Appendix A

Test Information:

Serial No.:	2RBX-3	**Test Date:**	2024/10/11~2024/12/11
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Karl Liang	**Test Result:**	Pass

Environmental Conditions:

Temperature: (°C):	21.6	**Relative Humidity: (%)**	68	**ATM Pressure: (kPa)**	102.0

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Micro-Coax	Coaxial Cable	UFB205A	323308-012	2024/01/02	2025/01/01
Minl-Clrcuits	Coaxial Power Splitters & Combiner	ZFRSC-183-S+	SF448201614	2024/02/25	2025/02/24
Eastsheep	Coaxial Attenuator	5W-N-JK-6G-10dB	F-08-EM502	2024/06/07	2025/06/06
All-sun	Multimeter	EM305A	8348897	2024/08/16	2025/08/15
R&S	Spectrum Analyzer	FSV40	101461	2024/09/05	2025/09/04
R&S	Wideband Radio Communication Tester	CMW500	144976	2024/09/05	2025/09/04
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30173	2024/09/06	2025/09/05
TDK-Lambda	DC Power Supply	Z+60-14	F-08-EM038-1	N/A	N/A

** Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Frequency stability vs. temperature &Frequency stability vs. voltage Compliance

FCC Part 22H

GSM 850

Mode	Test Channel (MHz)	Frequency Error		Limit (ppm)	Verdict
		(Hz)	(ppm)		
GSM_Middle_TN/VN	836.6	3.8	0.005	±2.5	Pass
GSM_Middle_T1/VN	836.6	-1.8	-0.002	±2.5	Pass
GSM_Middle_T2/VN	836.6	-2.7	-0.003	±2.5	Pass
GSM_Middle_T3/VN	836.6	3.9	0.005	±2.5	Pass
GSM_Middle_T4/VN	836.6	0.8	0.001	±2.5	Pass
GSM_Middle_T5/VN	836.6	1.1	0.001	±2.5	Pass
GSM_Middle_T6/VN	836.6	2.4	0.003	±2.5	Pass
GSM_Middle_T7/VN	836.6	-0.9	-0.001	±2.5	Pass
GSM_Middle_T8/VN	836.6	5.3	0.006	±2.5	Pass
GSM_Middle_TN/VH	836.6	-3.3	-0.004	±2.5	Pass
GSM_Middle_TN/VL	836.6	-1.7	-0.002	±2.5	Pass
EDGE_Middle_Slot1_TN/VN	836.6	22.7	0.027	±2.5	Pass
EDGE_Middle_Slot1_T1/VN	836.6	25.5	0.031	±2.5	Pass
EDGE_Middle_Slot1_T2/VN	836.6	23.5	0.028	±2.5	Pass
EDGE_Middle_Slot1_T3/VN	836.6	23.0	0.028	±2.5	Pass
EDGE_Middle_Slot1_T4/VN	836.6	23.2	0.028	±2.5	Pass
EDGE_Middle_Slot1_T5/VN	836.6	23.2	0.028	±2.5	Pass
EDGE_Middle_Slot1_T6/VN	836.6	21.8	0.026	±2.5	Pass
EDGE_Middle_Slot1_T7/VN	836.6	22.5	0.027	±2.5	Pass
EDGE_Middle_Slot1_T8/VN	836.6	22.5	0.027	±2.5	Pass
EDGE_Middle_Slot1_TN/VH	836.6	23.2	0.028	±2.5	Pass
EDGE_Middle_Slot1_TN/VL	836.6	22.5	0.027	±2.5	Pass

Note:

Frequency Error (ppm)=Frequency Error (MHz)/Test Channel(MHz)*10^6

TN: 20°C; T1: -30°C; T2: -20°C; T3: -10°C; T4: 0°C; T5: 10°C; T6: 30°C; T7: 40°C; T8: 50°C.

VN: Normal Voltage; VL: Low Voltage; VH: High Voltage.

FCC Part 24E

GSM 1900

Mode	Result (MHz)	Limit (MHz)	Verdict
GSM_Low_TN/VN	1850.081	1850	Pass
GSM_Low_T1/VN	1850.081	1850	Pass
GSM_Low_T2/VN	1850.080	1850	Pass
GSM_Low_T3/VN	1850.081	1850	Pass
GSM_Low_T4/VN	1850.081	1850	Pass
GSM_Low_T5/VN	1850.081	1850	Pass
GSM_Low_T6/VN	1850.082	1850	Pass
GSM_Low_T7/VN	1850.083	1850	Pass
GSM_Low_T8/VN	1850.081	1850	Pass
GSM_Low_TN/VH	1850.080	1850	Pass
GSM_Low_TN/VL	1850.082	1850	Pass
GSM_High_TN/VN	1909.922	1910	Pass
GSM_High_T1/VN	1909.921	1910	Pass
GSM_High_T2/VN	1909.919	1910	Pass
GSM_High_T3/VN	1909.925	1910	Pass
GSM_High_T4/VN	1909.922	1910	Pass
GSM_High_T5/VN	1909.921	1910	Pass
GSM_High_T6/VN	1909.921	1910	Pass
GSM_High_T7/VN	1909.923	1910	Pass
GSM_High_T8/VN	1909.921	1910	Pass
GSM_High_TN/VH	1909.925	1910	Pass
GSM_High_TN/VL	1909.928	1910	Pass
EDGE_Low_Slot1_TN/VN	1850.072	1850	Pass
EDGE_Low_Slot1_T1/VN	1850.073	1850	Pass
EDGE_Low_Slot1_T2/VN	1850.078	1850	Pass
EDGE_Low_Slot1_T3/VN	1850.081	1850	Pass
EDGE_Low_Slot1_T4/VN	1850.077	1850	Pass
EDGE_Low_Slot1_T5/VN	1850.078	1850	Pass
EDGE_Low_Slot1_T6/VN	1850.081	1850	Pass
EDGE_Low_Slot1_T7/VN	1850.080	1850	Pass

