Appendix B: Test Results of BR & EDR

APPENDIX B: TEST RESULTS OF BR & EDR **1**
APPENDIX B.1: TEST RESULTS OF RADIATED SPURIOUS EMISSIONS 2
30MHz - 1GHz *2*
Above 1GHz *4*
APPENDIX B.2: TEST RESULTS OF CONDUCTED EMISSION ON AC MAINS 26

Appendix B.1: Test Results of Radiated Spurious Emissions

Note 1: Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported. The highest emissions are the fundamental.

Note 2: This testing was carried out on different modulations, but only the worst case was presented in this report.

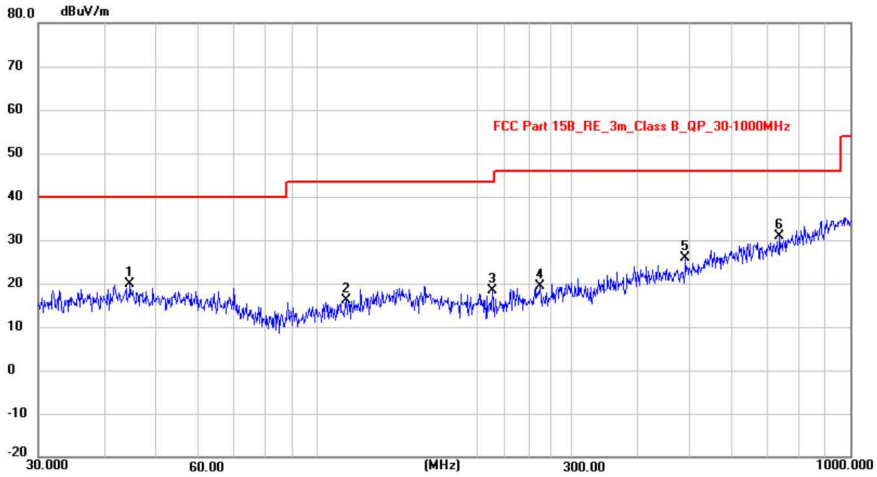
30MHz - 1GHz

Shenzhen PSI Testing Co., Ltd.
1-2F, Building 5, Yudafu Industrial Park, No. 10, Xingye West Road,
Shajing Street, Bao'an District, Shenzhen, Guangdong, China 518104

Test Site: PSI EMC Lab-3m Chamber	Polarization: ***Horizontal***	Temperature: 26 ℃
EUT: 3D Scanner	Distance: 3m	Humidity: 54 %RH
M/N: Einstar Vega	Test Engineer: Felix Pang	
Test Mode: GFSK 2402MHz		
Test Voltage: DC 3.7V		
Note:		

Radiated Emission Measurement

Project No.: 1-18 Data :#31 2024/7/15 20:06:01



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	44.5867	5.59	14.37	19.96	40.00	-20.04	peak			P	
2	113.3161	4.19	11.89	16.08	43.50	-27.42	peak			P	
3	213.0150	6.71	11.64	18.35	43.50	-25.15	peak			P	
4	261.9750	5.71	13.69	19.40	46.00	-26.60	peak			P	
5	490.7445	6.00	19.93	25.93	46.00	-20.07	peak			P	
6 *	737.0711	5.68	25.19	30.87	46.00	-15.13	peak			P	

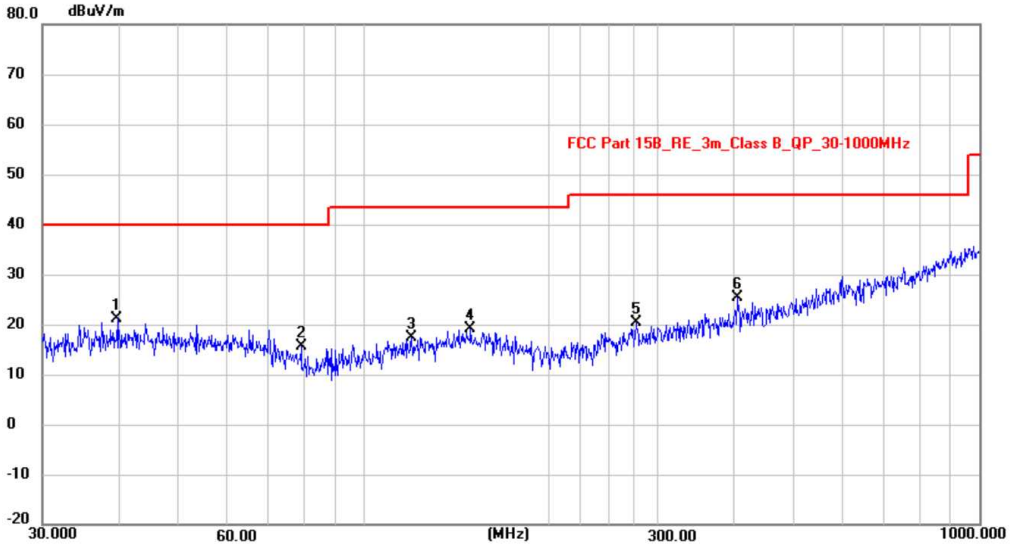
Note: *:Maximum data x:Over limit !:over margin Level = Reading + Factor Margin = Level - Limit

