

TEST REPORT

TEST REPORT

MEASUREMENT OF DC POWER OF FINAL STAGE AMPLIFIER

SECTION 2.1033(c) (8)

The DC voltages applied to and dc currents into the several elements of the final radio frequency amplifying device for normal operation over the power range.

RESPONSE: (No Change from Original Filing – Retest not required)

MEASUREMENT PER SECTION 2.999 OF THE RULES

SECTION 2.1033 (c) (14)

The data required by Section 2.1046 through 2.1057, inclusive, measured in accordance with the procedures set out in Section 2.1041.

RESPONSE:

The following pages include the data required for the Certification of the FCC ID: **AS5CMP-29**, measured in accordance with the procedures set out in Section 2.999 of the Rules.

Each required measurement and its corresponding exhibit number are:

Measurement: 1	Section 2.1046	RF Power Output (New Configuration Data - attached)
Measurement: 2	Section 2.1047	Modulation Characteristics (No Change from Original Filing)
Measurement: 3	Section 2.1049	Occupied Bandwidth (New Configuration Data - attached)
Measurement: 4	Section 2.1051	Spurious Emissions at Antenna Terminals (New Configuration Data - attached)
Measurement: 5	Section 2.1053	Field Strength of Spurious Radiation (New Configuration Data - attached)
Measurement: 6	Section 2.1055	Measurement of Frequency Stability (No Change from Original Filing)
	Section 2.1057	Frequency Spectrum to be Investigated (No Change from Original Filing)
		Test Instrumentation List

MEASUREMENT: 1

MEASUREMENT OF RADIO FREQUENCY POWER OUTPUT

MEASUREMENT: 1**SECTION 2.1046****MEASUREMENT OF RADIO FREQUENCY POWER OUTPUT**

The test arrangements used to measure the radio frequency power output of the FCC ID : **AS5CMP-29** Individual Channel Linear Amplifier is on the following page. Measurements were made respectively at each frequency where occupied Bandwidth measurements were performed. The use of the ICLA is for a single CDMA carrier. This requires that the J4 power level be calibrated for the specific channel of use. The test configuration, Figure 1A, allowed the measurement of output power for each channel investigated for Occupied Bandwidth. These included the upper lower band edges and at the center channel for each Band.

The ICLA system has a maximum power output at the antenna terminals of 15 Watts (41.8 dBm) +2/-4 dB, it also has a minimum power output at the antenna terminals of 0.06 Watts (+2/-4 dB), across the Cellular band (869 – 894 MHz). The signal applied to the ICLA is defined in Table 1.1. The power was reset to 15 Watts at each measurement frequency to verify the spectral performance at that power level at each specific frequency of interest. The attenuation range was also verified. The specific Frequencies and channels and set power level was documented on each “Occupied Bandwidth” sheet.

Type	Number of Channels	Fraction of Power (Linear)	Fraction of Power (dB)	Comments
Pilot	1	0.2000	-7.0	Walsh 0
Sync	1	0.0471	-13.3	Walsh 32, always 1/8 rate
Paging	1	0.1882	-7.3	Walsh 1, full rate only
Traffic	6	0.09412 each	-10.3 each	Variable Walsh Assignments, full rate only

TABLE 1.1 BASE STATION TEST MODEL, NOMINAL

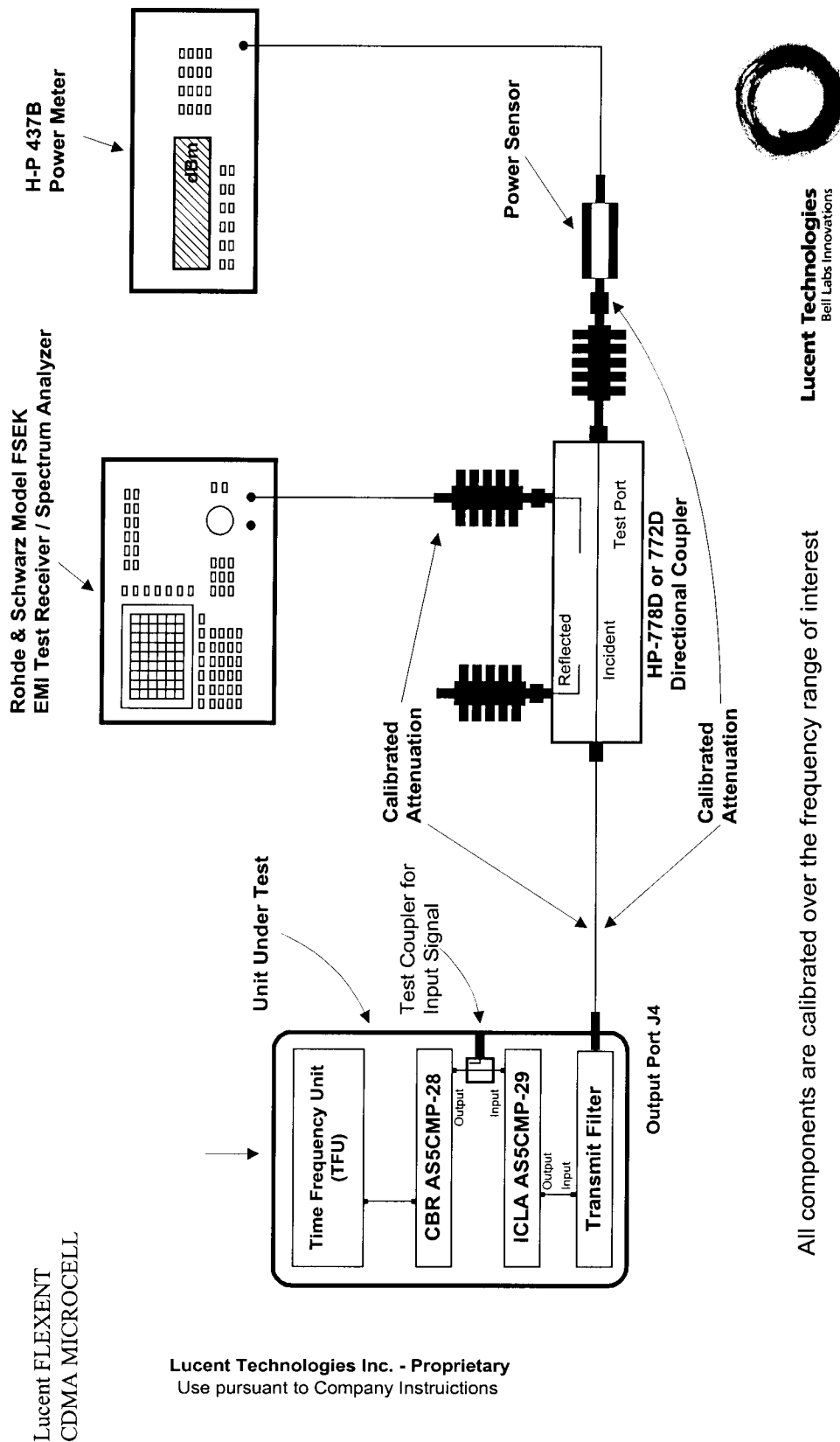
MEASUREMENT: 1 *(continued)***TEST SETUP FOR MEASUREMENT OF RADIO FREQUENCY POWER OUTPUT****EQUIPMENT:**

TFU:	Time/Frequency Unit, 15 MHz
CBR:	CDMA Baseband Radio
ICLA:	Individual Channel Linear Amplifier (FCCID: AS5CMP-29)
Transmit Filter:	Cellular Band Transmit Filter appropriate for the investigated Band
Directional Coupler:	HP 778D Dual Directional Coupler
Power Meter:	HP 437B with HP 8481A Power Head
Plotter:	HP Model 520 DeskJet
Spectrum Analyzer:	Rohde & Schwarz FSEK EMI Test Receiver

RESULTS:

The ICLA was configured in the test setup shown in Figure 1A. For each of the cellular channels tested the ICLA delivered a 15 Watts when measured at the J4 output connection. This data is recorded on the Occupied Bandwidth Data Sheets.

Figure 1A. TEST CONFIGURATION FOR RF POWER OUTPUT



MEASUREMENT: 2

MEASUREMENT OF MODULATION CHARACTERISTICS

MEASUREMENT: 2

MEASUREMENT OF MODULATION CHARACTERISTICS

SECTION 2.1047

RESPONSE: (No Change from Original Filing)

MEASUREMENT: 3

MEASUREMENT OF OCCUPIED BANDWIDTH

MEASUREMENT: 3

SECTION 2.1049

MEASUREMENT OF OCCUPIED BANDWIDTH

The occupied bandwidth of the FCC ID: **AS5CMP-29** ICLA was measured using a Rohde & Schwarz FSEK Spectrum Analyzer and an HP Model 520 DeskJet Printer. The RF power level was measured using RF power meter as shown in the test setup in Figure 3A. The RF output from the transmitter to spectrum analyzer was reduced (to an amplitude usable by the spectrum analyzer) by using a calibrated attenuator. This attenuation was offset on the display and the signal adjusted to the -16.1 dBc level corresponding to the corrected RF power level for a 30 kHz resolution bandwidth. The reference line on the spectrum analyzer display correspond to level measured by the RF power meter.

Occupied Bandwidth plots for: measurements made at antenna terminals for an output of 15 watts. The CBR (FCC ID: AS5CMP-28) output level of 7.1 dBm is required to generate 15 watts power.

The frequencies and channels used are tabulated on the bottom of each plot. Output signal is plotted at each frequency/channel. Plots are provided for Left Edge, Center and Right Edge of each cellular band. These frequencies were chosen to show the occupied bandwidth in the channels in each of the Cellular in which this radio can be operated, in compliance with Section 22.902 (c) of the Commission code. There are no SAT or Wide band data signals associated with CDMA. The signal used to show the occupied bandwidth is defined in Table 3.1. This is the signal recommended in IS-95A Section 7.1.4. The power output level was adjusted to provide the documented power levels at the bottom of each chart.

Type	Number of Channels	Fraction of Power (Linear)	Fraction of Power (dB)	Comments
Pilot	1	0.2000	-7.0	Walsh 0
Sync	1	0.0471	-13.3	Walsh 32, always 1/8 rate
Paging	1	0.1882	-7.3	Walsh 1, full rate only
Traffic	6	0.09412 each	-10.3 each	Variable Walsh Assignments, full rate only

TABLE 3.1 Base Station Test Model, Nominal

MEASUREMENT: 3 *(continued)*

The minimum standard presented in PN-3383 and IS-97.

“Suppression Inside the Licensee’s Frequency Block(s)”

For all frequencies within the base station transmit band of 869 to 894 MHz that are within the specific block(s) allocated to the operator’s system. The total conducted spurious emissions in any 30 kHz band greater than 750 kHz for the CDMA channel center frequency shall not exceed a level of –45 dBc....

A Resolution Bandwidth of 30 kHz is based on our experience with Section 22.917 of The Code and lacking other guidance.

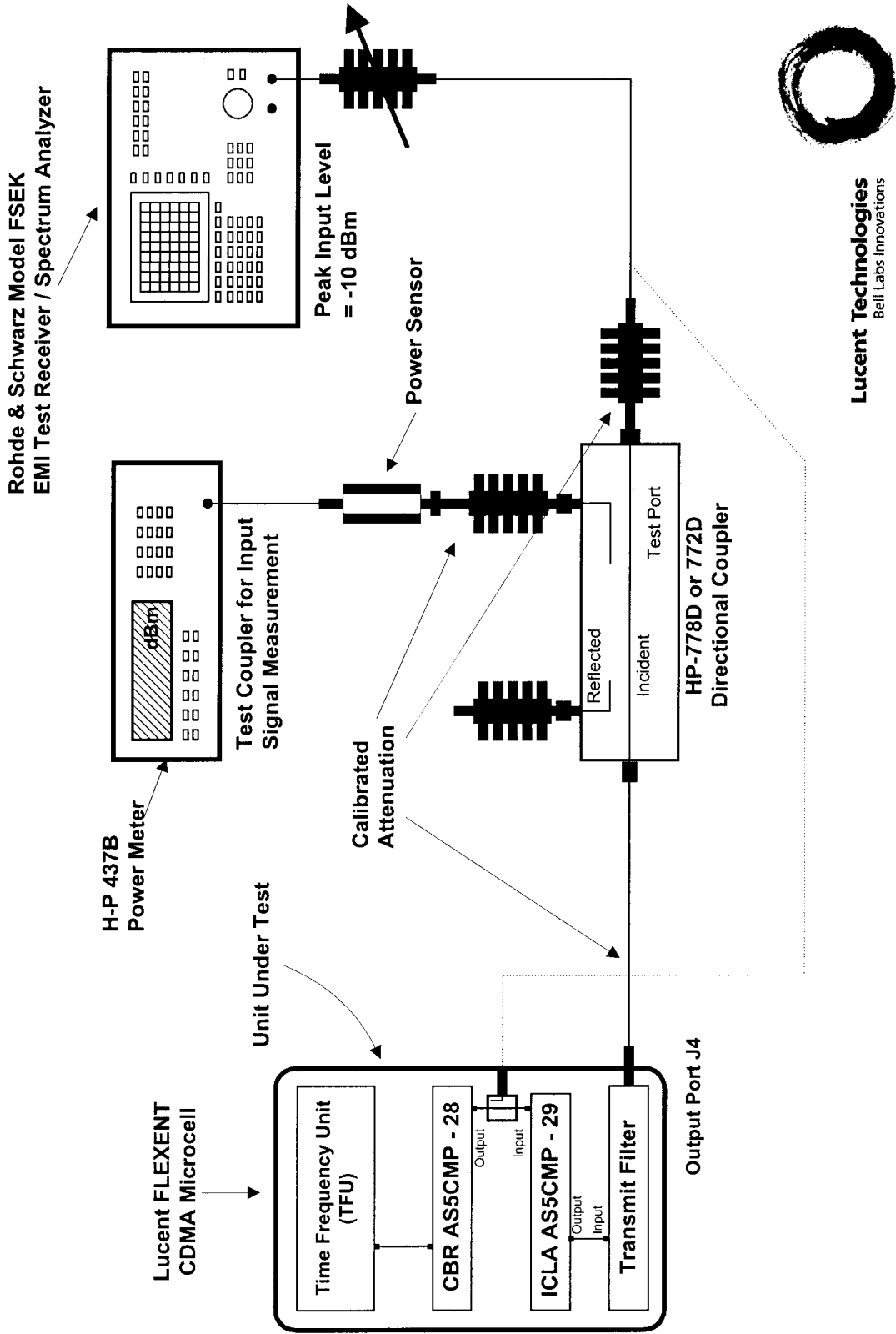
The spectrum analyzer output plot shows the CDMA channel signal 16.1 dB below the reference line of the spectrum analyzer for the following reason: For the CDMA system there is no carrier without modulation. This relationship was used to provide the correct level for an unmodulated carrier vs. The modulated signal.

$$10*\log (\text{Resolution Bandwidth/Transmit Bandwidth}) = \text{Signal Offset}$$

For the peak of the CDMA signal measured with a resolution bandwidth of 30 kHz the signal offset is:

$$\text{Signal Offset} = 10*\log (30 \text{ kHz}/1.23 \text{ MHz}) = -16.1 \text{ dB}$$

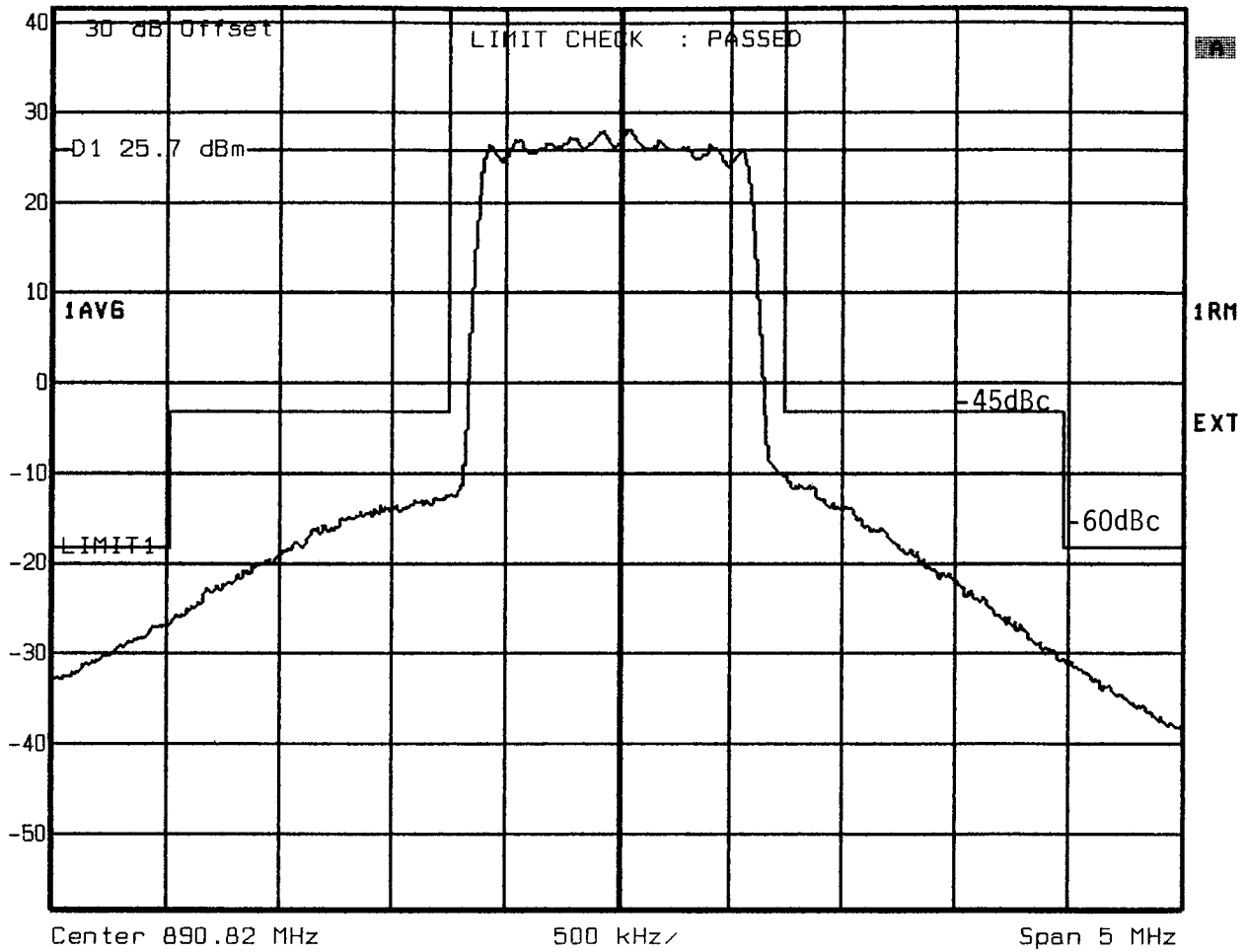
Figure 3A. TEST CONFIGURATION FOR OCCUPIED BANDWIDTH





ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 500 ms Unit dBm

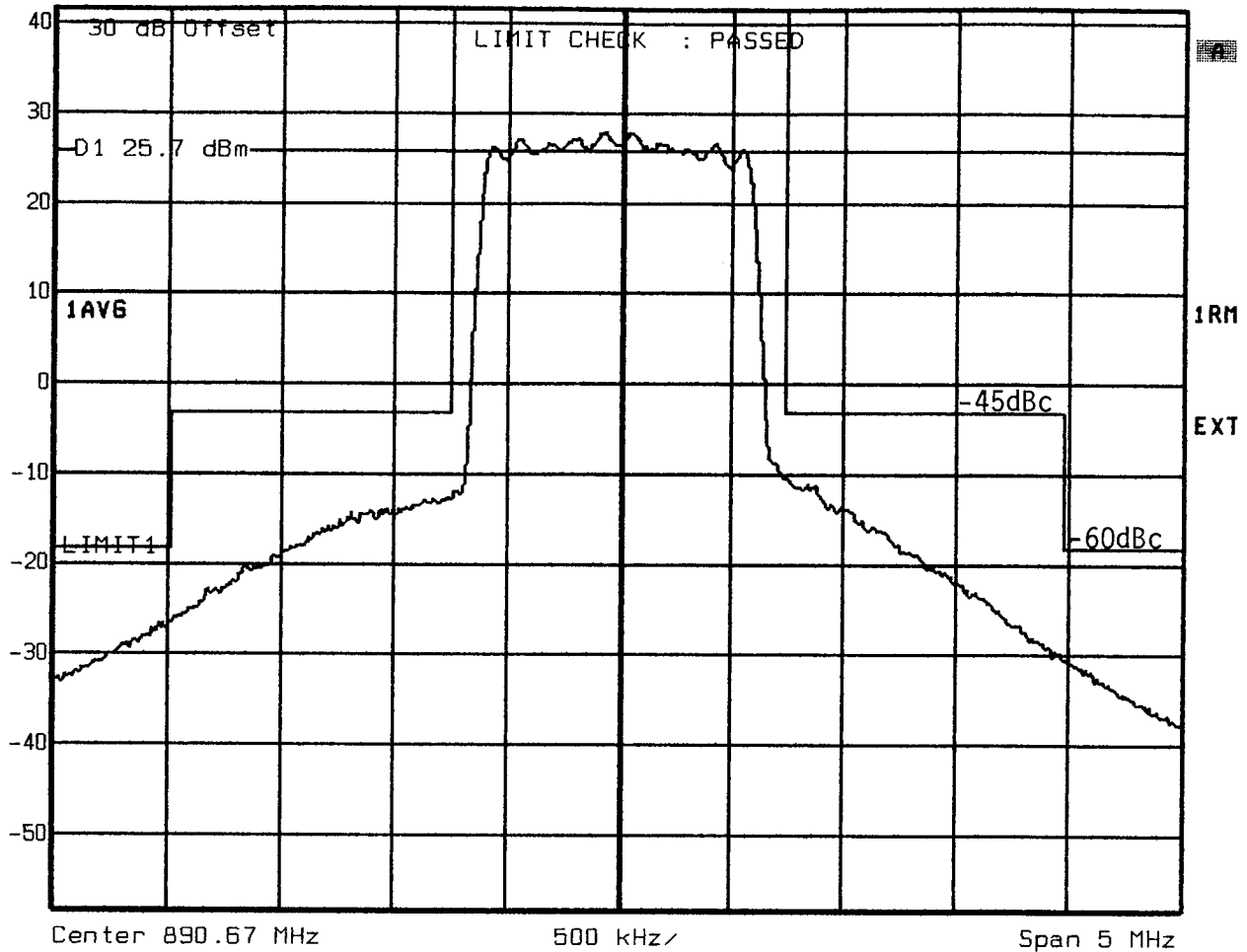


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 694. POWER 15 WATTS
Date: 7.MAY.99 10:55:37



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 500 ms Unit dBm

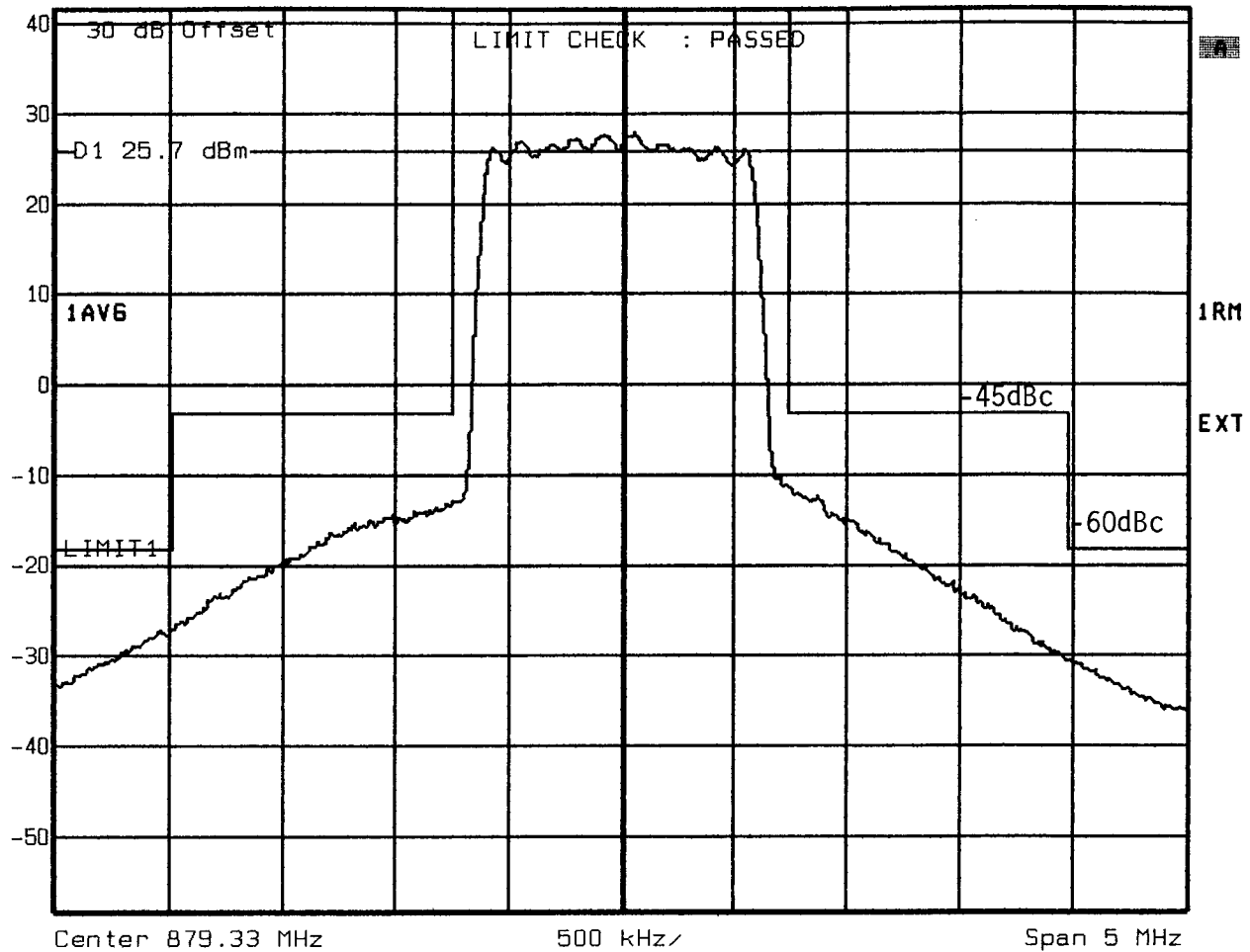


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 689. POWER 15 WATTS
Date: 7.MAY.99 10:49:50



