

Appendix B

Test Information:

Serial No.:	2N1N-3	Test Date:	2024/07/21~2024/07/22
Test Site:	RF	Test Mode:	Transmitting
Tester:	Karl Liang	Test Result:	Pass

Environmental Conditions:

Temperature: (℃):	27.9~28	Relative Humidity: (%)	63~64	ATM Pressure: (kPa)	100.2~100.8
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Micro-Coax	Coaxial Cable	UFB205A	323308-024	2024/01/02	2025/01/01
Mini-Circuits	Coaxial Power Splitters & Combiner	ZFRSC-183-S+	SF448201614	2024/02/25	2025/02/24
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30173	2023/10/18	2024/10/17
TDK-Lambda	DC Power Supply	Z+60-14	F-08-EM038-1	N/A	N/A
R&S	Wideband Radio Communication Tester	CMW500	149216	2023/10/18	2024/10/17
All-sun	Clamp Meter	EM305A	8348897	2023/08/03	2024/08/02
R&S	Spectrum Analyzer	FSV40	101461	2023/11/27	2024/11/26

* 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	-10.3	-0.012	±2.5	Pass
R99_Middle_T1/VN	-8.9	-0.011	±2.5	Pass
R99_Middle_T2/VN	-11.9	-0.014	±2.5	Pass
R99_Middle_T3/VN	-6.9	-0.008	±2.5	Pass
R99_Middle_T4/VN	-9.8	-0.012	±2.5	Pass
R99_Middle_T5/VN	-10.4	-0.012	±2.5	Pass
R99_Middle_T6/VN	-10.5	-0.013	±2.5	Pass
R99_Middle_T7/VN	-10.6	-0.013	±2.5	Pass
R99_Middle_T8/VN	-9.8	-0.012	±2.5	Pass
R99_Middle_TN/VH	-9.5	-0.011	±2.5	Pass
R99_Middle_TN/VL	-10.3	-0.012	±2.5	Pass

Note:
Frequency Error (ppm)=Frequency Error (MHz)/Test Channel(MHz)
TN: 20 ℃; T1: -30 ℃; T2: -20 ℃; T3: -10 ℃; T4: 0 ℃; T5: 10 ℃; T6: 30 ℃; T7: 40 ℃; T8: 50 ℃.
VN: Normal Voltage; VL: Low Voltage; VH: High Voltage.

