

■ WCDMA1900 MODE (9538 CH.) – 4 MHz Span



■ WCDMA1700 MODE (1312 CH.) Block Edge



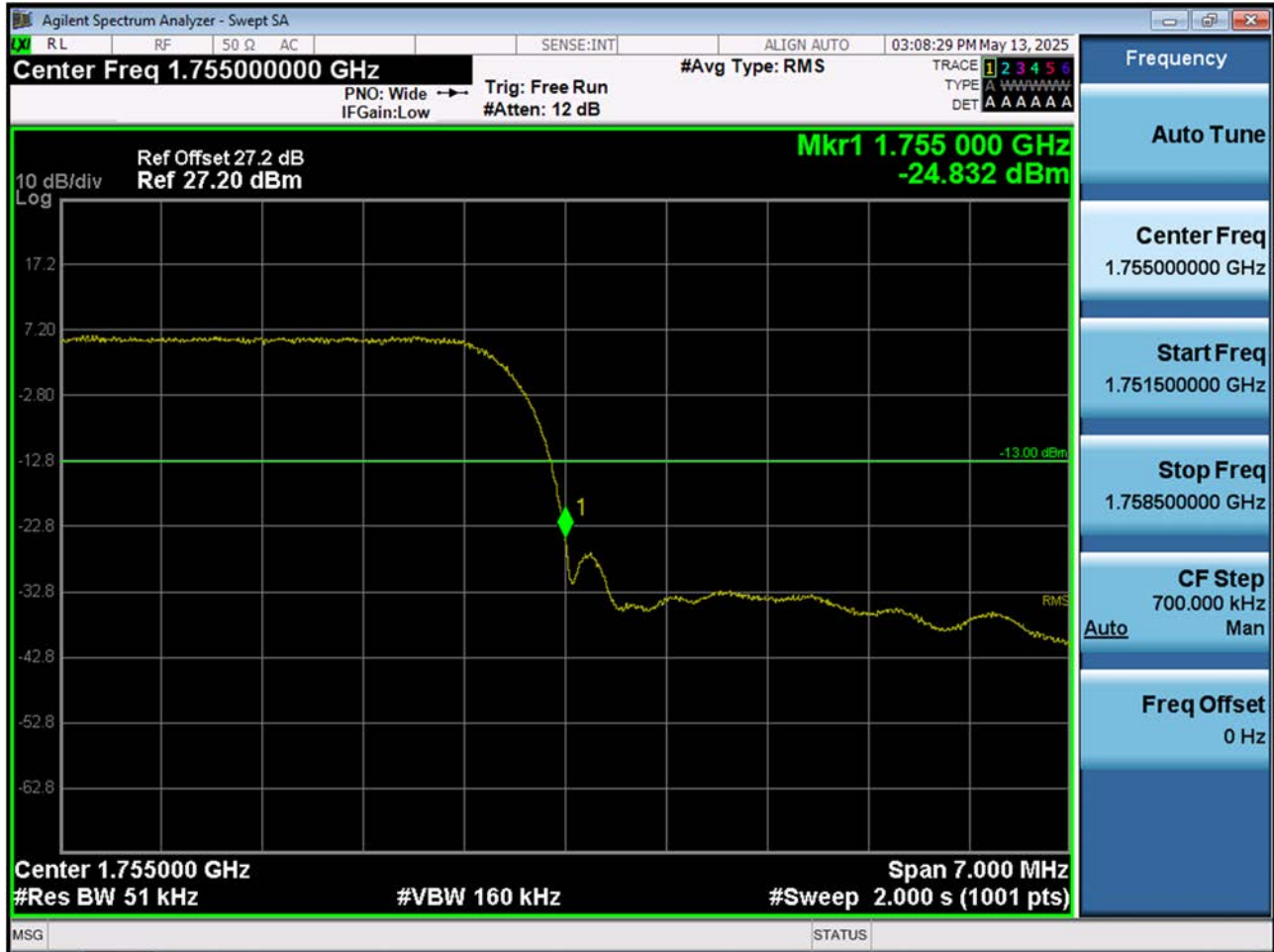
WCDMA1700 MODE (1312 CH.) – 4 MHz Span



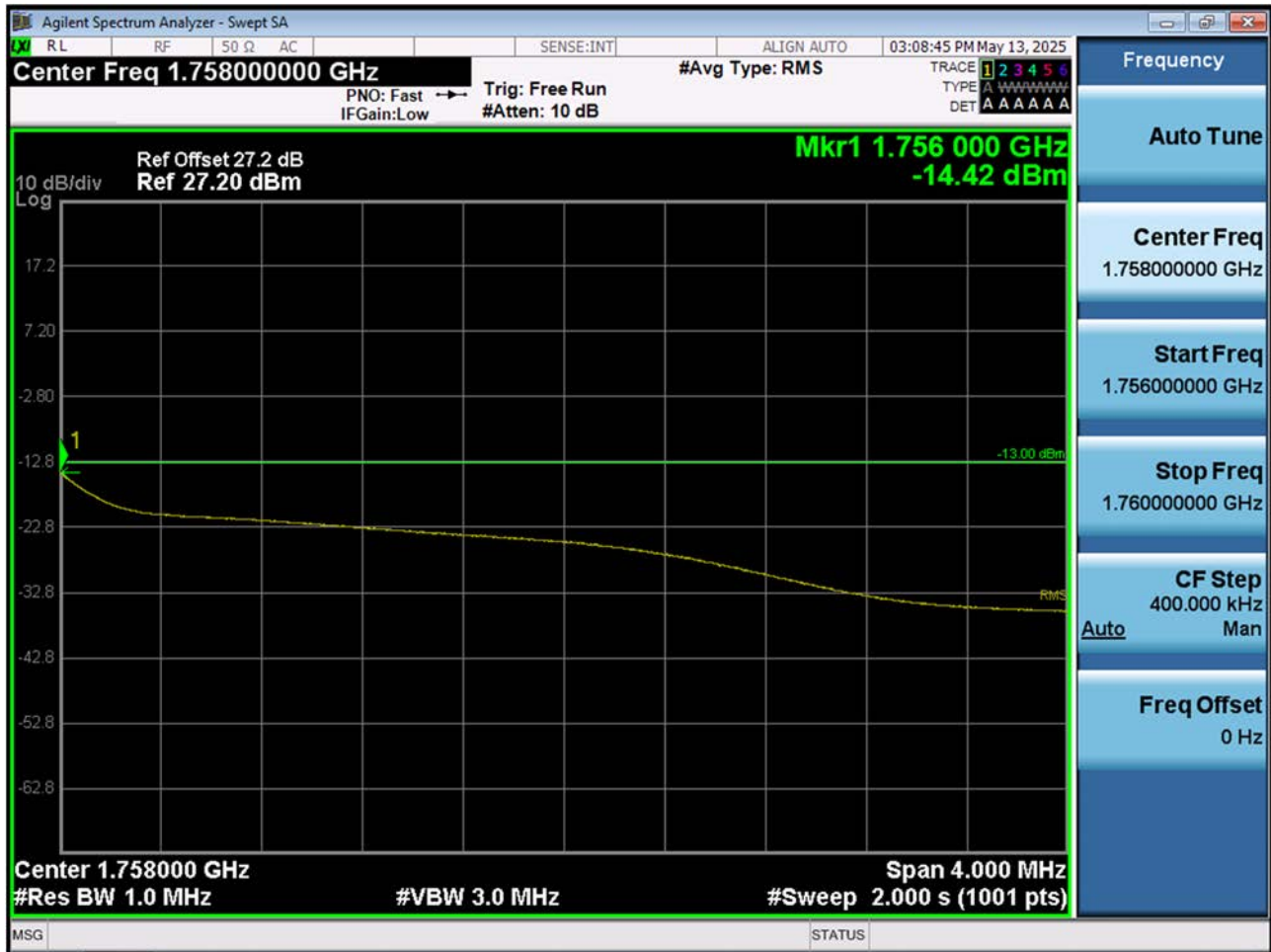
Note : We used a narrower RBW in order to increase accuracy.

$$\text{Calculation} = \text{Reading Value} + 10 \times \log(1 \text{ MHz}/100 \text{ kHz}) \text{ dB} = -25.643 \text{ dBm} + 10 \text{ dB} = -15.643 \text{ dBm}$$

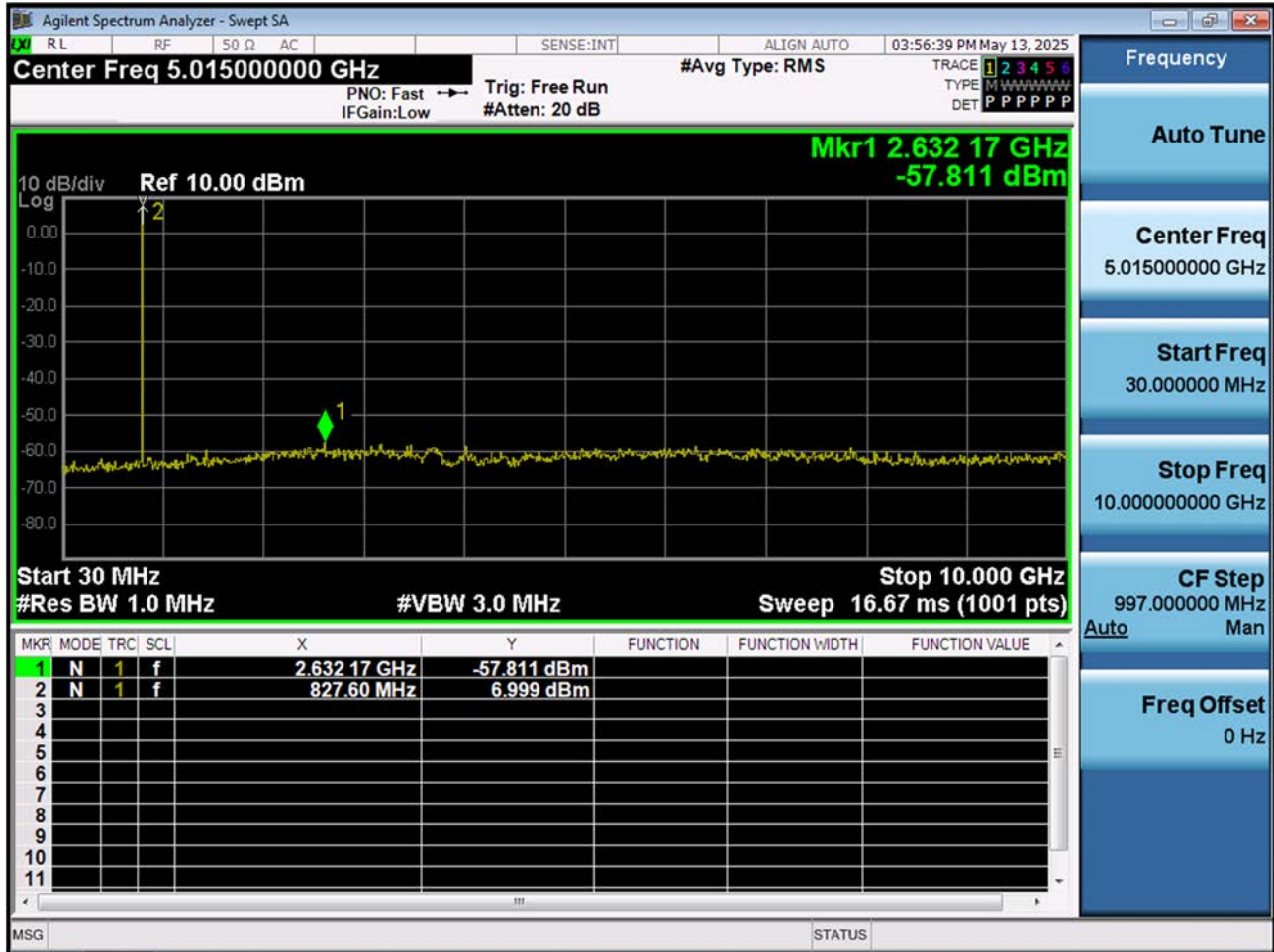
WCDMA1700 MODE (1513 CH.) Block Edge



WCDMA1700 MODE (1513 CH.) – 4 MHz Span



■ GSM850 MODE (128 CH.) Conducted Spurious Emissions



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 03:57:04 PM May 13, 2025

Center Freq 5.01500000 GHz #Avg Type: RMS

PNO: Fast IFGain:Low Trig: Free Run #Atten: 20 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W W W
DET P P P P P P P

10 dB/div Ref 10.00 dBm

Mkr1 3.738 84 GHz
-57.744 dBm

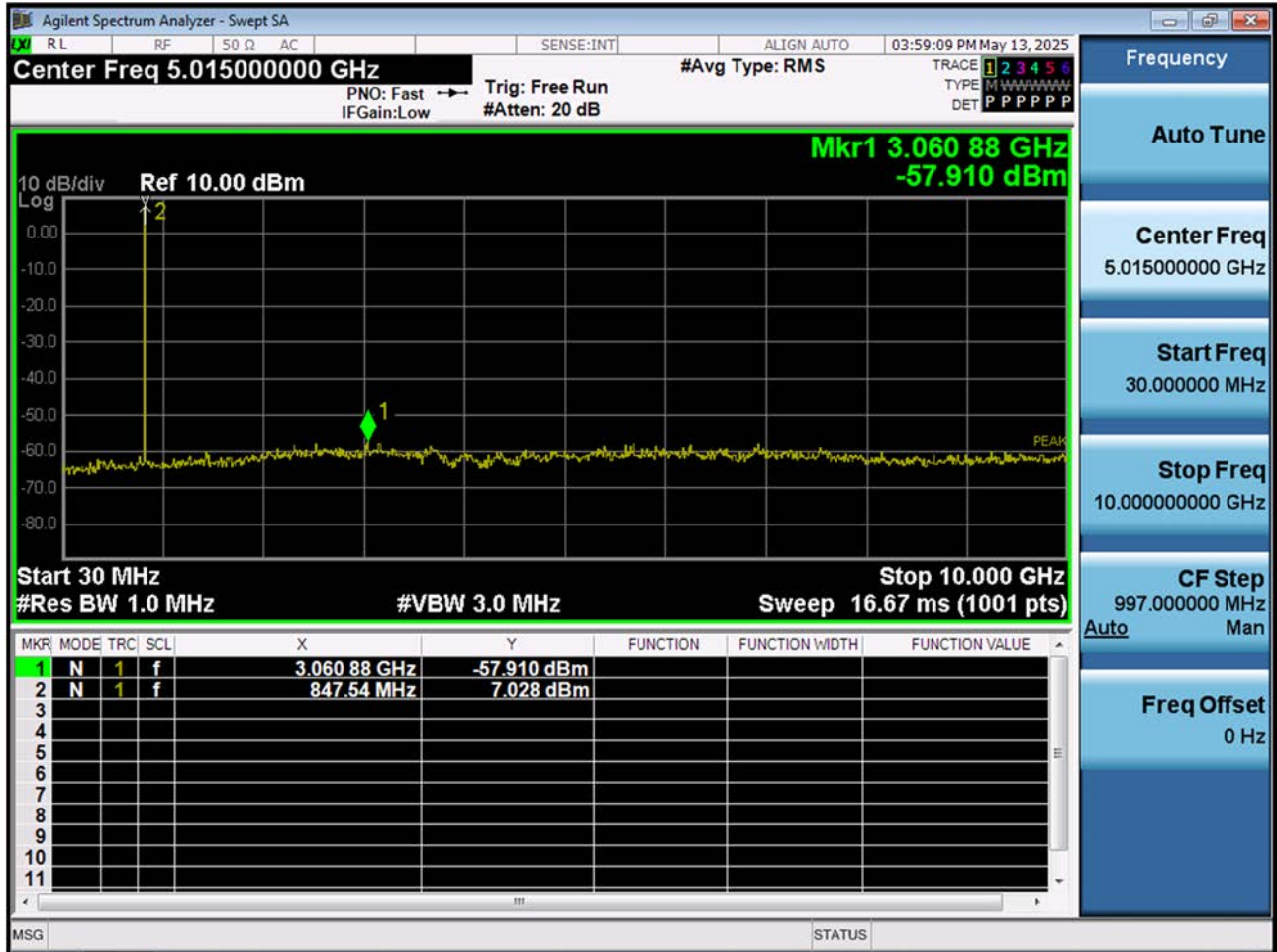
Start 30 MHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 10.000 GHz
Sweep 16.67 ms (1001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	3.738 84 GHz	-57.744 dBm			
2	N	1	f	837.57 MHz	6.997 dBm			
3								
4								
5								
6								
7								
8								
9								
10								
11								

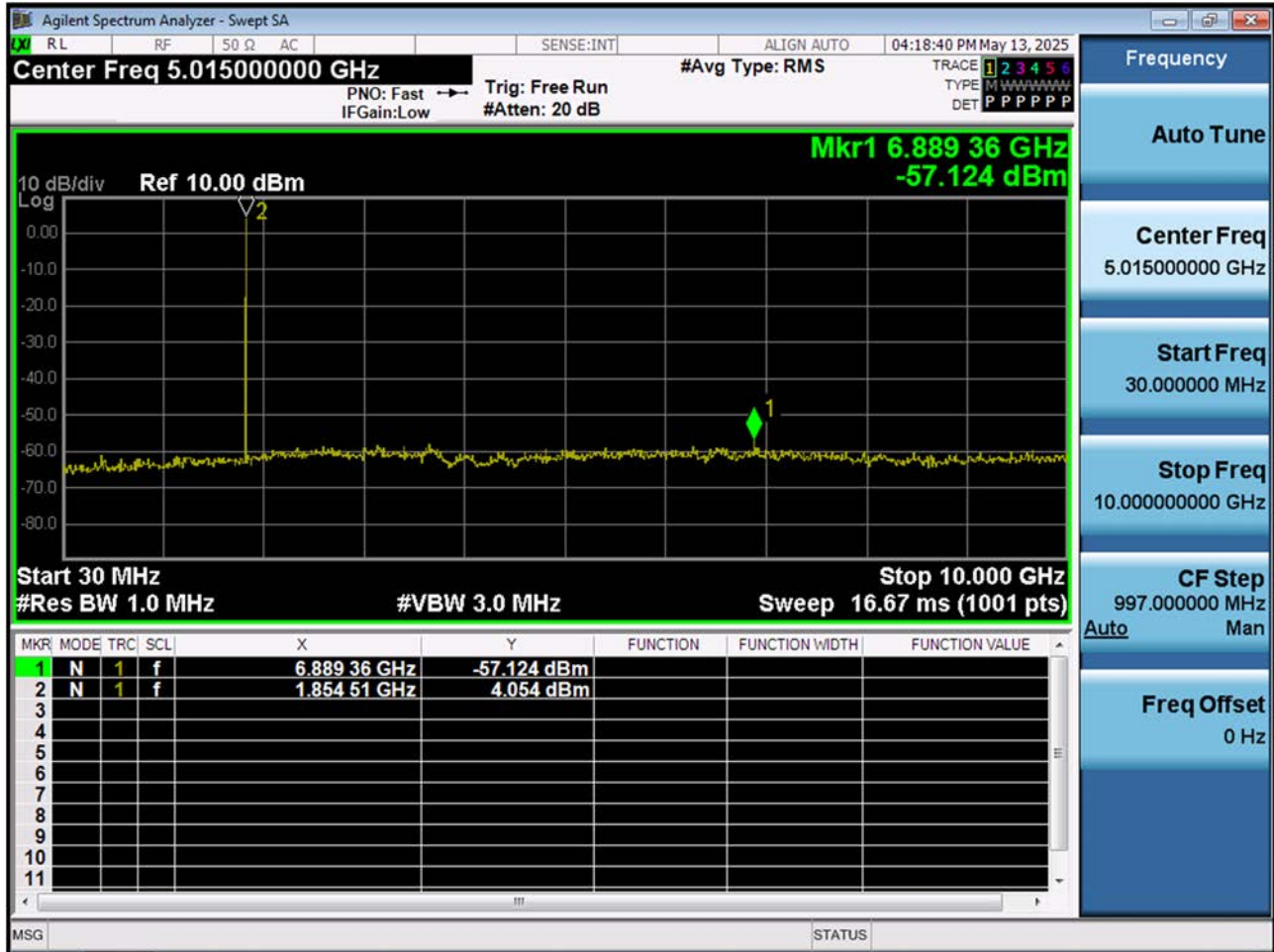
MSG STATUS

Frequency
Auto Tune
Center Freq
5.01500000 GHz
Start Freq
30.000000 MHz
Stop Freq
10.00000000 GHz
CF Step
997.000000 MHz
Auto Man
Freq Offset
0 Hz