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 500 ms Unit dBm

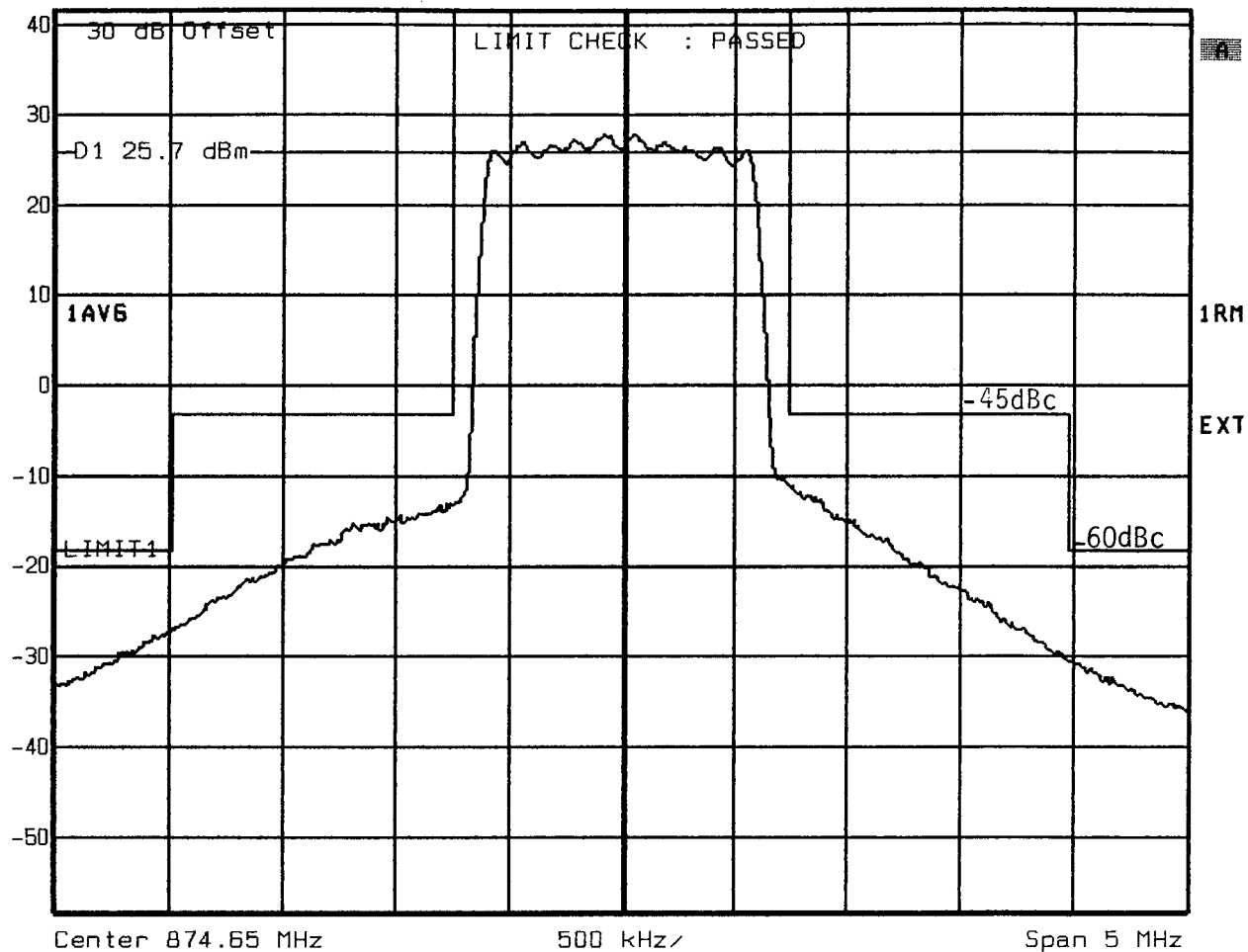


Title: OCCUPIED BANDWIDTH
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CHANNEL: 311. POWER 15 WATTS
Date: 7.MAY.99 11:02:56



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 500 ms Unit dBm

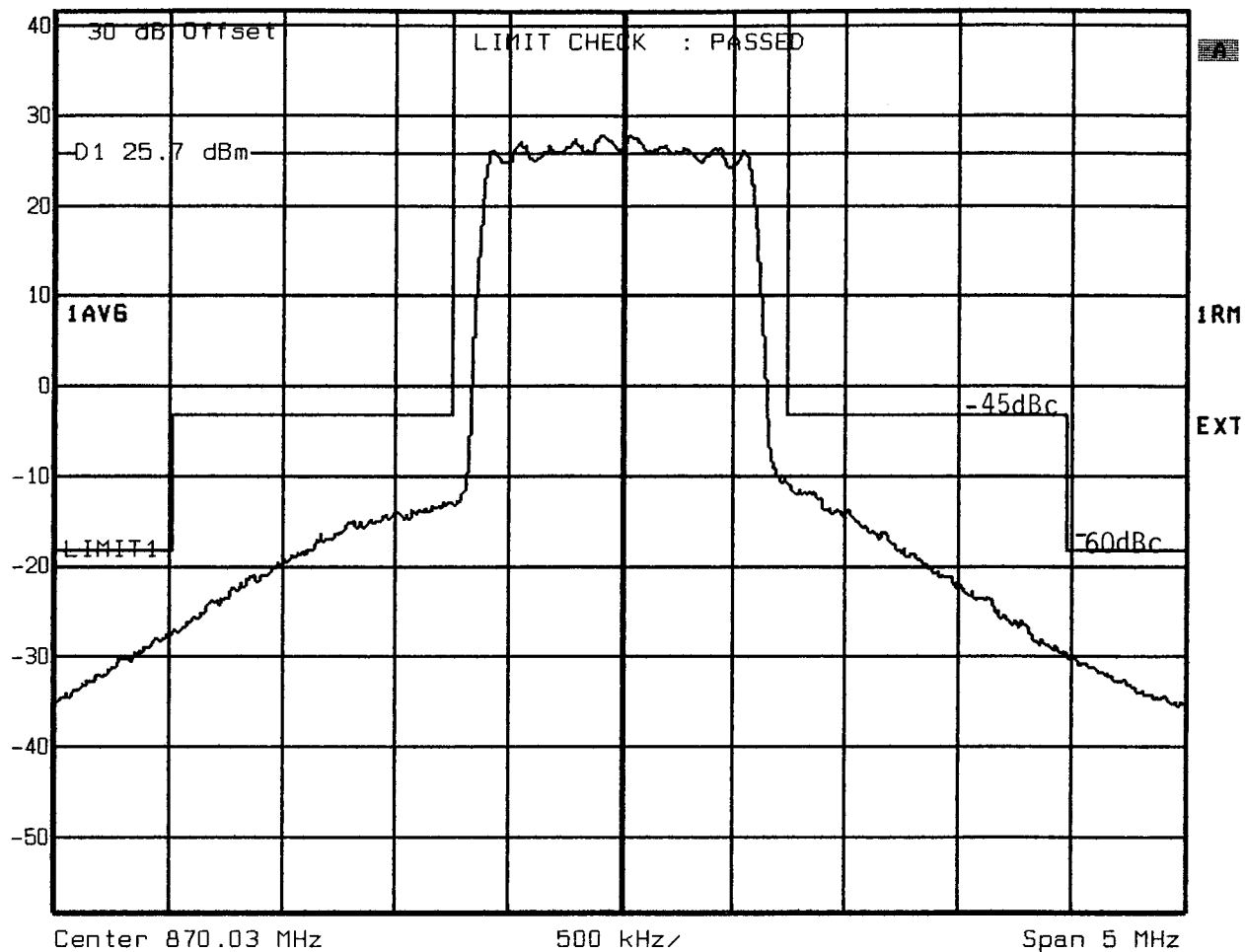


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 155. POWER 15 WATTS
Date: 7.MAY.99 11:08:43



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 500 ms Unit dBm

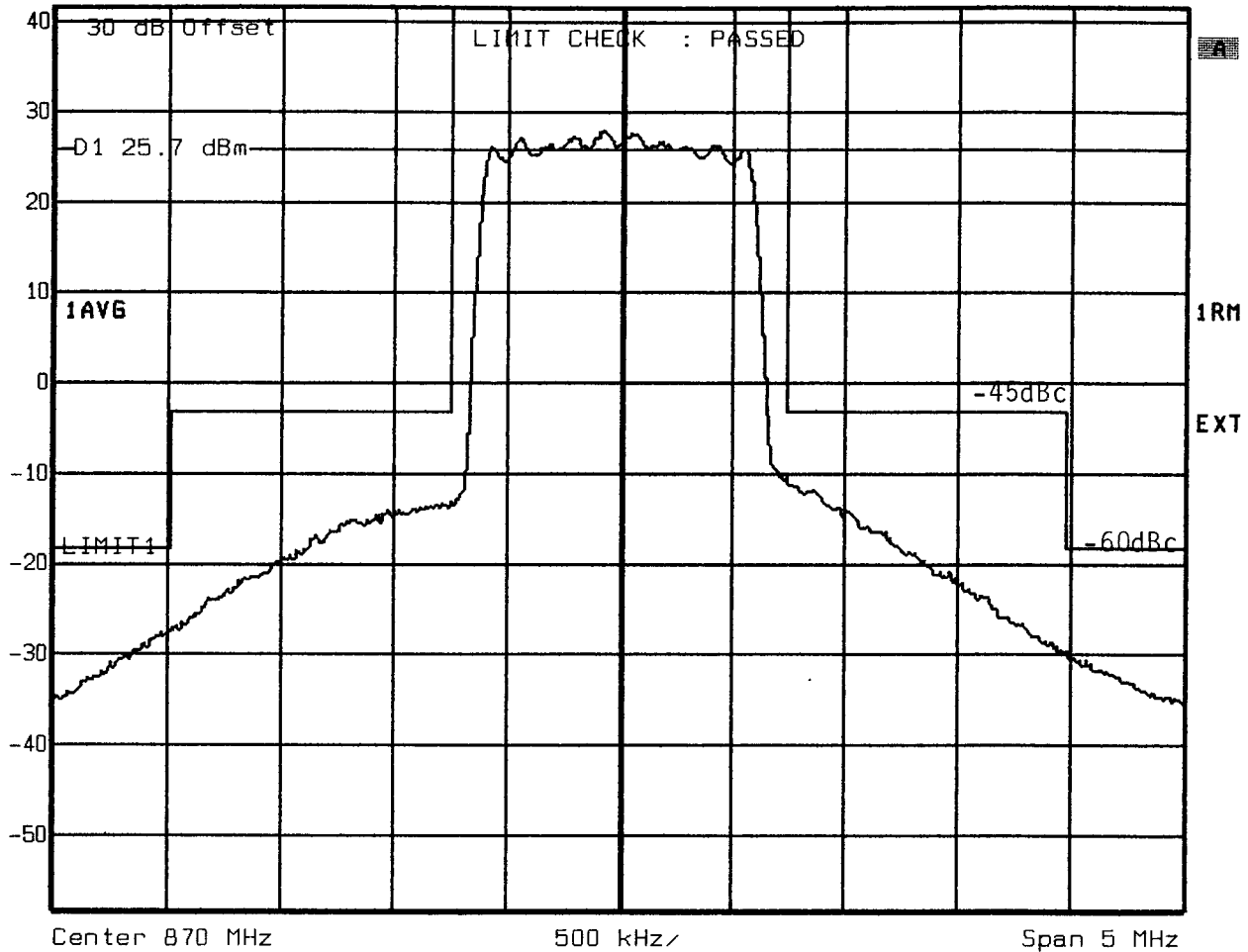


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 1. POWER 15 WATTS
Date: 7.MAY.99 11:36:00



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 500 ms Unit dBm

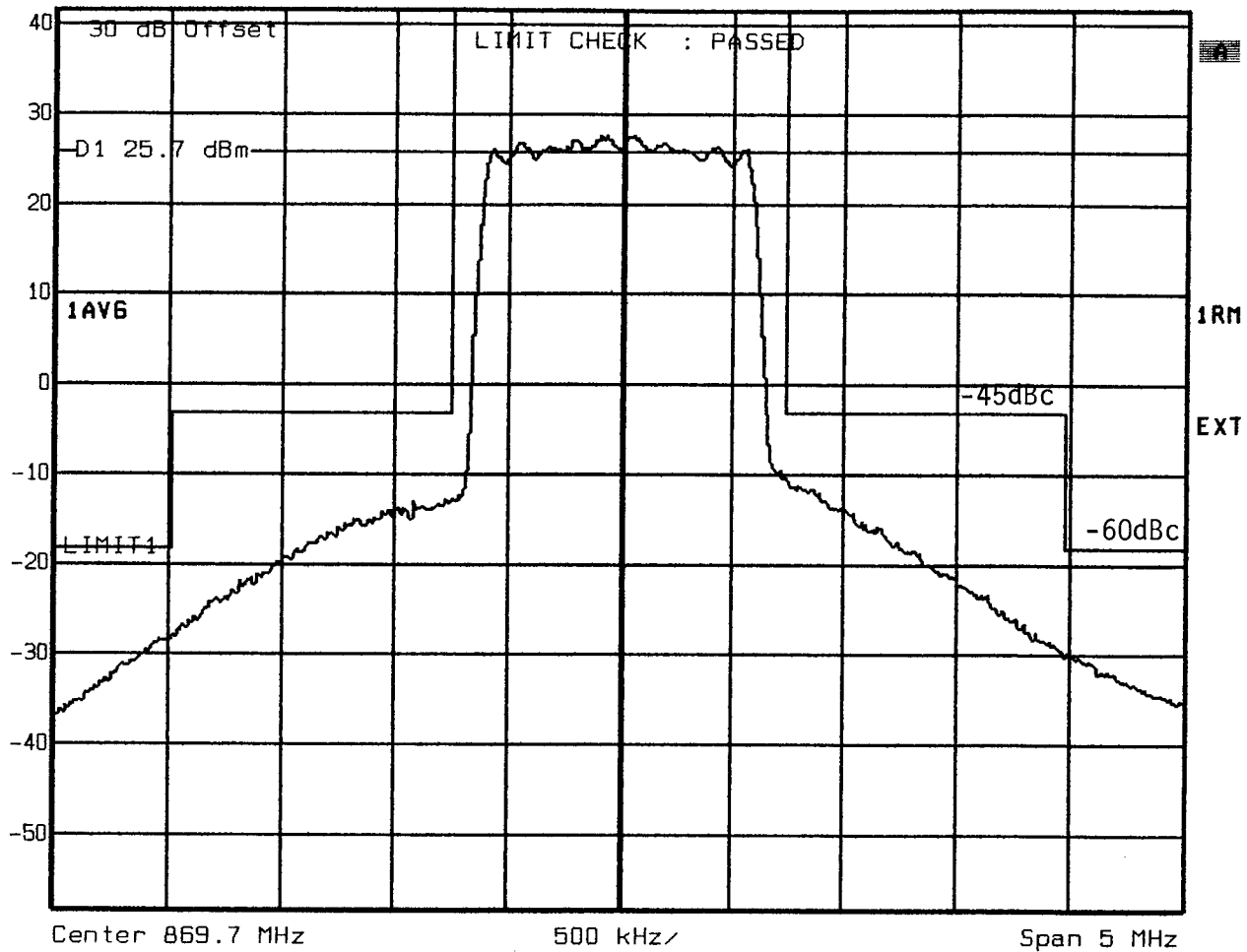


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 1023. POWER 15 WATTS
Date: 7.MAY.99 11:41:36



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 500 ms Unit dBm

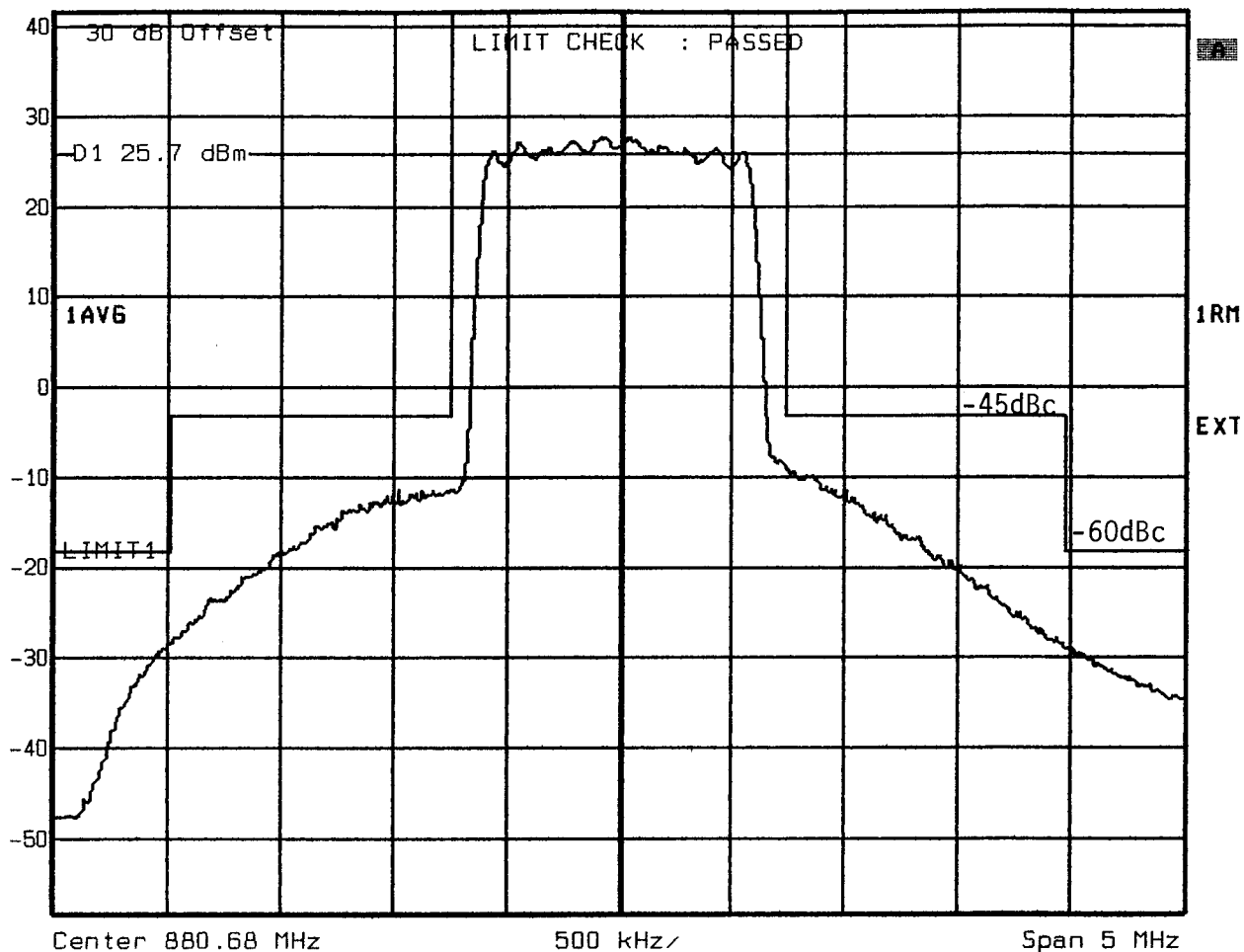


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 1013. POWER 15 WATTS
Date: 7.MAY.99 11:53:03



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 500 ms Unit dBm

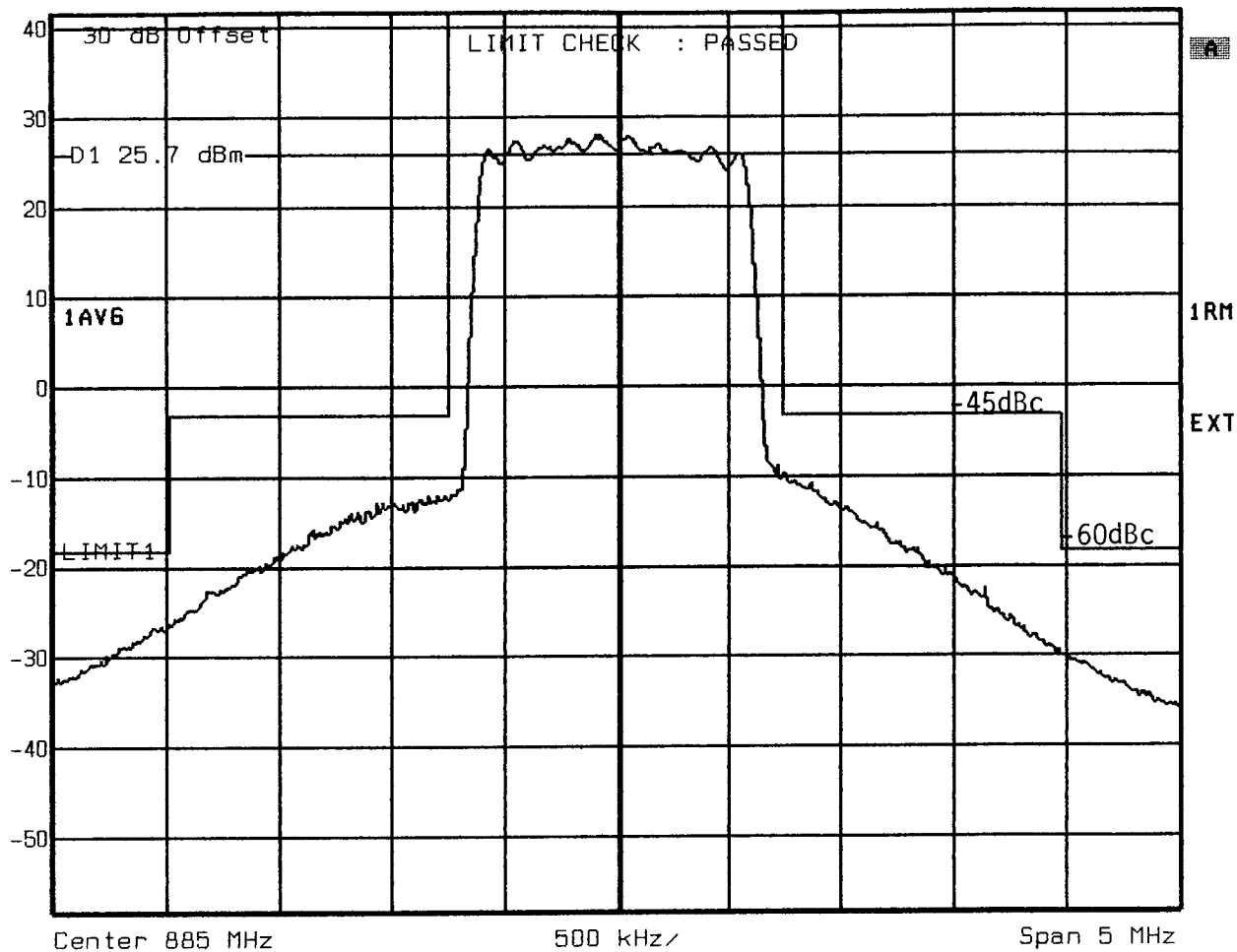


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 356. POWER 15 WATTS
Date: 6.MAY.99 2:00:16



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 500 ms Unit dBm

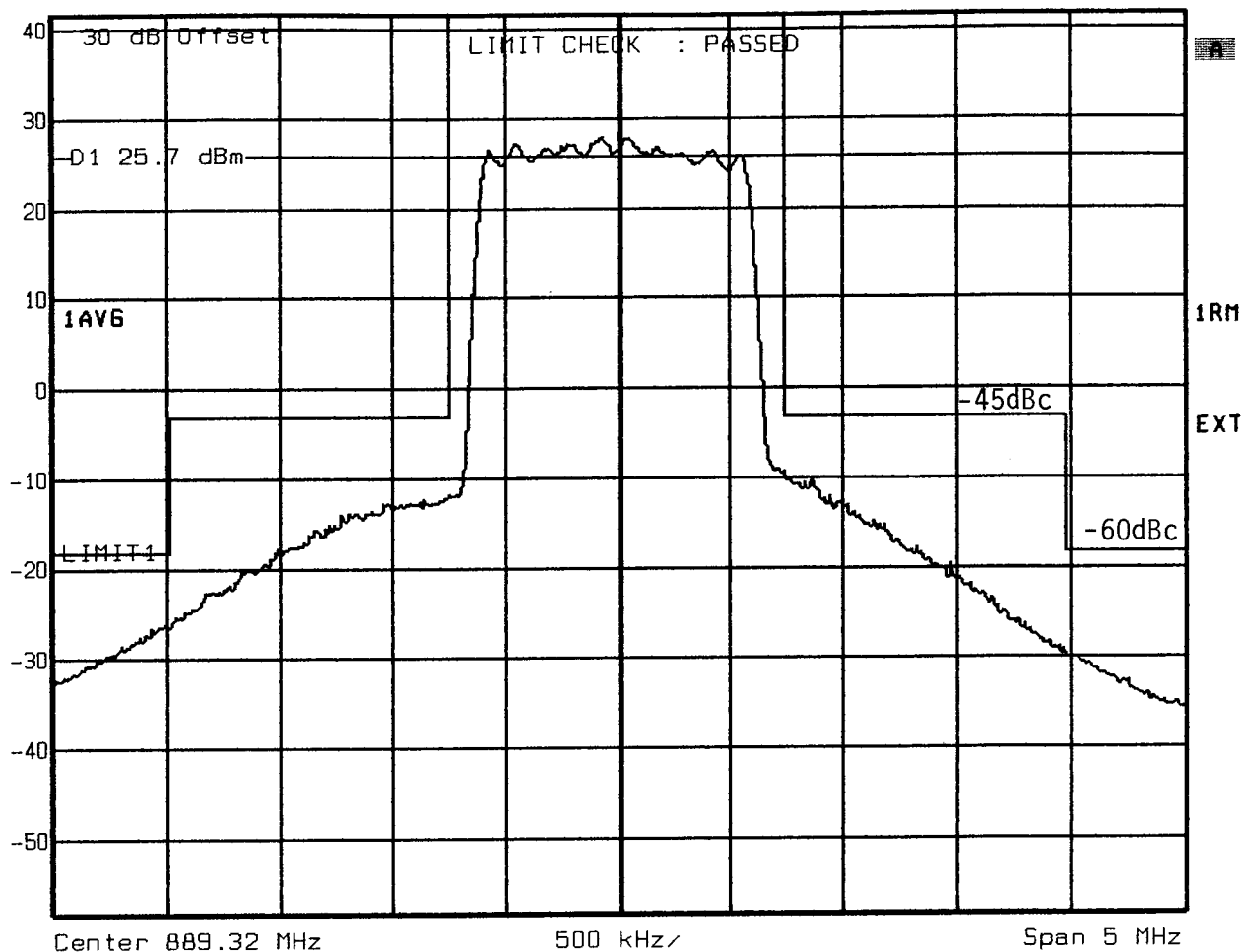


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 500. POWER 15 WATTS
Date: 6.MAY.99 1:52:23



