TEST REPORT

Reference No.	:	WTX22X08156486W001
FCC ID	:	YHLBLUF92E
Applicant	:	BLU Products, Inc.
Address	:	10814 NW 33rd St # 100 Doral, FL 33172,USA
Manufacturer	:	The same as Applicant
Address	:	The same as Applicant
Product Name	:	Smart Phone
Model No.	:	F92e 5G
Standards	:	FCC Part 22H, FCC Part 24E, FCC Part 27
Date of Receipt sample	:	2022-08-01
Date of Test	:	2022-08-01 to 2022-10-19
Date of Issue	:	2022-10-19
Test Report Form No.	:	WTX_Part 22_Part 24_Part 27W
Test Result	:	**Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of approver.

Prepared By:

Waltek Testing Group (Shenzhen) Co., Ltd.

Address: 1/F., Room 101, Building 1, Hongwei Industrial Park, Liuxian 2nd Road,
Block 70 Bao'an District, Shenzhen, Guangdong, China

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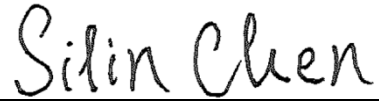
Tested by:

Jason Su

Approved by:



Silin Chen

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Report version

Version No.	Date of issue	Description
Rev.00	2022-10-19	Original
/	/	/

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

General Description of EUT:	
Product Name:	Smart Phone
Trade Name:	BLU
Model No.:	F92e 5G
Adding Model(s):	/
Rated Voltage:	DC3.87V
Battery Capacity:	4900mAh(C886550500P)
Adapter Model:	US-CR-2000 INPUT:AC100-240V 50/60Hz 0.3A Output:DC5V2000mA
Note: The Antenna Gain is provided by the customer and can affect the validity of results. *The test data is gathered from a production sample provided by the manufacturer.*	

Technical Characteristics of EUT:	
2G	
Support Networks:	GSM, GPRS, EDGE
Support Band:	GSM850/PCS1900
Uplink Frequency:	GSM/GPRS/EDGE 850: 824~849MHz GSM/GPRS/EDGE 1900: 1850~1910MHz
Downlink Frequency:	GSM/GPRS/EDGE 850: 869~894MHz GSM/GPRS/EDGE 1900: 1930~1990MHz
Max RF Output Power:	GSM850: 33.17dBm, GSM1900: 30.05dBm EDGE850: 30.59dBm, EDGE1900: 25.60dBm
Type of Emission:	GSM850: 250KGXW, GSM1900: 248KGXW EDGE850: 252KG7W, EDGE1900: 270KG7W
Type of Modulation:	GMSK, 8PSK
Type of Antenna:	Integral Antenna
Antenna Gain:	GSM850: -4.9dBi; GSM1900: -1.3dBi
GPRS/EDGE Class:	Class 12
3G	
Support Networks:	WCDMA, HSDPA, HSUPA
Support Band:	WCDMA Band 2, WCDMA Band 4, WCDMA Band 5
Uplink Frequency:	WCDMA Band 2: 1850~1910MHz WCDMA Band 4: 1710~1755MHz WCDMA Band 5: 824~849MHz
Downlink Frequency:	WCDMA Band 2: 1930~1990MHz WCDMA Band 4: 2110~2155MHz WCDMA Band 5: 869~894MHz
RF Output Power:	WCDMA Band 2: 23.25dBm, WCDMA Band 4: 22.87dBm WCDMA Band 5: 23.40dBm
Type of Emission:	WCDMA Band 2: 4M18F9W WCDMA Band 4: 4M16F9W WCDMA Band 5: 4M18F9W
Type of Modulation:	BPSK
Antenna Type:	Integral Antenna
Antenna Gain:	WCDMA Band 2: -1.3dBi, WCDMA Band 4: -1.5dBi, WCDMA Band 5: -4.9dBi

1.2 Test Standards

The tests were performed according to following standards:

FCC Rules Part 2: Frequency Alloca-Tions and Radio Treaty Mat-Ters; General Rules and Reg-Ulations.
FCC Rules Part 22: Private Land Mobile Radio Services.
FCC Rules Part 24: Public Mobile Services.
FCC Rules Part 27: Miscellaneous Wireless Communications Services.
TIA/EIA 603 E March 2016: Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.
ANSI C63.26-2015: American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services
KDB 971168 D01 Power Meas License Digital Systems v03r01: Measurement Guidance for Certification of Licensed Digital Transmitters.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with TIA/EIA 603 E/ KDB 971168/ ANSI C63.26
The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted accordingly in reference to the Operating Instructions.

1.4 Test Facility

Address of the test laboratory
Laboratory: Waltek Testing Group (Shenzhen) Co., Ltd.
Address: 1/F., Room 101, Building 1, Hongwei Industrial Park, Liuxian 2nd Road, Block 70 Bao'an District, Shenzhen, Guangdong, China

FCC – Registration No.: 125990
Waltek Testing Group (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is mai ntained in our files. The Designation Number is CN5010, and Test Firm Registration Number is 125990.

Industry Canada (IC) Registration No.: 11464A
The 3m Semi-anechoic chamber of Waltek Testing Group (Shenzhen) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.

1.5 EUT Setup and Test Mode

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. All testing shall be performed under maximum output power condition, and to measure its highest
possible emissions level, more detailed description as follows:

Test Mode List		
Test Mode	Description	Remark
TM1	GSM 850	Low, Middle, High Channels
TM2	GPRS 850	Low, Middle, High Channels
TM3	EDGE 850	Low, Middle, High Channels
TM4	GSM 1900	Low, Middle, High Channels
TM5	GPRS 1900	Low, Middle, High Channels
TM6	EDGE 1900	Low, Middle, High Channels
TM7	WCDMA Band 5	Low, Middle, High Channels
TM8	HSDPA Band 5	Low, Middle, High Channels
TM9	HSUPA Band 5	Low, Middle, High Channels
TM10	WCDMA Band 4	Low, Middle, High Channels
TM11	HSDPA Band 4	Low, Middle, High Channels
TM12	HSUPA Band 4	Low, Middle, High Channels
TM13	WCDMA Band 2	Low, Middle, High Channels
TM14	HSDPA Band 2	Low, Middle, High Channels
TM15	HSUPA Band 2	Low, Middle, High Channels

Testing Configure			
Support Band	Support Standard	Channel Frequency	Channel Number
GSM 850	GSM/GPRS/EDGE	824.2 MHz	128
		836.6 MHz	190
		848.8 MHz	251
PCS 1900	GSM/GPRS/EDGE	1850.2 MHz	512
		1880.0 MHz	661
		1909.8 MHz	810
WCDMA Band 5	WCDMA/HSDPA/HSUPA	826.4 MHz	4132
		836.6 MHz	4183
		846.6 MHz	4233
WCDMA Band 4	WCDMA/HSDPA/HSUPA	1712.4 MHz	1312
		1732.4 MHz	1412
		1752.6 MHz	1513
WCDMA Band 2	WCDMA/HSDPA/HSUPA	1852.4 MHz	9262
		1880.0 MHz	9400
		1907.6 MHz	9538
Note: the transmitter has been tested on the communications mode of GSM, GPRS, EDGE, WCDMA, HSDPA, HSUPA compliance test and record the worst case.			

Test Conditions	
Temperature:	22~25 °C
Relative Humidity:	50~55 %.
ATM Pressure:	1019 mbar

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
USB Cable	1.0	Shielded	Without Ferrite
Headset Cable	1.2	Unshielded	Without Ferrite

Special Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
Notebook	ASUS	FA5061C	M8NRCX057996349

1.6 Measurement Uncertainty

Measurement uncertainty		
Parameter	Conditions	Uncertainty
RF Output Power	Conducted	±0.42dB
Occupied Bandwidth	Conducted	±1.5%
Frequency Stability	Conducted	2.3%
Transmitter Spurious Emissions	Conducted	±0.42dB
Transmitter Spurious Emissions	Radiated	30-200MHz ±4.52dB
		0.2-1GHz ±5.56dB
		1-6GHz ±3.84dB
		6-18GHz ±3.92dB

1.7 Test Equipment List and Details

No.	Description	Manufacturer	Model	Serial No.	Cal Date	Due. Date
SEMT-1075	Communication Tester	Rohde & Schwarz	CMW500	148650	2022-03-22	2023-03-21
SEMT-1063	GSM Tester	Rohde & Schwarz	CMU200	114403	2022-03-22	2023-03-21
SEMT-1072	Spectrum Analyzer	Agilent	E4407B	MY41440400	2022-03-25	2023-03-24
SEMT-1079	Spectrum Analyzer	Agilent	N9020A	US47140102	2022-03-22	2023-03-21
SMET-1313	Spectrum Analyzer	Agilent	N9020A	MY54320548	2022-03-22	2023-03-21
SEMT-1080	Signal Generator	Agilent	83752A	3610A01453	2022-03-22	2023-03-21
SEMT-1081	Vector Signal Generator	Agilent	N5182A	MY47070202	2022-03-22	2023-03-21
SEMT-1028	Power Divider	Weinschel	1506A	PM204	2022-03-22	2023-03-21
SEMT-C001	Cable	Zheng DI	LL142-07-07-10M(A)	/	/	/
SEMT-C002	Cable	Zheng DI	ZT40-2.92J-2.92J-6M	/	/	/
SEMT-C003	Cable	Zheng DI	ZT40-2.92J-2.92J-2.5M	/	/	/
SEMT-C004	Cable	Zheng DI	2M0RFC	/	/	/
SEMT-C005	Cable	Zheng DI	1M0RFC	/	/	/
SEMT-C006	Cable	Zheng DI	1M0RFC	/	/	/
☒Chamber A: Below 1GHz						
SEMT-1031	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2022-03-22	2023-03-21
SEMT-1007	EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2022-03-22	2023-03-21
SEMT-1008	Amplifier	Agilent	8447F	3113A06717	2022-01-07	2023-01-06
SEMT-1069	Loop Antenna	Schwarz beck	FMZB 1516	9773	2021-03-20	2023-03-19
SEMT-1068	Broadband Antenna	Schwarz beck	VULB9163	9163-333	2021-03-20	2023-03-19
☒Chamber A: Above 1GHz						
SEMT-1031	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2022-03-22	2023-03-21
SEMT-1007	EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2022-03-22	2023-03-21
SEMT-1043	Amplifier	C&D	PAP-1G18	2002	2022-03-22	2023-03-21

SEMT-1042	Horn Antenna	ETS	3117	00086197	2021-03-19	2023-03-18
SEMT-1121	Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170582	2021-04-27	2023-04-26
SEMT-1216	Pre-amplifier	Schwarzbeck	BBV 9721	9721-031	2022-03-25	2023-03-24
SEMT-1163	Spectrum Analyzer	Rohde & Schwarz	FSP40	100612	2022-03-22	2023-03-21
☐Chamber B:Below 1GHz						
SEMT-1068	Trilog Broadband Antenna	Schwarz beck	VULB9163(B)	9163-635	2021-04-09	2023-04-08
SEMT-1067	Amplifier	Agilent	8447D	2944A10179	2022-03-22	2023-03-21
SEMT-1066	EMI Test Receiver	Rohde & Schwarz	ESPI	101391	2022-03-22	2023-03-21
☐Chamber C:Below 1GHz						
SEMT-1319	EMI Test Receiver	Rohde & Schwarz	ESIB 26	100401	2022-01-07	2023-01-06
SEMT-1343	Trilog Broadband Antenna	Schwarz beck	VULB 9168	1194	2021-05-28	2023-05-27
SEMT-1333	Amplifier	HP	8447F	2944A03869	2022-03-22	2023-03-21

Software List			
Description	**Manufacturer**	**Model**	**Version**
EMI Test Software (Radiated Emission)*	Farad	EZ-EMC	RA-03A1

*Remark: indicates software version used in the compliance certification testing.

2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test Item	Result
§22.913(a), §24.232(c), §27.50(d)	RF Output Power	Compliant
§24.51, §27.50	Peak-to-average Ratio (PAR) of Transmitter	Compliant
§22.917(b), §24.238(b), §27.53	Emission Bandwidth	Compliant
§22.917(a), §24.238(a), §27.53(h)	Spurious Emissions at Antenna Terminal	Compliant
§22.917(a), §24.238(a), §27.53(h)	Spurious Radiation Emissions	Compliant
§22.917(a), §24.238(a), §27.53(h)	Out of Band Emissions	Compliant
§22.355, §24.235, §27.54	Frequency Stability	Compliant

3. RF Output Power

3.1 Standard Applicable

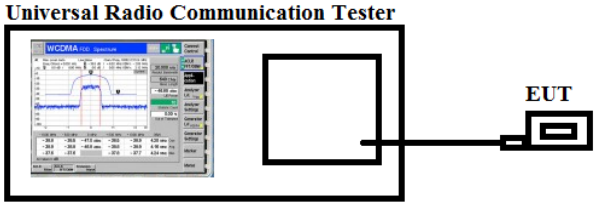
According to §22.913(a)(2), the ERP of mobile and portable stations transmitters and auxiliary test transmitters must not exceed 7 Watts.

According to §24.232(c), mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

According to §27.50(d)(4), fixed, mobile, and portable (hand-held) stations operating in the 1710-1755MHz band and mobile and portable stations operating in the 1695-1710MHz and 1755-1780MHz bands are limited to 1 watt EIRP.

3.2 Test Procedure

- Conducted output power test method:



- Radiated power test method:

1. The setup of EUT is according with per ANSI/TIA Standard 603E and ANSI C63.26 measurement procedure.
2. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.
3. The frequency range up to tenth harmonic of the fundamental frequency was investigated.

4. Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

3.3 Summary of Test Results/Plots

- **Max. Radiated Power**

Mode	Channel	Antenna Polar	ERP (dBm)	Limit (dBm)	Result
GSM850	128	V	28.35	<38.45	Pass
		H	20.29		
	190	V	28.47		
		H	20.35		
	251	V	28.35		
		H	21.02		
GPRS850	128	V	27.96	<38.45	Pass
		H	20.35		
	190	V	27.41		
		H	21.51		
	251	V	27.13		
		H	20.74		
EGPRS850	128	V	24.35	<38.45	Pass
		H	19.35		
	190	V	24.14		
		H	19.77		
	251	V	24.32		
		H	19.69		

Mode	Channel	Antenna Polar	EIRP (dBm)	Limit (dBm)	Result
PCS1900	512	V	28.32	<33.00	Pass
		H	23.57		
	661	V	28.41		
		H	23.31		
	810	V	28.54		
		H	23.35		
GPRS1900	512	V	28.47	<33.00	Pass
		H	23.35		
	661	V	27.41		
		H	22.69		
	810	V	27.32		
		H	22.46		
EGPRS1900	512	V	22.41	<33.00	Pass
		H	17.25		
	661	V	22.36		
		H	17.61		
	810	V	22.47		
		H	17.01		

Mode	Channel	Antenna Polar	ERP	Limit (dBm)	Result
WCDMA Band V	4132	V	20.12	<38.45	Pass
		H	15.21		
	4183	V	19.27		
		H	14.52		
	4233	V	19.47		
		H	14.32		

Mode	Channel	Antenna Polar	EIRP	Limit (dBm)	Result
WCDMA Band IV	1312	V	20.29	<30.00	Pass
		H	15.12		
	1412	V	20.27		
		H	15.13		
	1513	V	20.35		
		H	15.57		

Mode	Channel	Antenna Polar	EIRP	Limit (dBm)	Result
WCDMA Band II	9262	V	20.65	<33.00	Pass
		H	15.14		
	9400	V	20.71		
		H	15.03		
	9538	V	20.06		
		H	14.67		

- **Max. Conducted Power (Average power)**

Please refer to Appendix A

4. Peak-to-average Ratio (PAR) of Transmitter

4.1 Standard Applicable

According to §24.232(d), power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of §24.51, in measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13dB.

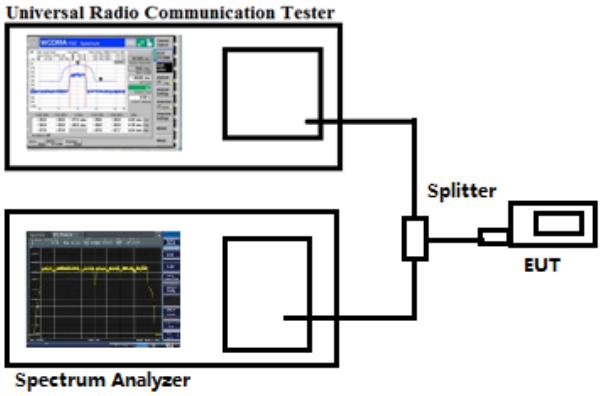
According to §27.50(B), the peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13dB. The PAPR measurements should be made using either an instrument with complementary cumulative distribution function (CCDF) capabilities to determine that PAPR will not exceed 13dB for more than 0.1 percent of the time or other Commission approved procedure. The measurement must be performed using a signal corresponding to the highest PAPR expected during periods of continuous transmission.

4.2 Test Procedure

According with KDB 971168

1. The signal analyzer' s CCDF measurement profile is enabled.
2. Frequency = carrier center frequency.
3. Measurement BW > Emission bandwidth of signal.
4. The signal analyzer was set to collect one million samples to generate the CCDF curve.
5. The measurement interval was set depending on the type of signal analyzed. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms. For burst transmissions, the spectrum analyzer is set to use an internal " RF Burst" trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the " on time" of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power.

Test Configuration for the emission bandwidth testing:



4.3 Summary of Test Results

Please refer to Appendix B.

5. Emission Bandwidth

5.1 Standard Applicable

According to §22.917(b), the emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26dB below the transmitter power.

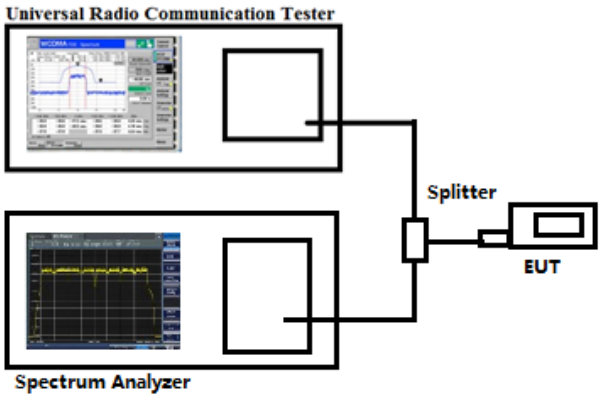
According to §24.238(b), the emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26dB below the transmitter power.

According to §27.53, the emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26dB below the transmitter power.

5.2 Test Procedure

The RF output terminal of the transmitter was connected to the input of the spectrum analyzer via a suitable attenuation. The RBW of the spectrum analyzer was set to 10kHz for GSM mode and 100kHz for WCDMA mode, VBW shall be at least 3 times the RBW, and the 26dB bandwidth was recorded.

Test Configuration for the emission bandwidth testing:



5.3 Summary of Test Results/Plots

Please refer to Appendix C.

6. Out of Band Emissions at Antenna Terminal

6.1 Standard Applicable

According to §22.917(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

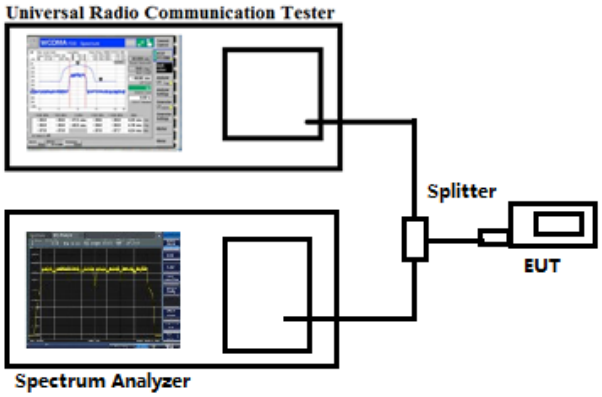
According to §24.238(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

According to §27.53 (h), the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB.

6.2 Test Procedure

The RF output terminal of the transmitter was connected to the input of the spectrum analyzer via a suitable attenuation. The RBW of the spectrum analyzer was set to 100kHz and 1MHz for the scan frequency from 30MHz to 1GHz and the scan frequency from 1GHz to up to 10th harmonic.

Test Configuration for the out of band emissions testing:



6.3 Summary of Test Results/Plots

Please refer to Appendix D.

7. Spurious Radiated Emissions

7.1 Standard Applicable

According to §22.917(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

According to §24.238(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

According to §27.53 (h), the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB.

7.2 Test Procedure

1. The setup of EUT is according with per ANSI/TIA Standard 603E and ANSI C63.26 measurement procedure.
2. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.
3. The frequency range up to tenth harmonic of the fundamental frequency was investigated.
4. Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

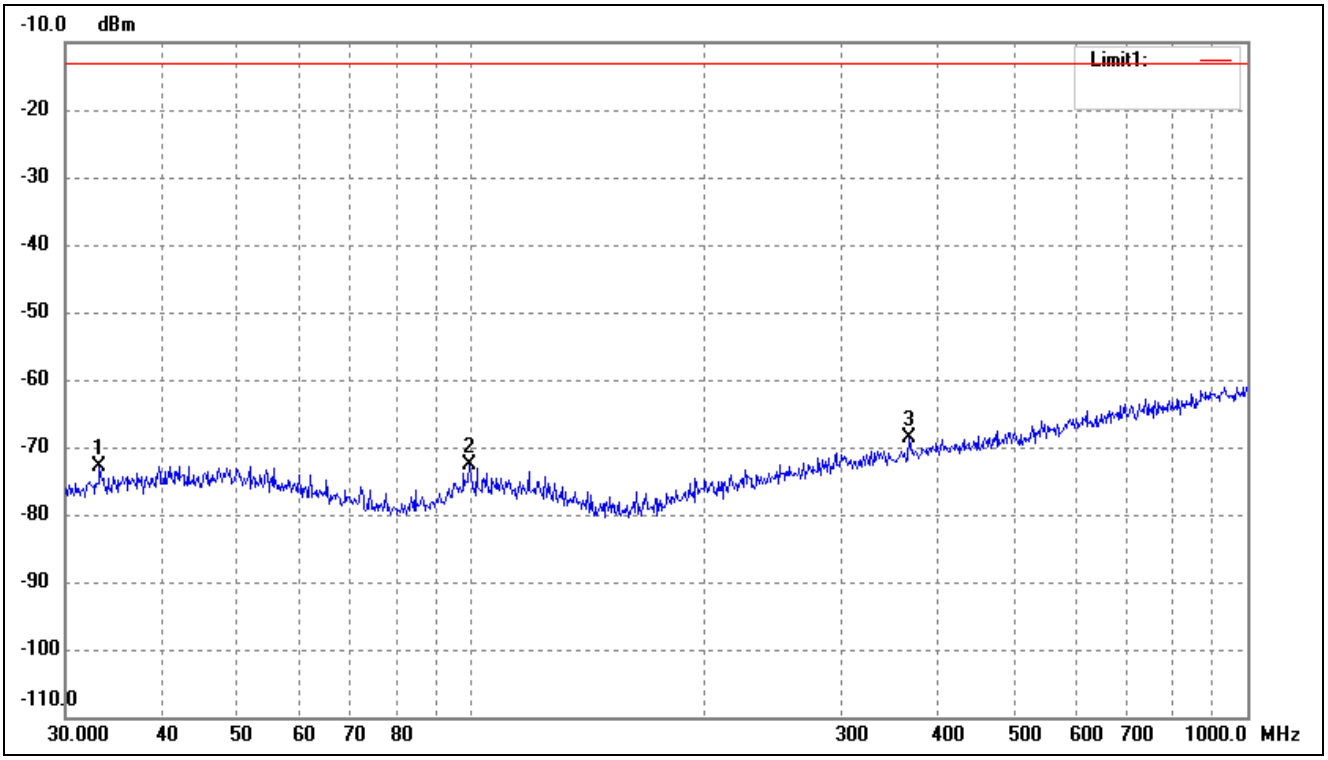
Spurious attenuation limit in dB =43+10 Log_{10} (power out in Watts)

7.3 Summary of Test Results/Plots

Note: this EUT was tested in 3 orthogonal positions and the worst case position data was reported.

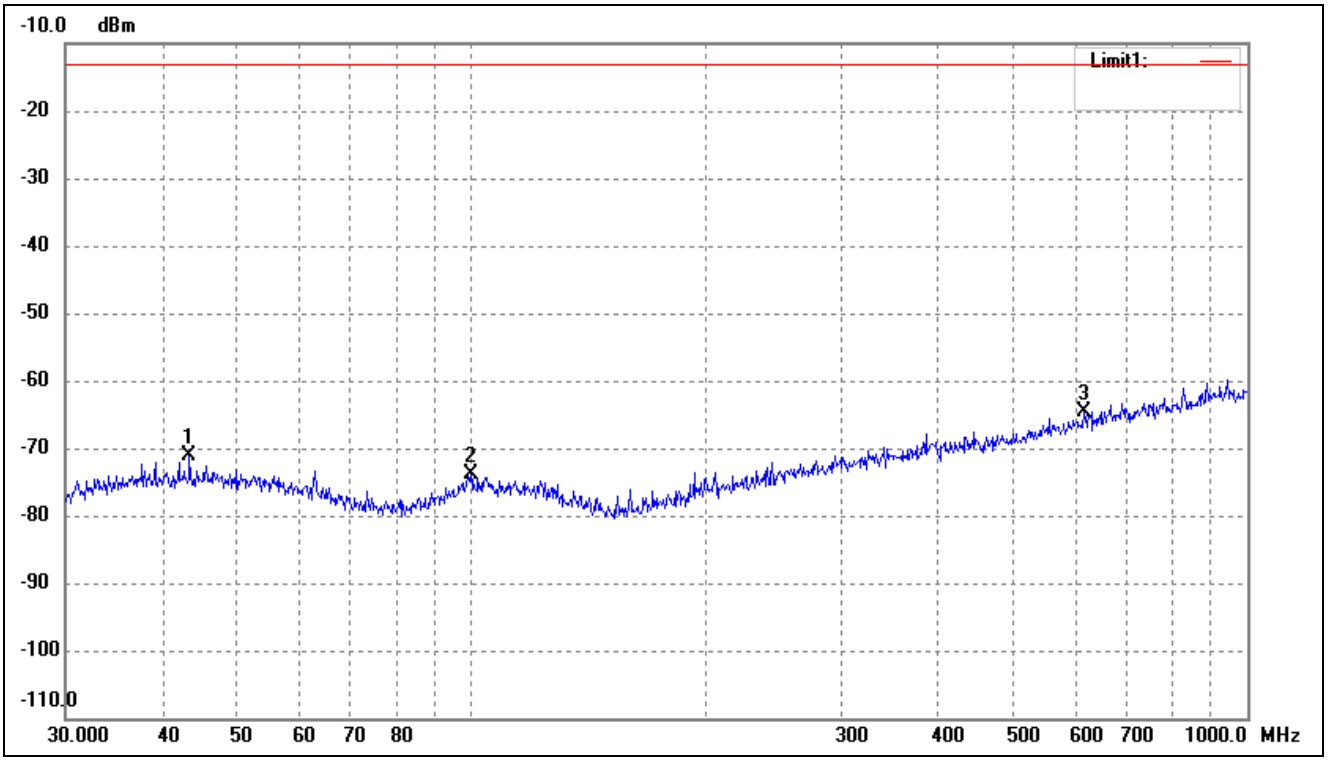
➢ Spurious Emissions Below 1GHz

For Cellular Band			
Test Channel	GSM850	Polarity:	Horizontal



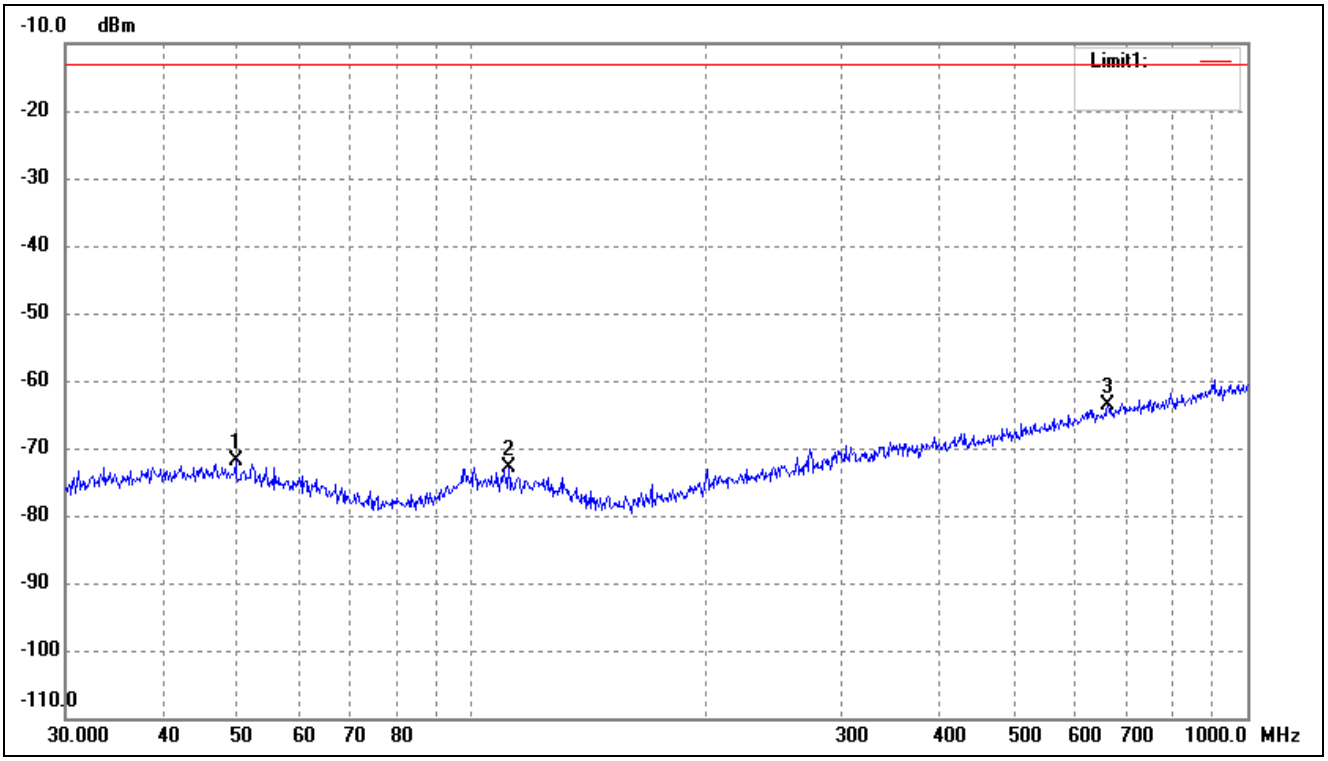
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBm)	Factor(dB)	(dBm)	(dBm)	(dB)	
1	33.2112	-76.08	3.18	-72.90	-13.00	-59.90	ERP
2	99.5281	-76.26	3.62	-72.64	-13.00	-59.64	ERP
3	366.8231	-76.49	7.94	-68.55	-13.00	-55.55	ERP

For Cellular Band			
Test Channel	GSM850	Polarity:	Vertical



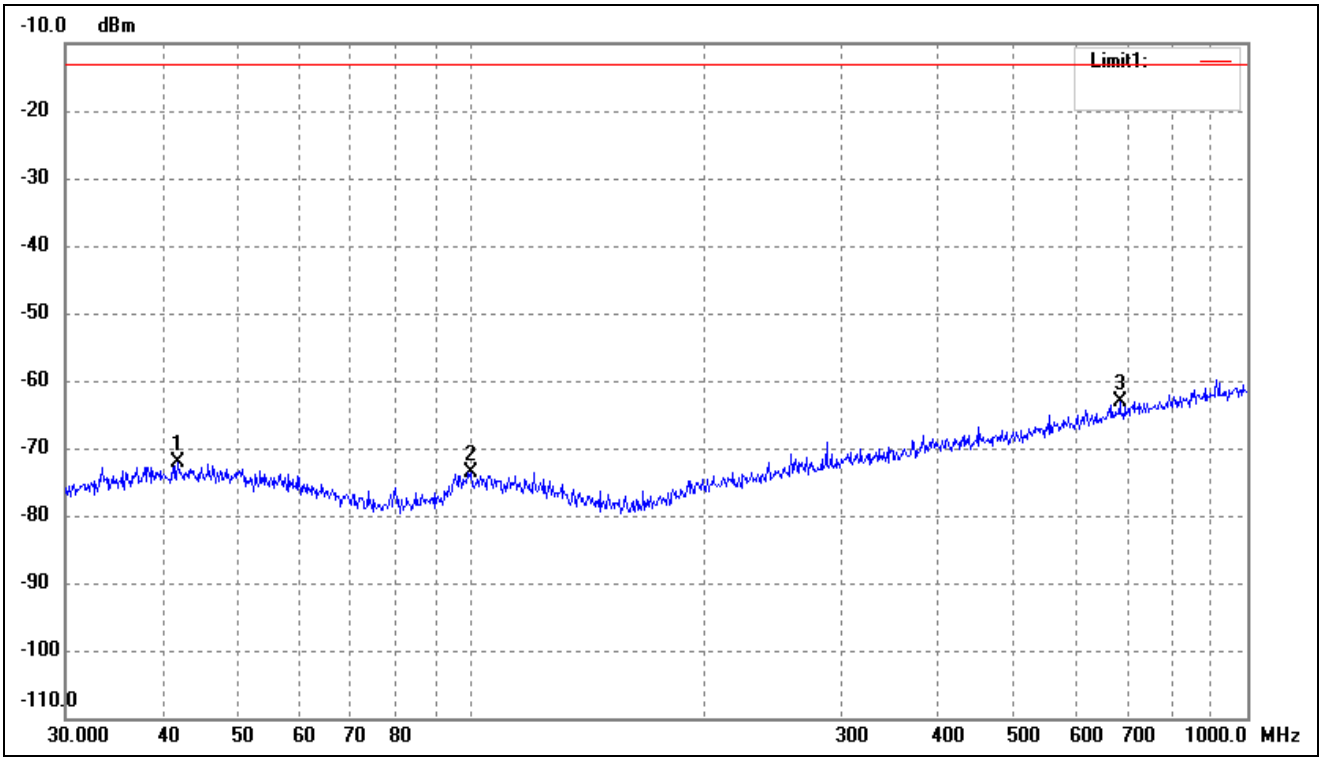
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBm)	Factor(dB)	(dBm)	(dBm)	(dB)	
1	43.3534	-75.84	4.62	-71.22	-13.00	-58.22	ERP
2	99.8777	-77.47	3.71	-73.76	-13.00	-60.76	ERP
3	616.3718	-76.48	11.89	-64.59	-13.00	-51.59	ERP

For Cellular Band			
Test Channel	GSM1900	Polarity:	Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBm)	Factor(dB)	(dBm)	(dBm)	(dB)	
1	49.7068	-76.45	4.49	-71.96	-13.00	-58.96	ERP
2	111.7380	-76.36	3.54	-72.82	-13.00	-59.82	ERP
3	661.1505	-76.29	12.55	-63.74	-13.00	-50.74	ERP