Mode	Result (MHz)	Limit (MHz)	Verdict
EDGE_Low_Slot1_T8/VN	1850.082	1850	Pass
EDGE_Low_Slot1_TN/VH	1850.082	1850	Pass
EDGE_Low_Slot1_TN/VL	1850.080	1850	Pass
EDGE_High_Slot1_TN/VN	1909.918	1910	Pass
EDGE_High_Slot1_T1/VN	1909.921	1910	Pass
EDGE_High_Slot1_T2/VN	1909.926	1910	Pass
EDGE_High_Slot1_T3/VN	1909.923	1910	Pass
EDGE_High_Slot1_T4/VN	1909.923	1910	Pass
EDGE_High_Slot1_T5/VN	1909.924	1910	Pass
EDGE_High_Slot1_T6/VN	1909.922	1910	Pass
EDGE_High_Slot1_T7/VN	1909.924	1910	Pass
EDGE_High_Slot1_T8/VN	1909.919	1910	Pass
EDGE_High_Slot1_TN/VH	1909.924	1910	Pass
EDGE_High_Slot1_TN/VL	1909.929	1910	Pass

Note:

TN: 20°C; T1: -30°C; T2: -20°C; T3: -10°C; T4: 0°C; T5: 10°C; T6: 30°C; T7: 40°C; T8: 50°C.

VN: Normal Voltage; VL: Low Voltage; VH: High Voltage.

Occupied Bandwidth

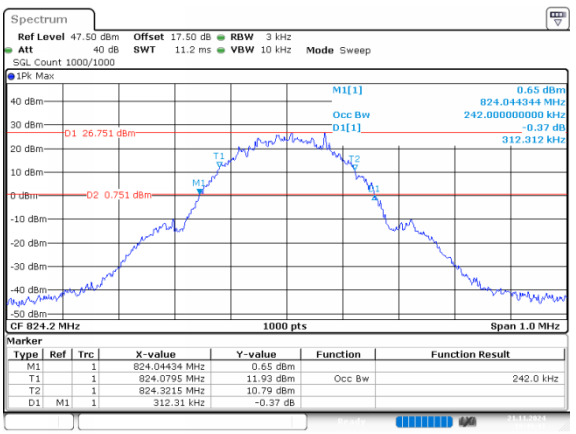
FCC Part 22H

GSM 850 , Normal

Mode	99% OBW (MHz)	26dB BW (MHz)
GSM_Low	0.242	0.312
GSM_Middle	0.244	0.312
GSM_High	0.244	0.313
EDGE_Low_Slot1	0.244	0.315
EDGE_Middle_Slot1	0.247	0.307
EDGE_High_Slot1	0.245	0.313

GSM 850 , Normal

GSM_Low



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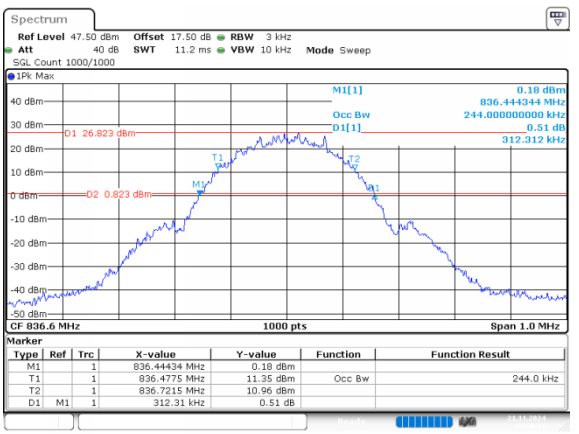
GSM_Middle



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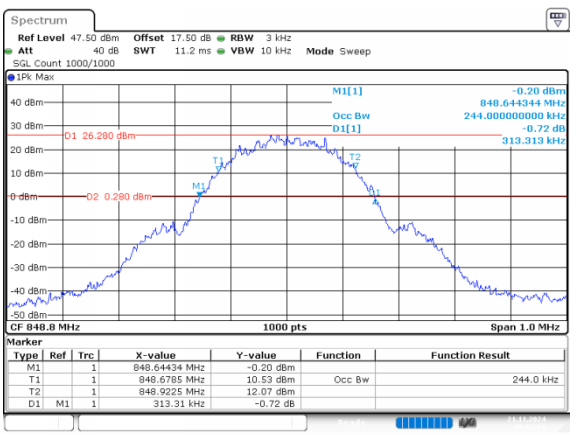
GSM_High



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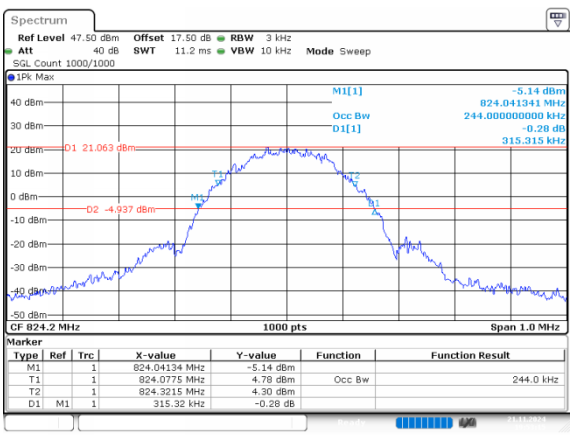
EDGE_Low_Slot1



