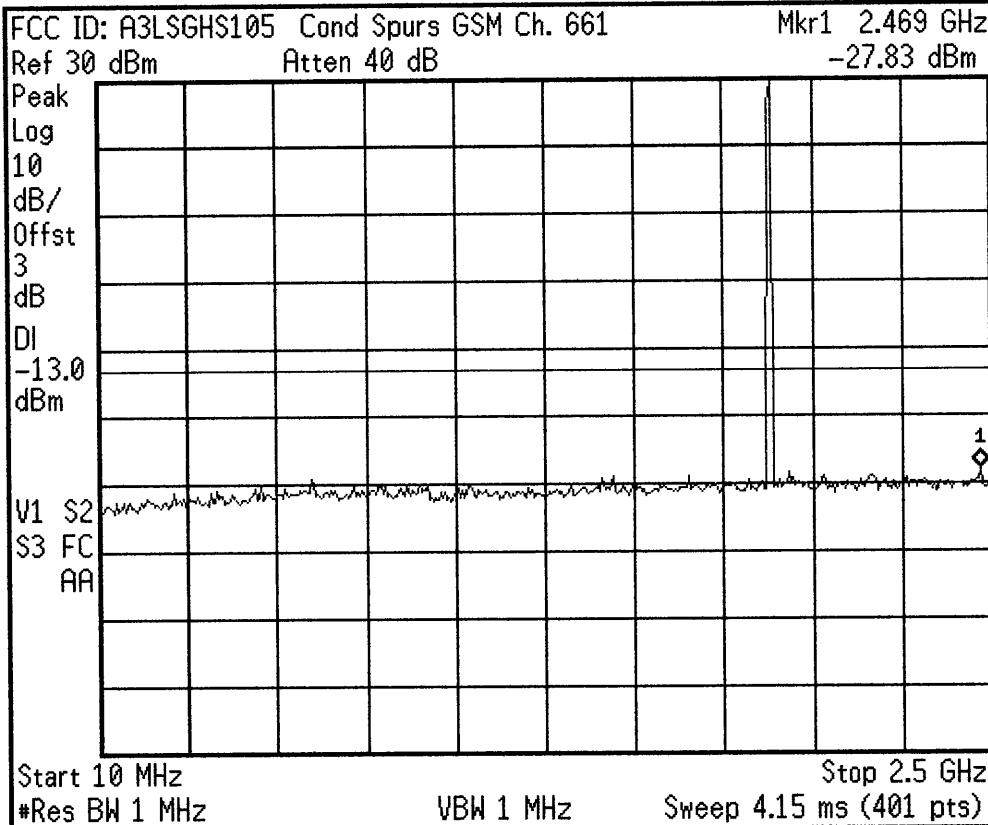


Agilent



Freq/Channel

Center Freq
 1.25500000 GHz

Start Freq
 10.0000000 MHz

Stop Freq
 2.50000000 GHz

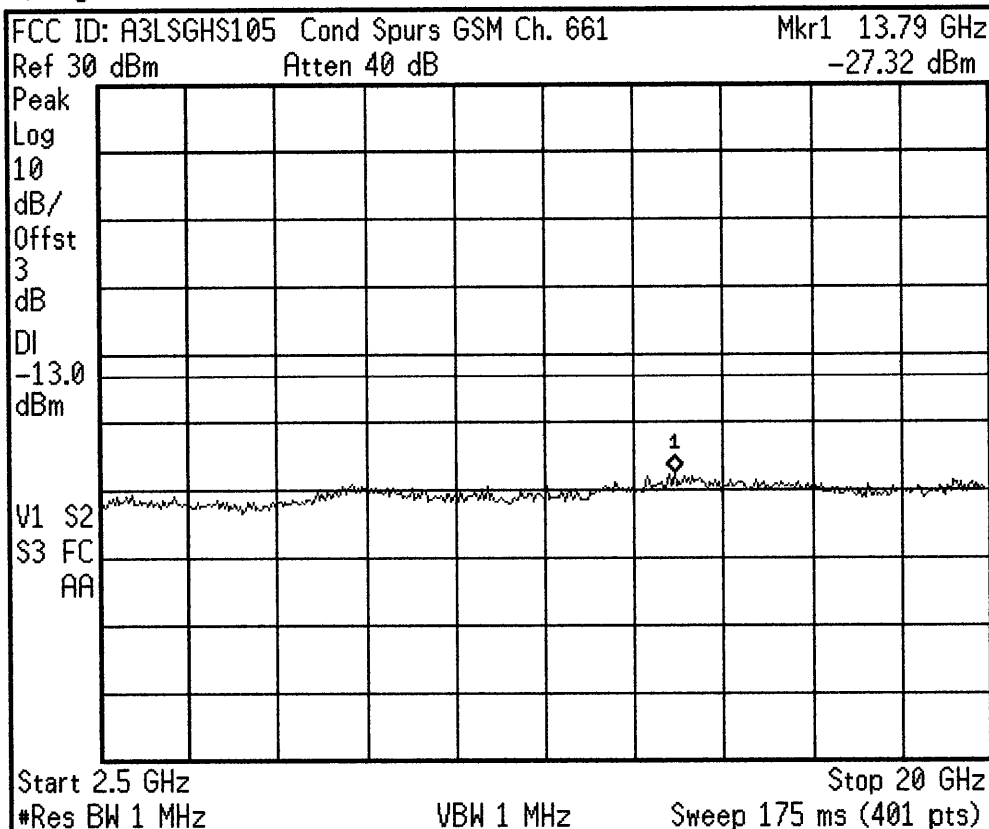
CF Step
 249.000000 MHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

Scale Type
 Log Lin

Agilent



Freq/Channel

Center Freq
 11.2500000 GHz

Start Freq
 2.50000000 GHz

Stop Freq
 20.0000000 GHz

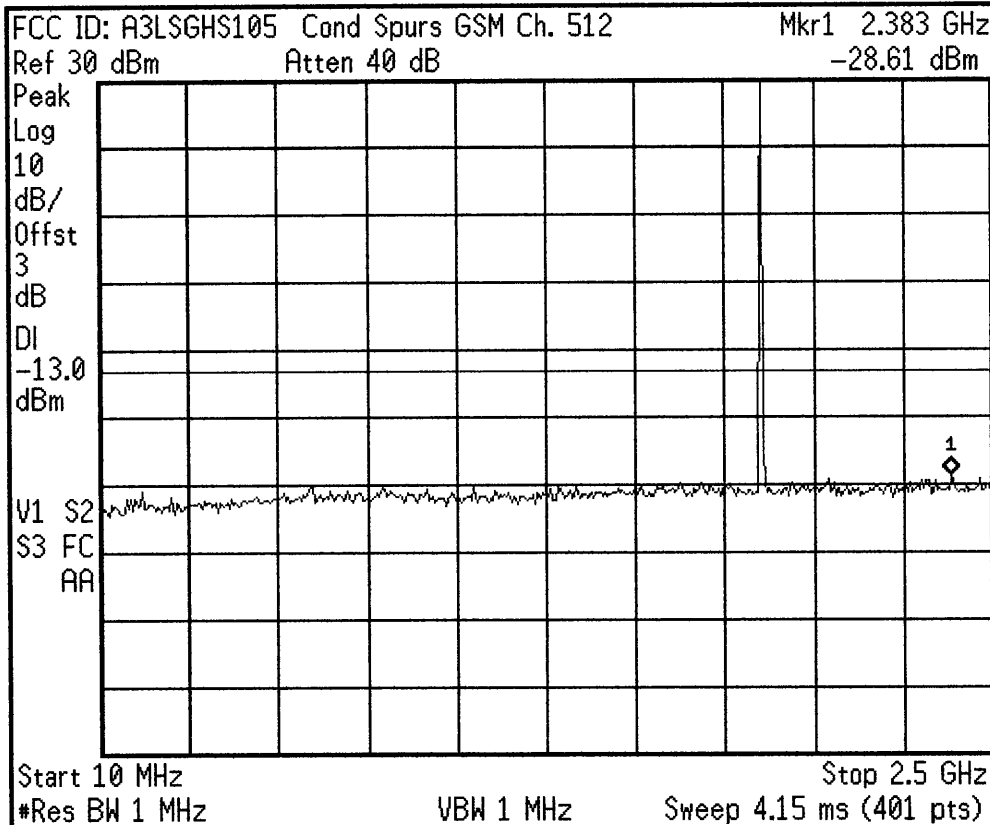
CF Step
 1.75000000 GHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

