

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

1. RF Power Output

GSM850

GSM Measured Power:

Carrier frequency (MHz)	Channel No.	RF Power Output (dBm)
824.2	128	32.53
836.6	190	32.69
848.8	251	32.81

EGPRS Measured Power:

Carrier frequency (MHz)	Channel No.	TX Mode	RF Power Output (dBm)
824.2	128	4Downlink1uplink	26.02
836.6	190		26.41
848.8	251		26.51
824.2	128	3Downlink2uplink	25.92
836.6	190		26.01
848.8	251		26.45
824.2	128	2Downlink3uplink	23.96
836.6	190		24.58
848.8	251		24.70
824.2	128	1Downlink4uplink	22.24
836.6	190		22.45
848.8	251		22.77

PCS1900

GSM Measured Power:

Carrier frequency (MHz)	Channel No.	RF Power Output (dBm)
1850.2	512	29.40
1880	661	29.32
1909.8	810	29.48

EGPRS Measured Power:

Carrier frequency (MHz)	Channel No.	TX Mode	RF Power Output (dBm)
1850.2	512	4Downlink1uplink	25.53
1880	661		25.45
1909.8	810		25.33
1850.2	512	3Downlink2uplink	23.21
1880	661		23.41
1909.8	810		23.21
1850.2	512	2Downlink3uplink	21.15
1880	661		20.50
1909.8	810		20.74
1850.2	512	1Downlink4uplink	20.40
1880	661		20.45
1909.8	810		20.41

Test on the worst case:**GSM850**

Carrier frequency (MHz)	Channel No.	RF Power Output (dBm)
824.2	128	32.53
836.6	190	32.69
848.8	251	32.81

PCS1900

Carrier frequency (MHz)	Channel No.	RF Power Output (dBm)
1850.2	512	29.27
1880	661	29.26
1909.8	810	29.34

2. Occupied Bandwidth

GSM850

GSM MODE:

Carrier frequency (MHz)	Channel No.	Bandwidth of 99% Power (kHz)
824.2	128	244
836.6	190	244
848.8	251	244

EGPRS MODE:

Carrier frequency (MHz)	Channel No.	Bandwidth of 99% Power (kHz)
824.2	128	243
836.6	190	244
848.8	251	243

PCS1900

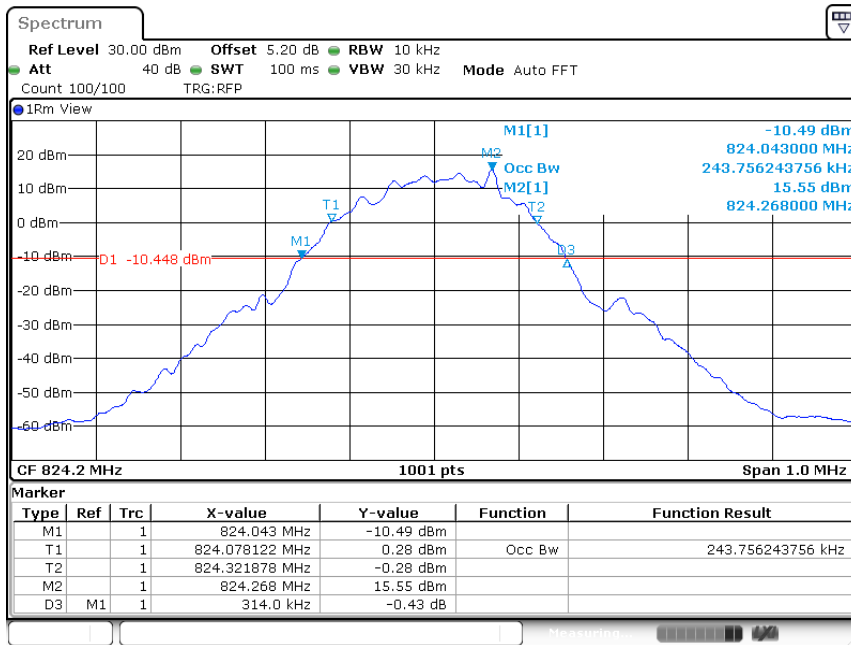
GSM MODE:

Carrier frequency (MHz)	Channel No.	Bandwidth of 99% Power (kHz)
1850.2	512	244
1880	661	244
1909.8	810	244

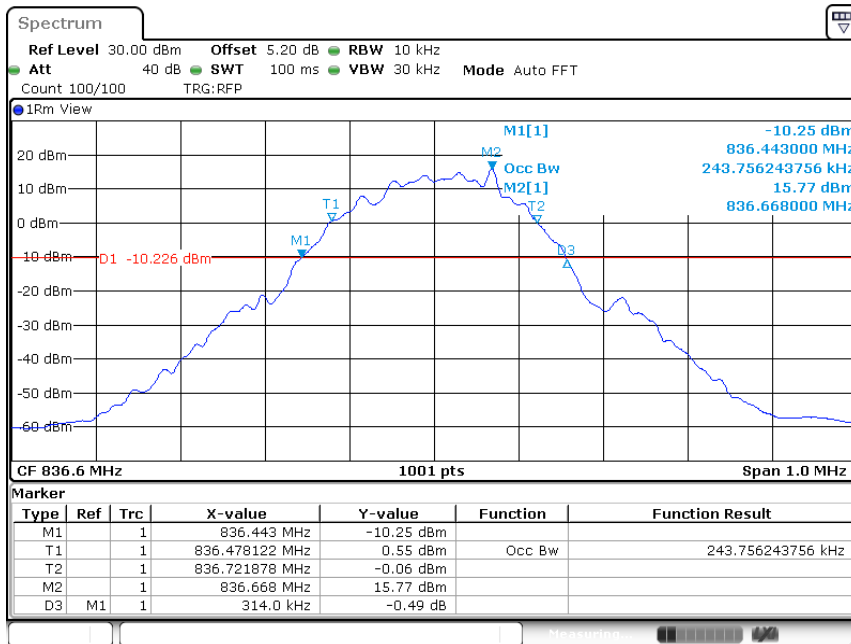
EGPRS MODE:

Carrier frequency (MHz)	Channel No.	Bandwidth of 99% Power (kHz)
1850.2	512	245
1880	661	245
1909.8	810	247

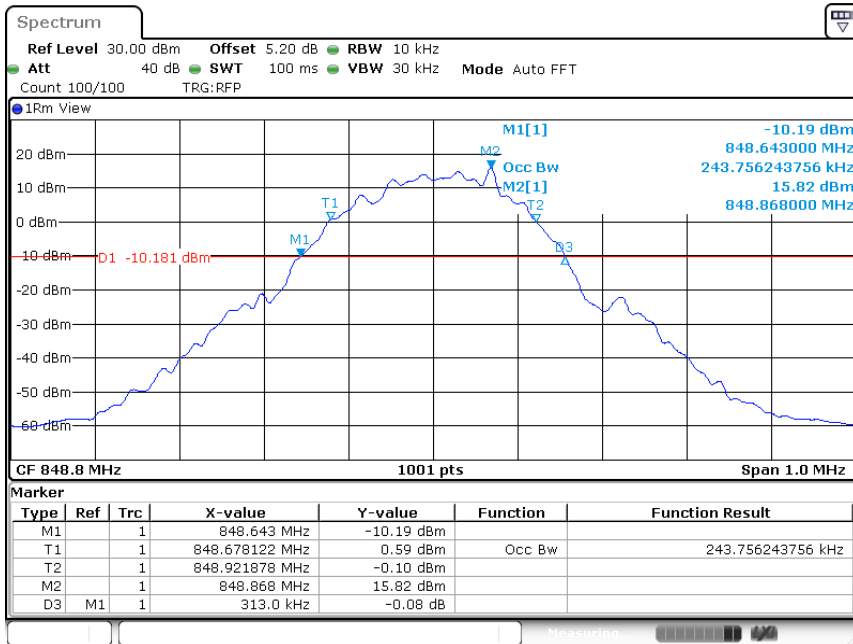
GSM850
GSM MODE:



Channel 128

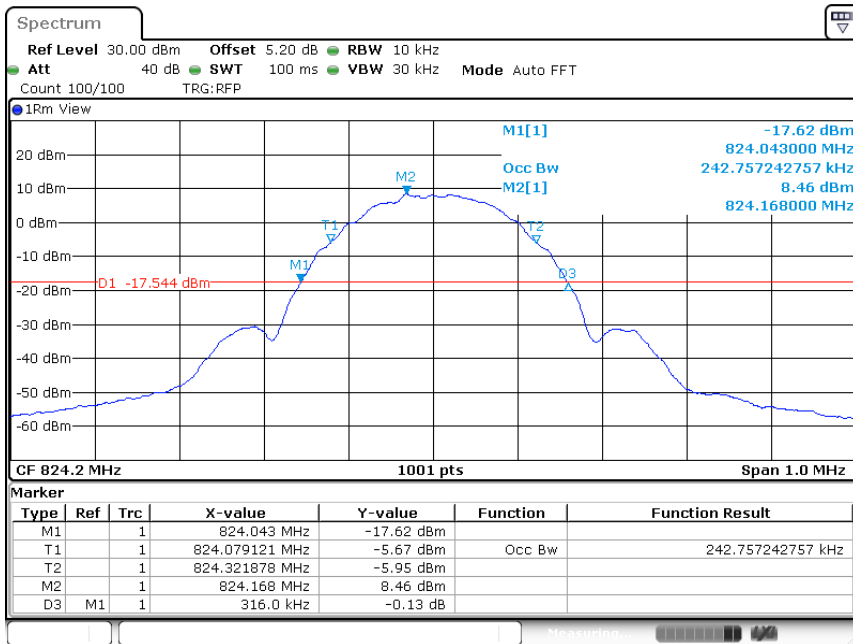


Channel 190

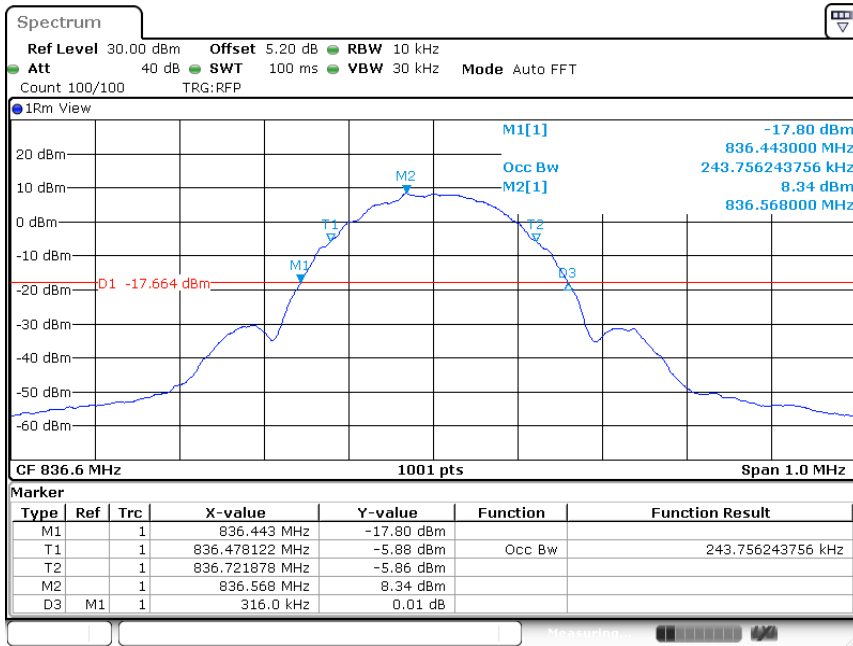


Channel 251

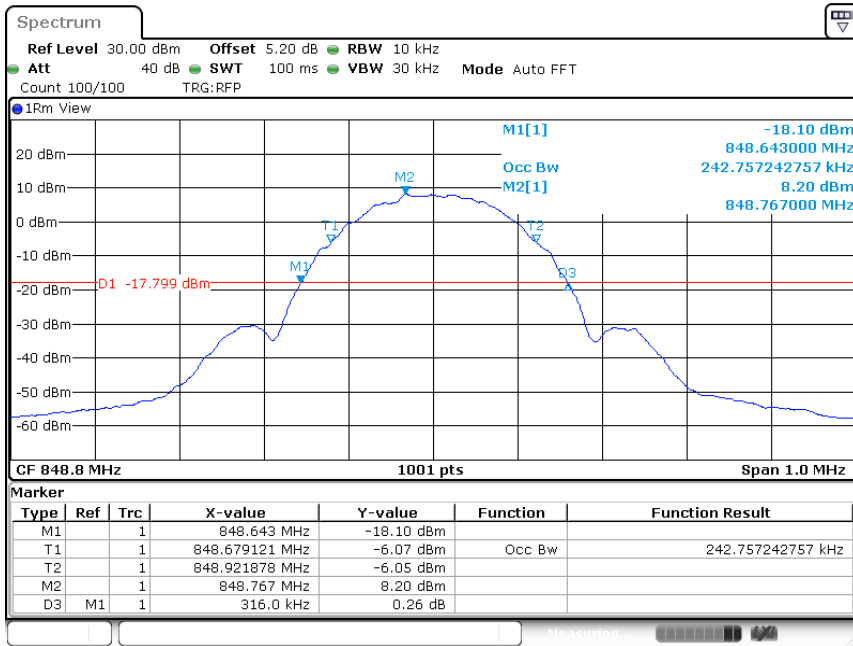
EGPRS MODE:



Channel 128

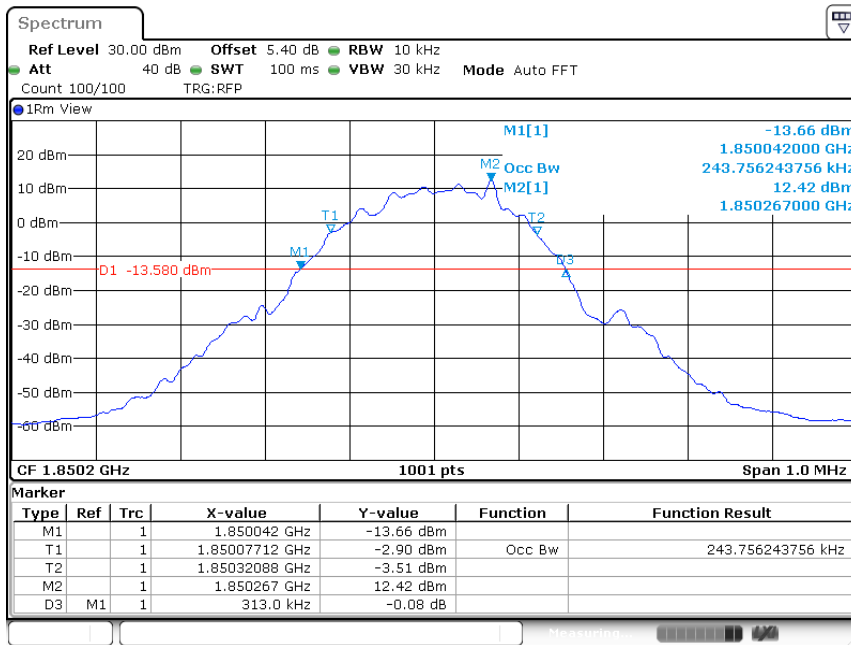


Channel 190

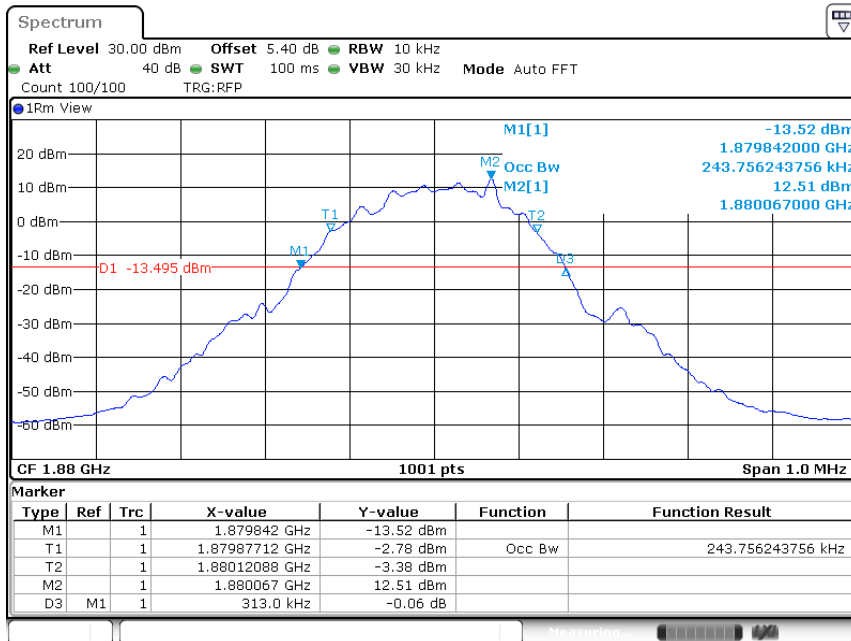


Channel 251

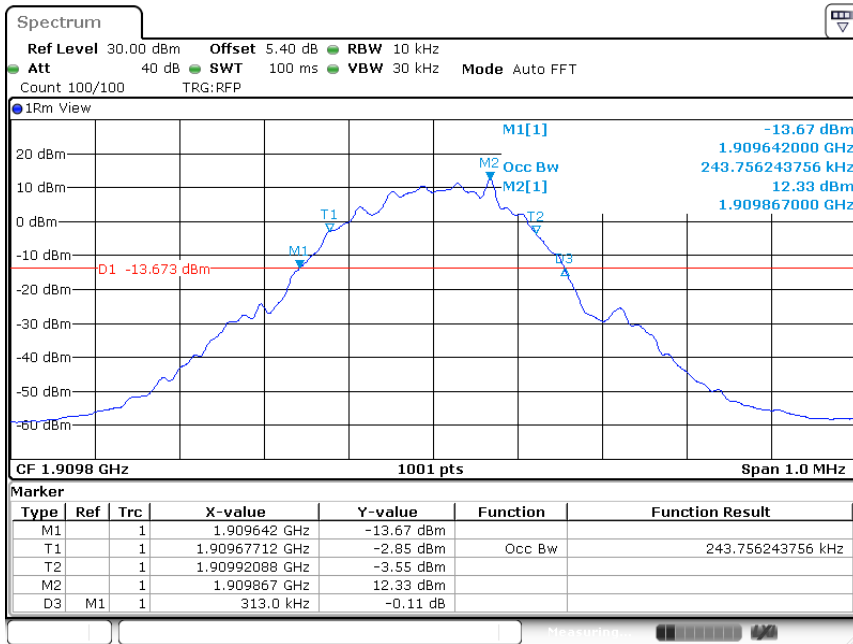
PCS1900
GSM MODE:



Channel 512

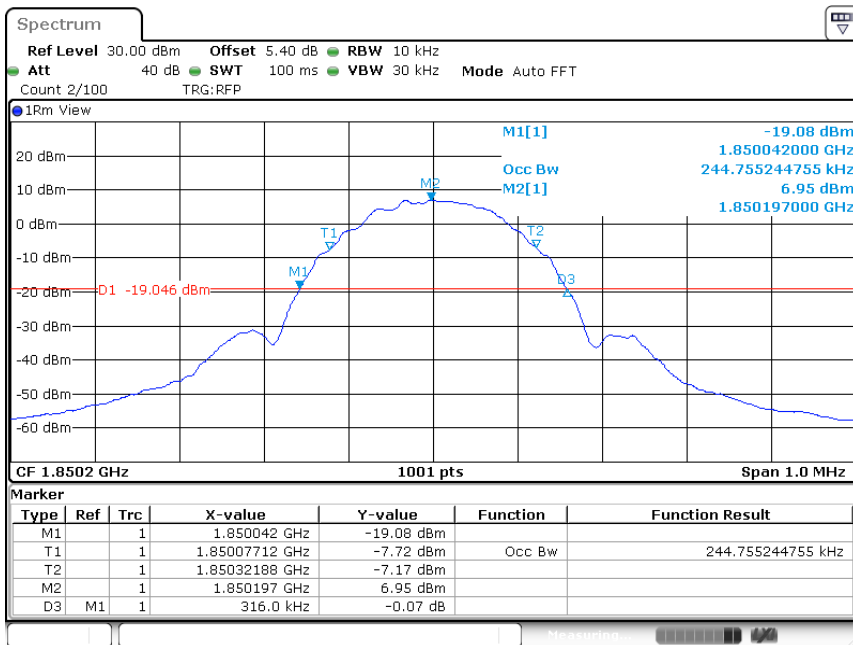


Channel 661

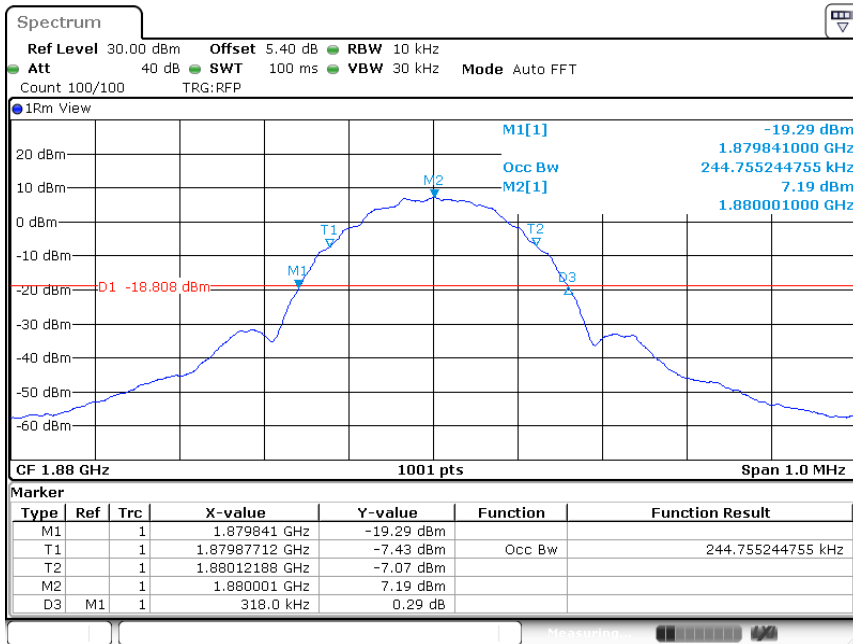


Channel 810

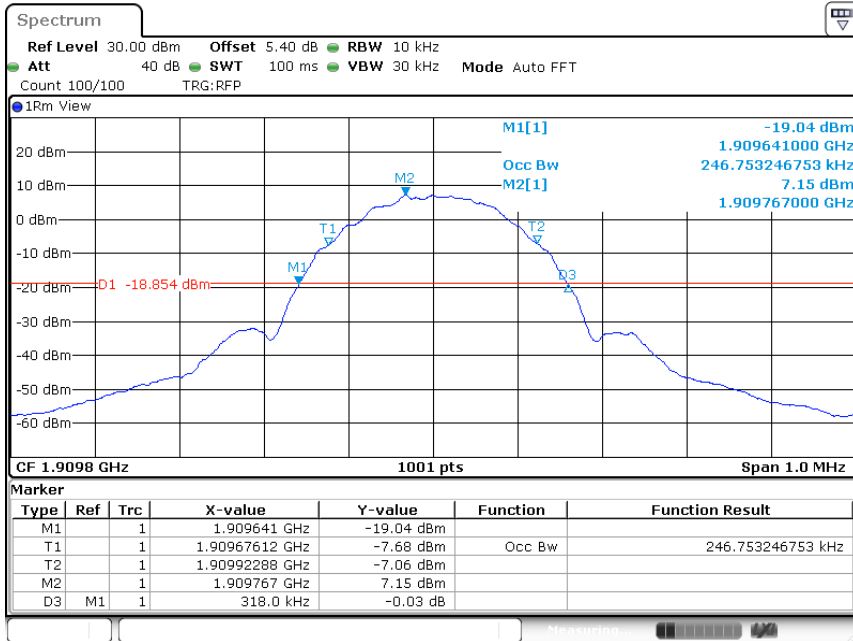
EGPRS MODE:



Channel 512



Channel 661



Channel 810

3. Emission Bandwidth

GSM850

GSM MODE:

Carrier frequency (MHz)	Channel No.	Bandwidth of -26dB transmitter power(kHz)
824.2	128	314
836.6	190	314
848.8	251	313

EGPRS MODE:

Carrier frequency (MHz)	Channel No.	Bandwidth of 99% Power (kHz)
824.2	128	316
836.6	190	316
848.8	251	316

PCS1900

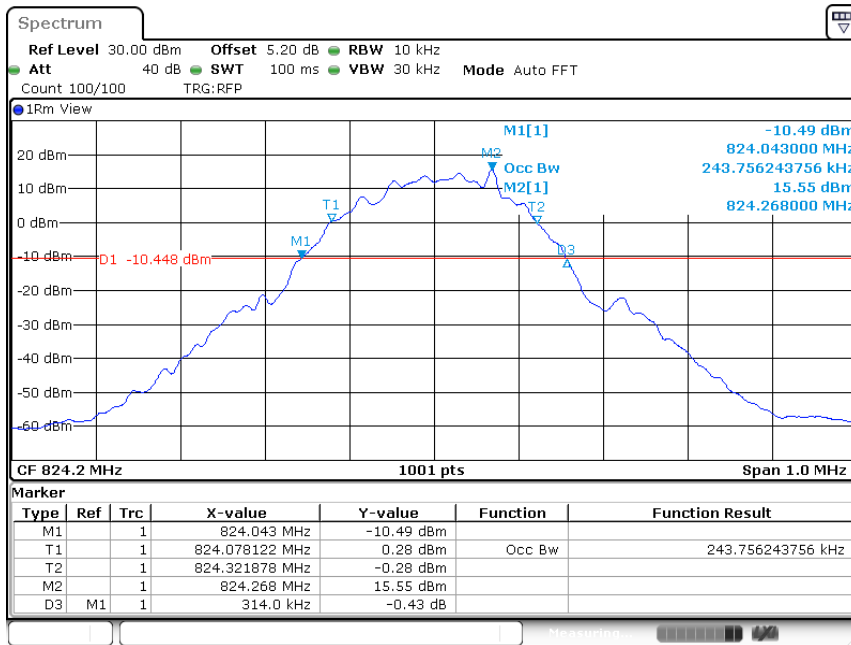
GSM MODE:

Carrier frequency (MHz)	Channel No.	Bandwidth of -26dB transmitter power(kHz)
1850.2	512	313
1880	661	313
1909.8	810	313

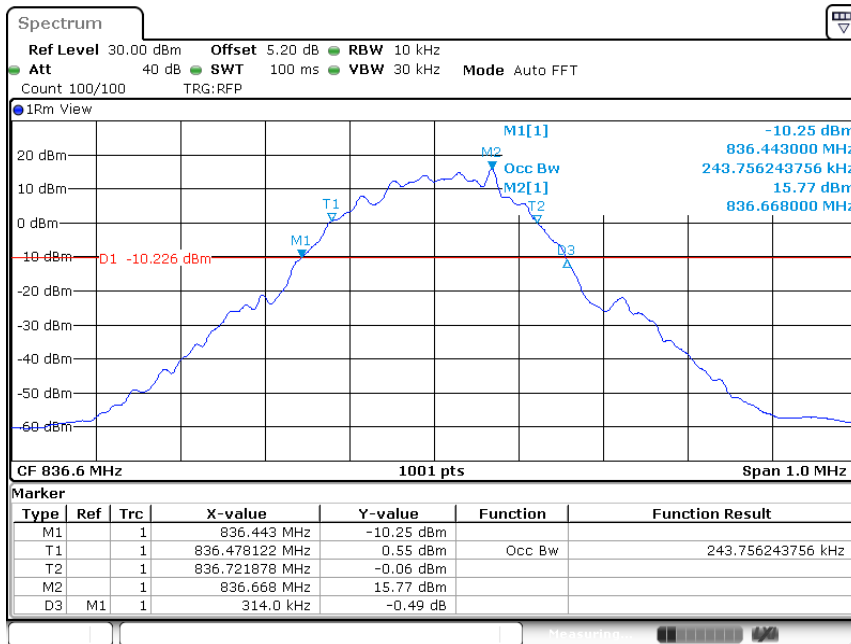
EGPRS MODE:

Carrier frequency (MHz)	Channel No.	Bandwidth of 99% Power (kHz)
1850.2	512	316
1880	661	318
1909.8	810	318

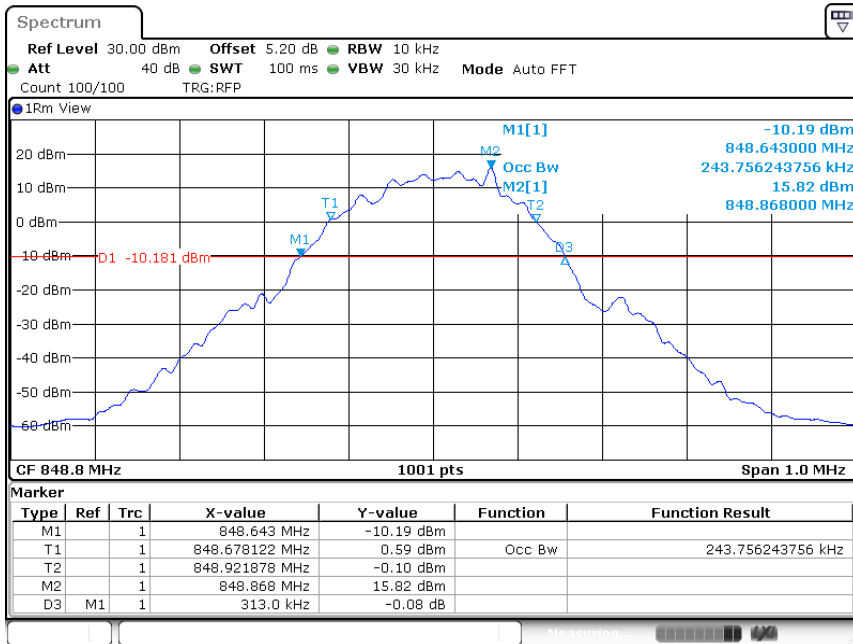
GSM850
GSM MODE:



Channel 128

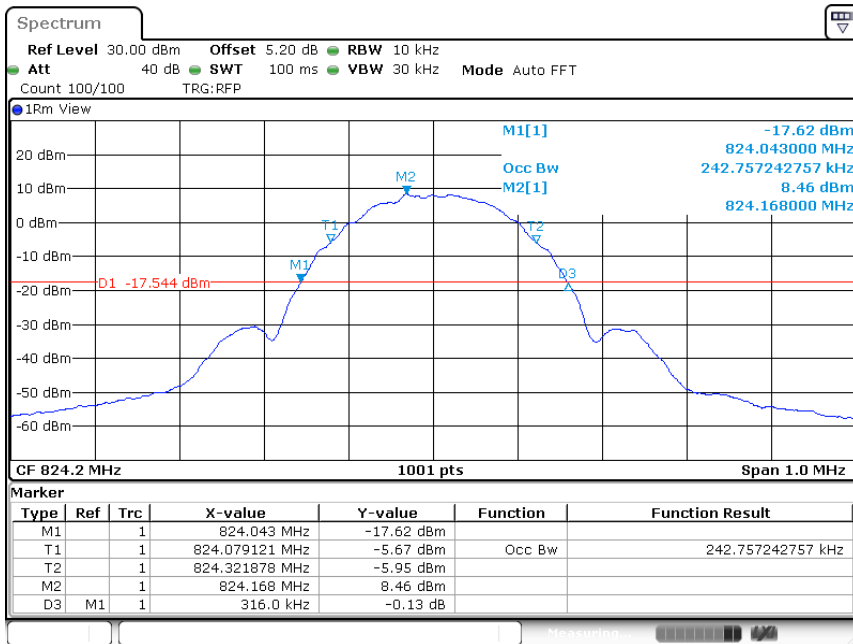


Channel 190

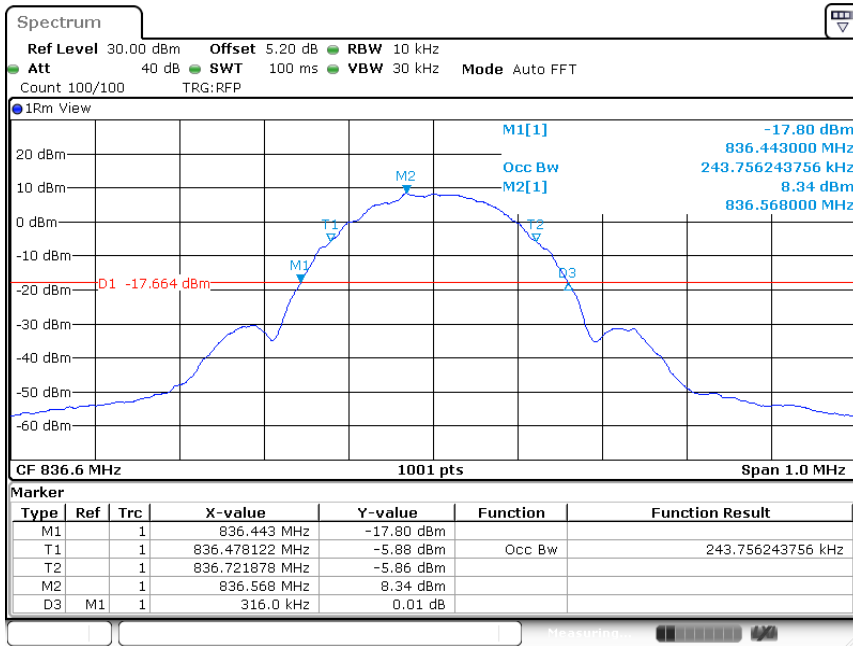


Channel 251

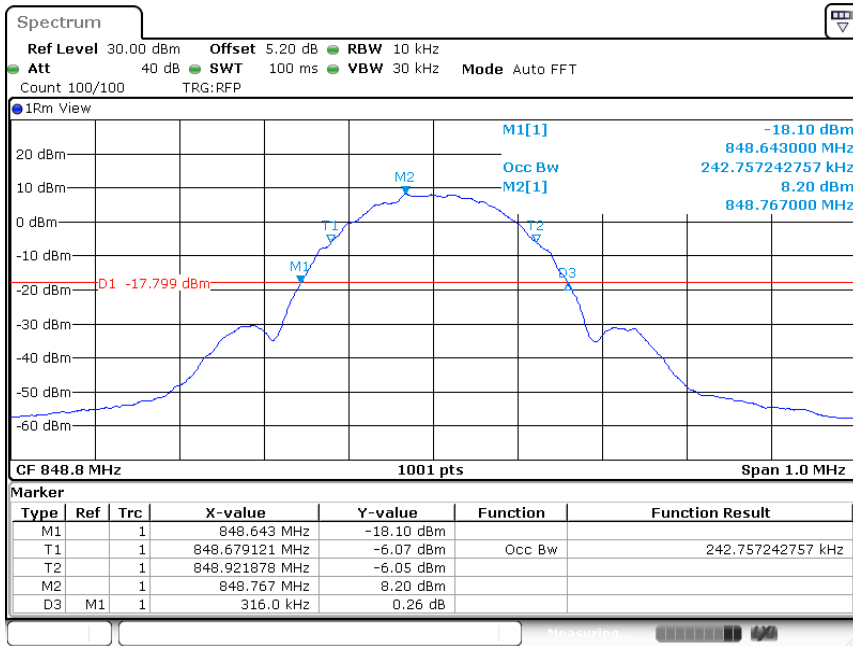
EGPRS MODE:



Channel 128

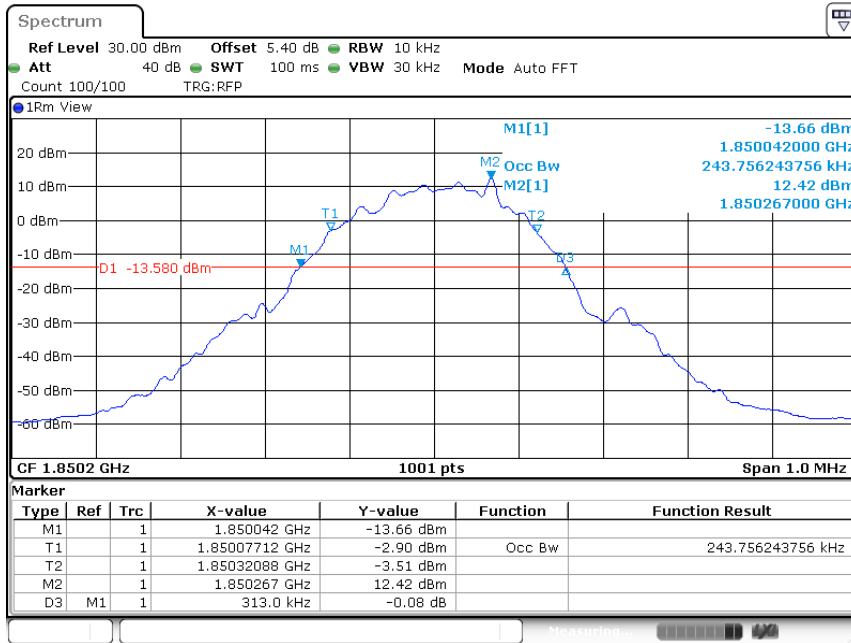


Channel 190

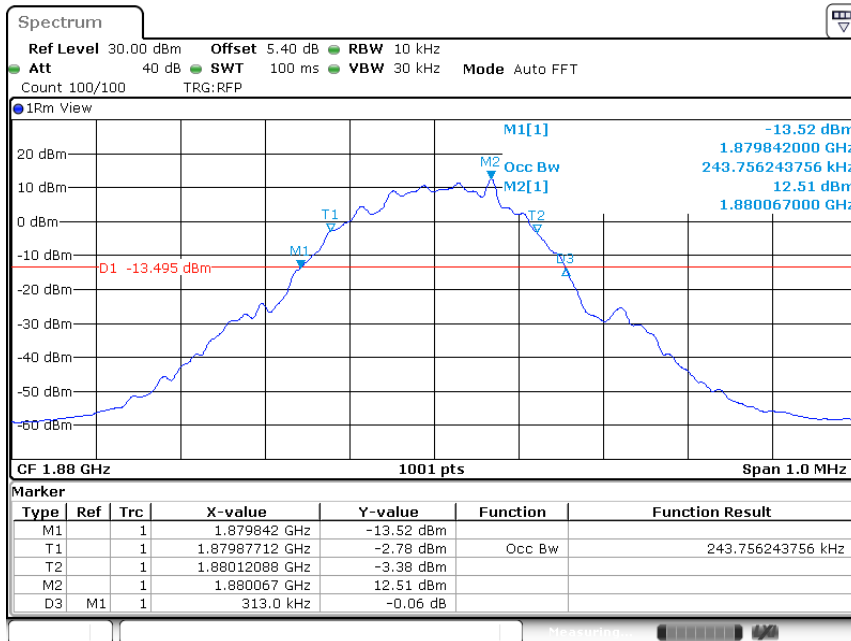


Channel 251

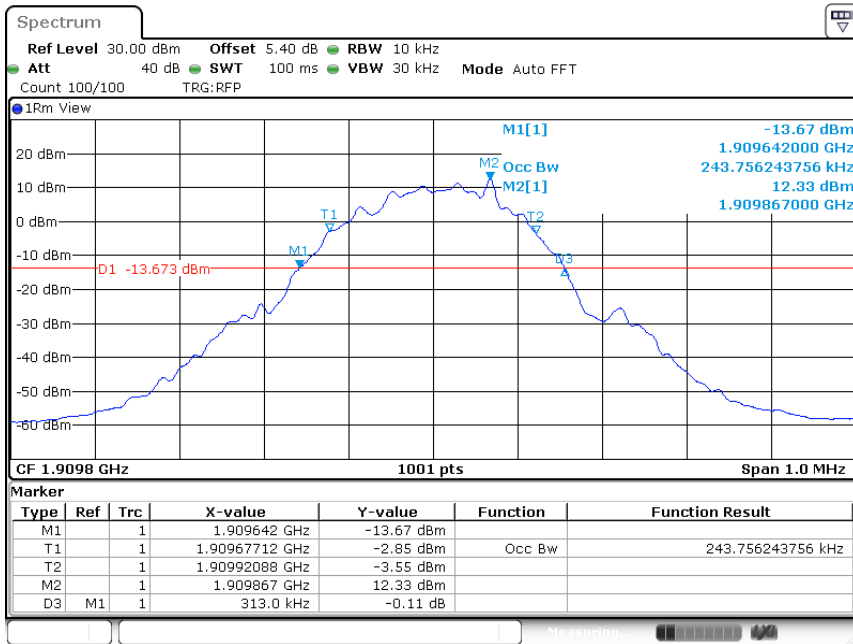
PCS1900
GSM MODE:



Channel 512

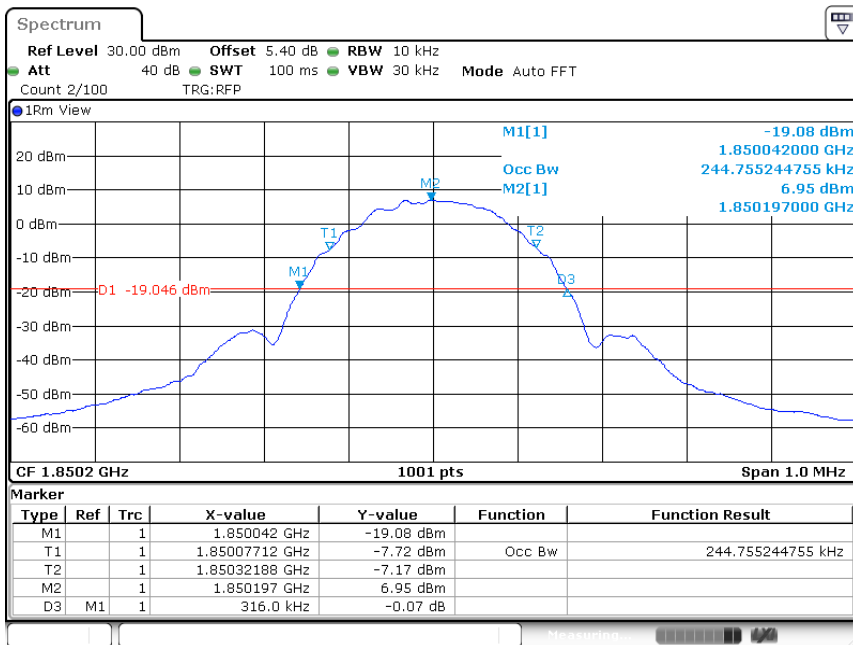


Channel 661

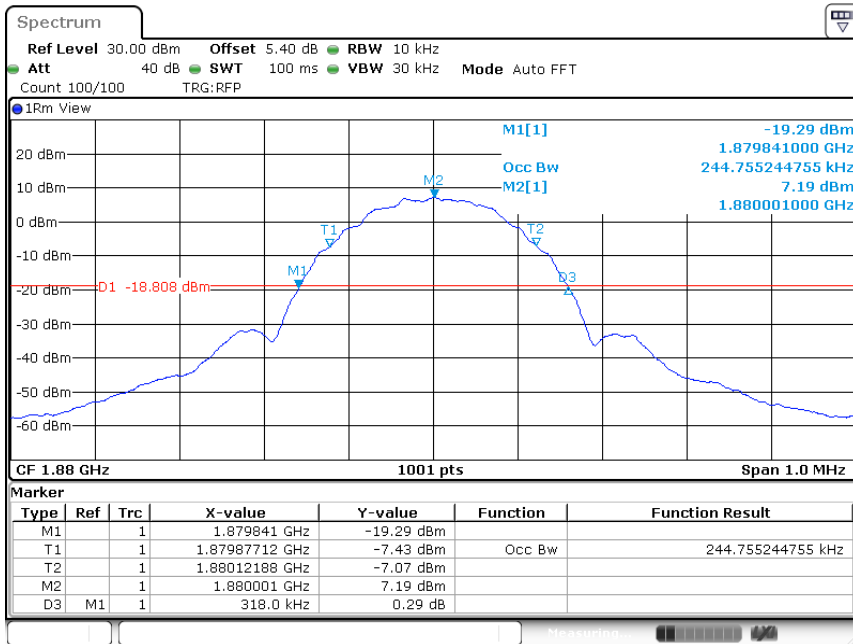


Channel 810

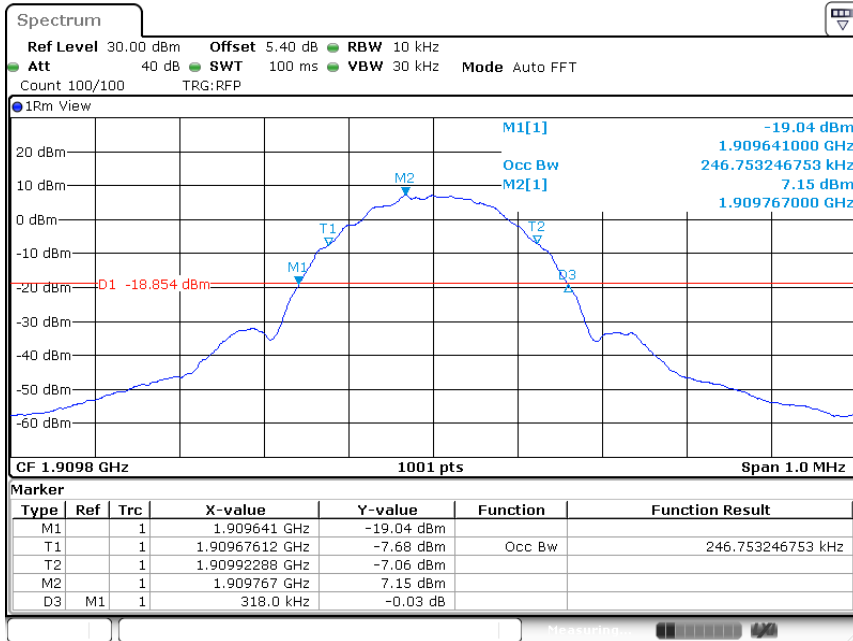
EGPRS MODE:



Channel 512

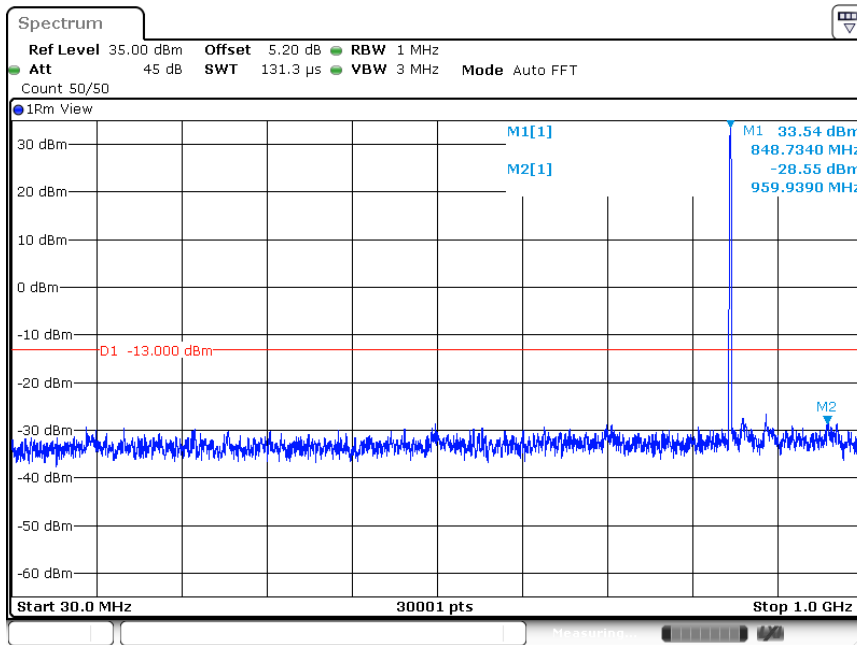


Channel 661



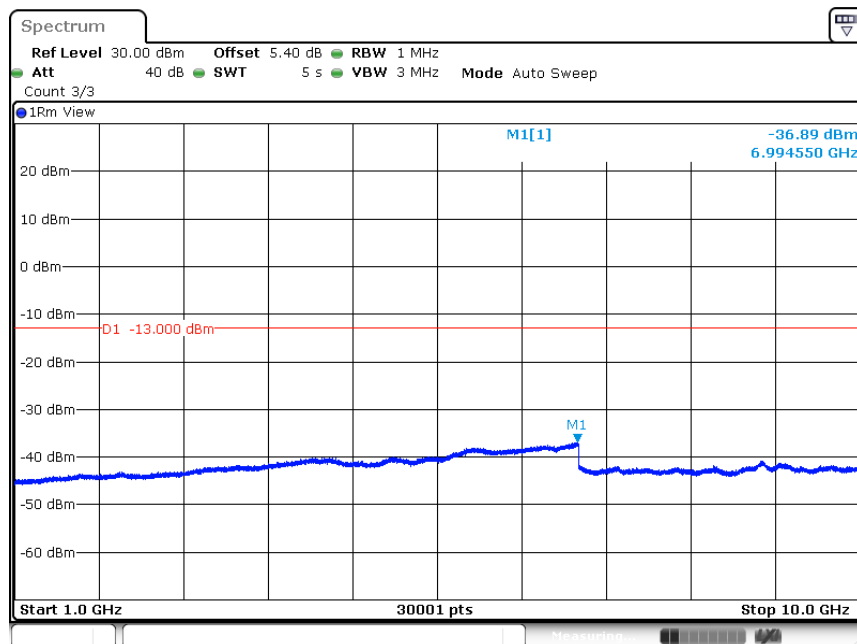
Channel 810

4. Spurious Emissions at antenna terminal GSM850 GSM MODE:



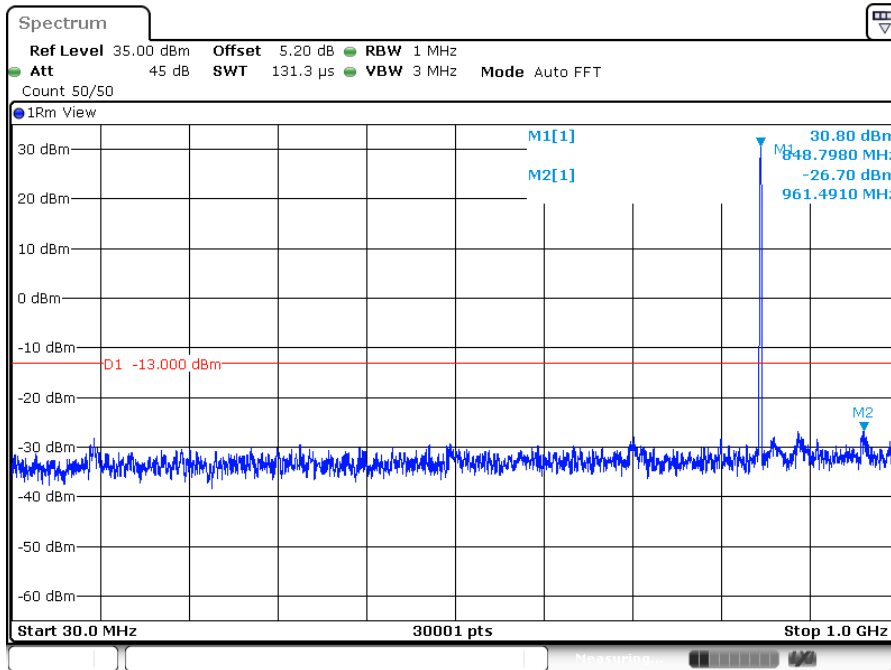
Channel 190 30MHz~1GHz

Note: The signal beyond the limit is the signal transmitted by EUT.



