

■ EDGE MODE (810 CH.) Block Edge 3



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

$$\text{Calculation} = \text{Reading Value} + 10 \times \log(1 \text{ MHz}/100 \text{ kHz}) \text{ dB} = -51.52 \text{ dBm} + 10 \text{ dB} = -41.52 \text{ dBm}$$

■ WCDMA850 MODE (4132 CH.) Block Edge



■ WCDMA850 MODE (4132 CH.) – 4 MHz Span



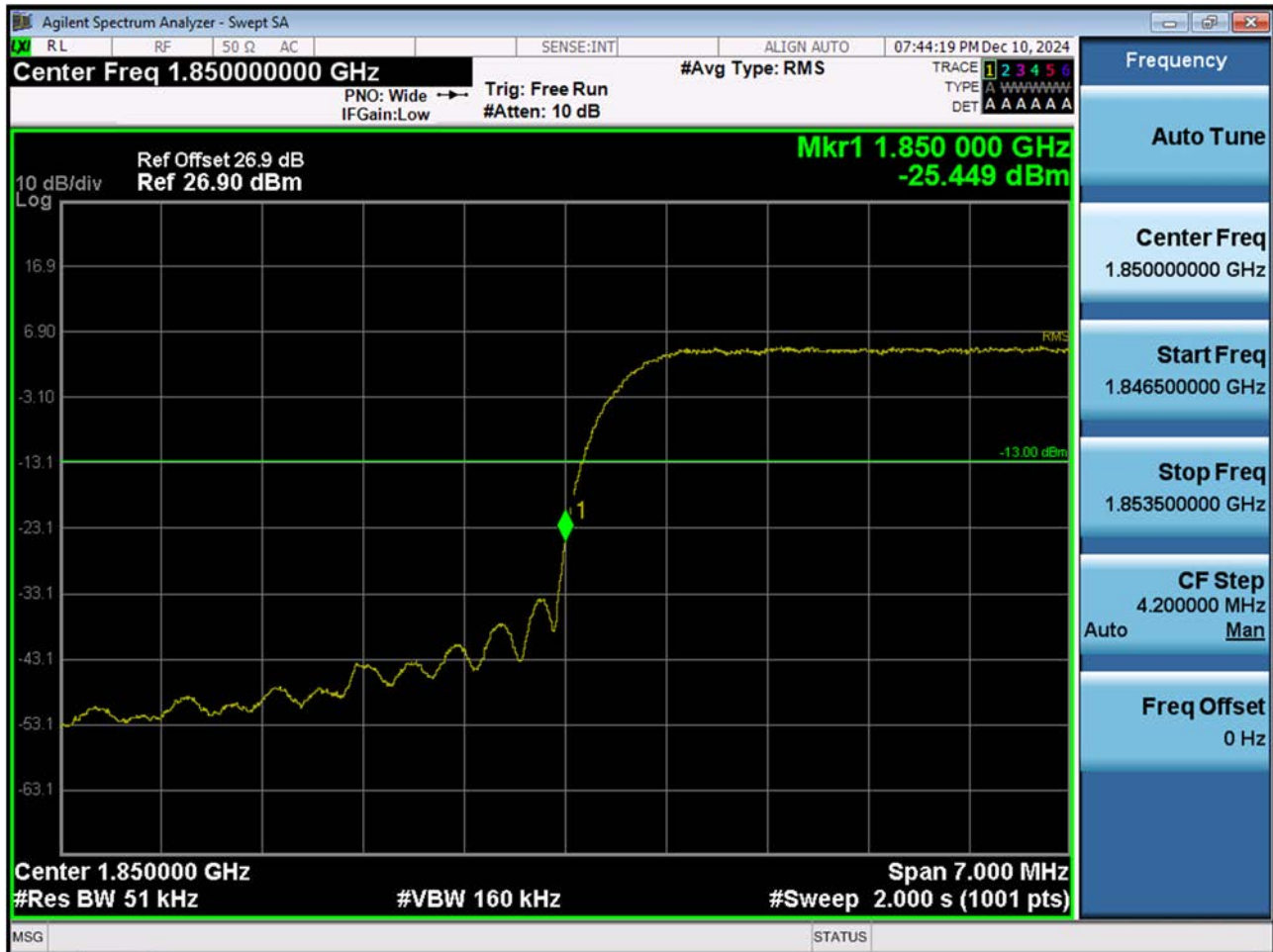
■ WCDMA850MODE (4233 CH.) Block Edge



■ WCDMA850MODE (4233 CH.) – 4 MHz Span



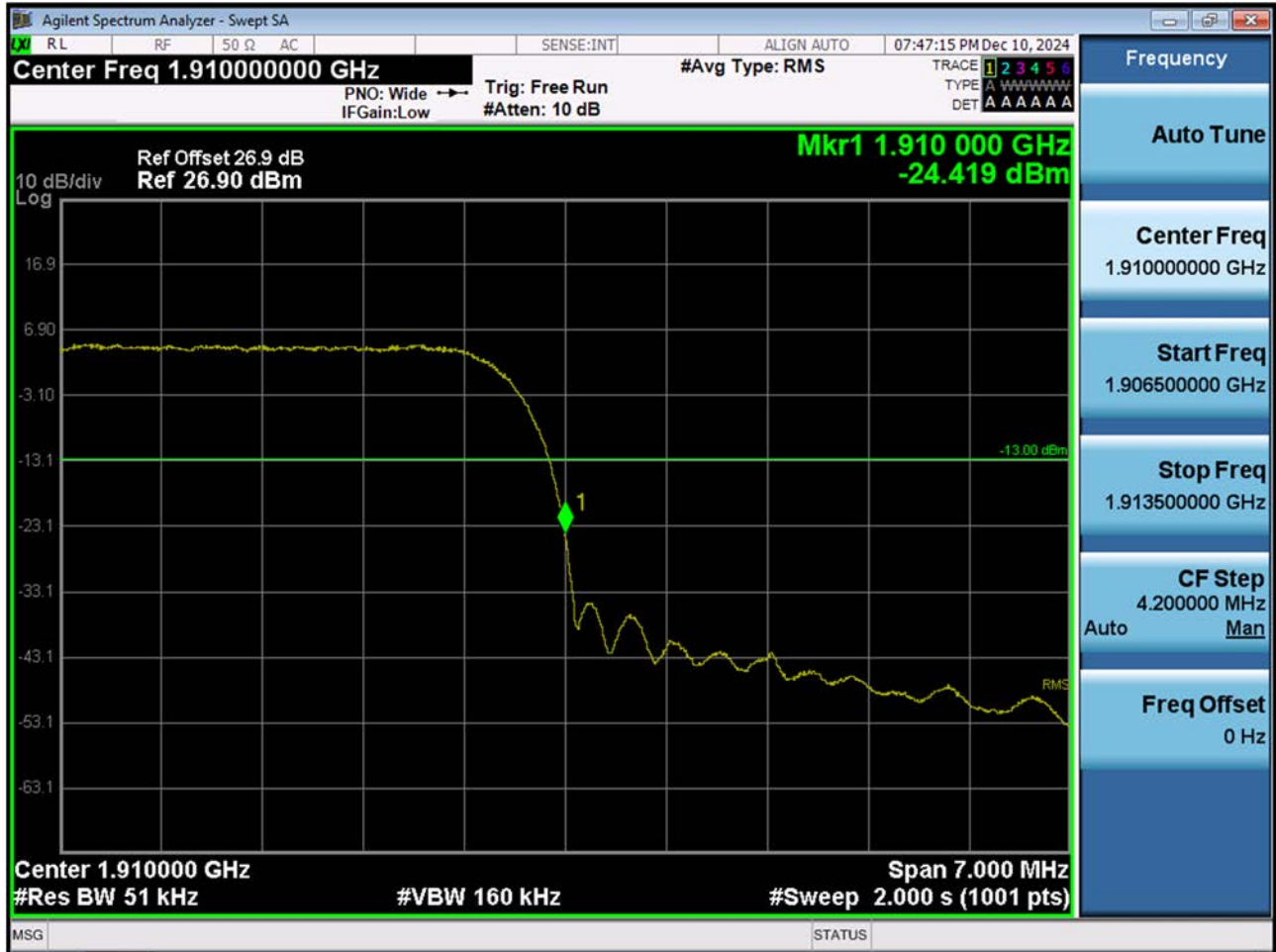
■ WCDMA1900 MODE (9262 CH.) Block Edge



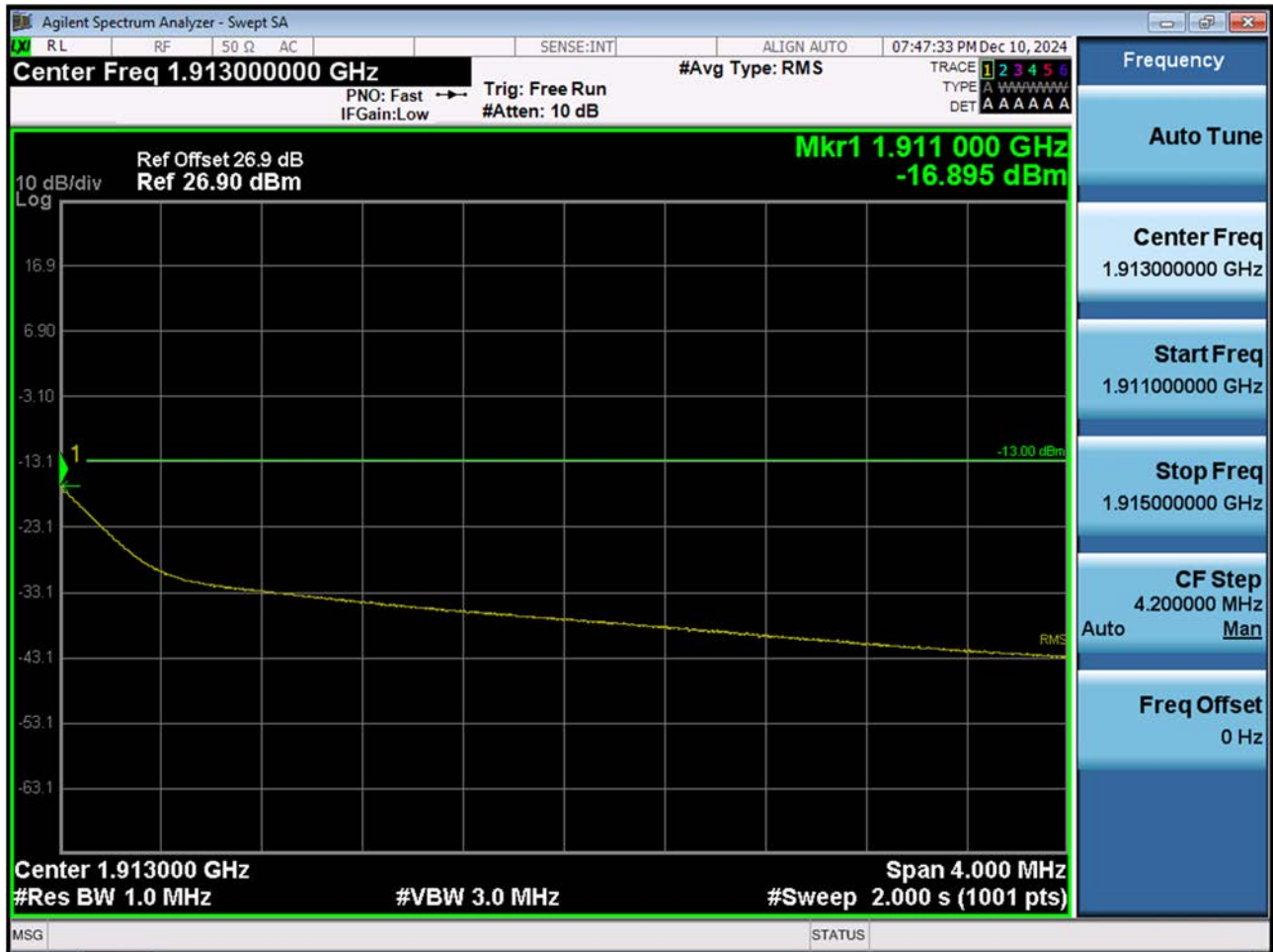
■ WCDMA1900 MODE (9262 CH.) – 4 MHz Span



■ WCDMA1900 MODE (9538 CH.) Block Edge



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



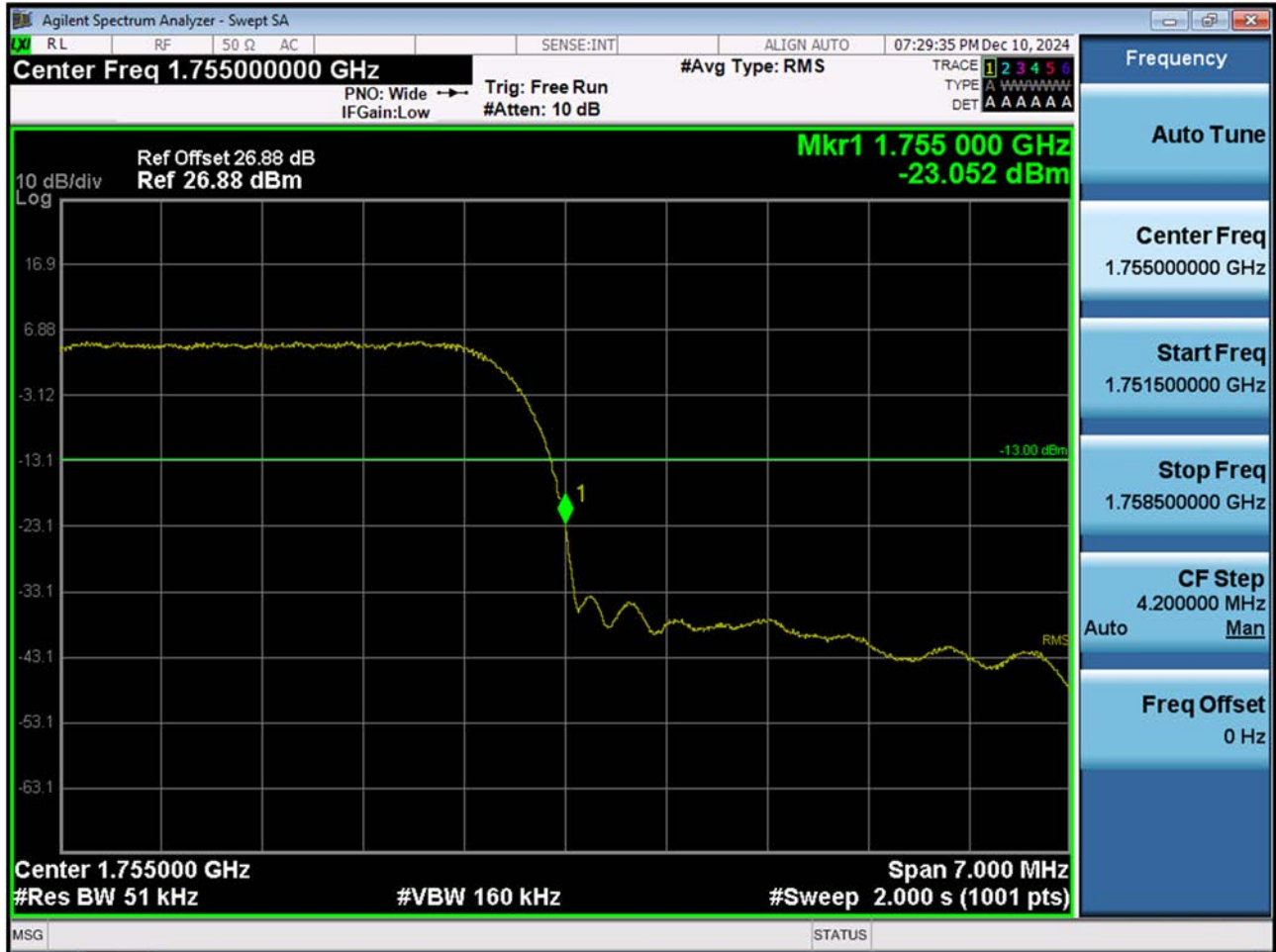
■ WCDMA1700 MODE (1312 CH.) Block Edge



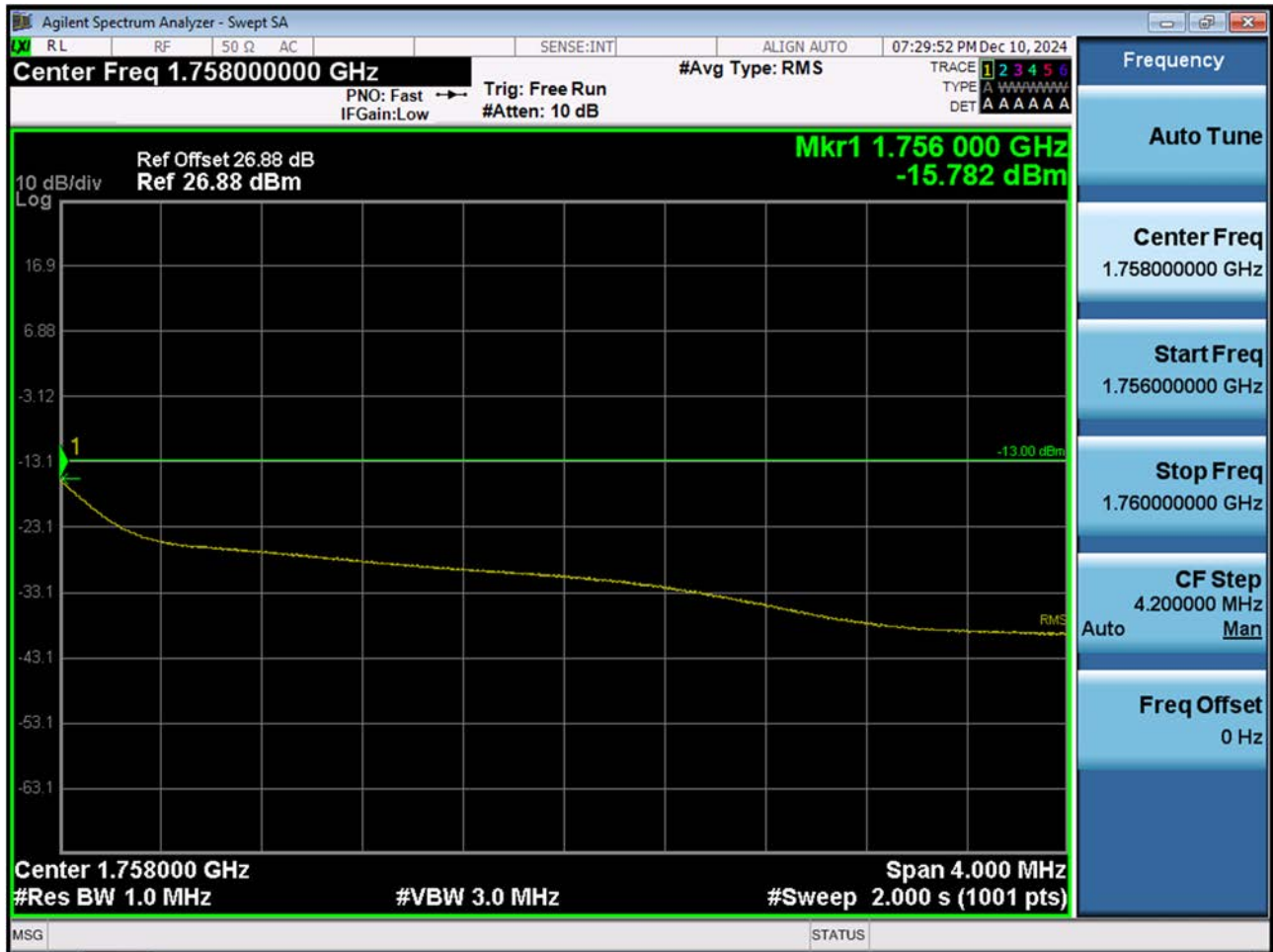
■ WCDMA1700 MODE (1312 CH.) – 4 MHz Span



