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Regulatory Compliance Team
IT R&D Center
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Gyeonggi-do, Korea 442-742

FCC CFR47 PART 22 & 24 SUBPART CERTIFICATION TEST DATA

Model Tested: SGH-P107
FCC ID (Requested): A3LSGHP107
Report No: FA-024-R1
Date issued: September 19, 2003

- Abstract -

All measurement reported herein accordance with FCC Rules, 47CFR Part2,
Part22, Part24.

Prepared By



Date

2003.09.22

SS LEE – Test Engineer

Checked By



Date

2003.09.22

CW PARK - Manager

Authorized By



Date

2003.09.22

JK CHOI – Senior Manager

Test Equipment

Name of Equipment	Model	Serial No.	Due Date
Spectrum Analyzer	FSIQ26	100009	2004-08-19
	E4440A(3Hz~26.5GHz)	MY41000236	2003-11-25
	E4440A(3Hz~26.5GHz)	MY41000233	2003-11-25
Signal Generator	SMIQ03B(300KHz~3.3GHz)	83824/021	2004-01-20
	SMR20(1GHz~20GHz)	835197/030	2004-01-20
Power Meter	E4419B	GB41293846	2003-11-26
Power Sensor	8481B(1mW~25W)	3318A10325	2003-09-26
	8485A(1uW~100mW)	3318A19924	2003-09-26
Amplifier	5S1G4(0.8~4.2GHz, 5W)	304866	2003-11-26
Pre-Amplifier	8449B(1~26.5GHz, 30dB)	3008A00691	2004-01-21
Communication test set	8960	GB42230535	2003-12-02
	8960	GB42360886	2004-01-09
Antenna Master	MA0001	ANT0967	Not Required
Controller	HD100	100/756	Not Required
Environmental Chamber	SH-241	92000548	2003-12-12
	PL-4S	13005454	2003-12-12
Horn Antenna	HF906(1GHz~18GHz)	360306/011	2004-02-10
	HF906(1GHz~18GHz)	100134	2004-03-31
Dipole Antenna	3121C-DB4	9007-587	2003-11-08
	3121C-DB4	9007-588	2004-03-21
Receive Antenna	HO040	353255/020	2004-04-08
Attenuator	8494A(0~11dB)	3308A31997	2004-01-20
	8496A(0~110dB)	3308A14426	2004-01-20
Directional Coupler	4278-311-2(0.1~1GHz)	B3679637	2004-01-22
	4278-111-2(1~2GHz)	B103DC8722	2004-01-22
High Pass Filter	WHK1.0/15G-10SS(1~15GHz)	1	Not Required
	WHV1.0/15G-10SS(1~15GHz)	1	Not Required
	WHK/3.5/18G-10SS(3.5~18GHz)	3	Not Required
	WHK/3.5/18G-10SS(3.5~18GHz)	4	Not Required
Shielded Semi-Anechoic Chamber	RF0002	ANT0001	2004-01-21

FCC ID : A3LSGHP107

Effective Radiated Power (E.R.P.)

Supply Voltage: 3.7 VDC

Modulation: GSM850

■ Reference level

Frequency (MHz)	Output (dBm)	Polarization	S/A (dBm)	P/M (dBm)	Ant gain (dBi)	Ref level (dBm)
836.60	33.00	H	-4.94	-5.12	0.00	-5.12
		V	-3.98	-4.16	0.00	-4.16

■ Result

Frequency (MHz)	From EUT Tested level (dBm)	POL (H/V)	Azimuth (angle)	ERP (dBm)	ERP (W)	Battery
824.20	-4.08	H1	175	34.04	2.535	Standard
836.60	-4.29	H1	176	33.83	2.415	Standard
848.80	-5.70	H1	158	32.42	1.746	Standard

Note : Standard batteries are the only battery options for this phone

Effective Radiated Power Output Measurements by Substitution Method according to □

ANSI/TIA/EIA-603-A-2001, Aug. 15, 2001:□

□

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and □ turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. For CDMA signals, a □ peak detector is used, with RBW = VBW = 3 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector □ is used, with RBW = VBW = 1 MHz. A half-wave dipole was substituted in place of the EUT. This dipole □ antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same □ receive spectrum analyzer reading. The conducted power at the terminals of the dipole is measured. The ERP is □ recorded.

FCC ID : A3LSGHP107

Equivalent Isotropic Radiated Power (E.I.R.P.)

Supply Voltage: 3.7 VDC

Modulation: PCS GSM

■ Reference level

Frequency (MHz)	Output (dBm)	Polarization	S/A (dBm)	Ant gain (dBi)	Ref level (dBm)
1880.00	27.00	H	-12.27	8.18	-20.45
		V	-12.30	8.18	-20.48

■ Result

Frequency (MHz)	From EUT Tested level (dBm)	POL (H/V)	Azimuth (angle)	EIRP (dBm)	EIRP (W)	Battery
1850.20	-15.76	H1	134	31.69	1.476	Standard
1880.00	-14.73	H1	126	32.72	1.871	Standard
1909.80	-15.60	H1	127	31.85	1.531	Standard

Note : Standard batteries are the only battery options for this phone

Equivalent Isotropic Radiated Power Measurements by Substitution Method according to ☐
ANSI/TIA/EIA-603-A-2001, Aug. 15, 2001:☐

☐

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and ☐
turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. For CDMA signals, a ☐
peak detector is used, with RBW = VBW = 3 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector ☐
is used, with RBW = VBW = 1 MHz. A Horn antenna was substituted in place of the EUT. This Horn antenna ☐
was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive ☐
spectrum analyzer reading. The conducted power at the terminals of the Horn antenna is measured. The difference ☐
between the gain of the horn and an isotropic antenna is taken into consideration and the EIRP is recorded.

FCC ID : A3LSGHP107

Field Strength of SPURIOUS Radiation

Operating Frequency : 824.20MHz (Low), 836.60MHz (Middle), 848.80MHz (High)

Measured Output Power : 34.04 dBm = 2.535 W

Modulation Signal : GSM850

Limit : $43+10\log_{10}(W)$ = 47.04 dBc

■ Result

Channel	Harmonic	Frequency (MHz)	From EUT Tested level (dBm)	POL (H/V)	Result (dBc)
128	2	1648.40	-25.91	H2	51.95
	3	2472.60	-50.91	H2	69.99
	4	3296.80	-59.41	H2	74.96
	5	4121.00	-68.77	V	79.58
	6	4945.20	-	-	-
	7	5769.40	-	-	-
	8	6593.60	-	-	-
190	2	1673.20	-27.61	H2	52.85
	3	2509.80	-52.04	H1	70.40
	4	3346.40	-57.28	H1	72.56
	5	4183.00	-64.38	H2	75.78
	6	5019.60	-	-	-
	7	5856.20	-	-	-
	8	6692.80	-	-	-
251	2	1697.60	-30.69	H2	54.29
	3	2546.40	-55.74	H2	74.42
	4	3395.20	-57.65	H1	73.65
	5	4244.00	-63.06	H2	73.98
	6	5092.80	-	-	-
	7	5941.60	-	-	-
	8	6790.40	-	-	-

FCC ID : A3LSGHP107

Field Strength of SPURIOUS Radiation

Operating Frequency : 1850.2 MHz

Measured Output Power : 32.72 dBm = 1.871 W

Modulation Signal : PCS GSM

Limit : $43+10\log_{10}(W)$ = 45.72 dBc

■ Result

Channel	Harmonic	Frequency (MHz)	From EUT Tested level (dBm)	POL (H/V)	Result (dBc)
512	2	3700.40	-46.94	H2	56.21
	3	5550.60	-56.55	H1	63.88
	4	7400.80	-61.77	V	63.21
	5	9251.00	-55.50	H2	51.95
	6	11101.20	-	-	-
	7	12951.40	-	-	-
	8	14801.60	-	-	-
661	2	3760.00	-47.43	H2	56.75
	3	5640.00	-56.79	H2	64.49
	4	7520.00	-62.78	H2	62.93
	5	9400.00	-52.55	H2	48.79
	6	11280.00	-	-	-
	7	13160.00	-	-	-
	8	15040.00	-	-	-
810	2	3819.60	-45.26	H2	54.85
	3	5729.40	-56.83	H2	64.71
	4	7639.20	-63.92	H2	64.35
	5	9549.00	-58.65	H2	54.28
	6	11458.80	-	-	-
	7	13368.60	-	-	-
	8	15278.40	-	-	-

Radiated Spurious & Harmonic Conversion Table

Date ; 2003 . 09 . 02 . ~ 09 . 15 .

Test Engineer : S.S. Lee

① Tx Cable loss
 ② Tx Horn Ant Gain
 ③ Rx Cable loss + HPF Insertion loss + Attenuator
 ④ Pre- Amp gain
 ⑤ Air loss
 ⑥ Tested Level from EUT
 ⑦ = ⑥ + ⑤ + ③ - ④
 ⑧ = ERP+2.14 - ⑦

FCC ID : A3LSGHP107 Mode : GSM850 ERP : 34.04

CH	Har	Frequency (MHz)	① Tx CL (dB)	② Horn Gain (dB)	Tx Level @ (S/G 0dBm)	⑥ Tested Level EUT : H (dBm)	⑥ Tested Level EUT : V (dBm)	⑦ Amplitude of Emission EUT : H (dBm)	⑦ Amplitude of Emission EUT : V (dBm)	⑧ Result EUT : H (dBc)	⑧ Result EUT : V (dBc)
128	2	1648.40	6.59	7.21	0.62	-25.91	-31.11	-15.77	-19.59	51.95	55.77
	3	2472.60	8.53	8.87	0.34	-50.91	-53.72	-33.81	-36.26	69.99	72.44
	4	3296.80	9.64	8.43	-1.21	-59.41	-59.60	-38.78	-38.89	74.96	75.07
	5	4121.00	10.20	9.89	-0.31	-69.31	-68.77	-44.82	-43.40	81.00	79.58
	6	4945.20	12.23	10.33	-1.90	-	-	-	-	-	-
	7	5769.40	13.29	10.86	-2.43	-	-	-	-	-	-
190	2	1673.20	6.58	7.21	0.63	-27.61	-31.17	-16.67	-19.03	52.85	55.21
	3	2509.80	8.44	8.87	0.43	-52.04	-55.49	-34.22	-37.24	70.40	73.42
	4	3346.40	9.64	8.43	-1.21	-57.28	-59.53	-36.38	-38.97	72.56	75.15
	5	4183.00	10.39	10.20	-0.19	-64.38	-70.69	-39.60	-45.24	75.78	81.42
	6	5019.60	12.34	10.34	-2.00	-	-	-	-	-	-
	7	5856.20	13.63	10.86	-2.77	-	-	-	-	-	-
251	2	1697.60	6.59	7.21	0.62	-30.69	-32.78	-18.11	-19.08	54.29	55.26
	3	2546.40	8.35	8.87	0.52	-55.74	-57.65	-38.24	-39.54	74.42	75.72
	4	3395.20	9.59	8.54	-1.05	-57.65	-62.00	-37.47	-41.80	73.65	77.98
	5	4244.00	10.54	10.20	-0.34	-63.06	-69.10	-37.80	-43.17	73.98	79.35
	6	5092.80	12.47	10.39	-2.08	-	-	-	-	-	-
	7	5941.60	14.12	10.86	-3.26	-	-	-	-	-	-

