

FCC Appendix RF Test Data

Company : Cellphone-Mate Inc. dba SureCall
EUT : SignalMax Fiber DAS V2.0
Model Number : SC-FMU V2
Report No. : AB26080215FW01
FCC ID : RSN-FIBERMAXMU2
Reviewed By : Jay Liu

AGC Threshold Level

Signal Path	Frequency Band	Signal Type	AGC threshold level (dBm)
Server1 to Donor	PCS Uplink	GSM	-57.10
		AWGN	-57.70
	AWS Uplink	GSM	-56.80
		AWGN	-56.60
	Cellular Uplink	GSM	-57.10
		AWGN	-57.30
	Lower700MHz Uplink	GSM	-56.80
		AWGN	-57.10
	Upper700MHz Uplink	GSM	-56.80
		AWGN	-56.90
Server2 to Donor	PCS Uplink	GSM	-56.20
		AWGN	-56.60
	AWS Uplink	GSM	-56.50
		AWGN	-56.80
	Cellular Uplink	GSM	-57.70
		AWGN	-57.80
	Lower700MHz Uplink	GSM	-56.90
		AWGN	-57.20
	Upper700MHz Uplink	GSM	-57.10
		AWGN	-57.30

Signal Path	Frequency Band	Signal Type	AGC threshold level (dBm)
Server3 to Donor	PCS Uplink	GSM	-57.10
		AWGN	-57.70
	AWS Uplink	GSM	-57.10
		AWGN	-56.50
	Cellular Uplink	GSM	-56.40
		AWGN	-56.90
	Lower700MHz Uplink	GSM	-56.90
		AWGN	-57.20
	Upper700MHz Uplink	GSM	-57.10
		AWGN	-57.30
Server4 to Donor	PCS Uplink	GSM	-57.20
		AWGN	-57.80
	AWS Uplink	GSM	-57.00
		AWGN	-57.30
	Cellular Uplink	GSM	-56.60
		AWGN	-57.10
	Lower700MHz Uplink	GSM	-57.10
		AWGN	-57.40
	Upper700MHz Uplink	GSM	-56.80
		AWGN	-57.10

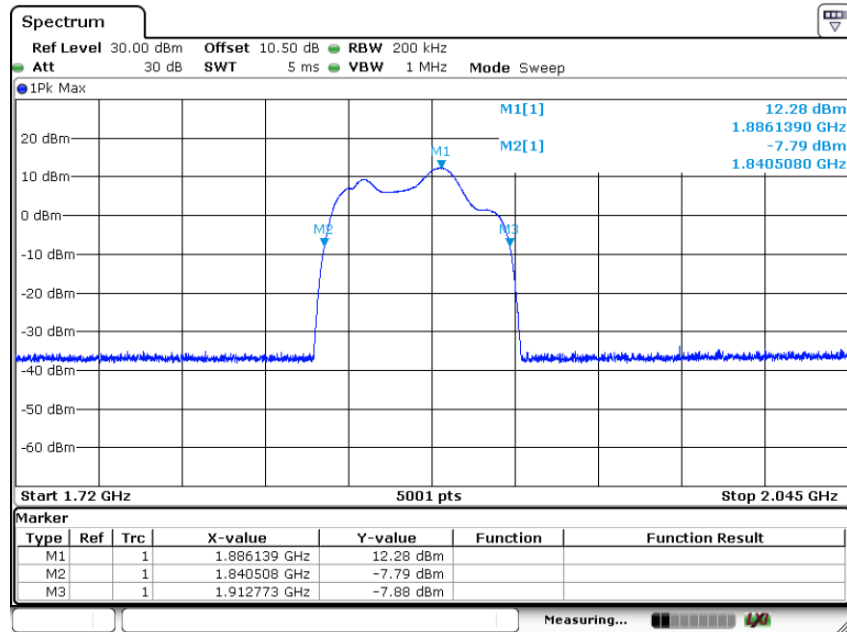
Out-of-Band Rejection

Signal Path	Frequency Band	F0 (MHz)	20dB bandwidth (MHz)
Server1 to Donor	PCS Uplink	1886.14	72.265
	AWS Uplink	1727.01	83.009
	Cellular Uplink	835.93	36.418
	Lower700MHz Uplink	703.89	24.061
	Upper700MHz Uplink	778.36	22.446
Server2 to Donor	PCS Uplink	1885.94	71.878
	AWS Uplink	1726.34	82.514
	Cellular Uplink	835.98	36.493
	Lower700MHz Uplink	703.91	24.079
	Upper700MHz Uplink	778.49	22.391
Server3 to Donor	PCS Uplink	1886.53	72.073
	AWS Uplink	1726.56	82.694
	Cellular Uplink	836.33	36.118
	Lower700MHz Uplink	703.42	24.151
	Upper700MHz Uplink	777.52	22.589
Server4 to Donor	PCS Uplink	1886.33	72.265
	AWS Uplink	1725.93	82.245
	Cellular Uplink	836.83	36.343
	Lower700MHz Uplink	703.94	24.259
	Upper700MHz Uplink	777.95	22.798

Test Plots

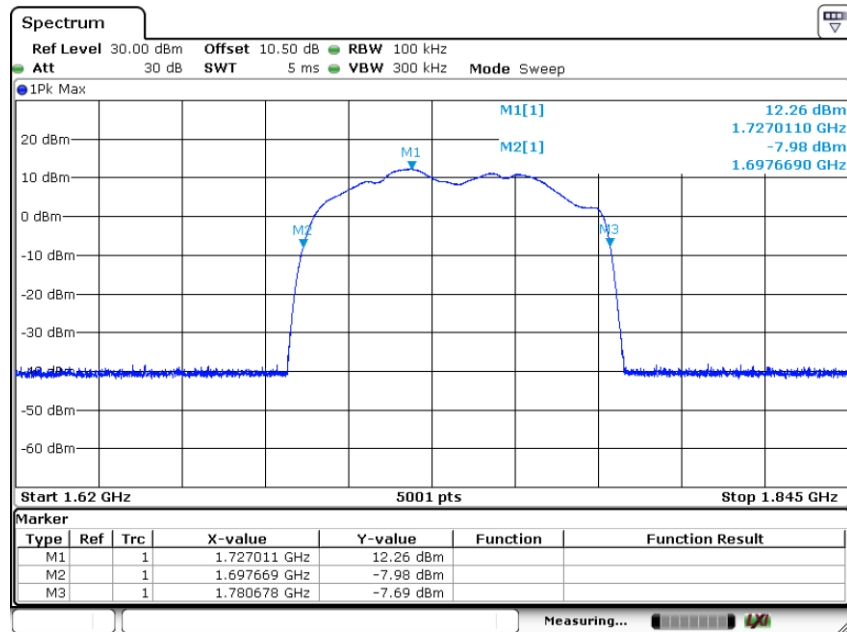
Signal Path: Server1 to Donor

PCS Uplink



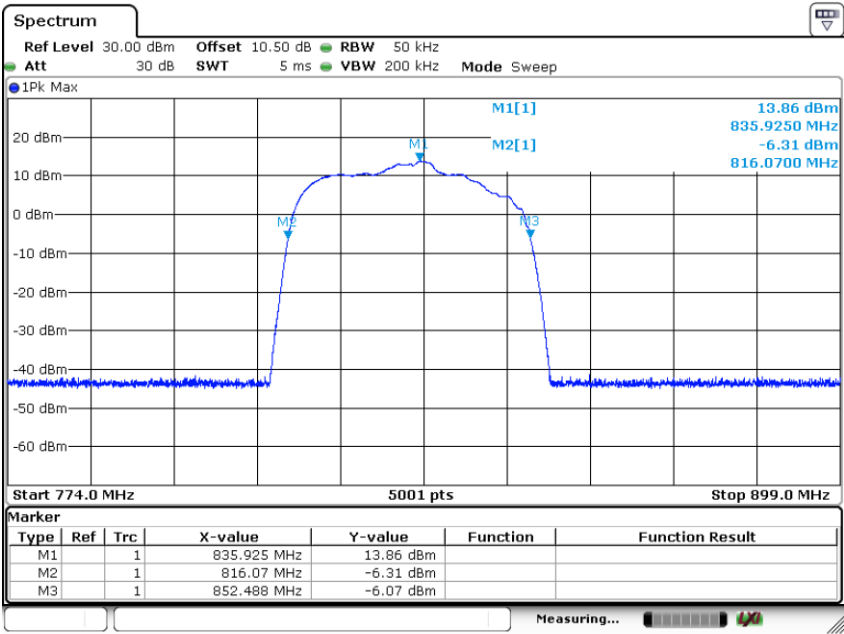
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AWS Uplink



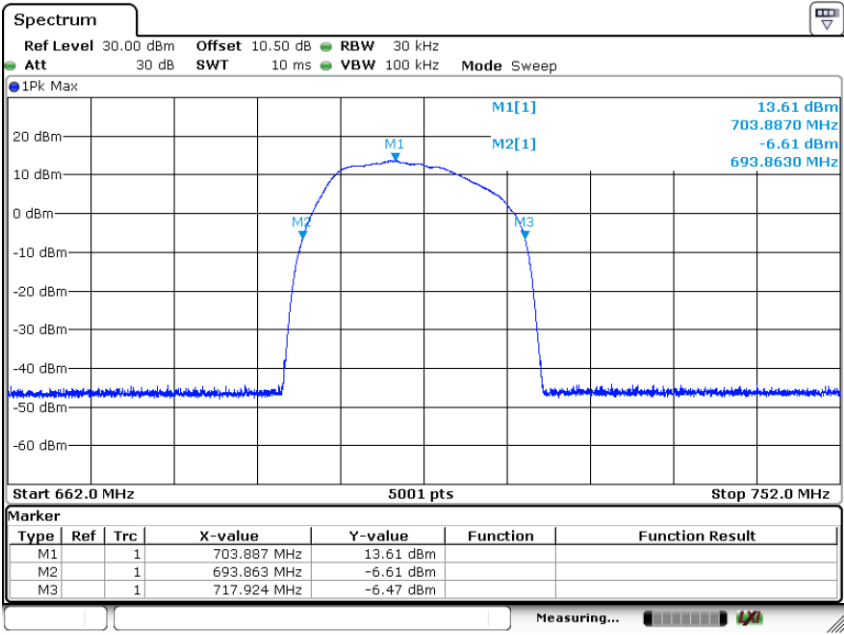
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Cellular Uplink



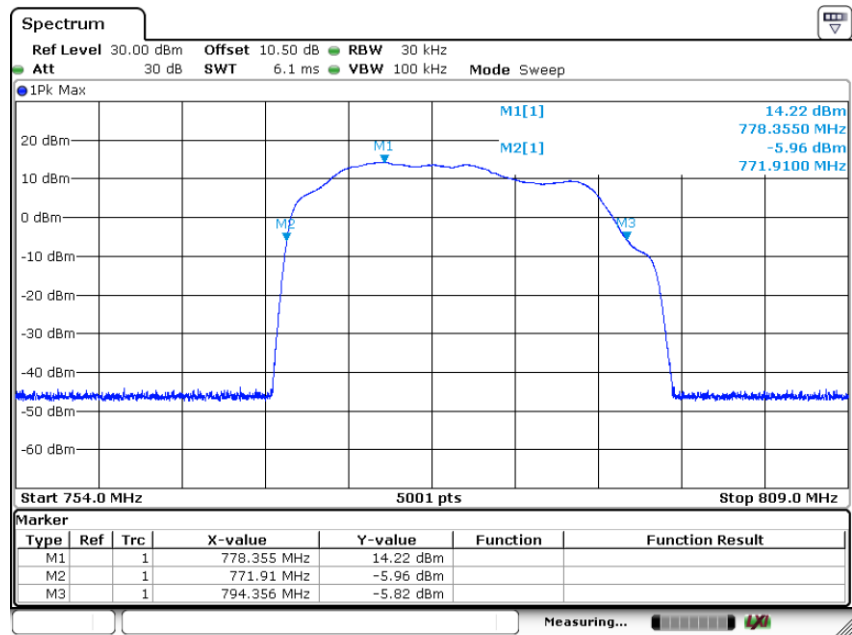
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Lower700MHz Uplink



Date: 22.JUN.2026 11:42:46

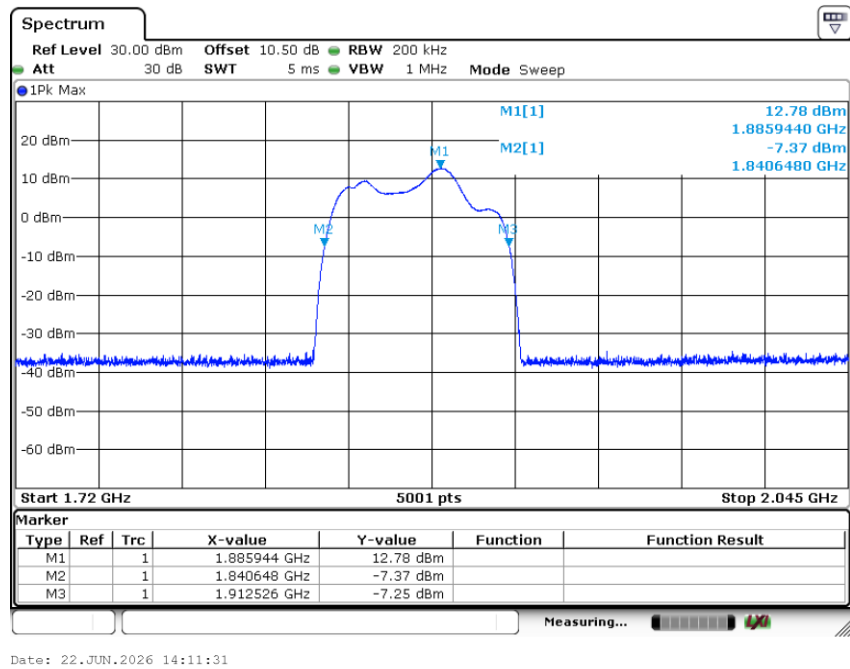
Upper700MHz Uplink



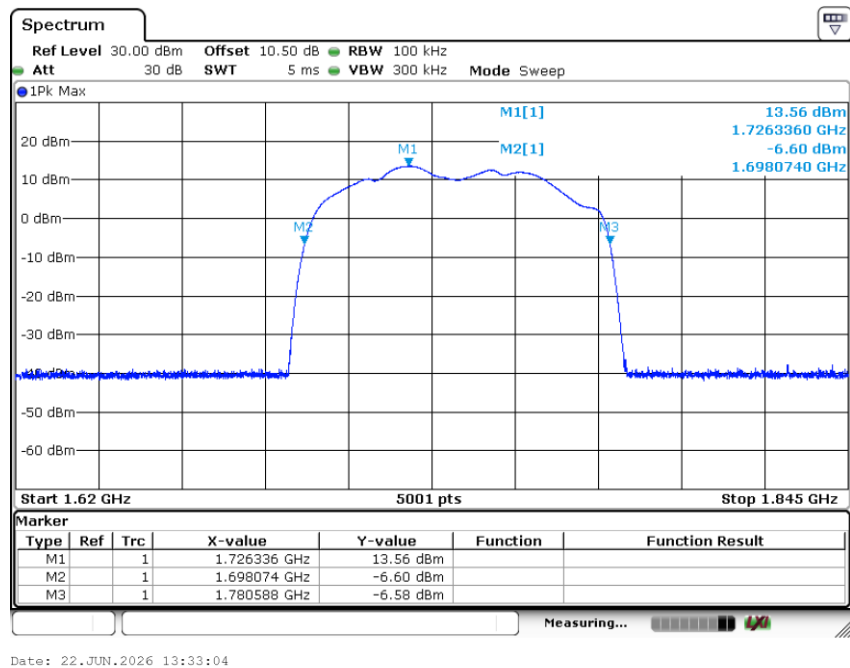
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Signal Path: Server2 to Donor

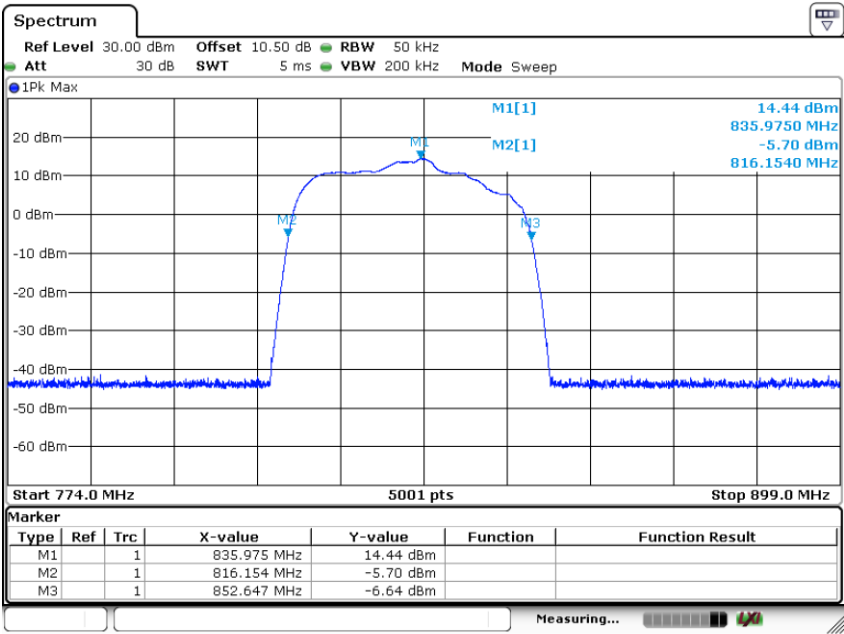
PCS Uplink



AWS Uplink

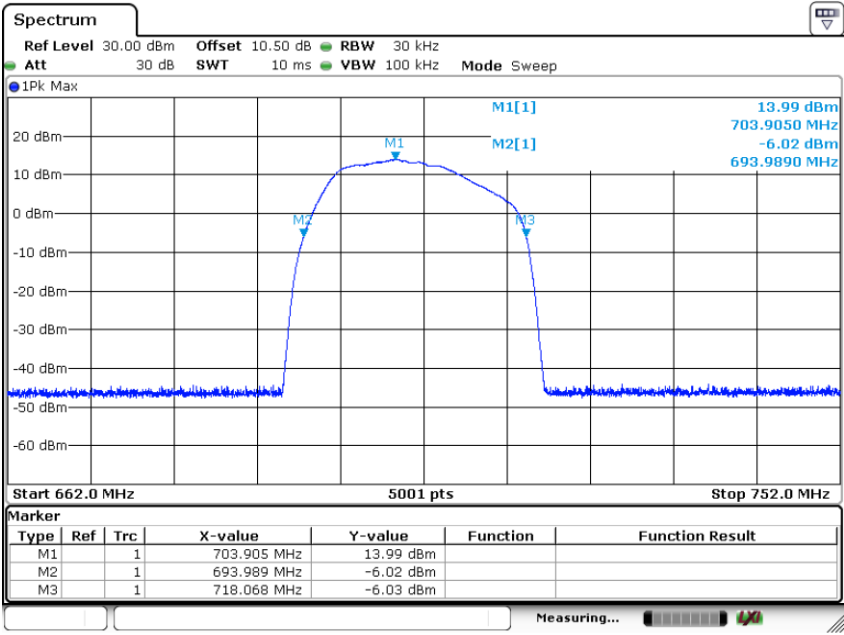


Cellular Uplink



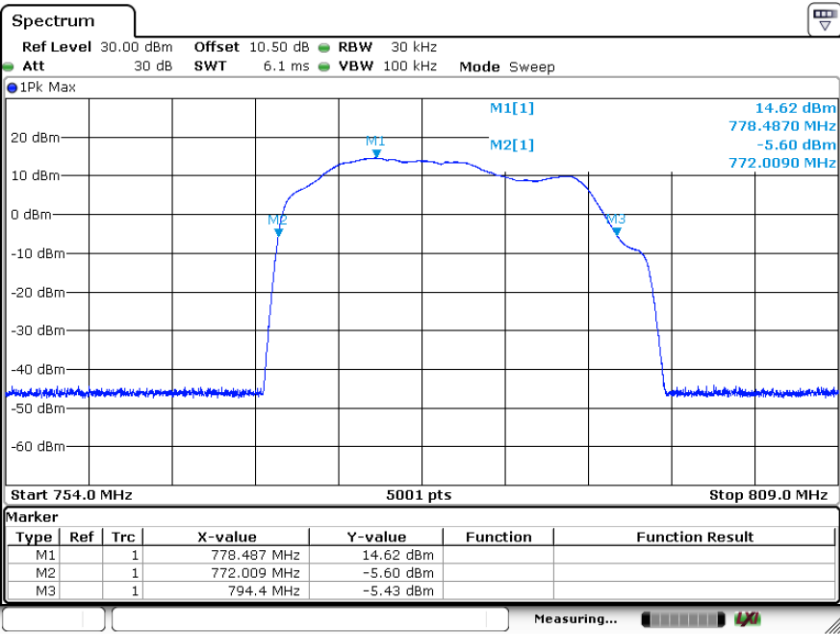
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Lower700MHz Uplink



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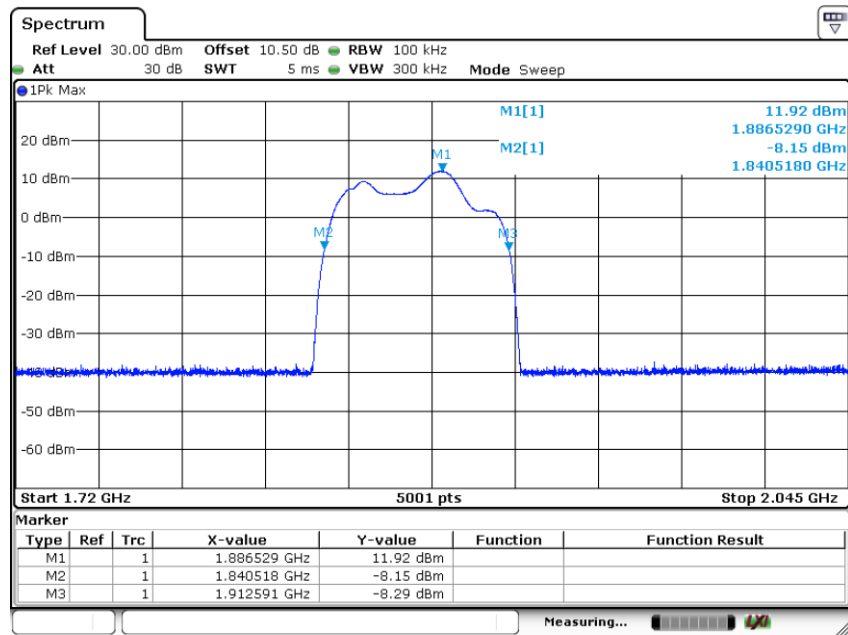
Upper700MHz Uplink



