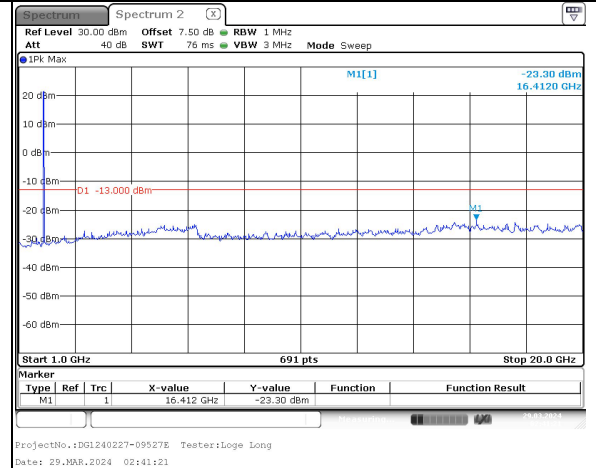
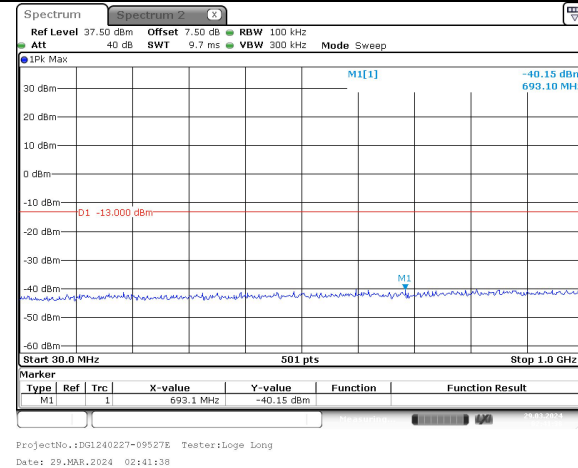


Spurious Emissions at Antenna Terminal

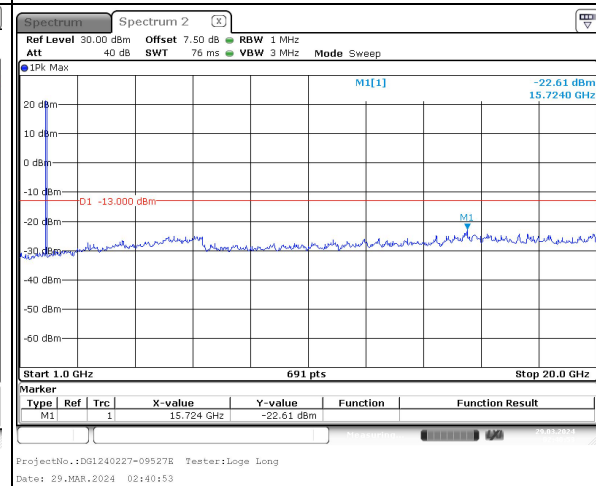
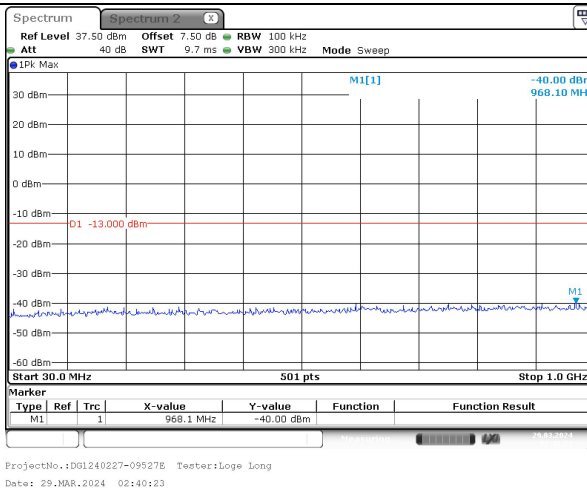
Channel

