

Transmitter Conducted Output Power And ERP/EIRP

Band	Channel	PCL	Freq (MHz)	Conducted Power(dBm)	ERP/EIRP (dBm)	ERP/EIRP(limit) (dBm)	Verdict
GSM 850	251	5	848.8	33.96	30.03	38.45	PASS
GSM 850	190	5	836.6	33.83	29.90	38.45	PASS
GSM 850	128	5	824.2	33.72	29.79	38.45	PASS
PCS 1900	810	0	1909.8	30.85	32.58	33	PASS
PCS 1900	661	0	1880.0	30.85	32.58	33	PASS
PCS 1900	512	0	1850.2	30.82	32.55	33	PASS

Peak to Average Ratio

Test result

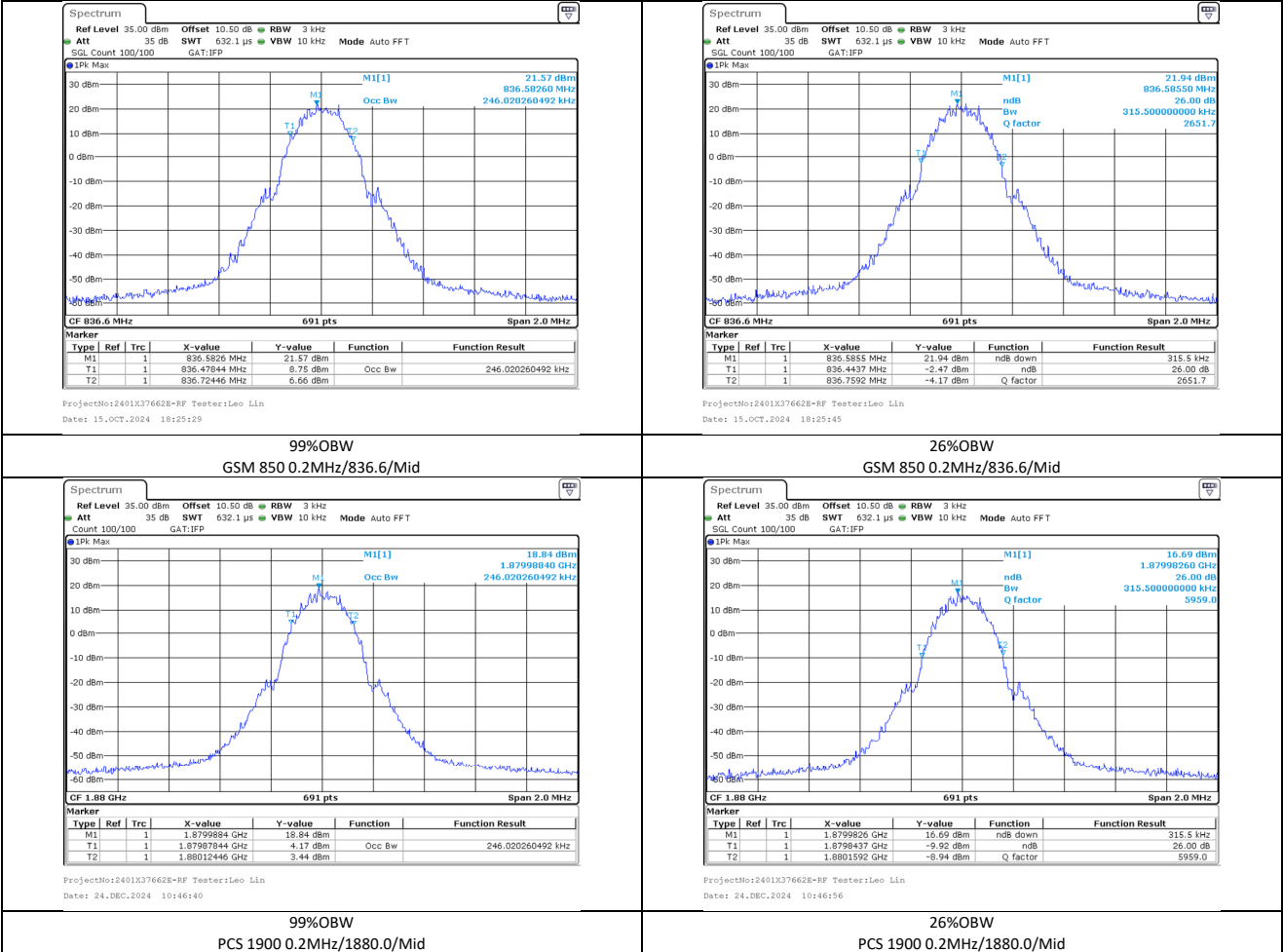
Band	Channel	Freq (MHz)	Result (dB)	Limit (dB)	Verdict
GSM 850	251	848.8	2.45	13	PASS
GSM 850	190	836.6	2.39	13	PASS
GSM 850	128	824.2	2.48	13	PASS
PCS 1900	810	1909.8	2.51	13	PASS
PCS 1900	661	1880.0	2.45	13	PASS
PCS 1900	512	1850.2	2.90	13	PASS

