

4.4 Powerline Conducted Emissions [Section 15.207 & 15.407 (b)(5)]

4.4.1 EUT Configuration

The EUT was set up on the non-conductive table that is 1.0 by 1.5 meter, 80cm above ground. The wall of the shielded room was located 40cm to the rear of the EUT.

Power to the EUT was provided through the LISN. The impedance vs. frequency characteristic of the LISN is complied with the limit used.

Both lines (neutral and hot) were connected to the LISN in series at testing. A coaxial-type connector which provides one 50 ohms terminating impedance was provided for connecting the test instrument. The excess length of the power cord was folded back and forth at the center of the lead so as to form a bundle not exceeding 40cm in length.

Any changes made to the configuration, or modifications made to the EUT, during testing are noted in the following test record.

If the EUT is a Personal Computer or a peripheral of personal computer, and the personal computer has an auxiliary AC outlet which can be used for providing power to an external monitor, then all measurements will be made with the monitor power from first the computer-mounted AC outlet and then a floor-mounted AC outlet.

4.4.2 Test Procedure

The system was set up as described above, with the EMI diagnostic software running. The main power line conducted EMI tests were run on the hot and neutral conductors of the power cord and the results were recorded. The effect of varying the position of the interface cables has been investigated to find the configuration that produces maximum emission.

At the frequencies where the peak values of the emissions were higher than 6dB below the applicable limits, the emissions were also measured with the quasi-peak detectors. At the frequencies where the quasi-peak values of the emissions were higher than 6dB below the applicable average limits, the emissions were also measured with the average detectors.

The highest emissions were analyzed in details by operating the spectrum analyzer in fixed tuned mode to determine the nature of the emissions and to provide information which could be useful in reducing their amplitude.

4.4.3 EMI Receiver/Spectrum Analyzer Configuration (for the frequencies tested)

Frequency Range:	150 KHz--30MHz
Detector Function:	Quasi-Peak/Average
Bandwidth (RBW):	9KHz

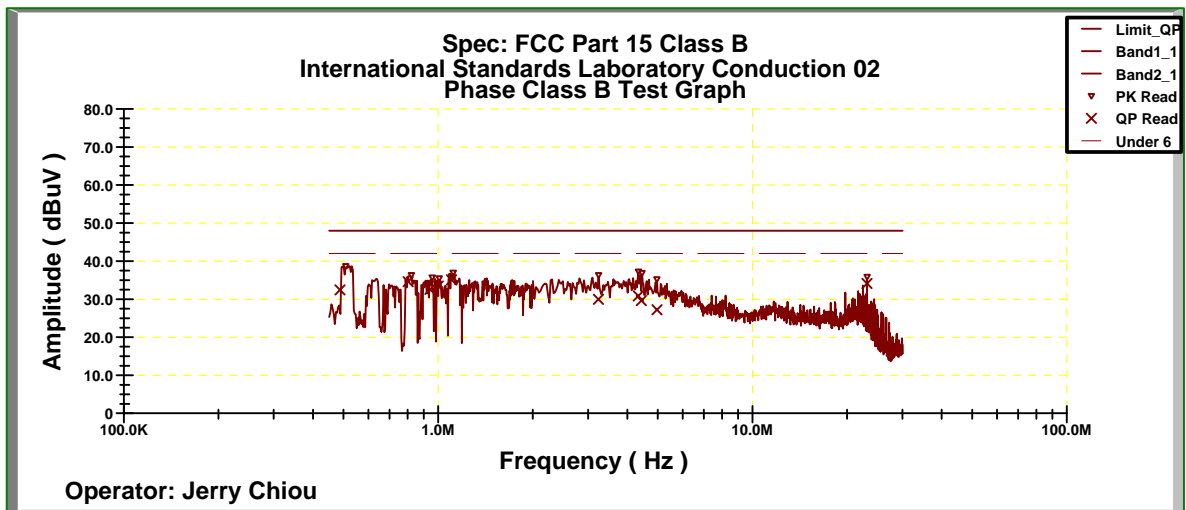
4.4.4 Test Data:

Power Line Conducted Emissions (Hot)

Operator: Jerry Chiou
Temperature (C): 27
Humidity (%): 58

05:20:48 PM, Sunday, August 21, 2005

Frequency	LISN Loss	Cable Loss	QP Corrct.	QP Limit	QP Margin
0.4874	0.11	0.07	32.40	47.96	-15.56
0.9419	0.19	0.07	32.54	47.96	-15.42
1.0008	0.30	0.07	33.44	47.96	-14.52
1.1029	0.29	0.07	35.04	47.96	-12.92
3.2325	0.20	0.12	29.94	47.96	-18.02
4.3301	0.21	0.14	30.84	47.96	-17.12
4.4313	0.21	0.15	29.60	47.96	-18.36
4.9646	0.22	0.15	27.20	47.96	-20.76
23.129	0.86	0.33	34.11	47.96	-13.85



Power Line Conducted Emissions (Neutral)

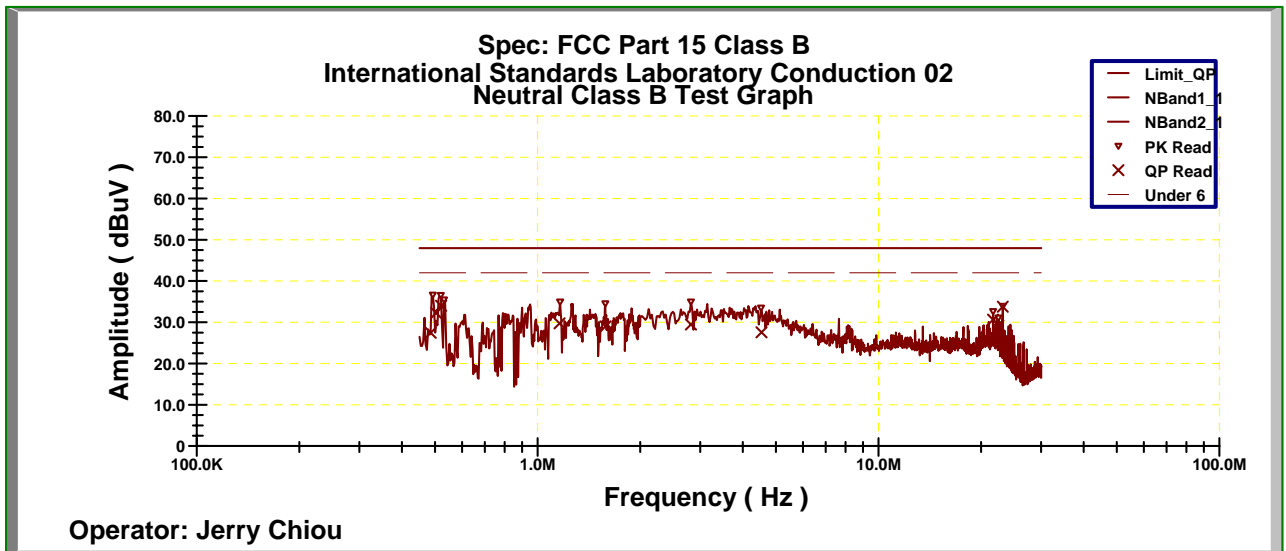
Operator: Jerry Chiou

Temperature (C): 27

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Humidity (%): 58

Frequency	LISN Loss	Cable Loss	QP Correc.	QP Limit	QP Margin
0.4855	0.11	0.07	27.44	47.96	-20.52
0.5208	0.12	0.07	33.97	47.96	-13.99
1.1589	0.20	0.07	29.71	47.96	-18.25
1.5799	0.20	0.08	28.97	47.96	-18.99
2.8150	0.20	0.11	29.42	47.96	-18.54
4.5331	0.20	0.15	27.52	47.96	-20.44
21.663	0.37	0.34	30.60	47.96	-17.36
22.459	0.40	0.34	29.13	47.96	-18.83
23.130	0.43	0.33	33.74	47.96	-14.22



* NOTE: During the test, the EMI receiver was set to Max. Hold then switch the EUT between Main antenna, Aux antenna Channel 1 , 4, 5, 8 ,9,10,12 of Normal Mode and Channel 1, 2, 3,4,5 of Turbo Mode to get the maximum reading of all these channels
 Margin = Amplitude + Insertion Loss- Limit
 A margin of -8dB means that the emission is 8dB below the limit

4.5 Radiated Emission Measurement [Section 15.209 & 15.407(b)(5)]

4.5.1 EUT Configuration

The equipment under test was set up on the 10 meter chamber with measurement distance of 3 meters. The EUT was placed on a non-conductive table 80cm above ground.

Any changes made to the configuration, or modifications made to the EUT, during testing are noted in the following test record.

4.5.2 Test Procedure

The system was set up as described above, with the EMI diagnostic software running. We found the maximum readings by varying the height of antenna and then rotating the turntable. Both polarization of antenna, horizontal and vertical, are measured.

30M to 1GHz: The highest emissions between 30 MHz to 1000 MHz were also analyzed in details by operating the spectrum analyzer and/or EMI receiver in quasi-peak mode to determine the precise amplitude of the emissions. While doing so, the interconnecting cables and major parts of the system were moved around, the antenna height was varied between one and four meters, its polarization was varied between vertical and horizontal, and the turntable was slowly rotated, to maximize the emission.

1GHz – 40GHz: The highest emissions were also analyzed in details by operating the spectrum analyzer and/or EMI receiver in peak mode to determine the precise amplitude of the emission. While doing so, the interconnecting cables and major parts of the system were moved around, the antenna height was varied between one and four meters, its polarization was varied between vertical and horizontal, and the turntable was slowly rotated, to maximize the emission. During test the EMI receiver and spectrum was setup according to para. 6.5.3.

For the test of 2nd to 10th harmonics frequencies , the equipment setup was also refer to para.6.5.3. The frequencies were tested using Peak mode first, if the test data is higher than the emissions limit, an additional measurement using Average mode will be performed and the average reading will be compared to the limit and record in test report.

4.5.3 EMI Receiver/Spectrum Analyzer Configuration

Frequency Range Tested:	30MHz~1000MHz
Detector Function:	Quasi-Peak Mode
Resolution Bandwidth (RBW):	120KHz
Video Bandwidth (VBW)	1MHz
Frequency Range Tested:	1GHz – 40 GHz
Detector Function:	Peak Mode
Resolution Bandwidth (RBW):	1MHz
Video Bandwidth (VBW)	3MHz
Frequency Range Tested:	30MHz – 40 GHz
Detector Function:	Average Mode
Resolution Bandwidth (RBW):	1MHz
Video Bandwidth (VBW)	10 Hz

4.5.4 Test Data (30MHz – 1GHz) .

30M – 1GHz Open Field Radiated Emissions (Horizontal)

Operator: Jerry Chiou
 Temperature (C): 23
 Humidity (%): 54

05:49:29 PM, Saturday, August 20, 2005

Frequency	Rx Amp.	Ant Fact	CableLoss	PreAmpGain	Corrct. Emi.	Limit	Margin	Ant. Pos.	Table Pos.
MHz	(dBuV)	(dB/m)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg)
41.64	17.47	11.38	1.13	0.00	29.98	40.00	-10.02	103.00	340.00
55.22	19.73	6.40	1.29	0.00	27.42	40.00	-12.58	103.00	290.00
106.63	18.41	11.10	1.99	0.00	31.49	43.50	-12.01	103.00	323.00
125.06	15.95	11.45	2.11	0.00	29.50	43.50	-14.00	103.00	258.00
193.93	18.52	8.72	2.67	0.00	29.91	43.50	-13.59	103.00	307.00
292.87	16.99	14.83	3.49	0.00	35.31	46.00	-10.69	196.00	203.00
329.73	15.98	16.08	3.92	0.00	35.99	46.00	-10.01	196.00	39.00
358.83	14.32	16.15	4.17	0.00	34.63	46.00	-11.37	196.00	236.00
366.59	13.30	16.10	4.22	0.00	33.62	46.00	-12.38	196.00	337.00
374.35	20.01	16.05	4.27	0.00	40.33	46.00	-5.67	103.00	44.00
499.48	12.45	17.39	5.28	0.00	35.12	46.00	-10.88	196.00	353.00
624.61	7.87	18.85	6.12	0.00	32.84	46.00	-13.16	103.00	290.00

30M – 1GHz Open Field Radiated Emissions (Vertical)

Operator: Jerry Chiou
 Temperature (C): 23
 Humidity (%): 54

05:49:29 PM, Saturday, August 20, 2005

Frequency	Rx Amp.	Ant Fact	CableLoss	PreAmpGain	Corrct. Emi.	Limit	Margin	Ant. Pos.	Table Pos.
MHz	(dBuV)	(dB/m)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg)
40.67	17.05	11.86	1.13	0.00	30.04	40.00	-9.96	103.00	44.00
51.34	24.86	7.22	1.22	0.00	33.30	40.00	-6.70	103.00	110.00
58.13	20.88	5.79	1.32	0.00	28.00	40.00	-12.00	103.00	93.00
106.63	23.03	11.10	1.99	0.00	36.12	43.50	-7.38	103.00	323.00
109.54	18.20	11.44	2.03	0.00	31.68	43.50	-11.82	103.00	307.00
125.06	19.73	11.45	2.11	0.00	33.29	43.50	-10.21	103.00	258.00
329.73	13.90	16.08	3.92	0.00	33.90	46.00	-12.10	196.00	39.00
374.35	17.19	16.05	4.27	0.00	37.51	46.00	-8.49	103.00	44.00
499.48	11.17	17.39	5.28	0.00	33.84	46.00	-12.16	196.00	353.00
549.92	11.95	18.60	5.53	0.00	36.07	46.00	-9.93	103.00	77.00
624.61	11.21	18.85	6.12	0.00	36.17	46.00	-9.83	103.00	290.00
769.14	3.55	20.16	7.09	0.00	30.80	46.00	-15.20	103.00	307.00

* NOTE: During the pre-test, the EUT has been tested for Channel 1, 4, 5, 8, 9, 10,12 of Normal Mode and Channel 1, 2, 3 ,4, 5 of Turbo mode and transmit from Main and Aux antenna respectively to get all the critical emission frequencies. In the final test all the critical emission frequencies has been tested and the test data are listed above.