Occupied Bandwidth

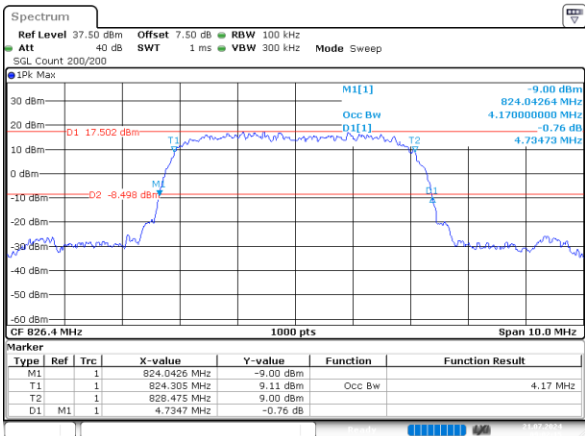
FCC Part 22H

Band 5 , Normal

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

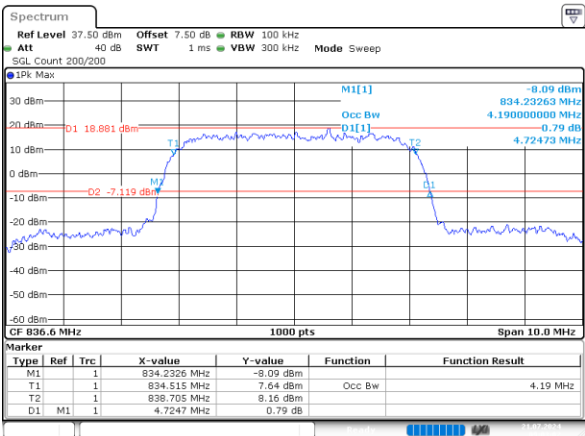
Band 5 , Normal

R99_Low 4.170MHz



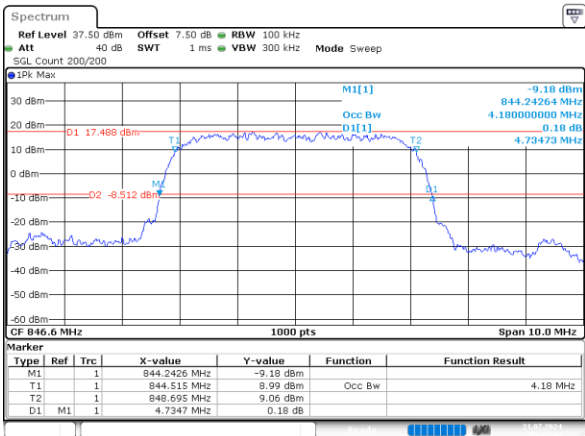
ProjectNo.:2402U81179E-RF Tester:Karl Liang
 Date: 21.JUL.2024 09:02:15

R99_Middle 4.190MHz



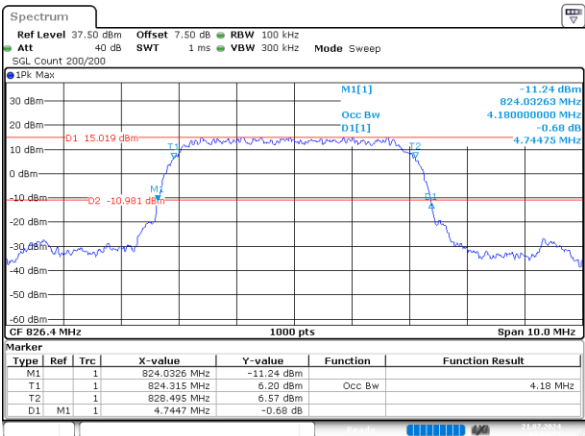
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R99_High 4.180MHz



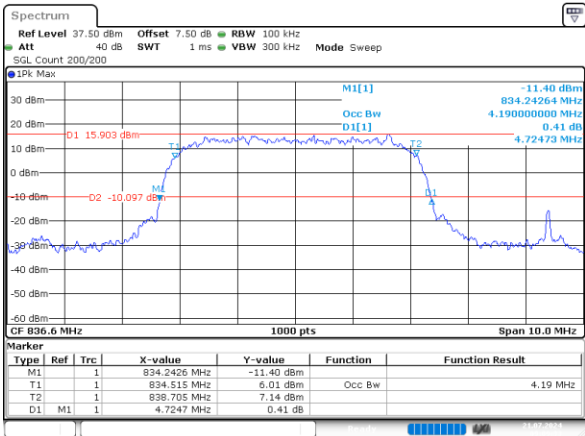
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HSDPA_Low_Subtest1 4.180MHz



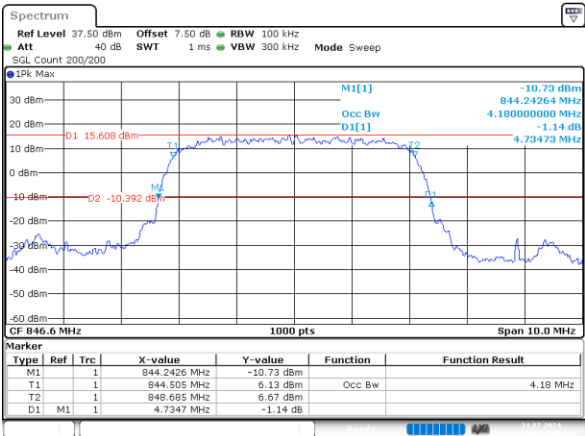
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HSDPA_Middle_Subtest1 4.190MHz



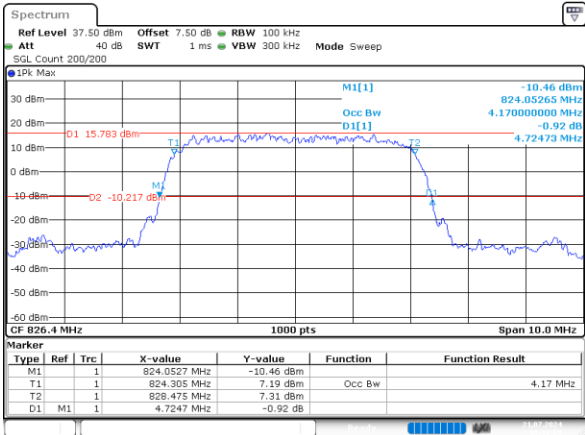
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HSDPA_High_Subtest1 4.180MHz