Radiated Spurious & Harmonic Conversion Table

① Tx Cable loss
 ② Tx Horn Ant Gain
 ③ Rx Cable loss + HPF Insertion loss + Attenuator
 ④ Pre-Amp gain
 ⑤ Air loss
 ⑥ Tested Level from EUT
 ⑦ = ⑥ + ⑤ + ③ - ④
 ⑧ = EIRP - ⑦

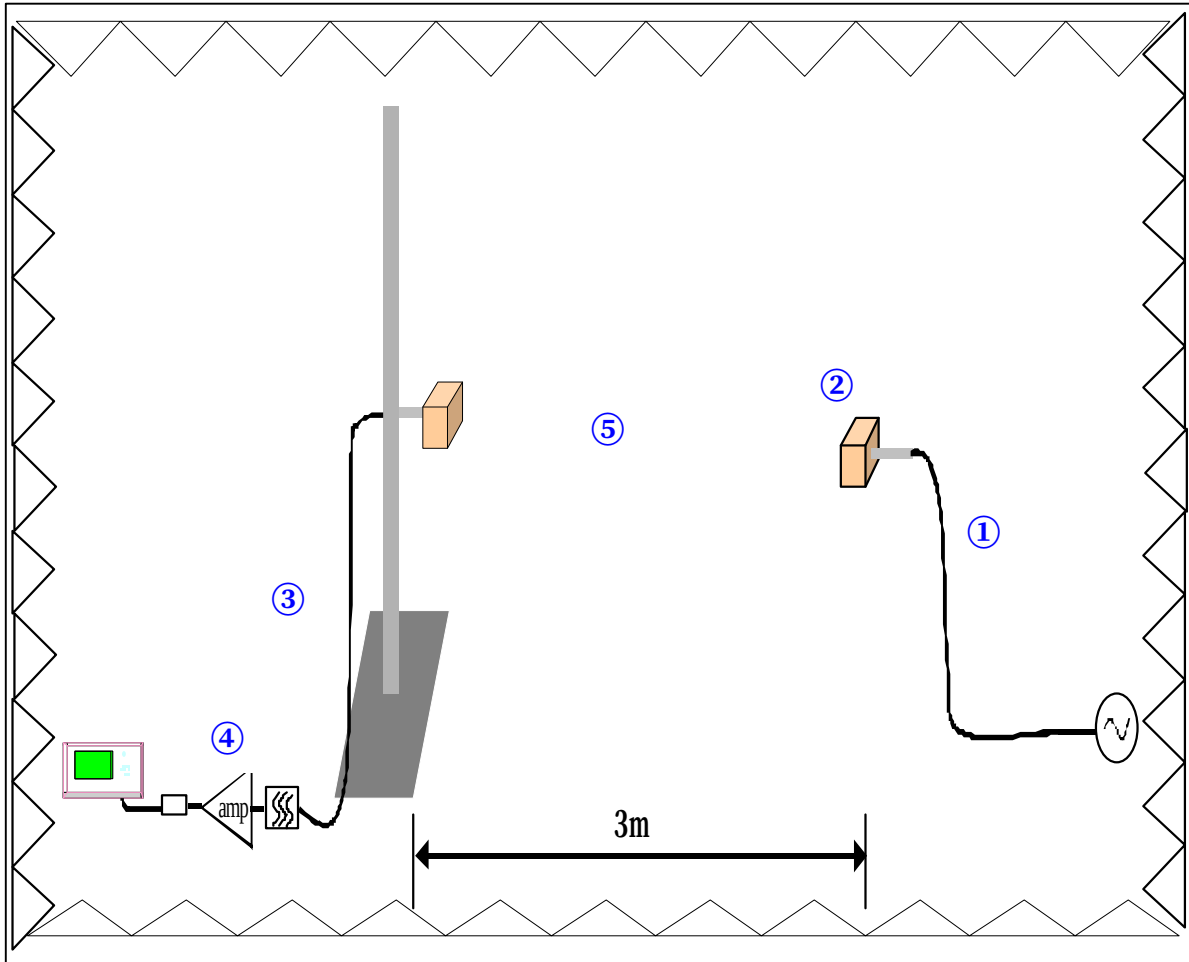
Date : 2003 . 09 . 02 . ~ 09 . 15

Test Engineer : S.S. Lee

FCC ID : A3LSGHP107 Mode : GSM1900 EIRP : 32.72

CH	Har	Frequency (MHz)	① Tx CL (dB)	② Horn Gain (dB)	Tx Level @ (S/G 10dBm)	⑥ Tested Level EUT : H (dBm)	⑥ Tested Level EUT : V (dBm)	⑦ Amplitude of Emission EUT : H (dBm)	⑦ Amplitude of Emission EUT : V (dBm)	⑧ Result EUT : H (dBc)	⑧ Result EUT : V (dBc)
512	2	3700.40	10.98	8.87	7.89	-46.94	-51.56	-23.49	-27.59	56.21	60.31
	3	5550.60	16.43	10.60	4.17	-56.55	-58.63	-31.16	-33.22	63.88	65.94
	4	7400.80	16.85	10.83	3.98	-63.26	-61.77	-30.70	-30.49	63.42	63.21
	5	9251.00	19.64	11.56	1.92	-55.50	-56.83	-19.23	-20.36	51.95	53.08
	6	11101.20	21.67	12.79	1.12	-	-	-	-	-	-
	7	12951.40	23.02	12.66	-0.36	-	-	-	-	-	-
	8	14801.60	24.45	12.69	-1.76	-	-	-	-	-	-
661	2	3760.00	11.13	8.98	7.85	-47.43	-51.41	-24.03	-27.78	56.75	60.50
	3	5640.00	17.08	10.60	3.52	-56.79	-61.80	-31.77	-36.95	64.49	69.67
	4	7520.00	17.25	10.83	3.58	-62.78	-63.18	-30.21	-31.86	62.93	64.58
	5	9400.00	19.78	11.60	1.82	-52.55	-56.86	-16.07	-20.82	48.79	53.54
	6	11280.00	21.41	12.93	1.52	-	-	-	-	-	-
	7	13160.00	23.47	12.64	-0.83	-	-	-	-	-	-
	8	15040.00	25.00	12.70	-2.30	-	-	-	-	-	-
810	2	3819.60	11.20	8.98	7.78	-45.26	-51.46	-22.13	-28.01	54.85	60.73
	3	5729.40	16.96	10.73	3.77	-56.83	-57.88	-31.99	-32.77	64.71	65.49
	4	7639.20	17.68	10.87	3.19	-63.92	-63.97	-31.63	-32.26	64.35	64.98
	5	9549.00	19.95	11.67	1.72	-58.65	-59.10	-21.56	-21.96	54.28	54.68
	6	11458.80	21.22	12.90	1.68	-	-	-	-	-	-
	7	13368.60	23.10	12.65	-0.45	-	-	-	-	-	-
	8	15278.40	25.10	12.73	-2.37	-	-	-	-	-	-

Radiated Spurious & Harmonic Configuration for Calibration



- ① Tx Cable loss
- ② Horn Ant Gain
- ③ Rx Cable loss + HPF Insertion loss + Attenuator
- ④ Pre-Amp gain
- ⑤ Air loss

FCC ID : A3LSGHP107

Frequency Stability (GSM850)