Occupied Bandwidth

Test result

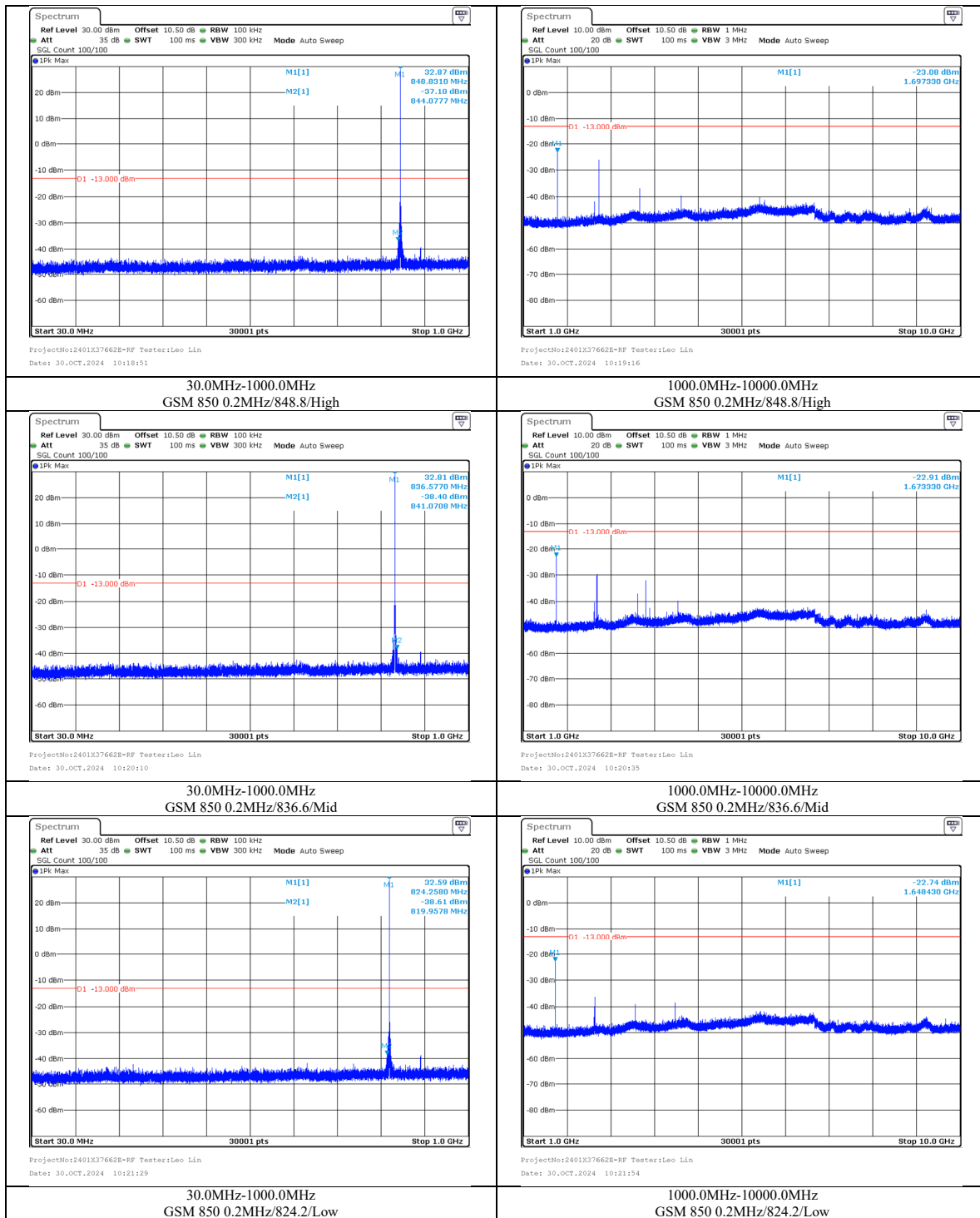
Band	Channel	Freq (MHz)	OBW (MHz)	26dB BW (MHz)	Verdict
GSM 850	190	836.6	0.24602	0.3155	PASS
PCS 1900	661	1880.0	0.24602	0.3155	PASS

