



**MOTOROLA**

*Cellular infrastructure group*

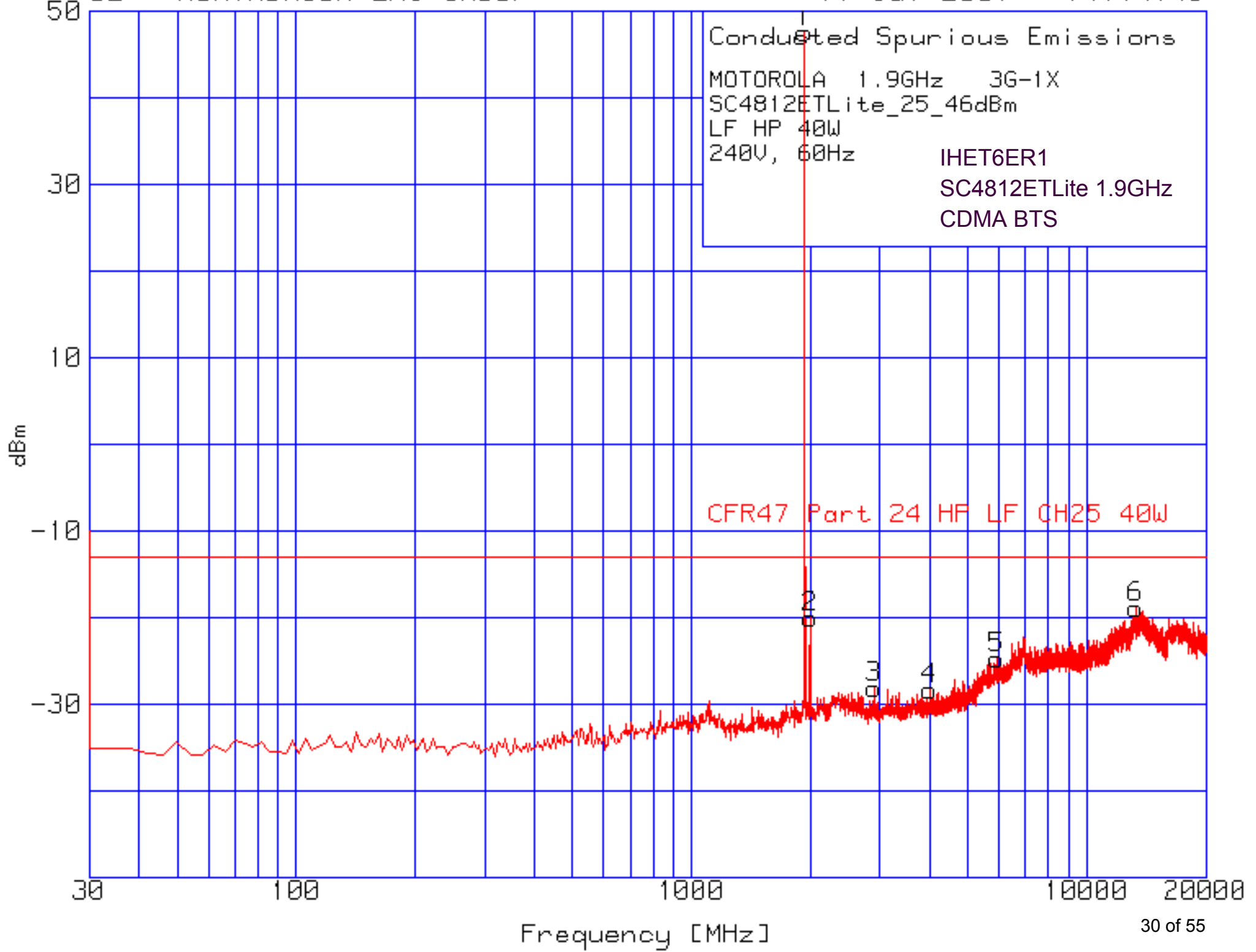
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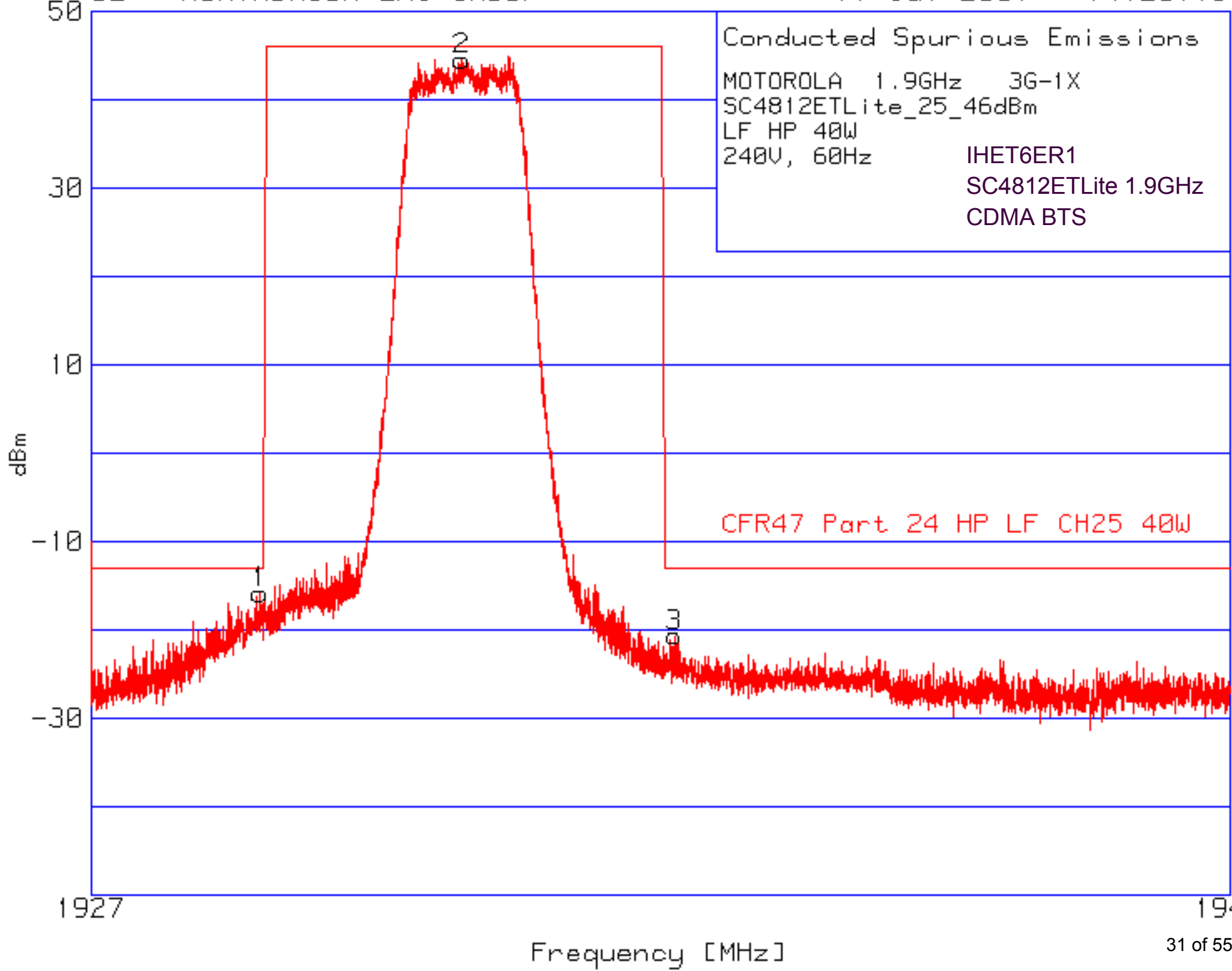
FCC ID: IHET6ER1

