FCC GSM 850 & 1900 Test Data

General Description of EUT	
Product Name:	4G Smartphone
Test Model:	Connect Pro
Sample ID:	202304-0231-9-#2
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 3.8V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202304-0231-105 The report only show the worst case data.	

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1. Conducted Power Output Data

Test Result

Band	Channel	PCL	ERP/EIRP(dBm)	Limit(dBm)	Verdict
GSM850	128	5	31.68	38.45	PASS
GSM850	190	5	32.08	38.45	PASS
GSM850	251	5	32.10	38.45	PASS
GSM1900	512	0	27.80	33.00	PASS
GSM1900	661	0	28.03	33.00	PASS
GSM1900	810	0	27.99	33.00	PASS

Band	Channel	PCL	Slot	Power(dBm)	Limit(dBm)	Verdict
GPRS850	128	5	1	31.69	38.45	PASS
GPRS850	128	5	2	30.85	38.45	PASS
GPRS850	128	5	3	29.00	38.45	PASS
GPRS850	128	5	4	27.82	38.45	PASS
GPRS850	190	5	1	31.90	38.45	PASS
GPRS850	190	5	2	31.25	38.45	PASS
GPRS850	190	5	3	29.42	38.45	PASS
GPRS850	190	5	4	28.24	38.45	PASS
GPRS850	251	5	1	31.98	38.45	PASS
GPRS850	251	5	2	31.34	38.45	PASS
GPRS850	251	5	3	29.46	38.45	PASS
GPRS850	251	5	4	28.29	38.45	PASS
GPRS1900	512	0	1	27.79	33.00	PASS
GPRS1900	512	0	2	26.39	33.00	PASS
GPRS1900	512	0	3	23.75	33.00	PASS
GPRS1900	512	0	4	22.55	33.00	PASS
GPRS1900	661	0	1	28.05	33.00	PASS
GPRS1900	661	0	2	26.59	33.00	PASS
GPRS1900	661	0	3	23.82	33.00	PASS
GPRS1900	661	0	4	22.60	33.00	PASS
GPRS1900	810	0	1	28.00	33.00	PASS
GPRS1900	810	0	2	26.65	33.00	PASS
GPRS1900	810	0	3	23.79	33.00	PASS
GPRS1900	810	0	4	22.64	33.00	PASS

Band	Channel	PCL	Slot	Power(dBm)	Limit(dBm)	Verdict
EGPRS850	128	8	1	26.32	38.45	PASS
EGPRS850	128	8	2	27.52	38.45	PASS
EGPRS850	128	8	3	27.55	38.45	PASS
EGPRS850	128	8	4	27.54	38.45	PASS
EGPRS850	190	8	1	26.54	38.45	PASS
EGPRS850	190	8	2	27.01	38.45	PASS
EGPRS850	190	8	3	27.23	38.45	PASS
EGPRS850	190	8	4	27.21	38.45	PASS
EGPRS850	251	8	1	25.65	38.45	PASS
EGPRS850	251	8	2	26.22	38.45	PASS
EGPRS850	251	8	3	26.41	38.45	PASS
EGPRS850	251	8	4	27.52	38.45	PASS
EGPRS1900	512	2	1	27.48	33.00	PASS
EGPRS1900	512	2	2	27.07	33.00	PASS
EGPRS1900	512	2	3	26.41	33.00	PASS
EGPRS1900	512	2	4	25.83	33.00	PASS
EGPRS1900	661	2	1	27.55	33.00	PASS
EGPRS1900	661	2	2	27.18	33.00	PASS
EGPRS1900	661	2	3	26.56	33.00	PASS
EGPRS1900	661	2	4	25.94	33.00	PASS
EGPRS1900	810	2	1	27.52	33.00	PASS
EGPRS1900	810	2	2	27.55	33.00	PASS
EGPRS1900	810	2	3	26.94	33.00	PASS
EGPRS1900	810	2	4	26.42	33.00	PASS

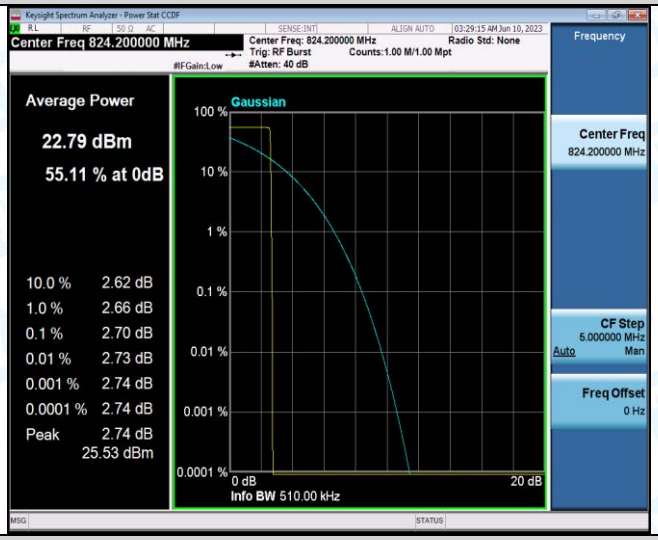
2. Peak-to-Average Ratio(CCDF)

Test Result

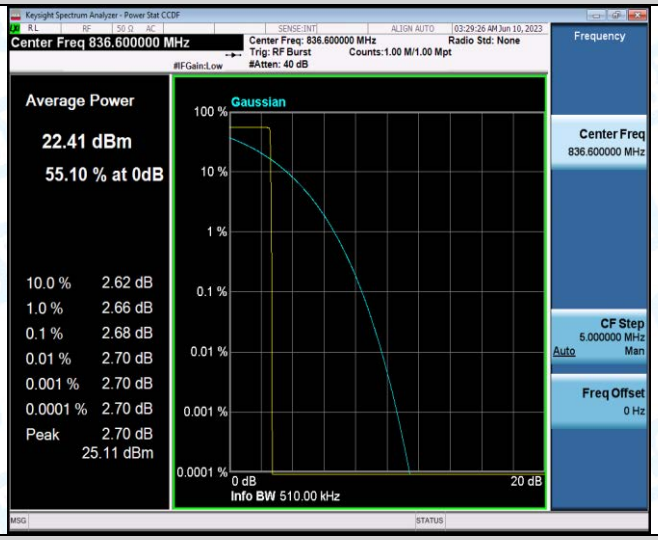
Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	128	5	2.7	13	PASS
GSM850	190	5	2.68	13	PASS
GSM850	251	5	2.67	13	PASS
GPRS850	128	5	2.67	13	PASS
GPRS850	190	5	2.66	13	PASS
GPRS850	251	5	2.66	13	PASS
EGPRS850	128	8	2.62	13	PASS
EGPRS850	190	8	2.62	13	PASS
EGPRS850	251	8	2.62	13	PASS
GSM1900	512	0	2.68	13	PASS
GSM1900	661	0	2.67	13	PASS
GSM1900	810	0	2.68	13	PASS
GPRS1900	512	0	2.88	13	PASS
GPRS1900	661	0	2.88	13	PASS
GPRS1900	810	0	2.89	13	PASS
EGPRS1900	512	2	3.36	13	PASS
EGPRS1900	661	2	3.36	13	PASS
EGPRS1900	810	2	3.37	13	PASS