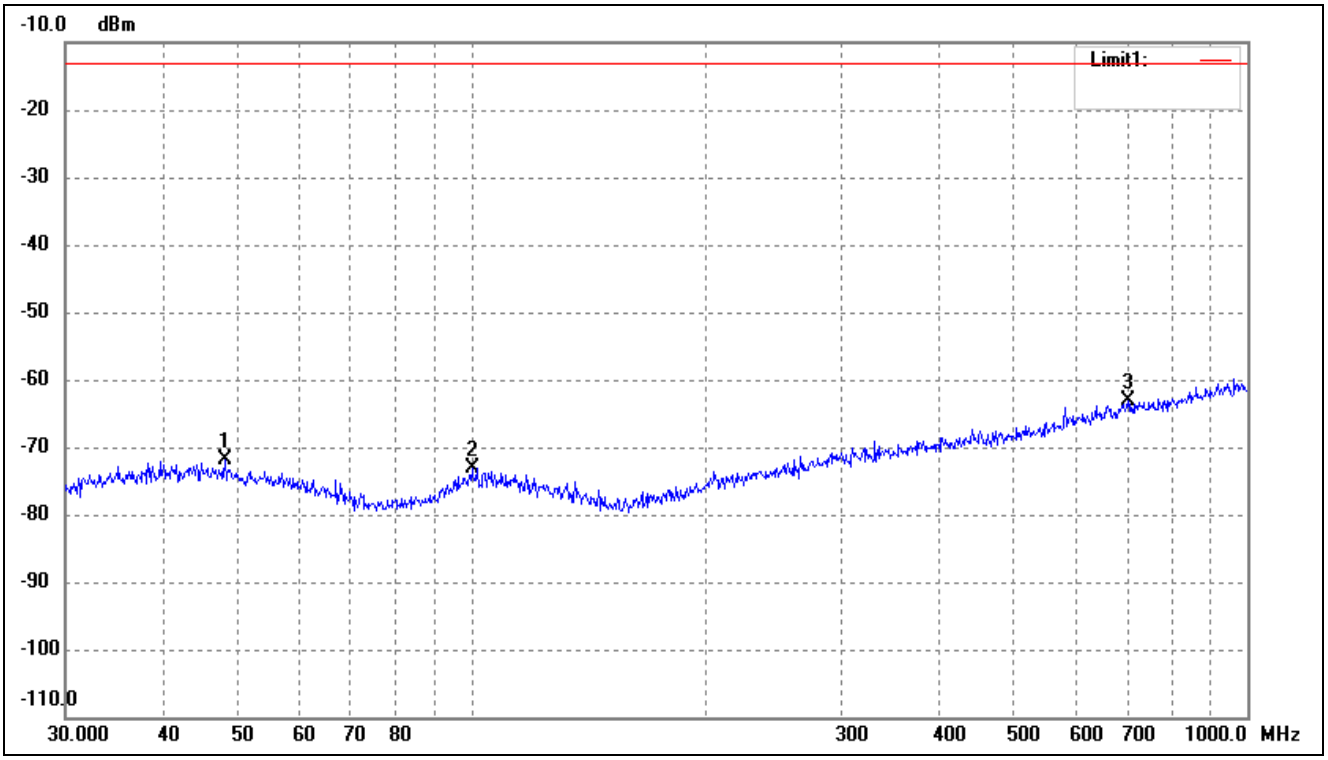
For Cellular Band			
Test Channel	GSM1900	Polarity:	Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBm)	Factor(dB)	(dBm)	(dBm)	(dB)	
1	41.8596	-76.87	4.64	-72.23	-13.00	-59.23	ERP
2	99.8777	-77.22	3.71	-73.51	-13.00	-60.51	ERP
3	684.7454	-76.01	12.92	-63.09	-13.00	-50.09	ERP

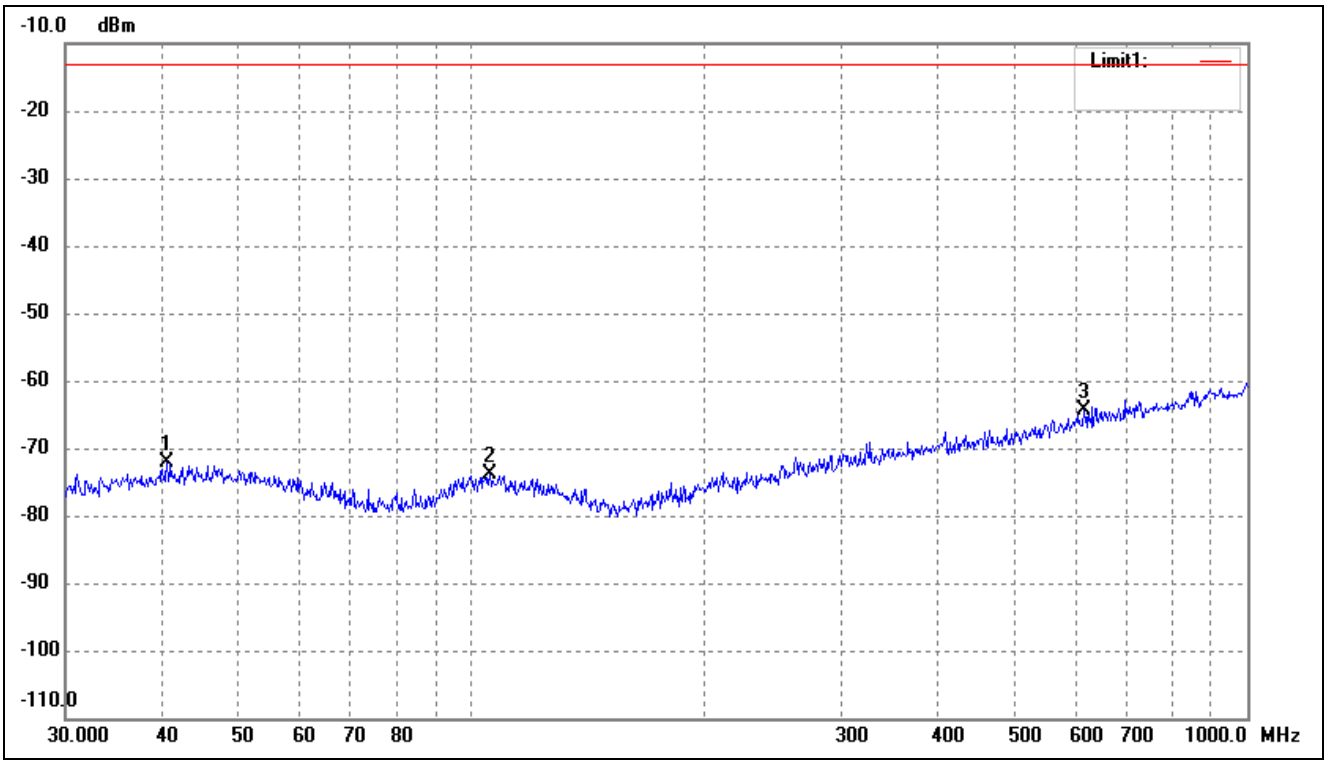
Note: Margin= (Reading+ Correct)- Limit

Test Channel	WCDMA Band V	Polarity:	Horizontal



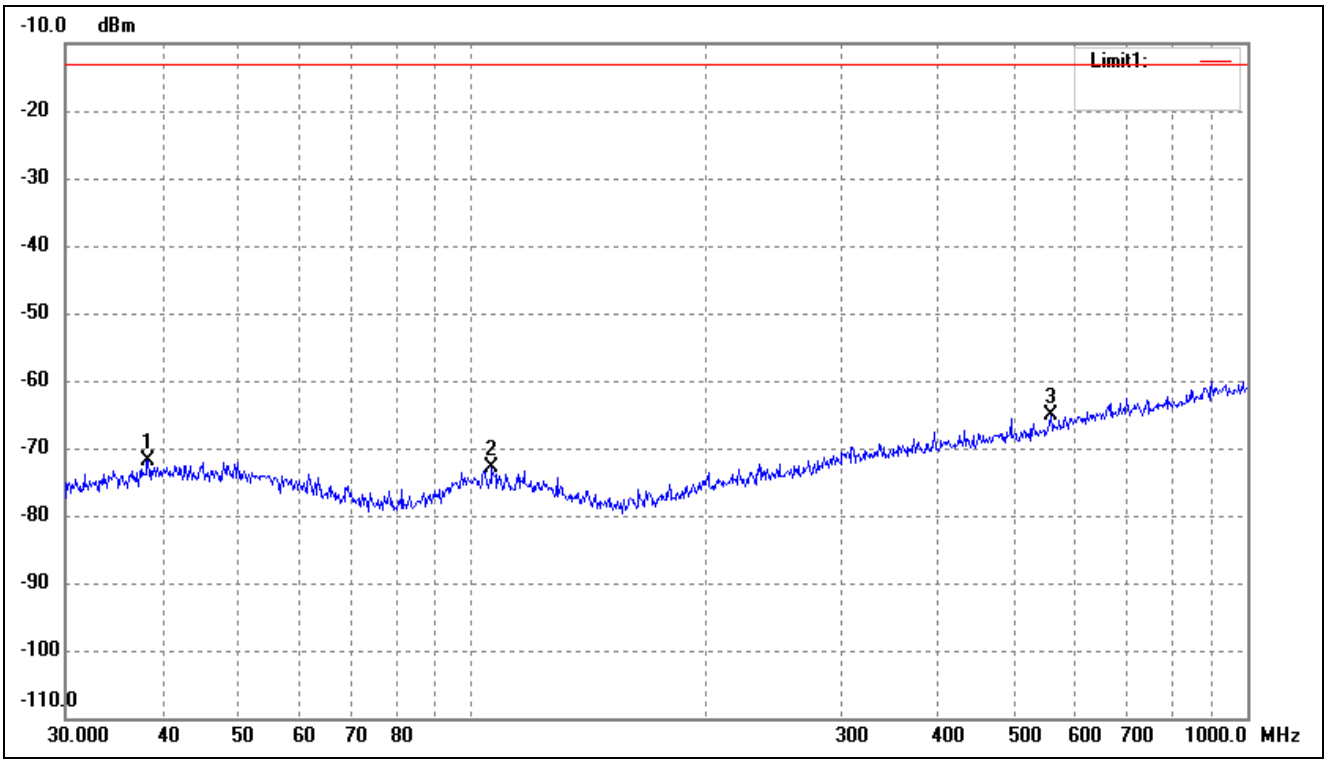
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBm)	Factor(dB)	(dBm)	(dBm)	(dB)	
1	48.1626	-76.49	4.52	-71.97	-13.00	-58.97	ERP
2	100.2286	-76.95	3.74	-73.21	-13.00	-60.21	ERP
3	701.7610	-76.38	13.18	-63.20	-13.00	-50.20	ERP

Test Channel	WCDMA Band V	Polarity:	Vertical



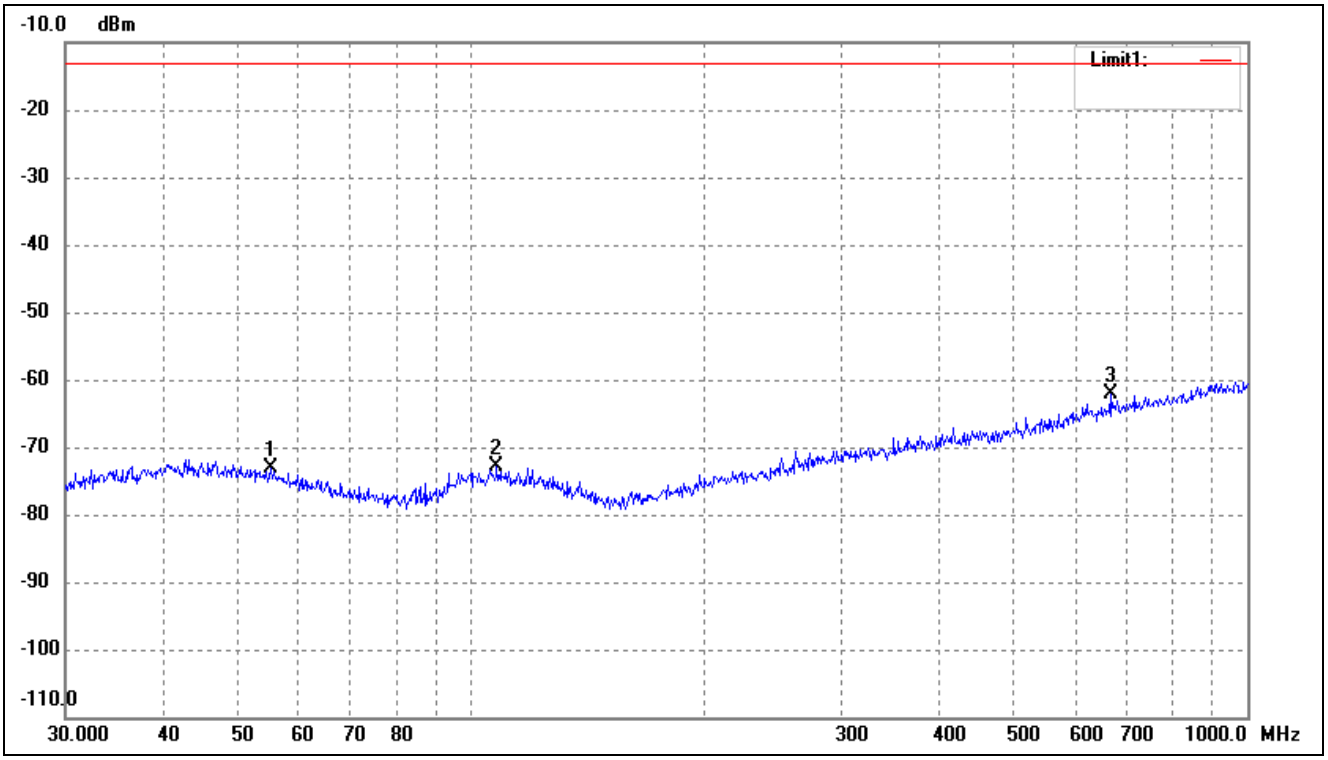
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBm)	dB	(dBm)	(dBm)	(dB)	
1	40.5591	-76.69	4.67	-72.02	-13.00	-59.02	ERP
2	105.6415	-77.51	3.70	-73.81	-13.00	-60.81	ERP
3	616.3718	-76.37	11.89	-64.48	-13.00	-51.48	ERP

Test Channel	WCDMA Band IV	Polarity:	Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBm)	dB	(dBm)	(dBm)	(dB)	
1	38.3462	-76.23	4.32	-71.91	-13.00	-58.91	ERP
2	106.3850	-76.66	3.68	-72.98	-13.00	-59.98	ERP
3	558.7302	-76.01	10.86	-65.15	-13.00	-52.15	ERP

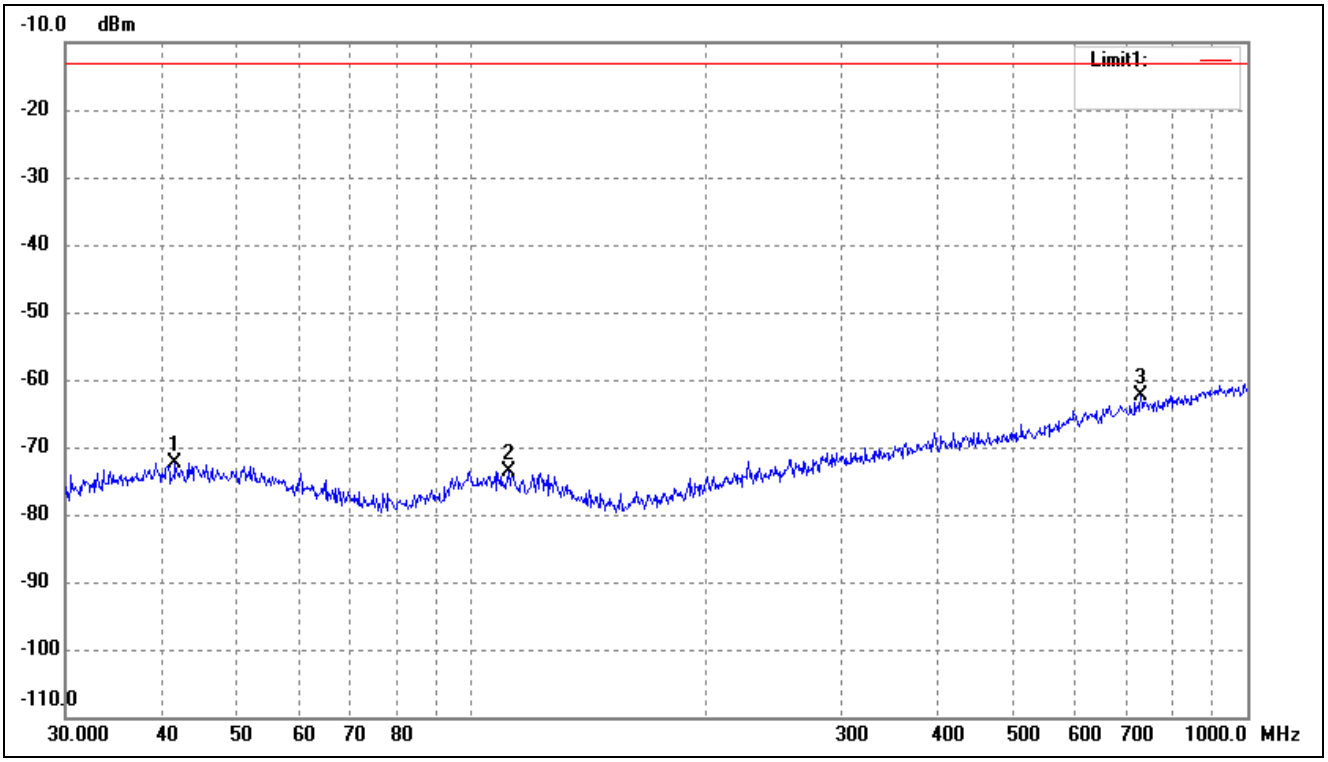
Test Channel	WCDMA Band IV	Polarity:	Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBm)	Factor(dB)	(dBm)	(dBm)	(dB)	
1	55.2207	-76.78	3.57	-73.21	-13.00	-60.21	ERP
2	107.8877	-76.61	3.68	-72.93	-13.00	-59.93	ERP
3	665.8035	-74.84	12.62	-62.22	-13.00	-49.22	ERP

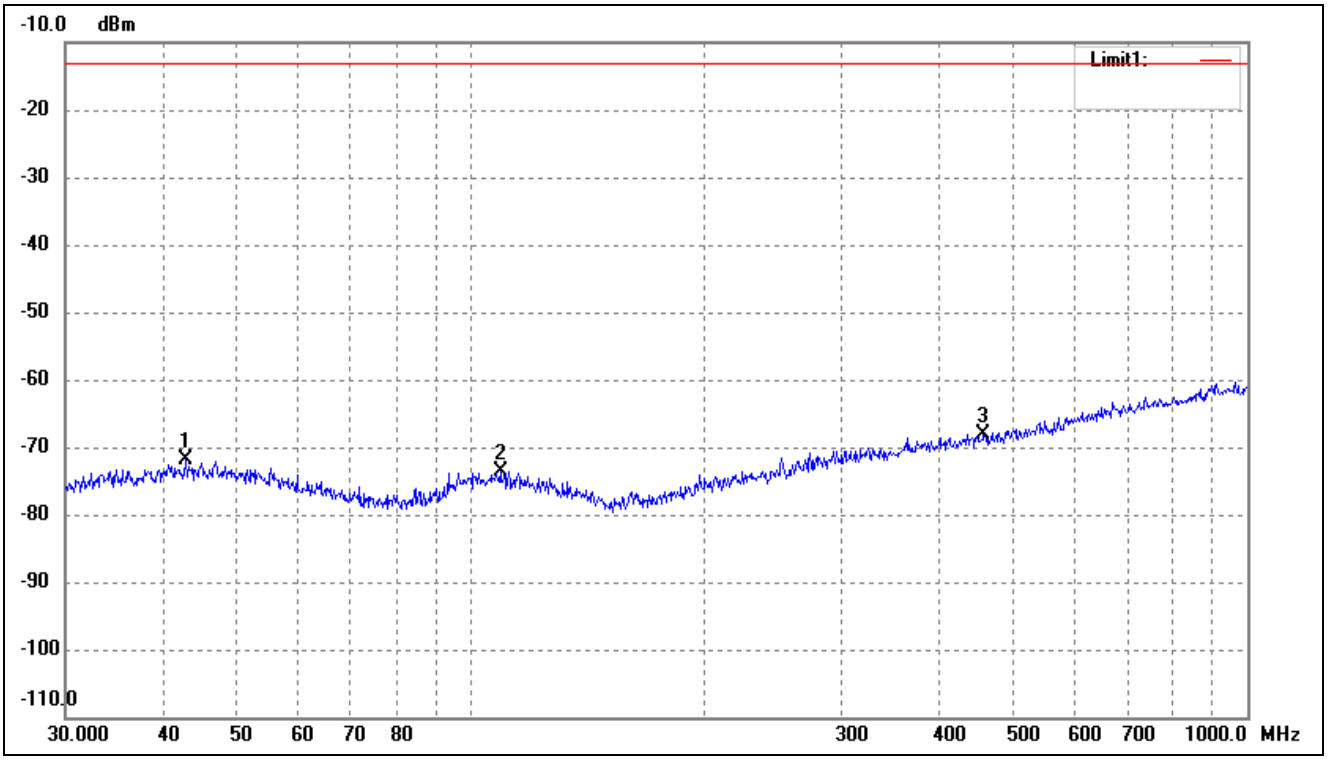
Note: Margin= (Reading+ Correct)- Limit

Test Channel	WCDMA Band II	Polarity:	Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBm)	dB	(dBm)	(dBm)	(dB)	
1	41.5670	-76.95	4.65	-72.30	-13.00	-59.30	ERP
2	111.7380	-77.26	3.54	-73.72	-13.00	-60.72	ERP
3	729.3583	-75.70	13.43	-62.27	-13.00	-49.27	ERP

Test Channel	WCDMA Band II	Polarity:	Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBm)	Factor(dB)	(dBm)	(dBm)	(dB)	
1	42.8998	-76.56	4.62	-71.94	-13.00	-58.94	ERP
2	109.0286	-77.31	3.67	-73.64	-13.00	-60.64	ERP
3	457.5073	-77.28	9.11	-68.17	-13.00	-55.17	ERP

Note: Margin= (Reading+ Correct)- Limit

- Spurious Emissions Above 1GHz
- For Cellular Band_GSM850 Mode

Frequency	Reading	Correct	Result	Limit	Margin	Polar
(MHz)	(dBm)	dB	(dBm)	(dBm)	(dB)	H/V
Low Channel (824.2MHz)						
1648.4	-36.25	4.94	-31.31	-13	-18.31	H
2472.6	-42.05	8.46	-33.59	-13	-20.59	H
1648.4	-37.03	4.94	-32.09	-13	-19.09	V
2472.6	-44.07	8.46	-35.61	-13	-22.61	V
Middle Channel (836.6MHz)						
1673.2	-36.88	5.11	-31.77	-13	-18.77	H
2509.8	-41.38	8.54	-32.84	-13	-19.84	H
1673.2	-34.75	5.11	-29.64	-13	-16.64	V
2509.8	-42.98	8.54	-34.44	-13	-21.44	V
High Channel (848.8MHz)						
1697.6	-37.79	5.25	-33.44	-13	-20.44	H
2546.4	-38.42	8.57	-30.54	-13	-17.54	H
1697.6	-36.27	5.25	-31.92	-13	-18.92	V
2546.4	-36.96	8.57	-29.08	-13	-16.08	V

- For PCS Band_GSM1900 Mode

Frequency	Reading	Correct	Result	Limit	Margin	Polar
(MHz)	(dBm)	dB	(dBm)	(dBm)	(dB)	H/V
Low Channel (1850.2MHz)						
3700.4	-39.25	10.54	-28.71	-13	-15.71	H
5550.6	-48.7	13.37	-35.33	-13	-22.33	H
3700.4	-40.29	10.54	-29.75	-13	-16.75	V
5550.6	-46.96	13.37	-33.59	-13	-20.59	V
Middle Channel (1880MHz)						
3760.0	-39.42	10.64	-28.78	-13	-15.78	H
5640.0	-46.14	13.54	-32.6	-13	-19.6	H
3760.0	-39.17	10.64	-28.53	-13	-15.53	V
5640.0	-49.3	13.54	-35.76	-13	-22.76	V
High Channel (1909.8MHz)						
3819.6	-42.59	10.74	-31.85	-13	-18.85	H
5729.4	-49.5	13.71	-35.79	-13	-22.79	H
3819.6	-40.99	10.74	-30.25	-13	-17.25	V
5729.4	-48.81	13.71	-35.1	-13	-22.10	V

➢ For WCDMA Band V Mode

Frequency	Reading	Correct	Result	Limit	Margin	Polar
(MHz)	(dBm)	dB	(dBm)	(dBm)	(dB)	H/V
Low Channel (826.4MHz)						
1652.8	-34.39	4.94	-29.45	-13	-16.45	H
2479.2	-44.49	8.46	-36.03	-13	-23.03	H
1652.8	-35.35	4.94	-30.41	-13	-17.41	V
2479.2	-43.91	8.46	-35.45	-13	-22.45	V
Middle Channel (836.6MHz)						
1672.8	-35.29	5.11	-30.18	-13	-17.18	H
2509.2	-41.72	8.54	-33.18	-13	-20.18	H
1672.8	-34.97	5.11	-29.86	-13	-16.86	V
2509.2	-44.83	8.54	-36.29	-13	-23.29	V
High Channel (846.6MHz)						
1693.2	-37.79	5.25	-33.44	-13	-20.44	H
2539.8	-38.42	8.57	-30.54	-13	-17.54	H
1693.2	-36.27	5.25	-31.92	-13	-18.92	V
2539.8	-36.96	8.57	-29.08	-13	-16.08	V

➢ For WCDMA Band IV Mode

Frequency	Reading	Correct	Result	Limit	Margin	Polar
(MHz)	(dBm)	dB	(dBm)	(dBm)	(dB)	H/V
Low Channel (1712.4MHz)						
3424.8	-41.56	8.65	-32.91	-13	-19.91	H
5137.2	-47.45	12.03	-35.42	-13	-22.42	H
3424.8	-40.72	8.65	-32.07	-13	-19.07	V
5137.2	-49.83	12.03	-37.8	-13	-24.8	V
Middle Channel (1732.4MHz)						
3466.8	-39.29	8.91	-30.38	-13	-17.38	H
5200.2	-49.43	12.29	-37.14	-13	-24.14	H
3466.8	-39.06	8.91	-30.15	-13	-17.15	V
5200.2	-49.14	12.29	-36.85	-13	-23.85	V
High Channel (1752.6MHz)						
3505.2	-40.72	9.11	-31.61	-13	-18.61	H
5257.8	-47.6	12.56	-35.04	-13	-22.04	H
3505.2	-41.89	9.11	-32.78	-13	-19.78	V
5257.8	-48.06	12.56	-35.5	-13	-22.5	V

➢ For WCDMA Band II Mode

Frequency	Reading	Correct	Result	Limit	Margin	Polar
(MHz)	(dBm)	dB	(dBm)	(dBm)	(dB)	H/V
Low Channel (1852.4MHz)						
3704.8	-35.96	10.54	-25.42	-13	-12.42	H
5557.2	-44.25	13.37	-30.88	-13	-17.88	H
3704.8	-35.68	10.54	-25.14	-13	-12.14	V
5557.2	-42.64	13.37	-29.27	-13	-16.27	V
Middle Channel (1880MHz)						
3760.0	-34.07	10.64	-23.43	-13	-10.43	H
5640.0	-41.49	13.54	-27.95	-13	-14.95	H
3760.0	-36.8	10.64	-26.16	-13	-13.16	V
5640.0	-43.04	13.54	-29.5	-13	-16.5	V
High Channel (1907.6MHz)						
3815.2	-37.79	10.74	-33.44	-13	-20.44	H
5722.8	-38.42	13.71	-30.54	-13	-17.54	H
3815.2	-36.27	10.74	-31.92	-13	-18.92	V
5722.8	-36.96	13.71	-29.08	-13	-16.08	H

Note: Result=Reading+ Correct, Margin= Result- Limit

Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, other than listed in the table above are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

8. Frequency Stability

8.1 Standard Applicable

According to §22.355, §24.235, §27.54 the limit is 2.5ppm.

8.2 Test Procedure

According to §2.1055, the following test procedure was performed.
The Frequency Stability is measured directly with a Frequency Domain Analyzer. Frequency Deviation in ppm is calculated from the measured peak to peak value.
The Carrier Frequency Stability over Power Supply Voltage and over Temperature is measured with a Frequency Domain Analyzer in histogram mode.

8.3 Summary of Test Results/Plots

Please refer to Appendix E

9. Modulation characteristics

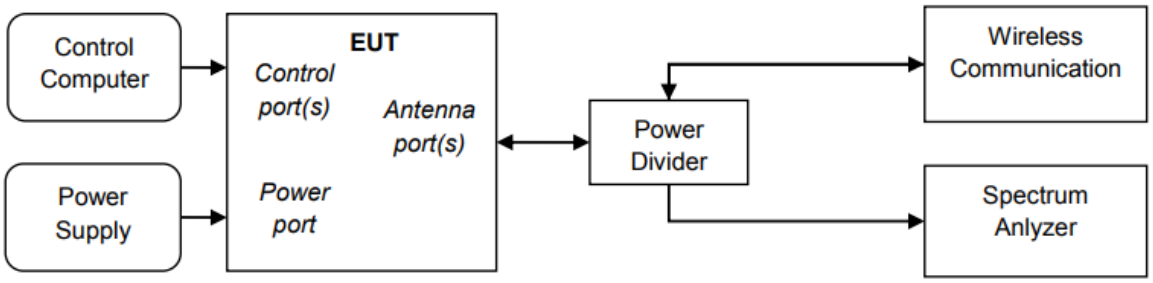
9.1 Standard Applicable

According to §2.1047, measurements required: Modulation characteristics is given below:

(a) Voice modulated communication equipment. A curve or equivalent data showing the frequency response of the audio modulating circuit over a range of 100 to 5000Hz shall be submitted. For equipment required to have an audio low-pass filter, a curve showing the frequency response of the filter, or of all circuitry installed between the modulation limiter and the modulated stage shall be submitted.
(b) Equipment which employs modulation limiting. A curve or family of curves showing the percentage of modulation versus the modulation input voltage shall be supplied. The information submitted shall be sufficient to show modulation limiting capability throughout the range of modulating frequencies and input modulating signal levels employed.
(c) Single sideband and independent sideband radiotelephone transmitters which employ a device or circuit to limit peak envelope power. A curve showing the peak envelope power output versus the modulation input voltage shall be supplied. The modulating signals shall be the same in frequency as specified in paragraph (c) of §2.1049 for the occupied bandwidth tests.
(d) Other types of equipment. A curve or equivalent data which shows that the equipment will meet the modulation requirements of the rules under which the equipment is to be licensed.

9.2 Test Procedure

According to ANSI C63.26-2015 section 5.3.2, the following test setup was performed.



9.3 Summary of Test Results/Plots

Please refer to Appendix F

APPENDIX SUMMARY

Project No.	WTX22X08156486W	Test Engineer	Timi Huang
Start date	2022/9/2	Finish date	2022/9/25
Temperature	26℃	Humidity	47%
RF specifications	GSM/WCDMA		

APPENDIX	Description of Test Item	Result
A	RF Output Power	Compliant
B	Peak-to-average Ratio (PAR) of Transmitter	Compliant
C	Emission Bandwidth	Compliant
D	Out of Band Emissions at Antenna Terminal	Compliant
E	Frequency Stability	Compliant
F	Modulation characteristics	Compliant

APPENDIX A

Conducted Average power

Conducted Average power (dBm)						
Band	GSM850			PCS1900		
Channel	128	190	251	512	661	810
Frequency(MHz)	824.20	836.60	848.80	1850.20	1880.00	1909.80
GSM	33.17	33.03	32.86	29.51	29.60	29.97
GPRS(1Slot)	33.17	33.09	32.88	29.61	29.67	30.05
EGPRS(1Slot)	30.59	30.59	30.53	25.49	25.60	25.44

Conducted Average power (dBm)			
Band	PCS1900 (Sar sensor)		
Channel	512	661	810
Frequency(MHz)	824.20	836.60	848.80
GSM	26.20	26.50	27.20
GPRS(1Slot)	26.15	26.52	27.15
EGPRS(1Slot)	25.46	25.49	25.13
Band	PCS1900 (Receiver ON)		
Channel	512	661	810
Frequency(MHz)	824.20	836.60	848.80
GSM	21.21	21.67	22.25
GPRS(1Slot)	21.14	21.63	22.24
EGPRS(1Slot)	25.40	25.46	25.11
Band	PCS1900 (Hotspot ON)		
Channel	512	661	810
Frequency(MHz)	824.20	836.60	848.80
GSM	27.42	27.43	27.89
GPRS(1Slot)	27.13	27.49	28.07
EGPRS(1Slot)	25.47	25.52	25.17

Conducted Average power (dBm)						
Band	WCDMA Band V			WCDMA Band II		
Channel	4132	4183	4233	9262	9400	9538
Frequency(MHz)	826.4	836.6	846.6	1852.4	1880.0	1907.6
RMC 12.2k	23.4	23.2	22.96	23.25	23.17	23.01
HSDPA Subtest-1	22.48	22.3	22.05	22.48	22.32	22.29
HSDPA Subtest-2	22.34	22.23	22.01	22.43	22.29	22.26
HSDPA Subtest-3	22.21	22.18	21.87	22.44	22.27	22.27
HSDPA Subtest-4	21.89	21.96	21.75	22.43	22.28	22.28
HSUPA Subtest-1	22.48	22.29	22.03	22.50	22.31	22.23
HSUPA Subtest-2	22.38	22.25	22.01	22.47	22.27	22.21
HSUPA Subtest-3	22.34	22.18	21.95	22.46	22.29	22.19
HSUPA Subtest-4	22.28	22.05	21.93	22.45	22.27	22.21
HSUPA Subtest-5	22.18	22.03	21.85	22.46	22.29	22.22

Conducted Average power (dBm)						
Band	WCDMA Band IV					
Channel	1312	1412	1513			
Frequency(MHz)	1712.4	1733.4	1752.6			
RMC 12.2k	22.76	22.87	22.29			
HSDPA Subtest-1	22.10	22.14	22.23			
HSDPA Subtest-2	22.08	22.12	22.21			
HSDPA Subtest-3	22.07	22.1	22.21			
HSDPA Subtest-4	22.08	22.11	22.22			
HSUPA Subtest-1	22.16	22.14	22.20			
HSUPA Subtest-2	22.14	22.12	22.18			
HSUPA Subtest-3	22.13	22.11	22.19			
HSUPA Subtest-4	22.14	22.12	22.18			
HSUPA Subtest-5	22.14	22.12	22.17			

Conducted Average power (dBm)			
Band	WCDMA Band II (Sar sensor)		
Channel	4132	4183	4233
Frequency(MHz)	826.4	836.6	846.6
RMC 12.2k	20.09	19.93	19.81
HSDPA Subtest-1	19.39	19.23	19.15
HSDPA Subtest-2	19.36	19.22	19.13
HSDPA Subtest-3	19.37	19.22	19.14
HSDPA Subtest-4	19.38	19.21	19.13
HSUPA Subtest-1	19.39	19.26	19.14
HSUPA Subtest-2	19.37	19.24	19.13
HSUPA Subtest-3	19.38	19.23	19.12
HSUPA Subtest-4	19.37	19.24	19.11
HSUPA Subtest-5	19.36	19.23	19.11
Band	WCDMA Band II (Receiver ON)		
Channel	4132	4183	4233
Frequency(MHz)	826.4	836.6	846.6
RMC 12.2k	19.11	18.90	18.79
HSDPA Subtest-1	18.45	18.28	18.10
HSDPA Subtest-2	18.43	18.23	18.09
HSDPA Subtest-3	18.41	18.24	18.07
HSDPA Subtest-4	18.42	18.26	18.06
HSUPA Subtest-1	18.32	18.22	18.06
HSUPA Subtest-2	18.29	18.21	18.03
HSUPA Subtest-3	18.27	18.21	18.04
HSUPA Subtest-4	18.26	18.2	18.04
HSUPA Subtest-5	18.27	18.2	18.05
Band	WCDMA Band II (Hotspot ON)		
Channel	4132	4183	4233

Frequency(MHz)	826.4	836.6	846.6
RMC 12.2k	21.14	20.98	20.86
HSDPA Subtest-1	20.39	20.25	20.15
HSDPA Subtest-2	20.35	20.22	20.13
HSDPA Subtest-3	20.34	20.23	20.12
HSDPA Subtest-4	20.34	20.21	20.13
HSUPA Subtest-1	20.42	20.21	20.1
HSUPA Subtest-2	20.39	20.19	20.07
HSUPA Subtest-3	20.37	20.17	20.08
HSUPA Subtest-4	20.38	20.18	20.09
HSUPA Subtest-5	20.39	20.19	20.07

Conducted Average power (dBm)			
Band	WCDMA Band IV (Sar sensor)		
Channel	1312	1412	1513
Frequency(MHz)	1712.4	1732.4	1752.6
RMC 12.2k	19.01	19.29	19.54
HSDPA Subtest-1	19.03	19.06	19.13
HSDPA Subtest-2	19.02	19.04	19.09
HSDPA Subtest-3	19.02	19.05	19.11
HSDPA Subtest-4	19.01	19.03	19.1
HSUPA Subtest-1	19.03	19.07	19.09
HSUPA Subtest-2	19.01	19.05	19.05
HSUPA Subtest-3	19.01	19.03	19.03
HSUPA Subtest-4	19	19.04	19.04
HSUPA Subtest-5	19.02	19.03	19.04
Band	WCDMA Band IV (Receiver ON)		
Channel	1312	1412	1513
Frequency(MHz)	1712.4	1732.4	1752.6
RMC 12.2k	17.97	18.28	18.53

HSDPA Subtest-1	18.16	18.14	18.21
HSDPA Subtest-2	18.13	18.13	18.19
HSDPA Subtest-3	18.14	18.11	18.16
HSDPA Subtest-4	18.13	18.12	18.17
HSUPA Subtest-1	18.02	18.06	18.11
HSUPA Subtest-2	18.01	18.02	18.09
HSUPA Subtest-3	18.01	18.03	18.07
HSUPA Subtest-4	18.00	18.01	18.06
HSUPA Subtest-5	18.00	18.02	18.07
Band	WCDMA Band IV (Hotspot ON)		
Channel	1312	1412	1513
Frequency(MHz)	1712.4	1732.4	1752.6
RMC 12.2k	20.05	20.34	20.59
HSDPA Subtest-1	20.07	20.14	20.18
HSDPA Subtest-2	20.02	20.12	20.16
HSDPA Subtest-3	20.01	20.13	20.13
HSDPA Subtest-4	20.05	20.11	20.15
HSUPA Subtest-1	20.07	20.10	20.18
HSUPA Subtest-2	20.06	20.08	20.13
HSUPA Subtest-3	20.04	20.06	20.15
HSUPA Subtest-4	20.04	20.07	20.16
HSUPA Subtest-5	20.05	20.08	20.17

APPENDIX B

Peak-to-average Ratio (PAR) of Transmitter

PCS1900				
Test Mode	Channel	Frequency (MHz)	PAR (dB)	Limit (dB)
GSM	661	1850.2	5.13	13
GPRS(1 Slot)	661	1850.2	5.62	13
EDGE(1 Slot)	661	1850.2	4.98	13

WCDMA Band IV				
Test Mode	Channel	Frequency (MHz)	PAR (dB)	Limit (dB)
WCDMA	1312	1712.4	4.65	13
	1412	1733.4	4.92	13
	1513	1752.6	4.05	13

WCDMA Band II				
Test Mode	Channel	Frequency (MHz)	PAR (dB)	Limit (dB)
WCDMA	9262	1852.4	5.98	13
	9400	1880.0	5.01	13
	9538	1907.6	4.65	13

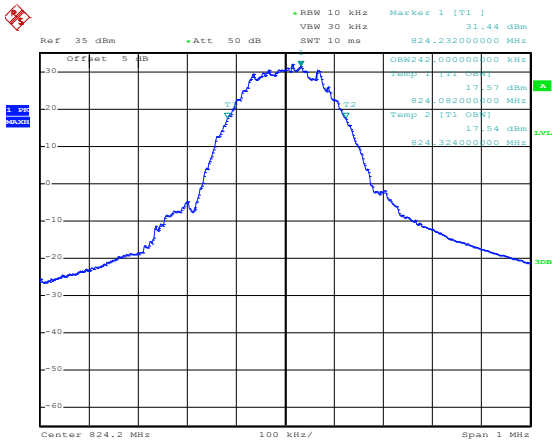
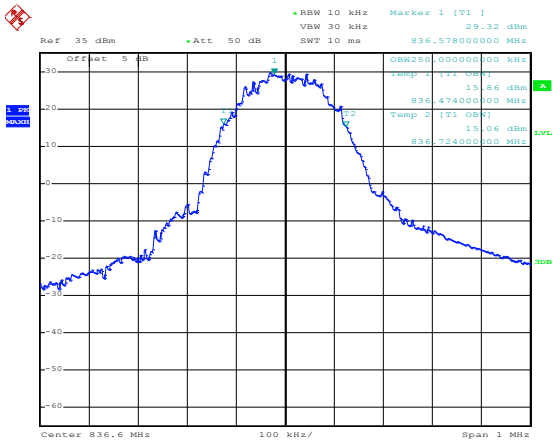
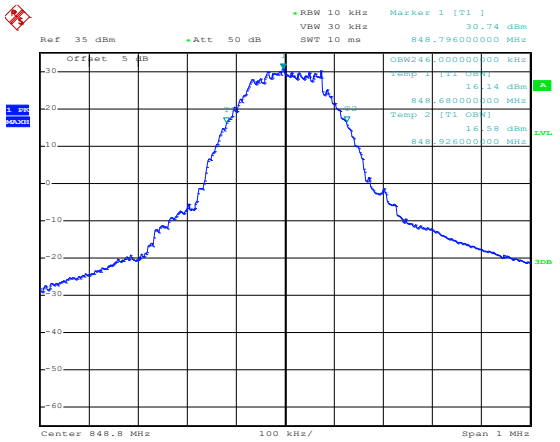
Note: Only the worst case was selected to record.

