Appendix B

Test Information:

Serial No.:	2O92-17	**Test Date:**	2024/07/18~2024/07/25
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Loge Long	**Test Result:**	Pass

Environmental Conditions:

Temperature: (°C):	26.2~28.5	**Relative Humidity: (%)**	51~68	**ATM Pressure: (kPa)**	99.3~100.9

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101461	2023/11/27	2024/11/26
Micro-Coax	Coaxial Cable	UFB205A	323308-024	2024/01/02	2025/01/01
Minl-Clrcuits	Coaxial Power Splitters & Combiner	ZFRSC-183-S+	SF448201614	2024/02/25	2025/02/24
R&S	Wideband Radio Communication Tester	CMW500	149216	2023/10/18	2024/10/17
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30173	2023/10/18	2024/10/17
All-sun	Clamp Meter	EM305A	8348897	2023/08/03	2024/08/02
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

Band 5

Mode	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)	Result
R99_Middle_TN/VN	-6.0	-0.007	±2.5	Pass
R99_Middle_T1/VN	-7.3	-0.009	±2.5	Pass
R99_Middle_T2/VN	-5.3	-0.006	±2.5	Pass
R99_Middle_T3/VN	-8.5	-0.010	±2.5	Pass
R99_Middle_T4/VN	-10.9	-0.013	±2.5	Pass
R99_Middle_T5/VN	-8.7	-0.010	±2.5	Pass
R99_Middle_T6/VN	-8.8	-0.010	±2.5	Pass
R99_Middle_T7/VN	-10.2	-0.012	±2.5	Pass
R99_Middle_T8/VN	-10.4	-0.012	±2.5	Pass
R99_Middle_TN/VH	-10.1	-0.012	±2.5	Pass
R99_Middle_TN/VL	-9.4	-0.011	±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

Band 2

Mode	Value (MHz)	Limit (MHz)	Result
R99_Low_TN/VN	1850.305	1850	Pass
R99_Low_T1/VN	1850.305	1850	Pass
R99_Low_T2/VN	1850.305	1850	Pass
R99_Low_T3/VN	1850.315	1850	Pass
R99_Low_T4/VN	1850.325	1850	Pass
R99_Low_T5/VN	1850.305	1850	Pass
R99_Low_T6/VN	1850.315	1850	Pass
R99_Low_T7/VN	1850.305	1850	Pass
R99_Low_T8/VN	1850.315	1850	Pass
R99_Low_TN/VH	1850.315	1850	Pass
R99_Low_TN/VL	1850.305	1850	Pass
R99_High_TN/VN	1909.695	1910	Pass
R99_High_T1/VN	1909.685	1910	Pass
R99_High_T2/VN	1909.715	1910	Pass
R99_High_T3/VN	1909.695	1910	Pass
R99_High_T4/VN	1909.705	1910	Pass
R99_High_T5/VN	1909.715	1910	Pass
R99_High_T6/VN	1909.685	1910	Pass
R99_High_T7/VN	1909.695	1910	Pass
R99_High_T8/VN	1909.695	1910	Pass
R99_High_TN/VH	1909.695	1910	Pass
R99_High_TN/VL	1909.725	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

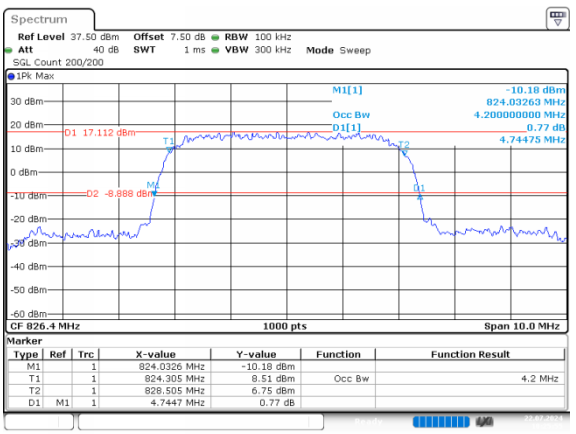
FCC Part 22H

Band 5 , Normal

Mode	99% OBW (MHz)	EBW (MHz)
R99_Low	4.200	4.745
R99_Middle	4.180	4.755
R99_High	4.170	4.735
HSDPA_Low_Subtest1	4.190	4.735
HSDPA_Middle_Subtest1	4.200	4.735
HSDPA_High_Subtest1	4.180	4.725
HSUPA_Low_Subtest1	4.210	4.715
HSUPA_Middle_Subtest1	4.170	4.705
HSUPA_High_Subtest1	4.190	4.725

Band 5 , Normal

R99_Low 4.200MHz



ProjectNo.:2402V85163E-RF Tester:Loge Long
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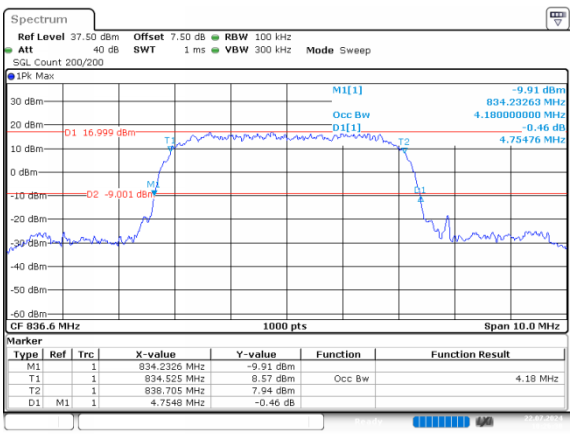
R99_Middle 4.180MHz



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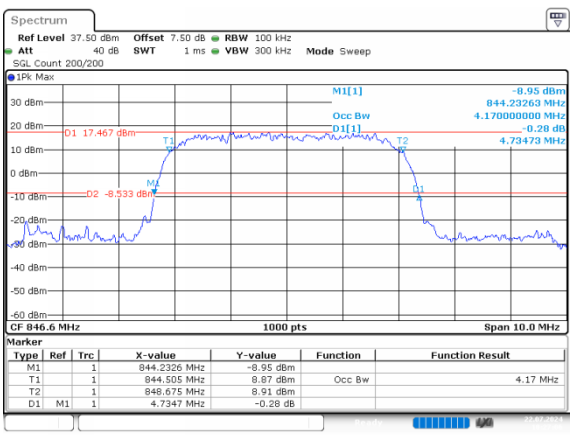
R99_High 4.170MHz