Test Graphs

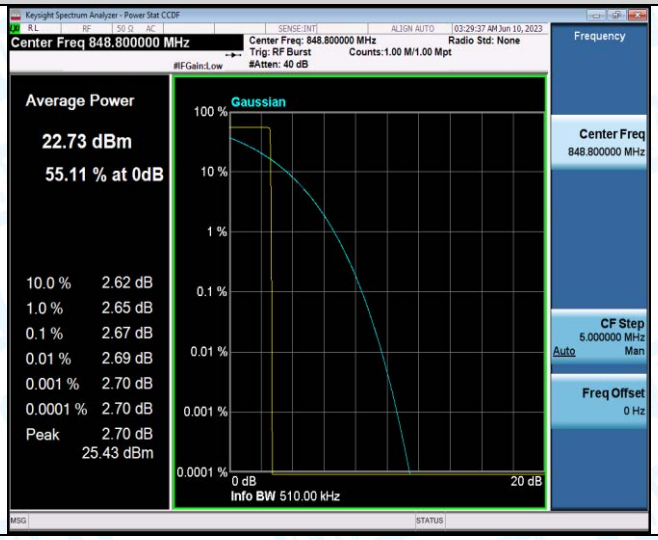
GSM850-128



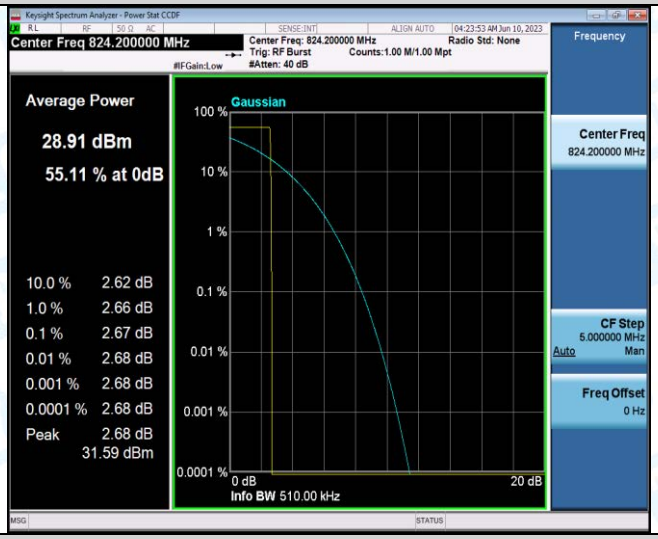
GSM850-190



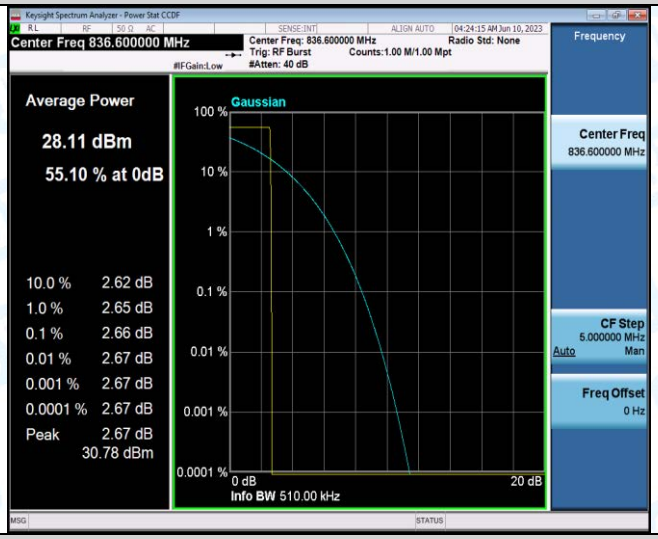
GSM850-251



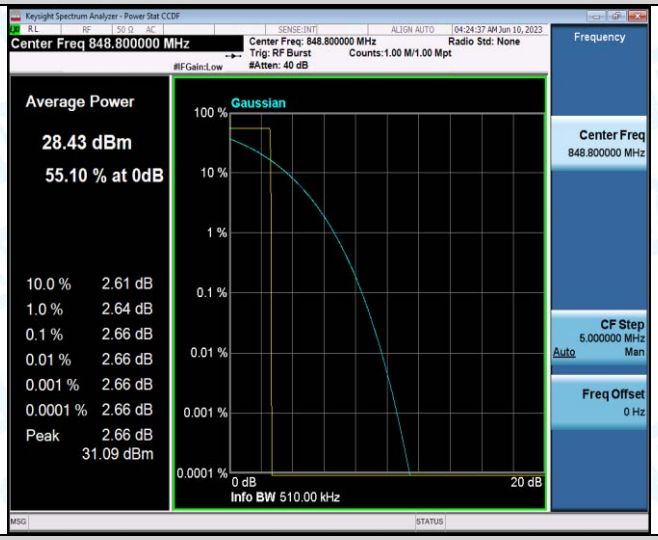
GPRS850-128



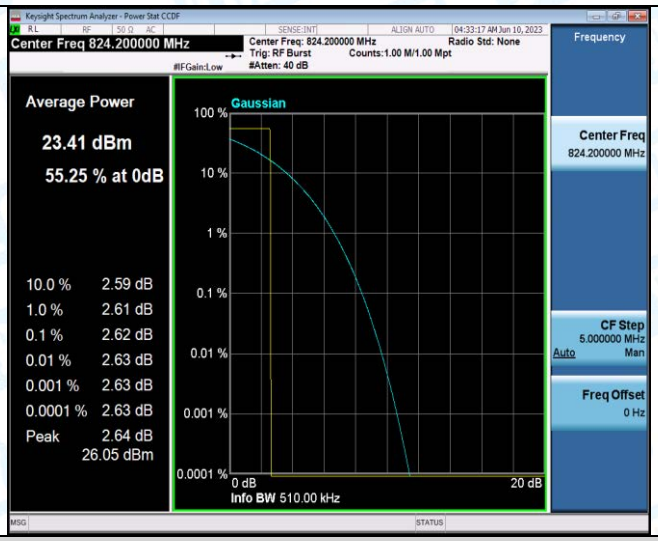
GPRS850-190



GPRS850-251



EGPRS850-128



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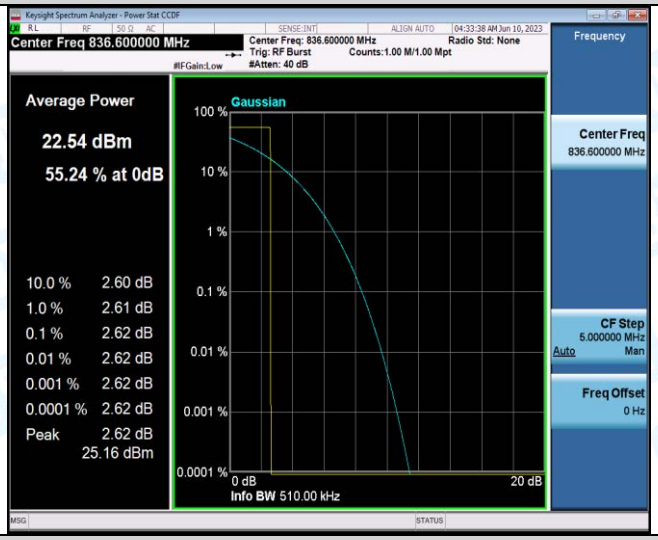
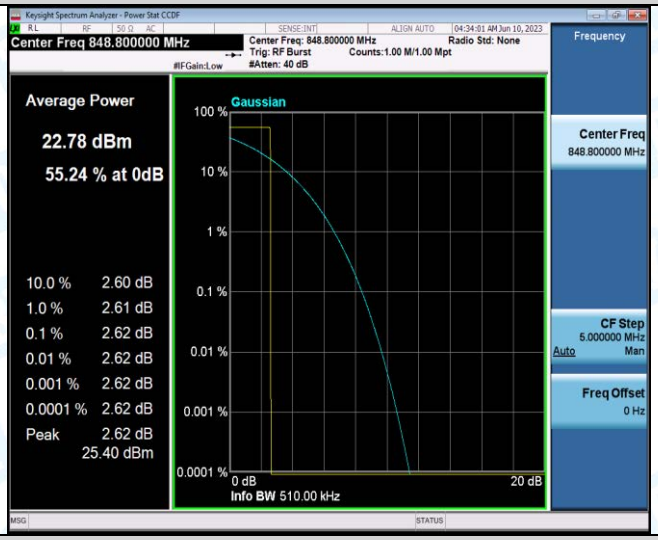
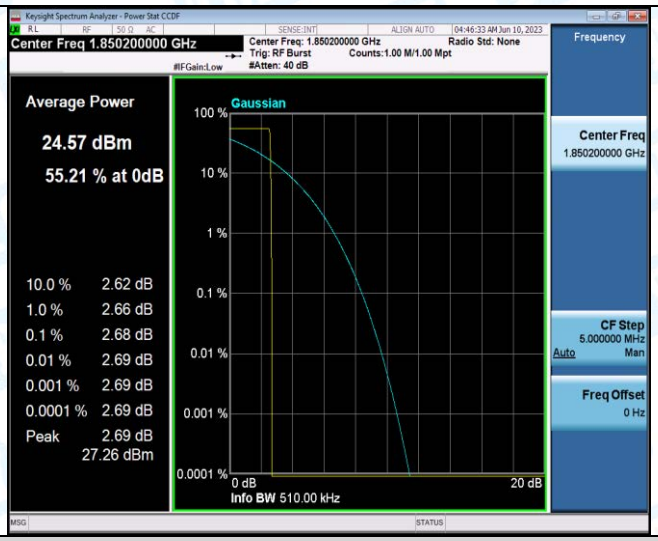