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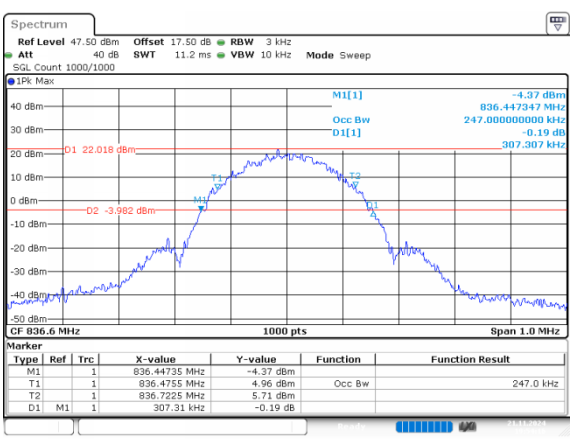
EDGE_Middle_Slot1



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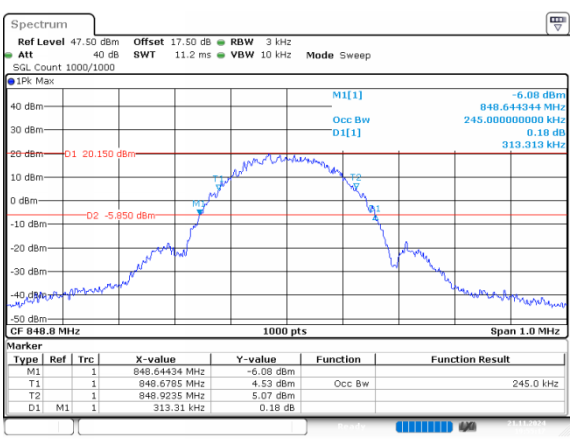
EDGE_High_Slot1



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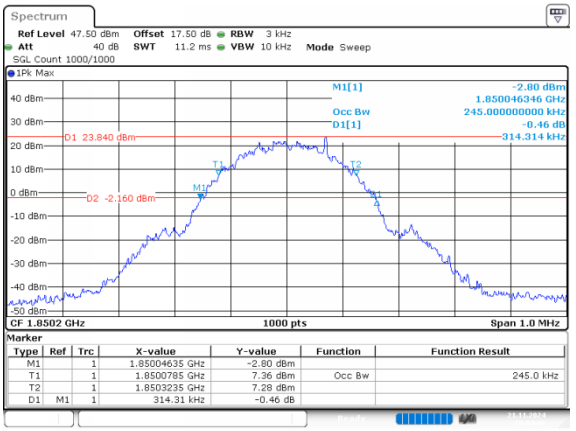
FCC Part 24E

GSM 1900 , Normal

Mode	99% OBW (MHz)	26dB BW (MHz)
GSM_Low	0.245	0.314
GSM_Middle	0.247	0.310
GSM_High	0.241	0.305
EDGE_Low_Slot1	0.244	0.310
EDGE_Middle_Slot1	0.242	0.317
EDGE_High_Slot1	0.244	0.311

GSM 1900 , Normal

GSM_Low



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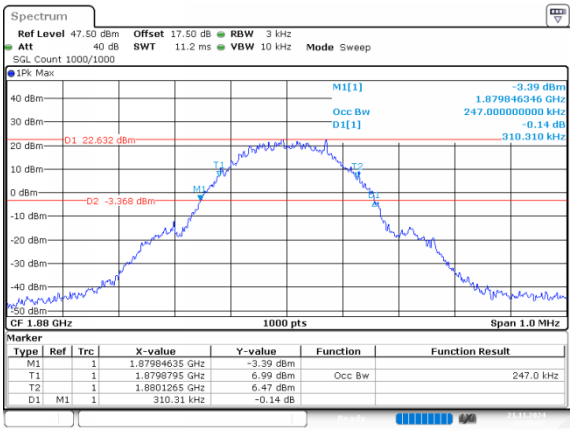
GSM_Middle



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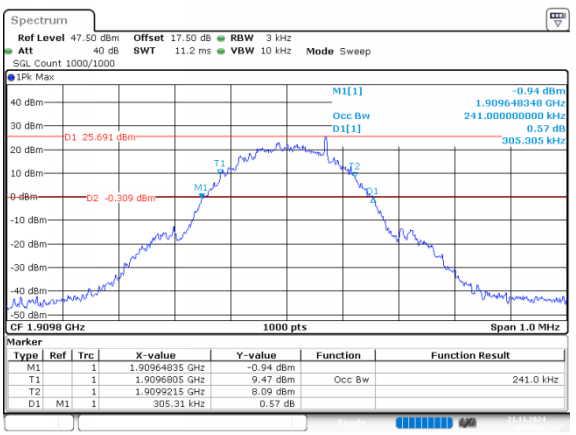
GSM_High



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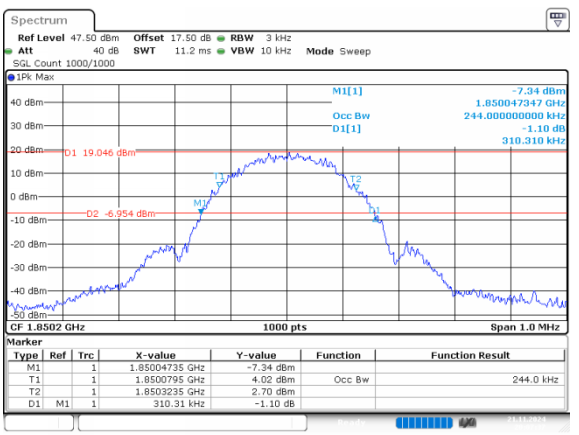
EDGE_Low_Slot1



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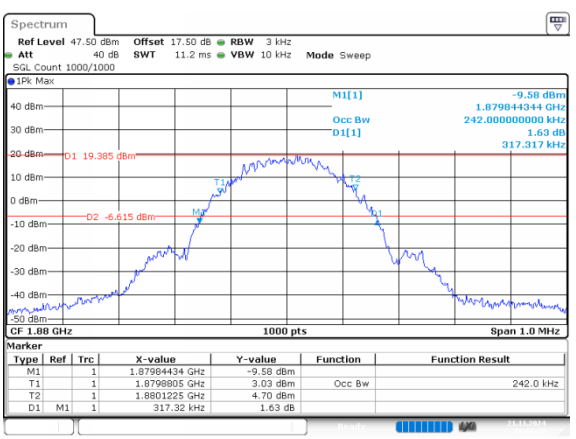
EDGE_Middle_Slot1



