TEST REPORT

Applicant Name :   SHENZHEN HUAPTEC CO., LTD

Address :   3rd FL,E BLDG, Sogood Science Park, SanWei community,
Hangcheng Street, Bao'an District, Shenzhen, China

Report Number :   RA221107-52053E-RF-00

FCC ID: OWWF27K6S

Test Standard (s)
FCC Part 27, FCC Part 22H/24E

Sample Description

Product Type: Industrial 100K Signal Booster

Model No.:   F27K-6S-IOT

Multiple Model(s) No.:   F27-6S-IoT, F23K-6S-IoT,F23-6S-IoT

Trade Mark: HiBoost

Date Received: 2022/11/07

Report Date: 2023/02/01

Test Result:	Pass*

* In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By: **Approved By:**

Roger.Ling   *Candy.Li*

————————————   ————————————

Roger Ling   Candy Li
EMC Engineer   EMC Engineer

Note: This report may contain data that are not covered by the A2LA accreditation and are marked with an asterisk "★".

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Shenzhen Accurate Technology Co., Ltd.

1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China
Tel: +86 755-26503290   Fax: +86 755-26503396   Web: www.atc-lab.com

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	RA221107-52053E-RF-00	Original Report	2023-02-01

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product Type	Industrial 100K Signal Booster
Model No.	F27K-6S-IOT
Multiple Model(s) No.	F27-6S-IoT, F23K-6S-IoT,F23-6S-IoT (Please refer to DOH S for Model difference)
Voltage Range	DC12V from adapter
Sample serial number	1P75-1 (Assigned by ATC)
Sample/EUT Status	Good condition
Adapter information	Model: GST120A12 Input: AC 100-240V, 50/60Hz, 1.4A Output: DC 12V, 8.5A,102W Max

This device is a fixed industrial signal booster and the Booster Operating frequency bands list below:

Electrical specification	Uplink	Downlink
Frequency Range	663～ 698MHz 698 ～ 716MHz 776 ～ 787MHz 824 ～ 849 MHz 1850 ～ 1915MHz 1710 ～ 1755MHz	617～ 652MHz 728 ～ 746MHz 746 ～ 757MHz 869 ～ 894 MHz 1930 ～ 1995MHz 2110 ～ 2155MHz

Objective

This test report is prepared in accordance with Part 2-Subpart J, Part 22-Subpart H, Part 24-Subpart E, Part 27 and Part 20.21 of the Federal Communication Commissions rules.

The objective is to determine the compliance of the EUT with FCC rules for output power, modulation characteristic, occupied bandwidth, and spurious emission at antenna terminal, spurious radiated emission, frequency stability and band edge.

Test Methodology

All tests and measurements indicated in this document were performed in accordance with the Code of Federal Regulations Title 47 Part 2-Subpart J as well as the following parts:

Part 20.21 – Signal Boosters
Part 22 Subpart H - Public Mobile Services
Part 24 Subpart E - Personal Communication Services
Part 27 – Miscellaneous wireless communications services

Applicable Standards: ANSI C63.26-2015, FCC KDB 935210 D05 Indus Booster Basic Meas v01r04.

All emissions measurement was performed at Shenzhen Accurate Technology Co., Ltd. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		5%
RF Frequency		0.082×10^{-7}
RF output power, conducted		0.73dB
Unwanted Emission, conducted		1.6dB
AC Power Lines Conducted Emissions		2.72dB
Audio Frequency Response		0.1dB
Low Pass Filter Response		1.2dB
Modulation Limiting		1%
Emissions, Radiated	9kHz - 30MHz	2.66dB
	30MHz - 1GHz	4.28dB
	1GHz - 18GHz	4.98dB
	18GHz - 26.5GHz	5.06dB
	26.5GHz - 40GHz	4.72dB
Temperature		1℃
Humidity		6%
Supply voltages		0.4%

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

Test Facility

The test site used by Shenzhen Accurate Technology Co., Ltd. to collect test data is located on the 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No.: 708358, the FCC Designation No.: CN1189. Accredited by American Association for Laboratory Accreditation (A2LA) The Certificate Number is 429 7.01.

Listed by Innovation, Science and Economic Development Canada (ISEDC), the Registration Number is 5077A.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The EUT was configured for testing according to ANSI C63.26-2015.

The final qualification test was performed with the EUT operating at normal mode.

Cable loss and antenna gain:

Indoor:

Frequency Range (MHz)	Panel antenna* (dBi)	Cable loss* (dB)
617-652	6.5	4.97
728-746	6.5	4.97
746-756	6.5	4.97
869-894	6.5	5.17
1930-1995	8.5	7.51
2110-2155	8.5	7.51

Outdoor:

Frequency Range (MHz)	Panel antenna* (dBi)	Cable loss* (dB)
663-698	7.5	4.97
698-716	7.5	4.97
777-787	7.5	4.97
824-849	8	5.17
1850-1915	9	7.51
1710-1755	9	7.51

Note: The antenna gain and cable loss was provided by applicant.

Equipment Modifications

No modification was made to the EUT.

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Unknown	Load	50Ω	Unknown
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	154606

External I/O Cable

Cable Description	Length (m)	From/Port	To
Un-shielded Un-Detachable DC cable	1.2	Adapter	EUT
Shielded Detachable RF cable	5.0	CMW500	EUT
Shielded Detachable RF cable	1.0	EUT	Load

Block Diagram of Test Setup

For Radiated Emissions:
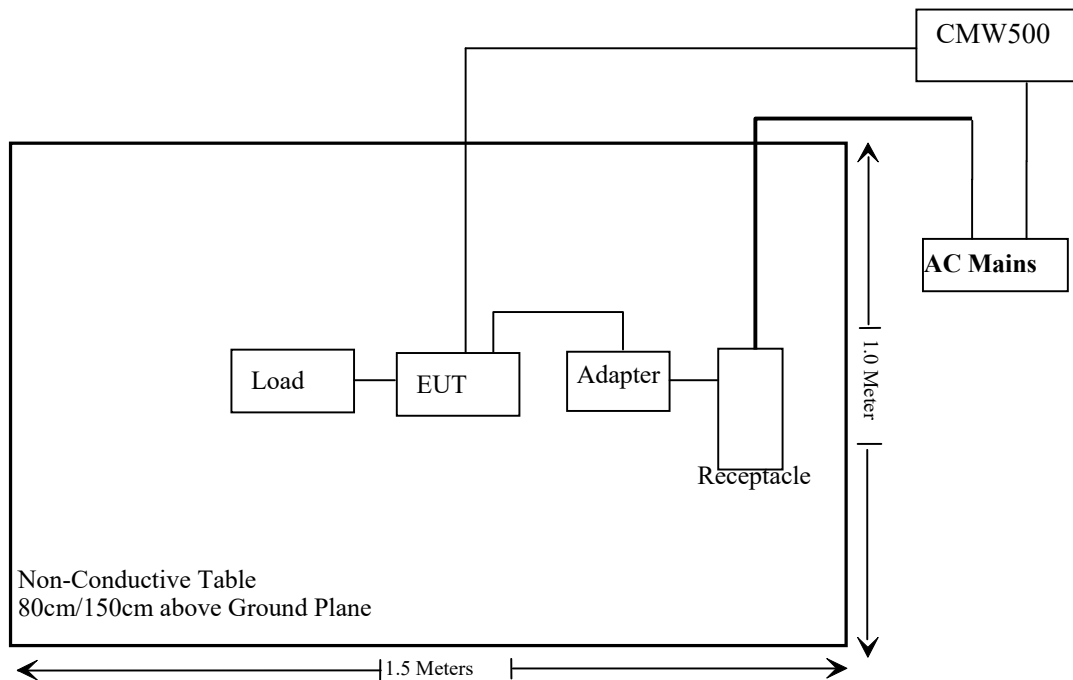
SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§ 2.1046; § 22.913; § 24.232; § 22.913; § 27.50	RF Output Power	Compliant
§ 2.1047	Modulation Characteristics	Not Applicable
§ 2.1049; § 22.917; § 24.238; §27.53	Bandwidth	Compliant
§ 2.1051; § 22.917; § 24.238; §27.53	Spurious Emissions at Antenna Terminal	Compliant
§ 2.1053; § 22.917; § 24.238; §27.53	Field Strength of Spurious Radiation	Compliant
§ 2.1053; § 22.917; § 24.238; §27.53	Band Edge & Intermodulation	Compliant
§ 2.1055; § 22.355; § 24.235; § 27.54	Frequency stability	Not Applicable*
§ 20.21	Out of Band Rejection	Compliant

Not Applicable*: EUT was a signal booster.
 Note: This device is an Industrial Signal Booster

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emissions Test					
Rohde& Schwarz	Test Receiver	ESR	102725	2022/11/25	2023/11/24
Rohde&Schwarz	Spectrum Analyzer	FSV40	101949	2022/11/25	2023/11/24
SONOMA INSTRUMENT	Amplifier	310 N	186131	2022/11/08	2023/11/07
A.H. Systems, inc.	Preamplifier	PAM-0118P	135	2022/11/08	2023/11/07
Quinstar	Amplifier	QLW-18405536-J0	15964001002	2022/11/08	2023/11/07
Unknown	RF Coaxial Cable	No.10	N050	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.11	N1000	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.12	N040	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.13	N300	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.14	N800	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.15	N600	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.16	N650	2022/11/25	2023/11/24
Schwarzbeck	Bilog Antenna	VULB9163	9163-194	2022/11/30	2025/11/29
Schwarzbeck	Bilog Antenna	VULB9163	9163-323	2021/07/06	2024/07/05
Schwarzbeck	Horn Antenna	BBHA9120D	9120D-655	2022/12/26	2025/12/25
Schwarzbeck	Horn Antenna	BBHA9120D	9120D-1067	2022/11/30	2025/11/29
PASTERNACK	Horn Antenna	PE9852/2F-20	1120 (ATC-BA-024-1)	2020/01/06	2023/01/05
PASTERNACK	Horn Antenna	PE9852/2F-20	1120 (ATC-BA-025-1)	2020/01/06	2023/01/05
PASTERNACK	Horn Antenna	PE9850/2F-20	720 (ATC-BA-024)	2020/01/06	2023/01/05
PASTERNACK	Horn Antenna	PE9850/2F-20	720 (ATC-BA-025)	2020/01/06	2023/01/05
Unknown	RFCoaxialCable	No.16	N200	2022/11/25	2023/11/24
Agilent	Signal Generator	N5183A	MY51040755	2022/11/25	2023/11/24

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
Rohde&Schwarz	Spectrum Analyzer	FSV-40	101948	2022/11/25	2023/11/24
SPECTRUM ANALYZER	Rohde & Schwarz	FSU26	200982	2022/07/04	2023/07/03
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	154606	2022/11/25	2023/11/24
WEINSCHEL	10dB Attenuator	5324	AU 3842	2022/11/25	2023/11/24
AGILENT	Vector Signal Generator	N5182B	MY53052129	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.31	RF-01	Each time	
Unknown	RF Coaxial Cable	No.32	RF-02	Each time	

* Statement of Traceability: Shenzhen Accurate Technology Co., Ltd. attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC §2.1047 - MODULATION CHARACTERISTIC

According to FCC § 2.1047(d), Part 22H & 24E and Part 27 there is no specific requirement for digital modulation, therefore modulation characteristic is not presented.

FCC § 2.1046, § 22.913 (a) & § 24.232 (c) & § 27.50 (b) (c) (d) - RF OUTPUT POWER and AMPLIFER GAIN

Applicable Standard

According to FCC §2.1046 and §22.913 (a), the maximum effective radiated power (ERP) of base transmitters and cellular repeaters must not exceed 500 Watts.

According to FCC §2.1046 and §24.232(a)(1) Base stations with an emission bandwidth of 1 MHz or less are limited to 1640 watts equivalent isotropically radiated power (EIRP) with an antenna height up to 300 meters HAAT, except as described in paragraph (b) below.
(2) Base stations with an emission bandwidth greater than 1 MHz are limited to 1640 watts/MHz equivalent isotropically radiated power (EIRP) with an antenna height up to 300 meters HAAT, except as described in paragraph (b) below.
(3) Base station antenna heights may exceed 300 meters HAAT with a corresponding reduction in power; *see* Tables 1 and 2 of this section.

According to §27.50(b), Fixed and base stations transmitting a signal in the 746-757 MHz and 776-787 MHz bands with an emission bandwidth greater than 1 MHz must not exceed an ERP of 1000 watts/MHz and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts/MHz ERP in accordance with Table 3 of this section.

According to §27.50(c), Fixed and base stations transmitting a signal in the 746-757 MHz and 776-787 MHz bands with an emission bandwidth greater than 1 MHz must not exceed an ERP of 1000 watts/MHz and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts/MHz ERP in accordance with Table 3 of this section.

Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

According to §27.50(d)(2), The power of each fixed or base station transmitting in the 1995-2000 MHz, the 2110-2155 MHz 2155-2180 MHz band, or 2180-2200 MHz band and situated in any geographic location other than that described in paragraph (d)(1) of this section is limited to:

(i) An equivalent isotropically radiated power (EIRP) of 1640 watts when transmitting with an emission bandwidth of 1 MHz or less;

(ii) An EIRP of 1640 watts/MHz when transmitting with an emission bandwidth greater than 1 MHz.

According to §27.50(d)(4), Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP. Fixed stations operating in the 1710-1755 MHz band are limited to a maximum antenna height of 10 meters above ground. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

Test Procedure

Conducted method:

According to KDB 935210 D05 Indus Booster Basic Meas v01r04 clause 3.5
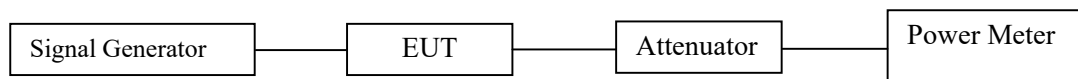
| Signal Generator | — | EUT | — | Attenuator | — | Power Meter |

Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	52 %
ATM Pressure:	101.0 kPa

The testing was performed by Glenn.Jiang on 2023-01-14 and 2023-02-01.

AGC Level:

Mode	Operation Band	Signal type	AGC level dBm	Mode	Operation Band	Signal type	AGC level dBm
Uplink	600MHz Band	AWGN	-54.5	Downlink	600MHz Band	AWGN	-55.5
		GSM	-55.5			GSM	-56.5
	Lower 700 MHz	AWGN	-54.5		Lower 700 MHz	AWGN	-54.5
		GSM	-55.5			GSM	-56.5
	Upper 700 MHz	AWGN	-55.5		Upper 700 MHz	AWGN	-58.5
		GSM	-56.5			GSM	-58.5
	cellular	AWGN	-55.5		cellular	AWGN	-58.5
		GSM	-56.5			GSM	-58.5
	PCS	AWGN	-56.5		PCS	AWGN	-55.5
		GSM	-56.5			GSM	-56.0
	AWS	AWGN	-52.5		AWS	AWGN	-56.5
		GSM	-52.5			GSM	-57.5

600MHz Band

Modes	Frequency (MHz)	Signal Type	Signal Level	Input power (dBm)	Output Power (dBm)	Gain (dB)	ERP (dBm)
Uplink	680.78	AWGN	Pre-AGC	-55	24.31	79.31	24.69
			3dB above AGC	-51.5	24.91	76.41	25.29
		GSM	Pre-AGC	-56	24.63	80.63	25.01
			3dB above AGC	-52.5	24.01	76.51	24.39
Downlink	633.659	AWGN	Pre-AGC	-56	27.52	83.52	26.90
			3dB above AGC	-52.5	27.89	80.39	27.27
		GSM	Pre-AGC	-57	27.31	84.31	26.69
			3dB above AGC	-53.5	27.6	81.1	26.98

Note:
ERP=Conducted Output Power(dBm) +AntennaGain(dBd)-Cable loss(dB)
For 600MHz band, the antenna gain is 7.5dBi (5.35dBd) for Uplink, 6.5dBi (4.35dBd) for Downlink
0dBd=2.15dBi
Cable loss=4.97dB for uplink and downlink
ERP Limit: ≤ 3W(34.77dBm)
The frequency which selected to test was according to the peak of the frequency point from out-of- band rejection test band rejection test.

Lower 700MHz (A+B+C Block) Band:

Modes	Frequency (MHz)	Signal Type	Signal Level	Input power (dBm)	Output Power (dBm)	Gain (dB)	ERP (dBm)
Uplink	700.43	AWGN	Pre-AGC	-55	24.36	79.36	24.74
			3dB above AGC	-51.5	24.63	76.13	25.01
		GSM	Pre-AGC	-56	24.02	80.02	24.40
			3dB above AGC	-52.5	24.31	76.81	24.69
Downlink	735.125	AWGN	Pre-AGC	-55	28.06	83.06	27.44
			3dB above AGC	-51.5	28.63	80.13	28.01
		GSM	Pre-AGC	-57	27.16	84.16	26.54
			3dB above AGC	-53.5	27.86	81.36	27.24

Note:
ERP=Conducted Output Power(dBm) +AntennaGain(dBd)-Cable loss(dB)
For 700MHz band, the antenna gain is 7.5dBi (5.35dBd) for Uplink, 6.5dBi (4.35dBd) for Downlink
0dBd=2.15dBi
Cable loss=4.97dB for uplink and downlink
ERP Limit: ≤ 1000W/MHz
The frequency which selected to test was according to the peak of the frequency point from out-of- band rejection test band rejection test.

Upper 700MHz (C Block) Band:

Modes	Frequency (MHz)	Signal Type	Signal Level	Input power (dBm)	Output Power (dBm)	Gain (dB)	ERP (dBm)
Uplink	779.12	AWGN	Pre-AGC	-56	24.86	80.86	25.24
			3dB above AGC	-52.5	24.99	77.49	25.37
		GSM	Pre-AGC	-57	24.63	81.63	25.01
			3dB above AGC	-53.5	24.96	78.46	25.34
Downlink	749.825	AWGN	Pre-AGC	-59	27.69	86.69	27.07
			3dB above AGC	-55.5	27.99	83.49	27.37
		GSM	Pre-AGC	-59	27.63	86.63	27.01
			3dB above AGC	-55.5	27.69	83.19	27.07

Note:
ERP=Conducted Output Power(dBm) +AntennaGain(dBd)-Cable loss(dB)
For 700MHz band, the antenna gain is 7.5dBi (5.35dBd) for Uplink, 6.5dBi (4.35dBd) for Downlink
0dBd=2.15dBi
Cable loss=4.97dB for uplink and downlink
ERP Limit: ≤ 3W(34.77dBm) for Uplink, ≤ 1000W/MHz for downlink
The frequency which selected to test was according to the peak of the frequency point from out-of- band rejection test band rejection test.

Cellular Band:

Modes	Frequency (MHz)	Signal Type	Signal Level	Input power (dBm)	Output Power (dBm)	Gain (dB)	ERP (dBm)
Uplink	831.09	AWGN	Pre-AGC	-56	23.79	79.79	24.47
			3dB above AGC	-52.5	23.88	76.38	24.56
		GSM	Pre-AGC	-57	23.23	80.23	23.91
			3dB above AGC	-53.5	23.39	76.89	24.07
Downlink	882.1	AWGN	Pre-AGC	-59	28.55	87.55	27.73
			3dB above AGC	-55.5	28.96	84.46	28.14
		GSM	Pre-AGC	-59	28.12	87.12	27.30
			3dB above AGC	-55.5	28.56	84.06	27.74

Note:
ERP=Conducted Output Power(dBm) +AntennaGain(dBd)-Cable loss(dB)
For Cellular band, the antenna gain is 8.0dBi (5.85dBd) for Uplink, 6.5dBi (4.35dBd) for Downlink
0dBd=2.15dBi
Cable loss=5.17dB for uplink and downlink
ERP Limit: ≤ 500W
The frequency which selected to test was according to the peak of the frequency point from out-of- band rejection test band rejection test.

PCS Band:

Modes	Frequency (MHz)	Signal Type	Signal Level	Input power (dBm)	Output Power (dBm)	Gain (dB)	EIRP (dBm)
Uplink	1874.69	AWGN	Pre-AGC	-57	23.01	80.01	24.5
			3dB above AGC	-53.5	23.65	77.15	25.14
		GSM	Pre-AGC	-57	23.56	80.56	25.05
			3dB above AGC	-53.5	23.32	76.82	24.81
Downlink	1945.31	AWGN	Pre-AGC	-56	28.96	84.96	29.95
			3dB above AGC	-52.5	28.92	81.42	29.91
		GSM	Pre-AGC	-56.5	28.86	85.36	29.85
			3dB above AGC	-53	28.93	81.93	29.92

Note:
EIRP=Conducted Output Power(dBm) +AntennaGain(dBi)-Cable loss(dB)
For PCS band, the antenna gain is 9.0dBi for Uplink, 8.5dBi for Downlink
Cable loss=7.51dB for uplink and downlink
EIRP Limit: ≤ 1640W or 1640W/MHz
The frequency which selected to test was according to the peak of the frequency point from out-of- band rejection test band rejection test.

AWS Band:

Modes	Frequency (MHz)	Signal Type	Signal Level	Input power (dBm)	Output Power (dBm)	Gain (dB)	EIRP (dBm)
Uplink	1732.66	AWGN	Pre-AGC	-53	23.47	76.47	24.96
			3dB above AGC	-49.5	23.69	73.19	25.18
		GSM	Pre-AGC	-53	23.21	76.21	24.7
			3dB above AGC	-49.5	23.42	72.92	24.91
Downlink	2153.97	AWGN	Pre-AGC	-57	28.6	85.6	29.59
			3dB above AGC	-53.5	28.7	82.2	29.69
		GSM	Pre-AGC	-58	28.24	86.24	29.23
			3dB above AGC	-54.5	28.42	82.92	29.41

Note:
EIRP=Conducted Output Power(dBm) +AntennaGain(dBi)-Cable loss(dB)
For AWS band, the antenna gain is 9.0dBi for Uplink, 8.5dBi for Downlink
Cable loss=7.51dB for uplink and downlink
EIRP Limit: ≤ 1W(30dBm) for Uplink, ≤ 1640W for downlink
The frequency which selected to test was according to the peak of the frequency point from out-of- band rejection test band rejection test.

FCC §2.1049, §22.917 & §24.238 & §27.53 - BANDWIDTH

Applicable Standard

FCC §2.1049, §22.917, §22.905, §24.238 & §27.53.

Test Procedure

According to KDB 935210 D05 Indus Booster Basic Meas v01r04 clause 3.4

A 26 dB bandwidth measurement shall be performed on the input signal and the output signal (alternatively, the 99% OBW can be measured and used) to demonstrate compliance to the technical requirements specified in §90.219(e)(4)(i) and (ii). See KDB Publication 971168 for more information regarding measuring the OBW.
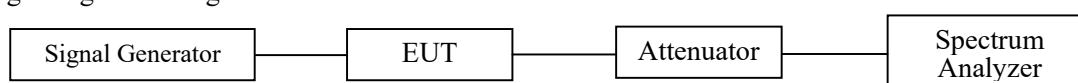
Signal Generator	—	EUT	—	Attenuator	—	Spectrum Analyzer

Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	52 %
ATM Pressure:	101.0 kPa

The testing was performed by Glenn.Jiang on 2022-12-19.

EUT operation mode: Transmitting

Test Result: Compliance. Please refer to the following tables and plots.

600MHz Band

Mode	Signal Type	Signal Level	Frequency (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)	
				Input	Output	Input	Output
Uplink	AWGN	Pre-AGC	680.5	4.168	4.197	4.696	4.754
		3dB above AGC	680.5	4.168	4.197	4.710	4.913
	GSM	Pre-AGC	680.5	0.246	0.246	0.322	0.322
		3dB above AGC	680.5	0.246	0.246	0.322	0.322
Downlink	AWGN	Pre-AGC	634.5	4.168	4.168	4.696	4.710
		3dB above AGC	634.5	4.168	4.153	4.710	4.696
	GSM	Pre-AGC	634.5	0.246	0.245	0.322	0.322
		3dB above AGC	634.5	0.246	0.245	0.322	0.323

99% Bandwidth-UL-AWGN-Pre AGC-Input
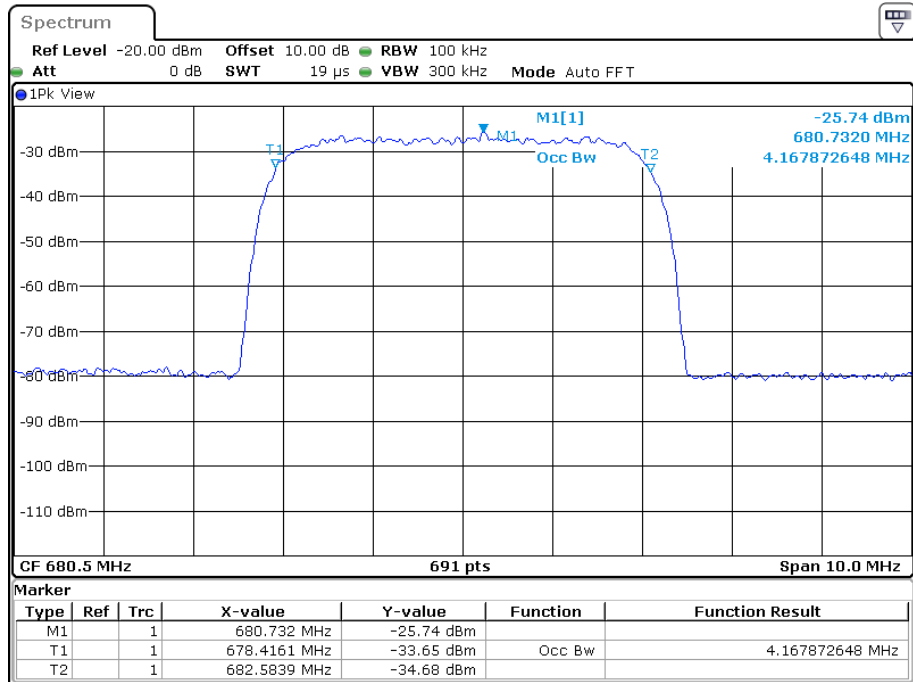
Date: 19.DEC.2022 18:01:03

99% Bandwidth-UL- AWGN-3dB above AGC-Input
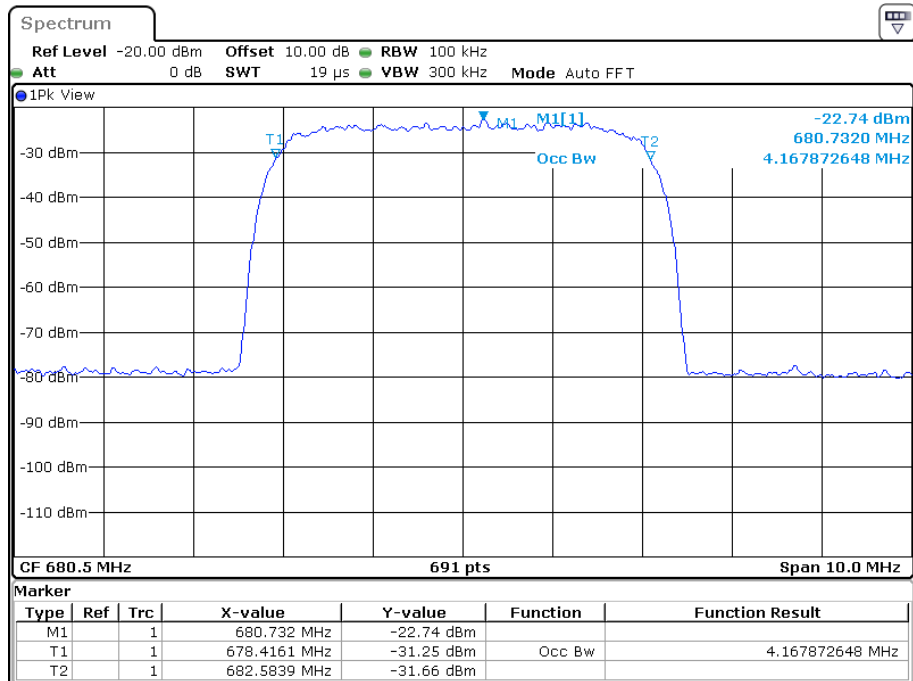
Date: 19.DEC.2022 18:08:01

99% Bandwidth-UL-GSM-Pre AGC-Input

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	680.5116 MHz	-43.01 dBm		
T1		1	680.37844 MHz	-57.43 dBm	Occ Bw	246.020260492 kHz
T2		1	680.62446 MHz	-56.03 dBm		
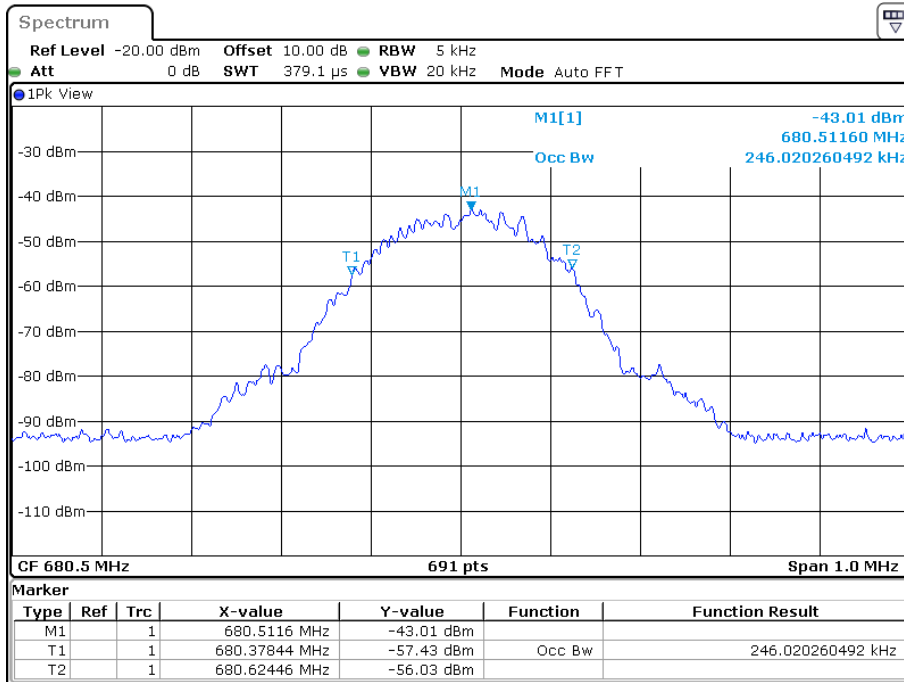
Date: 19.DEC.2022 17:47:17

99% Bandwidth-UL- GSM-3dB above AGC-Input

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	680.5116 MHz	-42.77 dBm		
T1		1	680.37844 MHz	-57.21 dBm	Occ Bw	246.020260492 kHz
T2		1	680.62446 MHz	-55.73 dBm		
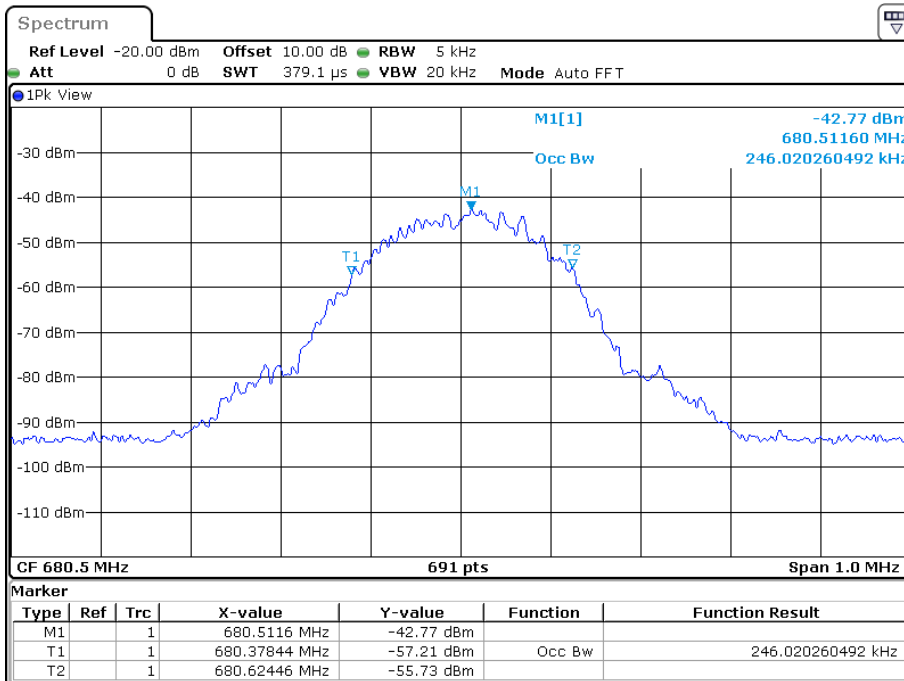
Date: 19.DEC.2022 17:54:05

99% Bandwidth-DL- AWGN- Pre AGC -Input


```
Spectrum
  Ref Level  -20.00 dBm   Offset 10.00 dB ● RBW  100 kHz
● Att            0 dB   SWT        19 µs ● VBW 300 kHz    Mode Auto FFT
● 1Pk View
                                                 M1[1]              -25.73 dBm
                                                               634.7320 MHz
 -30 dBm                    T1              Occ Bw         4.167872648 MHz
 -40 dBm
 -50 dBm
 -60 dBm
 -70 dBm
 -80 dBm
 -90 dBm
-100 dBm
-110 dBm
 CF 634.5 MHz                        691 pts                  Span 10.0 MHz
```

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	634.732 MHz	-25.73 dBm		
T1		1	632.4161 MHz	-33.67 dBm	Occ Bw	4.167872648 MHz
T2		1	636.5839 MHz	-34.05 dBm		
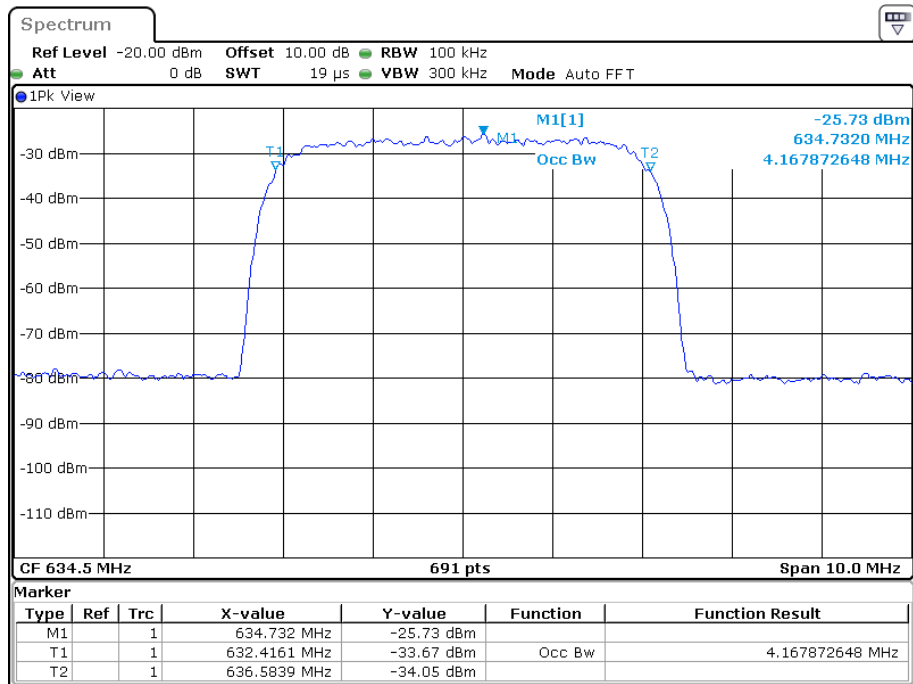
Date: 19.DEC.2022 17:57:43

99% Bandwidth-DL- AWGN- 3dB Above AGC -Input


```
Spectrum
  Ref Level  -20.00 dBm   Offset 10.00 dB ● RBW  100 kHz
● Att            0 dB   SWT        19 µs ● VBW 300 kHz    Mode Auto FFT
● 1Pk View
                                                 M1[1]              -22.84 dBm
                                                               634.9780 MHz
 -30 dBm                    T1              Occ Bw         4.167872648 MHz
 -40 dBm
 -50 dBm
 -60 dBm
 -70 dBm
 -80 dBm
 -90 dBm
-100 dBm
-110 dBm
 CF 634.5 MHz                        691 pts                  Span 10.0 MHz
```

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	634.978 MHz	-22.84 dBm		
T1		1	632.4161 MHz	-30.88 dBm	Occ Bw	4.167872648 MHz
T2		1	636.5839 MHz	-31.03 dBm		
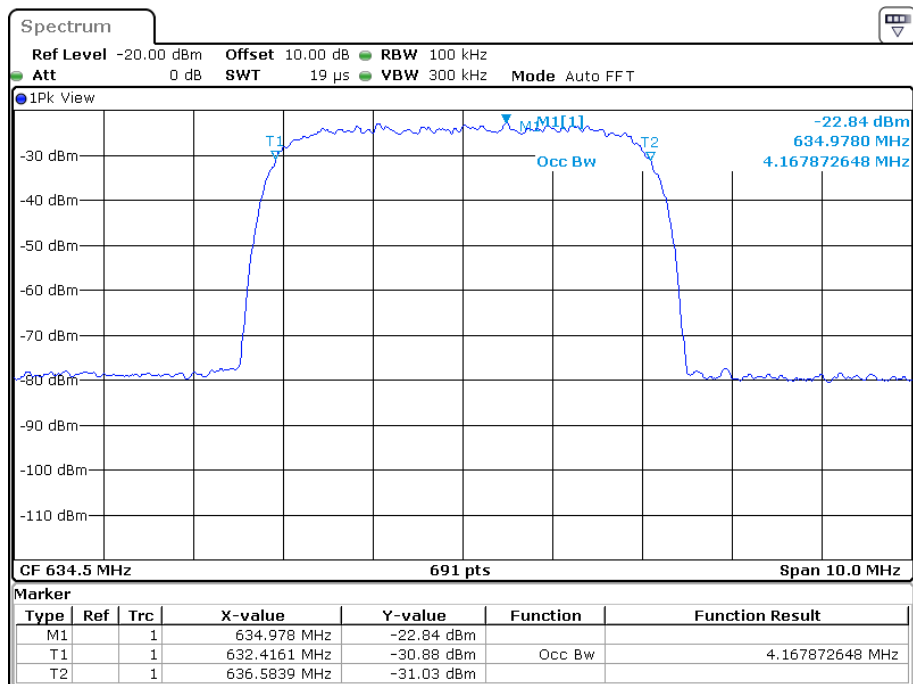
Date: 19.DEC.2022 18:04:32

99% Bandwidth-DL- GSM- Pre AGC -Input
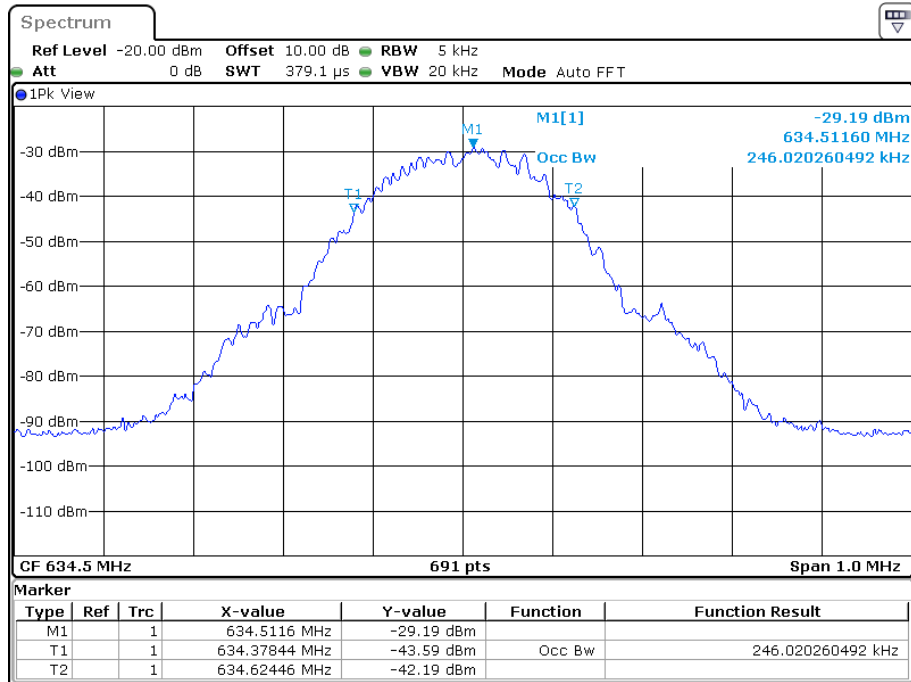
99% Bandwidth-DL- GSM- 3dB Above AGC -Input

Date: 19.DEC.2022 17:50:35

99% Bandwidth-UL- AWGN- Pre AGC -Output

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	680.978 MHz	20.24 dBm		
T1		1	678.4016 MHz	12.21 dBm	Occ Bw	4.196816208 MHz
T2		1	682.5984 MHz	11.07 dBm		

Date: 19.DEC.2022 17:10:18

99% Bandwidth-UL- AWGN-3dB above AGC-Output

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	680.732 MHz	20.22 dBm		
T1		1	678.4016 MHz	12.11 dBm	Occ Bw	4.196816208 MHz
T2		1	682.5984 MHz	11.08 dBm		

Date: 19.DEC.2022 17:14:36

99% Bandwidth-UL- GSM- Pre AGC -Output

```
Spectrum                                                              ▦
  Ref Level 30.00 dBm   Offset 10.00 dB  ● RBW   5 kHz
● Att         30 dB    SWT   379.1 µs   ● VBW  20 kHz    Mode Auto FFT
● 1Pk View
                                              M1[1]            18.40 dBm
                                        M1                 680.51160 MHz
  20 dBm                                      Occ Bw     246.020260492 kHz
  10 dBm                      T1                T2
   0 dBm
 -10 dBm
 -20 dBm
 -30 dBm
 -40 dBm
 -50 dBm
 -60 dBm
 CF 680.5 MHz                         691 pts                  Span 1.0 MHz
```

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	680.5116 MHz	18.40 dBm		
T1		1	680.37844 MHz	4.02 dBm	Occ Bw	246.020260492 kHz
T2		1	680.62446 MHz	5.39 dBm		

Date: 19.DEC.2022 16:34:56

99% Bandwidth-UL- GSM-3dB above AGC-Output

```
Spectrum                                                              ▦
  Ref Level 30.00 dBm   Offset 10.00 dB  ● RBW   5 kHz
● Att         30 dB    SWT   379.1 µs   ● VBW  20 kHz    Mode Auto FFT
● 1Pk View
                                              M1[1]            18.36 dBm
                                        M1                 680.51160 MHz
  20 dBm                                      Occ Bw     246.020260492 kHz
  10 dBm                      T1                T2
   0 dBm
 -10 dBm
 -20 dBm
 -30 dBm
 -40 dBm
 -50 dBm
 -60 dBm
 CF 680.5 MHz                         691 pts                  Span 1.0 MHz
```

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	680.5116 MHz	18.36 dBm		
T1		1	680.37844 MHz	3.98 dBm	Occ Bw	246.020260492 kHz
T2		1	680.62446 MHz	5.34 dBm		

Date: 19.DEC.2022 16:38:32

99% Bandwidth-DL- AWGN- Pre AGC -Output


```
Spectrum                                                                      ▥
    Ref Level 30.00 dBm    Offset 10.00 dB ● RBW 100 kHz
  ● Att        30 dB    SWT    19 µs ● VBW 300 kHz    Mode Auto FFT
  ● 1Pk View
                                                M1[1]              20.19 dBm
                                                                633.5590 MHz
   20 dBm                        M1          Occ Bw            4.167872648 MHz
                              T1
   10 dBm                                              T2
    0 dBm
  -10 dBm
  -20 dBm
  -30 dBm
  -40 dBm
  -50 dBm
  -60 dBm
   CF 634.5 MHz                      691 pts                    Span 10.0 MHz
 Marker
```

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	633.559 MHz	20.19 dBm		
T1		1	632.4016 MHz	11.97 dBm	Occ Bw	4.167872648 MHz
T2		1	636.5695 MHz	10.68 dBm		

Date: 19.DEC.2022 17:31:08

99% Bandwidth-DL- AWGN- 3dB Above AGC -Output


```
Spectrum                                                                      ▥
    Ref Level 30.00 dBm    Offset 10.00 dB ● RBW 100 kHz
  ● Att        30 dB    SWT    19 µs ● VBW 300 kHz    Mode Auto FFT
  ● 1Pk View
                                                M1[1]              20.10 dBm
                                                                633.5590 MHz
   20 dBm                        M1          Occ Bw            4.153400868 MHz
                              T1
   10 dBm                                              T2
    0 dBm
  -10 dBm
  -20 dBm
  -30 dBm
  -40 dBm
  -50 dBm
  -60 dBm
   CF 634.5 MHz                      691 pts                    Span 10.0 MHz
 Marker
```

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	633.559 MHz	20.10 dBm		
T1		1	632.4016 MHz	11.95 dBm	Occ Bw	4.153400868 MHz
T2		1	636.555 MHz	11.31 dBm		

Date: 19.DEC.2022 17:36:14

99% Bandwidth-DL- GSM- Pre AGC -Output

```
Spectrum                                                                  ▭
  Ref Level 30.00 dBm   Offset 10.00 dB  ● RBW   5 kHz
● Att         30 dB    SWT    379.1 µs  ● VBW  20 kHz    Mode Auto FFT
● 1Pk View
                                                  M1[1]              16.63 dBm
                                                                634.51160 MHz
 20 dBm                                  M1    Occ Bw      244.573082489 kHz
 10 dBm
                                    T1           T2
  0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
CF 634.5 MHz                        691 pts                        Span 1.0 MHz
```

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	634.5116 MHz	16.63 dBm		
T1		1	634.37844 MHz	2.41 dBm	Occ Bw	244.573082489 kHz
T2		1	634.62301 MHz	3.48 dBm		

Date: 19.DEC.2022 17:24:05

99% Bandwidth-DL- GSM- 3dB Above AGC -Output

```
Spectrum                                                                  ▭
  Ref Level 30.00 dBm   Offset 10.00 dB  ● RBW   5 kHz
● Att         30 dB    SWT    379.1 µs  ● VBW  20 kHz    Mode Auto FFT
● 1Pk View
                                                  M1[1]              16.60 dBm
                                                                634.51160 MHz
 20 dBm                                  M1    Occ Bw      244.573082489 kHz
 10 dBm
                                    T1           T2
  0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
CF 634.5 MHz                        691 pts                        Span 1.0 MHz
```

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	634.5116 MHz	16.60 dBm		
T1		1	634.37844 MHz	2.40 dBm	Occ Bw	244.573082489 kHz
T2		1	634.62301 MHz	3.48 dBm		

Date: 19.DEC.2022 17:27:23

26 dB Bandwidth-UL-AWGN-Pre AGC-Input
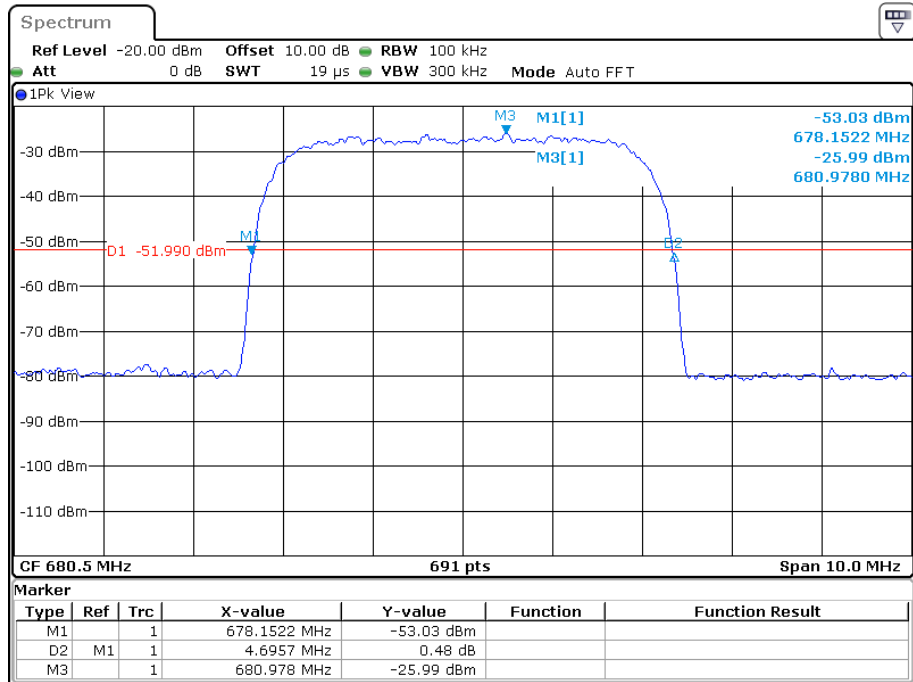
Date: 19.DEC.2022 18:01:18

26 dB Bandwidth-UL- AWGN-3dB above AGC-Input
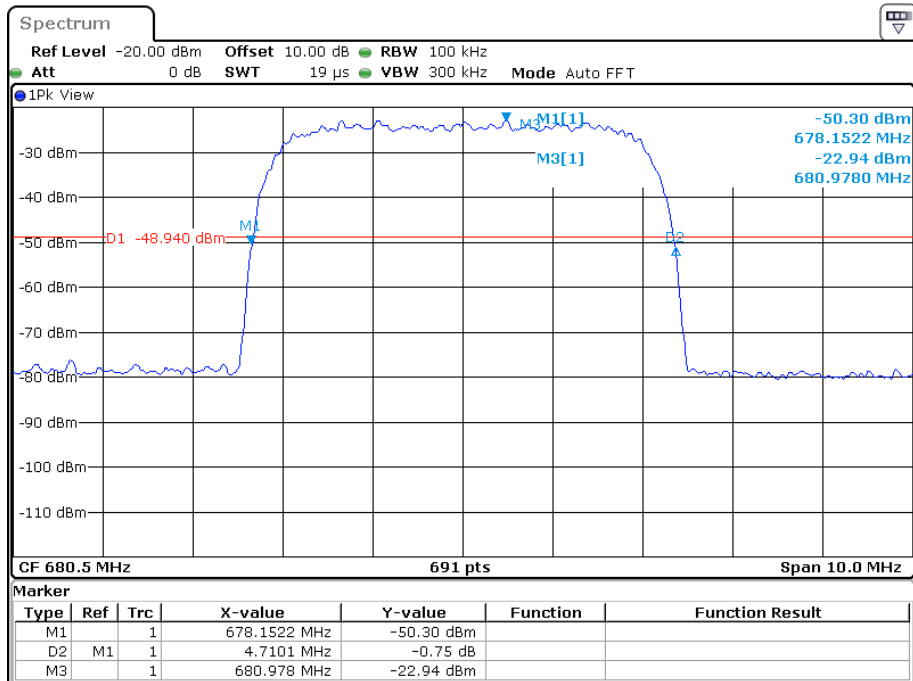
Date: 19.DEC.2022 18:08:16

26 dB Bandwidth-UL-GSM-Pre AGC-Input

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	680.33623 MHz	-69.28 dBm		
D2	M1	1	321.74 kHz	-0.41 dB		
M3		1	680.5116 MHz	-42.97 dBm		
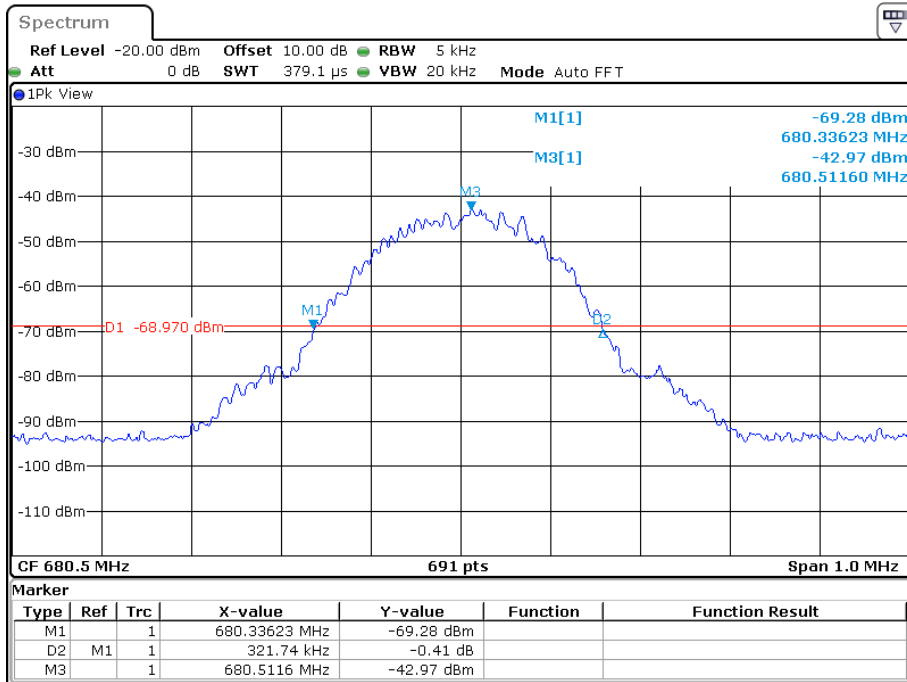
Date: 19.DEC.2022　17:47:32

26 dB Bandwidth-UL- GSM-3dB above AGC-Input

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	680.33623 MHz	-69.00 dBm		
D2	M1	1	321.74 kHz	-0.52 dB		
M3		1	680.5116 MHz	-42.77 dBm		

Date: 19.DEC.2022　17:54:20

26 dB Bandwidth-DL- AWGN- Pre AGC -Input

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	632.1522 MHz	-52.39 dBm		
D2	M1	1	4.6957 MHz	-0.80 dB		
M3		1	634.717 MHz	-25.95 dBm		
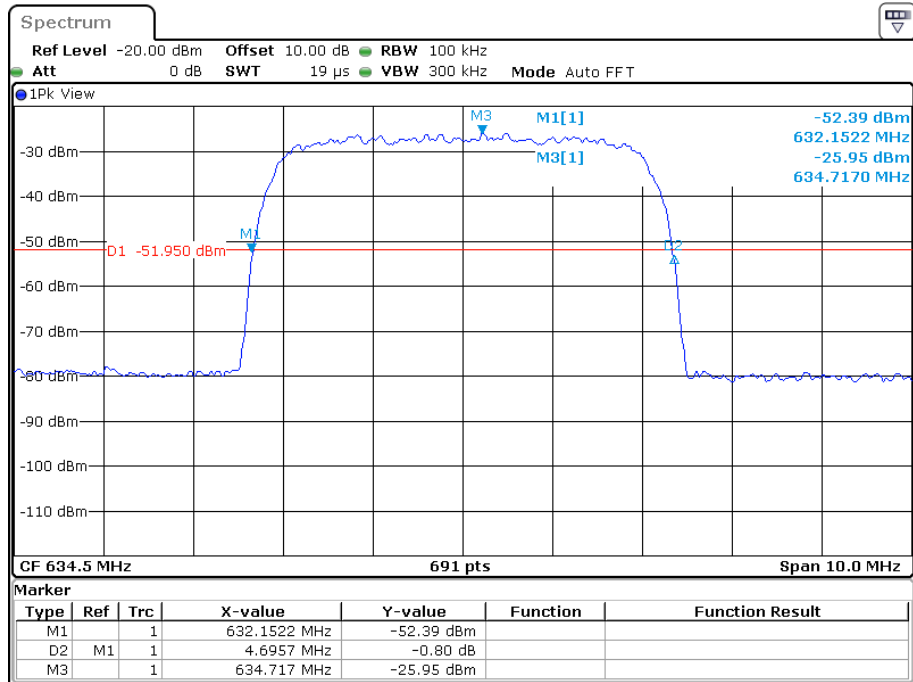
Date: 19.DEC.2022 17:57:58

26 dB Bandwidth-DL- AWGN- 3dB Above AGC -Input

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	632.1522 MHz	-49.33 dBm		
D2	M1	1	4.7101 MHz	-1.71 dB		
M3		1	634.978 MHz	-22.81 dBm		

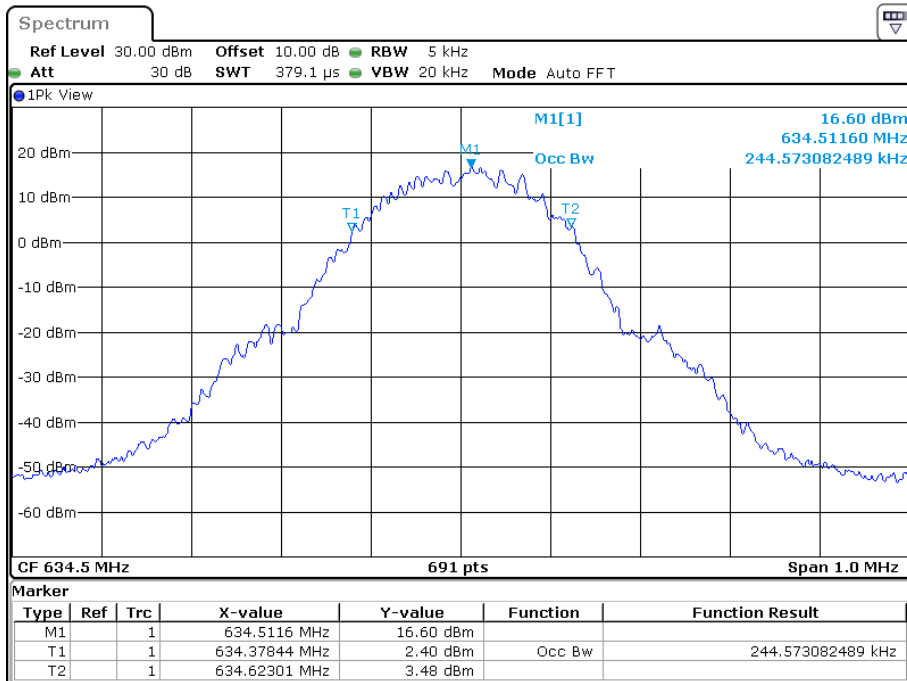Date: 19.DEC.2022 18:04:57

26 dB Bandwidth-DL- GSM- Pre AGC -Input

Date: 19.DEC.2022 17:44:03

26 dB Bandwidth-DL- GSM- 3dB Above AGC -Input
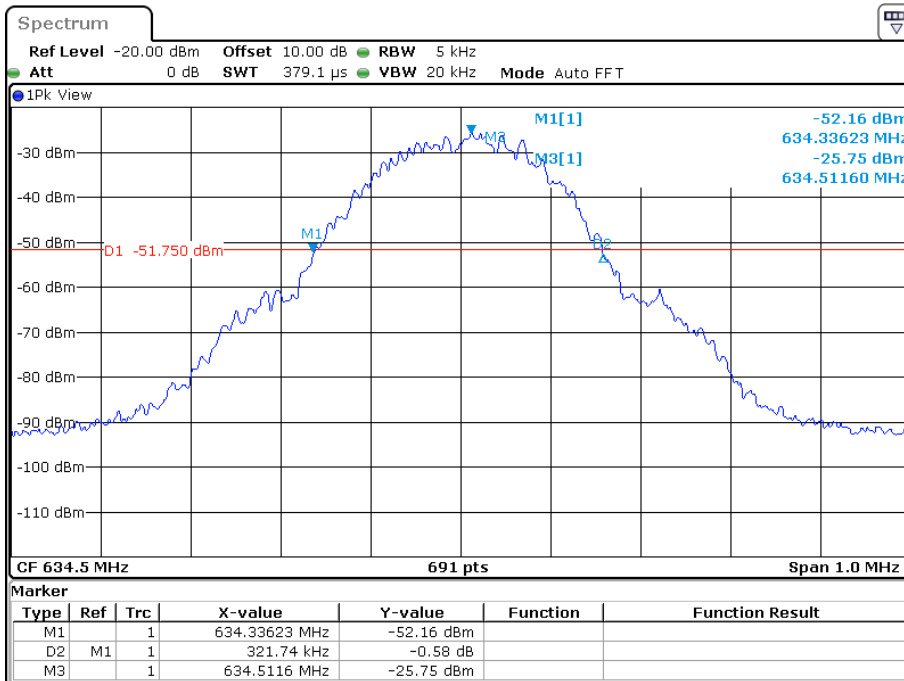
Date: 19.DEC.2022 17:50:50
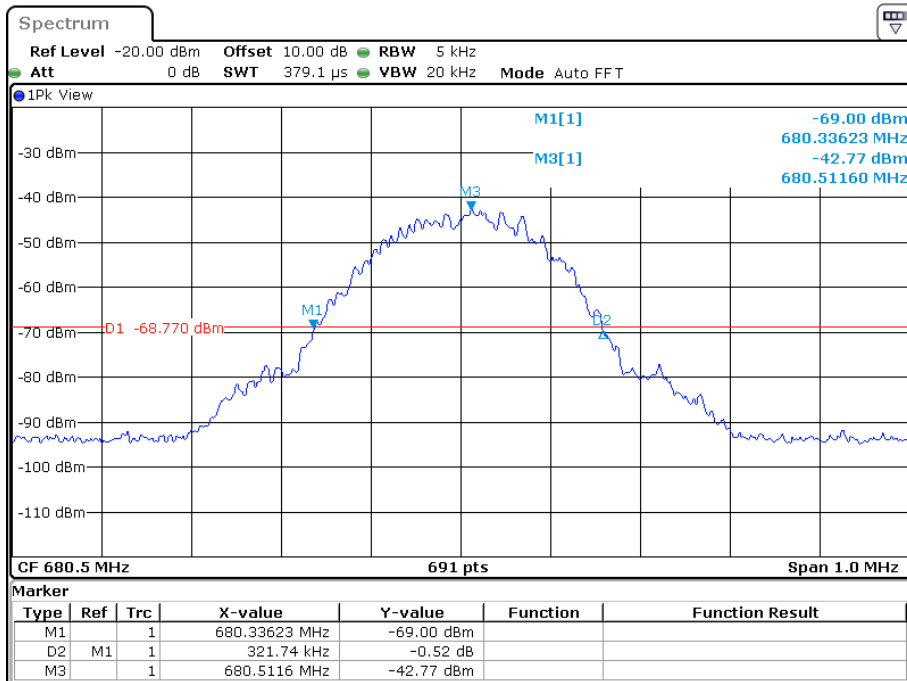
26 dB Bandwidth-UL- AWGN- Pre AGC -Output
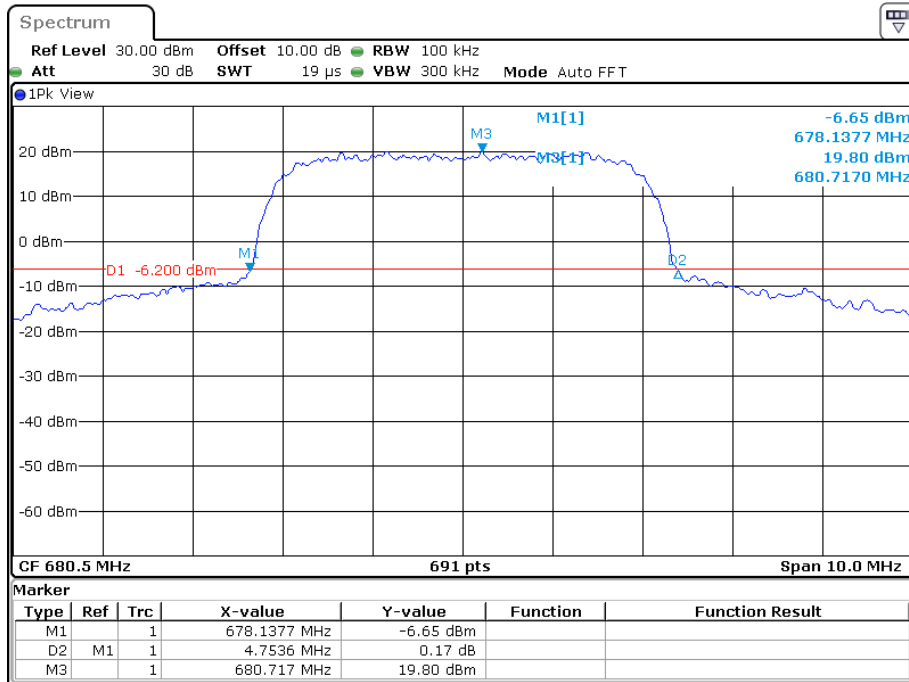
Date: 19.DEC.2022 17:10:33

26 dB Bandwidth-UL- AWGN-3dB above AGC-Output

Date: 19.DEC.2022 17:14:51

26 dB Bandwidth-UL- GSM- Pre AGC -Output

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	680.33623 MHz	-7.94 dBm		
D2	M1	1	321.74 kHz	-0.51 dB		
M3		1	680.5116 MHz	18.38 dBm		

Date: 19.DEC.2022 16:35:11

26 dB Bandwidth-UL- GSM-3dB above AGC-Output

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	680.33623 MHz	-7.99 dBm		
D2	M1	1	321.74 kHz	-0.44 dB		
M3		1	680.5116 MHz	18.35 dBm		
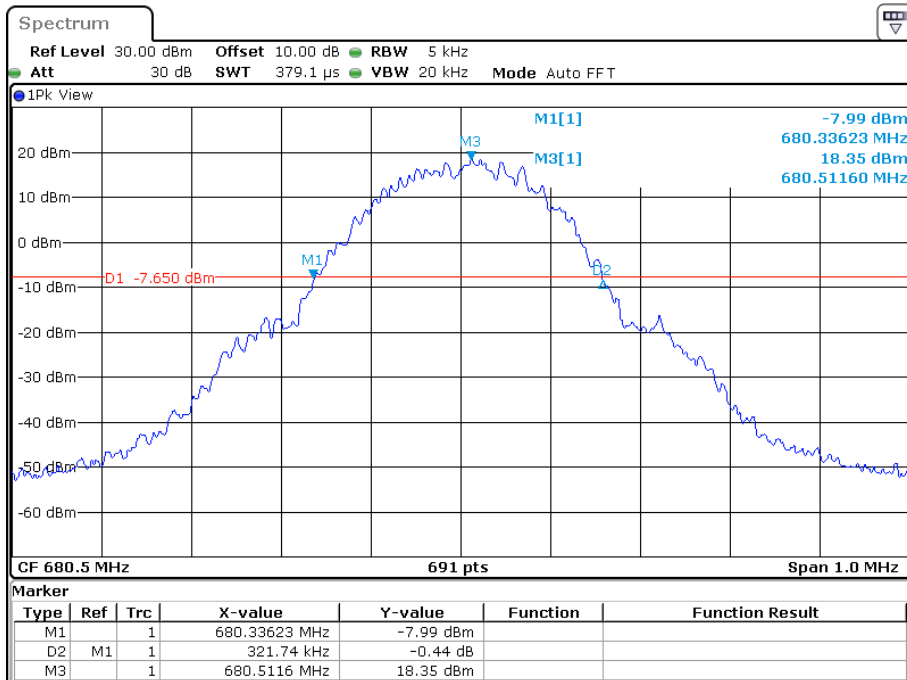
Date: 19.DEC.2022 16:38:47
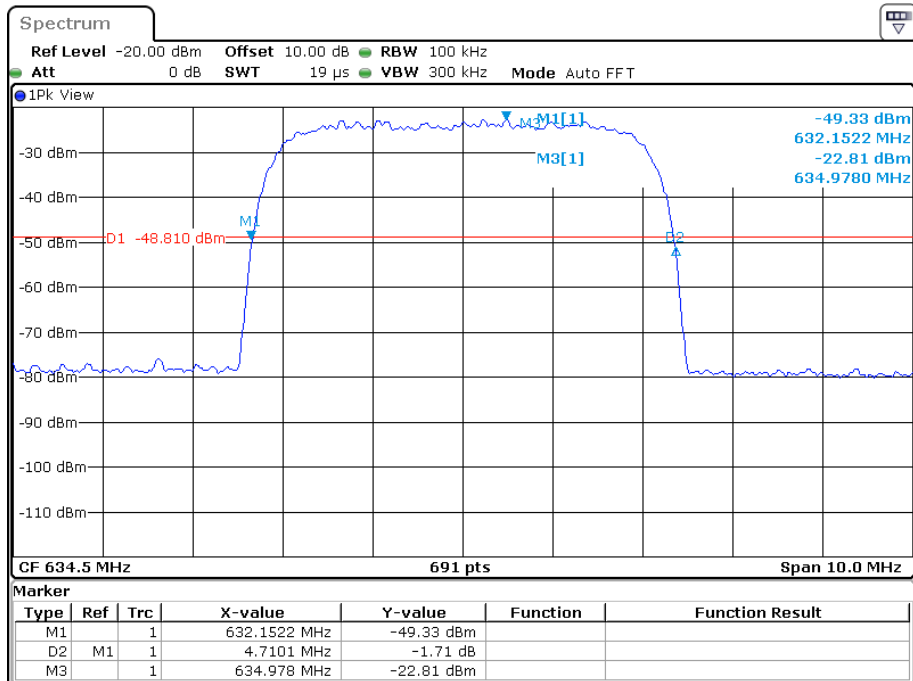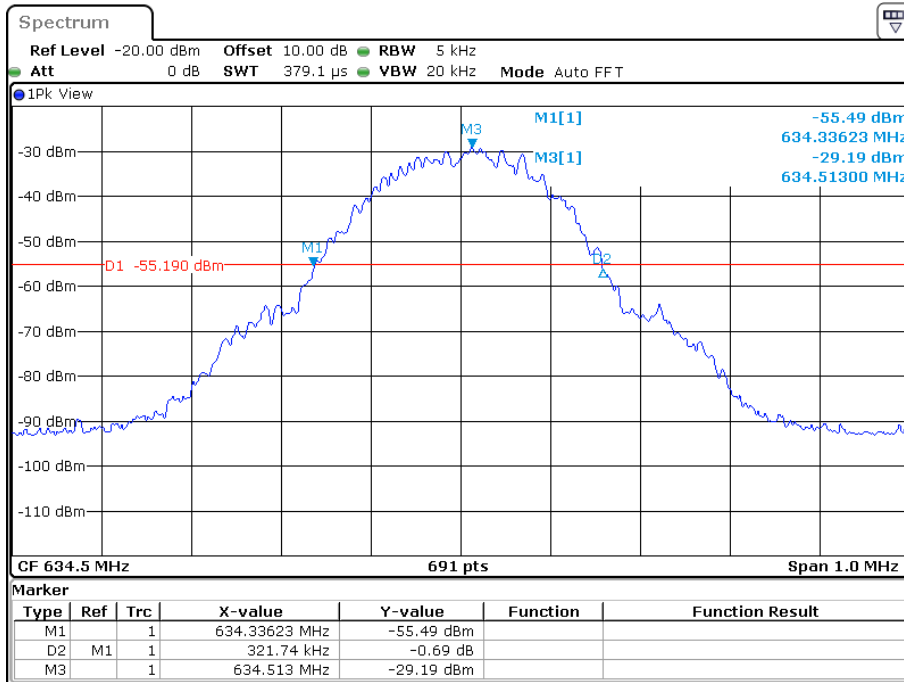
26 dB Bandwidth-DL- AWGN- Pre AGC -Output
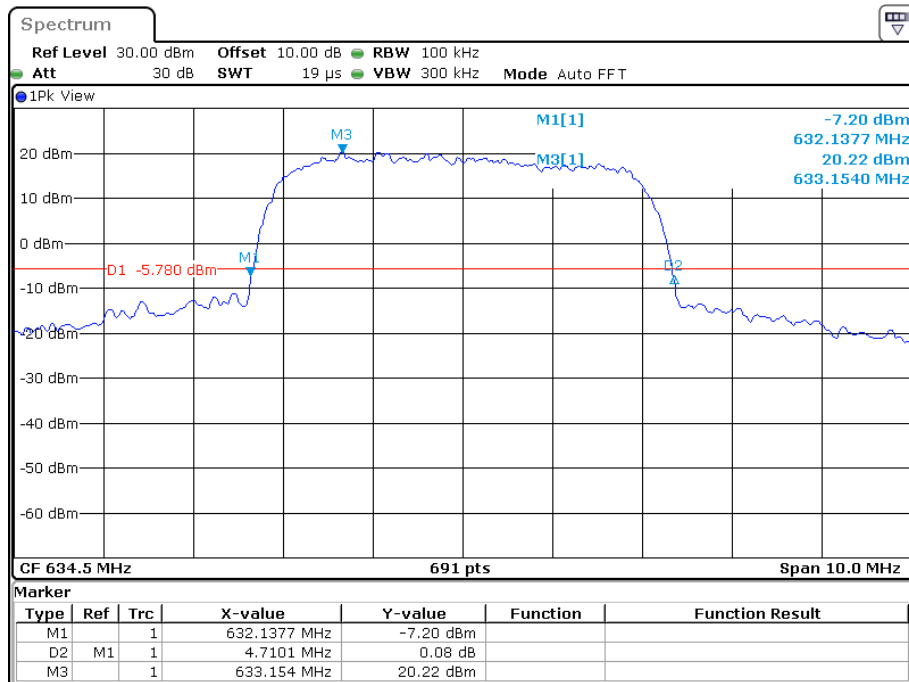
Date: 19.DEC.2022 17:31:32

26 dB Bandwidth-DL- AWGN- 3dB Above AGC -Output

Date: 19.DEC.2022 17:36:50

26 dB Bandwidth-DL- GSM- Pre AGC -Output

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	634.33623 MHz	-9.48 dBm		
D2	M1	1	321.74 kHz	-0.84 dB		
M3		1	634.5116 MHz	16.61 dBm		
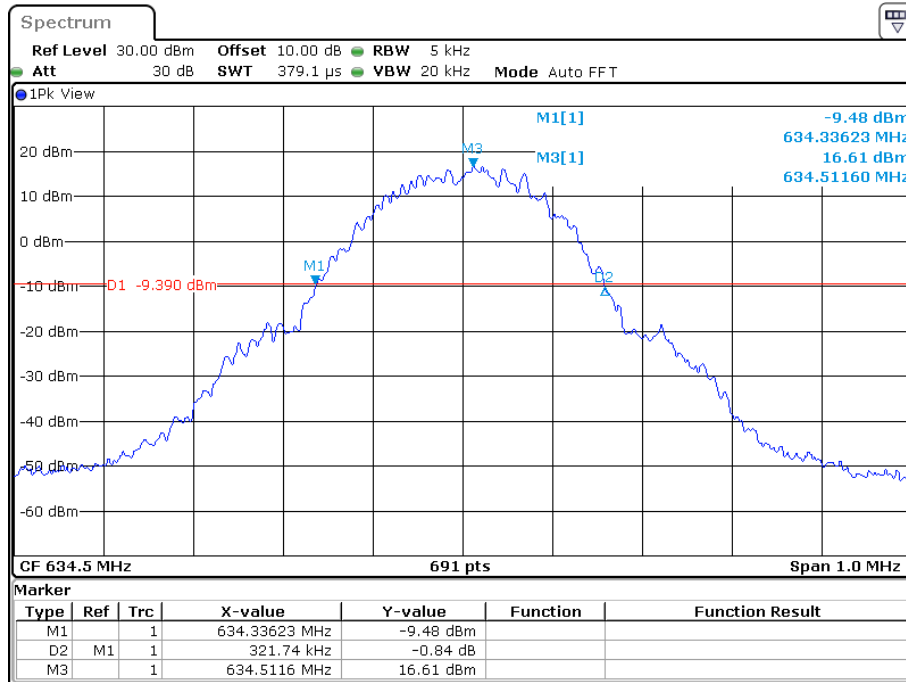
Date: 19.DEC.2022 17:24:20

