

# Test Report No.10049627 001

## Appendix D: Radiated Spurious Emission Data

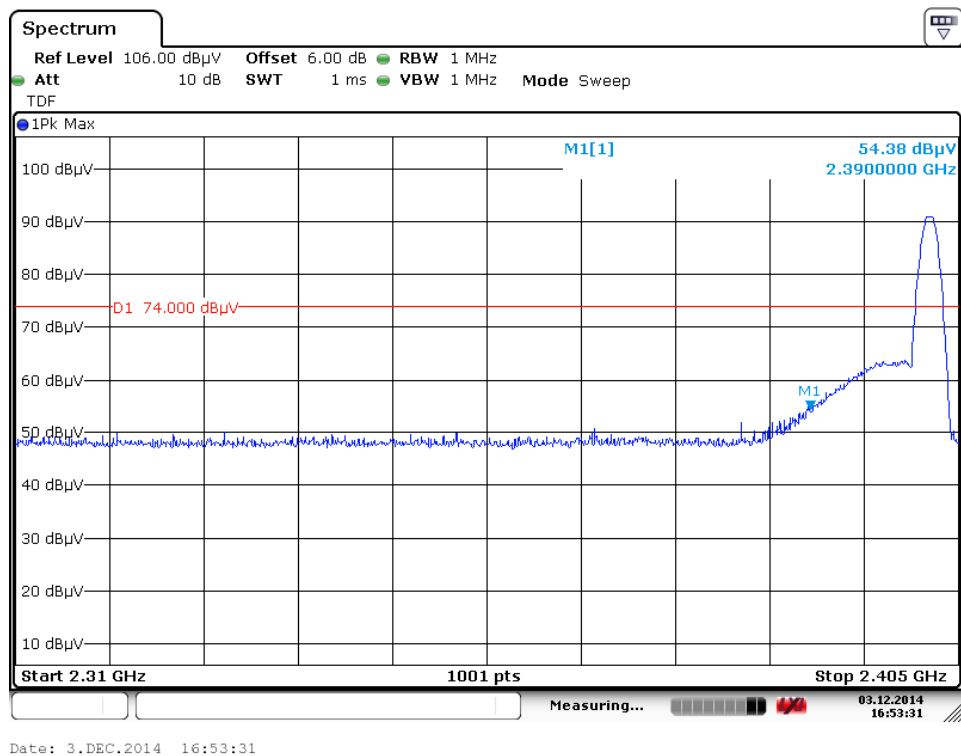
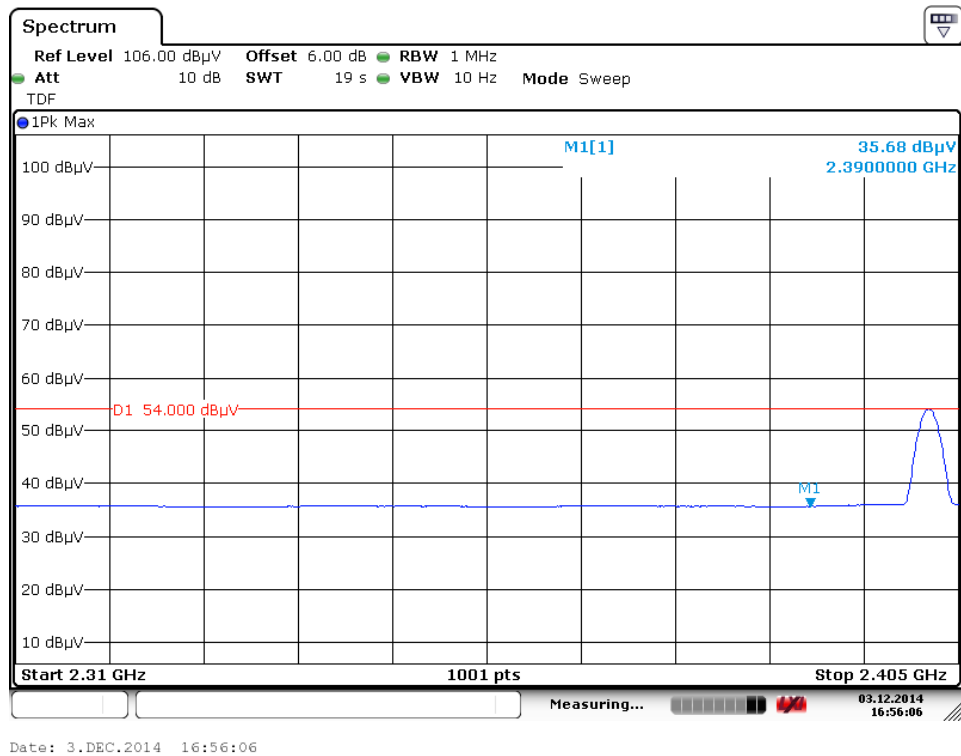
(File: 10049627AppendixD)

### Contents

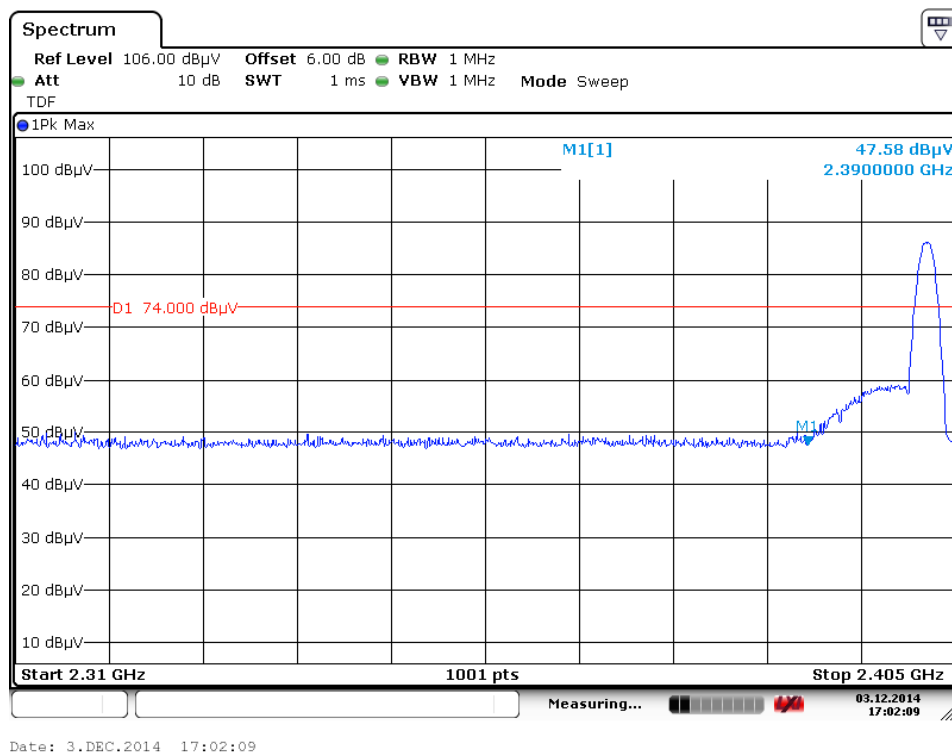
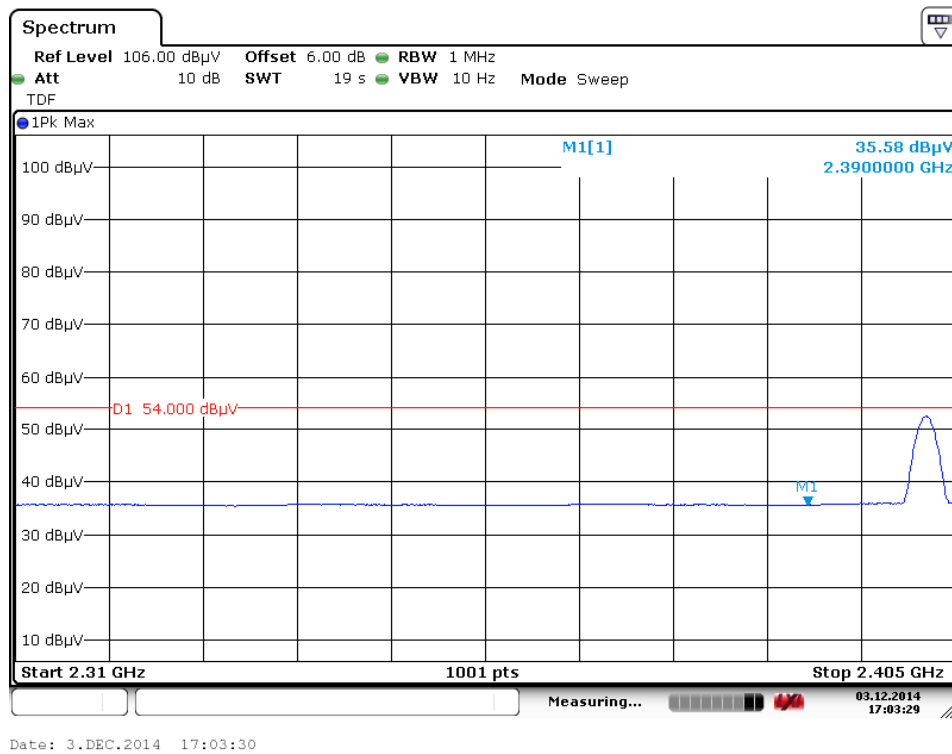
Spurious Emissions, Band Edges, 2.35-2.5G .....	2
Spurious Emissions, TX Mode, 1-18G.....	10
Spurious Emissions, TX Mode, 18-26G.....	22
Spurious Emissions, TX Mode, 30M-1G .....	34
Spurious Emissions, Mains, 150kHz - 30MHz .....	36

# Radiated Bandedge (GFSK)

## Low Channel (Hor)



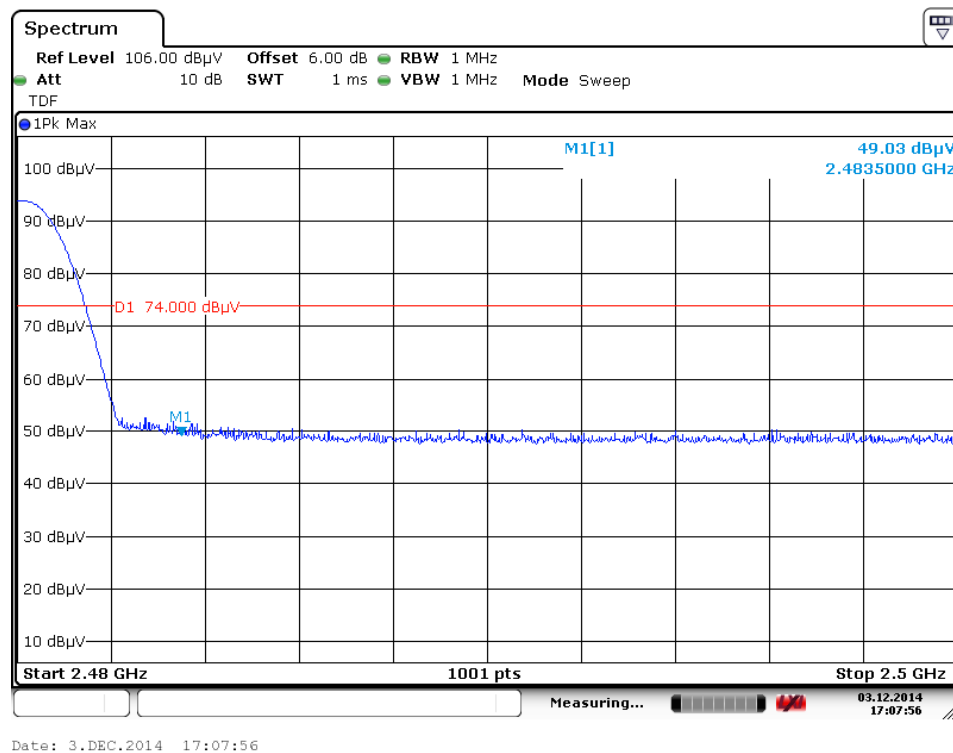
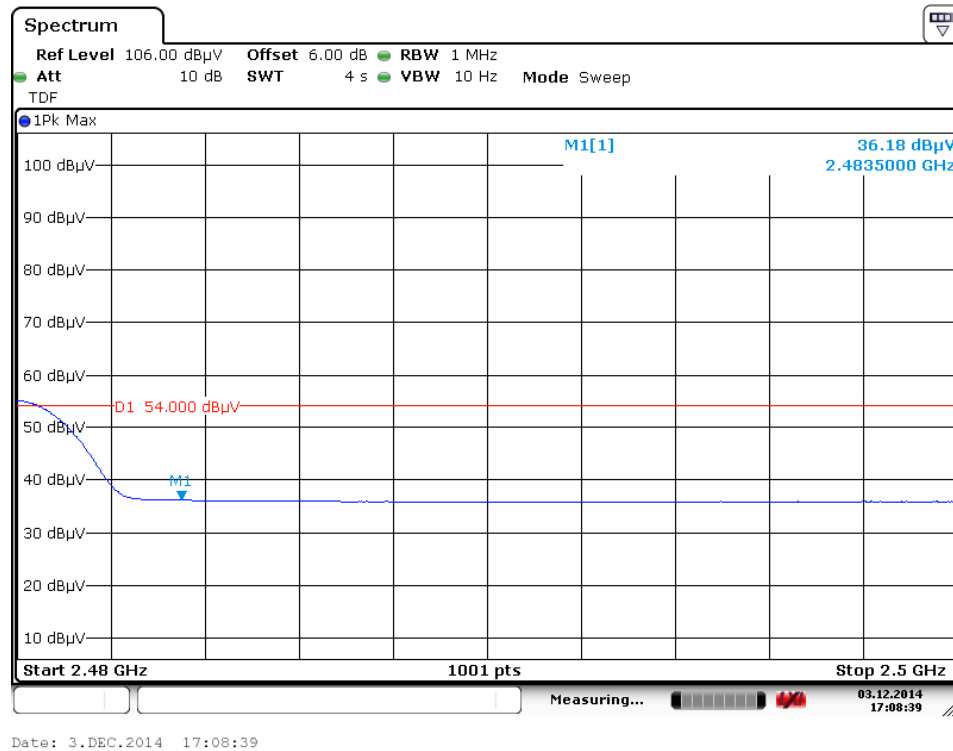
## Low Channel (Ver)



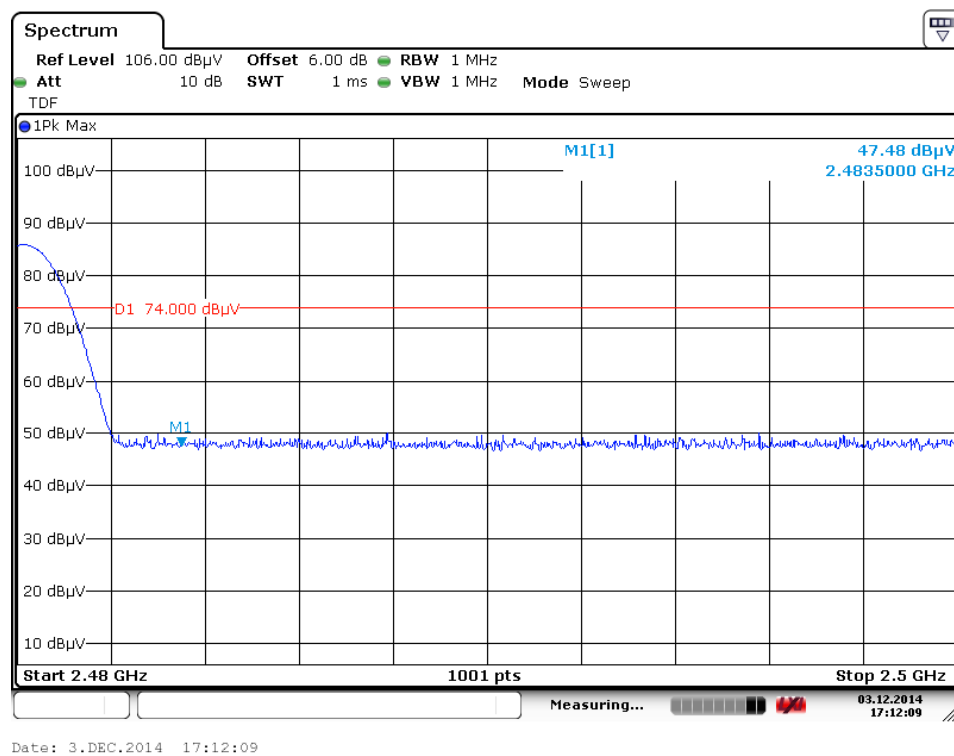
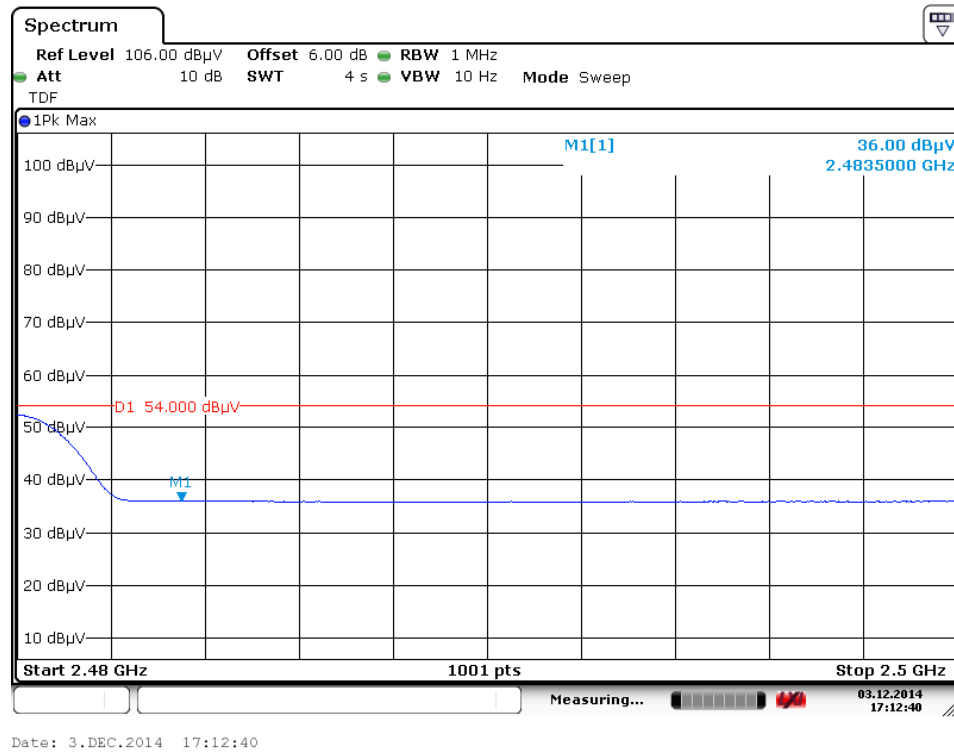
## Spurious Emissions, Band Edge, 2.35-2.5G