■ GSM850 MODE (251 CH.) Conducted Spurious Emissions



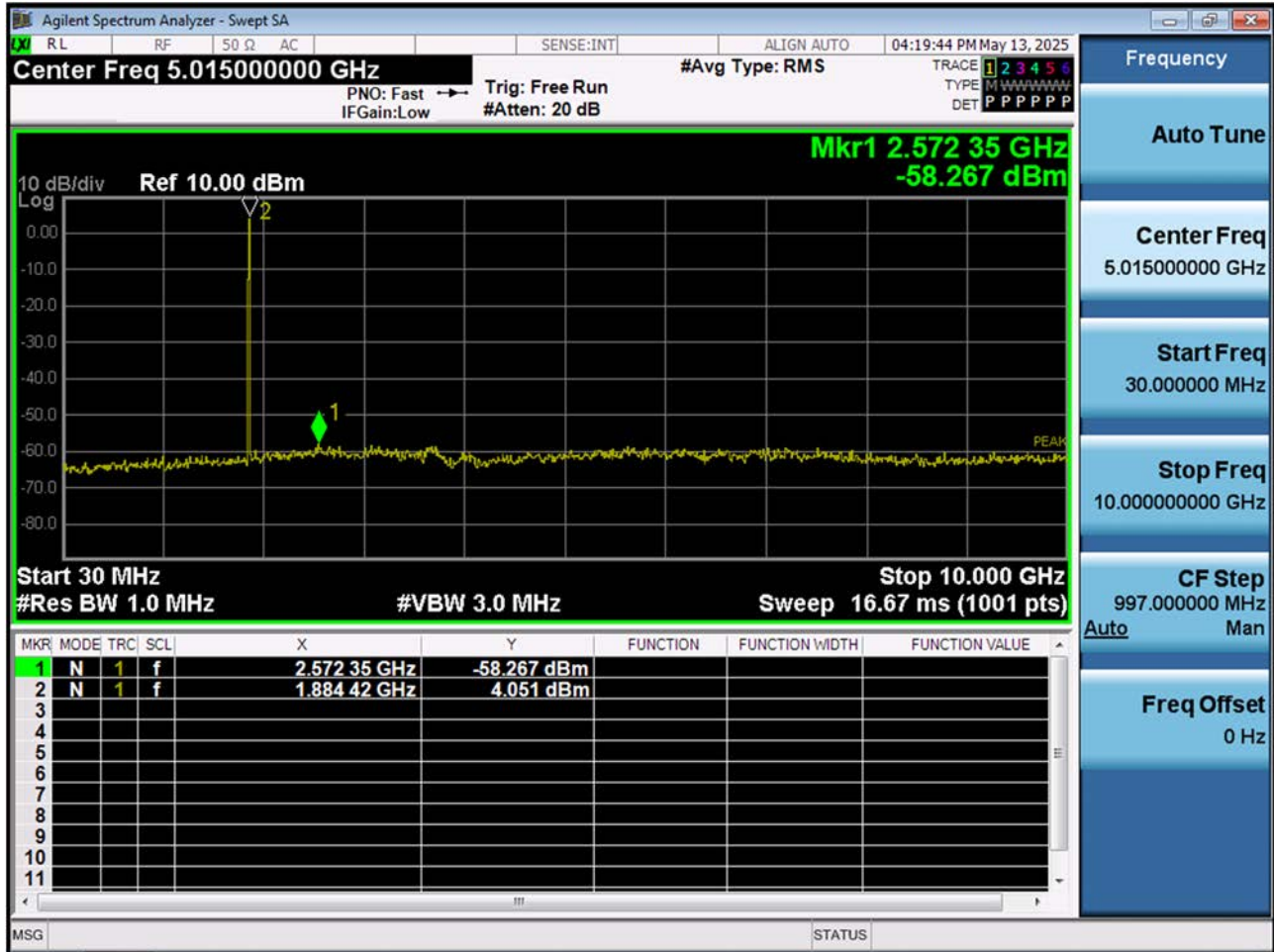
■ GSM1900 MODE (512 CH.) Conducted Spurious Emissions1



■ GSM1900 MODE (512 CH.) Conducted Spurious Emissions2



■ GSM1900 MODE (661 CH) Conducted Spurious Emissions1



■ GSM1900 MODE (661 CH.) Conducted Spurious Emissions2

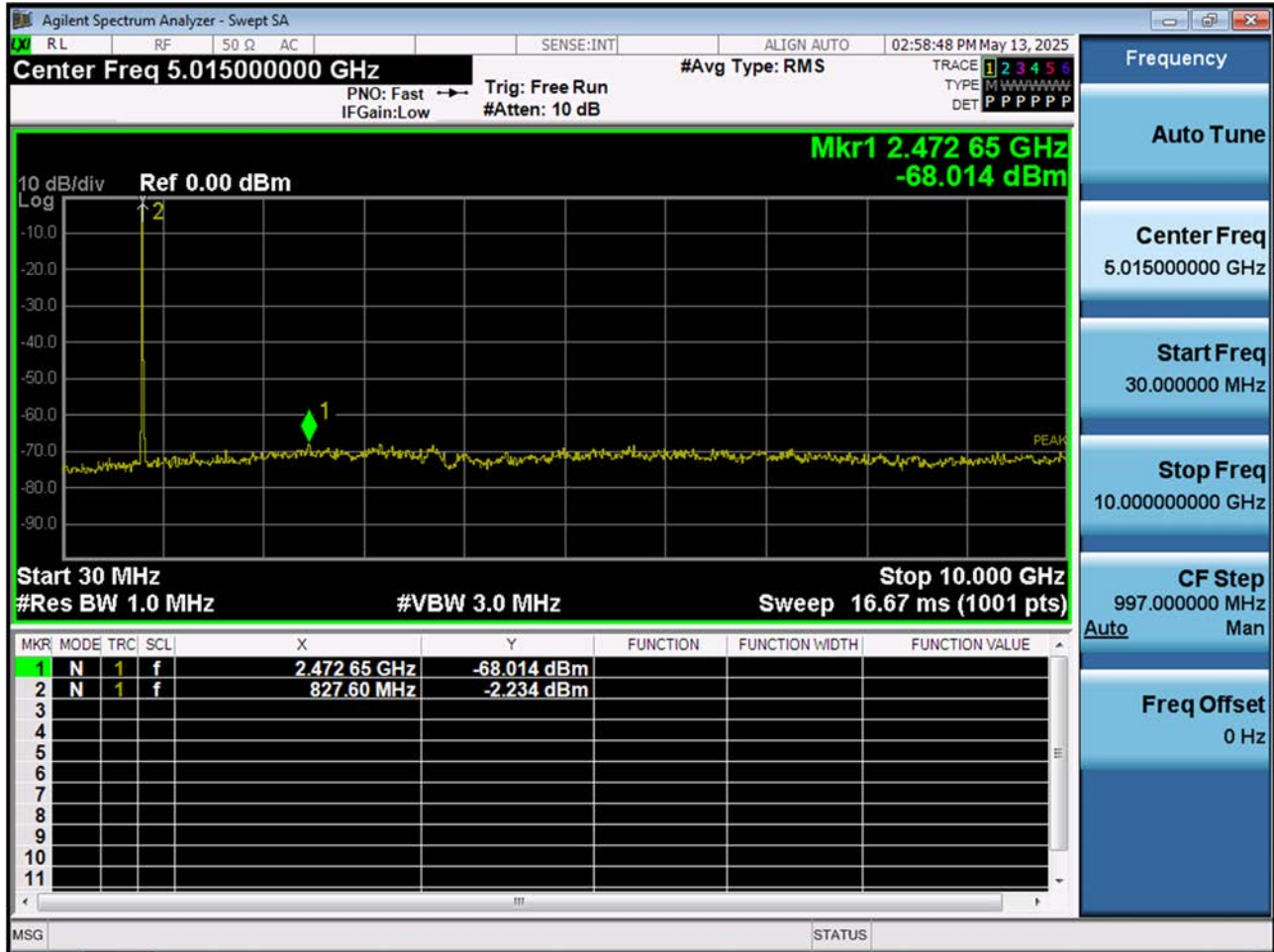


[illegible]

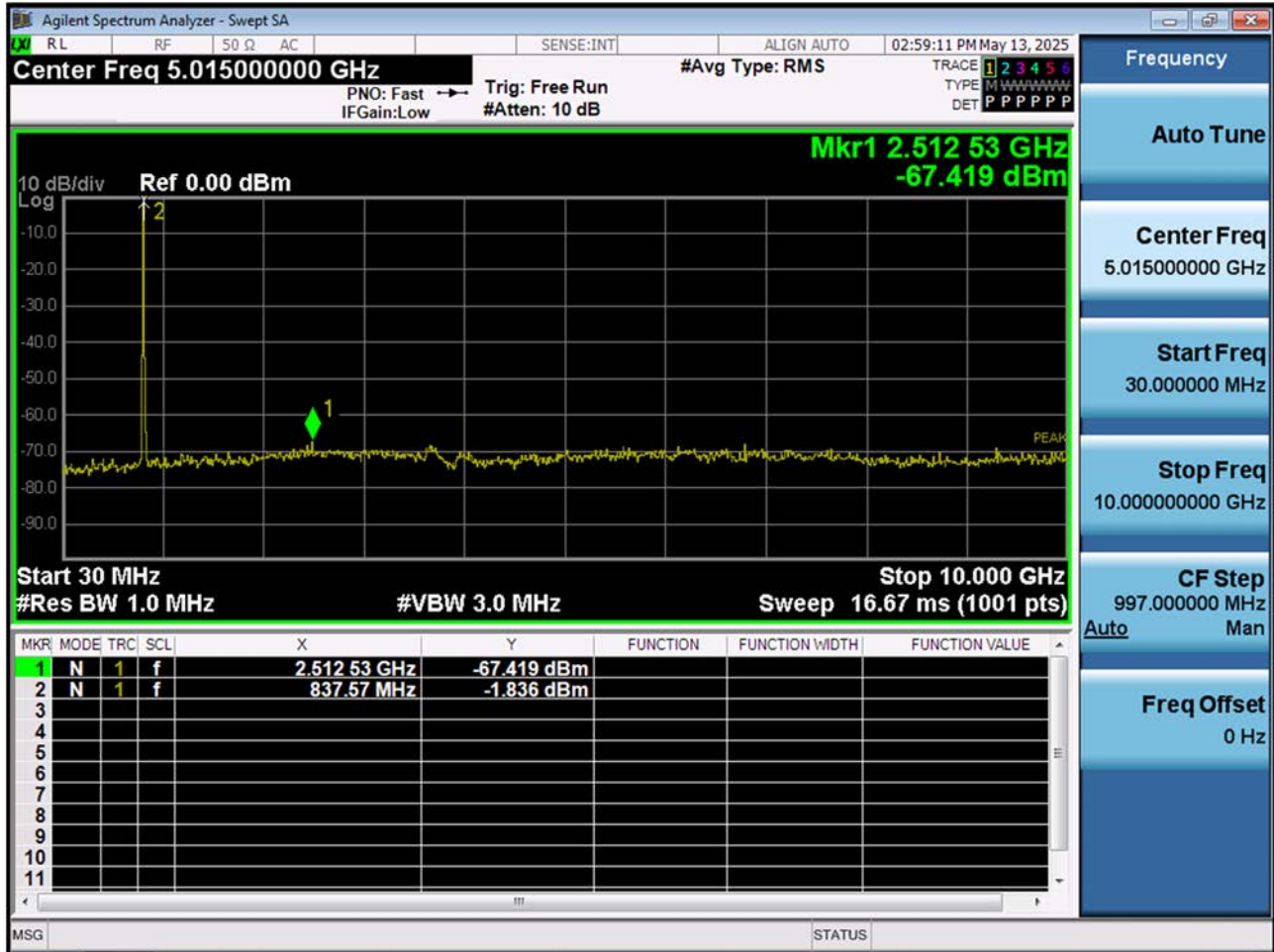
■ GSM1900 MODE (810 CH.) Conducted Spurious Emissions2



■ WCDMA850 MODE (4132 CH.) Conducted Spurious Emissions

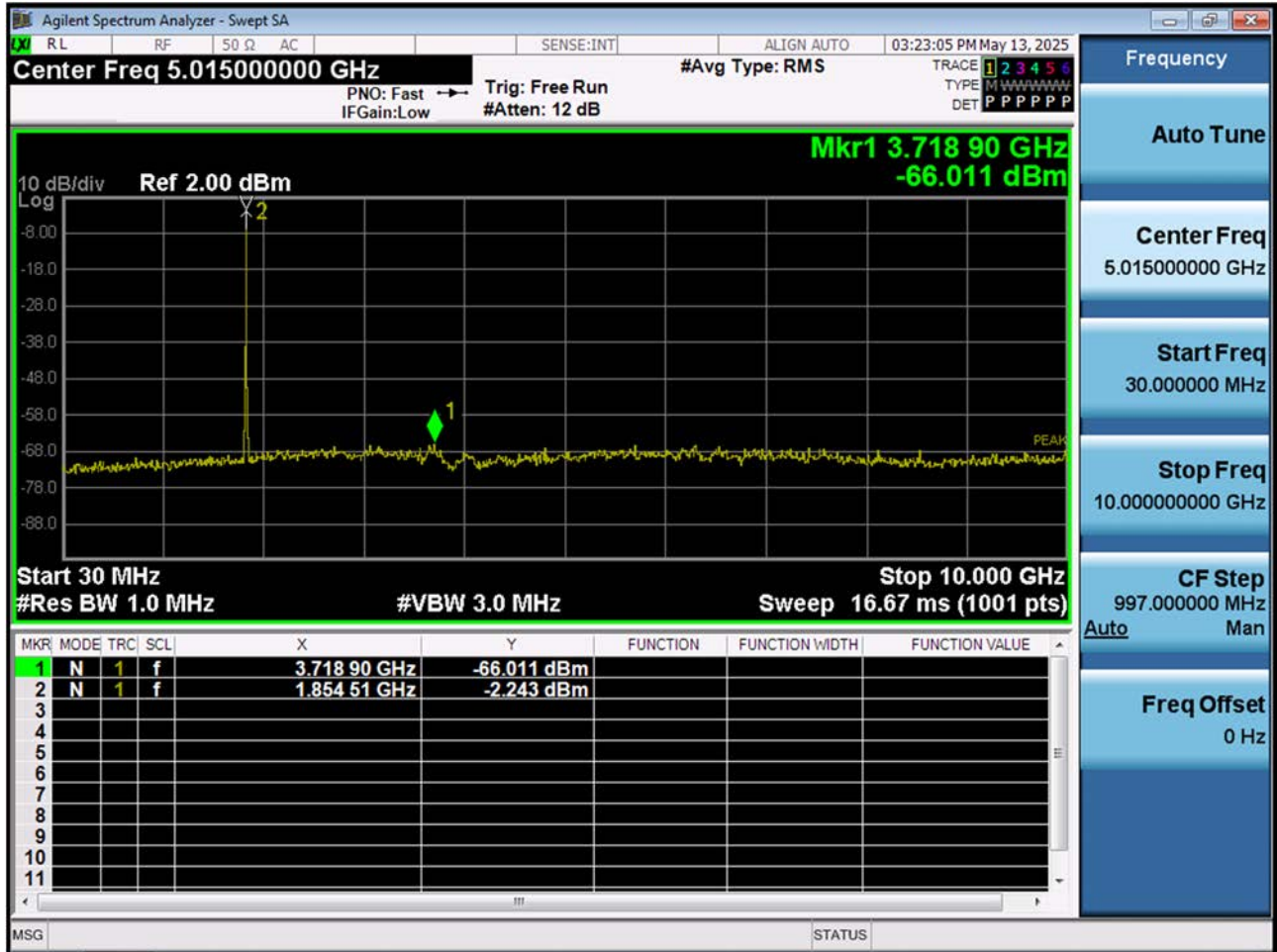


■ WCDMA850 MODE (4183 CH.) Conducted Spurious Emissions



[illegible]

■ WCDMA1900 MODE (9262 CH.) Conducted Spurious Emissions1



Agilent Spectrum Analyzer - Swept SA

Center Freq 15.00000000 GHz

Trig: Free Run

#Avg Type: RMS

PNO: Fast →

IFGain:Low

#Atten: 12 dB

03:23:15 PM May 13, 2025

TRACE 1 2 3 4 5 6

TYPE M W W W W W W W

DET P P P P P P

10 dB/div

Ref 2.00 dBm

Mkr1 18.62 GHz

-61.272 dBm

Start 10.000 GHz

#Res BW 1.0 MHz

#VBW 3.0 MHz

Sweep 25.00 ms (1001 pts)