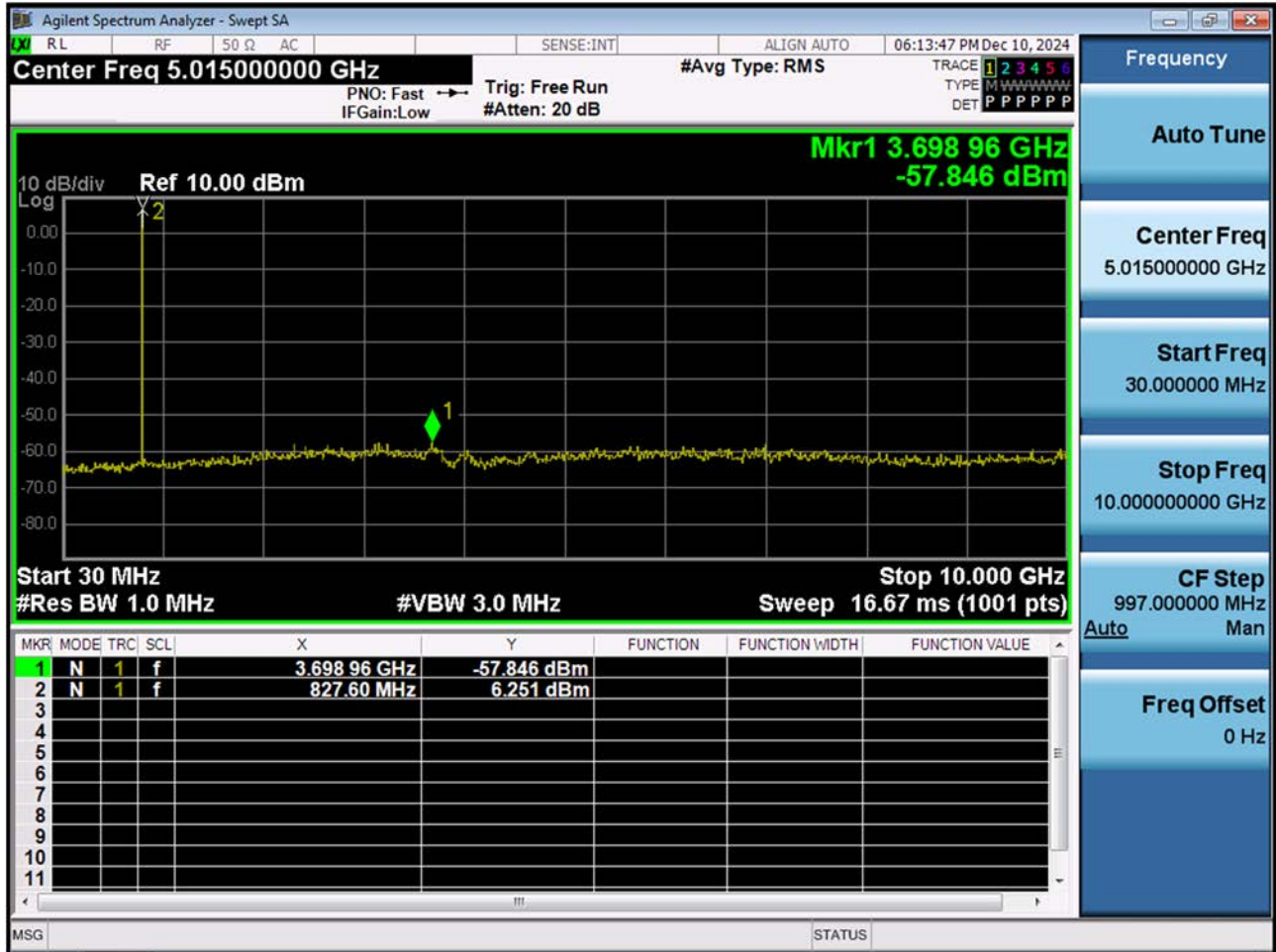
■ WCDMA1700 MODE (1513 CH.) Block Edge



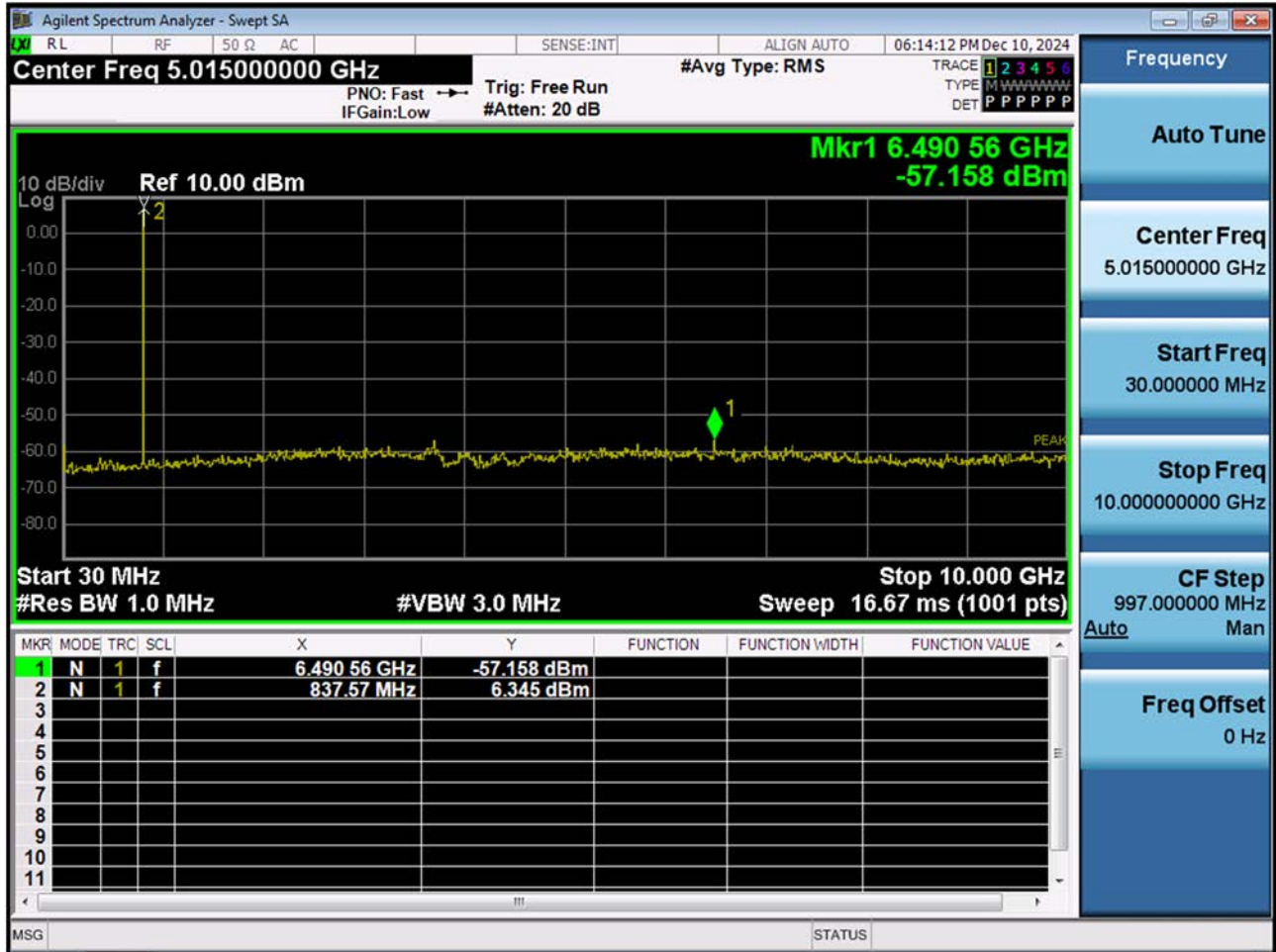
■ WCDMA1700 MODE (1513 CH.) – 4 MHz Span



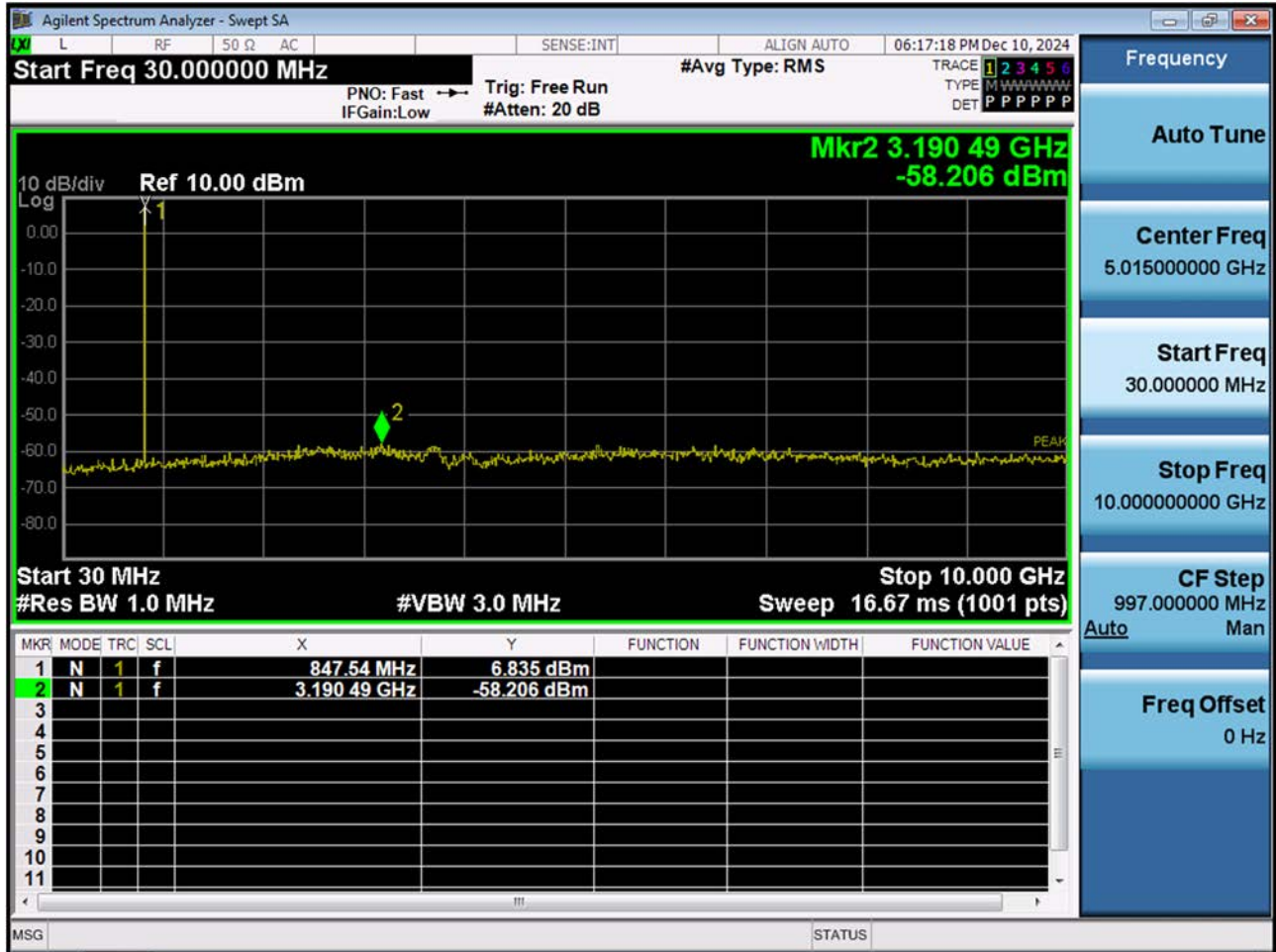
■ GSM850 MODE (128 CH.) Conducted Spurious Emissions



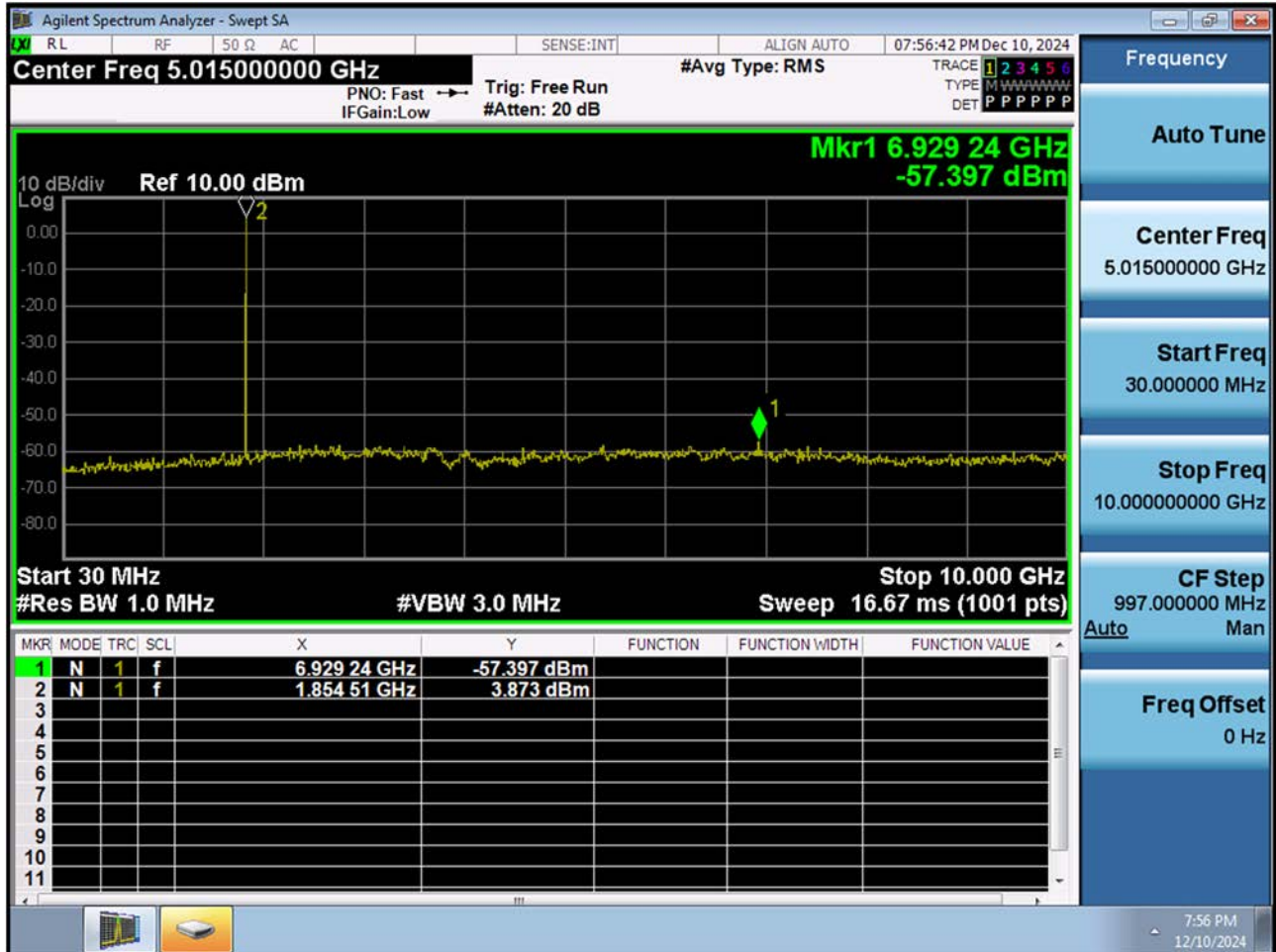
■ GSM850 MODE (190 CH.) Conducted Spurious Emissions