Date: 22.JUN.2026 14:27:05

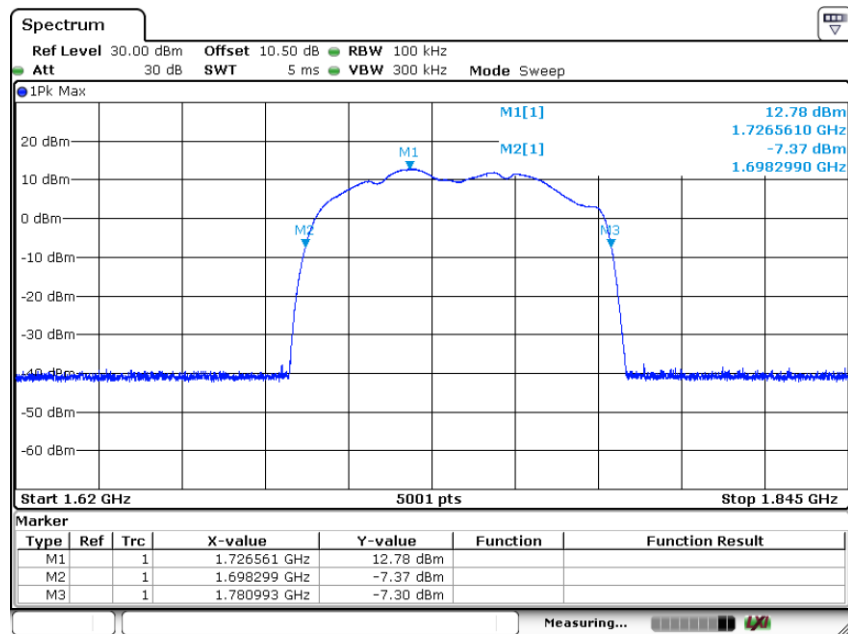
Signal Path: Server3 to Donor

PCS Uplink



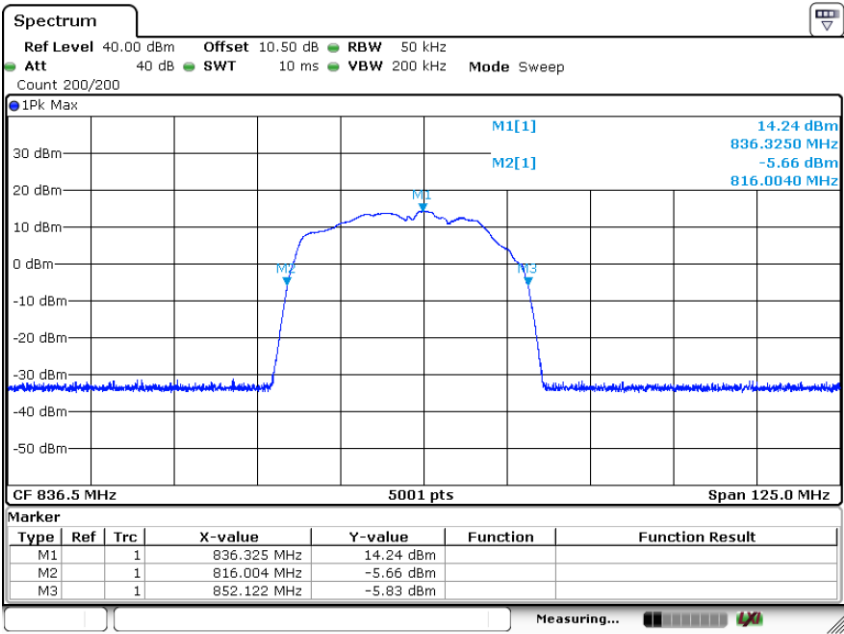
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AWS Uplink



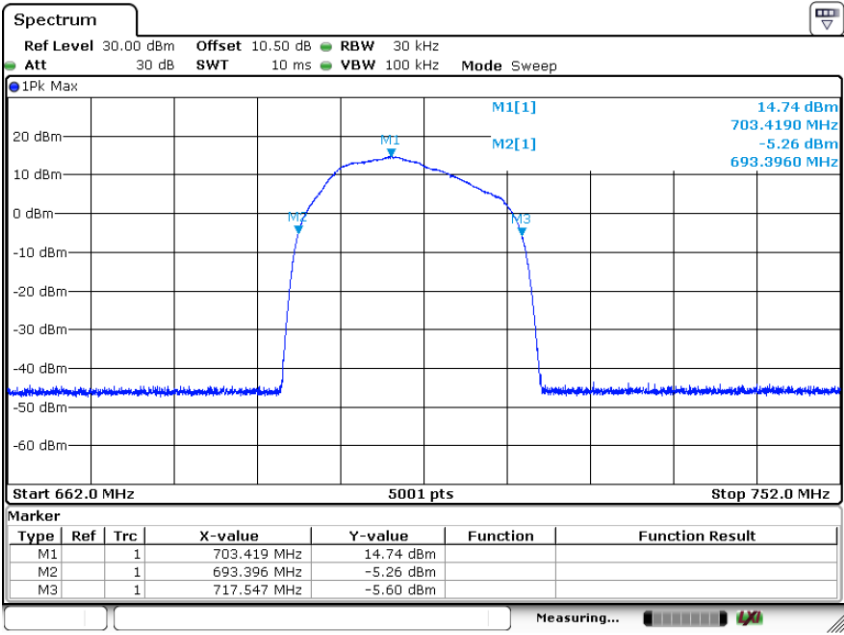
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Cellular Uplink



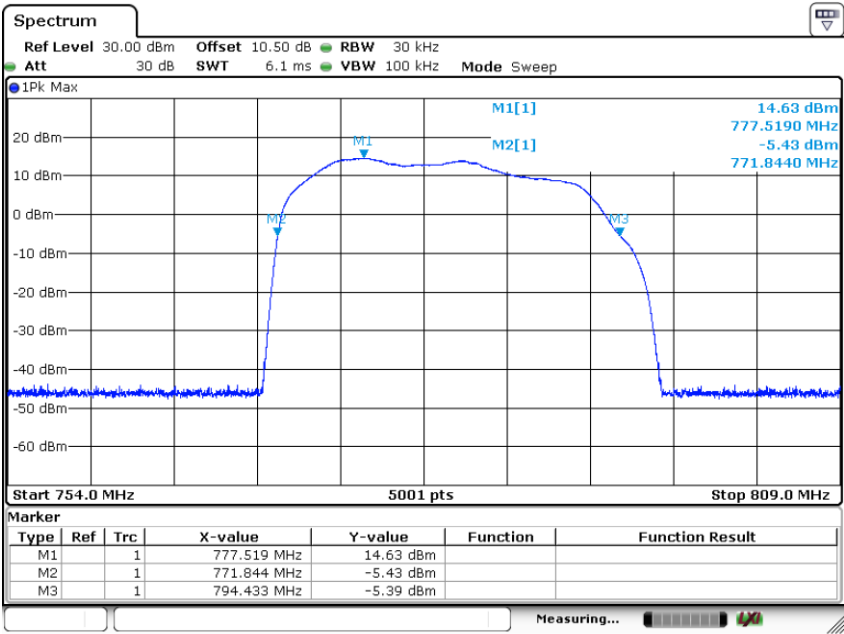
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Lower700MHz Uplink



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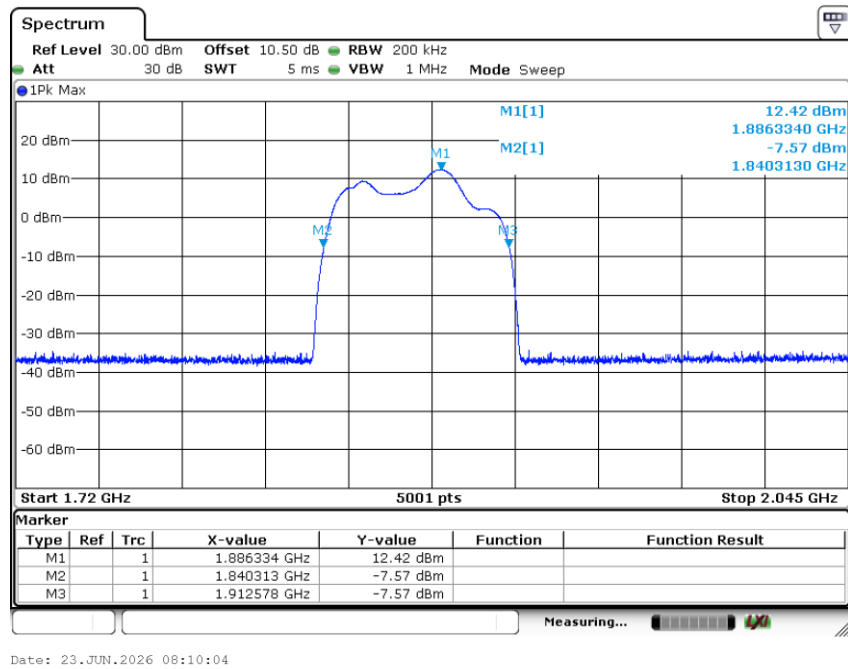
Upper700MHz Uplink



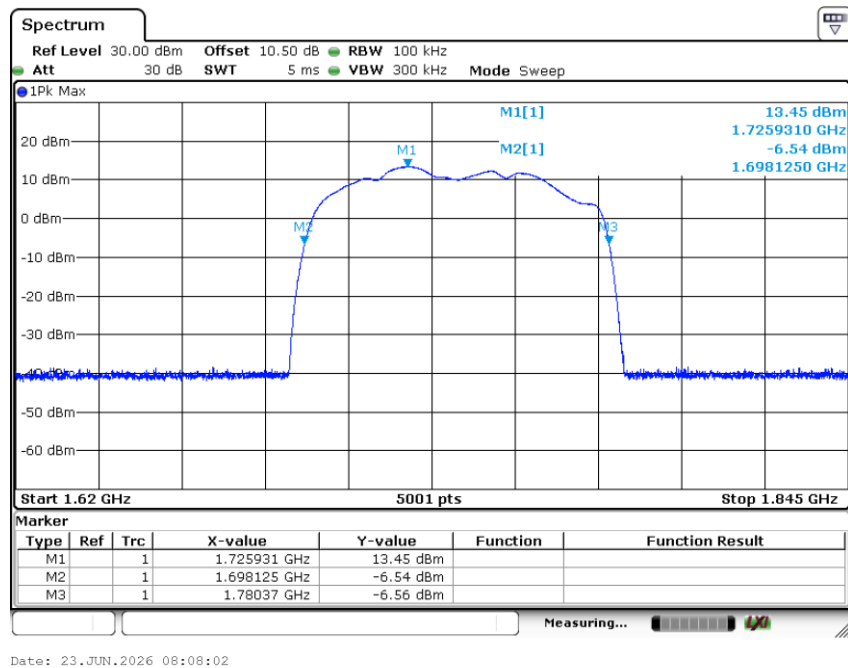
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Signal Path: Server4 to Donor

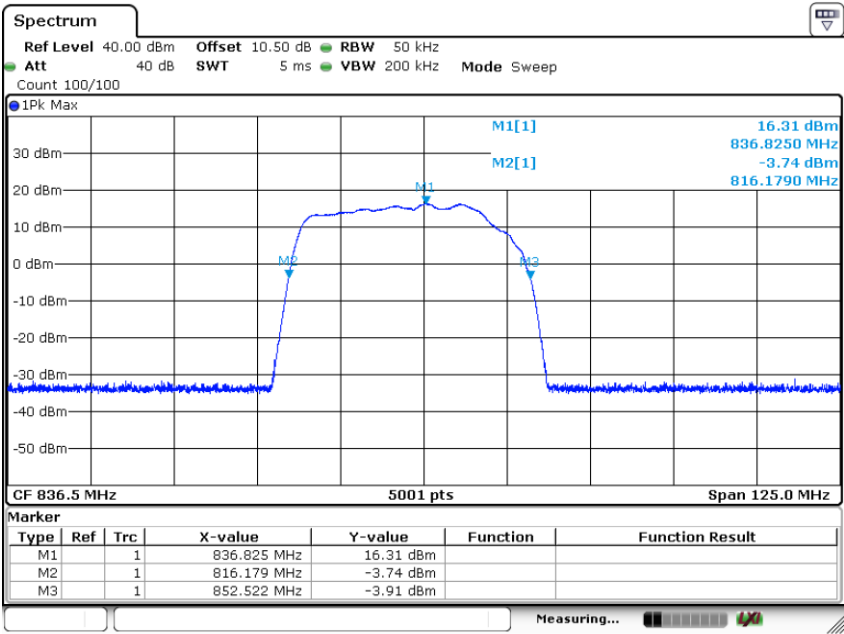
PCS Uplink



AWS Uplink

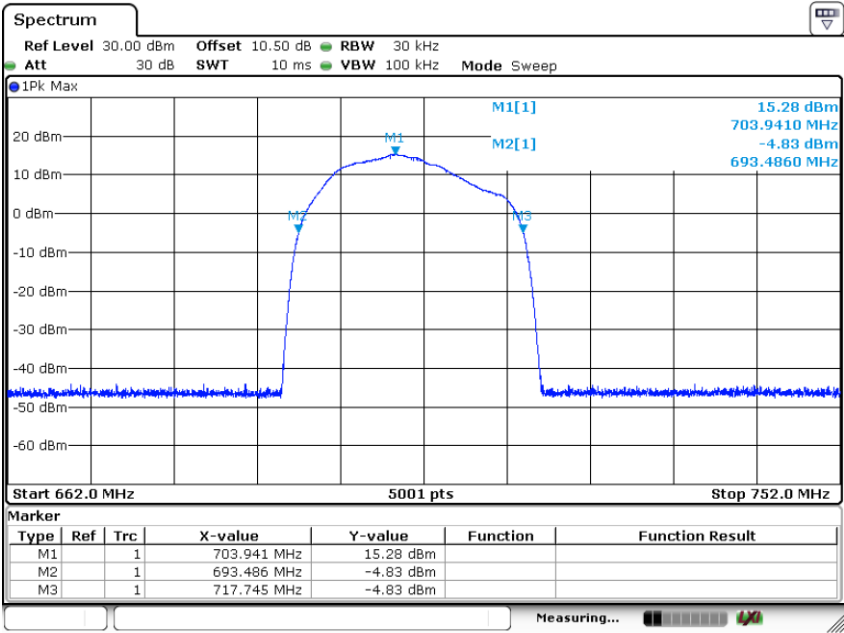


Cellular Uplink



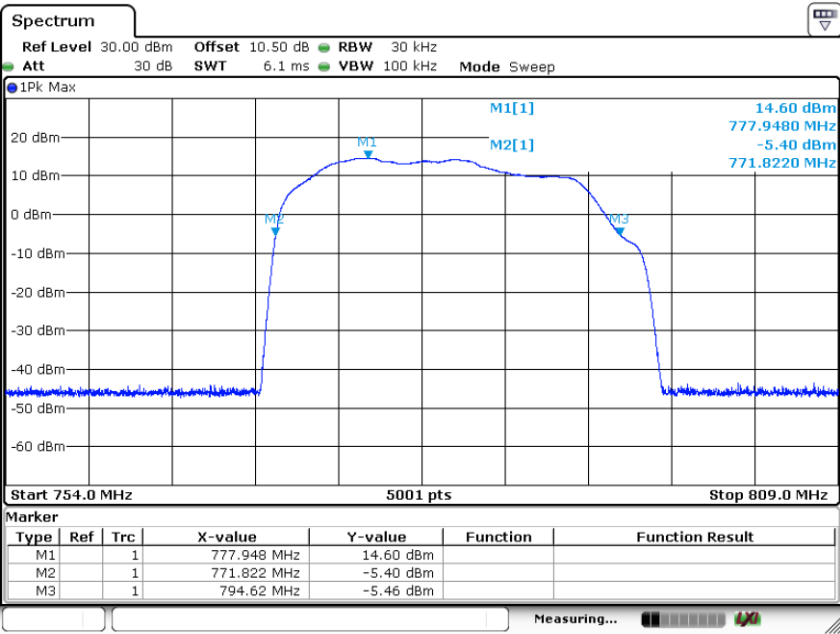
Date: 23.JUN.2026 17:36:44

Lower700MHz Uplink



Date: 23.JUN.2026 08:35:51

Upper700MHz Uplink



Date: 23.JUN.2026 08:26:37

Input-versus-output signal comparison

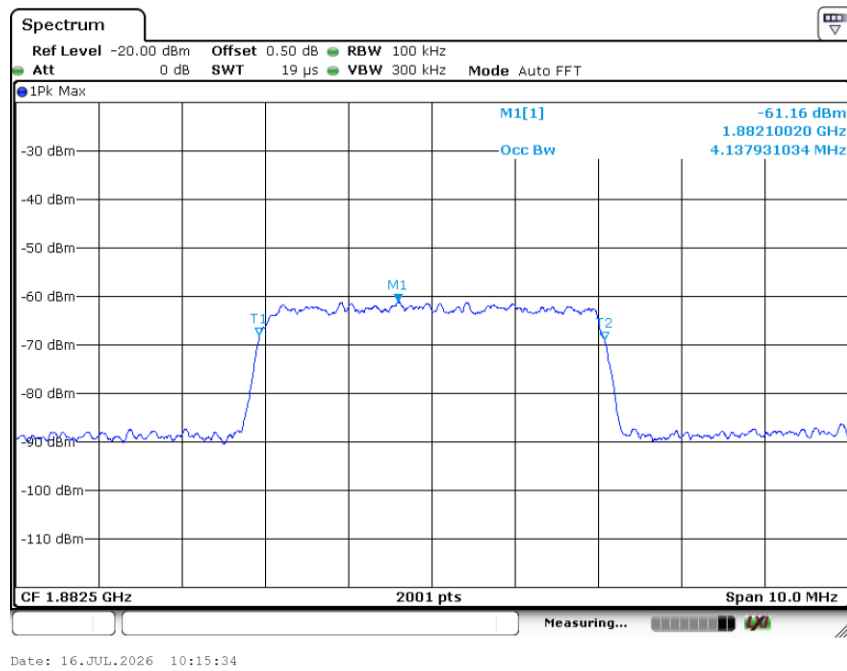
Frequency Bands	Signal Type	Input OBW [MHz]	Output OBW@ Pre AGC [MHz]	Output OBW@ AGC+3dB [MHz]
PCS Uplink	GSM	0.252	0.247	0.247
	AWGN	4.138	4.108	4.293
AWS Uplink	GSM	0.253	0.246	0.245
	AWGN	4.143	4.083	4.113
Cellular Uplink	GSM	0.251	0.245	0.249
	AWGN	4.113	4.118	4.303
Lower700MHz Uplink	GSM	0.253	0.245	0.247
	AWGN	4.103	4.078	4.108
Upper700MHz Uplink	GSM	0.250	0.245	0.247
	AWGN	4.123	4.093	4.158

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

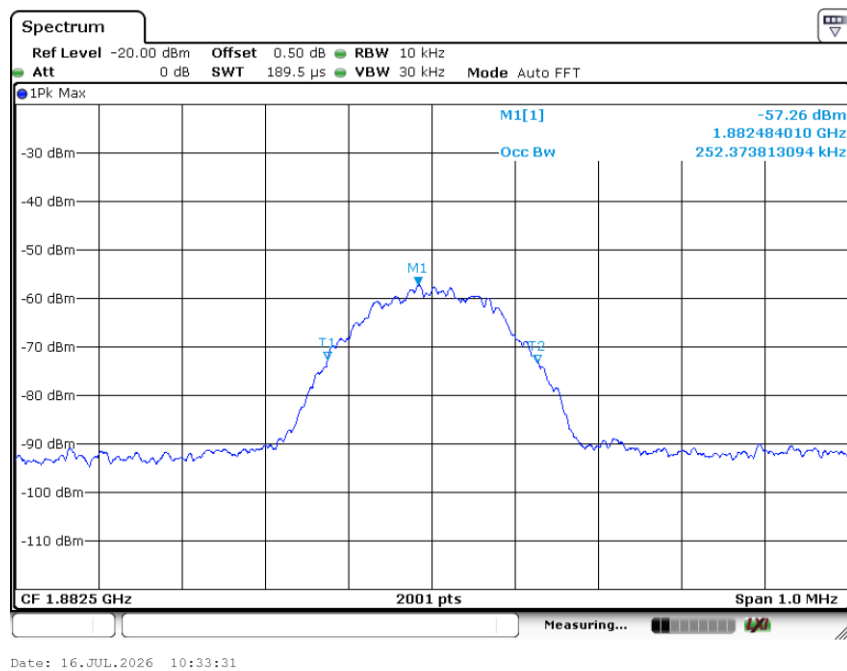
Band	Signal Path
PCS Uplink	Server4-Donor
AWS Uplink	Server4-Donor
Cellular Uplink	Server4-Donor
Lower700 Uplink	Server1-Donor
Upper700 Uplink	Server1-Donor