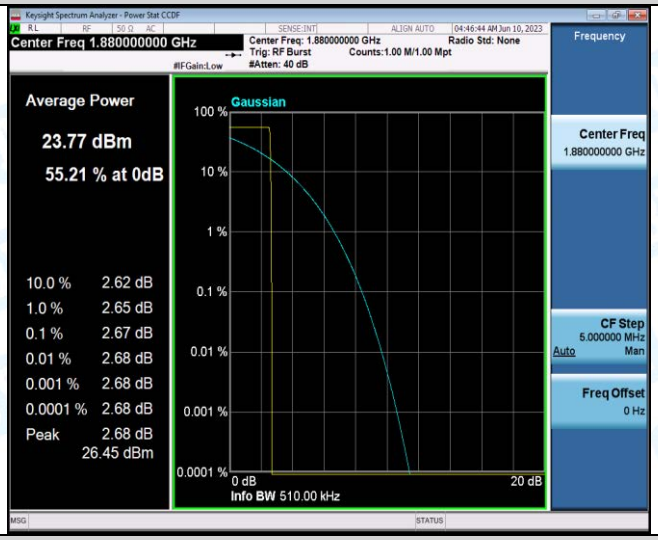
EGPRS850-251



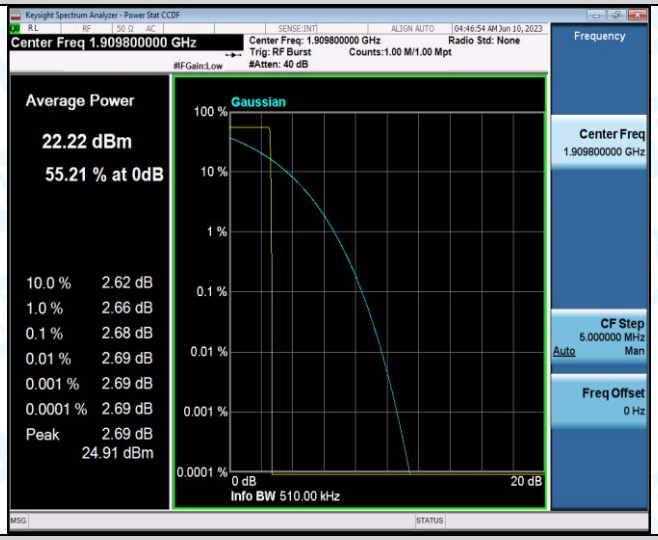
GSM1900-512



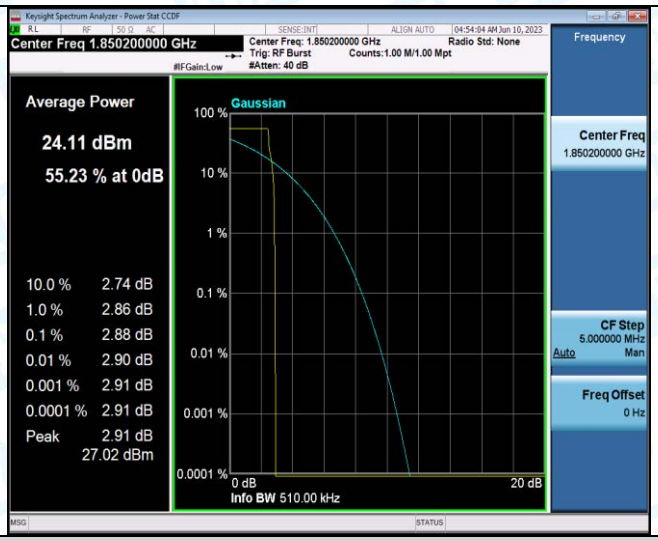
GSM1900-661



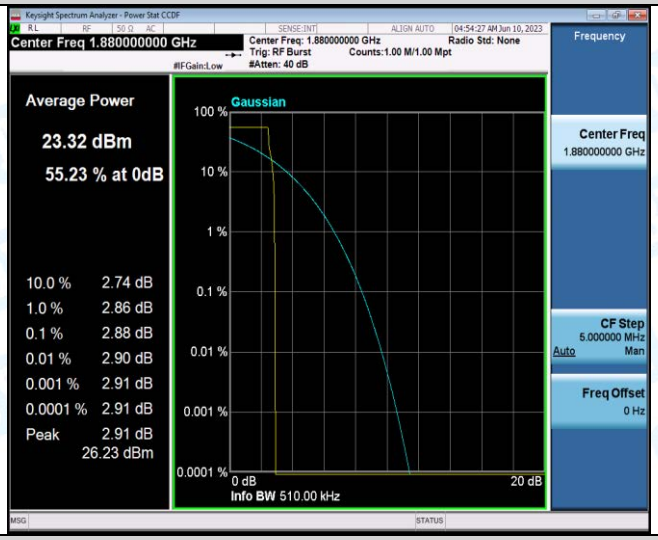
GSM1900-810



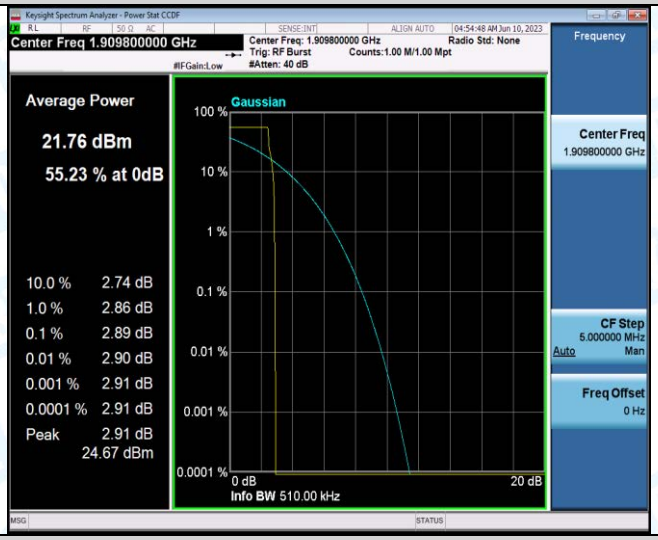
GPRS1900-512



GPRS1900-661



GPRS1900-810



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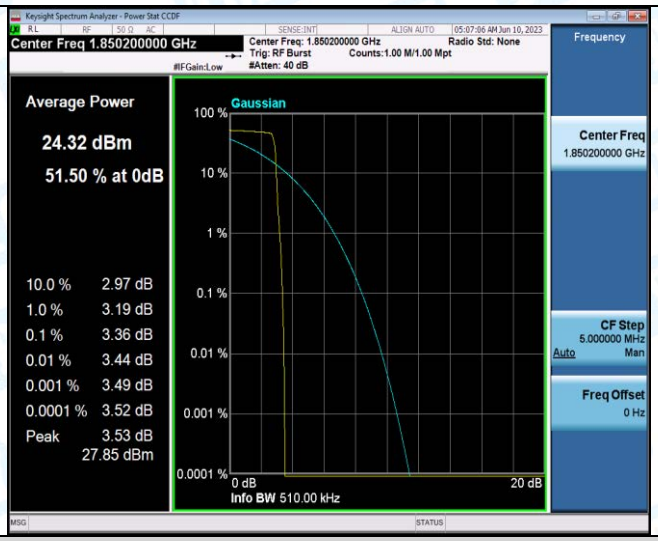
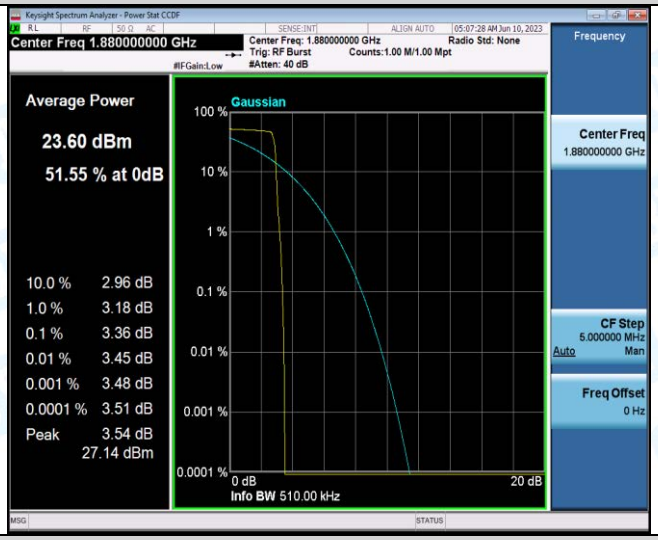
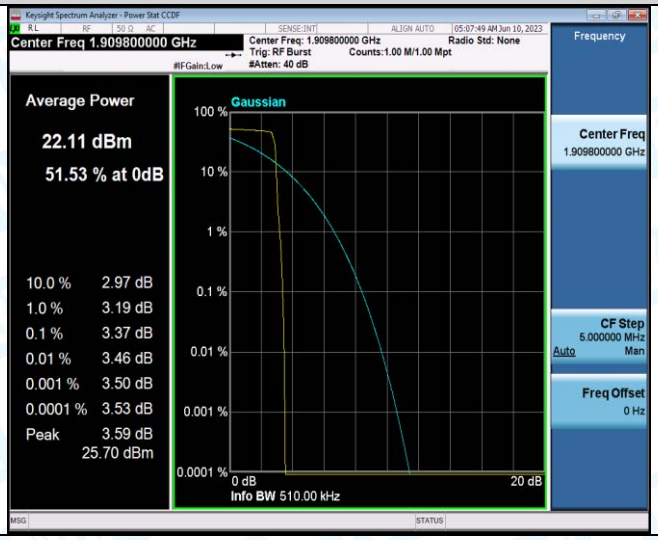


EGPRS1900-661



EGPRS1900-810



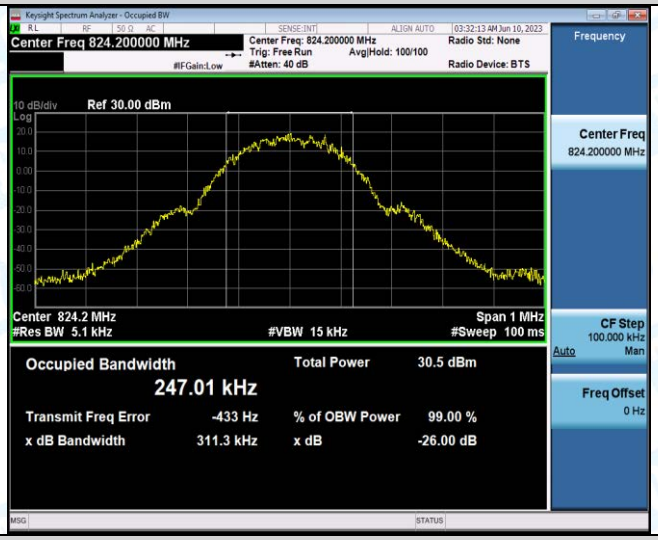
3. 26dB Bandwidth and Occupied Bandwidth

Test Result

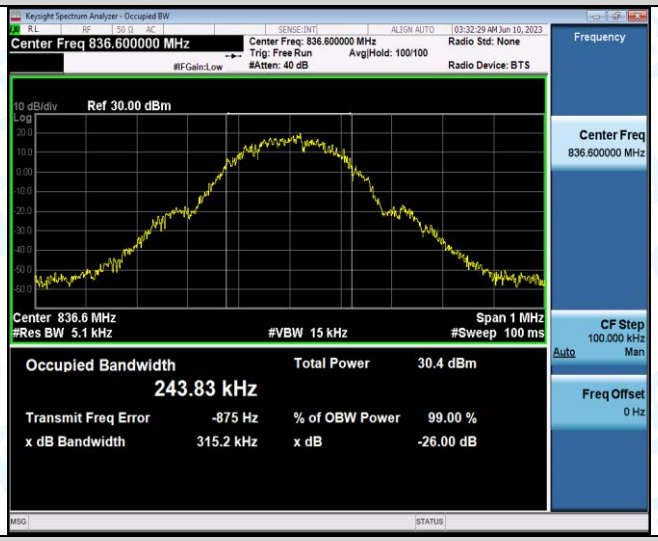
Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24701	0.3113	---	PASS
GSM850	190	5	0.24383	0.3152	---	PASS
GSM850	251	5	0.24875	0.3118	---	PASS
GPRS850	128	5	0.24662	0.3120	---	PASS
GPRS850	190	5	0.24660	0.3104	---	PASS
GPRS850	251	5	0.24473	0.3112	---	PASS
EGPRS850	128	8	0.24599	0.3119	---	PASS
EGPRS850	190	8	0.24552	0.3207	---	PASS
EGPRS850	251	8	0.24454	0.3174	---	PASS
GSM1900	512	0	0.24541	0.3200	---	PASS
GSM1900	661	0	0.24476	0.3164	---	PASS
GSM1900	810	0	0.24949	0.3137	---	PASS
GPRS1900	512	0	0.24664	0.3219	---	PASS
GPRS1900	661	0	0.24963	0.3130	---	PASS
GPRS1900	810	0	0.24868	0.3179	---	PASS
EGPRS1900	512	2	0.38311	0.6565	---	PASS
EGPRS1900	661	2	0.38035	0.4718	---	PASS
EGPRS1900	810	2	0.39141	0.5725	---	PASS