26 dB Bandwidth-DL- GSM- 3dB Above AGC -Output

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	634.33478 MHz	-10.66 dBm		
D2	M1	1	323.19 kHz	0.21 dB		
M3		1	634.5116 MHz	16.60 dBm		

Date: 19.DEC.2022 17:27:38

Lower 700MHz (A+B+C Block) Band

Mode	Signal Type	Signal Level	Frequency (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)	
				Input	Output	Input	Output
Uplink	AWGN	Pre-AGC	707	4.168	4.211	4.696	5.377
		3dB above AGC	707	4.168	4.197	4.710	5.203
	GSM	Pre-AGC	707	0.246	0.246	0.322	0.322
		3dB above AGC	707	0.246	0.246	0.322	0.322
Downlink	AWGN	Pre-AGC	737	4.168	4.240	4.696	6.174
		3dB above AGC	737	4.168	4.226	4696	6.703
	GSM	Pre-AGC	737	0.246	0.246	0.322	0.322
		3dB above AGC	737	0.246	0.245	0.322	0.322

99% Bandwidth-UL-AWGN-Pre AGC-Input

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	705.654 MHz	-26.16 dBm		
T1		1	704.9161 MHz	-33.81 dBm	Occ Bw	4.167872648 MHz
T2		1	709.0839 MHz	-34.39 dBm		
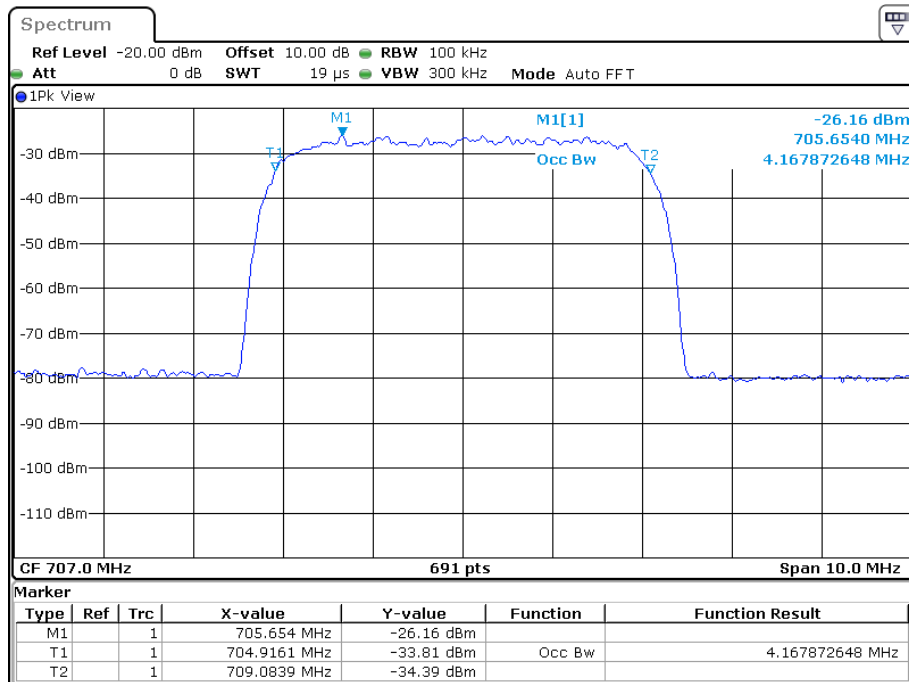
Date: 19.DEC.2022 18:01:36

99% Bandwidth-UL- AWGN-3dB above AGC-Input

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	707.478 MHz	-23.00 dBm		
T1		1	704.9161 MHz	-31.12 dBm	Occ Bw	4.167872648 MHz
T2		1	709.0839 MHz	-31.11 dBm		
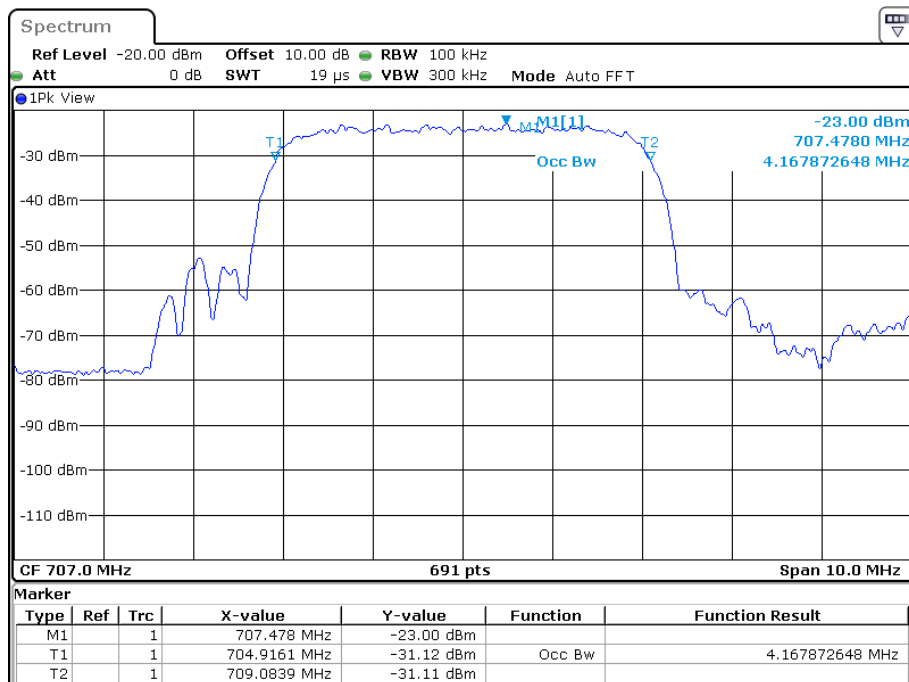
Date: 19.DEC.2022 18:08:54

99% Bandwidth-UL-GSM-Pre AGC-Input
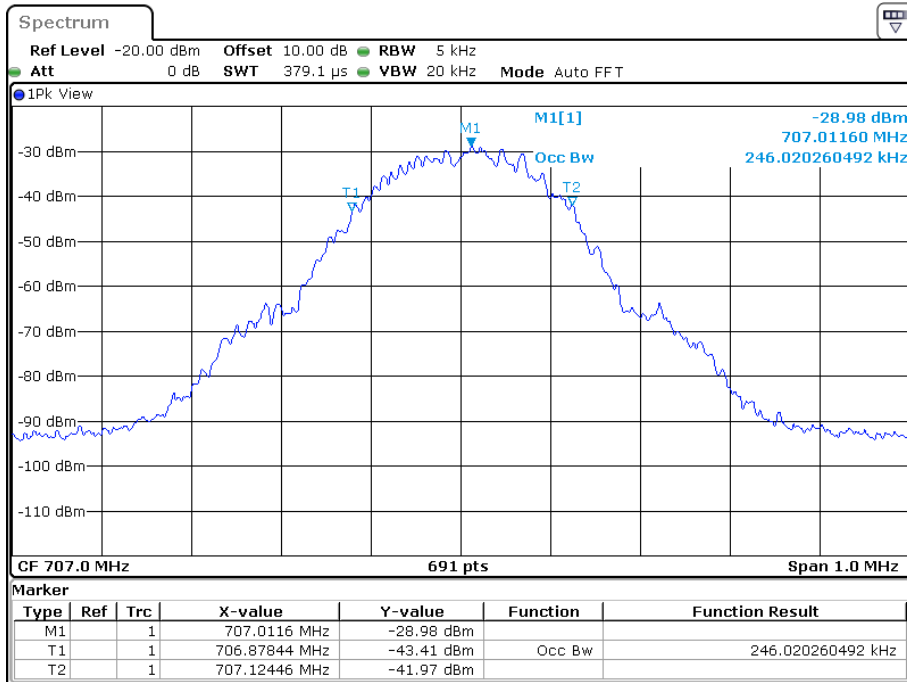
Date: 19.DEC.2022 17:47:50

99% Bandwidth-UL- GSM-3dB above AGC-Input
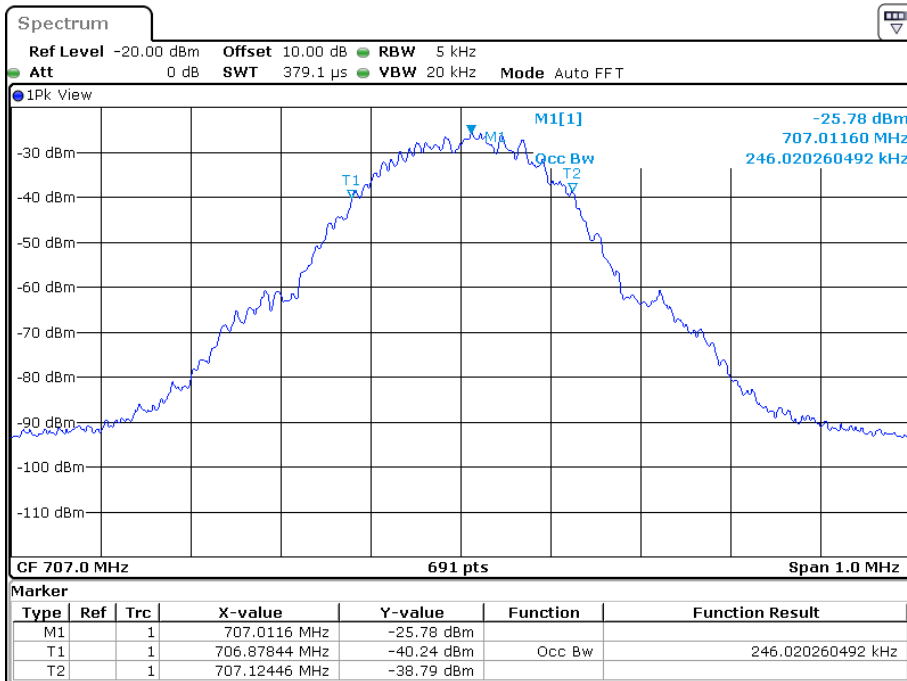
Date: 19.DEC.2022 17:54:38

99% Bandwidth-DL- AWGN- Pre AGC -Input
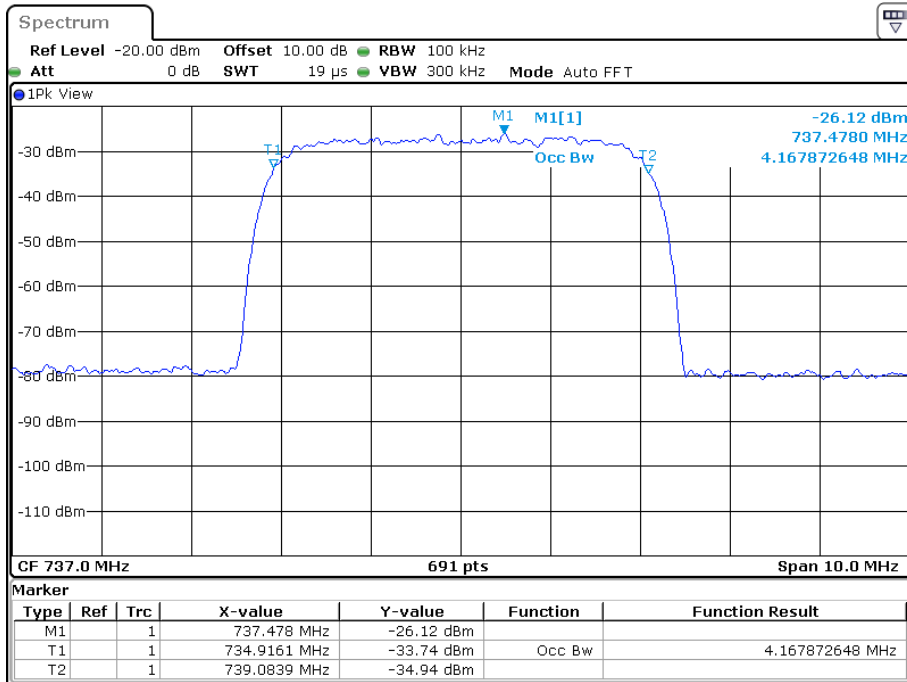
Date: 19.DEC.2022 17:58:16

99% Bandwidth-DL- AWGN- 3dB Above AGC -Input
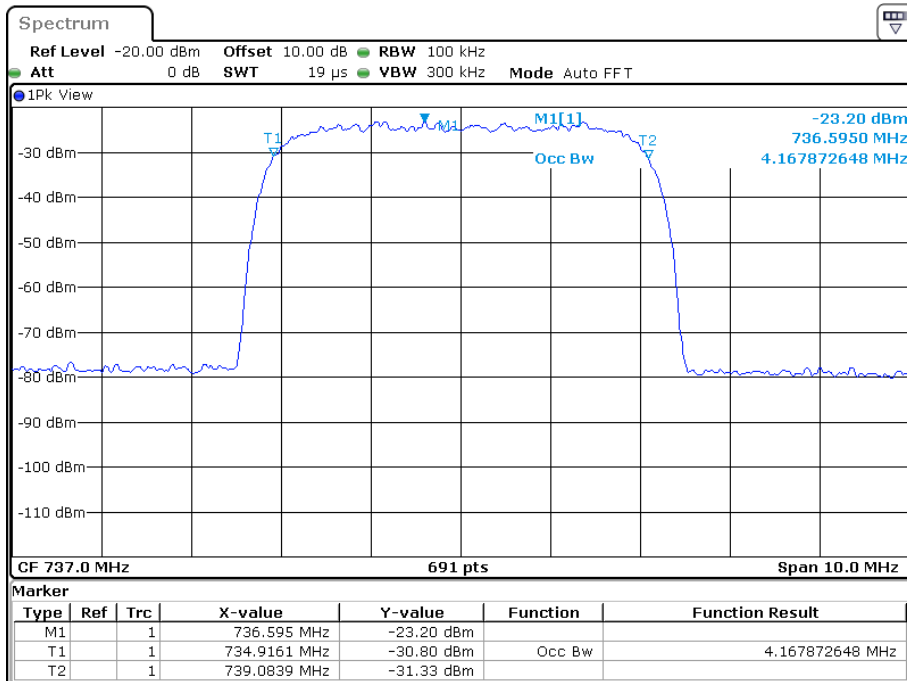
Date: 19.DEC.2022 18:05:14

99% Bandwidth-DL- GSM- Pre AGC -Input
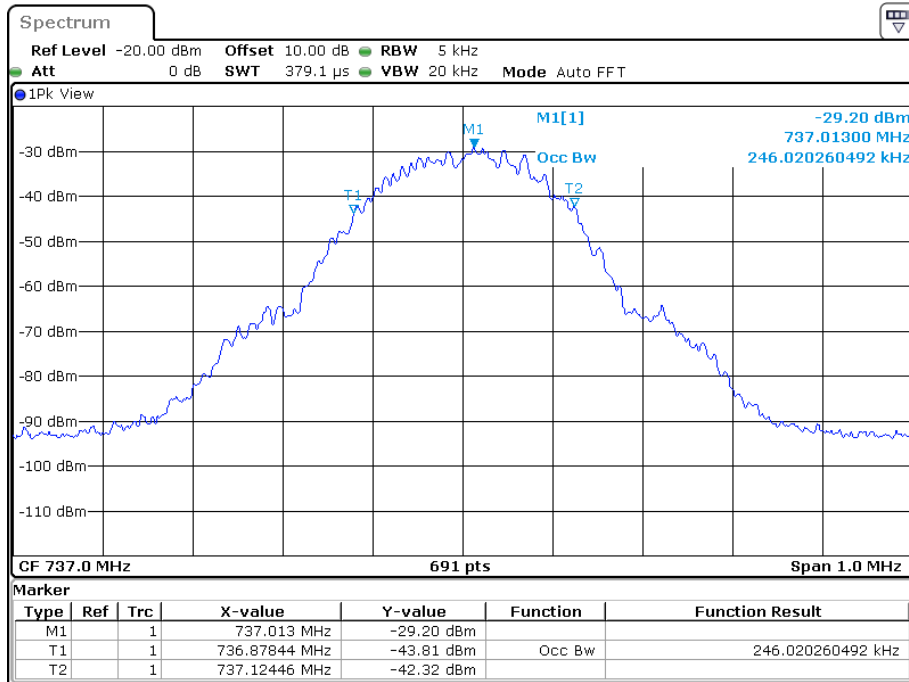
Date: 19.DEC.2022 17:44:21

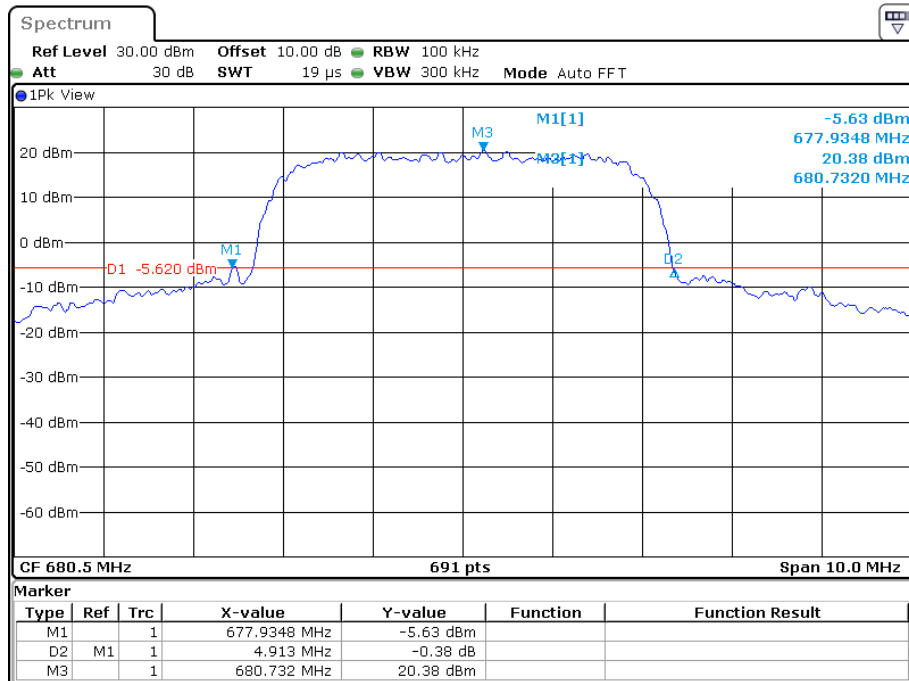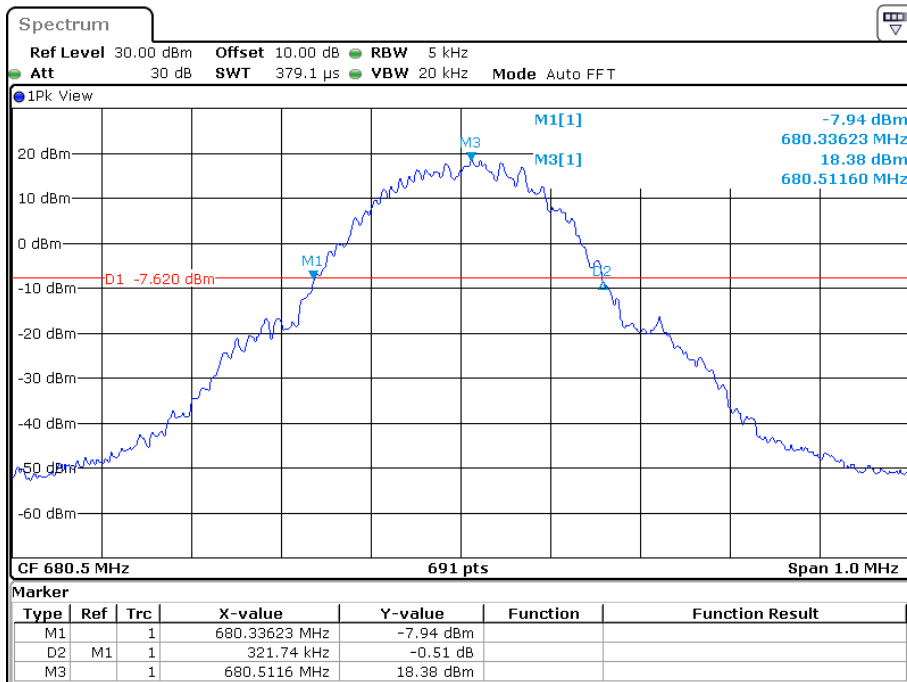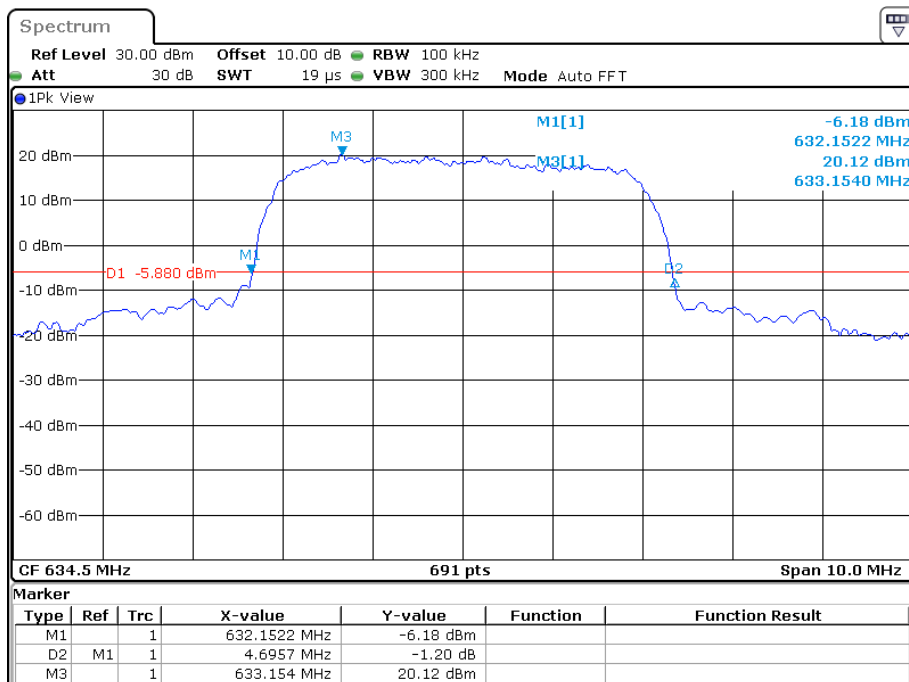## 99% Bandwidth-DL- GSM- 3dB Above AGC -Input
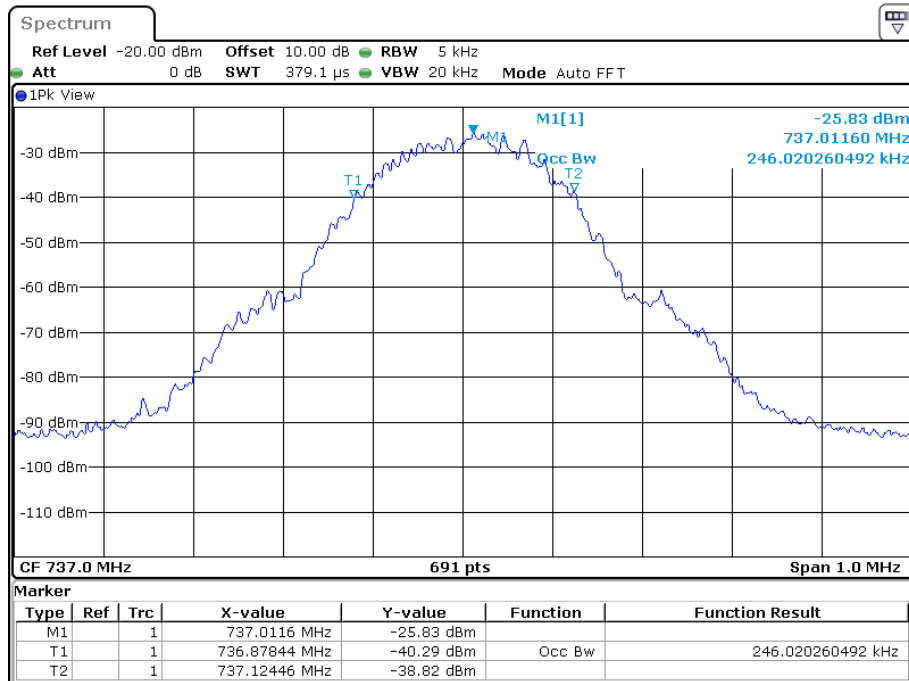
Date: 19.DEC.2022 17:51:08

99% Bandwidth-UL- AWGN- Pre AGC -Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	706.059 MHz	19.33 dBm		
T1		1	704.8871 MHz	10.25 dBm	Occ Bw	4.211287988 MHz
T2		1	709.0984 MHz	10.08 dBm		
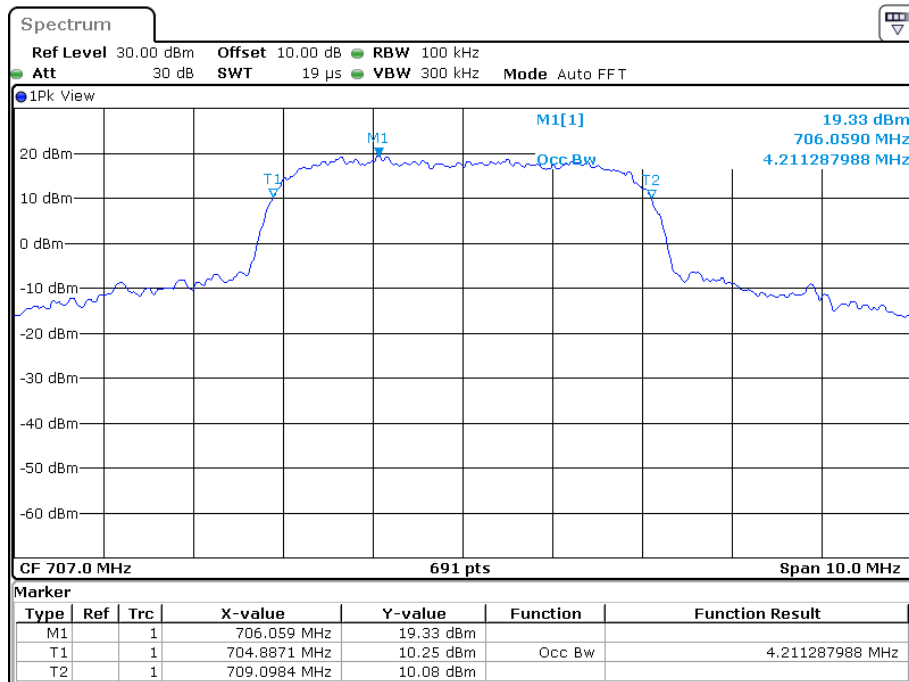
Date: 19.DEC.2022 17:10:51

99% Bandwidth-UL- AWGN-3dB above AGC-Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	705.654 MHz	19.57 dBm		
T1		1	704.8871 MHz	10.46 dBm	Occ Bw	4.196816208 MHz
T2		1	709.0839 MHz	10.53 dBm		
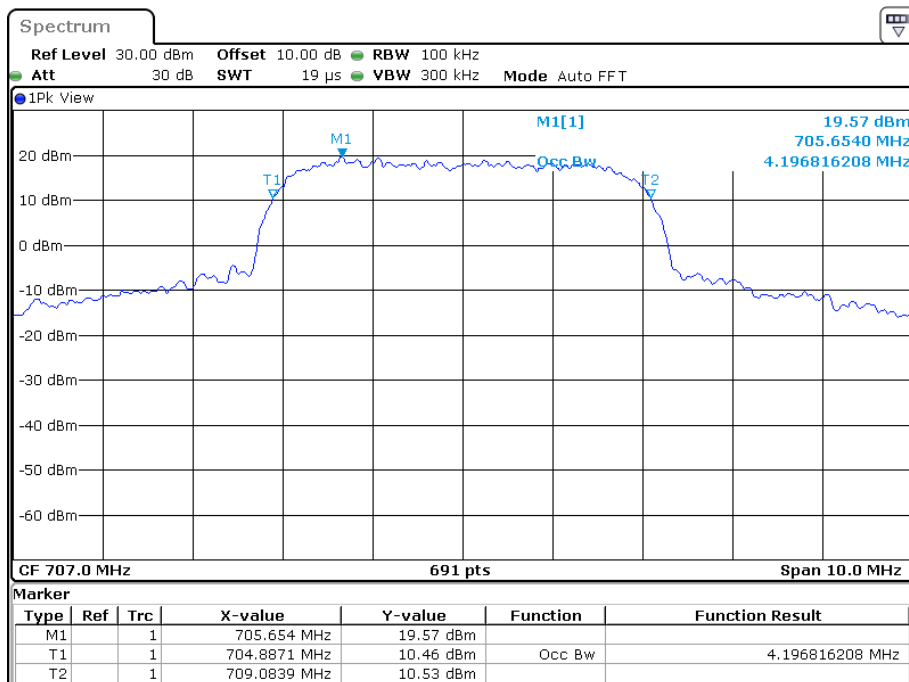
Date: 19.DEC.2022 17:15:20

99% Bandwidth-UL- GSM- Pre AGC -Output

Spectrum

| Ref Level 30.00 dBm | Offset 10.00 dB | RBW | 5 kHz |
| Att | 30 dB | SWT | 379.1 µs | VBW 20 kHz | Mode Auto FFT |

1Pk View

M1[1]   17.92 dBm
707.01160 MHz
Occ Bw   246.020260492 kHz

CF 707.0 MHz   691 pts   Span 1.0 MHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	707.0116 MHz	17.92 dBm		
T1		1	706.87844 MHz	3.10 dBm	Occ Bw	246.020260492 kHz
T2		1	707.12446 MHz	4.76 dBm		

Date: 19.DEC.2022 16:35:28

99% Bandwidth-UL- GSM-3dB above AGC-Output

Spectrum

| Ref Level 30.00 dBm | Offset 10.00 dB | RBW | 5 kHz |
| Att | 30 dB | SWT | 379.1 µs | VBW 20 kHz | Mode Auto FFT |

1Pk View

M1[1]   17.37 dBm
707.02170 MHz
Occ Bw   246.020260492 kHz

CF 707.0 MHz   691 pts   Span 1.0 MHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	707.0217 MHz	17.37 dBm		
T1		1	706.87844 MHz	2.72 dBm	Occ Bw	246.020260492 kHz
T2		1	707.12446 MHz	3.94 dBm		

Date: 19.DEC.2022 16:39:05

99% Bandwidth-DL- AWGN- Pre AGC -Output

Date: 19.DEC.2022 17:31:59

99% Bandwidth-DL- AWGN- 3dB Above AGC -Output
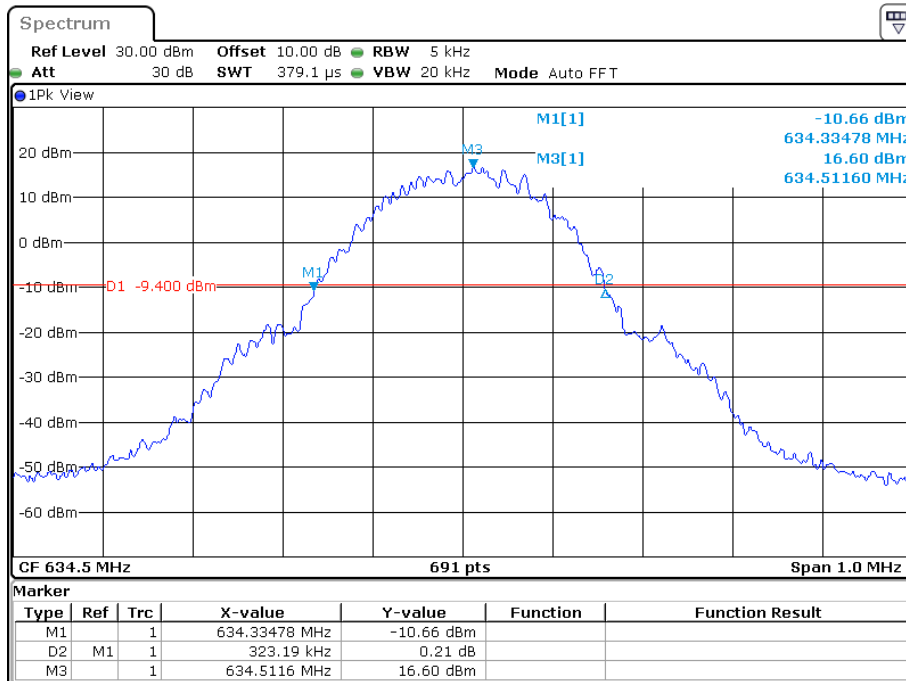

Date: 19.DEC.2022 17:37:19

99% Bandwidth-DL- GSM- Pre AGC -Output

99% Bandwidth-DL- GSM- 3dB Above AGC -Output

26 dB Bandwidth-UL-AWGN-Pre AGC-Input

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	704.6522 MHz	-52.93 dBm		
D2	M1	1	4.6957 MHz	-0.01 dB		
M3		1	707.232 MHz	-25.91 dBm		

Date: 19.DEC.2022 18:01:51

26 dB Bandwidth-UL- AWGN-3dB above AGC-Input

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	704.6522 MHz	-49.55 dBm		
D2	M1	1	4.7101 MHz	-1.64 dB		
M3		1	705.654 MHz	-23.12 dBm		

Date: 19.DEC.2022 18:09:09

26 dB Bandwidth-UL-GSM-Pre AGC-Input

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	706.83623 MHz	-55.28 dBm		
D2	M1	1	321.74 kHz	-0.58 dB		
M3		1	707.0116 MHz	-28.94 dBm		

Date: 19.DEC.2022 17:48:05

26 dB Bandwidth-UL- GSM-3dB above AGC-Input

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	706.83623 MHz	-52.12 dBm		
D2	M1	1	321.74 kHz	-0.53 dB		
M3		1	707.0116 MHz	-25.78 dBm		

Date: 19.DEC.2022 17:54:53

26 dB Bandwidth-DL- AWGN- Pre AGC -Input

Spectrum						
Ref Level -20.00 dBm	Offset 10.00 dB	RBW 100 kHz				
Att	0 dB	SWT	19 µs	VBW 300 kHz	Mode Auto FFT	

1Pk View

M3 M1[1] -52.43 dBm
734.6522 MHz
M3[1] -26.36 dBm
737.4920 MHz

D1 -52.360 dBm

CF 737.0 MHz   691 pts   Span 10.0 MHz

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	734.6522 MHz	-52.43 dBm		
D2	M1	1	4.6957 MHz	-0.83 dB		
M3		1	737.492 MHz	-26.36 dBm		

Date: 19.DEC.2022 17:58:32

26 dB Bandwidth-DL- AWGN- 3dB Above AGC -Input

Spectrum						
Ref Level -20.00 dBm	Offset 10.00 dB	RBW 100 kHz				
Att	0 dB	SWT	19 µs	VBW 300 kHz	Mode Auto FFT	

1Pk View

M1[1] -49.91 dBm
734.6522 MHz
M3[1] -23.24 dBm
737.4920 MHz

D1 -49.240 dBm

CF 737.0 MHz   691 pts   Span 10.0 MHz

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	734.6522 MHz	-49.91 dBm		
D2	M1	1	4.6957 MHz	0.11 dB		
M3		1	737.492 MHz	-23.24 dBm		
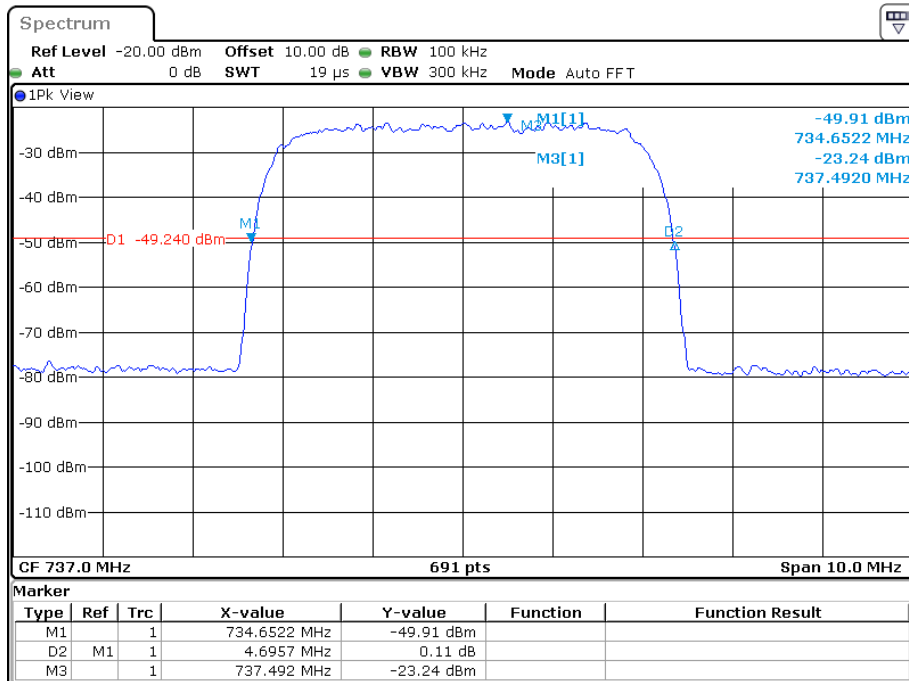
Date: 19.DEC.2022 18:05:29

26 dB Bandwidth-DL- GSM- Pre AGC -Input


```
Spectrum
Ref Level -20.00 dBm    Offset 10.00 dB ● RBW   5 kHz
● Att          0 dB   SWT   379.1 µs ● VBW 20 kHz    Mode Auto FFT
● 1Pk View
                                                         M1[1]        -55.60 dBm
                                                                 736.83623 MHz
                                      M3                  M3[1]        -29.15 dBm
-30 dBm                                                           737.01300 MHz
-40 dBm
-50 dBm
        D1 -55.150 dBm           M1                  D2
-60 dBm
-70 dBm
-80 dBm
-90 dBm
-100 dBm
-110 dBm
CF 737.0 MHz                         691 pts                      Span 1.0 MHz
```

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	736.83623 MHz	-55.60 dBm		
D2	M1	1	321.74 kHz	-0.43 dB		
M3		1	737.013 MHz	-29.15 dBm		

Date: 19.DEC.2022 17:44:36

26 dB Bandwidth-DL- GSM- 3dB Above AGC -Input


```
Spectrum
Ref Level -20.00 dBm    Offset 10.00 dB ● RBW   5 kHz
● Att          0 dB   SWT   379.1 µs ● VBW 20 kHz    Mode Auto FFT
● 1Pk View
                                                         M1[1]        -52.18 dBm
                                                                 736.83623 MHz
                                        M3                M3[1]        -25.81 dBm
-30 dBm                                                           737.01160 MHz
-40 dBm
-50 dBm
        D1 -51.810 dBm           M1                  D2
-60 dBm
-70 dBm
-80 dBm
-90 dBm
-100 dBm
-110 dBm
CF 737.0 MHz                         691 pts                      Span 1.0 MHz
```

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	736.83623 MHz	-52.18 dBm		
D2	M1	1	321.74 kHz	-0.48 dB		
M3		1	737.0116 MHz	-25.81 dBm		
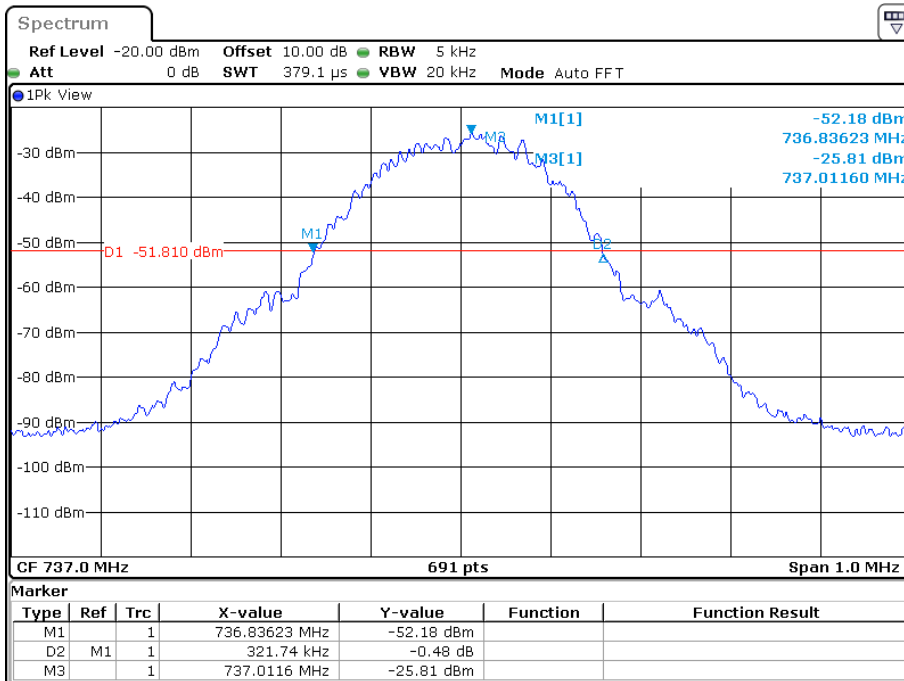
Date: 19.DEC.2022 17:51:23

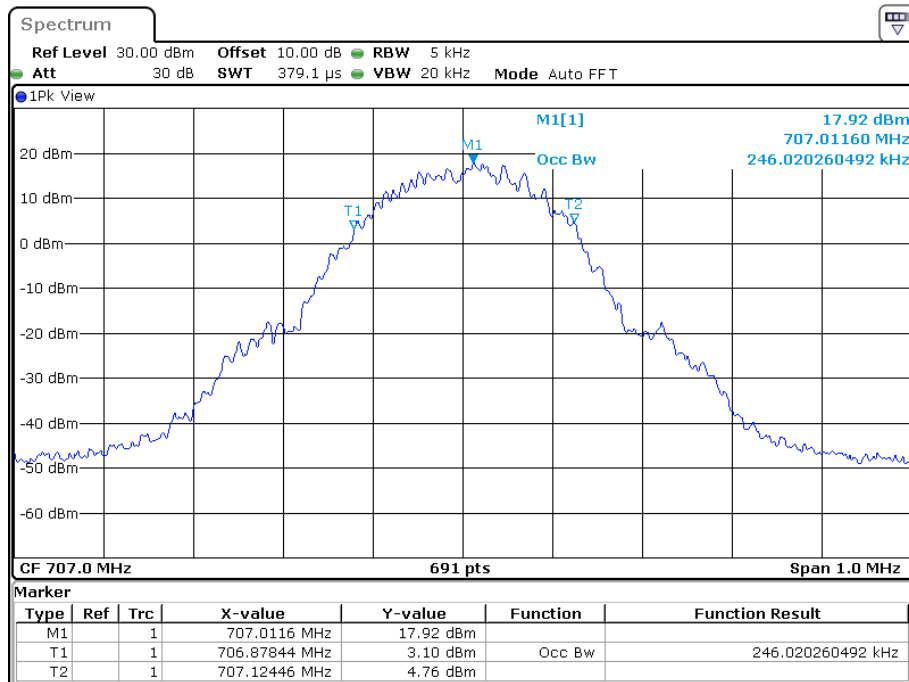## 26 dB Bandwidth-UL- AWGN- Pre AGC -Output
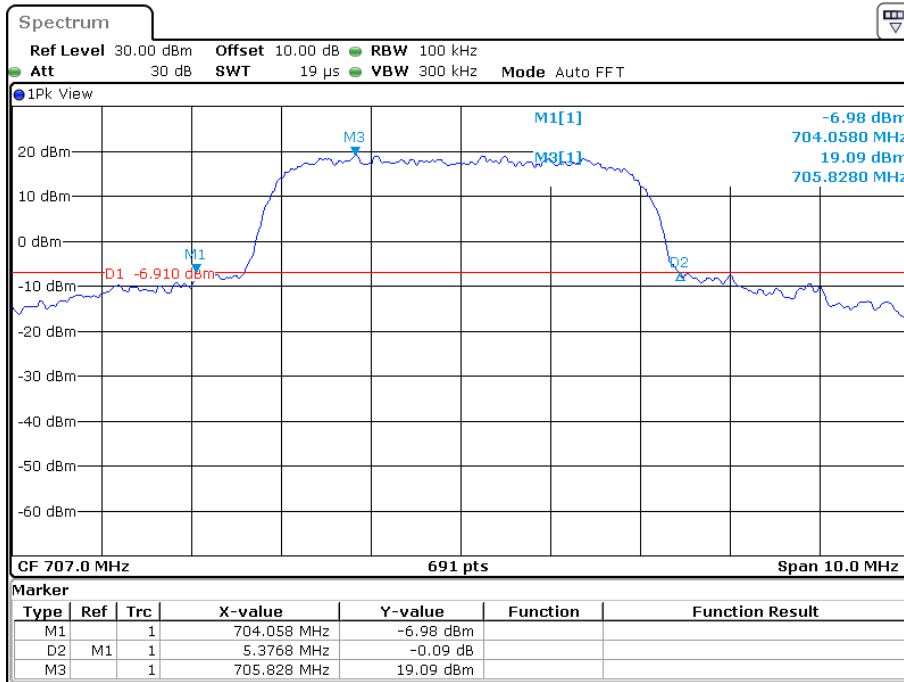
Date: 19.DEC.2022 17:11:06

26 dB Bandwidth-UL- AWGN-3dB above AGC-Output
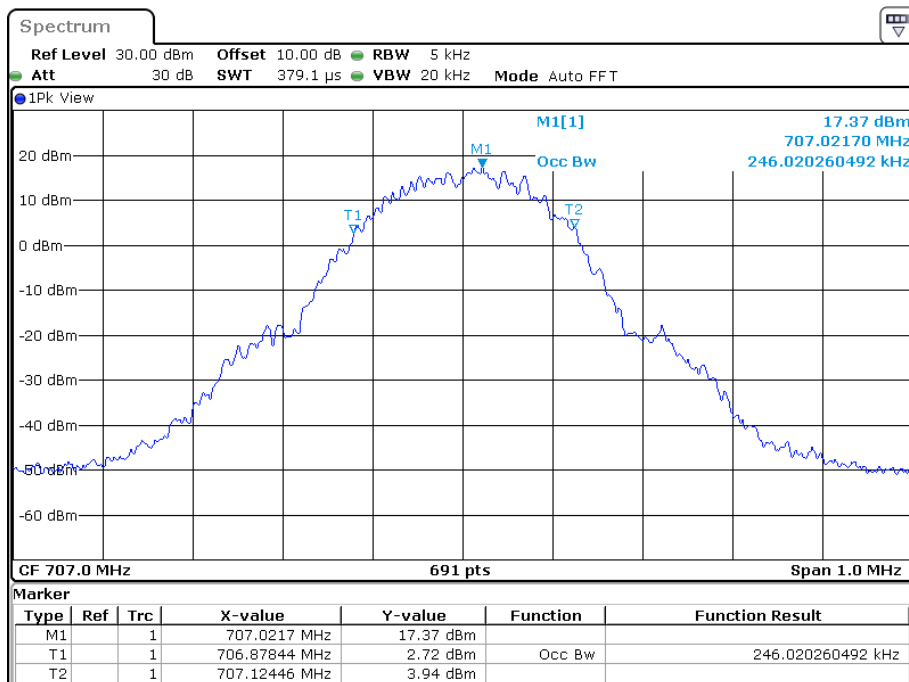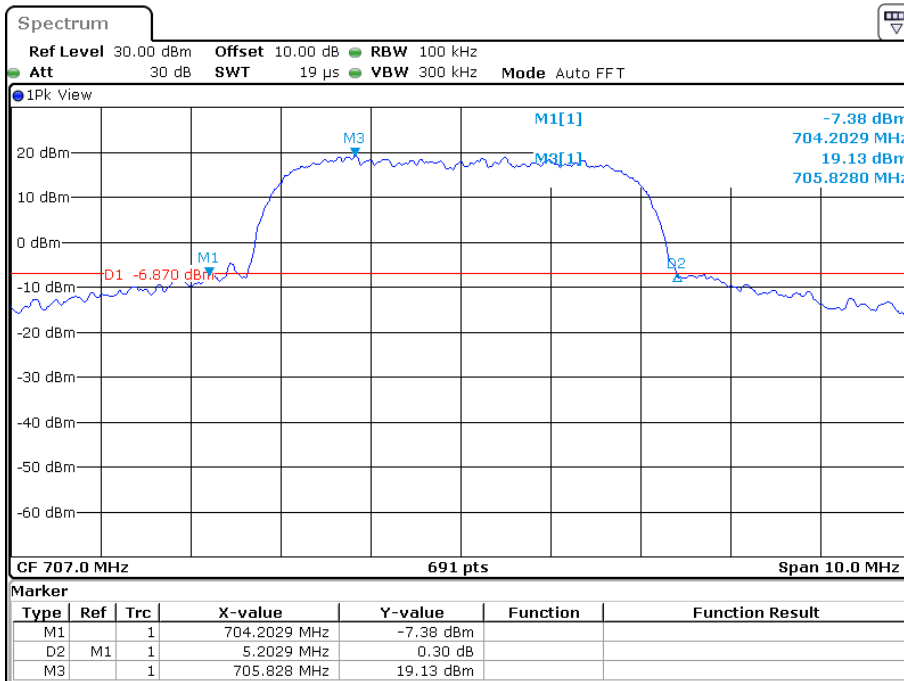

Date: 19.DEC.2022 17:15:36

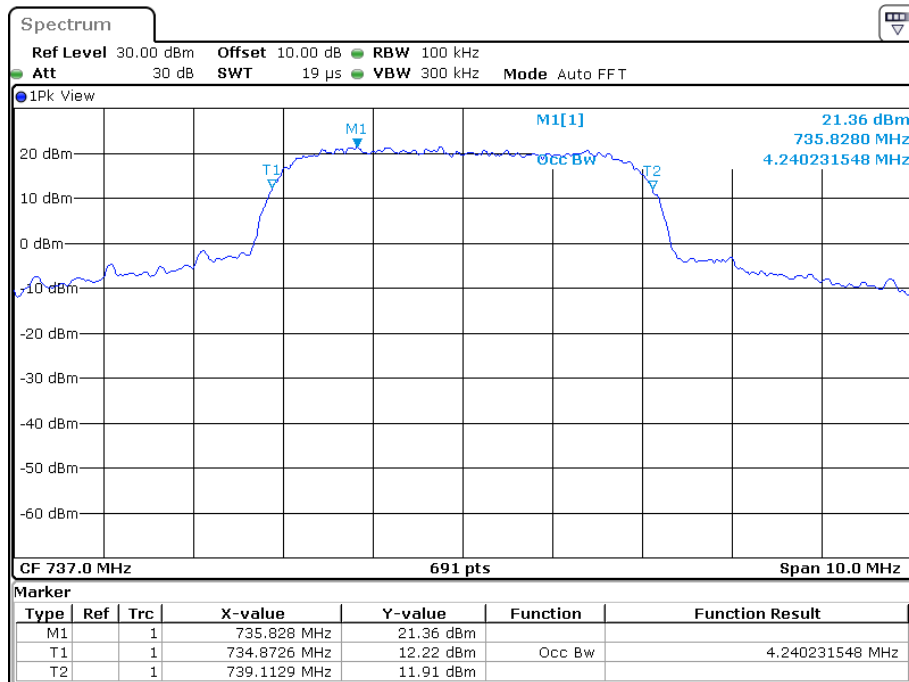## 26 dB Bandwidth-UL- GSM- Pre AGC -Output
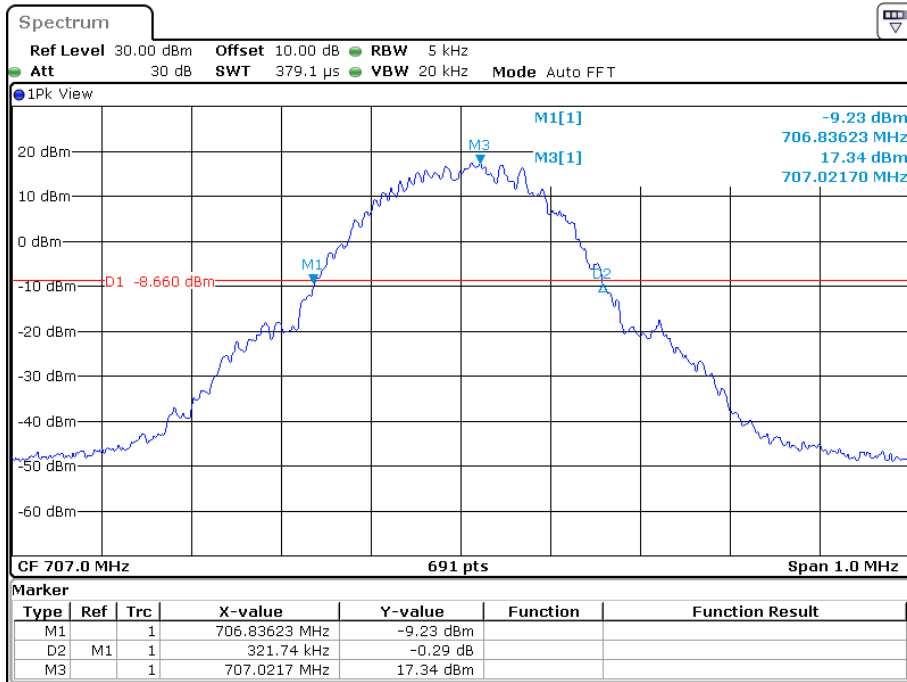
Date: 19.DEC.2022 16:35:43
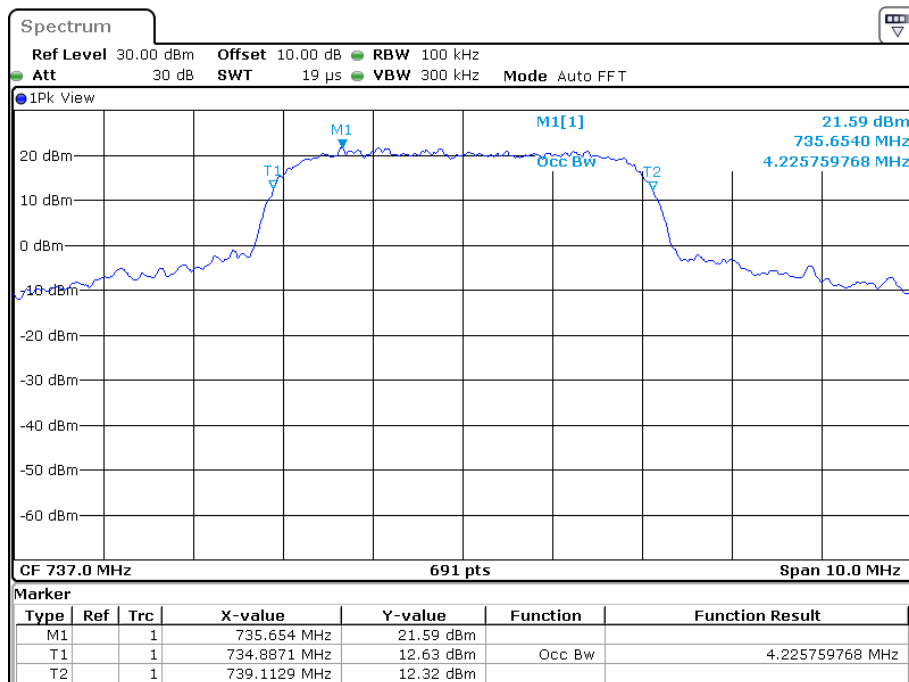
26 dB Bandwidth-UL- GSM-3dB above AGC-Output
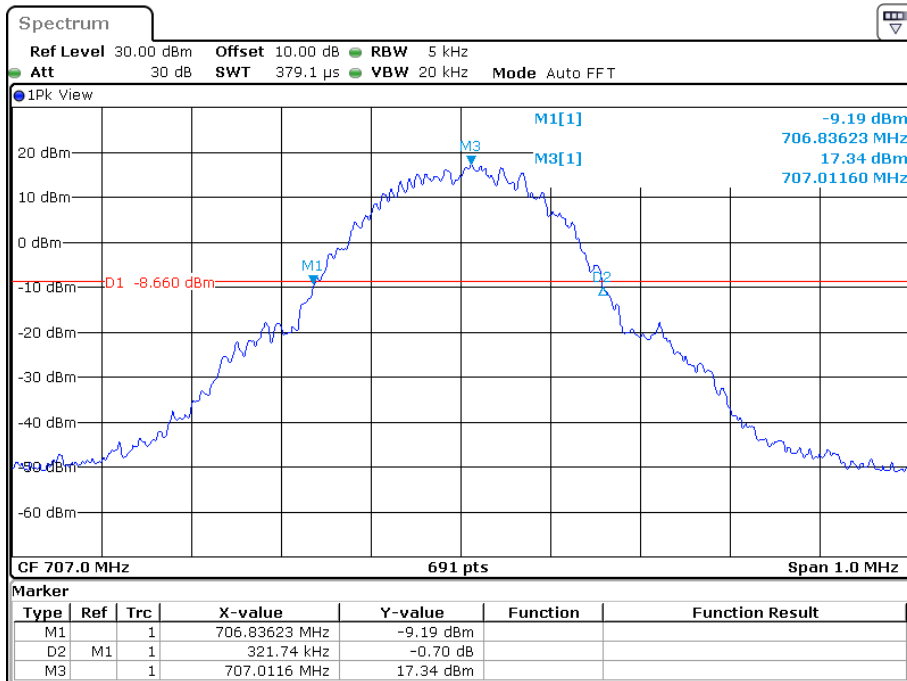
Date: 19.DEC.2022 16:39:20

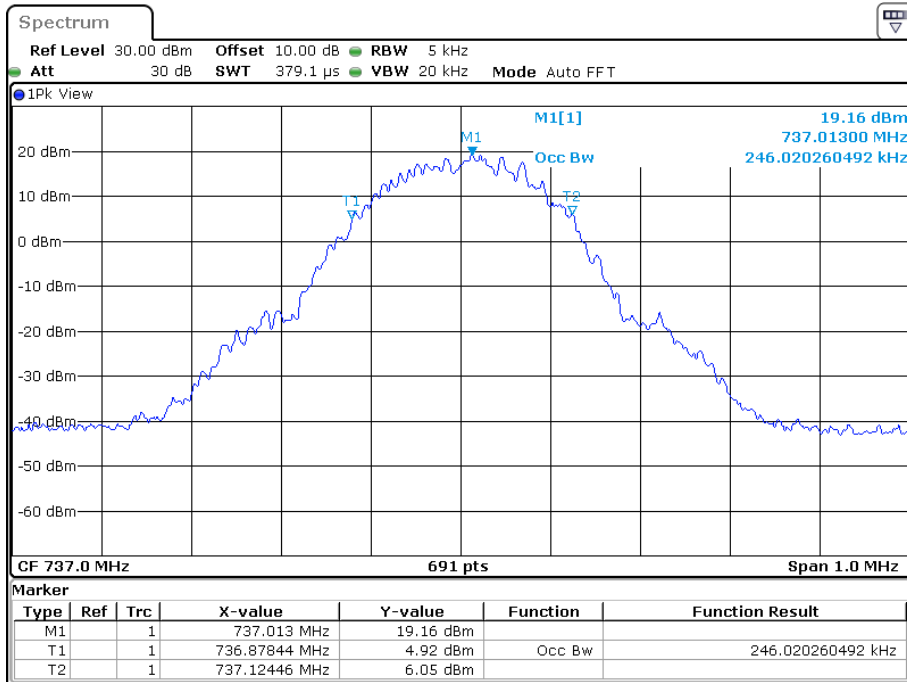## 26 dB Bandwidth-DL- AWGN- Pre AGC -Output
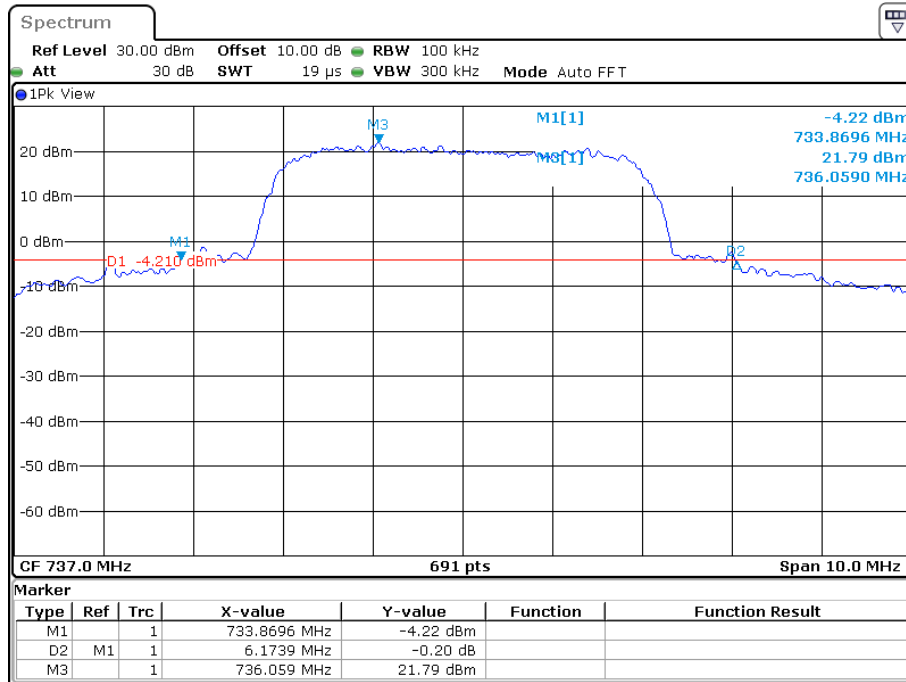
Date: 19.DEC.2022 17:32:15
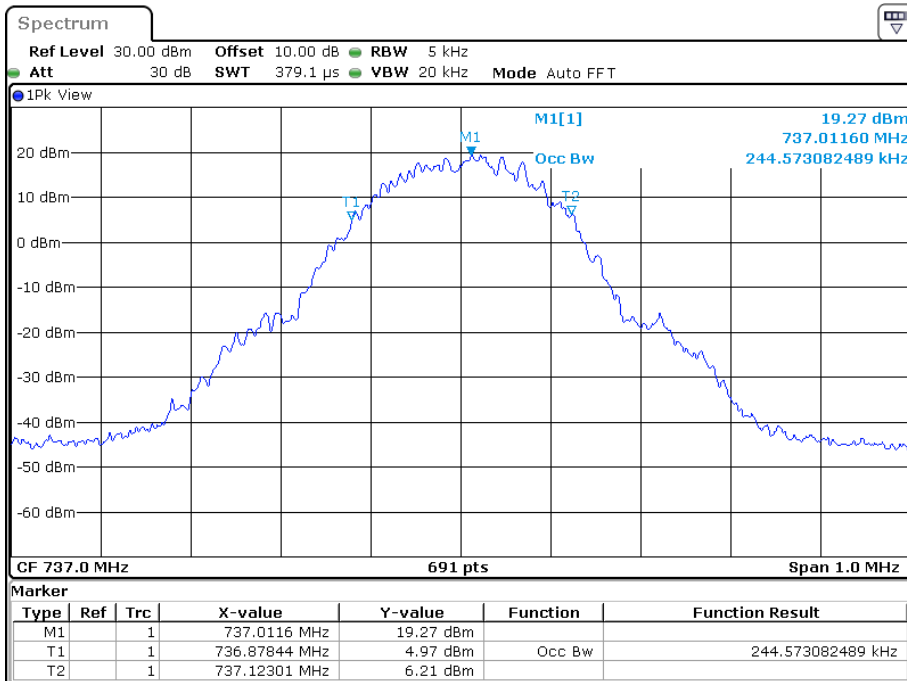
26 dB Bandwidth-DL- AWGN- 3dB Above AGC -Output

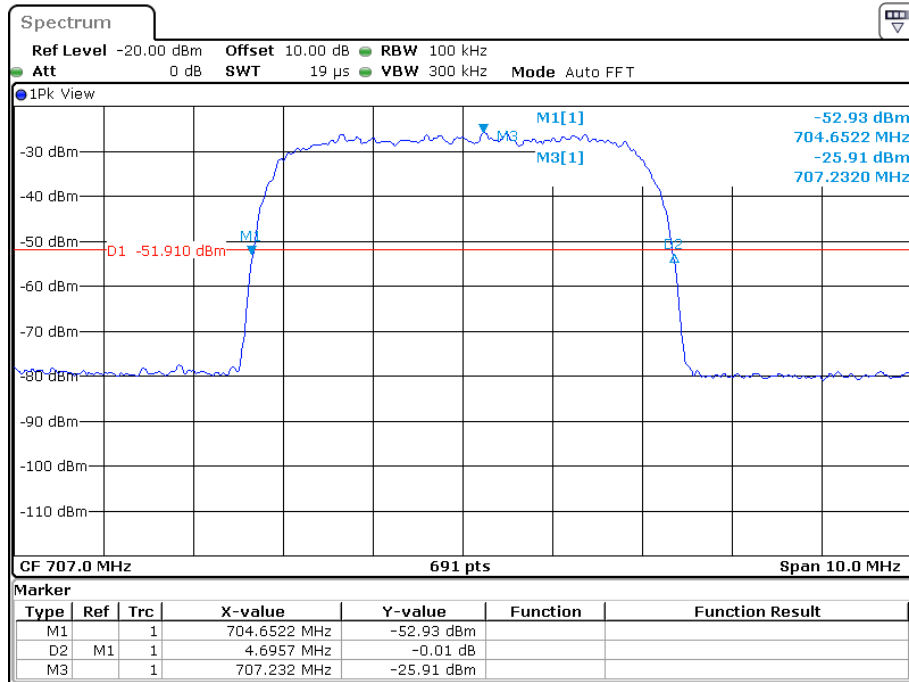Date: 19.DEC.2022 17:37:44

26 dB Bandwidth-DL- GSM- Pre AGC -Output

Date: 19.DEC.2022 17:24:54

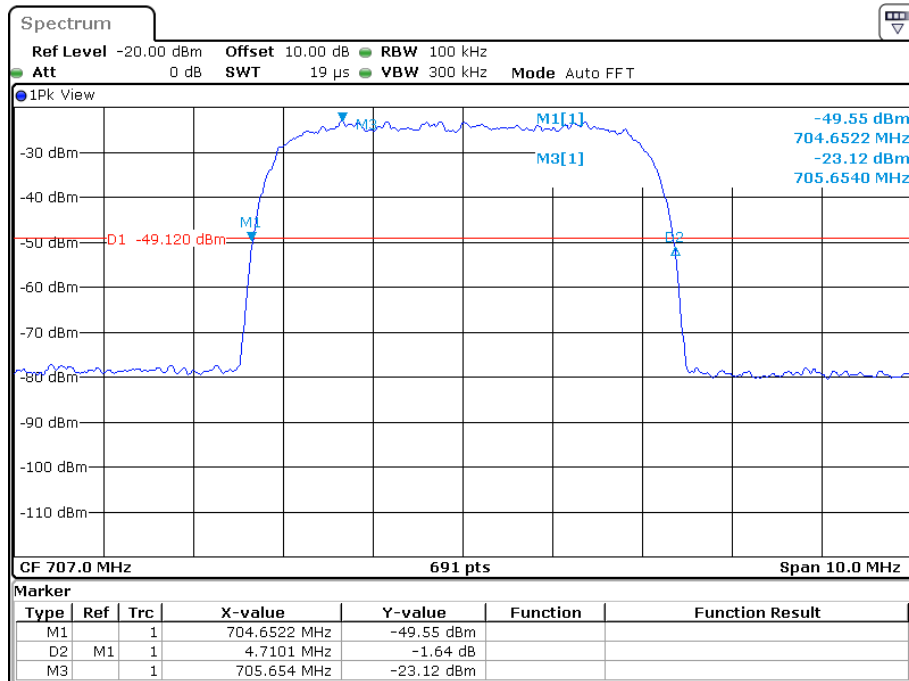## 26 dB Bandwidth-DL- GSM- 3dB Above AGC -Output

Date: 19.DEC.2022 17:28:11

Upper 700MHz (C Block) Band:

Mode	Signal Type	Signal Level	Frequency (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)	
				Input	Output	Input	Output
Uplink	AWGN	Pre-AGC	781.5	4.153	4.240	4.696	5.986
		3dB above AGC	781.5	4.168	4.226	4.696	5.580
	GSM	Pre-AGC	781.5	0.246	0.246	0.322	0.322
		3dB above AGC	781.5	0.246	0.245	0.322	0.322
Downlink	AWGN	Pre-AGC	751.5	4.168	4.153	4.696	4.696
		3dB above AGC	751.5	4.153	4.168	4.710	4.725
	GSM	Pre-AGC	751.5	0.246	0.246	0.322	0.323
		3dB above AGC	751.5	0.246	0.245	0.322	0.322

99% Bandwidth-UL-AWGN-Pre AGC-Input

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	781.732 MHz	-25.86 dBm		
T1		1	779.4305 MHz	-34.22 dBm	Occ Bw	4.153400868 MHz
T2		1	783.5839 MHz	-34.76 dBm		

Date: 19.DEC.2022   18:02:08

99% Bandwidth-UL- AWGN-3dB above AGC-Input

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	780.559 MHz	-23.10 dBm		
T1		1	779.4161 MHz	-31.57 dBm	Occ Bw	4.167872648 MHz
T2		1	783.5839 MHz	-31.22 dBm		
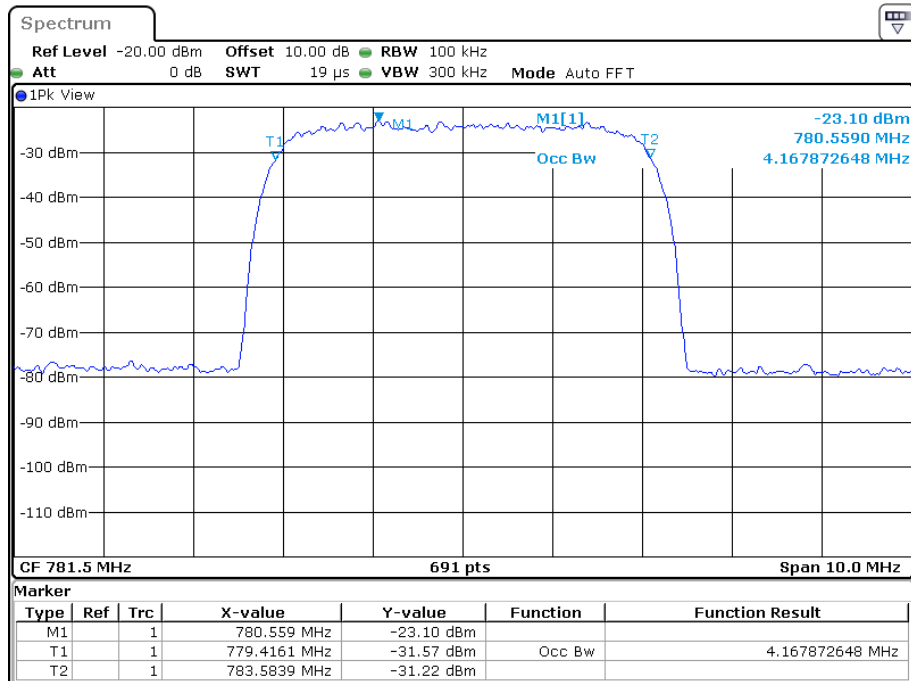
Date: 19.DEC.2022   18:09:27

99% Bandwidth-UL-GSM-Pre AGC-Input

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	781.513 MHz	-28.95 dBm		
T1		1	781.37844 MHz	-43.42 dBm	Occ Bw	246.020260492 kHz
T2		1	781.62446 MHz	-41.89 dBm		
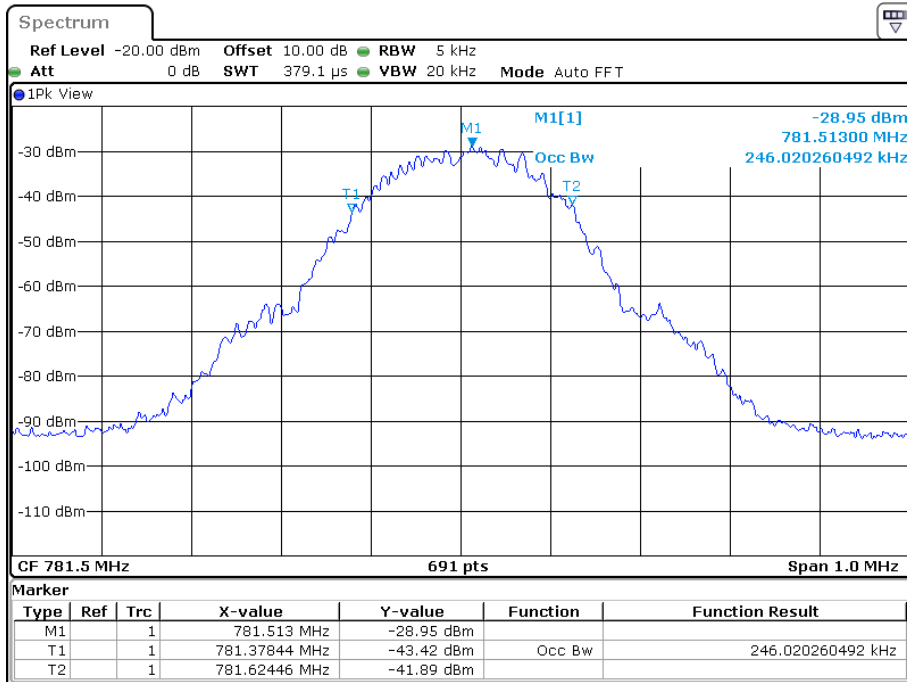
Date: 19.DEC.2022 17:48:23

99% Bandwidth-UL- GSM-3dB above AGC-Input

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	781.513 MHz	-25.81 dBm		
T1		1	781.37844 MHz	-40.23 dBm	Occ Bw	246.020260492 kHz
T2		1	781.62446 MHz	-38.79 dBm		
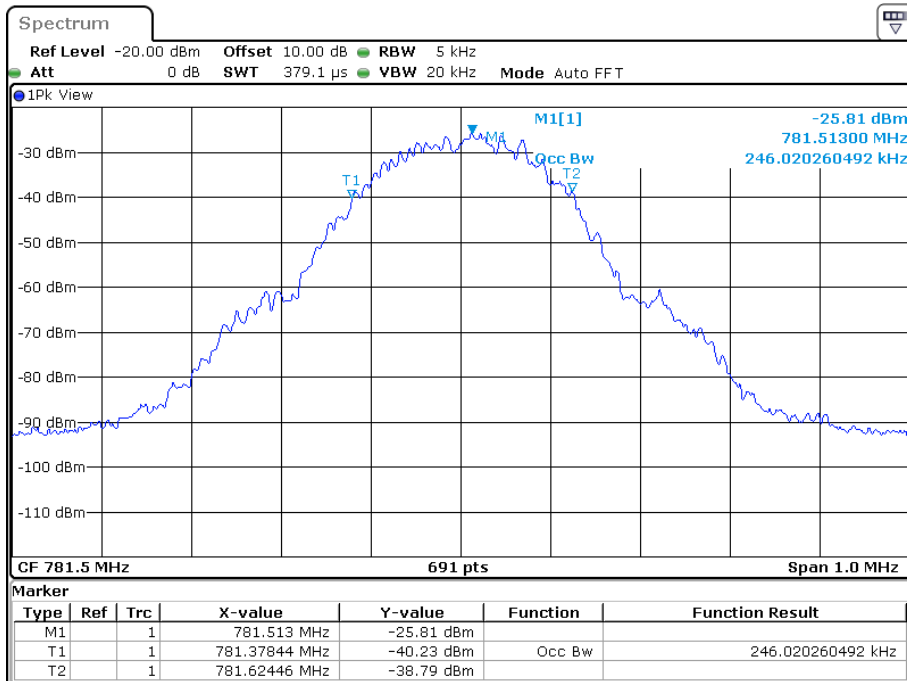
Date: 19.DEC.2022 17:55:11