# Radiated Bandedge (GFSK)

## High Channel (Hor)



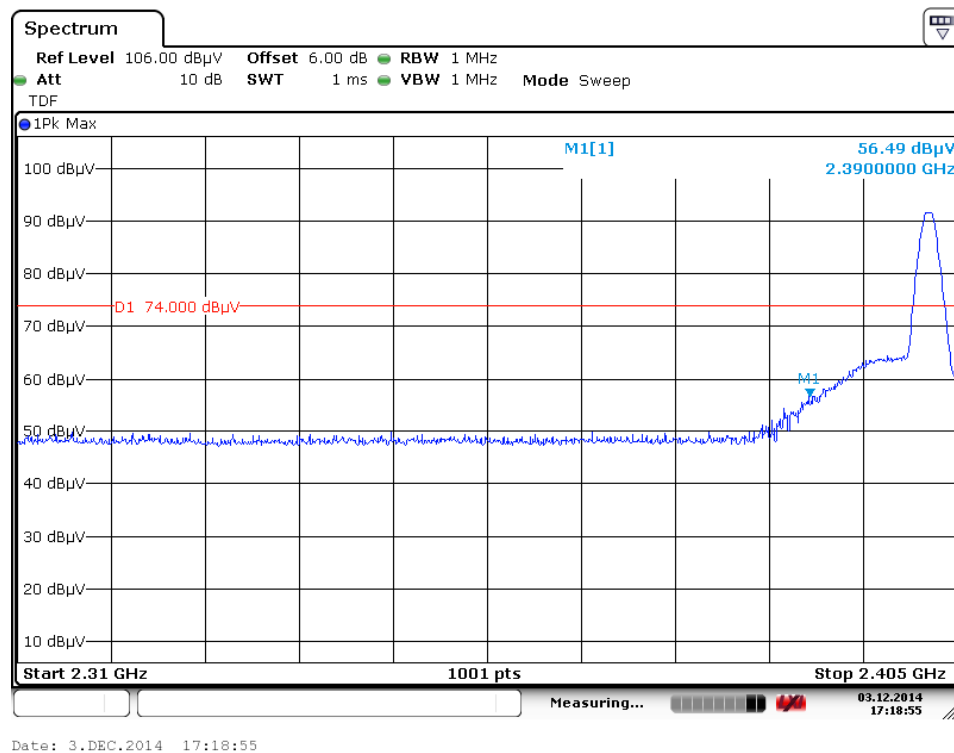
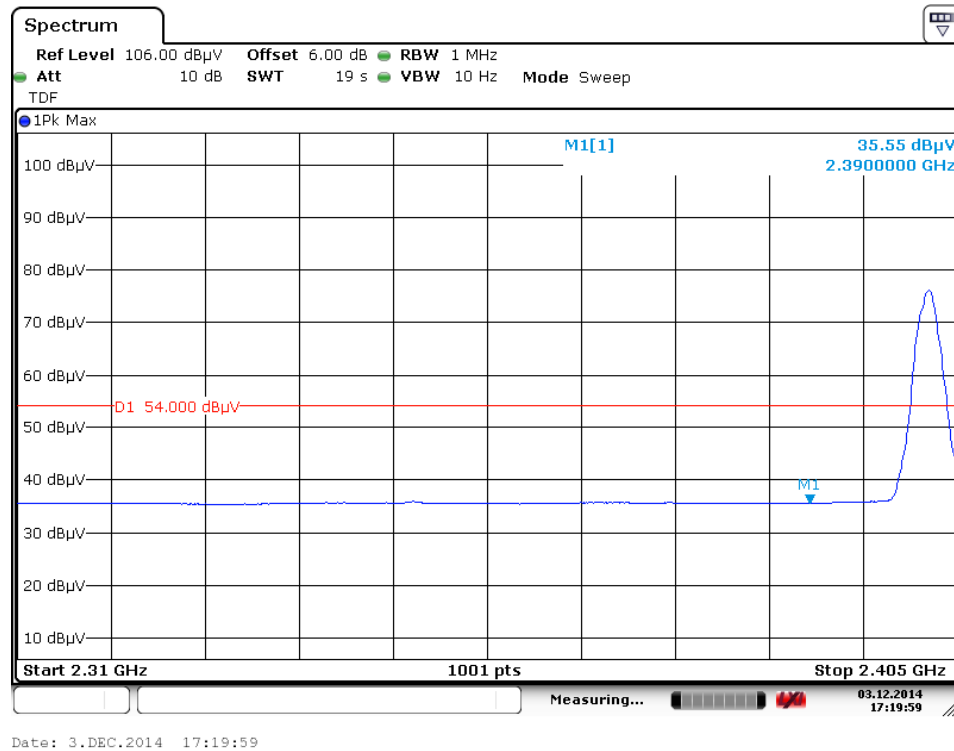
## High Channel (Ver)



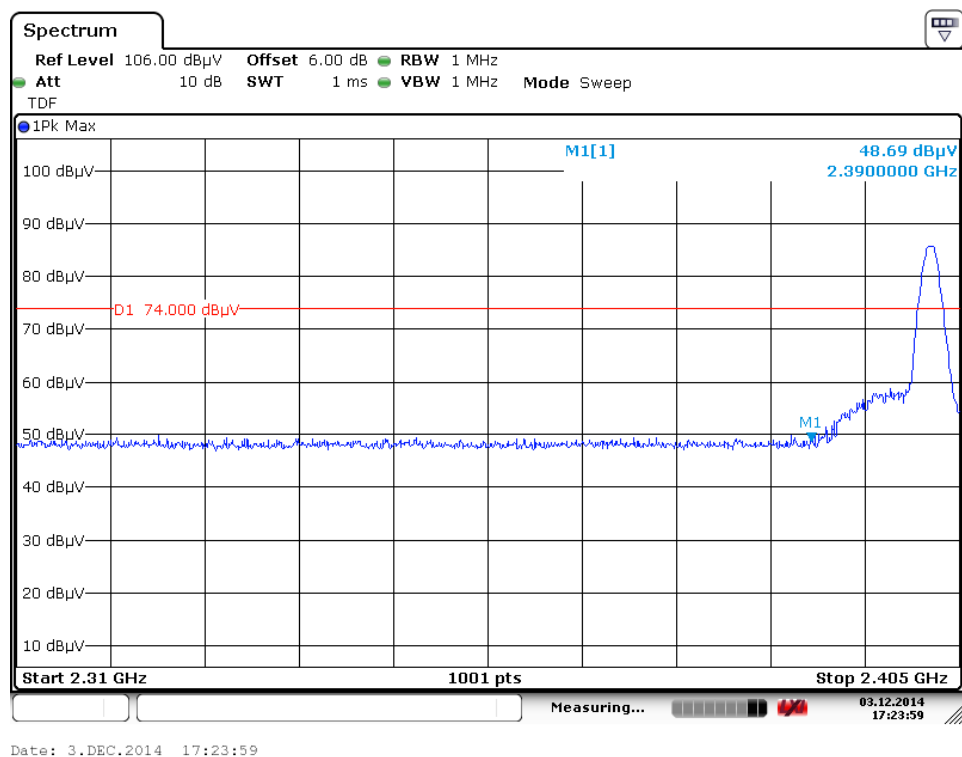
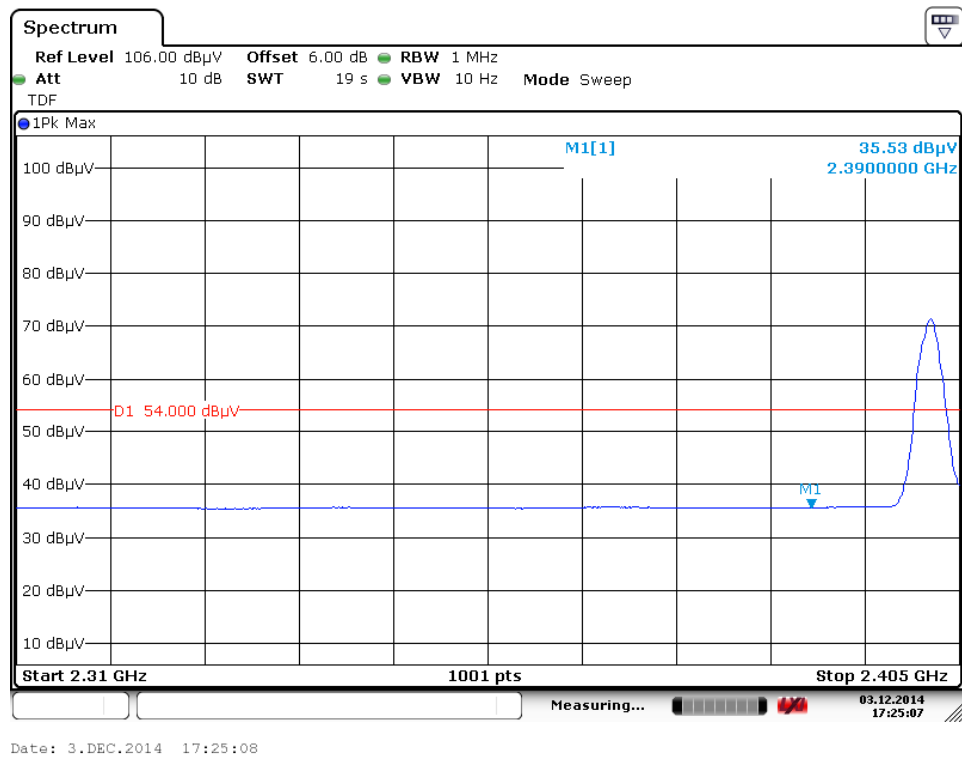
## Spurious Emissions, Band Edge, 2.35-2.5G

# Radiated Bandedge (8DPSK)

## Low Channel (Hor)

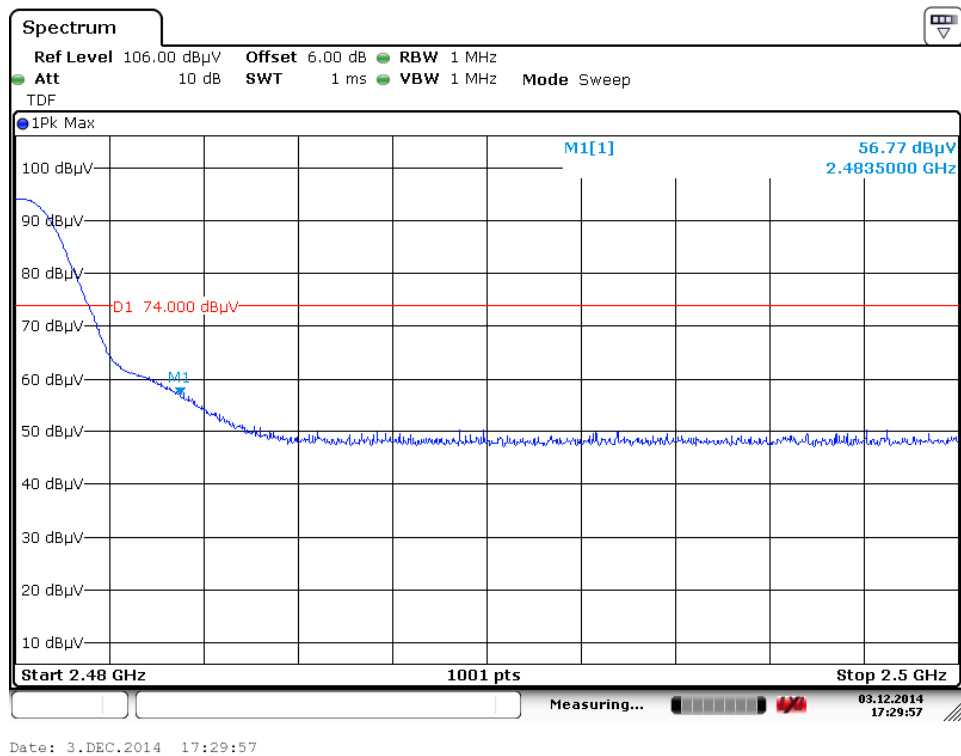
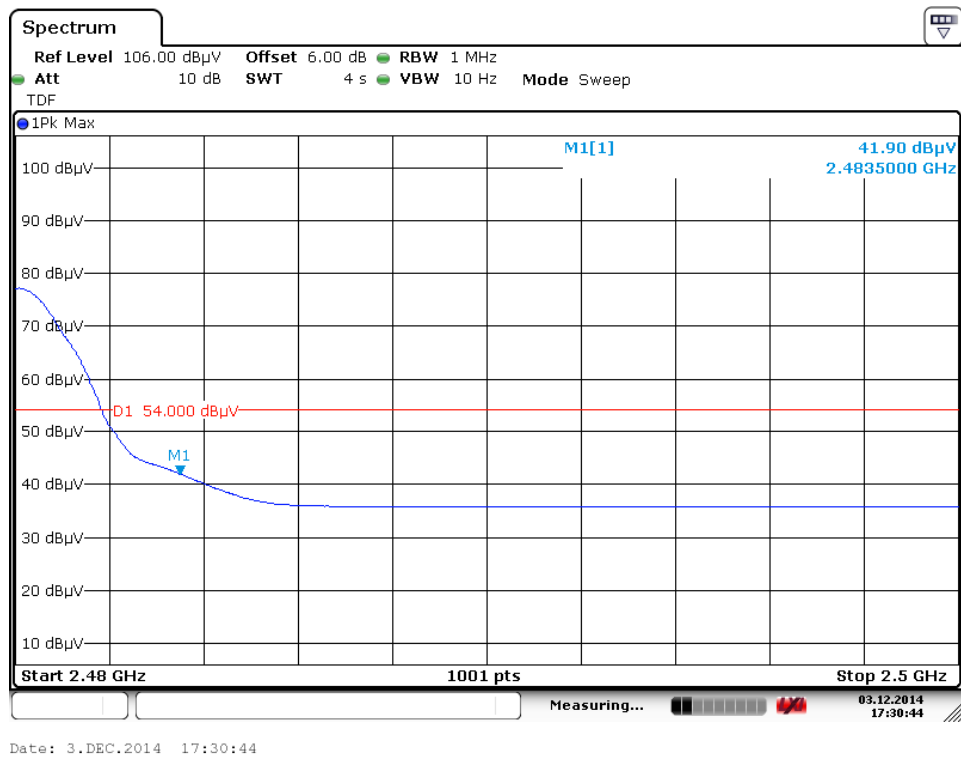


## Low Channel (Ver)



# Radiated Bandedge (8DPSK)

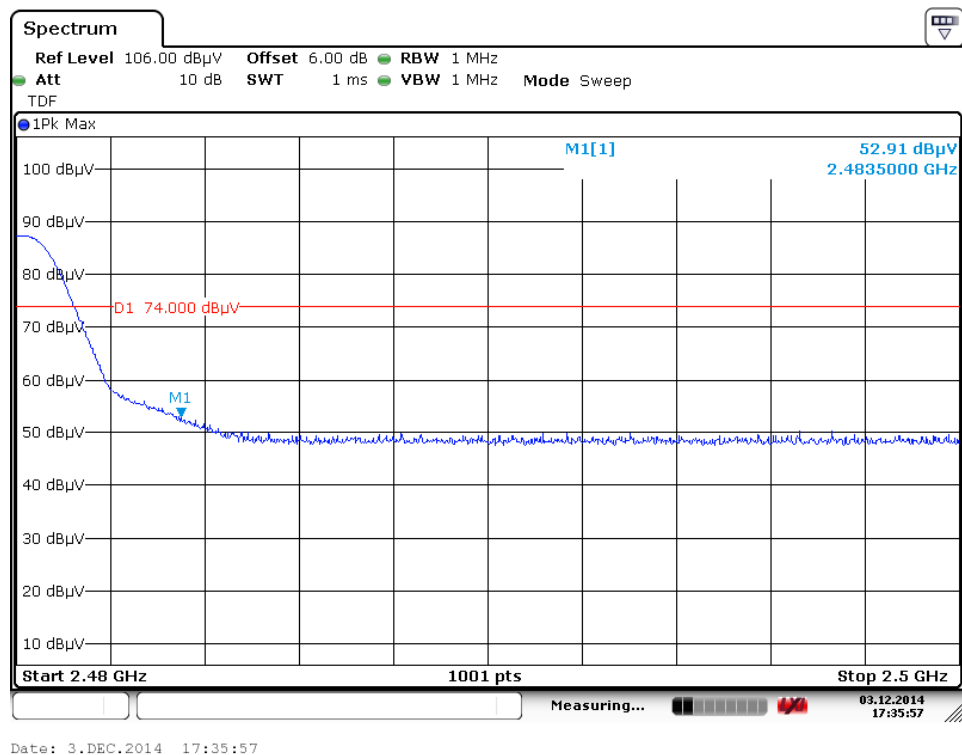
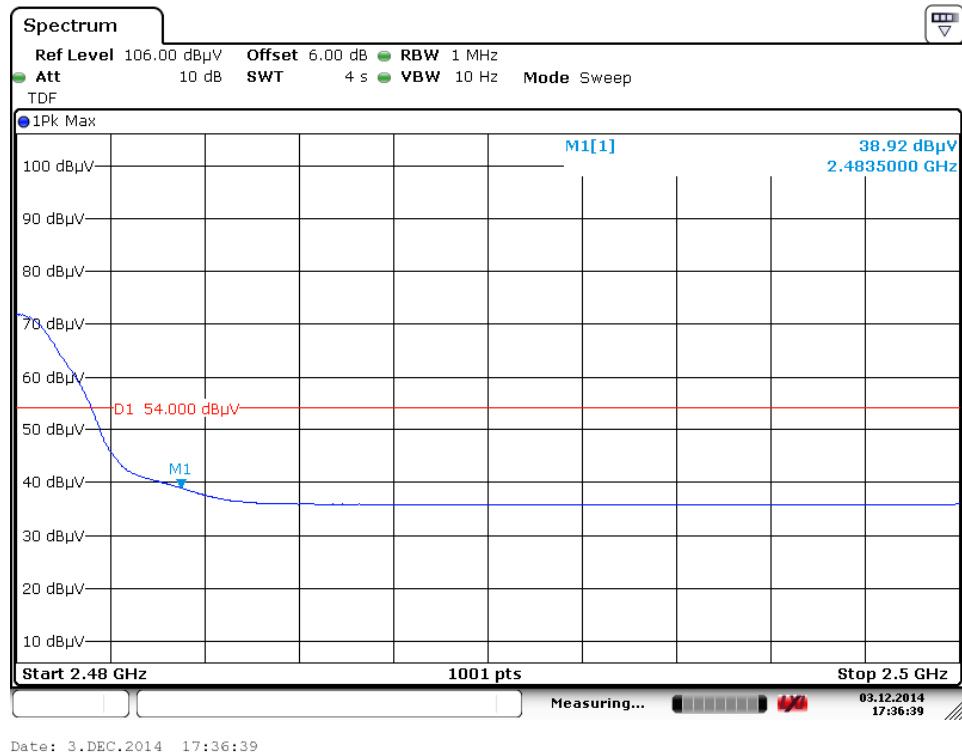
## High Channel (Hor)