Margin=Corrected Amplitude-Limit

Corrected Amplitude = Radiated Amplitude + Antenna Correction Factor + Cable Loss - Pre-Amplifier Gain

A margin of -8dB means that the emission is 8dB below the limit

All frequencies from 30MHz to 1GHz have been tested

4.5.5 Test Data (1GHz – 40 GHz, Transmitting) .

1GHz~ 40 GHz (Horizontal), Normal Mode, Channel 1 : 5180 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency MHz	Rx_R. dBuV	Ant_F. dB/m	Cab_L. dB	PreAmpl dB	Emission dBuV/m	Limit dBuV/m	Margin dB	A.Tower cm	T.Table deg
1222.98	54.23 pk	25.53	2.2	34.05	47.90 pk	54.00 av	-6.1	102	97
1791.21	52.20 pk	29.25	2.45	34.77	49.12 pk	54.00 av	-4.88	100	57
2391.81	50.33 pk	30.92	1.42	35.2	47.47 pk	54.00 av	-6.53	101	166
2769.43	53.45 pk	31.01	1.41	34.96	50.91 pk	54.00 av	-3.09	102	285
10358.6	60.66 pk	39.51	3.28	34.55	68.90 pk	74.00 pk	-5.1	100	43
10358.6	41.73 av	39.51	3.28	34.55	49.97 av	54.00 av	-4.03	100	43
15539.7	48.61 pk	41.8	3.74	36.12	58.03 pk	74.00 pk	-15.97	100	3
15539.7	30.65 av	41.8	3.74	36.12	40.07 av	54.00 av	-13.93	100	3

1GHz~ 40 GHz (Vertical), Normal Mode, Channel 1: 5180 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency MHz	Rx_R. dBuV	Ant_F. dB/m	Cab_L. dB	PreAmpl dB	Emission dBuV/m	Limit dBuV/m	Margin dB	A.Tower cm	T.Table deg
1226.57	52.43 pk	25.54	2.2	34.05	46.12 pk	54.00 av	-7.88	102	96
1262.54	51.66 pk	25.71	2.2	34.07	45.49 pk	54.00 av	-8.51	101	94
1794.81	55.77 pk	29.28	2.45	34.78	52.72 pk	54.00 av	-1.28	100	57
1841.56	50.16 pk	29.67	2.48	34.87	47.45 pk	54.00 av	-6.55	100	54
3449.15	47.73 pk	31.46	1.68	35.73	45.15 pk	54.00 av	-8.85	103	242
10360.9	59.63 pk	39.51	3.28	34.55	67.87 pk	74.00 pk	-6.13	100	148
10360.9	42.29 av	39.51	3.28	34.55	50.53 av	54.00 av	-3.47	100	148
15537.2	55.02 pk	41.8	3.74	36.14	64.42 pk	74.00 pk	-9.58	100	323
15537.2	36.02 av	41.8	3.74	36.14	45.42 av	54.00 av	-8.58	100	323

Note: “ * ”: Fundamental Frequency

“ pk ”: peak reading

“ av ”: average reading

The Spectrum noise level+Correction Factor<Limit-6 dB

Margin = Corrected Amplitude – Limit

Corrected Amplitude=Radiated Amplitude+Antenna Correction Factor+Cable Loss-Pre-Amplifier Gain

A margin of -8dB means that the emission is 8dB below the limit.

All frequencies from 1GHz to 40 GHz have been tested.

1GHz~ 40 GHz (Horizontal), Normal Mode, Channel 4: 5240 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency	Rx_R.	Ant_F.	Cab_L.	PreAmpl	Emission	Limit	Margin	A.Tower	T.Table
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	cm	deg
1222.98	55.74 pk	25.53	2.2	34.05	49.41 pk	54.00 av	-4.59	102	97
1712.09	55.69 pk	28.58	2.39	34.62	52.04 pk	54.00 av	-1.96	101	63
2118.48	52.02 pk	30.98	2.24	35.18	50.05 pk	54.00 av	-3.95	100	80
2388.21	50.71 pk	30.92	1.42	35.2	47.85 pk	54.00 av	-6.15	101	165
2769.43	60.92 pk	31.01	1.41	34.96	58.38 pk	74.00 pk	-15.62	102	285
2769.43	60.92 av	31.01	1.41	34.96	41.70 av	54.00 av	-12.3	102	285
10475.6	57.55 pk	39.42	3.23	34.58	65.62 pk	74.00 pk	-8.38	100	333
10475.6	37.24 av	39.42	3.23	34.58	45.31 av	54.00 av	-8.69	100	333
15721.4	46.38 pk	42.28	3.85	35.23	57.27 pk	74.00 pk	-16.73	100	247
15721.4	27.17 av	42.28	3.85	35.23	38.07 av	54.00 av	-15.93	100	247

1GHz~ 40 GHz (Vertical), Normal Mode, Channel 4: 5240 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency	Rx_R.	Ant_F.	Cab_L.	PreAmpl	Emission	Limit	Margin	A.Tower	T.Table
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	cm	deg
1222.98	55.00 pk	25.53	2.2	34.05	48.67 pk	54.00 av	-5.33	102	97
1244.56	51.16 pk	25.62	2.2	34.06	44.92 pk	54.00 av	-9.08	102	95
1794.81	48.79 pk	29.28	2.45	34.78	45.74 pk	54.00 av	-8.26	100	57
1841.56	47.67 pk	29.67	2.48	34.87	44.95 pk	54.00 av	-9.05	100	54
2118.48	46.84 pk	30.98	2.24	35.18	44.87 pk	54.00 av	-9.13	100	80
10481	60.25 pk	39.42	3.23	34.58	68.31 pk	74.00 pk	-5.69	100	102
10481	40.82 av	39.42	3.23	34.58	48.89 av	54.00 av	-5.11	100	102
15723.5	50.37 pk	42.28	3.85	35.22	61.28 pk	74.00 pk	-12.72	100	83
15723.5	30.88 av	42.28	3.85	35.22	41.79 av	54.00 av	-12.21	100	83

Note: “ * ”: Fundamental Frequency

“ pk ”: peak reading

“ av ”: average reading

The Spectrum noise level+Correction Factor<Limit-6 dB

Margin = Corrected Amplitude – Limit

Corrected Amplitude=Radiated Amplitude+Antenna Correction Factor+Cable Loss-Pre-Amplifier Gain

A margin of -8dB means that the emission is 8dB below the limit.

All frequencies from 1GHz to 40 GHz have been tested.

1GHz~ 40 GHz (Horizontal), Normal Mode, Channel 5 : 5260 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency MHz	Rx_R. dBuV	Ant_F. dB/m	Cab_L. dB	PreAmpl dB	Emission dBuV/m	Limit dBuV/m	Margin dB	A.Tower cm	T.Table deg
1219.38	53.86 pk	25.51	2.2	34.05	47.52 pk	54.00 av	-6.48	102	97
1794.81	50.23 pk	29.28	2.45	34.78	47.17 pk	54.00 av	-6.83	100	57
2122.08	49.41 pk	30.98	2.23	35.18	47.42 pk	54.00 av	-6.58	100	81
2532.07	50.72 pk	30.91	1.37	35.17	47.83 pk	54.00 av	-6.17	102	210
2769.43	50.66 pk	31.01	1.41	34.96	48.12 pk	54.00 av	-5.88	102	285
10515.5	58.60 pk	39.4	3.23	34.59	66.64 pk	74.00 pk	-7.36	100	77
10515.5	39.13 av	39.4	3.23	34.59	47.17 av	54.00 av	-6.83	100	77
15778.7	47.90 pk	42.42	3.88	34.95	59.26 pk	74.00 pk	-14.74	100	333
15778.7	30.51 av	42.42	3.88	34.95	41.86 av	54.00 av	-12.14	100	333

1GHz~ 40 GHz (Vertical), Normal Mode, Channel 5 : 5260 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency MHz	Rx_R. dBuV	Ant_F. dB/m	Cab_L. dB	PreAmpl dB	Emission dBuV/m	Limit dBuV/m	Margin dB	A.Tower cm	T.Table deg
1546.65	50.34 pk	27.19	2.26	34.29	45.50 pk	54.00 av	-8.5	101	74
1791.21	47.61 pk	29.25	2.45	34.77	44.53 pk	54.00 av	-9.47	100	57
2168.83	45.87 pk	30.97	2.08	35.19	43.73 pk	54.00 av	-10.27	101	96
2265.93	46.64 pk	30.95	1.79	35.19	44.19 pk	54.00 av	-9.81	101	127
2913.29	46.54 pk	31.07	1.43	34.83	44.21 pk	54.00 av	-9.79	103	330
10515.5	59.05 av	39.4	3.23	34.59	67.09 pk	74.00 pk	-6.91	100	166
10515.5	42.51 pk	39.4	3.23	34.59	50.55 av	54.00 av	-3.45	100	166
15777.4	52.22 av	42.42	3.88	34.96	63.57 pk	74.00 pk	-10.43	100	129
15777.4	34.09 pk	42.42	3.88	34.96	45.43 av	54.00 av	-8.57	100	129

Note: “ * ”: Fundamental Frequency

“ pk ”: peak reading

“ av ”: average reading

The Spectrum noise level+Correction Factor<Limit-6 dB

Margin = Corrected Amplitude – Limit

Corrected Amplitude=Radiated Amplitude+Antenna Correction Factor+Cable Loss-Pre-Amplifier Gain

A margin of -8dB means that the emission is 8dB below the limit.

All frequencies from 1GHz to 40 GHz have been tested.

1GHz~ 40 GHz (Horizontal), Normal Mode, Channel 8: 5320 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency	Rx_R.	Ant_F.	Cab_L.	PreAmpl	Emission	Limit	Margin	A.Tower	T.Table
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	cm	deg
1384.82	52.59 pk	26.27	2.22	34.14	46.94 pk	54.00 av	-7.06	101	85
1798.4	49.41 pk	29.31	2.45	34.78	46.38 pk	54.00 av	-7.62	100	57
2222.78	53.27 pk	30.96	1.92	35.19	50.95 pk	54.00 av	-3.05	101	113
2388.21	49.37 pk	30.92	1.42	35.2	46.51 pk	54.00 av	-7.49	101	165
2773.03	50.40 pk	31.01	1.41	34.95	47.86 pk	54.00 av	-6.14	102	286
10638.8	53.78 pk	39.43	3.28	34.62	61.86 pk	74.00 pk	-12.14	100	281
10638.8	35.06 av	39.43	3.28	34.62	43.15 av	54.00 av	-10.85	100	281
15956.9	45.65 pk	42.89	3.99	34.07	58.45 pk	74.00 pk	-15.55	100	169
15956.9	28.22 av	42.89	3.99	34.07	41.03 av	54.00 av	-12.97	100	169

1GHz~ 40 GHz (Vertical), Normal Mode, Channel 8: 5320 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency	Rx_R.	Ant_F.	Cab_L.	PreAmpl	Emission	Limit	Margin	A.Tower	T.Table
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	cm	deg
1010.79	51.98 pk	24.55	2.17	33.94	44.76 pk	54.00 av	-9.24	102	111
1255.34	51.41 pk	25.67	2.2	34.07	45.21 pk	54.00 av	-8.79	101	94
1798.4	51.13 pk	29.31	2.45	34.78	48.10 pk	54.00 av	-5.9	100	57
1841.56	48.38 pk	29.67	2.48	34.87	45.67 pk	54.00 av	-8.33	100	54
3165.03	46.56 pk	31.23	1.54	35.11	44.22 pk	54.00 av	-9.78	103	315
10640.8	60.95 pk	39.43	3.28	34.62	69.03 pk	74.00 pk	-4.97	100	118
10640.8	41.38 av	39.43	3.28	34.62	49.47 av	54.00 av	-4.53	100	118
15963.2	49.90 pk	42.9	3.99	34.04	62.75 pk	74.00 pk	-11.25	100	128
15963.2	29.26 av	42.9	3.99	34.04	42.11 av	54.00 av	-11.89	100	128

Note: “ * ”: Fundamental Frequency
 “ pk ”: peak reading
 “ av ”: average reading
 The Spectrum noise level+Correction Factor<Limit-6 dB
 Margin = Corrected Amplitude – Limit
 Corrected Amplitude=Radiated Amplitude+Antenna Correction Factor+Cable Loss-Pre-Amplifier Gain
 A margin of -8dB means that the emission is 8dB below the limit.

All frequencies from 1GHz to 40 GHz have been tested.

1GHz~ 40 GHz (Horizontal), Normal Mode, Channel 9: 5745 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency	Rx_R.	Ant_F.	Cab_L.	PreAmpl	Emission	Limit	Margin	A.Tower	T.Table
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	cm	deg
1794.81	49.41 pk	29.28	2.45	34.78	46.35 pk	54.00 av	-7.65	100	57
2039.36	51.79 pk	30.99	2.48	35.18	50.08 pk	54.00 av	-3.92	100	55
2391.81	49.53 pk	30.92	1.42	35.2	46.68 pk	54.00 av	-7.32	101	166
2769.43	49.84 pk	31.01	1.41	34.96	47.30 pk	54.00 av	-6.7	102	285
2992.41	48.66 pk	31.1	1.45	34.76	46.45 pk	54.00 av	-7.55	103	355
11491.2	49.14 pk	40.68	3.08	34.87	58.03 pk	74.00 pk	-15.97	100	217
11491.2	29.70 av	40.68	3.08	34.87	38.59 av	54.00 av	-15.41	100	217
17233.5	41.86 pk	45.21	3.43	32.15	58.36 pk	74.00 pk	-15.64	100	344
17233.5	24.12 av	45.21	3.43	32.15	40.61 av	54.00 av	-13.39	100	344

1GHz~ 40 GHz (Vertical), Normal Mode, Channel 9: 5745 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency	Rx_R.	Ant_F.	Cab_L.	PreAmpl	Emission	Limit	Margin	A.Tower	T.Table
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	cm	deg
1791.21	49.23 pk	29.25	2.45	34.77	46.16 pk	54.00 av	-7.84	100	57
1837.96	48.82 pk	29.64	2.48	34.86	46.08 pk	54.00 av	-7.92	100	54
2078.92	46.53 pk	30.98	2.36	35.18	44.69 pk	54.00 av	-9.31	100	68
2985.21	47.03 pk	31.09	1.45	34.76	44.81 pk	54.00 av	-9.19	103	352
3121.88	48.21 pk	31.2	1.51	35.02	45.91 pk	54.00 av	-8.09	103	326
11490.7	54.23 pk	40.68	3.08	34.87	63.12 pk	74.00 pk	-10.88	100	130
11490.7	33.74 av	40.68	3.08	34.87	42.63 av	54.00 av	-11.37	100	130
17235.3	44.48 pk	45.22	3.43	32.15	60.98 pk	74.00 pk	-13.02	100	106
17235.3	24.88 av	45.22	3.43	32.15	41.38 av	54.00 av	-12.62	100	106

Note: “ * ”: Fundamental Frequency

“ pk ”: peak reading

“ av ”: average reading

The Spectrum noise level+Correction Factor<Limit-6 dB

Margin = Corrected Amplitude – Limit

Corrected Amplitude=Radiated Amplitude+Antenna Correction Factor+Cable Loss-Pre-Amplifier Gain

A margin of -8dB means that the emission is 8dB below the limit.