Stop 20.000 GHz

MSG STATUS

Frequency

Auto Tune

Center Freq

15.00000000 GHz

Start Freq

10.00000000 GHz

Stop Freq

20.00000000 GHz

CF Step

1.00000000 GHz

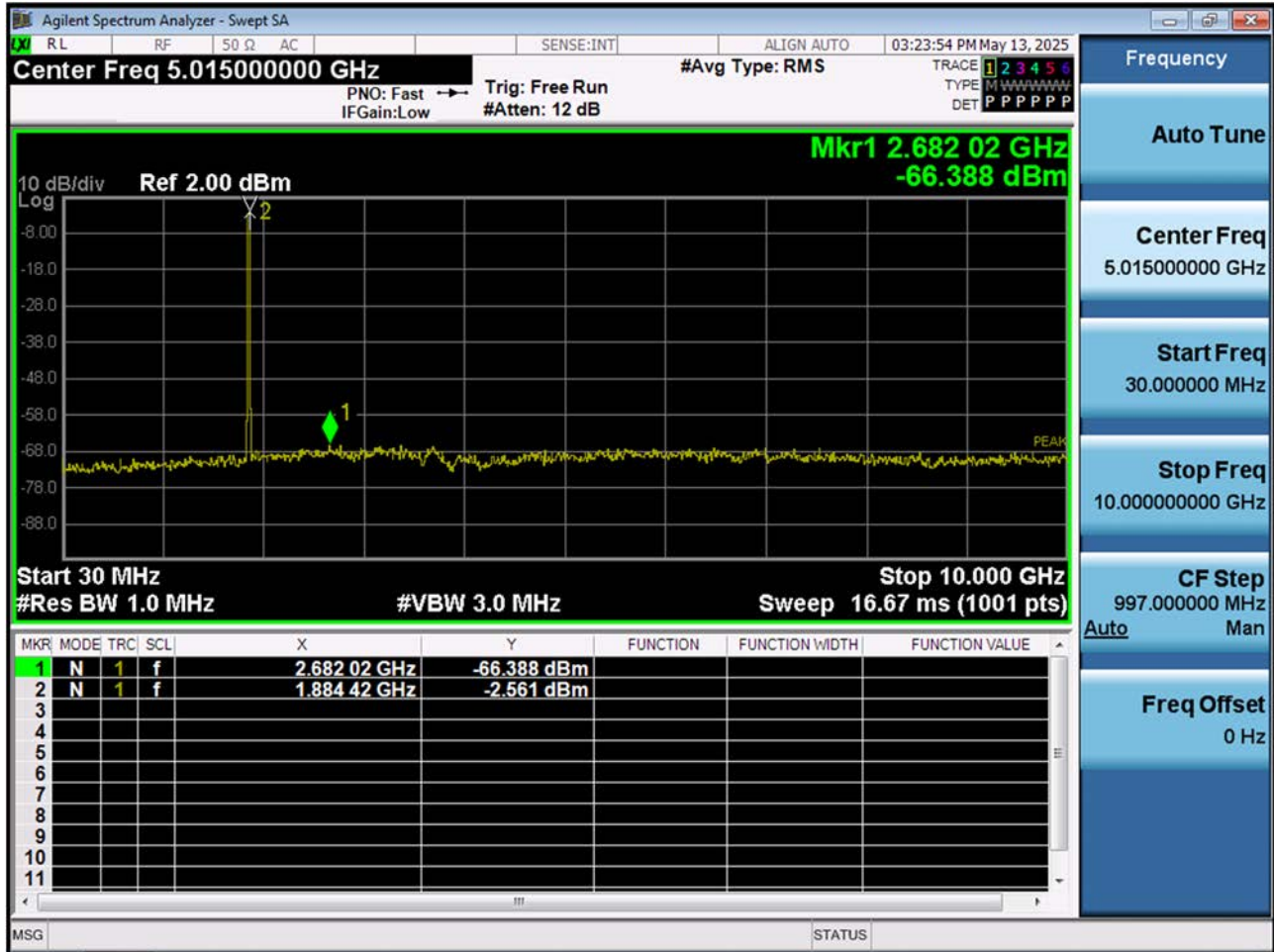
Auto

Man

Freq Offset

0 Hz

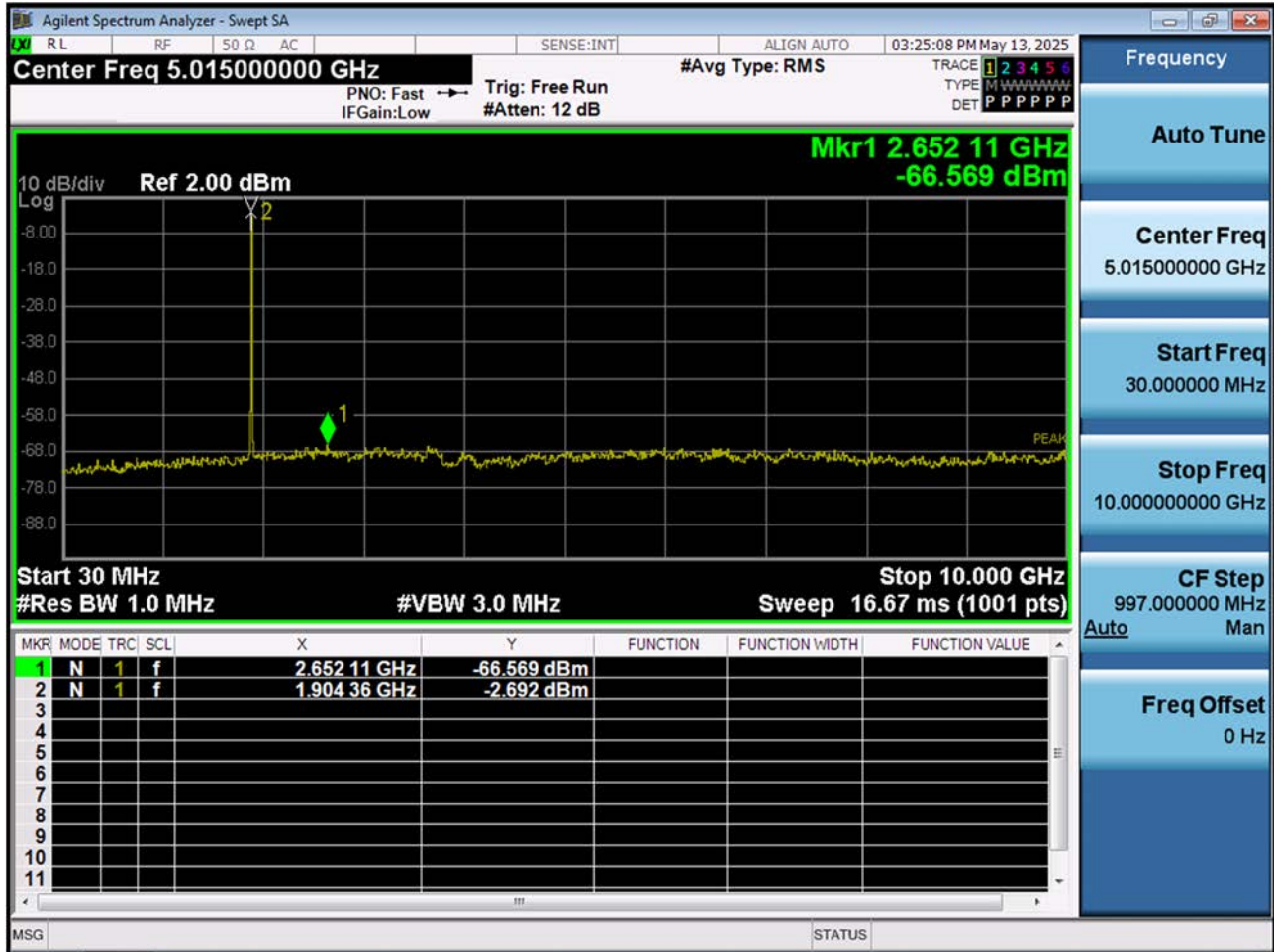
■ WCDMA1900 MODE (9400 CH.) Conducted Spurious Emissions1



■ WCDMA1900 MODE (9400 CH.) Conducted Spurious Emissions2



■ WCDMA1900 MODE (9538 CH.) Conducted Spurious Emissions1



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 03:25:18 PM May 13, 2025

Center Freq 15.00000000 GHz #Avg Type: RMS

PNO: Fast → Trig: Free Run
IFGain:Low #Atten: 12 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W W W
DET P P P P P P

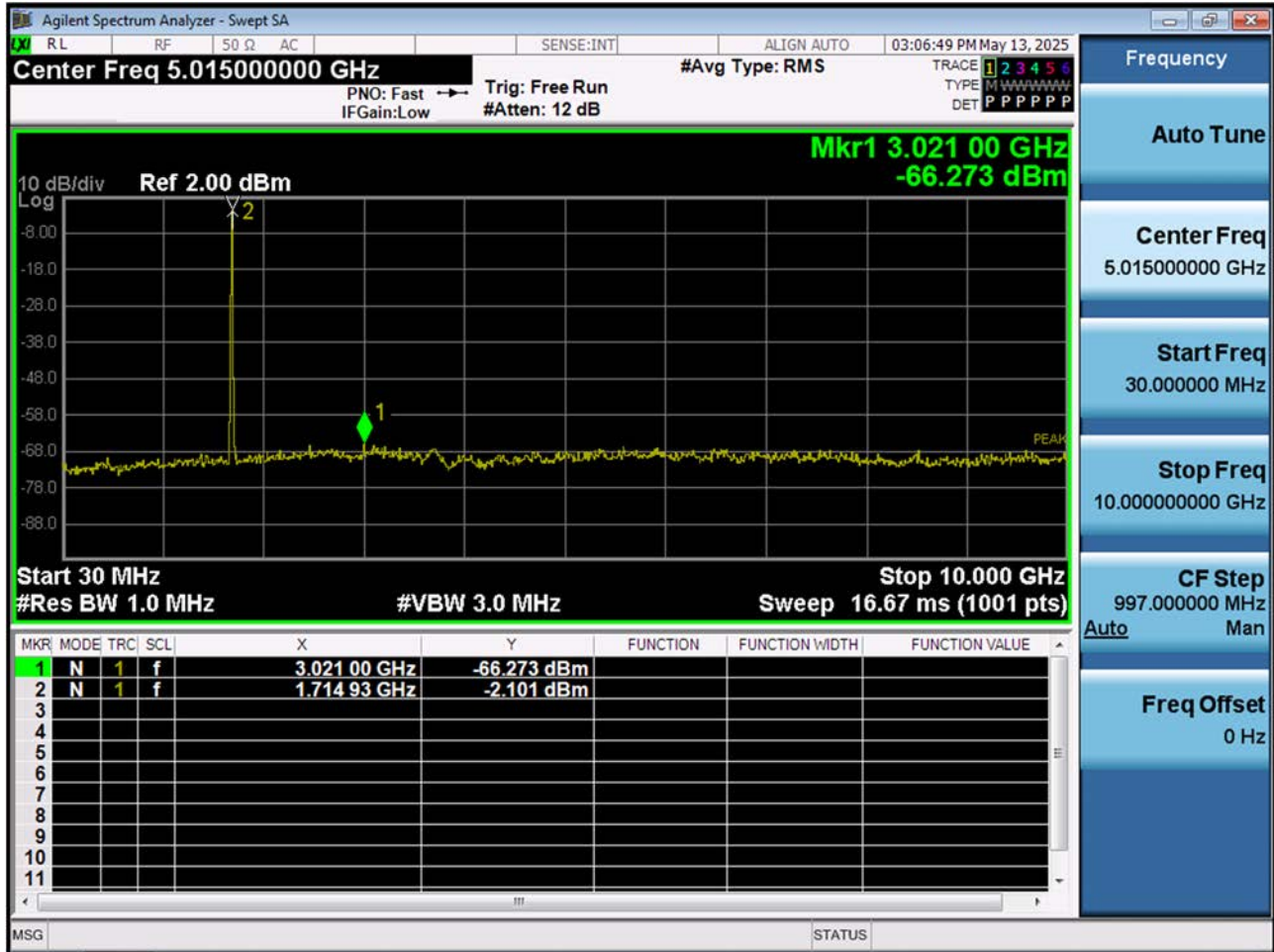
10 dB/div Ref 2.00 dBm

Mkr1 18.94 GHz
-61.344 dBm

Start 10.000 GHz Stop 20.000 GHz
#Res BW 1.0 MHz #VBW 3.0 MHz Sweep 25.00 ms (1001 pts)

The spectrum plot shows a noisy baseline around -75 dBm with a small peak at 18.94 GHz. The y-axis is labeled 'Log' and ranges from -8.00 to -88.00 dBm. The x-axis ranges from 10.000 GHz to 20.000 GHz.

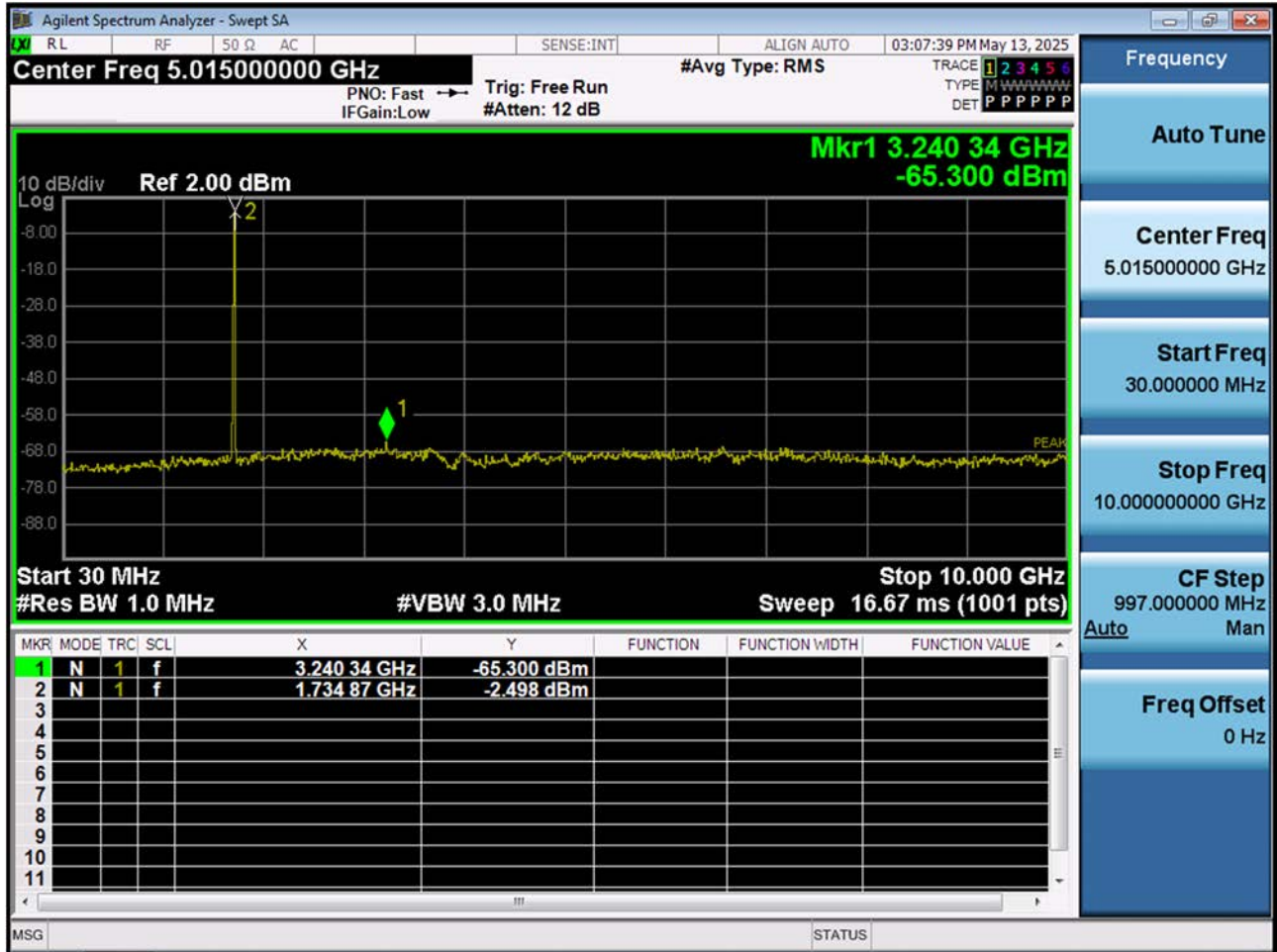
■ WCDMA1700 MODE (1312 CH.) Conducted Spurious Emissions1



■ WCDMA1700 MODE (1312 CH.) Conducted Spurious Emissions2



■ WCDMA1700 MODE (1412 CH.) Conducted Spurious Emissions1



WCDMA1700 MODE (1412 CH.) Conducted Spurious Emissions2



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 03:08:53 PM May 13, 2025

Center Freq 5.01500000 GHz #Avg Type: RMS

PNO: Fast → Trig: Free Run
IFGain:Low #Atten: 12 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET P P P P P P

10 dB/div Ref 2.00 dBm

Mkr1 3.669 05 GHz
-66.345 dBm

Start 30 MHz Stop 10.000 GHz
#Res BW 1.0 MHz #VBW 3.0 MHz Sweep 16.67 ms (1001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	3.669 05 GHz	-66.345 dBm			
2	N	1	f	1.754 81 GHz	-3.265 dBm			
3								
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency
Auto Tune
Center Freq 5.01500000 GHz
Start Freq 30.000000 MHz
Stop Freq 10.00000000 GHz
CF Step 997.000000 MHz
Auto Man
Freq Offset 0 Hz