Operating Frequency : 836,600,000 Hz

Channel : 190

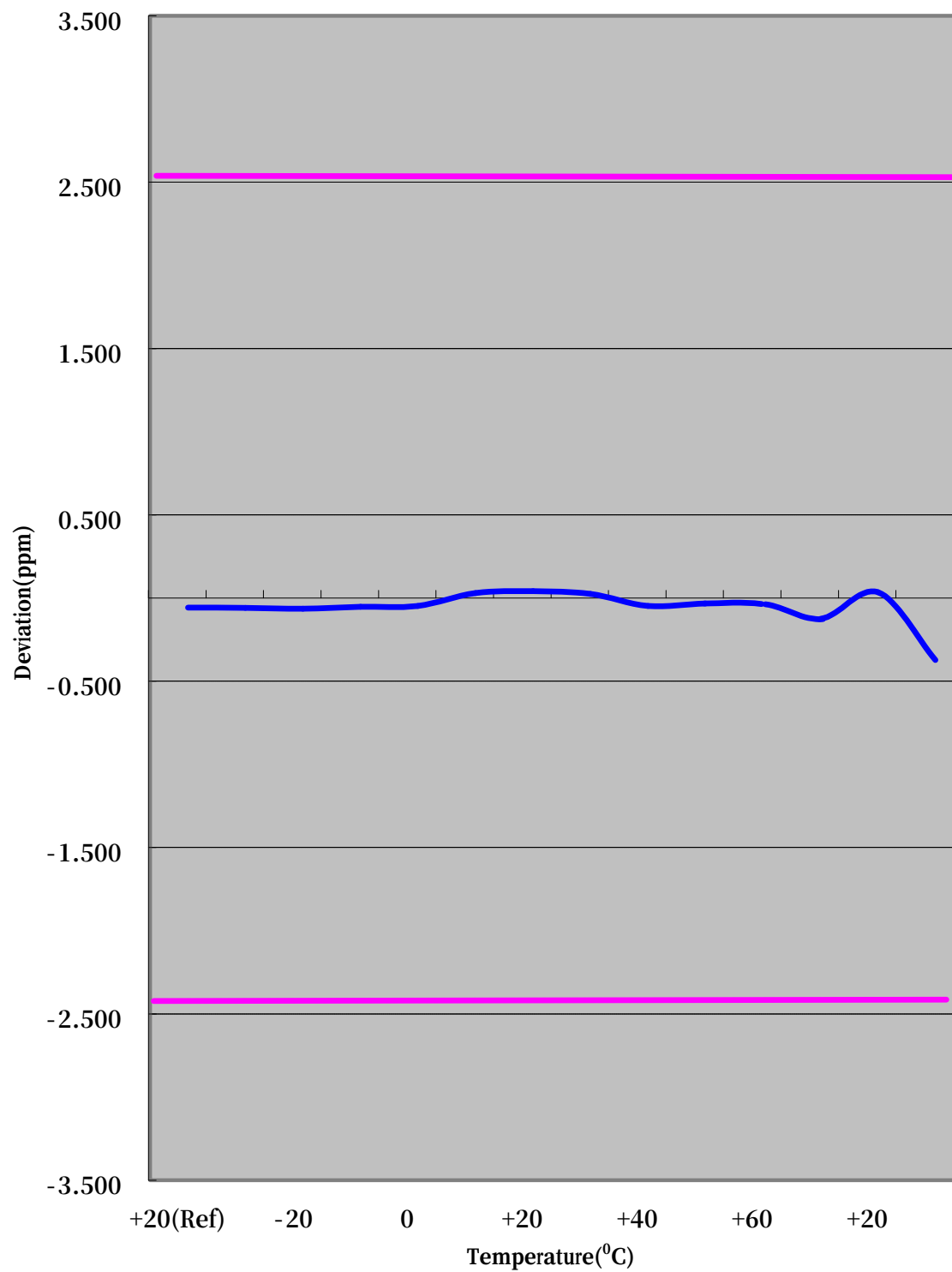
Reference voltage : 3.7VDC

Deviation Limit : ± 0.00025 % or 2.5ppm

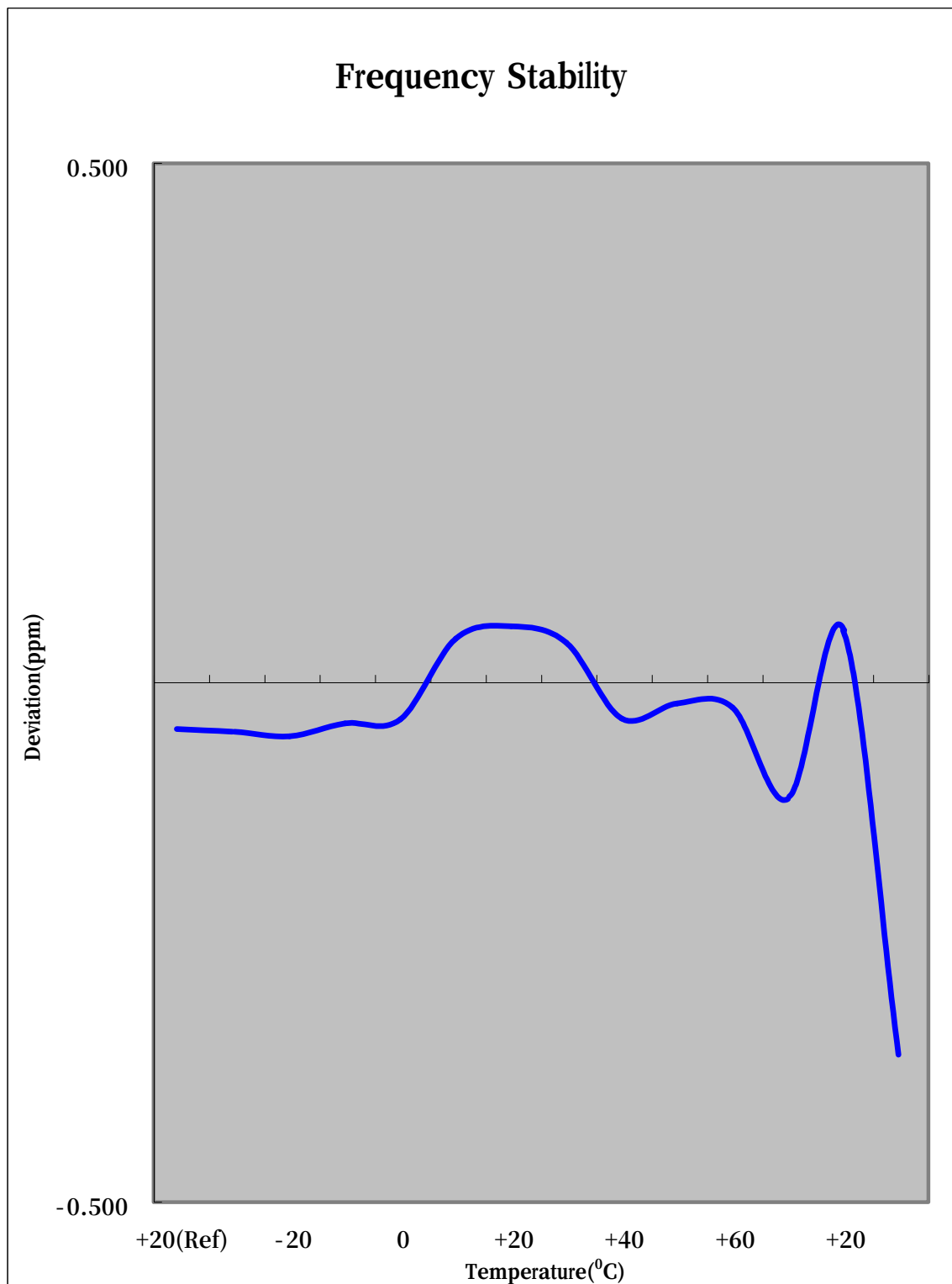
Voltage (%)	Power (V dc)	TEMP (OC)	Frequency error (Hz)	Frequency (Hz)	Deviation (%)	ppm
100%	3.70	+20(Ref)	-48.13	836,599,952	-0.000006	-0.058
100%		-30	-50.31	836,599,950	-0.000006	-0.060
100%		-20	-53.87	836,599,946	-0.000006	-0.064
100%		-10	-43.57	836,599,956	-0.000005	-0.052
100%		0	-40.21	836,599,960	-0.000005	-0.048
100%		+10	24.74	836,600,025	0.000003	0.030
100%		+20	34.67	836,600,035	0.000004	0.041
100%		+30	21.38	836,600,021	0.000003	0.026
100%		+40	-39.67	836,599,960	-0.000005	-0.047
100%		+50	-27.56	836,599,972	-0.000003	-0.033
100%		+60	-30.71	836,599,969	-0.000004	-0.037
85%	3.15	+20	-104.50	836,599,896	-0.000012	-0.125
115%	4.26	+20	29.52	836,600,030	0.000004	0.035
Batt. Endpoint	3.06	+20	-312.24	836,599,688	-0.000037	-0.373

Note : The temperature is varied from -30°C to +60°C using an environmental chamber

Frequency Stability



Zoom In



FCC ID : A3LSGHP107

Frequency Stability (PCS GSM)

Operating Frequency : 1,880,000,000 Hz

Channel : 661

Reference voltage : 3.7VDC

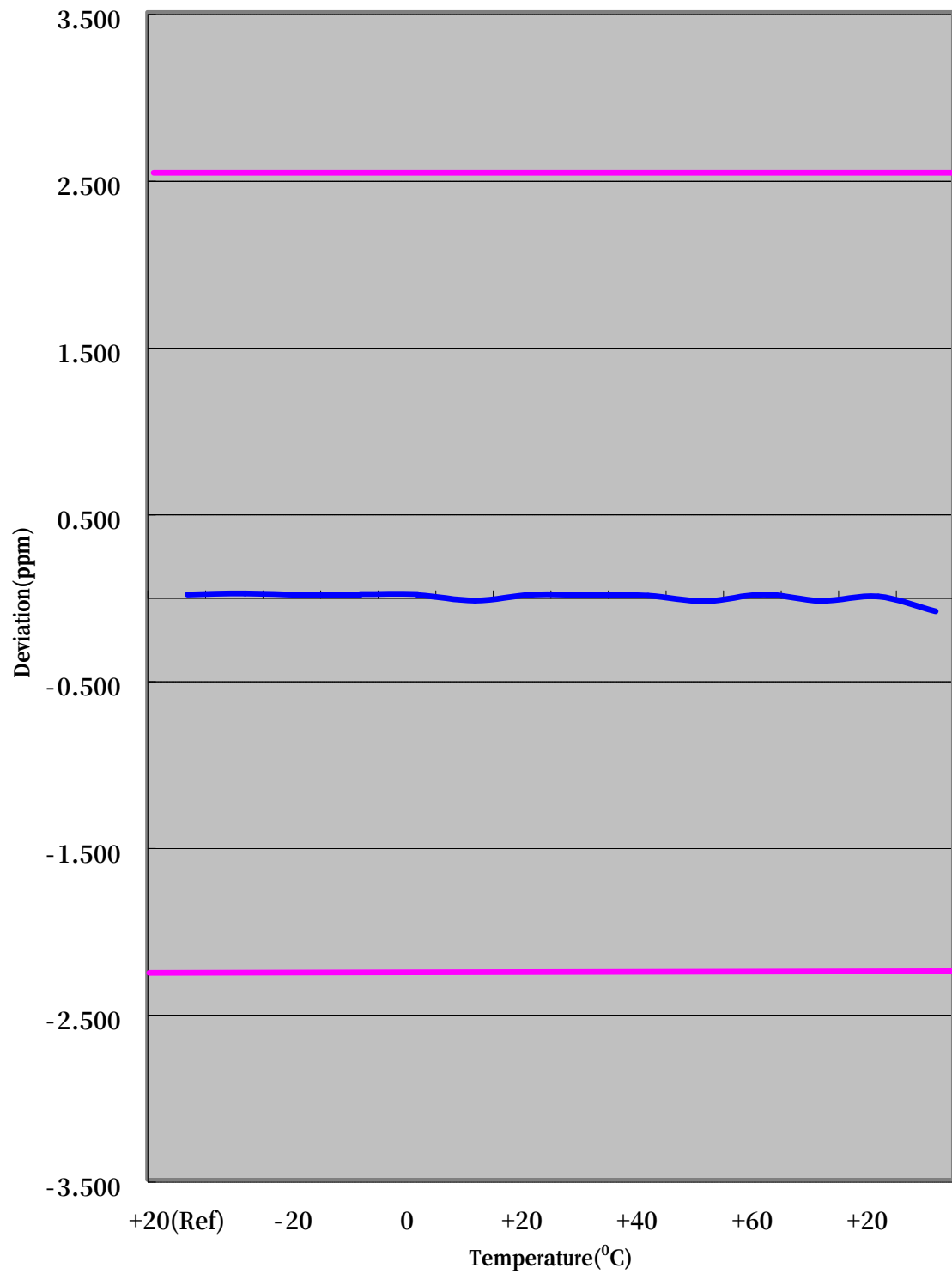
Deviation Limit : ± 0.00025 % or 2.5ppm

Voltage (%)	Power (V dc)	TEMP (OC)	Frequency error (Hz)	Frequency (Hz)	Deviation (%)	ppm
100%	3.70	+20(Ref)	40.82	1,880,000,041	0.000002	0.022
100%		-30	53.32	1,880,000,053	0.000003	0.028
100%		-20	38.59	1,880,000,039	0.000002	0.021
100%		-10	35.85	1,880,000,036	0.000002	0.019
100%		0	36.06	1,880,000,036	0.000002	0.019
100%		+10	-26.82	1,879,999,973	-0.000001	-0.014
100%		+20	41.25	1,880,000,041	0.000002	0.022
100%		+30	34.19	1,880,000,034	0.000002	0.018
100%		+40	30.34	1,880,000,030	0.000002	0.016
100%		+50	-31.18	1,879,999,969	-0.000002	-0.017
100%		+60	41.25	1,880,000,041	0.000002	0.022
85%	3.15	+20	-28.46	1,879,999,972	-0.000002	-0.015
115%	4.26	+20	19.41	1,880,000,019	0.000001	0.010
Batt. Endpoint	3.12	+20	-145.8	1,879,999,854	-0.000008	-0.078

