

FCC Appendix RF Test Data

Company : Cellphone-Mate Inc. dba SureCall
EUT : SignalMax Fiber DAS V2.0
Model Number : SC-FRU V2
Report No. : AB26080214FW01
FCC ID : RSN-FIBERMAXRU2
Reviewed By : Jay Liu

AGC Threshold Level

Signal Path	Frequency Band	Signal Type	AGC threshold level (dBm)
Donor to Server1	PCS Downlink	GSM	-58.00
		AWGN	-58.20
	AWS Downlink	GSM	-57.70
		AWGN	-57.90
	Cellular Downlink	GSM	-57.80
		AWGN	-57.80
	Lower700MHz Downlink	GSM	-58.00
		AWGN	-58.30
	Upper700MHz Downlink	GSM	-57.10
		AWGN	-57.30
Donor to Server2	PCS Downlink	GSM	-56.80
		AWGN	-57.30
	AWS Downlink	GSM	-56.90
		AWGN	-57.10
	Cellular Downlink	GSM	-58.10
		AWGN	-57.60
	Lower700MHz Downlink	GSM	-57.10
		AWGN	-57.50
	Upper700MHz Downlink	GSM	-57.10
		AWGN	-56.80

Signal Path	Frequency Band	Signal Type	AGC threshold level (dBm)
Donor to Server3	PCS Downlink	GSM	-58.80
		AWGN	-59.00
	AWS Downlink	GSM	-58.60
		AWGN	-59.00
	Cellular Downlink	GSM	-58.60
		AWGN	-57.80
	Lower700MHz Downlink	GSM	-57.80
		AWGN	-57.30
	Upper700MHz Downlink	GSM	-57.80
		AWGN	-56.70
Donor to Server4	PCS Downlink	GSM	-58.20
		AWGN	-58.30
	AWS Downlink	GSM	-58.00
		AWGN	-57.70
	Cellular Downlink	GSM	-58.00
		AWGN	-57.90
	Lower700MHz Downlink	GSM	-57.60
		AWGN	-57.30
	Upper700MHz Downlink	GSM	-57.60
		AWGN	-57.30

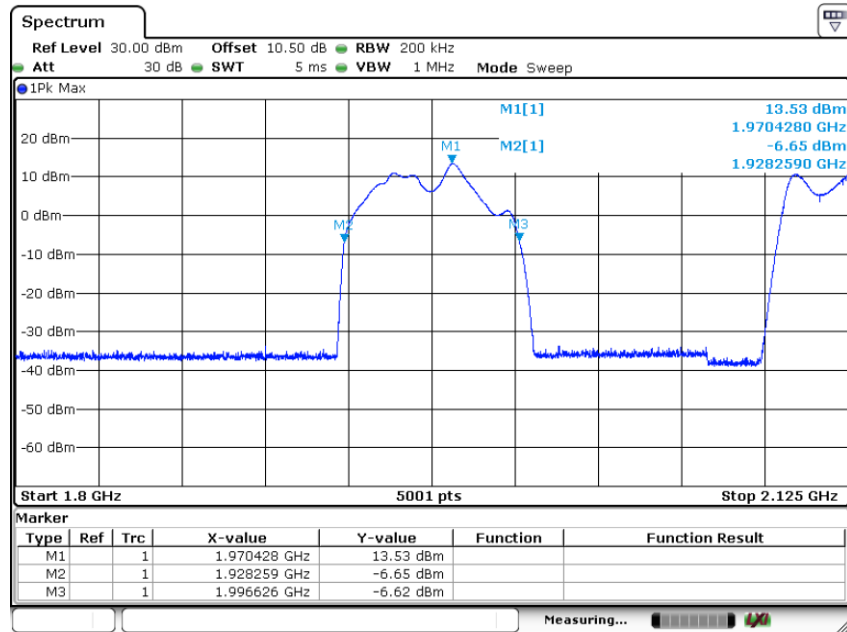
Out-of-Band Rejection

Signal Path	Frequency Band	F0 (MHz)	20dB bandwidth (MHz)
Donor to Server1	PCS Downlink	1970.43	68.367
	AWS Downlink	2133.76	93.716
	Cellular Downlink	879.08	32.119
	Lower700MHz Downlink	743.71	33.827
	Upper700MHz Downlink	746.00	34.423
Donor to Server2	PCS Downlink	1969.97	69.017
	AWS Downlink	2141.63	95.965
	Cellular Downlink	879.03	32.418
	Lower700MHz Downlink	742.99	33.209
	Upper700MHz Downlink	746.00	33.851
Donor to Server3	PCS Downlink	1970.49	69.601
	AWS Downlink	2130.97	95.831
	Cellular Downlink	879.13	32.119
	Lower700MHz Downlink	743.32	33.774
	Upper700MHz Downlink	746.00	34.227
Donor to Server4	PCS Downlink	1970.82	69.731
	AWS Downlink	2139.02	94.301
	Cellular Downlink	879.00	32.168
	Lower700MHz Downlink	742.79	33.384
	Upper700MHz Downlink	746.00	33.983

Test Plots

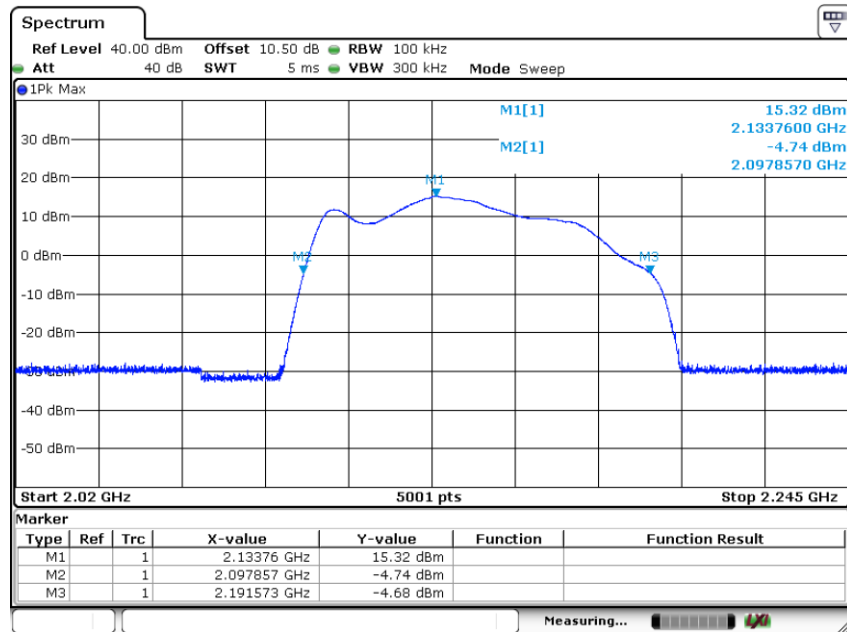
Signal Path: Donor to Sever1

PCS Downlink



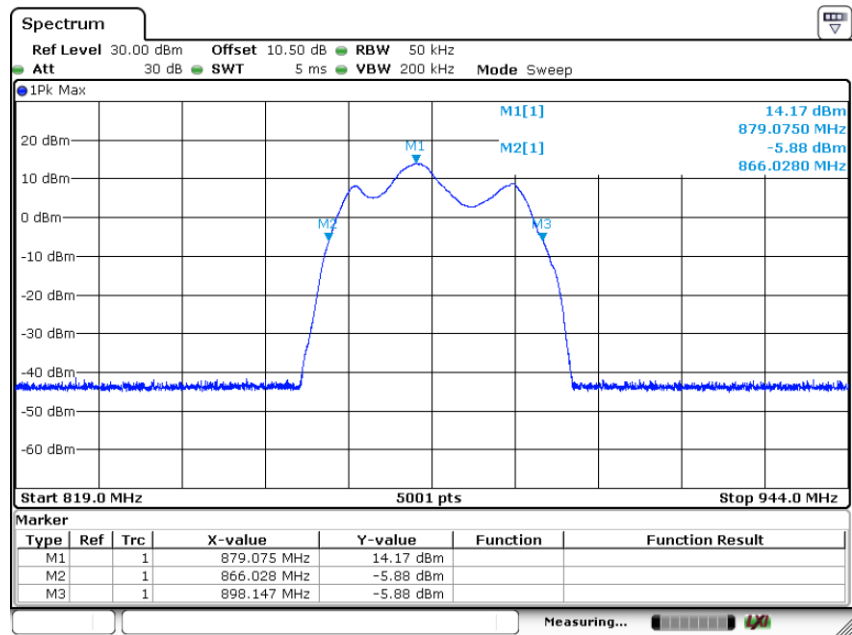
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AWS Downlink



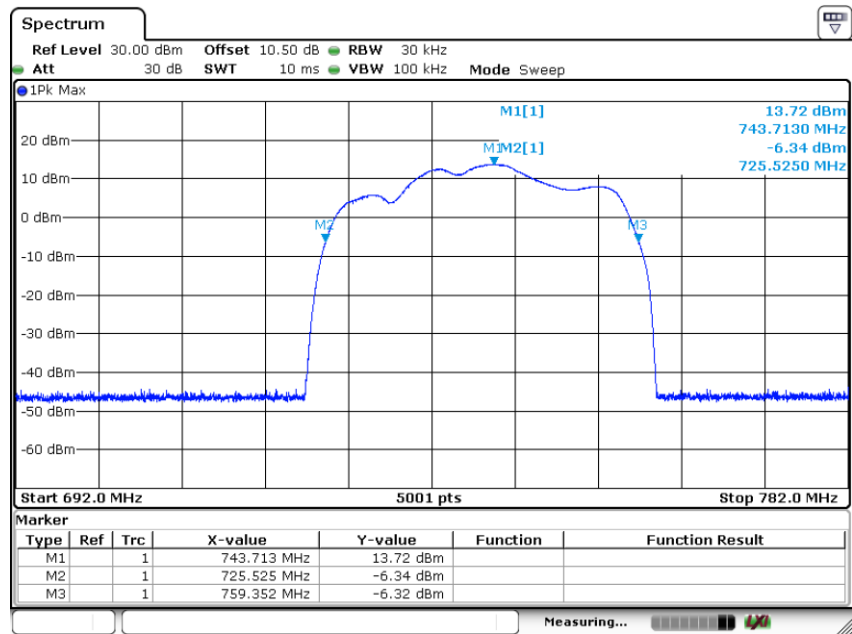
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Cellular Downlink



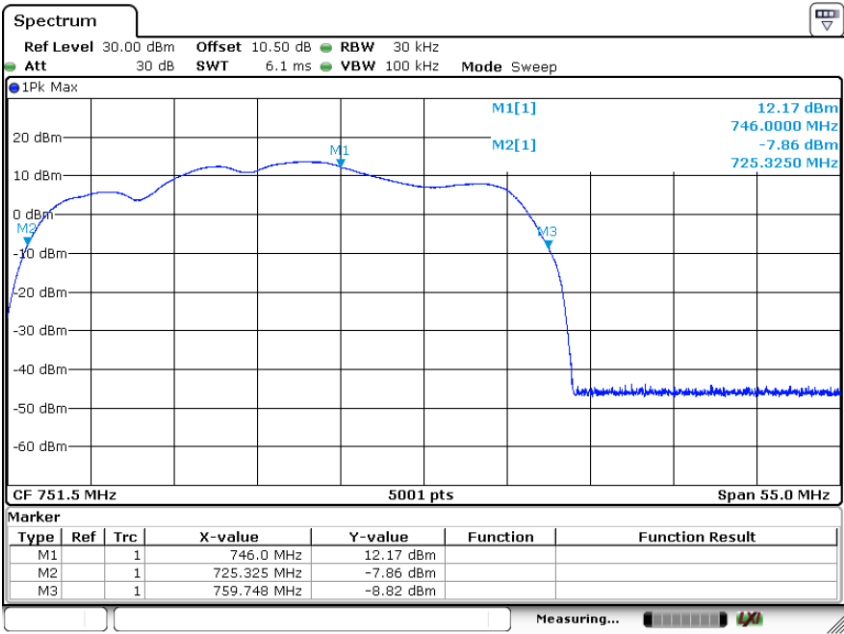
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Lower700MHz Downlink



Date: 23.JUN.2026 09:07:35

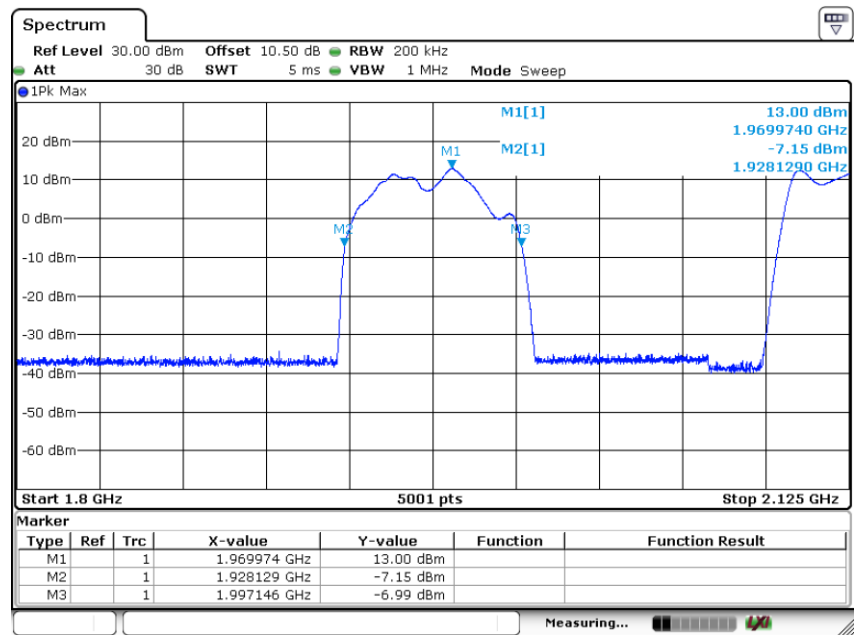
Upper700MHz Downlink



Date: 23.JUN.2026 10:06:53

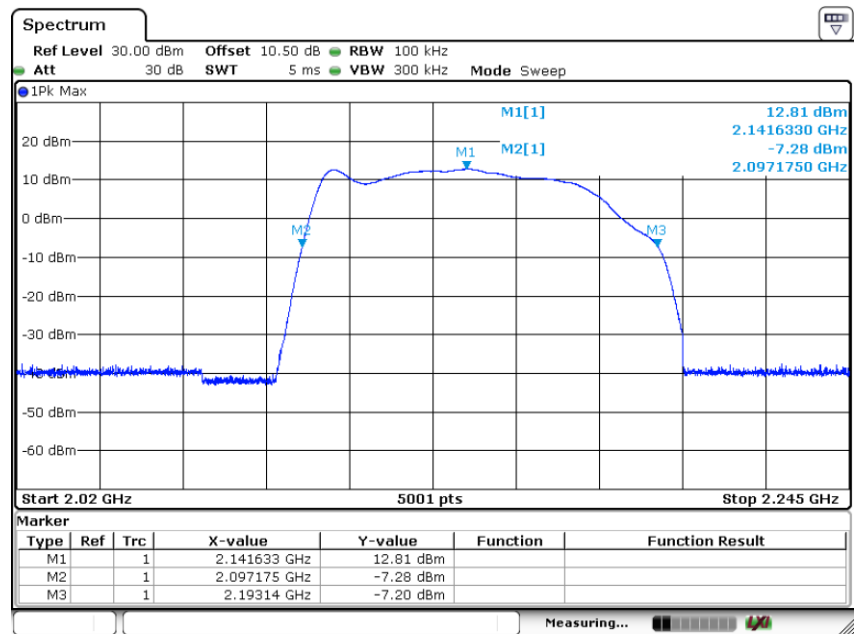
Signal Path: Donor to Sever2

PCS Downlink



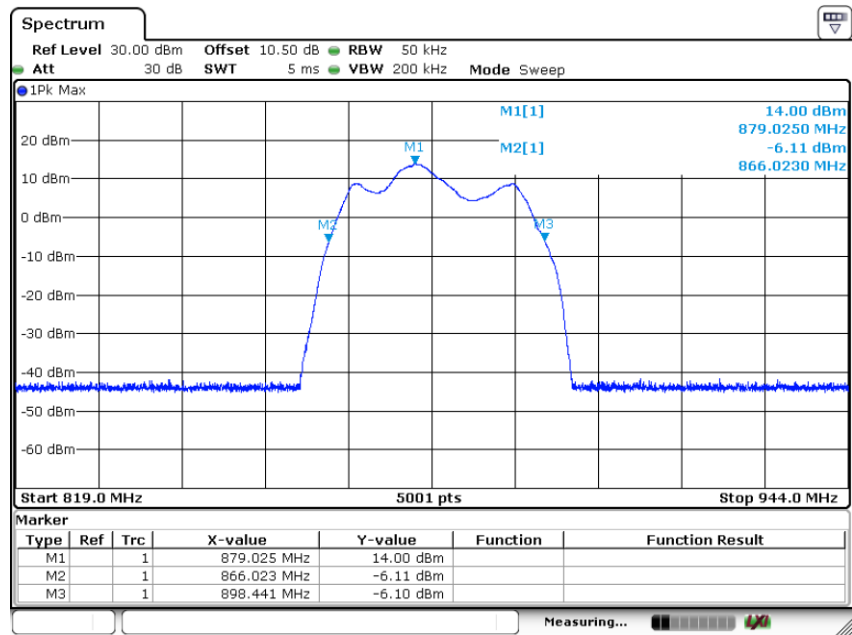
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AWS Downlink



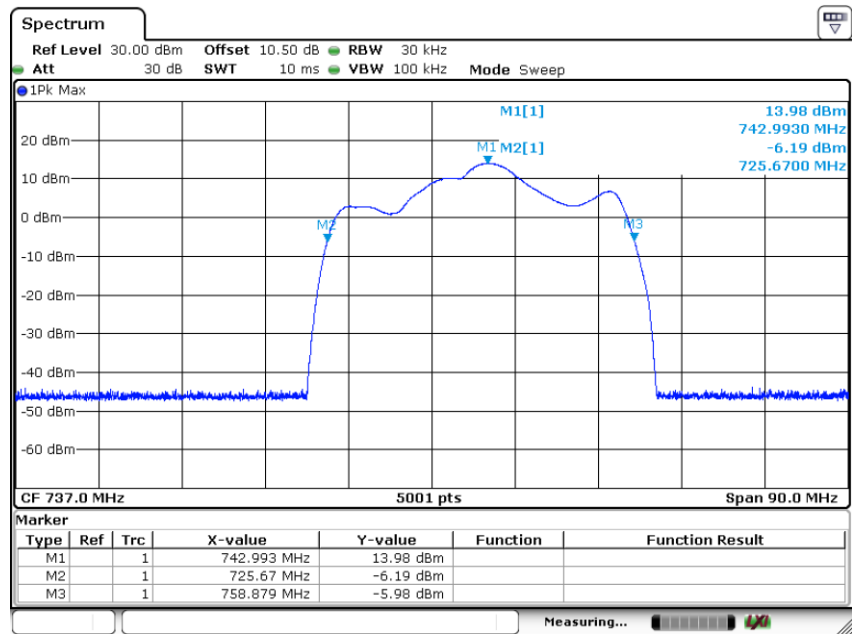
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Cellular Downlink



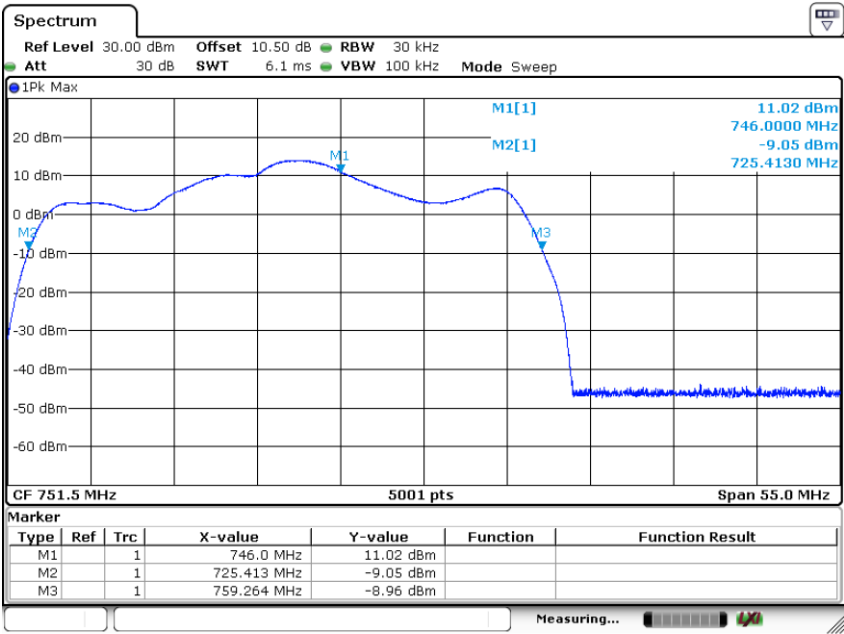
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Lower700MHz Downlink