■ GSM850 MODE (251 CH.) Conducted Spurious Emissions



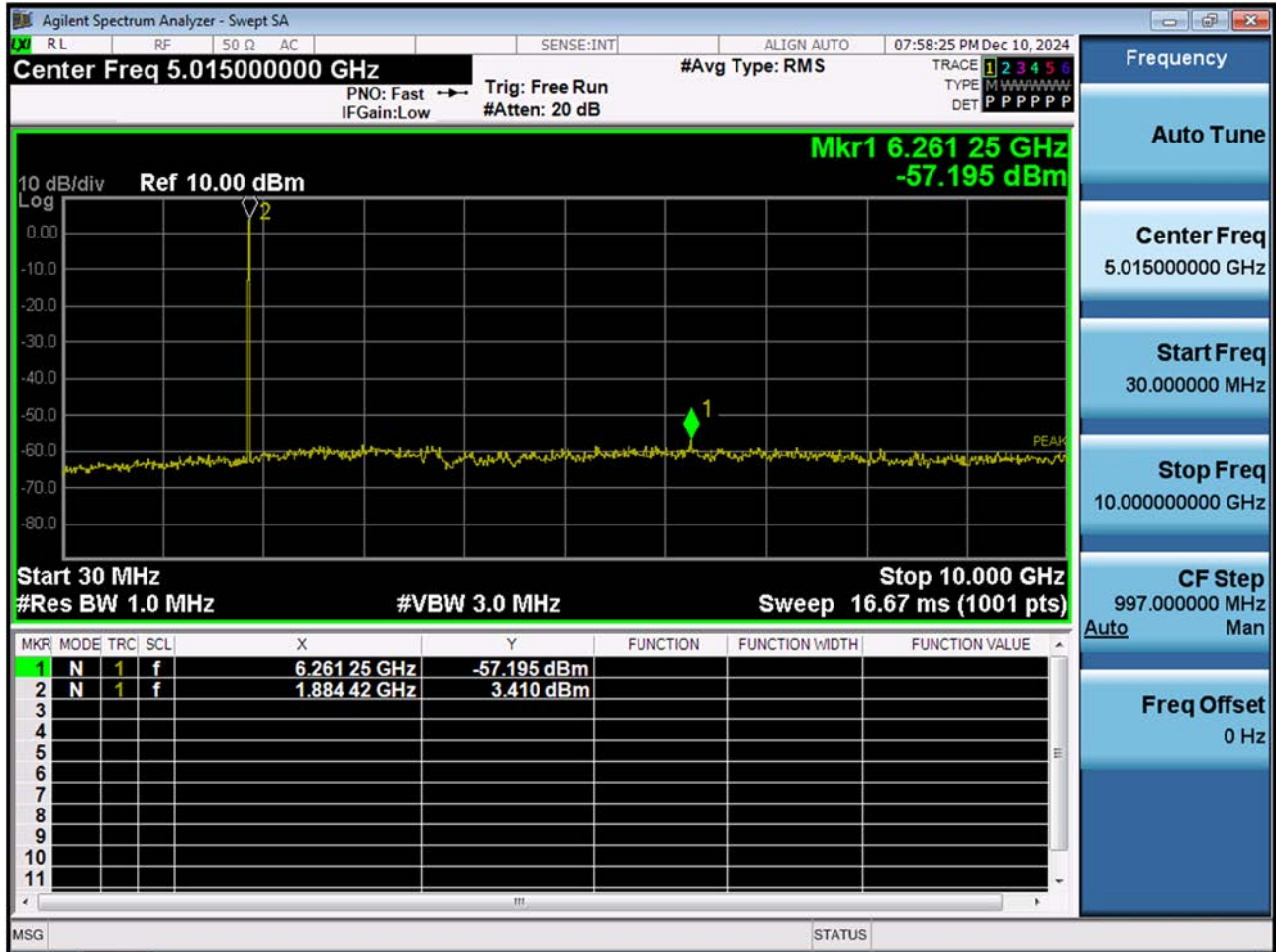
■ GSM1900 MODE (512 CH.) Conducted Spurious Emissions1



■ GSM1900 MODE (512 CH.) Conducted Spurious Emissions2



■ GSM1900 MODE (661 CH) Conducted Spurious Emissions1



Agilent Spectrum Analyzer - Swept SA

L RF 50 Ω AC SENSE:INT ALIGN AUTO 07:59:41 PM Dec 10, 2024

Center Freq 15.00000000 GHz

PNO: Fast → Trig: Free Run #Avg Type: RMS
IFGain:Low #Atten: 20 dB

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

Mkr1 18.92 GHz
-53.392 dBm

10 dB/div Ref 10.00 dBm Log

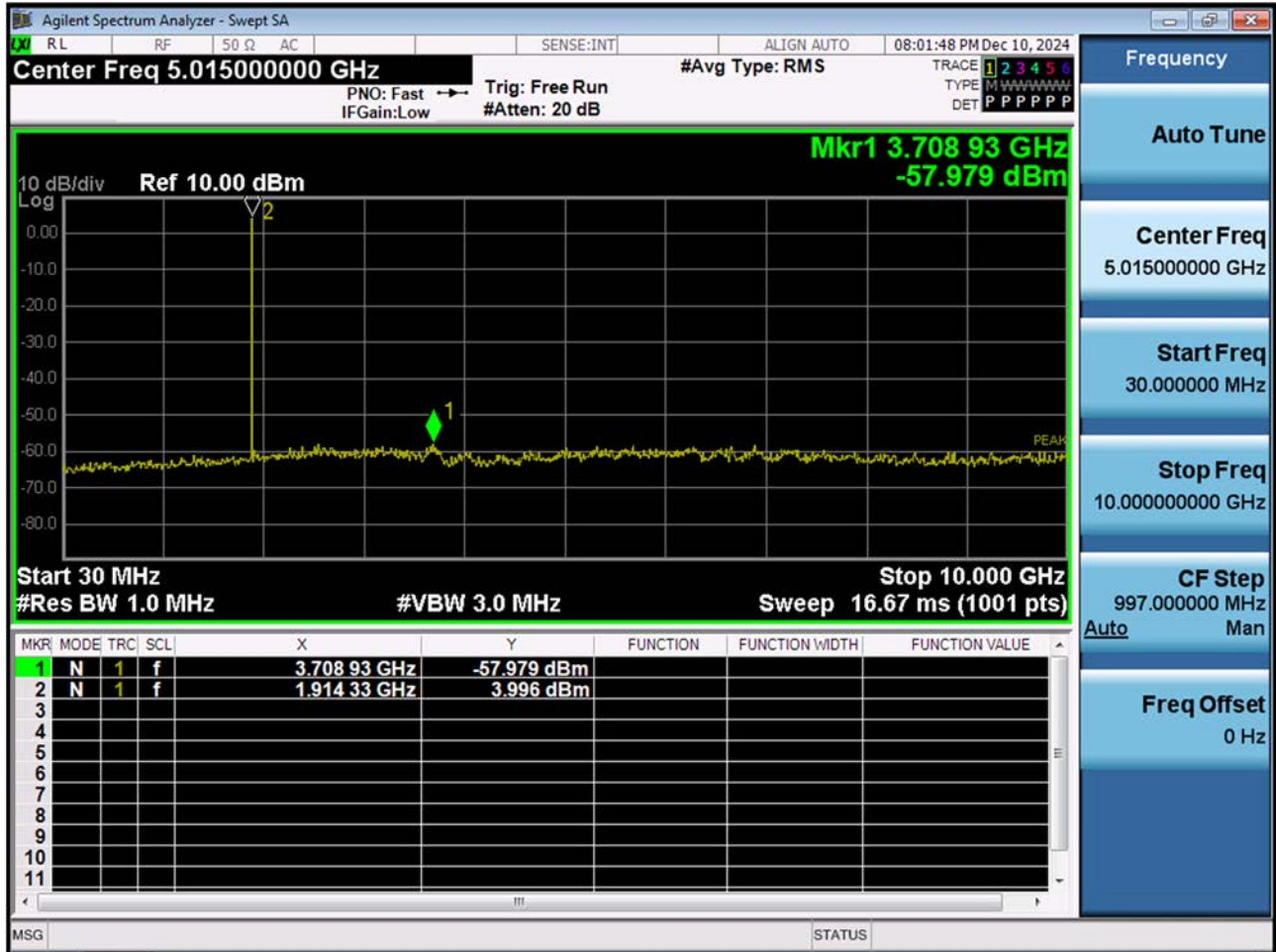
The main plot area shows a spectrum analyzer view with a grid. The horizontal axis represents frequency, ranging from 10.000 GHz to 20.000 GHz. The vertical axis represents power level in dBm, ranging from -80.0 to 0.0. A yellow trace displays a noisy signal, likely representing thermal noise or a wideband source. The power level fluctuates around -60 dBm. A peak marker labeled 'Mkr1' points to a specific location at 18.92 GHz, indicating a power level of -53.392 dBm.

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

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

■ GSM1900 MODE (810 CH.) Conducted Spurious Emissions1



Agilent Spectrum Analyzer - Swept SA

Frequency: 18.90 GHz

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

10 dB/div Log

Ref 10.00 dBm

Mkr1 18.90 GHz -52.453 dBm

Start 10.000 GHz

#Res BW 1.0 MHz

#VBW 3.0 MHz

Sweep 25.00 ms (1001 pts)