All frequencies from 1GHz to 40 GHz have been tested.

1GHz~ 40 GHz (Horizontal), Normal Mode, Channel 10 : 5765 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency	Rx_R.	Ant_F.	Cab_L.	PreAmpl	Emission	Limit	Margin	A.Tower	T.Table
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	cm	deg
1222.98	54.95 pk	25.53	2.2	34.05	48.63 pk	54.00 av	-5.37	102	97
1248.15	53.09 pk	25.64	2.2	34.06	46.87 pk	54.00 av	-7.13	102	95
1406.39	51.79 pk	26.37	2.22	34.15	46.23 pk	54.00 av	-7.77	101	84
2118.48	48.45 pk	30.98	2.24	35.18	46.48 pk	54.00 av	-7.52	100	80
2776.62	50.99 pk	31.01	1.41	34.95	48.46 pk	54.00 av	-5.54	102	287
11531.9	56.60 pk	40.8	3.11	34.9	65.61 pk	74.00 pk	-8.39	100	216
11531.9	36.46 av	40.8	3.11	34.9	45.47 av	54.00 av	-8.53	100	216
17295.1	43.69 pk	45.35	3.38	32.23	60.19 pk	74.00 pk	-13.81	100	86
17295.1	24.50 av	45.35	3.38	32.23	41.00 av	54.00 av	-13	100	86

1GHz~ 40 GHz (Vertical), Normal Mode, Channel 10 : 5765 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency	Rx_R.	Ant_F.	Cab_L.	PreAmpl	Emission	Limit	Margin	A.Tower	T.Table
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	cm	deg
1226.57	52.12 pk	25.54	2.2	34.05	45.80 pk	54.00 av	-8.2	102	96
1550.25	55.92 pk	27.22	2.27	34.3	51.11 pk	54.00 av	-2.89	101	74
1791.21	49.56 pk	29.25	2.45	34.77	46.48 pk	54.00 av	-7.52	100	57
1841.56	49.53 pk	29.67	2.48	34.87	46.81 pk	54.00 av	-7.19	100	54
2985.21	48.23 pk	31.09	1.45	34.76	46.00 pk	54.00 av	-8	103	352
11530.8	56.67 pk	40.8	3.11	34.9	65.68 pk	74.00 pk	-8.32	100	316
11530.8	36.82 av	40.8	3.11	34.9	45.83 av	54.00 av	-8.17	100	316
17293.3	50.34 pk	45.35	3.38	32.23	66.84 pk	74.00 pk	-7.16	100	84
17293.3	29.59 av	45.35	3.38	32.23	46.09 av	54.00 av	-7.91	100	84

Note: “ * ”: Fundamental Frequency

“ pk ”: peak reading

“ av ”: average reading

The Spectrum noise level+Correction Factor<Limit-6 dB

Margin = Corrected Amplitude – Limit

Corrected Amplitude=Radiated Amplitude+Antenna Correction Factor+Cable Loss-Pre-Amplifier Gain

A margin of -8dB means that the emission is 8dB below the limit.

All frequencies from 1GHz to 40 GHz have been tested.

1GHz~ 40 GHz (Horizontal), Normal Mode, Channel 12 : 5805 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency	Rx_R.	Ant_F.	Cab_L.	PreAmpl	Emission	Limit	Margin	A.Tower	T.Table
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	cm	deg
1384.82	54.55 pk	26.27	2.22	34.14	48.90 pk	54.00 av	-5.1	101	85
1463.94	52.55 pk	26.63	2.23	34.18	47.23 pk	54.00 av	-6.77	101	80
1794.81	50.14 pk	29.28	2.45	34.78	47.09 pk	54.00 av	-6.91	100	57
2201.2	49.96 pk	30.96	1.99	35.19	47.72 pk	54.00 av	-6.28	101	106
2769.43	50.27 pk	31.01	1.41	34.96	47.73 pk	54.00 av	-6.27	102	285
11611.1	56.96 pk	41.06	3.2	34.97	66.24 pk	74.00 pk	-7.76	100	77
11611.1	37.75 av	41.06	3.2	34.97	47.04 av	54.00 av	-6.96	100	77
17416.1	43.70 pk	45.62	3.28	32.39	60.21 pk	74.00 pk	-13.79	100	340
17416.1	25.02 av	45.62	3.28	32.39	41.53 av	54.00 av	-12.47	100	340

1GHz~ 40 GHz (Vertical), Normal Mode, Channel 12 : 5805 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency	Rx_R.	Ant_F.	Cab_L.	PreAmpl	Emission	Limit	Margin	A.Tower	T.Table
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	cm	deg
1248.15	51.18 pk	25.64	2.2	34.06	44.96 pk	54.00 av	-9.04	102	95
1791.21	48.63 pk	29.25	2.45	34.77	45.55 pk	54.00 av	-8.45	100	57
1841.56	48.26 pk	29.67	2.48	34.87	45.54 pk	54.00 av	-8.46	100	54
2952.85	46.82 pk	31.08	1.44	34.79	44.55 pk	54.00 av	-9.45	103	342
2988.81	48.16 pk	31.1	1.45	34.76	45.94 pk	54.00 av	-8.06	103	353
11611.9	59.48 pk	41.06	3.2	34.97	68.77 pk	74.00 pk	-5.23	100	136
11611.9	39.93 av	41.06	3.2	34.97	49.22 av	54.00 av	-4.78	100	136
17410	48.29 pk	45.6	3.29	32.38	64.80 pk	74.00 pk	-9.2	100	84
17410	29.93 av	45.6	3.29	32.38	46.44 av	54.00 av	-7.56	100	84

Note: “ * ”: Fundamental Frequency

“ pk ”: peak reading

“ av ”: average reading

The Spectrum noise level+Correction Factor<Limit-6 dB

Margin = Corrected Amplitude – Limit

Corrected Amplitude=Radiated Amplitude+Antenna Correction Factor+Cable Loss-Pre-Amplifier Gain

A margin of -8dB means that the emission is 8dB below the limit.

All frequencies from 1GHz to 40 GHz have been tested.

1GHz~ 40 GHz (Horizontal), Turbo Mode, Channel 1: 5210 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency	Rx_R.	Ant_F.	Cab_L.	PreAmpl	Emission	Limit	Margin	A.Tower	T.Table
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	cm	deg
1712.09	55.41 pk	28.58	2.39	34.62	51.76 pk	54.00 av	-2.24	101	63
1791.21	52.00 pk	29.25	2.45	34.77	48.92 pk	54.00 av	-5.08	100	57
2773.03	52.40 pk	31.01	1.41	34.95	49.86 pk	54.00 av	-4.14	102	286
3431.17	49.56 pk	31.44	1.67	35.69	46.99 pk	54.00 av	-7.01	103	246
10417.5	58.09 pk	39.47	3.25	34.56	66.25 pk	74.00 pk	-7.75	100	343
10417.5	38.13 av	39.47	3.25	34.56	46.29 av	54.00 av	-7.71	100	343
15632.2	46.43 pk	42.04	3.8	35.67	56.60 pk	74.00 pk	-17.4	100	352
15632.2	27.83 av	42.04	3.8	35.67	38.00 av	54.00 av	-16	100	352

1GHz~ 40 GHz (Vertical), Turbo Mode, Channel 1: 5210 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency	Rx_R.	Ant_F.	Cab_L.	PreAmpl	Emission	Limit	Margin	A.Tower	T.Table
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	cm	deg
1240.96	52.00 pk	25.61	2.2	34.06	45.75 pk	54.00 av	-8.25	102	95
1550.25	52.27 pk	27.22	2.27	34.3	47.46 pk	54.00 av	-6.54	101	74
1712.09	48.59 pk	28.58	2.39	34.62	44.95 pk	54.00 av	-9.05	101	63
2938.46	46.95 pk	31.08	1.44	34.81	44.66 pk	54.00 av	-9.34	103	338
2992.41	46.87 pk	31.1	1.45	34.76	44.66 pk	54.00 av	-9.34	103	355
10417.8	62.02 pk	39.47	3.25	34.56	70.18 pk	74.00 pk	-3.82	100	148
10417.8	42.59 av	39.47	3.25	34.56	50.75 av	54.00 av	-3.25	100	148
15629.2	48.60 pk	42.04	3.79	35.68	58.75 pk	74.00 pk	-15.25	100	130
15629.2	30.18 av	42.04	3.79	35.68	40.33 av	54.00 av	-13.67	100	130

Note: “ * ”: Fundamental Frequency

“ pk ”: peak reading

“ av ”: average reading

The Spectrum noise level+Correction Factor<Limit-6 dB

Margin = Corrected Amplitude – Limit

Corrected Amplitude=Radiated Amplitude+Antenna Correction Factor+Cable Loss-Pre-Amplifier Gain

A margin of -8dB means that the emission is 8dB below the limit.

All frequencies from 1GHz to 40 GHz have been tested.

1GHz~ 40 GHz (Horizontal) , Turbo Mode, Channel 2 : 5250 MHZ

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency	Rx_R.	Ant_F.	Cab_L.	PreAmpl	Emission	Limit	Margin	A.Tower	T.Table
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	cm	deg
1467.53	56.16 pk	26.65	2.23	34.18	50.86 pk	54.00 av	-3.14	101	80
1712.09	55.28 pk	28.58	2.39	34.62	51.63 pk	54.00 av	-2.37	101	63
1873.93	53.91 pk	29.94	2.51	34.93	51.42 pk	54.00 av	-2.58	100	52
2122.08	54.34 pk	30.98	2.23	35.18	52.35 pk	54.00 av	-1.65	100	81
2366.63	53.15 pk	30.93	1.48	35.19	50.36 pk	54.00 av	-3.64	101	158
10501.7	56.09 pk	39.4	3.22	34.59	64.13 pk	74.00 pk	-9.87	100	42
10501.7	36.70 av	39.4	3.22	34.59	44.73 av	54.00 av	-9.27	100	42
15748	44.95 pk	42.34	3.86	35.1	56.06 pk	74.00 pk	-17.94	100	246
15748	26.71 av	42.34	3.86	35.1	36.81 av	54.00 av	-17.19	100	246

1GHz~ 40 GHz (Vertical), Turbo Mode, Channel 2: 5250 MHZ

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency	Rx_R.	Ant_F.	Cab_L.	PreAmpl	Emission	Limit	Margin	A.Tower	T.Table
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	cm	deg
1140.26	54.66 pk	25.15	2.19	34.01	47.99 pk	54.00 av	-6.01	102	102
1240.96	50.96 pk	25.61	2.2	34.06	44.71 pk	54.00 av	-9.29	102	95
1467.53	49.81 pk	26.65	2.23	34.18	44.51 pk	54.00 av	-9.49	101	80
1794.81	48.34 pk	29.28	2.45	34.78	45.28 pk	54.00 av	-8.72	100	57
2988.81	46.80 pk	31.1	1.45	34.76	44.59 pk	54.00 av	-9.41	103	353
10497.5	63.49 pk	39.4	3.22	34.58	71.53 pk	74.00 pk	-2.47	100	99
10497.5	43.44 av	39.4	3.22	34.58	51.48 av	54.00 av	-2.52	100	99
15747	47.36 pk	42.34	3.86	35.1	58.46 pk	74.00 pk	-15.54	100	300
15747	28.92 av	42.34	3.86	35.1	40.02 av	54.00 av	-13.98	100	300

Note: “ * ”: Fundamental Frequency

“ pk ”: peak reading

“ av ”: average reading

The Spectrum noise level+Correction Factor<Limit-6 dB

Margin = Corrected Amplitude – Limit

Corrected Amplitude=Radiated Amplitude+Antenna Correction Factor+Cable Loss-Pre-Amplifier Gain

A margin of -8dB means that the emission is 8dB below the limit.

All frequencies from 1GHz to 40 GHz have been tested.

1GHz~ 40 GHz (Horizontal), Turbo Mode, Channel 3 : 5290 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency	Rx_R.	Ant_F.	Cab_L.	PreAmpl	Emission	Limit	Margin	A.Tower	T.Table
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	cm	deg
1402.8	53.19 pk	26.35	2.22	34.15	47.61 pk	54.00 av	-6.39	101	84
1467.53	55.38 pk	26.65	2.23	34.18	50.08 pk	54.00 av	-3.92	101	80
1794.81	50.90 pk	29.28	2.45	34.78	47.85 pk	54.00 av	-6.15	100	57
2388.21	49.53 pk	30.92	1.42	35.2	46.67 pk	54.00 av	-7.33	101	165
2769.43	49.50 pk	31.01	1.41	34.96	46.96 pk	54.00 av	-7.04	102	285
10582	52.51 pk	39.42	3.25	34.61	60.57 pk	74.00 pk	-13.43	100	280
10582	32.82 av	39.42	3.25	34.61	40.88 av	54.00 av	-13.12	100	280
15869.7	45.01 pk	42.66	3.93	34.5	57.10 pk	74.00 pk	-16.9	100	89
15869.7	26.61 av	42.66	3.93	34.5	38.70 av	54.00 av	-15.3	100	89

1GHz~ 40 GHz (Vertical) , Turbo Mode, Channel 3: 5290 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency	Rx_R.	Ant_F.	Cab_L.	PreAmpl	Emission	Limit	Margin	A.Tower	T.Table
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	cm	deg
1140.26	52.12 pk	25.15	2.19	34.01	45.44 pk	54.00 av	-8.56	102	102
1222.98	52.58 pk	25.53	2.2	34.05	46.25 pk	54.00 av	-7.75	102	97
1240.96	51.48 pk	25.61	2.2	34.06	45.22 pk	54.00 av	-8.78	102	95
2114.89	46.35 pk	30.98	2.25	35.18	44.39 pk	54.00 av	-9.61	100	79
2956.44	47.05 pk	31.08	1.44	34.79	44.79 pk	54.00 av	-9.21	103	343
10581.9	58.87 pk	39.42	3.25	34.61	66.93 pk	74.00 pk	-7.07	100	108
10581.9	41.58 av	39.42	3.25	34.61	49.64 av	54.00 av	-4.36	100	108
15869.2	47.80 pk	42.66	3.93	34.5	59.89 pk	74.00 pk	-14.11	100	129
15869.2	29.14 av	42.66	3.93	34.5	41.23 av	54.00 av	-12.77	100	129

Note: “ * ”: Fundamental Frequency

“ pk ”: peak reading

“ av ”: average reading

The Spectrum noise level+Correction Factor<Limit-6 dB

Margin = Corrected Amplitude – Limit

Corrected Amplitude=Radiated Amplitude+Antenna Correction Factor+Cable Loss-Pre-Amplifier Gain

A margin of -8dB means that the emission is 8dB below the limit.

