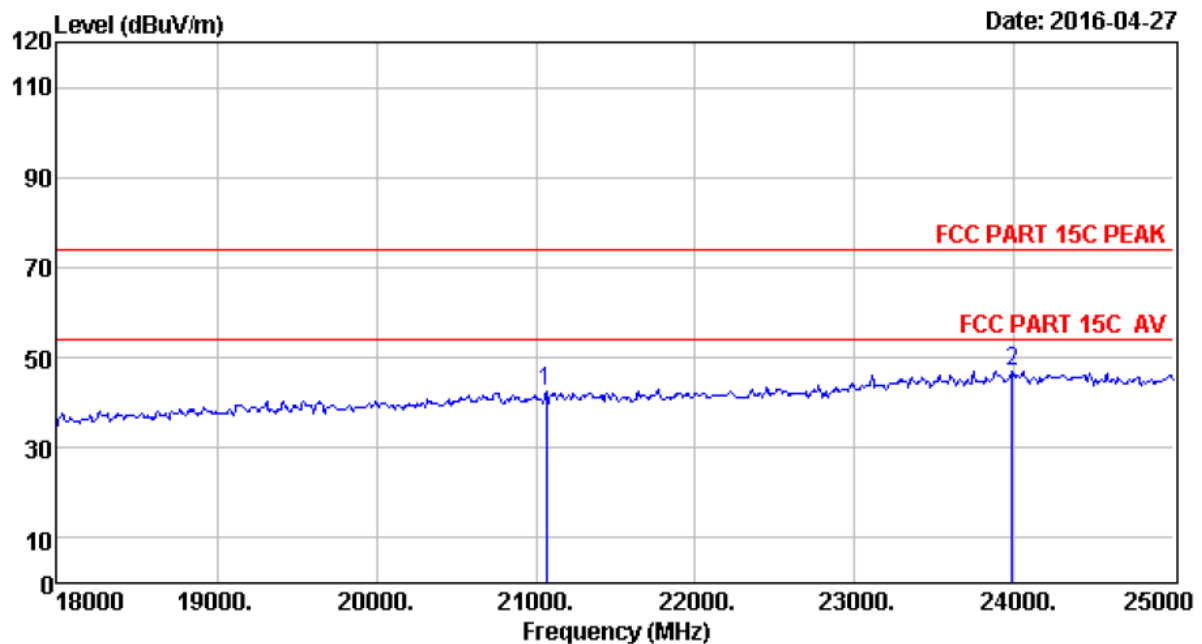


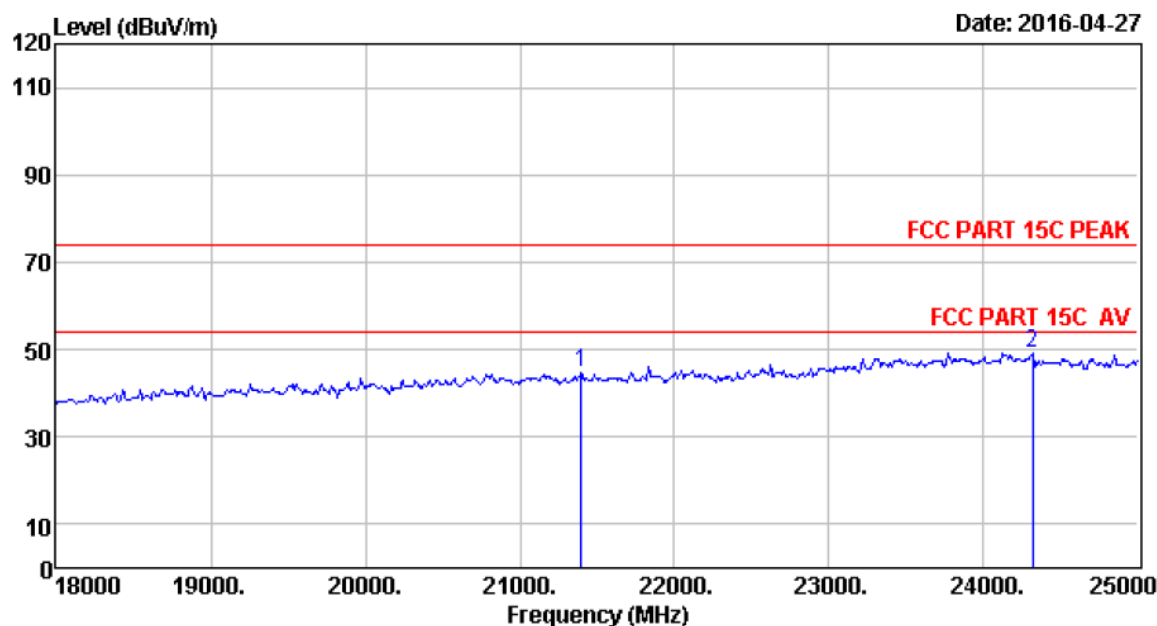
18000MHz – 25000MHz



Site no. : 966 1# chamber Data no. : 1081
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : GFSK TX 2402MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	21066.00	46.26	20.16	35.73	12.04	42.73	74.00	31.27	Peak
2	23985.00	45.60	22.03	32.83	12.18	46.98	74.00	27.02	Peak

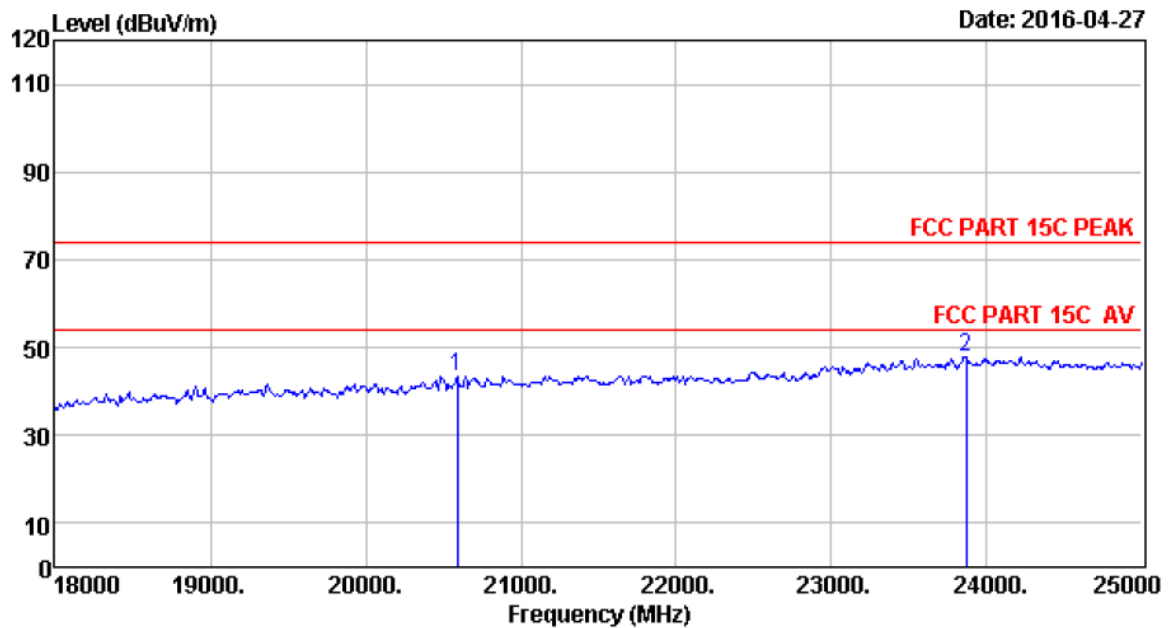
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1082
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : GFSK TX 2402MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	21395.00	46.07	20.30	35.44	13.95	44.88	74.00	29.12	Peak
2	24314.00	45.66	22.22	33.30	14.71	49.29	74.00	24.71	Peak

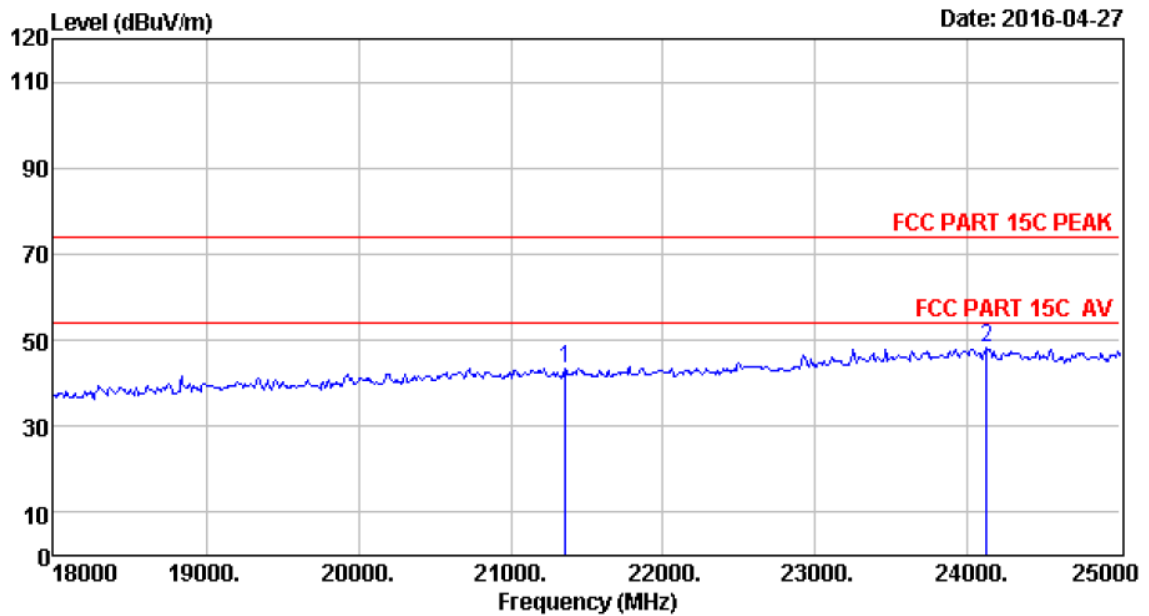
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1083
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : GFSK TX 2441MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	20590.00	46.05	19.95	36.16	13.74	43.58	74.00	30.42	Peak
2	23866.00	45.63	21.93	32.93	13.16	47.79	74.00	26.21	Peak

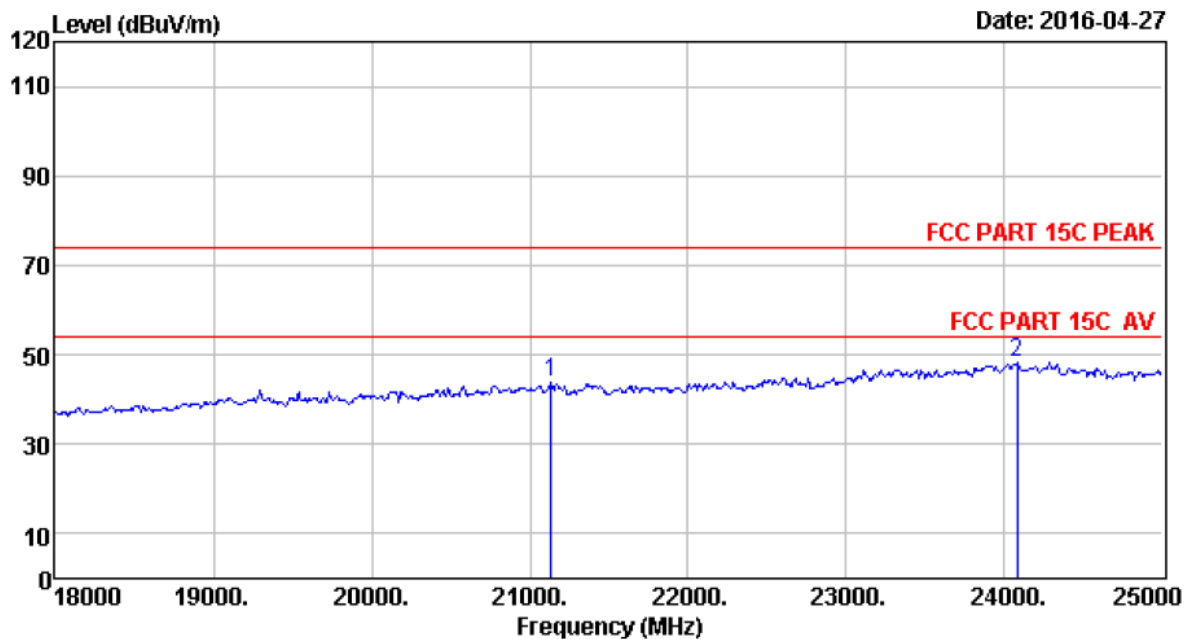
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1084
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : GFSK TX 2441MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	21360.00	46.08	20.28	35.49	12.62	43.49	74.00	30.51	Peak
2	24125.00	45.62	22.12	32.99	13.34	48.09	74.00	25.91	Peak

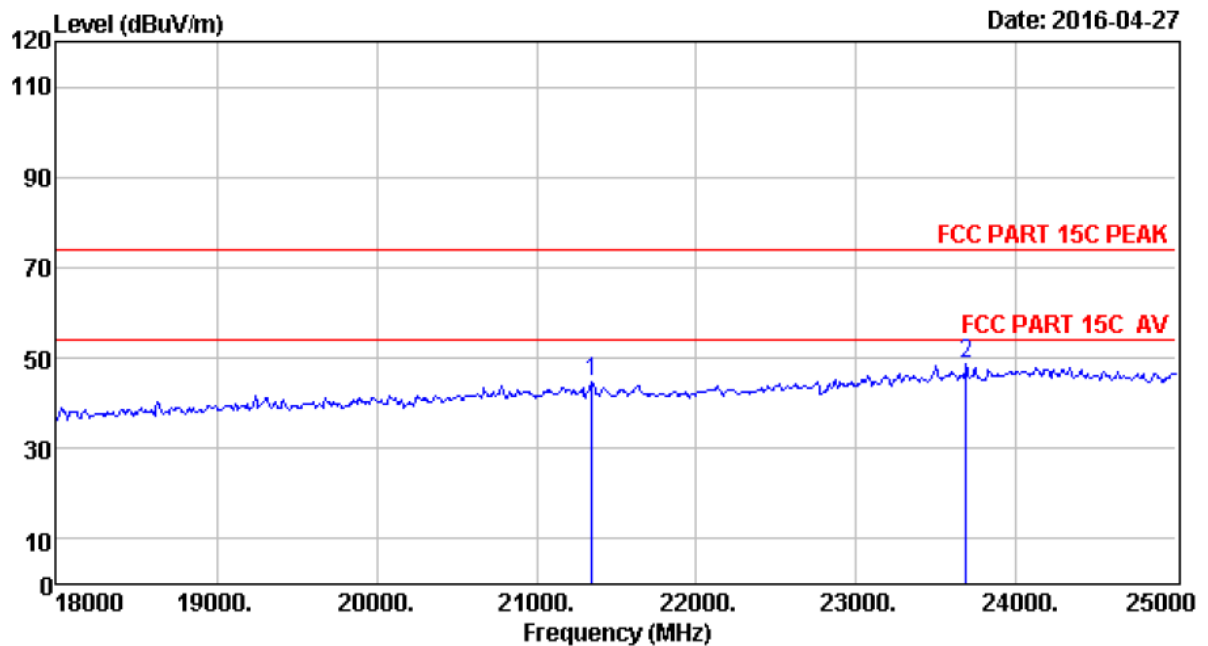
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1085
 Dis. / Ant. : 3m ANT ABVOE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : GFSK TX 2480MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	21136.00	46.21	20.19	35.69	13.28	43.99	74.00	30.01	Peak
2	24076.00	45.61	22.09	32.92	13.29	48.07	74.00	25.93	Peak

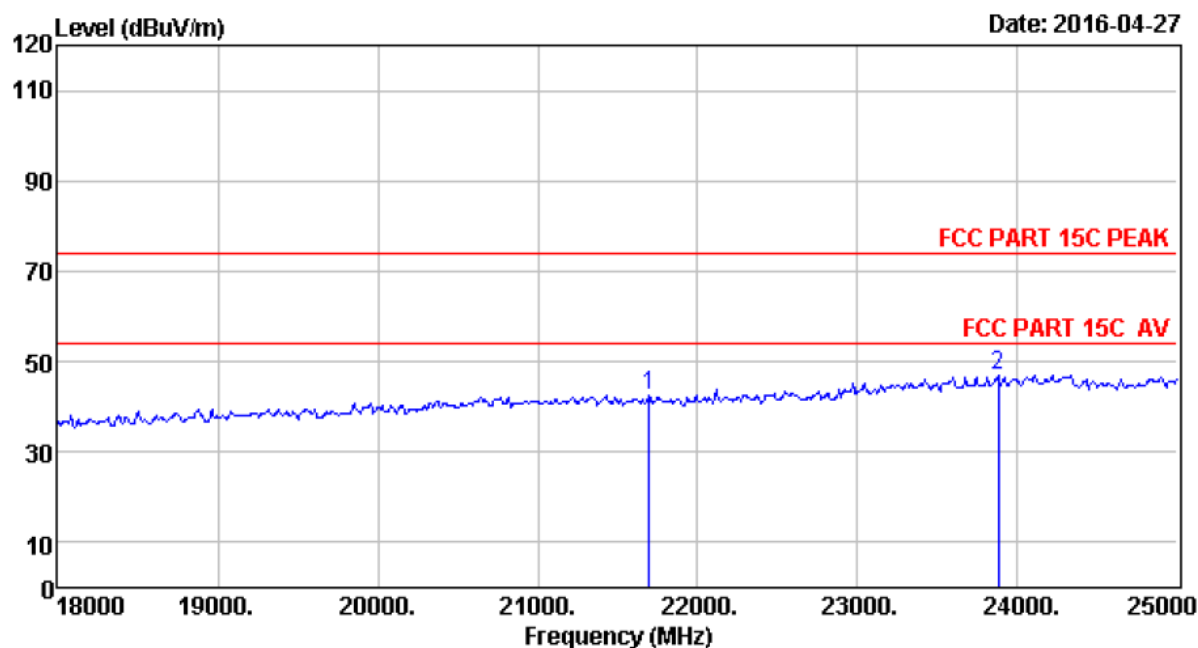
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1086
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : GFSK TX 2480MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	21346.00	46.09	20.28	35.49	13.83	44.71	74.00	29.29	Peak
2	23684.00	45.67	21.77	33.14	14.40	48.70	74.00	25.30	Peak

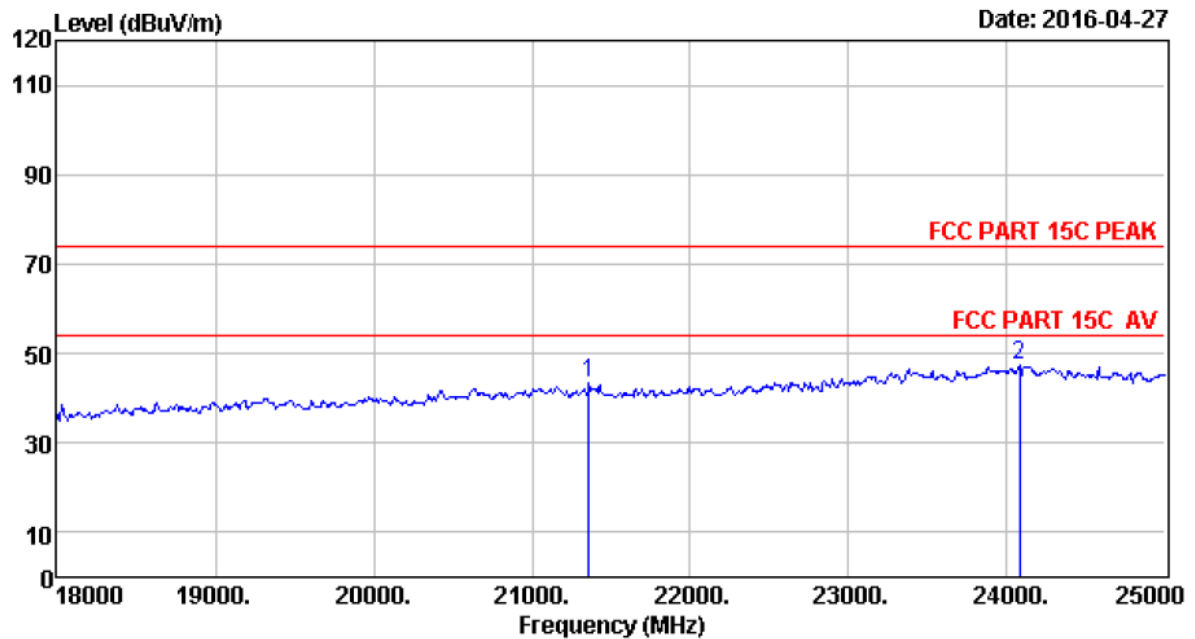
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1087
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : ($\pi/4$)DQPSK TX 2402MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	21696.00	45.88	20.43	35.17	11.44	42.58	74.00	31.42	Peak
2	23880.00	45.63	21.94	32.93	12.36	47.00	74.00	27.00	Peak

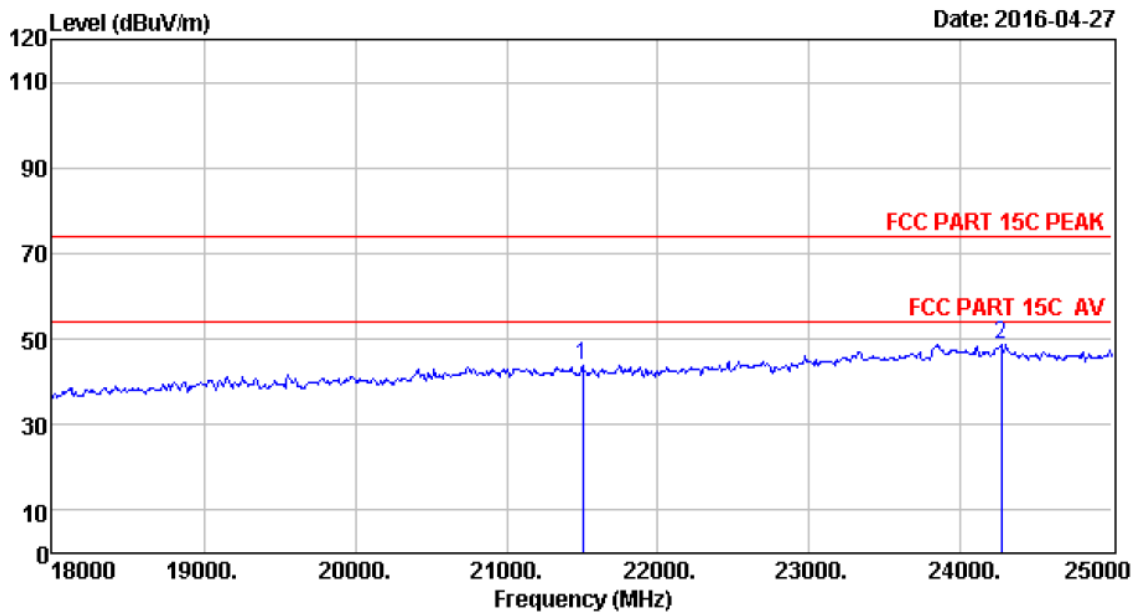
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1088
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : (π/4)DQPSK TX 2402MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	21360.00	46.08	20.28	35.49	12.62	43.49	74.00	30.51	Peak
2	24076.00	45.61	22.09	32.92	12.50	47.28	74.00	26.72	Peak

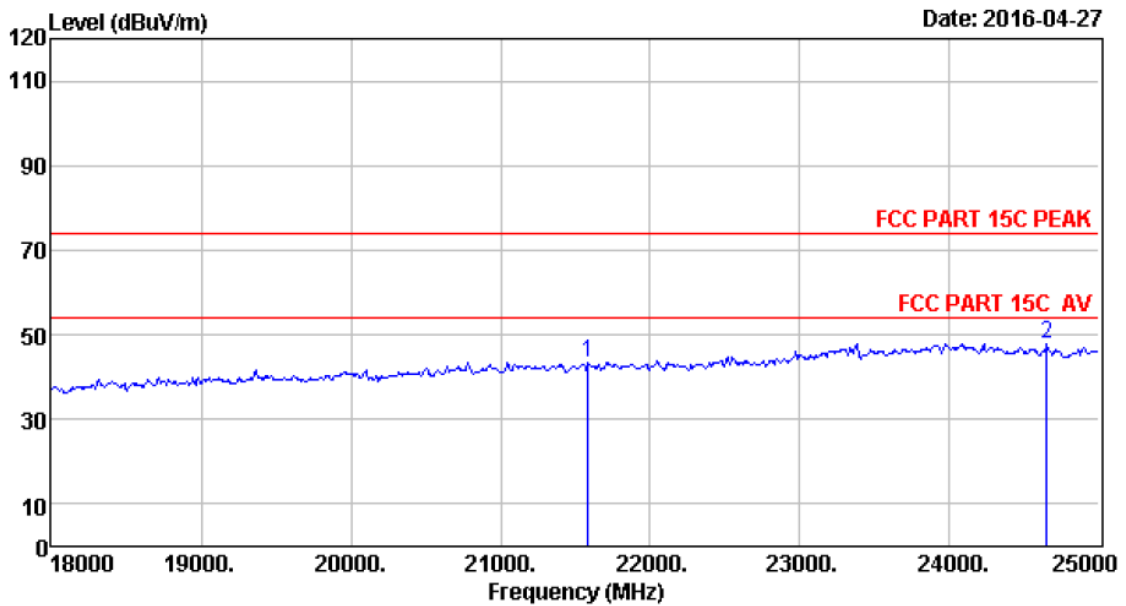
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 l# chamber Data no. : 1089
 Dis. / Ant. : 3m ANT ABV0E 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : (π/4)DQPSK TX 2441MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	21500.00	46.00	20.35	35.35	12.97	43.97	74.00	30.03	Peak
2	24265.00	45.65	22.19	33.23	14.13	48.74	74.00	25.26	Peak

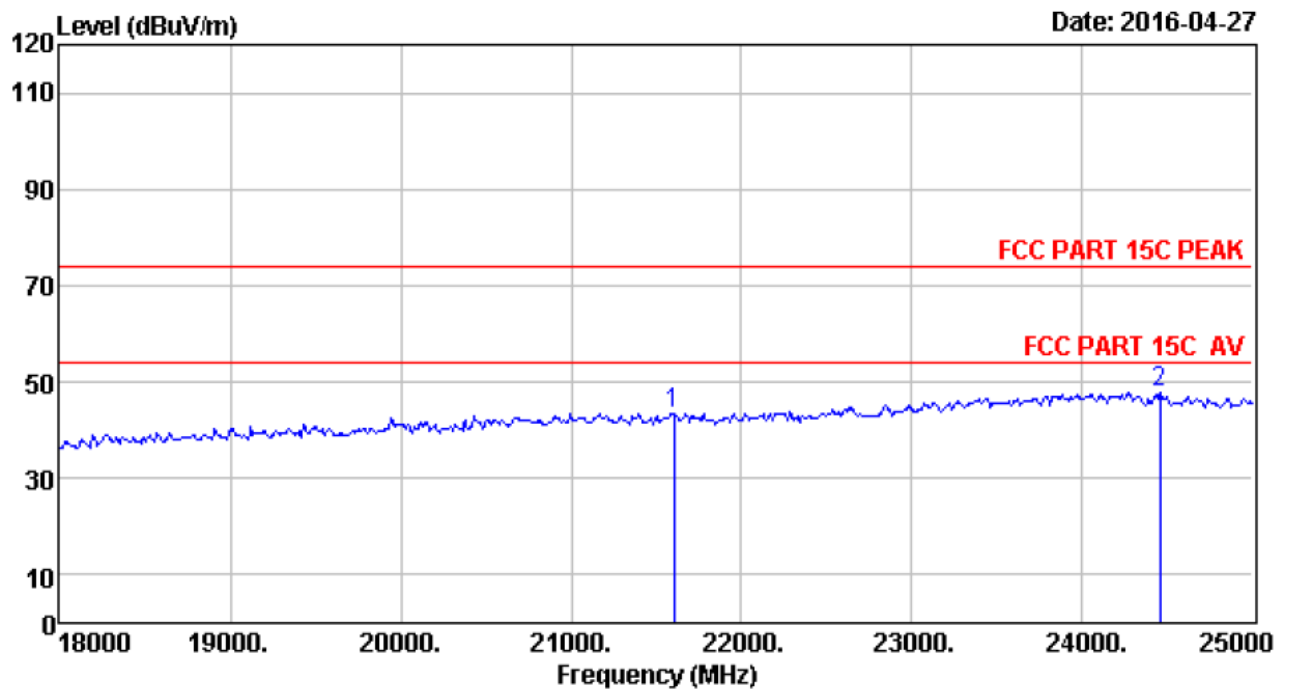
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1090
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : (π/4)DQPSK TX 2441MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	21584.00	45.95	20.38	35.28	12.37	43.42	74.00	30.58	Peak
2	24650.00	45.82	22.40	33.81	13.57	47.98	74.00	26.02	Peak