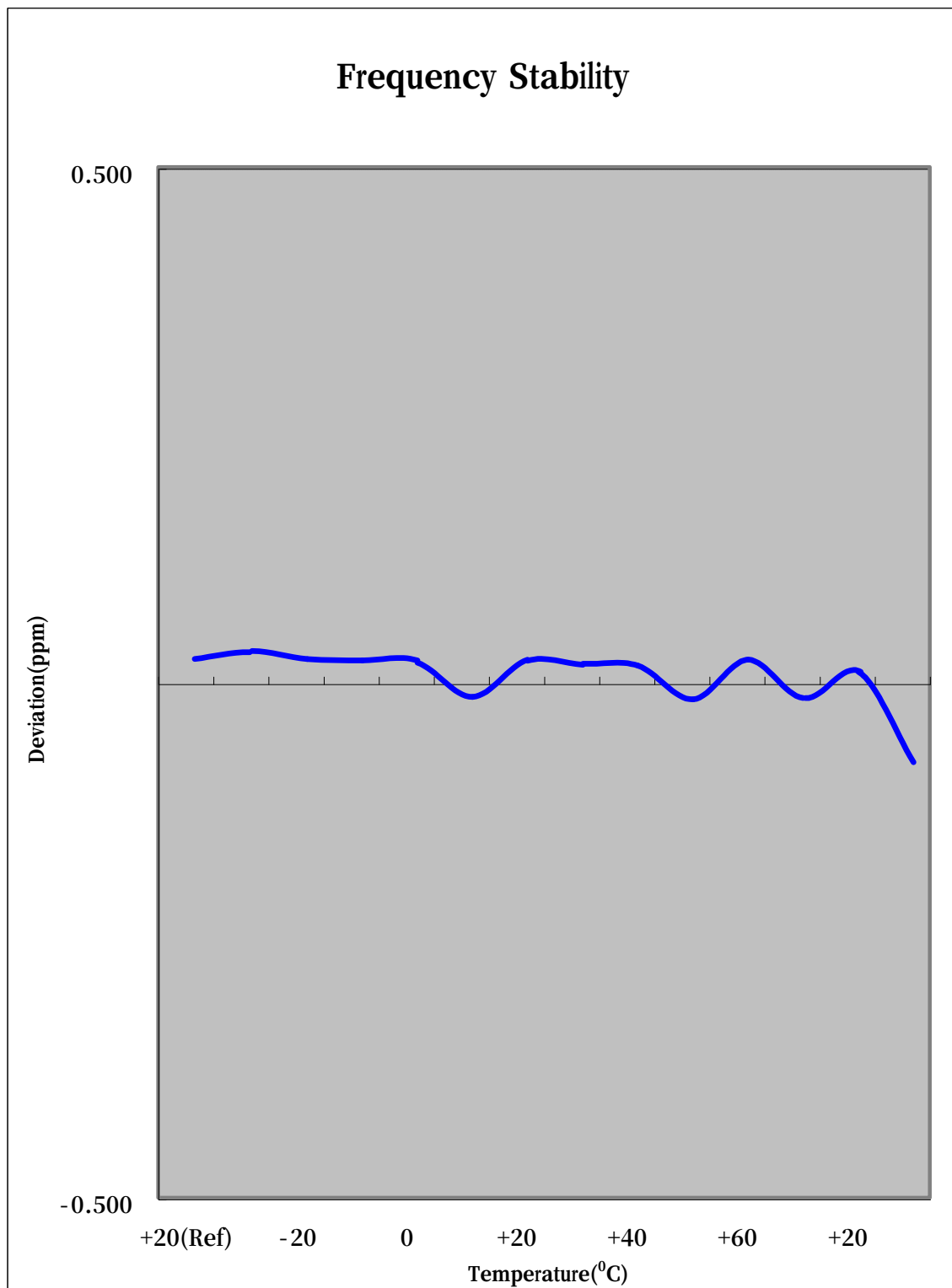
Note : The temperature is varied from -30°C to +60°C using an environmental chamber

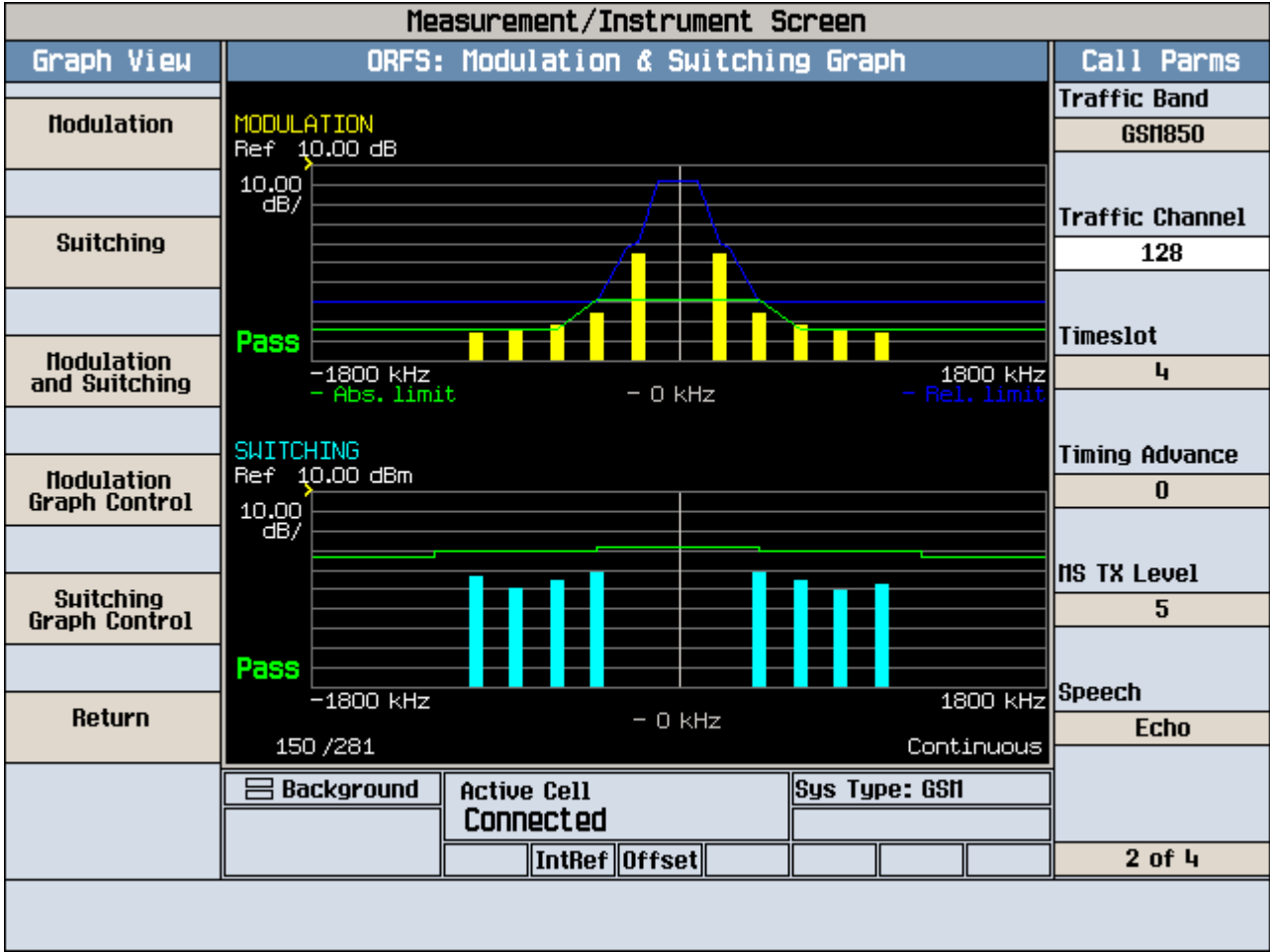
The EUT is tested down to the battery end point.