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



## High Channel (Ver)



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

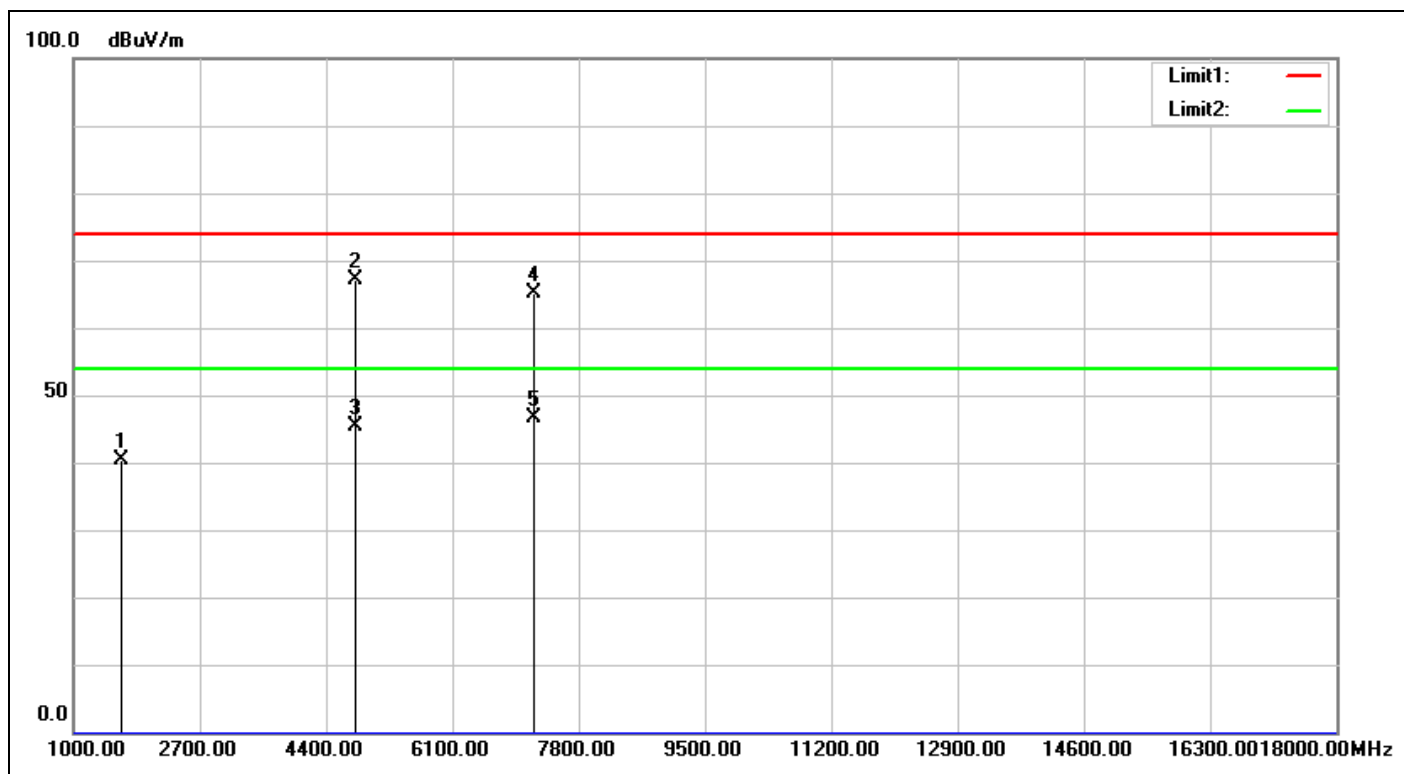
# Spurious Emissions, TX Mode, 1-18G



**TUV Taiwan**

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

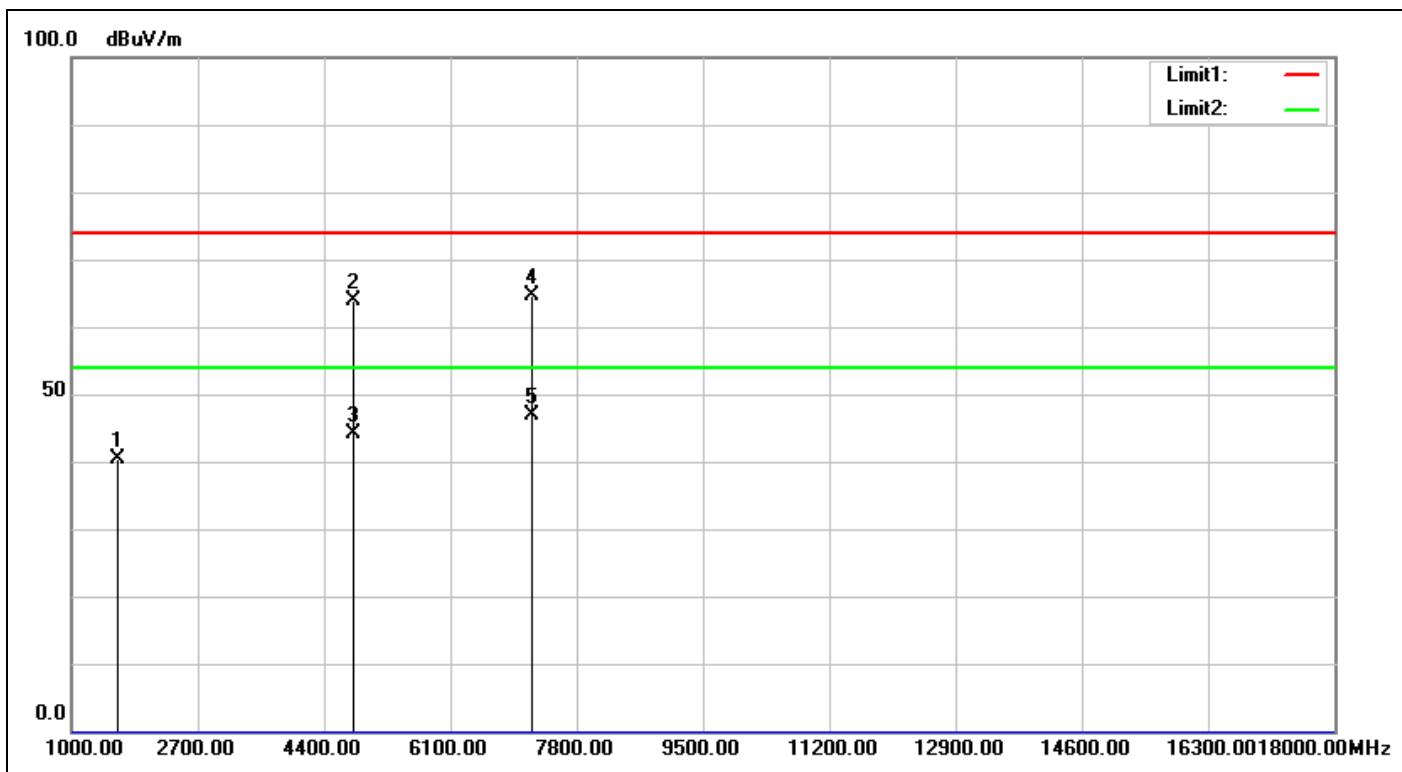
Tel:+886-2172-7000 fax:+886-2528-0018



Service No.:	114028636_FCC 15C_NCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2014/12/3 17:47:36
Applicant:	Zeroplus	Test Rating:	DC 5V
Product:	Super-Converter	Temp.(°C)/Hum.(%)	22(°C)/41%
Model No.:	ZPP004H	Test Engineer:	Freeman Wang
Test Mode:	TX 2402MHz 1DH5		
Remark:	X		
	Power level:15		

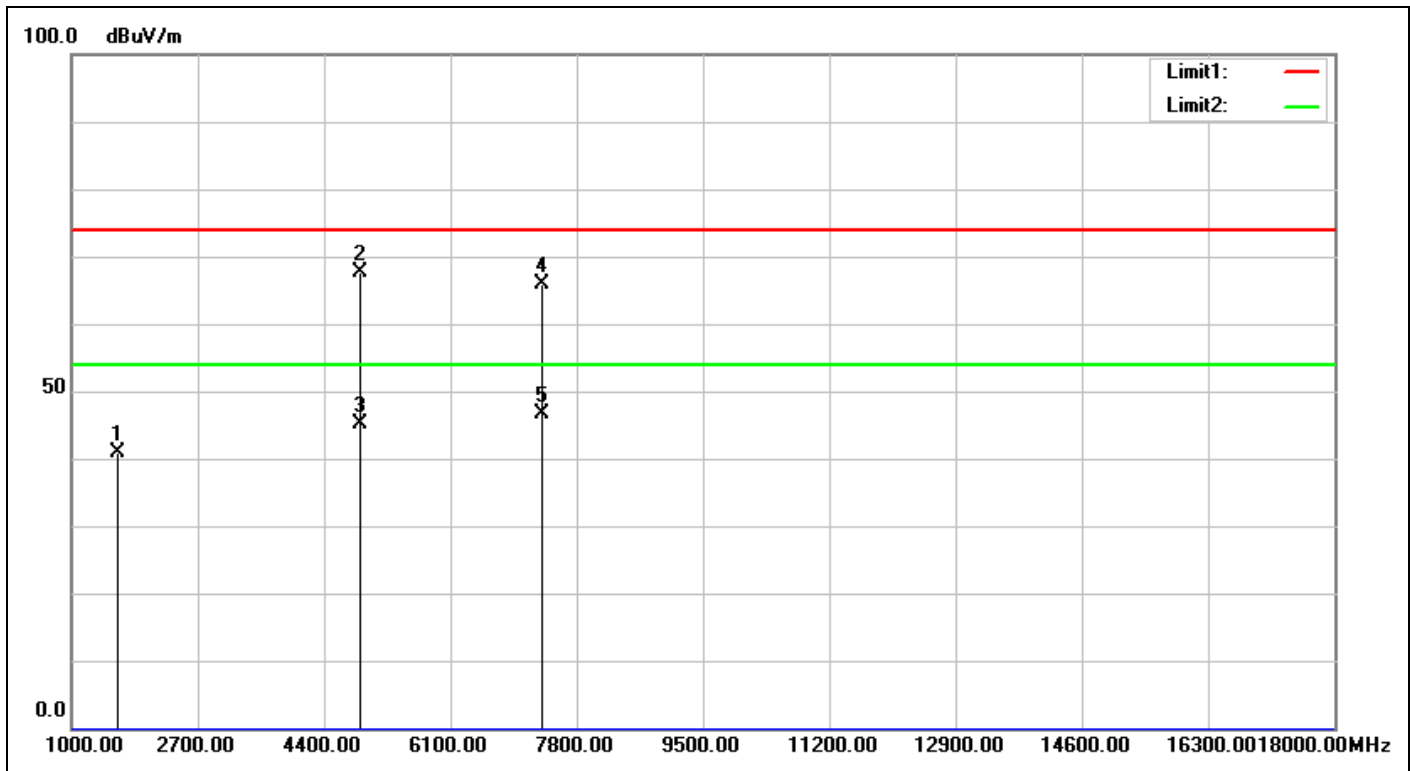
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1646.000	-9.89	50.24	40.35	74.00	-33.65	peak	100	247	
2	4791.000	-2.81	69.95	67.14	74.00	-6.86	peak	100	324	
3	4791.000	-2.81	48.15	45.34	54.00	-8.66	AVG	100	324	
4	7205.000	5.43	59.79	65.22	74.00	-8.78	peak	100	336	
5	7205.000	5.43	41.12	46.55	54.00	-7.45	AVG	100	336	

## Spurious Emissions, TX Mode, 1-18G



Service No.:	114028636_FCC 15C_NCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2014/12/3 17:48:39
Applicant:	Zeroplus	Test Rating:	DC 5V
Product:	Super-Converter	Temp.(°C)/Hum.(%)	22(°C)/41%
Model No.:	ZPP004H	Test Engineer:	Freeman Wang
Test Mode:	TX 2402MHz 1DH5		
Remark:	X		
	Power level:15		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1629.000	-9.99	50.37	40.38	74.00	-33.62	peak	100	14	
2	4791.000	-2.81	66.72	63.91	74.00	-10.09	peak	100	119	
3	4791.000	-2.81	47.01	44.20	54.00	-9.80	AVG	100	119	
4	7205.000	5.43	59.17	64.60	74.00	-9.40	peak	100	334	
5	7205.000	5.43	41.46	46.89	54.00	-7.11	AVG	100	334	



**Service No.:** 114028636\_FCC 15C\_NCC

**Test Distance:** 3m

**Test Standard:** FCC Above 1G PEAK

**Ant. Polarization:** Horizontal

**Test item:** Radiation Emission

**Test Time:** 2014/12/3 18:44:04

**Applicant:** Zeroplus

**Test Rating:** DC 5V

**Product:** Super-Converter

**Temp.(°C)/Hum.(%):** 22(°C)/41%

**Model No.:** ZPP004H

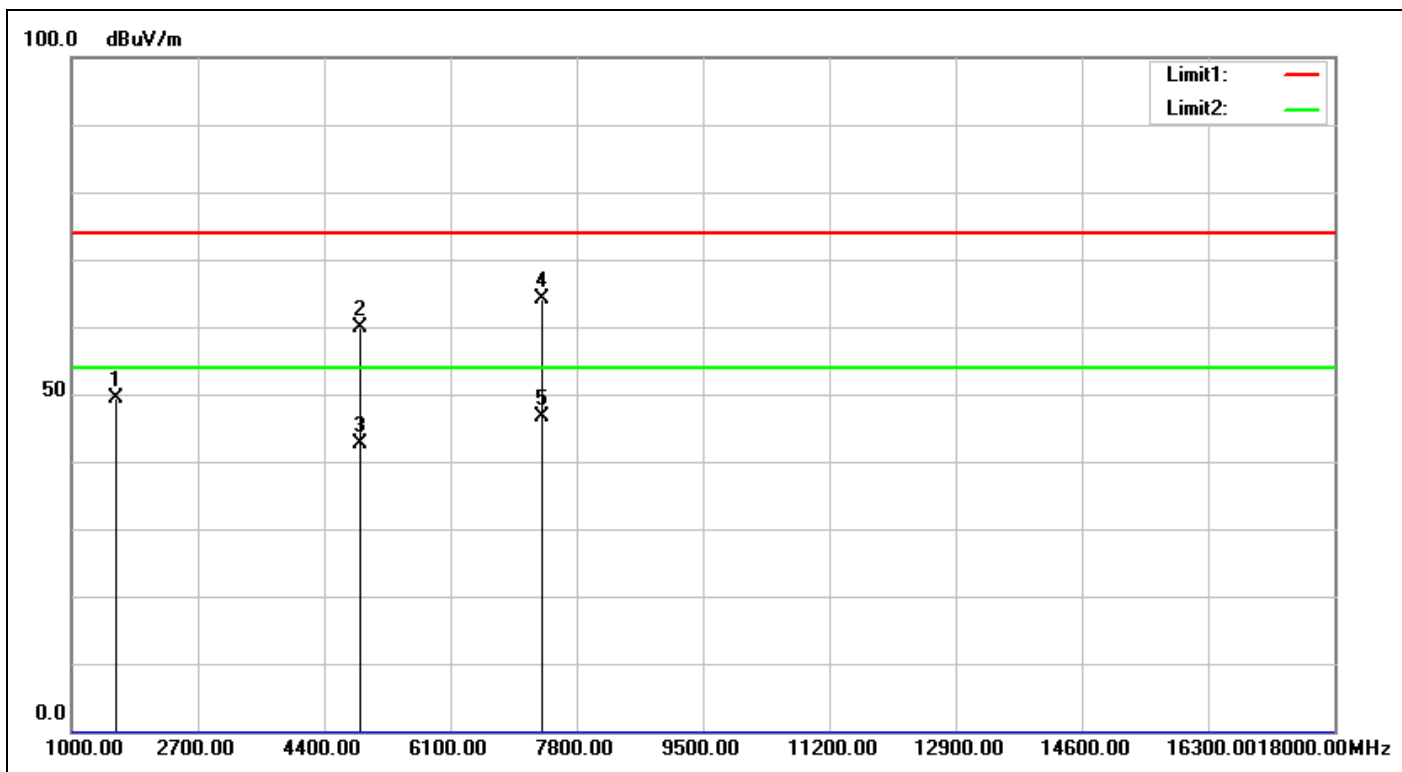
**Test Engineer:** Freeman Wang

**Test Mode:** TX 2441MHz 1DH5

**Remark:** X

Power level:15

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1612.000	-10.10	51.00	40.90	74.00	-33.10	peak	100	224	
2	4876.000	-2.58	70.27	67.69	74.00	-6.31	peak	100	129	
3	4876.000	-2.58	47.72	45.14	54.00	-8.86	AVG	100	129	
4	7324.000	5.76	60.03	65.79	74.00	-8.21	peak	100	334	
5	7324.000	5.76	40.77	46.53	54.00	-7.47	AVG	100	334	