99% Bandwidth-DL- AWGN- Pre AGC -Input

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	751.095 MHz	-26.27 dBm		
T1		1	749.4161 MHz	-33.98 dBm	Occ Bw	4.167872648 MHz
T2		1	753.5839 MHz	-34.92 dBm		

Date: 19.DEC.2022 17:58:51

99% Bandwidth-DL- AWGN- 3dB Above AGC -Input

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	751.992 MHz	-23.20 dBm		
T1		1	749.4161 MHz	-30.63 dBm	Occ Bw	4.153400868 MHz
T2		1	753.5695 MHz	-31.01 dBm		

Date: 19.DEC.2022 18:05:48

99% Bandwidth-DL- GSM- Pre AGC -Input

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	751.5116 MHz	-29.08 dBm		
T1		1	751.37844 MHz	-43.55 dBm	Occ Bw	246.020260492 kHz
T2		1	751.62446 MHz	-42.09 dBm		

Date: 19.DEC.2022 17:44:55

99% Bandwidth-DL- GSM- 3dB Above AGC -Input

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	751.513 MHz	-25.82 dBm		
T1		1	751.37844 MHz	-40.29 dBm	Occ Bw	246.020260492 kHz
T2		1	751.62446 MHz	-38.81 dBm		
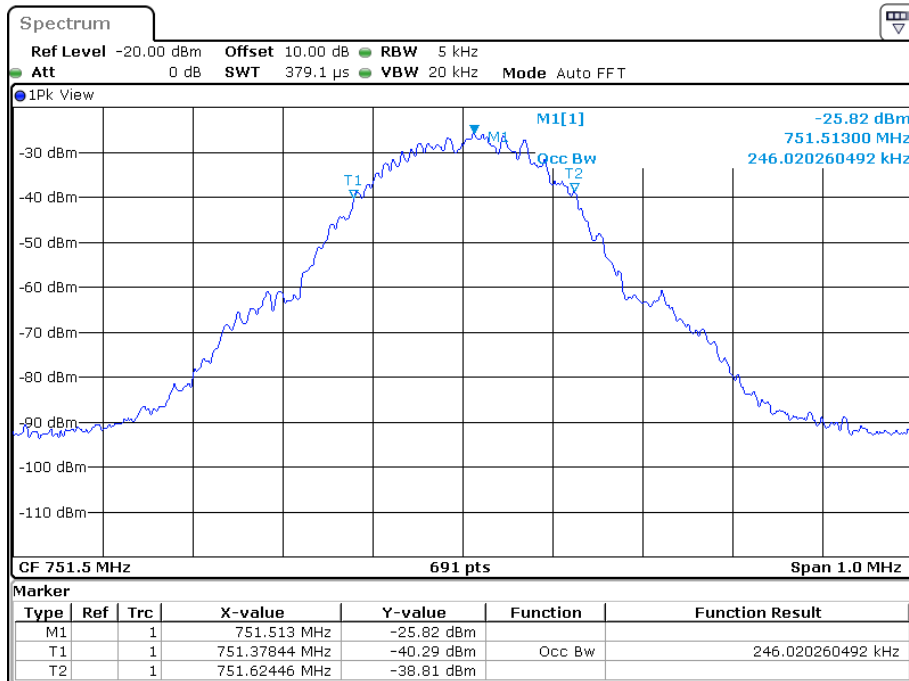
Date: 19.DEC.2022 17:51:41

99% Bandwidth-UL- AWGN- Pre AGC -Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	780.154 MHz	19.85 dBm		
T1		1	779.3726 MHz	10.31 dBm	Occ Bw	4.240231548 MHz
T2		1	783.6129 MHz	9.72 dBm		
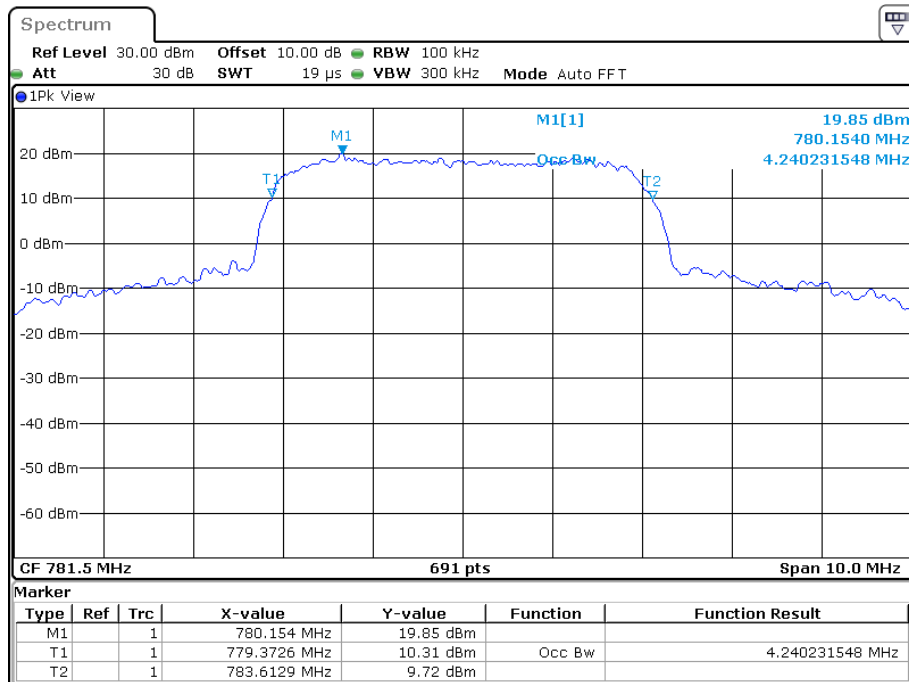
Date: 19.DEC.2022 17:11:24

99% Bandwidth-UL- AWGN-3dB above AGC-Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	780.154 MHz	19.80 dBm		
T1		1	779.3726 MHz	10.39 dBm	Occ Bw	4.225759768 MHz
T2		1	783.5984 MHz	10.14 dBm		

Date: 19.DEC.2022 17:16:04

99% Bandwidth-UL- GSM- Pre AGC -Output

Date: 19.DEC.2022 16:36:00

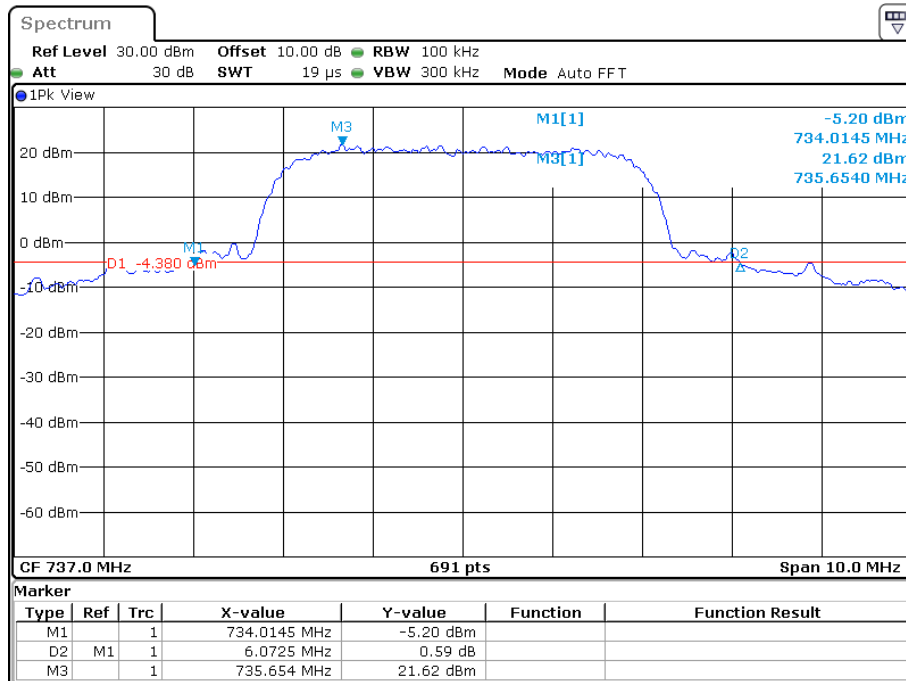## 99% Bandwidth-UL- GSM- 3dB Above AGC -Output

Date: 19.DEC.2022 16:39:38
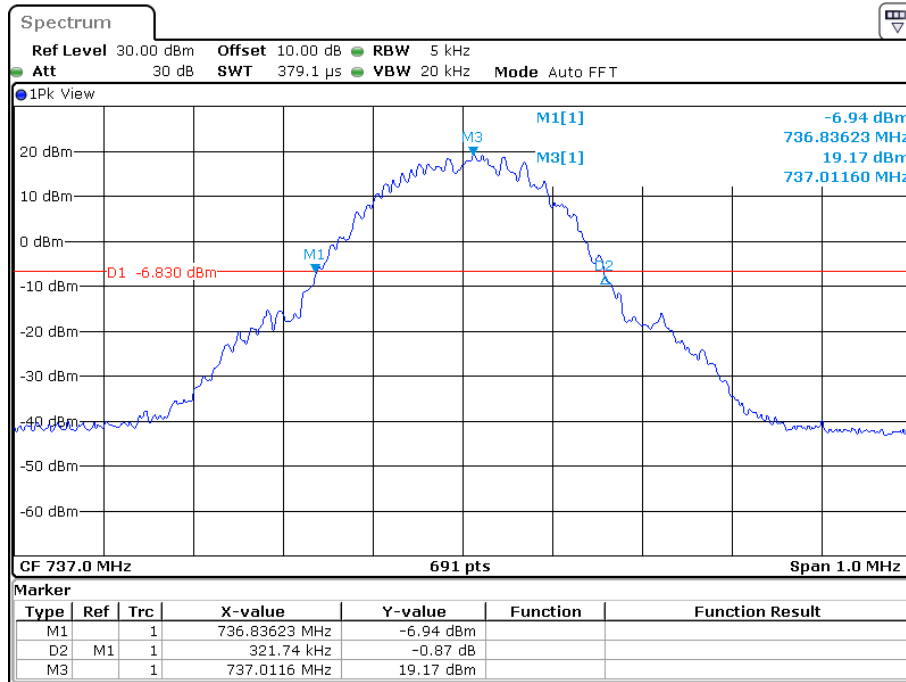
99% Bandwidth-DL- AWGN- Pre AGC -Output

Date: 19.DEC.2022 17:32:34

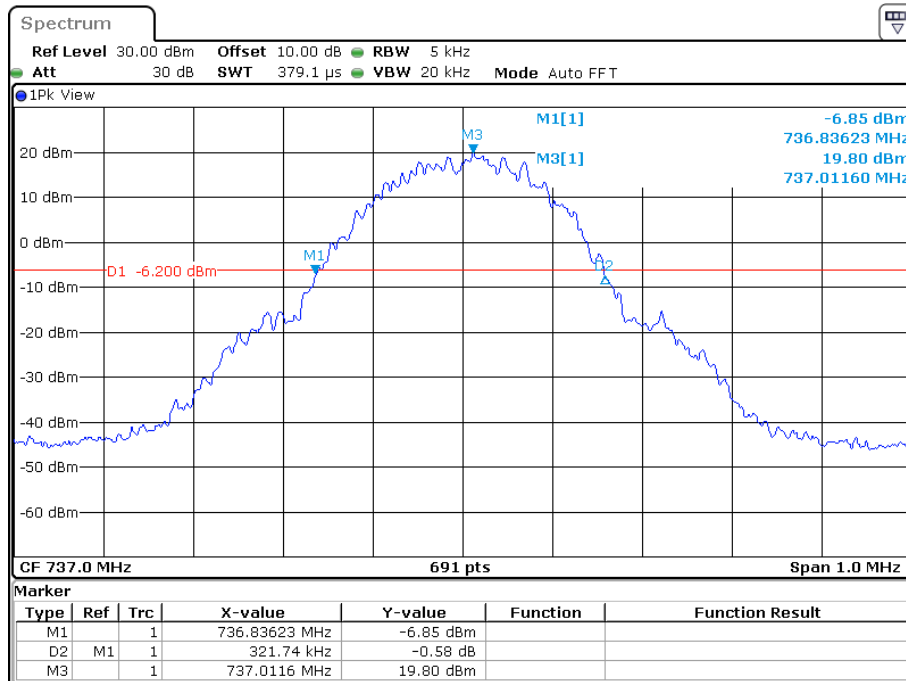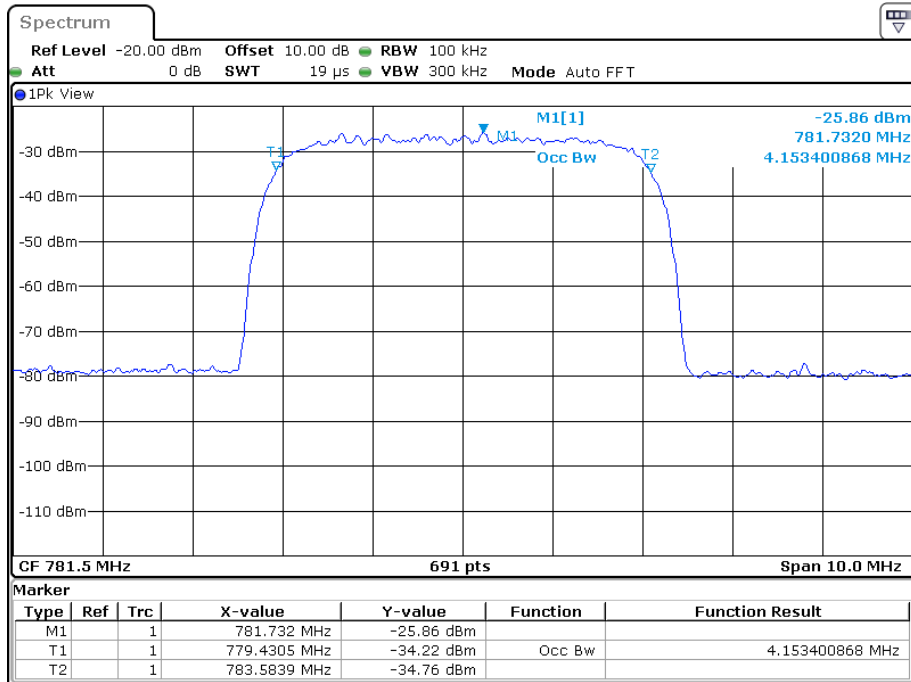## 99% Bandwidth-DL- AWGN- 3dB Above AGC -Output
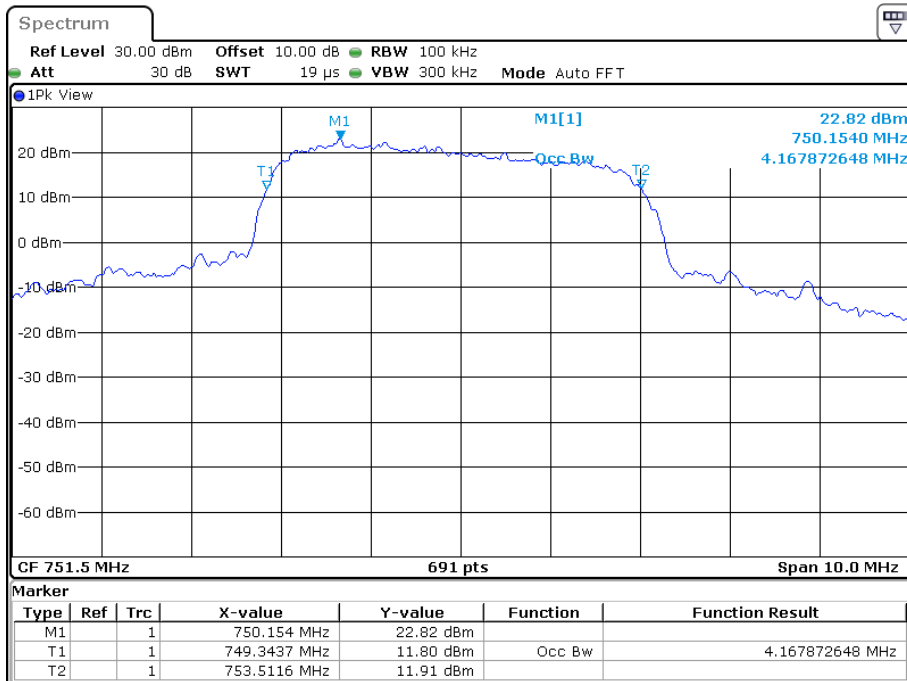
Date: 19.DEC.2022 17:38:11

99% Bandwidth-DL- GSM- Pre AGC -Output

Spectrum

Ref Level	30.00 dBm	Offset	10.00 dB	● RBW	5 kHz		
● Att	30 dB	SWT	379.1 µs	● VBW	20 kHz	Mode	Auto FFT

● 1Pk View

M1[1]   18.35 dBm
751.51160 MHz
Occ Bw   244.573082489 kHz

CF 751.5 MHz   691 pts   Span 1.0 MHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	751.5116 MHz	18.35 dBm		
T1		1	751.37844 MHz	4.28 dBm	Occ Bw	244.573082489 kHz
T2		1	751.62301 MHz	5.10 dBm		
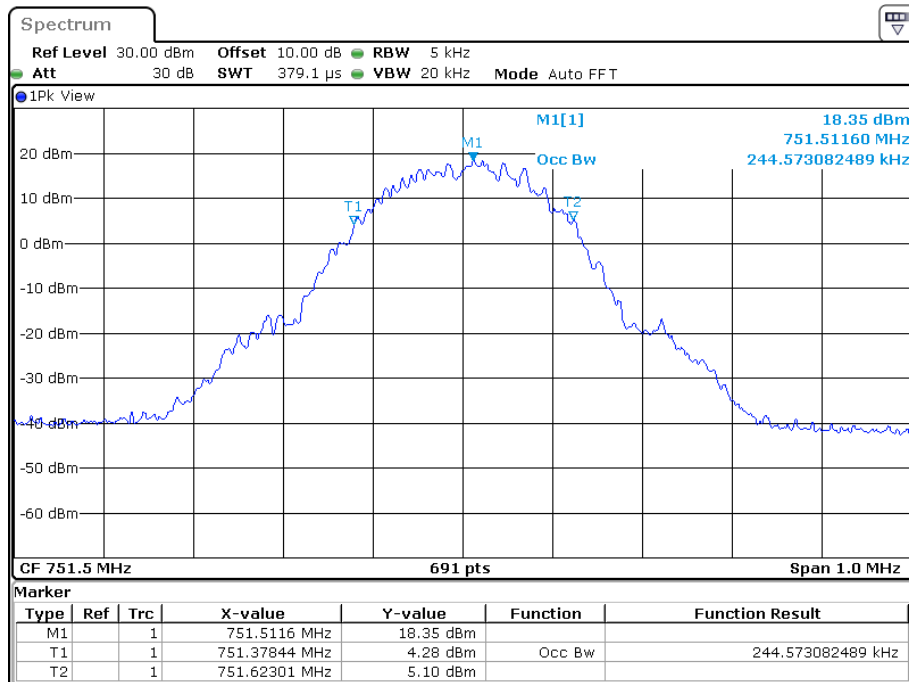
Date: 19.DEC.2022   17:25:11

99% Bandwidth-DL- GSM- 3dB Above AGC -Output

Spectrum

Ref Level	30.00 dBm	Offset	10.00 dB	● RBW	5 kHz		
● Att	30 dB	SWT	379.1 µs	● VBW	20 kHz	Mode	Auto FFT

● 1Pk View

M1[1]   19.04 dBm
751.51160 MHz
Occ Bw   244.573082489 kHz

CF 751.5 MHz   691 pts   Span 1.0 MHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	751.5116 MHz	19.04 dBm		
T1		1	751.37844 MHz	4.94 dBm	Occ Bw	244.573082489 kHz
T2		1	751.62301 MHz	5.81 dBm		
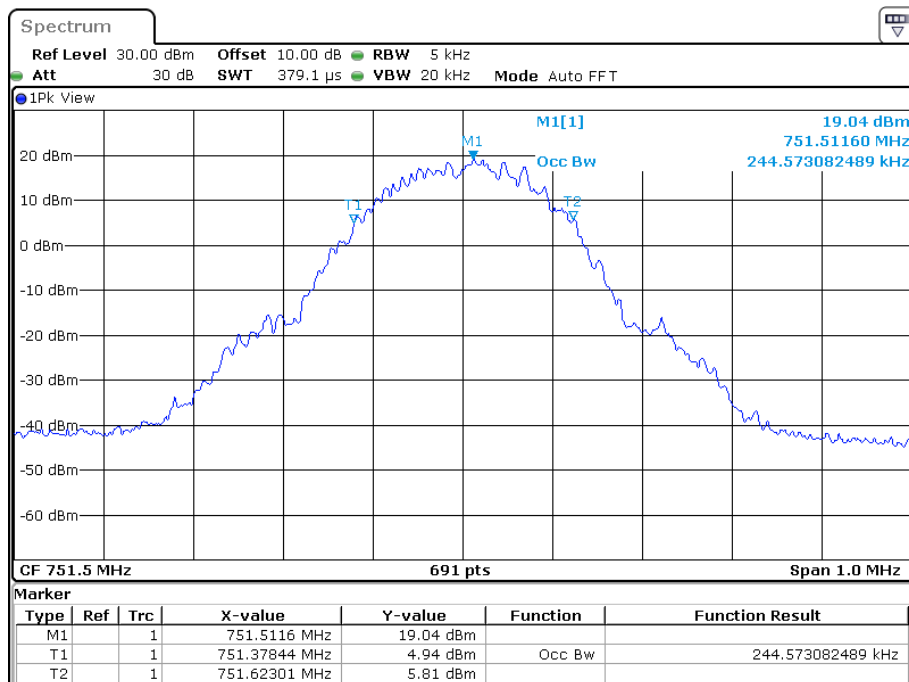
Date: 19.DEC.2022   17:28:29

26 dB Bandwidth-UL-AWGN-Pre AGC-Input
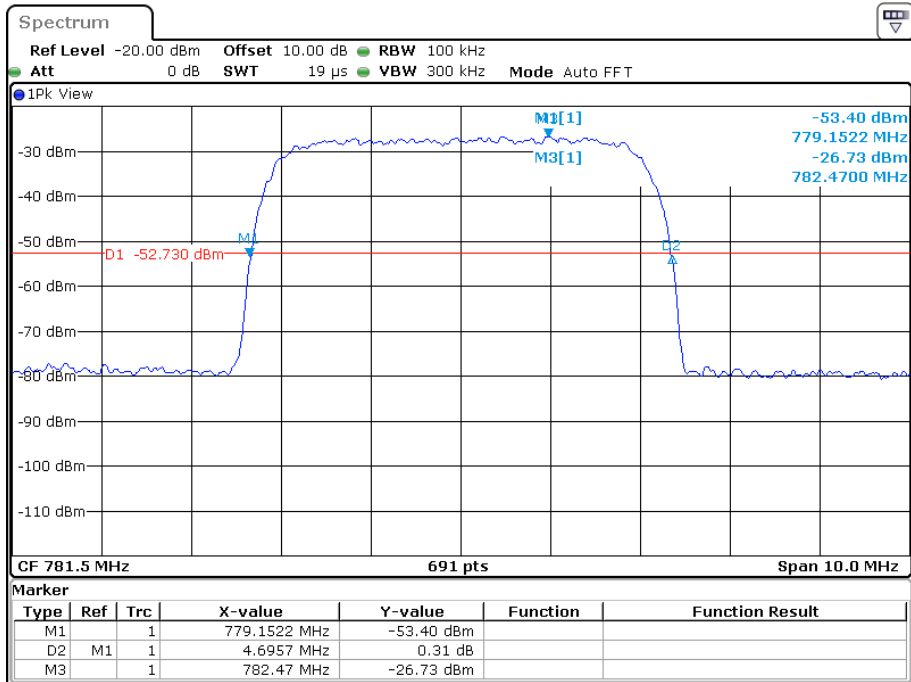
Date: 19.DEC.2022 18:02:23

26 dB Bandwidth-UL- AWGN-3dB above AGC-Input
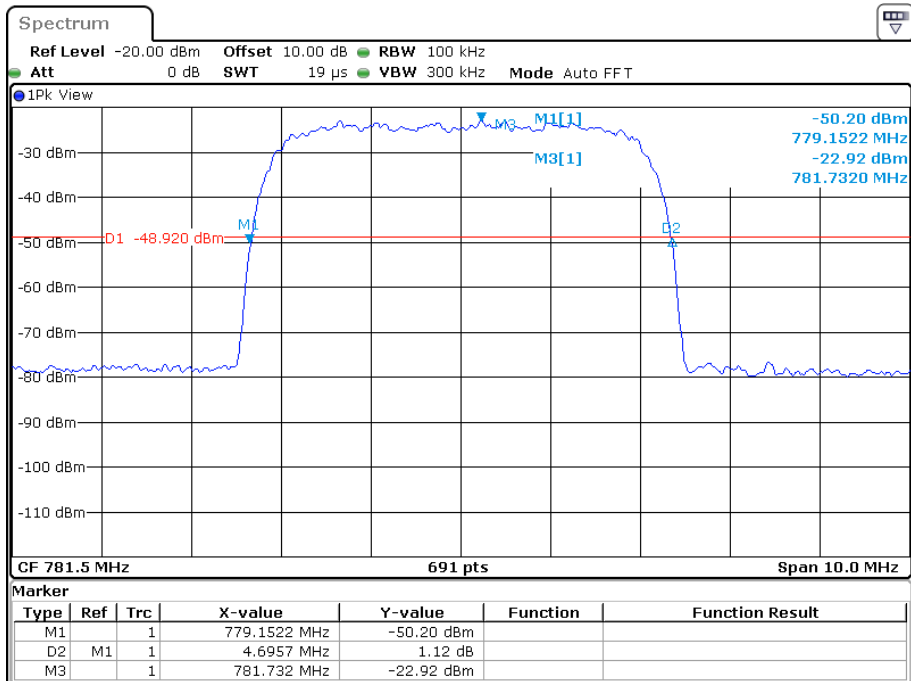
Date: 19.DEC.2022 18:09:42
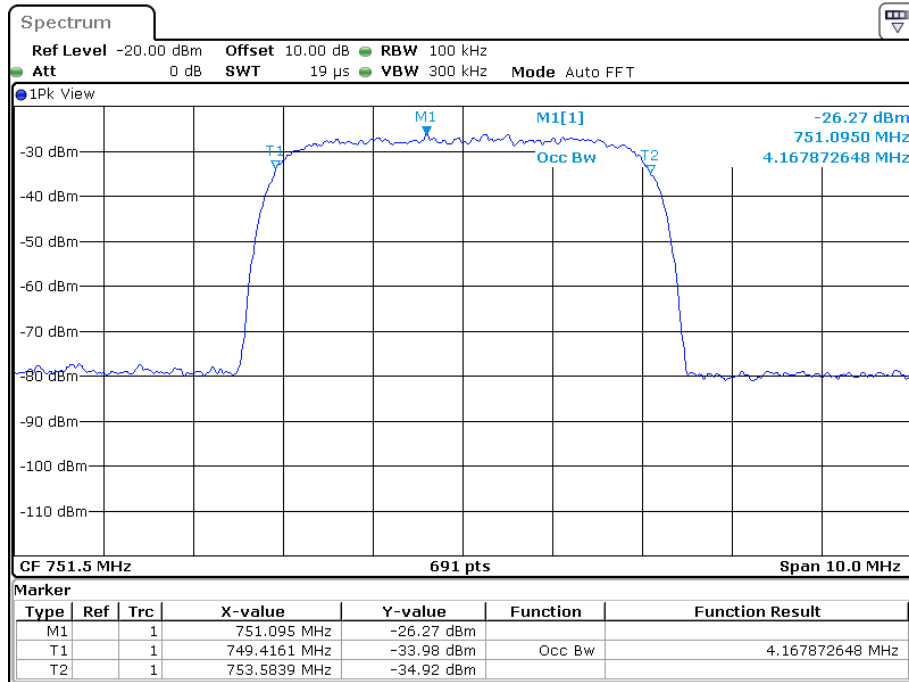
26 dB Bandwidth-UL-GSM-Pre AGC-Input

```
Spectrum                                                        [icon]
  Ref Level  -20.00 dBm    Offset 10.00 dB  ● RBW   5 kHz
● Att           0 dB    SWT    379.1 µs  ● VBW  20 kHz    Mode Auto FFT
● 1Pk View
                                          M3        M1[1]          -55.32 dBm
                                                               781.33623 MHz
 -30 dBm                                        M3[1]             -28.93 dBm
                                                               781.51160 MHz
 -40 dBm
 -50 dBm
    D1 -54.930 dBm          M1                         D2
 -60 dBm
 -70 dBm
 -80 dBm
 -90 dBm
-100 dBm
-110 dBm
CF 781.5 MHz                          691 pts                    Span 1.0 MHz
Marker
 Type | Ref | Trc |   X-value    |  Y-value   | Function | Function Result
  M1  |     |  1  | 781.33623 MHz | -55.32 dBm |          |
  D2  | M1  |  1  |   321.74 kHz  |  -0.34 dB  |          |
  M3  |     |  1  | 781.5116 MHz  | -28.93 dBm |          |
```

Date: 19.DEC.2022 17:48:38

26 dB Bandwidth-UL- GSM-3dB above AGC-Input

```
Spectrum                                                        [icon]
  Ref Level  -20.00 dBm    Offset 10.00 dB  ● RBW   5 kHz
● Att           0 dB    SWT    379.1 µs  ● VBW  20 kHz    Mode Auto FFT
● 1Pk View
                                          M3        M1[1]          -52.18 dBm
                                                               781.33623 MHz
 -30 dBm                                        M3[1]             -25.76 dBm
                                                               781.51160 MHz
 -40 dBm
 -50 dBm
    D1 -51.760 dBm          M1                         D2
 -60 dBm
 -70 dBm
 -80 dBm
 -90 dBm
-100 dBm
-110 dBm
CF 781.5 MHz                          691 pts                    Span 1.0 MHz
Marker
 Type | Ref | Trc |   X-value    |  Y-value   | Function | Function Result
  M1  |     |  1  | 781.33623 MHz | -52.18 dBm |          |
  D2  | M1  |  1  |   321.74 kHz  |  -0.42 dB  |          |
  M3  |     |  1  | 781.5116 MHz  | -25.76 dBm |          |
```

Date: 19.DEC.2022 17:55:36

26 dB Bandwidth-DL- AWGN- Pre AGC -Input

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	749.1522 MHz	-52.82 dBm		
D2	M1	1	4.6957 MHz	0.27 dB		
M3		1	751.992 MHz	-26.28 dBm		
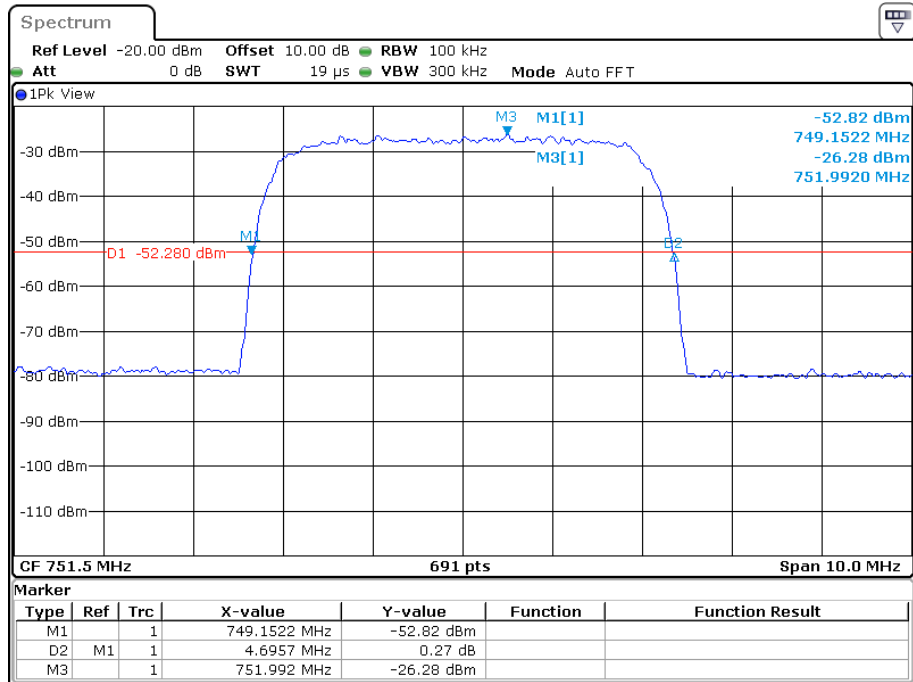
Date: 19.DEC.2022 17:59:06

26 dB Bandwidth-DL- AWGN- 3dB Above AGC -Input

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	749.1522 MHz	-49.94 dBm		
D2	M1	1	4.7101 MHz	-1.36 dB		
M3		1	751.978 MHz	-23.28 dBm		
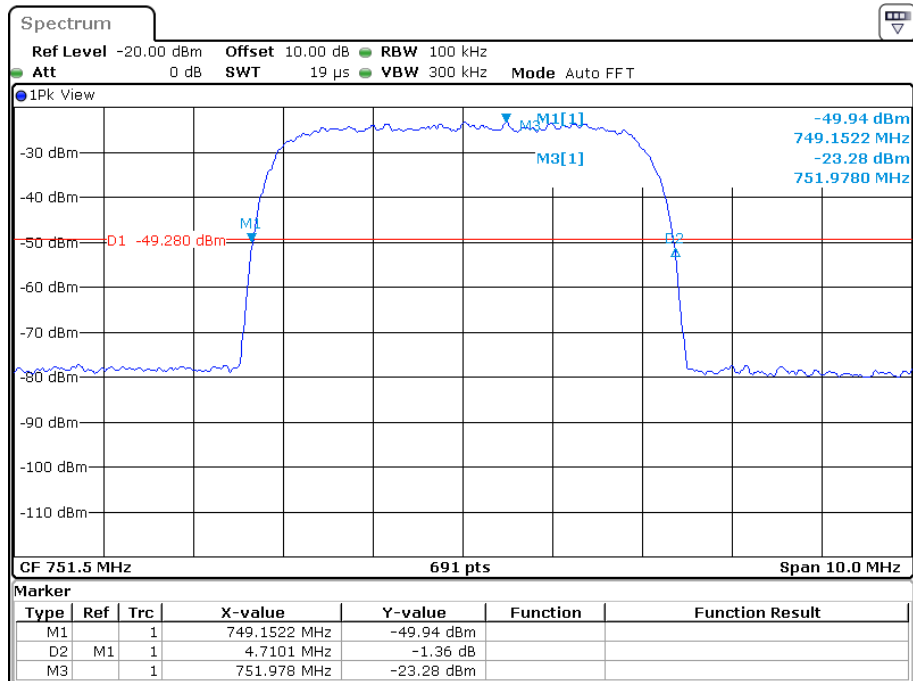
Date: 19.DEC.2022 18:06:03

26 dB Bandwidth-DL- GSM- Pre AGC -Input
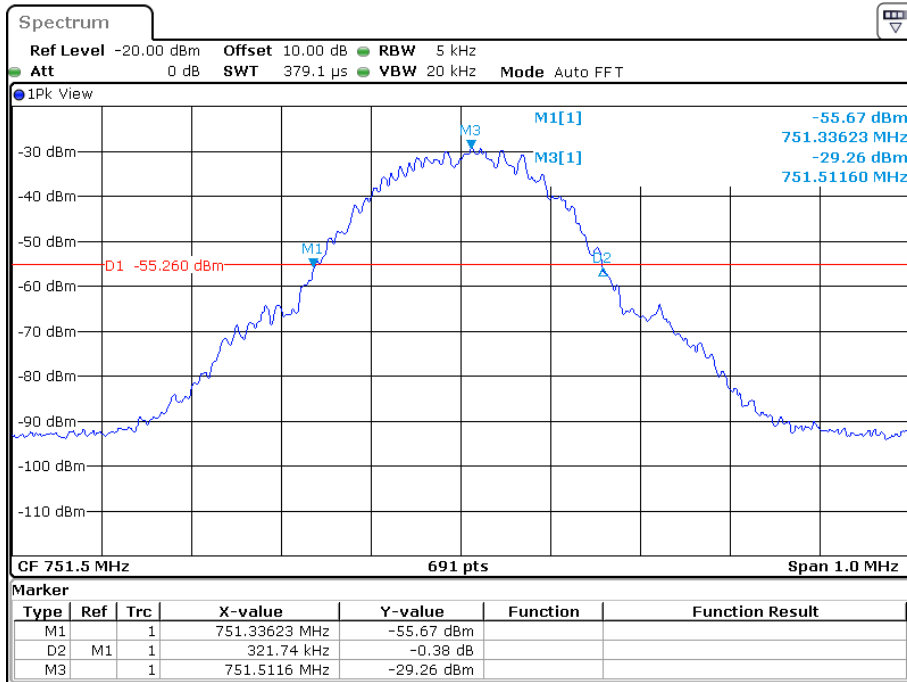
Date: 19.DEC.2022 17:45:10

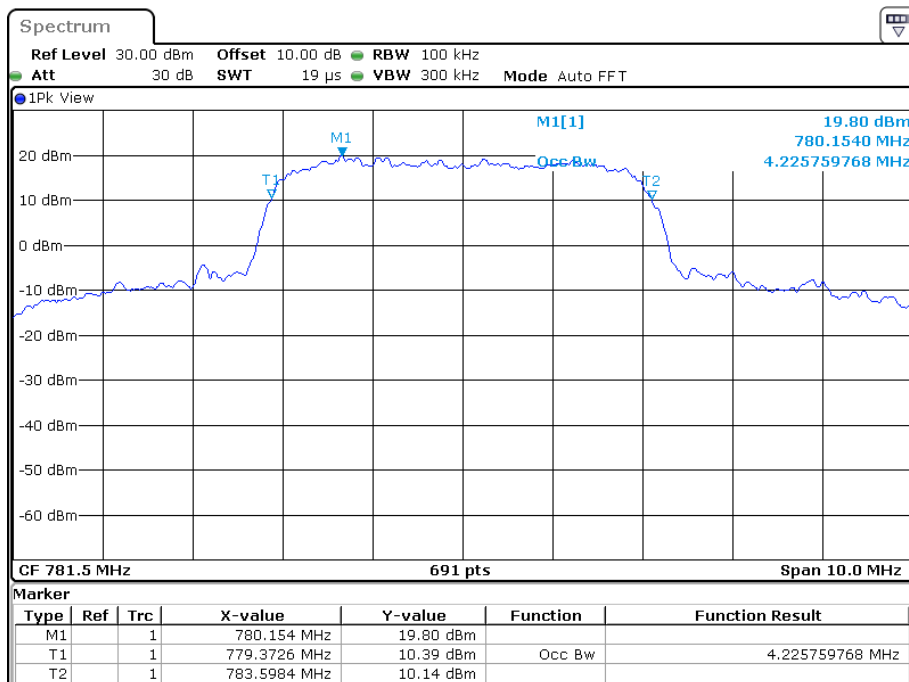## 26 dB Bandwidth-DL- GSM- 3dB Above AGC -Input
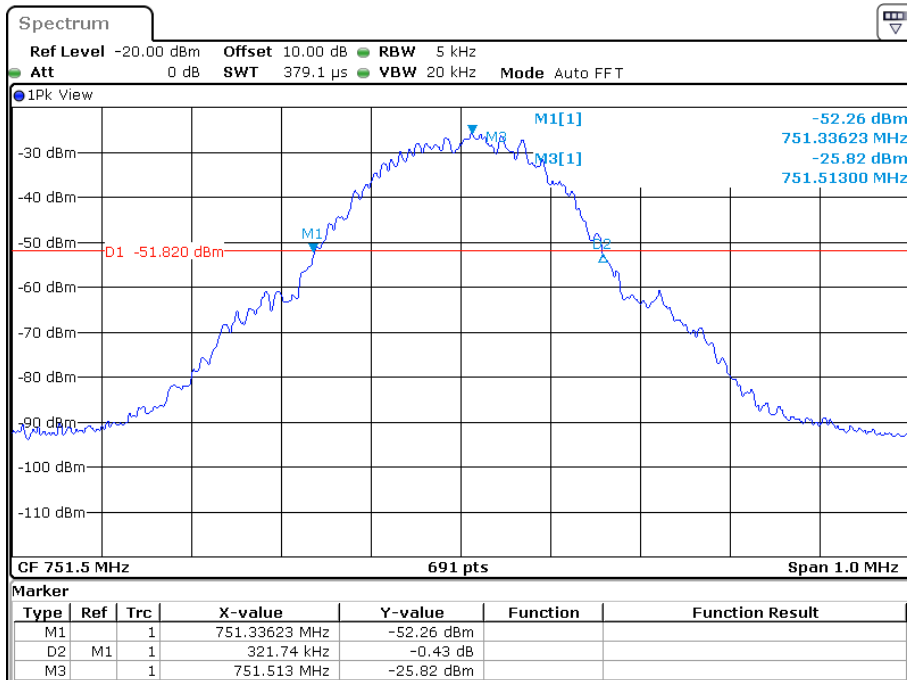
Date: 19.DEC.2022 17:51:56

26 dB Bandwidth-UL- AWGN- Pre AGC -Output
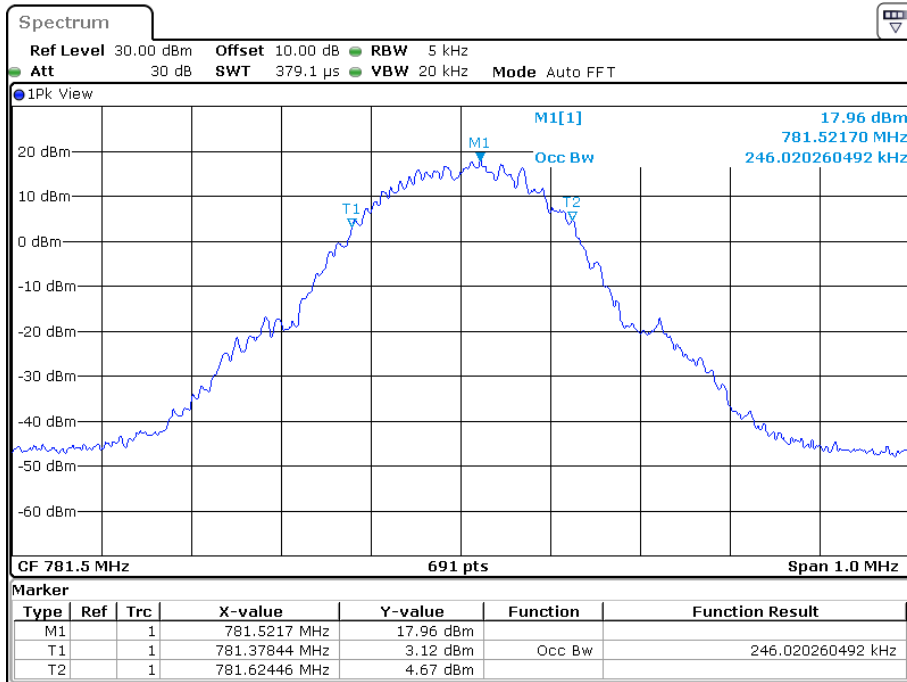

Date: 19.DEC.2022 17:11:49
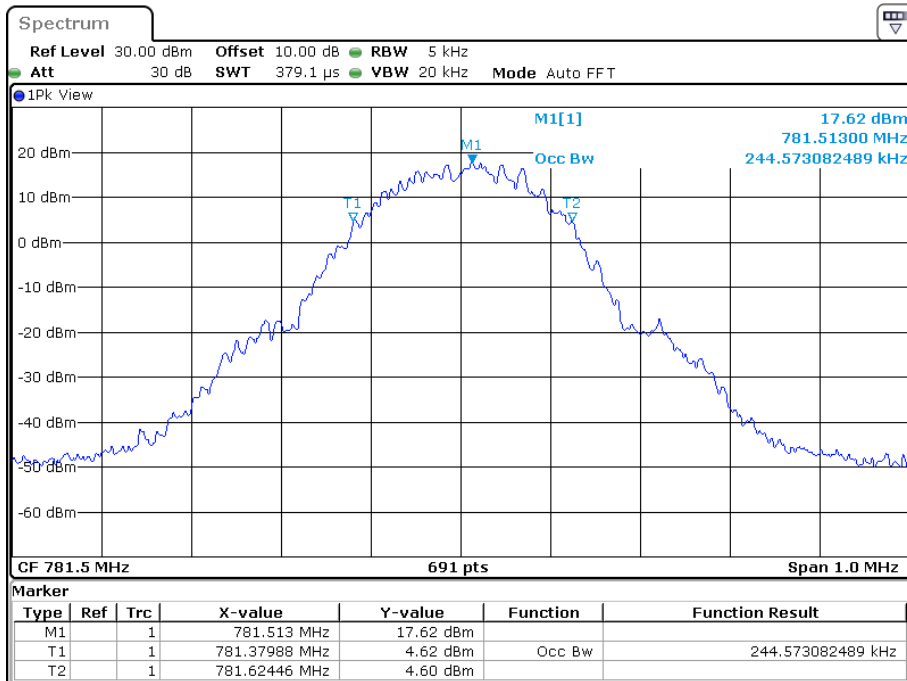
26 dB Bandwidth-UL- AWGN-3dB above AGC-Output

Date: 19.DEC.2022 17:16:29
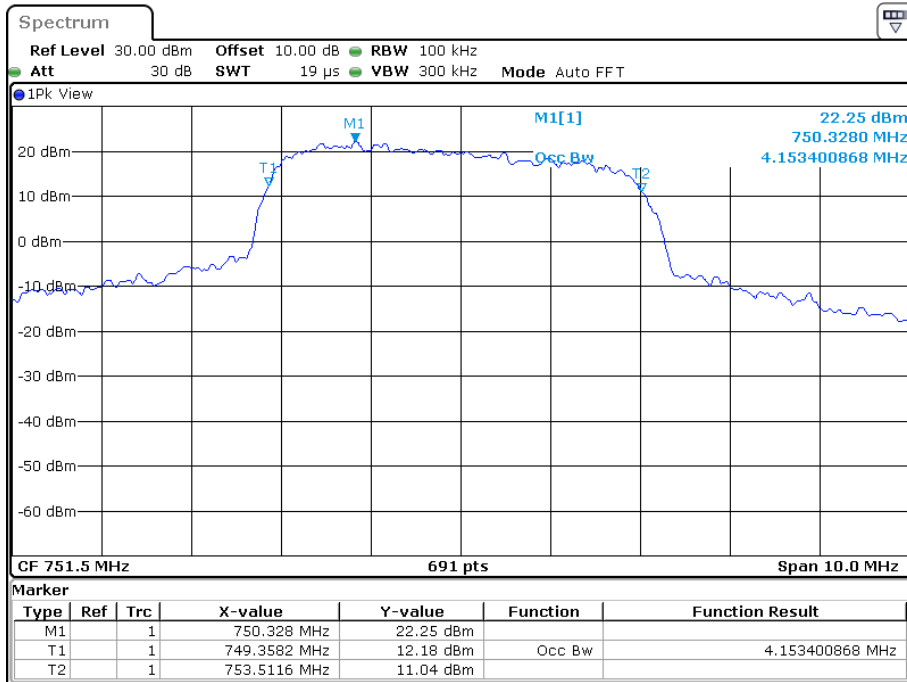
26 dB Bandwidth-UL- GSM- Pre AGC -Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	781.33623 MHz	-8.81 dBm		
D2	M1	1	321.74 kHz	-0.51 dB		
M3		1	781.513 MHz	17.52 dBm		

Date: 19.DEC.2022 16:36:15

26 dB Bandwidth-UL- GSM-3dB above AGC-Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	781.33623 MHz	-8.80 dBm		
D2	M1	1	321.74 kHz	-0.21 dB		
M3		1	781.5116 MHz	17.58 dBm		
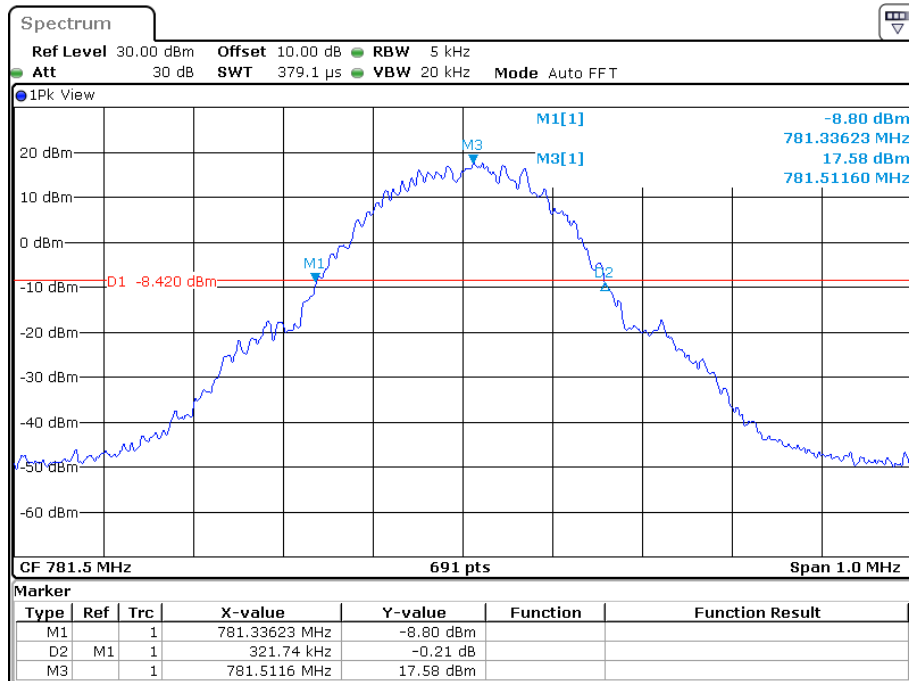
Date: 19.DEC.2022 16:39:53

26 dB Bandwidth-DL- AWGN- Pre AGC -Output

Spectrum							
Ref Level 30.00 dBm		Offset 10.00 dB		RBW 100 kHz			
Att	30 dB	SWT	19 µs	VBW 300 kHz	Mode Auto FFT		
1Pk View							

M3
M1[1]   -4.10 dBm
749.1232 MHz
20 dBm
M3[1]
22.48 dBm
750.1540 MHz
10 dBm
0 dBm
D1 -3.520 dBm   M1
-10 dBm   D2
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm

CF 751.5 MHz   691 pts   Span 10.0 MHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	749.1232 MHz	-4.10 dBm		
D2	M1	1	4.6957 MHz	-0.35 dB		
M3		1	750.154 MHz	22.48 dBm		
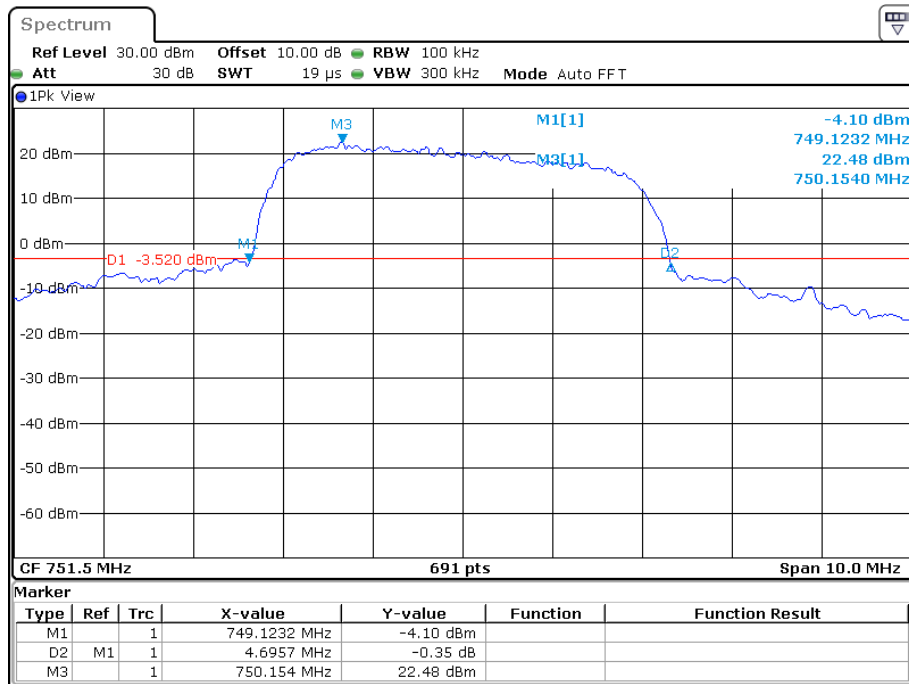
Date: 19.DEC.2022 17:32:59

26 dB Bandwidth-DL- AWGN- 3dB Above AGC -Output

Spectrum							
Ref Level 30.00 dBm		Offset 10.00 dB		RBW 100 kHz			
Att	30 dB	SWT	19 µs	VBW 300 kHz	Mode Auto FFT		
1Pk View							

M3
M1[1]   -3.62 dBm
749.0942 MHz
20 dBm
M3[1]
22.77 dBm
750.1540 MHz
10 dBm
0 dBm
D1 -3.230 dBm   M1
-10 dBm   D2
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm

CF 751.5 MHz   691 pts   Span 10.0 MHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	749.0942 MHz	-3.62 dBm		
D2	M1	1	4.7246 MHz	-0.27 dB		
M3		1	750.154 MHz	22.77 dBm		
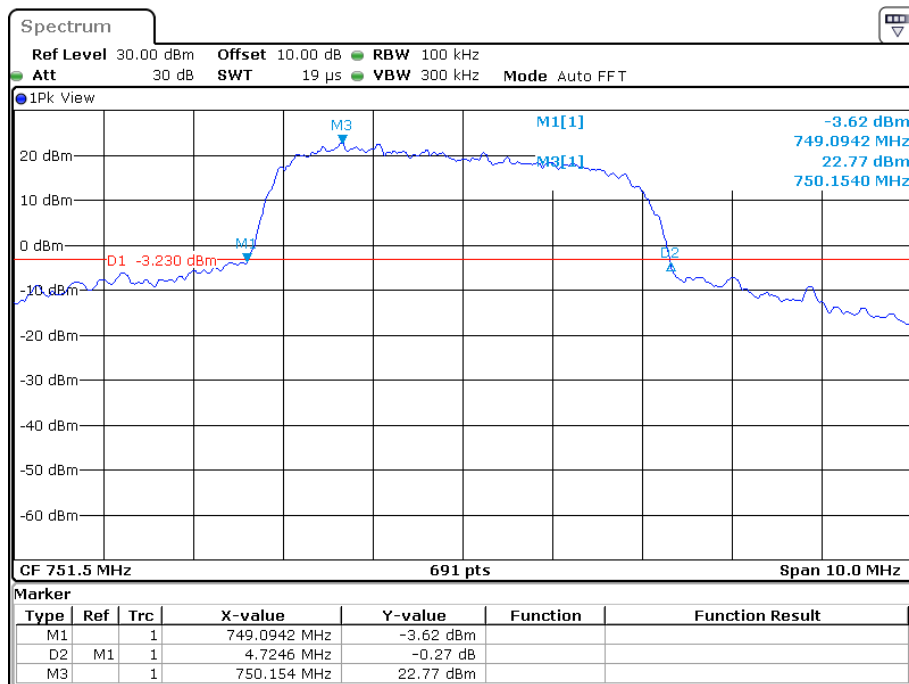
Date: 19.DEC.2022 17:38:26

26 dB Bandwidth-DL- GSM- Pre AGC -Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	751.33478 MHz	-8.85 dBm		
D2	M1	1	323.19 kHz	0.08 dB		
M3		1	751.5116 MHz	18.36 dBm		
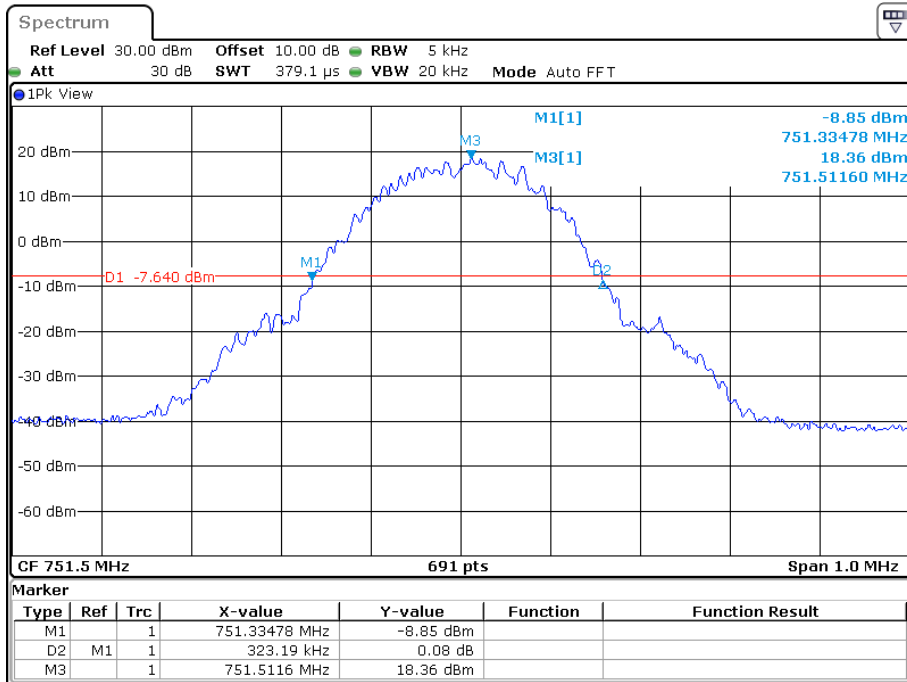
Date: 19.DEC.2022   17:25:26

26 dB Bandwidth-DL- GSM- 3dB Above AGC -Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	751.33623 MHz	-6.94 dBm		
D2	M1	1	321.74 kHz	-1.00 dB		
M3		1	751.5116 MHz	19.44 dBm		
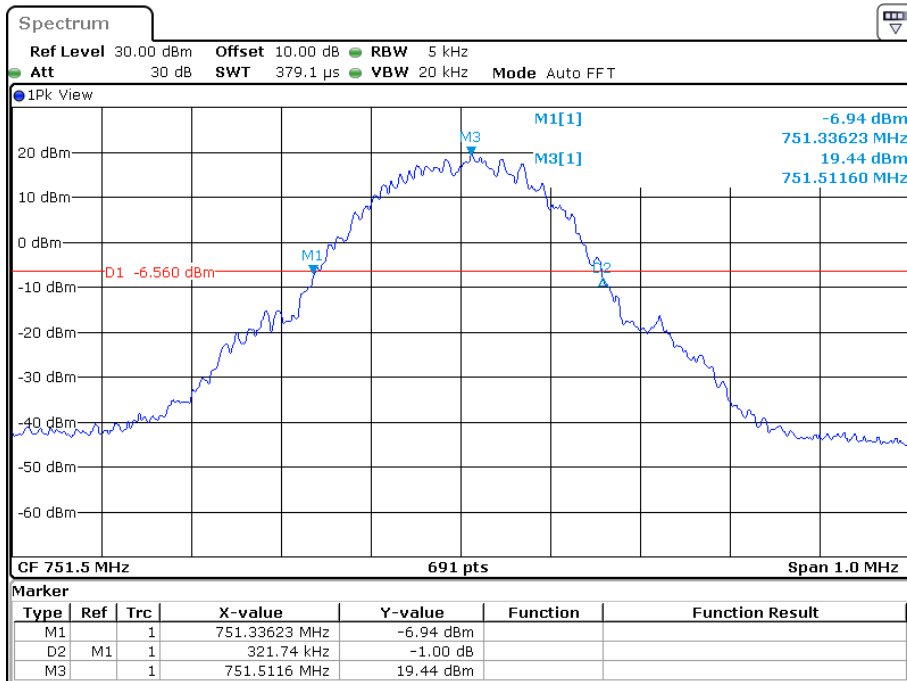
Date: 19.DEC.2022   17:28:45

Cellular Band

Mode	Signal Type	Signal Level	Frequency (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)	
				Input	Output	Input	Output
Uplink	AWGN	Pre-AGC	836.5	4.168	4.197	4.710	4.710
		3dB above AGC	836.5	4.153	4.182	4.710	4.710
	GSM	Pre-AGC	836.5	0.246	0.246	0.322	0.322
		3dB above AGC	836.5	0.246	0.246	0.322	0.322
Downlink	AWGN	Pre-AGC	881.5	4.153	4.182	4.710	5.493
		3dB above AGC	881.5	4.168	4.182	4.696	5.551
	GSM	Pre-AGC	881.5	0.246	0.246	0.322	0.322
		3dB above AGC	881.5	0.246	0.245	0.322	0.322

99% Bandwidth-UL-AWGN-Pre AGC-Input

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	836.732 MHz	-25.84 dBm		
T1		1	834.4161 MHz	-33.73 dBm	Occ Bw	4.167872648 MHz
T2		1	838.5839 MHz	-34.50 dBm		
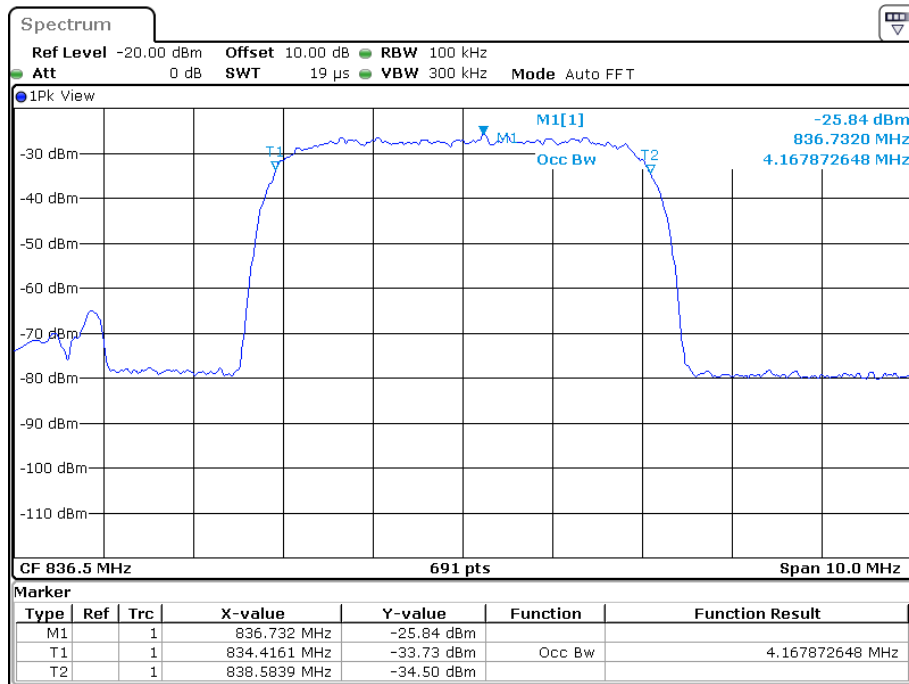
Date: 19.DEC.2022 18:02:51

99% Bandwidth-UL- AWGN-3dB above AGC-Input

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	835.646 MHz	-23.31 dBm		
T1		1	834.4161 MHz	-30.87 dBm	Occ Bw	4.153400868 MHz
T2		1	838.5695 MHz	-31.33 dBm		
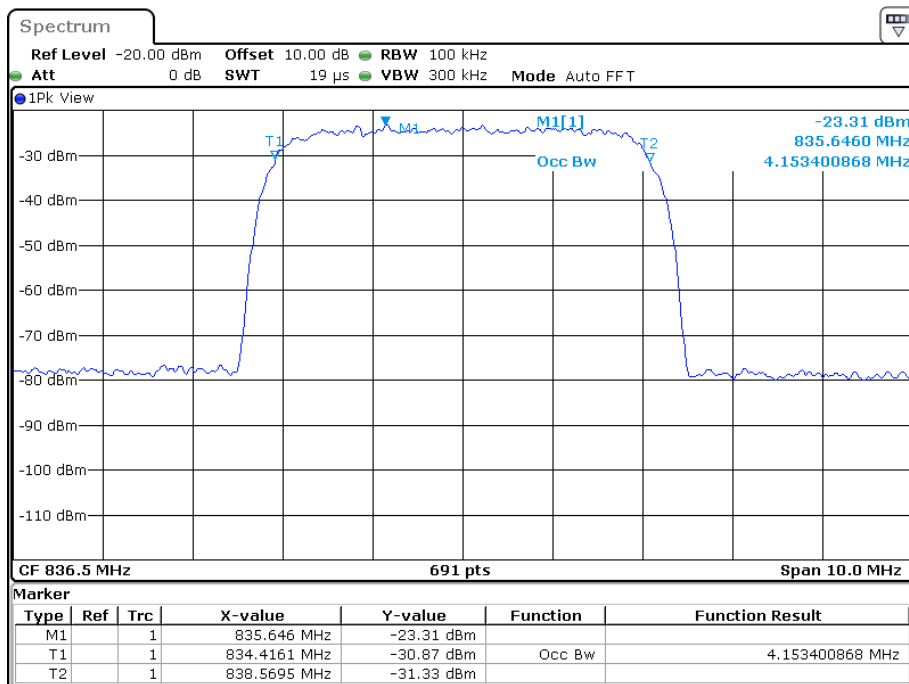
Date: 19.DEC.2022 18:10:00

99% Bandwidth-UL-GSM-Pre AGC-Input
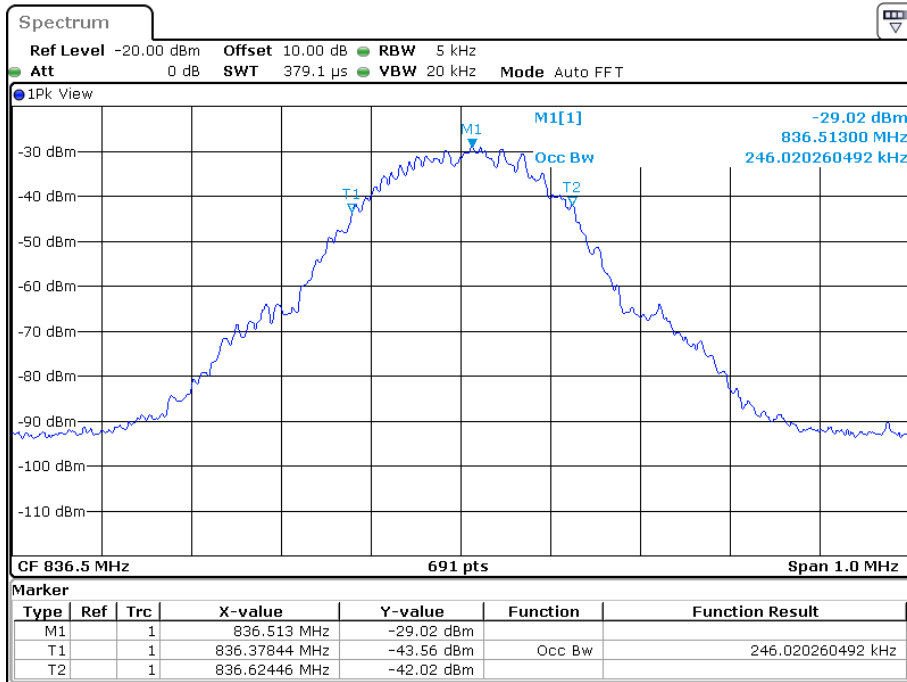
Date: 19.DEC.2022 17:48:56

99% Bandwidth-UL- GSM-3dB above AGC-Input
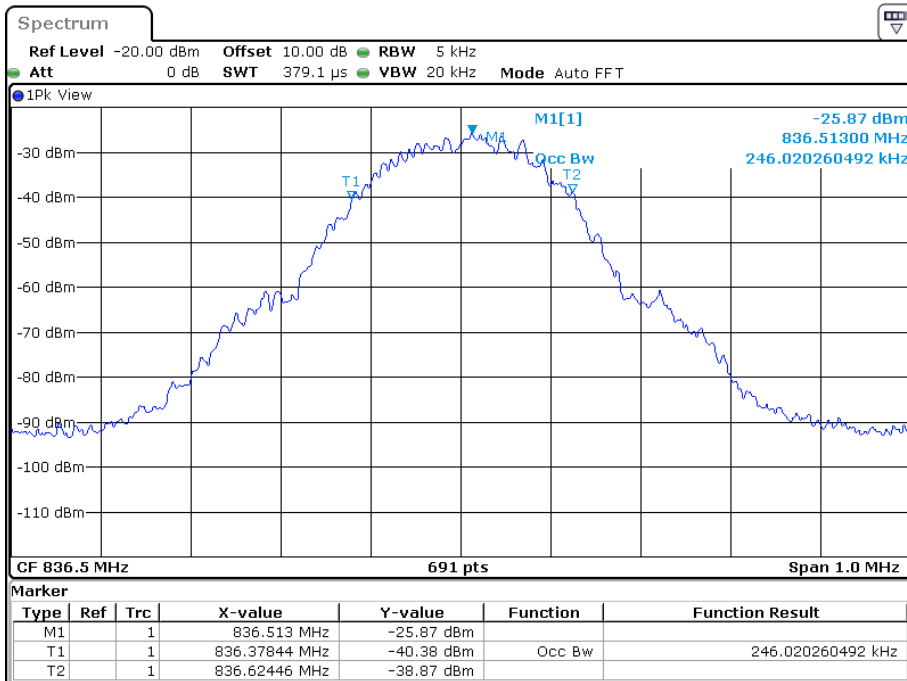
Date: 19.DEC.2022 17:55:53

99% Bandwidth-DL- AWGN- Pre AGC -Input
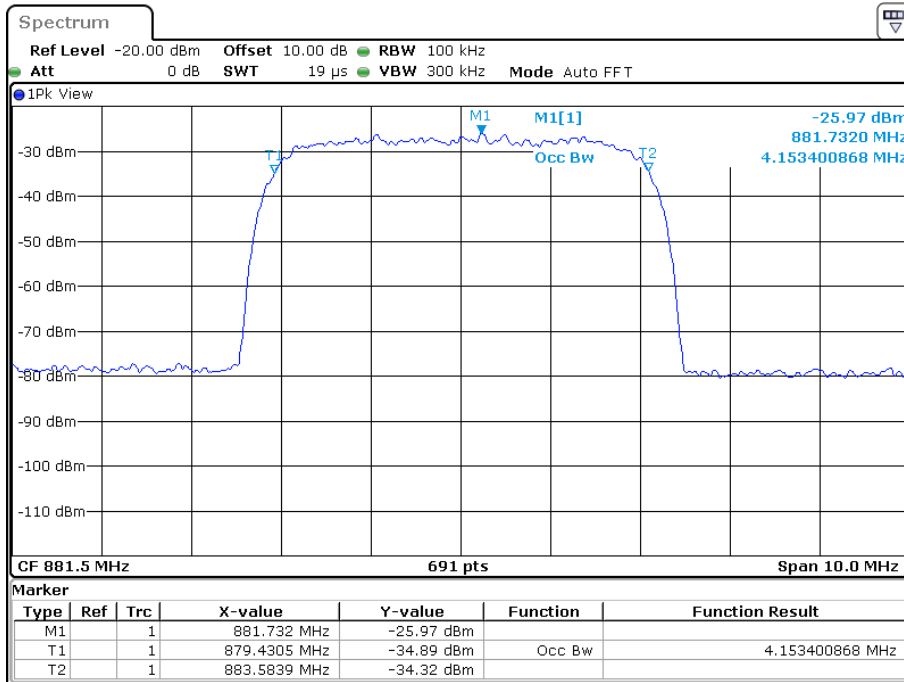
Date: 19.DEC.2022 17:59:24

99% Bandwidth-DL- AWGN- 3dB Above AGC -Input

Date: 19.DEC.2022 18:06:21
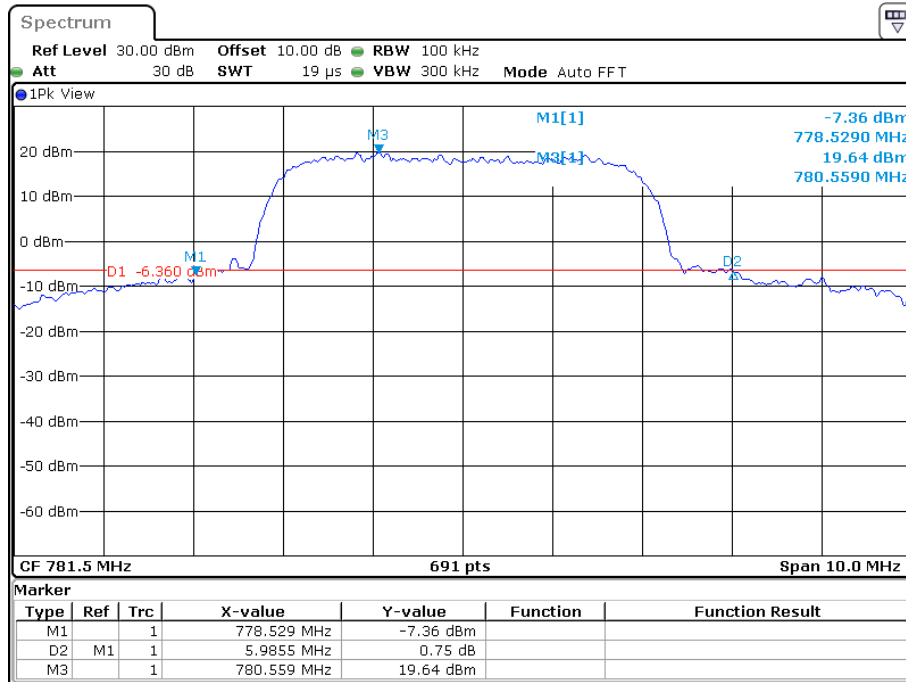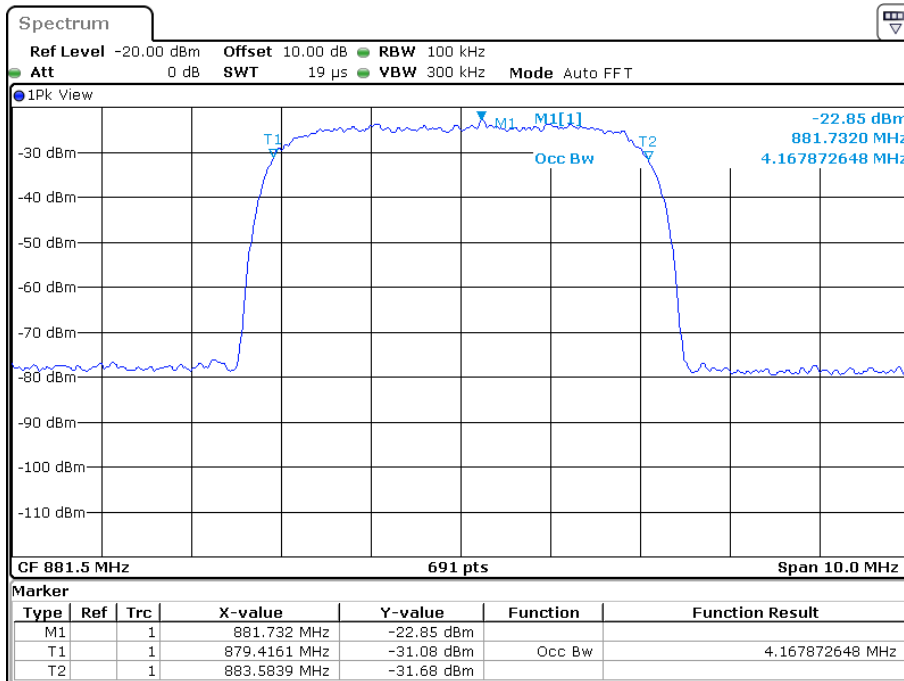
99% Bandwidth-DL- GSM- Pre AGC -Input