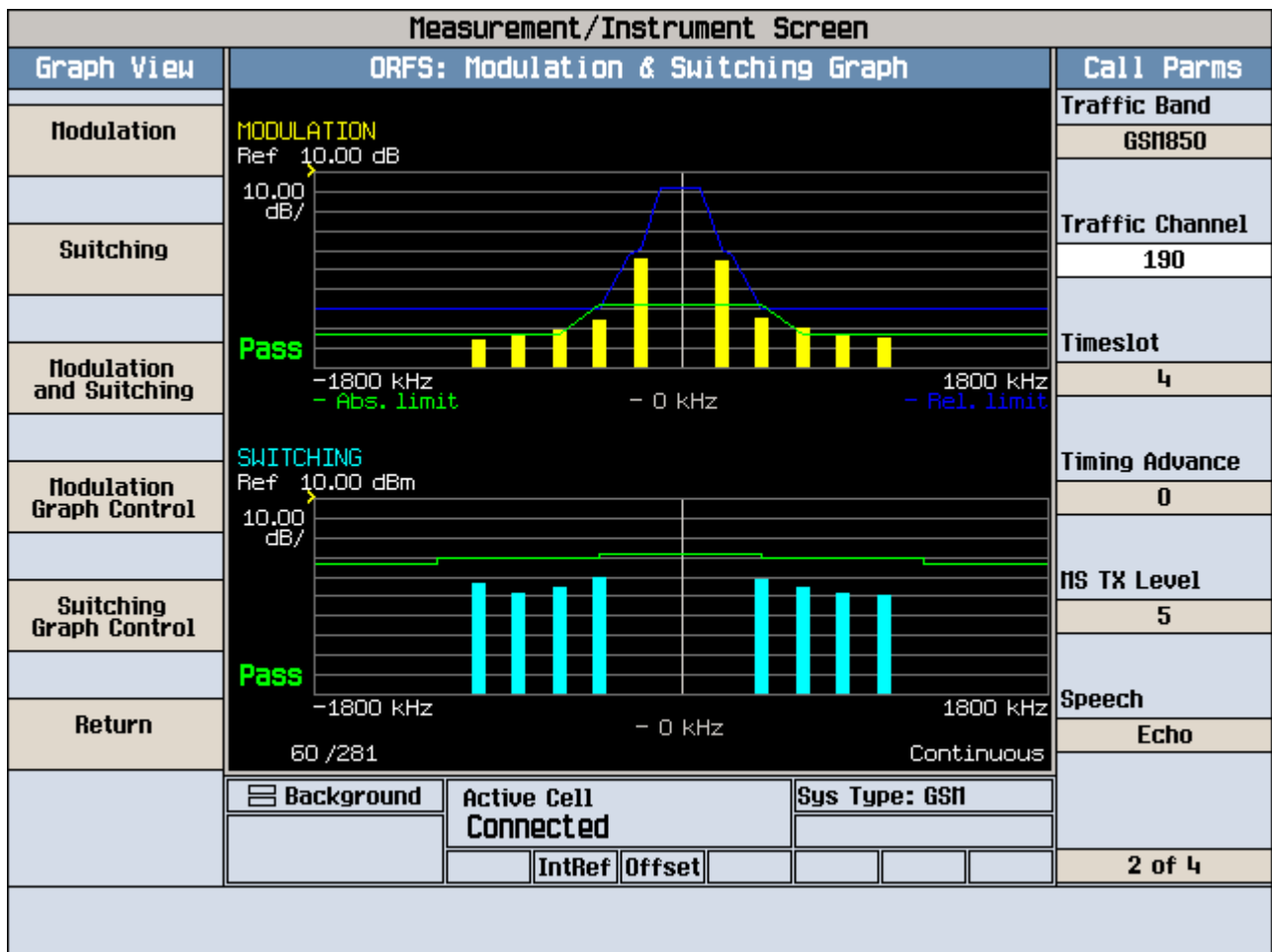
Frequency Stability

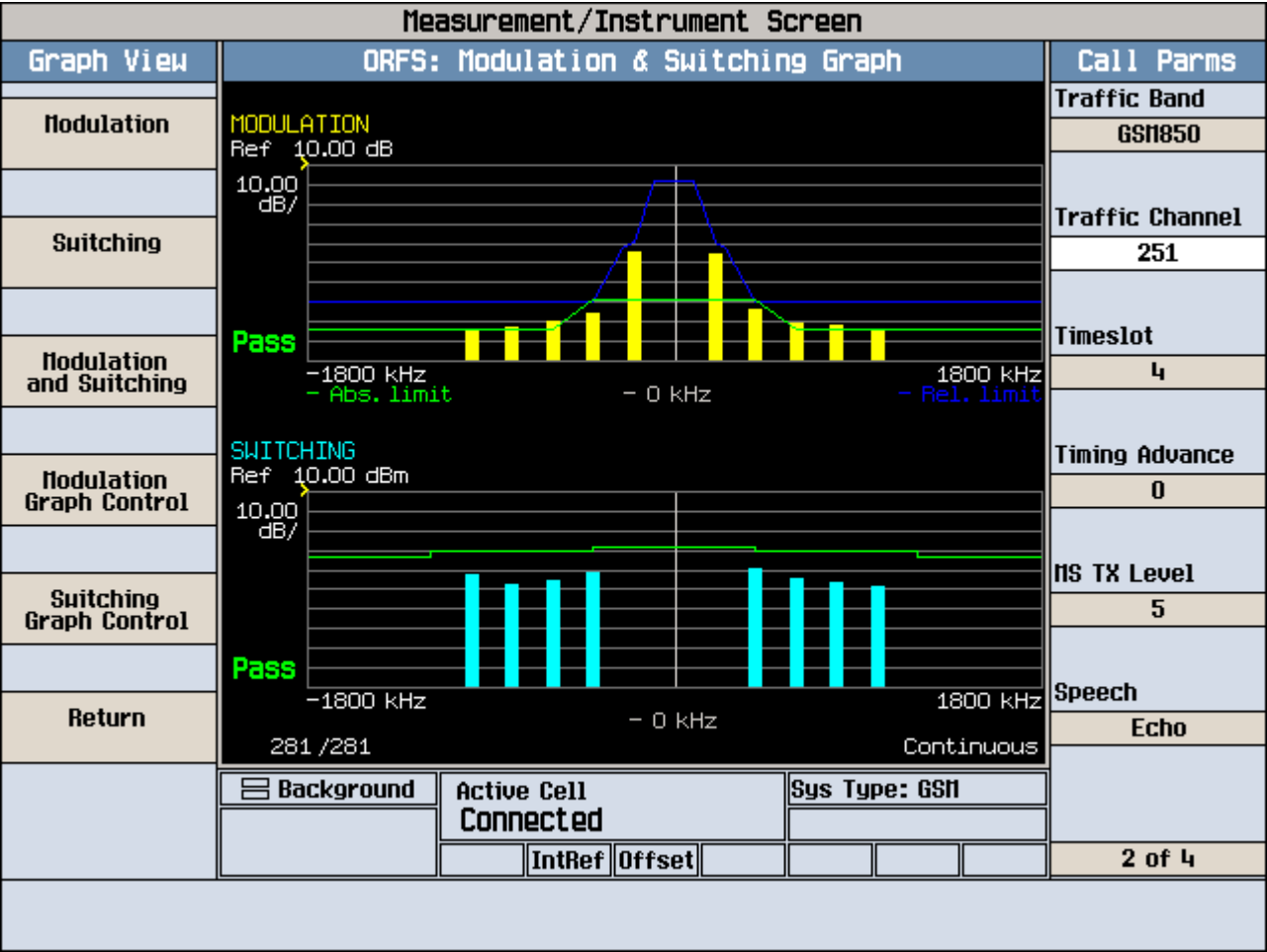


Zoom In









Agilent

L

Freq/Channel

FCC ID:A3LSGHP107 Cond Spurs Ch.128

Mkr1 1.355 GHz

Ref 33 dBm

Atten 40 dB

-34.16 dBm

#Peak

Log

10

dB/

Offst

7.69

dB

DI

-13.0

dBm

LgAv

M1 S2

S3 FC

AA

$E(f)$:

FTun

Swp

AC Coupled

Center Freq

1.25500000 GHz

Start Freq

10.00000000 MHz

Stop Freq

2.50000000 GHz

CF Step

249.0000000 MHz

Auto

Man

Freq Offset

0.00000000 Hz

Signal Track

On

Off

Center 1.255 GHz

Span 2.49 GHz

#Res BW 1 MHz

#VBW 1 MHz

Sweep 4.16 ms (601 pts)

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Agilent

L

Freq/Channel

FCC ID:A3LSGHP107 Cond Spurs Ch.128

Mkr1 7.350 GHz

Ref 30 dBm

Atten 40 dB

-31.15 dBm

#Peak

Log

10

dB/

Offst

7.69

dB

DI

-13.0

dBm

LgAv

M1 S2

S3 FC

AA

$E(f)$:

FTun

Swp

Center Freq

6.25000000 GHz

Start Freq

2.50000000 GHz

Stop Freq

10.00000000 GHz

CF Step

750.0000000 MHz

Auto

Man

Freq Offset

0.00000000 Hz

Signal Track

On

Off

Center 6.250 GHz

Span 7.5 GHz

#Res BW 1 MHz

#VBW 1 MHz

Sweep 12.52 ms (601 pts)

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Agilent

L

Freq/Channel

FCC ID:A3LSGHP107 Cond Spurs Ch.190

Mkr1 22 MHz

Ref 33 dBm

Atten 40 dB

-31.77 dBm

#Peak

Log

10

dB/

Offst

7.69

dB

DI

-13.0

dBm

LgAv

M1 S2

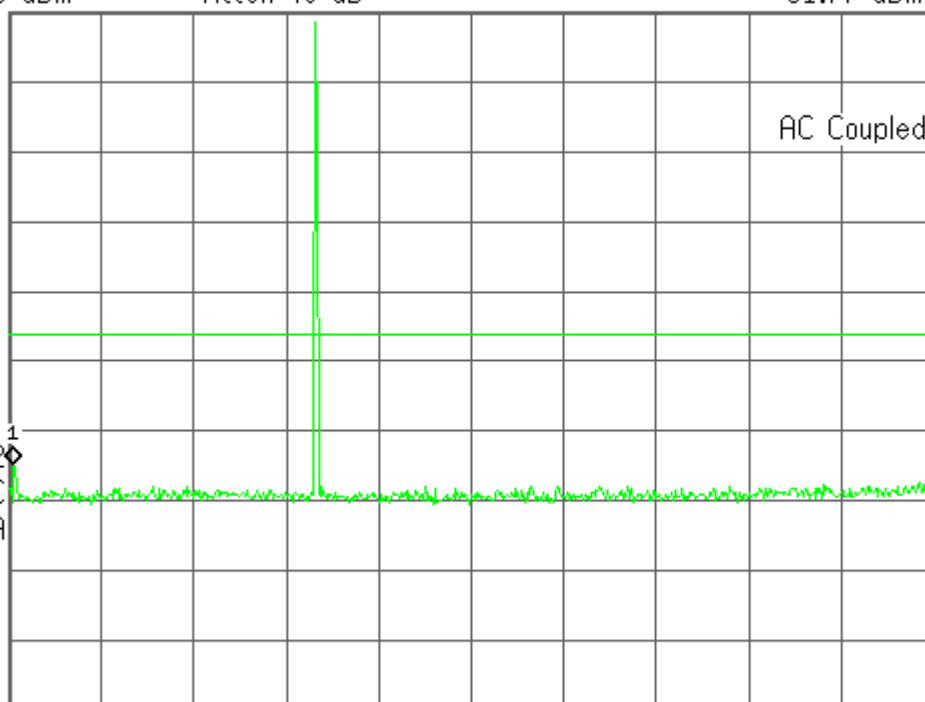
S3 FC

AA

E(f):

