

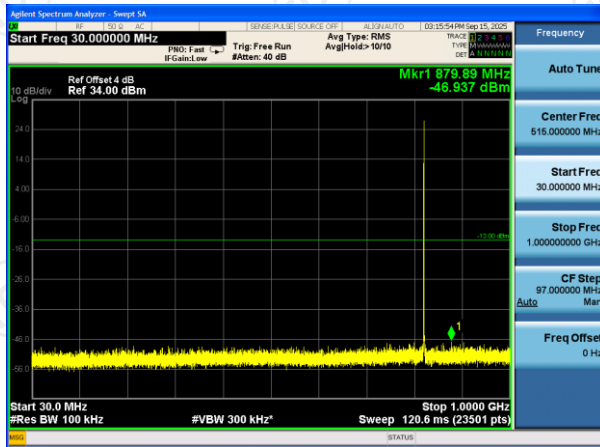
Band:

EGPRS 850

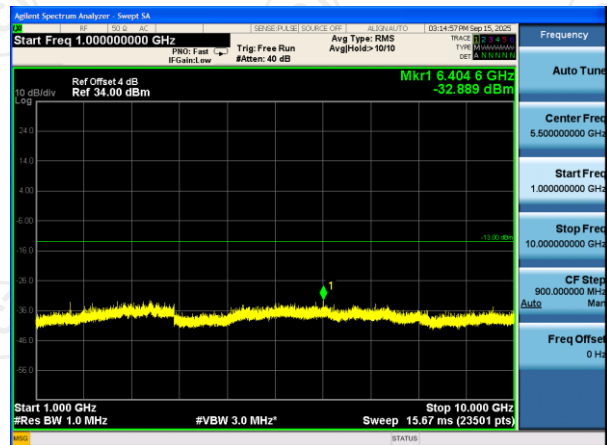
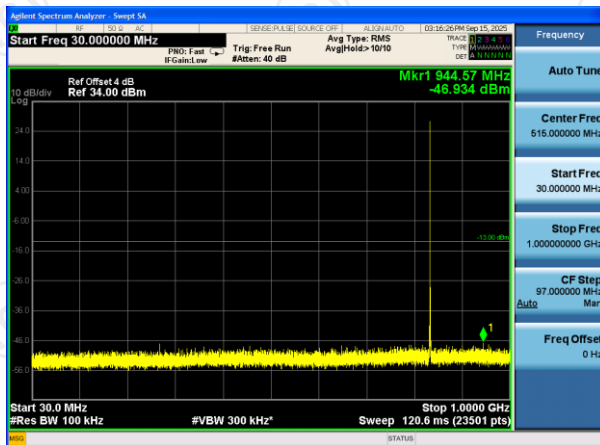
Test Mode:

GSM Link (GMSK)

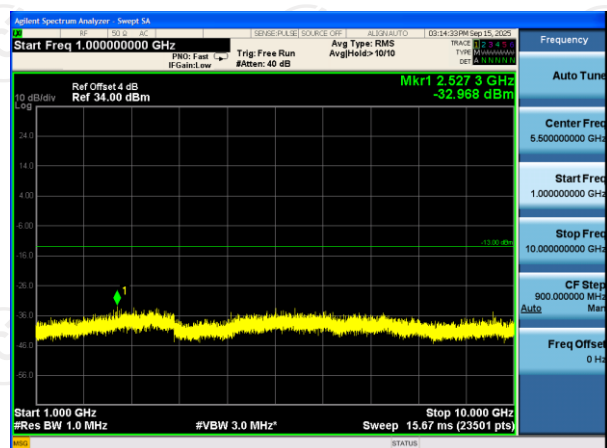
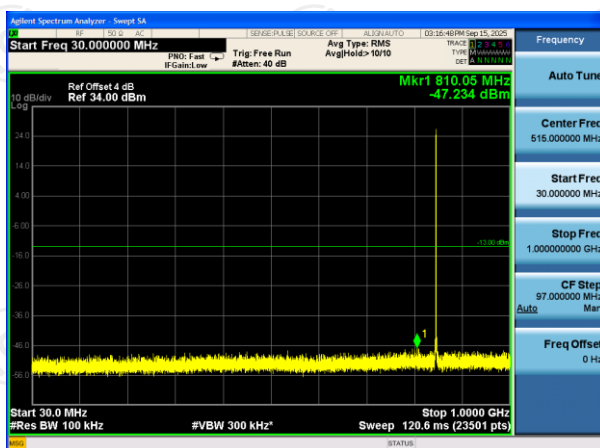
Conducted Spurious Emission on Channel 128



Conducted Spurious Emission on Channel 190



Conducted Spurious Emission on Channel 251



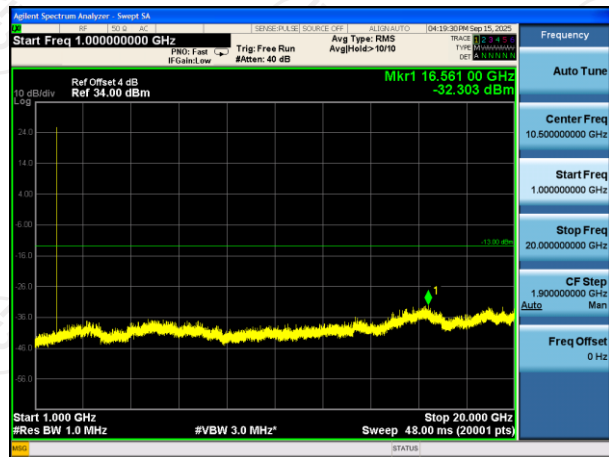
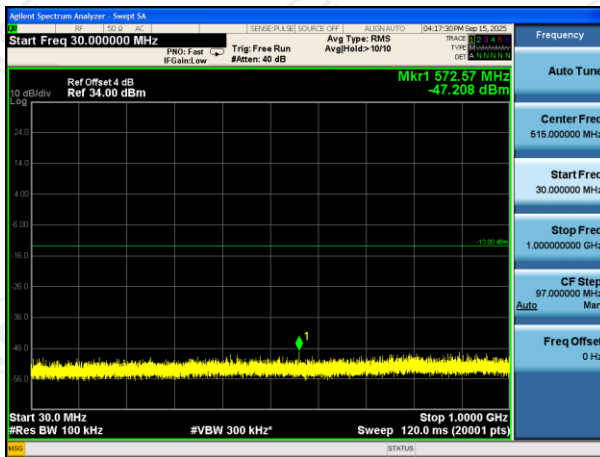
Band:

EGPRS 1900

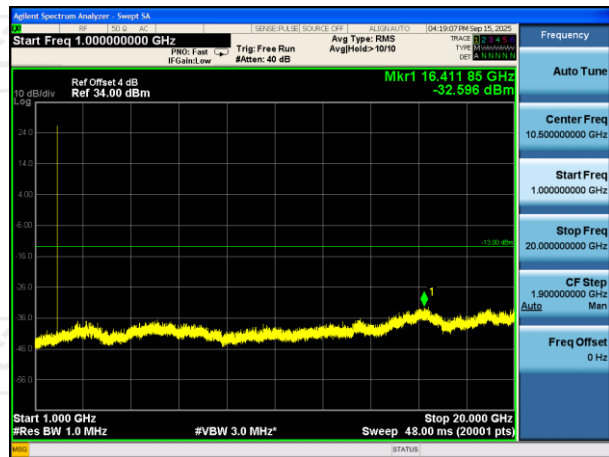
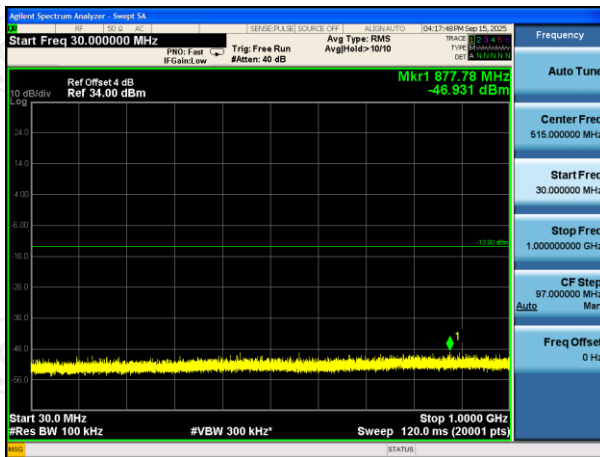
Test Mode:

GSM Link (GMSK)

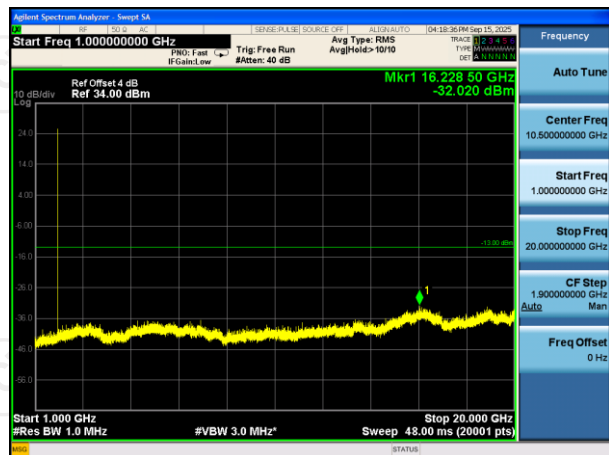
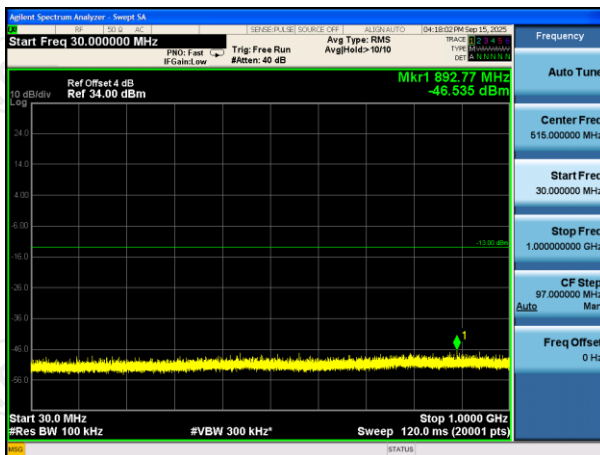
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Conducted Spurious Emission on Channel 661



