EXHIBIT 4

EMISSIONS, FREQUENCY RANGE,

POWER LEVEL

EXHIBIT 4

Section 2.1033(c) (4)
Type or types of emission.

RESPONSE:
The **AS5CMP-29** is capable of amplifying transmissions involving the following types of emissions:

1M23G9W

SECTION 2.1033(c) (5)
Frequency Range.

RESPONSE: 869 - 894 MHz

SECTION 2.1033(c) (6)
Range of operating power values or specific operating power levels, and description of any means provided for variation of operating power.

RESPONSE:
The **AS5CMP-29** amplifier is capable of operating from 0.06 to 20 Watts at the amplifier output. The output power that is delivered to the J4 output connector of the cabinet in which the **AS5CMP-29** is mounted is reduced from this maximum value by filter insertion loss, RF transmission losses and margin for long term reliability. The power is also under continuous software control. When installed in a cabinet with applicable filters the long term average rated power at the J4 output connector is 10 Watts (+2/-4 dB). The short term peak power, due to channel activity fluctuations, is 15 Watts.

SECTION 2.1033(c) (7)
Maximum power rating as defined in the applicable part(s) of the rules.

RESPONSE: The maximum average power output of the **AS5CMP-29** at the Cabinet Output J4 connector is 15 Watts.

EXHIBIT 4 *(continued)*

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: The ICLA nominally uses the following voltages and maximum currents:

Overall ICLA	+28 VDC @ 7.5 A max.
Final Output Transistors:	Two transistors in parallel, Each device draws 2.2 amps at 28 V dc at rated output power

EXHIBIT 5

TUNE-UP PROCEDURE

EXHIBIT 5

SECTION 2.1033(c) (9)

Tune-up procedure over the power range, or at specific operating power levels.

RESPONSE: There are no user tune-up procedures for either power levels or frequency. There are no factory (manufacturing) tune-up procedures with respect to power or frequency.

EXHIBIT 6

CIRCUITRY OF SUPPRESSION OF SPURIOUS RADIATION

(LUCENT TECHNOLOGIES CONFIDENTIAL PROPRIETARY INFORMATION)

(THIS EXHIBIT 6 IS PLACED AT THE END OF DOCUMENT)

EXHIBIT 8

PHOTOGRAPH OF CONSTRUCTION

EXHIBIT 8

SECTION 2.1033 (c) (12)

Photographs (8" x 10") of the equipment of sufficient clarity to reveal equipment construction and layout, including meters, if any, and labels for controls and meters and sufficient views of the internal construction to define component placement and chassis assembly. Insofar as these requirements are met by photographs or drawings contained in instruction manuals supplied with the certification request, additional photographs are necessary only to complete the required showing.

RESPONSE: Equipment construction, layout, including meters, and labels for control are indicated in Operation, Administration and Maintenance Manual (See Exhibit 3).

Following additional photographs are included:

12.1. Photograph of ICLA Installed.
12.2. Photograph of ICLA Outside.
12.3. Photograph of ICLA Inside.

EXHIBIT 9

DESCRIPTION OF MODULATION SYSTEM

EXHIBIT 9

SECTION 2.1033(c) (13)

For equipment employing digital modulation techniques, a detailed description of the modulation system to be used, including response characteristics (frequency, phase and amplitude) of any filters provided, and a description of the modulating wavetrain, shall be submitted for the maximum rated conditions under which the equipment will be operated.

RESPONSE:
These functions are controlled by the **CBR/AS5CMP-28** (co-filed with this equipment) which supplies the signals to be amplified. External to ICLA (**AS5CMP-29**), there are cavity type transmit filters which limit spurious and harmonic content. The performance characteristics of these filters are included in Figures 6a and 6b in Exhibit 6.

EXHIBIT 10

LISTING OF REQUIRED MEASUREMENTS

EXHIBIT 10

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-28**, measured in accordance with the procedures set out in Section 2.999 of the Rules.

Each required measurement and its corresponding exhibit number are:

Exhibit 11:	Section 2.1046	RF Power Output
Exhibit 12:	Section 2.1047	Modulation Characteristics
Exhibit 13:	Section 2.1049	Occupied Bandwidth
Exhibit 14:	Section 2.1051	Spurious Emissions at Antenna Terminals
Exhibit 15:	Section 2.1053	Field Strength of Spurious Radiation
Exhibit 16:	Section 2.1055	Measurement of Frequency Stability
Exhibit 17:	Section 2.1057	Frequency Spectrum to be Investigated

EXHIBIT 11

MEASUREMENT OF RADIO FREQUENCY POWER OUTPUT

EXHIBIT 11

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 11A, 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 11.1. 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 11.1 BASE STATION TEST MODEL, NOMINAL

EXHIBIT 11 *(continued)*

TEST SETUP FOR MEASUREMENT OF RADIO FREQUENCY POWER OUTPUT

EQUIPMENT:

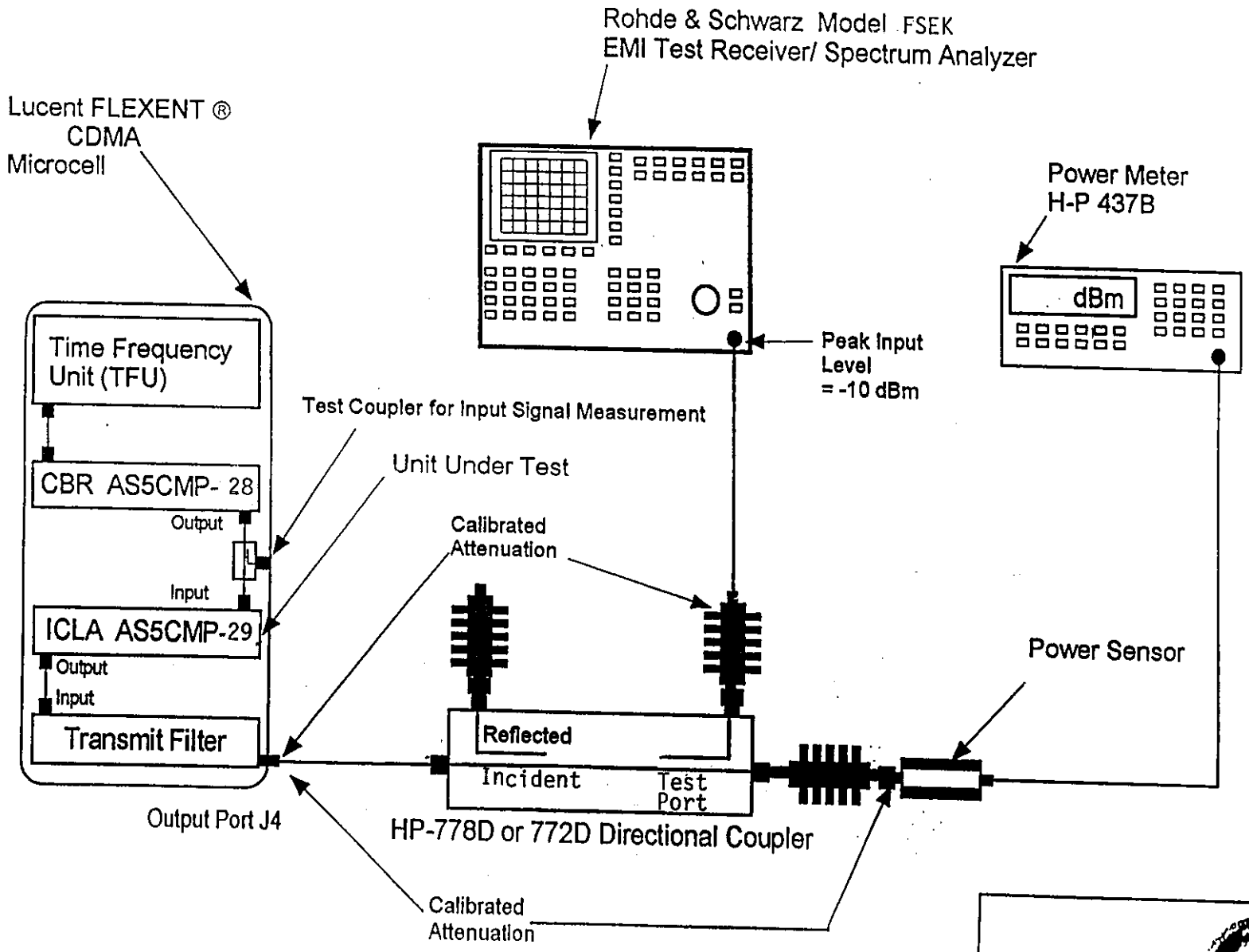
TFU:	**Time/Frequency Unit, 15 MHz**
CBR:	**CDMA Baseband Radio**
ICLA:	**Individual Channel Linear Amplifier (FCCID: AS5CMP-29)**
Transmit Filter:	**Cellular Band Transmit Filter appropriate for the investigated Band**
Directional Coupler:	**HP 778D Dual Directional Coupler**
Power Meter:	**HP 437B 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 11A. 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.

Note: The ICLA is a single CDMA channel amplifier and its maximum power level is verified at each cell site during setup of the MicroCell and installation of the CBR, FCC ID: **AS5CMP-28**.

Figure 11A. Test Configuration For RF Power Output



All components are calibrated over the frequency range of interest

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EXHIBIT 12

MEASUREMENT OF MODULATION CHARACTERISTICS

EXHIBIT 12

MEASUREMENT OF MODULATION CHARACTERISTICS

SECTION 2.1047

The modulation characteristics and accuracy of the ICLA are a function of the input signal which is provided by the CDMA Baseband Radio (CBR)FCC ID: **AS5CMP-28** co-filed with this submittal.

EXHIBIT 13

MEASUREMENT OF OCCUPIED BANDWIDTH

EXHIBIT 13

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 13A. 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: (1). measurements made at antenna terminals for an output of 15 watts. (2). at input to the amplifier (output of CBR/FCC ID: **AS5CMP-28**) required to generate 15 watts at antenna terminals are presented. The CBR 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. Input and output signals are 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 13.1. 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 13.1 Base Station Test Model, Nominal

EXHIBIT 13 *(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 (Resolution Bandwidth/Transmit Bandwidth) = Signal Offset

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

Signal Offset = 10*log (30 kHz/1.23 MHz) = -16.1 dB

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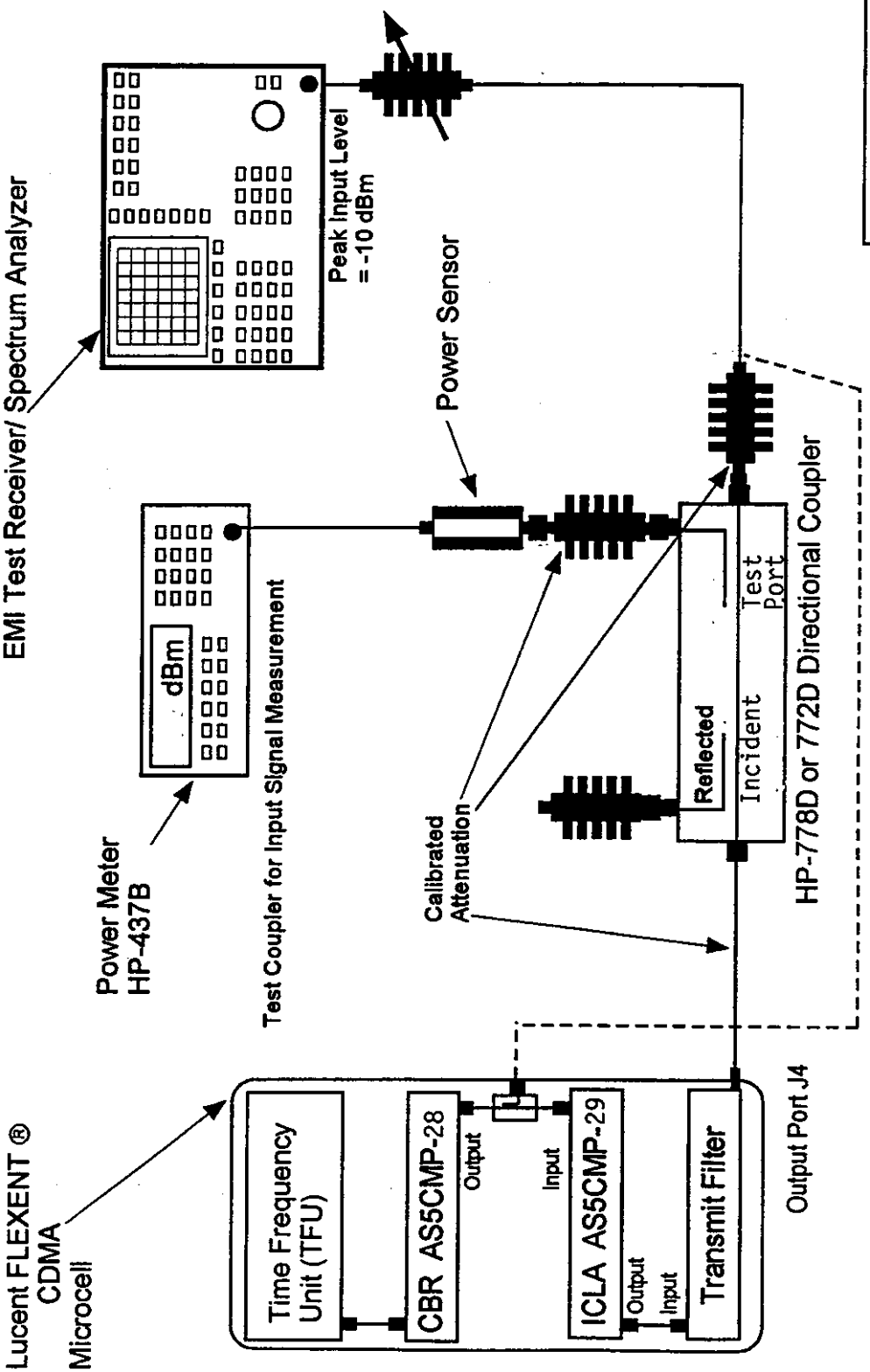
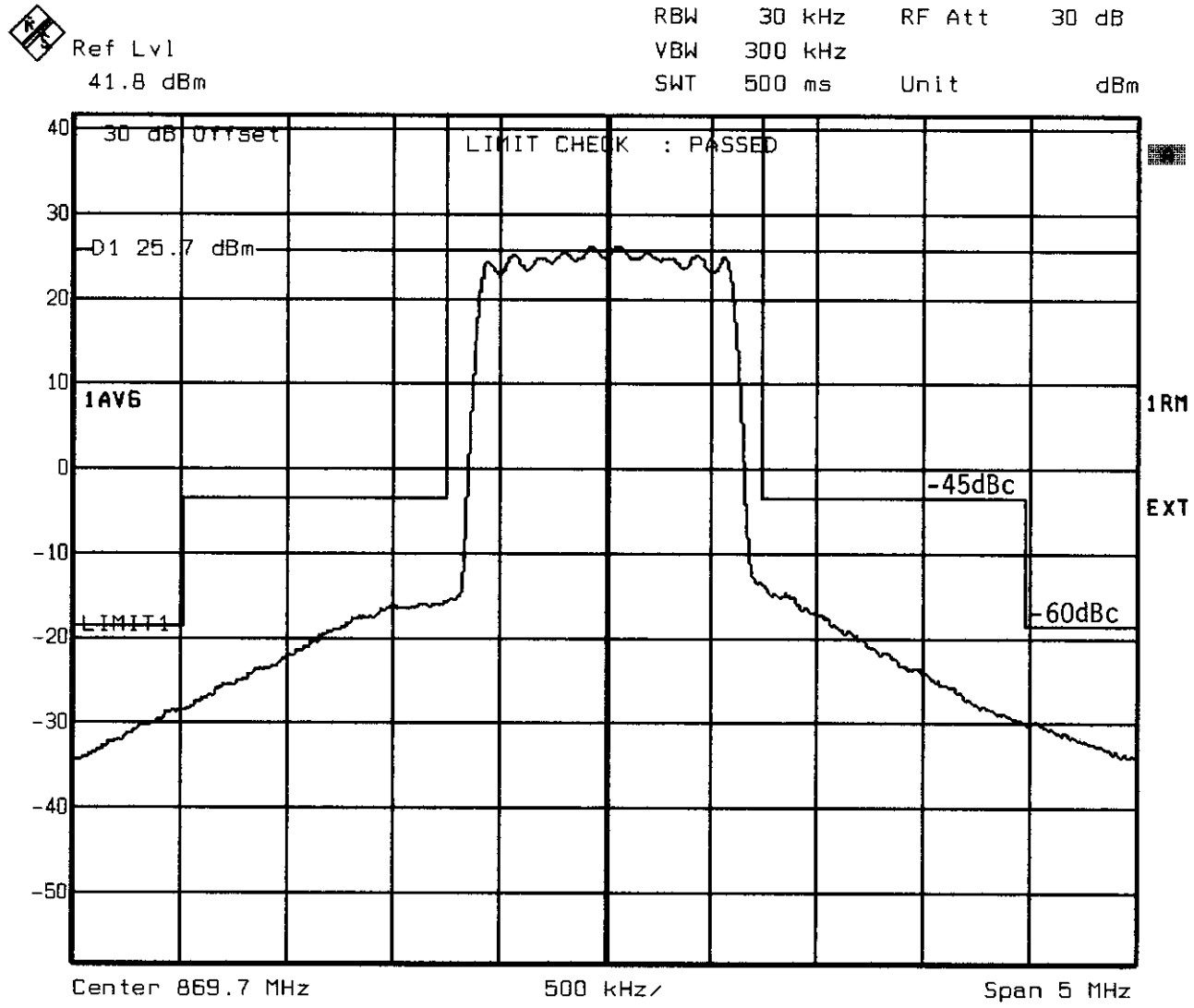
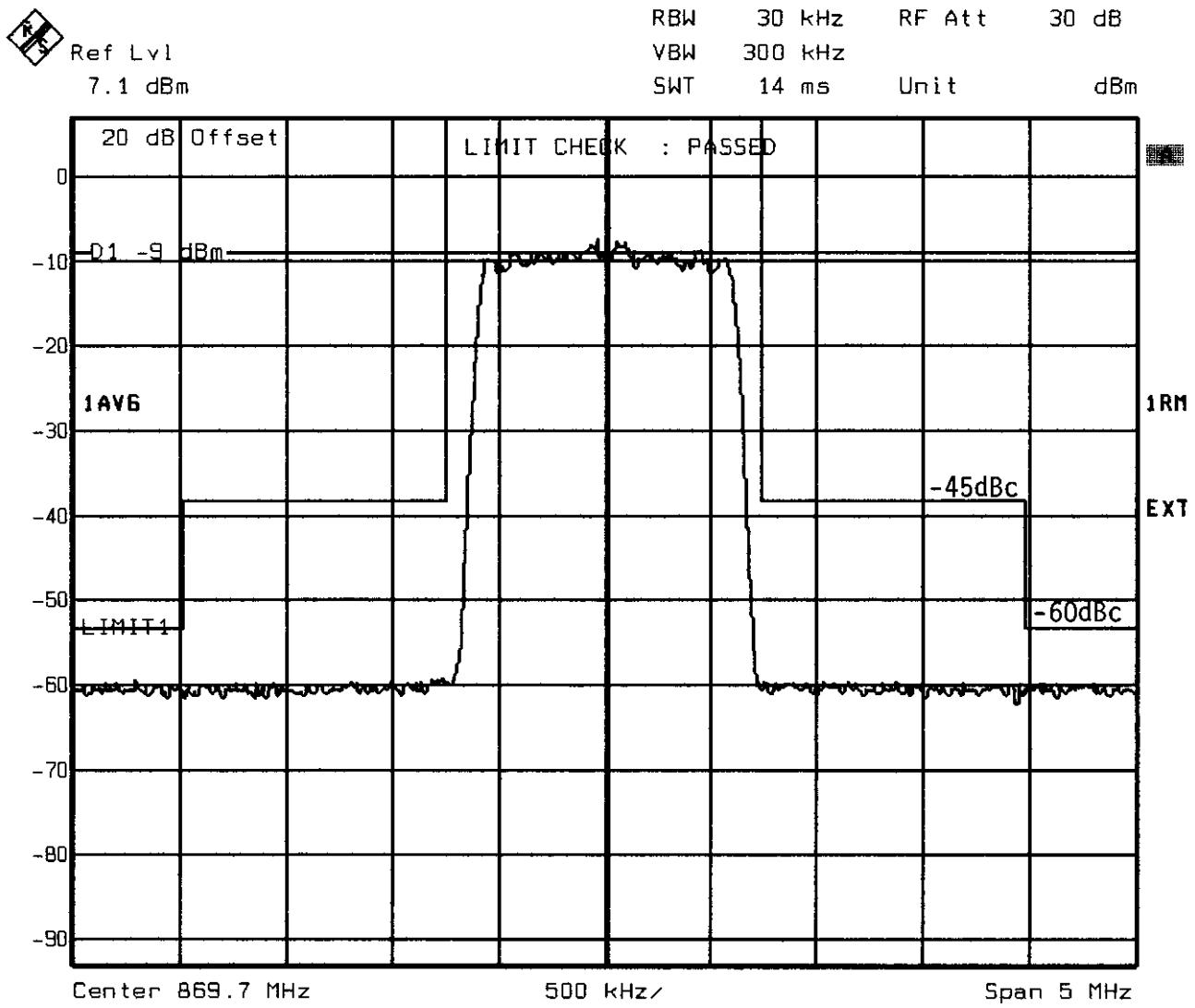
Figure 13A. Test Configuration For Occupied Bandwidth