Trig: Free Run

#Atten: 20 dB

#Avg Type: RMS

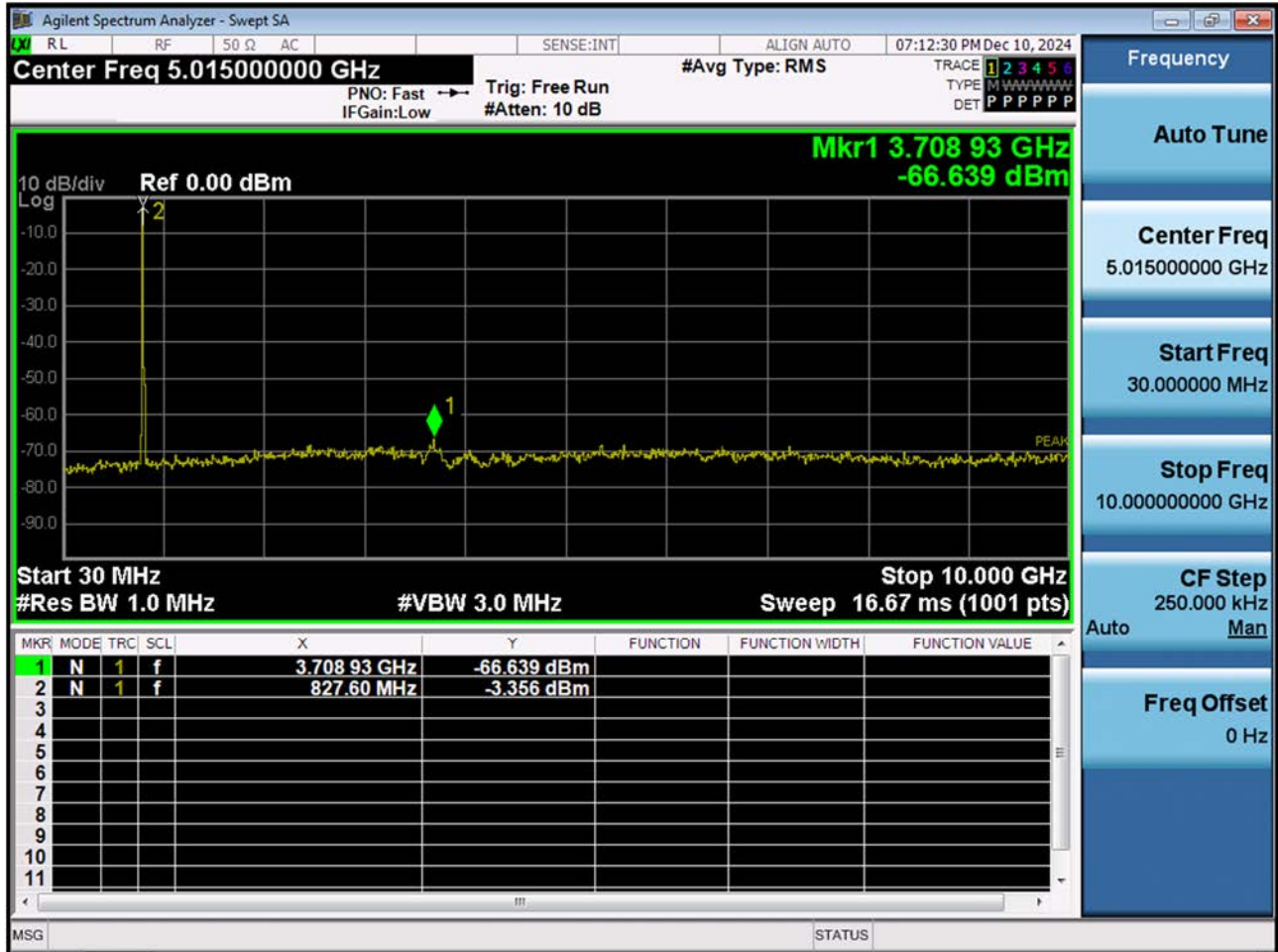
TRAC 1 2 3 4 5 6

TYPE M W W W W W W W W W

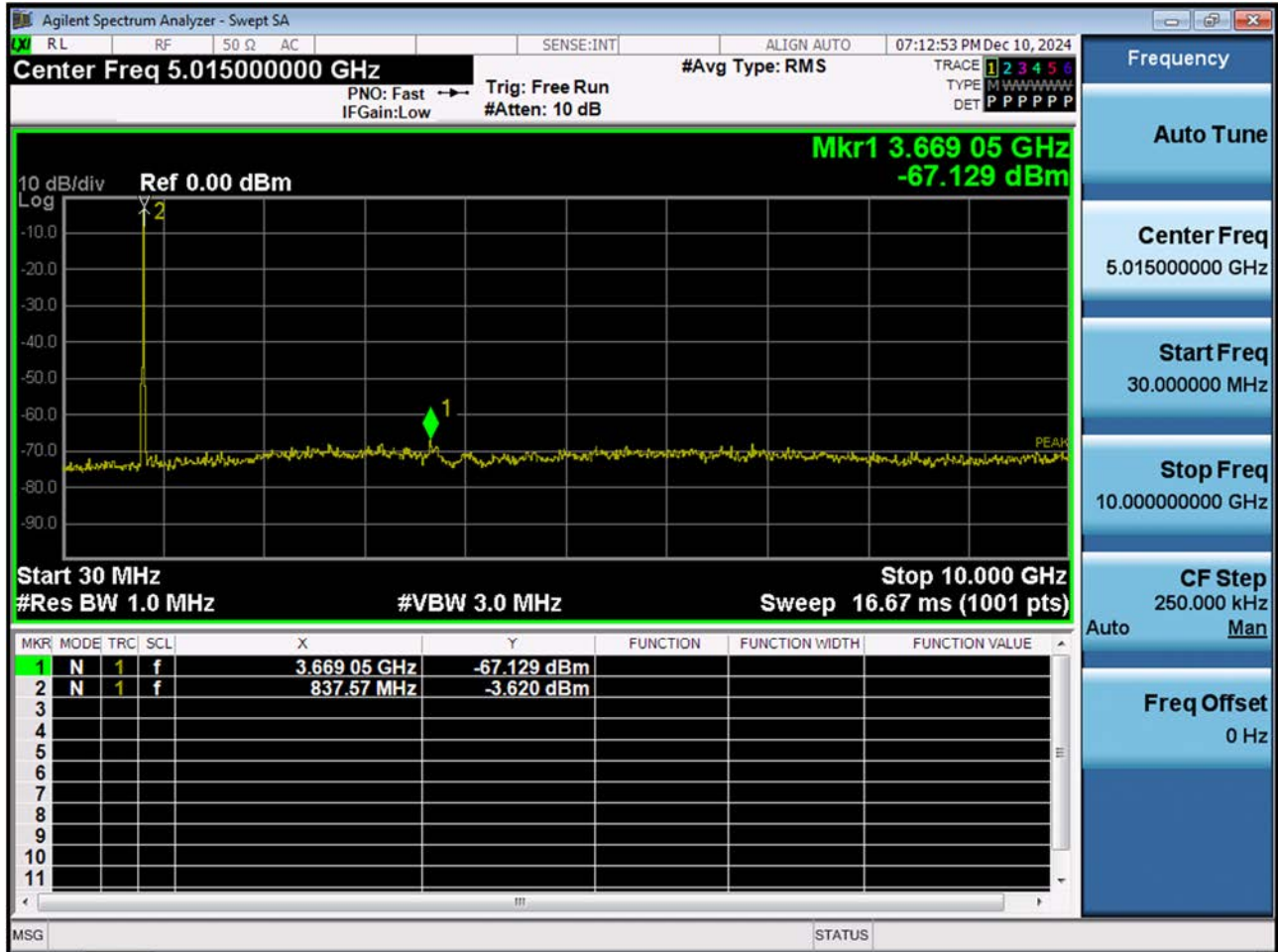
DET P P P P P P P

MSG STATUS

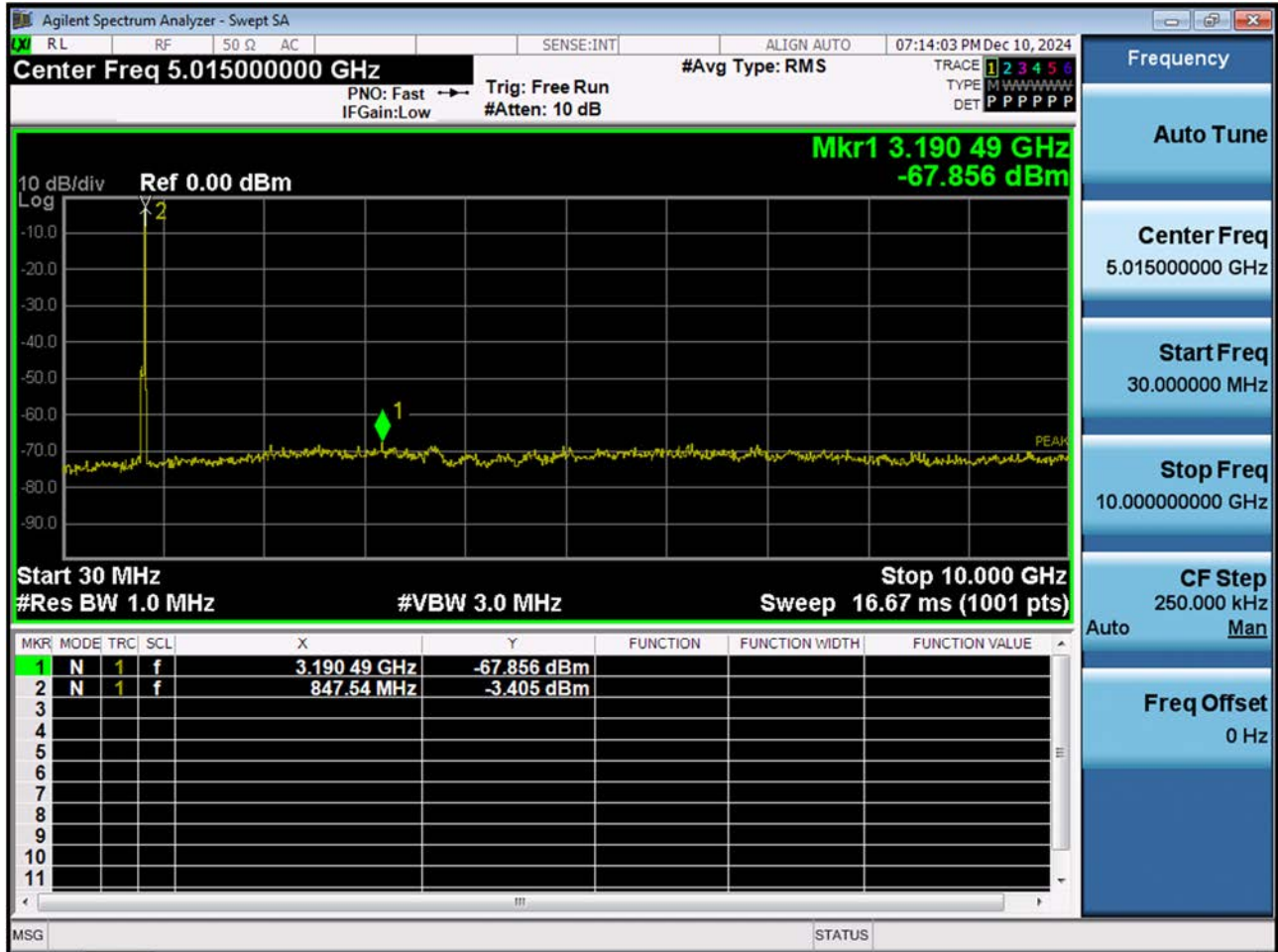
■ WCDMA850 MODE (4132 CH.) Conducted Spurious Emissions



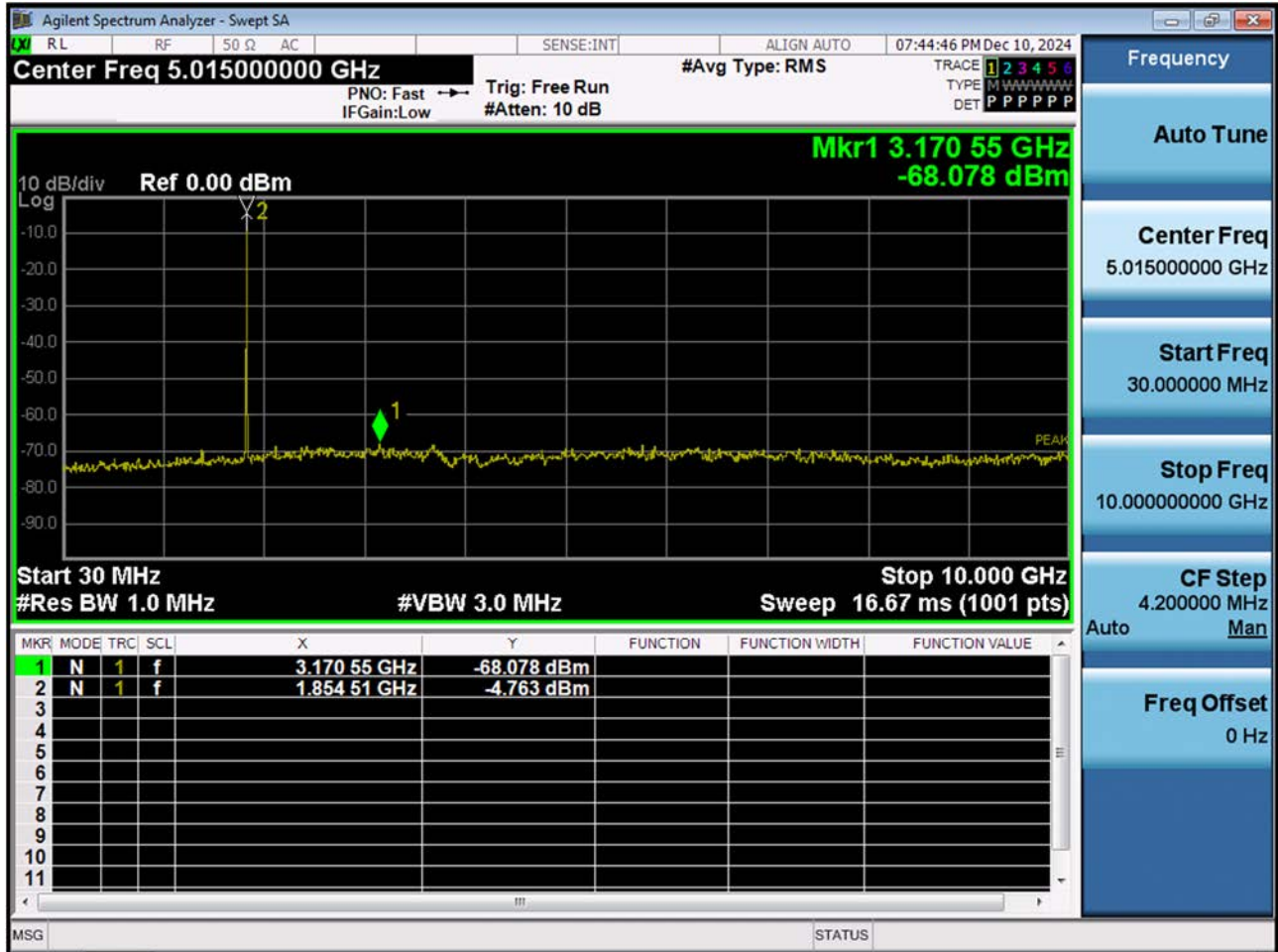
■ WCDMA850 MODE (4183 CH.) Conducted Spurious Emissions



■ WCDMA850MODE (4233 CH.) Conducted Spurious Emissions



■ WCDMA1900 MODE (9262 CH.) Conducted Spurious Emissions1



Agilent Spectrum Analyzer - Swept SA

Start Freq 10.00000000 GHz #Avg Type: RMS

PNO: Fast IFGain:Low Trig: Free Run #Atten: 10 dB

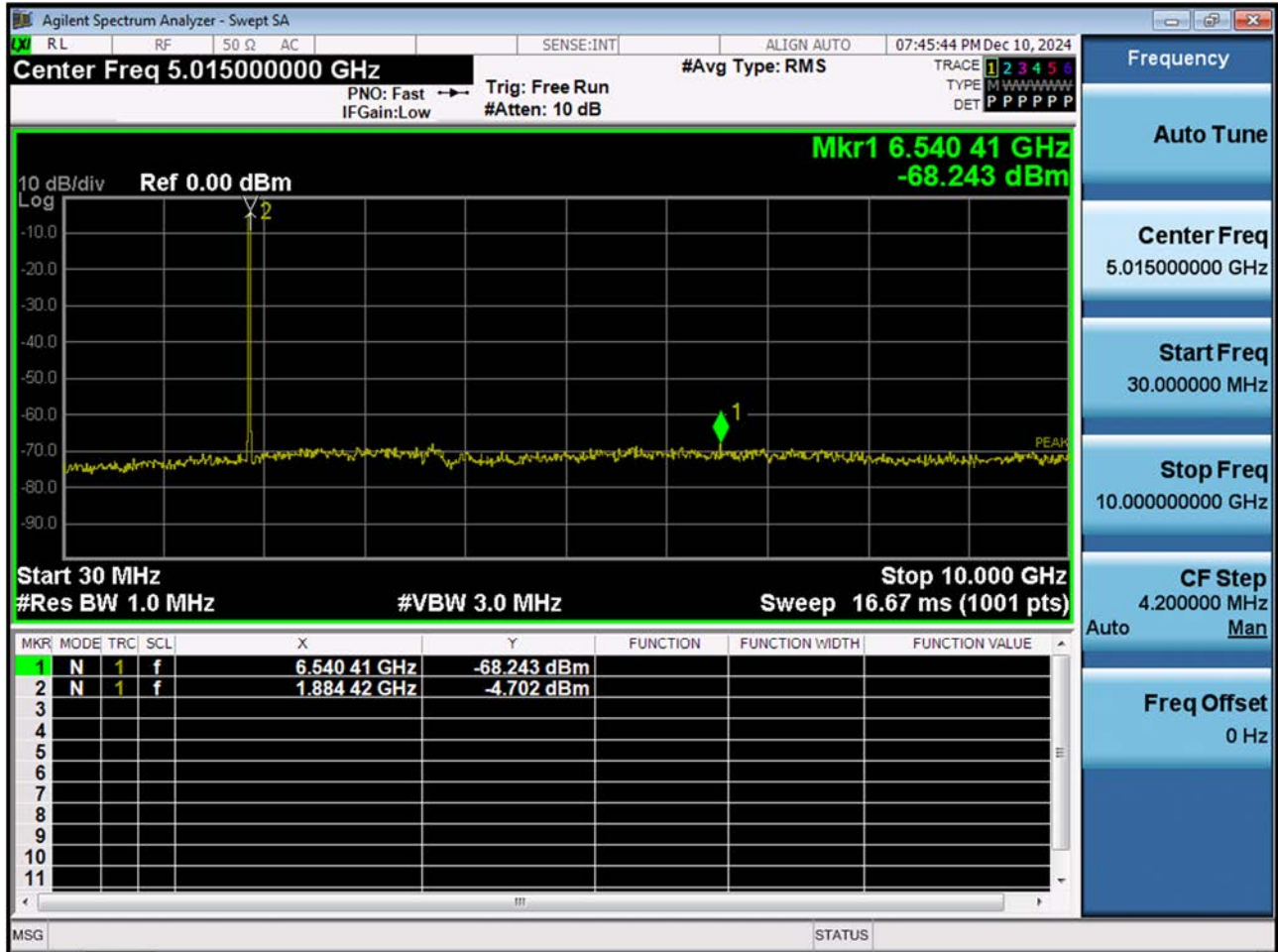
TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET P P P P P P

10 dB/div Log Ref 0.00 dBm

Mkr1 16.64 GHz
-64.25 dBm

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

■ WCDMA1900 MODE (9400 CH.) Conducted Spurious Emissions1



Agilent Spectrum Analyzer - Swept SA

Center Freq 15.00000000 GHz

Start 10.000 GHz

Stop 20.000 GHz

Ref 0.00 dBm

10 dB/div

Log

Mkr1 19.56 GHz

-62.971 dBm

1 PEAK

#Res BW 1.0 MHz

#VBW 3.0 MHz

Sweep 25.00 ms (1001 pts)

Trig: Free Run

#Atten: 10 dB

#Avg Type: RMS

07:46:28 PM Dec 10, 2024

TRACE 1 2 3 4 5 6

TYPE M W W W W W W W

DET P P P P P P

MSG STATUS

Frequency

Auto Tune

Center Freq

15.00000000 GHz

Start Freq

10.00000000 GHz

Stop Freq

20.00000000 GHz

CF Step

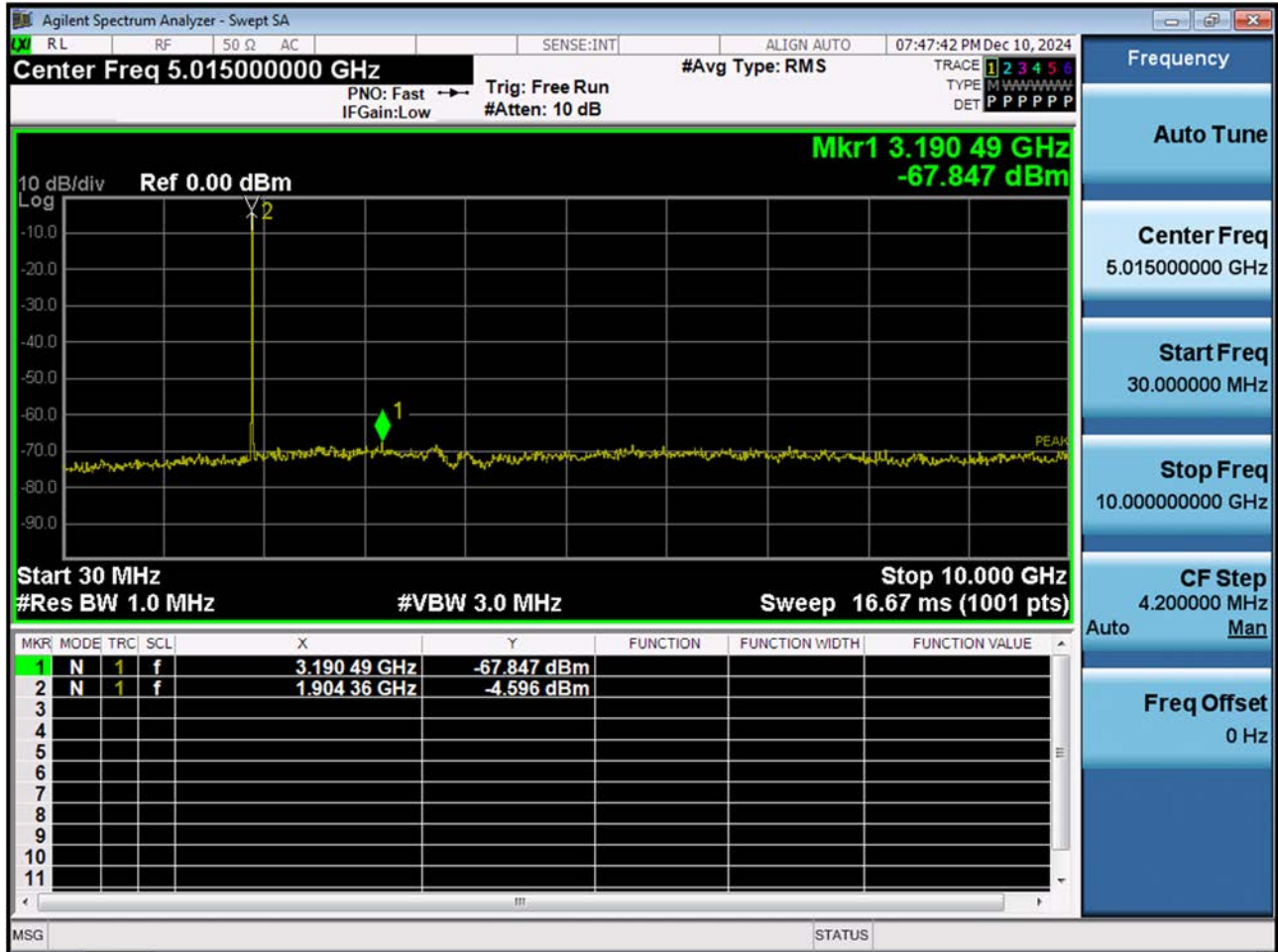
4.200000 MHz

Auto Man

Freq Offset

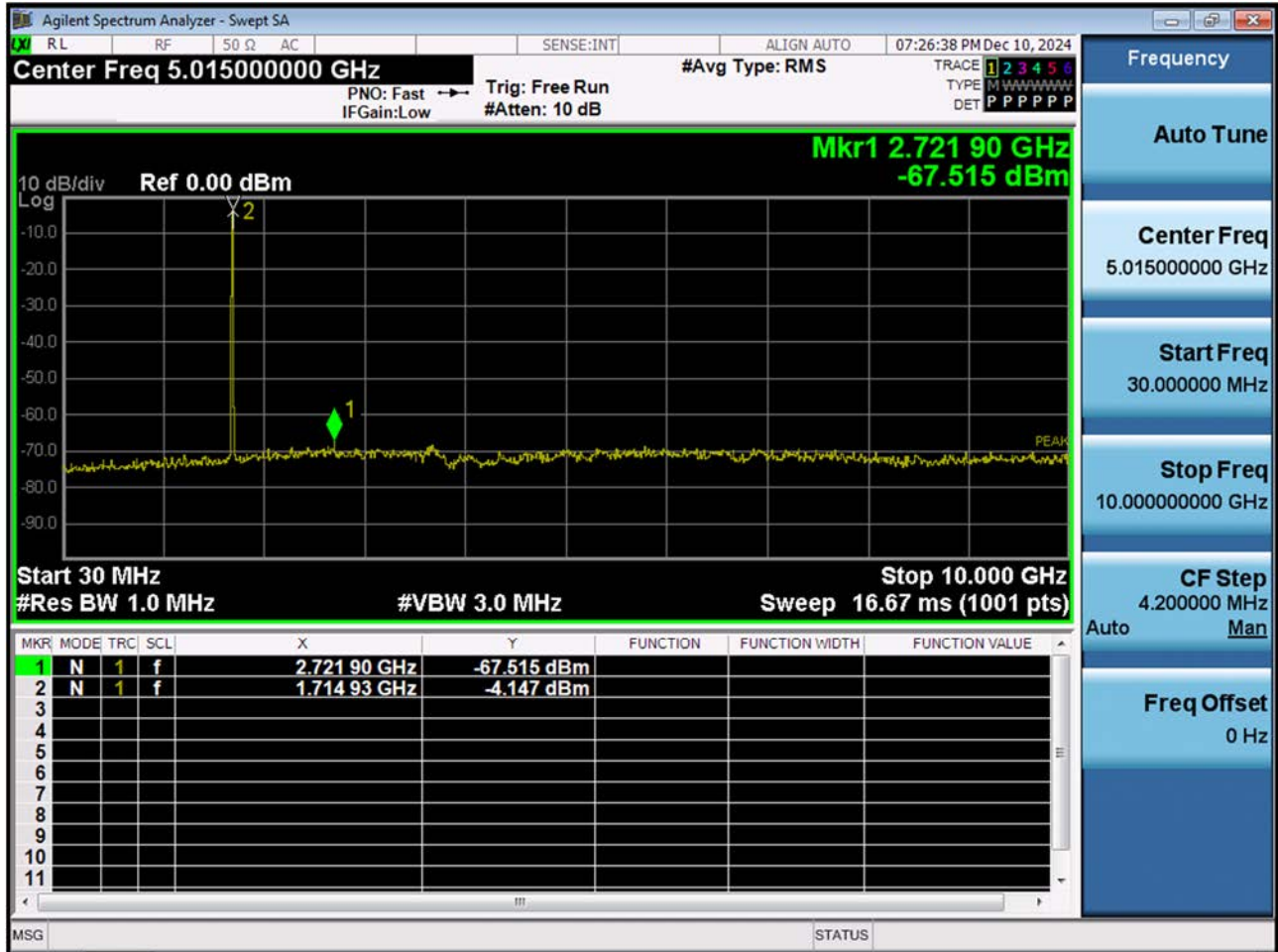
0 Hz

■ WCDMA1900 MODE (9538 CH.) Conducted Spurious Emissions1



[illegible]