All frequencies from 1GHz to 40 GHz have been tested.

1GHz~ 40 GHz (Horizontal), Turbo Mode, Channel 4 : 5760 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency MHz	Rx_R. dBuV	Ant_F. dB/m	Cab_L. dB	PreAmpl dB	Emission dBuV/m	Limit dBuV/m	Margin dB	A.Tower cm	T.Table deg
1222.98	52.35 pk	25.53	2.2	34.05	46.02 pk	54.00 av	-7.98	102	97
1791.21	50.82 pk	29.25	2.45	34.77	47.74 pk	54.00 av	-6.26	100	57
2021.38	49.12 pk	31	2.53	35.18	47.47 pk	54.00 av	-6.53	100	50
2122.08	47.91 pk	30.98	2.23	35.18	45.93 pk	54.00 av	-8.07	100	81
2769.43	48.76 pk	31.01	1.41	34.96	46.22 pk	54.00 av	-7.78	102	285
11520.5	45.36 pk	40.77	3.09	34.89	54.33 pk	74.00 pk	-19.67	100	216
11520.5	28.11 av	40.77	3.09	34.89	37.08 av	54.00 av	-16.92	100	216
17279.3	42.56 pk	45.31	3.4	32.21	59.06 pk	74.00 pk	-14.94	100	342
17279.3	23.52 av	45.31	3.4	32.21	40.02 av	54.00 av	-13.98	100	342

1GHz~ 40 GHz (Vertical) , Turbo Mode, Channel 4: 5760 MHz

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency MHz	Rx_R. dBuV	Ant_F. dB/m	Cab_L. dB	PreAmpl dB	Emission dBuV/m	Limit dBuV/m	Margin dB	A.Tower cm	T.Table deg
1219.38	55.87 pk	25.51	2.2	34.05	49.52 pk	54.00 av	-4.48	102	97
1791.21	49.60 pk	29.25	2.45	34.77	46.52 pk	54.00 av	-7.48	100	57
2391.81	48.05 pk	30.92	1.42	35.2	45.20 pk	54.00 av	-8.8	101	166
2992.41	47.84 pk	31.1	1.45	34.76	45.63 pk	54.00 av	-8.37	103	355
3075.13	47.79 pk	31.16	1.49	34.91	45.52 pk	54.00 av	-8.48	103	338
11517.4	48.02 pk	40.76	3.09	34.89	56.98 pk	74.00 pk	-17.02	100	119
11517.4	29.30 av	40.76	3.09	34.89	38.26 av	54.00 av	-15.74	100	119
17277.2	41.59 pk	45.31	3.4	32.21	58.09 pk	74.00 pk	-15.93	100	109
17277.2	23.85 av	45.31	3.4	32.21	40.35 av	54.00 av	-13.65	100	109

Note: “ * ”: Fundamental Frequency

“ pk ”: peak reading

“ av ”: average reading

The Spectrum noise level+Correction Factor<Limit-6 dB

Margin = Corrected Amplitude – Limit

Corrected Amplitude=Radiated Amplitude+Antenna Correction Factor+Cable Loss-Pre-Amplifier Gain

A margin of -8dB means that the emission is 8dB below the limit.

All frequencies from 1GHz to 40 GHz have been tested.

1GHz~ 40 GHz (Horizontal) , Turbo Mode, Channel 5 : 5800 MHZ

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency	Rx_R.	Ant_F.	Cab_L.	PreAmpl	Emission	Limit	Margin	A.Tower	T.Table
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	cm	deg
1010.79	54.15 pk	24.55	2.17	33.94	46.93 pk	54.00 av	-7.07	102	111
1463.94	52.66 pk	26.63	2.23	34.18	47.34 pk	54.00 av	-6.66	101	80
1798.4	52.20 pk	29.31	2.45	34.78	49.18 pk	54.00 av	-4.82	100	57
2039.36	48.14 pk	30.99	2.48	35.18	46.43 pk	54.00 av	-7.57	100	55
2388.21	49.05 pk	30.92	1.42	35.2	46.20 pk	54.00 av	-7.8	101	165
11602.2	47.65 pk	41.03	3.19	34.96	56.90 pk	74.00 pk	-17.1	100	338
11602.2	27.80 av	41.03	3.19	34.96	37.06 av	54.00 av	-16.94	100	338
17402.1	42.09 pk	45.58	3.29	32.37	58.60 pk	74.00 pk	-15.4	100	139
17402.1	23.34 av	45.58	3.29	32.37	39.84 av	54.00 av	-14.16	100	139

1GHz~ 40 GHz (Vertical), Turbo Mode, Channel 5: 5800 MHZ

Operator: Jerry Chiou

RBW: 1MHz
Humidity (%): 37
Temperature (C): 26

Frequency	Rx_R.	Ant_F.	Cab_L.	PreAmpl	Emission	Limit	Margin	A.Tower	T.Table
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	cm	deg
1010.79	54.45 pk	24.55	2.17	33.94	47.24 pk	54.00 av	-6.76	102	111
1222.98	52.31 pk	25.53	2.2	34.05	45.98 pk	54.00 av	-8.02	102	97
1708.49	49.02 pk	28.55	2.38	34.61	45.34 pk	54.00 av	-8.66	101	63
1798.4	49.87 pk	29.31	2.45	34.78	46.84 pk	54.00 av	-7.16	100	57
2769.43	49.51 pk	31.01	1.41	34.96	46.97 pk	54.00 av	-7.03	102	285
11597.5	47.89 pk	41.01	3.18	34.96	57.13 pk	74.00 pk	-16.87	100	143
11597.5	30.06 av	41.01	3.18	34.96	39.29 av	54.00 av	-14.71	100	143
17402.2	41.80 pk	45.58	3.29	32.37	58.31 pk	74.00 pk	-15.69	100	118
17402.2	23.78 av	45.58	3.29	32.37	40.28 av	54.00 av	-13.72	100	118

Note: “ * ”: Fundamental Frequency

“ pk ”: peak reading

“ av ”: average reading

The Spectrum noise level+Correction Factor<Limit-6 dB

Margin = Corrected Amplitude – Limit

Corrected Amplitude=Radiated Amplitude+Antenna Correction Factor+Cable Loss-Pre-Amplifier Gain

A margin of -8dB means that the emission is 8dB below the limit.

All frequencies from 1GHz to 40 GHz have been tested.

4.6 Band Edge Measurement (Section 15.407 (b) (1) (2))

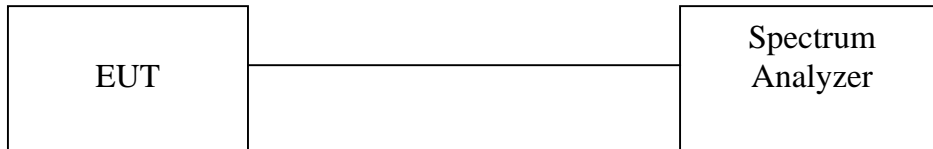
4.6.1 Test Procedure (Conducted)

1. The Transmitter output of EUT was connected to the spectrum analyzer.
Equipment mode: Spectrum analyzer

Peak Mode:	
SPAN	100MHz
RBW	1MHz
VBW	1MHz
Sweep Time	200msec.

2. Using Peak Search to read the peak power of Carrier frequencies after Maximum Hold function is completed.
3. Find the next peak frequency outside the operation frequency band.

4.6.2 Test Setup (Conducted)



4.6.3 Test Data (conducted):

Band Edge measurement (Conducted)

Temperature ():25

Test Engineer:Jerry Chiou

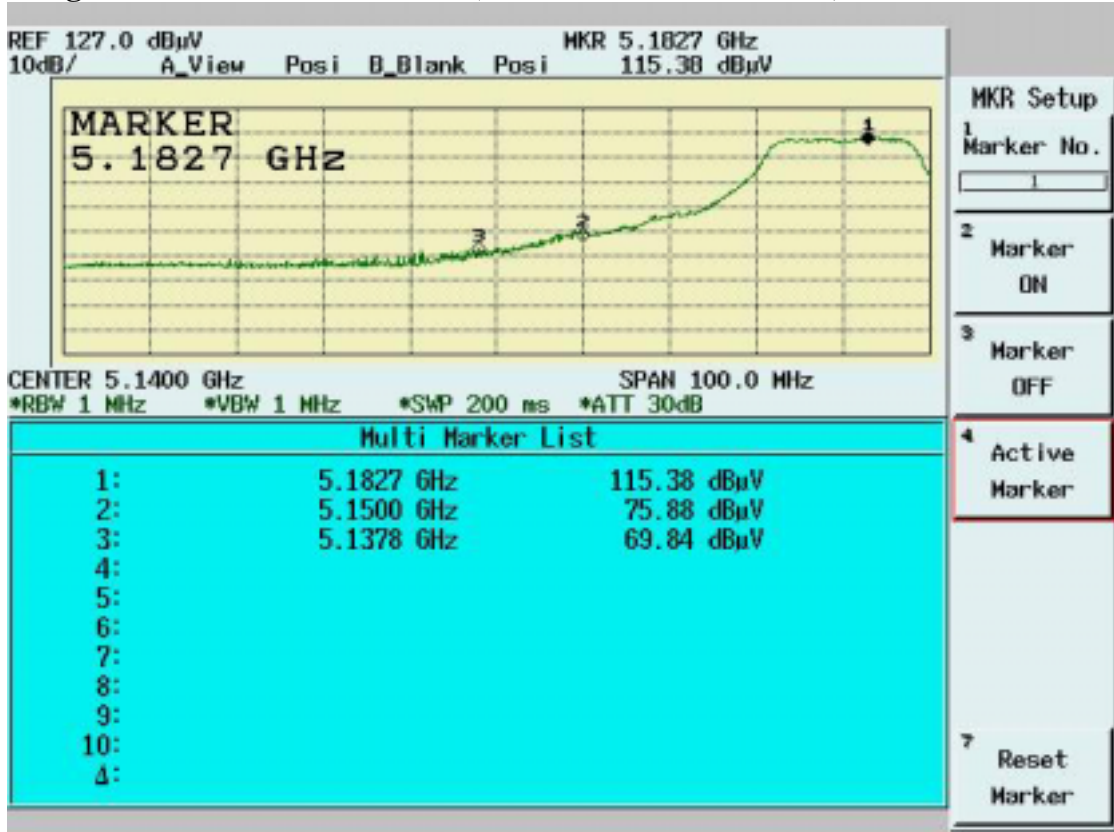
Humidity (%):50

Outside Channel Normal Mode	Frequency (MHz)	Spectrum Reading (dBuV)	Corrected Factor (dB)	Corrected Emissions (dBuV ERP)	Limit: (dBuV ERP)	Pass or Fail
1	5137.8	69.84	6.30	76.14	80	Pass
8	5363.1	69.73	6.30	76.03	80	Pass
9	5723.8	79.84	6.30	86.14	90	Pass
9	5713.8	72.32	6.30	78.62	80	Pass
12	5825.2	82.32	6.30	88.62	90	Pass
12	5840.9	72.52	6.30	78.82	80	Pass

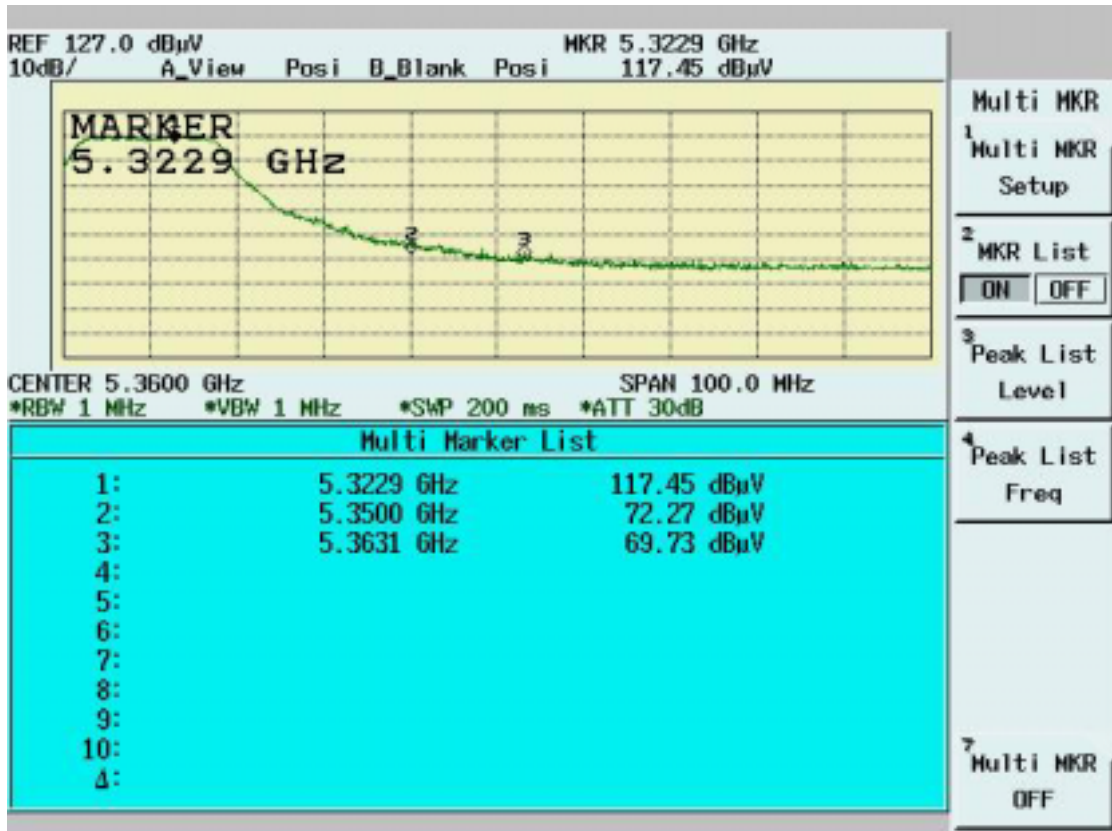
Outside Channel Turbo Mode	Frequency (MHz)	Spectrum Reading (dBuV)	Corrected Factor (dB)	Corrected Emissions (dBuV ERP)	Limit: (dBuV ERP)	Pass or Fail
1	5140.0	69.92	6.30	76.22	80	Pass
3	5335.9	73.07	6.30	79.37	80	Pass
4	5721.7	78.20	6.30	84.50	90	Pass
4	5715.0	73.08	6.30	79.38	80	Pass
5	5825.0	83.43	6.30	89.73	90	Pass
5	5835.0	72.07	6.30	78.37	80	Pass