Date: 19.DEC.2022 17:45:28

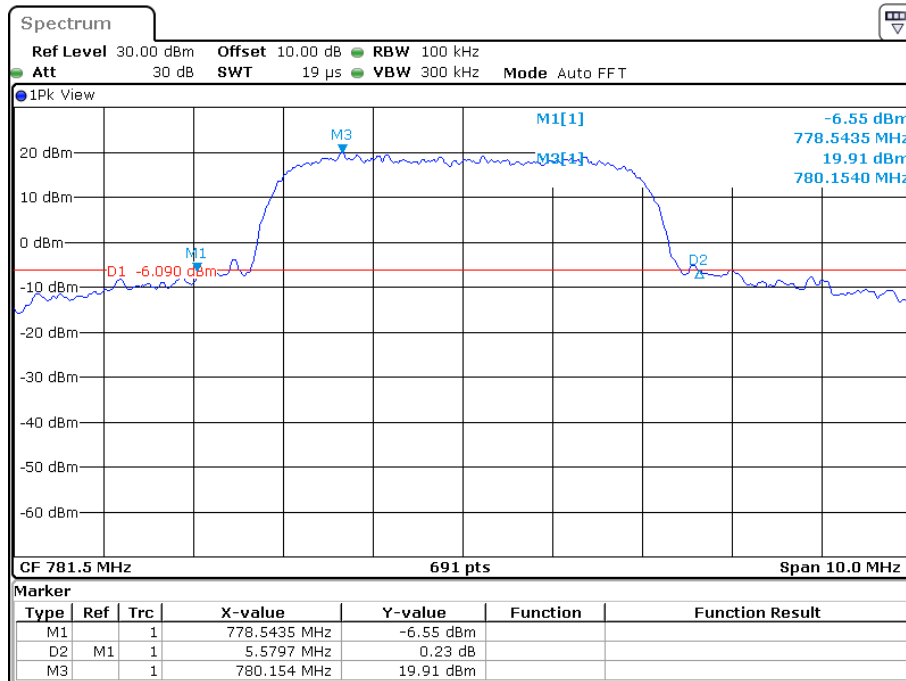## 99% Bandwidth-DL- GSM- 3dB Above AGC -Input
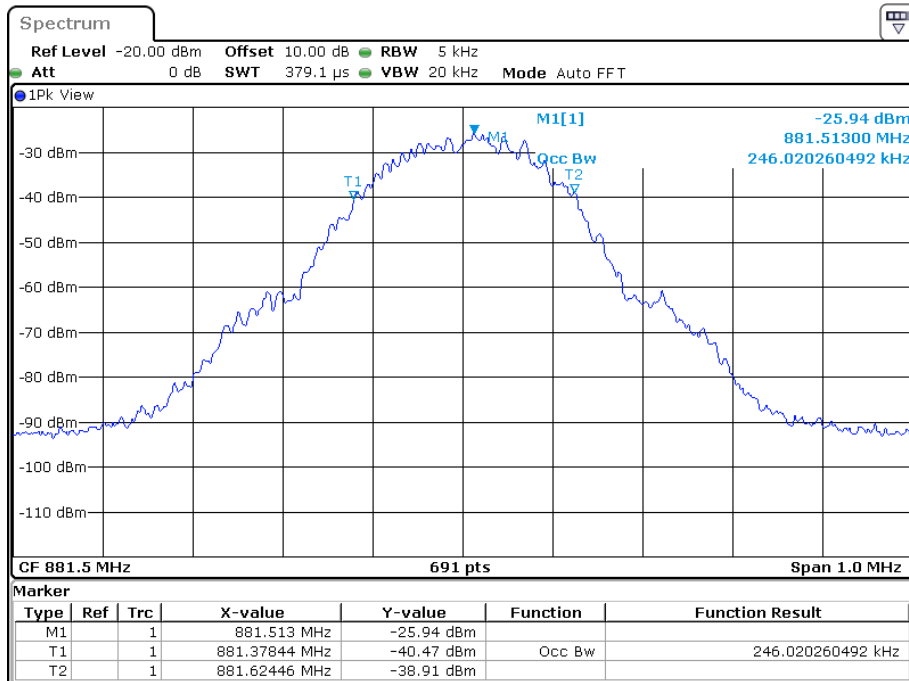
Date: 19.DEC.2022 17:52:14
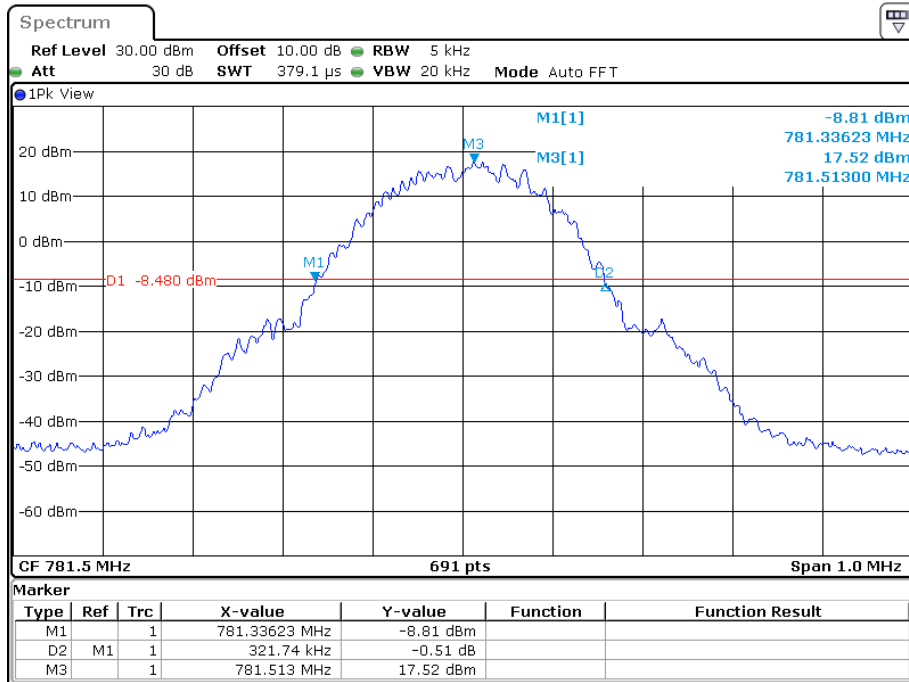
99% Bandwidth-UL- AWGN- Pre AGC -Output

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	836.978 MHz	19.13 dBm		
T1		1	834.4016 MHz	10.70 dBm	Occ Bw	4.196816208 MHz
T2		1	838.5984 MHz	10.52 dBm		
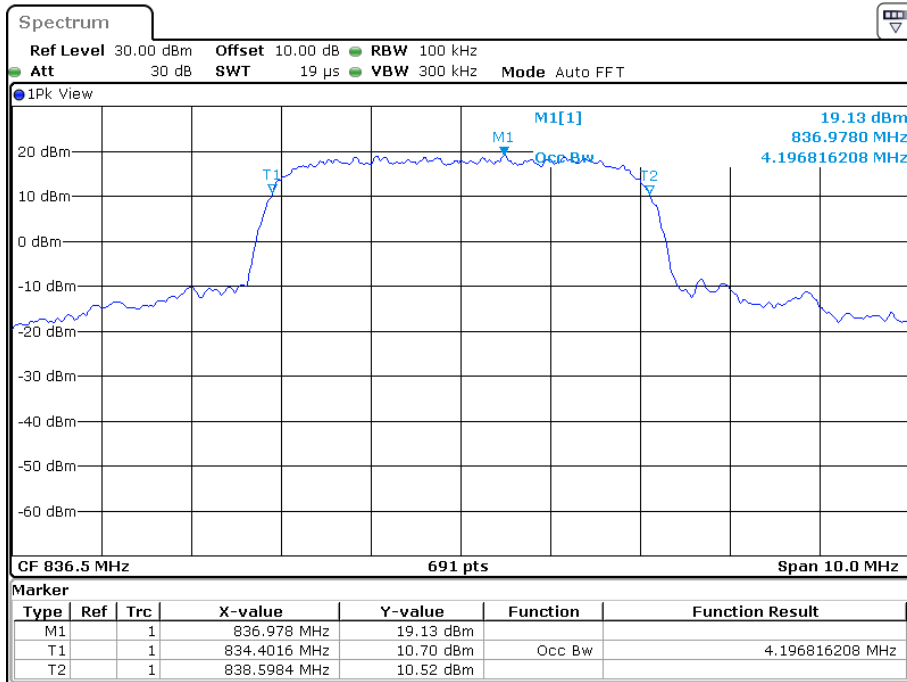
Date: 19.DEC.2022 17:12:17

99% Bandwidth-UL- AWGN-3dB above AGC-Output

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	836.992 MHz	19.89 dBm		
T1		1	834.4016 MHz	11.47 dBm	Occ Bw	4.182344428 MHz
T2		1	838.5839 MHz	11.11 dBm		

Date: 19.DEC.2022 17:16:57

99% Bandwidth-UL- GSM- Pre AGC -Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	836.513 MHz	17.08 dBm		
T1		1	836.37844 MHz	2.71 dBm	Occ Bw	246.020260492 kHz
T2		1	836.62446 MHz	4.07 dBm		

Date: 19.DEC.2022 16:36:34

99% Bandwidth-UL- GSM-3dB above AGC-Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	836.5116 MHz	17.04 dBm		
T1		1	836.37844 MHz	2.73 dBm	Occ Bw	246.020260492 kHz
T2		1	836.62446 MHz	4.00 dBm		

Date: 19.DEC.2022 16:40:20

99% Bandwidth-DL- AWGN- Pre AGC -Output

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	881.732 MHz	22.46 dBm		
T1		1	879.4016 MHz	13.51 dBm	Occ Bw	4.182344428 MHz
T2		1	883.5839 MHz	13.11 dBm		

Date: 19.DEC.2022   17:33:27

99% Bandwidth-DL- AWGN- 3dB Above AGC -Output

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	881.732 MHz	22.47 dBm		
T1		1	879.4016 MHz	12.78 dBm	Occ Bw	4.182344428 MHz
T2		1	883.5839 MHz	12.65 dBm		

Date: 19.DEC.2022   17:38:45

99% Bandwidth-DL- GSM- Pre AGC -Output

Spectrum							
Ref Level 30.00 dBm	Offset 10.00 dB	RBW	5 kHz				
● Att	30 dB	SWT	379.1 µs	● VBW 20 kHz	Mode Auto FFT		

● 1Pk View

M1[1]   20.00 dBm
M1   881.52170 MHz
Occ Bw   246.020260492 kHz

CF 881.5 MHz   691 pts   Span 1.0 MHz

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	881.5217 MHz	20.00 dBm		
T1		1	881.37844 MHz	5.72 dBm	Occ Bw	246.020260492 kHz
T2		1	881.62446 MHz	6.79 dBm		
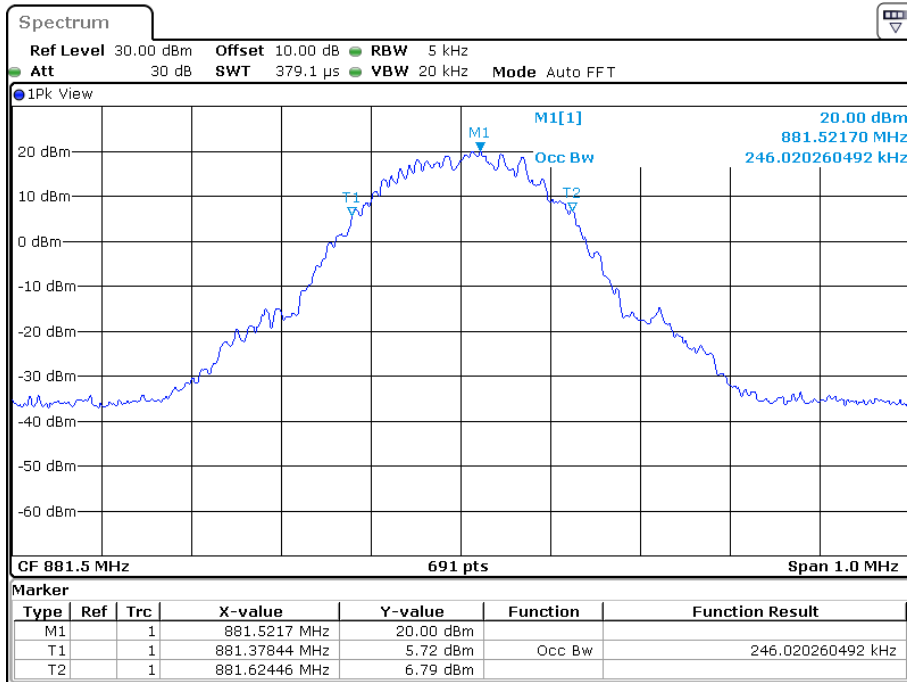
Date: 19.DEC.2022   17:25:44

99% Bandwidth-DL- GSM- 3dB Above AGC -Output

Spectrum							
Ref Level 30.00 dBm	Offset 10.00 dB	RBW	5 kHz				
● Att	30 dB	SWT	379.1 µs	● VBW 20 kHz	Mode Auto FFT		

● 1Pk View

M1[1]   20.34 dBm
M1   881.51300 MHz
Occ Bw   244.573082489 kHz

CF 881.5 MHz   691 pts   Span 1.0 MHz

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	881.513 MHz	20.34 dBm		
T1		1	881.37988 MHz	6.63 dBm	Occ Bw	244.573082489 kHz
T2		1	881.62446 MHz	7.39 dBm		
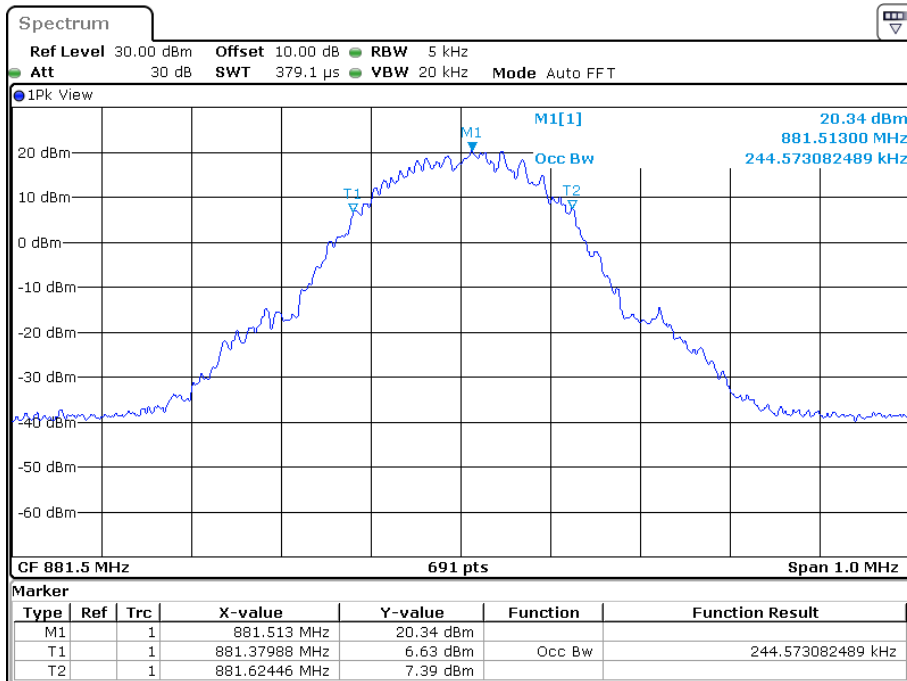
Date: 19.DEC.2022   17:29:03

26 dB Bandwidth-UL-AWGN-Pre AGC-Input

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	834.1522 MHz	-53.57 dBm		
D2	M1	1	4.7101 MHz	-0.52 dB		
M3		1	836.095 MHz	-26.28 dBm		
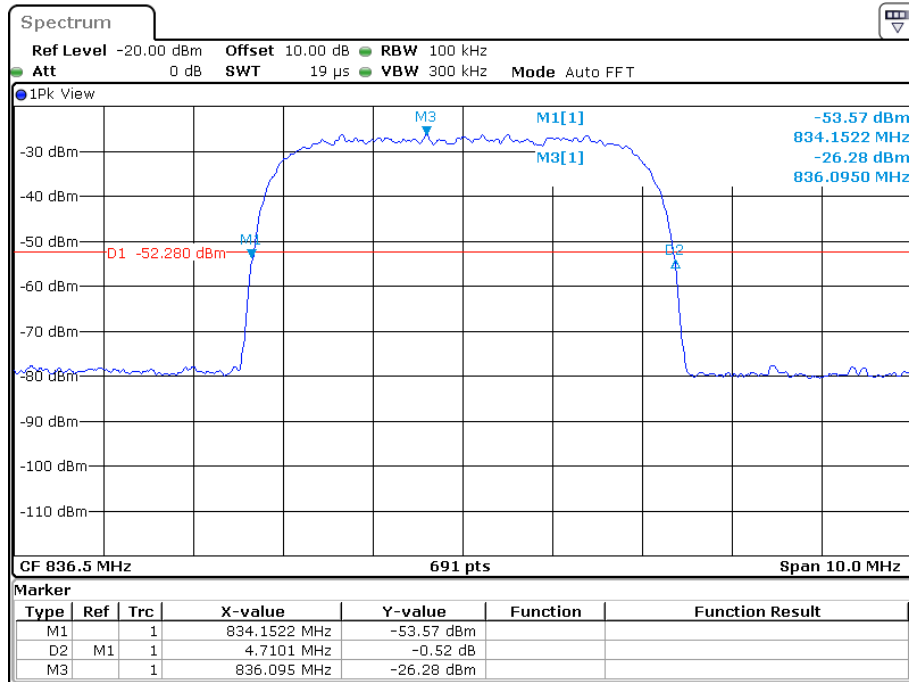
Date: 19.DEC.2022 18:03:06

26 dB Bandwidth-UL- AWGN-3dB above AGC-Input

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	834.1522 MHz	-49.87 dBm		
D2	M1	1	4.7101 MHz	-1.24 dB		
M3		1	835.154 MHz	-23.14 dBm		
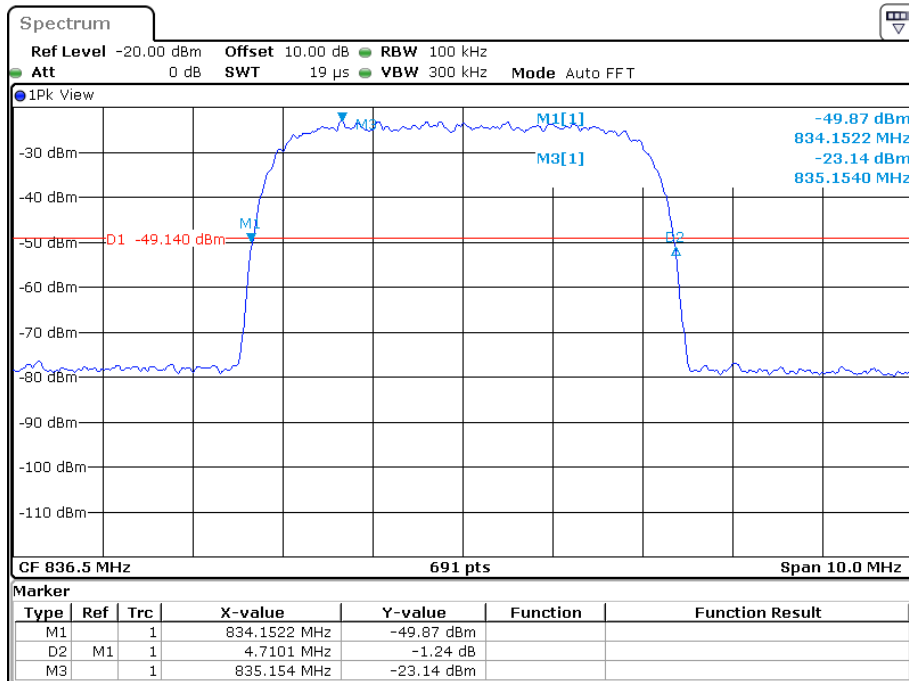
Date: 19.DEC.2022 18:10:15

26 dB Bandwidth-UL-GSM-Pre AGC-Input
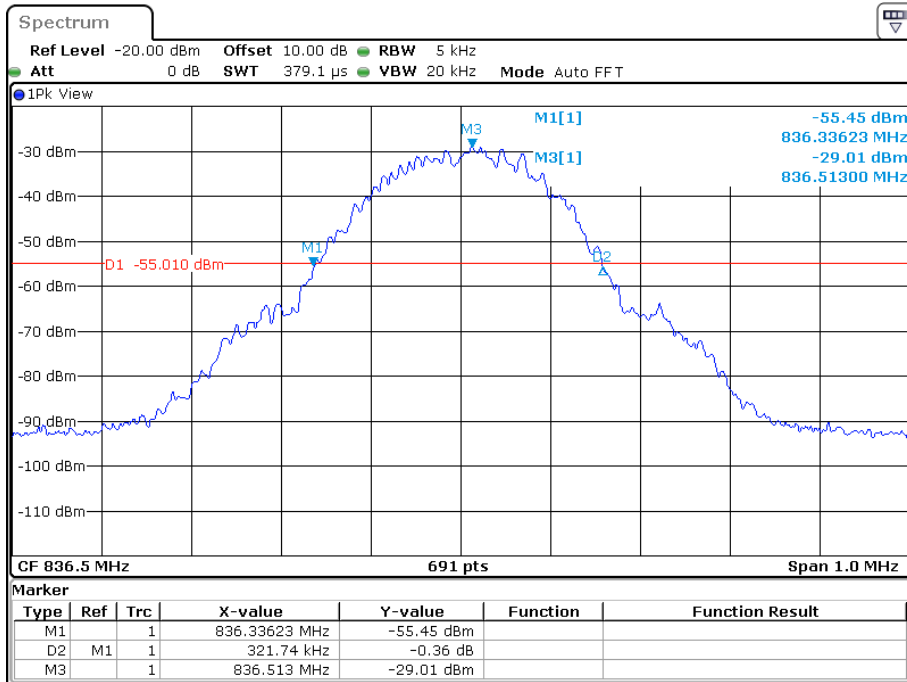
Date: 19.DEC.2022 17:49:11

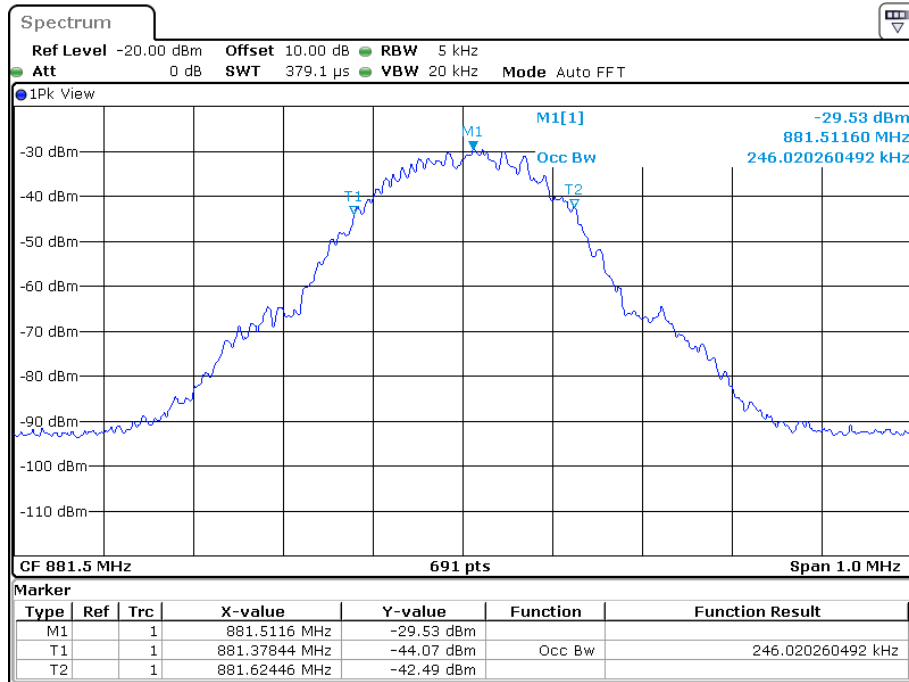## 26 dB Bandwidth-UL- GSM-3dB above AGC-Input
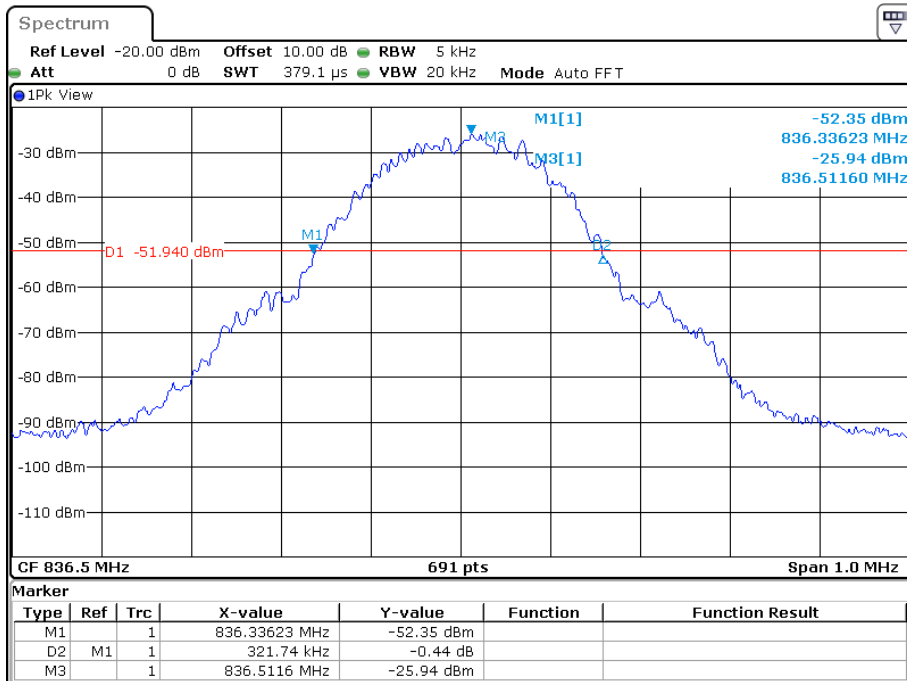
Date: 19.DEC.2022 17:56:08

26 dB Bandwidth-DL- AWGN- Pre AGC -Input
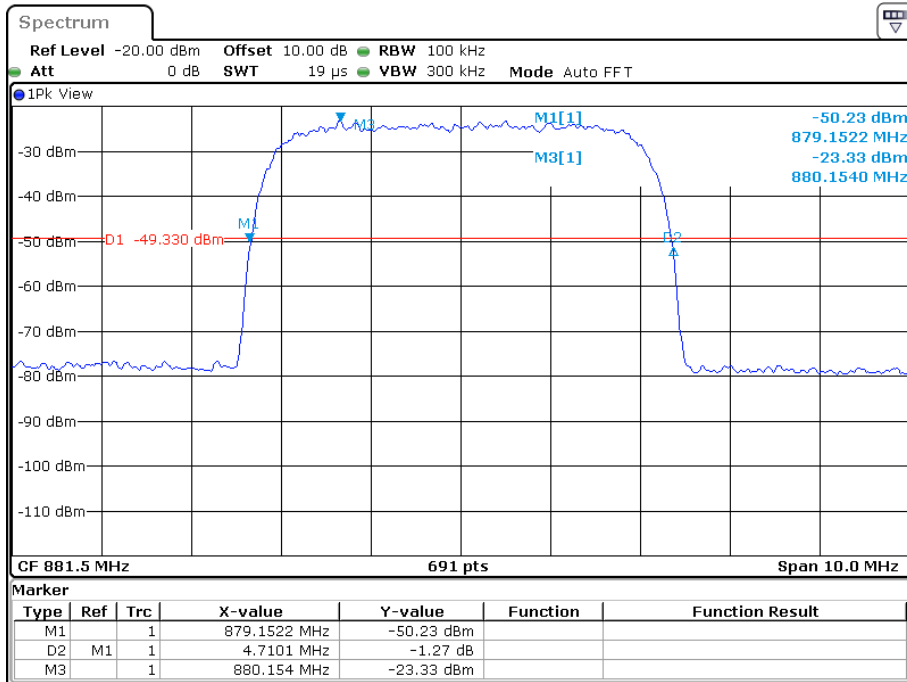
Date: 19.DEC.2022 18:06:36

26 dB Bandwidth-DL- AWGN- 3dB Above AGC -Input
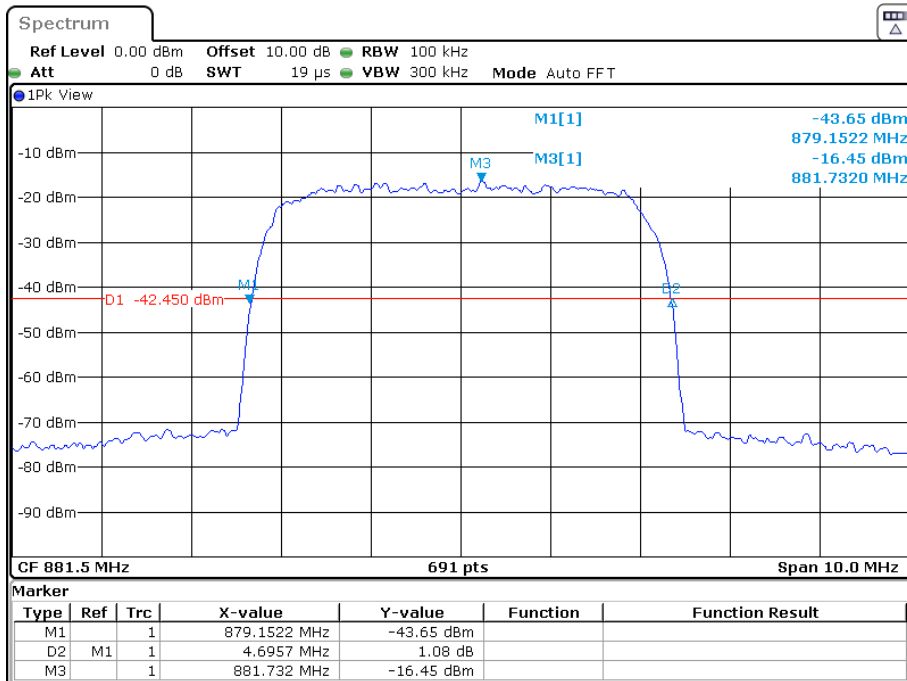
Date: 1.DEC.2022 14:26:29

26 dB Bandwidth-DL- GSM- Pre AGC -Input

Spectrum							
Ref Level -20.00 dBm	**Offset** 10.00 dB	● RBW	5 kHz				
● **Att**	0 dB	**SWT** 379.1 µs	● VBW 20 kHz	**Mode** Auto FFT			

● 1Pk View

M1[1]   -56.09 dBm   881.33623 MHz
M3[1]   -29.52 dBm   881.51300 MHz

D1 -55.520 dBm

CF 881.5 MHz   691 pts   Span 1.0 MHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	881.33623 MHz	-56.09 dBm		
D2	M1	1	321.74 kHz	-0.21 dB		
M3		1	881.513 MHz	-29.52 dBm		
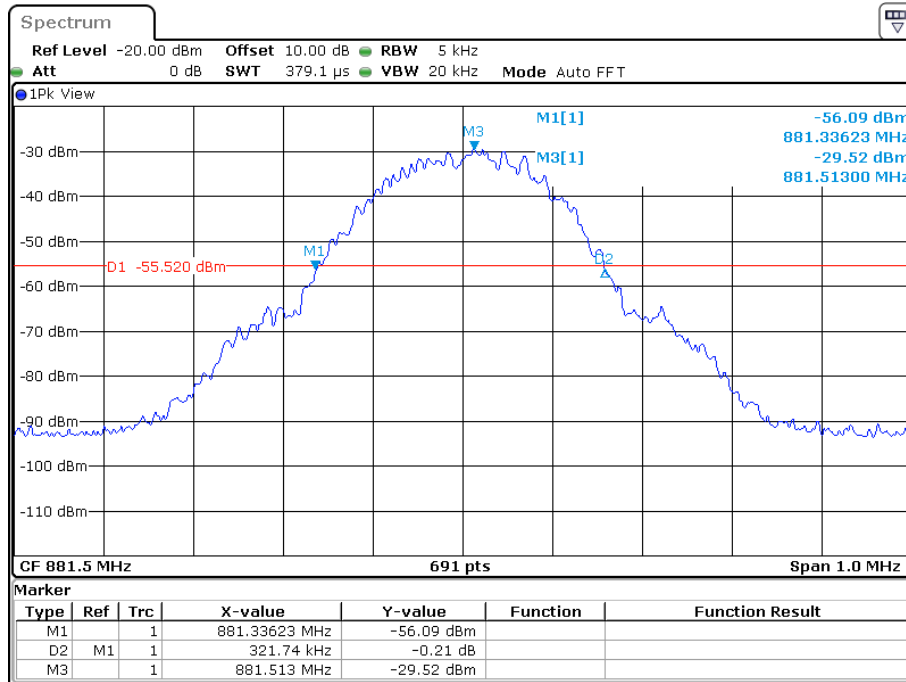
Date: 19.DEC.2022   17:45:43

26 dB Bandwidth-DL- GSM- 3dB Above AGC -Input

Spectrum							
Ref Level -20.00 dBm	**Offset** 10.00 dB	● RBW	5 kHz				
● **Att**	0 dB	**SWT** 379.1 µs	● VBW 20 kHz	**Mode** Auto FFT			

● 1Pk View

M1[1]   -52.31 dBm   881.33623 MHz
M3[1]   -25.94 dBm   881.51300 MHz

D1 -51.940 dBm

CF 881.5 MHz   691 pts   Span 1.0 MHz

Marker

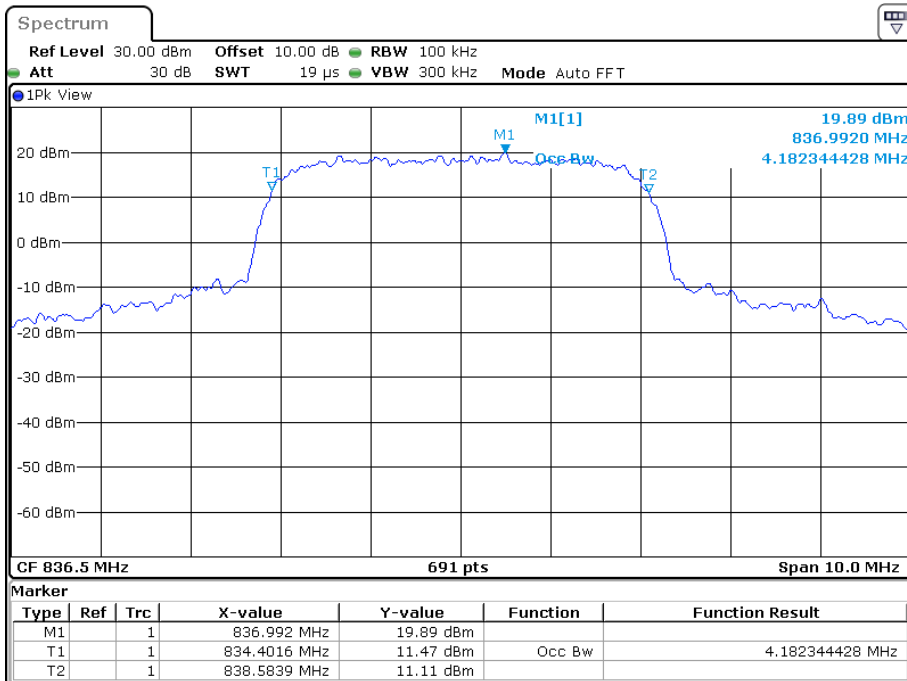| Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	881.33623 MHz	-52.31 dBm		
D2	M1	1	321.74 kHz	-0.40 dB		
M3		1	881.513 MHz	-25.94 dBm		

Date: 19.DEC.2022   17:52:30

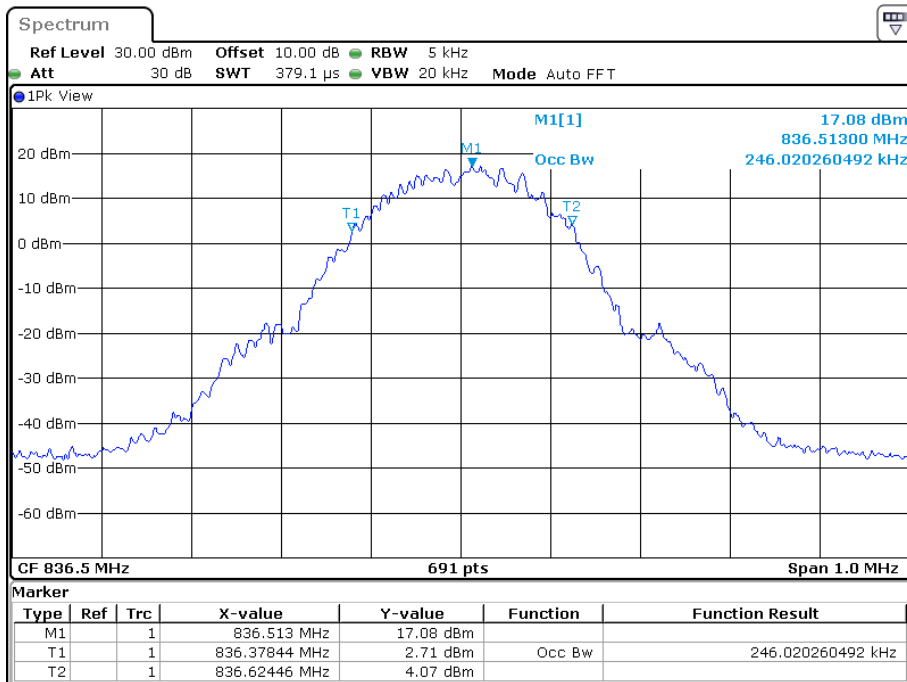## 26 dB Bandwidth-UL- AWGN- Pre AGC -Output

Date: 19.DEC.2022   17:12:32

26 dB Bandwidth-UL- AWGN-3dB above AGC-Output
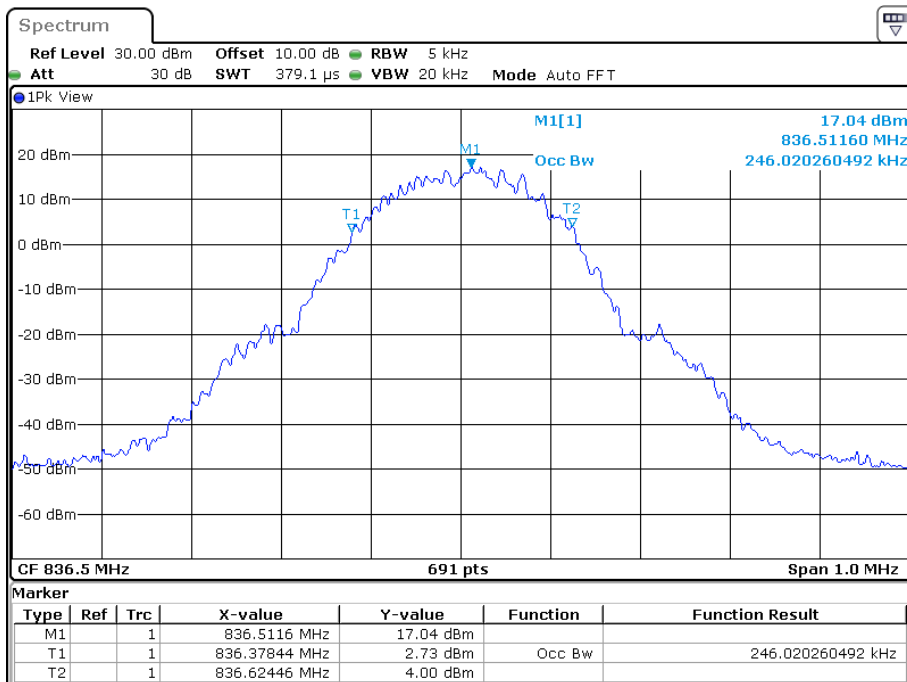

Date: 19.DEC.2022   17:17:22

26 dB Bandwidth-UL- GSM- Pre AGC -Output
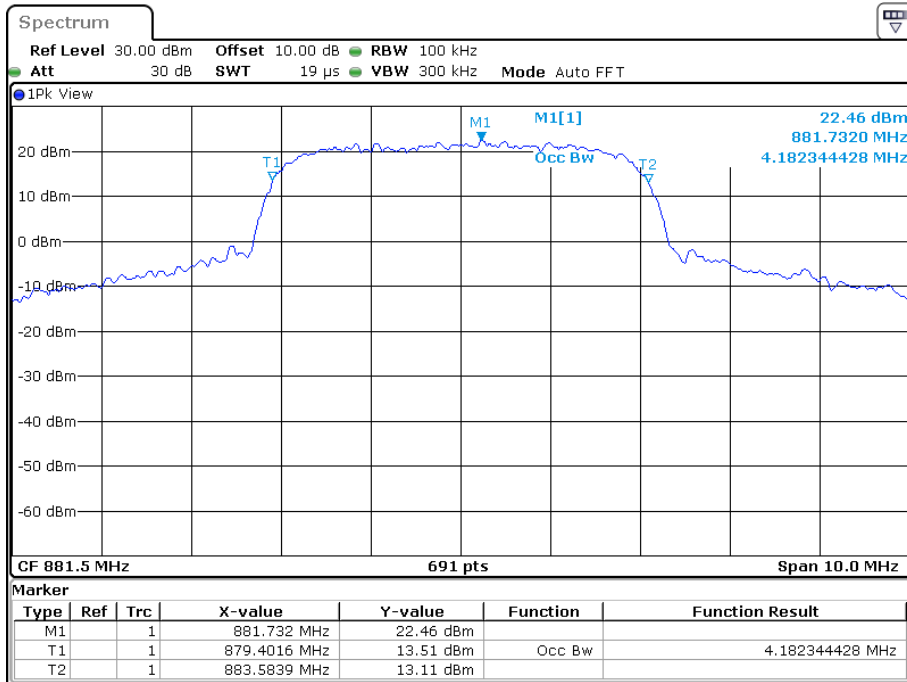

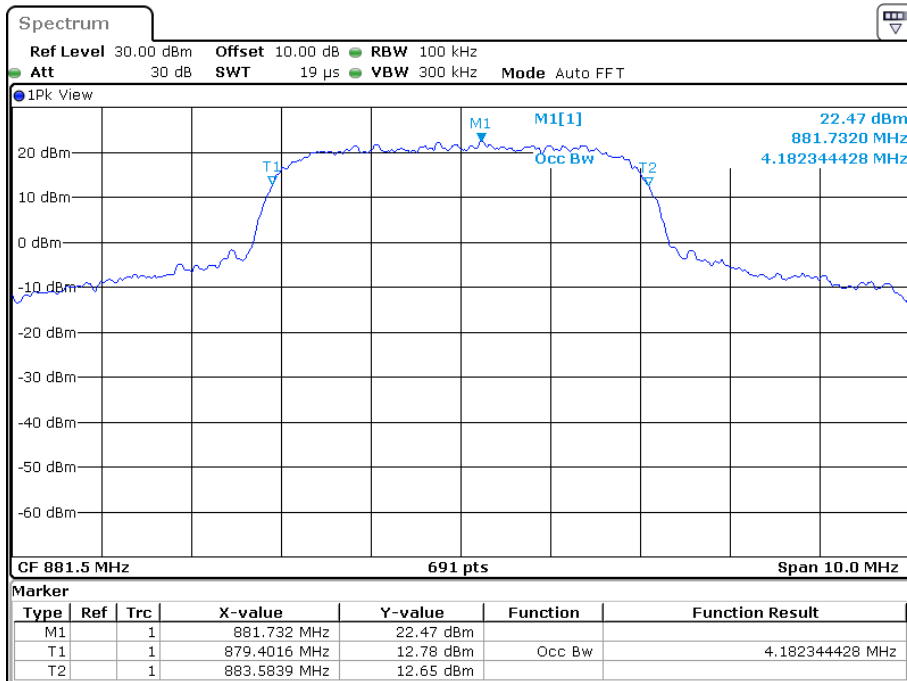Date: 19.DEC.2022 16:36:49

26 dB Bandwidth-UL- GSM-3dB above AGC-Output

Date: 19.DEC.2022 16:40:36

26 dB Bandwidth-DL- AWGN- Pre AGC -Output

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	878.7174 MHz	-3.78 dBm		
D2	M1	1	5.4928 MHz	0.04 dB		
M3		1	881.732 MHz	22.44 dBm		

Date: 19.DEC.2022 17:33:52

26 dB Bandwidth-DL- AWGN- 3dB Above AGC -Output

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	878.558 MHz	-3.77 dBm		
D2	M1	1	5.5507 MHz	0.13 dB		
M3		1	881.732 MHz	22.52 dBm		
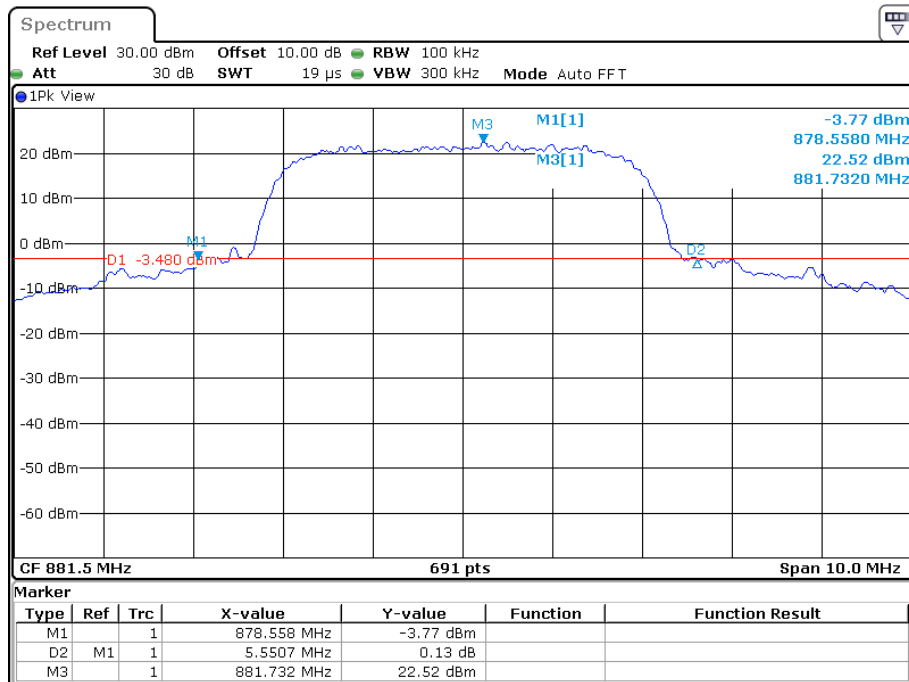
Date: 19.DEC.2022 17:39:11

26 dB Bandwidth-DL- GSM- Pre AGC -Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	881.33623 MHz	-6.61 dBm		
D2	M1	1	321.74 kHz	-0.24 dB		
M3		1	881.5116 MHz	19.79 dBm		
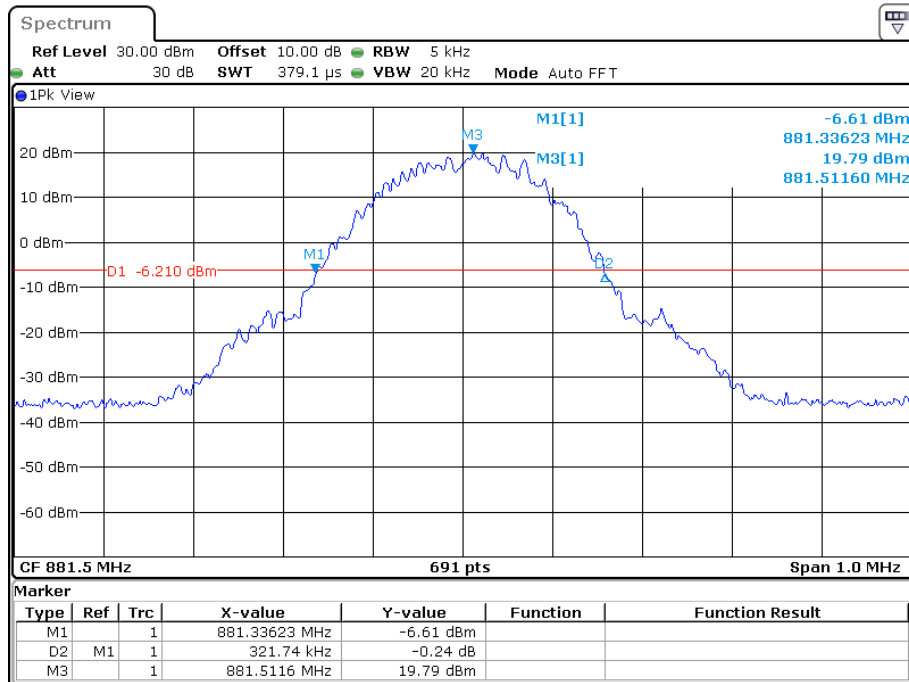
Date: 19.DEC.2022 17:25:59

26 dB Bandwidth-DL- GSM- 3dB Above AGC -Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	881.33623 MHz	-6.58 dBm		
D2	M1	1	321.74 kHz	-0.30 dB		
M3		1	881.5116 MHz	19.85 dBm		
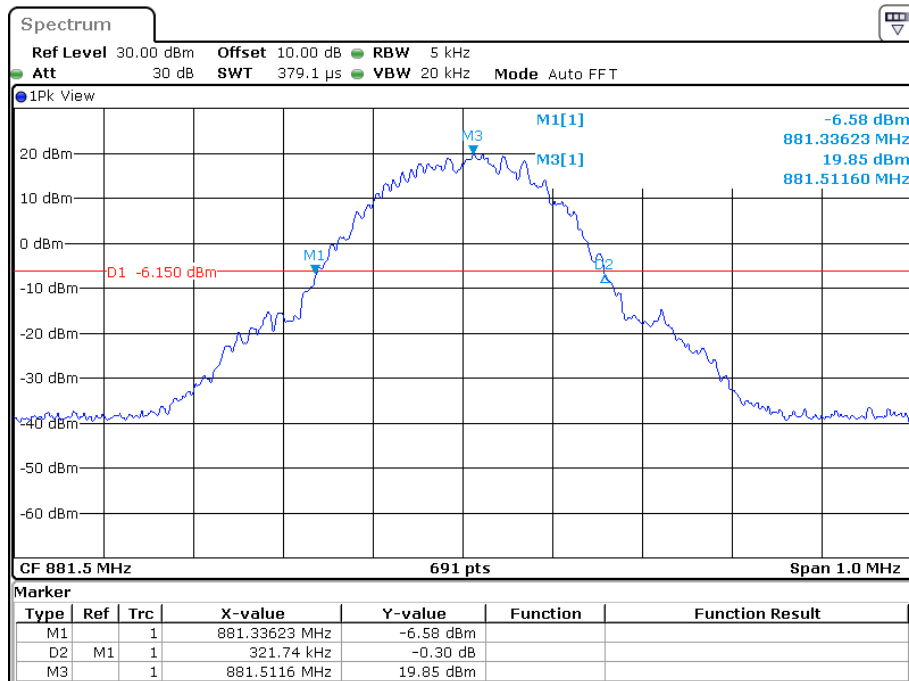
Date: 19.DEC.2022 17:29:18

PCS Band

Mode	Signal Type	Signal Level	Frequency (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)	
				Input	Output	Input	Output
Uplink	AWGN	Pre-AGC	1882.5	4.153	4.168	4.710	4.696
		3dB above AGC	1882.5	4.168	4.168	4.696	4.710
	GSM	Pre-AGC	1882.5	0.245	0.245	0.323	0.323
		3dB above AGC	1882.5	0.245	0.245	0.323	0.323
Downlink	AWGN	Pre-AGC	1962.5	4.168	4.168	4.710	4.725
		3dB above AGC	1962.5	4.168	4.168	4.710	4.725
	GSM	Pre-AGC	1962.5	0.245	0.245	0.323	0.323
		3dB above AGC	1962.5	0.245	0.245	0.323	0.323

99% Bandwidth-UL-AWGN-Pre AGC-Input

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.882746 GHz	-26.94 dBm		
T1		1	1.8804305 GHz	-34.27 dBm	Occ Bw	4.153400868 MHz
T2		1	1.8845839 GHz	-35.03 dBm		
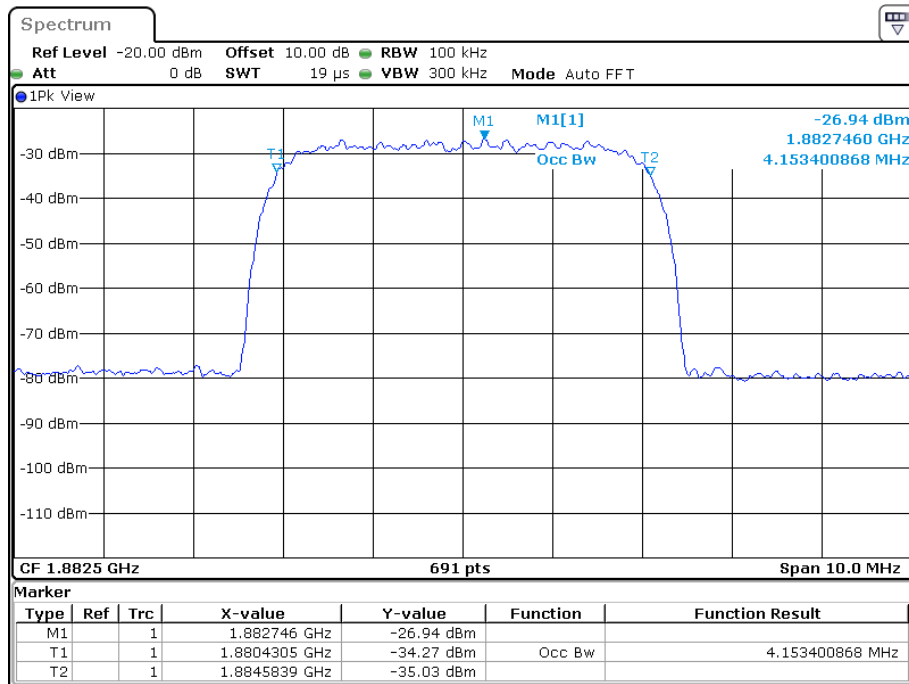
Date: 19.DEC.2022 18:03:25

99% Bandwidth-UL- AWGN-3dB above AGC-Input

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.881559 GHz	-24.09 dBm		
T1		1	1.8804161 GHz	-32.28 dBm	Occ Bw	4.167872648 MHz
T2		1	1.8845839 GHz	-32.39 dBm		
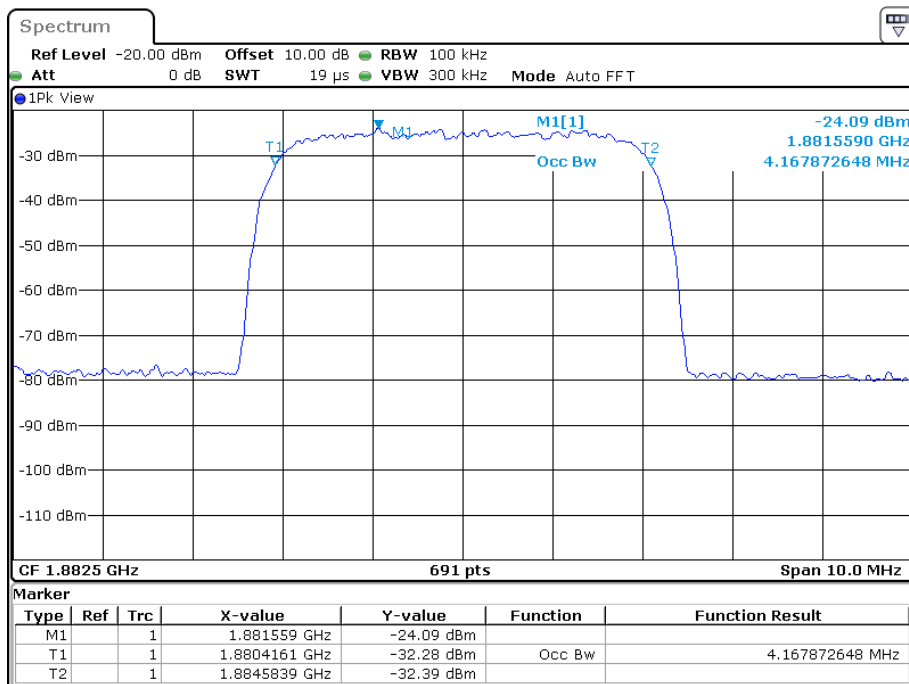
Date: 19.DEC.2022 18:10:33

99% Bandwidth-UL-GSM-Pre AGC-Input

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.882513 GHz	-29.84 dBm		
T1		1	1.88237988 GHz	-43.76 dBm	Occ Bw	244.573082489 kHz
T2		1	1.88262446 GHz	-42.83 dBm		
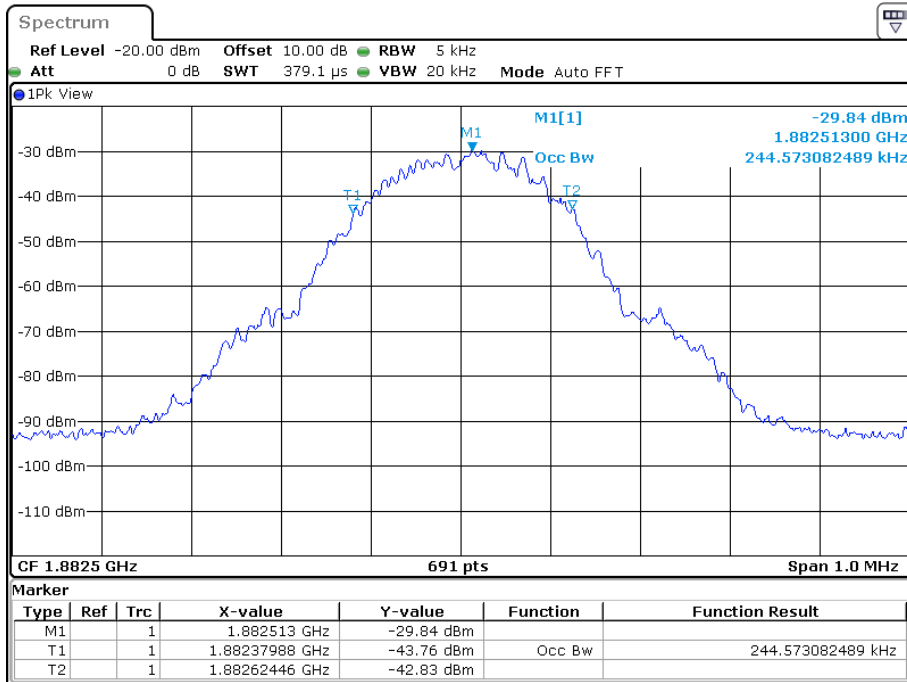
Date: 19.DEC.2022 17:49:29

99% Bandwidth-UL- GSM-3dB above AGC-Input

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.882513 GHz	-26.78 dBm		
T1		1	1.88237988 GHz	-40.63 dBm	Occ Bw	244.573082489 kHz
T2		1	1.88262446 GHz	-39.73 dBm		
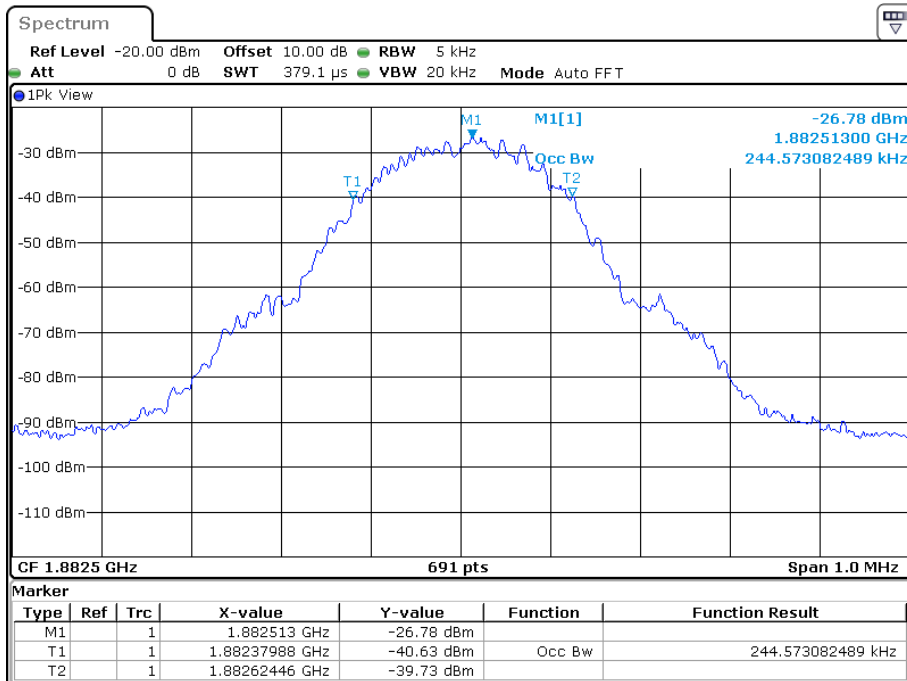
Date: 19.DEC.2022 17:56:26

99% Bandwidth-DL- AWGN- Pre AGC -Input
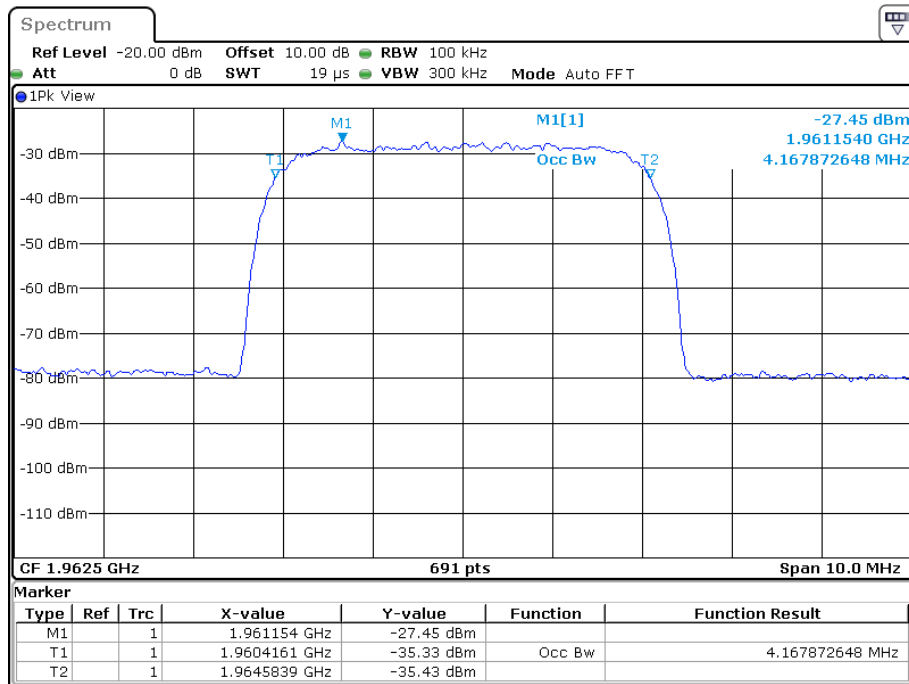
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.961154 GHz	-27.45 dBm		
T1		1	1.9604161 GHz	-35.33 dBm	Occ Bw	4.167872648 MHz
T2		1	1.9645839 GHz	-35.43 dBm		

Date: 19.DEC.2022 17:59:57

99% Bandwidth-DL- AWGN- 3dB Above AGC -Input

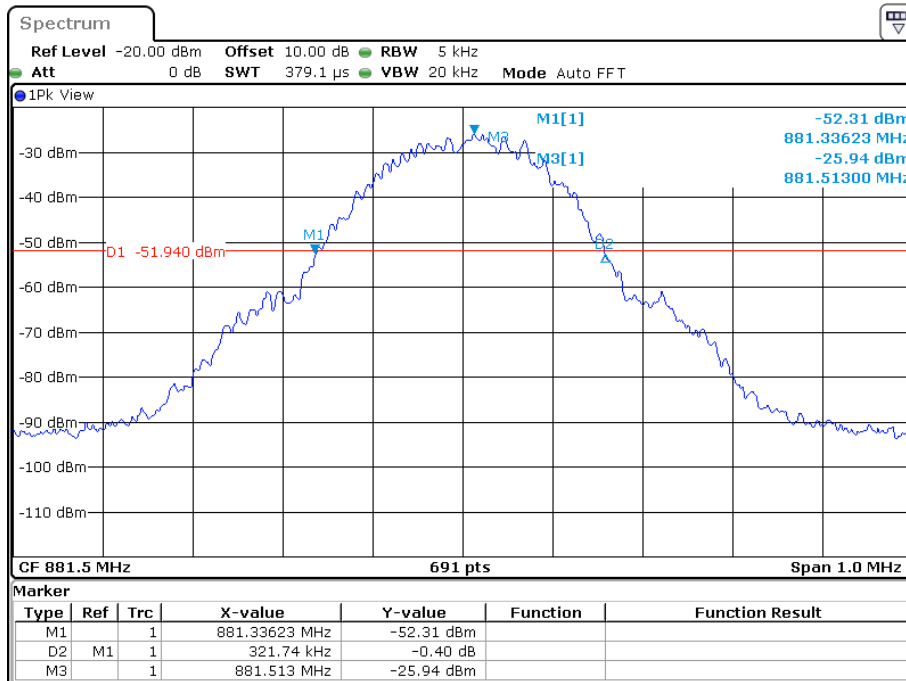| Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.961559 GHz	-24.47 dBm		
T1		1	1.9604161 GHz	-32.64 dBm	Occ Bw	4.167872648 MHz
T2		1	1.9645839 GHz	-32.76 dBm		

Date: 19.DEC.2022 18:06:54
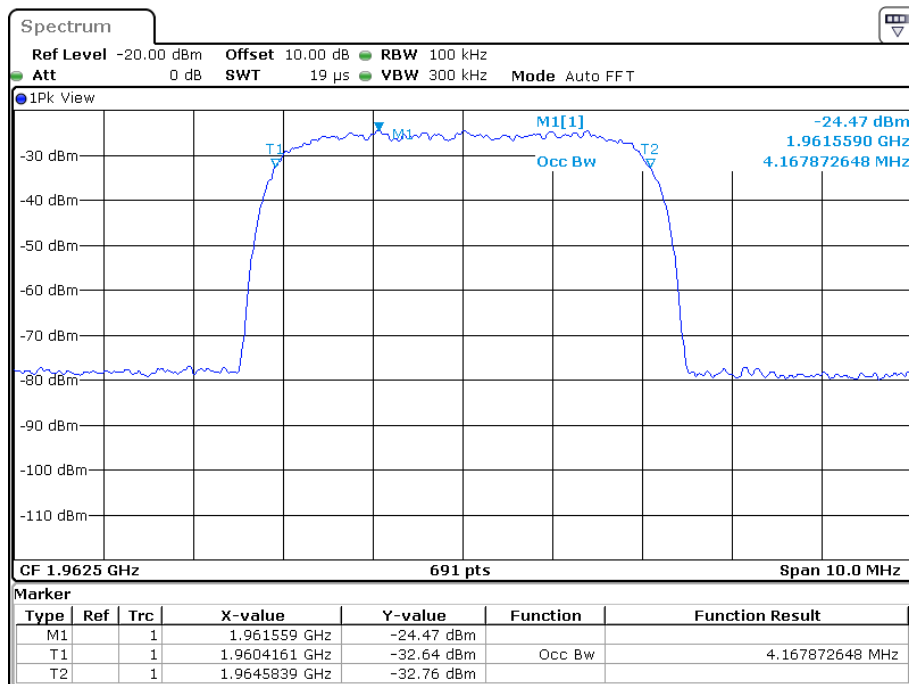
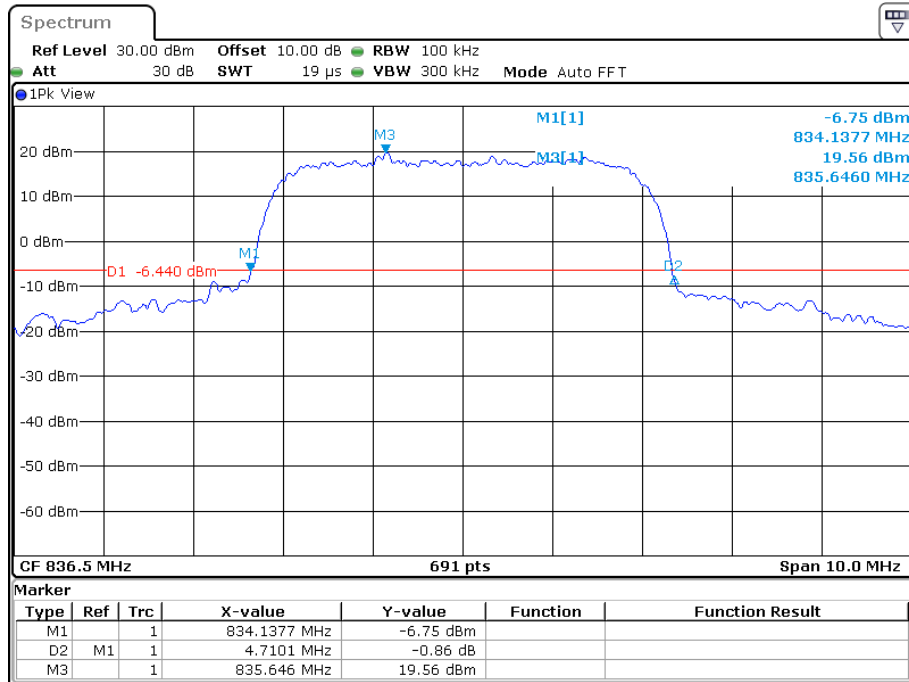## 99% Bandwidth-DL- GSM- Pre AGC -Input
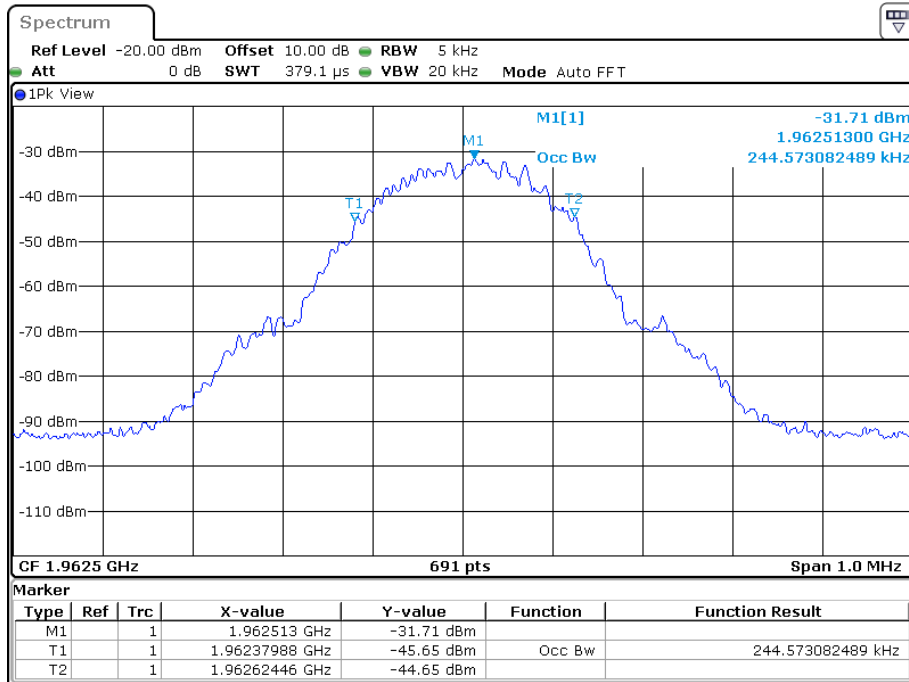
Date: 19.DEC.2022 17:46:01