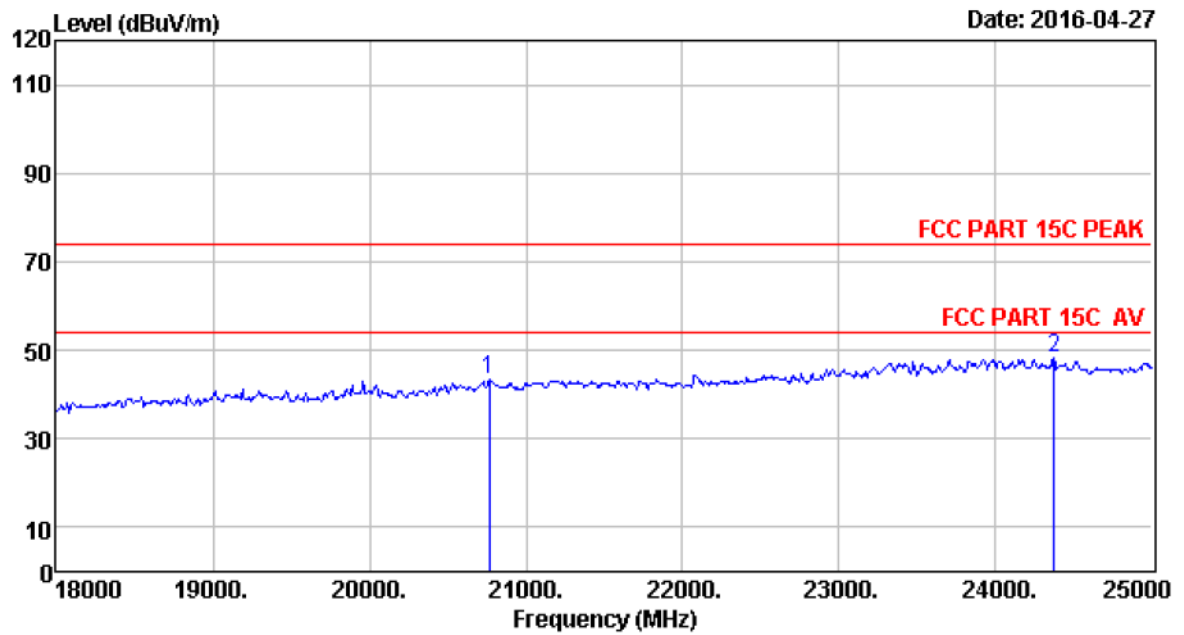
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1091
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : (π/4)DQPSK TX 2480MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	21605.00	45.93	20.39	35.26	12.54	43.60	74.00	30.40	Peak
2	24454.00	45.69	22.29	33.50	13.48	47.96	74.00	26.04	Peak

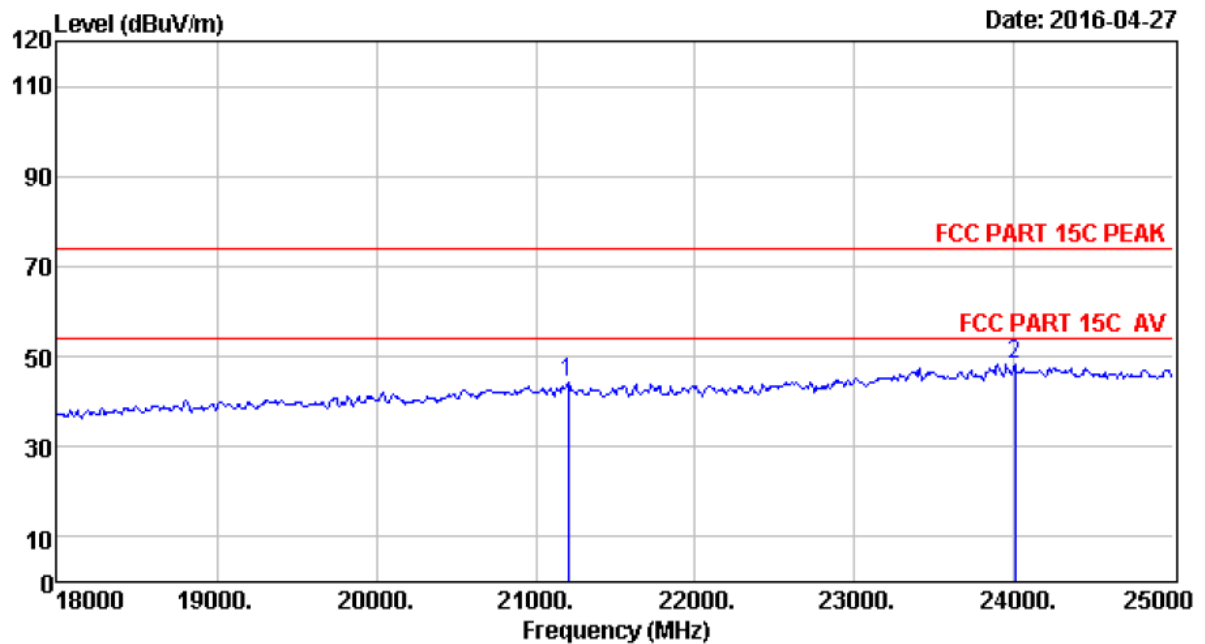
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1092
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : (n/4)DQPSK TX 2480MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	20765.00	46.16	20.02	36.00	13.18	43.36	74.00	30.64	Peak
2	24370.00	45.68	22.25	33.38	13.60	48.15	74.00	25.85	Peak

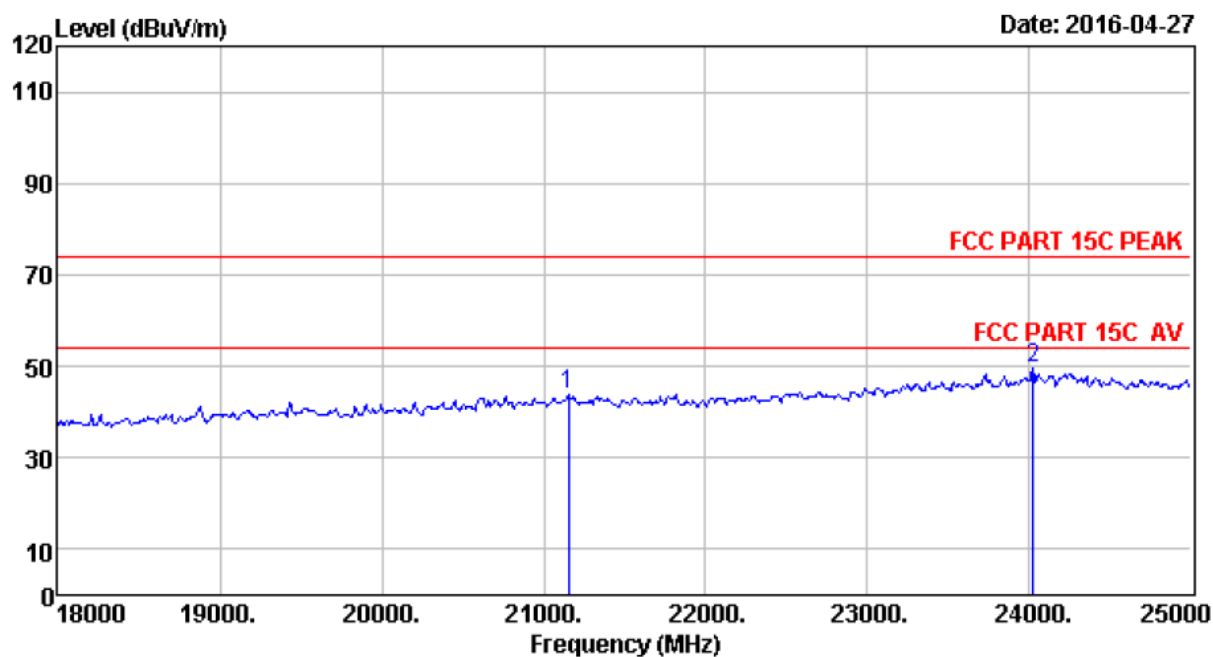
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1093
 Dis. / Ant. : 3m ANT ABVOE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : 8-DPSK TX 2402MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	21206.00	46.17	20.22	35.62	13.33	44.10	74.00	29.90	Peak
2	24006.00	45.60	22.05	32.80	13.54	48.39	74.00	25.61	Peak

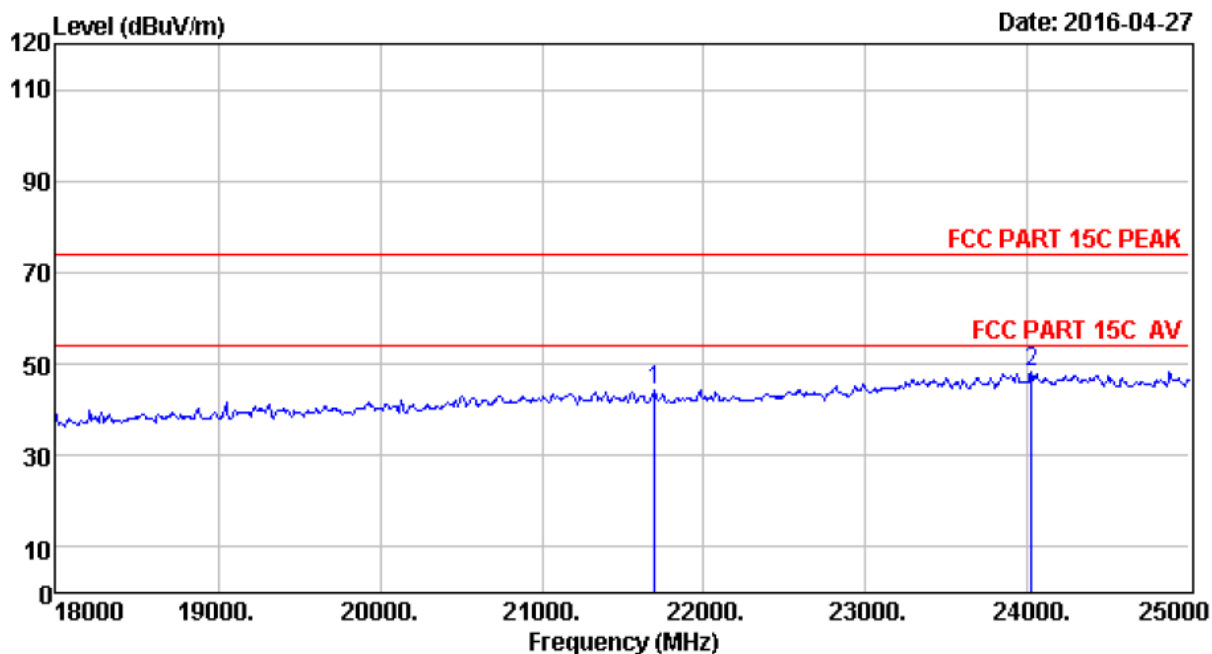
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1094
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : 8-DPSK TX 2402MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	21150.00	46.21	20.20	35.67	12.89	43.63	74.00	30.37	Peak
2	24020.00	45.60	22.06	32.84	14.67	49.49	74.00	24.51	Peak

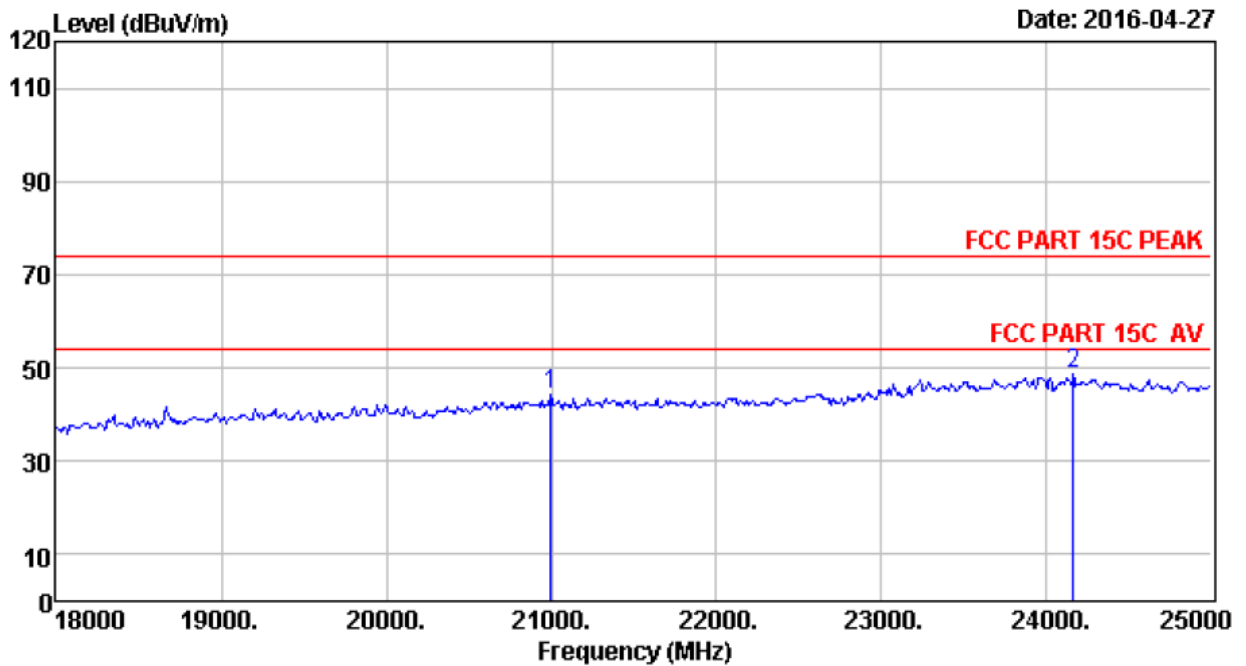
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1095
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : 8-DPSK TX 2441MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	21696.00	45.88	20.43	35.17	13.25	44.39	74.00	29.61	Peak
2	24020.00	45.60	22.06	32.84	13.39	48.21	74.00	25.79	Peak

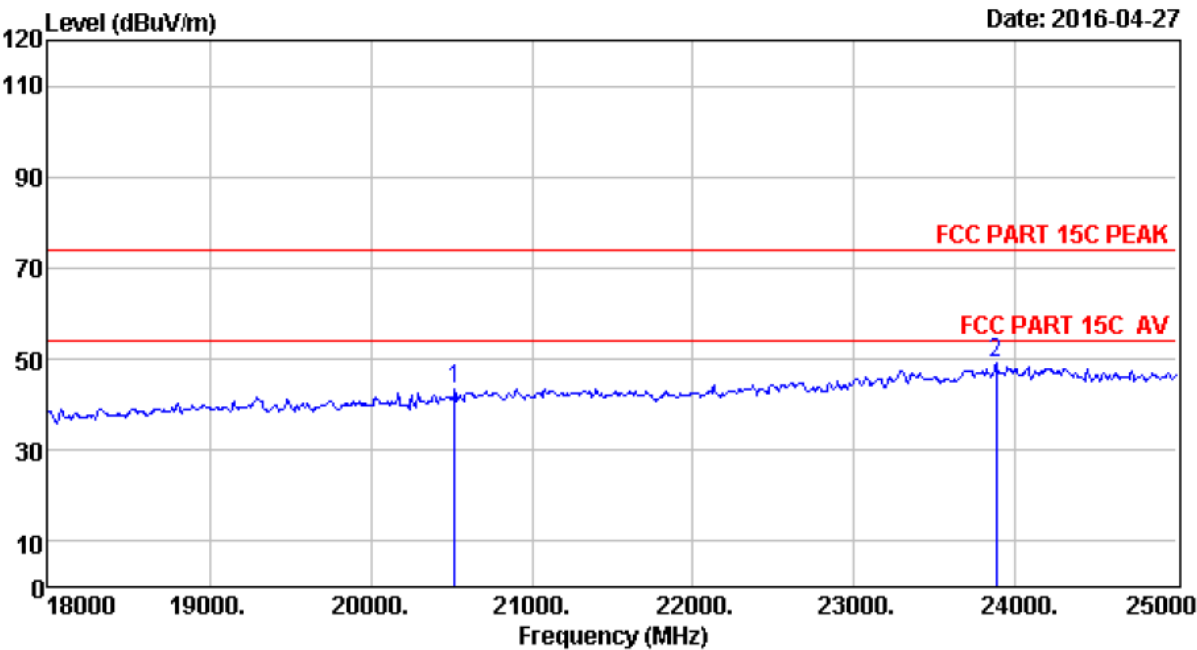
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1096
 Dis. / Ant. : 3m ANT ABVOE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : 8-DPSK TX 2441MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	20996.00	46.30	20.13	35.80	13.67	44.30	74.00	29.70	Peak
2	24160.00	45.63	22.13	33.03	13.92	48.65	74.00	25.35	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber

Data no. : 1097

Dis. / Ant. : 3m ANT ABVOE 18G

Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa

Engineer : Tony

EUT : Portable Bluetooth Speaker

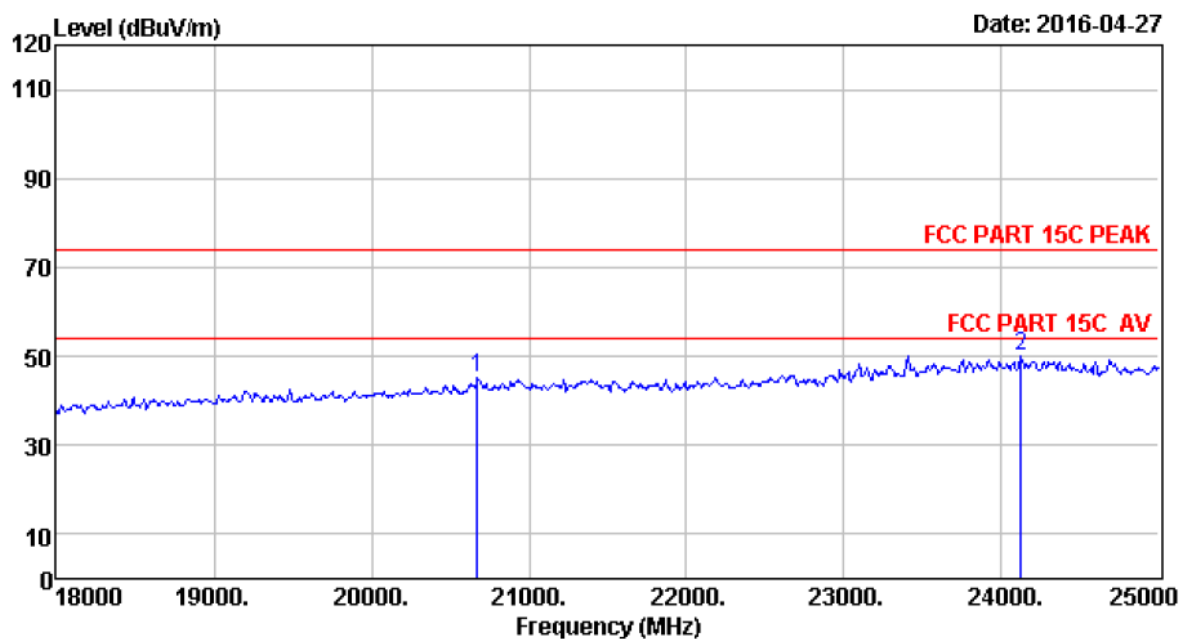
Power : DC 18V From Adapter Input AC 120V/60Hz

M/N : DS4

Test Mode : 8-DPSK TX 2480MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	20520.00	46.01	19.92	36.23	13.67	43.37	74.00	30.63	Peak
2	23880.00	45.63	21.94	32.93	14.53	49.17	74.00	24.83	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1098
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : 8-DPSK TX 2480MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	20674.00	46.11	19.98	36.09	15.06	45.06	74.00	28.94	Peak
2	24125.00	45.62	22.12	32.99	15.44	50.19	74.00	23.81	Peak

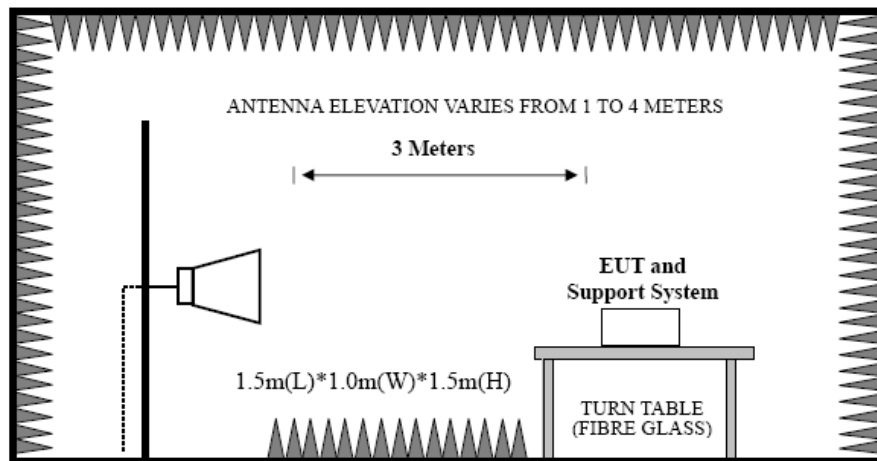
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official
 limit are not reported.

9. BAND EDGE COMPLIANCE

9.1. Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

9.2. Block Diagram of Test setup



9.3. Test Procedure

EUT was placed on a turn table, which is 1.5 m high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.

Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of emissions

Peak : RBW = 1MHz, VBW = 1MHz, Detector=PEAK detector, Sweep time = auto.

AV : RBW = 1MHz, VBW = 10Hz, Detector=PEAK detector, Sweep time = auto.

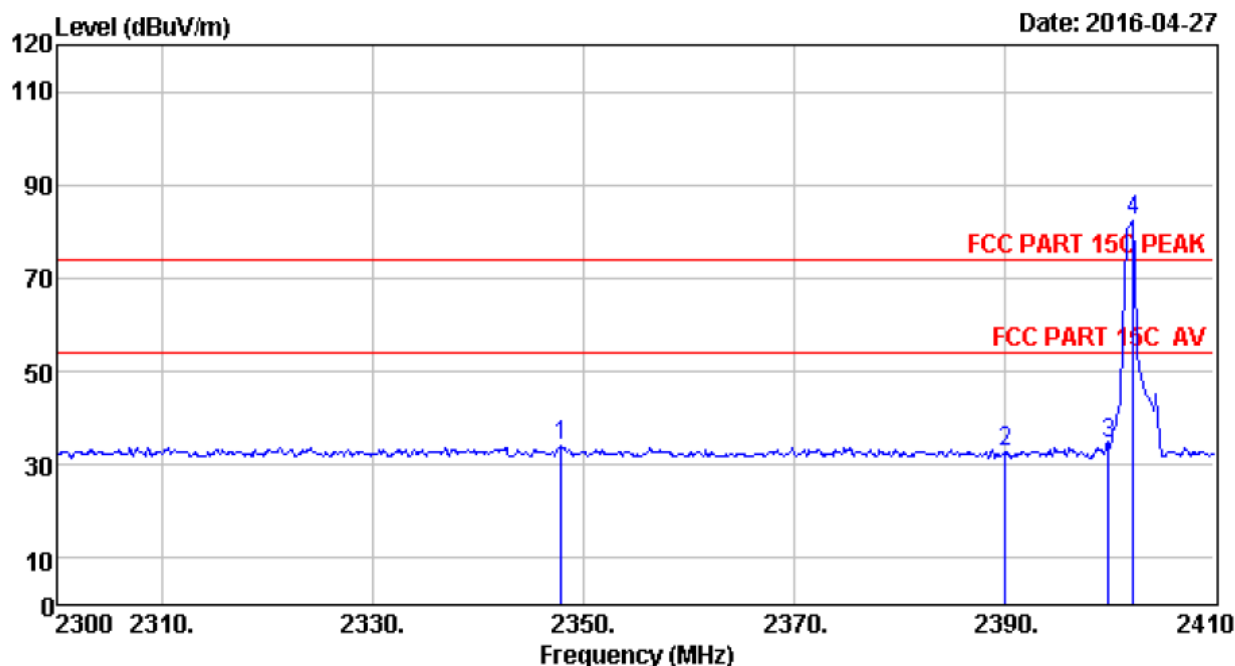
9.4. Test Result

EUT: Bluetooth Speaker
M/N: DS4
Power: DC 18V From Adapter Input AC 120V/60Hz
Test date: 2016-04-27 Test site: 3m Chamber Tested by: Tony Tang
Test mode: Tx Mode (Hopping On & No Hopping)
Pass

Note: 1、 For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

2、 The frequency 2402MHz 、2441MHz and 2480MHz is fundamental frequency which no limit, the limit on plots is automatically generated by the software, it's not fundamental limit, we can't remove it.