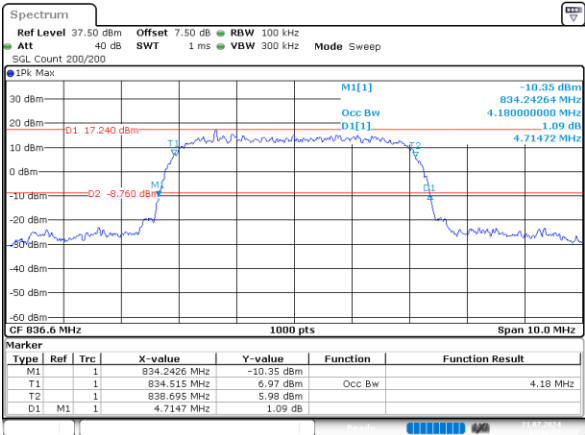
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HSUPA_Low_Subtest1 4.170MHz



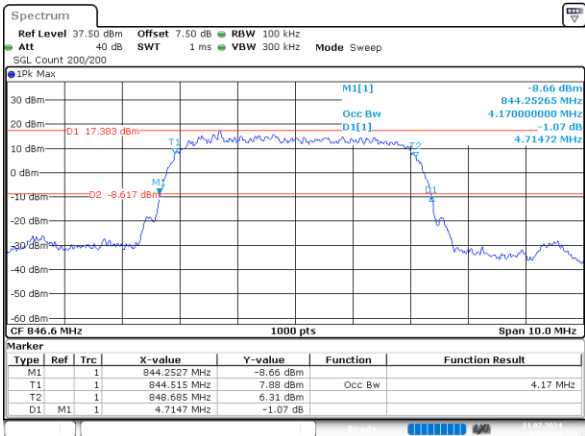
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HSUPA_Middle_Subtest1 4.180MHz



ProjectNo.:2402U81179E-RF Tester:Karl Liang
 Date: 21.JUL.2024 09:12:58

HSUPA_High_Subtest1 4.170MHz



ProjectNo.:2402U81179E-RF Tester:Karl Liang
 Date: 21.JUL.2024 09:13:34

RF Output Power

FCC Part 22H

Band 5 , Normal

Mode	Conducted Power (dBm)	ERP (dBm)	Limit (dBm)	Result
R99_Low	23.08	17.740	38.45	Pass
R99_Middle	23.19	17.850	38.45	Pass
R99_High	23.18	17.840	38.45	Pass
HSDPA_Low_Subtest1	21.11	15.770	38.45	Pass
HSDPA_Low_Subtest2	21.37	16.030	38.45	Pass
HSDPA_Low_Subtest3	21.29	15.950	38.45	Pass
HSDPA_Low_Subtest4	21.29	15.950	38.45	Pass
HSDPA_Middle_Subtest1	20.00	14.660	38.45	Pass
HSDPA_Middle_Subtest2	21.35	16.010	38.45	Pass
HSDPA_Middle_Subtest3	21.27	15.930	38.45	Pass
HSDPA_Middle_Subtest4	21.23	15.890	38.45	Pass
HSDPA_High_Subtest1	21.01	15.670	38.45	Pass

Note:

$ERP = \text{Conducted Power(dBm)} - L_C(\text{dB}) + G_T(\text{dBd})$

$G_T(\text{dBd}) = G_T(\text{dBi}) - 2.15$

$1.Ant\ Gain = -3.19\text{dBi};$

$2.C_L = \text{signal attenuation in the connecting cable between the transmitter and antenna in 0dB}$

Peak-to-average Ratio(PAR)

