

LISTING OF REQUIRED MEASUREMENTS
SECTION 2.1033 (c) (14)

MEASUREMENT OF DC POWER
SECTION 2.1033 (c) (8)

Measurement of DC Power

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 PA outputs 43.8 dBm max at J4 connector. It has the following voltage and maximum current.

Overall PA	+28VDC	@9.0A max.
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Final Output Transistor: It has two final stage Transistors in parallel.

The final state output transistors each draw 3.5 A @ 28V.

Measurement: 1

**MEASUREMENT OF RADIO FREQUENCY
POWER OUTPUT**

Section 2.1046

SECTION 2.1046

Measurement: 1

MEASUREMENT OF RADIO FREQUENCY POWER OUTPUT

The test arrangements used to measure the radio frequency power output of the Power Amplifier (PA) FCC ID: **AS5CMP-42**, is on the following page. Measurements were made respectively at each frequency where occupied Bandwidth measurements are to be performed. The use of the PA is for a single CDMA carrier. This requires that the RF power output level at J4 connector be calibrated for the specific channel of use. The test configuration, Figure 1A, allowed the measurement of RF output power for each channel investigated for Occupied Bandwidth. These included the upper, and lower band edges and at the center channels for 15MHz wide frequency blocks and upper, and lower band edge channels for 5 MHz wide frequency blocks. The TIA/EIA-97-C channel allocations are listed below:

TIA/EIA-97-C channel allocation consists of following channel Blocks:

Block	Frequency Bands Per FCC 24.229 MHz	Valid CDMA Channel s & Frequency Range	
		Channel No.	MHz
A (15 MHz)	1930.000 – 1945.000	25 – 275	1931.250 – 1943.750
D (5 MHz)	1945.000 – 1950.000	325 – 375	1946.250 – 1948.750
B (15 MHz)	1950.000 – 1965.000	425 – 675	1951.250 – 1963.750
E (5 MHz)	1965.000 – 1970.000	725 – 775	1966.250 – 1968.750
F (5 MHz)	1970.000 – 1975.000	825 – 875	1971.250 – 1973.750
C (15 MHz)	1975.000 – 1990.000	925 - 1175	1976.250 – 1988.750

The edge channels are 25 and 1175.

The PA has a maximum RF power output of 24 Watts (43.8dBm) +2/-4 dB, it also has a minimum power output at the antenna terminals of 0.0002 Watts (-8 dBm) +2/-4 dB, across the PCS band (1930-1990 MHz). The signal applied to the PA is defined in Table 1.1. The power was reset to 43.8 dBm at each measurement frequency to verify the spectral performance at that power level. The attenuation range was also verified. The specific Frequencies and channels and set power level was documented on each “Occupied Bandwidth” sheet. (see Measurement-3)

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

TEST SETUP FOR MEASUREMENT OF RADIO FREQUENCY POWER OUTPUT

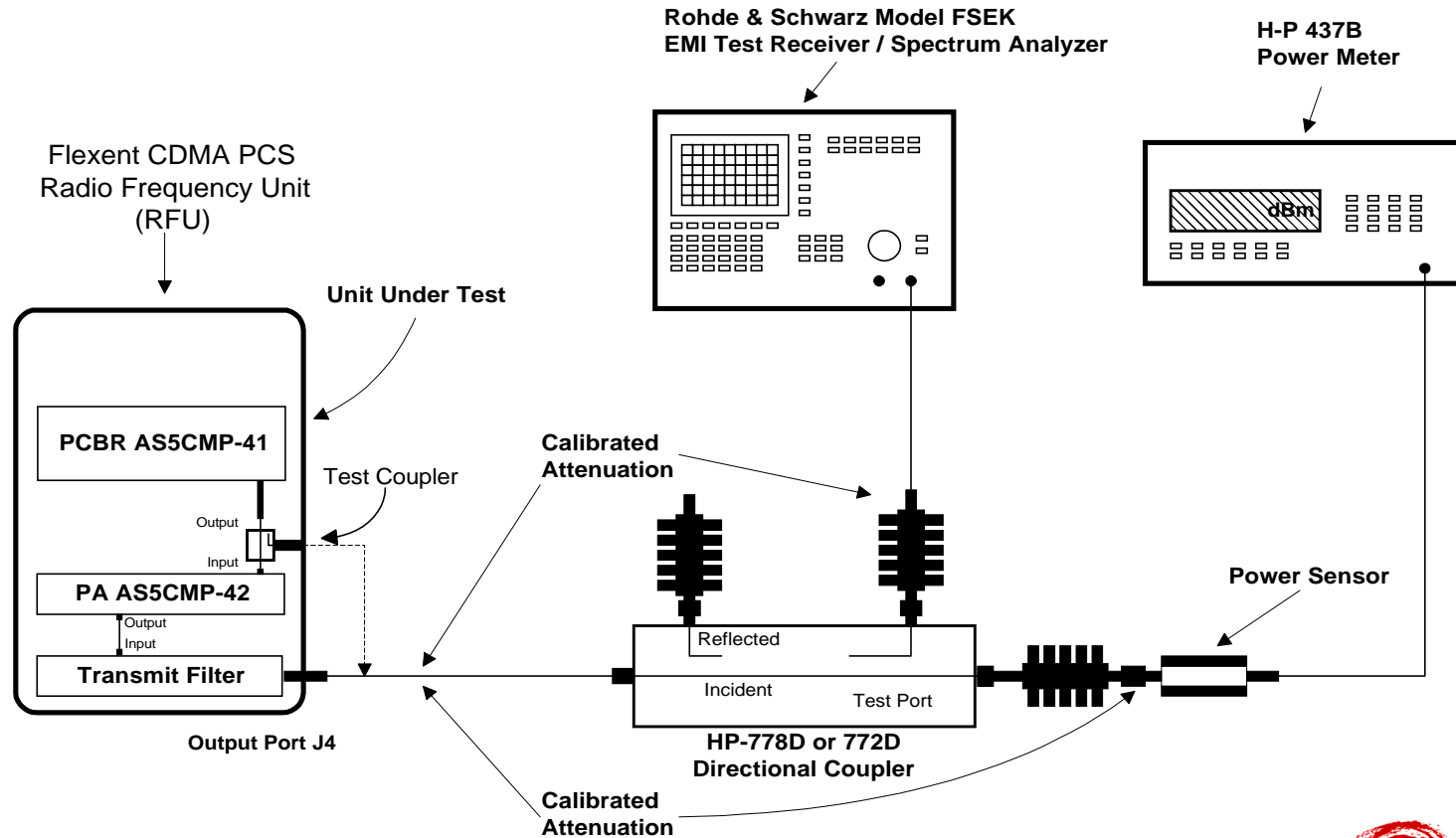
EQUIPMENT:

BBU: Baseband Unit
PCBR: Predistortion CDMA Baseband Radio (1900) (FCCID:AS5CMP-41)
PA Power Amplifier (ICLA) (FCCID: AS5CMP-42)
Transmit Filter: PCS 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 PA was configured in the test setup shown in Figure 1A. For each of the PCS channels tested the PA delivered a 43.8 dBm when measured at the RF output connection. This data is recorded on the Occupied Bandwidth Data Sheets (see Measurement : 3).

Figure 1A. TEST CONFIGURATION FOR RF POWER OUTPUT



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APPLICANT: Lucent Technologies

FCC ID: AS5CMP - 42

All components are calibrated over the frequency range of interest

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**MEASUREMENT OF MODULATION
CHARACTERISTICS**
SECTION 2.1047

MEASUREMENT OF MODULATION CHARACTERISTICS

SECTION 2.1047

RESPONSE:

The modulation characteristics and accuracy of the PA are a function of the input signal which is provided by the Predistortion CDMA Baseband Radio (**PCBR**) **FCC ID: AS5CMP-41** co-filed with this submittal.

Measurement: 3

MEASUREMENT OF OCCUPIED BANDWIDTH
SECTION 2.1049

SECTION 2.1049

MEASUREMENT: 3

MEASUREMENT OF OCCUPIED BANDWIDTH

The occupied bandwidth of the FCC ID: **AS5CMP-42** Power Amplifier (PA) was measured using a Rohde & Schwarz FSEK Spectrum Analyzer and a 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 dB level corresponding to the corrected RF power level for a 30 kHz resolution bandwidth. The reference-line on the spectrum analyzer display corresponds to level measured by the RF power meter.

Occupied Bandwidth plots show measurements made at J4 connector antenna terminals a RF power output of 24 watts and at the terminals of PA input. The PCBR (FCC ID: AS5CMP-41 output level of 8.5 dBm approximately required to generate 24 watts power.

Table 3.1 TIA/EIA-97-C channel allocation consists of following channel Blocks:

Block	Frequency Bands Per FCC 24.229 MHz	Valid CDMA Channels & Frequency Range	
		Channel No.	MHz
A (15 MHz)	1930.000 – 1945.000	25 – 275	1931.250 – 1943.750
D (5 MHz)	1945.000 – 1950.000	325 – 375	1946.250 – 1948.750
B (15 MHz)	1950.000 – 1965.000	425 – 675	1951.250 – 1963.750
E (5 MHz)	1965.000 – 1970.000	725 – 775	1966.250 – 1968.750
F (5 MHz)	1970.000 – 1975.000	825 – 875	1971.250 – 1973.750
C (15 MHz)	1975.000 – 1990.000	925 - 1175	1976.250 – 1988.750

The edge channels are 25 and 1175.

The frequencies and channels used for measurements are tabulated on the bottom of each plot. The PA input and output signal levels are plotted at each frequency blocks/bands. The PA input levels are shown as Measurement-3A and output levels as Measurement-3B. Plots are provided for Left Edge, Center and Right Edge of PCS bands A, B and C (Blocks of 15 MHz wide). Plots are also provided for Left Edge, and Right Edge of PCS bands D, E and F (Blocks of 5 MHz wide). These frequencies were chosen to show the occupied bandwidth in the channels in each of the PCS bands in which this radio can be operated, in compliance with Section 24.229 and 24.238 (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 TIA/EIA-97-C. The PA 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

The minimum standard presented in TIA/EIA-97-C.

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

For all frequencies within the base station transmit band of 1930 to 1990 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 885 kHz for the CDMA channel center frequency shall not exceed a level of -45 dBc....

The spectrum analyzer output plots show the CDMA channel signal is 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. The CDMA transmit bandwidth is 1.23 MHz. Since spectrum analyzer does not have Resolution Bandwidth setting for 1.23 MHz, the following relationship was used to provide the correct level.

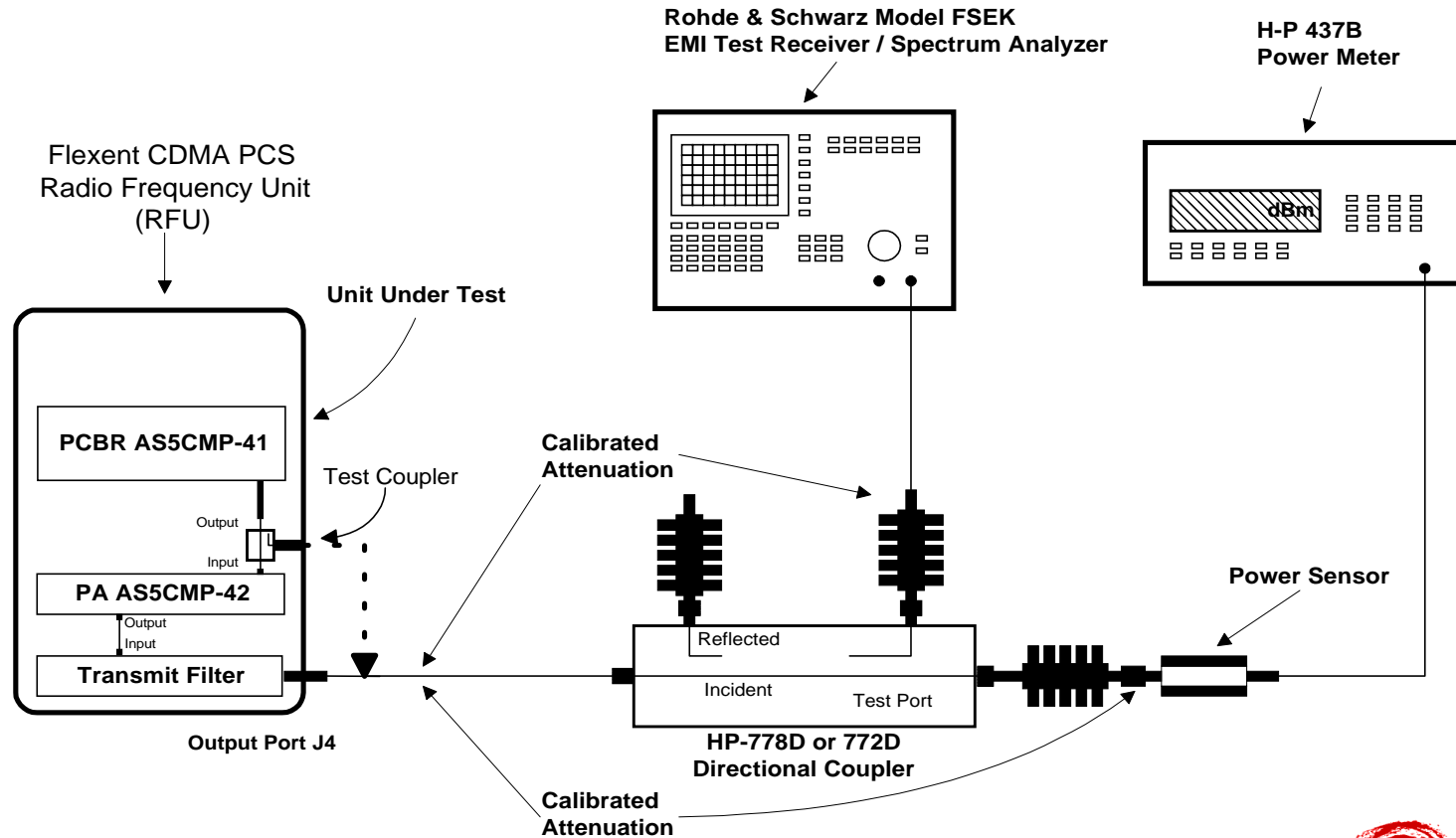
$$10 \cdot \log (\text{Resolution Bandwidth} / \text{Transmit Bandwidth}) = \text{Signal Offset}$$

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

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

Figure 3A. TEST CONFIGURATION FOR MEASUREMENT OF OCCUPIED BANDWIDTH

APPLICANT: Lucent Technologies



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All components are calibrated over the frequency range of interest

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FCC ID: AS5CMP - 42

Measurement –3A

OCCUPIED BANDWIDTH

PA INPUT

BLOCK A

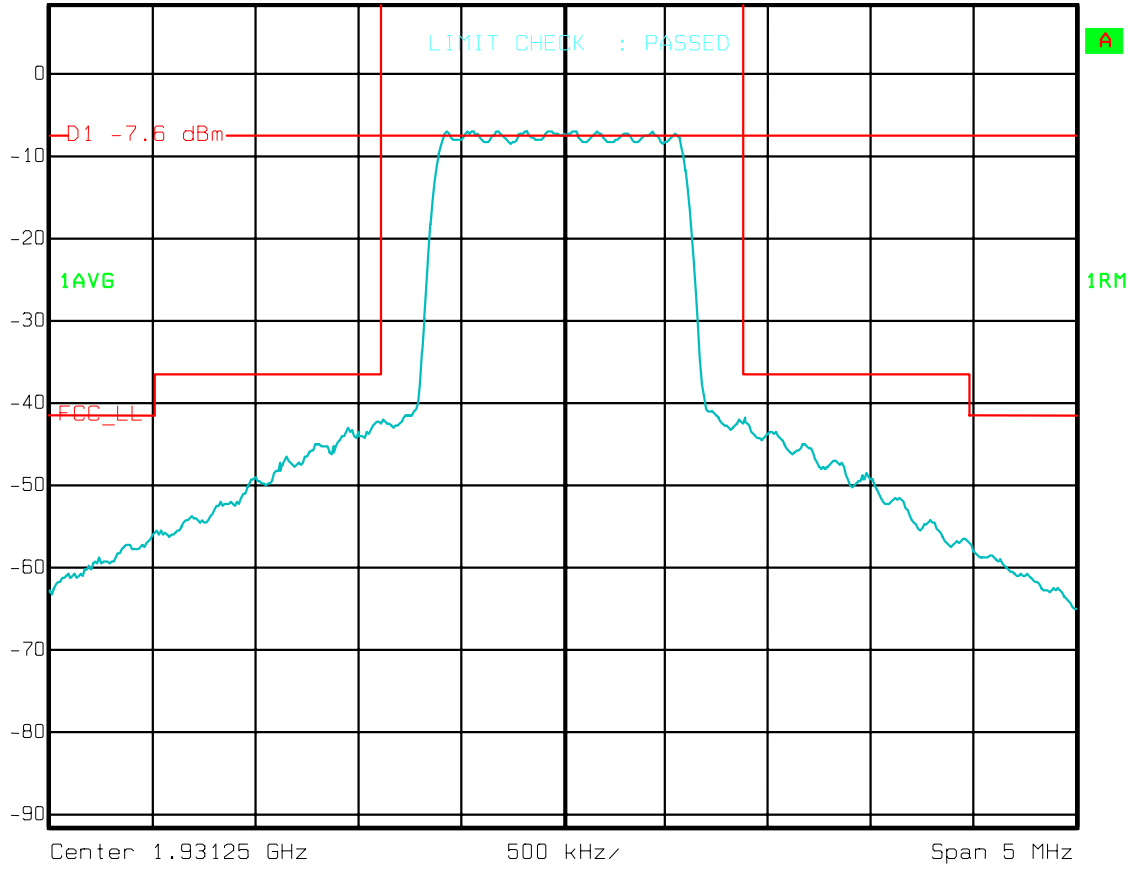
(1930 - 1945 MHz)

Left Edge:	1931.25 MHz	(Channel 25)
Center:	1937.50 MHz	(Channel 150)
Right Edge:	1943.75 MHz	(Channel 275)