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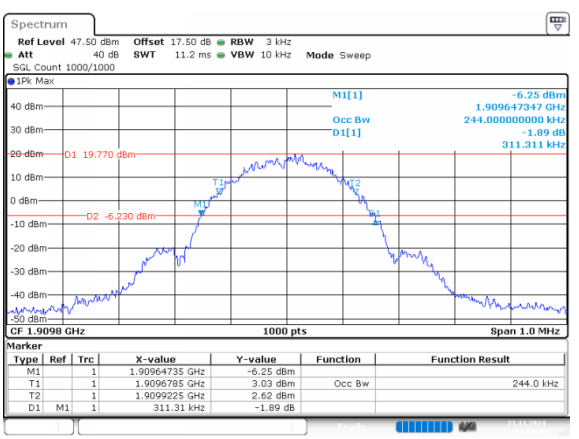
EDGE_High_Slot1



ProjectNo.:2402X51137E-RF Tester:Karl Liang
Date: 21.NOV.2024 20:09:41

RF Output Power

FCC Part 22H

GSM 850 , Normal

Mode	Average Conducted Power (dBm)	ERP (dBm)	Limit (dBm)	Verdict
GSM_Low	33.31	23.26	38.45	Pass
GSM_Middle	33.15	23.10	38.45	Pass
GSM_High	33.16	23.11	38.45	Pass
GPRS_Low_Slot1	33.41	23.36	38.45	Pass
GPRS_Low_Slot2	33.20	23.15	38.45	Pass
GPRS_Low_Slot3	32.39	22.34	38.45	Pass
GPRS_Low_Slot4	31.14	21.09	38.45	Pass
GPRS_Middle_Slot1	33.21	23.16	38.45	Pass
GPRS_Middle_Slot2	33.00	22.95	38.45	Pass
GPRS_Middle_Slot3	31.96	21.91	38.45	Pass
GPRS_Middle_Slot4	30.65	20.60	38.45	Pass
GPRS_High_Slot1	33.22	23.17	38.45	Pass
GPRS_High_Slot2	32.46	22.41	38.45	Pass
GPRS_High_Slot3	31.82	21.77	38.45	Pass
GPRS_High_Slot4	30.51	20.46	38.45	Pass
EDGE_Low_Slot1	27.06	17.01	38.45	Pass
EDGE_Low_Slot2	26.64	16.59	38.45	Pass
EDGE_Low_Slot3	25.47	15.42	38.45	Pass
EDGE_Low_Slot4	24.48	14.43	38.45	Pass
EDGE_Middle_Slot1	26.66	16.61	38.45	Pass
EDGE_Middle_Slot2	26.44	16.39	38.45	Pass
EDGE_Middle_Slot3	25.35	15.30	38.45	Pass
EDGE_Middle_Slot4	24.39	14.34	38.45	Pass
EDGE_High_Slot1	26.48	16.43	38.45	Pass
EDGE_High_Slot2	26.22	16.17	38.45	Pass
EDGE_High_Slot3	25.09	15.04	38.45	Pass
EDGE_High_Slot4	24.09	14.04	38.45	Pass

Note:

ERP = Average Peak Conducted Power(dBm) - L_C(dB) + G_T(dBd)

G_T(dBd) = G_T(dBi) - 2.15

1.Ant Gain = -7.9dBi;

2.C_L = signal attenuation in the connecting cable between the transmitter and antenna in 0dB

FCC Part 24E

GSM 1900 , Normal

Mode	Average Conducted Power (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
GSM_Low	29.49	25.39	33	Pass
GSM_Middle	29.80	25.70	33	Pass
GSM_High	29.94	25.84	33	Pass
GPRS_Low_Slot1	29.86	25.76	33	Pass
GPRS_Low_Slot2	29.80	25.70	33	Pass
GPRS_Low_Slot3	26.34	22.24	33	Pass
GPRS_Low_Slot4	24.33	20.23	33	Pass
GPRS_Middle_Slot1	29.39	25.29	33	Pass
GPRS_Middle_Slot2	29.35	25.25	33	Pass
GPRS_Middle_Slot3	26.14	22.04	33	Pass
GPRS_Middle_Slot4	24.16	20.06	33	Pass
GPRS_High_Slot1	29.88	25.78	33	Pass
GPRS_High_Slot2	29.83	25.73	33	Pass
GPRS_High_Slot3	26.10	22.00	33	Pass
GPRS_High_Slot4	24.16	20.06	33	Pass
EDGE_Low_Slot1	25.83	21.73	33	Pass
EDGE_Low_Slot2	24.90	20.80	33	Pass
EDGE_Low_Slot3	23.11	19.01	33	Pass
EDGE_Low_Slot4	21.99	17.89	33	Pass
EDGE_Middle_Slot1	25.79	21.69	33	Pass
EDGE_Middle_Slot2	24.81	20.71	33	Pass
EDGE_Middle_Slot3	22.86	18.76	33	Pass
EDGE_Middle_Slot4	21.98	17.88	33	Pass
EDGE_High_Slot1	25.85	21.75	33	Pass
EDGE_High_Slot2	24.86	20.76	33	Pass
EDGE_High_Slot3	22.94	18.84	33	Pass
EDGE_High_Slot4	21.94	17.84	33	Pass

Note:

EIRP = Average Peak Conducted Power(dBm) - L_C(dB) + G_T(dBi)

1.Ant Gain = -4.1dBi;