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 500 ms Unit dBm

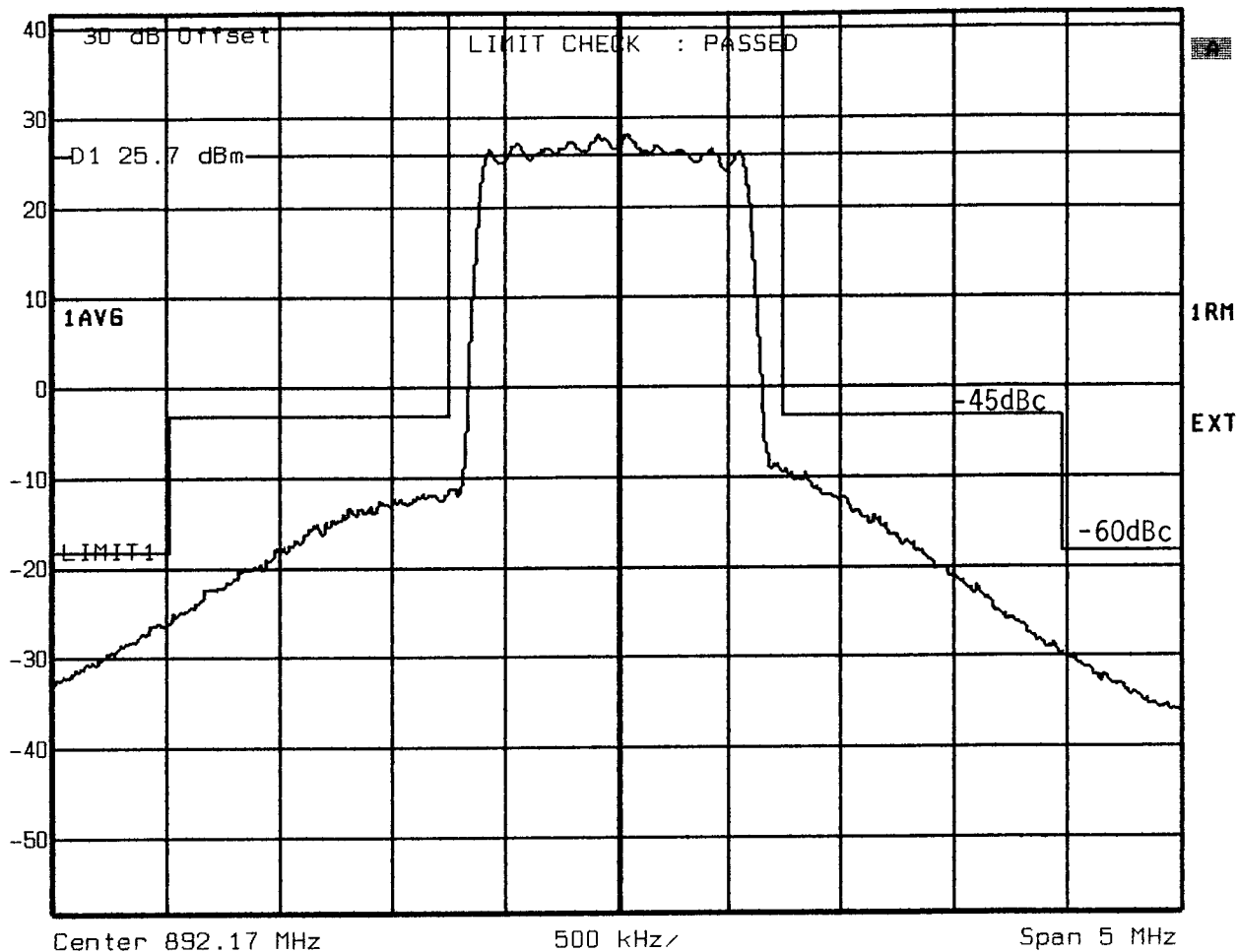


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 644. POWER 15 WATTS
Date: 6.MAY.99 1:46:47



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 500 ms Unit dBm

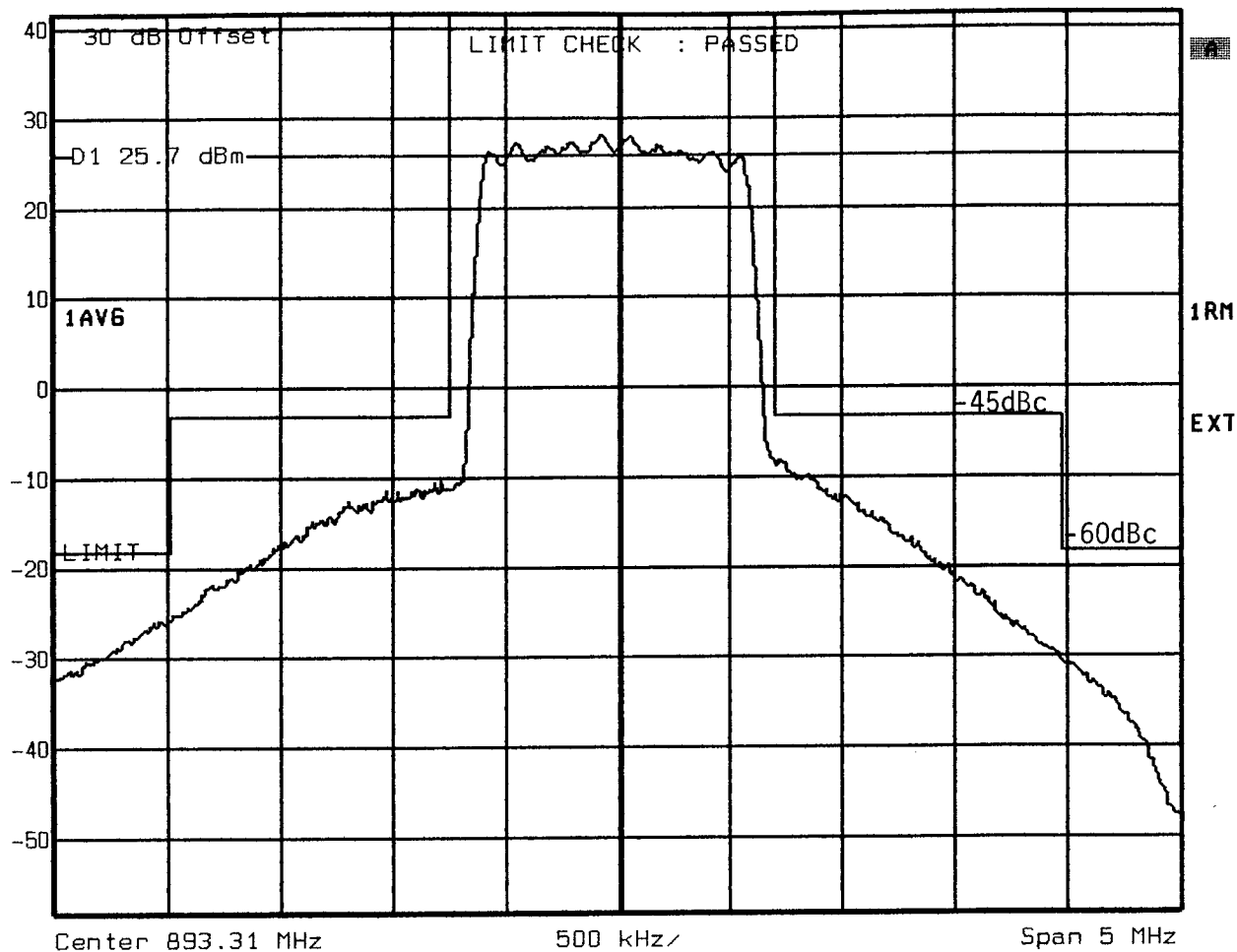


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 739. POWER 15 WATTS
Date: 6.MAY.99 2:04:41



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 500 ms Unit dBm



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 777. POWER 15 WATTS
Date: 6.MAY.99 2:11:53

MEASUREMENT: 4

MEASUREMENT OF SPURIOUS EMISSIONS AT ANTENNA

MEASUREMENT: 4

Section 2.1051

Spurious Emissions at Antenna Terminals

Spurious Emissions at the antenna terminals and input to ICLA were investigated over the frequency range of 0 MHz to the 10th harmonic of the carrier frequency. The test setup was as described in Figure 4A. Measurements were made using a Rohde & Schwarz FSEK Spectrum Analyzer and an HP Model 520 DeskJet Printer. The RF output from the transmitter was reduced (to an amplitude usable by the spectrum analyzer) by using a calibrated attenuator. The RF power level was continuously monitored via RF Power Meter as shown in the test setup in Figure 4A. The required emission limitation specified in Section 22.917 of the Code was applied to these tests. The applied signal met the recommended characteristics per IS-95 Section 7.1.4 as defined below. All measurements were made for 15W output at antenna terminals. The corresponding CBR output was 7.1dBm..

Based upon the criterion given in Section 22.917 of the Code the required emission limitation is equal to -54.8 dBc or - 13 dBm. The magnitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not specified (Section 2.1051 and 2.1057 (a) and (c)).

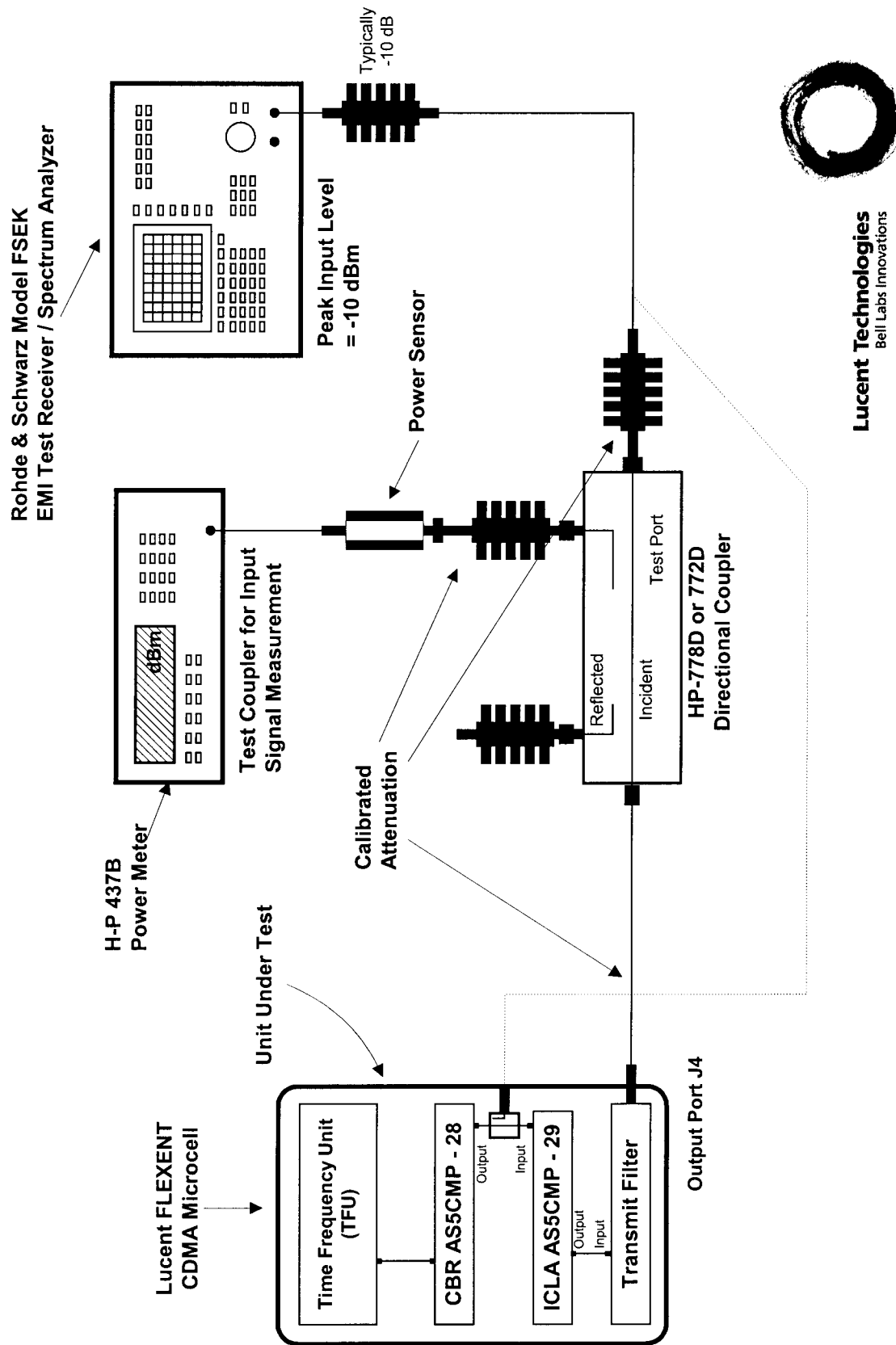
Type	Number of Channels	Fraction of Power (Linear)	Fraction of Power (dB)	Comments
Pilot	1	0.2000	-7.0	Walsh 0
Sync	1	0.0471	-13.3	Walsh 32, always 1/8 rate
Paging	1	0.1882	-7.3	Walsh 1, full rate only
Traffic	6	0.09412 each	-10.3 each	Variable Walsh Assignments, full rate only

TABLE 4.1 Base Station Test Model, Nominal

RESULTS:

The attached spectral plots document for spurious emissions at antenna terminal shows that there are no emissions above the applicable limit.

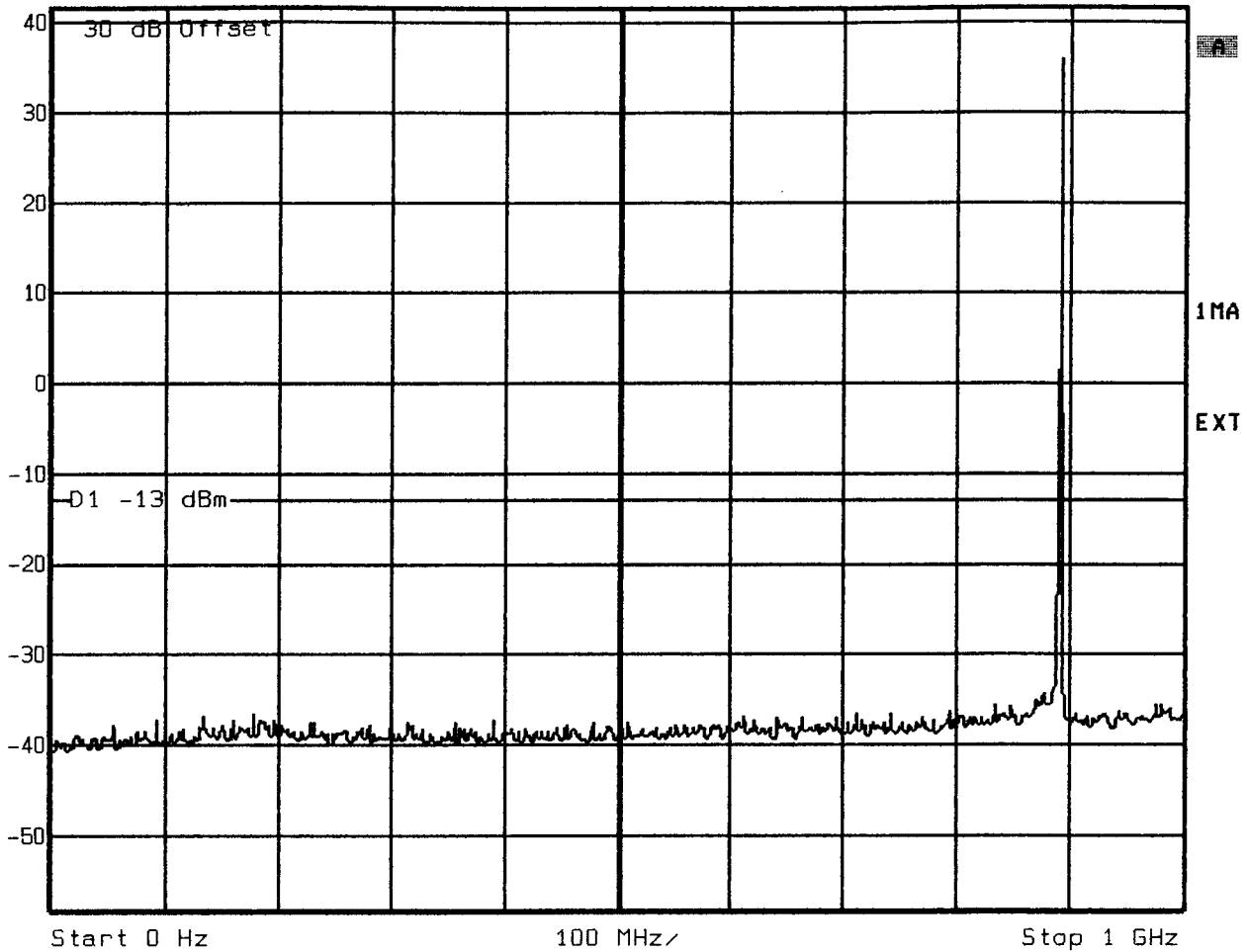
Figure 4A. TEST CONFIGURATION FOR CONDUCTED SPURIOUS





ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 2.8 s Unit dBm

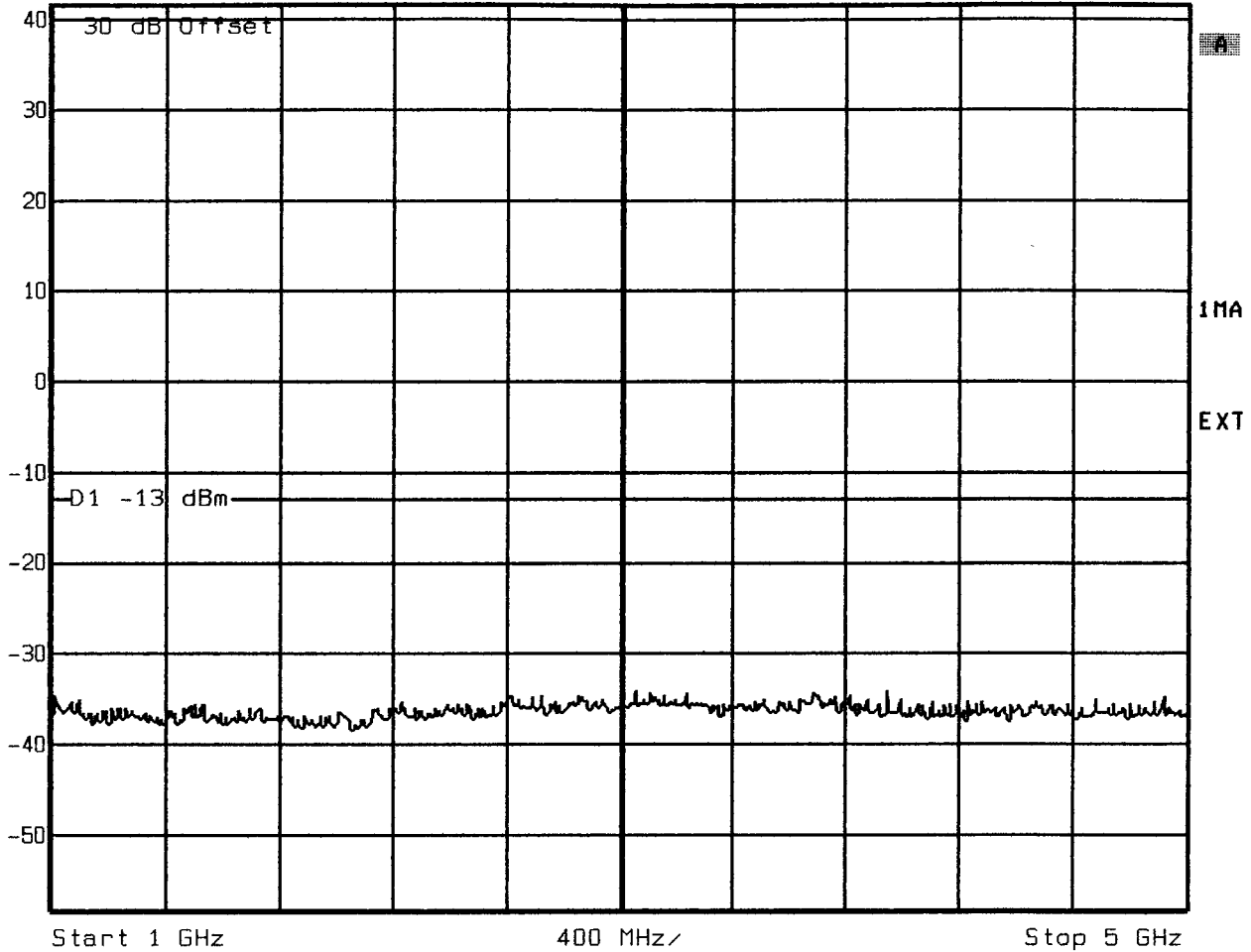


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 694. POWER 15 WATTS
Date: 7.MAY.99 10:22:05



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 11.5 s Unit dBm

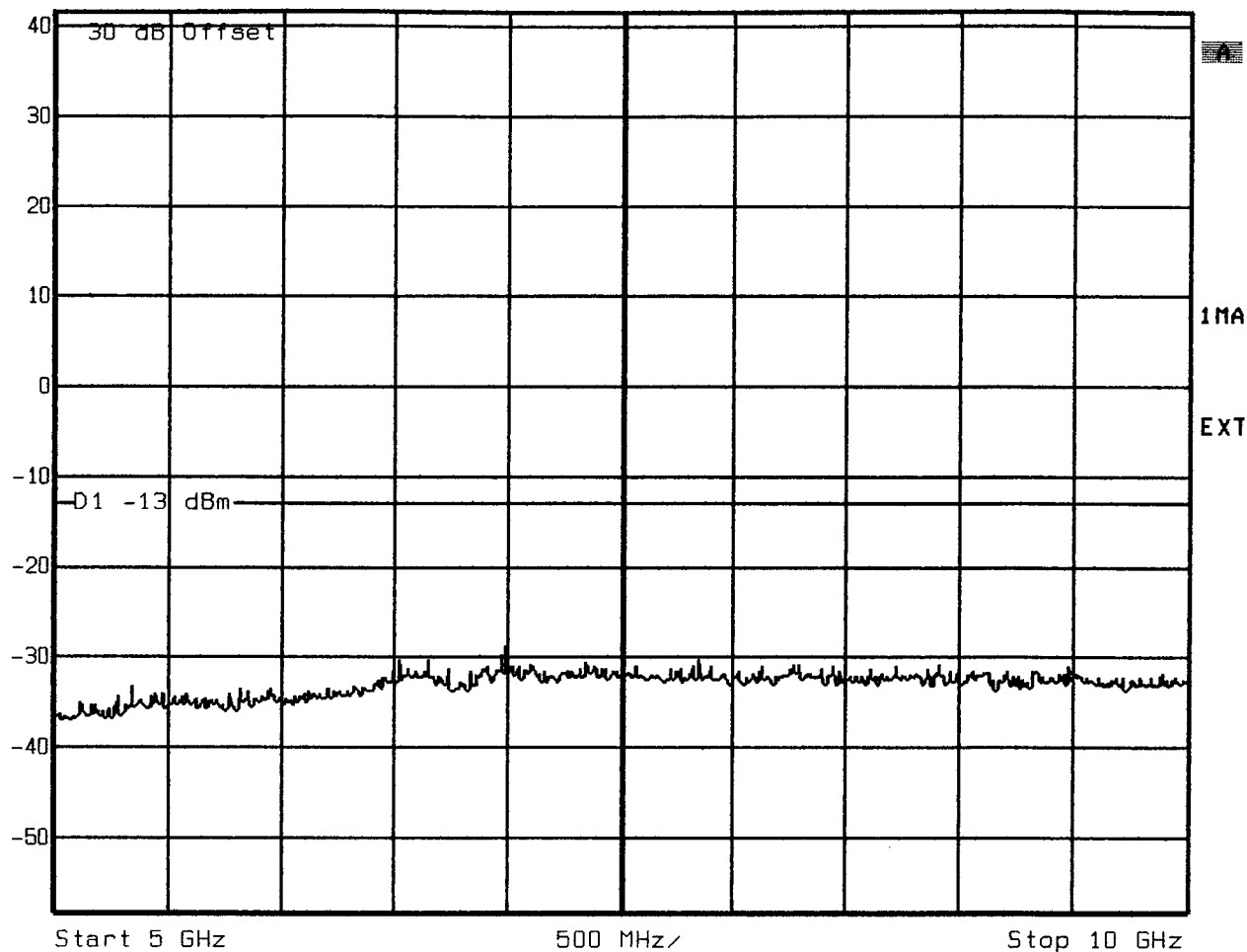


Title: SPURIOUS EMISSIONS AT TX ANT.
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CHANNEL: 694. POWER 15 WATTS
Date: 7.MAY.99 10:18:59