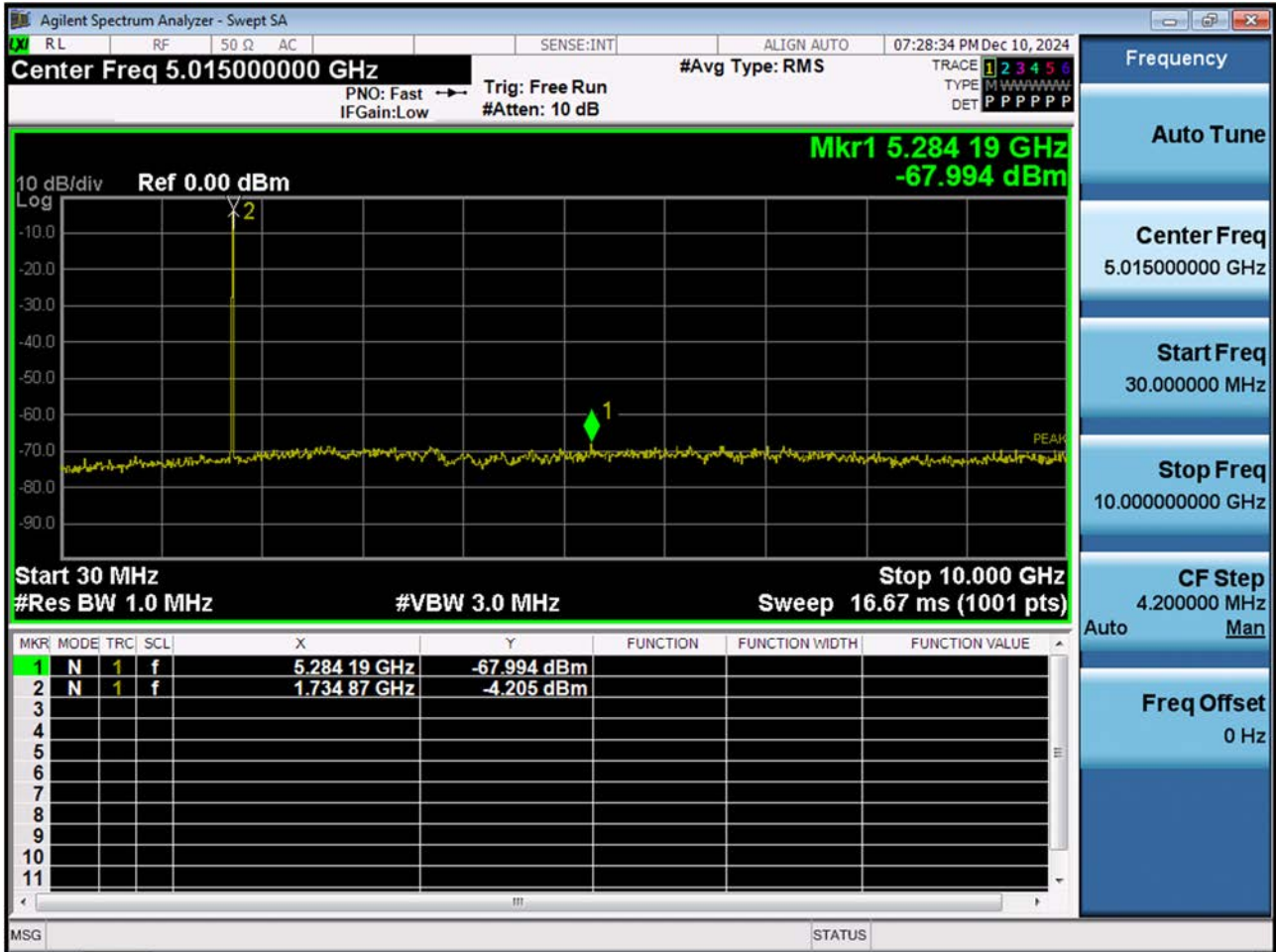
■ WCDMA1700 MODE (1312 CH.) Conducted Spurious Emissions1



■ WCDMA1700 MODE (1312 CH.) Conducted Spurious Emissions2



■ WCDMA1700 MODE (1412 CH.) Conducted Spurious Emissions1



Agilent Spectrum Analyzer - Swept SA

Center Freq 15.00000000 GHz

Trig: Free Run

#Avg Type: RMS

07:28:50 PM Dec 10, 2024

10 dB/div Ref 0.00 dBm

Mkr1 18.79 GHz -63.972 dBm

Start 10.000 GHz

Stop 20.000 GHz

#Res BW 1.0 MHz

#VBW 3.0 MHz

Sweep 25.00 ms (1001 pts)