FTun

Swp



Center 1.255 GHz

Span 2.49 GHz

#Res BW 1 MHz

#VBW 1 MHz

Sweep 4.16 ms (601 pts)

Center Freq
1.25500000 GHz

Start Freq
10.0000000 MHz

Stop Freq
2.50000000 GHz

CF Step
249.000000 MHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

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Agilent

L

Freq/Channel

FCC ID:A3LSGHP107 Cond Spurs Ch.190

Mkr1 7.050 GHz

Ref 30 dBm

Atten 40 dB

-31.67 dBm

#Peak

Log

10

dB/

Offst

7.69

dB

DI

-13.0

dBm

LgAv

M1 S2

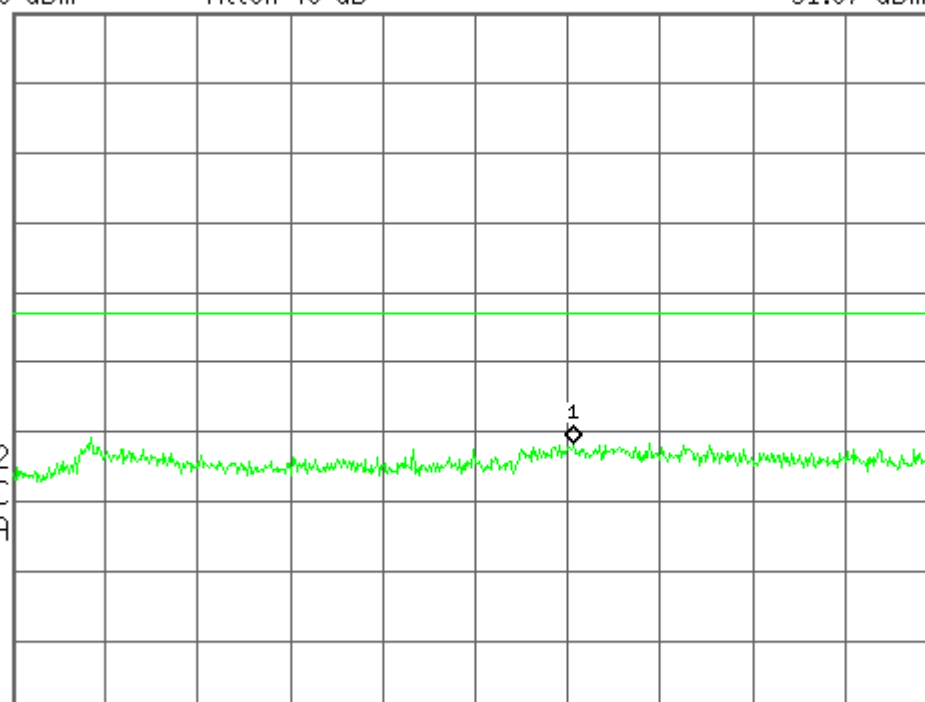
S3 FC

AA

E(f):

FTun

Swp



Center 6.250 GHz

Span 7.5 GHz

#Res BW 1 MHz

#VBW 1 MHz

Sweep 12.52 ms (601 pts)

Center Freq
6.25000000 GHz

Start Freq
2.50000000 GHz

Stop Freq
10.0000000 GHz

CF Step
750.000000 MHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

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Freq/Channel

FCC ID:A3LSGHP107 Cond Spurs Ch.251

Mkr1 22 MHz

Ref 33 dBm

Atten 40 dB

-32.29 dBm

#Peak

Log

10

dB/

Offst

7.69

dB

DI

-13.0

dBm

LgAv

AC Coupled

M1 S2

S3 FC

AA

 $E(f)$:

FTun

Swp

Center 1.255 GHz

Span 2.49 GHz

#Res BW 1 MHz

#VBW 1 MHz

Sweep 4.16 ms (601 pts)

Center Freq

1.25500000 GHz

Start Freq

10.00000000 MHz

Stop Freq

2.50000000 GHz

CF Step

249.0000000 MHz

Auto

Man

Freq Offset

0.00000000 Hz

Signal Track

On

Off

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Freq/Channel

FCC ID:A3LSGHP107 Cond Spurs Ch.251

Mkr1 7.525 GHz

Ref 30 dBm

Atten 40 dB

-31.31 dBm

#Peak

Log

10

dB/

Offst

7.69

dB

DI

-13.0

dBm

LgAv

M1 S2

S3 FC

AA

 $E(f)$:

FTun

Swp

Center 6.250 GHz

Span 7.5 GHz

#Res BW 1 MHz

#VBW 1 MHz

Sweep 12.52 ms (601 pts)