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 14 s Unit dBm

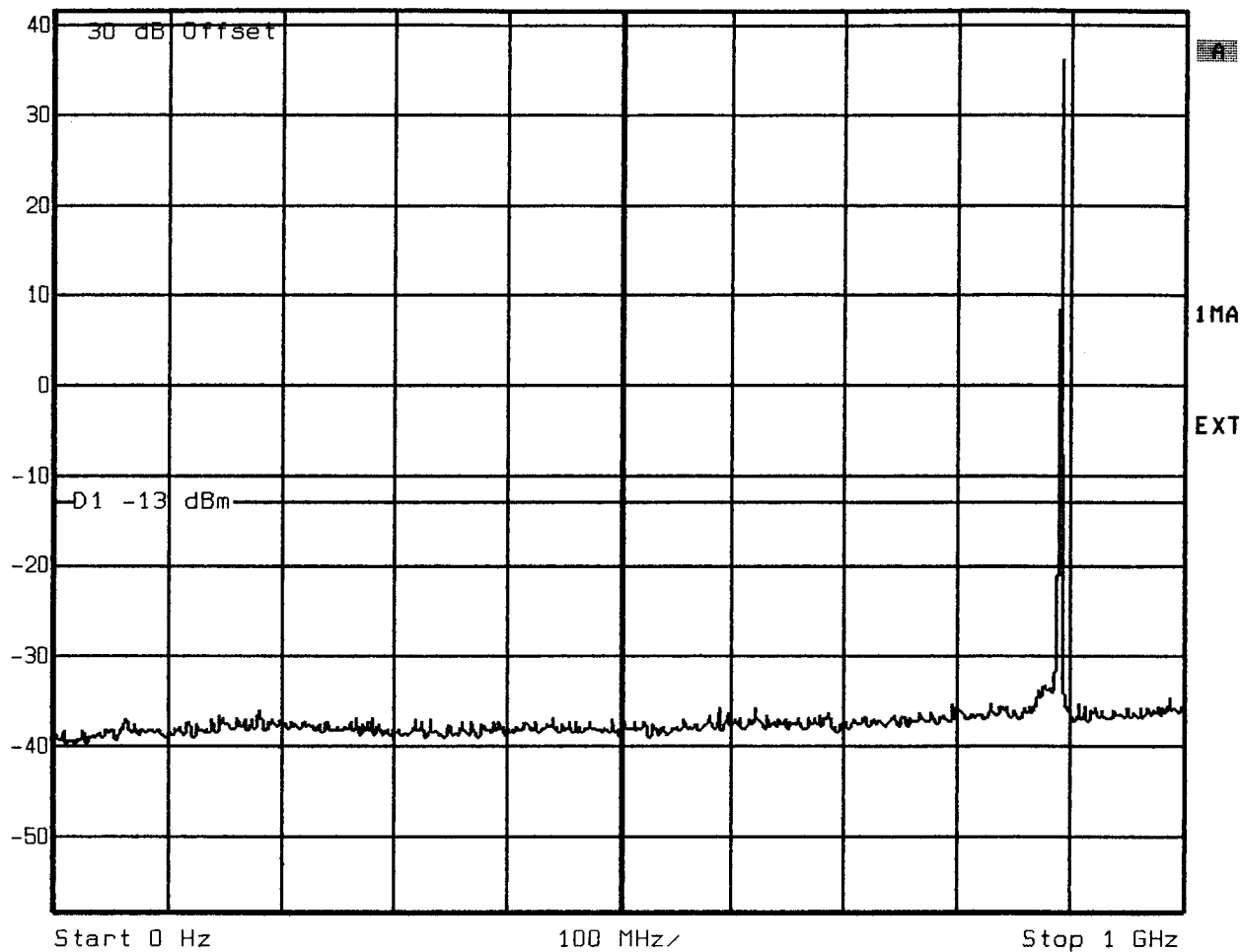


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 694. POWER 15 WATTS
Date: 7.MAY.99 10:14:43



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 2.8 s Unit dBm

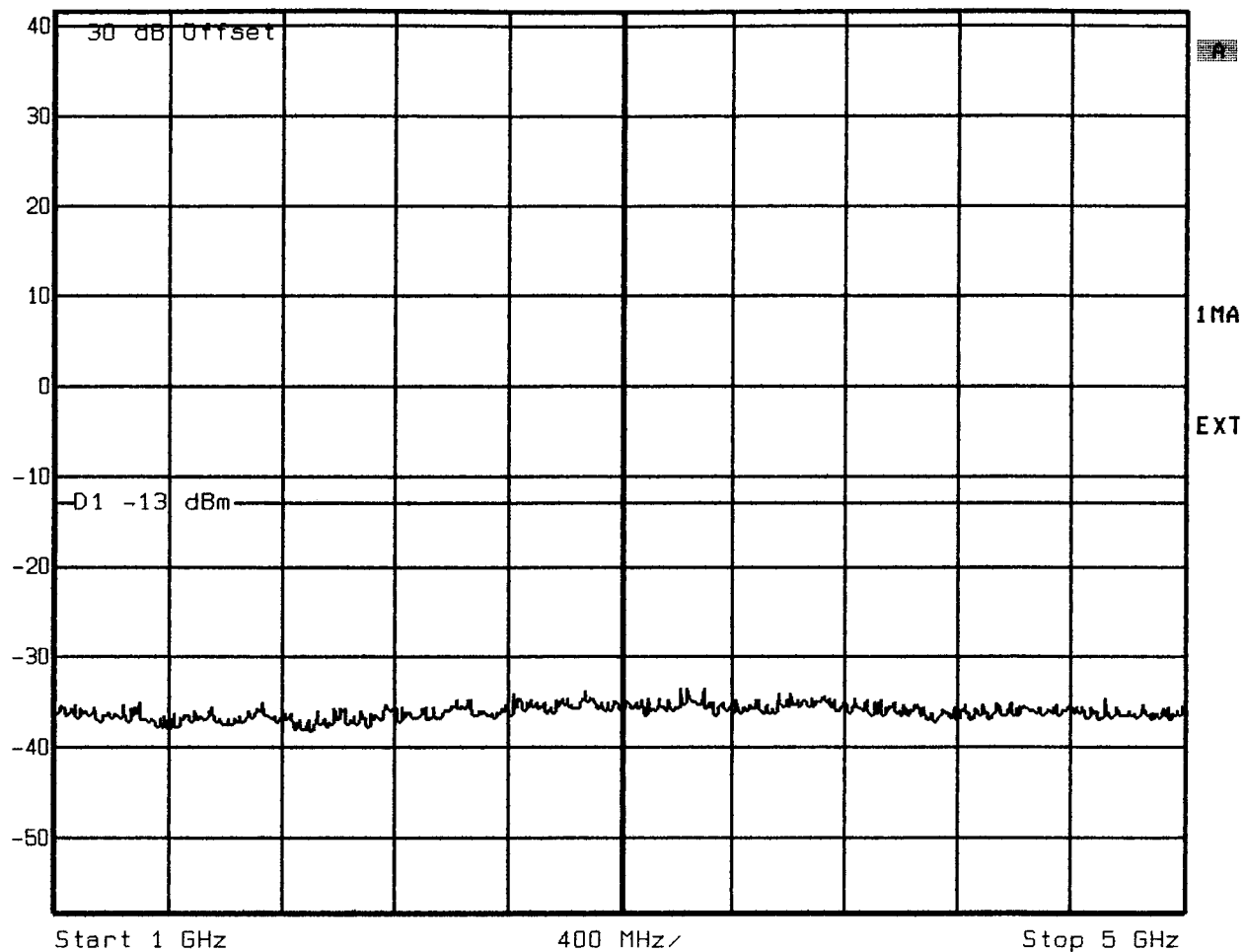


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 689. POWER 15 WATTS
Date: 7.MAY.99 9:58:18



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 11.5 s Unit dBm

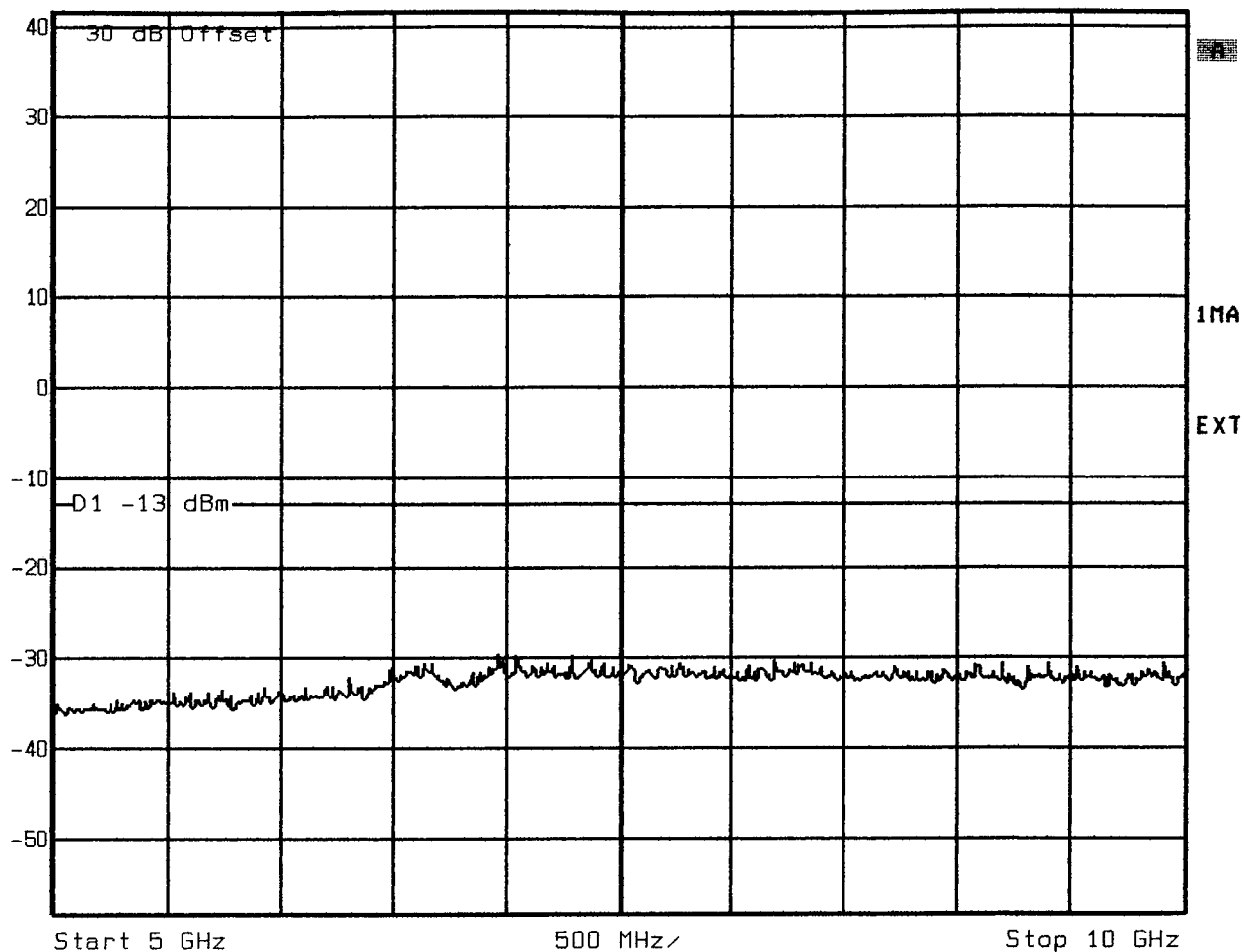


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 689. POWER 15 WATTS
Date: 7.MAY.99 10:01:54



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 14 s Unit dBm

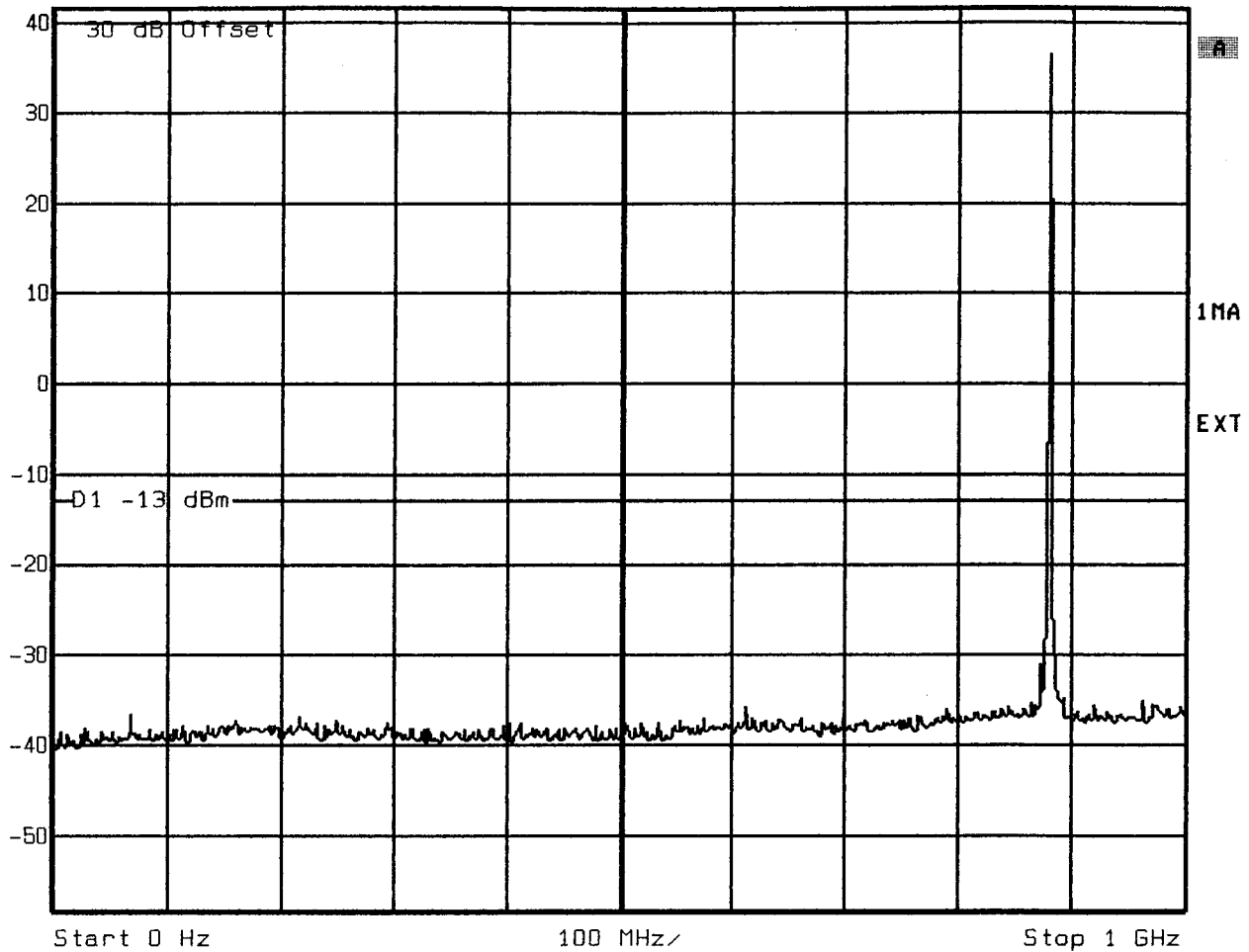


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 689. POWER 15 WATTS
Date: 7.MAY.99 10:07:58



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 2.8 s Unit dBm

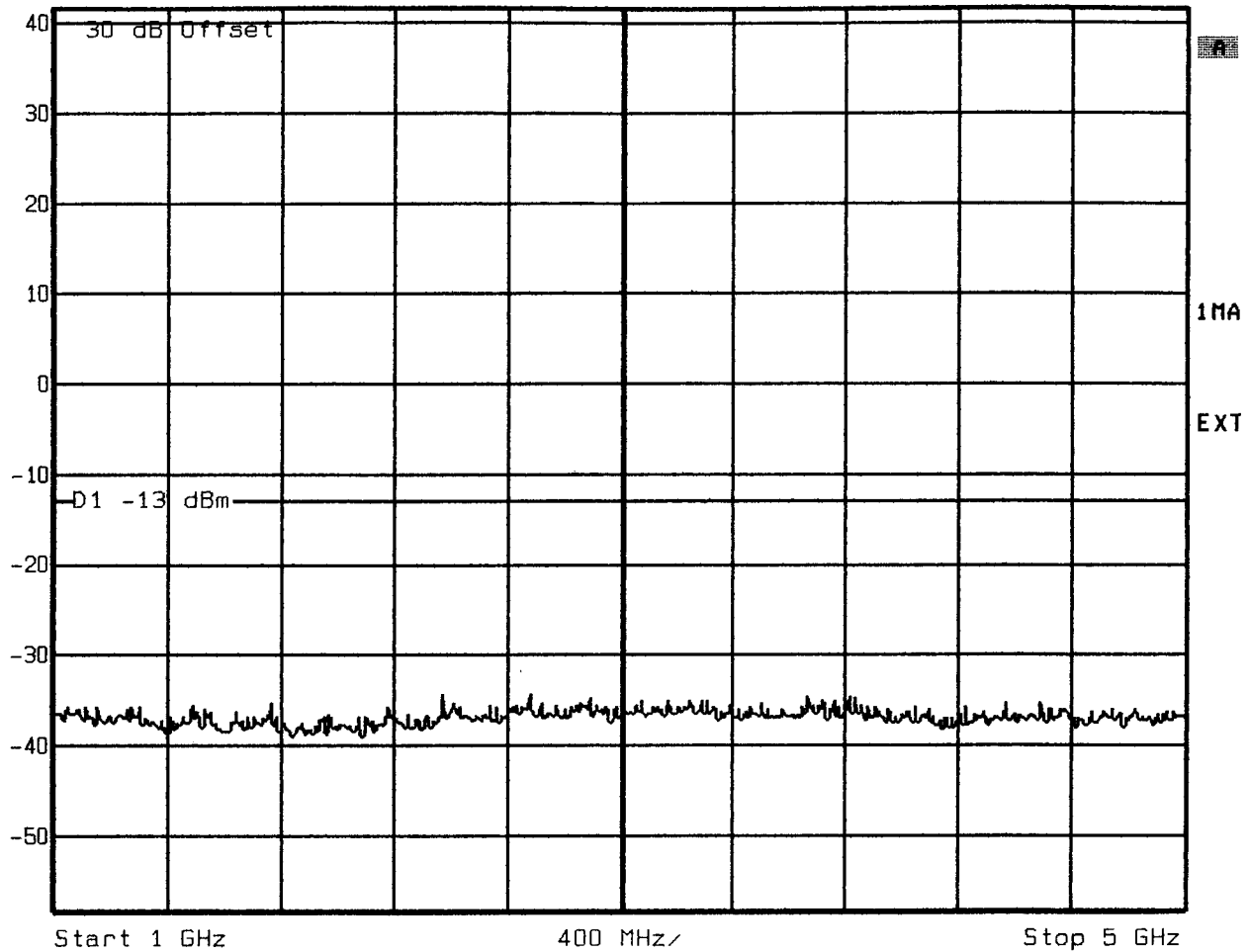


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 311. POWER 15 WATTS
Date: 7.MAY.99 9:46:27



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 11.5 s Unit dBm

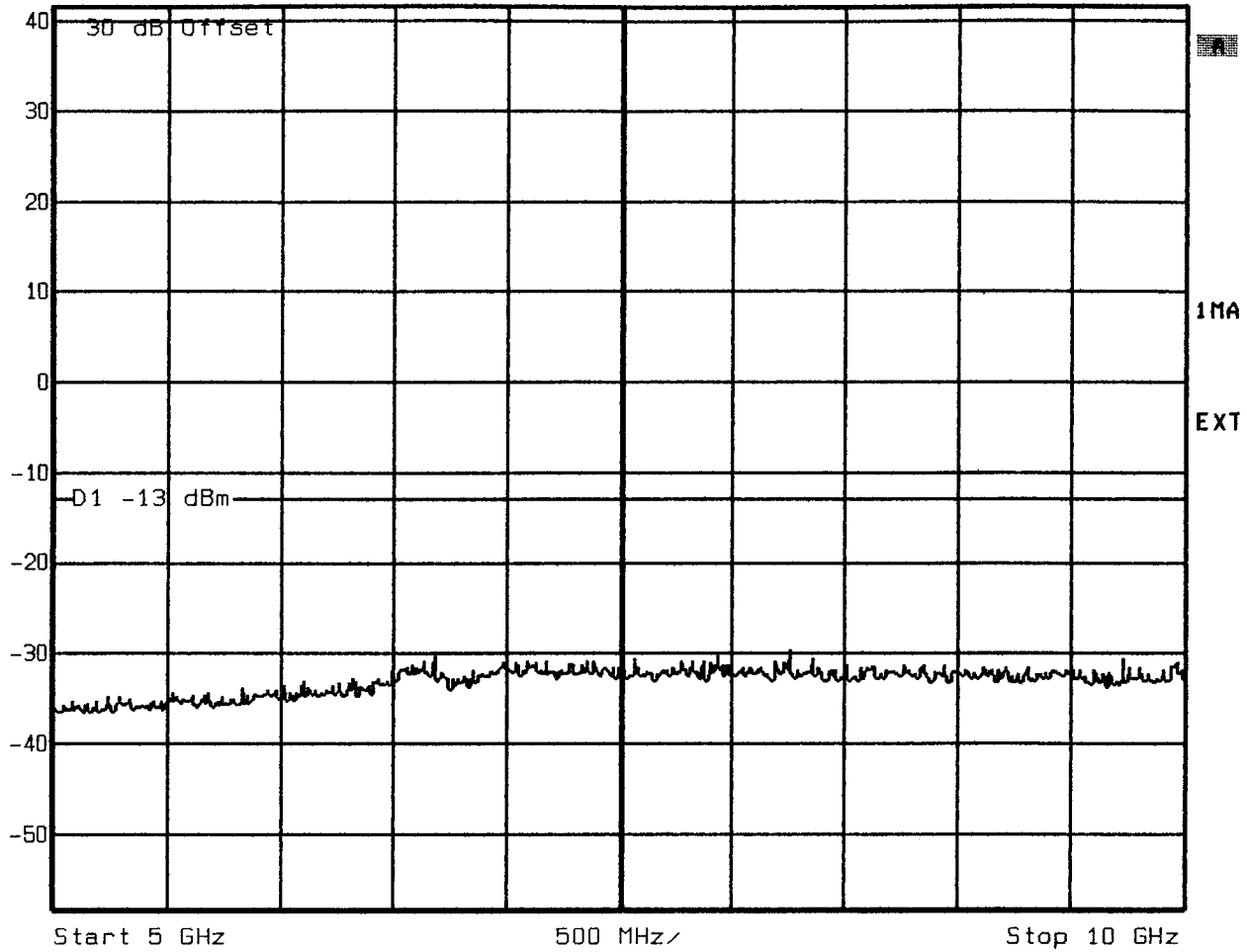


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 311. POWER 15 WATTS
Date: 7.MAY.99 9:43:39



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 14 s Unit dBm

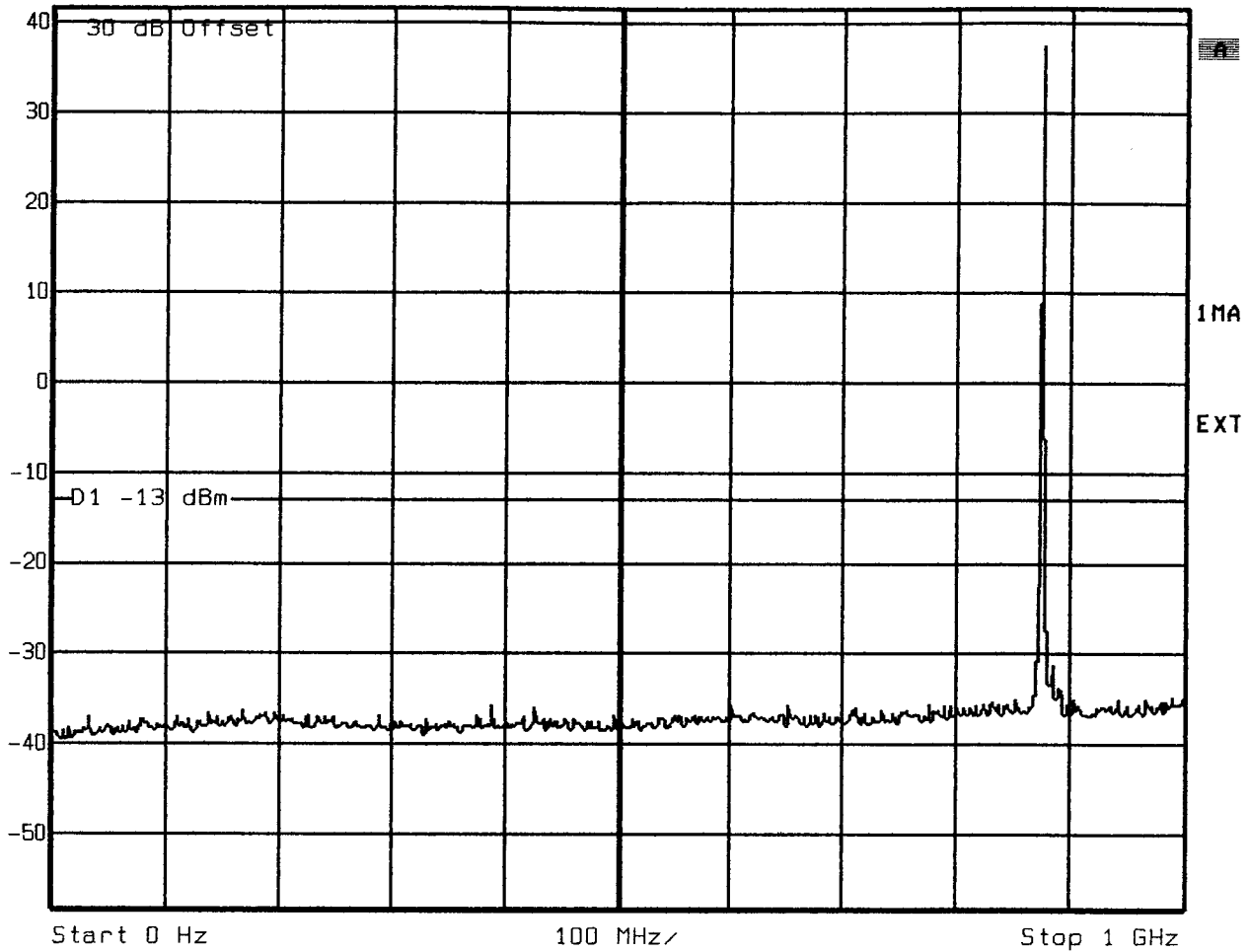


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 311. POWER 15 WATTS
Date: 7.MAY.99 9:41:12