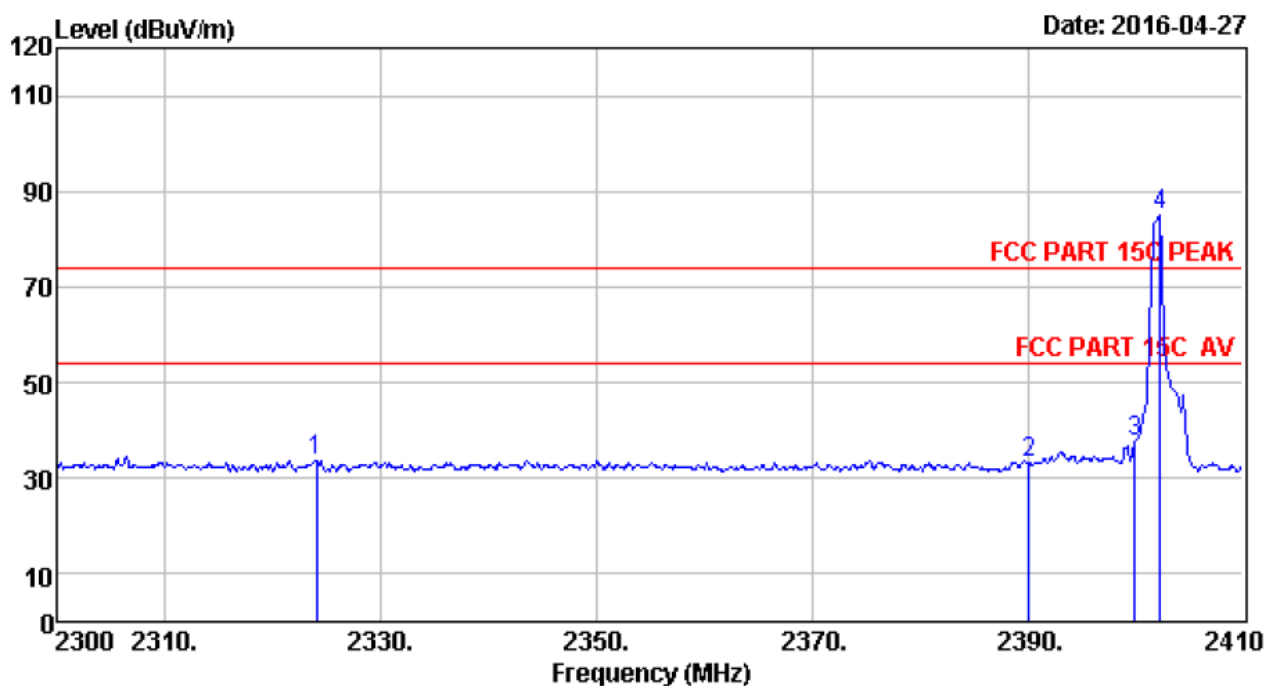
9.5. Test Data



Site no. : 966 1# chamber Data no. : 1057
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : GFSK TX 2402MHz (No Hopping)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2347.85	27.70	6.56	34.57	34.33	34.02	74.00	39.98	Peak
2	2390.09	27.64	6.62	34.62	32.92	32.56	74.00	41.44	Peak
3	2399.99	27.61	6.62	34.64	34.90	34.49	74.00	39.51	Peak
4	2402.30	27.61	6.62	34.64	82.83	82.42	74.00	-8.42	Peak

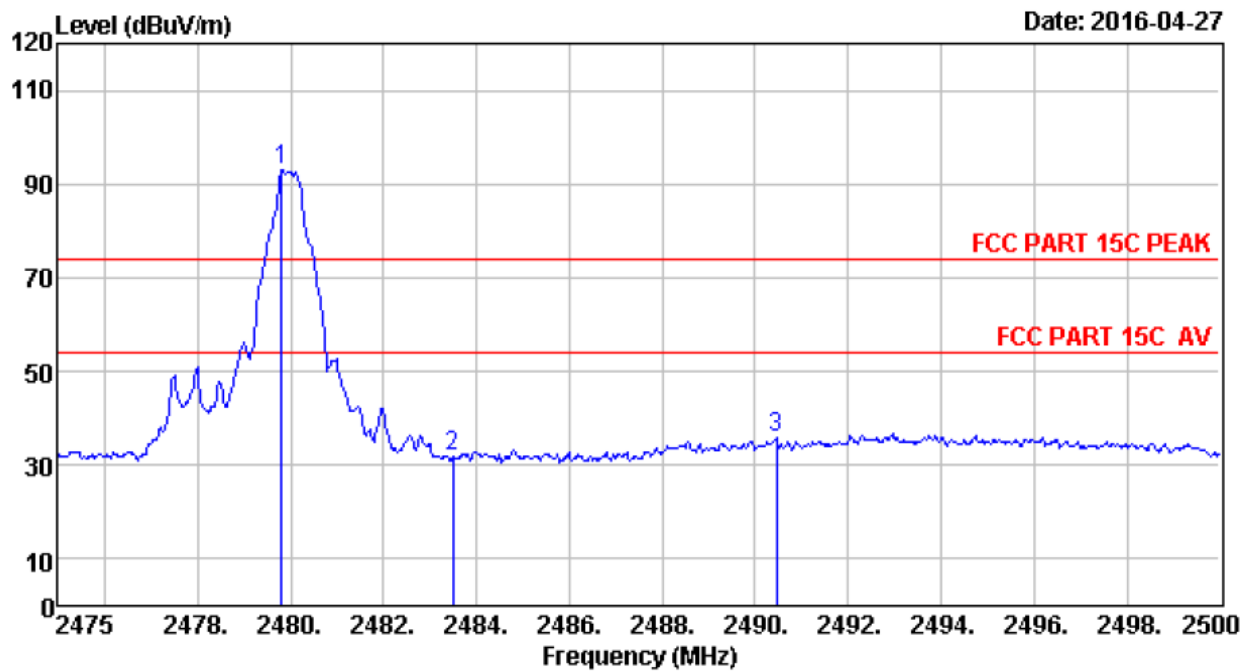
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1058
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : GFSK TX 2402MHz (No Hopping)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2323.98	27.73	6.54	34.60	34.14	33.81	74.00	40.19	Peak
2	2390.09	27.64	6.62	34.62	33.37	33.01	74.00	40.99	Peak
3	2399.99	27.61	6.62	34.64	38.23	37.82	74.00	36.18	Peak
4	2402.30	27.61	6.62	34.64	85.33	84.92	74.00	-10.92	Peak

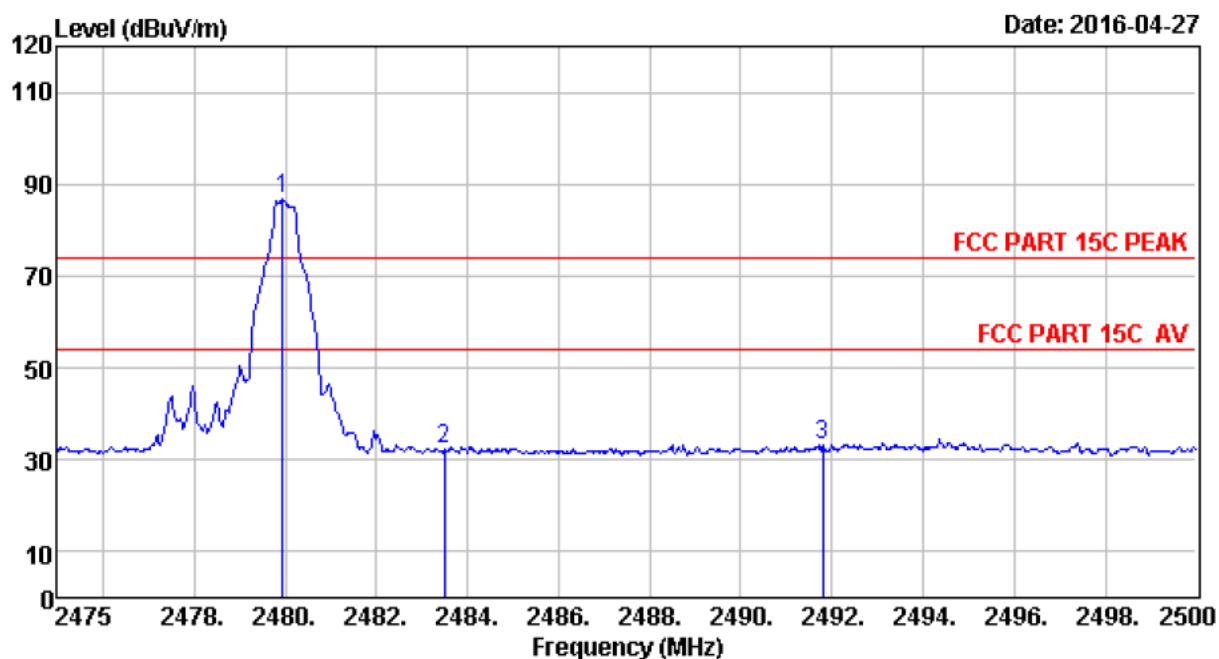
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1059
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : GFSK TX 2480MHz (No Hopping)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.80	27.58	6.71	35.11	94.01	93.19	74.00	-19.19	Peak
2	2483.50	27.58	6.71	35.11	32.51	31.69	74.00	42.31	Peak
3	2490.45	27.58	6.73	35.24	36.60	35.67	74.00	38.33	Peak

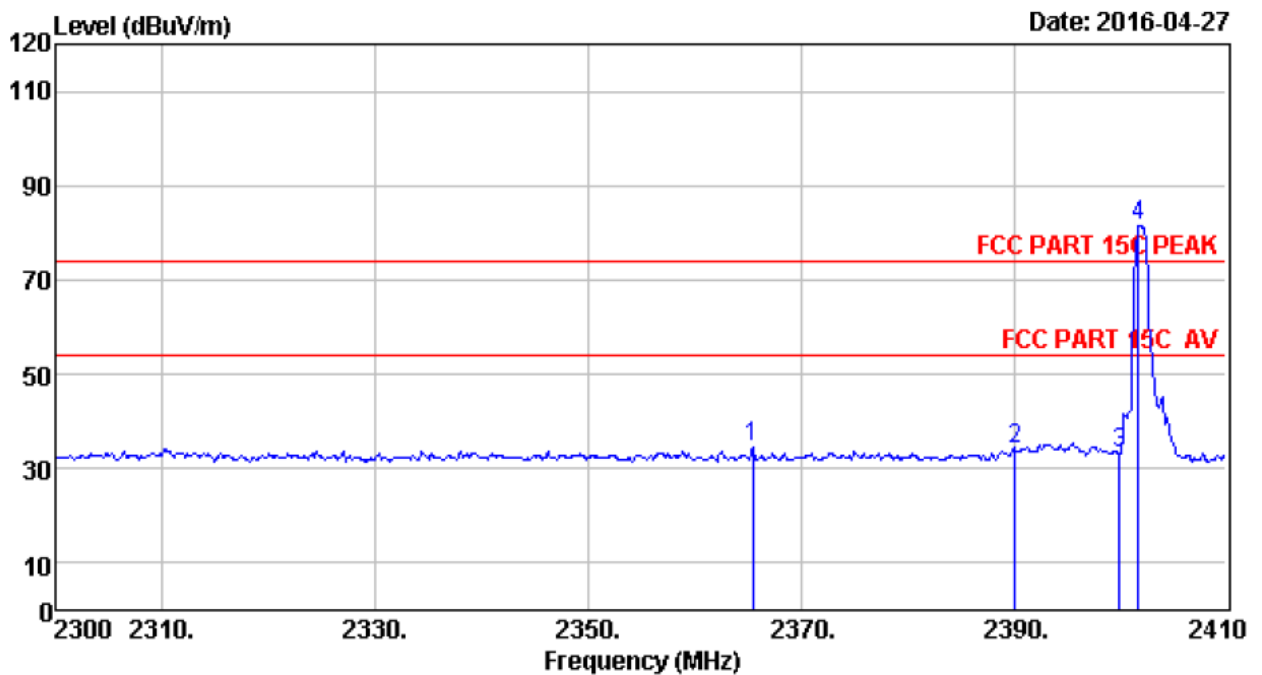
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1060
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : GFSK TX 2480MHz (No Hopping)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Remark
1	2479.95	27.58	6.71	35.11	87.71	86.89	74.00	-12.89	Peak
2	2483.50	27.58	6.71	35.11	33.32	32.50	74.00	41.50	Peak
3	2491.80	27.58	6.73	35.24	34.18	33.25	74.00	40.75	Peak

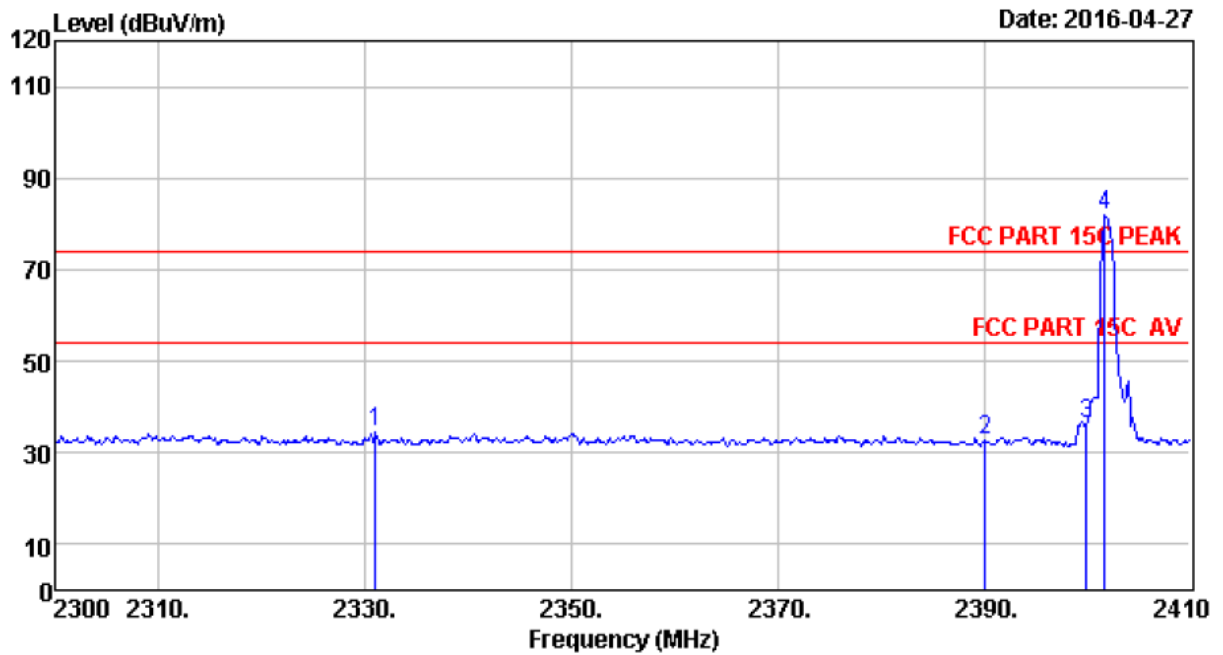
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1061
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : (n/4)DQPSK TX 2402MHz (No Hopping)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2365.45	27.67	6.58	34.59	34.91	34.57	74.00	39.43	Peak
2	2390.09	27.64	6.62	34.62	34.25	33.89	74.00	40.11	Peak
3	2399.99	27.61	6.62	34.64	33.44	33.03	74.00	40.97	Peak
4	2401.75	27.61	6.62	34.64	82.09	81.68	74.00	-7.68	Peak

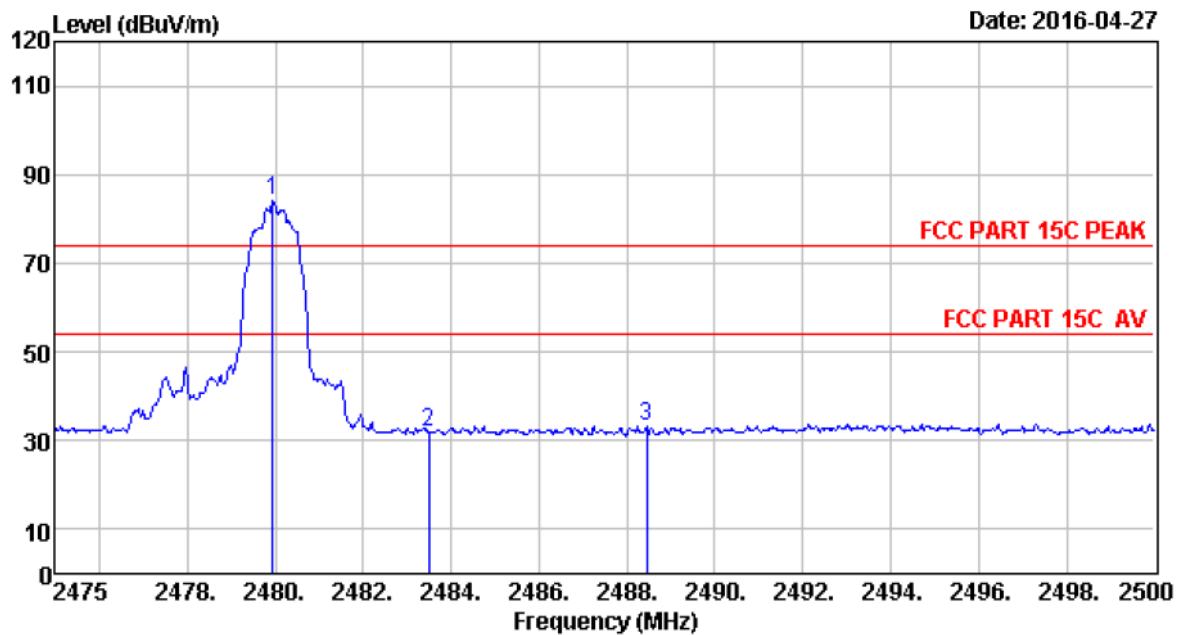
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1062
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : ($\pi/4$)DQPSK TX 2402MHz (No Hopping)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2331.02	27.73	6.54	34.59	34.89	34.57	74.00	39.43	Peak
2	2390.09	27.64	6.62	34.62	32.93	32.57	74.00	41.43	Peak
3	2399.99	27.61	6.62	34.64	36.63	36.22	74.00	37.78	Peak
4	2401.75	27.61	6.62	34.64	82.36	81.95	74.00	-7.95	Peak

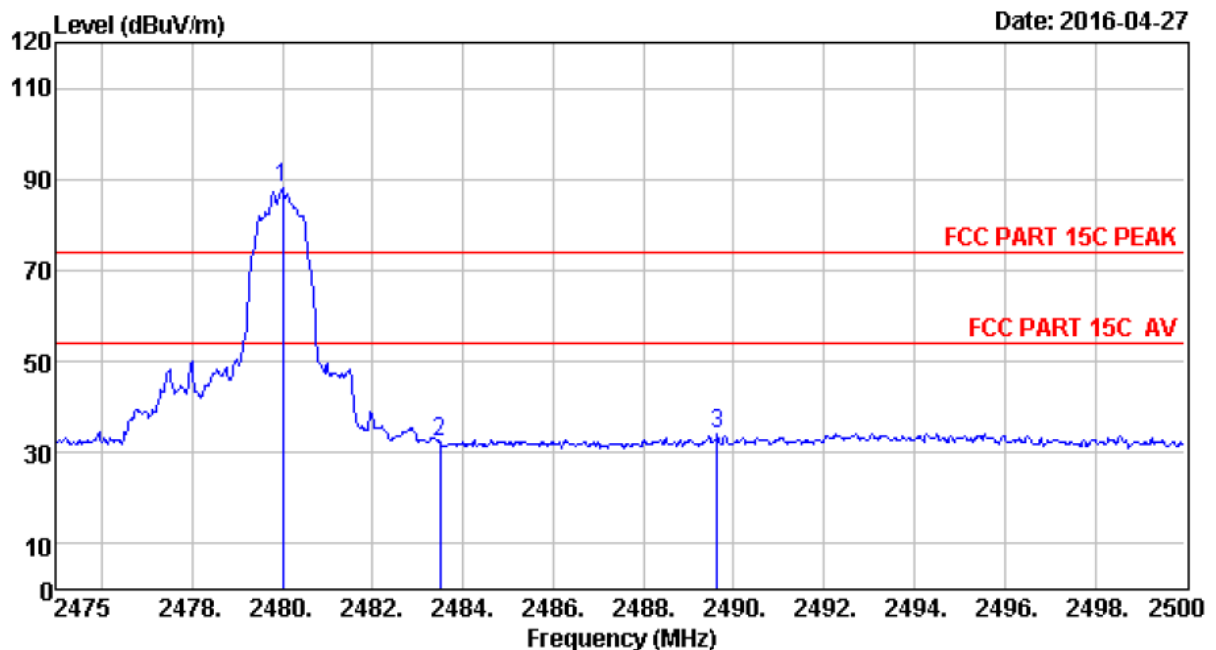
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1063
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : ($\pi/4$)DQPSK TX 2480MHz (No Hopping)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.95	27.58	6.71	35.11	84.94	84.12	74.00	-10.12	Peak
2	2483.50	27.58	6.71	35.11	32.76	31.94	74.00	42.06	Peak
3	2488.45	27.58	6.73	35.11	34.04	33.24	74.00	40.76	Peak

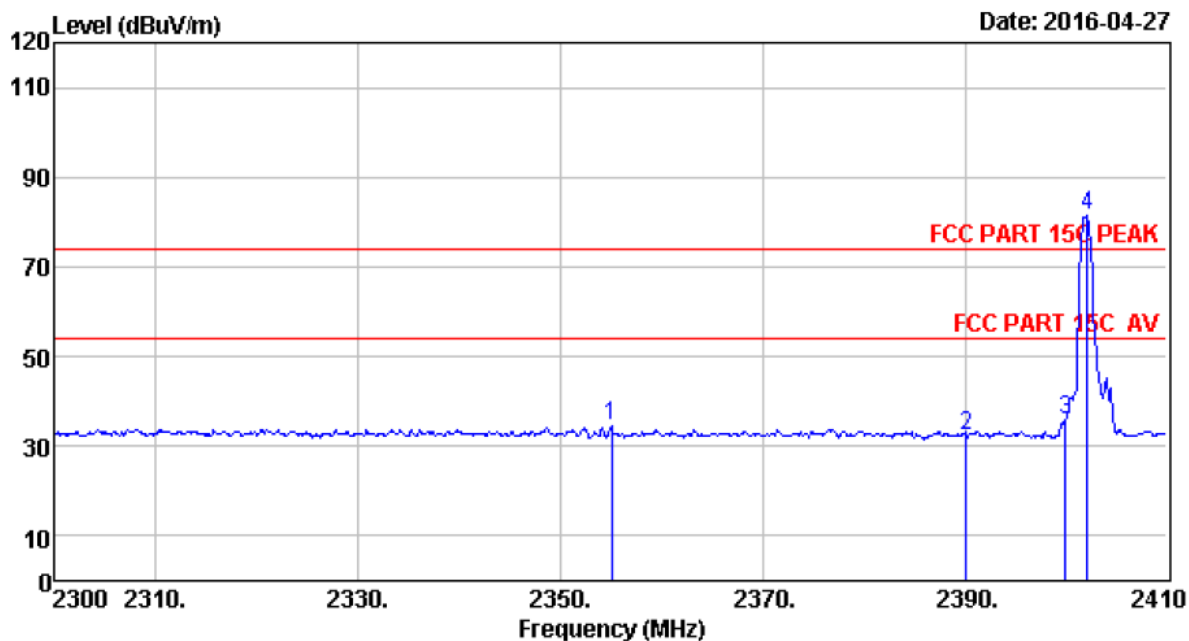
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1064
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : ($\pi/4$)DQPSK TX 2480MHz (No Hopping)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.00	27.58	6.71	35.11	88.87	88.05	74.00	-14.05	Peak
2	2483.50	27.58	6.71	35.11	33.31	32.49	74.00	41.51	Peak
3	2489.63	27.58	6.73	35.24	34.94	34.01	74.00	39.99	Peak

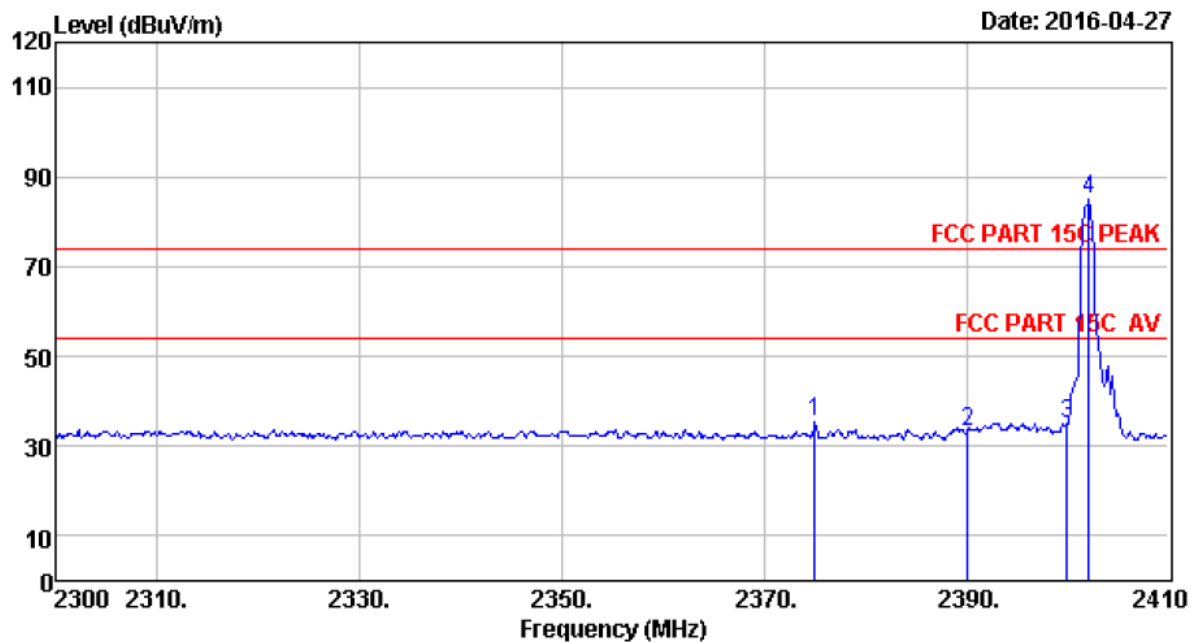
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1065
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : 8-DPSK TX 2402MHz (No Hopping)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2355.00	27.70	6.58	34.57	34.83	34.54	74.00	39.46	Peak
2	2390.09	27.64	6.62	34.62	32.88	32.52	74.00	41.48	Peak
3	2399.99	27.61	6.62	34.64	36.35	35.94	74.00	38.06	Peak
4	2402.08	27.61	6.62	34.64	81.98	81.57	74.00	-7.57	Peak

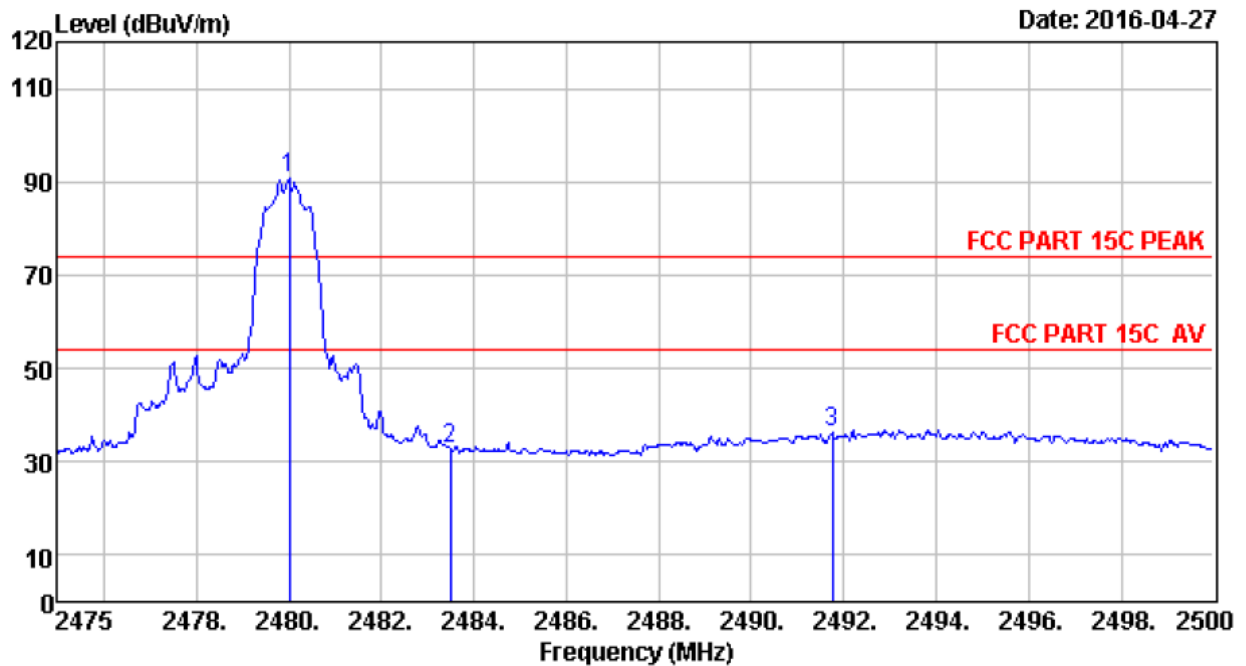
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1066
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : 8-DPSK TX 2402MHz (No Hopping)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2375.02	27.64	6.60	34.59	35.95	35.60	74.00	38.40	Peak
2	2390.09	27.64	6.62	34.62	33.49	33.13	74.00	40.87	Peak
3	2399.99	27.61	6.62	34.64	35.22	34.81	74.00	39.19	Peak
4	2402.08	27.61	6.62	34.64	85.30	84.89	74.00	-10.89	Peak