Scale Type
 Log Lin

Agilent



Freq/Channel

Center Freq
 1.25500000 GHz

Start Freq
 10.0000000 MHz

Stop Freq
 2.50000000 GHz

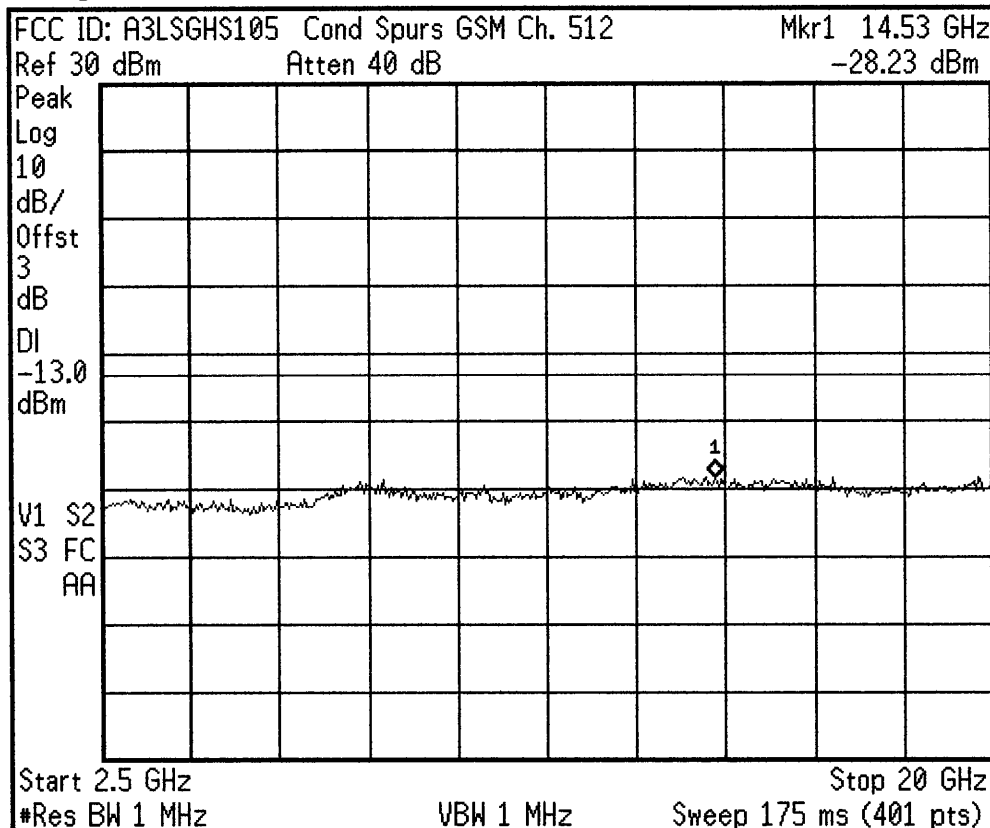
CF Step
 249.000000 MHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

Scale Type
 Log Lin

Agilent



Freq/Channel

Center Freq
 11.2500000 GHz

Start Freq
 2.50000000 GHz

Stop Freq
 20.0000000 GHz

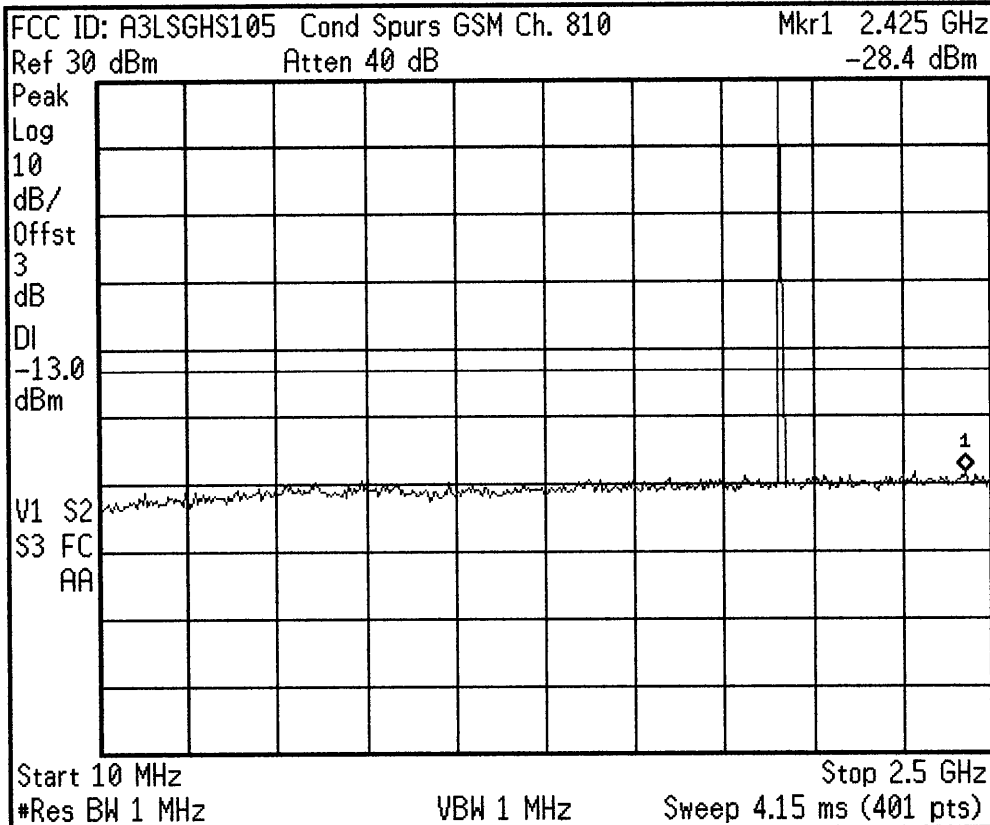
CF Step
 1.75000000 GHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

Scale Type
 Log Lin

Agilent



Freq/Channel

Center Freq
 1.25500000 GHz

Start Freq
 10.0000000 MHz

Stop Freq
 2.50000000 GHz

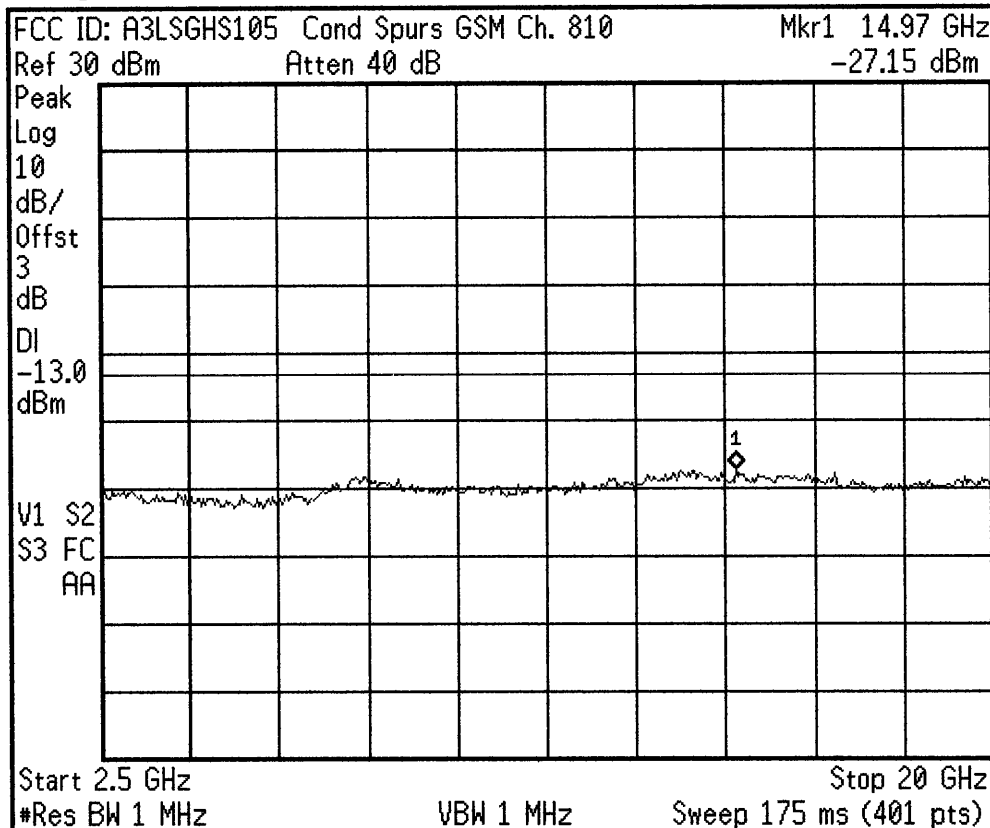
CF Step
 249.000000 MHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

