



**MOTOROLA**

*Cellular Infrastructure Group*

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**FCC ID: IHET6BS1**

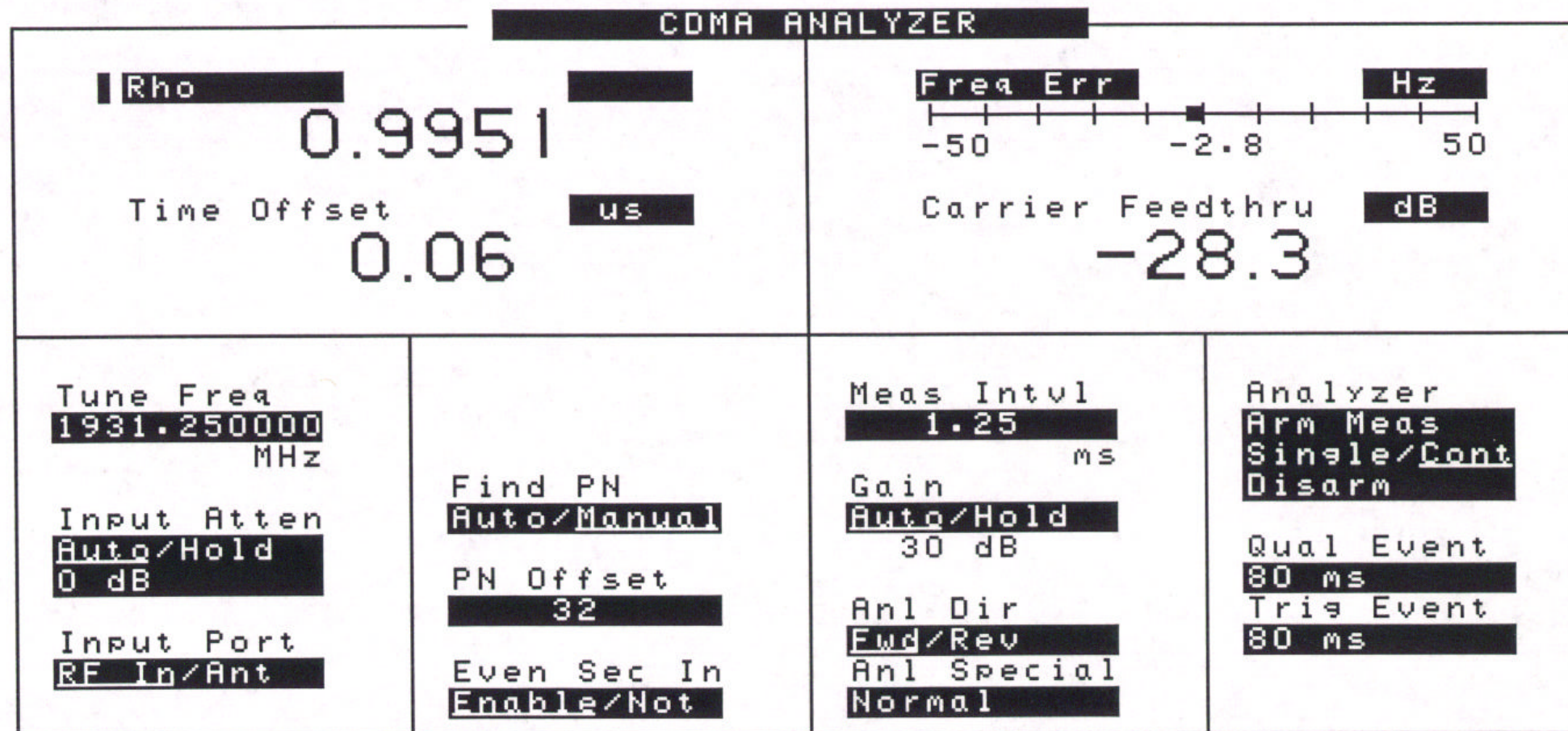
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# **Modulation Characteristics**

## **Minimum Power**

SC4812ETLite 1.9GHz 3G-1X 23dBm  
E6380A Cell Site Test Set: 07/18/01 09:46:00 am