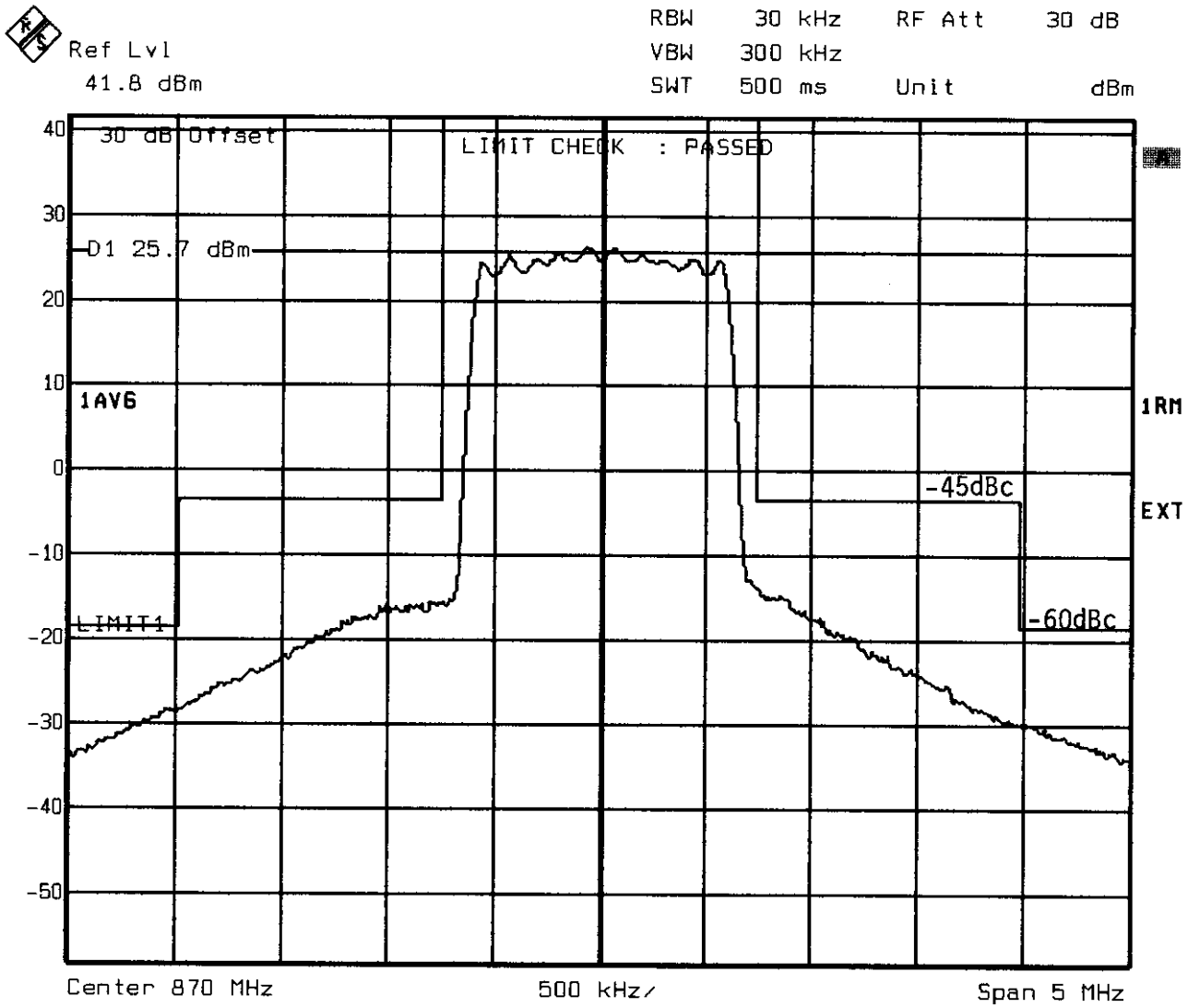




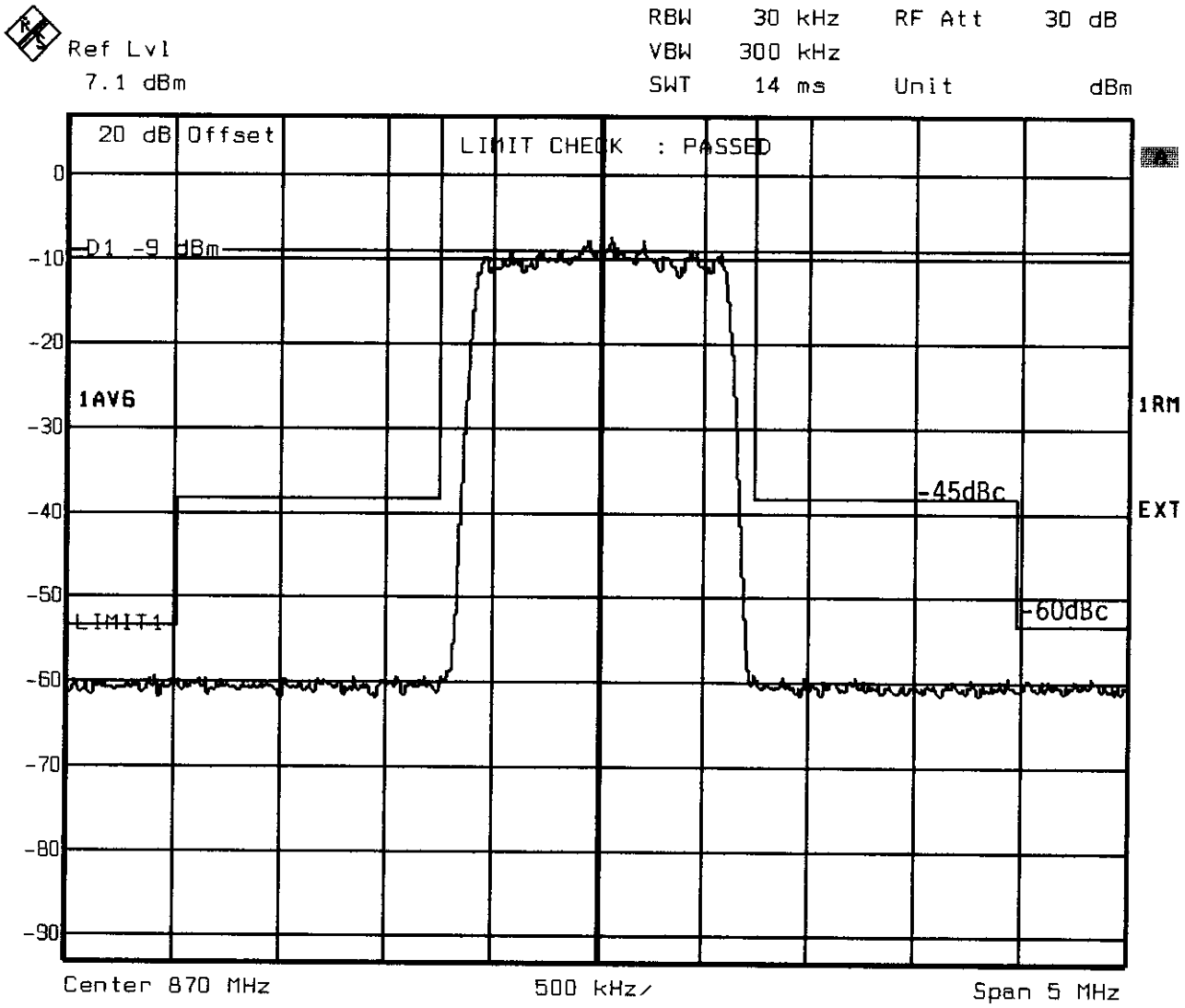
Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL:1013. POWER 15 WATTS
Date: 10.FEB.99 19:51:41



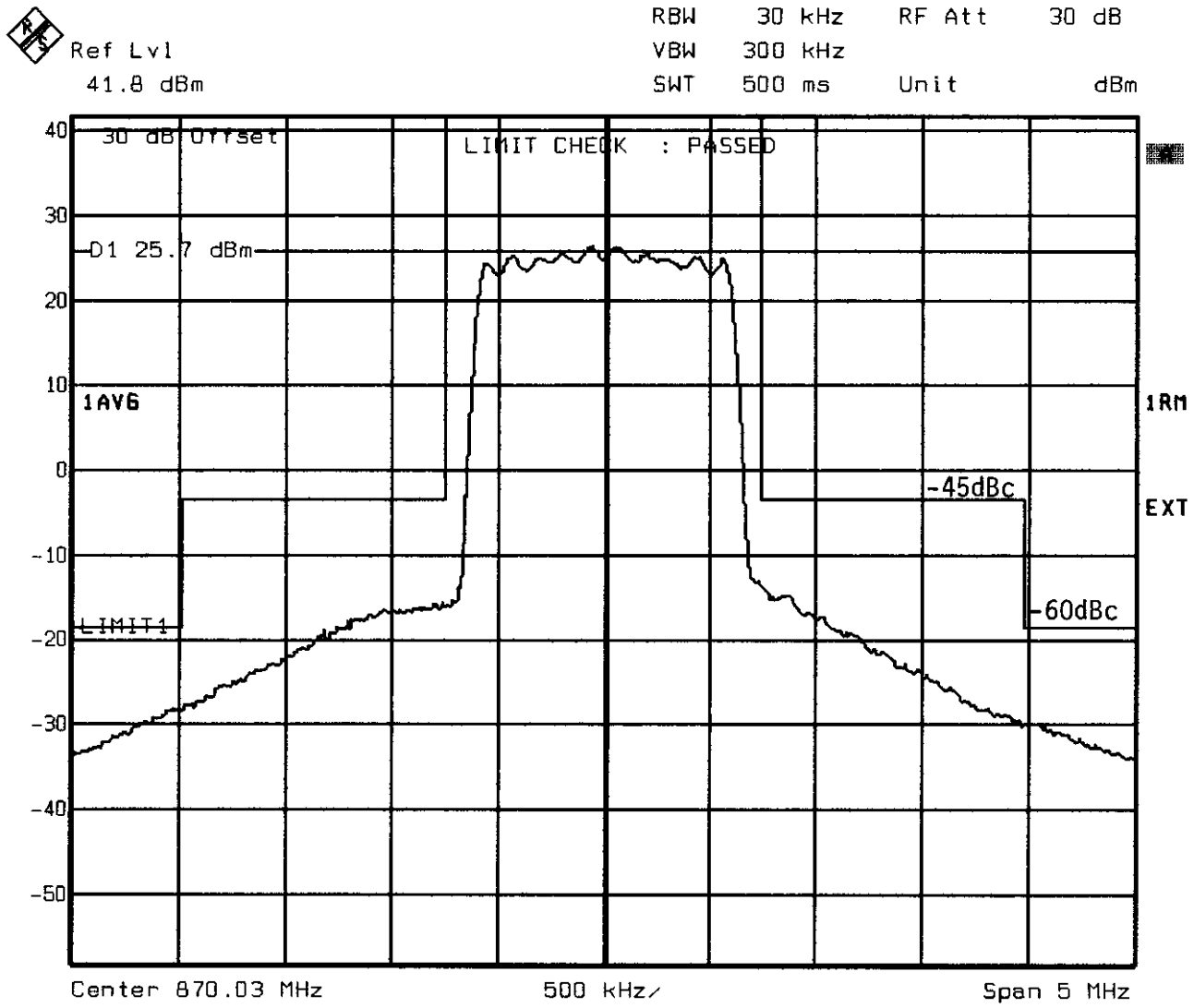
Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-29 FLEXENT CDMA CELLULAR MICROCELL
CHANNEL:1013. ICLA INPUT. POWER 7.1dBm
Date: 10.FEB.99 19:35:16



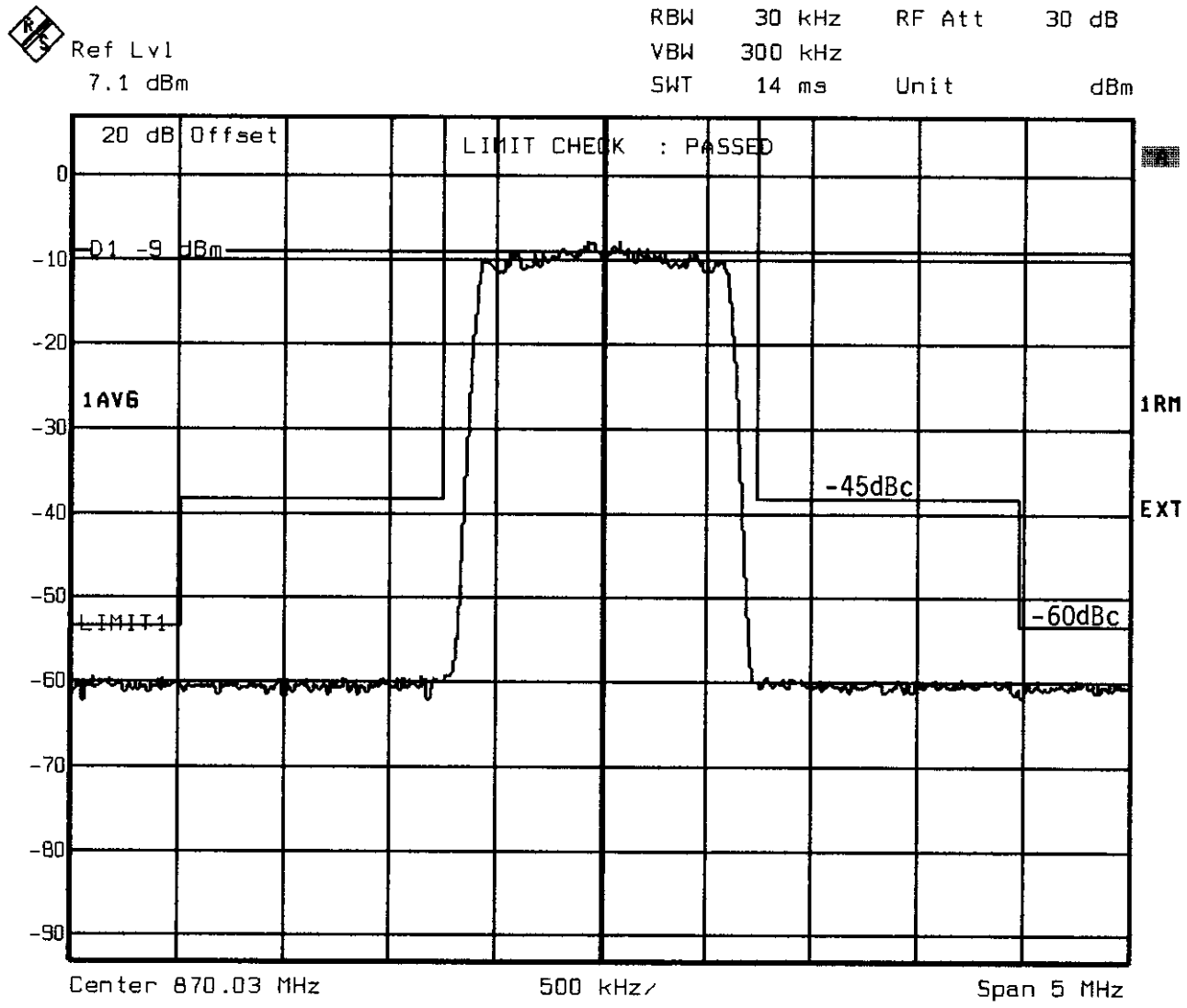
Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL:1023. POWER 15 WATTS
Date: 10.FEB.99 19:52:53



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL:1023. ICLA INPUT. POWER 7.1 dBm
Date: 10.FEB.99 20:46:19



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL:1. POWER 15 WATTS
Date: 10.FEB.99 19:53:48