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 2.8 s Unit dBm

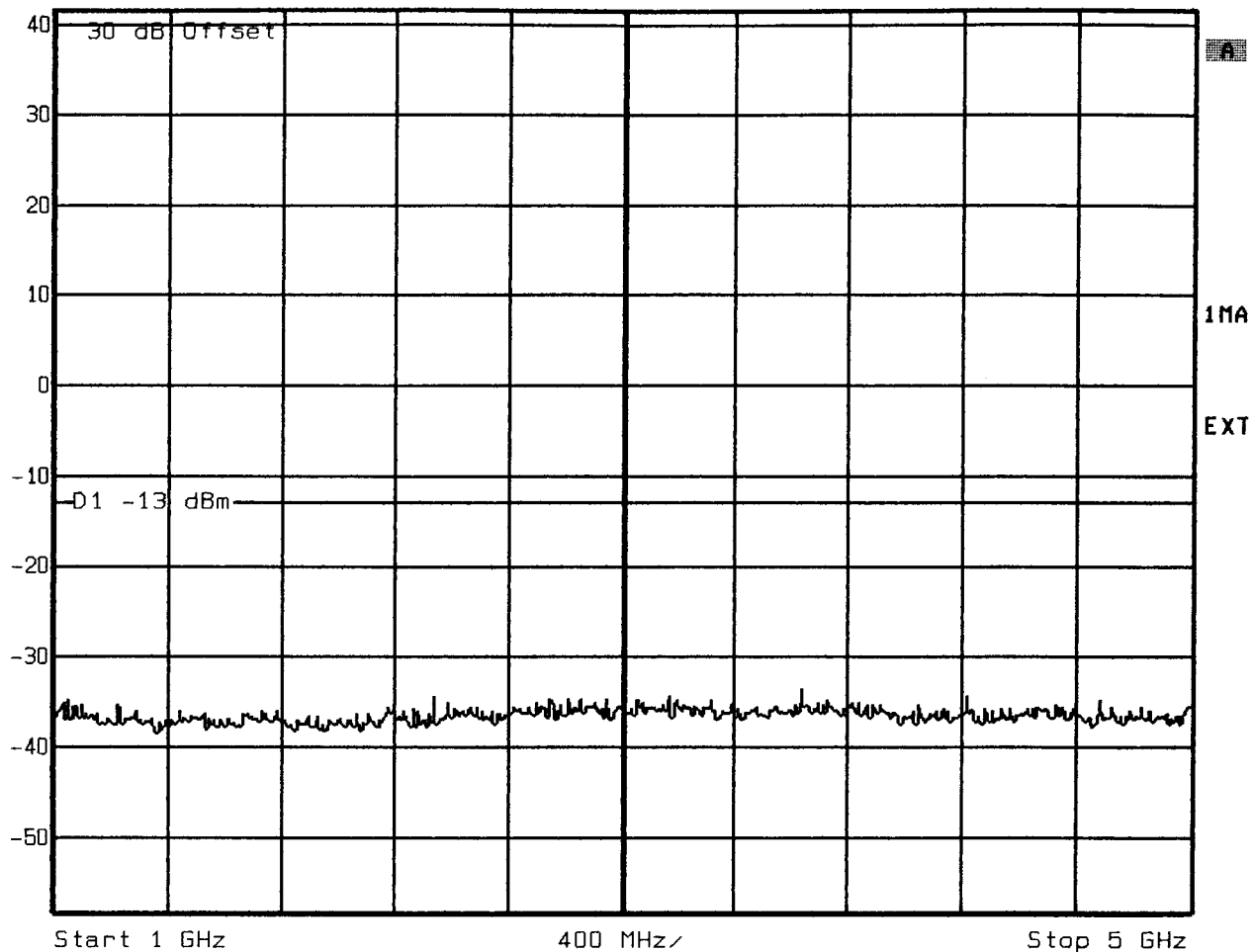


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 155. POWER 15 WATTS
Date: 7.MAY.99 9:20:56



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 11.5 s Unit dBm

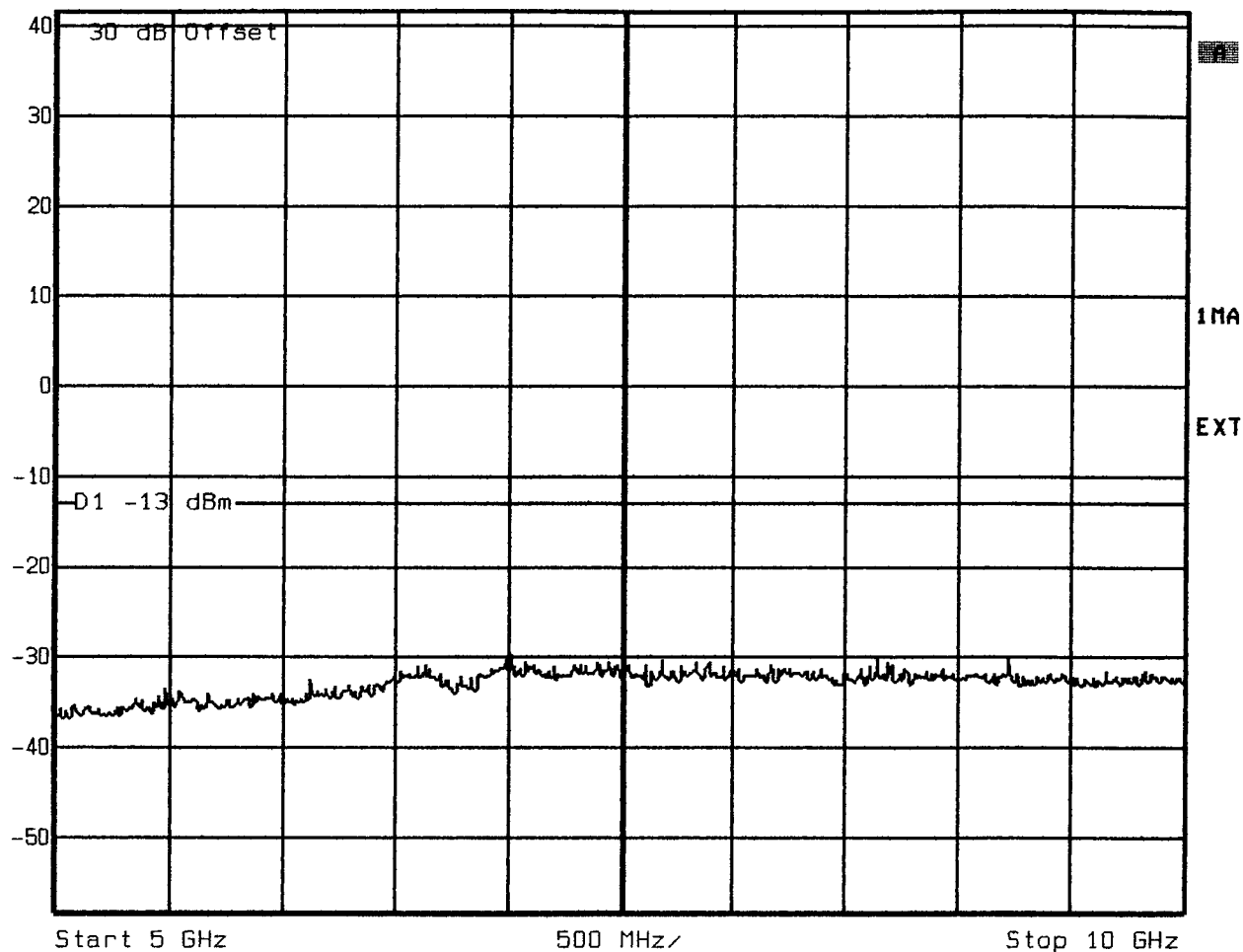


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 155. POWER 15 WATTS
Date: 7.MAY.99 9:26:57



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 14 s Unit dBm

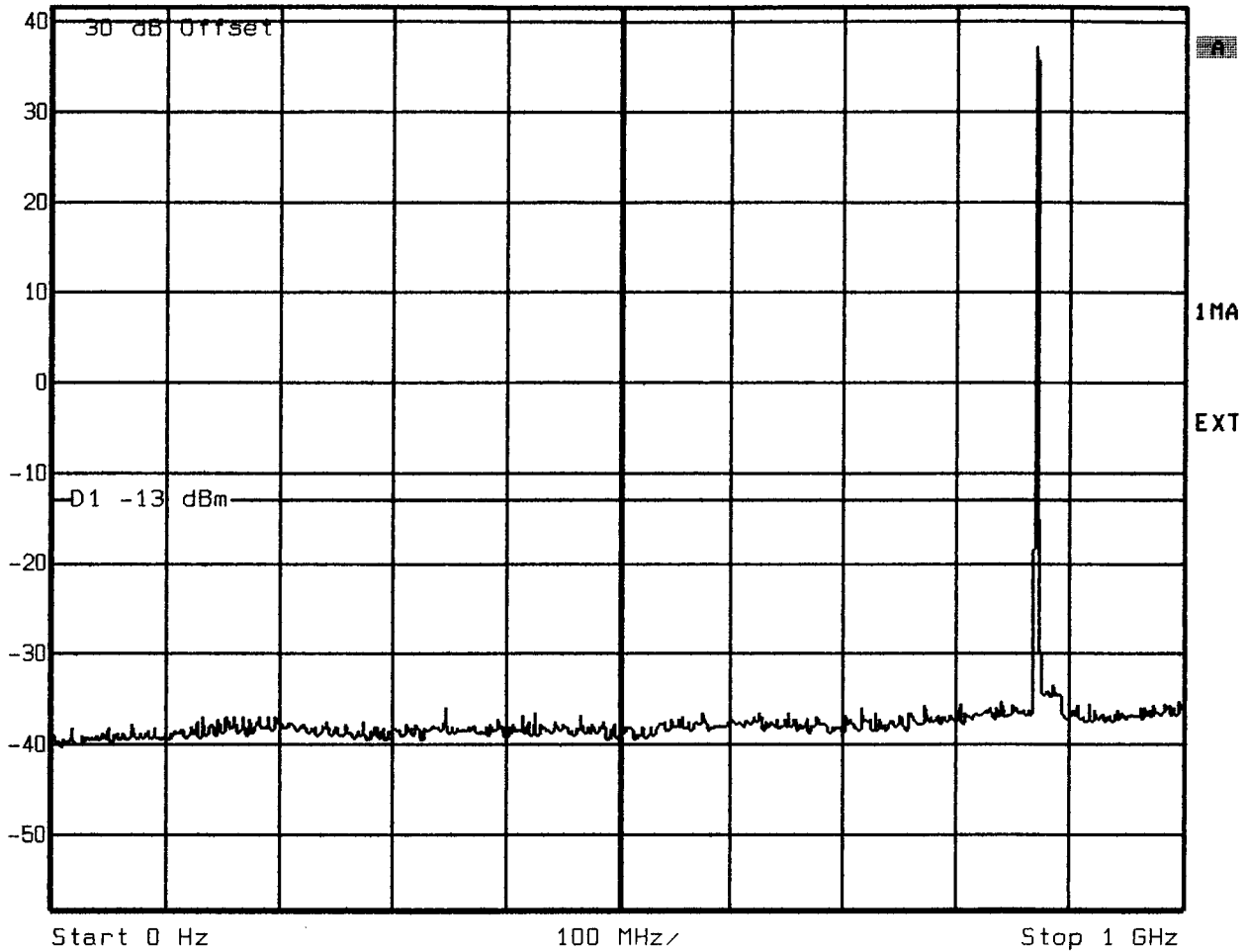


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 155. POWER 15 WATTS
Date: 7.MAY.99 9:33:51



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 2.8 s Unit dBm

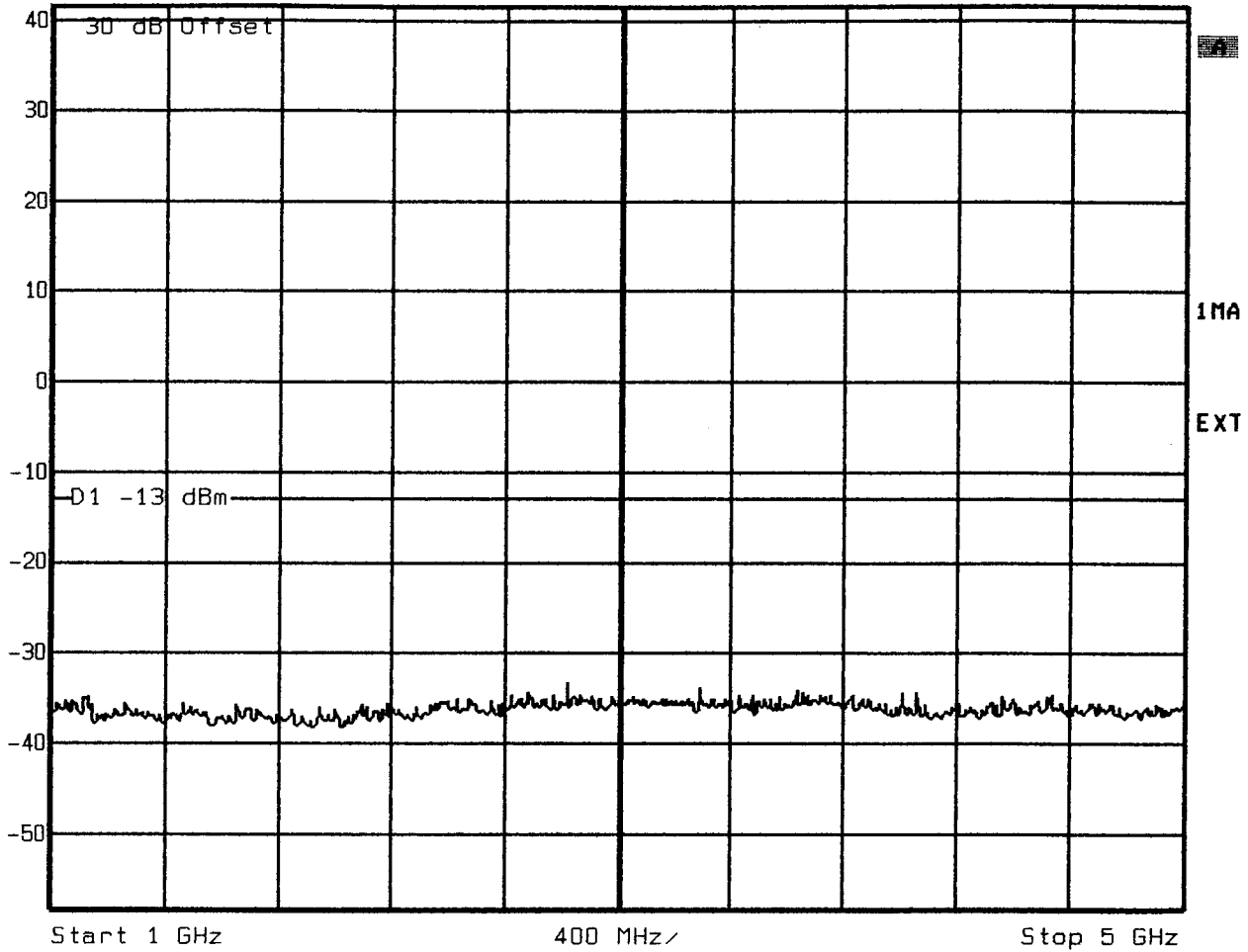


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 1. POWER 15 WATTS
Date: 6.MAY.99 4:56:42



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 11.5 s Unit dBm

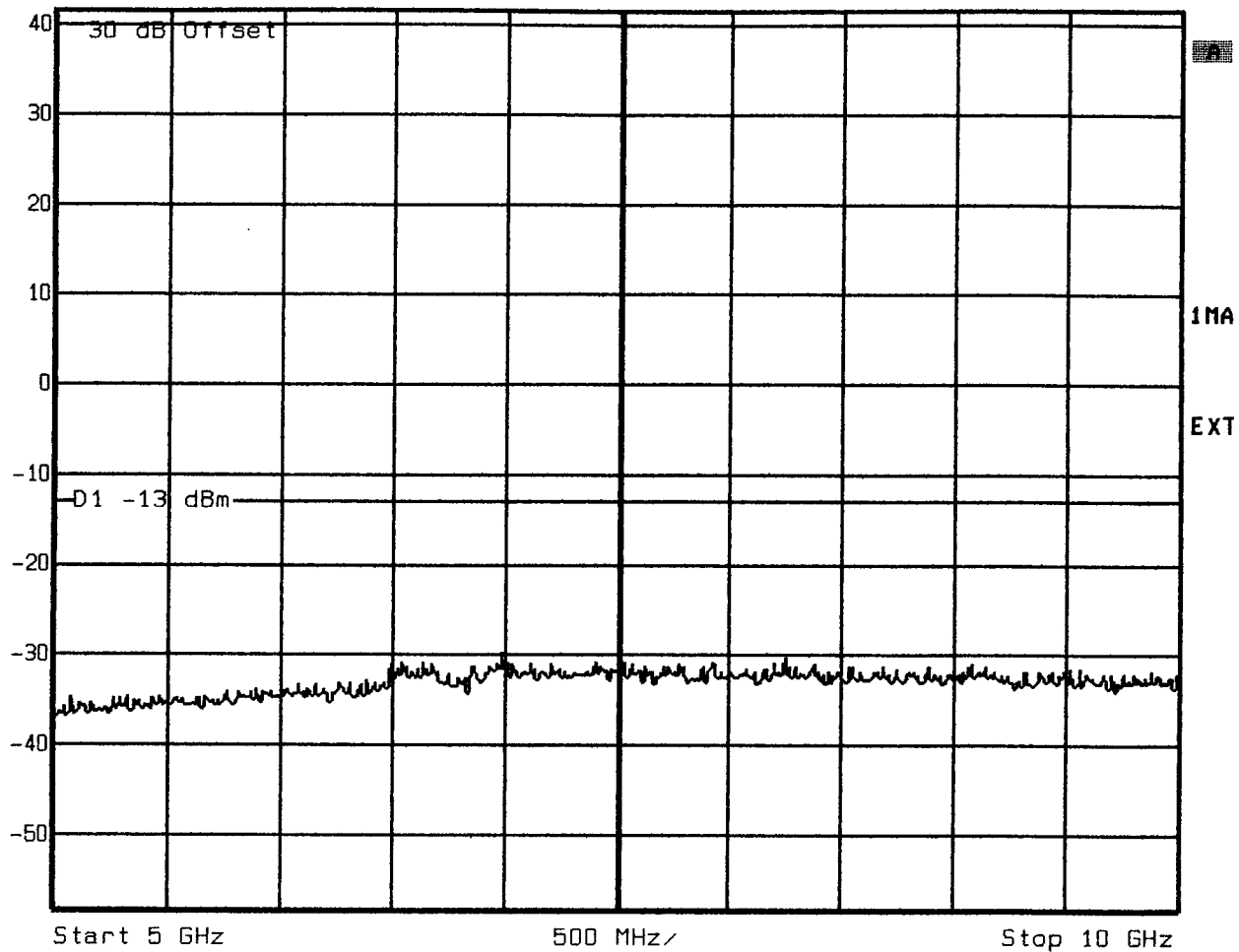


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 1. POWER 15 WATTS
Date: 6.MAY.99 4:50:55



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 14 s Unit dBm

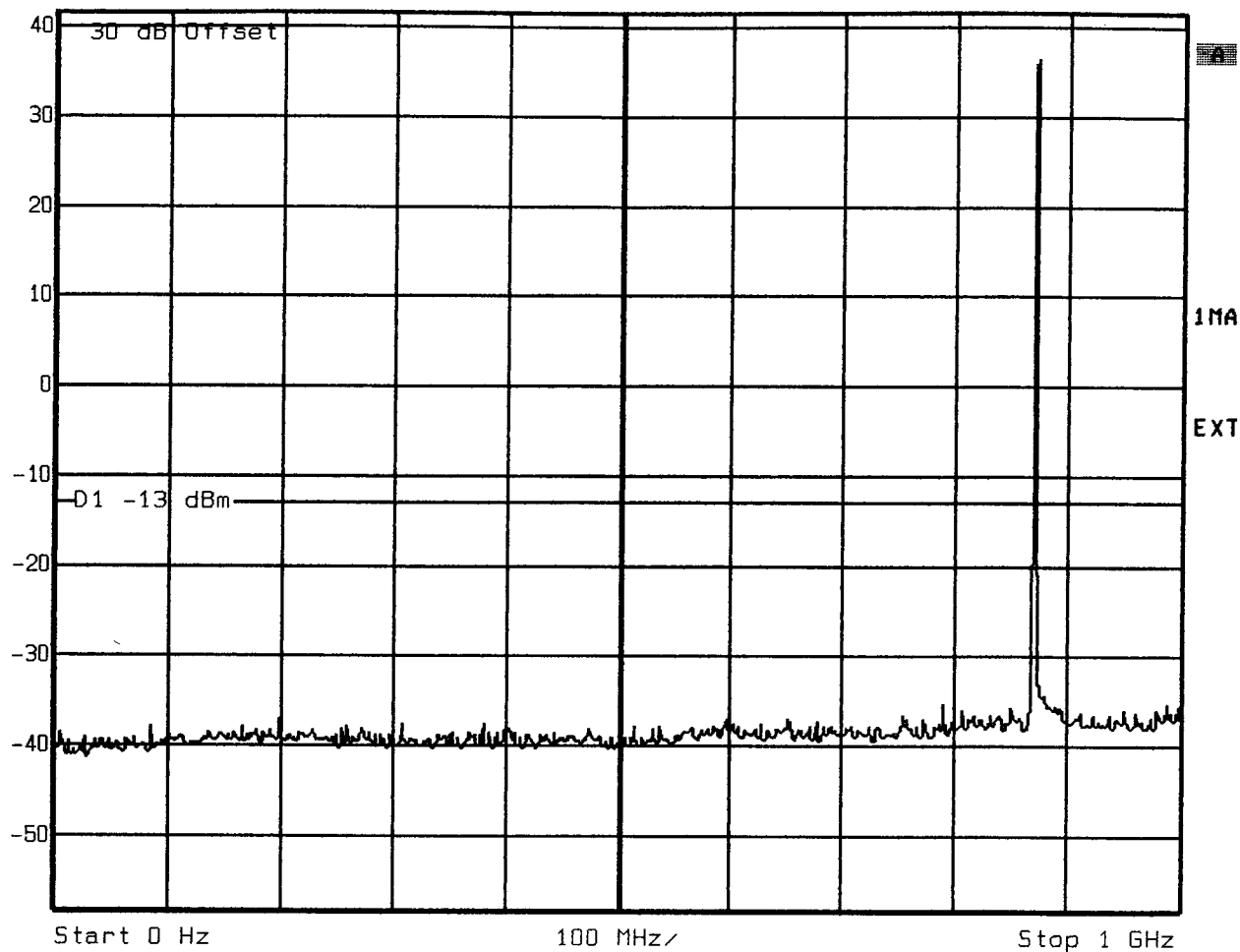


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 1. POWER 15 WATTS
Date: 6.MAY.99 4:46:14



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 2.8 s Unit dBm

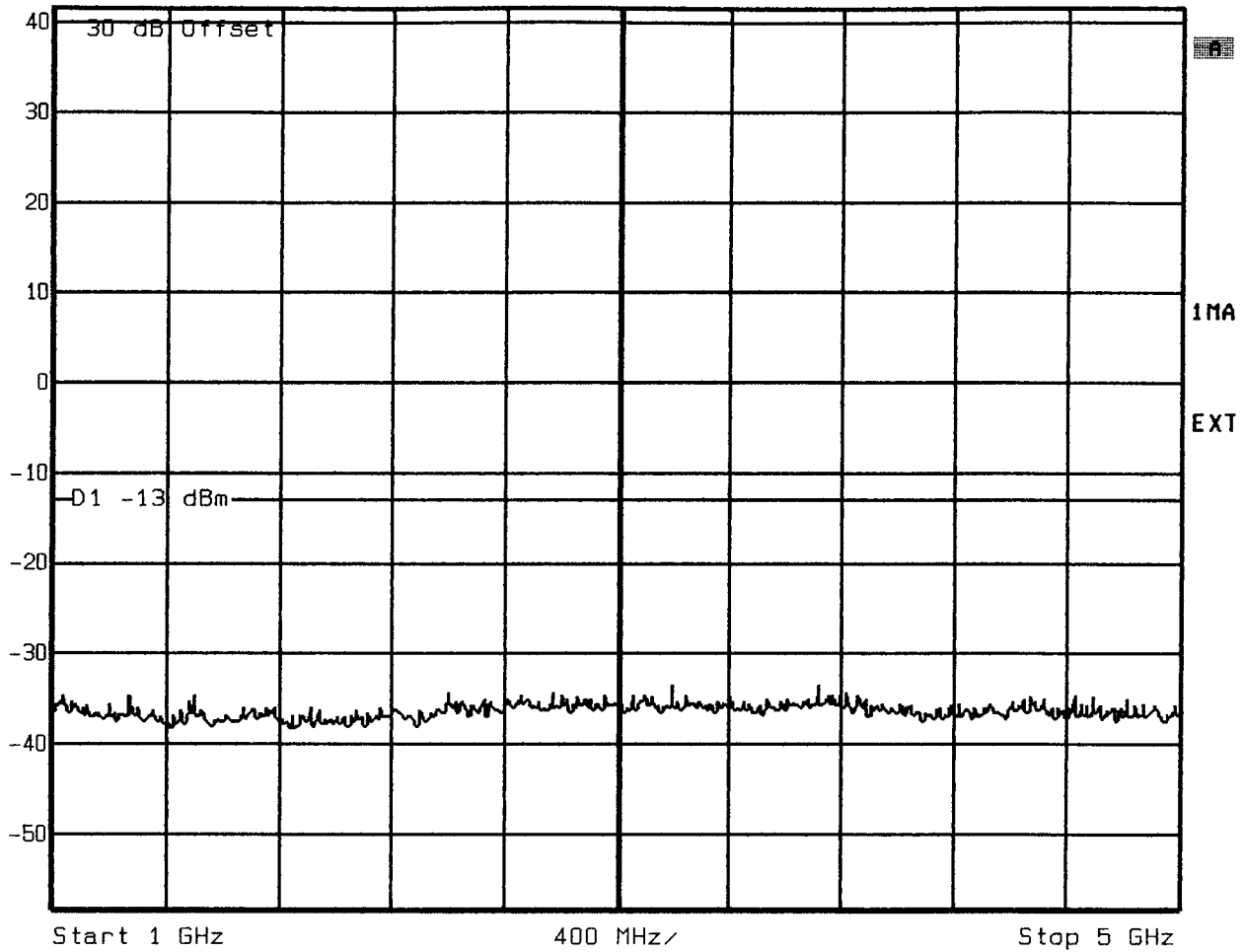


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 1023. POWER 15 WATTS
Date: 6.MAY.99 4:32:40