L



Channel 1175  
Minimum Power

IHET6BS1  
SC4812ETL 1.9GHz  
CDMA BTS

SC4812ETLite 1.9GHz 3G-1X 23dBm  
E6380A Cell Site Test Set: 07/18/01 10:07:00 am

L

CDMA ANALYZER

Rho  
0.9954  
Time Offset us  
-0.18

Freq Err Hz  
-50 -0.2 50  
Carrier Feedthru dB  
-31.0

Tune Freq  
1988.750000  
MHz

Input Atten  
Auto/Hold  
0 dB

Input Port  
RF In/Ant

Find PN  
Auto/Manual

PN Offset  
32

Even Sec In  
Enable/Not

Meas Intvl  
1.25  
ms

Gain  
Auto/Hold  
30 dB

Anl Dir  
Fwd/Rev  
Anl Special  
Normal

Analyzer  
Arm Meas  
Single/Cont  
Disarm

Qual Event  
80 ms  
Tris Event  
80 ms



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## **SECTION C**

# **Spurious & Harmonic Emissions Radiated**


## Radiated RF Measurements

### Worst Case Radiated RF Spur Levels for SC4812ETL @ 1.9GHz

<i>Radiated Data</i>			<i>Substituted Power</i>				<i>Spec</i>	<i>Result</i>
<b>TX Channel</b>	<b>Spurious Frequency (MHz)</b>	<b>Antenna Polarity</b>	<b>Measured Radiated Field Strength (dBuV/m)</b>	<b>Measured Radiated Field Strength (dBm) (Note 1)</b>	<b>TX Antenna Terminal Voltage (dBm) (Note 2)</b>	<b>EDRP (dBm) (Note 3)</b>	<b>FCC Part 24 MAX LIMIT (dBm)</b>	<b>Pass/Fail</b>
1175	16151.076	H	50.74	-44.48	-60	-48.25	- 13	Pass
1175	3977.5	V	50.28	-44.94	-54.4	-48.85	- 13	Pass
25	7396.698	H	43.76	-51.46	-63.1	-55.75	- 13	Pass
25	3862.5	V	49.65	-45.57	-54.4	-48.75	- 13	Pass

Notes:

1. Converting dBuV/M to dBm at 3 meters  
 $(\text{dBuV/M}) + 9.542 - 104.77\text{dB} = \text{dBm}$   
 Converting dBuV/M to dBm at 10 meters  
 $(\text{dBuV/M}) + 20 - 104.77\text{dB} = \text{dBm}$
2. The same horn antenna and measurement system was used for EUT scan and during substitution method. After maximizing the receive antenna and adjusting signal generator power level to measure the same emission level with the spectrum analyzer as with the EUT. Signal generator output level was recorded for each of the spurious frequencies. Test cable was then disconnected from the transmit horn and was connected to the input of the S/A measuring the voltage at the terminals of the antenna.
3. This value was obtained by converting the Equivalent Isotropic Radiated Power (EIRP) to ideal half-wave dipole reference power - (Equivalent Di-Pole Radiated Power - EDRP) per (TIA-603, 2.2.12.2(i)(m))

  
 Radiated Engineer

8/1/01  
 Date



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## **SECTION D**

# **Spurious & Harmonic Emissions Conducted**

# Summary of Conducted RF Measurements

SC4812ETL @1.9GHz

FCC Part 24 at 23 dBm output (Min power)

CHANNEL	FREQUENCY (MHz)	SPUR LEVEL MEASURED (dBμV)	SPUR LEVEL MEASURED (dBm)	FCC MAX LIMIT dBm
25	14575.063	88.77	-18.23	-13
1175	13704.197	88.08	-18.92	-13

FCC Max. Limit Per 47 CFR:

- “ =Transmitted Power (10 Log<sub>10</sub> (P<sub>watt</sub>)) - (43 + 10 Log<sub>10</sub> (P<sub>watt</sub>))dBW
- “ =10 Log<sub>10</sub> (P<sub>watt</sub>) - (43 + 10 Log<sub>10</sub> (P<sub>watt</sub>))dBW
- “ =-43 dBW
- “ =-13 dBm

dBuV-107 = dBm

Engineer:  Date 8/1/01



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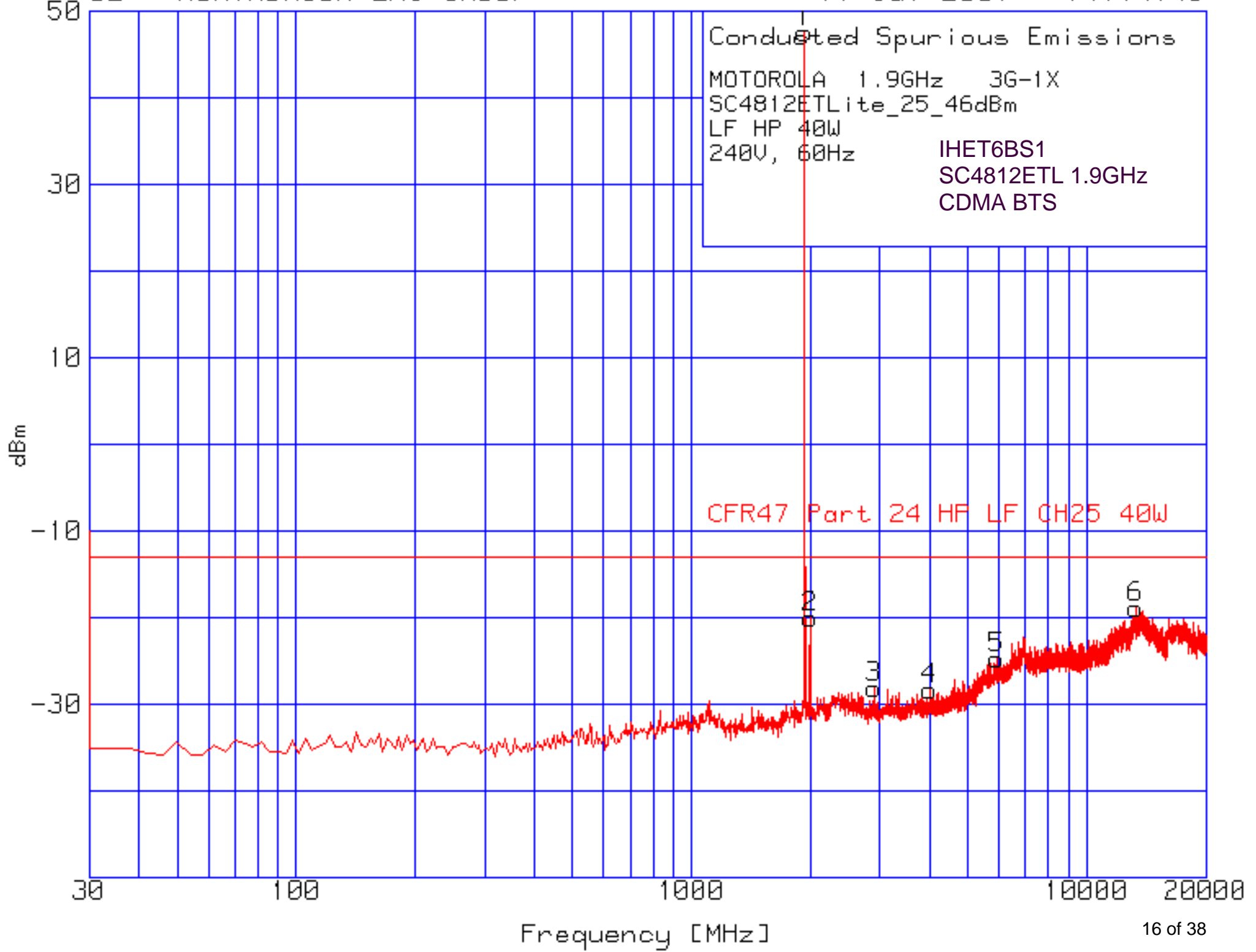
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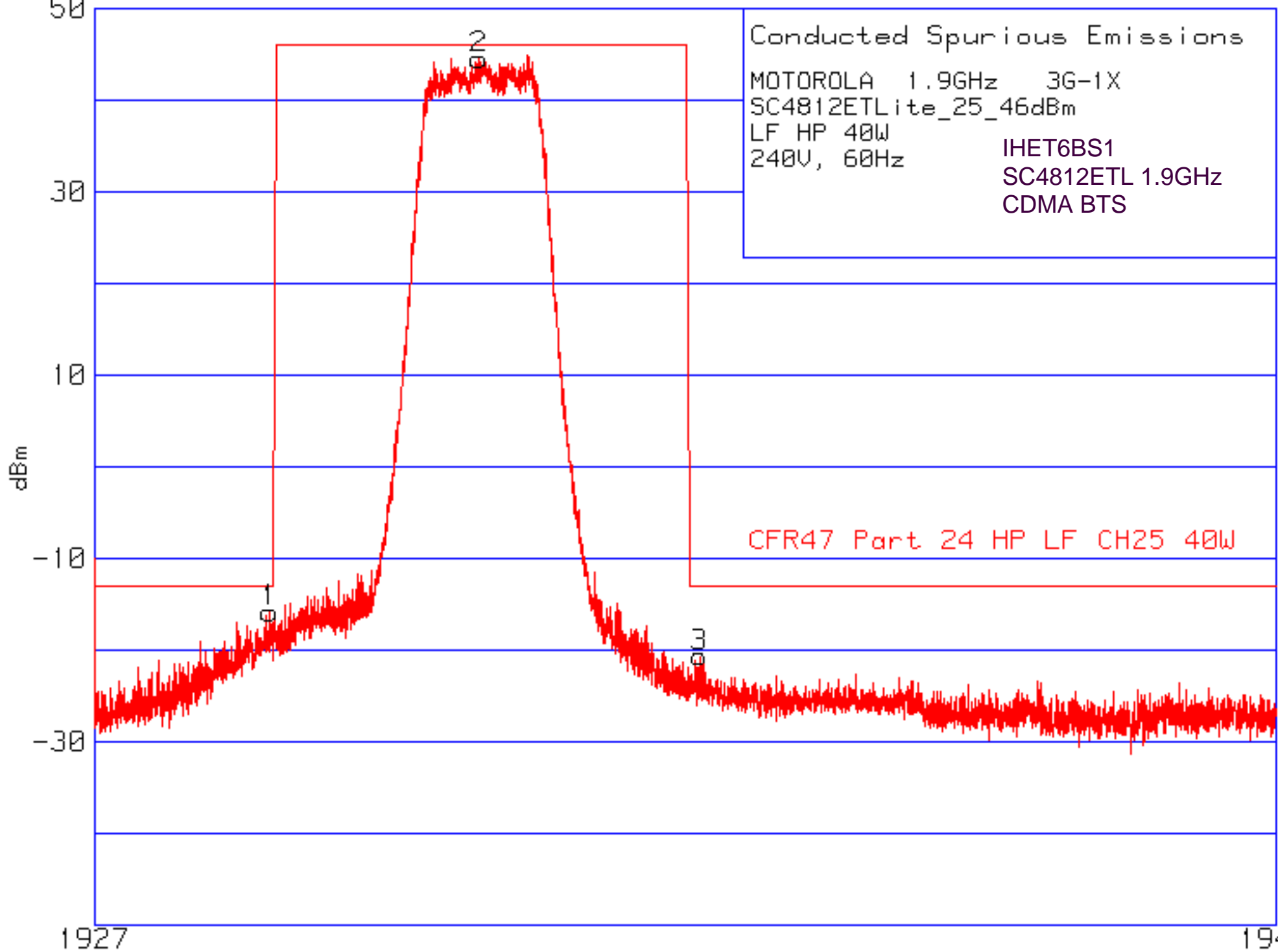
# **SPURIOUS & HARMONIC EMISSIONS CONDUCTED**