Test Plots

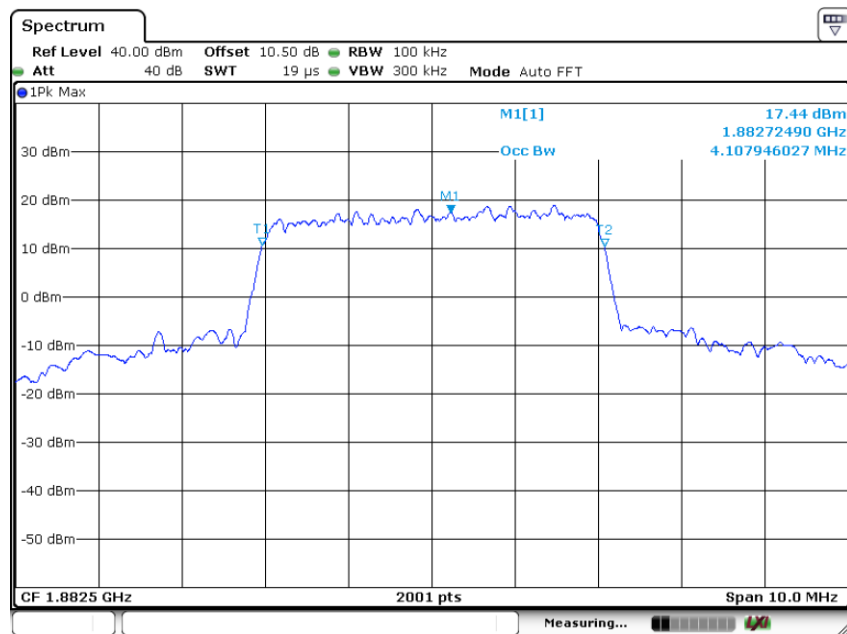
PCS AWGN @Pre AGC, DL Input



PCS GSM @Pre AGC, DL Input

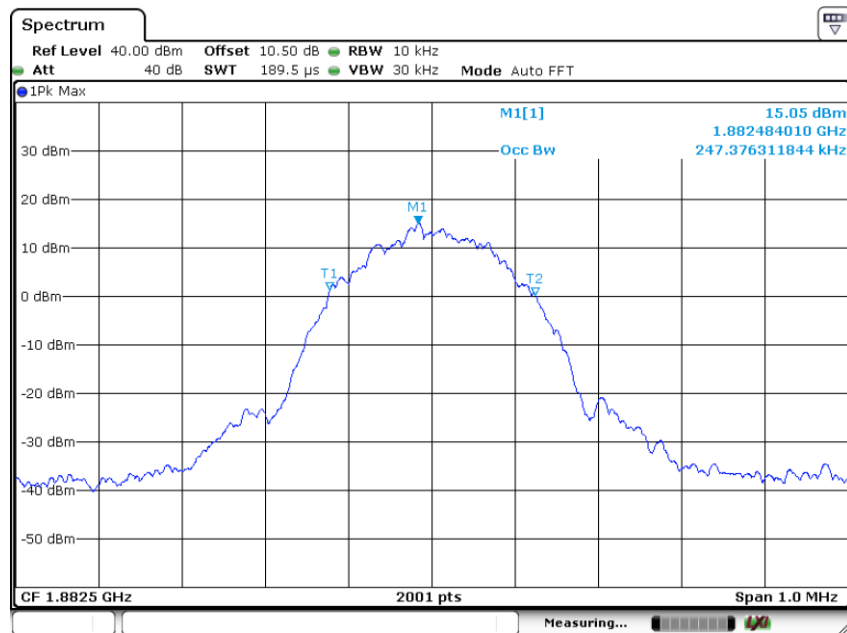


PCS AWGN @Pre AGC, DL output



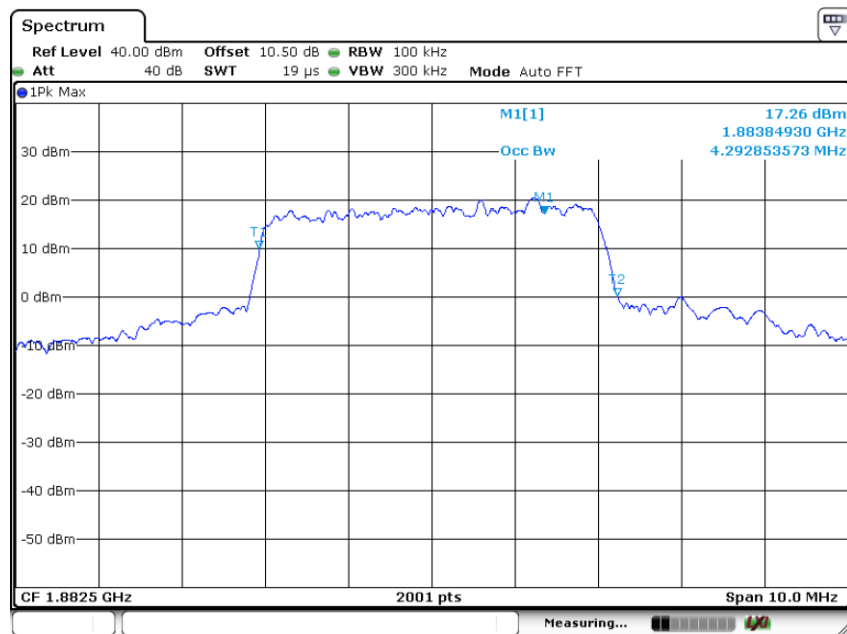
Date: 16.JUL.2026 11:17:54

PCS GSM @Pre AGC, DL output



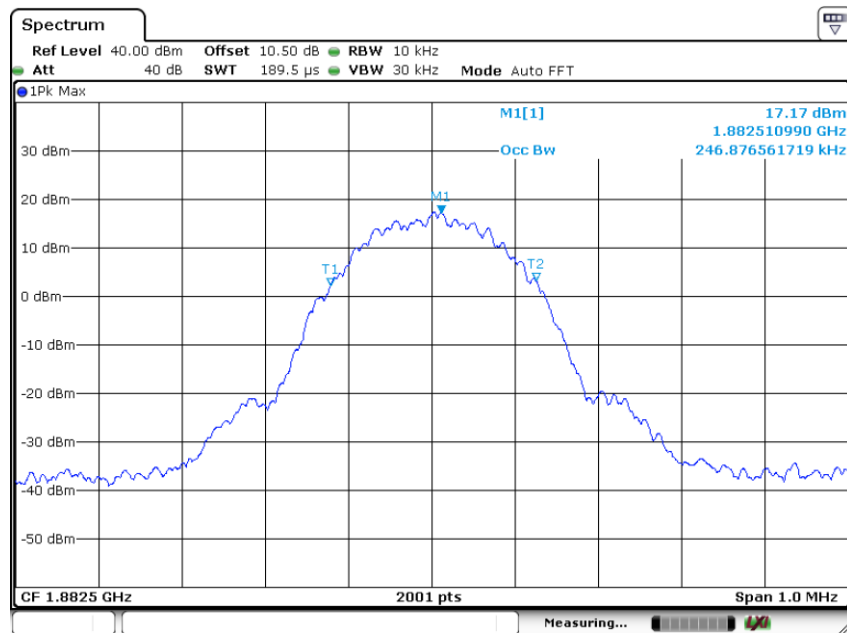
Date: 16.JUL.2026 11:08:49

PCS AWGN @AGC + 3 dB, DL output



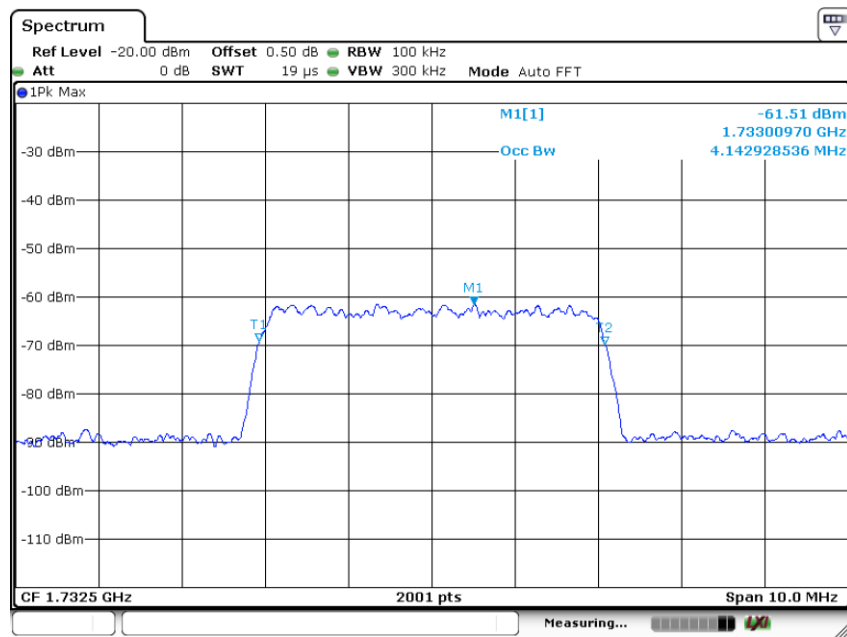
Date: 16.JUL.2026 11:19:14

PCS GSM @AGC + 3 dB, DL output



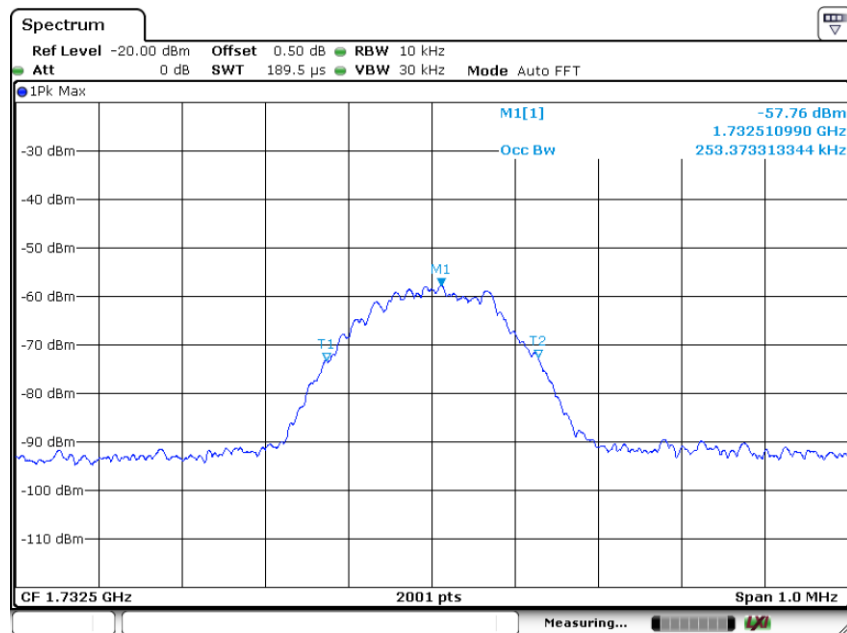
Date: 16.JUL.2026 11:09:03

AWS AWGN @Pre AGC, DL Input



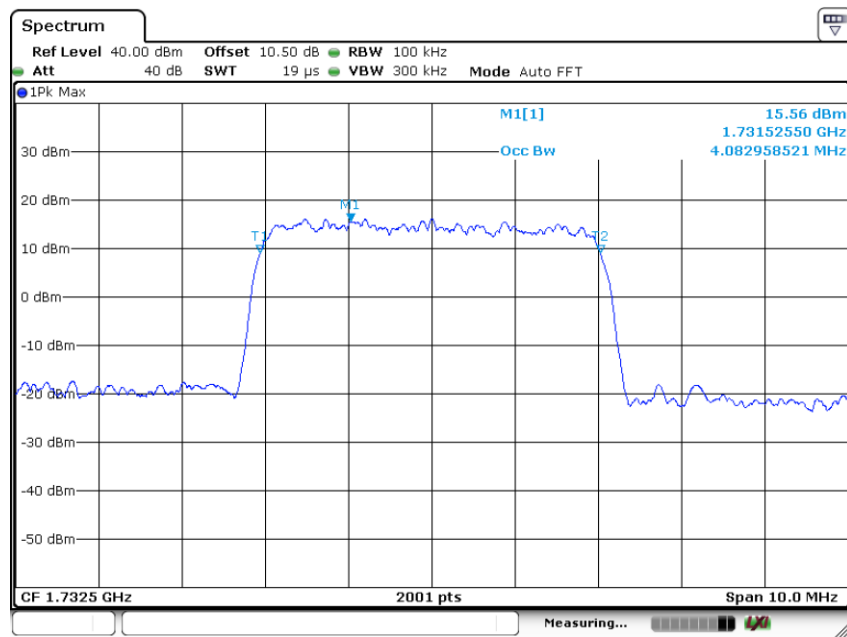
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AWS GSM @Pre AGC, DL Input



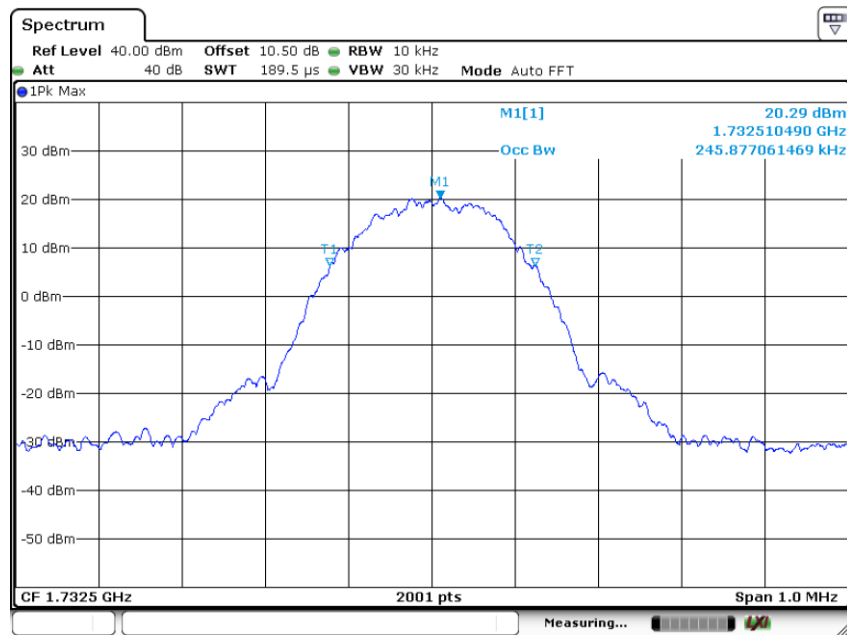
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AWS AWGN @Pre AGC, DL output



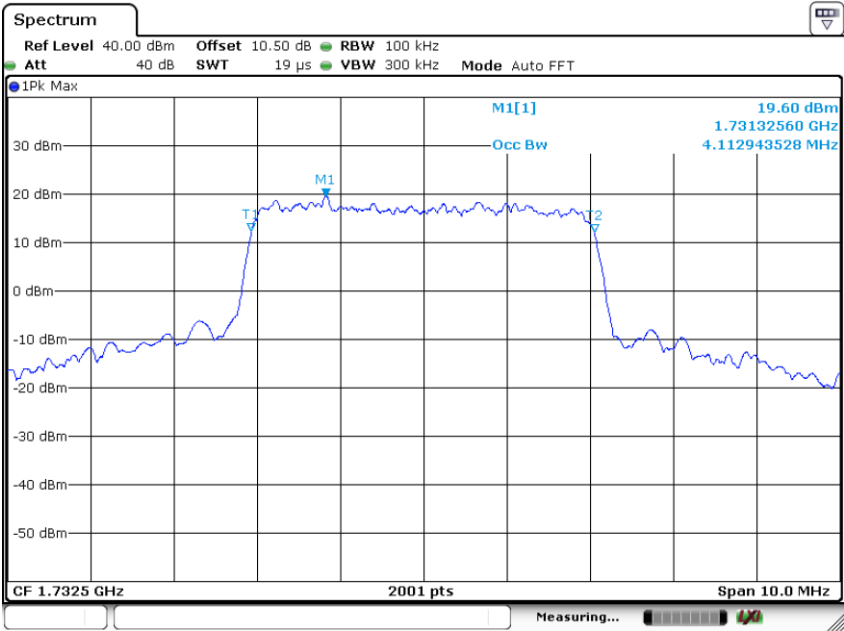
Date: 16.JUL.2026 11:19:53

AWS GSM @Pre AGC, DL output



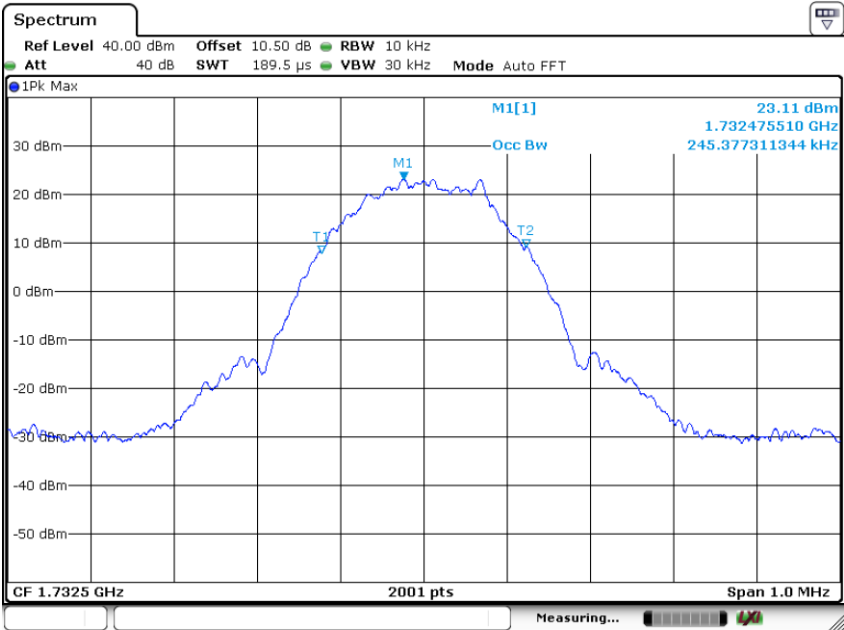
Date: 16.JUL.2026 11:05:56

AWS AWGN @AGC + 3 dB, DL output



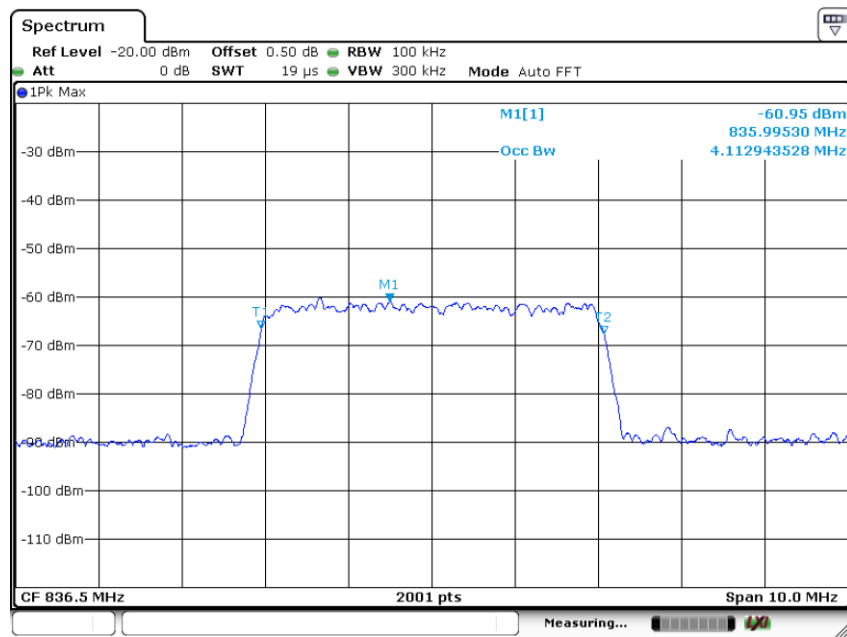
Date: 16.JUL.2026 11:20:13

AWS GSM @AGC + 3 dB, DL output



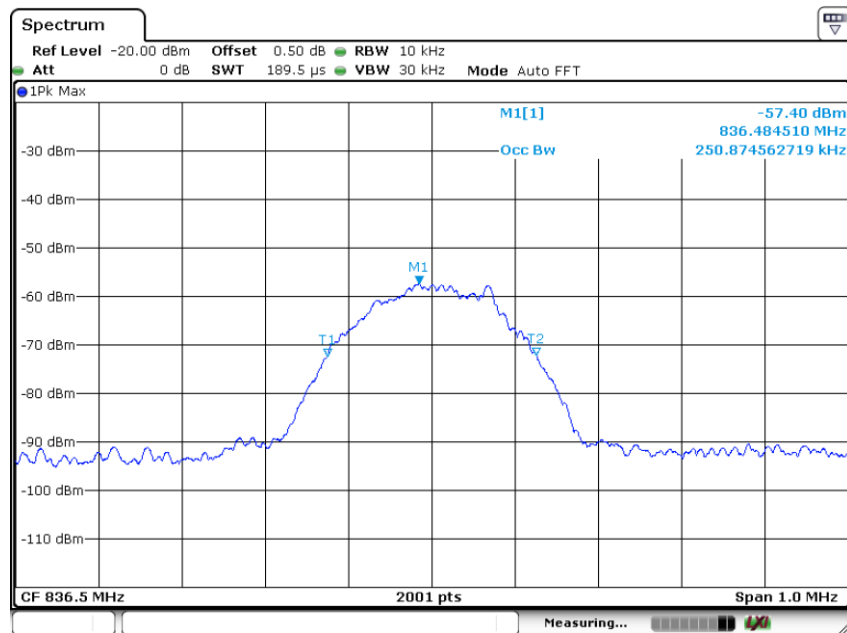
Date: 16.JUL.2026 11:06:15

Cellular AWGN @Pre AGC, DL Input



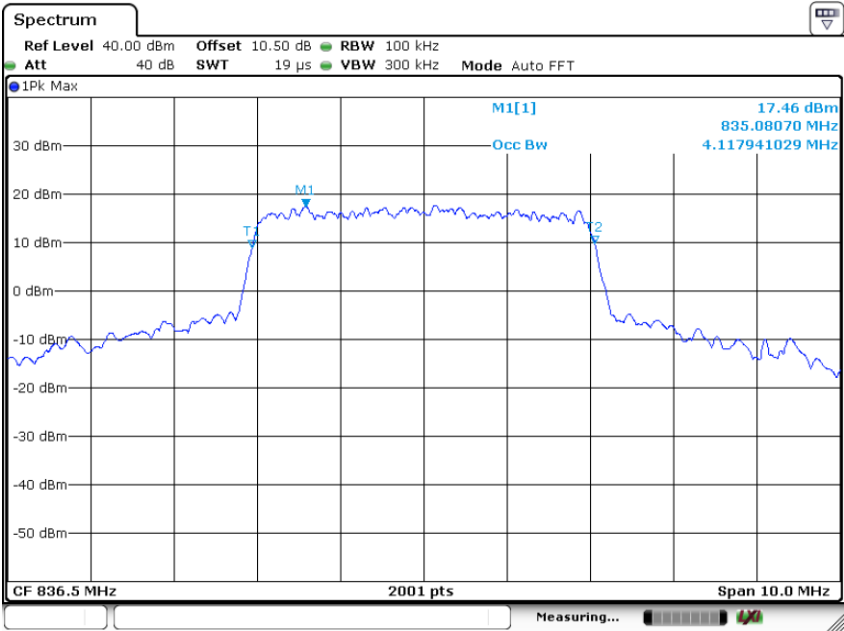
Date: 16.JUL.2026 10:13:07

Cellular GSM @Pre AGC, DL Input



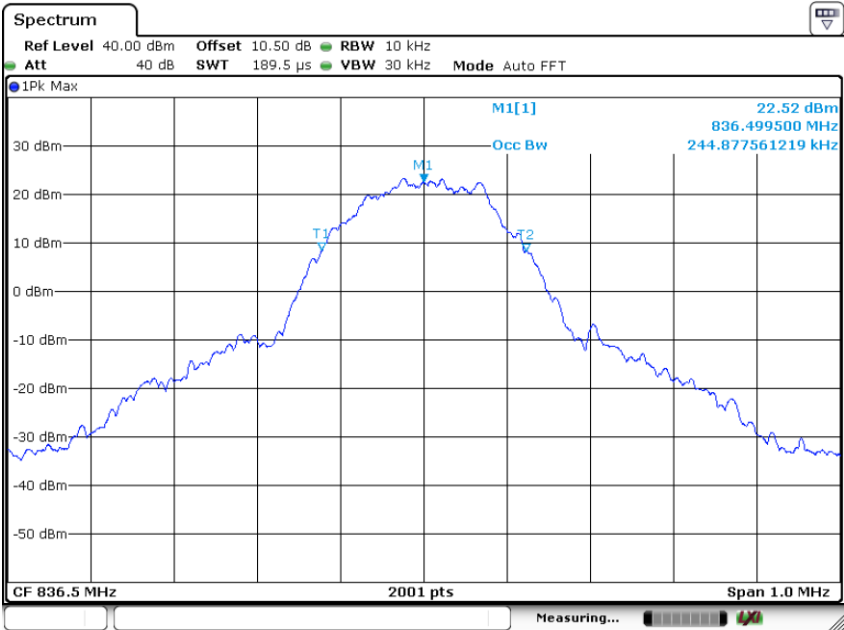
Date: 16.JUL.2026 10:27:56

Cellular AWGN @Pre AGC, DL output



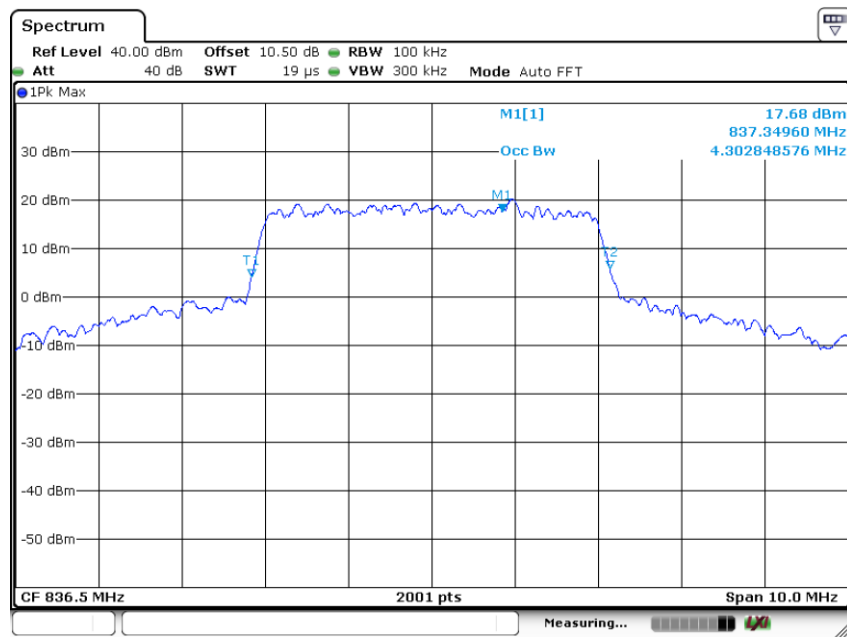
Date: 16.JUL.2026 11:31:00

Cellular GSM @Pre AGC, DL output



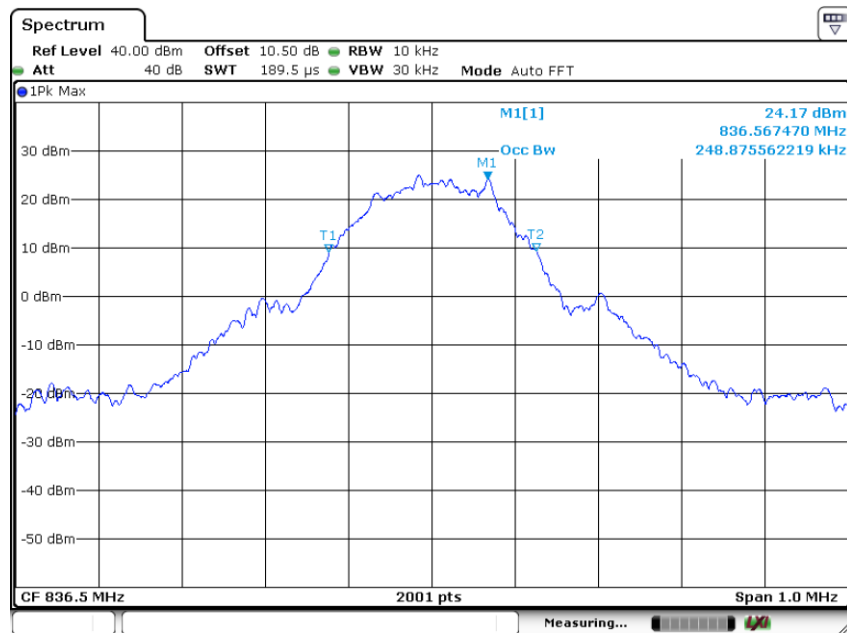
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Cellular AWGN @AGC + 3 dB, DL output