Test Graphs

GSM850-128



GSM850-190



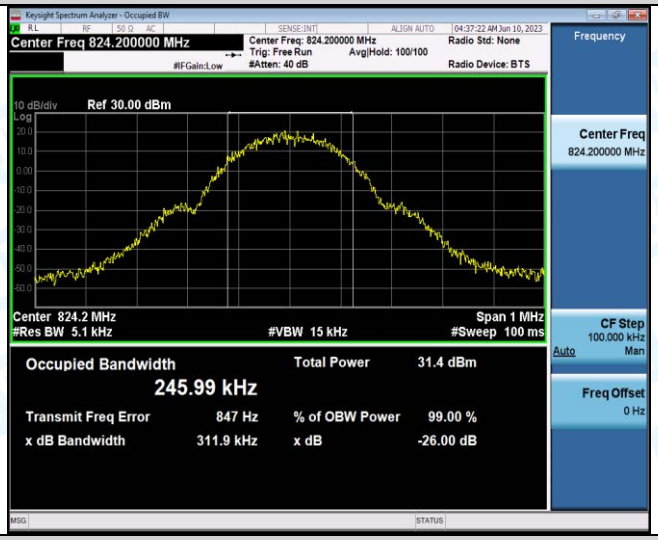
GSM850-251

GPRS850-128

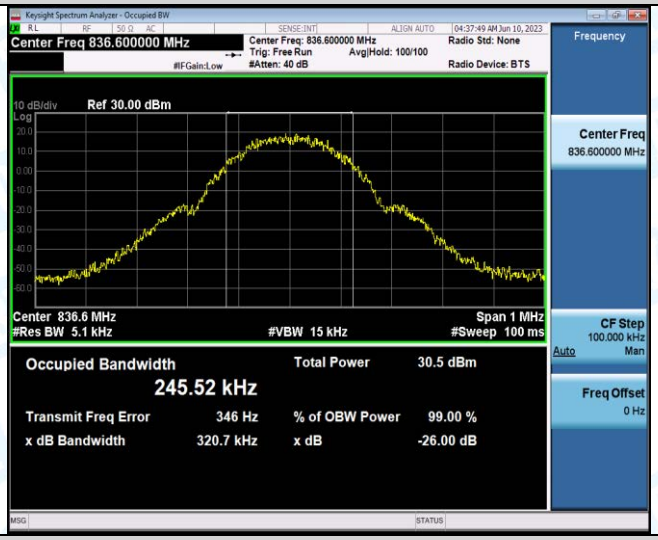
GPRS850-190

GPRS850-251

EGPRS850-128

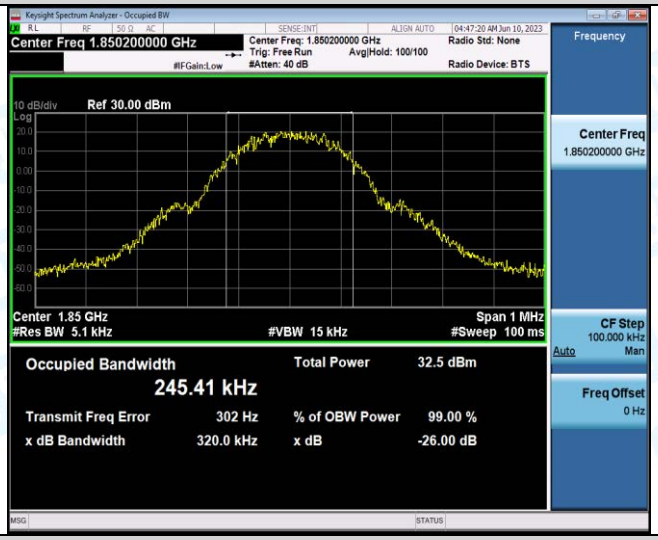


EGPRS850-190



EGPRS850-251

GSM1900-512



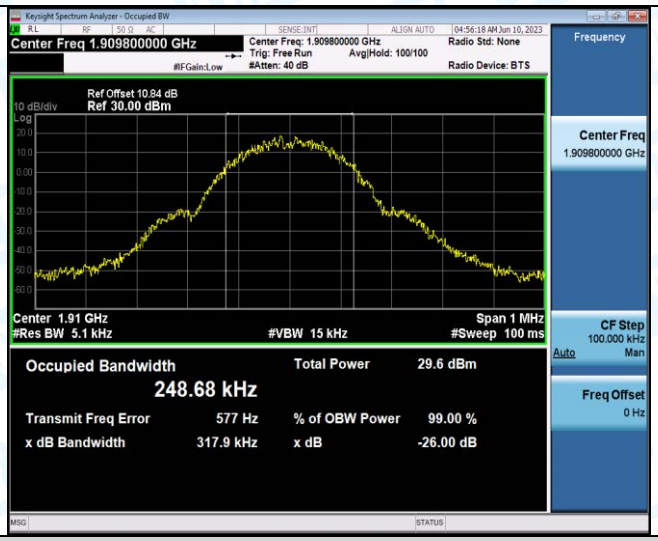
GSM1900-661

GSM1900-810

GPRS1900-512

GPRS1900-661

GPRS1900-810



EGPRS1900-512

EGPRS1900-661

EGPRS1900-810

Keysight Spectrum Analyzer - Occupied BW
Center Freq 1.909800000 GHz
Center Freq: 1.909800000 GHz
Trig: Free Run
Avg|Hold: 100/100
#Atten: 40 dB
Radio Std: None
Radio Device: BTS
05:09:20 AM Jun 10, 2023
Frequency
Ref Offset 10.84 dB
10 dB/div
Ref 30.00 dBm
Center Freq
1.909800000 GHz
Center 1.91 GHz
#Res BW 5.1 kHz
#VBW 15 kHz
Span 1 MHz
#Sweep 100 ms
CF Step
100.000 kHz
Auto
Man
Occupied Bandwidth
391.41 kHz
Total Power 29.9 dBm
Transmit Freq Error 388 Hz
% of OBW Power 99.00 %
x dB Bandwidth 572.5 kHz
x dB -26.00 dB
Freq Offset
0 Hz

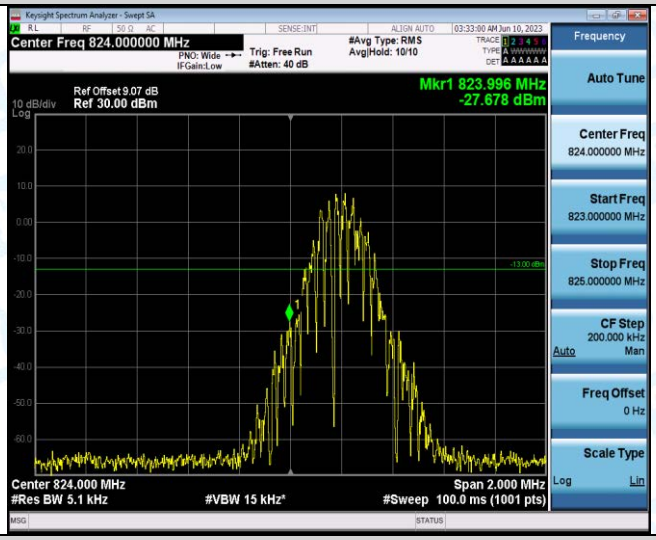
4. Band Edge

Test Result

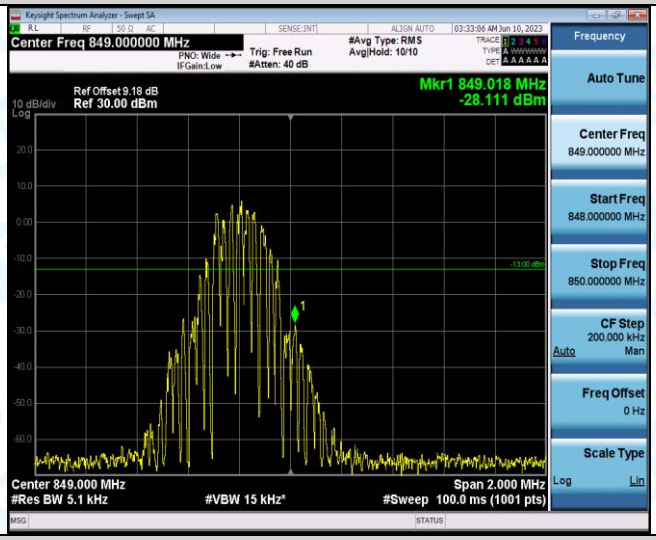
Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-27.68	-13	PASS
GSM850	251	5	849.02	-28.11	-13	PASS
GPRS850	128	5	824.00	-22.87	-13	PASS
GPRS850	251	5	849.04	-25.47	-13	PASS
EGPRS850	128	8	823.98	-28.48	-13	PASS
EGPRS850	251	8	849.01	-30.16	-13	PASS
GSM1900	512	0	1849.97	-27.94	-13	PASS
GSM1900	810	0	1910.02	-28.65	-13	PASS
GPRS1900	512	0	1849.98	-29.38	-13	PASS
GPRS1900	810	0	1910.02	-29.18	-13	PASS
EGPRS1900	512	2	1849.99	-13.10	-13	PASS
EGPRS1900	810	2	1910.02	-17.24	-13	PASS

