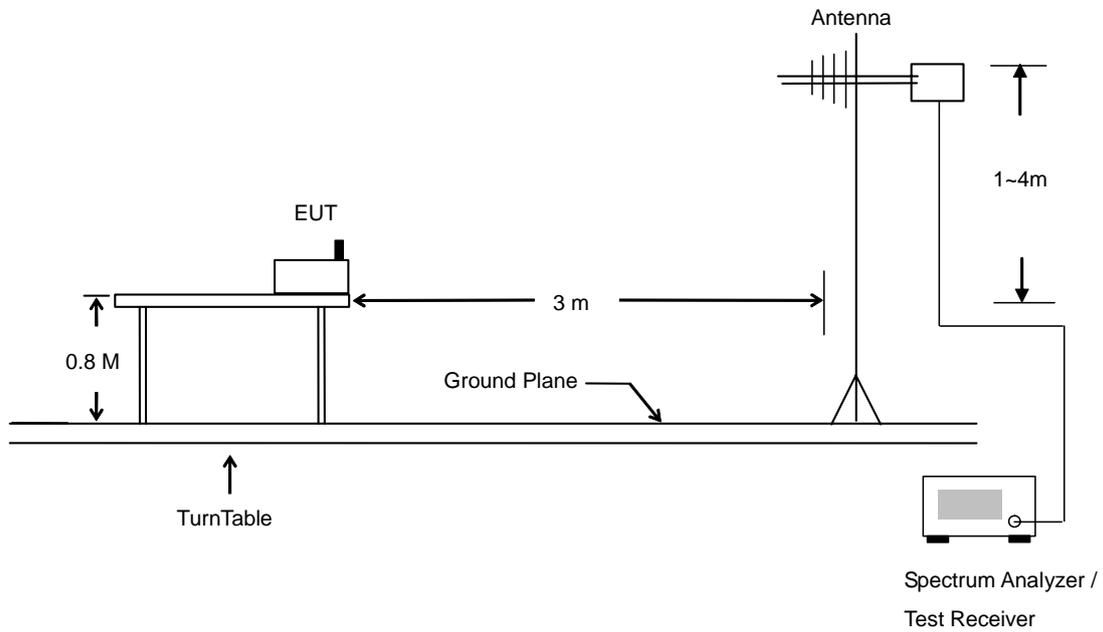


5.11.3 Typical Test Setup Layout of Radiated Emission

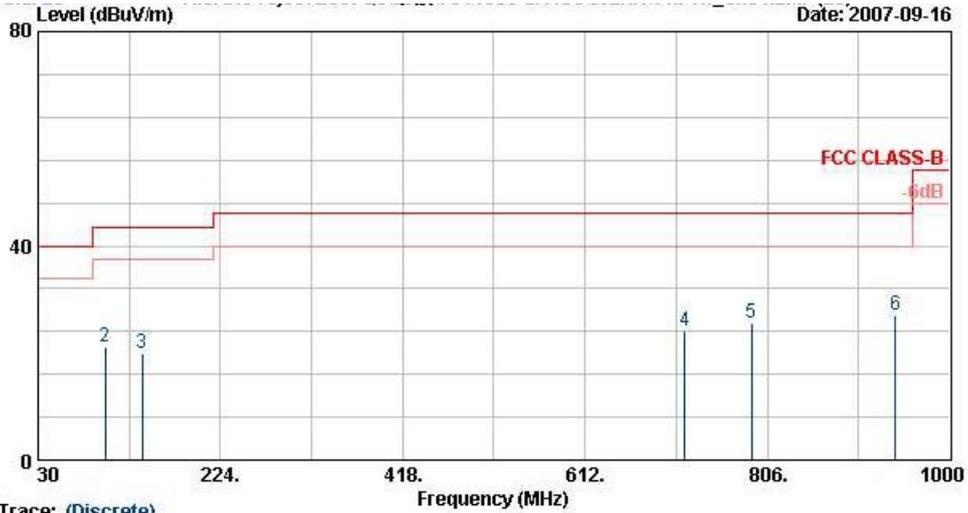




5.11.4 Test Data

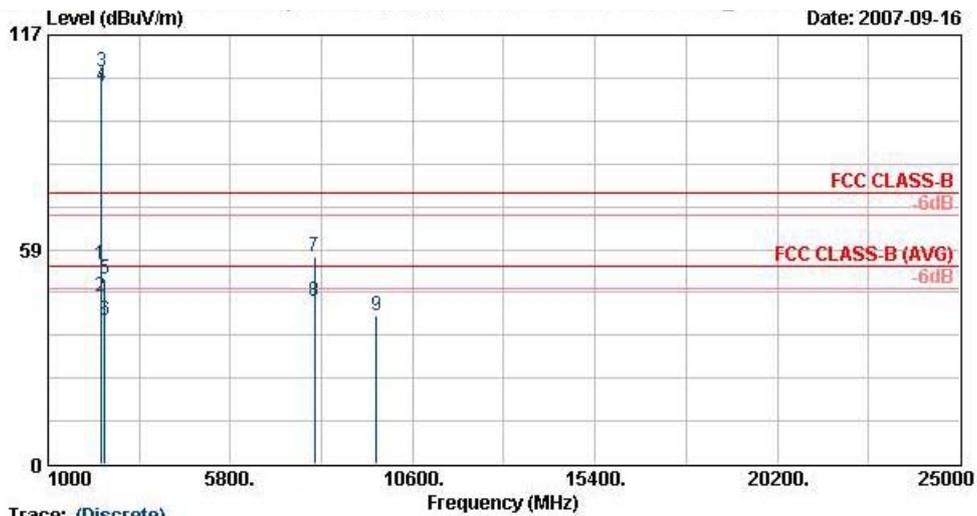
Temperature : 24~26°C  
 Relating Humidity : 51~53%  
 Test Enginner :  Sun   
 Test Mode : Mode 1  
 Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)  
 Site : 08CHD6-HY  
 Condition : LF-ANT(951121) HORIZONTAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDR, 802.11g, GFS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : 11b Tx\_Ch01;2412MHz  
 Plane : H  
 Data Rate : 1

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.0	23.12	-16.88	40.00	34.29	19.66	0.63	31.46	100	94	Peak
2	101.3	21.05	-22.45	43.50	40.06	11.07	1.07	31.15	---	---	Peak
3	140.4	19.79	-23.71	43.50	39.27	10.26	1.29	31.04	---	---	Peak
4	717.9	23.97	-22.03	46.00	32.20	19.05	3.28	30.57	---	---	Peak
5	789.3	25.51	-20.49	46.00	32.90	19.72	3.39	30.50	---	---	Peak
6	941.9	27.14	-18.86	46.00	32.71	20.83	3.90	30.30	---	---	Peak



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : SHF-EHF HORN HORIZONTAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDR, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : 11b Tx\_Ch01,2412MHz  
 Plane : H  
 Data Rate : 1

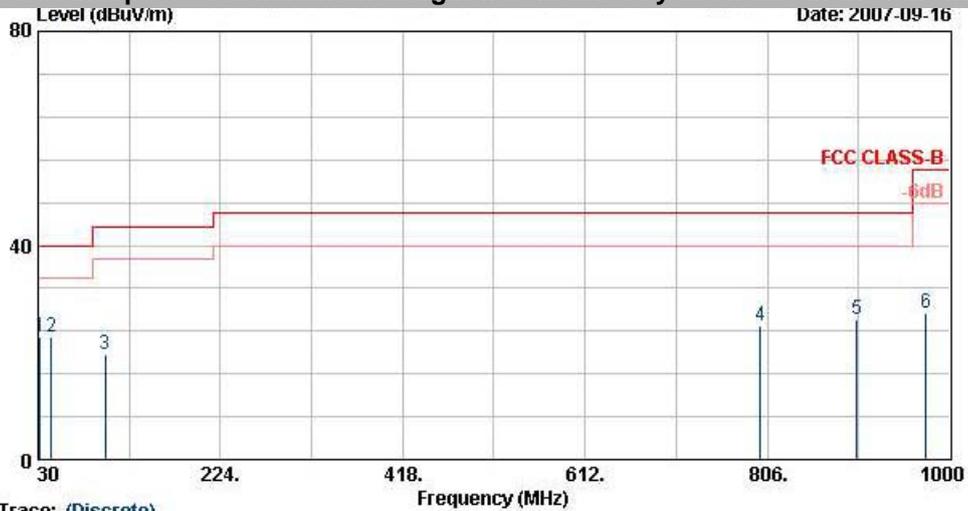
	Freq	Level	Over Limit	Limit Line	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2390.0	54.37	-19.63	74.00	55.82	30.26	3.75	35.46	100	0 Peak
2	2390.0	45.86	-8.14	54.00	47.31	30.26	3.75	35.46	151	138 Average
3 X	2412.0	106.95			108.37	30.27	3.77	35.46	100	0 Peak
4 @	2412.0	103.27			104.69	30.27	3.77	35.46	151	138 Average
5	2488.0	50.29	-23.71	74.00	51.64	30.30	3.86	35.51	100	0 Peak
6	2488.0	38.98	-15.02	54.00	40.33	30.30	3.86	35.51	151	138 Average
7	8022.0	56.42	-17.58	74.00	44.86	39.59	7.83	35.86	100	0 Peak
8	8022.0	44.23	-9.77	54.00	32.67	39.59	7.83	35.86	100	137 Average
9	9642.0	40.28	-33.72	74.00	77.93	-10.09	9.12	36.68	100	0 Peak

Remark: #3 and #4 are Fundamental Signals.



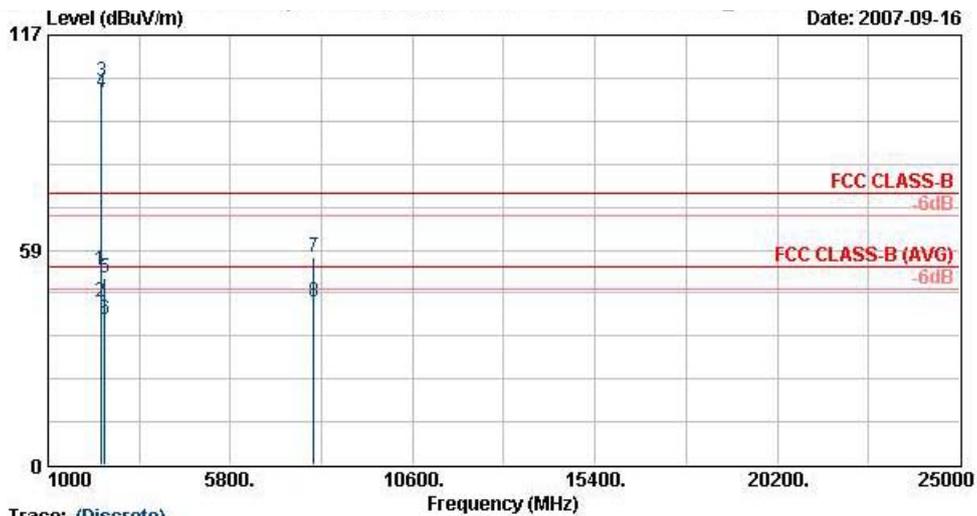
Polarization : Vertical

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : LP-ANT(951121) VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 : with BT, EDR, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : 11b Tx\_Ch01\_2412MHz  
 Plane : H  
 Data Rate : 1

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	31.9	22.93	-17.07	40.00	35.42	18.25	0.65	31.39	---	---	Peak
2	44.0	23.03	-16.97	40.00	41.88	11.52	0.75	31.12	100	143	Peak
3	101.3	19.61	-23.89	43.50	38.62	11.07	1.07	31.15	---	---	Peak
4	798.4	25.07	-20.93	46.00	32.35	19.80	3.41	30.49	---	---	Peak
5	901.3	26.14	-19.86	46.00	32.15	20.54	3.82	30.37	---	---	Peak
6	974.8	27.32	-26.68	54.00	32.56	21.06	3.97	30.28	---	---	Peak



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : SHP-EHP HORN VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDGE, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : 11b Tx\_Ch01,2412MHz  
 Plane : H  
 Data Rate : 1

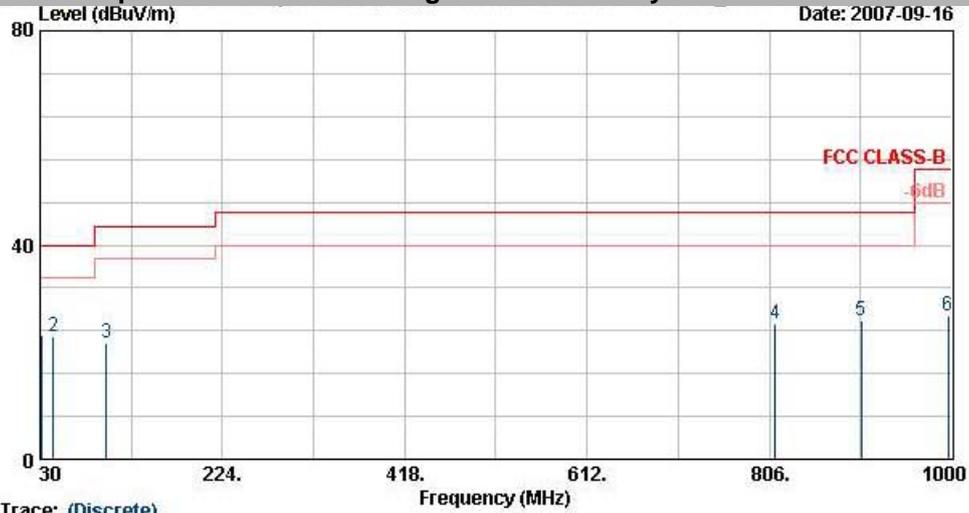
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2390.0	53.05	-20.95	74.00	54.50	30.26	3.75	35.46	100	0	Peak
2	2390.0	44.57	-9.43	54.00	46.02	30.26	3.75	35.46	104	103	Average
3 X	2412.0	104.34			105.76	30.27	3.77	35.46	100	0	Peak
4 X	2412.0	101.18			102.60	30.27	3.77	35.46	104	103	Average
5	2494.0	50.75	-23.25	74.00	52.09	30.30	3.88	35.53	100	0	Peak
6	2494.0	39.41	-14.59	54.00	40.76	30.30	3.88	35.53	104	103	Average
7	8001.0	56.73	-17.27	74.00	45.20	39.60	7.79	35.86	100	0	Peak
8	8001.0	44.58	-9.42	54.00	33.05	39.60	7.79	35.86	100	286	Average

Remark: #3 and #4 are Fundamental Signals.