# **SPURIOUS & HARMONIC EMISSIONS CONDUCTED**

## **CDMA Transmitter Channel 25**

### **Maximum Power**







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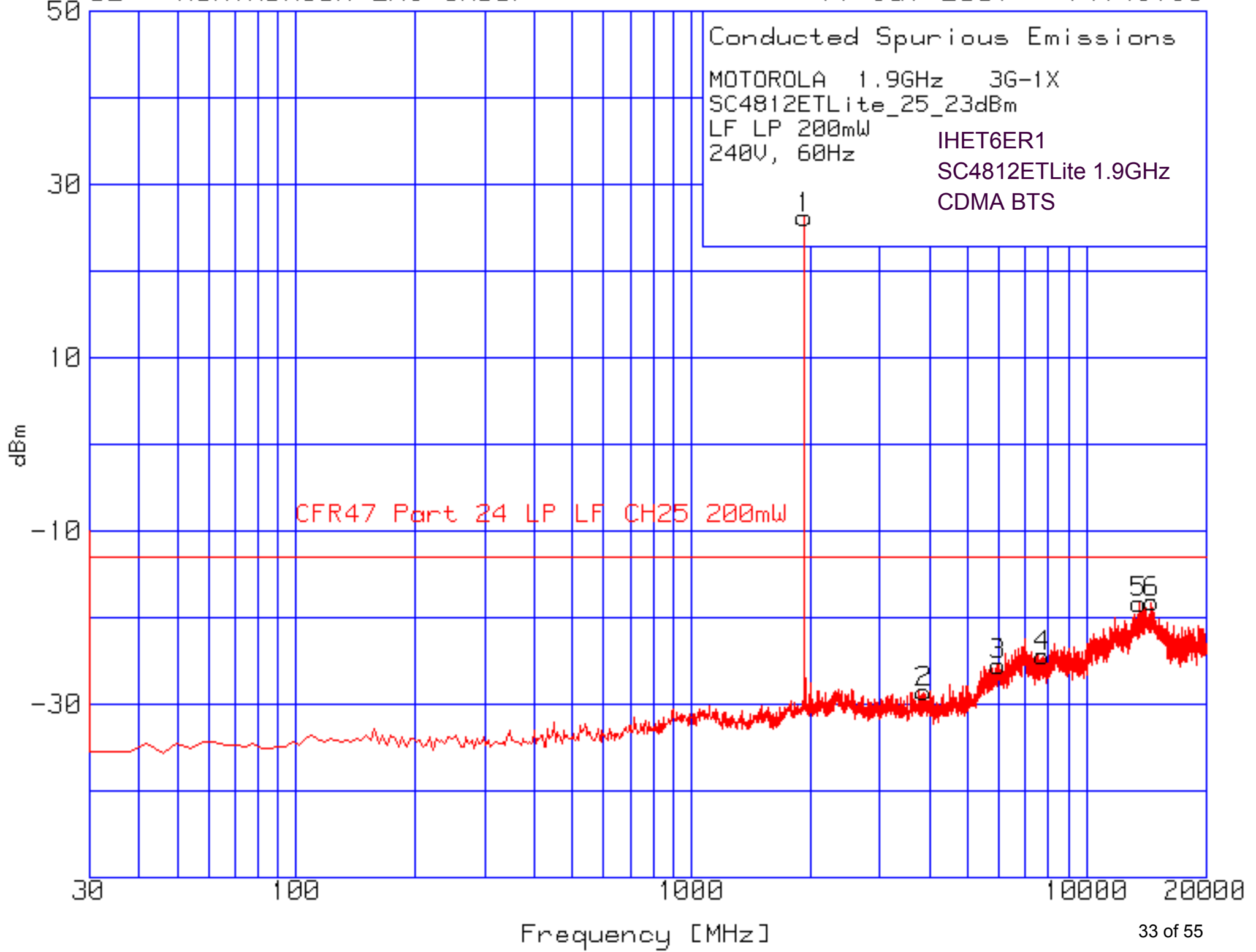
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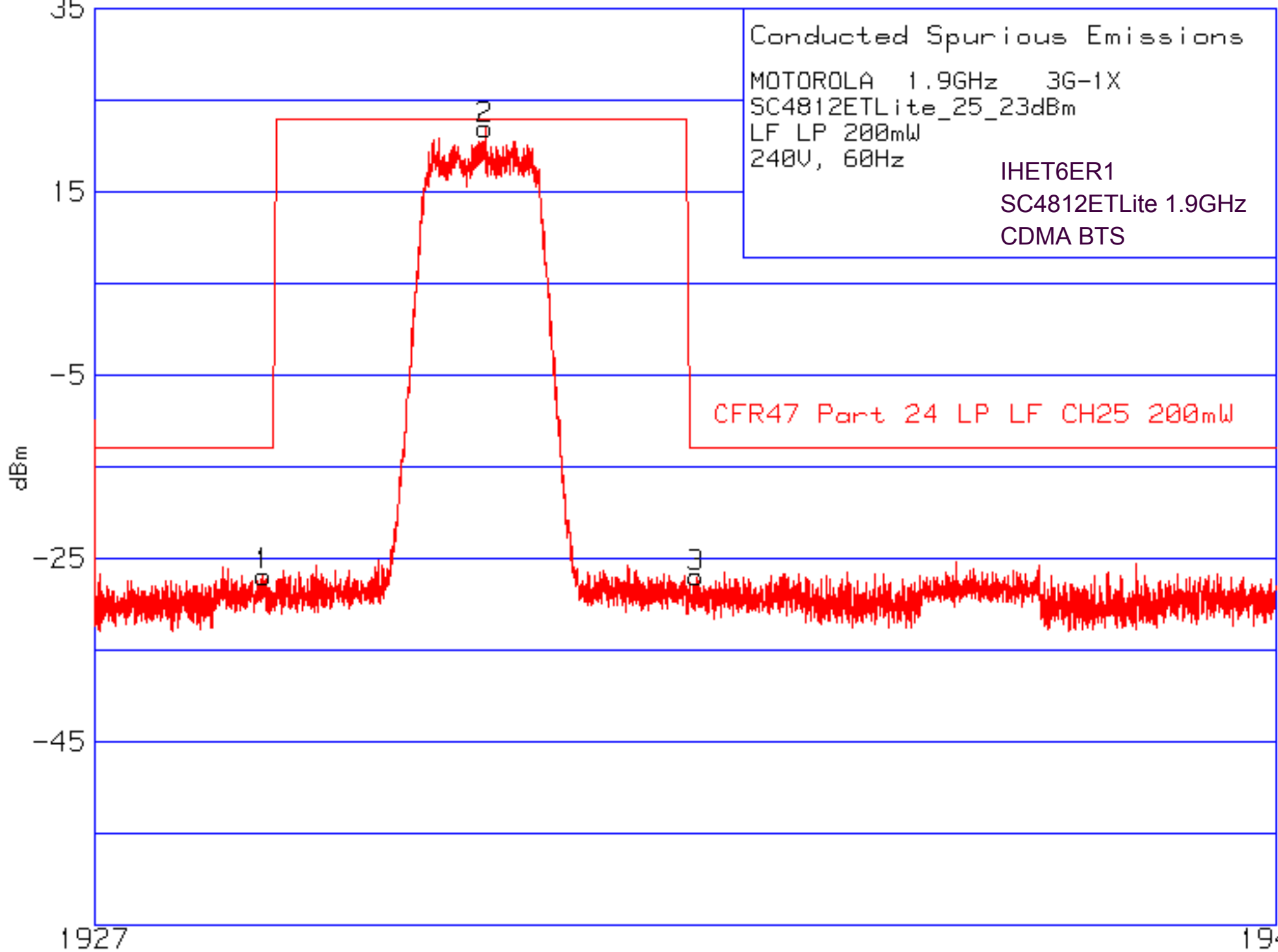
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# **SPURIOUS & HARMONIC EMISSIONS CONDUCTED**