Date: 23.JUN.2026 13:28:36

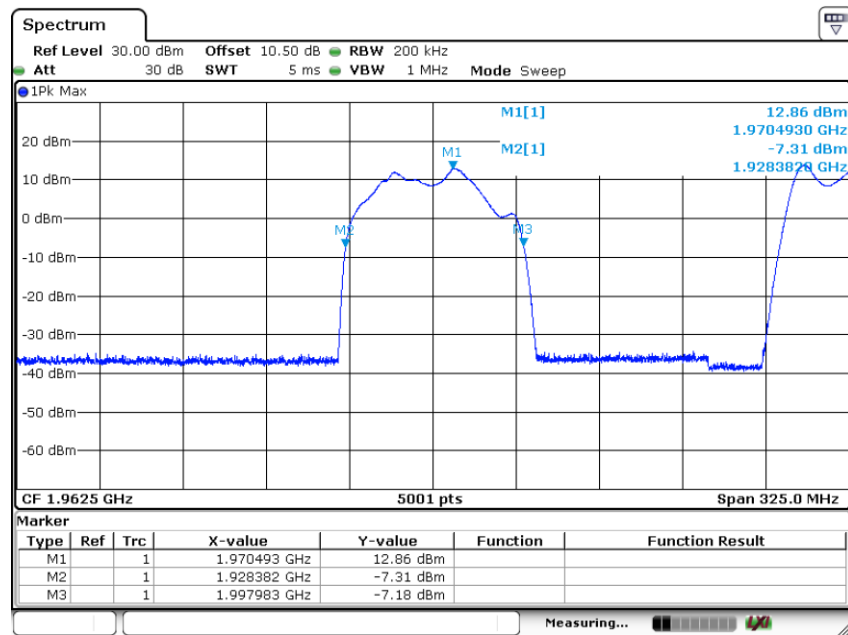
Upper700MHz Downlink



Date: 23.JUN.2026 13:14:46

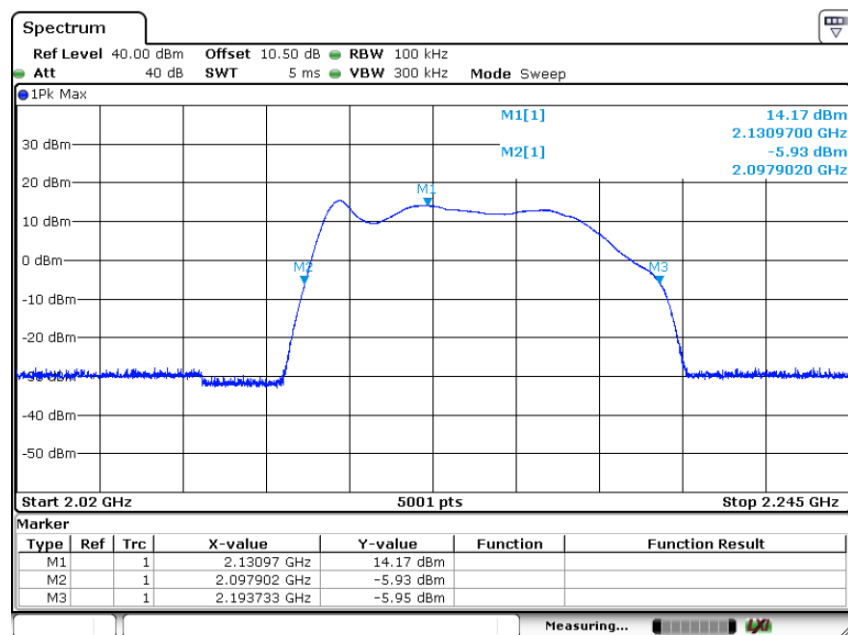
Signal Path: Donor to Sever3

PCS Downlink



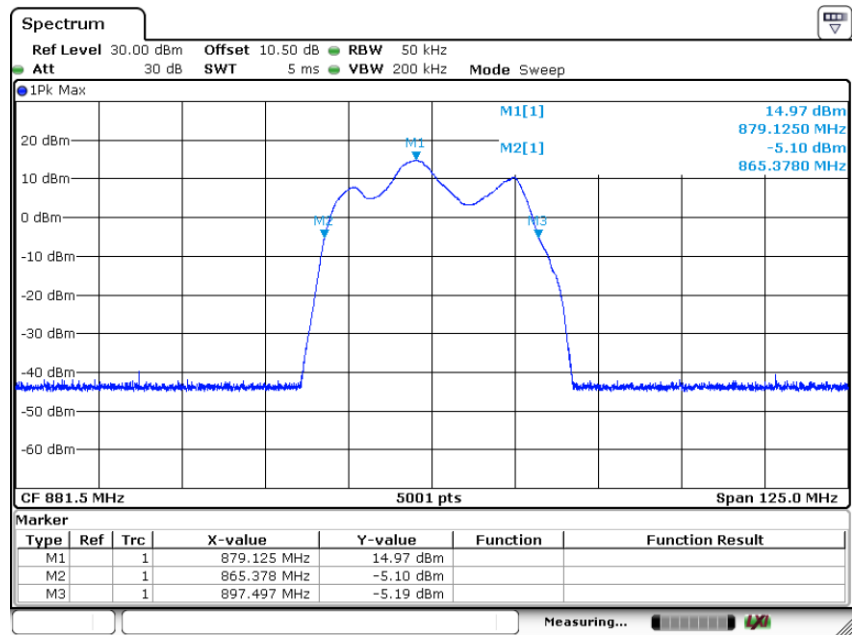
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AWS Downlink



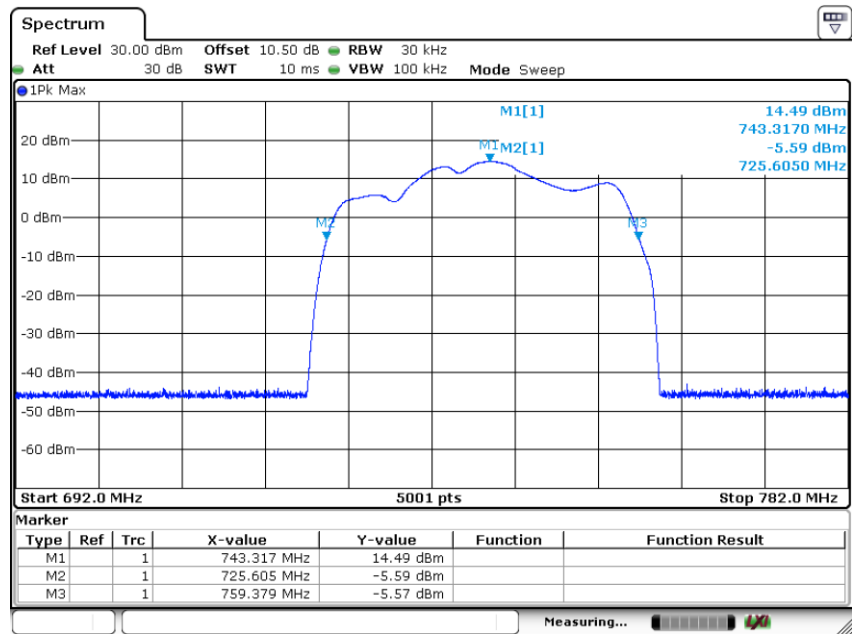
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Cellular Downlink



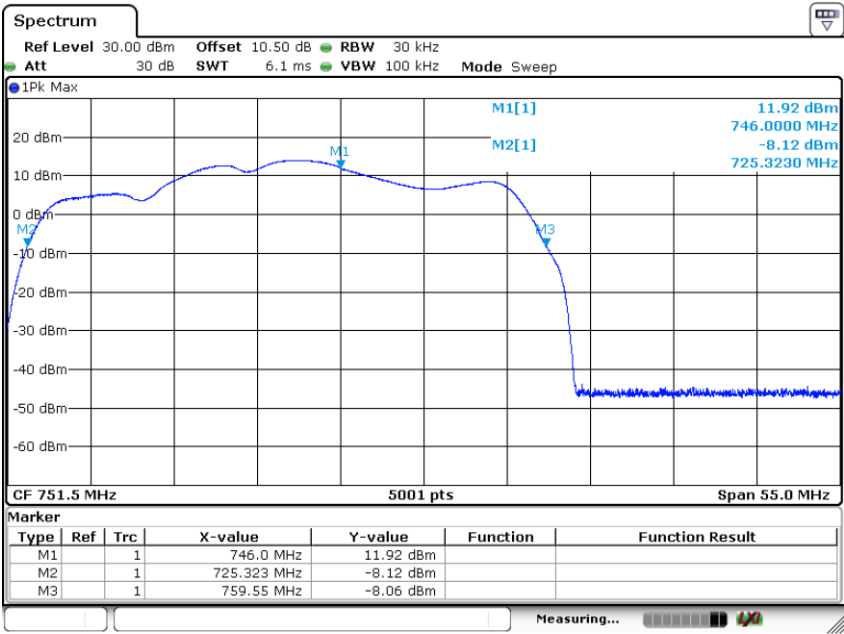
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Lower700MHz Downlink



Date: 23.JUN.2026 14:46:08

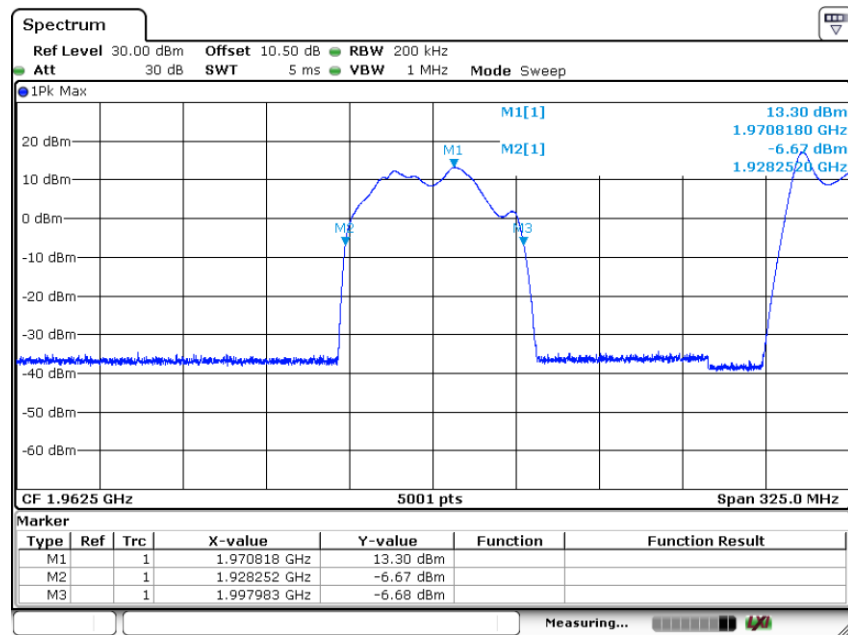
Upper700MHz Downlink



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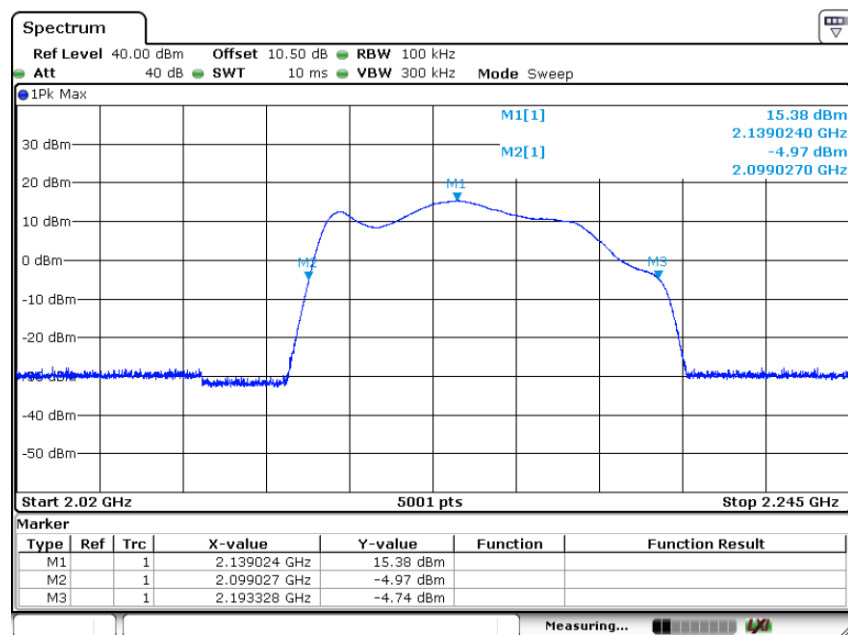
Signal Path: Donor to Sever4

PCS Downlink



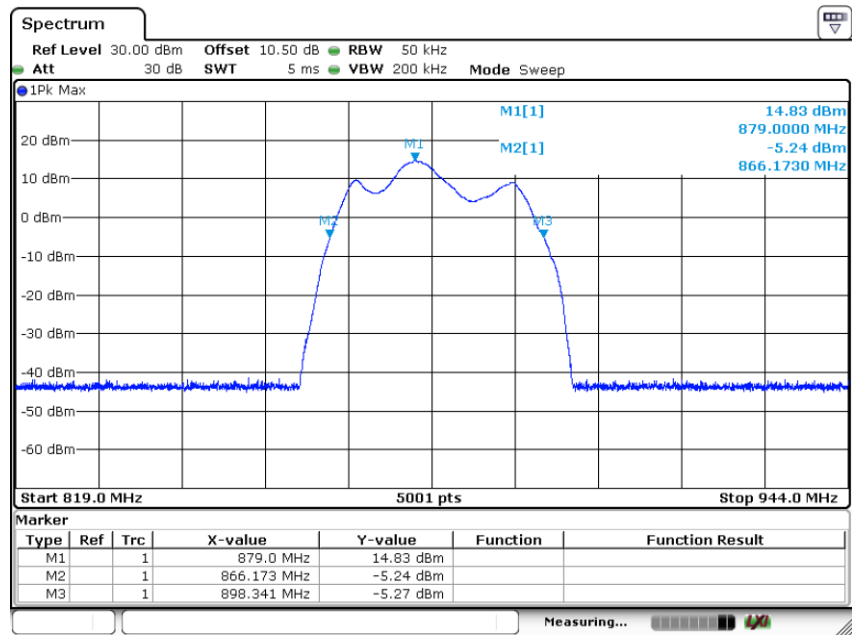
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AWS Downlink



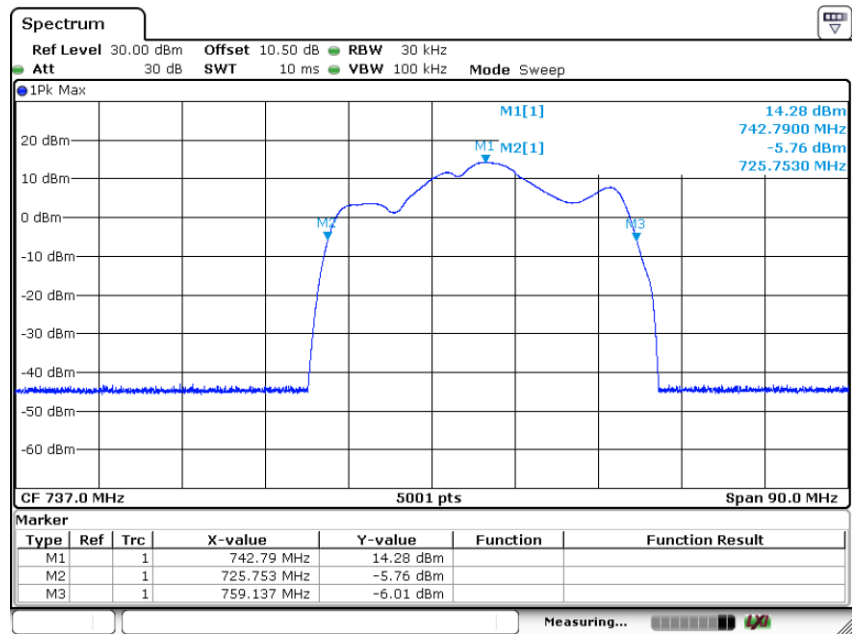
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Cellular Downlink



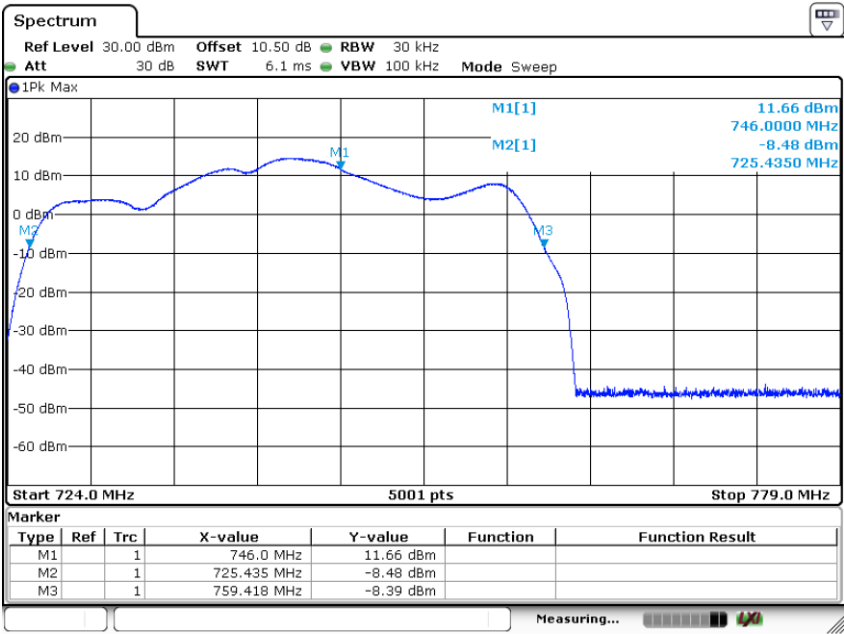
Date: 23.JUN.2026 17:25:17

Lower700MHz Downlink



Date: 23.JUN.2026 17:12:46

Upper700MHz Downlink



Date: 23.JUN.2026 18:20:48

Input-versus-output signal comparison

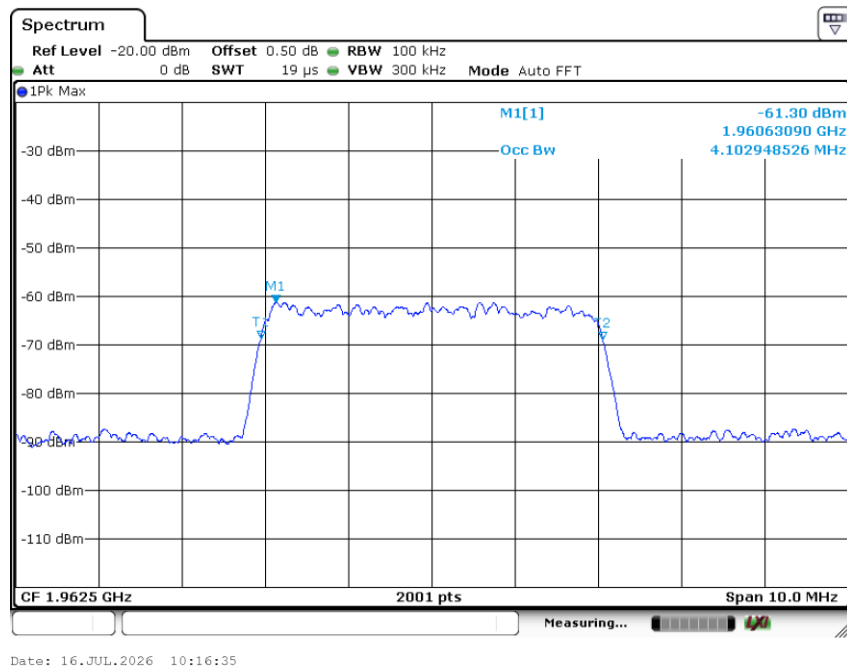
Frequency Bands	Signal Type	Input OBW [MHz]	Output OBW@ Pre AGC [MHz]	Output OBW@ AGC+3dB [MHz]
PCS Downlink	GSM	0.254	0.243	0.242
	AWGN	4.103	4.088	4.148
AWS Downlink	GSM	0.254	0.242	0.246
	AWGN	4.133	4.183	4.243
Cellular Downlink	GSM	0.254	0.246	0.244
	AWGN	4.108	4.068	4.193
Lower700MHz Downlink	GSM	0.253	0.245	0.244
	AWGN	4.103	4.048	4.058
Upper700MHz Downlink	GSM	0.250	0.244	0.247
	AWGN	4.113	4.093	4.113

Note: All the RF path have been tested, only the worst-case signal path (The table below is listed) reported.

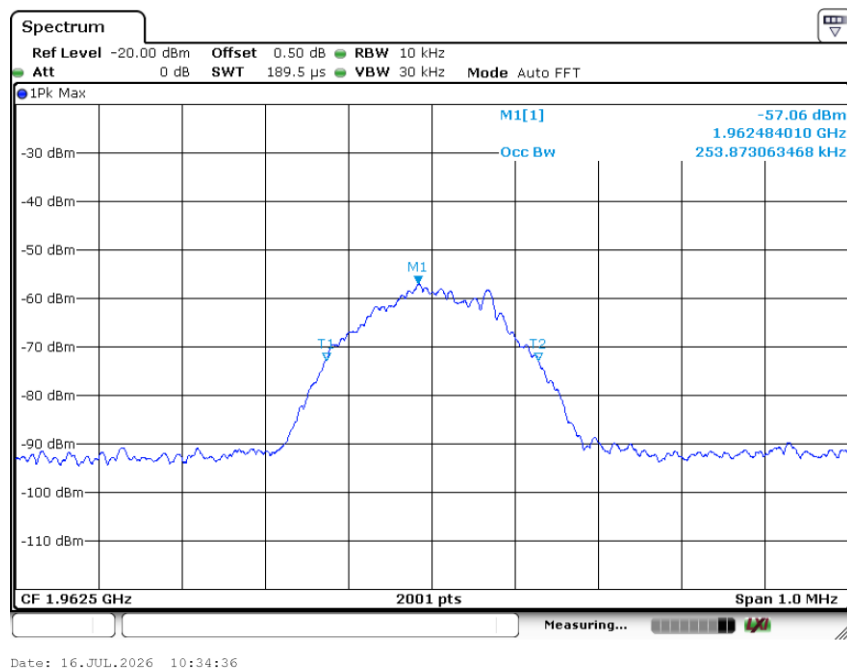
Band	Signal Path
PCS Downlink	Donor- Sever3
AWS Downlink	Donor- Sever3
Cellular Downlink	Donor- Sever3
Lower700 Downlink	Donor- Sever1
Upper700 Downlink	Donor- Sever3