Title: OCCUPIED BANDWIDTH
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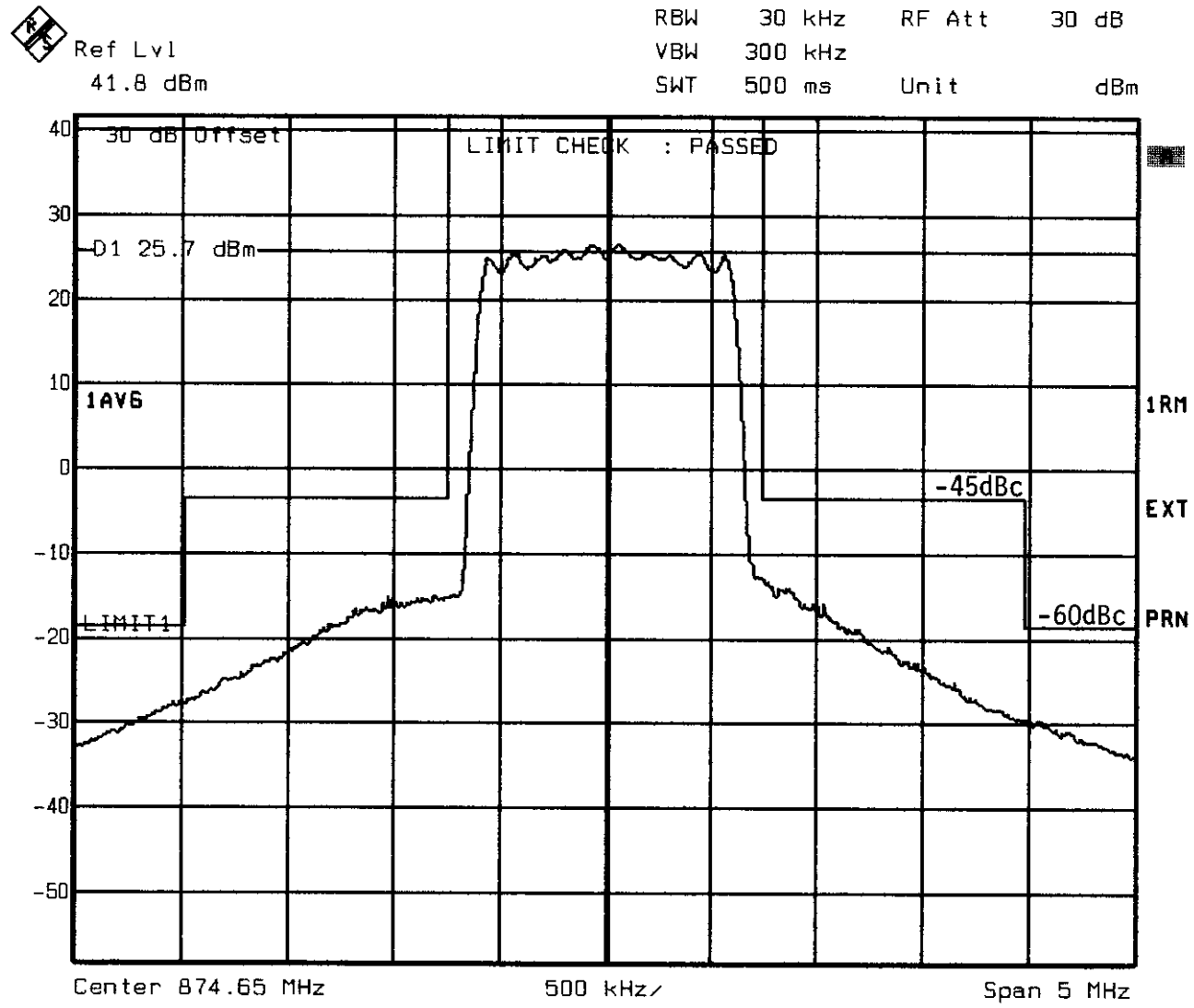
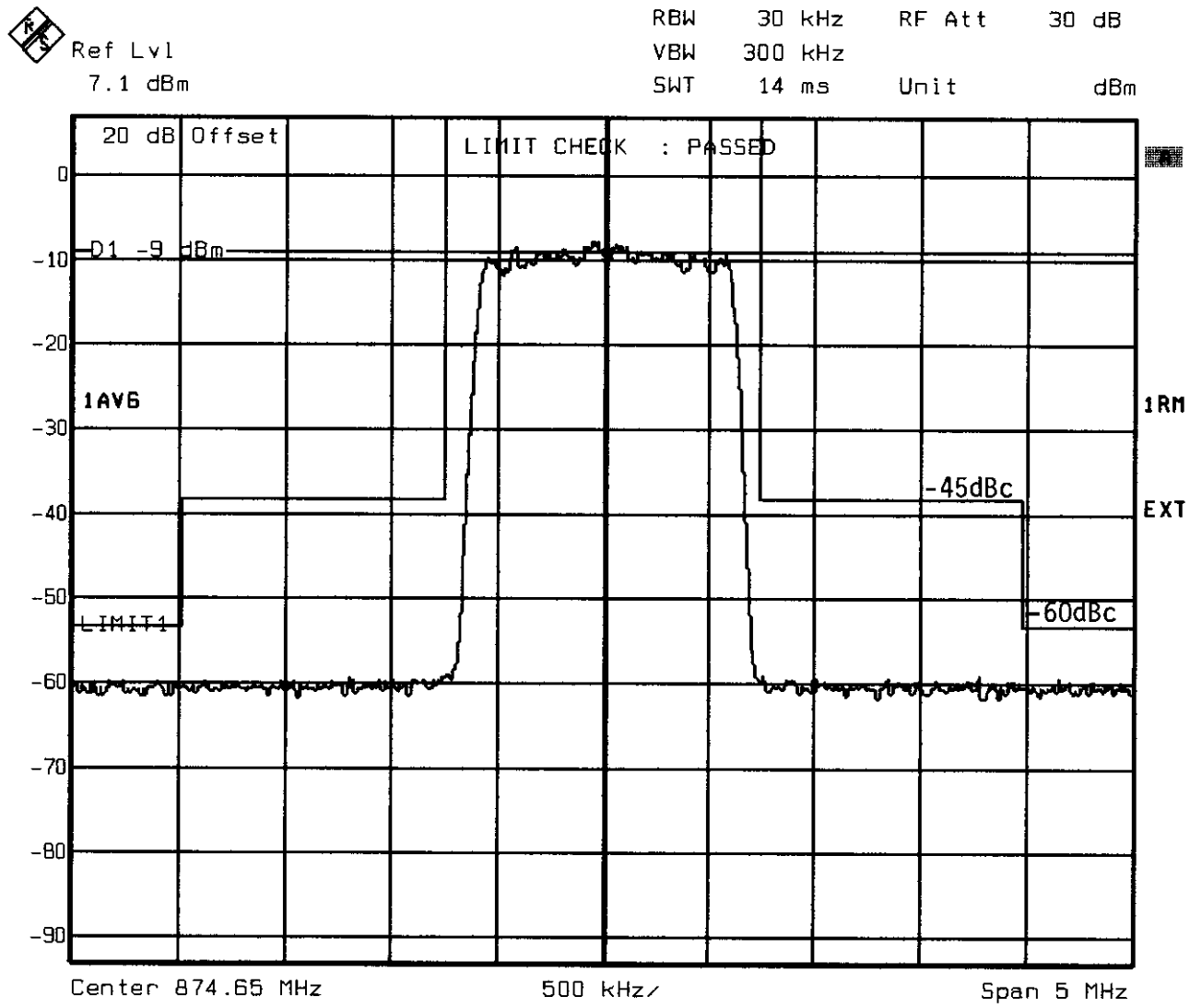
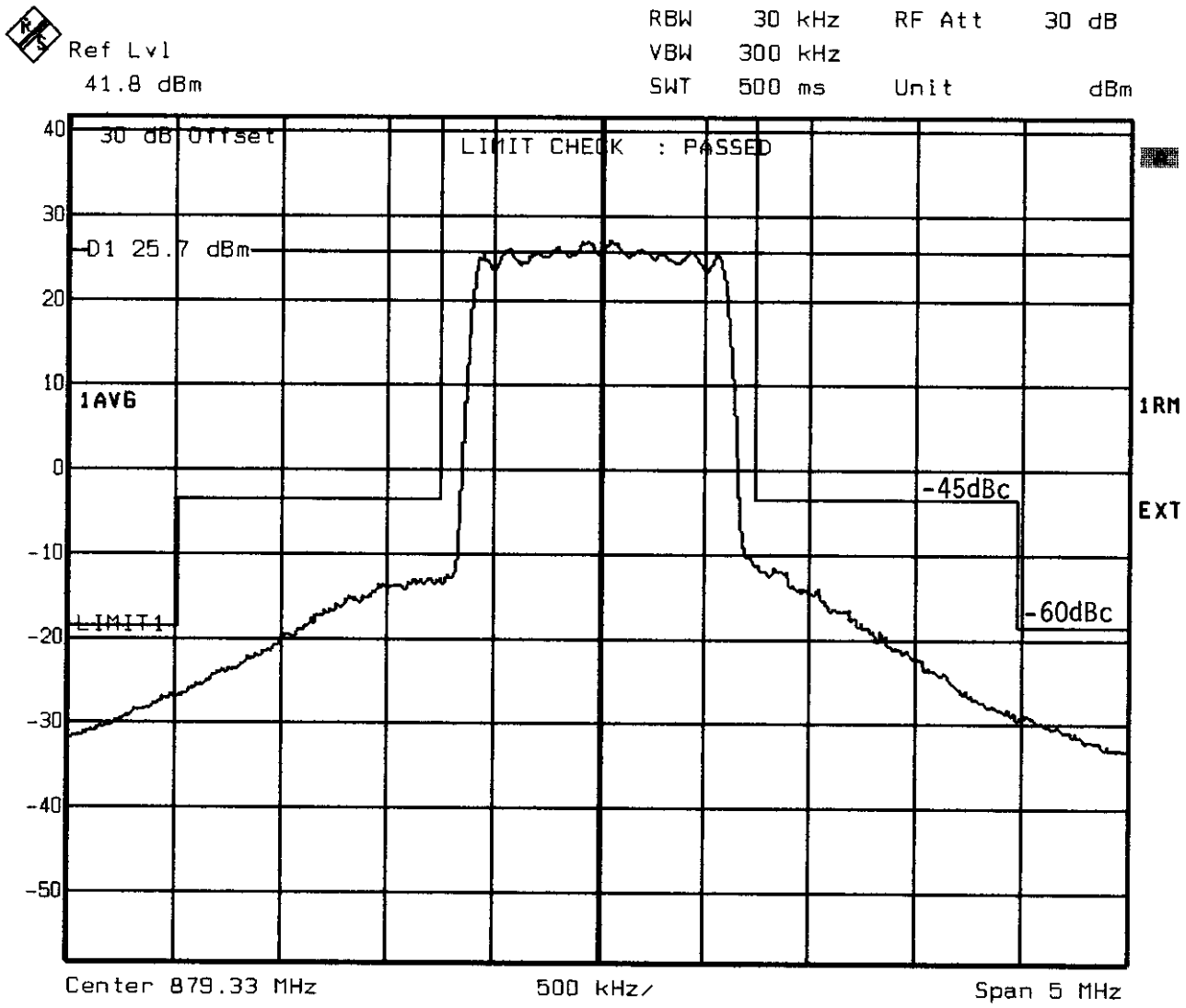
CHANNEL:1. ICLA INPUT. POWER 7.1 dBm
Date: 10.FEB.99 19:32:41



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL:155. POWER 15 WATTS
Date: 10.FEB.99 19:54:21



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-29 FLEXENT CDMA CELLULAR MICROCELL
CHANNEL:155. ICLA INPUT. POWER 7.1dBm
Date: 10.FEB.99 19:30:48



Title: OCCUPIED BANDWIDTH
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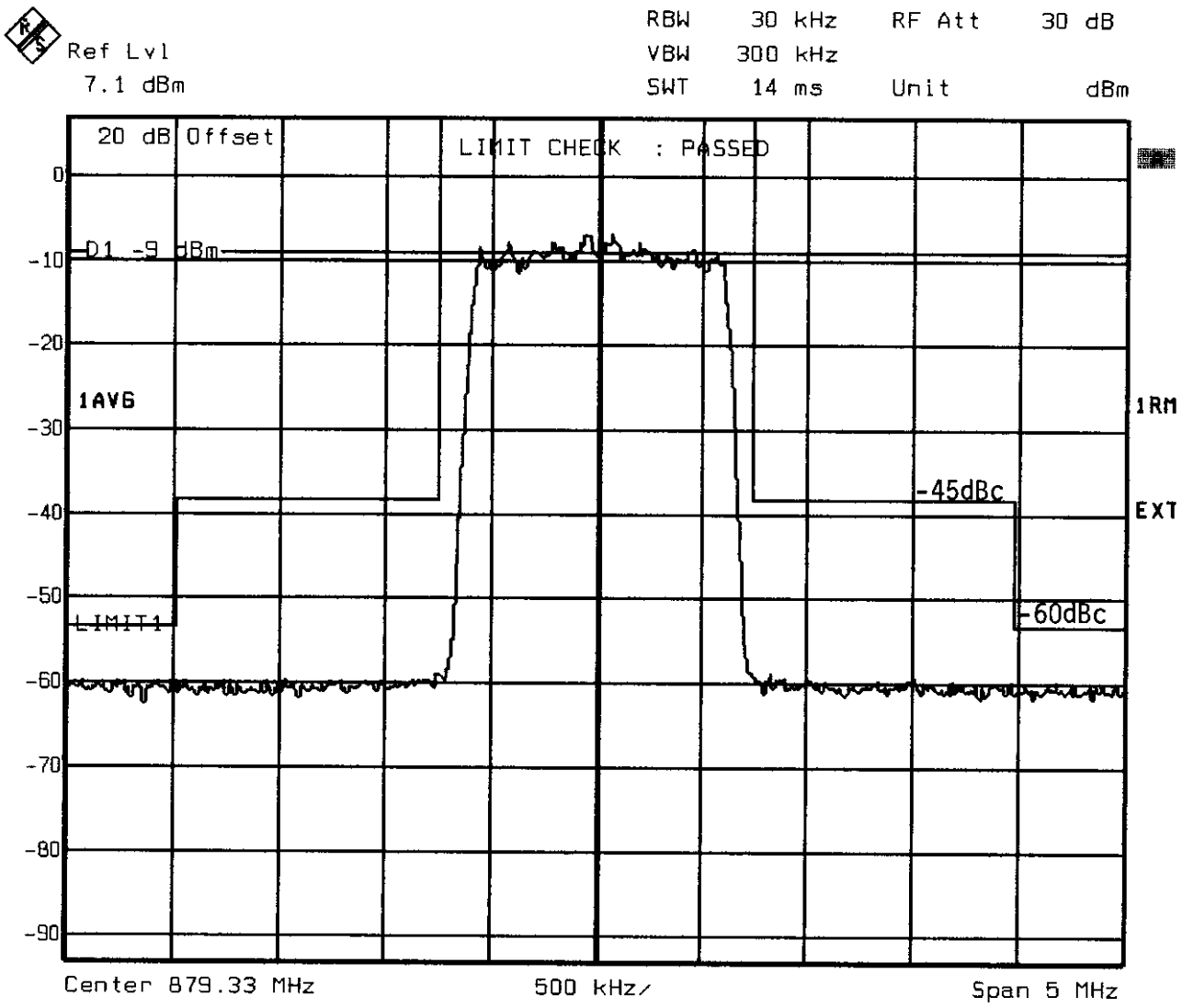
CHANNEL:311. POWER 15 WATTS
Date: 10.FEB.99 19:55:44



Title: OCCUPIED BANDWIDTH
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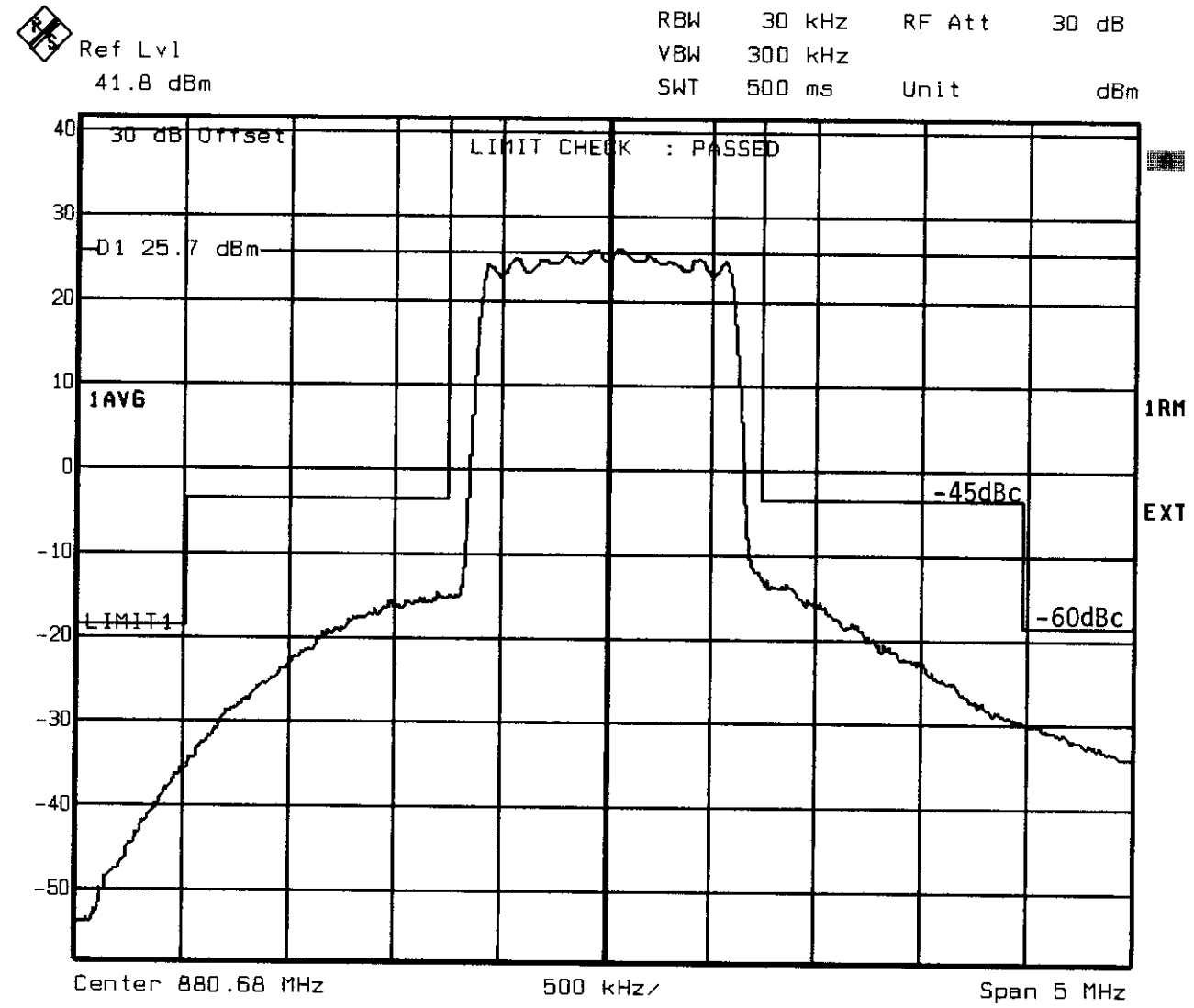
CHANNEL:311. ICLA INPUT. POWER 7.1 dBm
Date: 10.FEB.99 19:30:05



Title: OCCUPIED BANDWIDTH
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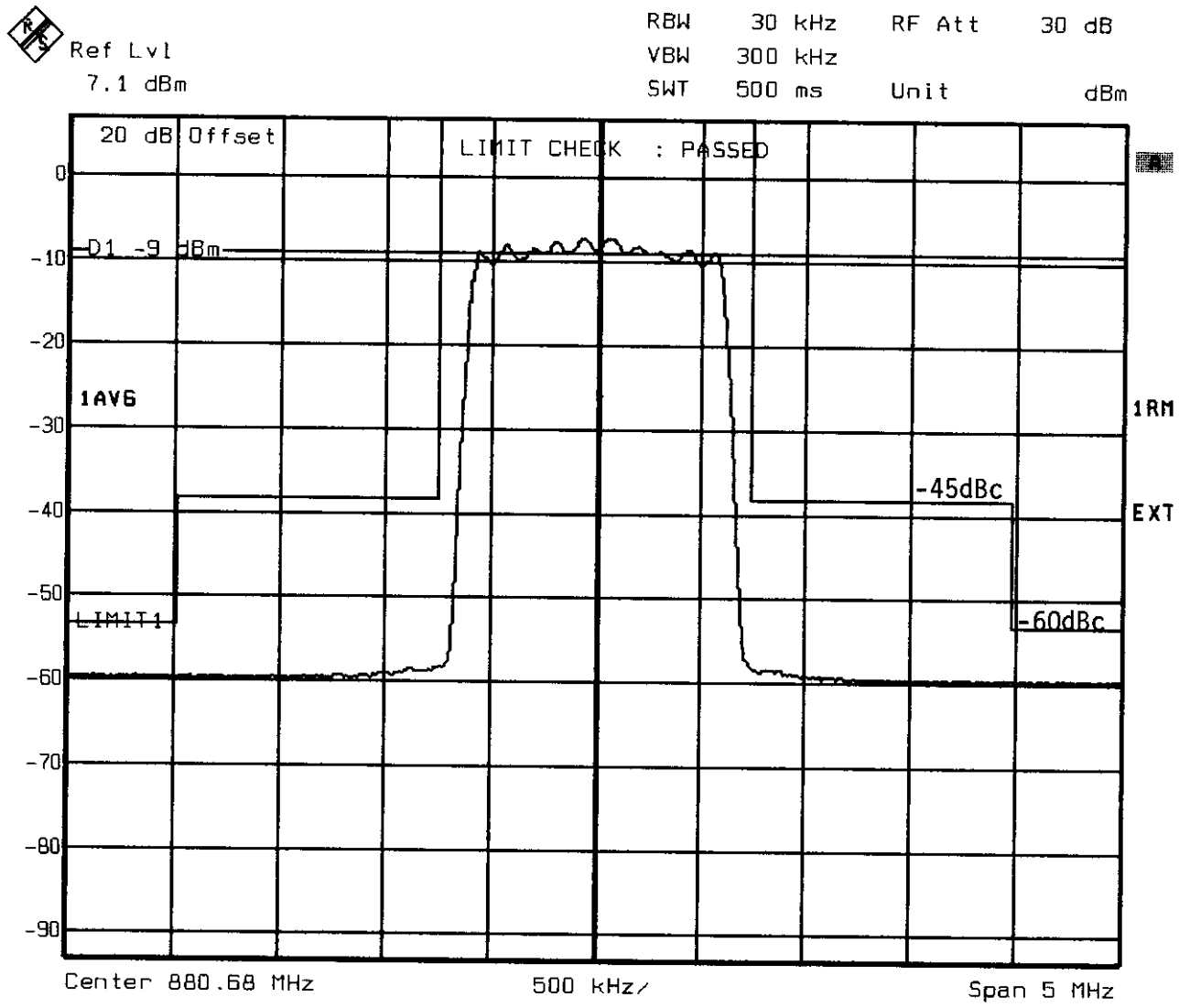
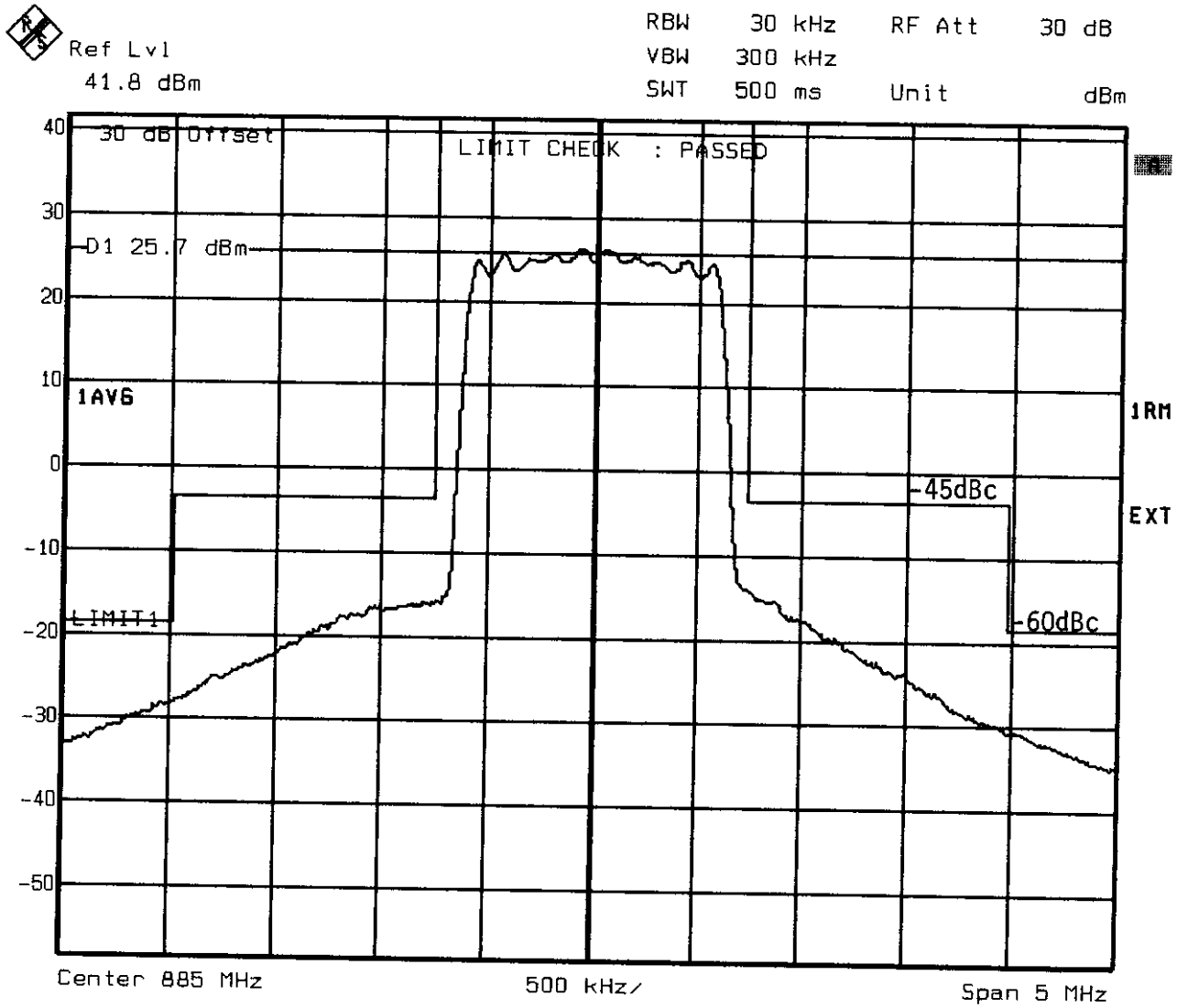
CHANNEL:356. POWER 15 WATTS
Date: 10.FEB.99 20:18:11