Agilent Spectrum Analyzer - Swept SA

Center Freq 15.00000000 GHz

10 dB/div **Ref 2.00 dBm**

Start 10.000 GHz **Stop 20.000 GHz**

#Res BW 1.0 MHz **#VBW 3.0 MHz** **Sweep 25.00 ms (1001 pts)**

Mkr1 19.52 GHz
-61.828 dBm

Trig: Free Run **#Atten: 12 dB**

#Avg Type: RMS

Trace 1 **TYPE M** **DET P**

Frequency

Auto Tune

Center Freq
15.00000000 GHz

Start Freq
10.00000000 GHz

Stop Freq
20.00000000 GHz

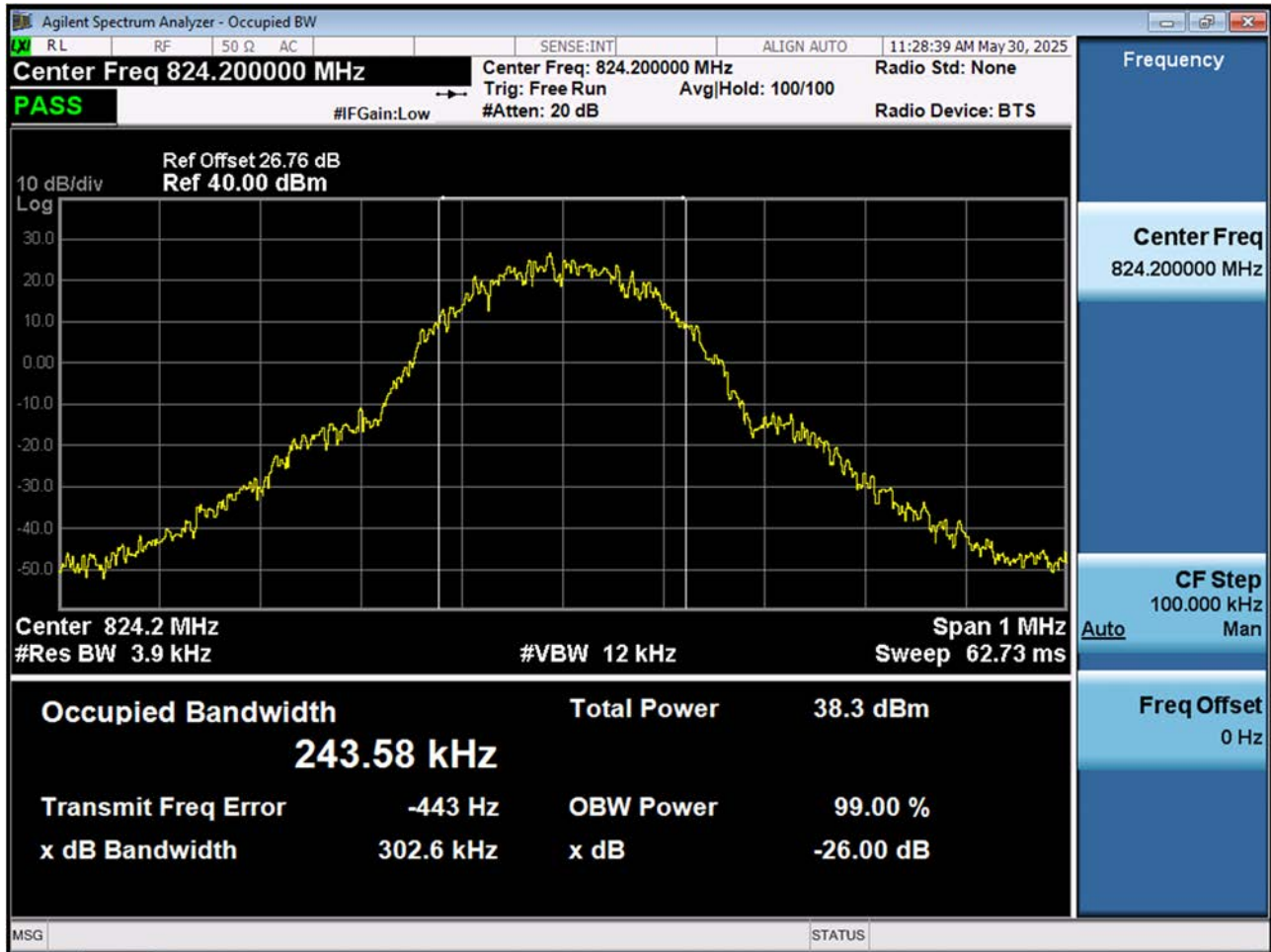
CF Step
1.00000000 GHz

Auto **Man**

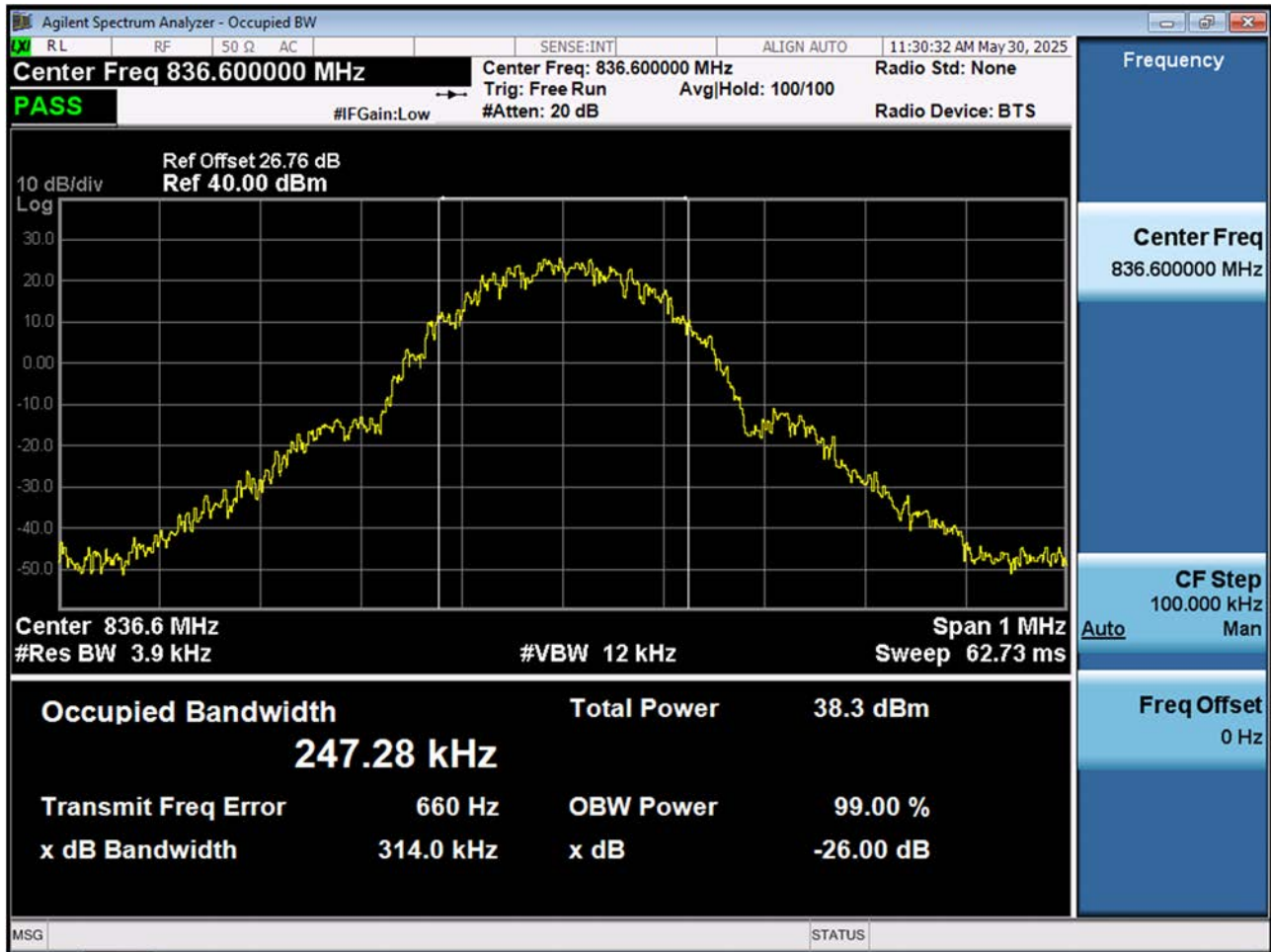
Freq Offset
0 Hz

11. TEST PLOTS(Sub 1 ANT)

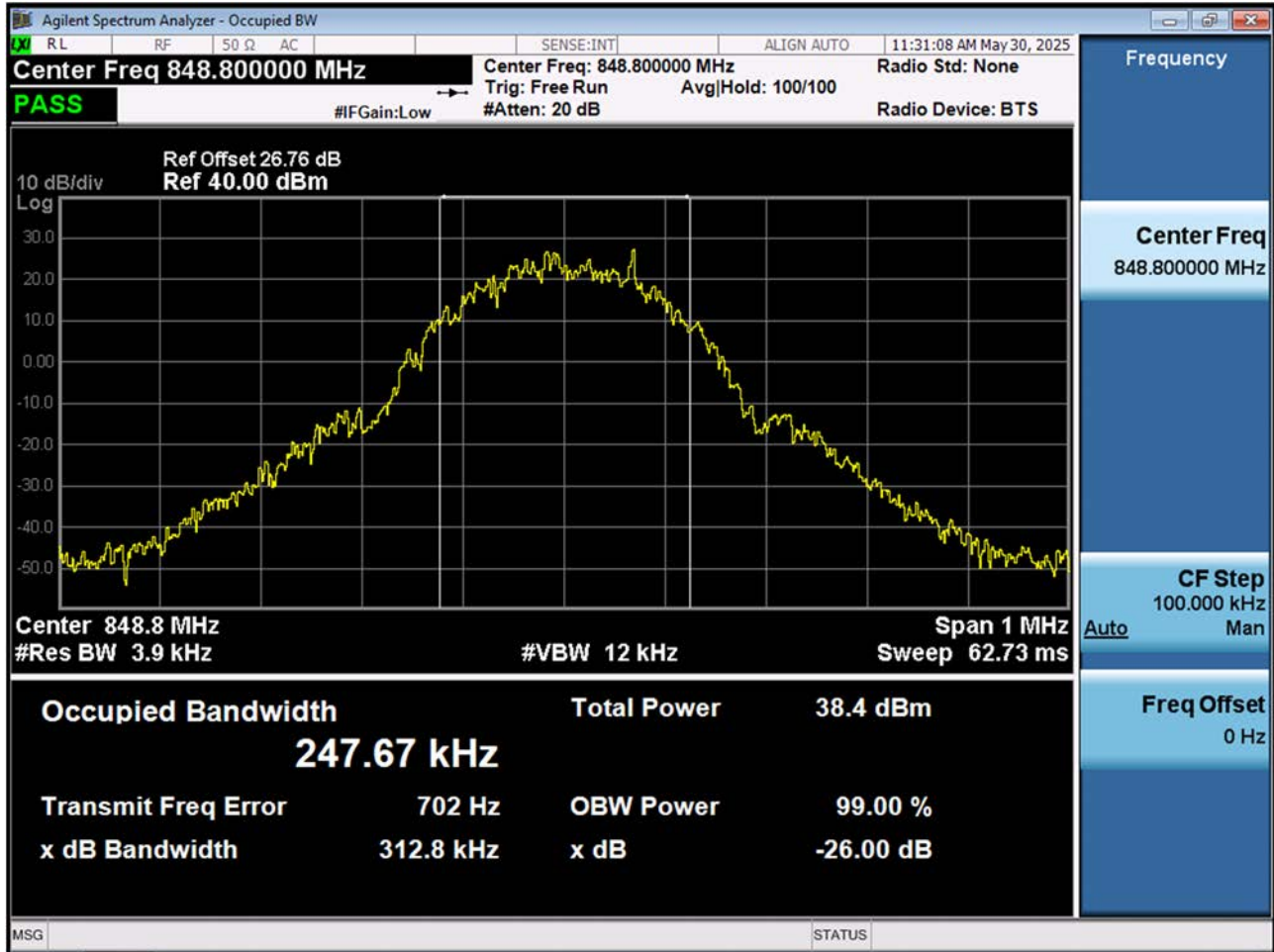
■ GSM850 MODE (128 CH.) Occupied Bandwidth



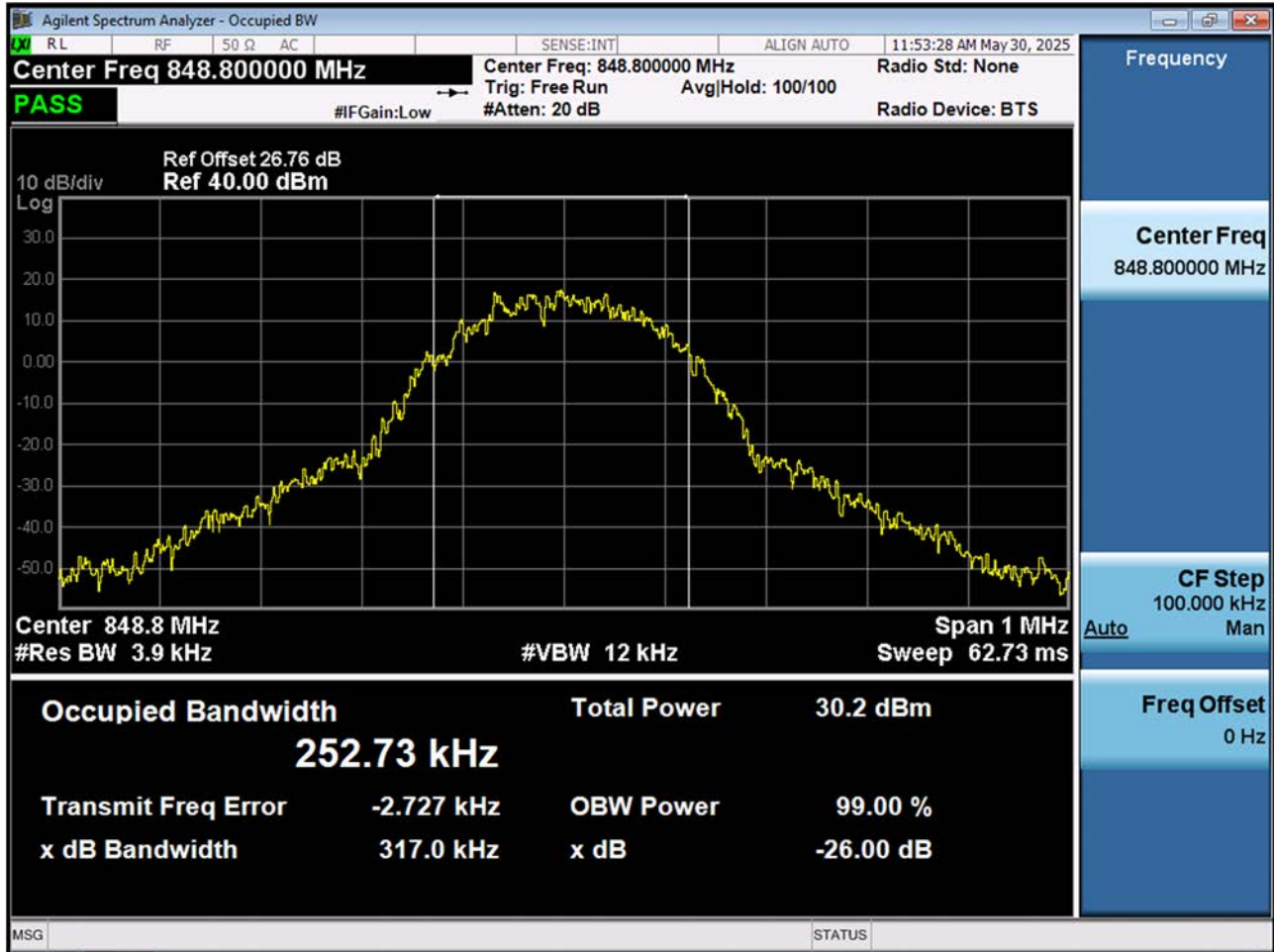
■ GSM850 MODE (190 CH.) Occupied Bandwidth



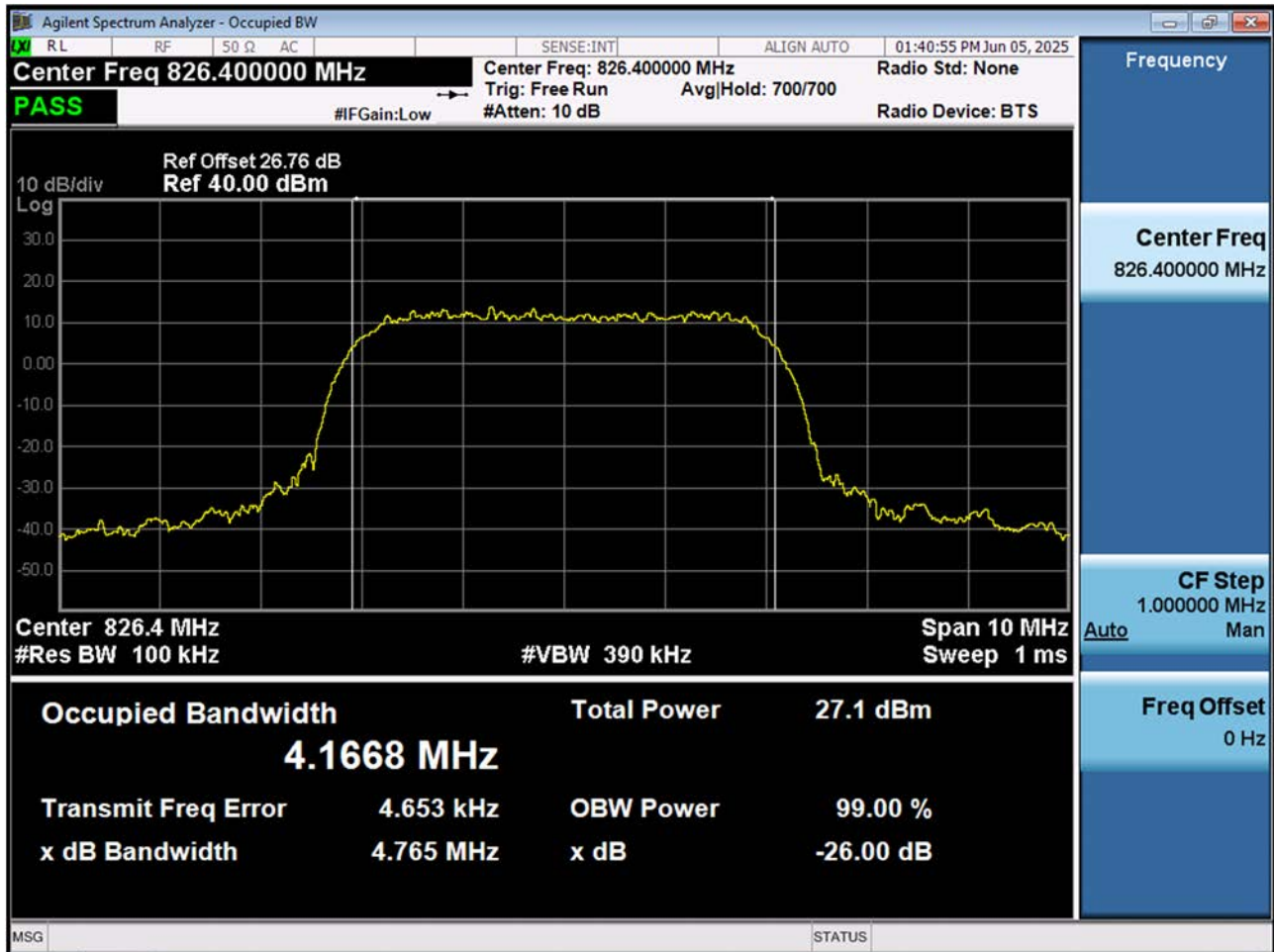
■ GSM850 MODE (251 CH.) Occupied Bandwidth



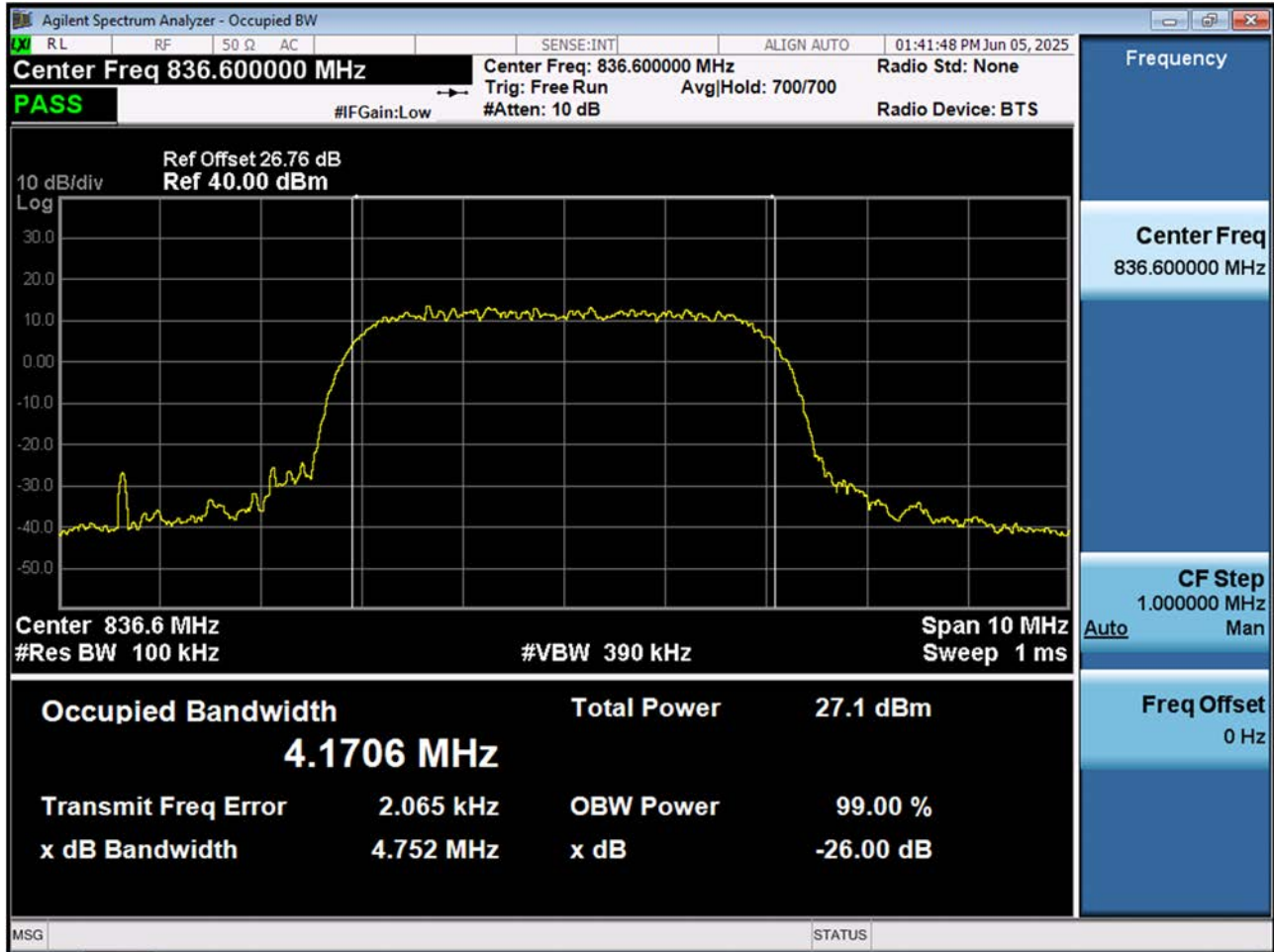
■ GSM850 EDGE (251 CH.) Occupied Bandwidth



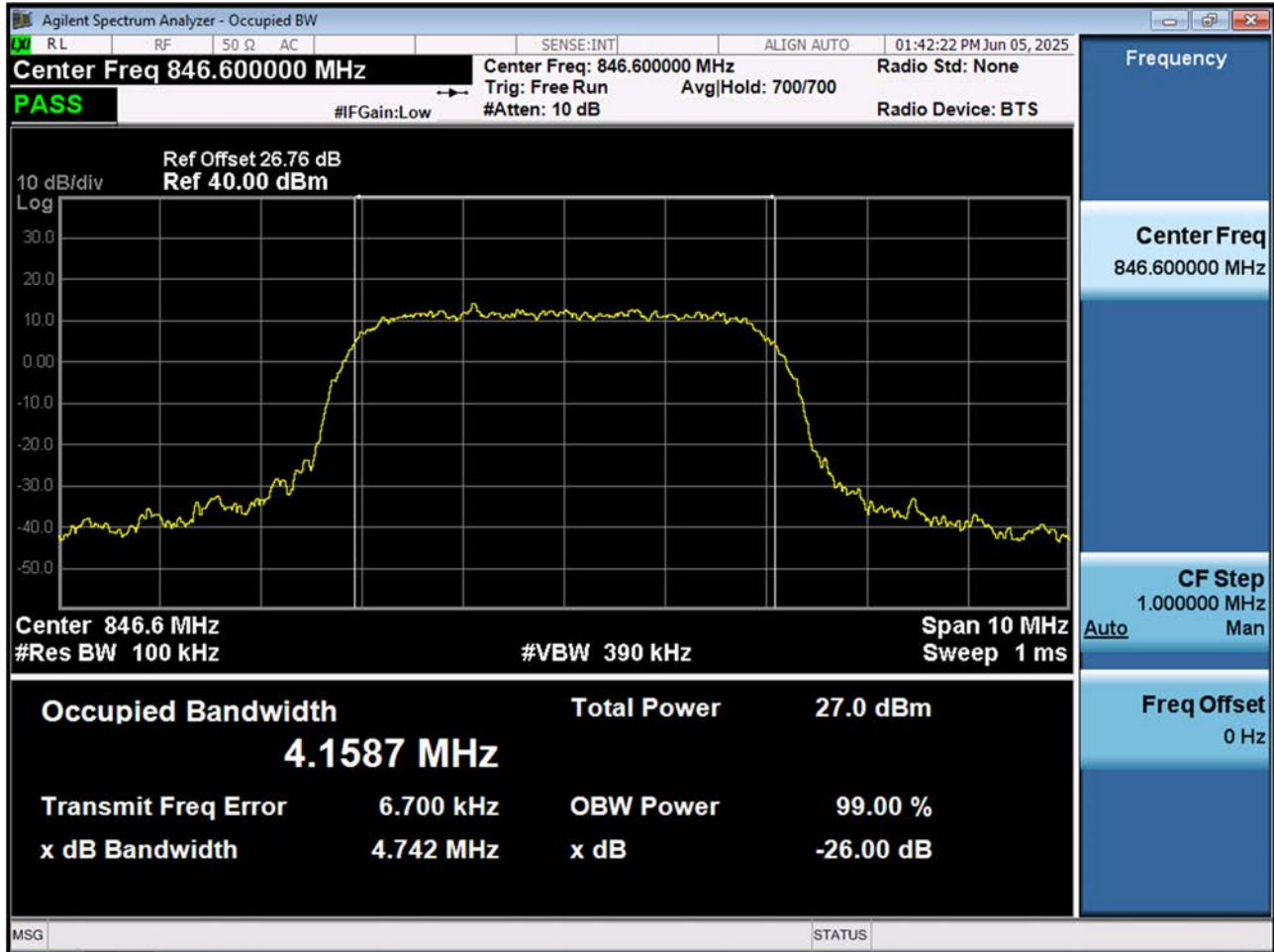
■ WCDMA850 MODE (4132 CH.) Occupied Bandwidth