WCDMA R99

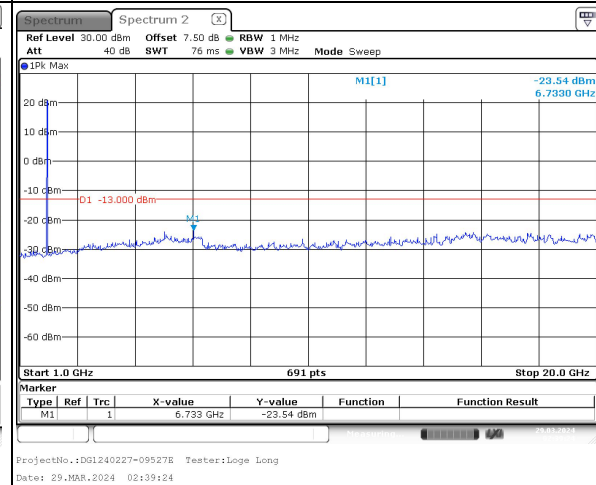
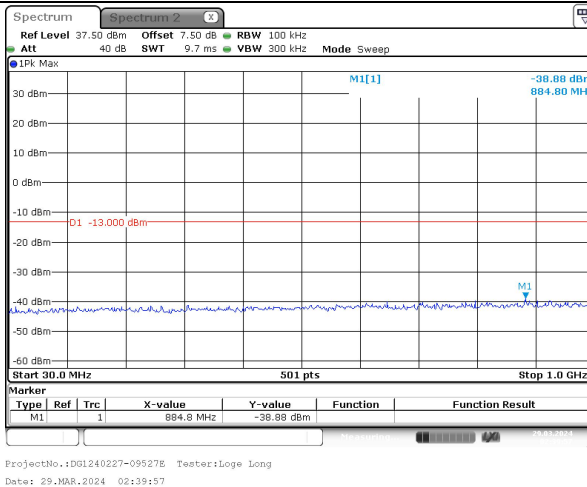
Lowest