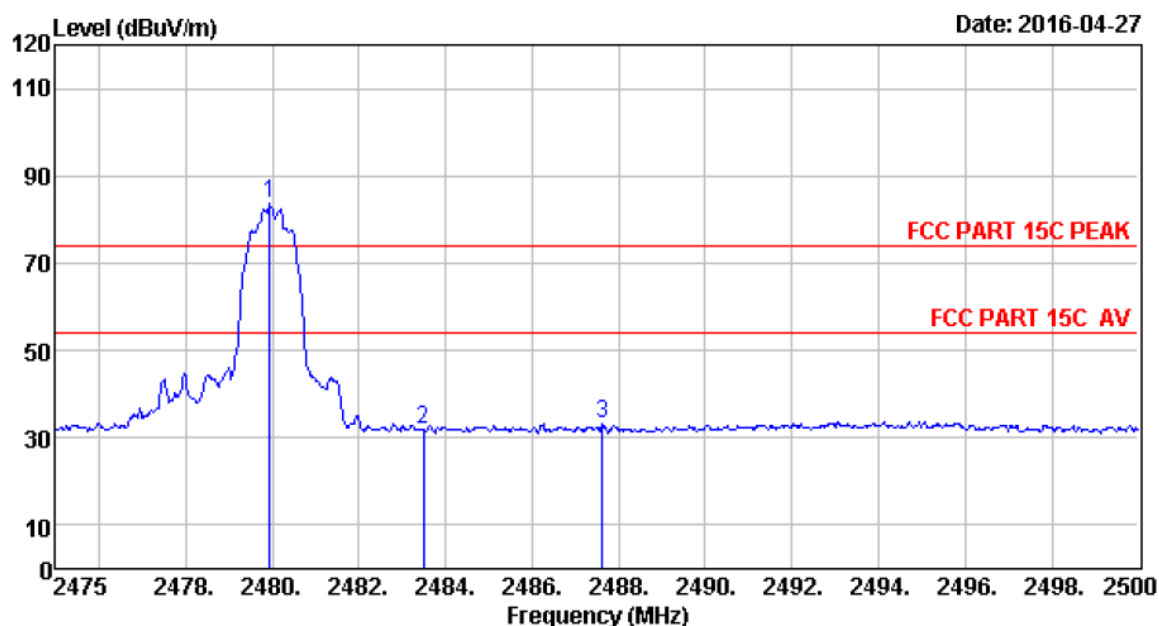
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1067
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : 8-DPSK TX 2480MHz (No Hopping)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.00	27.58	6.71	35.11	91.43	90.61	74.00	-16.61	Peak
2	2483.50	27.58	6.71	35.11	33.76	32.94	74.00	41.06	Peak
3	2491.75	27.58	6.73	35.24	37.39	36.46	74.00	37.54	Peak

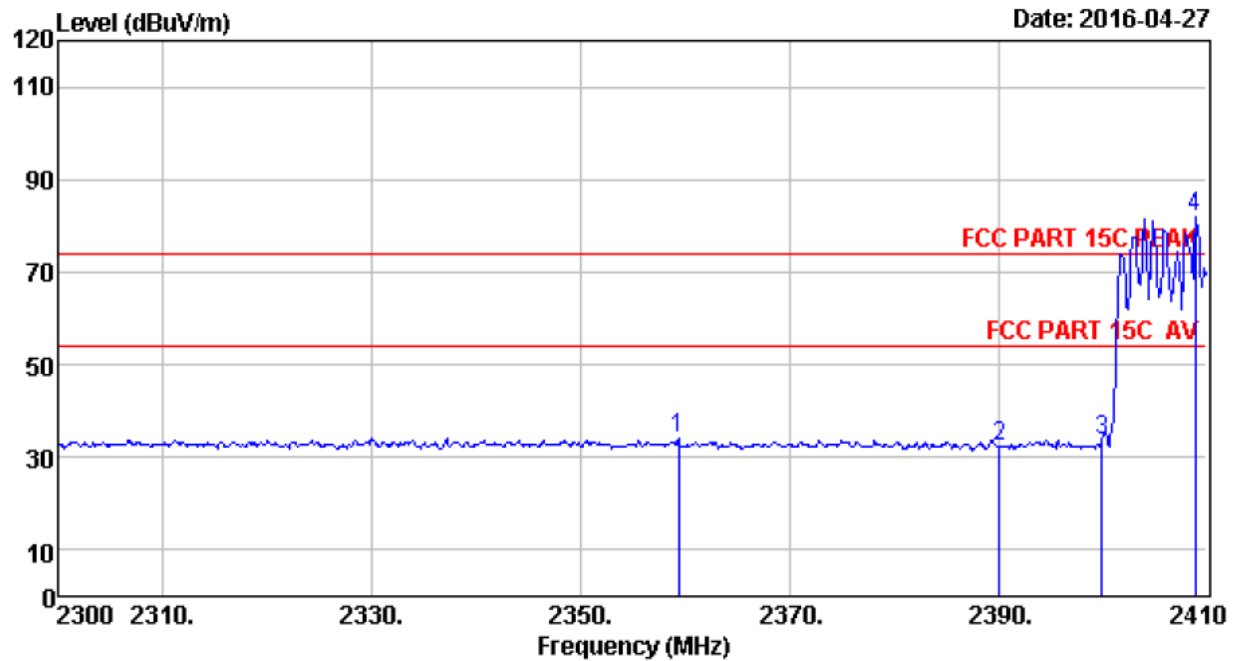
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 l# chamber Data no. : 1068
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : 8-DPSK TX 2480MHz (No Hopping)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.95	27.58	6.71	35.11	84.33	83.51	74.00	-9.51	Peak
2	2483.50	27.58	6.71	35.11	32.64	31.82	74.00	42.18	Peak
3	2487.63	27.58	6.73	35.11	33.88	33.08	74.00	40.92	Peak

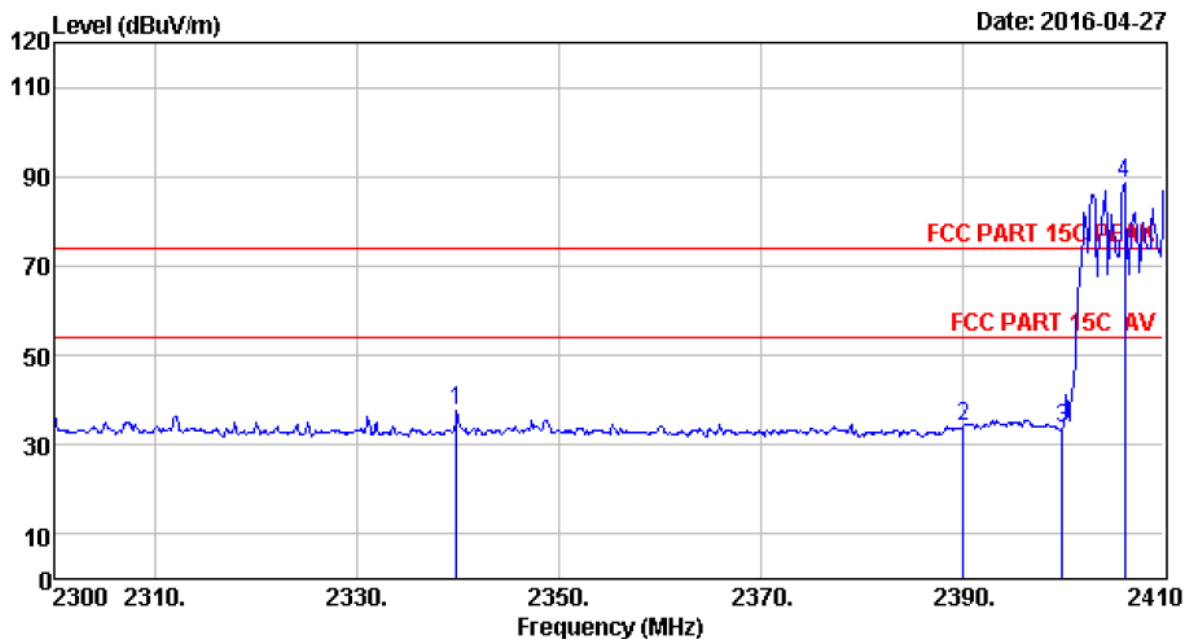
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1069
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : GFSK TX 2402MHz (Hopping On)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2359.40	27.67	6.58	34.57	34.54	34.22	74.00	39.78	Peak
2	2390.09	27.64	6.62	34.62	32.56	32.20	74.00	41.80	Peak
3	2399.99	27.61	6.62	34.64	33.94	33.53	74.00	40.47	Peak
4	2408.90	27.60	6.64	34.64	82.11	81.71	74.00	-7.71	Peak

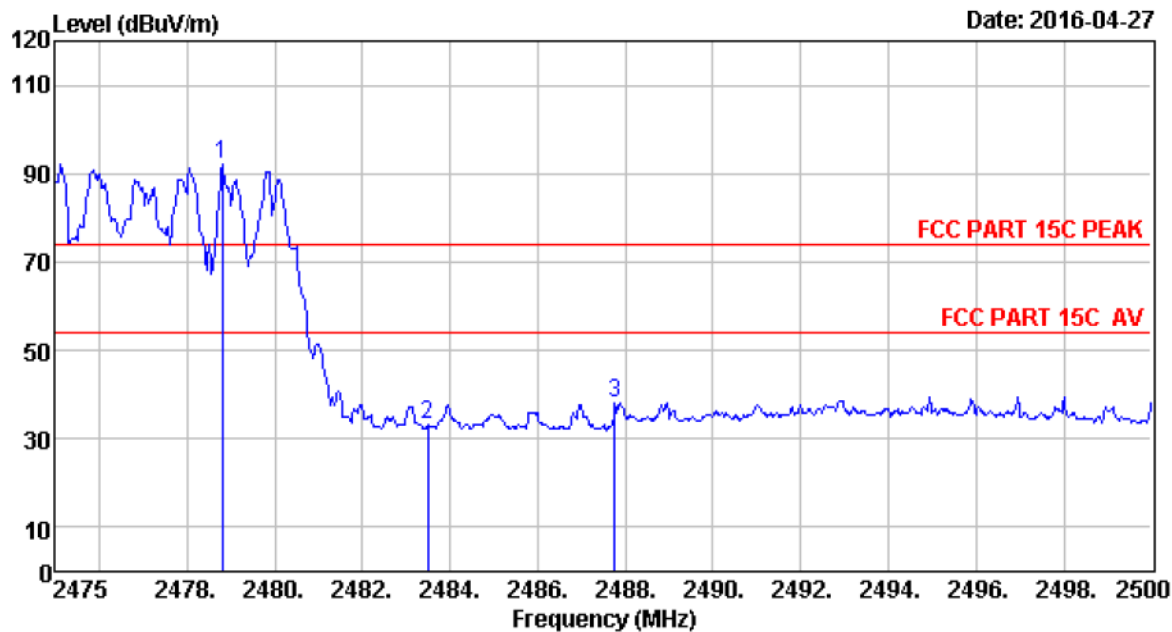
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 l# chamber Data no. : 1070
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : GFSK TX 2402MHz (Hopping On)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2339.82	27.70	6.56	34.59	37.93	37.60	74.00	36.40	Peak
2	2390.09	27.64	6.62	34.62	34.36	34.00	74.00	40.00	Peak
3	2399.99	27.61	6.62	34.64	33.96	33.55	74.00	40.45	Peak
4	2406.15	27.61	6.64	34.64	88.74	88.35	74.00	-14.35	Peak

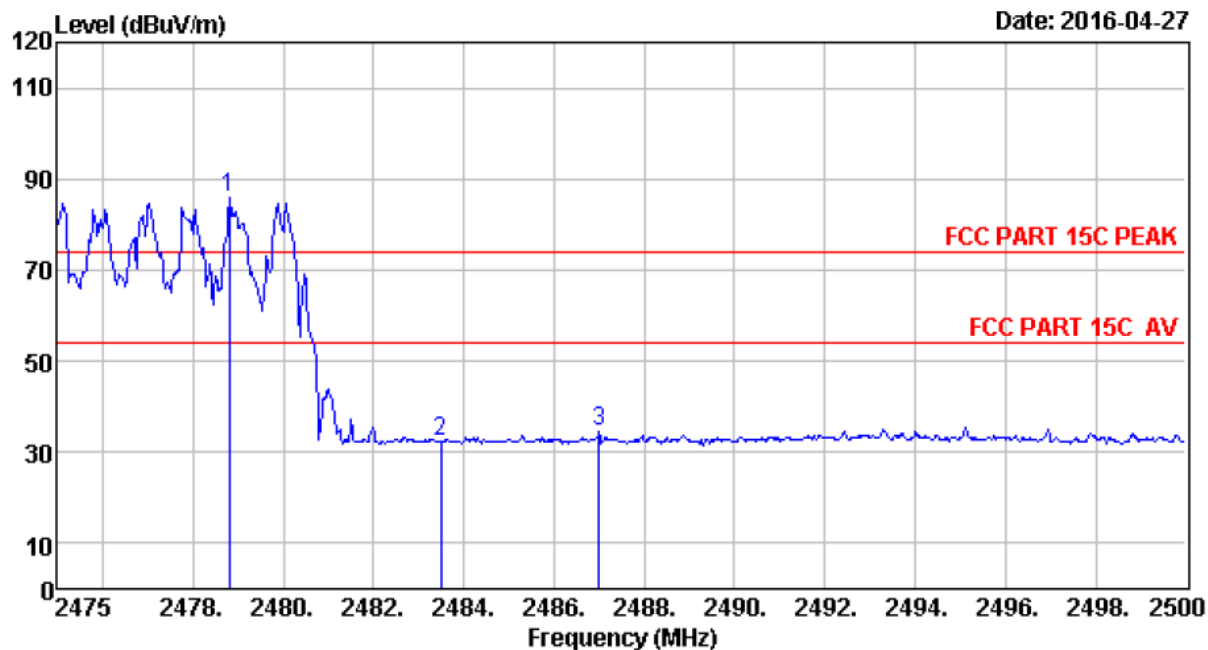
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1071
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : GFSK TX 2480MHz (Hopping On)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Remark
1	2478.80	27.58	6.71	35.11	92.98	92.16	74.00	-18.16	Peak
2	2483.50	27.58	6.71	35.11	34.01	33.19	74.00	40.81	Peak
3	2487.75	27.58	6.73	35.11	38.96	38.16	74.00	35.84	Peak

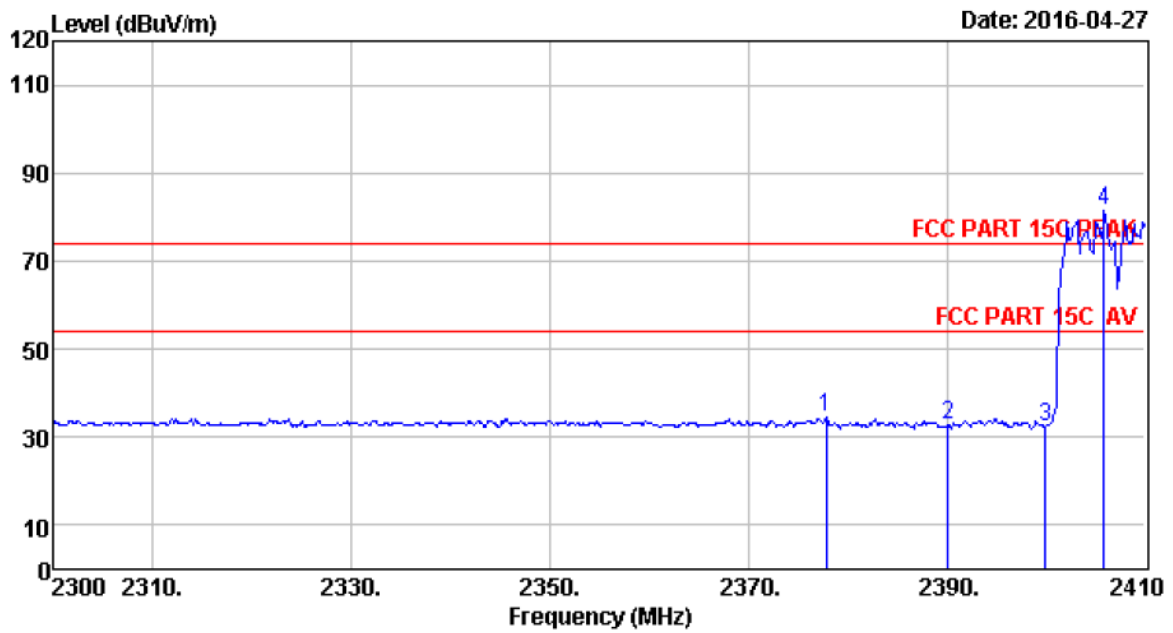
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 966 1# chamber Data no. : 1072
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : GFSK TX 2480MHz (Hopping On)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2478.80	27.58	6.71	35.11	86.64	85.82	74.00	-11.82	Peak
2	2483.50	27.58	6.71	35.11	33.14	32.32	74.00	41.68	Peak
3	2487.00	27.58	6.71	35.11	35.15	34.33	74.00	39.67	Peak

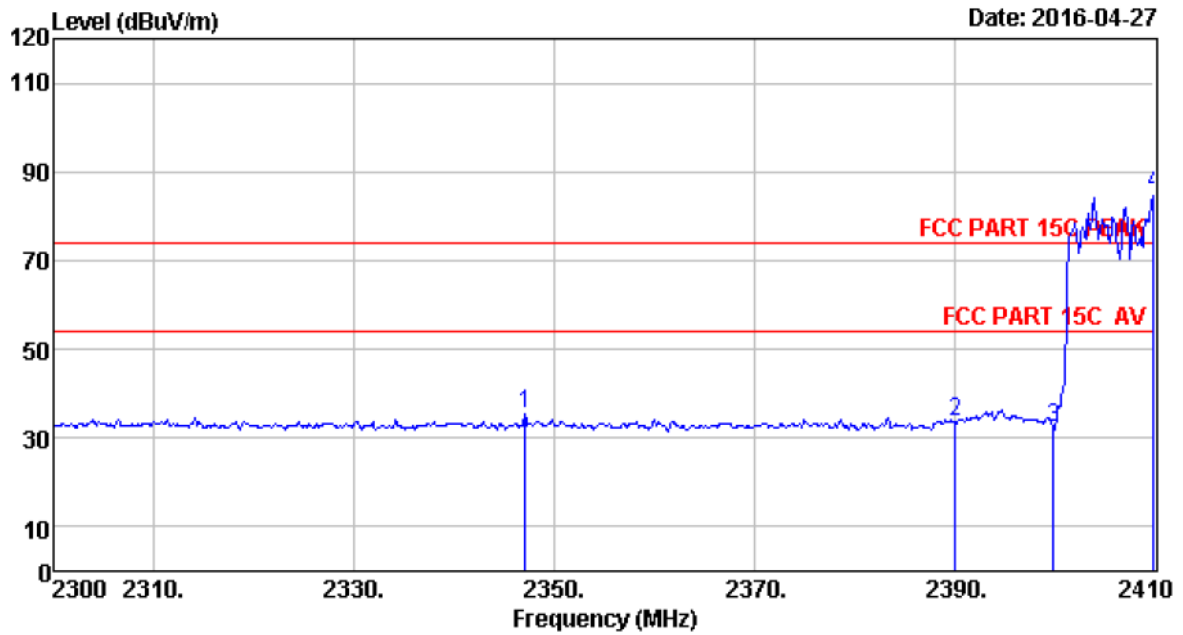
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1073
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : (n/4)DQPSK TX 2402MHz (Hopping On)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2377.88	27.64	6.60	34.59	34.67	34.32	74.00	39.68	Peak
2	2390.09	27.64	6.62	34.62	33.00	32.64	74.00	41.36	Peak
3	2399.99	27.61	6.62	34.64	32.96	32.55	74.00	41.45	Peak
4	2405.82	27.61	6.64	34.64	82.01	81.62	74.00	-7.62	Peak

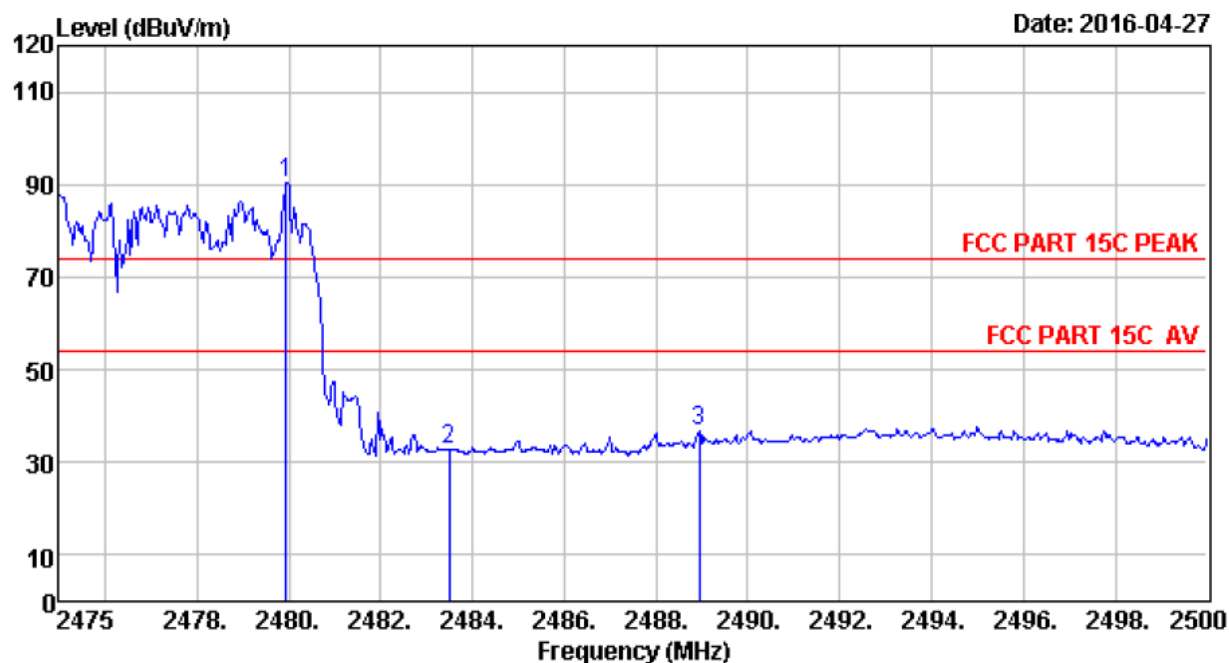
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1074
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : (π/4)DQPSK TX 2402MHz (Hopping On)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2347.08	27.70	6.56	34.57	35.95	35.64	74.00	38.36	Peak
2	2390.09	27.64	6.62	34.62	33.81	33.45	74.00	40.55	Peak
3	2399.99	27.61	6.62	34.64	32.88	32.47	74.00	41.53	Peak
4	2410.00	27.60	6.64	34.64	85.35	84.95	74.00	-10.95	Peak

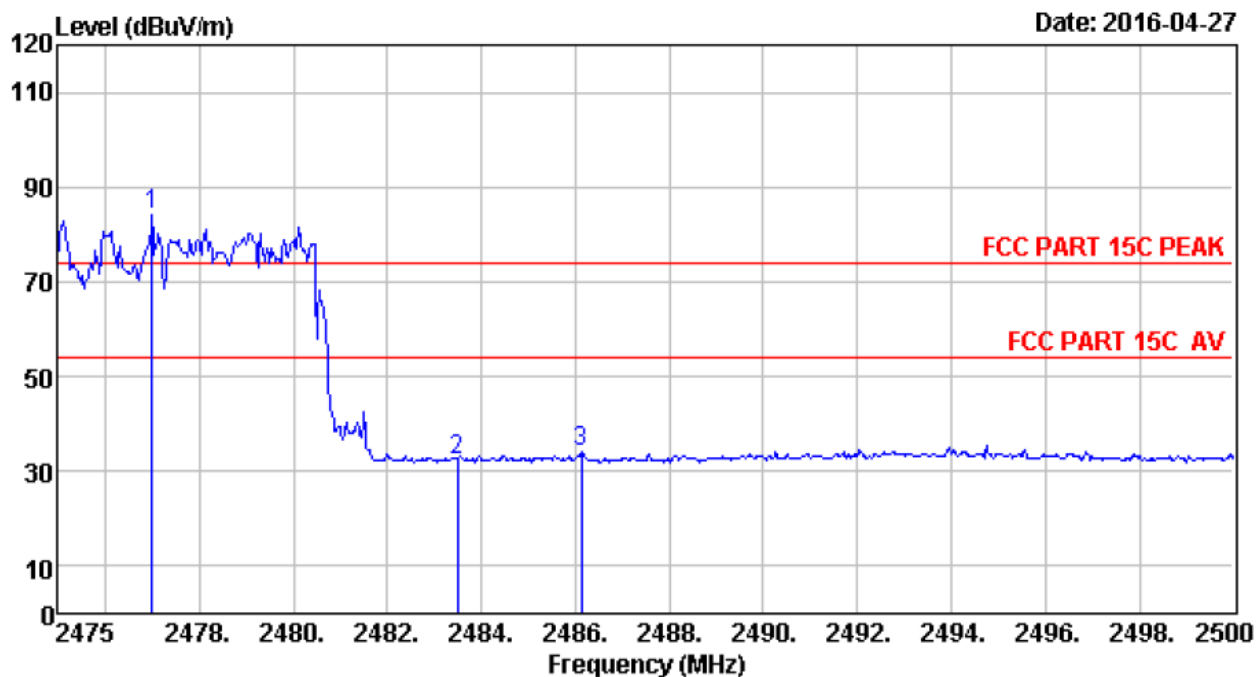
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1075
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : ($\pi/4$)DQPSK TX 2480MHz (Hopping On)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.95	27.58	6.71	35.11	91.21	90.39	74.00	-16.39	Peak
2	2483.50	27.58	6.71	35.11	33.66	32.84	74.00	41.16	Peak
3	2488.95	27.58	6.73	35.11	37.62	36.82	74.00	37.18	Peak