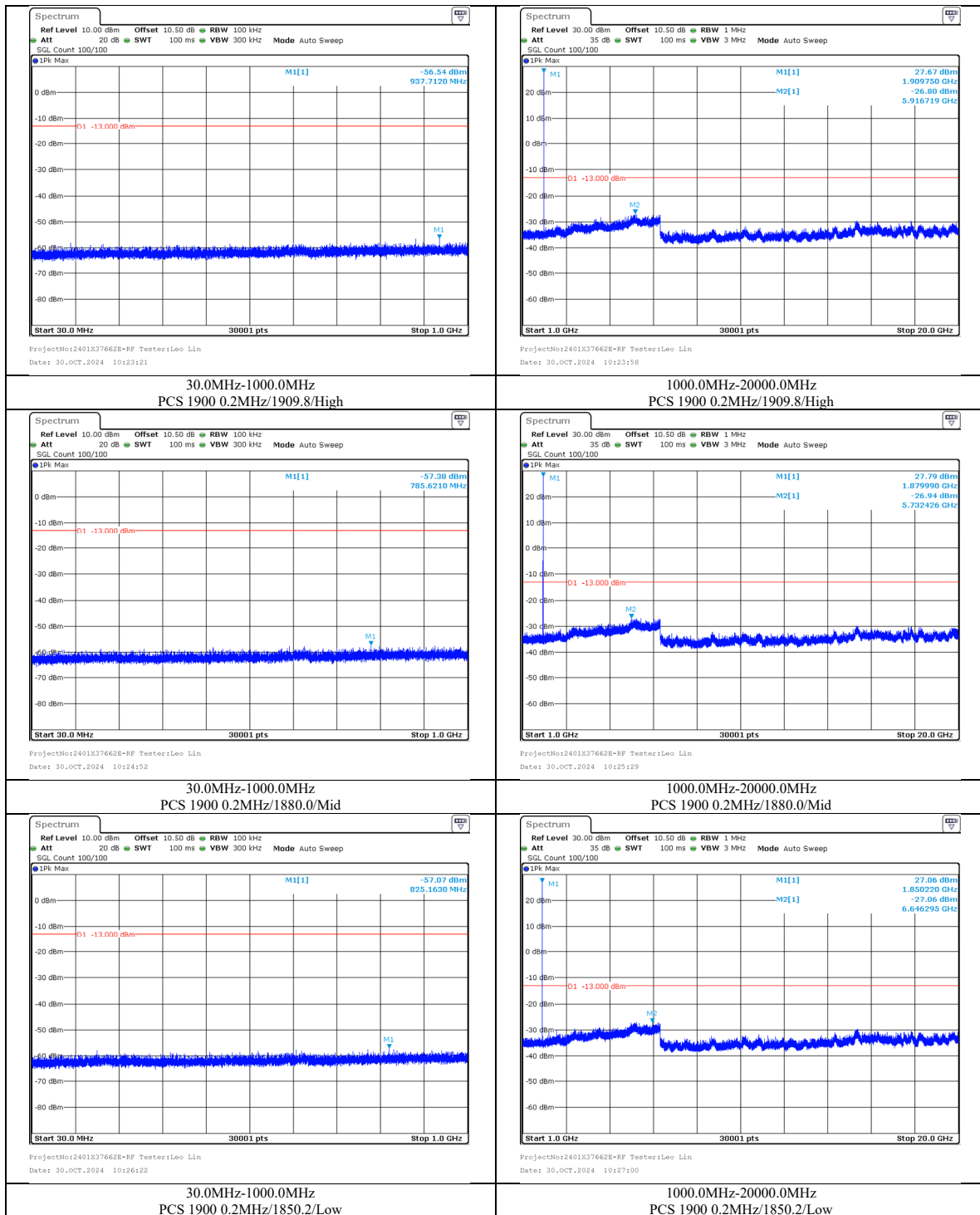
Test graph



Conducted Spurious Emissions

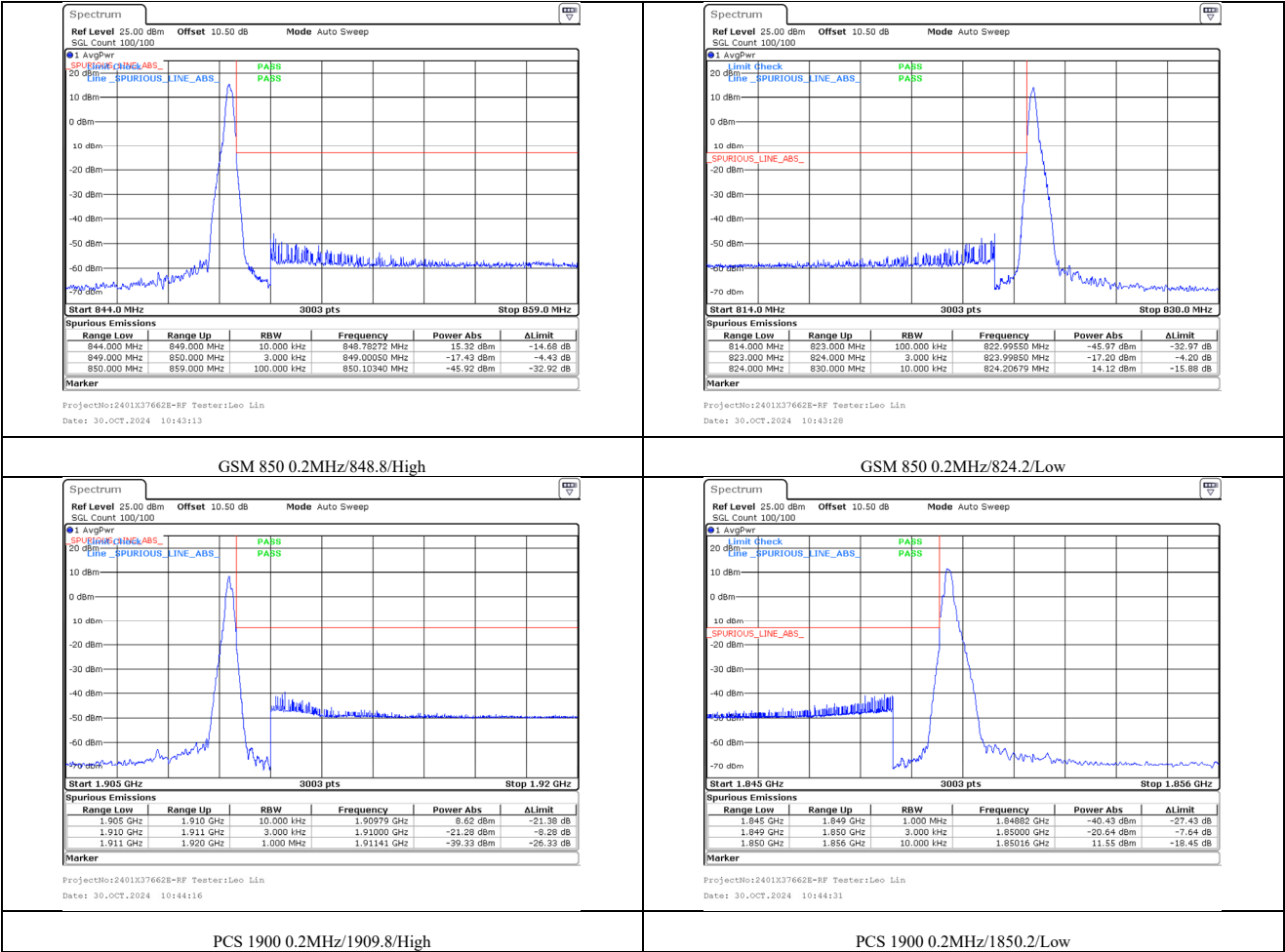
Test graph





Conducted Band Edge

Test graph



Transmitter Conducted Output Power And ERP/EIRP GPRS

Band	Channel	Gamma	Freq (MHz)	Modulation	Slots	Conducted Power(dBm)	ERP/EIRP (dBm)	ERP/EIRP(limit) (dBm)	Verdict
GSM 850	251	3	848.8	GMSK	1 Tx	33.93	30.00	38.45	PASS
GSM 850	190	3	836.6	GMSK	1 Tx	33.83	29.90	38.45	PASS
GSM 850	128	3	824.2	GMSK	1 Tx	33.69	29.76	38.45	PASS
GSM 850	251	3	848.8	GMSK	2 Tx	31.60	27.67	38.45	PASS
GSM 850	190	3	836.6	GMSK	2 Tx	31.65	27.72	38.45	PASS
GSM 850	128	3	824.2	GMSK	2 Tx	31.70	27.77	38.45	PASS
GSM 850	251	3	848.8	GMSK	3 Tx	29.60	25.67	38.45	PASS
GSM 850	190	3	836.6	GMSK	3 Tx	29.63	25.70	38.45	PASS
GSM 850	128	3	824.2	GMSK	3 Tx	29.66	25.73	38.45	PASS
GSM 850	251	3	848.8	GMSK	4 Tx	27.40	23.47	38.45	PASS
GSM 850	190	3	836.6	GMSK	4 Tx	27.43	23.50	38.45	PASS
GSM 850	128	3	824.2	GMSK	4 Tx	27.39	23.46	38.45	PASS
PCS 1900	810	3	1909.8	GMSK	1 Tx	30.19	31.92	33	PASS
PCS 1900	661	3	1880.0	GMSK	1 Tx	30.48	32.21	33	PASS
PCS 1900	512	3	1850.2	GMSK	1 Tx	30.44	32.17	33	PASS
PCS 1900	810	3	1909.8	GMSK	2 Tx	27.91	29.64	33	PASS
PCS 1900	661	3	1880.0	GMSK	2 Tx	28.18	29.91	33	PASS
PCS 1900	512	3	1850.2	GMSK	2 Tx	28.35	30.08	33	PASS
PCS 1900	810	3	1909.8	GMSK	3 Tx	26.25	27.98	33	PASS
PCS 1900	661	3	1880.0	GMSK	3 Tx	26.52	28.25	33	PASS
PCS 1900	512	3	1850.2	GMSK	3 Tx	26.72	28.45	33	PASS
PCS 1900	810	3	1909.8	GMSK	4 Tx	24.09	25.82	33	PASS