Shenzhen PSI Testing Co., Ltd.
1-2F, Building 5, Yudafu Industrial Park, No. 10, Xingye West Road,
Shajing Street, Bao'an District, Shenzhen, Guangdong, China 518104

Test Site: PSI EMC Lab-3m Chamber	Polarization: ***Vertical***	Temperature: 26 ℃
EUT: 3D Scanner	Distance: 3m	Humidity: 54 %RH
M/N: Einstar Vega	Test Engineer: Felix Pang	
Test Mode: GFSK 2402MHz		
Test Voltage: DC 3.7V		
Note:		

Radiated Emission Measurement

Project No.: 1-18 Data :#32 2024/7/15 20:12:54



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	39.7146	6.48	14.53	21.01	40.00	-18.99	peak			P	
2	78.9651	5.87	9.73	15.60	40.00	-24.40	peak			P	
3	119.4360	4.77	12.50	17.27	43.50	-26.23	peak			P	
4	148.9624	4.97	14.10	19.07	43.50	-24.43	peak			P	
5	277.0935	5.90	14.41	20.31	46.00	-25.69	peak			P	
6	404.6664	7.44	17.84	25.28	46.00	-20.72	peak			P	

Note: *:Maximum data x:Over limit !:over margin Level = Reading + Factor Margin = Level - Limit

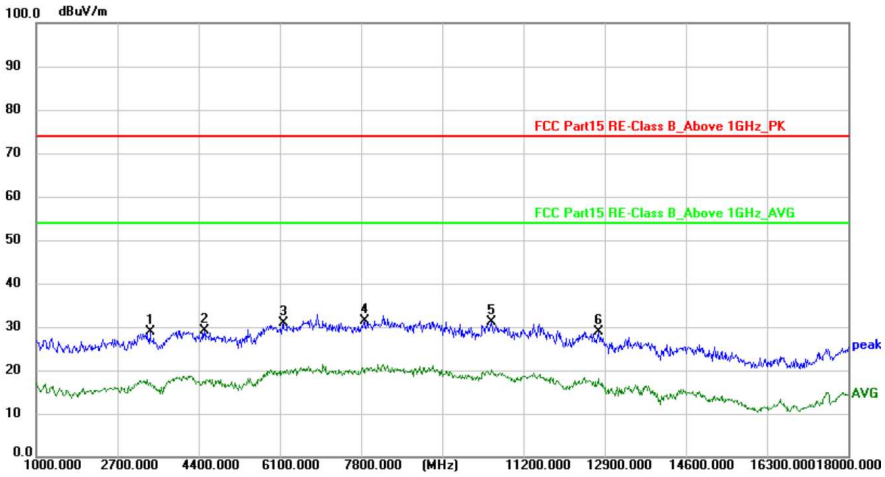
Above 1GHz
Note: there is a appropriate filter installed at the input of the measurement system power amplifier to attenuate the fundamental emission of the EUT.

Shenzhen PSI Testing Co., Ltd.
1-2F, Building 5, Yudafu Industrial Park, No. 10, Xingye West Road,
Shajing Street, Bao'an District, Shenzhen, Guangdong, China 518104

Test Site: PSI EMC Lab-3m Chamber	Polarization: ***Vertical***	Temperature: 26 ℃
EUT: 3D Scanner	Distance: 3m	Humidity: 54 %RH
M/N: Einstar Vega	Test Engineer: Felix Pang	
Test Mode: 8DPSK 2441MHz		
Test Voltage: DC 3.7V		
Note:		

Radiated Emission Measurement

Project No.: 1-18 Data :#16 2024/7/14 12:05:07



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	3380.000	52.34	-23.39	28.95	74.00	-45.05	peak			P	
2	4519.000	54.46	-25.39	29.07	74.00	-44.93	peak			P	
3	6168.000	47.26	-16.42	30.84	74.00	-43.16	peak			P	
4 *	7868.000	44.72	-13.34	31.38	74.00	-42.62	peak			P	
5	10537.000	42.07	-11.03	31.04	74.00	-42.96	peak			P	
6	12781.000	38.34	-9.36	28.98	74.00	-45.02	peak			P	

Note: *:Maximum data x:Over limit !:over margin Level = Reading + Factor Margin = Level - Limit