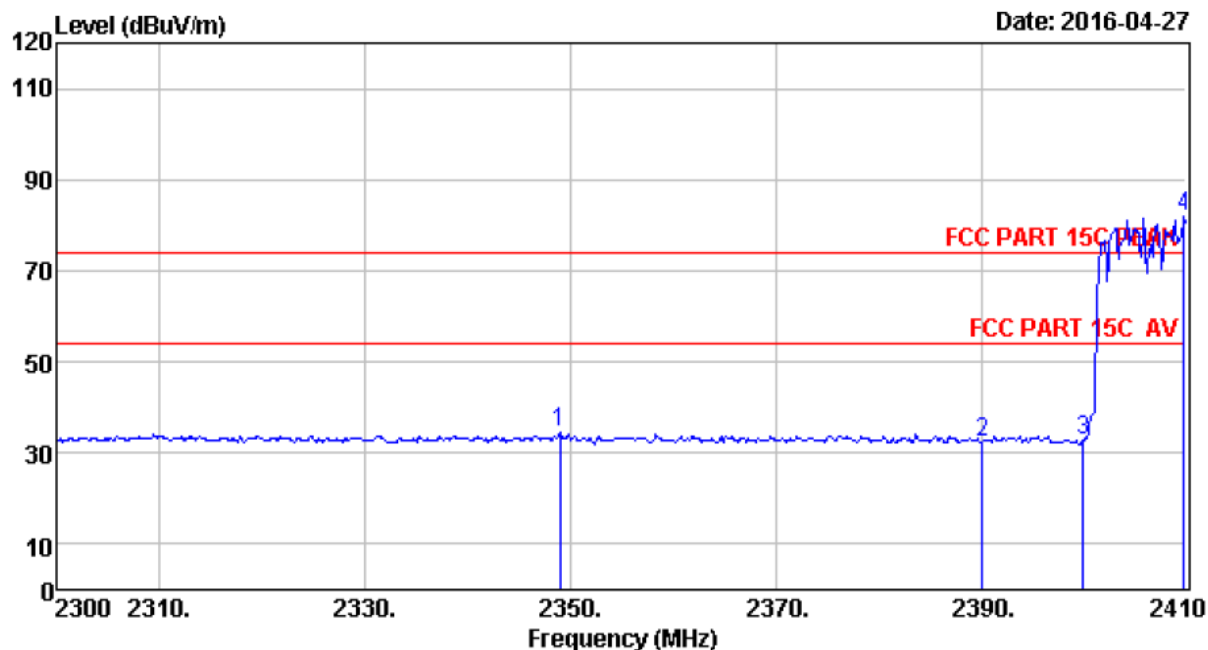
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1076
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : (π/4)DQPSK TX 2480MHz (Hopping On)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Remark
1	2477.00	27.58	6.71	35.11	84.75	83.93	74.00	-9.93	Peak
2	2483.50	27.58	6.71	35.11	33.36	32.54	74.00	41.46	Peak
3	2486.13	27.58	6.71	35.11	35.02	34.20	74.00	39.80	Peak

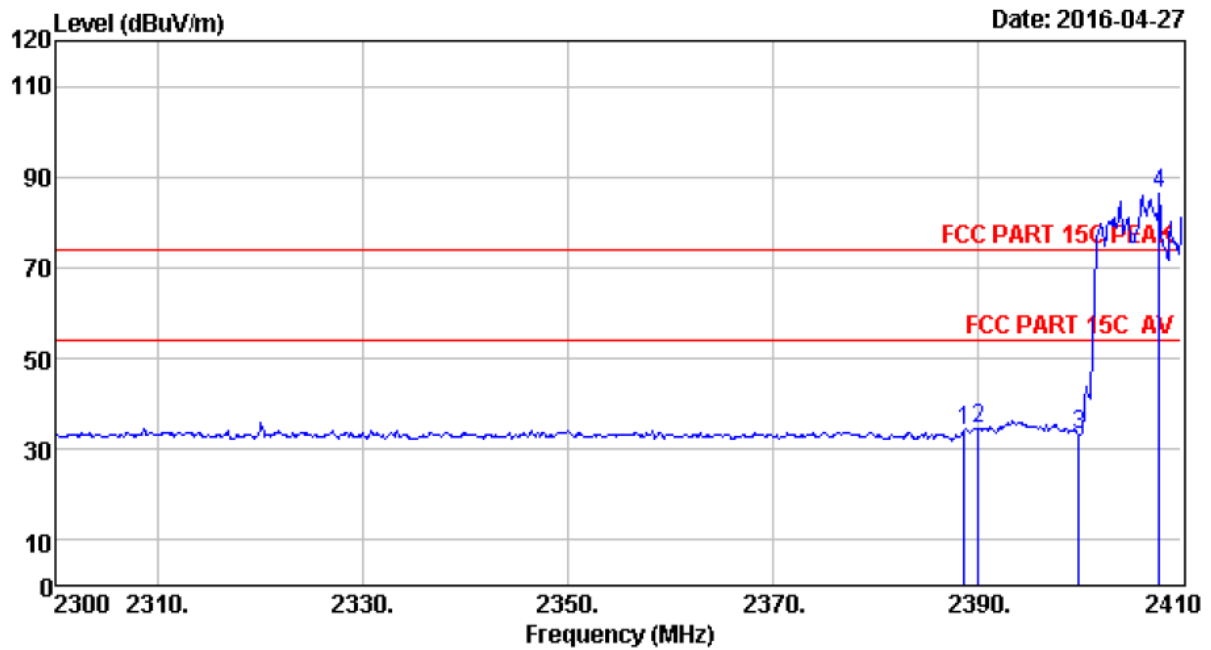
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1077
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : 8-DPSK TX 2402MHz (Hopping On)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2348.95	27.70	6.56	34.57	34.66	34.35	74.00	39.65	Peak
2	2390.09	27.64	6.62	34.62	32.78	32.42	74.00	41.58	Peak
3	2399.99	27.61	6.62	34.64	33.01	32.60	74.00	41.40	Peak
4	2409.78	27.60	6.64	34.64	82.13	81.73	74.00	-7.73	Peak

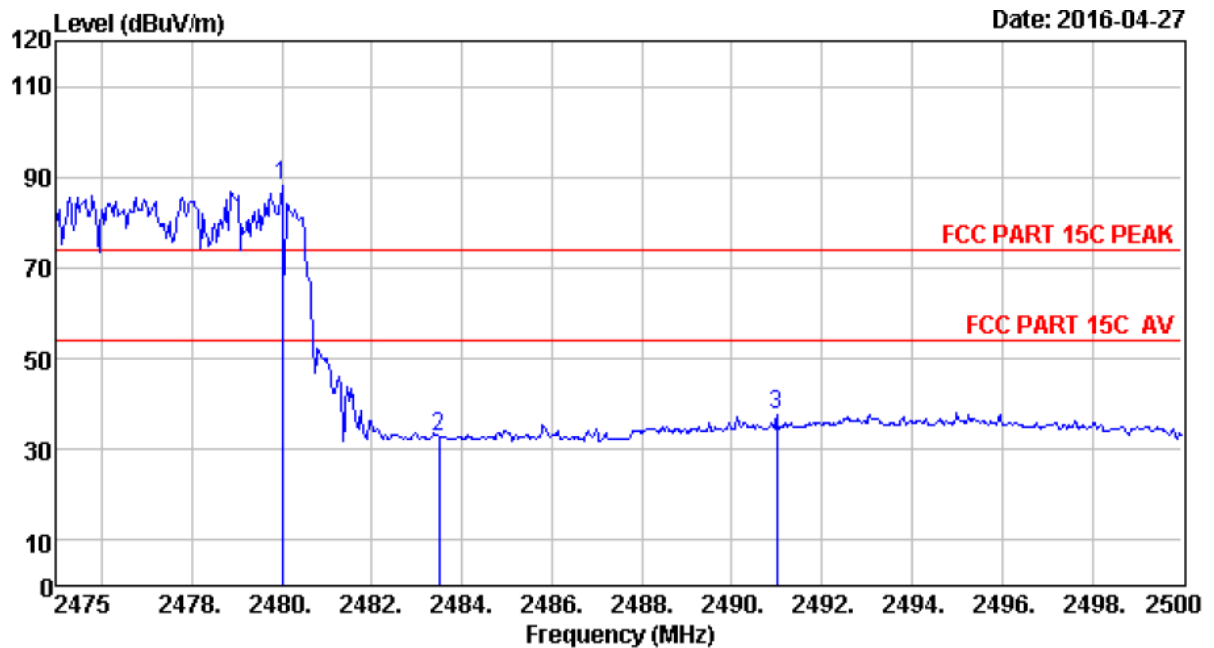
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1078
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : 8-DPSK TX 2402MHz (Hopping On)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2388.77	27.64	6.62	34.62	34.67	34.31	74.00	39.69	Peak
2	2390.09	27.64	6.62	34.62	34.81	34.45	74.00	39.55	Peak
3	2399.99	27.61	6.62	34.64	33.50	33.09	74.00	40.91	Peak
4	2407.80	27.61	6.64	34.64	86.80	86.41	74.00	-12.41	Peak

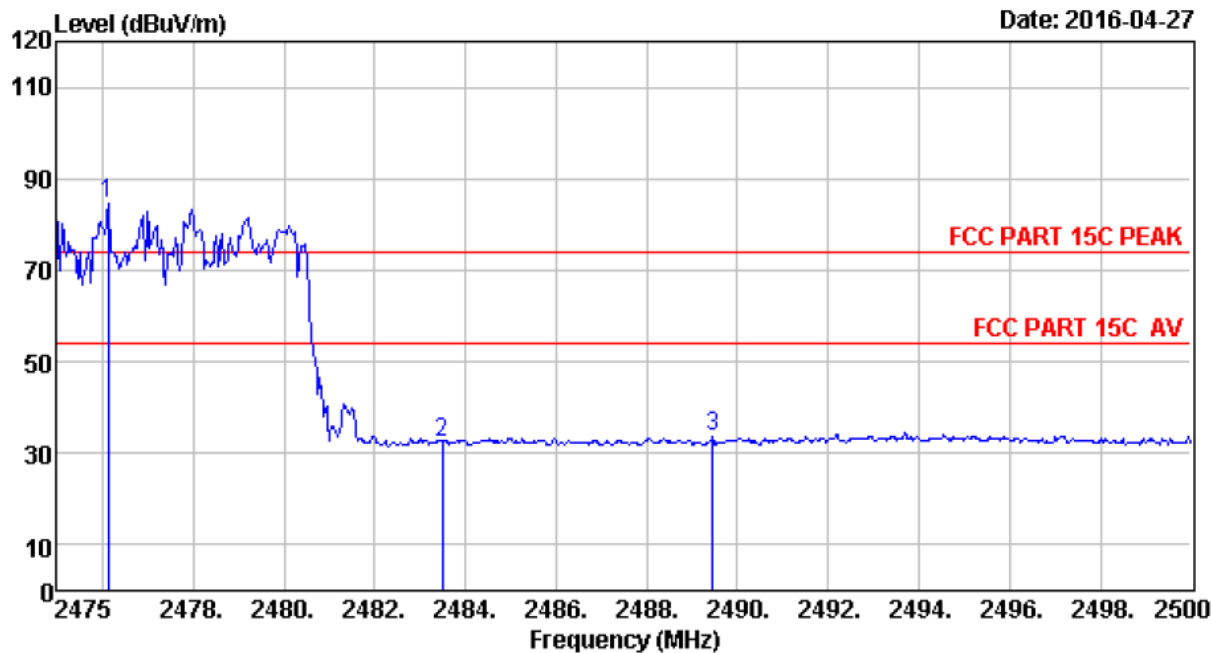
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1079
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : 8-DPSK TX 2480MHz (Hopping On)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.00	27.58	6.71	35.11	89.07	88.25	74.00	-14.25	Peak
2	2483.50	27.58	6.71	35.11	33.61	32.79	74.00	41.21	Peak
3	2491.00	27.58	6.73	35.24	38.78	37.85	74.00	36.15	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 1080
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : 8-DPSK TX 2402MHz (Hopping On)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2476.13	27.58	6.71	35.11	85.27	84.45	74.00	-10.45	Peak
2	2483.50	27.58	6.71	35.11	33.36	32.54	74.00	41.46	Peak
3	2489.45	27.58	6.73	35.24	34.57	33.64	74.00	40.36	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

10. CONDUCTED SPURIOUS EMISSION

10.1. Limit

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.

10.2. Test Procedure

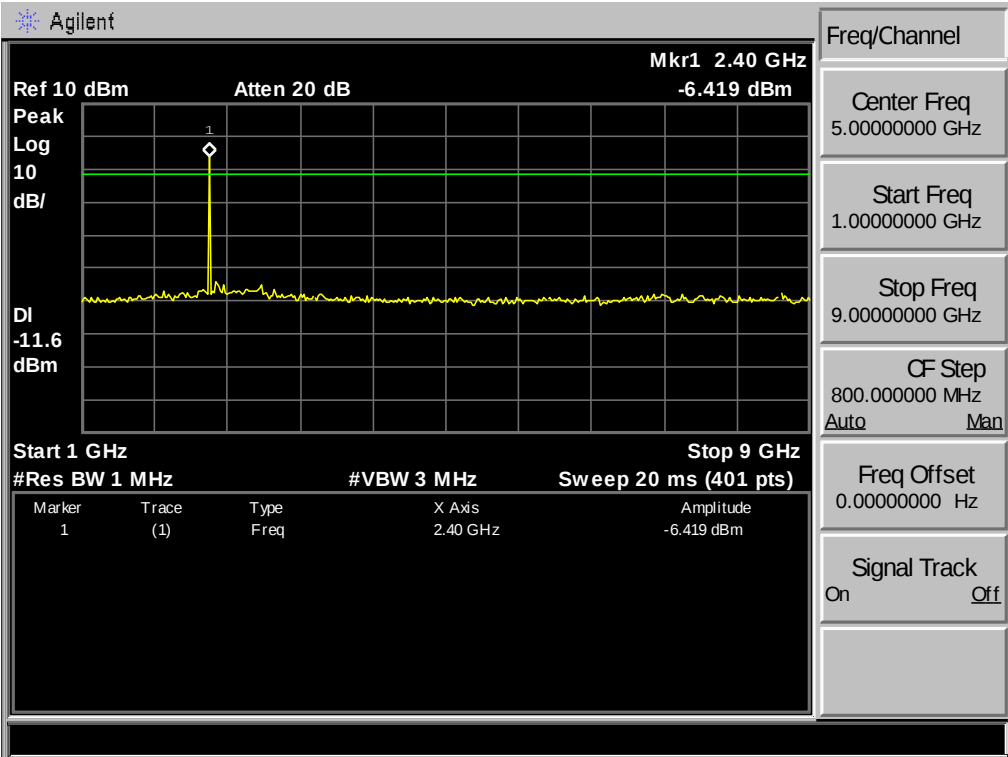
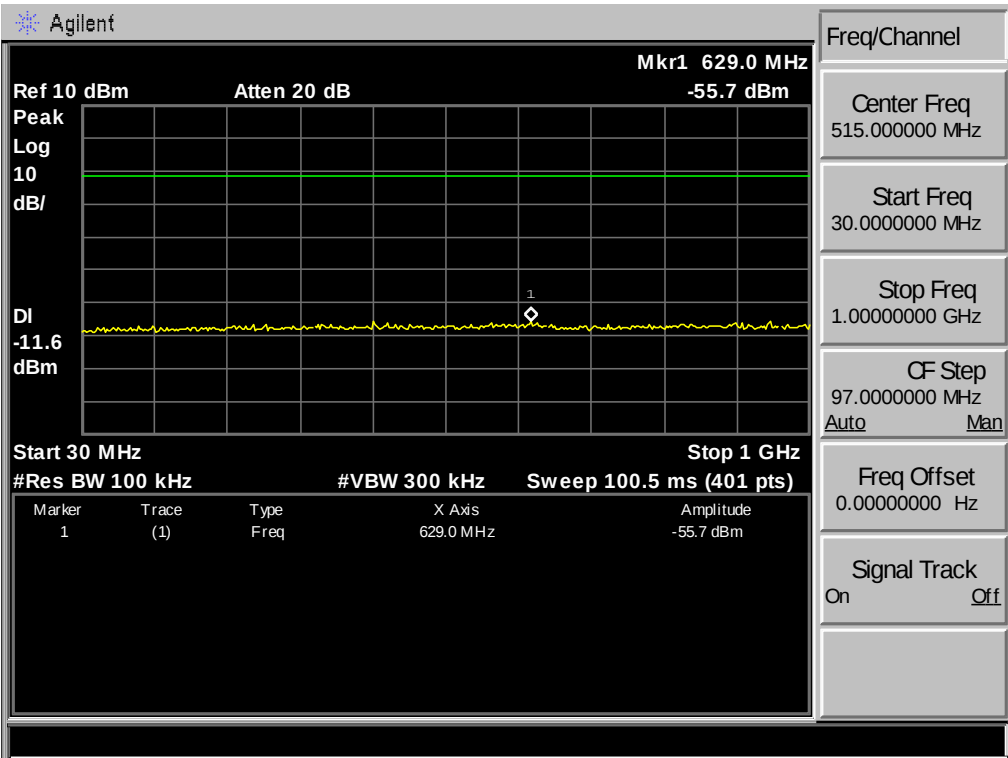
The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz for frequency range from 30MHz to 1000 MHz; The resolution bandwidth is set to 1 MHz, The video bandwidth is set to 3 MHz for frequency range from 1000MHz to 25000 MHz.

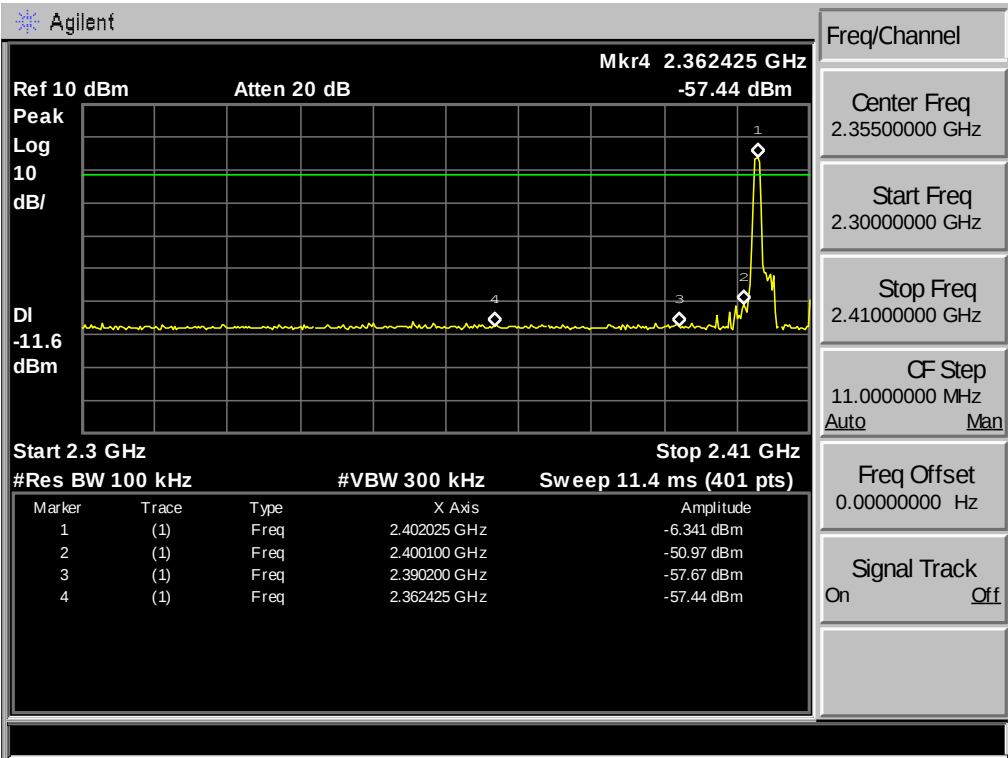
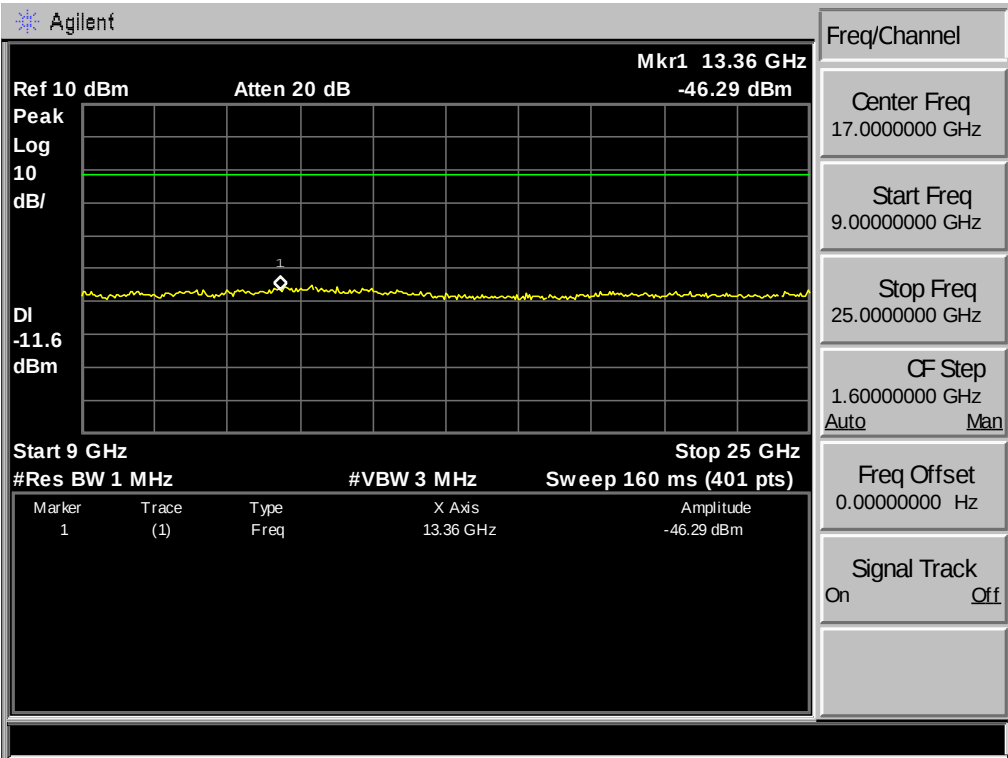
10.3. Test Result

PASS (The testing data was attached in the next pages.)

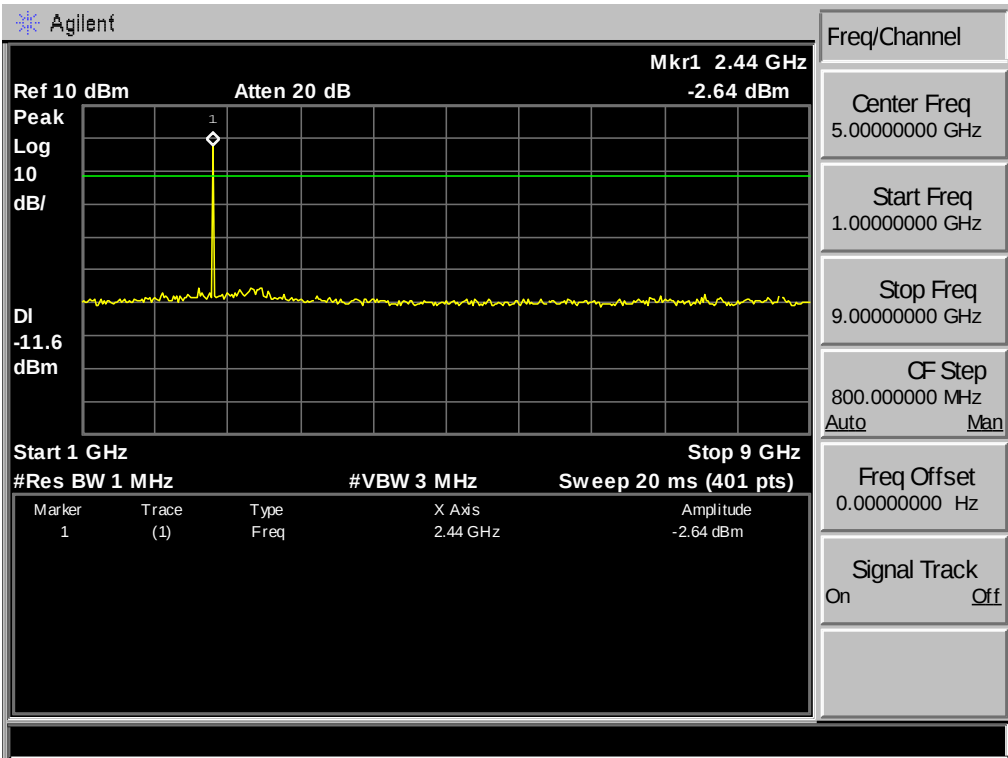
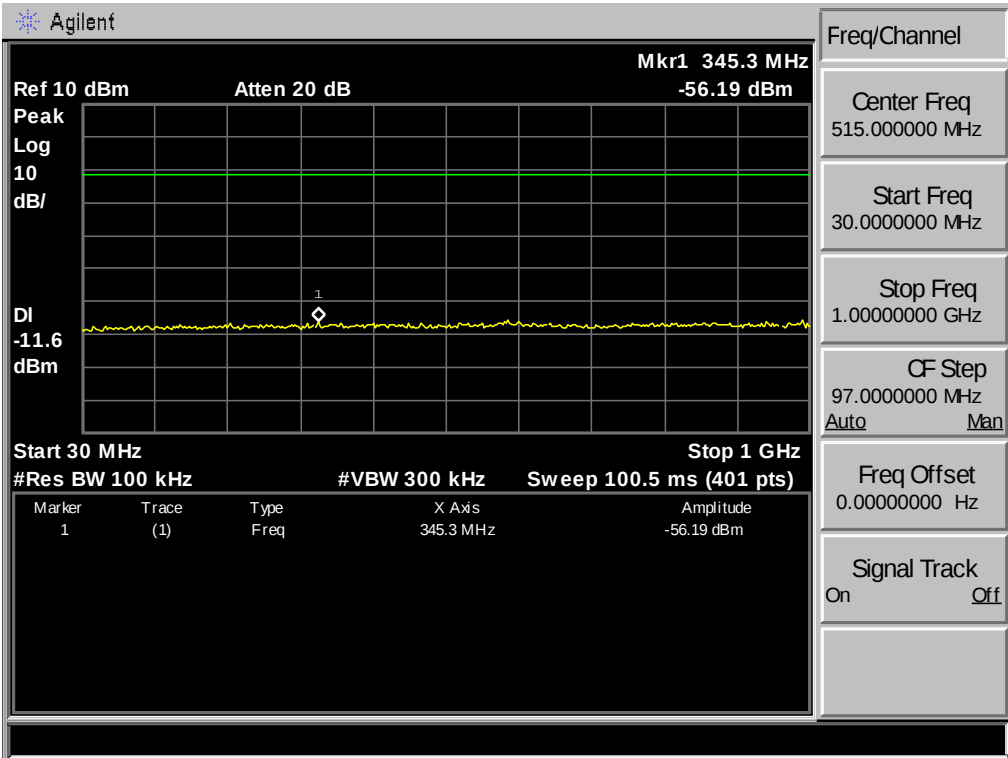
10.4. Test Data