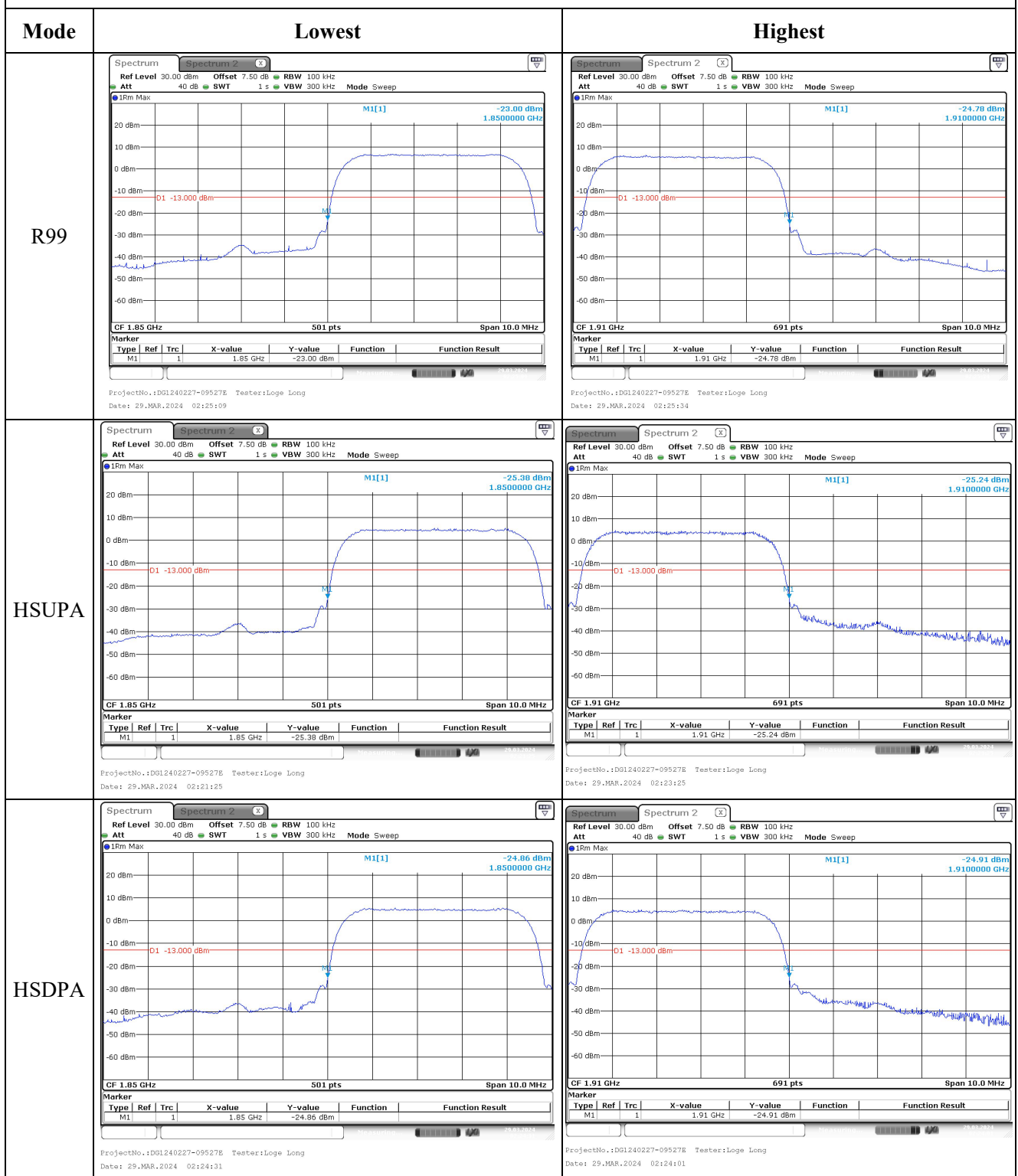
Middle



Highest



Out of band emission, Band Edge



5.4 Antenna Port Test Data and Results for WCDMA Band 5:

Serial Number:	2I25-7	Test Date:	2024/3/29
Test Site:	RF	Test Mode:	Transmitting
Tester:	Loge Long	Test Result:	Pass

Environmental Conditions:					
Temperature: (°C)	25.1	Relative Humidity: (%)	64	ATM Pressure: (kPa)	100.8

Test Equipment List and Details:					
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Minl-Circuits	Coaxial Power Splitters & Combiner	ZFRSC-183-S+	SF448201614	2024/2/25	2025/2/24
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	2023/8/3	2024/8/2
TDK-Lambda	DC Power Supply	Z+60-14	F-08-EM038-1	N/A	N/A
yzjingcheng	Coaxial Cable	KTRFBU-141-50	41005011	2023/9/1	2024/8/31
Unknown	Coaxial Cable	C-SJ00-0010	C0010/01	2023/9/1	2024/8/31
R&S	Spectrum Analyzer	FSV40	101461	2023/11/27	2024/11/26

Test Frequency:			
Operation Modes	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
WCDMA	826.4	836.6	846.6

Test Data:**FCC§2.1046;§ 22.913 (a)****RF Output Power:**

Test Mode	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
	Lowest Channel	Middle Channel	Highest Channel		
WCDMA R99	23.42	23.41	23.39	18.47	38.45
HSDPA Subtest 1	21.04	20.86	20.79	16.09	38.45
HSDPA Subtest 2	21	21.01	21.49	16.54	38.45
HSDPA Subtest 3	20.81	21.34	21.29	16.39	38.45
HSDPA Subtest 4	20.77	20.82	20.84	15.89	38.45
HSUPA Subtest 1	20.67	20.75	20.64	15.8	38.45
HSUPA Subtest 2	20.47	20.78	20.58	15.83	38.45
HSUPA Subtest 3	20.45	20.77	20.97	16.02	38.45
HSUPA Subtest 4	20.26	20.43	20.56	15.61	38.45
HSUPA Subtest 5	20.11	20.25	20.14	15.3	38.45
HSPA+ Subtest 1	21.22	21.33	21.14	16.38	38.45

Note:
 $ERP = \text{Conducted Power(dBm)} - L_c(\text{dB}) + G_T(\text{dBd})$
 $G_T(\text{dBd}) = G_T(\text{dBi}) - 2.15$

Result:	Pass
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Peak-to-average Ratio(PAR)