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 11.5 s Unit dBm

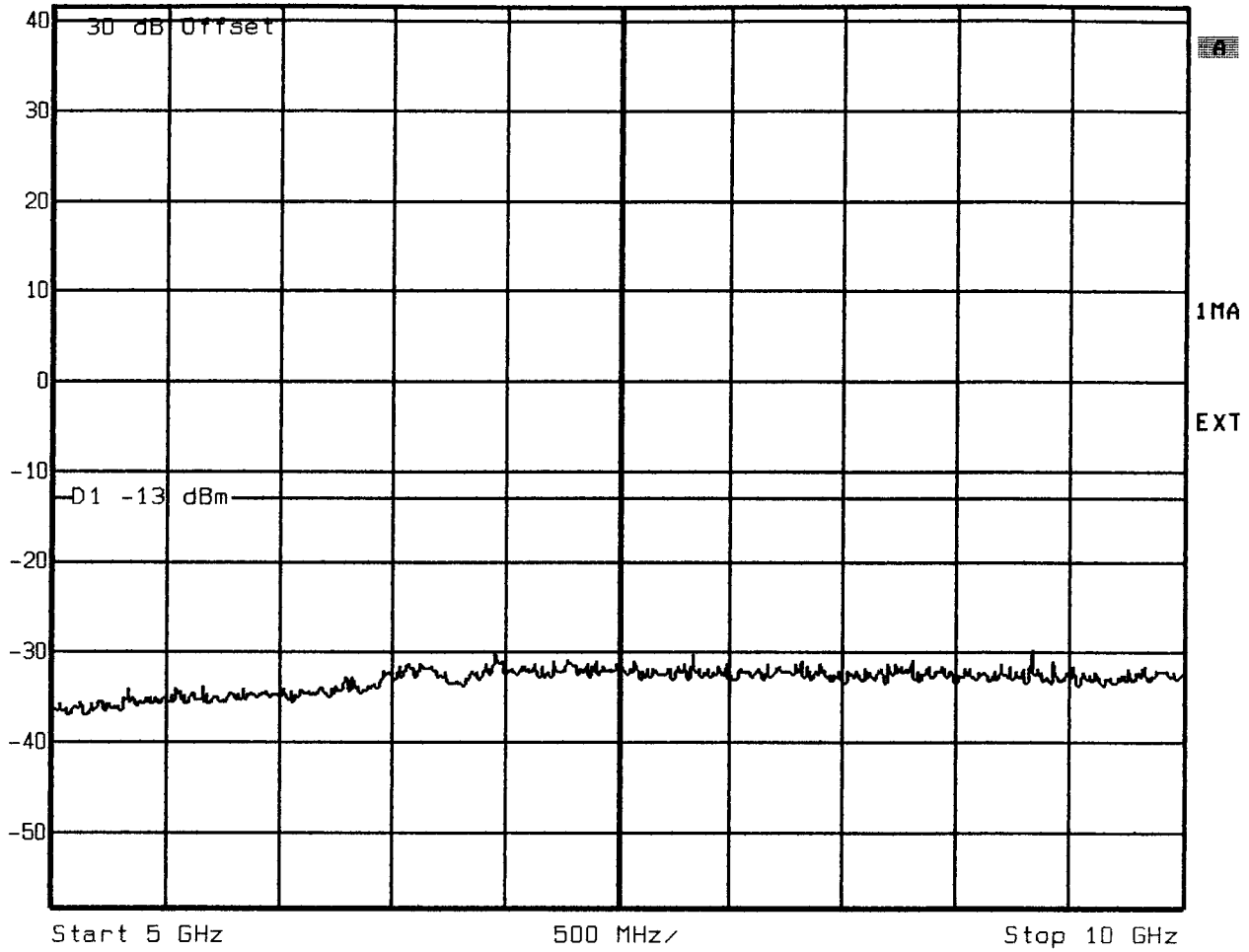


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 1023. POWER 15 WATTS
Date: 6.MAY.99 4:36:15



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 14 s Unit dBm

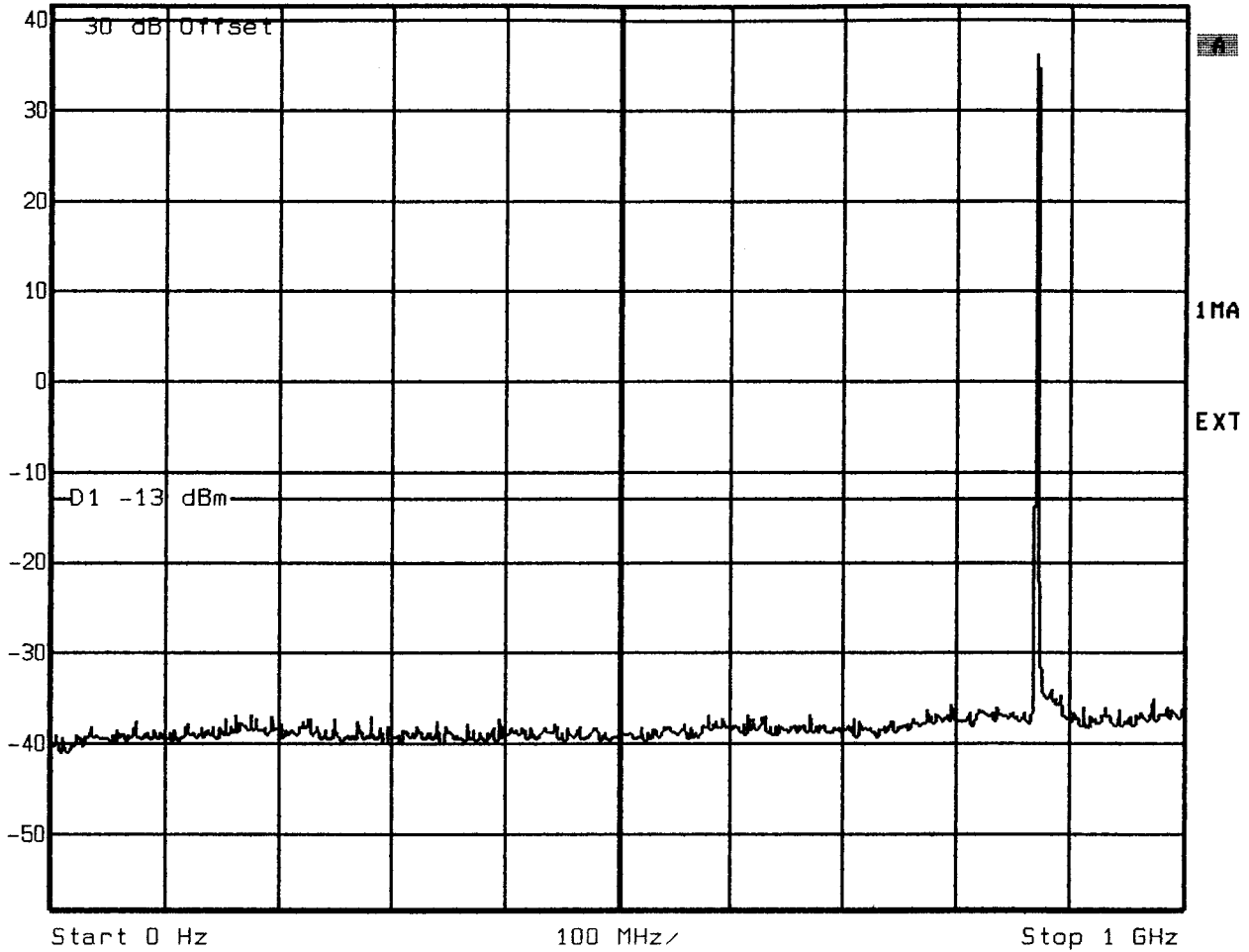


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 1023. POWER 15 WATTS
Date: 6.MAY.99 4:39:56



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 2.8 s Unit dBm

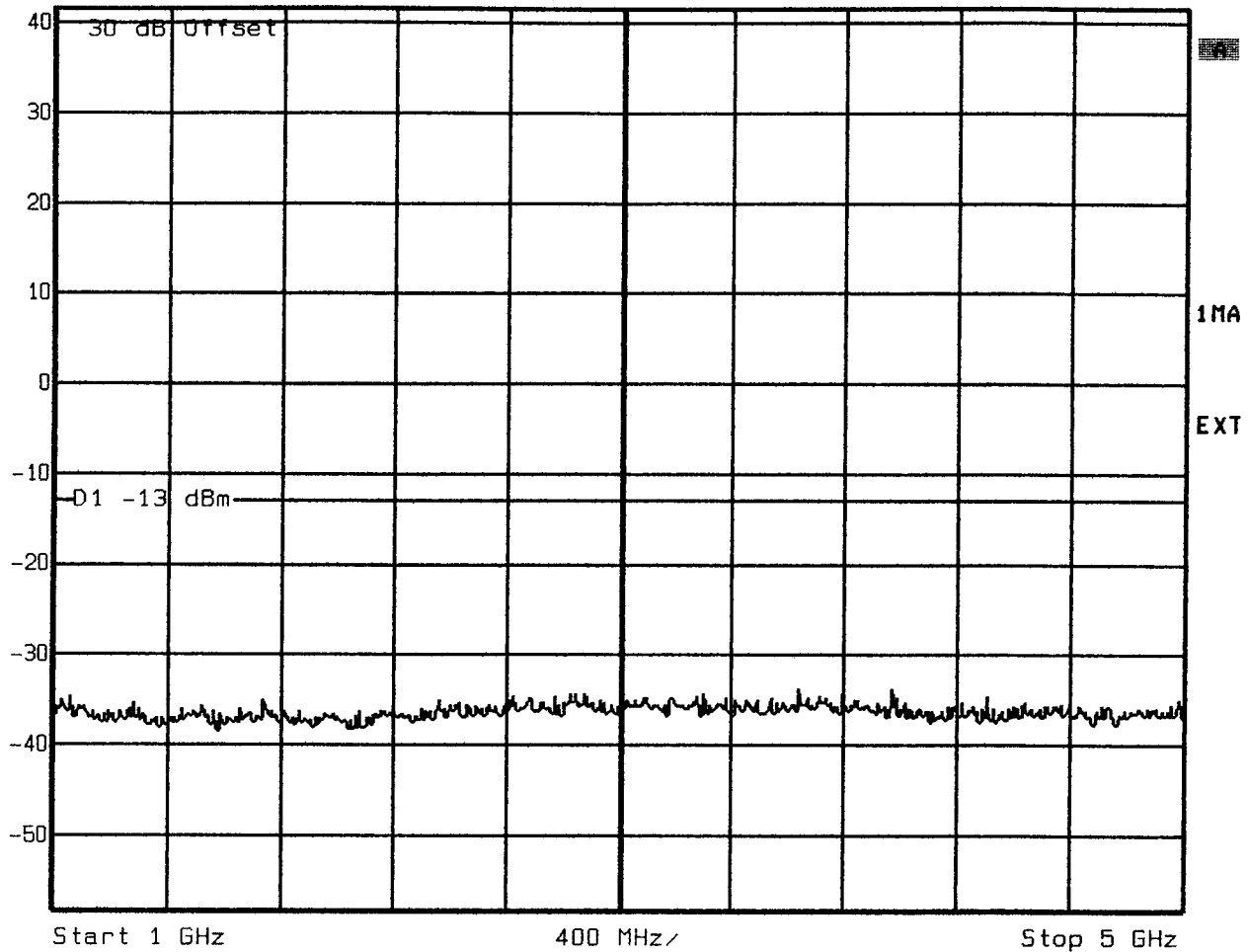


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 1013. POWER 15 WATTS
Date: 6.MAY.99 4:25:56



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 11.5 s Unit dBm

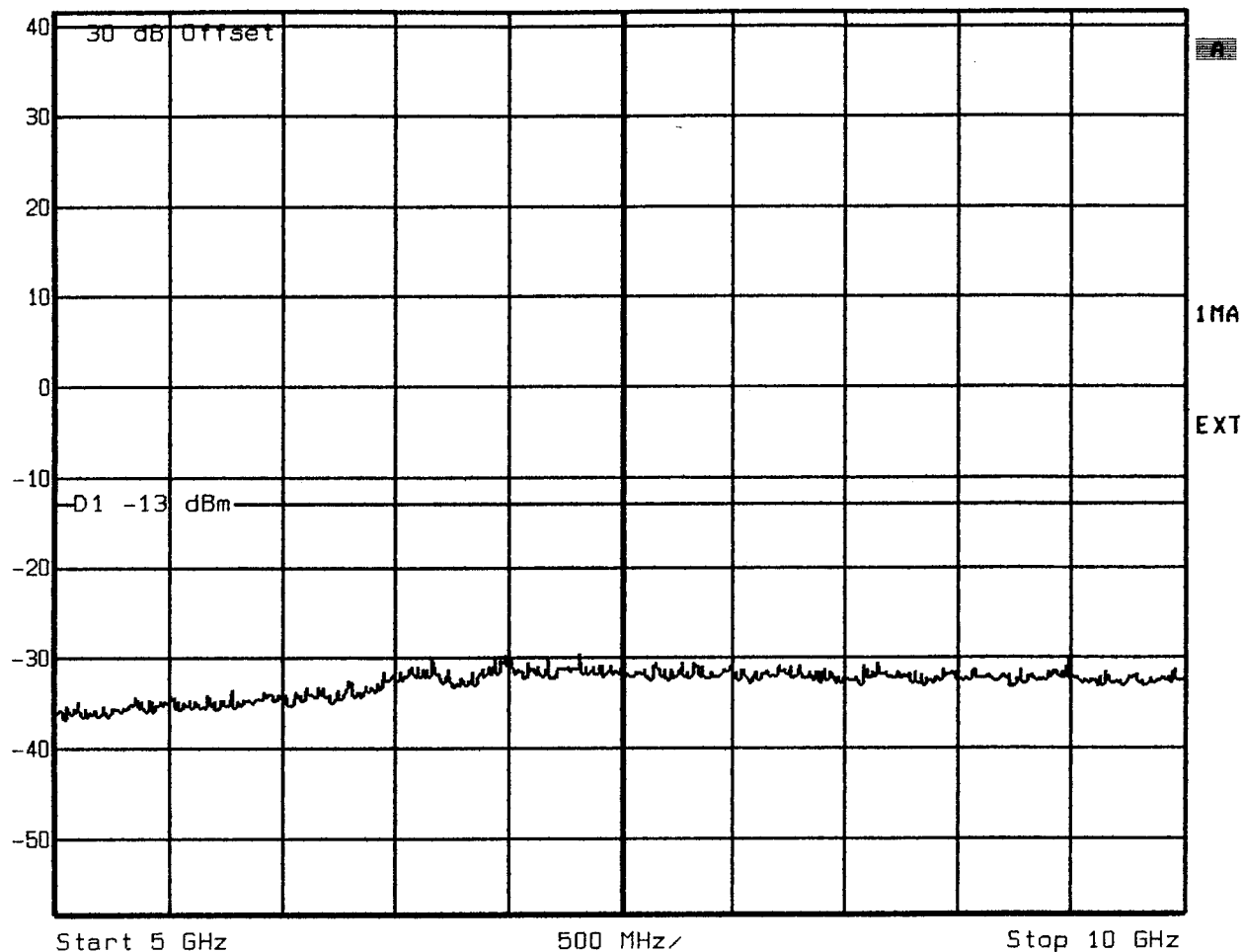


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 1013. POWER 15 WATTS
Date: 6.MAY.99 4:22:41



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 14 s Unit dBm

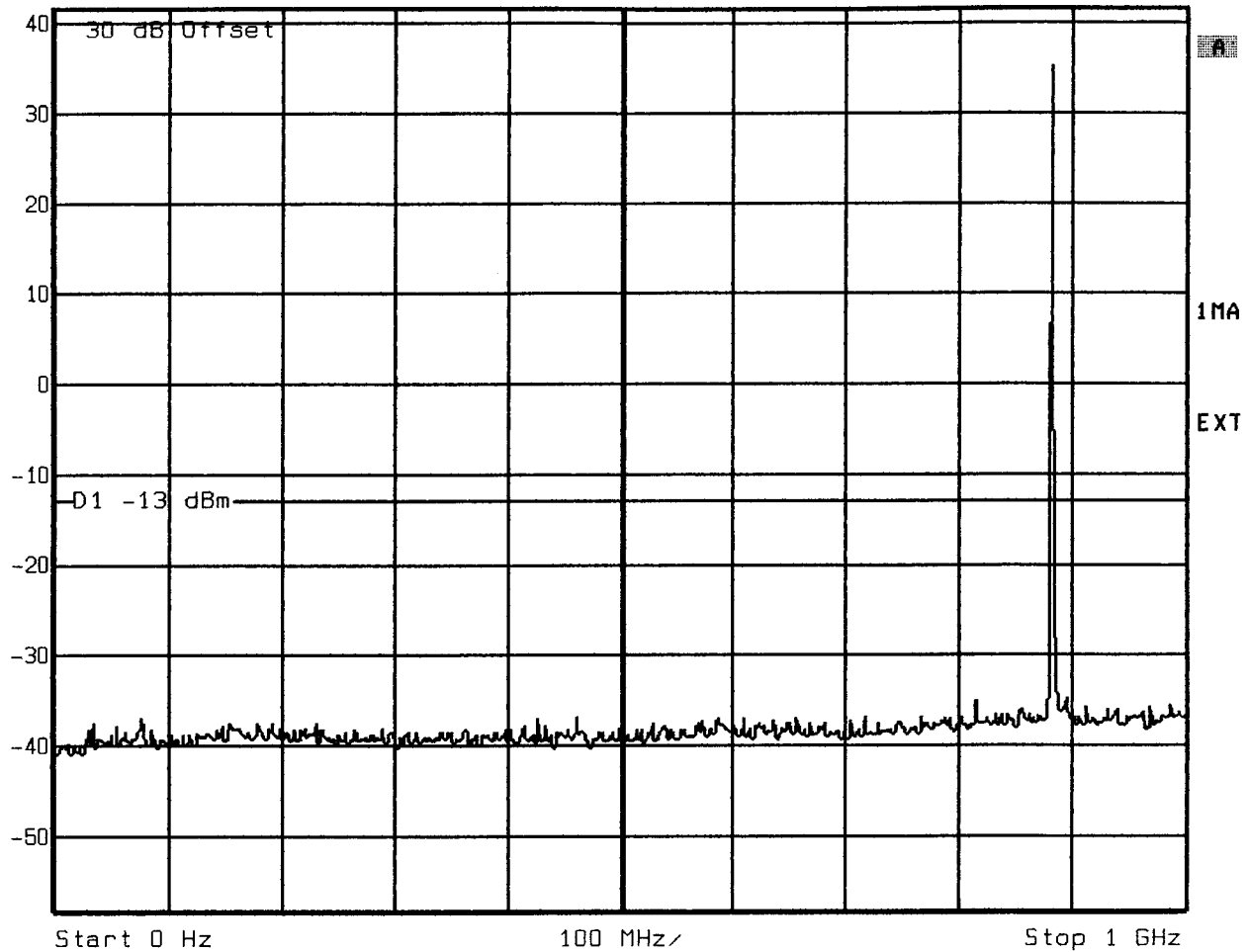


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 1013. POWER 15 WATTS
Date: 6.MAY.99 4:19:02



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 2.8 s Unit dBm

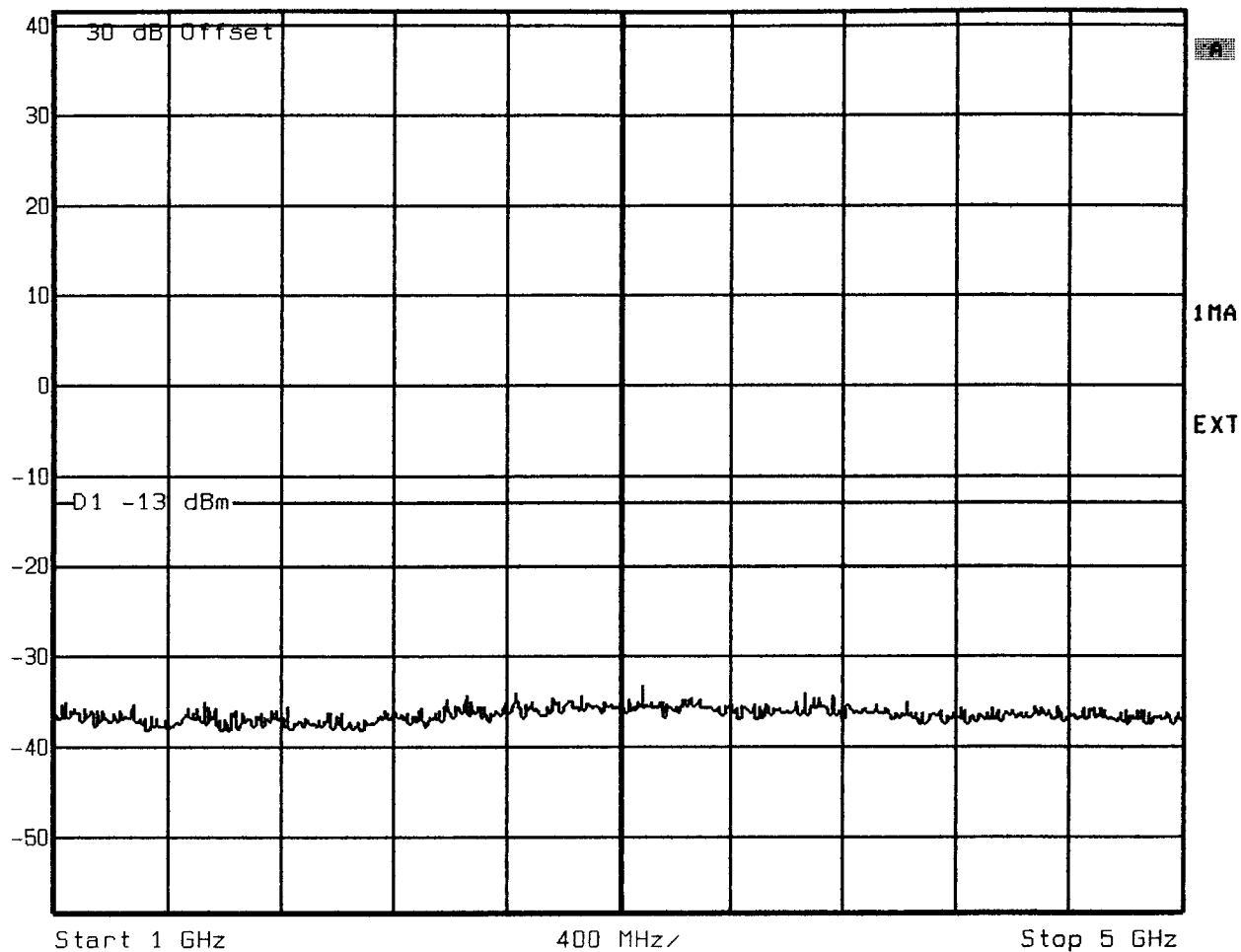


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 356. POWER 15 WATTS
Date: 6.MAY.99 3:43:06