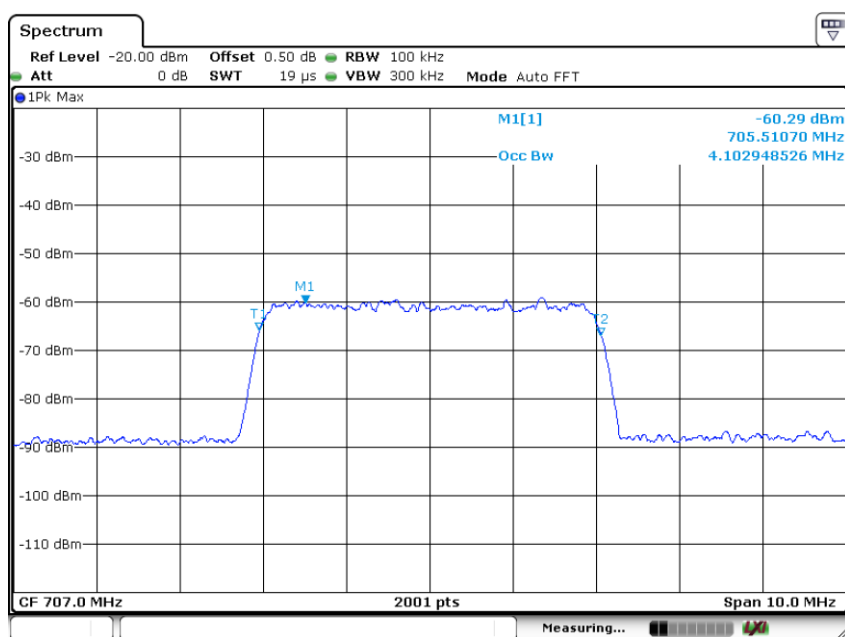
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Cellular GSM @AGC + 3 dB, DL output



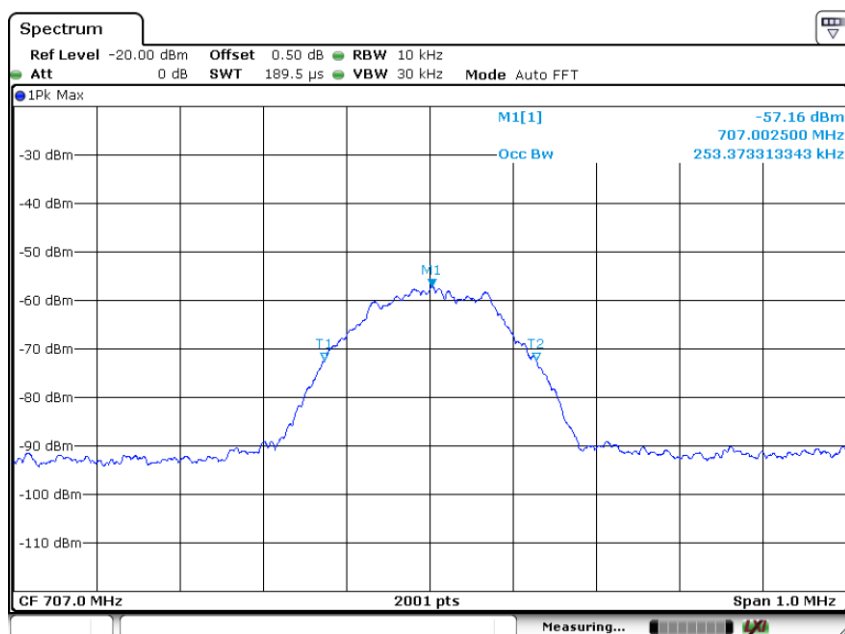
Date: 16.JUL.2026 11:05:00

Lower700MHz AWGN @Pre AGC, DL Input



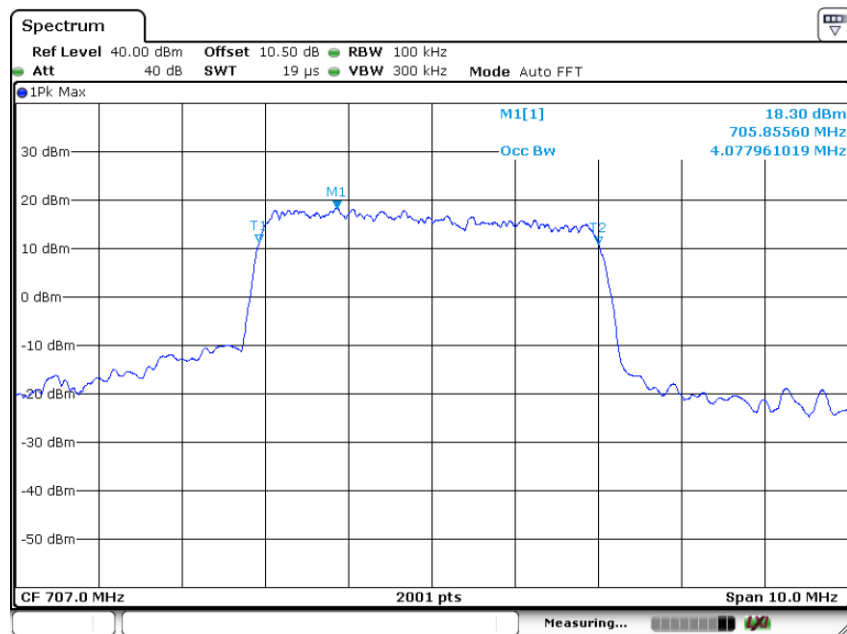
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Lower700MHz GSM @Pre AGC, DL Input



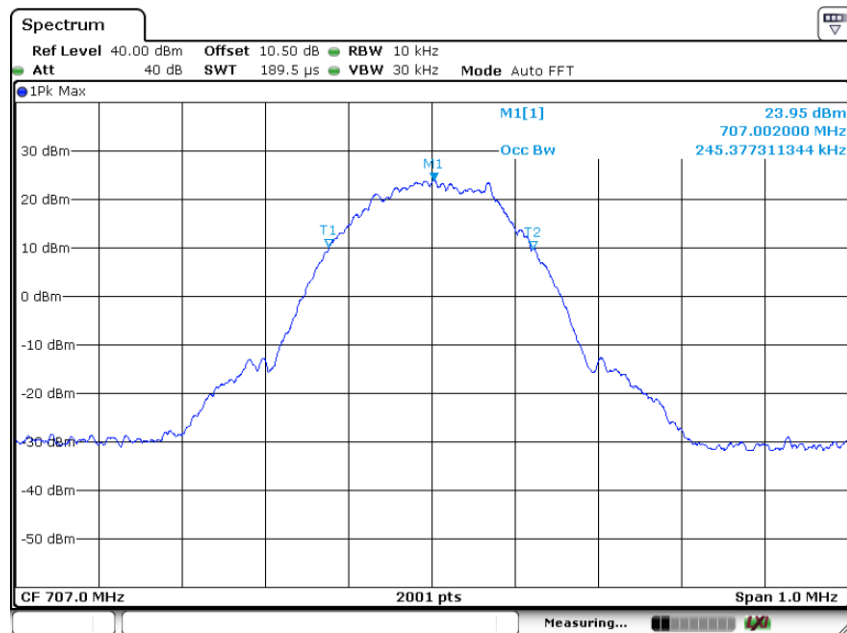
Date: 16.JUL.2026 10:27:20

Lower700MHz AWGN @Pre AGC, DL output



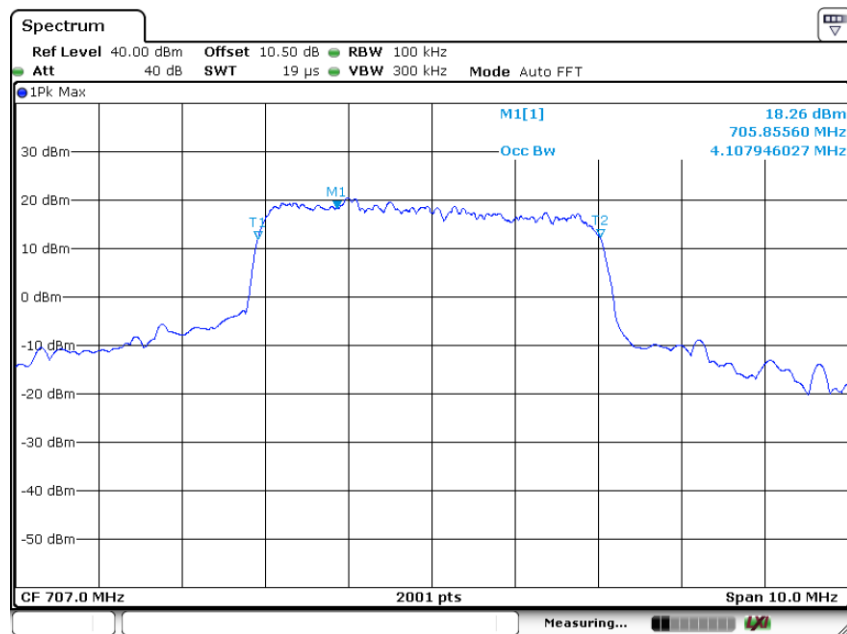
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Lower700MHz GSM @Pre AGC, DL output



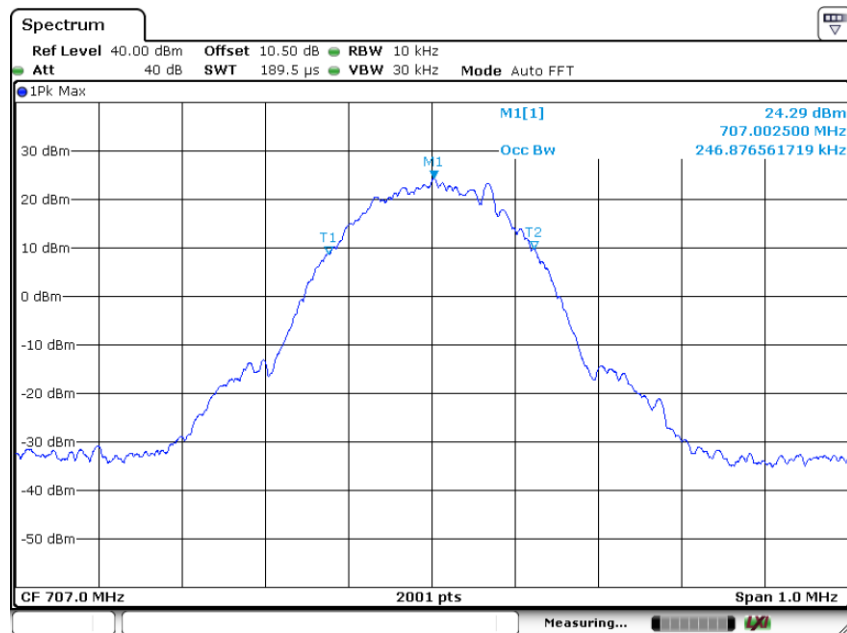
Date: 16.JUL.2026 10:53:47

Lower700MHz AWGN @AGC + 3 dB, DL output



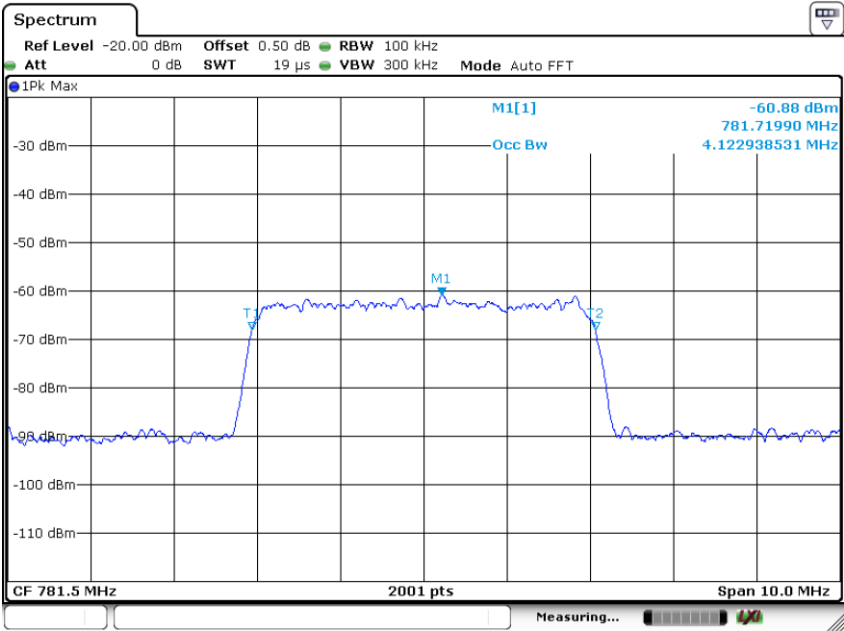
Date: 16.JUL.2026 11:35:01

Lower700MHz GSM @AGC + 3 dB, DL output



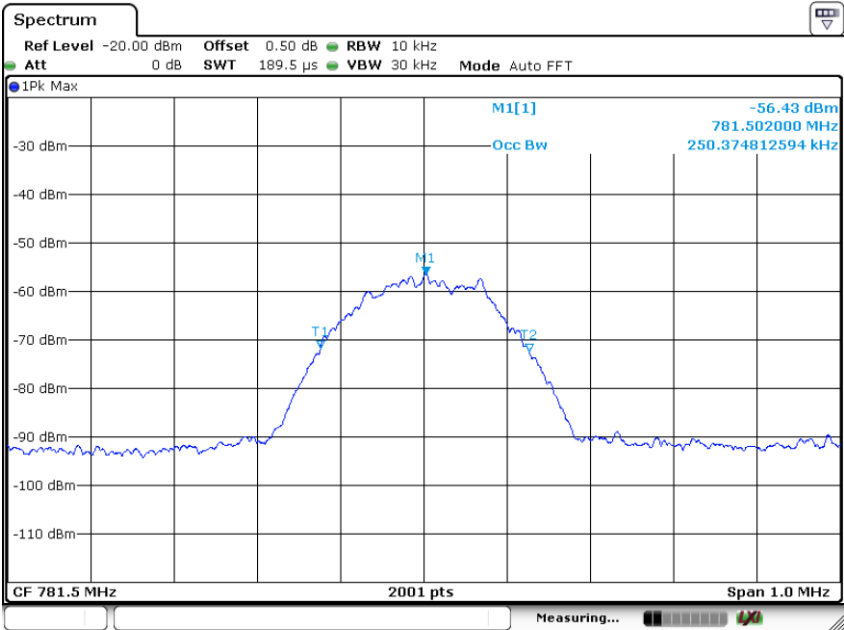
Date: 16.JUL.2026 10:54:20

Upper700MHz AWGN @Pre AGC, DL Input



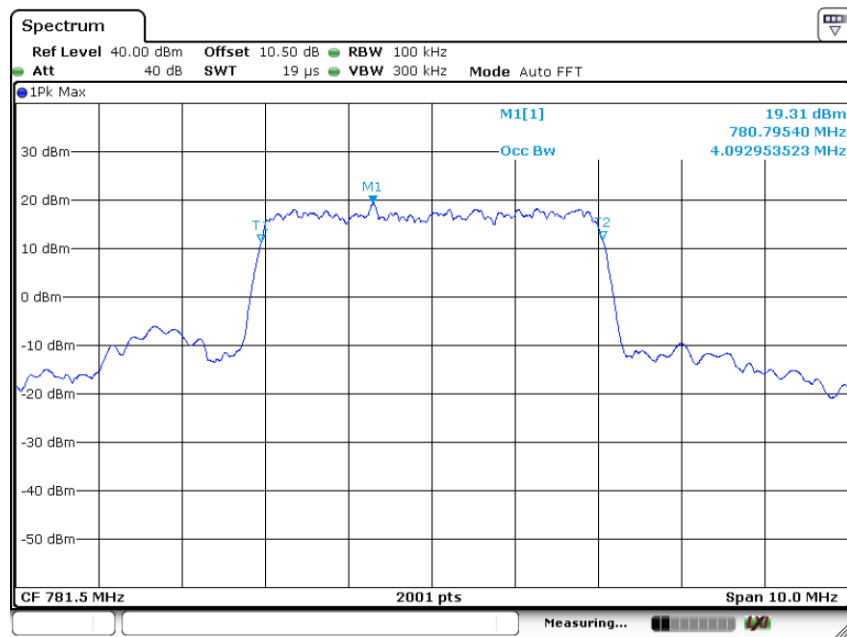
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Upper700MHz GSM @Pre AGC, DL Input



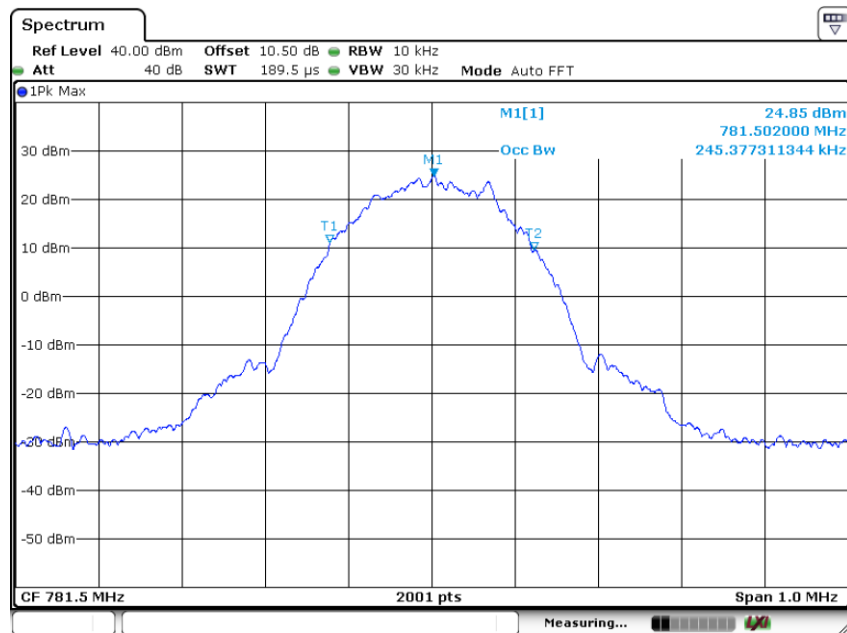
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Upper700MHz AWGN @Pre AGC, DL output