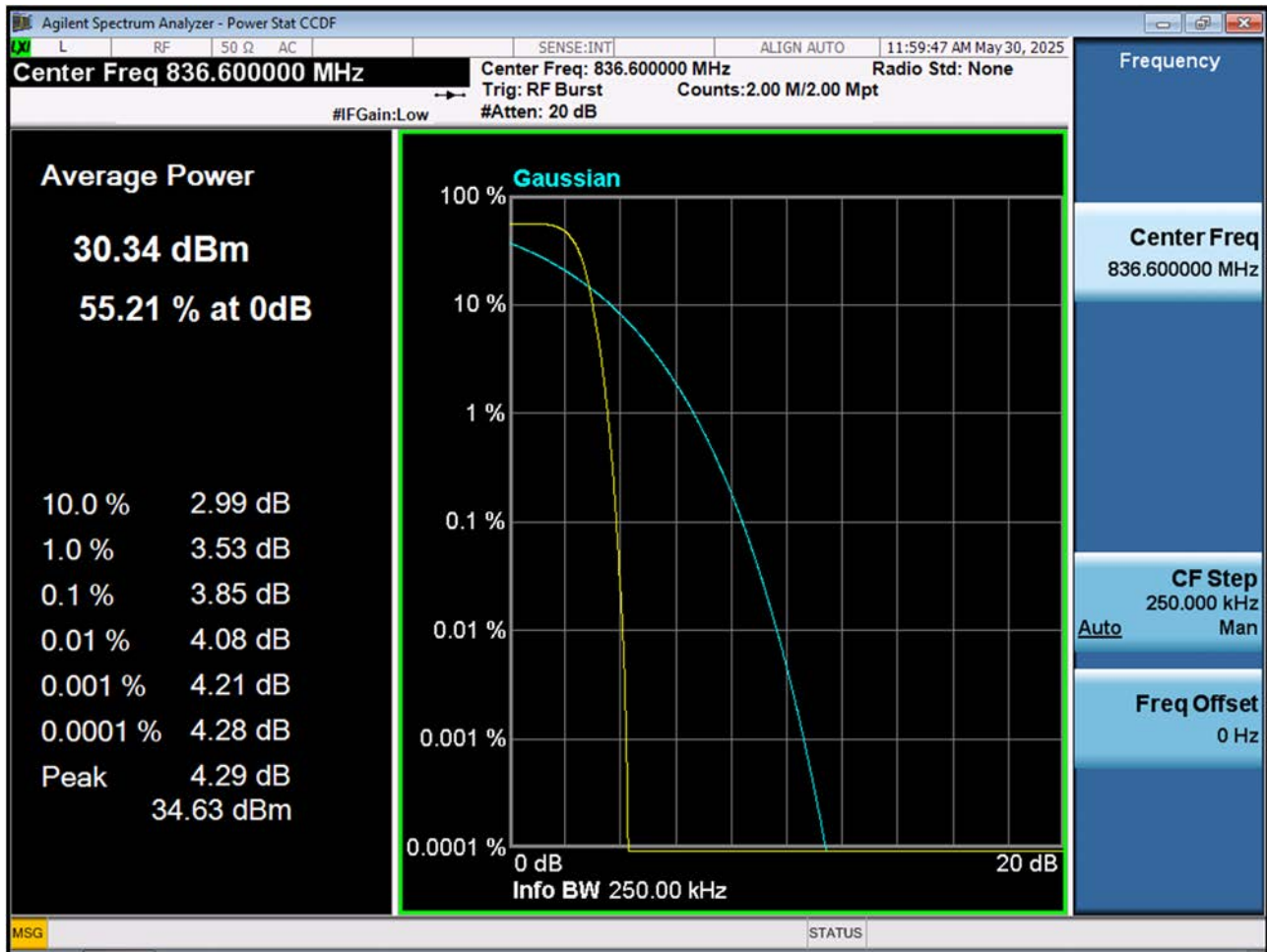
■ WCDMA850 MODE (4183 CH.) Occupied Bandwidth



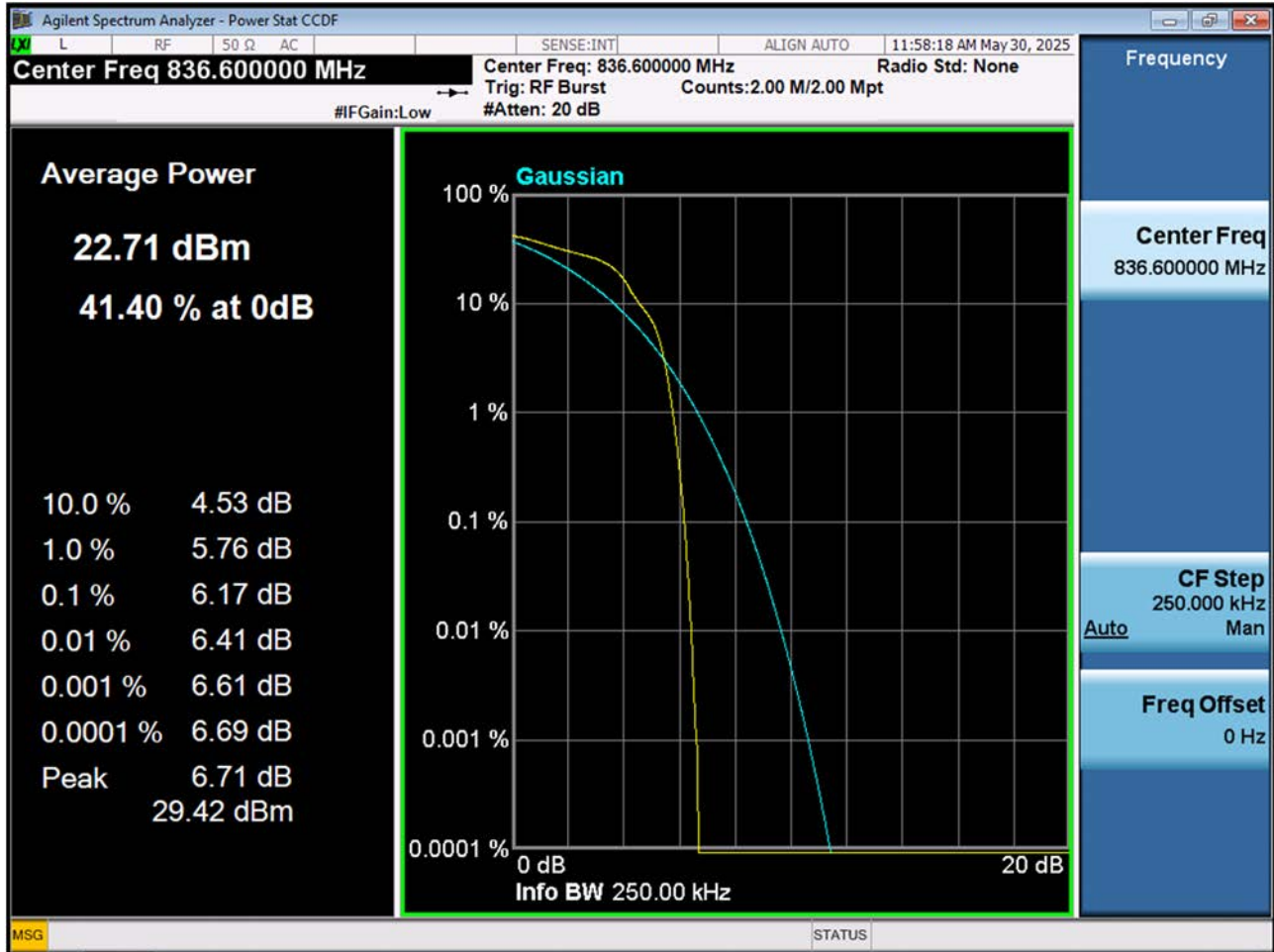
■ WCDMA850MODE (4233 CH.) Occupied Bandwidth



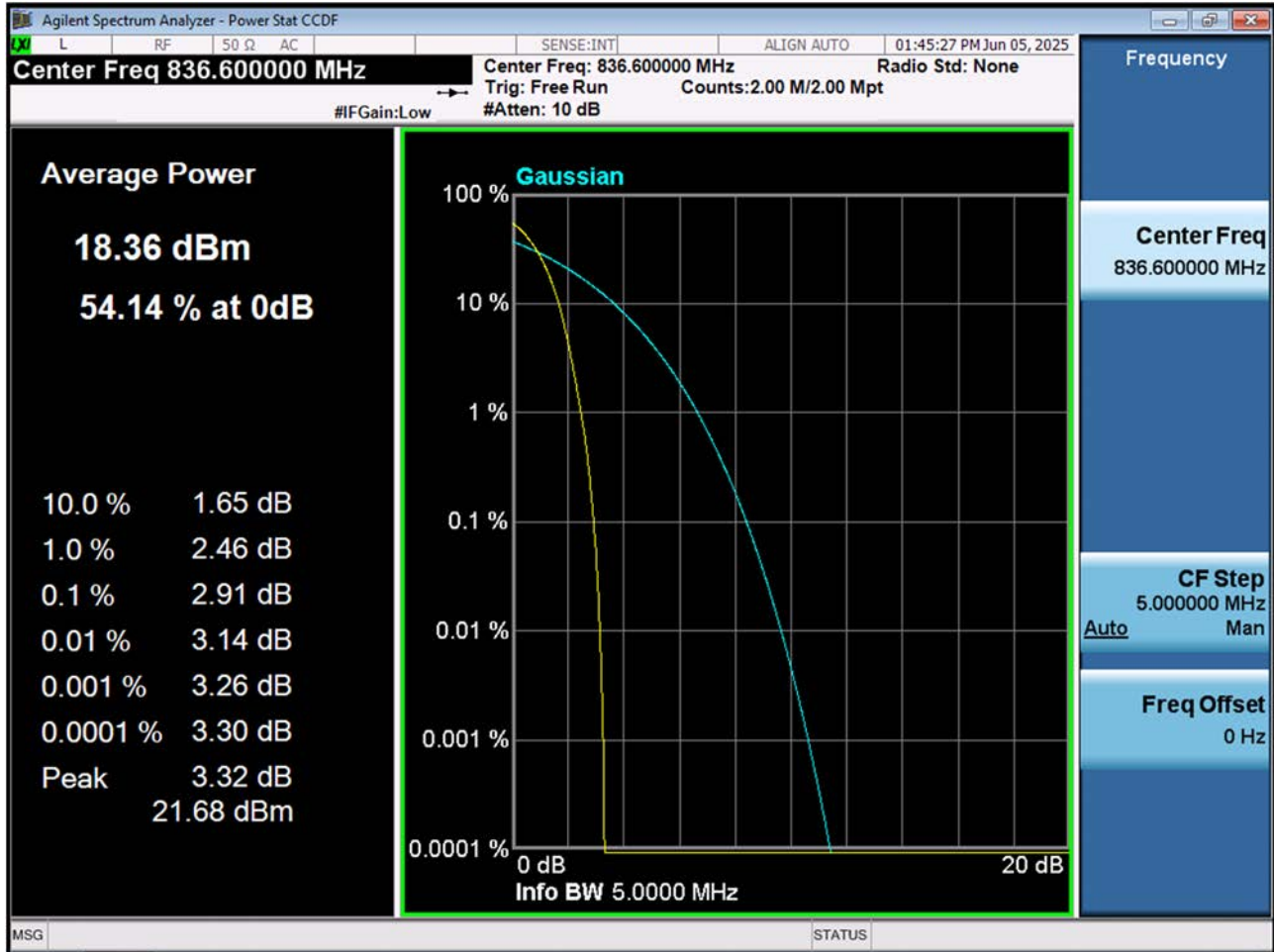
■ GSM850 MODE (190 CH.) Peak-to-Average Ratio



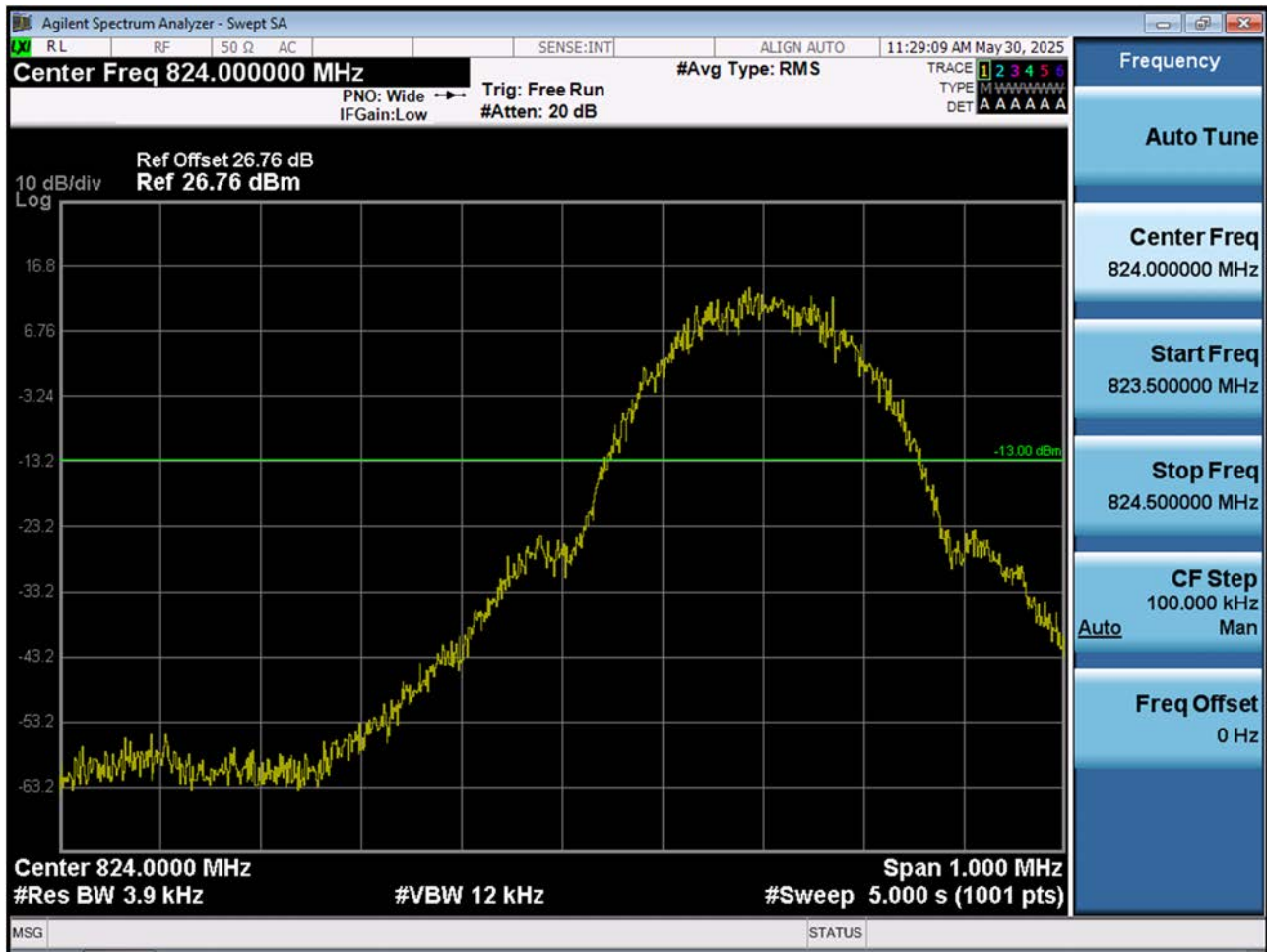
■ GSM850 EDGE (190 CH.) Peak-to-Average Ratio



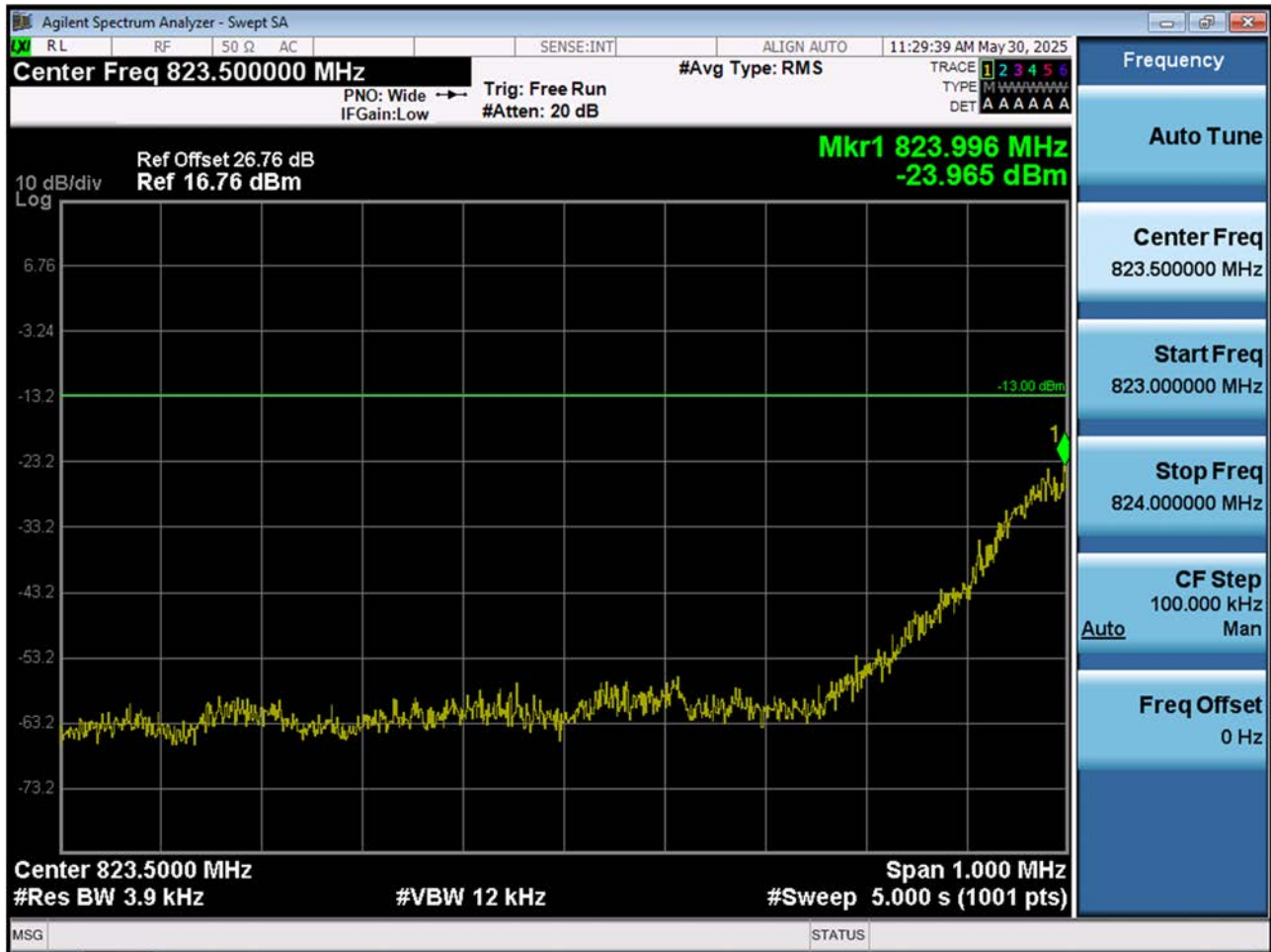
■ WCDMA850 MODE (4408 CH.) Peak-to-Average Ratio