Conducted Spurious Emission on Channel 810



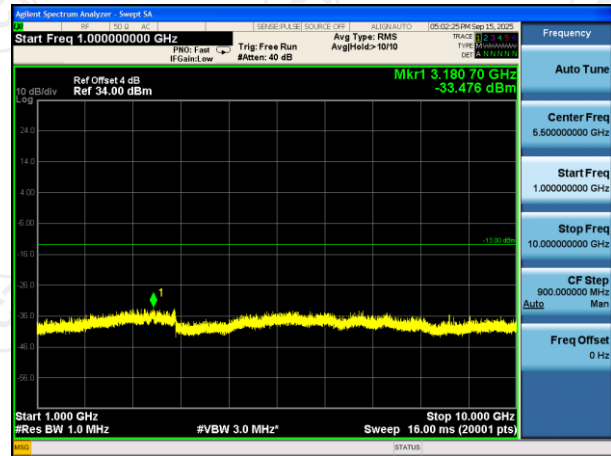
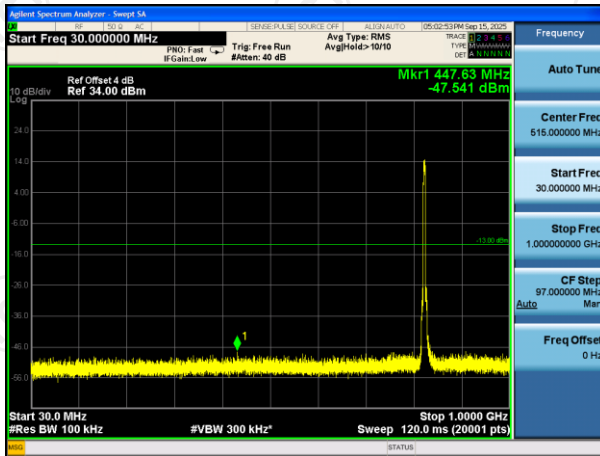
Band:

WCDMA Band V

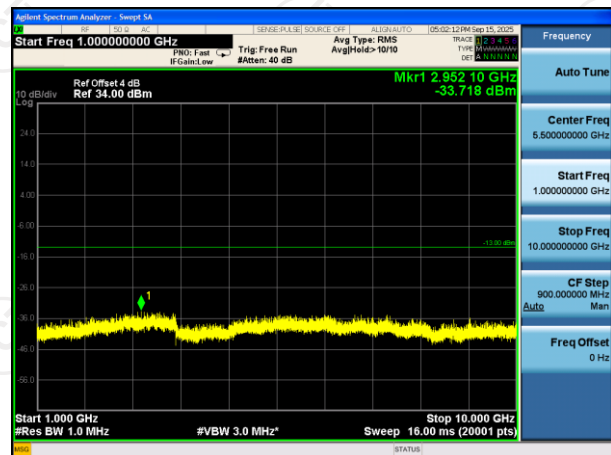
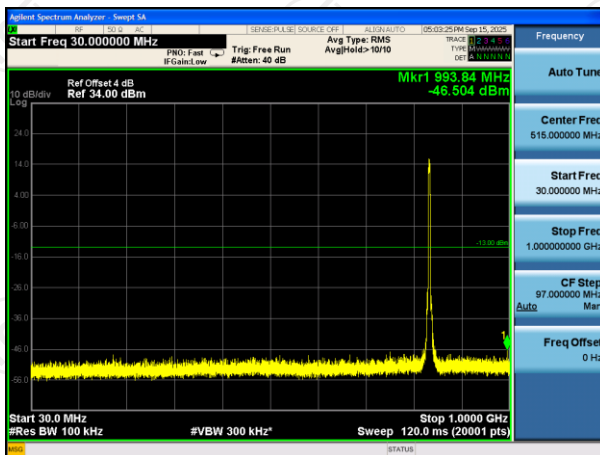
Test Mode:

RMC 12.2Kbps Link
(QPSK)

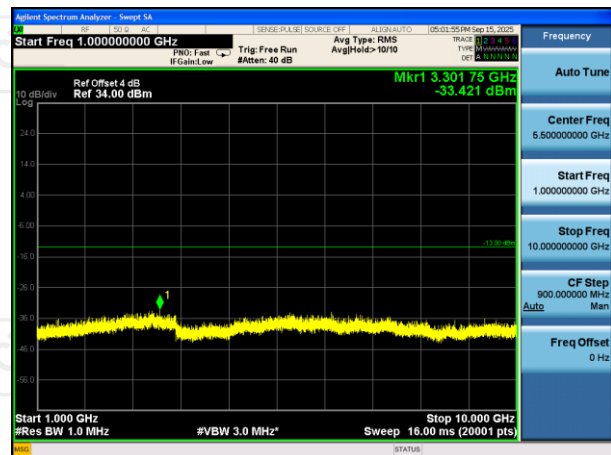
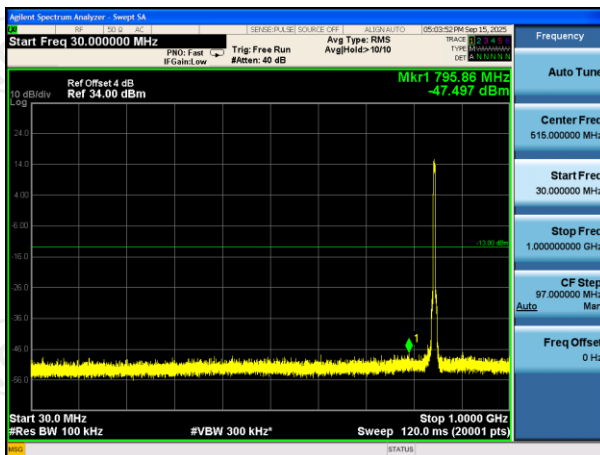
Conducted Spurious Emission on Channel 4132