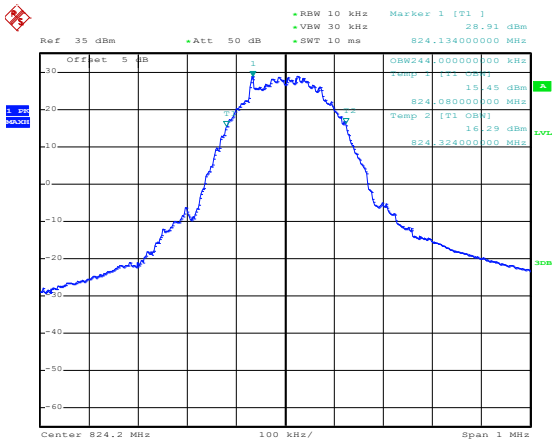
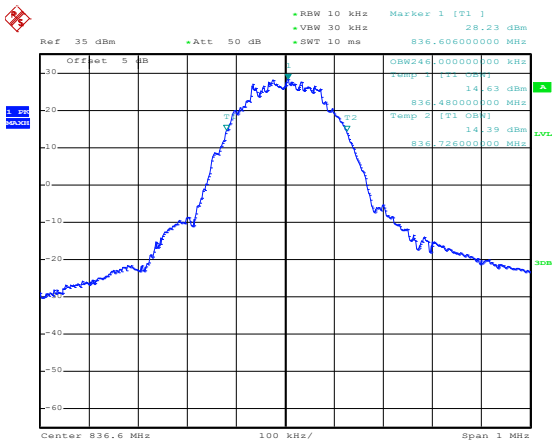
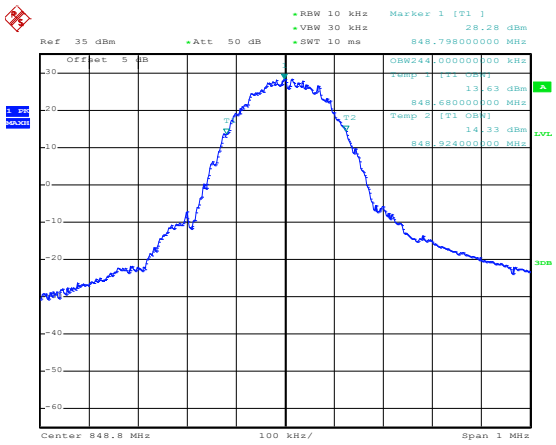
APPENDIX C

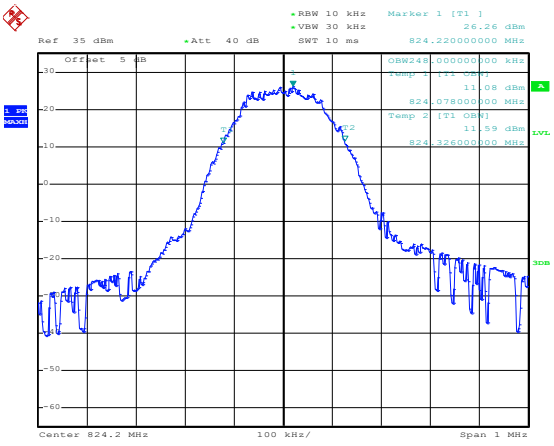
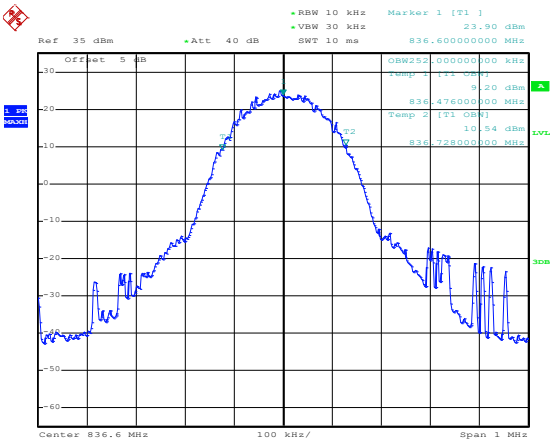
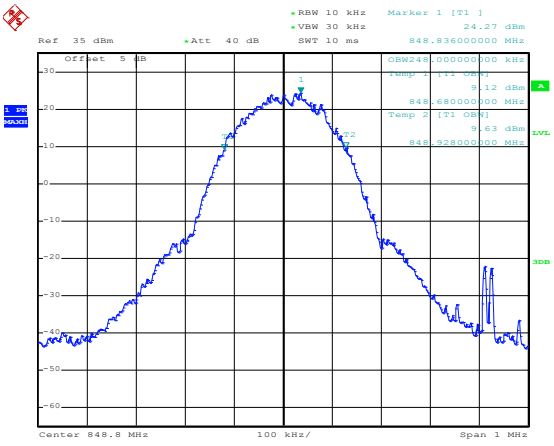
EUT Mode	Channel	Frequency (MHz)	99% Occupy bandwidth (kHz)	-26dB bandwidth (kHz)
GSM 850 (GMSK)	128	824.20	242.00	322.00
	190	836.60	250.00	318.00
	251	848.80	246.00	320.00
GPRS850 (GMSK,1Slot)	128	824.20	244.00	326.00
	190	836.60	246.00	326.00
	251	848.80	244.00	320.00
EGPRS850 (8PSK,1Slot)	128	824.20	248.00	326.00
	190	836.60	252.00	322.00
	251	848.80	248.00	324.00
PCS1900 (GMSK)	512	1850.20	246.00	326.00
	661	1880.00	246.00	316.00
	810	1909.80	248.00	322.00
GPRS1900 (GMSK,1Slot)	512	1850.20	246.00	322.00
	661	1880.00	246.00	318.00
	810	1909.80	244.00	324.00
EGPRS1900 (8PSK,1Slot)	512	1850.20	270.00	360.00
	661	1880.00	268.00	360.00
	810	1909.80	270.00	370.00

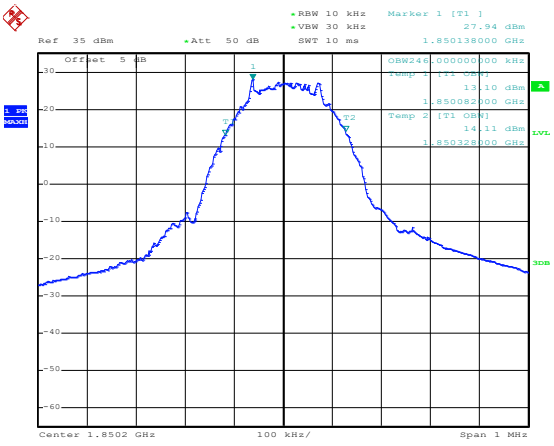
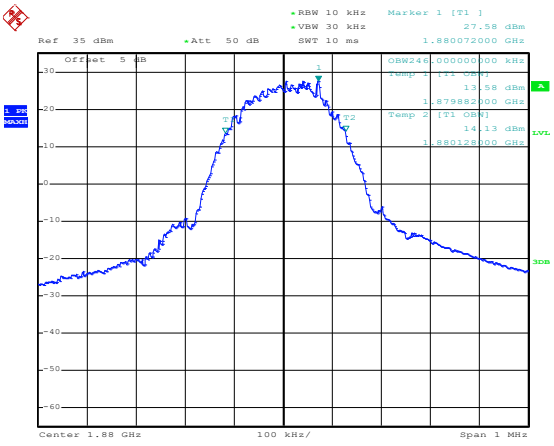
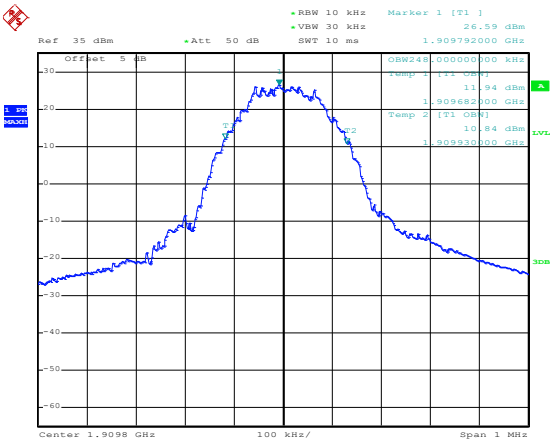
EUT Mode	Channel	Frequency (MHz)	99% Occupy bandwidth (kHz)	-26dB bandwidth (kHz)
WCDMA Band V	4132	826.40	4180.0	4720.0
	4183	836.60	4160.0	4720.0
	4233	846.60	4160.0	4700.0
HSDPA	4132	826.40	4180.0	4720.0
	4183	836.60	4180.0	4720.0
	4233	846.60	4160.0	4720.0
HSUPA	4132	826.40	4160.0	4700.0
	4183	836.60	4160.0	4720.0
	4233	846.60	4180.0	4720.0
WCDMA Band II	9262	1852.40	4160.0	4720.0
	9400	1880.00	4160.0	4720.0
	9538	1907.60	4160.0	4720.0
HSDPA	9262	1852.40	4160.0	4720.0
	9400	1880.00	4140.0	4700.0
	9538	1907.60	4160.0	4720.0
HSUPA	9262	1852.40	4160.0	4720.0
	9400	1880.00	4180.0	4720.0
	9538	1907.60	4180.0	4700.0
WCDMA Band IV	1312	1712.4	4160.0	4720.0
	1412	1733.4	4160.0	4720.0
	1513	1752.6	4160.0	4680.0
HSDPA	1312	1712.4	4160.0	4720.0
	1412	1733.4	4160.0	4720.0
	1513	1752.6	4160.0	4680.0
HSUPA	1312	1712.4	4160.0	4680.0
	1412	1733.4	4160.0	4700.0
	1513	1752.6	4160.0	4720.0

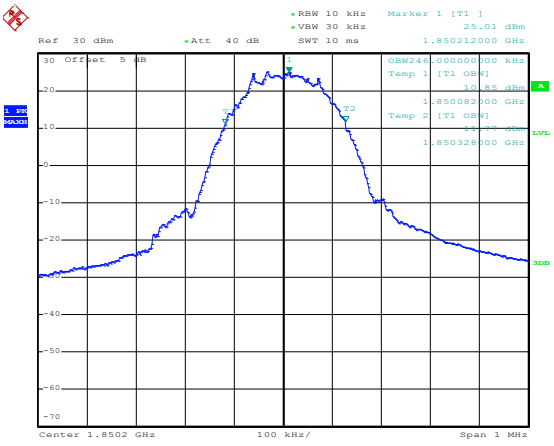
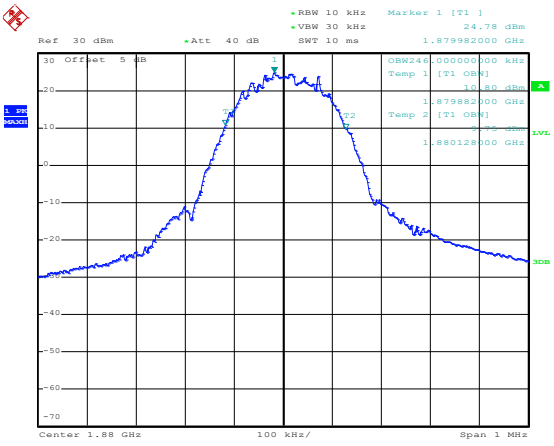
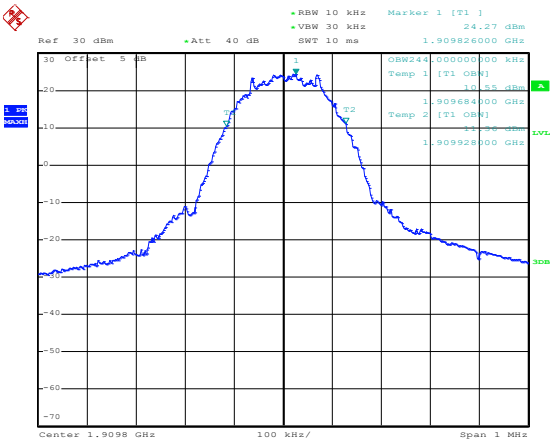
99% Occupy bandwidth

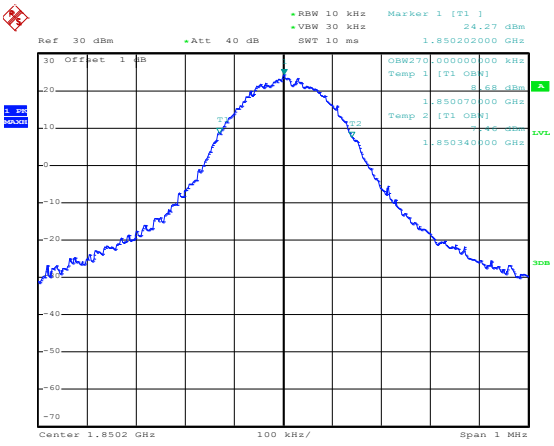
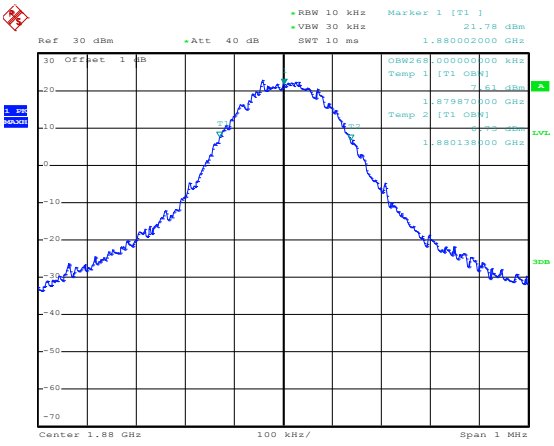
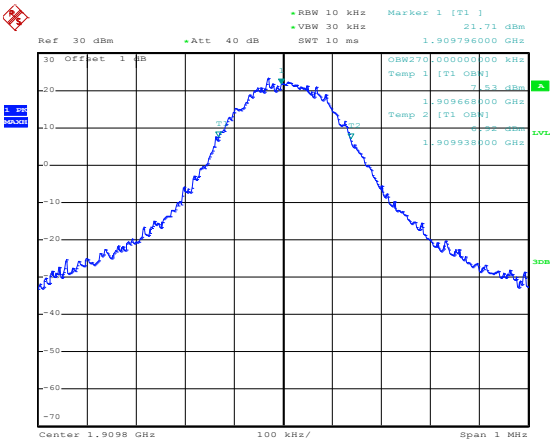
GSM 850 (GMSK)-Low	
GSM 850 (GMSK)-Middle	
GSM 850 (GMSK)-High	

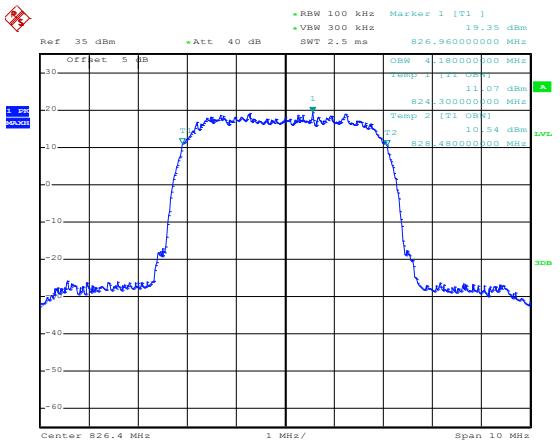
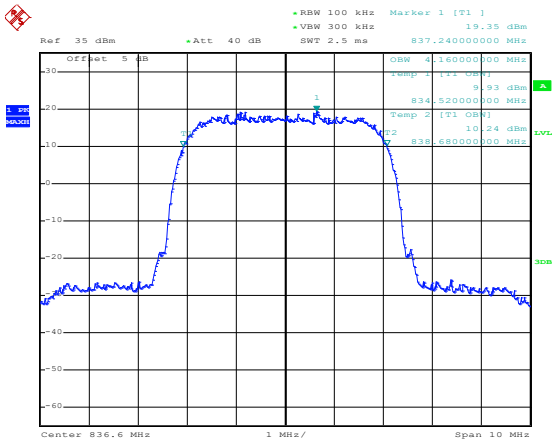
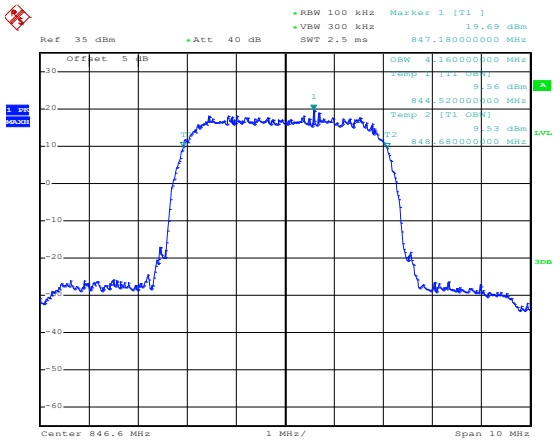
GPRS850 (GMSK,1Slot)-Low	
GPRS850 (GMSK,1Slot)-Middle	
GPRS850 (GMSK,1Slot)-High	

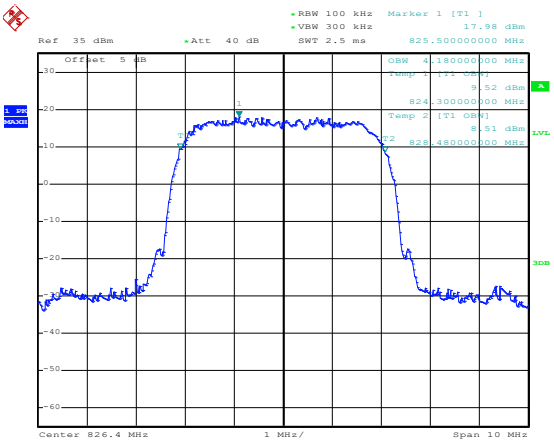
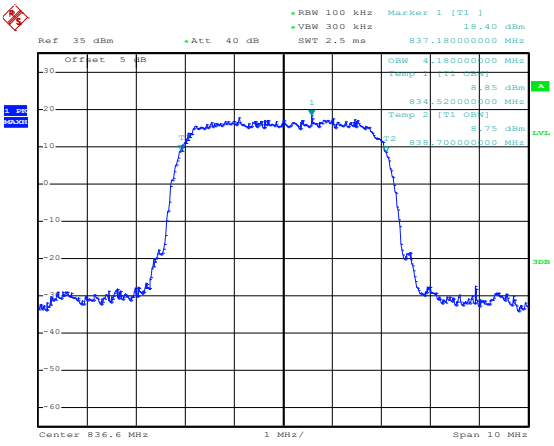
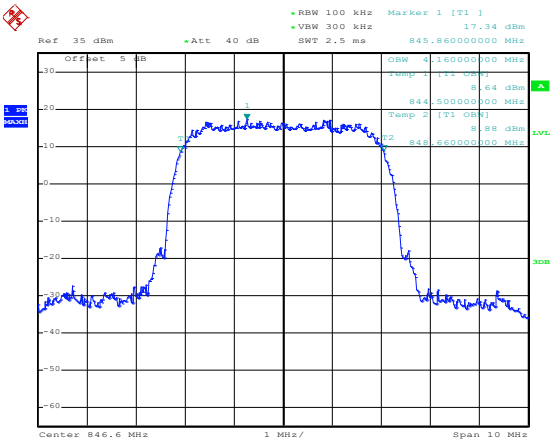
EGPRS850 (8PSK,1Slot)-Low	 Date: 10.AUG.2022 11:05:28
EGPRS850 (8PSK,1Slot)-Middle	 Date: 10.AUG.2022 11:06:47
EGPRS850 (8PSK,1Slot)-High	 Date: 10.AUG.2022 11:07:14

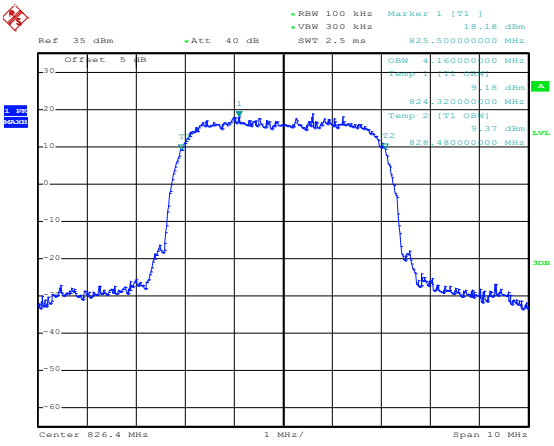
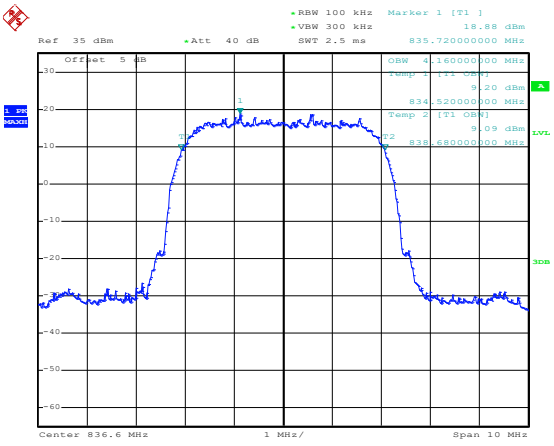
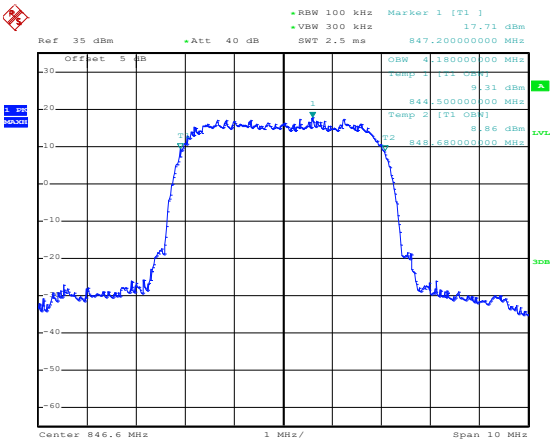
PCS1900 (GMSK)-Low	 Date: 9.AUG.2022 18:20:08
PCS1900 (GMSK)-Middle	 Date: 9.AUG.2022 18:20:53
PCS1900 (GMSK)-High	 Date: 9.AUG.2022 18:21:29

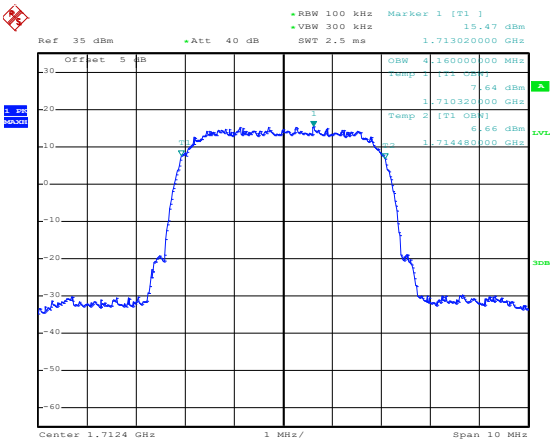
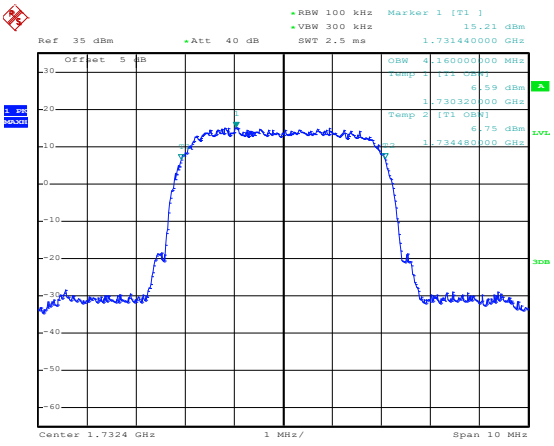
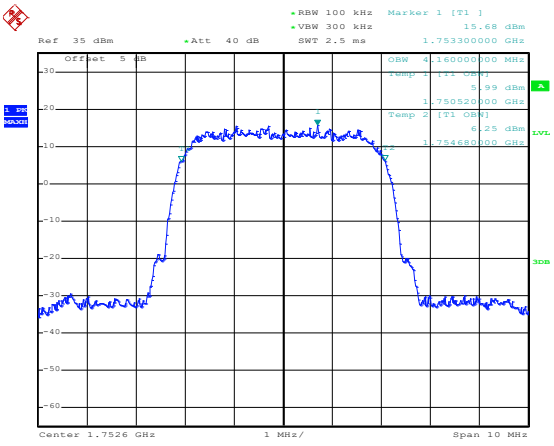
GPRS1900 (GMSK,1Slot)-Low	 Date: 9.AUG.2022 20:12:23
GPRS1900 (GMSK,1Slot)-Middle	 Date: 9.AUG.2022 20:13:04
GPRS1900 (GMSK,1Slot)-High	 Date: 9.AUG.2022 20:13:46

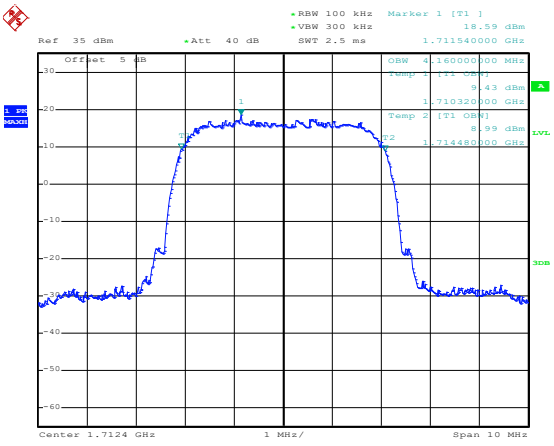
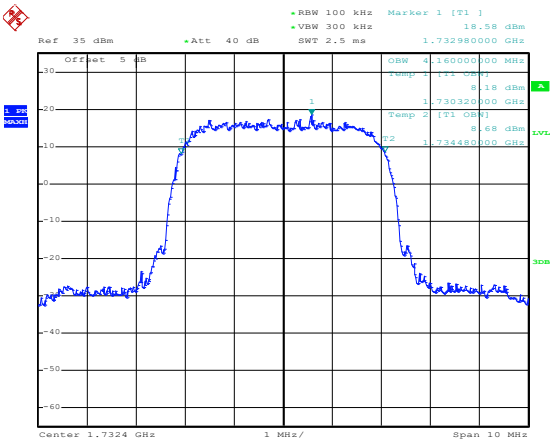
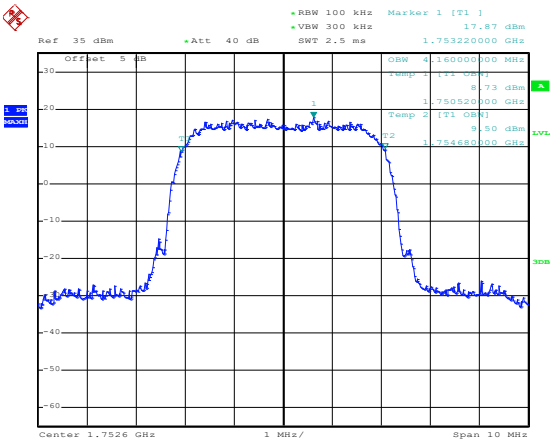
EGPRS1900 (8PSK,1Slot)-Low	 Date: 10.AUG.2022 13:08:31
EGPRS1900 (8PSK,1Slot)-Middle	 Date: 10.AUG.2022 13:09:05
EGPRS1900 (8PSK,1Slot)-High	 Date: 10.AUG.2022 13:09:41

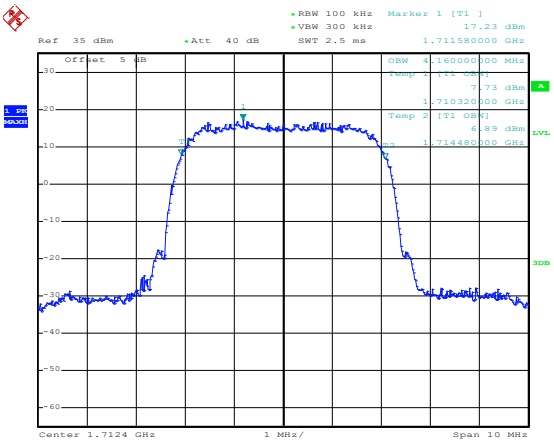
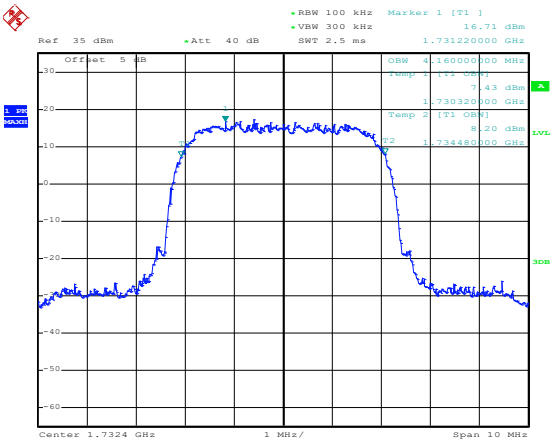
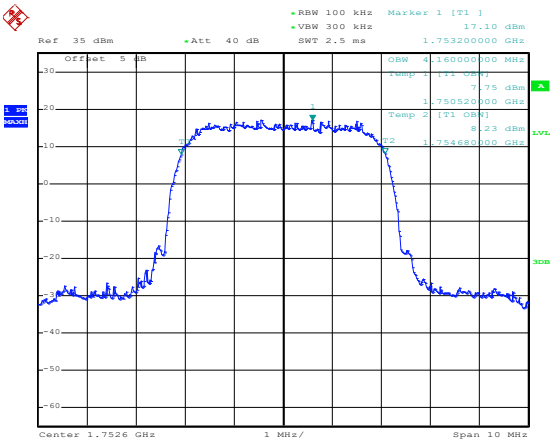
WCDMA Band V-Low	 Date: 1.SEP.2022 15:39:13
WCDMA Band V-Middle	 Date: 1.SEP.2022 15:39:57
WCDMA Band V-High	 Date: 1.SEP.2022 15:40:29

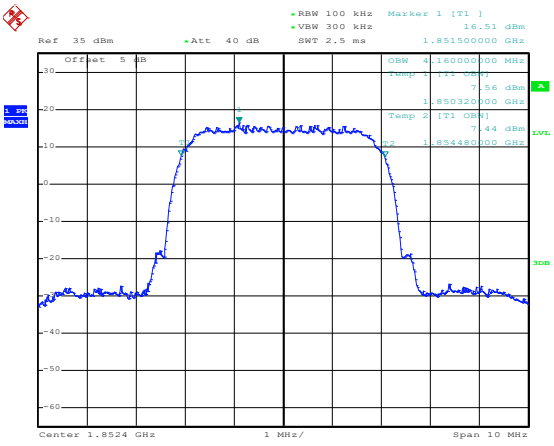
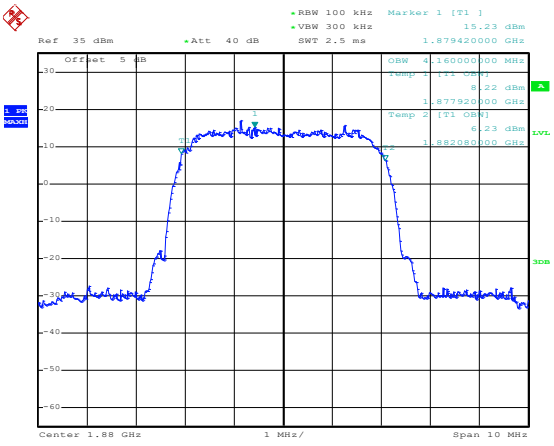
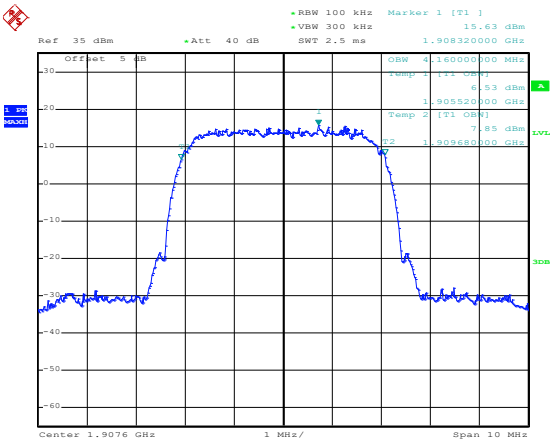
HSDPA-Low	
HSDPA-Middle	
HSDPA-High	

