

## Appendix-B GSM

### Effective (Isotropic) Radiated Power Output Data

#### Test Result

Band	Channel	Slot	Result (dBm)	ERP (dBm)	Limit (dBm)	Verdict
GSM850	128	--	28.64	25.09	38.45	PASS
GPRS850	128	1	28.62	25.07	38.45	PASS
GPRS850	128	2	25.70	22.15	38.45	PASS
GPRS850	128	3	23.95	20.40	38.45	PASS
GPRS850	128	4	22.54	18.99	38.45	PASS
EGPRS850	128	1	27.50	23.95	38.45	PASS
EGPRS850	128	2	25.65	22.10	38.45	PASS
EGPRS850	128	3	23.52	19.97	38.45	PASS
EGPRS850	128	4	21.37	17.82	38.45	PASS
GSM850	190	--	27.95	24.40	38.45	PASS
GPRS850	190	1	28.20	24.65	38.45	PASS
GPRS850	190	2	25.45	21.90	38.45	PASS
GPRS850	190	3	23.65	20.10	38.45	PASS
GPRS850	190	4	22.43	18.88	38.45	PASS
EGPRS850	190	1	27.83	24.28	38.45	PASS
EGPRS850	190	2	25.58	22.03	38.45	PASS
EGPRS850	190	3	23.33	19.78	38.45	PASS
EGPRS850	190	4	21.51	17.96	38.45	PASS
GSM850	251	--	28.44	24.89	38.45	PASS
GPRS850	251	1	28.56	25.01	38.45	PASS
GPRS850	251	2	25.71	22.16	38.45	PASS
GPRS850	251	3	23.88	20.33	38.45	PASS
GPRS850	251	4	22.66	19.11	38.45	PASS
EGPRS850	251	1	27.76	24.21	38.45	PASS
EGPRS850	251	2	25.30	21.75	38.45	PASS
EGPRS850	251	3	23.28	19.73	38.45	PASS
EGPRS850	251	4	20.56	17.01	38.45	PASS

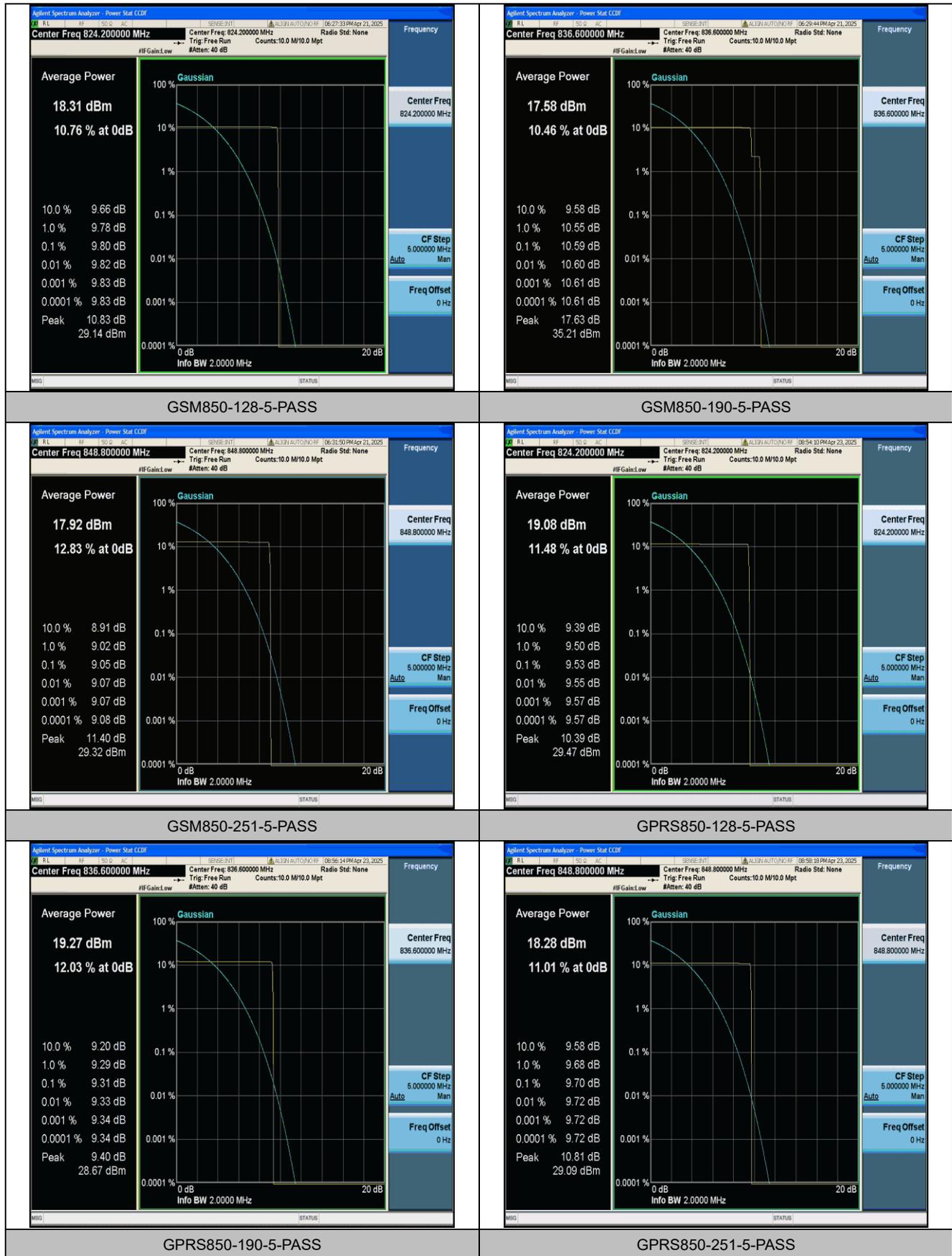
Band	Channel	Slot	Result (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
GSM1900	512	--	24.74	26.14	33	PASS
GPRS1900	512	1	24.67	26.07	33	PASS
GPRS1900	512	2	21.93	23.33	33	PASS
GPRS1900	512	3	20.14	21.54	33	PASS
GPRS1900	512	4	18.88	20.28	33	PASS
EGPRS1900	512	1	24.72	26.12	33	PASS
EGPRS1900	512	2	21.59	22.99	33	PASS
EGPRS1900	512	3	20.00	21.40	33	PASS
EGPRS1900	512	4	18.67	20.07	33	PASS
GSM1900	512	--	24.59	25.99	33	PASS
GPRS1900	661	1	24.54	25.94	33	PASS
GPRS1900	661	2	21.74	23.14	33	PASS
GPRS1900	661	3	19.79	21.19	33	PASS
GPRS1900	661	4	18.25	19.65	33	PASS
EGPRS1900	661	1	24.33	25.73	33	PASS
EGPRS1900	661	2	21.75	23.15	33	PASS
EGPRS1900	661	3	20.27	21.67	33	PASS
EGPRS1900	661	4	18.73	20.13	33	PASS
GSM1900	810	--	24.70	26.10	33	PASS
GPRS1900	810	1	24.63	26.03	33	PASS
GPRS1900	810	2	21.88	23.28	33	PASS
GPRS1900	810	3	20.02	21.42	33	PASS
GPRS1900	810	4	18.51	19.91	33	PASS
EGPRS1900	810	1	24.99	26.39	33	PASS
EGPRS1900	810	2	21.46	22.86	33	PASS
EGPRS1900	810	3	20.29	21.69	33	PASS
EGPRS1900	810	4	18.83	20.23	33	PASS

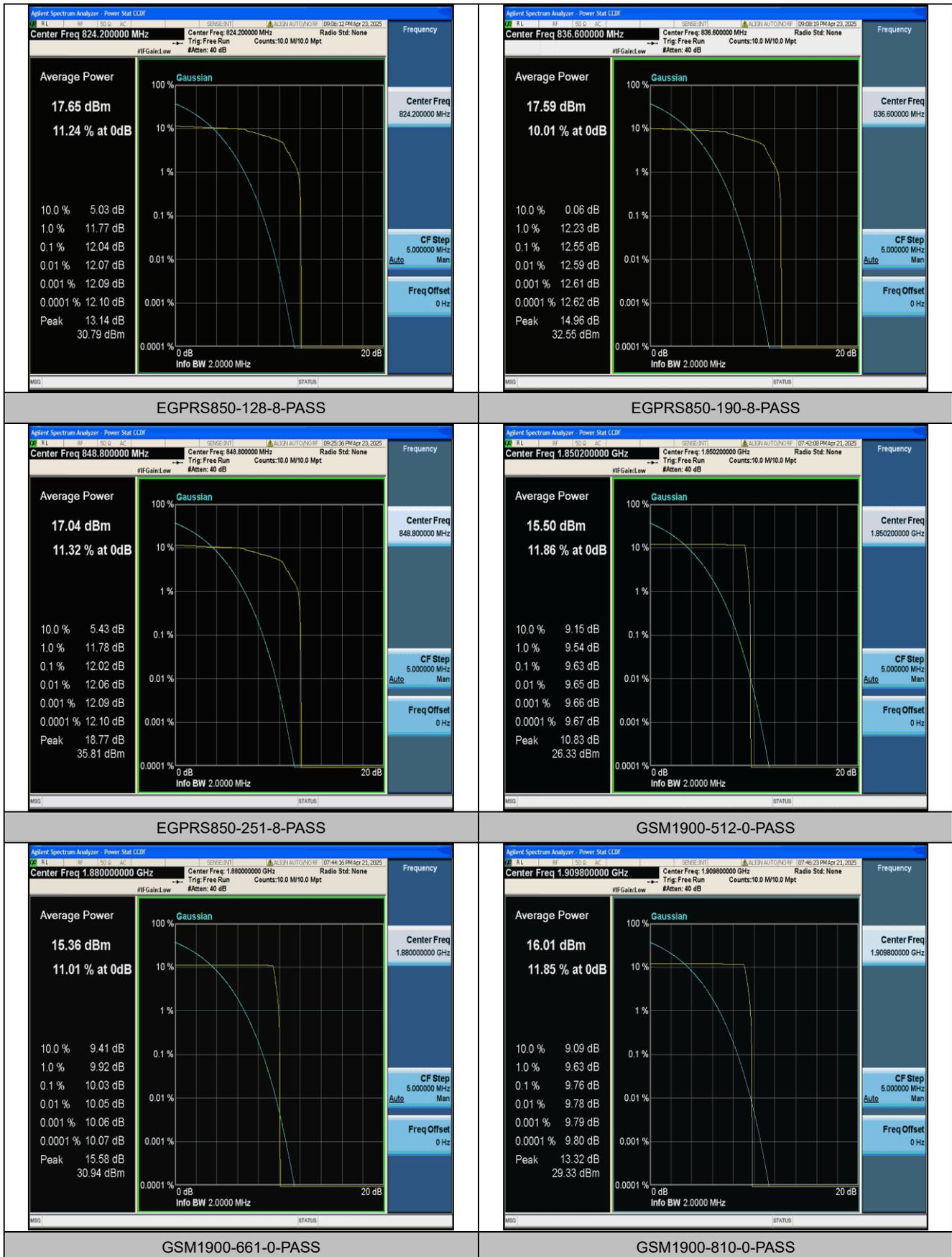
## Peak-to-Average Ratio(CCDF)

### Test Result

Band	Channel	Result(dB)	Limit(dB)	Verdict
GSM850	128	9.80	13	PASS
GSM850	190	10.59	13	PASS
GSM850	251	9.05	13	PASS
GPRS850	128	9.53	13	PASS
GPRS850	190	9.31	13	PASS
GPRS850	251	9.70	13	PASS
EGPRS850	128	12.04	13	PASS
EGPRS850	190	12.55	13	PASS
EGPRS850	251	12.02	13	PASS
GSM1900	512	9.63	13	PASS
GSM1900	661	10.03	13	PASS
GSM1900	810	9.76	13	PASS
GPRS1900	512	9.64	13	PASS
GPRS1900	661	10.27	13	PASS
GPRS1900	810	9.63	13	PASS
EGPRS1900	512	12.88	13	PASS
EGPRS1900	661	12.31	13	PASS
EGPRS1900	810	12.40	13	PASS