Scale Type
 Log Lin

Agilent



Freq/Channel

Center Freq
 11.2500000 GHz

Start Freq
 2.50000000 GHz

Stop Freq
 20.0000000 GHz

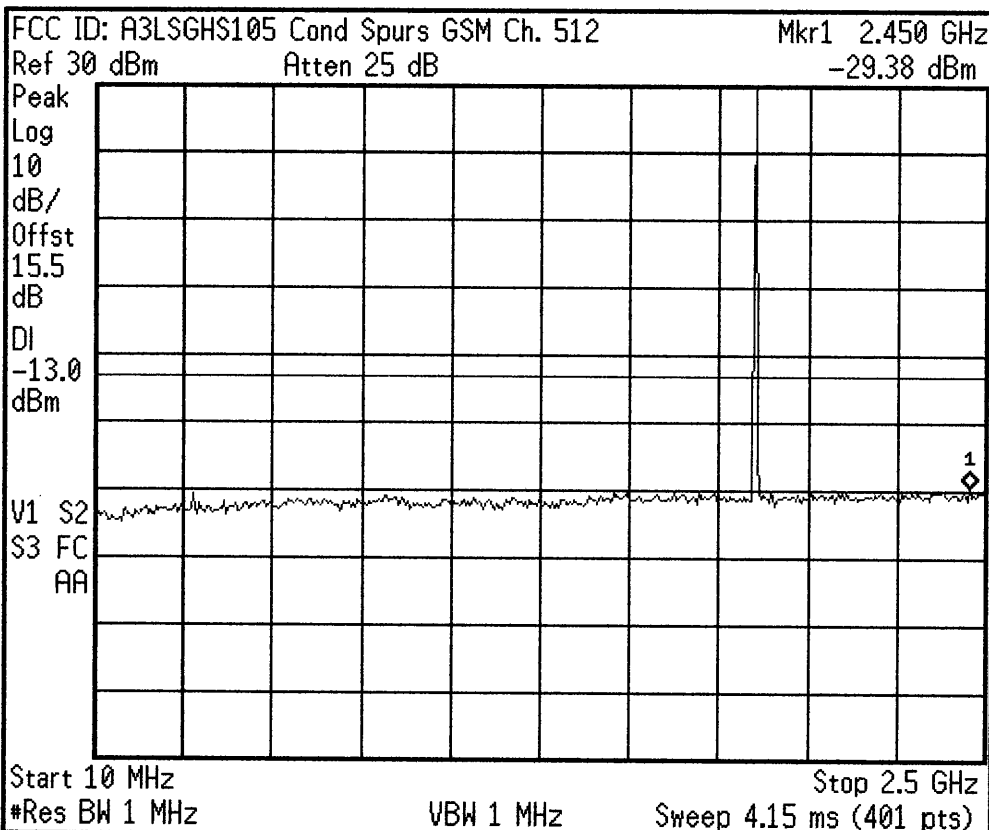
CF Step
 1.75000000 GHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