Ref Lvl
8.5 dBm

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

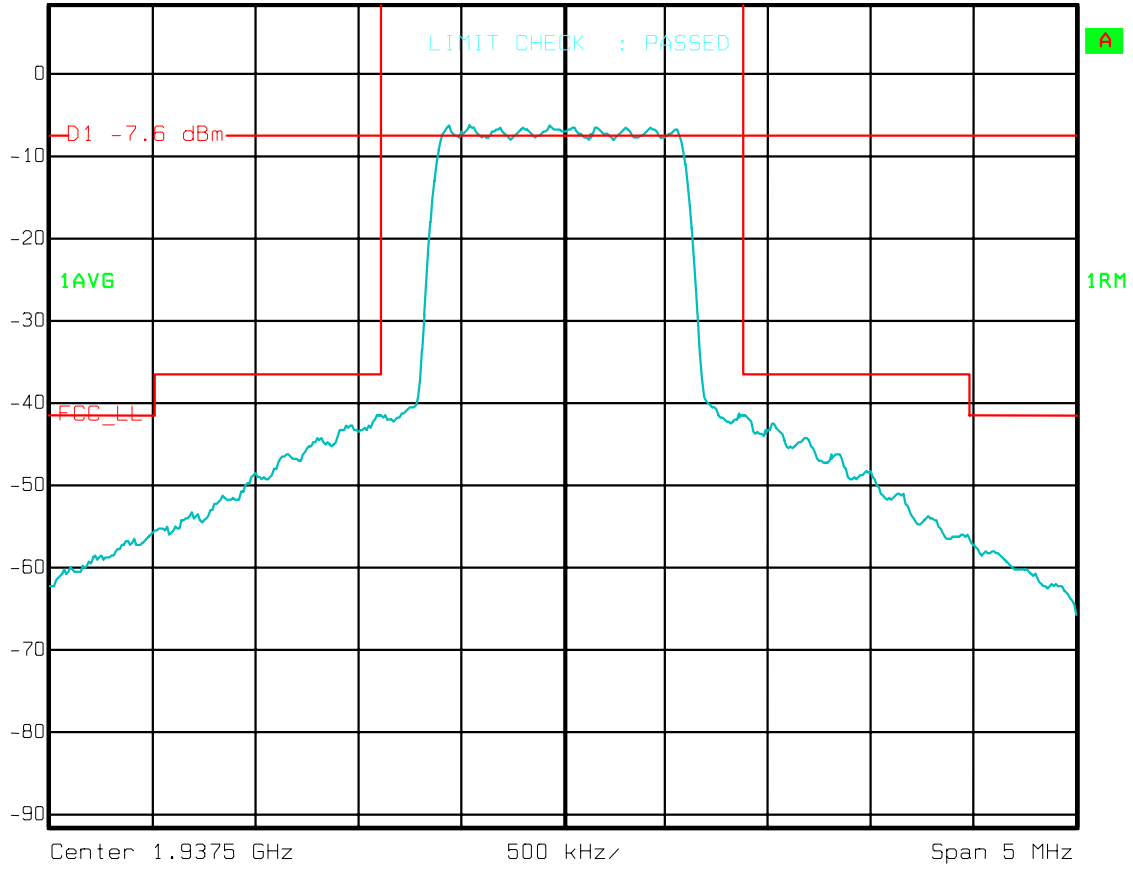


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 25, PCBR OUTPUT = 8.5 W
Date: 8.FEB.2001 9:22:40



Ref Lvl
8.5 dBm

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

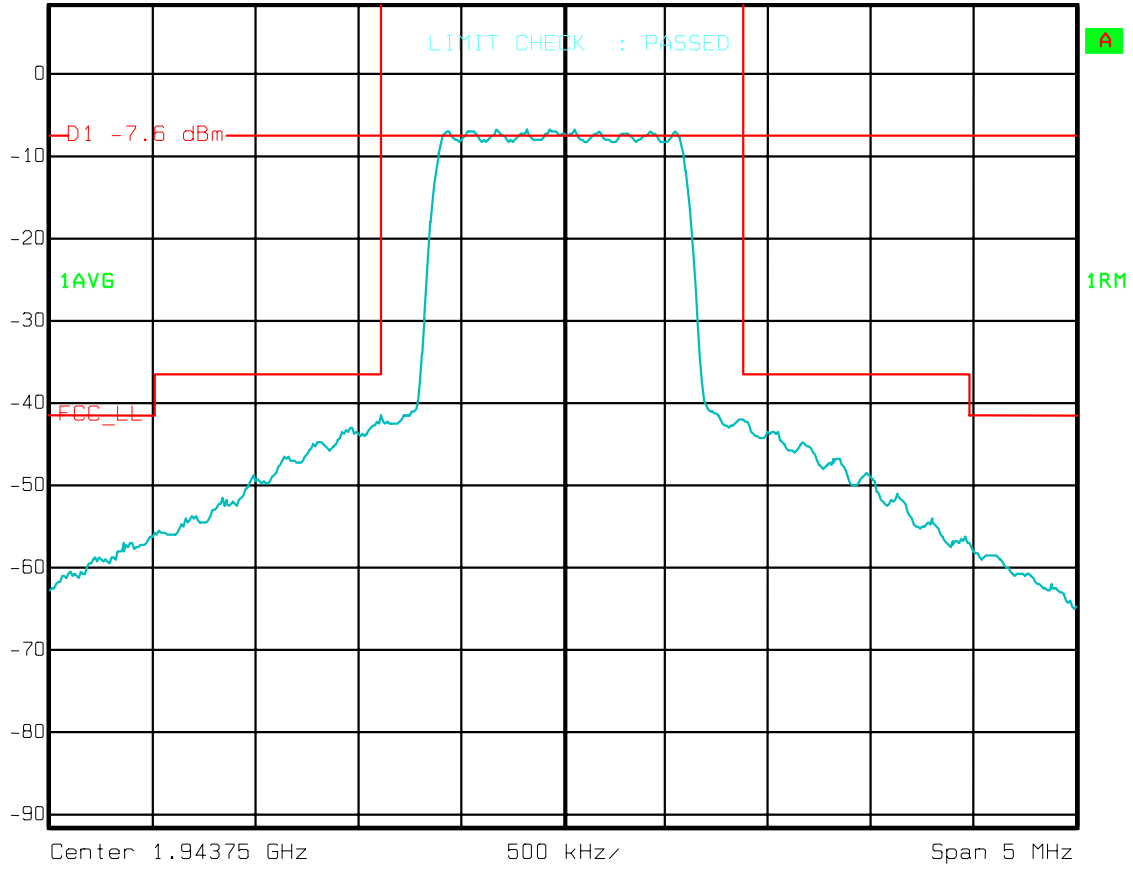


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 150, PCBR OUTPUT = 8.5 W
Date: 8.FEB.2001 9:20:47



Ref Lvl
8.5 dBm

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



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 275, PCBR OUTPUT = 8.5 W
Date: 8.FEB.2001 9:19:21

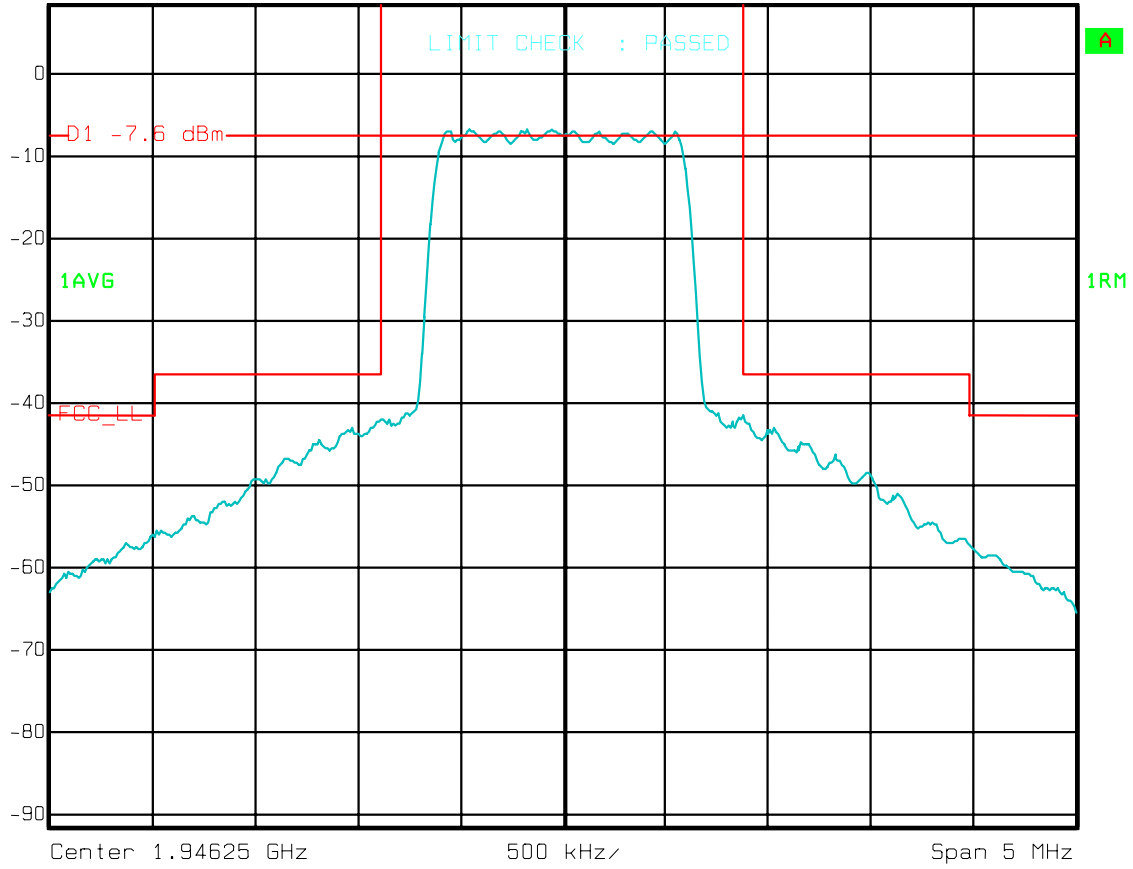
Measurement –3A
OCCUPIED BANDWIDTH
PA INPUT
BLOCK D
(1945 - 1950 MHz)

Left Edge:	1946.25 MHz	(Channel 325)
Right Edge:	1948.75 MHz	(Channel 375)



Ref Lvl
8.5 dBm

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

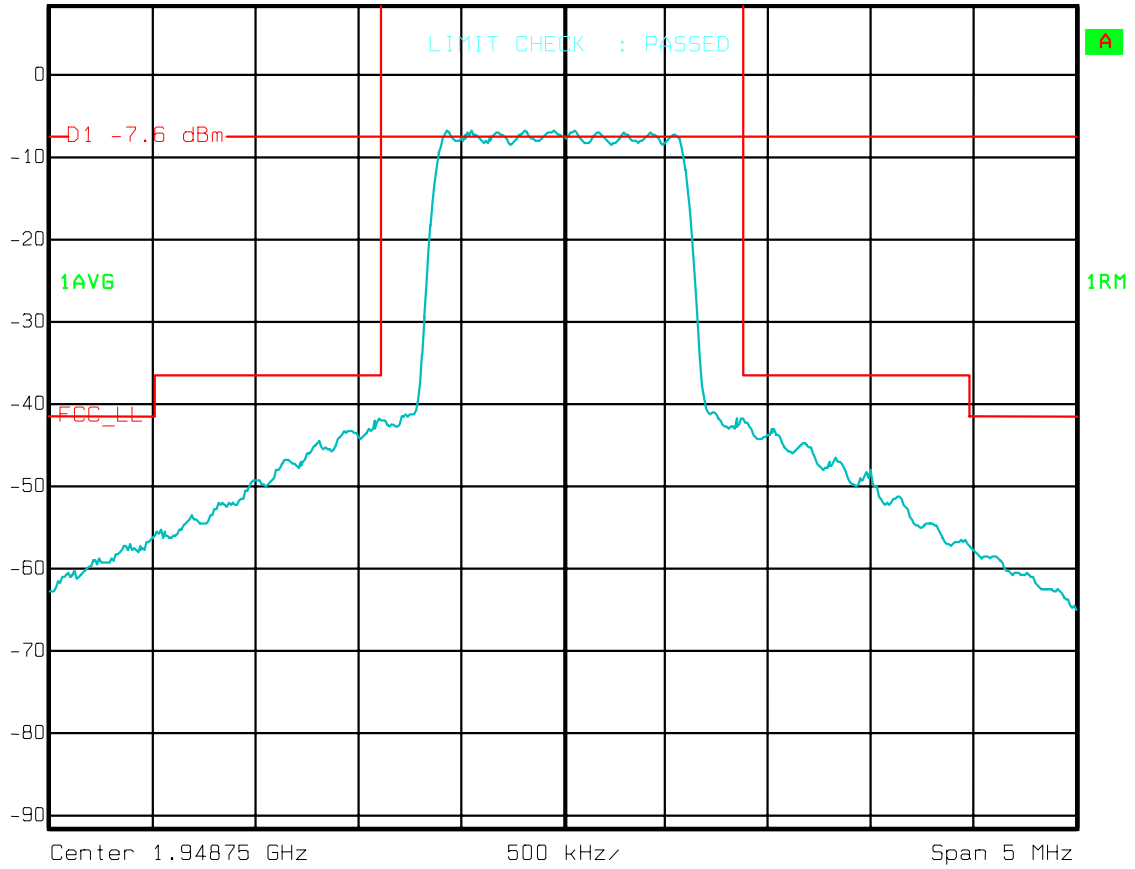


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 325, PCBR OUTPUT = 8.5 W
Date: 8.FEB.2001 9:17:59



Ref Lvl
8.5 dBm

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



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 375, PCBR OUTPUT = 8.5 W
Date: 8.FEB.2001 9:16:37

Measurement –3A
OCCUPIED BANDWIDTH

PA INPUT

BLOCK B

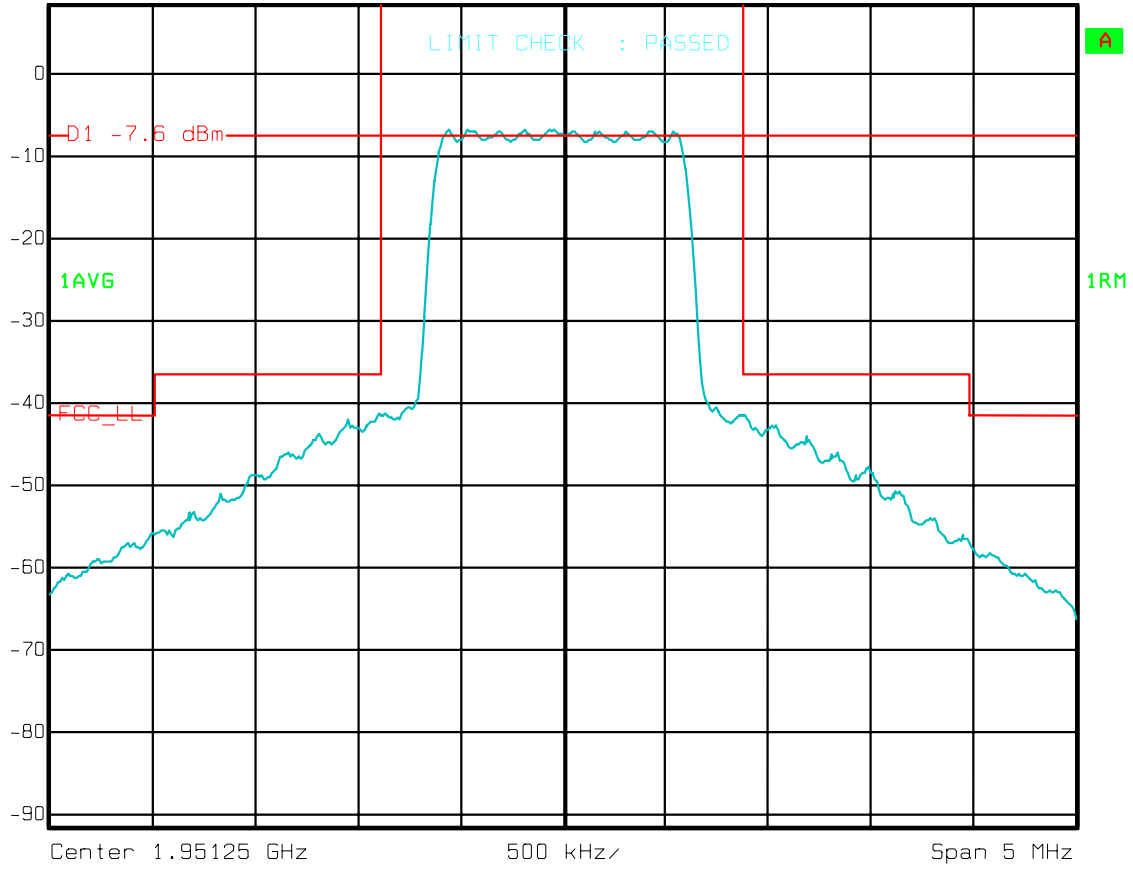
(1950 - 1965 MHz)

Left Edge:	1951.25 MHz	(Channel 425)
Center:	1957.50 MHz	(Channel 550)
Right Edge:	1963.75 MHz	(Channel 675)