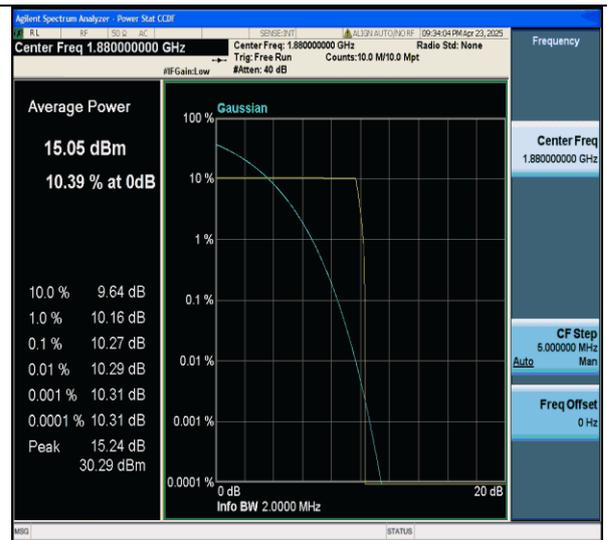
## Test Graphs







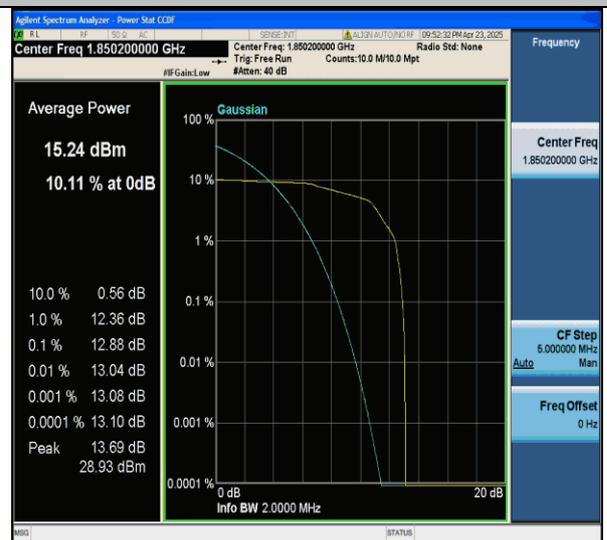
GPRS1900-512-0-PASS



GPRS1900-661-0-PASS



GPRS1900-810-0-PASS



EGPRS1900-512-2-PASS



EGPRS1900-661-2-PASS



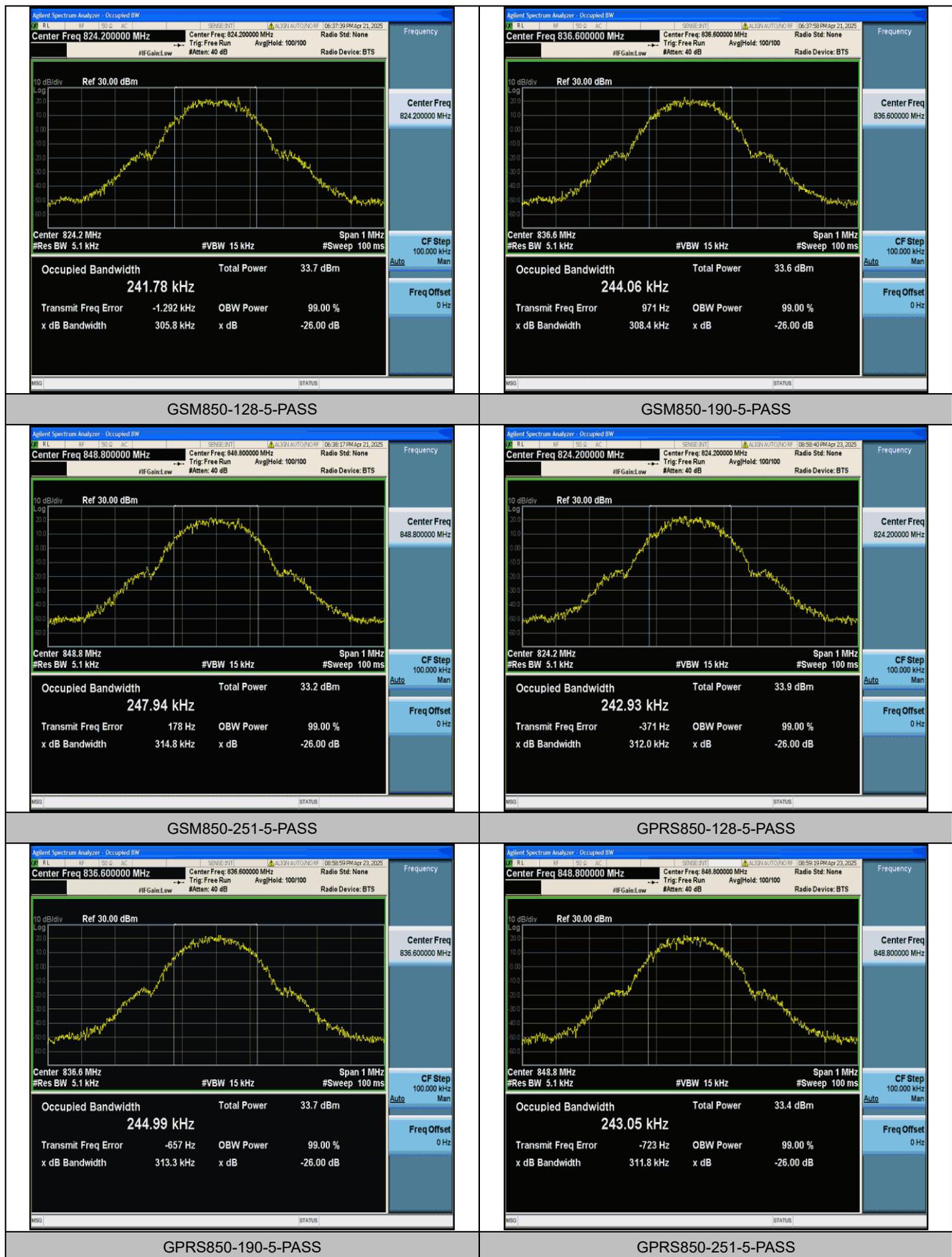
EGPRS1900-810-2-PASS

## 26dB Bandwidth and Occupied Bandwidth

### Test Result

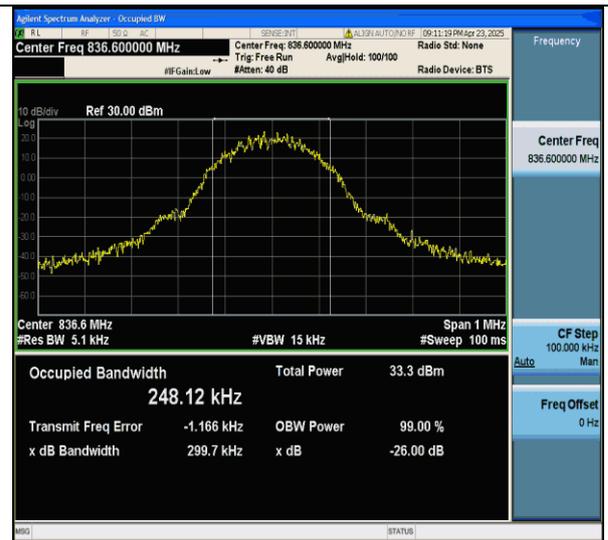
Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	0.24178	0.3058	---	PASS
GSM850	190	0.24406	0.3084	---	PASS
GSM850	251	0.24794	0.3148	---	PASS
GPRS850	128	0.24293	0.3120	---	PASS
GPRS850	190	0.24499	0.3133	---	PASS
GPRS850	251	0.24305	0.3118	---	PASS
EGPRS850	128	0.24385	0.3078	---	PASS
EGPRS850	190	0.24812	0.2997	---	PASS
EGPRS850	251	0.24526	0.3130	---	PASS
GSM1900	512	0.23826	0.3092	---	PASS
GSM1900	661	0.24249	0.3062	---	PASS
GSM1900	810	0.24415	0.3123	---	PASS
GPRS1900	512	0.24734	0.3165	---	PASS
GPRS1900	661	0.24404	0.3103	---	PASS
GPRS1900	810	0.24659	0.3117	---	PASS
EGPRS1900	512	0.24207	0.2957	---	PASS
EGPRS1900	661	0.24448	0.3010	---	PASS
EGPRS1900	810	0.24667	0.3075	---	PASS