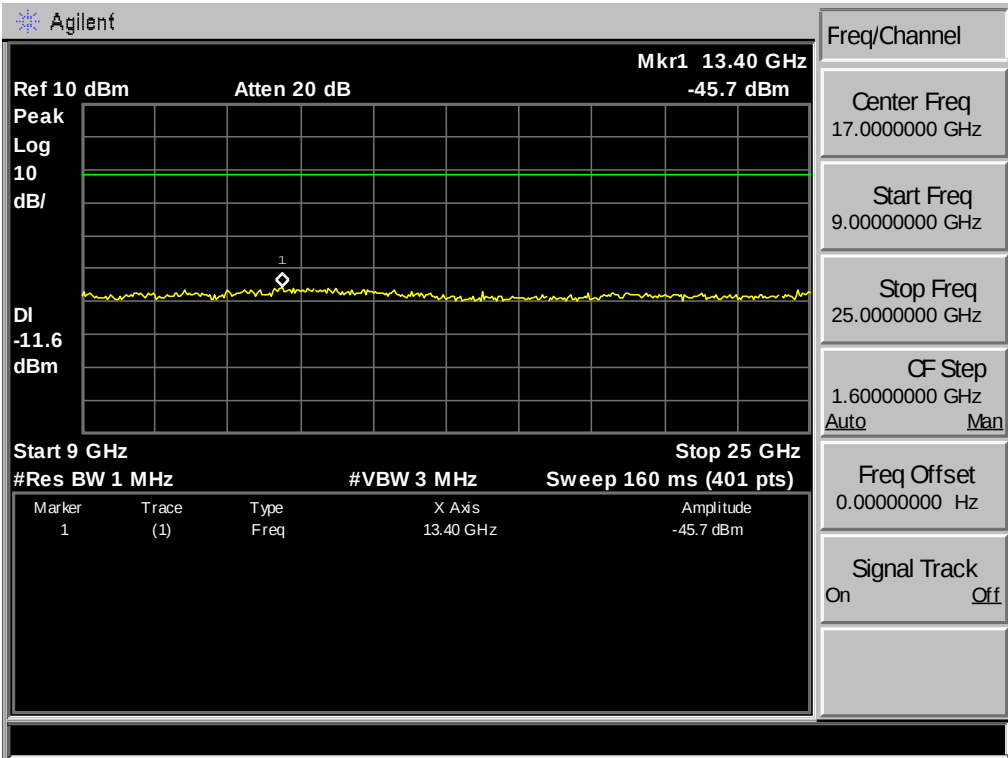
Test Mode: GFSK 2402MHz



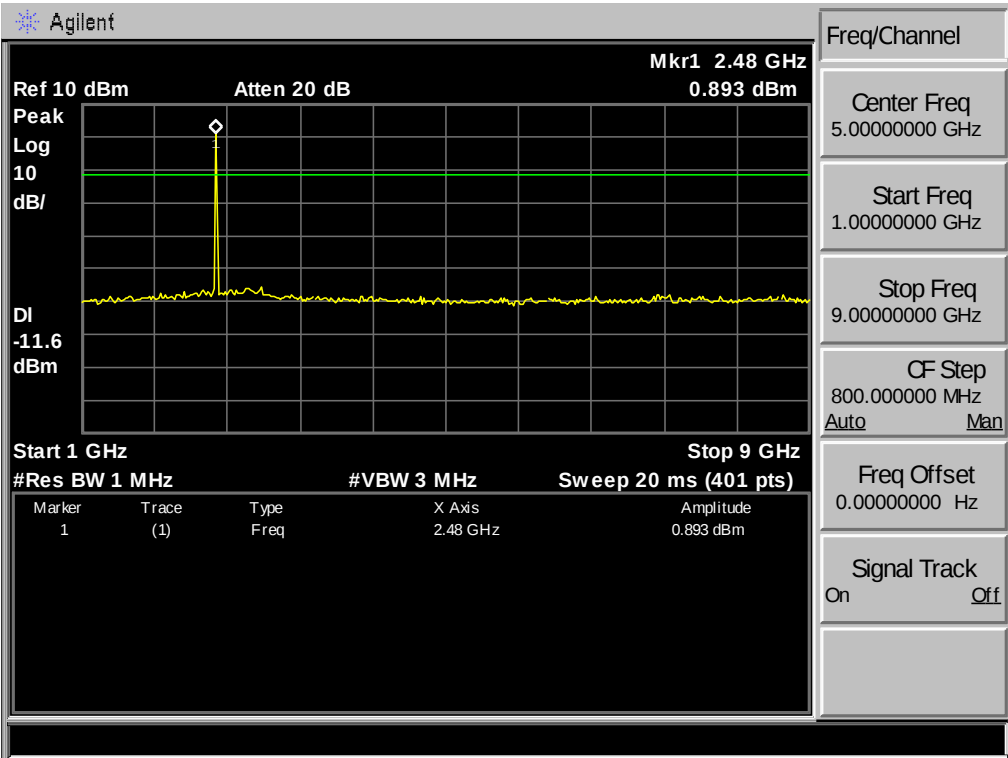
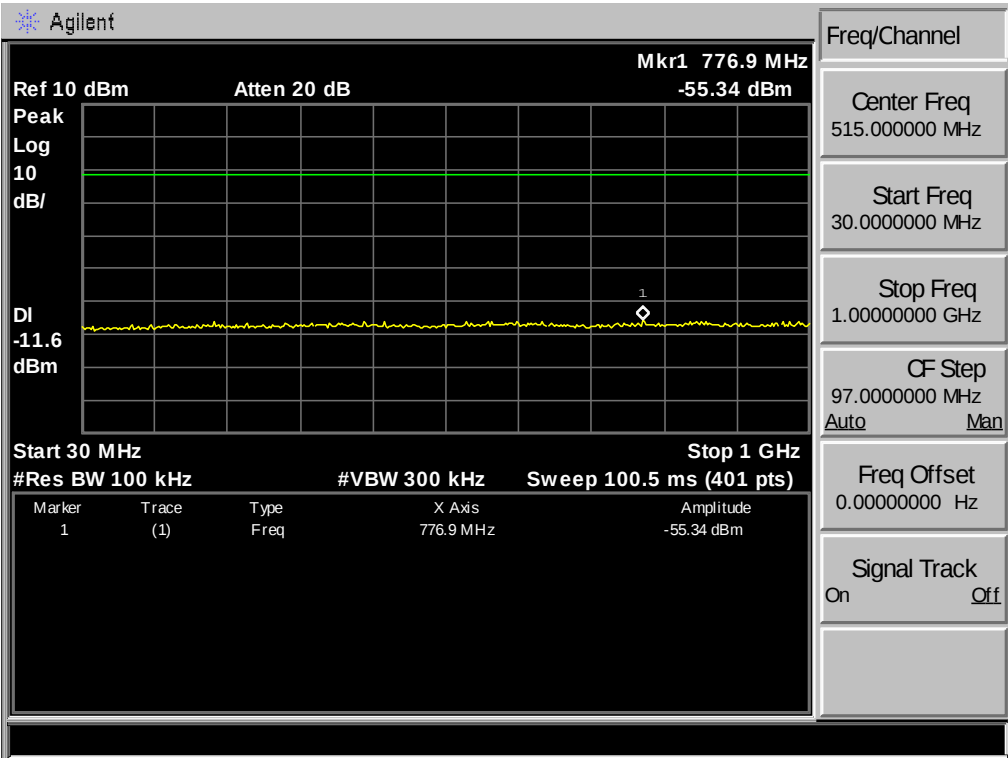


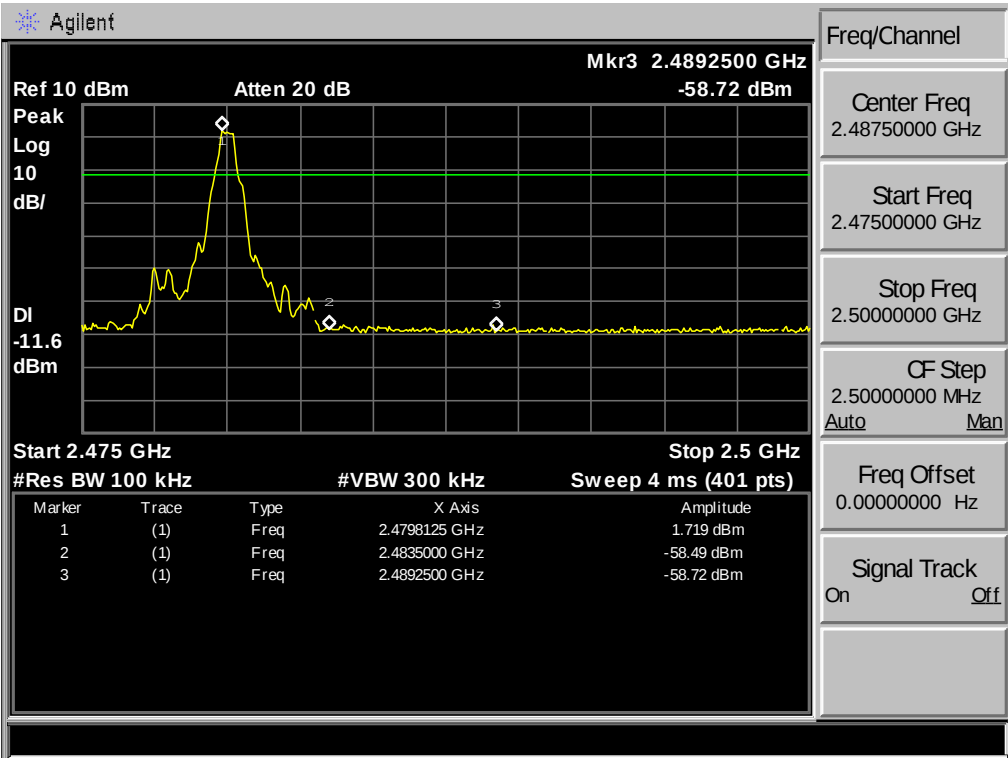
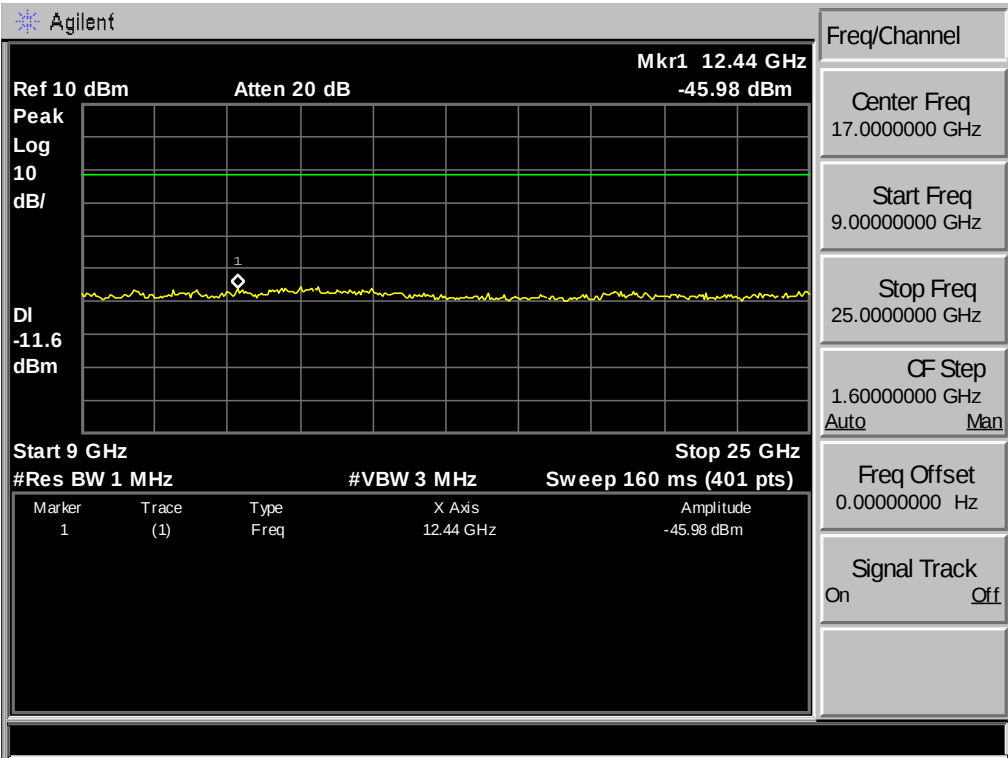
Test Mode: GFSK 2441MHz



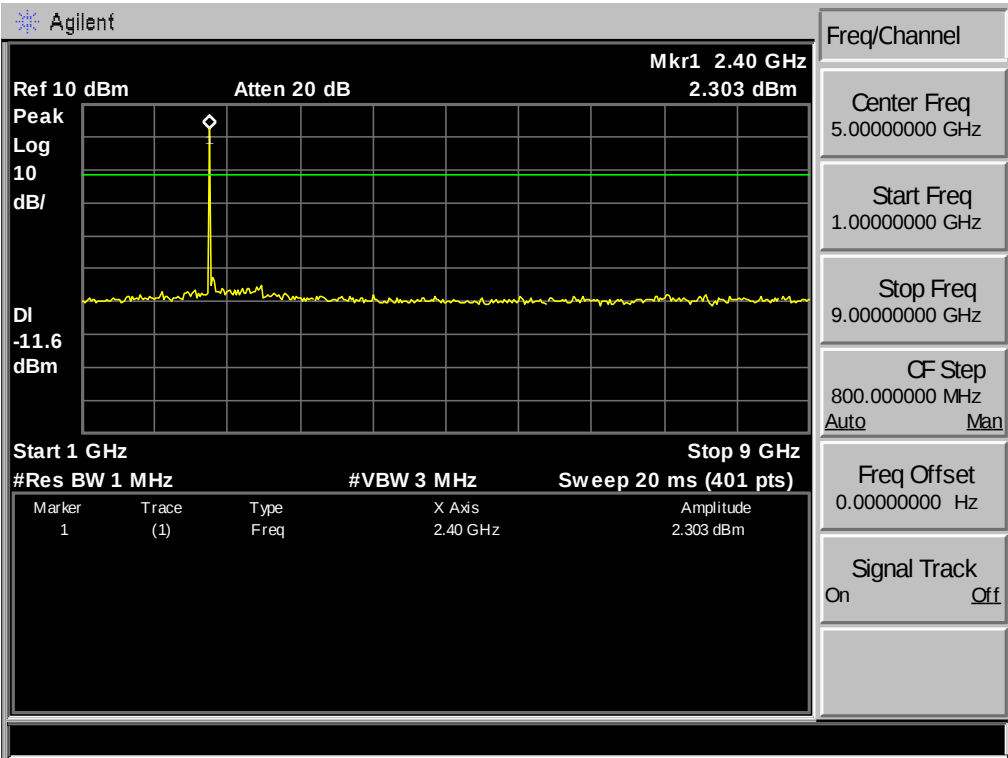
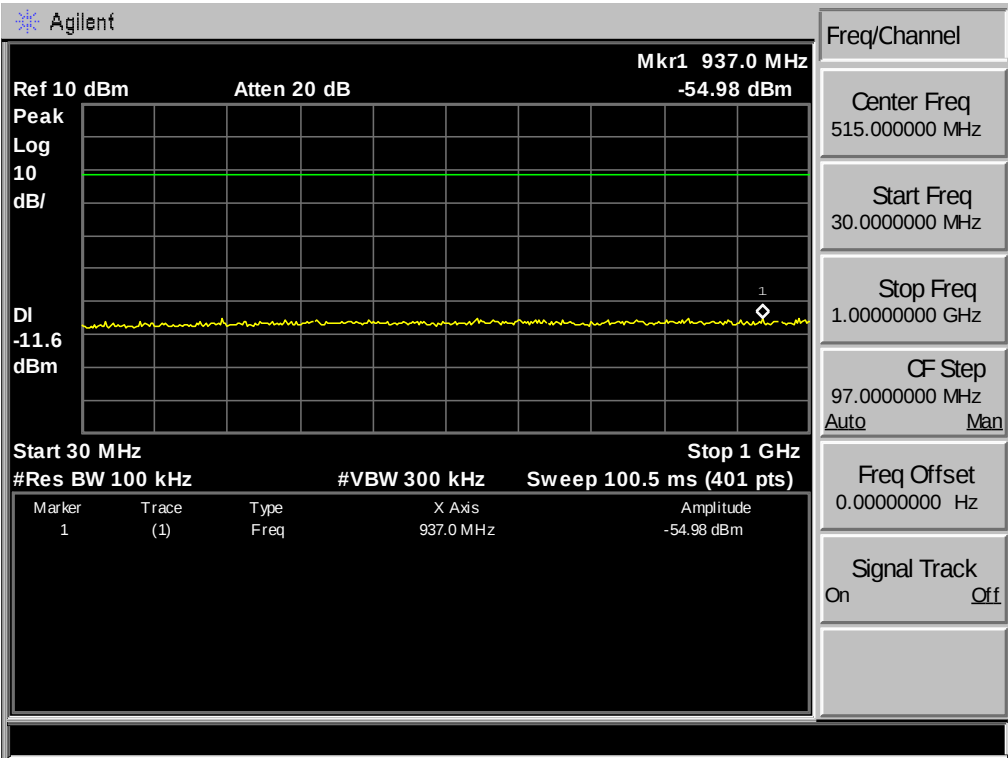


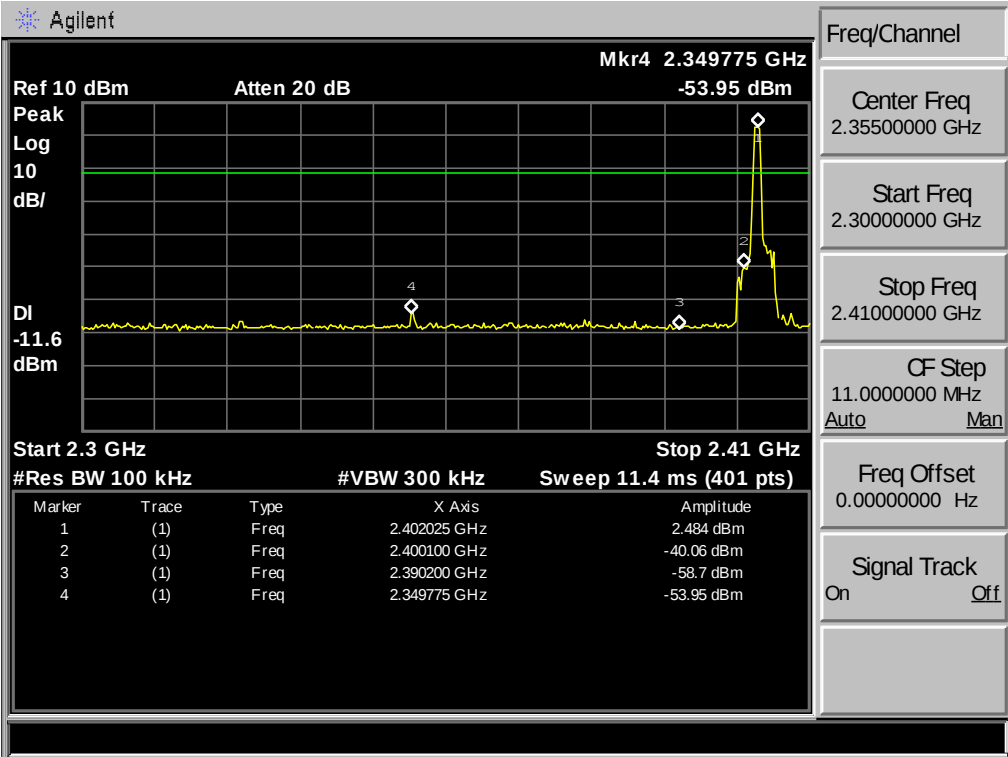
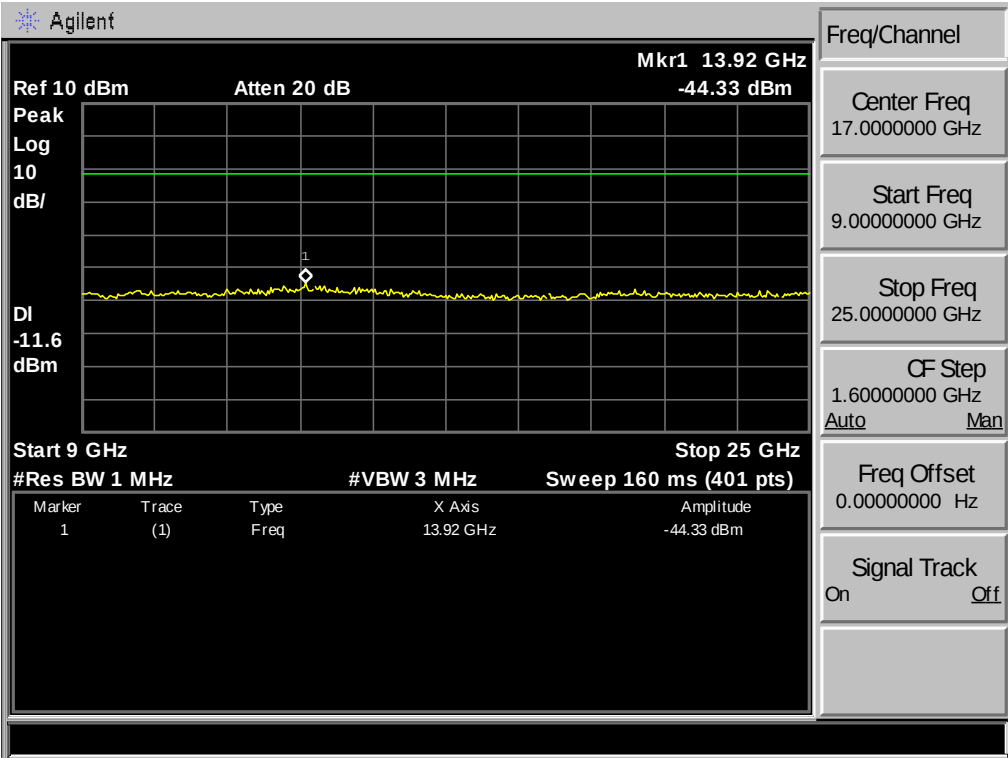
Test Mode: GFSK 2480MHz



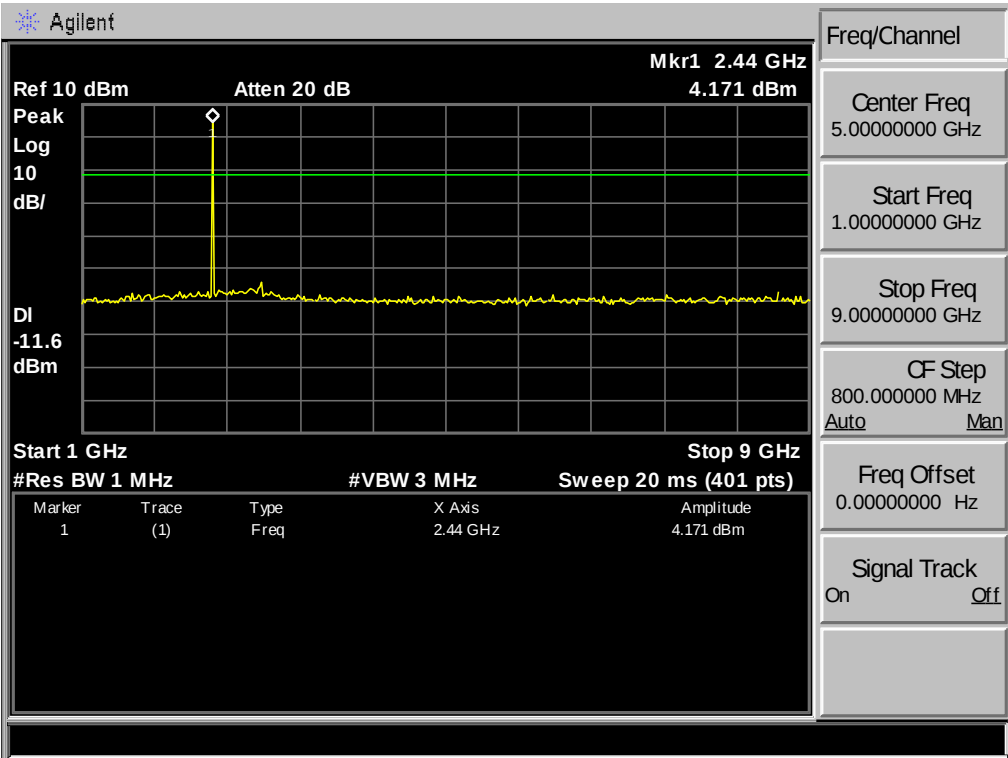
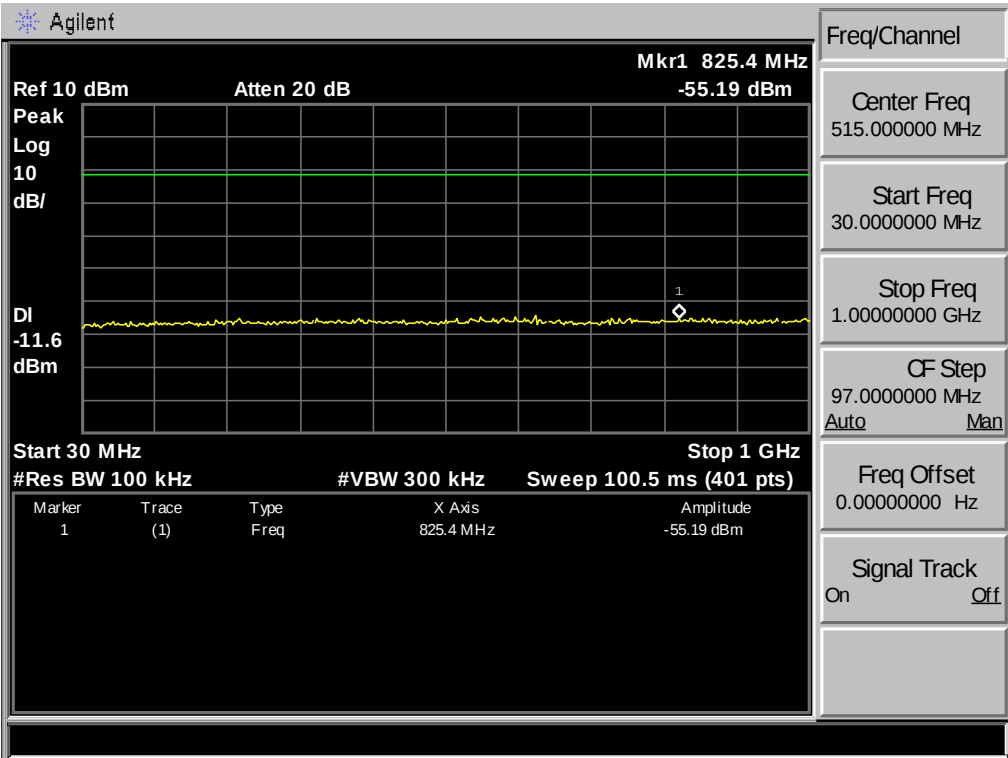