Test Graphs

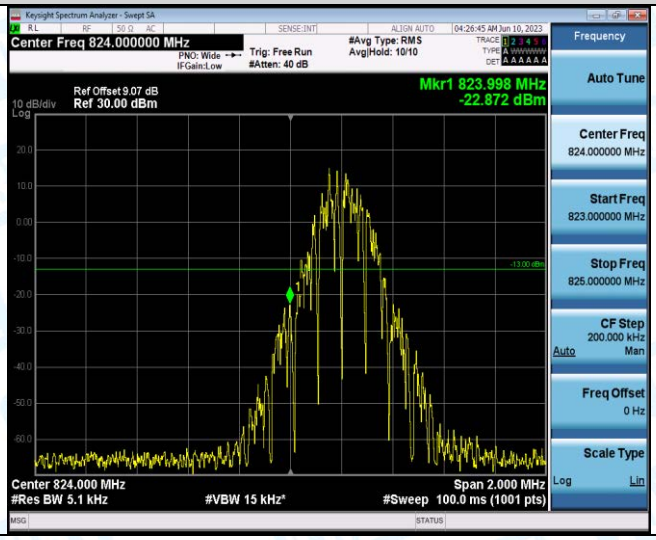
GSM850-128



GSM850-251

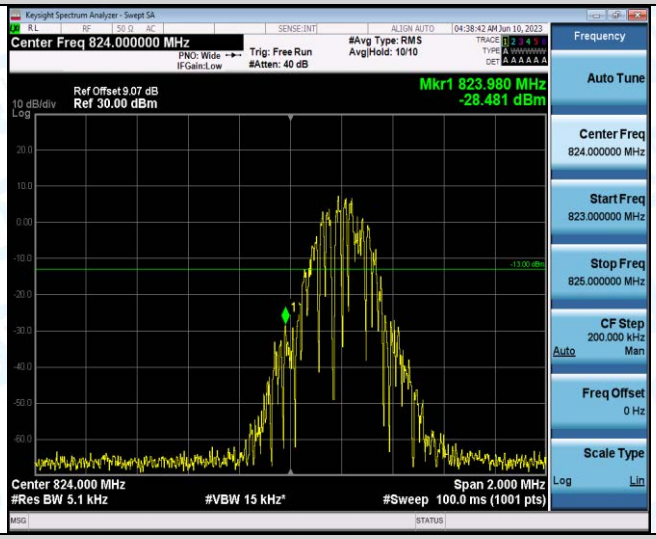


GPRS850-128

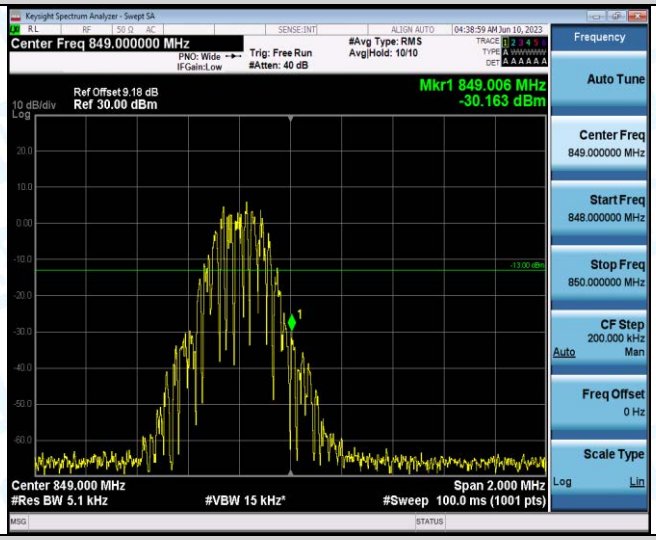


GPRS850-251

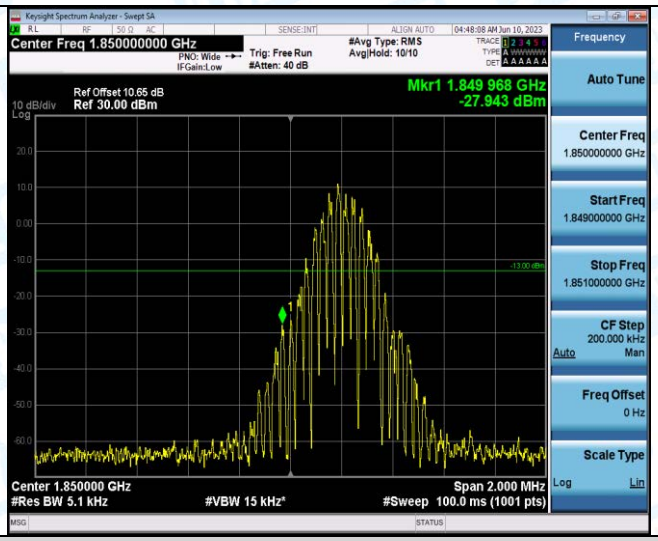
EGPRS850-128



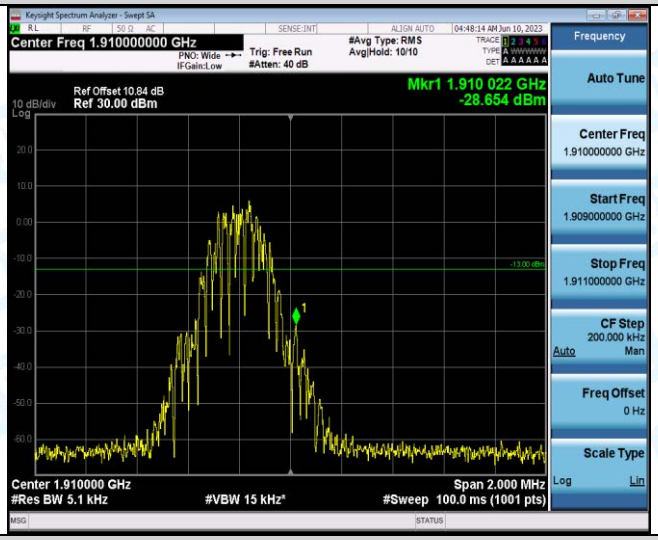
EGPRS850-251



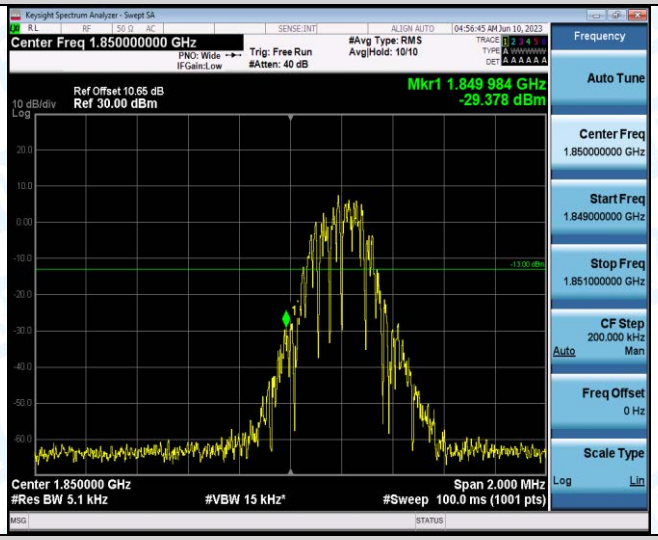
GSM1900-512



GSM1900-810

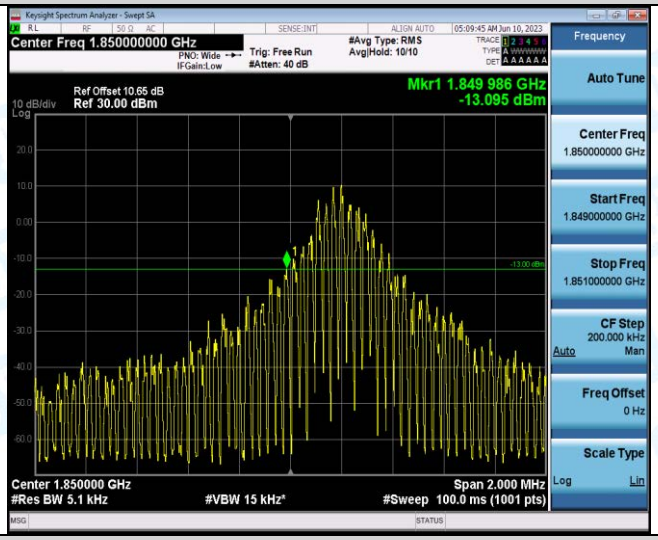


GPRS1900-512



GPRS1900-810

EGPRS1900-512



EGPRS1900-810

5. Conducted Spurious Emission

Test Result

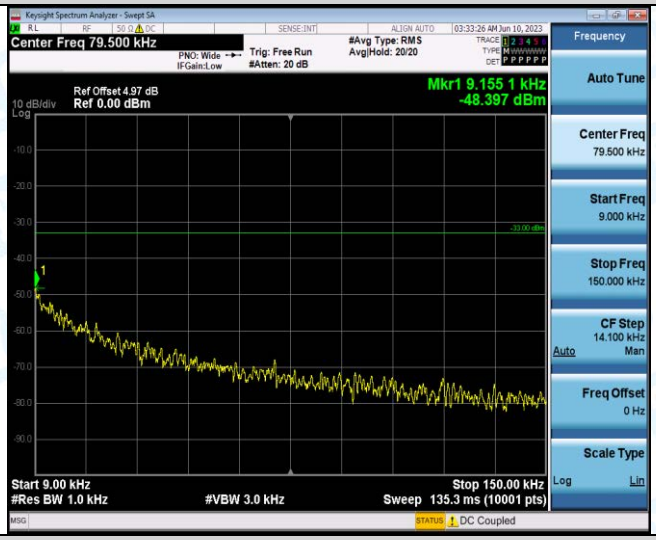
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-48.4	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-39.74	-13	PASS
GSM850	128	5	30~1000MHz	937.27	-43.96	-13	PASS
GSM850	128	5	1000~10000MHz	2460.7	-34.02	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-46.76	-33	PASS
GSM850	190	5	0.15~30MHz	0.16	-40.03	-13	PASS
GSM850	190	5	30~1000MHz	211.39	-44.6	-13	PASS
GSM850	190	5	1000~10000MHz	1697.5	-35.69	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-48.17	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-41.32	-13	PASS
GSM850	251	5	30~1000MHz	160.56	-44.61	-13	PASS
GSM850	251	5	1000~10000MHz	1697.5	-35.65	-13	PASS
GPRS850	128	5	0.009~0.15MHz	0.01	-49.66	-33	PASS
GPRS850	128	5	0.15~30MHz	0.15	-39.02	-13	PASS
GPRS850	128	5	30~1000MHz	427.54	-44.24	-13	PASS
GPRS850	128	5	1000~10000MHz	1697.8	-30.33	-13	PASS
GPRS850	190	5	0.009~0.15MHz	0.01	-49.7	-33	PASS
GPRS850	190	5	0.15~30MHz	0.16	-39.65	-13	PASS
GPRS850	190	5	30~1000MHz	948.98	-44.44	-13	PASS
GPRS850	190	5	1000~10000MHz	1697.8	-29.75	-13	PASS
GPRS850	251	5	0.009~0.15MHz	0.01	-48.84	-33	PASS
GPRS850	251	5	0.15~30MHz	0.15	-41.37	-13	PASS
GPRS850	251	5	30~1000MHz	479.56	-44.94	-13	PASS
GPRS850	251	5	1000~10000MHz	1697.5	-29.9	-13	PASS
EGPRS850	128	8	0.009~0.15MHz	0.01	-48.29	-33	PASS
EGPRS850	128	8	0.15~30MHz	0.15	-41.27	-13	PASS
EGPRS850	128	8	30~1000MHz	936.3	-44.21	-13	PASS
EGPRS850	128	8	1000~10000MHz	1697.8	-32.54	-13	PASS
EGPRS850	190	8	0.009~0.15MHz	0.01	-49.9	-33	PASS
EGPRS850	190	8	0.15~30MHz	0.15	-38.94	-13	PASS
EGPRS850	190	8	30~1000MHz	472.55	-43.55	-13	PASS

EGPRS850	190	8	1000~10000MHz	1697.5	-33	-13	PASS
EGPRS850	251	8	0.009~0.15MHz	0.01	-48.76	-33	PASS
EGPRS850	251	8	0.15~30MHz	0.15	-38.15	-13	PASS
EGPRS850	251	8	30~1000MHz	501.16	-45.1	-13	PASS
EGPRS850	251	8	1000~10000MHz	1698.1	-34.52	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-51.48	-43	PASS
GSM1900	512	0	0.15~30MHz	0.17	-39.37	-23	PASS
GSM1900	512	0	30~1000MHz	724.88	-44.75	-13	PASS
GSM1900	512	0	1000~18000MHz	17689.47	-15.99	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-48.69	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-39.73	-23	PASS
GSM1900	661	0	30~1000MHz	963.88	-44.7	-13	PASS
GSM1900	661	0	1000~18000MHz	17908.2	-15.77	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-50.28	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-40.39	-23	PASS
GSM1900	810	0	30~1000MHz	684.81	-45.44	-13	PASS
GSM1900	810	0	1000~18000MHz	17212.9	-15.89	-13	PASS
GPRS1900	512	0	0.009~0.15MHz	0.01	-49.41	-43	PASS
GPRS1900	512	0	0.15~30MHz	0.15	-38.61	-23	PASS
GPRS1900	512	0	30~1000MHz	798.5	-44.72	-13	PASS
GPRS1900	512	0	1000~18000MHz	17873.07	-16.26	-13	PASS
GPRS1900	661	0	0.009~0.15MHz	0.01	-49.01	-43	PASS
GPRS1900	661	0	0.15~30MHz	0.17	-38.66	-23	PASS
GPRS1900	661	0	30~1000MHz	266.03	-45.62	-13	PASS
GPRS1900	661	0	1000~18000MHz	17863.43	-16.11	-13	PASS
GPRS1900	810	0	0.009~0.15MHz	0.01	-50.57	-43	PASS
GPRS1900	810	0	0.15~30MHz	0.15	-37.88	-23	PASS
GPRS1900	810	0	30~1000MHz	529.58	-45.06	-13	PASS
GPRS1900	810	0	1000~18000MHz	17785.8	-16.43	-13	PASS
EGPRS1900	512	2	0.009~0.15MHz	0.01	-49.52	-43	PASS
EGPRS1900	512	2	0.15~30MHz	0.15	-38.3	-23	PASS
EGPRS1900	512	2	30~1000MHz	932.75	-45.33	-13	PASS
EGPRS1900	512	2	1000~18000MHz	17052.53	-15.5	-13	PASS
EGPRS1900	661	2	0.009~0.15MHz	0.01	-48.72	-43	PASS
EGPRS1900	661	2	0.15~30MHz	0.15	-41.34	-23	PASS
EGPRS1900	661	2	30~1000MHz	207.25	-45.32	-13	PASS
EGPRS1900	661	2	1000~18000MHz	17682.67	-16.02	-13	PASS