## Test Graphs

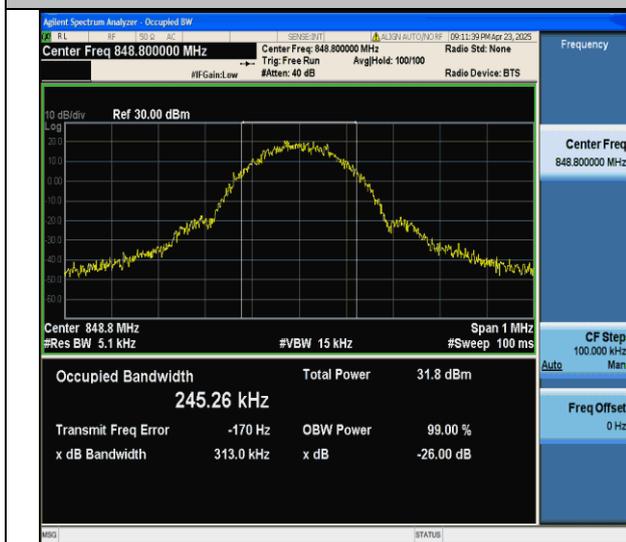




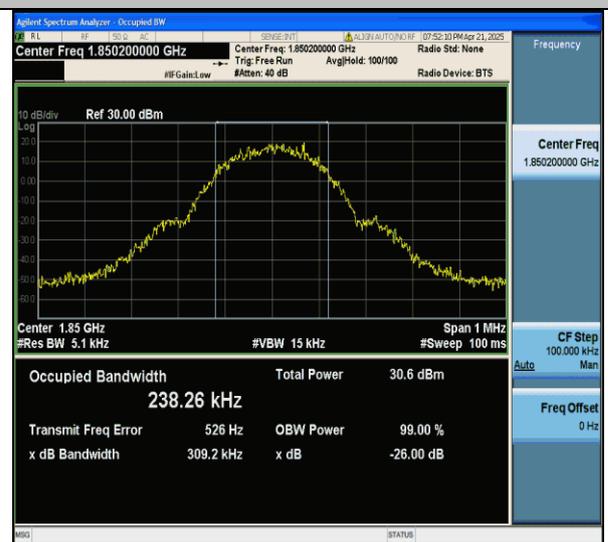
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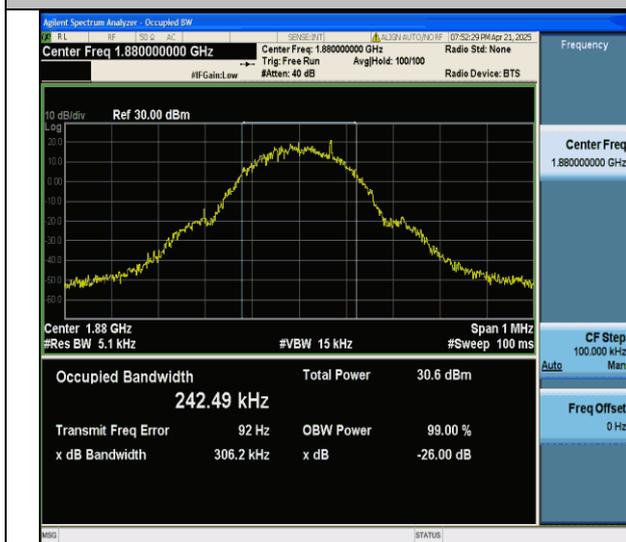
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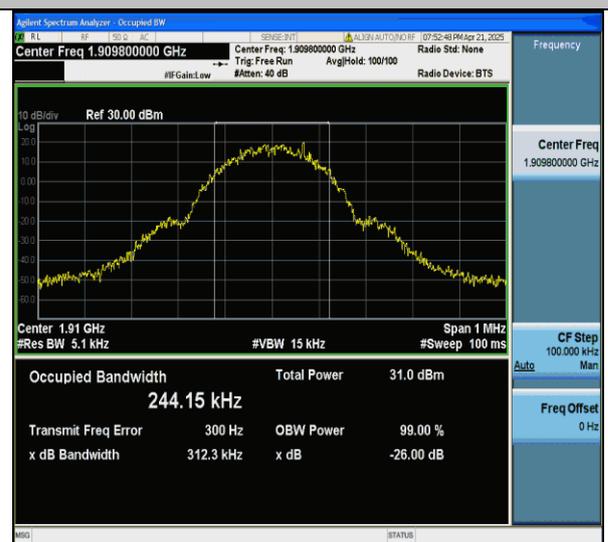
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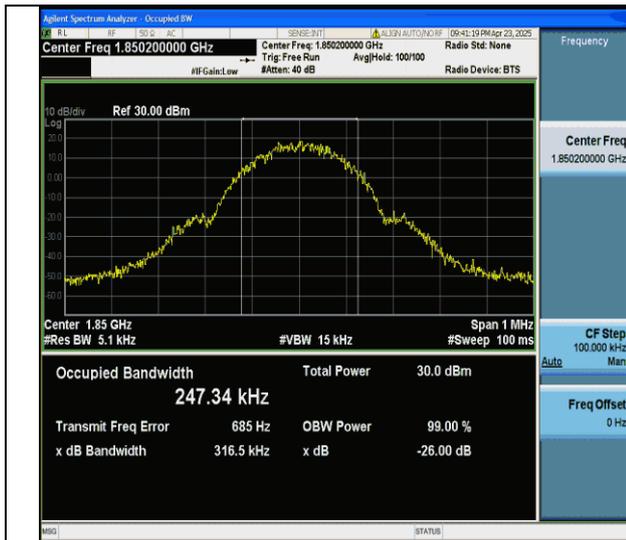
GSM1900-512-0-PASS



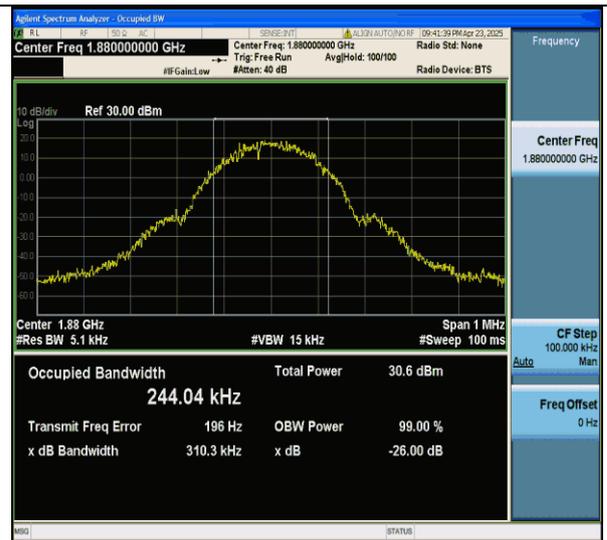
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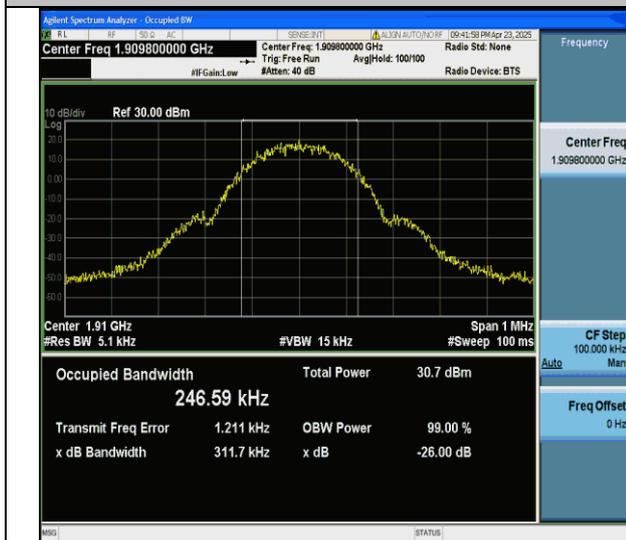
GSM1900-810-0-PASS



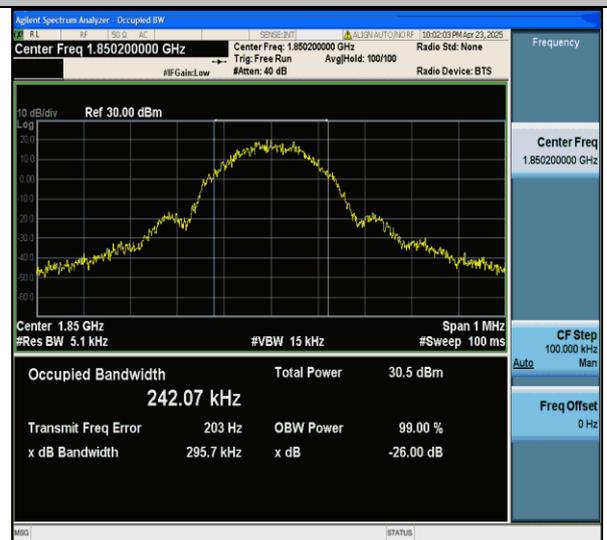
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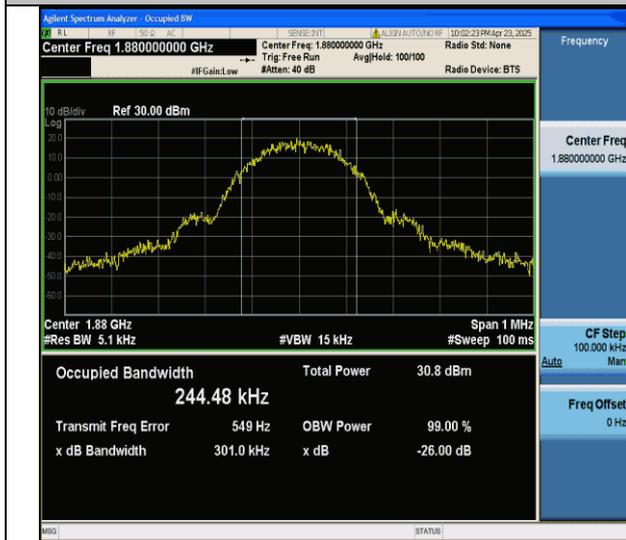
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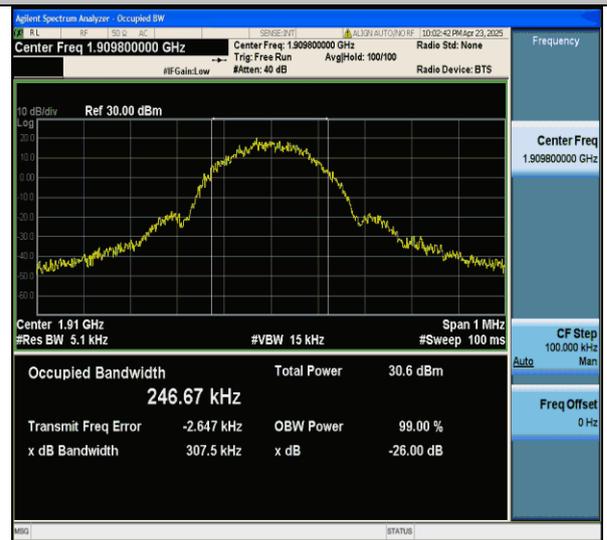
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EGPRS1900-512-2-PASS



EGPRS1900-661-2-PASS



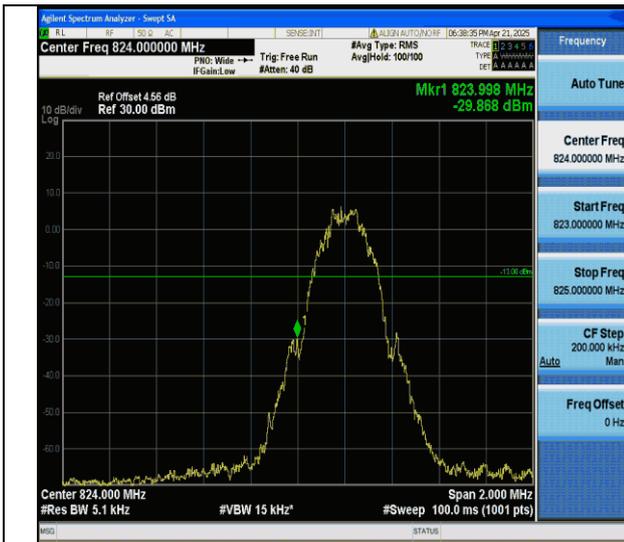
EGPRS1900-810-2-PASS

## Band Edge

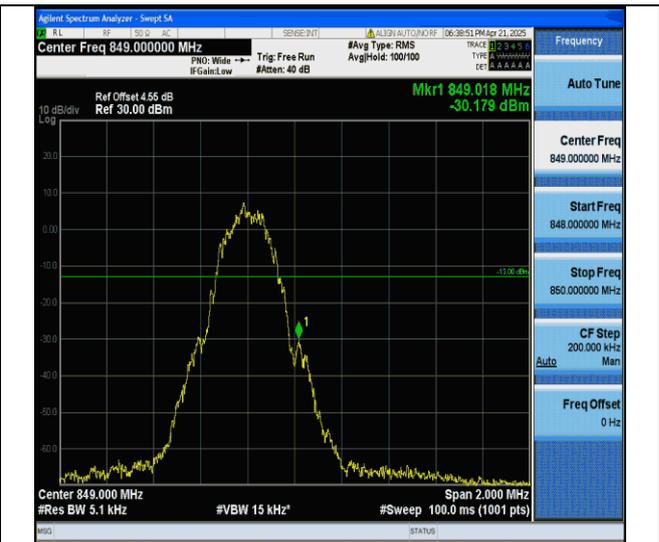
### Test Result

Band	Channel	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	824.00	-29.87	-13	PASS
GSM850	251	849.02	-30.18	-13	PASS
GPRS850	128	823.98	-30.04	-13	PASS
GPRS850	251	849.03	-31.12	-13	PASS
EGPRS850	128	823.99	-32.82	-13	PASS
EGPRS850	251	849.02	-34.27	-13	PASS
GSM1900	512	1850.00	-31.96	-13	PASS
GSM1900	810	1910.02	-31.88	-13	PASS
GPRS1900	512	1849.98	-34.68	-13	PASS
GPRS1900	810	1910.02	-31.96	-13	PASS
EGPRS1900	512	1850.00	-32.90	-13	PASS
EGPRS1900	810	1910.01	-33.46	-13	PASS