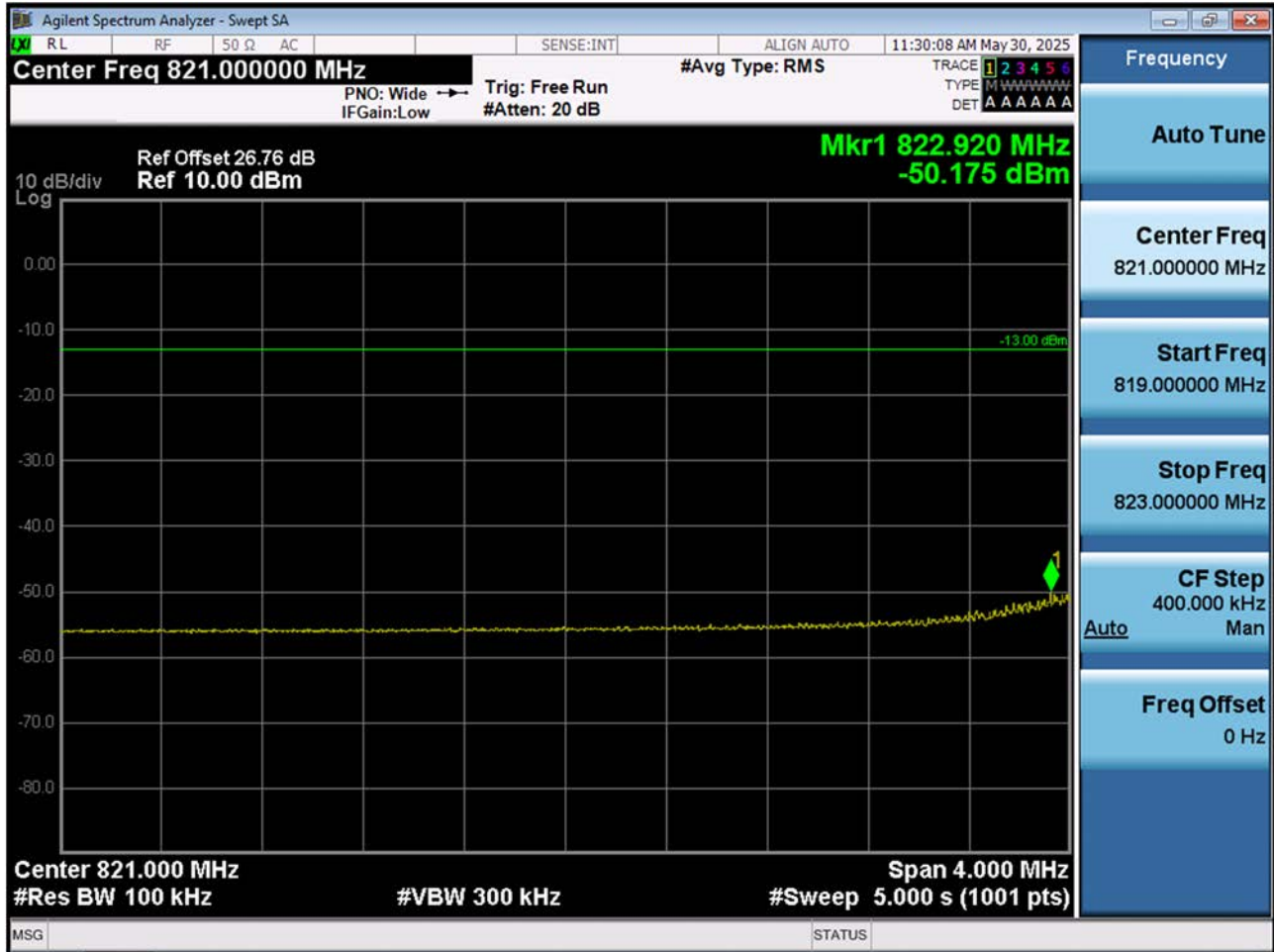
■ GSM850 MODE (128 CH.) Block Edge 1



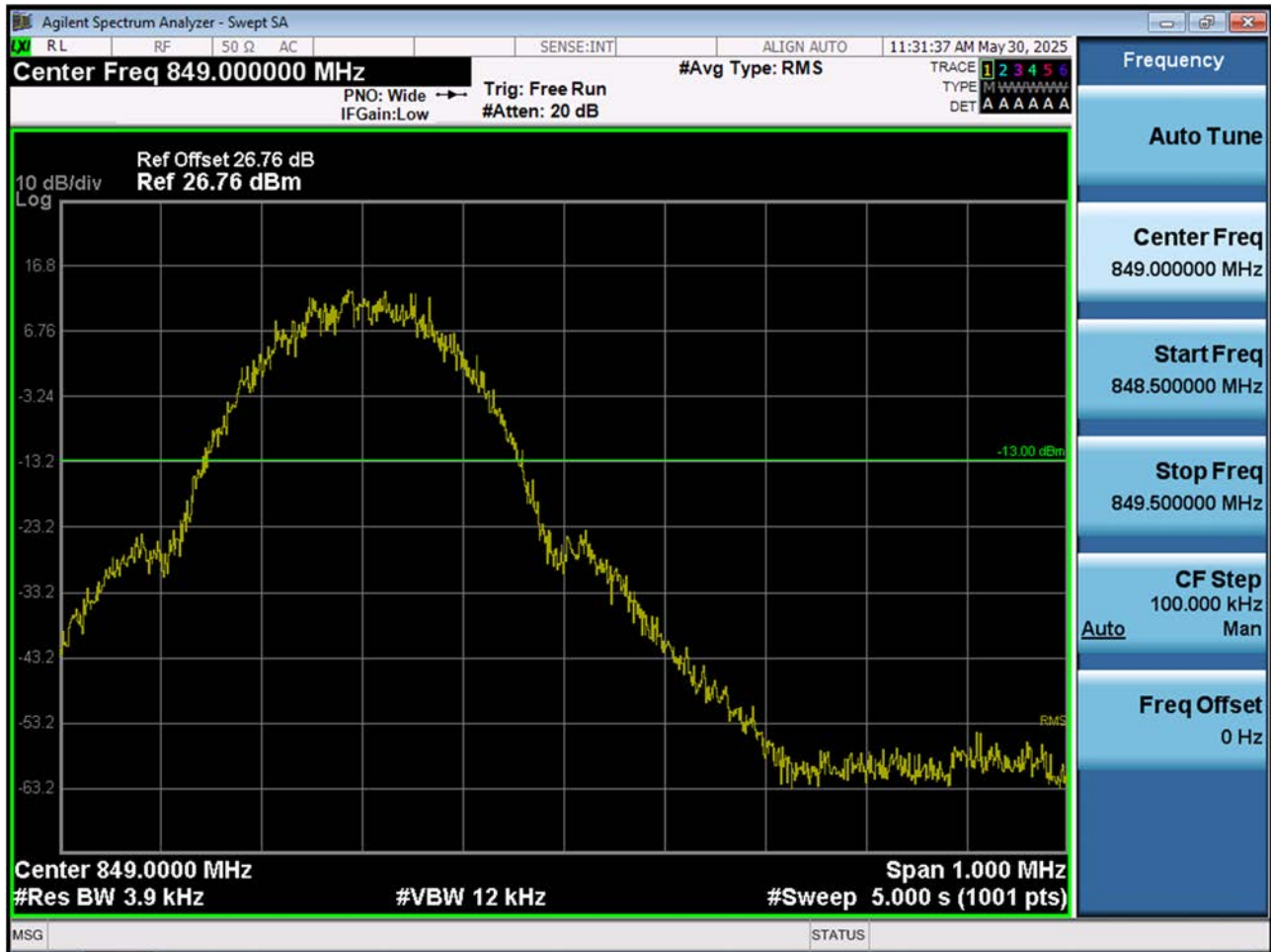
■ GSM850 MODE (128 CH.) Block Edge 2



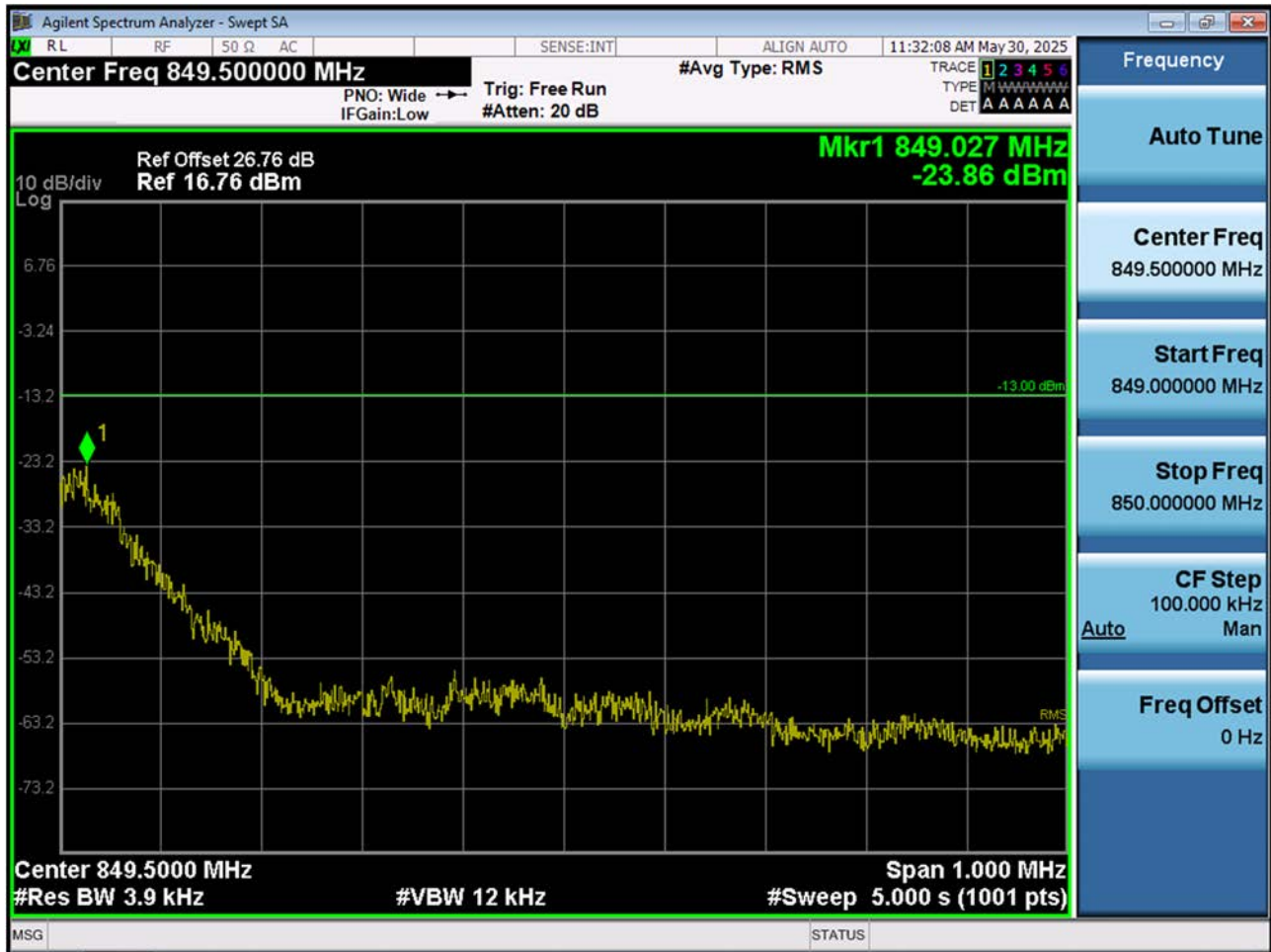
■ GSM850 MODE (128 CH.) Block Edge 3



■ GSM850 MODE (251 CH.) Block Edge 1



■ GSM850 MODE (251 CH.) Block Edge 2



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 11:32:37 AM May 30, 2025

Center Freq 852.000000 MHz #Avg Type: RMS

PNO: Wide IFGain:Low Trig: Free Run #Atten: 20 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W W W
DET A A A A A A A

Ref Offset 26.76 dB
Ref 10.00 dBm

10 dB/div
Log

Mkr1 850.004 MHz
-51.23 dBm

-13.00 dBm

1

RMS

Center 852.000 MHz
#Res BW 100 kHz

#VBW 300 kHz

Span 4.000 MHz
#Sweep 5.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
852.000000 MHz