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL: 356. CBR OUTPUT. POWER 7.1 dBm.
Date: 10.FEB.99 15:35:58



Title: OCCUPIED BANDWIDTH
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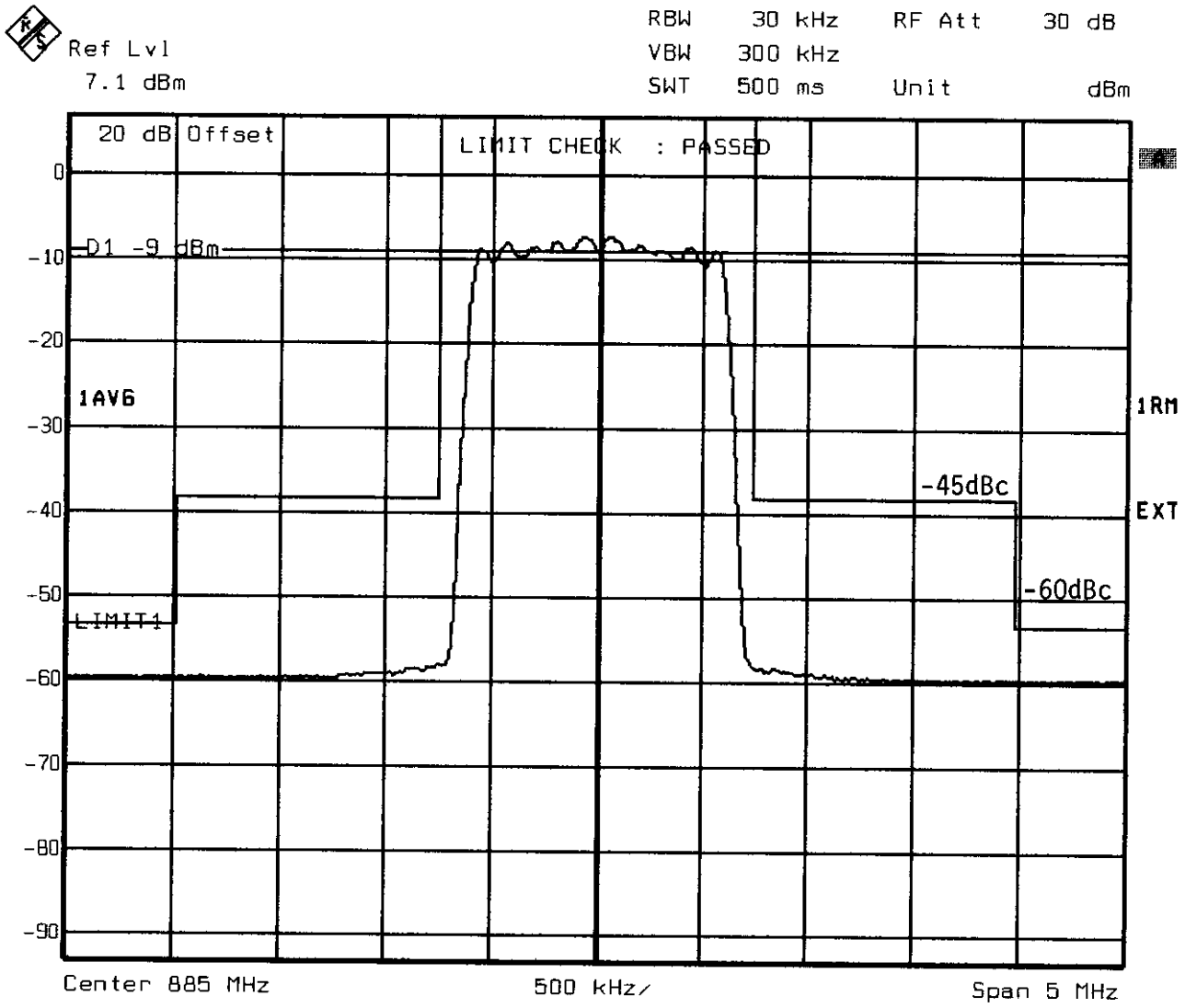
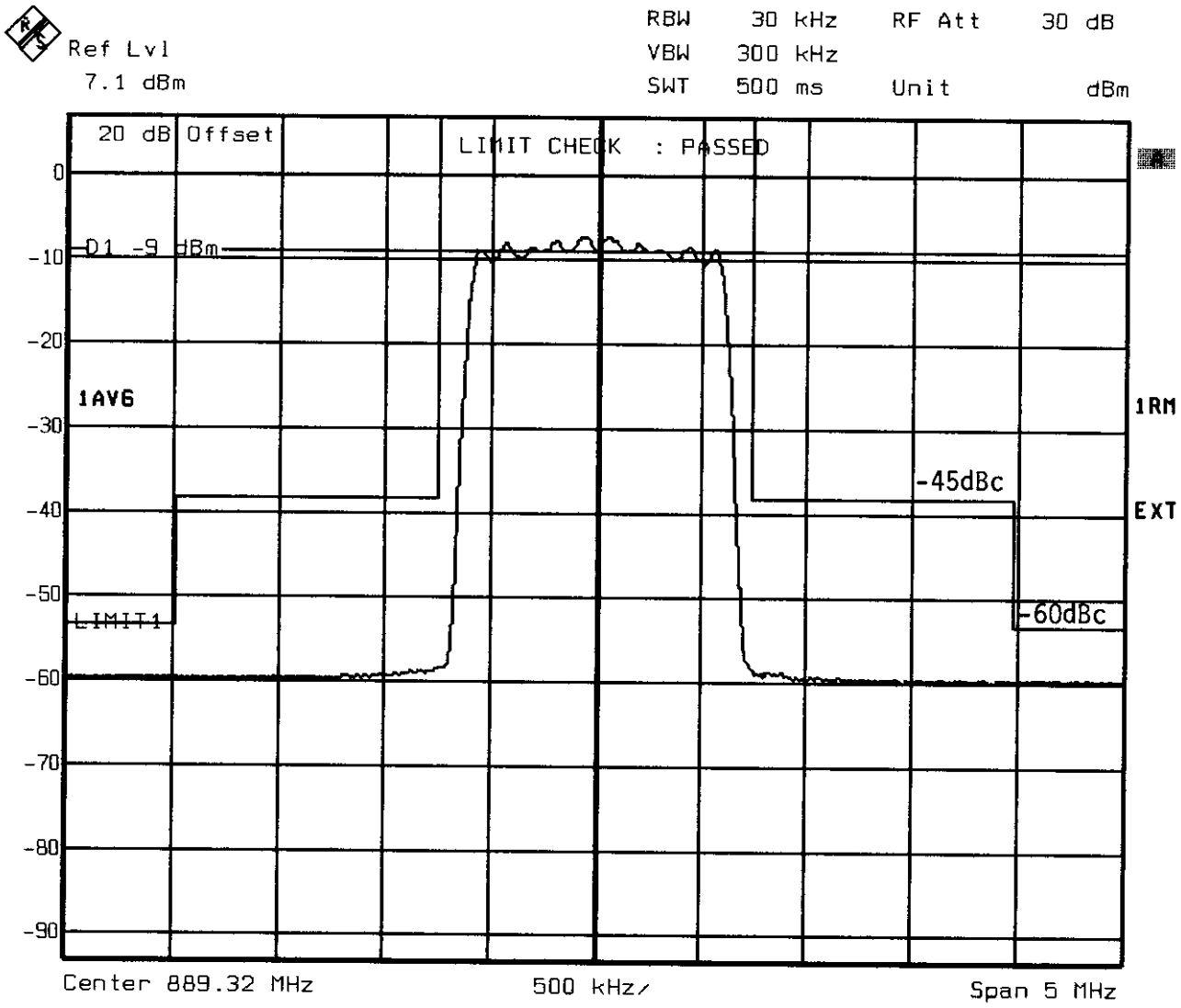
CHANNEL:500. POWER 15 WATTS
Date: 10.FEB.99 20:15:49



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL: 500. CBR OUTPUT. POWER 7.1 dBm.
Date: 10.FEB.99 15:30:06



Title: OCCUPIED BANDWIDTH
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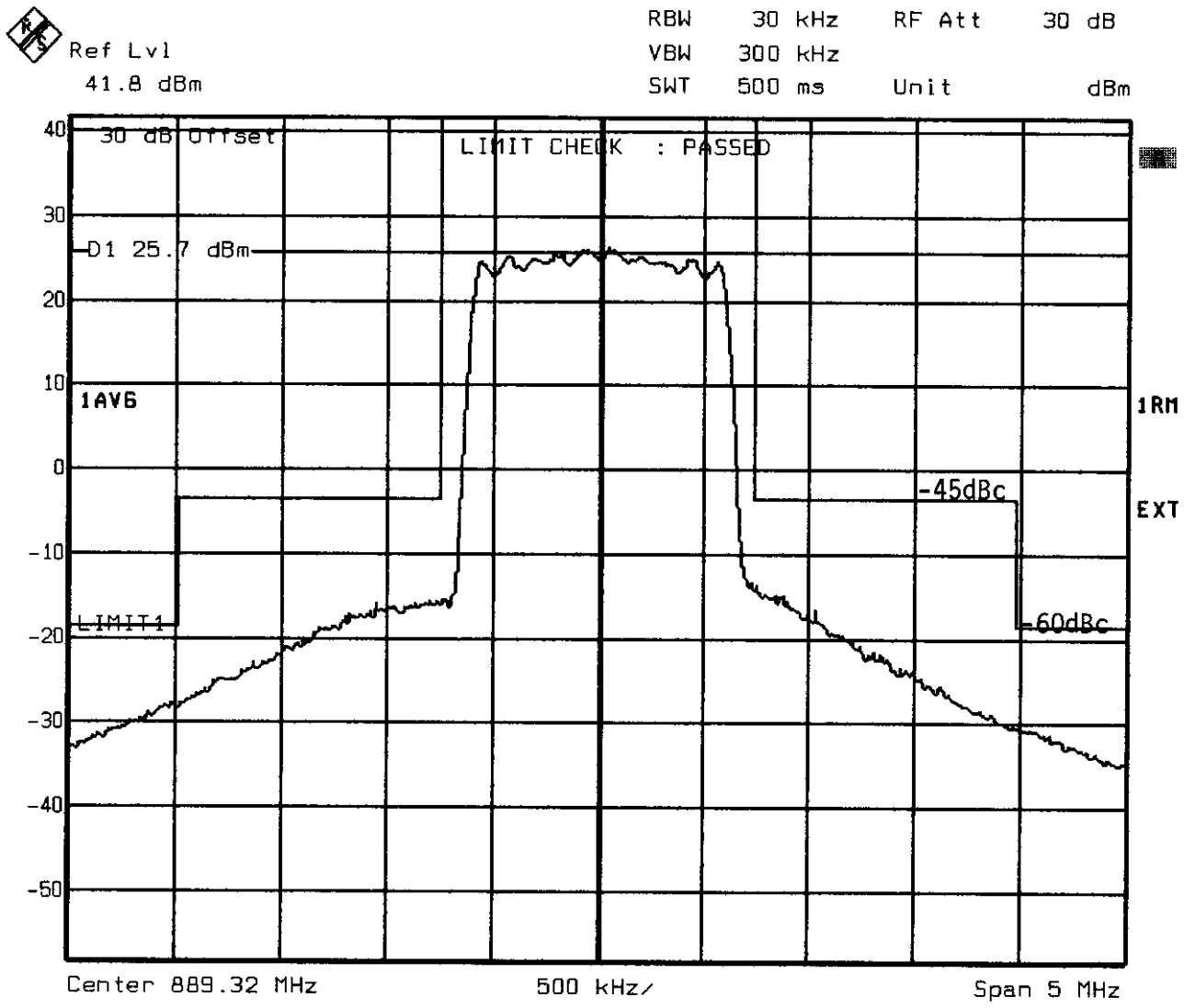
CHANNEL: 644. CBR OUTPUT. POWER 7.1 dBm.
Date: 10.FEB.99 15:26:50



Title: OCCUPIED BANDWIDTH
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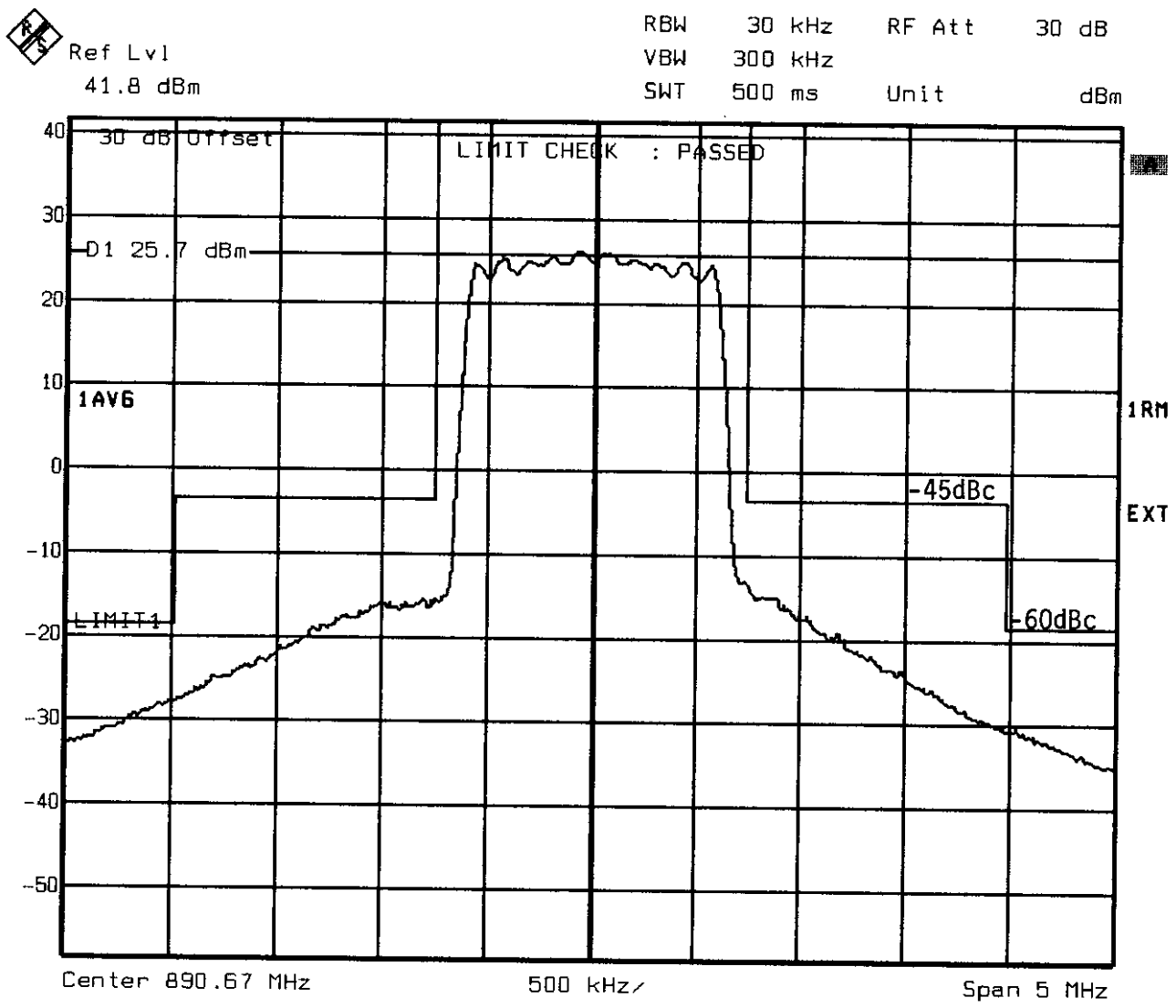
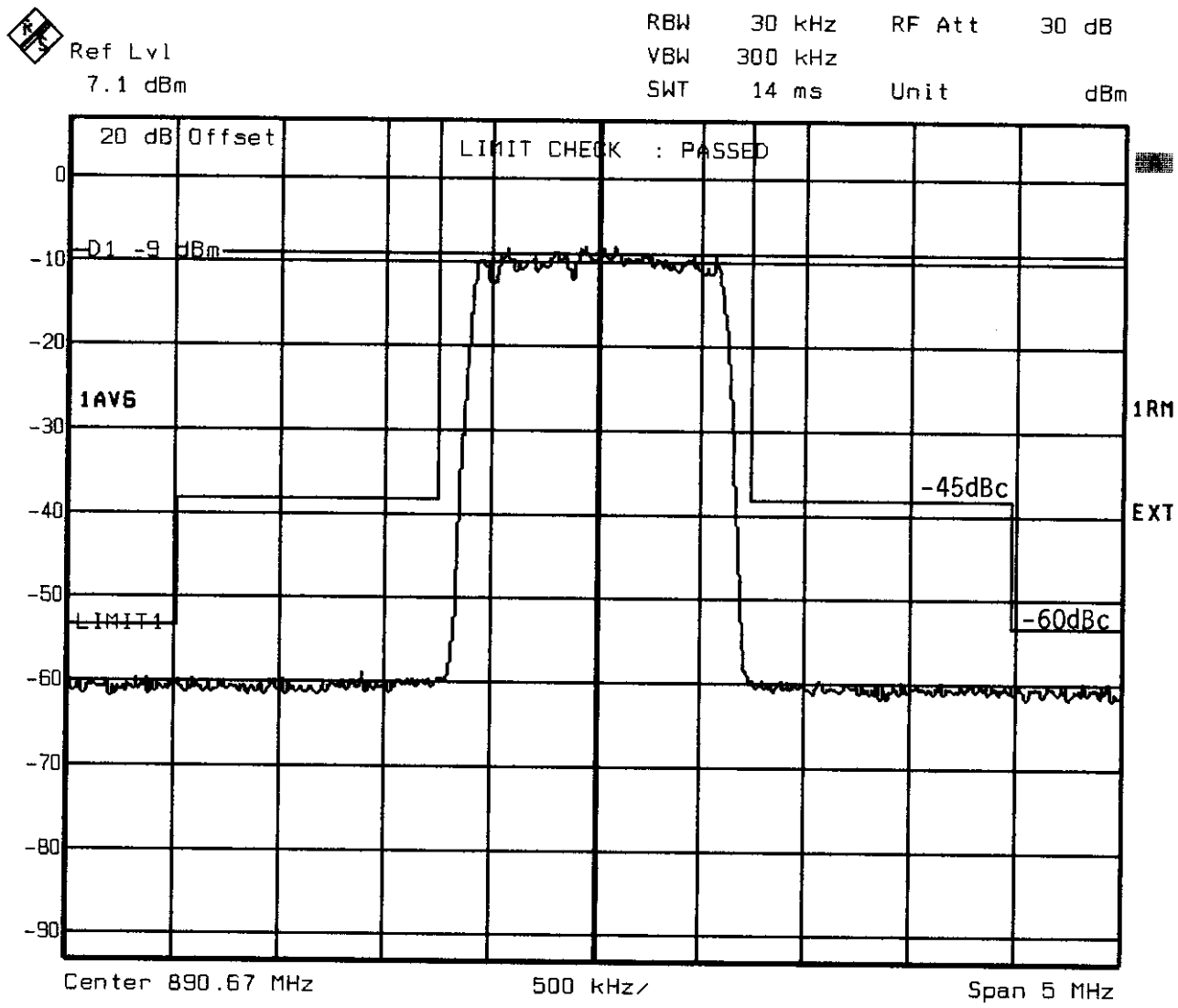
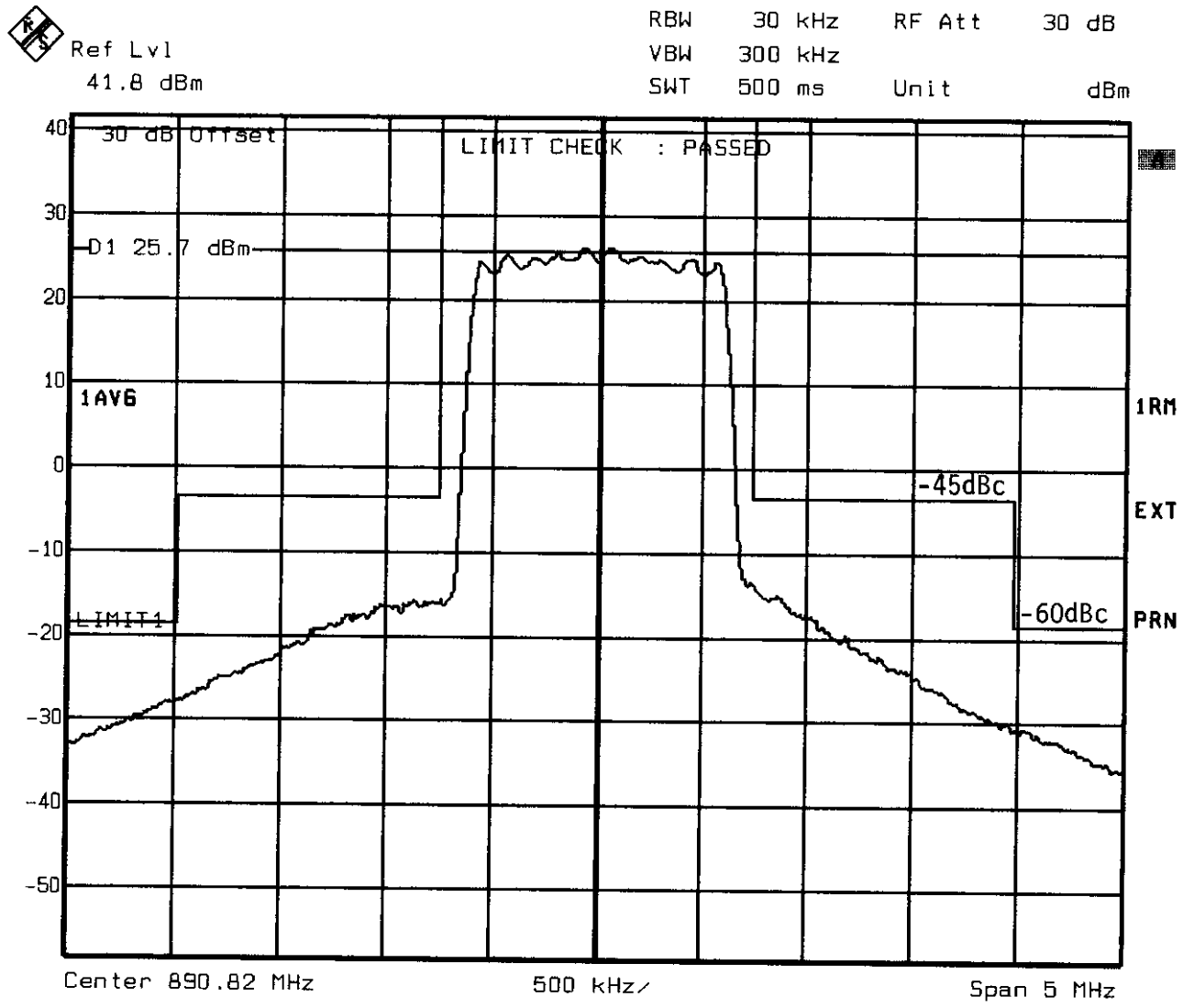
CHANNEL:644. POWER 15 WATTS
Date: 10.FEB.99 20:19:38