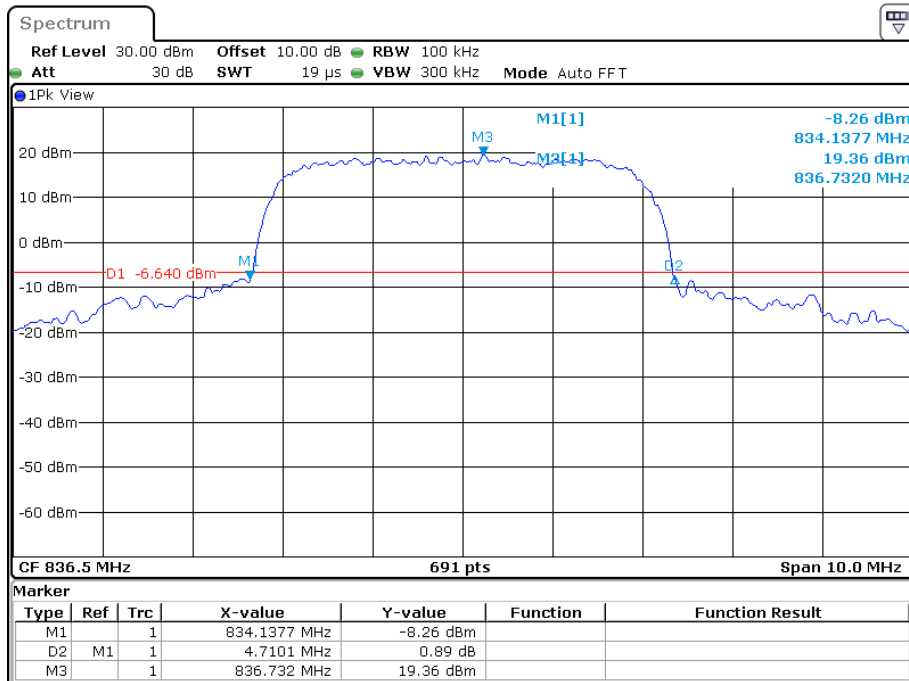## 99% Bandwidth-DL- GSM- 3dB Above AGC -Input
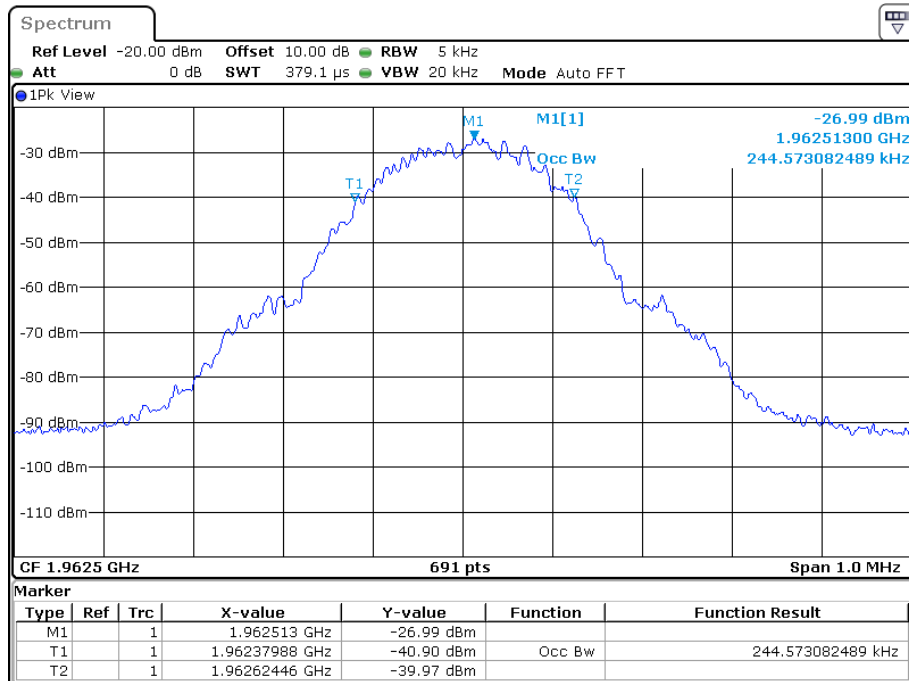
Date: 19.DEC.2022 17:52:58
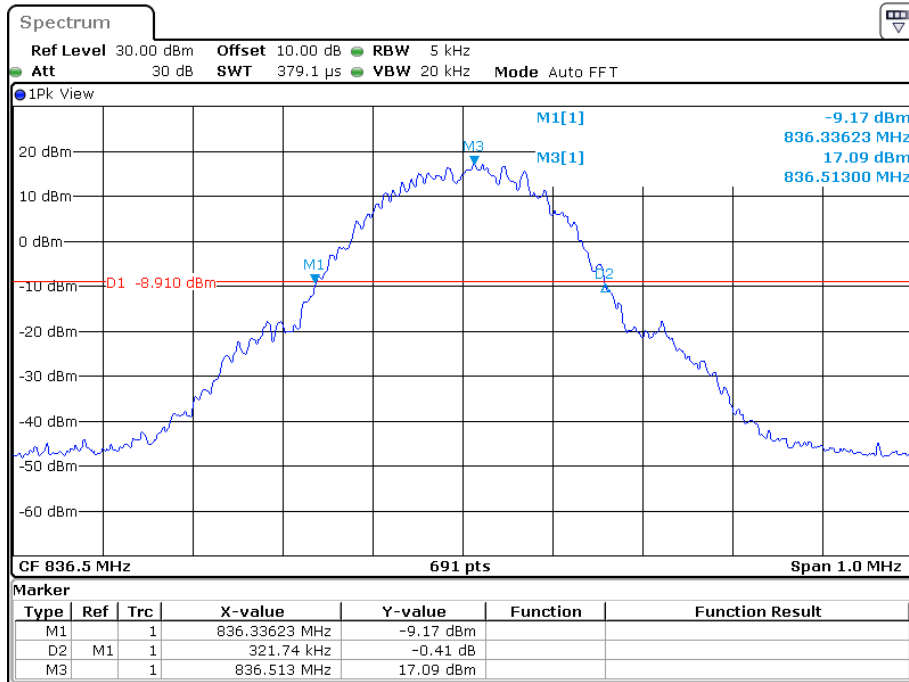
99% Bandwidth-UL- AWGN- Pre AGC -Output
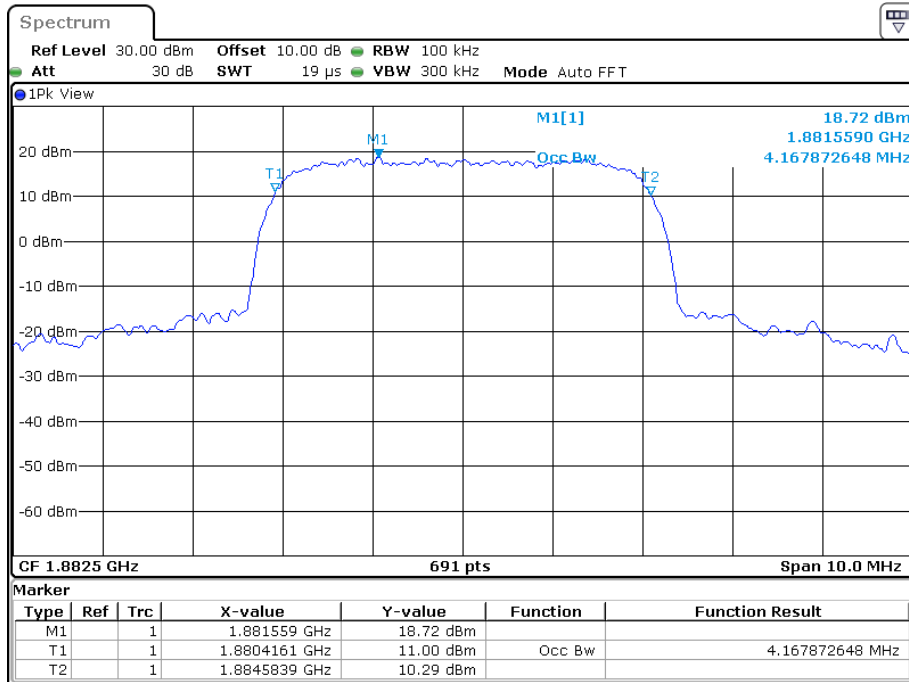
Date: 19.DEC.2022 17:13:00

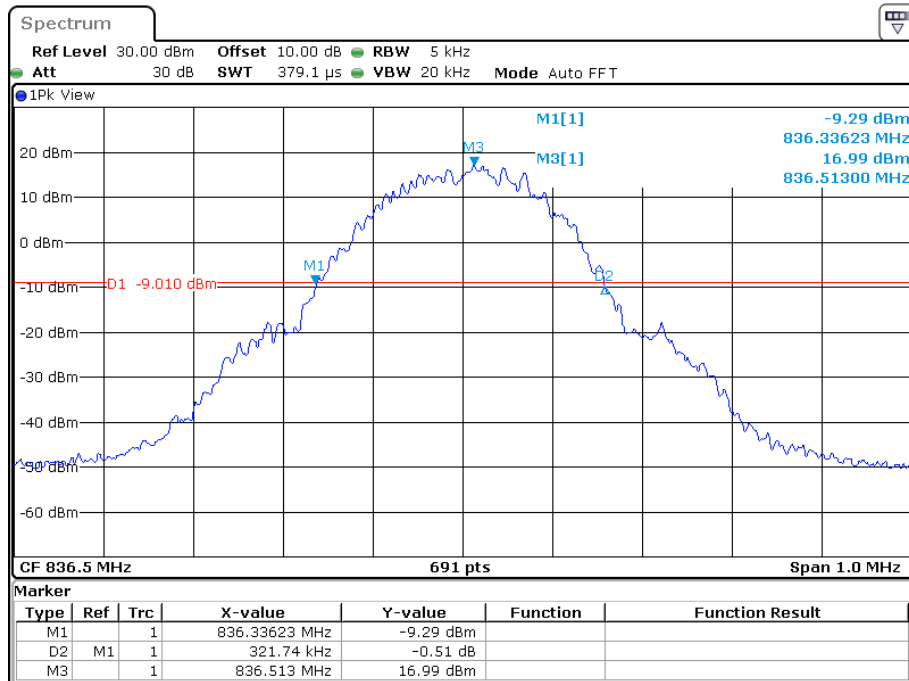## 99% Bandwidth-UL- AWGN-3dB above AGC-Output
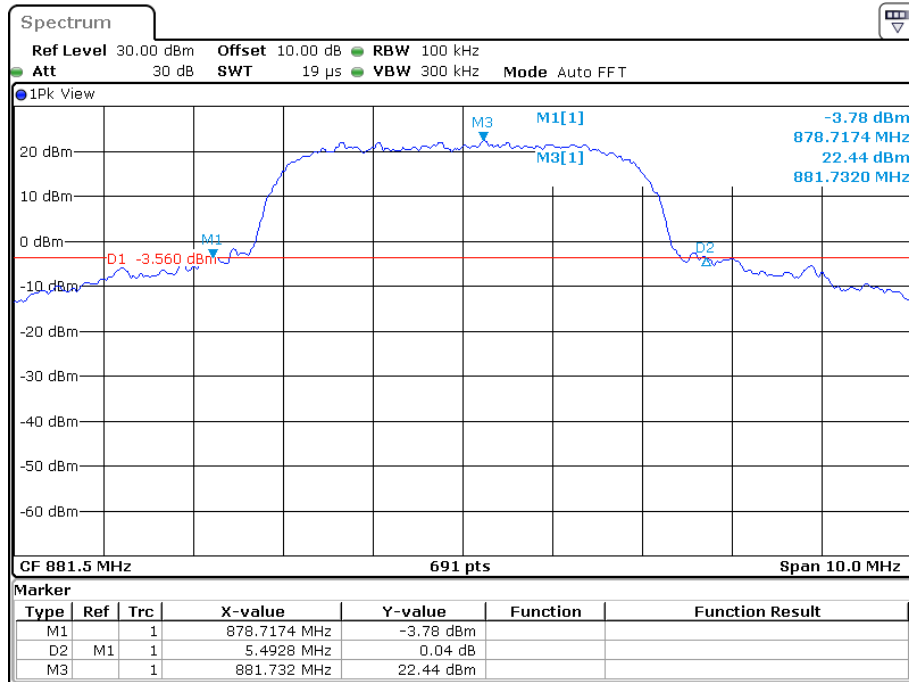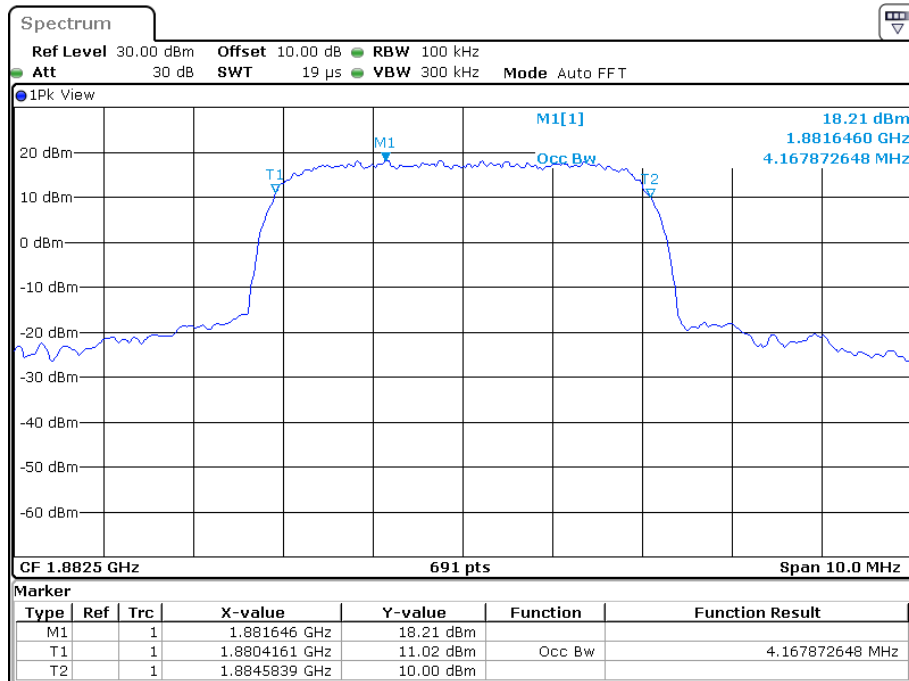

Date: 19.DEC.2022 17:17:50

99% Bandwidth-UL- GSM- Pre AGC -Output

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.882513 GHz	16.95 dBm		
T1		1	1.88237988 GHz	3.10 dBm	Occ Bw	244.573082489 kHz
T2		1	1.88262446 GHz	3.95 dBm		
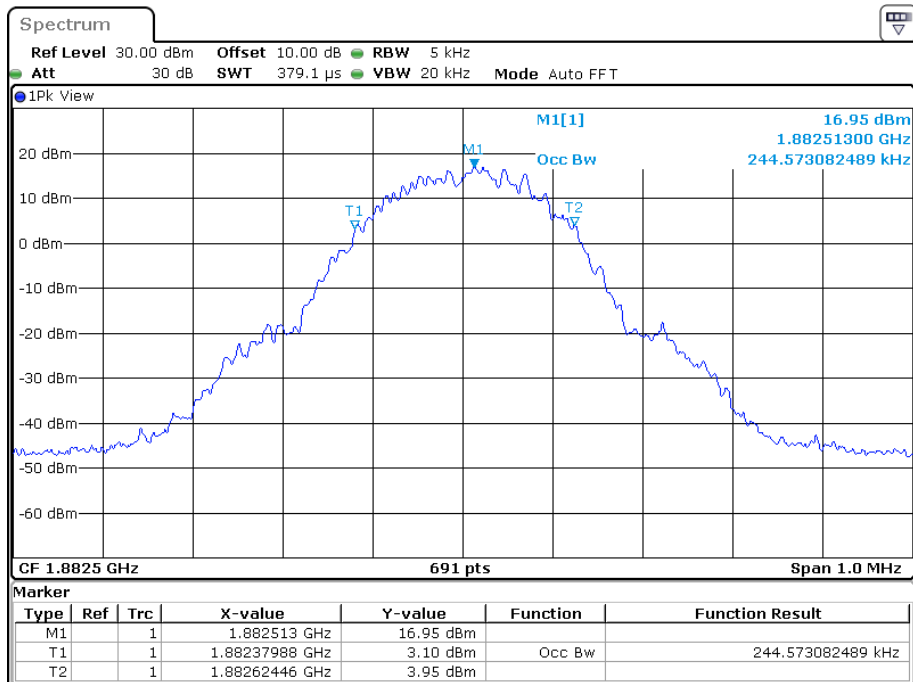
Date: 19.DEC.2022 16:37:17

99% Bandwidth-UL- GSM-3dB above AGC-Output

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.8824841 GHz	16.90 dBm		
T1		1	1.88237988 GHz	3.52 dBm	Occ Bw	244.573082489 kHz
T2		1	1.88262446 GHz	3.80 dBm		

Date: 19.DEC.2022 16:41:03

99% Bandwidth-DL- AWGN- Pre AGC -Output

Spectrum							
Ref Level 30.00 dBm		Offset 10.00 dB	RBW 100 kHz				
Att	30 dB	SWT	19 µs	VBW 300 kHz	Mode Auto FFT		

1Pk View

M1[1]   20.88 dBm
1.9615590 GHz
4.167872648 MHz

CF 1.9625 GHz   691 pts   Span 10.0 MHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.961559 GHz	20.88 dBm		
T1		1	1.9604161 GHz	13.14 dBm	Occ Bw	4.167872648 MHz
T2		1	1.9645839 GHz	12.81 dBm		

Date: 19.DEC.2022 17:34:19

99% Bandwidth-DL- AWGN- 3dB Above AGC -Output

Spectrum							
Ref Level 30.00 dBm		Offset 10.00 dB	RBW 100 kHz				
Att	30 dB	SWT	19 µs	VBW 300 kHz	Mode Auto FFT		

1Pk View

M1[1]   21.75 dBm
1.9627320 GHz
4.167872648 MHz

CF 1.9625 GHz   691 pts   Span 10.0 MHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.962732 GHz	21.75 dBm		
T1		1	1.9604161 GHz	14.28 dBm	Occ Bw	4.167872648 MHz
T2		1	1.9645839 GHz	13.70 dBm		

Date: 19.DEC.2022 17:39:39

99% Bandwidth-DL- GSM- Pre AGC -Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.962513 GHz	17.89 dBm		
T1		1	1.96237988 GHz	4.02 dBm	Occ Bw	244.573082489 kHz
T2		1	1.96262446 GHz	4.91 dBm		

Date: 19.DEC.2022 17:26:17

99% Bandwidth-DL- GSM- 3dB Above AGC -Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.962513 GHz	19.86 dBm		
T1		1	1.96237988 GHz	6.00 dBm	Occ Bw	244.573082489 kHz
T2		1	1.96262446 GHz	6.91 dBm		
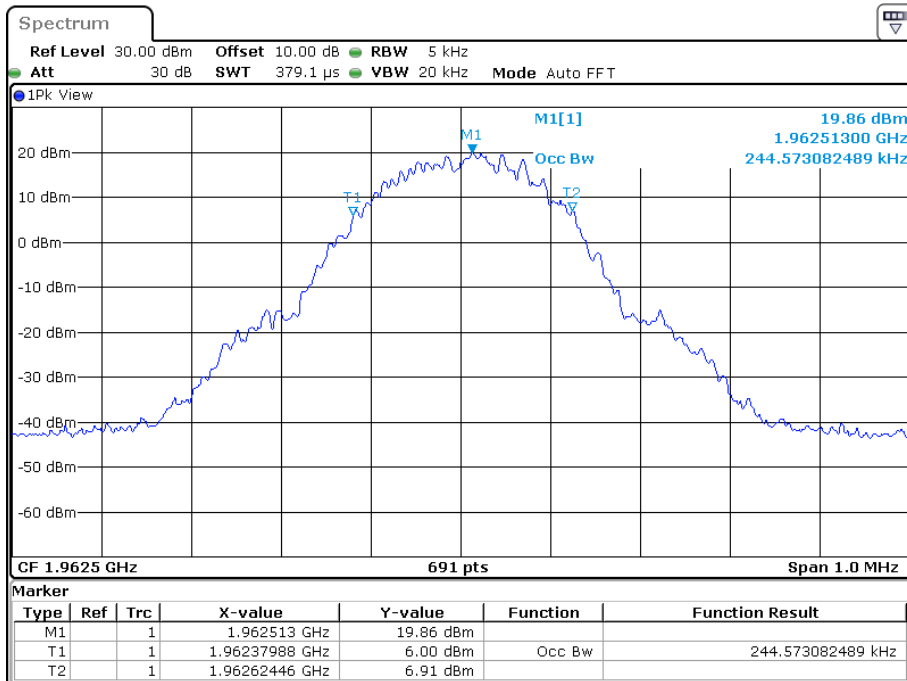
Date: 19.DEC.2022 17:29:36

26 dB Bandwidth-UL-AWGN-Pre AGC-Input
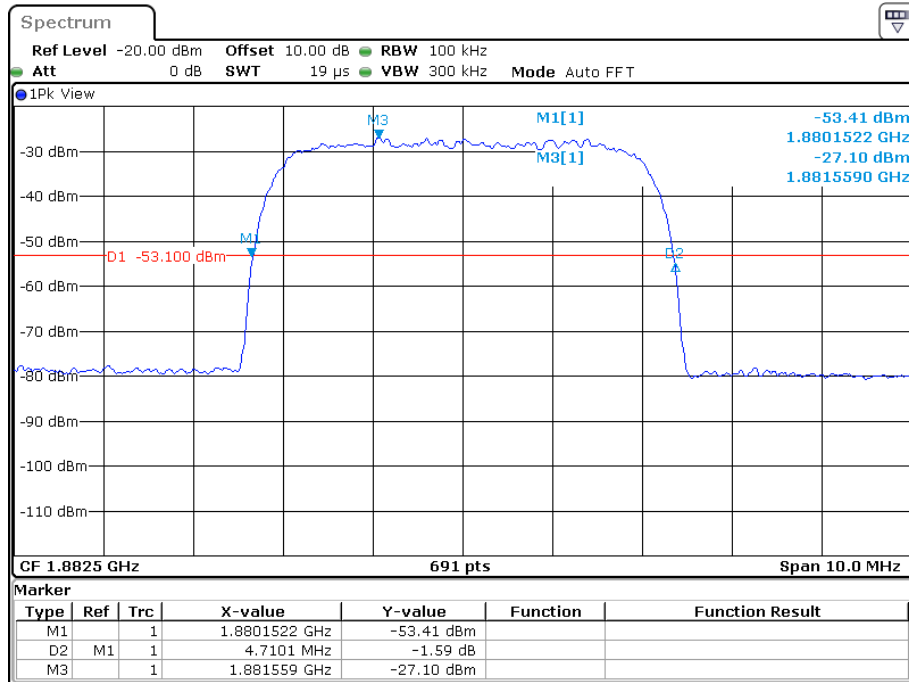
Date: 19.DEC.2022 18:03:40

26 dB Bandwidth-UL- AWGN-3dB above AGC-Input
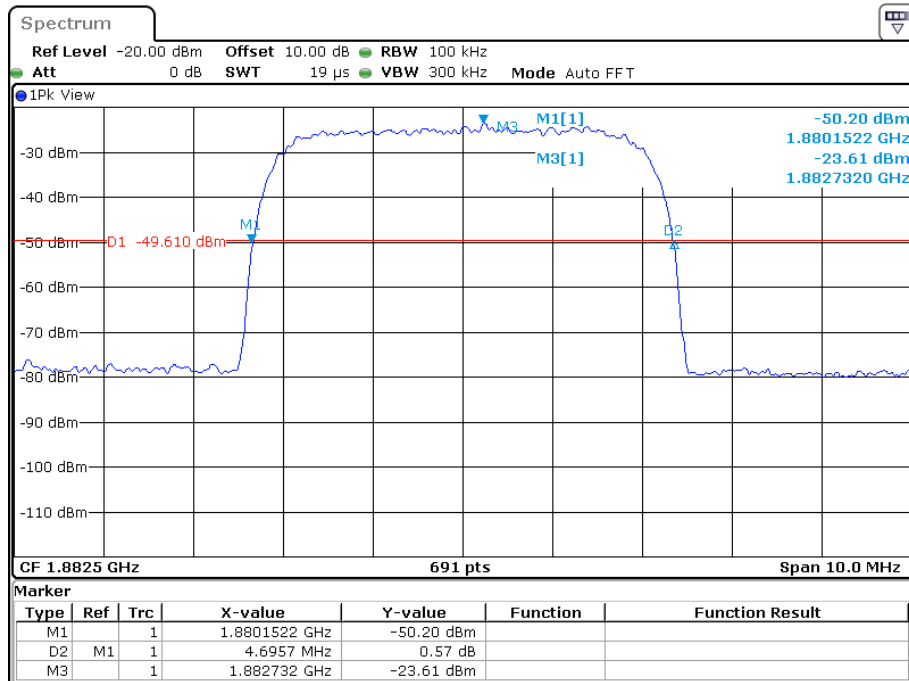
Date: 19.DEC.2022 18:10:49

26 dB Bandwidth-UL-GSM-Pre AGC-Input
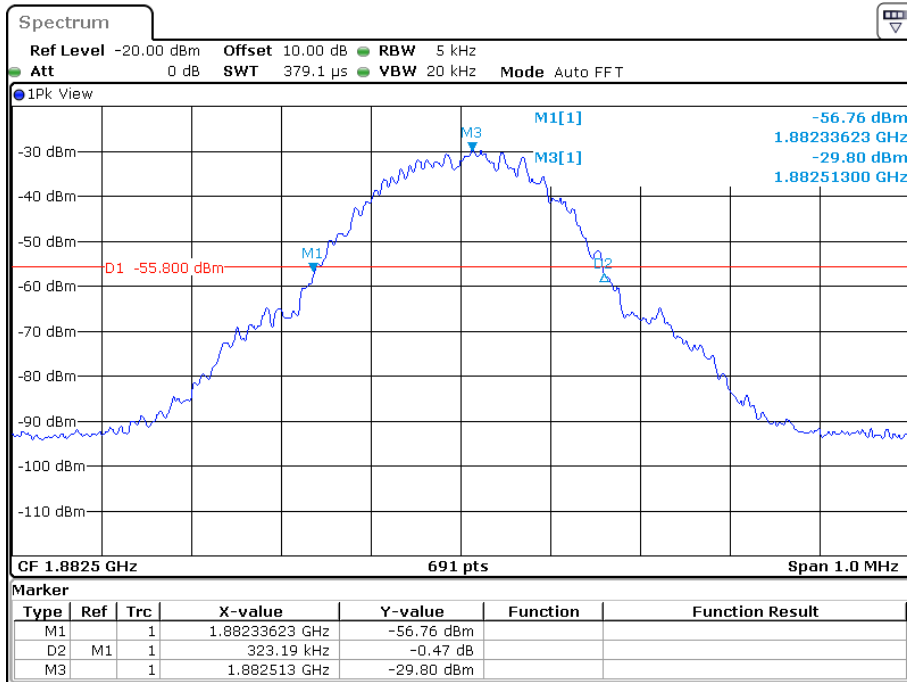
Date: 19.DEC.2022 17:49:44

26 dB Bandwidth-UL- GSM-3dB above AGC-Input
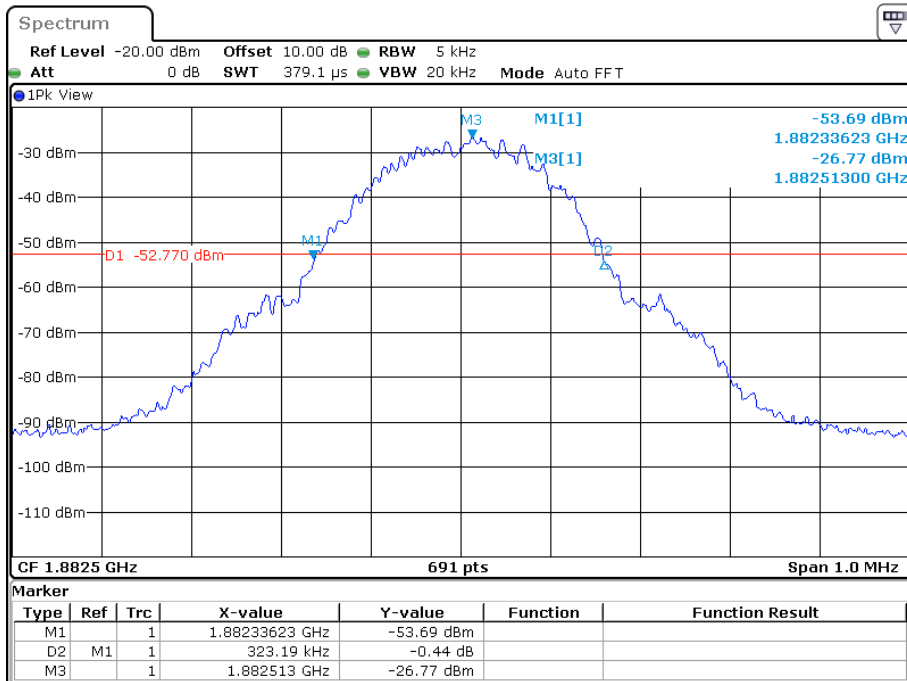
Date: 19.DEC.2022 17:56:51

26 dB Bandwidth-DL- AWGN- Pre AGC -Input
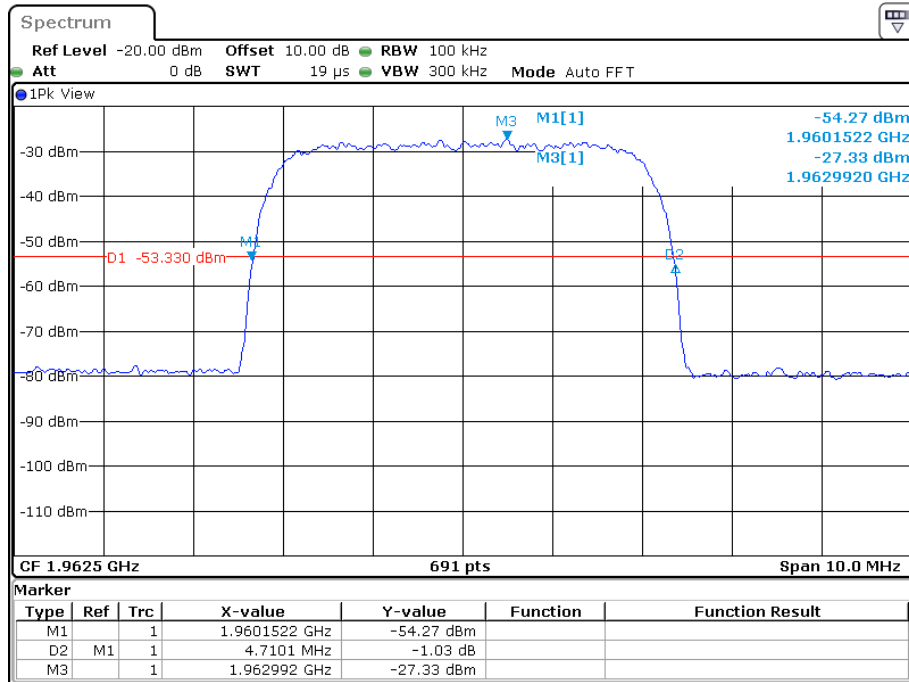
Date: 19.DEC.2022 18:00:12

26 dB Bandwidth-DL- AWGN- 3dB Above AGC -Input
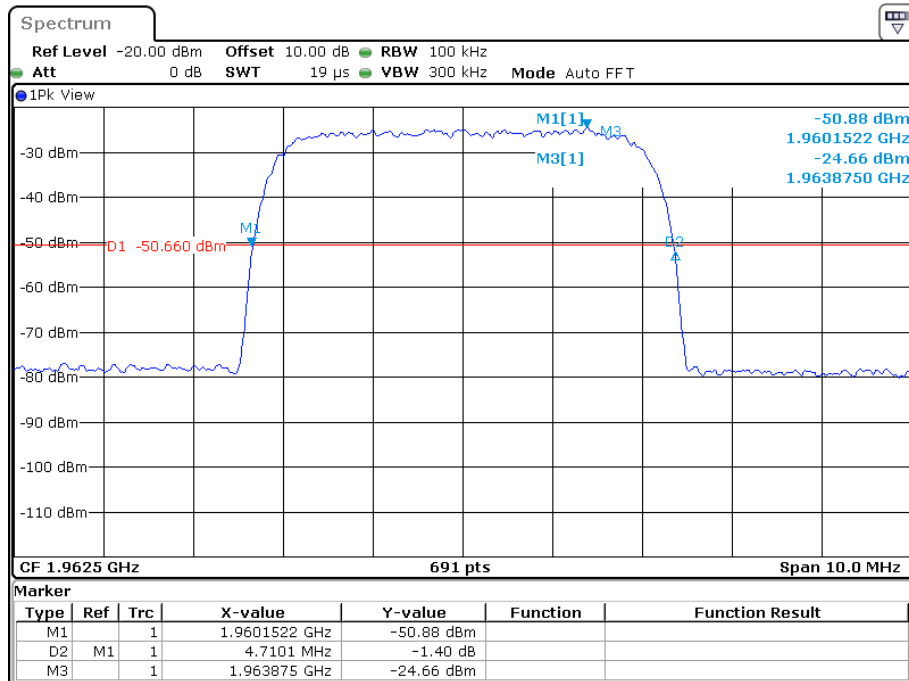
Date: 19.DEC.2022 18:07:10

26 dB Bandwidth-DL- GSM- Pre AGC -Input

Date: 19.DEC.2022 17:46:16

26 dB Bandwidth-DL- GSM- 3dB Above AGC -Input

Date: 19.DEC.2022 17:53:13

26 dB Bandwidth-UL- AWGN- Pre AGC -Output

Spectrum						
Ref Level 30.00 dBm	Offset 10.00 dB	RBW 100 kHz				
● Att 30 dB	SWT 19 µs	● VBW 300 kHz	Mode Auto FFT			

● 1Pk View

M1[1]   -8.14 dBm   1.8801522 GHz
M3[1]   18.75 dBm   1.8827320 GHz

D1 -7.250 dBm

CF 1.8825 GHz   691 pts   Span 10.0 MHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.8801522 GHz	-8.14 dBm		
D2	M1	1	4.6957 MHz	0.78 dB		
M3		1	1.882732 GHz	18.75 dBm		

Date: 19.DEC.2022 17:13:26

26 dB Bandwidth-UL- AWGN-3dB above AGC-Output

Spectrum						
Ref Level 30.00 dBm	Offset 10.00 dB	RBW 100 kHz				
● Att 30 dB	SWT 19 µs	● VBW 300 kHz	Mode Auto FFT			

● 1Pk View

M1[1]   -7.60 dBm   1.8801522 GHz
M3[1]   18.49 dBm   1.8820950 GHz

D1 -7.510 dBm

CF 1.8825 GHz   691 pts   Span 10.0 MHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.8801522 GHz	-7.60 dBm		
D2	M1	1	4.7101 MHz	-1.94 dB		
M3		1	1.882095 GHz	18.49 dBm		
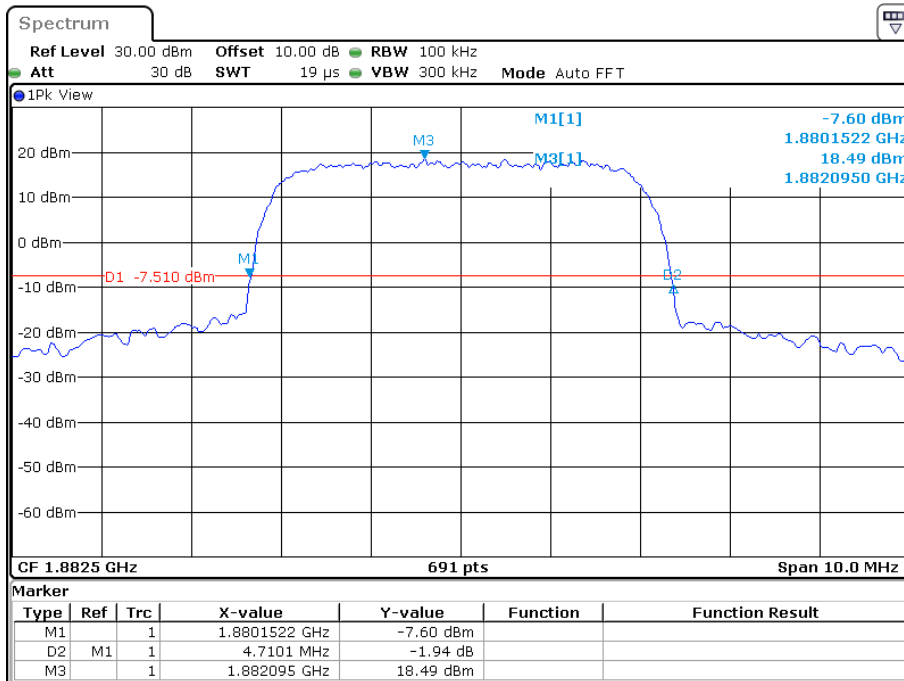
Date: 19.DEC.2022 17:18:21

26 dB Bandwidth-UL- GSM- Pre AGC -Output
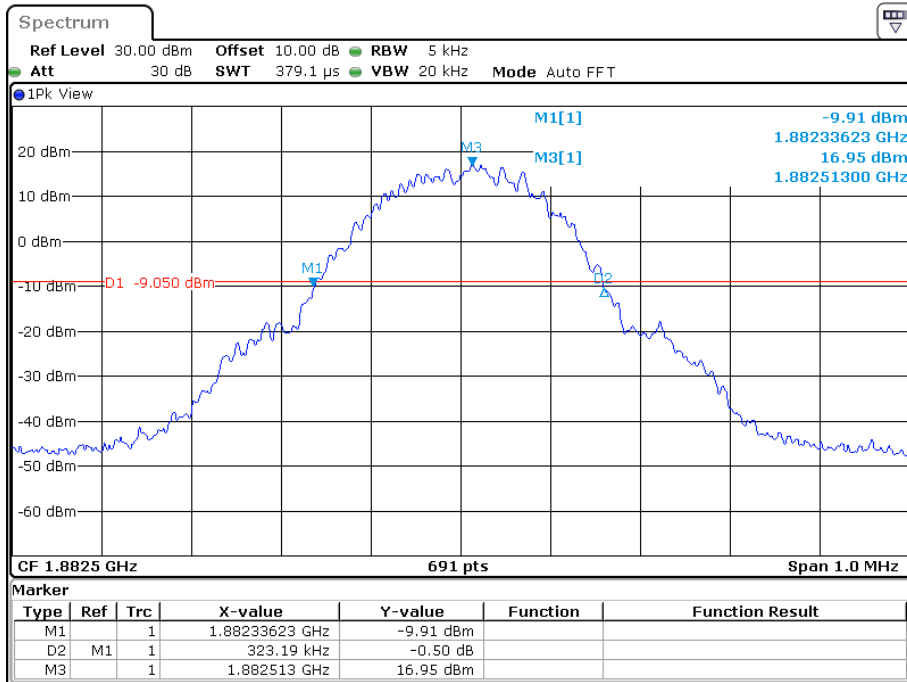
Date: 19.DEC.2022 16:37:32

26 dB Bandwidth-UL- GSM-3dB above AGC-Output
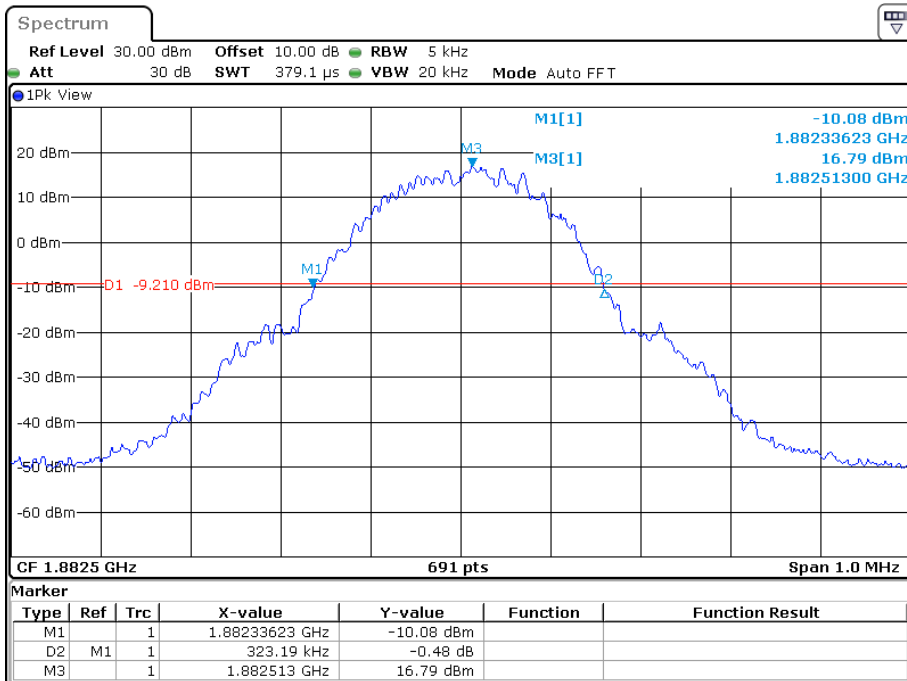
Date: 19.DEC.2022 16:41:18
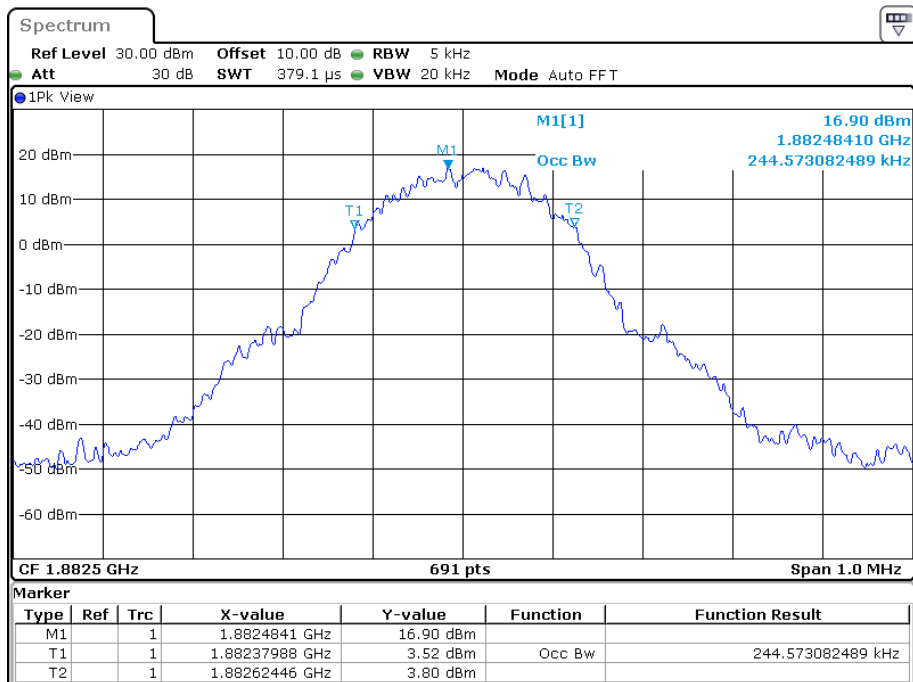
26 dB Bandwidth-DL- AWGN- Pre AGC -Output

Spectrum							
Ref Level 30.00 dBm	Offset 10.00 dB	RBW 100 kHz					
● Att 30 dB	SWT 19 µs	VBW 300 kHz	Mode Auto FFT				

● 1Pk View

M1[1] -6.75 dBm
1.9601377 GHz
M3[1] 20.91 dBm
1.9615590 GHz

D1 -5.090 dBm

CF 1.9625 GHz   691 pts   Span 10.0 MHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.9601377 GHz	-6.75 dBm		
D2	M1	1	4.7246 MHz	-0.40 dB		
M3		1	1.961559 GHz	20.91 dBm		
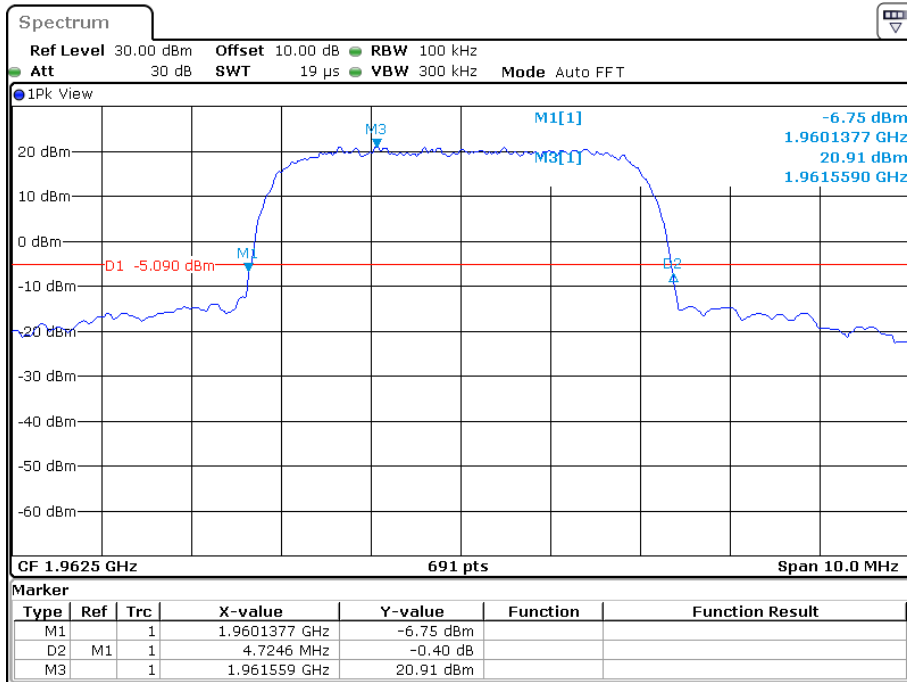
Date: 19.DEC.2022 17:34:45

26 dB Bandwidth-DL- AWGN- 3dB Above AGC -Output

Spectrum							
Ref Level 30.00 dBm	Offset 10.00 dB	RBW 100 kHz					
● Att 30 dB	SWT 19 µs	VBW 300 kHz	Mode Auto FFT				

● 1Pk View

M1[1] -4.42 dBm
1.9601377 GHz
M3[1] 22.16 dBm
1.9627320 GHz

D1 -3.840 dBm

CF 1.9625 GHz   691 pts   Span 10.0 MHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.9601377 GHz	-4.42 dBm		
D2	M1	1	4.7246 MHz	-0.71 dB		
M3		1	1.962732 GHz	22.16 dBm		
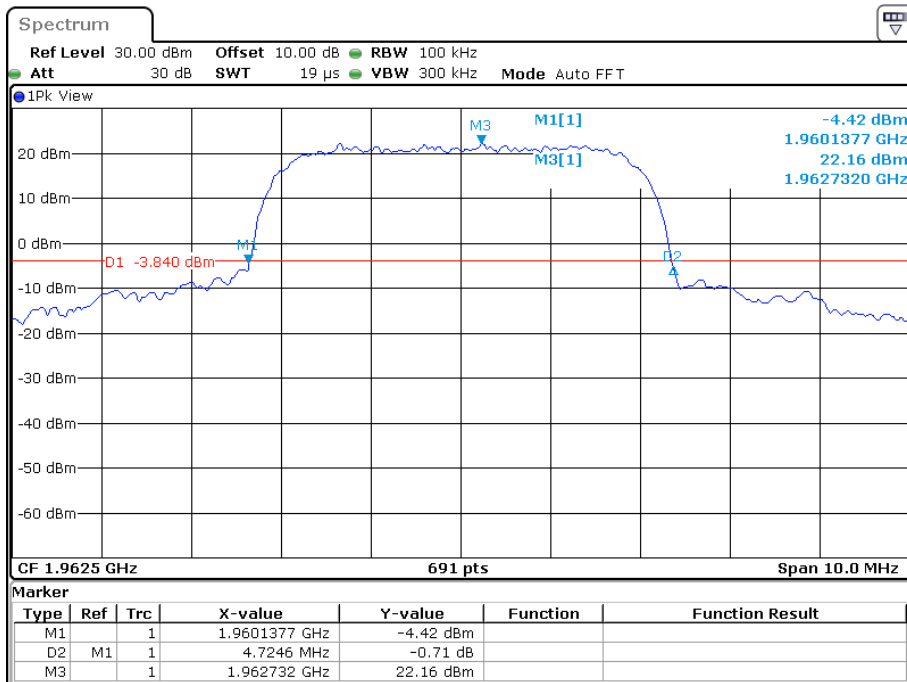
Date: 19.DEC.2022 17:40:04

26 dB Bandwidth-DL- GSM- Pre AGC -Output

Spectrum							
Ref Level 30.00 dBm	Offset 10.00 dB	RBW 5 kHz					
Att 30 dB	SWT 379.1 µs	VBW 20 kHz	Mode Auto FFT				

1Pk View

```
                                    M1[1]           -8.91 dBm
                                              1.96233623 GHz
                          M3        M3[1]           17.90 dBm
20 dBm                                        1.96251300 GHz
10 dBm
 0 dBm
        D1 -8.100 dBm    M1                  D2
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
```

CF 1.9625 GHz	691 pts	Span 1.0 MHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.96233623 GHz	-8.91 dBm		
D2	M1	1	323.19 kHz	-0.52 dB		
M3		1	1.962513 GHz	17.90 dBm		

Date: 19.DEC.2022 17:26:32

26 dB Bandwidth-DL- GSM- 3dB Above AGC -Output

Spectrum							
Ref Level 30.00 dBm	Offset 10.00 dB	RBW 5 kHz					
Att 30 dB	SWT 379.1 µs	VBW 20 kHz	Mode Auto FFT				

1Pk View

```
                                    M1[1]           -6.90 dBm
                                              1.96233623 GHz
                          M3        M3[1]           19.90 dBm
20 dBm                                        1.96251300 GHz
10 dBm
 0 dBm
        D1 -6.100 dBm    M1                  D2
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
```

CF 1.9625 GHz	691 pts	Span 1.0 MHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.96233623 GHz	-6.90 dBm		
D2	M1	1	323.19 kHz	-0.64 dB		
M3		1	1.962513 GHz	19.90 dBm		
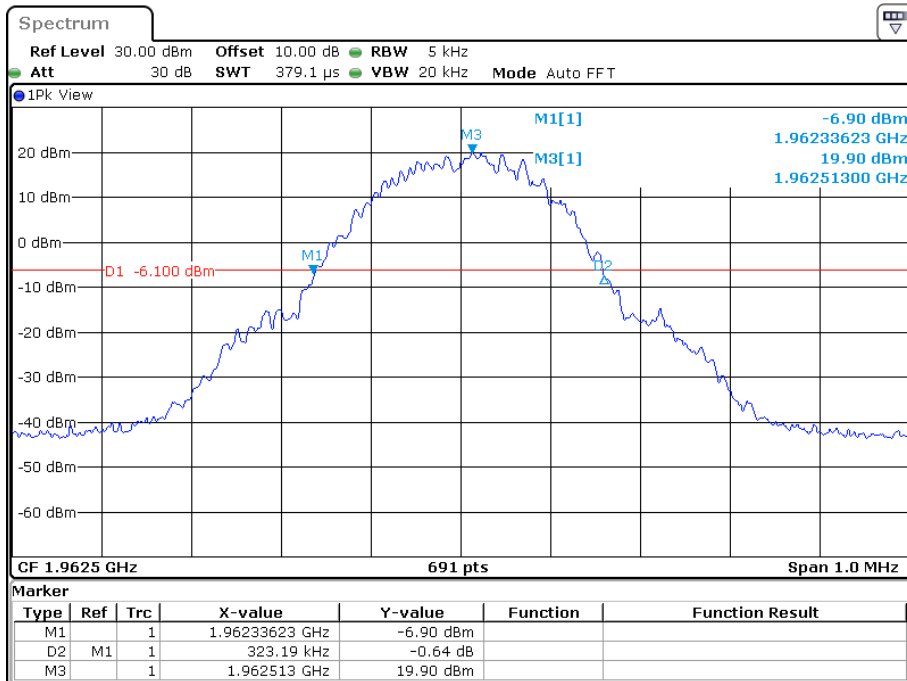
Date: 19.DEC.2022 17:29:51

AWS Band

Mode	Signal Type	Signal Level	Frequency (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)	
				Input	Output	Input	Output
Uplink	AWGN	Pre-AGC	1745	4.168	4.168	4.696	4.710
		3dB above AGC	1745	4.168	4.168	4.696	4.710
	GSM	Pre-AGC	1745	0.245	0.245	0.322	0.323
		3dB above AGC	1745	0.245	0.245	0.323	0.323
Downlink	AWGN	Pre-AGC	2145	4.168	4.182	4.696	4.710
		3dB above AGC	2145	4.168	4.182	4.710	4.710
	GSM	Pre-AGC	2145	0.245	0.245	0.323	0.323
		3dB above AGC	2145	0.245	0.246	0.323	0.323

99% Bandwidth-UL-AWGN-Pre AGC-Input

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.745478 GHz	-27.13 dBm		
T1		1	1.7429161 GHz	-34.80 dBm	Occ Bw	4.167872648 MHz
T2		1	1.7470839 GHz	-35.58 dBm		
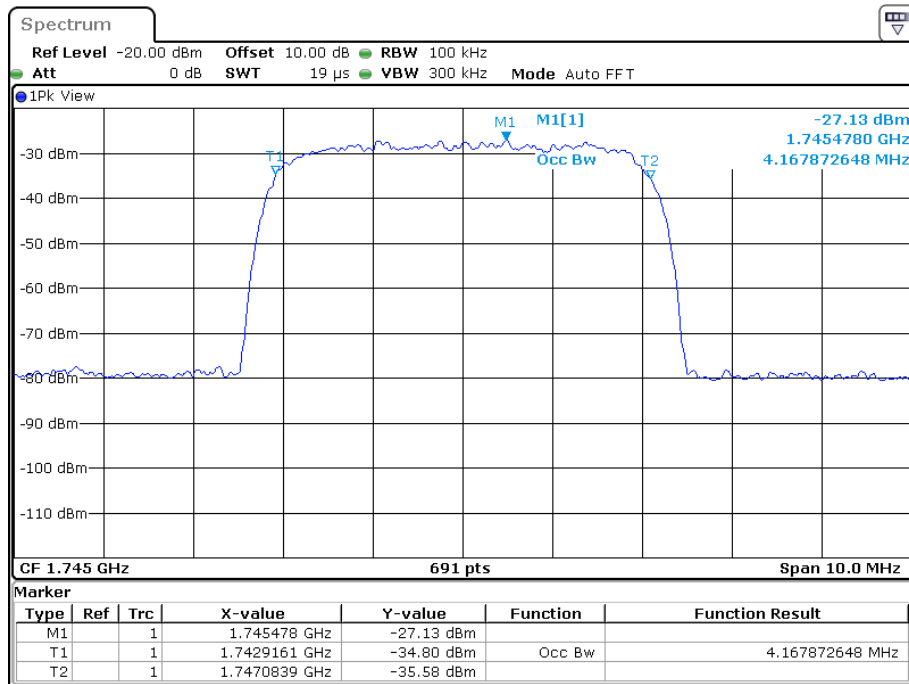
Date: 19.DEC.2022 18:03:59

99% Bandwidth-UL- AWGN-3dB above AGC-Input

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.74636 GHz	-24.43 dBm		
T1		1	1.7429161 GHz	-32.22 dBm	Occ Bw	4.167872648 MHz
T2		1	1.7470839 GHz	-32.94 dBm		
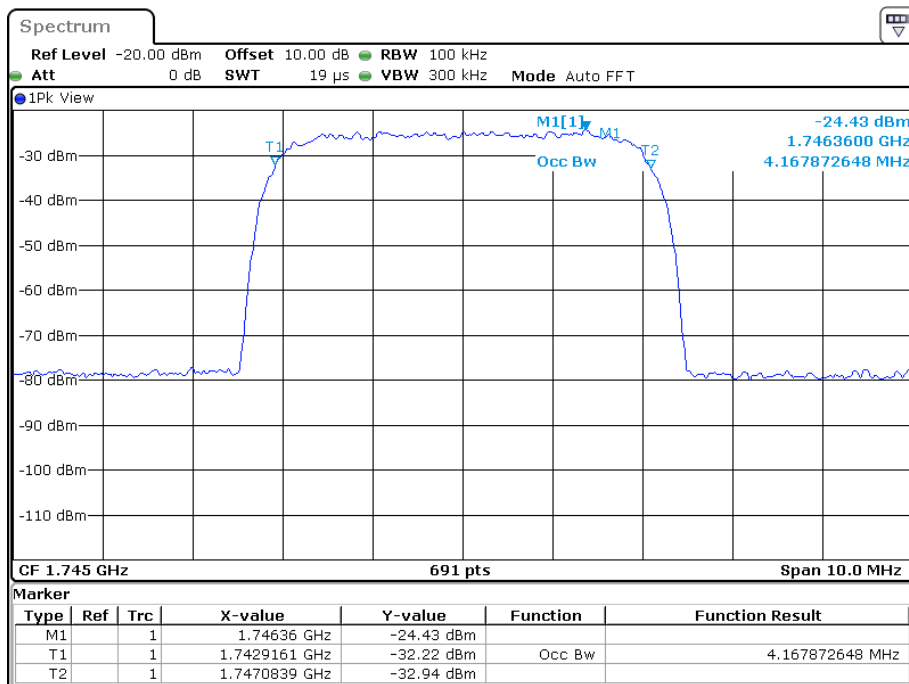
Date: 19.DEC.2022 18:11:07

99% Bandwidth-UL-GSM-Pre AGC-Input

Spectrum					
Ref Level -20.00 dBm	Offset 10.00 dB ● RBW 5 kHz				
● Att 0 dB	SWT 379.1 µs ● VBW 20 kHz	Mode Auto FFT			

● 1Pk View

M1[1]   -30.02 dBm
1.74501300 GHz
244.573082489 kHz

CF 1.745 GHz   691 pts   Span 1.0 MHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.745013 GHz	-30.02 dBm		
T1		1	1.74487988 GHz	-43.88 dBm	Occ Bw	244.573082489 kHz
T2		1	1.74512446 GHz	-43.00 dBm		

Date: 19.DEC.2022 17:50:02

99% Bandwidth-UL- GSM-3dB above AGC-Input

Spectrum					
Ref Level -20.00 dBm	Offset 10.00 dB ● RBW 5 kHz				
● Att 0 dB	SWT 379.1 µs ● VBW 20 kHz	Mode Auto FFT			

● 1Pk View

M1[1]   -26.98 dBm
1.74501300 GHz
244.573082489 kHz

CF 1.745 GHz   691 pts   Span 1.0 MHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.745013 GHz	-26.98 dBm		
T1		1	1.74487988 GHz	-40.82 dBm	Occ Bw	244.573082489 kHz
T2		1	1.74512446 GHz	-39.97 dBm		

Date: 19.DEC.2022 17:57:09
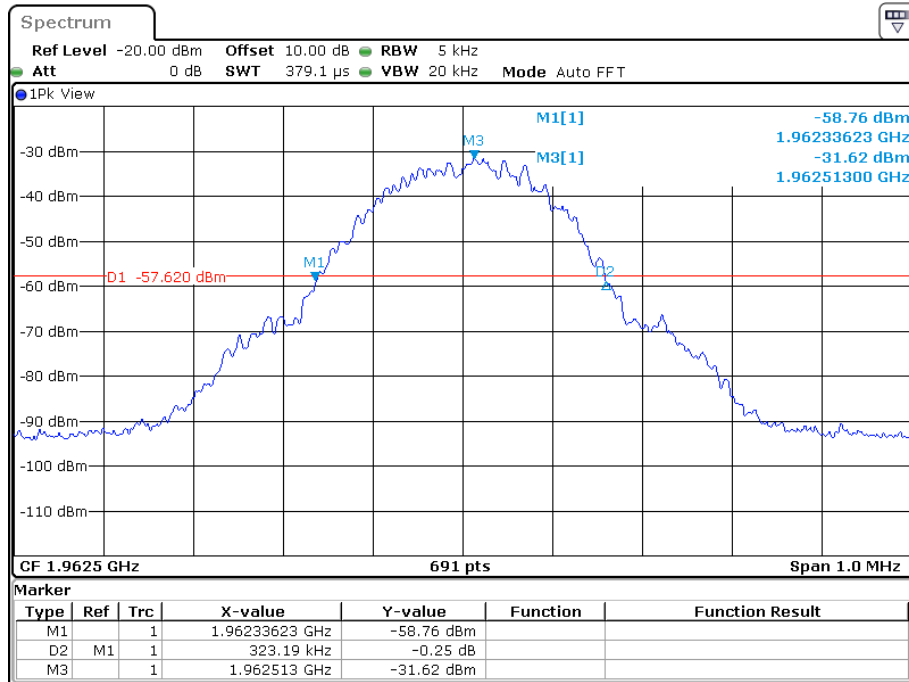
99% Bandwidth-DL- AWGN- Pre AGC -Input

Date: 19.DEC.2022   18:00:30

99% Bandwidth-DL- AWGN- 3dB Above AGC -Input
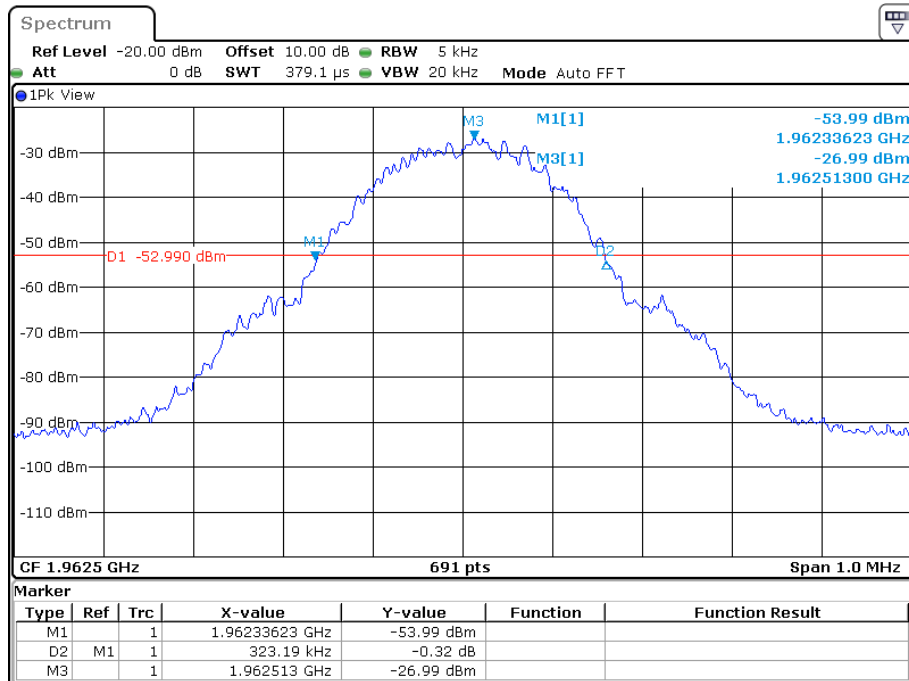

Date: 19.DEC.2022   18:07:28
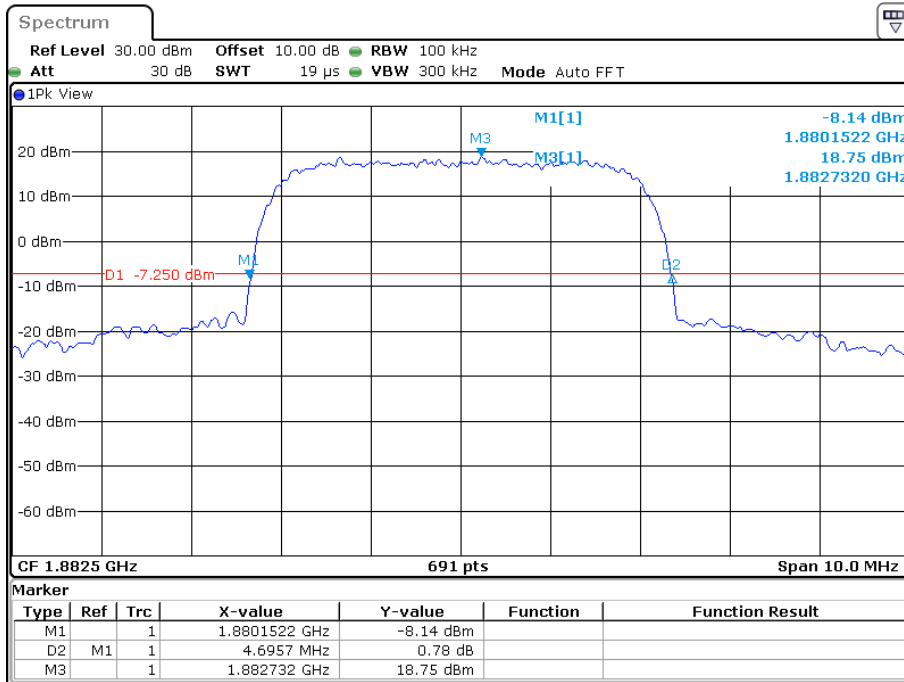
99% Bandwidth-DL- GSM- Pre AGC -Input


```
Spectrum
Ref Level -20.00 dBm    Offset 10.00 dB  RBW   5 kHz
Att          0 dB    SWT   379.1 µs  VBW  20 kHz    Mode Auto FFT
1Pk View
                                                   M1[1]              -31.36 dBm
                                                                  2.14501300 GHz
                                            M1         Occ Bw    244.573082489 kHz
-30 dBm
-40 dBm                          T1                      T2
-50 dBm
-60 dBm
-70 dBm
-80 dBm
-90 dBm
-100 dBm
-110 dBm
CF 2.145 GHz                     691 pts                      Span 1.0 MHz
```

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.145013 GHz	-31.36 dBm		
T1		1	2.14487988 GHz	-45.47 dBm	Occ Bw	244.573082489 kHz
T2		1	2.14512446 GHz	-44.35 dBm		

Date: 19.DEC.2022 17:46:34

99% Bandwidth-DL- GSM- 3dB Above AGC -Input


```
Spectrum
Ref Level -20.00 dBm    Offset 10.00 dB  RBW   5 kHz
Att          0 dB    SWT   379.1 µs  VBW  20 kHz    Mode Auto FFT
1Pk View
                                            M1         M1[1]              -26.86 dBm
                                                                  2.14501300 GHz
                                                       Occ Bw    244.573082489 kHz
-30 dBm
-40 dBm                          T1                      T2
-50 dBm
-60 dBm
-70 dBm
-80 dBm
-90 dBm
-100 dBm
-110 dBm
CF 2.145 GHz                     691 pts                      Span 1.0 MHz
```

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.145013 GHz	-26.86 dBm		
T1		1	2.14487988 GHz	-40.84 dBm	Occ Bw	244.573082489 kHz
T2		1	2.14512446 GHz	-39.84 dBm		

Date: 19.DEC.2022 17:53:32

99% Bandwidth-UL- AWGN- Pre AGC -Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.745232 GHz	19.58 dBm		
T1		1	1.7429161 GHz	11.91 dBm	Occ Bw	4.167872648 MHz
T2		1	1.7470839 GHz	11.13 dBm		

Date: 19.DEC.2022 17:13:54

99% Bandwidth-UL- AWGN-3dB above AGC-Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.745232 GHz	19.86 dBm		
T1		1	1.7429161 GHz	12.20 dBm	Occ Bw	4.167872648 MHz
T2		1	1.7470839 GHz	10.91 dBm		

Date: 19.DEC.2022 17:18:53

99% Bandwidth-UL- GSM- Pre AGC -Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.745013 GHz	18.14 dBm		
T1		1	1.74487988 GHz	4.40 dBm	Occ Bw	244.573082489 kHz
T2		1	1.74512446 GHz	5.19 dBm		

Date: 19.DEC.2022 16:37:49

99% Bandwidth-UL- GSM-3dB above AGC-Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.745013 GHz	18.28 dBm		
T1		1	1.74487988 GHz	4.48 dBm	Occ Bw	244.573082489 kHz
T2		1	1.74512446 GHz	5.36 dBm		

Date: 19.DEC.2022 16:41:47

99% Bandwidth-DL- AWGN- Pre AGC -Output


```
Spectrum
  Ref Level  30.00 dBm   Offset 10.00 dB  ● RBW  100 kHz
● Att          30 dB     SWT       19 µs  ● VBW  300 kHz   Mode Auto FFT
●1Pk View
                                              M1      M1[1]              22.43 dBm
                                                                     2.1452320 GHz
  20 dBm                                            Occ Bw          4.182344428 MHz
  10 dBm
   0 dBm
 -10 dBm
 -20 dBm
 -30 dBm
 -40 dBm
 -50 dBm
 -60 dBm
  CF 2.145 GHz                        691 pts                      Span 10.0 MHz
```

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.145232 GHz	22.43 dBm		
T1		1	2.1429161 GHz	14.53 dBm	Occ Bw	4.182344428 MHz
T2		1	2.1470984 GHz	14.10 dBm		

Date: 19.DEC.2022 17:35:14

99% Bandwidth-DL- AWGN- 3dB Above AGC -Output


```
Spectrum
  Ref Level  30.00 dBm   Offset 10.00 dB  ● RBW  100 kHz
● Att          30 dB     SWT       19 µs  ● VBW  300 kHz   Mode Auto FFT
●1Pk View
                                              M1      M1[1]              23.11 dBm
                                                                     2.1452460 GHz
  20 dBm                                            Occ Bw          4.182344428 MHz
  10 dBm
   0 dBm
 -10 dBm
 -20 dBm
 -30 dBm
 -40 dBm
 -50 dBm
 -60 dBm
  CF 2.145 GHz                        691 pts                      Span 10.0 MHz
```

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.145246 GHz	23.11 dBm		
T1		1	2.1429161 GHz	14.73 dBm	Occ Bw	4.182344428 MHz
T2		1	2.1470984 GHz	14.91 dBm		

Date: 19.DEC.2022 17:40:31

99% Bandwidth-DL- GSM- Pre AGC -Output

Date: 19.DEC.2022 17:26:50

99% Bandwidth-DL- GSM- 3dB Above AGC -Output
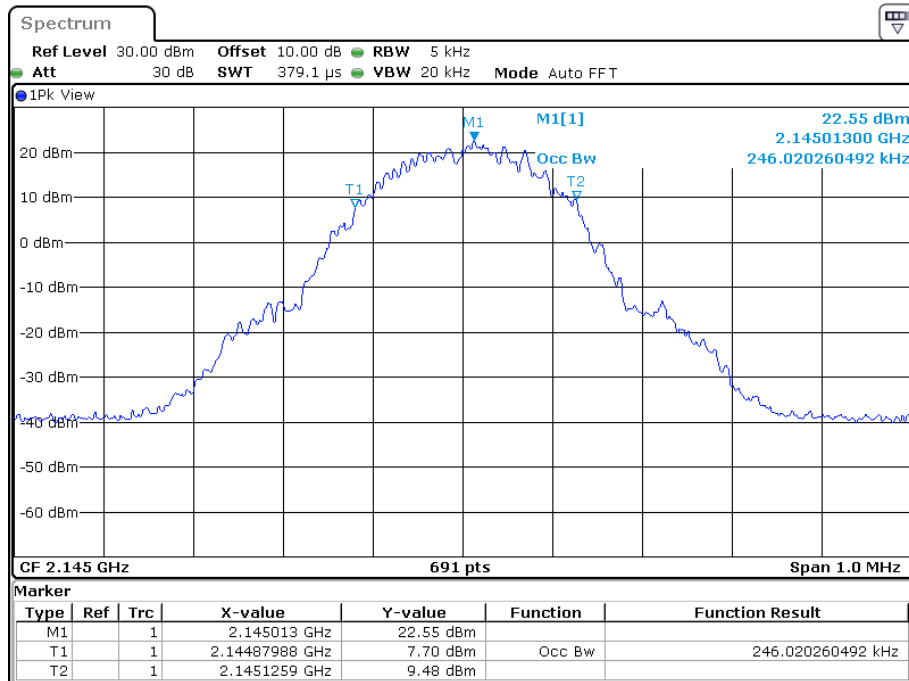
Date: 19.DEC.2022 17:30:09

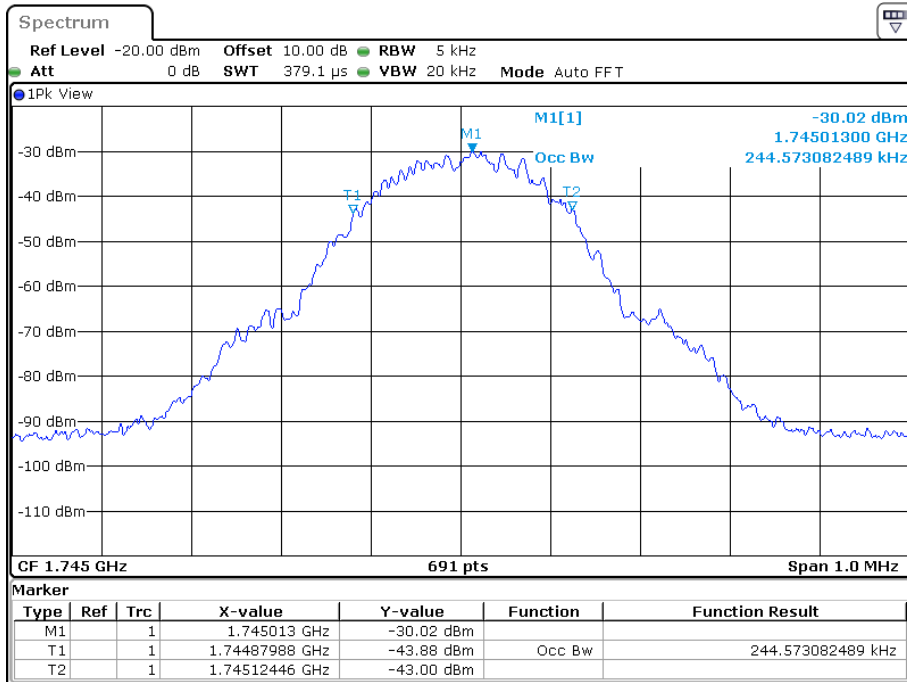## 26 dB Bandwidth-UL-AWGN-Pre AGC-Input
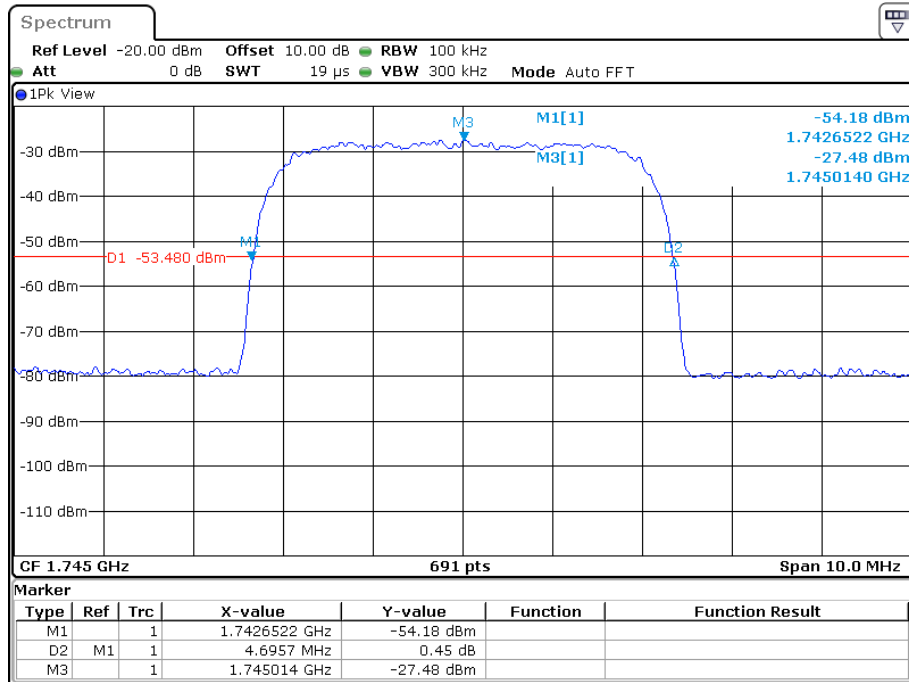
Date: 19.DEC.2022 18:04:14