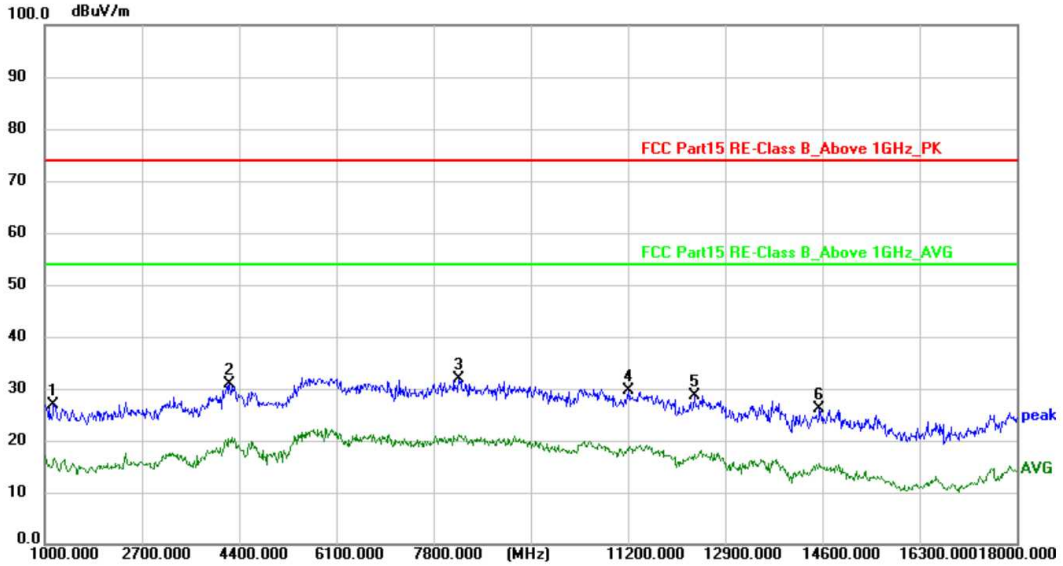
File: 1-18\Data :#16 *Page: 1* Engineer Signature:

Shenzhen PSI Testing Co., Ltd.
1-2F, Building 5, Yudafu Industrial Park, No. 10, Xingye West Road,
Shajing Street, Bao'an District, Shenzhen, Guangdong, China 518104

Test Site: PSI EMC Lab-3m Chamber	Polarization: ***Vertical***	Temperature: 26 ℃
EUT: 3D Scanner	Distance: 3m	Humidity: 54 %RH
M/N: Einstar Vega	Test Engineer: Felix Pang	
Test Mode: 8DPSK 2480MHz		
Test Voltage: DC 3.7V		
Note:		

Radiated Emission Measurement

Project No.: 1-18 Data :#17 2024/7/14 12:11:49



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1153.000	54.57	-27.58	26.99	74.00	-47.01	peak			P	
2	4230.000	54.25	-23.49	30.76	74.00	-43.24	peak			P	
3 *	8242.000	44.91	-13.00	31.91	74.00	-42.09	peak			P	
4	11217.000	40.02	-10.42	29.60	74.00	-44.40	peak			P	
5	12356.000	38.62	-9.92	28.70	74.00	-45.30	peak			P	
6	14549.000	34.36	-8.34	26.02	74.00	-47.98	peak			P	

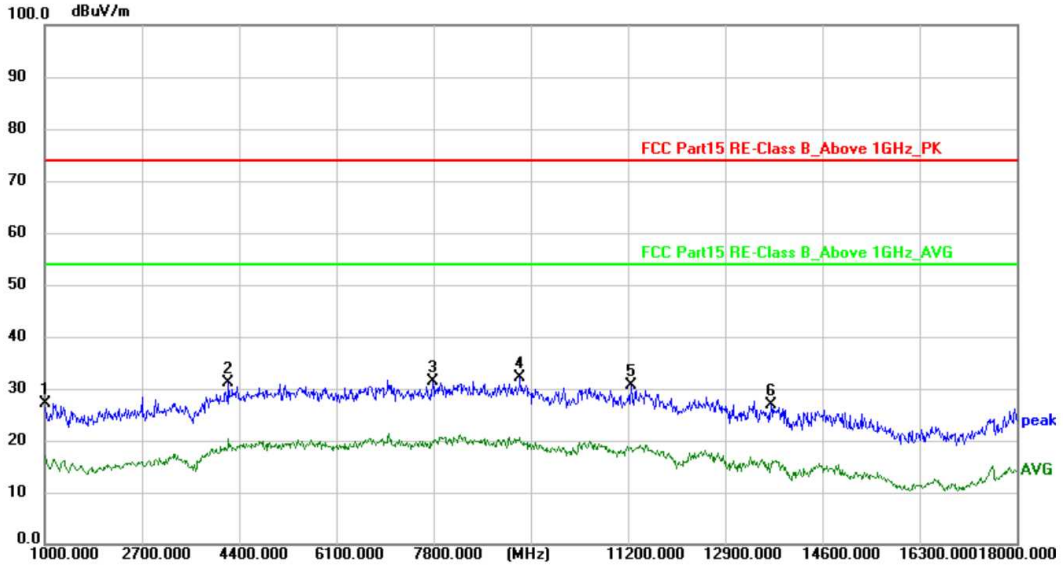
Note: *:Maximum data x:Over limit !:over margin Level = Reading + Factor Margin = Level - Limit