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL:689. POWER 15 WATTS
Date: 10.FEB.99 19:56:35



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-29 FLEXENT CDMA CELLULAR MICROCELL
CHANNEL:689. ICLA INPUT. POWER 7.1 dBm
Date: 10.FEB.99 19:28:38



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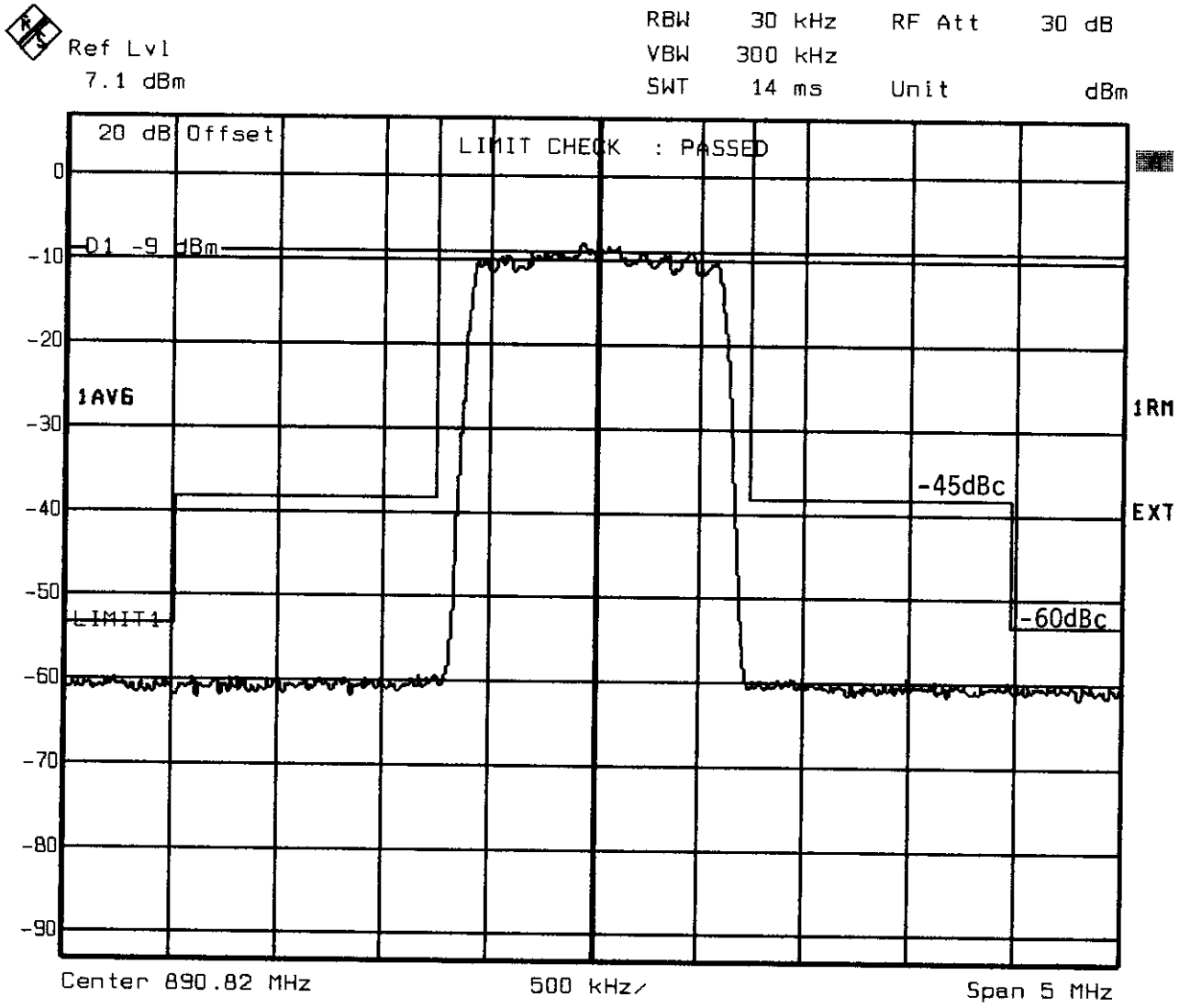
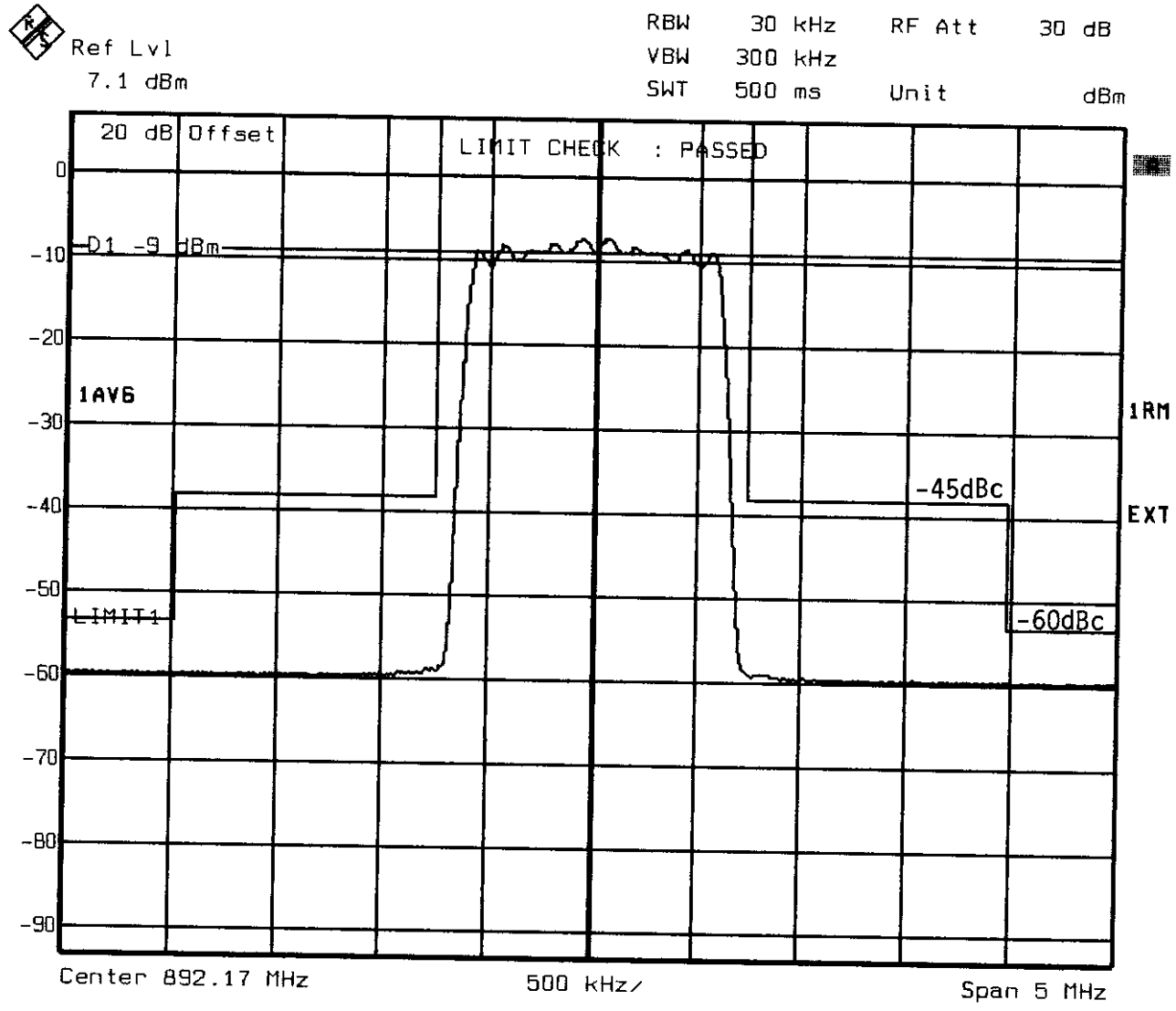
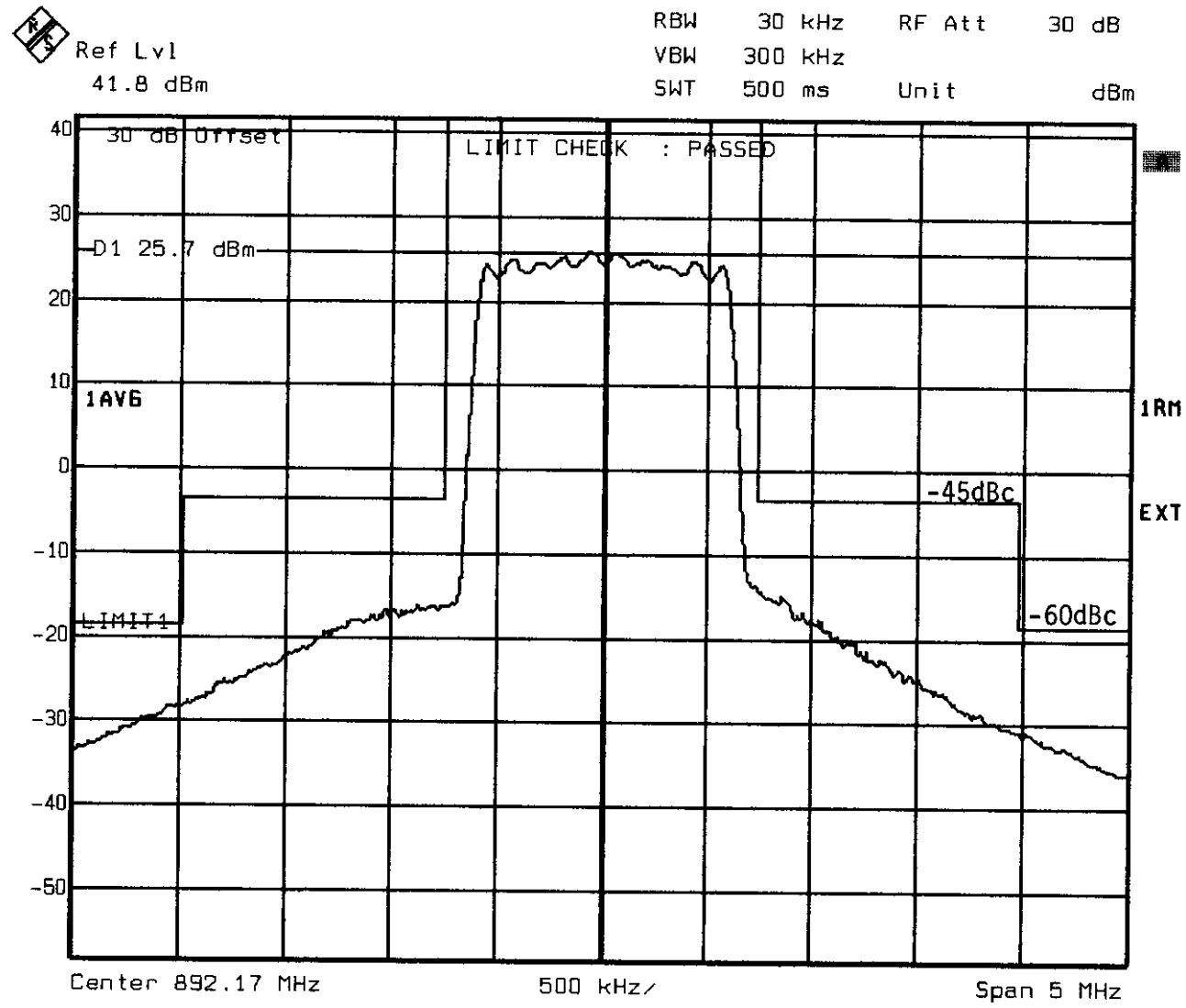
CHANNEL:694 POWER 15 WATTS
Date: 10.FEB.99 19:57:15



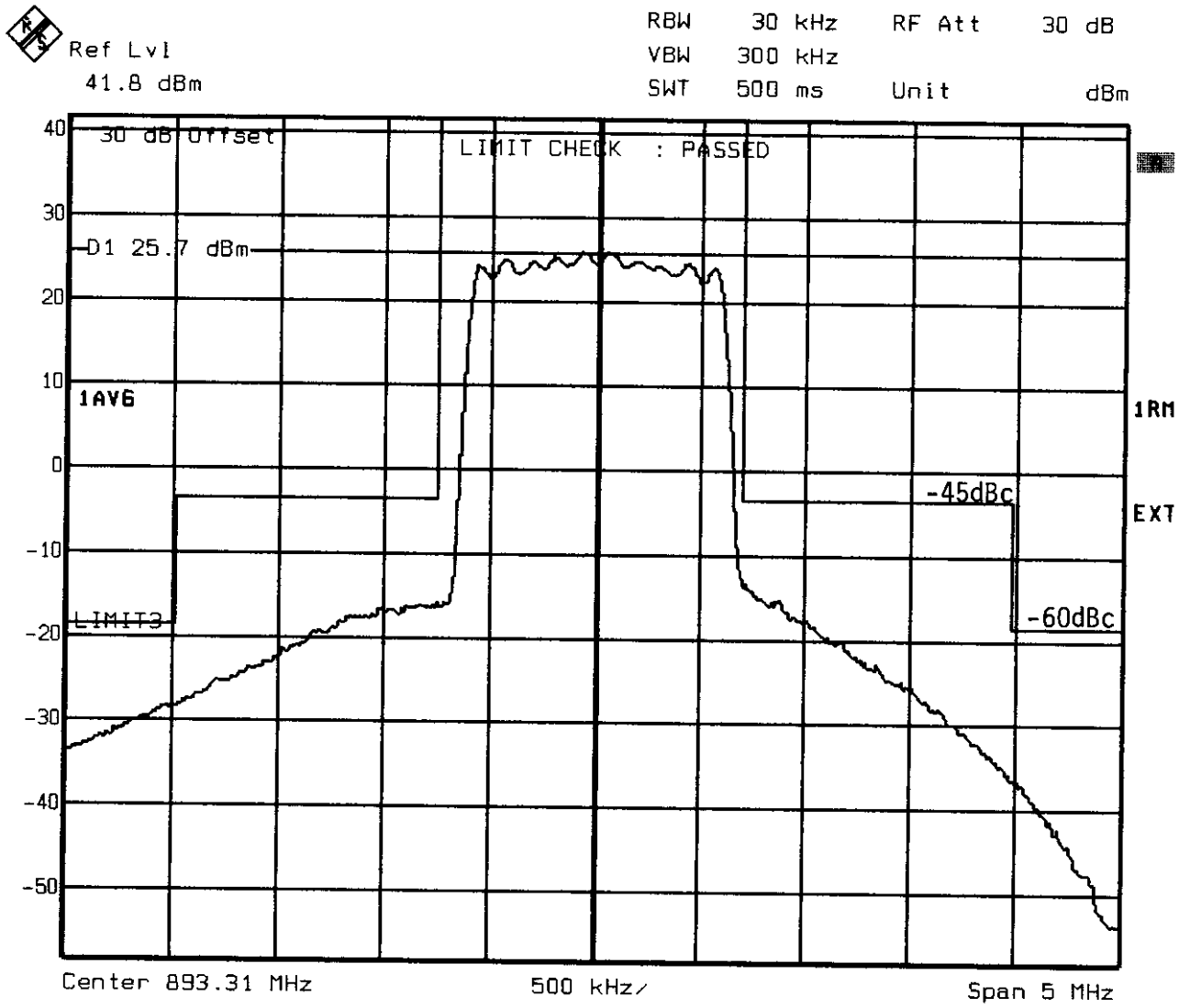
Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-29 FLEXENT CDMA CELLULAR MICROCELL
CHANNEL:694. ICLA INPUT. POWER7.1 dBm
Date: 10.FEB.99 19:27:20



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL: 739. CBR OUTPUT. POWER 7.1 dBm.
Date: 10.FEB.99 15:23:06



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL:739 POWER 15 WATTS
Date: 10.FEB.99 20:20:19



Title: OCCUPIED BANDWIDTH
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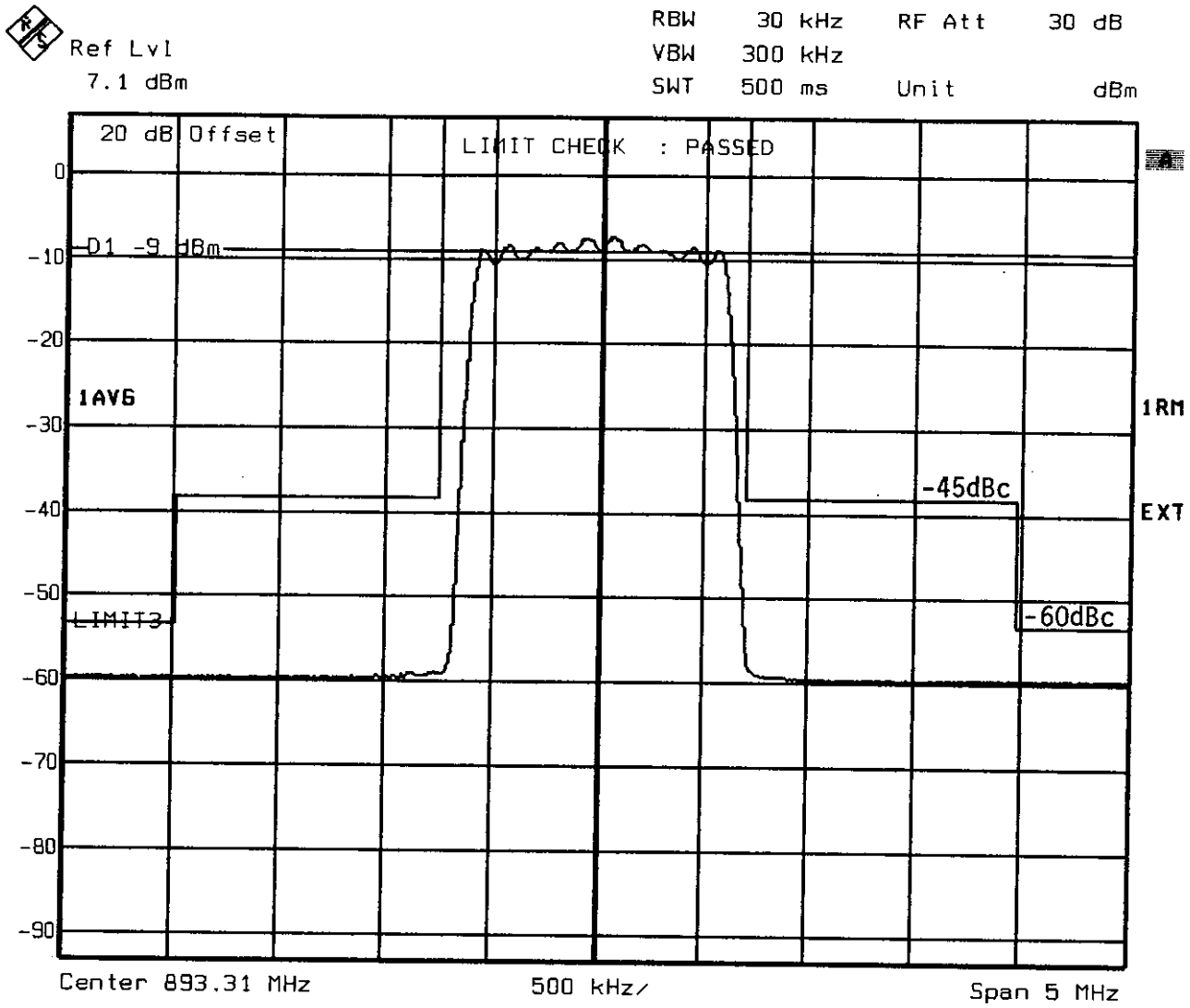
CHANNEL:777. POWER 15 WATTS
Date: 10.FEB.99 20:21:26