Note: Corrected Emissions=Spectrum + Corrected Factor
Corrected Factor=Cable Loss+Antenna Peak Gain (dBi)

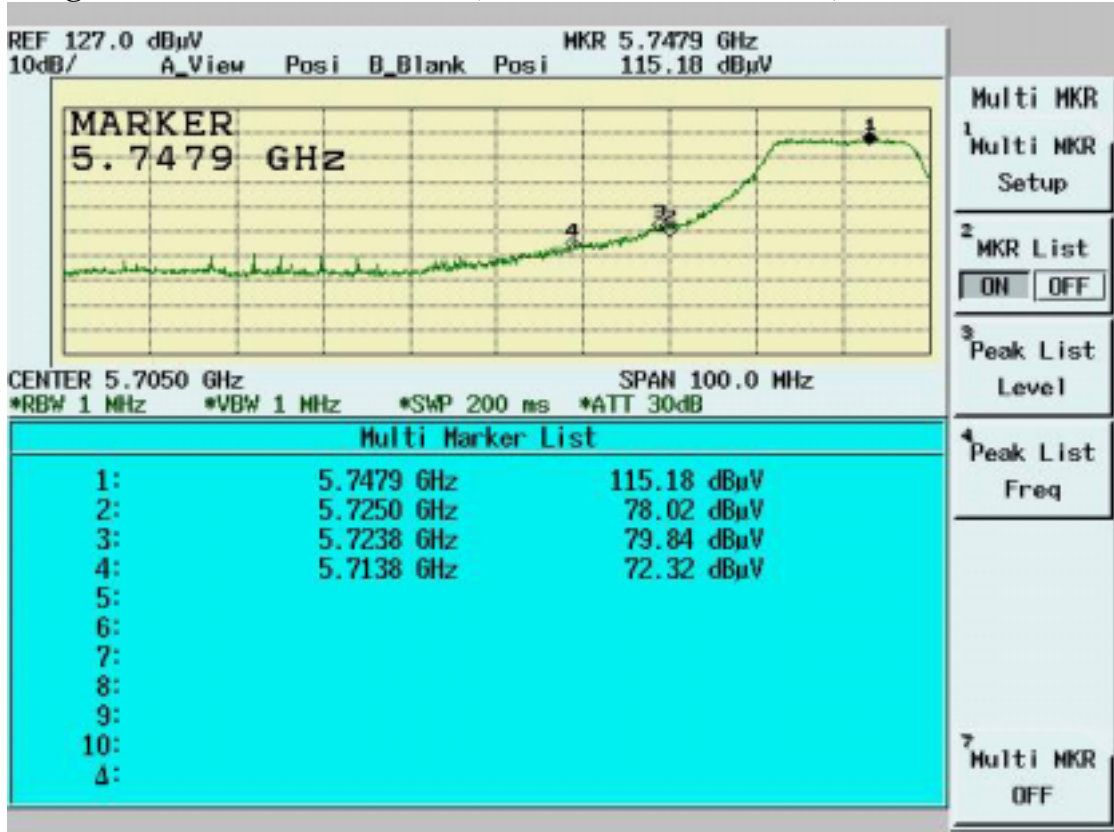
Band Edge Conducted measurement (Normal Mode Channel 1)



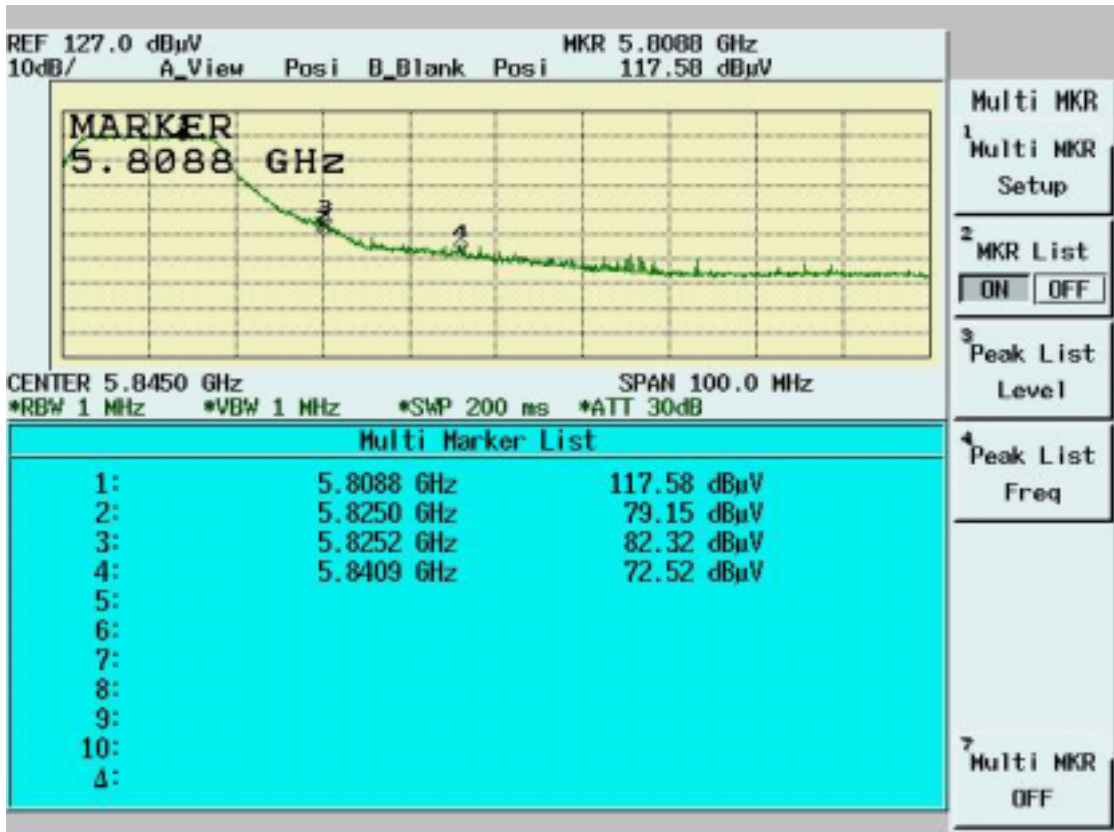
Band Edge Conducted Measurement (Normal Mode Channel 8)



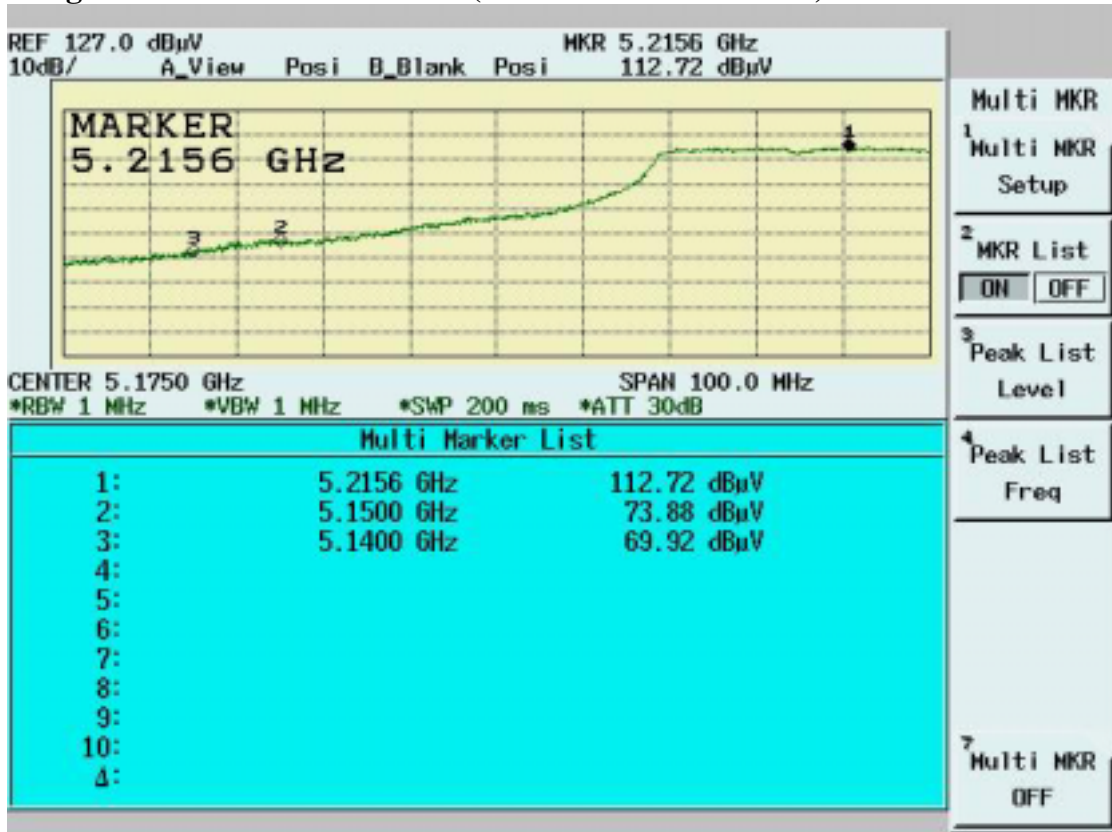
Band Edge Conducted measurement (Normal Mode Channel 9)



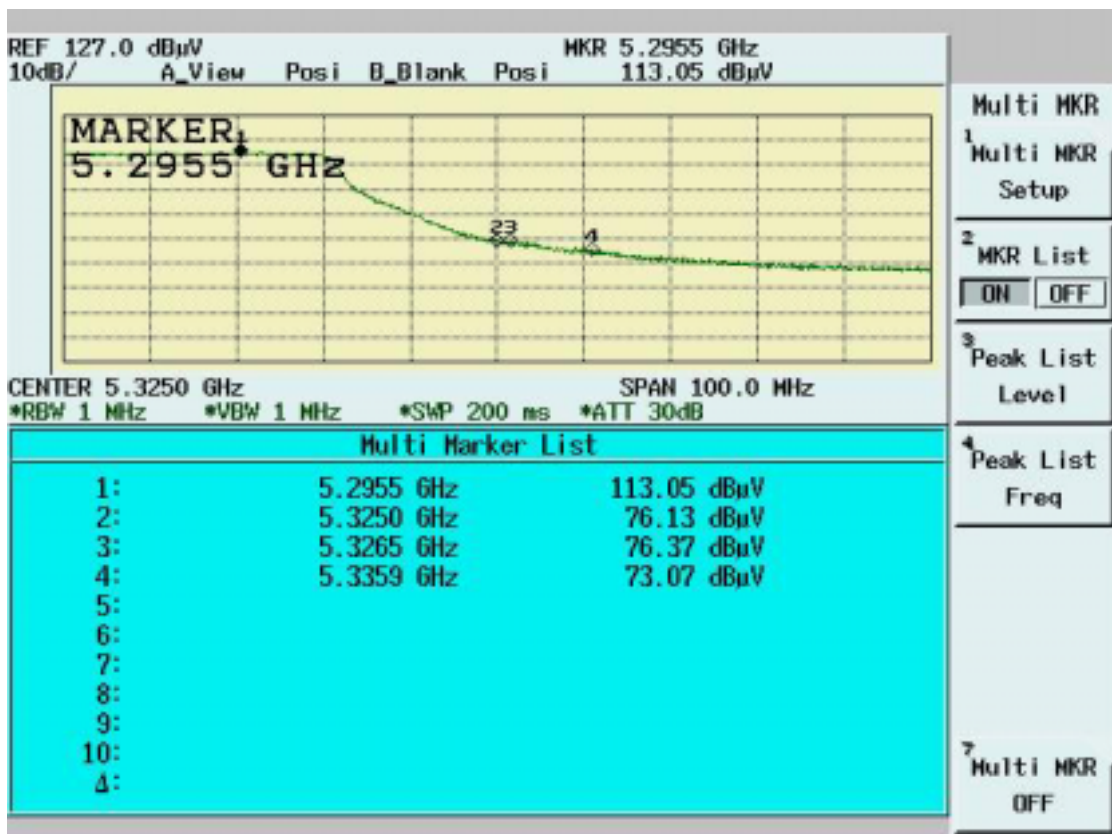
Band Edge Conducted Measurement (Normal Mode Channel 12)



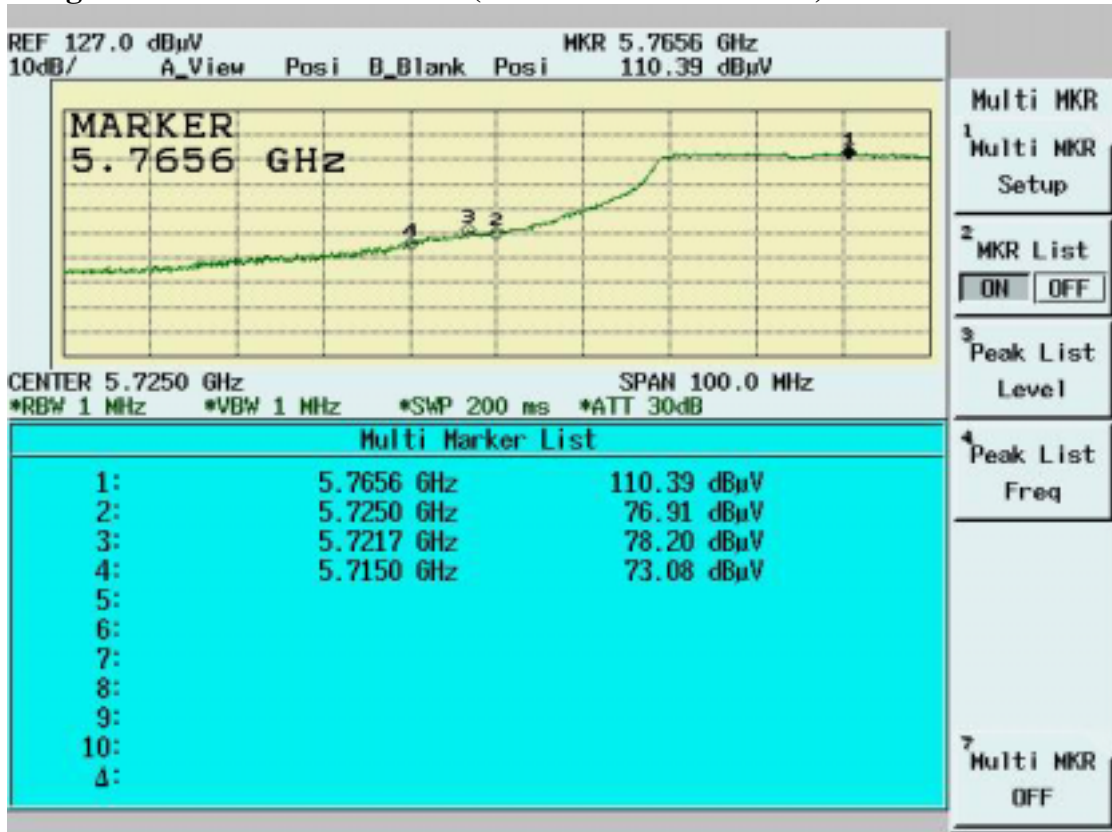
Band Edge Conducted measurement (Turbo Mode Channel 1)