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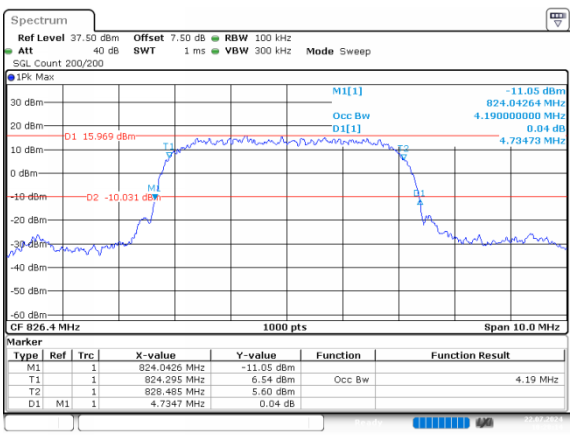
HSDPA_Low_Subtest1 4.190MHz



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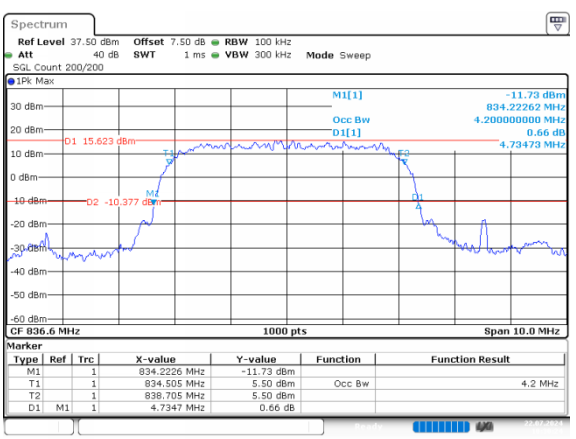
HSDPA_Middle_Subtest1 4.200MHz



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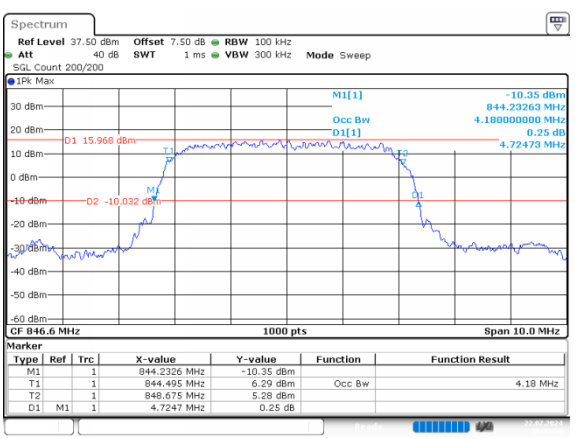
HSDPA_High_Subtest1 4.180MHz



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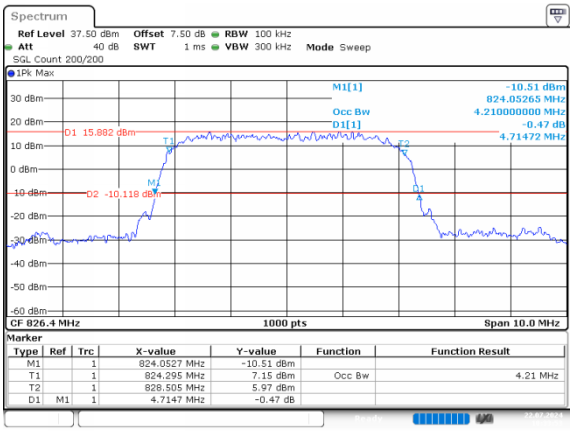
HSUPA_Low_Subtest1 4.210MHz



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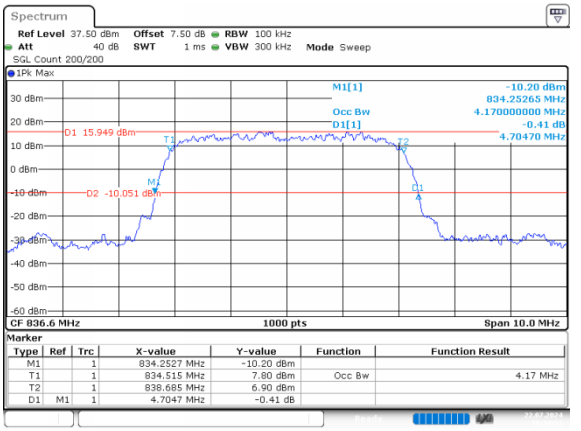
HSUPA_Middle_Subtest1 4.170MHz



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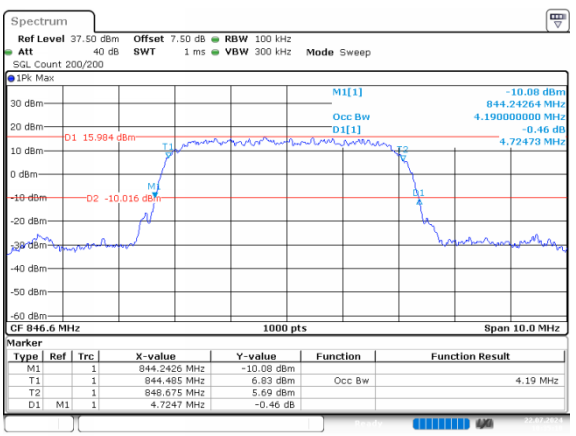
HSUPA_High_Subtest1 4.190MHz



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Date: 22.JUL.2024 10:35:10

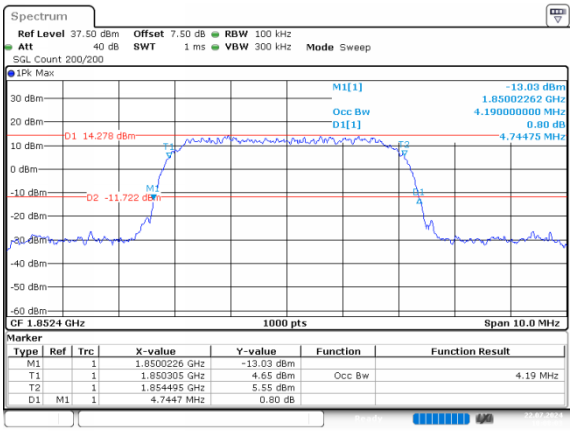
FCC Part 24E

Band 2 , Normal

Mode	99% OBW (MHz)	EBW (MHz)
R99_Low	4.190	4.745
R99_Middle	4.190	4.715
R99_High	4.190	4.735
HSDPA_Low_Subtest1	4.170	4.695
HSDPA_Middle_Subtest1	4.200	4.745
HSDPA_High_Subtest1	4.180	4.735
HSUPA_Low_Subtest1	4.180	4.725
HSUPA_Middle_Subtest1	4.200	4.715
HSUPA_High_Subtest1	4.180	4.695