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL: 777. CBR OUTPUT. POWER 7.1 dBm.
Date: 10.FEB.99 15:12:27

EXHIBIT 14

MEASUREMENT OF SPURIOUS EMISSIONS AT ANTENNA

EXHIBIT 14

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 14A. 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 14A. 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 spunious 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

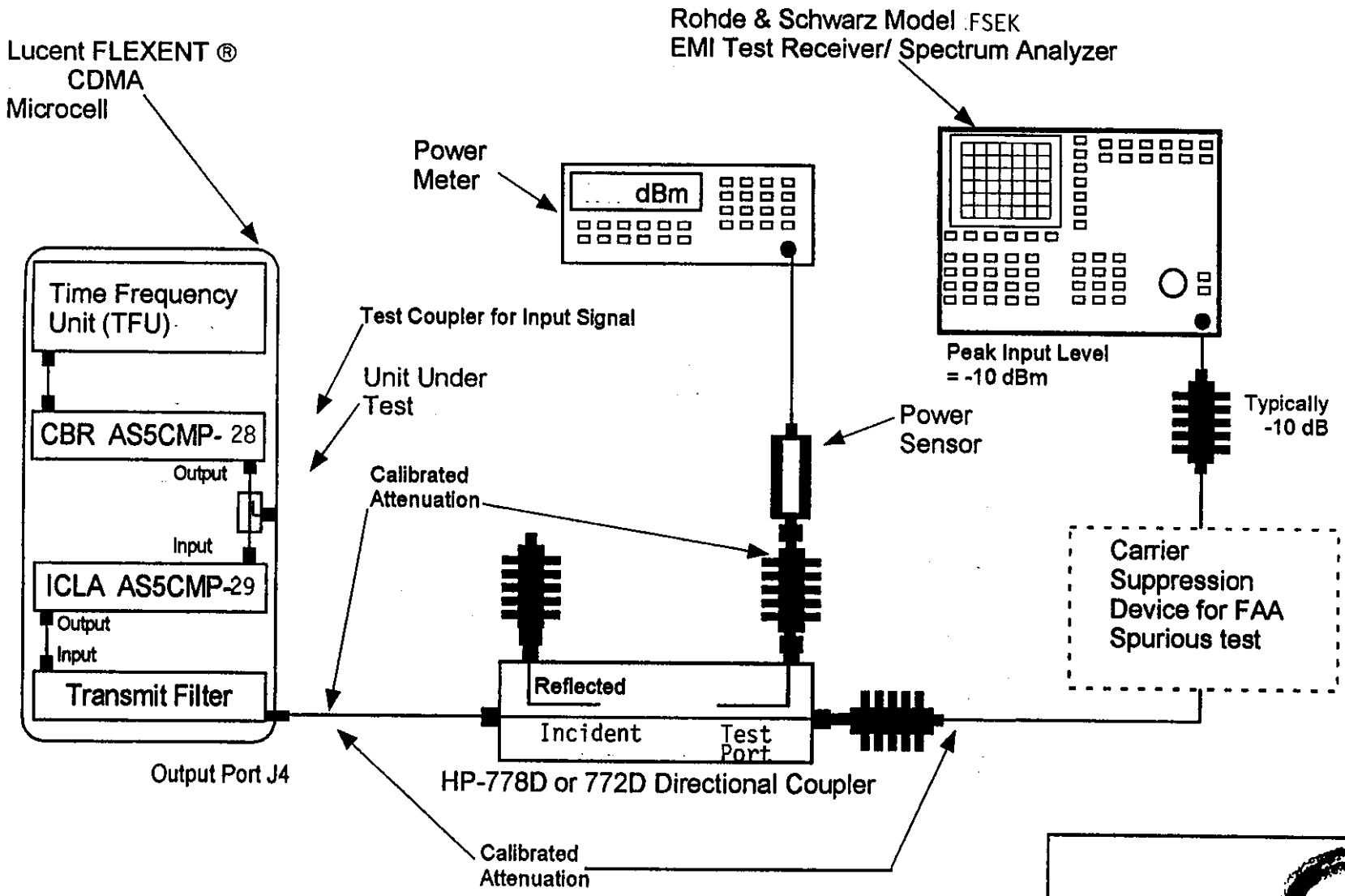
TABLE 14.1 Base Station Test Model, Nominal

RESULTS:

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

2. The spurious emissions measured at the ICLA input. The reportable measurements are equal to or greater than –33dBm. Over the spectrum investigated from 0 MHz to 10 GHz, no reportable spurious emissions were detected.

Figure 14A. Test Configuration For Conducted Spurious



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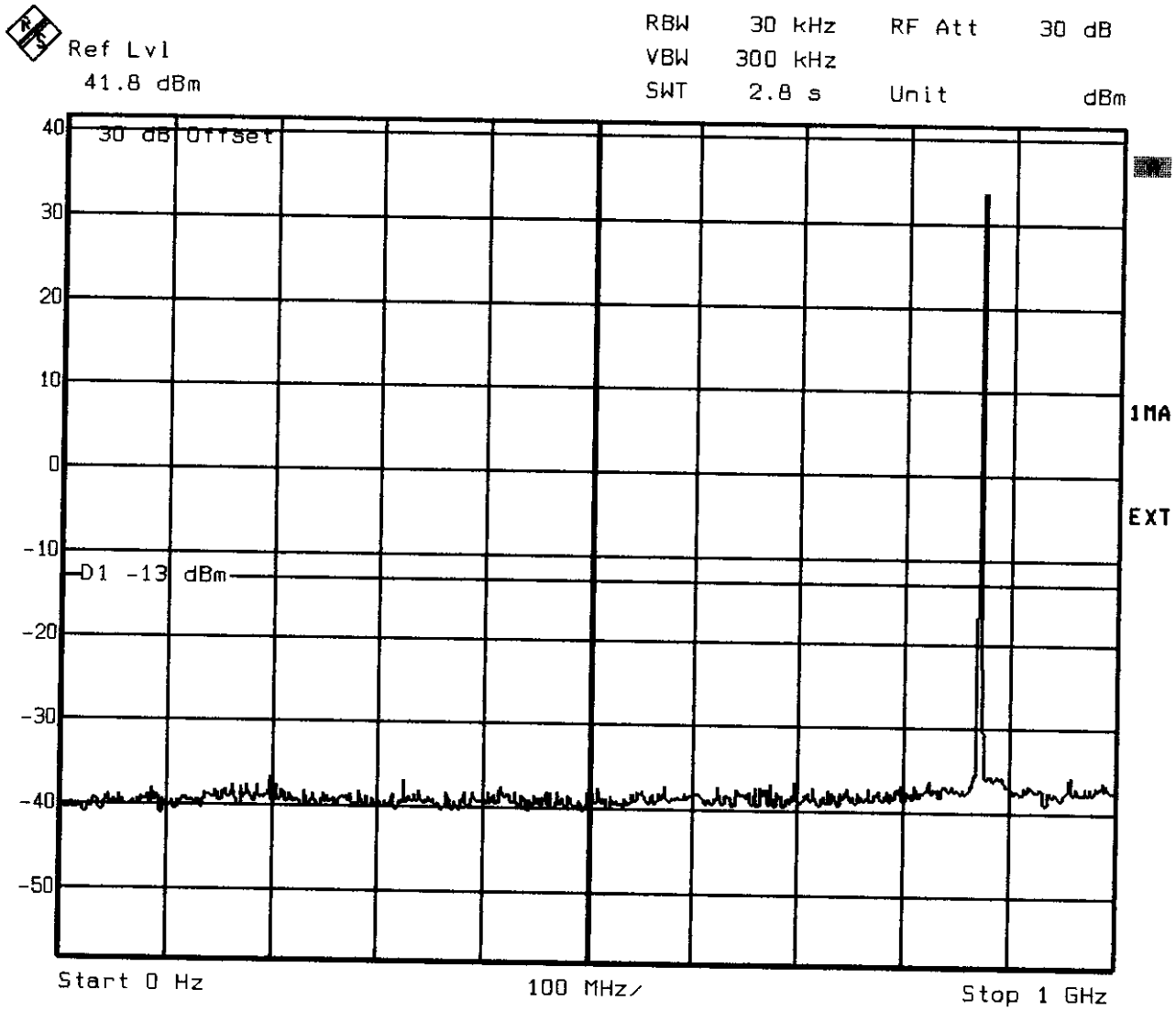
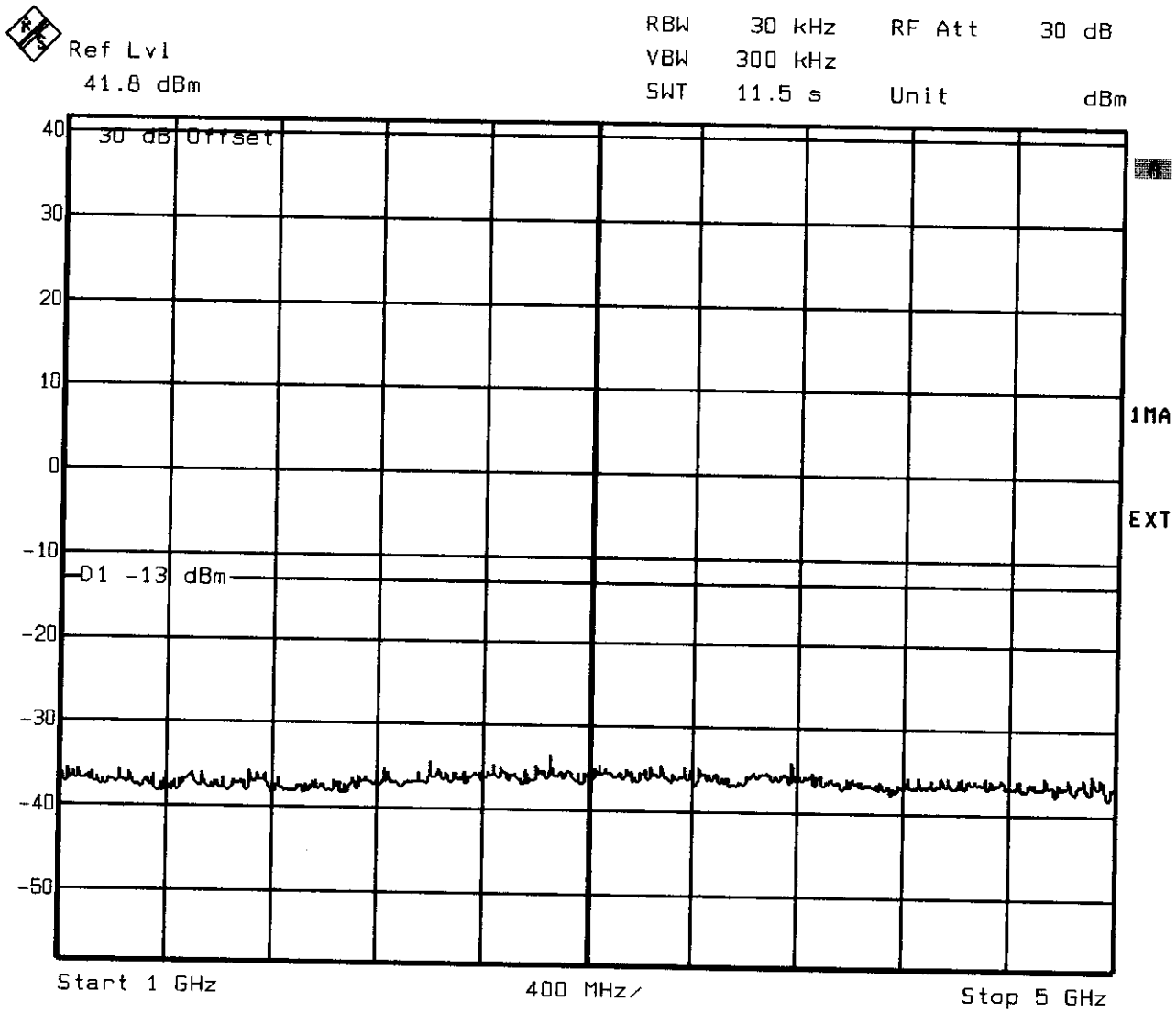
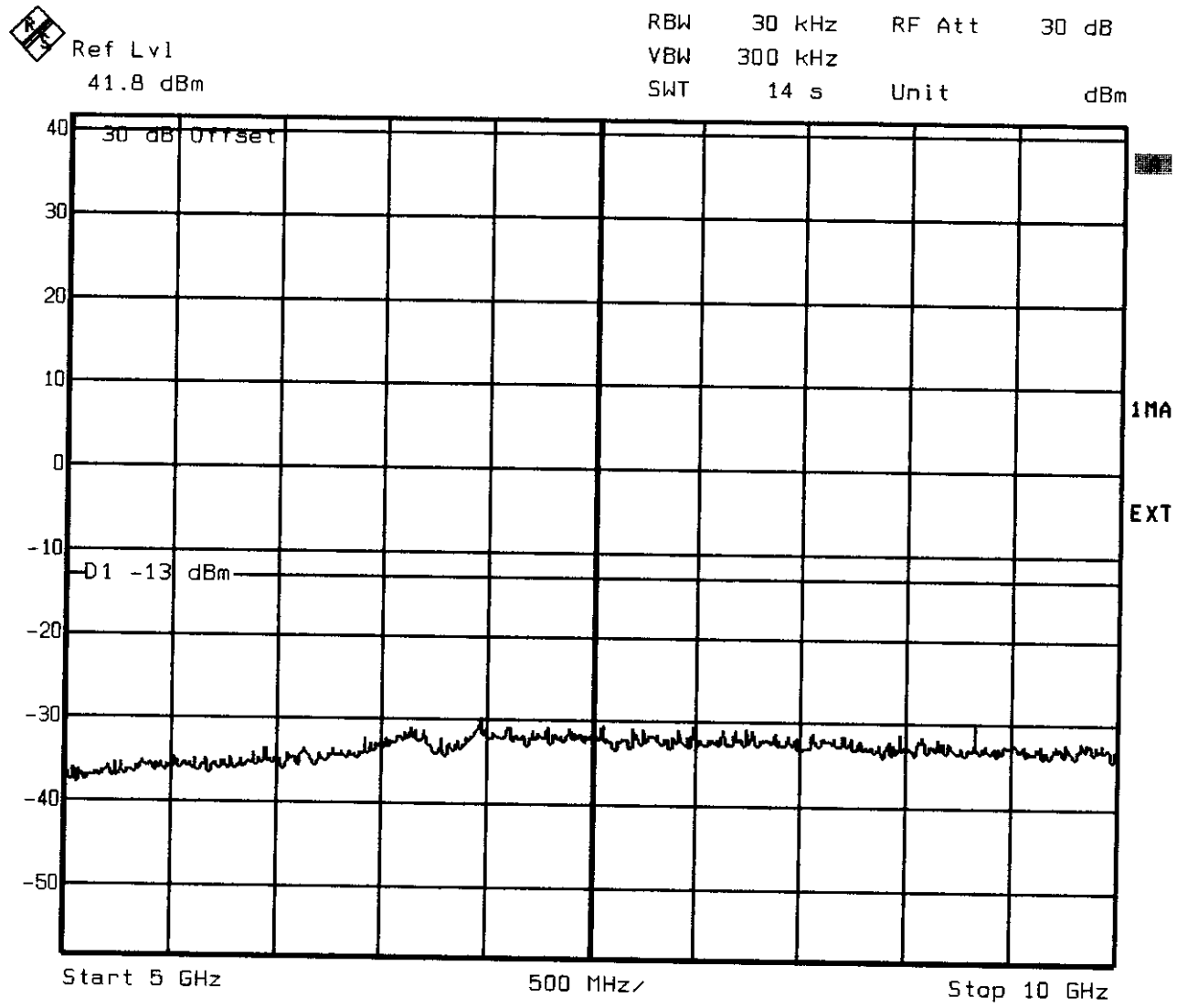
Bell Labs Innovations



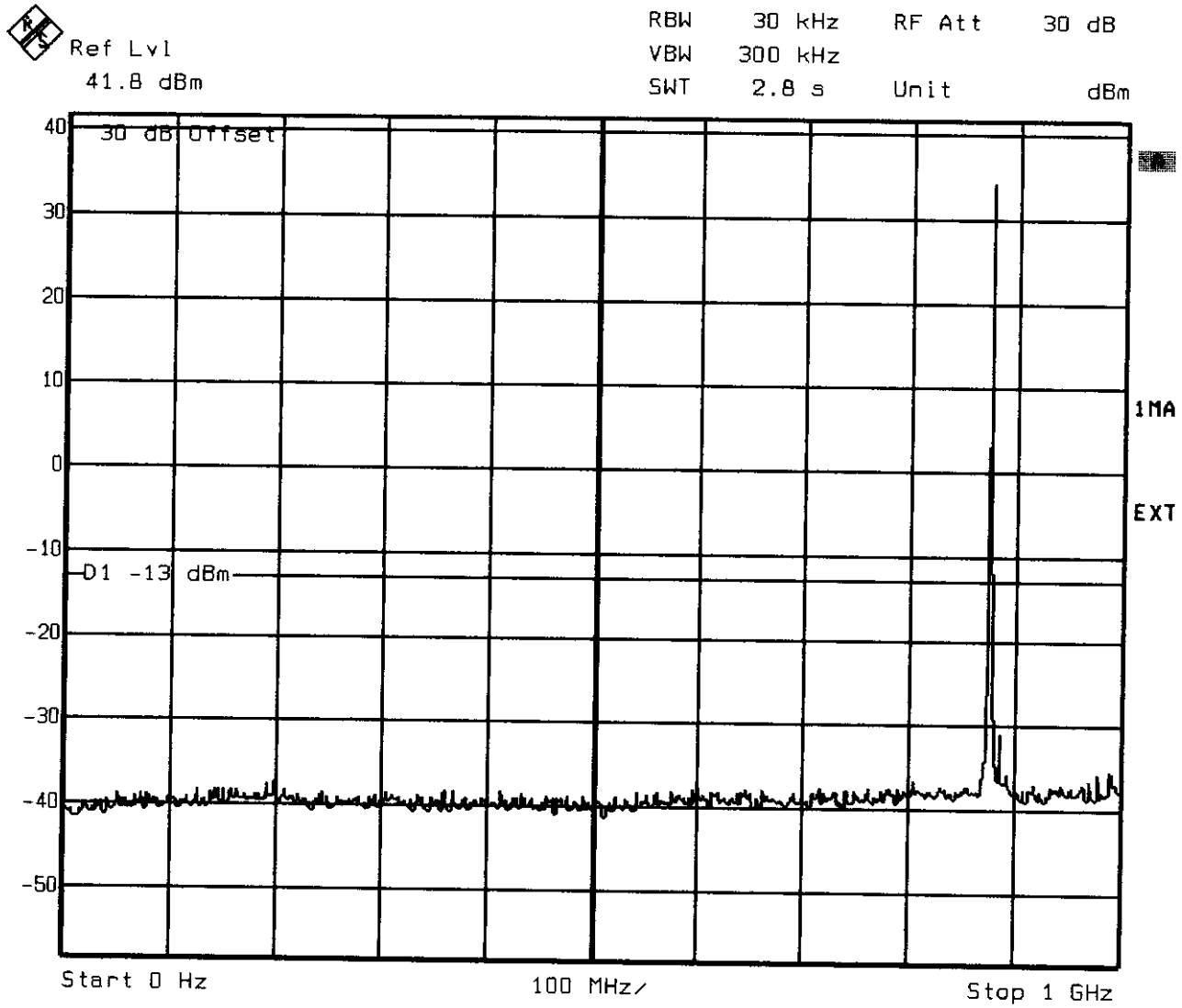
Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL: 1013. POWER 15 WATTS
Date: 10.FEB.99 18:02:15