Shenzhen PSI Testing Co., Ltd.
1-2F, Building 5, Yudafu Industrial Park, No. 10, Xingye West Road,
Shajing Street, Bao'an District, Shenzhen, Guangdong, China 518104

Test Site: PSI EMC Lab-3m Chamber	Polarization: ***Horizontal***	Temperature: 26 ℃
EUT: 3D Scanner	Distance: 3m	Humidity: 54 %RH
M/N: Einstar Vega	Test Engineer: Felix Pang	
Test Mode: 8DPSK 2480MHz		
Test Voltage: DC 3.7V		
Note:		

Radiated Emission Measurement

Project No.: 1-18 Data :#18 2024/7/14 12:24:08



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1000.0000	54.82	-27.62	27.20	74.00	-46.80	peak			P	
2	4213.000	52.46	-21.24	31.22	74.00	-42.78	peak			P	
3	7783.000	44.73	-13.42	31.31	74.00	-42.69	peak			P	
4 *	9313.000	44.18	-12.13	32.05	74.00	-41.95	peak			P	
5	11251.000	40.95	-10.43	30.52	74.00	-43.48	peak			P	
6	13699.000	35.38	-8.50	26.88	74.00	-47.12	peak			P	

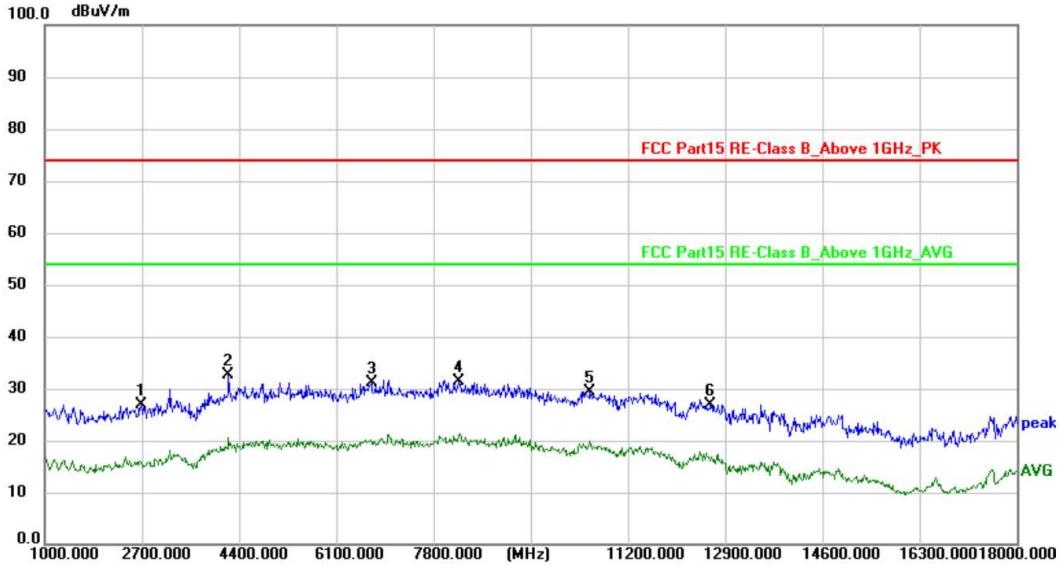
Note: *:Maximum data x:Over limit !:over margin Level = Reading + Factor Margin = Level - Limit

Shenzhen PSI Testing Co., Ltd.
1-2F, Building 5, Yudafu Industrial Park, No. 10, Xingye West Road,
Shajing Street, Bao'an District, Shenzhen, Guangdong, China 518104

Test Site: PSI EMC Lab-3m Chamber	Polarization: ***Horizontal***	Temperature: 26 ℃
EUT: 3D Scanner	Distance: 3m	Humidity: 54 %RH
M/N: Einstar Vega	Test Engineer: Felix Pang	
Test Mode: GFSK 2402MHz		
Test Voltage: DC 3.7V		
Note:		

Radiated Emission Measurement

Project No.: 1-18 Data :#1 2024/7/14 10:34:47



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2683.000	51.99	-25.22	26.77	74.00	-47.23	peak			P	
2 *	4213.000	53.91	-21.24	32.67	74.00	-41.33	peak			P	
3	6712.000	46.15	-14.90	31.25	74.00	-42.75	peak			P	
4	8242.000	44.30	-13.00	31.30	74.00	-42.70	peak			P	
5	10537.000	40.53	-11.03	29.50	74.00	-44.50	peak			P	
6	12645.000	36.44	-9.54	26.90	74.00	-47.10	peak			P	