Test Mode : Mode 2  
Polarization : Horizontal

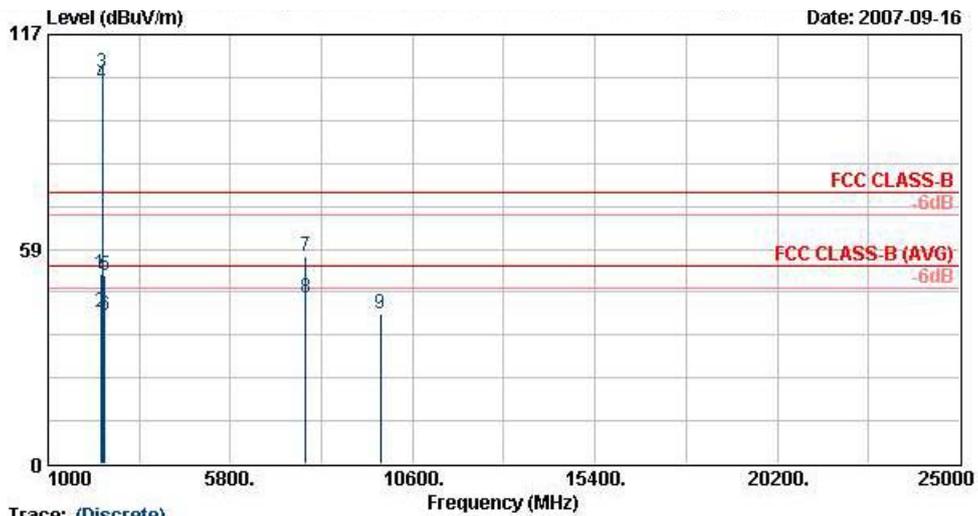
The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)

Site : 03CHD6-HY  
Condition : LF-ANT(951121) HORIZONTAL  
EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
with BT, EDR, 802.11g, GPS, FM  
Power : 120Vac/60Hz  
Model : FR 781408  
Mode : 11b Tx\_Ch06;2437MHz  
Plane : H  
Data Rate : 1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBUV/m	Limit	Line	Level	Loss	Factor	Pos	Pos		
			dB	dBUV/m	dBuV	dB	dB	cm	deg		
1	31.1	23.21	-16.79	40.00	35.04	18.95	0.64	31.43	100	125 Peak	
2	44.0	22.90	-17.10	40.00	41.75	11.52	0.75	31.12	---	---	Peak
3	100.7	21.60	-21.90	43.50	40.62	11.07	1.07	31.15	---	---	Peak
4	812.4	25.39	-20.61	46.00	32.49	19.91	3.46	30.47	---	---	Peak
5	903.4	25.97	-20.03	46.00	31.96	20.55	3.83	30.36	---	---	Peak
6	995.8	26.67	-27.33	54.00	31.72	21.21	4.01	30.27	---	---	Peak



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : SHF-EHF HORN HORIZONTAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDR, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : 11b Tx\_Ch06;2437MHz  
 Plane : H  
 Data Rate : 1

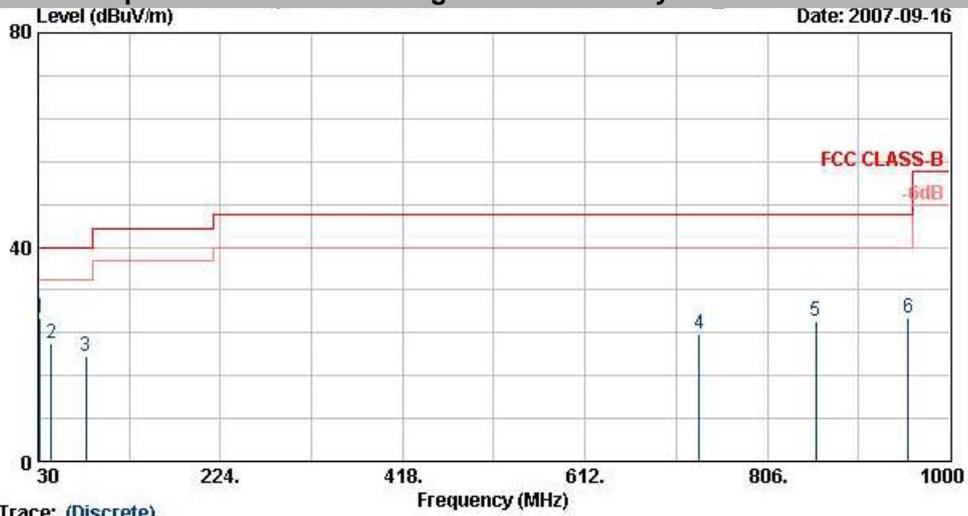
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2384.0	51.66	-22.34	74.00	53.09	30.25	3.75	35.44	100	0	Peak
2 @	2384.0	41.12	-12.88	54.00	42.56	30.25	3.75	35.44	153	197	Average
3 @	2437.0	106.65			108.05	30.27	3.79	35.47	100	0	Peak
4 @	2437.0	103.42			104.80	30.28	3.82	35.47	153	197	Average
5	2488.0	51.14	-22.86	74.00	52.49	30.30	3.86	35.51	100	0	Peak
6	2488.0	40.27	-13.73	54.00	41.62	30.30	3.86	35.51	153	197	Average
7	7782.0	56.69	-17.31	74.00	45.62	39.30	7.71	35.94	100	0	Peak
8 @	7782.0	45.03	-8.97	54.00	33.96	39.30	7.71	35.94	100	117	Average
9	9747.0	40.87	-33.13	74.00	78.19	-9.85	9.15	36.61	100	0	Peak

Remark: #3 and #4 are Fundamental Signals.



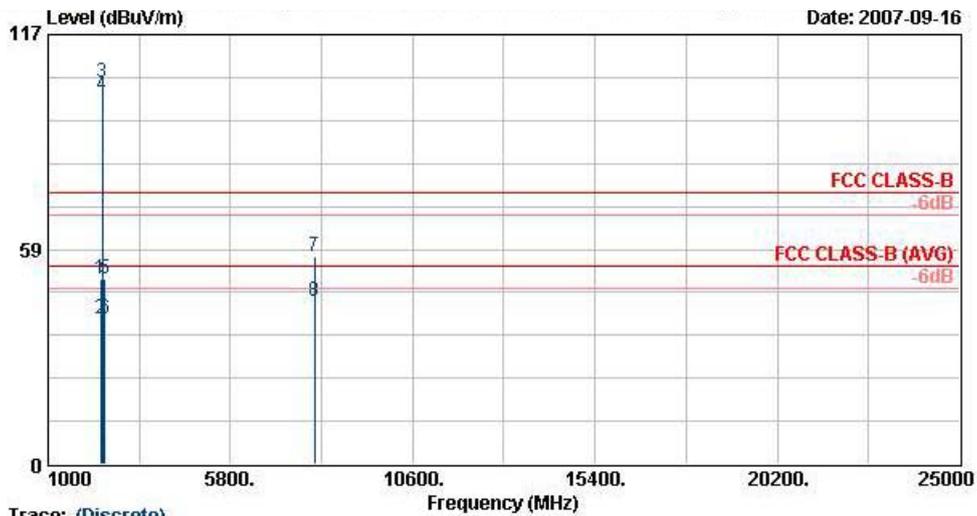
Polarization : Vertical

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)  
 Site : 08CH06-HY  
 Condition : LP-ANT(951121) VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 : with BT, EDR, 802.11g, GPS, FM  
 Power : 120V<sub>rms</sub>/60Hz  
 Model : FR 781408  
 Mode : 11b Tx\_CH06,2437MHz  
 Plane : H  
 Data Rate : 1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos		
			dB	dBuV/m	dBuV	dB	dB	cm	deg		
1 @	31.9	26.87	-13.13	40.00	39.36	18.25	0.65	31.39	100	203 Peak	
2	44.0	21.98	-18.02	40.00	40.84	11.52	0.75	31.12	---	---	Peak
3	81.0	19.60	-20.40	40.00	42.04	7.67	0.98	31.09	---	---	Peak
4	733.3	23.74	-22.26	46.00	31.79	19.20	3.30	30.55	---	---	Peak
5	857.9	26.30	-19.70	46.00	32.83	20.23	3.65	30.42	---	---	Peak
6	955.9	26.77	-19.23	46.00	32.19	20.93	3.93	30.28	---	---	Peak



Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : SHF-EHF HORN VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 : with BT, EDR, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : 11b Tx\_Ch06,2437MHz  
 Plane : H  
 Data Rate : 1

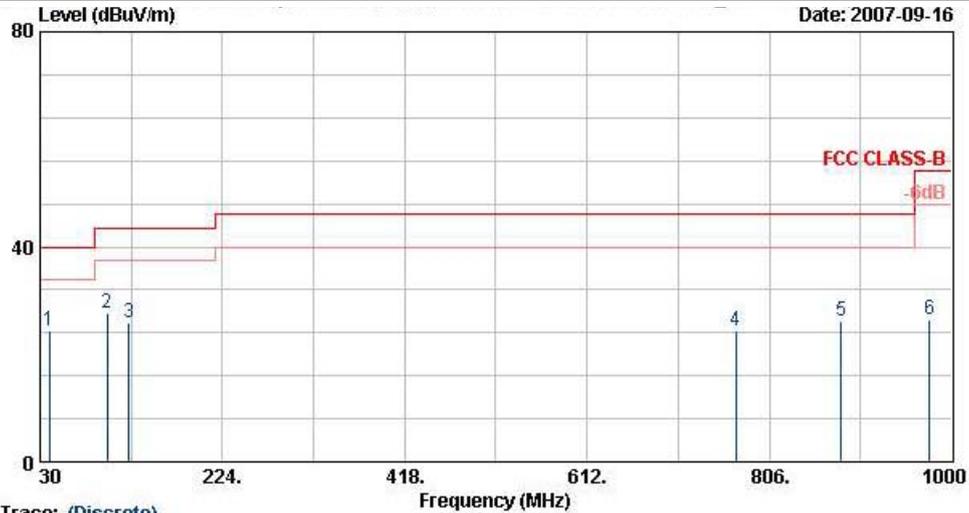
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBUV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBUV/m	dBuV	dB	dB	cm	deg	
1	2390.0	50.40	-23.60	74.00	51.85	30.26	3.75	35.46	100	0 Peak
2	2390.0	39.36	-14.64	54.00	40.81	30.26	3.75	35.46	100	103 Average
3 @	2437.0	103.95			105.33	30.28	3.82	35.47	100	0 Peak
4 @	2437.0	100.52			101.90	30.28	3.82	35.47	100	103 Average
5	2484.0	50.25	-23.75	74.00	51.61	30.29	3.86	35.51	100	0 Peak
6	2484.0	39.65	-14.35	54.00	41.01	30.29	3.86	35.51	100	103 Average
7	8022.0	56.53	-17.47	74.00	44.97	39.59	7.83	35.86	100	0 Peak
8 @	8022.0	44.41	-9.59	54.00	32.85	39.59	7.83	35.86	100	230 Average

Remark: #3 and #4 are Fundamental Signals.



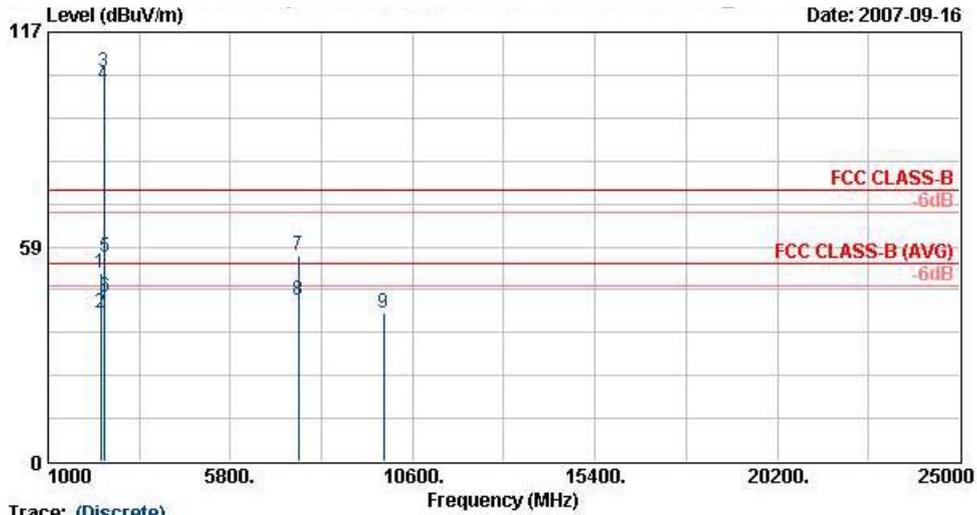
Test Mode : Mode 3  
Polarization : Horizontal

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)  
Site : 03CHD6-HY  
Condition : LP-ANT(951121) HORIZONTAL  
EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
with BT, EDR, 802.11g, GPS, FM  
Power : 120Vac/60Hz  
Model : FR 781408  
Mode : 11b Tx\_Ch11\_2462MHz  
Plane : H  
Data Rate : 1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos		
			dB	dBuV/m	dBuV	dB	dB	cm	deg		
1	40.0	24.35	-15.65	40.00	41.35	13.51	0.70	31.21	100	164 Peak	
2	101.3	27.51	-15.99	43.50	46.53	11.07	1.07	31.15	---	---	Peak
3	124.2	25.98	-17.52	43.50	43.22	12.64	1.20	31.08	---	---	Peak
4	770.4	24.43	-21.57	46.00	32.04	19.54	3.36	30.51	---	---	Peak
5	882.4	26.06	-19.94	46.00	32.30	20.41	3.75	30.39	---	---	Peak
6	976.9	26.42	-27.58	54.00	31.65	21.07	3.97	30.27	---	---	Peak



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : SHP-EHP HORN HORIZONTAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDGE, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : 11b Tx\_Ch11,2462MHz  
 Plane : H  
 Data Rate : 1

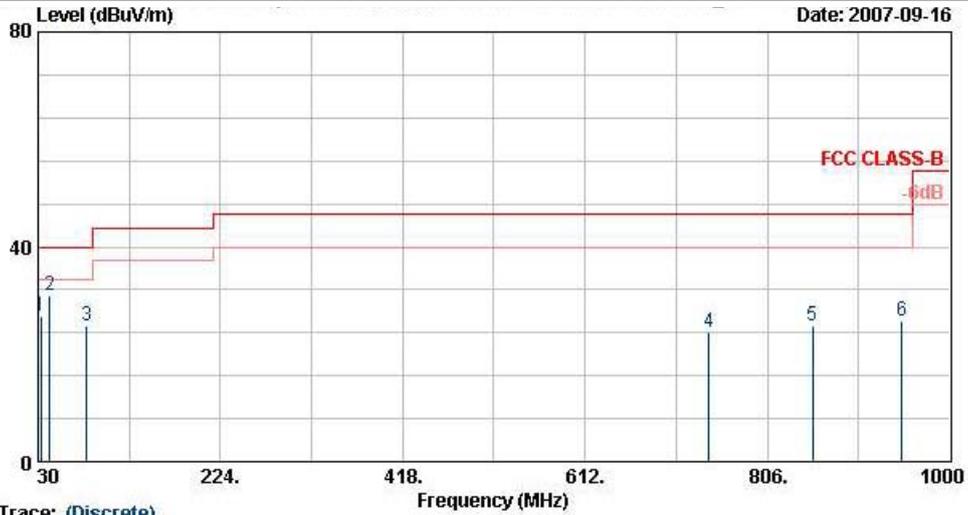
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2378.0	51.50	-22.50	74.00	52.93	30.25	3.75	35.44	100	0	Peak
2	2378.0	40.26	-13.74	54.00	41.70	30.25	3.75	35.44	149	168	Average
3 X	2462.0	106.32			107.69	30.29	3.84	35.49	100	0	Peak
4 @	2462.0	102.73			104.10	30.29	3.84	35.49	149	168	Average
5	2483.5	55.74	-18.26	74.00	57.10	30.29	3.86	35.51	100	0	Peak
6	2483.5	44.59	-9.41	54.00	45.95	30.29	3.86	35.51	149	168	Average
7	7587.0	56.28	-17.72	74.00	45.64	39.02	7.64	36.02	100	0	Peak
8	7587.0	43.89	-10.11	54.00	33.25	39.02	7.64	36.02	100	124	Average
9	9846.0	40.65	-33.35	74.00	77.64	-9.63	9.18	36.54	100	0	Peak

Remark: #3 and #4 are Fundamental Signals.