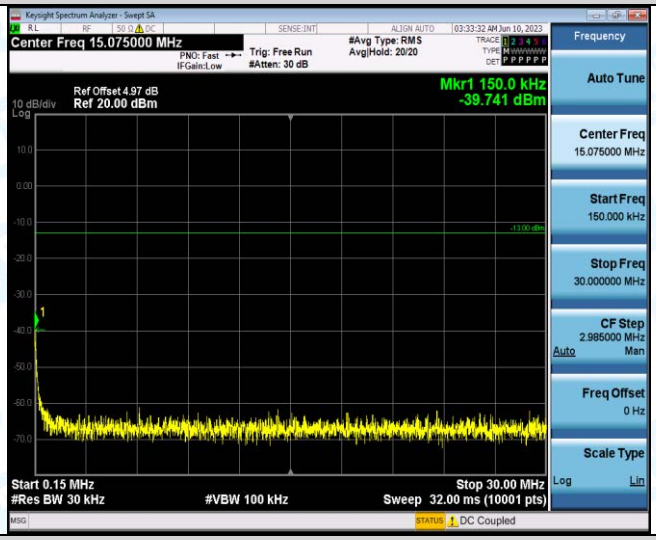
EGPRS1900	810	2	0.009~0.15MHz	0.01	-50.26	-43	PASS
EGPRS1900	810	2	0.15~30MHz	0.15	-37.86	-23	PASS
EGPRS1900	810	2	30~1000MHz	783.01	-45.36	-13	PASS
EGPRS1900	810	2	1000~18000MHz	17751.23	-15.95	-13	PASS