Test Plots

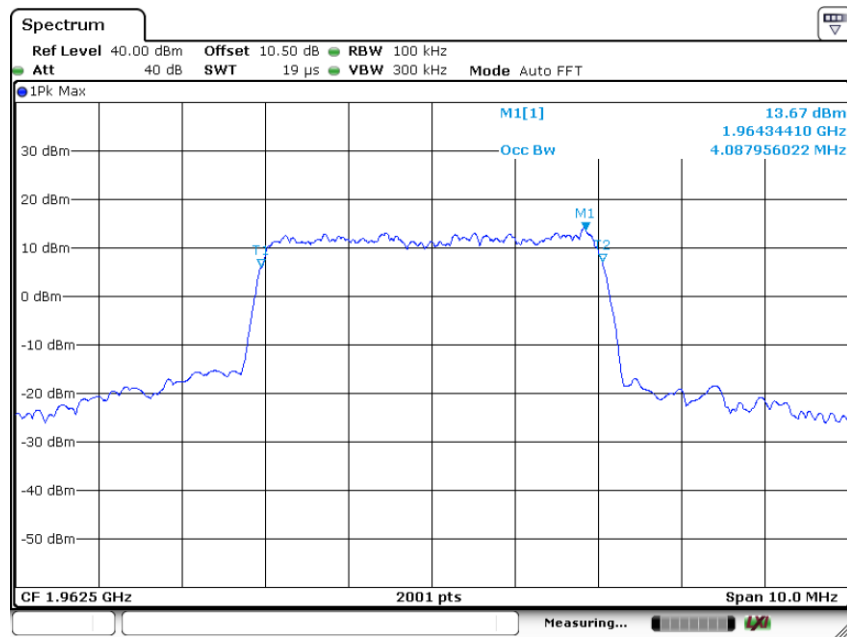
PCS AWGN @Pre AGC, DL Input



PCS GSM @Pre AGC, DL Input

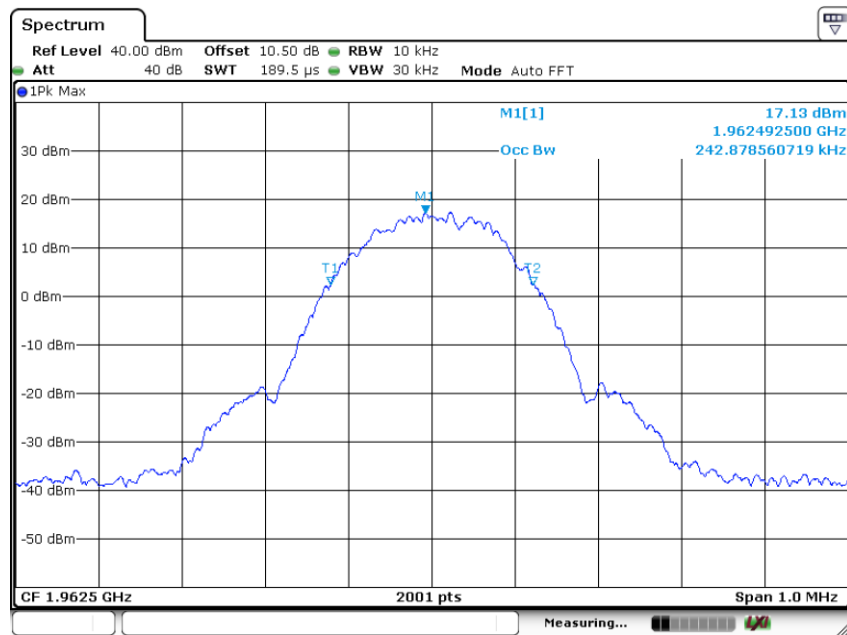


PCS AWGN @Pre AGC, DL output



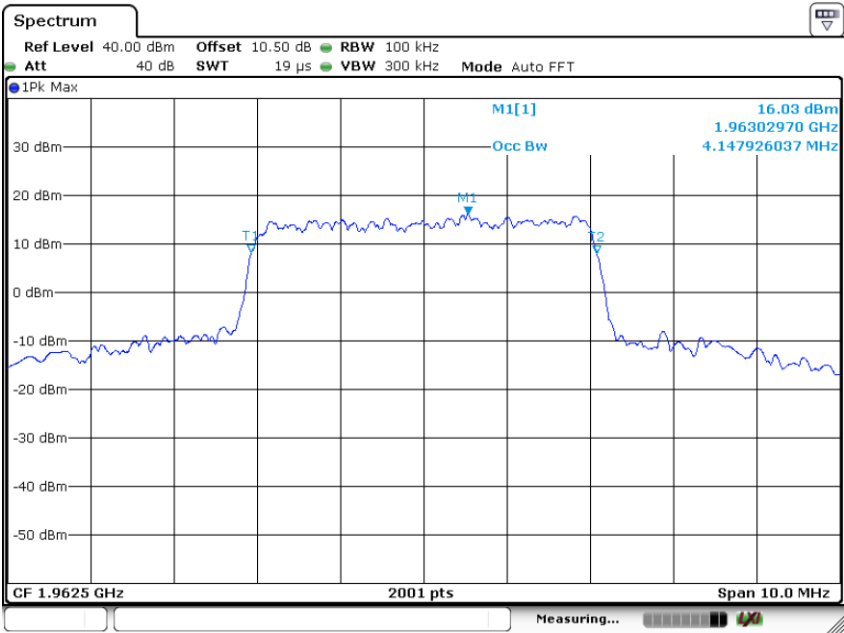
Date: 16.JUL.2026 14:16:10

PCS GSM @Pre AGC, DL output



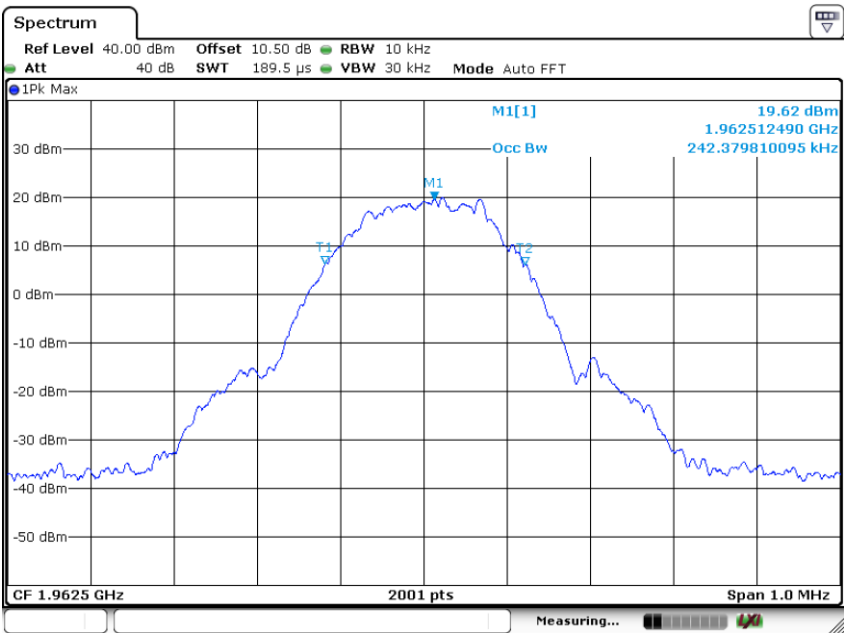
Date: 16.JUL.2026 14:17:02

PCS AWGN @AGC + 3 dB, DL output



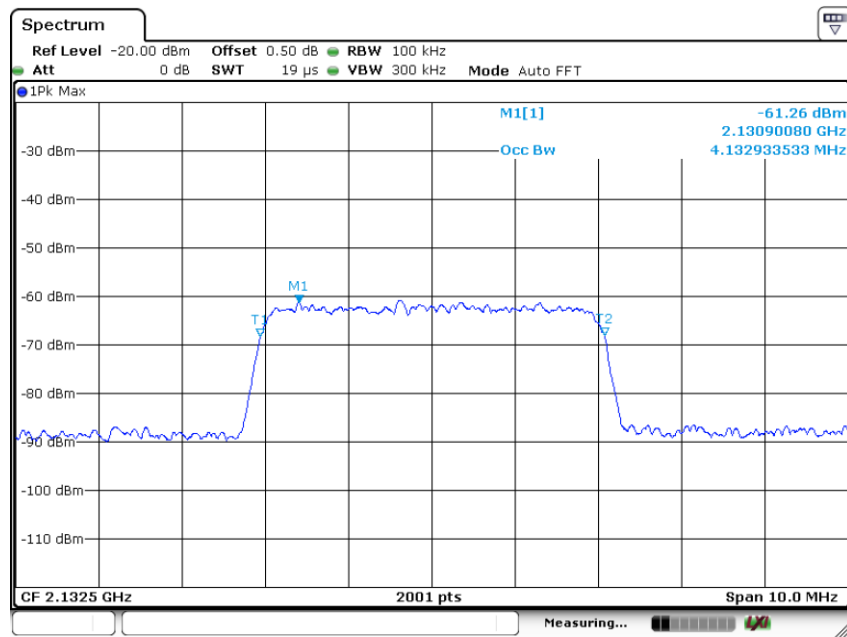
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PCS GSM @AGC + 3 dB, DL output



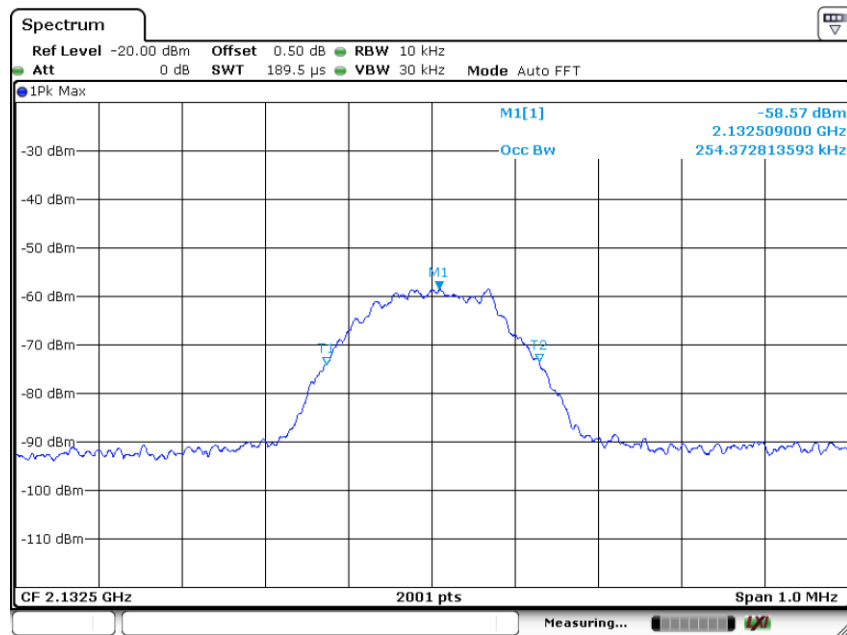
Date: 16.JUL.2026 14:17:19

AWS AWGN @Pre AGC, DL Input



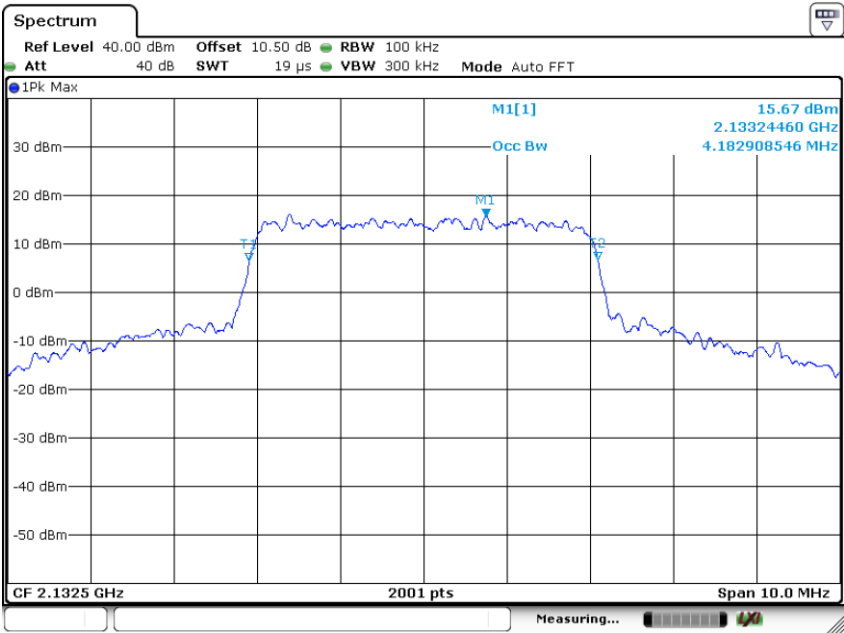
Date: 16.JUL.2026 10:17:16

AWS GSM @Pre AGC, DL Input



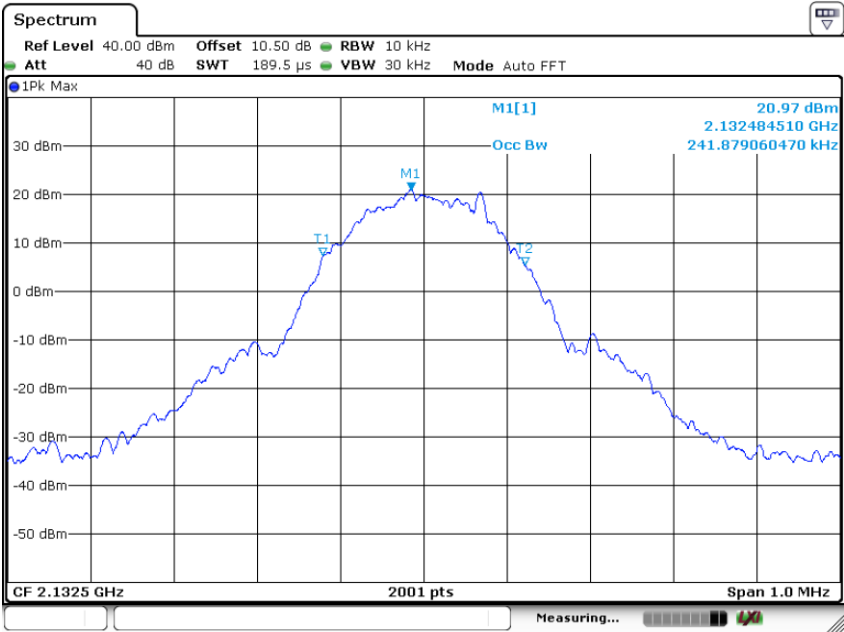
Date: 16.JUL.2026 10:35:52

AWS AWGN @Pre AGC, DL output



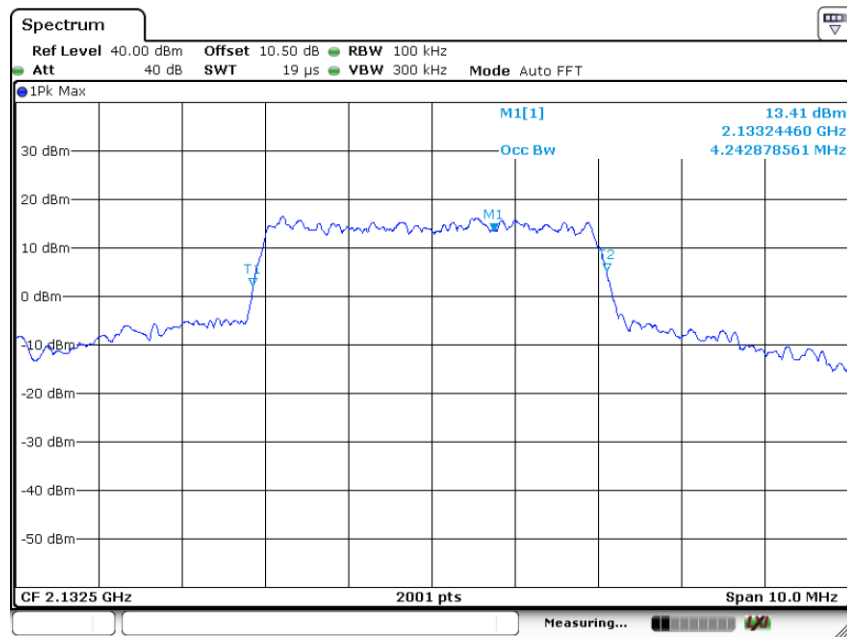
Date: 16.JUL.2026 14:13:38

AWS GSM @Pre AGC, DL output



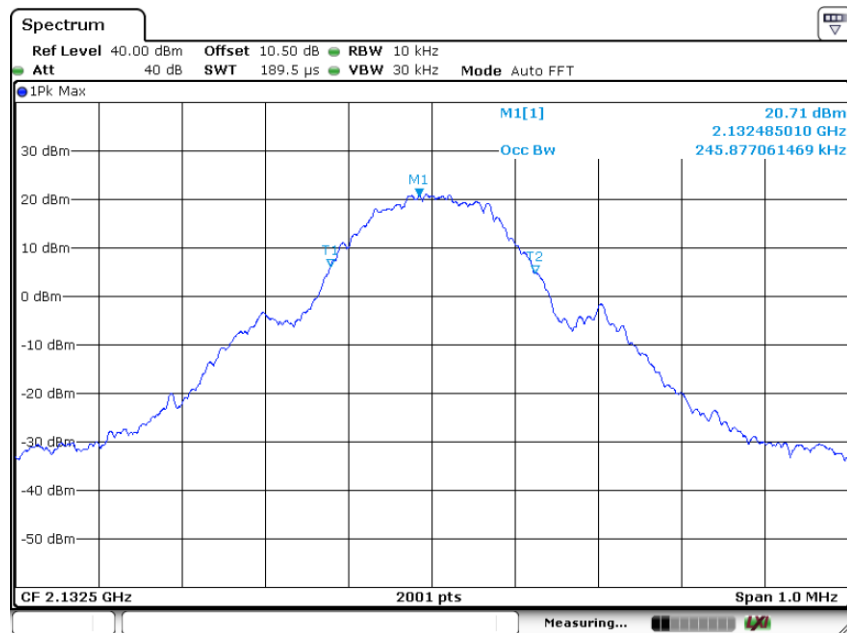
Date: 16.JUL.2026 14:19:49

AWS AWGN @AGC + 3 dB, DL output



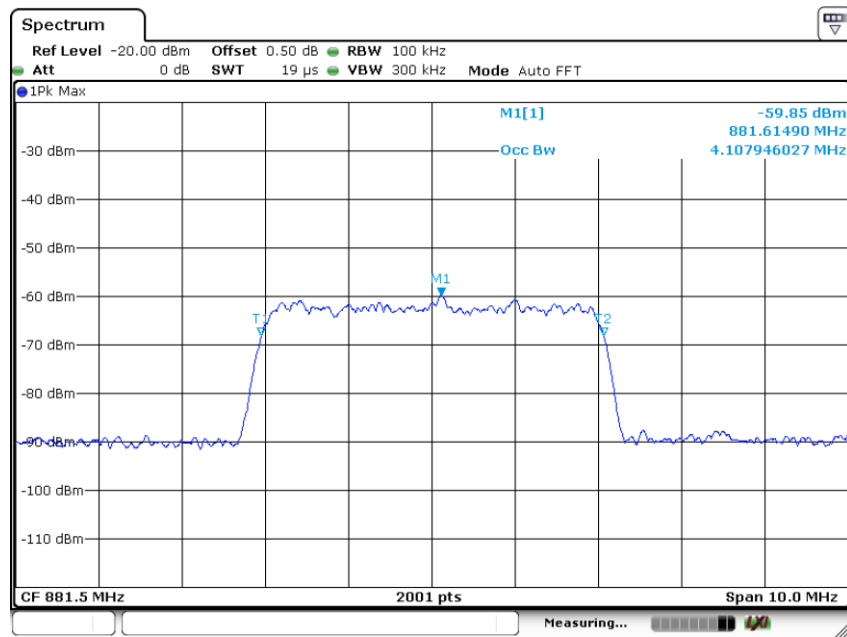
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AWS GSM @AGC + 3 dB, DL output



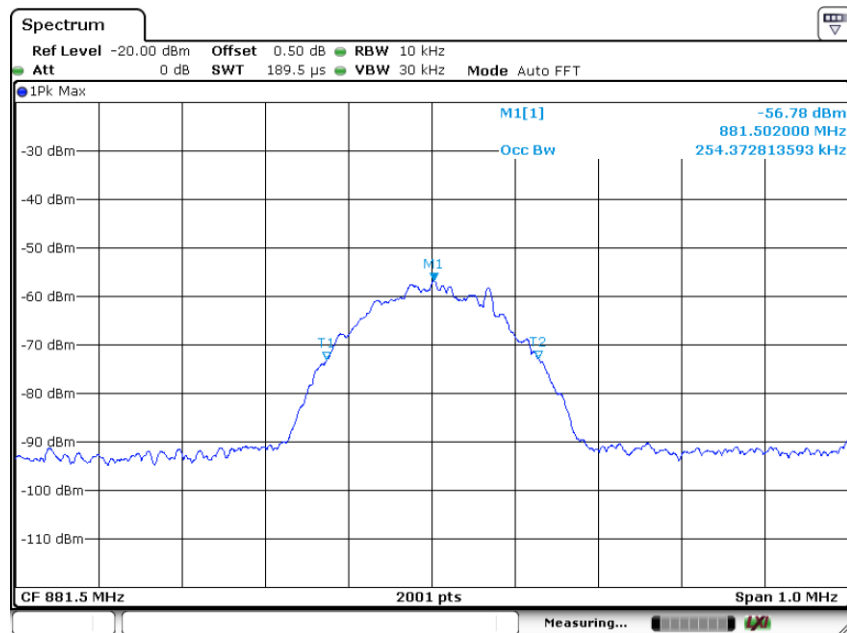
Date: 16.JUL.2026 14:20:21

Cellular AWGN @Pre AGC, DL Input



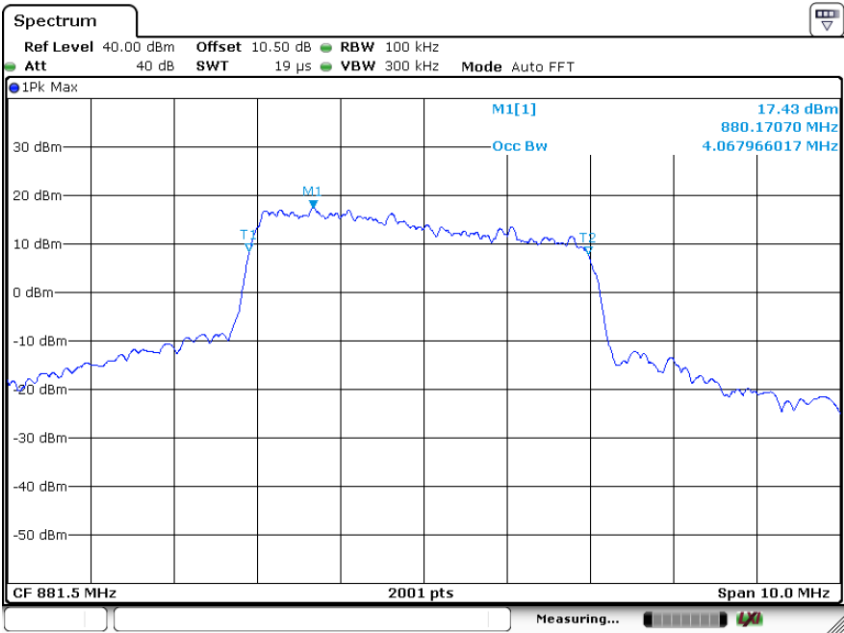
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Cellular GSM @Pre AGC, DL Input