26 dB Bandwidth-UL- AWGN-3dB above AGC-Input
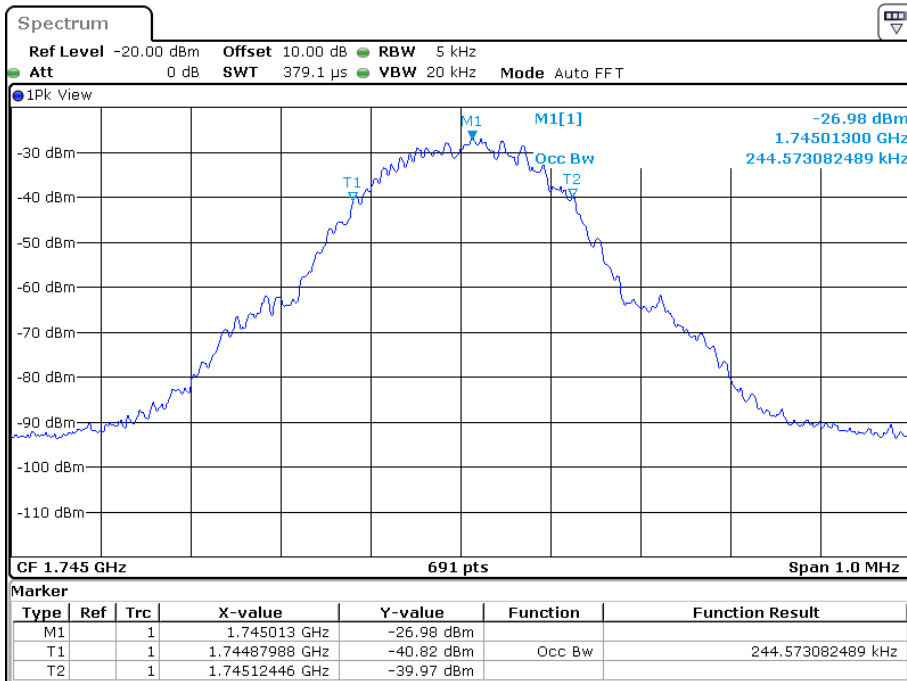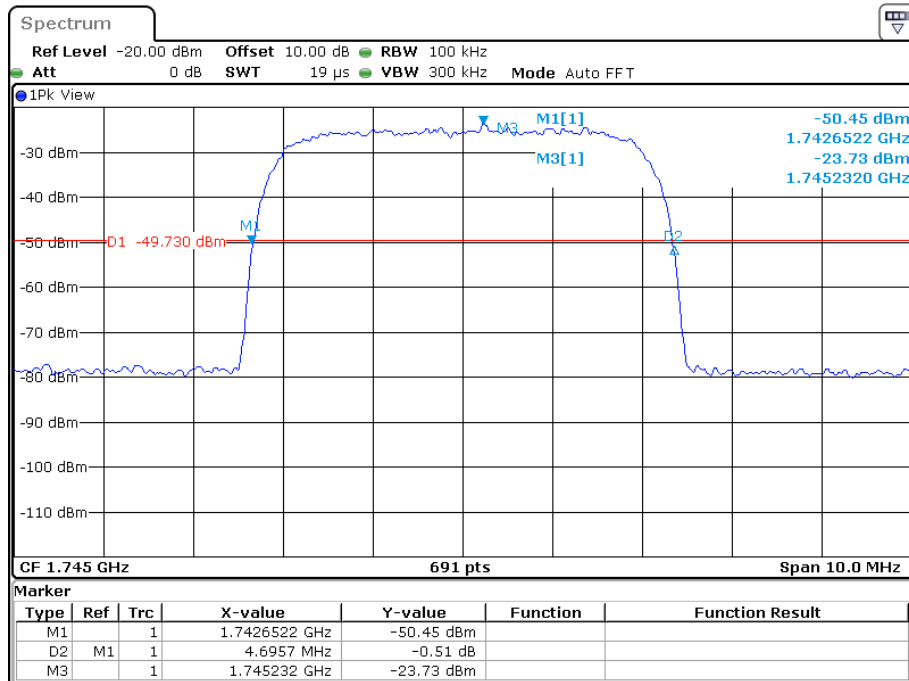

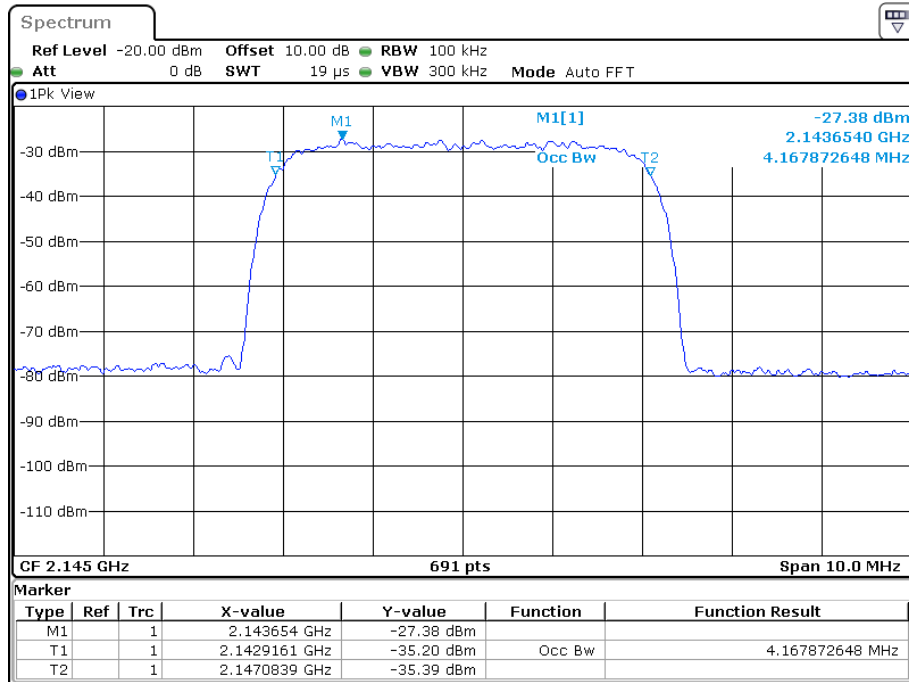Date: 19.DEC.2022 18:11:22

26 dB Bandwidth-UL-GSM-Pre AGC-Input
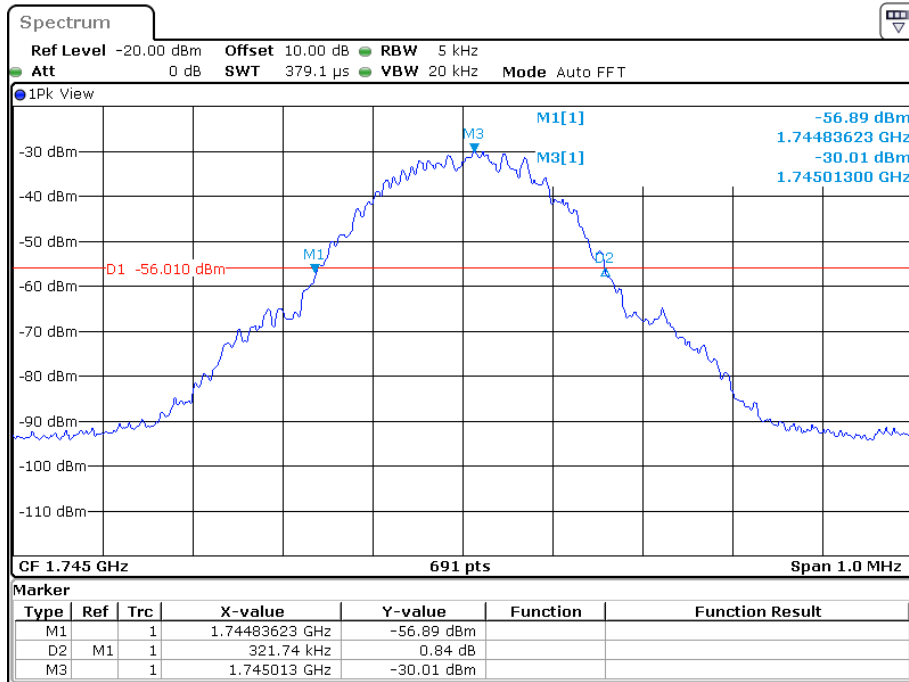
Date: 19.DEC.2022 17:50:17
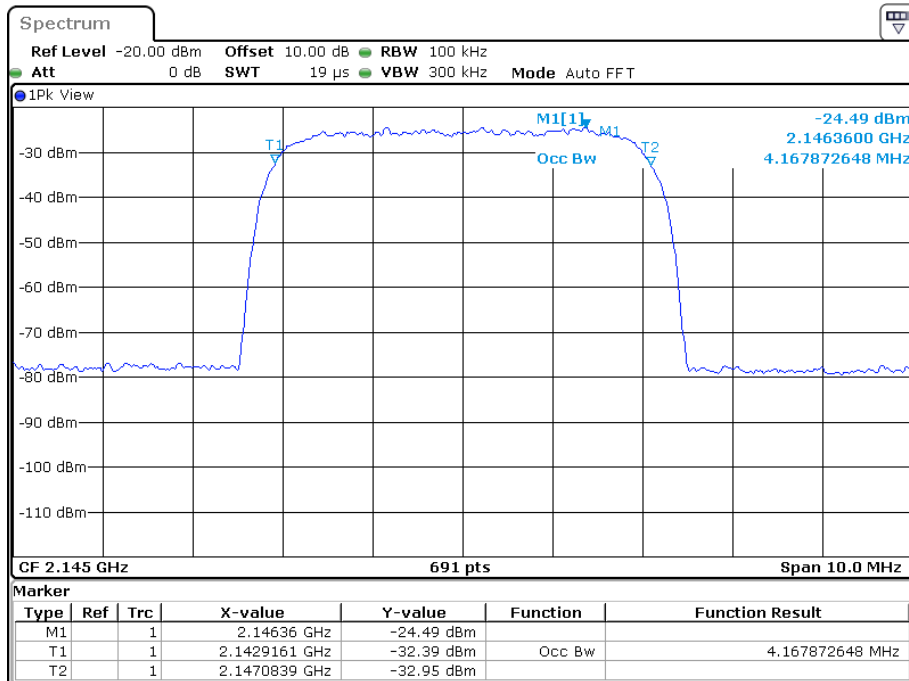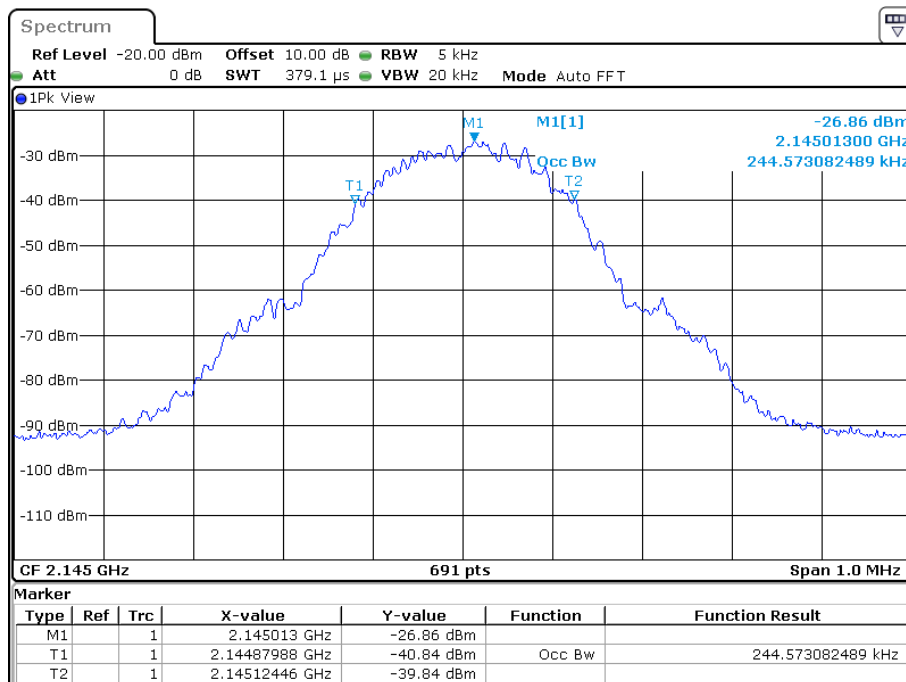
26 dB Bandwidth-UL- GSM-3dB above AGC-Input
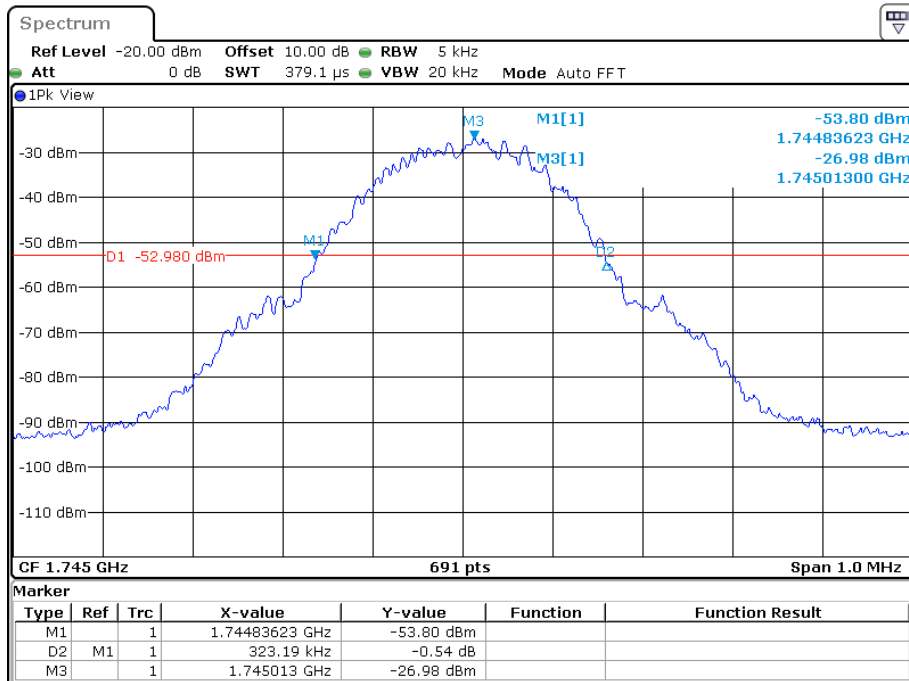
Date: 19.DEC.2022 17:57:24

26 dB Bandwidth-DL- AWGN- Pre AGC -Input

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.1426522 GHz	-53.56 dBm		
D2	M1	1	4.6957 MHz	-0.03 dB		
M3		1	2.145478 GHz	-27.23 dBm		

Date: 19.DEC.2022 18:00:45

26 dB Bandwidth-DL- AWGN- 3dB Above AGC -Input

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.1426522 GHz	-50.78 dBm		
D2	M1	1	4.7101 MHz	-1.35 dB		
M3		1	2.145492 GHz	-24.40 dBm		
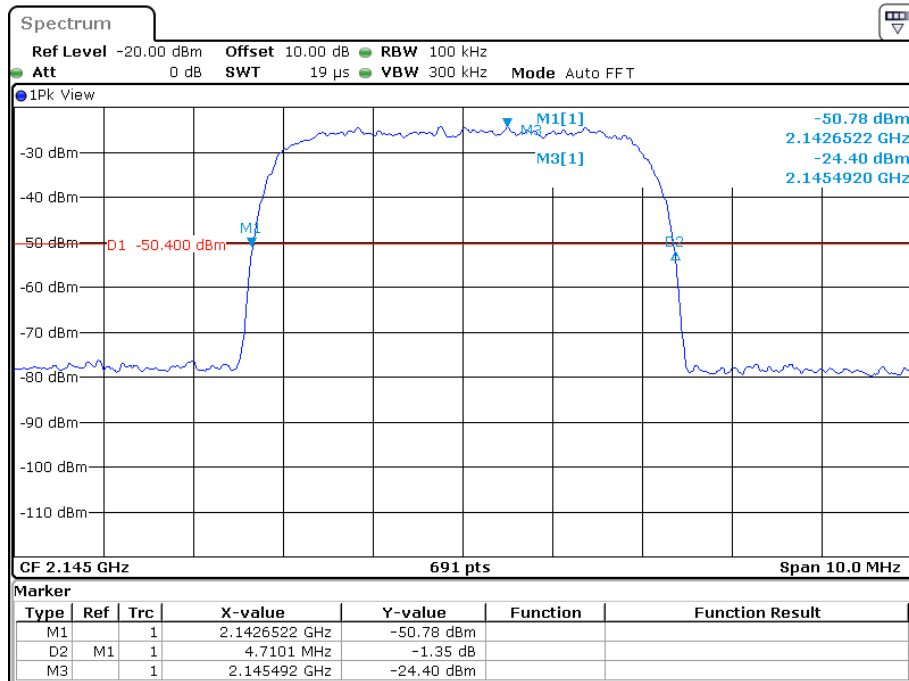
Date: 19.DEC.2022 18:07:43

26 dB Bandwidth-DL- GSM- Pre AGC -Input


```
Spectrum
Ref Level -20.00 dBm   Offset 10.00 dB ● RBW   5 kHz
● Att          0 dB   SWT  379.1 µs ● VBW 20 kHz   Mode Auto FFT
● 1Pk View
                                              M1[1]        -57.85 dBm
                                         M3              2.14483623 GHz
 -30 dBm                                    M3[1]        -30.72 dBm
                                                        2.14501300 GHz
 -40 dBm
 -50 dBm
      D1 -56.720 dBm      M1              D2
 -60 dBm
 -70 dBm
 -80 dBm
 -90 dBm
 -100 dBm
 -110 dBm
CF 2.145 GHz                  691 pts              Span 1.0 MHz
```

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.14483623 GHz	-57.85 dBm		
D2	M1	1	323.19 kHz	-0.30 dB		
M3		1	2.145013 GHz	-30.72 dBm		

Date: 19.DEC.2022 17:46:59

26 dB Bandwidth-DL- GSM- 3dB Above AGC -Input


```
Spectrum
Ref Level -20.00 dBm   Offset 10.00 dB ● RBW   5 kHz
● Att          0 dB   SWT  379.1 µs ● VBW 20 kHz   Mode Auto FFT
● 1Pk View
                                         M3    M1[1]        -53.97 dBm
                                                        2.14483623 GHz
 -30 dBm                                    M3[1]        -26.85 dBm
                                                        2.14501300 GHz
 -40 dBm
 -50 dBm
      D1 -52.850 dBm      M1              D2
 -60 dBm
 -70 dBm
 -80 dBm
 -90 dBm
 -100 dBm
 -110 dBm
CF 2.145 GHz                  691 pts              Span 1.0 MHz
```

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.14483623 GHz	-53.97 dBm		
D2	M1	1	323.19 kHz	-0.23 dB		
M3		1	2.145013 GHz	-26.85 dBm		

Date: 19.DEC.2022 17:53:47

26 dB Bandwidth-UL- AWGN- Pre AGC -Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.7426522 GHz	-7.17 dBm		
D2	M1	1	4.7101 MHz	-1.23 dB		
M3		1	1.745232 GHz	19.48 dBm		
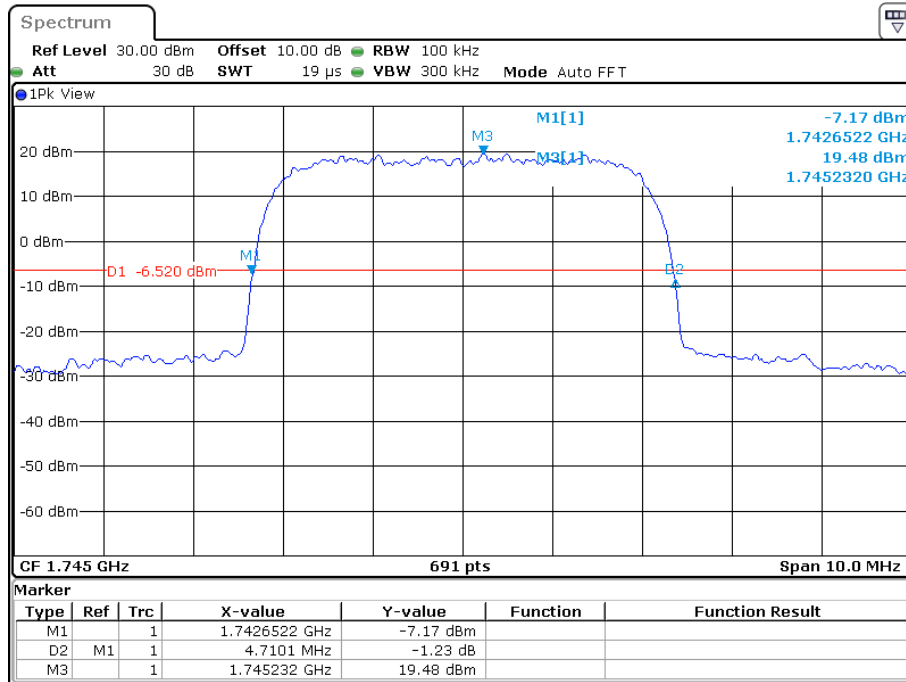
Date: 19.DEC.2022 17:14:09

26 dB Bandwidth-UL- AWGN-3dB above AGC-Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.7426522 GHz	-6.90 dBm		
D2	M1	1	4.7101 MHz	-1.31 dB		
M3		1	1.745232 GHz	19.88 dBm		
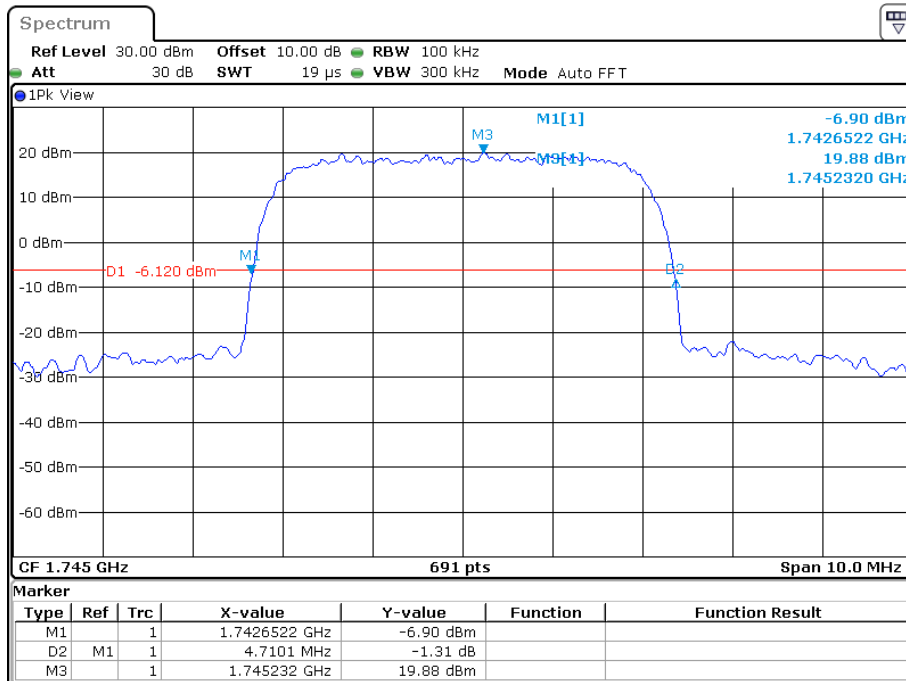
Date: 19.DEC.2022 17:19:18

26 dB Bandwidth-UL- GSM- Pre AGC -Output
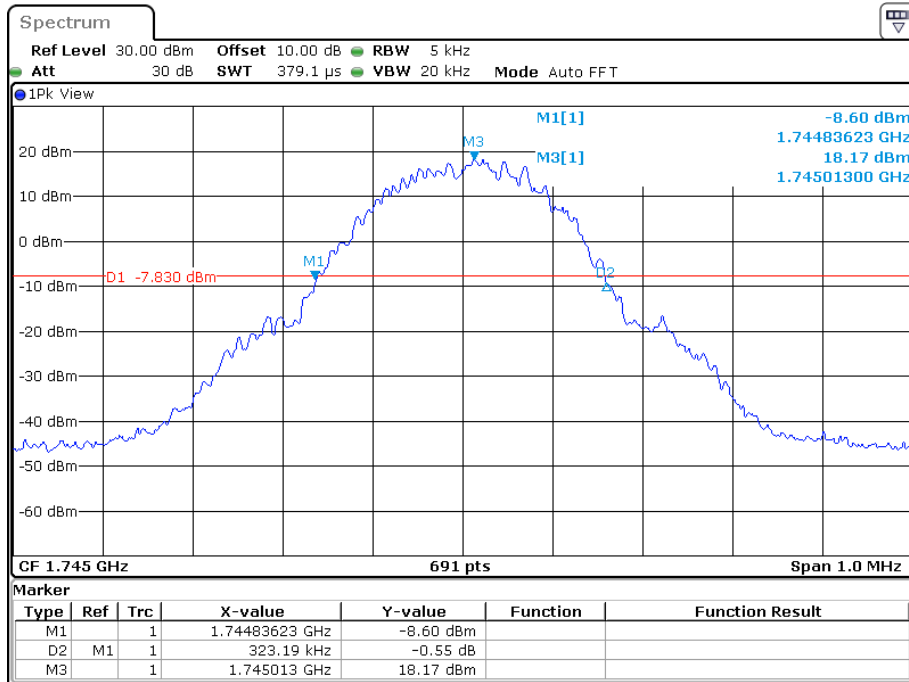
Date: 19.DEC.2022 16:38:15

26 dB Bandwidth-UL- GSM-3dB above AGC-Output
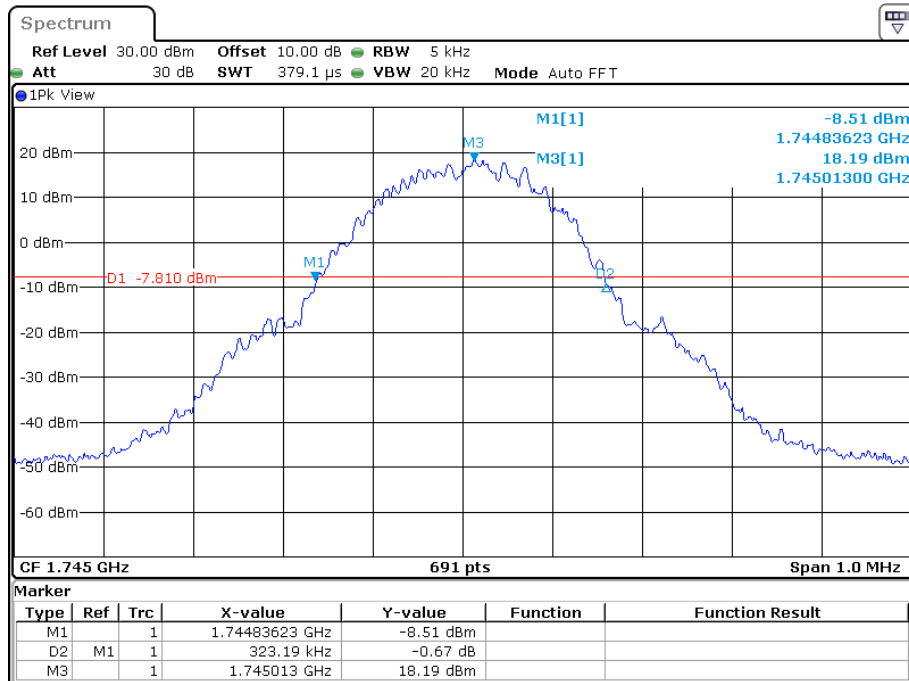
Date: 19.DEC.2022 16:42:02

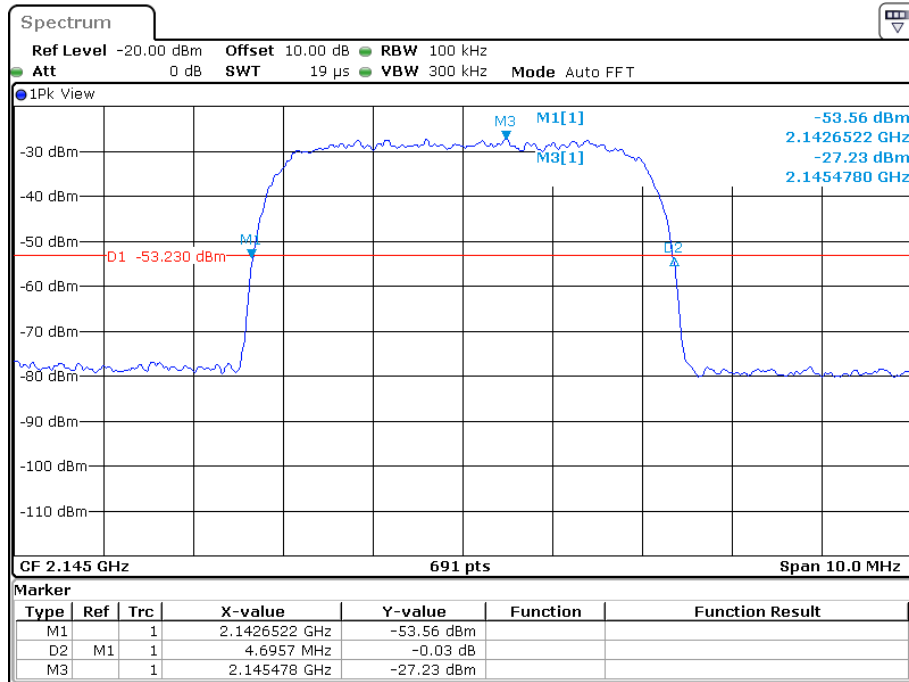## 26 dB Bandwidth-DL- AWGN- Pre AGC -Output
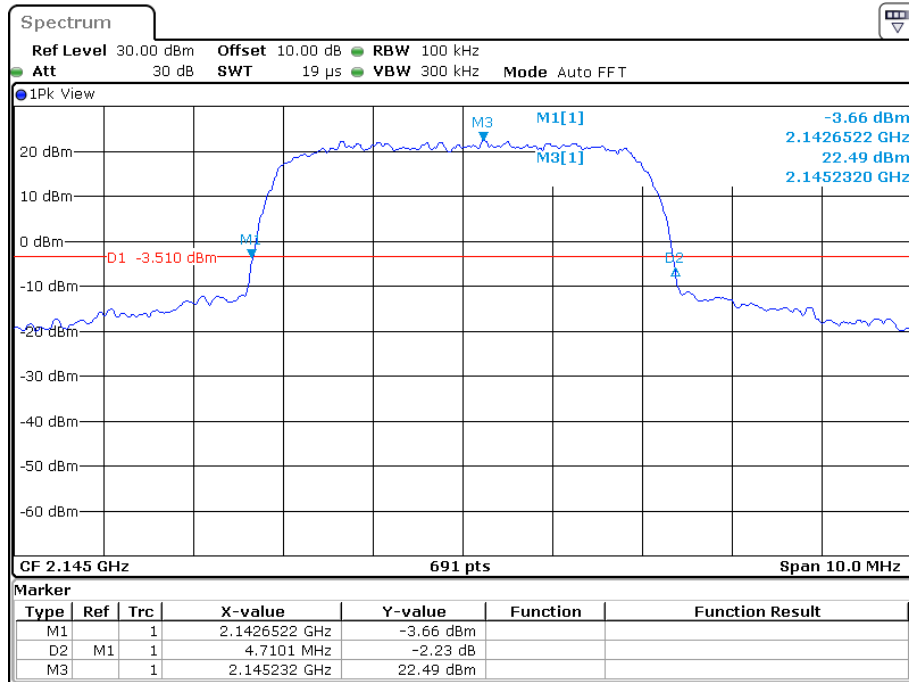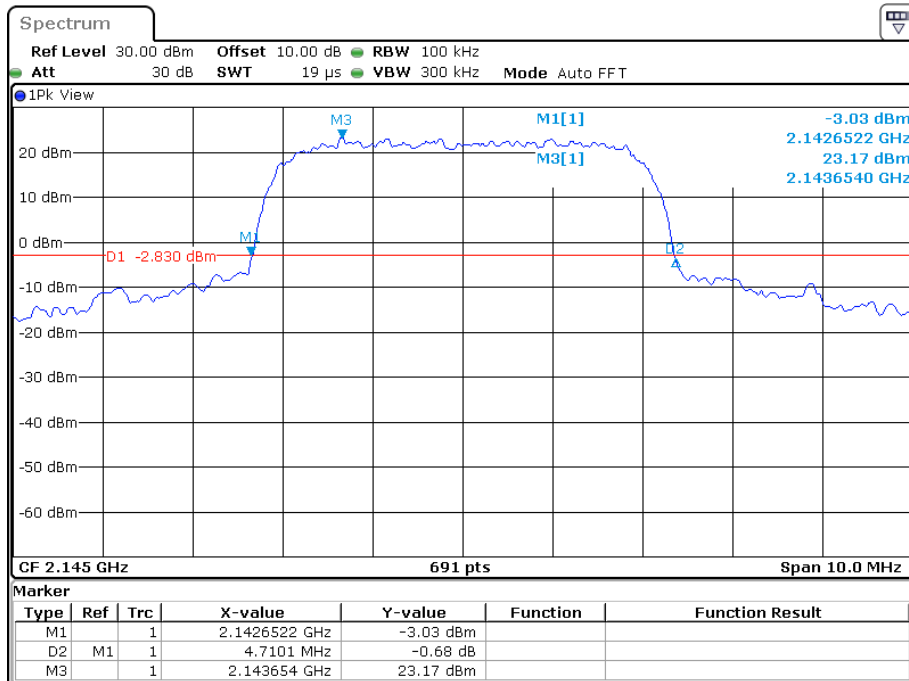
Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.1426522 GHz	-3.66 dBm		
D2	M1	1	4.7101 MHz	-2.23 dB		
M3		1	2.145232 GHz	22.49 dBm		

Date: 19.DEC.2022 17:35:39

26 dB Bandwidth-DL- AWGN- 3dB Above AGC -Output

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.1426522 GHz	-3.03 dBm		
D2	M1	1	4.7101 MHz	-0.68 dB		
M3		1	2.143654 GHz	23.17 dBm		
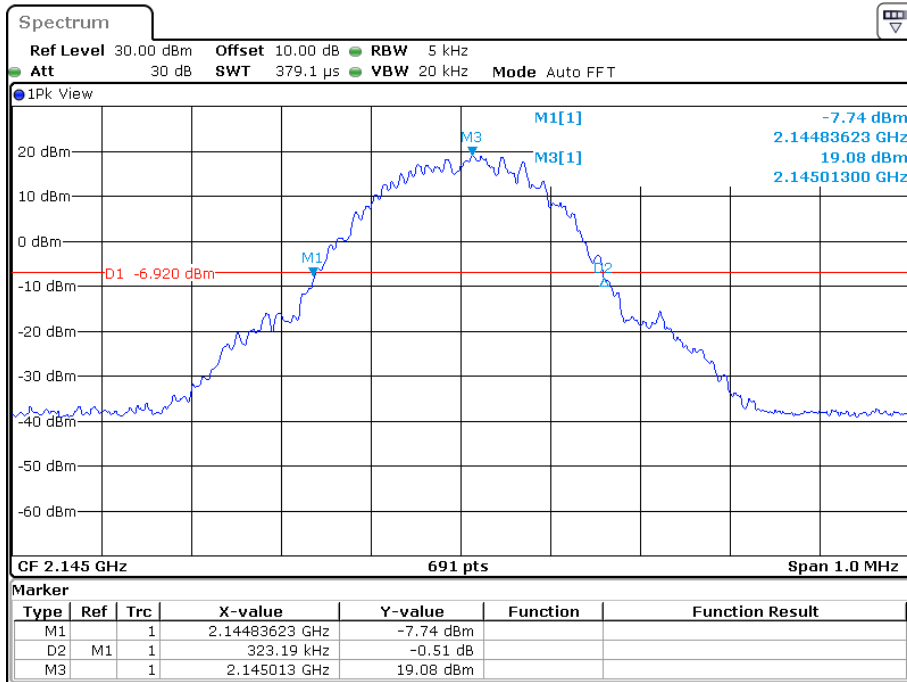
Date: 19.DEC.2022 17:40:47

26 dB Bandwidth-DL- GSM- Pre AGC -Output

26 dB Bandwidth-DL- GSM- 3dB Above AGC -Output
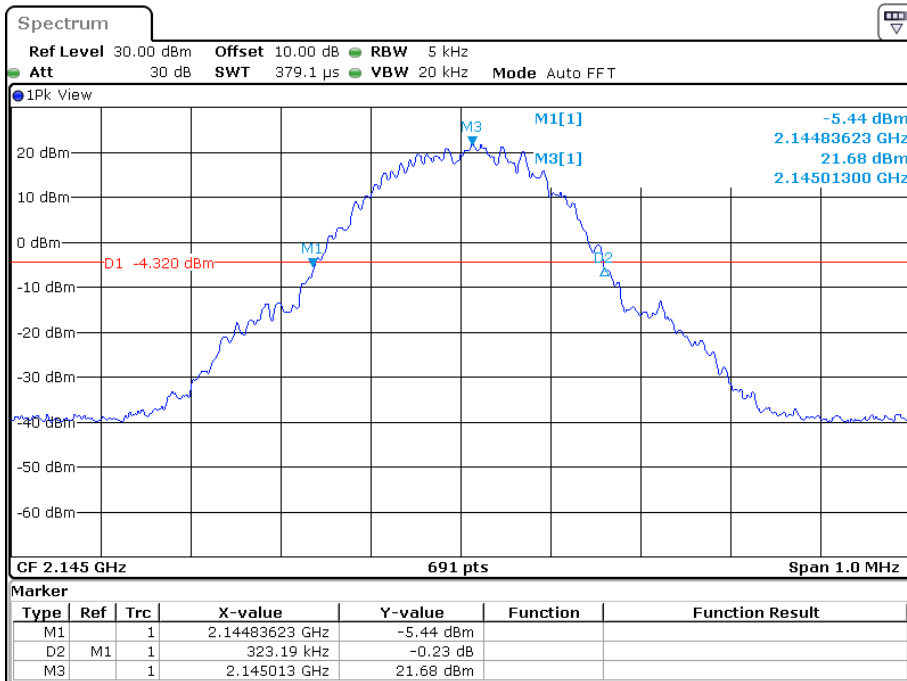
FCC §2.1051, §22.917 & §24.238 & §27.53 - SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Applicable Standard

FCC §2.1051, §22.917, §24.238 and §27.53.

The spectrum was to be investigated to the tenth harmonics of the highest fundamental frequency as specified in § 2.1051.

The power of any emission 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.

Test Procedure

Please refer to KDB 935210 D05 Indus Booster Basic Meas v01r04 clause 3.6.3

Signal Generator	—	EUT	—	Attenuator	—	Spectrum Analyzer
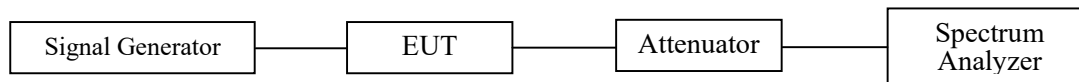
Test Data

Environmental Conditions

Temperature:	23~25 ℃
Relative Humidity:	50~52 %
ATM Pressure:	100.0~101.0 kPa

The testing was performed by Glenn.Jiang on 2023-01-14 and 2023-02-01.

Test result: Compliance, please refer to the following plots.

Uplink:

600MHz Band -AWGN-Pre AGC-Low Channel
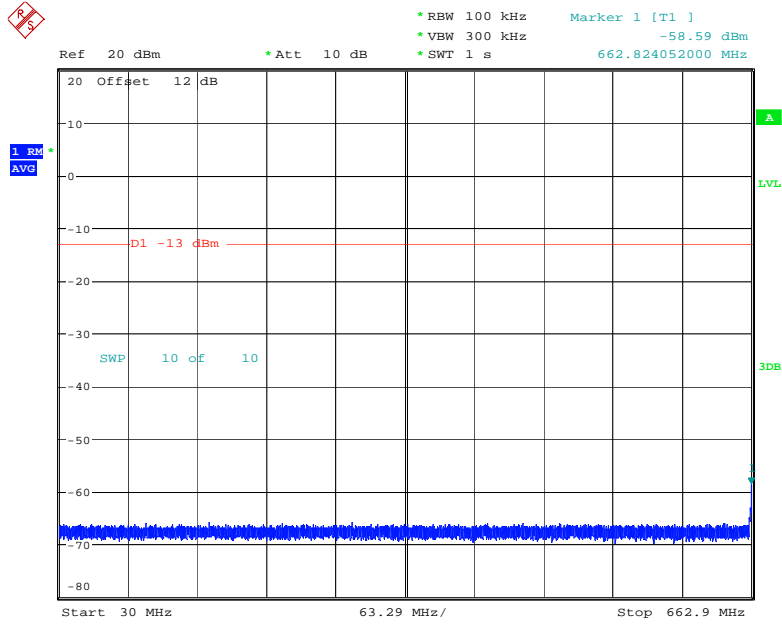
Date: 14.JAN.2023 11:22:23
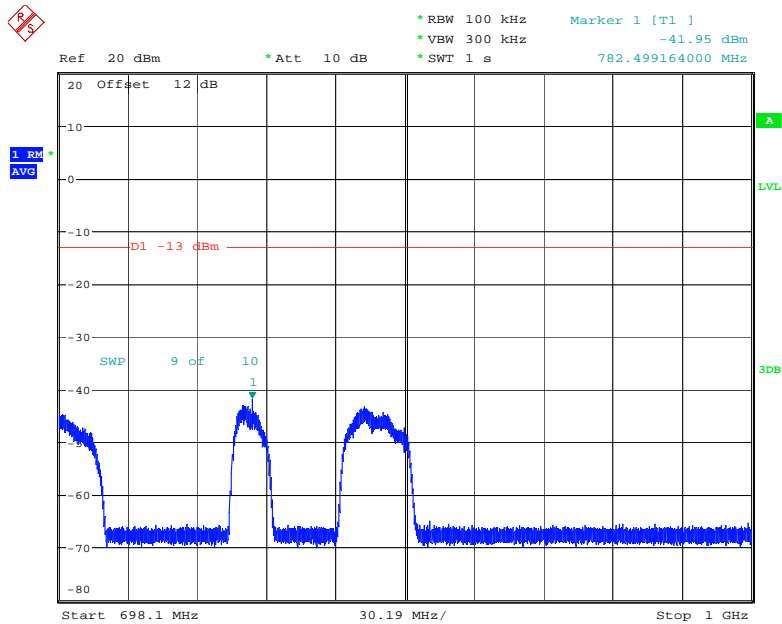
Date: 14.JAN.2023 11:22:43
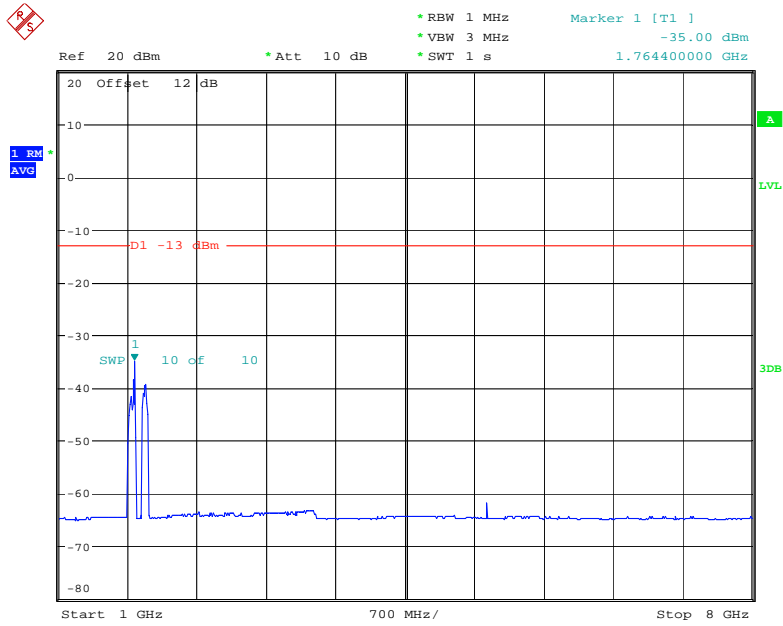
Date: 14.JAN.2023 11:22:03

600MHz Band - AWGN-Pre AGC-Middle Channel
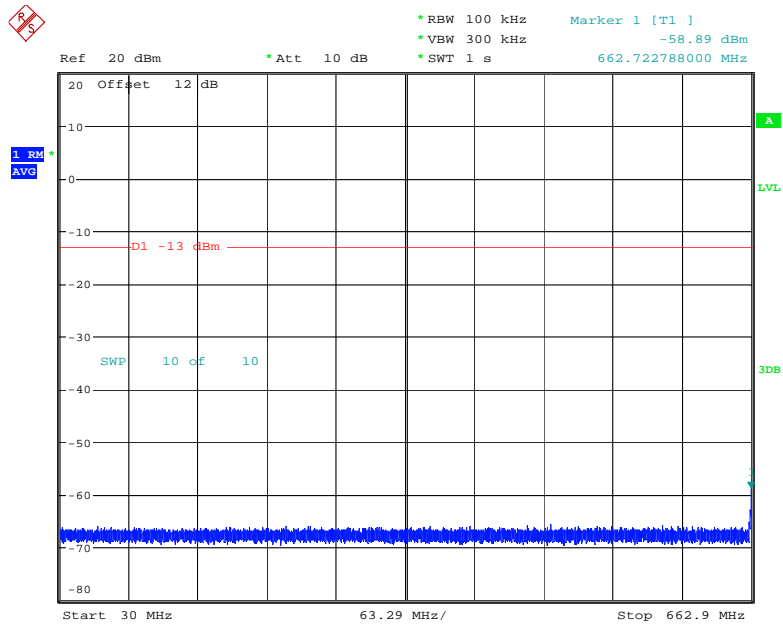
Date: 14.JAN.2023 11:28:17
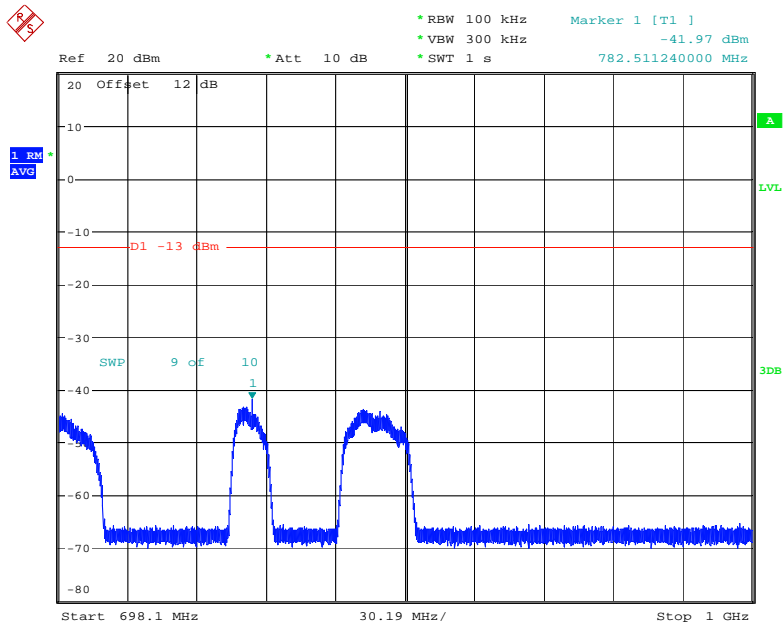
Date: 14.JAN.2023 11:28:37
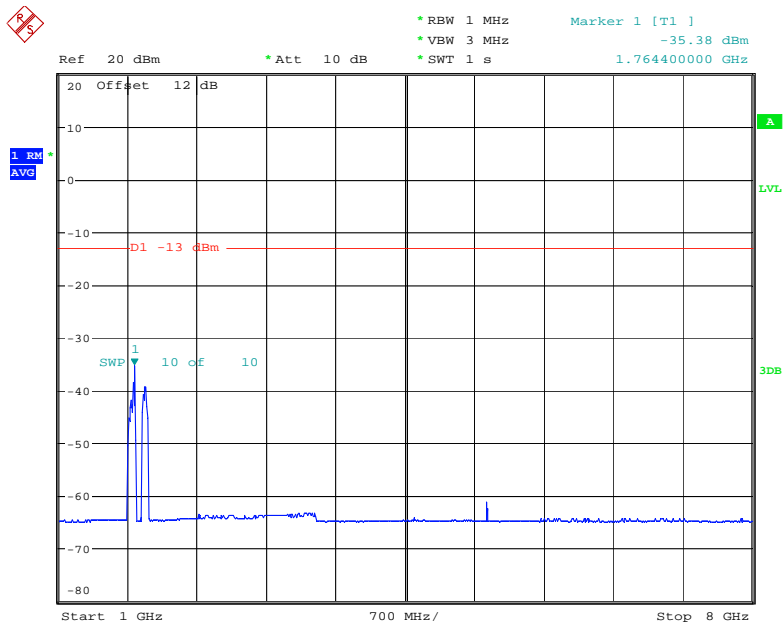
Date: 14.JAN.2023 11:27:58

600MHz Band - AWGN-Pre AGC-High Channel

```
                                    * RBW  100 kHz     Marker 1 [T1 ]
                                    * VBW  300 kHz            -58.50 dBm
        Ref  20 dBm      * Att  10 dB   * SWT 1 s      662.874684000 MHz

         20  Offset   12 dB                                           A
       10

 1 RM *
 AVG    0                                                           LVL

      -10
          D1 -13 dBm

      -20

      -30
          SWP    10 of    10                                        3DB
      -40

      -50

      -60

      -70

      -80
      Start  30 MHz            63.29 MHz/           Stop  662.9 MHz
```

Date: 14.JAN.2023 11:06:20

```
                                    * RBW  100 kHz     Marker 1 [T1 ]
                                    * VBW  300 kHz            -41.58 dBm
        Ref  20 dBm      * Att  10 dB   * SWT 1 s      782.499164000 MHz

         20  Offset   12 dB                                           A
       10

 1 RM *
 AVG    0                                                           LVL

      -10
          D1 -13 dBm

      -20

      -30
          SWP     9 of    10                                        3DB
                            1
      -40

      -60

      -70

      -80
      Start  698.1 MHz          30.19 MHz/           Stop  1 GHz
```
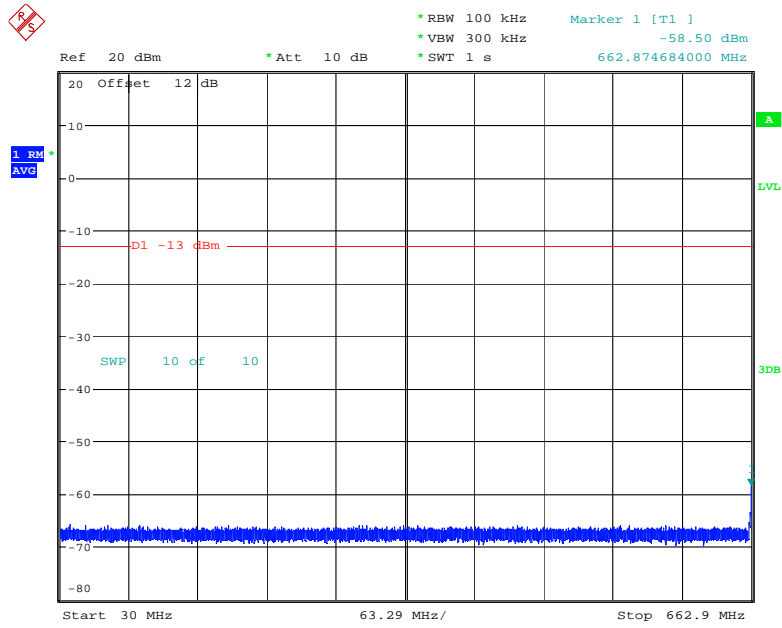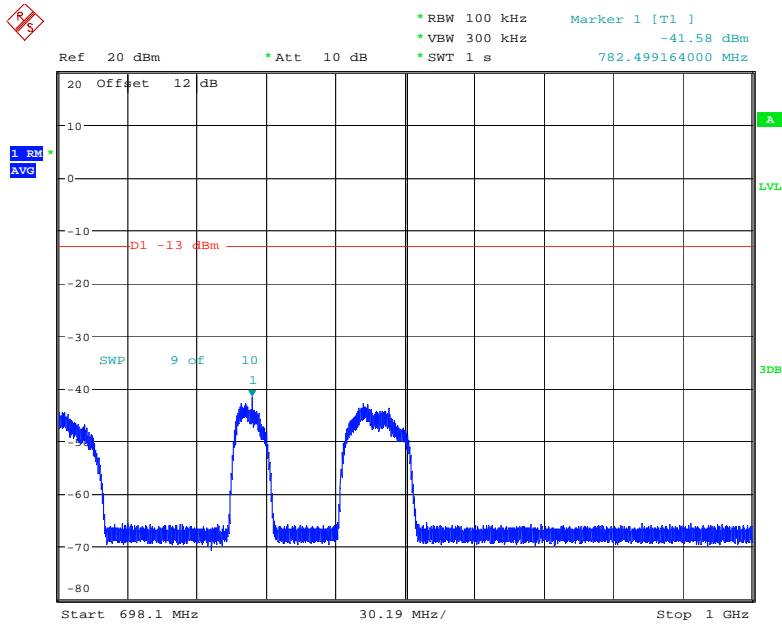
Date: 14.JAN.2023 11:06:39
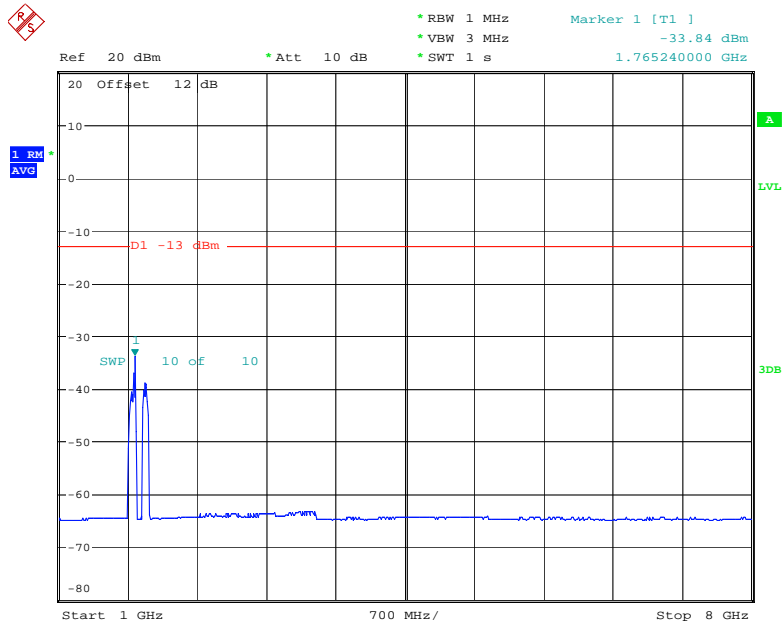
Date: 14.JAN.2023 11:06:00

600MHz Band - GSM-Pre AGC-Low Channel
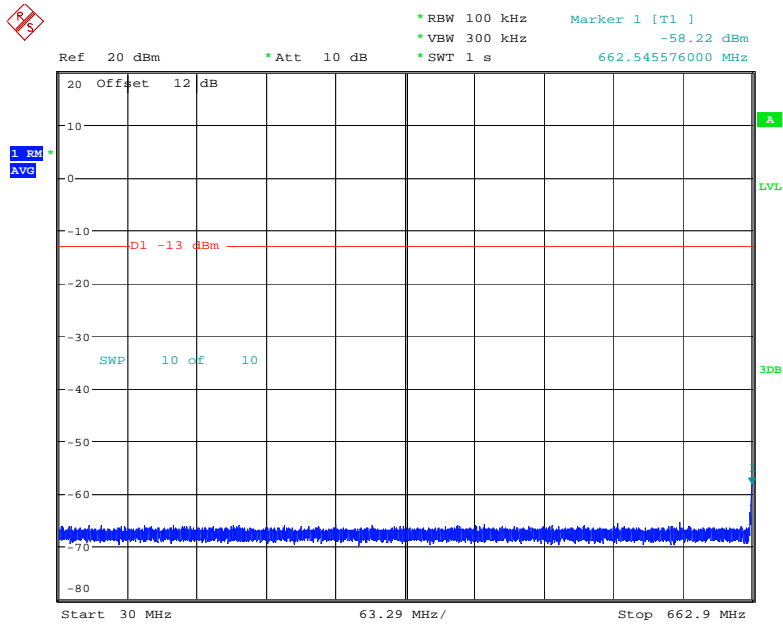
Date: 14.JAN.2023 11:54:42
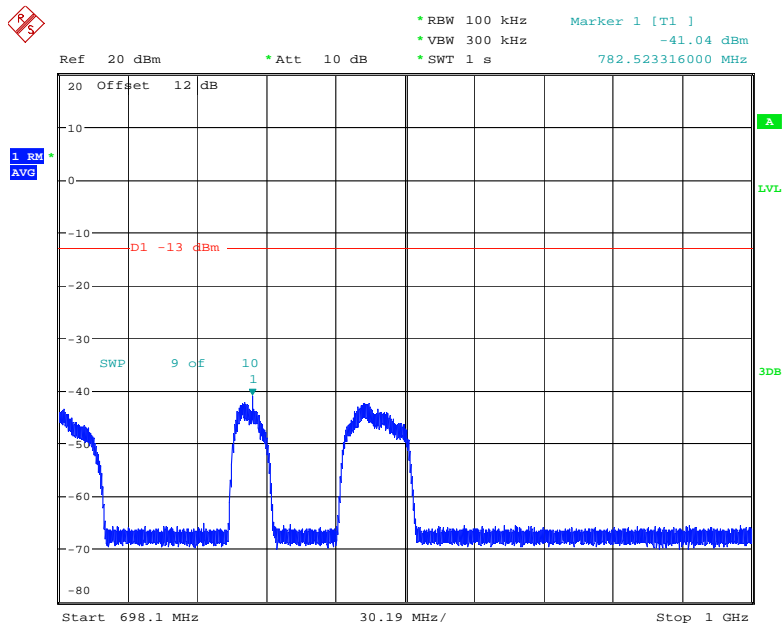
Date: 14.JAN.2023 11:55:02
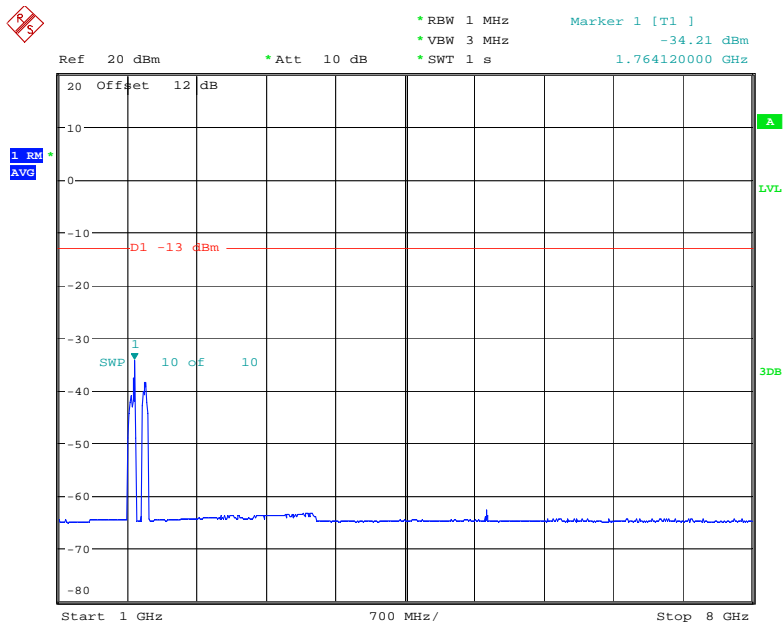
Date: 14.JAN.2023 11:54:23

600MHz Band - GSM-Pre AGC-Middle Channel

```
                                    *RBW 100 kHz    Marker 1 [T1 ]
                                    *VBW 300 kHz              -58.10 dBm
        Ref  20 dBm      *Att  10 dB  *SWT 1 s      662.292416000 MHz

        20  Offset   12 dB                                              A

        10

        0                                                             LVL

        -10
        D1 -13 dBm
        -20

        -30
        SWP    10 of    10                                            3DB
        -40

        -50

        -60

        -70

        -80

        Start  30 MHz              63.29 MHz/           Stop  662.9 MHz
```

Date: 14.JAN.2023 13:03:11

```
                                    *RBW 100 kHz    Marker 1 [T1 ]
                                    *VBW 300 kHz              -40.47 dBm
        Ref  20 dBm      *Att  10 dB  *SWT 1 s      782.487088000 MHz

        20  Offset   12 dB                                              A

        10

        0                                                             LVL

        -10
        D1 -13 dBm
        -20

        -30
        SWP    9 of    10                                             3DB
                        1
        -40

        -50

        -60

        -70

        -80

        Start  698.1 MHz           30.19 MHz/           Stop  1 GHz
```

Date: 14.JAN.2023 13:03:31

```
                                        * RBW 1 MHz      Marker 1 [T1 ]
                                        * VBW 3 MHz              -35.00 dBm
          Ref  20 dBm      * Att  10 dB  * SWT 1 s          1.764680000 GHz
```

Date: 14.JAN.2023 13:02:53

600MHz Band - GSM-Pre AGC-High Channel


```
                                        * RBW 100 kHz    Marker 1 [T1 ]
                                        * VBW 300 kHz             -58.82 dBm
          Ref  20 dBm      * Att  10 dB  * SWT 1 s          662.798736000 MHz
```
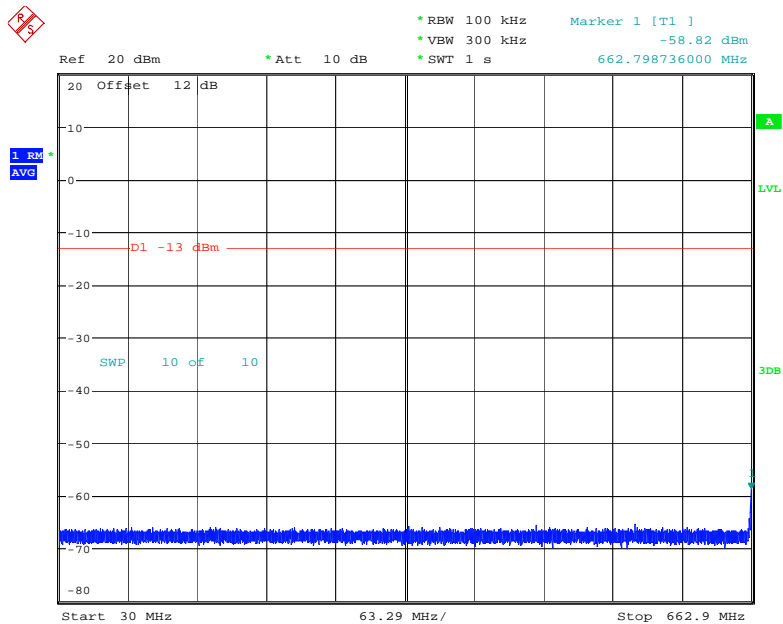
Date: 14.JAN.2023 11:47:47
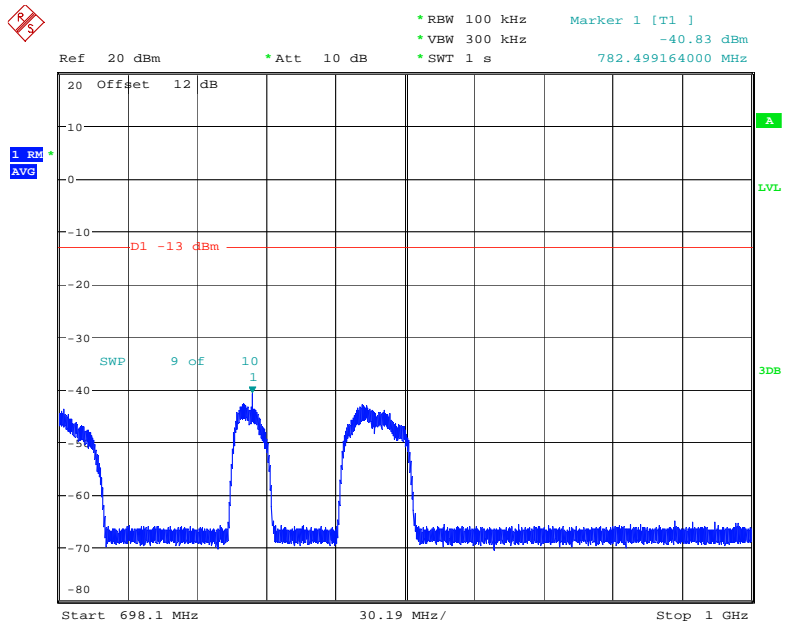
Date: 14.JAN.2023 11:48:08
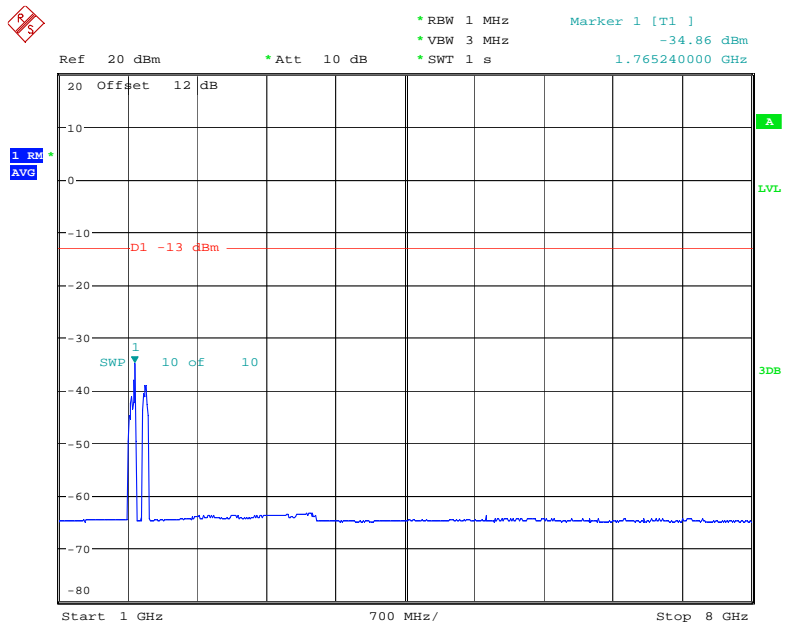
Date: 14.JAN.2023 11:47:28

Lower 700MHz (A+B+C Block)-AWGN-Pre AGC-Low Channel
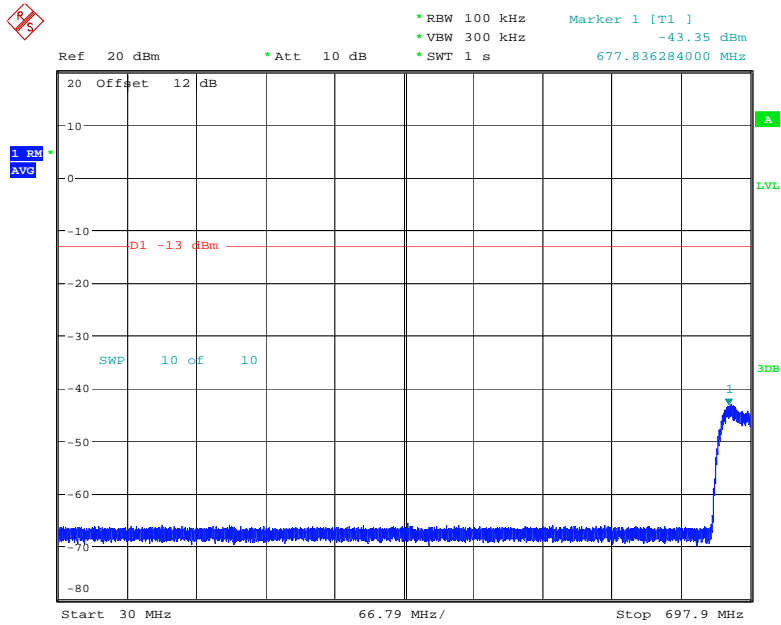
Date: 14.JAN.2023　11:23:22

Date: 14.JAN.2023　11:23:42

```
                                    *RBW  1 MHz        Marker 1 [T1 ]
                                    *VBW  3 MHz                  -35.09 dBm
         Ref   20 dBm      *Att  10 dB   *SWT  1 s        1.764120000 GHz
           20  Offset   12 dB
                                                                          A
        -10
 1 RM*
 AVG     -0                                                               LVL

        --10
          D1 -13 dBm
        --20

        --30
                 1                                                        3DB
             SWP   10 of   10
        --40

        --50

        --60

        --70

        --80
         Start 1 GHz            700 MHz/              Stop 8 GHz
```
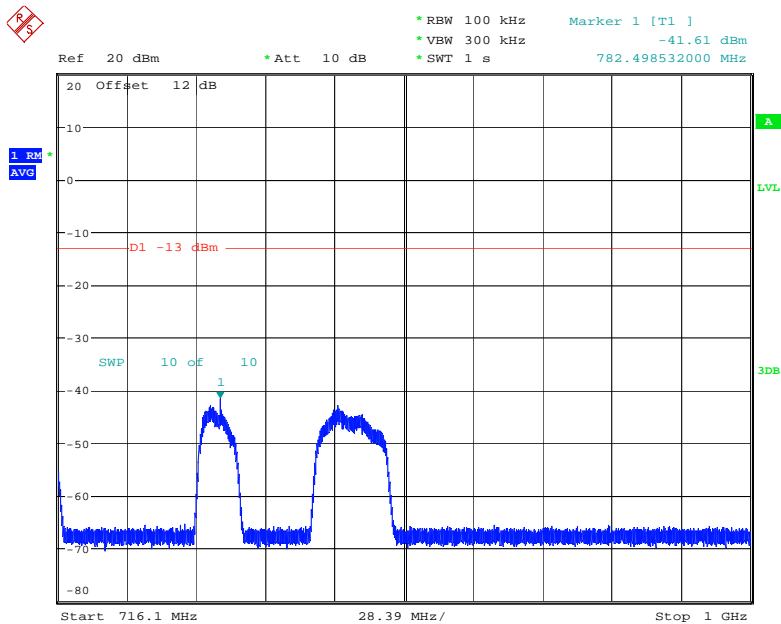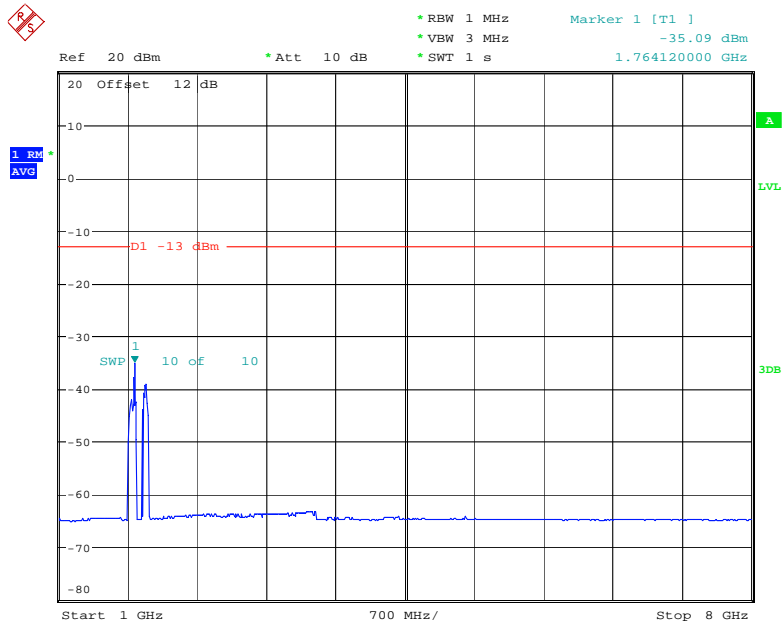
Date: 14.JAN.2023 11:23:02

Lower 700MHz (A+B+C Block) - AWGN-Pre AGC-Middle Channel


```
                                    *RBW  100 kHz      Marker 1 [T1 ]
                                    *VBW  300 kHz                -42.84 dBm
         Ref   20 dBm      *Att  10 dB   *SWT  1 s      683.473360000 MHz
           20  Offset   12 dB
                                                                          A
        -10
 1 RM*
 AVG     -0                                                               LVL

        --10
          D1 -13 dBm
        --20

        --30
                                                                         3DB
             SWP   10 of   10
        --40                                                      1

        --50

        --60

        --70

        --80
         Start 30 MHz           66.79 MHz/            Stop 697.9 MHz
```

Date: 14.JAN.2023 11:29:16

```
                                    * RBW 100 kHz     Marker 1 [T1 ]
                                    * VBW 300 kHz              -41.55 dBm
    Ref  20 dBm        * Att  10 dB * SWT 1 s         782.498532000 MHz
     20 Offset   12 dB                                                   A
    -10
                                                                         LVL
    -0
    -10
    D1 -13 dBm
    -20
    -30
    SWP    10 of   10                                                    3DB
    -40
    -50
    -60
    -70
    -80
    Start  716.1 MHz            28.39 MHz/           Stop  1 GHz
```

Date: 14.JAN.2023 11:29:36


```
                                    * RBW 1 MHz       Marker 1 [T1 ]
                                    * VBW 3 MHz               -35.24 dBm
    Ref  20 dBm        * Att  10 dB * SWT 1 s         1.764960000 GHz
     20 Offset   12 dB                                                   A
    -10
                                                                         LVL
    -0
    -10
    D1 -13 dBm
    -20
    -30
    SWP    10 of   10                                                    3DB
    -40
    -50
    -60
    -70
    -80
    Start  1 GHz              700 MHz/             Stop  8 GHz
```

Date: 14.JAN.2023 11:28:57

Lower 700MHz (A+B+C Block) - AWGN-Pre AGC-High Channel
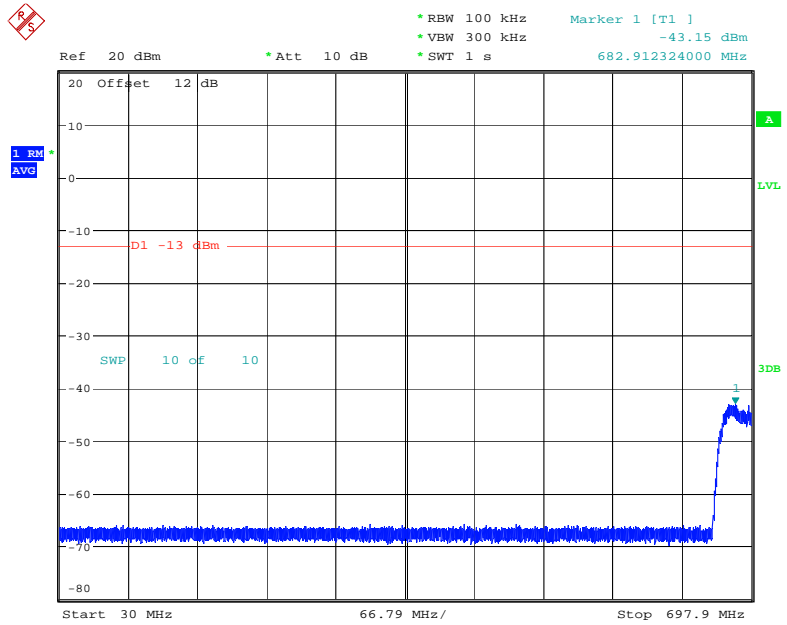
Date: 14.JAN.2023 11:07:19