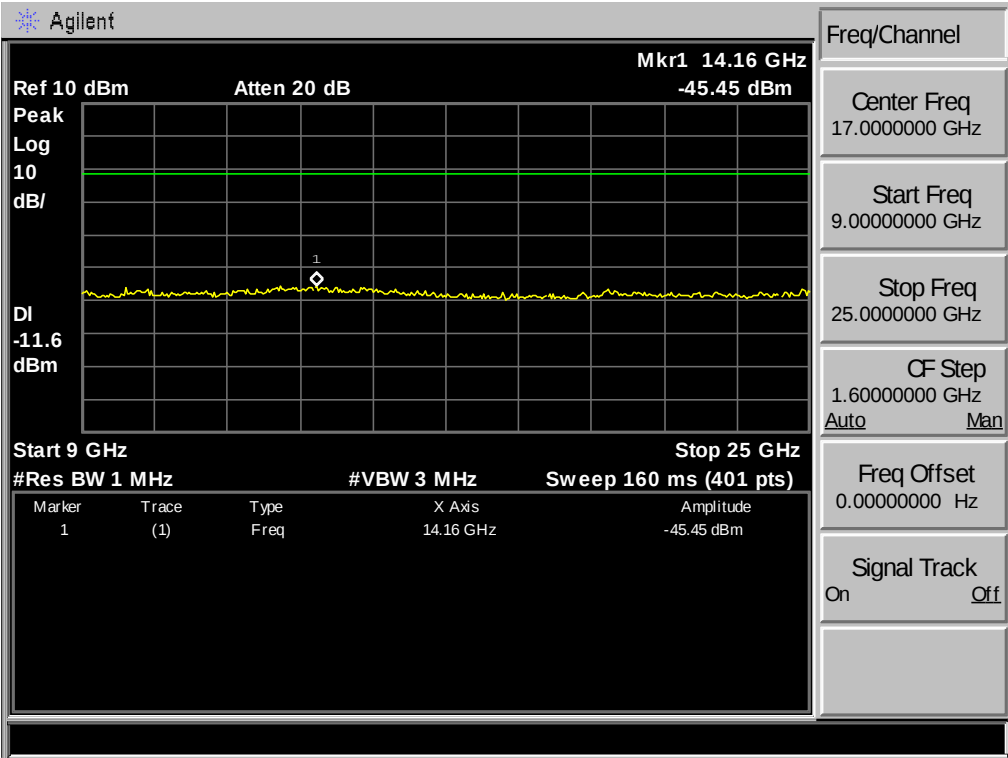
Test Mode: $\pi/4$ -DQPSK 2402MHz



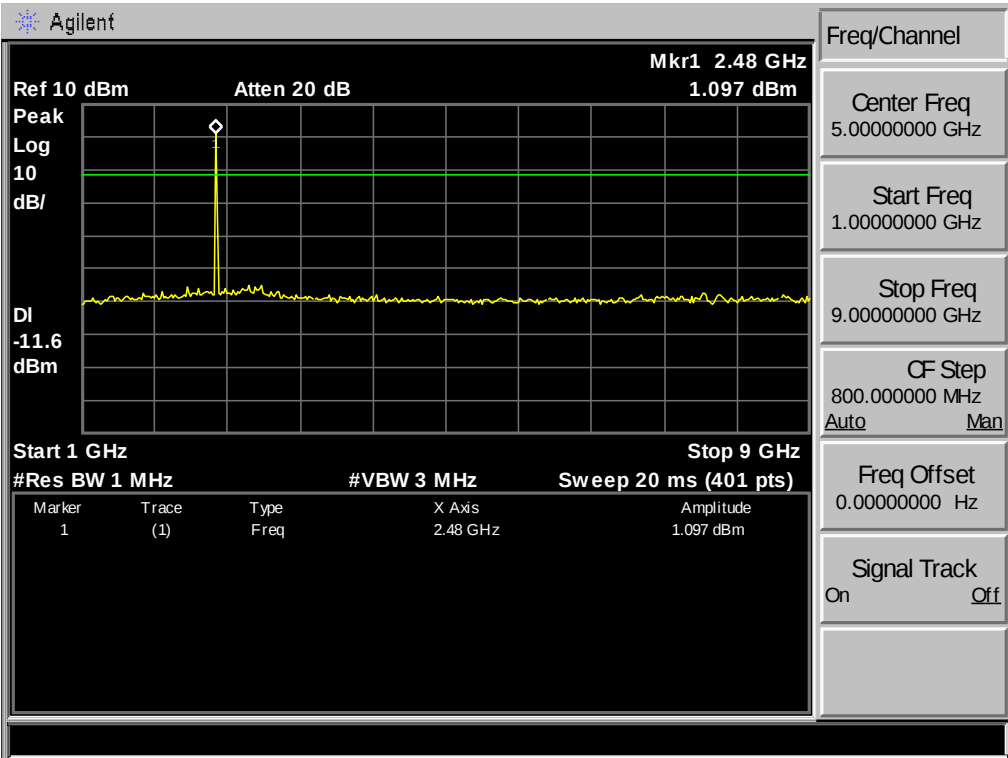
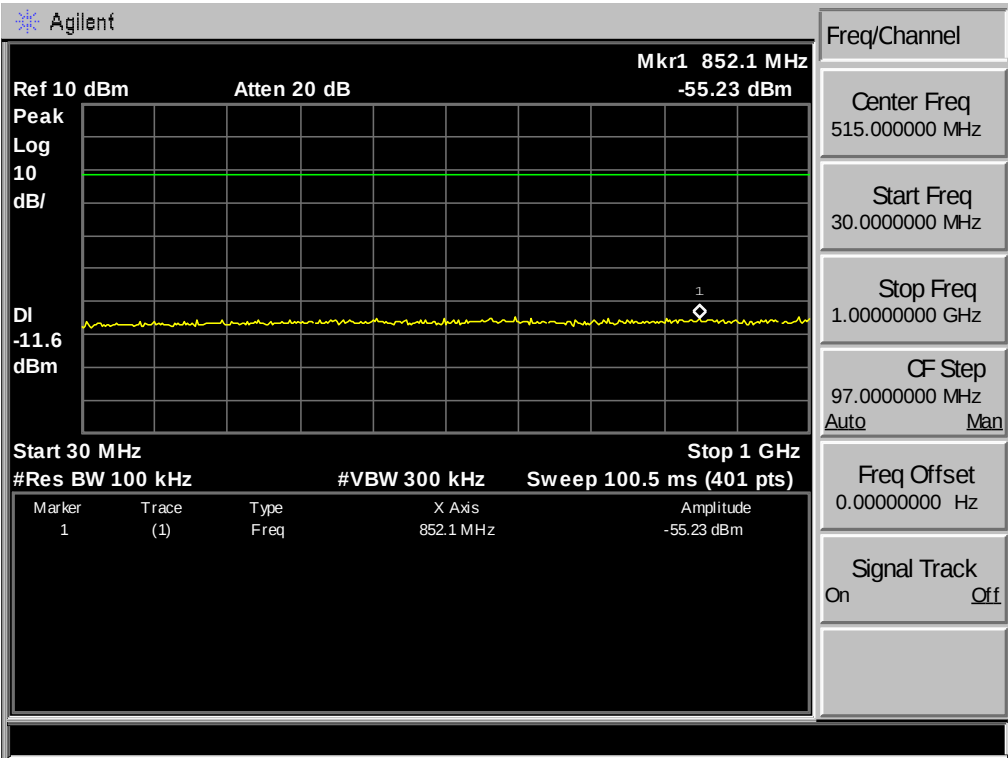


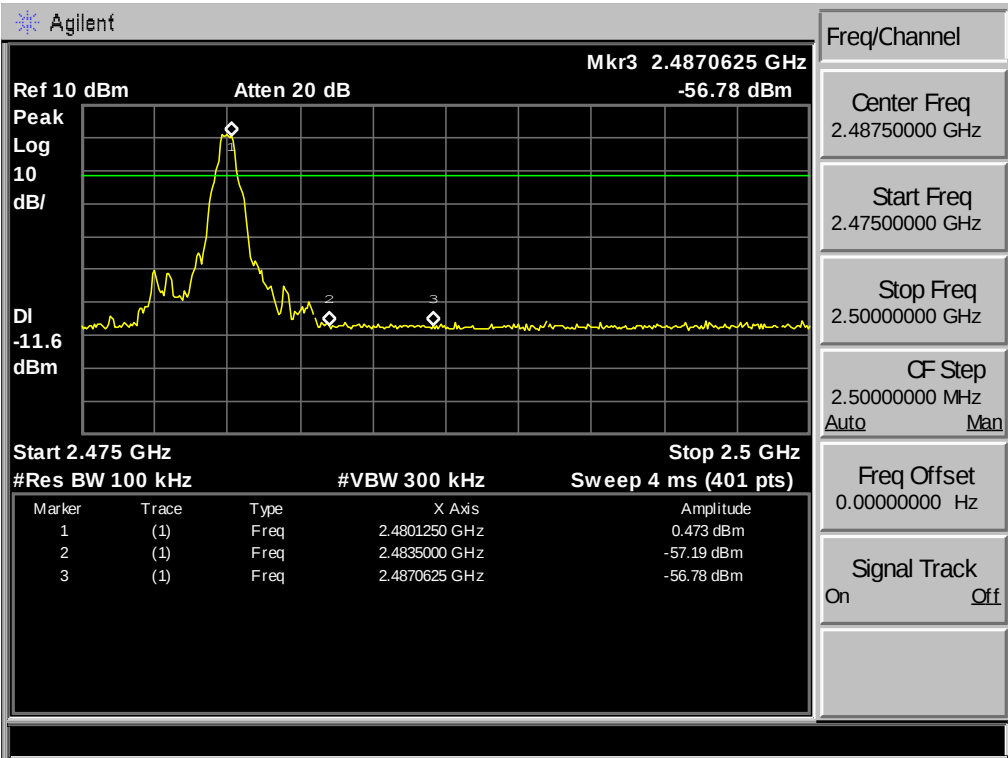
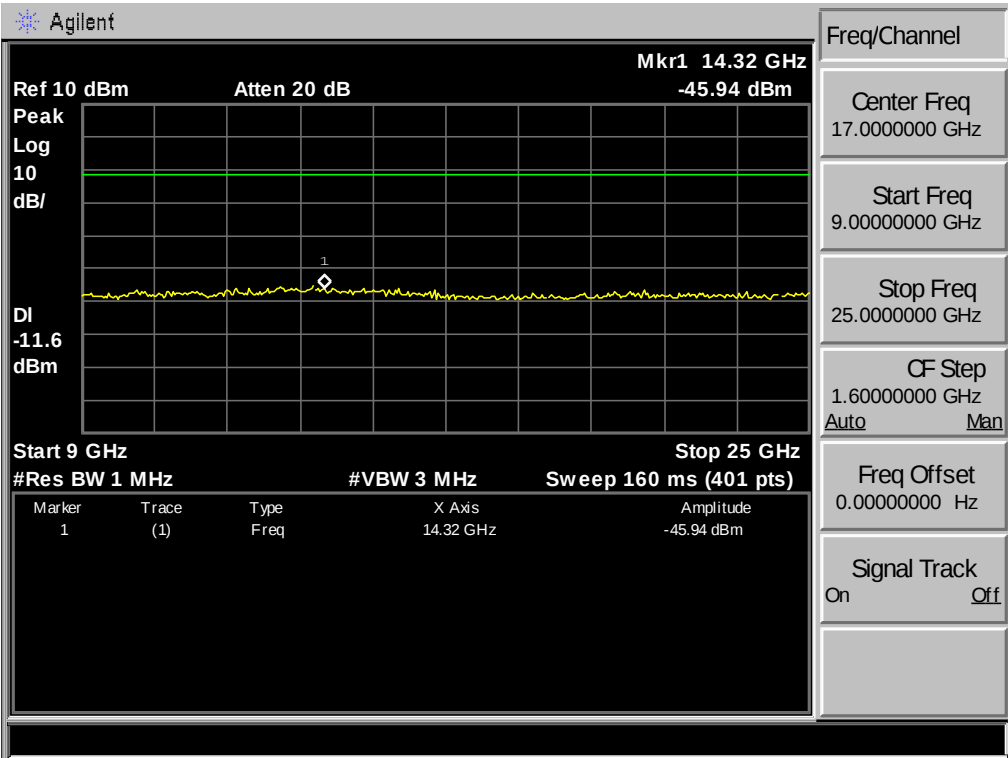
Test Mode: $\pi/4$ -DQPSK 2441MHz



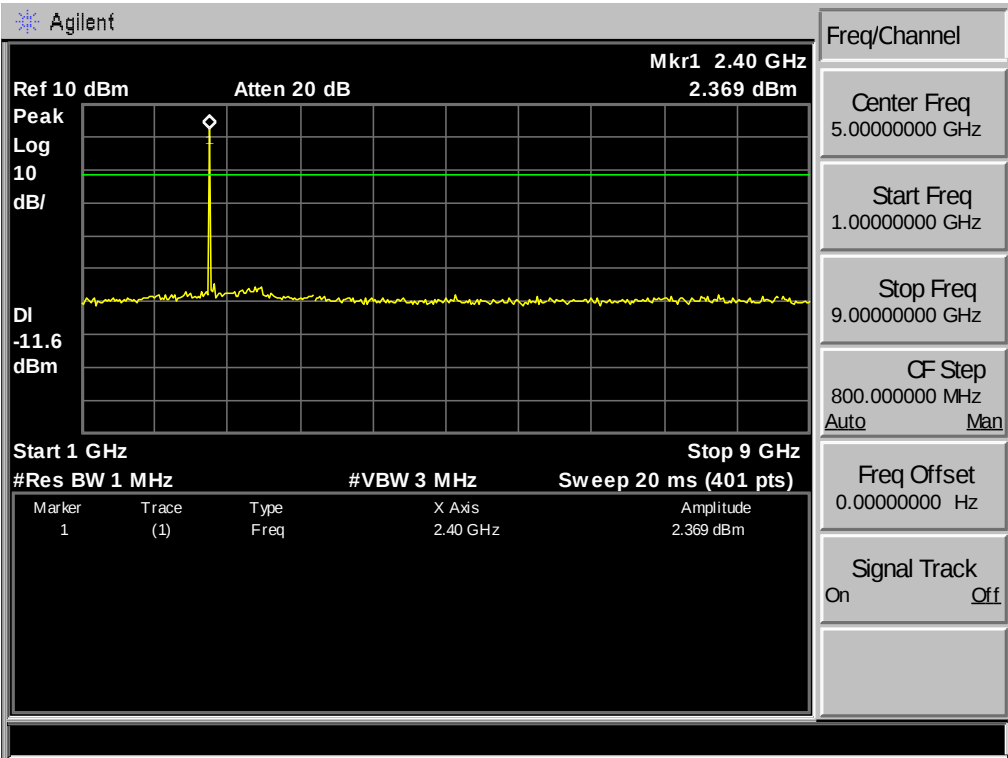
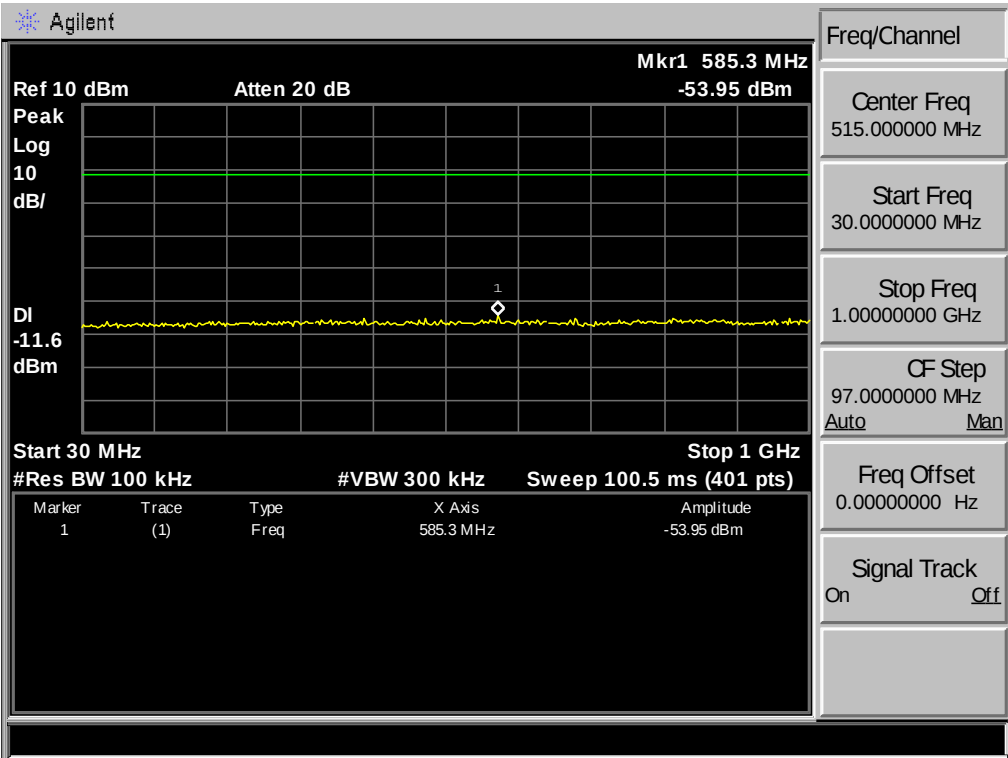


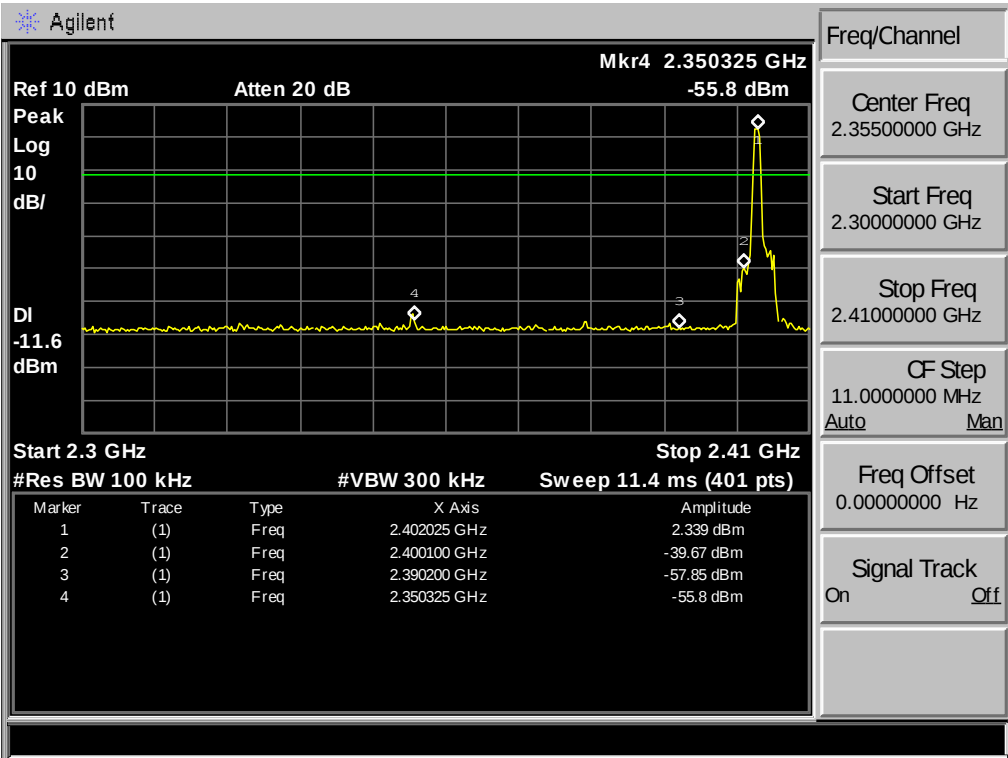
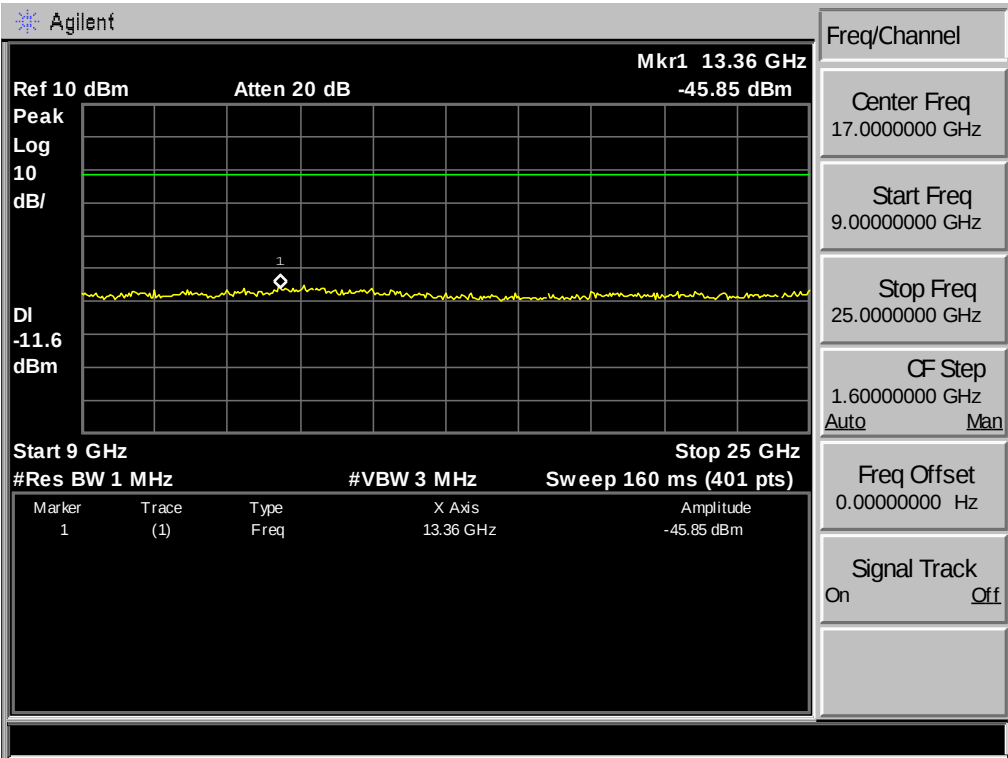
Test Mode: $\pi/4$ -DQPSK 2480MHz



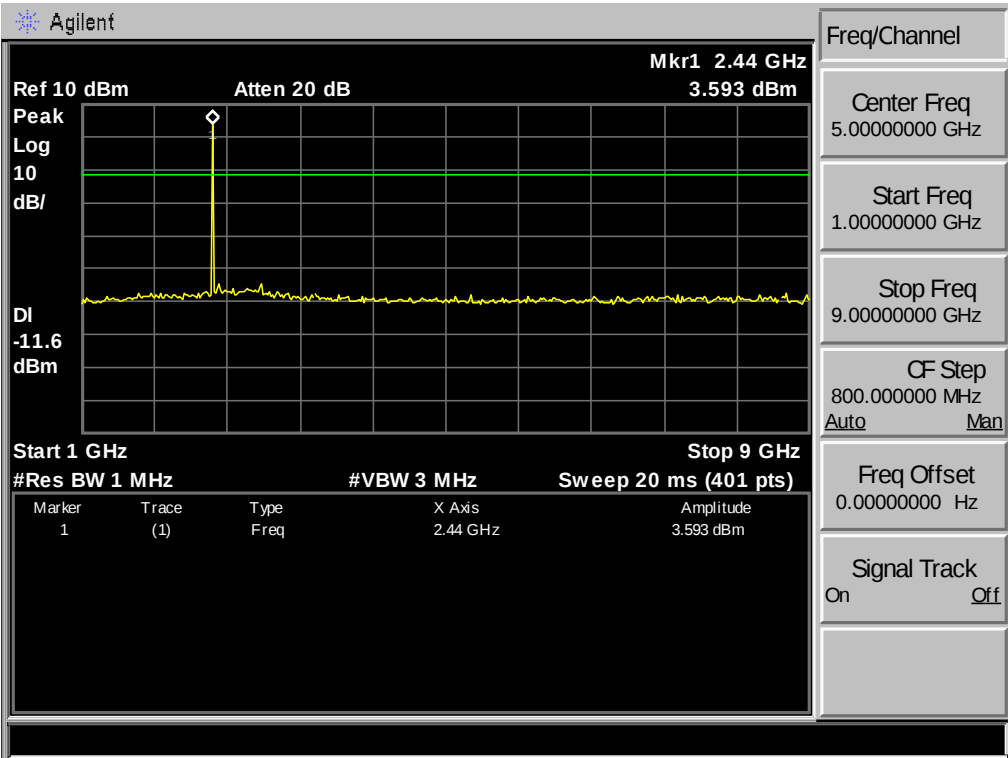
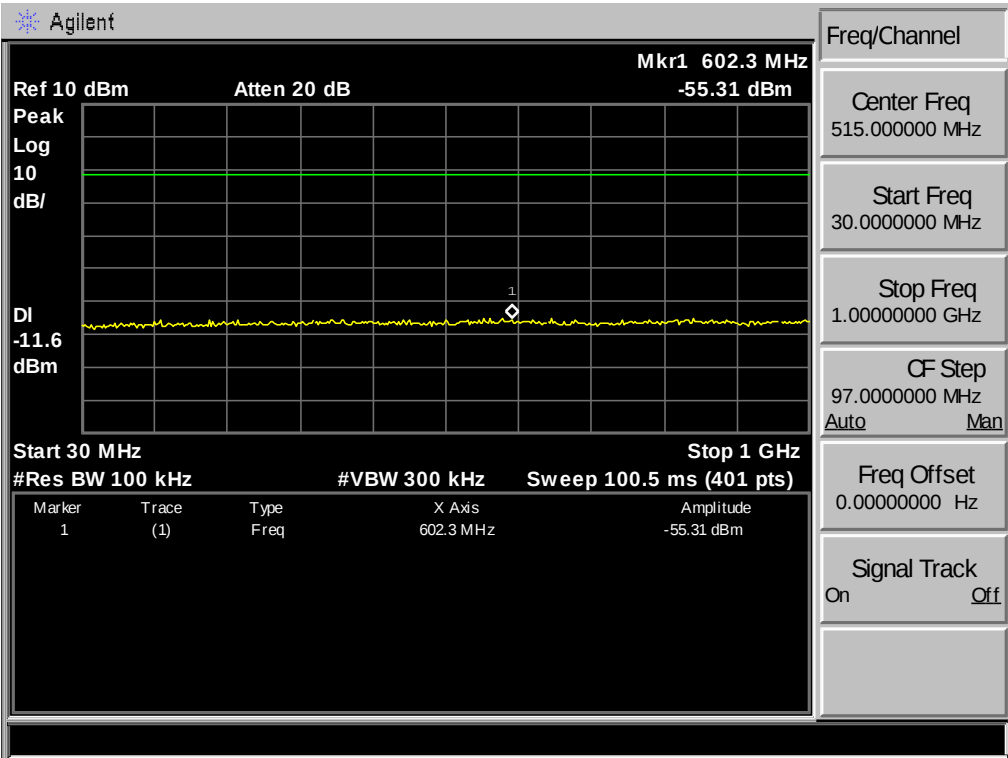