PCS 1900	661	3	1880.0	GMSK	4 Tx	24.43	26.16	33	PASS
PCS 1900	512	3	1850.2	GMSK	4 Tx	24.67	26.40	33	PASS

Transmitter Conducted Output Power And ERP/EIRP EGPRS

Band	Channel	Gamma	Freq (MHz)	Modulation	Slots	Conducted Power(dBm)	ERP/EIRP (dBm)	ERP/EIRP(limit) (dBm)	Verdict
GSM 850	251	6	848.8	8PSK	1 Tx	26.95	23.02	38.45	PASS
GSM 850	190	6	836.6	8PSK	1 Tx	26.76	22.83	38.45	PASS
GSM 850	128	6	824.2	8PSK	1 Tx	26.45	22.52	38.45	PASS
GSM 850	251	6	848.8	8PSK	2 Tx	26.13	22.20	38.45	PASS
GSM 850	190	6	836.6	8PSK	2 Tx	26.00	22.07	38.45	PASS
GSM 850	128	6	824.2	8PSK	2 Tx	25.42	21.49	38.45	PASS
GSM 850	251	6	848.8	8PSK	3 Tx	25.12	21.19	38.45	PASS
GSM 850	190	6	836.6	8PSK	3 Tx	25.30	21.37	38.45	PASS
GSM 850	128	6	824.2	8PSK	3 Tx	24.74	20.81	38.45	PASS
GSM 850	251	6	848.8	8PSK	4 Tx	22.53	18.60	38.45	PASS
GSM 850	190	6	836.6	8PSK	4 Tx	22.31	18.38	38.45	PASS
GSM 850	128	6	824.2	8PSK	4 Tx	21.66	17.73	38.45	PASS
PCS 1900	810	5	1909.8	8PSK	1 Tx	26.56	28.29	33	PASS
PCS 1900	661	5	1880.0	8PSK	1 Tx	26.67	28.40	33	PASS
PCS 1900	512	5	1850.2	8PSK	1 Tx	26.56	28.29	33	PASS
PCS 1900	810	5	1909.8	8PSK	2 Tx	25.85	27.58	33	PASS
PCS 1900	661	5	1880.0	8PSK	2 Tx	26.00	27.73	33	PASS
PCS 1900	512	5	1850.2	8PSK	2 Tx	26.13	27.86	33	PASS
PCS 1900	810	5	1909.8	8PSK	3 Tx	24.23	25.96	33	PASS
PCS 1900	661	5	1880.0	8PSK	3 Tx	25.94	27.67	33	PASS
PCS 1900	512	5	1850.2	8PSK	3 Tx	25.88	27.61	33	PASS
PCS 1900	810	5	1909.8	8PSK	4 Tx	23.56	25.29	33	PASS
PCS 1900	661	5	1880.0	8PSK	4 Tx	23.79	25.52	33	PASS
PCS 1900	512	5	1850.2	8PSK	4 Tx	23.56	25.29	33	PASS