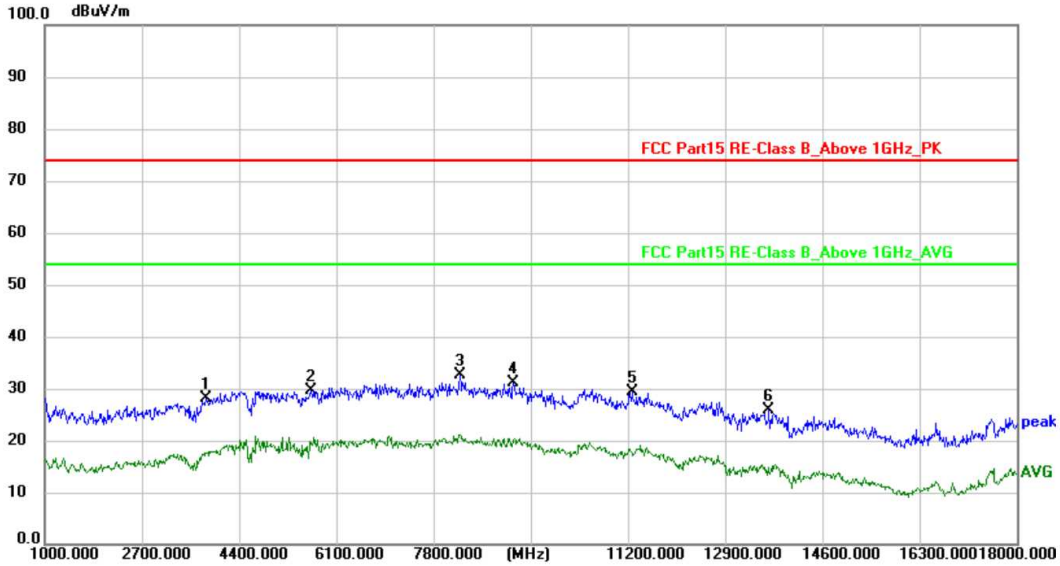
Note: *:Maximum data x:Over limit !:over margin Level = Reading + Factor Margin = Level - Limit

Shenzhen PSI Testing Co., Ltd.
1-2F, Building 5, Yudafu Industrial Park, No. 10, Xingye West Road,
Shajing Street, Bao'an District, Shenzhen, Guangdong, China 518104

Test Site: PSI EMC Lab-3m Chamber	Polarization: ***Vertical***	Temperature: 26 ℃
EUT: 3D Scanner	Distance: 3m	Humidity: 54 %RH
M/N: Einstar Vega	Test Engineer: Felix Pang	
Test Mode: GFSK 2402MHz		
Test Voltage: DC 3.7V		
Note:		

Radiated Emission Measurement

Project No.: 1-18 Data :#2 2024/7/14 10:39:28



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	3822.000	50.44	-22.38	28.06	74.00	-45.94	peak			P	
2	5658.000	50.54	-20.88	29.66	74.00	-44.34	peak			P	
3 *	8259.000	45.67	-12.99	32.68	74.00	-41.32	peak			P	
4	9194.000	43.28	-12.19	31.09	74.00	-42.91	peak			P	
5	11268.000	39.69	-10.42	29.27	74.00	-44.73	peak			P	
6	13665.000	34.36	-8.53	25.83	74.00	-48.17	peak			P	

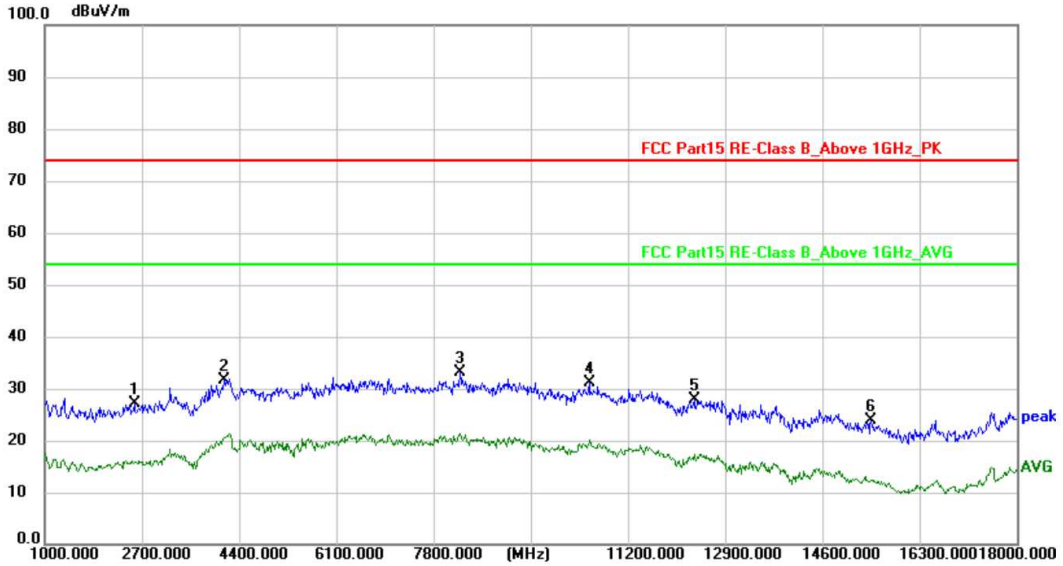
Note: *:Maximum data x:Over limit !:over margin Level = Reading + Factor Margin = Level - Limit