Frequency

Auto Tune

Center Freq 15.00000000 GHz

Start Freq 10.00000000 GHz

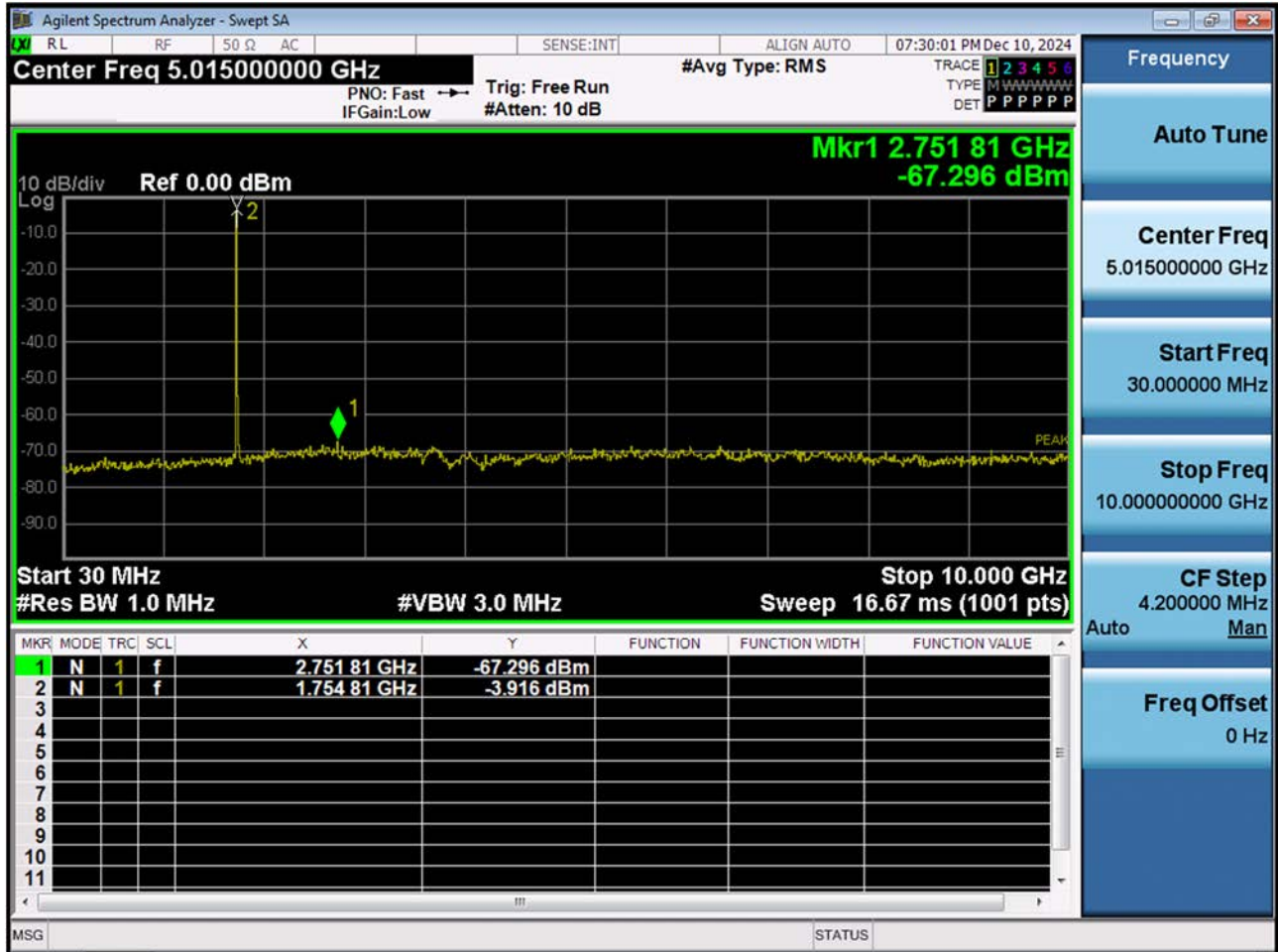
Stop Freq 20.00000000 GHz

CF Step 4.200000 MHz

Auto Man

Freq Offset 0 Hz

■ WCDMA1700 MODE (1513 CH.) Conducted Spurious Emissions1

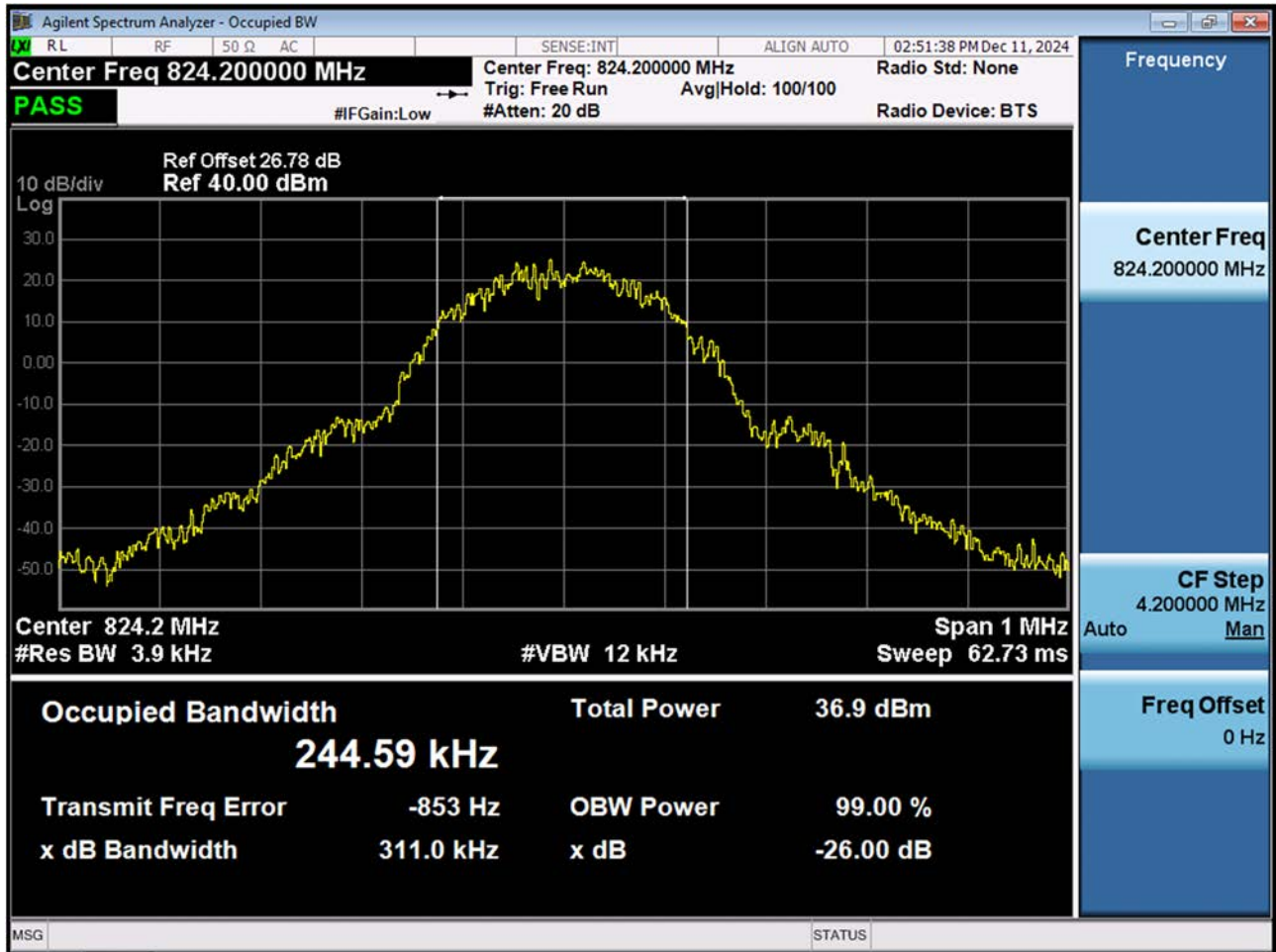


■ WCDMA1700 MODE (1513 CH.) Conducted Spurious Emissions2

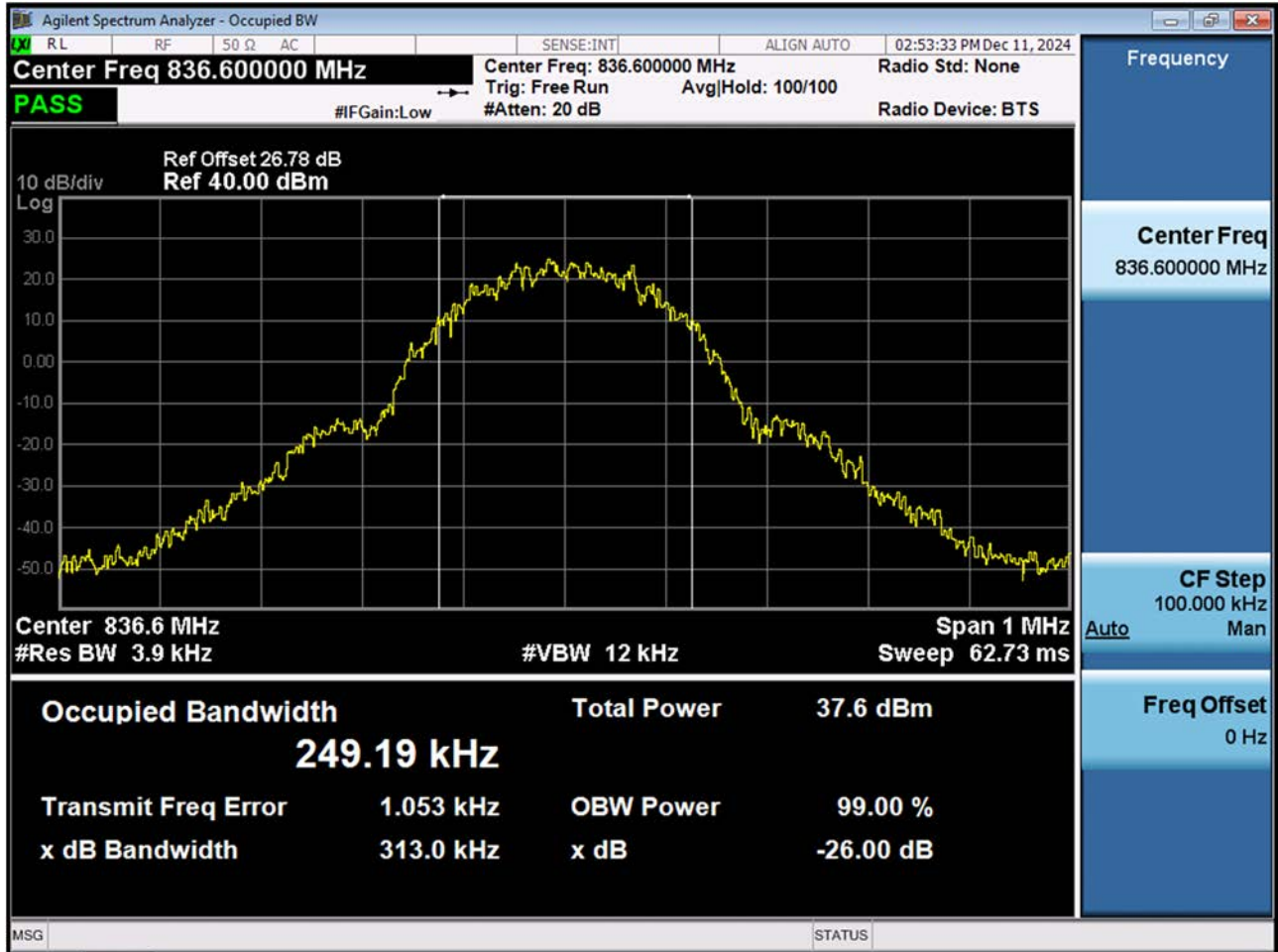


11. TEST PLOTS(Sub 1 ANT)

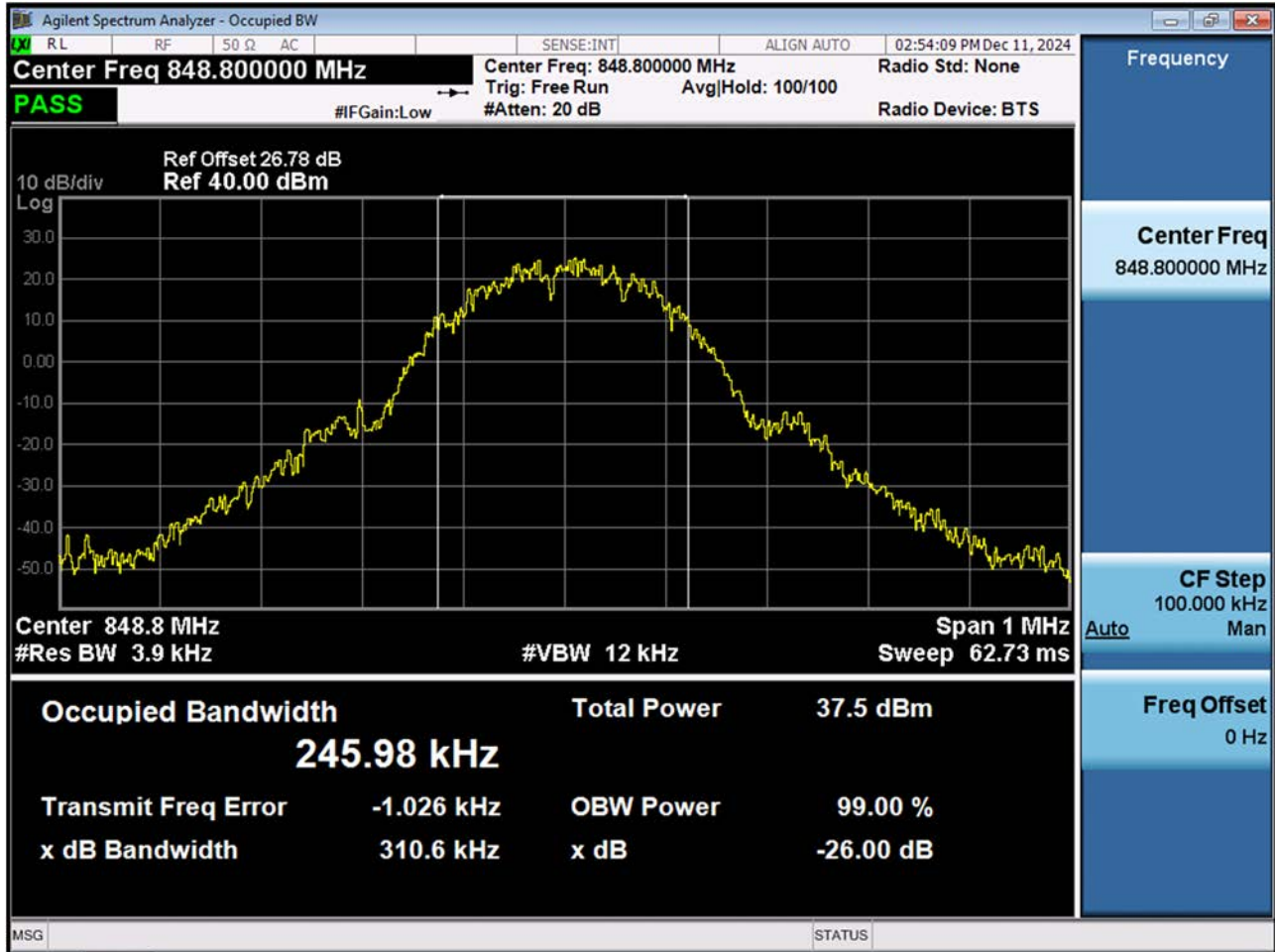
■ GSM850 MODE (128 CH.) Occupied Bandwidth



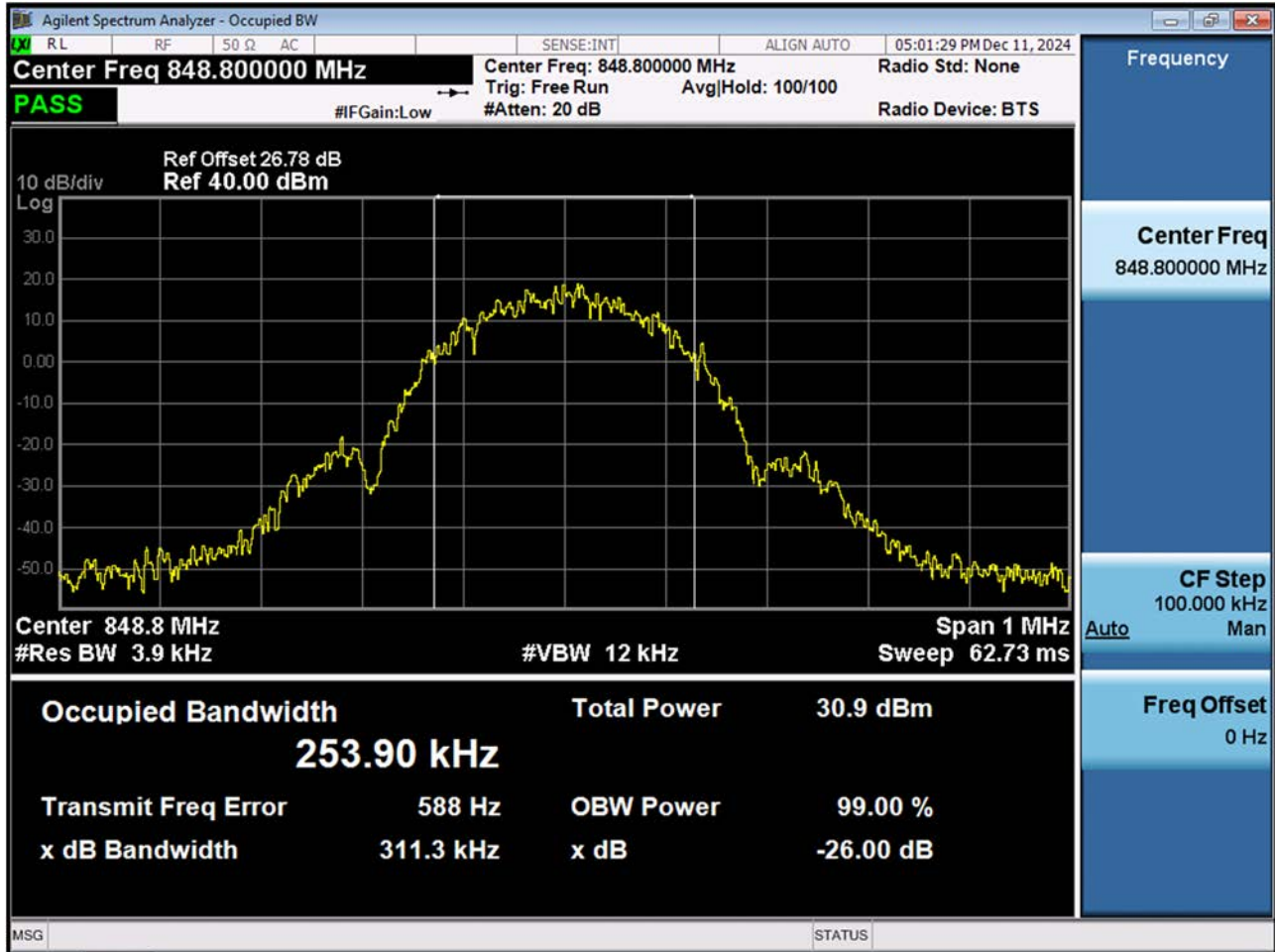
■ GSM850 MODE (190 CH.) Occupied Bandwidth



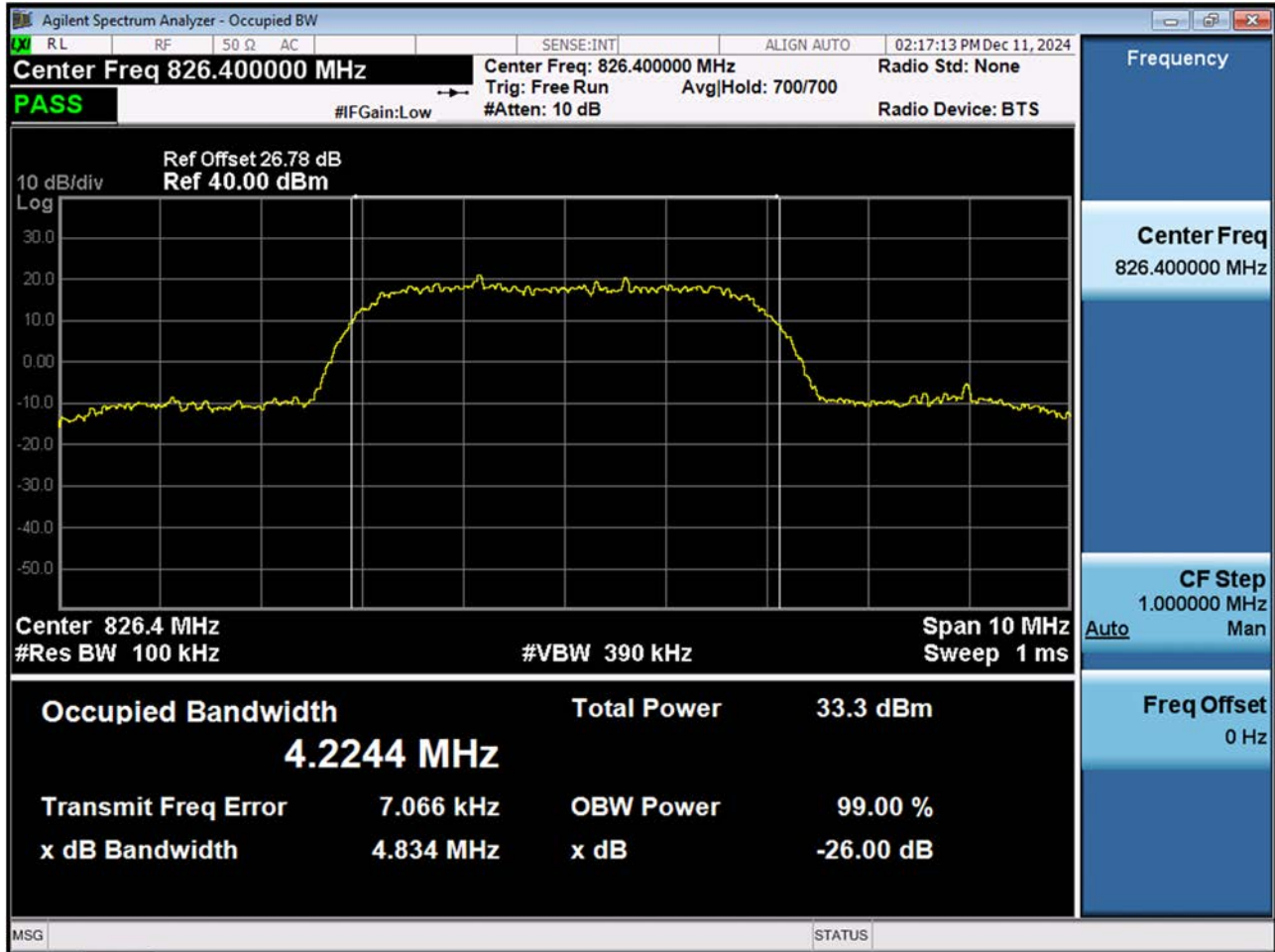
■ GSM850 MODE (251 CH.) Occupied Bandwidth



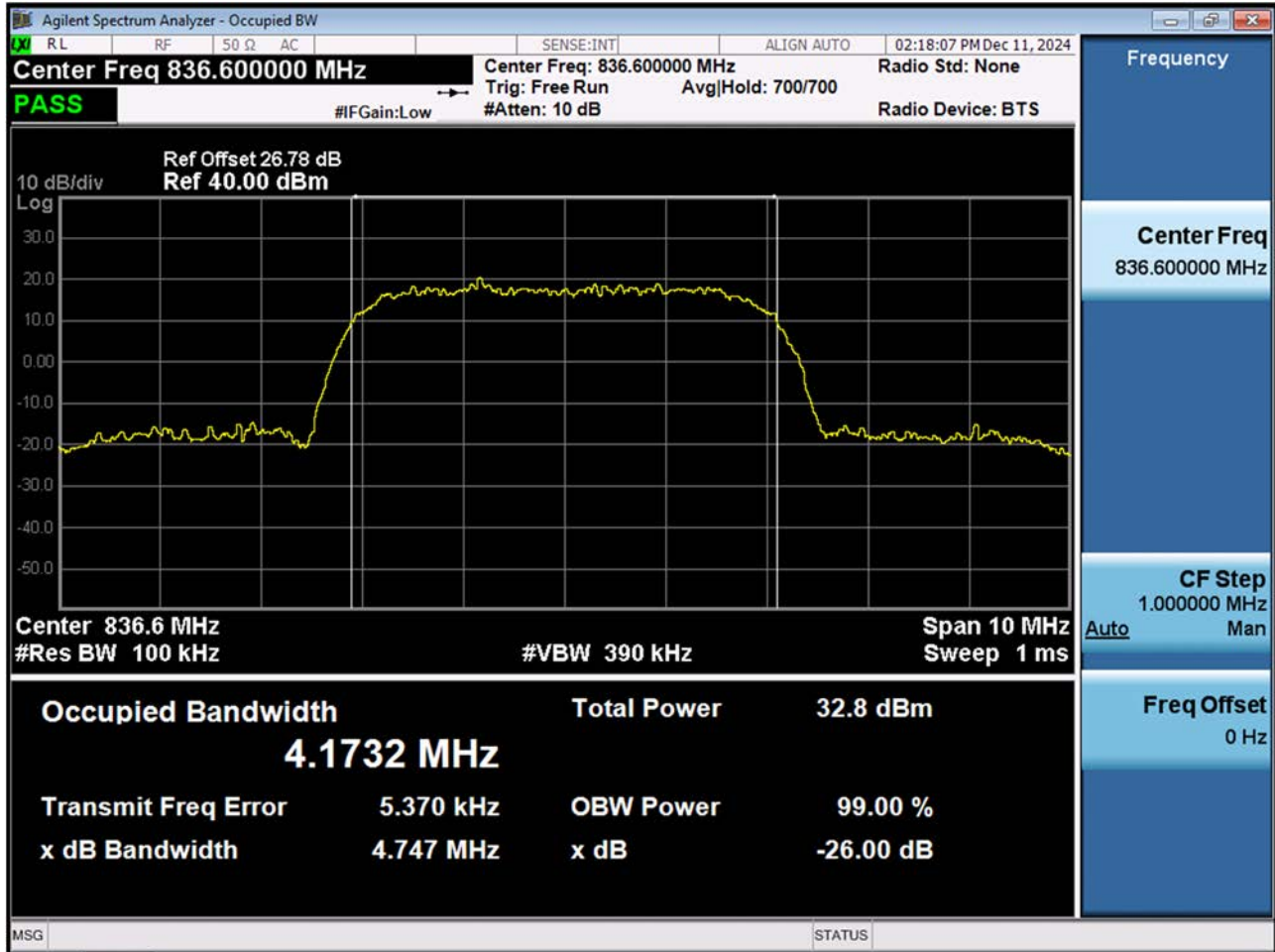
■ GSM850 EDGE (251 CH.) Occupied Bandwidth