2.C_L = signal attenuation in the connecting cable between the transmitter and antenna in 0dB

Peak-to-average Ratio(PAR)

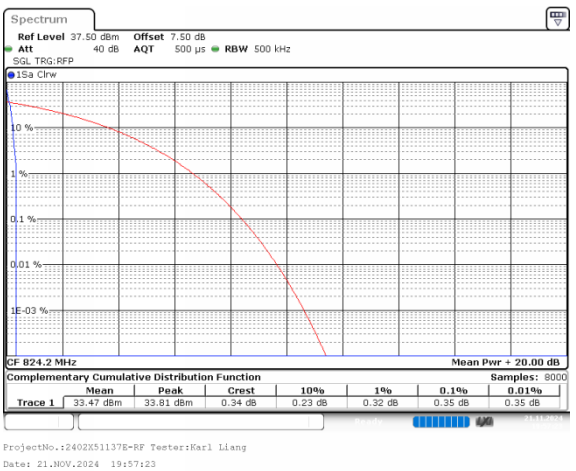
FCC Part 22H

GSM 850 , Normal

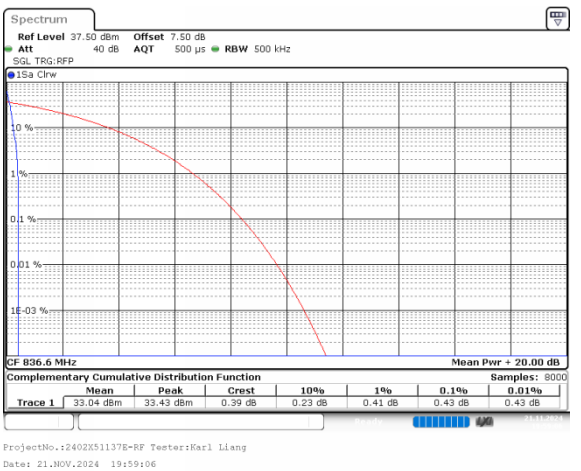
Mode	Result (dB)	Limit (dB)
GSM_Low	0.35	13
GSM_Middle	0.43	13
GSM_High	0.46	13

GSM 850 , Normal

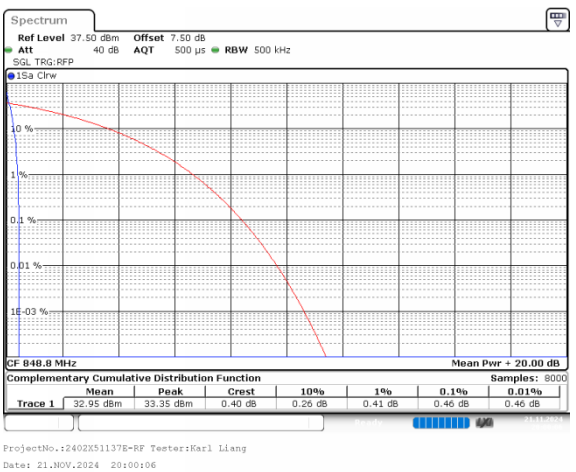
GSM_Low



GSM_Middle



GSM_High



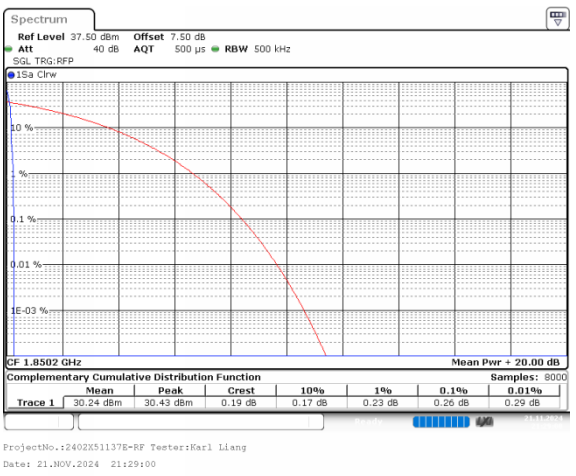
FCC Part 24E

GSM 1900 , Normal

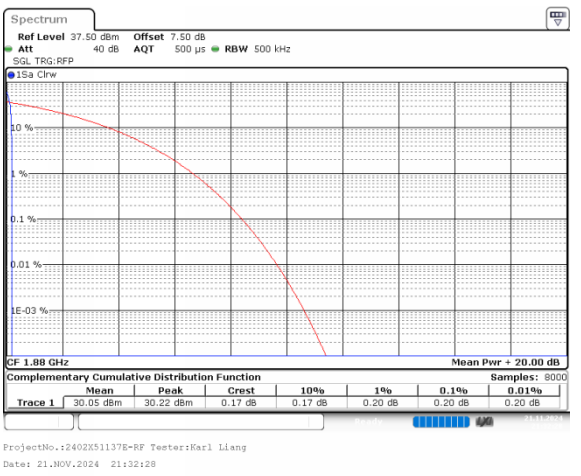
Mode	Result (dB)	Limit (dB)
GSM_Low	0.26	13
GSM_Middle	0.20	13
GSM_High	0.26	13