## **CDMA Transmitter Channel 25**

### **Minimum Power**







**MOTOROLA**

*Network Systems Group  
CDMA Systems Division*

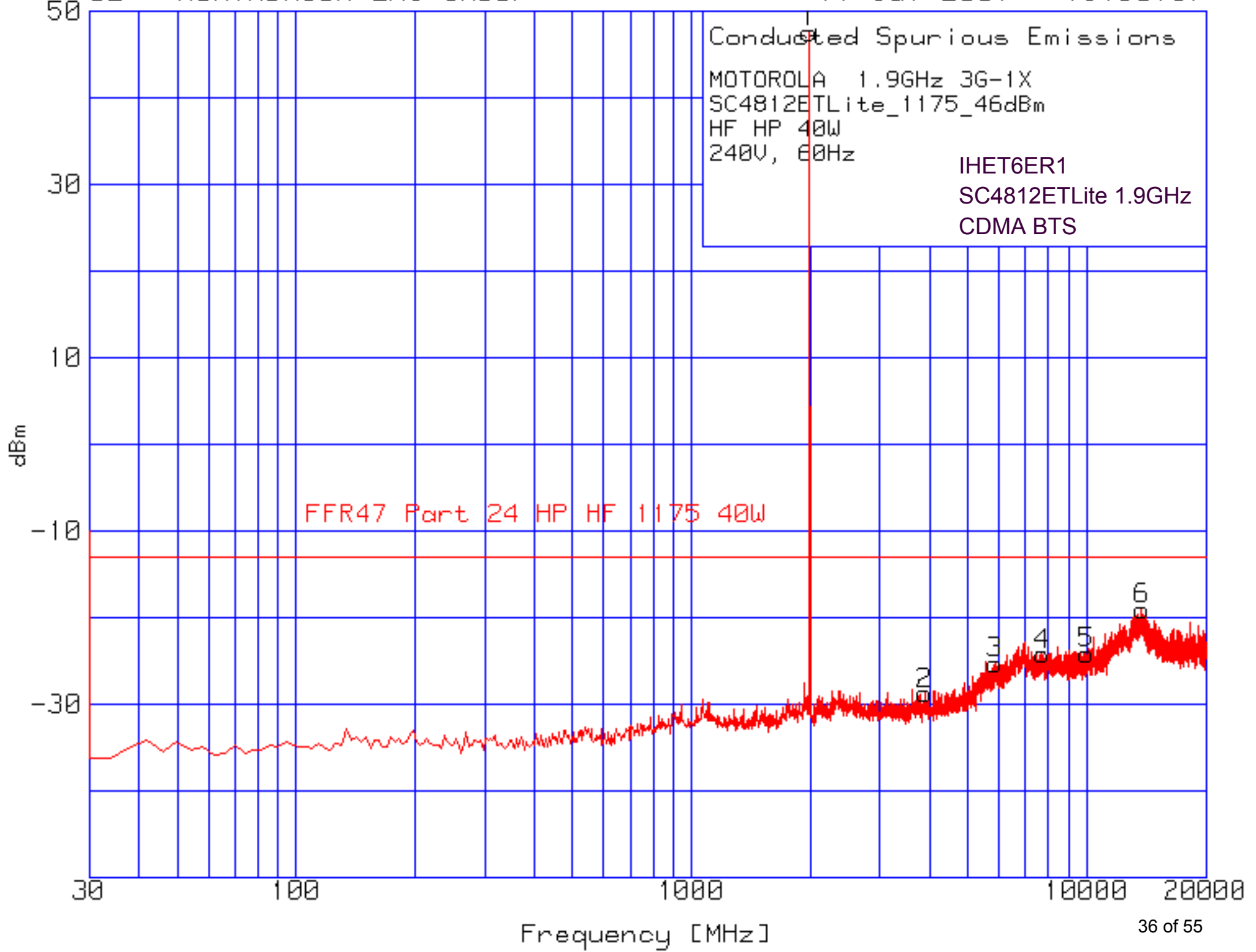
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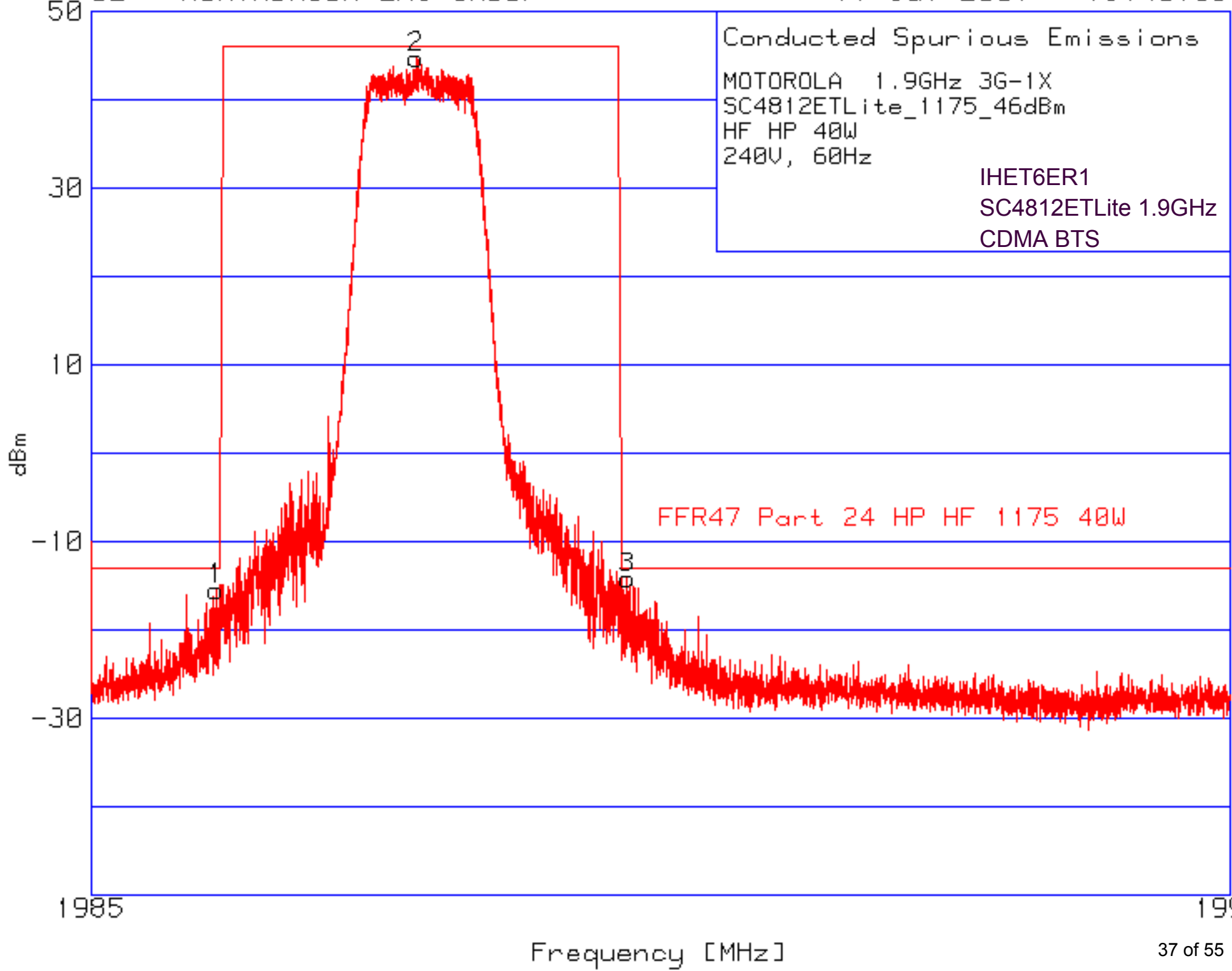
# **SPURIOUS & HARMONIC EMISSIONS CONDUCTED**