Ref Lvl
8.5 dBm

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

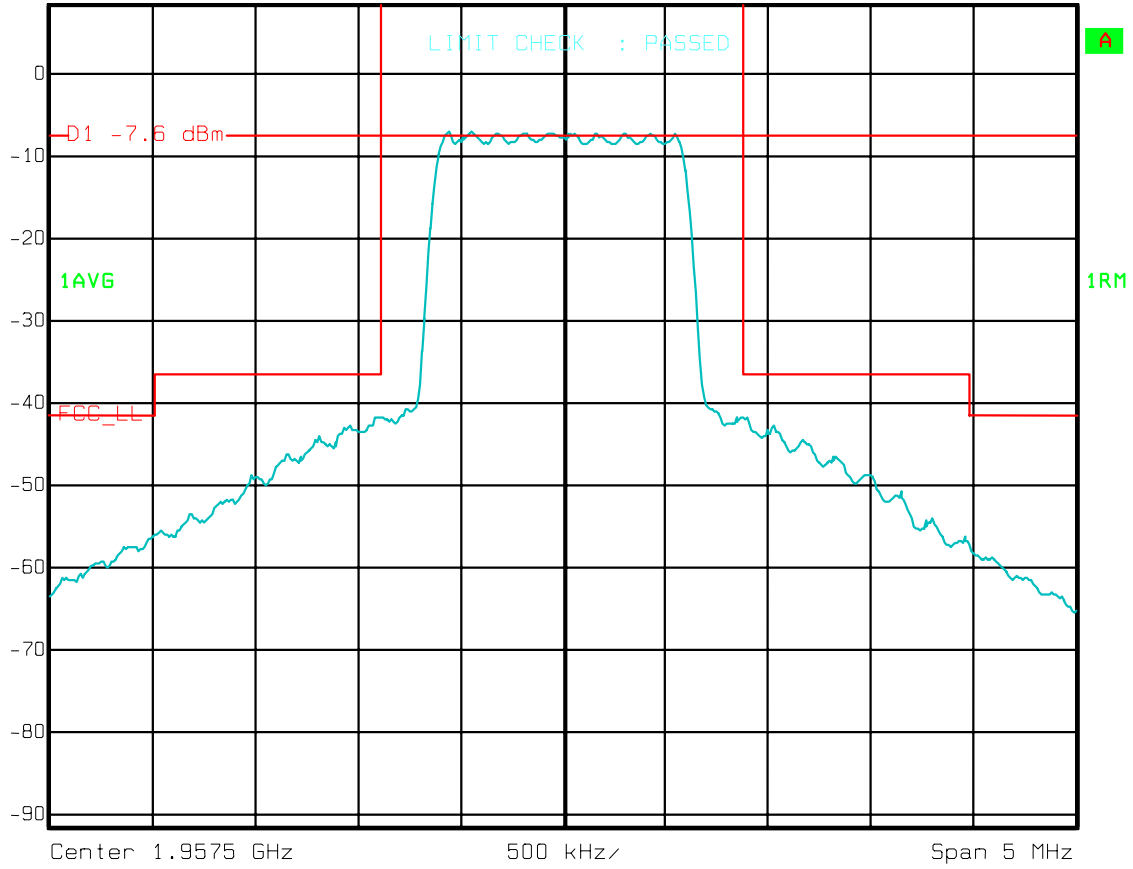


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 425, PCBR OUTPUT = 8.5 W
Date: 8.FEB.2001 9:50:12



Ref Lvl
8.5 dBm

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

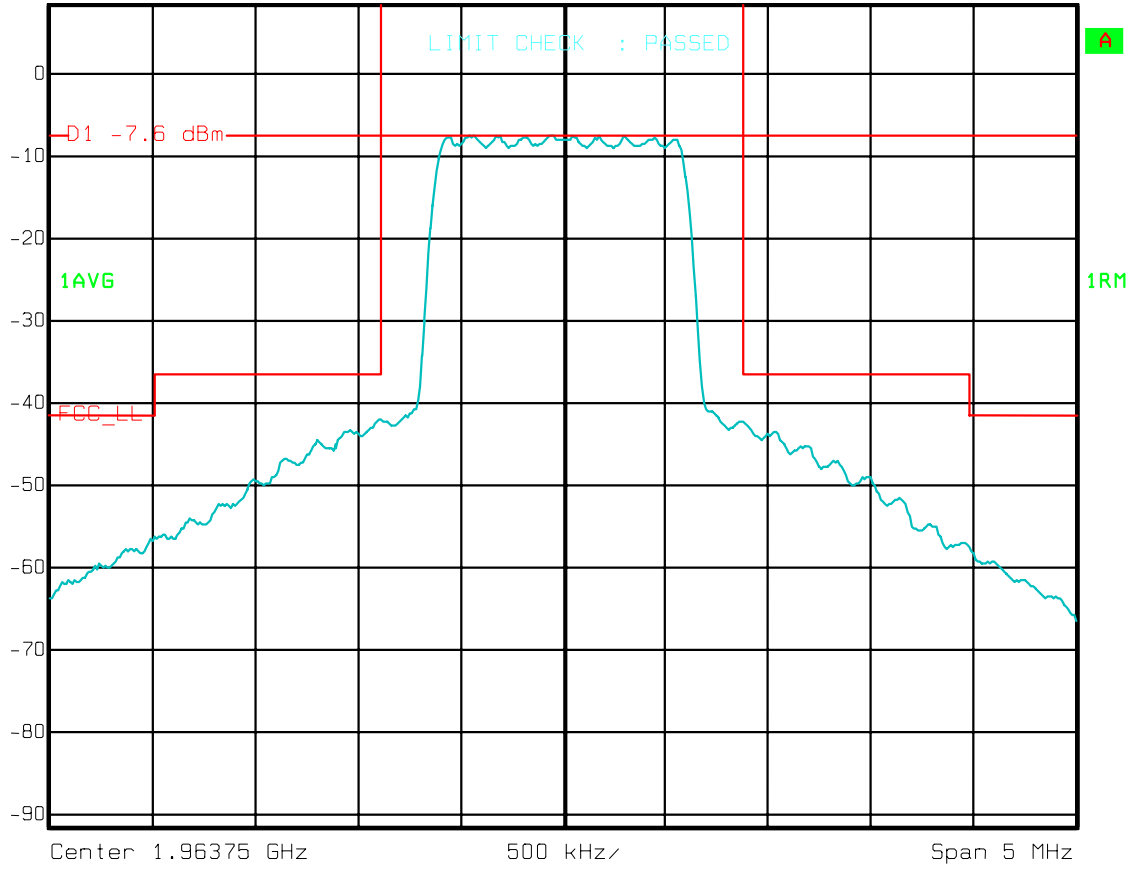


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 550, PCBR OUTPUT = 8.5 W
Date: 8.FEB.2001 9:51:56



Ref Lvl
8.5 dBm

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



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 675, PCBR OUTPUT = 8.5 W
Date: 8.FEB.2001 9:53:43

Measurement –3A

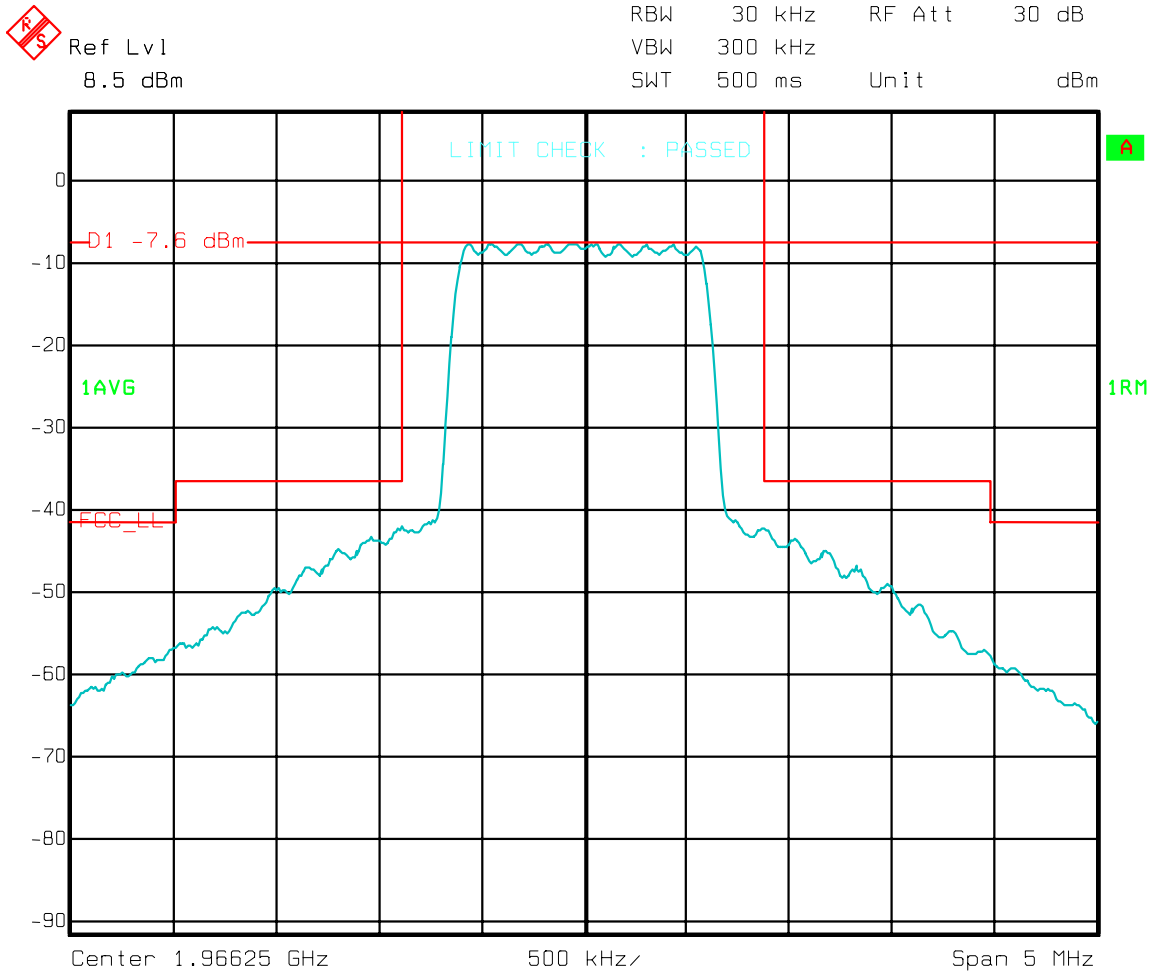
OCCUPIED BANDWIDTH

PA INPUT

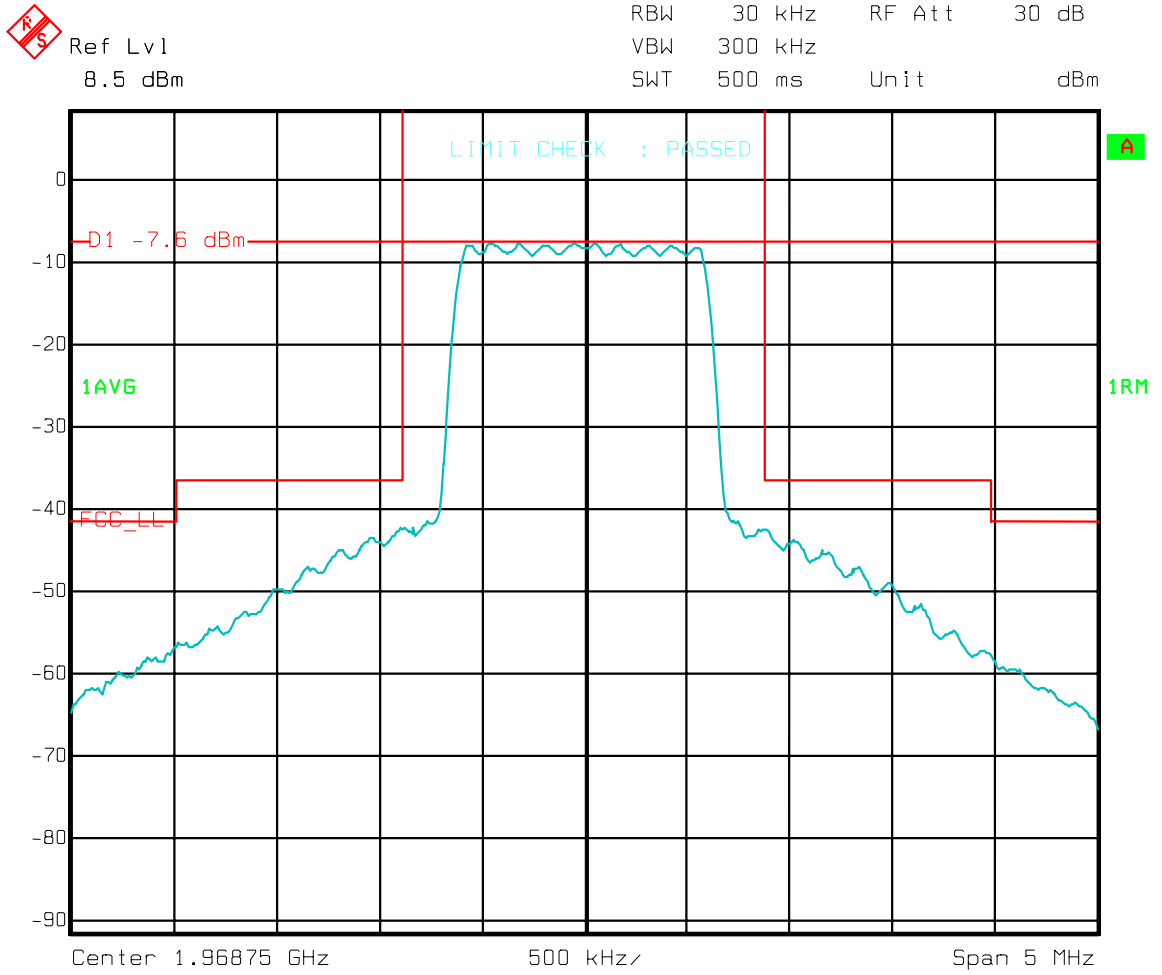
BLOCK E

(1965 - 1970 MHz)

Left Edge:	1966.25 MHz	(Channel 725)
Right Edge:	1968.75 MHz	(Channel 775)



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 725, PCBR OUTPUT = 8.5 W
Date: 8.FEB.2001 9:55:03



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 775, PCBR OUTPUT = 8.5 W
Date: 8.FEB.2001 9:56:18

Measurement –3A
OCCUPIED BANDWIDTH
PA INPUT

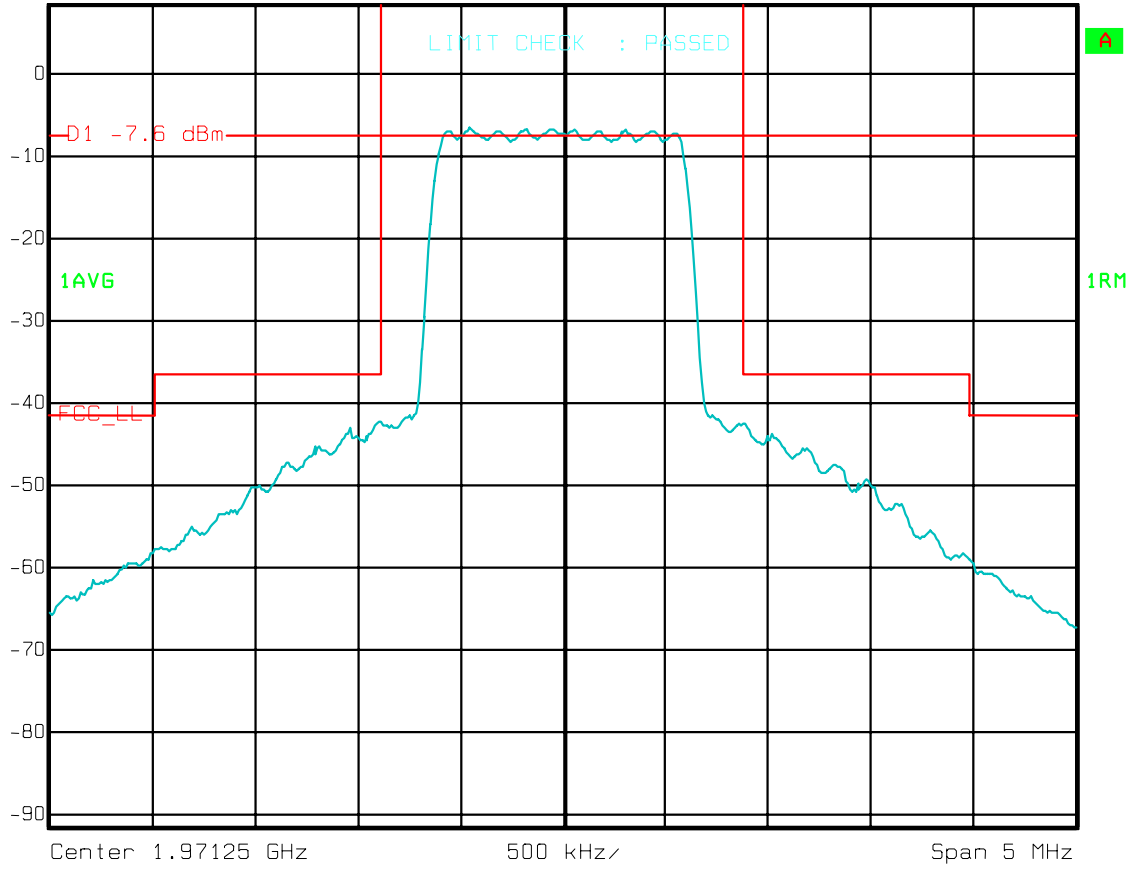
BLOCK F
(1970 - 1975 MHz)

Left Edge:	1971.25 MHz	(Channel 825)
Right Edge:	1973.75 MHz	(Channel 875)