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 11.5 s Unit dBm

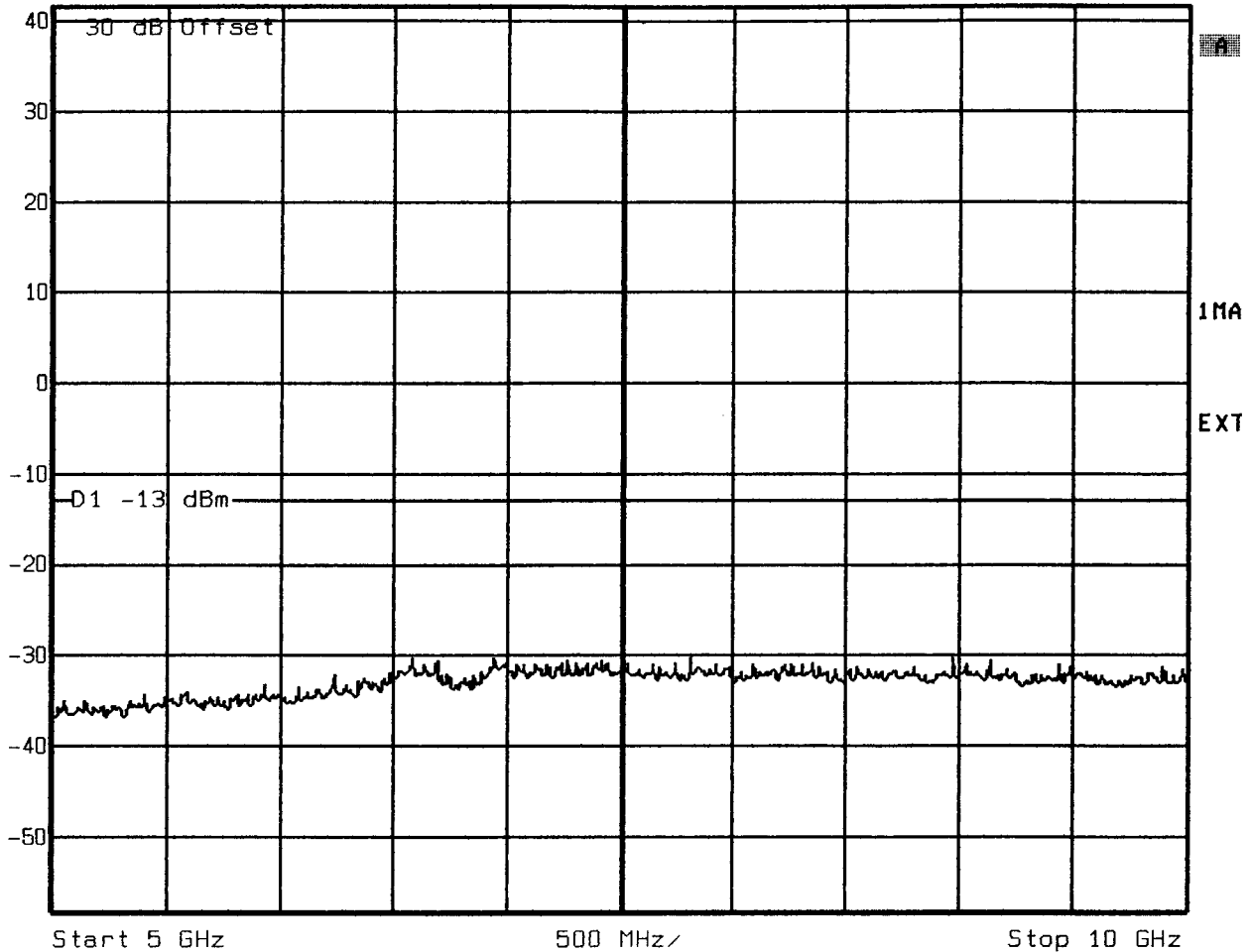


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 356. POWER 15 WATTS
Date: 6.MAY.99 3:45:56



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 14 s Unit dBm

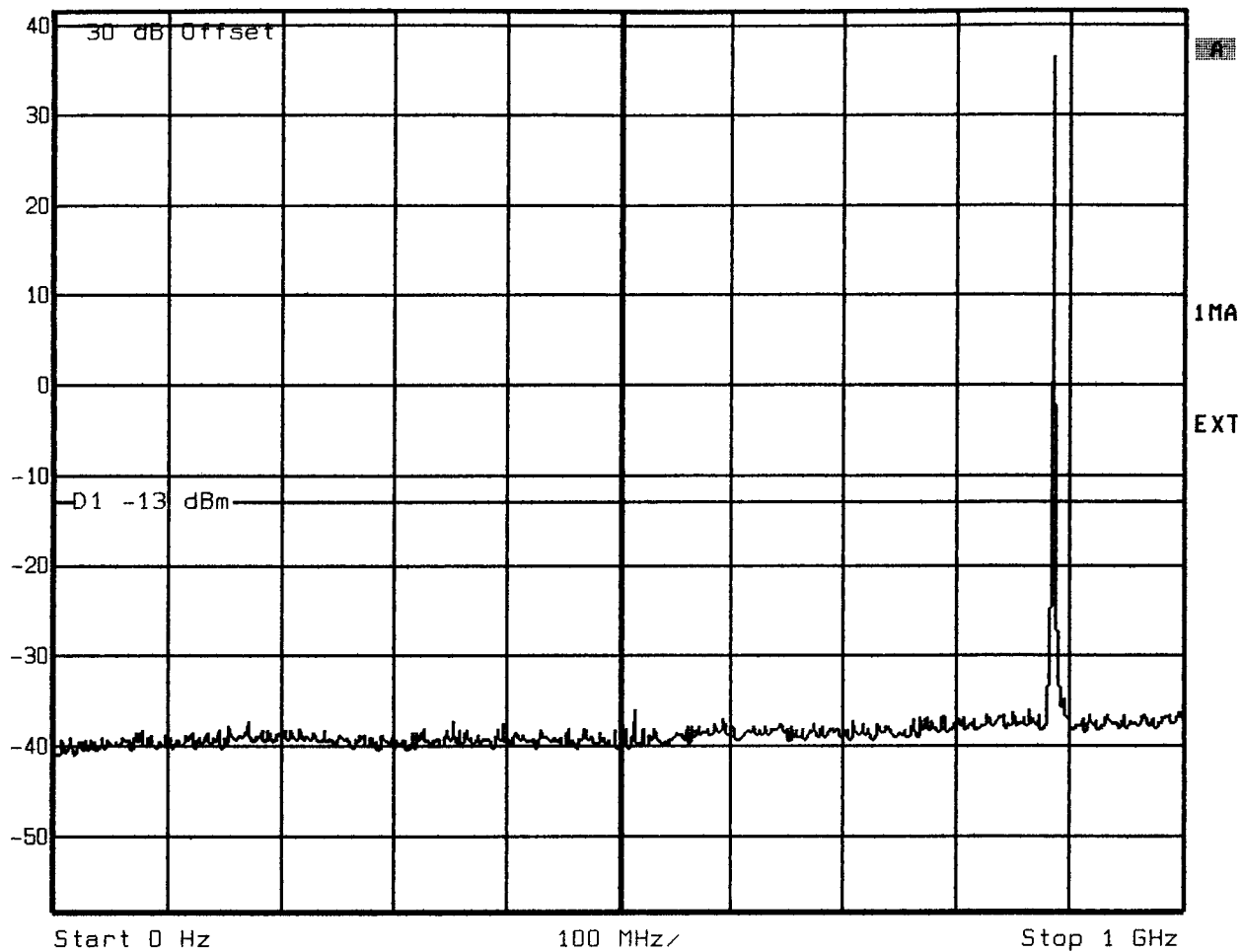


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 356. POWER 15 WATTS
Date: 6.MAY.99 3:49:09



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 2.8 s Unit dBm

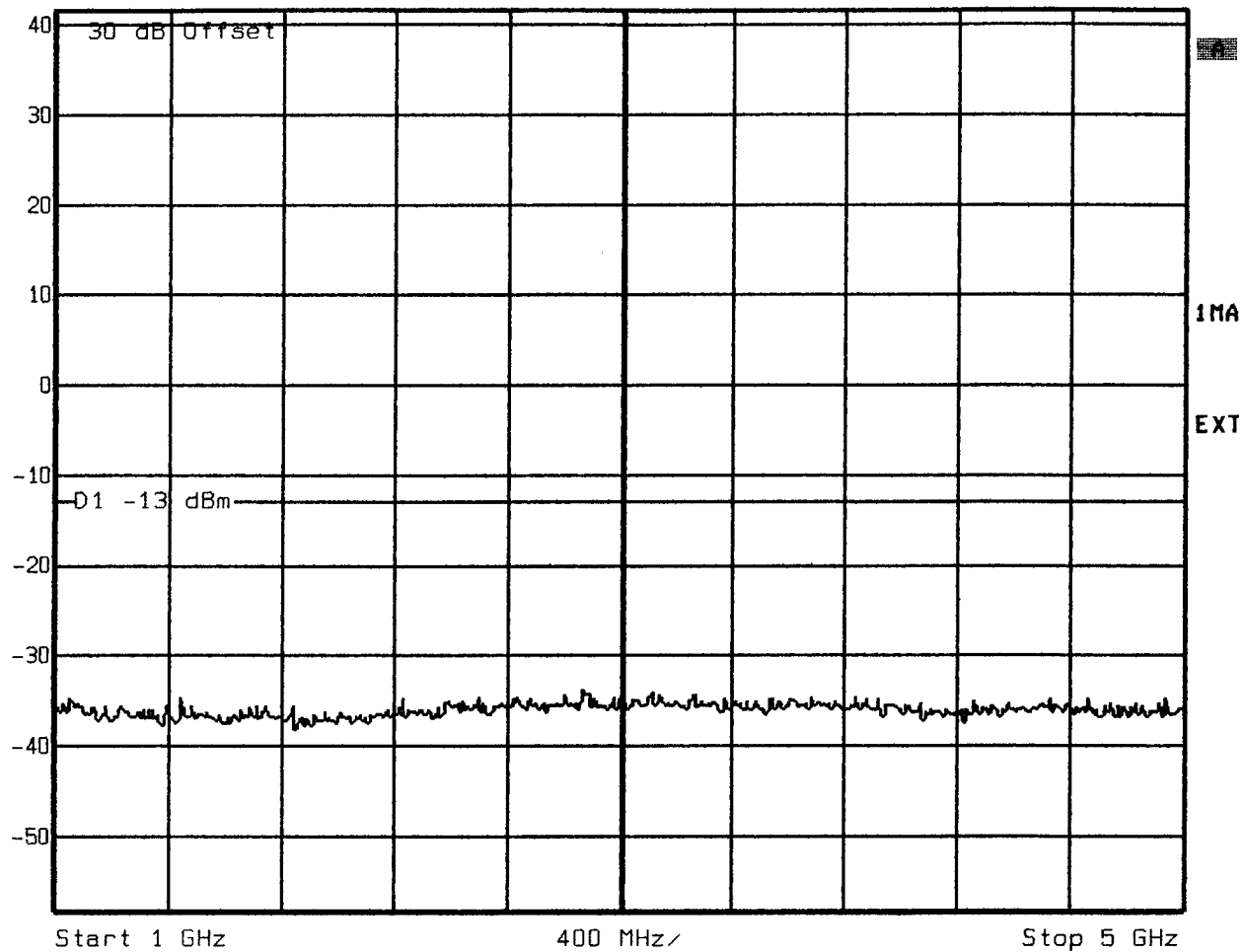


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 500. POWER 15 WATTS
Date: 6.MAY.99 3:35:10



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 11.5 s Unit dBm

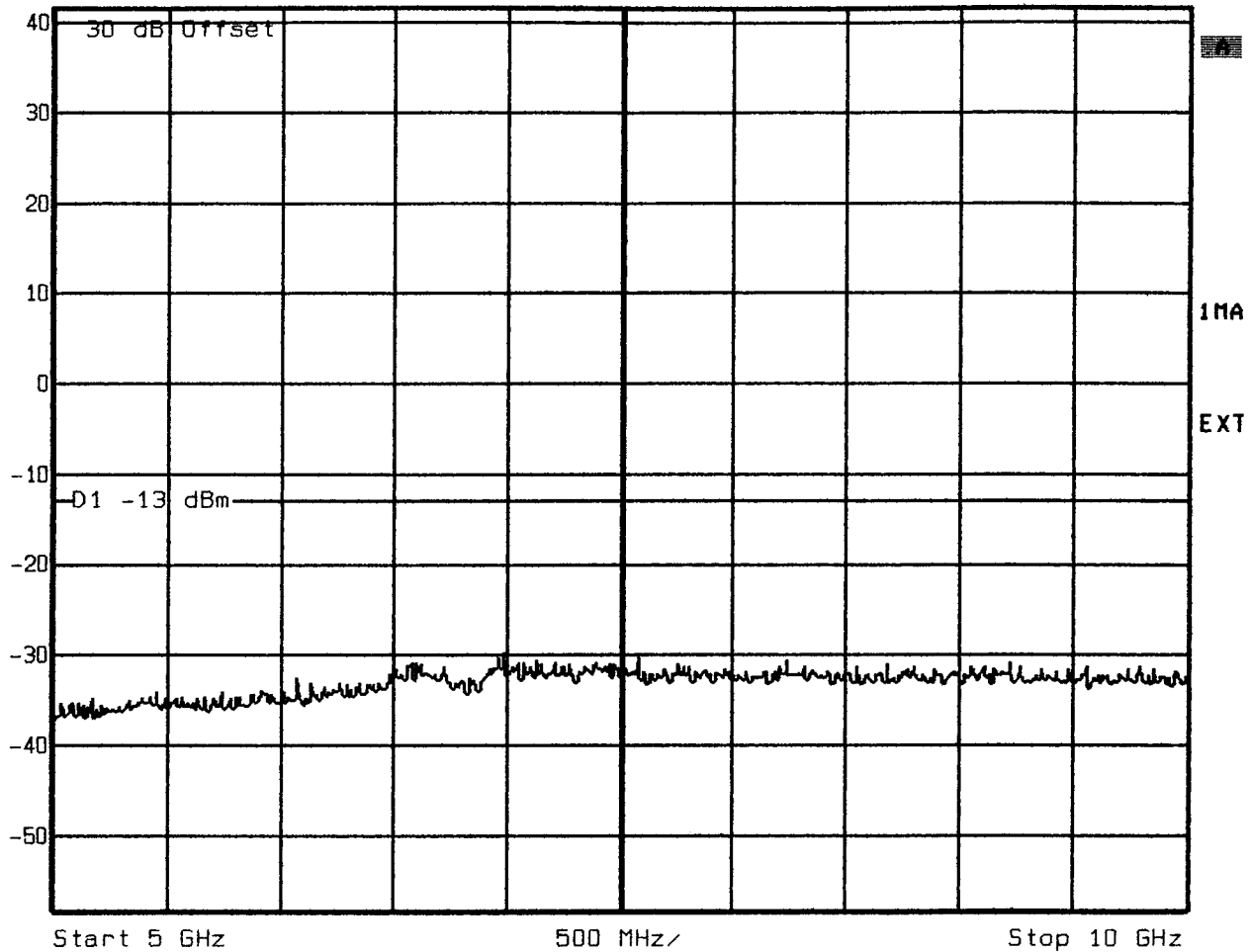


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 500. POWER 15 WATTS
Date: 6.MAY.99 3:31:00



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 14 s Unit dBm

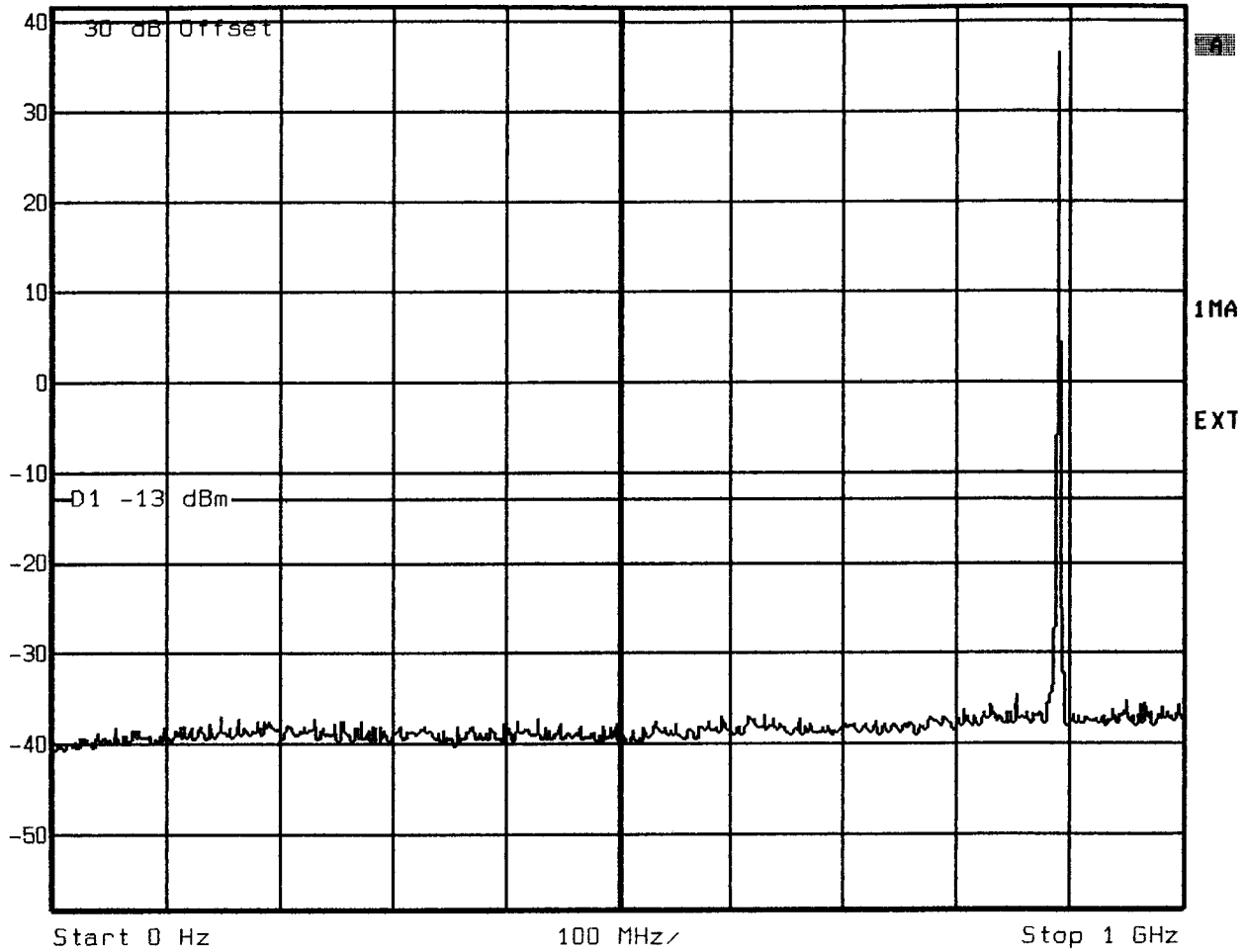


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 500. POWER 15 WATTS
Date: 6.MAY.99 3:26:49



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 2.8 s Unit dBm

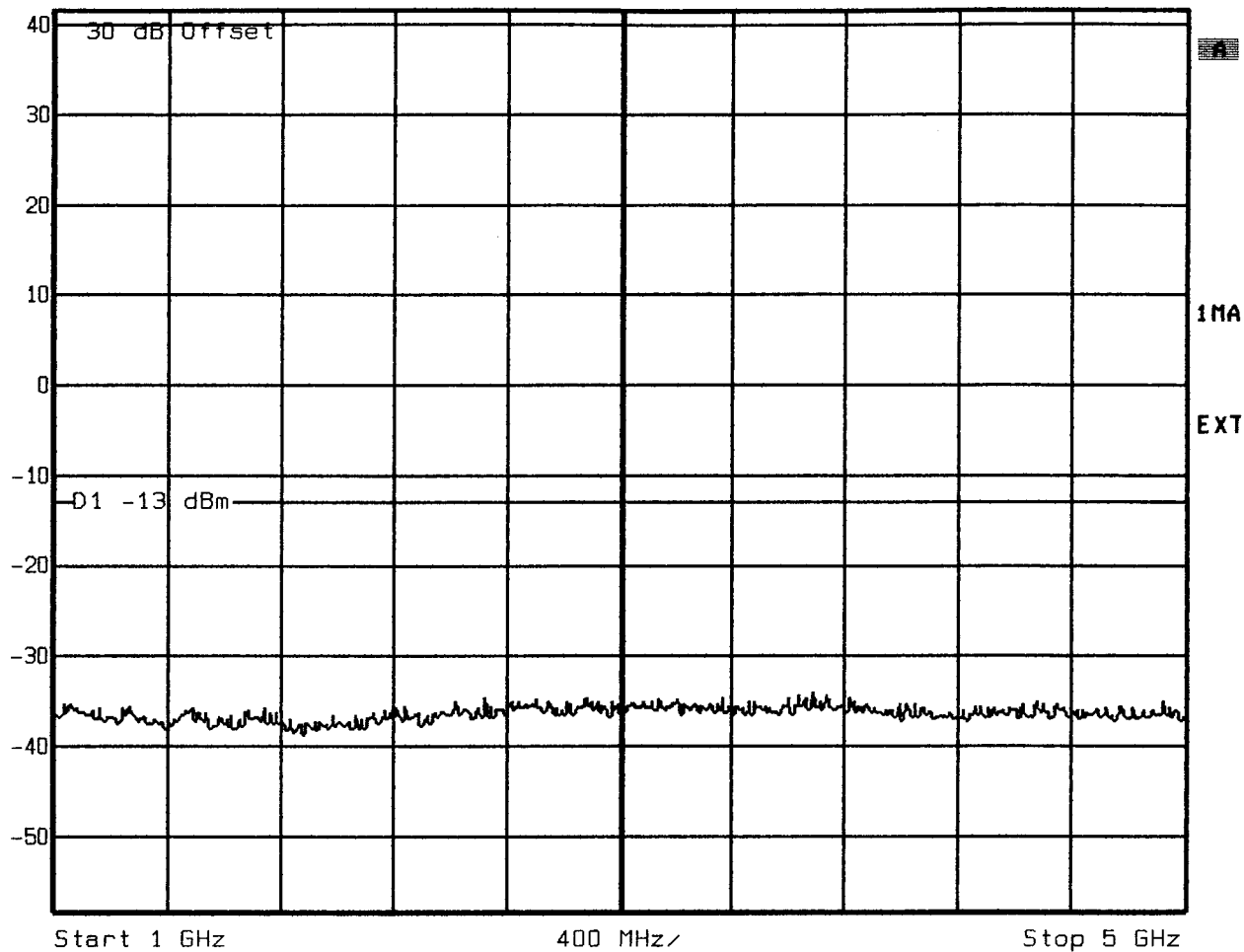


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 644. POWER 15 WATTS
Date: 6.MAY.99 3:15:12



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 11.5 s Unit dBm



Title: SPURIOUS EMISSIONS AT TX ANT.

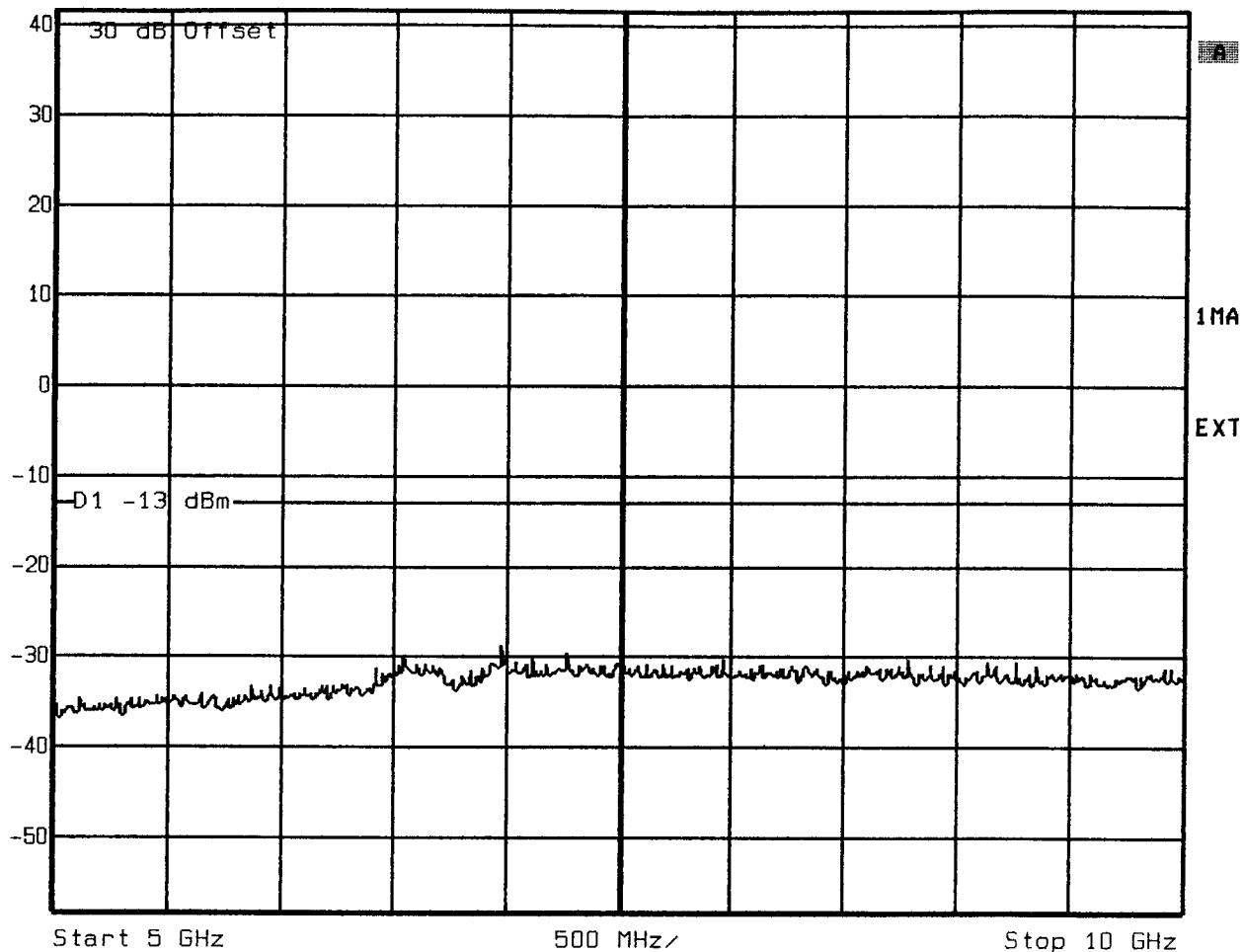
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 644. POWER 15 WATTS