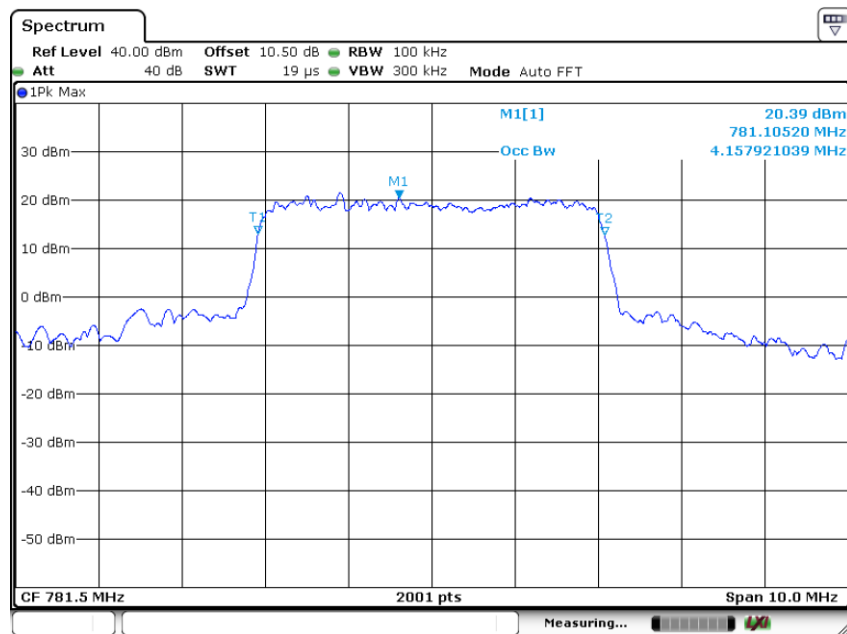
Date: 16.JUL.2026 11:35:25

Upper700MHz GSM @Pre AGC, DL output



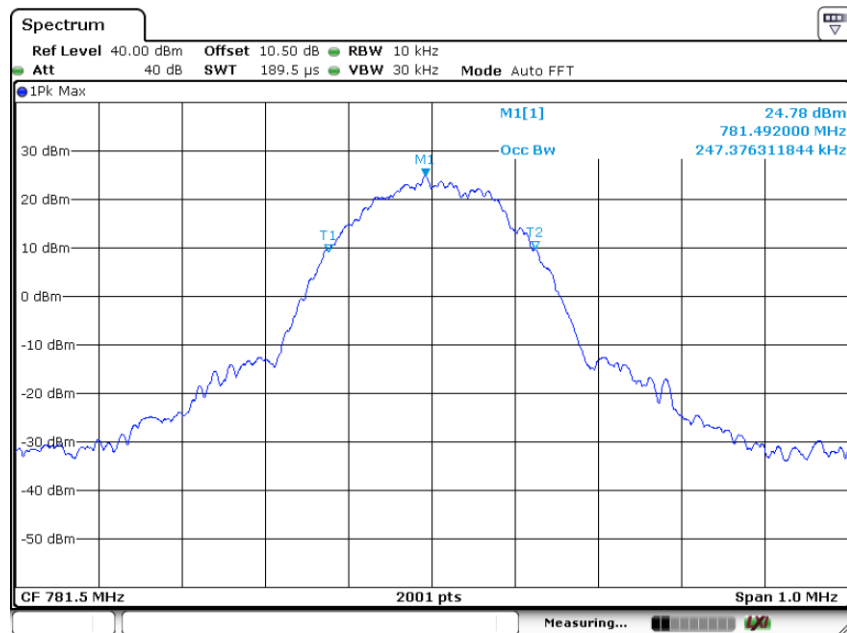
Date: 16.JUL.2026 11:02:03

Upper700MHz AWGN @AGC + 3 dB, DL output



Date: 16.JUL.2026 11:35:43

Upper700MHz GSM @AGC + 3 dB, DL output



Date: 16.JUL.2026 11:02:57

Mean output power and amplifier/booster gain

Signal path: Server1 to Donor

Frequency Band	Signal Type	Input Level (dBm)	Output Level (dBm)	Gain (dB)	Output Level@ AGC+3dB (dBm)
PCS Uplink	GSM	-57.40	24.93	82.33	25.91
	AWGN	-58.00	23.59	81.59	25.74
AWS Uplink	GSM	-57.10	25.90	83.00	26.94
	AWGN	-56.90	25.62	82.52	26.06
Cellular Uplink	GSM	-57.40	24.71	82.11	25.78
	AWGN	-57.60	24.02	81.62	25.36
Lower700MHz Uplink	GSM	-57.10	25.84	82.94	26.16
	AWGN	-57.40	24.87	82.27	25.79
Upper700MHz Uplink	GSM	-57.10	25.69	82.79	25.89
	AWGN	-57.20	25.06	82.26	25.71

Signal path: Server2 to Donor

Frequency Band	Signal Type	Input Level (dBm)	Output Level (dBm)	Gain (dB)	Output Level@ AGC+3dB (dBm)
PCS Uplink	GSM	-56.50	24.54	81.04	26.25
	AWGN	-56.90	23.93	80.83	25.84
AWS Uplink	GSM	-56.80	23.62	80.42	26.24
	AWGN	-57.10	23.23	80.33	25.84
Cellular Uplink	GSM	-58.00	24.03	82.03	26.00
	AWGN	-58.10	23.15	81.25	25.23
Lower700MHz Uplink	GSM	-57.20	25.02	82.22	25.93
	AWGN	-57.50	23.73	81.23	25.71
Upper700MHz Uplink	GSM	-57.40	24.65	82.05	25.49
	AWGN	-57.60	24.00	81.60	25.67

Signal path: Server3 to Donor

Frequency Band	Signal Type	Input Level (dBm)	Output Level (dBm)	Gain (dB)	Output Level@ AGC+3dB (dBm)
PCS Uplink	GSM	-57.40	25.26	82.66	26.26
	AWGN	-58.00	24.53	82.53	26.05
AWS Uplink	GSM	-57.40	23.81	81.21	26.10
	AWGN	-56.80	23.57	80.37	26.00
Cellular Uplink	GSM	-56.70	24.41	81.11	26.15
	AWGN	-57.20	23.75	80.95	25.34
Lower700MHz Uplink	GSM	-57.20	25.17	82.37	25.84
	AWGN	-57.50	24.34	81.84	25.42
Upper700MHz Uplink	GSM	-57.40	24.97	82.37	25.18
	AWGN	-57.60	24.55	82.15	25.35

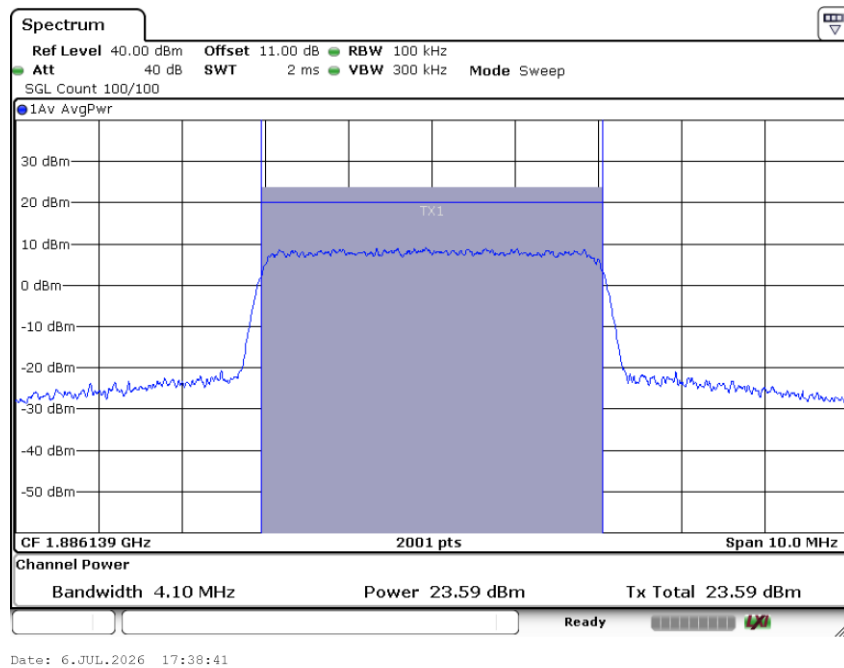
Signal path: Server4 to Donor

Frequency Band	Signal Type	Input Level (dBm)	Output Level (dBm)	Gain (dB)	Output Level@ AGC+3dB (dBm)
PCS Uplink	GSM	-57.50	25.48	82.98	26.32
	AWGN	-58.10	24.73	82.83	26.16
AWS Uplink	GSM	-57.30	25.76	83.06	27.39
	AWGN	-57.60	25.62	83.22	26.46
Cellular Uplink	GSM	-56.90	25.42	82.32	26.43
	AWGN	-57.40	24.25	81.65	25.51
Lower700MHz Uplink	GSM	-57.40	25.43	82.83	26.06
	AWGN	-57.70	24.50	82.20	25.59
Upper700MHz Uplink	GSM	-57.10	24.70	81.80	25.72
	AWGN	-57.40	24.30	81.70	25.50