Shenzhen PSI Testing Co., Ltd.
1-2F, Building 5, Yudafu Industrial Park, No. 10, Xingye West Road,
Shajing Street, Bao'an District, Shenzhen, Guangdong, China 518104

Test Site: PSI EMC Lab-3m Chamber	Polarization: ***Vertical***	Temperature: 26 ℃
EUT: 3D Scanner	Distance: 3m	Humidity: 54 %RH
M/N: Einstar Vega	Test Engineer: Felix Pang	
Test Mode: GFSK 2441MHz		
Test Voltage: DC 3.7V		
Note:		

Radiated Emission Measurement

Project No.: 1-18 Data :#3 2024/7/14 10:44:06



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2564.000	52.67	-25.58	27.09	74.00	-46.91	peak			P	
2	4128.000	54.43	-22.81	31.62	74.00	-42.38	peak			P	
3 *	8259.000	46.02	-12.99	33.03	74.00	-40.97	peak			P	
4	10520.000	42.06	-11.05	31.01	74.00	-42.99	peak			P	
5	12356.000	37.82	-9.92	27.90	74.00	-46.10	peak			P	
6	15450.000	32.74	-8.84	23.90	74.00	-50.10	peak			P	

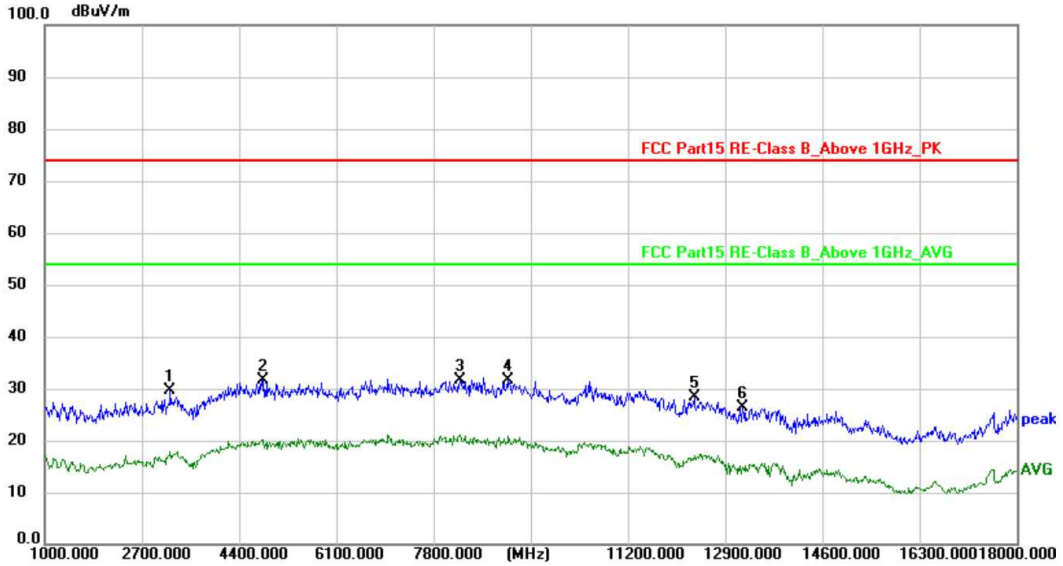
Note: *:Maximum data x:Over limit !:over margin Level = Reading + Factor Margin = Level - Limit

Shenzhen PSI Testing Co., Ltd.
1-2F, Building 5, Yudafu Industrial Park, No. 10, Xingye West Road,
Shajing Street, Bao'an District, Shenzhen, Guangdong, China 518104

Test Site: PSI EMC Lab-3m Chamber	Polarization: ***Horizontal***	Temperature: 26 ℃
EUT: 3D Scanner	Distance: 3m	Humidity: 54 %RH
M/N: Einstar Vega	Test Engineer: Felix Pang	
Test Mode: GFSK 2441MHz		
Test Voltage: DC 3.7V		
Note:		

Radiated Emission Measurement

Project No.: 1-18 Data :#4 2024/7/14 10:49:02



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	3193.000	53.54	-23.81	29.73	74.00	-44.27	peak			P	
2 *	4825.000	50.91	-19.16	31.75	74.00	-42.25	peak			P	
3	8259.000	44.56	-12.99	31.57	74.00	-42.43	peak			P	
4	9092.000	43.80	-12.24	31.56	74.00	-42.44	peak			P	
5	12356.000	38.27	-9.92	28.35	74.00	-45.65	peak			P	
6	13206.000	35.20	-8.91	26.29	74.00	-47.71	peak			P	