Ref Lvl
8.5 dBm

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

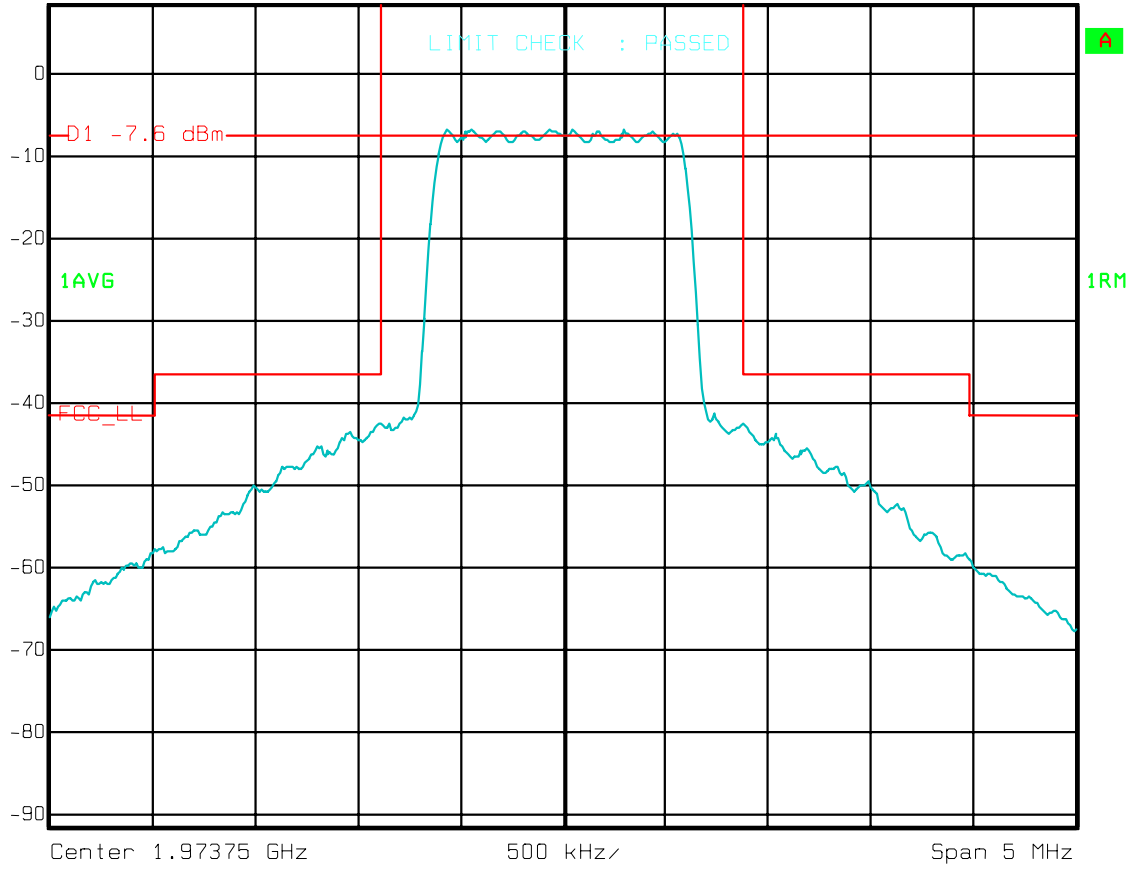


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 825, PCBR OUTPUT = 8.5 W
Date: 9.FEB.2001 13:07:12



Ref Lvl
8.5 dBm

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

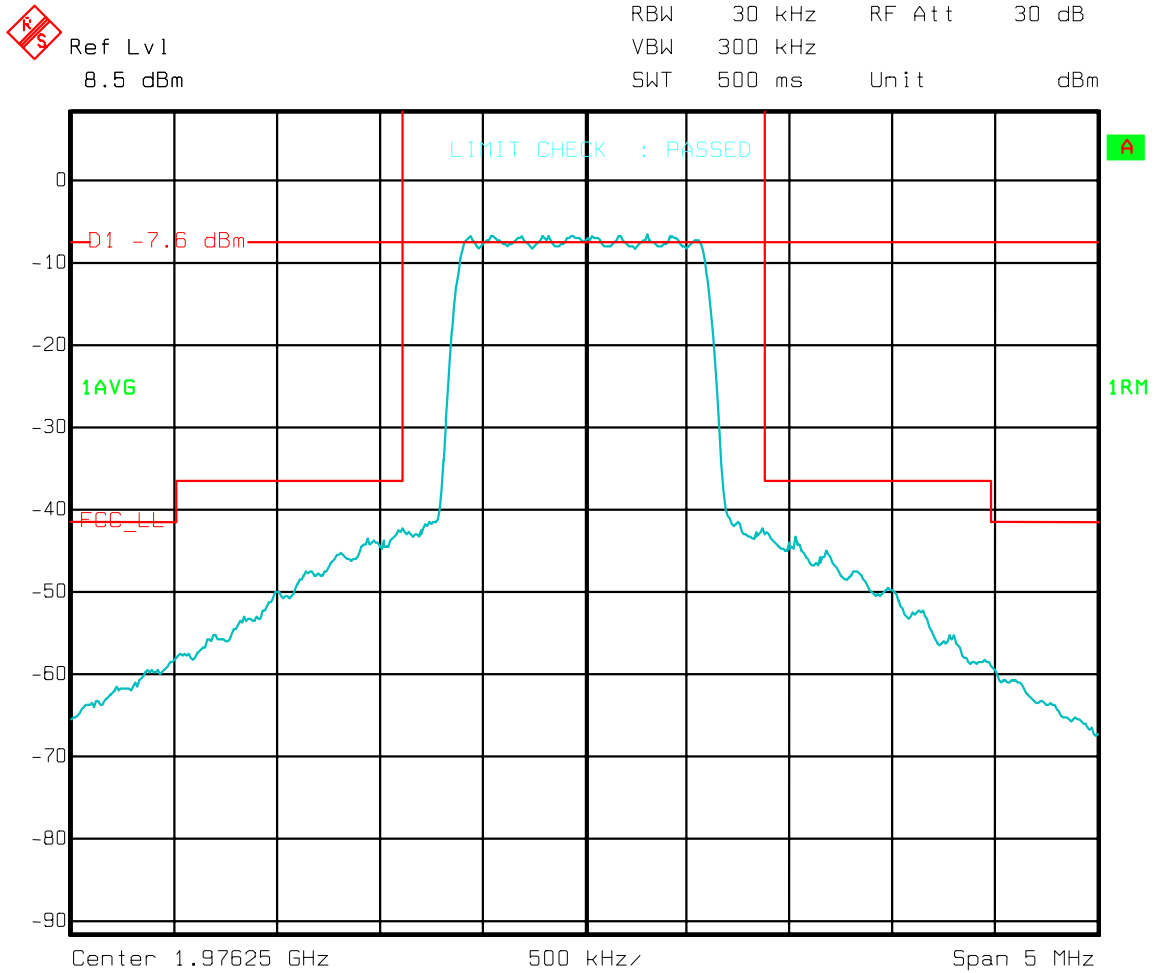


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 875, PCBR OUTPUT = 8.5 W
Date: 9.FEB.2001 13:08:17

Measurement –3A
OCCUPIED BANDWIDTH
PA INPUT

BLOCK C
(1975 - 1990 MHz)

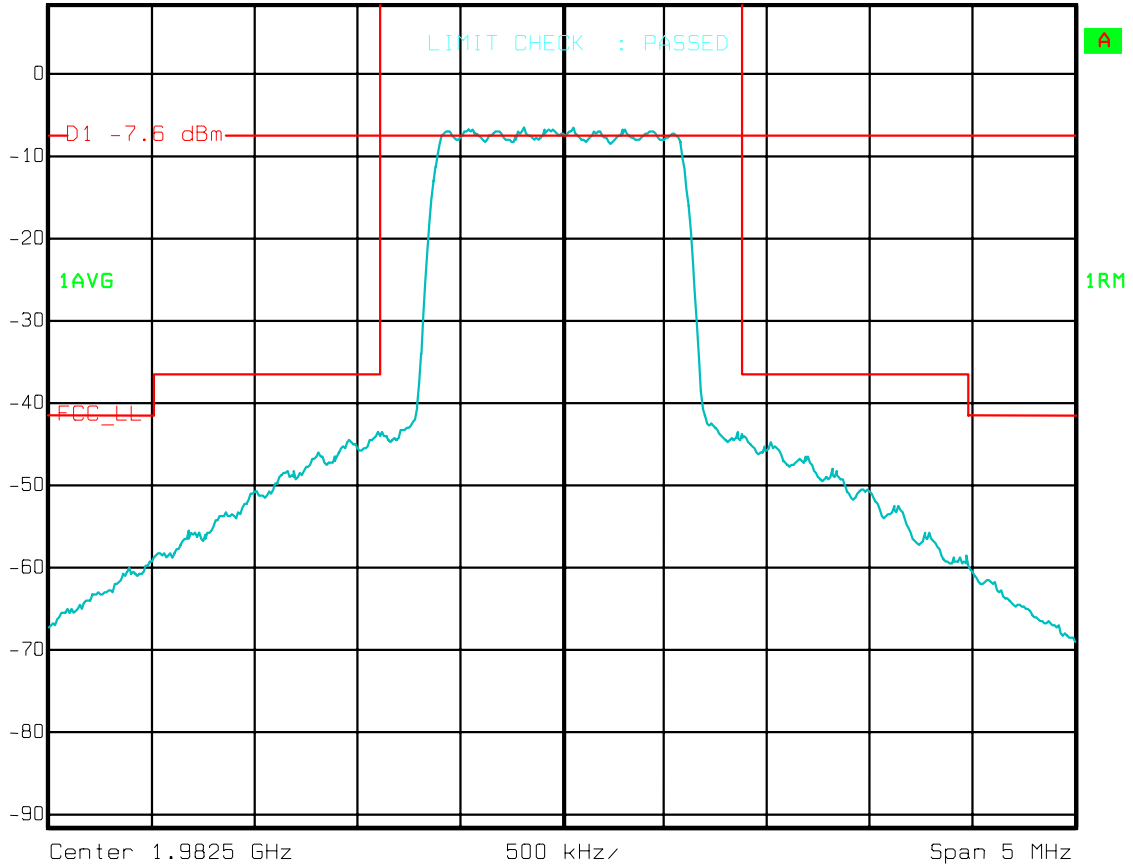
Left Edge:	1976.25 MHz	(Channel 925)
Center:	1982.50 MHz	(Channel 1050)
Right Edge:	1988.75 MHz	(Channel 1175)



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 925, PCBR OUTPUT = 8.5 W
Date: 9.FEB.2001 13:09:49



Ref Lvl 8.5 dBm
RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 500 ms Unit dBm

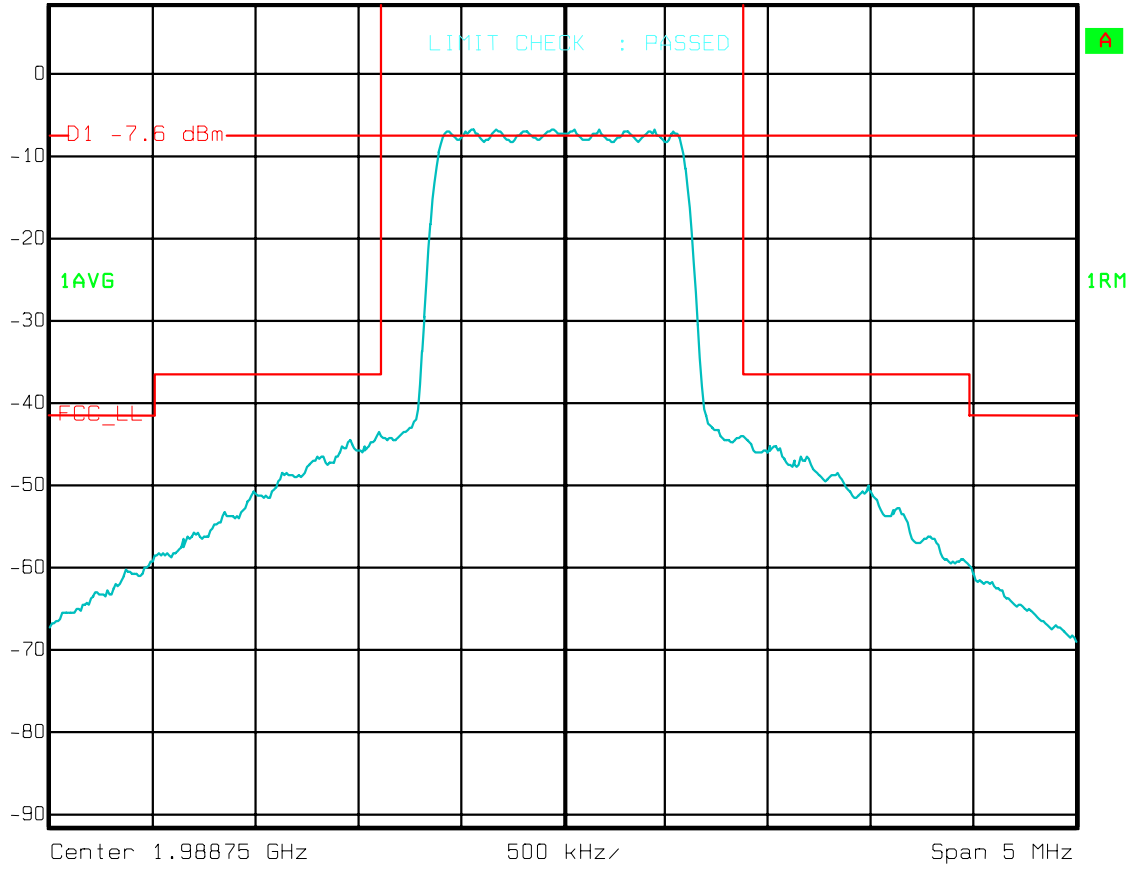


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 1050, PCBR OUTPUT = 8.5 W
Date: 9.FEB.2001 13:34:27



Ref Lvl
8.5 dBm

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



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 1175, PCBR OUTPUT = 8.5 W
Date: 9.FEB.2001 13:33:19

Measurement –3B

OCCUPIED BANDWIDTH

PA OUTPUT

BLOCK A

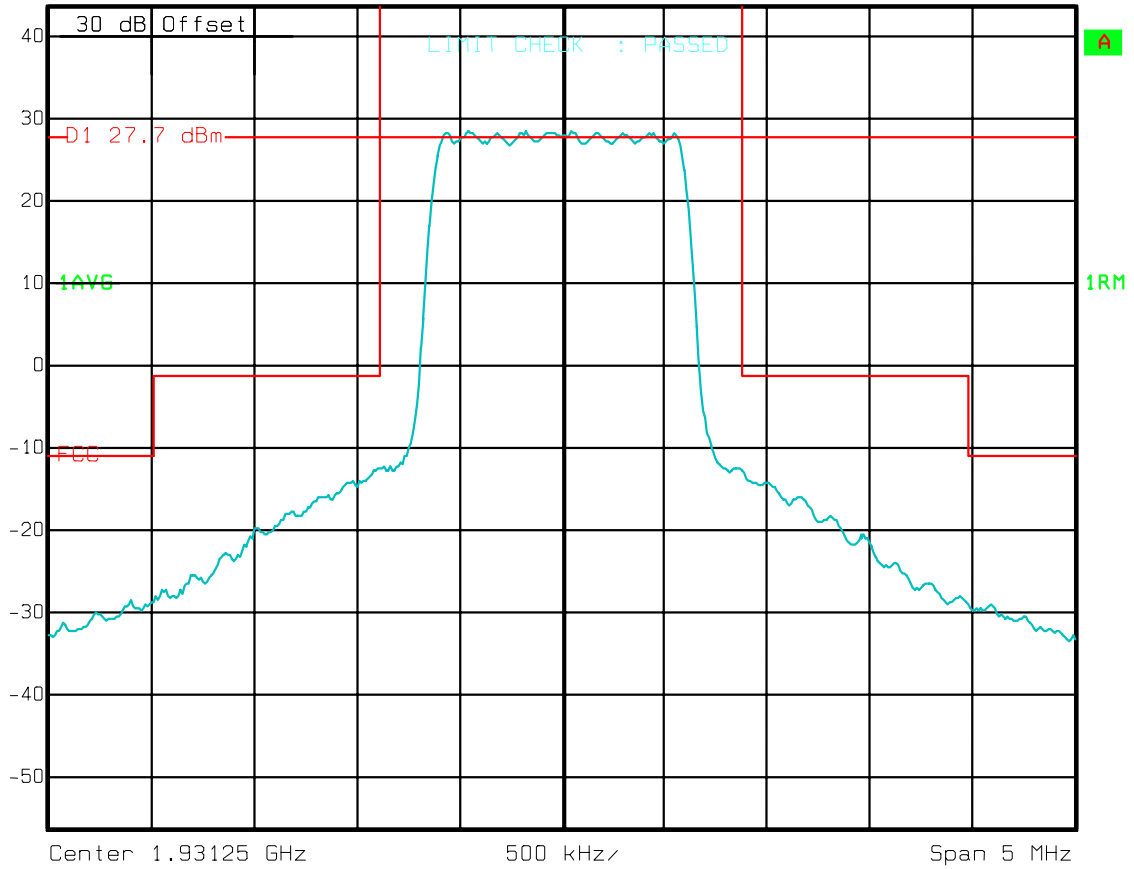
(1930 - 1945 MHz)

Left Edge:	1931.25 MHz	(Channel 25)
Center:	1937.50 MHz	(Channel 150)
Right Edge:	1943.75 MHz	(Channel 275)