Date: 6.MAY.99 3:18:41



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 14 s Unit dBm

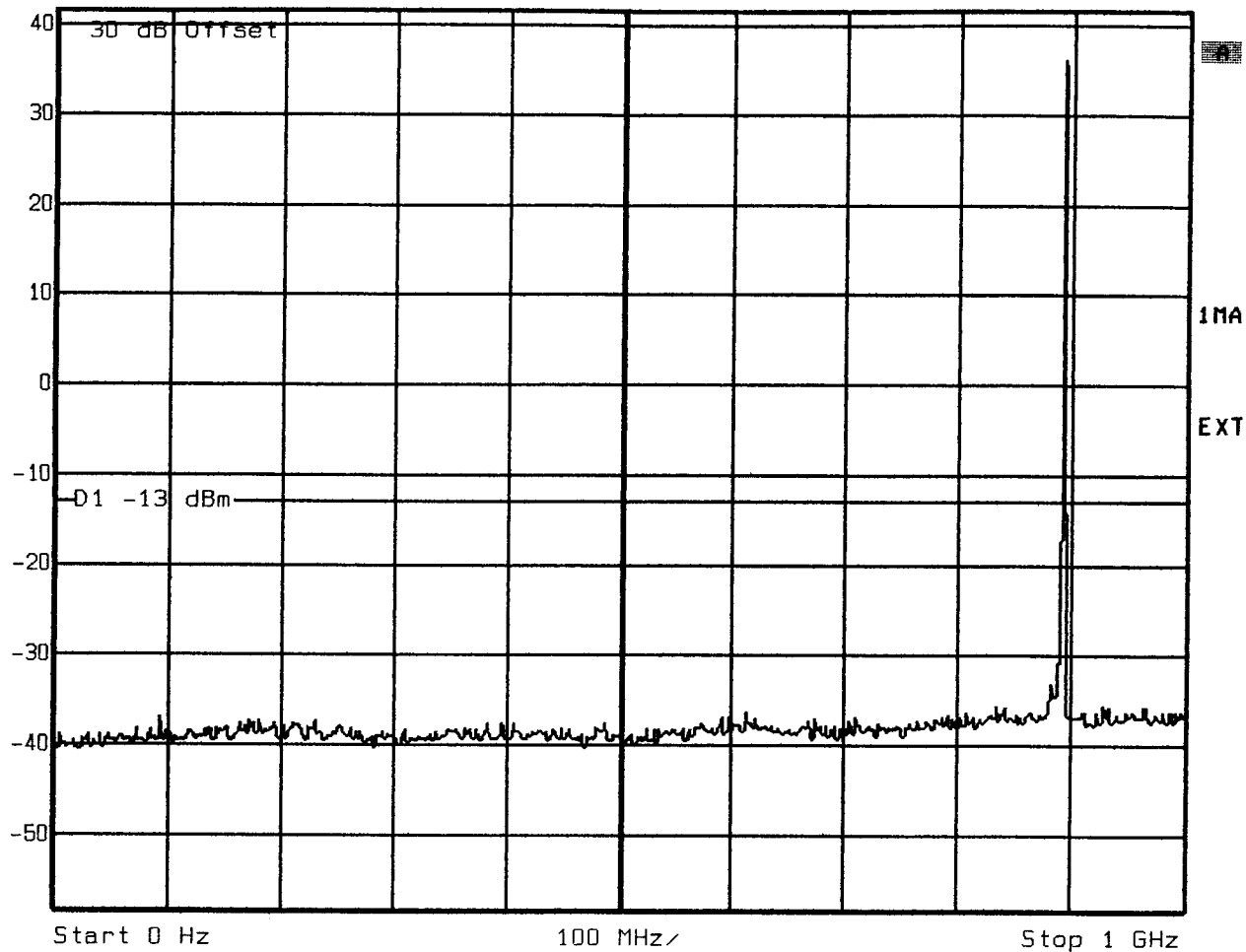


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 644. POWER 15 WATTS
Date: 6.MAY.99 3:22:25



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 2.8 s Unit dBm

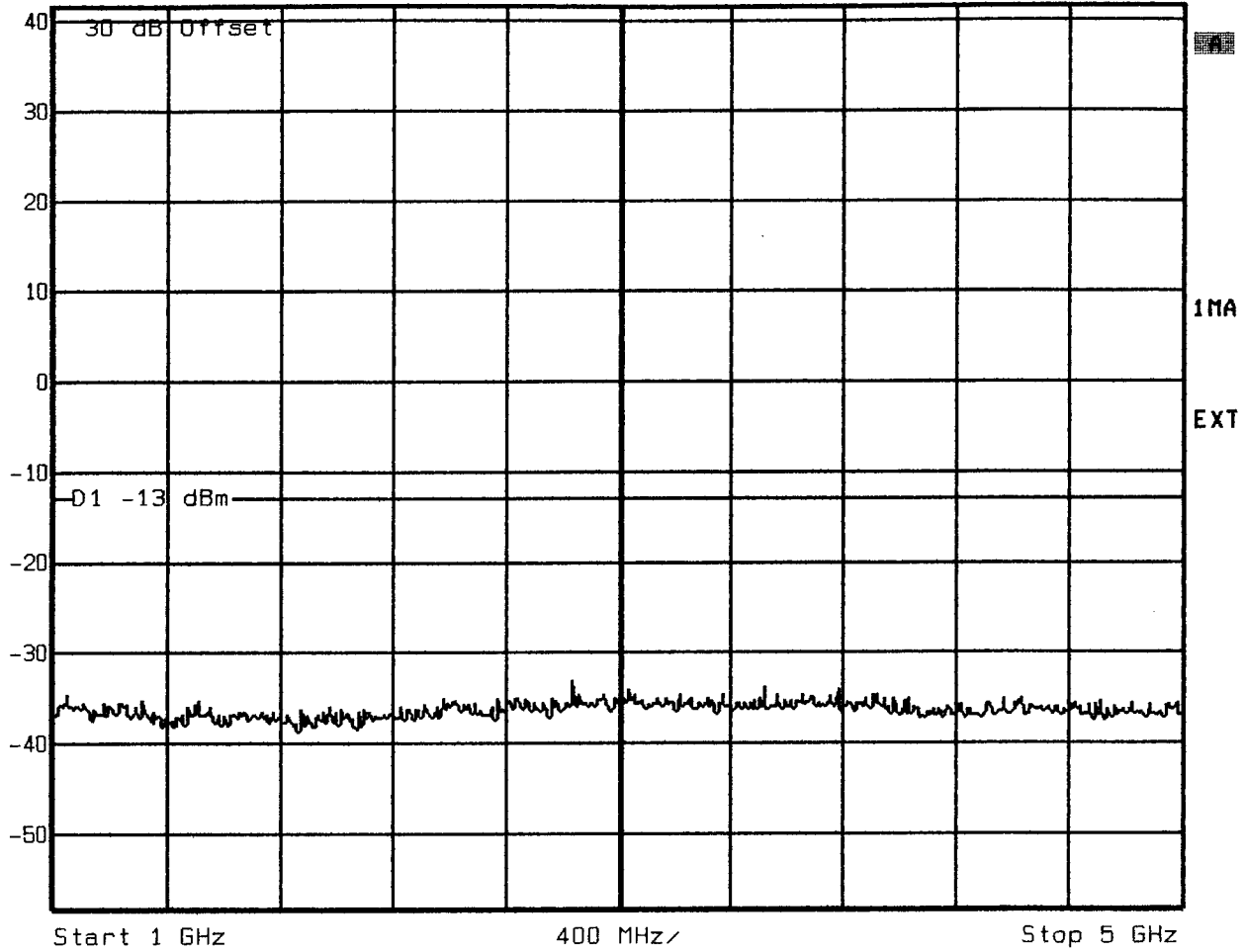


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 739. POWER 15 WATTS
Date: 6.MAY.99 3:07:50



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 11.5 s Unit dBm

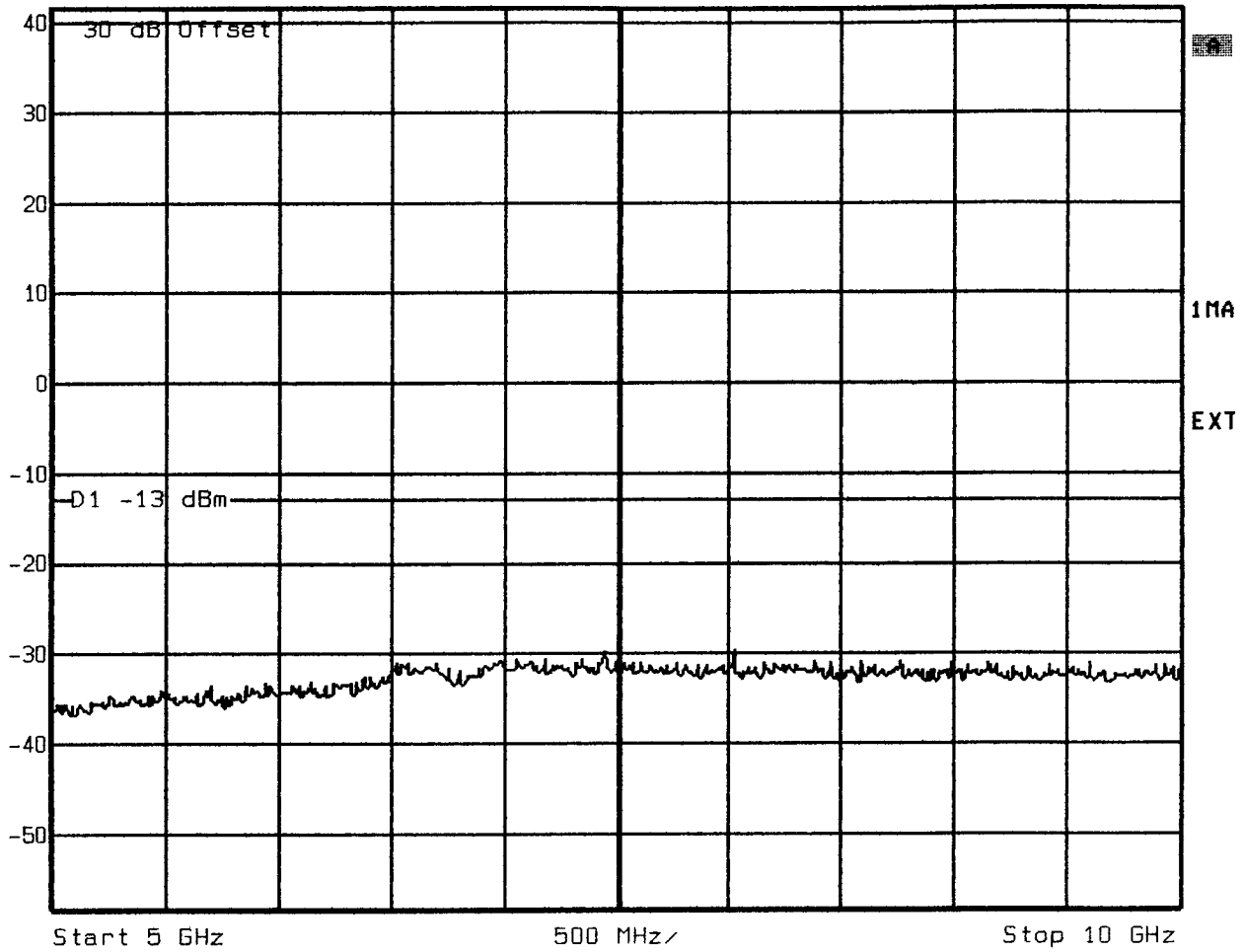


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 739. POWER 15 WATTS
Date: 6.MAY.99 3:04:11



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 14 s Unit dBm

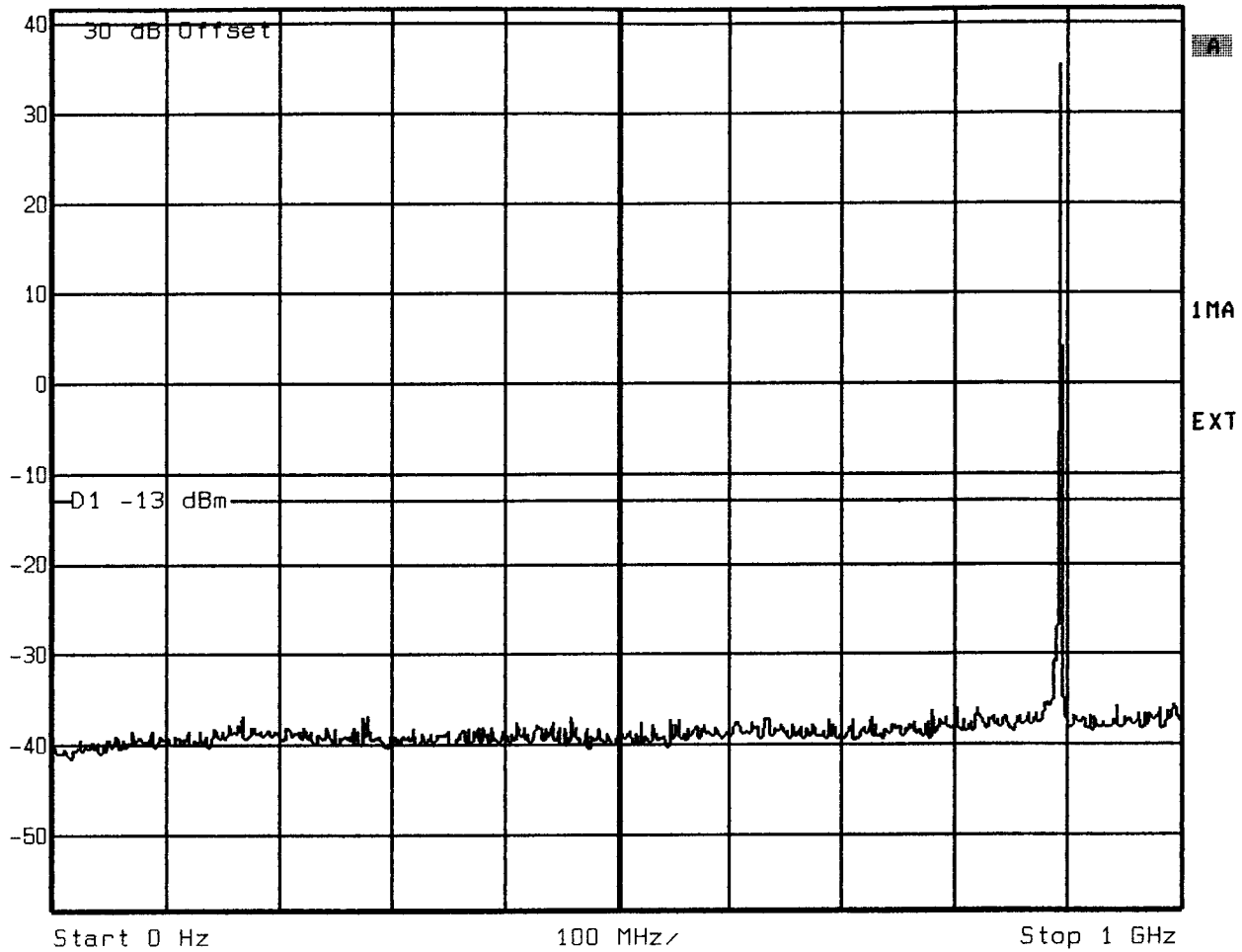


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 739. POWER 15 WATTS
Date: 6.MAY.99 3:01:06



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 2.8 s Unit dBm

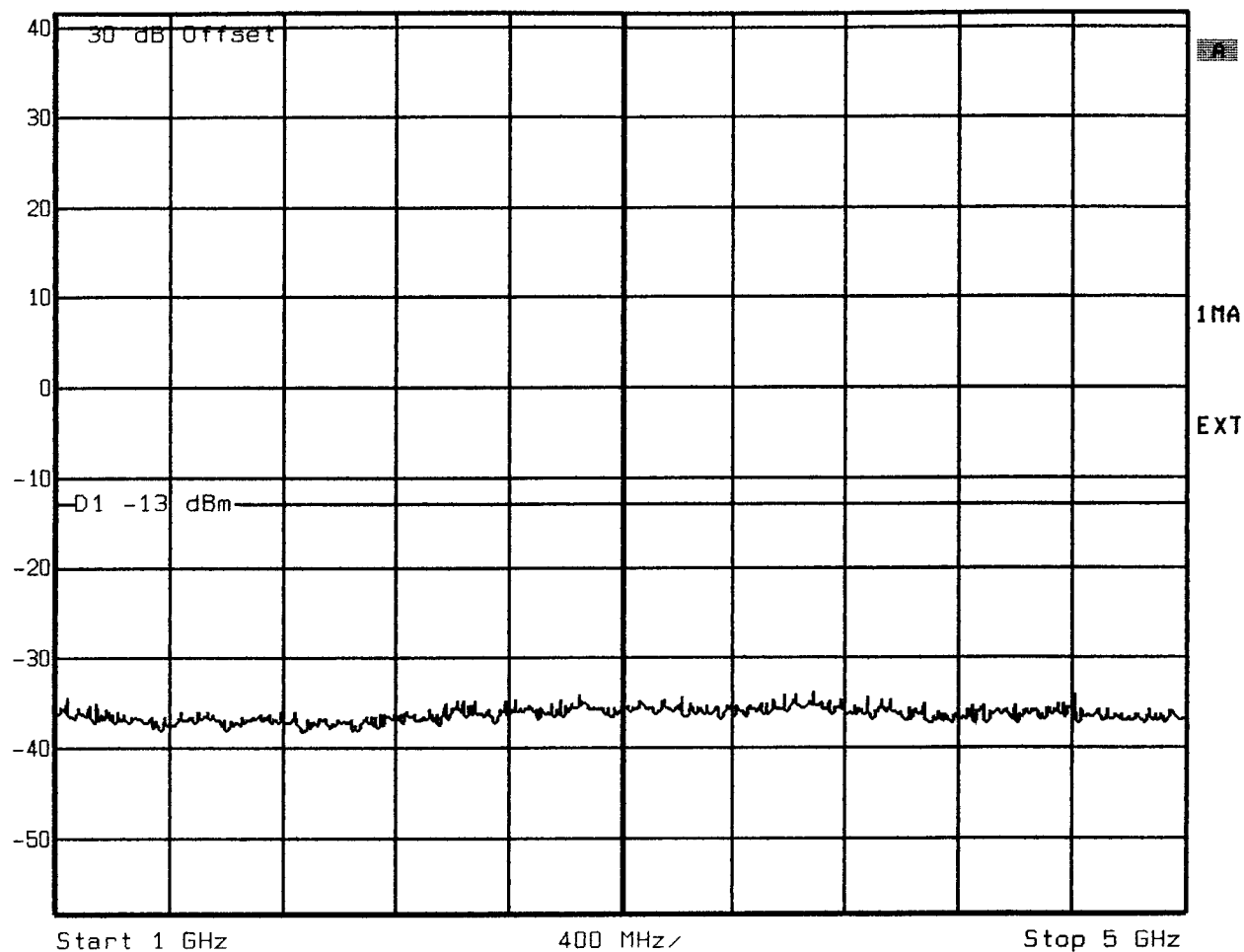


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 777. POWER 15 WATTS
Date: 6.MAY.99 2:43:16



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 11.5 s Unit dBm

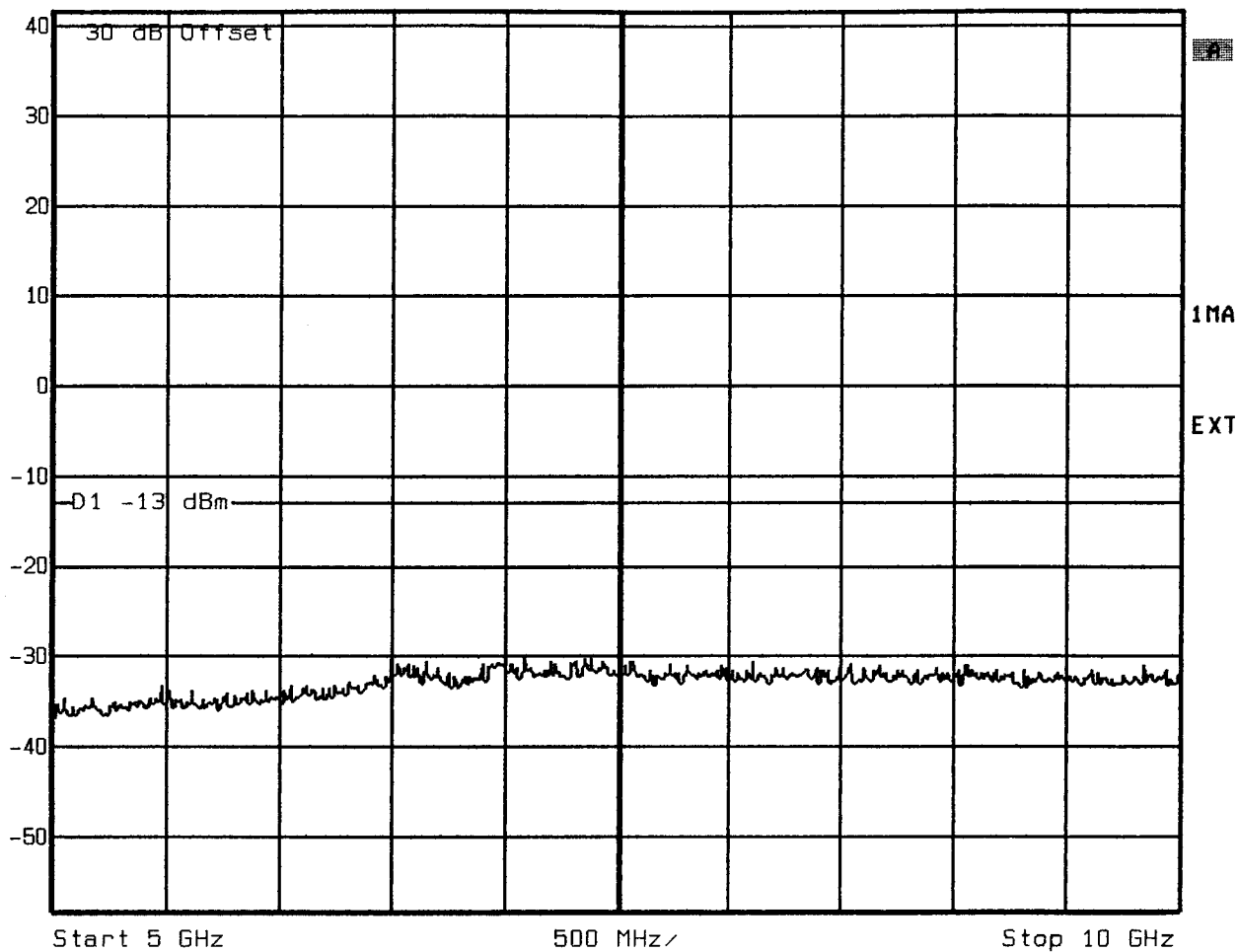


Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 777. POWER 15 WATTS
Date: 6.MAY.99 2:47:35



ExtRef
Ref Lvl
41.8 dBm

RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 14 s Unit dBm



Title: SPURIOUS EMISSIONS AT TX ANT.

Comment A: FCC ID: A55CMP-29. FLEXENT CDMA CELLULAR MICROCELL (SIMPLEX)
CHANNEL: 777. POWER 15 WATTS

Date: 6.MAY.99 2:52:35

MEASUREMENT: 5

FIELD STRENGTH OF SPURIOUS RADIATION

MEASUREMENT: 5

SECTION 2.1053

FIELD STRENGTH OF SPURIOUS RADIATION

Field strength measurements of radiated spurious emissions were made at a ten meter Open Area Test Site (OATS) maintained by Lucent Technologies Bell Laboratories Global Product Compliance Laboratory in Holmdel, New Jersey. A complete description and full measurement data for the site is on file with the Commission (FCC File 31040/SIT).

The CBR was assembled with an ICLA and all other associated equipment in a **FLEXENT0** CDMA MicroCell. The spectrum from 10 MHz to the 10th harmonic of the carrier was searched for spurious radiation. Measurements were made according to ANSI C63.4. All emissions more than 20 dB below the specification limit were considered not reportable (Section 2.1057(c)).

The calculated emission levels were found by:

$$\text{Measured level (dB}\mu\text{V)} + \text{Cable Loss(dB)} + \text{Antenna Factor(dB)} = \text{Field Strength (dB}\mu\text{V/m)}$$

Section 22.907 and 2.1053 contains the requirements for the levels of spurious radiation as a function of the level of the unmodulated carrier. The reference level for the unmodulated carrier is calculated as the field produced by an ideal dipole excited by the transmitter output power according to the following relation taken from Reference Data for Radio Engineers, page 676, 4th edition, IT&T Corp.

$$E = [(49.2 * P)^{1/2}] / R$$
$$20 \log (E * 10^6) - (43 + 10 \log P) = 73.9 \text{ dB}\mu\text{V/meter}$$

E = Field Intensity in Volts/meter

P = Transmitted Power in Watts = 15 W

R = Distance in meters = 10 m

RESULTS:

For this particular test, the field strength of any spurious radiation is required to be less than 73.9 dB μ V/meter. Reportable measurements are equal to or greater than 53.9 dB μ V/meter. Over the spectrum investigated, 10 MHz to 10th of the carrier, no reportable spurious emissions were detected. This demonstrates that the Individual Channel Linear Amplifier (ICLA), the subject of this application, complies with Sections 2.1053, 24.238 and 2.1057 of the Rules.

MEASUREMENT: 6

MEASUREMENT OF FREQUENCY STABILITY

MEASUREMENT: 6

MEASUREMENT OF FREQUENCY STABILITY

SECTION 2.1055

RESPONSE: The current change from duplex to simplex filter will not affect the frequency stability and therefore retest is not required.

FREQUENCY SPECTRUM TO BE INVESTIGATED

SECTION 2.1057

FREQUENCY SPECTRUM TO BE INVESTIGATED

Frequency Spectrum to be investigated, Measurement Bandwidth and detector function used meet or exceed the Specification contained in Section 2.1057, 22.917, ANSI C63.4, IS95A, and IS97.

TEST INSTRUMENTATION LIST

TEST INSTRUMENTATION LIST

Manufacturer	Model Number	Serial Number	Description	Last Calibrated mm/dd/yy	Cal Cycle Month
Rohde & Schwarz	FSEK	826939/013	Spectrum Analyzer	8/27/98	12
HP	437B	3125U24227	Power Meter	5/19/98	12
HP	778D	N/A	Dual Directional Coupler	8/18/98	12
Pasternack	PE7019-20	N/A	50 W Attenuator	N/A	N/A
Pasternack	PE7019-30	N/A	50 W Attenuator	N/A	N/A
Eaton	96002	2436	Biconical Antenna	08/31/98	12
Electro-Metrics	EM-2135/EMC-60	44174	Test Receiver	5/13/98	12
EMCO	3146	9509-4165	Log-Periodic Antenna	7/16/98	12
Rohde & Schwarz	ESVP	879807/049	Test Receiver	8/10/98	12
Rohde & Schwarz	EPM	883613/014	Panorama Monitor	N/A	N/A
EMCO	3115	9006-3450	Double Ridged Horn 1-18 GHz	5/26/98	12