Scale Type
 Log Lin

Agilent



Freq/Channel

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

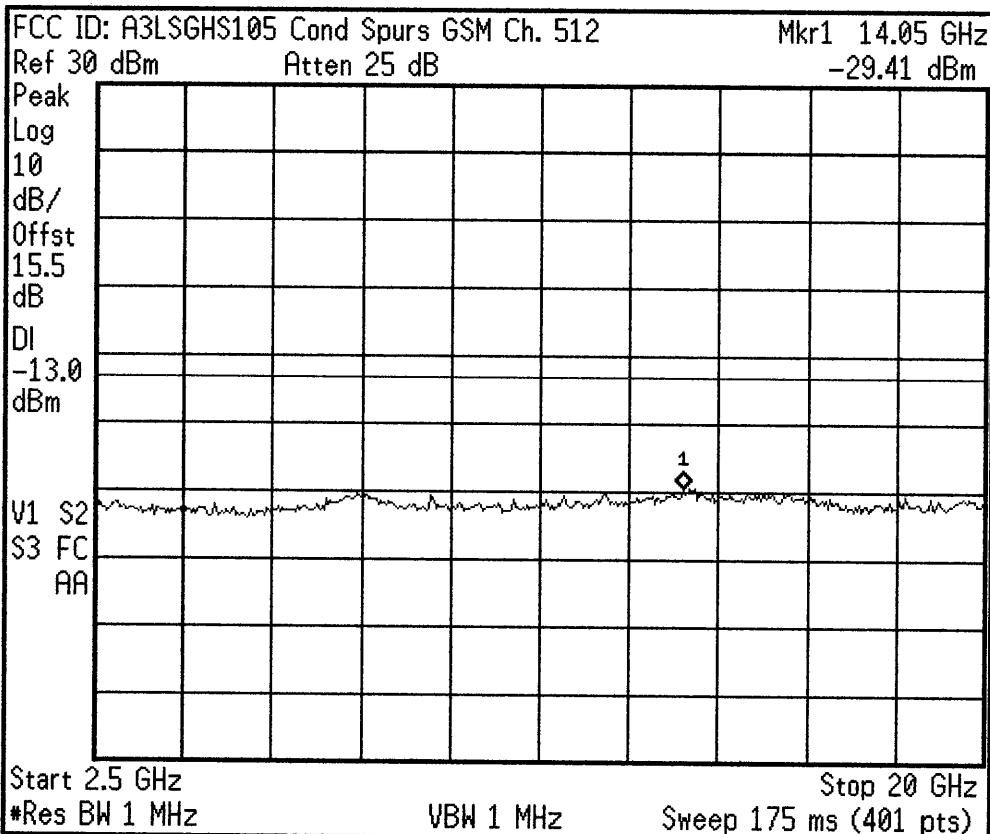
Signal Track

On Off

Scale Type

Log Lin

Agilent



Freq/Channel

Center Freq

11.2500000 GHz

Start Freq

2.50000000 GHz

Stop Freq

20.0000000 GHz

CF Step

1.75000000 GHz

Auto Man

Freq Offset

0.00000000 Hz

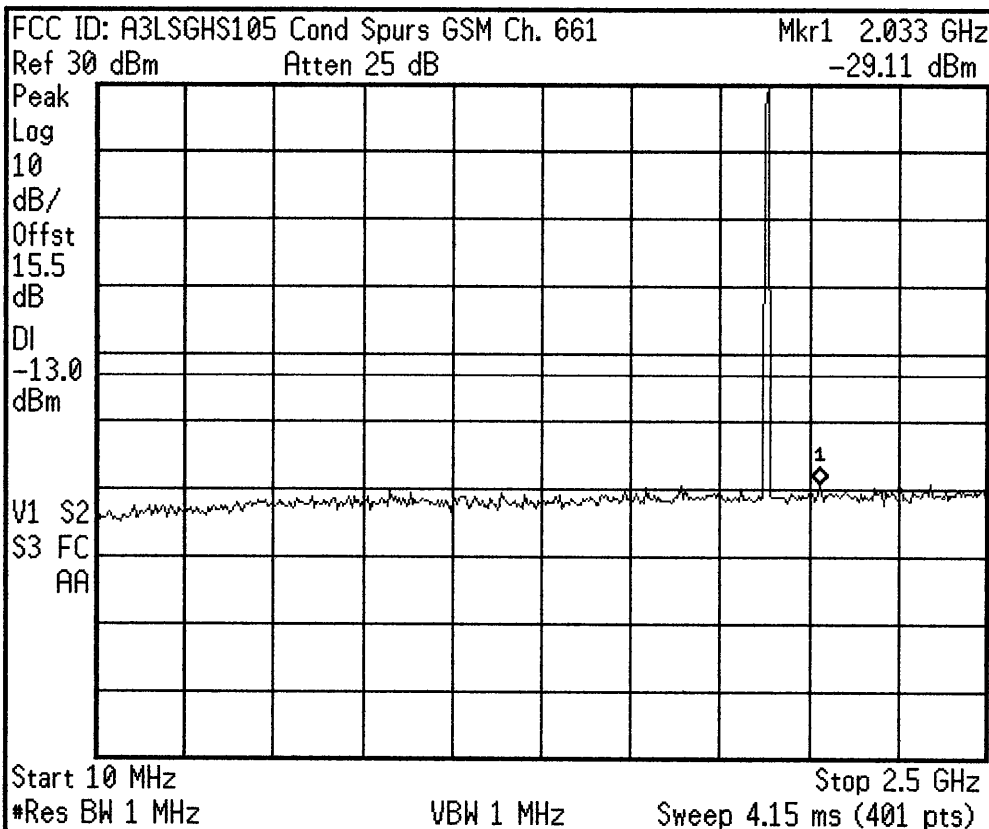
Signal Track

On Off

Scale Type

Log Lin

* Agilent



Freq/Channel

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

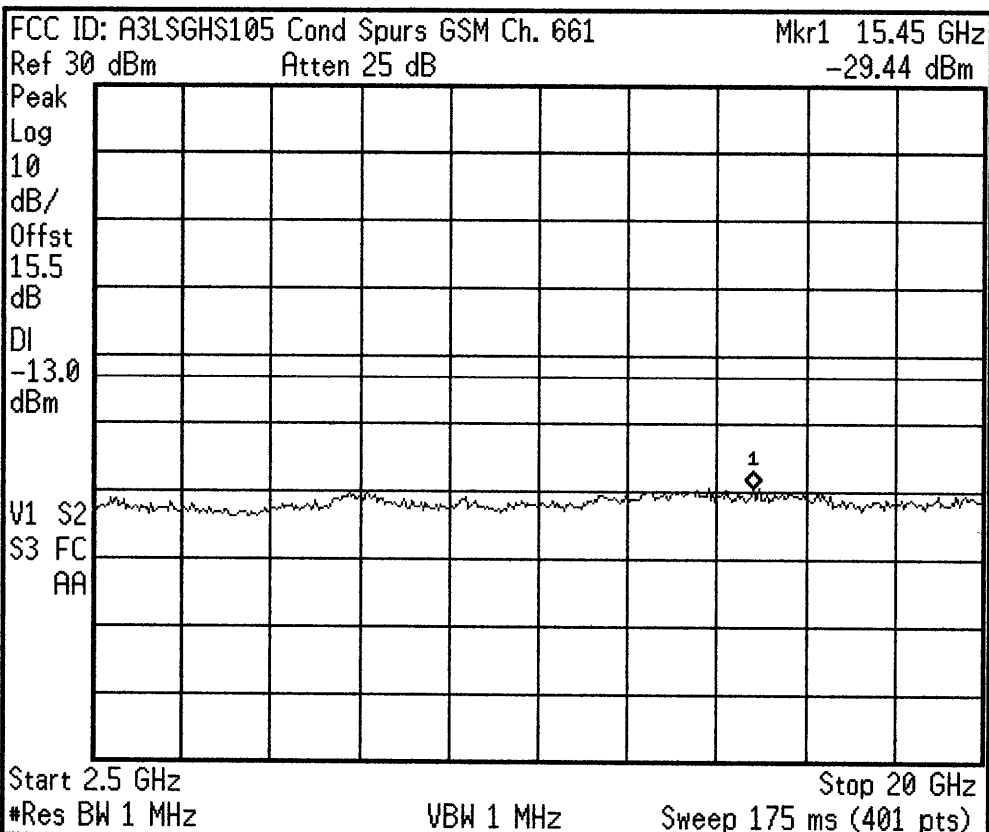
Signal Track

On Off

Scale Type

Log Lin

* Agilent



Freq/Channel

Center Freq

11.2500000 GHz

Start Freq

2.50000000 GHz

Stop Freq

20.0000000 GHz

CF Step

1.75000000 GHz

Auto Man

Freq Offset

0.00000000 Hz

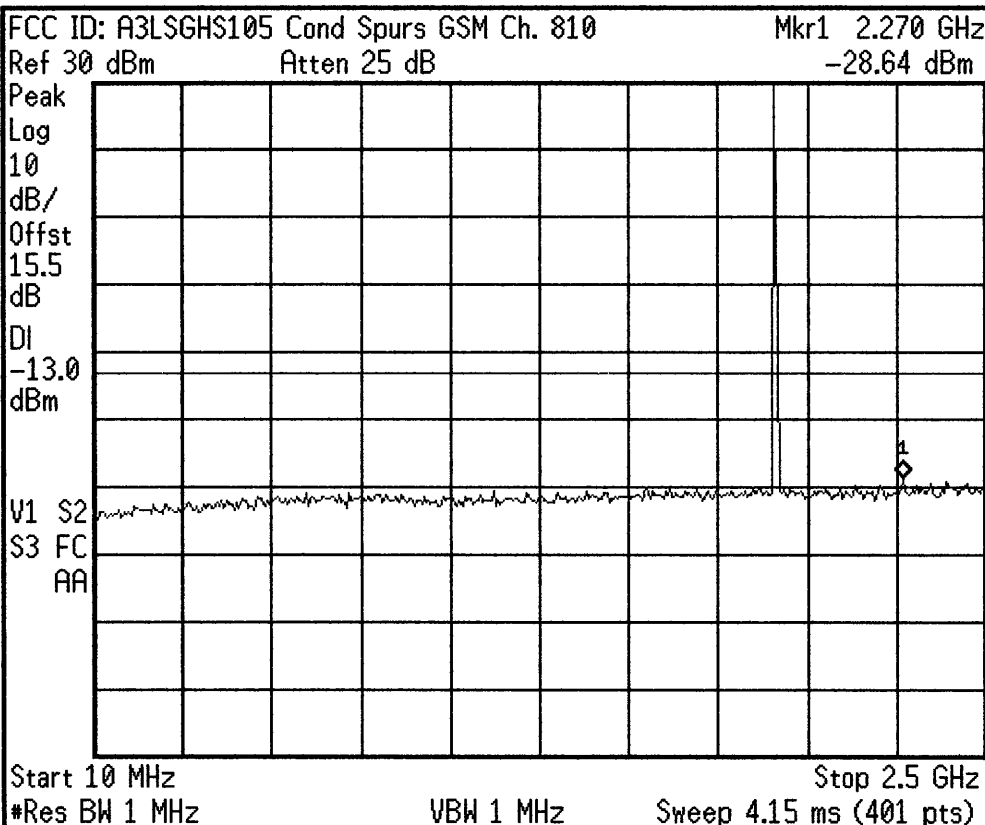
Signal Track

On Off

Scale Type

Log Lin

Agilent



Freq/Channel

Center Freq
 1.25500000 GHz

Start Freq
 10.0000000 MHz

Stop Freq
 2.50000000 GHz

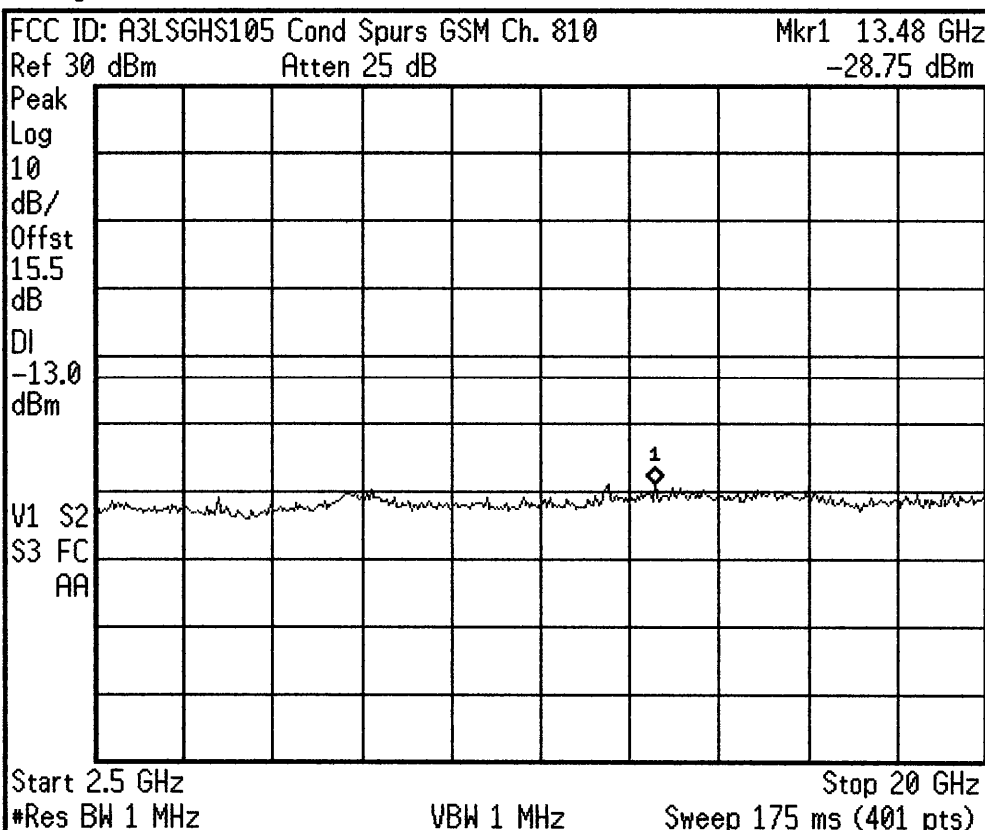
CF Step
 249.000000 MHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

Scale Type
 Log Lin

Agilent



Freq/Channel

Center Freq
 11.2500000 GHz

Start Freq
 2.50000000 GHz

Stop Freq
 20.0000000 GHz

CF Step
 1.75000000 GHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

Scale Type
 Log Lin

✱ Agilent

FCC ID: A3LSGHS105 Band Edge GSM Ch. 810

Ref 30 dBm

Atten 25 dB

Peak

Log

10

dB/

Offst

15.5

dB

DI

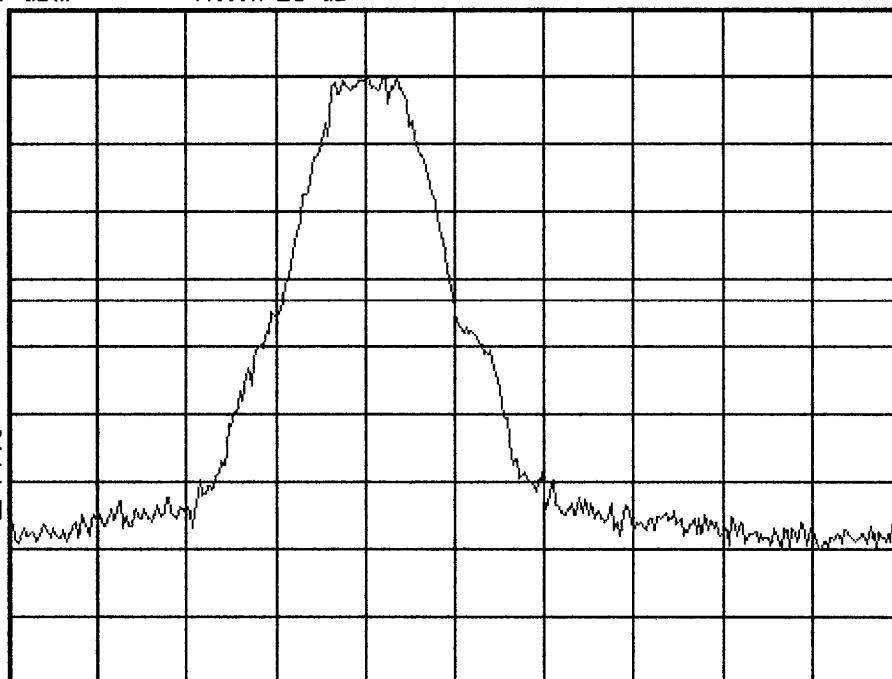
-13.0

dBm

V1 S2

S3 FC

AA



Center 1.91 GHz

Span 2 MHz

*Res BW 30 kHz

VBW 30 kHz

Sweep 5 ms (401 pts)