Conducted Spurious Emission on Channel 4182

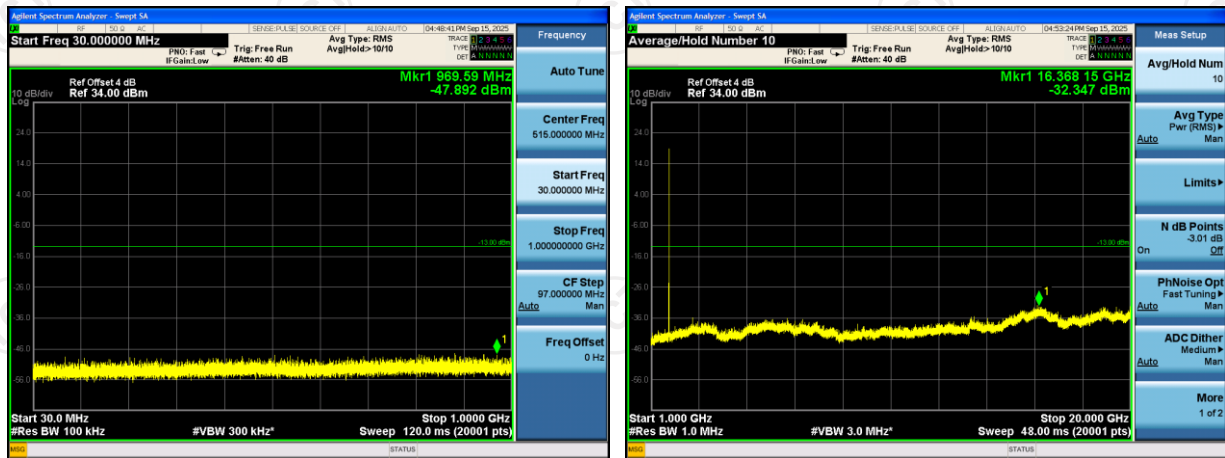


Conducted Spurious Emission on Channel 4233

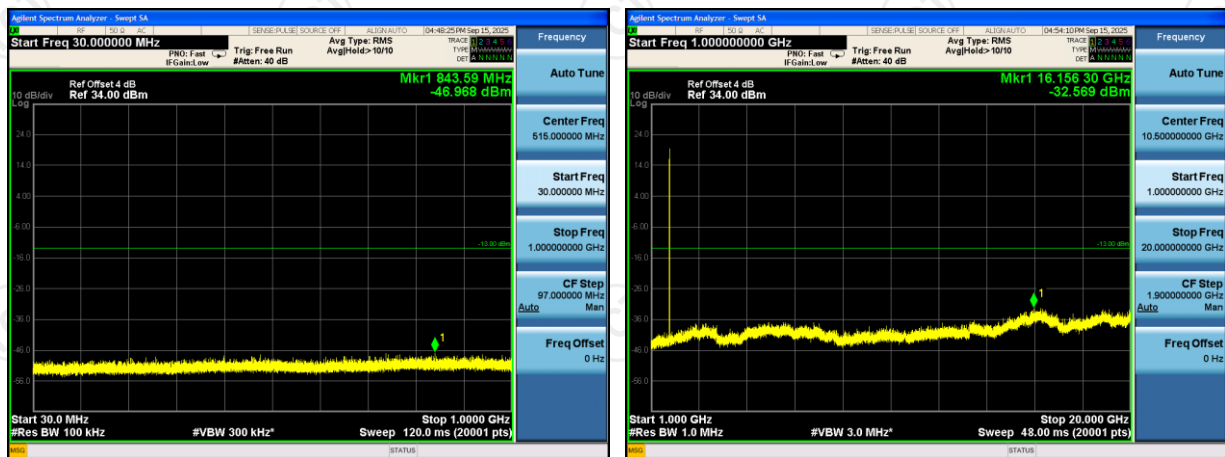


Band:	WCDMA Band IV	Test Mode:	RMC 12.2Kbps Link (QPSK)
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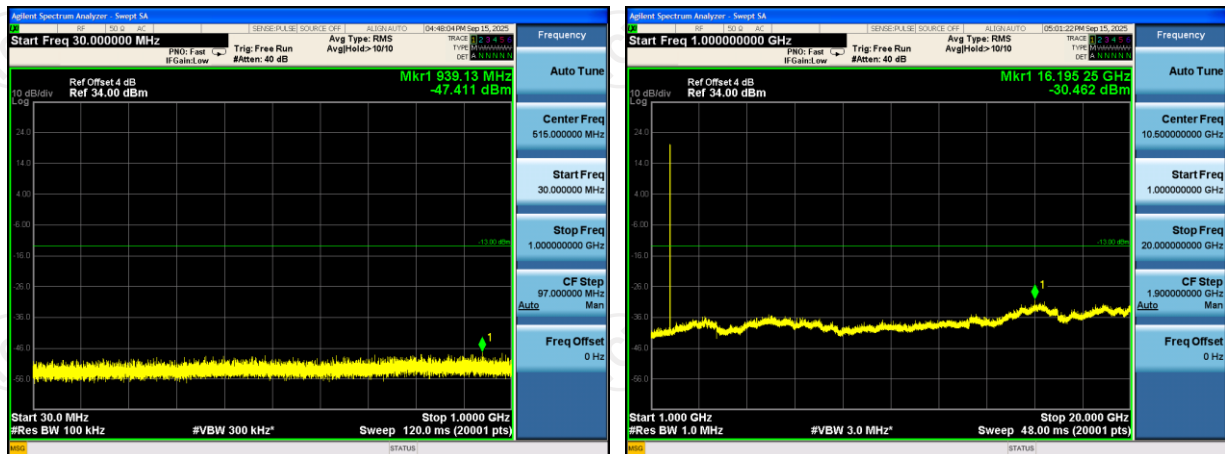
Conducted Spurious Emission on Channel 1312



Conducted Spurious Emission on Channel 1413

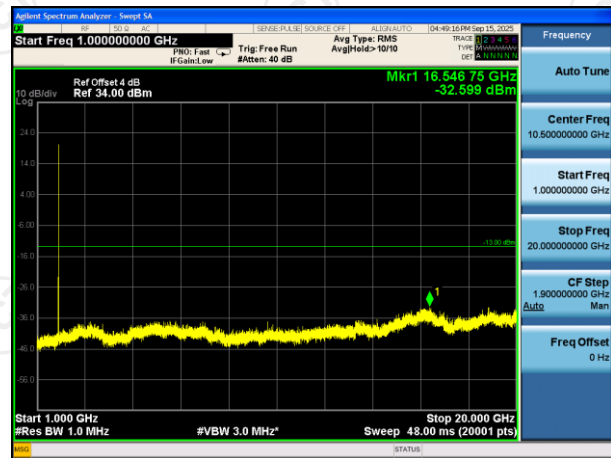
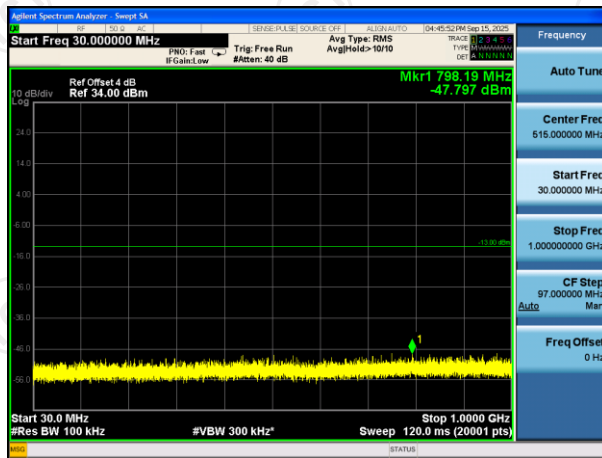


Conducted Spurious Emission on Channel 1513

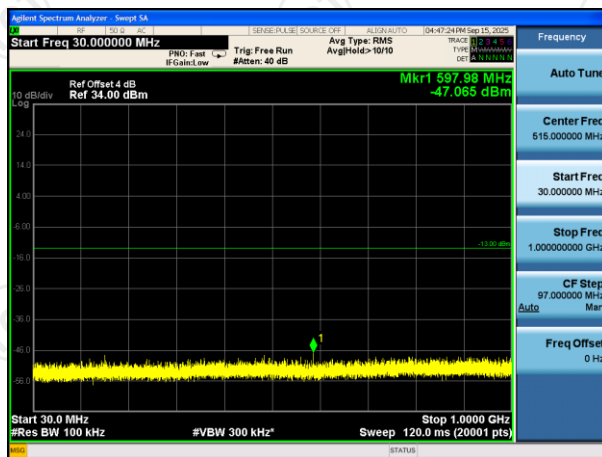


Band:	WCDMA Band II	Test Mode:	RMC 12.2Kbps Link (QPSK)
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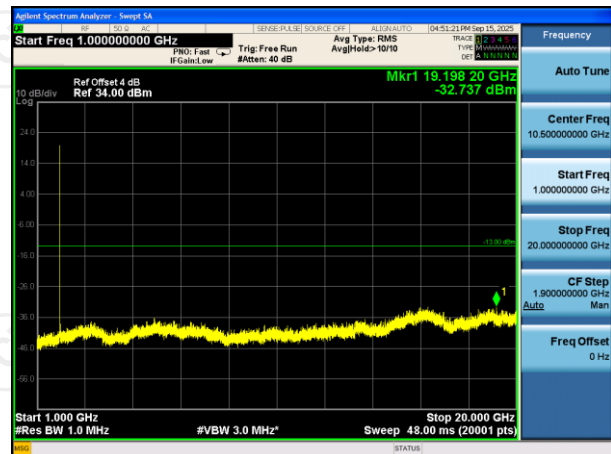
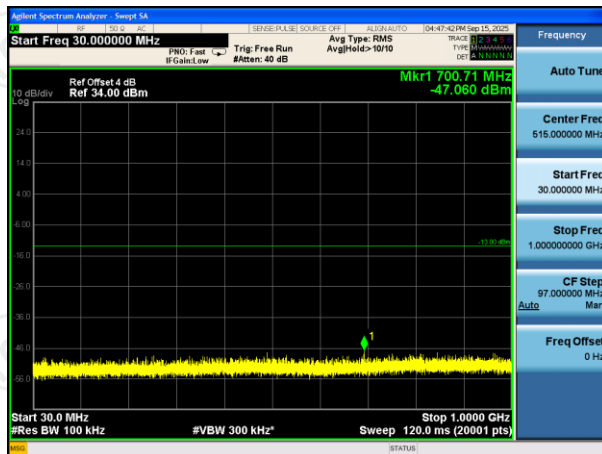
Conducted Spurious Emission on Channel 9262



Conducted Spurious Emission on Channel 9400



Conducted Spurious Emission on Channel 9538



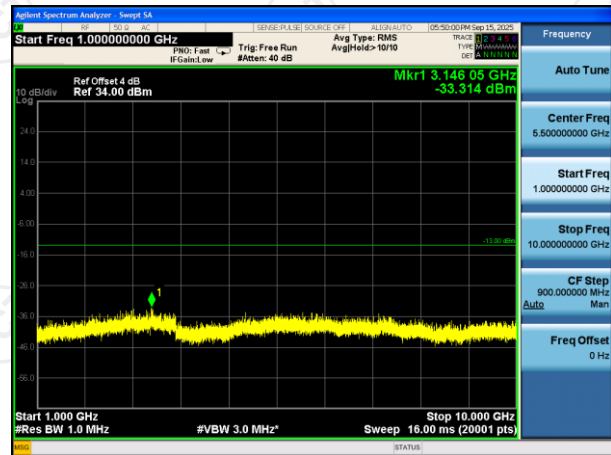
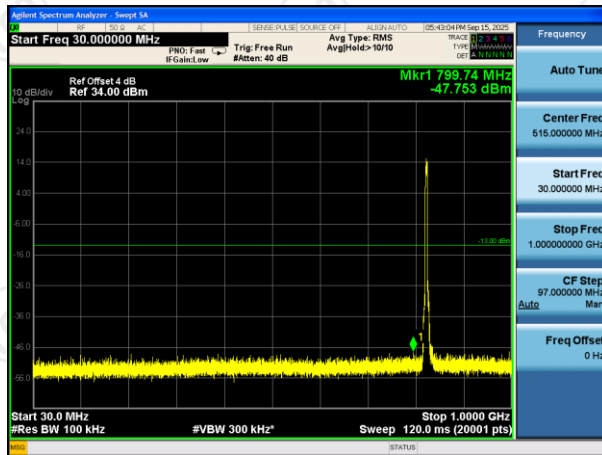
Band:

WCDMA Band V

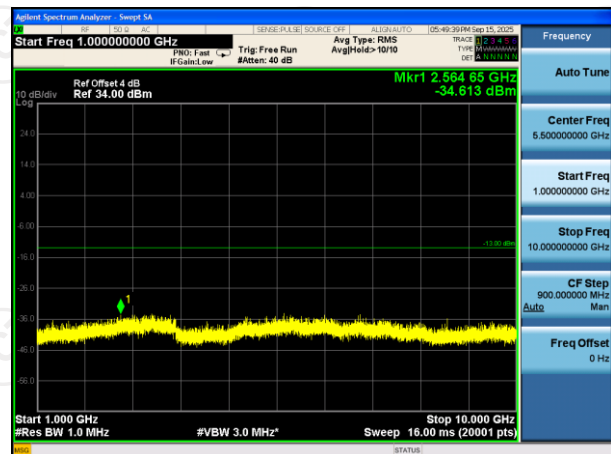
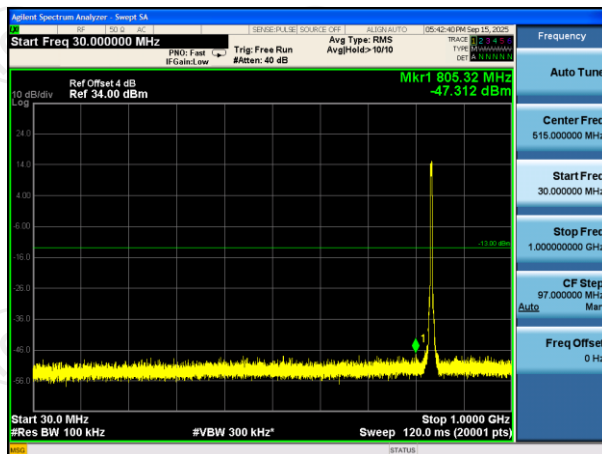
Test Mode:

HSDPA

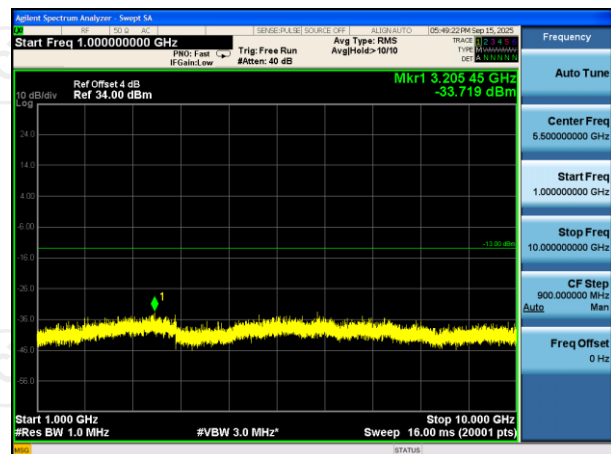
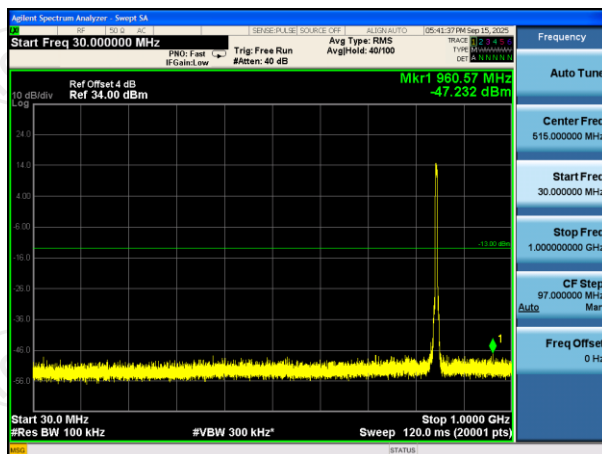
Conducted Spurious Emission on Channel 4132



Conducted Spurious Emission on Channel 4182



Conducted Spurious Emission on Channel 4233



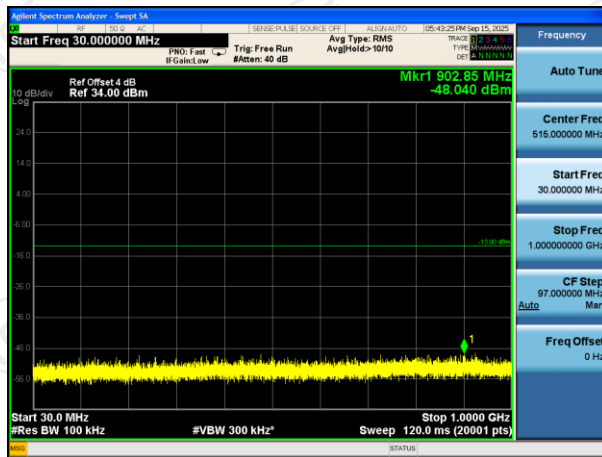
Band:

WCDMA Band IV

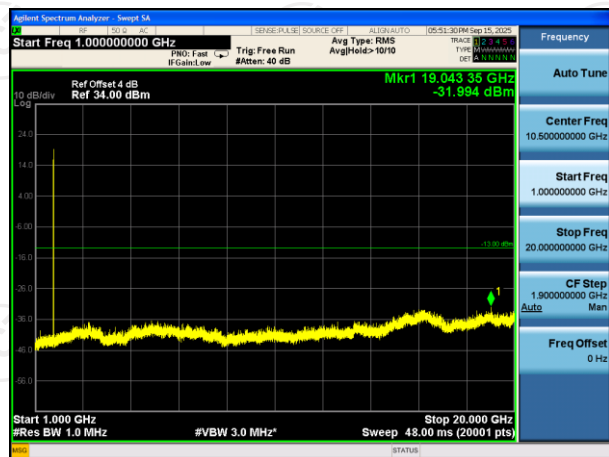
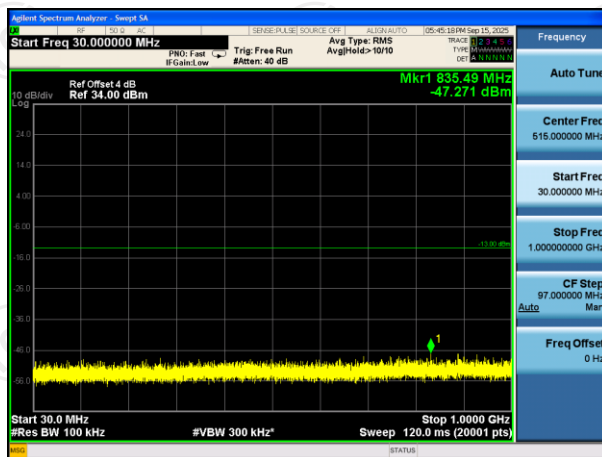
Test Mode:

HSDPA

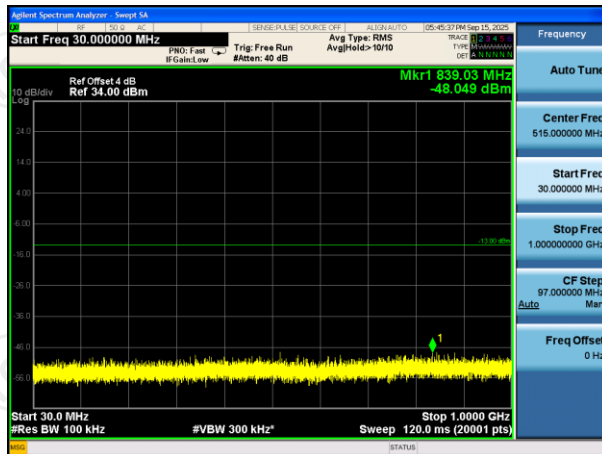
Conducted Spurious Emission on Channel 1312