## **CDMA Transmitter Channel 25**

### **Maximum Power**









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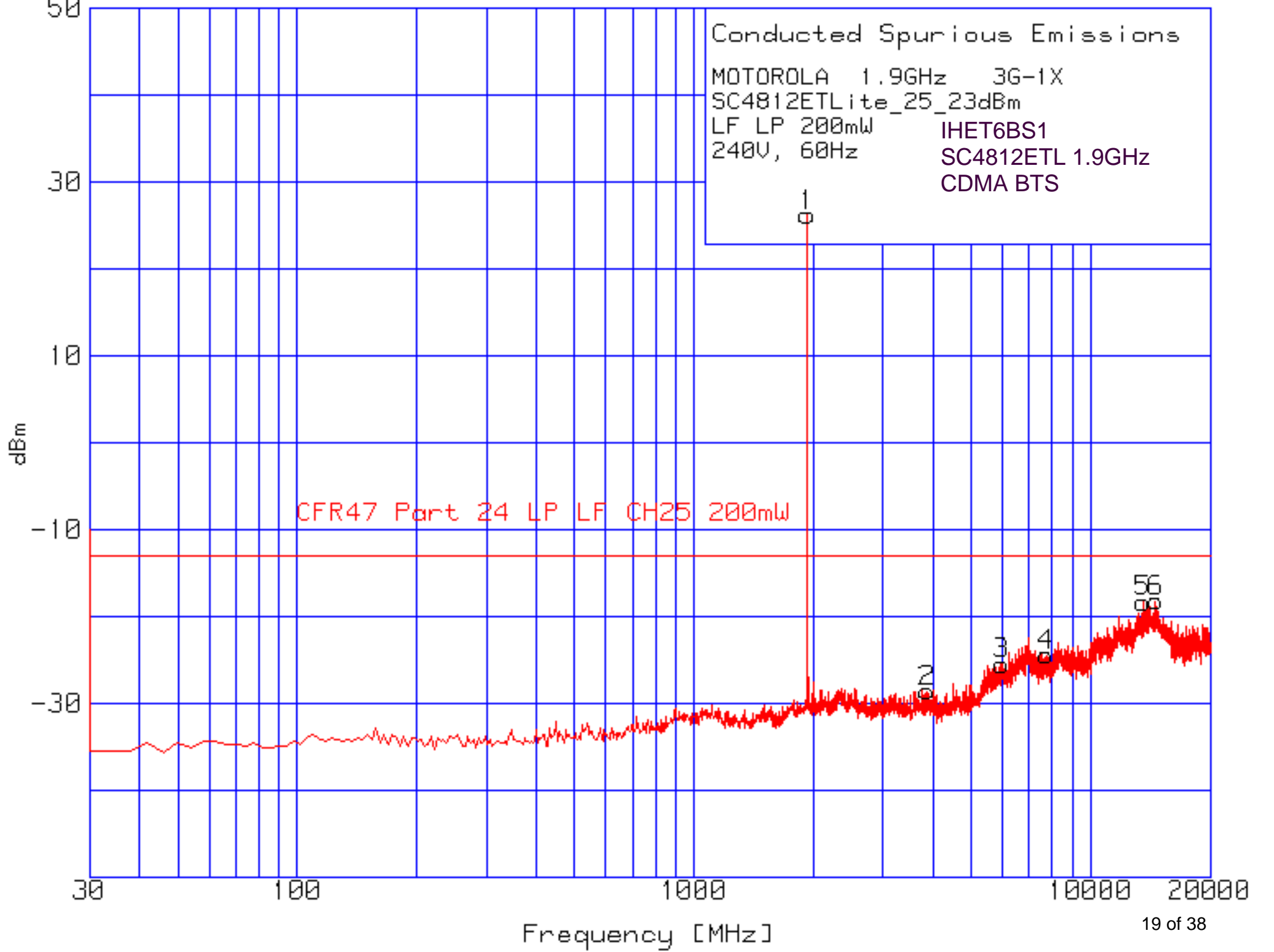