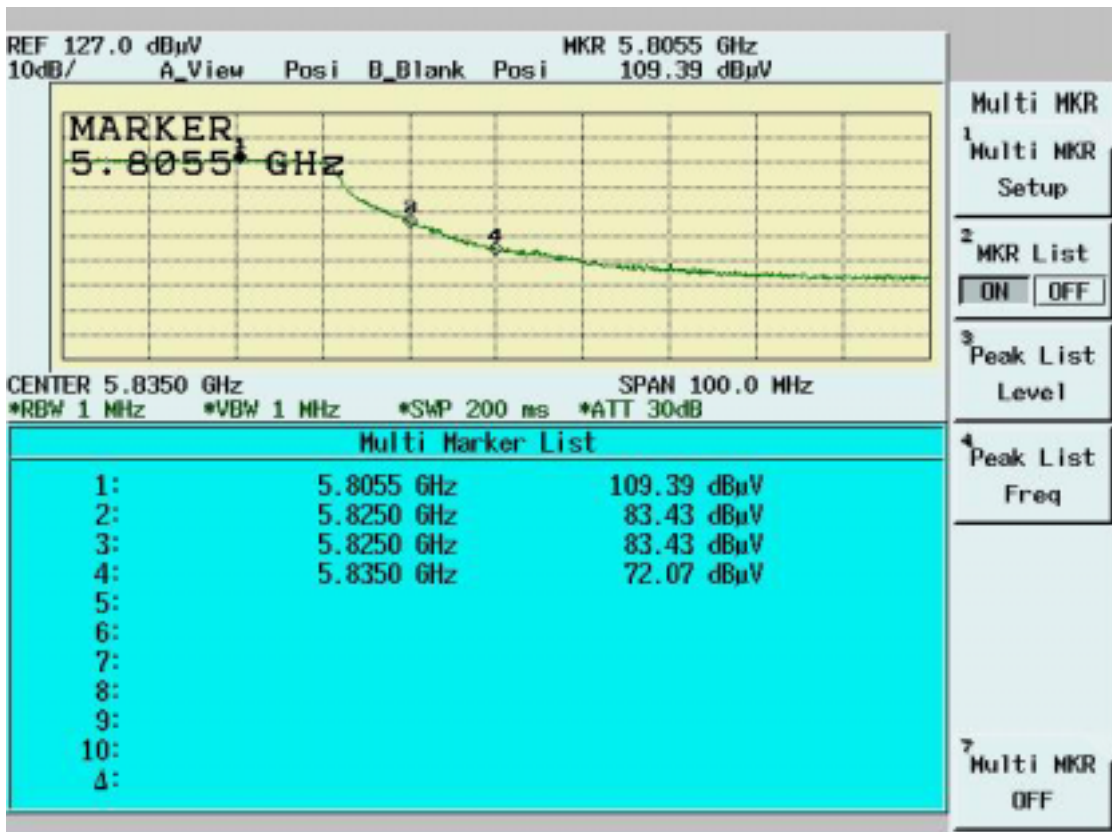
Band Edge Conducted Measurement (Turbo Mode Channel 3)



Band Edge Conducted measurement (Turbo Mode Channel 4)



Band Edge Conducted Measurement (Turbo Mode Channel 5)



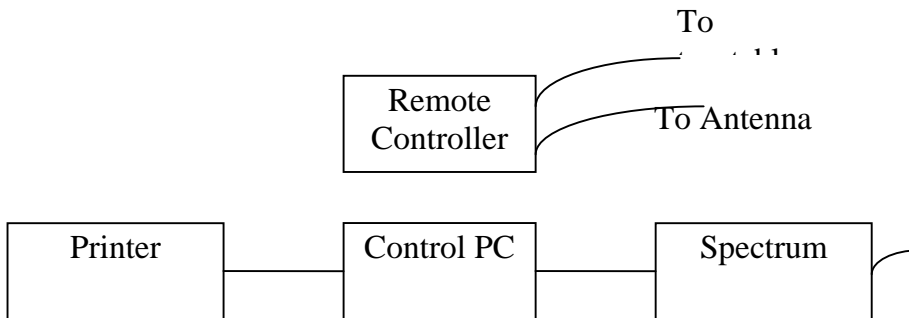
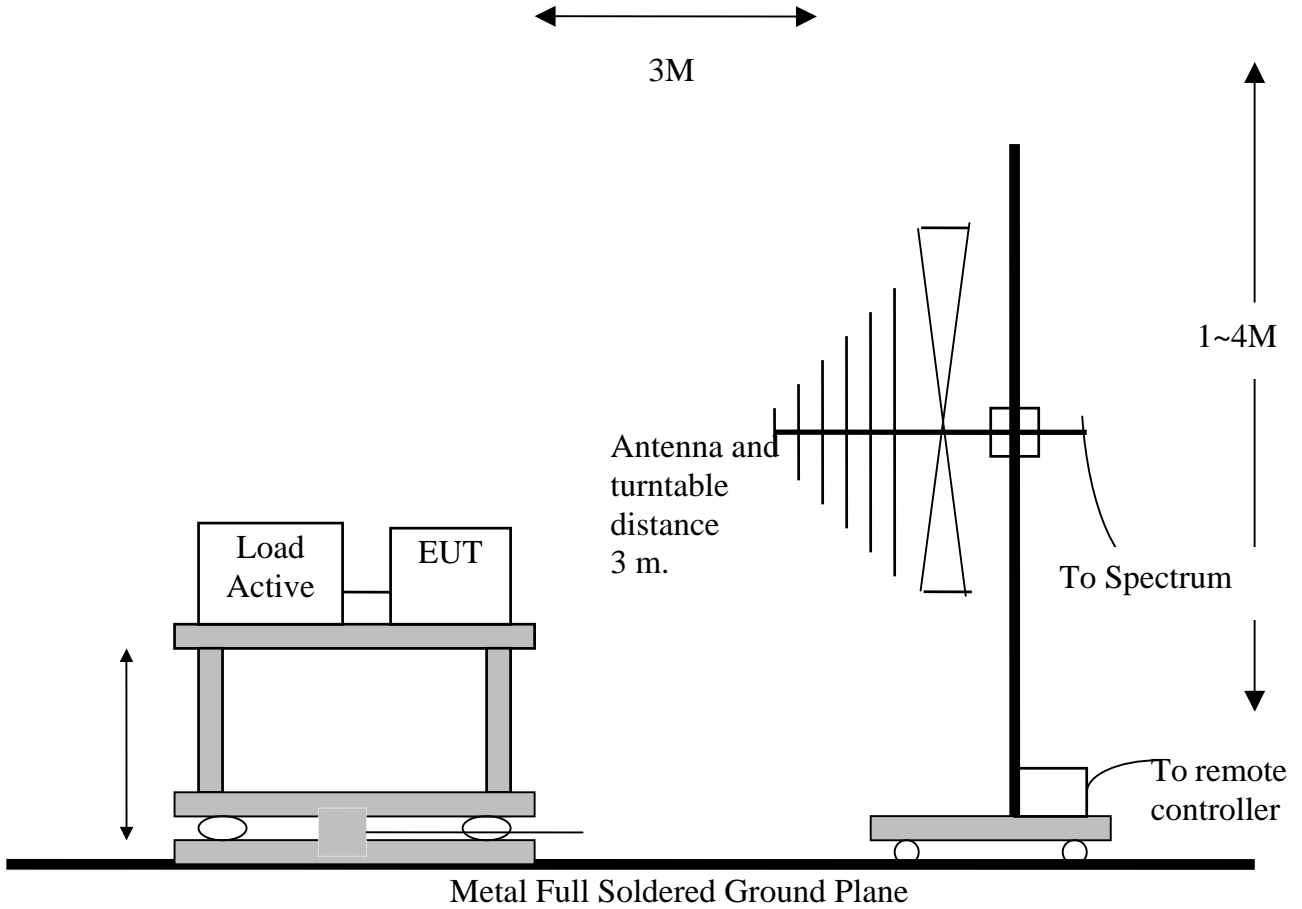
4.6.4 Bandedge Measurement Test Procedure (Radiated)

1. Antenna and Turntable test procedure same as Radiated Emissions measurement listed in Para. 6.5
Equipment mode: Spectrum analyzer

Peak Mode:	
SPAN	100MHz
RBW	1MHz
VBW	3MHz
Sweep Time	200msec.
AVE Mode:	
SPAN	100MHz
RBW	1MHz
VBW	10Hz
Sweep Time	20 sec.

2. Using Peak Search to read the peak power of Carrier frequencies after Maximun Hold function is completed.
3. Find the next peak frequency outside the operation frequency band.
4. Get the spectrum reading after Maximun Hold function is completed.

4.6.5 Test Setup (Radiated)



4.6.6 Test Data (Radiated):

Band Edge measurement (Radiated)