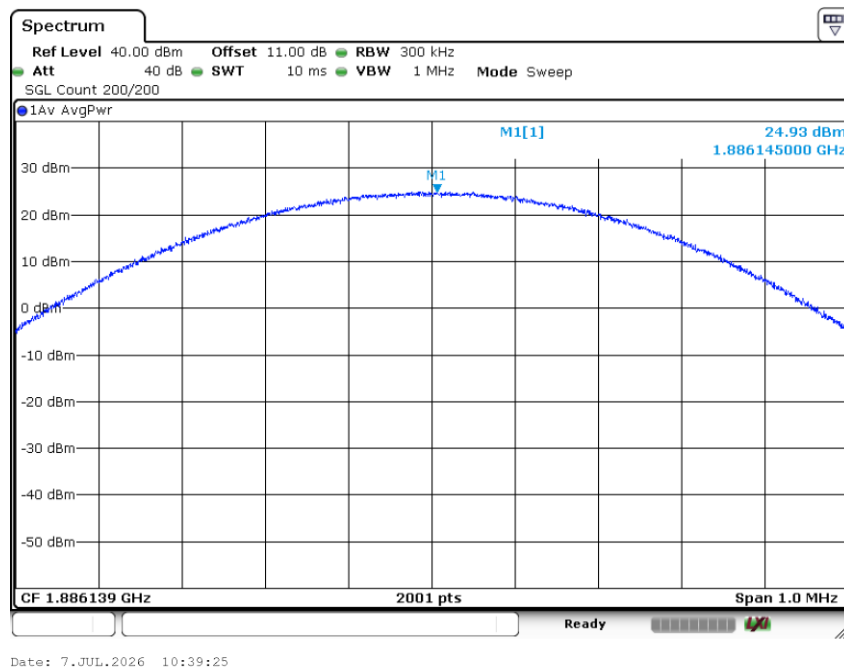
Test Plots

Signal path: Server1 to Donor

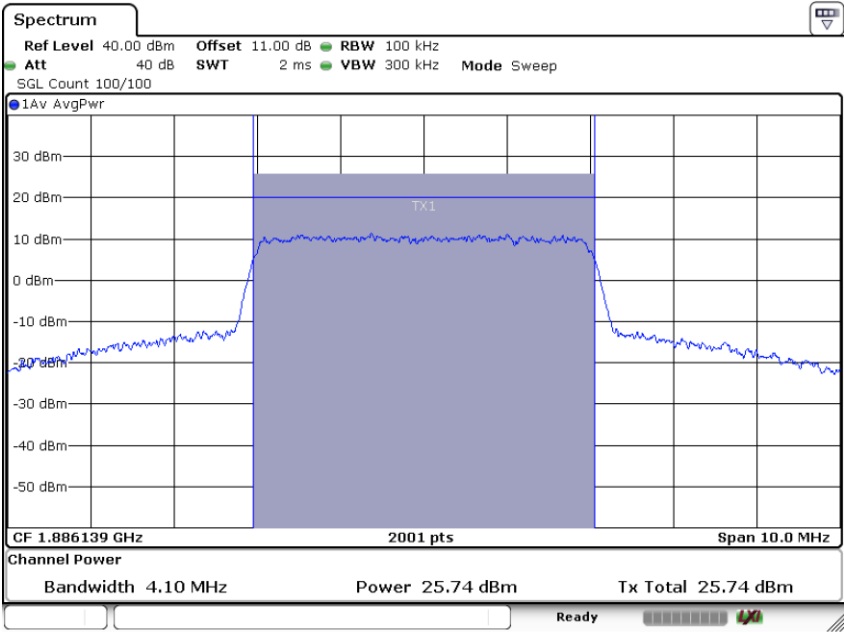
PCS AWGN @Pre AGC, UL



PCS GSM @Pre AGC, UL

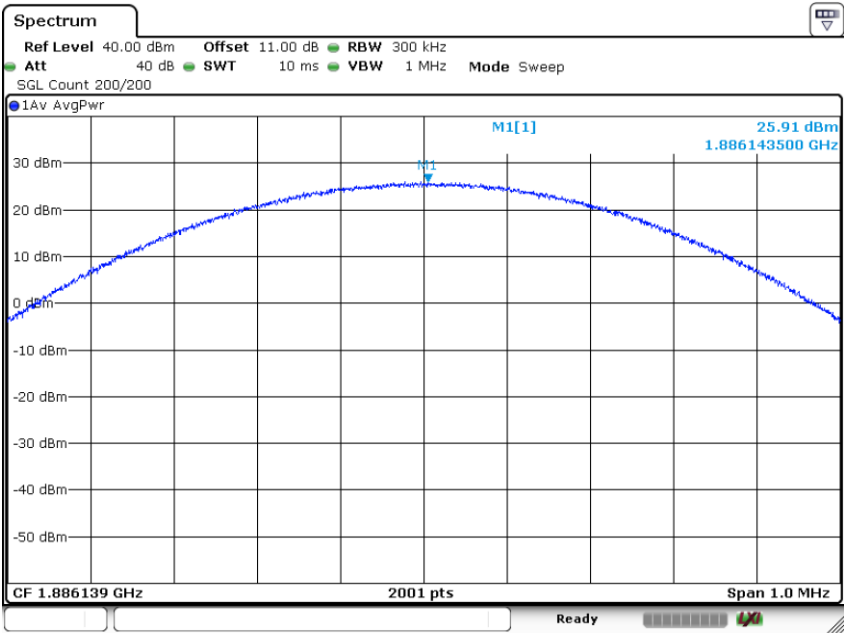


PCS AWGN @AGC + 3 dB, UL



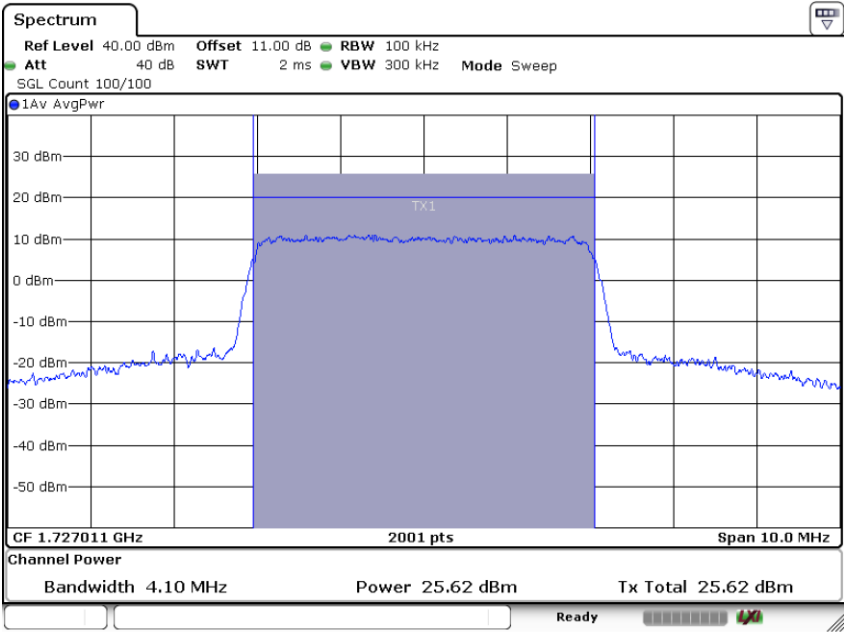
Date: 6.JUL.2026 17:39:22

PCS GSM @AGC + 3 dB, UL



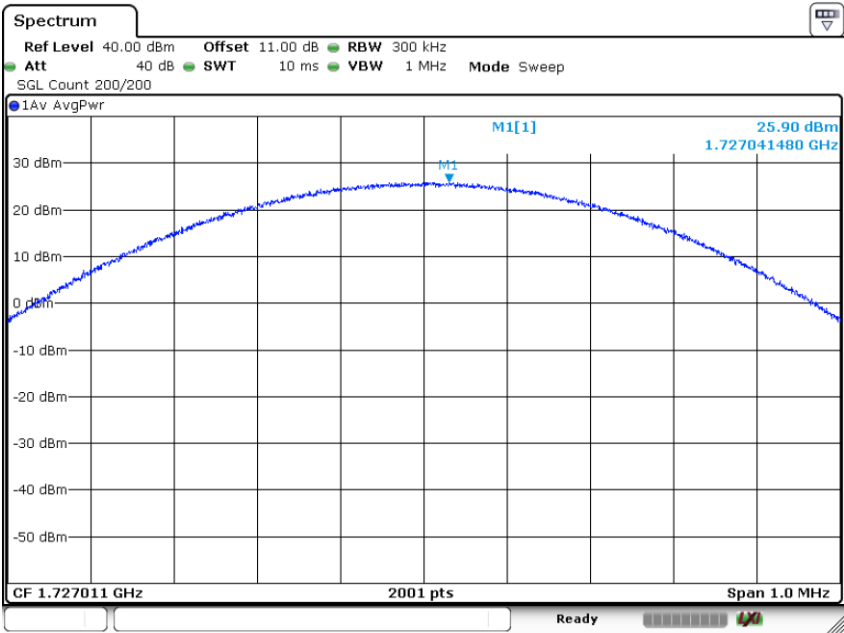
Date: 7.JUL.2026 10:40:09

AWS AWGN @Pre AGC, UL



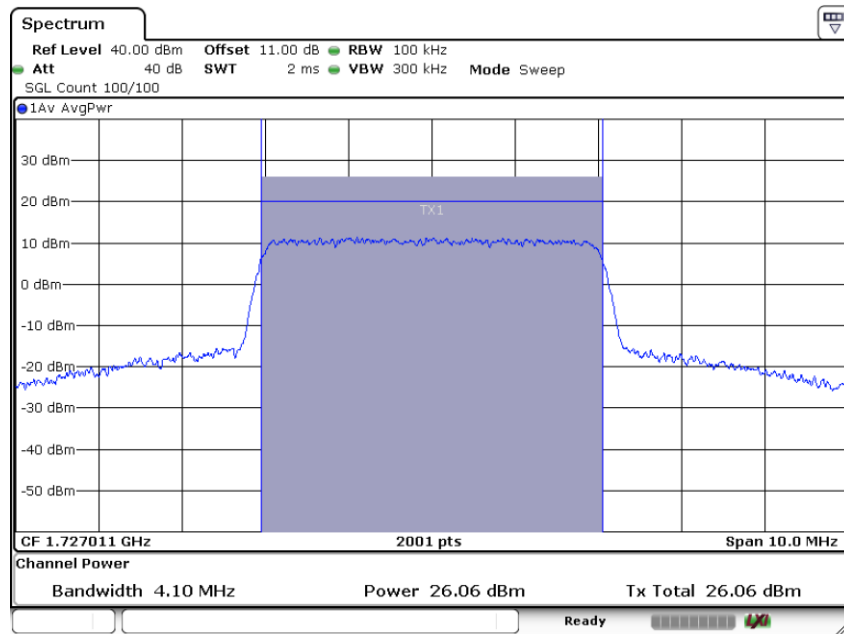
Date: 6.JUL.2026 17:34:59

AWS GSM @Pre AGC, UL



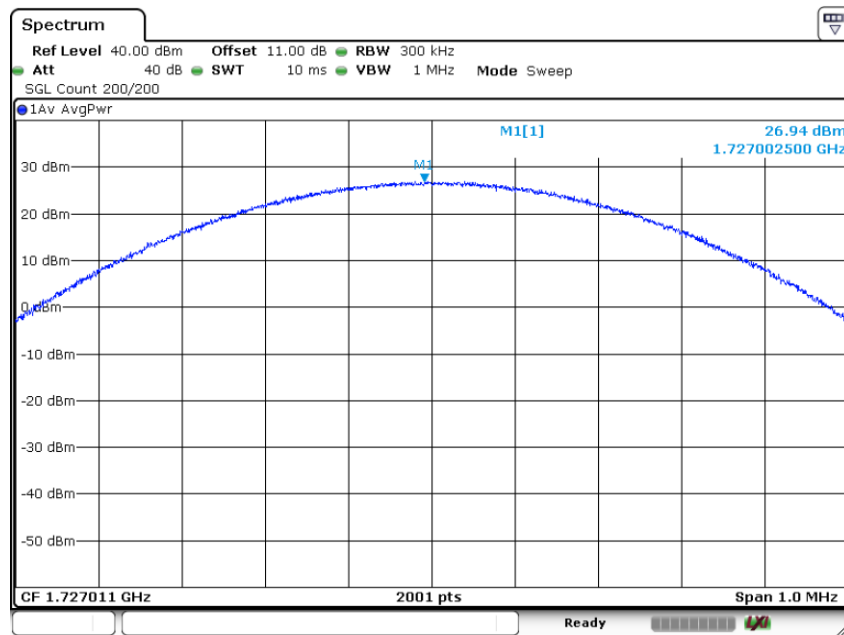
Date: 7.JUL.2026 10:41:44

AWS AWGN @AGC + 3 dB, UL



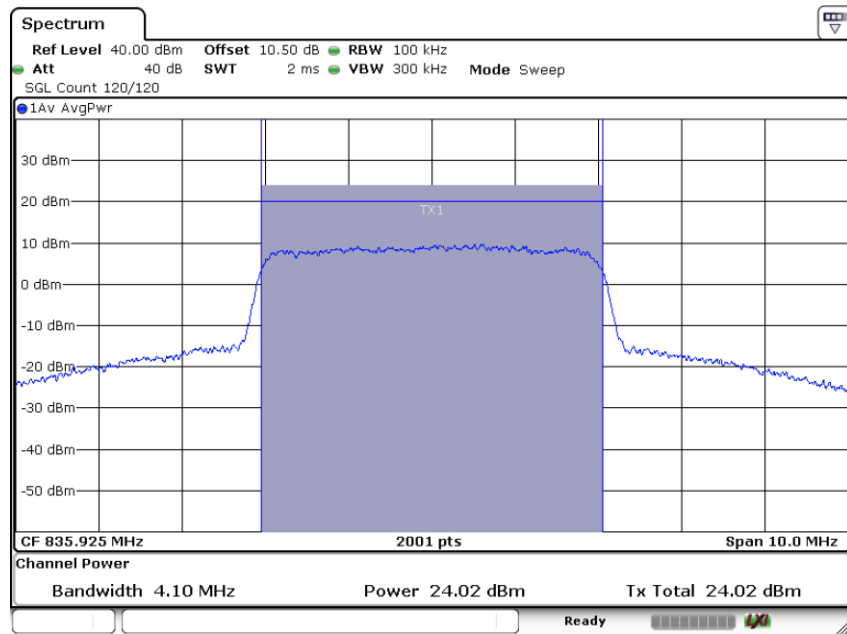
Date: 6.JUL.2026 17:35:32

AWS GSM @AGC + 3 dB, UL



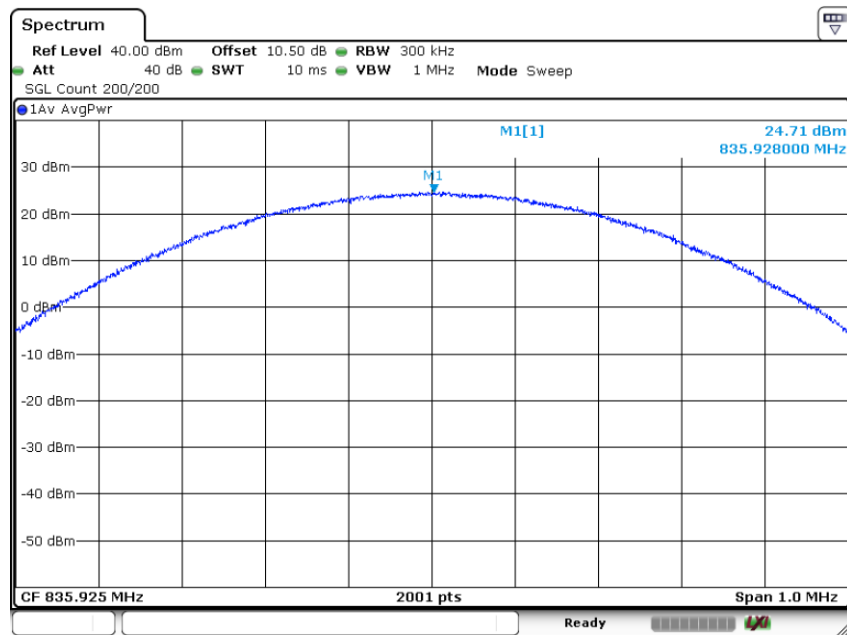
Date: 7.JUL.2026 10:42:21

Cellular AWGN @Pre AGC, UL



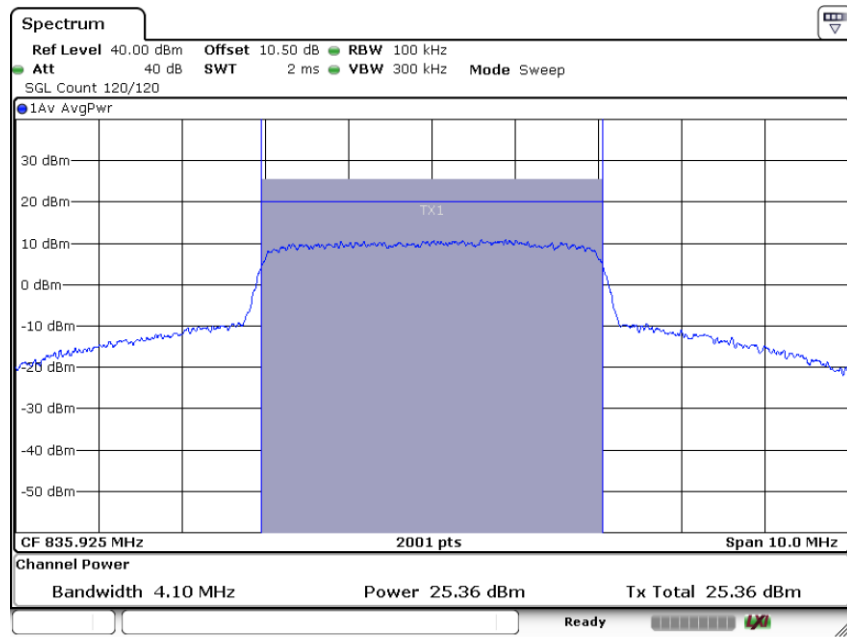
Date: 6.JUL.2026 17:02:05

Cellular GSM @Pre AGC, UL



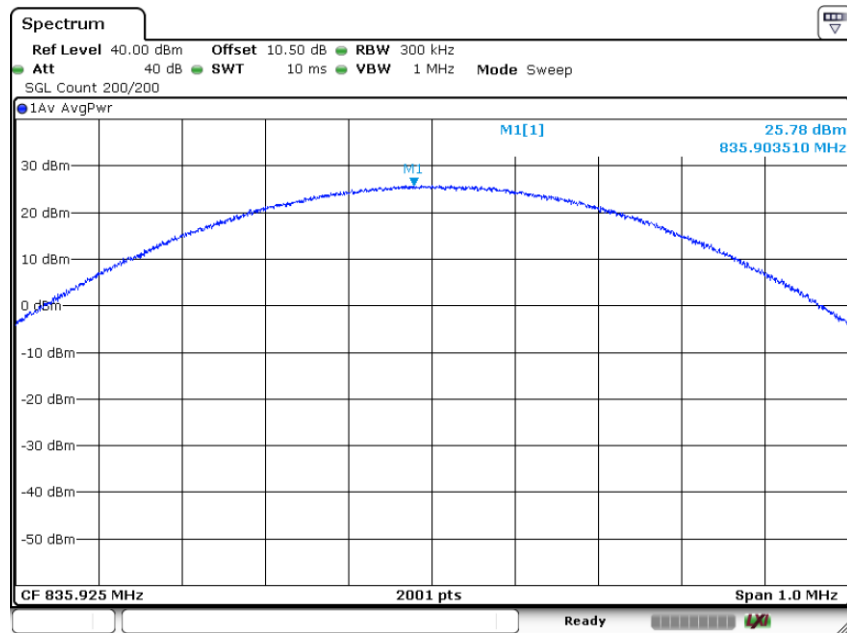
Date: 7.JUL.2026 10:45:50

Cellular AWGN @AGC + 3 dB, UL



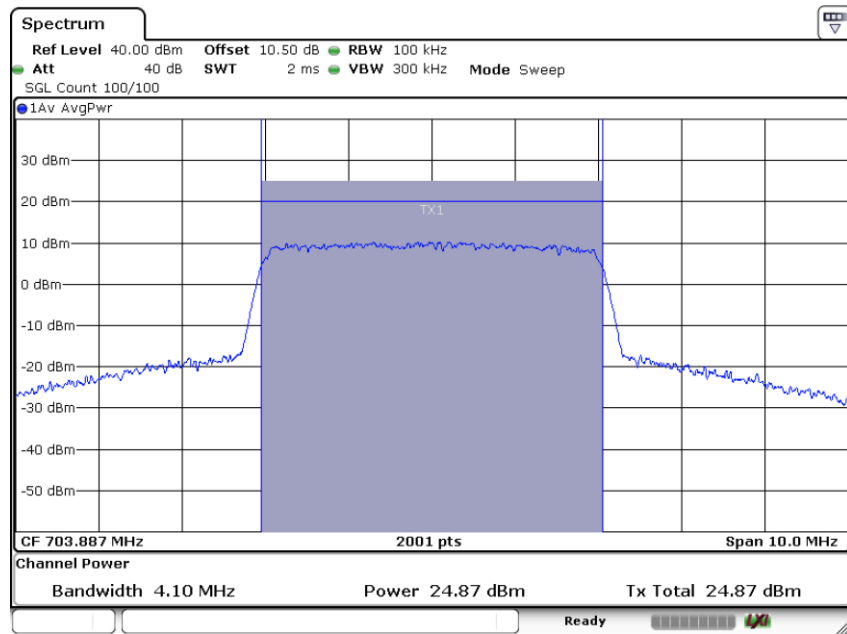
Date: 6.JUL.2026 17:02:42

Cellular GSM @AGC + 3 dB, UL



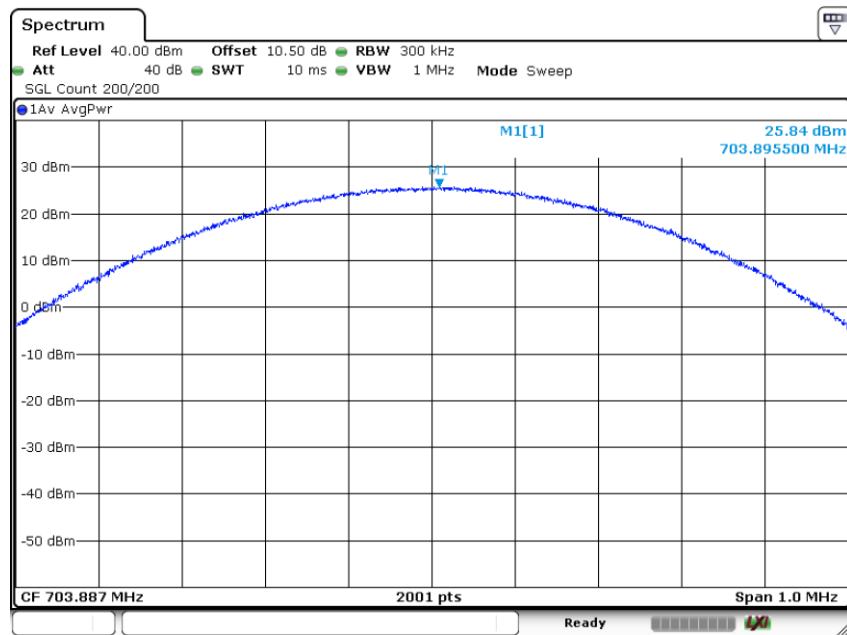
Date: 7.JUL.2026 10:46:26

Lower700MHz AWGN @Pre AGC, UL



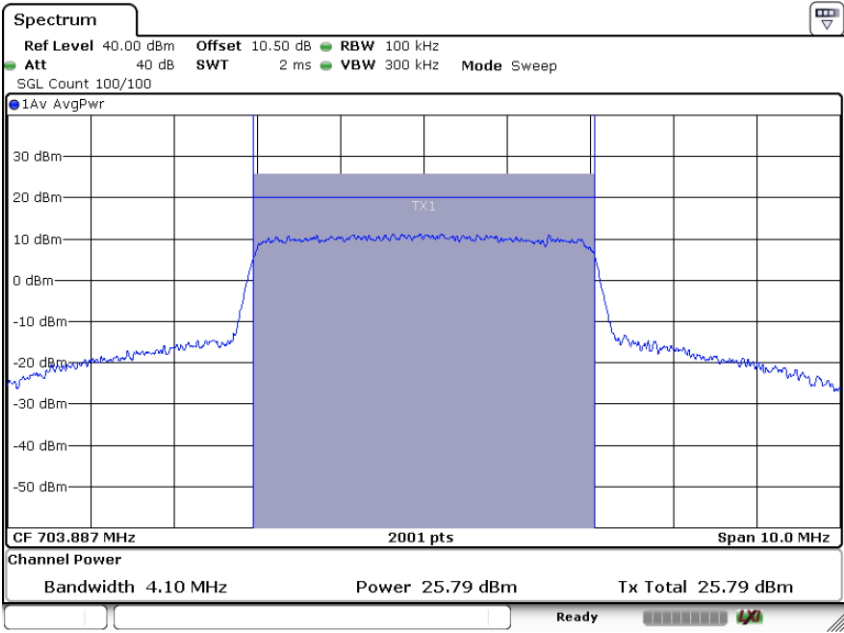
Date: 6.JUL.2026 15:02:37

Lower700MHz GSM @Pre AGC, UL



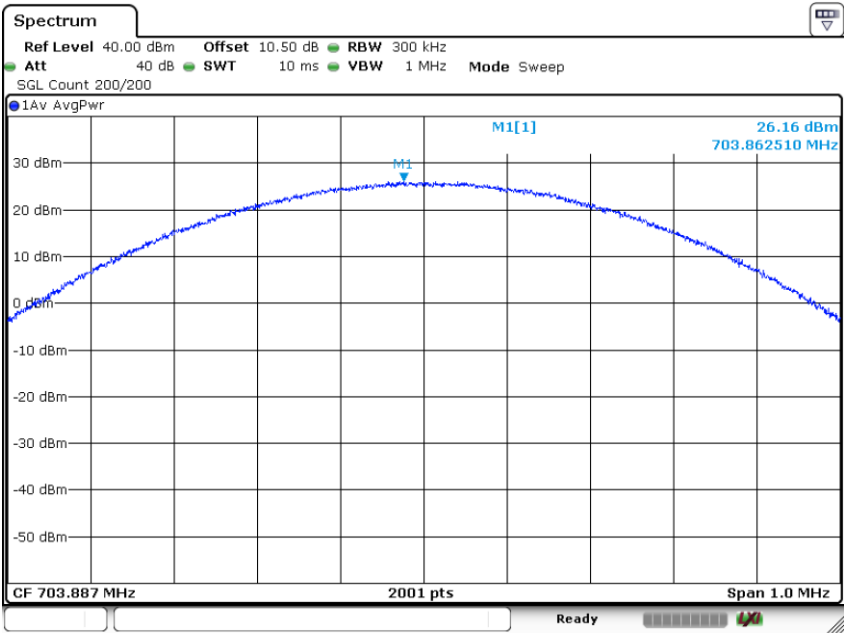
Date: 7.JUL.2026 11:01:27

Lower700MHz AWGN @AGC + 3 dB, UL



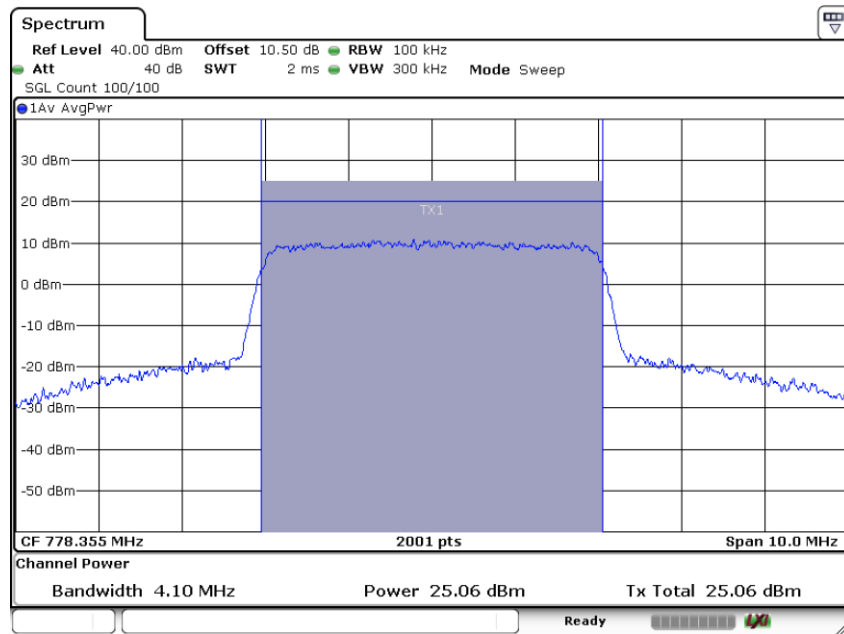
Date: 6.JUL.2026 14:59:17

Lower700MHz GSM @AGC + 3 dB, UL