FCC Part 22H

Band 5 , Normal

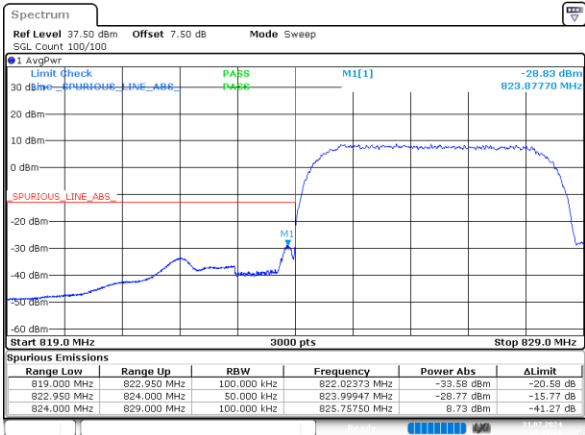
Mode	Value (dB)	Limit (dB)
R99_Low	2.96	13
R99_Middle	2.78	13
R99_High	3.04	13
HSDPA_Low_Subtest1	3.88	13
HSDPA_Middle_Subtest1	3.77	13
HSDPA_High_Subtest1	3.88	13
HSUPA_Low_Subtest1	4.58	13
HSUPA_Middle_Subtest1	4.38	13
HSUPA_High_Subtest1	4.58	13