Ref Lvl
43.8 dBm

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

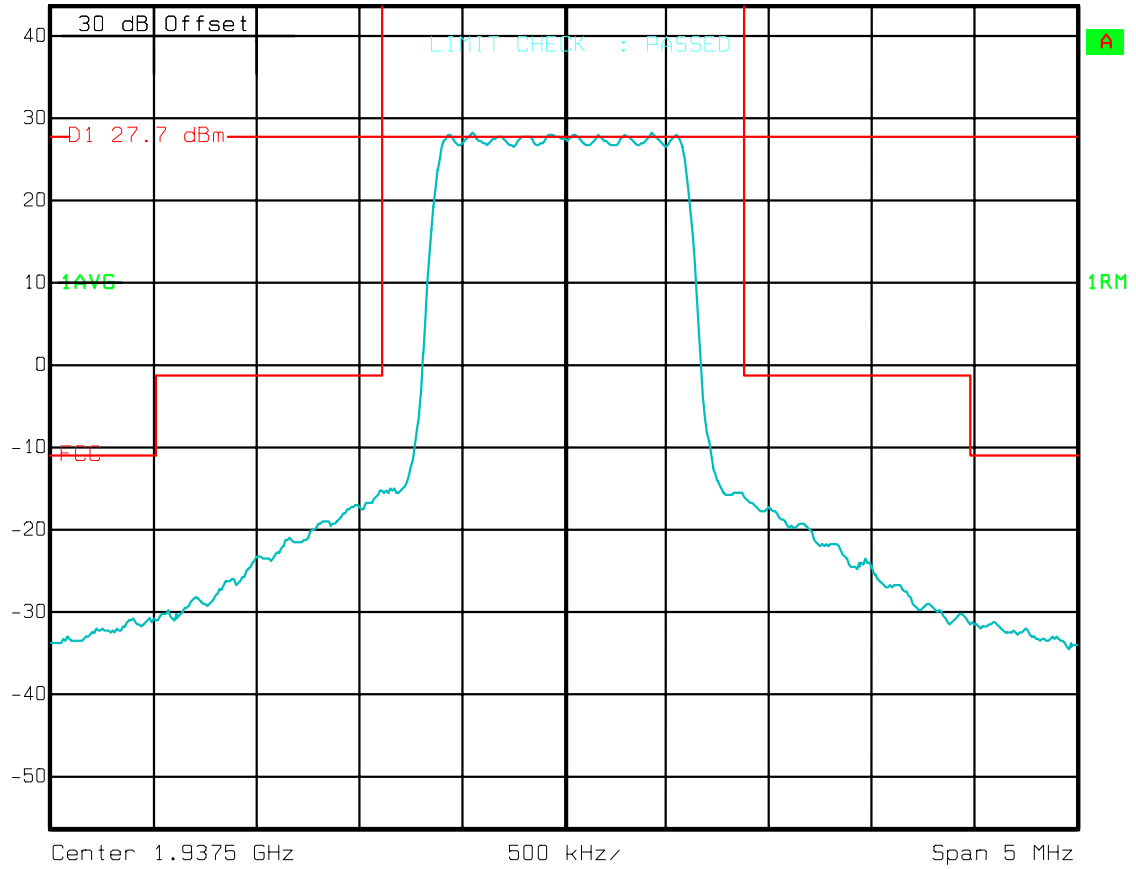


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 25, POWER OUTPUT = 24 W
Date: 8.FEB.2001 8:58:21



Ref Lvl
43.8 dBm

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

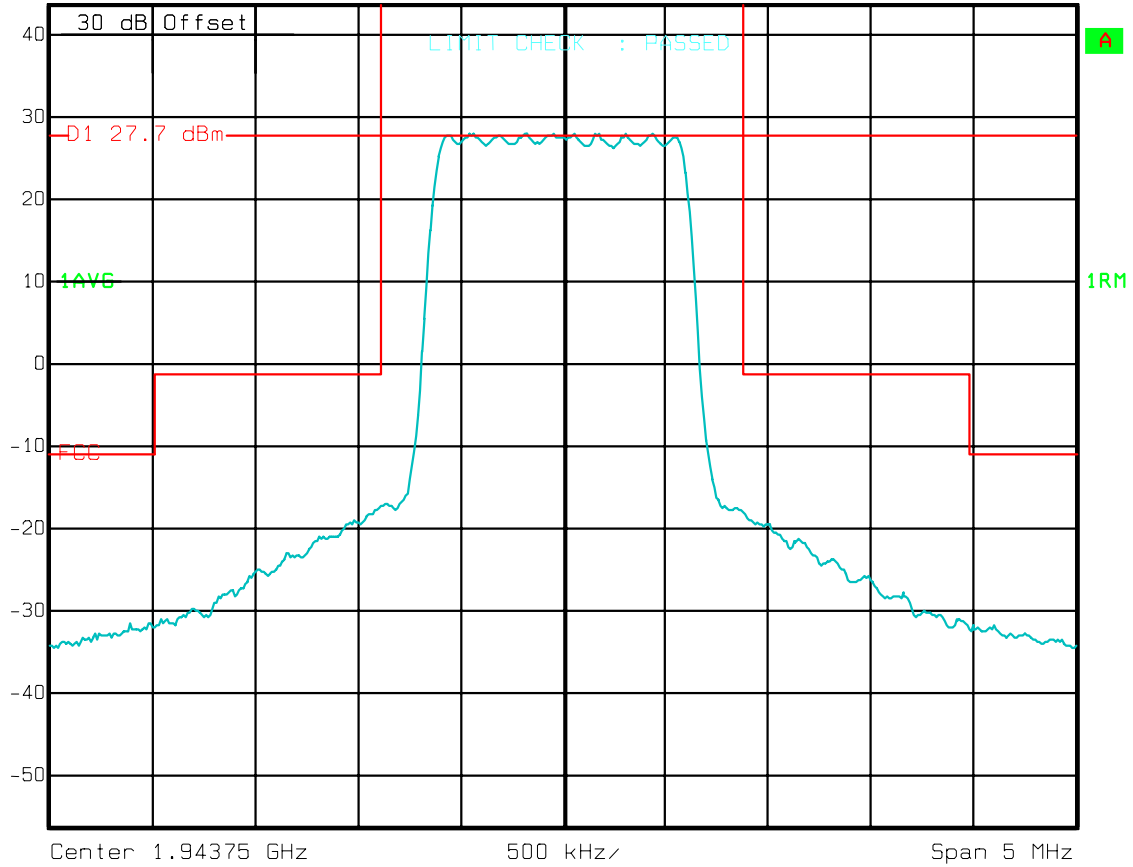


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 150, POWER OUTPUT = 24 W
Date: 8.FEB.2001 8:59:53



Ref Lvl
43.8 dBm

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



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 275, POWER OUTPUT = 24 W
Date: 8.FEB.2001 9:01:23

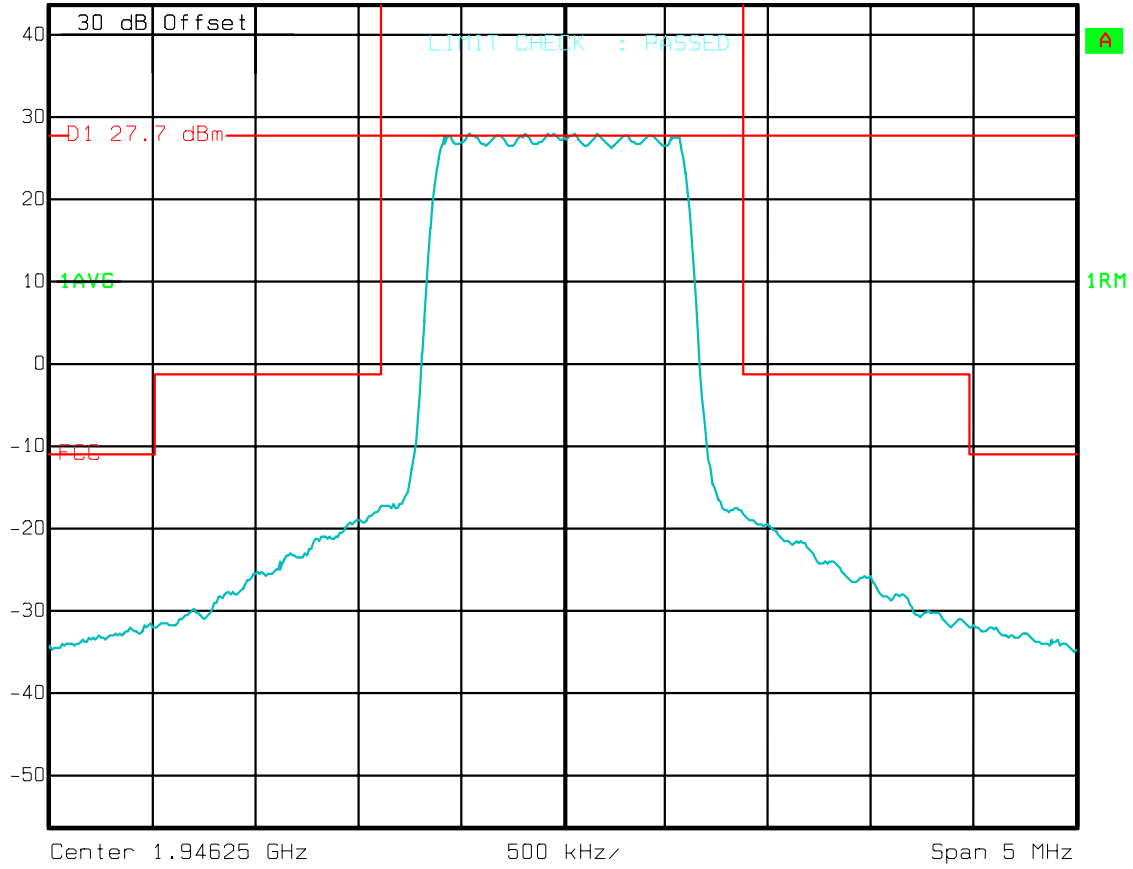
Measurement –3B
OCCUPIED BANDWIDTH
PA OUTPUT
BLOCK D
(1945 - 1950 MHz)

Left Edge:	1946.25 MHz	(Channel 325)
Right Edge:	1948.75 MHz	(Channel 375)



Ref Lvl
43.8 dBm

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

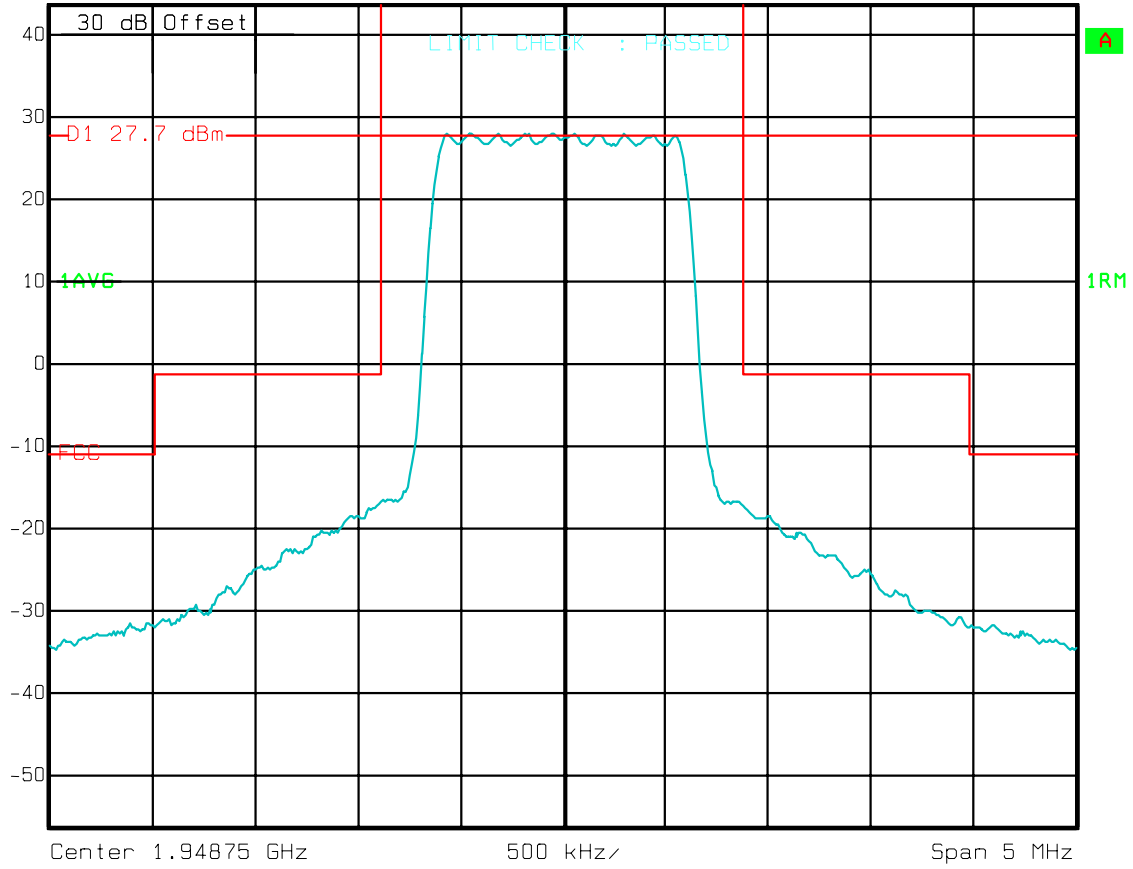


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 325, POWER OUTPUT = 24 W
Date: 8.FEB.2001 9:02:37



Ref Lvl
43.8 dBm

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



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 375, POWER OUTPUT = 24 W
Date: 8.FEB.2001 9:03:45

Measurement –3B
OCCUPIED BANDWIDTH
PA OUTPUT

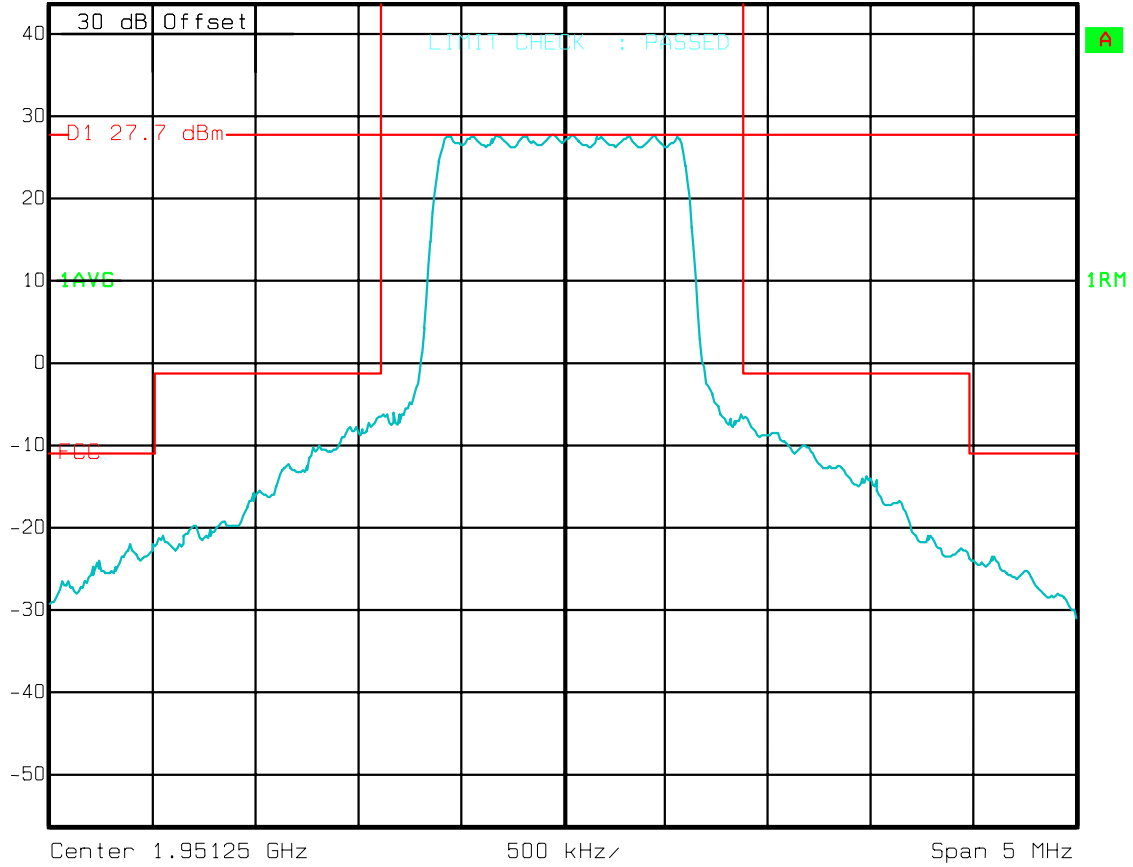
BLOCK B
(1950 - 1965 MHz)

Left Edge:	1921.25 MHz	(Channel 425)
Center:	1957.50 MHz	(Channel 550)
Right Edge:	1963.75 MHz	(Channel 675)



Ref Lvl
43.8 dBm

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

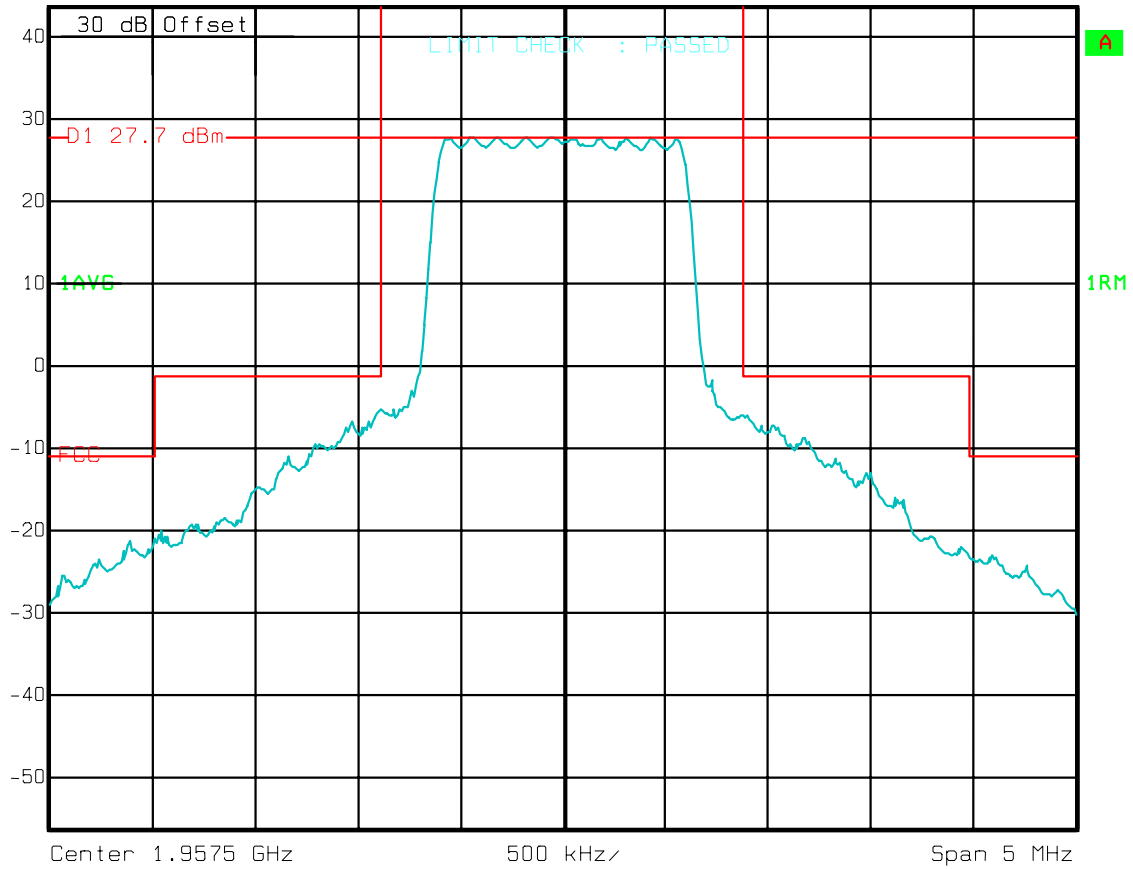


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 425, POWER OUTPUT = 24 W
Date: 8.FEB.2001 15:13:25