Conducted Spurious Emission on Channel 1413

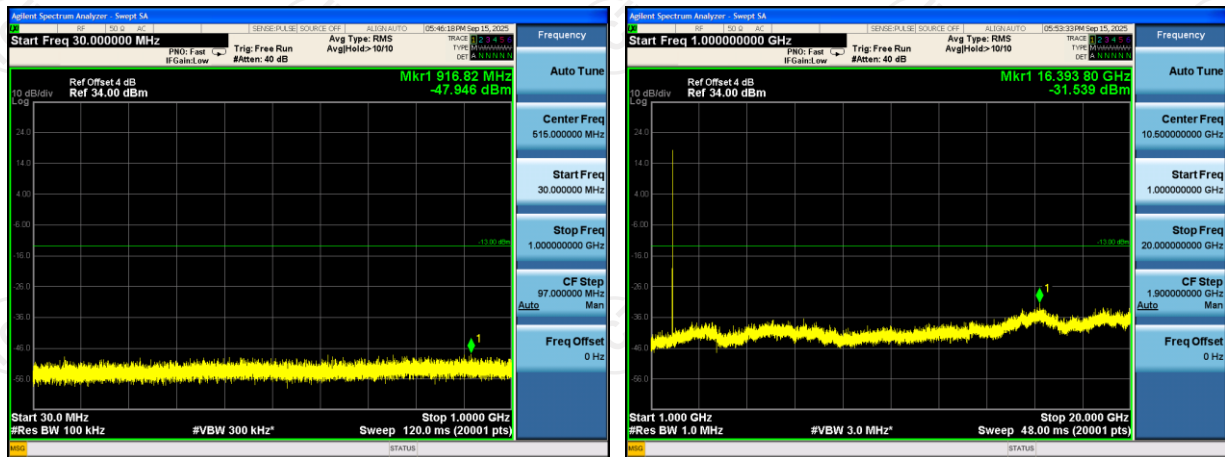


Conducted Spurious Emission on Channel 1513

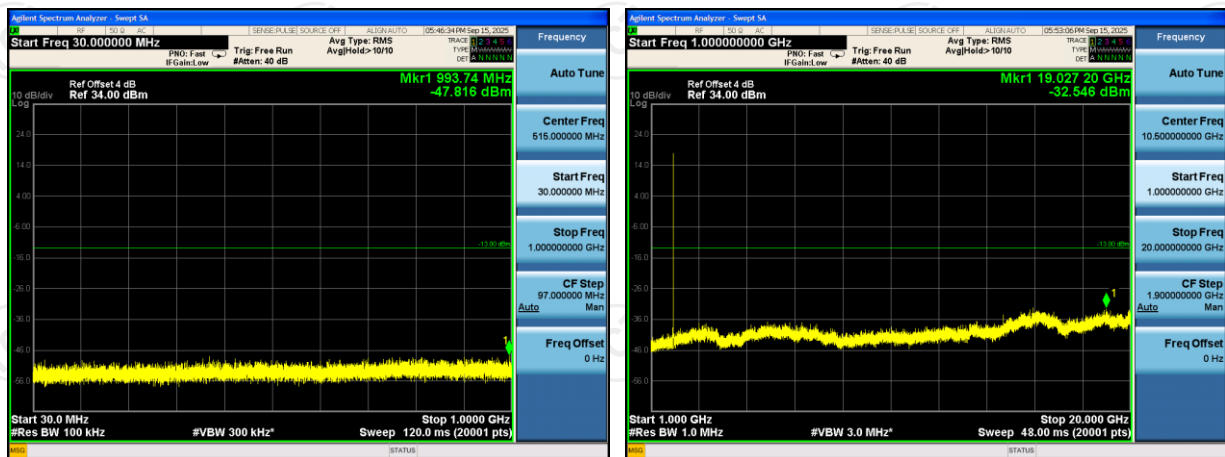


Band:	WCDMA Band II	Test Mode:	HSDPA
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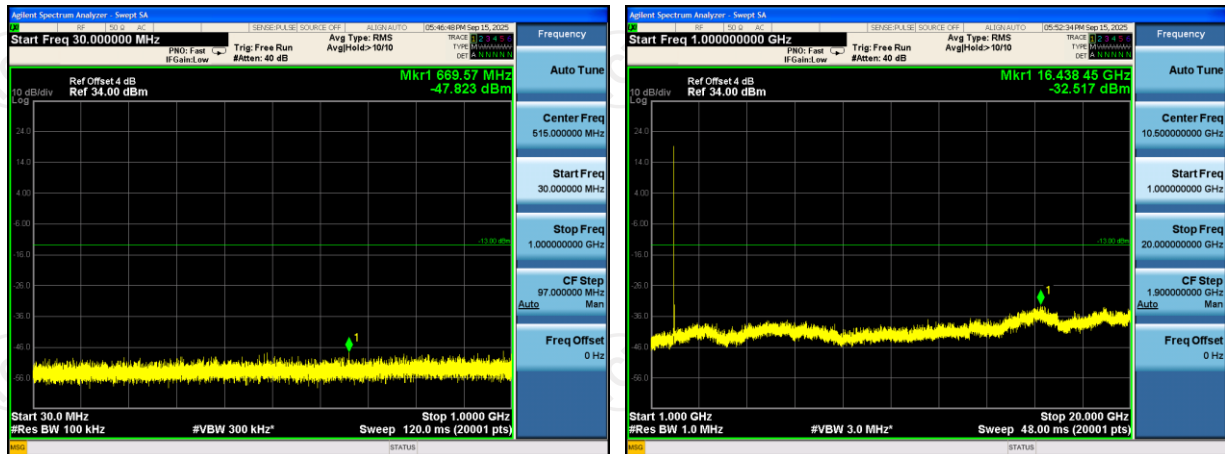
Conducted Spurious Emission on Channel 9262



Conducted Spurious Emission on Channel 9400



Conducted Spurious Emission on Channel 9538



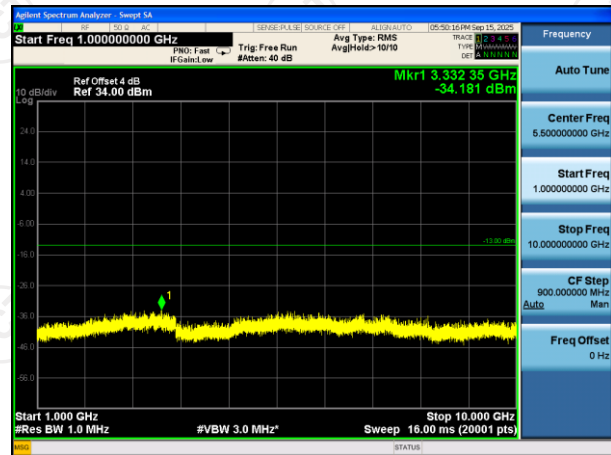
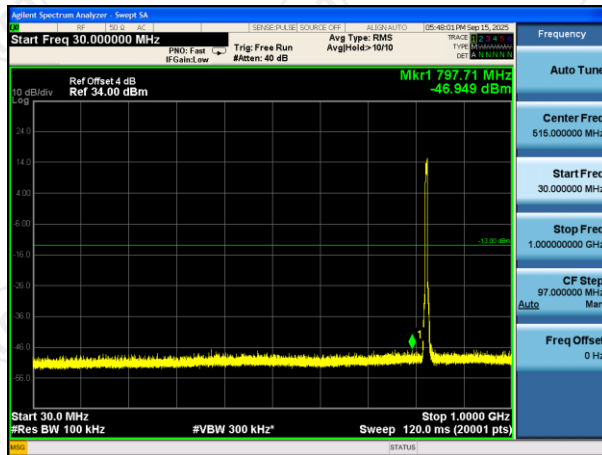
Band:

WCDMA Band V

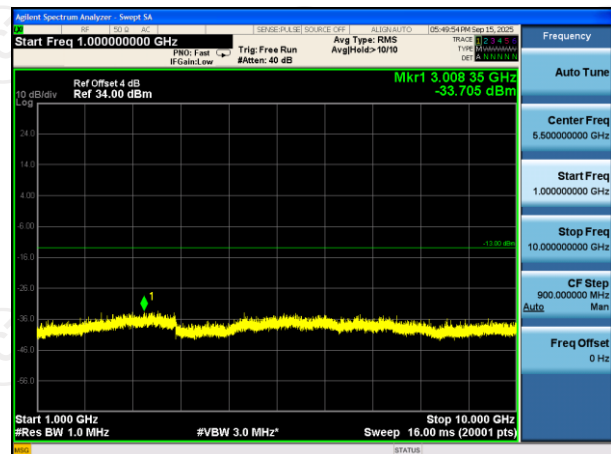
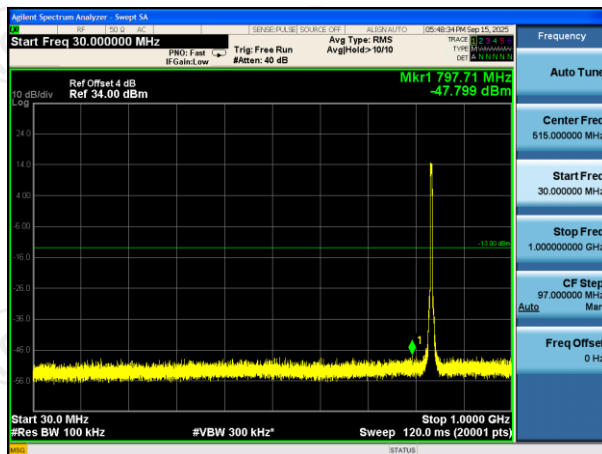
Test Mode:

HSUPA

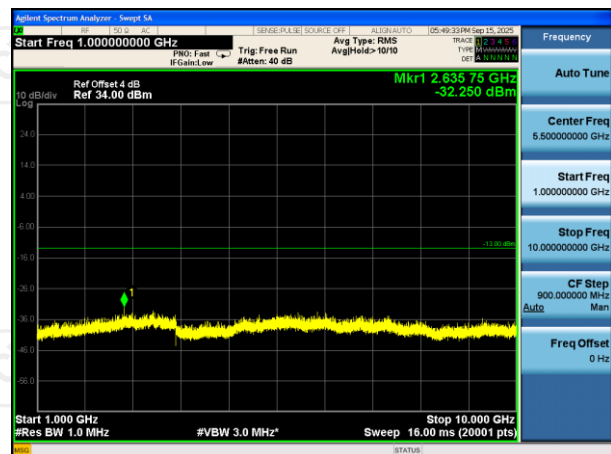
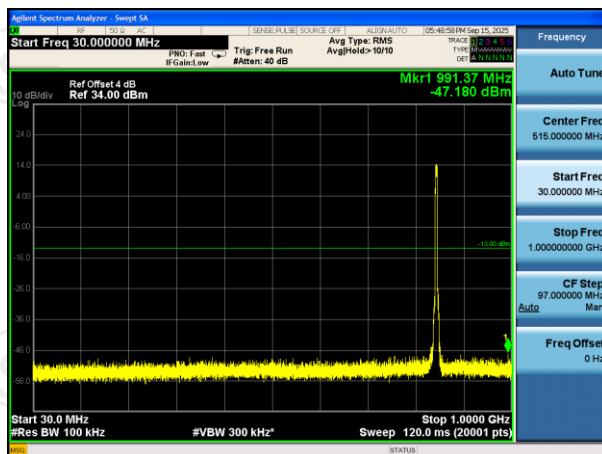
Conducted Spurious Emission on Channel 4132