**Service No.:** 114028636\_FCC 15C\_NCC

**Test Distance:** 3m

**Test Standard:** FCC Above 1G PEAK

**Ant. Polarization:** Vertical

**Test item:** Radiation Emission

**Test Time:** 2014/12/3 18:45:06

**Applicant:** Zeroplus

**Test Rating:** DC 5V

**Product:** Super-Converter

**Temp.(°C)/Hum.(%):** 22(°C)/41%

**Model No.:** ZPP004H

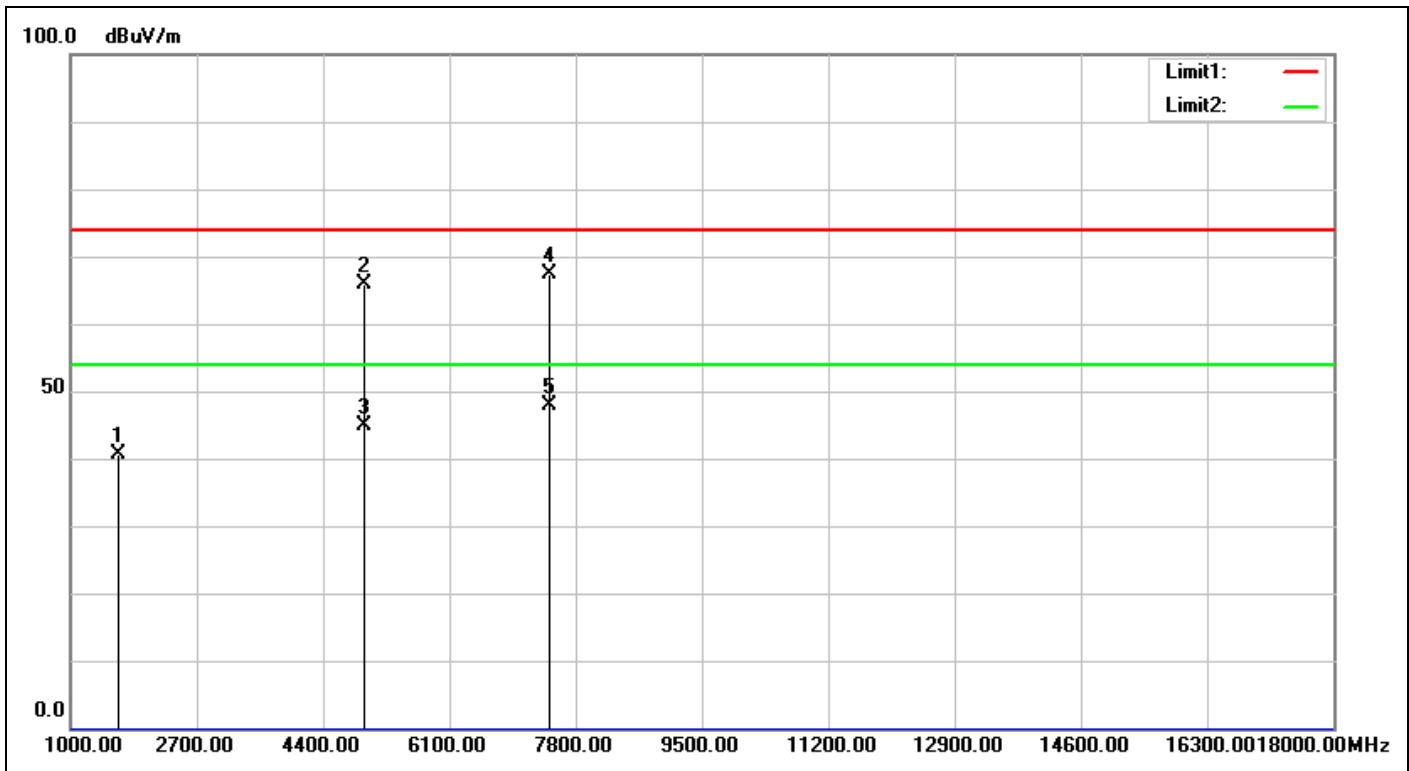
**Test Engineer:** Freeman Wang

**Test Mode:** TX 2441MHz 1DH5

**Remark:** X

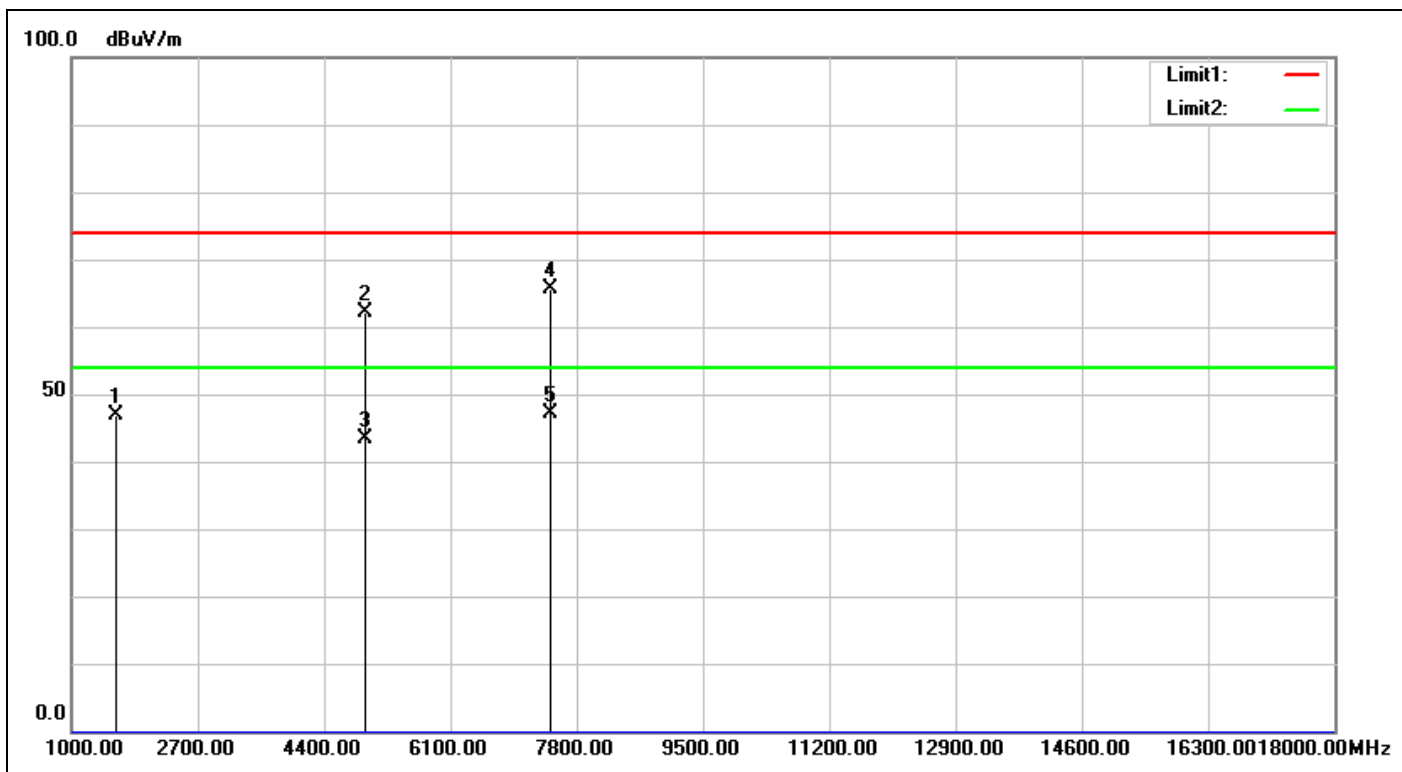
Power level:15

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1595.000	-10.21	59.62	49.41	74.00	-24.59	peak	100	358	
2	4876.000	-2.58	62.46	59.88	74.00	-14.12	peak	100	205	
3	4876.000	-2.58	45.16	42.58	54.00	-11.42	AVG	100	205	
4	7324.000	5.76	58.27	64.03	74.00	-9.97	peak	100	211	
5	7324.000	5.76	40.75	46.51	54.00	-7.49	AVG	100	211	



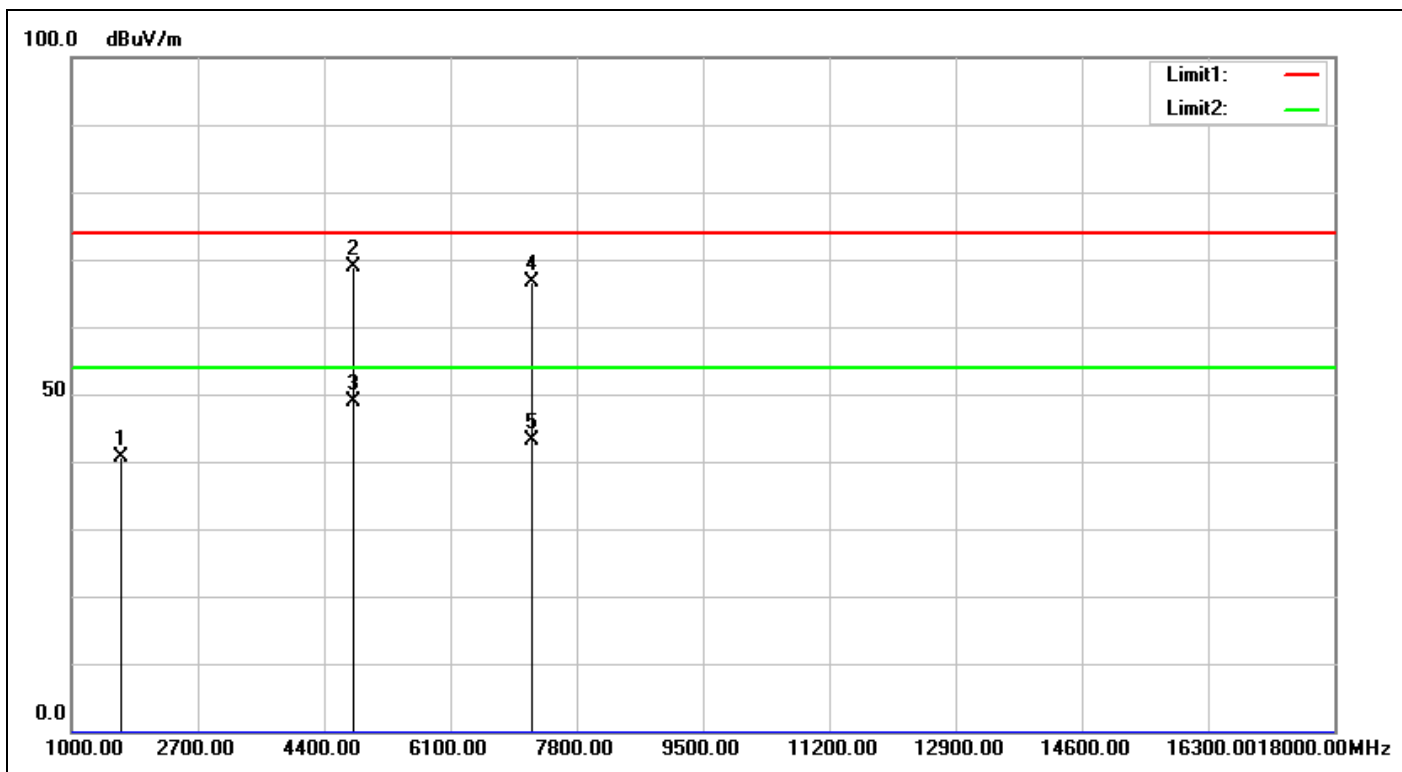
<b>Service No.:</b>	<b>114028636_FCC 15C_NCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2014/12/3 18:52:13</b>
<b>Applicant:</b>	<b>Zeroplus</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Super-Converter</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>22(°C)/41 %</b>
<b>Model No.:</b>	<b>ZPP004H</b>	<b>Test Engineer:</b>	<b>Freeman Wang</b>
<b>Test Mode:</b>	<b>TX 2480MHz 1DH5</b>		
<b>Remark:</b>	<b>X</b>		
	<b>Power level:15</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth ( ° )	Remark
1	1646.000	-9.89	50.59	40.70	74.00	-33.30	peak	100	172	
2	4961.000	-2.37	68.29	65.92	74.00	-8.08	peak	100	122	
3	4961.000	-2.37	47.30	44.93	54.00	-9.07	AVG	100	122	
4	7443.000	6.10	61.40	67.50	74.00	-6.50	peak	100	330	
5	7443.000	6.10	41.67	47.77	54.00	-6.23	AVG	100	330	



Service No.:	114028636_FCC 15C_NCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2014/12/3 18:53:16
Applicant:	Zeroplus	Test Rating:	DC 5V
Product:	Super-Converter	Temp.(°C)/Hum.(%)	22(°C)/41%
Model No.:	ZPP004H	Test Engineer:	Freeman Wang
Test Mode:	TX 2480MHz 1DH5		
Remark:	X		
	Power level:15		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1595.000	-10.21	57.16	46.95	74.00	-27.05	peak	100	1	
2	4961.000	-2.37	64.42	62.05	74.00	-11.95	peak	100	122	
3	4961.000	-2.37	45.74	43.37	54.00	-10.63	AVG	100	122	
4	7443.000	6.10	59.55	65.65	74.00	-8.35	peak	100	359	
5	7443.000	6.10	41.13	47.23	54.00	-6.77	AVG	100	359	



**Service No.:** 114028636\_FCC 15C\_NCC

**Test Distance:** 3m

**Test Standard:** FCC Above 1G PEAK

**Ant. Polarization:** Horizontal

**Test item:** Radiation Emission

**Test Time:** 2014/12/3 19:00:13

**Applicant:** Zeroplus

**Test Rating:** DC 5V

**Product:** Super-Converter

**Temp.(°C)/Hum.(%):** 22(°C)/41%

**Model No.:** ZPP004H

**Test Engineer:** Freeman Wang

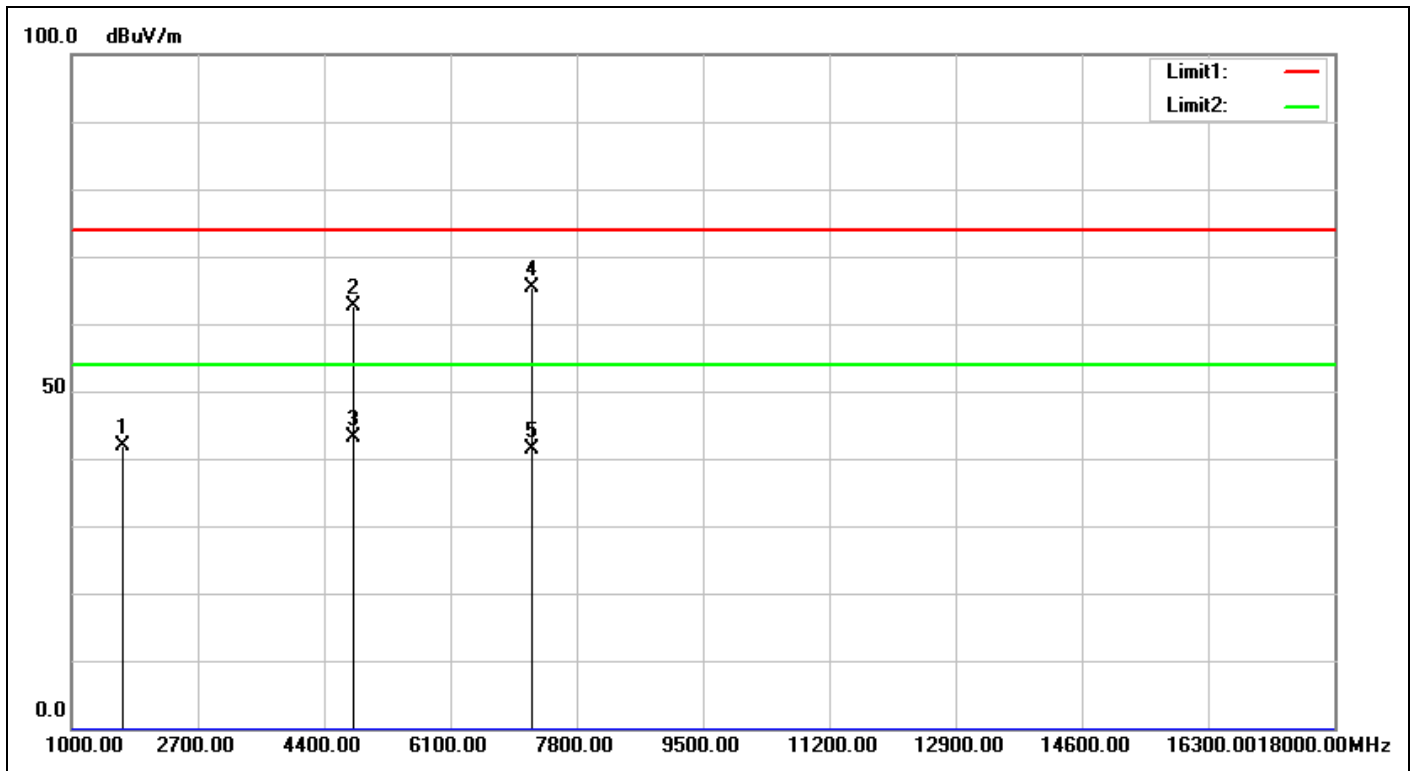
**Test Mode:** TX 2402MHz 3DH5

**Remark:** X

Power level:14

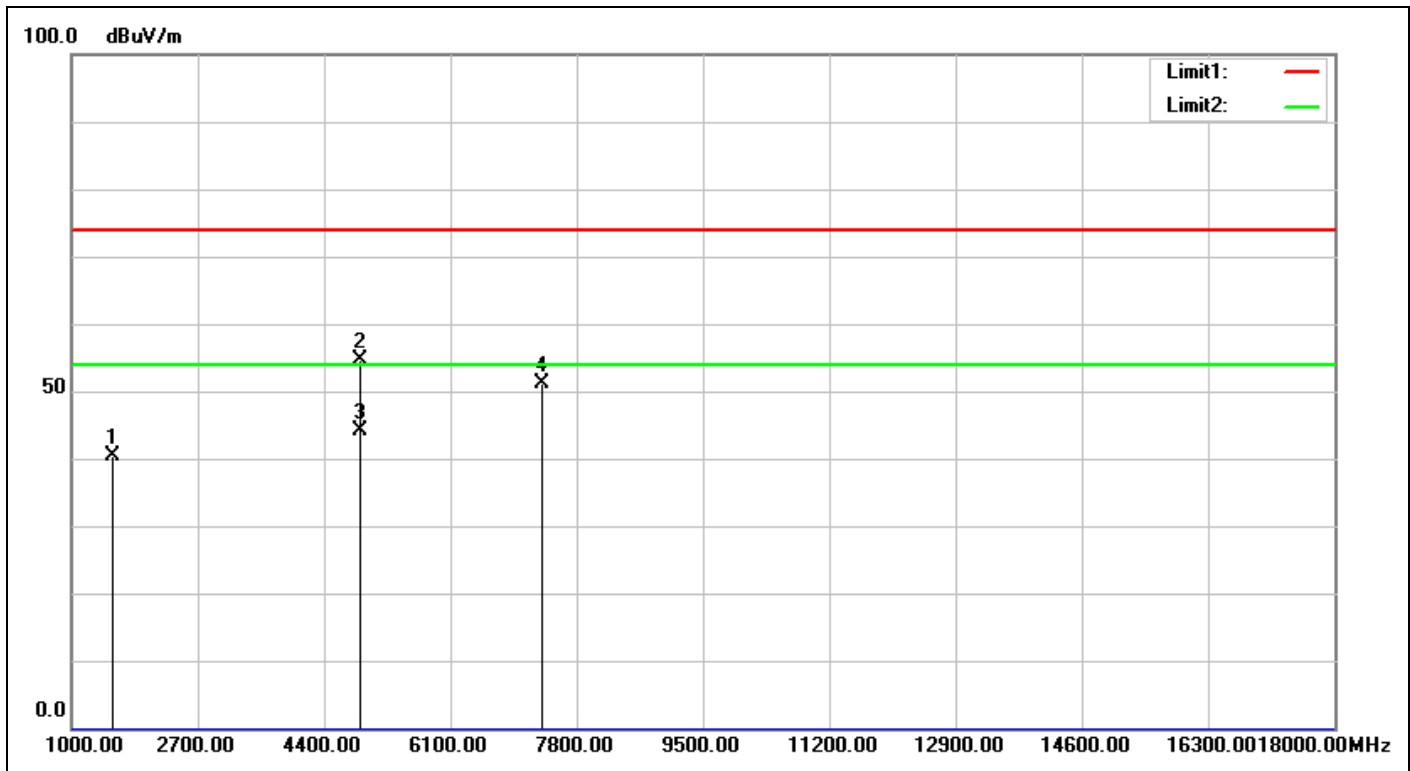
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1663.000	-9.78	50.45	40.67	74.00	-33.33	peak	100	0	
2	4791.000	-2.81	71.72	68.91	74.00	-5.09	peak	100	128	
3	4791.000	-2.81	51.75	48.94	54.00	-5.06	AVG	100	128	
4	7205.000	5.43	61.13	66.56	74.00	-7.44	peak	100	333	
5	7205.000	5.43	37.64	43.07	54.00	-10.93	AVG	100	333	





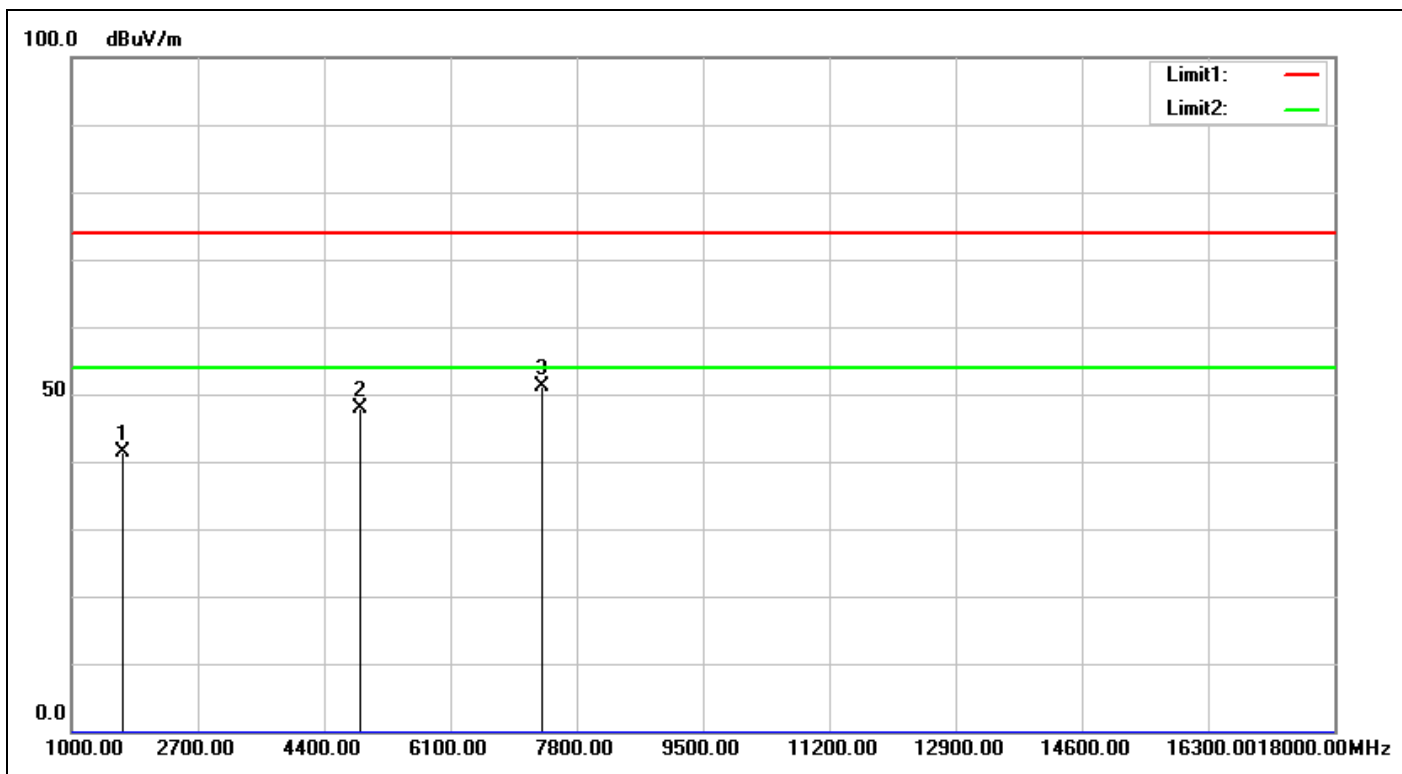
<b>Service No.:</b>	<b>114028636_FCC 15C_NCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2014/12/3 19:01:16</b>
<b>Applicant:</b>	<b>Zeroplus</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Super-Converter</b>	<b>Temp.(°C)/Hum.(%)</b>	<b>22(°C)/41 %</b>
<b>Model No.:</b>	<b>ZPP004H</b>	<b>Test Engineer:</b>	<b>Freeman Wang</b>
<b>Test Mode:</b>	<b>TX 2402MHz 3DH5</b>		
<b>Remark:</b>	<b>X</b>		
	<b>Power level:14</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth ( ° )	Remark
1	1680.000	-9.67	51.55	41.88	74.00	-32.12	peak	100	351	
2	4791.000	-2.81	65.52	62.71	74.00	-11.29	peak	100	121	
3	4791.000	-2.81	45.85	43.04	54.00	-10.96	AVG	100	121	
4	7205.000	5.43	59.98	65.41	74.00	-8.59	peak	100	331	
5	7205.000	5.43	36.07	41.50	54.00	-12.50	AVG	100	331	