Peak to Average Ratio EGPRS

Test result

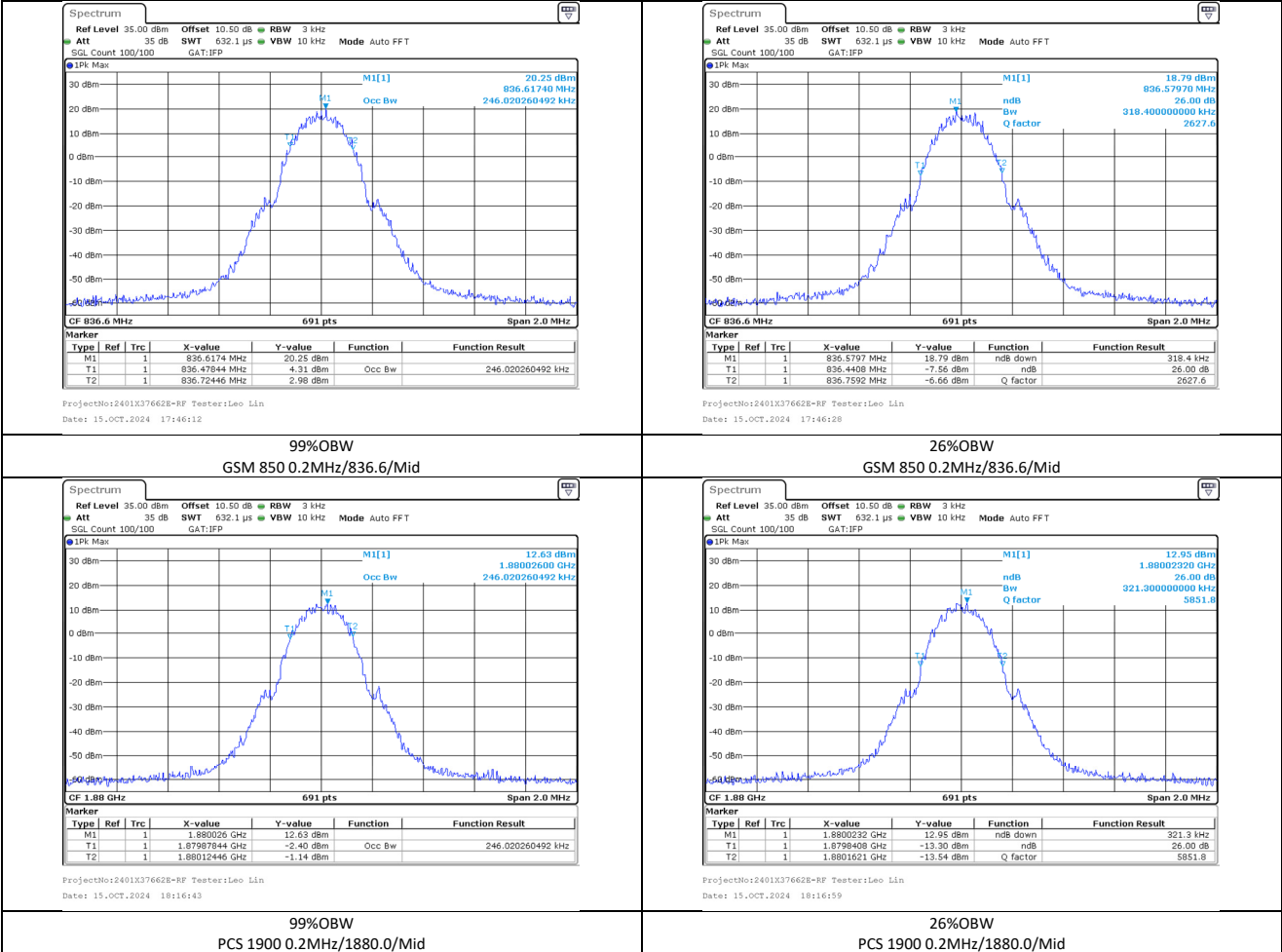
Band	Channel	Freq (MHz)	Slots	Result (dB)	Limit (dB)	Verdict
GSM 850	251	848.8	1 Tx	2.00	13	PASS
GSM 850	190	836.6	1 Tx	2.67	13	PASS
GSM 850	128	824.2	1 Tx	2.17	13	PASS
PCS 1900	810	1909.8	1 Tx	2.03	13	PASS
PCS 1900	661	1880.0	1 Tx	2.09	13	PASS
PCS 1900	512	1850.2	1 Tx	2.93	13	PASS