Center Freq

6.25000000 GHz

Start Freq

2.50000000 GHz

Stop Freq

10.00000000 GHz

CF Step

750.0000000 MHz

Auto

Man

Freq Offset

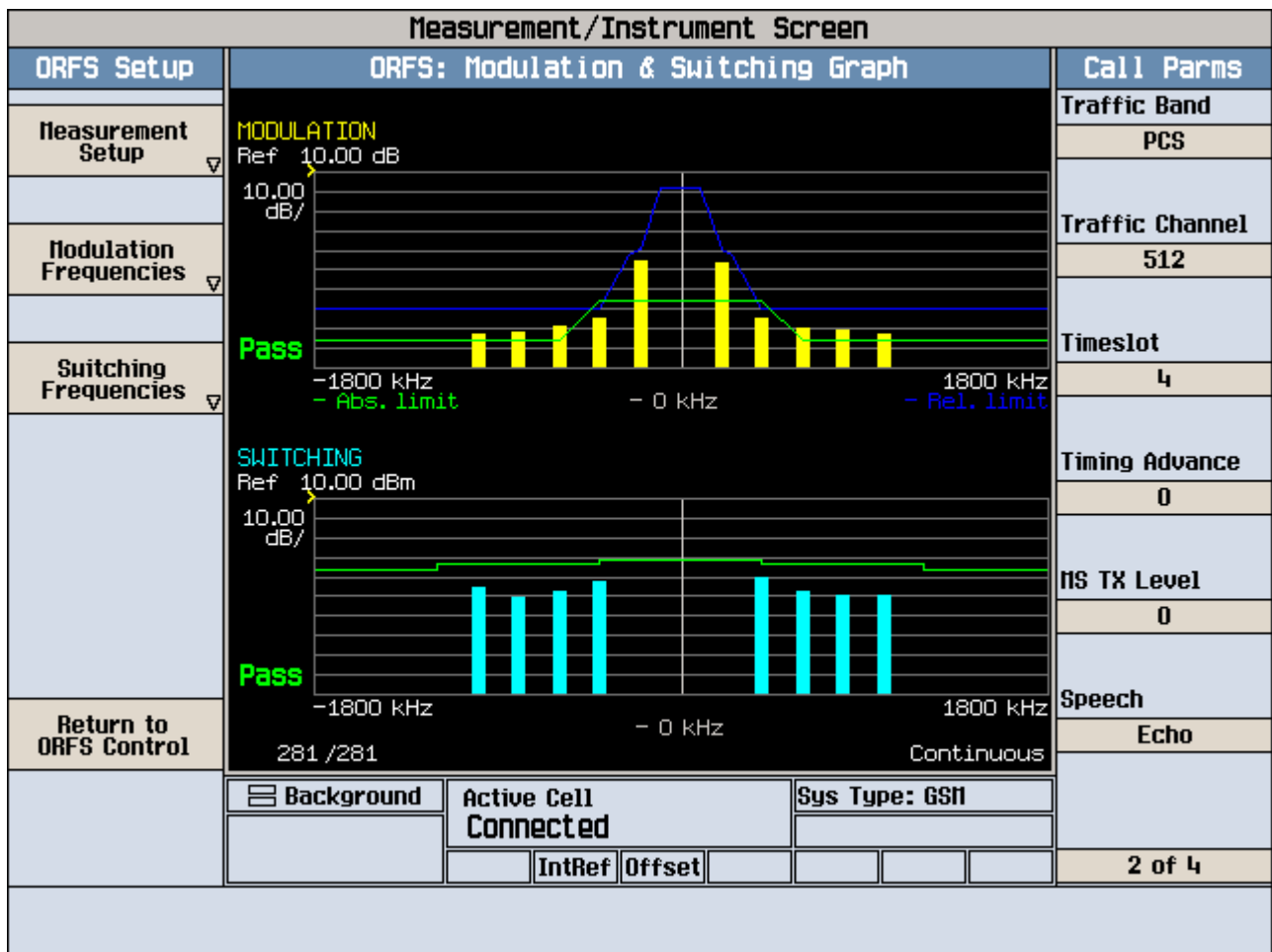
0.00000000 Hz

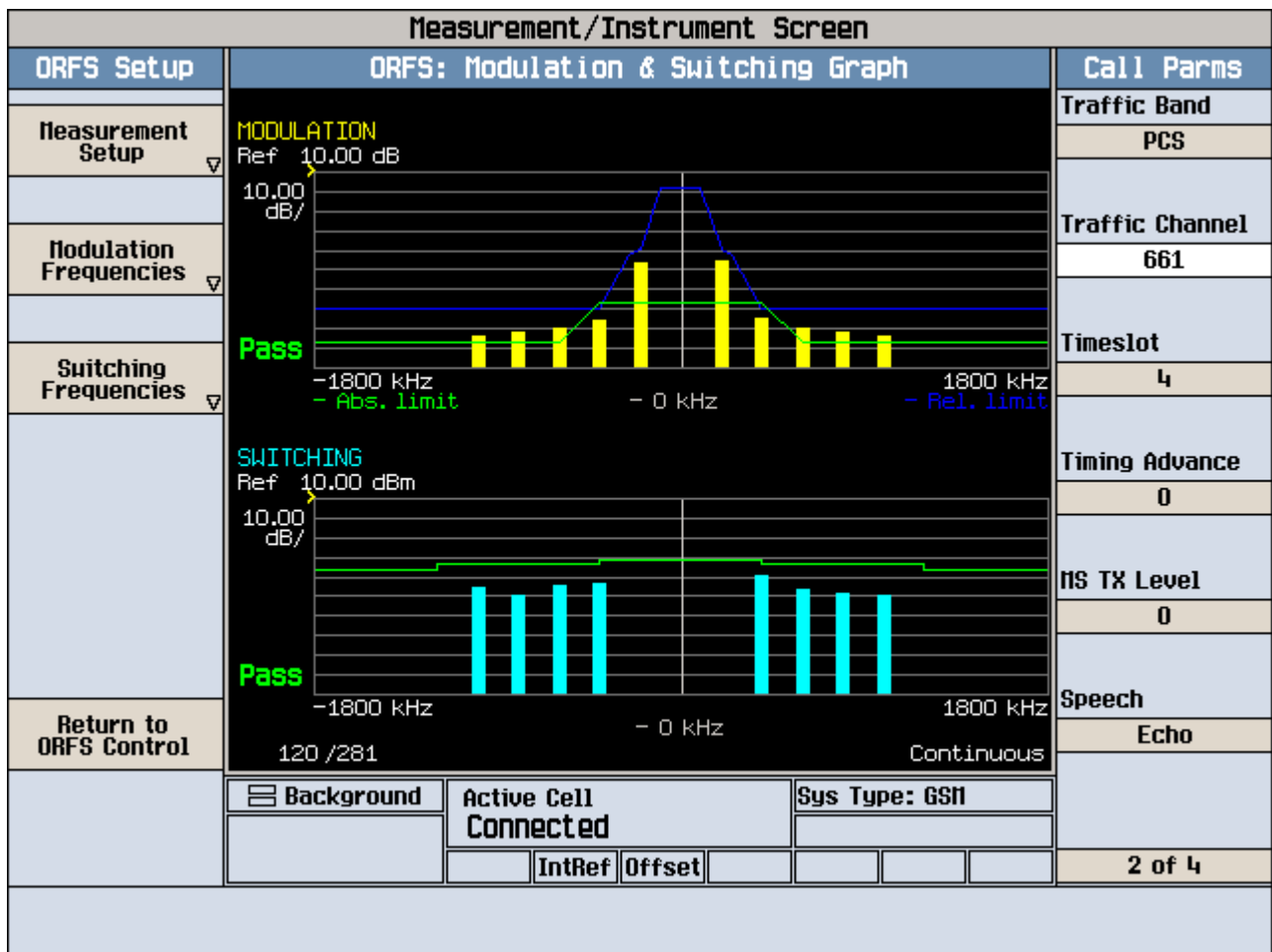
Signal Track

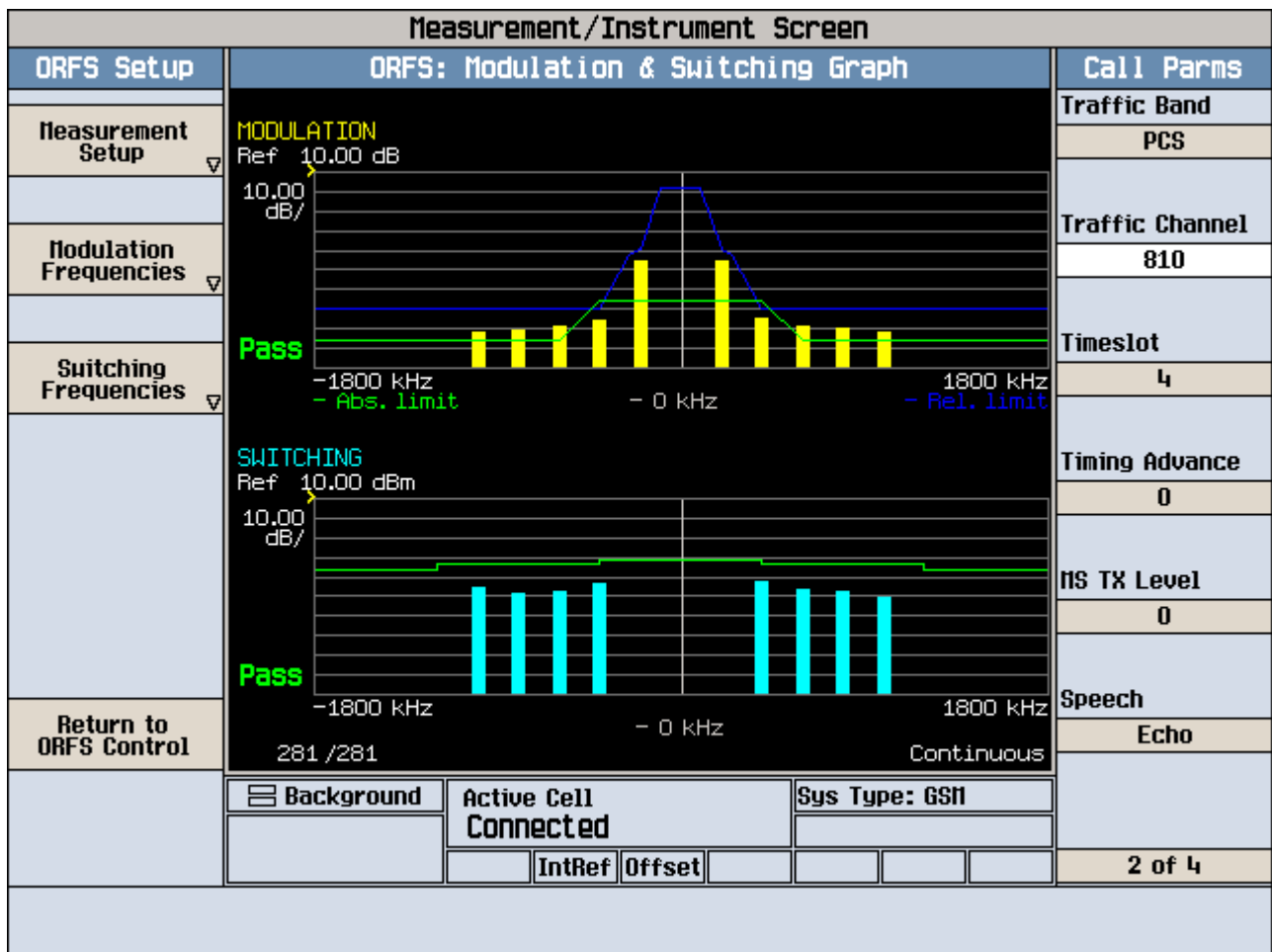
On

Off

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Freq/Channel

FCC ID:A3LSGHP107 Cond Spurs Ch.512

Mkr1 1.425 GHz

Ref 30 dBm

Atten 40 dB

-31.18 dBm

#Peak

Log

10

dB/

Offst

9.09

dB

DI

-13.0

dBm

LgAv

M1 S2

S3 FC

AA

E(f):

FTun

Swp

Center 1.255 GHz

Span 2.49 GHz

#Res BW 1 MHz

#VBW 1 MHz

Sweep 4.16 ms (601 pts)

Center Freq
1.25500000 GHz

Start Freq
10.00000000 MHz

Stop Freq
2.50000000 GHz

CF Step
249.0000000 MHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

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L

Freq/Channel

FCC ID:A3LSGHP107 Cond Spurs Ch.512

Mkr1 13.61 GHz

Ref 30 dBm

Atten 40 dB

-28.25 dBm

#Peak

Log

10

dB/

Offst

9.09

dB

DI

-13.0

dBm

LgAv

M1 S2

S3 FC

AA

E(f):

FTun

Swp

Center 11.25 GHz

Span 17.5 GHz

#Res BW 1 MHz

#VBW 1 MHz

Sweep 43.76 ms (601 pts)

Center Freq
11.25000000 GHz

Start Freq
2.50000000 GHz

Stop Freq
20.00000000 GHz

CF Step
1.750000000 GHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

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L

Freq/Channel

FCC ID:A3LSGHP107 Cond Spurs Ch.661

Mkr1 1.475 GHz

Ref 30 dBm

Atten 40 dB

-33.35 dBm

#Peak

Log

10

dB/

Offst

9.09

dB

DI

-13.0

dBm

LgAv

M1 S2

S3 FC

AA

$E(f)$:

FTun

Swp

Center 1.255 GHz

Span 2.49 GHz

#Res BW 1 MHz

#VBW 1 MHz

Sweep 4.16 ms (601 pts)

Center Freq
1.25500000 GHz

Start Freq
10.00000000 MHz

Stop Freq
2.50000000 GHz

CF Step
249.0000000 MHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

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L

Freq/Channel

FCC ID:A3LSGHP107 Cond Spurs Ch.661

Mkr1 15.42 GHz

Ref 30 dBm

Atten 40 dB

-27.69 dBm

#Peak

Log

10

dB/

Offst

9.09

dB

DI

-13.0

dBm

LgAv

M1 S2

S3 FC

AA

$E(f)$:

FTun

Swp

Center 11.25 GHz

Span 17.5 GHz

#Res BW 1 MHz

#VBW 1 MHz

Sweep 43.76 ms (601 pts)

Center Freq
11.25000000 GHz

Start Freq
2.50000000 GHz

Stop Freq
20.00000000 GHz

CF Step
1.750000000 GHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

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L

Freq/Channel

FCC ID:A3LSGHP107 Cond Spurs Ch.810

Mkr1 1.305 GHz

Ref 30 dBm

Atten 40 dB

-33.36 dBm

#Peak

Log

10

dB/

Offst

9.09

dB

DI

-13.0

dBm

LgAv

M1 S2

S3 FC

AA

 $E(f)$:

FTun

Swp

AC Coupled

1

Center 1.255 GHz

Span 2.49 GHz

#Res BW 1 MHz

#VBW 1 MHz

Sweep 4.16 ms (601 pts)

Center Freq

1.25500000 GHz

Start Freq

10.00000000 MHz

Stop Freq

2.50000000 GHz

CF Step

249.0000000 MHz

Auto

Man

Freq Offset

0.00000000 Hz

Signal Track

On

Off

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L

Freq/Channel

FCC ID:A3LSGHP107 Cond Spurs Ch.810

Mkr1 14.95 GHz

Ref 30 dBm

Atten 40 dB

-28.12 dBm

#Peak

Log

10

dB/

Offst

9.09

dB

DI

-13.0

dBm

LgAv

M1 S2

S3 FC

AA

 $E(f)$:

FTun

Swp

1

Center 11.25 GHz

Span 17.5 GHz

#Res BW 1 MHz

#VBW 1 MHz

Sweep 43.76 ms (601 pts)