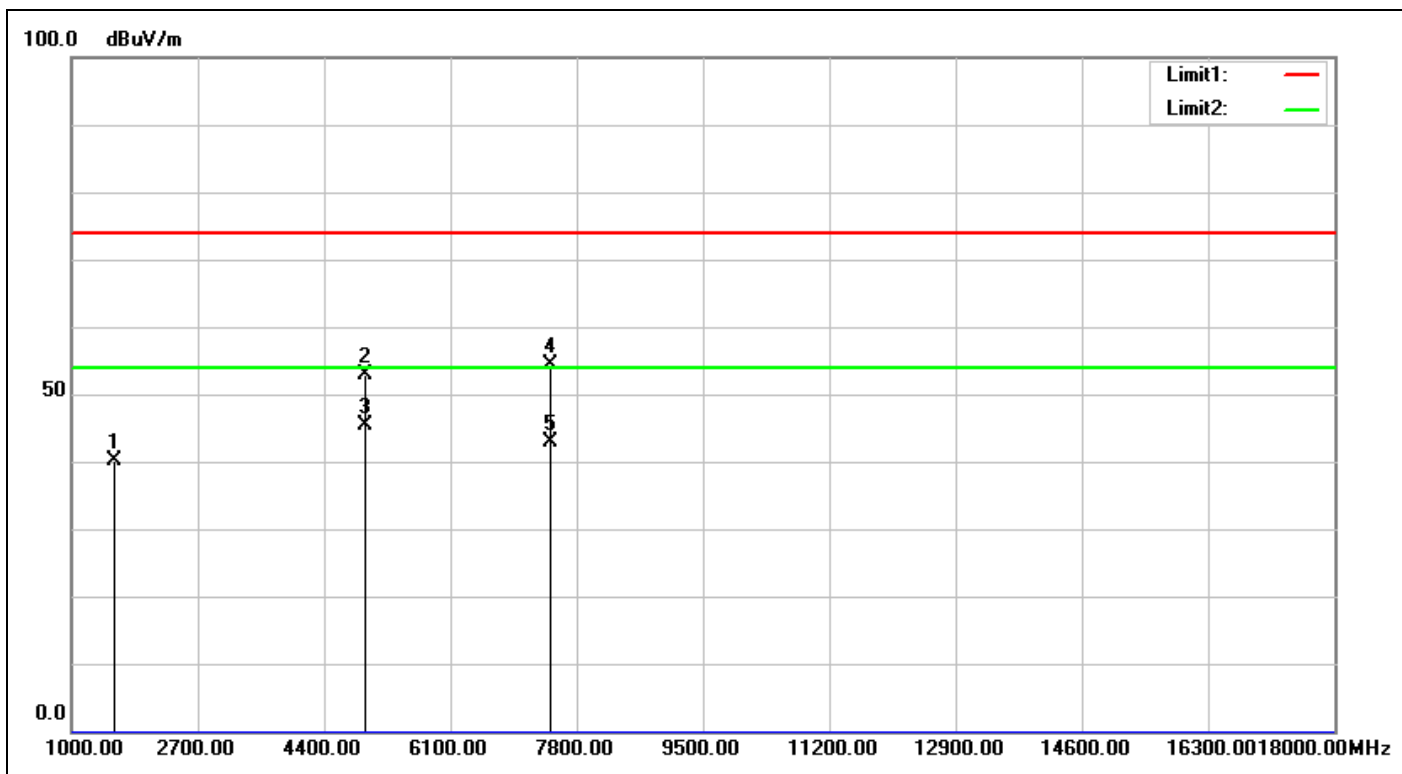
<b>Service No.:</b>	<b>114028636_FCC 15C_NCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2014/12/3 19:10:30</b>
<b>Applicant:</b>	<b>Zeroplus</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Super-Converter</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>22(°C)/41%</b>
<b>Model No.:</b>	<b>ZPP004H</b>	<b>Test Engineer:</b>	<b>Freeman Wang</b>
<b>Test Mode:</b>	<b>TX 2441MHz 3DH5</b>		
<b>Remark:</b>	<b>X</b>		
	<b>Power level:14</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1561.000	-10.43	50.80	40.37	74.00	-33.63	peak	100	327	
2	4876.000	-2.58	57.11	54.53	74.00	-19.47	peak	100	186	
3	4876.000	-2.58	46.79	44.21	54.00	-9.79	AVG		0	
4	7323.000	5.76	45.40	51.16	74.00	-22.84	peak		0	



Service No.:	114028636_FCC 15C_NCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2014/12/3 19:11:33
Applicant:	Zeroplus	Test Rating:	DC 5V
Product:	Super-Converter	Temp.(°C)/Hum.(%)	22(°C)/41%
Model No.:	ZPP004H	Test Engineer:	Freeman Wang
Test Mode:	TX 2441MHz 3DH5		
Remark:	X		
	Power level:14		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1680.000	-9.67	50.94	41.27	74.00	-32.73	peak	100	97	
2	4882.000	-2.58	50.42	47.84	74.00	-26.16	peak		0	
3	7323.000	5.76	45.36	51.12	74.00	-22.88	peak		0	



**Service No.:** 114028636\_FCC 15C\_NCC

**Test Distance:** 3m

**Test Standard:** FCC Above 1G PEAK

**Ant. Polarization:** Horizontal

**Test item:** Radiation Emission

**Test Time:** 2014/12/3 19:23:43

**Applicant:** Zeroplus

**Test Rating:** DC 5V

**Product:** Super-Converter

**Temp.(°C)/Hum.(%):** 22(°C)/41%

**Model No.:** ZPP004H

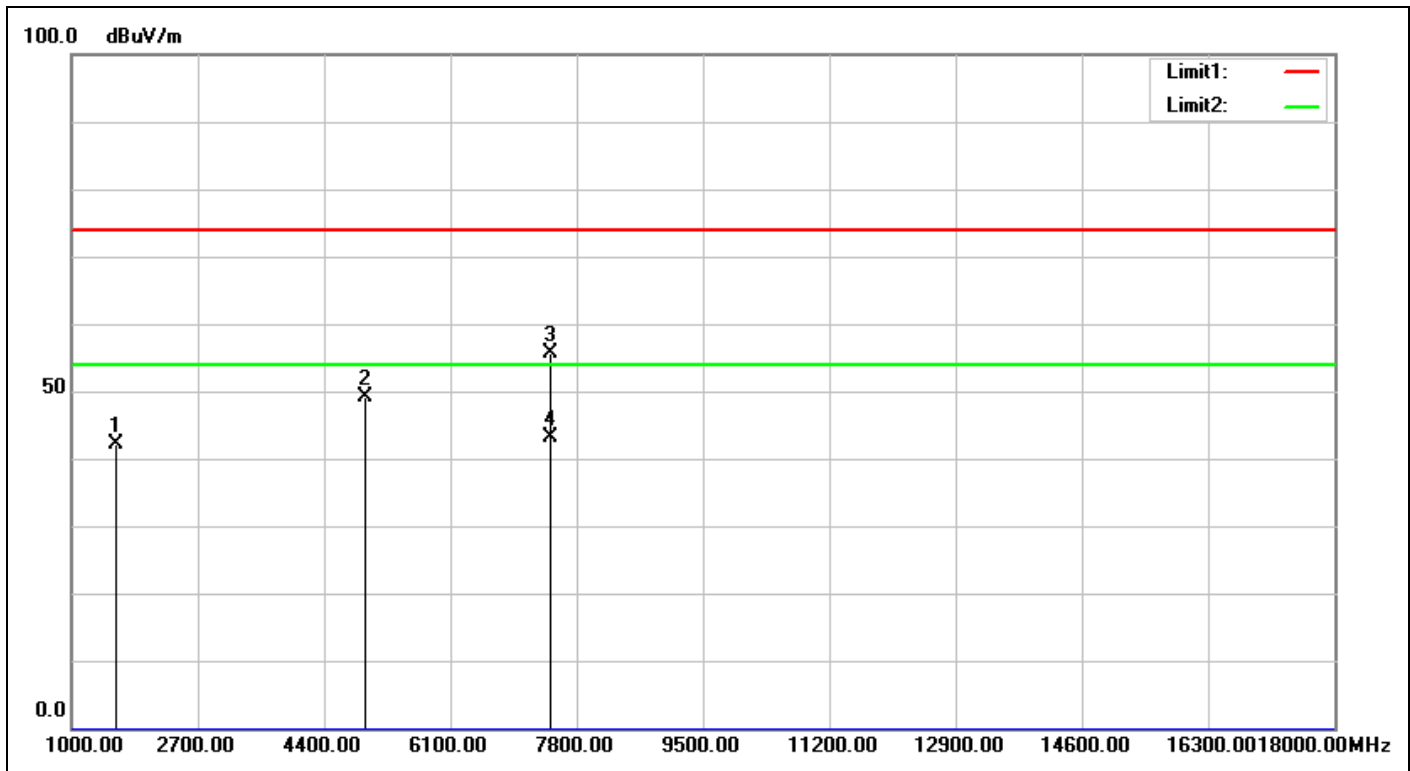
**Test Engineer:** Freeman Wang

**Test Mode:** TX 2480MHz 3DH5

**Remark:** X

Power level:14

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1578.000	-10.32	50.41	40.09	74.00	-33.91	peak	100	111	
2	4961.000	-2.37	55.35	52.98	74.00	-21.02	peak	100	98	
3	4961.000	-2.37	47.71	45.34	54.00	-8.66	AVG	100	98	
4	7443.000	6.10	48.39	54.49	74.00	-19.51	peak	100	266	
5	7443.000	6.10	36.68	42.78	54.00	-11.22	AVG	100	266	



**Service No.:** 114028636\_FCC 15C\_NCC

**Test Distance:** 3m

**Test Standard:** FCC Above 1G PEAK

**Ant. Polarization:** Vertical

**Test item:** Radiation Emission

**Test Time:** 2014/12/3 19:24:46

**Applicant:** Zeroplus

**Test Rating:** DC 5V

**Product:** Super-Converter

**Temp.(°C)/Hum.(%):** 22(°C)/41%

**Model No.:** ZPP004H

**Test Engineer:** Freeman Wang

**Test Mode:** TX 2480MHz 3DH5

**Remark:** X

Power level:14

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1595.000	-10.21	52.39	42.18	74.00	-31.82	peak	100	4	
2	4961.000	-2.37	51.57	49.20	74.00	-24.80	peak	100	316	
3	7443.000	6.10	49.51	55.61	74.00	-18.39	peak	100	350	
4	7443.000	6.10	37.14	43.24	54.00	-10.76	AVG	100	350	

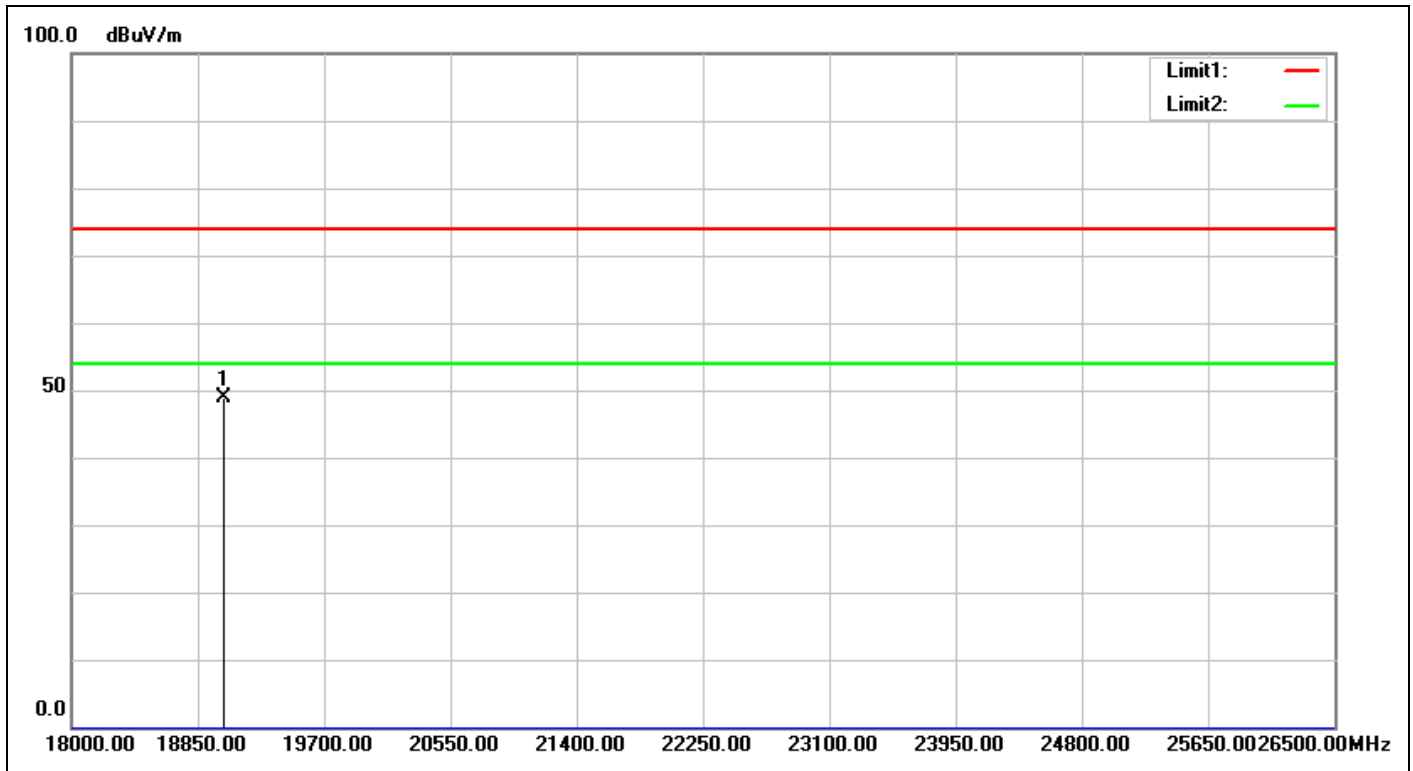
## Spurious Emissions, TX Mode, 18-26G



**TUV Taiwan**

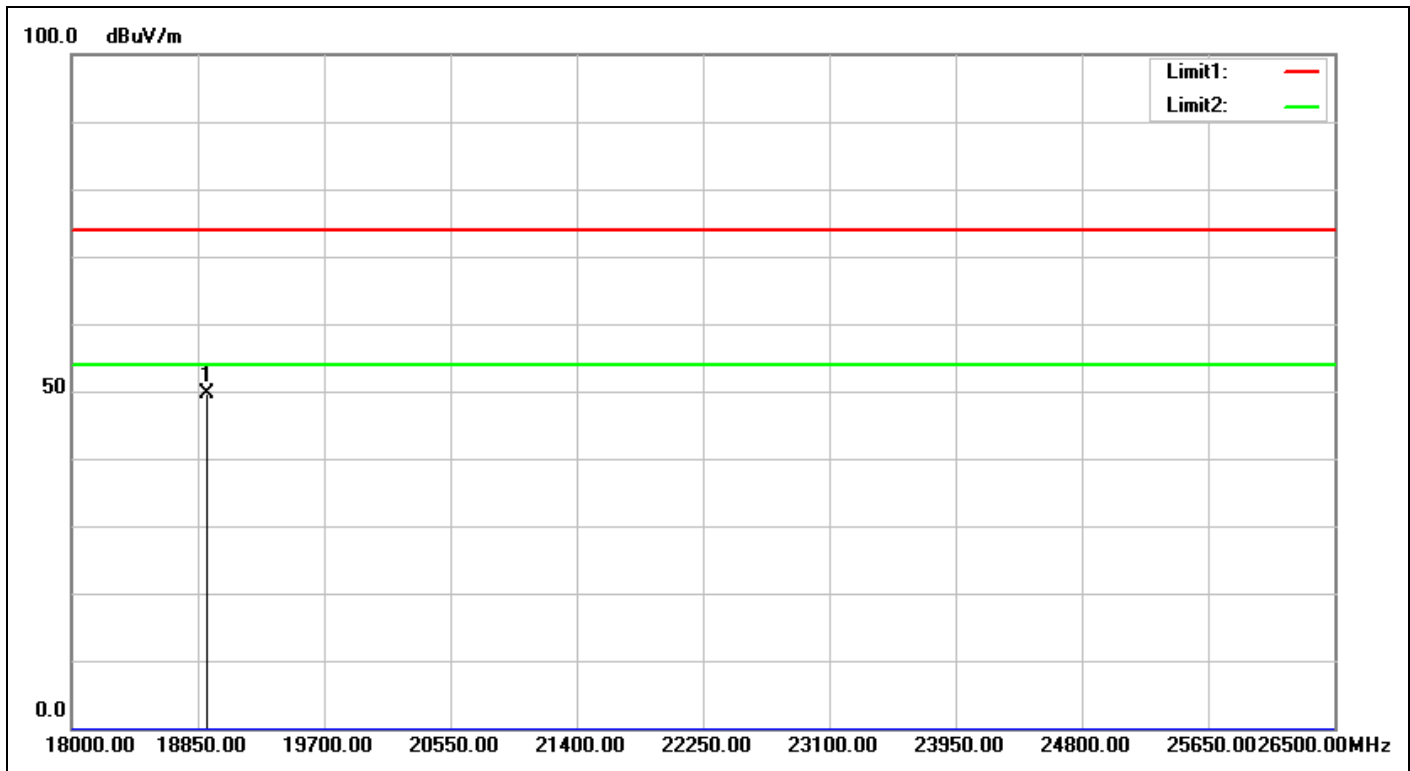
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



Service No.:	114028636_FCC 15C_NCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2014/12/3 20:22:57
Applicant:	Zeroplus	Test Rating:	DC 5V
Product:	Super-Converter	Temp.(°C)/Hum.(%):	22(°C)/41 %
Model No.:	ZPP004H	Test Engineer:	Freeman Wang
Test Mode:	TX 2402MHz 1DH5		
Remark:	X		
	Power level:15		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	19028.500	29.92	18.86	48.78	74.00	-25.22	peak		0	