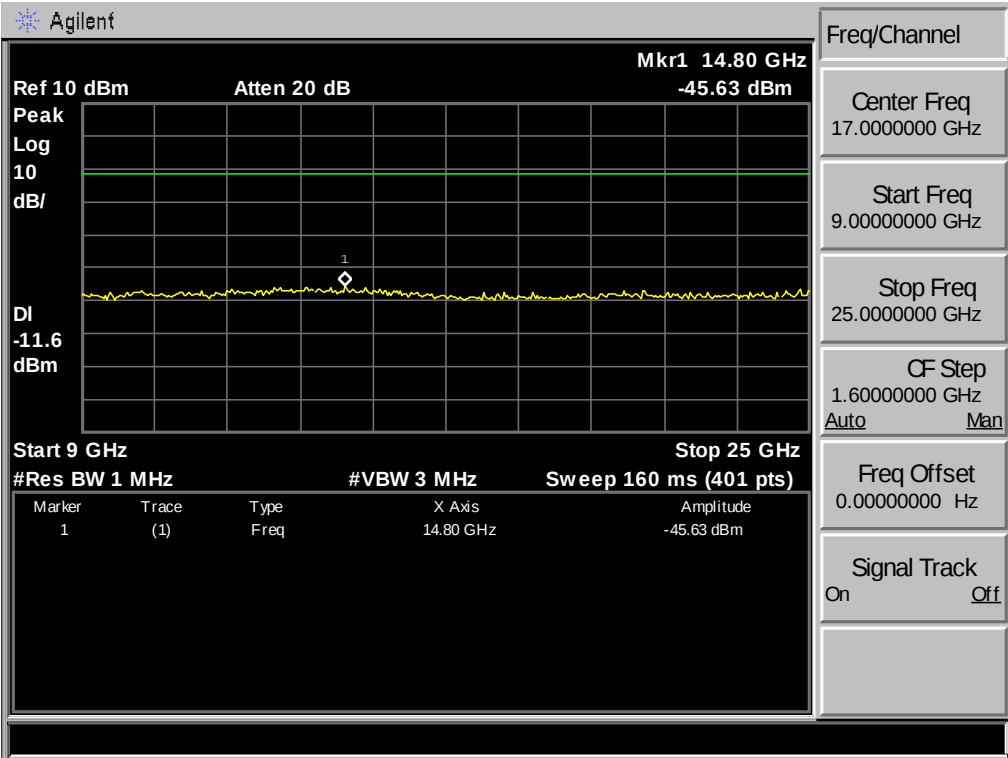
Test Mode: 8-DPSK 2402MHz



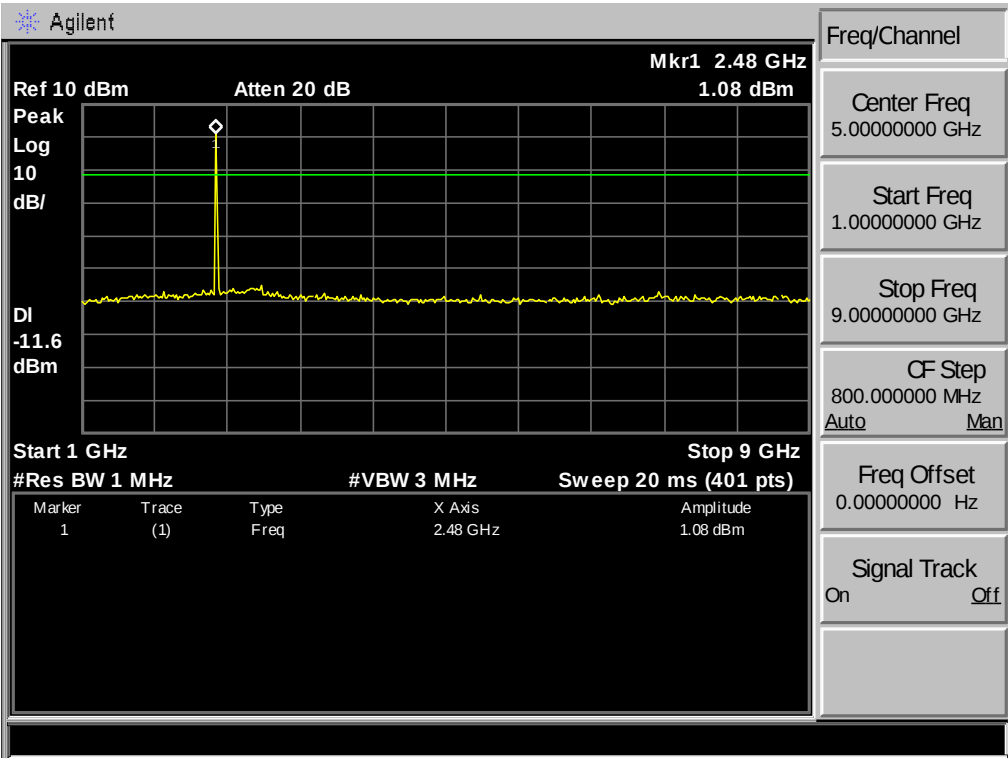
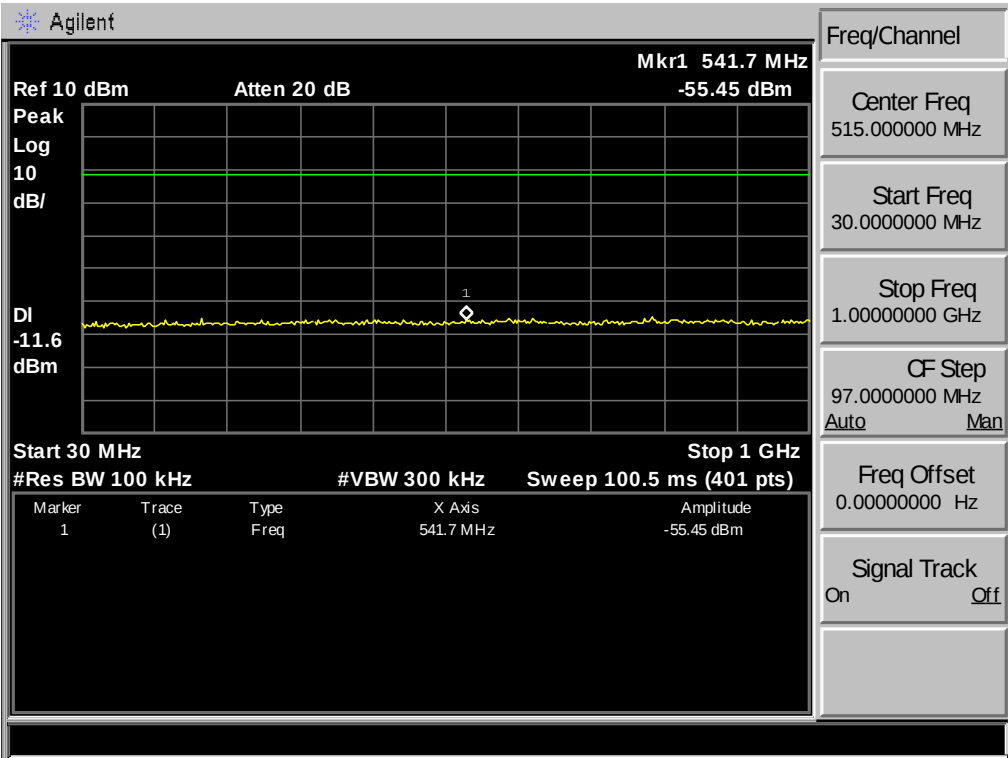


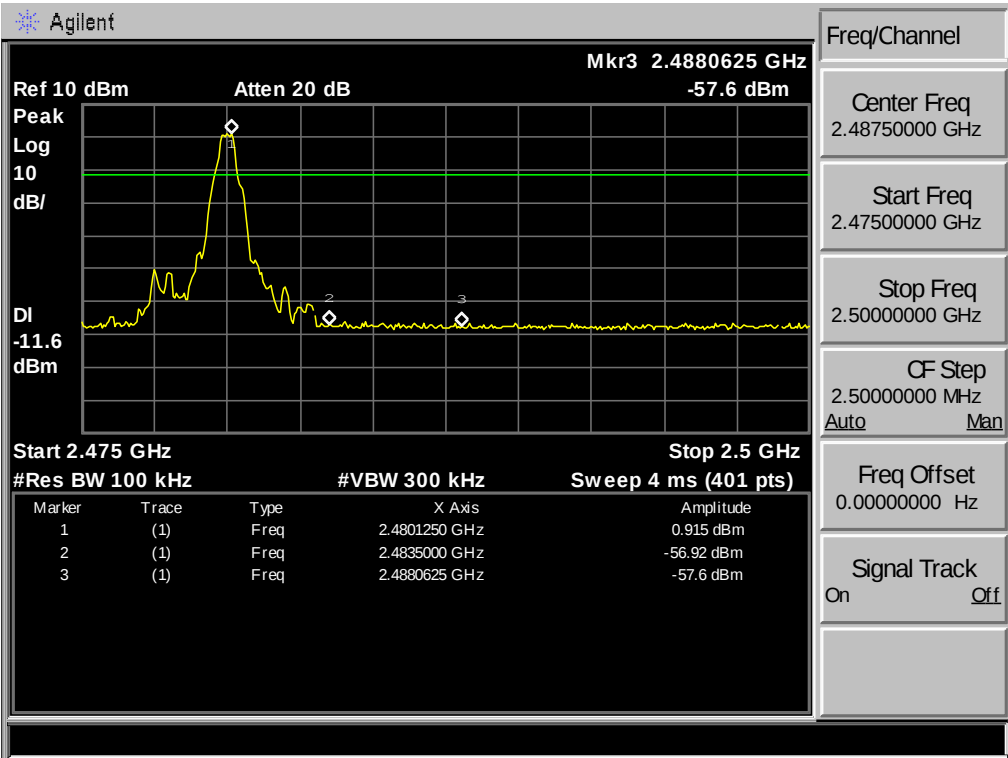
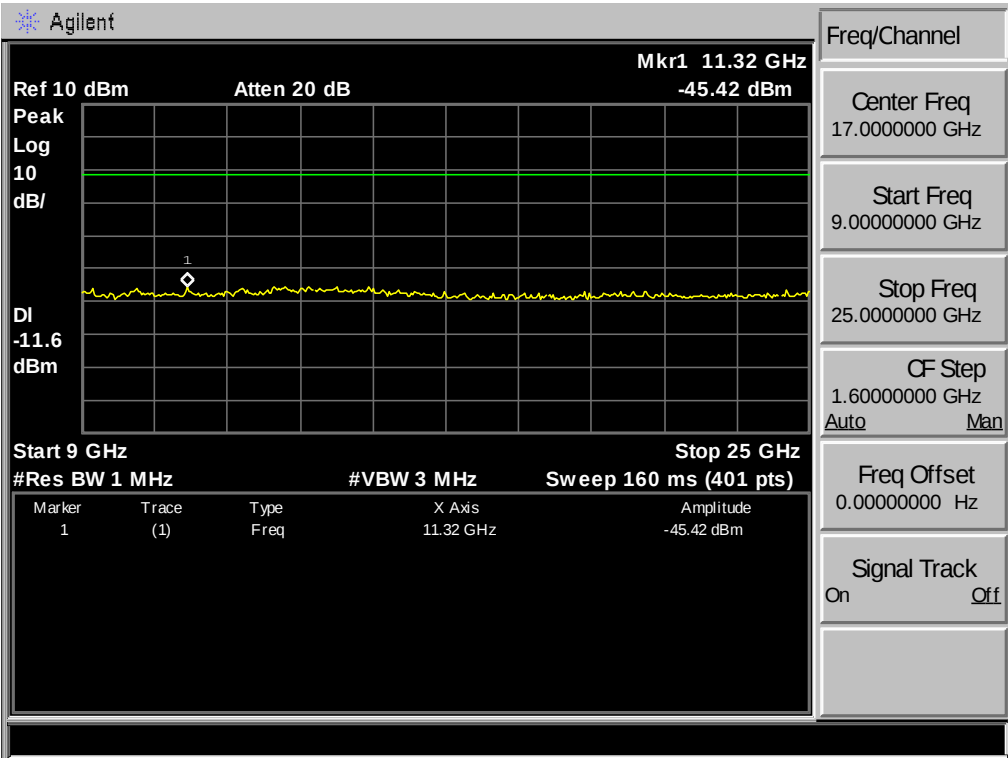
Test Mode: 8-DPSK 2441MHz





Test Mode: 8-DPSK 2480MHz





11. POWER LINE CONDUCTED EMISSIONS

11.1. Limit

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μ V)	Average Level dB(μ V)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

11.2. Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT was charged from PC's USB port which connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#).. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2013 on Conducted Emission Test.

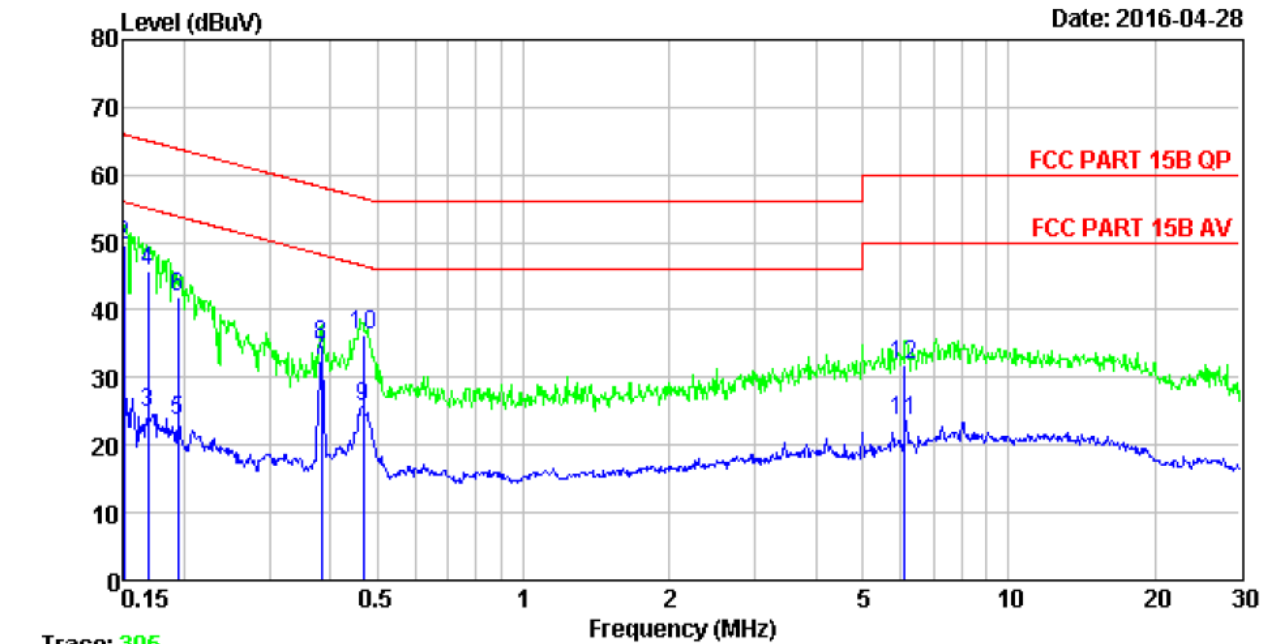
The bandwidth of test receiver (R & S ESHS30) is set at 10kHz.

The frequency range from 150kHz to 30MHz is checked.

11.3. Test Result

0.15MHz—30MHz Conducted emission Test result		
EUT: Bluetooth Speaker M/N: DS4		
Power: DC 18V From Adapter Input AC 120V/60Hz DC 18V From Adapter Input AC 240V/60Hz		
Test date: 2016-04-28	Test site: 3m Chamber	Tested by: Tony.Tang
Test mode: Tx Mode		
Pass		

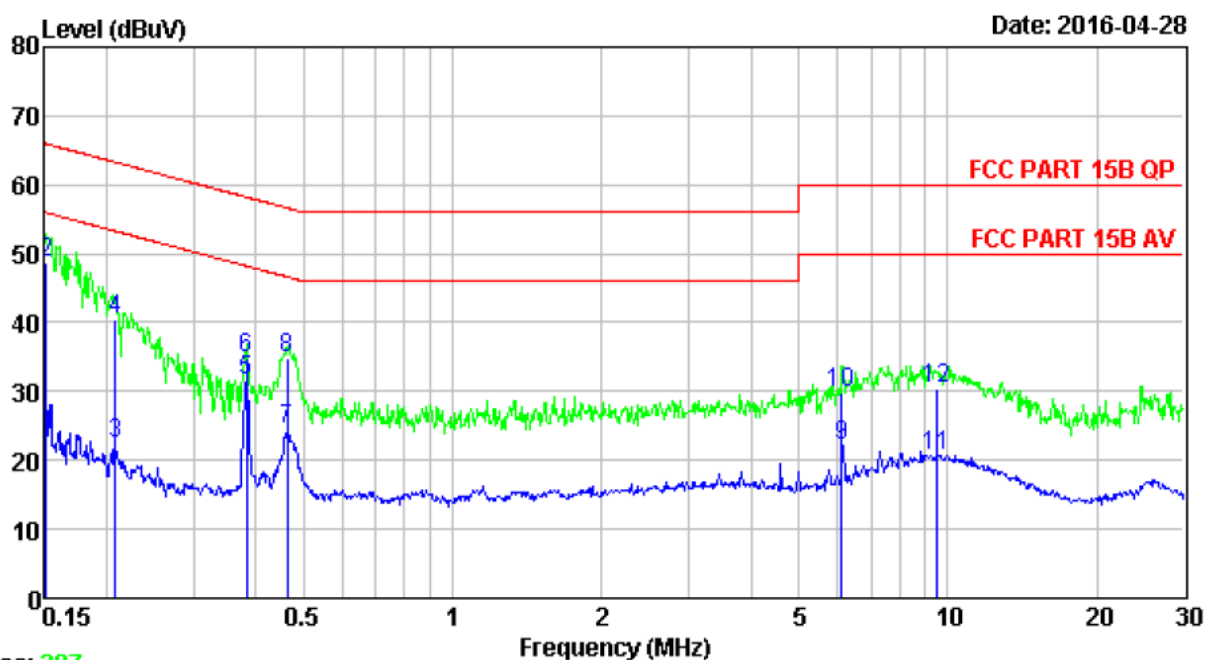
11.4. Test data



Trace: 305

Site no : 844 Shield Room Data no. : 306
Env. / Ins. : Temp:25.3'C Humi:58% Press:101.50kPa LINE Phase : LINE
Limit : FCC PART 15B QP
Engineer : Tony
EUT : Portable Bluetooth Speaker
Power : DC 18V From Adapter Input AC 120V/60Hz
M/N : DS4
Test Mode : TX

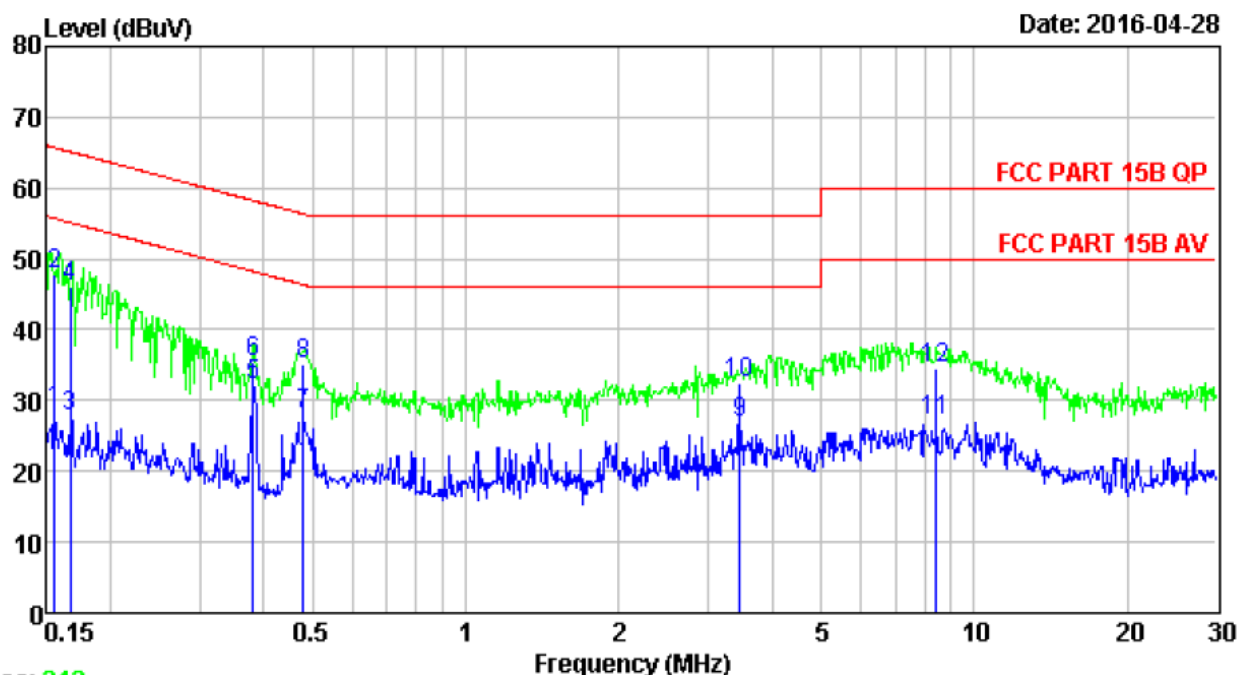
	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.15	9.61	9.81	8.39	27.81	66.00	38.19	Peak
2	0.15	9.61	9.81	30.30	49.72	66.00	16.28	QP
3	0.17	9.61	9.81	5.27	24.69	65.03	40.34	Peak
4	0.17	9.61	9.81	26.48	45.90	65.03	19.13	QP
5	0.19	9.61	9.80	4.15	23.56	63.84	40.28	Peak
6	0.19	9.61	9.80	22.61	42.02	63.84	21.82	QP
7	0.38	9.61	9.82	13.01	32.44	58.21	25.77	Peak
8	0.38	9.61	9.82	15.42	34.85	58.21	23.36	QP
9	0.47	9.61	9.81	6.26	25.68	56.54	30.86	Peak
10	0.47	9.61	9.81	16.93	36.35	56.54	20.19	QP
11	6.12	9.66	9.86	3.97	23.49	60.00	36.51	Peak
12	6.12	9.66	9.86	12.48	32.00	60.00	28.00	QP



Trace: 307

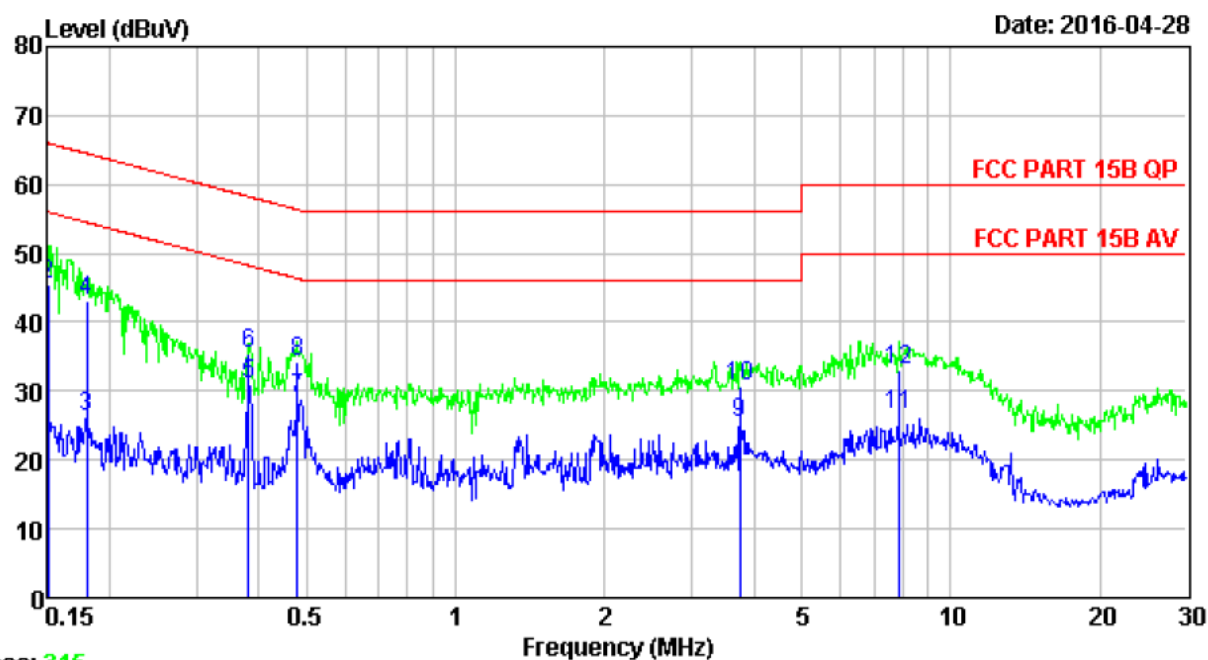
Site no : 844 Shield Room Data no. : 308
 Env. / Ins. : Temp:25.3°C Humi:58% Press:101.50kPa LINE Phase : NEUTRAL
 Limit : FCC PART 15B QP
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 120V/60Hz
 M/N : DS4
 Test Mode : TX

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15	9.46	9.81	9.44	28.71	55.96	27.25	Average
2	0.15	9.46	9.81	29.33	48.60	65.96	17.36	QP
3	0.21	9.60	9.80	3.06	22.46	53.27	30.81	Average
4	0.21	9.60	9.80	21.00	40.40	63.27	22.87	QP
5	0.38	9.59	9.82	12.06	31.47	48.21	16.74	Average
6	0.38	9.59	9.82	15.51	34.92	58.21	23.29	QP
7	0.46	9.59	9.81	4.97	24.37	46.63	22.26	Average
8	0.46	9.59	9.81	15.35	34.75	56.63	21.88	QP
9	6.12	9.66	9.86	2.72	22.24	50.00	27.76	Average
10	6.12	9.66	9.86	10.40	29.92	60.00	30.08	QP
11	9.50	9.69	9.87	1.25	20.81	50.00	29.19	Average
12	9.50	9.69	9.87	10.76	30.32	60.00	29.68	QP



Site no : 844 Shield Room Data no. : 314
 Env. / Ins. : Temp:25.3'C Humi:58% Press:101.50kPa LINE Phase : LINE
 Limit : FCC PART 15B QP
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 240V/50Hz
 M/N : DS4
 Test Mode : TX

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.16	9.61	9.81	9.21	28.63	55.69	27.06	Average
2	0.16	9.61	9.81	28.33	47.75	65.69	17.94	QP
3	0.17	9.61	9.81	8.22	27.64	55.12	27.48	Average
4	0.17	9.61	9.81	26.77	46.19	65.12	18.93	QP
5	0.38	9.61	9.82	12.62	32.05	48.25	16.20	Average
6	0.38	9.61	9.82	15.95	35.38	58.25	22.87	QP
7	0.48	9.61	9.81	8.61	28.03	46.36	18.33	Average
8	0.48	9.61	9.81	15.77	35.19	56.36	21.17	QP
9	3.45	9.63	9.85	7.27	26.75	46.00	19.25	Average
10	3.45	9.63	9.85	12.92	32.40	56.00	23.60	QP
11	8.41	9.66	9.86	7.61	27.13	50.00	22.87	Average
12	8.41	9.66	9.86	15.11	34.63	60.00	25.37	QP



Trace: 315

Site no : 844 Shield Room Data no. : 316
 Env. / Ins. : Temp:25.3'C Humi:58% Press:101.50kPa LINE Phase : NEUTRAL
 Limit : FCC PART 15B QP
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 18V From Adapter Input AC 240V/50Hz
 M/N : DS4
 Test Mode : TX

	Freq. (MHz)	LISM Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15	9.46	9.81	6.94	26.21	56.00	29.79	Average
2	0.15	9.46	9.81	26.29	45.56	66.00	20.44	QP
3	0.18	9.55	9.80	6.83	26.18	54.50	28.32	Average
4	0.18	9.55	9.80	23.83	43.18	64.50	21.32	QP
5	0.38	9.59	9.82	11.68	31.09	48.25	17.16	Average
6	0.38	9.59	9.82	16.08	35.49	58.25	22.76	QP
7	0.48	9.59	9.81	9.67	29.07	46.36	17.29	Average
8	0.48	9.59	9.81	14.73	34.13	56.36	22.23	QP
9	3.76	9.64	9.84	5.81	25.29	46.00	20.71	Average
10	3.76	9.64	9.84	11.29	30.77	56.00	25.23	QP
11	7.85	9.67	9.88	7.14	26.69	50.00	23.31	Average
12	7.85	9.67	9.88	13.38	32.93	60.00	27.07	QP

12. ANTENNA REQUIREMENTS

12.1. Limit

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

12.2. Result

The antennas used for this product are integral Patch Antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is only 0dBi.