Band 2 , Normal

R99_Low 4.190MHz



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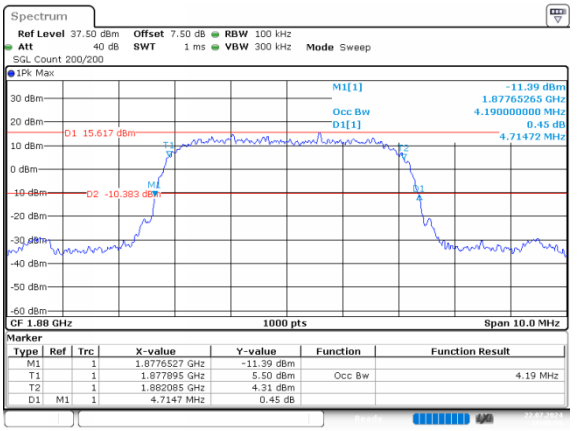
R99_Middle 4.190MHz



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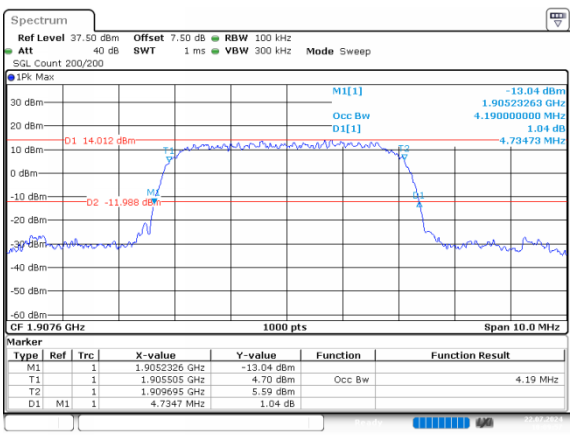
R99_High 4.190MHz



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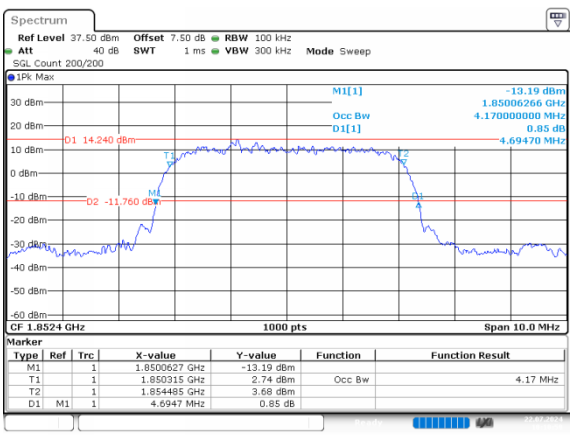
HSDPA_Low_Subtest1 4.170MHz



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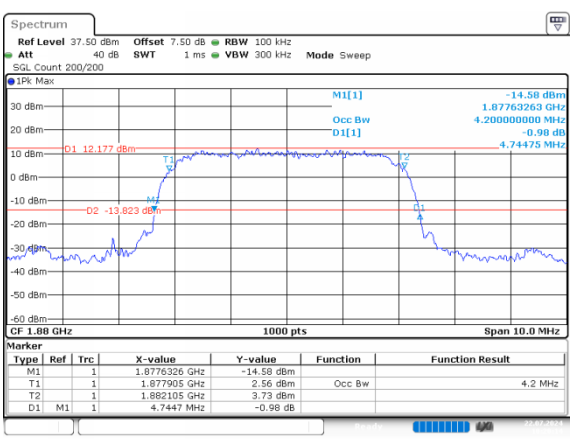
HSDPA_Middle_Subtest1 4.200MHz



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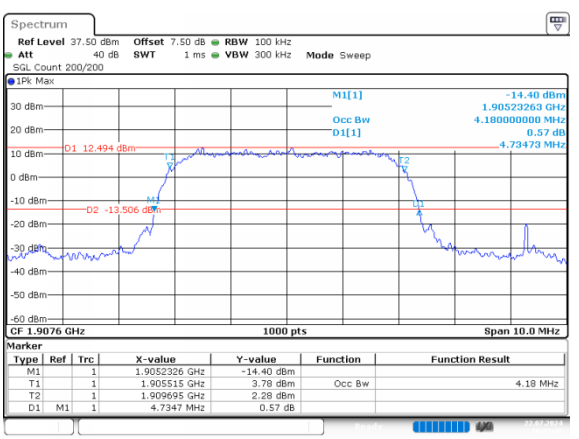
HSDPA_High_Subtest1 4.180MHz



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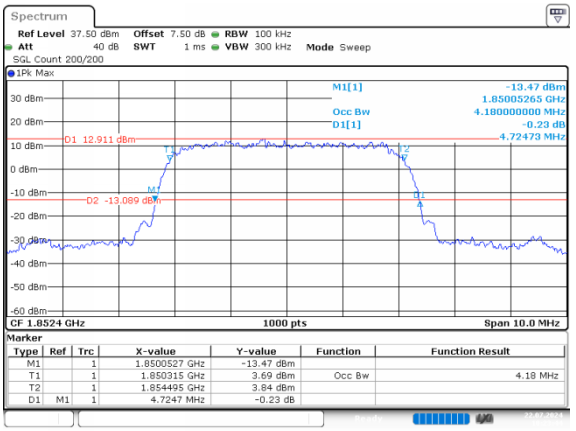
HSUPA_Low_Subtest1 4.180MHz