## Test Graphs



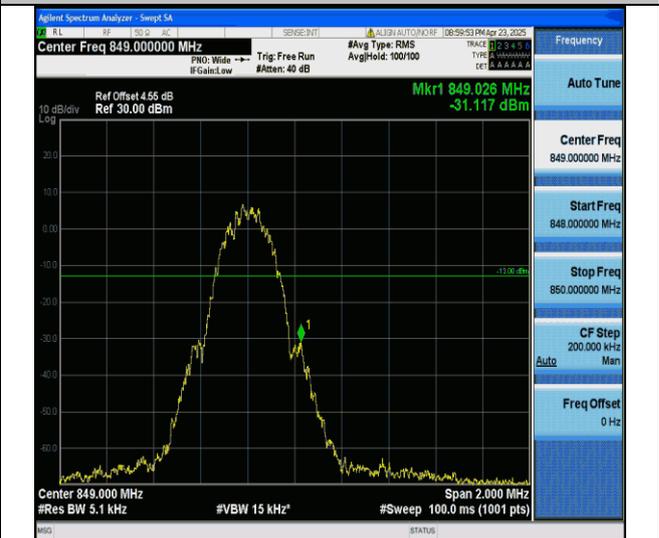
GSM850-128-5-PASS



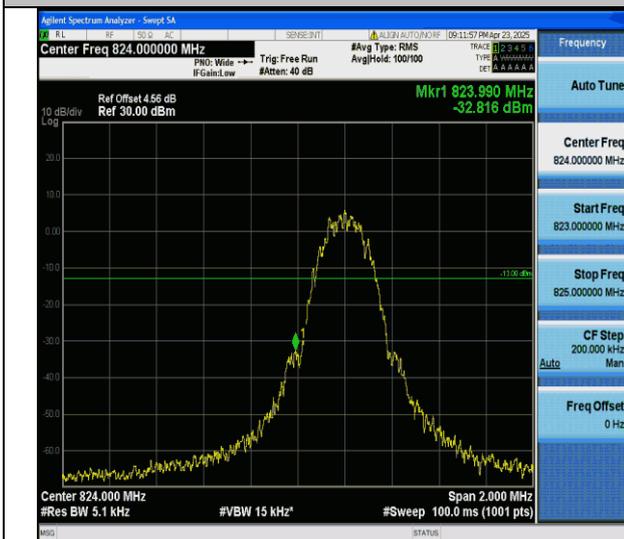
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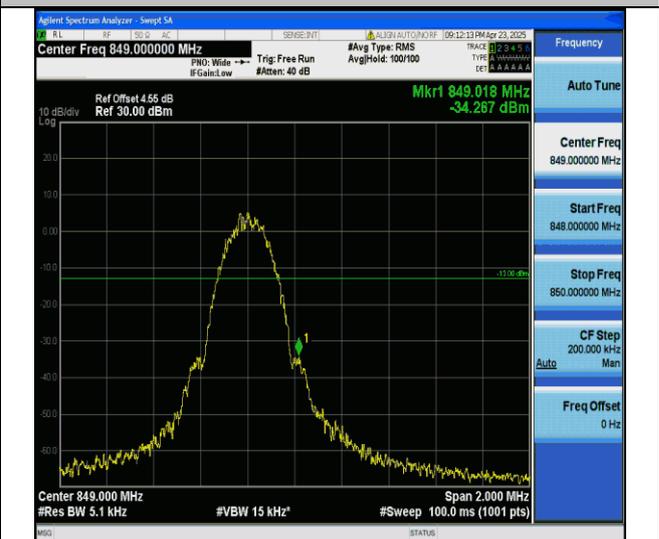
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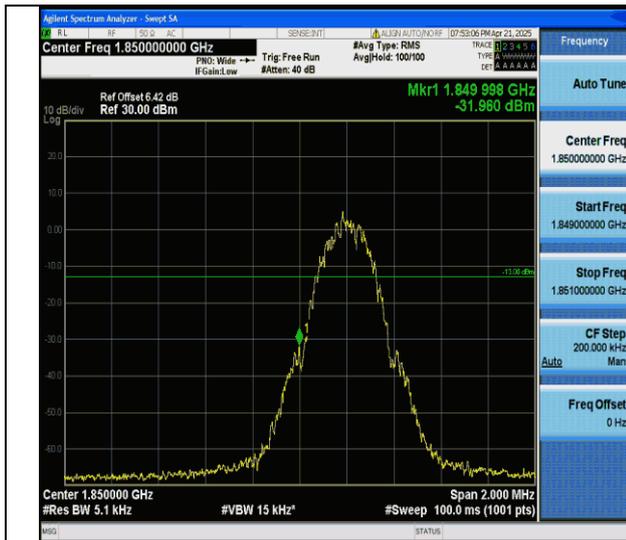
GPRS850-251-5-PASS



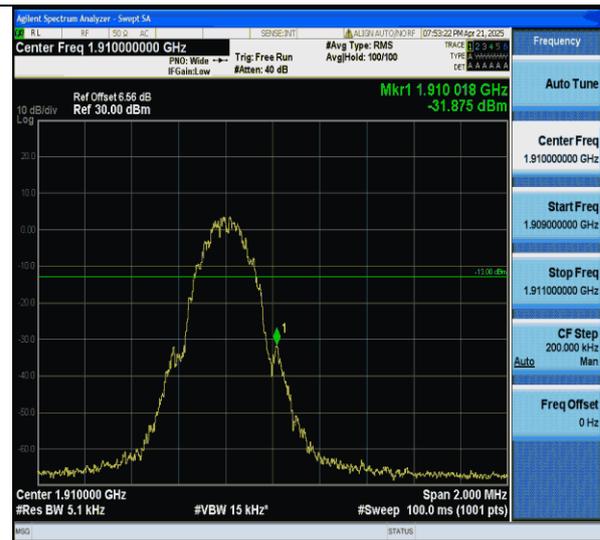
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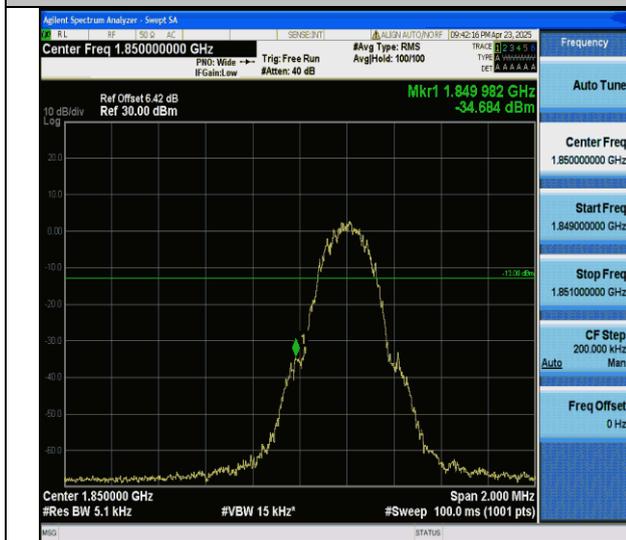
EGPRS850-251-8-PASS



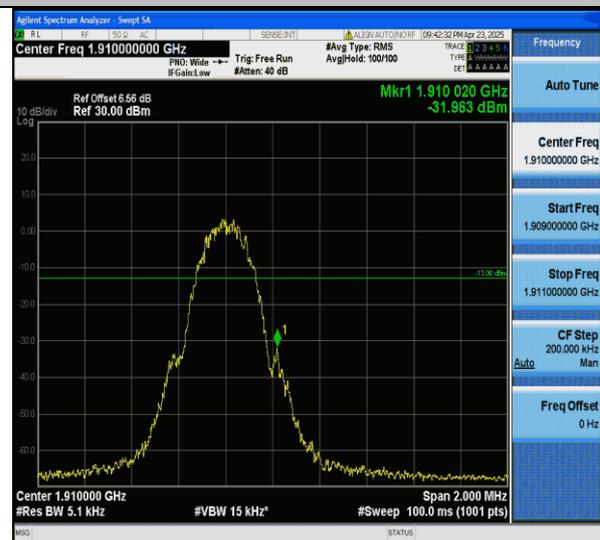
GSM1900-512-0-PASS



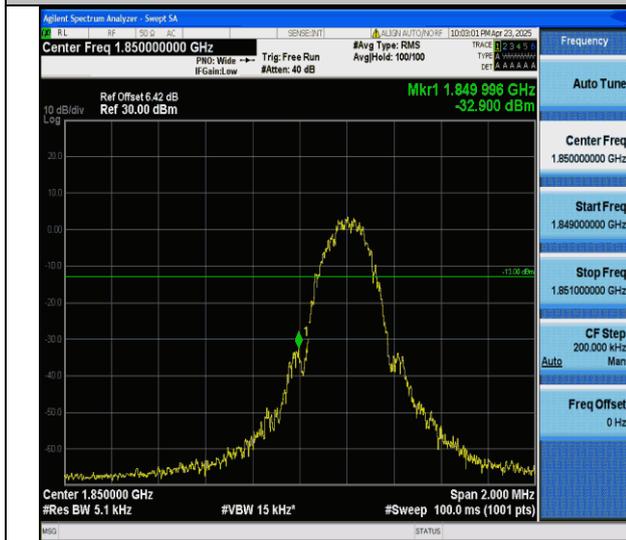
GSM1900-810-0-PASS



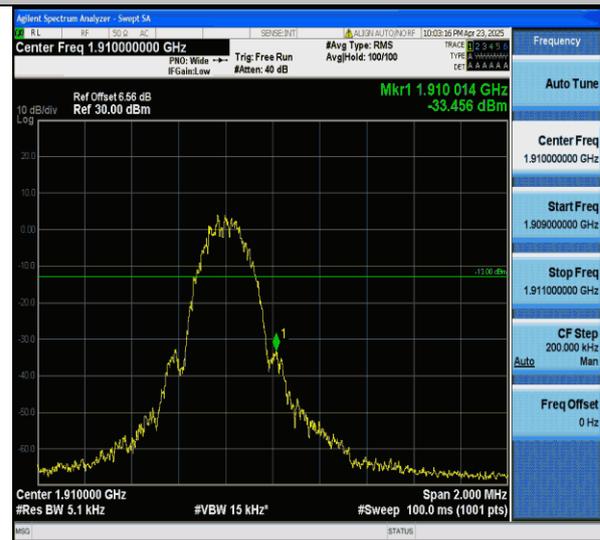
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GPRS1900-810-0-PASS