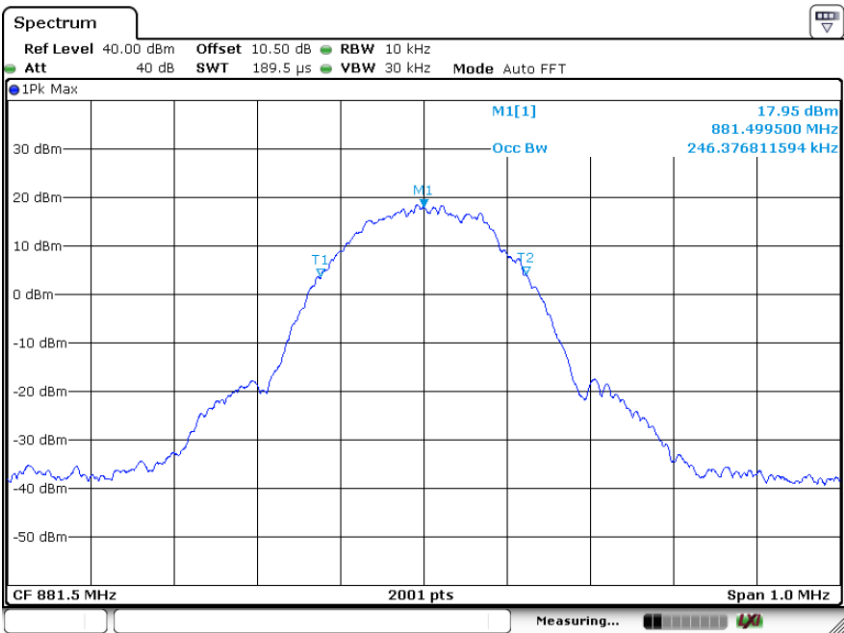
Date: 16.JUL.2026 10:37:09

Cellular AWGN @Pre AGC, DL output



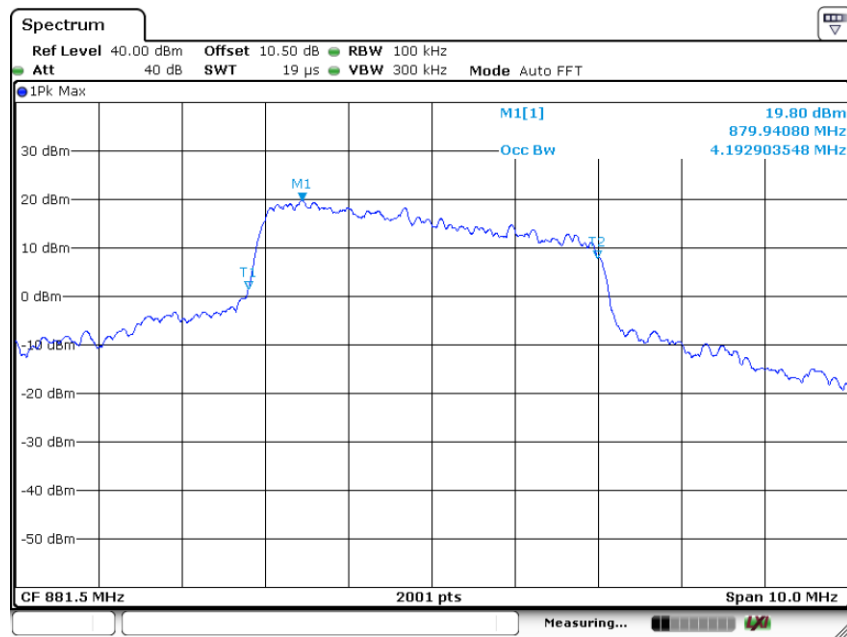
Date: 16.JUL.2026 11:49:07

Cellular GSM @Pre AGC, DL output



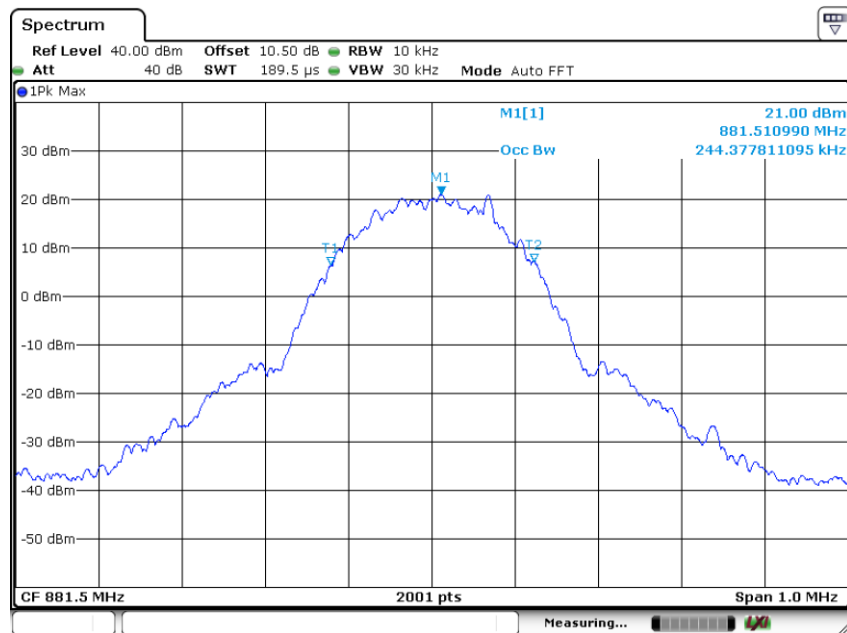
Date: 16.JUL.2026 14:22:11

Cellular AWGN @AGC + 3 dB, DL output



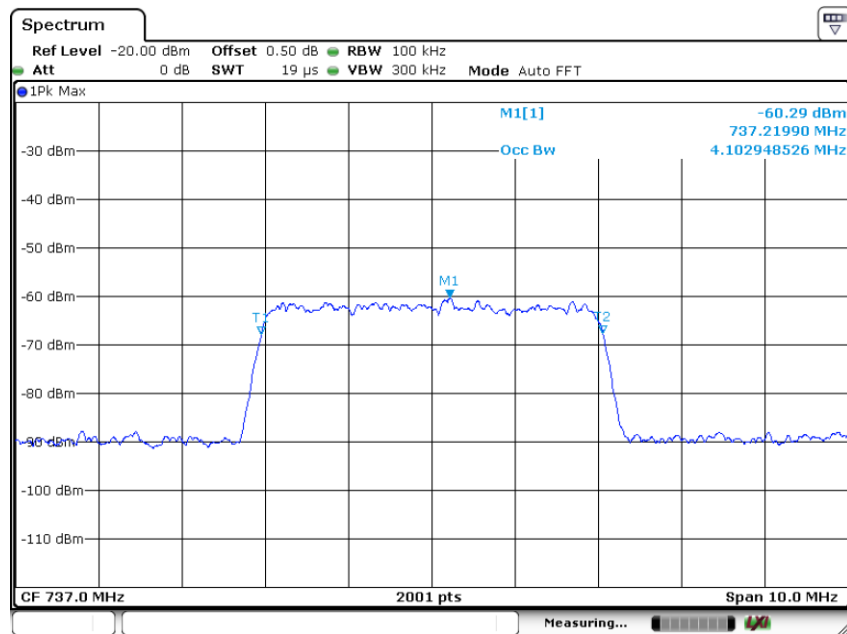
Date: 16.JUL.2026 11:49:52

Cellular GSM @AGC + 3 dB, DL output



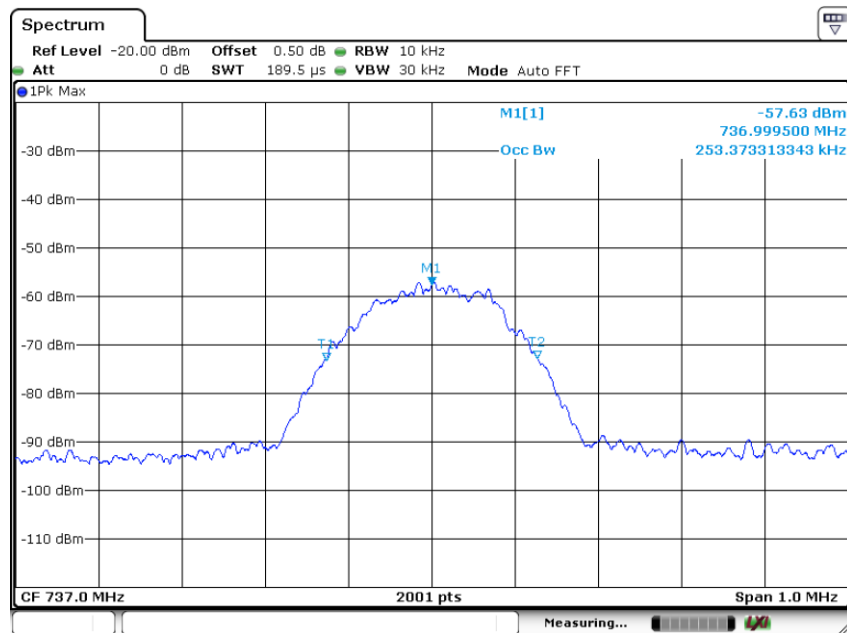
Date: 16.JUL.2026 14:22:29

Lower700MHz AWGN @Pre AGC, DL Input



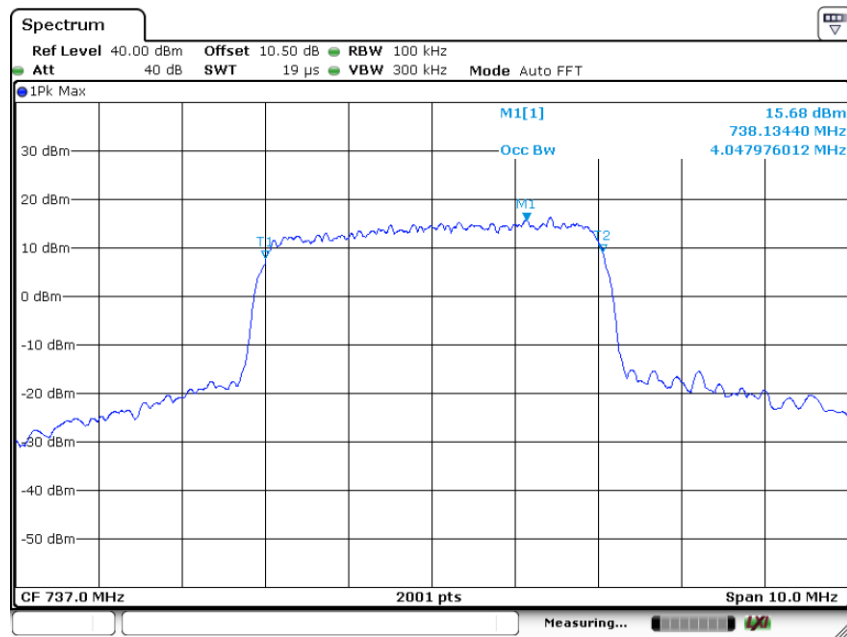
Date: 16.JUL.2026 10:22:55

Lower700MHz GSM @Pre AGC, DL Input



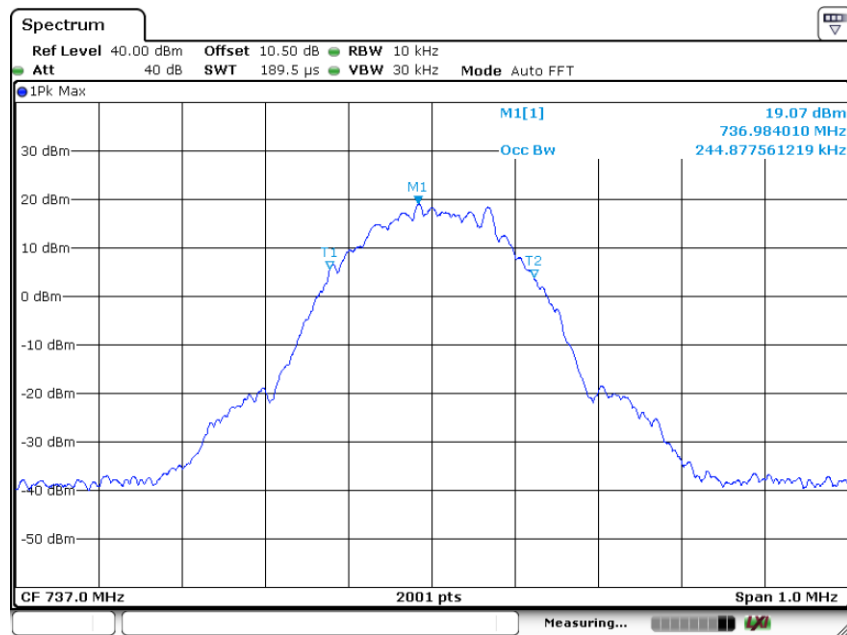
Date: 16.JUL.2026 10:37:45

Lower700MHz AWGN @Pre AGC, DL output



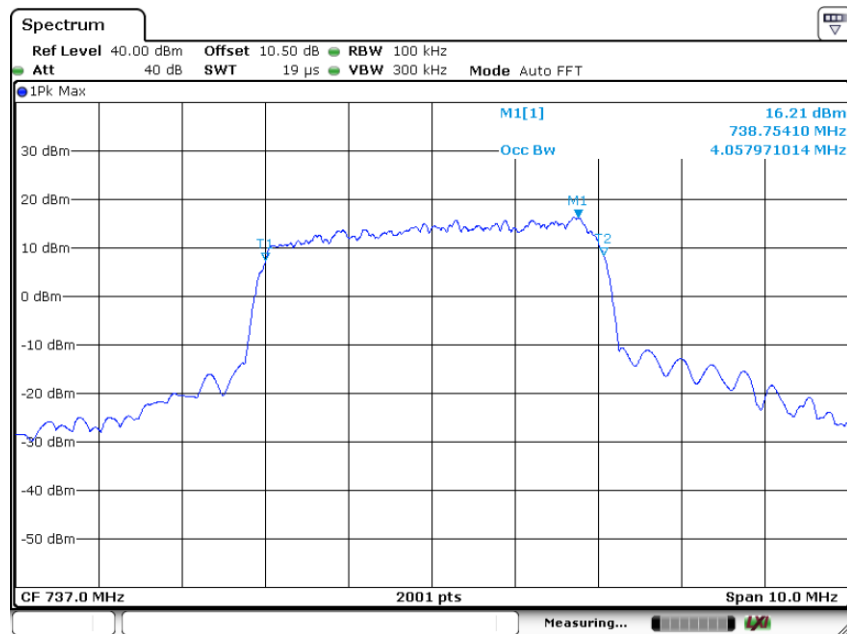
Date: 16.JUL.2026 11:46:24

Lower700MHz GSM @Pre AGC, DL output



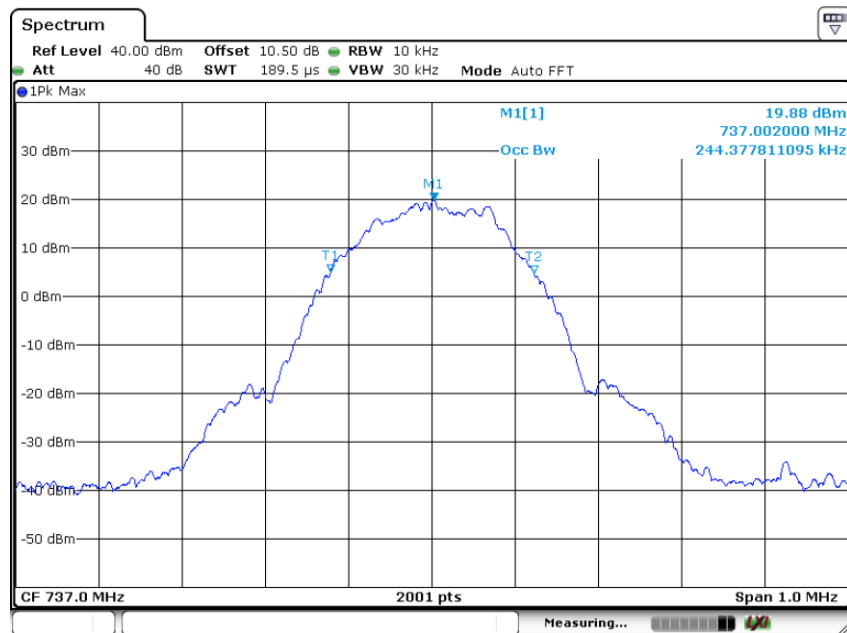
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Lower700MHz AWGN @AGC + 3 dB, DL output



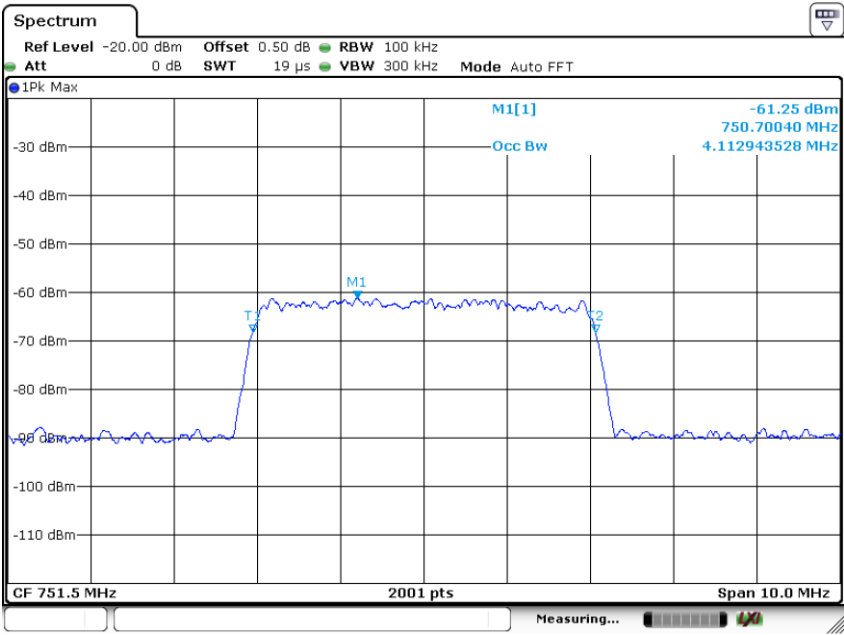
Date: 16.JUL.2026 11:46:57

Lower700MHz GSM @AGC + 3 dB, DL output



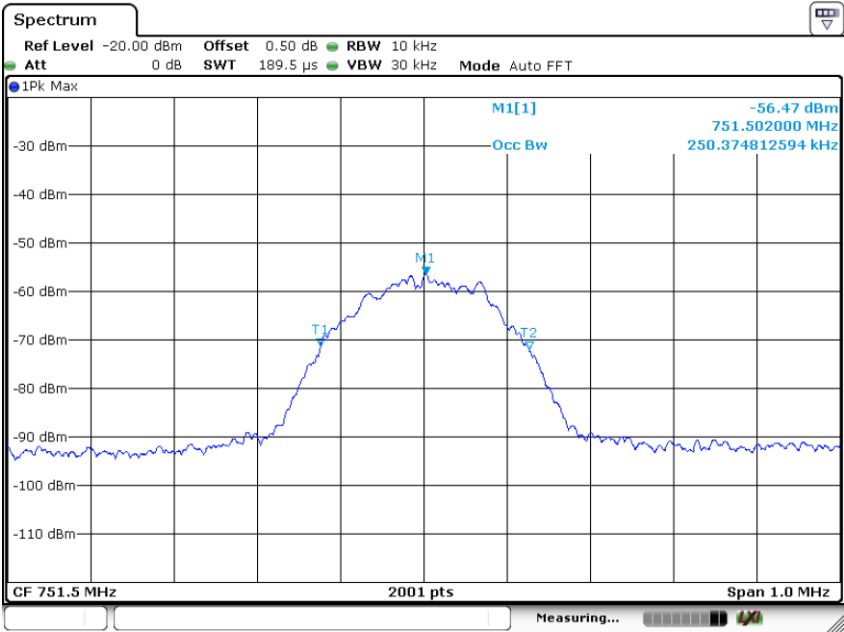
Date: 16.JUL.2026 14:23:14

Upper700MHz AWGN @Pre AGC, DL Input



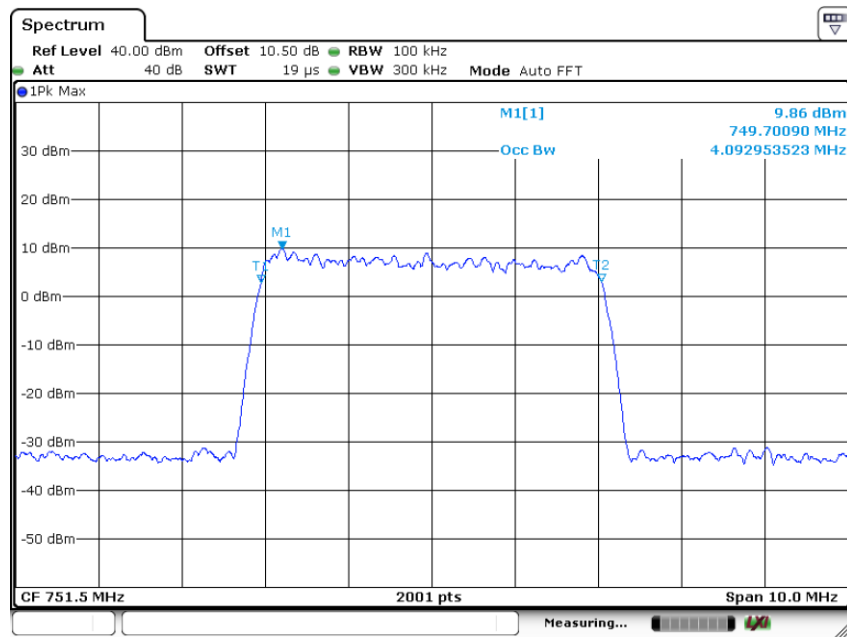
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Upper700MHz GSM @Pre AGC, DL Input