Ref Lvl
43.8 dBm

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

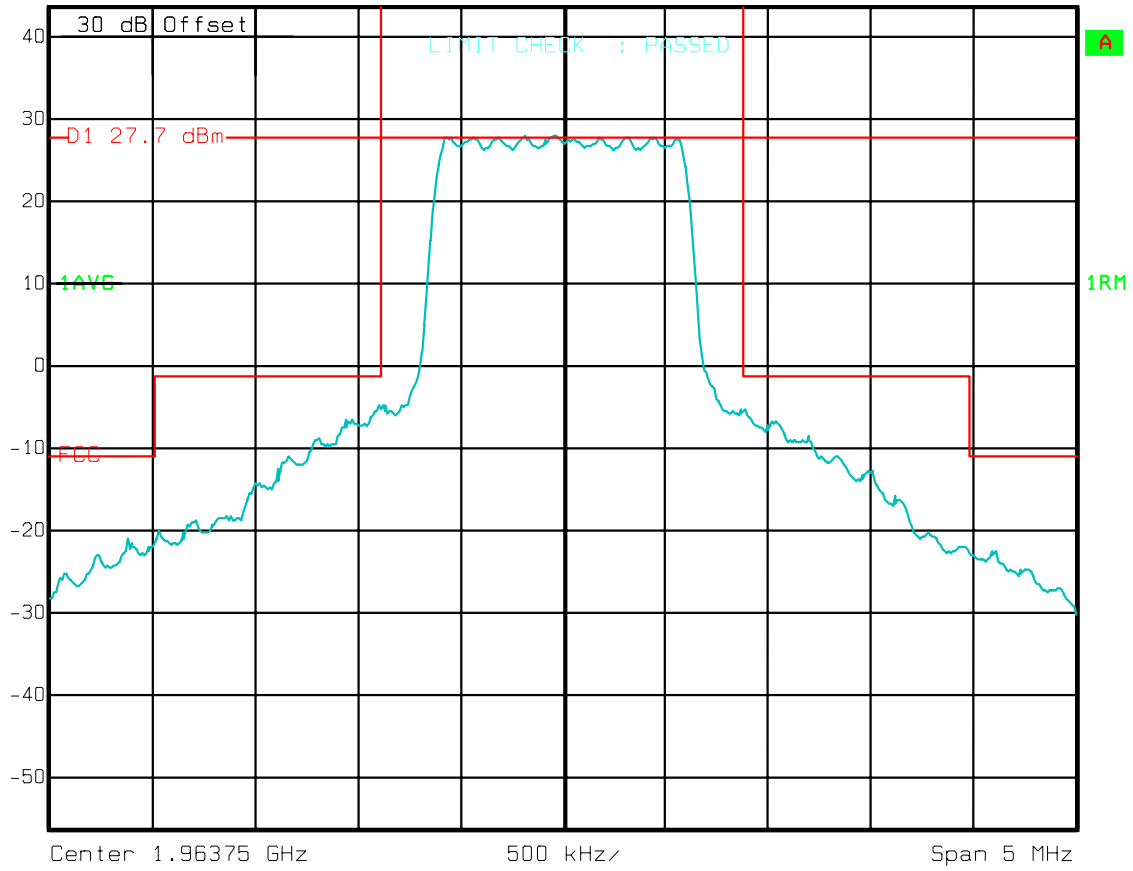


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 550, POWER OUTPUT = 24 W
Date: 8.FEB.2001 15:16:01



Ref Lvl
43.8 dBm

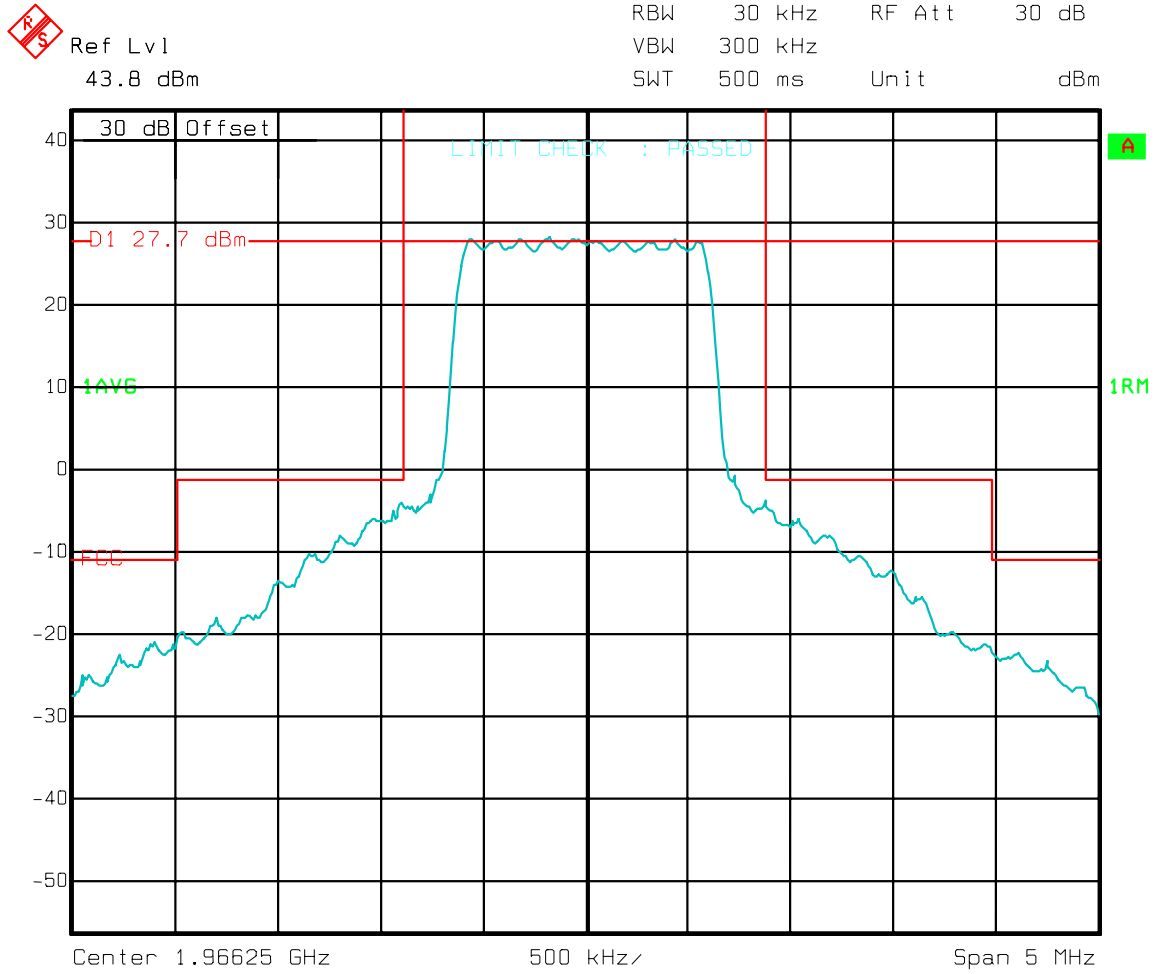
RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 500 ms Unit dBm



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 675, POWER OUTPUT = 24 W
Date: 8.FEB.2001 15:18:55

Measurement –3B
OCCUPIED BANDWIDTH
PA OUTPUT
BLOCK E
(1965 - 1970 MHz)

Left Edge:	1966.25 MHz	(Channel 725)
Right Edge:	1968.75 MHz	(Channel 775)

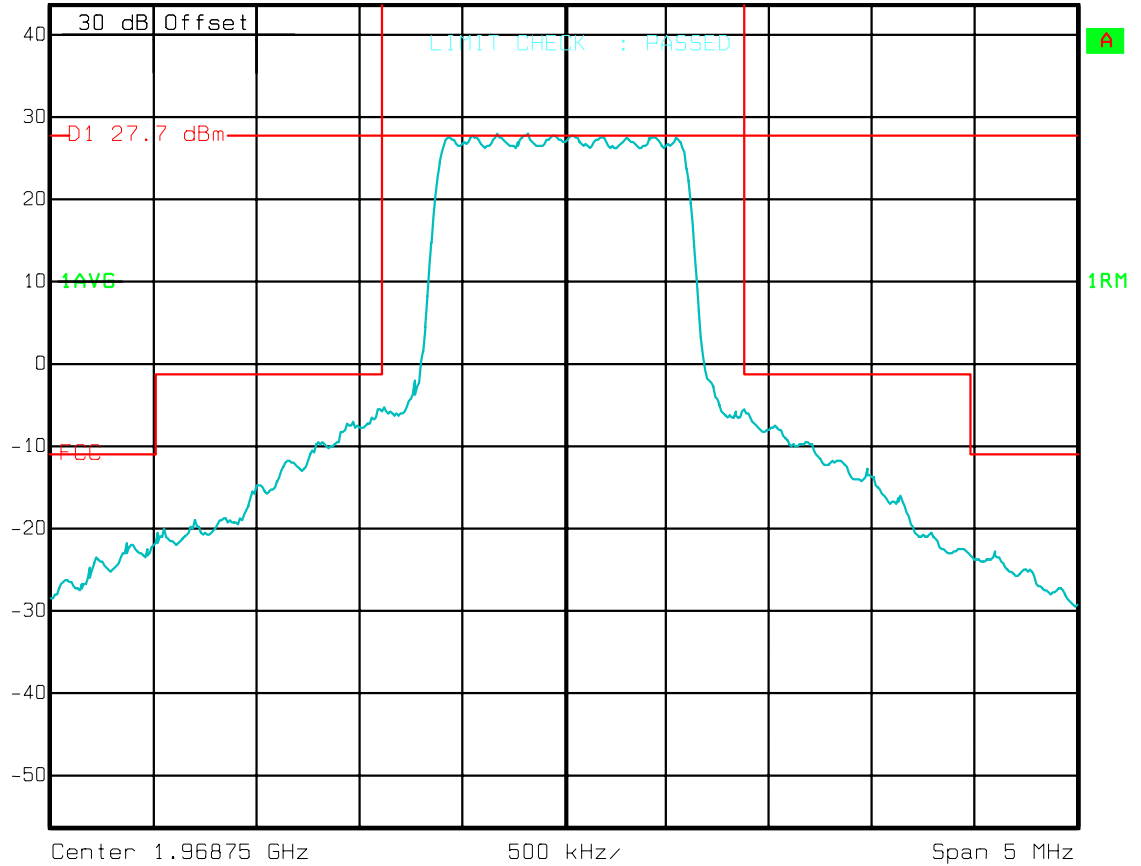


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 725, POWER OUTPUT = 24 W
Date: 8.FEB.2001 15:21:13



Ref Lvl
43.8 dBm

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



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 775, POWER OUTPUT = 24 W
Date: 8.FEB.2001 15:22:31

Measurement –3B
OCCUPIED BANDWIDTH
PA OUTPUT

BLOCK F

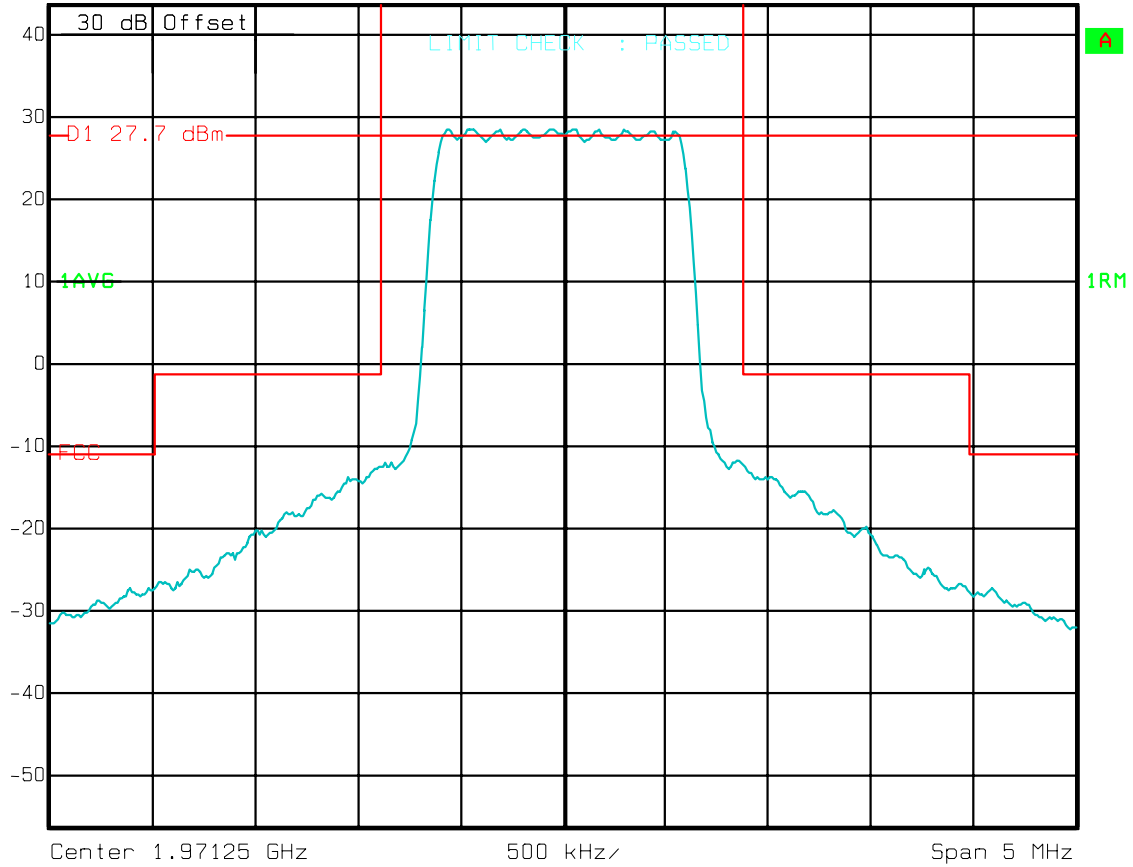
(1970 - 1975 MHz)

Left Edge:	1971.25 MHz	(Channel 825)
Right Edge:	1973.75 MHz	(Channel 875)



Ref Lvl
43.8 dBm

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

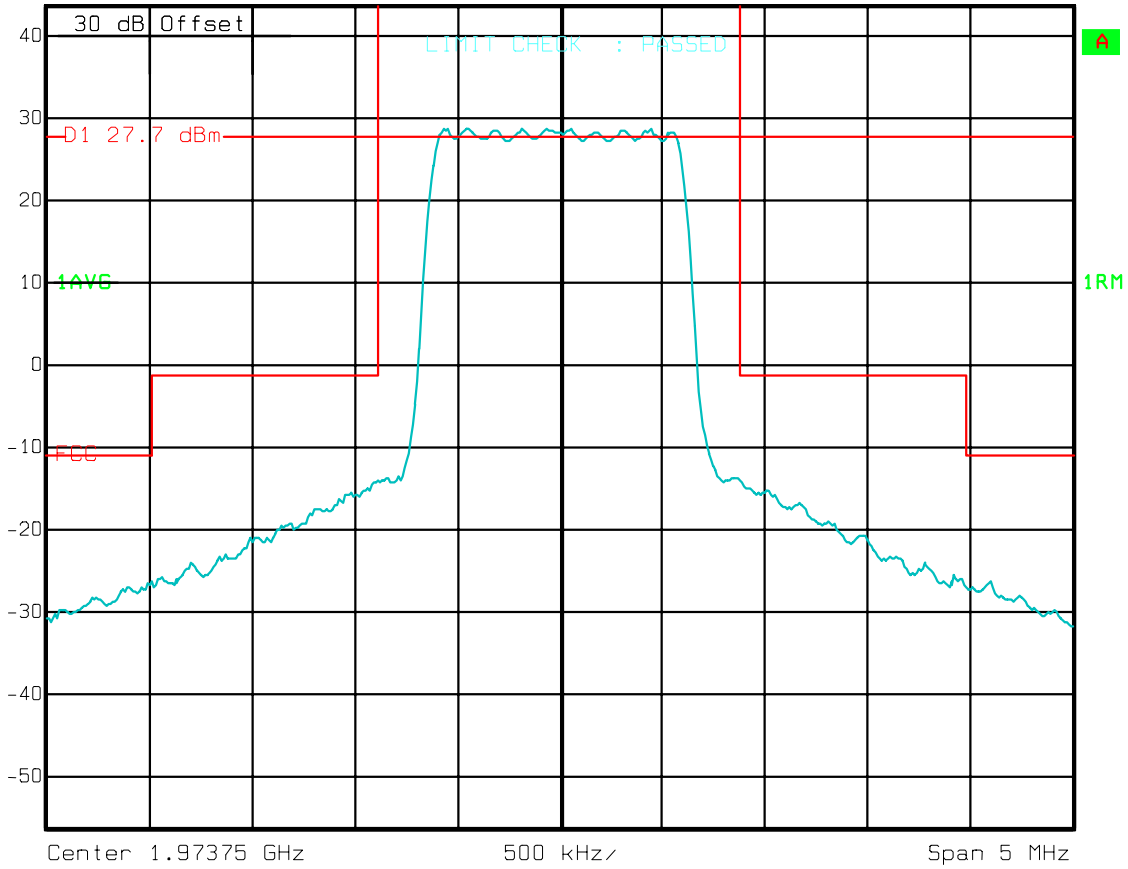


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 825, POWER OUTPUT = 24 W
Date: 9.FEB.2001 13:21:31