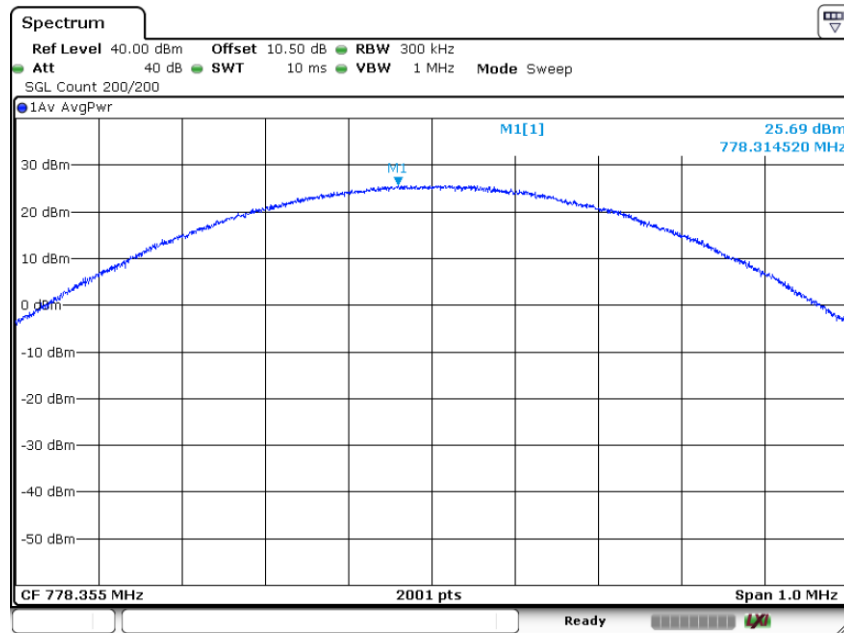
Date: 7.JUL.2026 11:03:00

Upper700MHz AWGN @Pre AGC, UL



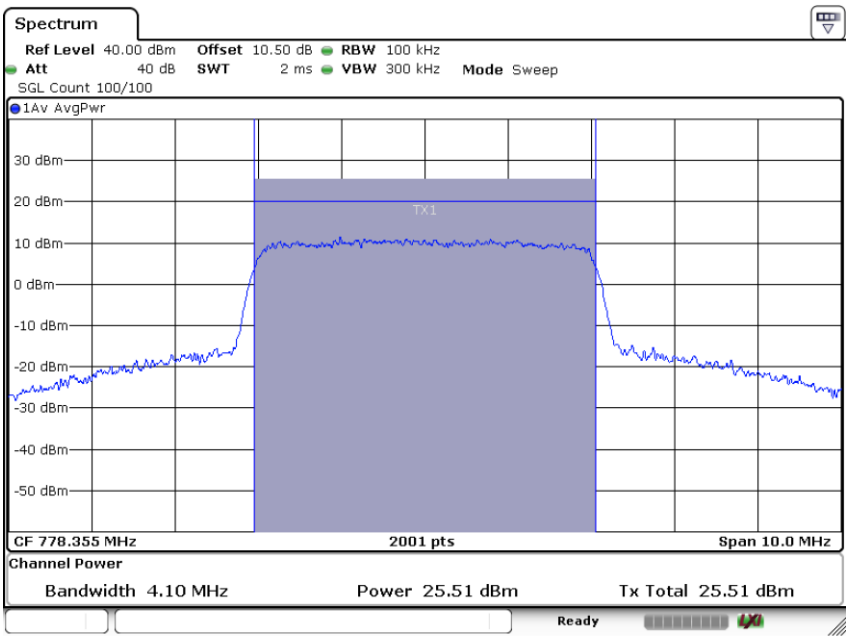
Date: 6.JUL.2026 15:05:19

Upper700MHz GSM @Pre AGC, UL



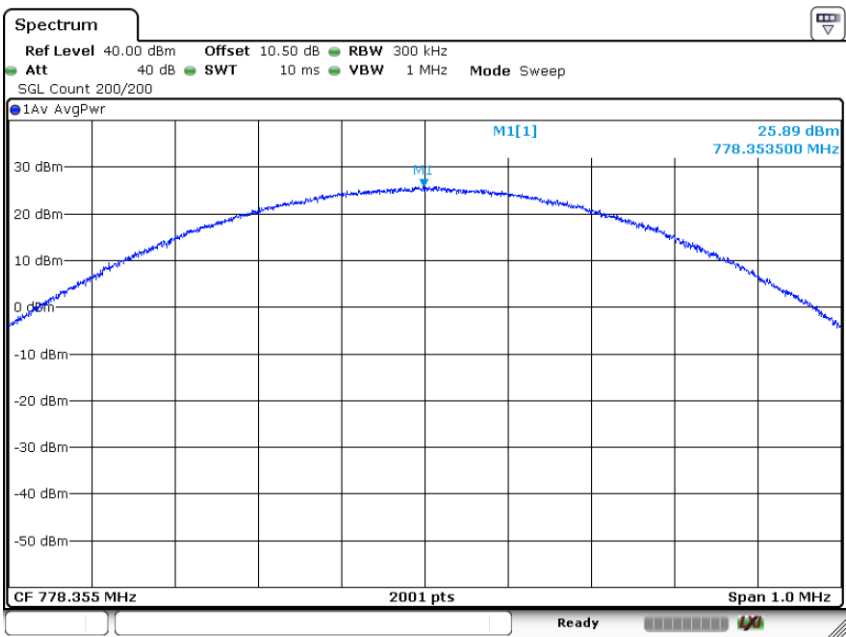
Date: 7.JUL.2026 10:49:24

Upper700MHz AWGN @AGC + 3 dB, UL



Date: 6.JUL.2026 15:06:29

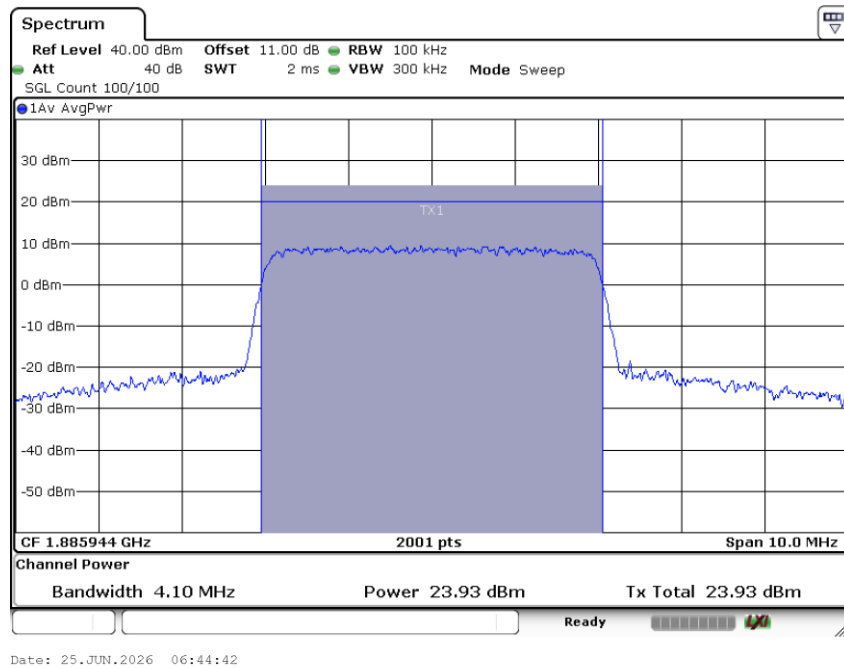
Upper700MHz GSM @AGC + 3 dB, UL



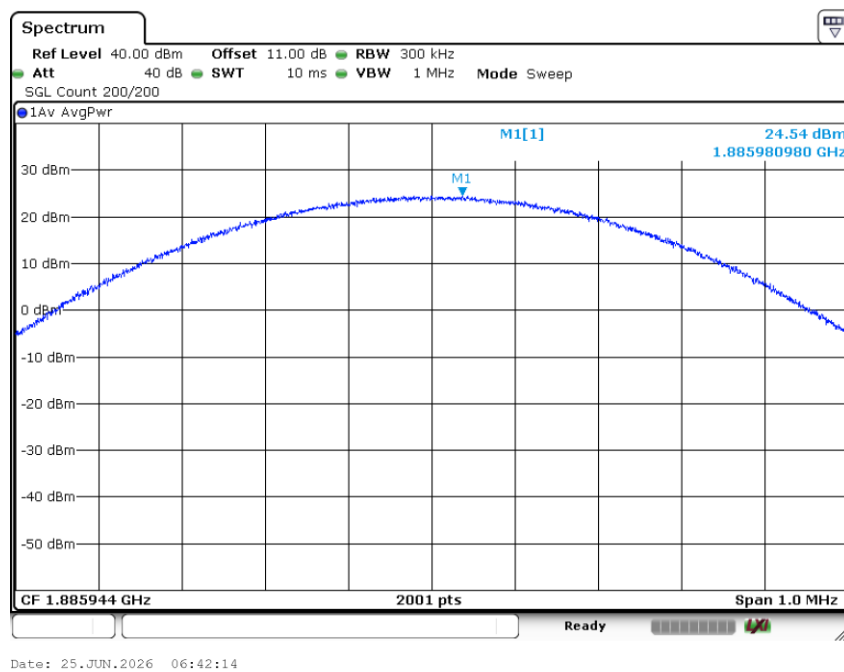
Date: 7.JUL.2026 10:50:39

Signal path: Server2 to Donor

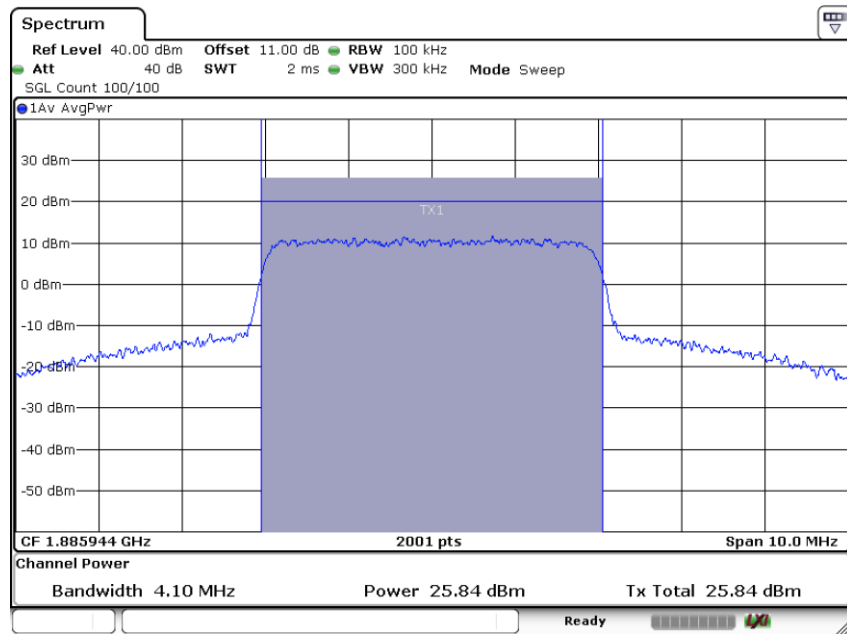
PCS AWGN @Pre AGC, UL



PCS GSM @Pre AGC, UL

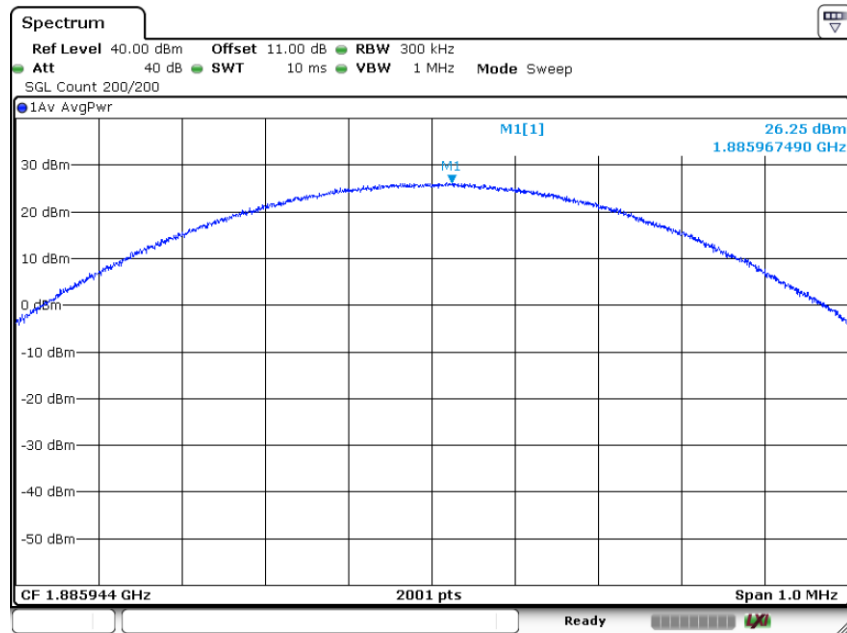


PCS AWGN @AGC + 3 dB, UL



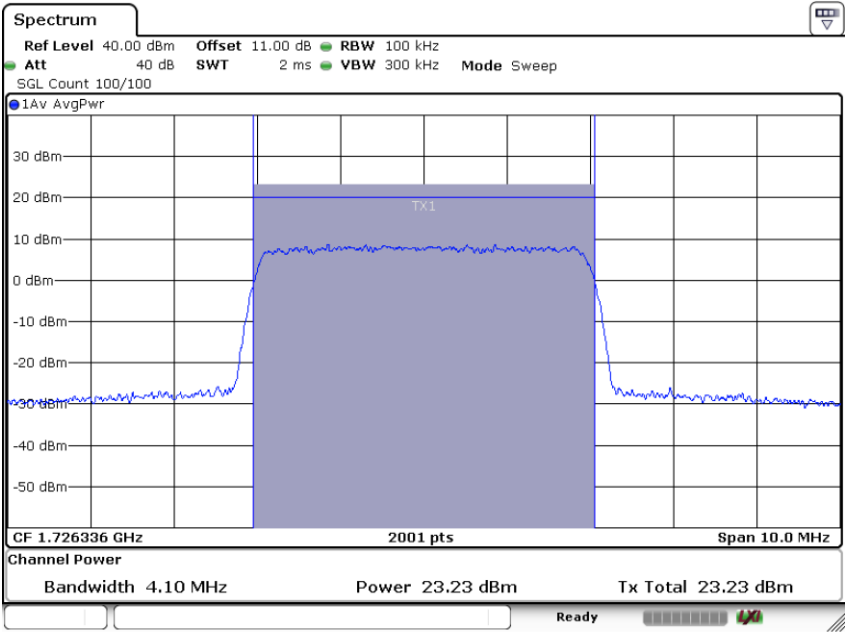
Date: 25.JUN.2026 06:45:27

PCS GSM @AGC + 3 dB, UL



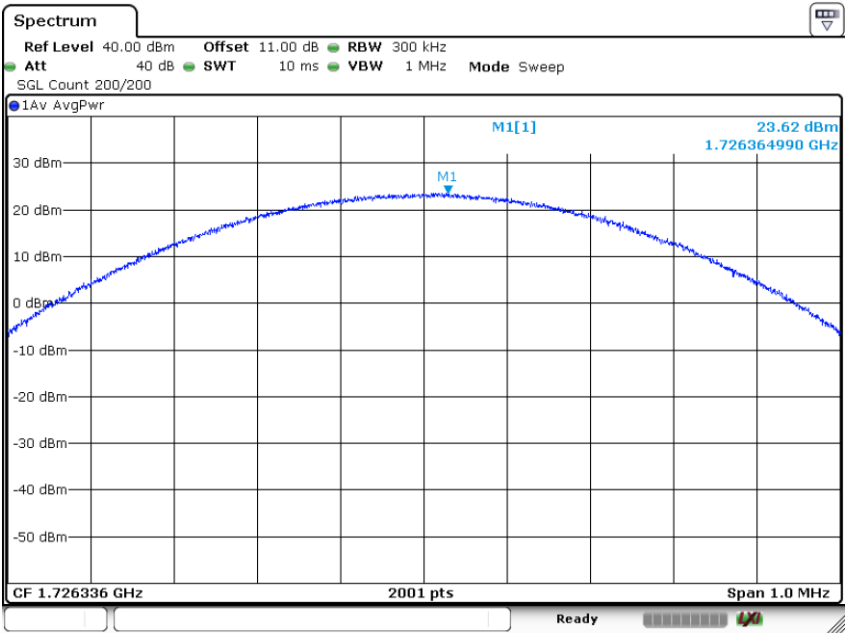
Date: 25.JUN.2026 06:42:47

AWS AWGN @Pre AGC, UL



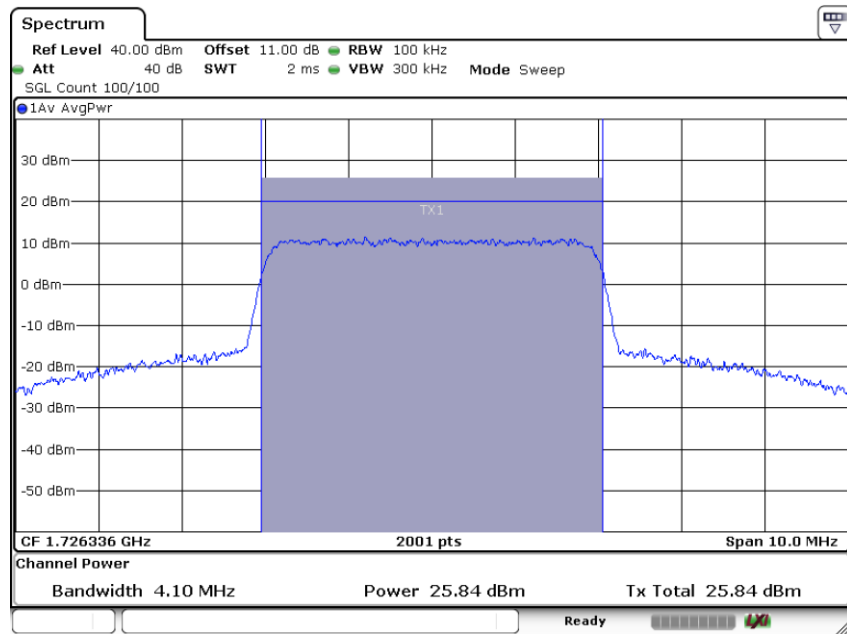
Date: 25.JUN.2026 06:55:33

AWS GSM @Pre AGC, UL



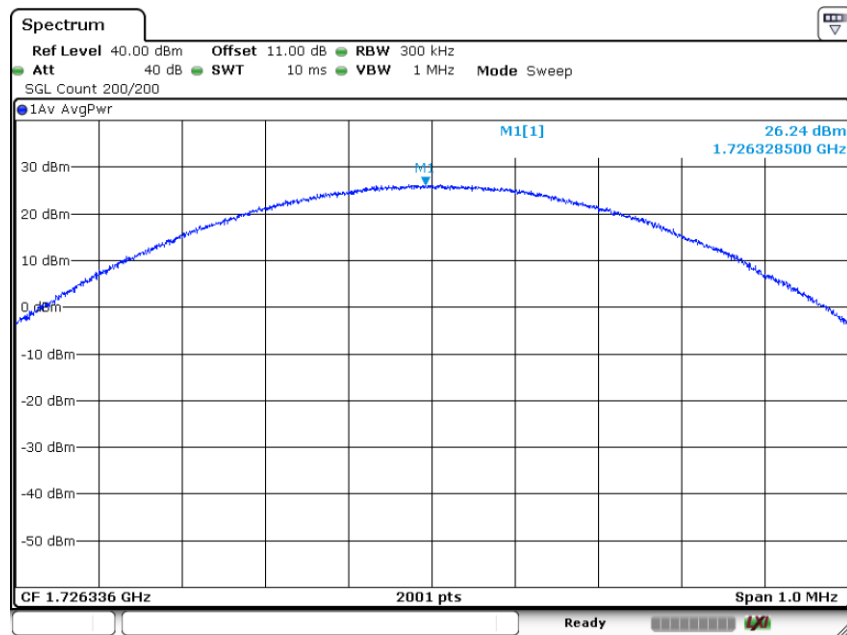
Date: 25.JUN.2026 06:36:32

AWS AWGN @AGC + 3 dB, UL



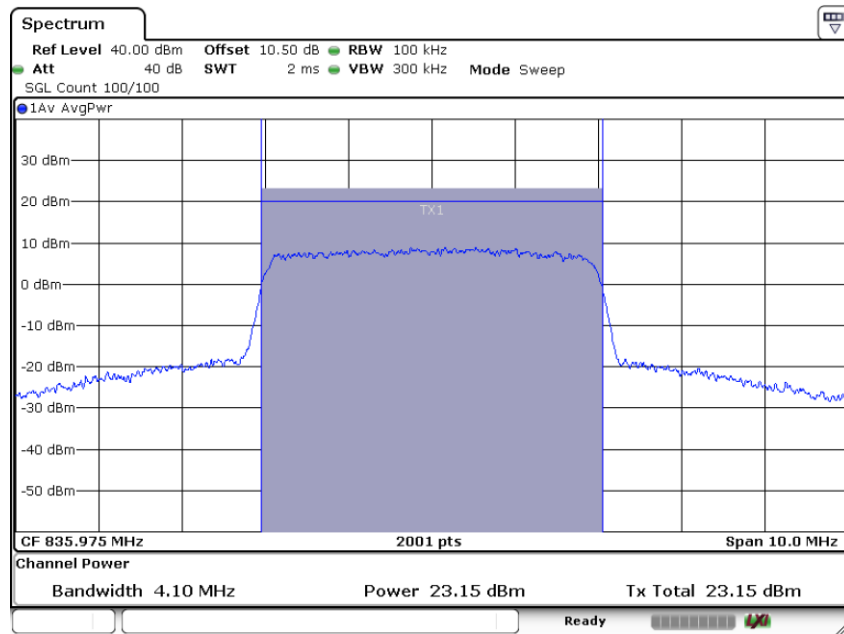
Date: 25.JUN.2026 06:56:38

AWS GSM @AGC + 3 dB, UL



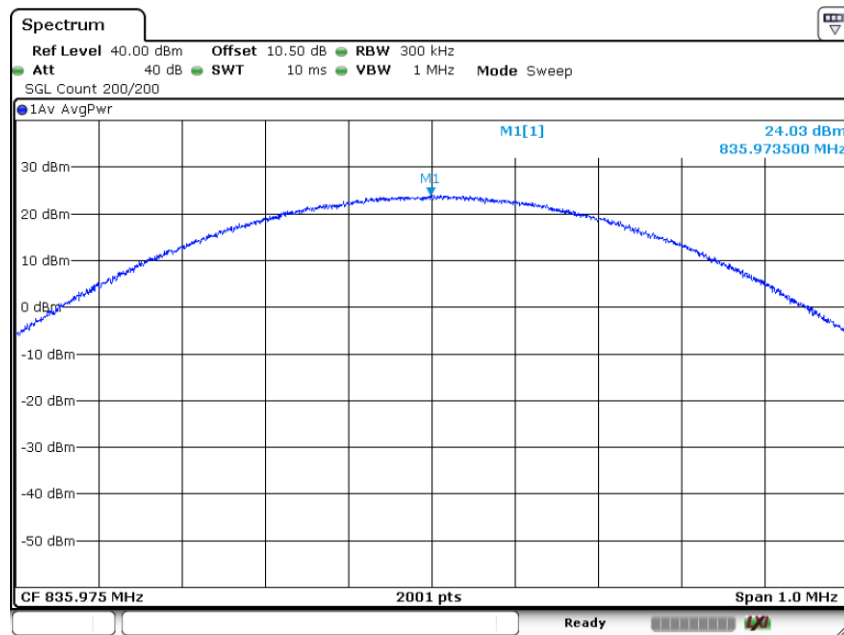
Date: 25.JUN.2026 06:37:02

Cellular AWGN @Pre AGC, UL



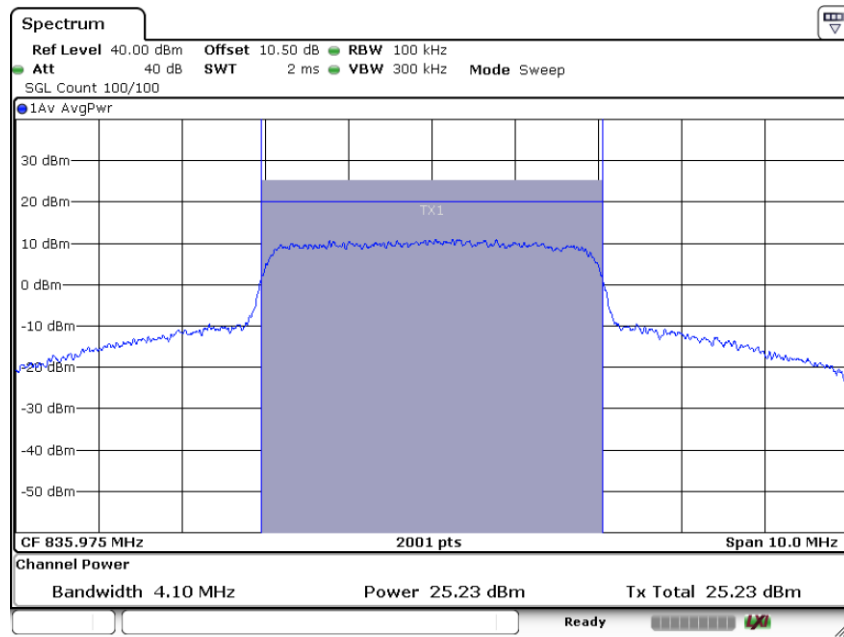
Date: 25.JUN.2026 06:58:43

Cellular GSM @Pre AGC, UL



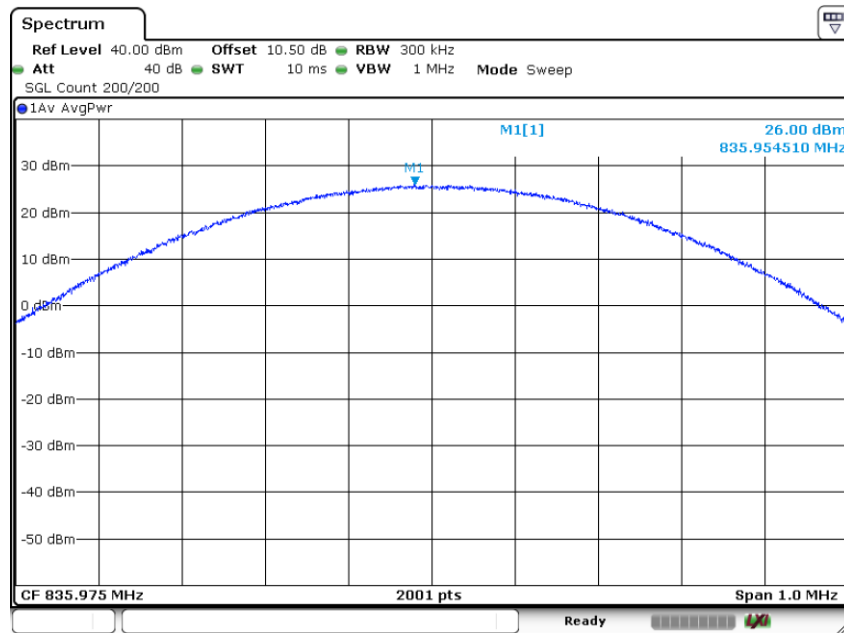
Date: 25.JUN.2026 06:28:20

Cellular AWGN @AGC + 3 dB, UL



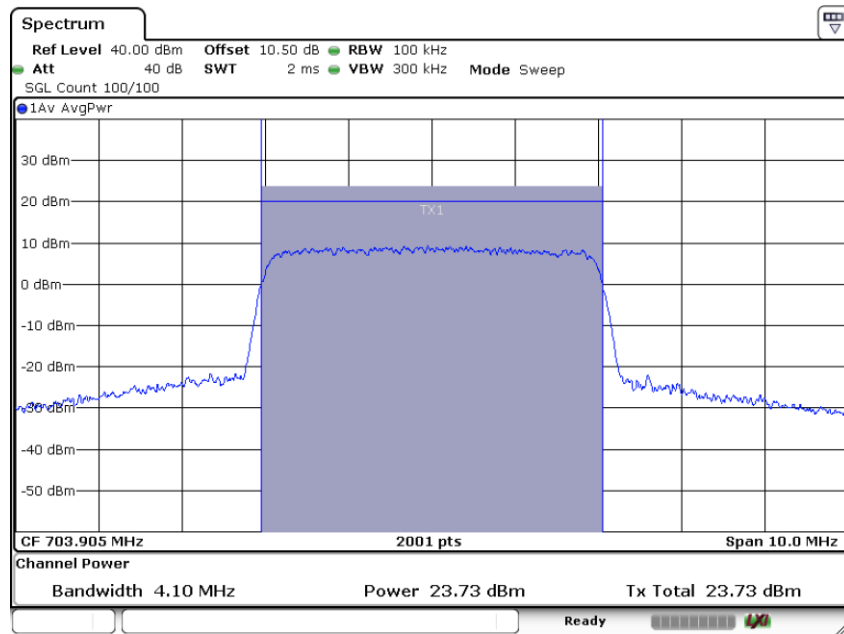
Date: 25.JUN.2026 06:59:50

Cellular GSM @AGC + 3 dB, UL