Freq/Channel

Center Freq

1.91000000 GHz

Start Freq

1.90900000 GHz

Stop Freq

1.91100000 GHz

CF Step

200.000000 kHz

Auto

Man

Freq Offset

0.00000000 Hz

Signal Track

On

Off

Scale Type

Log

Lin

✱ Agilent

FCC ID: A3LSGHS105 Band Edge GSM Ch. 512

Ref 30 dBm

Atten 25 dB

Peak

Log

10

dB/

Offst

15.5

dB

DI

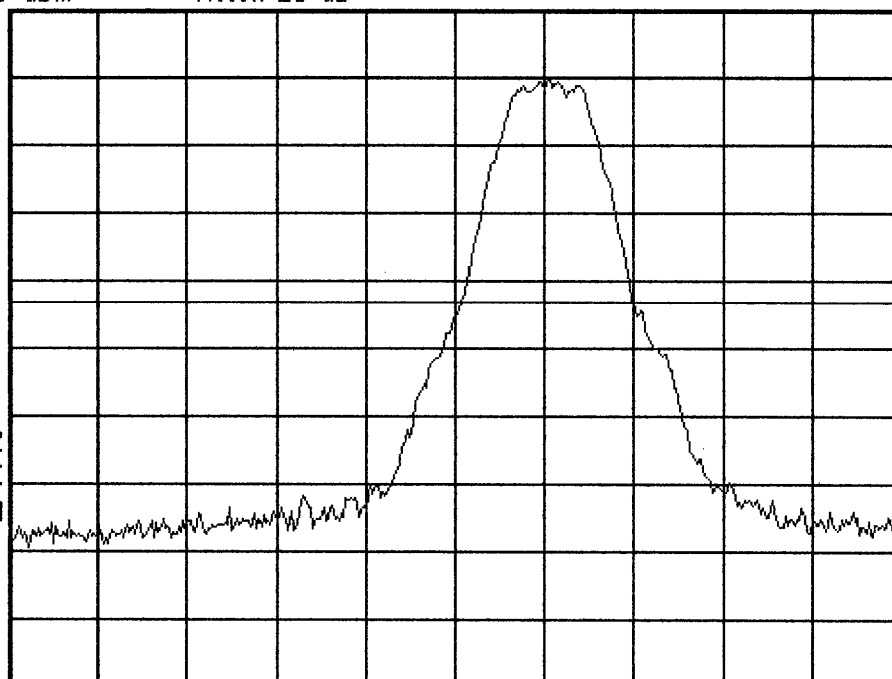
-13.0

dBm

V1 S2

S3 FC

AA



Center 1.85 GHz

Span 2 MHz

*Res BW 30 kHz

VBW 30 kHz

Sweep 5 ms (401 pts)

Freq/Channel

Center Freq

1.85000000 GHz

Start Freq

1.84900000 GHz

Stop Freq

1.85100000 GHz

CF Step

200.000000 kHz

Auto

Man

Freq Offset

0.00000000 Hz

Signal Track

On

Off

Scale Type

Log

Lin

Ch Freq 1.88 GHz		Trig Free	
Occupied Bandwidth			
FCC ID: A3LSGHS105 Power Out GSM Ch. 661 Ref 30 dBm Atten 25 dB			
#Samp Log 10 dB/ Offst 15.5 dB			
Center 1.88 GHz		Span 3 MHz	
*Res BW 30 kHz		*VBW 300 kHz Sweep 5.288 ms (401 pts)	
Occupied Bandwidth 250.3851 kHz		Occ BW % Pwr 99.00 % x dB -26.00 dB	
Transmit Freq Error 7.182 kHz x dB Bandwidth 303.546 kHz*			
Freq/Channel			
Center Freq 1.88000000 GHz			
Start Freq 1.87850000 GHz			
Stop Freq 1.88150000 GHz			
CF Step 300.000000 kHz Auto Man			
Freq Offset 0.00000000 Hz			
Signal Track On Off			
Scale Type Log Lin			

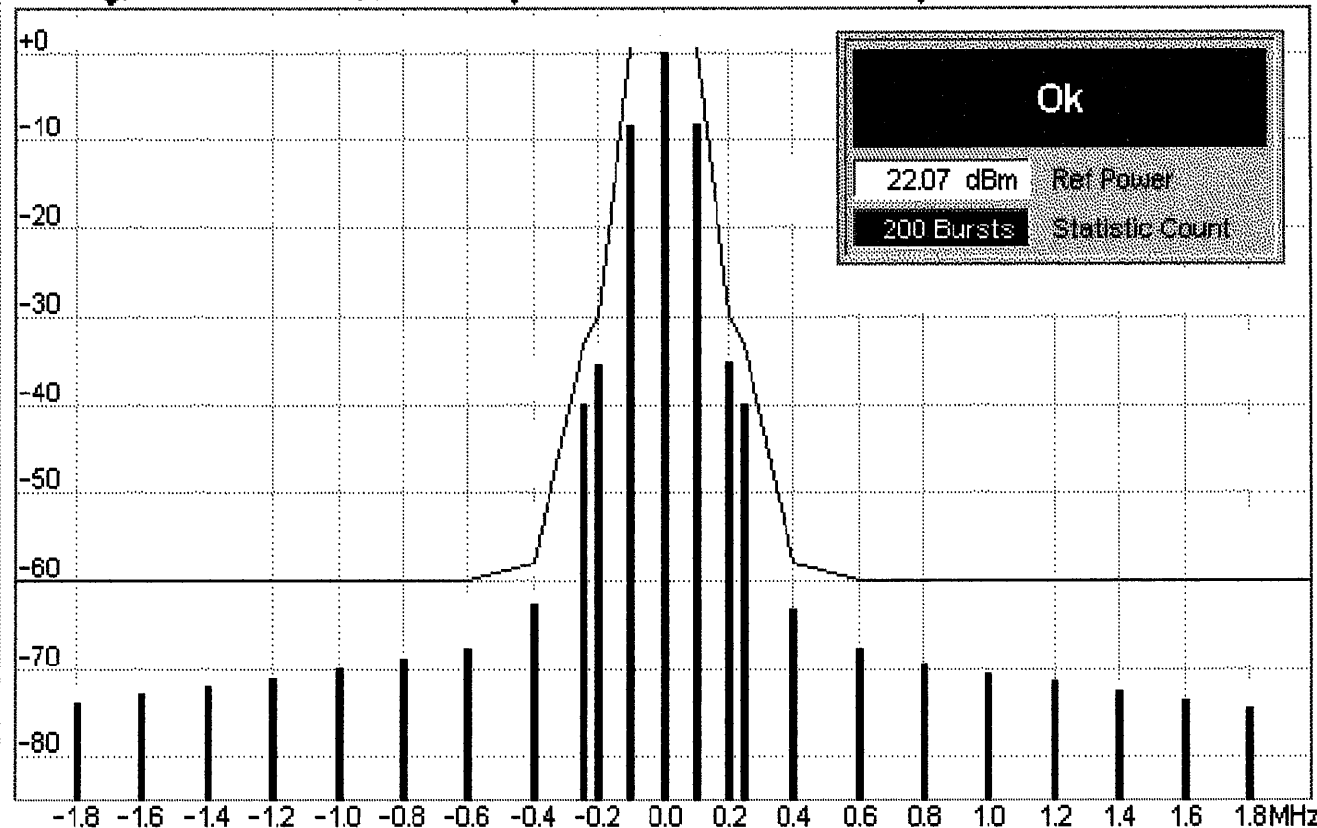
Group
Config

GSM 1900 Spectrum



Connect.
Control

dBc Max. Level: Auto Low Noise PCL: 0 / 30.0 dBm Chan./Freq.: 810 / 1909.8 MHz
dB: --- / Off dB: --- / Off dB: --- / Off



Modulation
GMSK

Appli-
cation

Analyzer
Level

MS Signal

BS Signal

Marker

Menus

Overview

Power

Modulation

Spectrum

Receiver
Quality

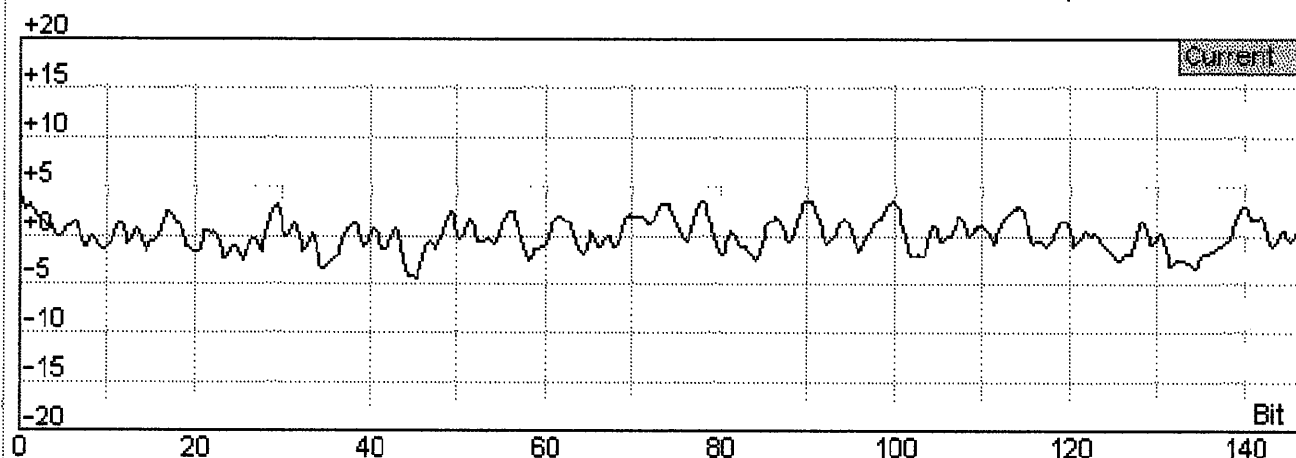
Group
Config

GSM 1900 Modulation



Connect.
Control

Max. Level: Auto Low Noise PCL: 0 / 30.0 dBm Chan./Freq.: 810 / 1909.8 MHz



GSM 0 TSC detected

	Current	Average	Max / Min
Phase Error	Peak - 4.3 °	5.8 °	9.5 °
	RMS 1.6 °	1.7 °	2.1 °
Origin Offset	- 46.5 dB	- 48.6 dB	- 39.3 dB
I/Q Imbalance	- 44.5 dB	- 46.8 dB	- 40.6 dB
Frequency Error	116 Hz	118 Hz	135 Hz

- 0.5 Bit

Timing Advance Error

30.0 dBm

Avg. Burst Power (Cur.)