Occupied Bandwidth EGPRS

Test result

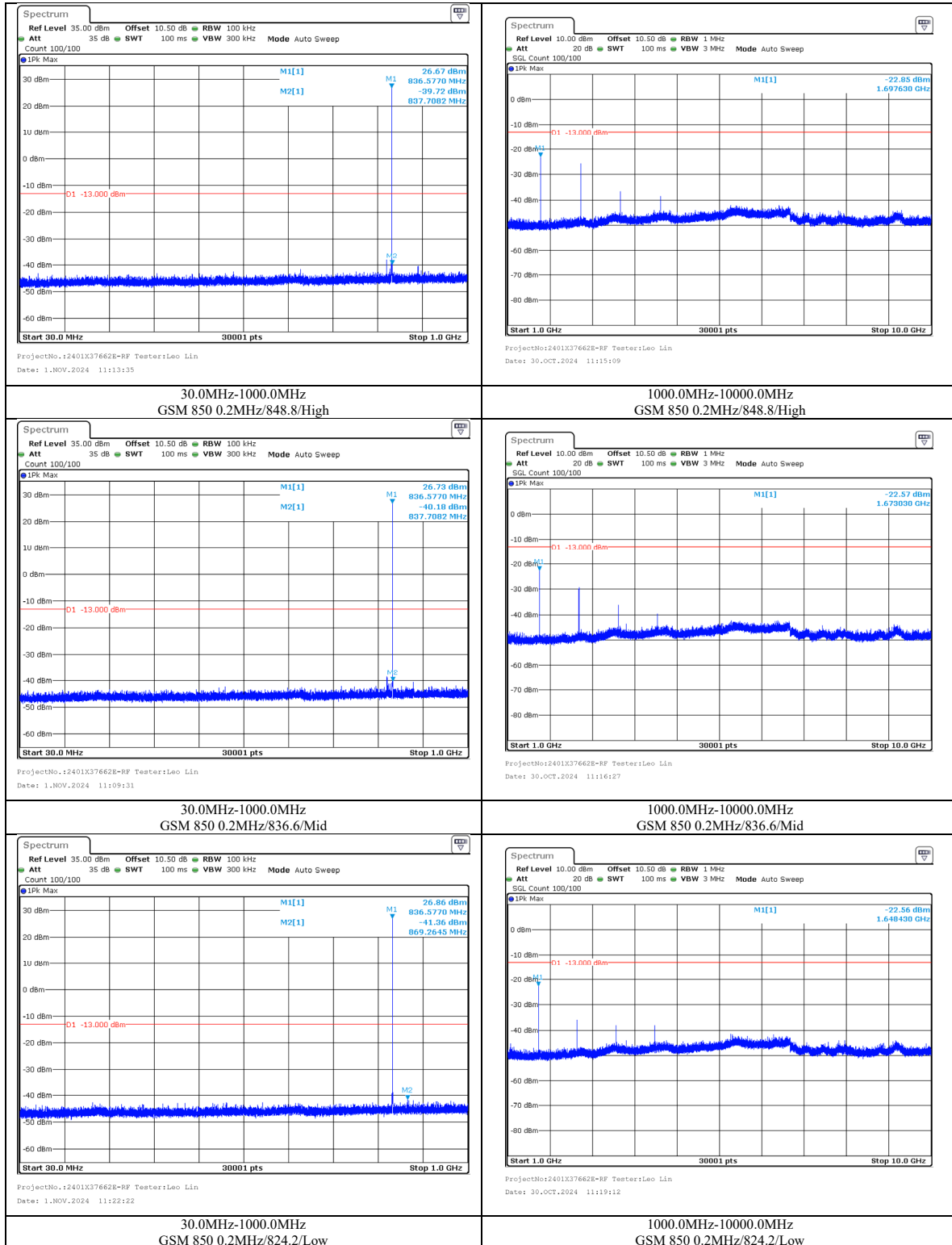
Band	Channel	Freq (MHz)	Slots	OBW (MHz)	26dB BW (MHz)	Verdict
GSM 850	190	836.6	1 Tx	0.24602	0.3184	PASS
PCS 1900	661	1880.0	1 Tx	0.24602	0.3213	PASS