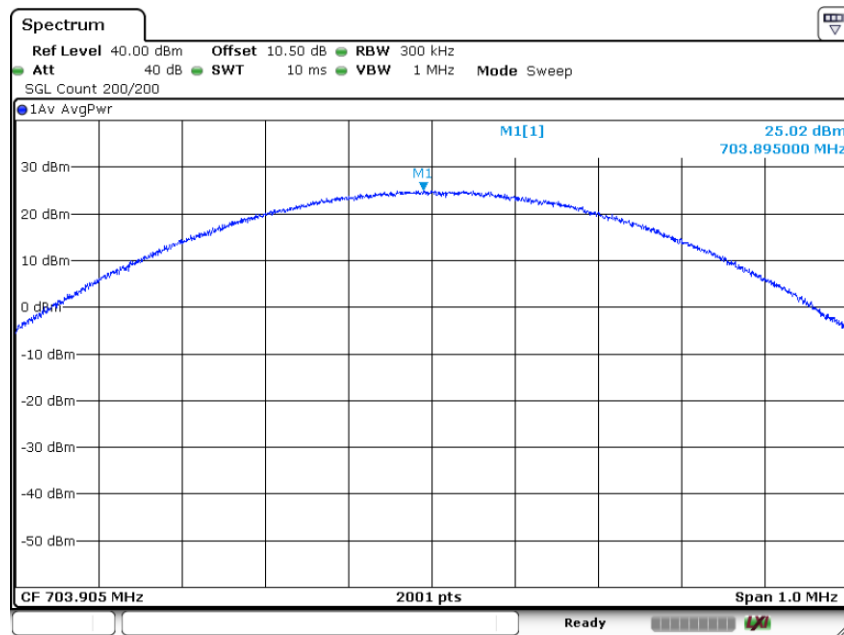
Date: 25.JUN.2026 06:29:35

Lower700MHz AWGN @Pre AGC, UL



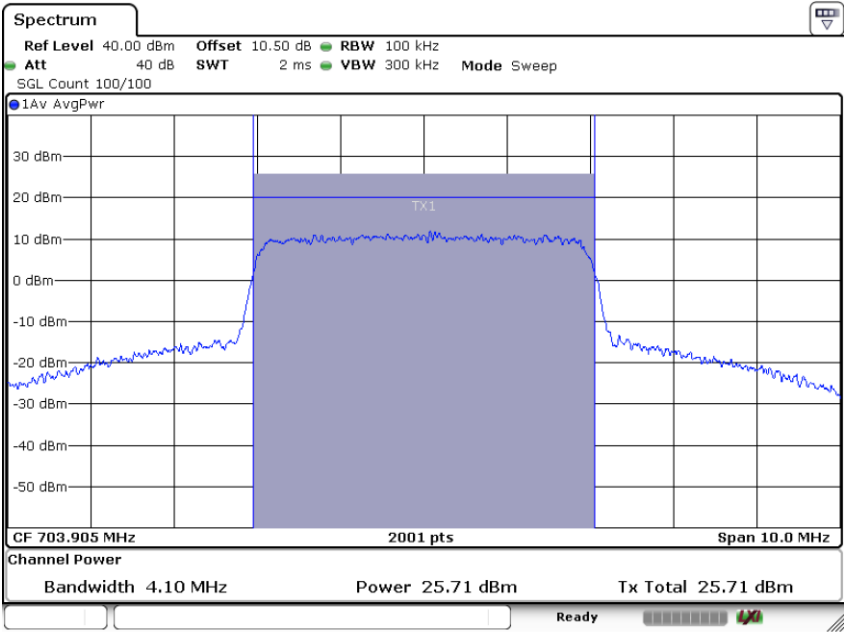
Date: 25.JUN.2026 07:16:37

Lower700MHz GSM @Pre AGC, UL



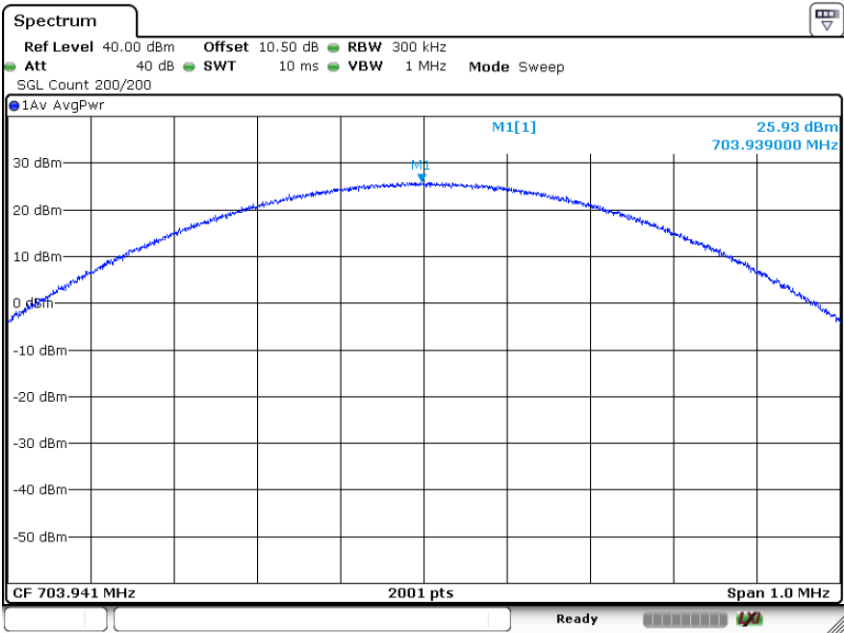
Date: 25.JUN.2026 06:14:19

Lower700MHz AWGN @AGC + 3 dB, UL



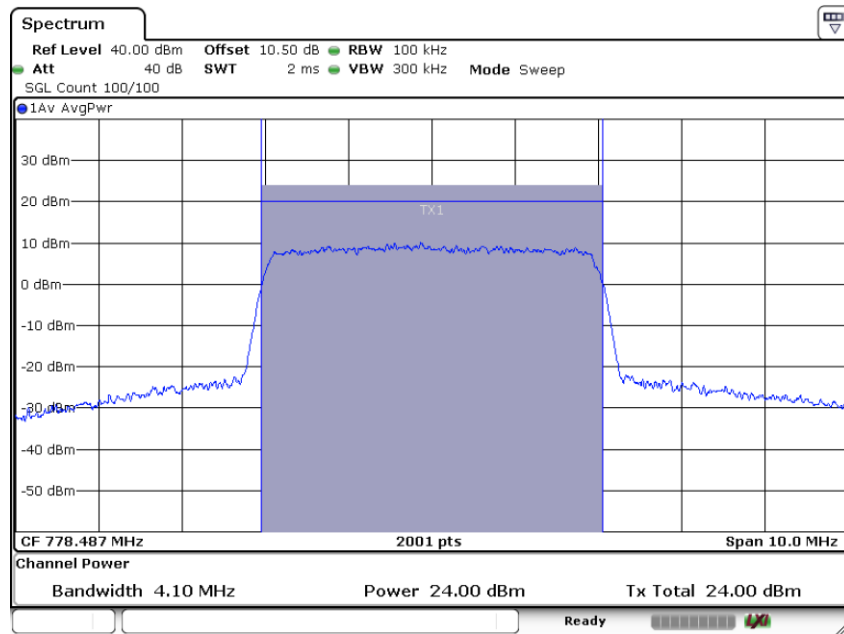
Date: 25.JUN.2026 07:17:15

Lower700MHz GSM @AGC + 3 dB, UL



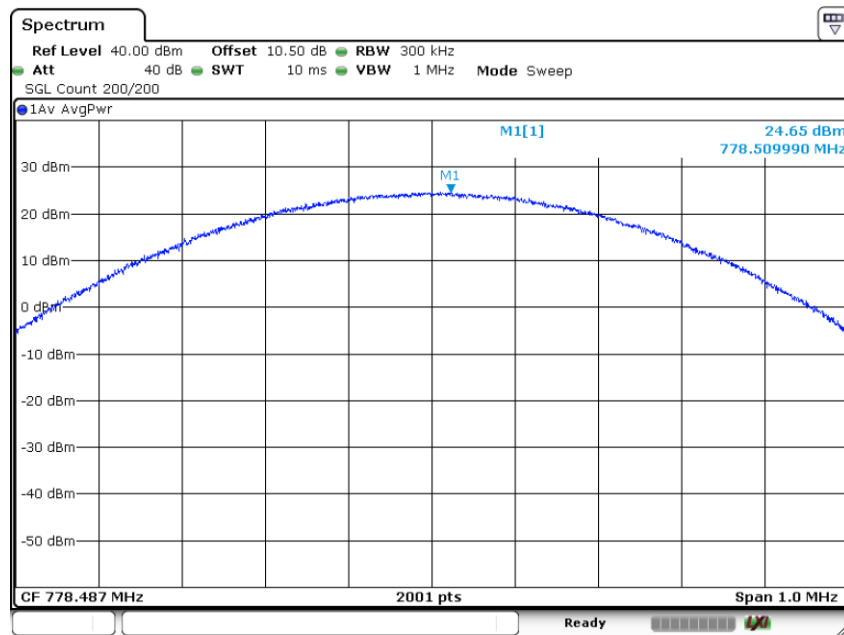
Date: 25.JUN.2026 06:04:08

Upper700MHz AWGN @Pre AGC, UL



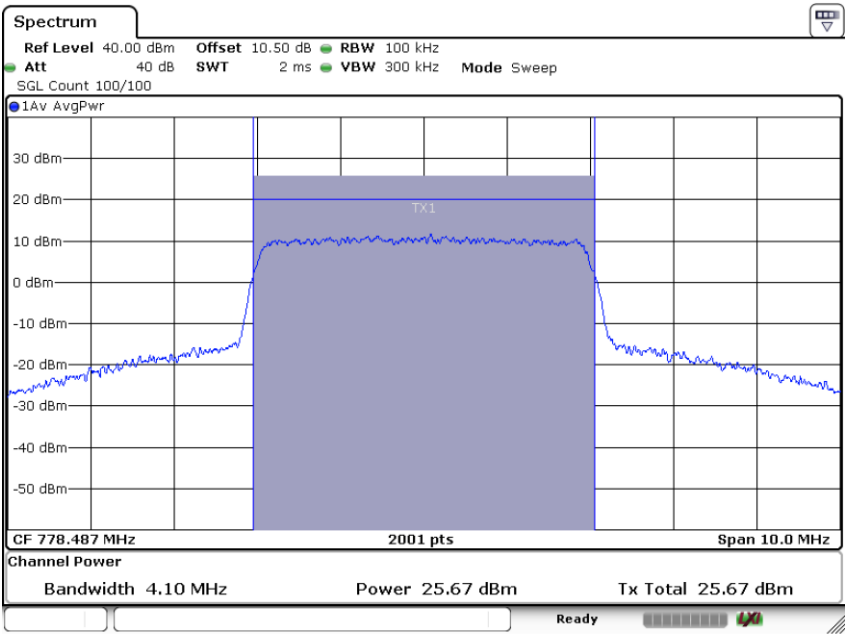
Date: 25.JUN.2026 07:08:19

Upper700MHz GSM @Pre AGC, UL



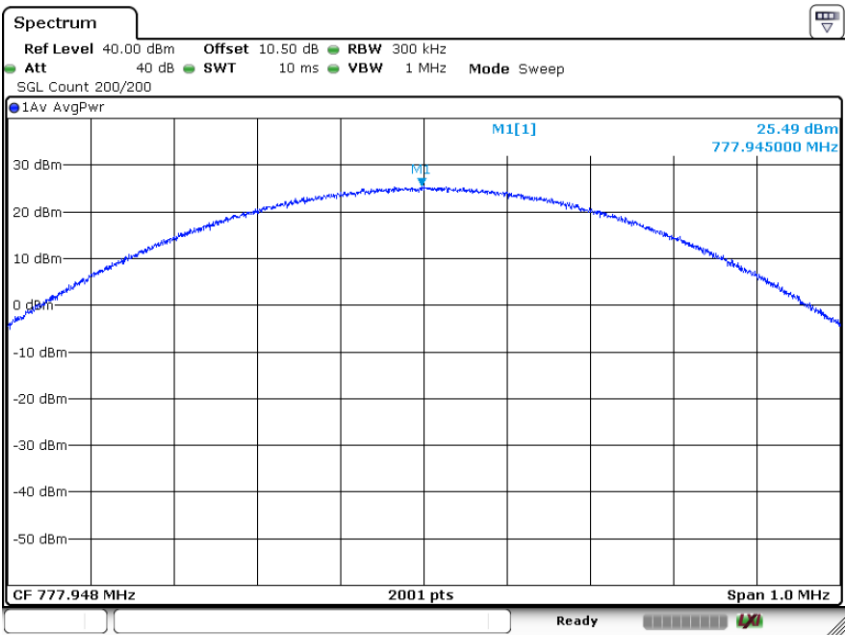
Date: 25.JUN.2026 06:23:12

Upper700MHz AWGN @AGC + 3 dB, UL



Date: 25.JUN.2026 07:08:45

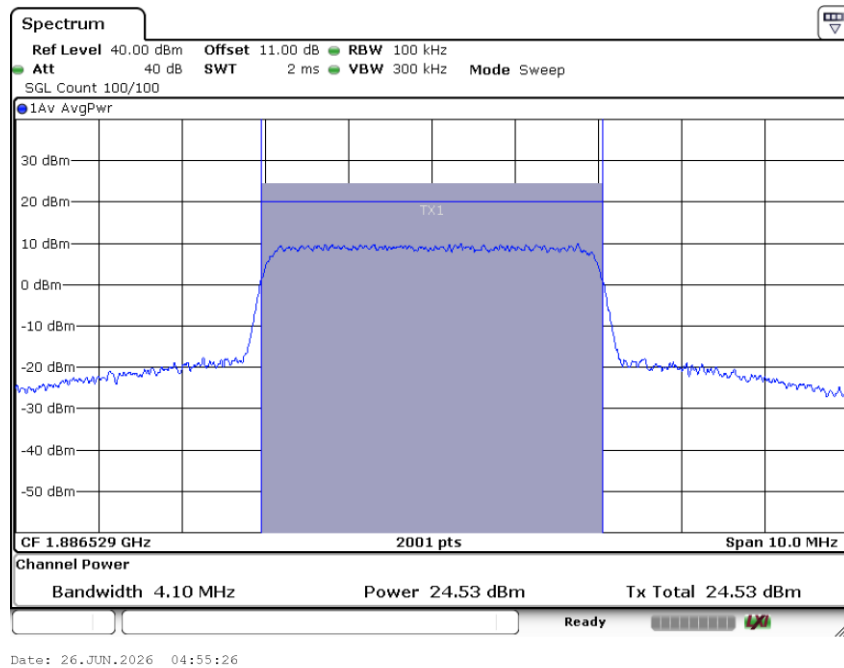
Upper700MHz GSM @AGC + 3 dB, UL



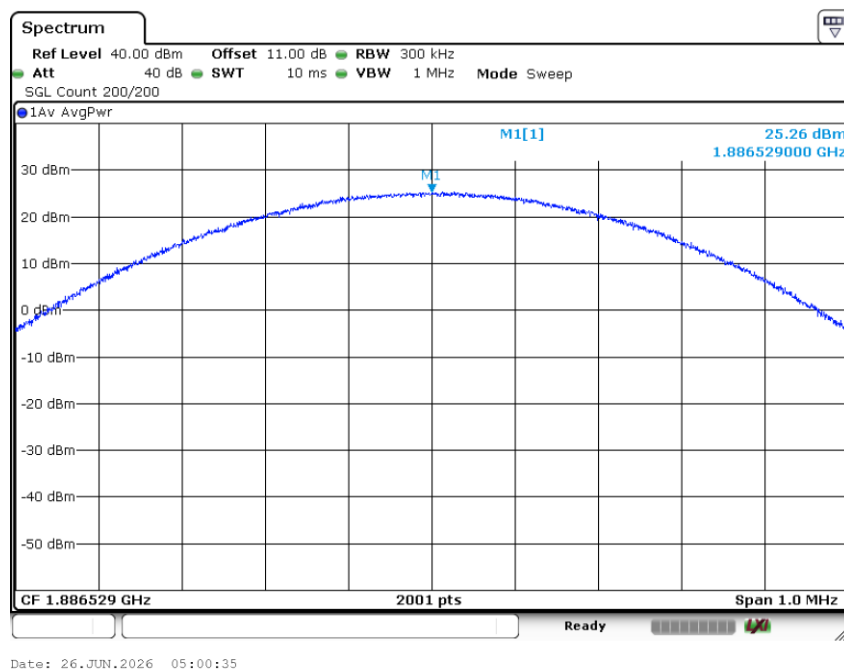
Date: 25.JUN.2026 06:08:41

Signal path: Server3 to Donor

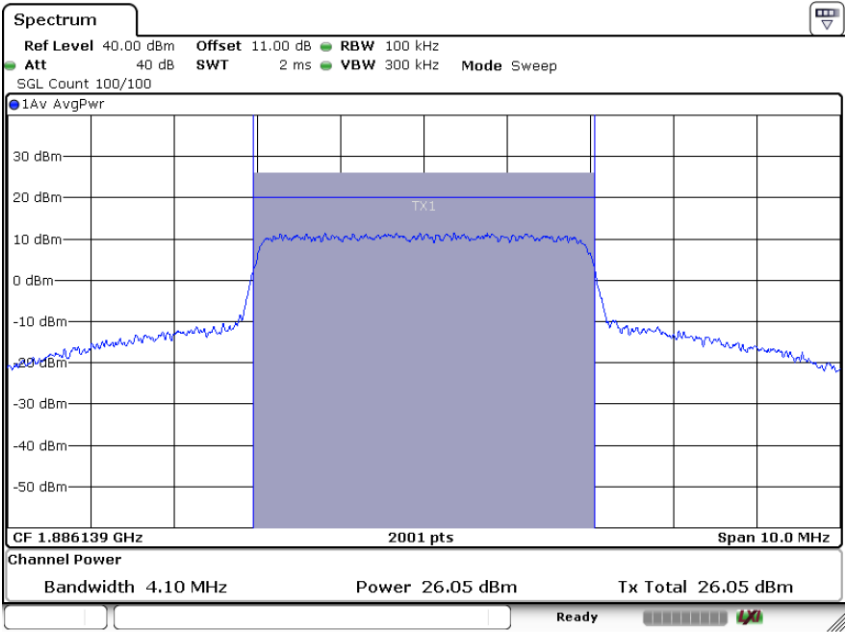
PCS AWGN @Pre AGC, UL



PCS GSM @Pre AGC, UL

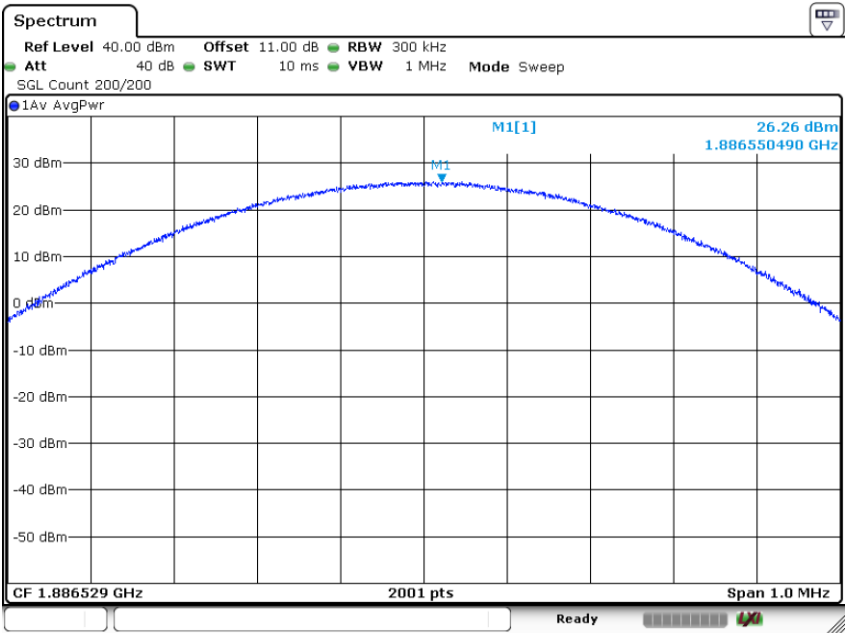


PCS AWGN @AGC + 3 dB, UL



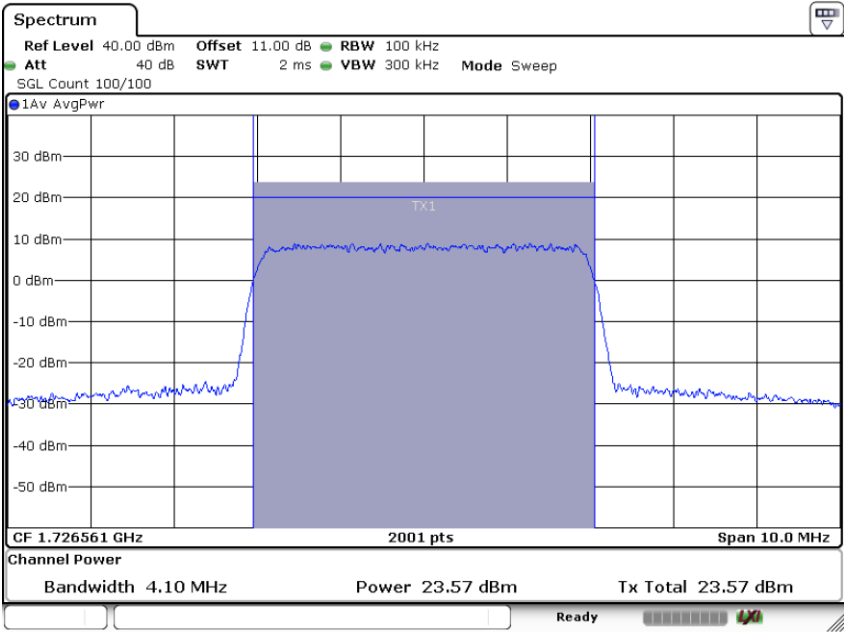
Date: 26.JUN.2026 05:36:30

PCS GSM @AGC + 3 dB, UL



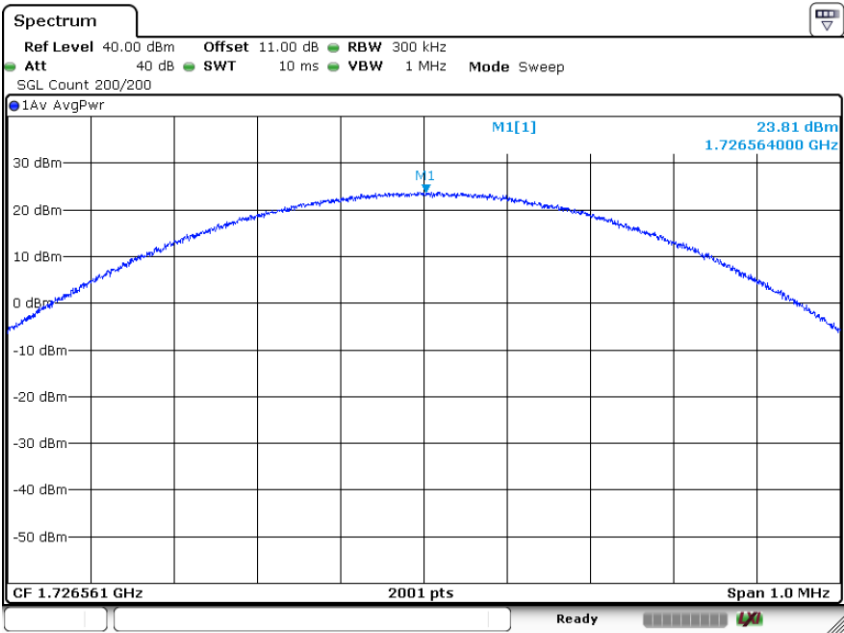
Date: 26.JUN.2026 05:02:28

AWS AWGN @Pre AGC, UL



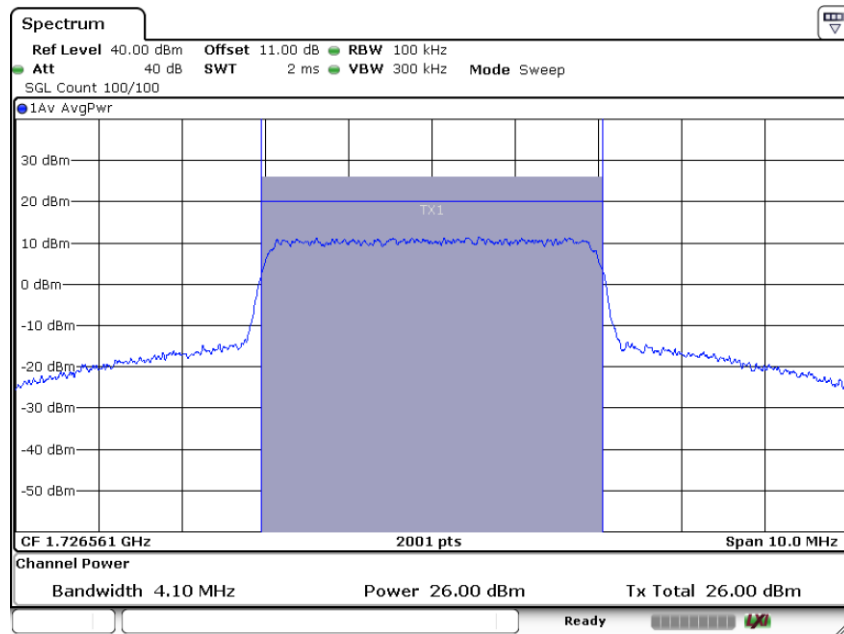
Date: 26.JUN.2026 02:37:04

AWS GSM @Pre AGC, UL



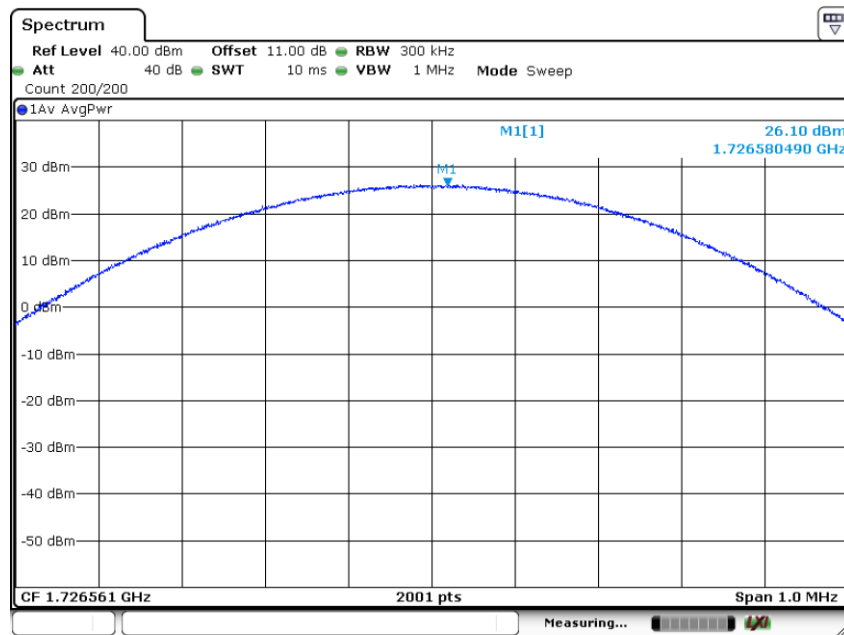
Date: 26.JUN.2026 05:04:18

AWS AWGN @AGC + 3 dB, UL



Date: 26.JUN.2026 02:37:37

AWS GSM @AGC + 3 dB, UL



Date: 26.JUN.2026 05:07:13