Center Freq

11.25000000 GHz

Start Freq

2.50000000 GHz

Stop Freq

20.00000000 GHz

CF Step

1.750000000 GHz

Auto

Man

Freq Offset

0.00000000 Hz

Signal Track

On

Off

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L

Freq/Channel

FCC ID:A3LSGHP107 Band Edge Ch.512

Mkr1 1.849 995 9 GHz

Ref 30 dBm

Atten 40 dB

-15.01 dBm

#Peak

Log

10

dB/

Offst

9.09

dB

DI

-13.0

dBm

LgAv

M1 S2

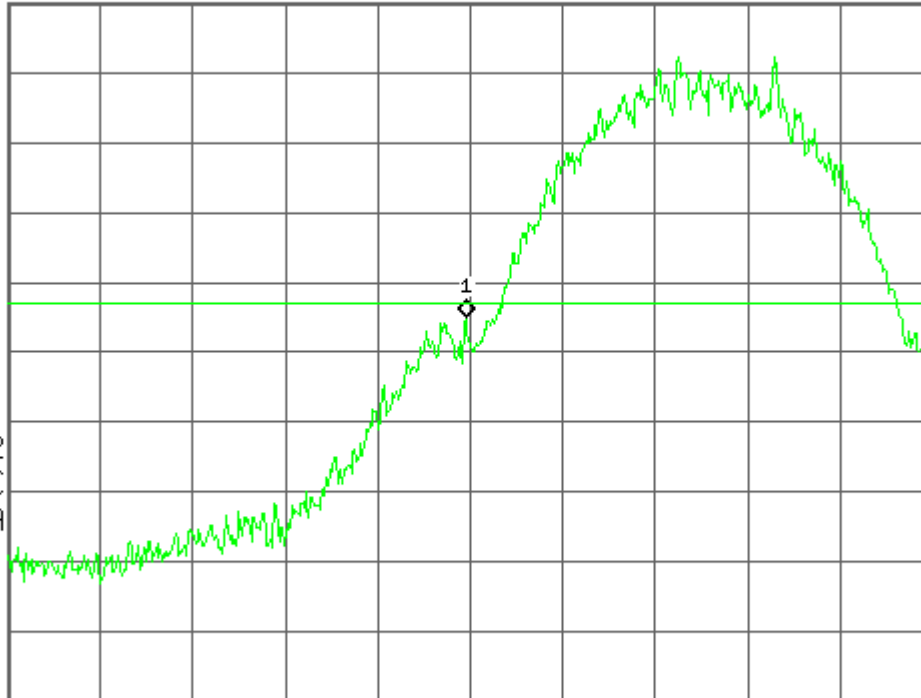
S3 FC

AA

$E(f)$:

f>50k

Swp



Center 1.850 000 0 GHz

Span 810 kHz

#Res BW 3 kHz

#VBW 3 kHz

Sweep 108.5 ms (601 pts)

Center Freq
1.85000000 GHz

Start Freq
1.84959500 GHz

Stop Freq
1.85040500 GHz

CF Step
81.00000000 kHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

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Freq/Channel

FCC ID:A3LSGHP107 Band Edge Ch.810

Mkr1 1.910 001 4 GHz

Ref 30 dBm

Atten 40 dB

-16.05 dBm

#Peak

Log

10

dB/

Offst

9.09

dB

DI

-13.0

dBm

LgAv

M1 S2

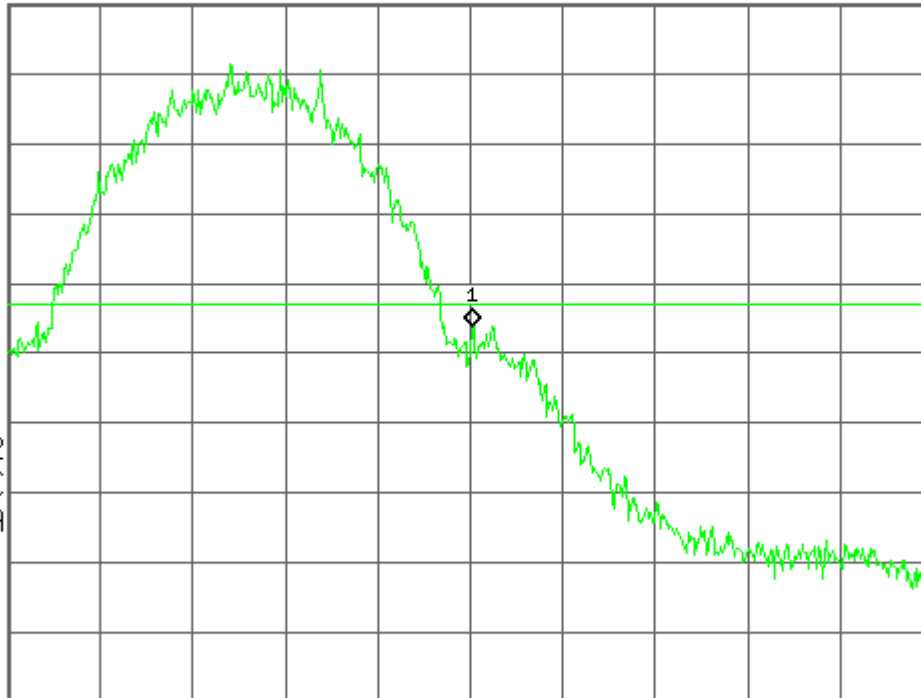
S3 FC

AA

$E(f)$:

f>50k

Swp



Center 1.910 000 0 GHz

Span 810 kHz

#Res BW 3 kHz

#VBW 3 kHz

Sweep 108.5 ms (601 pts)

Center Freq
1.91000000 GHz

Start Freq
1.90959500 GHz

Stop Freq
1.91040500 GHz

CF Step
81.00000000 kHz
Auto Man

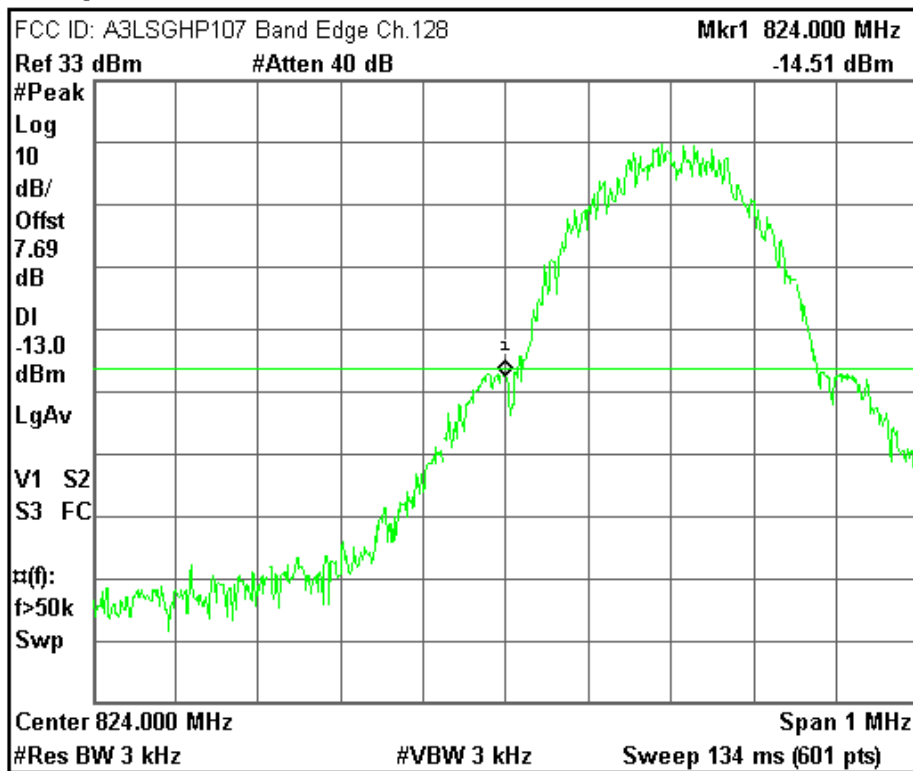
Freq Offset
0.00000000 Hz

Signal Track
On Off

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Agilent

L

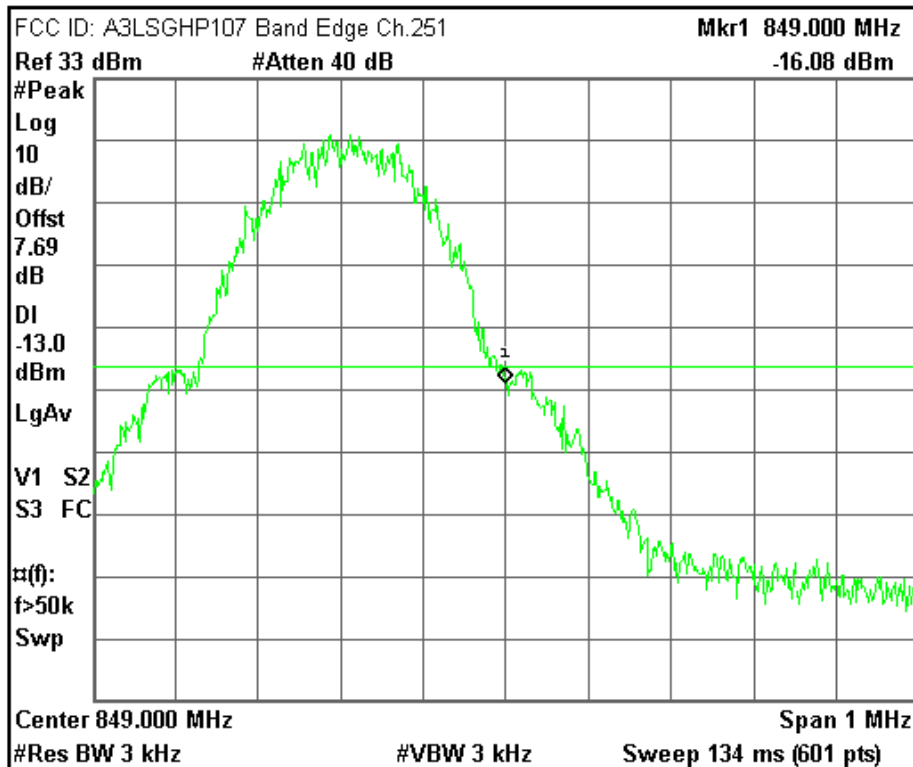


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Freq/Channel
Center Freq 824.000000 MHz
Start Freq 823.500000 MHz
Stop Freq 824.500000 MHz
CF Step 100.000000 kHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

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L



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Freq/Channel
Center Freq 849.000000 MHz
Start Freq 848.500000 MHz
Stop Freq 849.500000 MHz
CF Step 100.000000 kHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off