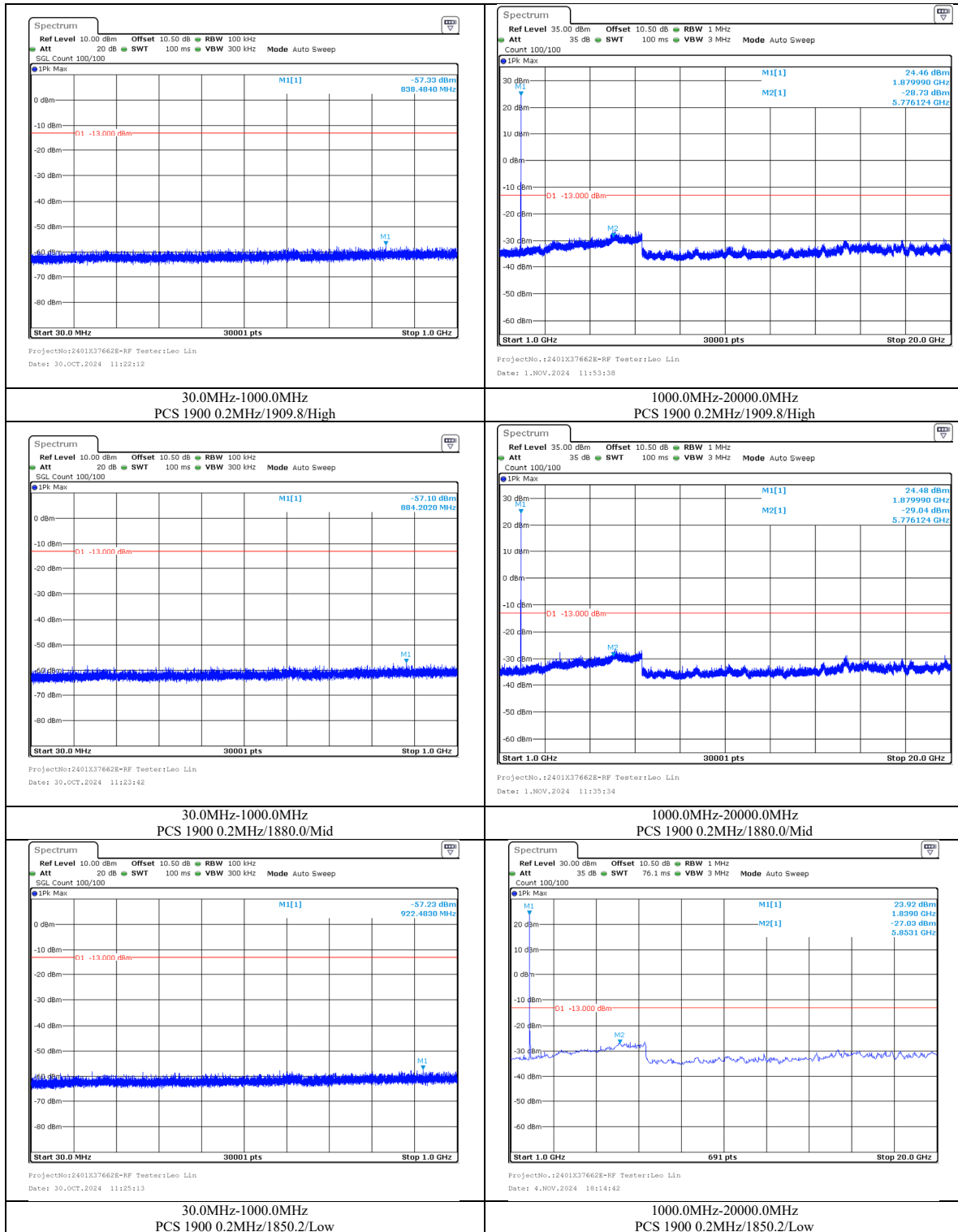
Test graph



Conducted Spurious Emissions EGPRS

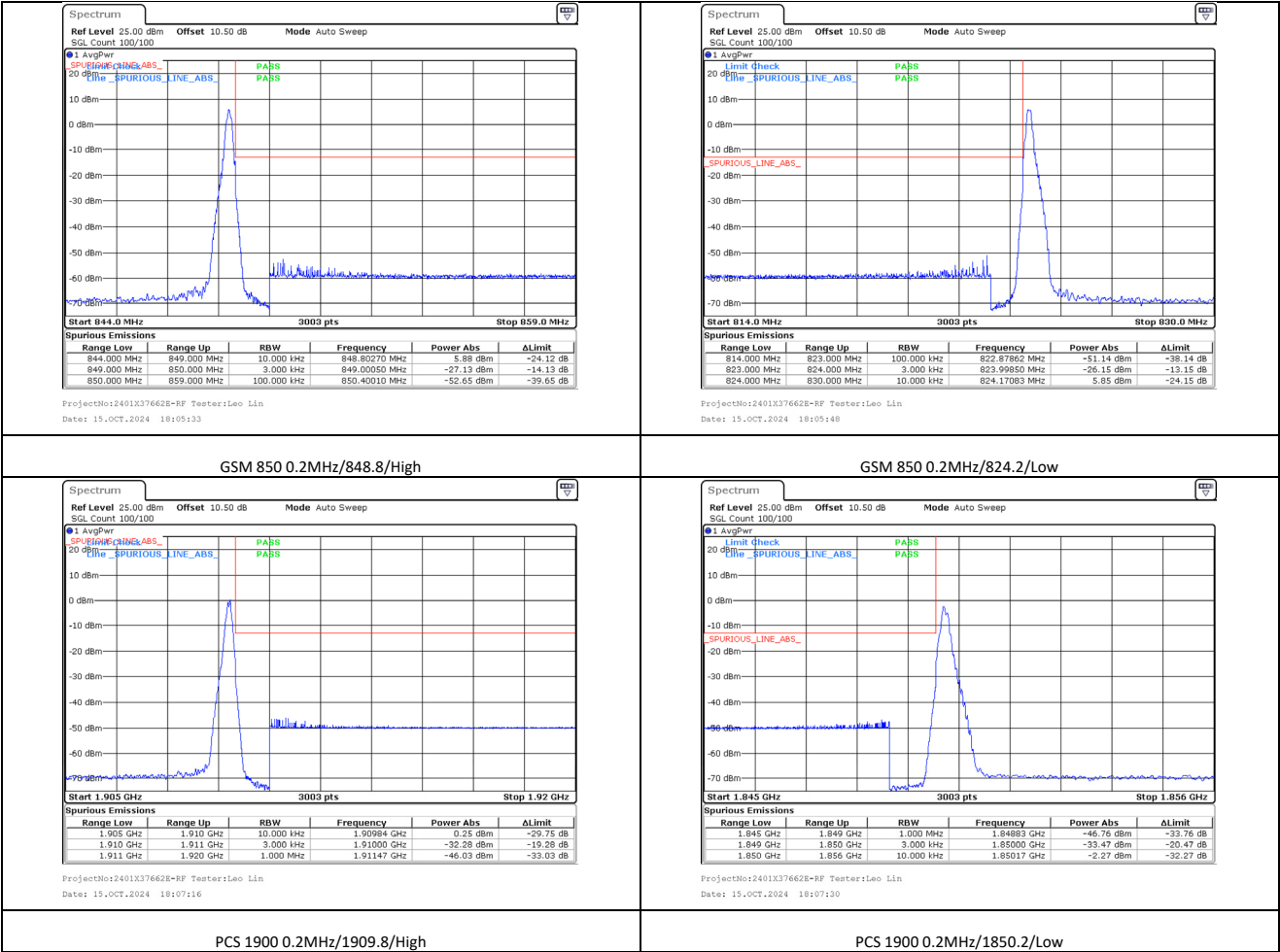
Test graph





Conducted Band Edge EGPRS

Test graph



Spectrum

Ref Level 25.00 dBm Offset 10.50 dB Mode Auto Sweep

SQL Count 100/100

1 AvgPwr

Limit Check

Line SPURIOUS_LINE_ABS

PASS

PASS

Start 1905.0 MHz 3003 pts Stop 1912.0 MHz

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1905.000 GHz	1910.000 GHz	10.000 kHz	1909.84 GHz	0.25 dBm	-29.75 dB
1910.000 GHz	1911.000 GHz	3.000 kHz	1910.000 GHz	-32.28 dBm	-19.28 dB
1911.000 GHz	1912.000 GHz	1.000 MHz	1911.147 GHz	-46.03 dBm	-33.03 dB