GSM 1900 , Normal

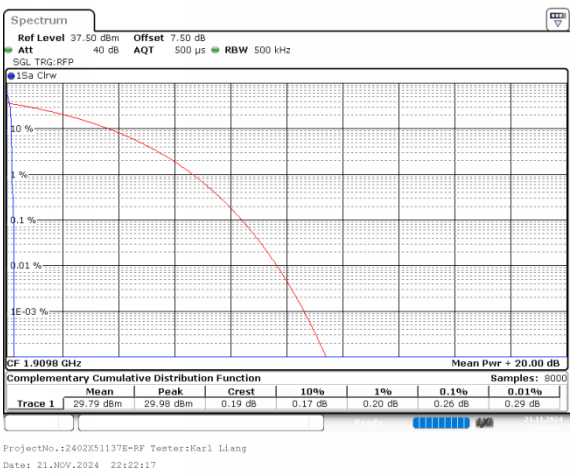
GSM_Low



GSM_Middle



GSM_High

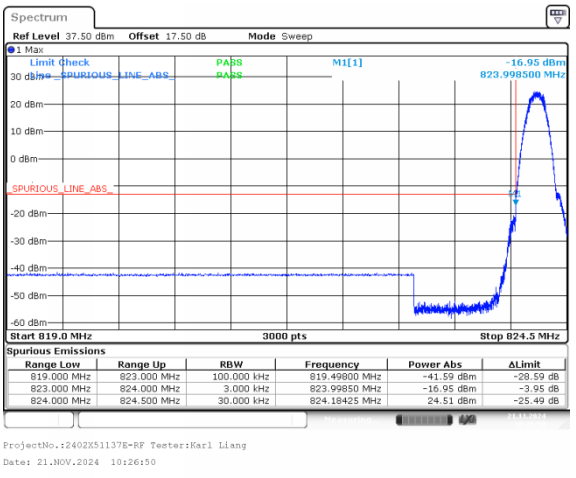


Out of band emission,Band Edge

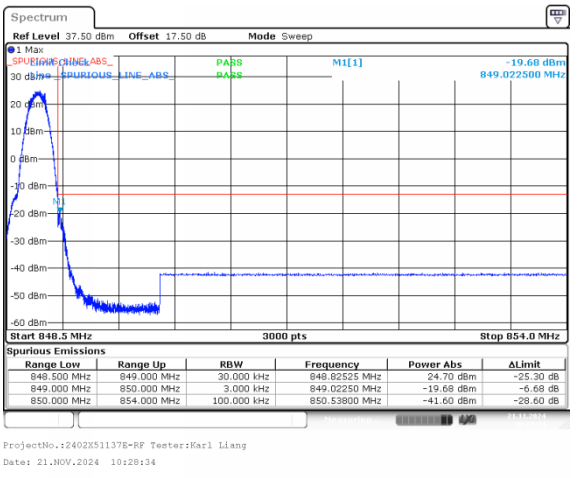
FCC Part 22H

GSM 850 , Normal

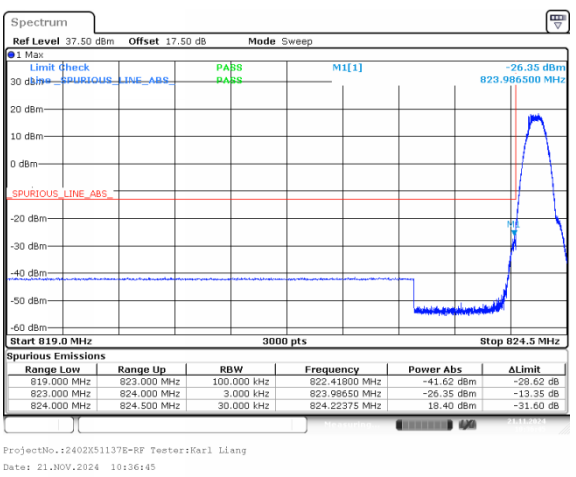
GSM_Low



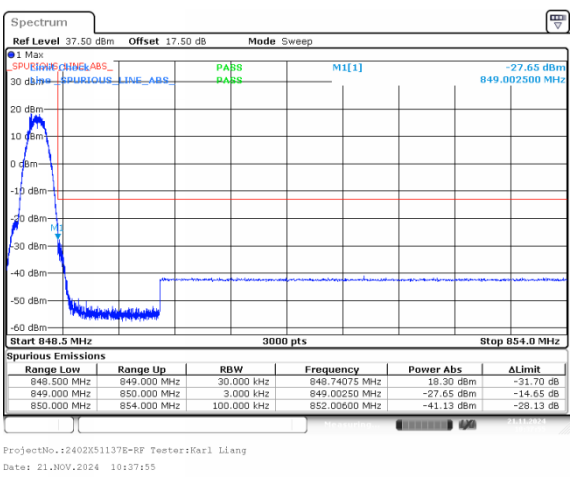
GSM_High



EDGE_Low_Slot1



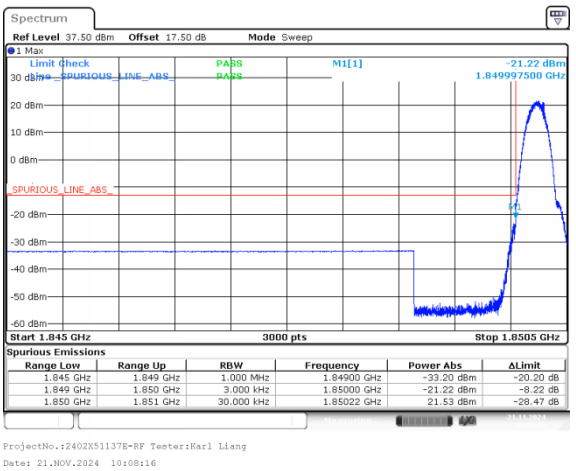
EDGE_High_Slot1



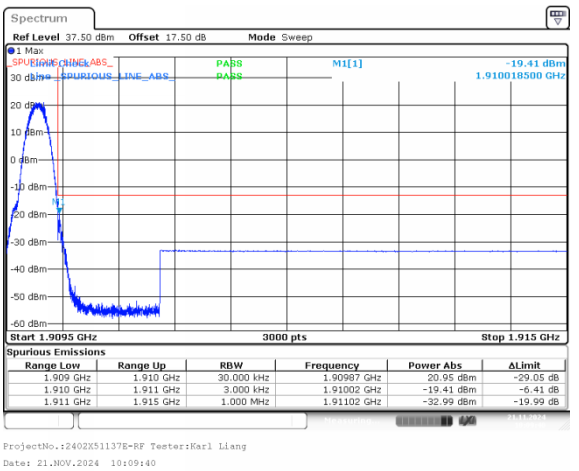
FCC Part 24E