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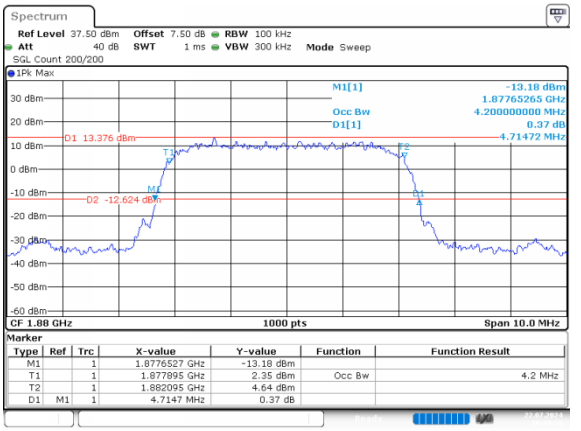
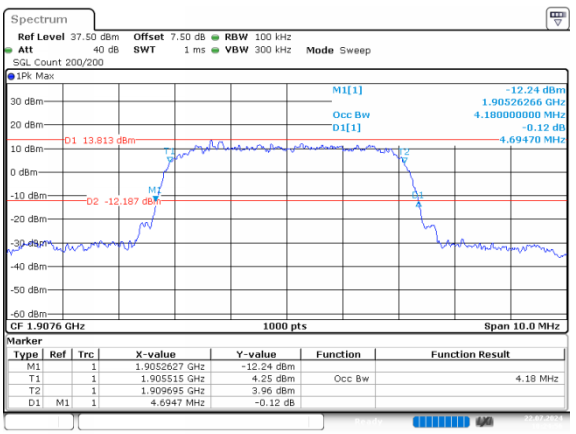
HSUPA_Middle_Subtest1 4.200MHz



ProjectNo.:2402V85163E-RF Tester:Loge Long
Date: 22.JUL.2024 10:24:19

HSUPA_High_Subtest1 4.180MHz



ProjectNo.:2402V85163E-RF Tester:Loge Long
Date: 22.JUL.2024 10:24:56

RF Output Power

FCC Part 22H

Band 5 , Normal

Mode	Conducted Power (dBm)	ERP (dBm)	Limit (dBm)	Result
R99_Low	23.06	19.52	38.45	Pass
R99_Middle	22.89	19.35	38.45	Pass
R99_High	23.07	19.53	38.45	Pass
HSDPA_Low_Subtest1	20.60	17.06	38.45	Pass
HSDPA_Low_Subtest2	21.18	17.64	38.45	Pass
HSDPA_Low_Subtest3	21.13	17.59	38.45	Pass
HSDPA_Low_Subtest4	21.13	17.59	38.45	Pass
HSDPA_Middle_Subtest1	20.58	17.04	38.45	Pass
HSDPA_Middle_Subtest2	21.03	17.49	38.45	Pass
HSDPA_Middle_Subtest3	20.94	17.40	38.45	Pass
HSDPA_Middle_Subtest4	20.98	17.44	38.45	Pass
HSDPA_High_Subtest1	20.70	17.16	38.45	Pass
HSDPA_High_Subtest2	21.23	17.69	38.45	Pass
HSDPA_High_Subtest3	21.14	17.60	38.45	Pass
HSDPA_High_Subtest4	21.13	17.59	38.45	Pass
HSUPA_Low_Subtest1	21.53	17.99	38.45	Pass
HSUPA_Low_Subtest2	21.54	18.00	38.45	Pass
HSUPA_Low_Subtest3	21.53	17.99	38.45	Pass
HSUPA_Low_Subtest4	21.53	17.99	38.45	Pass
HSUPA_Low_Subtest5	21.53	17.99	38.45	Pass
HSUPA_Middle_Subtest1	21.35	17.81	38.45	Pass
HSUPA_Middle_Subtest2	21.35	17.81	38.45	Pass
HSUPA_Middle_Subtest3	21.36	17.82	38.45	Pass
HSUPA_Middle_Subtest4	21.35	17.81	38.45	Pass
HSUPA_Middle_Subtest5	21.35	17.81	38.45	Pass
HSUPA_High_Subtest1	21.52	17.98	38.45	Pass
HSUPA_High_Subtest2	21.52	17.98	38.45	Pass
HSUPA_High_Subtest3	21.53	17.99	38.45	Pass
HSUPA_High_Subtest4	21.53	17.99	38.45	Pass
HSUPA_High_Subtest5	21.53	17.99	38.45	Pass

Mode	Conducted Power (dBm)	ERP (dBm)	Limit (dBm)	Result
HSPA+_Low_Subtest1	21.23	17.69	38.45	Pass
HSPA+_Middle_Subtest1	21.10	17.56	38.45	Pass
HSPA+_High_Subtest1	21.34	17.80	38.45	Pass
DC-HSDPA_Low_Subtest1	21.27	17.73	38.45	Pass
DC-HSDPA_Low_Subtest2	21.34	17.80	38.45	Pass
DC-HSDPA_Low_Subtest3	21.25	17.71	38.45	Pass
DC-HSDPA_Low_Subtest4	21.31	17.77	38.45	Pass
DC-HSDPA_Middle_Subtest1	21.48	17.94	38.45	Pass
DC-HSDPA_Middle_Subtest2	21.42	17.88	38.45	Pass
DC-HSDPA_Middle_Subtest3	21.37	17.83	38.45	Pass
DC-HSDPA_Middle_Subtest4	21.41	17.87	38.45	Pass
DC-HSDPA_High_Subtest1	21.39	17.85	38.45	Pass
DC-HSDPA_High_Subtest2	21.36	17.82	38.45	Pass
DC-HSDPA_High_Subtest3	21.42	17.88	38.45	Pass
DC-HSDPA_High_Subtest4	21.37	17.83	38.45	Pass

Note:

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

G_T(dBd) = G_T(dBi) - 2.15

1.Ant Gain = -1.39dBi;

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

FCC Part 24E

Band 2 , Normal

Mode	Conducted Power (dBm)	EIRP (dBm)	Limit (dBm)	Result
R99_Low	22.12	23.79	33	Pass
R99_Middle	21.88	23.55	33	Pass
R99_High	22.25	23.92	33	Pass
HSDPA_Low_Subtest1	19.98	21.65	33	Pass
HSDPA_Low_Subtest2	20.39	22.06	33	Pass
HSDPA_Low_Subtest3	20.32	21.99	33	Pass
HSDPA_Low_Subtest4	20.30	21.97	33	Pass
HSDPA_Middle_Subtest1	19.58	21.25	33	Pass
HSDPA_Middle_Subtest2	20.13	21.80	33	Pass
HSDPA_Middle_Subtest3	20.03	21.70	33	Pass
HSDPA_Middle_Subtest4	20.04	21.71	33	Pass
HSDPA_High_Subtest1	19.89	21.56	33	Pass
HSDPA_High_Subtest2	20.46	22.13	33	Pass
HSDPA_High_Subtest3	20.35	22.02	33	Pass
HSDPA_High_Subtest4	20.35	22.02	33	Pass
HSUPA_Low_Subtest1	20.70	22.37	33	Pass
HSUPA_Low_Subtest2	20.71	22.38	33	Pass
HSUPA_Low_Subtest3	20.71	22.38	33	Pass
HSUPA_Low_Subtest4	20.71	22.38	33	Pass
HSUPA_Low_Subtest5	20.70	22.37	33	Pass
HSUPA_Middle_Subtest1	20.47	22.14	33	Pass
HSUPA_Middle_Subtest2	20.45	22.12	33	Pass
HSUPA_Middle_Subtest3	20.46	22.13	33	Pass
HSUPA_Middle_Subtest4	20.46	22.13	33	Pass
HSUPA_Middle_Subtest5	20.47	22.14	33	Pass
HSUPA_High_Subtest1	20.47	22.14	33	Pass
HSUPA_High_Subtest2	20.47	22.14	33	Pass
HSUPA_High_Subtest3	20.48	22.15	33	Pass
HSUPA_High_Subtest4	20.48	22.15	33	Pass
HSUPA_High_Subtest5	20.48	22.15	33	Pass
HSPA+_Low_Subtest1	20.46	22.13	33	Pass