Conducted Spurious Emission on Channel 4182



Conducted Spurious Emission on Channel 4233



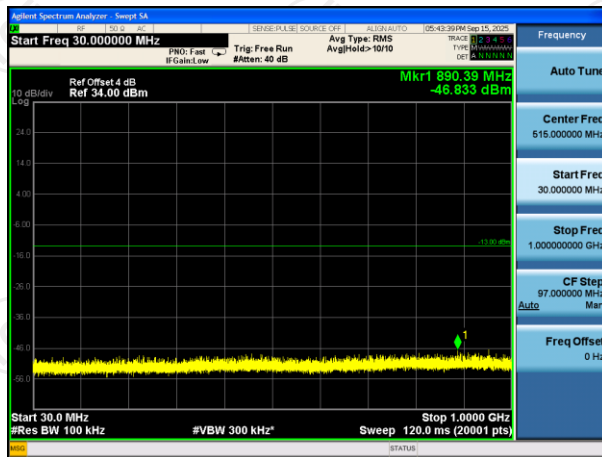
Band:

WCDMA Band IV

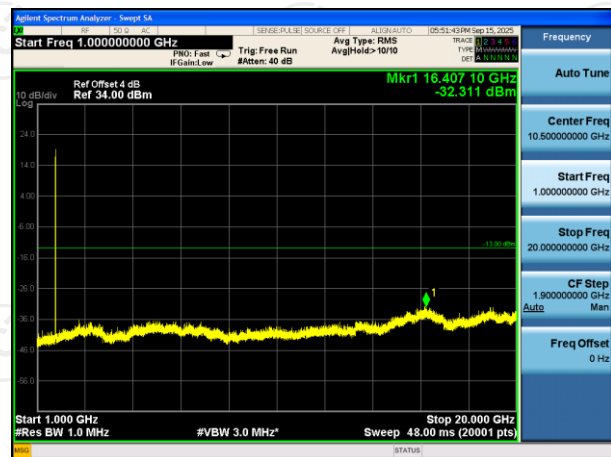
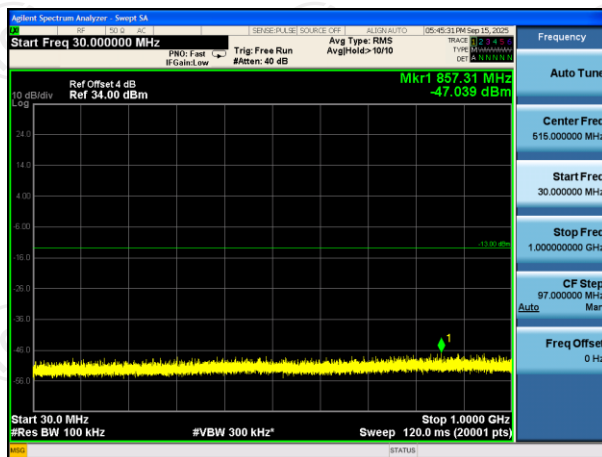
Test Mode:

HSUPA

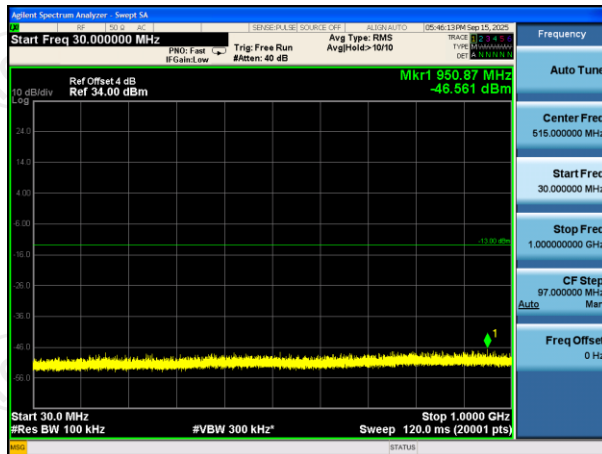
Conducted Spurious Emission on Channel 1312



Conducted Spurious Emission on Channel 1413

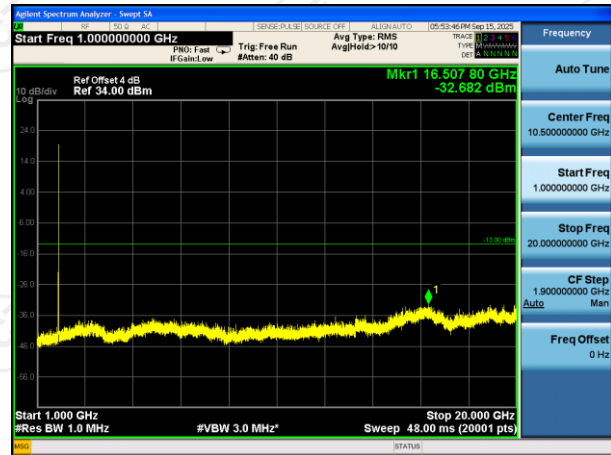
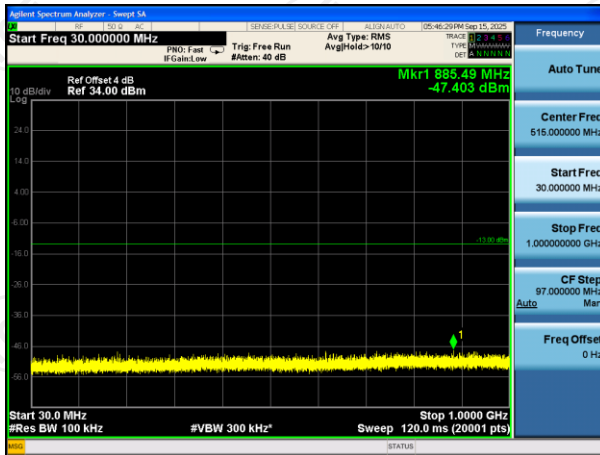


Conducted Spurious Emission on Channel 1513

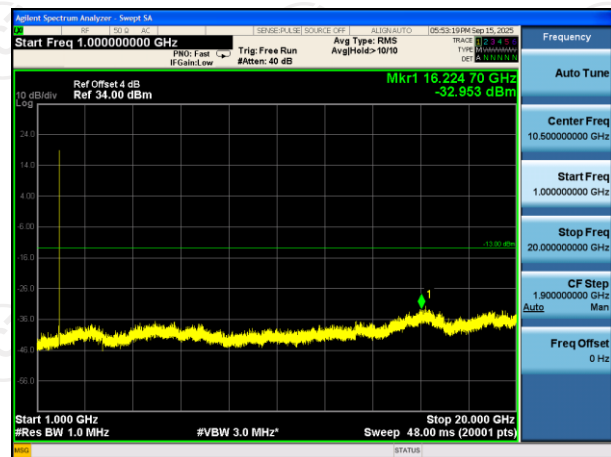
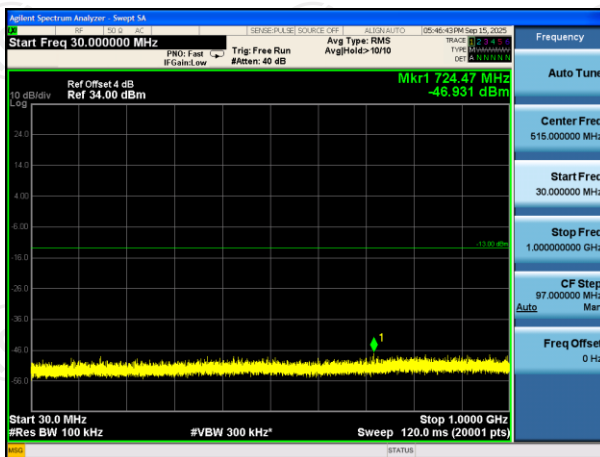


Band:	WCDMA Band II	Test Mode:	HSUPA
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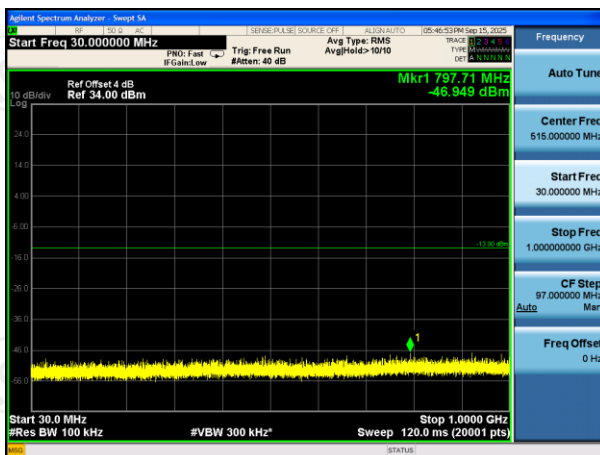
Conducted Spurious Emission on Channel 9262