Polarization : Vertical

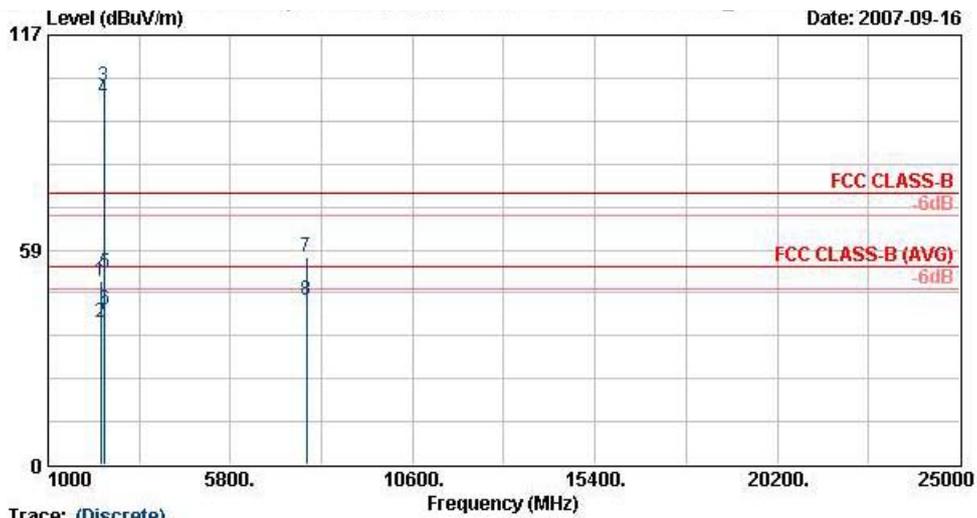
The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)

Site : 03CHD6-HY  
 Condition : LF-ANT(951121) VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDR, 802.11g, GFS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : 11b Tx\_Ch11,2462MHz  
 Plane : H  
 Data Rate : 1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos		
			dB	dBuV/m	dBuV	dB	dB	cm	deg		
1	33.2	27.00	-13.00	40.00	40.16	17.54	0.66	31.36	---	---	Peak
2	42.7	31.00	-9.00	40.00	49.40	12.02	0.74	31.16	100	168	Peak
3	81.8	25.24	-14.76	40.00	47.68	7.67	0.98	31.09	---	---	Peak
4	743.8	24.15	-21.85	46.00	32.07	19.30	3.32	30.54	---	---	Peak
5	854.4	25.32	-20.68	46.00	31.91	20.21	3.63	30.42	---	---	Peak
6	948.9	26.29	-19.71	46.00	31.78	20.87	3.92	30.28	---	---	Peak



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : SHP-EHP HORN VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDGE, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : 11b Tx\_Ch11,2462MHz  
 Plane : H  
 Data Rate : 1

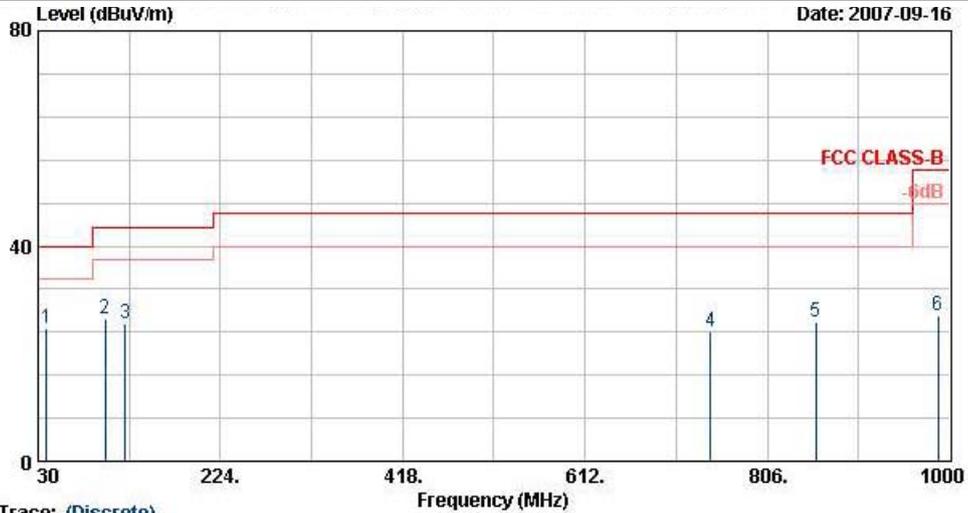
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2384.0	50.12	-23.88	74.00	51.56	30.25	3.75	35.44	100	0	Peak
2	2384.0	38.91	-15.09	54.00	40.35	30.25	3.75	35.44	100	102	Average
3 X	2462.0	103.06			104.43	30.29	3.84	35.49	100	0	Peak
4 @	2462.0	99.73			101.10	30.29	3.84	35.49	100	102	Average
5	2483.5	52.00	-22.00	74.00	53.36	30.29	3.86	35.51	100	0	Peak
6	2483.5	42.11	-11.89	54.00	43.47	30.29	3.86	35.51	100	102	Average
7	7797.0	56.63	-17.37	74.00	45.52	39.32	7.72	35.92	100	0	Peak
8	7797.0	44.76	-9.24	54.00	33.64	39.32	7.72	35.92	100	304	Average

Remark: #3 and #4 are Fundamental Signals.



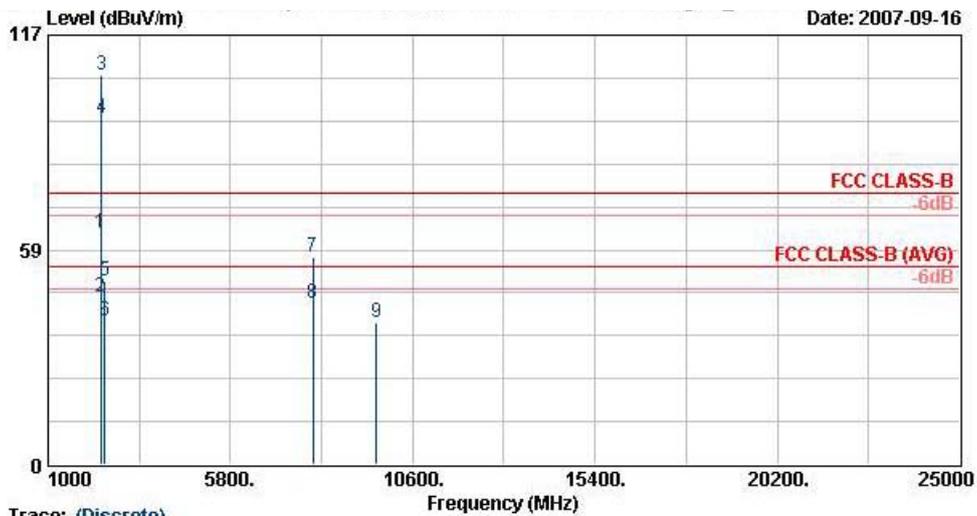
Test Mode : Mode 4  
Polarization : Horizontal

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)  
Site : 08CHD6-HY  
Condition : LP-ANT(951121) HORIZONTAL  
EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
with BT, EDR, 802.11g, GFS, FM  
Power : 120Vac/60Hz  
Model : FR 781408  
Mode : 11g Tx\_Ch01\_2412MHz  
Plane : H  
Data Rate : 54

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBUV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBUV/m	dBuV	dB	dB	cm	deg	
1	38.6	24.62	-15.38	40.00	41.12	14.03	0.70	31.23	100	119 Peak
2	101.3	26.36	-17.14	43.50	45.37	11.07	1.07	31.15	---	---
3	122.9	25.44	-18.06	43.50	42.70	12.63	1.19	31.08	---	---
4	745.9	23.97	-22.03	46.00	31.87	19.31	3.32	30.54	---	---
5	857.9	25.78	-20.22	46.00	32.32	20.23	3.65	30.42	---	---
6	987.4	27.18	-26.82	54.00	32.30	21.15	3.99	30.27	---	---



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : SHP-EHP HORN HORIZONTAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDGE, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : 11g Tx\_Ch01,2412MHz  
 Plane : H  
 Data Rate : 54

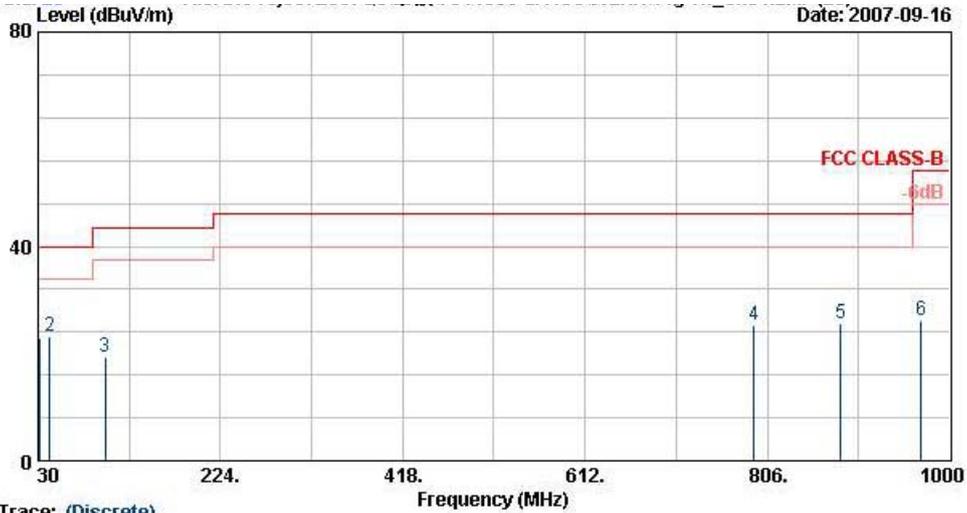
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBUV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBUV/m	dBuV	dB	dB	cm	deg	
1	2390.0	63.28	-10.72	74.00	64.73	30.26	3.75	35.46	100	0 Peak
2	2390.0	45.60	-8.40	54.00	47.05	30.26	3.75	35.46	100	92 Average
3 X	2412.0	106.10			107.51	30.27	3.79	35.47	100	0 Peak
4 @	2412.0	94.34			95.76	30.27	3.77	35.46	100	92 Average
5	2484.0	49.85	-24.15	74.00	51.21	30.29	3.86	35.51	100	0 Peak
6	2484.0	38.94	-15.06	54.00	40.30	30.29	3.86	35.51	100	92 Average
7	7977.0	56.44	-17.56	74.00	44.95	39.55	7.78	35.85	100	0 Peak
8	7977.0	44.03	-9.97	54.00	32.54	39.55	7.78	35.85	100	139 Average
9	9642.0	38.65	-35.35	74.00	76.30	-10.09	9.12	36.68	100	0 Peak

Remark: #3 and #4 are Fundamental Signals.



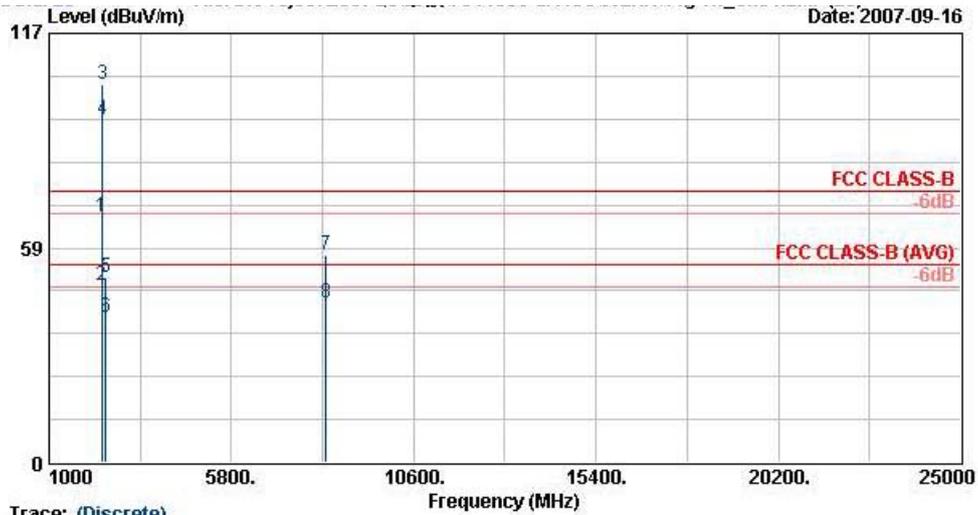
Polarization : Vertical

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : LF-ANT(951121) VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDR, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : 11g Tx\_Ch01,2412MHz  
 Plane : H  
 Data Rate : 54

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	31.1	22.83	-17.17	40.00	34.66	18.95	0.64	31.43	---	Peak
2	42.7	23.13	-16.87	40.00	41.54	12.02	0.74	31.16	100	123 Peak
3	101.3	19.18	-24.32	43.50	38.20	11.07	1.07	31.15	---	Peak
4	791.4	25.29	-20.71	46.00	32.66	19.74	3.40	30.50	---	Peak
5	883.8	25.54	-20.46	46.00	31.77	20.41	3.75	30.39	---	Peak
6	969.9	26.28	-27.72	54.00	31.57	21.03	3.96	30.28	---	Peak



Trace: (Discrete)  
 Site : 03CHD6-HY  
 Condition : SHF-EHF HORN VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 : with BT, EDR, 802.11g, GFS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : 11g Tx\_Ch01,2412MHz  
 Plane : H  
 Data Rate : 54

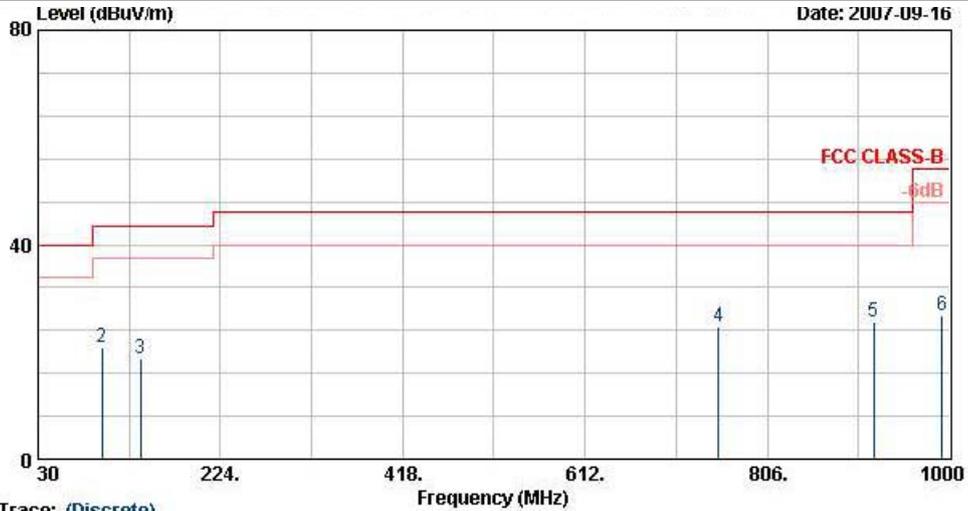
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2390.0	66.94	-7.06	74.00	68.39	30.26	3.75	35.46	100	0	Peak
2	2390.0	48.14	-5.86	54.00	49.59	30.26	3.75	35.46	100	103	Average
3	2412.0	102.95			104.37	30.27	3.77	35.46	100	0	Peak
4	2412.0	93.45			94.87	30.27	3.77	35.46	100	103	Average
5	2494.0	50.41	-23.59	74.00	51.76	30.30	3.88	35.53	100	0	Peak
6	2494.0	39.66	-14.34	54.00	41.01	30.30	3.88	35.53	100	103	Average
7	8301.0	56.34	-17.66	74.00	44.86	39.37	8.12	36.01	100	0	Peak
8	8301.0	43.69	-10.31	54.00	32.21	39.37	8.12	36.01	100	341	Average

Remark: #3 and #4 are Fundamental Signals.