## **CDMA Transmitter Channel 1175**

### **Maximum Power**









**MOTOROLA**

*Cellular infrastructure group*

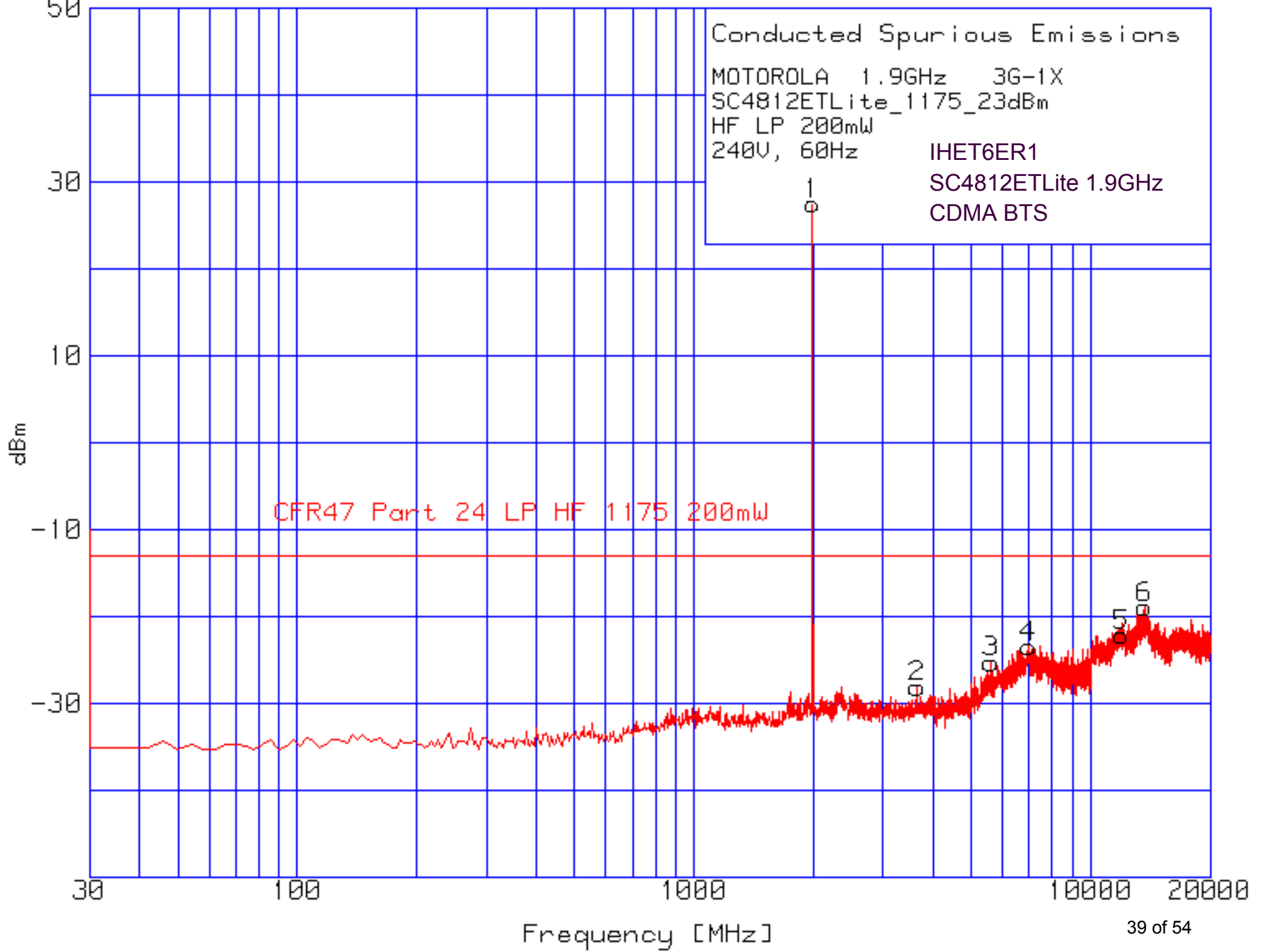
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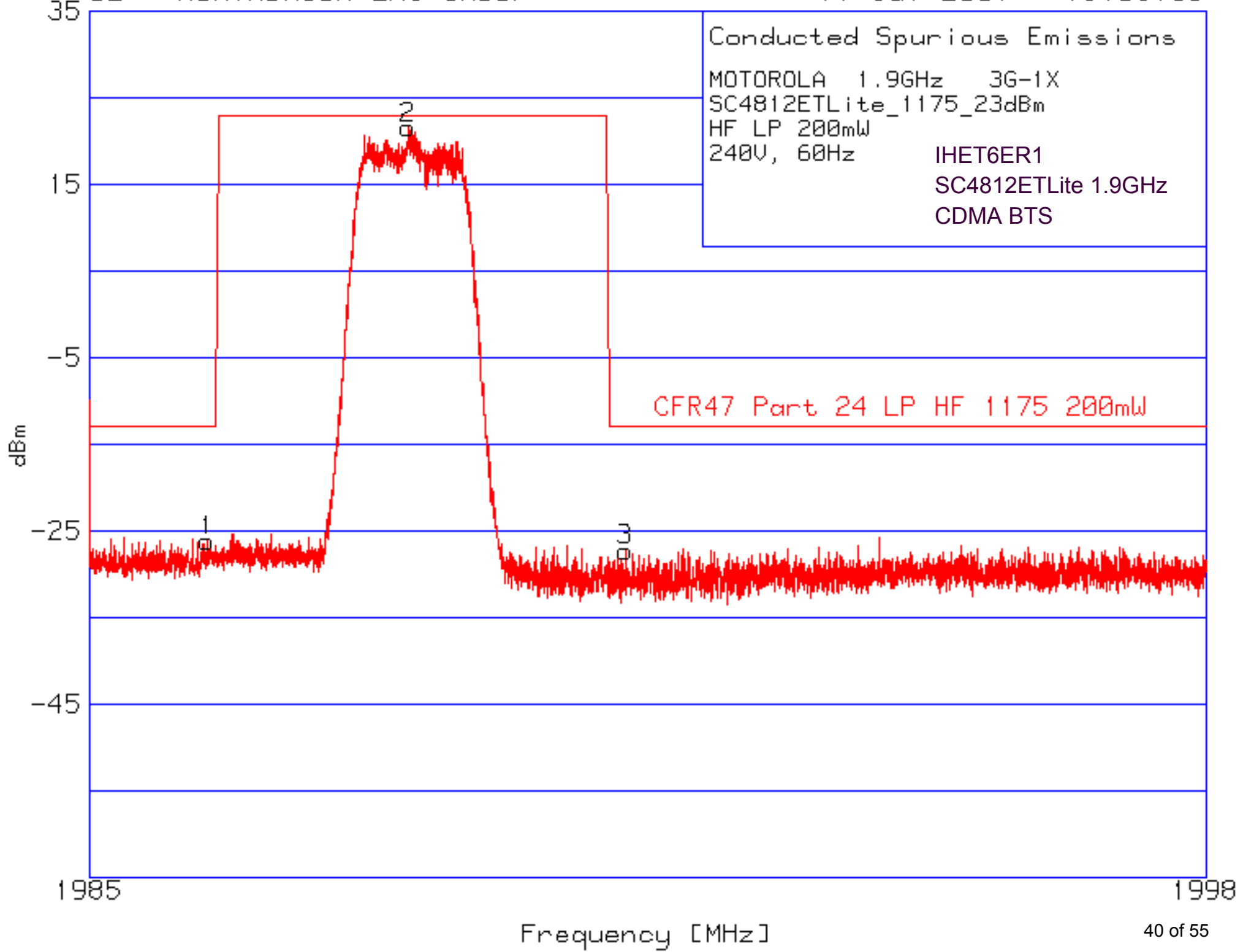
FCC ID: IHET6ER1

# **SPURIOUS & HARMONIC EMISSIONS CONDUCTED**

## **CDMA Transmitter Channel 1175**

### **Minimum Power**







# SECTION E OCCUPIED BANDWIDTH

*NOTE:* The BTS was configured for maximum power out of 46.00dBm and minimum power out of 36.5dBm depending on the configuration. The output power was set respectively to 40.0 Watts or 4.5 Watts using an HP437B power meter. The external attenuation was 46.0dB for channel 25 and channel 1175.

The occupied bandwidth is measured in a 30 kHz resolution bandwidth. The summary is listed below.

### SC4812ETLite EVDO @ 1.9 GHz SUMMARY OF OCCUPIED BANDWIDTH

CHANNEL	Power Level (dBm)	FREQUENCY (MHz)	MEASURED (MHz)	FCC LIMIT (MHz)	Pass / Fail
25	46.0	1931.25	1.2749	1.30	Pass
1175	36.5	1988.75	1.2793	1.30	Pass