**Service No.:** 114028636\_FCC 15C\_NCC

**Test Distance:** 3m

**Test Standard:** FCC Above 1G PEAK

**Ant. Polarization:** Vertical

**Test item:** Radiation Emission

**Test Time:** 2014/12/3 20:23:28

**Applicant:** Zeroplus

**Test Rating:** DC 5V

**Product:** Super-Converter

**Temp.(°C)/Hum.(%):** 22(°C)/41 %

**Model No.:** ZPP004H

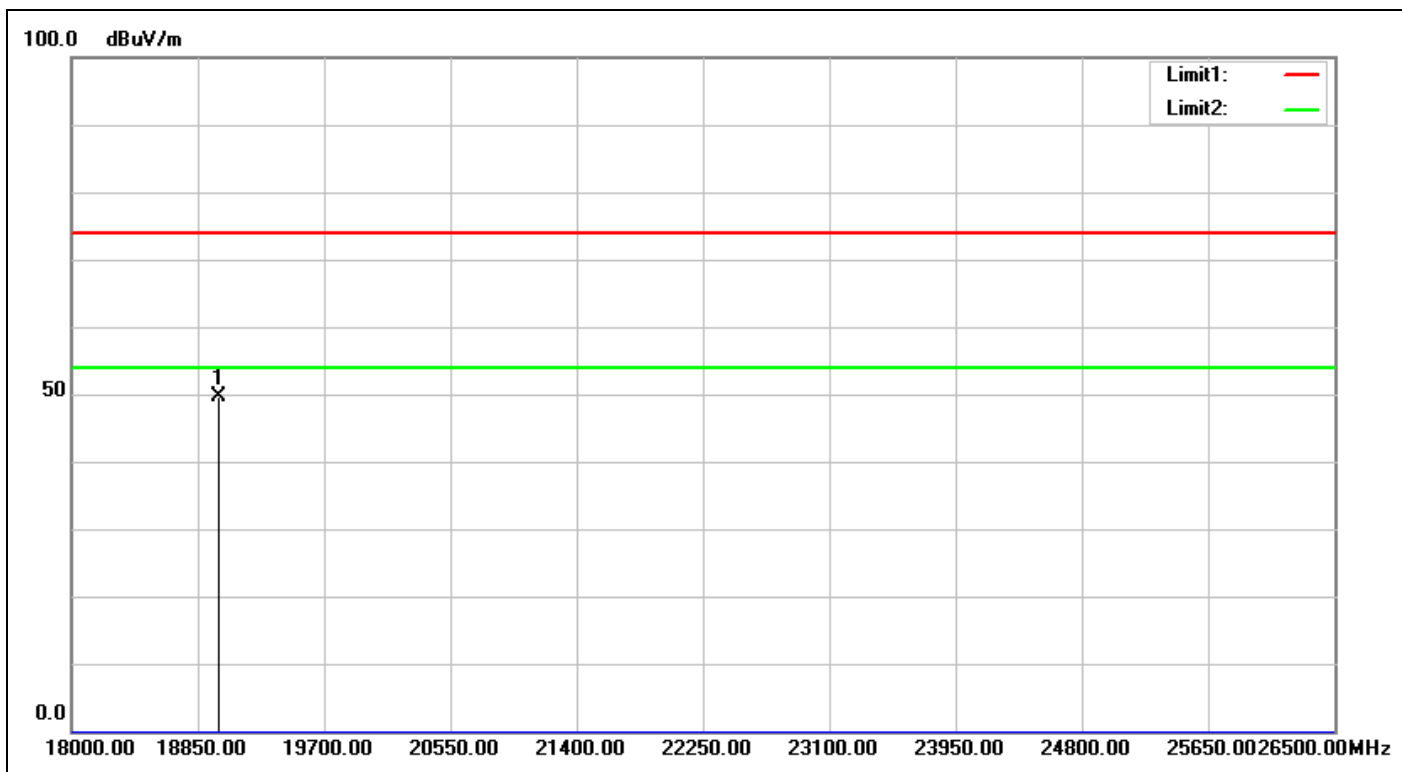
**Test Engineer:** Freeman Wang

**Test Mode:** TX 2402MHz 1DH5

**Remark:** X

Power level:15

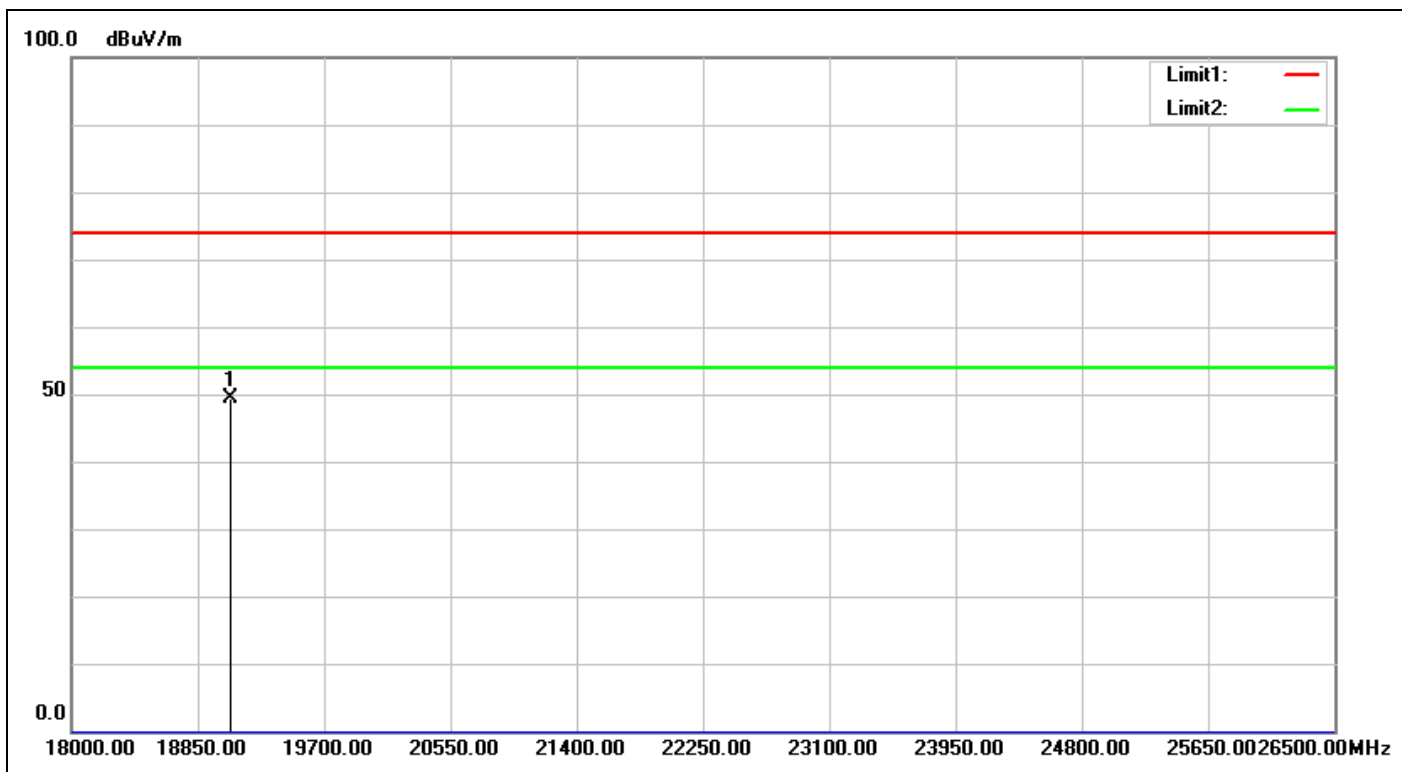
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth ( ° )	Remark
1	18909.500	29.70	19.97	49.67	74.00	-24.33	peak		0	



Service No.:	114028636_FCC 15C_NCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2014/12/3 20:23:48
Applicant:	Zeroplus	Test Rating:	DC 5V
Product:	Super-Converter	Temp.(°C)/Hum.(%):	22(°C)/41 %
Model No.:	ZPP004H	Test Engineer:	Freeman Wang
Test Mode:	TX 2441MHz 1DH5		
Remark:	X		
	Power level:15		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth ( ° )	Remark
1	18994.500	29.96	19.68	49.64	74.00	-24.36	peak		0	





**Service No.:** 114028636\_FCC 15C\_NCC

**Test Distance:** 3m

**Test Standard:** FCC Above 1G PEAK

**Ant. Polarization:** Vertical

**Test item:** Radiation Emission

**Test Time:** 2014/12/3 20:24:03

**Applicant:** Zeroplus

**Test Rating:** DC 5V

**Product:** Super-Converter

**Temp.(°C)/Hum.(%):** 22(°C)/41 %

**Model No.:** ZPP004H

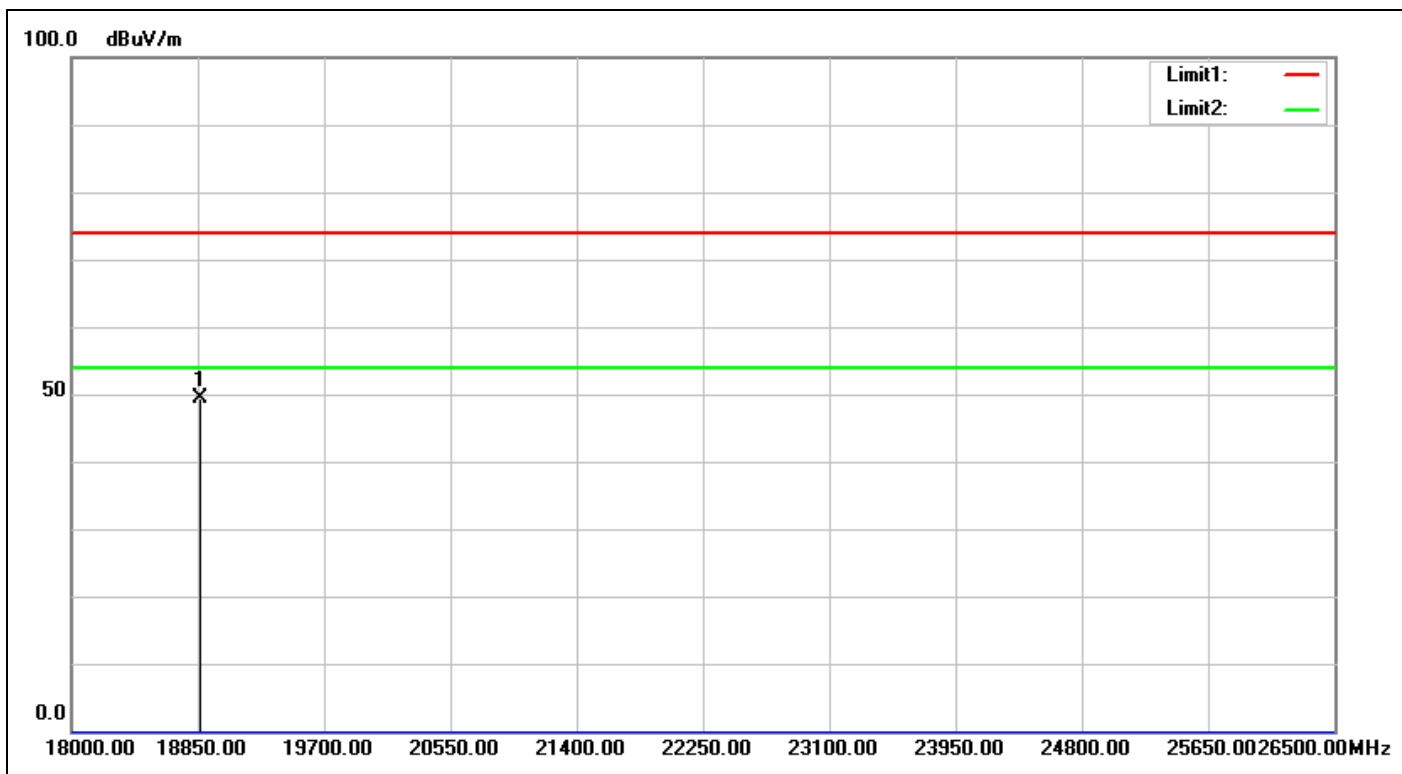
**Test Engineer:** Freeman Wang

**Test Mode:** TX 2441MHz 1DH5

**Remark:** X

Power level:15

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth ( ° )	Remark
1	19071.000	29.82	19.50	49.32	74.00	-24.68	peak		0	



**Service No.:** 114028636\_FCC 15C\_NCC

**Test Distance:** 3m

**Test Standard:** FCC Above 1G PEAK

**Ant. Polarization:** Horizontal

**Test item:** Radiation Emission

**Test Time:** 2014/12/3 20:24:27

**Applicant:** Zeroplus

**Test Rating:** DC 5V

**Product:** Super-Converter

**Temp.(°C)/Hum.(%):** 22(°C)/41 %

**Model No.:** ZPP004H

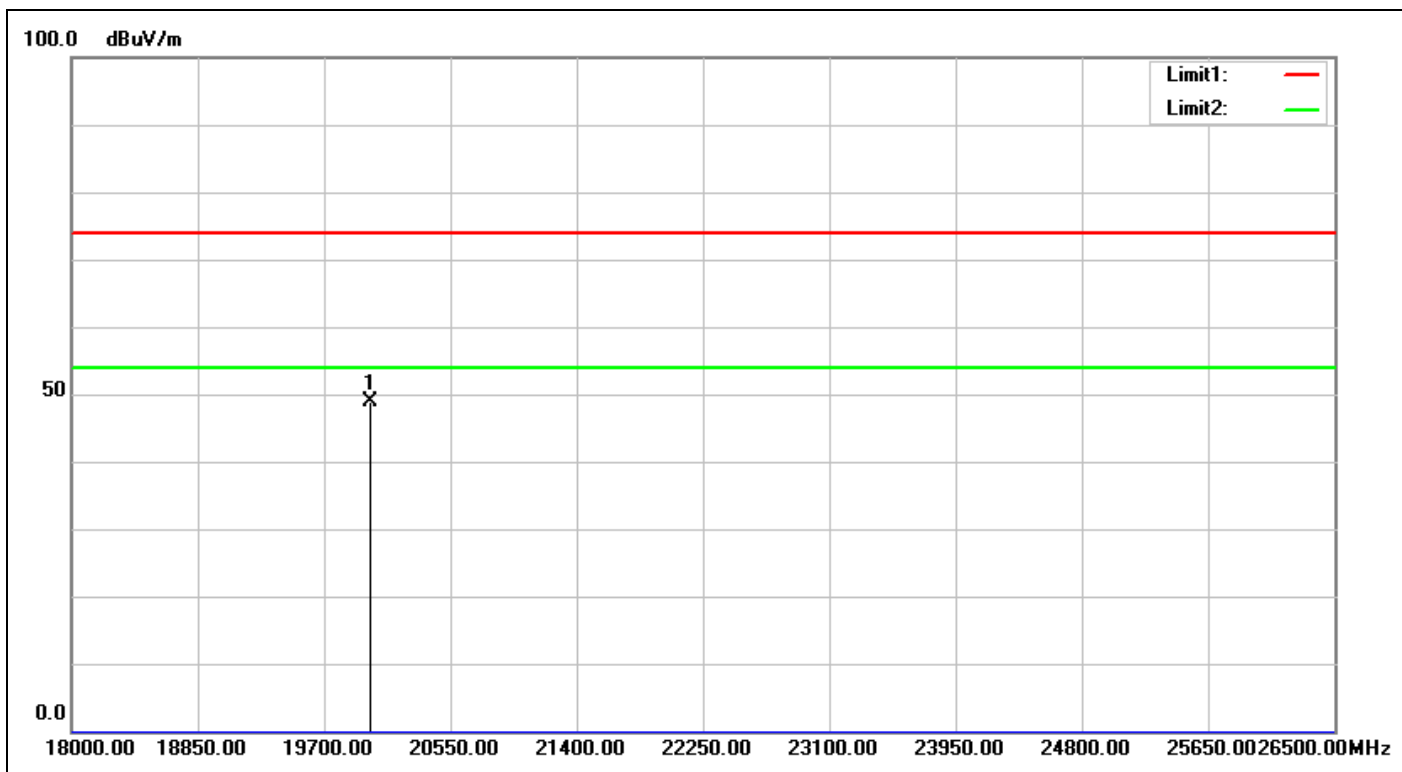
**Test Engineer:** Freeman Wang

**Test Mode:** TX 2480MHz 1DH5

**Remark:** X

Power level:15

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth ( ° )	Remark
1	18867.000	29.57	19.87	49.44	74.00	-24.56	peak		0	