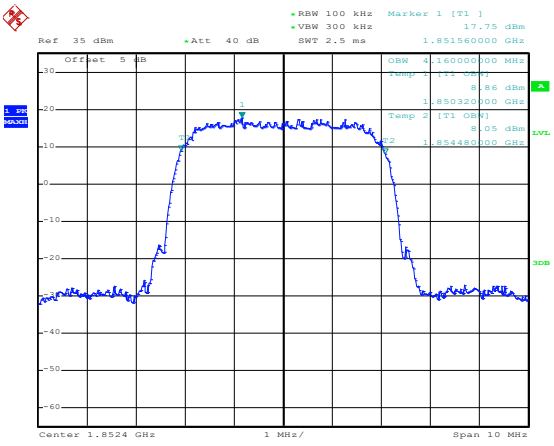
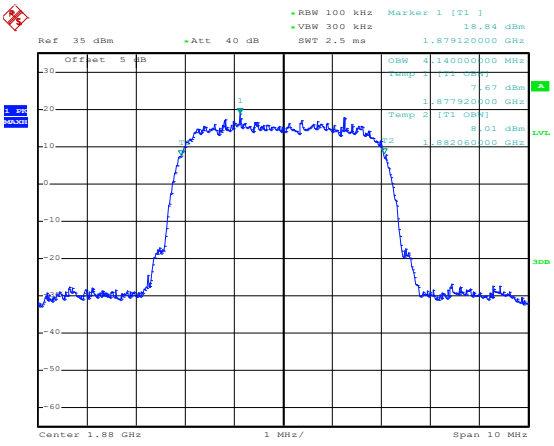
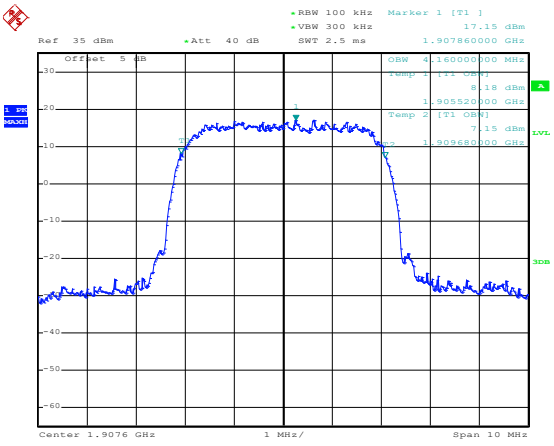
HSUPA-Low	
HSUPA-Middle	
HSUPA-High	

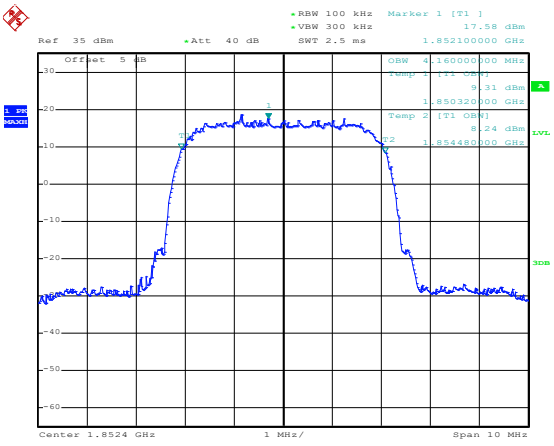
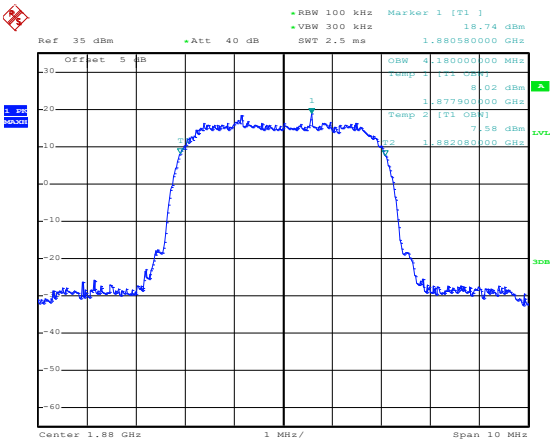
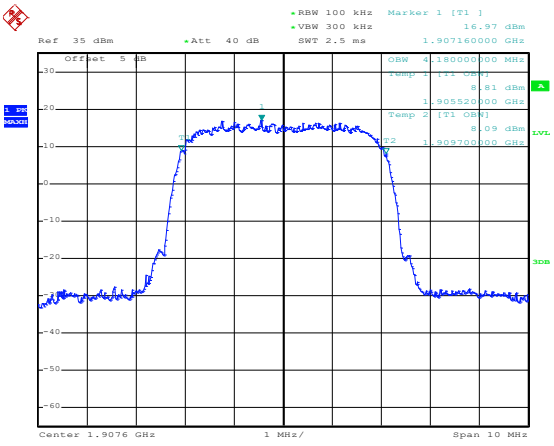
WCDMA Band IV-Low	 Date: 1.SEP.2022 17:27:07
WCDMA Band IV-Middle	 Date: 1.SEP.2022 17:27:55
WCDMA Band IV-High	 Date: 1.SEP.2022 17:28:19

HSDPA-Low	
HSDPA-Middle	
HSDPA-High	

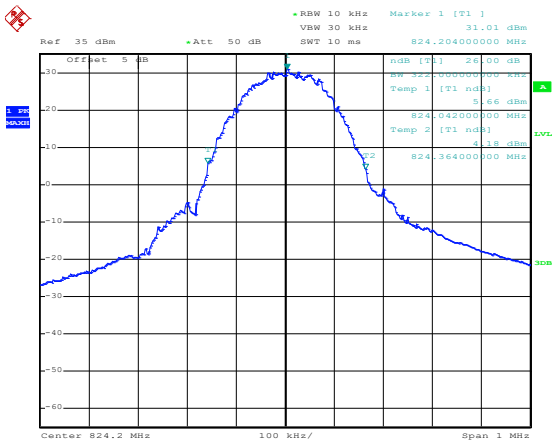
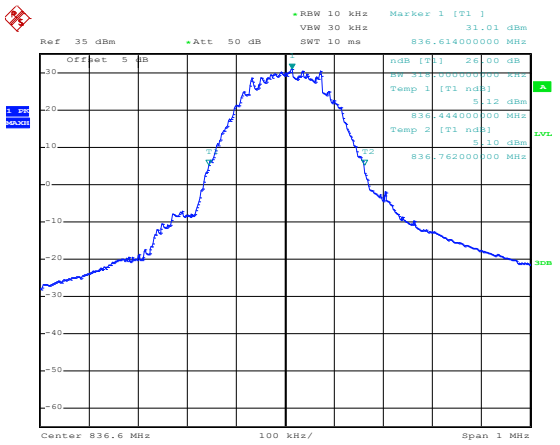
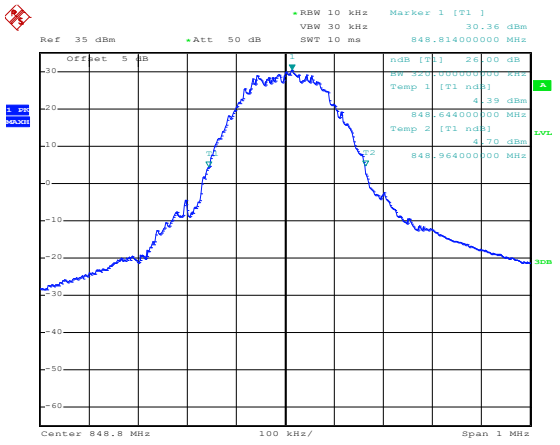
HSUPA-Low	
HSUPA-Middle	
HSUPA-High	

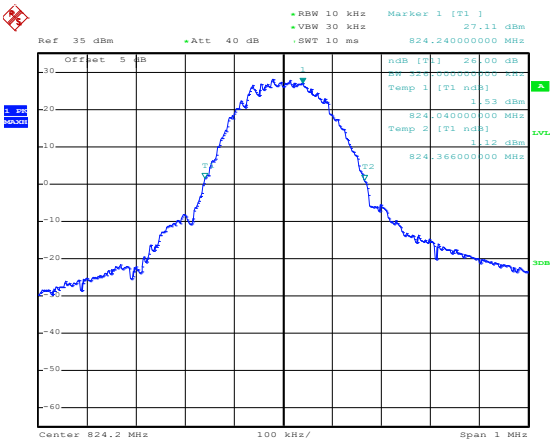
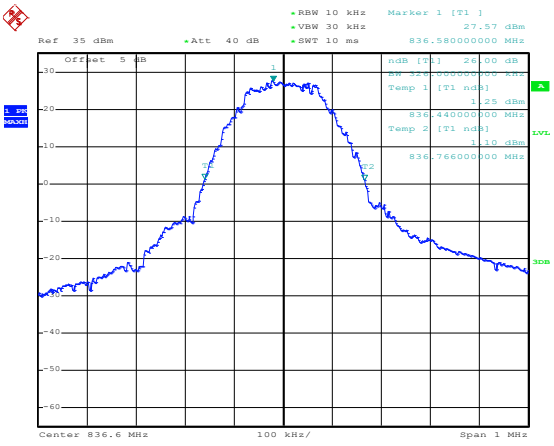
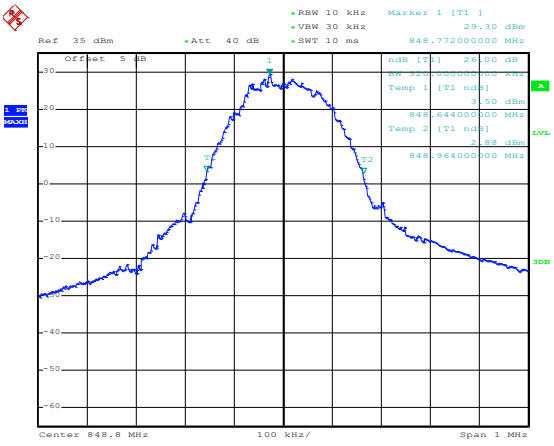
WCDMA Band II-Low	 Date: 1.SEP.2022 14:04:51
WCDMA Band II-Middle	 Date: 1.SEP.2022 14:05:39
WCDMA Band II-High	 Date: 1.SEP.2022 14:06:16

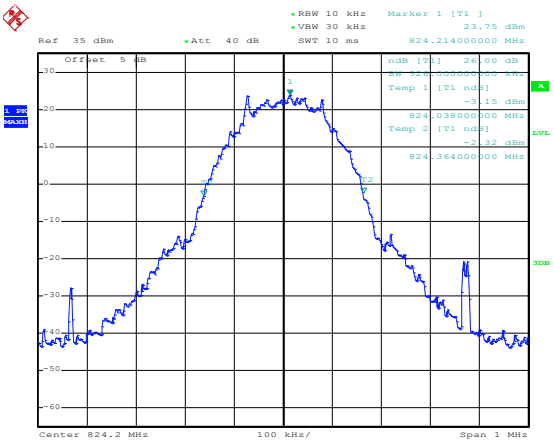
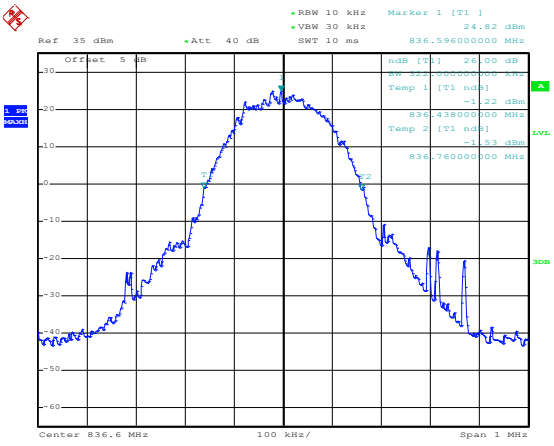
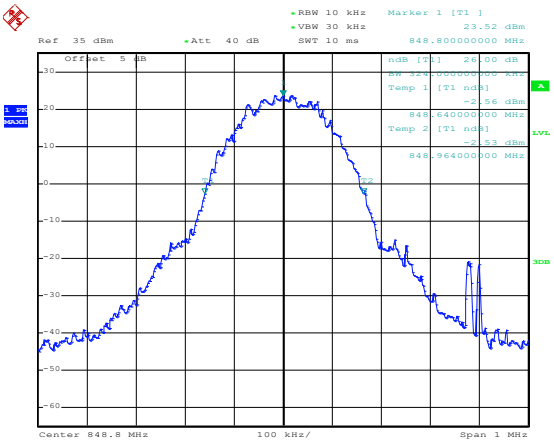
HSDPA-Low	 Date: 1.SEP.2022 14:28:16
HSDPA-Middle	 Date: 1.SEP.2022 14:29:05
HSDPA-High	 Date: 1.SEP.2022 14:29:40

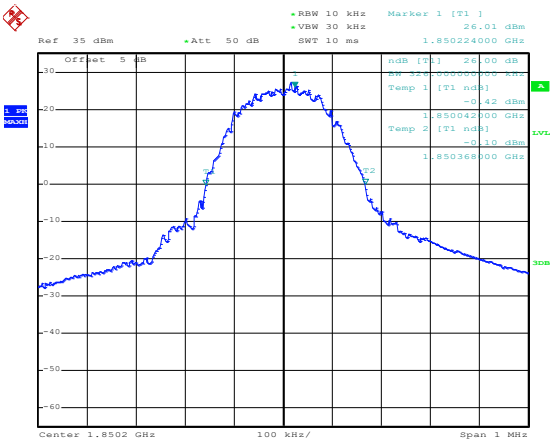
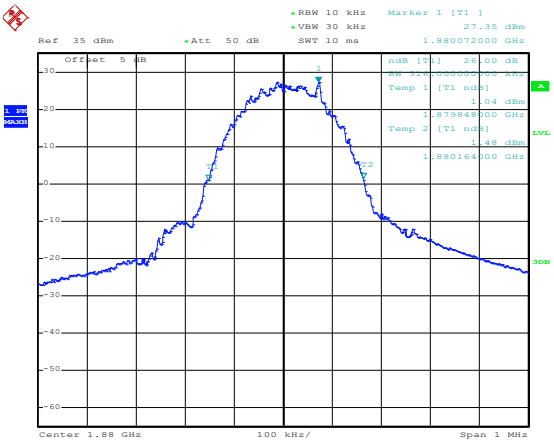
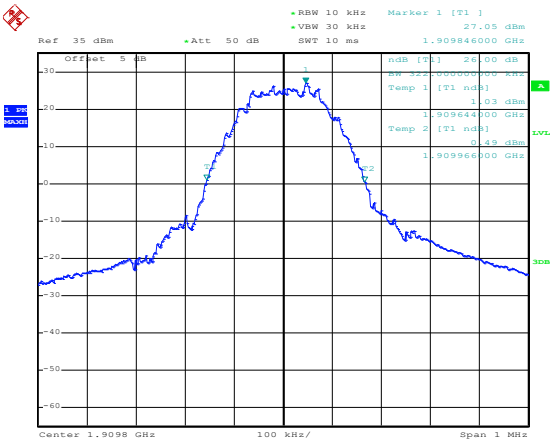
HSUPA-Low	 Date: 1.SEP.2022 15:05:17
HSUPA-Middle	 Date: 1.SEP.2022 15:06:06
HSUPA-High	 Date: 1.SEP.2022 15:06:41

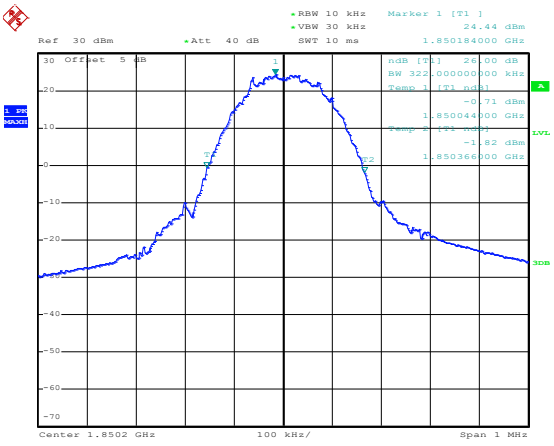
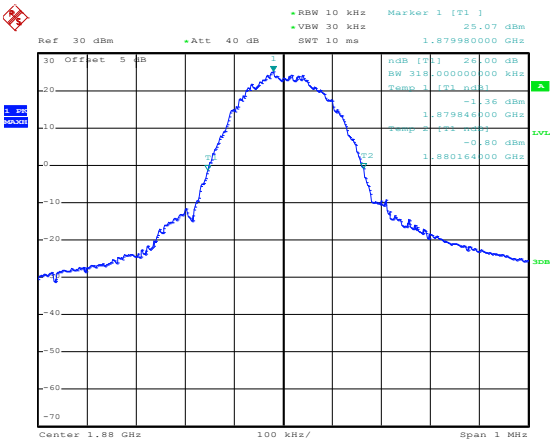
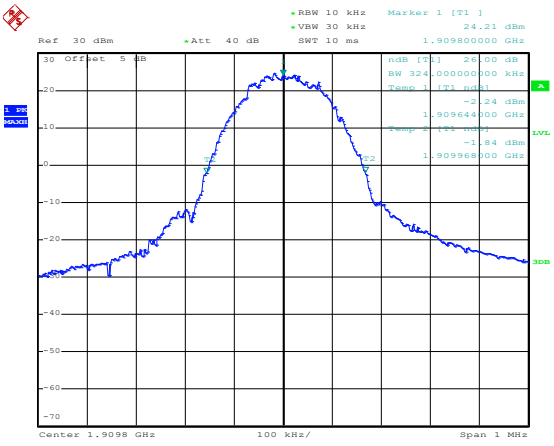
-26dB bandwidth

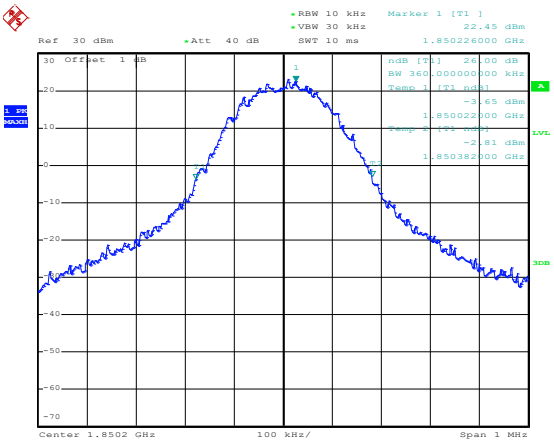
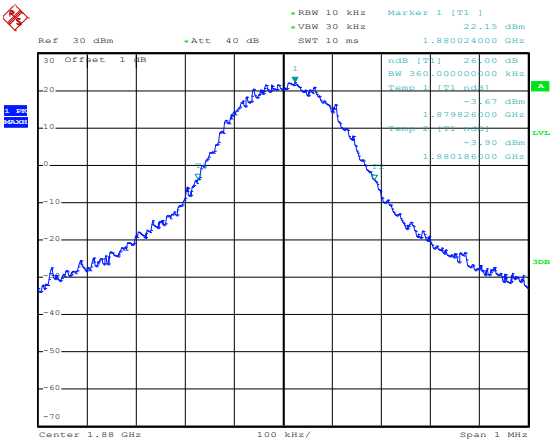
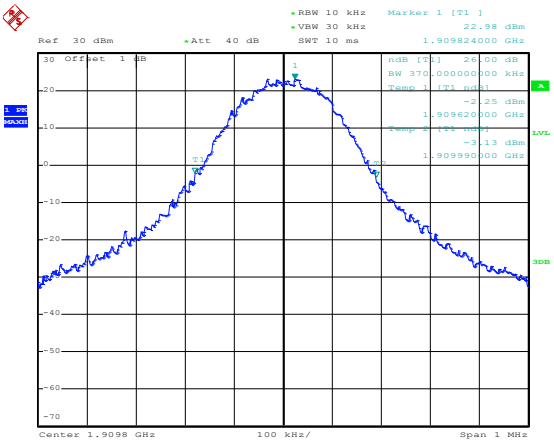
GSM 850 (GMSK)-Low	
GSM 850 (GMSK)-Middle	
GSM 850 (GMSK)-High	

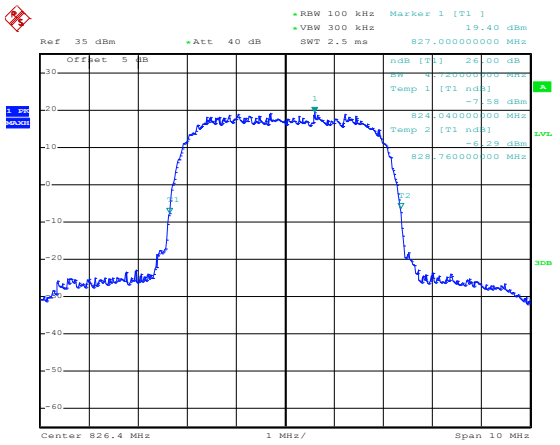
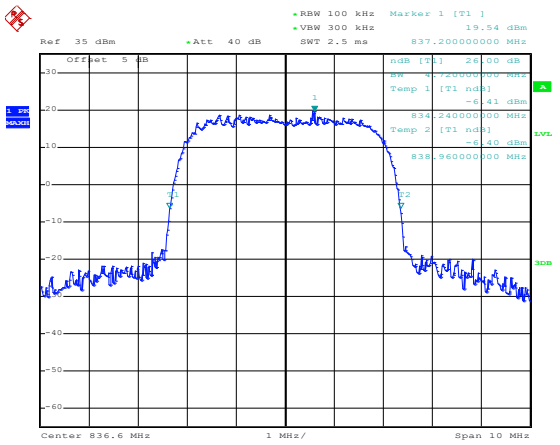
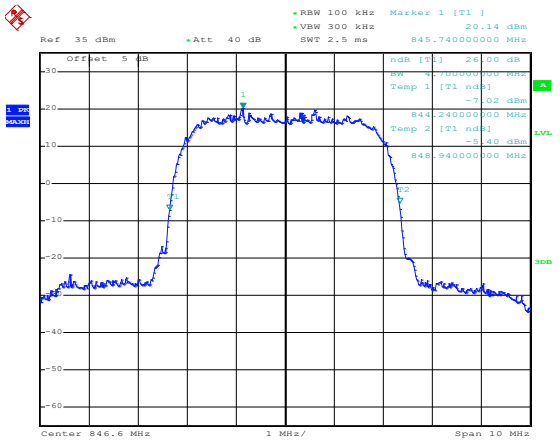
GPRS850 (GMSK,1Slot)-Low	 Date: 9.AUG.2022 17:52:41
GPRS850 (GMSK,1Slot)-Middle	 Date: 9.AUG.2022 17:53:09
GPRS850 (GMSK,1Slot)-High	 Date: 9.AUG.2022 17:53:39

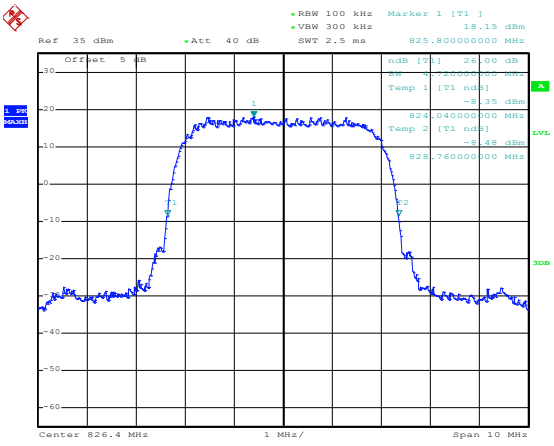
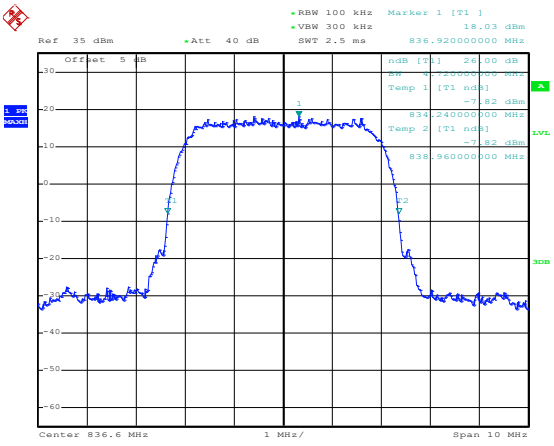
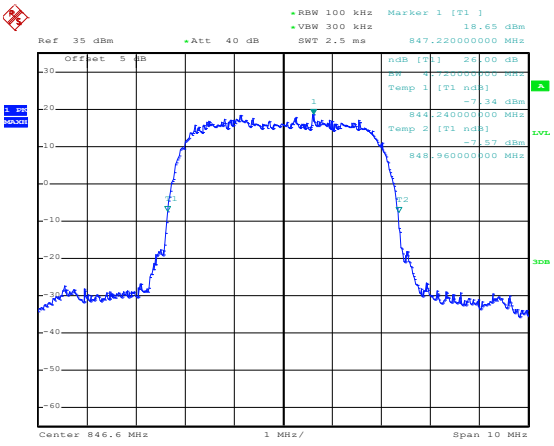
EGPRS850 (8PSK,1Slot)-Low	 Date: 10.AUG.2022 11:09:01
EGPRS850 (8PSK,1Slot)-Middle	 Date: 10.AUG.2022 11:08:37
EGPRS850 (8PSK,1Slot)-High	 Date: 10.AUG.2022 11:08:15

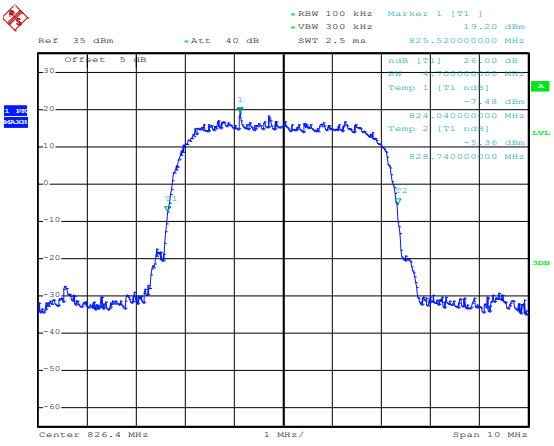
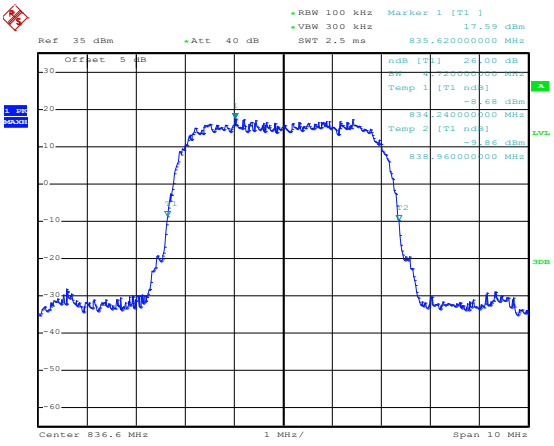
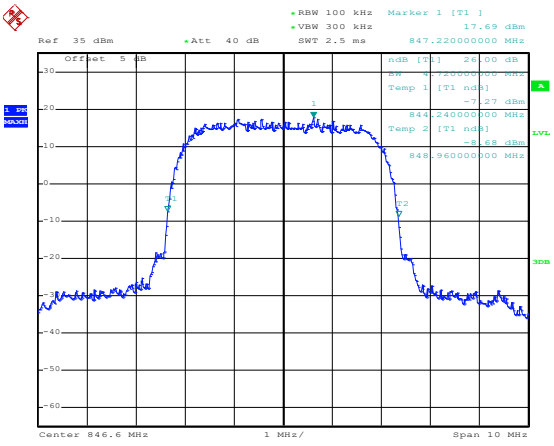
PCS1900 (GMSK)-Low	 Date: 9.AUG.2022 18:23:12
PCS1900 (GMSK)-Middle	 Date: 9.AUG.2022 18:23:50
PCS1900 (GMSK)-High	 Date: 9.AUG.2022 18:24:25

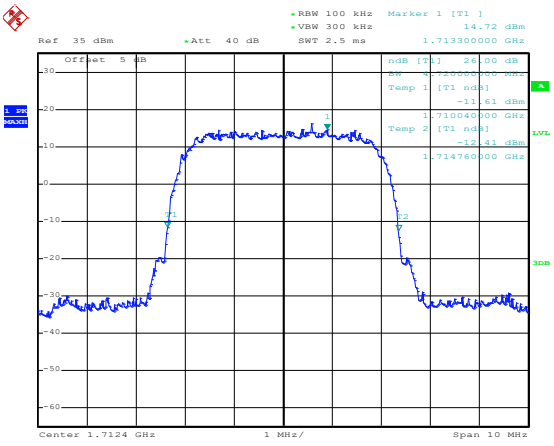
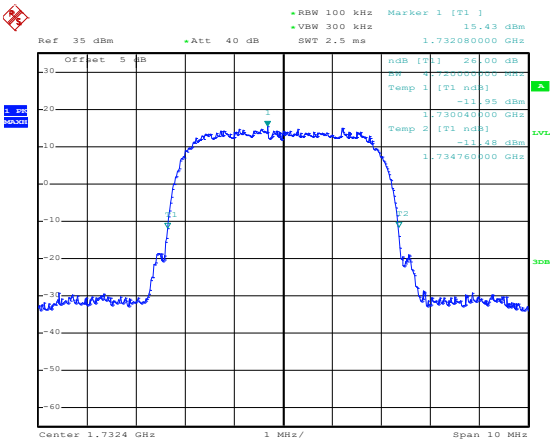
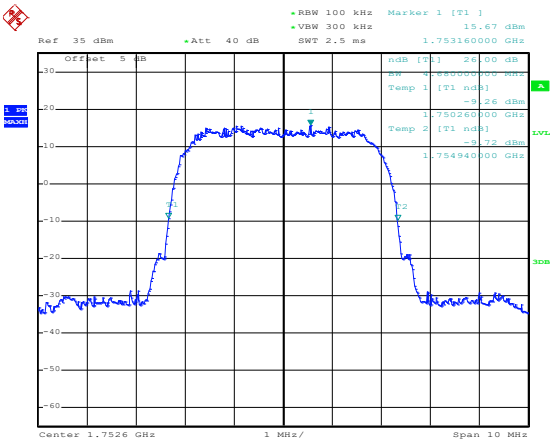
GPRS1900 (GMSK,1Slot)-Low	 Date: 9.AUG.2022 20:15:29
GPRS1900 (GMSK,1Slot)-Middle	 Date: 9.AUG.2022 20:15:55
GPRS1900 (GMSK,1Slot)-High	 Date: 9.AUG.2022 20:16:29

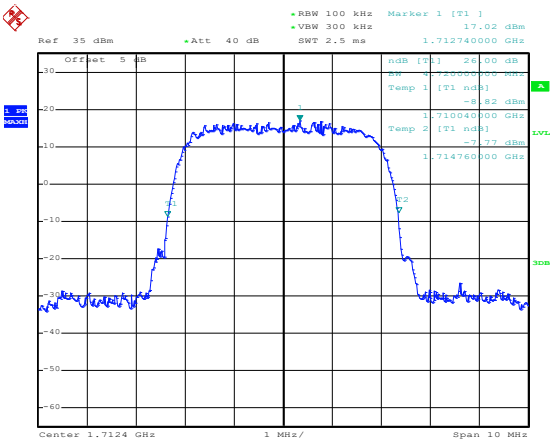
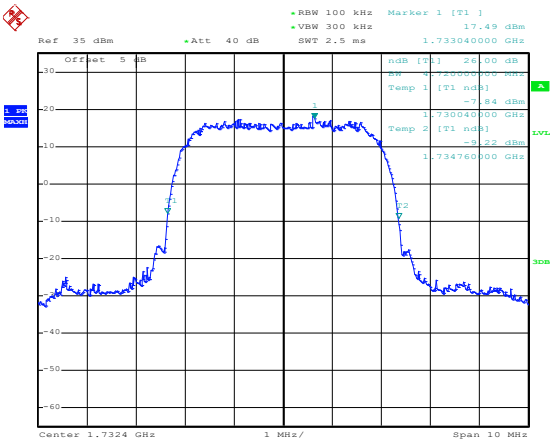
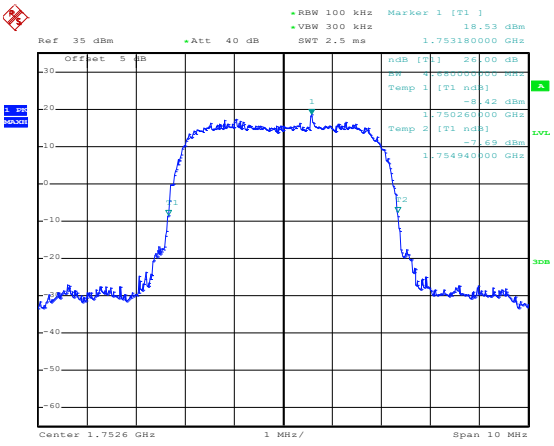
EGPRS1900 (8PSK,1Slot)-Low	 Date: 10.AUG.2022 13:11:59
EGPRS1900 (8PSK,1Slot)-Middle	 Date: 10.AUG.2022 13:11:24
EGPRS1900 (8PSK,1Slot)-High	 Date: 10.AUG.2022 13:10:49

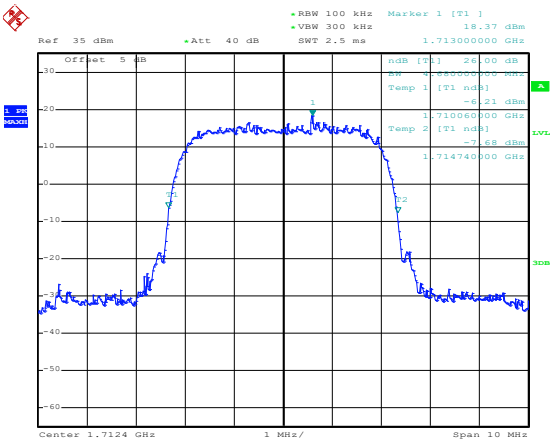
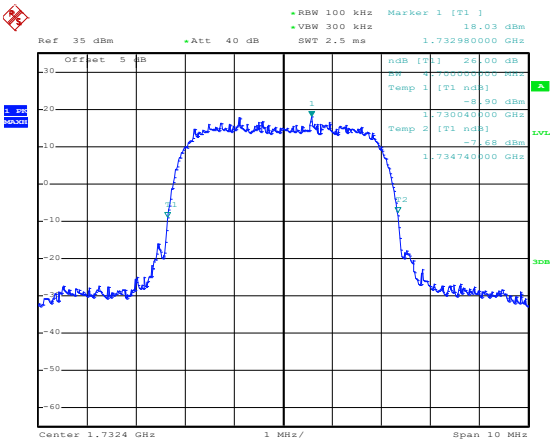
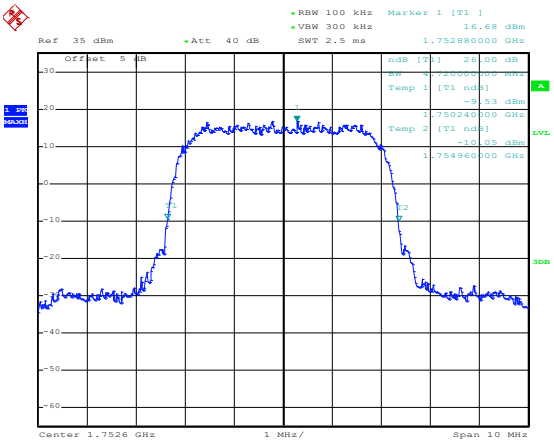
WCDMA Band V-Low	 Date: 1.SEP.2022 15:42:11
WCDMA Band V-Middle	 Date: 1.SEP.2022 15:41:46
WCDMA Band V-High	 Date: 1.SEP.2022 15:41:21