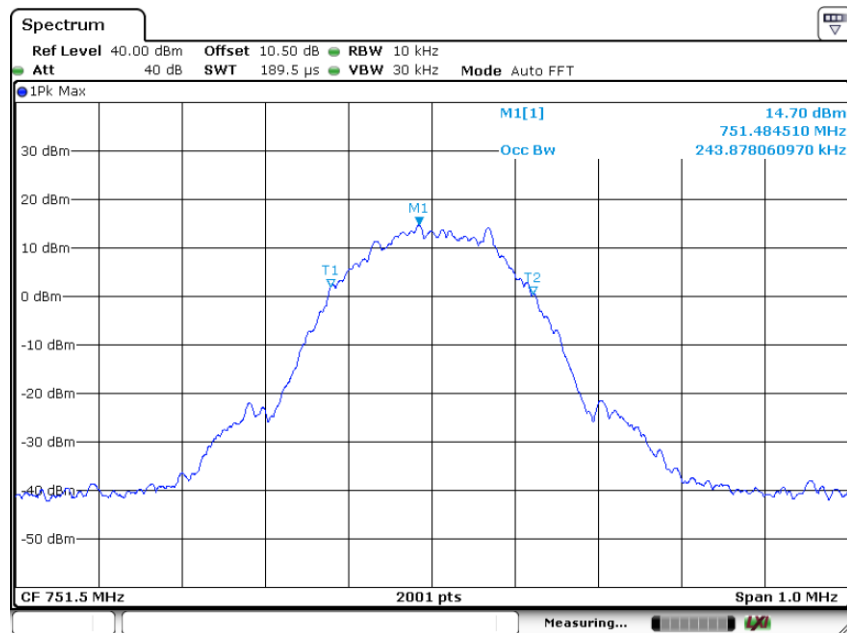
Date: 16.JUL.2026 10:38:35

Upper700MHz AWGN @Pre AGC, DL output



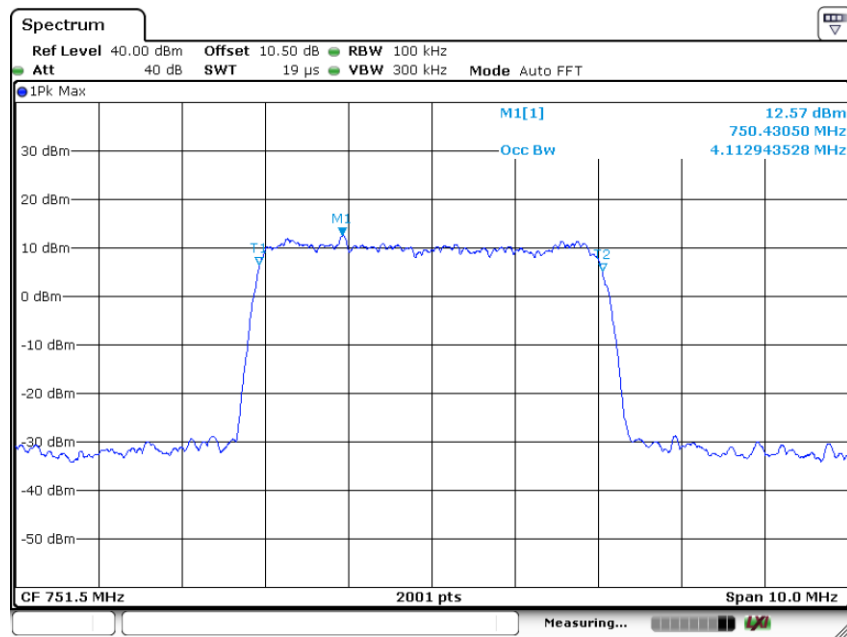
Date: 16.JUL.2026 11:47:20

Upper700MHz GSM @Pre AGC, DL output



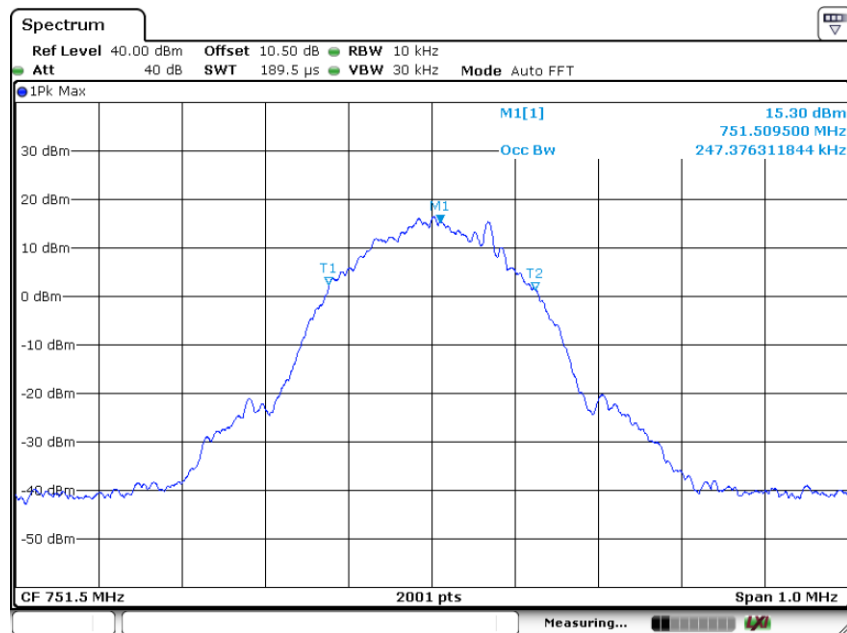
Date: 16.JUL.2026 14:23:42

Upper700MHz AWGN @AGC + 3 dB, DL output



Date: 16.JUL.2026 11:47:36

Upper700MHz GSM @AGC + 3 dB, DL output



Date: 16.JUL.2026 14:24:00

Mean output power and amplifier/booster gain

Signal path: Donor to Server1

Frequency Band	Signal Type	Input Level (dBm)	Output Level (dBm)	Gain (dB)	Output Level@ AGC+3dB (dBm)
PCS Downlink	GSM	-58.30	23.27	81.57	24.20
	AWGN	-58.50	22.90	81.40	24.55
AWS Downlink	GSM	-58.00	23.45	81.45	24.13
	AWGN	-58.20	23.01	81.21	24.11
Cellular Downlink	GSM	-58.10	22.35	80.45	23.13
	AWGN	-58.10	22.20	80.30	23.08
Lower700MHz Downlink	GSM	-58.30	22.97	81.27	24.34
	AWGN	-58.60	22.64	81.24	23.97
Upper700MHz Downlink	GSM	-57.40	21.64	79.04	22.98
	AWGN	-57.60	21.46	79.06	22.35

Signal path: Donor to Server2

Frequency Band	Signal Type	Input Level (dBm)	Output Level (dBm)	Gain (dB)	Output Level@ AGC+3dB (dBm)
PCS Downlink	GSM	-57.10	24.09	81.19	24.23
	AWGN	-57.60	23.23	80.83	24.19
AWS Downlink	GSM	-57.20	23.20	80.40	23.59
	AWGN	-57.40	23.01	80.41	23.49
Cellular Downlink	GSM	-58.40	22.37	80.77	23.24
	AWGN	-57.90	22.40	80.30	23.04
Lower700MHz Downlink	GSM	-57.40	23.84	81.24	24.29
	AWGN	-57.80	23.39	81.19	23.65
Upper700MHz Downlink	GSM	-57.40	21.69	79.09	23.03
	AWGN	-57.10	22.24	79.34	22.99

Signal path: Donor to Server3

Frequency Band	Signal Type	Input Level (dBm)	Output Level (dBm)	Gain (dB)	Output Level@ AGC+3dB (dBm)
PCS Downlink	GSM	-59.10	23.46	82.56	24.74
	AWGN	-59.30	22.96	82.26	24.43
AWS Downlink	GSM	-58.90	23.60	82.50	24.60
	AWGN	-59.30	23.35	82.65	24.69
Cellular Downlink	GSM	-58.90	23.42	82.32	23.55
	AWGN	-58.10	23.28	81.38	23.86
Lower700MHz Downlink	GSM	-58.10	23.17	81.27	23.57
	AWGN	-57.60	23.14	80.74	23.75
Upper700MHz Downlink	GSM	-58.10	21.92	80.02	23.41
	AWGN	-57.00	22.83	79.83	23.55

Signal path: Donor to Server4

Frequency Band	Signal Type	Input Level (dBm)	Output Level (dBm)	Gain (dB)	Output Level@ AGC+3dB (dBm)
PCS Downlink	GSM	-58.50	22.47	80.97	23.39
	AWGN	-58.60	22.69	81.29	24.51
AWS Downlink	GSM	-58.30	22.80	81.10	24.47
	AWGN	-58.00	23.65	81.65	24.69
Cellular Downlink	GSM	-58.30	23.00	81.30	23.25
	AWGN	-58.20	22.73	80.93	23.35
Lower700MHz Downlink	GSM	-57.90	23.21	81.11	23.79
	AWGN	-57.60	23.28	80.88	23.91
Upper700MHz Downlink	GSM	-57.90	22.01	79.91	22.67
	AWGN	-57.60	22.01	79.61	22.68

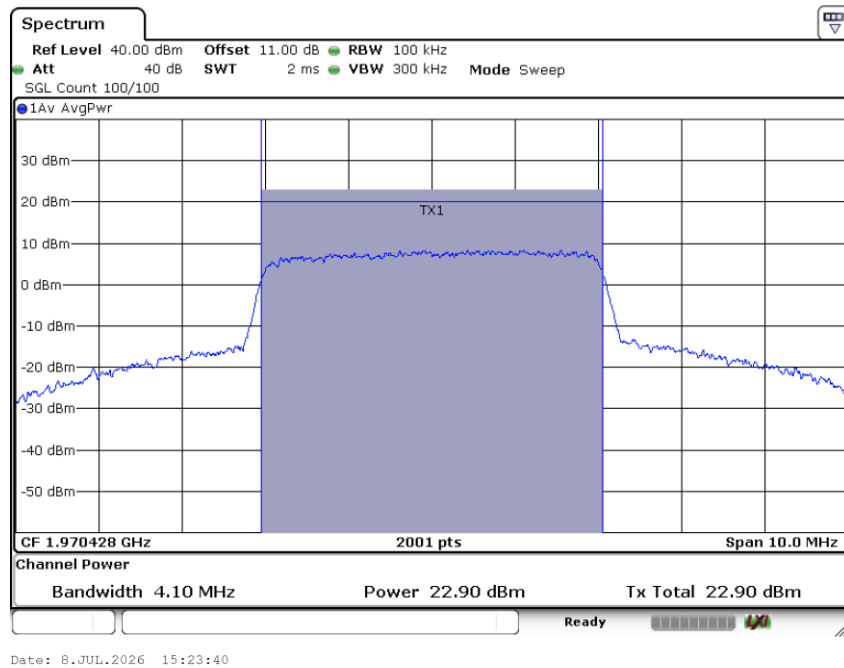
MIMO Mode: Donor to all Server port

Frequency Band	Signal Type	Max. Output Level (dBm)				Total (dBm)
		Server1	Server2	Server3	Server4	
PCS Downlink	GSM	24.20	24.23	24.74	23.39	30.19
	AWGN	24.55	24.19	24.43	24.51	30.44
AWS Downlink	GSM	24.13	23.59	24.60	24.47	30.24
	AWGN	24.11	23.49	24.69	24.69	30.29
Cellular Downlink	GSM	23.13	23.24	23.55	23.25	29.32
	AWGN	23.08	23.04	23.86	23.35	29.37
Lower700MHz Downlink	GSM	24.34	24.29	23.57	23.79	30.03
	AWGN	23.97	23.65	23.75	23.91	29.84
Upper700MHz Downlink	GSM	22.98	23.03	23.41	22.67	29.05
	AWGN	22.35	22.99	23.55	22.68	28.94