Test Graphs

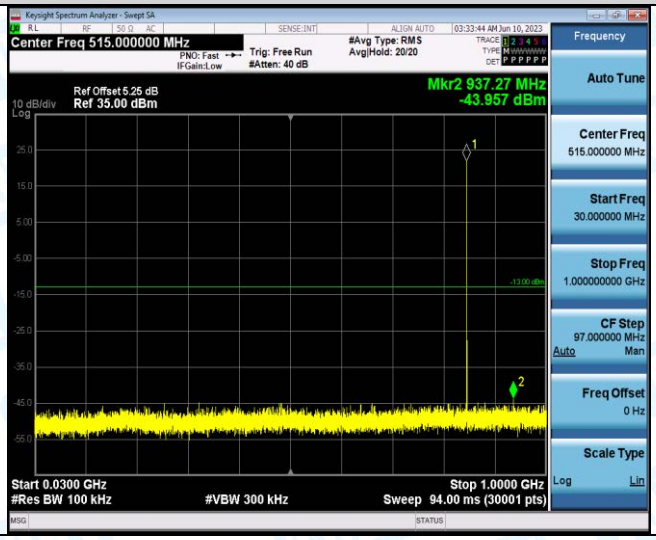
GSM850-128-0.009~0.15MHz



GSM850-128-0.15~30MHz

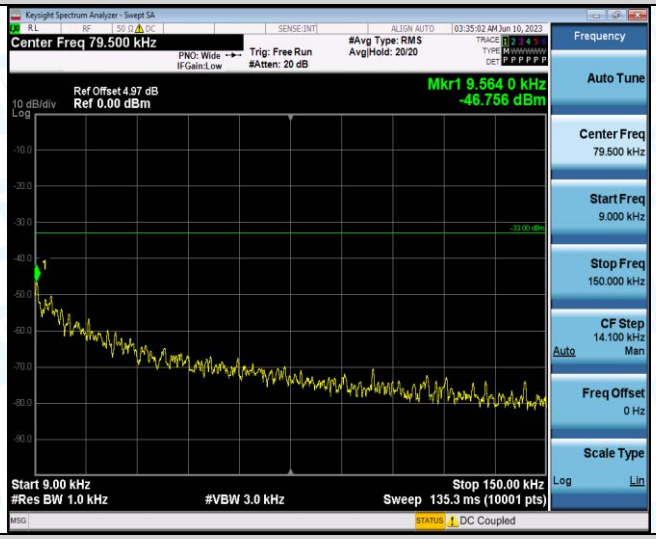


GSM850-128-30~1000MHz

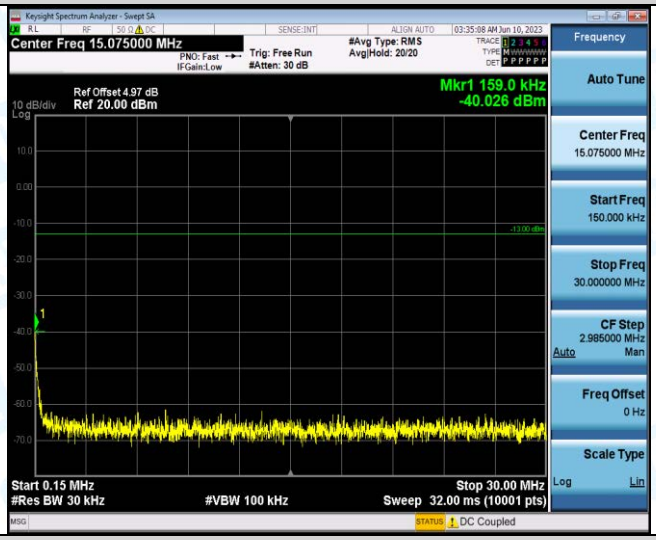


GSM850-128-1000~10000MHz

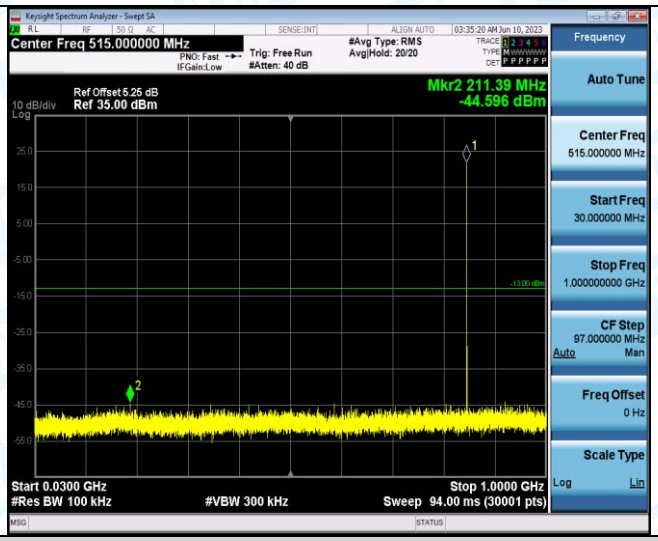
GSM850-190-0.009~0.15MHz



GSM850-190-0.15~30MHz

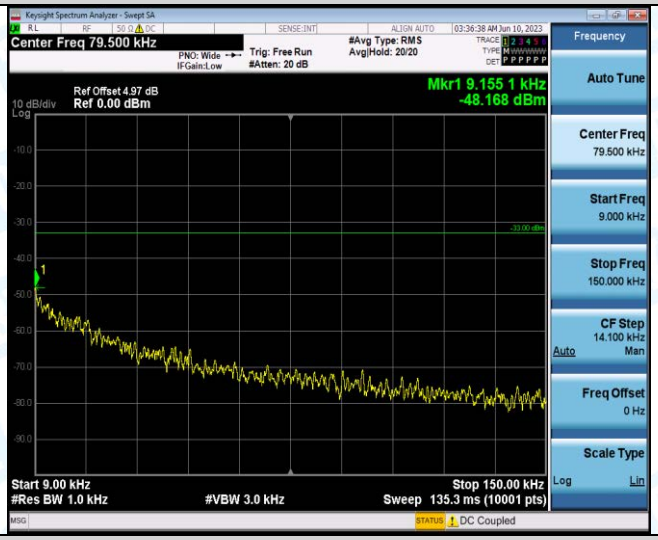


GSM850-190-30~1000MHz

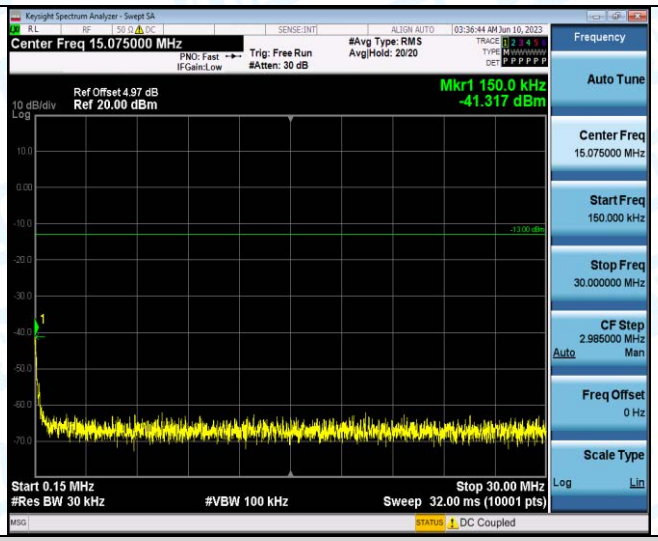


GSM850-190-1000~10000MHz

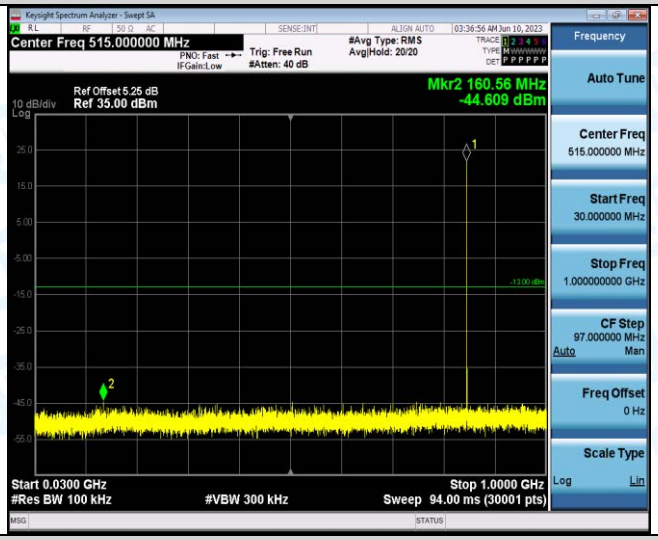
GSM850-251-0.009~0.15MHz



GSM850-251-0.15~30MHz

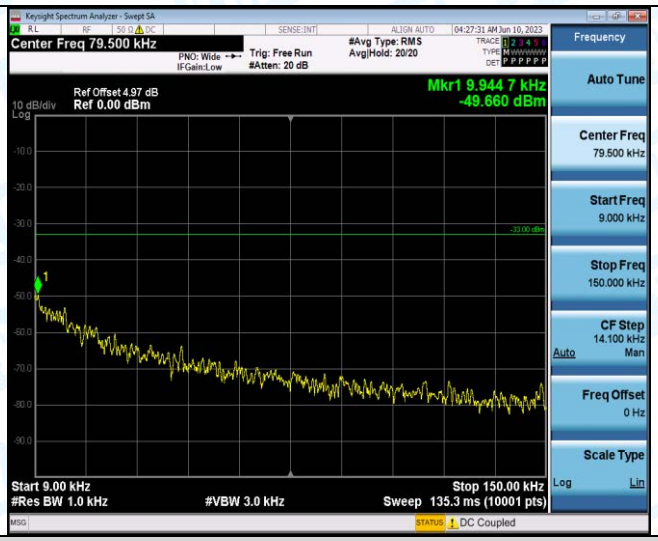


GSM850-251-30~1000MHz

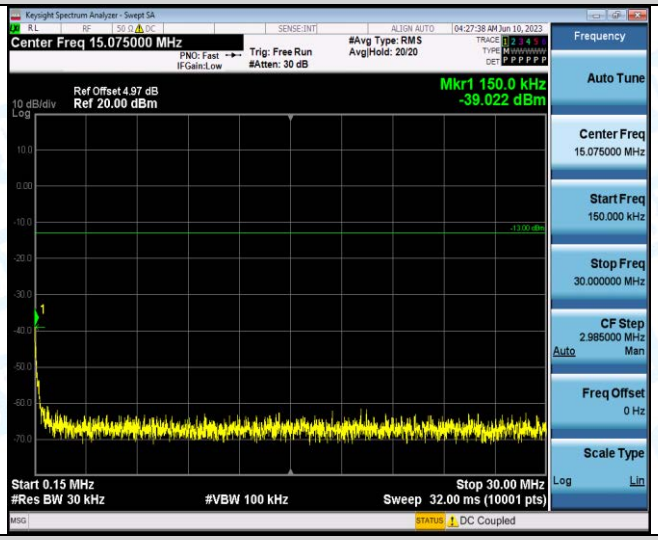


GSM850-251-1000~10000MHz

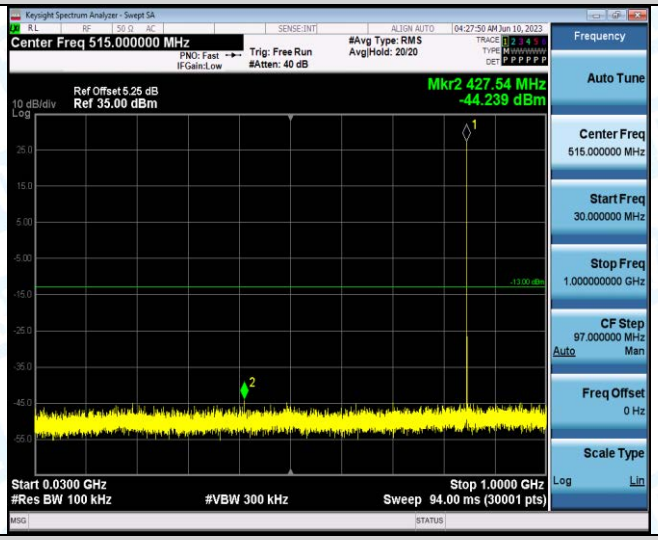
GPRS850-128-0.009~0.15MHz



GPRS850-128-0.15~30MHz

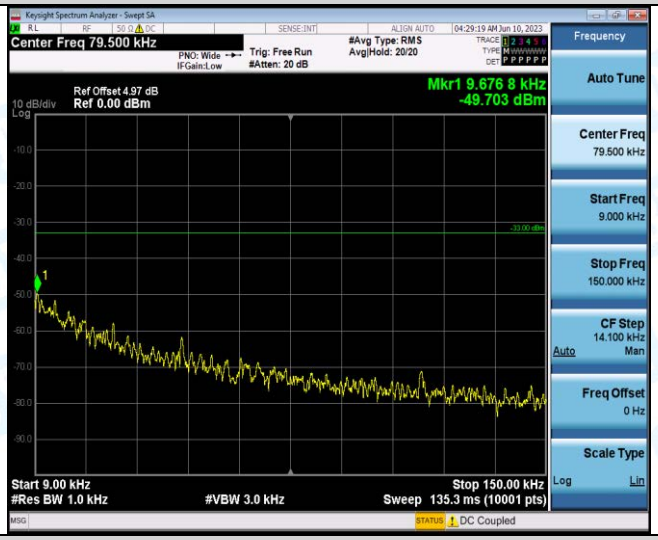


GPRS850-128-30~1000MHz

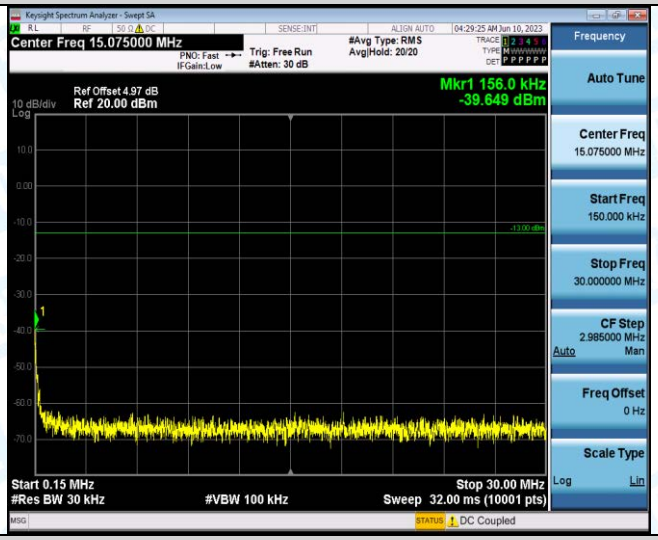


GPRS850-128-1000~10000MHz

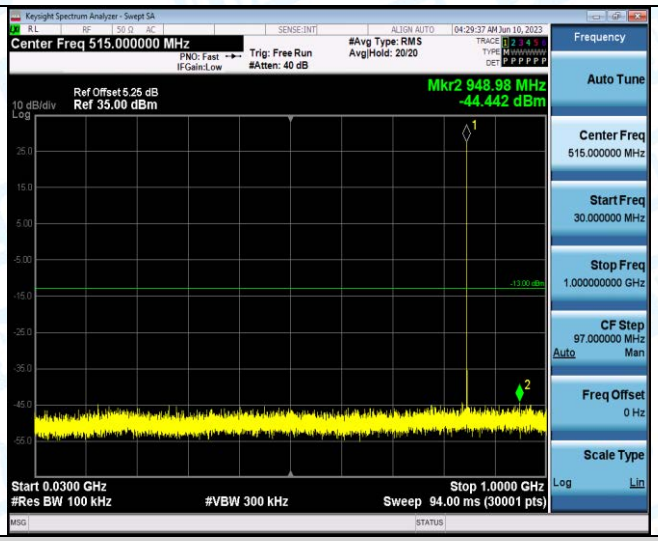