Out of band emission,Band Edge

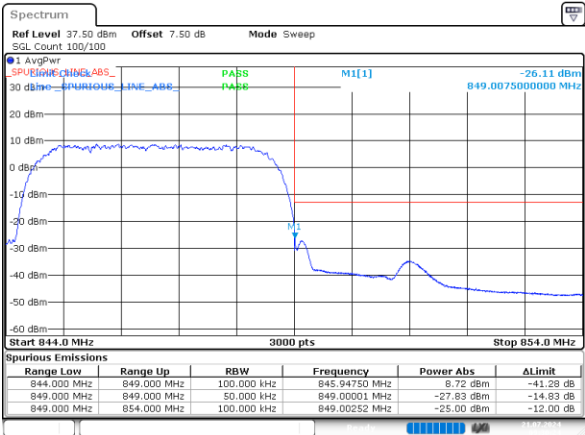
FCC Part 22H

Band 5 , Normal

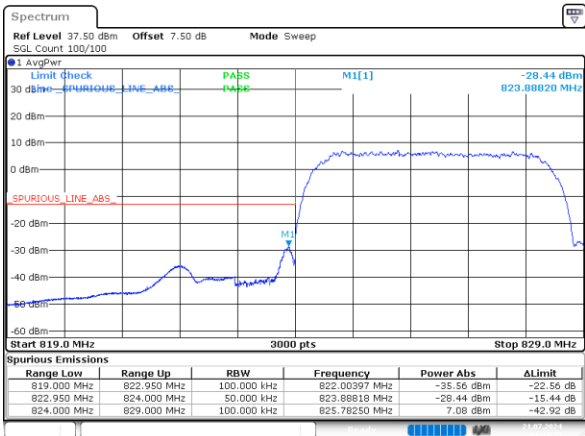
R99_Low -28.83dBm



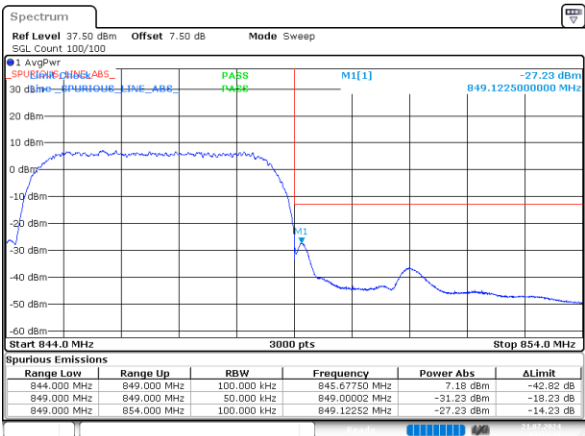
R99_High -26.11dBm



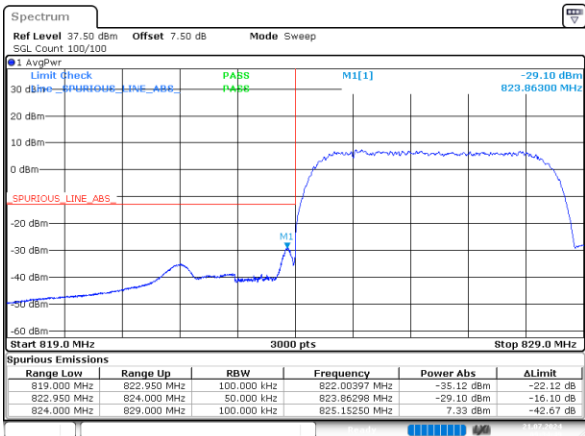
HSDPA_Low_Subtest1 -28.44dBm



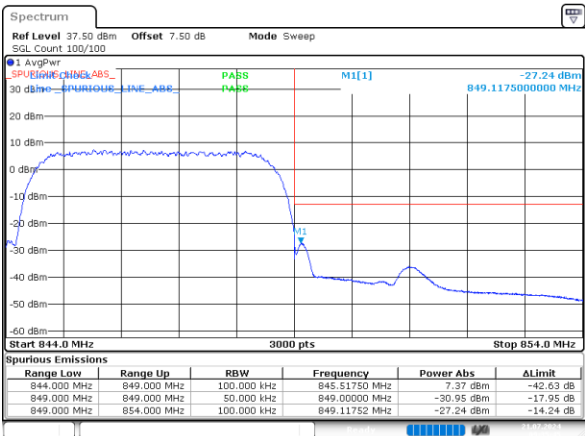
HSDPA_High_Subtest1 -27.23dBm



HSUPA_Low_Subtest1 -29.10dBm



HSUPA_High_Subtest1 -27.24dBm

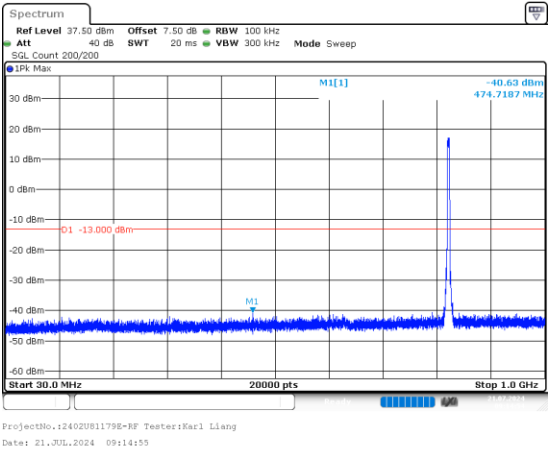


Spurious Emissions at Antenna Terminal

FCC Part 22H
Band 5 , Normal

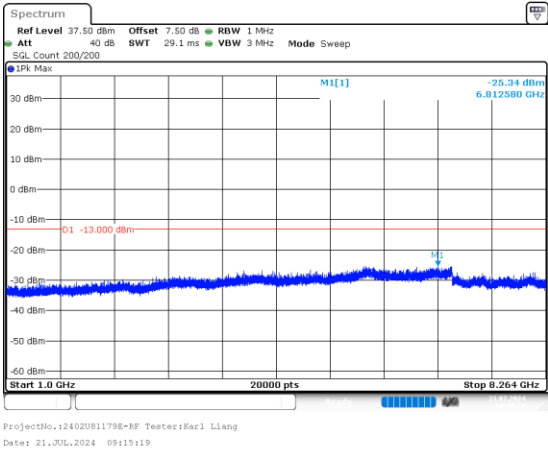
R99_Low