GSM 1900 , Normal

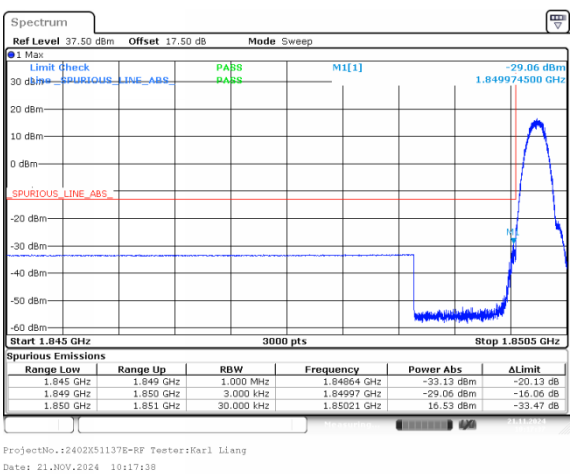
GSM_Low



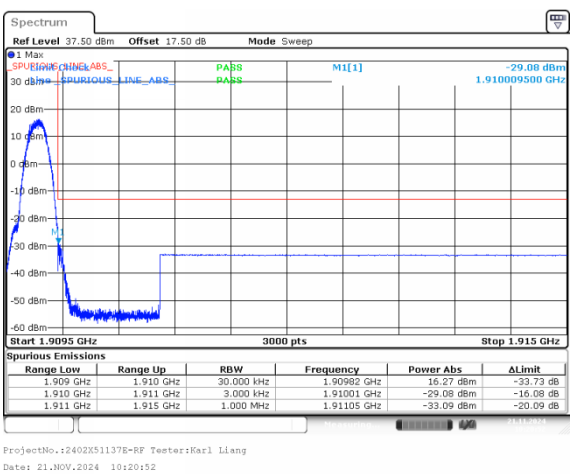
GSM_High



EDGE_Low_Slot1



EDGE_High_Slot1



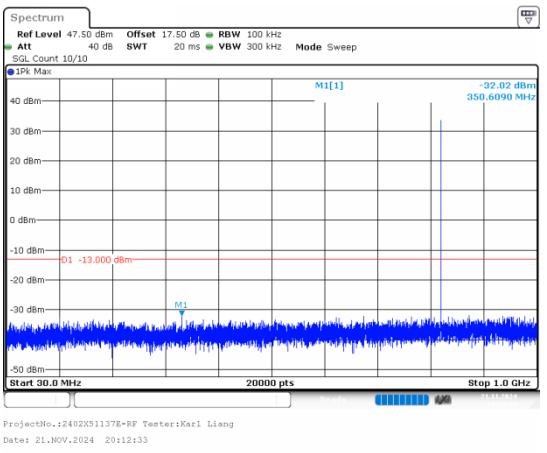
Spurious Emissions at Antenna Terminal

FCC Part 22H

GSM 850 , Normal

GSM_Low

Below 1G



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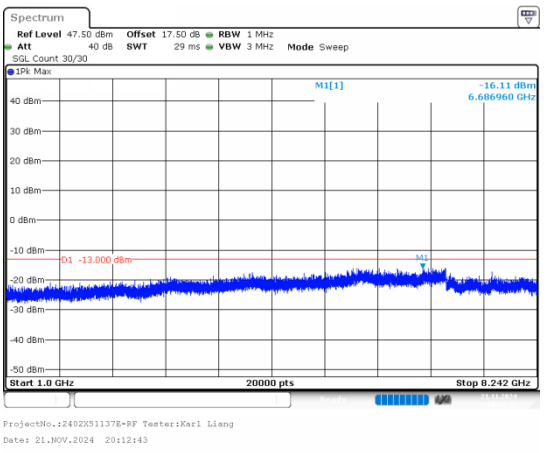
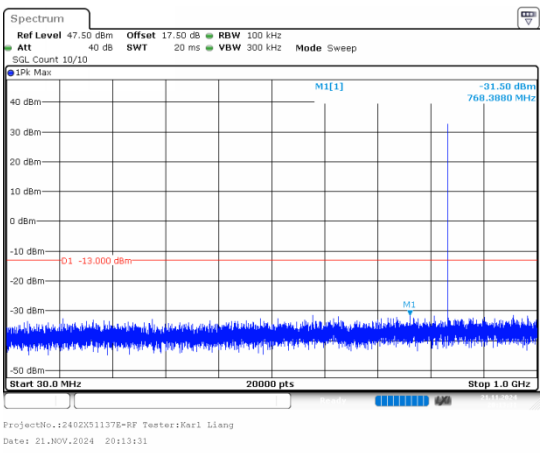
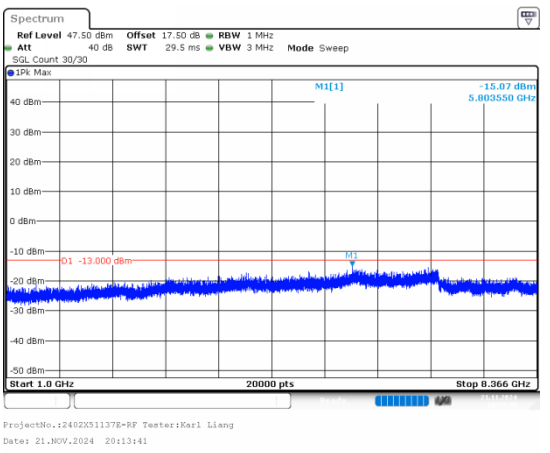