Temperature ():27

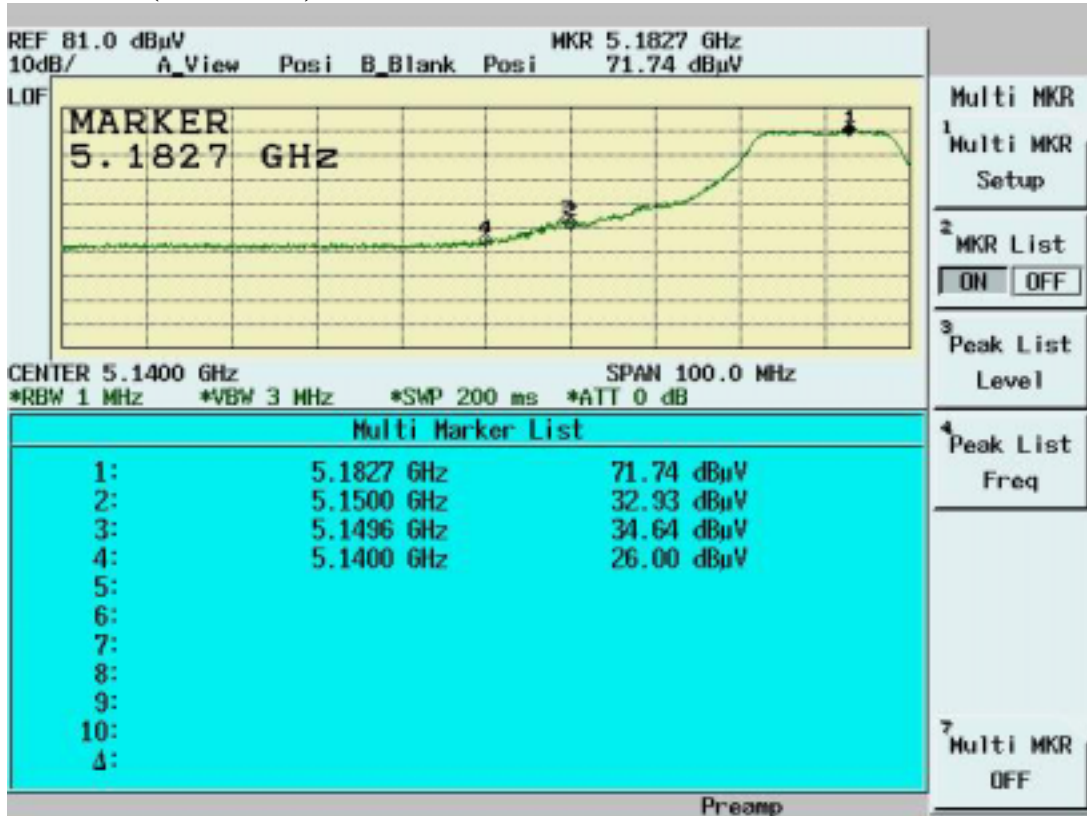
Test Engineer:Jerry Chiou

Humidity (%):45

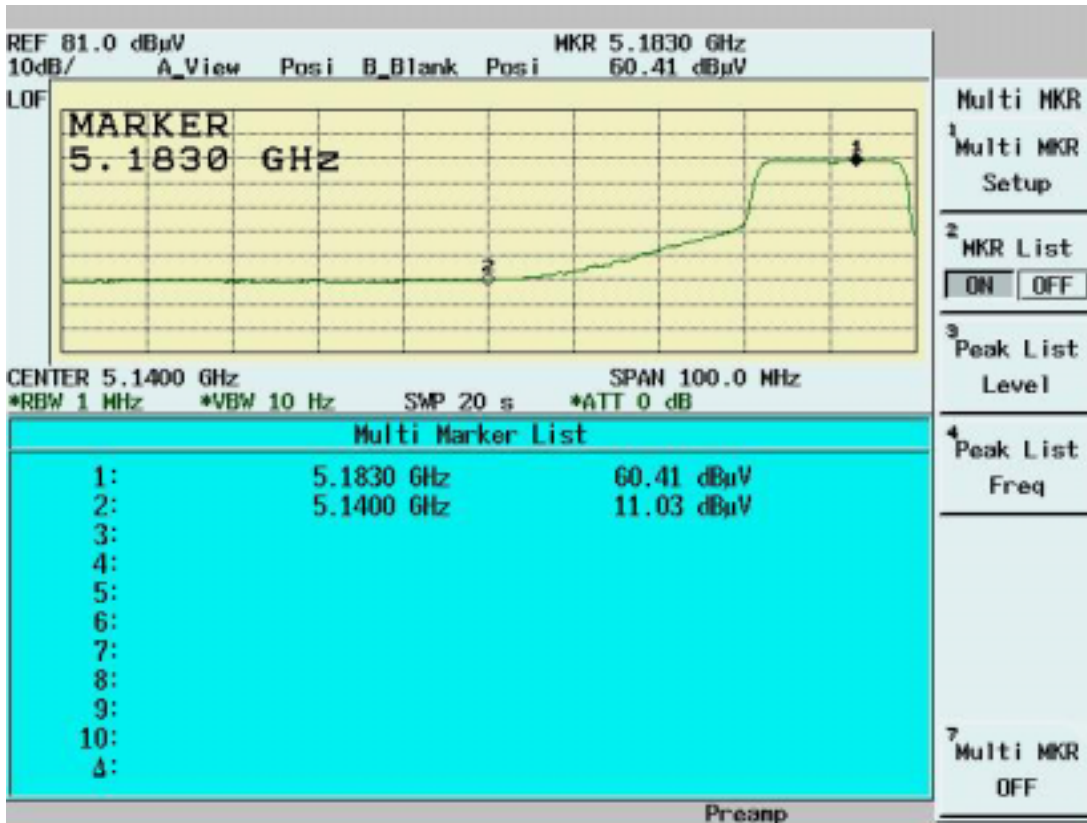
Outside Channel (Normal)	Frequency (MHz)	Spectrum Reading (dBuV)	Correction Factor (dB/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Pass/Fail
1 (Peak)	5139.4	25.38	39.03	64.41	74	Pass
1 (Average)	5140.0	10.87	39.03	49.90	54	Pass
3 (Peak)	5335.3	28.95	39.34	68.29	74	Pass
3 (Average)	5335.0	14.30	39.34	53.64	54	Pass
4 (Peak)	5714.7	30.91	39.41	70.32	74	Pass
4 (Average)	5715.0	13.73	39.41	53.14	54	Pass
5 (Peak)	5835.1	31.38	37.76	69.14	74	Pass
5 (Average)	5835.0	16.60	29.97	46.57	54	Pass
Outside Channel (Turbol)	Frequency (MHz)	Spectrum Reading (dBuV)	Correction Factor (dB/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Pass/Fail
1 (Peak)	5139.4	25.38	39.03	64.41	74	Pass
1 (Average)	5140.0	10.87	39.03	49.90	54	Pass
3 (Peak)	5335.3	28.95	39.34	68.29	74	Pass
3 (Average)	5335.0	14.30	39.34	53.64	54	Pass
4 (Peak)	5714.7	30.91	39.41	70.32	74	Pass
4 (Average)	5715.0	13.73	39.41	53.14	54	Pass
5 (Peak)	5835.1	31.38	37.76	69.14	74	Pass
5 (Average)	5835.0	16.60	29.97	46.57	54	Pass

Note: "pk": peak reading
"av": average reading
Emission Level=Spectrum Reading+Correction Factor
Correction Factor =Antenna Factor+cable loss
Both Horizontal and Vertical polarization have been tested and the worst data is listed above.

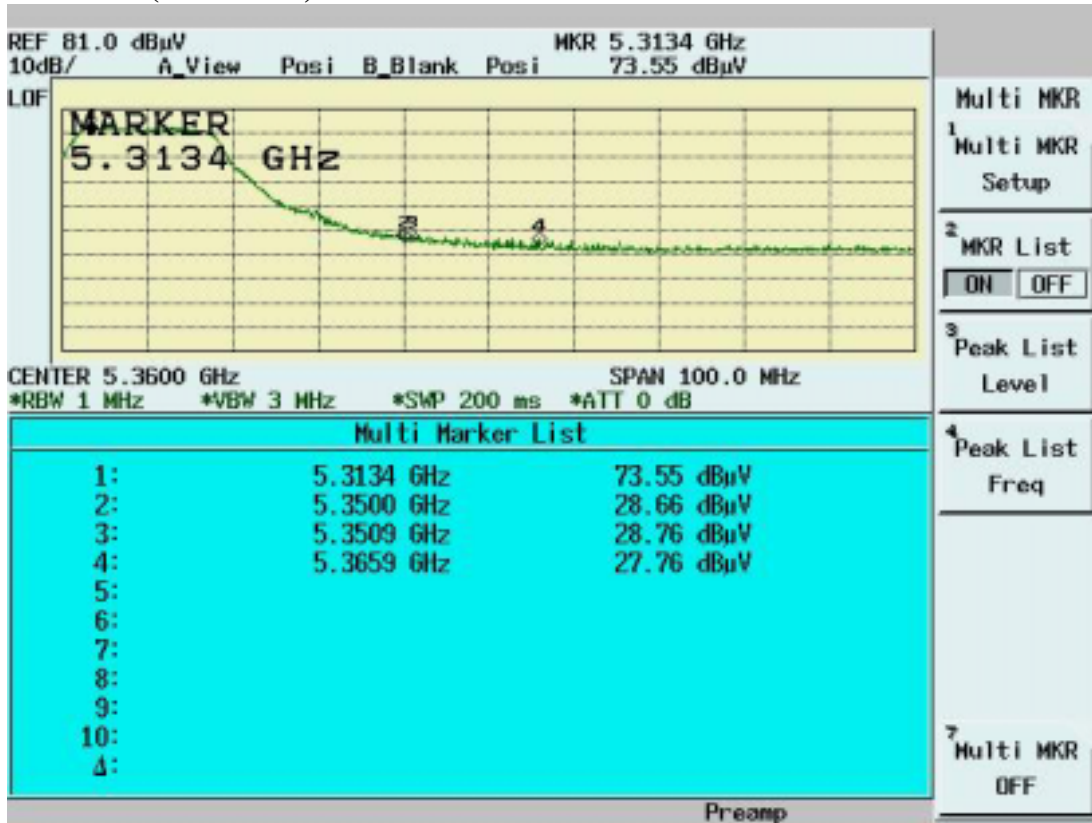
Band Edge measurement for radiated emission in Restricted Band(Radiated) Normal Mode (Channel 1) Peak data