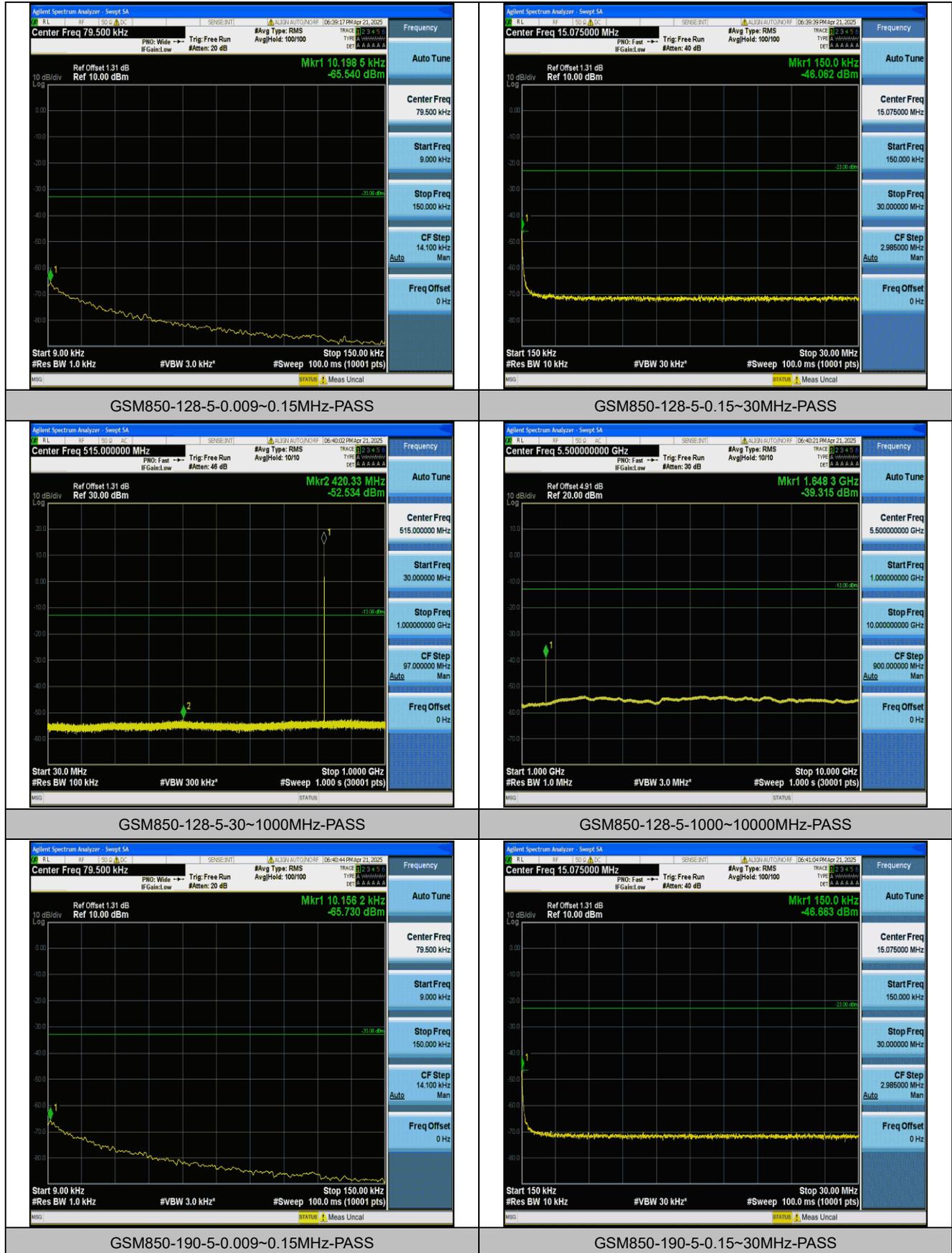
EGPRS1900-512-2-PASS



EGPRS1900-810-2-PASS

# Conducted Spurious Emission

## Test Graphs





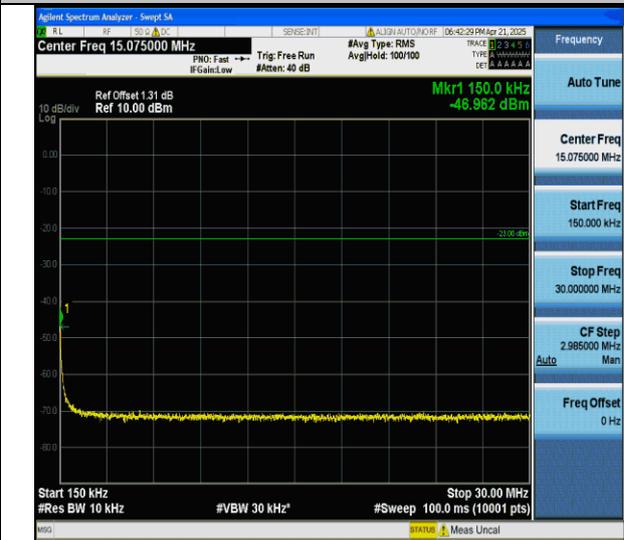
GSM850-190-5-30~1000MHz-PASS



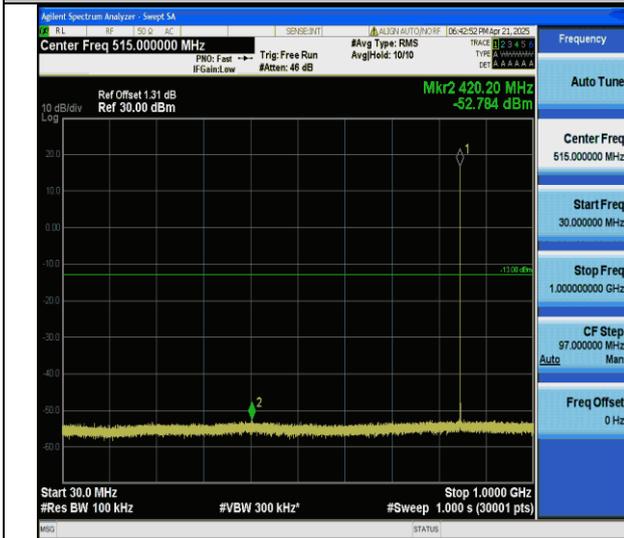
GSM850-190-5-1000~10000MHz-PASS



GSM850-251-5-0.009~0.15MHz-PASS



GSM850-251-5-0.15~30MHz-PASS



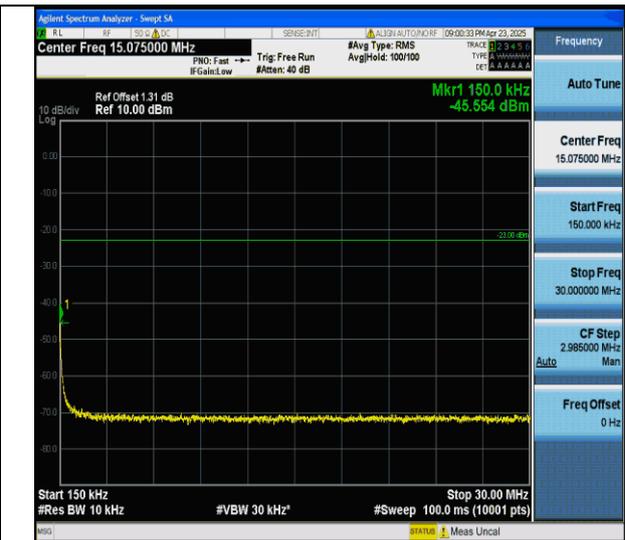
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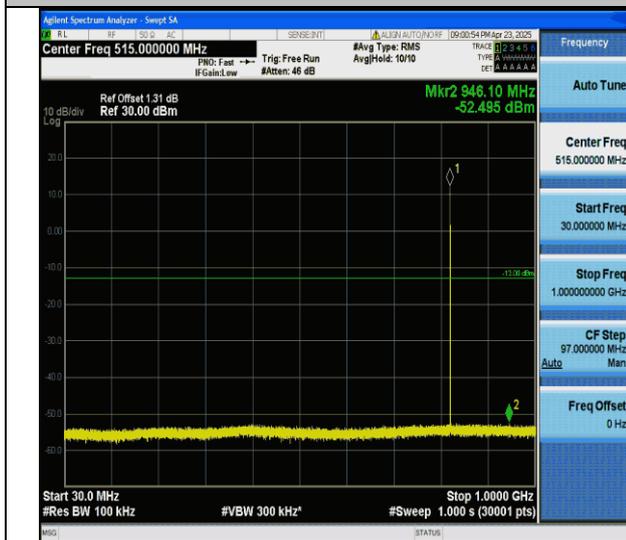
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GPRS850-128-5-0.009~0.15MHz-PASS



GPRS850-128-5-0.15~30MHz-PASS



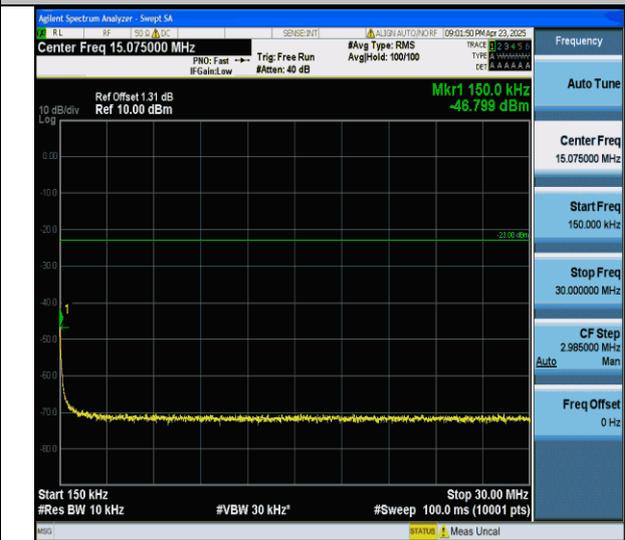
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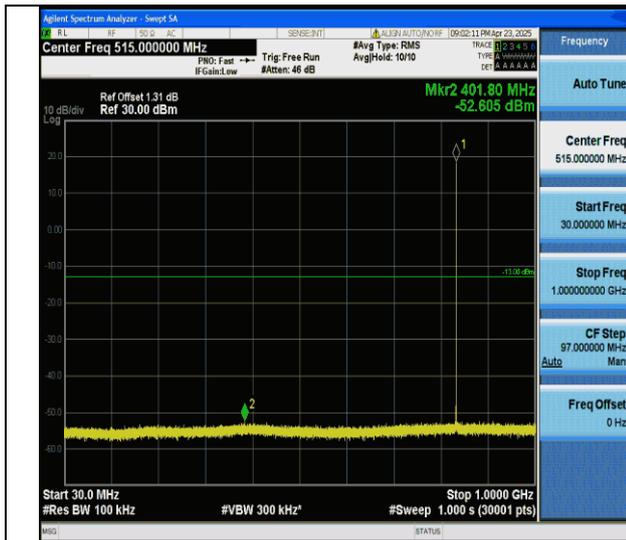
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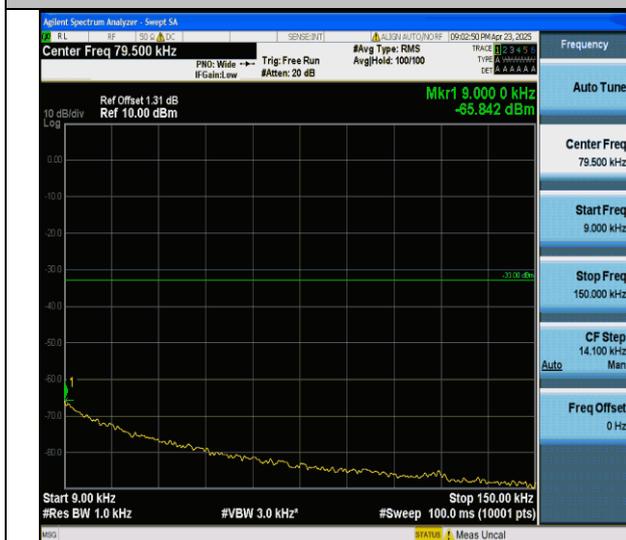
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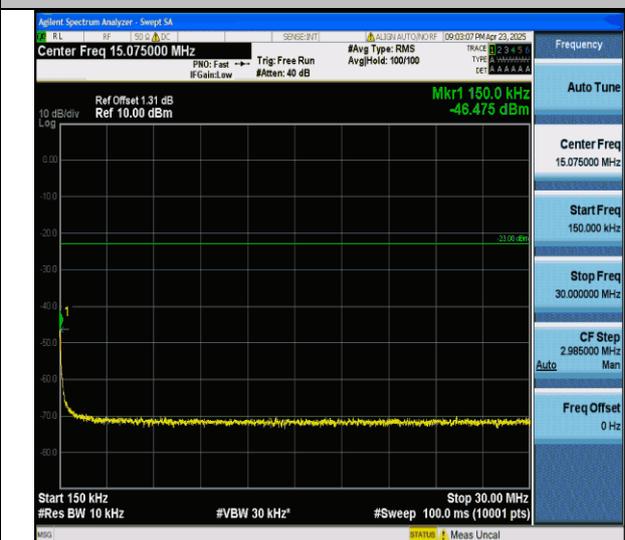
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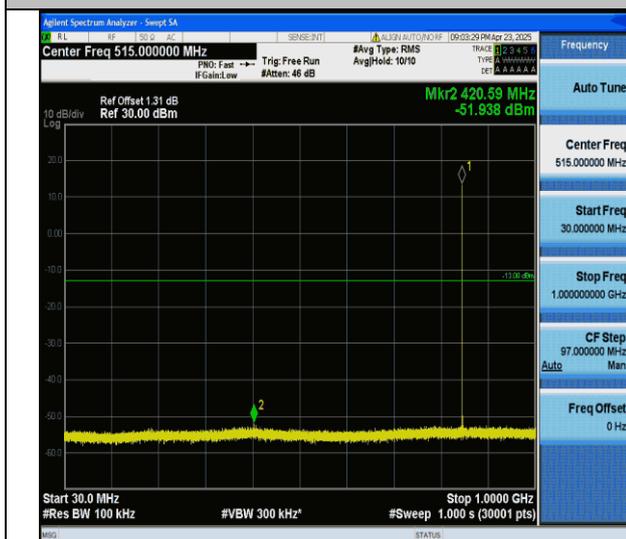
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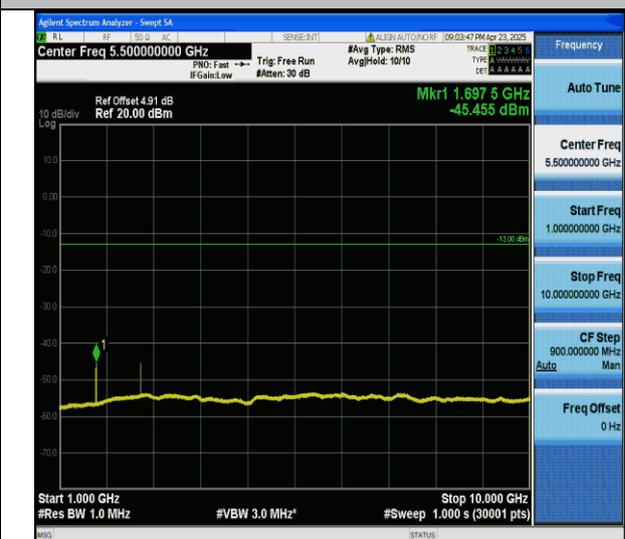
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GPRS850-251-5-0.15~30MHz-PASS