Start Freq
850.000000 MHz

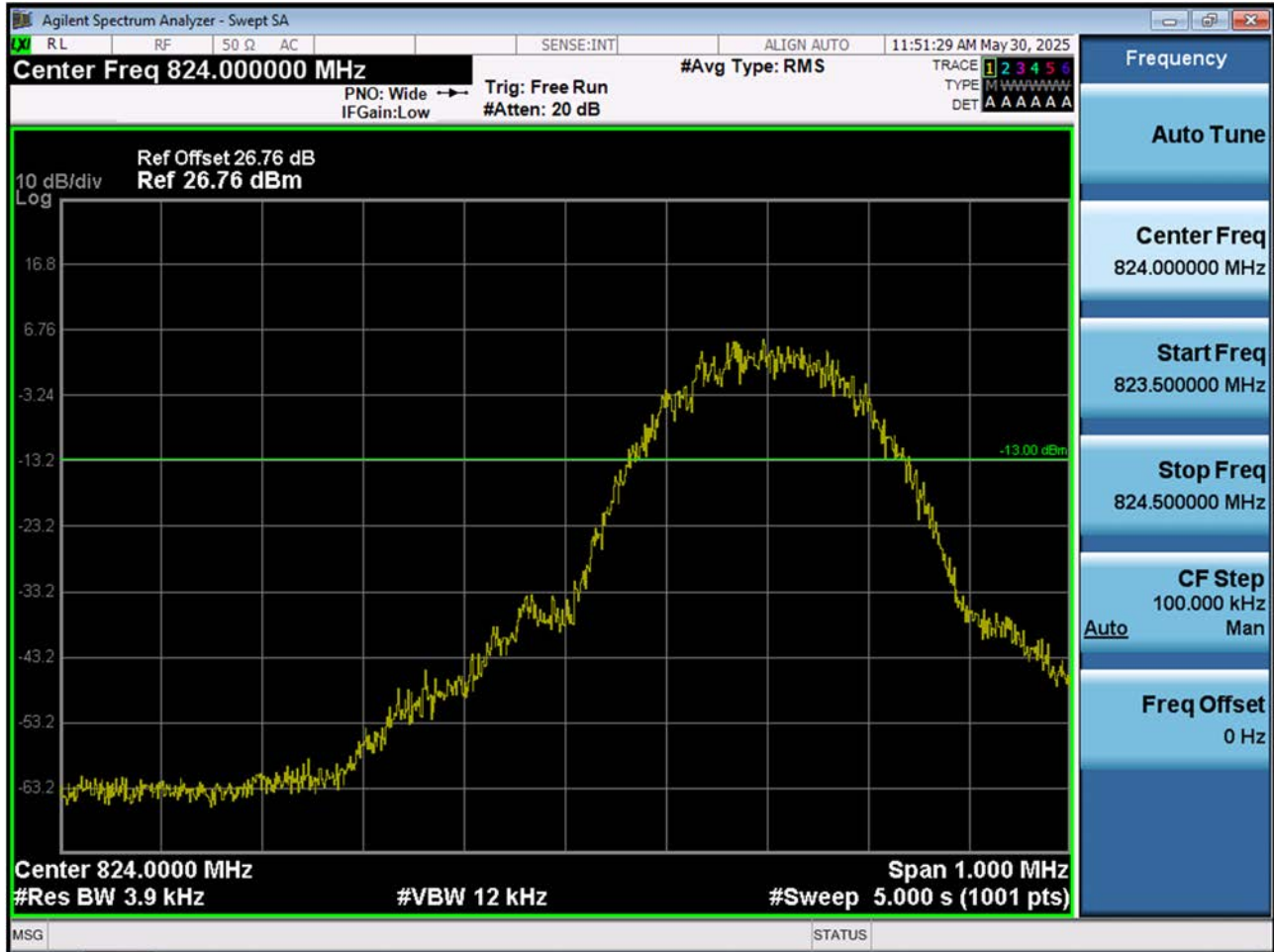
Stop Freq
854.000000 MHz

CF Step
400.000 kHz

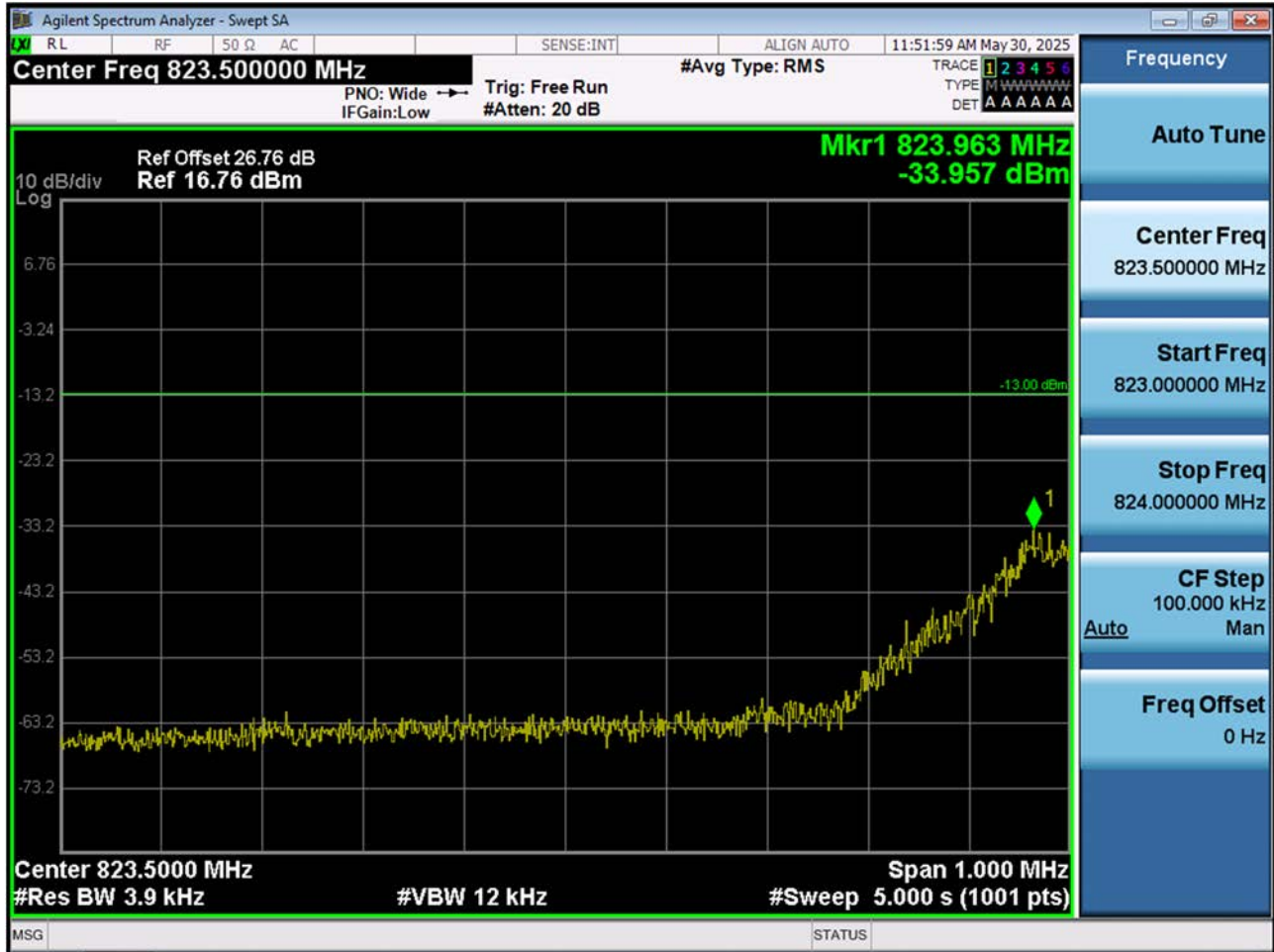
Auto Man

Freq Offset
0 Hz

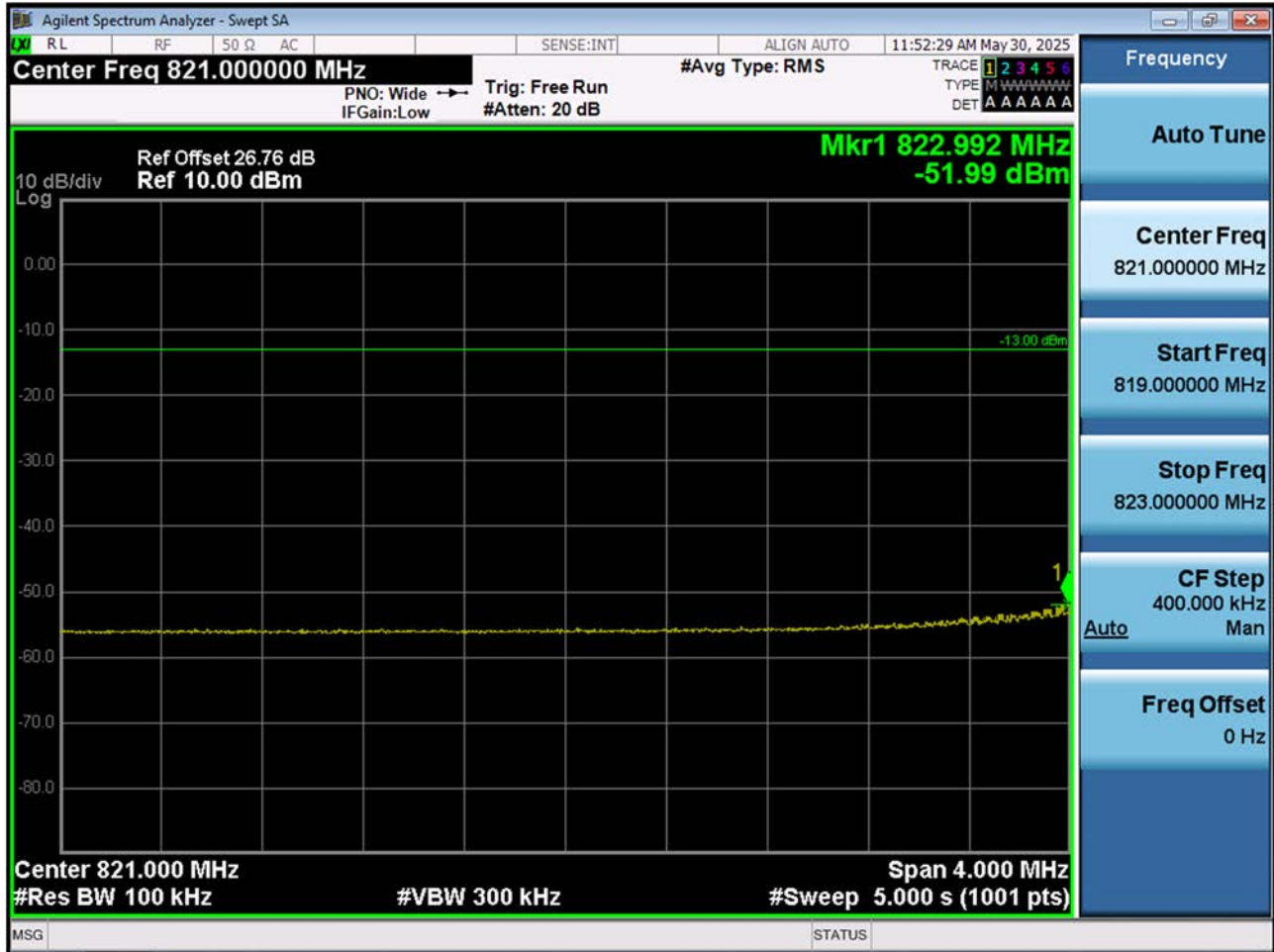
■ EDGE MODE (128 CH.) Block Edge 1



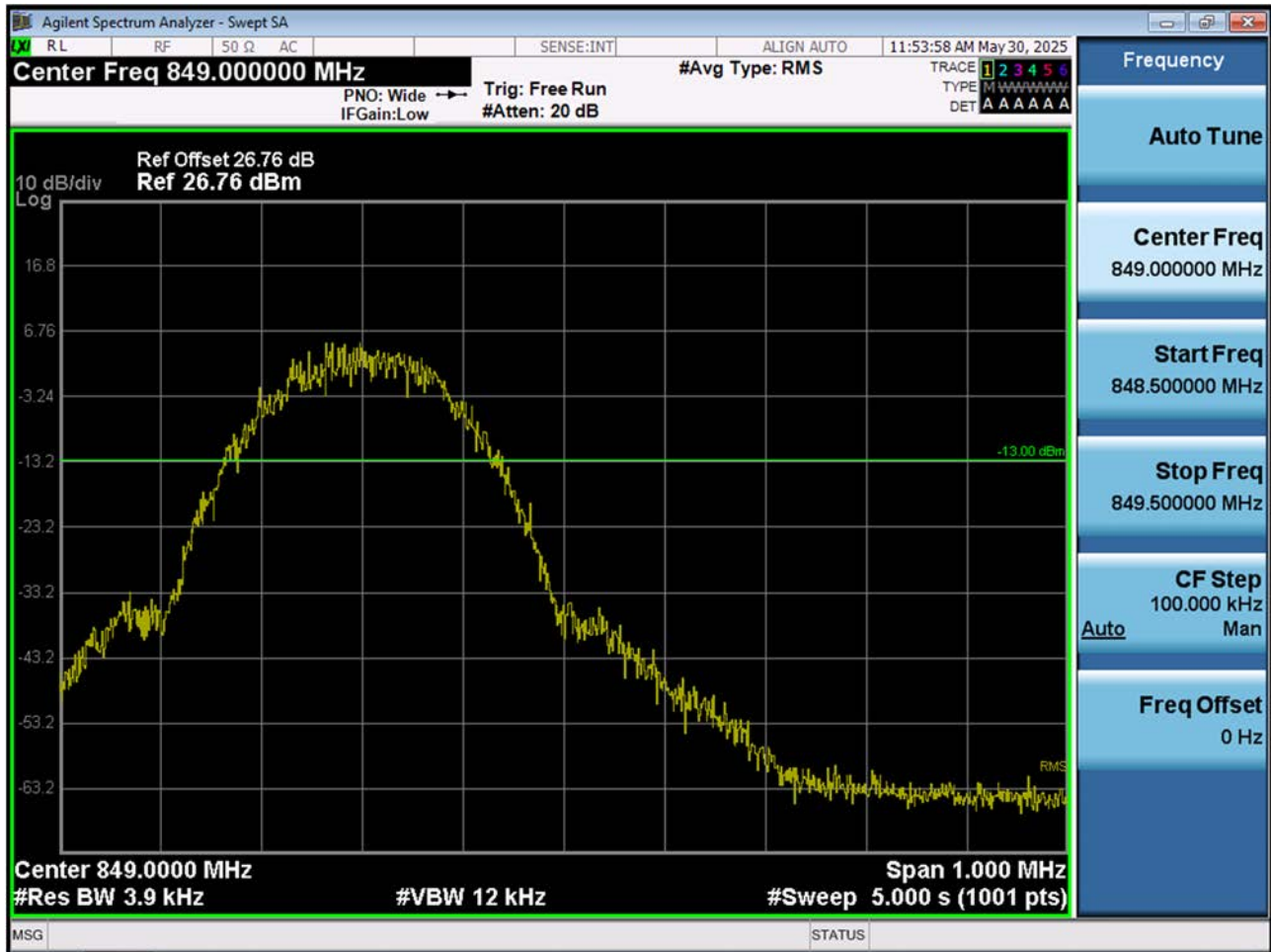
EDGE MODE (128 CH.) Block Edge 2



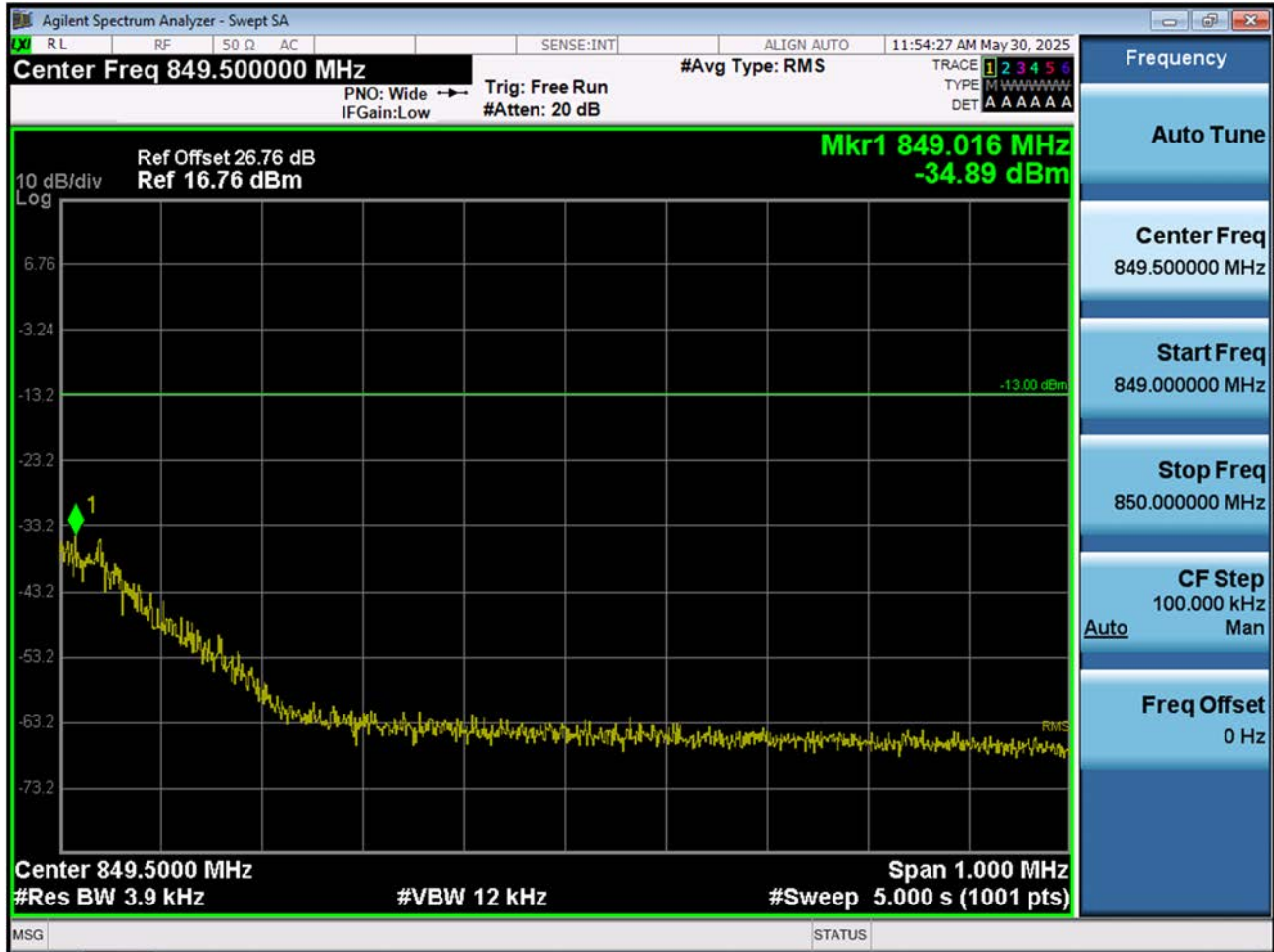
■ EDGE MODE (128 CH.) Block Edge 3



■ EDGE MODE (251 CH.) Block Edge 1



■ EDGE MODE (251 CH.) Block Edge 2



■ EDGE MODE (251 CH.) Block Edge 3



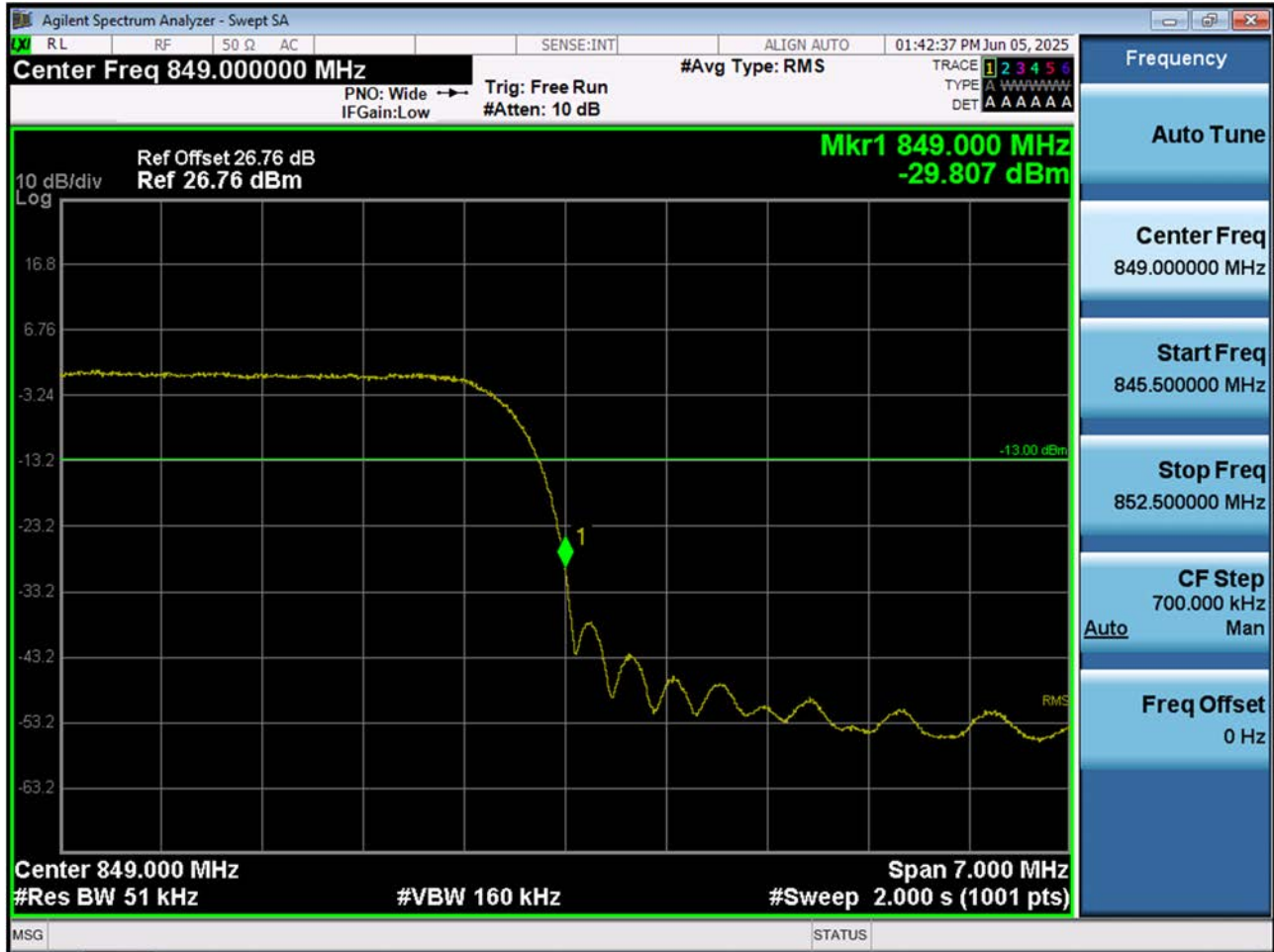
■ WCDMA850 MODE (4132 CH.) Block Edge



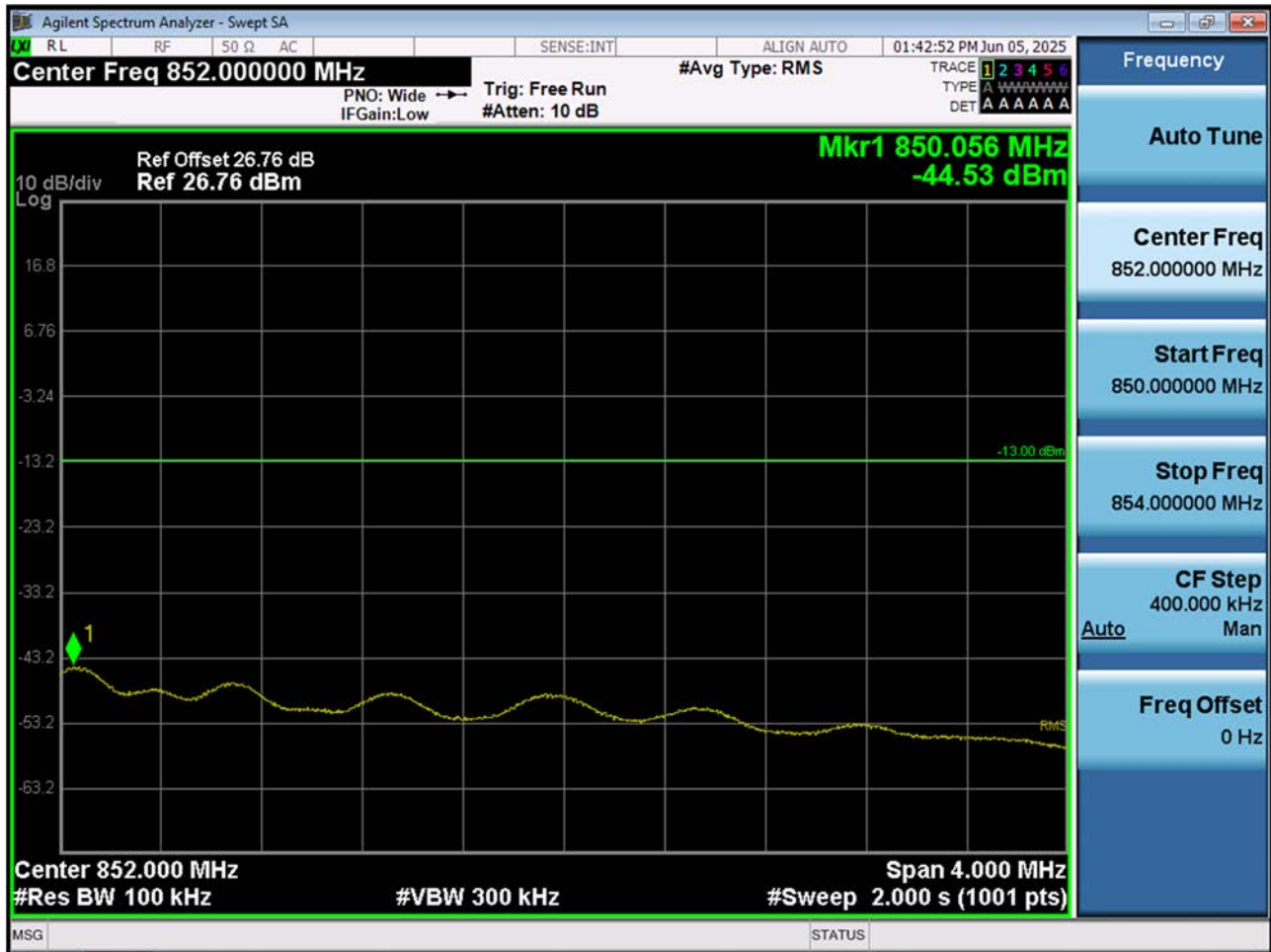
WCDMA850 MODE (4132 CH.) – 4 MHz Span



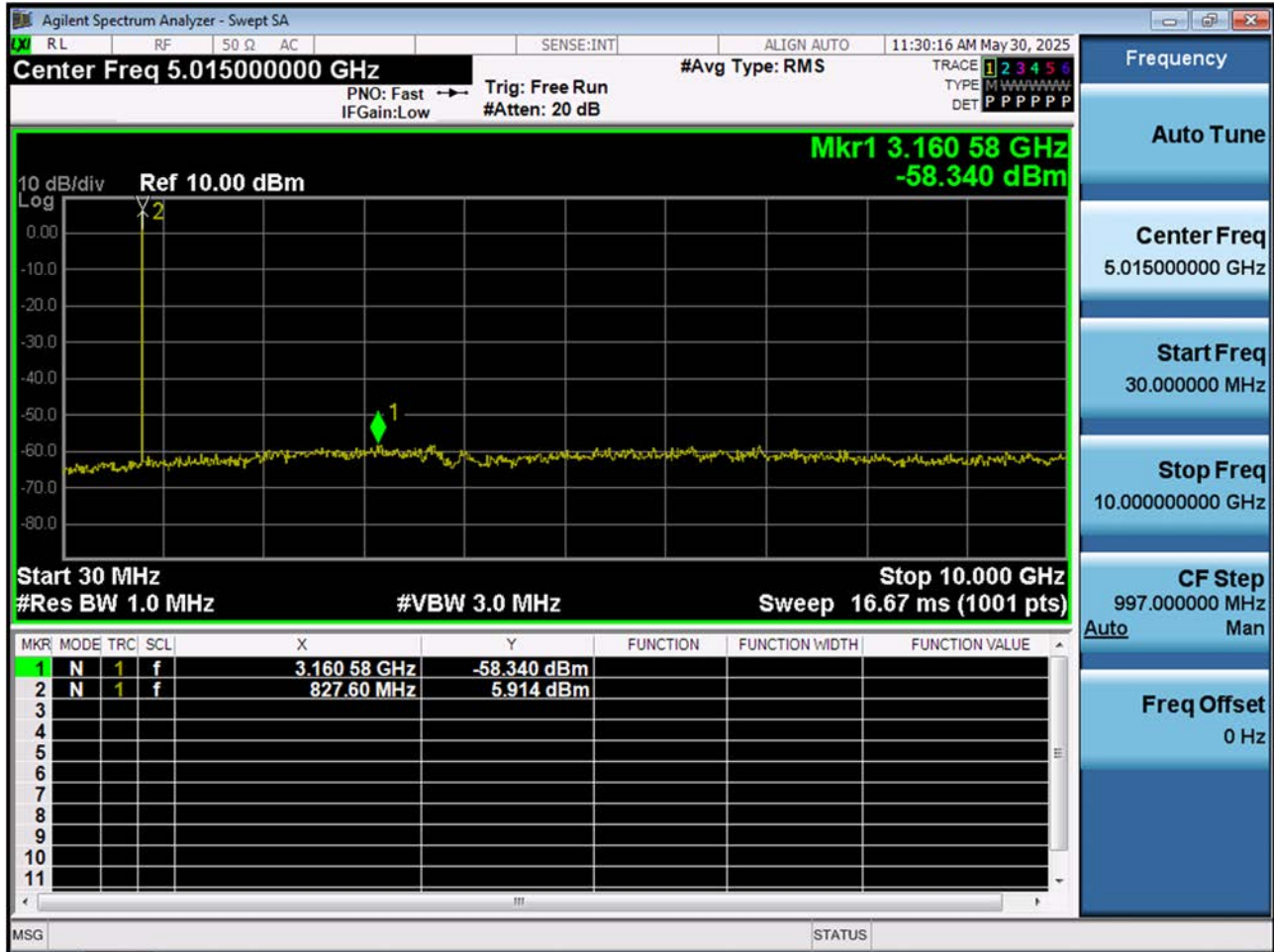