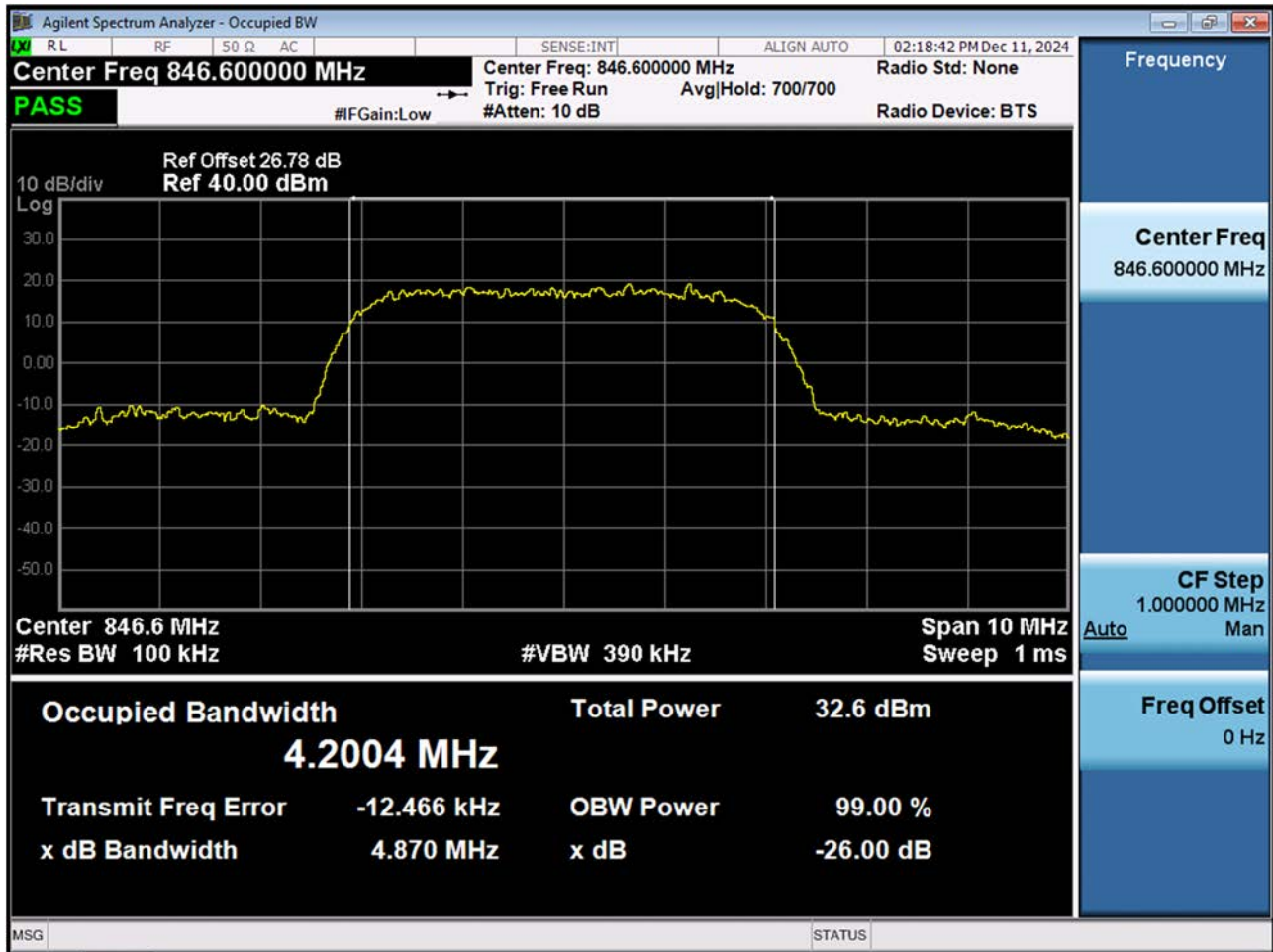
■ WCDMA850 MODE (4132 CH.) Occupied Bandwidth



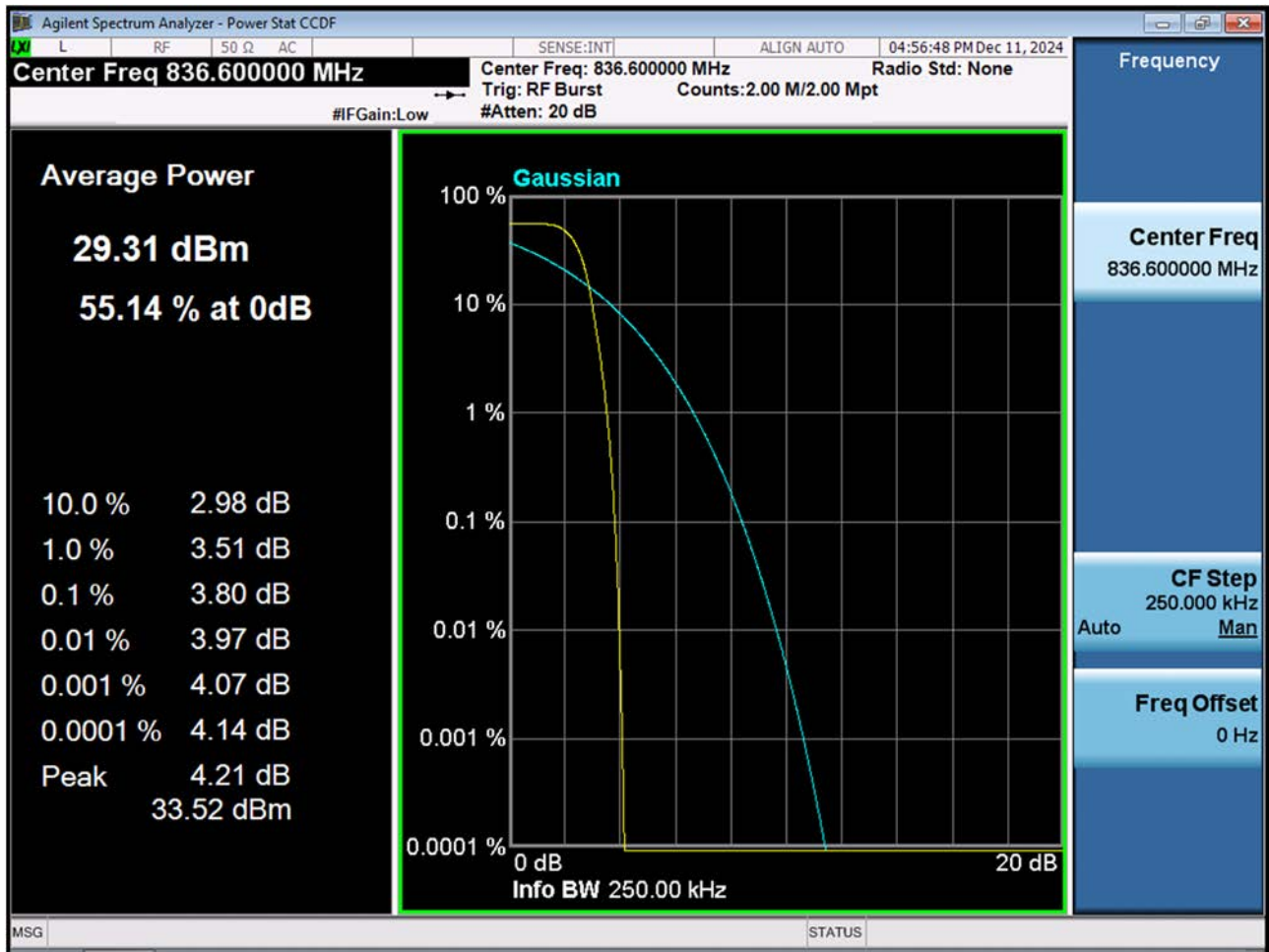
■ WCDMA850 MODE (4183 CH.) Occupied Bandwidth



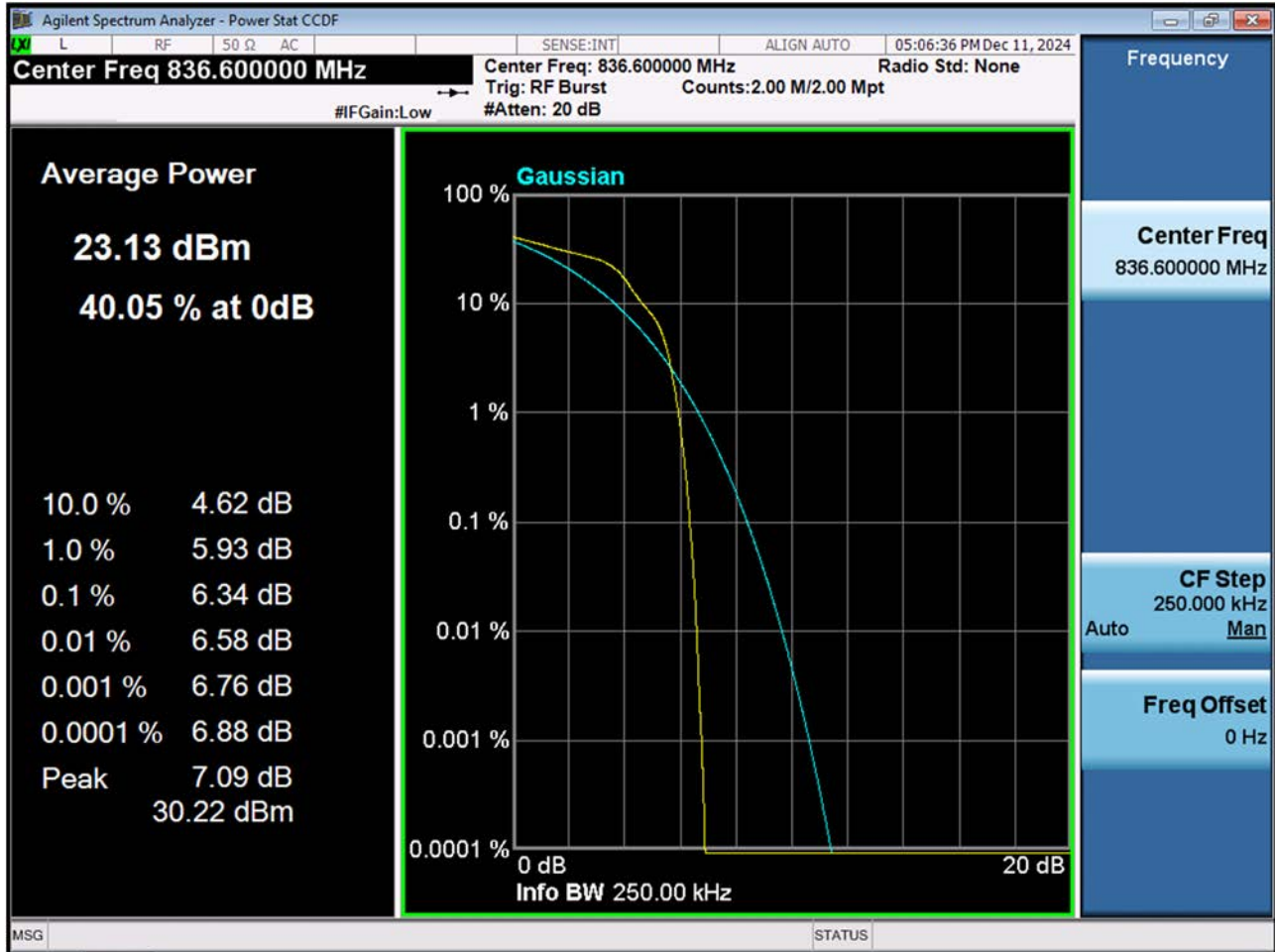
■ WCDMA850MODE (4233 CH.) Occupied Bandwidth



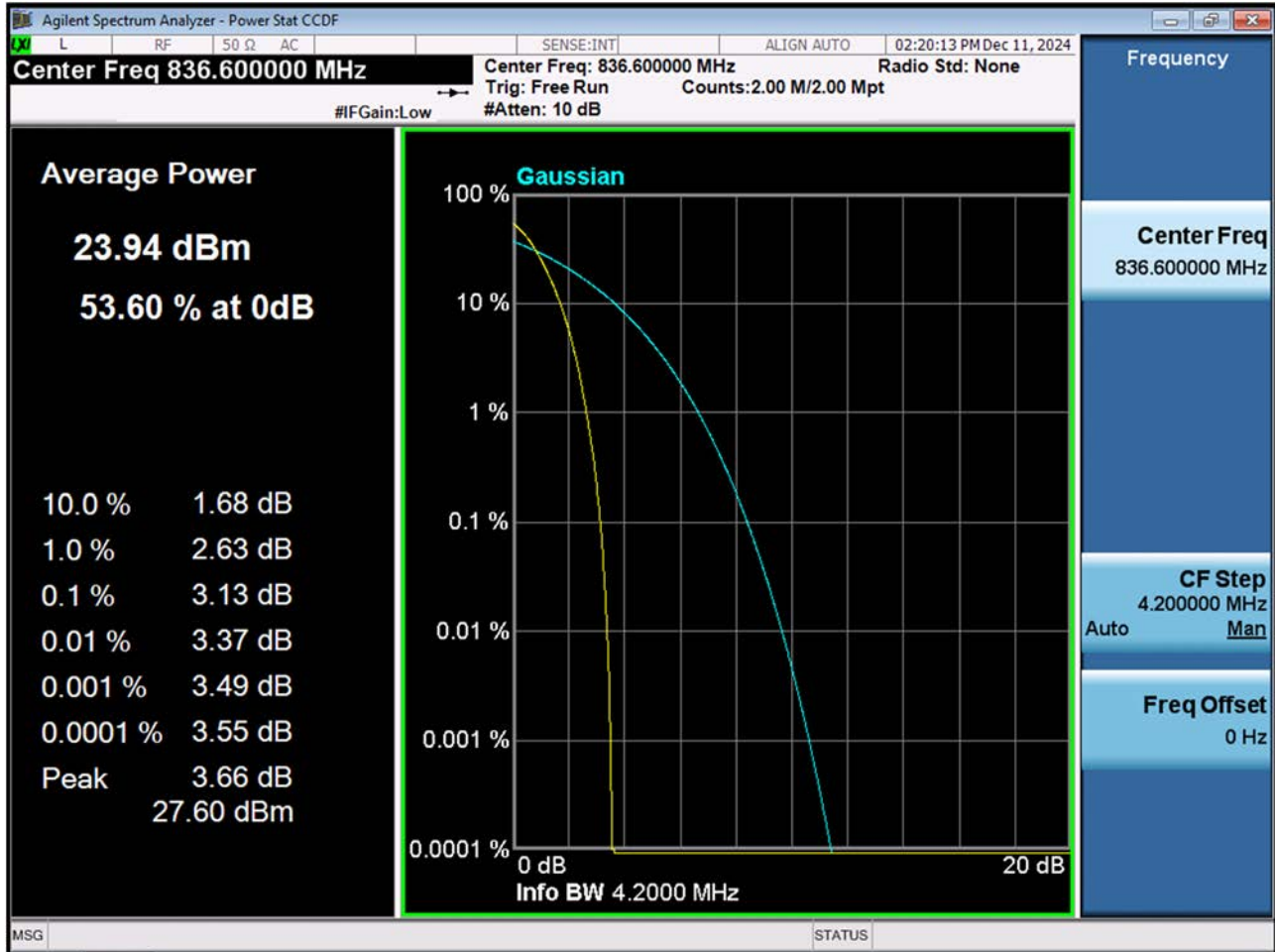
■ GSM850 MODE (190 CH.) Peak-to-Average Ratio



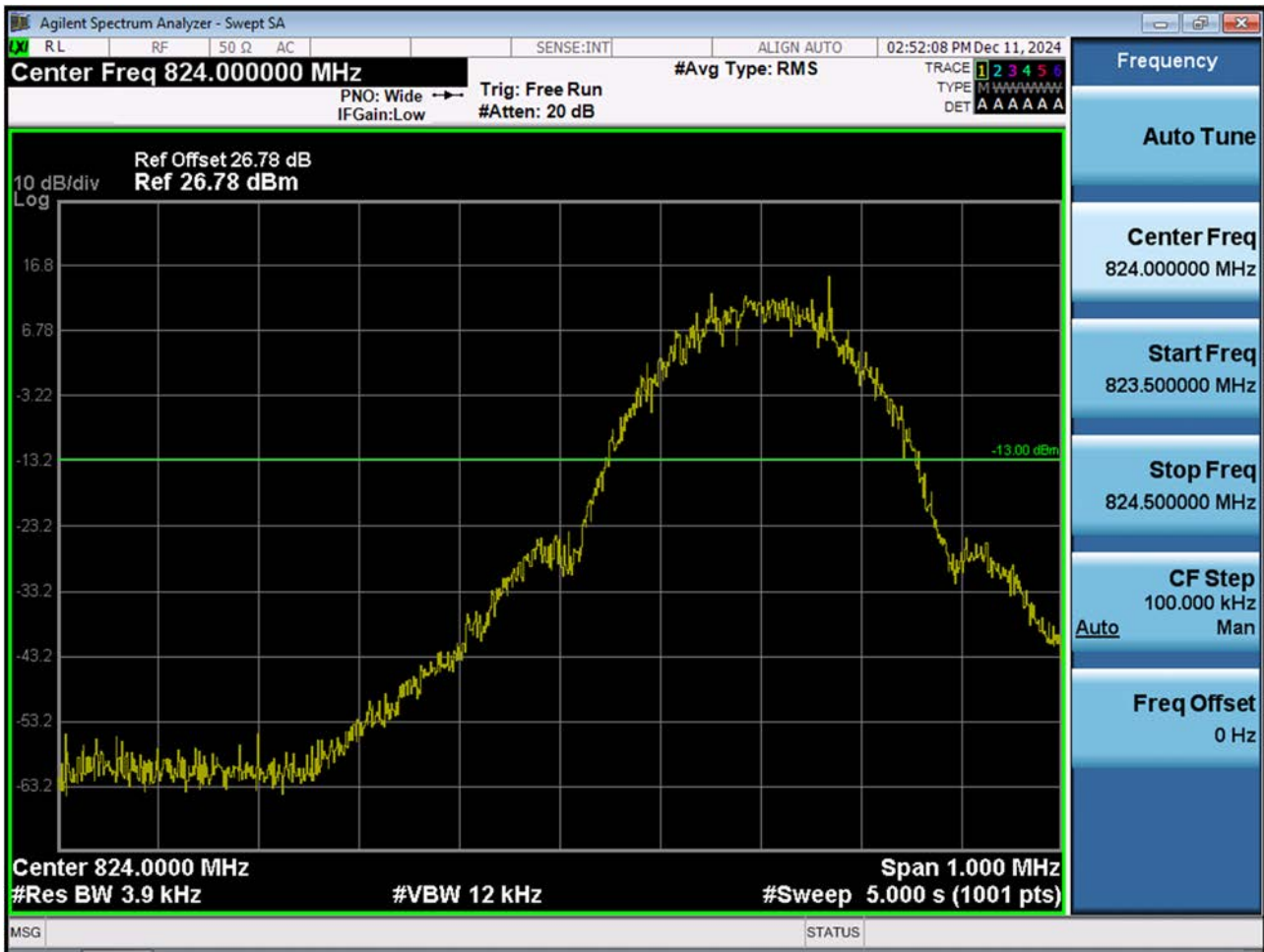
■ GSM850 EDGE (190 CH.) Peak-to-Average Ratio