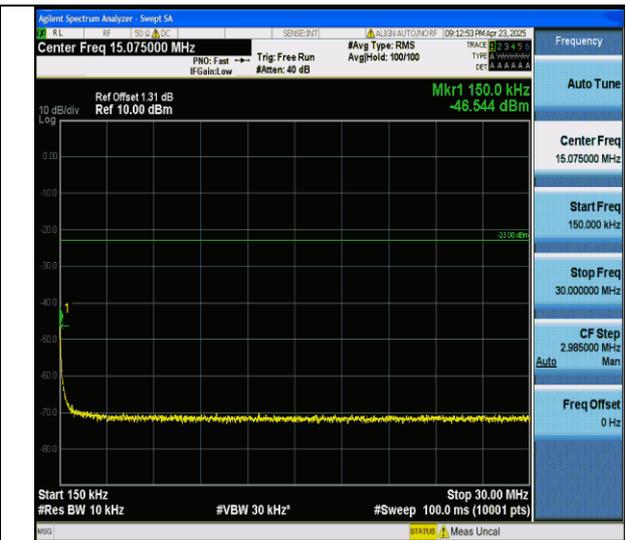
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GPRS850-251-5-1000~10000MHz-PASS



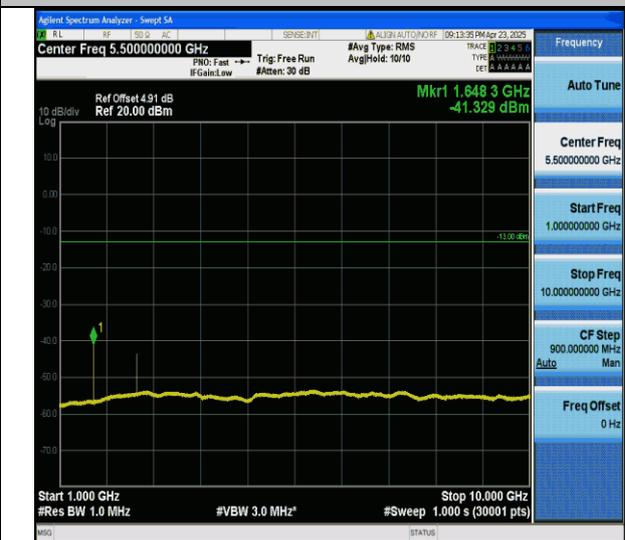
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EGPRS850-128-8-0.15~30MHz-PASS



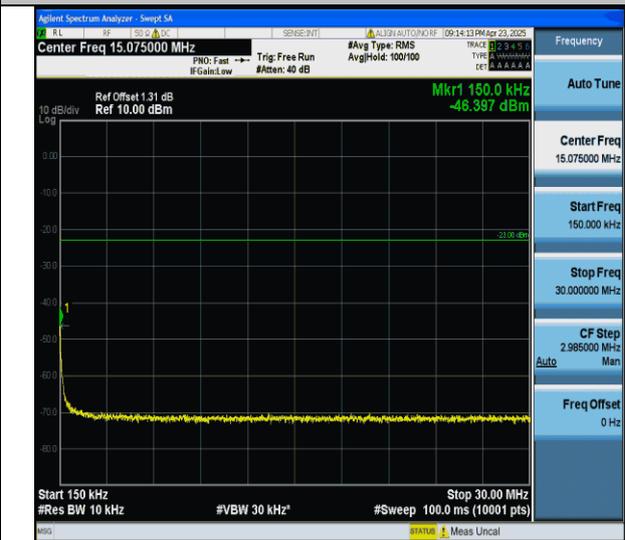
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EGPRS850-128-8-1000~10000MHz-PASS



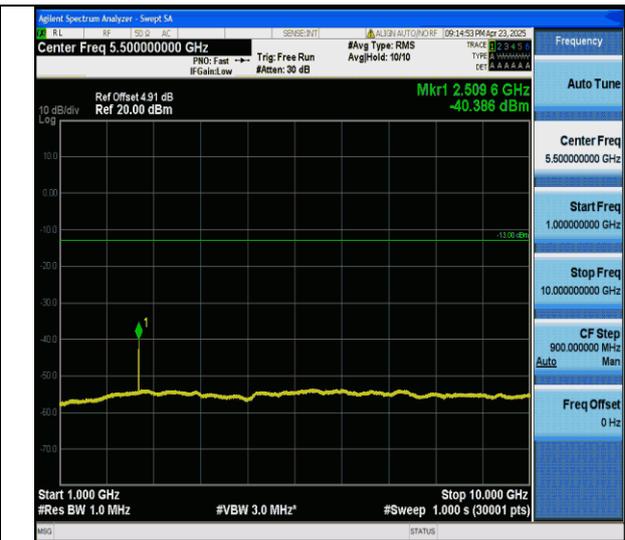
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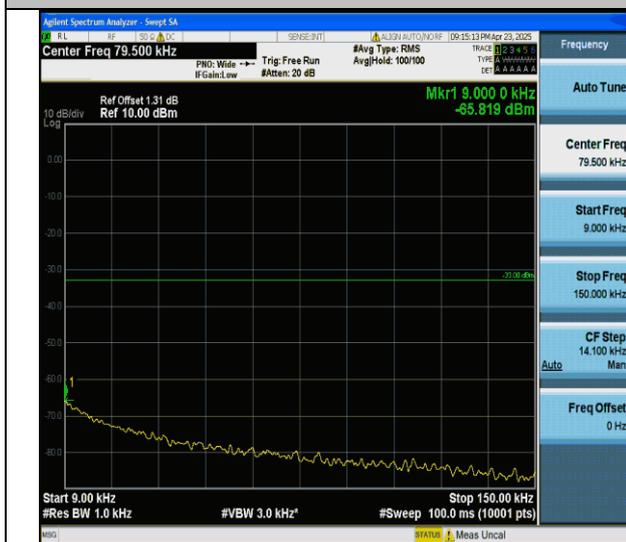
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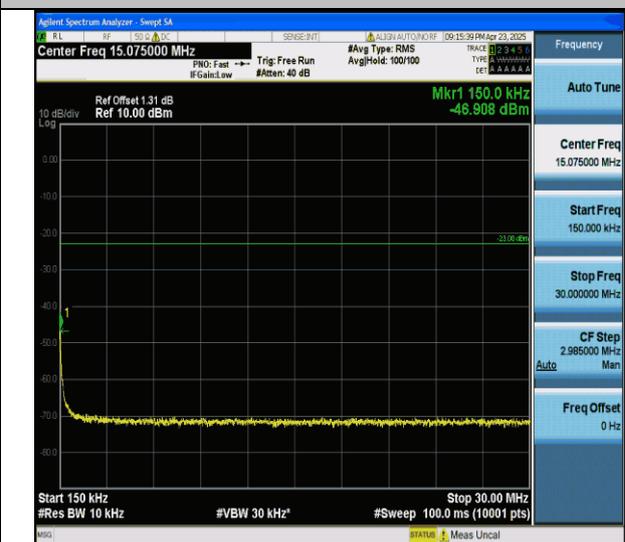
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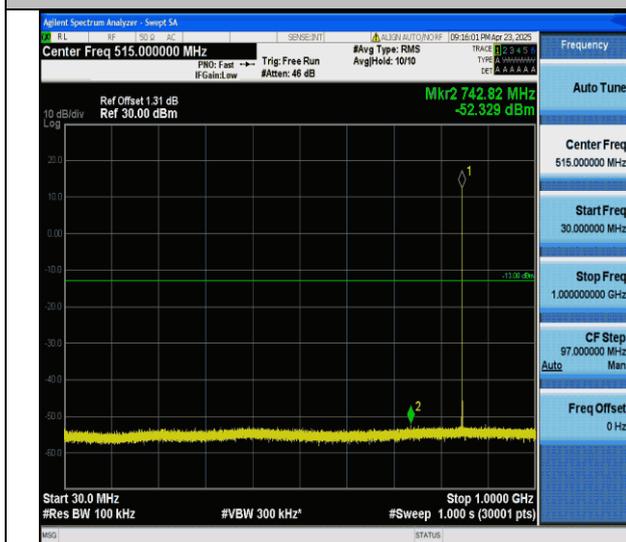
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EGPRS850-251-8-0.009~0.15MHz-PASS



EGPRS850-251-8-0.15~30MHz-PASS



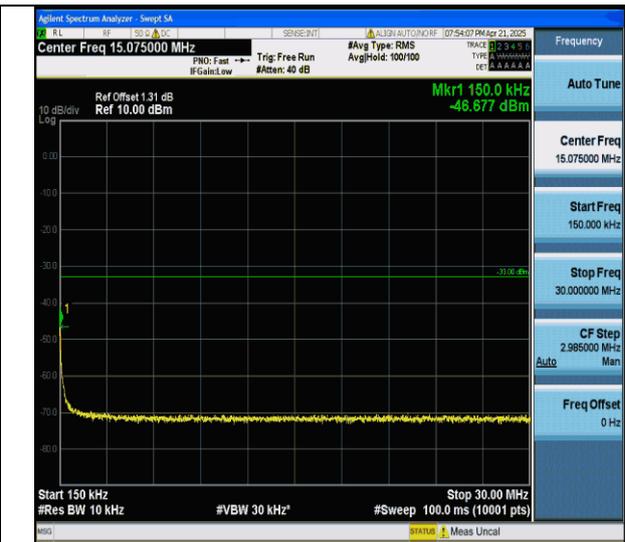
EGPRS850-251-8-30~100MHz-PASS



EGPRS850-251-8-100~1000MHz-PASS



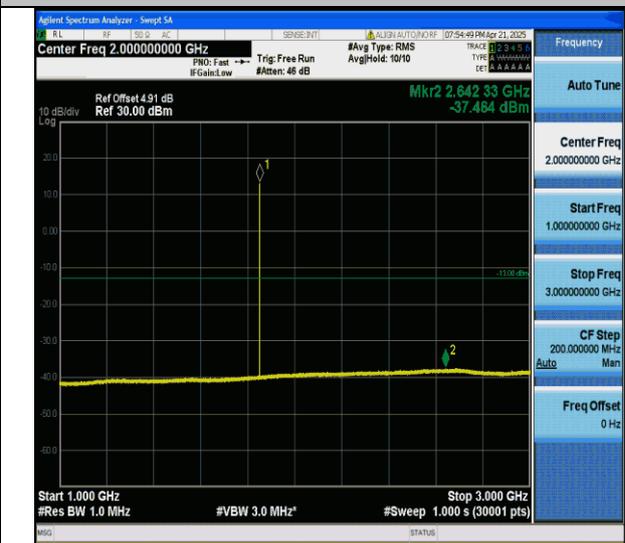
GSM1900-512-0-0.009~0.15MHz-PASS



GSM1900-512-0-0.15~30MHz-PASS



GSM1900-512-0-30~1000MHz-PASS



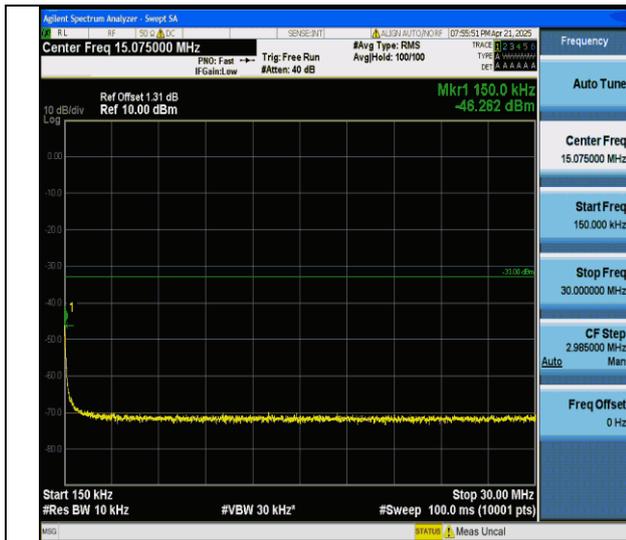
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GSM1900-512-0-3000~18000MHz-PASS