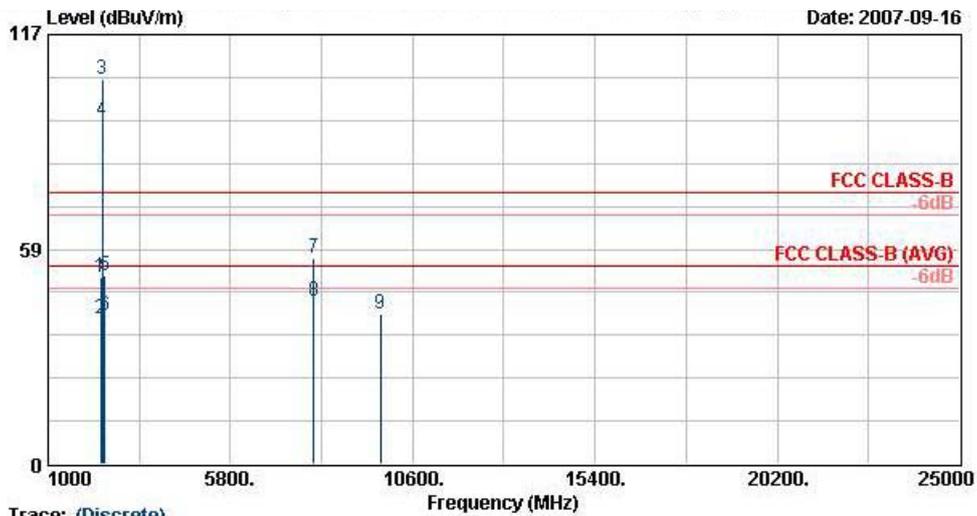
Test Mode : Mode 5  
Polarization : Horizontal

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)  
Site : 08CHD6-HY  
Condition : LF-ANT(951121) HORIZONTAL  
EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
with BT, EDR, 802.11g, GFS, FM  
Power : 120V<sub>ac</sub>/60Hz  
Model : FR 781408  
Mode : 11g Tx\_CH06;2437MHz  
Plane : H  
Data Rate : 54

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB	dB	cm	deg	
1 @	30.0	23.14	-16.86	40.00	34.31	0.63	31.46	100	153	Peak
2	98.0	20.69	-22.81	43.50	40.16	1.06	31.12	---	---	Peak
3	139.1	18.84	-24.66	43.50	38.19	1.28	31.05	---	---	Peak
4	754.3	24.74	-21.26	46.00	32.53	3.34	30.53	---	---	Peak
5	918.8	25.49	-20.51	46.00	31.30	3.86	30.34	---	---	Peak
6	992.3	26.68	-27.32	54.00	31.76	4.00	30.27	---	---	Peak



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : SHF-EHF HORN HORIZONTAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDR, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : 11g Tx\_Ch06,2437MHz  
 Plane : H  
 Data Rate : 54

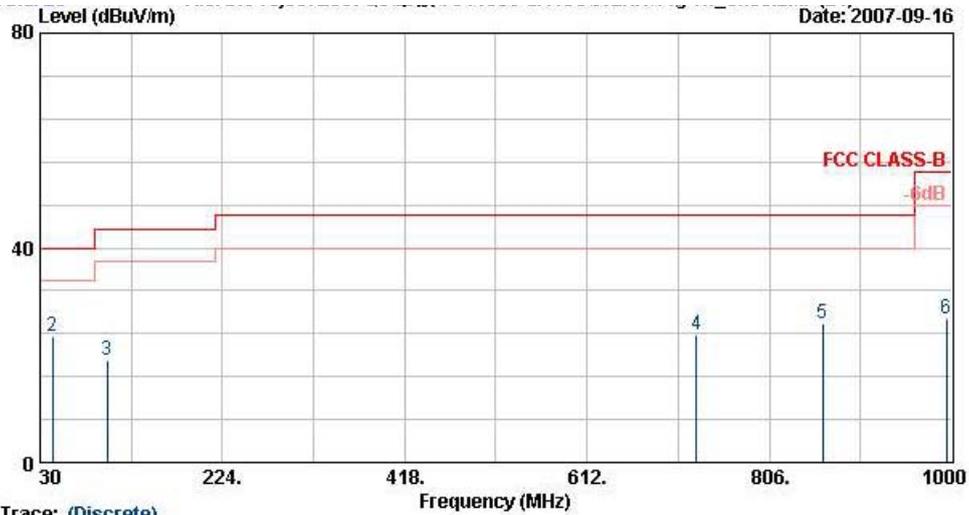
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBUV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBUV/m	dBuV	dB	dB	cm	deg	
1	2384.0	50.93	-23.07	74.00	52.37	30.25	3.75	35.44	100	0 Peak
2 @	2384.0	39.53	-14.47	54.00	40.97	30.25	3.75	35.44	154	193 Average
3 @	2437.0	104.75			106.16	30.27	3.79	35.47	100	0 Peak
4 @	2437.0	93.54			94.92	30.28	3.82	35.47	154	193 Average
5	2484.0	51.32	-22.68	74.00	52.68	30.29	3.86	35.51	100	0 Peak
6 @	2484.0	40.36	-13.64	54.00	41.72	30.29	3.86	35.51	154	193 Average
7	7986.0	56.13	-17.87	74.00	44.61	39.58	7.79	35.85	100	0 Peak
8 @	7986.0	44.26	-9.74	54.00	32.74	39.58	7.79	35.85	100	94 Average
9	9747.0	41.05	-32.95	74.00	78.36	-9.85	9.15	36.61	100	0 Peak

Remark: #3 and #4 are Fundamental Signals.



Polarization : Vertical

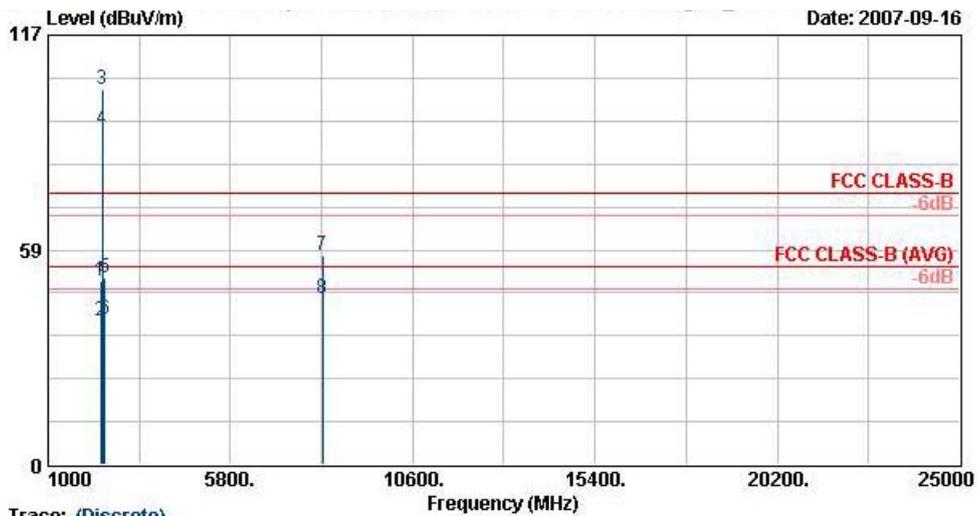
The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)

Site : 08CH06-HY  
 Condition : LF-ANT(951121) VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDR, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : 11g Tx\_CH06;2437MHz  
 Plane : H  
 Data Rate : 54

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBUV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBUV/m	dBUV	dB	dB	cm	deg	
1 @	30.0	24.51	-15.49	40.00	35.68	19.66	0.63	31.46	100	257 Peak
2 @	43.2	23.45	-16.55	40.00	42.32	11.52	0.75	31.14	---	---
3	101.3	19.16	-24.34	43.50	38.18	11.07	1.07	31.15	---	---
4	728.4	23.92	-22.08	46.00	32.03	19.15	3.30	30.56	---	---
5	862.8	25.90	-20.10	46.00	32.38	20.27	3.67	30.41	---	---
6	994.4	26.64	-27.36	54.00	31.70	21.20	4.01	30.27	---	---



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : SHP-EHP HORN VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDGE, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : 11g Tx\_Ch06,2437MHz  
 Plane : H  
 Data Rate : 54

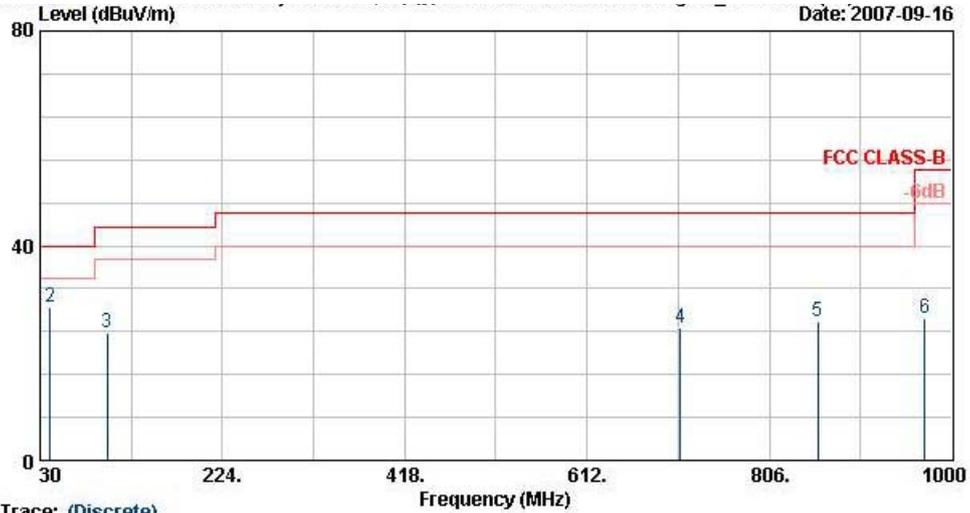
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	2388.0	49.82	-24.18	74.00	51.25	30.26	3.75	35.44	100	0 Peak
2 @	2388.0	39.21	-14.79	54.00	40.64	30.26	3.75	35.44	100	108 Average
3 @	2437.0	102.29			103.69	30.27	3.79	35.47	100	0 Peak
4 @	2437.0	91.36			92.74	30.28	3.82	35.47	100	108 Average
5	2494.0	51.05	-22.95	74.00	52.40	30.30	3.88	35.53	100	0 Peak
6 @	2494.0	39.46	-14.54	54.00	40.81	30.30	3.88	35.53	100	108 Average
7	8217.0	56.80	-17.20	74.00	45.30	39.42	8.04	35.97	100	0 Peak
8 @	8217.0	45.07	-8.93	54.00	33.58	39.42	8.04	35.97	100	206 Average

Remark: #3 and #4 are Fundamental Signals.



Test Mode : Mode 6  
Polarization : Horizontal

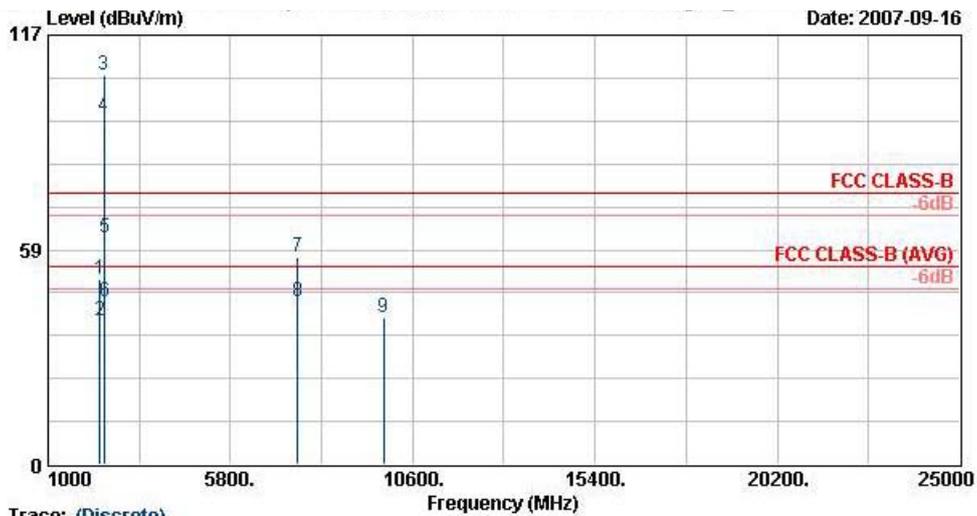
**The test that passed at minimum margin was marked by the frame in the following table.**



Trace: (Discrete)

Site : 03CHD6-HY  
Condition : LF-ANT(951121) HORIZONTAL  
EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
with BT, EDR, 802.11g, GPS, FM  
Power : 120Vac/60Hz  
Model : FR 781408  
Mode : 11g Tx\_Ch11:2462MHz  
Plane : H  
Data Rate : 54

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	30.0	24.12	-15.88	40.00	35.29	19.66	0.63	31.46	---	Peak
2	40.5	28.48	-11.52	40.00	45.95	13.01	0.71	31.19	100	130 Peak
3	101.3	23.91	-19.59	43.50	42.92	11.07	1.07	31.15	---	Peak
4	710.9	24.55	-21.45	46.00	32.87	18.99	3.27	30.58	---	Peak
5	857.9	25.97	-20.03	46.00	32.51	20.23	3.65	30.42	---	Peak
6	971.3	26.56	-27.44	54.00	31.85	21.03	3.96	30.28	---	Peak



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : SHP-EHP HORN HORIZONTAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDGE, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : 11g Tx\_Ch11,2462MHz  
 Plane : H  
 Data Rate : 54

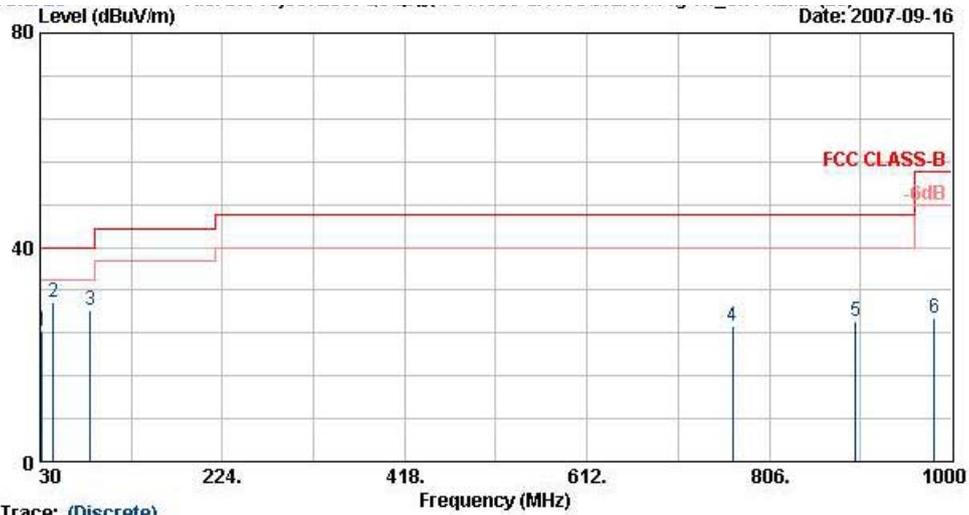
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	2374.0	50.33	-23.67	74.00	51.78	30.25	3.73	35.44	100	0 Peak
2	2374.0	39.17	-14.83	54.00	40.63	30.25	3.73	35.44	150	176 Average
3 X	2462.0	106.26			107.63	30.29	3.84	35.49	100	0 Peak
4 @	2462.0	94.61			95.98	30.29	3.84	35.49	150	176 Average
5	2483.5	61.61	-12.39	74.00	62.97	30.29	3.86	35.51	100	0 Peak
6	2483.5	44.50	-9.50	54.00	45.86	30.29	3.86	35.51	150	176 Average
7	7572.0	56.71	-17.29	74.00	46.08	39.02	7.64	36.02	100	0 Peak
8	7572.0	44.27	-9.73	54.00	33.64	39.02	7.64	36.02	100	138 Average
9	9846.0	39.91	-34.09	74.00	76.89	-9.63	9.18	36.54	100	0 Peak

Remark: #3 and #4 are Fundamental Signals.