Ref Lvl
43.8 dBm

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



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 875, POWER OUTPUT = 24 W
Date: 9.FEB.2001 13:20:23

Measurement –3B
OCCUPIED BANDWIDTH
PA OUTPUT

BLOCK C

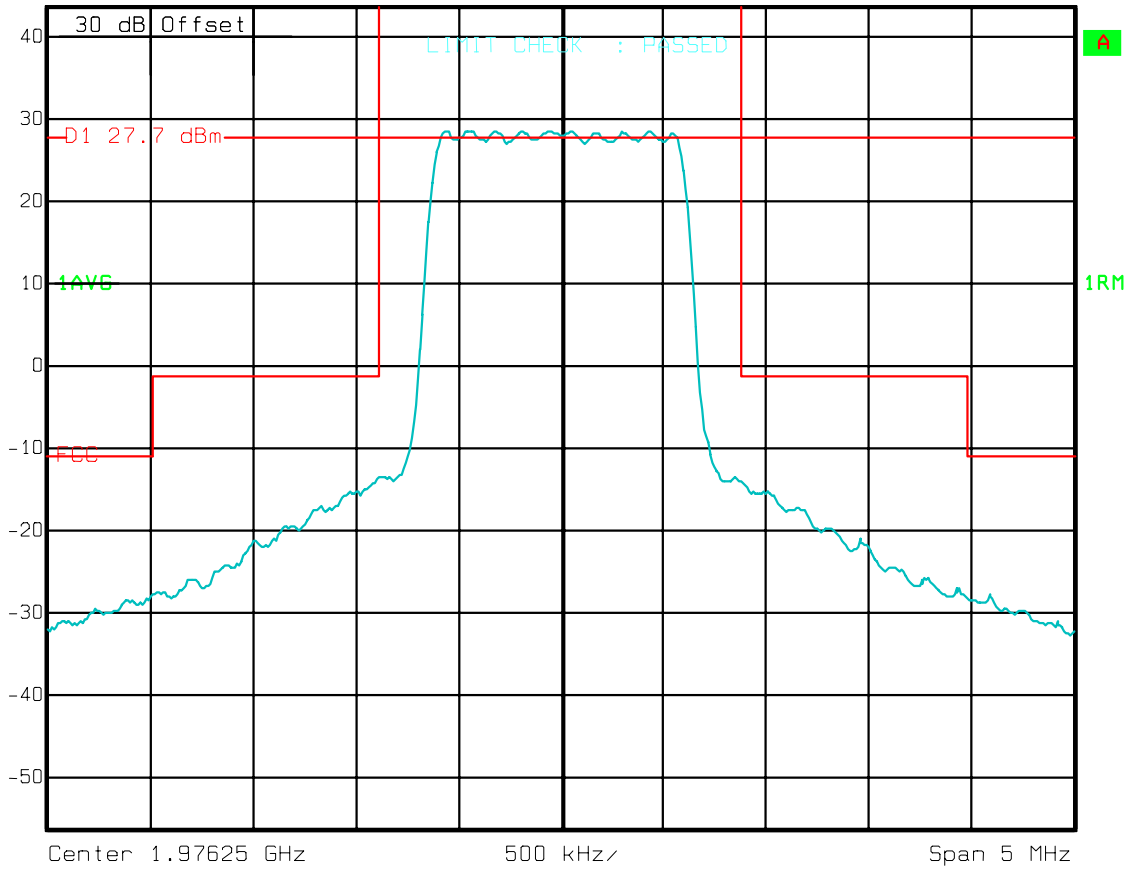
(1975 - 1990 MHz)

Left Edge:	1976.25 MHz	(Channel 925)
Center:	1982.50 MHz	(Channel 1050)
Right Edge:	1988.75 MHz	(Channel 1175)



Ref Lvl
43.8 dBm

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

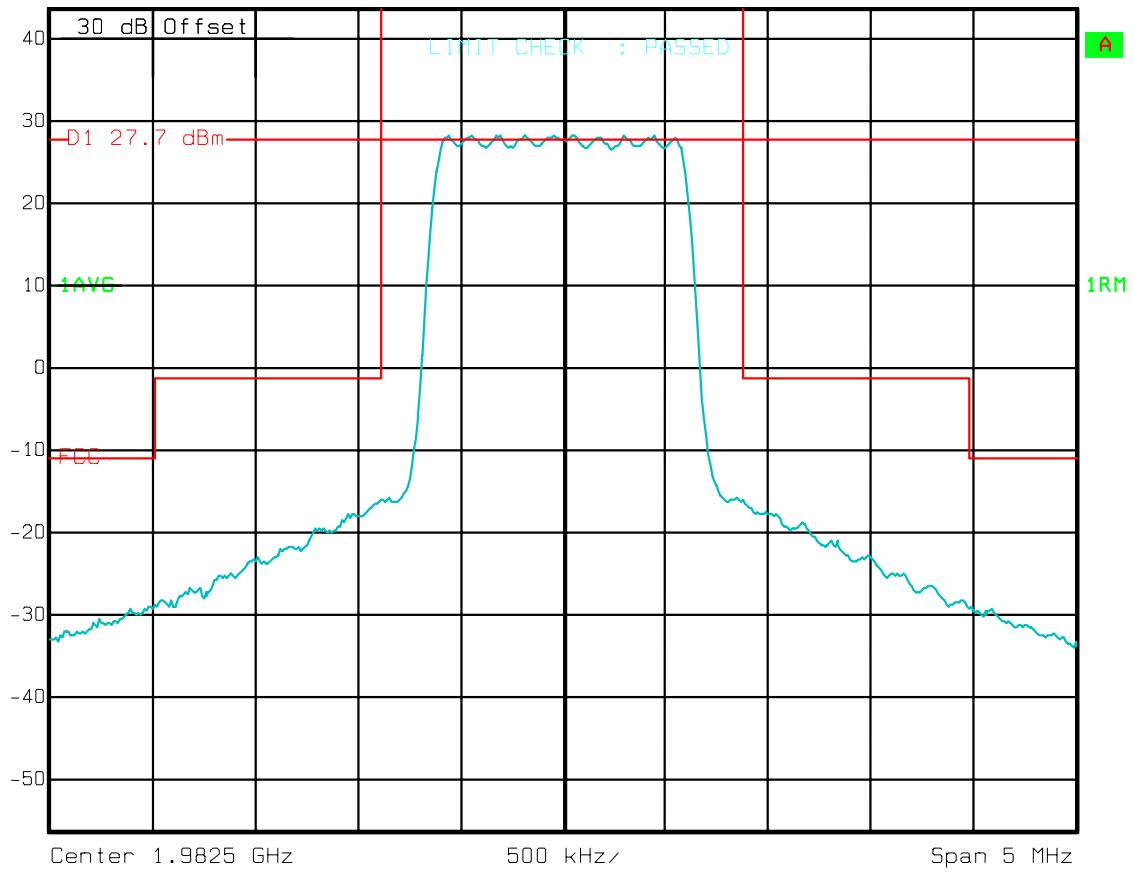


Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 925, POWER OUTPUT = 24 W
Date: 9.FEB.2001 13:19:11



Ref Lvl
43.8 dBm

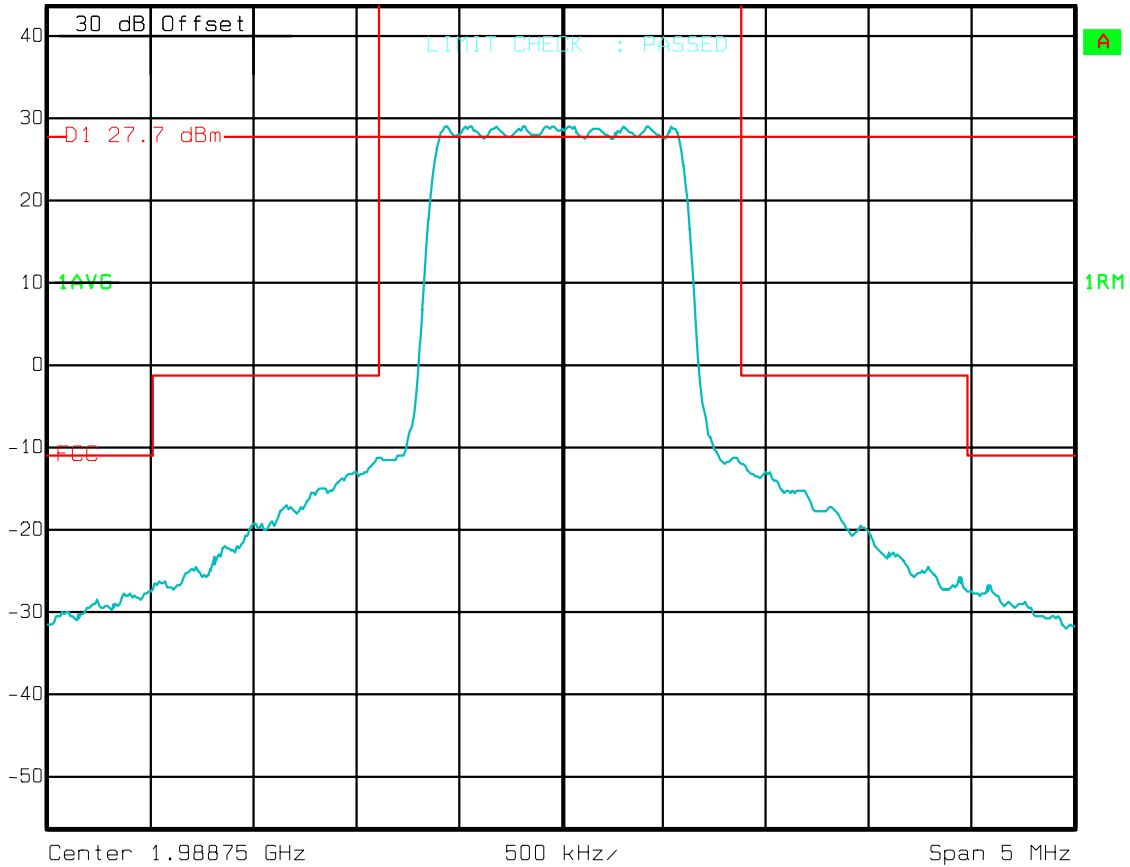
RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 500 ms Unit dBm



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 1050, POWER OUTPUT = 24 W
Date: 9.FEB.2001 13:17:53



Ref Lvl 43.8 dBm
RBW 30 kHz RF Att 30 dB
VBW 300 kHz
SWT 500 ms Unit dBm



Title: OCCUPIED BANDWIDTH
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 1175, POWER OUTPUT = 24 W
Date: 9.FEB.2001 13:15:50

MEASUREMENT: 4

**SPURIOUS EMISSIONS AT ANTENNA
TERMINALS**

SECTION 2.1051

MEASUREMENT: 4

Section 2.1051

Spurious Emissions at Antenna Terminals

Spurious Emissions at the RF Power output terminal of Power Amplifier (PA) was 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 a 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 24.238 of the Code was applied to these tests. The applied signal met the recommended characteristics per TIA/EIA-97-C as defined below. All measurements were made for 24 Watts (43.8dBm) output at PA J4 antenna connector terminal. The corresponding PCBR output was 8.5dBm approximately.

Based upon the criterion given in Section 24.238 of the Code the required emission limitation is equal to -56.8dBc or - 13 dBm. The magnitude of spurious emissions that are attenuated more than 20 dB below the permissible value need not specified (Section 2.1051 and 2.1057 (a) and (c)) in the report.

IS 97 channel allocation consists of following channel Blocks:

Block	Frequency Bands Per FCC 24.229 MHz	Valid CDMA Channel s & Frequency Range	
		Channel No.	MHz
A (15 MHz)	1930.000 – 1945.000	25 – 275	1931.250 – 1943.750
D (5 MHz)	1945.000 – 1950.000	325 – 375	1946.250 – 1948.750
B (15 MHz)	1950.000 – 1965.000	425 – 675	1951.250 – 1963.750
E (5 MHz)	1965.000 – 1970.000	725 – 775	1966.250 – 1968.750
F (5 MHz)	1970.000 – 1975.000	825 – 875	1971.250 – 1973.750
C (15 MHz)	1975.000 – 1990.000	925 - 1175	1976.250 – 1988.750

Per FCC out of band is any frequency < 1930.000 MHz and > 1990.000 MHz
The edge channels are 25 and 1175.

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

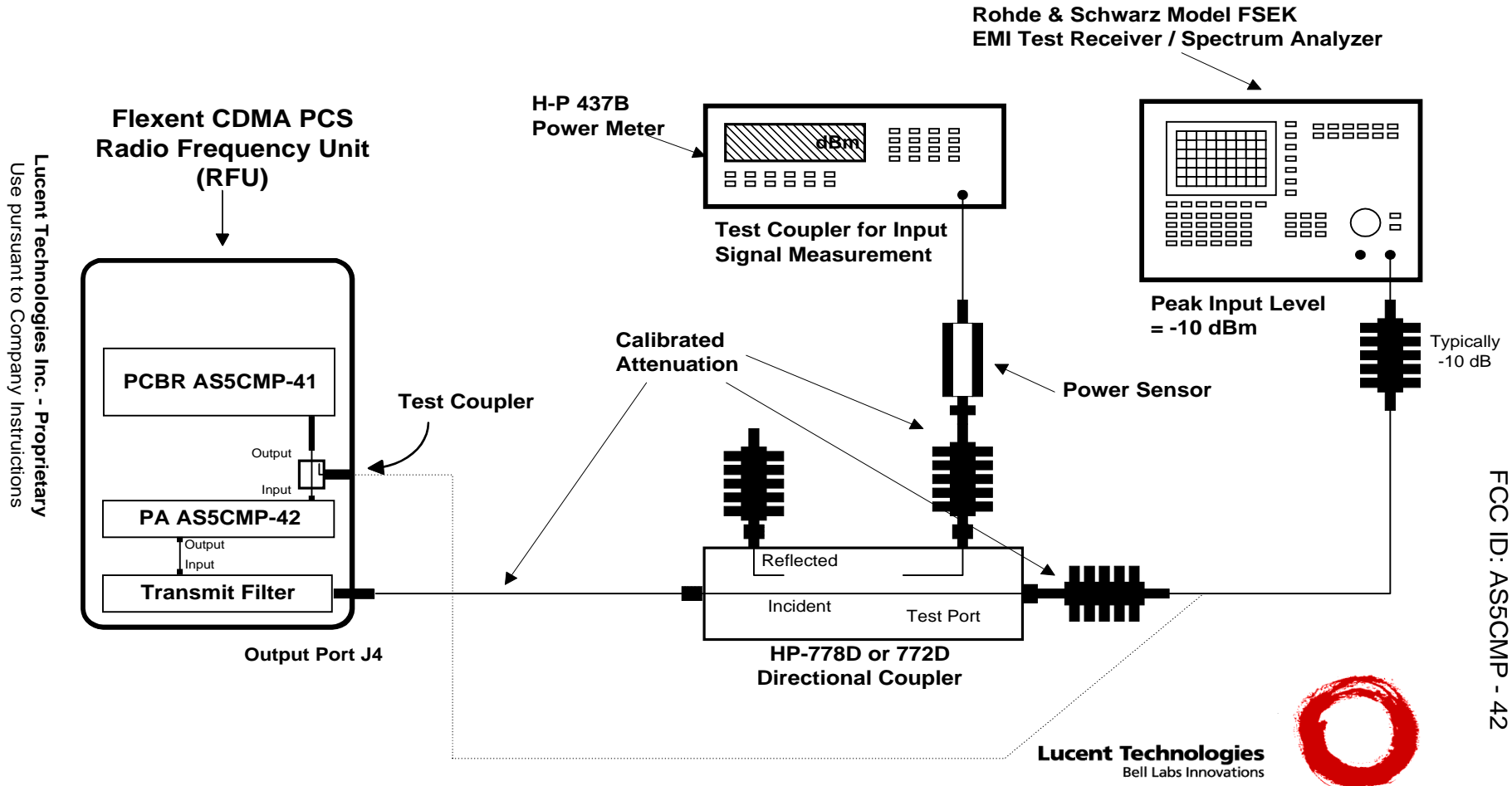
TABLE 4.1 Base Station Test Model, Nominal

Plots are provided to show outside the PCS bands, the emissions are less than -13dBm. The frequencies and channels used were tabulated on the bottom of each plot. Output signals were plotted at each frequency block/bands. Plots were made for Left Edge, and Right Edge of PCS bands A, B, C, D, E and F.

RESULTS:

The attached spectral plots document for spurious emissions at J4 antenna terminal show that there are no emissions above the applicable limit.