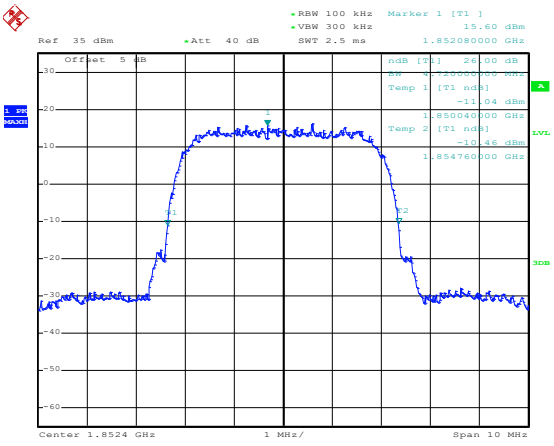
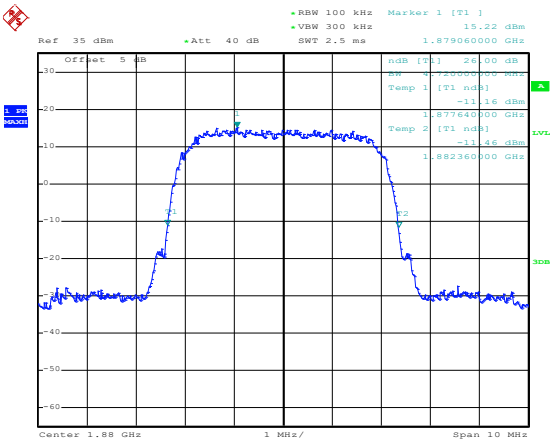
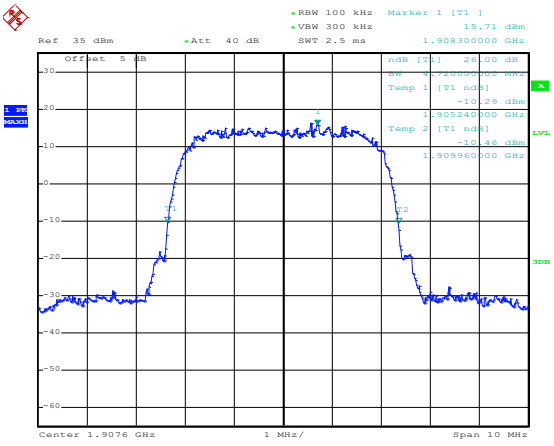
HSDPA-Low	 Date: 1.SEP.2022 16:01:18
HSDPA-Middle	 Date: 1.SEP.2022 16:00:34
HSDPA-High	 Date: 1.SEP.2022 15:57:50

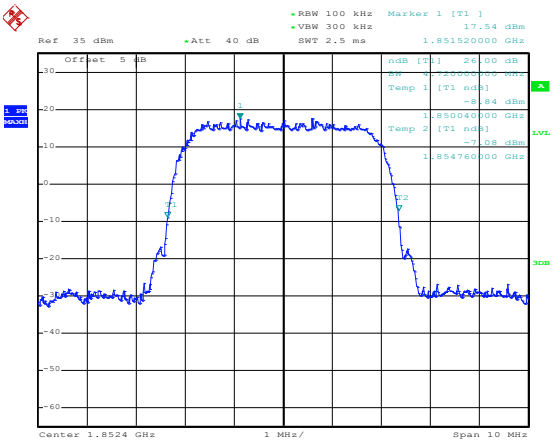
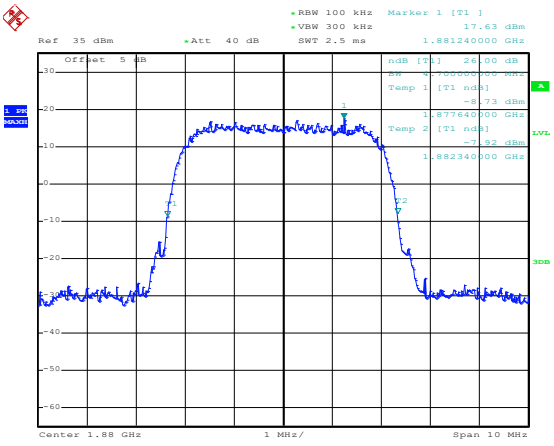
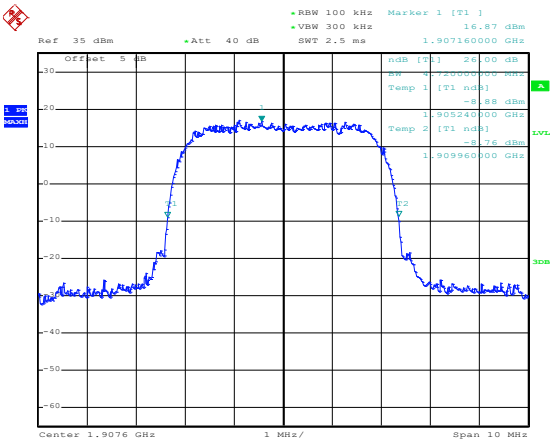
HSUPA-Low	 Date: 1.SEP.2022 16:28:42
HSUPA-Middle	 Date: 1.SEP.2022 16:28:22
HSUPA-High	 Date: 1.SEP.2022 16:27:56

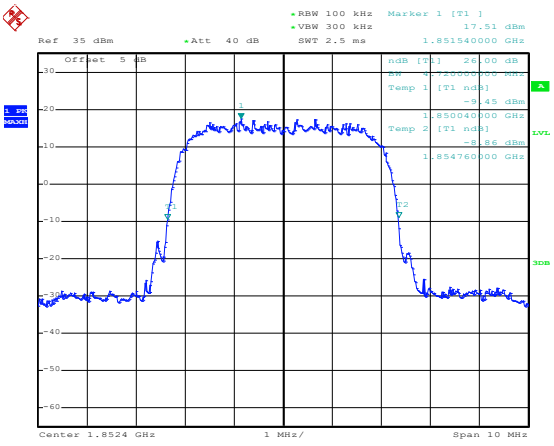
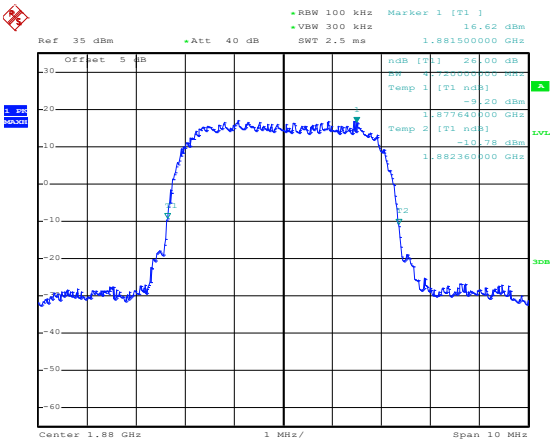
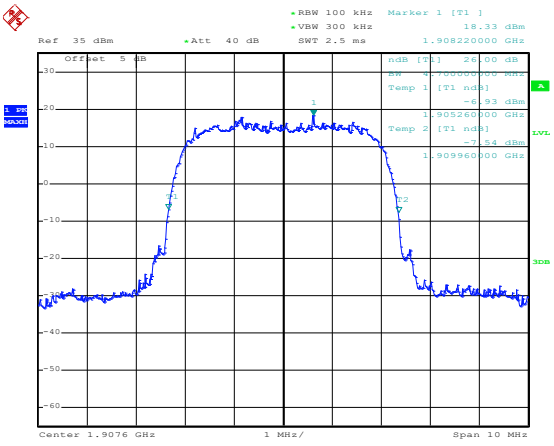
WCDMA Band IV-Low	 Date: 1.SEP.2022 17:29:28
WCDMA Band IV-Middle	 Date: 1.SEP.2022 17:29:04
WCDMA Band IV-High	 Date: 1.SEP.2022 17:28:43

HSDPA-Low	 Date: 2.SEP.2022 09:20:46
HSDPA-Middle	 Date: 2.SEP.2022 09:20:21
HSDPA-High	 Date: 2.SEP.2022 09:19:40

HSUPA-Low	 Date: 2.SEP.2022 09:41:24
HSUPA-Middle	 Date: 2.SEP.2022 09:41:04
HSUPA-High	 Date: 2.SEP.2022 09:40:38

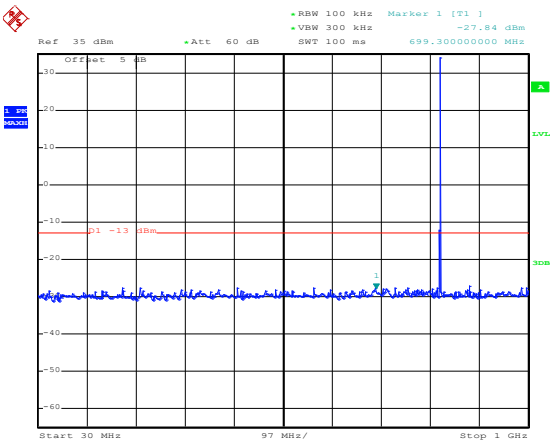
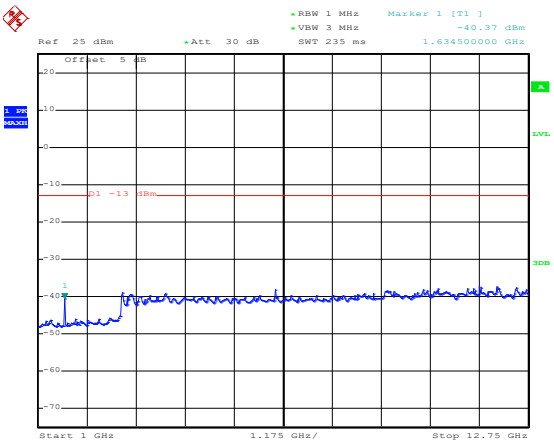
WCDMA Band II-Low	
WCDMA Band II-Middle	
WCDMA Band II-High	

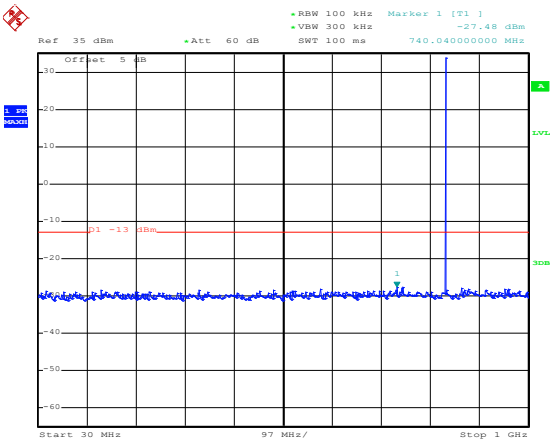
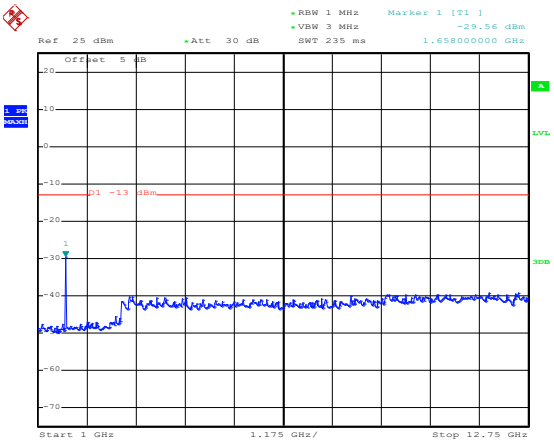
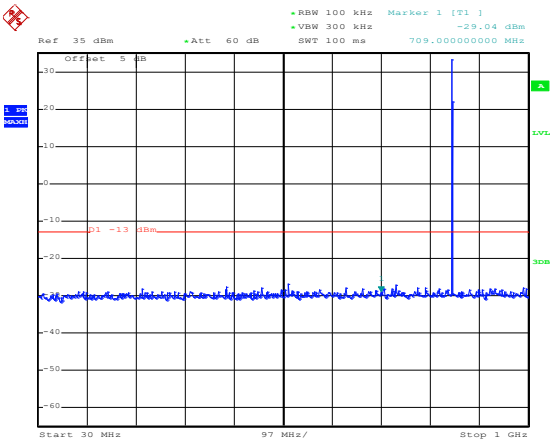
HSDPA-Low	 Date: 1.SEP.2022 14:31:25
HSDPA-Middle	 Date: 1.SEP.2022 14:30:59
HSDPA-High	 Date: 1.SEP.2022 14:30:35

HSUPA-Low	 Date: 1.SEP.2022 15:08:37
HSUPA-Middle	 Date: 1.SEP.2022 15:08:13
HSUPA-High	 Date: 1.SEP.2022 15:07:43

APPENDIX D

Out of Band Emissions at Antenna Terminal

GSM 850 (GMSK)-Low	
	

GSM 850 (GMSK)-Middle	 Date: 11.AUG.2022 16:28:41
	 Date: 9.AUG.2022 17:31:23
GSM 850 (GMSK)-High	 Date: 11.AUG.2022 16:29:04

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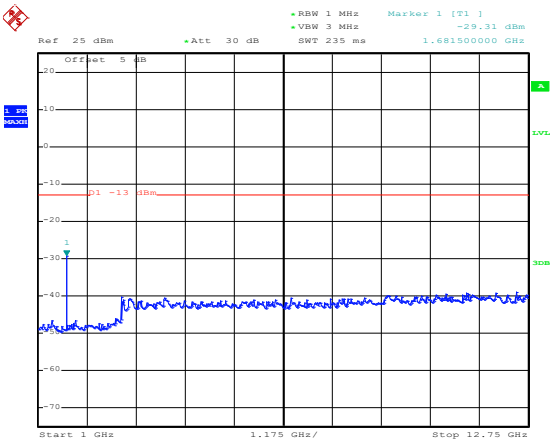
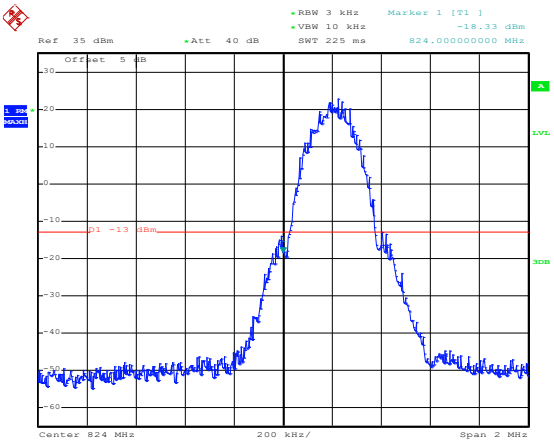
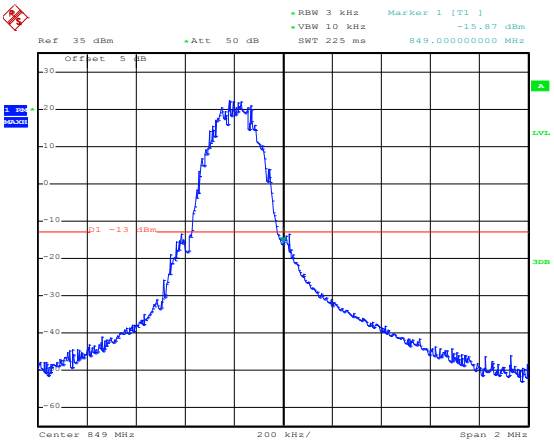
<tr><td></td><td> 

Date: 9.AUG.2022 17:40:42</td></tr>
<tr><td rowspan="2">Bandedge</td><td> 

Date: 2.SEP.2022 11:53:13</td></tr>
<tr><td> 

Date: 9.AUG.2022 19:08:20</td></tr>
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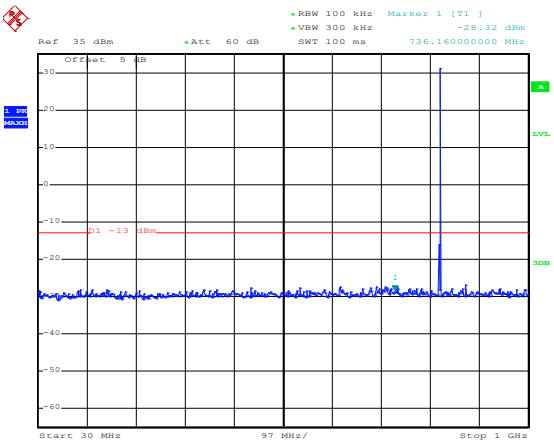
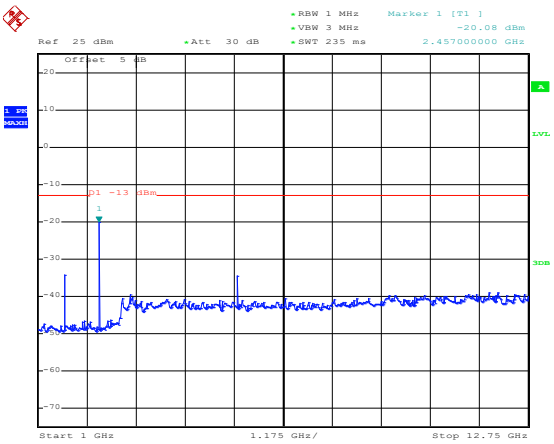
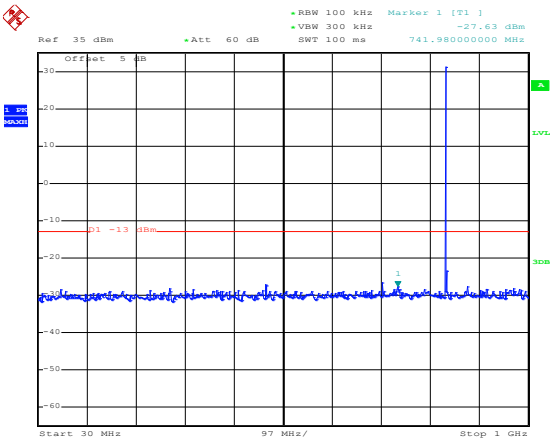
GPRS850 (GMSK,1Slot)-Low	 Date: 11.AUG.2022 16:40:21
	 Date: 9.AUG.2022 18:00:11
GPRS850 (GMSK,1Slot)-Middle	 Date: 11.AUG.2022 16:40:40

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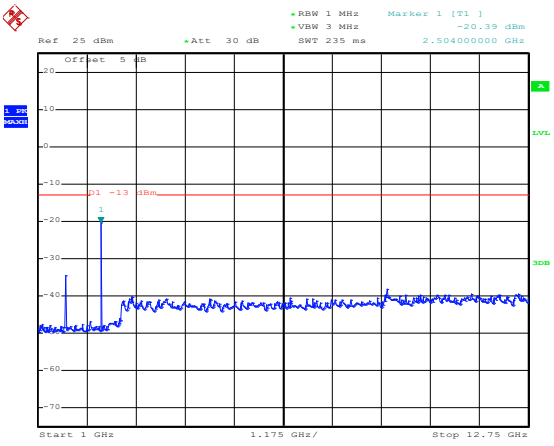
<tr><td></td><td> 

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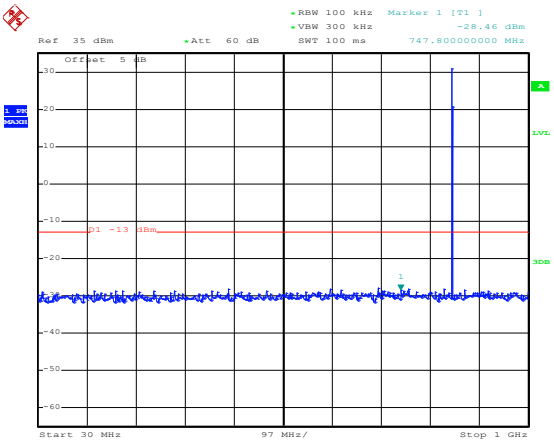
(GMSK)-High</td><td> 

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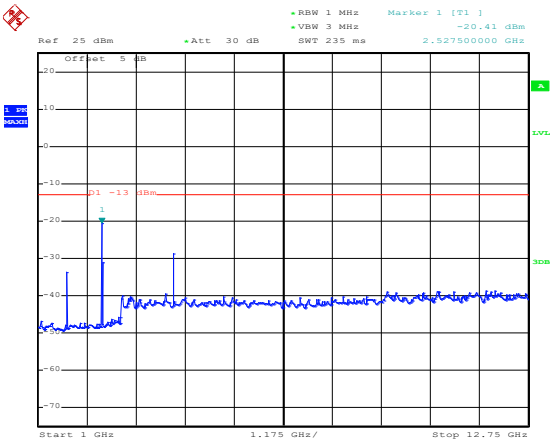
<tr><td> 

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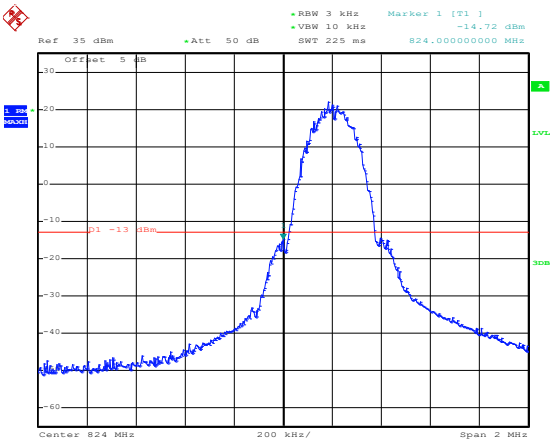
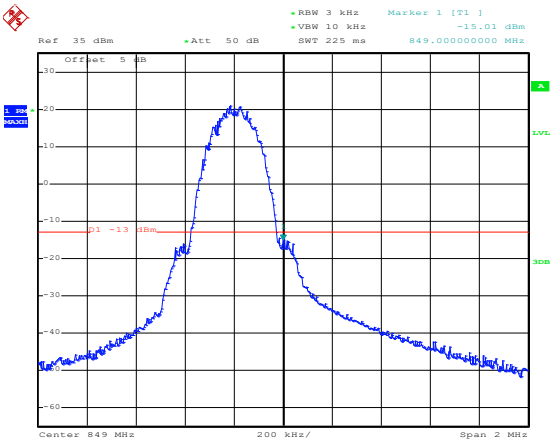
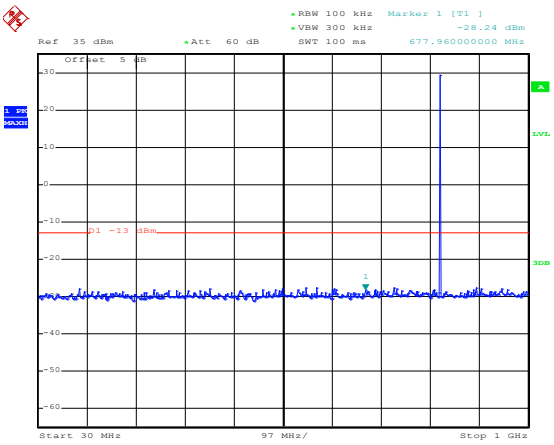
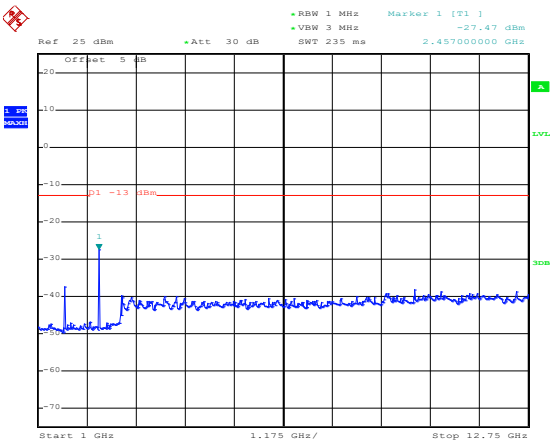
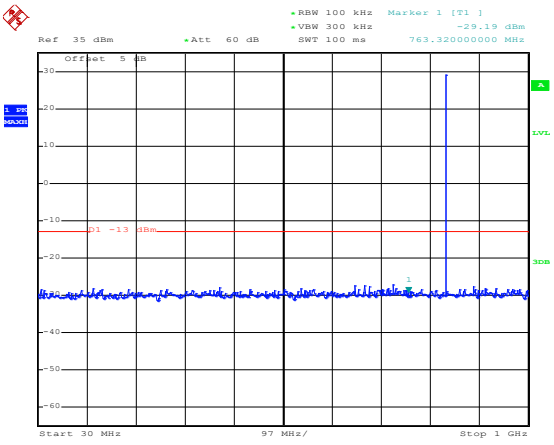
Bandedge	 Date: 9.AUG.2022 19:59:11  Date: 9.AUG.2022 20:00:29

EGPRS850 (8PSK,1Slot)-Low	 Date: 11.AUG.2022 16:51:51
	 Date: 10.AUG.2022 12:18:03
EGPRS850 (8PSK,1Slot)-Middle	 Date: 11.AUG.2022 16:52:20

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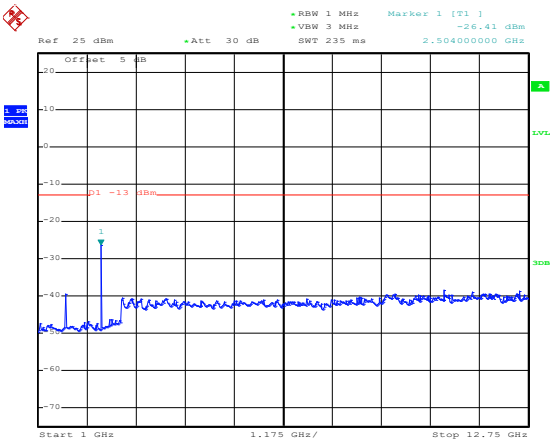
<tr><td></td><td> 

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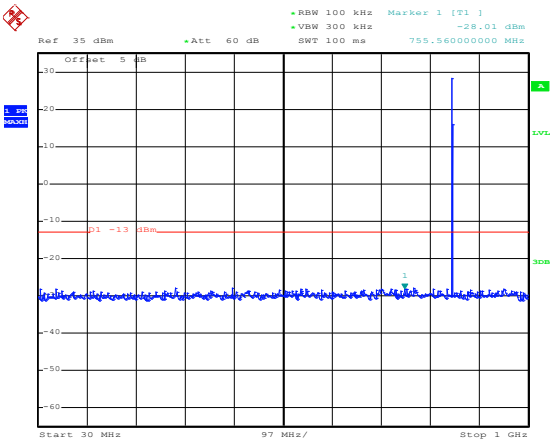
(8PSK,1Slot)-High</td><td> 

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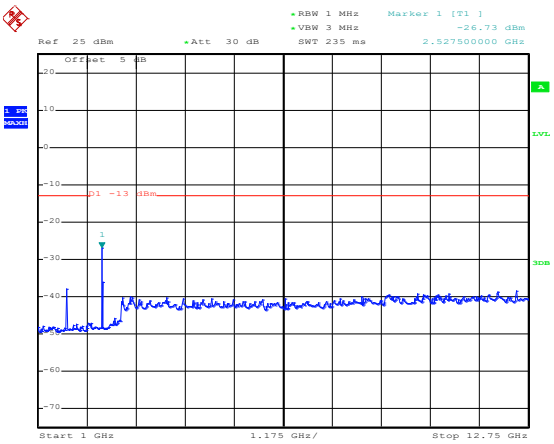
<tr><td> 

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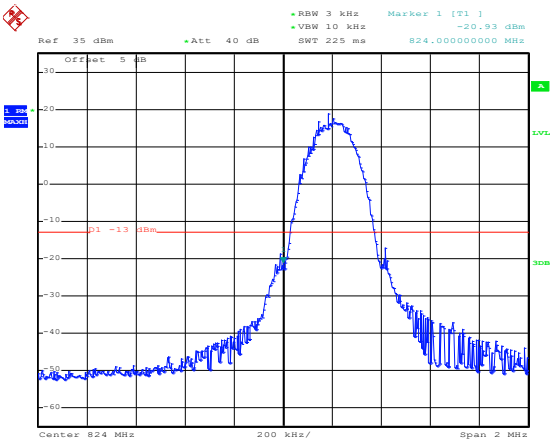
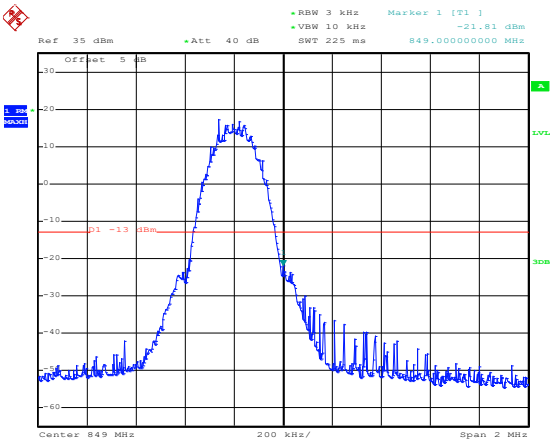
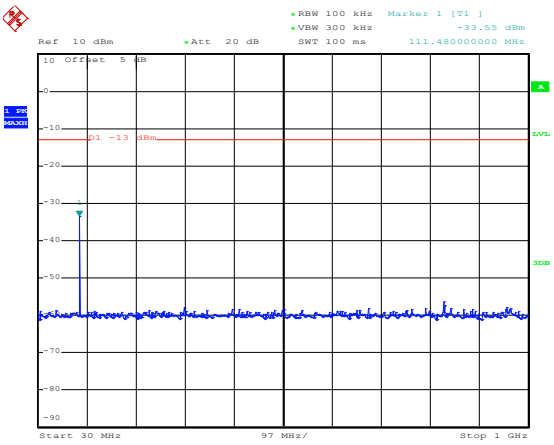
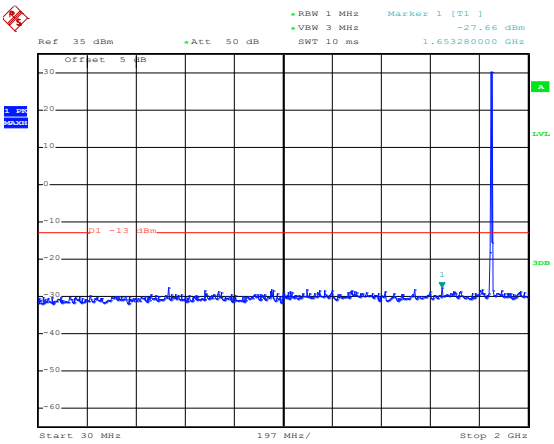
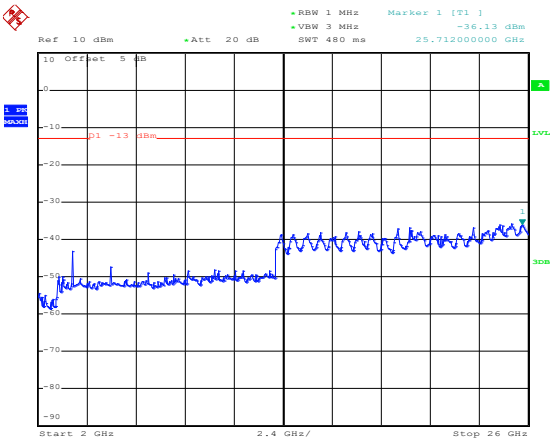
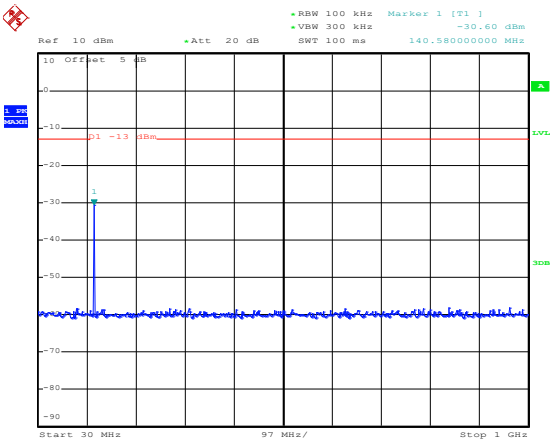
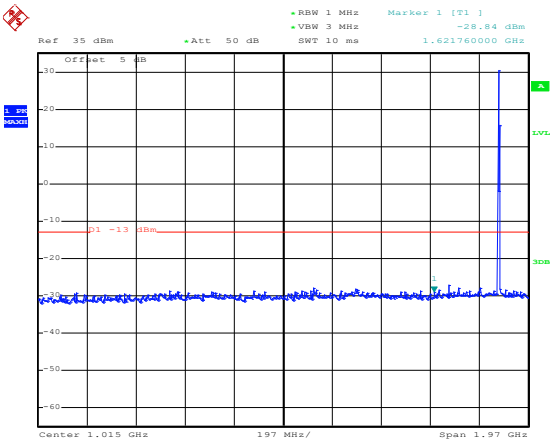
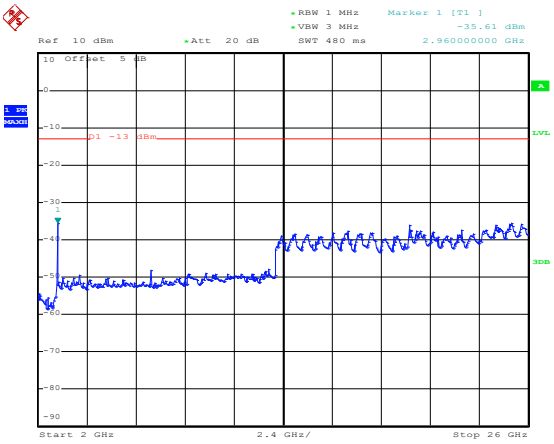
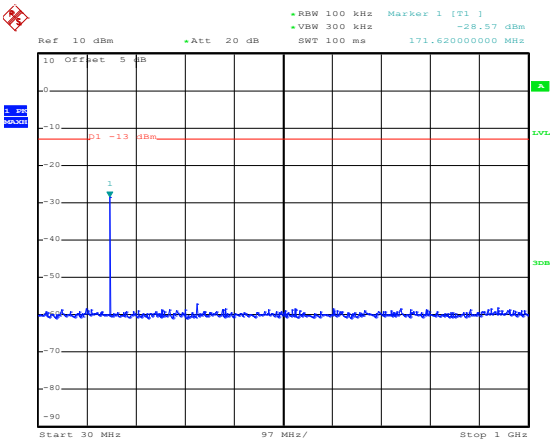
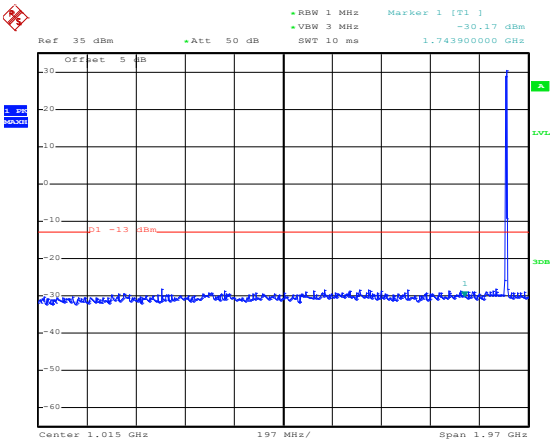
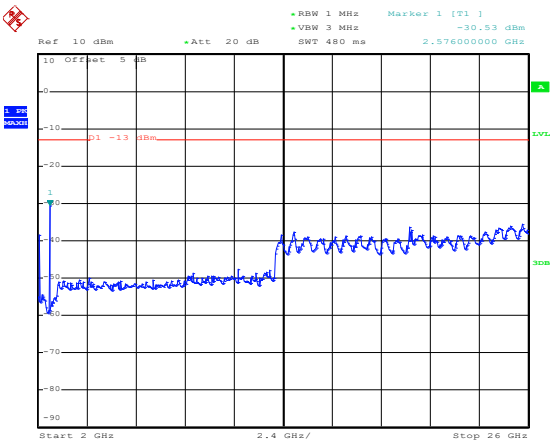
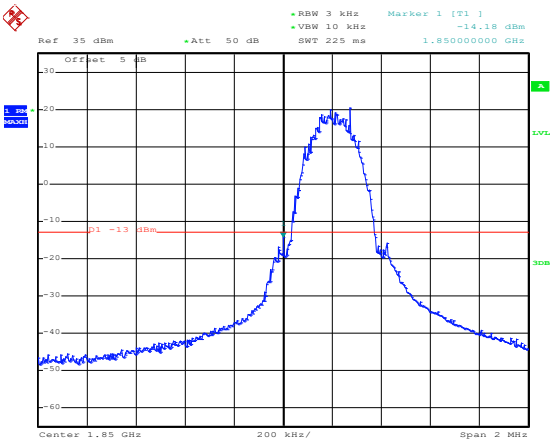
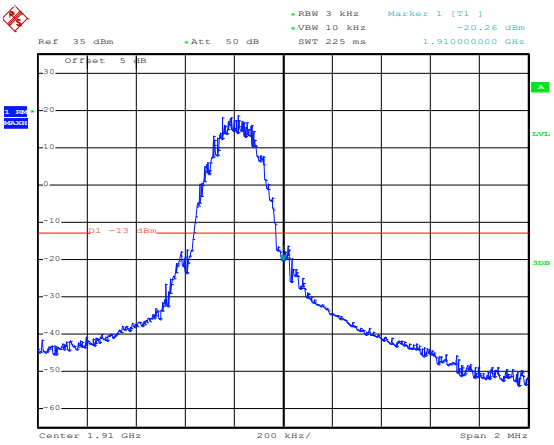
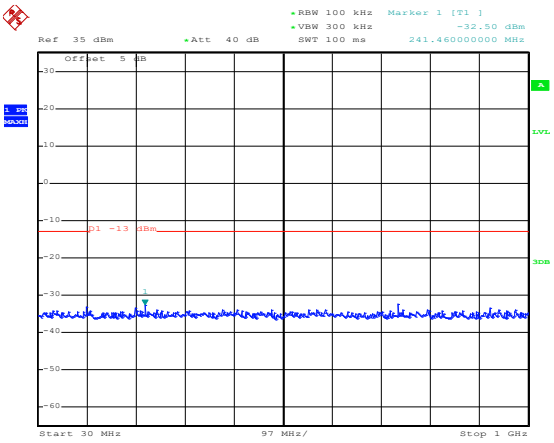
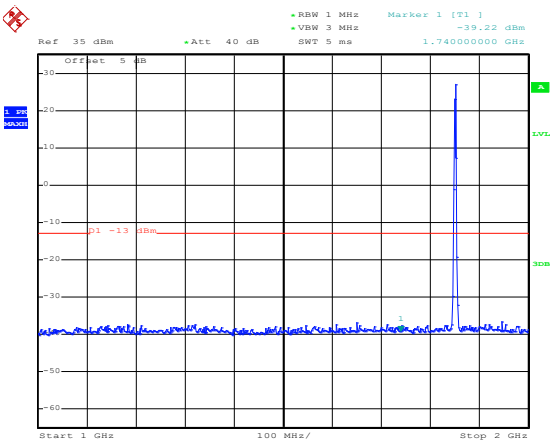
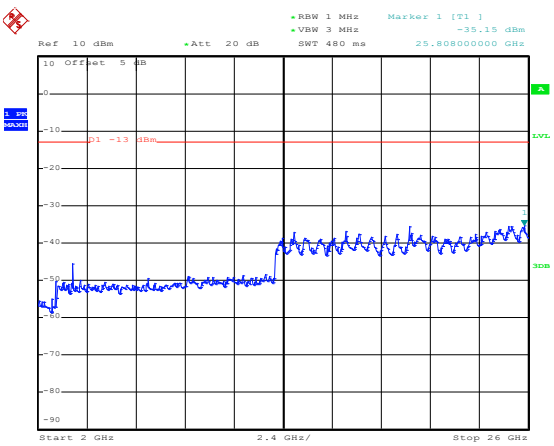
Bandedge	 Date: 10.AUG.2022 12:04:33
	 Date: 10.AUG.2022 12:08:24