12.01.04

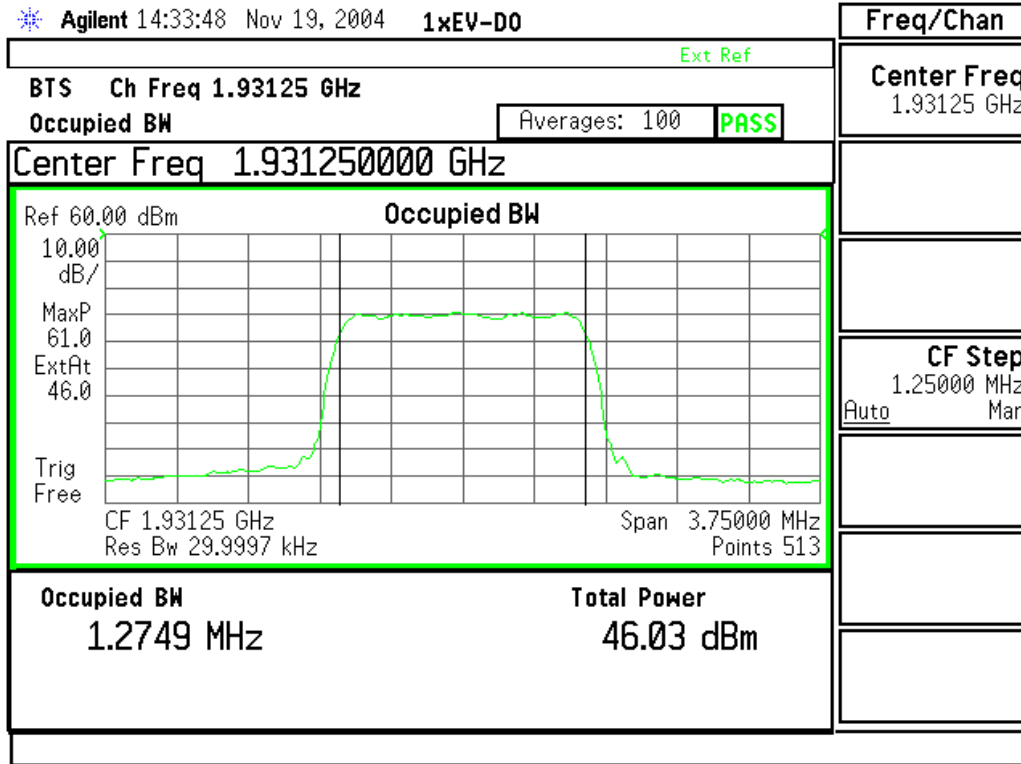
Signature

Date

*Francisco Avalos*



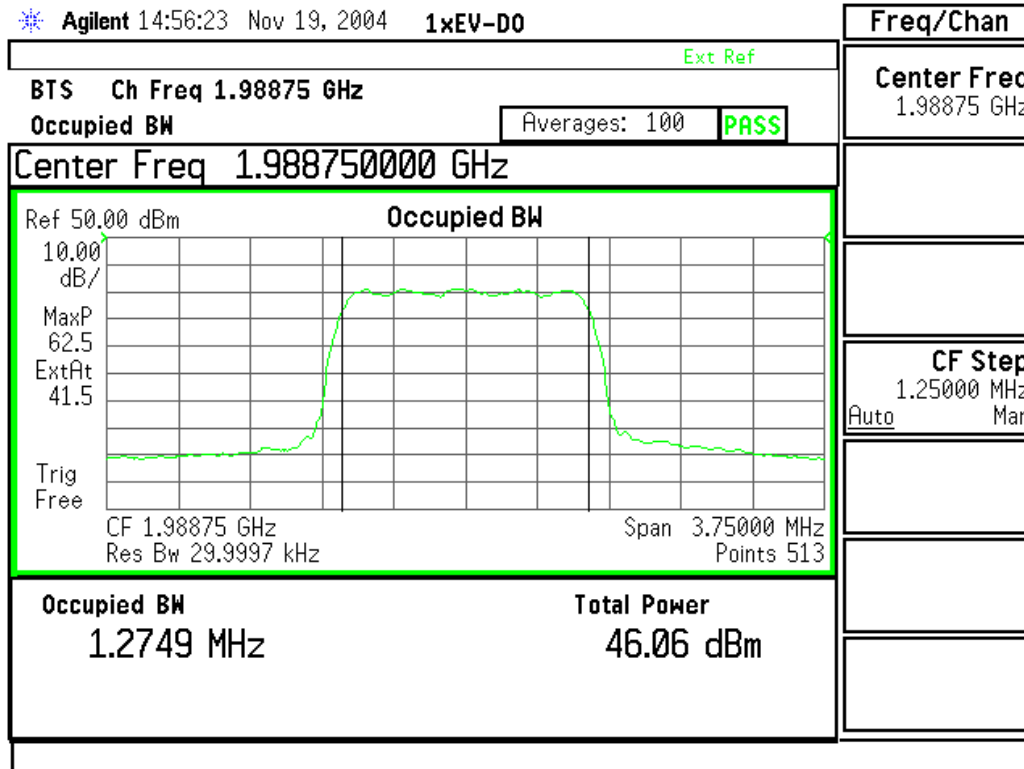
**SC4812ETLite EVDO– Occupied Bandwidth – 46.00dBm- 8PSK**



Channel 25 – 1931.25 MHz



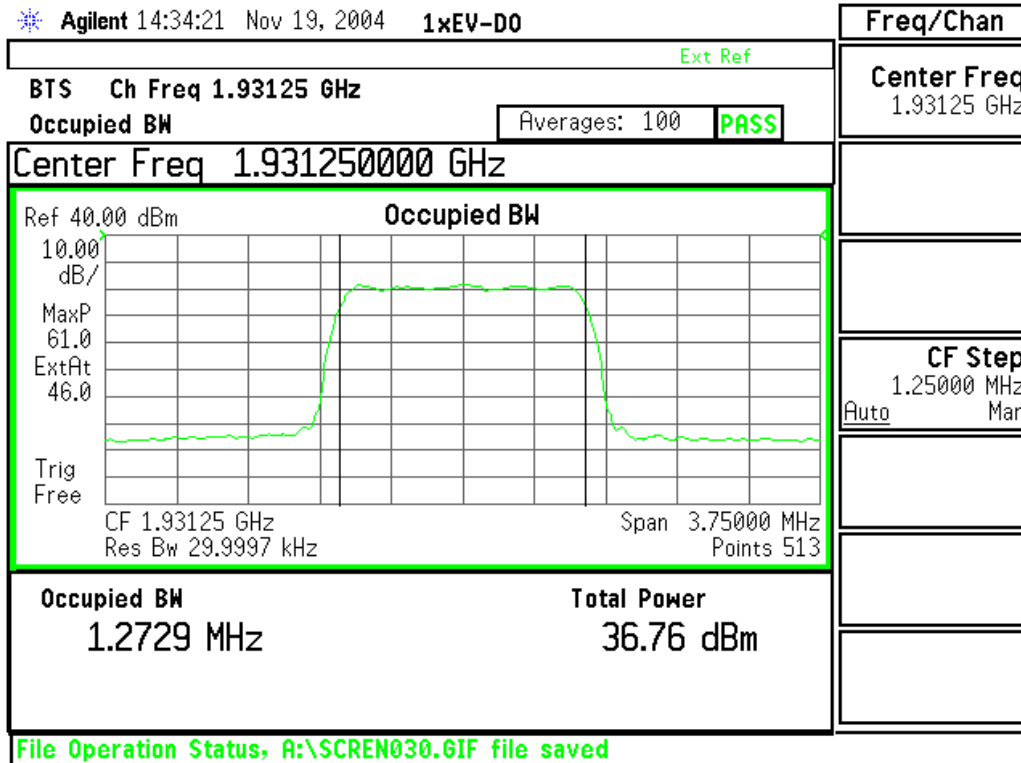
**SC4812ETLite EVDO- Occupied Bandwidth – 46.00dBm – 16QAM**



Channel 1175 – 1988.75 MHz



**SC4812ETLite EVDO– Occupied Bandwidth – 36.5 dBm – 8PSK**

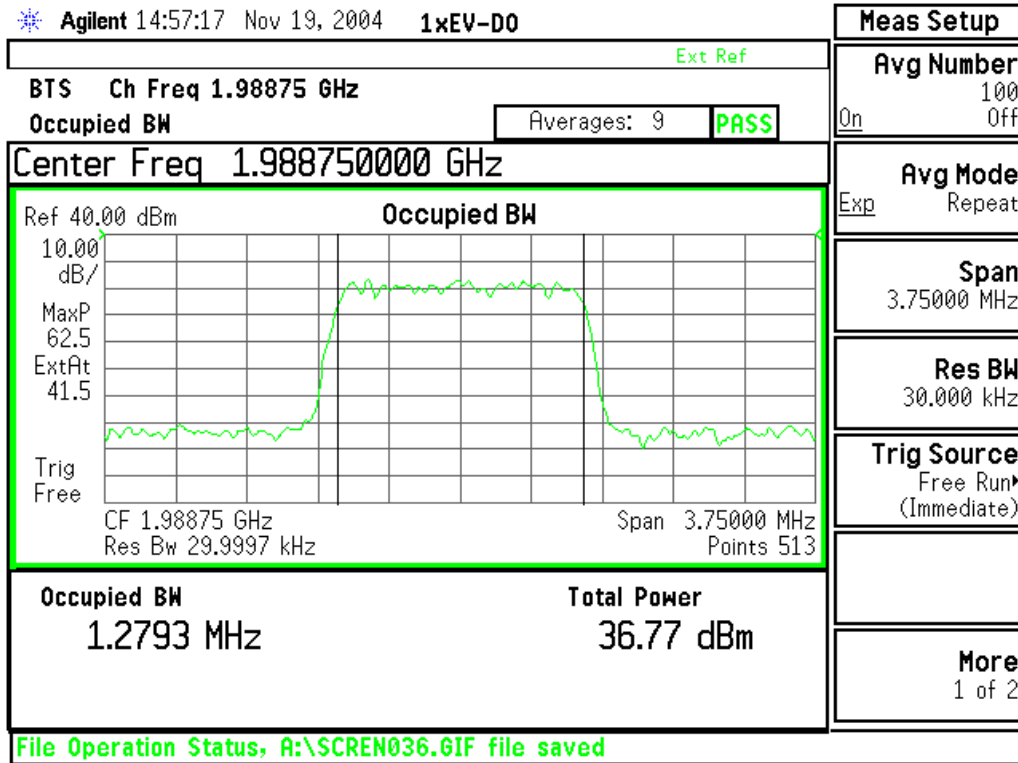


Channel 25 – 1931.25 MHz





**SC4812ETLite EVDO– Occupied Bandwidth – 36.5 dBm – 16QAM**



Channel 1175 – 1988.75 MHz



## OCCUPIED BANDWIDTH

### SC4812ETL

NOTE: Per FCC acceptance precedent, plots are measured in a 30 kHz resolution bandwidth. The following formula is used to obtain the correct zero dB reference point to the bandwidth of the 1.2288MHz CDMA signal. See example calculation below:

$$\text{Power (measured in 30kHz bandwidth)} + 10 \log (1.2288 \text{ MHz} / 30 \text{ kHz})$$

$$\text{Example: } 29.88\text{dBm} + 16.12\text{dB} = 46.0\text{dBm}$$

The BTS was configured for maximum power out of 46.0 dBm and minimum power out of 23.0 dBm respectively. The max and min output power was set to 40.0 Watts or 200 mWatts respectively using an HP437B power meter. Markers are measured at +/- 1.25 MHz with respect to the method stated above. The summary of these is listed below.

CHANNEL/POWER	FREQUENCY (GHz)	MEASURED (dBm)	FCC EMISSION LIMIT	PASS/FAIL
25/MAX	1.93125	-29.28	-9.2dBm	Pass
1175/MAX	1.98875	-21.87	-9.2dBm	Pass
25/MIN	1.93125	-51.45	-9.2dBm	Pass
1175/MIN	1.98875	-52.28	-9.2dBm	Pass

Engineer: Francisco Avalos

Signature: Francisco Avalos

Date: 8/22/01



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*Cellular Infrastructure Group*

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**FCC ID: IHET6ER1**

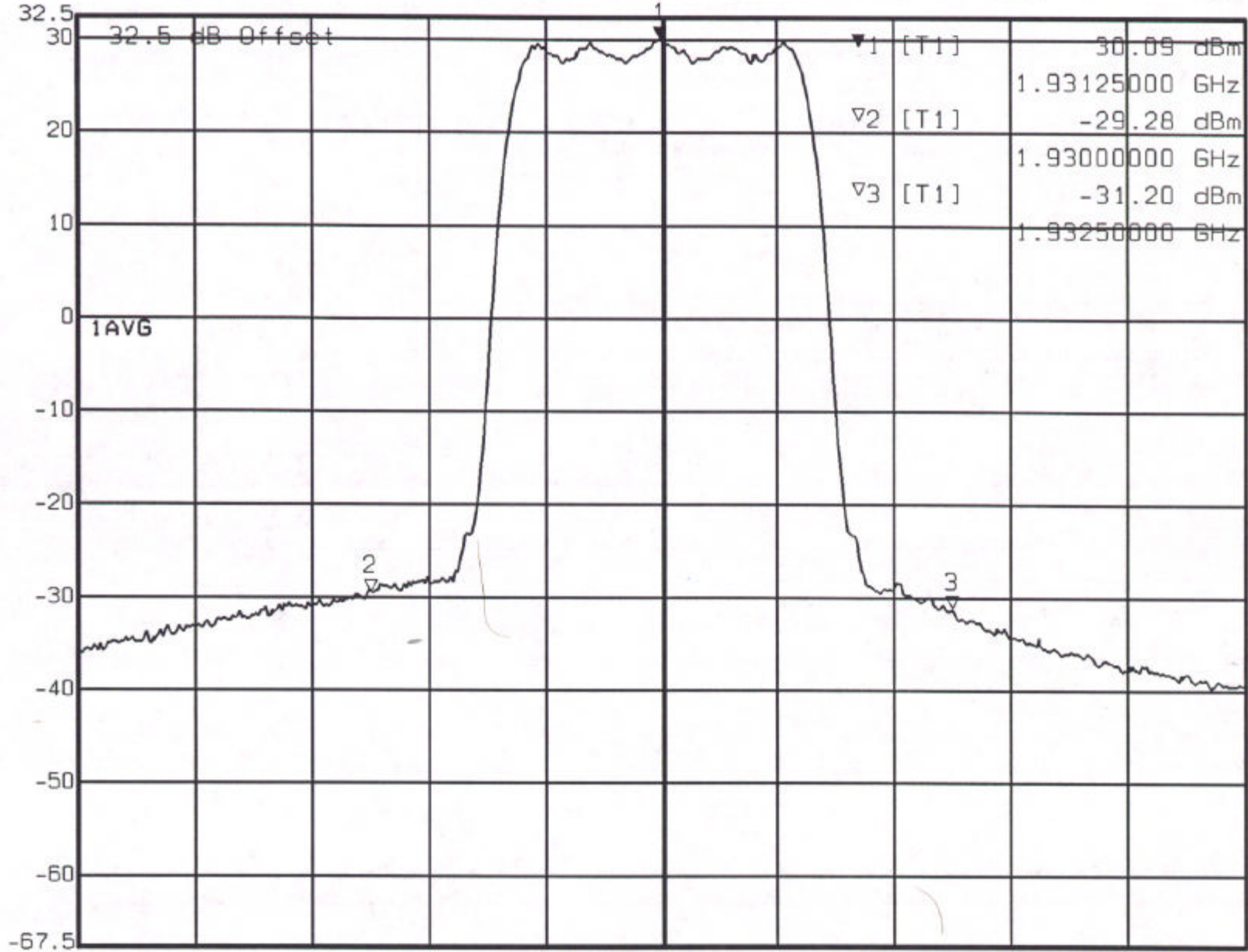
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# **Occupied Bandwidth**

## **Maximum Power**



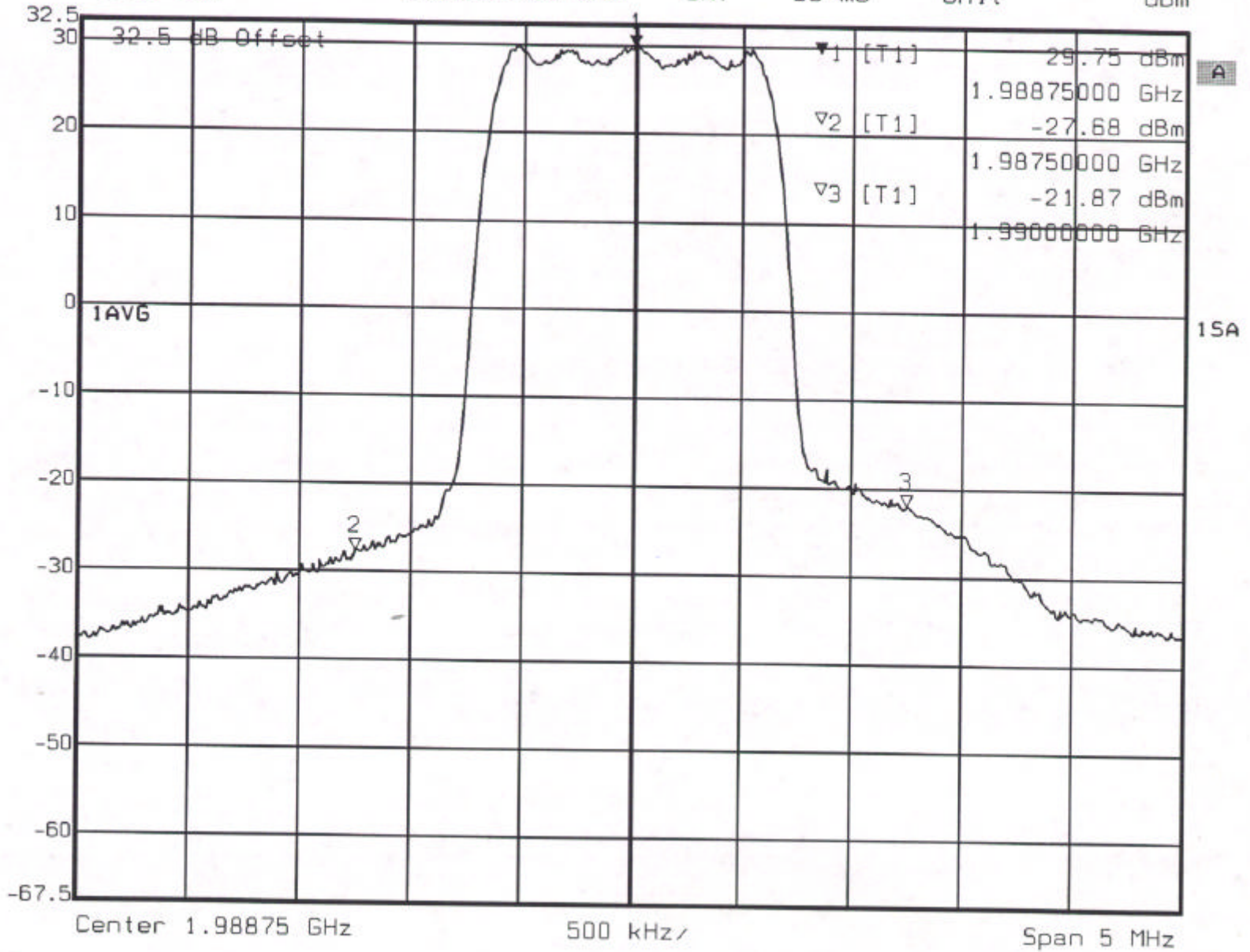
Marker 1 [T1] RBW 30 kHz RF Att 30 dB  
 30.09 dBm VBW 100 kHz  
 32.5 dBm 1.93125000 GHz SWT 20 ms Unit dBm