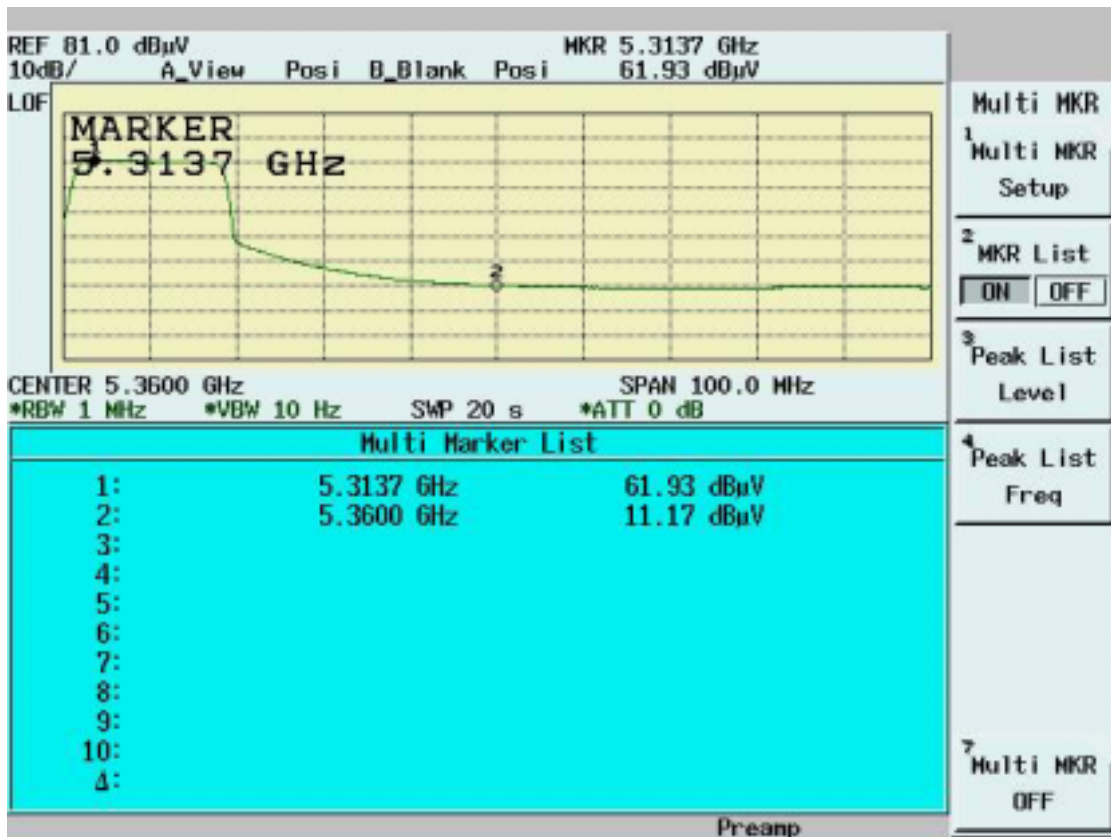
Normal Mode (Channel 1) Average Data



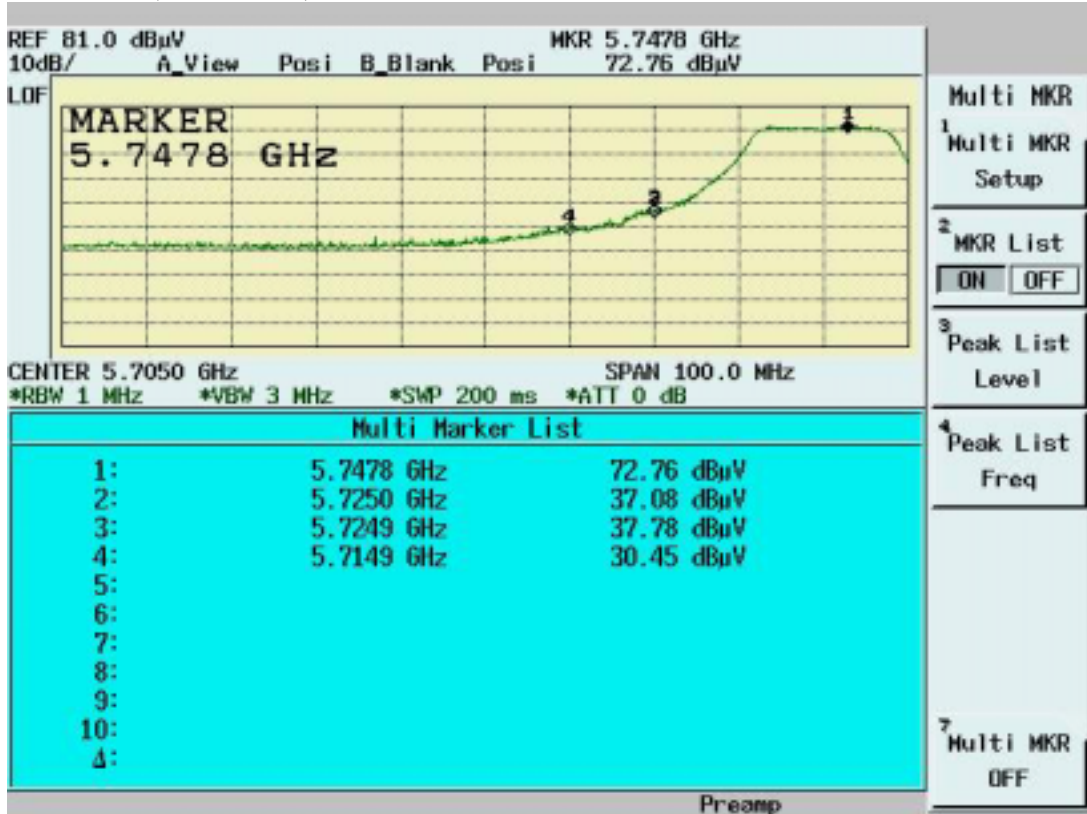
Normal Mode (Channel 8) Peak data



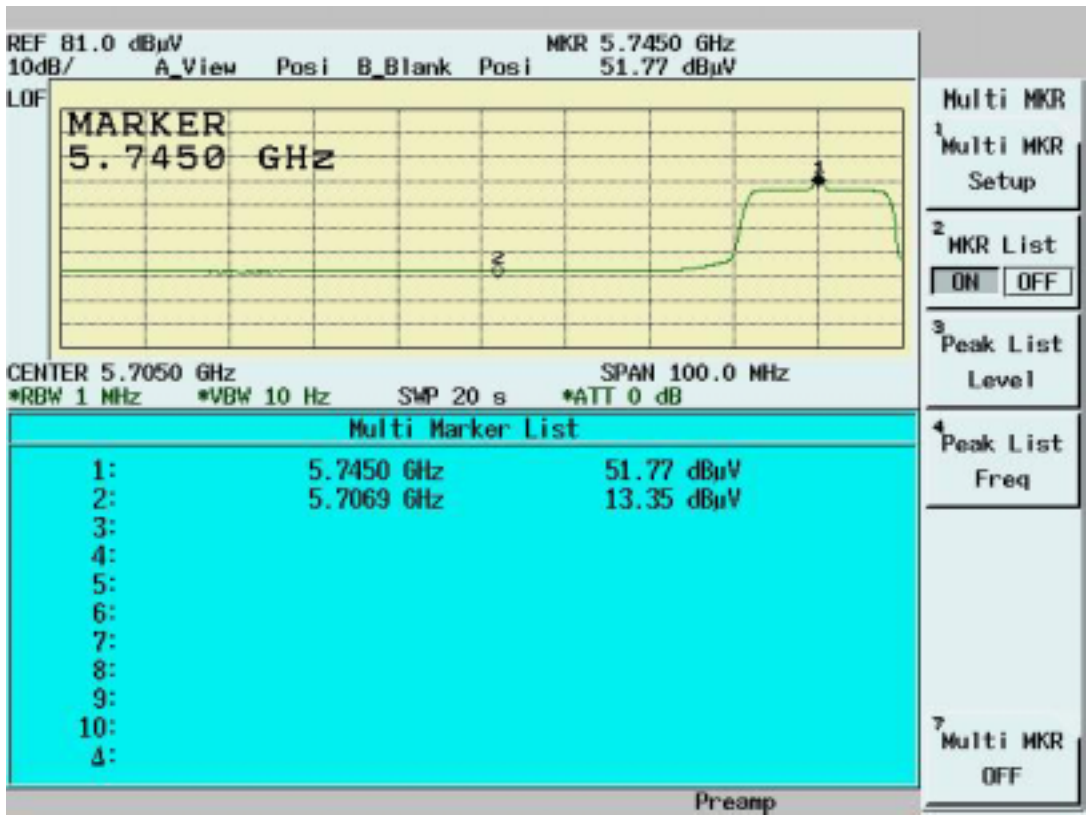
Normal Mode (Channel 8) Average data



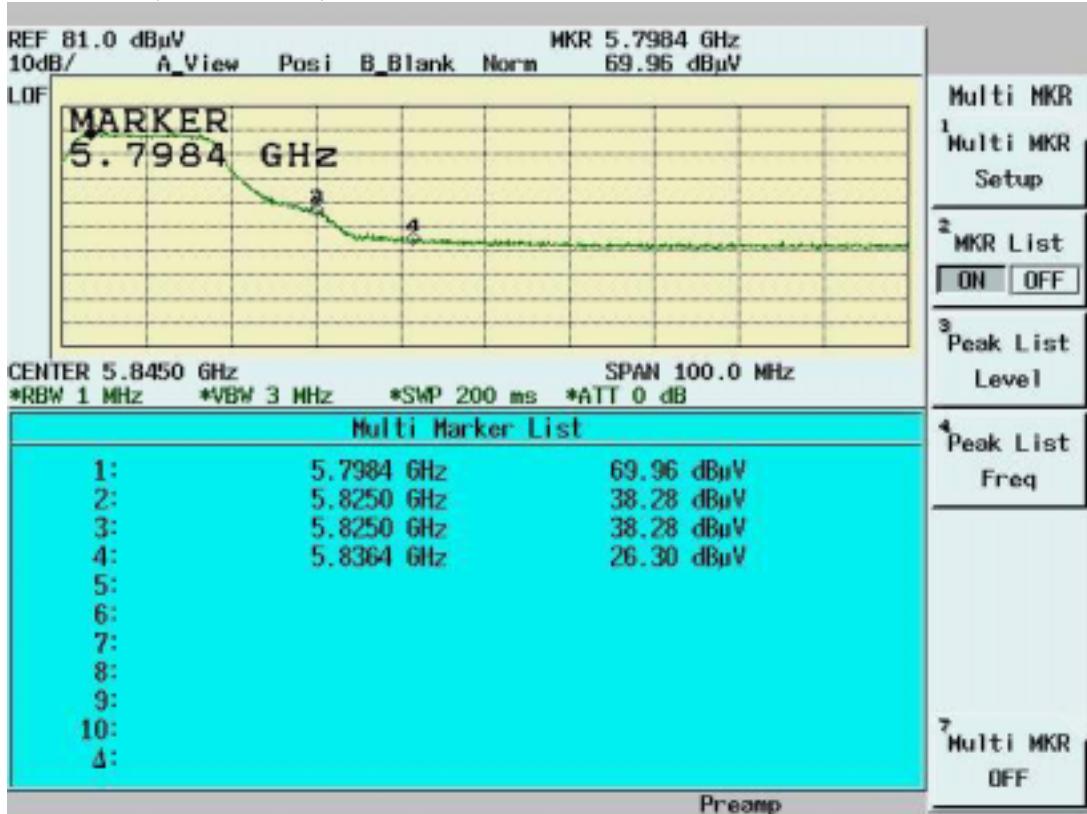
Normal Mode (Channel 9) Peak data



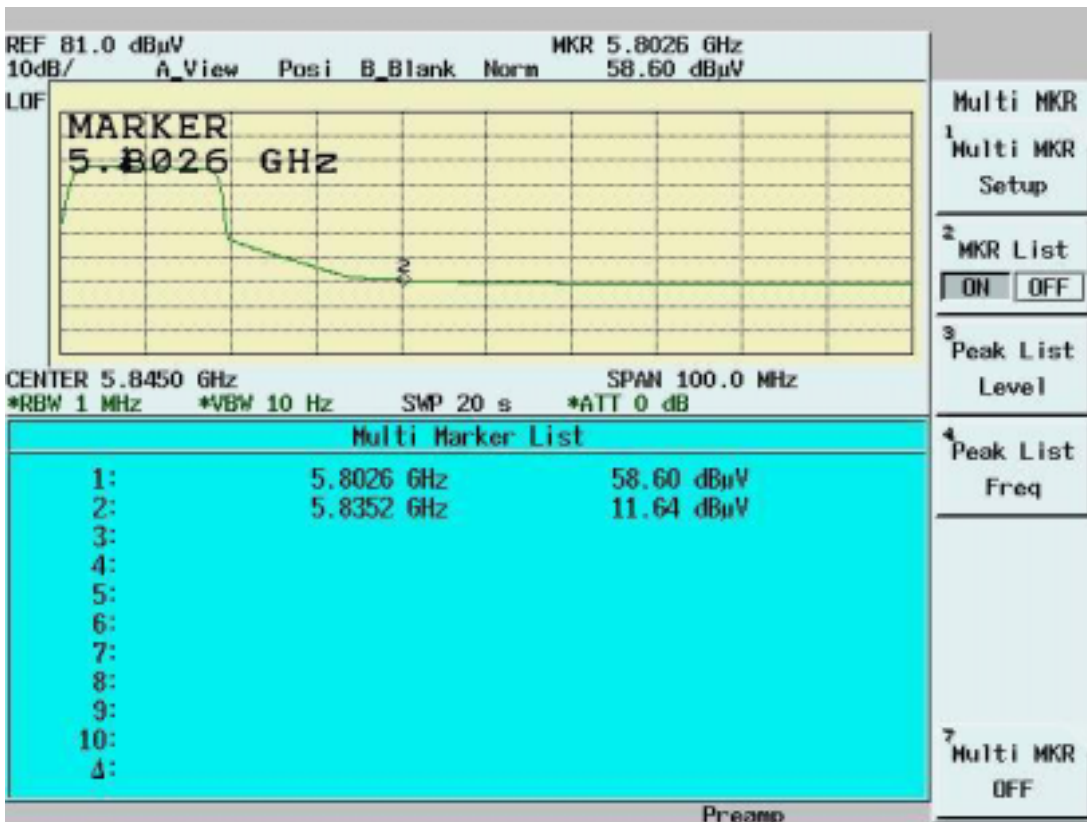
Normal Mode (Channel 9) Average Data



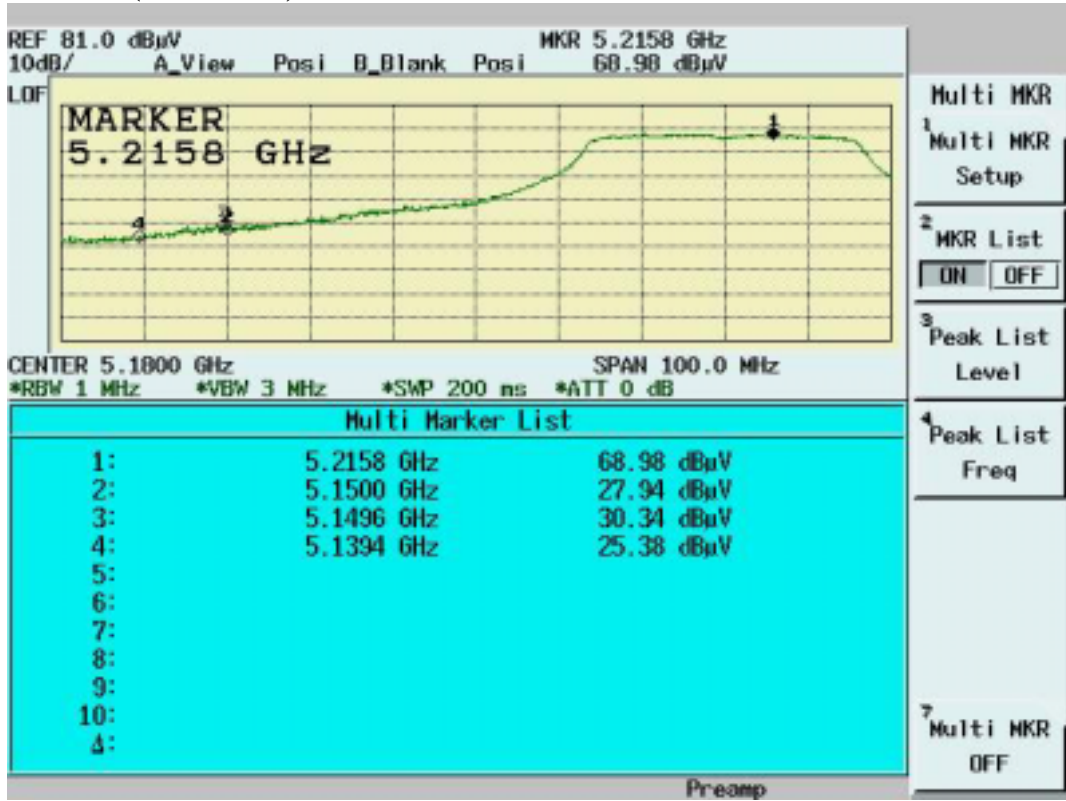
Normal Mode (Channel 12) Peak data



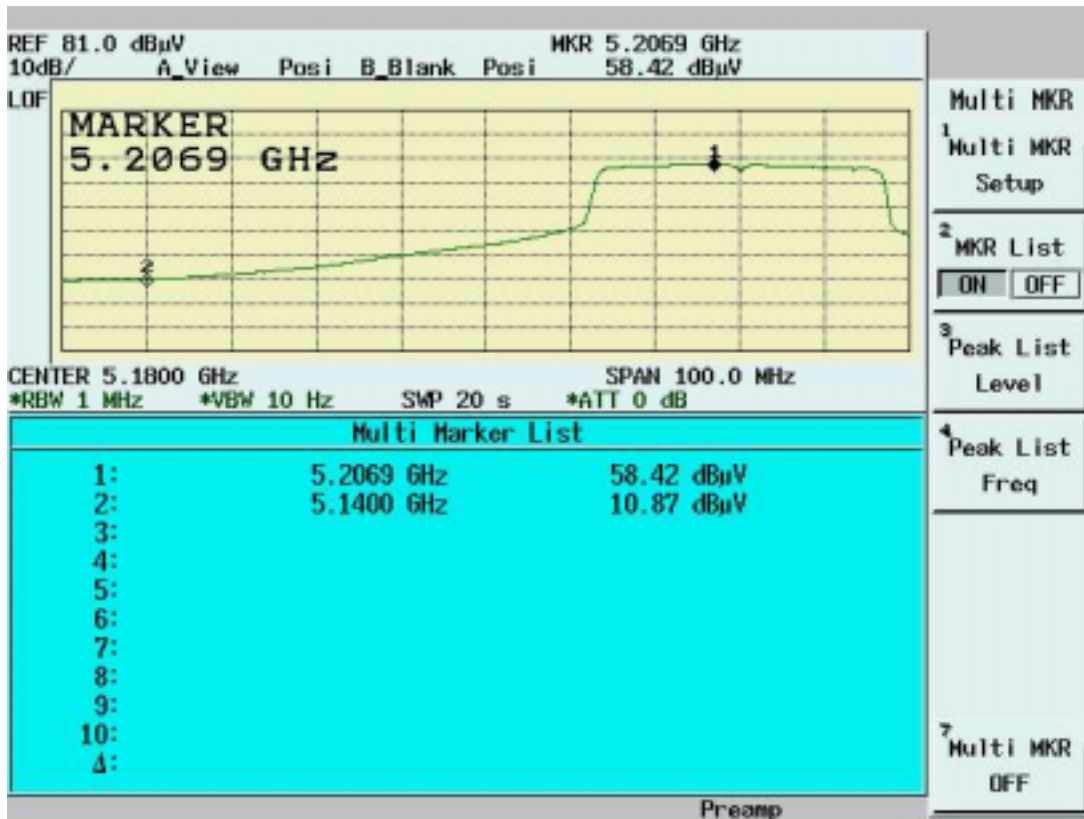
Normal Mode (Channel 12) Average Data



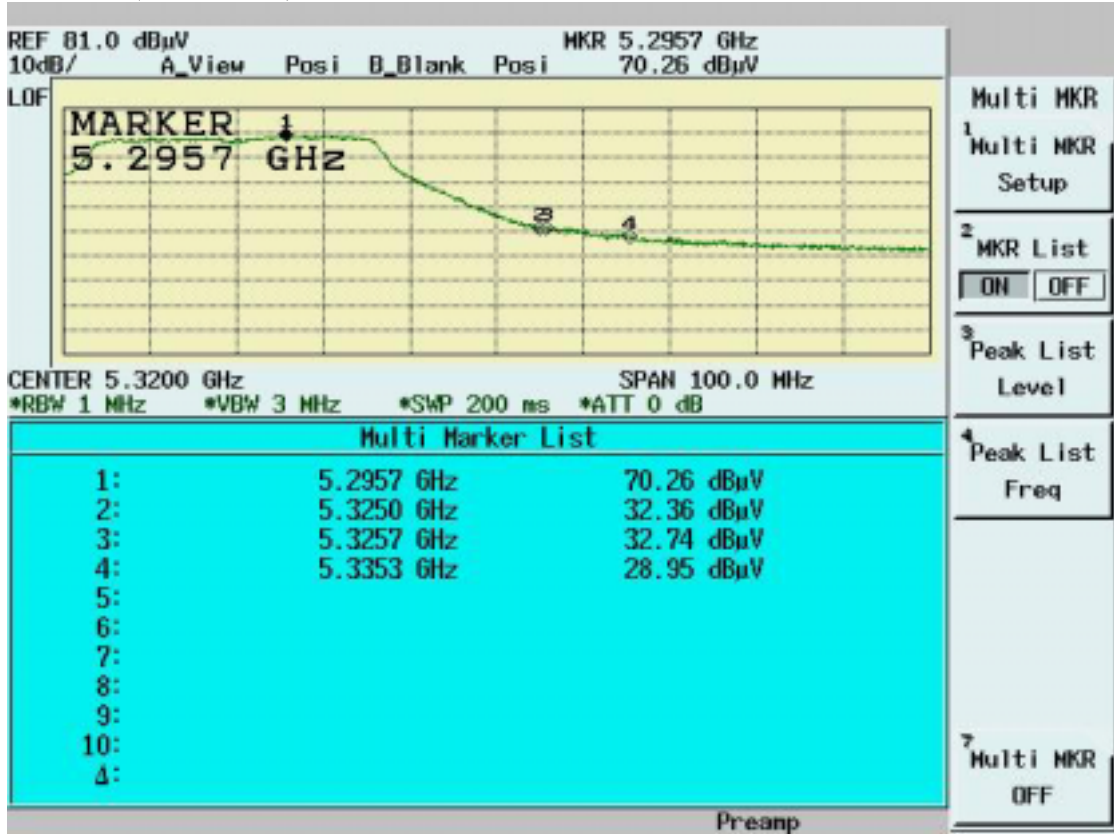
Band Edge measurement for radiated emission in Restricted Band(Radiated) Turbo Mode (Channel 1) Peak data



Turbo Mode (Channel 1) Average data



Turbo Mode (Channel 3) Peak data



Turbo Mode (Channel 3) Average Data