Polarization : Vertical

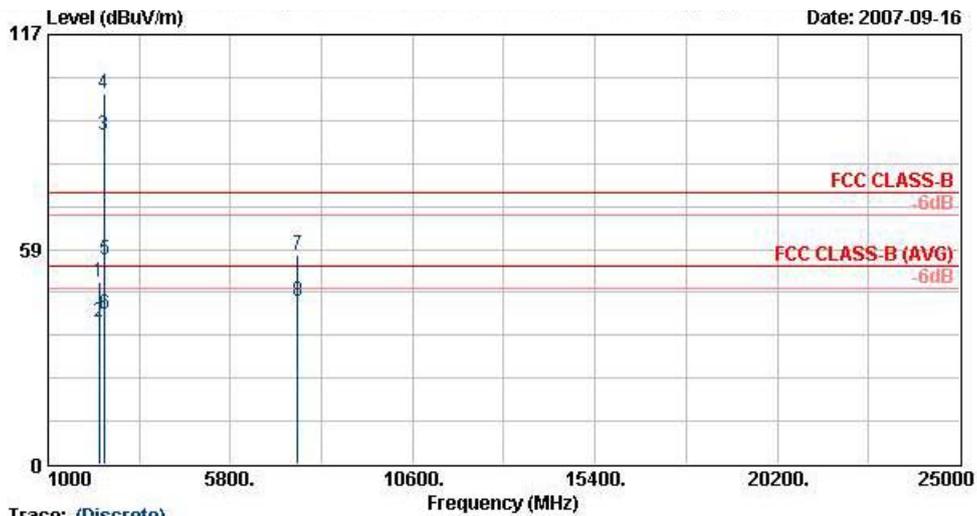
The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)

Site : 08CHD6-HY  
 Condition : LF-ANT(951121) VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDR, 802.11g, GPS, FM  
 Power : 120V<sub>ac</sub>/60Hz  
 Model : FR 781408  
 Mode : 11g Tx\_Ch11;2462MHz  
 Plane : H  
 Data Rate : 54

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	32.4	24.29	-15.71	40.00	37.44	0.66	31.36	---	---	Peak
2	44.0	29.68	-10.32	40.00	48.54	0.75	31.12	100	193	Peak
3	83.7	28.13	-11.87	40.00	50.26	0.99	31.10	---	---	Peak
4	766.9	25.16	-20.84	46.00	32.80	3.36	30.52	---	---	Peak
5	897.8	26.08	-19.92	46.00	32.13	3.81	30.37	---	---	Peak
6	981.8	26.90	-27.10	54.00	32.08	3.98	30.27	---	---	Peak



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : SHP-EHP HORN VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 : with BT, EDR, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : 11g Tx\_Ch11,2462MHz  
 Plane : H  
 Data Rate : 54

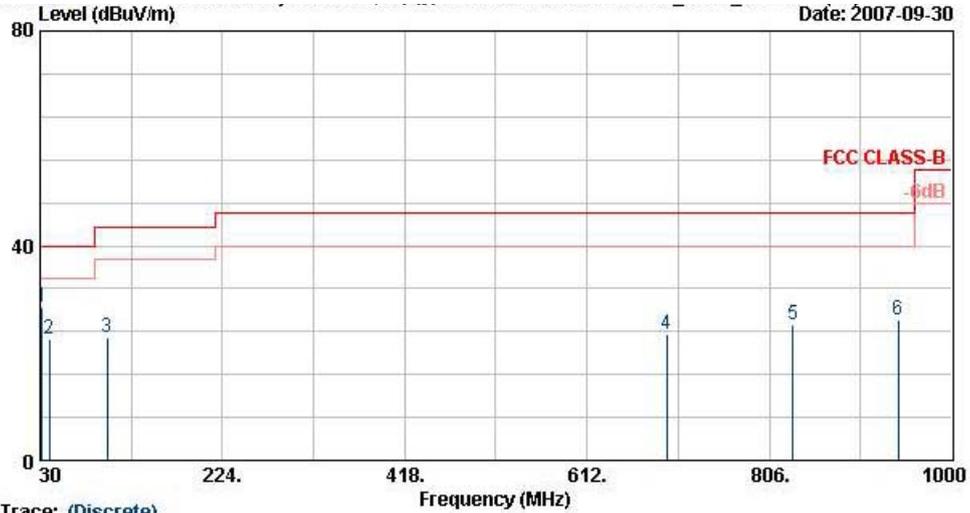
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	2354.0	49.51	-24.49	74.00	50.98	30.24	3.71	35.42	100	0 Peak
2	2354.0	38.59	-15.41	54.00	40.06	30.24	3.71	35.42	100	106 Average
3 @	2462.0	89.50			90.87	30.29	3.84	35.49	100	106 Average
4 X	2462.0	100.92			102.29	30.29	3.84	35.49	100	0 Peak
5	2483.5	55.78	-18.22	74.00	57.14	30.29	3.86	35.51	100	0 Peak
6	2483.5	41.03	-12.97	54.00	42.39	30.29	3.86	35.51	100	106 Average
7	7581.0	56.90	-17.10	74.00	46.27	39.02	7.64	36.02	100	0 Peak
8	7581.0	44.17	-9.83	54.00	33.54	39.02	7.64	36.02	100	214 Average

Remark: #3 and #4 are Fundamental Signals.



Test Mode : Mode 9  
Polarization : Horizontal

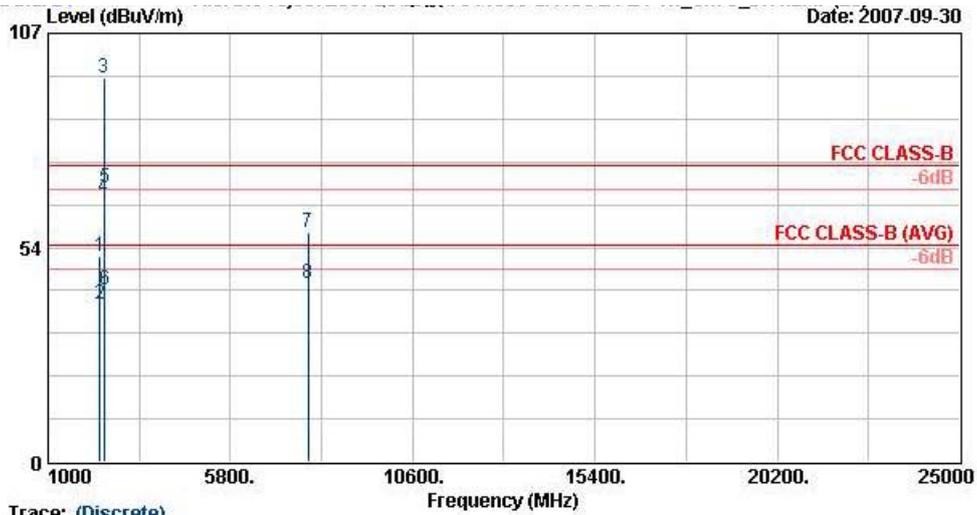
**The test that passed at minimum margin was marked by the frame in the following table.**



Trace: (Discrete)

Site : 03CHD6-HY  
Condition : LF-ANT(951121) HORIZONTAL  
EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
with BT, EDR, 802.11g, GPS, FM  
Power : 120Vac/60Hz  
Model : FR 781408  
Mode : BT Tx\_C178\_2480MHz  
Plane : E1  
Data Rate : DH1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBUV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBUV/m	dBuV	dB	dB	cm	deg	
1	32.4	28.48	-11.52	40.00	41.64	17.54	0.66	31.36	100	114 Peak
2	40.0	22.46	-17.54	40.00	39.46	13.51	0.70	31.21	---	---
3	101.3	22.93	-20.57	43.50	41.95	11.07	1.07	31.15	---	---
4	696.9	23.49	-22.51	46.00	31.97	18.88	3.24	30.59	---	---
5	831.3	25.18	-20.82	46.00	32.05	20.04	3.54	30.45	---	---
6	943.3	26.11	-19.89	46.00	31.66	20.84	3.91	30.29	---	---



Trace: (Discrete)

Site : 03CHD6-HY  
 Condition : SHF-EHF HORN HORIZONTAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDR, 802.11g, GFS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : BT Tx\_Ch78;2480MHz  
 Plane : E1  
 Data Rate : DH1

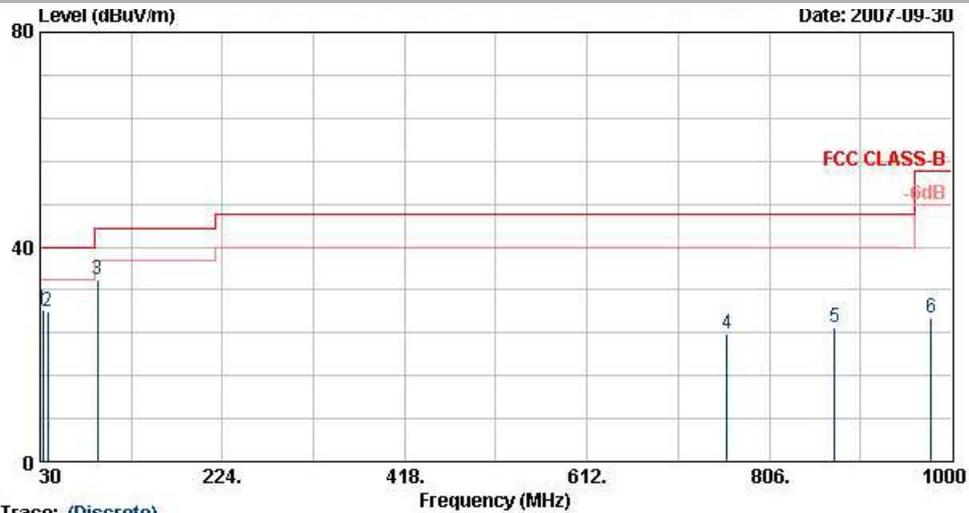
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2374.0	51.16	-22.84	74.00	52.62	30.25	3.73	35.44	100	0	Peak
2	2374.0	39.56	-14.44	54.00	41.02	30.25	3.73	35.44	100	2	Average
3 X	2480.0	95.98			97.34	30.29	3.86	35.51	100	0	Peak
4 X	2480.0	66.16			67.52	30.29	3.86	35.51	100	2	Average
5 !	2483.5	68.24	-5.76	74.00	69.60	30.29	3.86	35.51	100	0	Peak
6	2483.5	42.98	-11.02	54.00	44.34	30.29	3.86	35.51	100	2	Average
7	7836.0	57.15	-16.85	74.00	45.96	39.37	7.73	35.91	100	0	Peak
8	7836.0	44.60	-9.40	54.00	33.41	39.37	7.73	35.91	100	127	Average

Remark: #3 and #4 are Fundamental Signals.



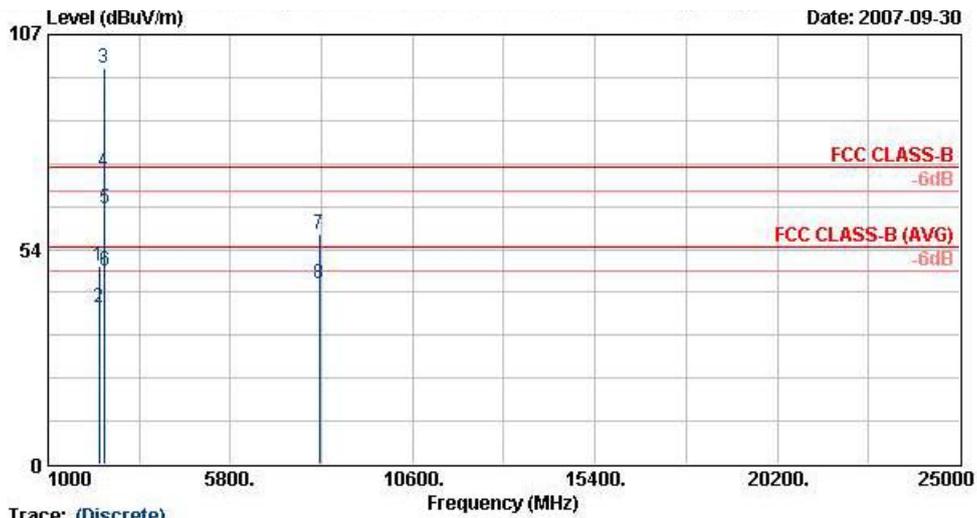
Polarization : Vertical

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : LF-ANT(951121) VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 : with BT, EDR, 802.11g, GFS, FM  
 Power : 120V<sub>ac</sub>/60Hz  
 Model : FR 781408  
 Mode : BT Tx\_Ch78;2480MHz  
 Plane : E1  
 Data Rate : DH1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	33.2	28.13	-11.87	40.00	41.29	17.54	0.66	31.36	---	---	Peak
2	37.8	27.87	-12.13	40.00	43.86	14.56	0.69	31.24	---	---	Peak
3	91.3	33.78	-9.72	43.50	54.63	9.23	1.04	31.12	100	193	Peak
4	761.3	23.81	-22.19	46.00	31.53	19.46	3.35	30.52	---	---	Peak
5	875.4	24.96	-21.04	46.00	31.28	20.36	3.72	30.40	---	---	Peak
6	978.3	26.79	-27.21	54.00	31.99	21.09	3.98	30.27	---	---	Peak



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : SHF-EHF HORN VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDR, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : BT Tx\_Ch78;2480MHz  
 Plane : E1  
 Data Rate : DH1

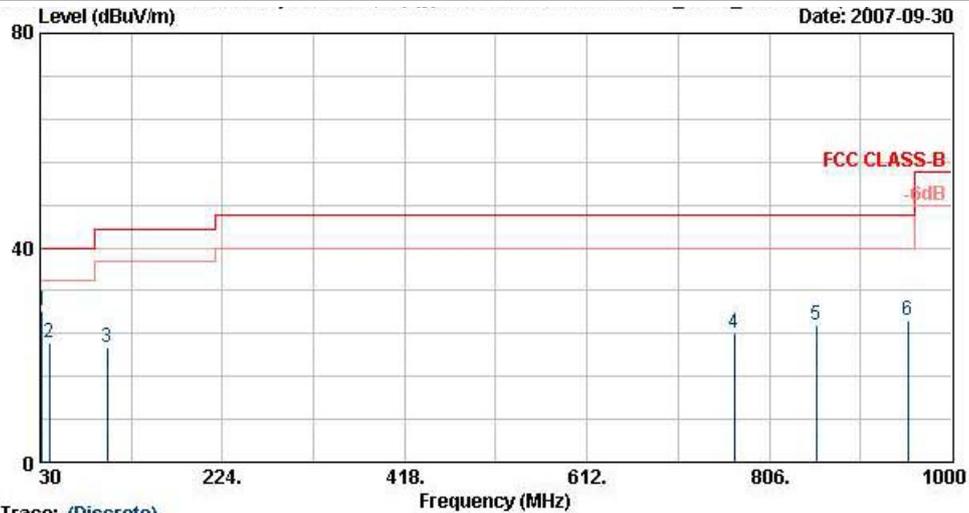
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBUV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBUV/m	dBuV	dB	dB	cm	deg	
1	2348.0	49.26	-24.74	74.00	50.73	30.24	3.71	35.42	100	0 Peak
2	2348.0	39.07	-14.93	54.00	40.55	30.24	3.71	35.42	100	209 Average
3 @	2480.0	98.74			100.10	30.29	3.86	35.51	100	0 Peak
4 X	2480.0	72.81			74.17	30.29	3.86	35.51	100	209 Average
5	2483.5	63.64	-10.36	74.00	65.00	30.29	3.86	35.51	100	0 Peak
6	2483.5	48.27	-5.73	54.00	49.63	30.29	3.86	35.51	100	209 Average
7	8136.0	57.33	-16.67	74.00	45.81	39.49	7.96	35.93	100	0 Peak
8	8136.0	44.97	-9.03	54.00	33.45	39.49	7.96	35.93	100	213 Average

Remark: #3 and #4 are Fundamental Signals.