Mode	Conducted Power (dBm)	EIRP (dBm)	Limit (dBm)	Result
HSPA+_Middle_Subtest1	20.41	22.08	33	Pass
HSPA+_High_Subtest1	20.39	22.06	33	Pass
DC-HSDPA_Low_Subtest1	20.64	22.31	33	Pass
DC-HSDPA_Low_Subtest2	20.61	22.28	33	Pass
DC-HSDPA_Low_Subtest3	20.67	22.34	33	Pass
DC-HSDPA_Low_Subtest4	20.65	22.32	33	Pass
DC-HSDPA_Middle_Subtest1	20.41	22.08	33	Pass
DC-HSDPA_Middle_Subtest2	20.49	22.16	33	Pass
DC-HSDPA_Middle_Subtest3	20.51	22.18	33	Pass
DC-HSDPA_Middle_Subtest4	20.46	22.13	33	Pass
DC-HSDPA_High_Subtest1	20.44	22.11	33	Pass
DC-HSDPA_High_Subtest2	20.47	22.14	33	Pass
DC-HSDPA_High_Subtest3	20.43	22.10	33	Pass
DC-HSDPA_High_Subtest4	20.44	22.11	33	Pass

Note:

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

1.Ant Gain = 1.67dBi;

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

Peak-to-average Ratio(PAR)

FCC Part 22H

Band 5 , Normal

Mode	Value (dB)	Limit (dB)
R99_Low	2.81	13
R99_Middle	2.99	13
R99_High	2.87	13
HSDPA_Low_Subtest1	3.80	13
HSDPA_Middle_Subtest1	3.83	13
HSDPA_High_Subtest1	3.86	13
HSUPA_Low_Subtest1	4.43	13
HSUPA_Middle_Subtest1	4.58	13
HSUPA_High_Subtest1	4.49	13

FCC Part 24E

Band 2 , Normal

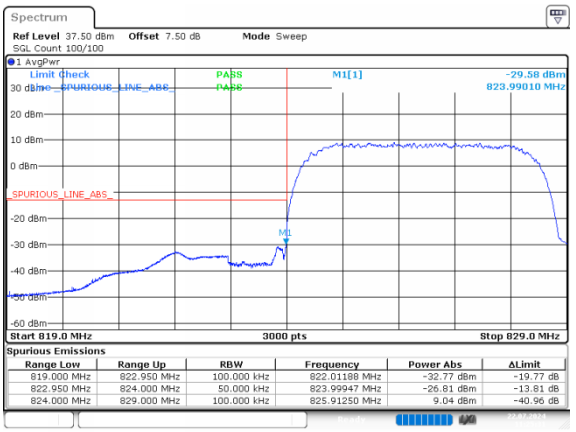
Mode	Value (dB)	Limit (dB)
R99_Low	2.90	13
R99_Middle	3.04	13
R99_High	2.99	13
HSDPA_Low_Subtest1	3.83	13
HSDPA_Middle_Subtest1	7.71	13
HSDPA_High_Subtest1	3.91	13
HSUPA_Low_Subtest1	4.58	13
HSUPA_Middle_Subtest1	4.72	13
HSUPA_High_Subtest1	4.55	13