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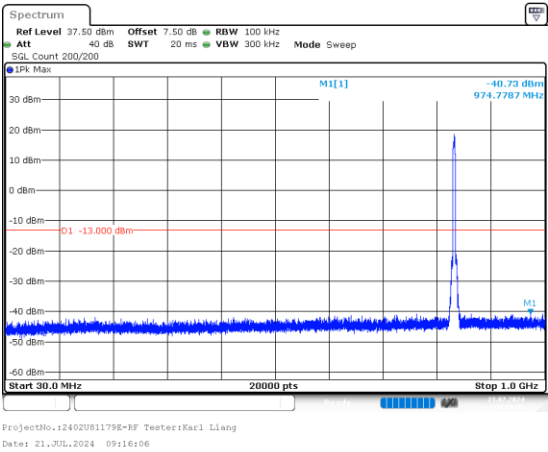
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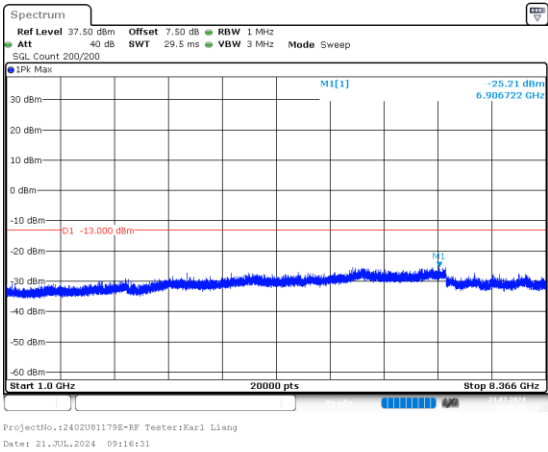
R99_Middle

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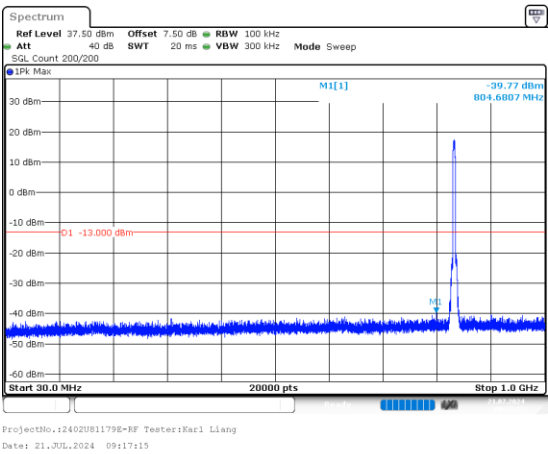
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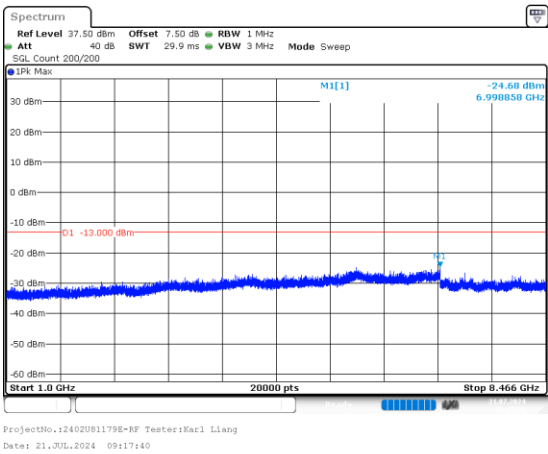
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R99_High

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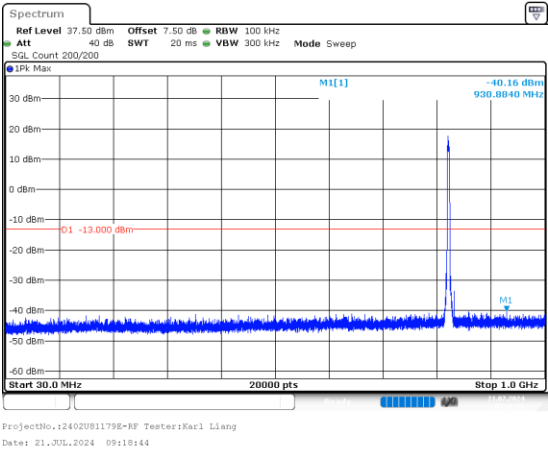


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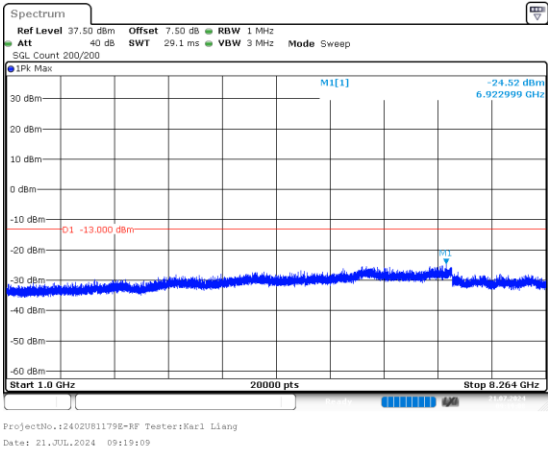