Conducted Spurious Emission on Channel 9400



Conducted Spurious Emission on Channel 9538

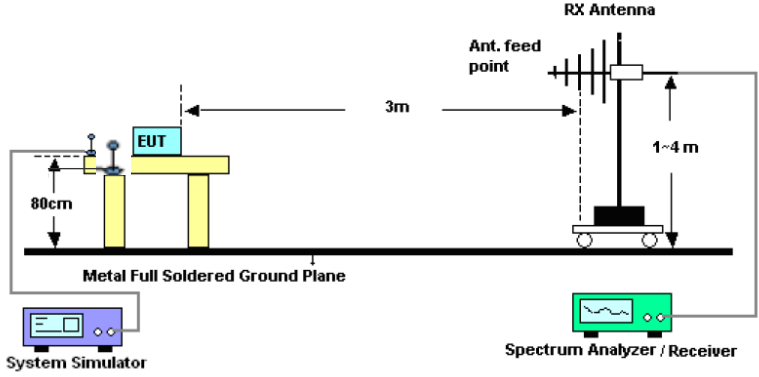
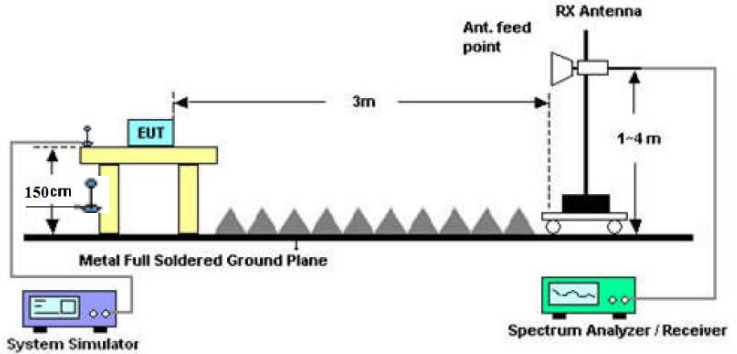


GSM1900(GSM) Conducted Spurious Emission for Below 1G					
Channel	RBW (KHz)	Test result (dBm)	RBW (MHz)	Calculate result (dBm)	Limit (-13dBm)
512	100	-46.95	1	-36.95	Pass
661	100	-48.20	1	-38.20	Pass
810	100	-46.87	1	-36.87	Pass
WCDMA Band IV(RMC 12.2Kbps) Conducted Spurious Emission for Below 1G					
Channel	RBW (KHz)	Test result (dBm)	RBW (MHz)	Calculate result (dBm)	Limit (-13dBm)
1312	100	-47.89	1	-37.89	Pass
1413	100	-46.97	1	-36.97	Pass
1513	100	-47.41	1	-37.41	Pass
WCDMA Band II(RMC 12.2Kbps) Conducted Spurious Emission for Below 1G					
Channel	RBW (KHz)	Test result (dBm)	RBW (MHz)	Calculate result (dBm)	Limit (-13dBm)
9262	100	-47.80	1	-37.80	Pass
9400	100	-47.07	1	-37.07	Pass
9538	100	-47.06	1	-37.06	Pass
Compensate 10dB is for Exchange rate of RBW Exchange rate of RBW = $10 \cdot \log_{10}(\text{Reference bandwidth}/\text{RBW at measurement}) = 10[\text{dB}]$ where Reference bandwidth = 1 MHz					

Note: The measurement was conducted under all GMSK modulations (GSM/GPRS) and 8PSK (EGPRS), and only the worst-case mode (GSM) was submitted.

6.5. Effective Radiated Power and Effective Isotropic Radiated Power Measurement

6.5.1. Test Specification

Test Requirement:	FCC part 22.913(a) and FCC part 24.232(c) FCC part 27.50(d)		
Test Method:	FCC KDB 971168 D01v03r01		
Receiver Setup:		GSM/GPRS/EDGE	WCDMA/HSPA
	SPAN	500kHz	10MHz
	RBW	10kHz	100kHz
	VBW	30kHz	300kHz
	Detector	RMS	RMS
	Trace	Average	Average
	Average Type	Power	Power
	Sweep Count	100	100
Limit:	GSM850: 7W ERP PCS1900: 2W EIRP WCDMA Band V: 7W ERP WCDMA Band II: 2W EIRP WCDMA Band IV: 1W EIRP		
Test Setup:	From 30MHz to 1GHz  Above 1GHz 		

Test Procedure:

1. The testing follows FCC KDB 971168 D01v03r01 Section 5.8. and ANSI / TIA-603-D-2010 Section 2.2.17.
2. The EUT was placed on a non-conductive rotating platform 0.8 meters high in a semi-anechoic chamber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer with RMS detector per section 5. of KDB 971168 D01v03.
3. Key the transmitter, then rotate the EUT 360° azimuthally and record spectrum analyzer power level (LVL) measurements at angular increments that are sufficiently small to permit resolution of all peaks. If a standard radiation test site is used, raise and lower the test antenna to obtain a maximum reading at each angular increment.
4. Replace the transmitter under test with a substitution antenna. The center of the antenna should be at the same location as the center of the antenna under test.
5. Connect the antenna to a signal generator with a known output power and record the path loss (in dB) as LOSS. If a standard radiation test site is used, raise and lower the test antenna to obtain a maximum reading.
LOSS = Generator Output Power (dBm) – Analyzer reading (dBm)
6. Determine the effective radiated output power at each angular position from the readings in steps 3) and 5) using the following equation:
ERP (dBm) = LVL (dBm) + LOSS (dB)
7. The maximum ERP is the maximum value determined in the preceding step.
8. Calculating ERP:
ERP (dBm) = Output Power (dBm) - Losses (dB) + Antenna Gain (dBd)
Antenna Gain (dBd) = Antenna Gain (dBi) - 2.15
EIRP = ERP + 2.15

Test results:

PASS

6.5.2. Test Instruments

Radiated Emission Test Site (966)					
Name of Equipment	Manufacturer	Model	Serial Number	Date of Cal.	Due Date
Universal Radio Communication Tester	R&S	CMU200	110188	Jun. 26, 2025	Jun. 25, 2026
Spectrum Analyzer	R&S	FSQ40	200061	Jun. 26, 2025	Jun. 25, 2026
Signal Generator	Agilent	N5173B	MY58108823	Jan. 21, 2025	Jan. 20, 2026
Broadband Antenna	Schwarzbeck	VULB9163	340	Jun. 29, 2025	Jun. 28, 2026
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Jun. 29, 2025	Jun. 28, 2026
Broadband Antenna	Schwarzbeck	VULB9163	412	Jun. 29, 2025	Jun. 28, 2026
Horn Antenna	Schwarzbeck	BBHA 9120D	1201	Jun. 29, 2025	Jun. 28, 2026
Horn Antenna	Schwarzbeck	BBHA 9170	00956	Jan. 24, 2025	Jan. 23, 2026
Coaxial cable	SKET	RE-03-D	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-03-M	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-03-L	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-04-D	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-04-M	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-04-L	/	Jun. 27, 2025	Jun. 26, 2026
Antenna Mast	Keleto	RE-AM	/	/	/
EMI Test Software	EZ EMC	FA-03A2 RE+	1.1.4.2	/	/

6.5.3. Test Data

Test Result of ERP

GSM850 (GSM) Radiated Power ERP					
Horizontal Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	H	9.73	21.66	29.24	0.84
836.6	H	10.69	21.54	30.08	1.02
848.8	H	10.06	21.46	29.37	0.86
Vertical Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	V	10.30	21.66	29.81	0.96
836.6	V	10.51	21.54	29.90	0.98
848.8	V	10.59	21.46	29.90	0.98

GPRS 850 (1-solt) Radiated Power ERP					
Horizontal Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	H	10.13	21.66	29.64	0.92
836.6	H	10.14	21.54	29.53	0.90
848.8	H	10.42	21.46	29.73	0.94
Vertical Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	V	9.96	21.66	29.47	0.89
836.6	V	9.25	21.54	28.64	0.73
848.8	V	9.73	21.46	29.04	0.80

EGPRS 850 (1-slot) Radiated Power ERP					
Horizontal Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	H	3.29	21.66	22.80	0.19
836.6	H	2.83	21.54	22.22	0.17
848.8	H	2.37	21.46	21.68	0.15
Vertical Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	V	3.27	21.66	22.78	0.19
836.6	V	2.82	21.54	22.21	0.17
848.8	V	2.76	21.46	22.07	0.16

Note: All GPRS slot have been tested, but only the worst GPRS 1-slot show in this test item.

Note: All EGPRS slot have been tested, but only the worst EGPRS 1-slot show in this test item.