■ WCDMA850MODE (4233 CH.) Block Edge



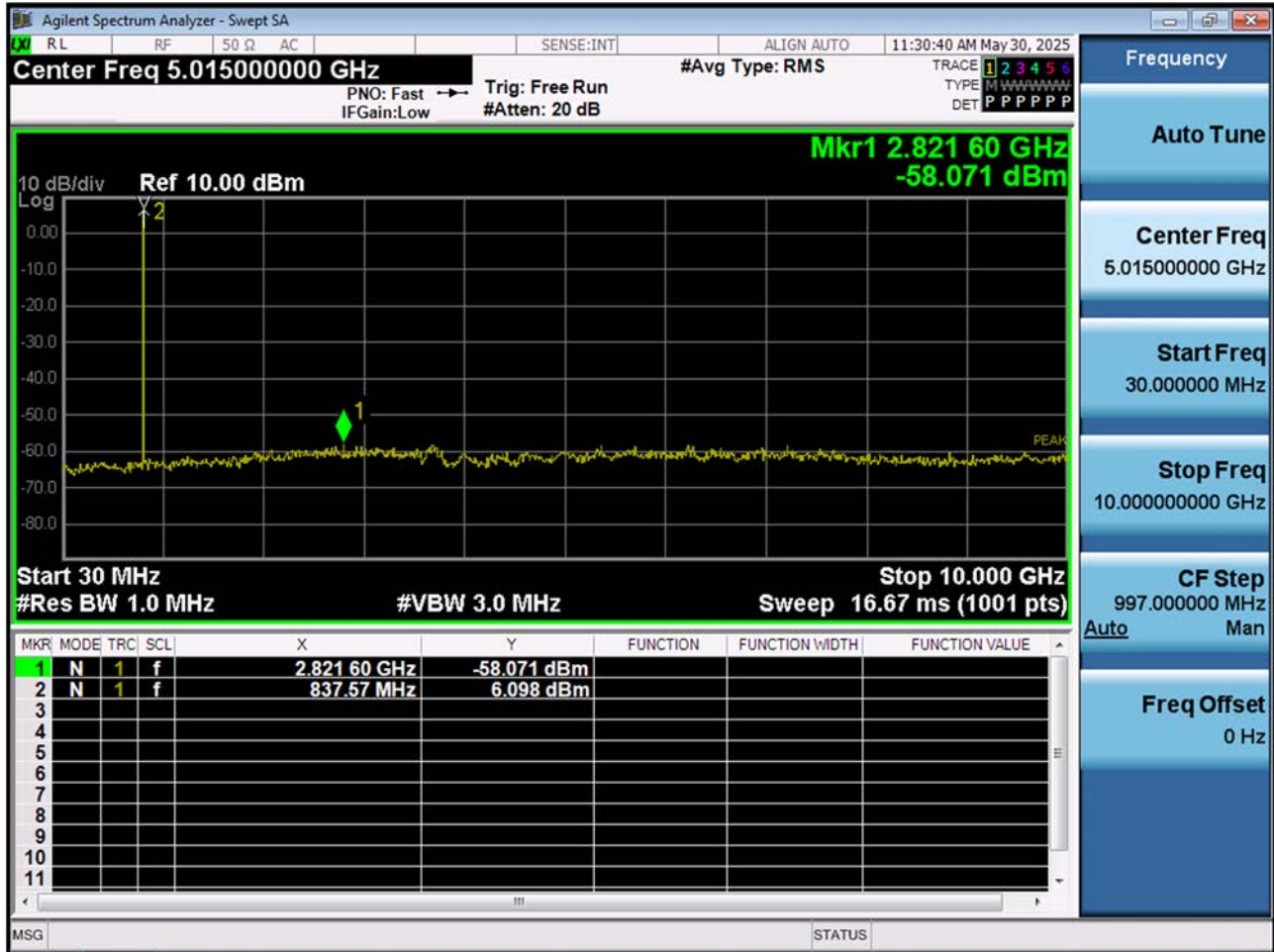
■ WCDMA850MODE (4233 CH.) – 4 MHz Span



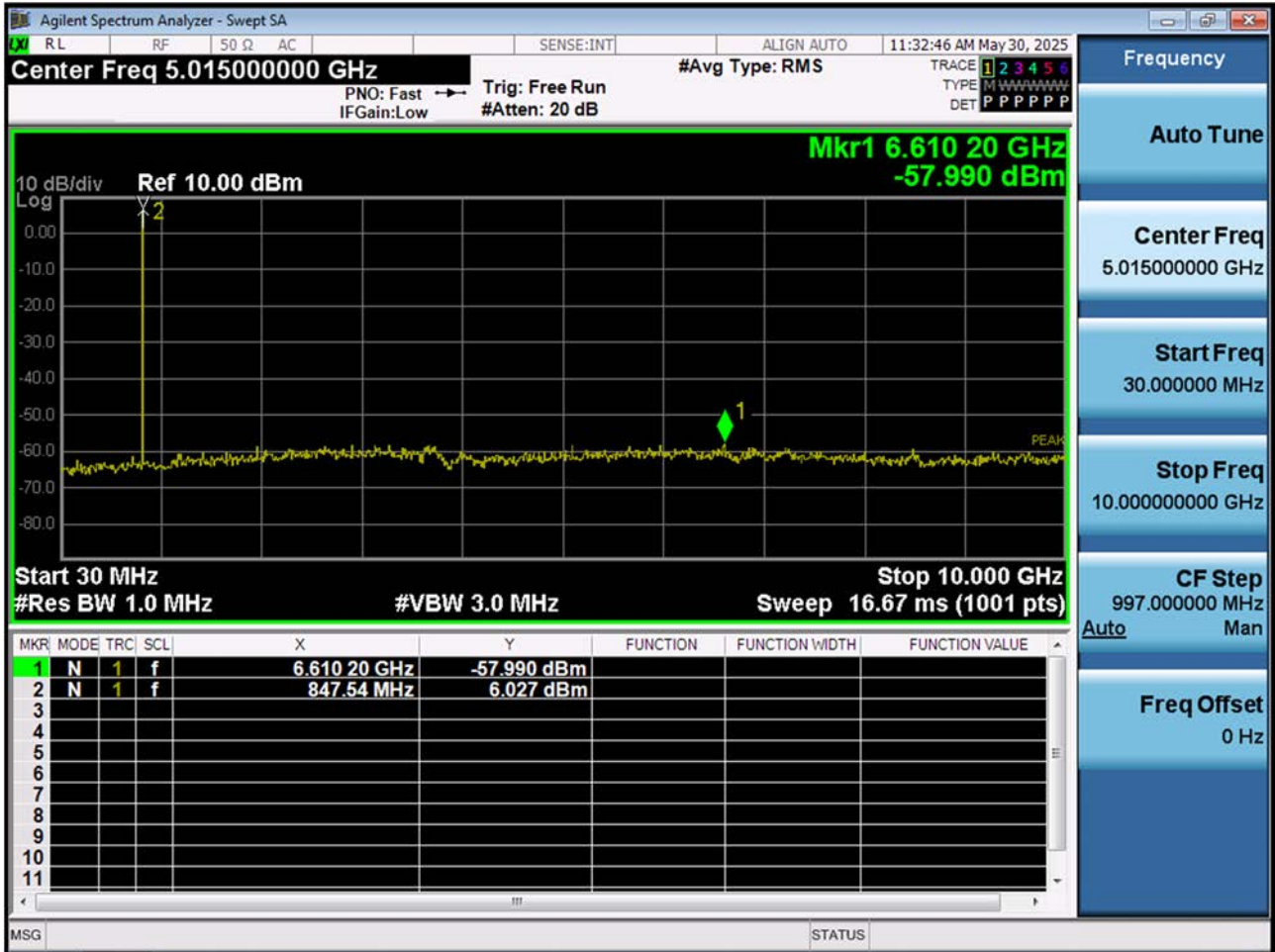
■ GSM850 MODE (128 CH.) Conducted Spurious Emissions



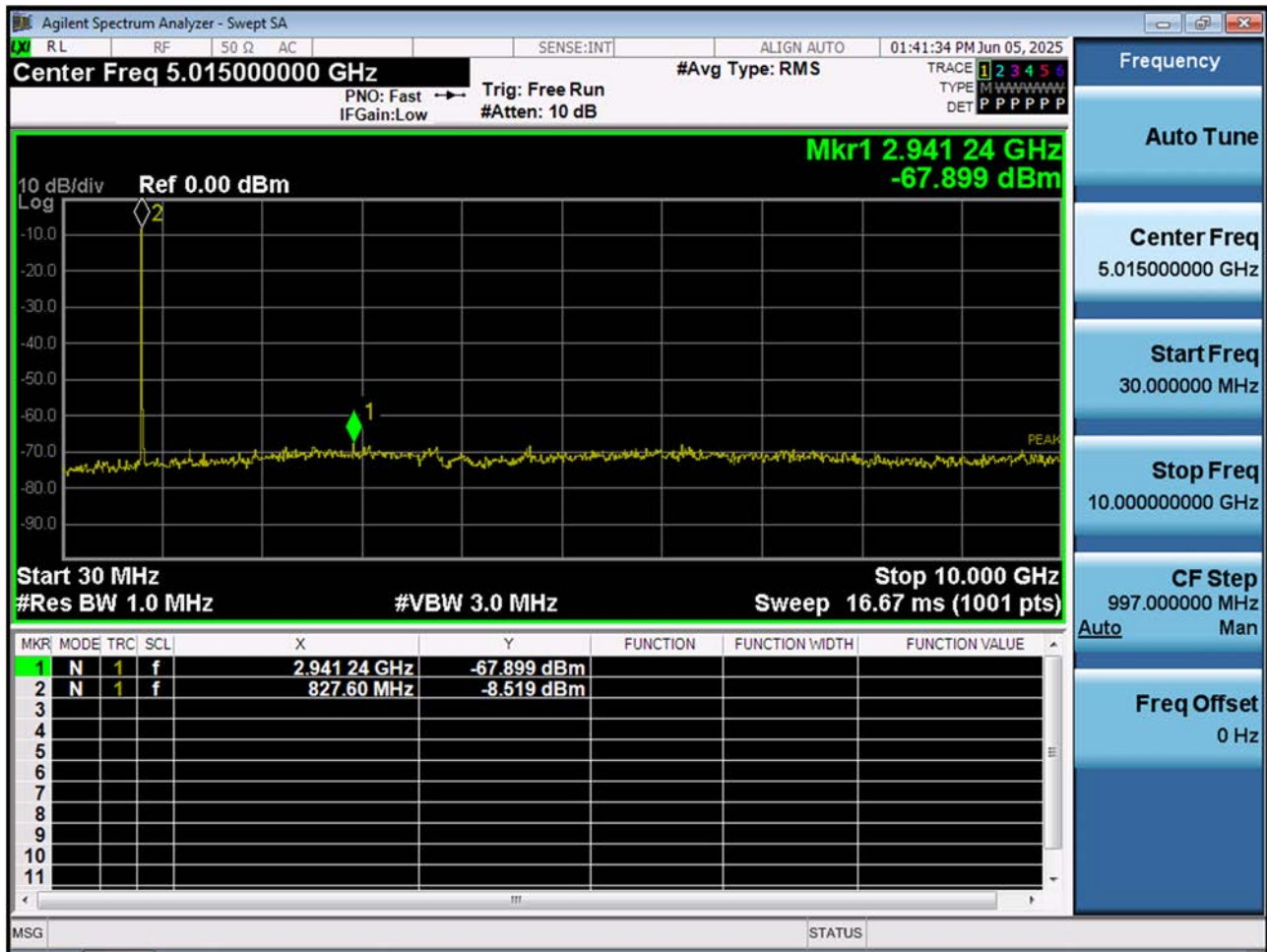
■ GSM850 MODE (190 CH.) Conducted Spurious Emissions



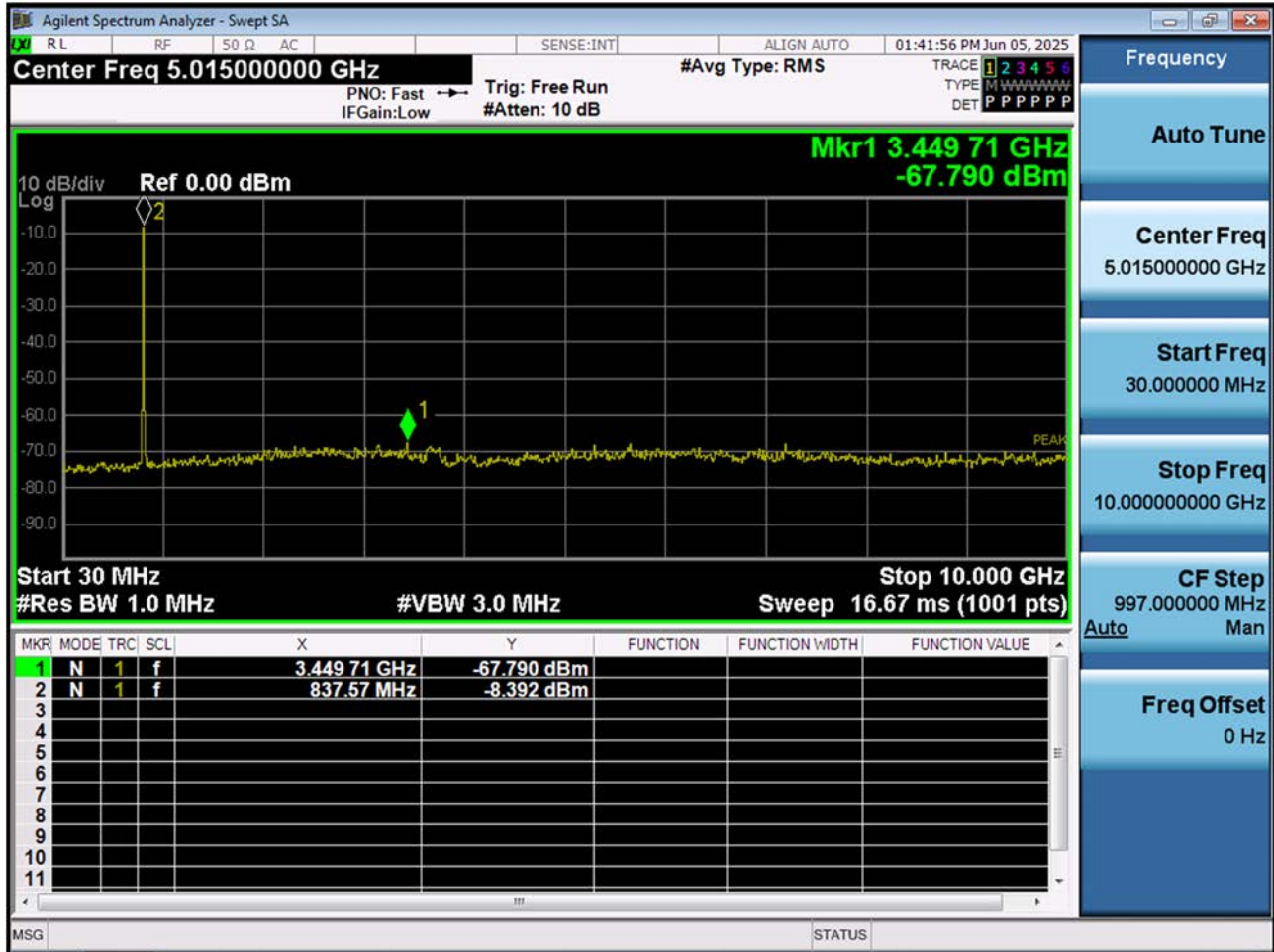
■ GSM850 MODE (251 CH.) Conducted Spurious Emissions



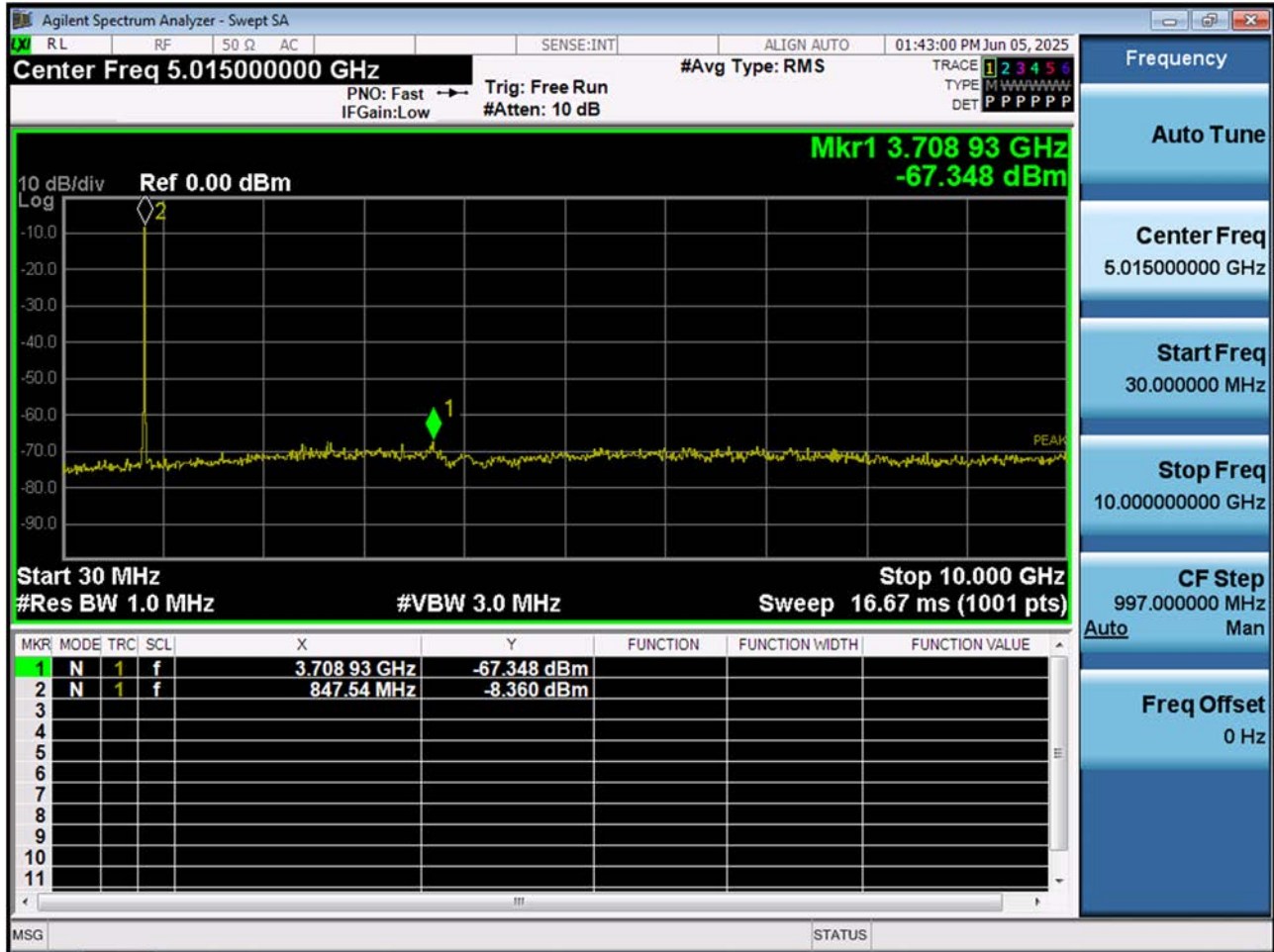
■ WCDMA850 MODE (4132 CH.) Conducted Spurious Emissions



■ WCDMA850 MODE (4183 CH.) Conducted Spurious Emissions



■ WCDMA850MODE (4233 CH.) Conducted Spurious Emissions



12. ANNEX A_ TEST SETUP PHOTO

Please refer to test setup photo file no. as follows;

No.	Description
1	HCT-RF-2507-FC017-P