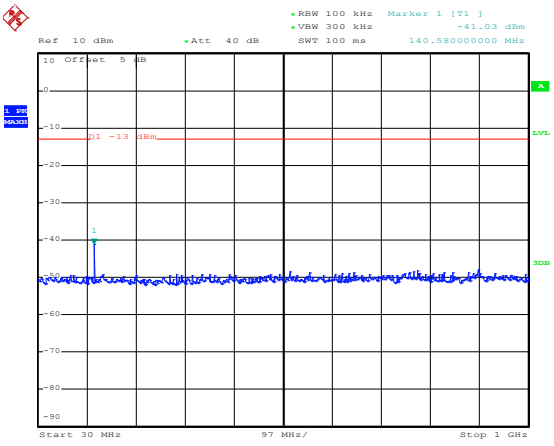
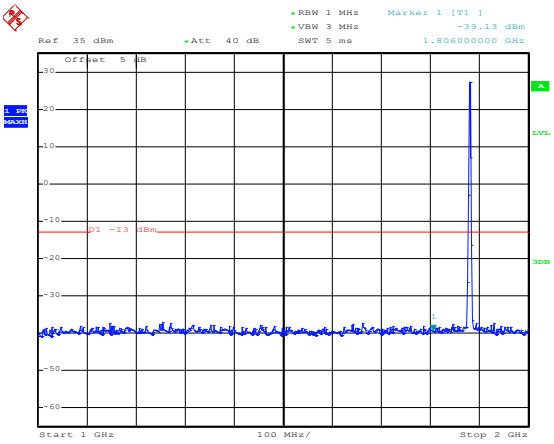
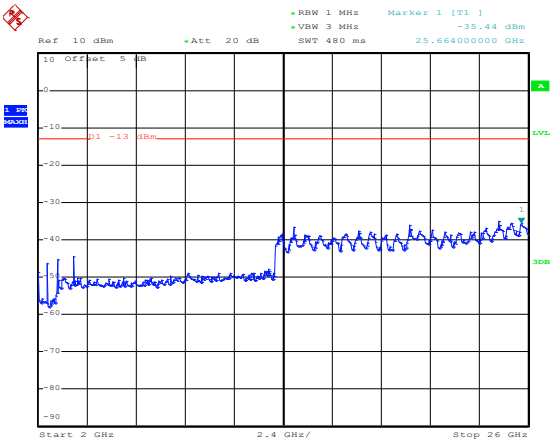
PCS1900 (GMSK)-Low	 Date: 2.SEP.2022 15:23:55  Date: 11.AUG.2022 16:56:44  Date: 9.AUG.2022 18:51:04

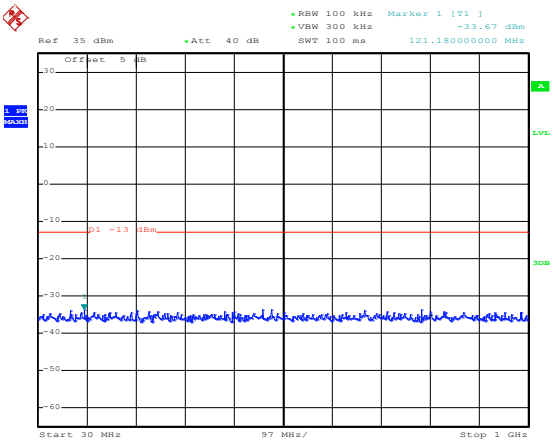
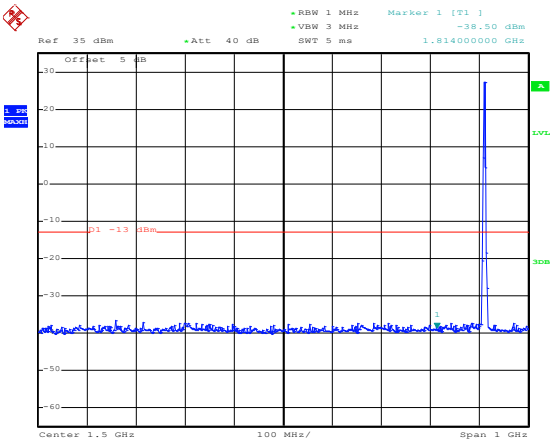
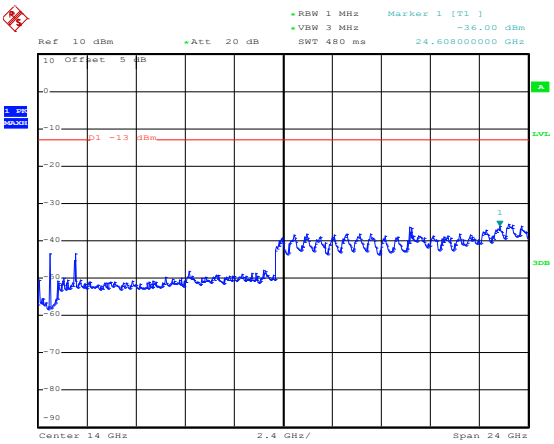
PCS1900 (GMSK)-Middle	 Date: 2.SEP.2022 15:26:06
	 Date: 11.AUG.2022 16:57:28
	 Date: 9.AUG.2022 18:54:19

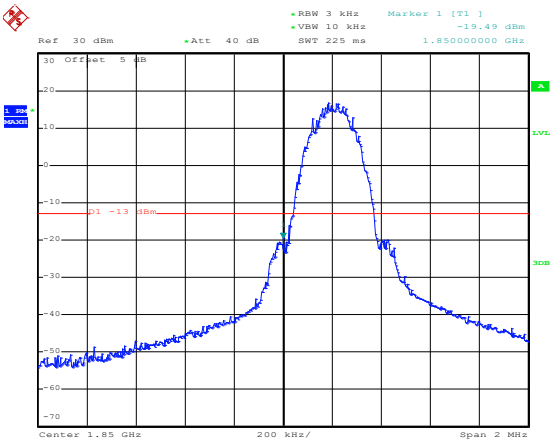
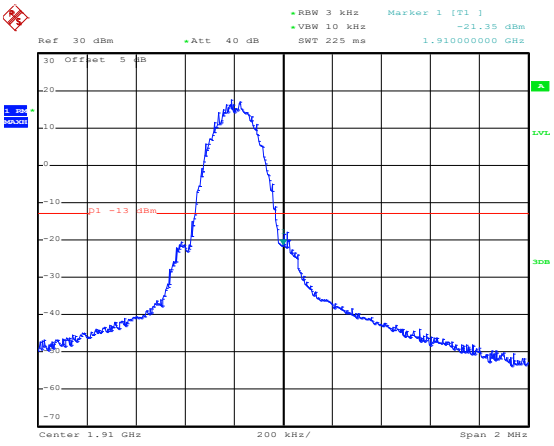
PCS1900 (GMSK)-High	 Date: 2.SEP.2022 15:27:17
	 Date: 11.AUG.2022 16:57:50
	 Date: 9.AUG.2022 18:56:45

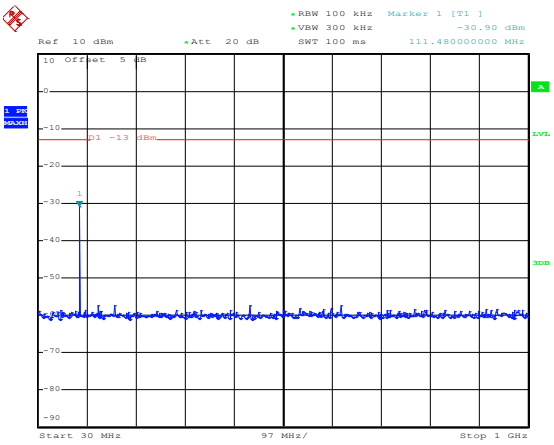
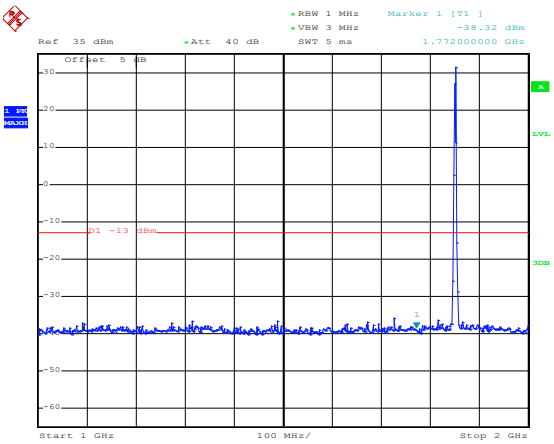
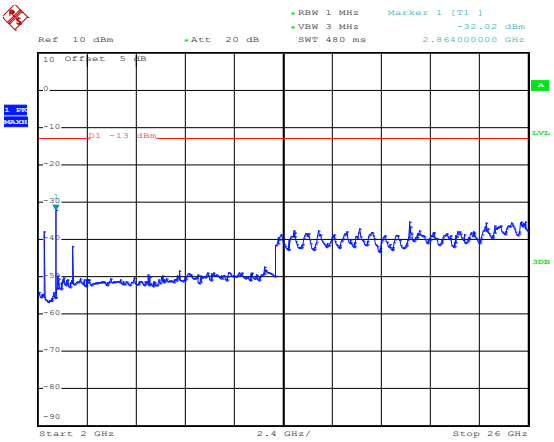
Bandedge	 RBW 3 kHz VBW 10 kHz SWT 225 ms Marker 1 [T1] -14.18 dBm 1.850000000 GHz Ref 35 dBm Att 50 dB Offset 5 dB D1 -13 dBm Center 1.85 GHz 200 kHz/ Span 2 MHz Date: 9.AUG.2022 18:36:04  RBW 3 kHz VBW 10 kHz SWT 225 ms Marker 1 [T1] -20.26 dBm 1.910000000 GHz Ref 35 dBm Att 50 dB Offset 5 dB D1 -13 dBm Center 1.91 GHz 200 kHz/ Span 2 MHz Date: 9.AUG.2022 18:37:13

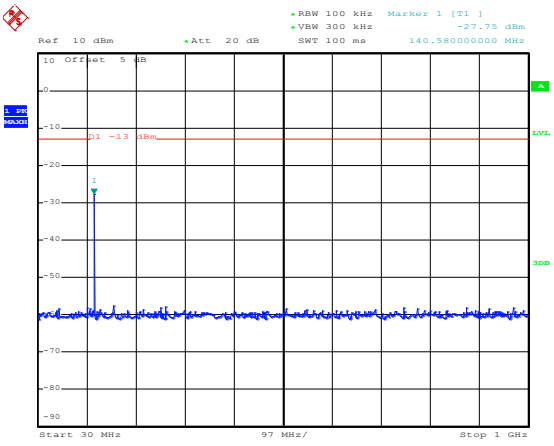
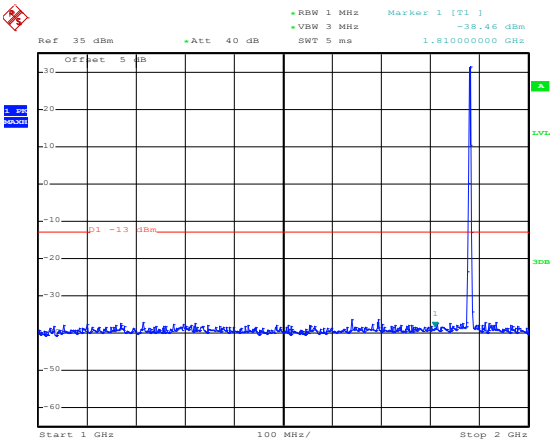
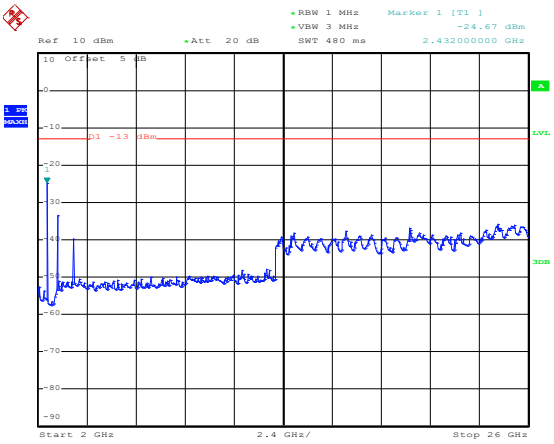
GPRS1900 (GMSK,1Slot)-Low	 Date: 9.AUG.2022 20:21:43
	 Date: 11.AUG.2022 17:02:12
	 Date: 9.AUG.2022 20:22:51

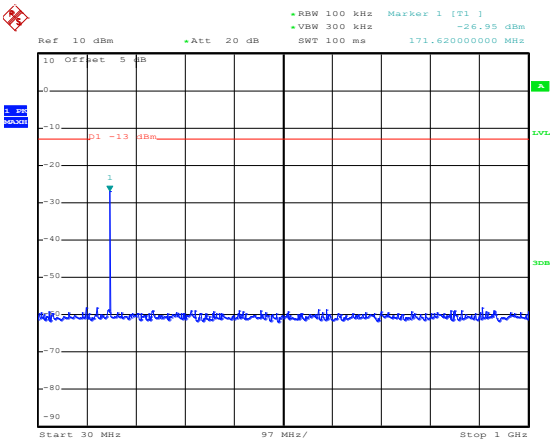
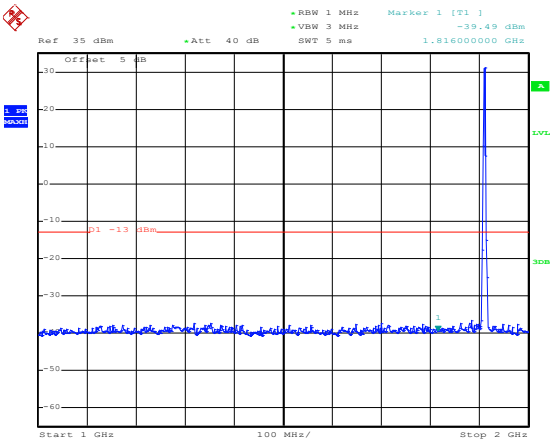
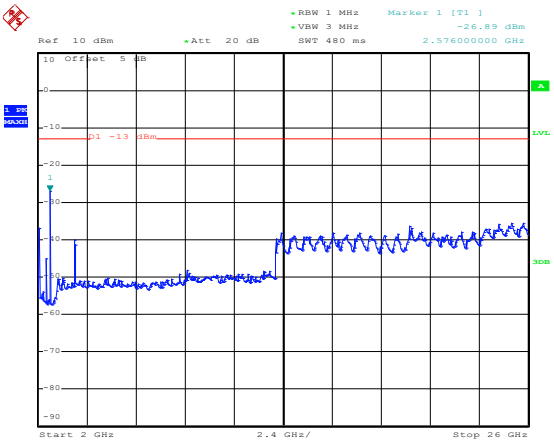
GPRS1900 (GMSK,1Slot)-Middle	 Date: 9.AUG.2022 20:23:42
	 Date: 11.AUG.2022 17:02:26
	 Date: 9.AUG.2022 20:25:42

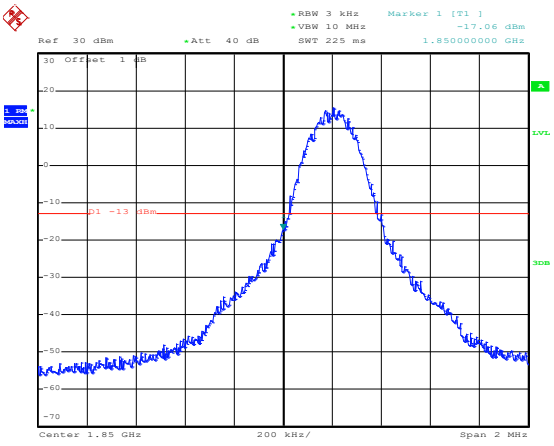
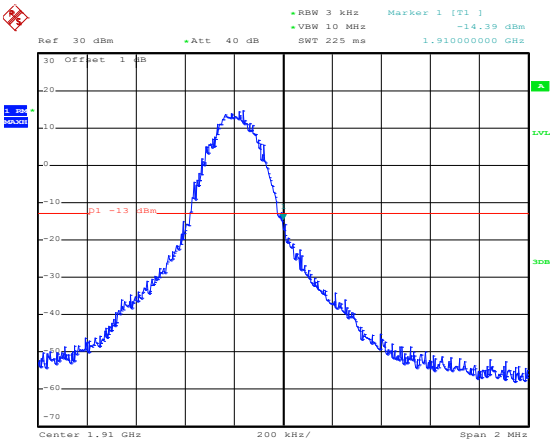
GPRS1900 (GMSK,1Slot)-High	 Date: 9.AUG.2022 20:26:34
	 Date: 11.AUG.2022 17:03:23
	 Date: 9.AUG.2022 20:27:41

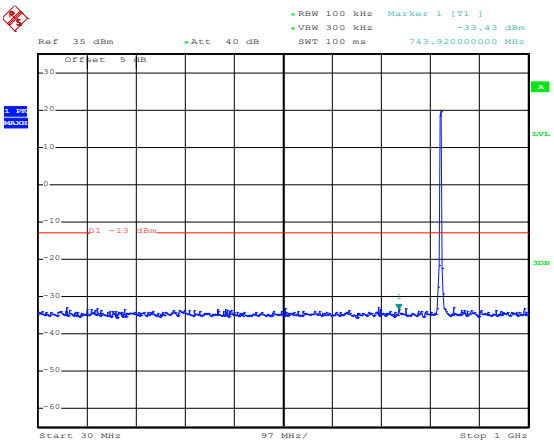
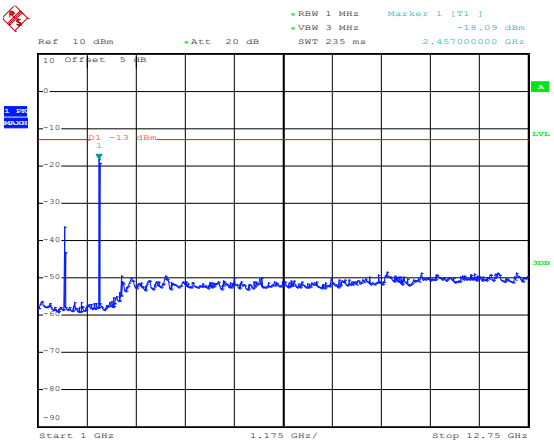
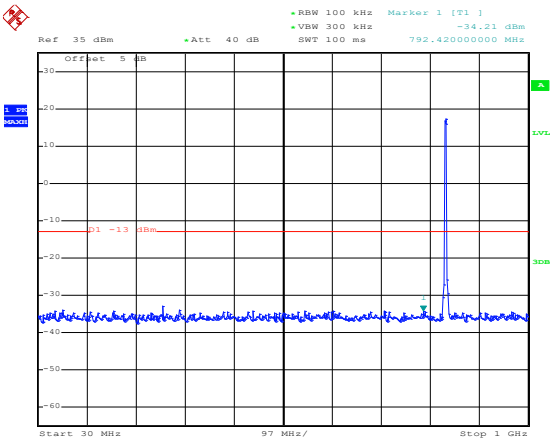
Bandedge	 RBW 3 kHz VBW 10 kHz SWT 225 ms Marker 1 [T1] -19.49 dBm 1.850000000 GHz Ref 30 dBm Att 40 dB Offset 5 dB D1 -13 dBm Center 1.85 GHz 200 kHz/ Span 2 MHz Date: 9.AUG.2022 20:18:24  RBW 3 kHz VBW 10 kHz SWT 225 ms Marker 1 [T1] -21.35 dBm 1.910000000 GHz Ref 30 dBm Att 40 dB Offset 5 dB D1 -13 dBm Center 1.91 GHz 200 kHz/ Span 2 MHz Date: 9.AUG.2022 20:19:21

EGPRS1900 (8PSK,1Slot)-Low	 Date: 2.SEP.2022 15:32:43
	 Date: 11.AUG.2022 17:06:26
	 Date: 10.AUG.2022 16:24:55

EGPRS1900 (8PSK,1Slot)-Middle	 Date: 2.SEP.2022 15:33:57
	 Date: 11.AUG.2022 17:06:55
	 Date: 10.AUG.2022 16:26:25

EGPRS1900 (8PSK,1Slot)-High	 Date: 2.SEP.2022 15:34:30
	 Date: 11.AUG.2022 17:07:20
	 Date: 10.AUG.2022 16:27:49

Bandedge	 RBW 3 kHz VBW 10 MHz SWT 225 ms Marker 1 [T1] -17.06 dBm 1.850000000 GHz Ref 30 dBm Att 40 dB Offset 1 dB D1 -13 dBm Center 1.85 GHz 200 kHz/ Span 2 MHz Date: 10.AUG.2022 13:18:41  RBW 3 kHz VBW 10 MHz SWT 225 ms Marker 1 [T1] -14.39 dBm 1.910000000 GHz Ref 30 dBm Att 40 dB Offset 1 dB D1 -13 dBm Center 1.91 GHz 200 kHz/ Span 2 MHz Date: 10.AUG.2022 13:19:42

WCDMA Band V-Low	 Date: 1.SEP.2022 15:49:49
	 Date: 1.SEP.2022 15:50:29
WCDMA Band V-Middle	 Date: 1.SEP.2022 15:51:17

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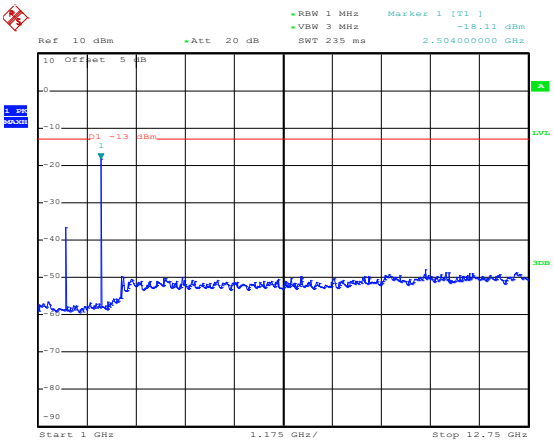
<tr><td></td><td> 

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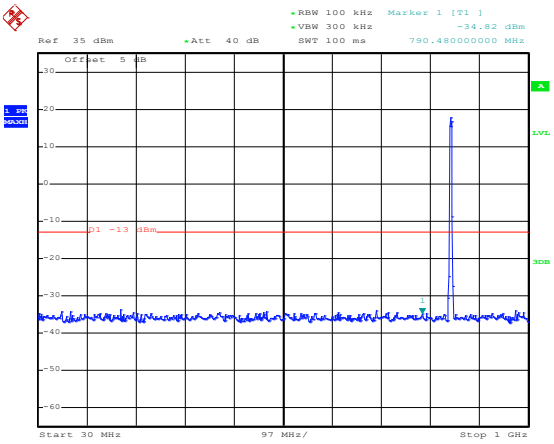
<tr><td rowspan="2">WCDMA Band V-High</td><td> 

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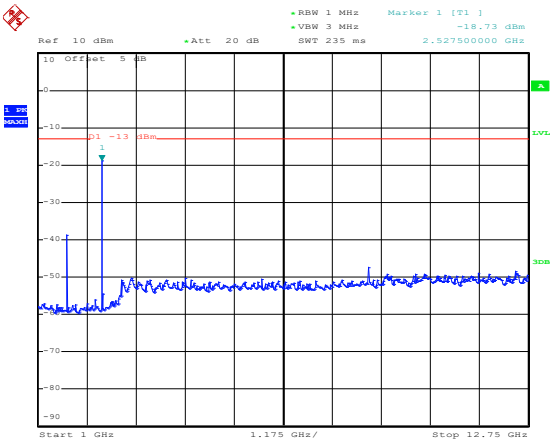
<tr><td> 

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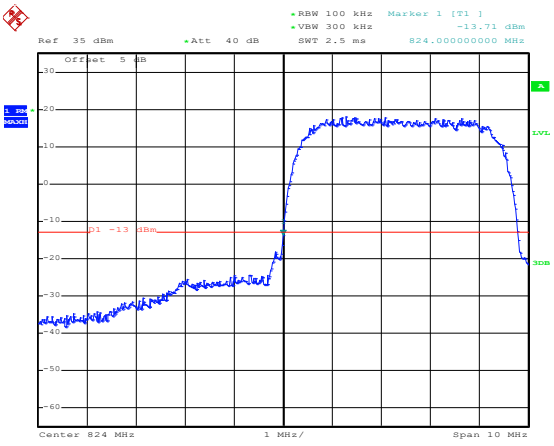
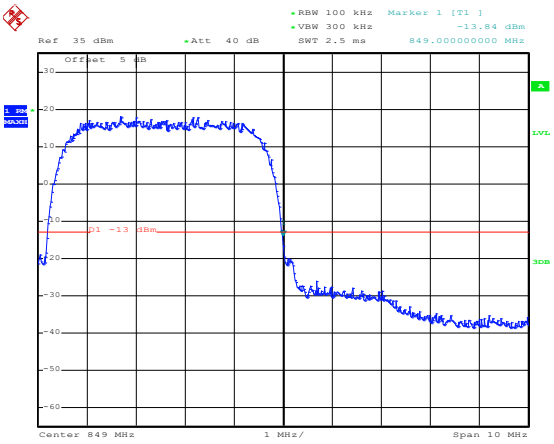
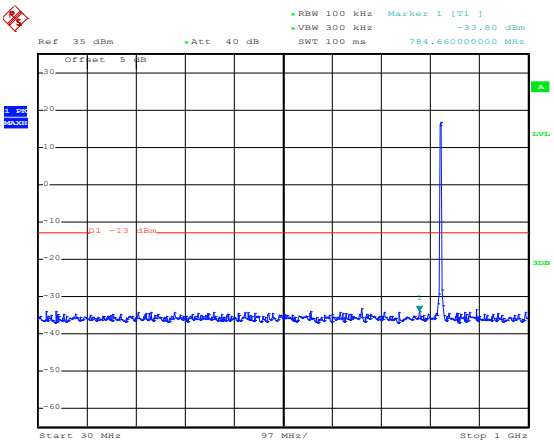
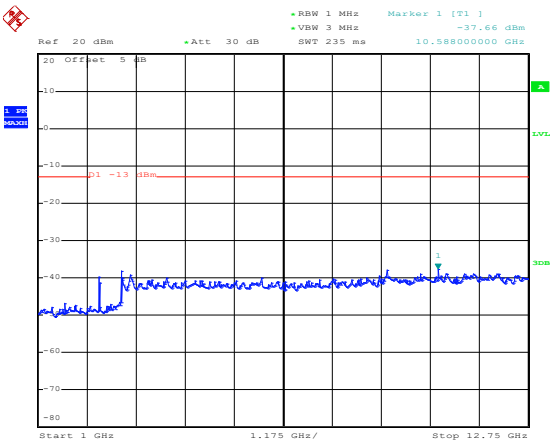
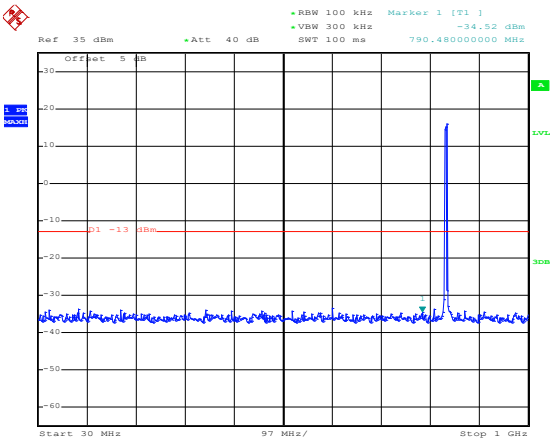
Bandedge	 Date: 1.SEP.2022 15:43:39
	 Date: 1.SEP.2022 15:44:08

HSDPA Band V-Low	 Date: 1.SEP.2022 16:06:41
	 Date: 1.SEP.2022 16:07:36
HSDPA Band V-Middle	 Date: 1.SEP.2022 16:08:20

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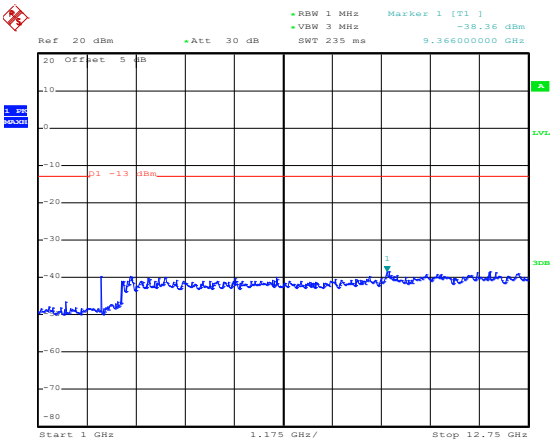
<tr><td></td><td> 

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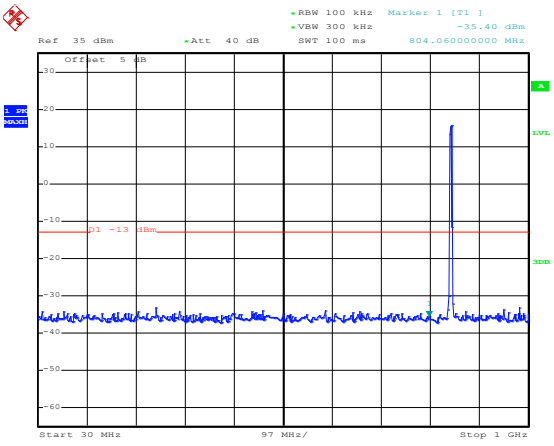
<tr><td rowspan="2">HSDPA Band V-High</td><td> 

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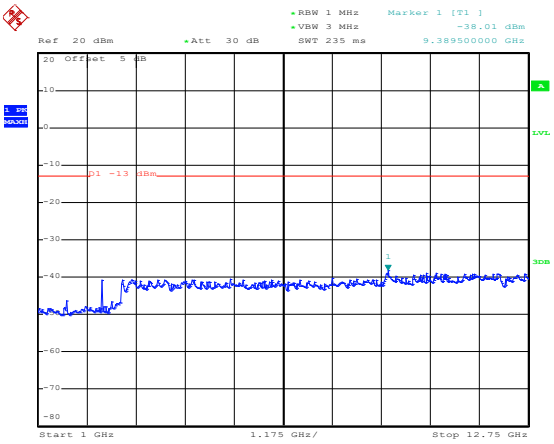
<tr><td> 

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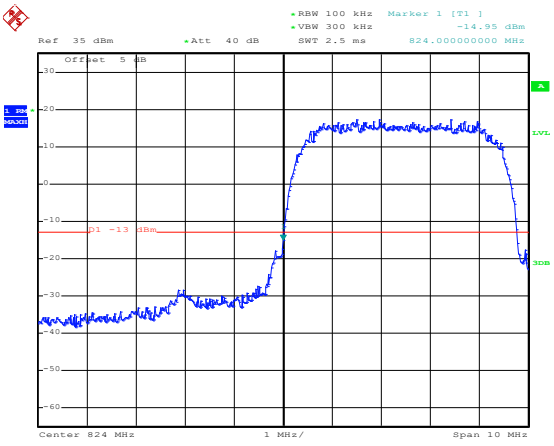
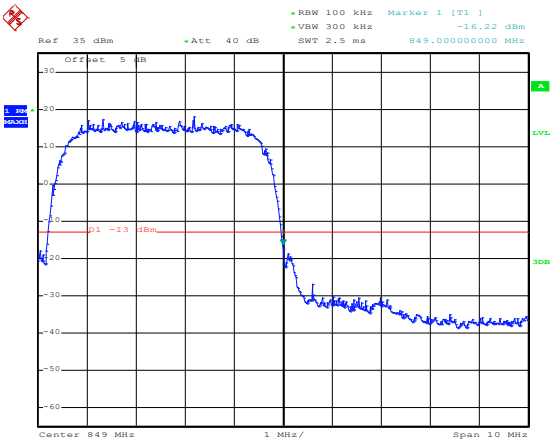
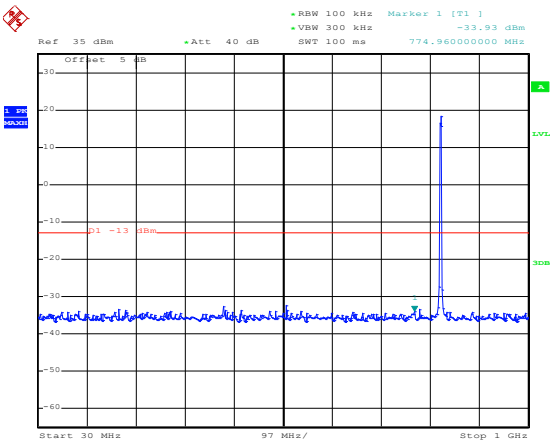
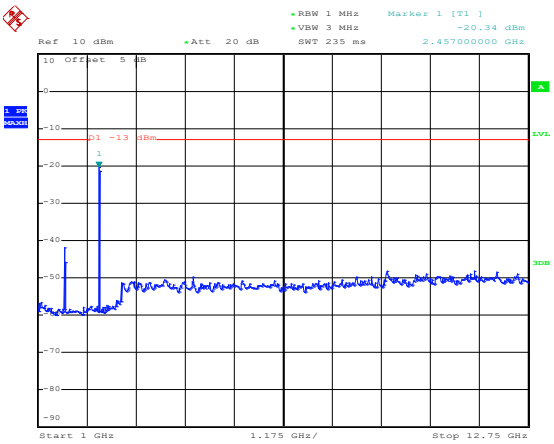
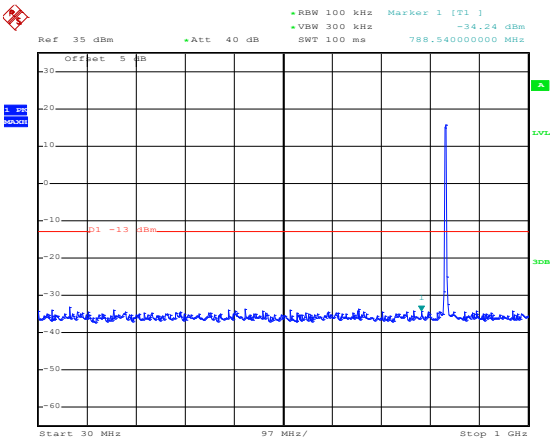
Bandedge	 Date: 1.SEP.2022 16:04:52  Date: 1.SEP.2022 16:05:36