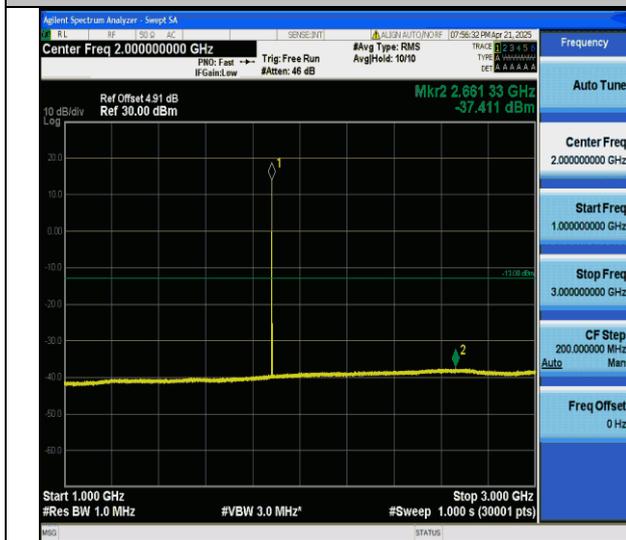
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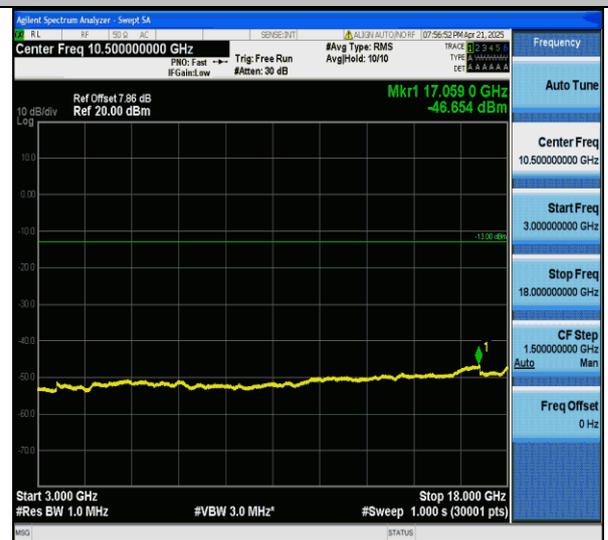
GSM1900-661-0-0.15~30MHz-PASS