Test Mode	Peak-to-average Ratio(dB)			Limit (dB)
	Lowest Channel	Middle Channel	Highest Channel	
WCDMA R99	2.96	2.93	3.91	13
HSDPA	4.75	4.84	4.58	13
HSUPA	4.9	5.33	5.59	13

Result:	Pass
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FCC §2.1049, §22.917, §22.905:Occupied Bandwidth

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
WCDMA R99	4.192	4.168	4.182	4.83	4.761	4.749
HSDPA	4.232	4.284	4.221	5.948	6.281	4.865
HSUPA	4.232	4.284	4.24	5.11	7.221	5.458

Note: The test plots please refer to the Plots of Occupied Bandwidth

FCC §2.1051, §22.917(a):Spurious Emissions at Antenna Terminal

Result:	Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.
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FCC §2.1051, §22.917(a): Out of band emission, Band Edge

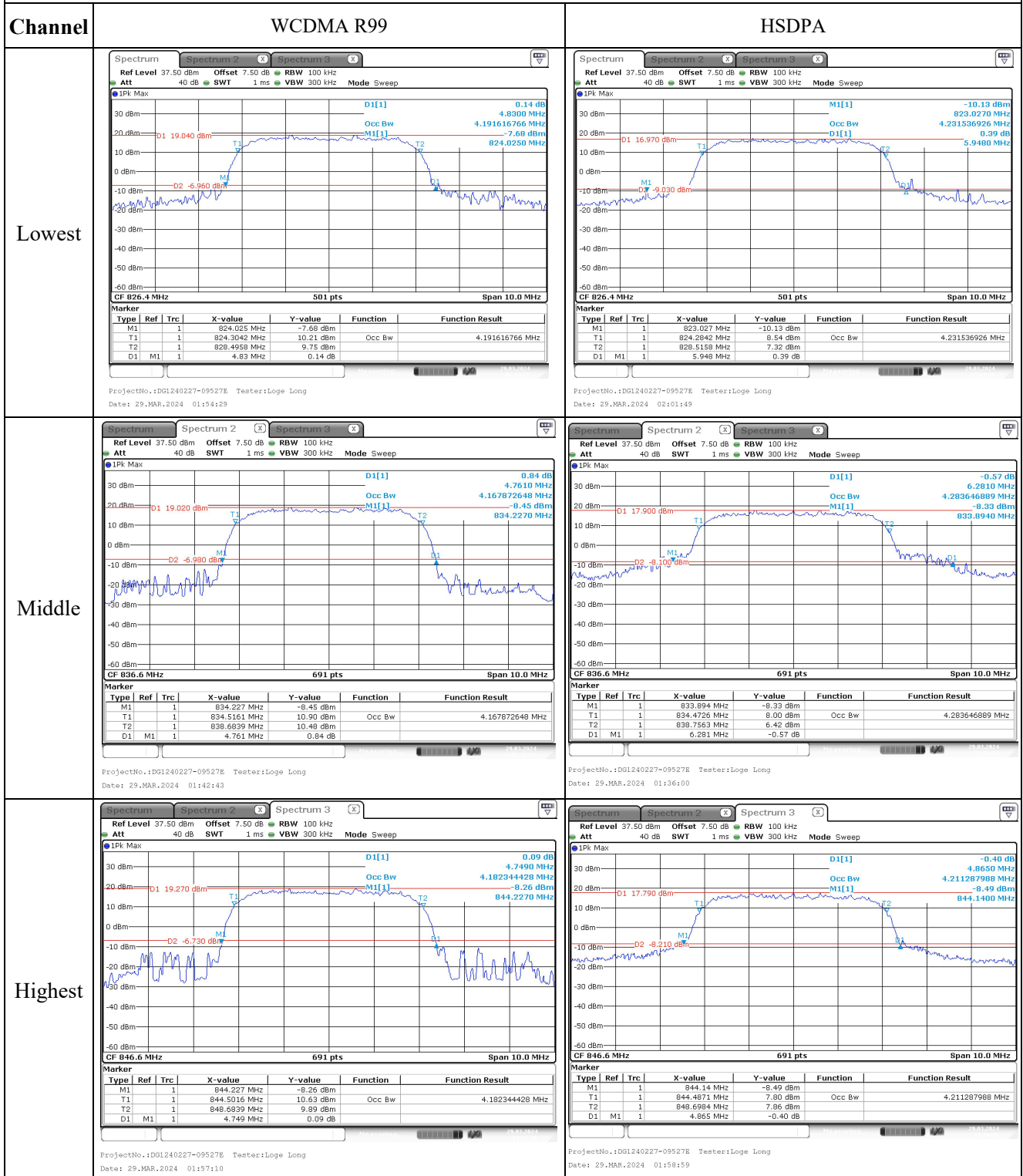
Result:	Pass, Please refer to the test plots of Out of band emission, Band Edge.
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FCC §2.1055, §22.355: Frequency Stability