Test Mode : Mode 12  
Polarization : Horizontal

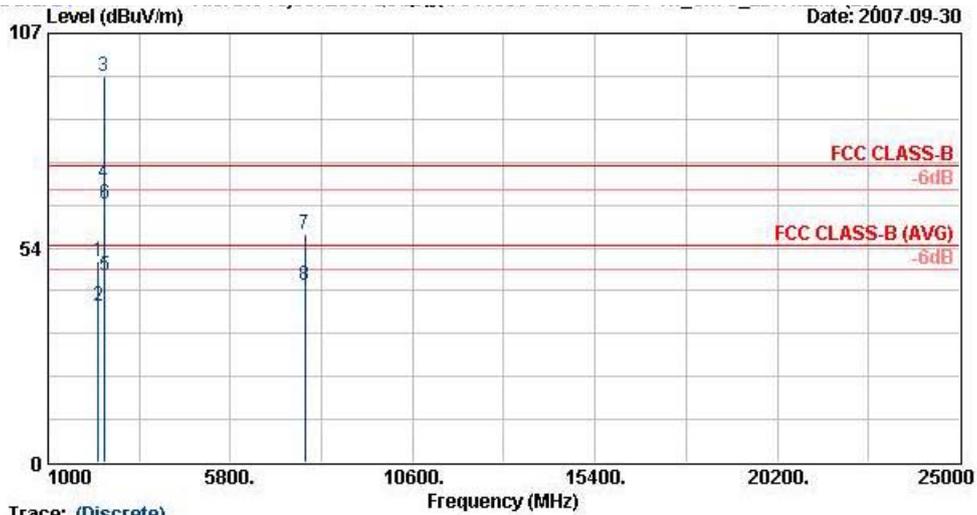
The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)

Site : 03CH06-HY  
Condition : LP-ANT(951121) HORIZONTAL  
EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
with BT, EDR, 802.11g, GPS, FM  
Power : 120V<sub>ac</sub>/60Hz  
Model : FR 781408  
Mode : BT Tx\_Ch78;2480MHz  
Plane : E1  
Data Rate : 2DH1

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	32.4	28.25	-11.75	40.00	41.41	17.54	0.66	31.36	100	138	Peak
2	40.0	22.35	-17.65	40.00	39.35	13.51	0.70	31.21	---	---	Peak
3	101.3	21.56	-21.94	43.50	40.58	11.07	1.07	31.15	---	---	Peak
4	768.3	24.01	-21.99	46.00	31.65	19.52	3.36	30.52	---	---	Peak
5	855.8	25.47	-20.53	46.00	32.04	20.21	3.64	30.42	---	---	Peak
6	953.8	26.49	-19.51	46.00	31.93	20.91	3.93	30.28	---	---	Peak



Trace: (Discrete)

Site : 03CHD6-HY  
 Condition : SHF-EHF HORN HORIZONTAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDR, 802.11g, GFS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : BT Tx\_Ch78;2480MHz  
 Plane : E1  
 Data Rate : 2DH1

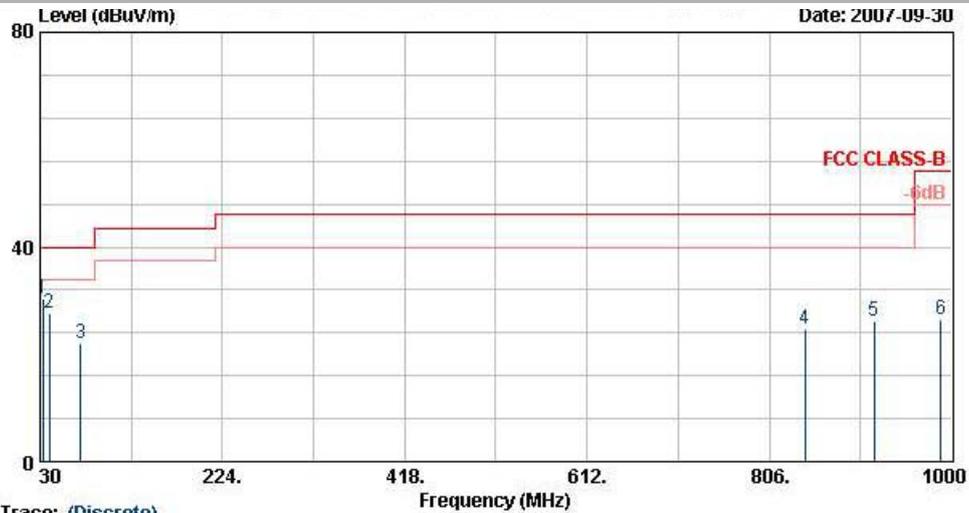
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2324.0	50.13	-23.87	74.00	51.62	30.23	3.69	35.40	100	0	Peak
2	2324.0	39.08	-14.92	54.00	40.57	30.23	3.69	35.40	182	9	Average
3 @	2480.0	96.16			97.52	30.29	3.86	35.51	100	0	Peak
4 @	2480.0	69.42			70.78	30.29	3.86	35.51	182	9	Average
5 @	2483.5	46.34	-7.66	54.00	47.70	30.29	3.86	35.51	182	9	Average
6 @	2483.5	64.31	-9.69	74.00	65.67	30.29	3.86	35.51	100	0	Peak
7	7761.0	56.69	-17.31	74.00	45.65	39.27	7.71	35.95	100	0	Peak
8 @	7761.0	44.32	-9.68	54.00	33.29	39.27	7.71	35.95	100	216	Average

Remark: #3 and #4 are Fundamental Signals.



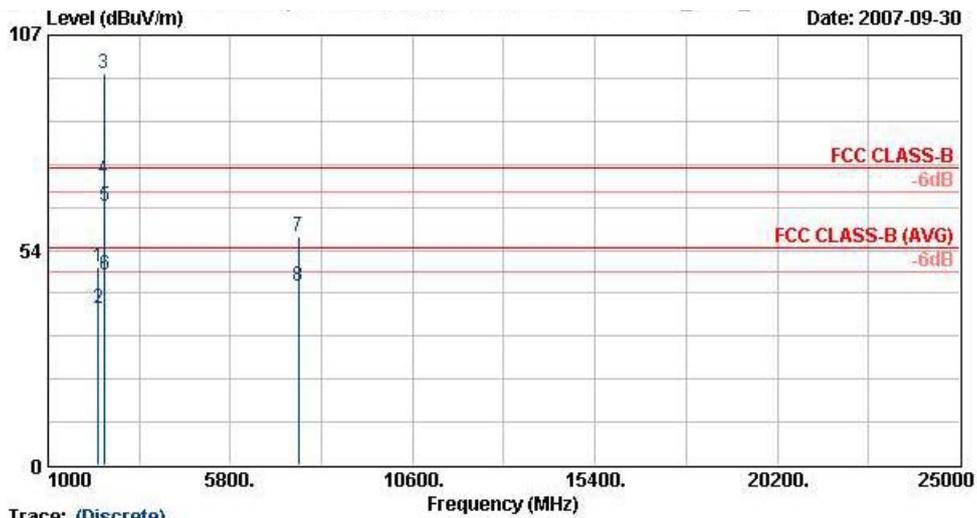
Polarization : Vertical

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : LF-ANT(951121) VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 : with BT, EDR, 802.11g, GFS, FM  
 Power : 120V<sub>ac</sub>/60Hz  
 Model : FR 781408  
 Mode : BT Tx\_Ch78;2480MHz  
 Plane : E1  
 Data Rate : 2DH1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg		
1 @	33.2	30.30	-9.70	40.00	43.45	17.54	0.66	31.36	100	106 Peak	
2	40.0	27.71	-12.29	40.00	44.71	13.51	0.70	31.21	---	---	Peak
3	72.9	22.08	-17.92	40.00	45.25	7.06	0.93	31.16	---	---	Peak
4	843.9	24.57	-21.43	46.00	31.29	20.13	3.59	30.44	---	---	Peak
5	917.4	26.15	-19.85	46.00	31.98	20.65	3.85	30.34	---	---	Peak
6	988.8	26.35	-27.65	54.00	31.47	21.16	4.00	30.27	---	---	Peak



Trace: (Discrete)

Site : 03CHD6-HY  
 Condition : SHP-EHF HORN VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDR, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : BT Tx\_Ch7;2480MHz  
 Plane : E1  
 Data Rate : 2DH1

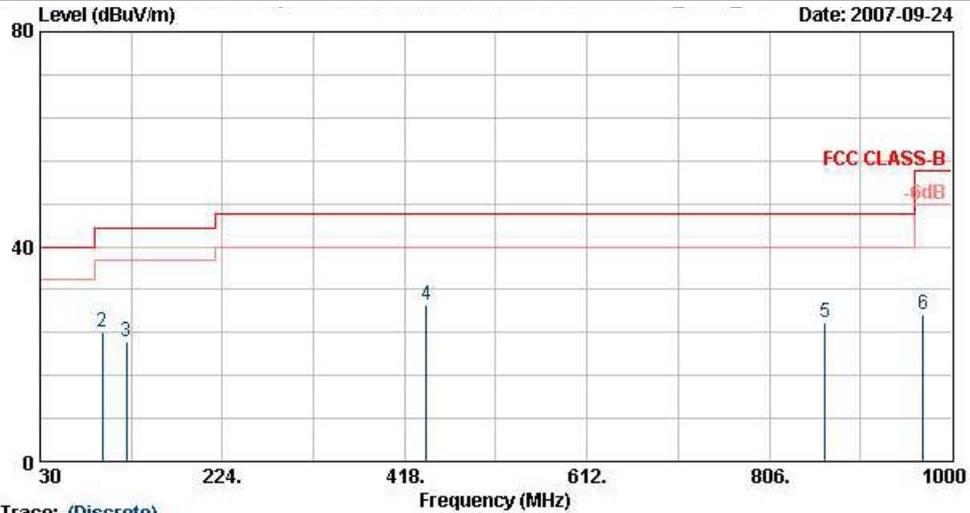
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBUV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBUV/m	dBuV	dB	dB	cm	deg	
1	2328.0	49.31	-24.69	74.00	50.79	30.23	3.69	35.40	100	0 Peak
2	2328.0	39.08	-14.92	54.00	40.57	30.23	3.69	35.40	100	210 Average
3 @	2480.0	97.35			98.71	30.29	3.86	35.51	100	0 Peak
4 @	2480.0	71.23			72.59	30.29	3.86	35.51	100	210 Average
5 @	2483.5	64.35	-9.65	74.00	65.71	30.29	3.86	35.51	100	0 Peak
6 @	2483.5	47.24	-6.76	54.00	48.60	30.29	3.86	35.51	100	210 Average
7	7587.0	56.90	-17.10	74.00	46.26	39.02	7.64	36.02	100	0 Peak
8 @	7587.0	44.36	-9.64	54.00	33.72	39.02	7.64	36.02	100	267 Average

Remark: #3 and #4 are Fundamental Signals.



Test Mode : Mode 13  
Polarization : Horizontal

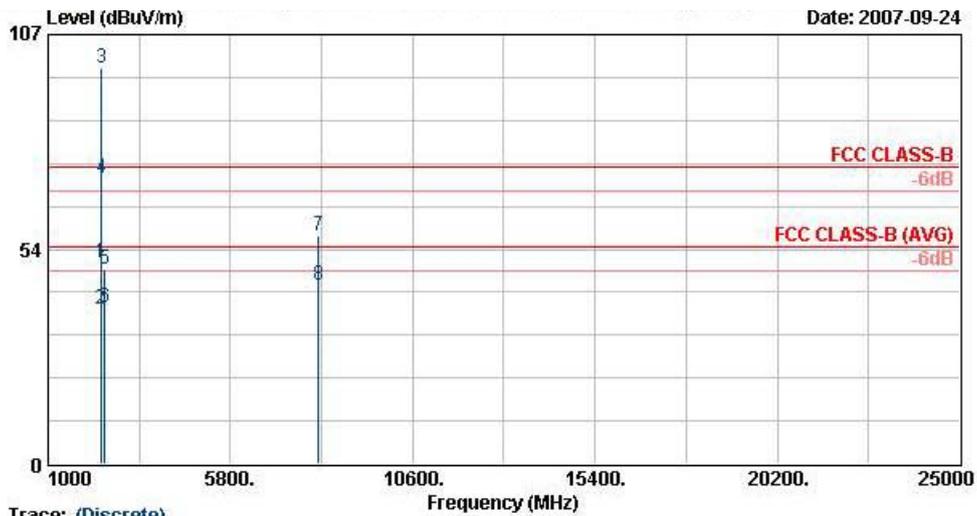
**The test that passed at minimum margin was marked by the frame in the following table.**



Trace: (Discrete)

Site : 08CHD6-HY  
Condition : LP-ANT(951121) HORIZONTAL  
EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
with BT, EDR, 802.11g, GFS, FM  
Power : 120Vac/60Hz  
Model : FR 781408  
Mode : BT Tx\_Ch00;2402MHz  
Plane : E1  
Data Rate : 3DH1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBUV/m	dB	dBUV/m	dBuV	Loss	Factor	Pos	Pos		
						dB	dB	cm	deg		
1	30.5	22.54	-17.46	40.00	34.37	18.95	0.64	31.43	100	92 Peak	
2	96.7	24.02	-19.48	43.50	43.66	10.40	1.05	31.10	---	---	Peak
3	122.3	22.37	-21.13	43.50	39.65	12.61	1.19	31.08	---	---	Peak
4	441.4	29.01	-16.99	46.00	41.02	16.45	2.37	30.83	---	---	Peak
5	864.9	25.75	-20.25	46.00	32.21	20.28	3.68	30.41	---	---	Peak
6	969.9	27.40	-26.60	54.00	32.69	21.03	3.96	30.28	---	---	Peak



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : SHF-EHF HORN HORIZONTAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 : with BT, EDR, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : BT Tx\_Channel:2402MHz  
 Plane : E1  
 Data Rate : 3DH1

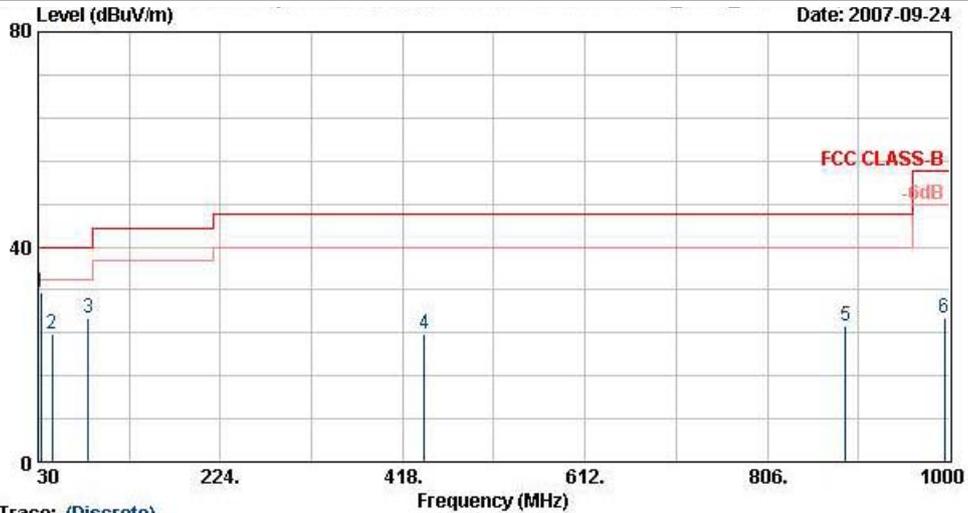
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBUV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBUV/m	dBuV	dB	dB	cm	deg	
1	2390.0	50.21	-23.79	74.00	51.69	30.24	3.71	35.42	100	0 Peak
2	2390.0	38.64	-15.36	54.00	40.12	30.24	3.71	35.42	123	20 Average
3 X	2402.0	98.71			100.13	30.26	3.77	35.46	100	0 Peak
4 X	2402.0	71.31			72.74	30.26	3.77	35.46	123	20 Average
5	2494.0	48.61	-25.39	74.00	49.96	30.30	3.88	35.53	100	0 Peak
6	2494.0	39.15	-14.85	54.00	40.50	30.30	3.88	35.53	123	20 Average
7	8127.0	56.75	-17.25	74.00	45.23	39.50	7.94	35.91	100	0 Peak
8	8127.0	44.50	-9.50	54.00	32.98	39.50	7.94	35.91	100	169 Average

Remark: #3 and #4 are Fundamental Signals.