Out of band emission,Band Edge

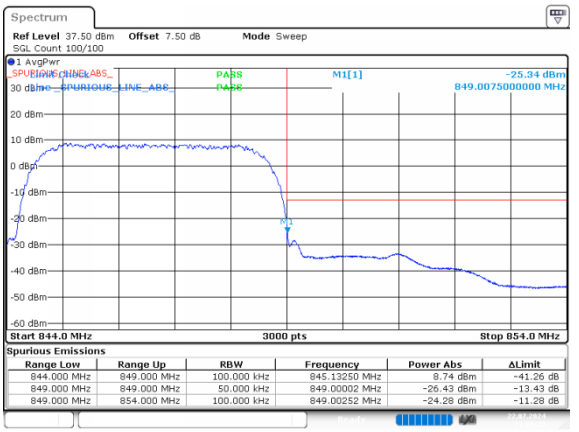
FCC Part 22H

Band 5 , Normal

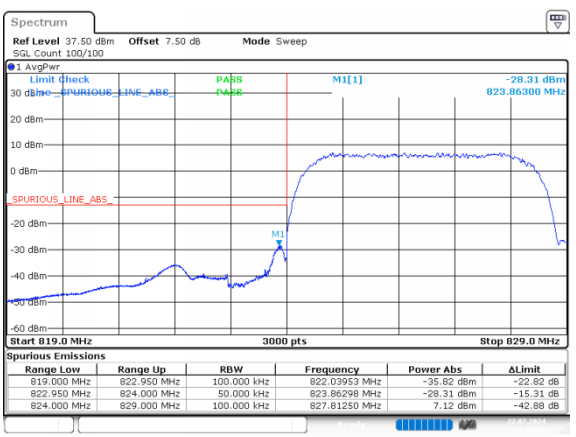
R99_Low -29.58dBm



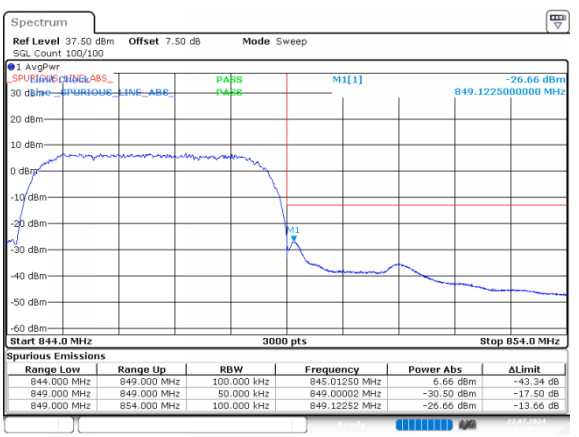
R99_High -25.34dBm



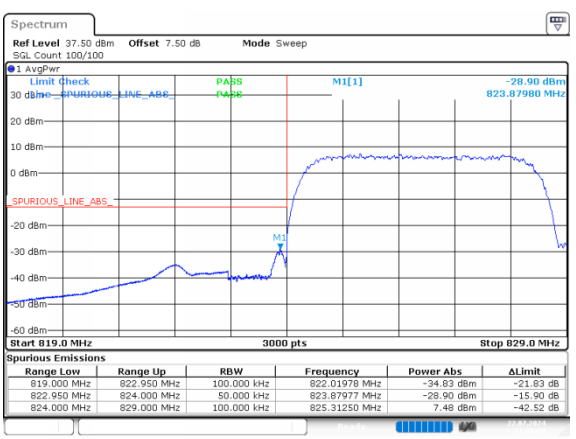
HSDPA_Low_Subtest1 -28.31dBm



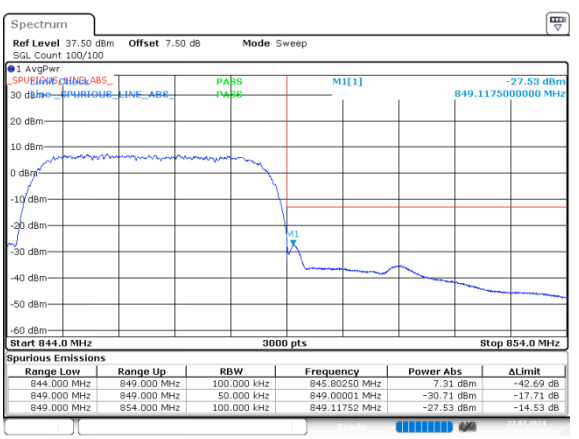
HSDPA_High_Subtest1 -26.66dBm



HSUPA_Low_Subtest1 -28.90dBm



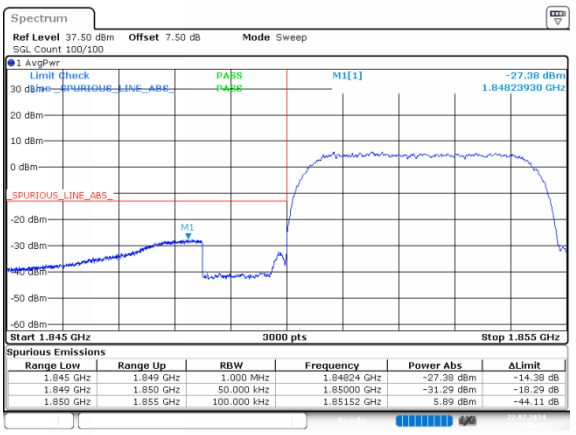
HSUPA_High_Subtest1 -27.53dBm



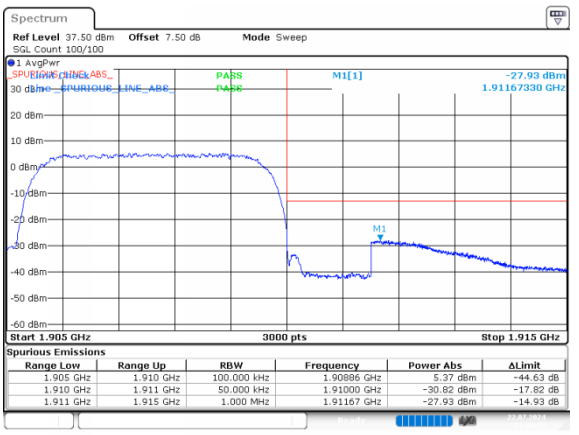
FCC Part 24E

Band 2 , Normal

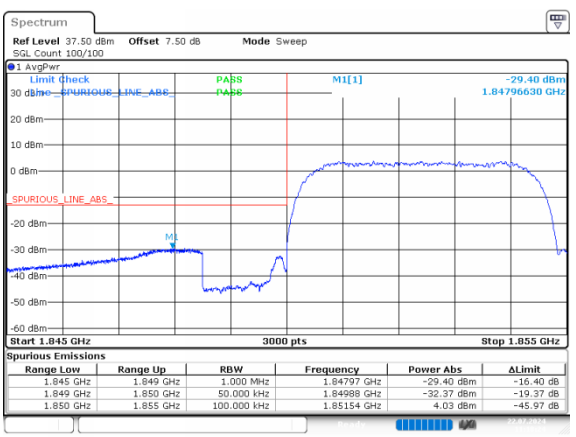
R99_Low -27.38dBm



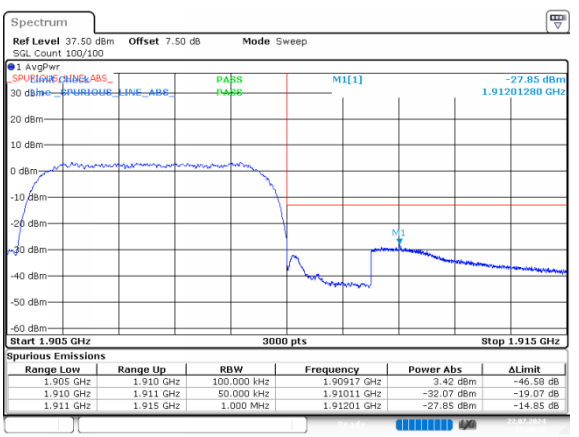