GSM_Middle

Below 1G

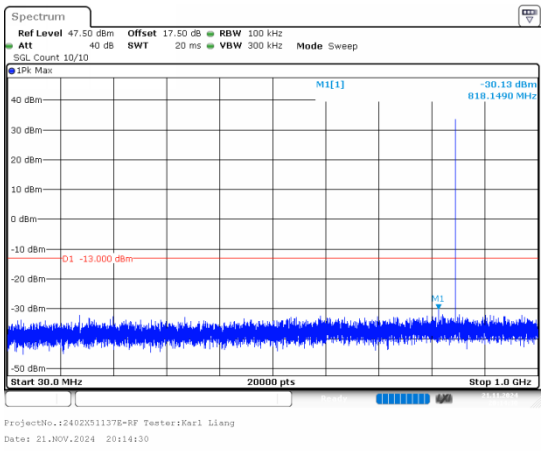


Above 1G

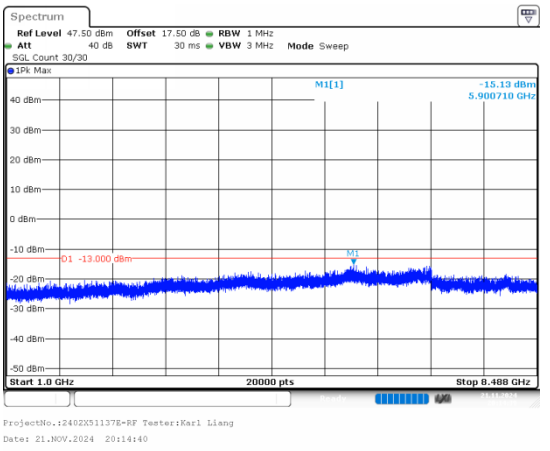


GSM_High

Below 1G



Above 1G

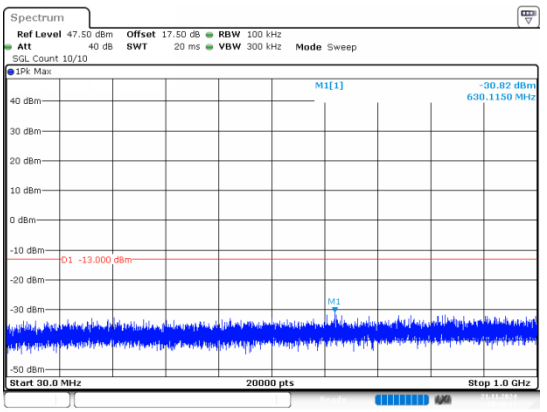


FCC Part 24E

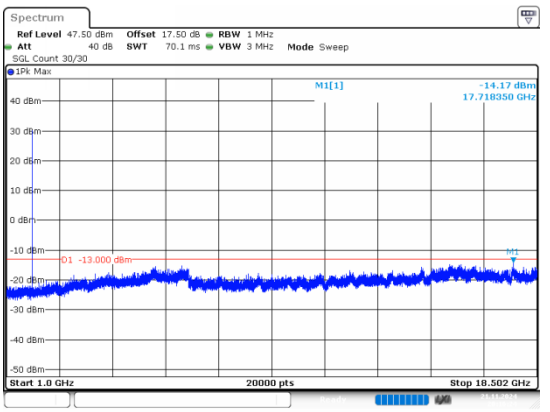
GSM 1900 , Normal

GSM_Low

Below 1G

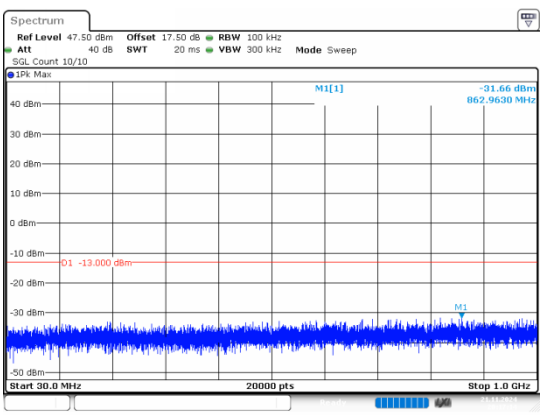


Above 1G

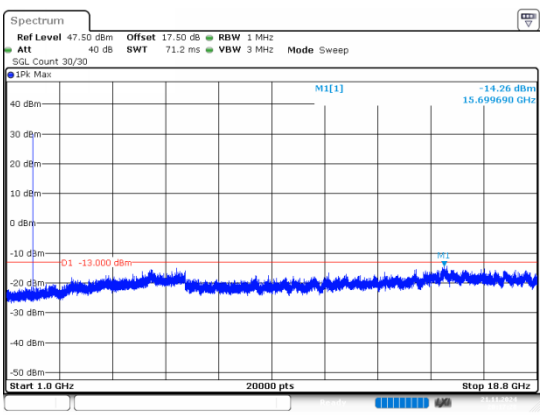


GSM_Middle

Below 1G

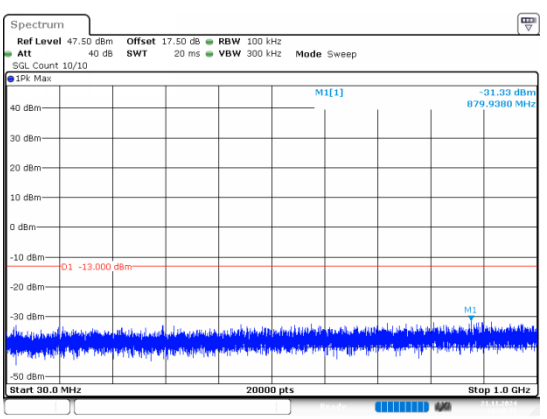


Above 1G



GSM_High

Below 1G



Above 1G