HSUPA Band V-Low	 Date: 1.SEP.2022 16:31:48
	 Date: 1.SEP.2022 16:32:13
HSUPA Band V-Middle	 Date: 1.SEP.2022 16:35:19

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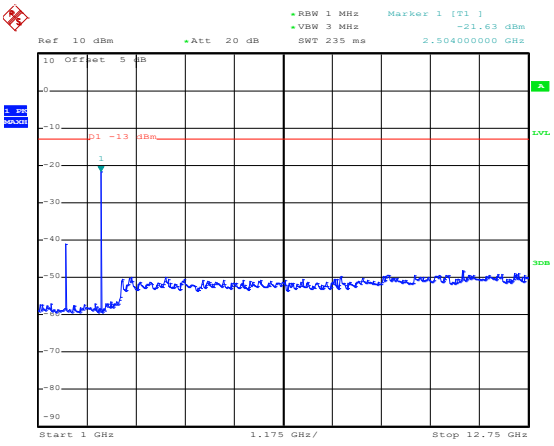
<tr><td></td><td> 

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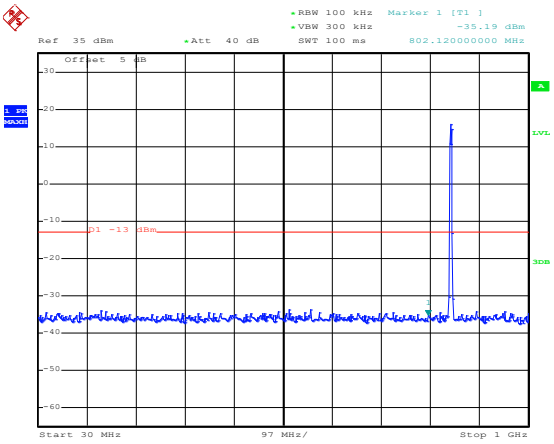
<tr><td rowspan="2">HSUPA Band V-High</td><td> 

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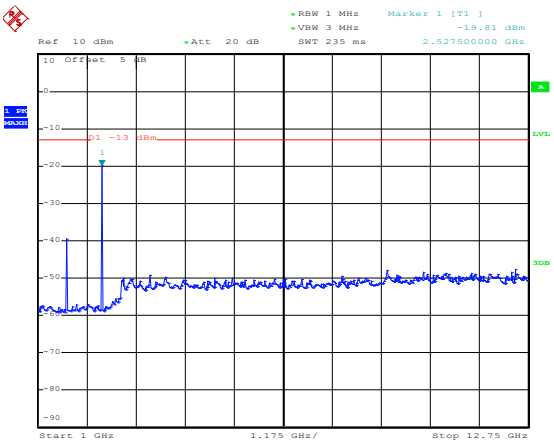
<tr><td> 

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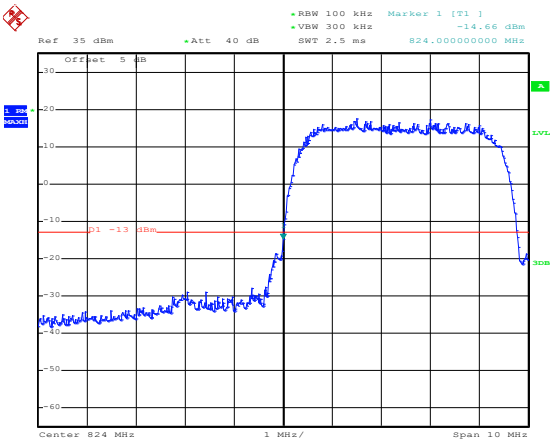
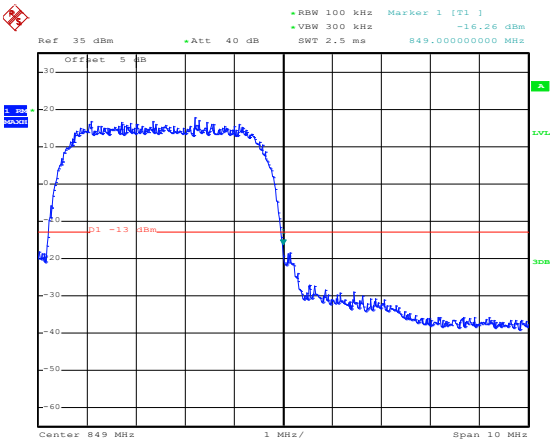
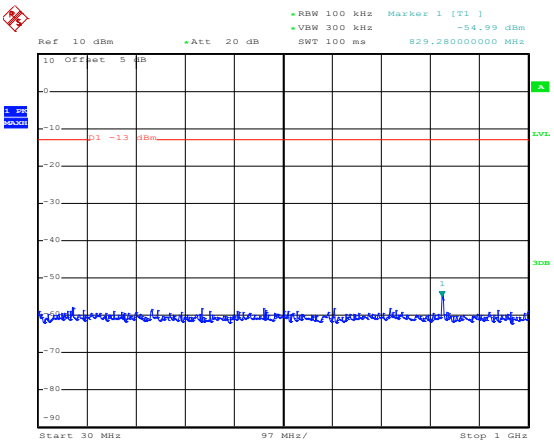
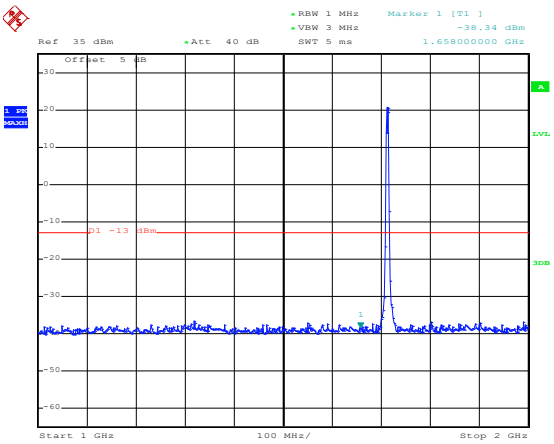
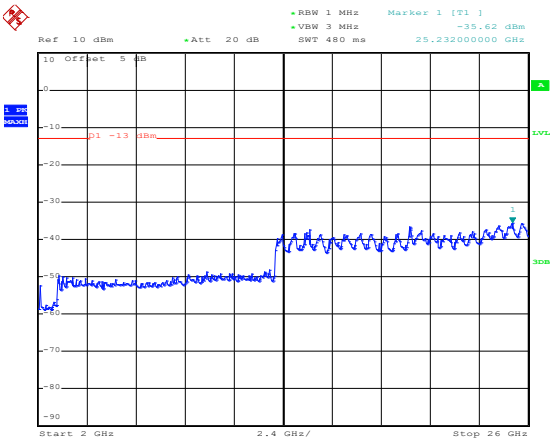
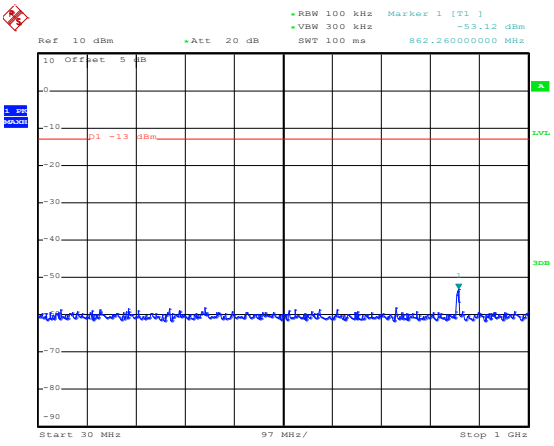
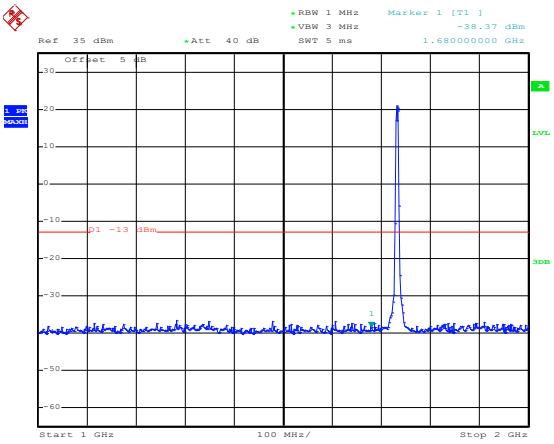
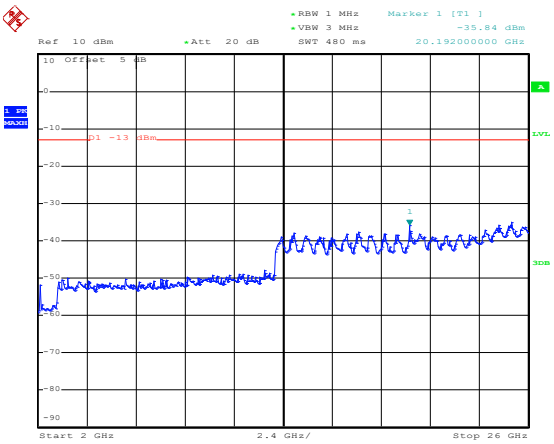
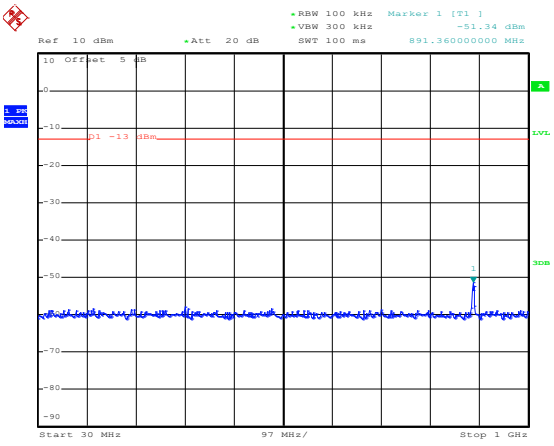
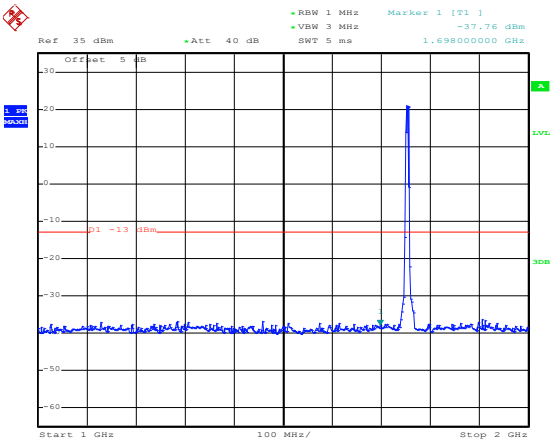
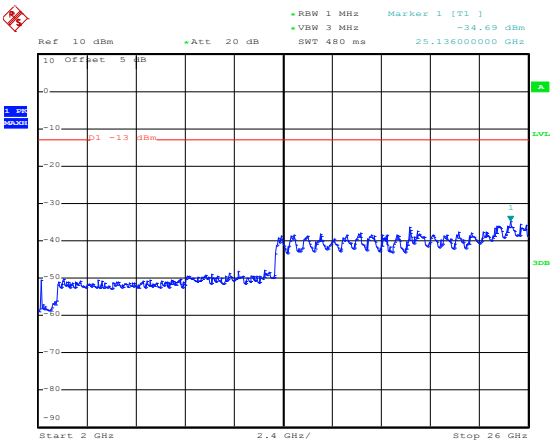
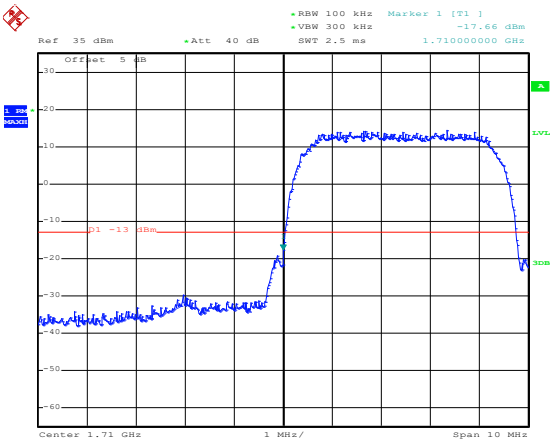
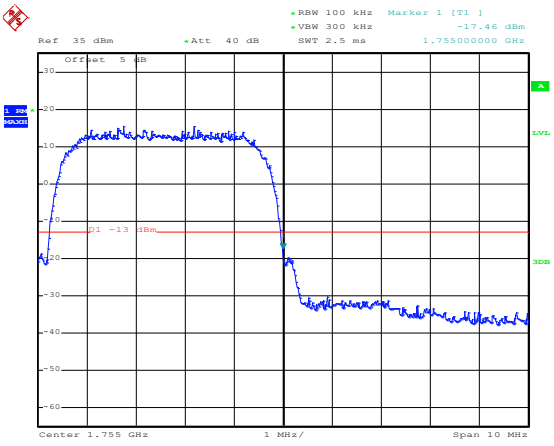
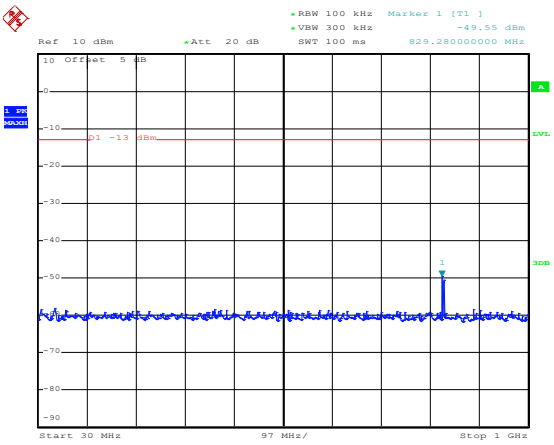
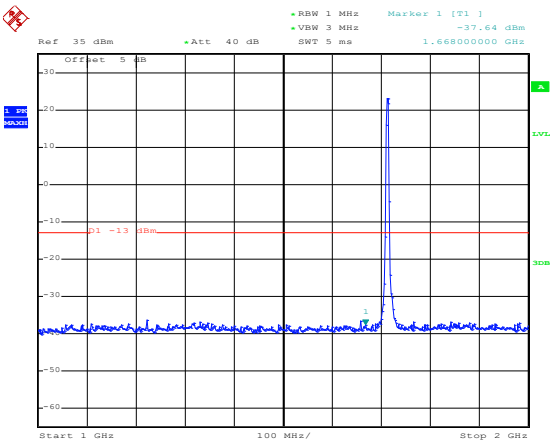
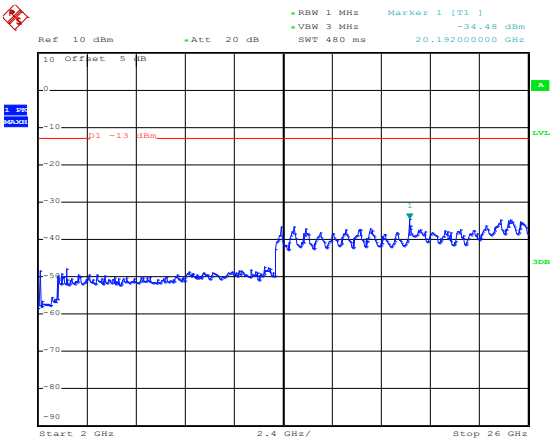
Bandedge	 Date: 1.SEP.2022 16:30:04  Date: 1.SEP.2022 16:30:32

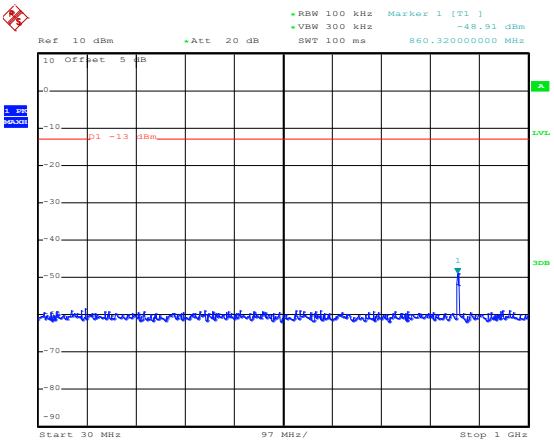
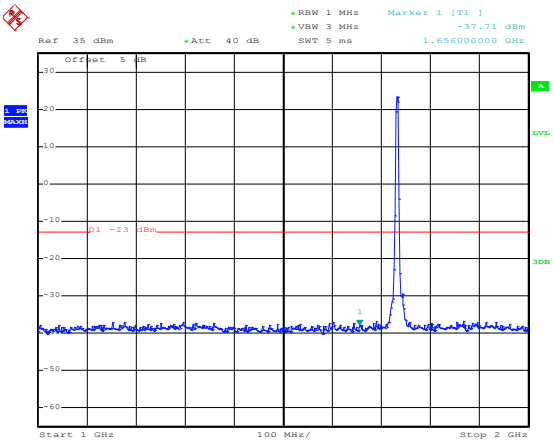
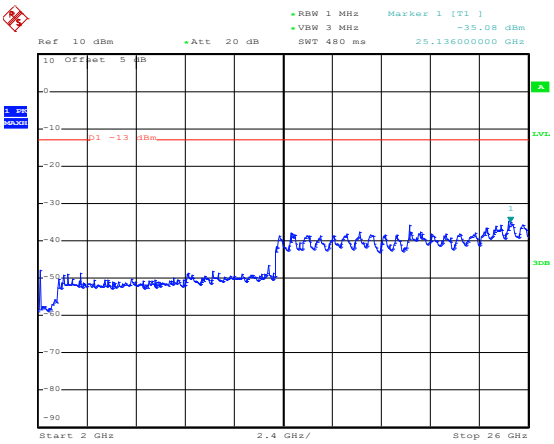
WCDMA Band IV-Low	 Date: 1.SEP.2022 17:34:47
	 Date: 1.SEP.2022 17:35:29
	 Date: 1.SEP.2022 17:35:53

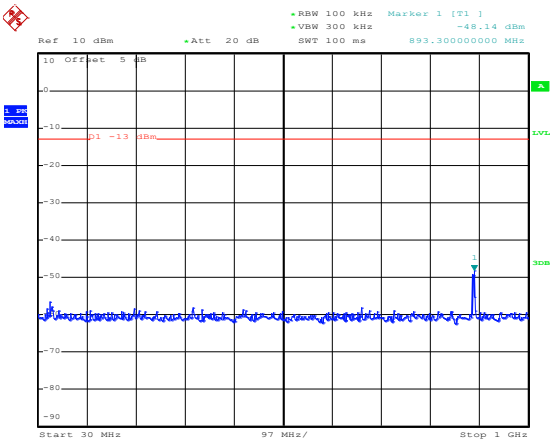
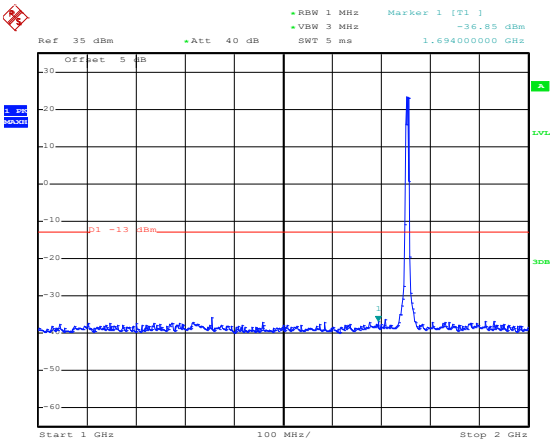
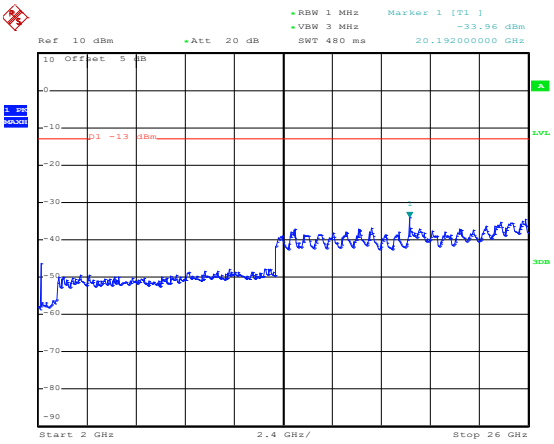
WCDMA Band IV-Middle	 Date: 1.SEP.2022 17:36:37
	 Date: 1.SEP.2022 17:37:04
	 Date: 1.SEP.2022 17:37:30

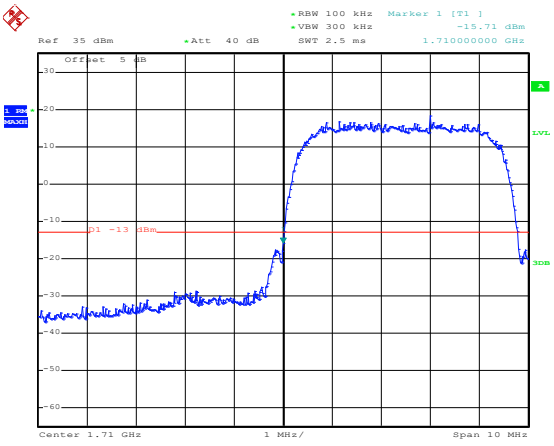
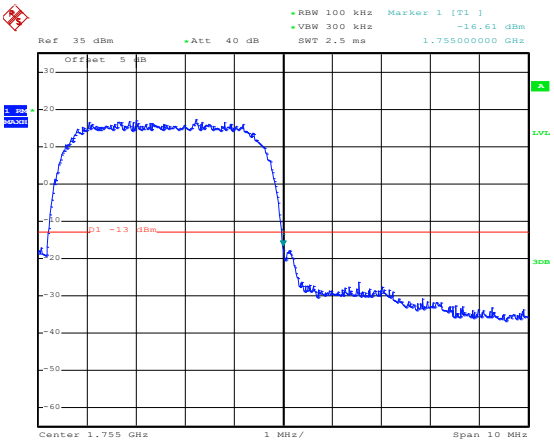
WCDMA Band IV-High	 Date: 1.SEP.2022 17:38:19
	 Date: 1.SEP.2022 17:39:02
	 Date: 1.SEP.2022 17:39:25

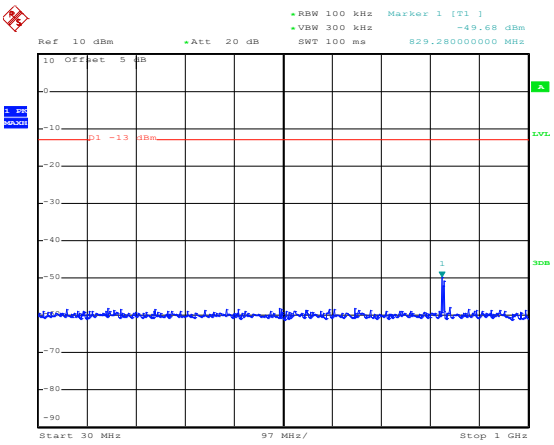
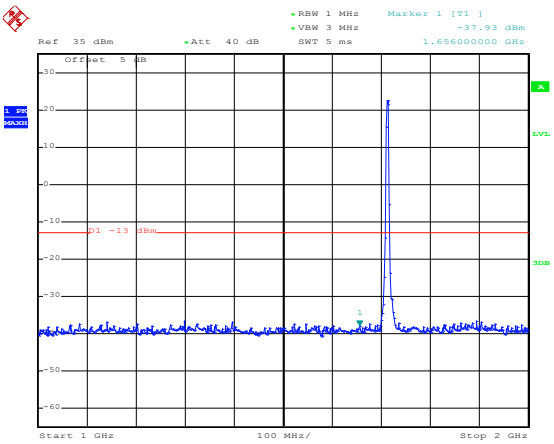
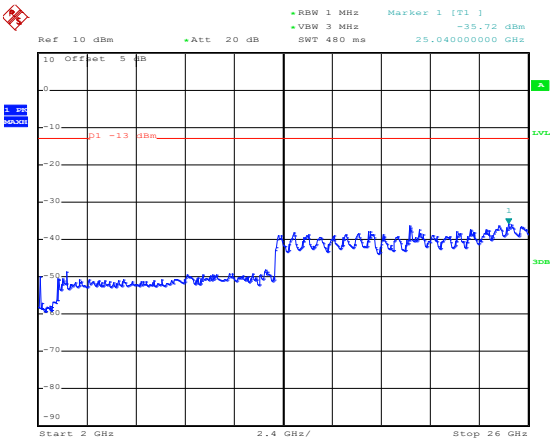
Bandedge	 Date: 1.SEP.2022 17:31:10  Date: 1.SEP.2022 17:32:00

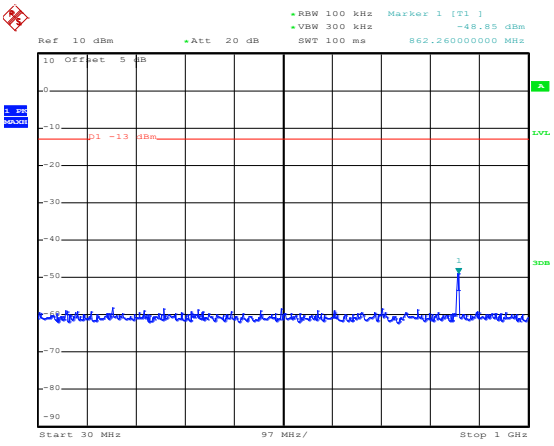
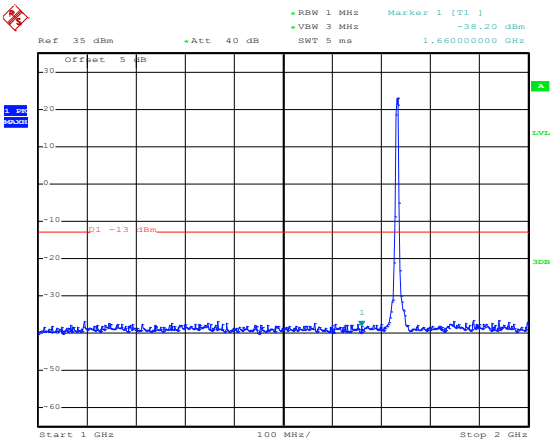
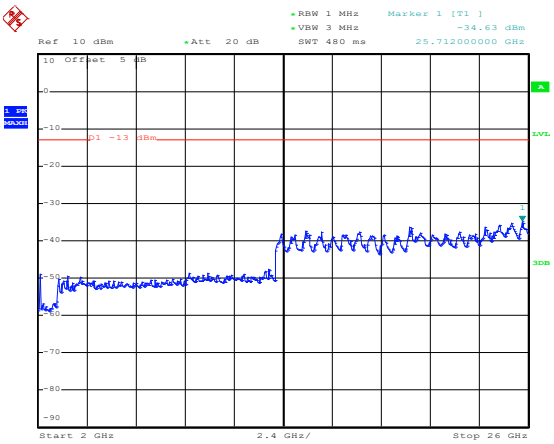
HSDPA Band IV-Low	 Date: 2.SEP.2022 09:28:43
	 Date: 2.SEP.2022 09:29:31
	 Date: 2.SEP.2022 09:31:46

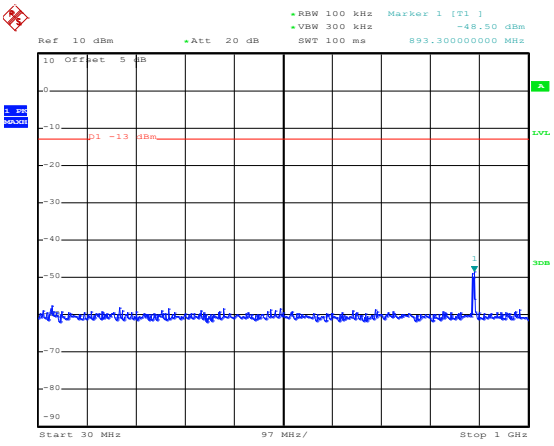
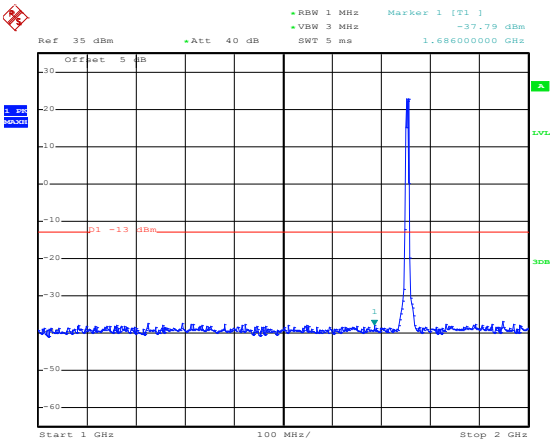
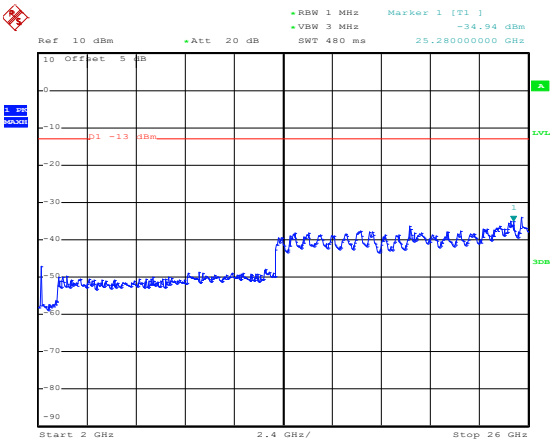
HSDPA Band IV-Middle	 Date: 2.SEP.2022 09:32:29
	 Date: 2.SEP.2022 09:33:12
	 Date: 2.SEP.2022 09:33:50

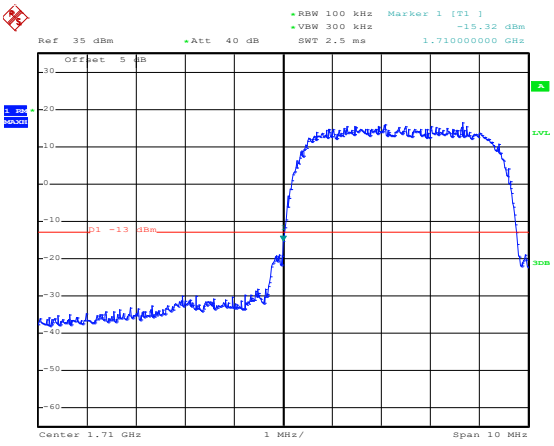
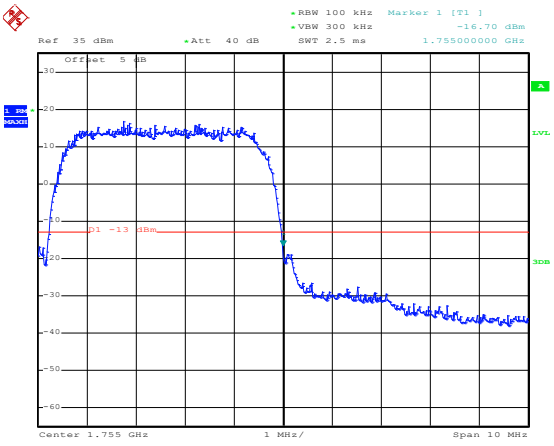
HSDPA Band IV-High	 Date: 2.SEP.2022 09:34:18
	 Date: 2.SEP.2022 09:34:54
	 Date: 2.SEP.2022 09:35:48

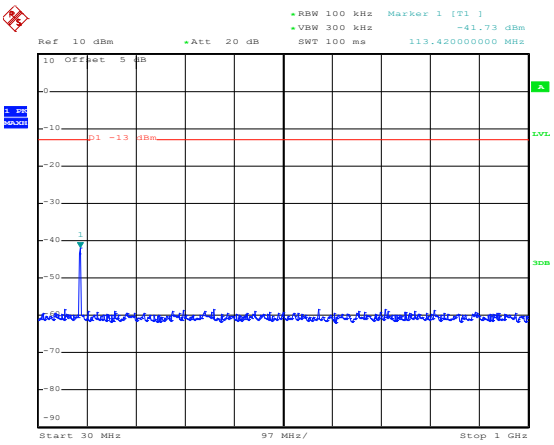
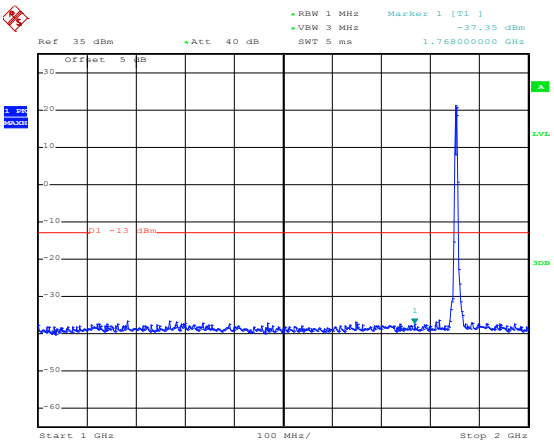
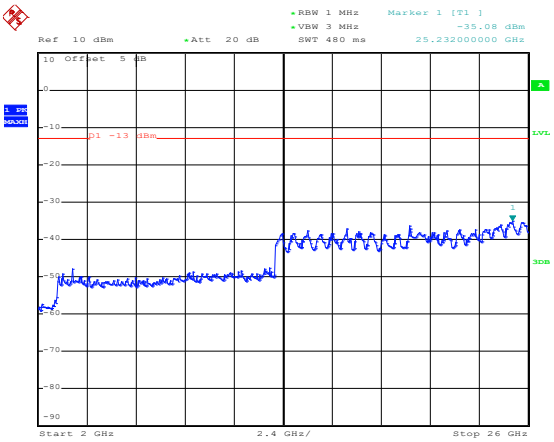
Bandedge	 Date: 2.SEP.2022 09:24:34  Date: 2.SEP.2022 09:25:56

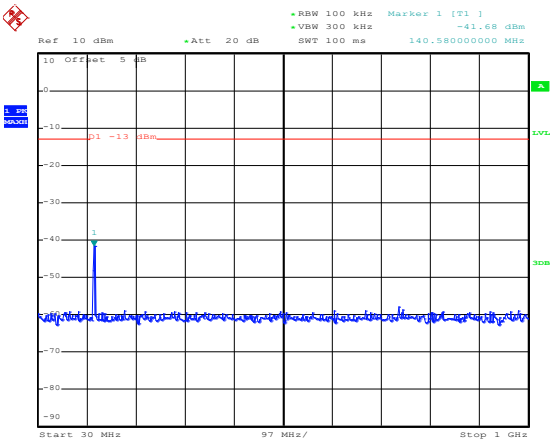
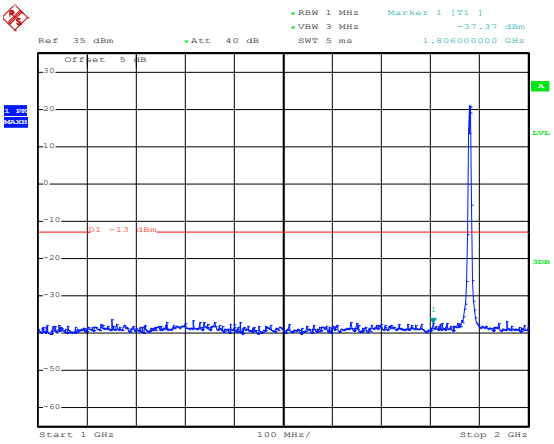
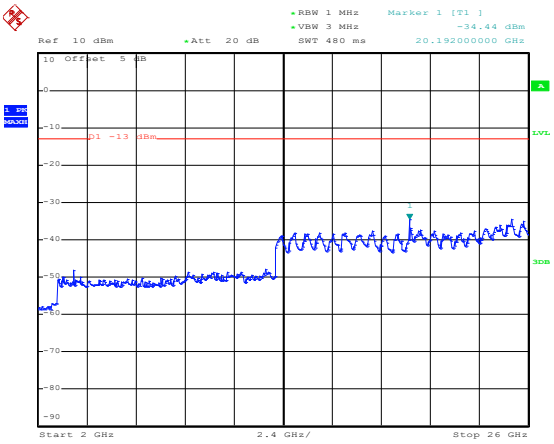
HSUPA Band IV-Low	 Date: 2.SEP.2022 09:46:14
	 Date: 2.SEP.2022 09:46:45
	 Date: 2.SEP.2022 09:47:08