GSM1900-661-0-30~100MHz-PASS



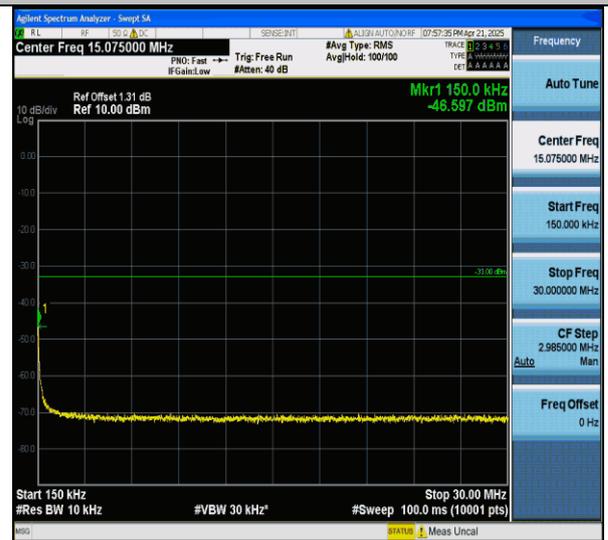
GSM1900-661-0-1000~3000MHz-PASS



GSM1900-661-0-3000~18000MHz-PASS



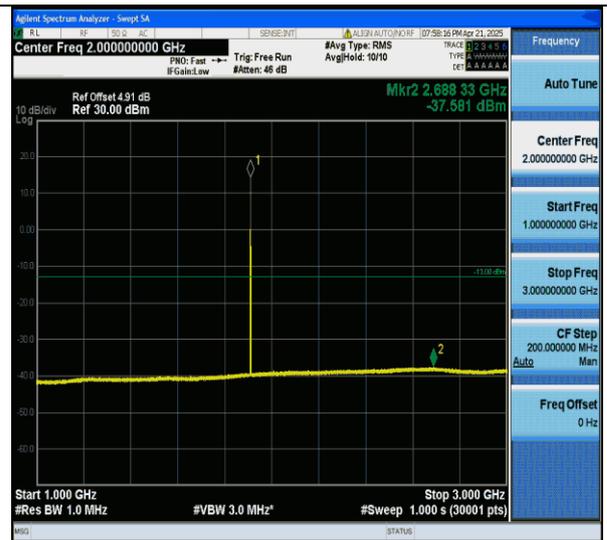
GSM1900-810-0-0.009~0.15MHz-PASS



GSM1900-810-0-0.15~30MHz-PASS



GSM1900-810-0-30~1000MHz-PASS



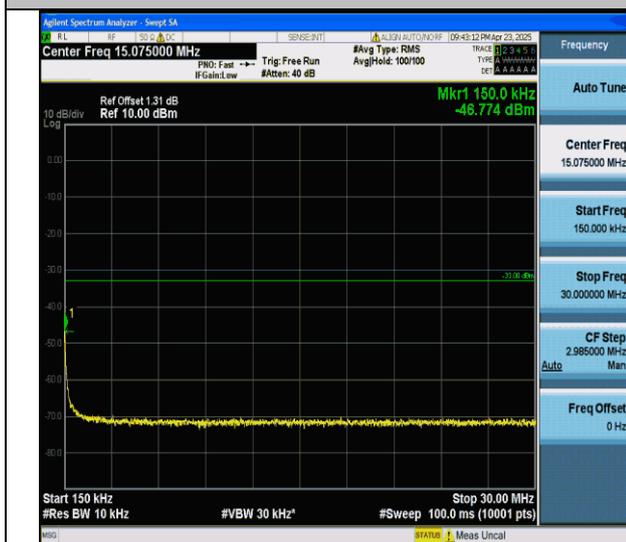
GSM1900-810-0-1000~3000MHz-PASS



GSM1900-810-0-3000~18000MHz-PASS



GPRS1900-512-0-0.009~0.15MHz-PASS



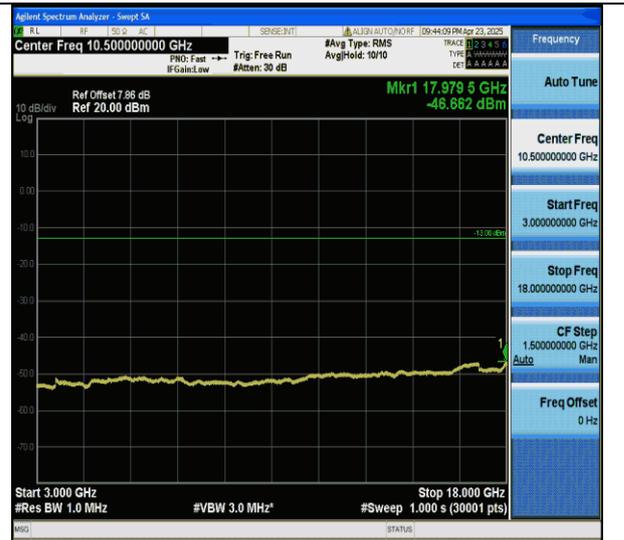
GPRS1900-512-0-0.15~30MHz-PASS



GPRS1900-512-0-30~1000MHz-PASS



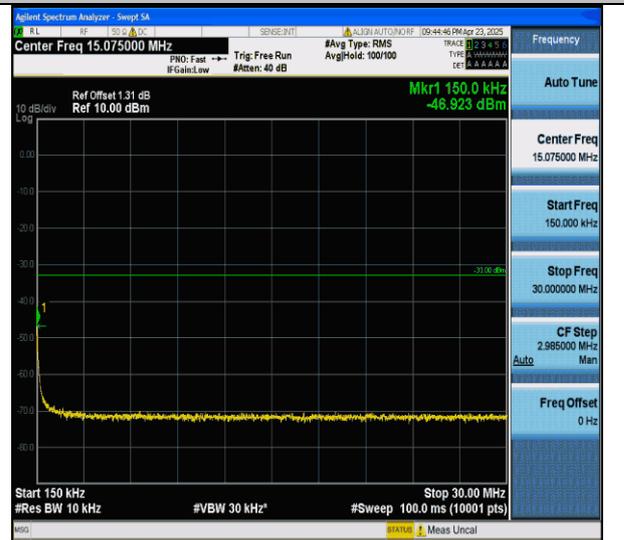
GPRS1900-512-0-1000~3000MHz-PASS



GPRS1900-512-0-3000~18000MHz-PASS



GPRS1900-661-0-0.009~0.15MHz-PASS



GPRS1900-661-0-0.15~30MHz-PASS



GPRS1900-661-0-30~100MHz-PASS



GPRS1900-661-0-1000~3000MHz-PASS



GPRS1900-661-0-3000~18000MHz-PASS



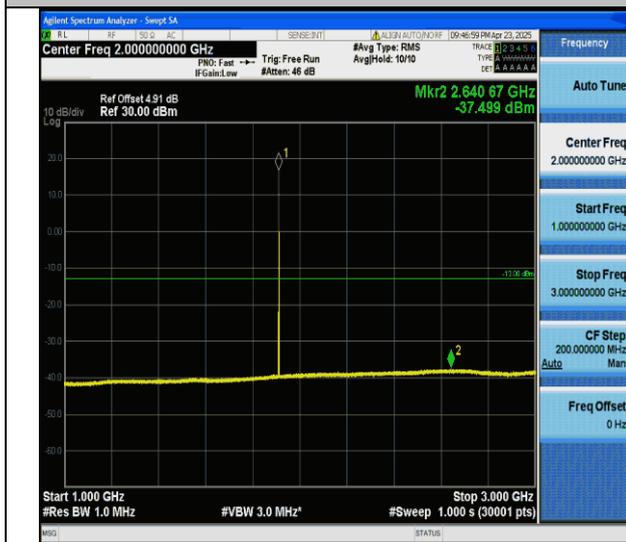
GPRS1900-810-0-0.009~0.15MHz-PASS



GPRS1900-810-0-0.15~30MHz-PASS



GPRS1900-810-0-30~1000MHz-PASS



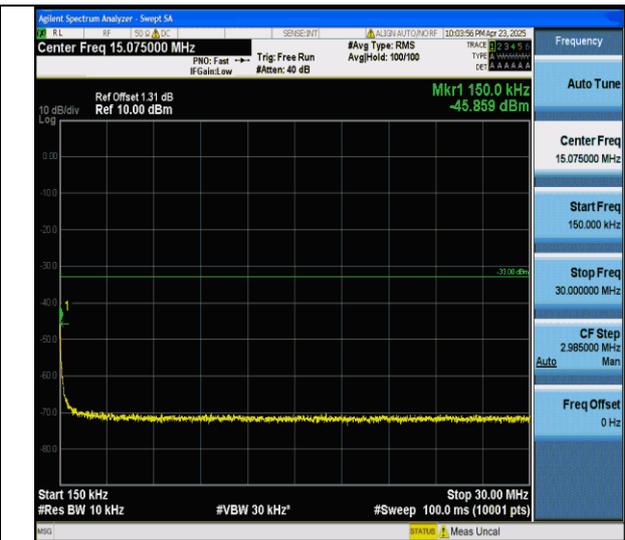
GPRS1900-810-0-1000~3000MHz-PASS



GPRS1900-810-0-3000~18000MHz-PASS



EGPRS1900-512-2-0.009~0.15MHz-PASS



EGPRS1900-512-2-0.15~30MHz-PASS



EGPRS1900-512-2-30~1000MHz-PASS



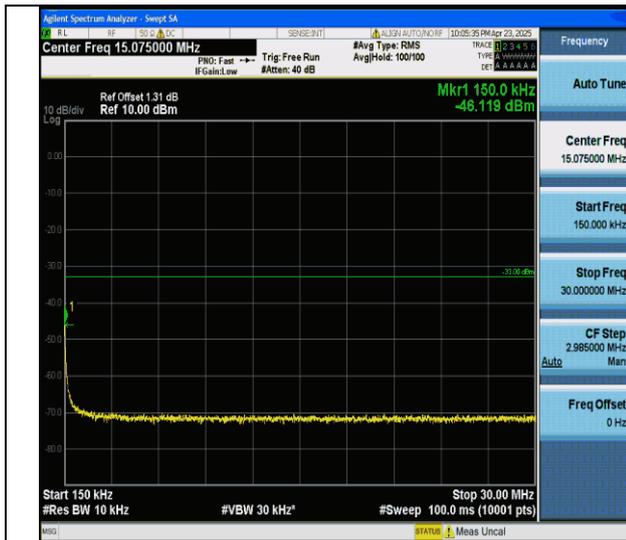
EGPRS1900-512-2-1000~3000MHz-PASS



EGPRS1900-512-2-3000~18000MHz-PASS



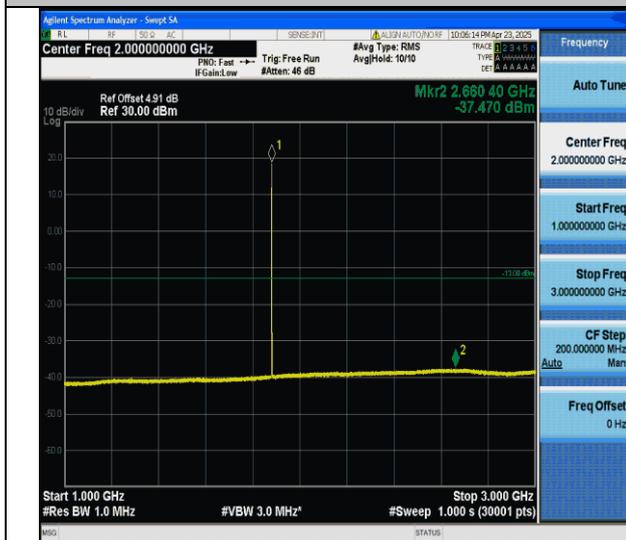
EGPRS1900-661-2-0.009~0.15MHz-PASS



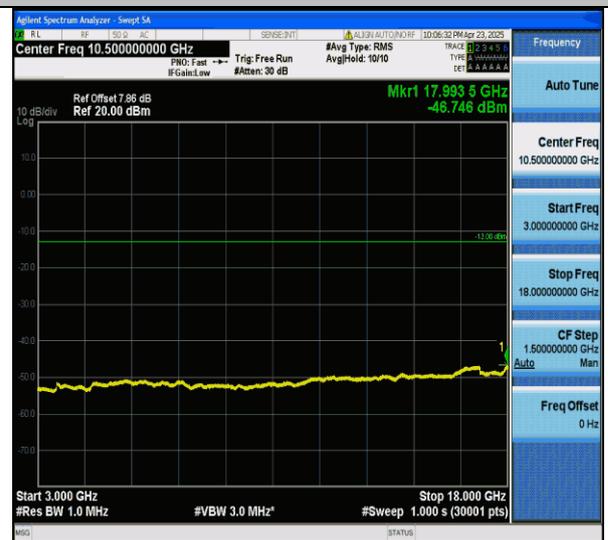
EGPRS1900-661-2-0.15~30MHz-PASS



EGPRS1900-661-2-30~1000MHz-PASS



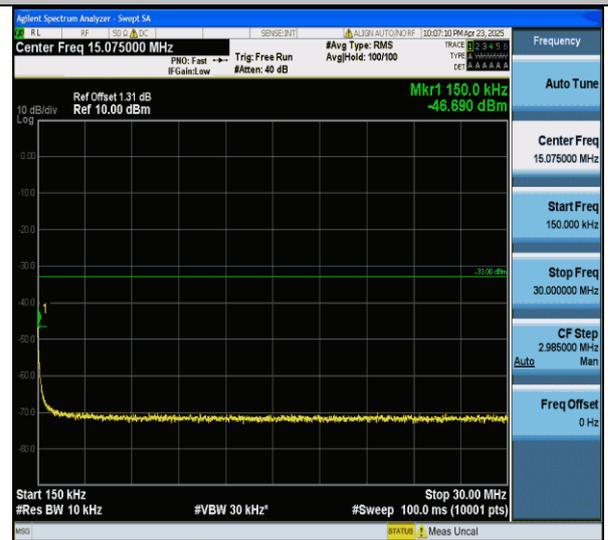
EGPRS1900-661-2-1000~3000MHz-PASS



EGPRS1900-661-2-3000~18000MHz-PASS



EGPRS1900-810-2-0.009~0.15MHz-PASS



EGPRS1900-810-2-0.15~30MHz-PASS



EGPRS1900-810-2-30~1000MHz-PASS



EGPRS1900-810-2-1000~3000MHz-PASS



EGPRS1900-810-2-3000~18000MHz-PASS

## Frequency Stability

### Test Result

Voltage							
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	190	VN	NT	-6.01	-0.007184	±2.5	PASS
GSM850	190	VL	NT	-8.88	-0.010614	±2.5	PASS
GSM850	190	VH	NT	-6.91	-0.008260	±2.5	PASS
GPRS850	190	VN	NT	0.71	0.000849	±2.5	PASS
GPRS850	190	VL	NT	-1.58	-0.001889	±2.5	PASS
GPRS850	190	VH	NT	-1.94	-0.002319	±2.5	PASS
EGPRS850	190	VN	NT	8.46	0.010112	±2.5	PASS
EGPRS850	190	VL	NT	7.33	0.008762	±2.5	PASS
EGPRS850	190	VH	NT	9.94	0.011881	±2.5	PASS
GSM1900	661	VN	NT	-8.04	-0.004277	--	PASS
GSM1900	661	VL	NT	-12.07	-0.006420	--	PASS
GSM1900	661	VH	NT	-16.82	-0.008947	--	PASS
GPRS1900	661	VN	NT	-7.20	-0.003830	--	PASS
GPRS1900	661	VL	NT	2.62	0.001394	--	PASS
GPRS1900	661	VH	NT	2.23	0.001186	--	PASS
EGPRS1900	661	VN	NT	-0.13	-0.000069	--	PASS
EGPRS1900	661	VL	NT	6.17	0.003282	--	PASS
EGPRS1900	661	VH	NT	6.30	0.003351	--	PASS

Temperature							
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	190	NV	-30	-5.88	-0.007028	±2.5	PASS
GSM850	190	NV	-20	-8.04	-0.009610	±2.5	PASS
GSM850	190	NV	-10	-6.94	-0.008295	±2.5	PASS
GSM850	190	NV	0	-3.78	-0.004518	±2.5	PASS
GSM850	190	NV	10	-6.94	-0.008295	±2.5	PASS
GSM850	190	NV	20	-6.13	-0.007327	±2.5	PASS
GSM850	190	NV	30	-3.23	-0.003861	±2.5	PASS
GSM850	190	NV	40	-6.23	-0.007447	±2.5	PASS
GSM850	190	NV	50	-11.98	-0.014320	±2.5	PASS
GPRS850	190	NV	-30	0.23	0.000275	±2.5	PASS
GPRS850	190	NV	-20	0.87	0.001040	±2.5	PASS
GPRS850	190	NV	-10	-1.16	-0.001387	±2.5	PASS
GPRS850	190	NV	0	1.58	0.001889	±2.5	PASS
GPRS850	190	NV	10	-0.23	-0.000275	±2.5	PASS
GPRS850	190	NV	20	0.06	0.000072	±2.5	PASS
GPRS850	190	NV	30	-0.03	-0.000036	±2.5	PASS
GPRS850	190	NV	40	1.07	0.001279	±2.5	PASS
GPRS850	190	NV	50	1.78	0.002128	±2.5	PASS
EGPRS850	190	NV	-30	7.36	0.008798	±2.5	PASS
EGPRS850	190	NV	-20	8.81	0.010531	±2.5	PASS
EGPRS850	190	NV	-10	8.04	0.009610	±2.5	PASS
EGPRS850	190	NV	0	7.04	0.008415	±2.5	PASS
EGPRS850	190	NV	10	8.01	0.009574	±2.5	PASS
EGPRS850	190	NV	20	12.37	0.014786	±2.5	PASS
EGPRS850	190	NV	30	7.91	0.009455	±2.5	PASS
EGPRS850	190	NV	40	7.88	0.009419	±2.5	PASS
EGPRS850	190	NV	50	8.36	0.009993	±2.5	PASS
GSM1900	661	NV	-30	-13.69	-0.007282	--	PASS
GSM1900	661	NV	-20	-12.27	-0.006527	--	PASS
GSM1900	661	NV	-10	-15.14	-0.008053	--	PASS
GSM1900	661	NV	0	-10.78	-0.005734	--	PASS
GSM1900	661	NV	10	-13.08	-0.006957	--	PASS
GSM1900	661	NV	20	-10.14	-0.005394	--	PASS
GSM1900	661	NV	30	-11.36	-0.006043	--	PASS
GSM1900	661	NV	40	-13.01	-0.006920	--	PASS
GSM1900	661	NV	50	-13.37	-0.007112	--	PASS
GPRS1900	661	NV	-30	0.71	0.000378	--	PASS
GPRS1900	661	NV	-20	0.77	0.000410	--	PASS
GPRS1900	661	NV	-10	-0.13	-0.000069	--	PASS
GPRS1900	661	NV	0	0.97	0.000516	--	PASS
GPRS1900	661	NV	10	1.39	0.000739	--	PASS

GPRS1900	661	NV	20	1.81	0.000963	--	PASS
GPRS1900	661	NV	30	1.10	0.000585	--	PASS
GPRS1900	661	NV	40	0.48	0.000255	--	PASS
GPRS1900	661	NV	50	1.94	0.001032	--	PASS
EGPRS1900	661	NV	-30	6.20	0.003298	--	PASS
EGPRS1900	661	NV	-20	6.13	0.003261	--	PASS
EGPRS1900	661	NV	-10	4.00	0.002128	--	PASS
EGPRS1900	661	NV	0	5.20	0.002766	--	PASS
EGPRS1900	661	NV	10	2.87	0.001527	--	PASS
EGPRS1900	661	NV	20	6.62	0.003521	--	PASS
EGPRS1900	661	NV	30	7.04	0.003745	--	PASS
EGPRS1900	661	NV	40	9.59	0.005101	--	PASS
EGPRS1900	661	NV	50	4.46	0.002372	--	PASS

~The End~