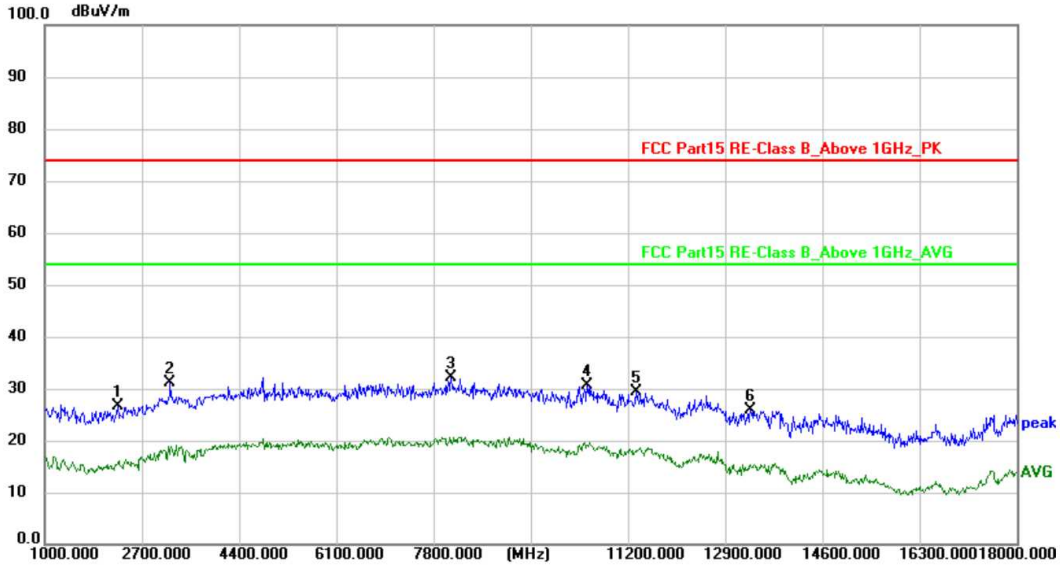
Note: *:Maximum data x:Over limit !:over margin Level = Reading + Factor Margin = Level - Limit

Shenzhen PSI Testing Co., Ltd.
1-2F, Building 5, Yudafu Industrial Park, No. 10, Xingye West Road,
Shajing Street, Bao'an District, Shenzhen, Guangdong, China 518104

Test Site: PSI EMC Lab-3m Chamber	Polarization: ***Horizontal***	Temperature: 26 ℃
EUT: 3D Scanner	Distance: 3m	Humidity: 54 %RH
M/N: Einstar Vega	Test Engineer: Felix Pang	
Test Mode: GFSK 2480MHz		
Test Voltage: DC 3.7V		
Note:		

Radiated Emission Measurement

Project No.: 1-18 Data :#5 2024/7/14 10:55:46



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2275.000	53.07	-26.46	26.61	74.00	-47.39	peak			P	
2	3193.000	54.92	-23.81	31.11	74.00	-42.89	peak			P	
3 *	8106.000	45.19	-13.13	32.06	74.00	-41.94	peak			P	
4	10486.000	41.77	-11.09	30.68	74.00	-43.32	peak			P	
5	11336.000	39.76	-10.41	29.35	74.00	-44.65	peak			P	
6	13342.000	34.57	-8.80	25.77	74.00	-48.23	peak			P	

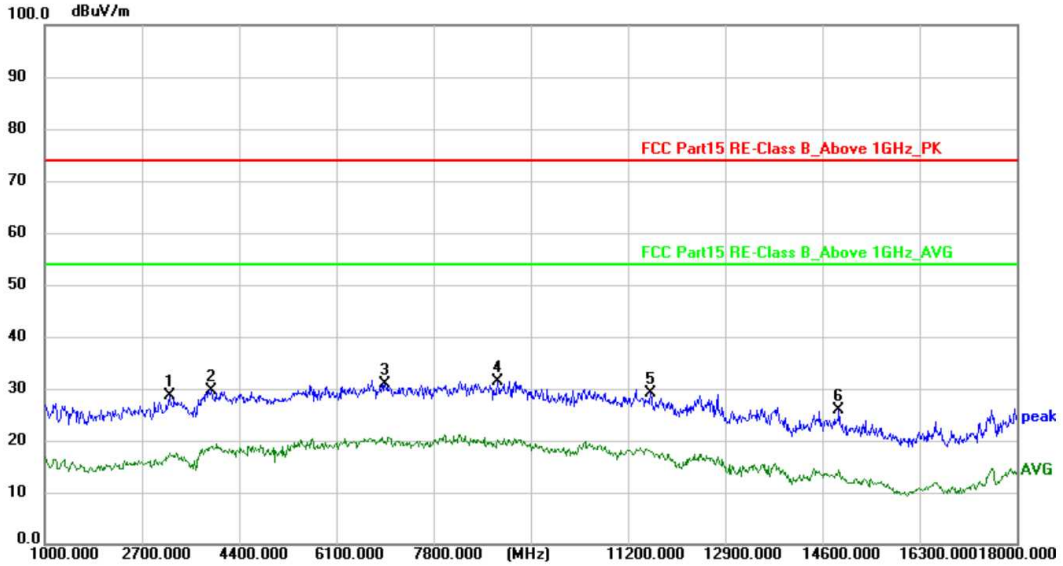
Note: *:Maximum data x:Over limit !:over margin Level = Reading + Factor Margin = Level - Limit