WCDMA Band V (RMC 12.2Kbps) Radiated Power ERP					
Horizontal Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
826.4	H	-0.11	21.66	19.40	0.09
836.4	H	0.34	21.54	19.73	0.09
846.6	H	-0.59	21.46	18.72	0.07
Vertical Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
826.4	V	0.13	21.66	19.64	0.09
836.4	V	-0.04	21.54	19.35	0.09
846.6	V	1.03	21.46	20.34	0.11

Note: * ERP = LVL (dBm) + Correction Factor (dB) - 2.15

Correction Factor= S.G. Power - Cable loss + Antenna Gain- SPA. Reading

Test Result of EIRP

GSM1900 (GSM) Radiated Power EIRP					
Horizontal Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	H	6.19	21.66	27.85	0.61
1880.0	H	6.17	21.54	27.71	0.59
1909.8	H	6.22	21.46	27.68	0.59
Vertical Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	V	5.87	21.66	27.53	0.57
1880.0	V	5.88	21.54	27.42	0.55
1909.8	V	7.09	21.46	28.55	0.72

GPRS1900 (1-solt) Radiated Power EIRP					
Horizontal Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	H	5.63	21.66	27.29	0.54
1880.0	H	6.36	21.54	27.90	0.62
1909.8	H	6.51	21.46	27.97	0.63
Vertical Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	V	5.66	21.66	27.32	0.54
1880.0	V	5.93	21.54	27.47	0.56
1909.8	V	6.66	21.46	28.12	0.65

EGPRS1900 (1-slot) Radiated Power EIRP					
Horizontal Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	H	2.79	21.66	24.45	0.28
1880.0	H	2.98	21.54	24.52	0.28
1909.8	H	2.44	21.46	23.90	0.25
Vertical Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	V	2.16	21.66	23.82	0.24
1880.0	V	2.06	21.54	23.60	0.23
1909.8	V	2.04	21.46	23.50	0.22

Note: All GPRS slot have been tested, but only the worst GPRS 1-slot show in this test item

Note: All EGPRS slot have been tested, but only the worst EGPRS 1-slot show in this test item

WCDMA Band IV (RMC 12.2Kbps) Radiated Power EIRP					
Horizontal Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1712.4	H	-1.09	21.66	20.57	0.11
1732.6	H	-1.63	21.54	19.91	0.10
1752.6	H	-1.73	21.46	19.73	0.09
Vertical Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1712.4	V	-1.72	21.66	19.94	0.10
1732.6	V	-1.18	21.54	20.36	0.11
1752.6	V	-0.94	21.46	20.52	0.11

* EIRP = LVL (dBm) + Correction Factor (dB)

Correction Factor= S.G. Power - Cable loss + Antenna Gain- SPA. Reading

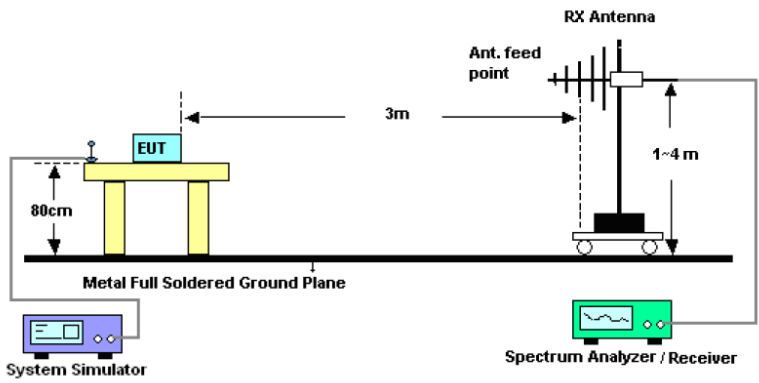
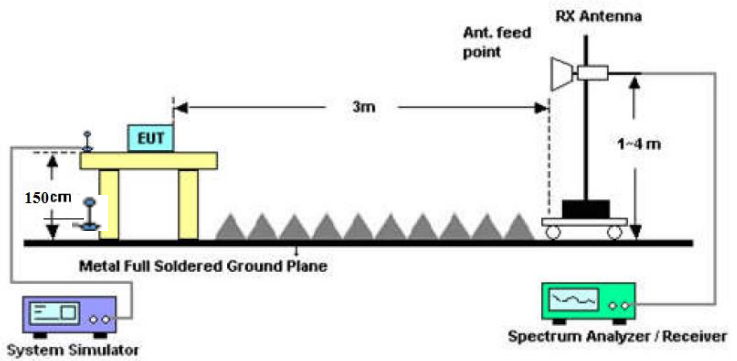
WCDMA Band II (RMC 12.2Kbps) Radiated Power EIRP					
Horizontal Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1852.4	H	-0.83	21.66	20.83	0.12
1880.0	H	-0.95	21.54	20.59	0.11
1907.6	H	-0.78	21.46	20.68	0.12
Vertical Polarization (Antenna Pol.)					
Frequency (MHz)	(EUT Pol.)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1852.4	V	-1.67	21.66	19.99	0.10
1880.0	V	-1.23	21.54	20.31	0.11
1907.6	V	-0.86	21.46	20.60	0.11

Note: * EIRP = LVL (dBm) + Correction Factor (dB)

Correction Factor= S.G. Power - Cable loss + Substitution Antenna Gain- SPA. Reading

6.6. Field Strength of Spurious Radiation Measurement

6.6.1. Test Specification

Test Requirement:	FCC part 22.917(a) and FCC part 24.238(a) FCC part 27.53(g)
Test Method:	FCC KDB 971168 D01v03r01
Operation mode:	Refer to item 3.1
Limit:	-13dBm
Test setup:	For 30MHz~1GHz  Above 1GHz 
Test Procedure:	1. The testing follows FCC KDB 971168 D01v03r01 Section 6 and ANSI / TIA-603-D-2010 Section 2.2.12. 2. The EUT was placed on a rotatable wooden table 0.8 meters above the ground. 3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower. 4. The table was rotated 360 degrees to determine the position of the highest spurious emission. 5. The height of the receiving antenna is varied between one meter and four meters to search for the maximum spurious emission for both horizontal and vertical polarizations. 6. Make the measurement with the spectrum analyzer's

	RBW = 1MHz, VBW = 3MHz, taking record of maximum spurious emission. 7. A horn antenna was substituted in place of the EUT and was driven by a signal generator. 8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission. 9. Taking the record of output power at antenna port. 10. Repeat step 7 to step 8 for another polarization. 11. $EIRP\ (dBm) = S.G.\ Power - Tx\ Cable\ Loss + Tx\ Antenna\ Gain$ 12. $ERP\ (dBm) = EIRP - 2.15$ 13. The RF fundamental frequency should be excluded against the limit line in the operating frequency band. 14. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts) $= P(W) - [43 + 10\log(P)]\ (dB)$ $= [30 + 10\log(P)]\ (dBm) - [43 + 10\log(P)]\ (dB)$ $= -13dBm.$
Test results:	PASS
Remark:	All modulations have been tested, but only the worst modulation show in this test item.

6.6.2. Test Instruments

Radiated Emission Test Site (966)					
Name of Equipment	Manufacturer	Model	Serial Number	Date of Cal.	Due Date
Universal Radio Communication Tester	R&S	CMU200	110188	Jun. 26, 2025	Jun. 25, 2026
Spectrum Analyzer	R&S	FSQ40	200061	Jun. 26, 2025	Jun. 25, 2026
Signal Generator	Agilent	N5173B	MY58108823	Jan. 21, 2025	Jan. 20, 2026
Broadband Antenna	Schwarzbeck	VULB9163	340	Jun. 29, 2025	Jun. 28, 2026
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Jun. 29, 2025	Jun. 28, 2026
Broadband Antenna	Schwarzbeck	VULB9163	412	Jun. 29, 2025	Jun. 28, 2026
Horn Antenna	Schwarzbeck	BBHA 9120D	1201	Jun. 29, 2025	Jun. 28, 2026
Horn Antenna	Schwarzbeck	BBHA 9170	00956	Jan. 24, 2025	Jan. 23, 2026
Coaxial cable	SKET	RE-03-D	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-03-M	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-03-L	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-04-D	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-04-M	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-04-L	/	Jun. 27, 2025	Jun. 26, 2026
Antenna Mast	Keleto	RE-AM	/	/	/
EMI Test Software	EZ EMC	FA-03A2 RE+	1.1.4.2	/	/

6.6.3. Test Data

Frequency Range (9 kHz-30MHz)

Frequency (MHz)	Level@3m (dB μ V/m)	Limit@3m (dB μ V/m)
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Note: 1. Emission Level=Reading+ Cable loss+Antenna factor-Amp factor

2. The emission levels are 20 dB below the limit value, which are not reported. It is deemed to comply with the requirement

Band	GSM 850	Test channel:	Lowest
Test mode:		Temperature:	25°C
		Relative Humidity:	56%

Note: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Level (dBm)	Correction Factor (dB)	Spurious emissions (dBm)		
1648.4	Vertical	-41.00	-6.47	-47.47	-13.00	PASS
2472.6	V	-51.02	-2.89	-53.91		
3296.8	V	-61.86	-0.48	-62.34		
1648.4	Horizontal	-41.84	-6.29	-48.13		
2472.6	H	-48.76	-2.99	-51.75		
3296.8	H	-59.51	-0.10	-59.61		

Band	GSM 850	Test channel:	Middle
Test mode:		Temperature:	25°C
		Relative Humidity:	56%

Note: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Level (dBm)	Correction Factor (dB)	Spurious emissions (dBm)		
1673.2	Vertical	-42.01	-6.46	-48.47	-13.00	PASS
2509.8	V	-54.71	-2.75	-57.46		
3346.4	V	-62.88	-0.47	-63.35		
1673.2	Horizontal	-41.17	-6.32	-47.49		
2509.8	H	-49.06	-2.85	-51.91		
3346.4	H	-62.81	-0.10	-62.91		

Band	GSM 850	Test channel:	Highest
Test mode:		Temperature:	25°C
		Relative Humidity:	56%

Note: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Level (dBm)	Correction Factor (dB)	Spurious emissions (dBm)		
1697.6	Vertical	-42.57	-6.44	-49.01	-13.00	PASS
2546.4	V	-55.66	-2.58	-58.24		
3395.2	V	-61.31	-0.47	-61.78		
1697.6	Horizontal	-39.00	-6.35	-45.35		
2546.4	H	-49.34	-2.65	-51.99		
3395.2	H	-64.73	-0.10	-64.83		