R99_High -27.93dBm



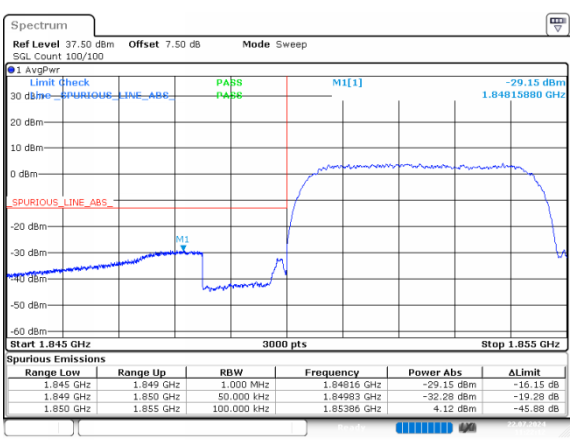
HSDPA_Low_Subtest1 -29.40dBm



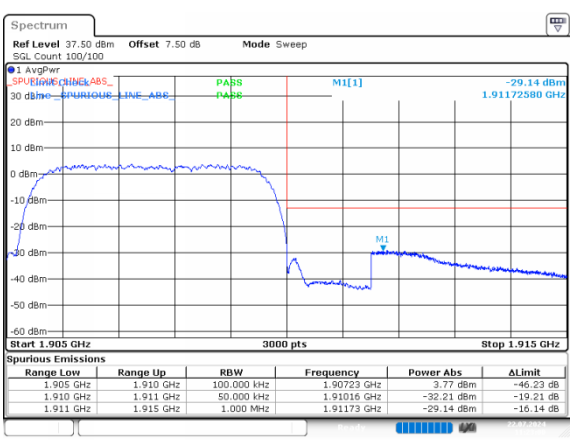
HSDPA_High_Subtest1 -27.85dBm



HSUPA_Low_Subtest1 -29.15dBm



HSUPA_High_Subtest1 -29.14dBm



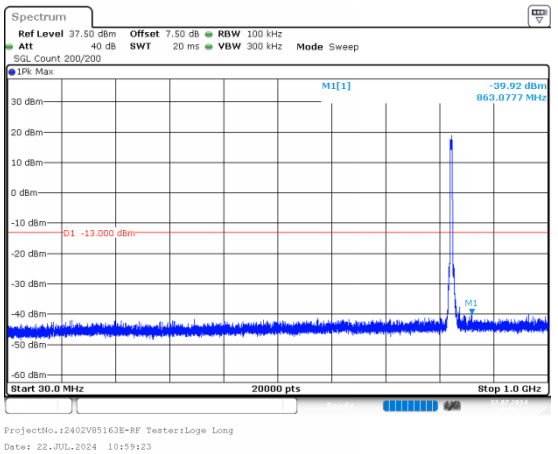
Spurious Emissions at Antenna Terminal

FCC Part 22H

Band 5 , Normal

R99_Low

Below 1G



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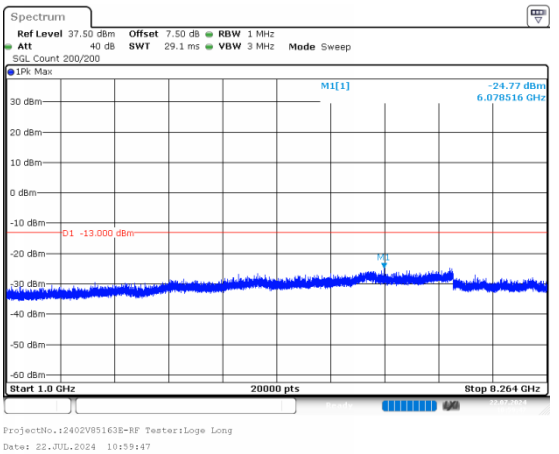
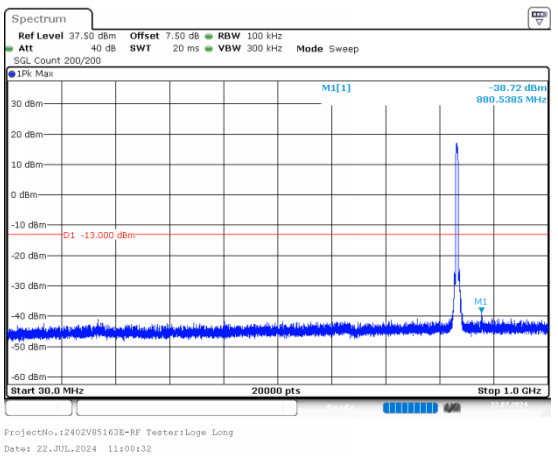


R99_Middle

Below 1G



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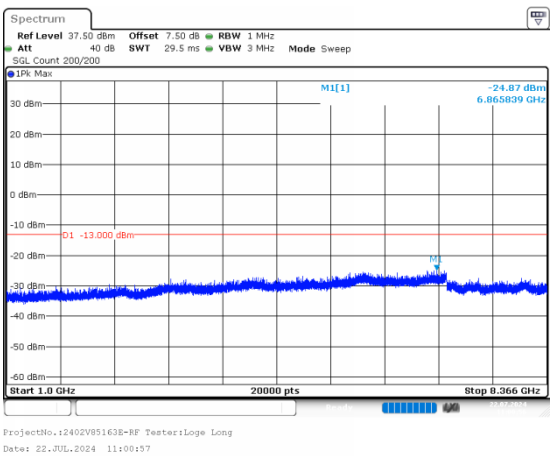
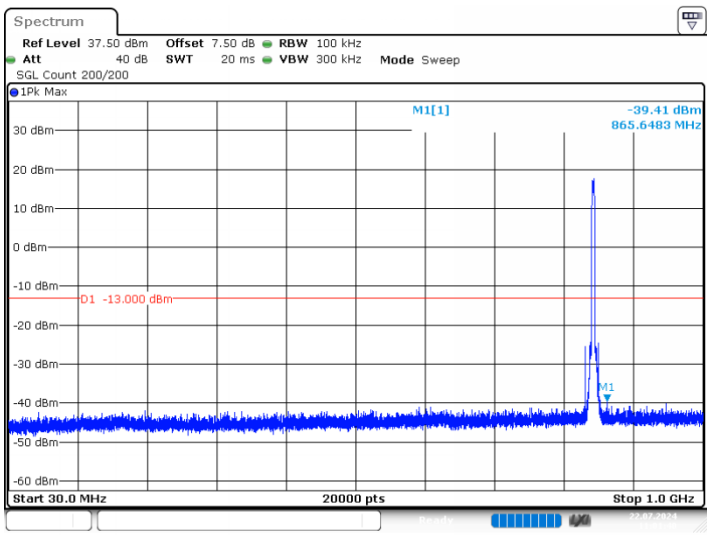