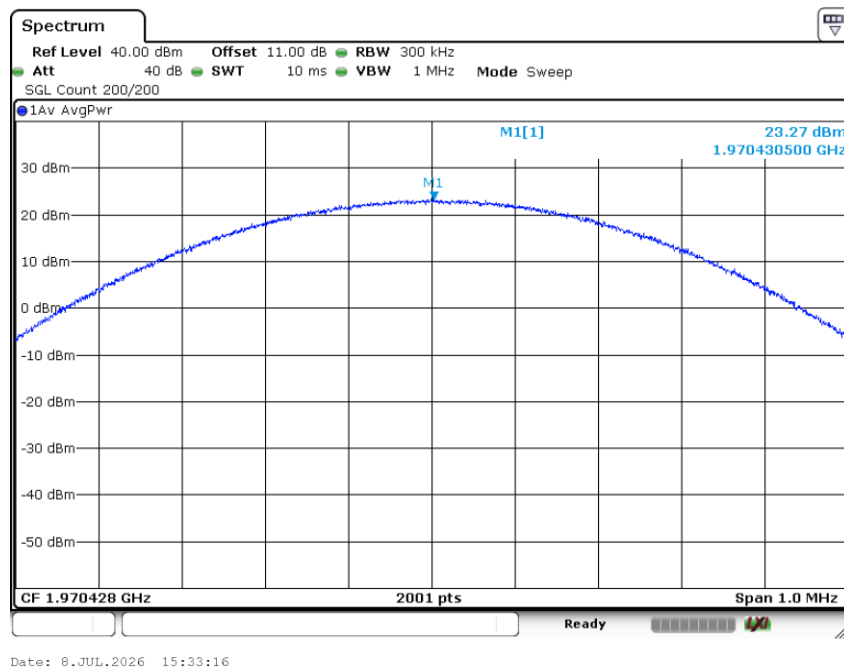
Test Plots

Signal path: Donor to Server1

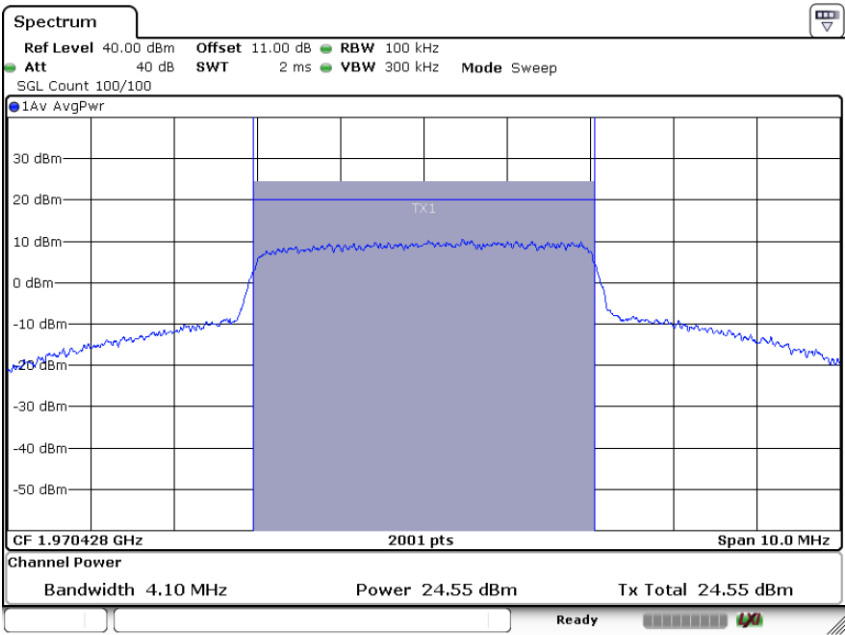
PCS AWGN @Pre AGC, DL



PCS GSM @Pre AGC, DL

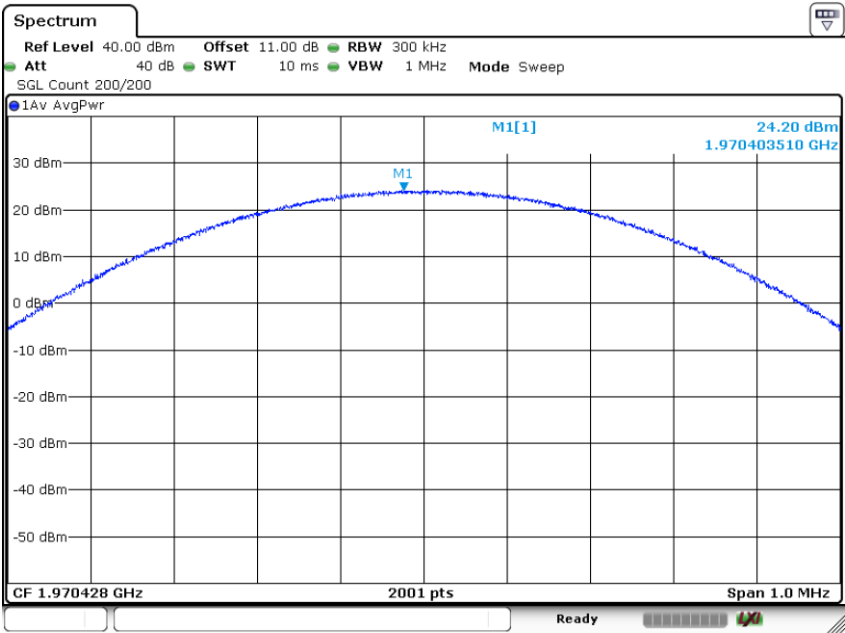


PCS AWGN @AGC + 3 dB, DL



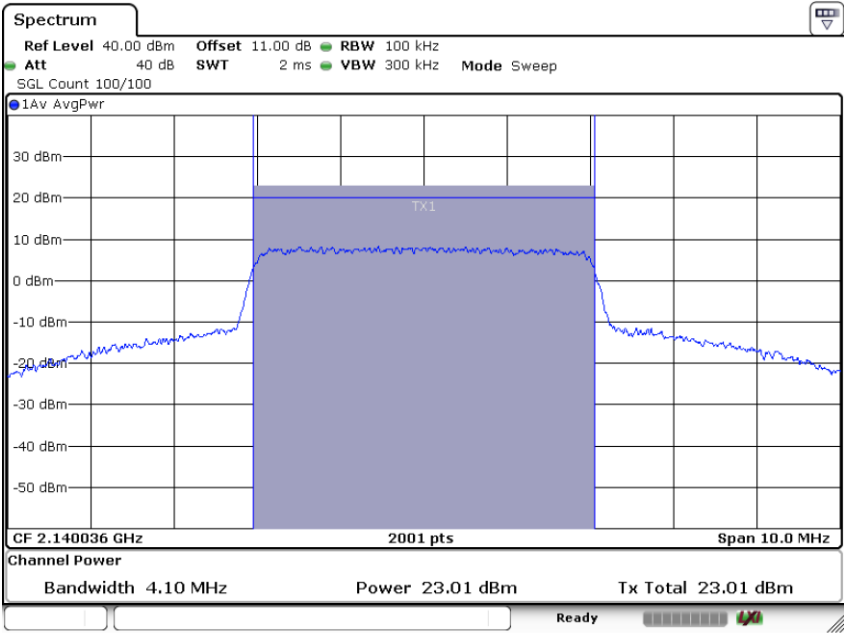
Date: 8.JUL.2026 15:24:18

PCS GSM @AGC + 3 dB, DL



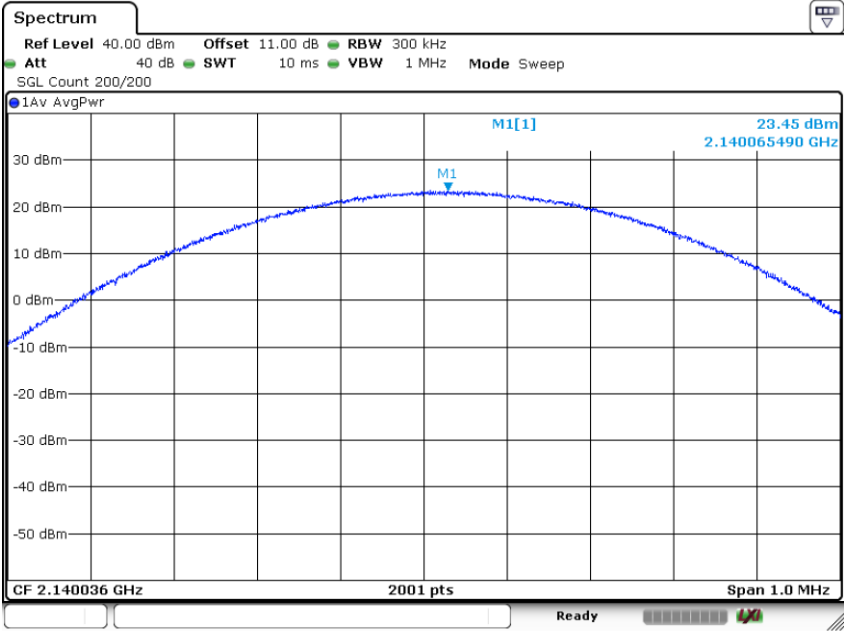
Date: 8.JUL.2026 15:34:05

AWS AWGN @Pre AGC, DL



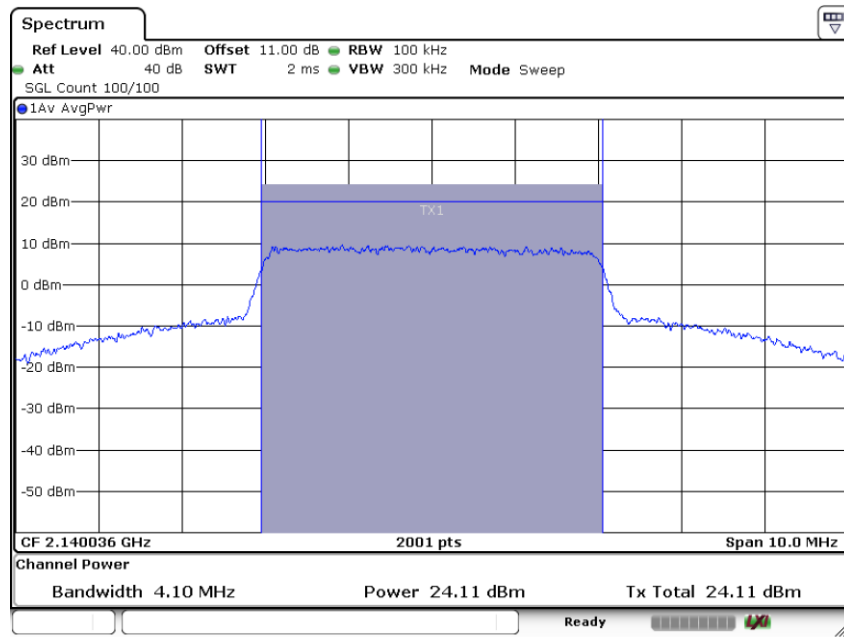
Date: 8.JUL.2026 15:20:59

AWS GSM @Pre AGC, DL



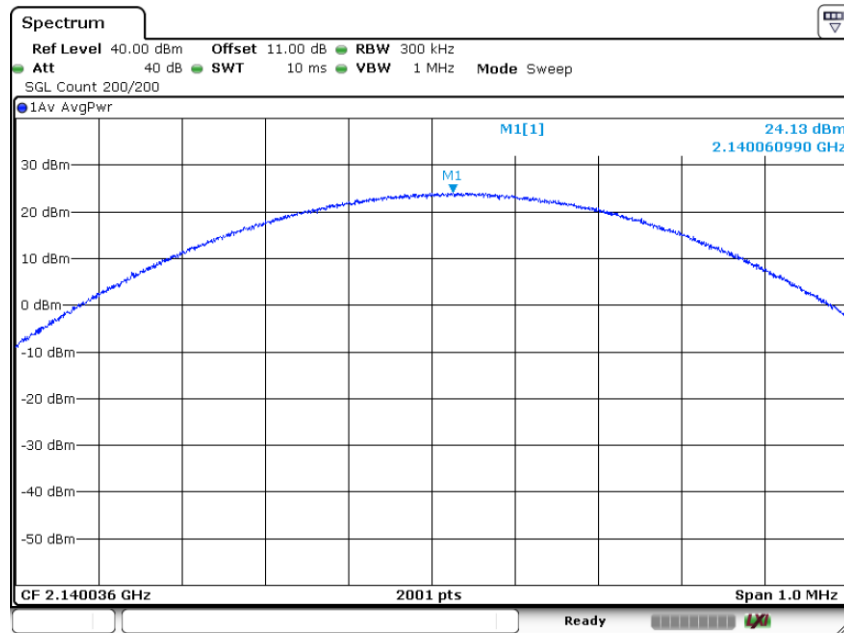
Date: 8.JUL.2026 15:36:22

AWS AWGN @AGC + 3 dB, DL



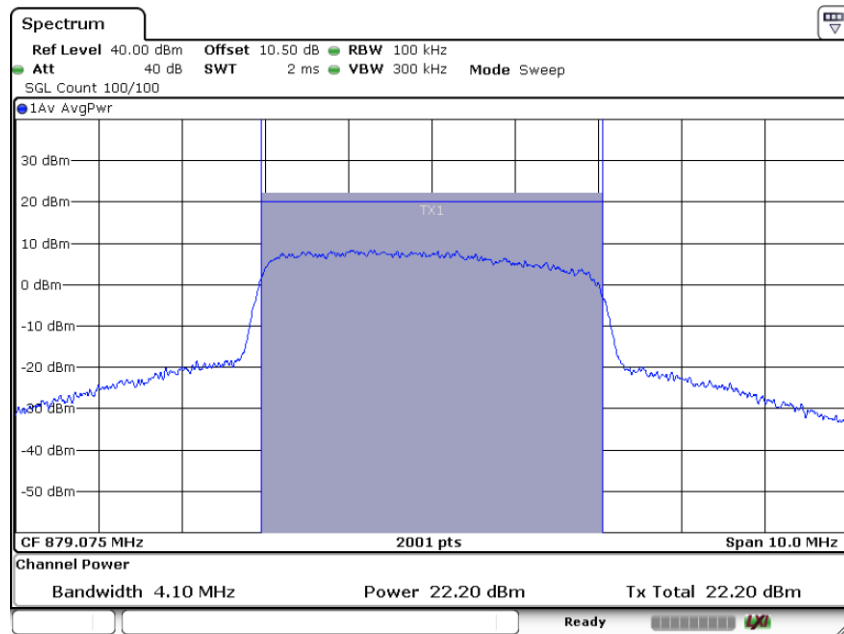
Date: 8.JUL.2026 15:22:23

AWS GSM @AGC + 3 dB, DL



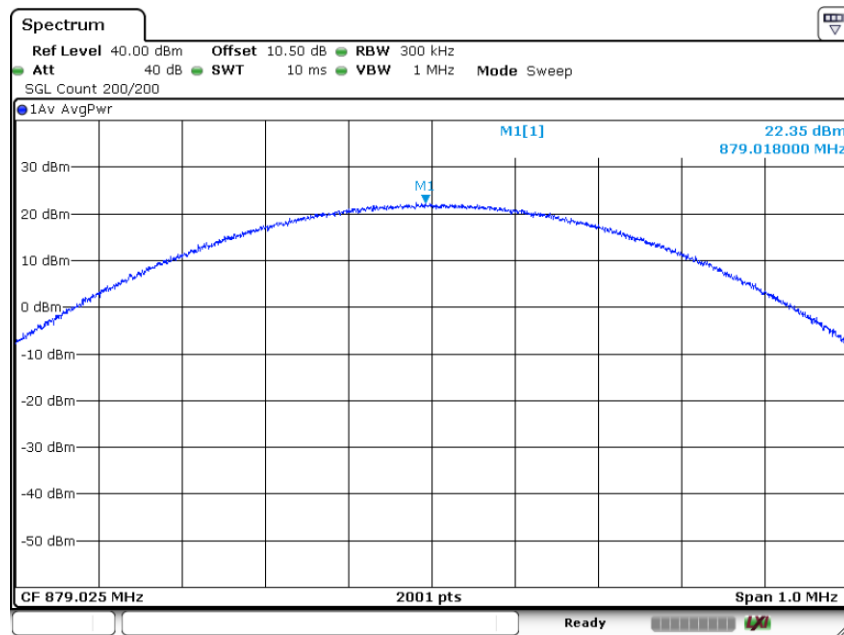
Date: 8.JUL.2026 15:37:51

Cellular AWGN @Pre AGC, DL



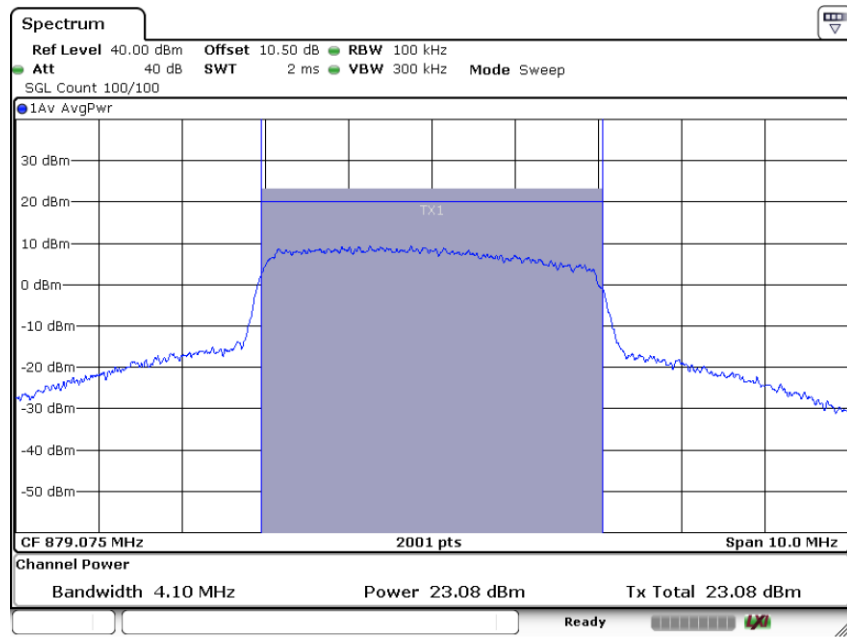
Date: 8.JUL.2026 11:26:53

Cellular GSM @Pre AGC, DL



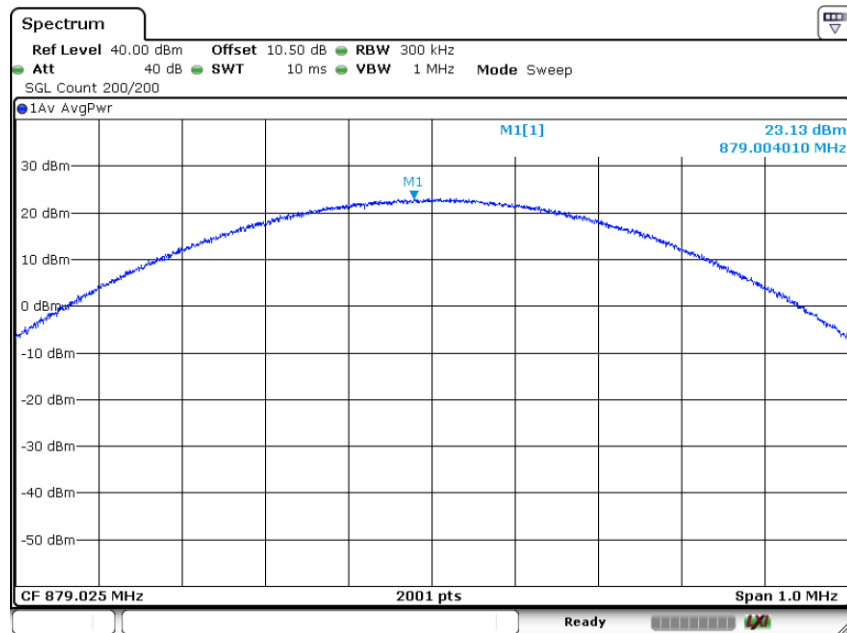
Date: 8.JUL.2026 15:40:15

Cellular AWGN @AGC + 3 dB, DL



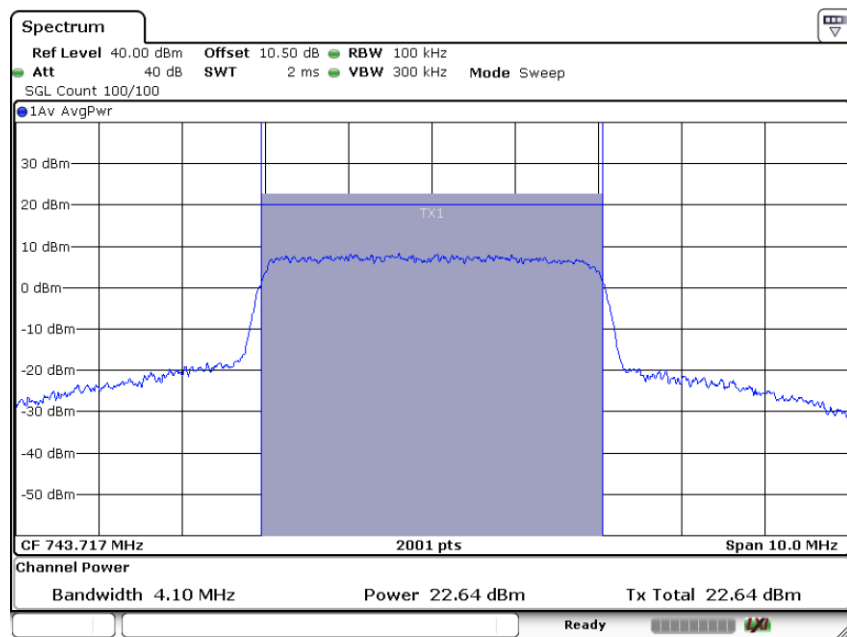
Date: 8.JUL.2026 11:49:53

Cellular GSM @AGC + 3 dB, DL



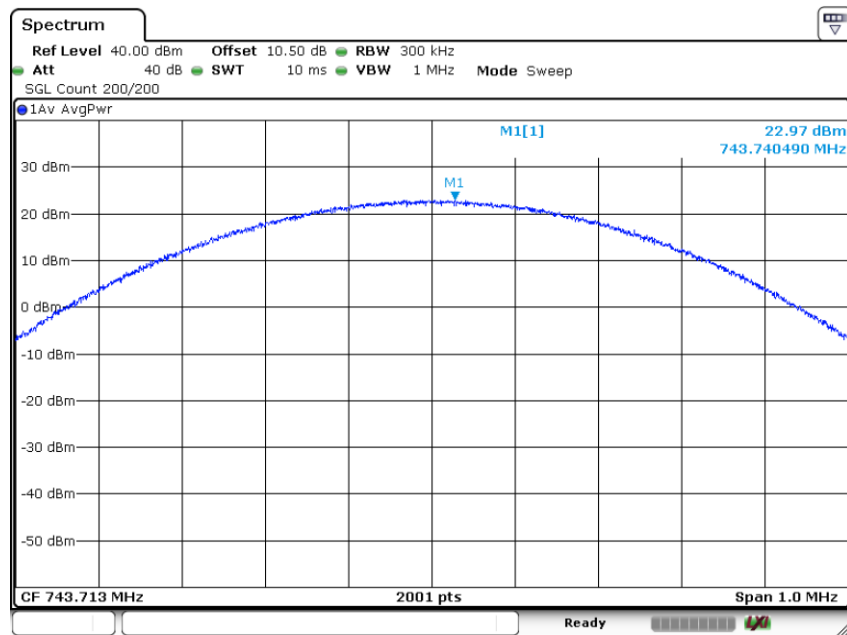
Date: 8.JUL.2026 16:11:29

Lower700MHz AWGN @Pre AGC, DL



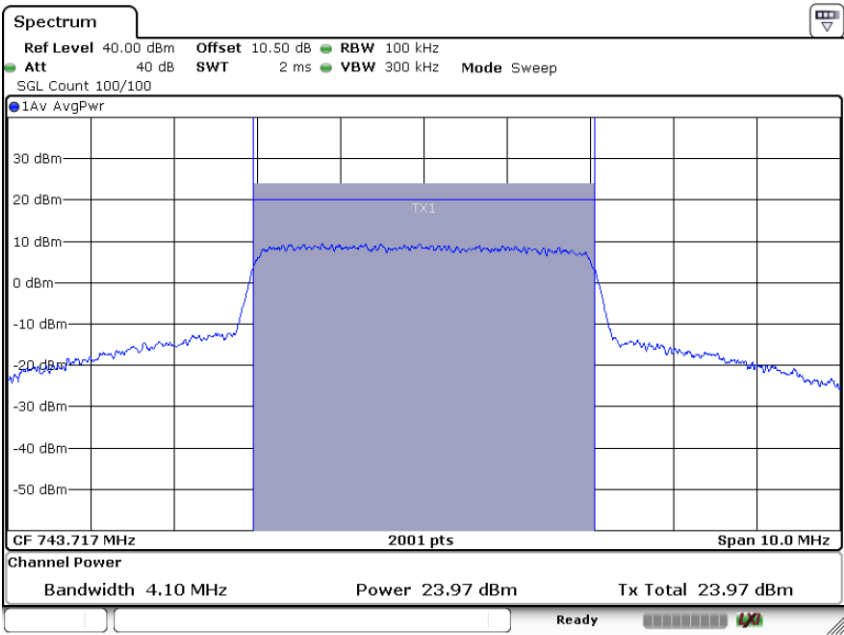
Date: 7.JUL.2026 17:38:09

Lower700MHz GSM @Pre AGC, DL



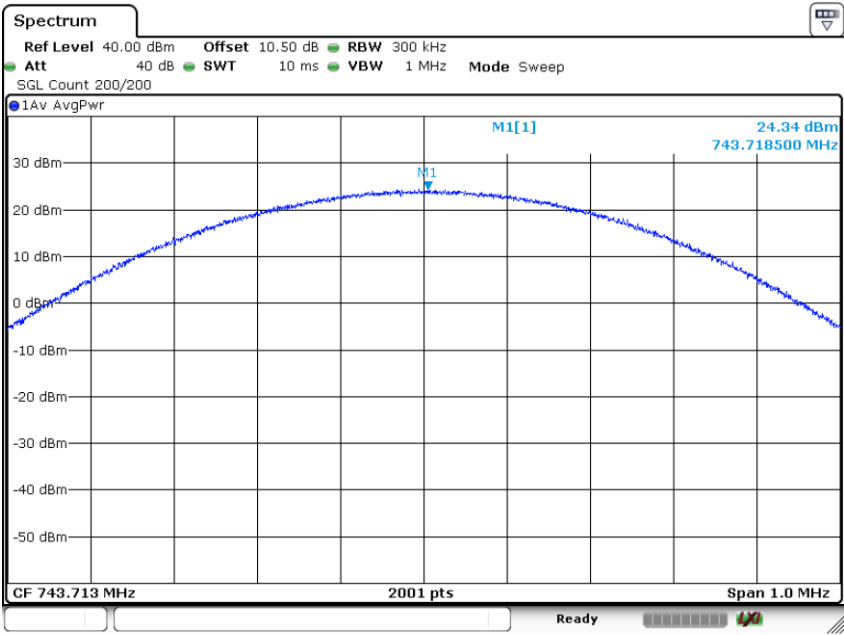
Date: 8.JUL.2026 16:44:57

Lower700MHz AWGN @AGC + 3 dB, DL



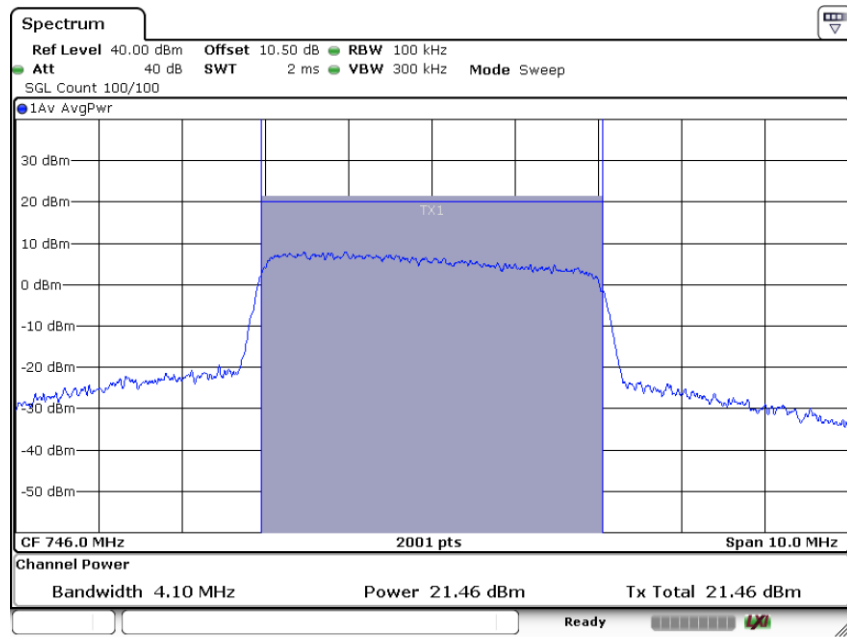