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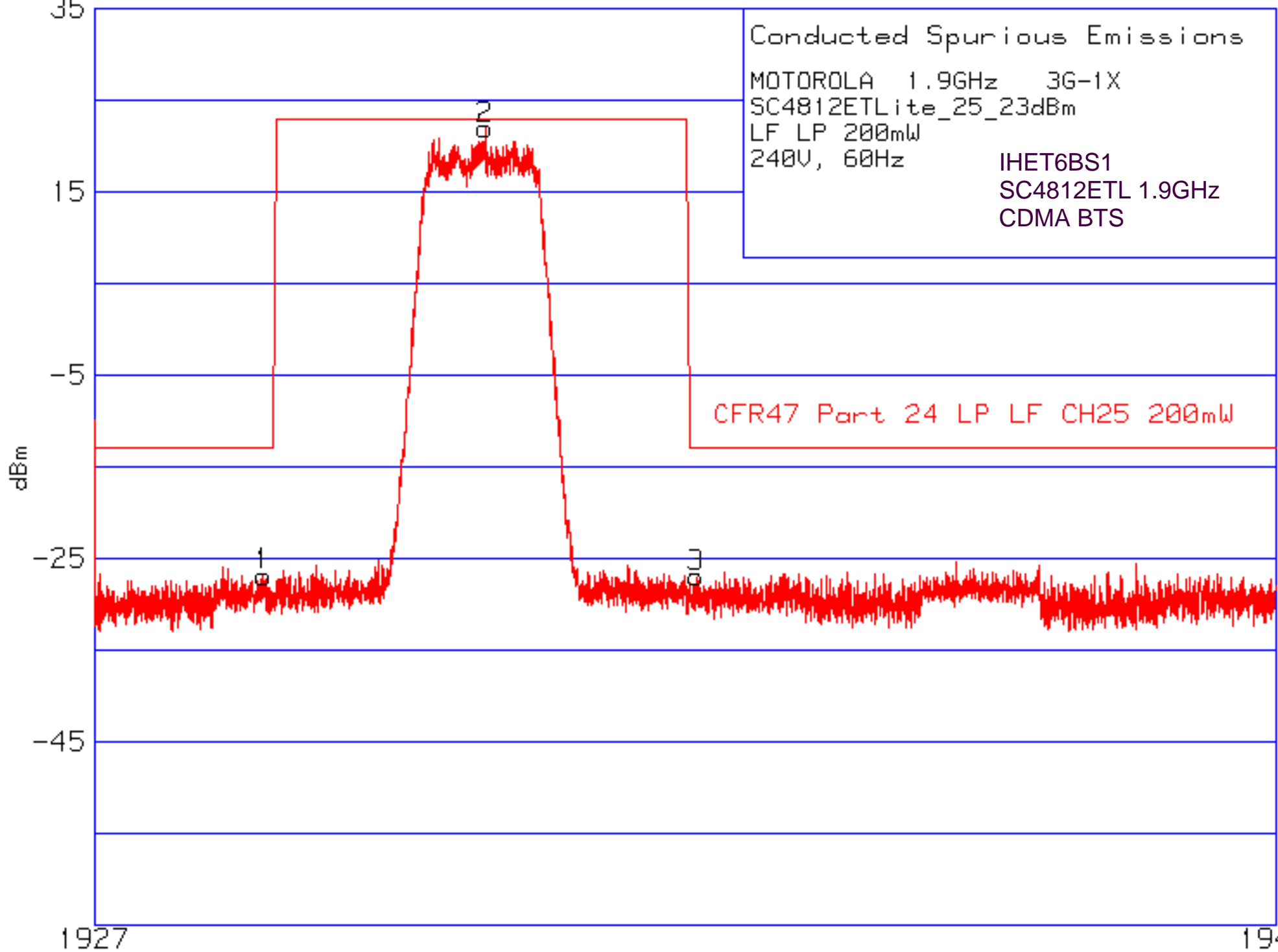
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# **SPURIOUS & HARMONIC EMISSIONS CONDUCTED**