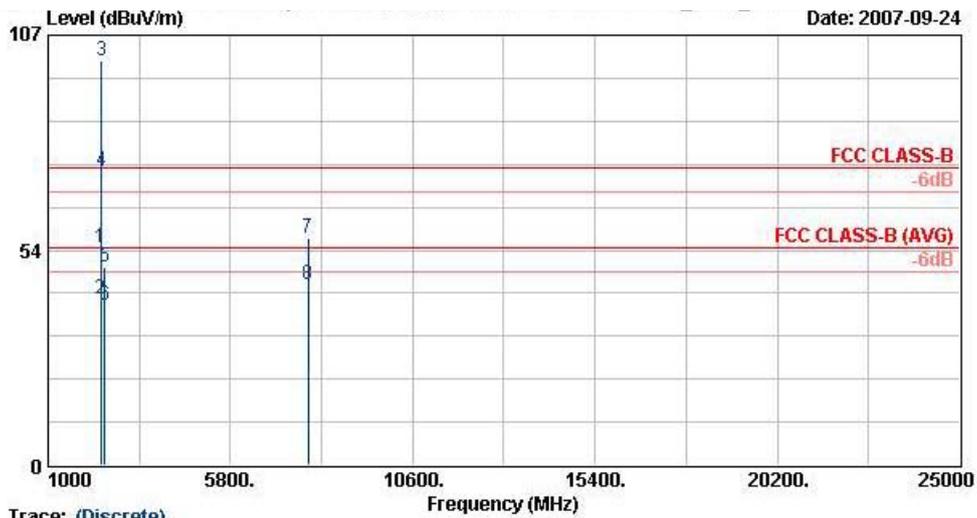
Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : LF-ANT(951121) VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 : with BT, EDR, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : BT Tx\_Ch00;2402MHz  
 Plane : E1  
 Data Rate : 3DH1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	33.2	31.64	-8.36	40.00	44.80	17.54	0.66	31.36	100	246 Peak
2	45.4	23.83	-16.17	40.00	43.64	10.53	0.77	31.10	---	---
3	83.7	26.74	-13.26	40.00	48.87	7.97	0.99	31.10	---	---
4	441.4	23.85	-22.15	46.00	35.86	16.45	2.37	30.83	---	---
5	889.4	25.19	-20.81	46.00	31.34	20.45	3.78	30.38	---	---
6	994.4	26.76	-27.24	54.00	31.82	21.20	4.01	30.27	---	---



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : SHP-EHF HORN VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDR, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : BT Tx\_Ch00;2402MHz  
 Plane : E1  
 Data Rate : 3DH1

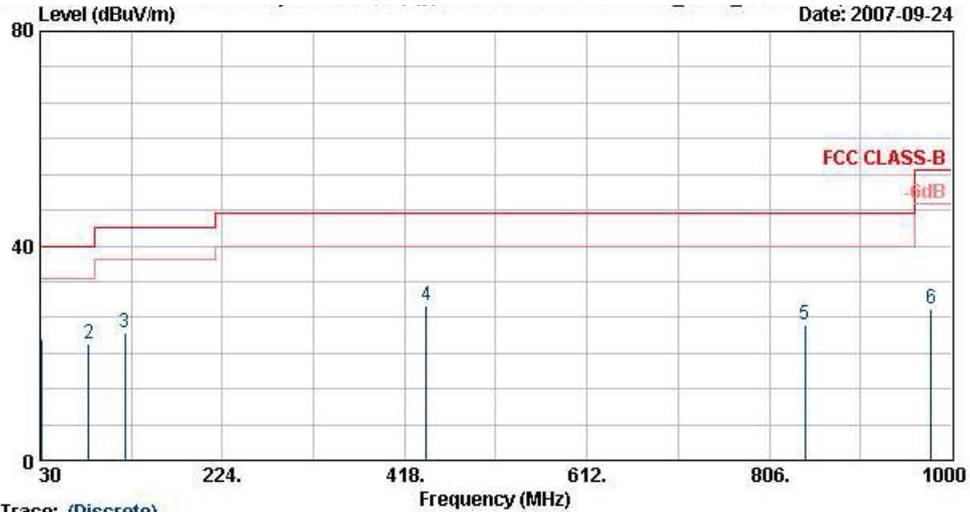
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBUV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBUV/m	dBuV	dB	dB	cm	deg	
1	2390.0	54.24	-19.76	74.00	55.69	30.26	3.75	35.46	100	0 Peak
2	2390.0	41.29	-12.71	54.00	42.74	30.26	3.75	35.46	100	101 Average
3 @	2402.0	100.46			101.88	30.26	3.77	35.46	100	0 Peak
4 X	2402.0	73.29			74.72	30.26	3.77	35.46	100	101 Average
5	2488.0	49.20	-24.80	74.00	50.55	30.30	3.86	35.51	100	0 Peak
6	2488.0	39.84	-14.16	54.00	41.19	30.30	3.86	35.51	100	101 Average
7	7851.0	56.44	-17.56	74.00	45.21	39.39	7.74	35.90	100	0 Peak
8	7851.0	45.08	-8.92	54.00	33.85	39.39	7.74	35.90	100	216 Average

Remark: #3 and #4 are Fundamental Signals.



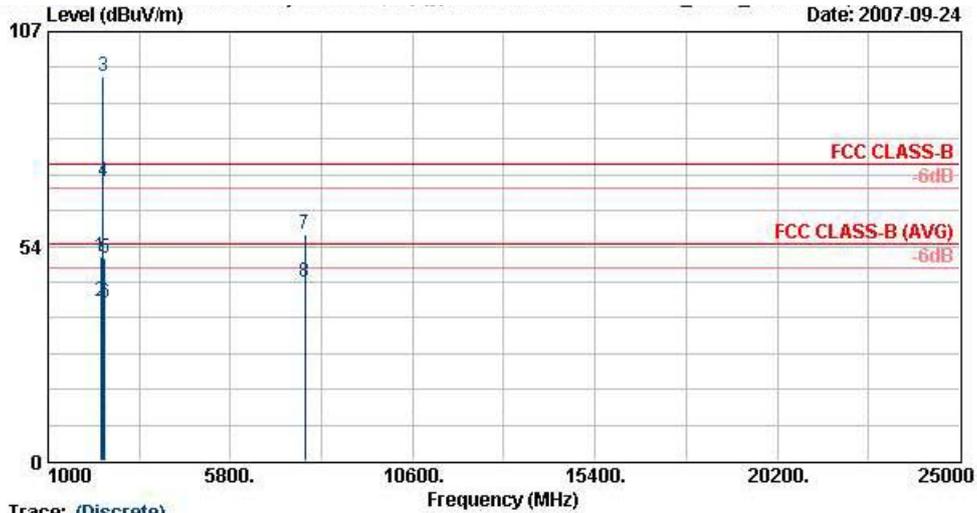
Test Mode : Mode 14  
Polarization : Horizontal

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m LF-ANT(951121) HORIZONTAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT\_EDR, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : BT Tx\_Ch39;2441MHz  
 Plane : E1  
 Data Rate : 3DR1

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	31.62	22.62	-17.38	40.00	35.12	18.25	0.65	31.39	100	193	Peak
2	81.84	21.58	-18.42	40.00	44.03	7.67	0.98	31.09	---	---	Peak
3	120.18	23.88	-19.62	43.50	41.20	12.58	1.18	31.08	---	---	Peak
4	441.40	28.98	-17.02	46.00	40.99	16.45	2.37	30.83	---	---	Peak
5	843.90	25.36	-20.64	46.00	32.08	20.13	3.59	30.44	---	---	Peak
6	978.30	28.22	-25.78	54.00	33.43	21.09	3.98	30.27	---	---	Peak



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDR, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : BT Tx\_Ch39;2441MHz  
 Plane : E1  
 Data Rate : 3DHI

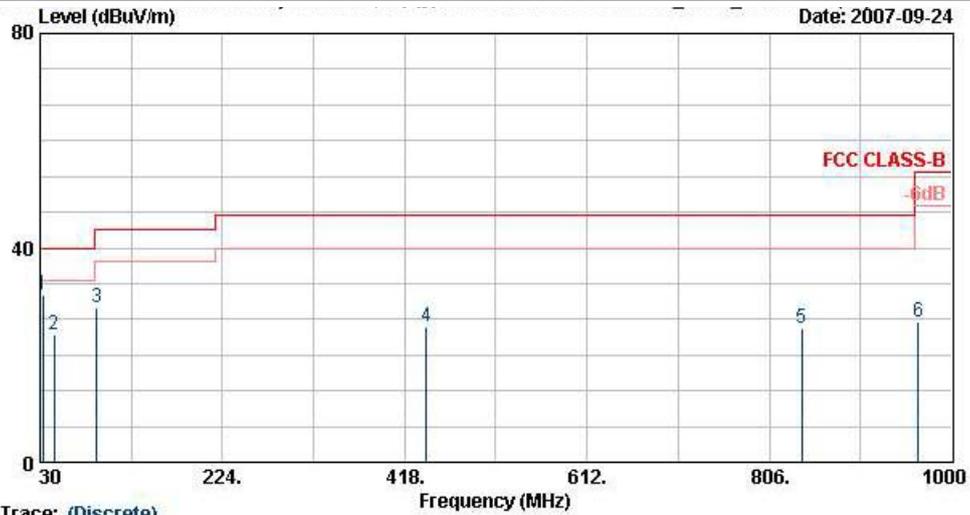
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	2388.00	50.78	-23.22	74.00	52.21	30.26	3.75	35.44	100	0 Peak
2	2388.00	39.66	-14.34	54.00	41.09	30.26	3.75	35.44	100	344 Average
3 X	2441.00	96.02			97.40	30.28	3.82	35.47	100	0 Peak
4 X	2441.00	69.48			70.88	30.28	3.82	35.49	100	344 Average
5	2494.00	50.56	-23.44	74.00	51.90	30.30	3.88	35.53	100	0 Peak
6	2494.00	39.30	-14.70	54.00	40.65	30.30	3.88	35.53	100	344 Average
7	7767.00	56.47	-17.53	74.00	45.44	39.27	7.71	35.95	100	0 Peak
8	7767.00	44.42	-9.58	54.00	33.39	39.27	7.71	35.95	100	168 Average

Remark: #3 and #4 are Fundamental Signals.



Polarization : Vertical

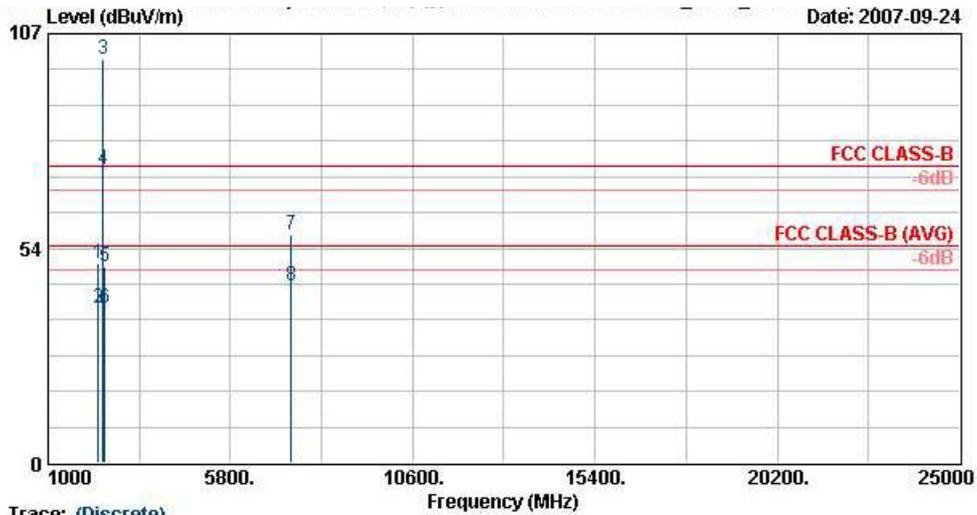
The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m LF-ANT(951121) VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT EDR, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : BT Tx\_Ch39;2441MHz  
 Plane : E1  
 Data Rate : 3DR1

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBUV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBUV/m	dBUV	dB/m	dB	dB	cm	deg	
1	33.24	31.09	-8.91	40.00	44.25	17.54	0.66	31.36	100	326	Peak
2	44.58	23.91	-16.09	40.00	43.25	11.02	0.76	31.12	---	---	Peak
3	89.94	28.79	-14.71	43.50	49.86	9.03	1.04	31.14	---	---	Peak
4	441.40	25.34	-20.66	46.00	37.34	16.45	2.37	30.83	---	---	Peak
5	840.40	24.87	-21.13	46.00	31.63	20.10	3.57	30.44	---	---	Peak
6	964.30	26.19	-27.81	54.00	31.53	20.98	3.95	30.28	---	---	Peak



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDR, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : BT Tx\_Ch39;2441MHz  
 Plane : E1  
 Data Rate : 3DHI

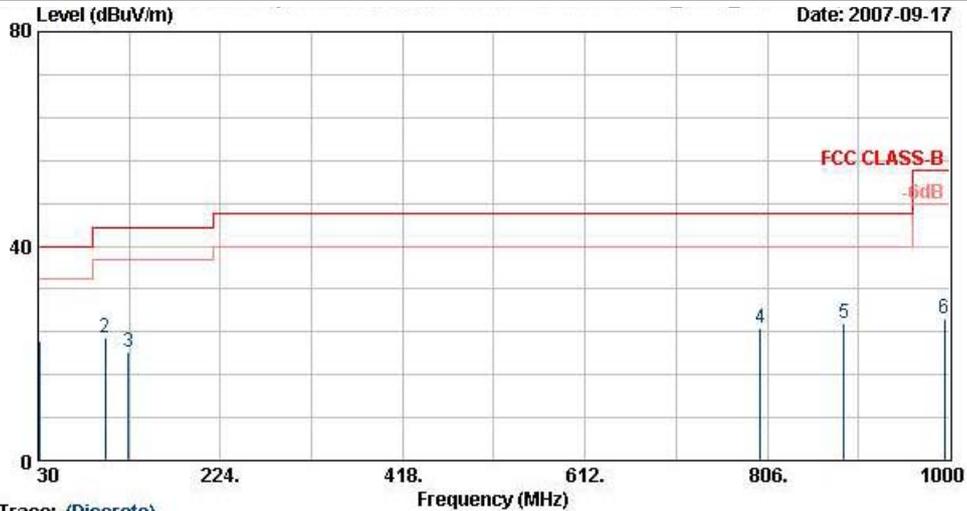
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	2324.00	49.62	-24.38	74.00	51.10	30.23	3.69	35.40	100	0 Peak
2	2324.00	38.72	-15.28	54.00	40.21	30.23	3.69	35.40	100	101 Average
3 @	2441.00	100.50			101.90	30.28	3.82	35.49	100	0 Peak
4 X	2441.00	73.38			74.78	30.28	3.82	35.49	100	101 Average
5	2498.00	48.77	-25.23	74.00	50.12	30.30	3.88	35.53	100	0 Peak
6	2498.00	38.69	-15.31	54.00	40.04	30.30	3.88	35.53	100	101 Average
7	7401.00	56.90	-17.10	74.00	46.54	38.71	7.67	36.02	100	0 Peak
8	7401.00	44.05	-9.95	54.00	33.69	38.71	7.67	36.02	100	286 Average

Remark: #3 and #4 are Fundamental Signals.