GPRS850-190-0.009~0.15MHz



GPRS850-190-0.15~30MHz

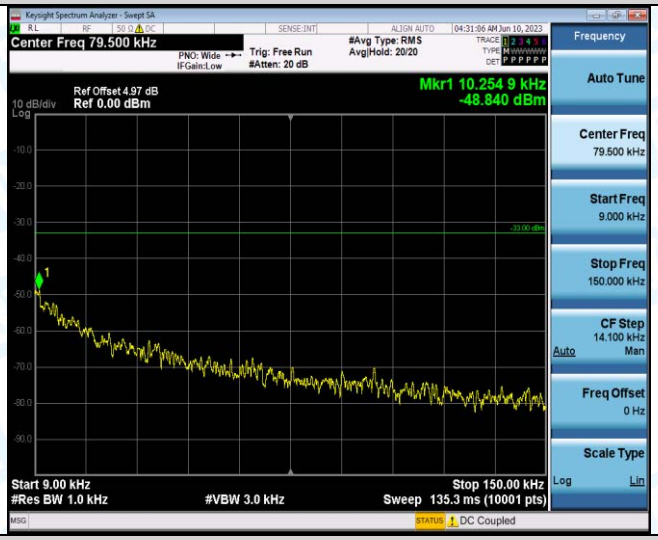


GPRS850-190-30~1000MHz

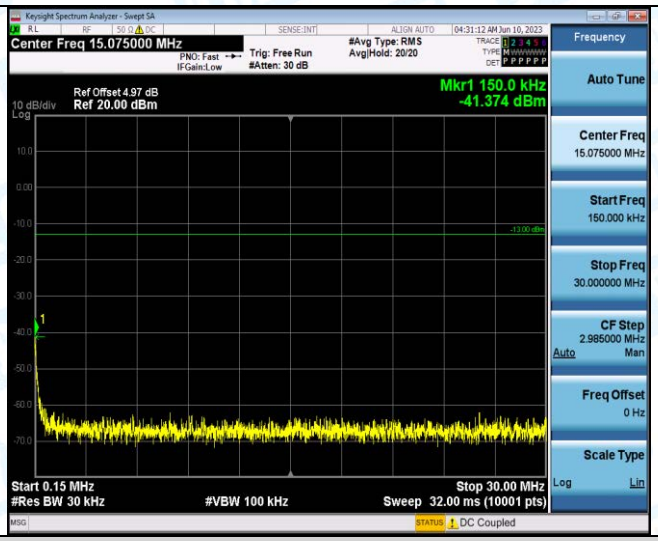


GPRS850-190-1000~10000MHz

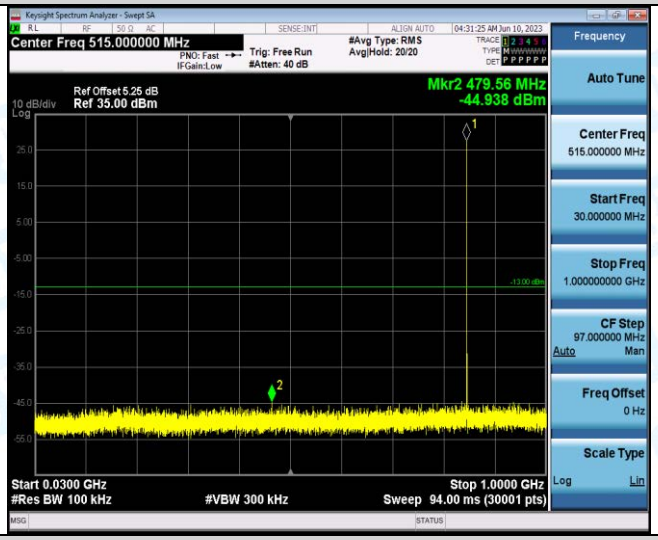
GPRS850-251-0.009~0.15MHz



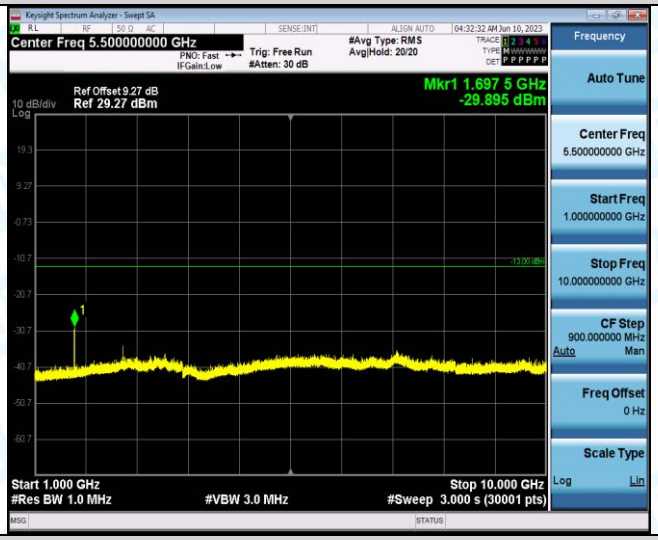
GPRS850-251-0.15~30MHz



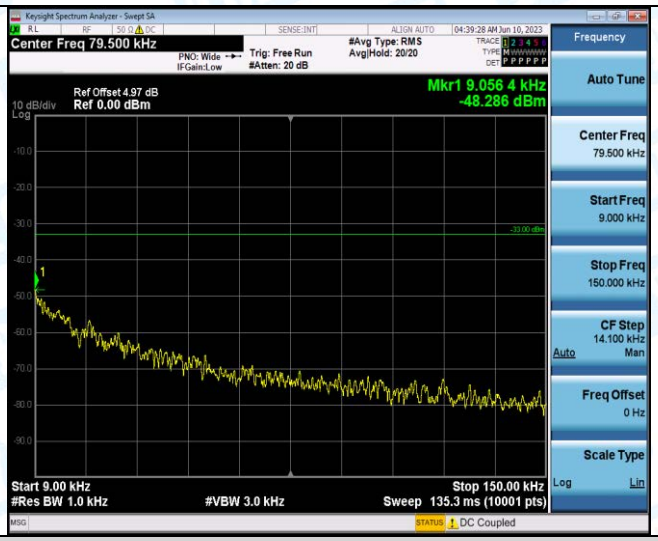
GPRS850-251-30~1000MHz



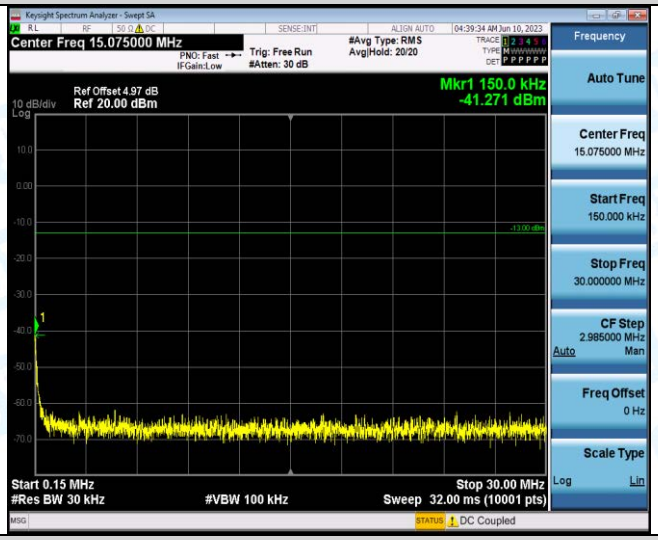
GPRS850-251-1000~10000MHz



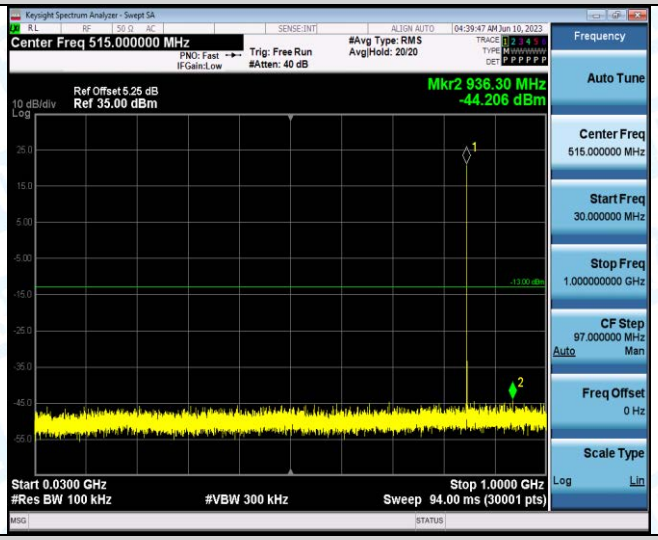
EGPRS850-128-0.009~0.15MHz



EGPRS850-128-0.15~30MHz

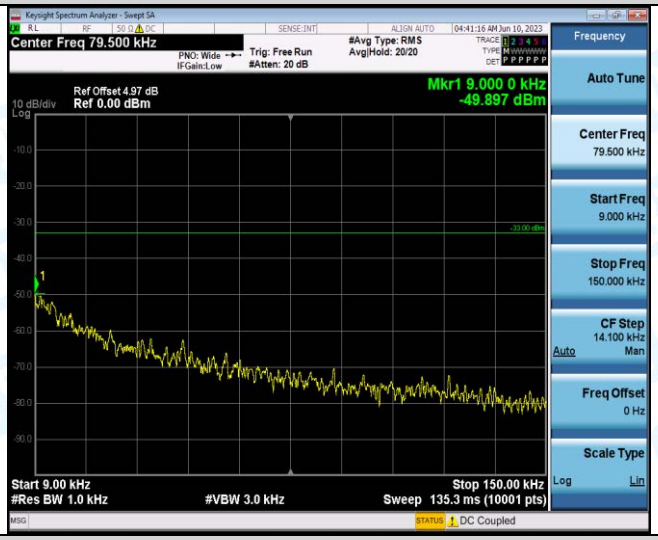


EGPRS850-128-30~1000MHz

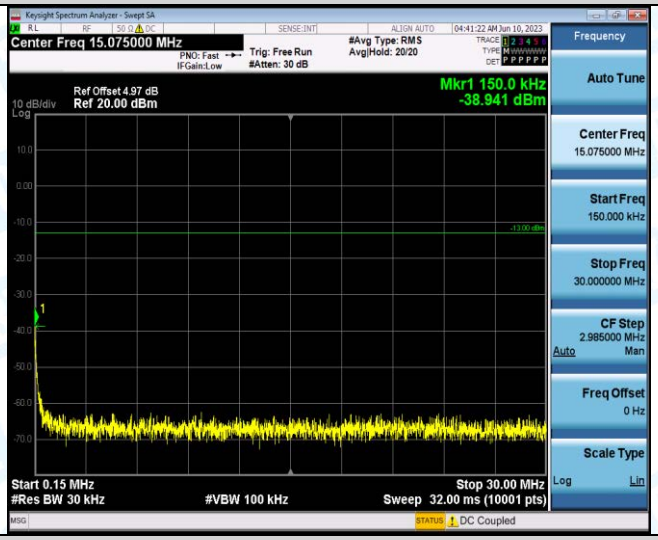


EGPRS850-128-1000~10000MHz

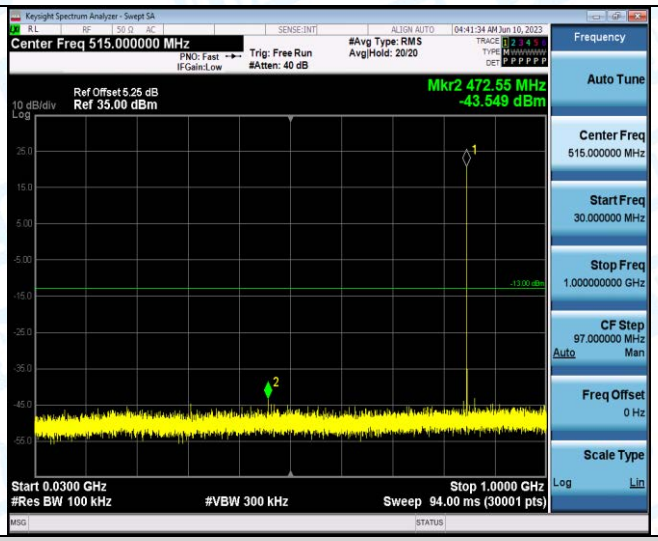
EGPRS850-190-0.009~0.15MHz



EGPRS850-190-0.15~30MHz

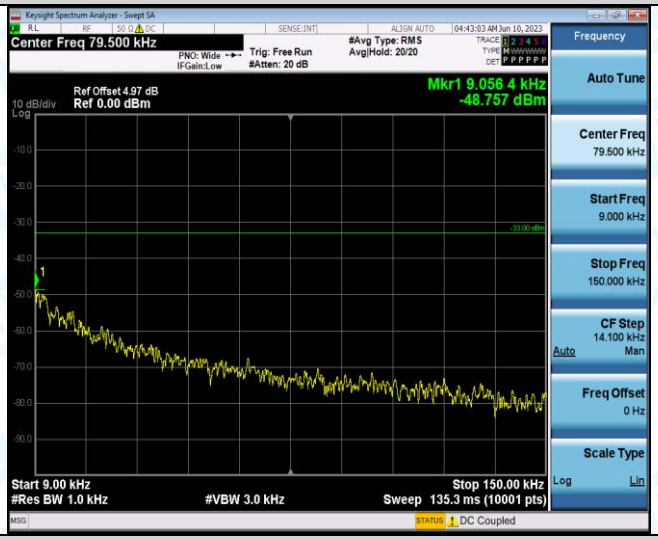


EGPRS850-190-30~1000MHz



EGPRS850-190-1000~10000MHz

EGPRS850-251-0.009~0.15MHz



EGPRS850-251-0.15~30MHz