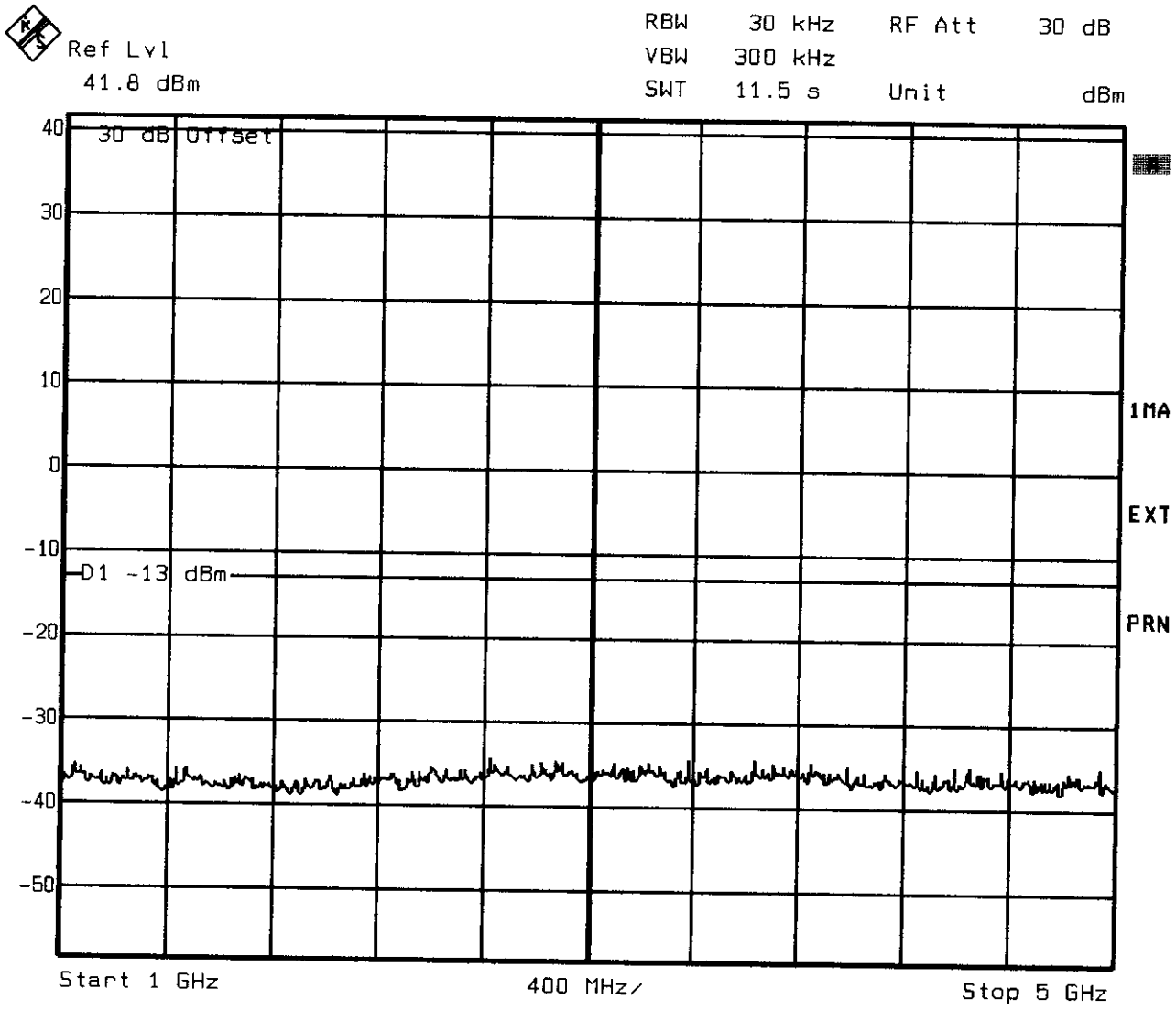
Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL: 1013. POWER 15 WATTS
Date: 10.FEB.99 18:01:21



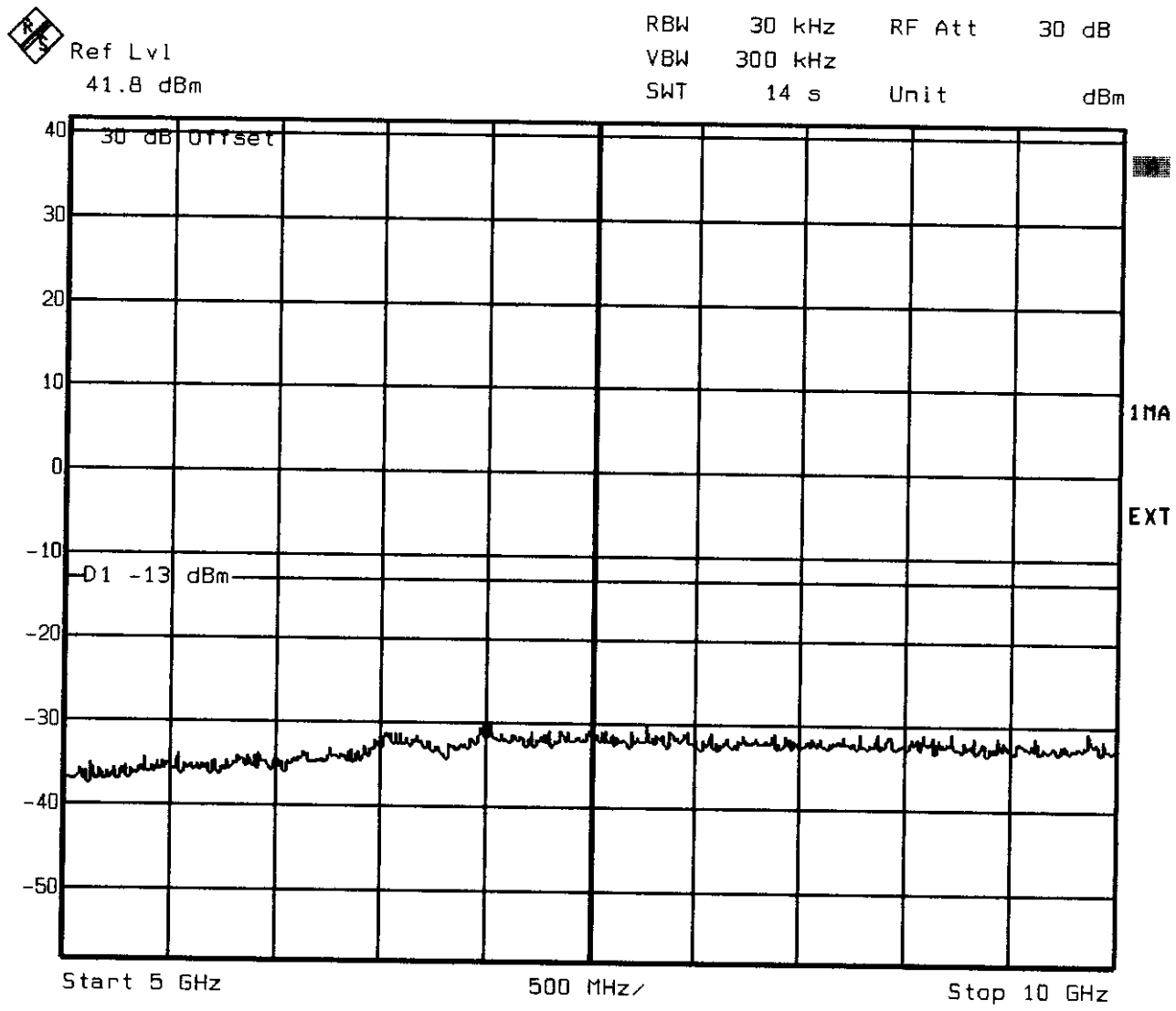
Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL: 1013. POWER 15 WATTS
Date: 10.FEB.99 18:05:11



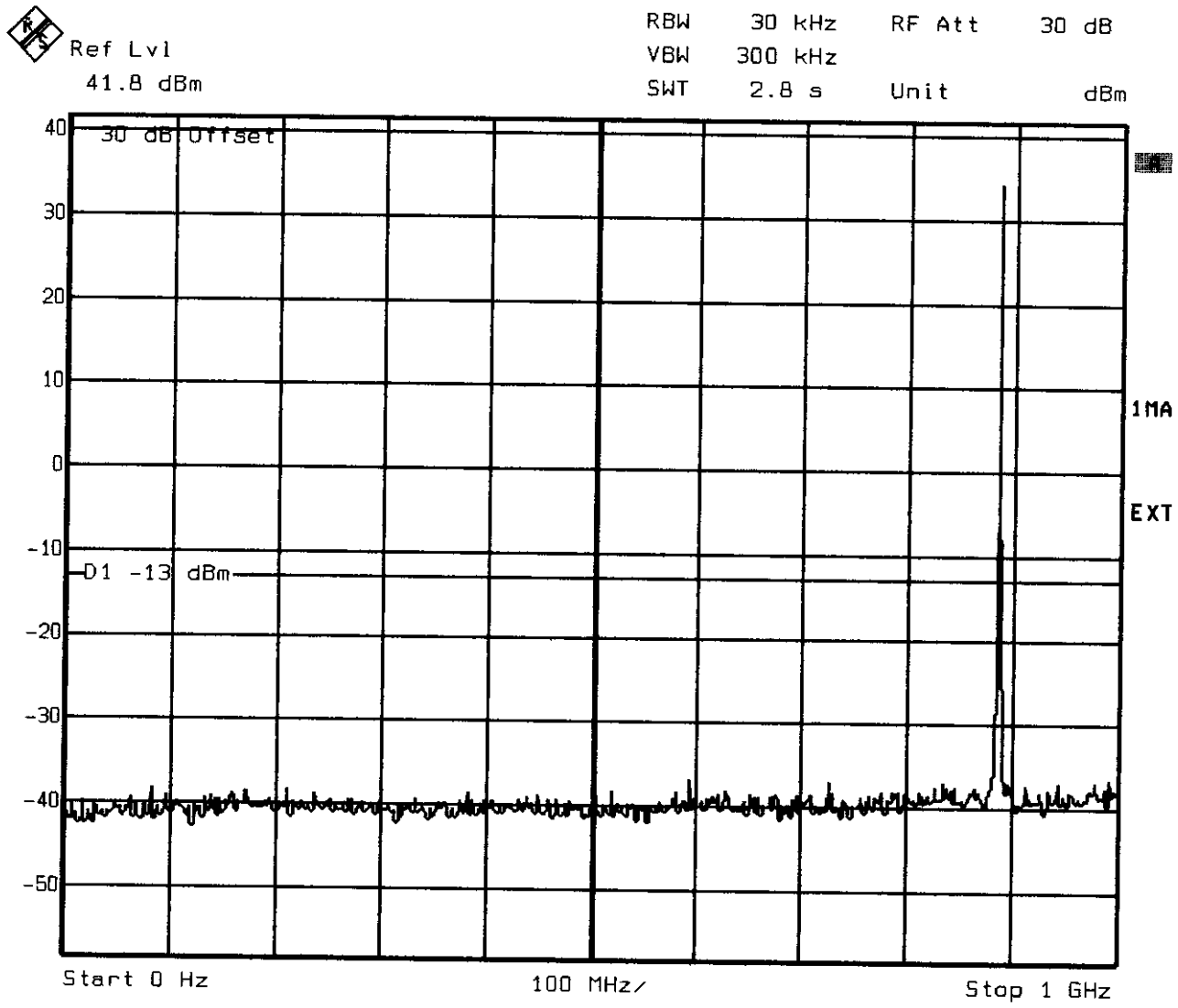
Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL:155. POWER 15 WATTS
Date: 10.FEB.99 18:07:55



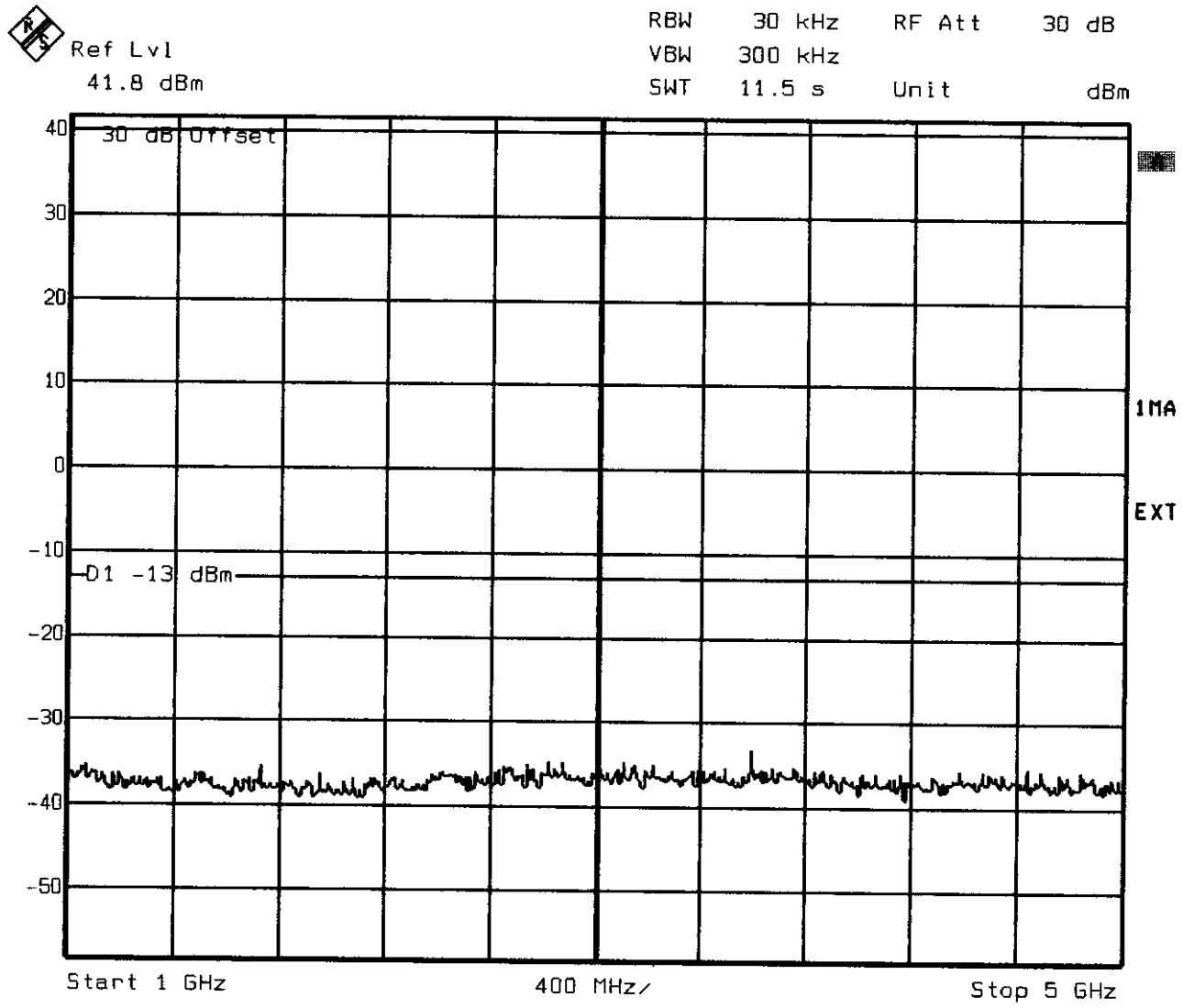
Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL:155. POWER 15 WATTS
Date: 10.FEB.99 18:08:33



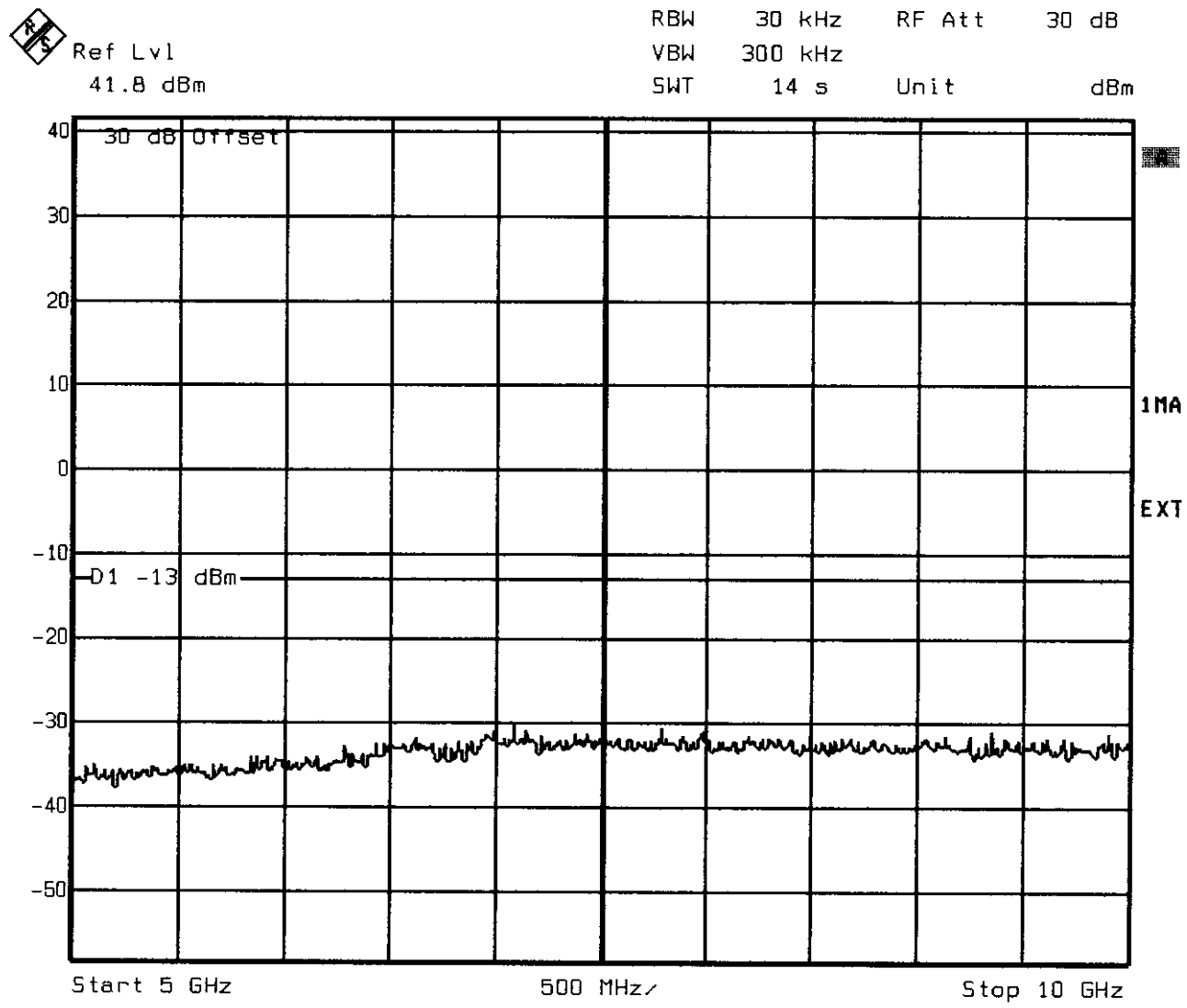
Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL:155. POWER 15 WATTS
Date: 10.FEB.99 18:09:26



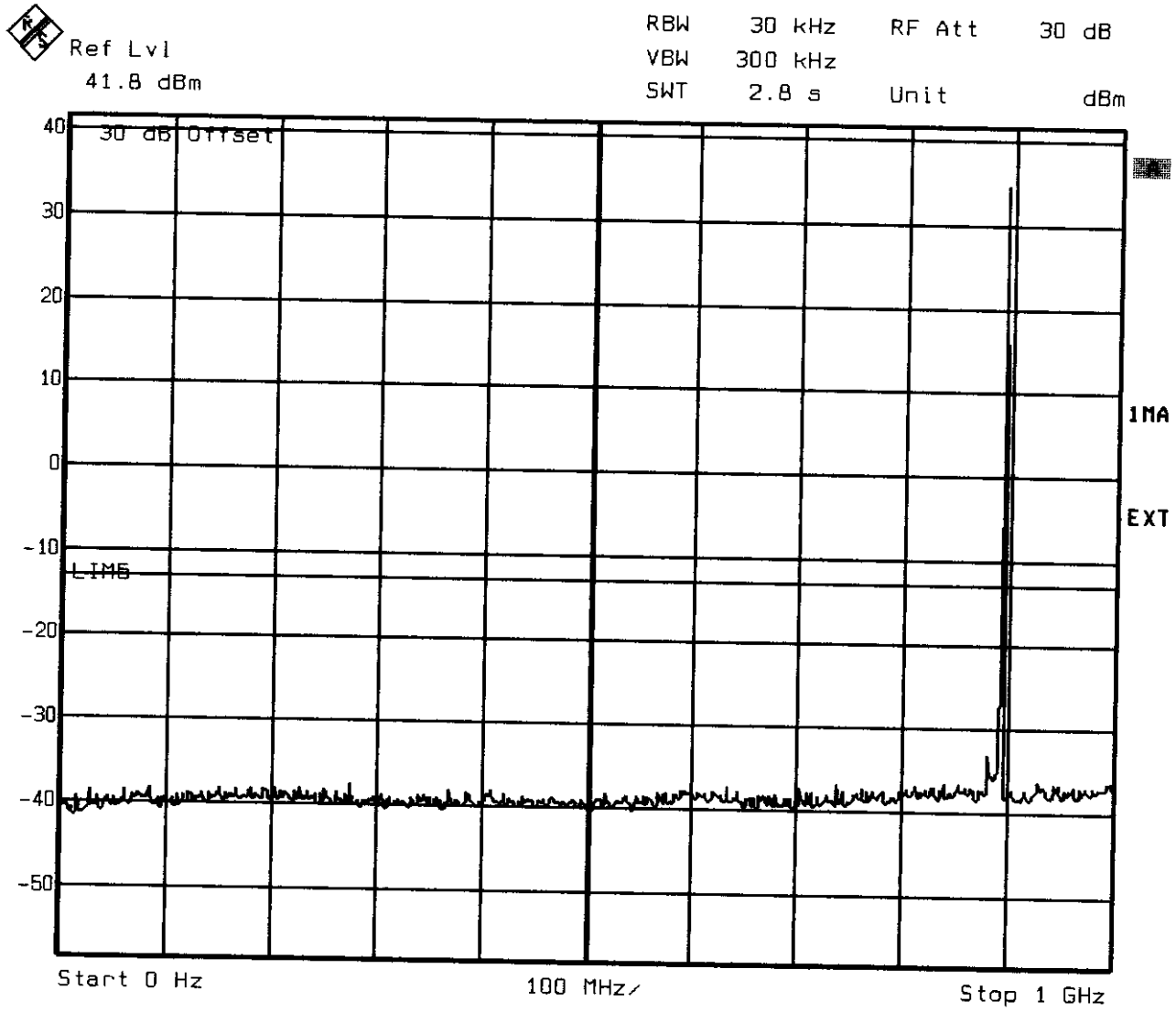
Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL: 500. POWER 15 WATTS
Date: 10.FEB.99 17:35:33



