:11:15
Applicant:	Nedap	Test Rating:	AC 120V/60Hz
Product:	Transit Ultimate	Temp.(°C)/Hum.(%):	20.1(°C)/50%
Model No.:	9215689	Test Engineer:	Sam Su
Test Mode:	2448		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	113.4200	-13.48	36.14	22.66	43.50	-20.84	QP	100	240	
2	122.1500	-12.92	35.12	22.20	43.50	-21.30	QP	100	248	
3	137.6699	-12.74	33.74	21.00	43.50	-22.50	QP	100	219	
4	153.1899	-13.26	36.16	22.90	43.50	-20.60	QP	100	224	
5	184.2298	-15.38	36.01	20.63	43.50	-22.87	QP	100	216	
6	225.9399	-13.69	34.69	21.00	46.00	-25.00	QP	100	40	

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

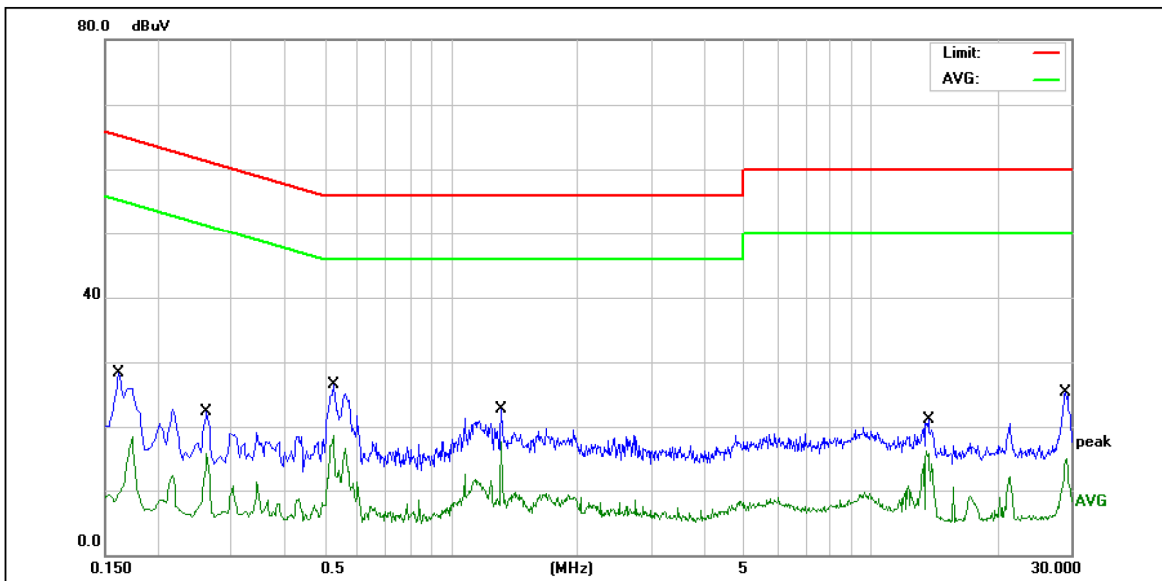


<b>Service No.:</b>	<b>114036404-FCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Class B 3M Radiation</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/8/7 17:12:18</b>
<b>Applicant:</b>	<b>Nedap</b>	<b>Test Rating:</b>	<b>AC 120V/60Hz</b>
<b>Product:</b>	<b>Transit Ultimate</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>20.1(°C)/50%</b>
<b>Model No.:</b>	<b>9215689</b>	<b>Test Engineer:</b>	<b>Sam Su</b>
<b>Test Mode:</b>	<b>2448</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	82.3800	-17.44	37.64	20.20	40.00	-19.80	QP	100	80	
2	107.6000	-14.06	35.46	21.40	43.50	-22.10	QP	100	251	
3	122.1500	-12.92	35.95	23.03	43.50	-20.47	QP	100	11	
4	137.6700	-12.74	37.32	24.58	43.50	-18.92	QP	100	333	
5	153.1900	-13.26	38.89	25.63	43.50	-17.87	QP	100	312	
6	184.2300	-15.38	38.38	23.00	43.50	-20.50	QP	100	315	