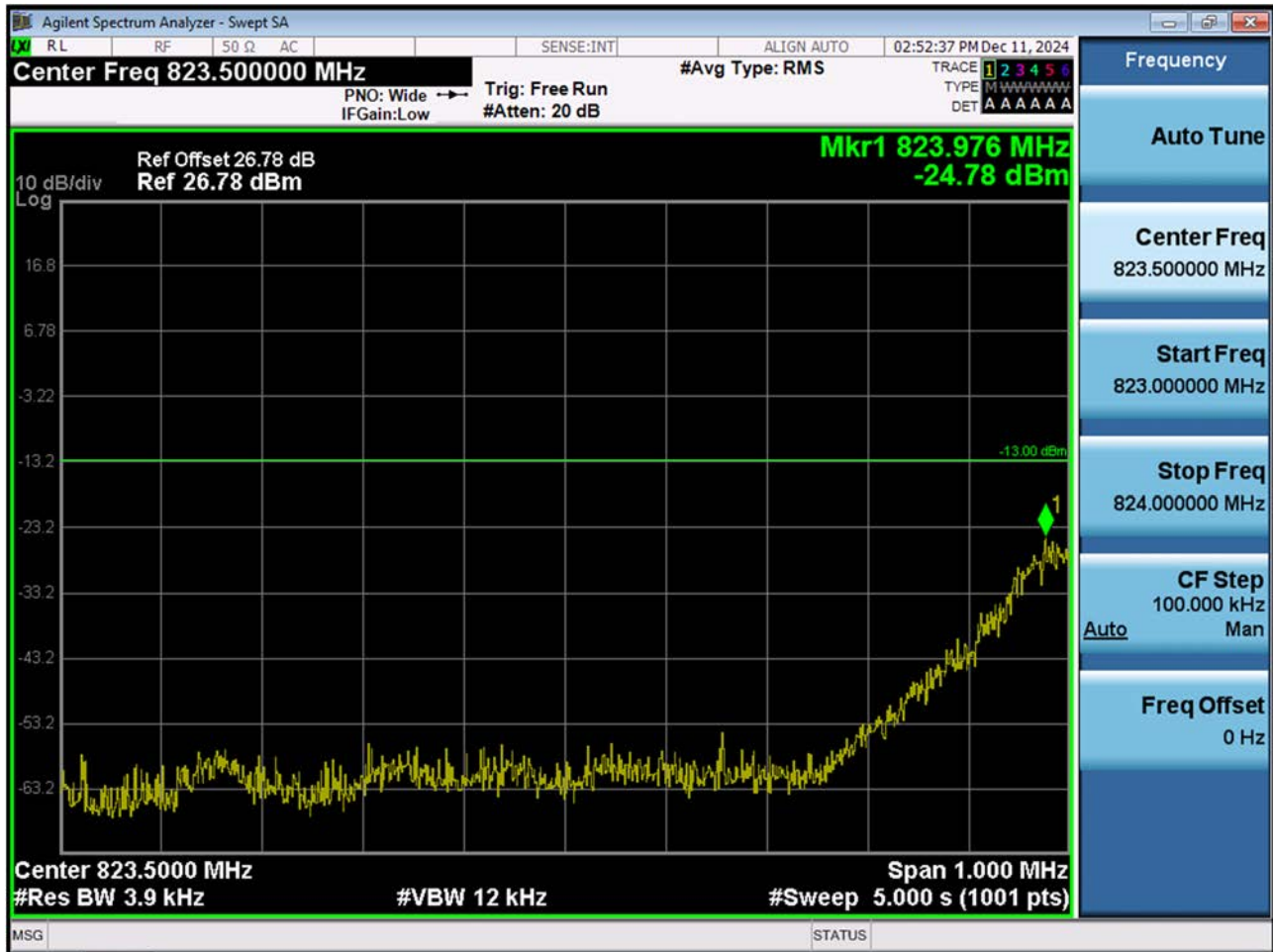
■ WCDMA850 MODE (4408 CH.) Peak-to-Average Ratio



■ GSM850 MODE (128 CH.) Block Edge 1



■ GSM850 MODE (128 CH.) Block Edge 2



Agilent Spectrum Analyzer - Swept SA

Center Freq 821.000000 MHz

Ref Offset 26.78 dB
Ref 10.00 dBm

10 dB/div
Log

Mkr1 822.968 MHz
-48.21 dBm

-13.00 dBm

Center 821.000 MHz
#Res BW 100 kHz
#VBW 300 kHz
#Sweep 5.000 s (1001 pts)

Span 4.000 MHz

MSG STATUS

Frequency

Auto Tune

Center Freq
821.000000 MHz

Start Freq
819.000000 MHz

Stop Freq
823.000000 MHz

CF Step
400.000 kHz
Auto Man

Freq Offset
0 Hz

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 02:54:39 PM Dec 11, 2024

Center Freq 849.000000 MHz #Avg Type: RMS

PNO: Wide → Trig: Free Run
IFGain:Low #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

Ref Offset 26.78 dB
Ref 26.78 dBm

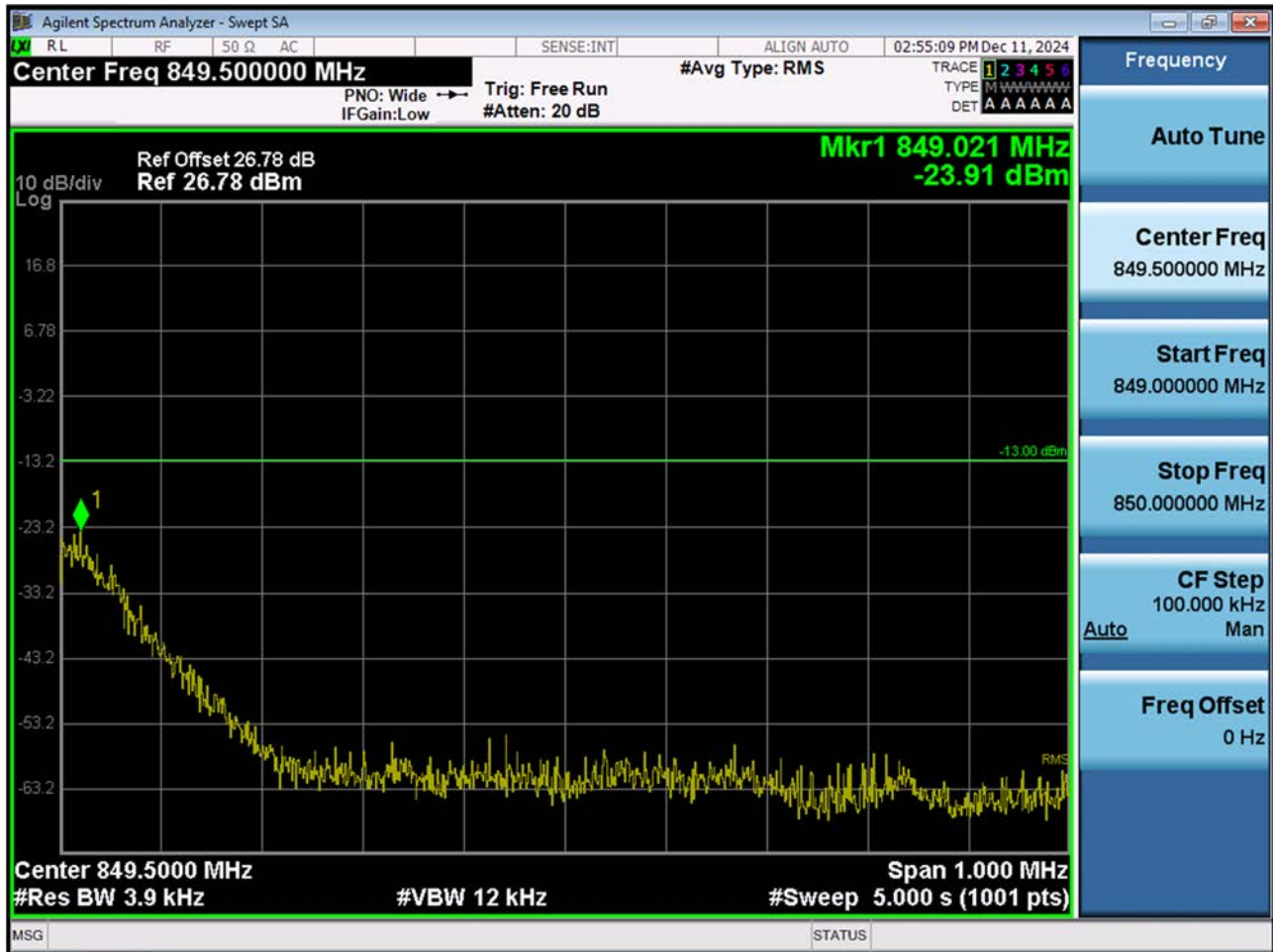
10 dB/div
Log

-13.00 dBm

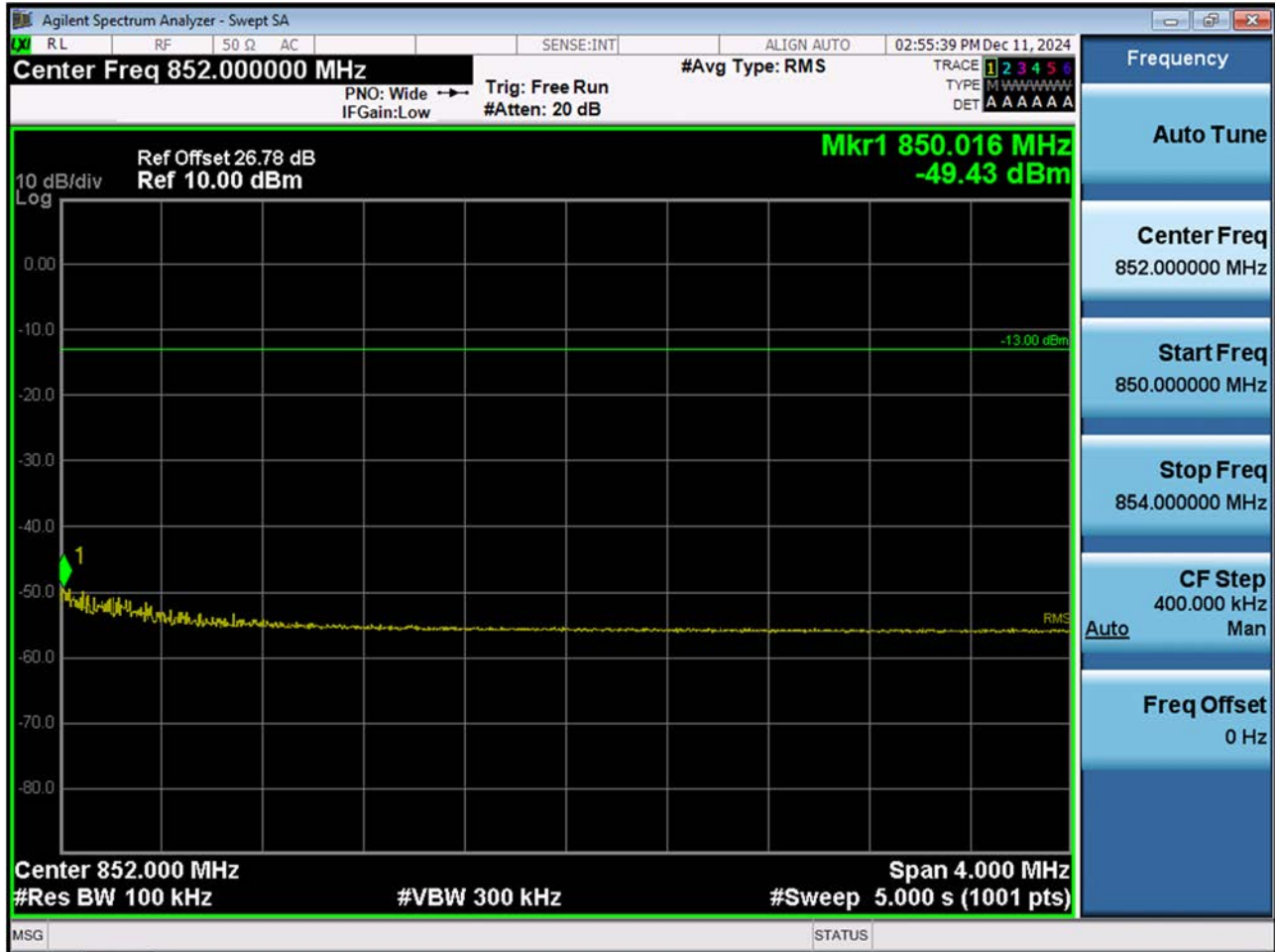
RMS

Center 849.0000 MHz Span 1.000 MHz
#Res BW 3.9 kHz #VBW 12 kHz #Sweep 5.000 s (1001 pts)

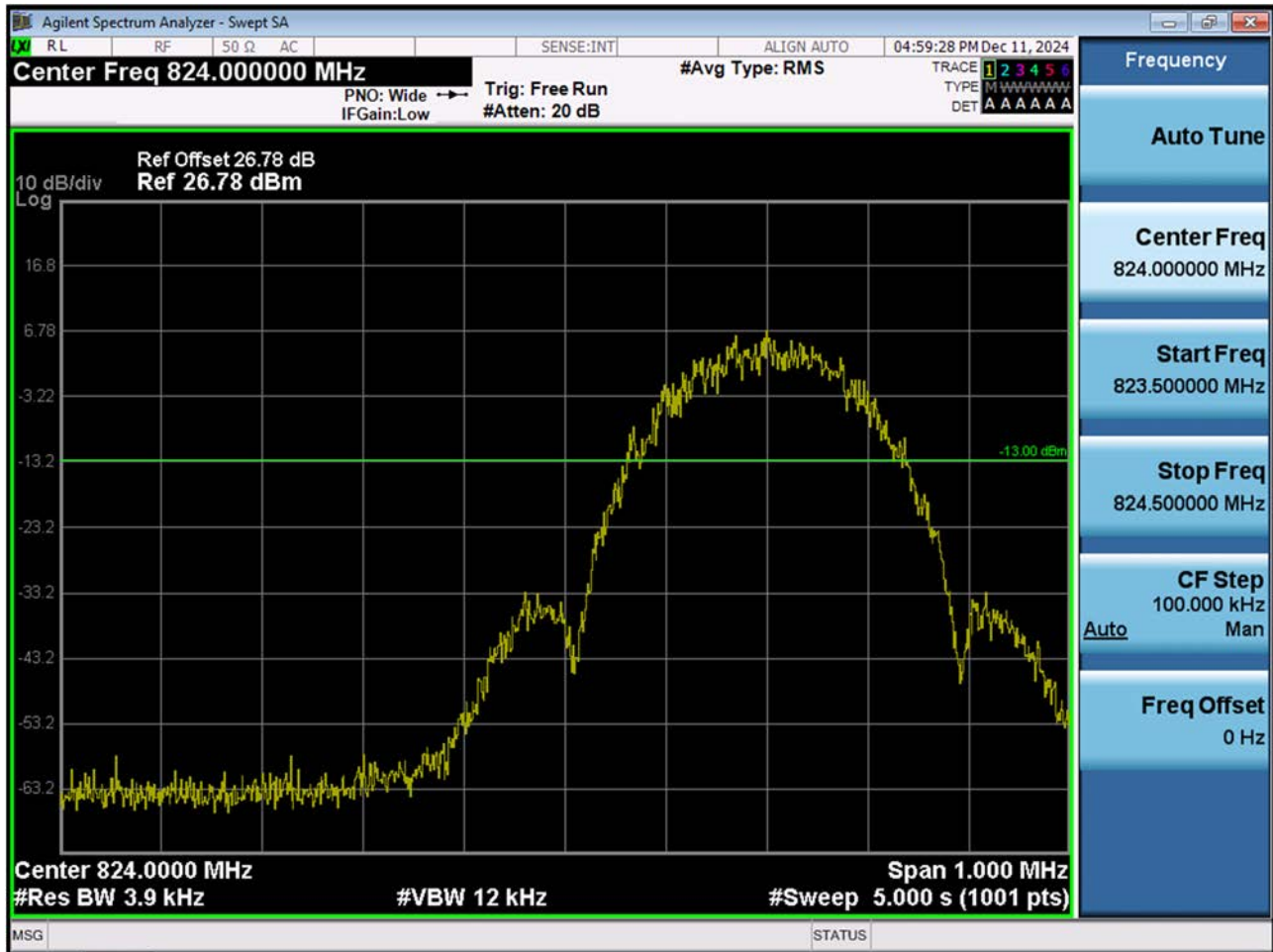
■ GSM850 MODE (251 CH.) Block Edge 2



■ GSM850 MODE (251 CH.) Block Edge 3



■ EDGE MODE (128 CH.) Block Edge 1



■ EDGE MODE (128 CH.) Block Edge 2