Test Mode : Mode 15  
Polarization : Horizontal

**The test that passed at minimum margin was marked by the frame in the following table.**

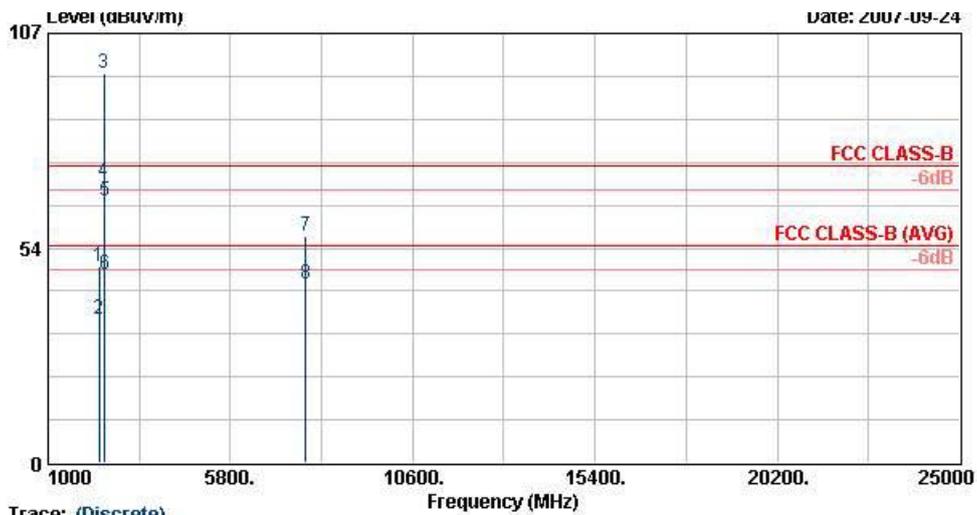


Date: 2007-09-17

Trace: (Discrete)

Site : 03CH06-HY  
Condition : LF-ANT(951121) HORIZONTAL  
EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
with BT, EDR, 802.11g, GPS, FM  
Power : 120Vac/60Hz  
Model : FR 781408  
Mode : BT Tx\_Ch78;2480MHz  
Plane : E1  
Data Rate : 3DH1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos		
			dB	dBuV/m	dBuV	dB	dB	cm	deg		
1	31.1	22.38	-17.62	40.00	34.21	18.95	0.64	31.43	100	138 Peak	
2	101.3	22.94	-20.56	43.50	41.96	11.07	1.07	31.15	---	---	Peak
3	126.4	20.16	-23.34	43.50	37.54	12.50	1.21	31.09	---	---	Peak
4	798.4	24.64	-21.36	46.00	31.93	19.80	3.41	30.49	---	---	Peak
5	887.3	25.57	-20.43	46.00	31.75	20.44	3.77	30.39	---	---	Peak
6	994.4	26.46	-27.54	54.00	31.52	21.20	4.01	30.27	---	---	Peak



Trace: (Discrete)

Site : 03CHD6-HY  
 Condition : SHF-EHF HORN HORIZONTAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 : with BT, EDR, 802.11g, GFS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : BT Tx\_Ch78,2480MHz  
 Plane : E1  
 Data Rate : 3DH1

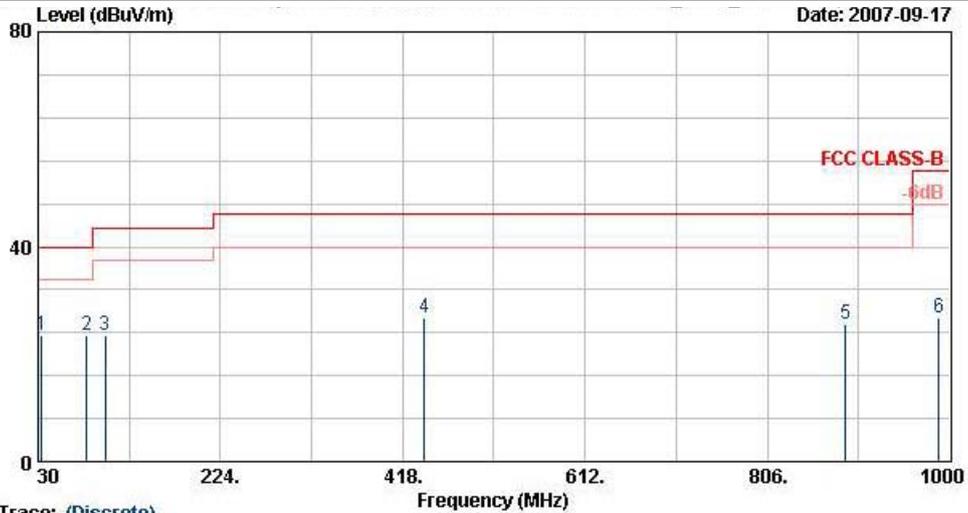
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	2354.0	48.96	-25.04	74.00	50.43	30.24	3.71	35.42	100	0 Peak
2	2354.0	35.62	-18.38	54.00	37.09	30.24	3.71	35.42	150	23 Average
3 X	2480.0	96.88			98.23	30.29	3.86	35.51	100	0 Peak
4 X	2480.0	69.87			71.23	30.29	3.86	35.51	150	23 Average
5	2483.5	65.21	-8.79	74.00	66.57	30.29	3.86	35.51	100	0 Peak
6	2483.5	47.09	-6.91	54.00	48.45	30.29	3.86	35.51	150	23 Average
7	7776.0	56.51	-17.49	74.00	45.44	39.30	7.71	35.94	100	0 Peak
8	7776.0	44.67	-9.33	54.00	33.60	39.30	7.71	35.94	100	153 Average

Remark: #3 and #4 are Fundamental Signals.



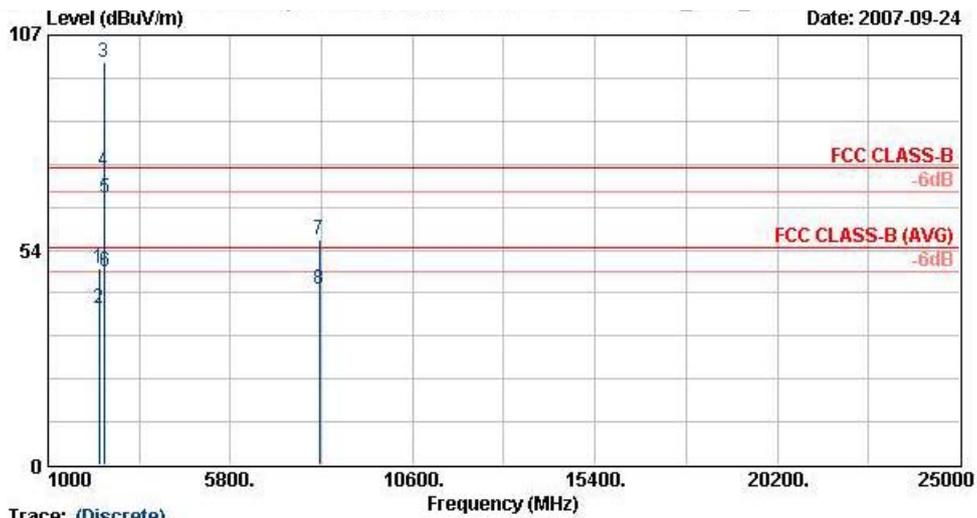
Polarization : Vertical

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)  
 Site : 03CHD6-HY  
 Condition : LF-ANT(951121) VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 : with BT, EDR, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : BT Tx\_Ch78,2480MHz  
 Plane : E1  
 Data Rate : 3DH1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	33.8	23.36	-16.64	40.00	37.18	16.84	0.67	31.32	---	Peak
2	81.8	23.49	-16.51	40.00	45.93	7.67	0.98	31.09	100	135 Peak
3	101.3	23.44	-20.06	43.50	42.46	11.07	1.07	31.15	---	Peak
4	441.4	26.77	-19.23	46.00	38.77	16.45	2.37	30.83	---	Peak
5	889.4	25.66	-20.34	46.00	31.81	20.45	3.78	30.38	---	Peak
6	988.8	26.67	-27.33	54.00	31.79	21.16	4.00	30.27	---	Peak



Trace: (Discrete)

Site : 03CHD6-HY  
 Condition : SHP-EHP HORN VERTICAL  
 EUT : GSM/EDGE 850/900/1800/1900 Smart Phone  
 with BT, EDR, 802.11g, GPS, FM  
 Power : 120Vac/60Hz  
 Model : FR 781408  
 Mode : BT Tx\_Ch7;2480MHz  
 Plane : E1  
 Data Rate : 3DH1

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2348.0	48.86	-25.14	74.00	50.34	30.24	3.71	35.42	100	0	Peak
2	2348.0	38.80	-15.20	54.00	40.28	30.24	3.71	35.42	100	80	Average
3 @	2480.0	100.37			101.73	30.29	3.86	35.51	100	0	Peak
4 X	2480.0	73.12			74.48	30.29	3.86	35.51	100	80	Average
5	2483.5	66.36	-7.64	74.00	67.72	30.29	3.86	35.51	100	0	Peak
6 !	2483.5	48.01	-5.99	54.00	49.37	30.29	3.86	35.51	100	80	Average
7	8142.0	56.27	-17.73	74.00	44.75	39.49	7.96	35.93	100	0	Peak
8	8142.0	43.66	-10.34	54.00	32.14	39.49	7.96	35.93	100	304	Average

Remark: #3 and #4 are Fundamental Signals.



## **5.12 Antenna Requirements**

### **5.12.1 Standard Applicable**

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no other antenna except assembled by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi.

### **5.12.2 Antenna Connected Construction**

The antennas used in this product are PIFA antenna for WLAN and BT without connector and it is considered to meet antenna requirement of FCC.

### **5.12.3 Antenna Gain**

The antenna gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.



## 6. List of Measuring Equipments Used

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
EMC Receiver	R&S	ESCS 30	100132	9kHz – 2.75GHz	Jul. 14, 2007	Jul. 13, 2008	Conduction (CO01-HY)
LISN	MessTec	NNB-2/16Z	2001/004	9kHz – 30MHz	Mar. 30, 2007	Mar. 29, 2008	Conduction (CO01-HY)
LISN (Support Unit)	MessTec	NNB-2/16Z	2001/009	9kHz – 30MHz	Mar. 30, 2007	Mar. 29, 2008	Conduction (CO01-HY)
EMI Filter	LINDGREN	LRE-2060	1004	< 450Hz	N/A	N/A	Conduction (CO01-HY)
EMI Filter	LINDGREN	N6006	201052	0 – 60Hz	N/A	N/A	Conduction (CO01-HY)
RF Cable-CON	Suhner Switzerland	RG223/U	CB029	9kHz – 30MHz	Dec. 04, 2006	Dec. 03, 2007	Conduction (CO01-HY)
Isolation Transformer	Erika Fiedler OHG	D-65396 Walluf	58	45MHz-2.15GHz	N/A	N/A	Conduction (CO01-HY)
Spectrum Analyzer	Agilent	E4408B	MY44211030	9KHz-26.5GHz	Oct. 05, 2006	Oct. 04, 2007	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESCS30	100356	9KHz-2.75GHz	Jul. 26, 2007	Jul. 25, 2008	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz -2GHz	Nov. 20, 2006	Nov. 19, 2007	Radiation (03CH06-HY)
Double Ridge Horn Antenna	Com-Power	AH118	071025	1G~18G	Jun. 04, 2007	Jun. 03, 2008	Radiation (03CH06-HY)
SHF-EHF Horn	SCHWARZBECK	BBHA 9170	9170-249	14G - 40G	Nov. 20, 2006	Nov. 19, 2008	Radiation (03CH06-HY)
Pre Amplifier	Agilent	8449B	3008A01917	1G - 26.5G	Nov. 15, 2006	Nov. 14, 2007	Radiation (03CH06-HY)
Pre Amplifier	Mini Circuits	ZKL-2	D092004-1	10~2500MHz	Nov. 15, 2006	Nov. 14, 2007	Radiation (03CH06-HY)
Base Station Simulator	R & S	CMU200	106656	WCDMA	Nov. 20, 2006	Nov. 19, 2007	Radiation (03CH06-HY)

## 7. Uncertainty Evaluation

### Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Contribution	Uncertainty of $x_i$		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.10	Normal(k=2)	0.05
Cable loss	0.10	Normal(k=2)	0.05
AMN insertion loss	2.50	Rectangular	0.63
Receiver Spec	1.50	Rectangular	0.43
Site imperfection	1.39	Rectangular	0.80
Mismatch	+0.34/-0.35	U-shape	0.24
<b>Combined standard uncertainty Uc(y)</b>	<b>1.13</b>		
<b>Measuring uncertainty for a level of confidence of 95% U=2Uc(y)</b>	<b>2.26</b>		

### Uncertainty of Radiated Emission Measurement (30MHz ~ 1000MHz)

Contribution	Uncertainty of $x_i$		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.11	Normal(k=2)	0.06
Antenna factor calibration	0.91	Normal(k=2)	0.46
Cable loss calibration	0.12	Normal(k=2)	0.06
Pre Amplifier Gain calibration	0.15	Normal(k=2)	0.08
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.52	Rectangular	0.88
Mismatch	+0.45/-0.48	U-shaped	0.33
<b>Combined standard uncertainty Uc(y)</b>	<b>1.30</b>		
<b>Measuring uncertainty for a level of confidence of 95% U=2Uc(y)</b>	<b>2.60</b>		

The measured result is :  $y$  dBuV  $\pm$  U dB

for a level of confidence of approximately 95% , ( k= 2 )



**Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)**

Contribution	Uncertainty of $x_i$		$u(x_i)$	$C_i$	$C_i * u(x_i)$
	dB	Probability Distribution			
Receiver reading	±0.10	Normal(k=1)	0.10	1	0.10
Antenna factor calibration	±1.70	Normal(k=2)	0.85	1	0.85
Cable loss calibration	±0.50	Normal(k=2)	0.25	1	0.25
Receiver Correction	±2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	±1.50	Rectangular	0.87	1	0.87
Site imperfection	±2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR $\Gamma_1 = 0.197$ Antenna VSWR $\Gamma_2 = 0.194$ Uncertainty = $20 \log(1 - \Gamma_1 * \Gamma_2 * \Gamma_3)$	+0.34/-0.35	U-shaped	0.244	1	0.244
<b>Combined standard uncertainty <math>U_c(y)</math></b>	<b>2.36</b>				
<b>Measuring uncertainty for a level of confidence of 95% <math>U = 2U_e(y)</math></b>	<b>4.72</b>				