Center 1.93125 GHz 500 kHz Span 5 MHz



Ref Lvl 32.5 dBm  
 Marker 1 [T1] 29.75 dBm 1.98875000 GHz  
 RBW 30 kHz RF Att 30 dB  
 VBW 100 kHz  
 SWT 20 ms Unit dBm



Date: 18.JUL.2001 10:06:03

Channel 1175 IHET6ER1  
 Maximum Power SC4812ETLite 1.9GHz  
 CDMA BTS



**MOTOROLA**

*Cellular Infrastructure Group*

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**FCC ID: IHET6ER1**

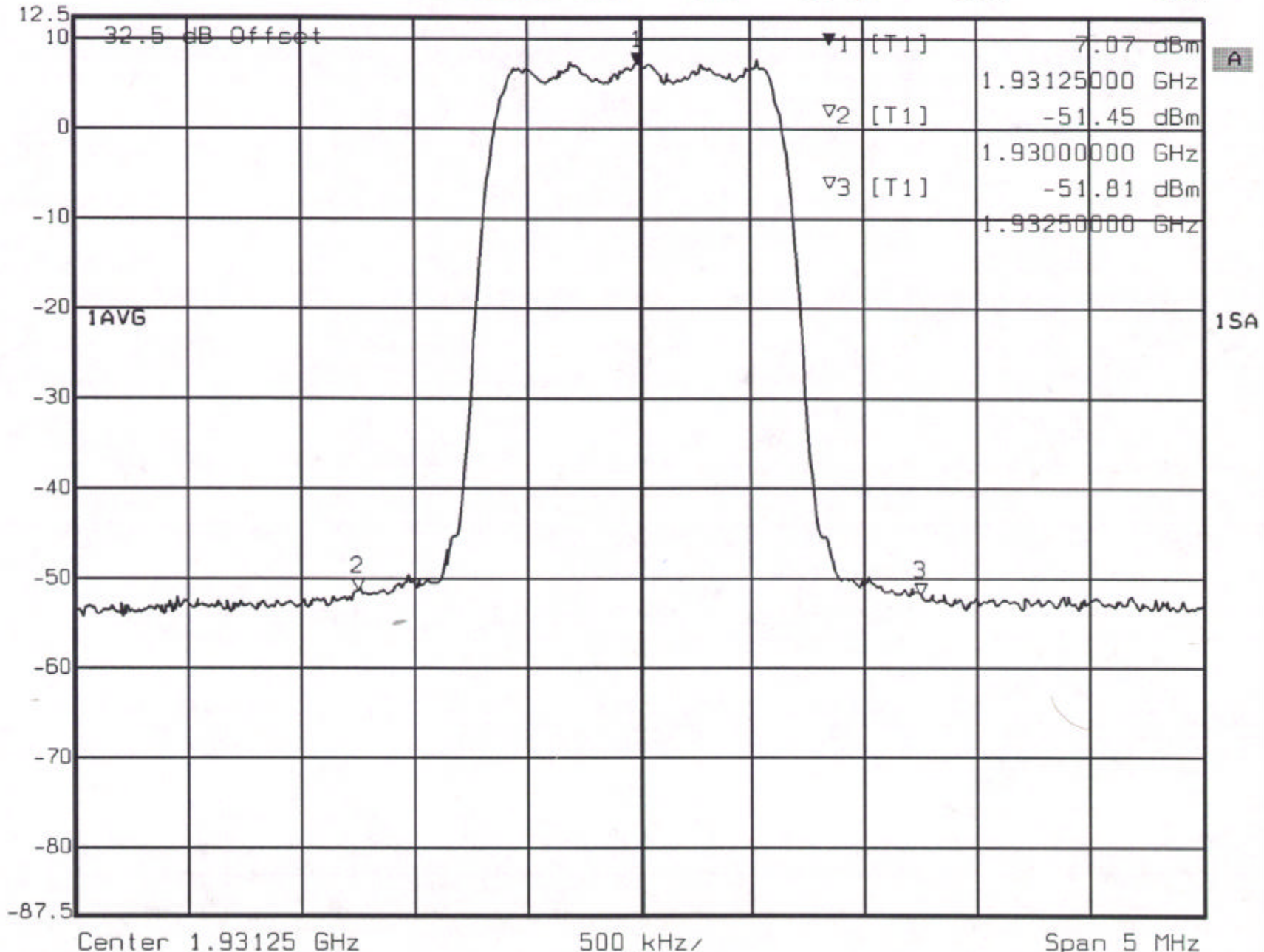
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# **Occupied Bandwidth**

## **Minimum Power**



Marker 1 [T1] RBW 30 kHz RF Att 20 dB  
 Ref Lvl 7.07 dBm VBW 100 kHz  
 12.5 dBm 1.93125000 GHz SWT 20 ms Unit dBm