100 Bursts

Statistic Count

0.00 %

Bursts out of Tolerance

Ext. Phase
Err. GSMK

Analyzer
Level

MS Signal

BS Signal

Overview

Power

Modulation

Spectrum

Receiver
Quality

Menus

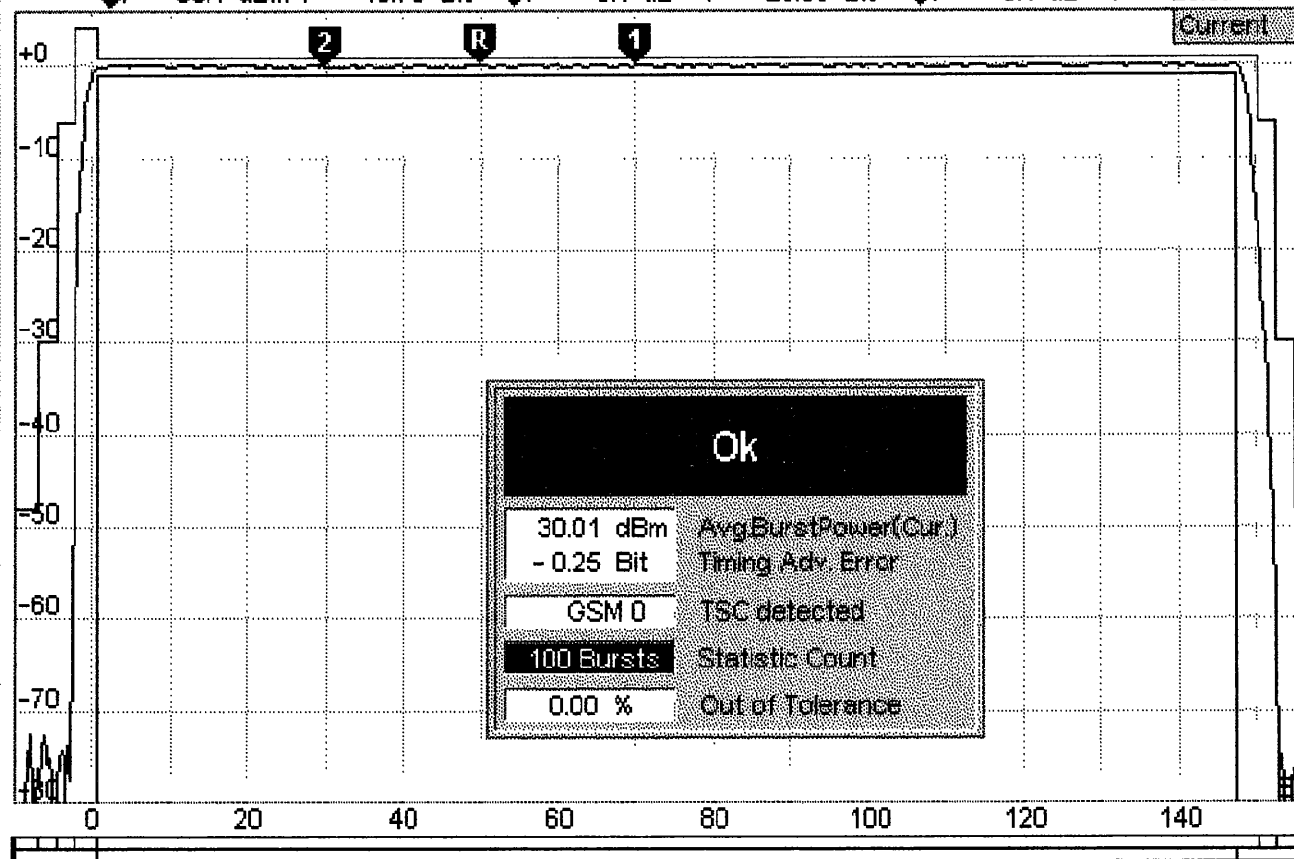
Group
Config

GSM 1900 Power



Connect.
Control

dB Max. Level: Auto Low Noise PCL: 0 / 30.0 dBm Chan./Freq.: 810 / 1909.8 MHz
1: 30.1 dBm / 49.75 Bit 0: -0.1 dB / +20.00 Bit 2: -0.1 dB / -20.00 Bit



Run P/t Norm.
GMSK

Appli-
cation

Analyzer
Level

MS Signal

BS Signal

Marker
Display

Menus

Overview

Power

Modulation

Spectrum

Receiver
Quality

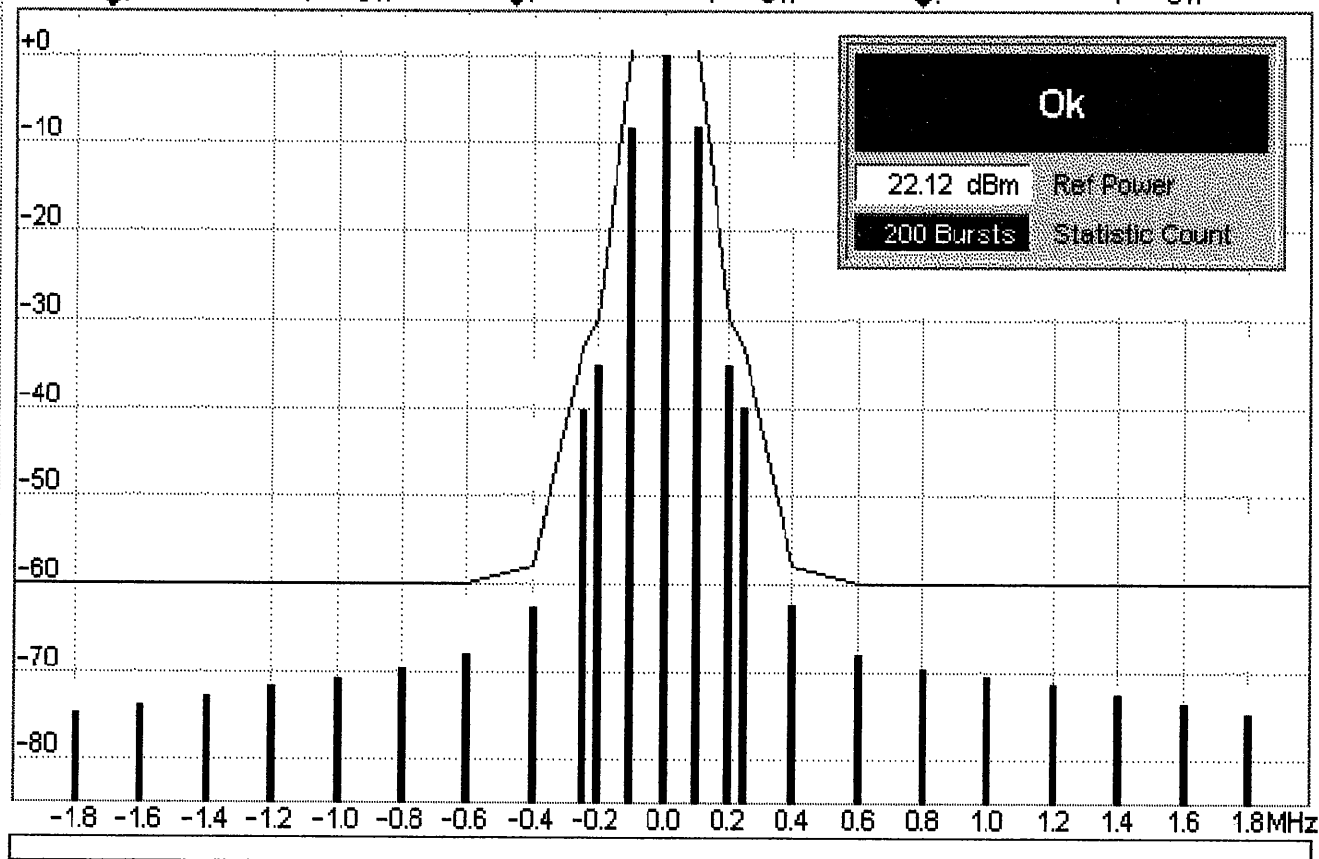
Group
Config

GSM 1900 Spectrum



Connect.
Control

dBc Max. Level: Auto Low Noise PCL: 0 / 30.0 dBm Chan./Freq.: 661 / 1880.0 MHz
↓: --- / Off ↓: --- / Off ↓: --- / Off