Test Modulation:	WCDMA R99		Test Channel:	836.6	MHz
Test Item	Temperature (°C)	Voltage (V _{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.8	6.13	0.007	2.5
	-20	3.8	-2.47	-0.003	2.5
	-10	3.8	-8.18	-0.010	2.5
	0	3.8	-7.01	-0.008	2.5
	10	3.8	5.38	0.006	2.5
	20	3.8	-4.56	-0.005	2.5
	30	3.8	-6.87	-0.008	2.5
	40	3.8	4.51	0.005	2.5
	50	3.8	7.15	0.009	2.5
Frequency Stability vs. Voltage	20	3.5	8.87	0.011	2.5
	20	4.35	-9.38	-0.011	2.5
Result:				Pass	

Test Plots:

Occupied Bandwidth

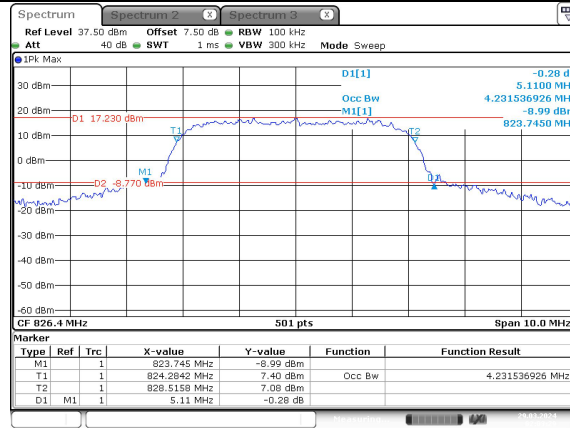


Occupied Bandwidth

Channel

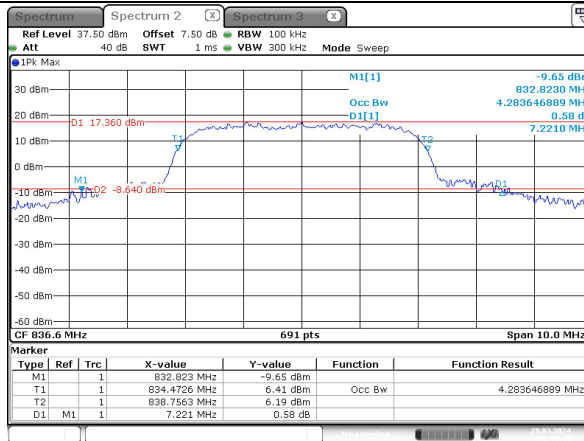
HSUPA

Lowest



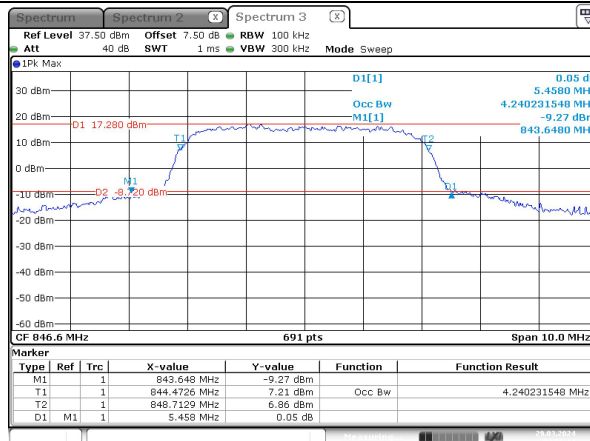
ProjectNo.:DG1240227-09527E Tester:Loge Long
Date: 29.MAR.2024 02:03:29