## **CDMA Transmitter Channel 25**

### **Minimum Power**







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*Network Systems Group  
CDMA Systems Division*

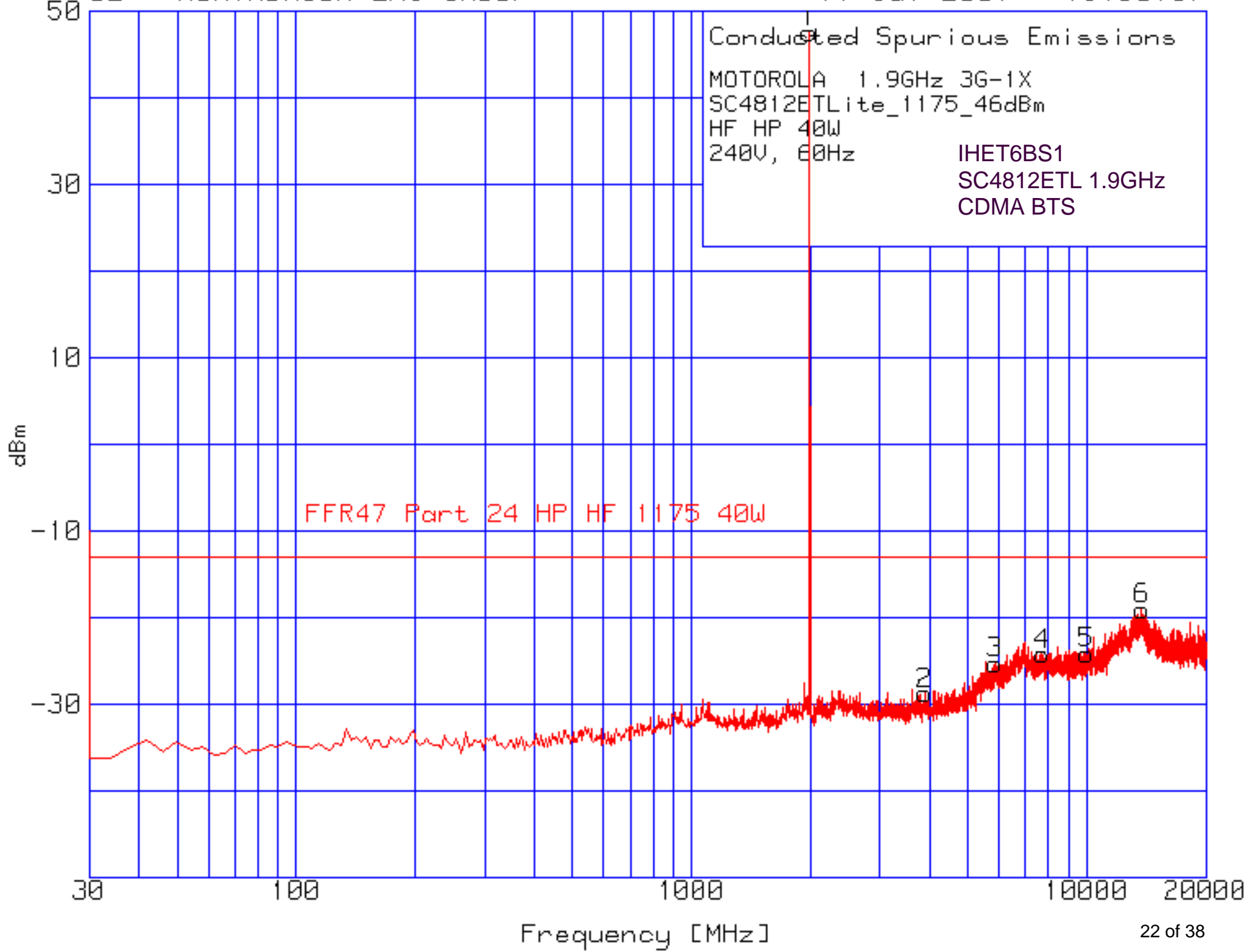
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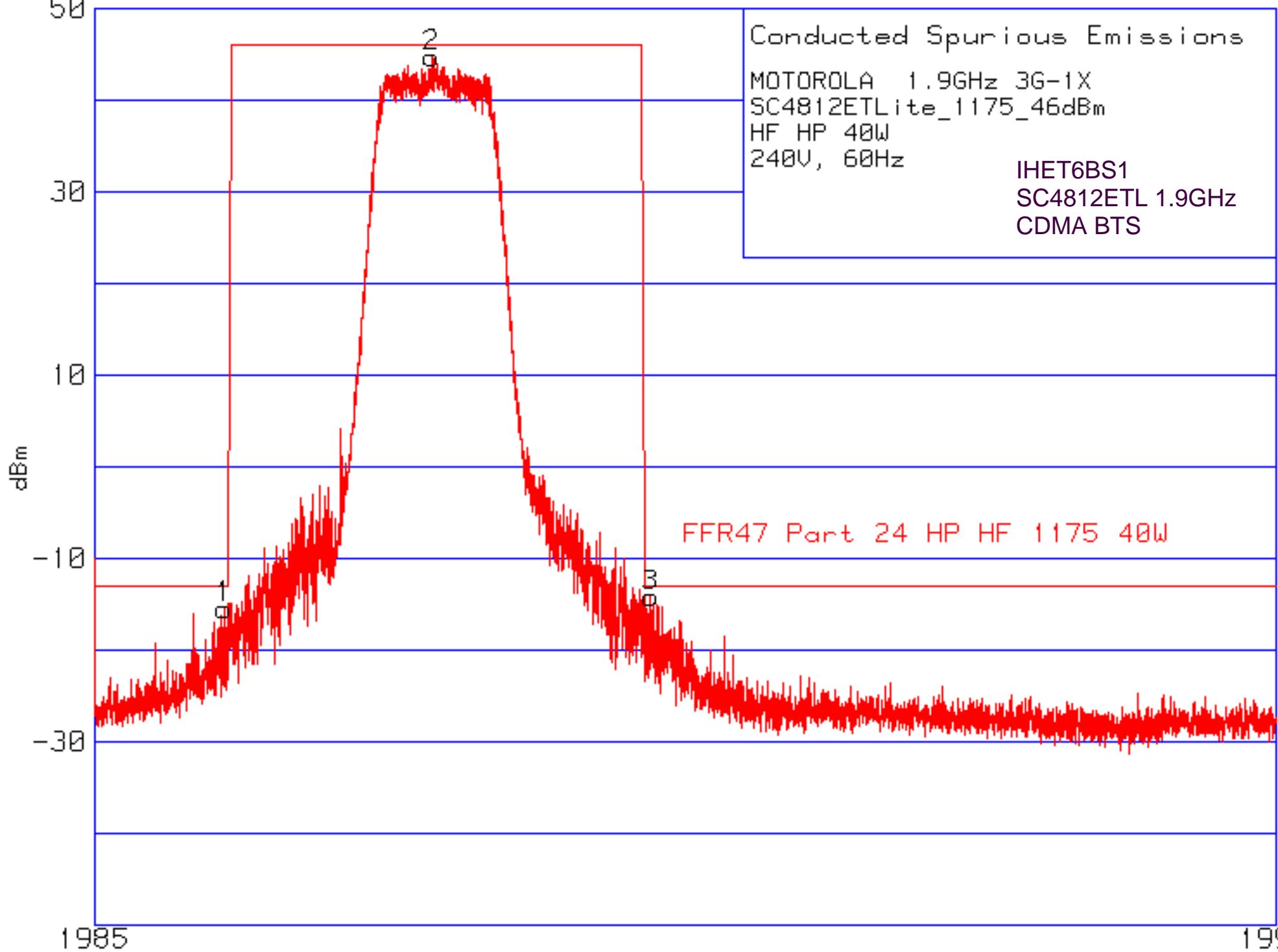
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# **SPURIOUS & HARMONIC EMISSIONS CONDUCTED**

## **CDMA Transmitter Channel 1175**

### **Maximum Power**









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FCC ID: IHET6BS1

# **SPURIOUS & HARMONIC EMISSIONS CONDUCTED**

## **CDMA Transmitter Channel 1175**

### **Minimum Power**