Modulation
GMSK

Appli-
cation

Analyzer
Level

MS Signal

BS Signal

Marker

Menus

Overview

Power

Modulation

Spectrum

Receiver
Quality

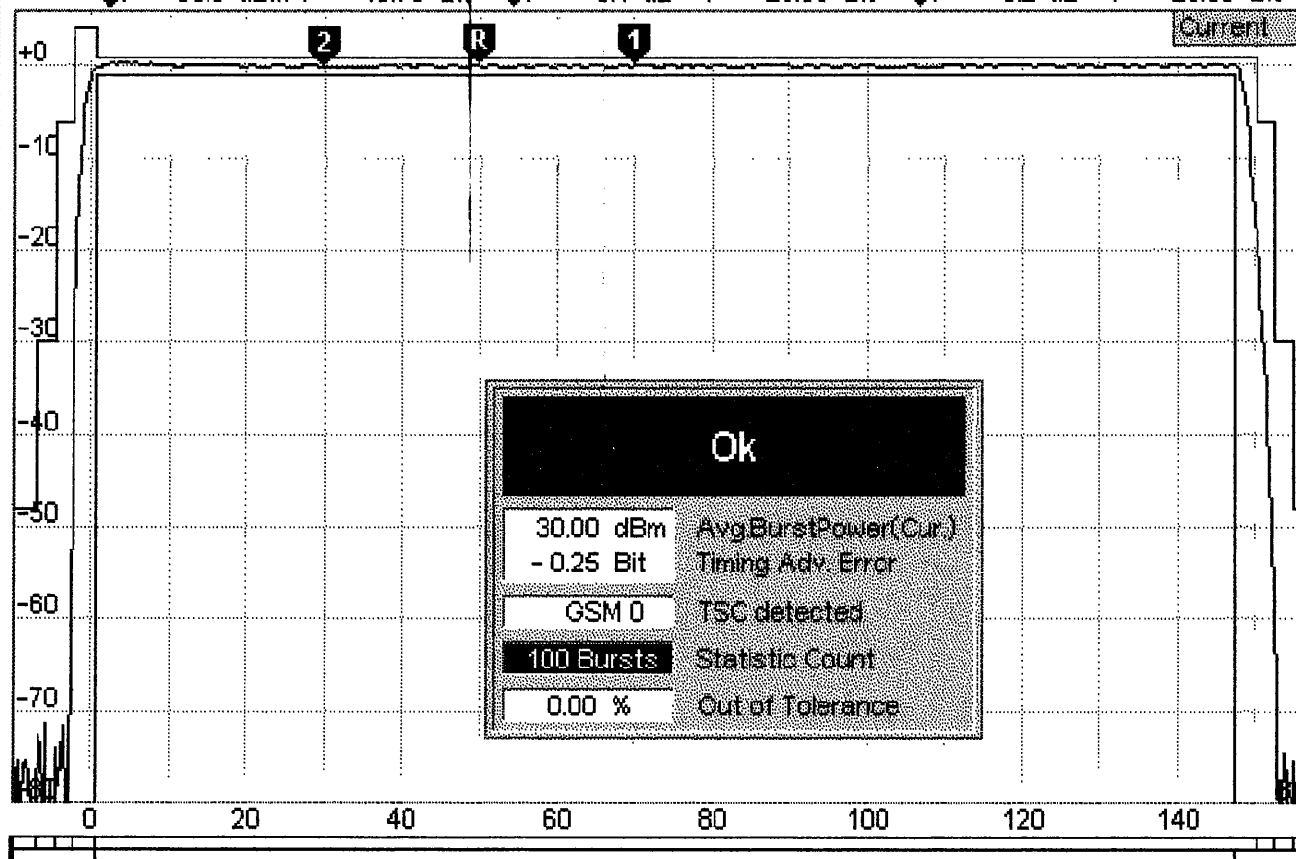
Group
Config

GSM 1900 Power



Connect.
Control

dB Max. Level: Auto Low Noise PCL: 0 / 30.0 dBm Chan./Freq.: 661 / 1880.0 MHz
1: 30.0 dBm / 49.75 Bit 2: -0.1 dB / +20.00 Bit 3: -0.2 dB / -20.00 Bit



RUN P/t Norm.
GMSK

Appli-
cation

Analyzer
Level

MS Signal

BS Signal

Marker
Display

Menus

Overview

Power

Modulation

Spectrum

Receiver
Quality

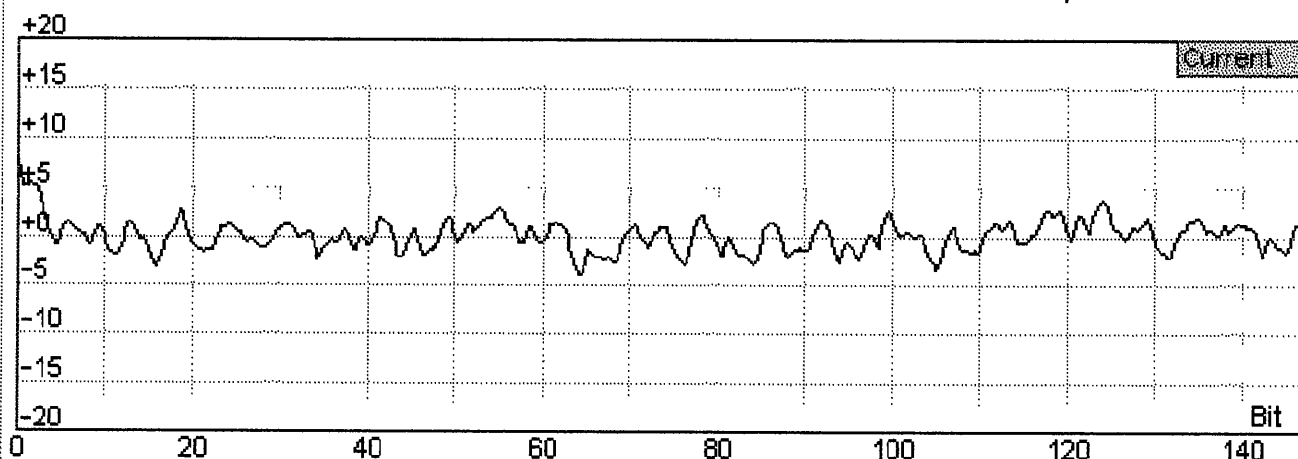
Group
Config

GSM 1900 Modulation



Connect.
Control

Max. Level: Auto Low Noise PCL: 0 / 30.0 dBm Chan./Freq.: 661 / 1880.0 MHz



Ext. Phase
Err. GMSK

Analyzer
Level

MS Signal

BS Signal

GSM 0 TSC detected

	Current	Average	Max / Min
Phase Error	7.7 °	7.9 °	10.2 °
	1.6 °	1.8 °	2.1 °
Origin Offset	-55.4 dB	-48.6 dB	-41.1 dB
I/Q Imbalance	-49.0 dB	-48.4 dB	-41.6 dB
Frequency Error	106 Hz	101 Hz	117 Hz

- 0.3 Bit

Timing Advance Error

30.0 dBm

Avg. Burst Power (Cur)