HSDPA_Low_Subtest1

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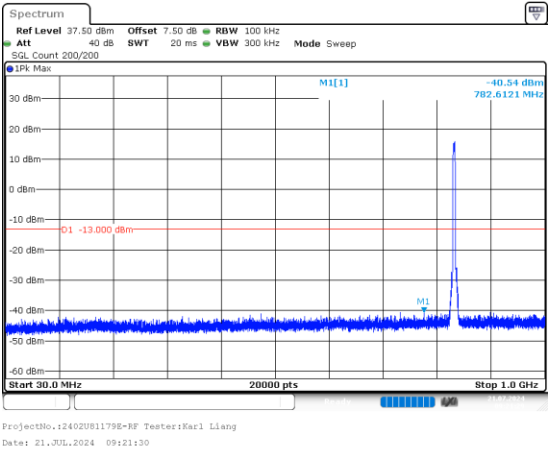


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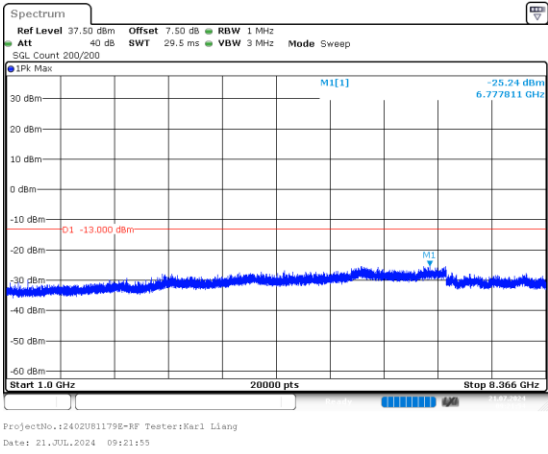


HSDPA_Middle_Subtest1

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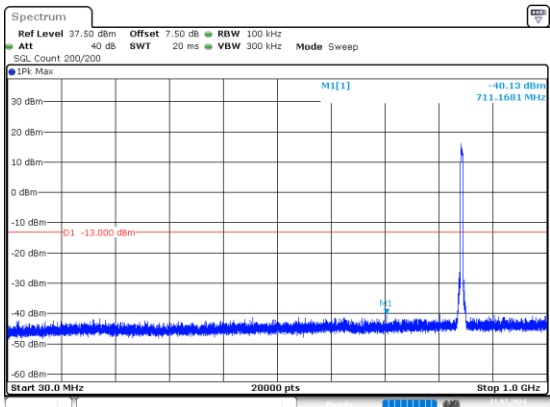


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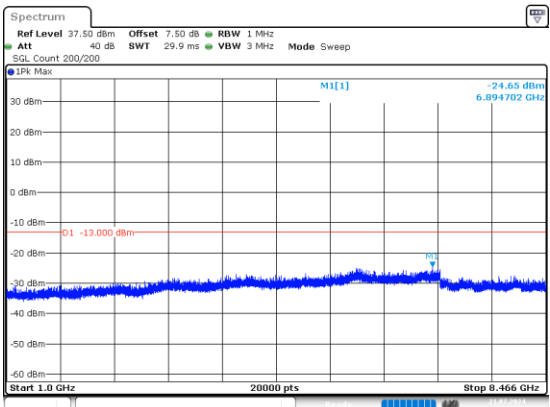
HSDPA_High_Subtest1