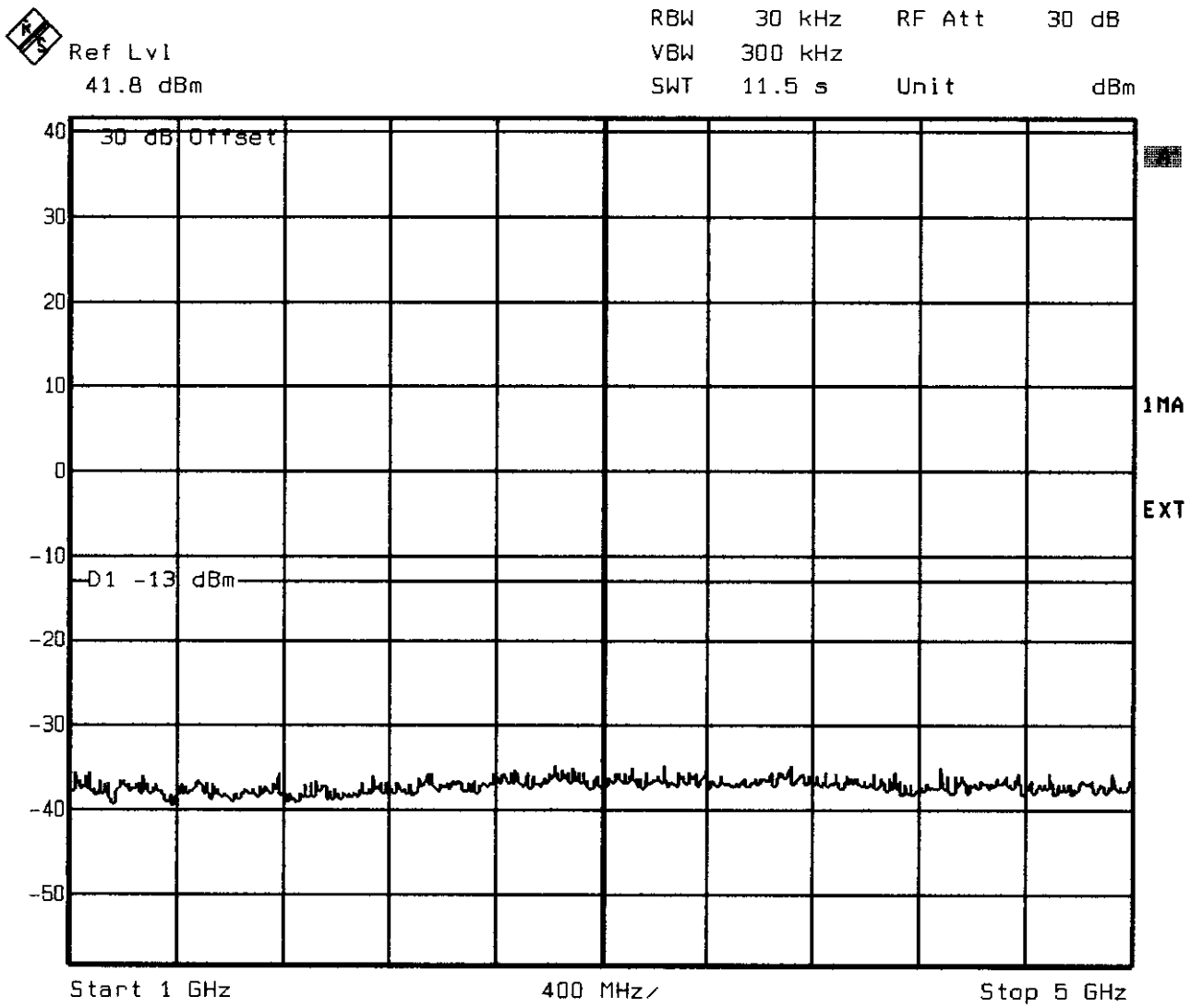
Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL: 500. POWER 15 WATTS
Date: 10.FEB.99 17:38:50



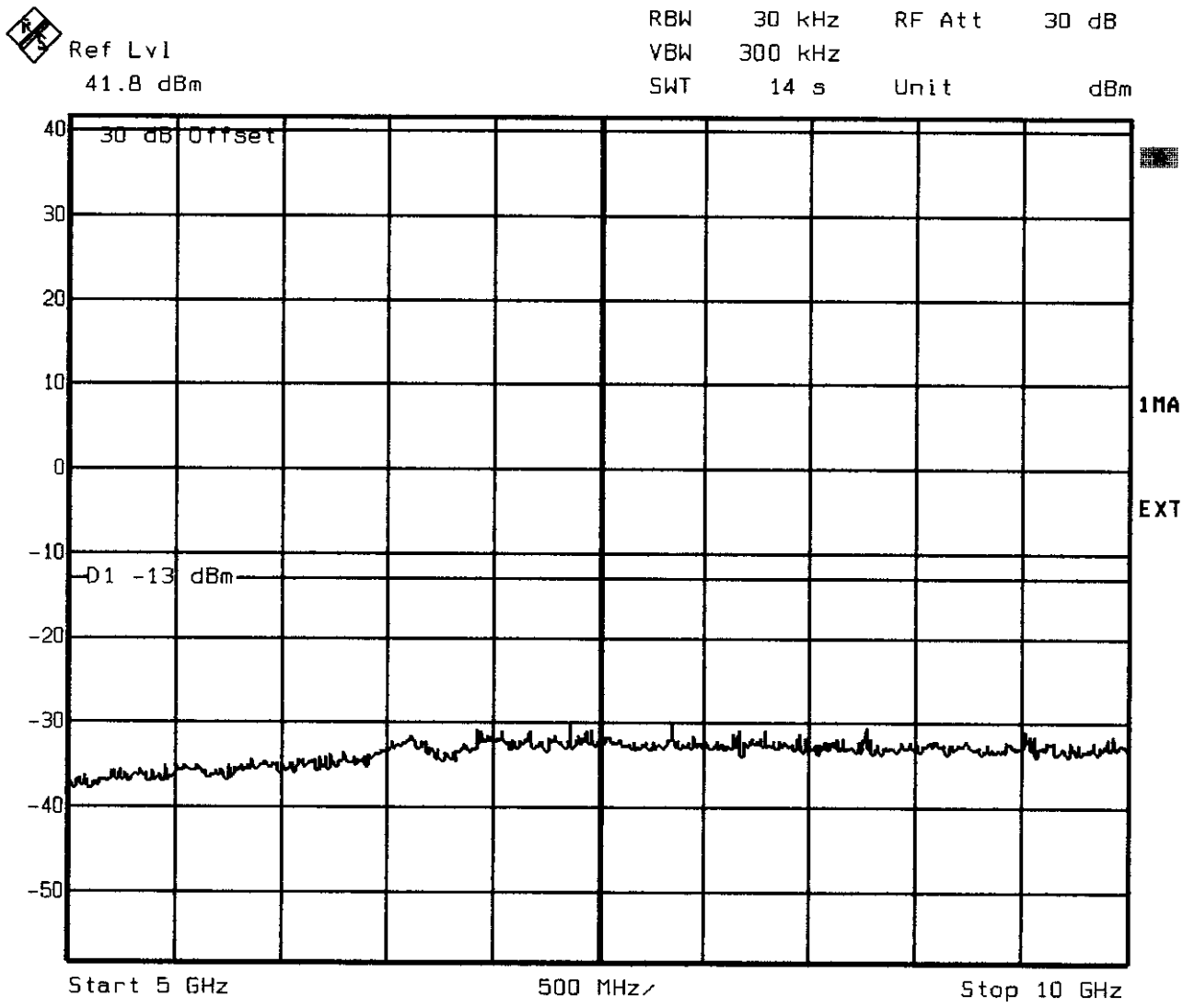
Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL: 500. POWER 15 WATTS
Date: 10.FEB.99 17:37:14



Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL: 777. POWER 15 WATTS
Date: 10.FEB.99 17:22:45



Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL: 777. POWER 15 WATTS
Date: 10.FEB.99 17:29:37



Title: SPURIOUS EMISSIONS AT TX ANT.
Comment A: FCC ID: AS5CMP-29. FLEXENT CDMA CELLULAR MICROCELL
CHANNEL: 777. POWER 15 WATTS
Date: 10.FEB.99 17:30:36

EXHIBIT 15

FIELD STRENGTH OF SPURIOUS RADIATION

EXHIBIT 15

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 **FLEXENT®** 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:

Measured level (dBμV) + Cable Loss(dB)+Antenna Factor(dB) = Field Strength (dBμV/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 dBμV/meter. Reportable measurements are equal to or greater than 53.9 dBμV/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.

EXHIBIT 16

MEASUREMENT OF FREQUENCY STABILITY

EXHIBIT 16

SECTION 2.1055

MEASUREMENT OF FREQUENCY STABILITY

RESPONSE:

The frequency stabilization and accuracy of the CDMA signal amplified by the ICLA is a function of the input signal which it is provided from the CBR (FCC ID: **AS5CMP-28**). The Time Frequency Unit (TFU) provides the time and frequency reference used by the CBR (FCC ID: **AS5CMP-28**). The TFU is highly accurate time and frequency unit which relies upon a signal lock of GPS satellite signals to provide the primary discipline of system timing. In the event of loss of GPS lock the Oscillator Module (OM) can provides up to eight hours of freewheel operation. The system provides for automatic timing synchronization upon reacquisition of GPS lock. These units are powered by an AC-DC converter with battery backup to provide immunity to power fluctuations and failures.

The following frequency stability test data for the TFU, CBR and OM was measured as installed and tested in a **FLEXENT** ® MicroCell. The entire MicroCell was subjected to the FCC specified environments while operating at full rated power. The 15 MHz reference oscillator deviations were measured. The measurement setup is depicted in Figure 16 A.

RESULTS:
The attached data documents that the worse case frequency stability over temperature and voltage was 0.0795 ppm.

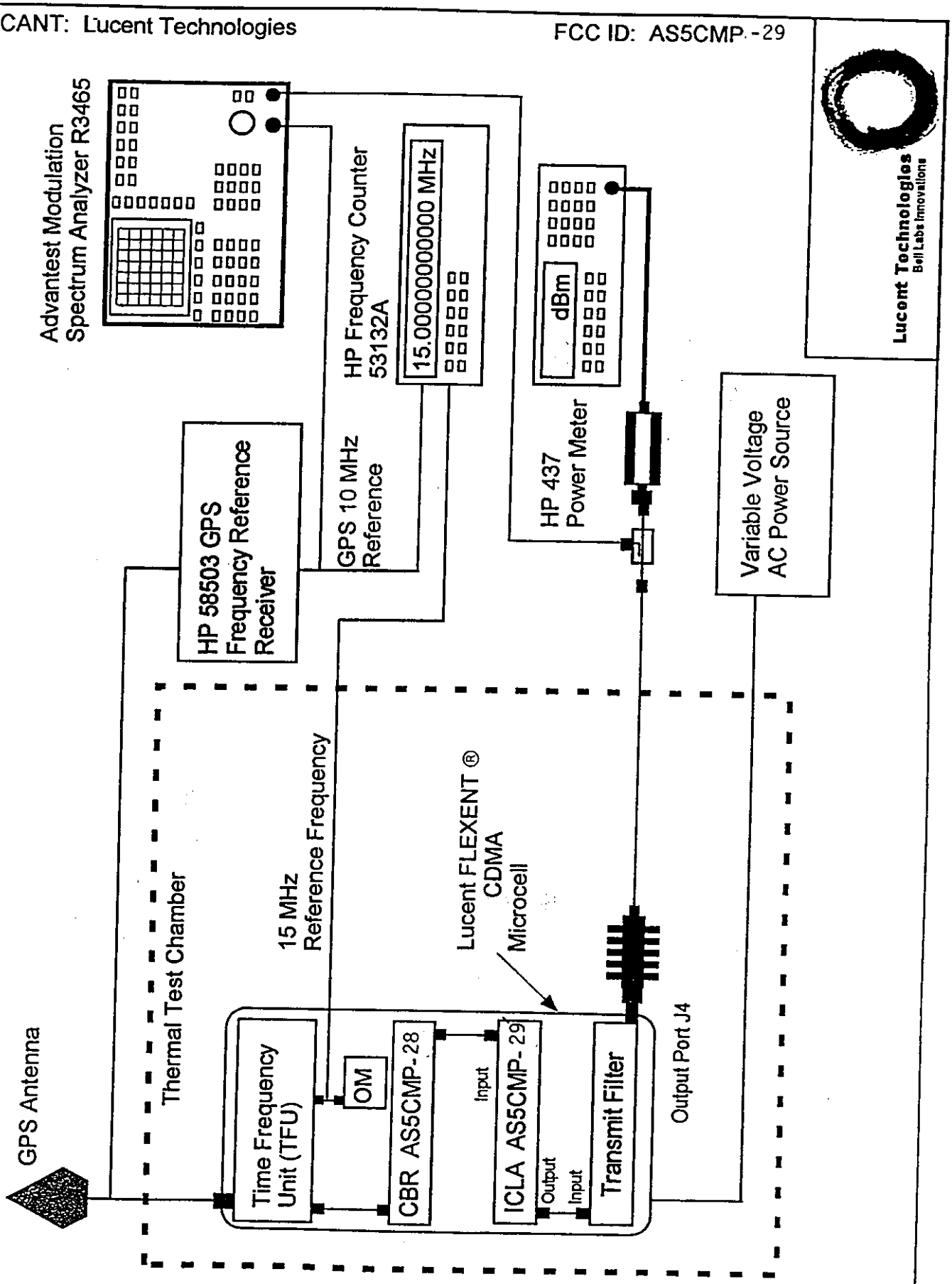


Figure 16A. Test Configuration For Frequency Stability Power Output

Measurement Frequency Stability: For Voltage and Temperature Variation.

15 MHz Reference Frequency Deviation From GPS at -40C at 115 volts

Time (minutes)	15 MHz Dev. from GPS (10^{-4} Hz)
0	-1
0.5	-3
1	-1
1.5	-3
2	-1
2.5	0
3	+3
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference Frequency Deviation From GPS at -40C over voltage range

AC Voltage	15 MHz Dev. from GPS (10^{-4} Hz)
115	-1
97	7
103	4
109	8
115	5
121	6
127	15
132	-17
265	-18
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference level Deviation from 20C = +1.42

15 MHz Reference Frequency Deviation From GPS at -30C at 115 volts

Time (minutes)	15 MHz Dev. from GPS (10^{-4} Hz)
0	-706
0.5	-702
1	-701
1.5	-793
2	-789
2.5	-792
3	-795
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference Frequency Deviation From GPS at -30C over voltage range

AC Voltage	15 MHz Dev. from GPS (10^{-4} Hz)
115	49
97	26
103	26
109	20
115	27
121	30
127	27
132	28
265	30
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference level Deviation from 20C = +1.23

15 MHz Reference Frequency Deviation From GPS at -20C at 115 volts

Time (minutes)	15 MHz Dev. from GPS (10^{-4} Hz)
0.5	-105
1	-104
1.5	-49
2	-47
2.5	-43
3	-50
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference Frequency Deviation From GPS at -20C over voltage range

AC Voltage	15 MHz Dev. from GPS (10^{-4} Hz)
115	-64
97	-21
103	-28
109	-29
115	-32
121	-26
127	-24
132	-22
265	-20
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference level Deviation from 20C = +1.3 dB.

15 MHz Reference Frequency Deviation From GPS at -10C at 115 volts

Time (minutes)	15 MHz Dev. from GPS (10^{-4} Hz)
0	-13
0.5	-13
1	-12
1.5	-15
2	-13
2.5	-19
3	-13
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference Frequency Deviation From GPS at -10C over voltage range

AC Voltage	15 MHz Dev. from GPS (10^{-4} Hz)
115	-13
97	-13
103	-16
109	-9
115	-11
121	-7
127	-10
132	-9
265	-13
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference level Deviation from 20C = +1.21 dB

15 MHz Reference Frequency Deviation From GPS at 0C at 115 volts

Time (minutes)	15 MHz Dev. from GPS (10^{-4} Hz)
0	-21
0.5	-22
1	-23
1.5	-23
2	-19
2.5	-17
3	-19
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference Frequency Deviation From GPS at 0C over voltage range

AC Voltage	15 MHz Dev. from GPS (10^{-4} Hz)
115	-18
97	-19
103	-20
109	-29
115	-27
121	-23
127	-24
132	-28
265	-26
SPECIFICATION	+/-100,000
RESULT	PASS

Ref level deviation from 20C = +1.07 dB

15 MHz Reference Frequency Deviation From GPS at +10C at 115 volts

Time (minutes)	15 MHz Dev. from GPS (10^{-4} Hz)
0	94
0.5	72
1	75
1.5	76
2	79
2.5	80
3	77
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference Frequency Deviation From GPS at +10C over voltage range

AC Voltage	15 MHz Dev. from GPS (10^{-4} Hz)
115	40
97	47
103	52
109	50
115	50
121	55
127	49
132	46
265	45
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference level deviation from 20C = +0.8 dB

15 MHz Reference Frequency Deviation From GPS at +20C at 115 volts

Time (minutes)	15 MHz Dev. from GPS (10^{-4} Hz)
0	286
0.5	254
1	317
1.5	308
2	325
2.5	315
3	340
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference Frequency Deviation From GPS at +20C over voltage range

AC Voltage	15 MHz Dev. from GPS (10^{-4} Hz)
115	315
97	371
103	320
109	335
115	291
121	342
127	126
132	330
265	301
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference deviation from 20C = 0 dB

15 MHz Reference Frequency Deviation From GPS at +30C at 115 volts

Time (minutes)	15 MHz Dev. from GPS (10^{-4} Hz)
0	-82
0.5	-86
1	-85
1.5	-88
2	-87
2.5	-86
3	-82
SPECIFICATION	+/-100,000
RESULT	PASS

h

15 MHz Reference Frequency Deviation From GPS at +30C over voltage range

AC Voltage (minutes)	15 MHz Dev. from GPS (10^{-4} Hz)
115	-67
97	-71
103	-69
109	-75
115	-78
121	-76
127	-72
132	-67
265	-65
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference level deviation from 20C = -0.6dB

15 MHz Reference Frequency Deviation From GPS at +40C at 115 volts

Time (minutes)	15 MHz Dev. from GPS (10^{-4} Hz)
0	-4
0.5	0
1	-4
1.5	-6
2	-8
2.5	-3
3	-6
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference Frequency Deviation From GPS at +40C over voltage range

AC Voltage (minutes)	15 MHz Dev. from GPS (10^{-4} Hz)
115	-7
97	-3
103	-4
109	-11
115	-13
121	-10
127	-10
132	-10
265	-6
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference level deviation from 20C = -1.2 dB

15 MHz Reference Frequency Deviation From GPS at 50C at 115 volts

Time (minutes)	15 MHz Dev. from GPS (10^{-4} Hz)
0	-9
0.5	-10
1	-11
1.5	-10
2	-6
2.5	-9
3	-6
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference Frequency Deviation From GPS at +50C over voltage range

AC Voltage	15 MHz Dev. from GPS (10^{-4} Hz)
115	-6
97	-8
103	-10
109	-9
115	-12
121	-17
127	-19
132	-25
265	-19
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference level deviation from 20C = -1.6 dB

Upon Return to +20C

15 MHz Reference Frequency Deviation From GPS at +20C at 115 volts	
Time (minutes)	15 MHz Dev. from GPS (10^{-4} Hz)
0.5	182
1	181
1.5	185
2	182
2.5	182
3	184
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference Frequency Deviation From GPS at +20C over voltage range	
AC Voltage (minutes)	15 MHz Dev. from GPS (10^{-4} Hz)
115	183
97	177
103	173
109	176
115	179
121	181
127	176
132	175
265	181
SPECIFICATION	+/-100,000
RESULT	PASS

15 MHz Reference level deviation from 20C Baseline = -0.3 dB

EXHIBIT 17

FREQUENCY SPECTRUM TO BE INVESTIGATED

EXHIBIT 17

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.