100 Bursts

Statistic Count

0.00 %

Bursts out of Tolerance

Overview

Power

Modulation

Spectrum

Receiver
Quality

Menus

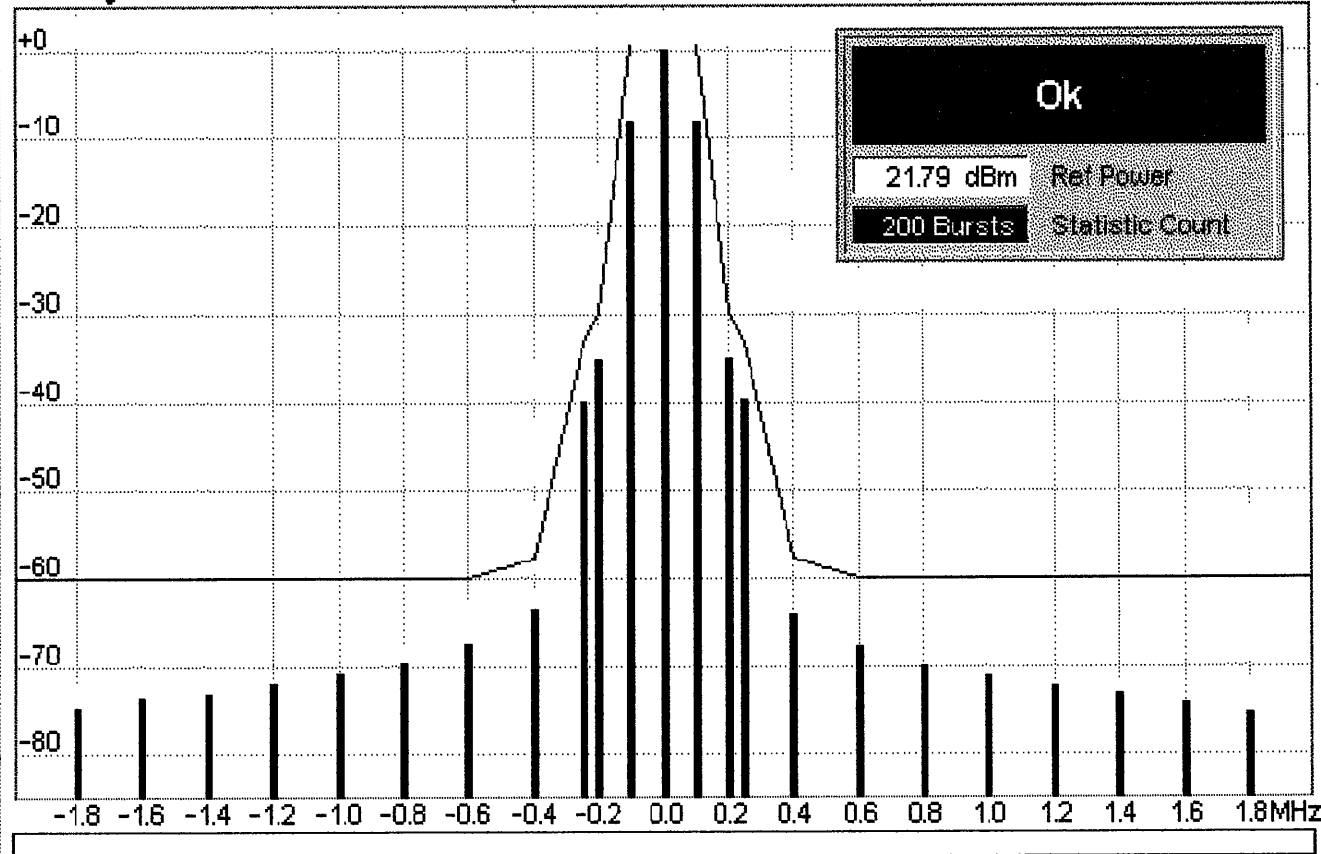
Group
Config

GSM 1900 Spectrum



Connect.
Control

dBc Max. Level: Auto Low Noise PCL: 0 / 30.0 dBm Chan./Freq.: 512 / 1850.2 MHz
dB: --- / Off dB: --- / Off dB: --- / Off



Modulation
GMSK

Appli-
cation

Analyzer
Level

MS Signal

BS Signal

Marker

Menus

Overview

Power

Modulation

Spectrum

Receiver
Quality

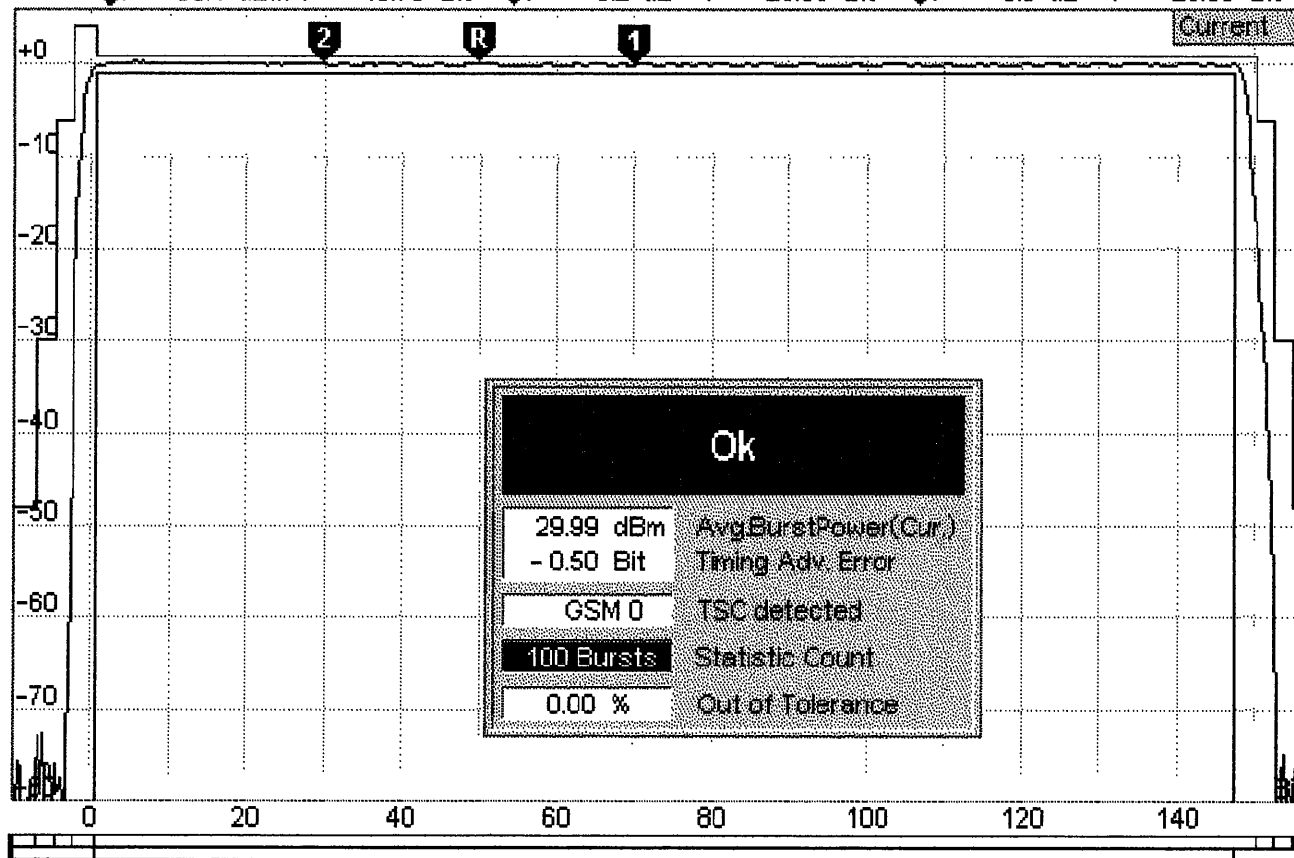
Group
Config

GSM 1900 Power



Connect.
Control

dB Max. Level: Auto Low Noise PCL: 0 / 30.0 dBm Chan./Freq.: 512 / 1850.2 MHz
R: 30.1 dBm / 49.75 Bit 1: -0.2 dB / +20.00 Bit 2: 0.0 dB / -20.00 Bit



RUN P/t Norm.
GMSK

Appli-
cation

Analyzer
Level

MS Signal

BS Signal

Marker
Display

Menus

RF Max
Level

RF
Mode

RF
Attenuation

Trigger
Source

Trigger
Level

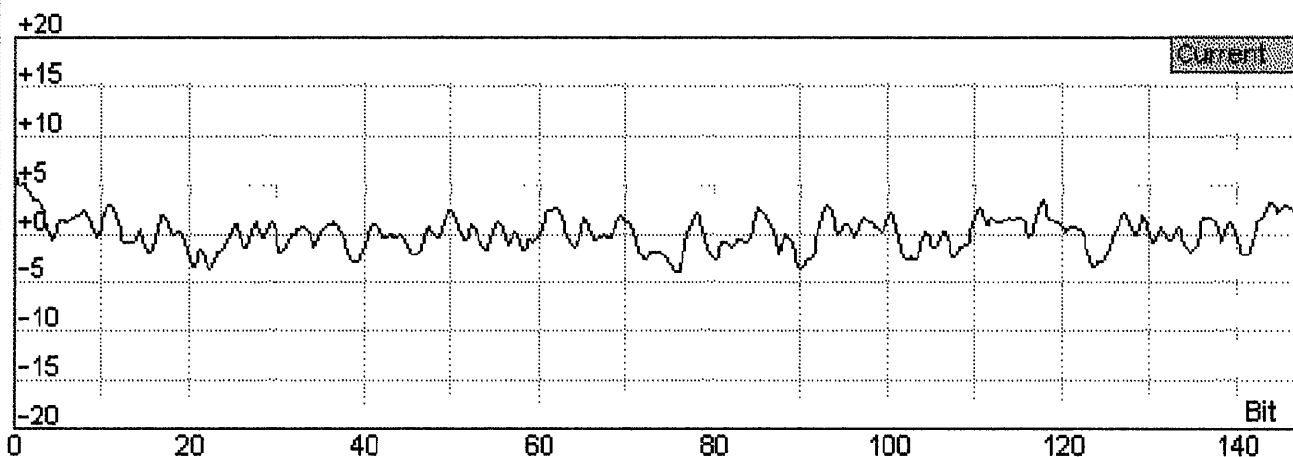
Group
Config

GSM 1900 Modulation



Connect.
Control

Max. Level: Auto Low Noise PCL: 0 / 30.0 dBm Chan./Freq.: 512 / 1850.2 MHz



Ext. Phase
Err. GMSK

Analyzer
Level

MS Signal

BS Signal

GSM 0 TSC detected

	Current	Average	Max / Min
Phase Error	Peak 6.4 °	6.3 °	8.8 °
	RMS 1.7 °	1.7 °	2.1 °
Origin Offset	-46.9 dB	-48.8 dB	-39.1 dB
I/Q Imbalance	-56.6 dB	-48.1 dB	-40.7 dB
Frequency Error	106 Hz	94 Hz	113 Hz

-0.3 Bit

Timing Advance Error

30.0 dBm

Avg. Burst Power (Cur.)

100 Bursts

Statistic Count

0.00 %

Bursts out of Tolerance

Overview

Power

Modulation

Spectrum

Receiver
Quality

Menus