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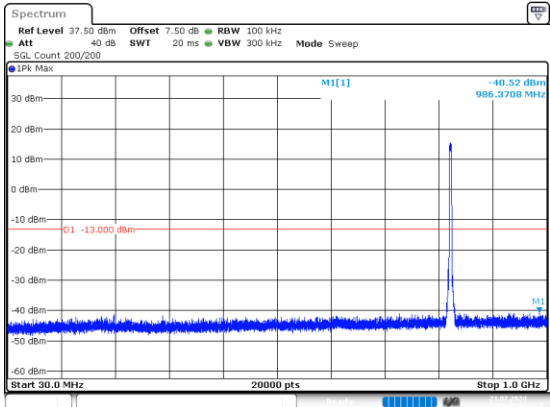
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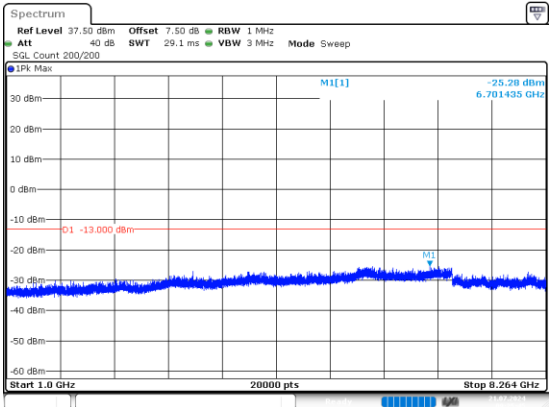
HSUPA_Low_Subtest1

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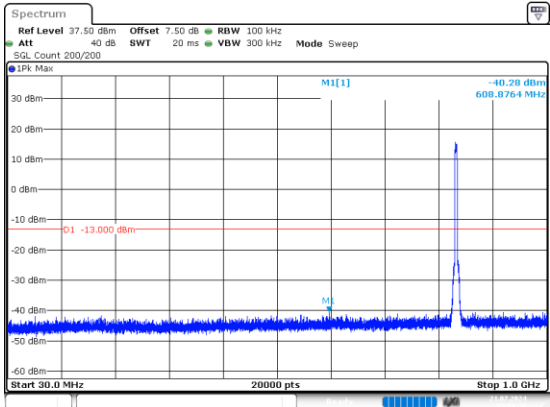
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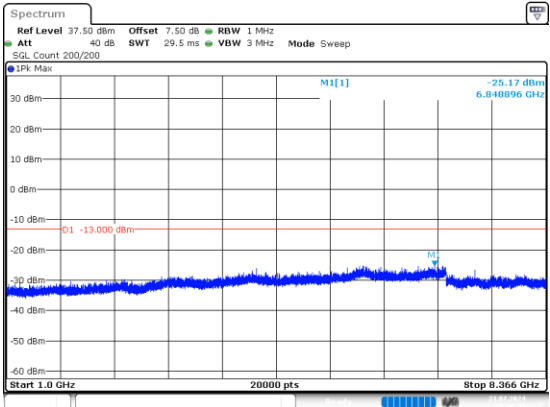
HSUPA_Middle_Subtest1

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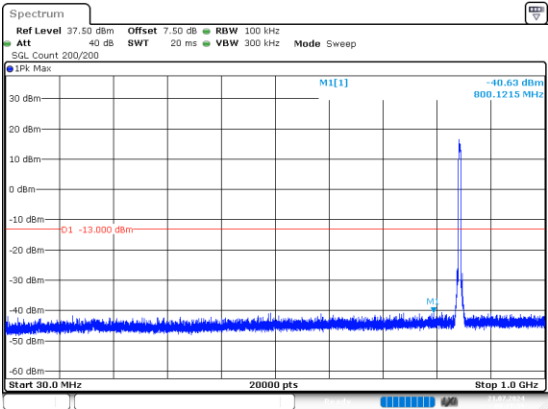
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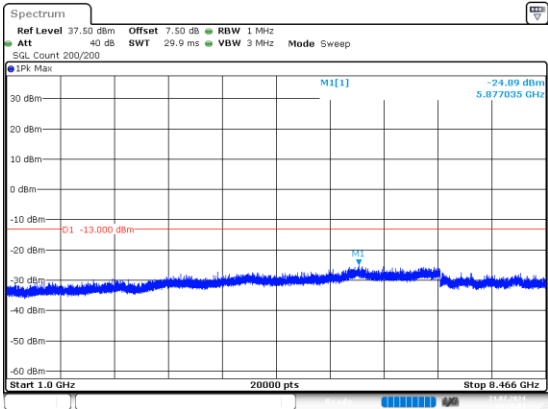
HSUPA_High_Subtest1

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