**Service No.:** 114028636\_FCC 15C\_NCC

**Test Distance:** 3m

**Test Standard:** FCC Above 1G PEAK

**Ant. Polarization:** Vertical

**Test item:** Radiation Emission

**Test Time:** 2014/12/3 20:24:45

**Applicant:** Zeroplus

**Test Rating:** DC 5V

**Product:** Super-Converter

**Temp.(°C)/Hum.(%):** 22(°C)/41 %

**Model No.:** ZPP004H

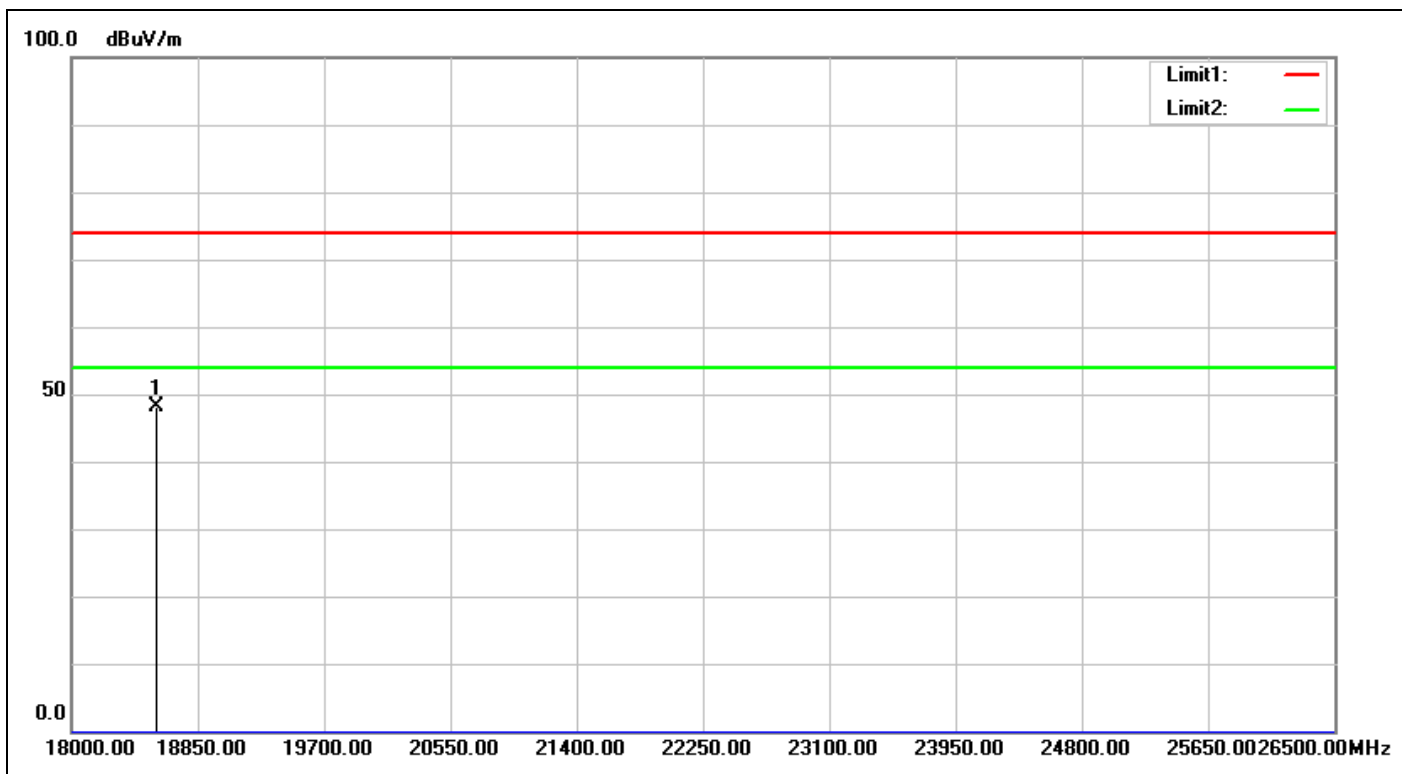
**Test Engineer:** Freeman Wang

**Test Mode:** TX 2480MHz 1DH5

**Remark:** X

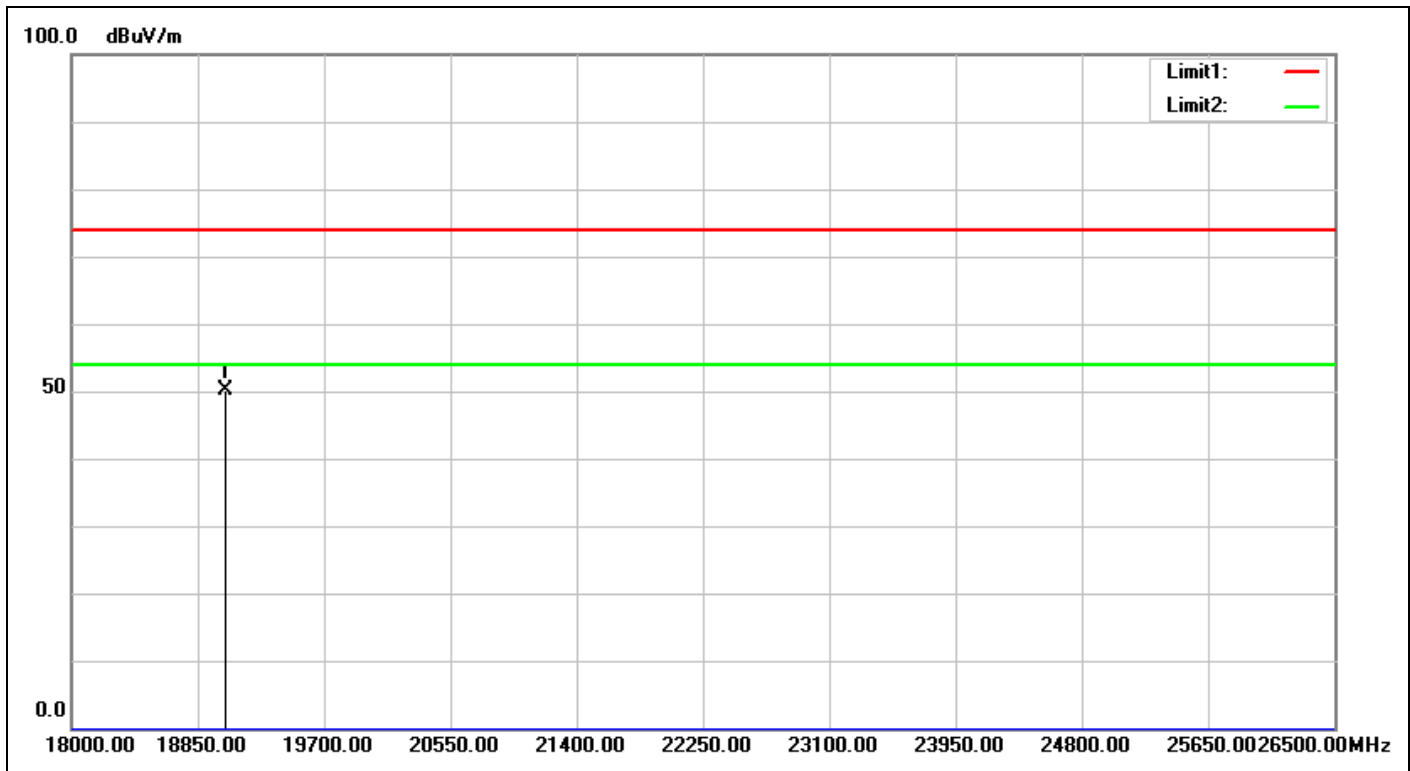
Power level:15

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth ( ° )	Remark
1	20006.000	29.32	19.54	48.86	74.00	-25.14	peak		0	



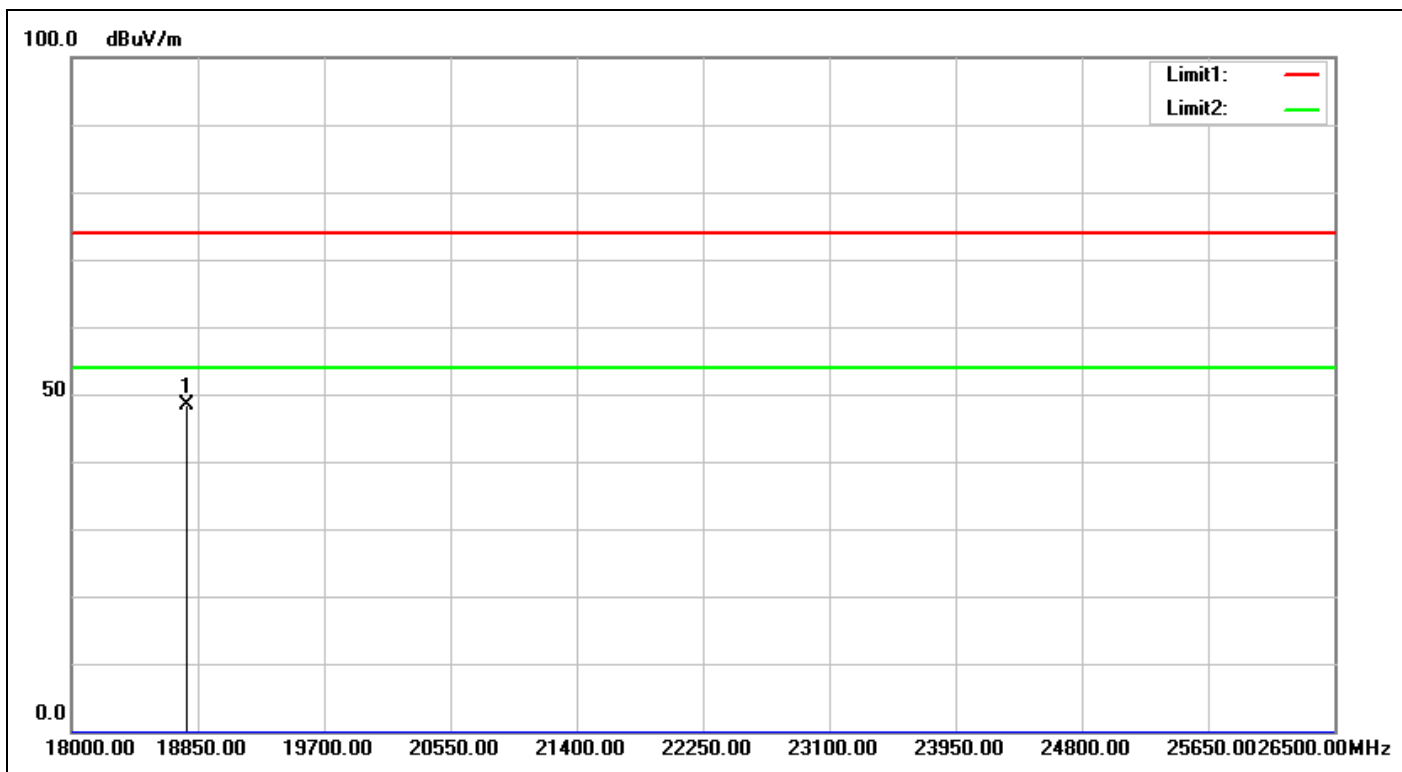
Service No.:	114028636_FCC 15C_NCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2014/12/3 20:25:21
Applicant:	Zeroplus	Test Rating:	DC 5V
Product:	Super-Converter	Temp.(°C)/Hum.(%):	22(°C)/41 %
Model No.:	ZPP004H	Test Engineer:	Freeman Wang
Test Mode:	TX 2402MHz 3DH5		
Remark:	X		
	Power level:14		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth ( ° )	Remark
1	18569.500	28.66	19.39	48.05	74.00	-25.95	peak		0	



<b>Service No.:</b>	<b>114028636_FCC 15C_NCC</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>2014/12/3 20:25:34</b>
<b>Applicant:</b>	<b>Zeroplus</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Super-Converter</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>22(°C)/41 %</b>
<b>Model No.:</b>	<b>ZPP004H</b>	<b>Test Engineer:</b>	<b>Freeman Wang</b>
<b>Test Mode:</b>	<b>TX 2402MHz 3DH5</b>		
<b>Remark:</b>	<b>X</b>		
	<b>Power level:14</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth ( ° )	Remark
1	19037.000	29.90	20.22	50.12	74.00	-23.88	peak		0	



**Service No.:** 114028636\_FCC 15C\_NCC

**Test Distance:** 3m

**Test Standard:** FCC Above 1G PEAK

**Ant. Polarization:** Horizontal

**Test item:** Radiation Emission

**Test Time:** 2014/12/3 20:25:50

**Applicant:** Zeroplus

**Test Rating:** DC 5V

**Product:** Super-Converter

**Temp.(°C)/Hum.(%):** 22(°C)/41 %

**Model No.:** ZPP004H

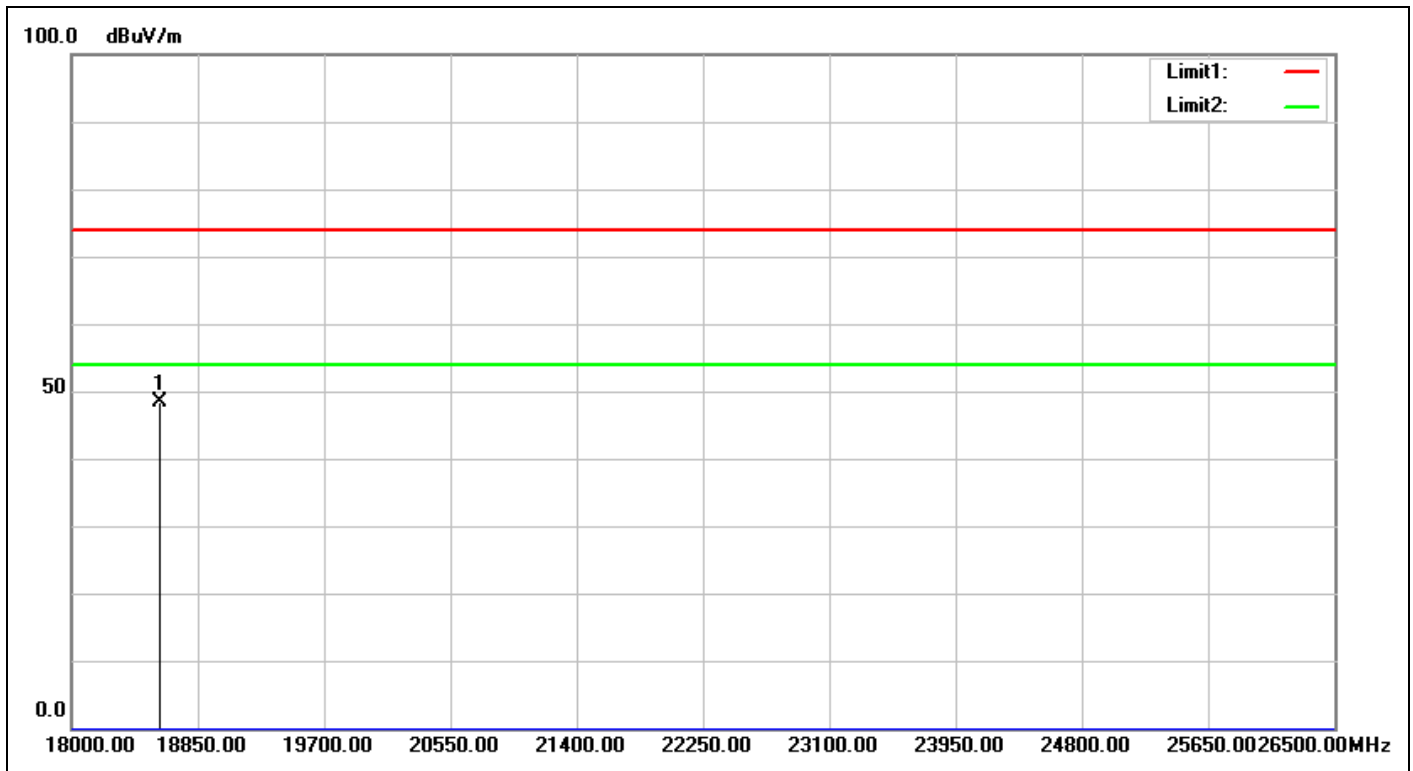
**Test Engineer:** Freeman Wang

**Test Mode:** TX 2441MHz 3DH5

**Remark:** X

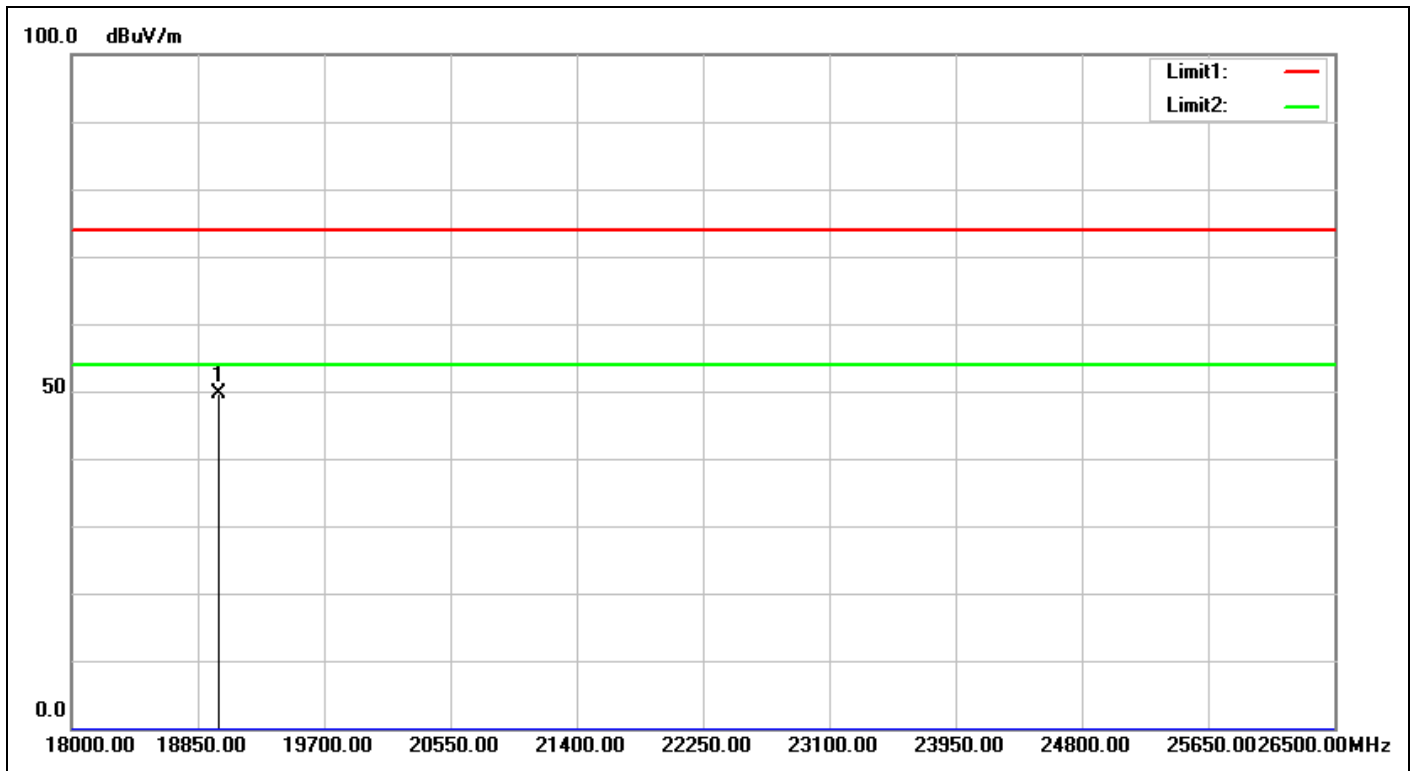
Power level:14

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth ( ° )	Remark
1	18773.500	29.28	19.15	48.43	74.00	-25.57	peak		0	



Service No.:	114028636_FCC 15C_NCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2014/12/3 20:26:00
Applicant:	Zeroplus	Test Rating:	DC 5V
Product:	Super-Converter	Temp.(°C)/Hum.(%):	22(°C)/41 %
Model No.:	ZPP004H	Test Engineer:	Freeman Wang
Test Mode:	TX 2441MHz 3DH5		
Remark:	X		
	Power level:14		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth ( ° )	Remark
1	18595.000	28.73	19.65	48.38	74.00	-25.62	peak		0	



**Service No.:** 114028636\_FCC 15C\_NCC

**Test Distance:** 3m

**Test Standard:** FCC Above 1G PEAK

**Ant. Polarization:** Horizontal

**Test item:** Radiation Emission

**Test Time:** 2014/12/3 20:26:12

**Applicant:** Zeroplus

**Test Rating:** DC 5V

**Product:** Super-Converter

**Temp.(°C)/Hum.(%):** 22(°C)/41 %

**Model No.:** ZPP004H

**Test Engineer:** Freeman Wang

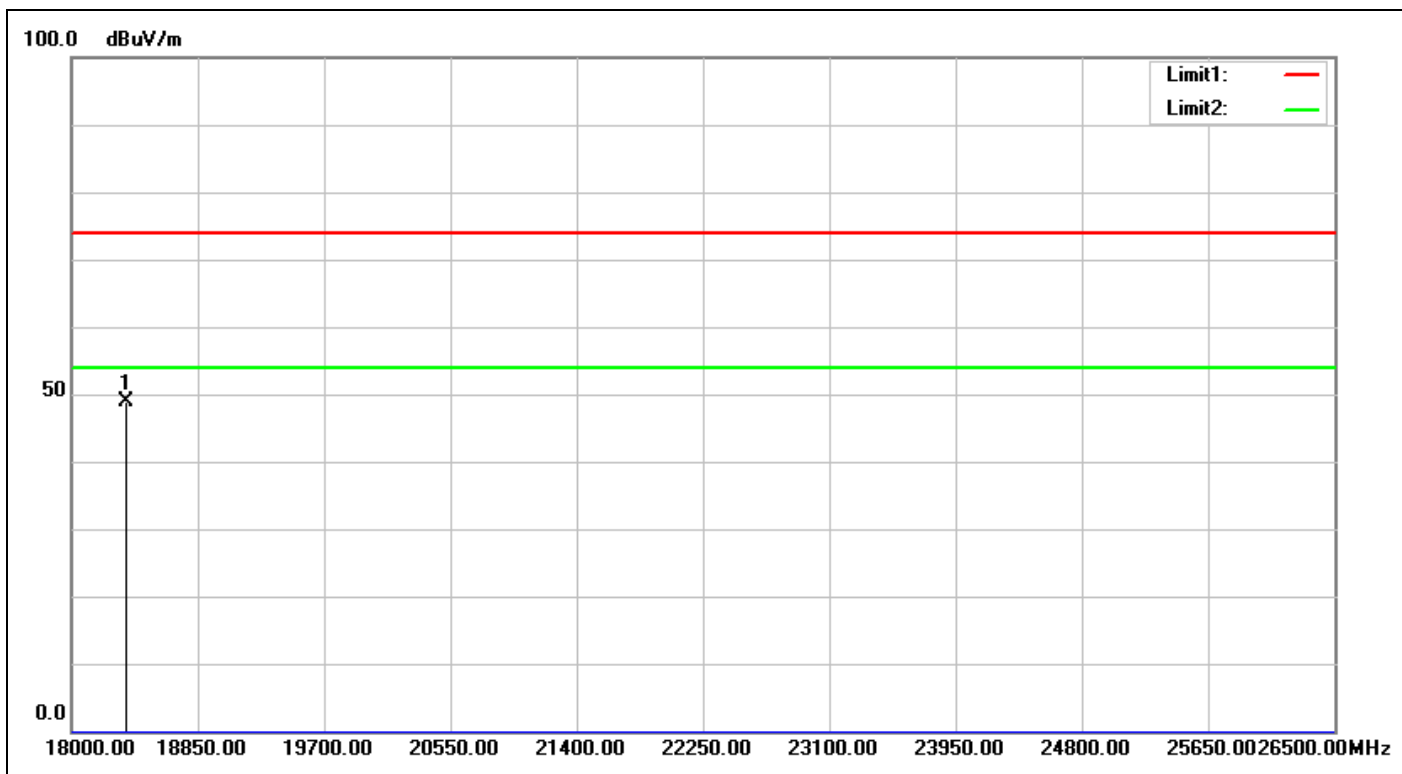
**Test Mode:** TX 2480MHz 3DH5

**Remark:** X

Power level:14

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth ( ° )	Remark
1	18994.500	29.96	19.57	49.53	74.00	-24.47	peak		0	