Date: 14.JAN.2023 11:07:38

```
                                    *RBW 1 MHz        Marker 1 [T1 ]
                                    *VBW 3 MHz              -34.02 dBm
         Ref  20 dBm      *Att  10 dB   *SWT 1 s        1.764960000 GHz
          20 Offset   12 dB                                              A

          -10

  1 RM *   -0                                                          LVL
   AVG
          -10
          D1 -13 dBm
          -20

          -30
              1
          SWP   10 of   10                                             3DB
          -40

          -50

          -60

          -70

          -80
         Start  1 GHz              700 MHz/           Stop 8 GHz
```
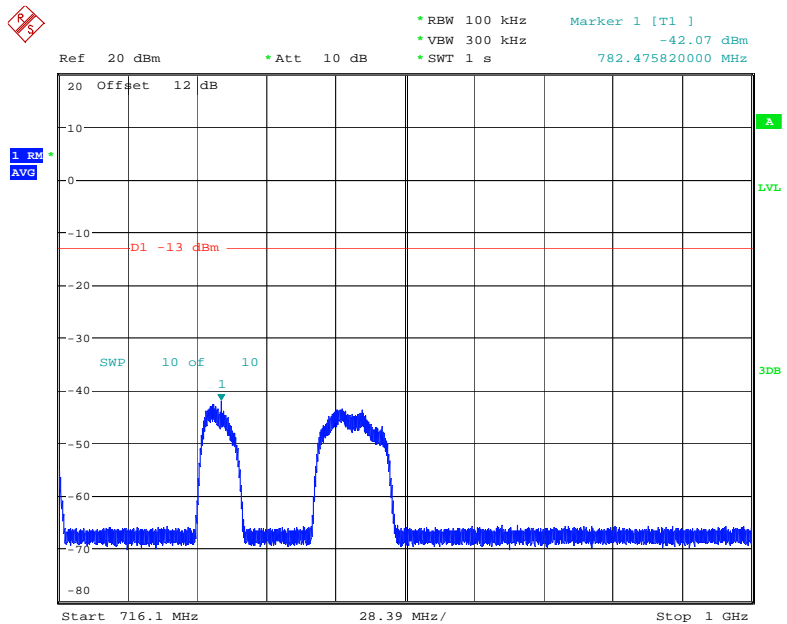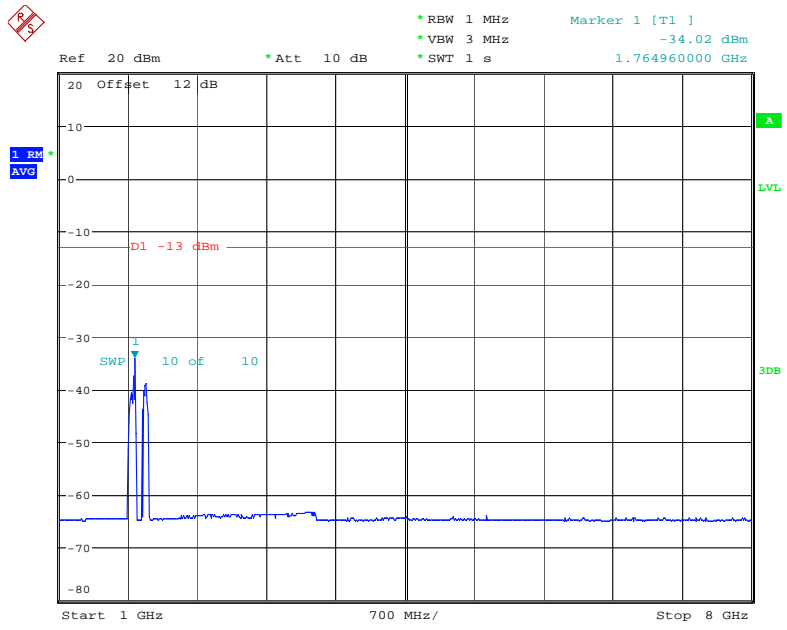
Date: 14.JAN.2023 11:06:59

Lower 700MHz (A+B+C Block)-GSM-Pre AGC-Low Channel

```
                                    *RBW 100 kHz      Marker 1 [T1 ]
                                    *VBW 300 kHz            -41.93 dBm
         Ref  20 dBm      *Att  10 dB   *SWT 1 s        681.763536000 MHz
          20 Offset   12 dB                                              A

          -10

  1 RM *   -0                                                          LVL
   AVG
          -10
          D1 -13 dBm
          -20

          -30
          SWP   10 of   10                                             3DB
          -40                                                     1

          -50

          -60

          -70

          -80
         Start  30 MHz             66.79 MHz/          Stop 697.9 MHz
```
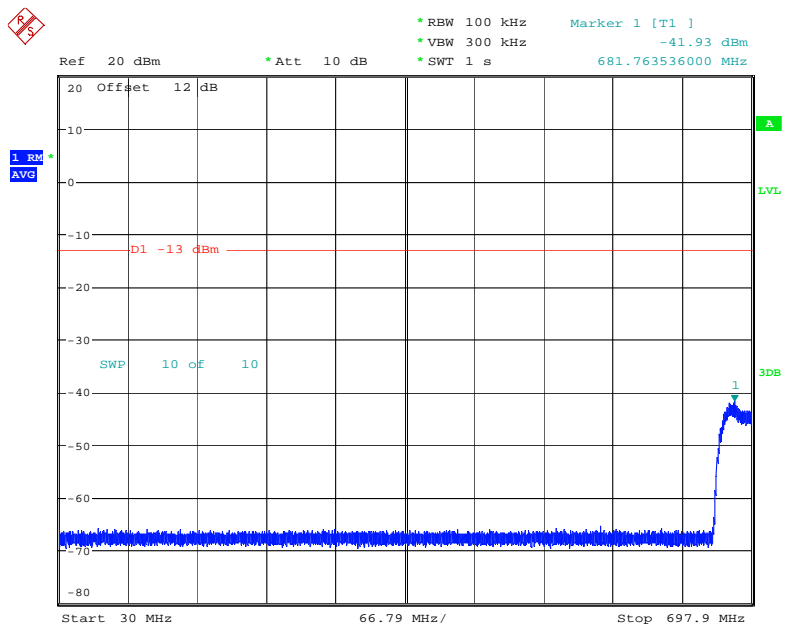
Date: 14.JAN.2023 11:55:42
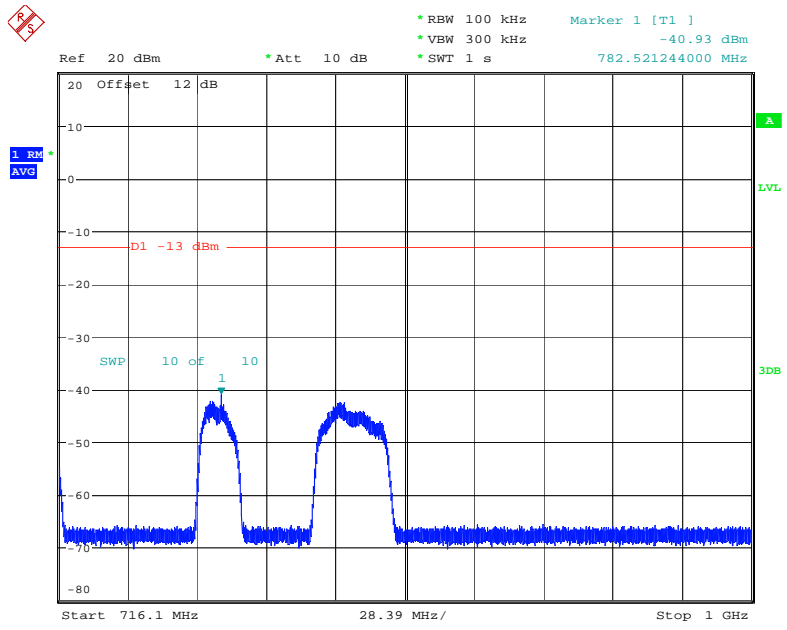
Date: 14.JAN.2023 11:56:01
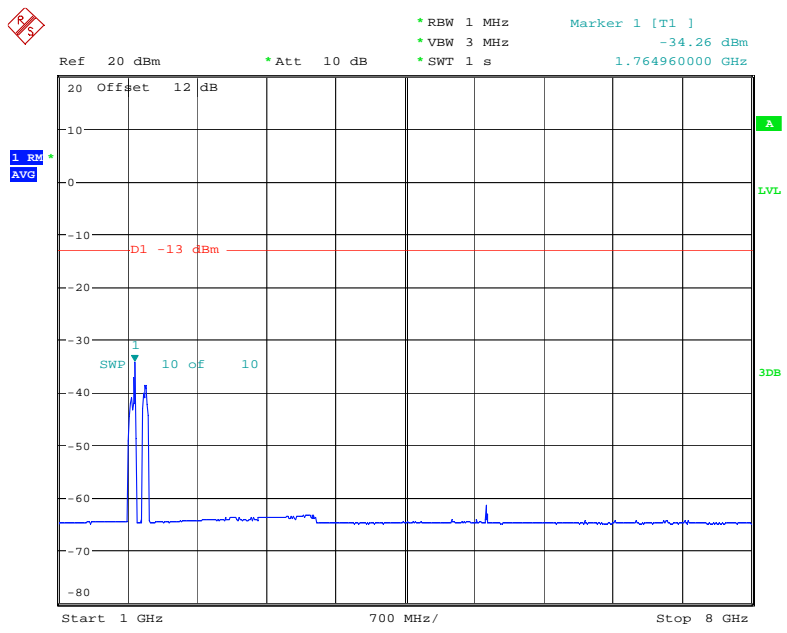
Date: 14.JAN.2023 11:55:21

Lower 700MHz (A+B+C Block) - GSM-Pre AGC-Middle Channel

```
                                    * RBW 100 kHz    Marker 1 [T1 ]
                                    * VBW 300 kHz              -42.00 dBm
         Ref  20 dBm    * Att 10 dB  * SWT 1 s        675.057820000 MHz
```



```
Date: 14.JAN.2023  13:04:10
```

```
                                    * RBW 100 kHz    Marker 1 [T1 ]
                                    * VBW 300 kHz              -41.46 dBm
         Ref  20 dBm    * Att 10 dB  * SWT 1 s        782.498532000 MHz
```



```
Date: 14.JAN.2023  13:04:30
```

```
                                        *RBW 1 MHz      Marker 1 [T1 ]
                                        *VBW 3 MHz              -34.78 dBm
        Ref  20 dBm      *Att  10 dB    *SWT 1 s        1.764960000 GHz
        20 Offset   12 dB                                                    A
      -10
                                                                           LVL
       -0
      -10
       D1 -13 dBm
      -20
      -30
         1                                                                 3DB
       SWP   10 of   10
      -40
      -50
      -60
      -70
      -80
        Start  1 GHz          700 MHz/            Stop 8 GHz
```
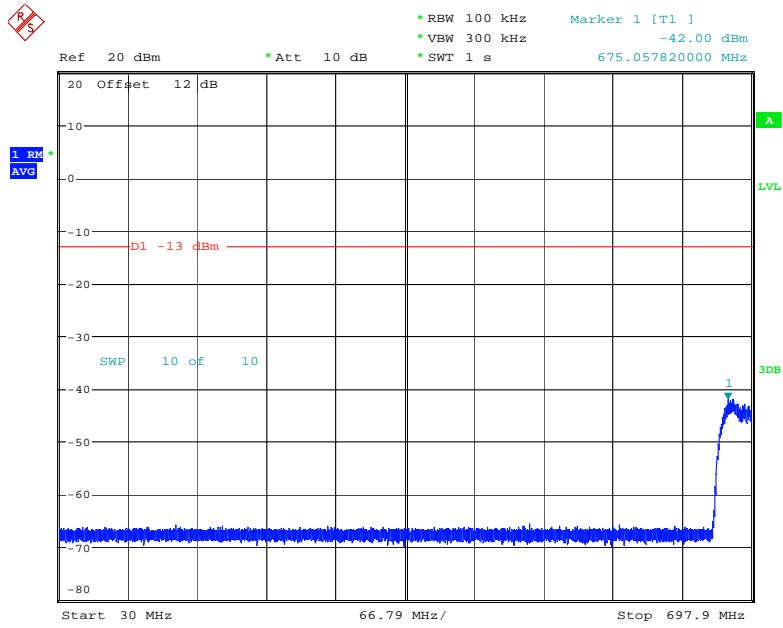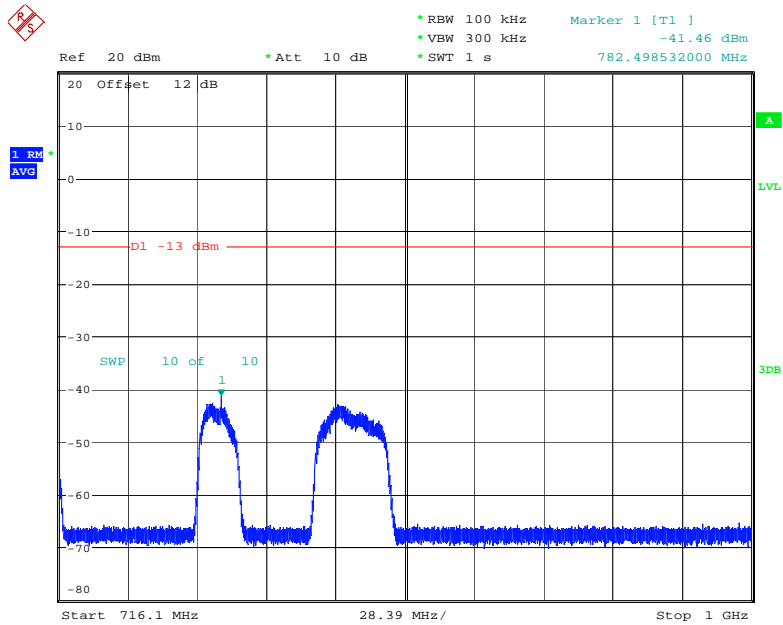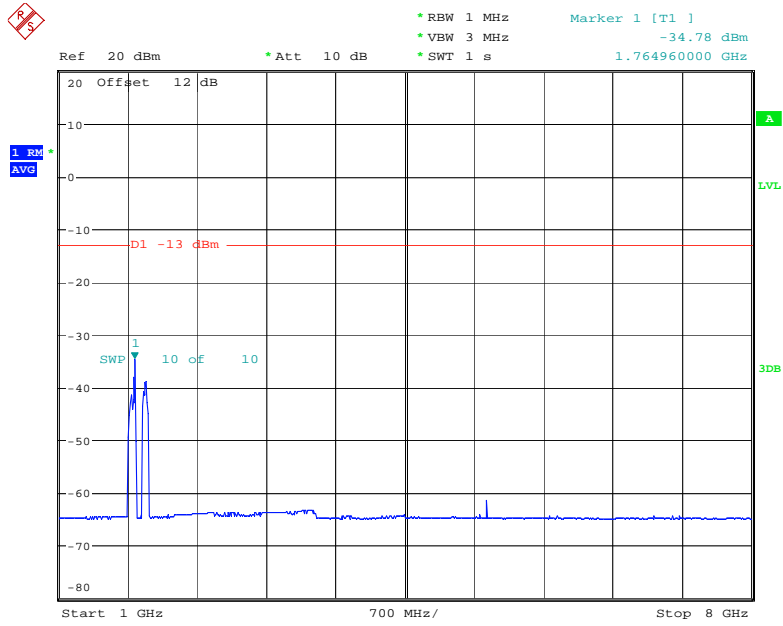
Date: 14.JAN.2023 13:03:52

Lower 700MHz (A+B+C Block) - GSM -Pre AGC-High Channel


```
                                        *RBW 100 kHz     Marker 1 [T1 ]
                                        *VBW 300 kHz             -42.47 dBm
        Ref  20 dBm      *Att  10 dB    *SWT 1 s        676.954656000 MHz
        20 Offset   12 dB                                                    A
      -10
                                                                           LVL
       -0
      -10
       D1 -13 dBm
      -20
      -30
                                                                           3DB
       SWP   10 of   10                                              1
      -40
      -50
      -60
      -70
      -80
        Start  30 MHz         66.79 MHz/           Stop 697.9 MHz
```
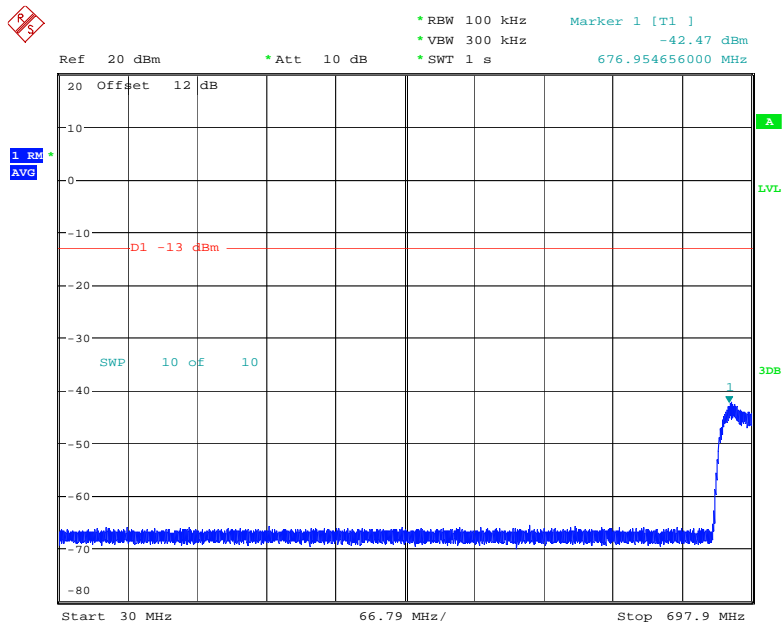
Date: 14.JAN.2023 11:48:47
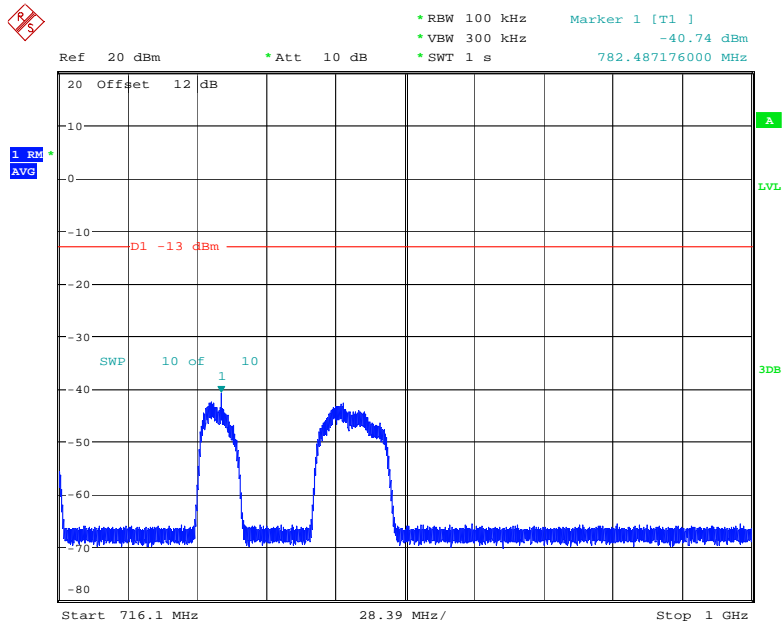
Date: 14.JAN.2023 11:49:07
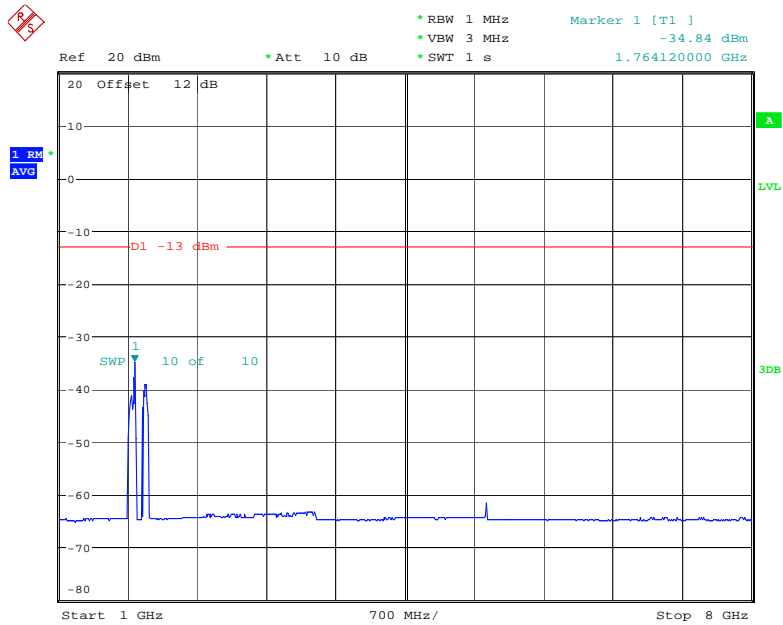
Date: 14.JAN.2023 11:48:27

Upper 700MHz (C Block) - AWGN-Pre AGC-Low Channel

```
                                    * RBW  100 kHz    Marker 1 [T1 ]
                                    * VBW  300 kHz              -43.37 dBm
        Ref  20 dBm    * Att  10 dB  * SWT  1 s        677.142840000 MHz
```

Date: 14.JAN.2023 11:24:21

```
                                    * RBW  100 kHz    Marker 1 [T1 ]
                                    * VBW  300 kHz              -43.29 dBm
        Ref  20 dBm    * Att  10 dB  * SWT  1 s        830.548632000 MHz
```

Date: 14.JAN.2023 11:24:41

```
                                        * RBW 1 MHz        Marker 1 [T1 ]
                                        * VBW 3 MHz                 -35.15 dBm
            Ref  20 dBm      * Att  10 dB   * SWT 1 s       1.765240000 GHz
```
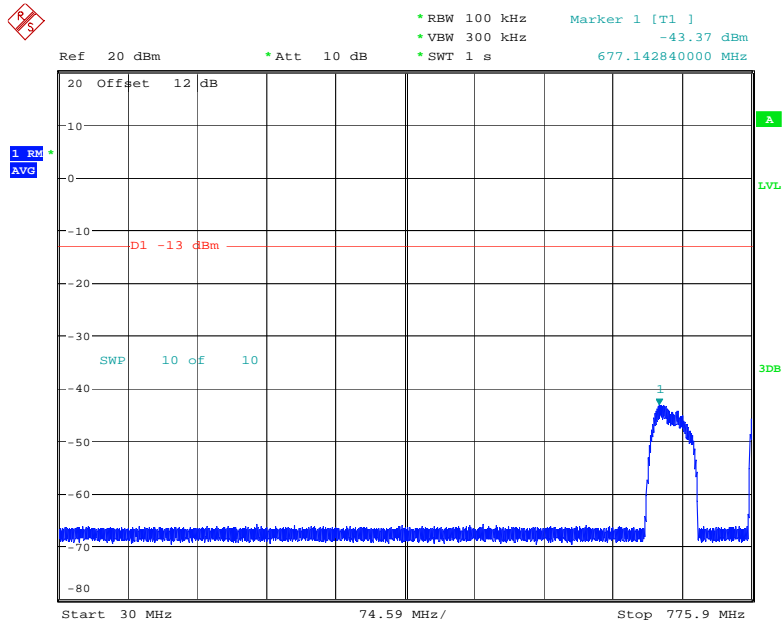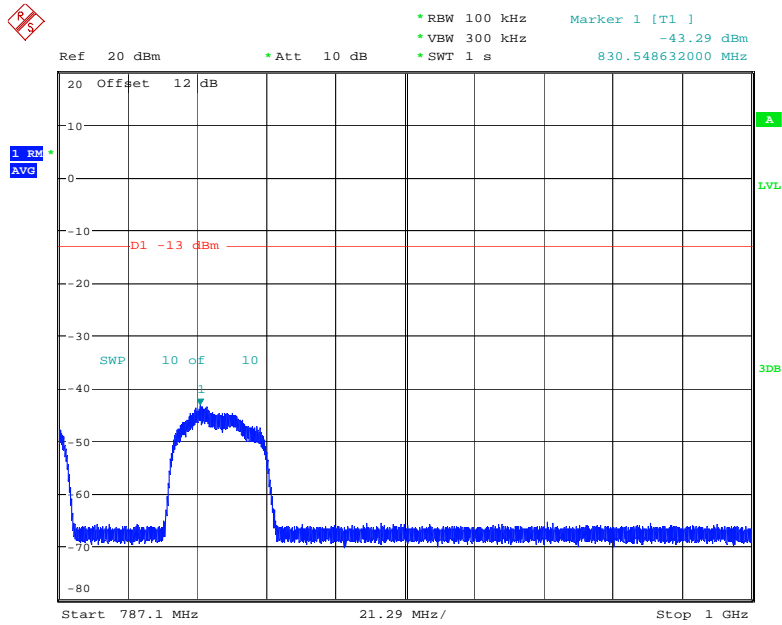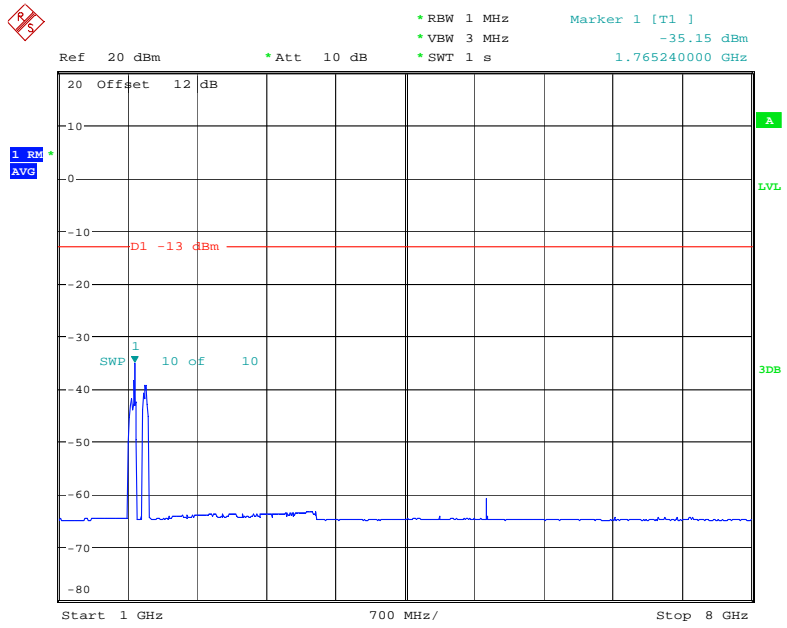
Date: 14.JAN.2023 11:24:01

Upper 700MHz (C Block) - AWGN-Pre AGC-Middle Channel

```
                                        * RBW 100 kHz      Marker 1 [T1 ]
                                        * VBW 300 kHz               -42.57 dBm
            Ref  20 dBm      * Att  10 dB   * SWT 1 s       676.814644000 MHz
```

Date: 14.JAN.2023 11:30:15

```
                                      * RBW 100 kHz      Marker 1 [T1 ]
                                      * VBW 300 kHz              -42.60 dBm
        Ref  20 dBm      * Att  10 dB  * SWT 1 s         830.761532000 MHz
         20  Offset   12 dB                                                    A

       -10

        -0                                                                     LVL

       -10

       D1 -13 dBm

       -20

       -30
             SWP    10 of   10                                                 3DB
       -40        1

       -50

       -60

       -70

       -80
        Start 787.1 MHz             21.29 MHz/              Stop 1 GHz
```

Date: 14.JAN.2023 11:30:35

```
                                      * RBW 1 MHz        Marker 1 [T1 ]
                                      * VBW 3 MHz               -34.22 dBm
        Ref  20 dBm      * Att  10 dB  * SWT 1 s          1.764680000 GHz
         20  Offset   12 dB                                                    A

       -10

        -0                                                                     LVL

       -10

       D1 -13 dBm

       -20

       -30        1
             SWP    10 of   10                                                 3DB
       -40

       -50

       -60

       -70

       -80
        Start 1 GHz                  700 MHz/              Stop  8 GHz
```

Date: 14.JAN.2023 11:29:55

Upper 700MHz (C Block) - AWGN-Pre AGC-High Channel

```
                                        * RBW 100 kHz      Marker 1 [T1 ]
                                        * VBW 300 kHz            -42.84 dBm
        Ref  20 dBm      * Att  10 dB   * SWT 1 s         675.651040000 MHz
        20 Offset   12 dB                                                      A

        -10

  1 RM *
  AVG   -0                                                                     LVL

        -10   D1 -13 dBm

        -20

        -30
        SWP    10 of    10                                                     3DB
        -40                                                    1

        -50

        -60

        -70

        -80
        Start 30 MHz          74.59 MHz/            Stop  775.9 MHz
```

Date: 14.JAN.2023 11:08:18

```
                                        * RBW 100 kHz      Marker 1 [T1 ]
                                        * VBW 300 kHz            -43.61 dBm
        Ref  20 dBm      * Att  10 dB   * SWT 1 s         830.880756000 MHz
        20 Offset   12 dB                                                      A

        -10

  1 RM *
  AVG   -0                                                                     LVL

        -10   D1 -13 dBm

        -20

        -30
        SWP    10 of    10                                                     3DB
        -40        1

        -50

        -60

        -70

        -80
        Start 787.1 MHz          21.29 MHz/            Stop  1 GHz
```

Date: 14.JAN.2023 11:08:38

```
                                    *RBW 1 MHz      Marker 1 [T1 ]
                                    *VBW 3 MHz              -34.68 dBm
         Ref  20 dBm      *Att  10 dB   *SWT 1 s       1.764960000 GHz
```



```
Start  1 GHz              700 MHz/              Stop  8 GHz
```

Date: 14.JAN.2023 11:07:58

Upper 700MHz (C Block) - GSM-Pre AGC-Low Channel

```
                                    *RBW 100 kHz    Marker 1 [T1 ]
                                    *VBW 300 kHz            -42.08 dBm
         Ref  20 dBm      *Att  10 dB   *SWT 1 s      680.544144000 MHz
```



```
Start  30 MHz             74.59 MHz/            Stop  775.9 MHz
```

Date: 14.JAN.2023 11:56:41

```
                                          *RBW 100 kHz      Marker 1 [T1 ]
                                          *VBW 300 kHz              -41.81 dBm
            Ref  20 dBm        *Att  10 dB  *SWT 1 s         831.161784000 MHz
            20 Offset   12 dB                                                    A

           -10

  1 RM *     0                                                                   LVL
  AVG
           -10
             D1 -13 dBm
           -20

           -30
             SWP    10 of   10                                                   3DB
                          1
           -40
                        1

           -50

           -60

           -70

           -80
            Start 787.1 MHz              21.29 MHz/          Stop 1 GHz
```

Date: 14.JAN.2023 11:57:00

```
                                          *RBW 1 MHz        Marker 1 [T1 ]
                                          *VBW 3 MHz                -34.37 dBm
            Ref  20 dBm        *Att  10 dB  *SWT 1 s         1.765520000 GHz
            20 Offset   12 dB                                                    A

           -10

  1 RM *     0                                                                   LVL
  AVG
           -10
             D1 -13 dBm
           -20

           -30
                    1
             SWP    10 of   10                                                   3DB
           -40

           -50

           -60

           -70

           -80
            Start 1 GHz                   700 MHz/           Stop 8 GHz
```

Date: 14.JAN.2023 11:56:20

Upper 700MHz (C Block) - GSM-Pre AGC-Middle Channel

```
                                        * RBW  100 kHz    Marker 1 [T1 ]
                                        * VBW  300 kHz            -42.56 dBm
          Ref  20 dBm      * Att  10 dB  * SWT  1 s        680.454636000 MHz
```

Date: 14.JAN.2023 13:05:10

```
                                        * RBW  100 kHz    Marker 1 [T1 ]
                                        * VBW  300 kHz            -42.94 dBm
          Ref  20 dBm      * Att  10 dB  * SWT  1 s        830.880756000 MHz
```

Date: 14.JAN.2023 13:05:29

```
                                    * RBW  1 MHz        Marker 1 [T1 ]
                                    * VBW  3 MHz              -35.55 dBm
         Ref  20 dBm       * Att  10 dB   * SWT  1 s      1.764960000 GHz
          20  Offset   12 dB                                              A
         -10
1 RM *     0                                                            LVL
AVG
         -10
        D1 -13 dBm
         -20
         -30
              1    SWP   10 of   10
         -40                                                            3DB
         -50
         -60
         -70
         -80
         Start  1 GHz          700 MHz/              Stop  8 GHz
```
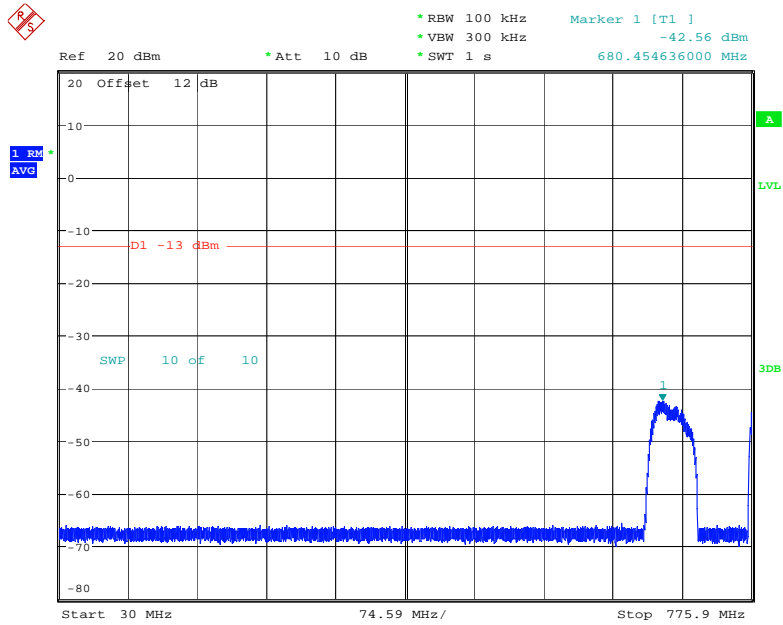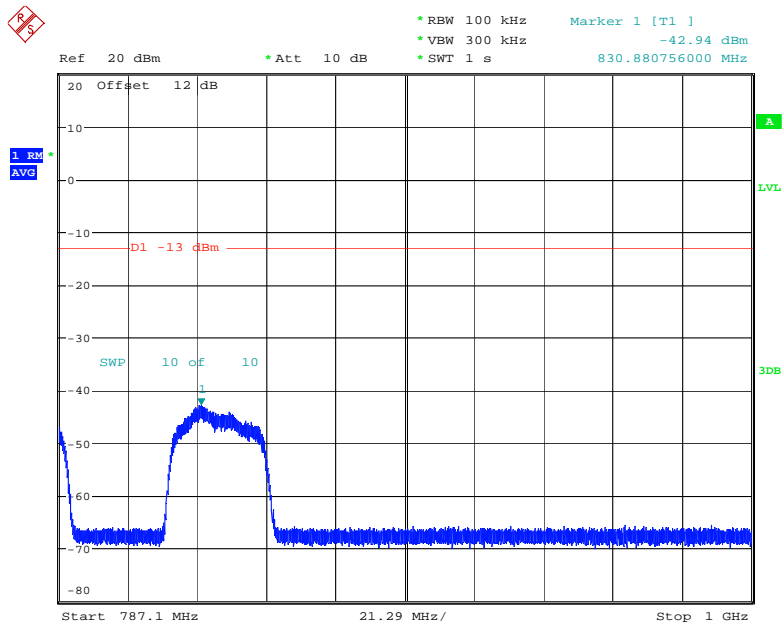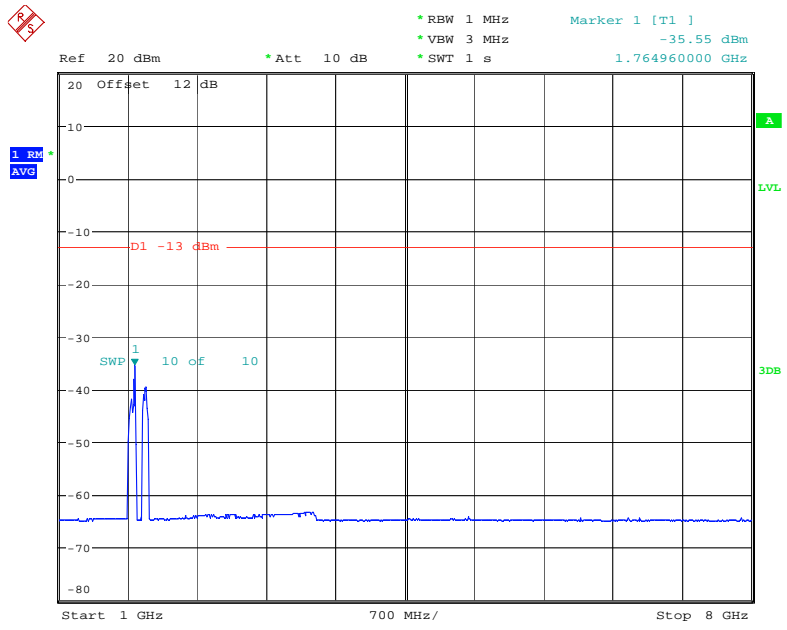
Date: 14.JAN.2023 13:04:51

Upper 700MHz (C Block) - GSM-Pre AGC- High Channel

```
                                    * RBW  100 kHz      Marker 1 [T1 ]
                                    * VBW  300 kHz            -42.59 dBm
         Ref  20 dBm       * Att  10 dB   * SWT  1 s      677.829068000 MHz
          20  Offset   12 dB                                              A
         -10
1 RM *     0                                                            LVL
AVG
         -10
        D1 -13 dBm
         -20
         -30
              SWP   10 of   10
         -40                                                     1      3DB
         -50
         -60
         -70
         -80
         Start  30 MHz         74.59 MHz/            Stop  775.9 MHz
```

Date: 14.JAN.2023 11:49:46

```
                                    * RBW  100 kHz    Marker 1 [T1 ]
                                    * VBW  300 kHz             -42.76 dBm
         Ref  20 dBm      * Att  10 dB    * SWT  1 s      828.428148000 MHz
```

```
      20  Offset   12 dB
   -10                                                              A
   - 0                                                              LVL
   --10
     D1 -13 dBm
   --20
   --30
     SWP    10 of   10                                             3DB
   --40        1
   --50
   --60
   --70
   --80
   Start  787.1 MHz         21.29 MHz/              Stop  1 GHz
```

Date: 14.JAN.2023 11:50:06

```
                                    * RBW  1 MHz     Marker 1 [T1 ]
                                    * VBW  3 MHz             -34.64 dBm
         Ref  20 dBm      * Att  10 dB    * SWT  1 s      1.764400000 GHz
```

```
      20  Offset   12 dB
   -10                                                              A
   - 0                                                              LVL
   --10
     D1 -13 dBm
   --20
   --30  1
     SWP    10 of   10                                             3DB
   --40
   --50
   --60
   --70
   --80
   Start  1 GHz             700 MHz/               Stop  8 GHz
```
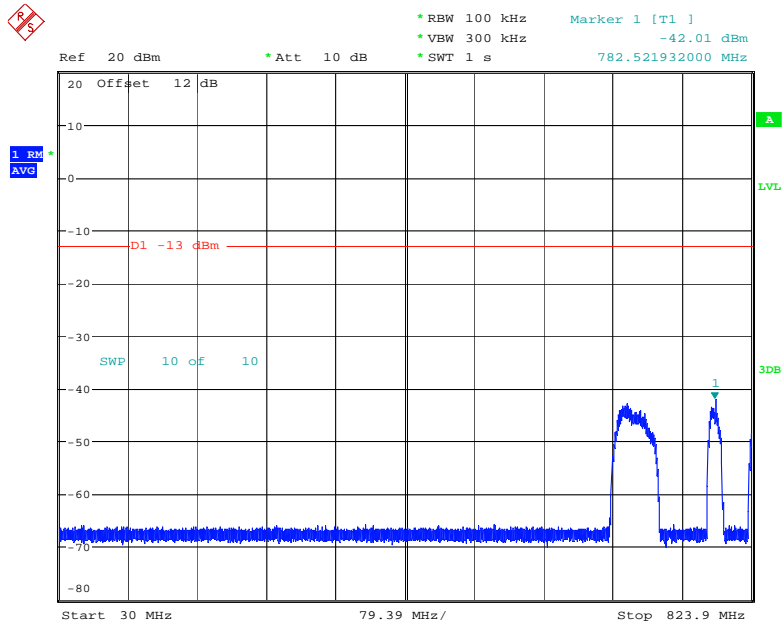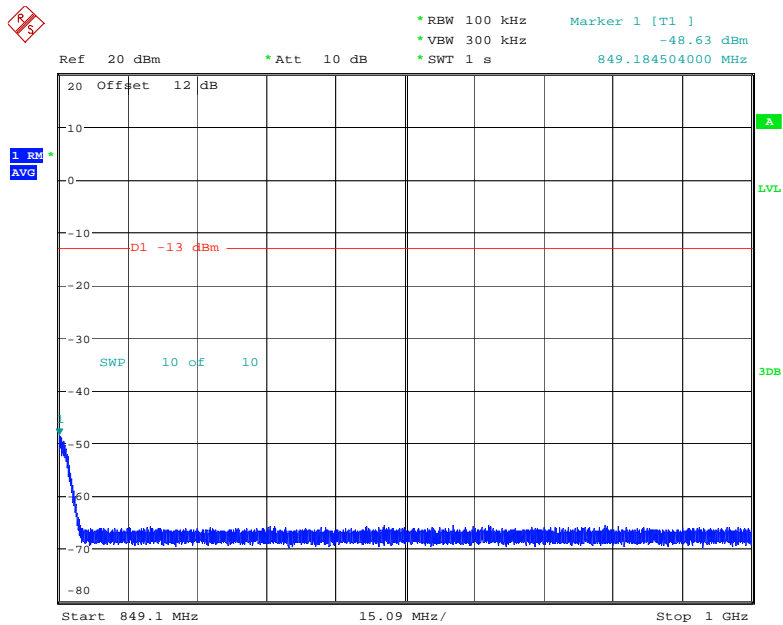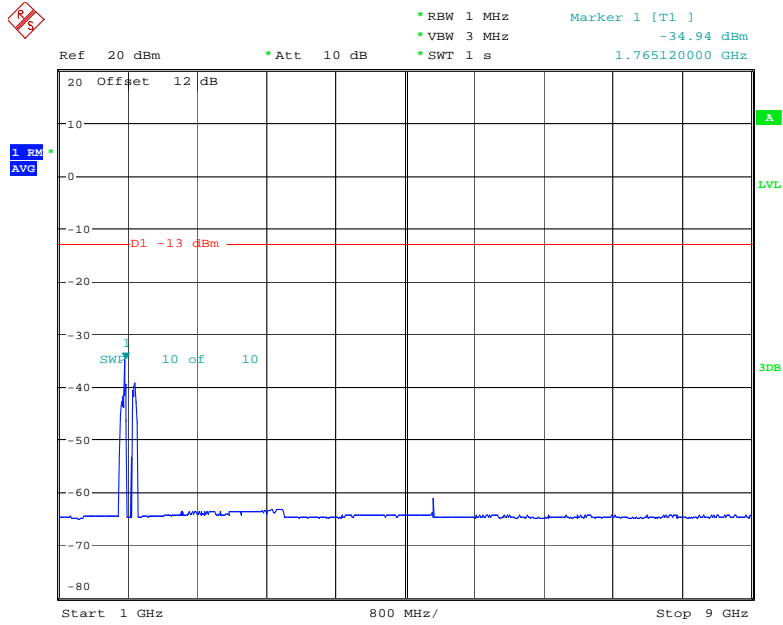
Date: 14.JAN.2023 11:49:27

Cellular - AWGN-Pre AGC-Low Channel

Date: 14.JAN.2023 11:25:19

Date: 14.JAN.2023 11:25:40
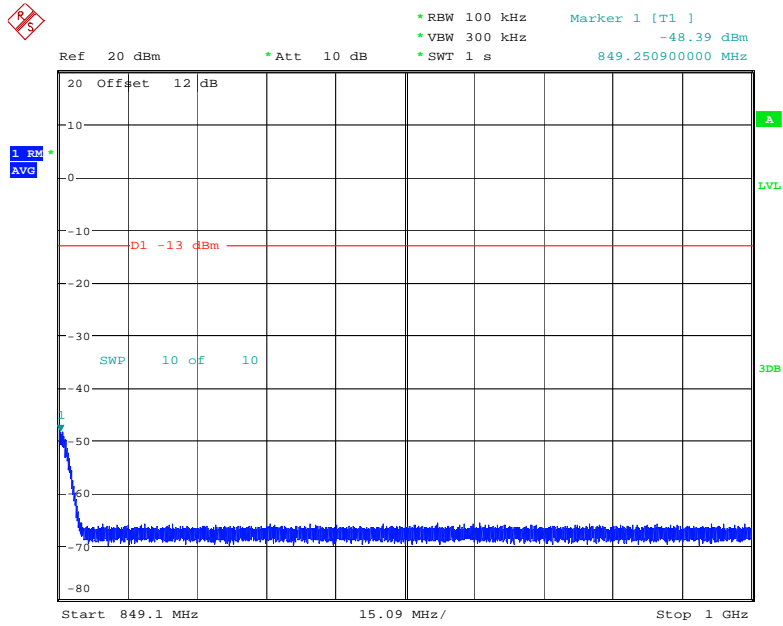
```
                                        * RBW  1 MHz       Marker 1 [T1 ]
                                        * VBW  3 MHz                -34.94 dBm
        Ref  20 dBm          * Att  10 dB     * SWT  1 s        1.765120000 GHz
```

Date: 14.JAN.2023 11:25:00

Cellular - AWGN-Pre AGC-Middle Channel

```
                                        * RBW  100 kHz     Marker 1 [T1 ]
                                        * VBW  300 kHz              -41.81 dBm
        Ref  20 dBm          * Att  10 dB     * SWT  1 s        782.553688000 MHz
```
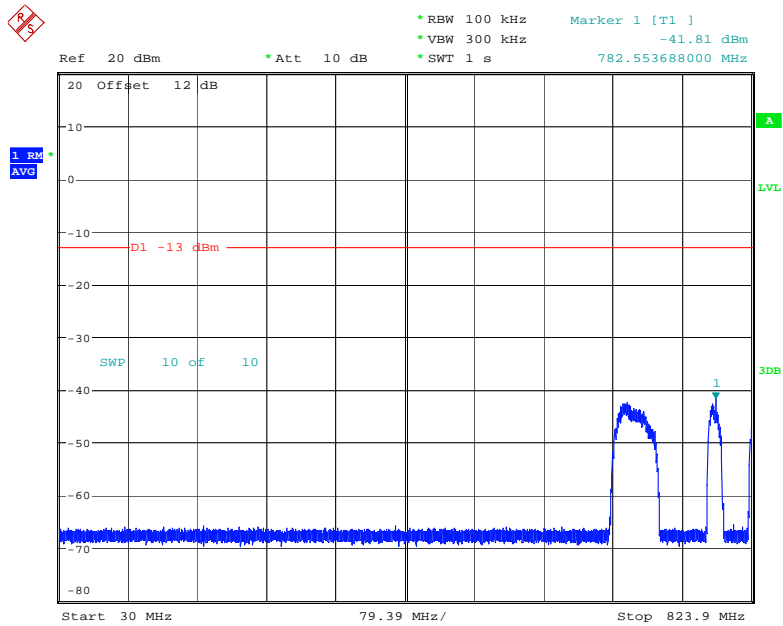
Date: 14.JAN.2023 11:31:15

Date: 14.JAN.2023 11:31:34

Date: 14.JAN.2023 11:30:54

Cellular - AWGN-Pre AGC-High Channel


```
                                    * RBW  100 kHz    Marker 1 [T1 ]
                                    * VBW  300 kHz              -42.66 dBm
          Ref  20 dBm      * Att  10 dB    * SWT  1 s      782.490176000 MHz
          20  Offset  12 dB                                              A
         -10
1 RM *
AVG       0                                                            LVL
        --10    D1 -13 dBm
        --20
        --30
              SWP    10 of   10                                        3DB
        --40                                              1
        --50
        --60
        --70
        --80
          Start  30 MHz            79.39 MHz/         Stop  823.9 MHz
```

Date: 14.JAN.2023 11:09:17


```
                                    * RBW  100 kHz    Marker 1 [T1 ]
                                    * VBW  300 kHz              -48.54 dBm
          Ref  20 dBm      * Att  10 dB    * SWT  1 s      850.017472000 MHz
          20  Offset  12 dB                                              A
         -10
1 RM *
AVG       0                                                            LVL
        --10    D1 -13 dBm
        --20
        --30
              SWP    10 of   10                                        3DB
        --40
        1
        --50
        --60
        --70
        --80
          Start  849.1 MHz         15.09 MHz/          Stop  1 GHz
```

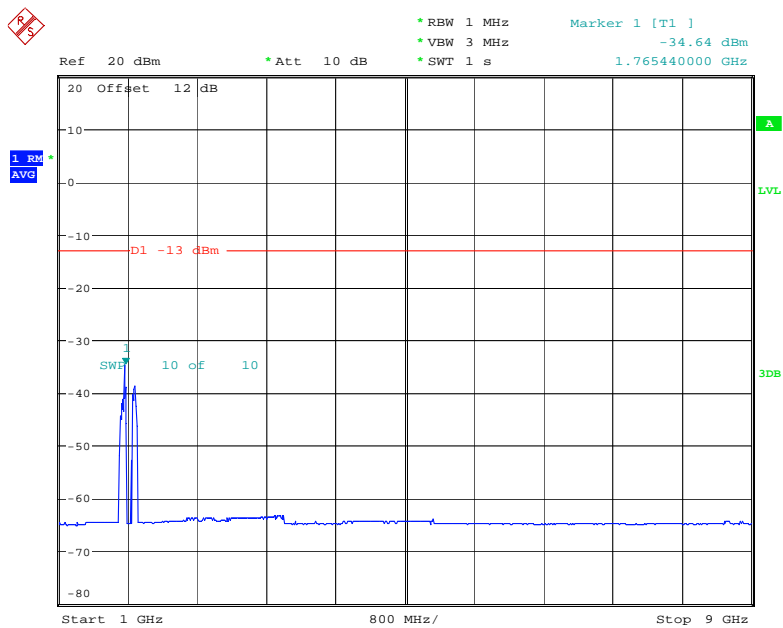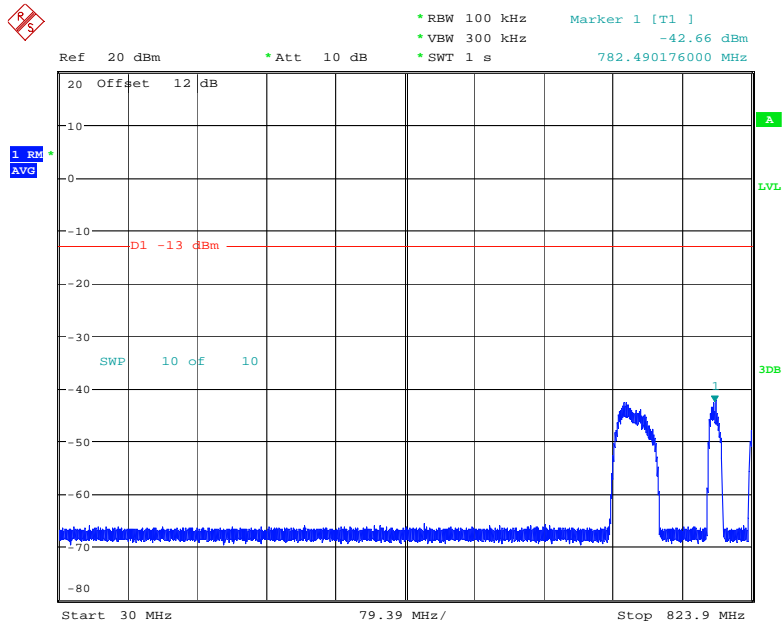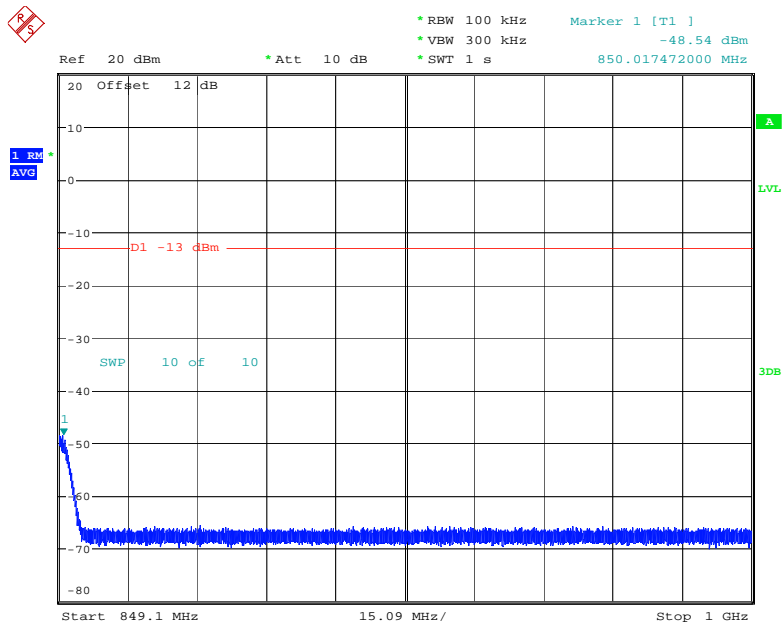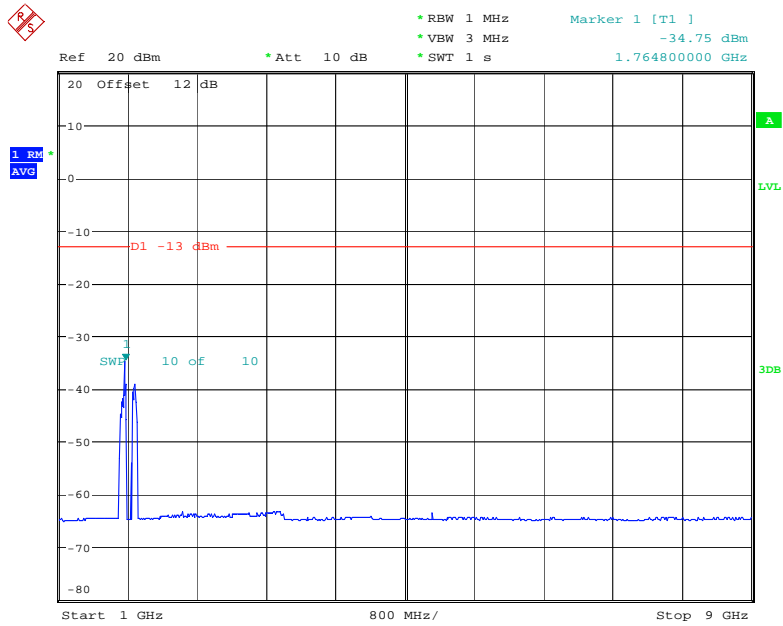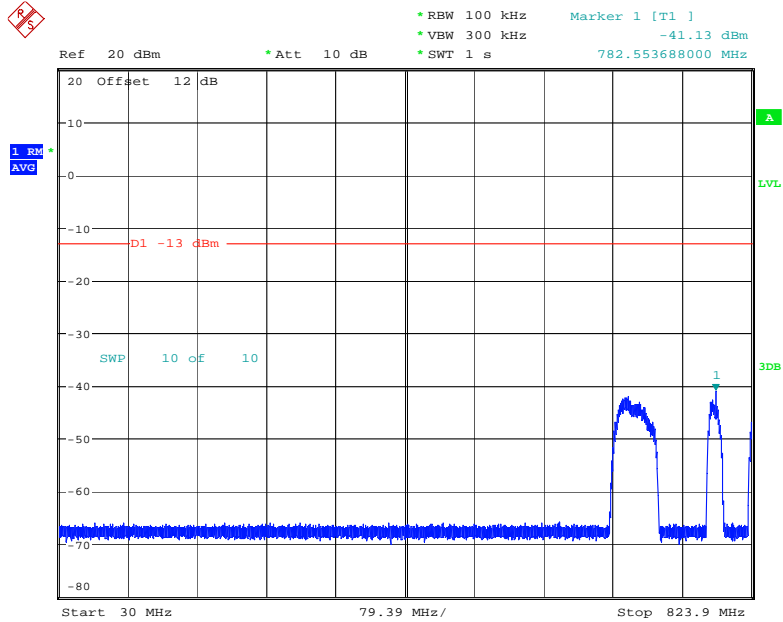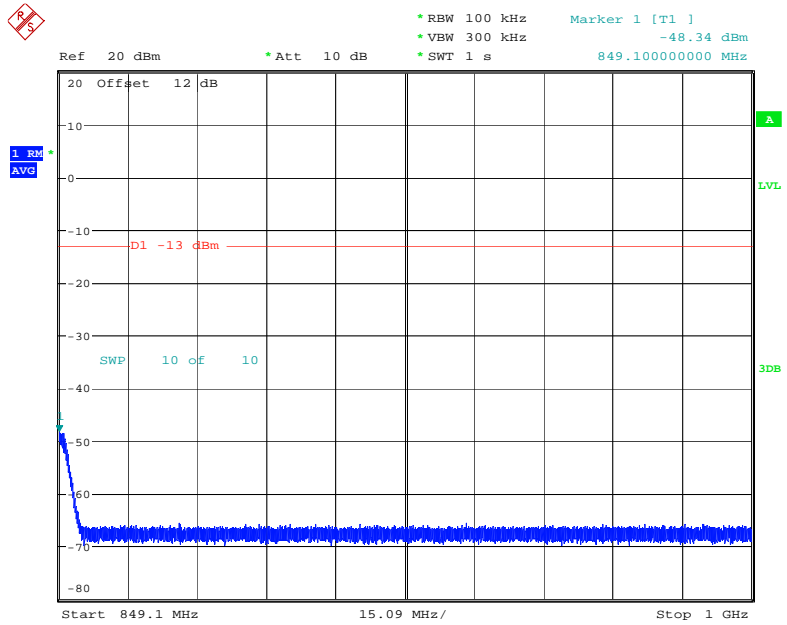Date: 14.JAN.2023 11:09:37
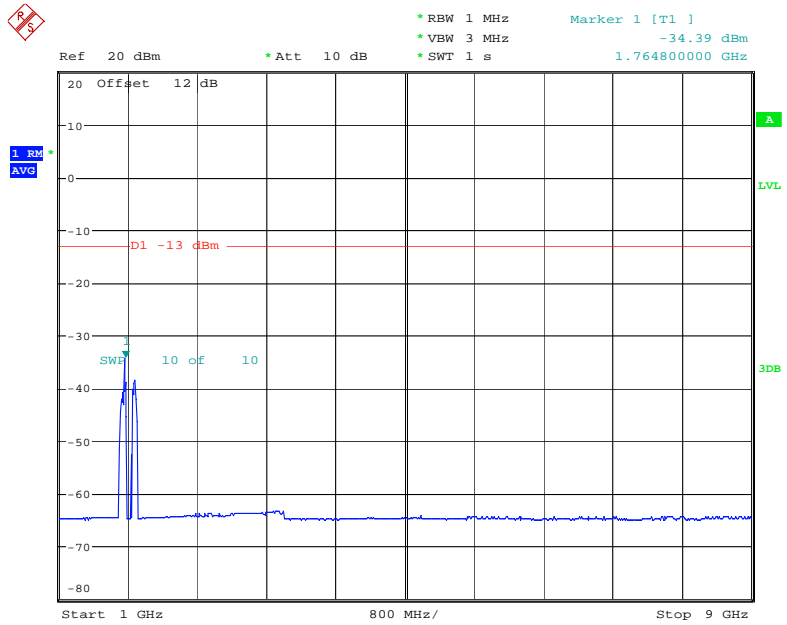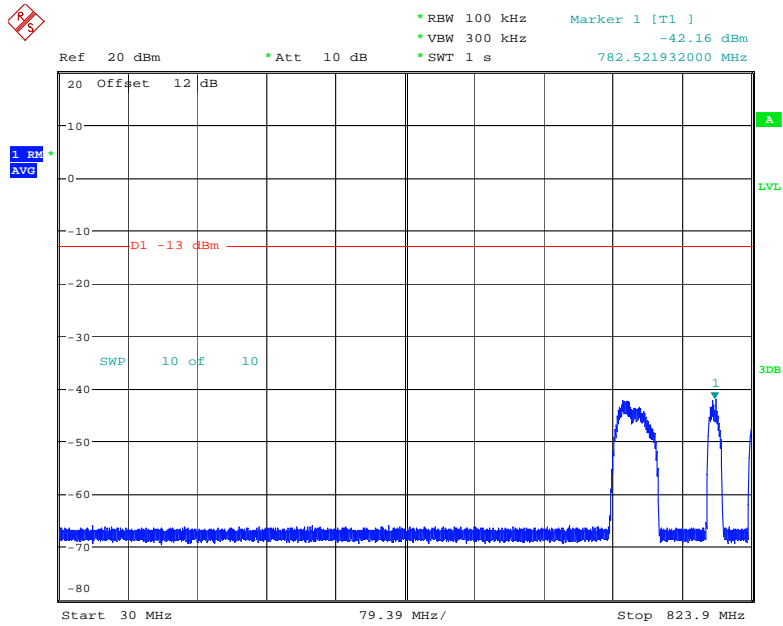
Date: 14.JAN.2023 11:08:57

Cellular -GSM-Pre AGC-Low Channel

Date: 14.JAN.2023 11:57:40

Date: 14.JAN.2023 11:51:05

Date: 14.JAN.2023 11:57:20
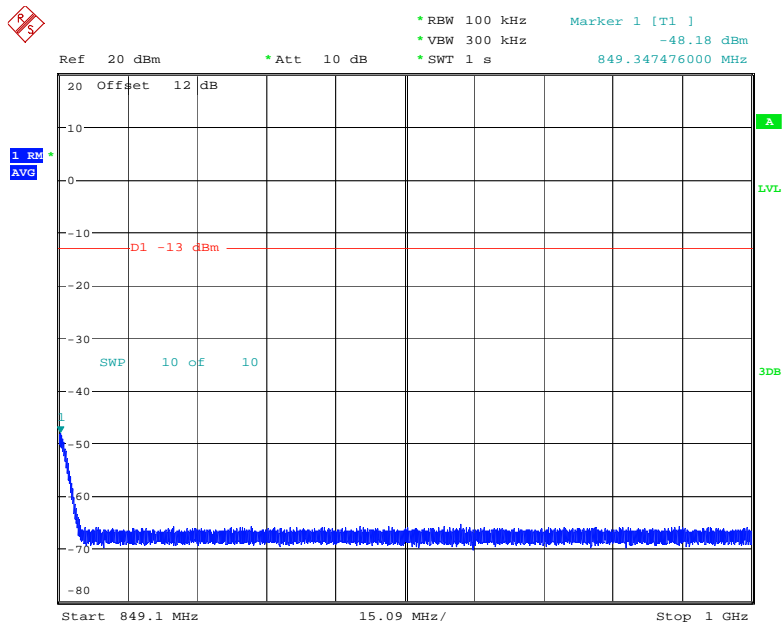
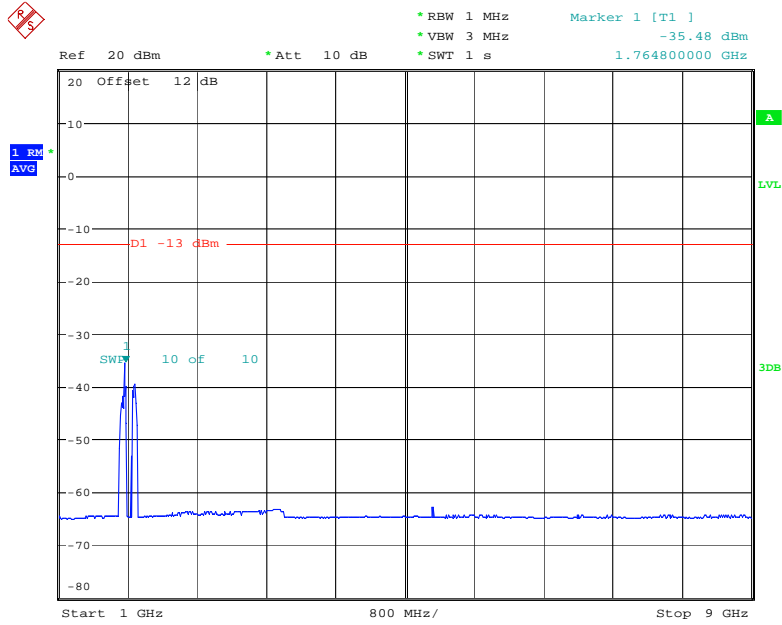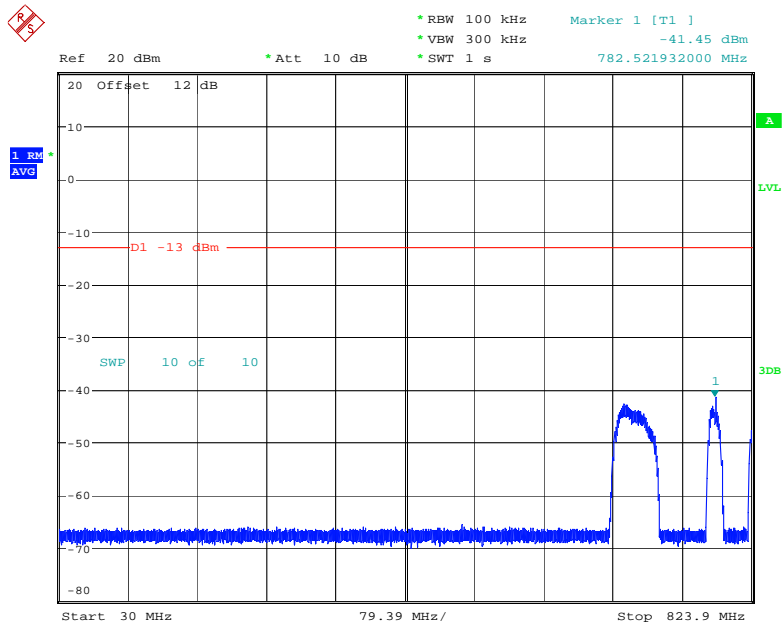## Cellular - GSM-Pre AGC-Middle Channel

```
                                    * RBW 100 kHz    Marker 1 [T1 ]
                                    * VBW 300 kHz             -42.16 dBm
        Ref  20 dBm       * Att  10 dB   * SWT 1 s      782.521932000 MHz
      20  Offset  12 dB                                                    A

      -10

1 RM *
AVG    -0                                                                 LVL

      --10
        D1 -13 dBm
      --20

      --30
        SWP   10 of   10                                                  3DB
      --40                                             1
      --50
      --60
      --70
      --80
      Start  30 MHz              79.39 MHz/         Stop  823.9 MHz
```

Date: 14.JAN.2023 13:06:10

```
                                    * RBW 100 kHz    Marker 1 [T1 ]
                                    * VBW 300 kHz             -48.18 dBm
        Ref  20 dBm       * Att  10 dB   * SWT 1 s      849.347476000 MHz
      20  Offset  12 dB                                                    A

      -10

1 RM *
AVG    -0                                                                 LVL

      --10
        D1 -13 dBm
      --20

      --30
        SWP   10 of   10
      --40
1
      --50
      --60                                                                3DB
      --70
      --80
      Start  849.1 MHz           15.09 MHz/          Stop  1 GHz
```

Date: 14.JAN.2023 13:06:28

```
                                           * RBW  1 MHz      Marker 1 [T1 ]
                                           * VBW  3 MHz                -35.48 dBm
                       Ref  20 dBm      * Att  10 dB    * SWT 1 s        1.764800000 GHz
                        20  Offset   12 dB
                                                                                    A
                        -10
              1 RM *
              AVG        0                                                          LVL

                        -10
                    D1 -13 dBm
                        -20

                        -30
                        1 SWP   10 of   10                                          3DB
                        -40

                        -50

                        -60

                        -70

                        -80
                       Start  1 GHz          800 MHz/             Stop  9 GHz
```

Date: 14.JAN.2023 13:05:50

Cellular – GSM -Pre AGC- High Channel

```
                                           * RBW  100 kHz    Marker 1 [T1 ]
                                           * VBW  300 kHz              -41.45 dBm
                       Ref  20 dBm      * Att  10 dB    * SWT 1 s        782.521932000 MHz
                        20  Offset   12 dB
                                                                                    A
                        -10
              1 RM *
              AVG        0                                                          LVL

                        -10
                    D1 -13 dBm
                        -20

                        -30
                        SWP   10 of   10                                            3DB
                        -40                                                  1
                        -50

                        -60

                        -70

                        -80
                       Start  30 MHz          79.39 MHz/           Stop  823.9 MHz
```

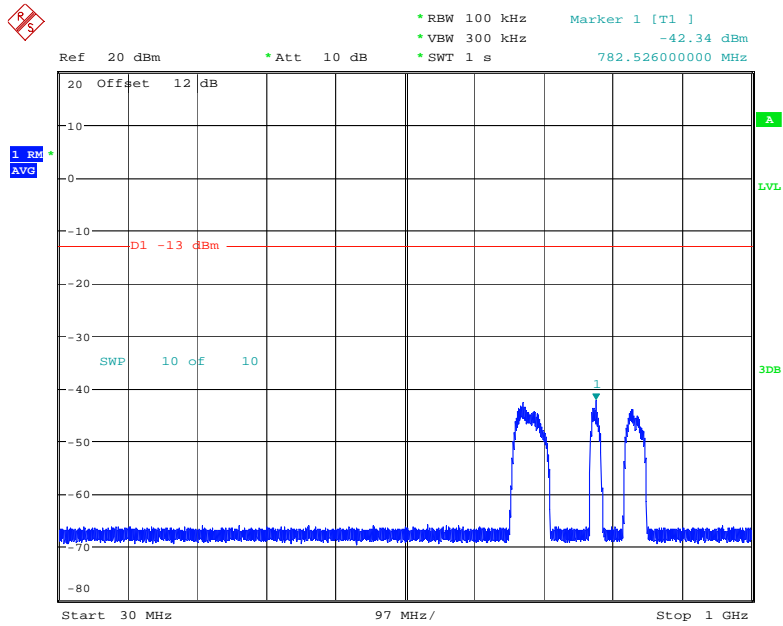Date: 14.JAN.2023 11:50:45
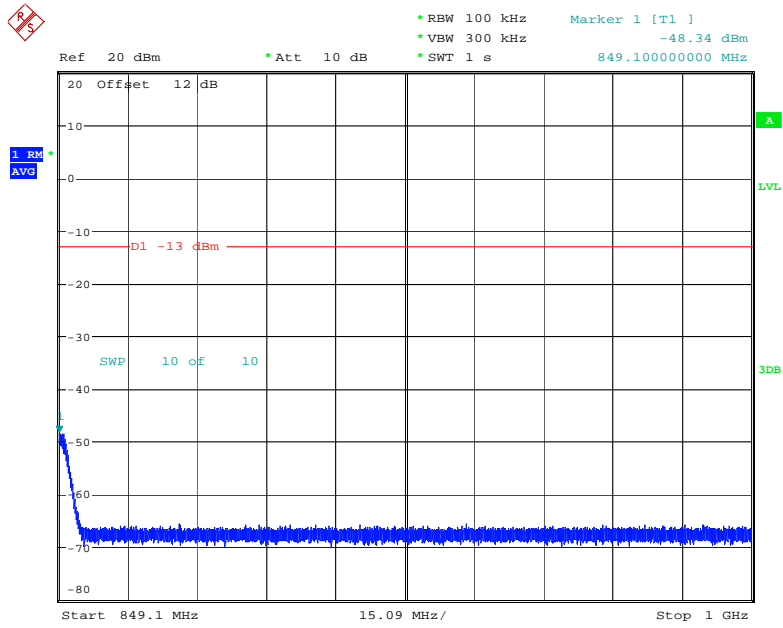
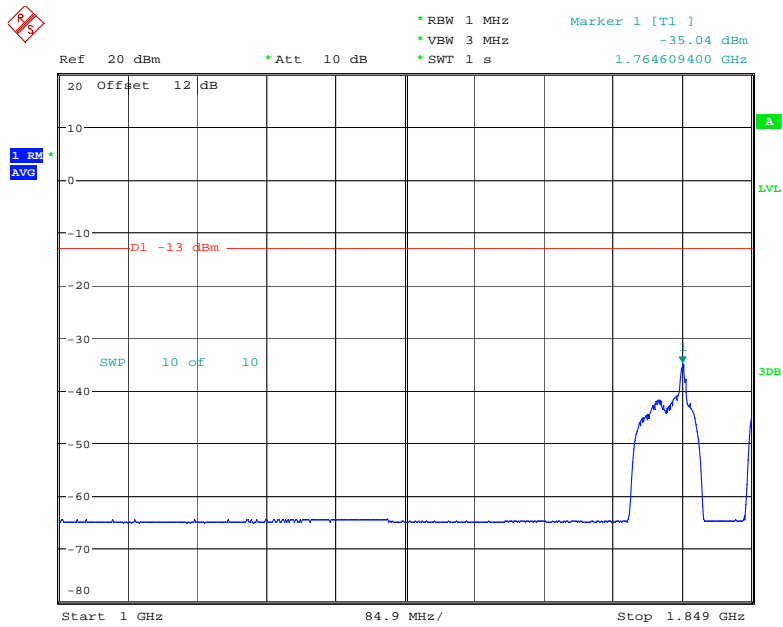Date: 14.JAN.2023 11:51:05
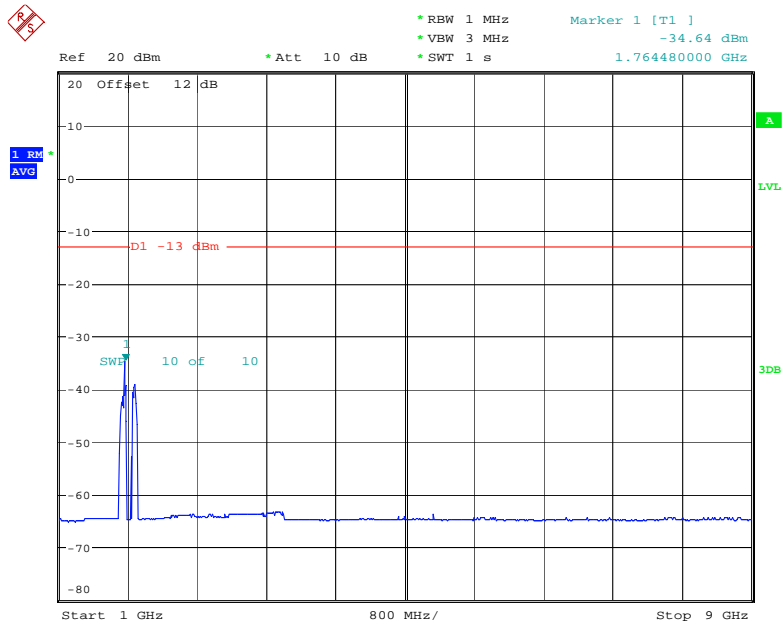
Date: 14.JAN.2023 11:50:26