# Mains Spurious Emissions

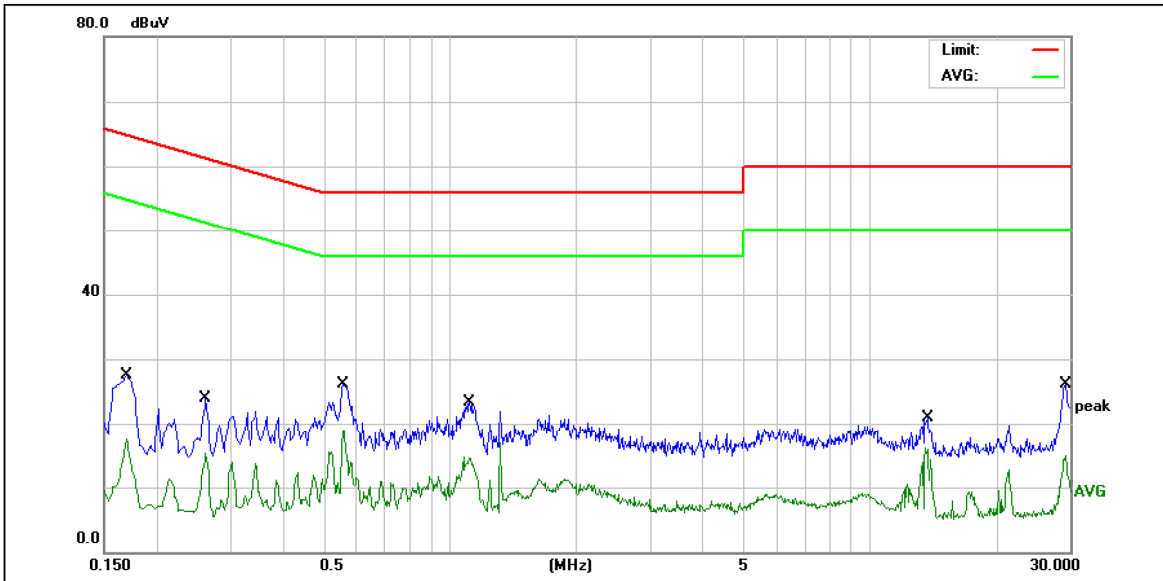




Service No.: 114036404  
 Test Standard: FCC Class B Conduction(QP)  
 Test item: Conducted Emission Phase: L1  
 Applicant: Nedap Temp.(°C)/Hum.(%): 26.4(°C) / 47 %  
 Product: Transit Ultimate Power Rating: AC 120V/60Hz  
 Model No.: 9215689 Test Engineer: Hugo Chang

Test Mode: Receive at 2.45G&433M via AC  
 Remark:

No.	Frequency (MHz)	Factor ( )	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1620	9.65	13.63	23.28	65.36	-42.08	QP	P	
2	0.1620	9.65	0.71	10.36	55.36	-45.00	AVG	P	
3	0.2620	9.62	8.15	17.77	61.36	-43.59	QP	P	
4	0.2620	9.62	3.73	13.35	51.36	-38.01	AVG	P	
5	0.5260	9.63	12.20	21.83	56.00	-34.17	QP	P	
6	0.5260	9.63	5.14	14.77	46.00	-31.23	AVG	P	
7	1.3220	9.63	8.90	18.53	56.00	-37.47	QP	P	
8	1.3220	9.63	7.36	16.99	46.00	-29.01	AVG	P	
9	13.7460	9.81	8.03	17.84	60.00	-42.16	QP	P	
10	13.7460	9.81	6.04	15.85	50.00	-34.15	AVG	P	
11	29.0820	9.90	10.16	20.06	60.00	-39.94	QP	P	
12	29.0820	9.90	4.70	14.60	50.00	-35.40	AVG	P	



Service No.: 114036404  
 Test Standard: FCC Class B Conduction(QP)  
 Test item: Conducted Emission Phase: N  
 Applicant: Nedap Temp.(°C)/Hum.(%): 26.4(°C) / 47 %  
 Product: Transit Ultimate Power Rating: AC 120V/60Hz  
 Model No.: 9215689 Test Engineer: Hugo Chang  
 Test Mode: Receive at 2.45G&433M via AC  
 Remark:

No.	Frequency (MHz)	Factor ( )	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1700	9.66	15.11	24.77	64.96	-40.19	QP	P	
2	0.1700	9.66	6.35	16.01	54.96	-38.95	AVG	P	
3	0.2620	9.64	9.73	19.37	61.36	-41.99	QP	P	
4	0.2620	9.64	5.34	14.98	51.36	-36.38	AVG	P	
5	0.5580	9.64	13.40	23.04	56.00	-32.96	QP	P	
6	0.5580	9.64	7.67	17.31	46.00	-28.69	AVG	P	
7	1.1140	9.64	8.90	18.54	56.00	-37.46	QP	P	
8	1.1140	9.64	4.37	14.01	46.00	-31.99	AVG	P	
9	13.7460	9.86	7.78	17.64	60.00	-42.36	QP	P	
10	13.7460	9.86	5.78	15.64	50.00	-34.36	AVG	P	
11	29.2540	10.08	10.88	20.96	60.00	-39.04	QP	P	
12	29.2540	10.08	4.79	14.87	50.00	-35.13	AVG	P	