**Service No.:** 114028636\_FCC 15C\_NCC

**Test Distance:** 3m

**Test Standard:** FCC Above 1G PEAK

**Ant. Polarization:** Vertical

**Test item:** Radiation Emission

**Test Time:** 2014/12/3 20:26:24

**Applicant:** Zeroplus

**Test Rating:** DC 5V

**Product:** Super-Converter

**Temp.(°C)/Hum.(%):** 22(°C)/41 %

**Model No.:** ZPP004H

**Test Engineer:** Freeman Wang

**Test Mode:** TX 2480MHz 3DH5

**Remark:** X

Power level:14

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth ( ° )	Remark
1	18365.500	28.49	20.35	48.84	74.00	-25.16	peak		0	

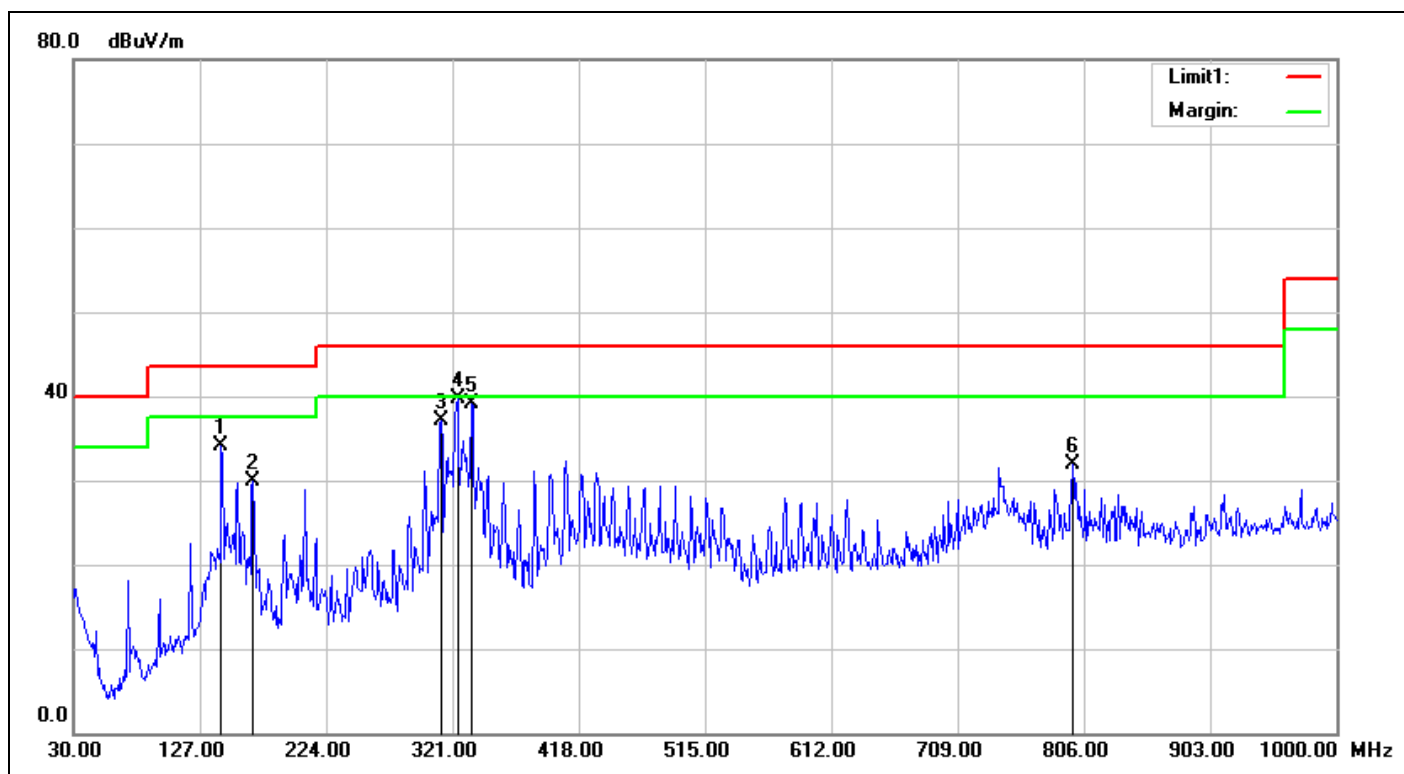
# Spurious Emissions, TX Mode, 30M-1G



**TUV Taiwan**

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

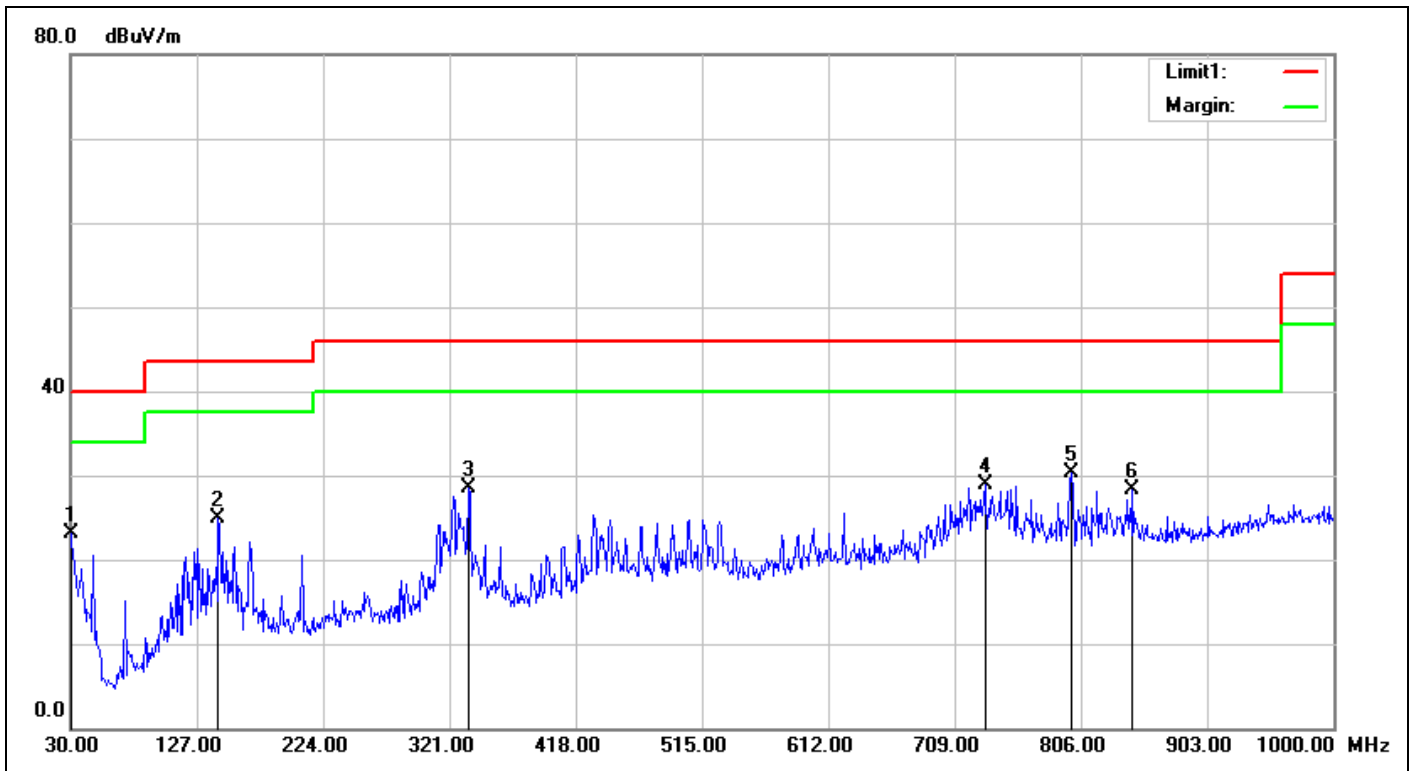
Tel:+886-2172-7000 fax:+886-2528-0018



Service No.:	114028636_FCC 15C_NCC	Test Distance:	3m
Test Standard:	FCC Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2014/12/2 13:35:08
Applicant:	Zeroplus	Test Rating:	DC 5V
Product:	Super-Converter	Temp.(°C)/Hum.(%)	26.1(°C)/57%
Model No.:	ZPP004H	Test Engineer:	Freeman Wang
Test Mode:	TX 2441MHz 1DH5		
Remark:	X		
	Power level:15		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	143.4900	-14.42	48.48	34.06	43.50	-9.44	QP	100	81	
2	167.7400	-16.13	45.95	29.82	43.50	-13.68	QP	100	99	
3	312.2699	-11.71	48.77	37.06	46.00	-8.94	QP	100	113	
4	324.8798	-11.42	51.10	39.68	46.00	-6.32	QP	100	330	
5	335.5500	-11.16	50.17	39.01	46.00	-6.99	QP	100	294	
6	797.2698	-4.61	36.53	31.92	46.00	-14.08	QP	100	166	

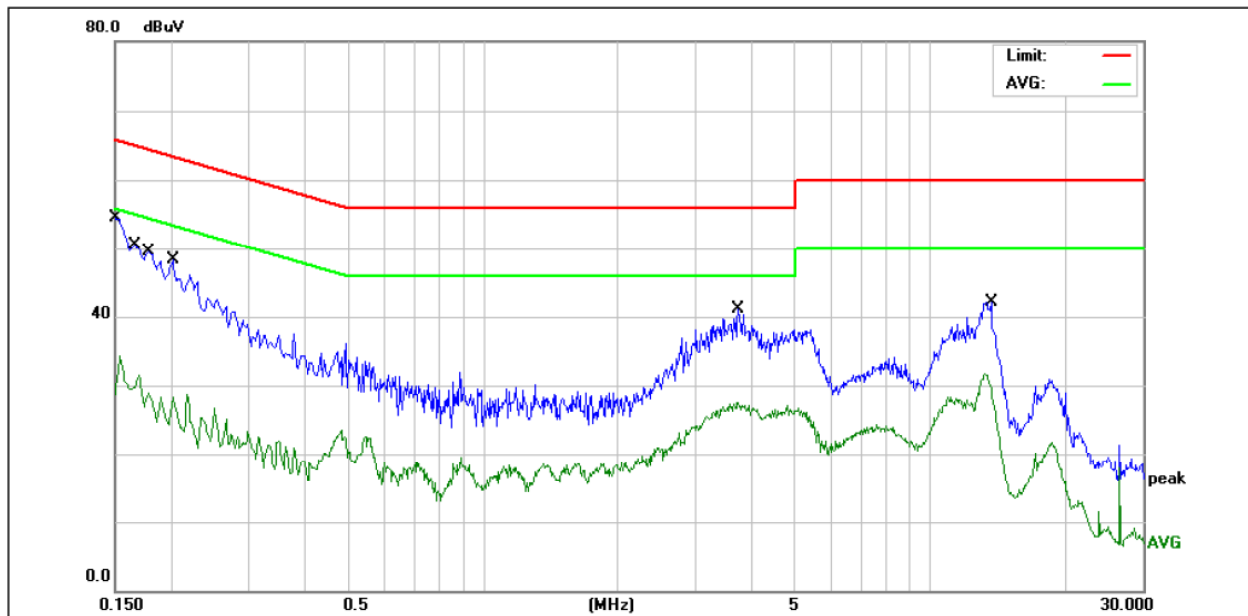
## Spurious Emissions, TX Mode, 30M-1G



<b>Service No.:</b>	<b>114028636_FCC 15C_NCC</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>2014/12/2 13:36:11</b>
<b>Applicant:</b>	<b>Zeroplus</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Super-Converter</b>	<b>Temp.(°C)/Hum.(%)</b>	<b>26.1(°C)/57%</b>
<b>Model No.:</b>	<b>ZPP004H</b>	<b>Test Engineer:</b>	<b>Freeman Wang</b>
<b>Test Mode:</b>	<b>TX 2441MHz 1DH5</b>		
<b>Remark:</b>	<b>X</b>		
	<b>Power level:15</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	-7.35	30.39	23.04	40.00	-16.96	QP	100	147	
2	143.4900	-14.42	39.31	24.89	43.50	-18.61	QP	100	153	
3	335.5500	-11.16	39.63	28.47	46.00	-17.53	QP	100	118	
4	732.2800	-5.38	34.28	28.90	46.00	-17.10	QP	100	43	
5	799.2100	-4.59	34.80	30.21	46.00	-15.79	QP	100	51	
6	845.7700	-3.42	31.63	28.21	46.00	-17.79	QP	100	27	

# Mains Spurious Emissions



Service No.: 114028636

Test Standard: FCC Class B Conduction(QP)

Test item: Conducted Emission

Phase: L1

Applicant: Zeroplus

Temp.(°C)/Hum.(%): 21.2(°C) / 36 %

Product: Super-Converter

Power Rating: Via NB

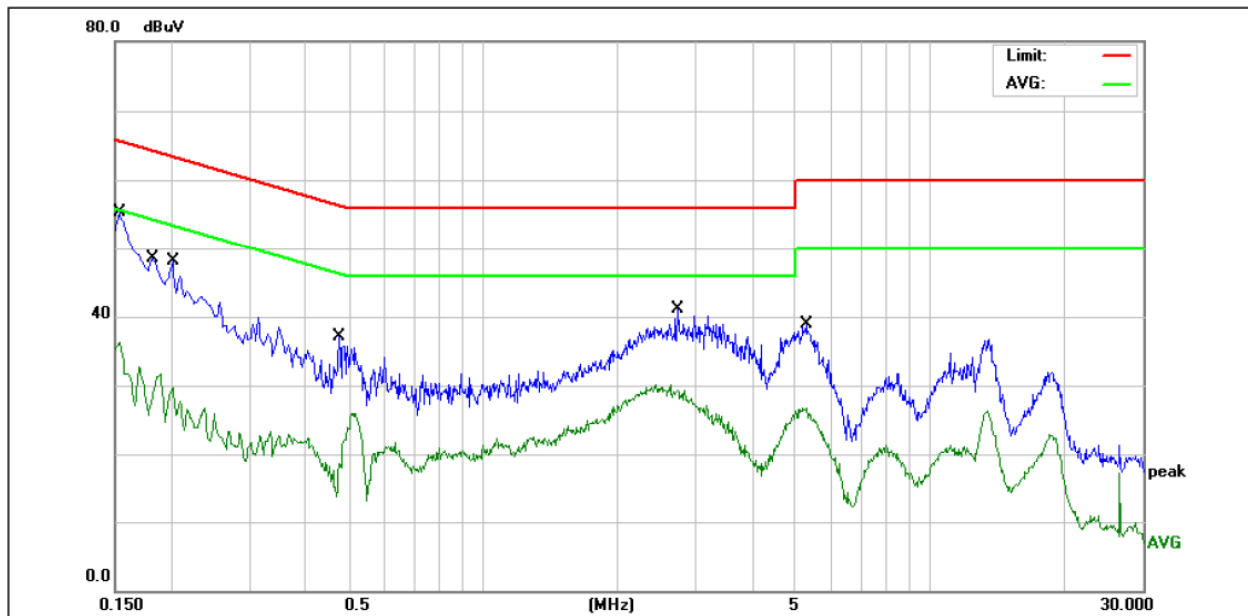
Model No.: ZPP004H

Test Engineer: Freeman Wang

Test Mode: (a)BT link

Remark:

No.	Frequency (MHz)	Factor ( )	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1500	9.65	39.83	49.48	65.99	-16.51	QP	P	
2	0.1500	9.65	20.94	30.59	55.99	-25.40	AVG	P	
3	0.1660	9.65	37.70	47.35	65.15	-17.80	QP	P	
4	0.1660	9.65	19.55	29.20	55.15	-25.95	AVG	P	
5	0.1780	9.63	36.98	46.61	64.57	-17.96	QP	P	
6	0.1780	9.63	16.10	25.73	54.57	-28.84	AVG	P	
7	0.2020	9.63	32.36	41.99	63.52	-21.53	QP	P	
8	0.2020	9.63	15.32	24.95	53.52	-28.57	AVG	P	
9	3.7380	9.67	23.24	32.91	56.00	-23.09	QP	P	
10	3.7380	9.67	15.63	25.30	46.00	-20.70	AVG	P	
11	13.7420	9.81	24.29	34.10	60.00	-25.90	QP	P	
12	13.7420	9.81	17.49	27.30	50.00	-22.70	AVG	P	



Service No.: 114028636

Test Standard: FCC Class B Conduction(QP)

Test item: Conducted Emission

Phase: N

Applicant: Zeroplus

Temp.(°C)/Hum.(%): 21.2(°C) / 36 %

Product: Super-Converter

Power Rating: Via NB

Model No.: ZPP004H

Test Engineer: Freeman Wang

Test Mode: (a)BT link

Remark:

No.	Frequency (MHz)	Factor ( )	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1539	9.66	39.13	48.79	65.78	-16.99	QP	P	
2	0.1539	9.66	21.51	31.17	55.78	-24.61	AVG	P	
3	0.1819	9.65	34.52	44.17	64.39	-20.22	QP	P	
4	0.1819	9.65	17.99	27.64	54.39	-26.75	AVG	P	
5	0.2020	9.65	31.94	41.59	63.52	-21.93	QP	P	
6	0.2020	9.65	16.12	25.77	53.52	-27.75	AVG	P	
7	0.4780	9.64	18.14	27.78	56.37	-28.59	QP	P	
8	0.4780	9.64	7.14	16.78	46.37	-29.59	AVG	P	
9	2.7220	9.67	23.56	33.23	56.00	-22.77	QP	P	
10	2.7220	9.67	18.01	27.68	46.00	-18.32	AVG	P	
11	5.2980	9.71	23.08	32.79	60.00	-27.21	QP	P	
12	5.2980	9.71	14.97	24.68	50.00	-25.32	AVG	P	