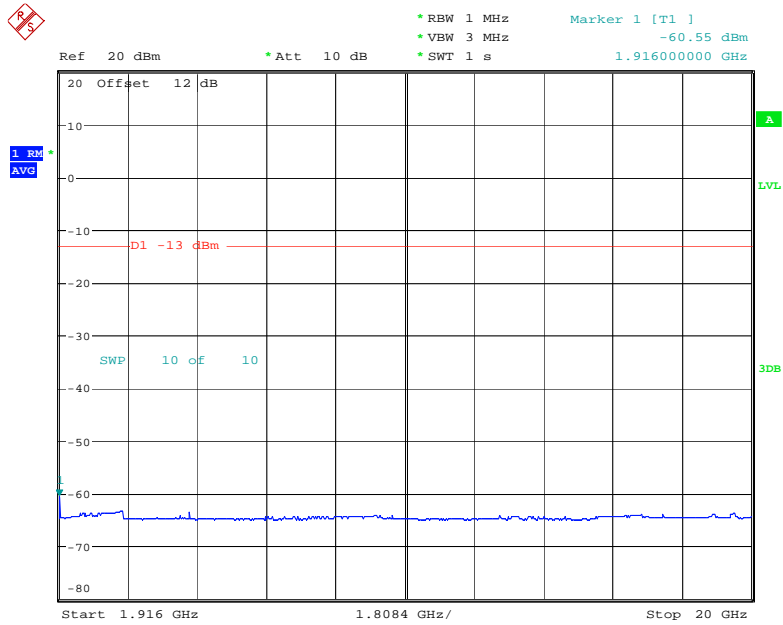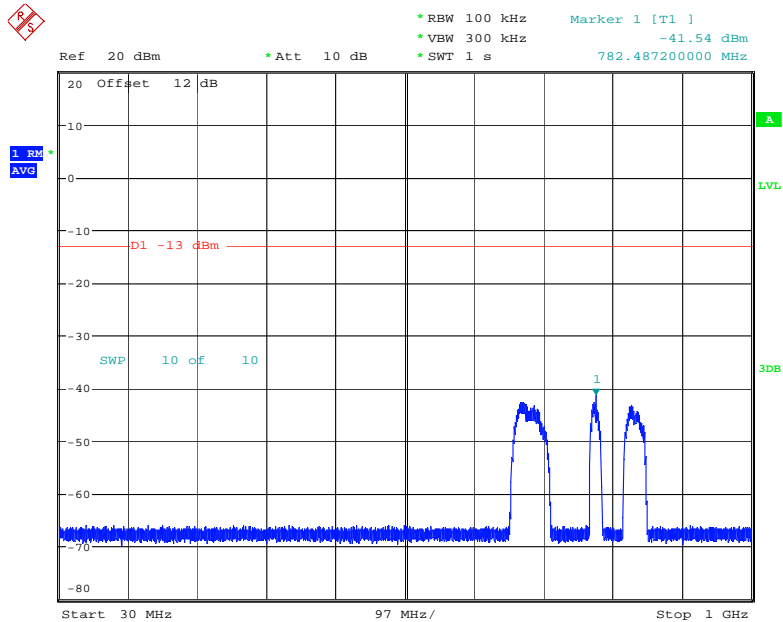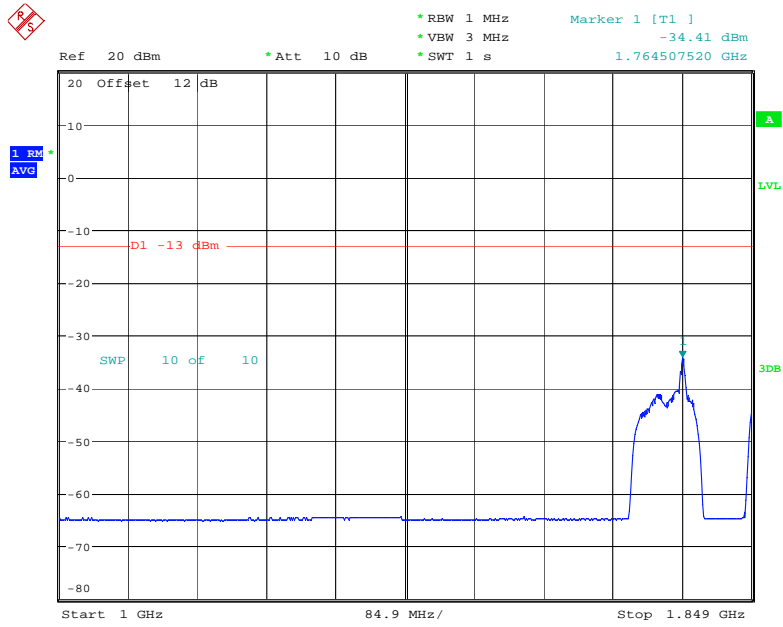## PCS- AWGN-Pre AGC-Low Channel

Date: 14.JAN.2023 11:26:19

Date: 14.JAN.2023 11:25:59

```
                                    * RBW  1 MHz      Marker 1 [T1 ]
                                    * VBW  3 MHz           -60.55 dBm
        Ref  20 dBm      * Att  10 dB   * SWT  1 s      1.916000000 GHz

         20  Offset   12 dB                                              A
       -10
                                                                       LVL
        -0
       --10
       -D1 -13 dBm
       --20
       --30
        SWP    10 of   10                                               3DB
       --40
       --50
       --60
       --70
       --80
       Start 1.916 GHz      1.8084 GHz/        Stop 20 GHz
```

Date: 14.JAN.2023 11:26:39

PCS- AWGN-Pre AGC-Middle Channel

```
                                    * RBW  100 kHz    Marker 1 [T1 ]
                                    * VBW  300 kHz          -41.54 dBm
        Ref  20 dBm      * Att  10 dB   * SWT  1 s      782.487200000 MHz

         20  Offset   12 dB                                              A
       -10
                                                                       LVL
        -0
       --10
       -D1 -13 dBm
       --20
       --30
        SWP    10 of   10                                               3DB
       --40                                         1
       --50
       --60
       --70
       --80
       Start 30 MHz         97 MHz/          Stop 1 GHz
```

Date: 14.JAN.2023 11:32:14

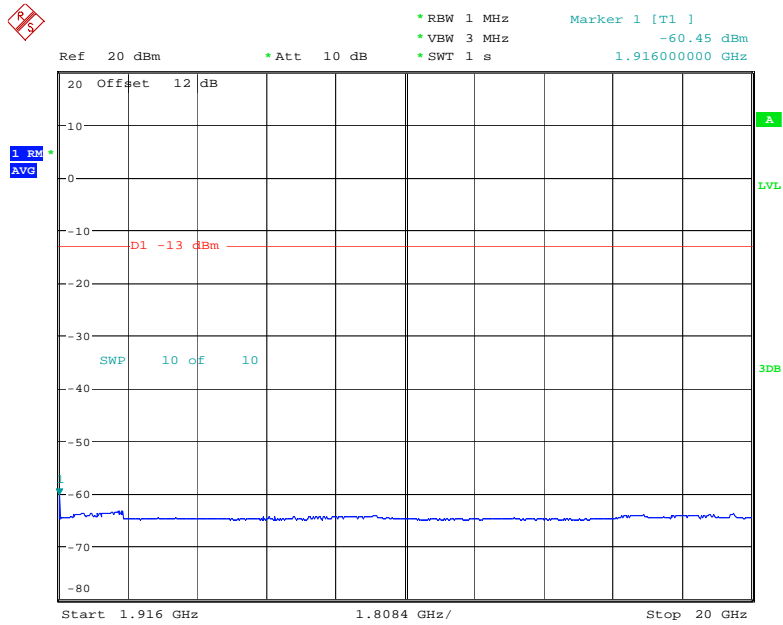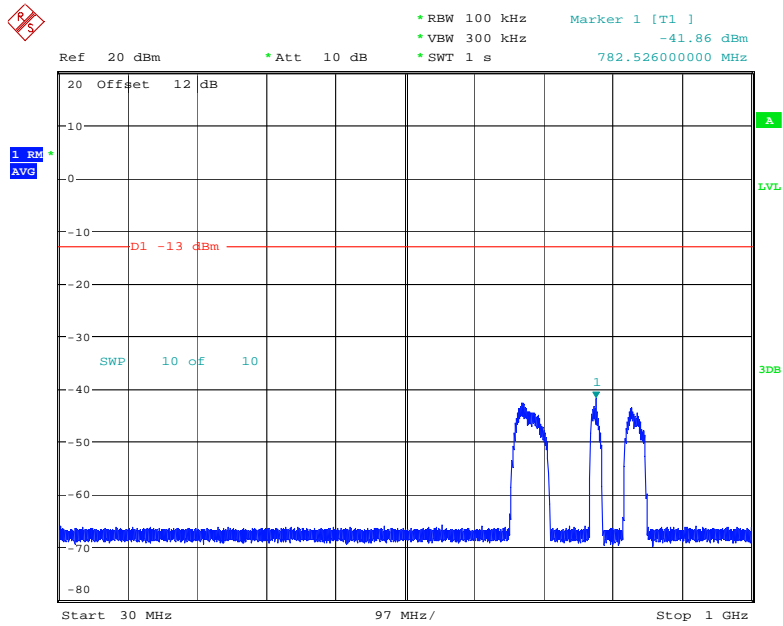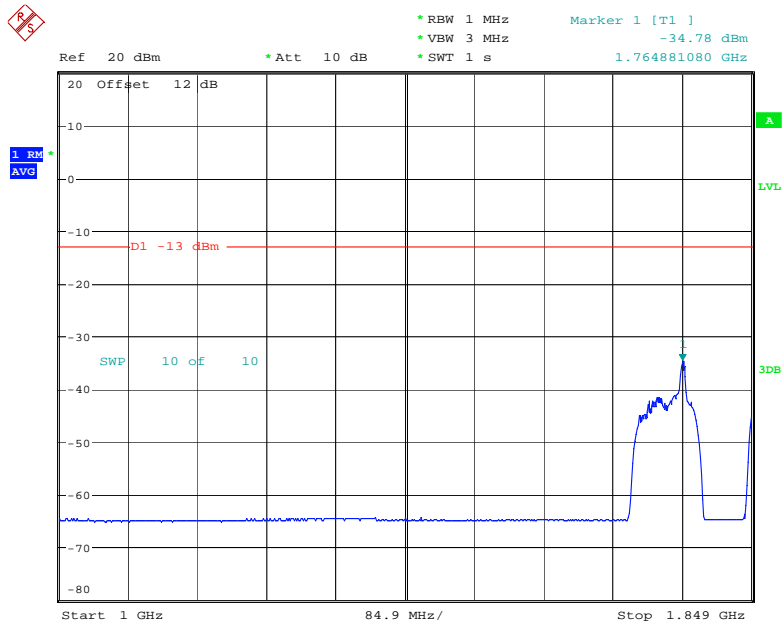Date: 14.JAN.2023   11:31:54

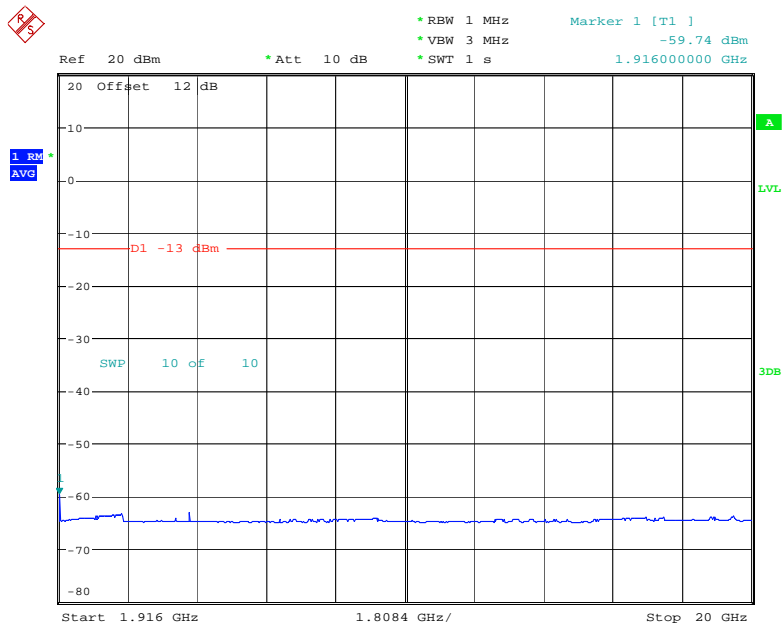Date: 14.JAN.2023   11:32:34

PCS- AWGN-Pre AGC-High Channel

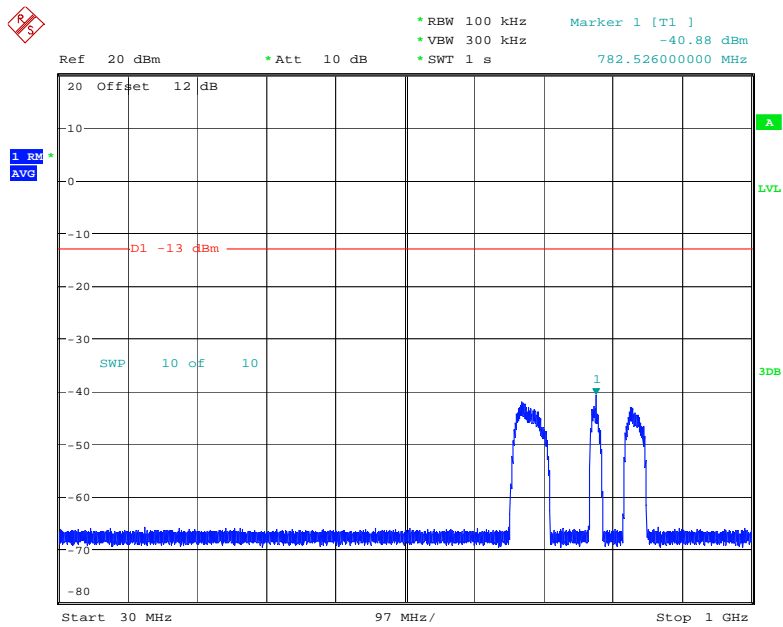
Date: 14.JAN.2023 11:10:16

Date: 14.JAN.2023 11:09:57

Date: 14.JAN.2023 11:10:35

PCS- GSM-Pre AGC-Low Channel
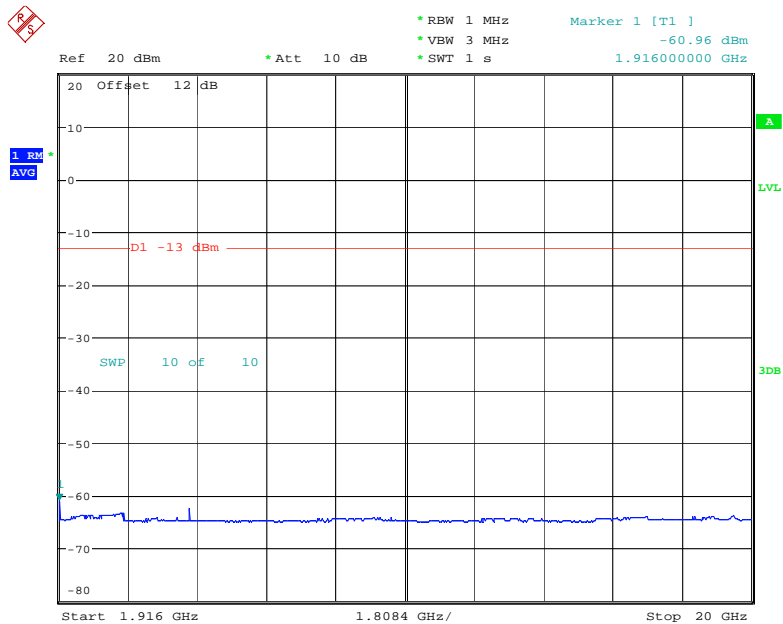

Date: 14.JAN.2023 11:58:39

```
                                    * RBW  1 MHz        Marker 1 [T1 ]
                                    * VBW  3 MHz                 -34.09 dBm
        Ref  20 dBm      * Att  10 dB   * SWT  1 s        1.764609400 GHz

        20  Offset   12 dB                                              A
       -10
1 RM *
AVG     -0                                                            LVL

       --10
         D1 -13 dBm

       --20

       --30                                                          3DB
           SWP    10 of  10
        -40

        -50

        -60

        -70

        -80
        Start  1 GHz           84.9 MHz/            Stop  1.849 GHz
```
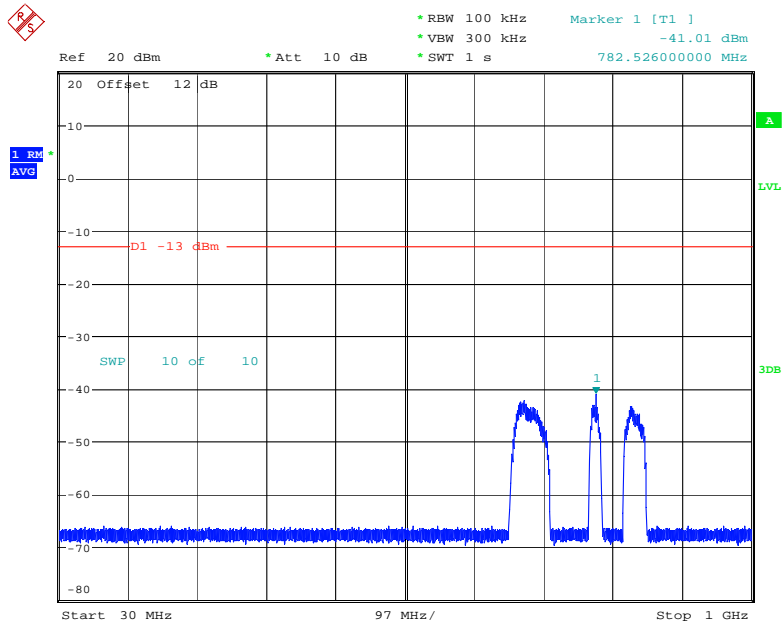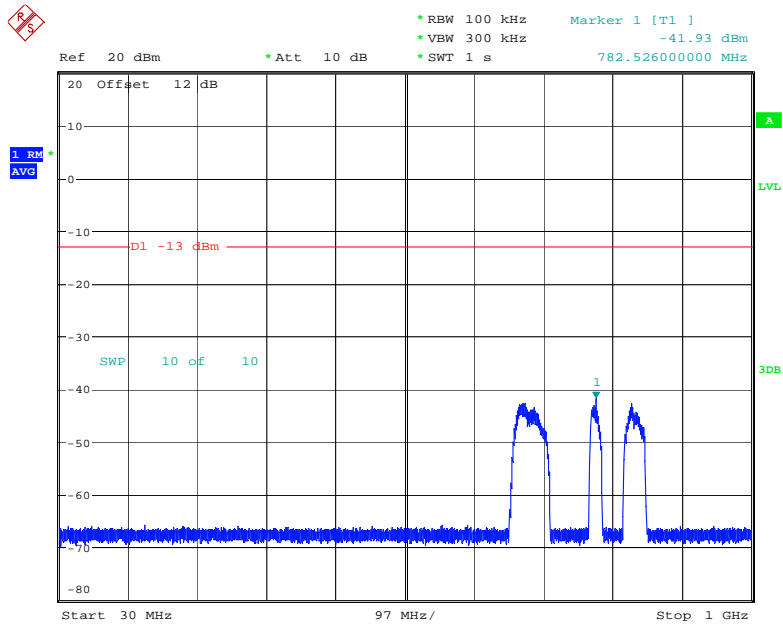
Date: 14.JAN.2023 11:58:19

```
                                    * RBW  1 MHz        Marker 1 [T1 ]
                                    * VBW  3 MHz                 -60.96 dBm
        Ref  20 dBm      * Att  10 dB   * SWT  1 s        1.916000000 GHz

        20  Offset   12 dB                                              A
       -10
1 RM *
AVG     -0                                                            LVL

       --10
         D1 -13 dBm

       --20

       --30                                                          3DB
           SWP    10 of  10
        -40

        -50

        -60

        -70

        -80
        Start  1.916 GHz        1.8084 GHz/          Stop  20 GHz
```
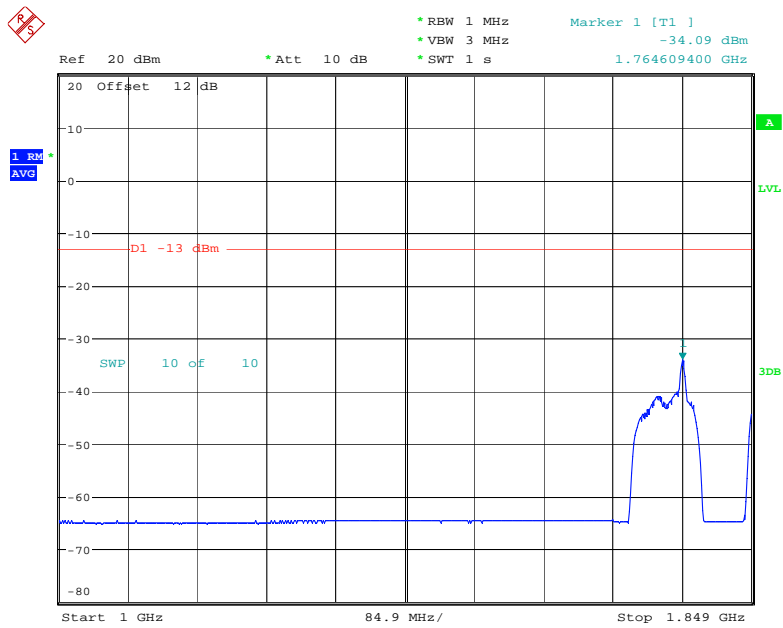
Date: 14.JAN.2023 11:58:59

PCS- GSM-Pre AGC-Middle Channel

```
                                    * RBW 100 kHz    Marker 1 [T1 ]
                                    * VBW 300 kHz              -41.01 dBm
        Ref  20 dBm     * Att  10 dB  * SWT 1 s      782.526000000 MHz
```

Date: 14.JAN.2023 13:07:09

```
                                    * RBW 1 MHz      Marker 1 [T1 ]
                                    * VBW 3 MHz               -35.17 dBm
        Ref  20 dBm     * Att  10 dB  * SWT 1 s       1.764643360 GHz
```

Date: 14.JAN.2023 13:06:48

```
                                        * RBW  1 MHz      Marker 1 [T1 ]
                                        * VBW  3 MHz              -62.07 dBm
           Ref  20 dBm      * Att  10 dB  * SWT 1 s       1.916000000 GHz
           20 Offset   12 dB                                              A
        -10
1 RM *
AVG     -0                                                                LVL
        --10
        -D1 -13 dBm
        --20
        --30
           SWP    10 of    10                                            3DB
        --40
        --50
        --60
        --70
        --80
        Start 1.916 GHz         1.8084 GHz/              Stop  20 GHz
```
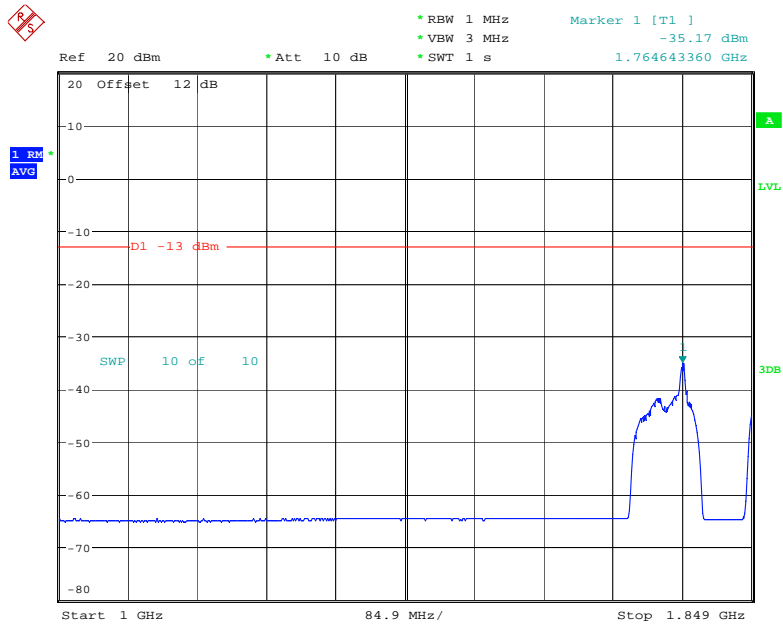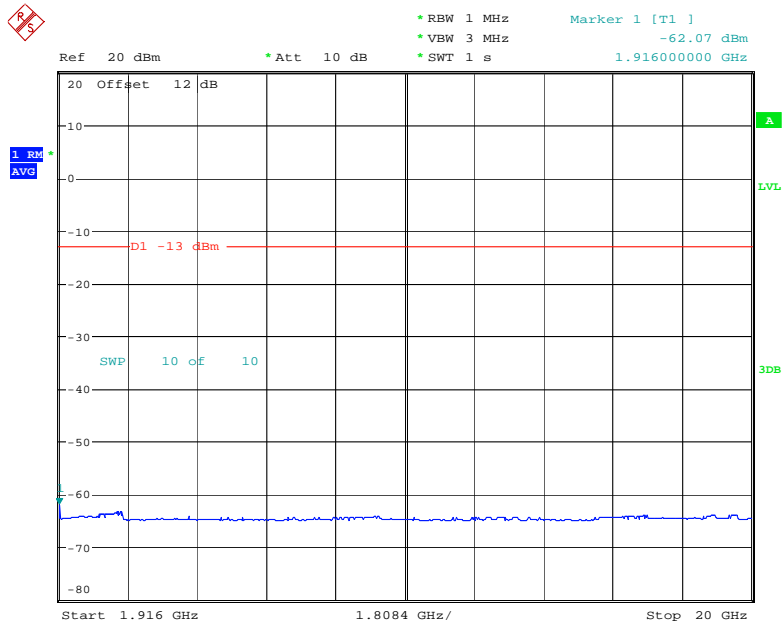
Date: 14.JAN.2023 13:07:28

PCS- GSM-Pre AGC-High Channel

```
                                        * RBW  100 kHz    Marker 1 [T1 ]
                                        * VBW  300 kHz            -41.93 dBm
           Ref  20 dBm      * Att  10 dB  * SWT 1 s       782.526000000 MHz
           20 Offset   12 dB                                              A
        -10
1 RM *
AVG     -0                                                                LVL
        --10
        -D1 -13 dBm
        --20
        --30
           SWP    10 of    10                                            3DB
        --40                                         1
        --50
        --60
        --70
        --80
        Start 30 MHz           97 MHz/                  Stop 1 GHz
```

Date: 14.JAN.2023 11:51:44
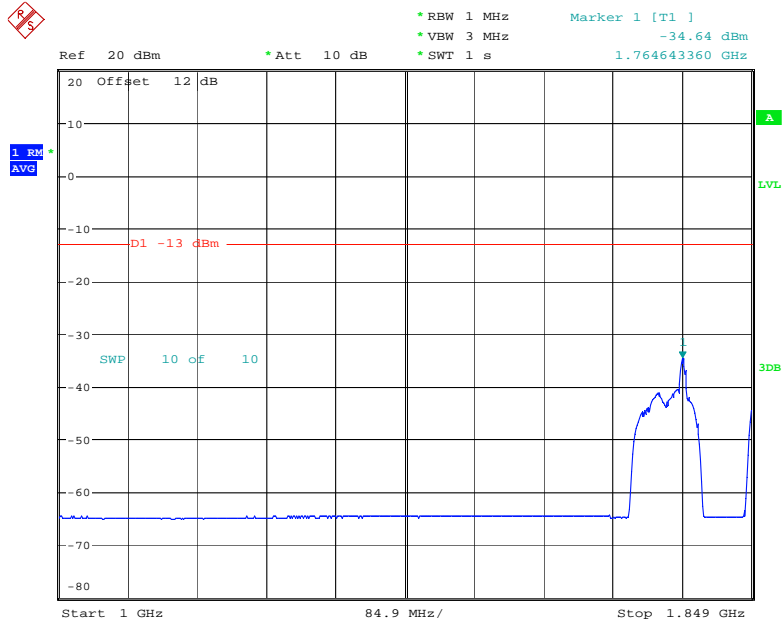
Date: 14.JAN.2023 11:51:25
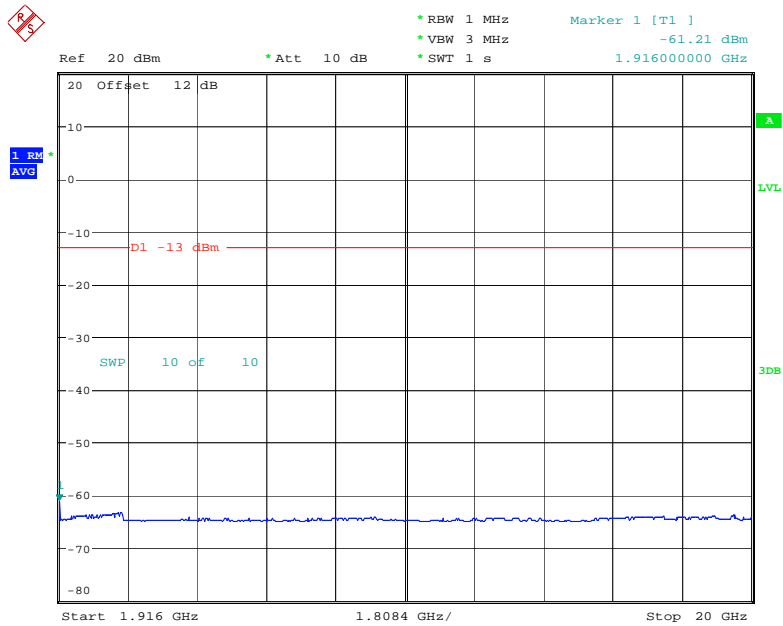
Date: 14.JAN.2023 11:52:04

AWS- AWGN-Pre AGC-Low Channel

```
                              * RBW 100 kHz    Marker 1 [T1 ]
                              * VBW 300 kHz           -42.61 dBm
        Ref  20 dBm    * Att  10 dB   * SWT 1 s    782.526000000 MHz
```



```
Start  30 MHz              97 MHz/            Stop 1 GHz
```

```
Date: 14.JAN.2023  11:27:18
```

```
                              * RBW 1 MHz     Marker 1 [T1 ]
                              * VBW 3 MHz            -47.76 dBm
        Ref  20 dBm    * Att  10 dB   * SWT 1 s    1.708971640 GHz
```



```
Start  1 GHz              70.9 MHz/           Stop 1.709 GHz
```
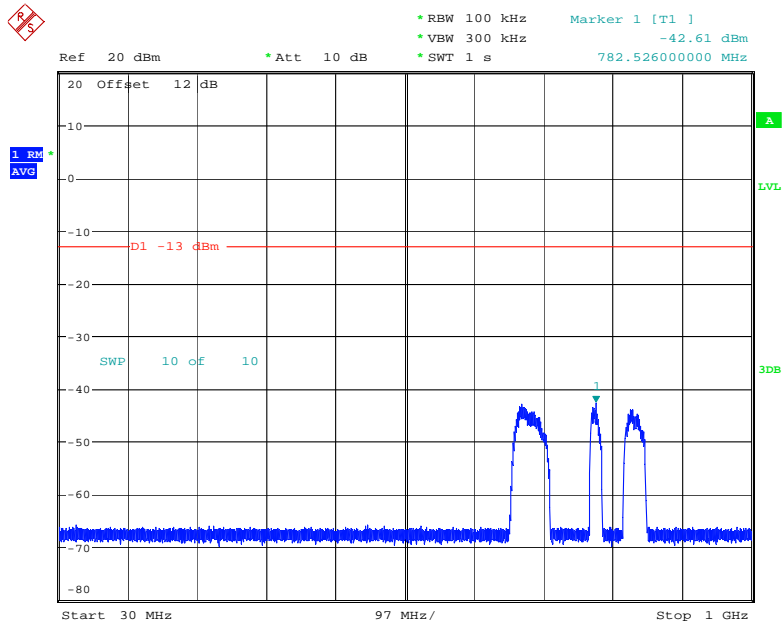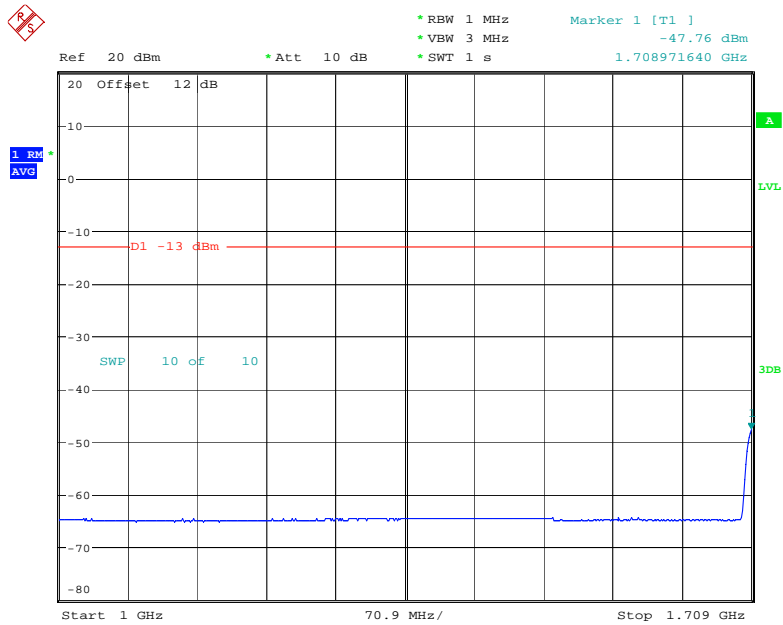
```
Date: 14.JAN.2023  11:26:59
```
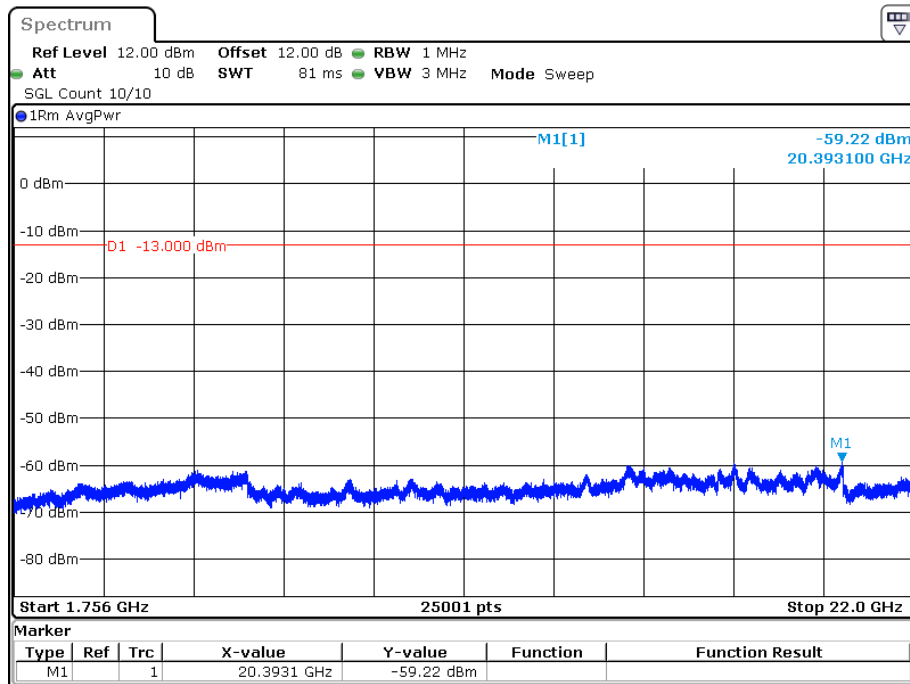
Date: 1.FEB.2023 13:21:51

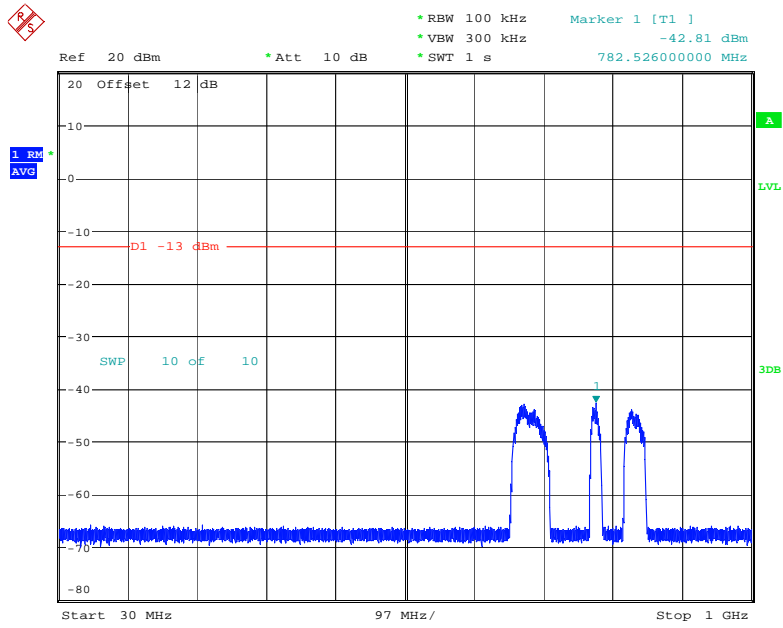## AWS- AWGN-Pre AGC-Middle Channel

Date: 14.JAN.2023 11:33:12

```
                                    * RBW  1 MHz        Marker 1 [T1 ]
                                    * VBW  3 MHz                    -47.14 dBm
        Ref   20 dBm       * Att  10 dB     * SWT  1 s        1.709000000 GHz
```


Date: 14.JAN.2023 11:32:53

Spectrum

Ref Level 12.00 dBm   Offset 12.00 dB ● RBW 1 MHz
● Att   10 dB   SWT   81 ms ● VBW 3 MHz   Mode Sweep
SGL Count 10/10

| Marker | | | | | |
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	20.38338 GHz	-59.72 dBm		
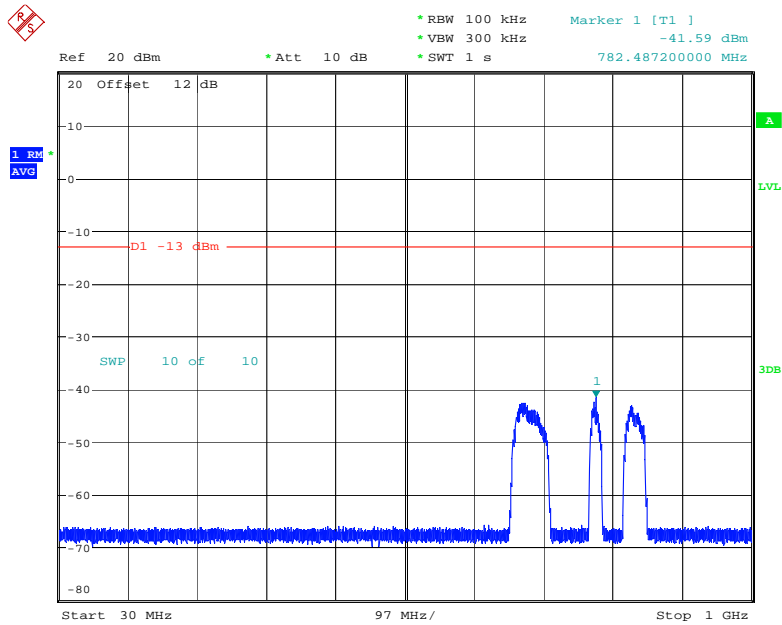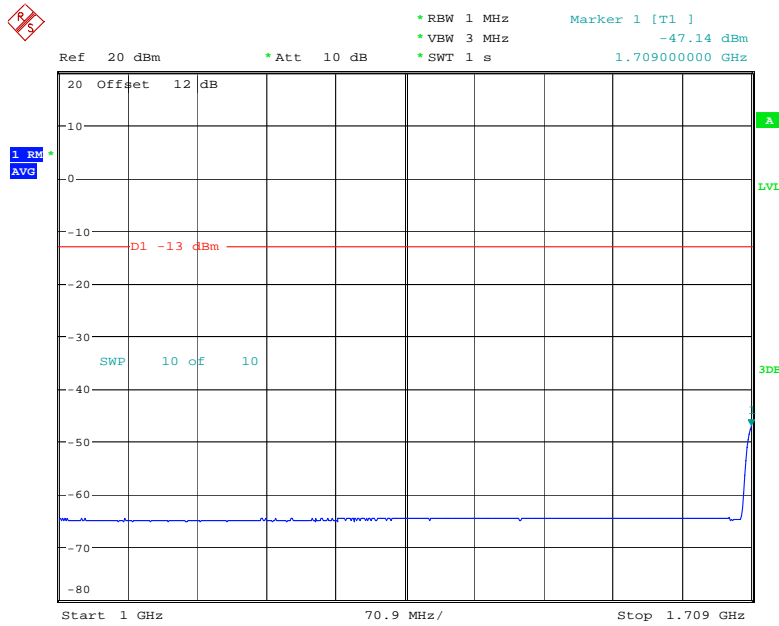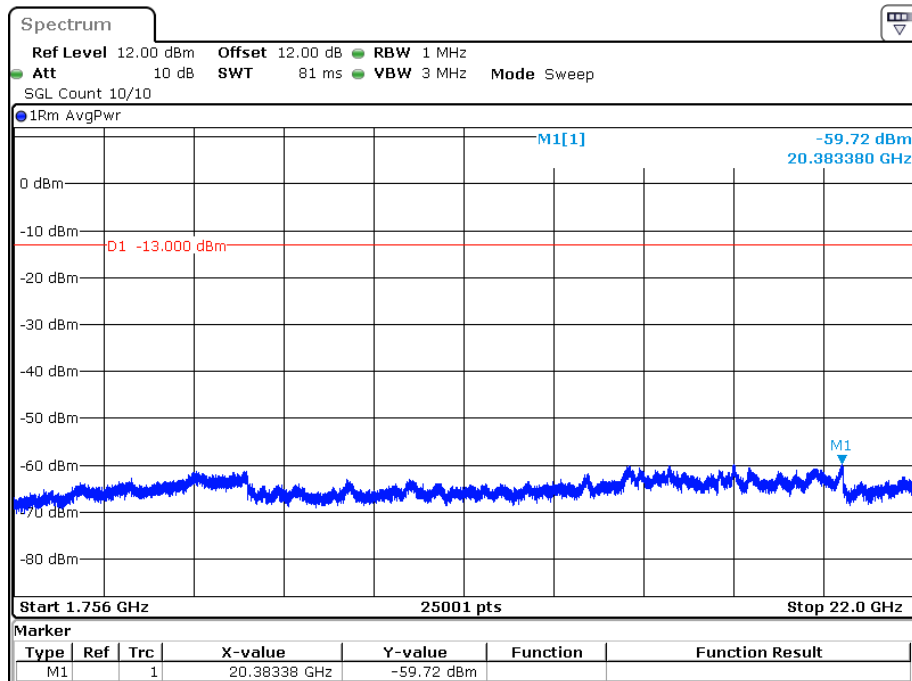
Date: 1.FEB.2023 13:21:59

AWS- AWGN-Pre AGC-High Channel


```
                                          * RBW 100 kHz      Marker 1 [T1 ]
                                          * VBW 300 kHz                -42.81 dBm
          Ref  20 dBm        * Att  10 dB  * SWT 1 s          782.526000000 MHz
          20  Offset   12 dB
                                                                              A
     1 RM *
     AVG
                                                                              LVL


                    D1 -13 dBm

          SWP    10 of    10                                                  3DB


          Start 30 MHz              97 MHz/              Stop 1 GHz
```

Date: 14.JAN.2023 11:11:15


```
                                          * RBW 1 MHz       Marker 1 [T1 ]
                                          * VBW 3 MHz                -47.77 dBm
          Ref  20 dBm        * Att  10 dB  * SWT 1 s          1.708914920 GHz
          20  Offset   12 dB
                                                                              A
     1 RM *
     AVG
                                                                              LVL


                    D1 -13 dBm

          SWP    10 of    10                                                  3DB


          Start 1 GHz              70.9 MHz/             Stop 1.709 GHz
```

Date: 14.JAN.2023 11:10:56

Spectrum

| Ref Level | 12.00 dBm | Offset | 12.00 dB | ● RBW | 1 MHz |
| Att | 10 dB | SWT | 81 ms | ● VBW | 3 MHz | Mode Sweep |

SGL Count 10/10

●1Rm AvgPwr

M1[1]   -59.29 dBm
                                         17.959860 GHz

0 dBm

-10 dBm
D1 -13.000 dBm

-20 dBm

-30 dBm

-40 dBm

-50 dBm

-60 dBm
                                                    M1

-70 dBm

-80 dBm

Start 1.756 GHz   25001 pts   Stop 22.0 GHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	17.95986 GHz	-59.29 dBm		

Date: 1.FEB.2023 13:21:41

AWS- GSM-Pre AGC-Low Channel

* RBW 100 kHz   Marker 1 [T1]
* VBW 300 kHz   -41.31 dBm
Ref   20 dBm   * Att   10 dB   * SWT 1 s   782.487200000 MHz

20 Offset   12 dB
                                                                        A

-10

1 RM *
AVG
                                                                        LVL
-0

-10
D1 -13 dBm

-20

-30
                                                                        3DB
SWP   10 of   10

-40   1

-50

-60

-70

-80

Start 30 MHz   97 MHz/   Stop 1 GHz
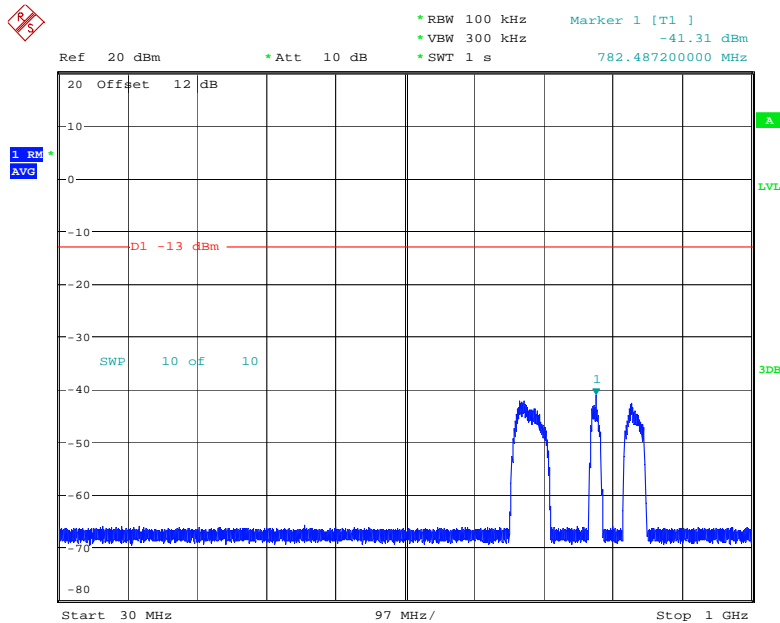
Date: 14.JAN.2023 11:59:37
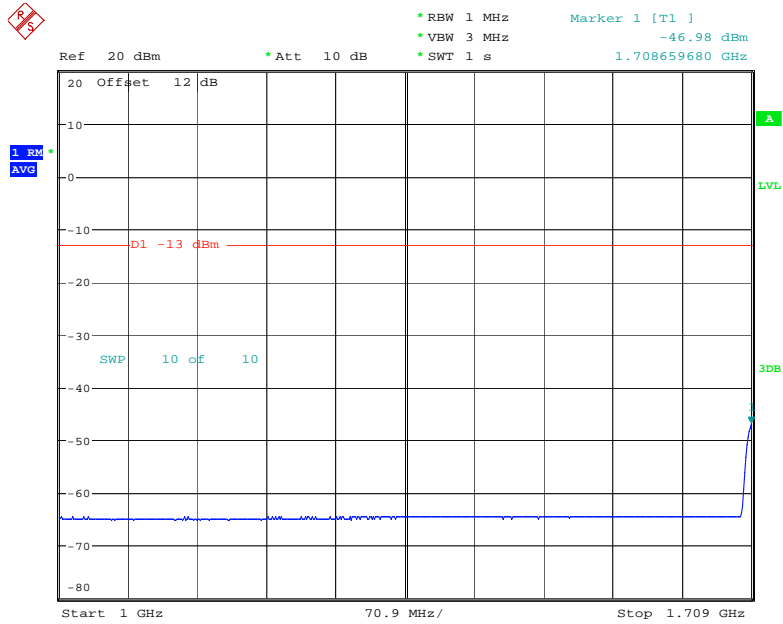
Date: 14.JAN.2023 11:59:18
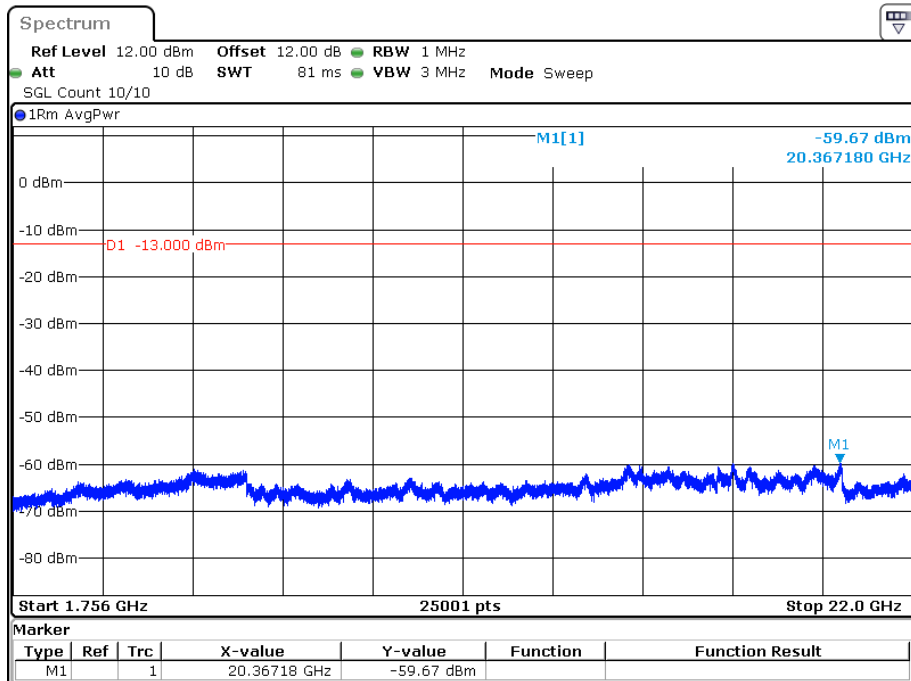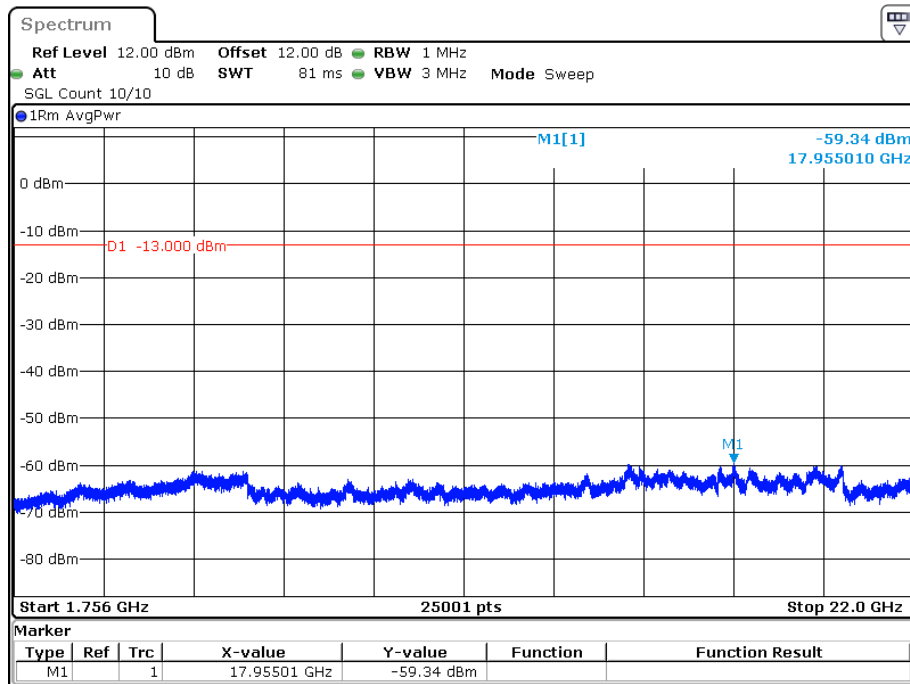

Date: 1.FEB.2023 11:47:37

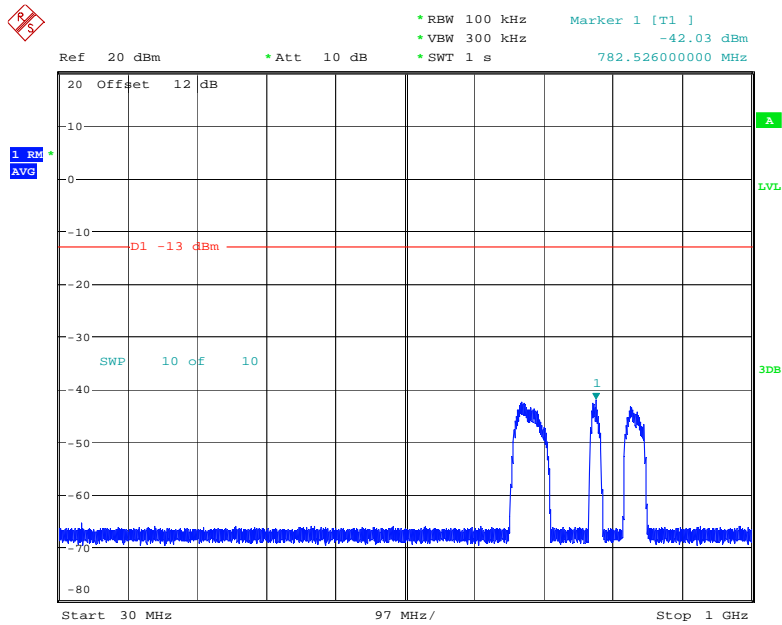## AWS- GSM-Pre AGC-Middle Channel
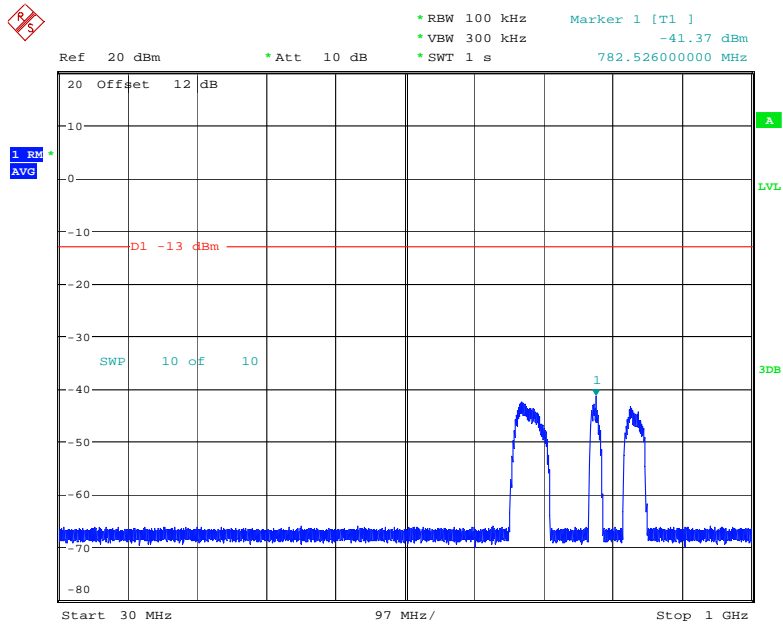
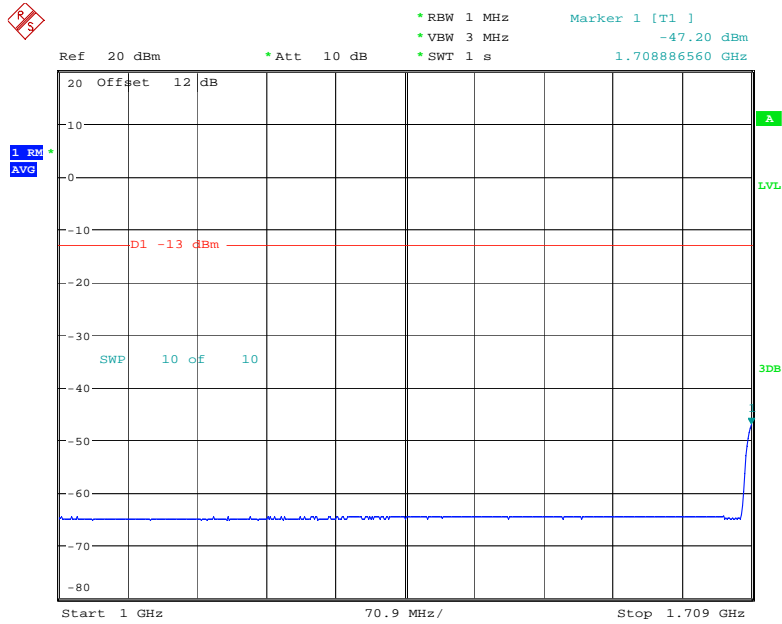Date: 14.JAN.2023 13:08:08
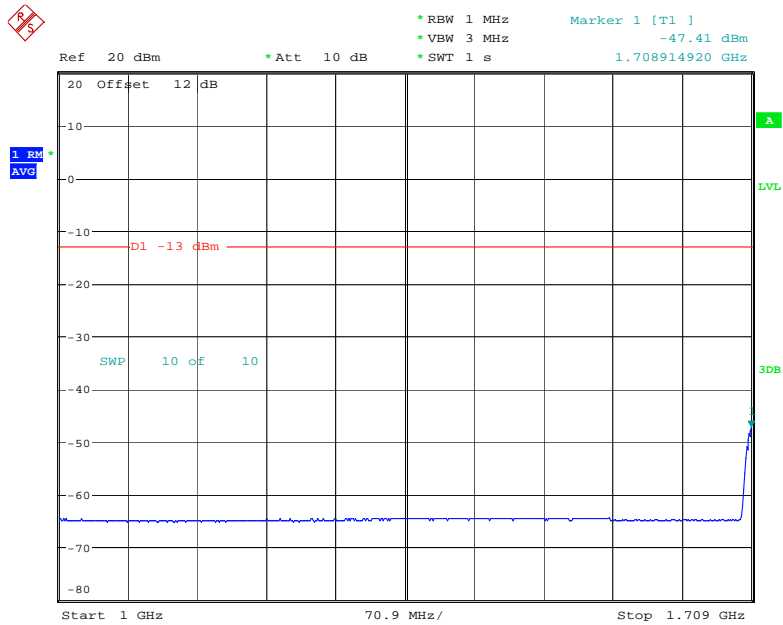
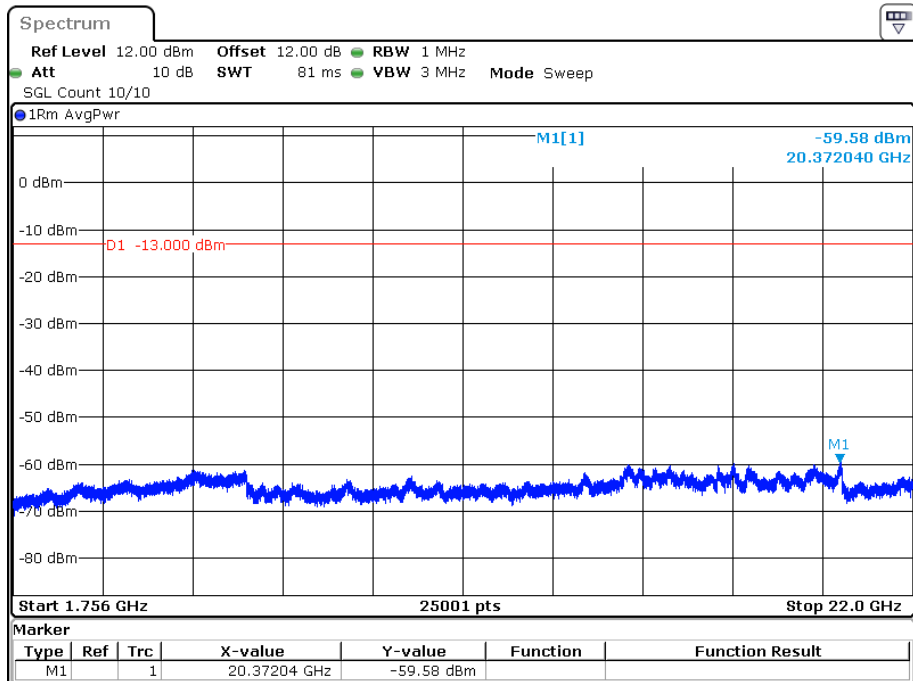Date: 14.JAN.2023 13:07:47

Date: 1.FEB.2023 11:47:10

AWS- GSM-Pre AGC-High Channel

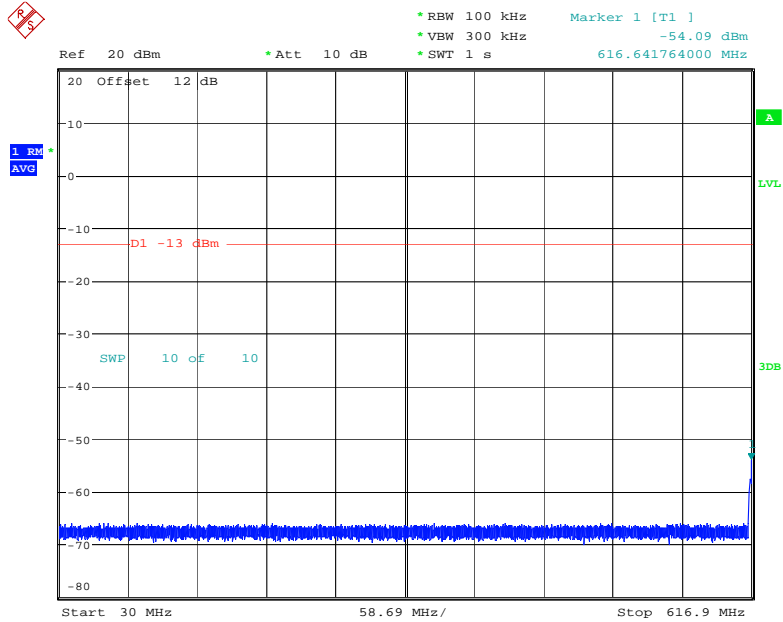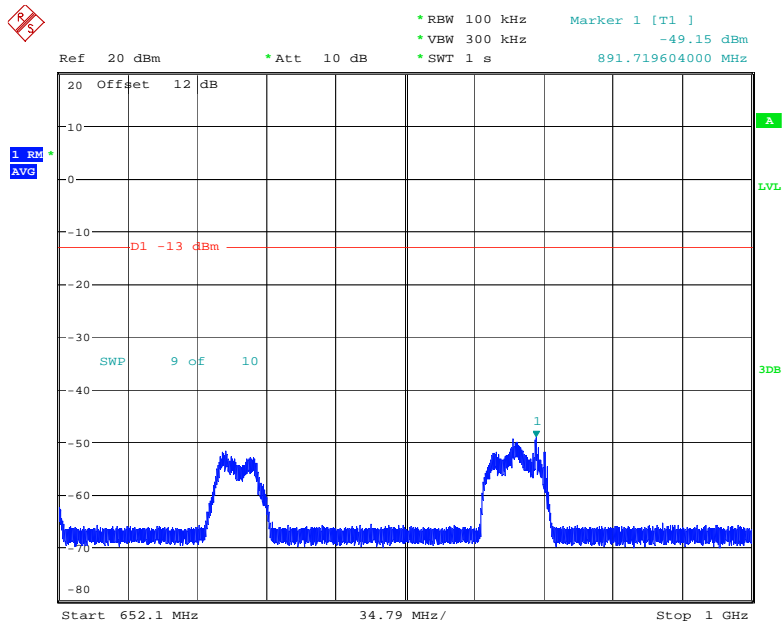Date: 14.JAN.2023 11:52:44

Date: 14.JAN.2023 11:52:23

Date: 1.FEB.2023 11:46:37

Downlink:

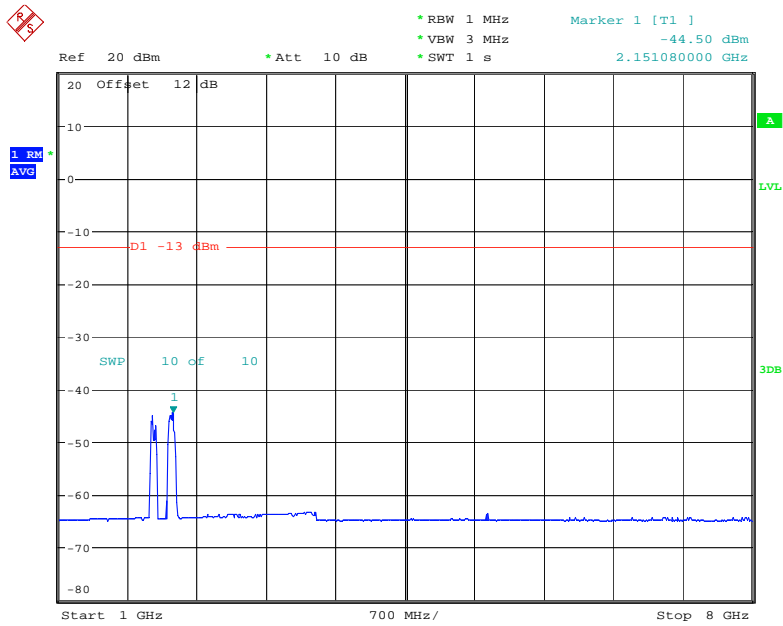## 600MHz Band -AWGN-Pre AGC-Low Channel

Date: 14.JAN.2023 13:40:03

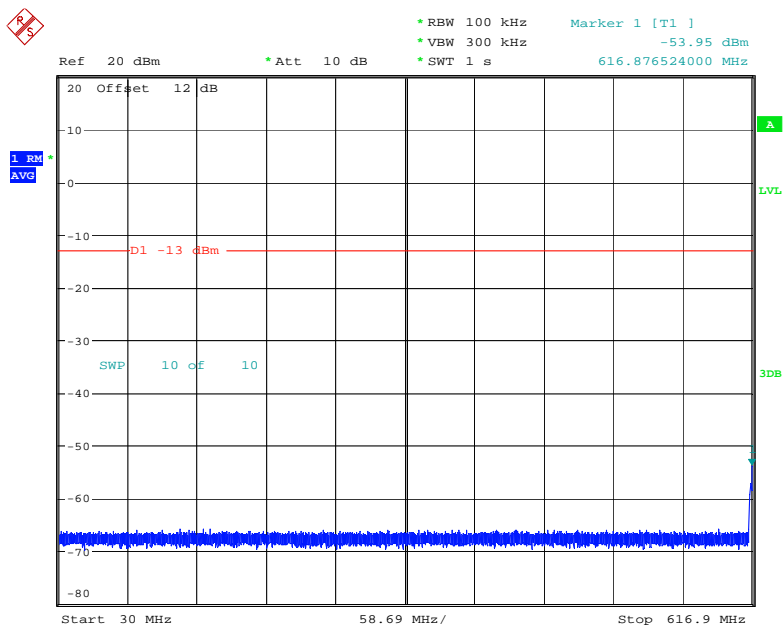
Date: 14.JAN.2023 13:40:22
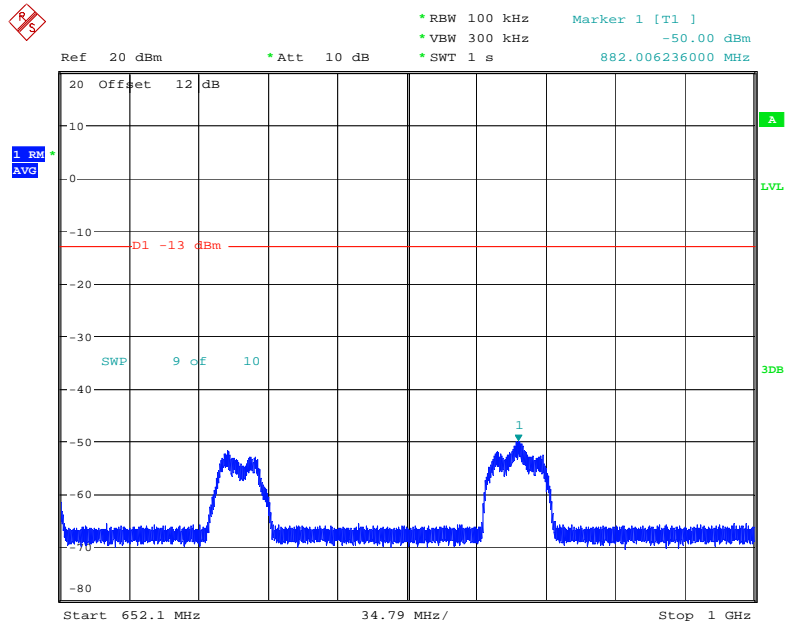
```
                                              *RBW  1 MHz        Marker 1 [T1 ]
                                              *VBW  3 MHz                    -44.50 dBm
             Ref  20 dBm        *Att  10 dB   *SWT  1 s          2.151080000 GHz

              20  Offset   12 dB                                                        A
             -10
1 RM*
AVG          -0                                                                        LVL

             --10
                 D1 -13 dBm
             --20

             --30
                SWP    10 of   10                                                       3DB
             --40
                        1
             --50

             --60

             --70

             -80
             Start 1 GHz                       700 MHz/                 Stop 8 GHz
```

Date: 14.JAN.2023 13:39:42

600MHz Band - AWGN-Pre AGC-Middle Channel

```
                                              *RBW 100 kHz        Marker 1 [T1 ]
                                              *VBW 300 kHz                   -53.95 dBm
             Ref  20 dBm        *Att  10 dB   *SWT  1 s          616.876524000 MHz

              20  Offset   12 dB                                                        A
             -10
1 RM*
AVG          -0                                                                        LVL

             --10
                 D1 -13 dBm
             --20

             --30
                SWP    10 of   10                                                       3DB
             --40

             --50

             --60

             --70

             -80
             Start 30 MHz                      58.69 MHz/              Stop 616.9 MHz
```
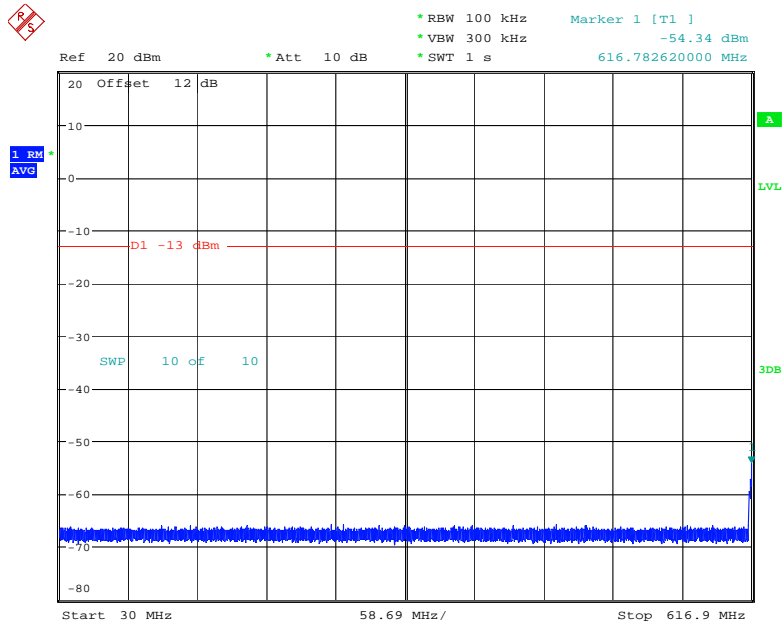
Date: 14.JAN.2023 13:45:37
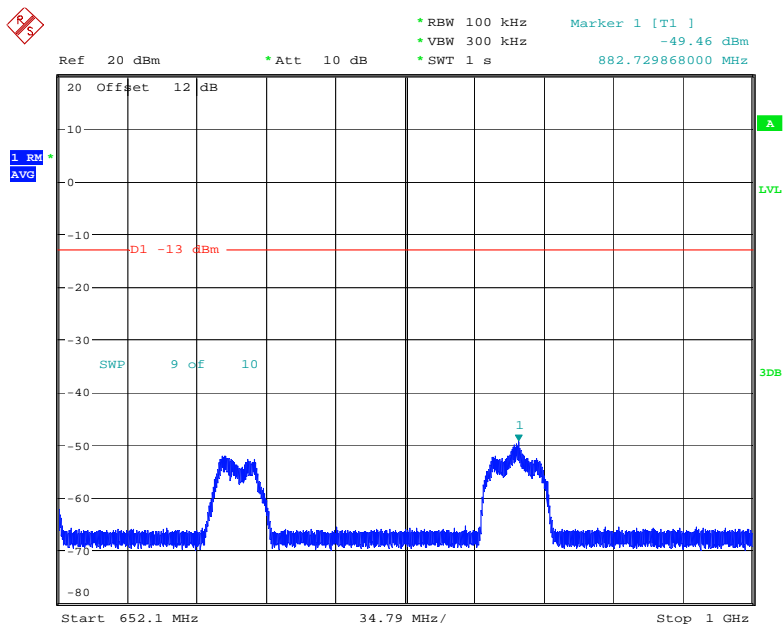
Date: 14.JAN.2023 13:45:58
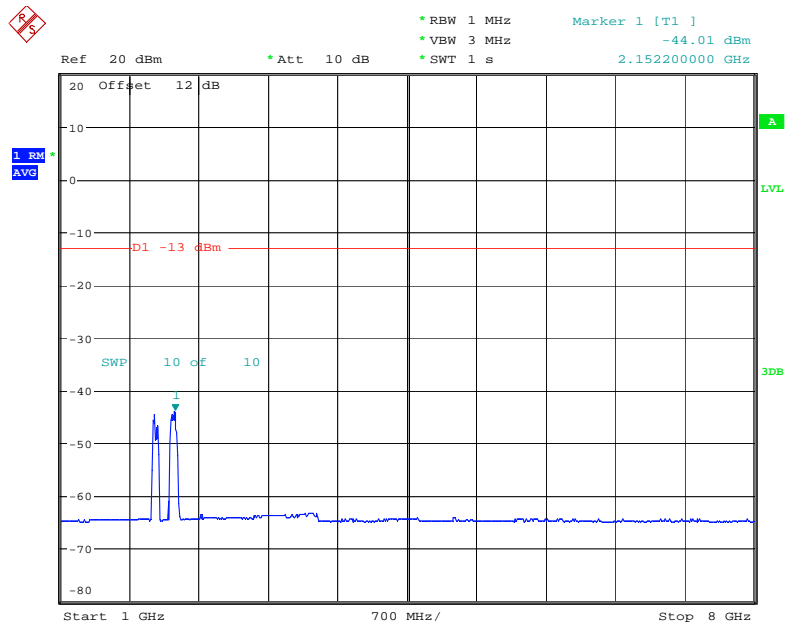
Date: 14.JAN.2023 13:45:18

600MHz Band - AWGN-Pre AGC-High Channel

Date: 14.JAN.2023 13:51:53

Date: 14.JAN.2023 13:52:13