Date: 7.JUL.2026 17:41:08

Lower700MHz GSM @AGC + 3 dB, DL



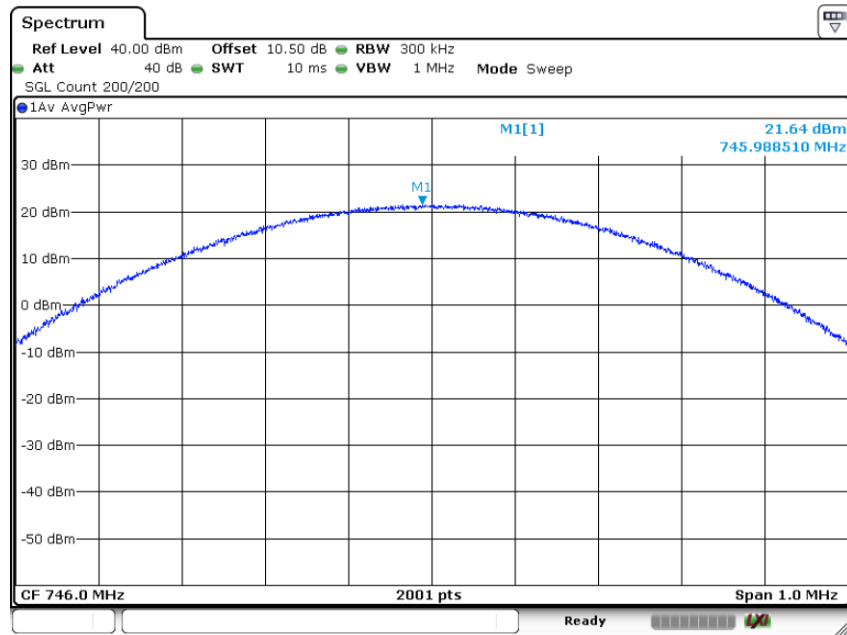
Date: 8.JUL.2026 16:45:34

Upper700MHz AWGN @Pre AGC, DL



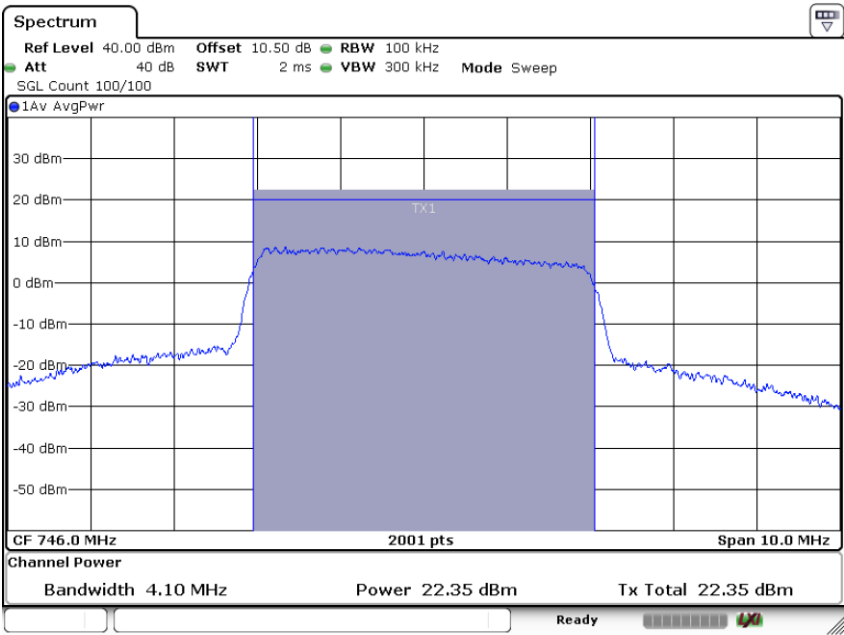
Date: 7.JUL.2026 17:43:09

Upper700MHz GSM @Pre AGC, DL



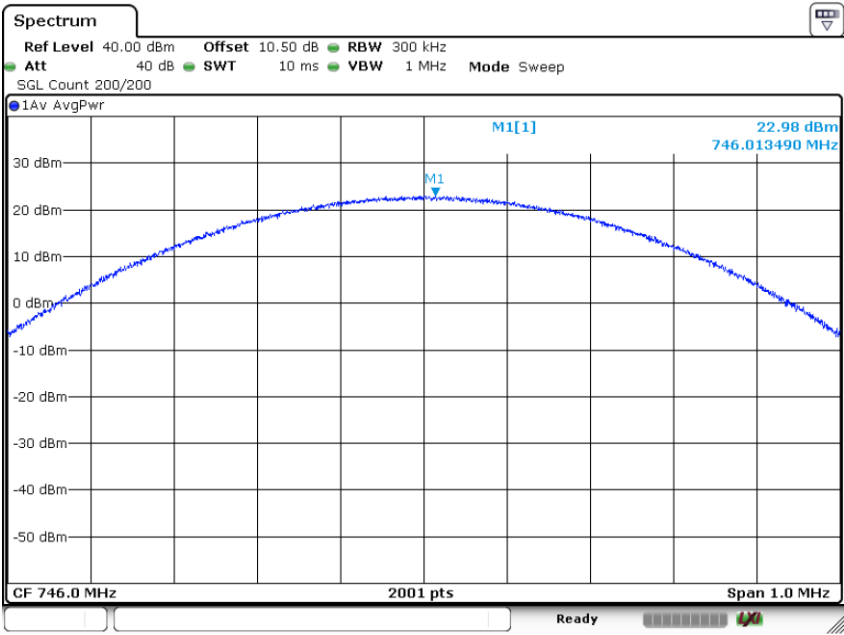
Date: 8.JUL.2026 16:48:24

Upper700MHz AWGN @AGC + 3 dB, DL



Date: 8.JUL.2026 11:50:50

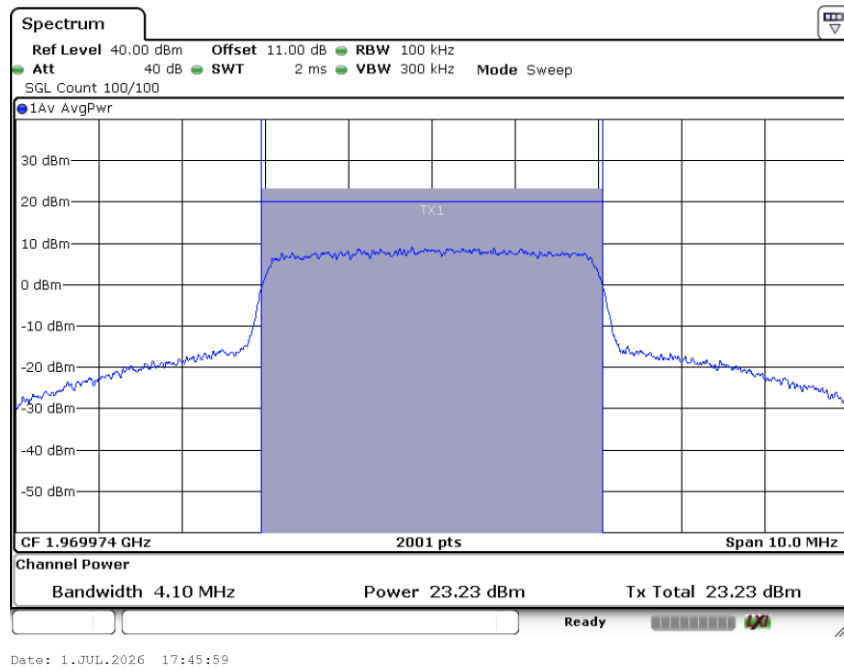
Upper700MHz GSM @AGC + 3 dB, DL



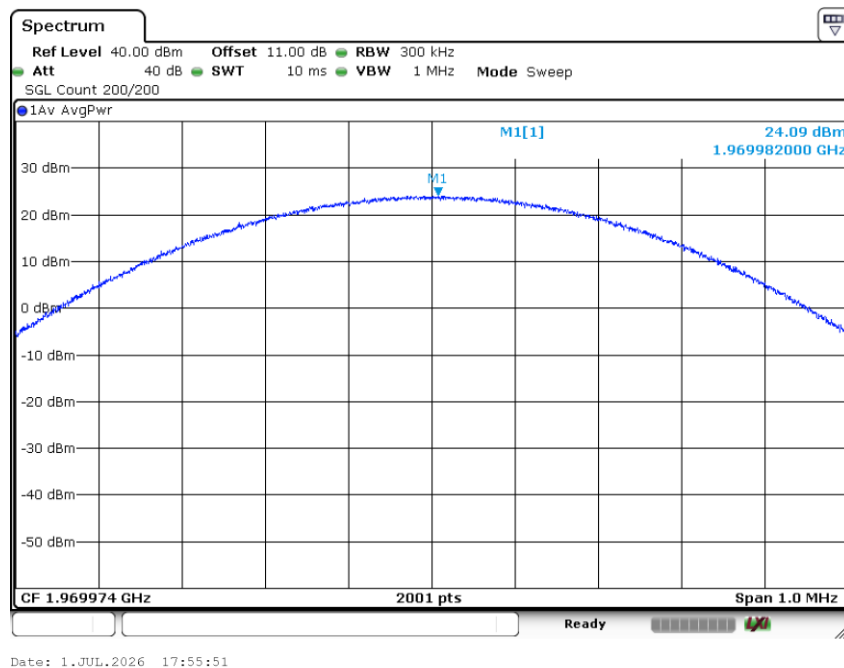
Date: 8.JUL.2026 16:47:29

Signal path: Donor to Server2

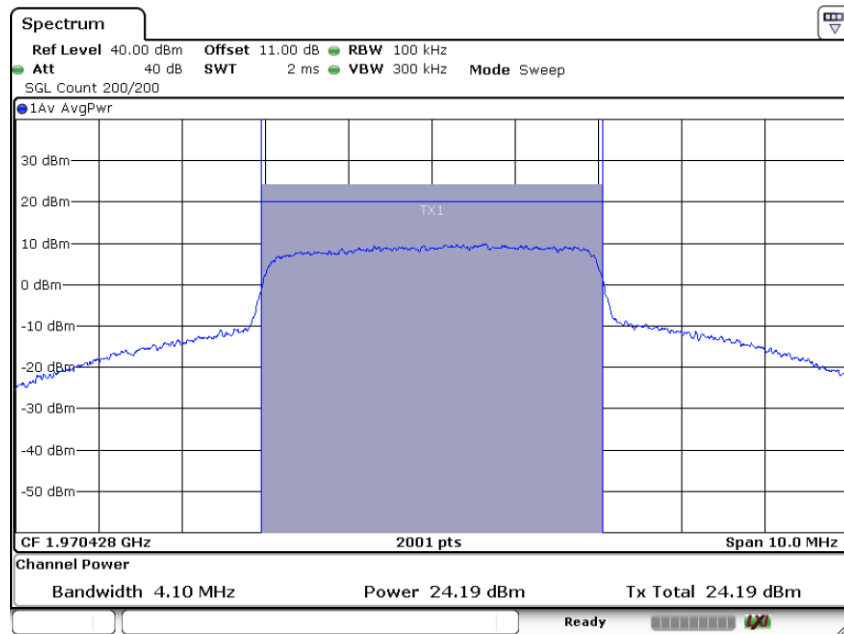
PCS AWGN @Pre AGC, DL



PCS GSM @Pre AGC, DL

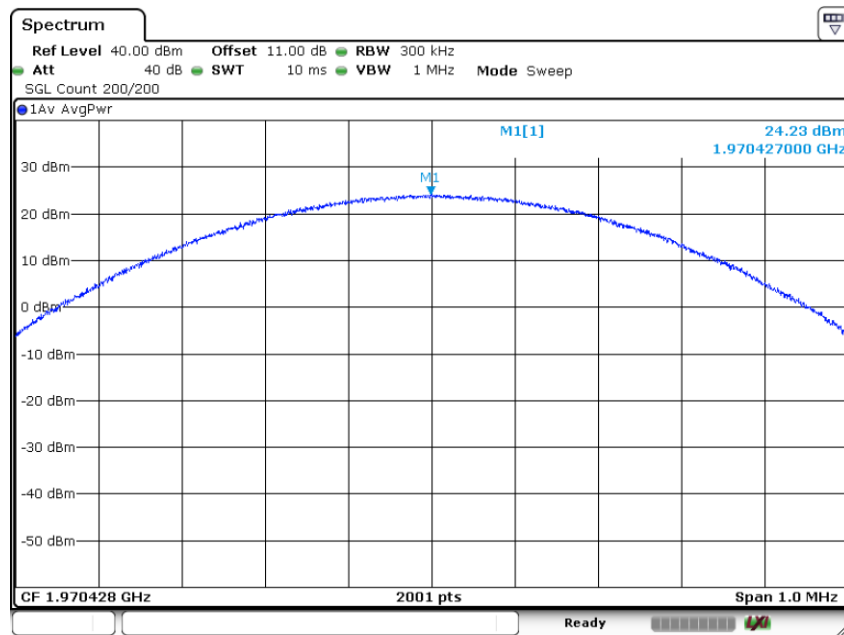


PCS AWGN @AGC + 3 dB, DL



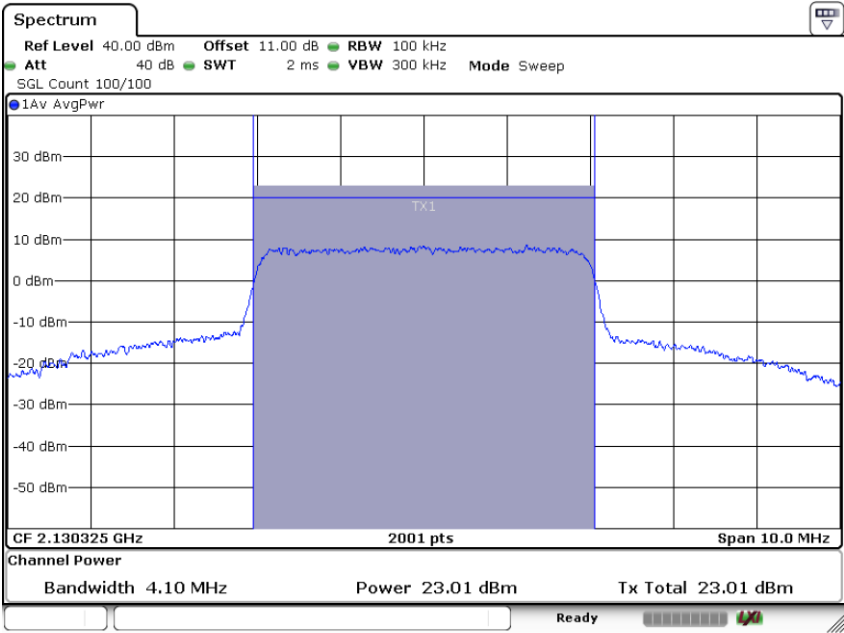
Date: 2.JUL.2026 14:41:02

PCS GSM @AGC + 3 dB, DL



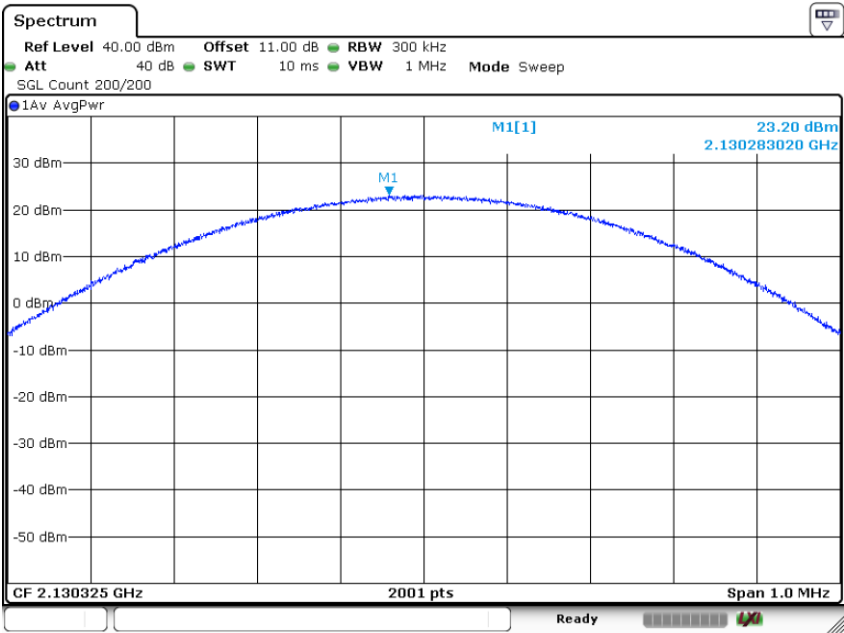
Date: 2.JUL.2026 14:36:06

AWS AWGN @Pre AGC, DL



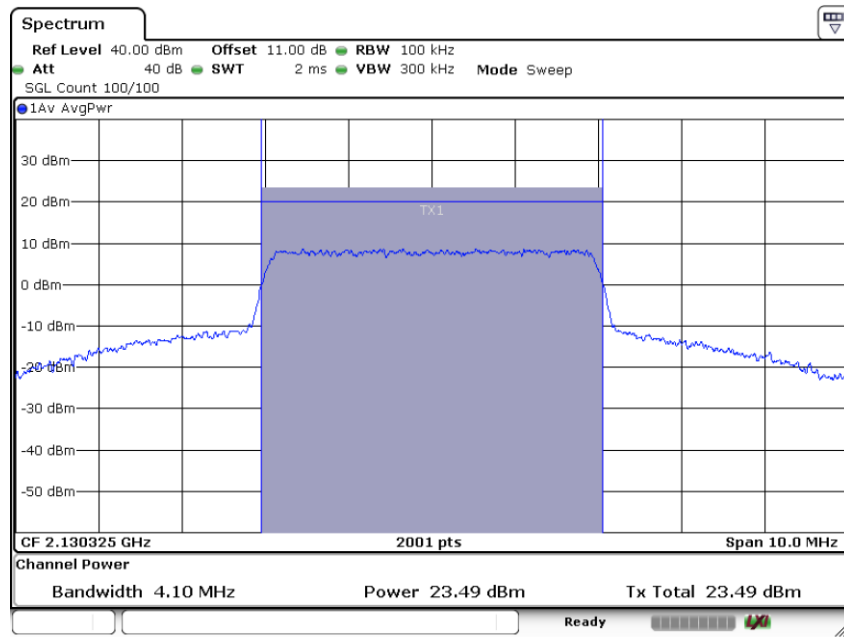
Date: 1.JUL.2026 17:48:36

AWS GSM @Pre AGC, DL



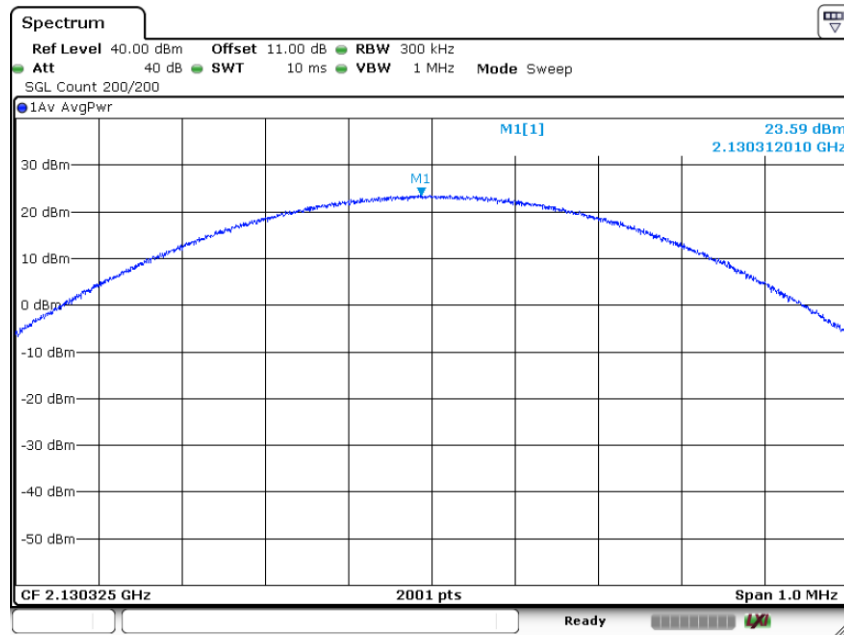
Date: 1.JUL.2026 17:52:10

AWS AWGN @AGC + 3 dB, DL



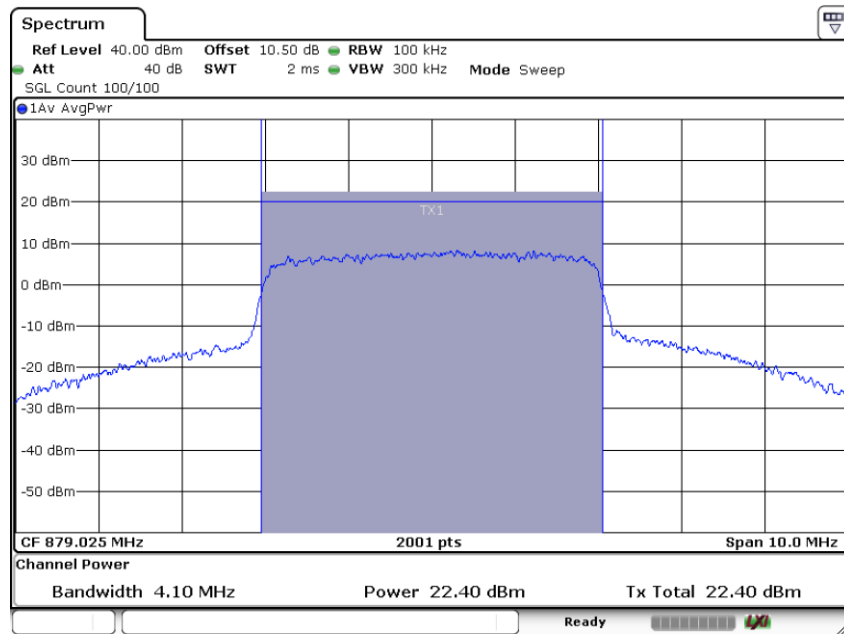
Date: 1.JUL.2026 17:49:14

AWS GSM @AGC + 3 dB, DL



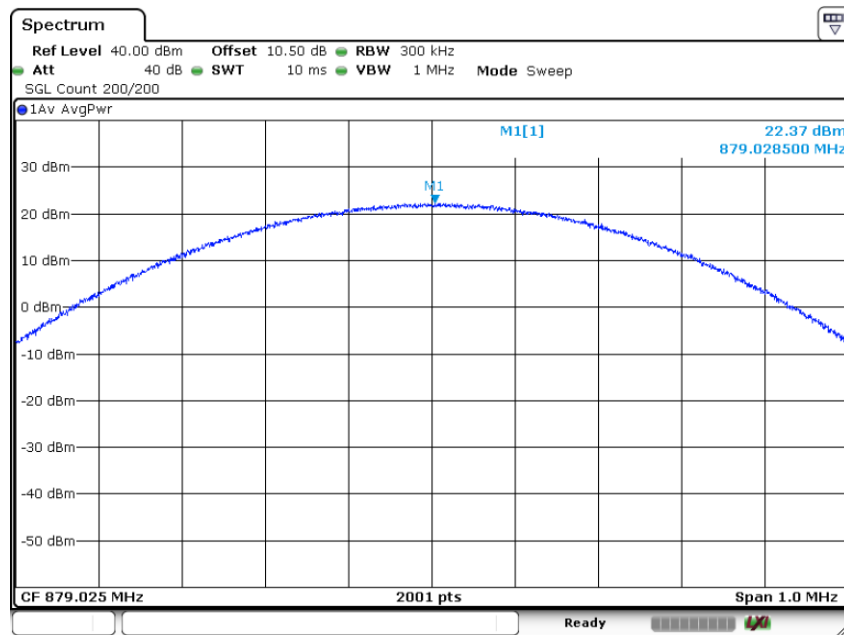
Date: 1.JUL.2026 17:51:00

Cellular AWGN @Pre AGC, DL



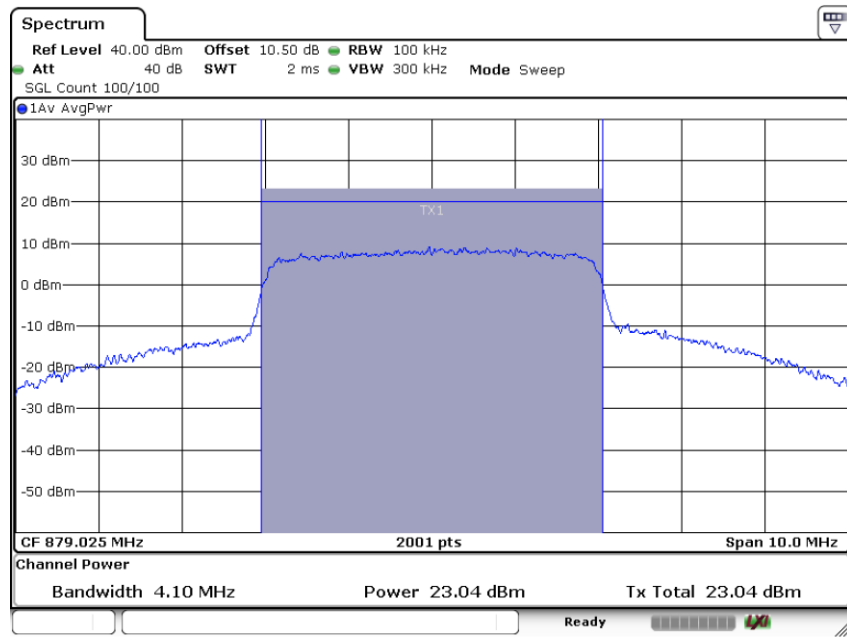
Date: 1.JUL.2026 16:56:04

Cellular GSM @Pre AGC, DL



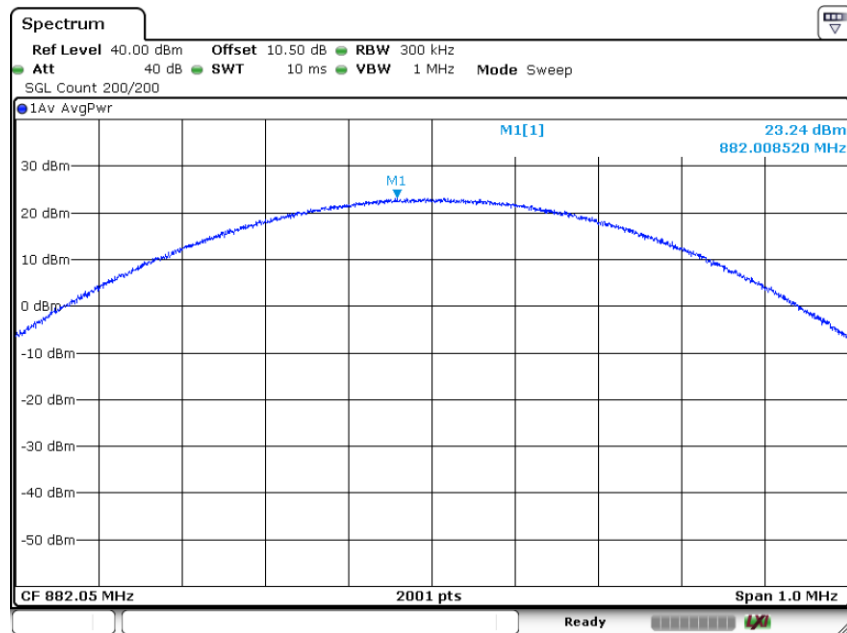
Date: 2.JUL.2026 11:39:50