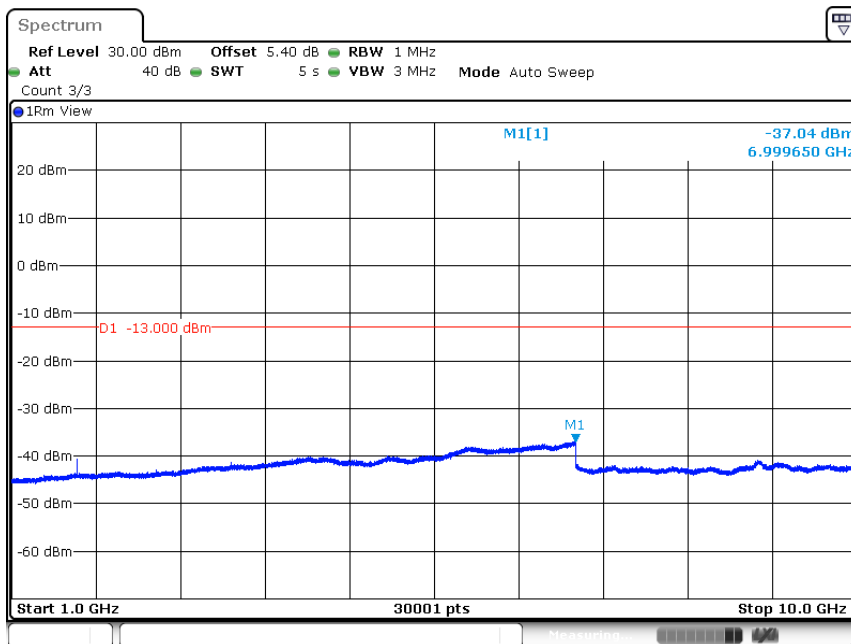
Channel 190 1GHz~10GHz

EGPRS MODE:



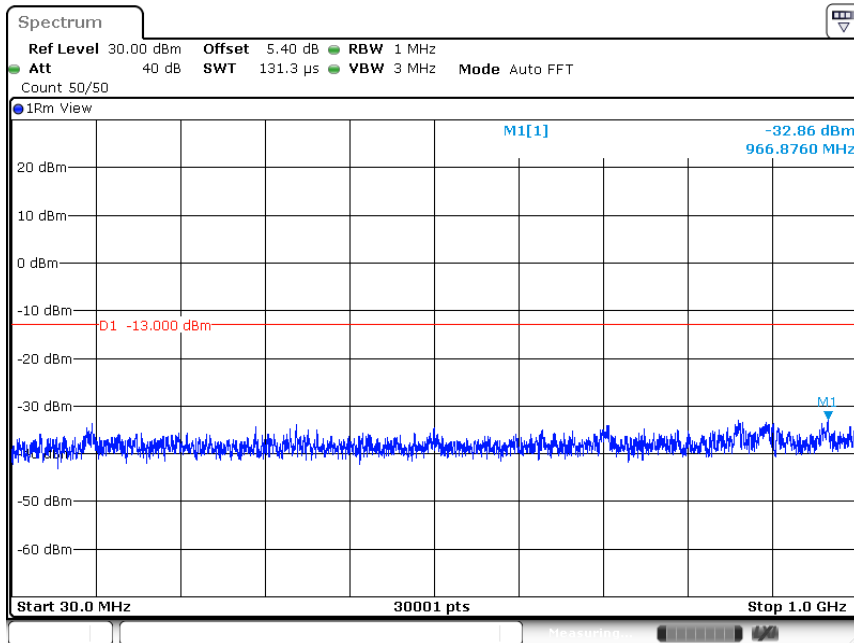
Channel 190 30MHz~1GHz

Note: The signal beyond the limit is the signal transmitted by EUT.

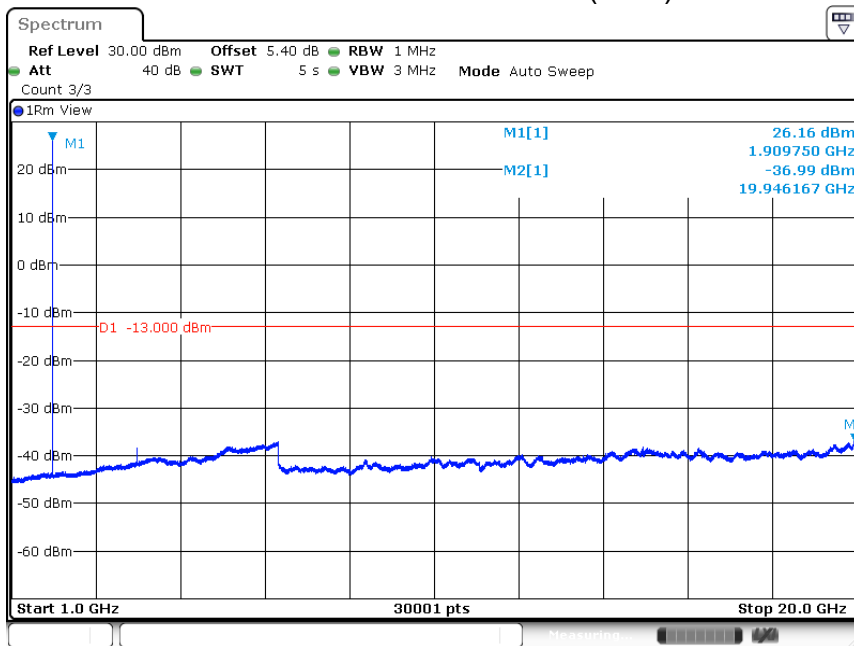


Channel 190 1GHz~10GHz

PCS1900
GSM MODE:



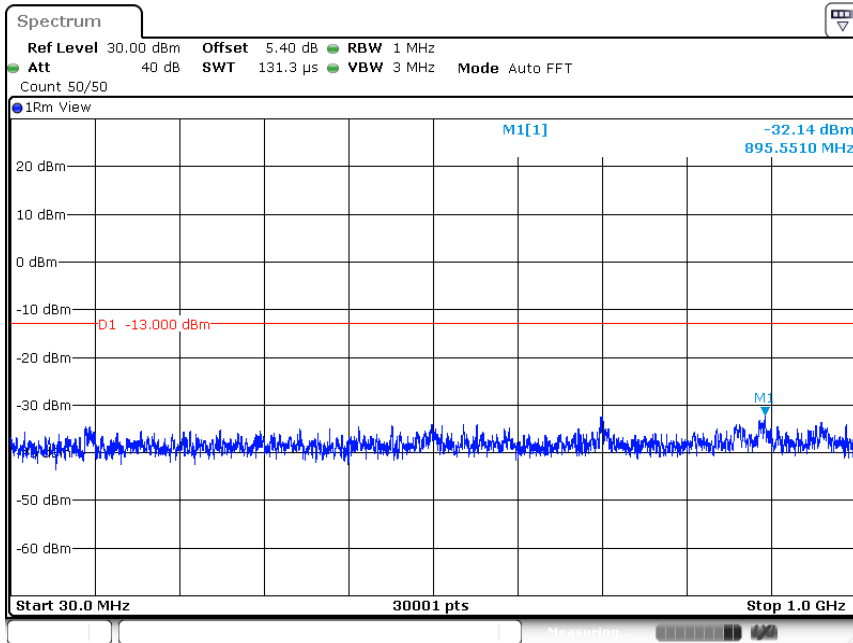
Channel 661 30MHz~1GHz(dBm)



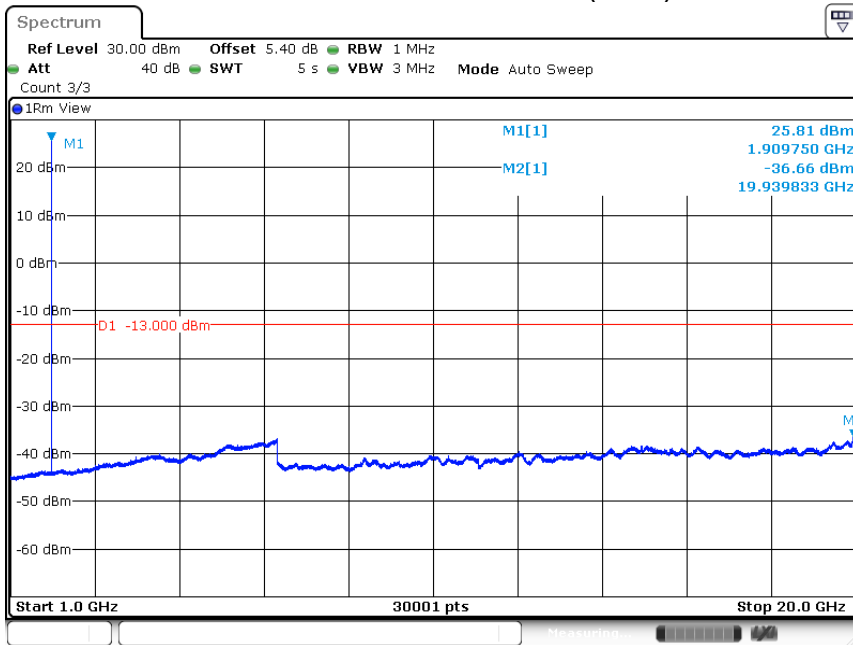
Channel 661 1GHz~20GHz(dBm)

Note: The signal beyond the limit is the signal transmitted by EUT.

EGPRS MODE:



Channel 661 30MHz~1GHz(dBm)



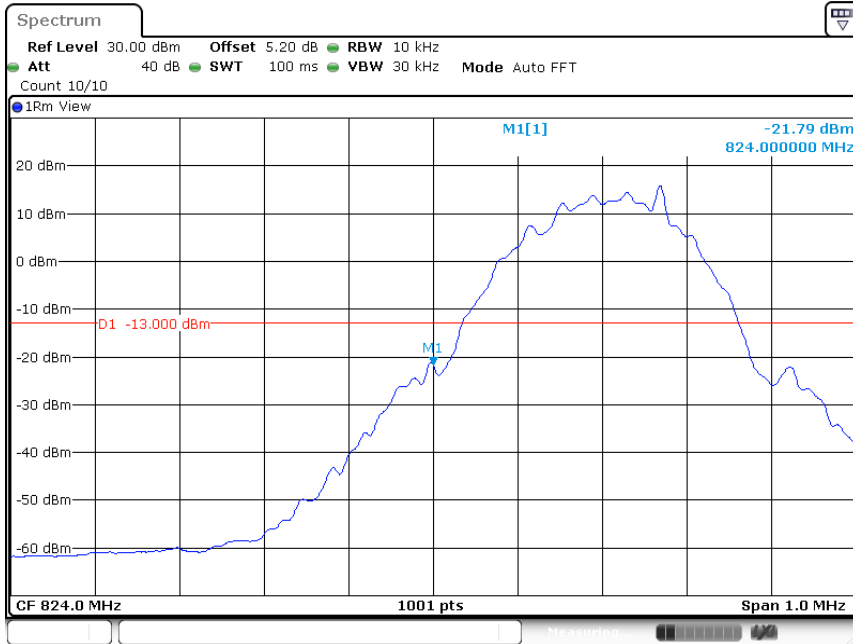
Channel 661 1GHz~20GHz(dBm)

Note: The signal beyond the limit is the signal transmitted by EUT.