Date: 18.JUL.2001 9:52:46

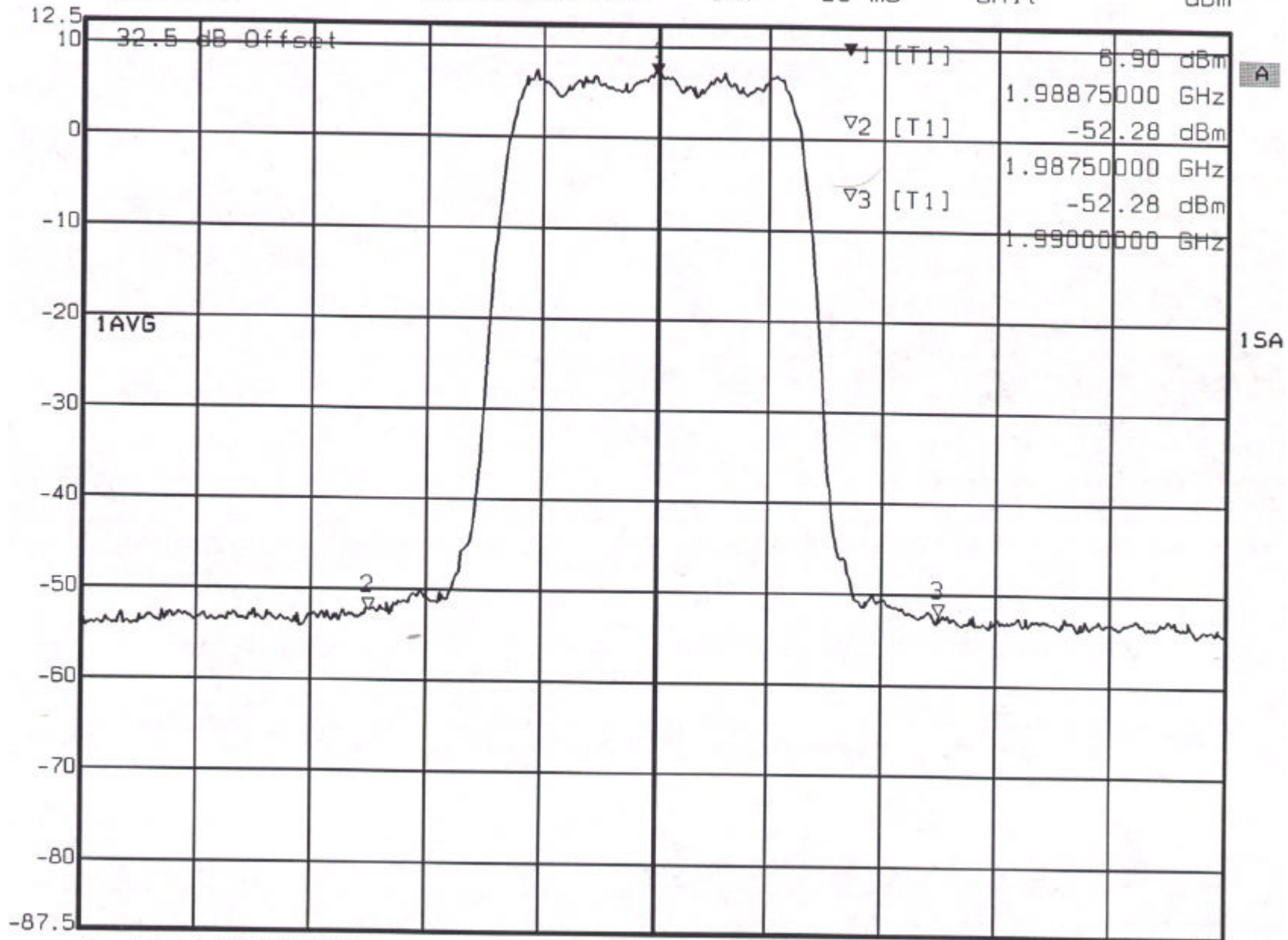
Channel 25  
Minimum Power

IHET6ER1  
SC4812ETLite 1.9GHz  
CDMA BTS





Marker 1 [T1] RBW 30 kHz RF Att 20 dB  
Ref Lvl 12.5 dBm 6.90 dBm VBW 100 kHz  
1.98875000 GHz SWT 20 ms Unit dBm



Center 1.98875 GHz 500 kHz/ Span 5 MHz

Date: 18 III 2001 10.09.10

Channel 1175  
Minimum Power

IHET6ER1  
SC4812ETLite 1.9GHz  
CDMA BTS





# SECTION F

## *FREQUENCY STABILITY*

MODE	27V POWER	WORST CASE Δ PPM	FCC REQUIREMENT	Pass / Fail
CSM1	85-115%	<0.02	+/- 1.5 PPM MAX	Pass
CSM2	85-115%	<0.02	+/- 1.5 PPM MAX	Pass

MODE	TEMPERATURE	WORST CASE Δ PPM	FCC REQUIREMENT	Pass / Fail
CSM1	-30° to +50° C	<0.2	+/- 1.5 PPM MAX	Pass
CSM2	-30° to +50° C	<0.2	+/- 1.5 PPM MAX	Pass

04.12.04

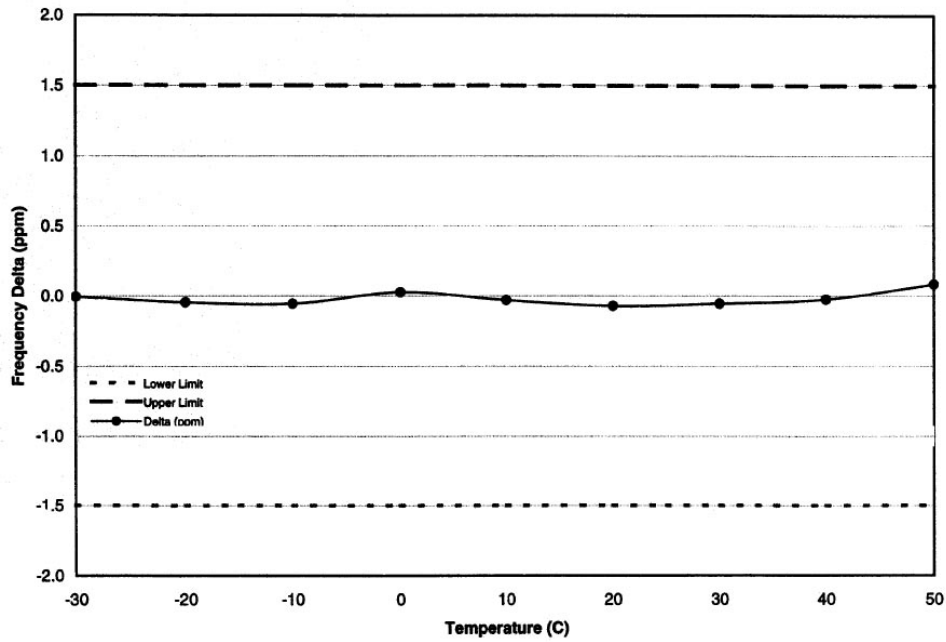
Signature

Date

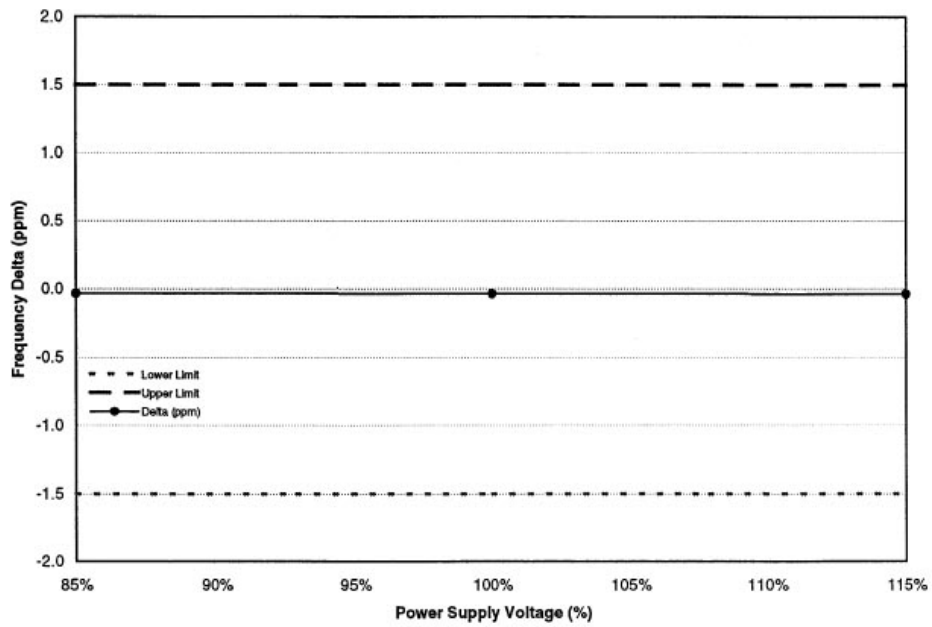
*Terry Schwenk*



**Frequency Stability Over Temperature - CSM1**

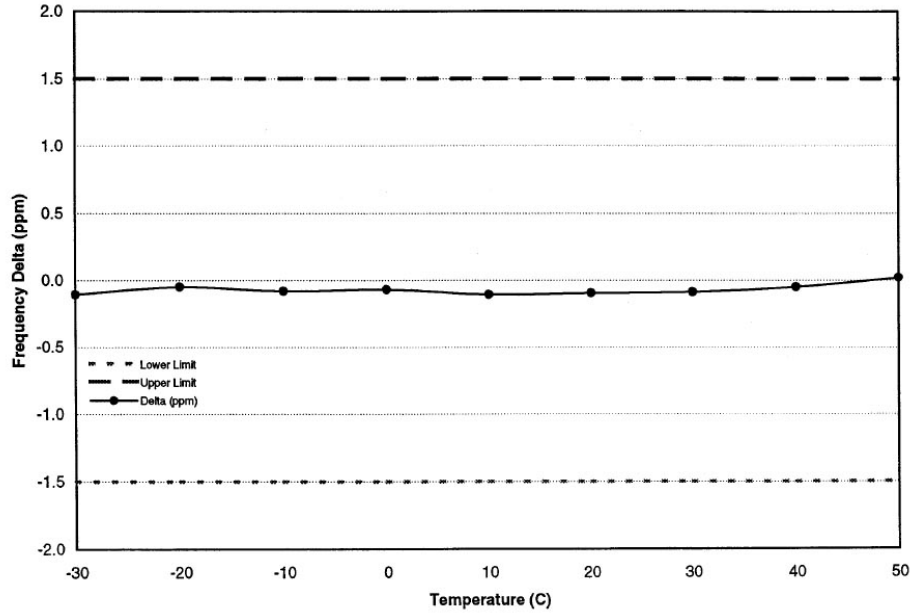


**Frequency Stability with Varying Supply Voltage - CSM1**





Frequency Stability Over Temperature - CSM2



Frequency Stability with Varying Supply Voltage - CSM2