Cellular AWGN @AGC + 3 dB, DL



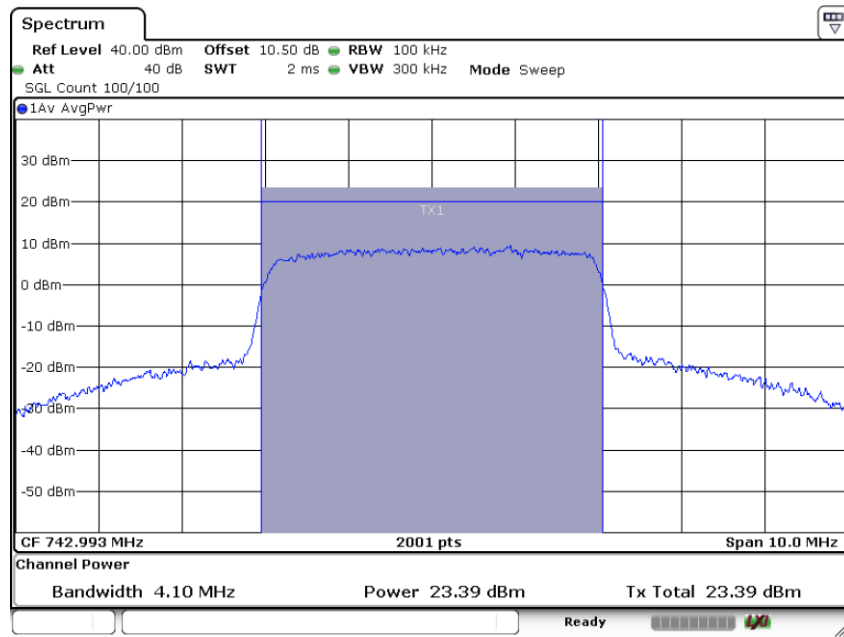
Date: 1.JUL.2026 16:56:37

Cellular GSM @AGC + 3 dB, DL



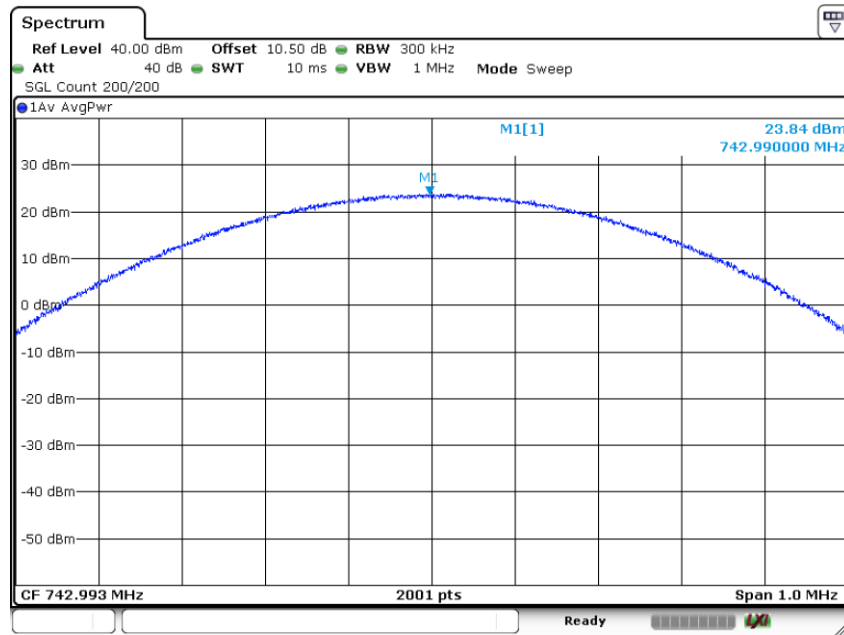
Date: 2.JUL.2026 11:38:34

Lower700MHz AWGN @Pre AGC, DL



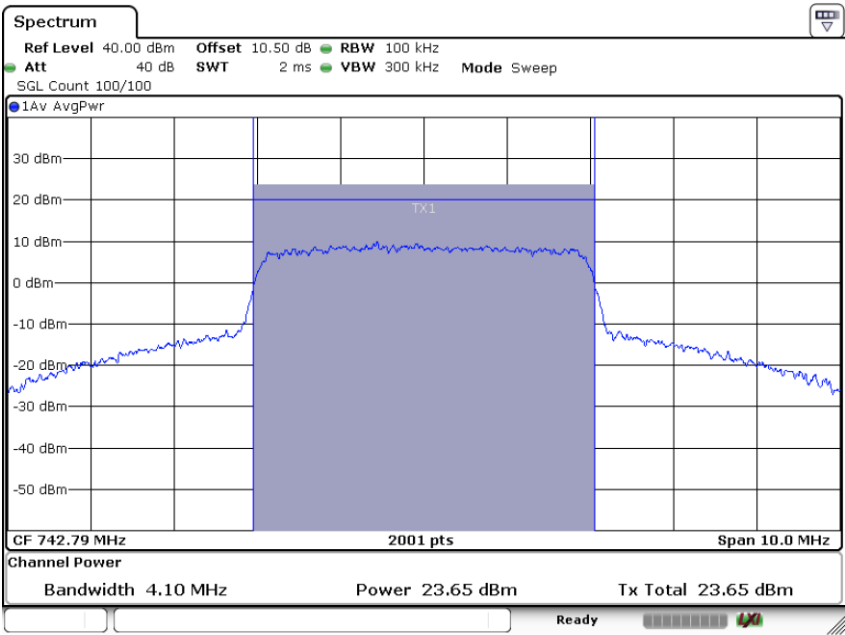
Date: 1.JUL.2026 16:47:43

Lower700MHz GSM @Pre AGC, DL



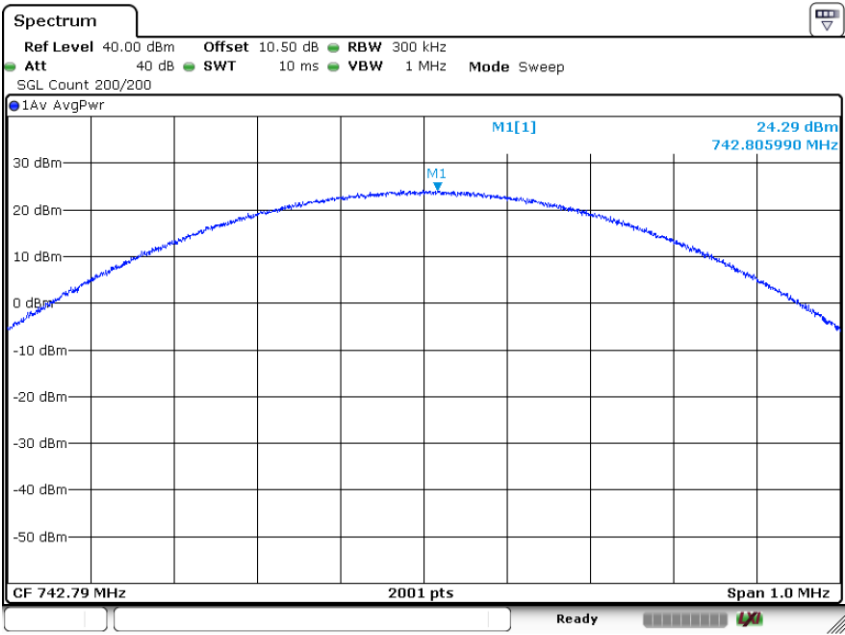
Date: 2.JUL.2026 11:42:40

Lower700MHz AWGN @AGC + 3 dB, DL



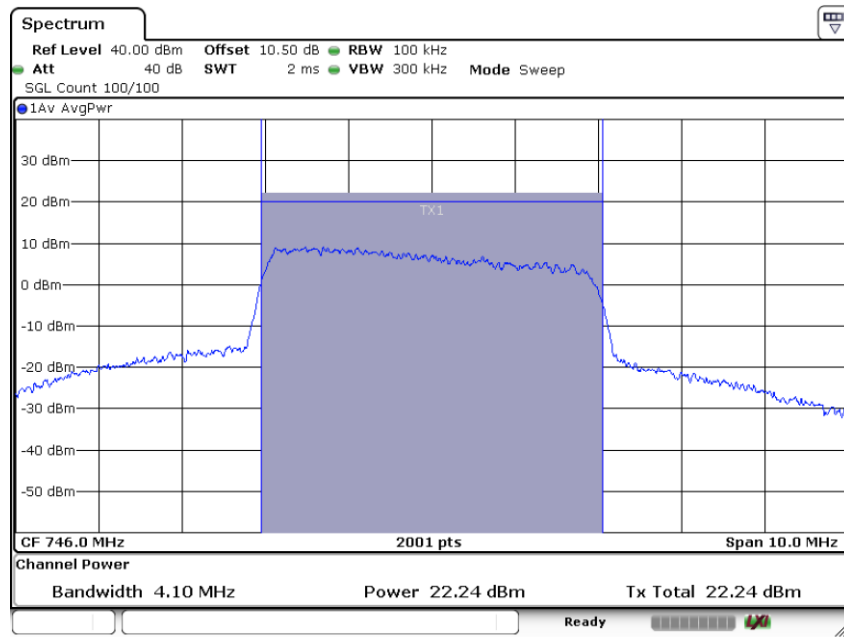
Date: 31.DEC.2006 23:42:39

Lower700MHz GSM @AGC + 3 dB, DL



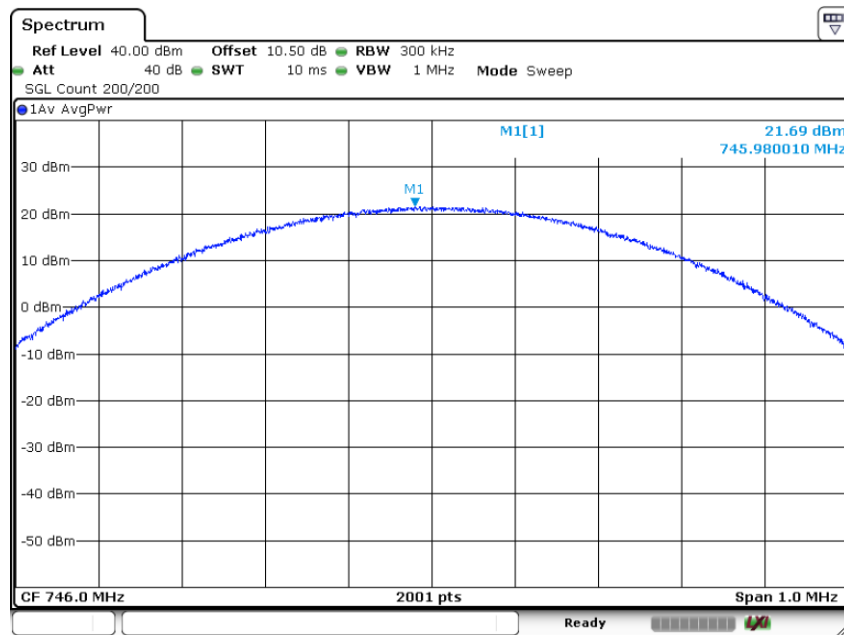
Date: 1.JUL.2026 11:24:56

Upper700MHz AWGN @Pre AGC, DL



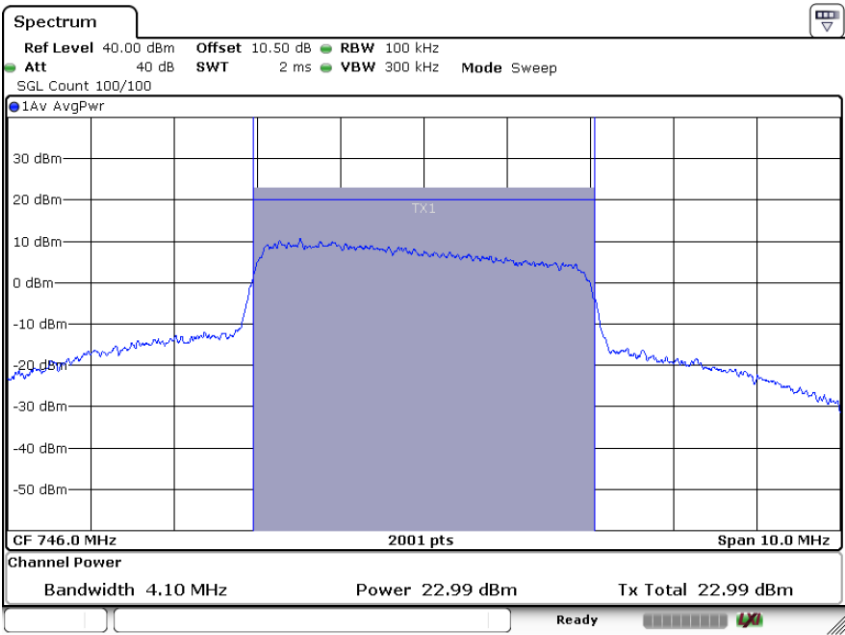
Date: 1.JUL.2026 16:50:22

Upper700MHz GSM @Pre AGC, DL



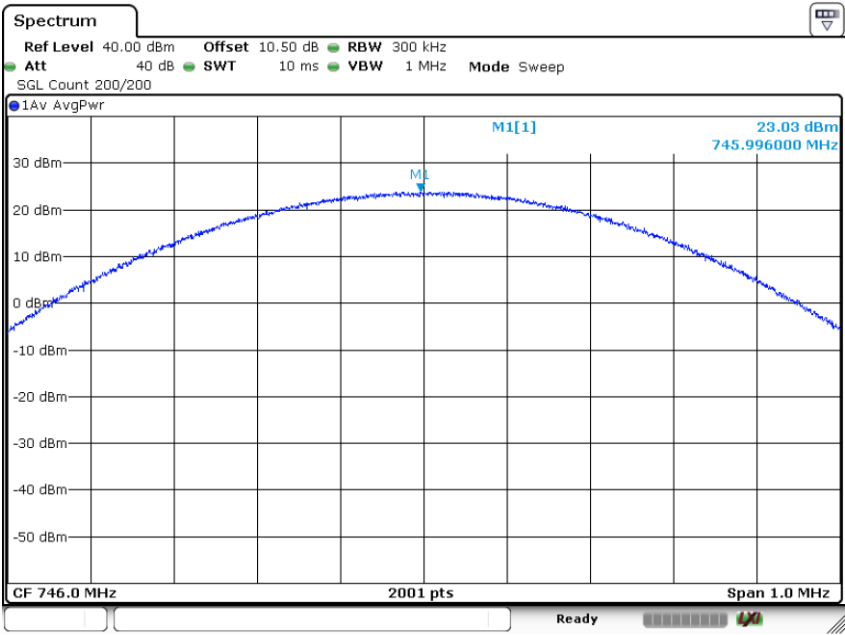
Date: 2.JUL.2026 11:45:03

Upper700MHz AWGN @AGC + 3 dB, DL



Date: 1.JUL.2026 16:51:10

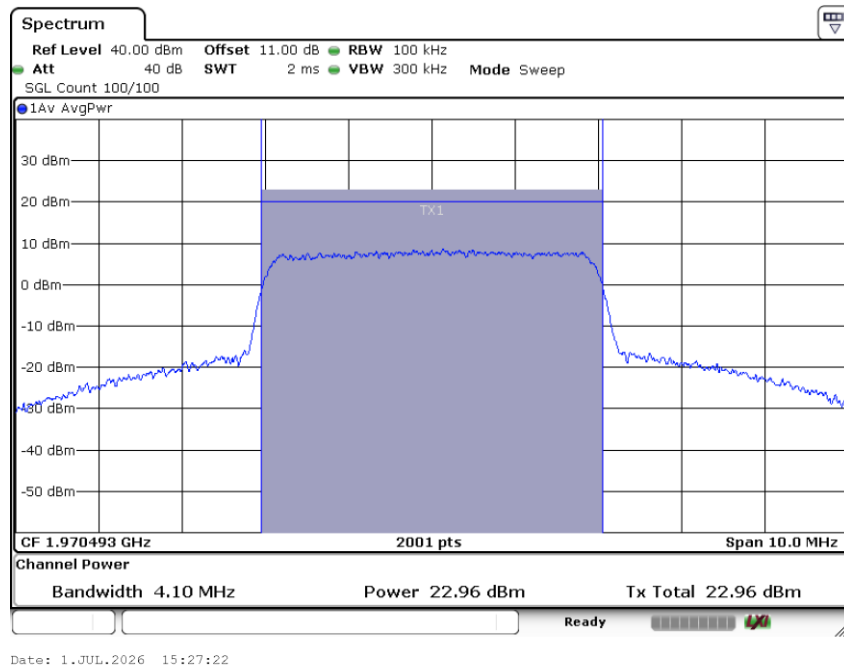
Upper700MHz GSM @AGC + 3 dB, DL



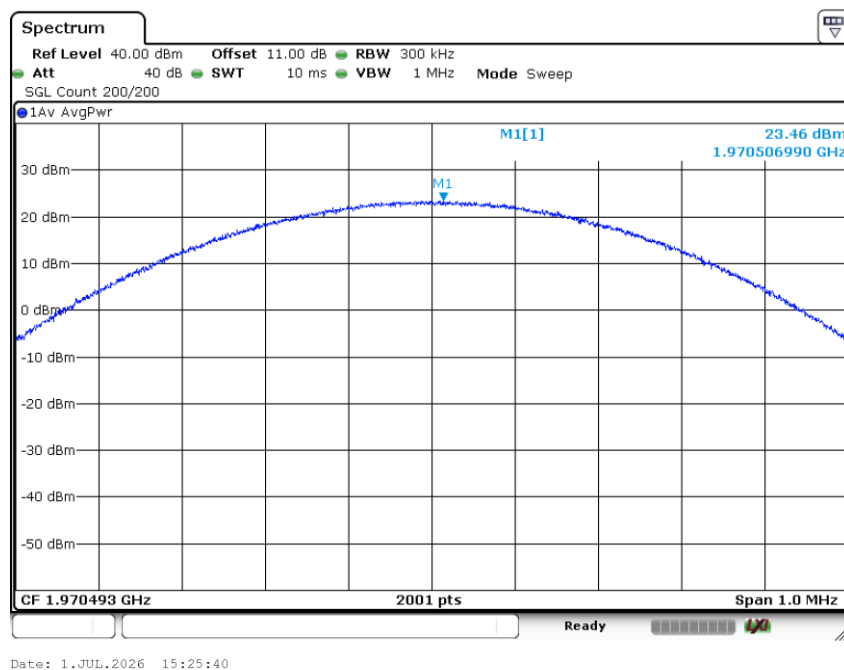
Date: 2.JUL.2026 11:52:57

Signal path: Donor to Server3

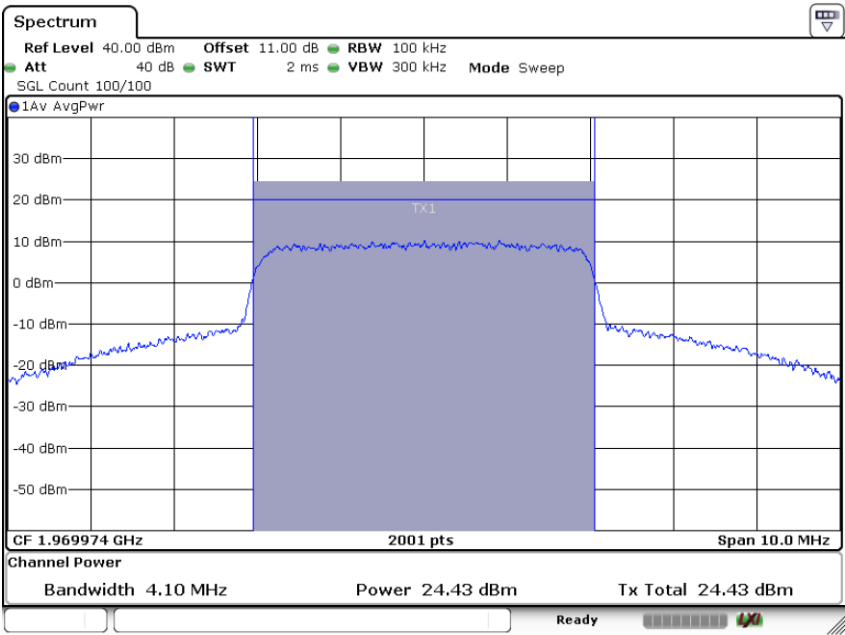
PCS AWGN @Pre AGC, DL



PCS GSM @Pre AGC, DL

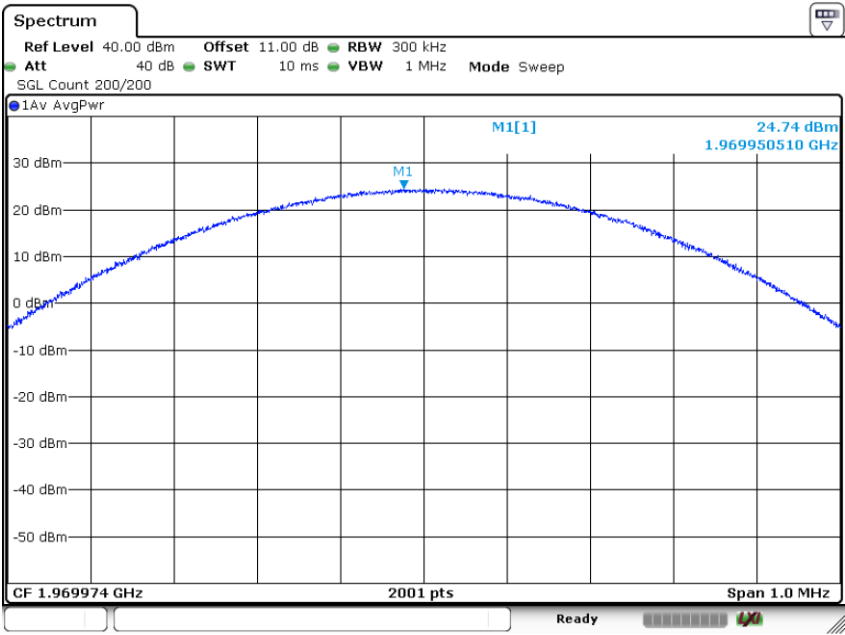


PCS AWGN @AGC + 3 dB, DL



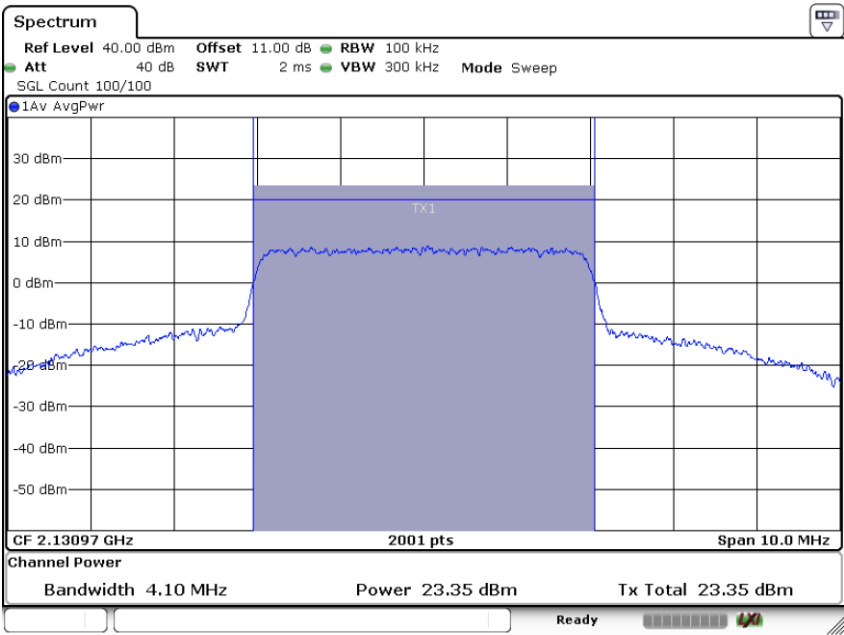
Date: 1.JUL.2026 17:46:32

PCS GSM @AGC + 3 dB, DL



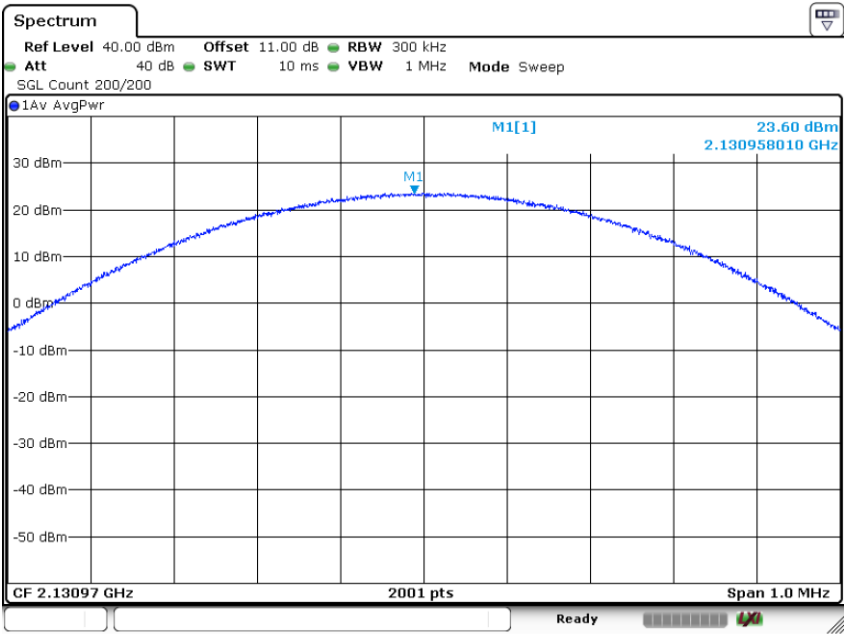
Date: 1.JUL.2026 17:55:06

AWS AWGN @Pre AGC, DL



Date: 1.JUL.2026 15:29:36

AWS GSM @Pre AGC, DL



Date: 1.JUL.2026 15:19:59