Shenzhen PSI Testing Co., Ltd.
1-2F, Building 5, Yudafu Industrial Park, No. 10, Xingye West Road,
Shajing Street, Bao'an District, Shenzhen, Guangdong, China 518104

Test Site: PSI EMC Lab-3m Chamber	Polarization: ***Vertical***	Temperature: 26 ℃
EUT: 3D Scanner	Distance: 3m	Humidity: 54 %RH
M/N: Einstar Vega	Test Engineer: Felix Pang	
Test Mode: GFSK 2480MHz		
Test Voltage: DC 3.7V		
Note:		

Radiated Emission Measurement

Project No.: 1-18 Data :#6 2024/7/14 11:01:34



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	3176.000	52.50	-23.86	28.64	74.00	-45.36	peak			P	
2	3907.000	51.85	-22.19	29.66	74.00	-44.34	peak			P	
3	6950.000	45.24	-14.24	31.00	74.00	-43.00	peak			P	
4 *	8922.000	43.77	-12.37	31.40	74.00	-42.60	peak			P	
5	11591.000	39.54	-10.40	29.14	74.00	-44.86	peak			P	
6	14889.000	34.25	-8.40	25.85	74.00	-48.15	peak			P	

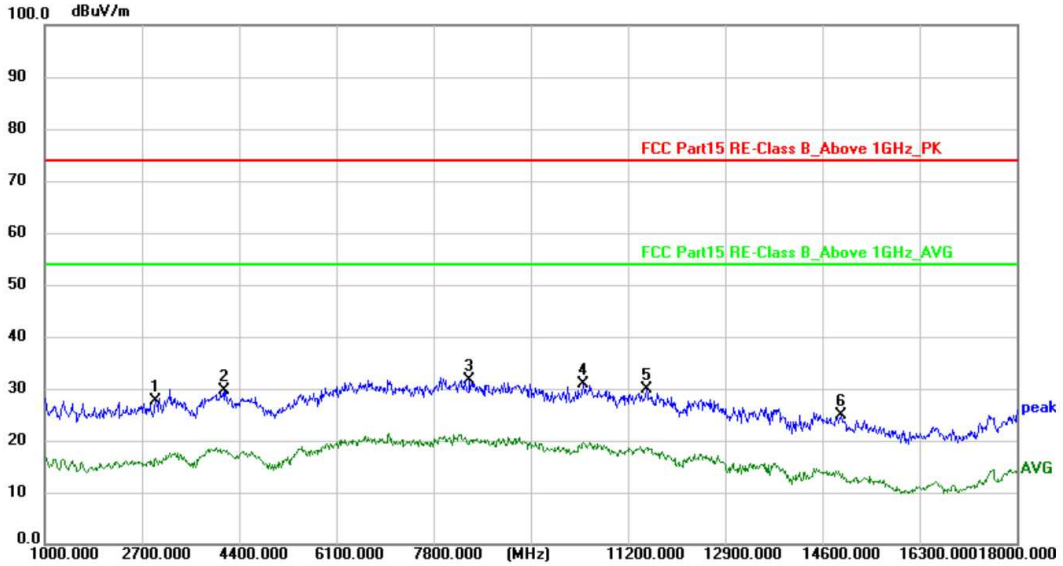
Note: *:Maximum data x:Over limit !:over margin Level = Reading + Factor Margin = Level - Limit

Shenzhen PSI Testing Co., Ltd.
1-2F, Building 5, Yudafu Industrial Park, No. 10, Xingye West Road,
Shajing Street, Bao'an District, Shenzhen, Guangdong, China 518104

Test Site: PSI EMC Lab-3m Chamber	Polarization: ***Vertical***	Temperature: 26 ℃
EUT: 3D Scanner	Distance: 3m	Humidity: 54 %RH
M/N: Einstar Vega	Test Engineer: Felix Pang	
Test Mode: 4/ΠDQPSK 2402MHz		
Test Voltage: DC 3.7V		
Note:		

Radiated Emission Measurement

Project No.: 1-18 Data :#7 2024/7/14 11:07:59



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2938.000	51.97	-24.45	27.52	74.00	-46.48	peak			P	
2	4145.000	52.64	-22.93	29.71	74.00	-44.29	peak			P	
3 *	8429.000	44.47	-12.83	31.64	74.00	-42.36	peak			P	
4	10418.000	41.97	-11.18	30.79	74.00	-43.21	peak			P	
5	11523.000	40.18	-10.40	29.78	74.00	-44.22	peak			P	
6	14923.000	33.41	-8.42	24.99	74.00	-49.01	peak			P	

Note: *:Maximum data x:Over limit !:over margin Level = Reading + Factor Margin = Level - Limit