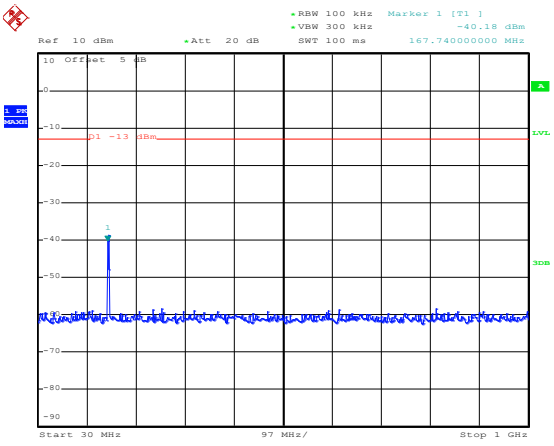
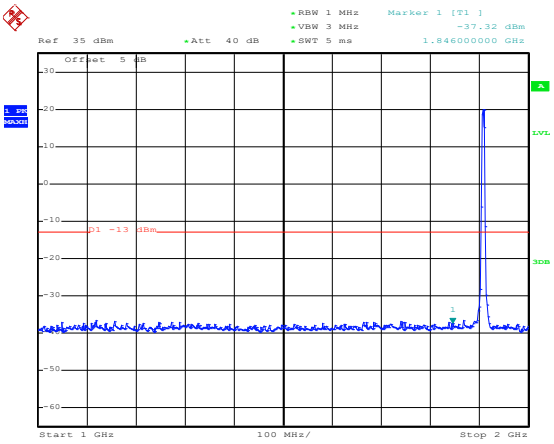
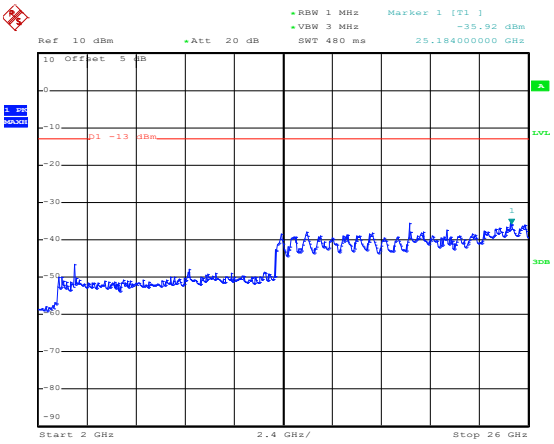
HSUPA Band IV-Middle	 Date: 2.SEP.2022 09:47:36
	 Date: 2.SEP.2022 09:48:22
	 Date: 2.SEP.2022 09:48:49

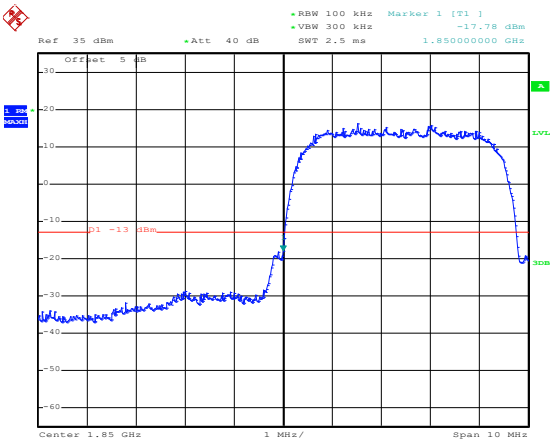
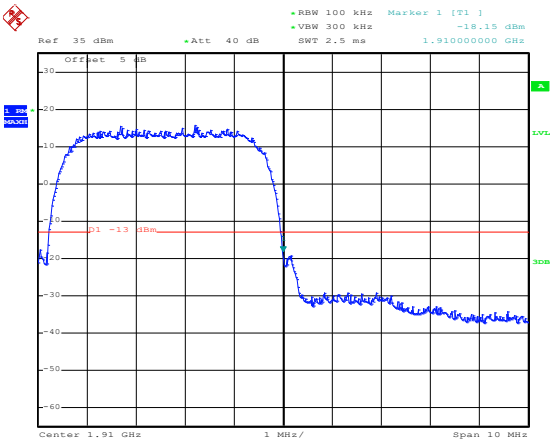
HSUPA Band IV-High	 Date: 2.SEP.2022 09:49:29
	 Date: 2.SEP.2022 09:49:59
	 Date: 2.SEP.2022 09:50:28

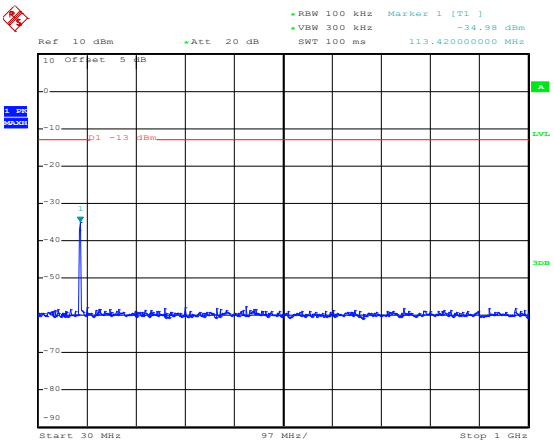
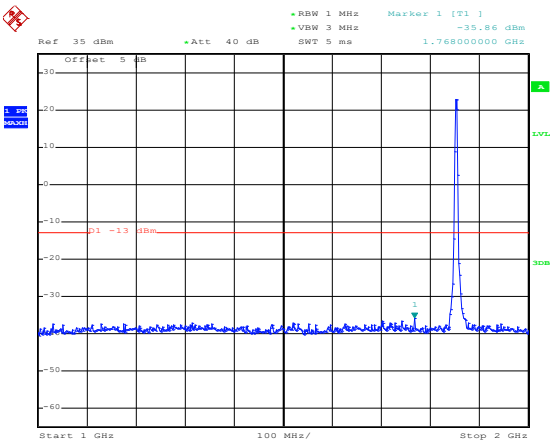
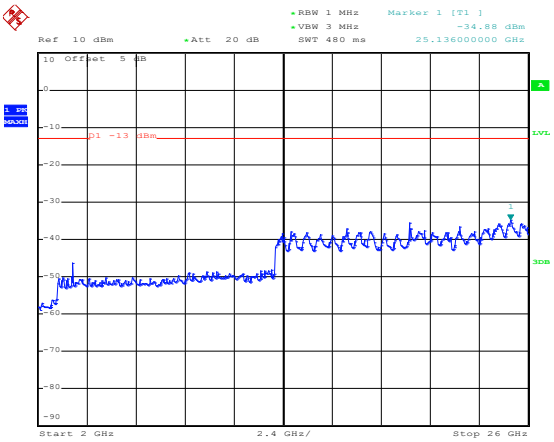
Bandedge	 RBW 100 kHz VBW 300 kHz SWT 2.5 ms Marker 1 [T1] -15.32 dBm 1.710000000 GHz Ref 35 dBm Att 40 dB Offset 5 dB D1 -13 dBm Center 1.71 GHz 1 MHz/ Span 10 MHz Date: 2.SEP.2022 09:43:05  RBW 100 kHz VBW 300 kHz SWT 2.5 ms Marker 1 [T1] -16.70 dBm 1.755000000 GHz Ref 35 dBm Att 40 dB Offset 5 dB D1 -13 dBm Center 1.755 GHz 1 MHz/ Span 10 MHz Date: 2.SEP.2022 09:43:38

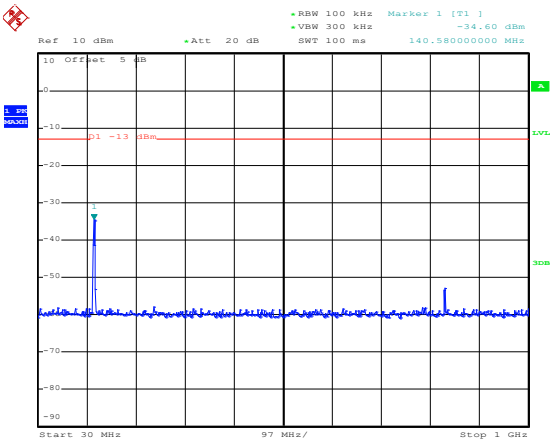
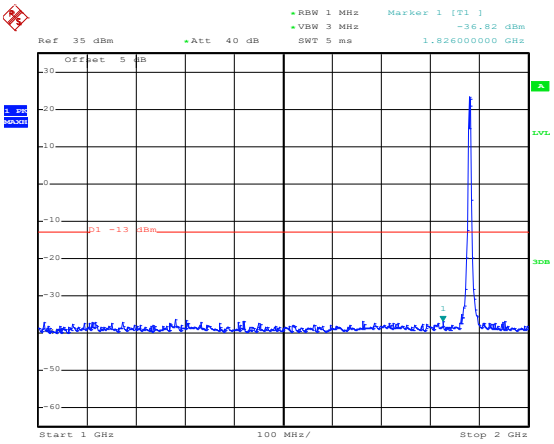
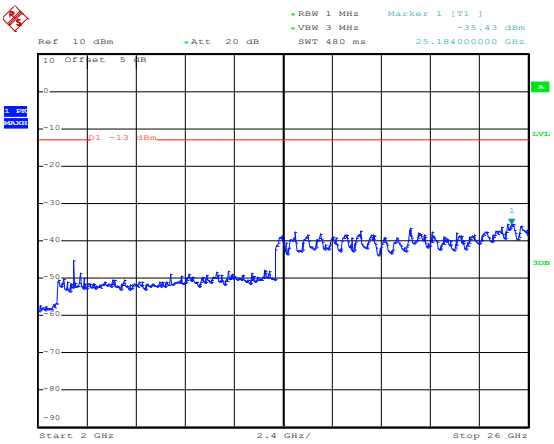
WCDMA Band II-Low	 Date: 1.SEP.2022 14:13:23
	 Date: 1.SEP.2022 14:14:15
	 Date: 1.SEP.2022 14:14:54

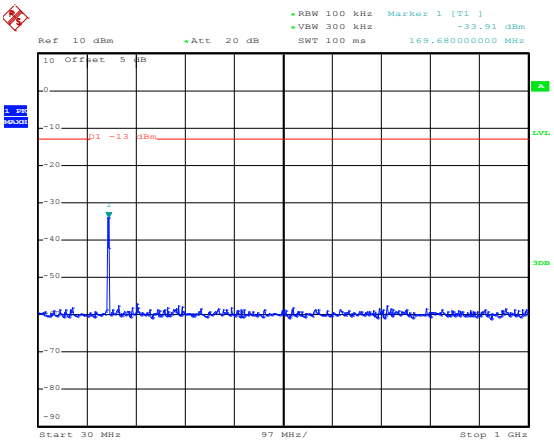
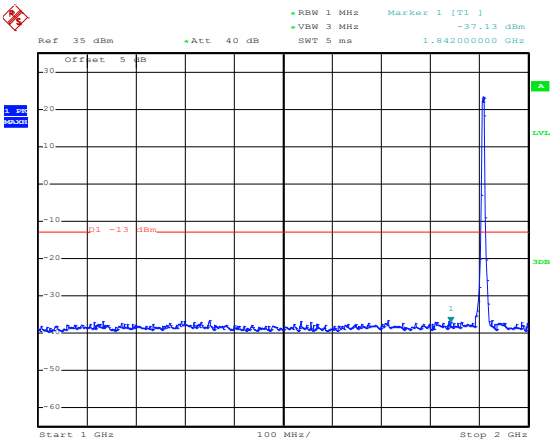
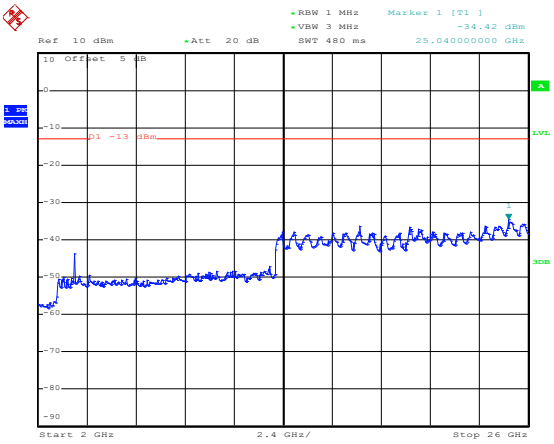
WCDMA Band II-Low	 Date: 1.SEP.2022 14:15:42
	 Date: 1.SEP.2022 14:16:15
	 Date: 1.SEP.2022 14:16:47

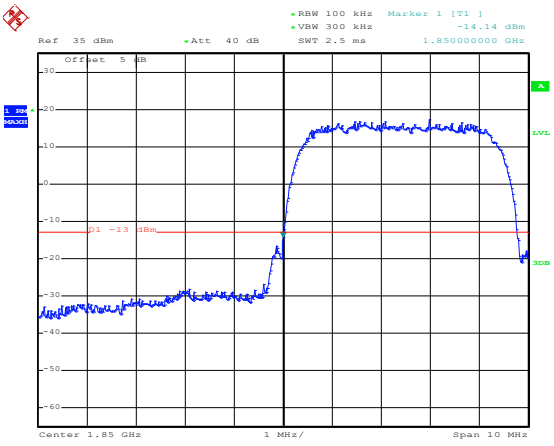
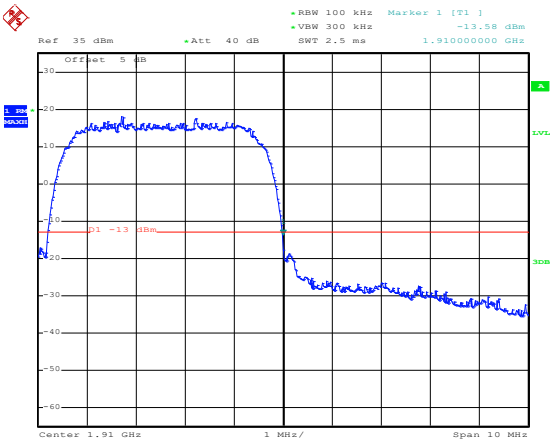
WCDMA Band II-Low	 Date: 1.SEP.2022 14:17:31
	 Date: 1.SEP.2022 14:18:51
	 Date: 1.SEP.2022 14:20:09

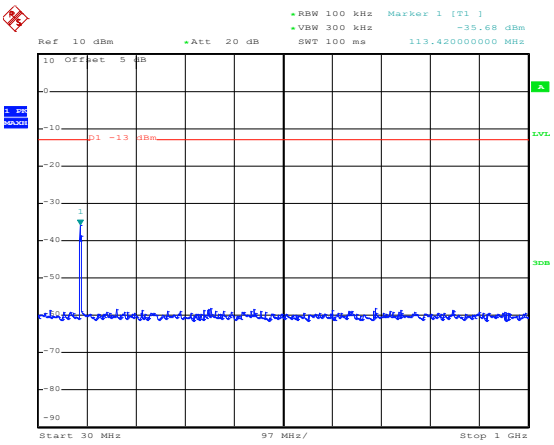
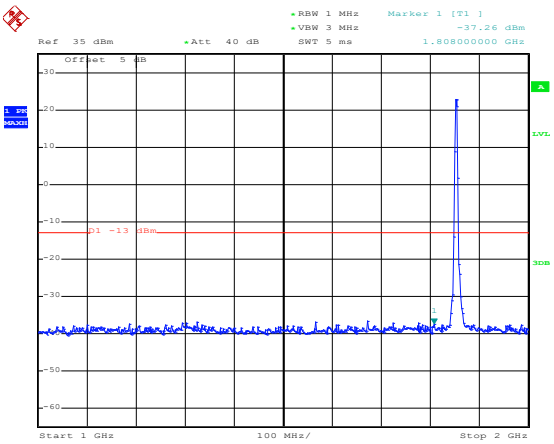
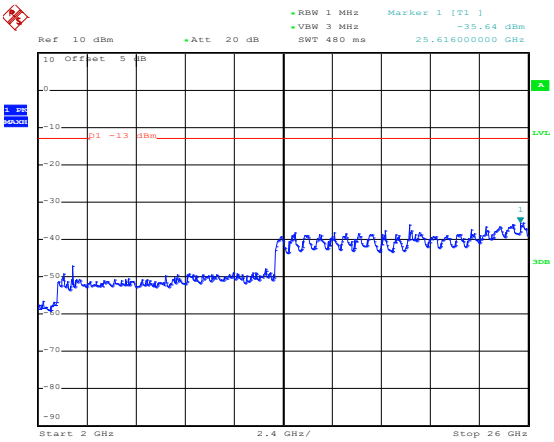
Bandedge	 RBW 100 kHz VBW 300 kHz SWT 2.5 ms Marker 1 [T1] -17.78 dBm 1.850000000 GHz Ref 35 dBm Att 40 dB Offset 5 dB D1 -13 dBm Center 1.85 GHz 1 MHz/ Span 10 MHz Date: 1.SEP.2022 14:10:34  RBW 100 kHz VBW 300 kHz SWT 2.5 ms Marker 1 [T1] -18.15 dBm 1.910000000 GHz Ref 35 dBm Att 40 dB Offset 5 dB D1 -13 dBm Center 1.91 GHz 1 MHz/ Span 10 MHz Date: 1.SEP.2022 14:11:50

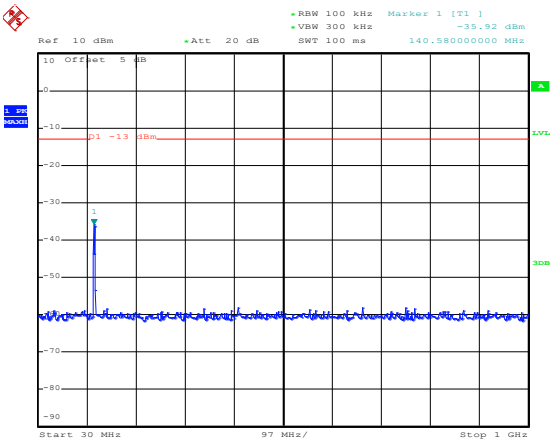
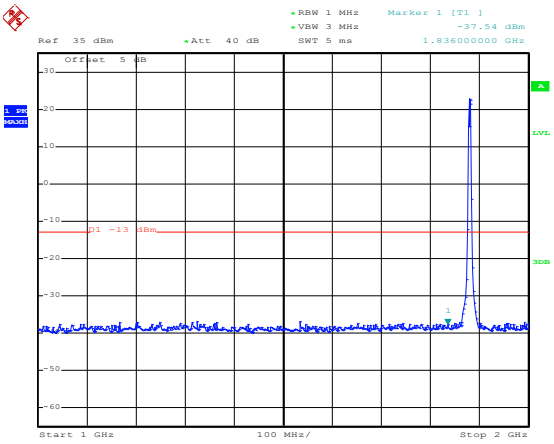
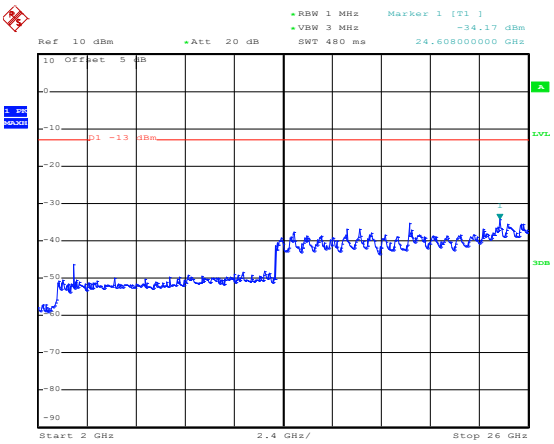
HSDPA Band II-Low	 Date: 1.SEP.2022 14:53:34
	 Date: 1.SEP.2022 14:54:05
	 Date: 1.SEP.2022 14:54:39

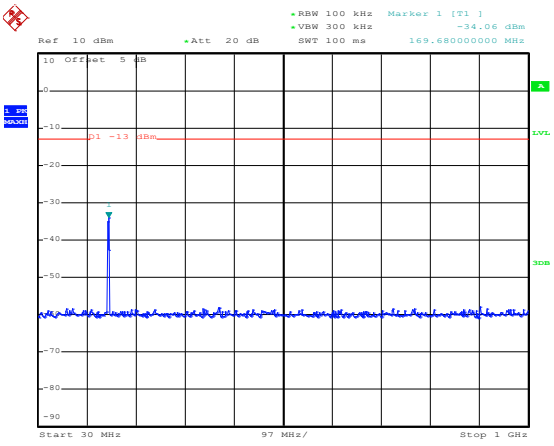
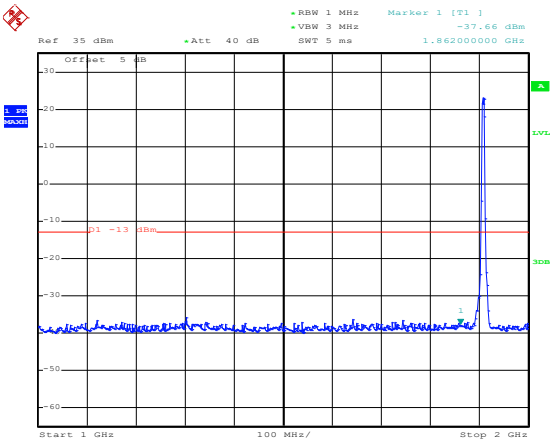
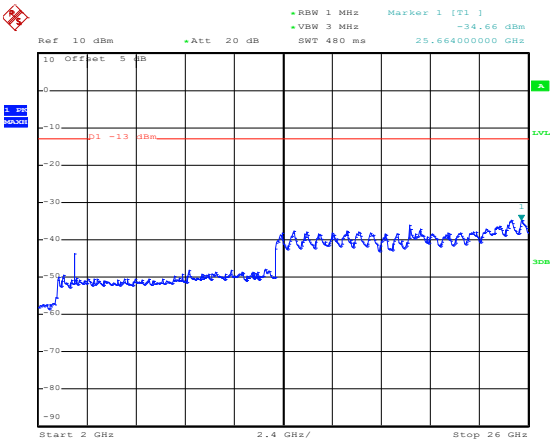
HSDPA Band II-Low	 Date: 1.SEP.2022 14:56:06
	 Date: 1.SEP.2022 14:56:43
	 Date: 1.SEP.2022 14:57:14

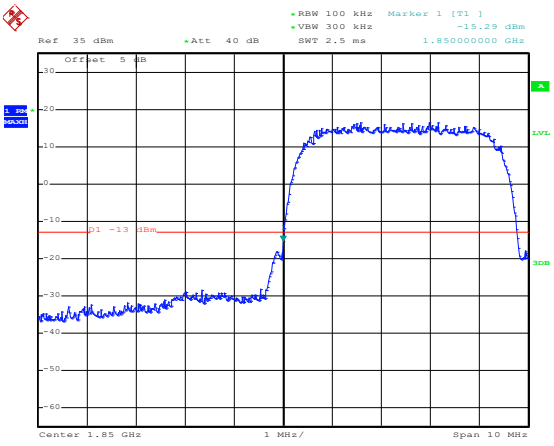
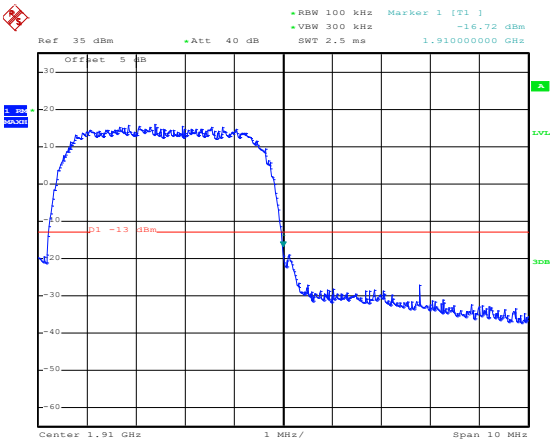
HSDPA Band II-Low	 Date: 1.SEP.2022 15:00:00
	 Date: 1.SEP.2022 15:00:54
	 Date: 1.SEP.2022 15:01:40

Bandedge	 Date: 1.SEP.2022 14:48:51
	 Date: 1.SEP.2022 14:50:47

HSUPA Band II-Low	 Date: 1.SEP.2022 15:12:15
	 Date: 1.SEP.2022 15:12:46
	 Date: 1.SEP.2022 15:13:13

HSUPA Band II-Low	 Date: 1.SEP.2022 15:15:32
	 Date: 1.SEP.2022 15:16:13
	 Date: 1.SEP.2022 15:16:37

HSUPA Band II-Low	 Date: 1.SEP.2022 15:17:48
	 Date: 1.SEP.2022 15:18:54
	 Date: 1.SEP.2022 15:19:41

Bandedge	 Date: 1.SEP.2022 15:10:14  Date: 1.SEP.2022 15:10:46

APPENDIX E

Frequency Stability

Note: 1. Worst case at GSM850/PCS1900/WCDMA B2/B4/B5 middle channel
2. Normal Voltage NV=DC3.87V; Low Voltage LV=DC3.5V;High Voltage HV=DC4.45V

- Frequency stability V.S. Temperature measurement

Reference Frequency: GSM850 Middle channel=190 channel=836.6MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
NV	-30	56	0.0671	2.50	Pass
	-20	45	0.0542		
	-10	41	0.0487		
	0	34	0.0405		
	10	26	0.0313		
	20	22	0.0257		
	30	29	0.0349		
	40	37	0.0441		
	50	41	0.0487		
Reference Frequency: PCS1900 Middle channel=661 channel=1880MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
NV	-30	75	0.0397	2.50	Pass
	-20	63	0.0336		
	-10	57	0.0303		
	0	49	0.0262		
	10	44	0.0233		
	20	37	0.0196		
	30	43	0.0229		
	40	47	0.0250		
	50	55	0.0291		

Reference Frequency: WCDMA Band V Middle channel=4183 channel=836.6MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
NV	-30	56	0.0671	2.50	Pass
	-20	46	0.0552		
	-10	40	0.0478		
	0	33	0.0395		
	10	29	0.0349		
	20	22	0.0257		
	30	26	0.0313		
	40	34	0.0405		
	50	42	0.0497		
Reference Frequency: WCDMA Band IV Middle channel=1412 channel=1733.6MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
NV	-30	66	0.0382	2.50	Pass
	-20	58	0.0333		
	-10	47	0.0271		
	0	42	0.0240		
	10	38	0.0217		
	20	33	0.0191		
	30	38	0.0222		
	40	44	0.0253		
	50	52	0.0297		

Reference Frequency: WCDMA Band II Middle channel=9400 channel=1880MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
NV	-30	75	0.0401	2.50	Pass
	-20	68	0.0364		
	-10	57	0.0303		
	0	50	0.0266		
	10	44	0.0233		
	20	38	0.0200		
	30	44	0.0233		
	40	48	0.0258		
	50	54	0.0286		

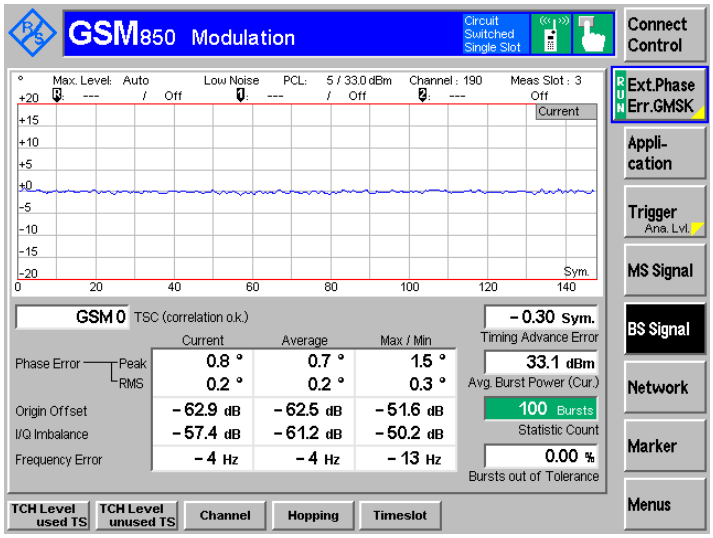
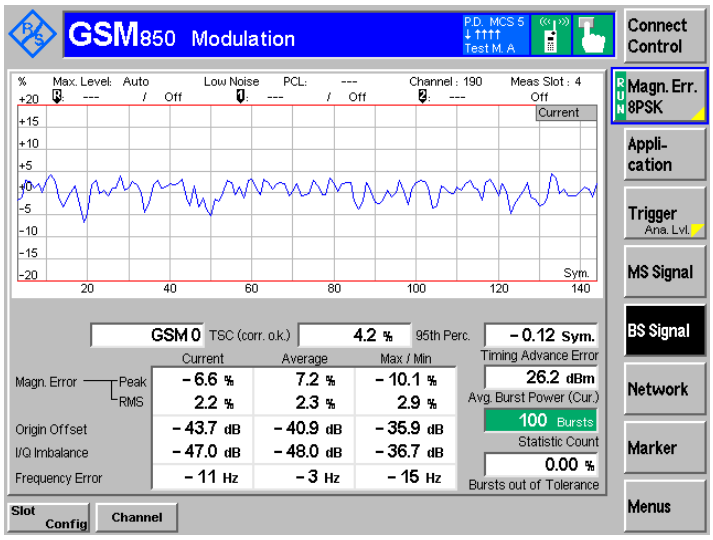
- Frequency stability V.S. Voltage measurement

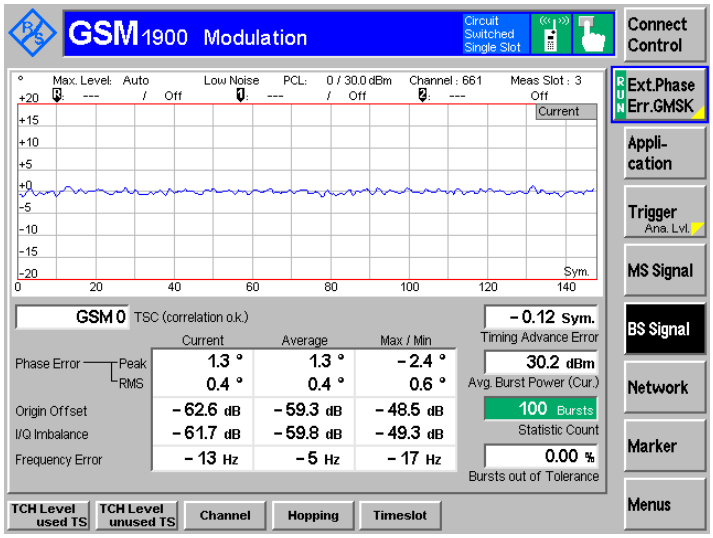
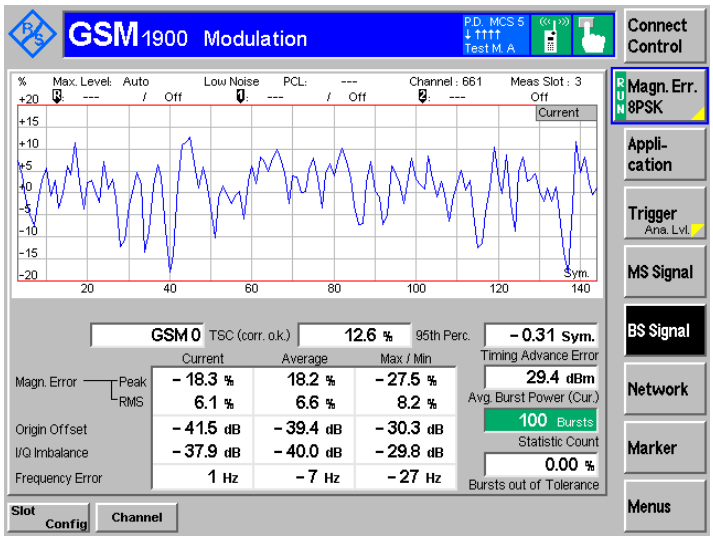
Reference Frequency: GSM850 (GSM link) Middle channel=190 channel=836.6MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	HV	63	0.0754	2.50	Pass
	NV	55	0.0653		
	LV	47	0.0561		
Reference Frequency: PCS1900 (GSM link) Middle channel=661 channel=1880MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	HV	43	0.0515	2.50	Pass
	NV	35	0.0423		
	LV	28	0.0340		

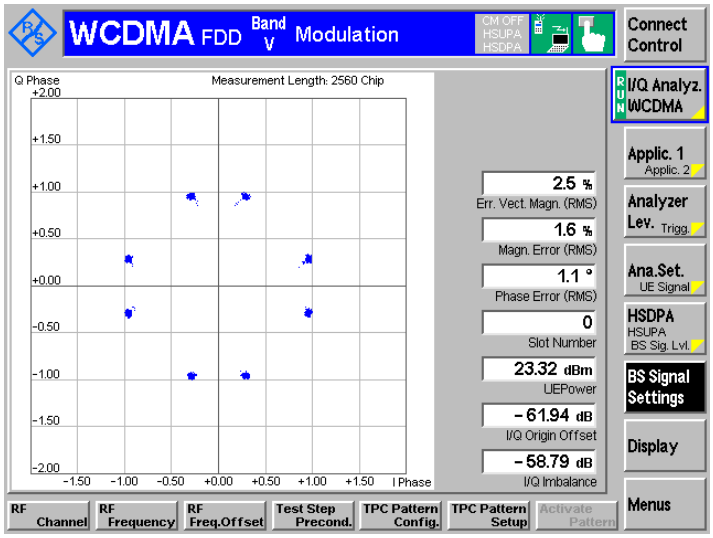
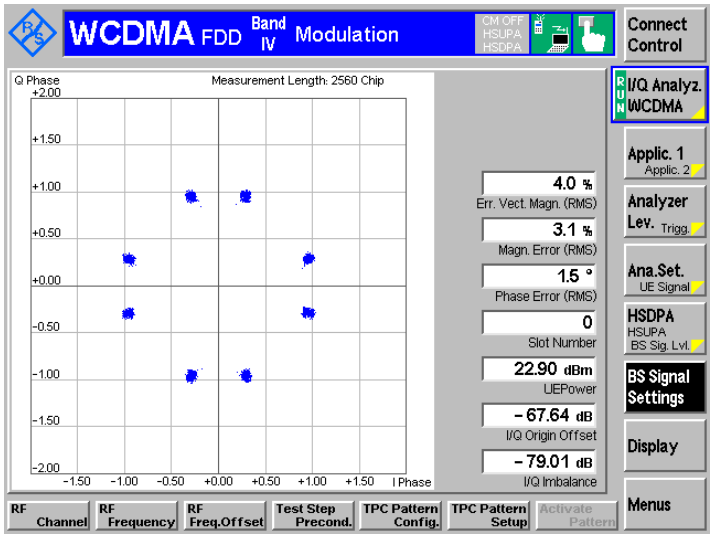
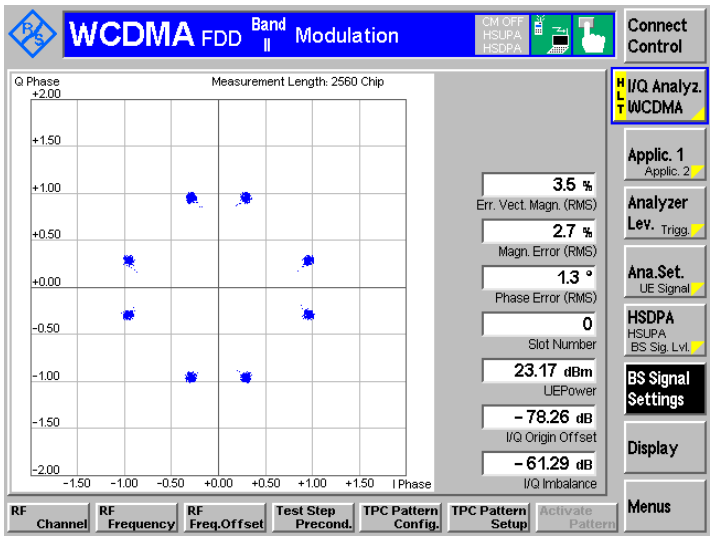
Reference Frequency: WCDMA Band V Middle channel=4183 channel=836.6MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm) Result	
		Hz	ppm		
25	HV	33	0.0395	2.50	Pass
	NV	38	0.0460		
	LV	46	0.0552		
Reference Frequency: WCDMA Band IV Middle channel=1412 channel=1733.6MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	HV	65	0.0373	2.50	Pass
	NV	56	0.0324		
	LV	48	0.0275		
Reference Frequency: WCDMA Band II Middle channel=9400 channel=1880MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	HV	50	0.0266	2.50	Pass
	NV	42	0.0225		
	LV	32	0.0168		

APPENDIX F

Modulation characteristics

GSM850-GMSK	
GSM850-8PSK	

GSM1900-GMSK	
GSM1900-8PSK	

WCDMA B5	
WCDMA B4	
WCDMA B2	

APPENDIX PHOTOGRAPHS

Please refer to “ANNEX”

******* END OF REPORT *******