R99_High

Below 1G



ProjectNo.:2402V85163E-RF Tester:Loge Long
Date: 22.JUL.2024 11:01:41

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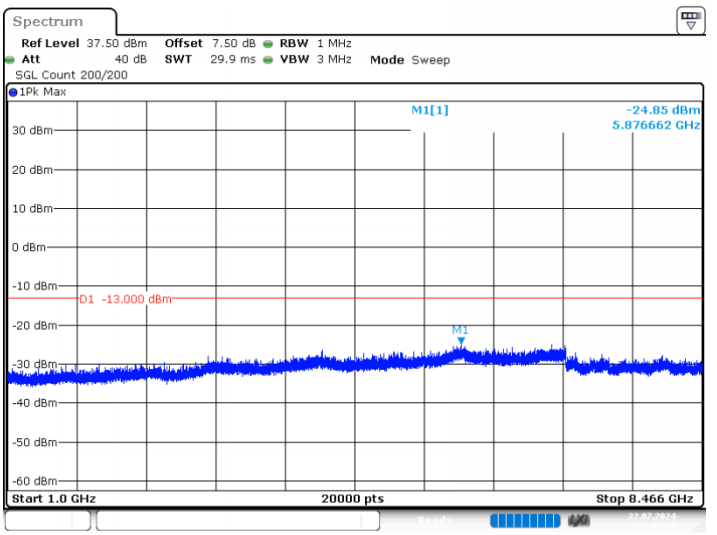


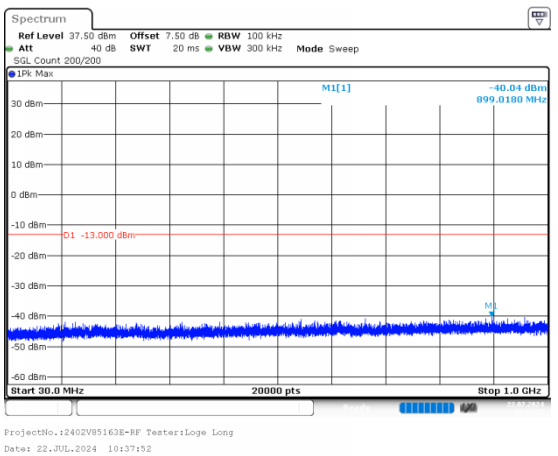
ProjectNo.:2402V85163E-RF Tester:Loge Long
Date: 22.JUL.2024 11:02:05

FCC Part 24E

Band 2 , Normal

R99_Low

Below 1G



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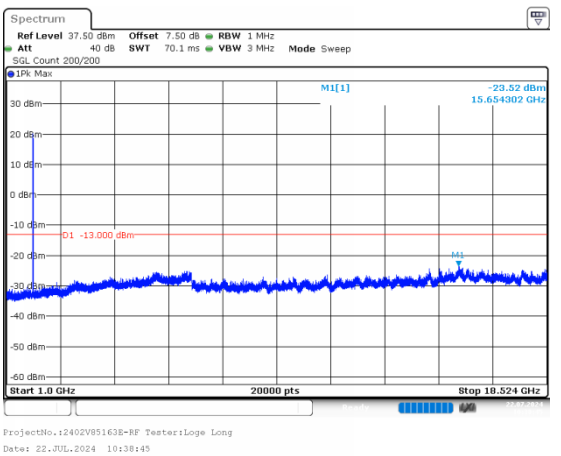
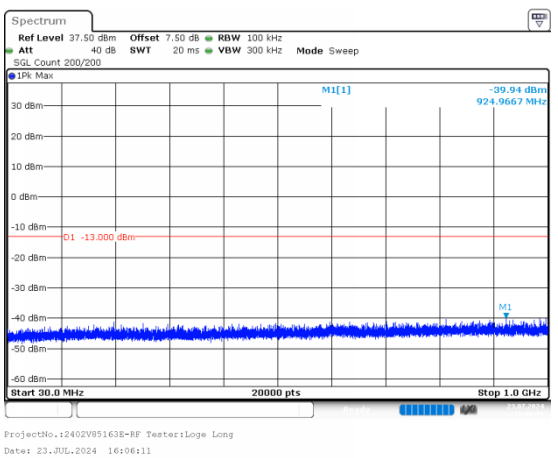


R99_Middle

Below 1G



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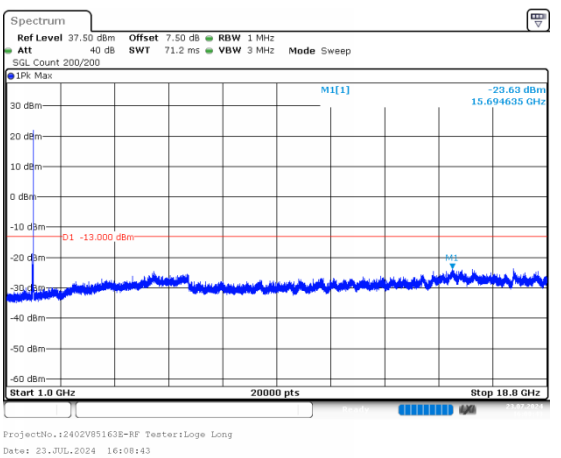
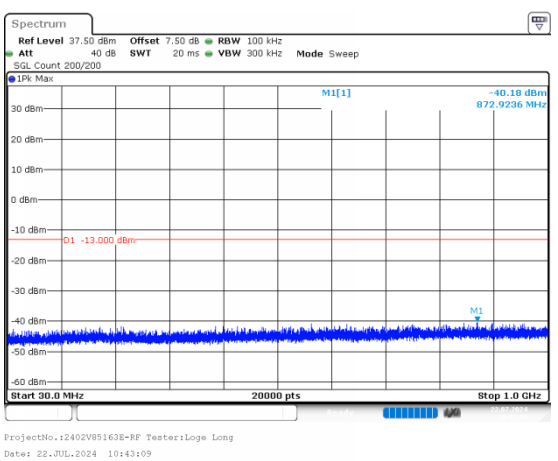
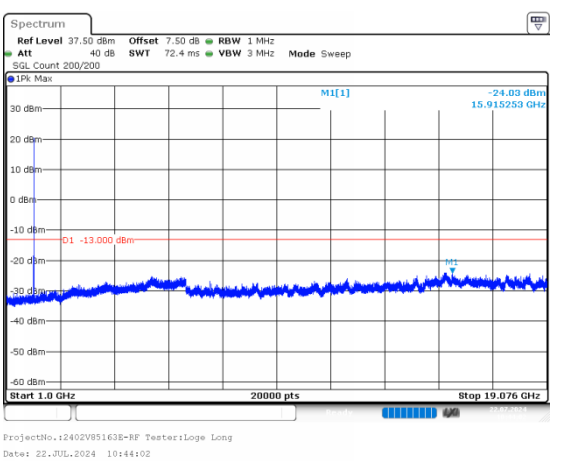


R99_High

Below 1G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