Middle



ProjectNo.:DG1240227-09527E Tester:Loge Long
Date: 29.MAR.2024 01:19:44

Highest



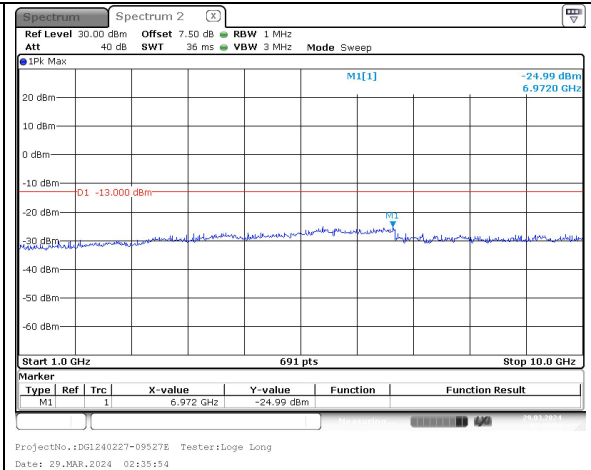
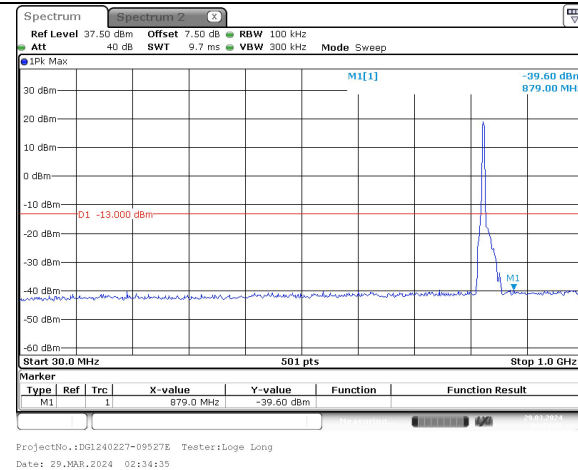
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Spurious Emissions at Antenna Terminal

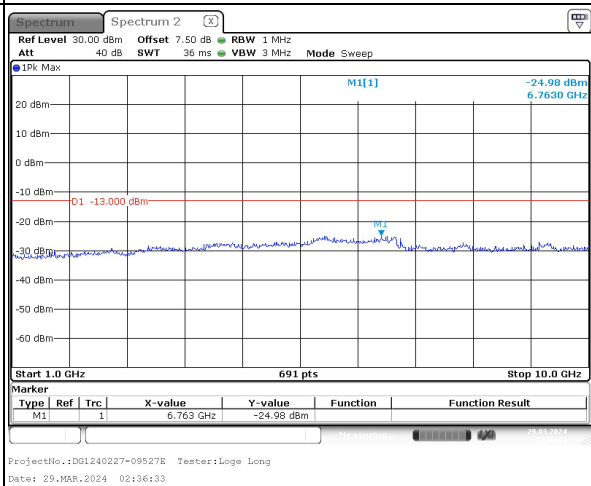
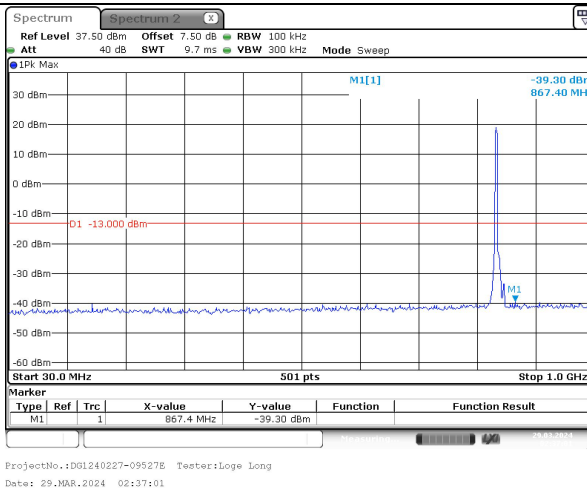
Channel

WCDMA R99

Lowest



Middle



Highest