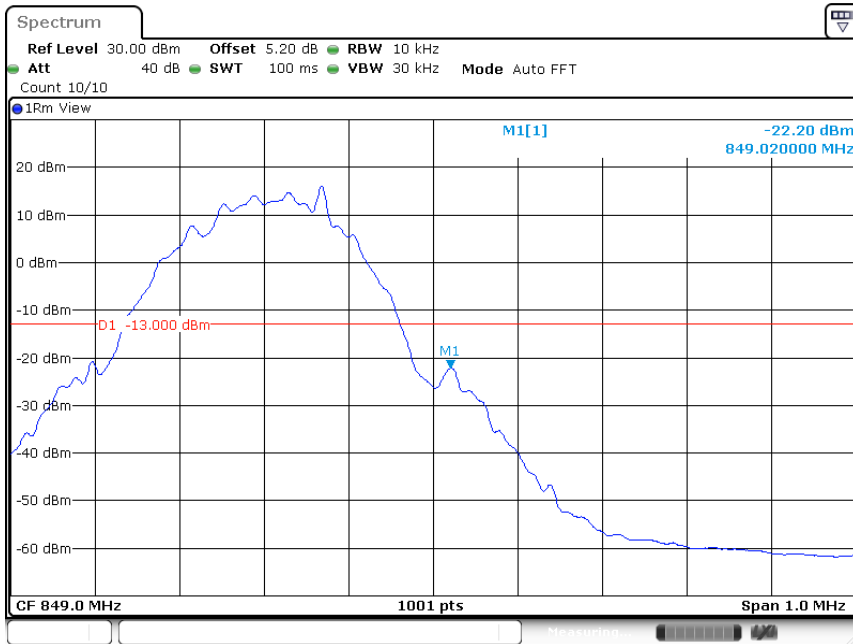
5. Band Edges Compliance

GSM850

GSM MODE:

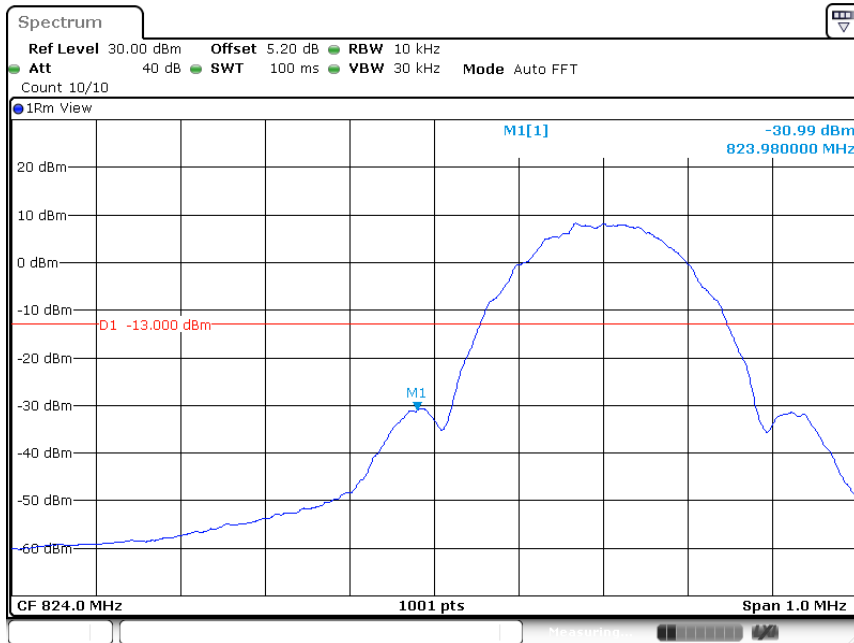


Channel 128

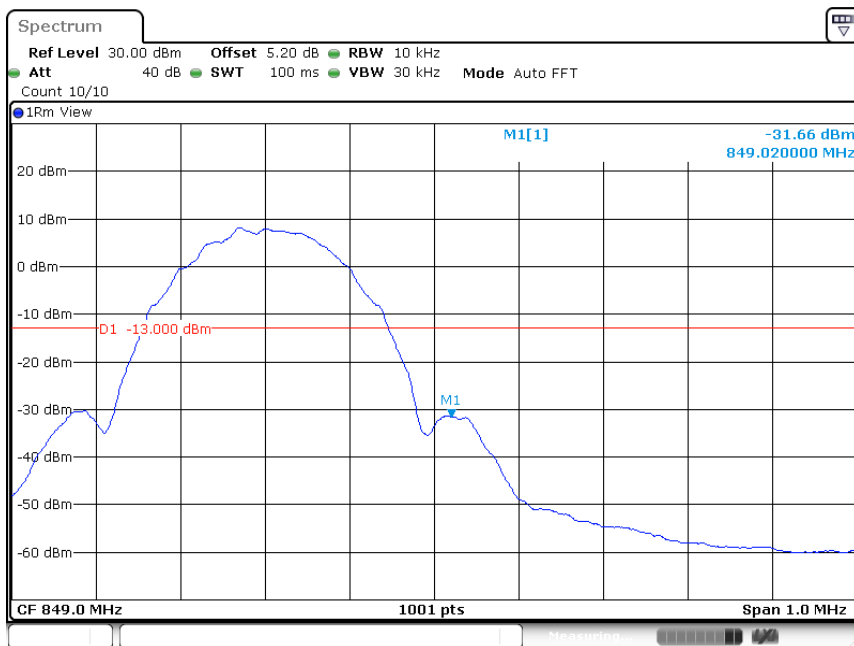


Channel 251

EGPRS MODE:

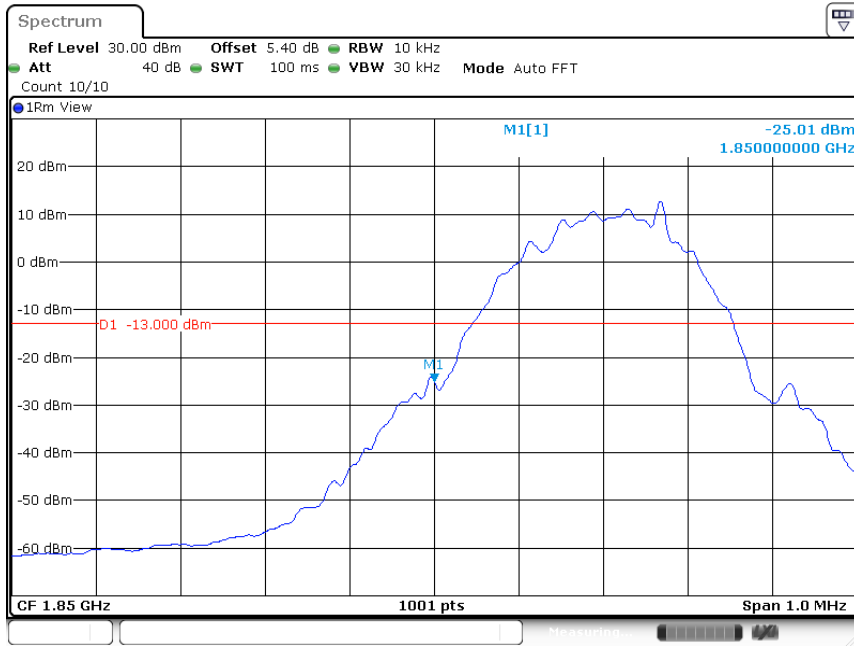


Channel 128



Channel 251

PCS1900
GSM MODE:

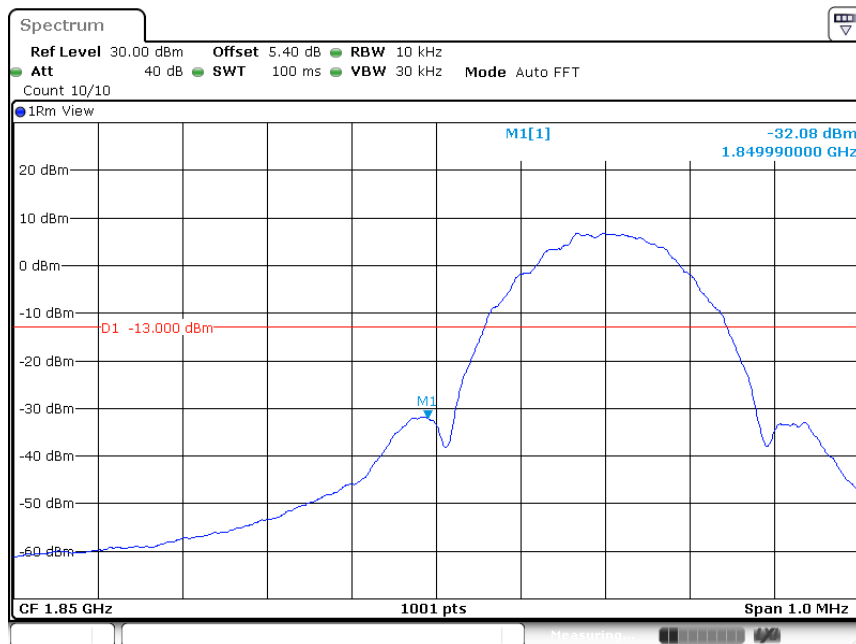


Channel 512

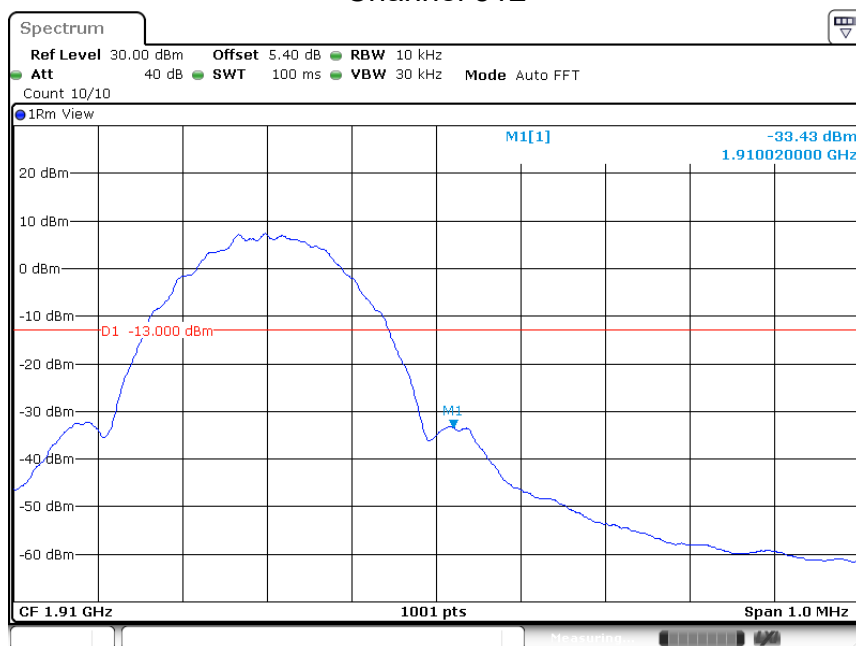


Channel 810

EGPRS MODE:



Channel 512



Channel 810

6. Frequency Stability

GSM850

GSM MODE:

Temperature(°C)	Test Result (ppm)@NV		
	Channel 128	Channel 190	Channel 251
-30	0.009719	0.012192	0.006927
-20	0.009160	0.012037	0.007375
-10	0.009245	0.013125	0.007835
0	0.007753	0.011272	0.009131
+10	0.008542	0.013280	0.009885
+20	0.008542	0.013734	0.007988
+30	0.008226	0.011583	0.008600
+40	0.008772	0.012348	0.003499
+50	0.006188	0.009574	0.007375
Voltage	Test Result (ppm)@NT		
	Channel 128	Channel 190	Channel 251
LV	0.007522	0.011188	0.007458
HV	0.008614	0.012037	-0.001143

EGPRS MODE:

Temperature(°C)	Test Result (ppm)@NV		
	Channel 128	Channel 190	Channel 251
-30	0.013710	0.013435	0.014456
-20	0.015360	0.018444	0.011864
-10	0.014608	0.014284	0.013042
0	0.010689	0.014929	0.014915
+10	0.011478	0.017284	0.011911
+20	0.010895	0.018838	0.014267
+30	0.010774	0.014894	0.013584
+40	0.006030	0.014822	0.015363
+50	0.009755	0.016483	0.012747
Voltage	Test Result (ppm)@NT		
	Channel 128	Channel 190	Channel 251
LV	0.015154	0.015288	0.015410
HV	0.012182	0.014236	0.015975

PCS1900

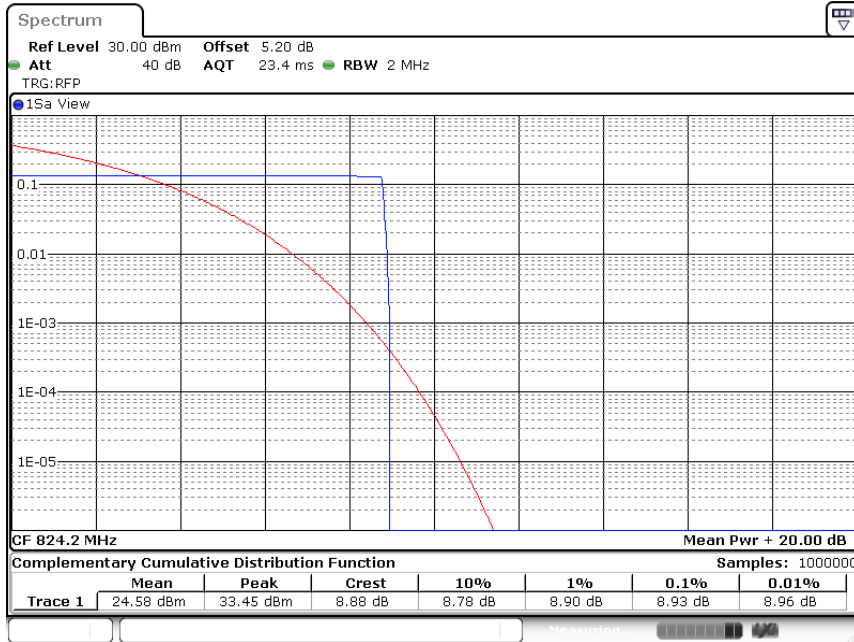
GSM MODE:

Temperature(°C)	Test Result (ppm)@NV		
	Channel 512	Channel 661	Channel 810
-30	0.002756	0.004223	0.005158
-20	0.003070	0.003314	0.003042
-10	0.003140	0.003229	0.004582
0	0.003156	0.003261	0.004665
+10	0.003524	0.003761	0.004294
+20	0.004221	0.003090	0.005461
+30	0.002811	0.002681	0.003246
+40	0.004102	0.002782	0.005137
+50	0.002913	0.004293	0.004749
Voltage	Test Result (ppm)@NT		
	Channel 512	Channel 661	Channel 810
LV	0.003859	0.004037	0.004634
HV	0.002443	0.004000	0.004545

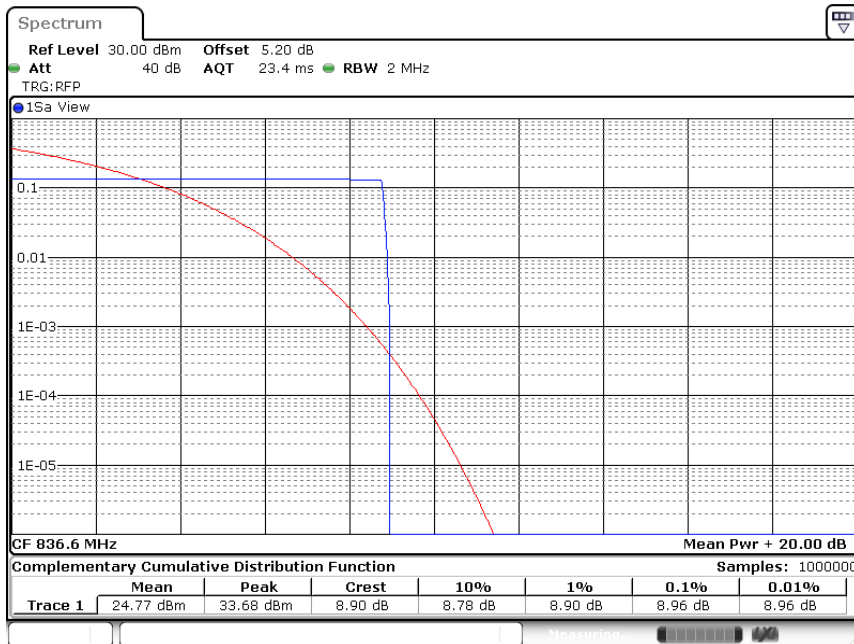
EGPRS MODE:

Temperature(°C)	Test Result (ppm)@NV		
	Channel 512	Channel 661	Channel 810
-30	0.010939	0.010271	0.011713
-20	0.011377	0.011250	0.012881
-10	0.011831	0.010957	0.012190
0	0.011345	0.011351	0.012593
+10	0.011323	0.011250	0.014672
+20	0.011410	0.011559	0.013001
+30	0.011291	0.012005	0.013321
+40	0.011761	0.011266	0.014253
+50	0.011345	0.010904	0.013085
Voltage	Test Result (ppm)@NT		
	Channel 512	Channel 661	Channel 810
LV	0.007994	0.010410	0.012766
HV	0.011118	0.012691	0.013525

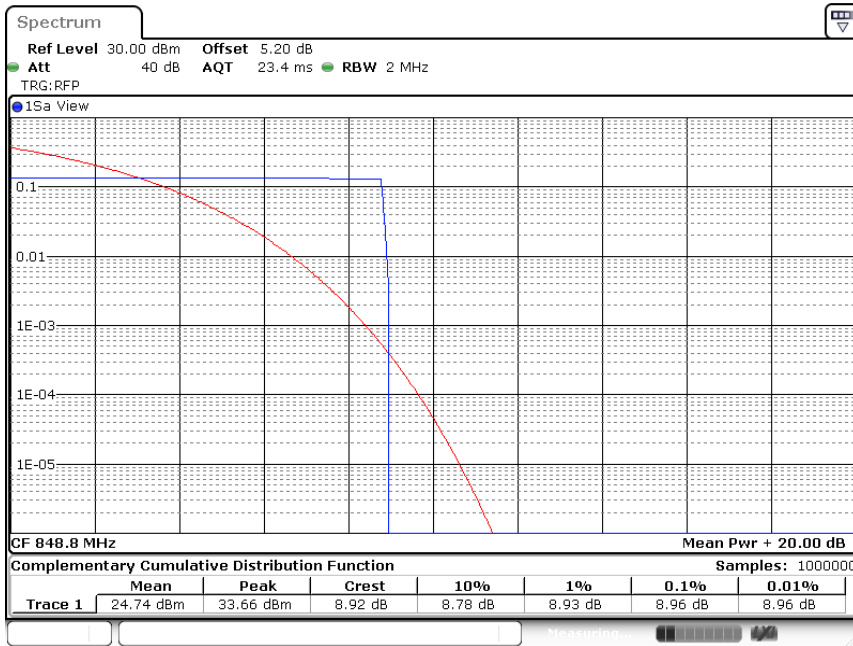
7. Peak-Average Ratio GSM850 GSM MODE:



Channel 128

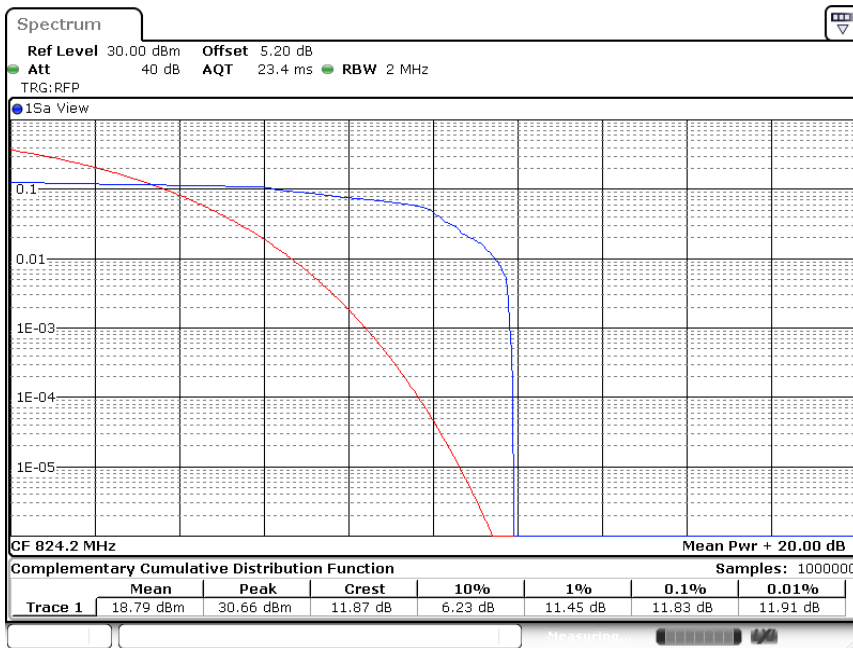


Channel 190

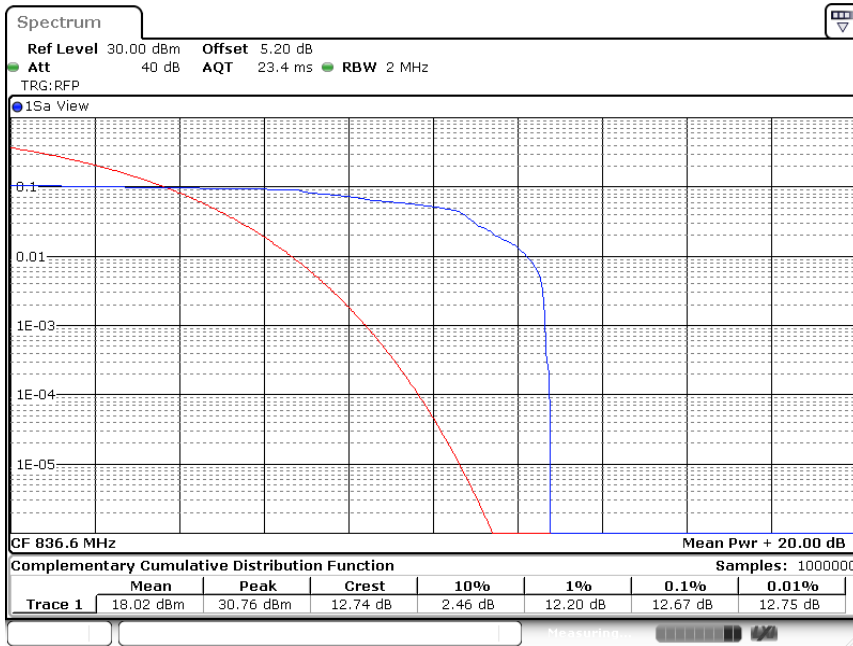


Channel 251

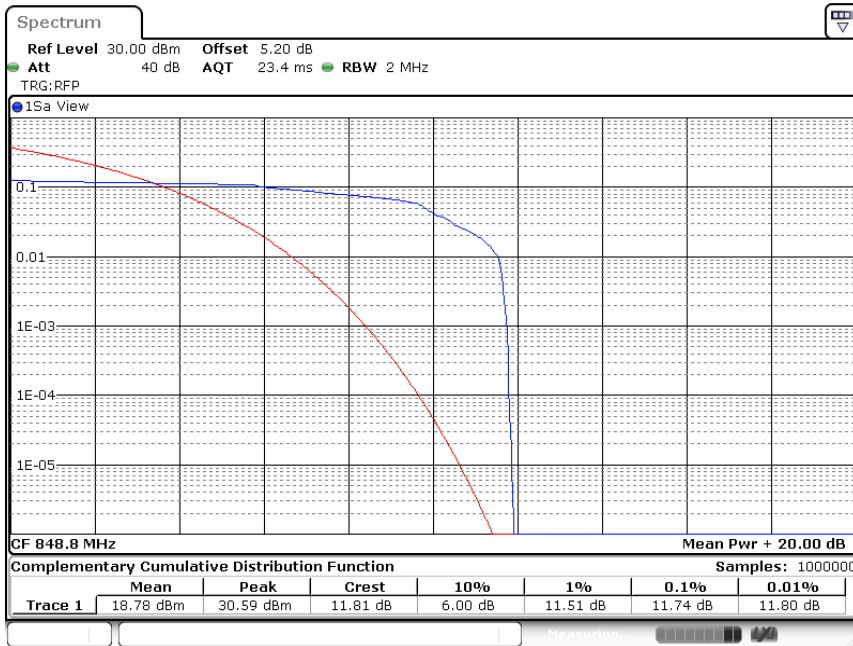
EGPRS MODE:



Channel 128

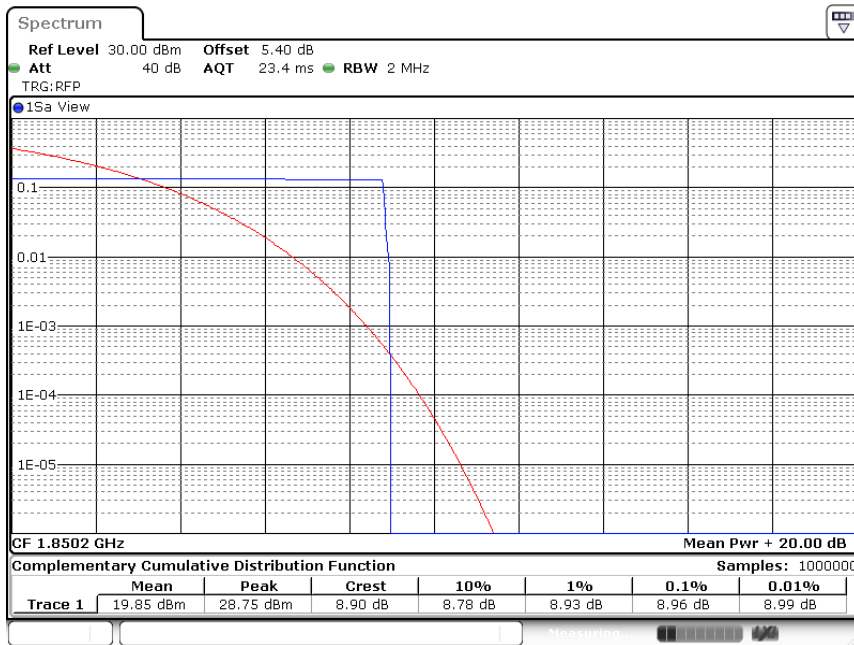


Channel 190

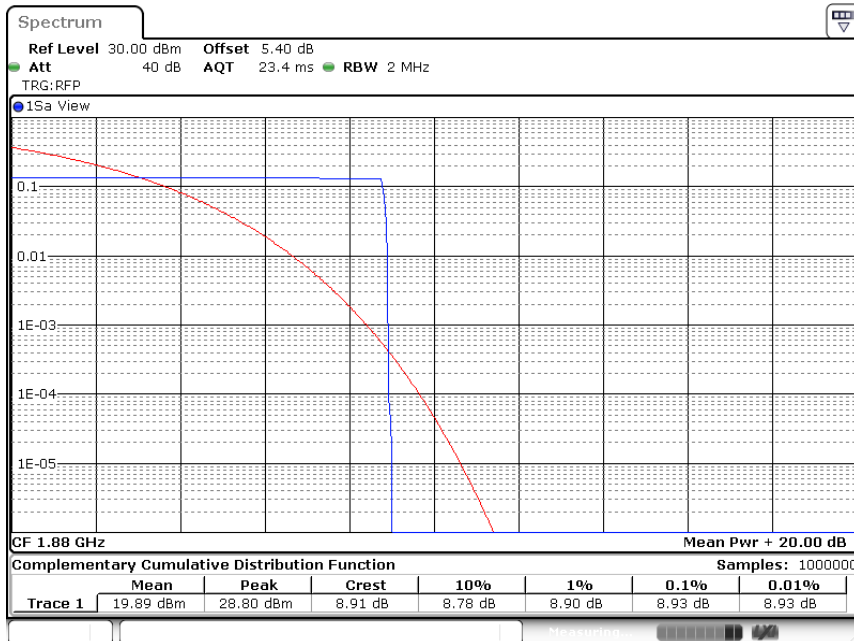


Channel 251

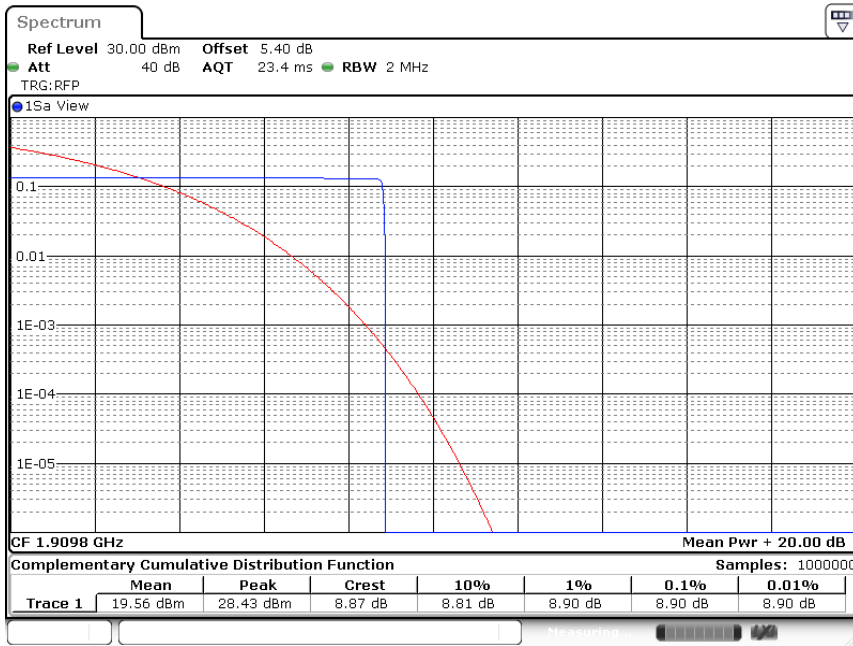
PCS1900
GSM MODE:



Channel 512

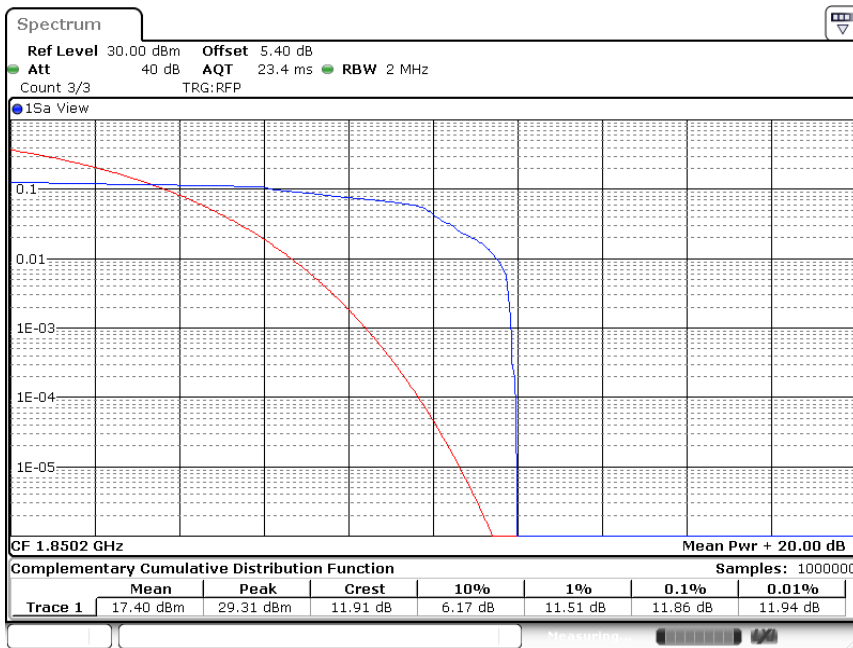


Channel 661

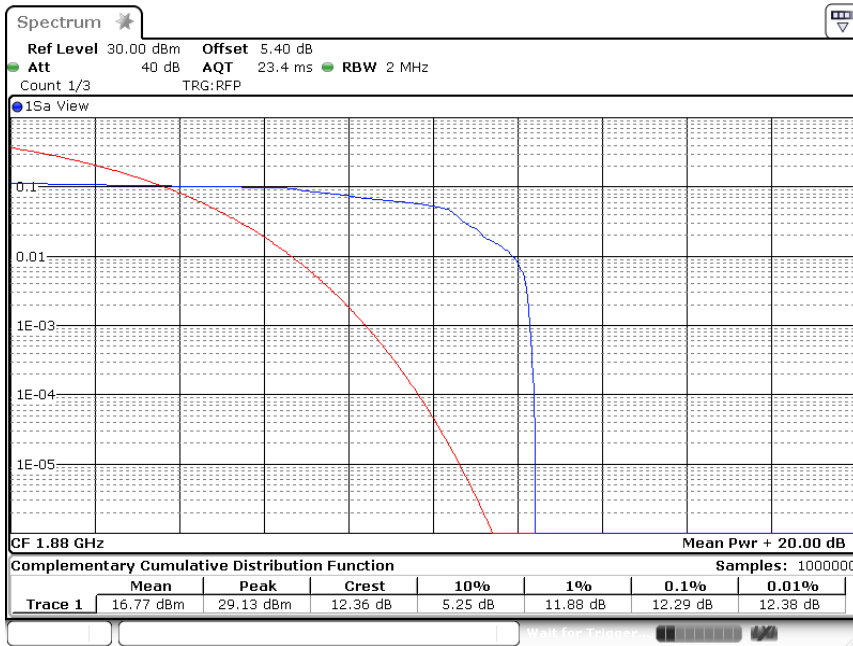


Channel 810

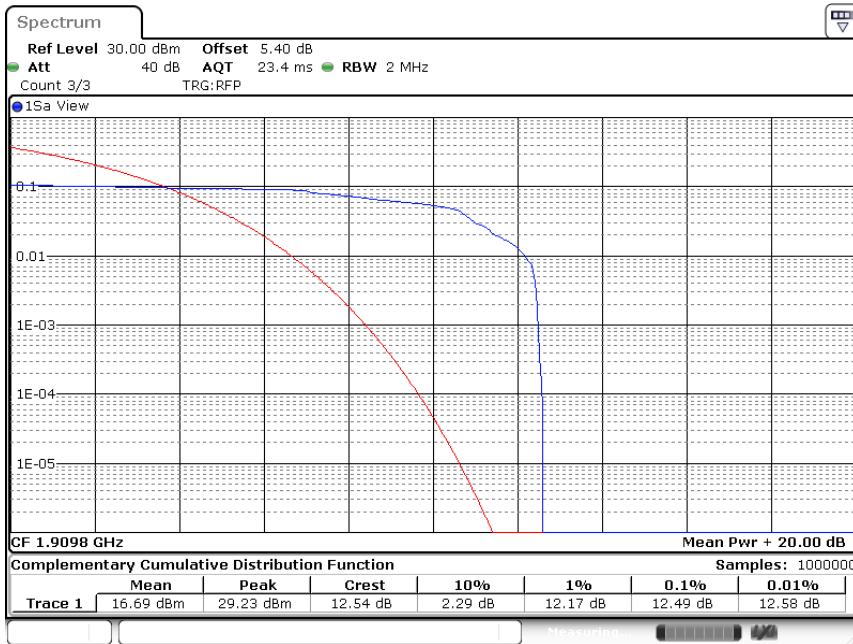
EGPRS MODE:



Channel 512



Channel 661



Channel 810

8. Effective Radiated Power and Effective Isotropic Radiated Power GSM850

GSM Measured Power:

Carrier frequency (MHz)	Channel No.	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP (W)
824.2	128	32.53	26.92	0.492
836.6	190	32.69	27.08	0.511
848.8	251	32.81	27.2	0.525

EGPRS Measured Power:

Carrier frequency (MHz)	Channel No.	TX Moce	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP (W)
824.2	128	4Downlink1uplink	26.02	20.41	0.110
836.6	190		25.92	20.31	0.107
848.8	251		23.96	18.35	0.068
824.2	128	3Downlink2uplink	22.24	16.63	0.046
836.6	190		26.41	20.8	0.120
848.8	251		26.01	20.4	0.110
824.2	128	2Downlink3uplink	24.58	18.97	0.079
836.6	190		22.45	16.84	0.048
848.8	251		26.51	20.9	0.123
824.2	128	1Downlink4uplink	26.45	20.84	0.121
836.6	190		24.70	19.09	0.081
848.8	251		22.77	17.16	0.052

PCS1900

GSM Measured Power:

Carrier frequency (MHz)	Channel No.	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP (W)
1850.2	512	29.40	26.53	0.450
1880	661	29.32	26.45	0.442
1909.8	810	29.48	26.61	0.458

EGPRS Measured Power:

Carrier frequency (MHz)	Channel No.	TX Moce	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP (W)
1850.2	512	4Downlink1uplink	25.53	22.66	0.185
1880	661		23.21	20.34	0.108
1909.8	810		21.15	18.28	0.067
1850.2	512	3Downlink2uplink	20.40	17.53	0.057
1880	661		25.45	22.58	0.181
1909.8	810		23.41	20.54	0.113
1850.2	512	2Downlink3uplink	20.50	17.63	0.058
1880	661		20.45	17.58	0.057
1909.8	810		25.33	22.46	0.176
1850.2	512	1Downlink4uplink	23.21	20.34	0.108
1880	661		20.74	17.87	0.061
1909.8	810		20.41	17.54	0.057

Test on the worst case:**GSM850**

GSM Measured Power:

Carrier frequency (MHz)	Channel No.	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP (W)
824.2	128	32.53	26.92	0.492
836.6	190	32.69	27.08	0.511
848.8	251	32.81	27.2	0.525

PCS1900

GSM Measured Power:

Carrier frequency (MHz)	Channel No.	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP (W)
1850.2	512	29.27	26.4	0.437
1880	661	29.26	26.39	0.436
1909.8	810	29.34	26.47	0.444

APPENDIX B – TEST DATA OF RADIATED EMISSION

Radiated Spurious Emissions

850 Test result:

GSM/EGPRS MODE Channel 128:

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
1000.7000	-65.66	-13	Vertical
1648.3324	-62.68	-13	Vertical
2472.5736	-55.45	-13	Vertical
4229.9615	-61.72	-13	Vertical
6743.4372	-55.22	-13	Vertical
9981.0991	-52.09	-13	Vertical

GSM/EGPRS MODE Channel 190:

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
1008.4004	-65.14	-13	Vertical
1673.1337	-64.91	-13	Vertical
2509.9755	-55.27	-13	Vertical
4247.1124	-61.60	-13	Vertical
6960.4480	-55.25	-13	Vertical
9991.5996	-52.35	-13	Vertical

GSM/EGPRS MODE Channel 251:

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
1000.3000	-65.45	-13	Vertical
1933.6467	-55.67	-13	Vertical
2993.6997	-60.98	-13	Vertical
4477.0739	-60.77	-13	Vertical
7469.0235	-53.19	-13	Vertical
9770.7385	-52.36	-13	Vertical

1900 Test result:

Test result:

GSM/EGPRS MODE Channel 512

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
1027.2534	-50.27	-13	Vertical
2279.1599	-46.70	-13	Vertical
3000.0000	-43.38	-13	Vertical
5550.8775	-46.45	-13	Vertical
9240.3120	-51.86	-13	Vertical
17947.4974	-46.46	-13	Vertical

GSM/EGPRS MODE Channel 661:

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
1040.7551	-50.13	-13	Vertical
2250.1563	-46.61	-13	Vertical
2998.2498	-43.47	-13	Vertical
5640.1320	-44.02	-13	Vertical
10653.3827	-49.97	-13	Vertical
17757.7379	-47.30	-13	Vertical

GSM/EGPRS MODE Channel 810:

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
1031.5039	-50.31	-13	Vertical
1698.0873	-49.39	-13	Vertical
2998.9999	-43.28	-13	Vertical
5729.3865	-43.61	-13	Vertical
10629.3815	-50.97	-13	Vertical
17993.9997	-46.39	-13	Vertical

---End of Test Report---