ProjectNo:2401X37662E-RF Tester:Leo Lin

Date: 15.OCT.2024 18:07:16

PCS 1900 0.2MHz/1909.8/High

Spectrum

Ref Level 25.00 dBm Offset 10.50 dB Mode Auto Sweep

SQL Count 100/100

1 AvgPwr

Limit Check

Line SPURIOUS_LINE_ABS

PASS

PASS

Start 1905.0 MHz 3003 pts Stop 1912.0 MHz

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1905.000 GHz	1910.000 GHz	10.000 kHz	1909.84 GHz	0.25 dBm	-29.75 dB
1910.000 GHz	1911.000 GHz	3.000 kHz	1910.000 GHz	-32.28 dBm	-19.28 dB
1911.000 GHz	1912.000 GHz	1.000 MHz	1911.147 GHz	-46.03 dBm	-33.03 dB

ProjectNo:2401X37662E-RF Tester:Leo Lin

Date: 15.OCT.2024 18:07:16

Spectrum

Ref Level 25.00 dBm Offset 10.50 dB Mode Auto Sweep

SQL Count 100/100

1 AvgPwr

Limit Check

Line SPURIOUS_LINE_ABS

PASS

PASS

Start 1845.0 MHz 3003 pts Stop 1856.0 MHz

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1845.000 GHz	1849.000 GHz	1.000 MHz	1848.83 GHz	-46.76 dBm	-33.76 dB
1849.000 GHz	1850.000 GHz	3.000 kHz	1850.000 GHz	-33.47 dBm	-20.47 dB
1850.000 GHz	1856.000 GHz	10.000 kHz	1850.17 GHz	-2.27 dBm	-32.27 dB

ProjectNo:2401X37662E-RF Tester:Leo Lin

Date: 15.OCT.2024 18:07:30

PCS 1900 0.2MHz/1850.2/Low

Spectrum

Ref Level 25.00 dBm Offset 10.50 dB Mode Auto Sweep

SQL Count 100/100

1 AvgPwr

Limit Check

Line SPURIOUS_LINE_ABS

PASS

PASS

Start 1845.0 MHz 3003 pts Stop 1856.0 MHz

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1845.000 GHz	1849.000 GHz	1.000 MHz	1848.83 GHz	-46.76 dBm	-33.76 dB
1849.000 GHz	1850.000 GHz	3.000 kHz	1850.000 GHz	-33.47 dBm	-20.47 dB
1850.000 GHz	1856.000 GHz	10.000 kHz	1850.17 GHz	-2.27 dBm	-32.27 dB

ProjectNo:2401X37662E-RF Tester:Leo Lin

Date: 15.OCT.2024 18:07:30

Frequency Stability

Test result

GSM 850:

Test Modulation:	GMSK		Test Channel:	836.6	MHz
Test Item	Temperature (°C)	Voltage (V _{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.80	8.92	0.01066	2.5
	-20	3.80	7.15	0.00855	2.5
	-10	3.80	7.28	0.00870	2.5
	0	3.80	9.35	0.01118	2.5
	10	3.80	7.64	0.00913	2.5
	20	3.80	5.33	0.00637	2.5
	30	3.80	9.46	0.01131	2.5
	40	3.80	8.17	0.00977	2.5
	50	3.80	5.65	0.00675	2.5
Frequency Stability vs. Voltage	20	3.42	6.41	0.00766	2.5
	20	4.37	6.79	0.00812	2.5
Result:				Pass	

Test Modulation:	8PSK		Test Channel:	836.6	MHz
Test Item	Temperature (°C)	Voltage (V _{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.80	8.42	0.01006	2.5
	-20	3.80	8.56	0.01023	2.5
	-10	3.80	7.12	0.00851	2.5
	0	3.80	7.64	0.00913	2.5
	10	3.80	6.39	0.00764	2.5
	20	3.80	8.83	0.01055	2.5
	30	3.80	8.26	0.00987	2.5
	40	3.80	8.54	0.01021	2.5
	50	3.80	9.21	0.01101	2.5
Frequency Stability vs. Voltage	20	3.42	9.62	0.01150	2.5
	20	4.37	8.91	0.01065	2.5
Result:				Pass	

PCS 1900:

Test Mode:	GMSK	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (V _{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.80	1850.121	1850.000	1909.912	1910.000
	-20	3.80	1850.145	1850.000	1909.842	1910.000
	-10	3.80	1850.012	1850.000	1909.815	1910.000
	0	3.80	1850.127	1850.000	1909.926	1910.000
	10	3.80	1850.024	1850.000	1909.924	1910.000
	20	3.80	1850.085	1850.000	1909.825	1910.000
	30	3.80	1850.042	1850.000	1909.967	1910.000
	40	3.80	1850.035	1850.000	1909.838	1910.000
	50	3.80	1850.147	1850.000	1909.847	1910.000
Frequency Stability vs. Voltage	20	3.42	1850.023	1850.000	1909.812	1910.000
	20	4.37	1850.134	1850.000	1909.953	1910.000
					Result:	Pass

Test Mode:	8PSK	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (V _{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.80	1850.054	1850.000	1909.901	1910.000
	-20	3.80	1850.126	1850.000	1909.874	1910.000
	-10	3.80	1850.176	1850.000	1909.854	1910.000
	0	3.80	1850.025	1850.000	1909.914	1910.000
	10	3.80	1850.110	1850.000	1909.921	1910.000
	20	3.80	1850.044	1850.000	1909.872	1910.000
	30	3.80	1850.035	1850.000	1909.835	1910.000
	40	3.80	1850.126	1850.000	1909.924	1910.000
	50	3.80	1850.028	1850.000	1909.867	1910.000
Frequency Stability vs. Voltage	20	3.42	1850.147	1850.000	1909.822	1910.000
	20	4.37	1850.112	1850.000	1909.937	1910.000
					Result:	Pass