Figure 4A. TEST CONFIGURATION FOR CONDUCTED SPURIOUS



Measurement: 4
SPURIOUS EMISSIONS
AT ANTENNA TERMINALS

BLOCK A

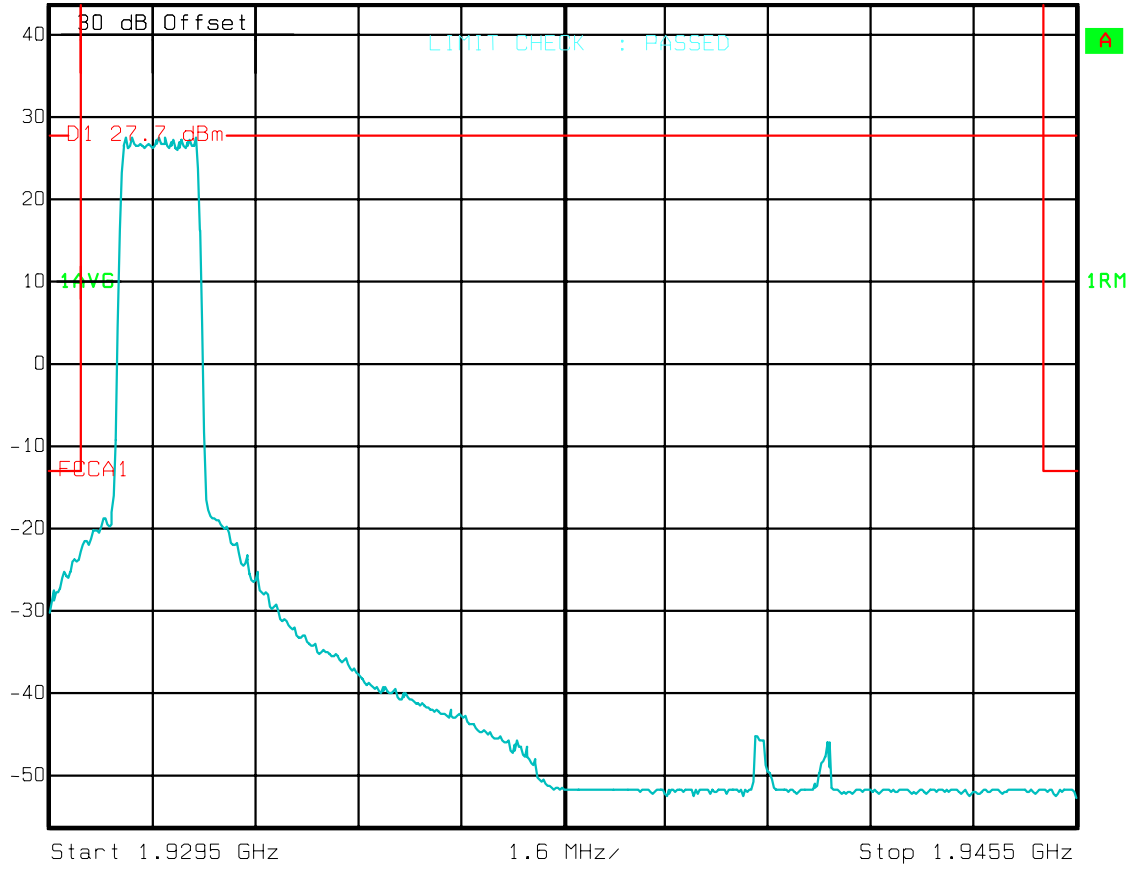
(1930 - 1945 MHz)

Left Edge:	1931.25 MHz	(Channel 25)
Right Edge:	1943.75 MHz	(Channel 275)



Ref Lvl
43.8 dBm

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

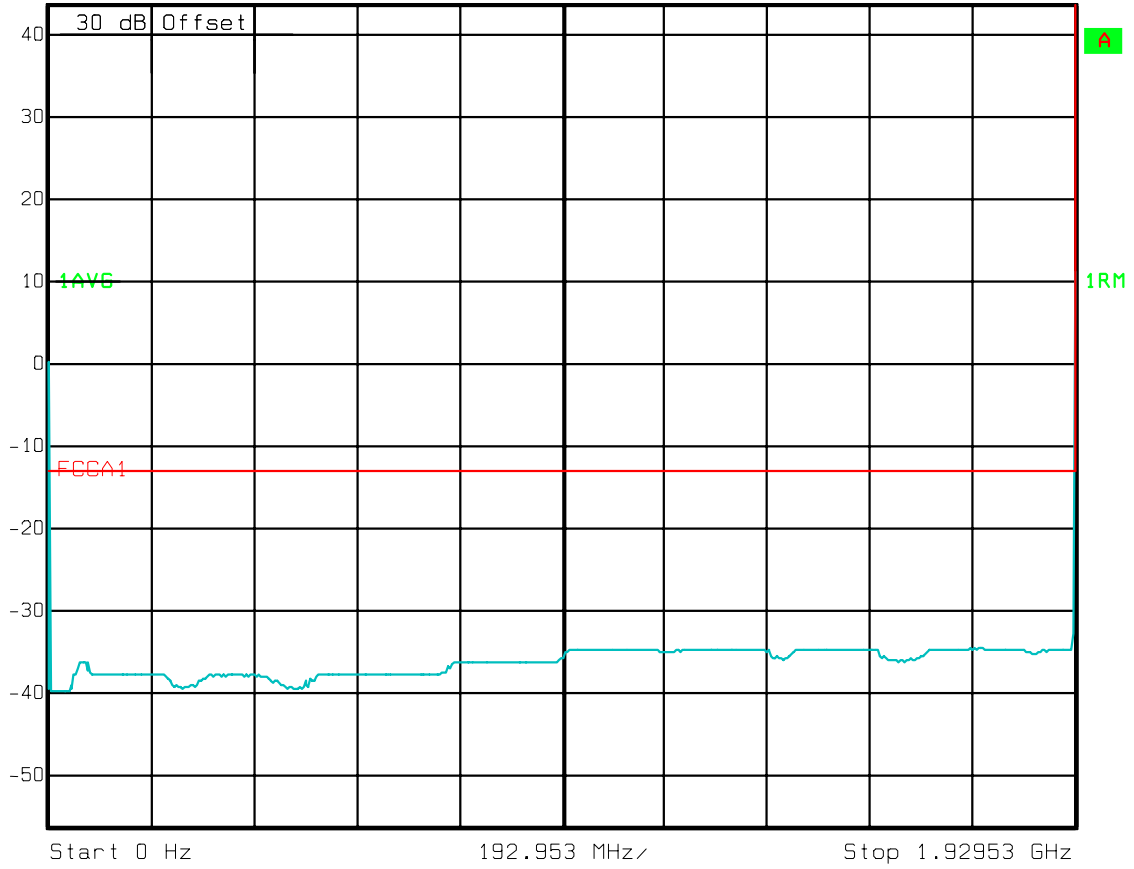


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 25, POWER OUTPUT = 24 W
Date: 7.FEB.2001 13:18:56



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

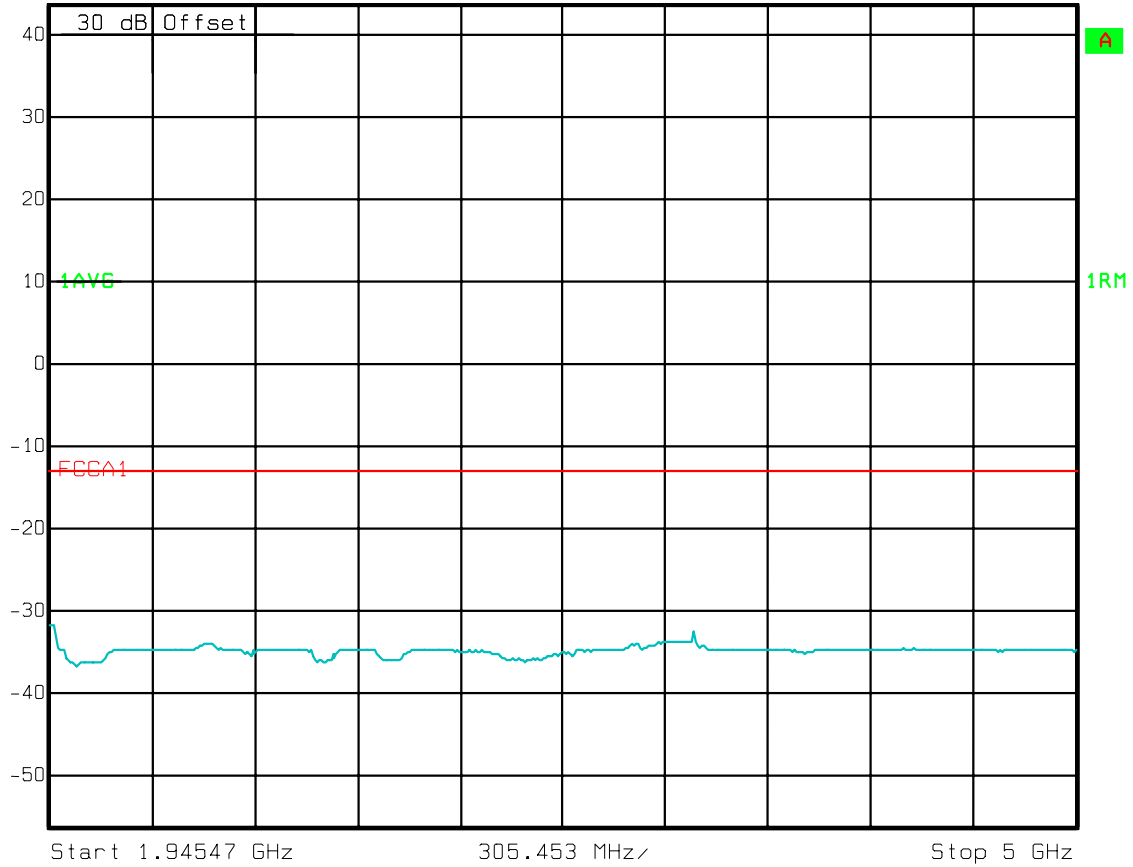


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 25, POWER OUTPUT = 24 W
Date: 7.FEB.2001 14:06:16



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

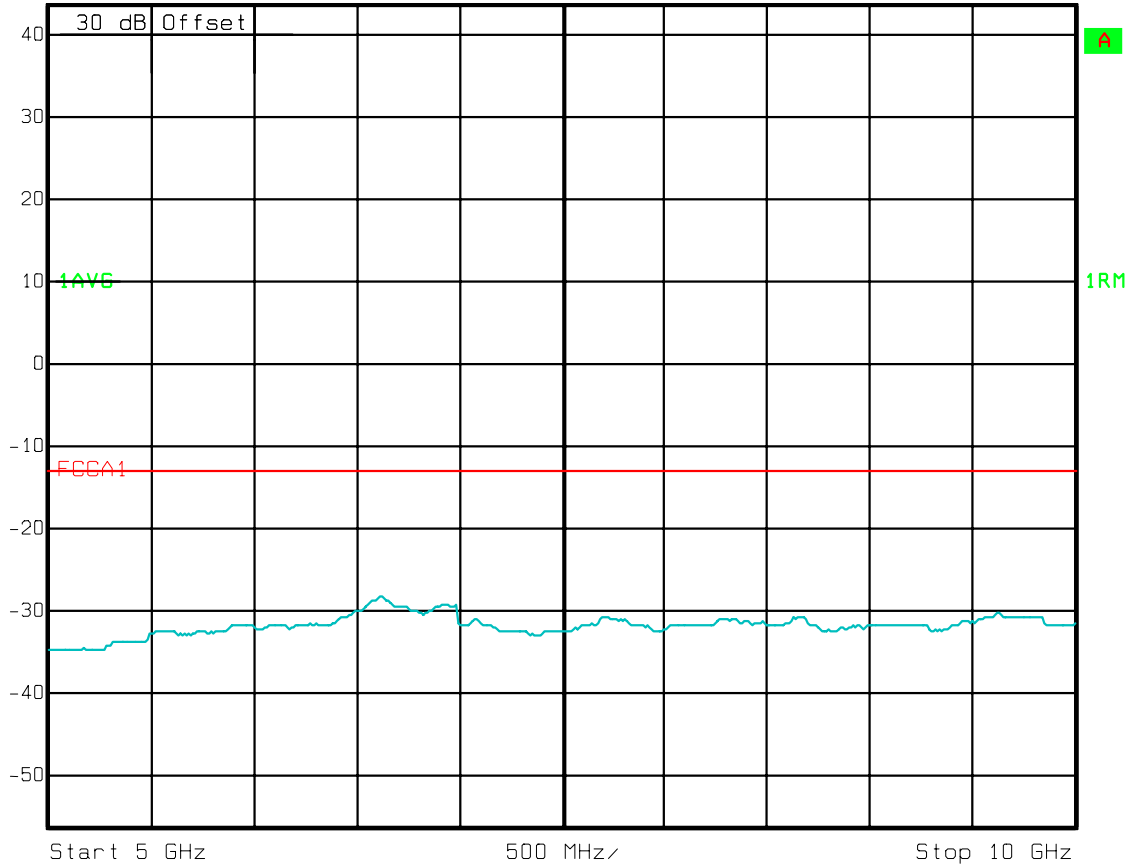


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 25, POWER OUTPUT = 24 W
Date: 7.FEB.2001 13:31:33



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

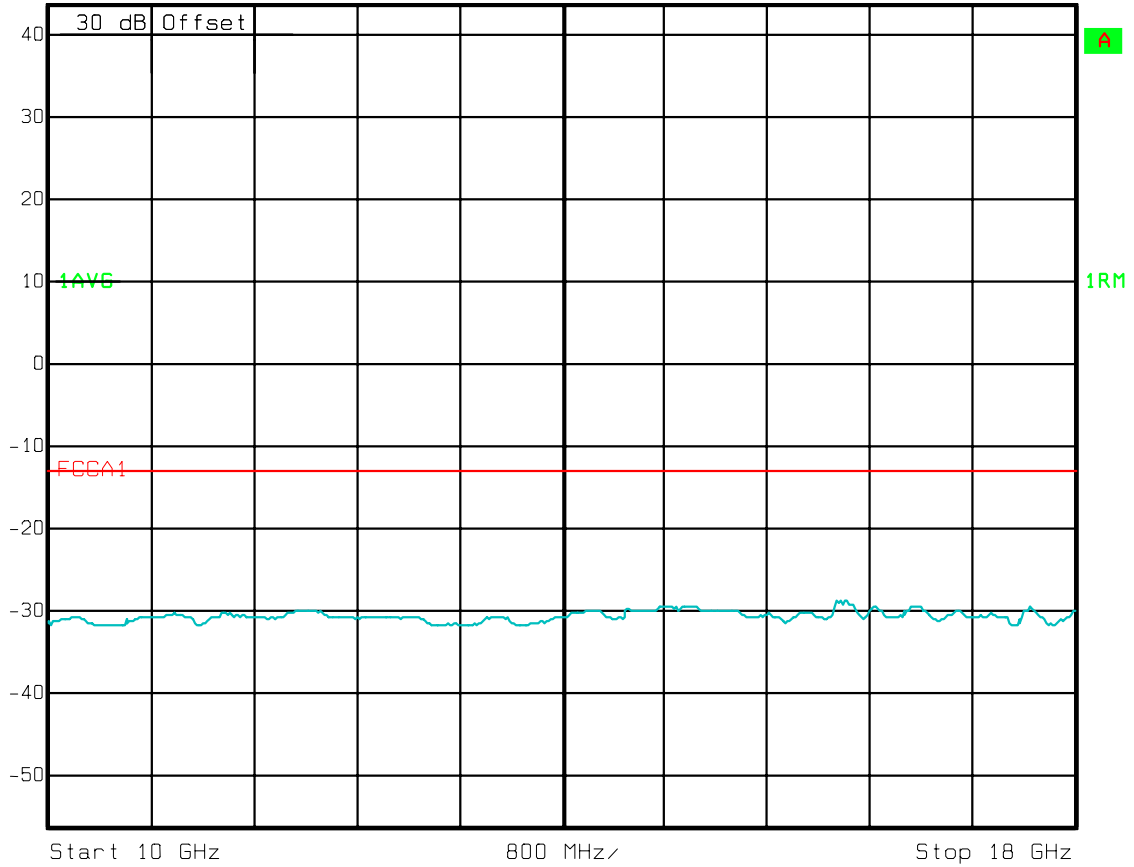


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 25, POWER OUTPUT = 24 W
Date: 7.FEB.2001 13:32:24



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

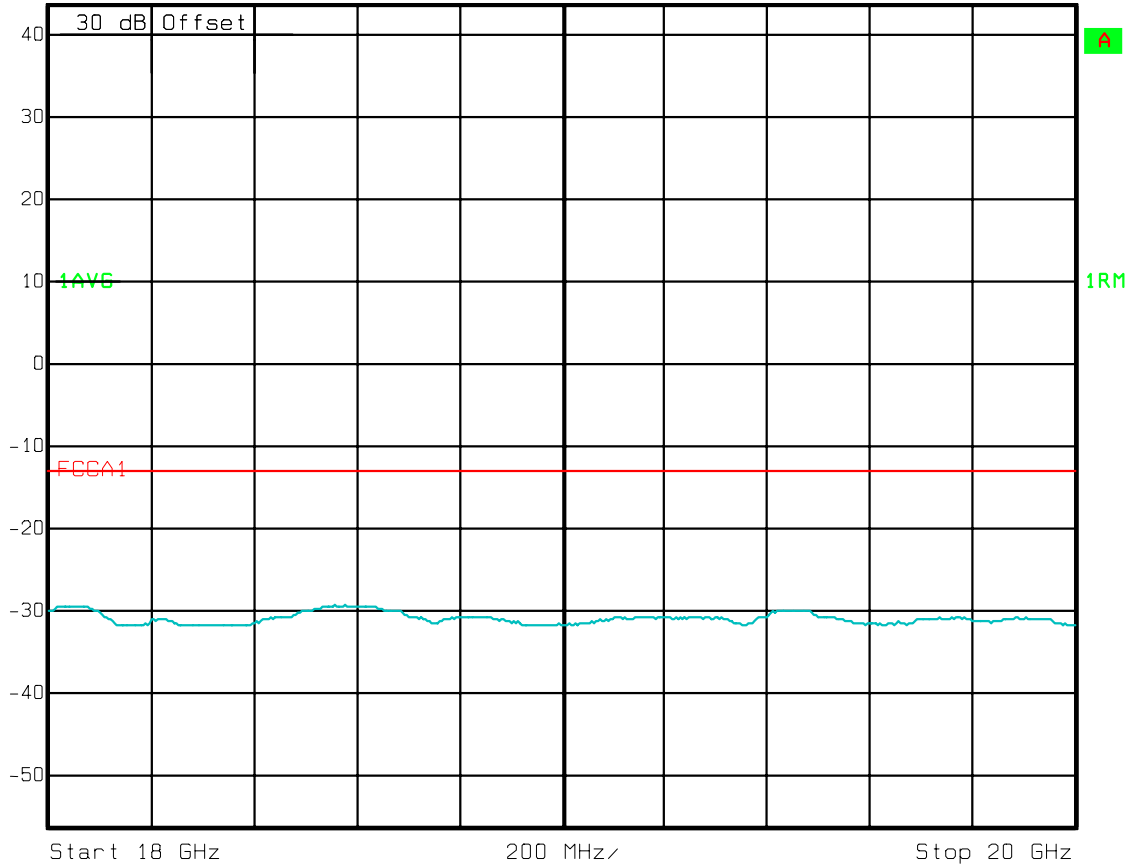


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 25, POWER OUTPUT = 24 W
Date: 7.FEB.2001 13:33:13



Ref Lvl
43.8 dBm

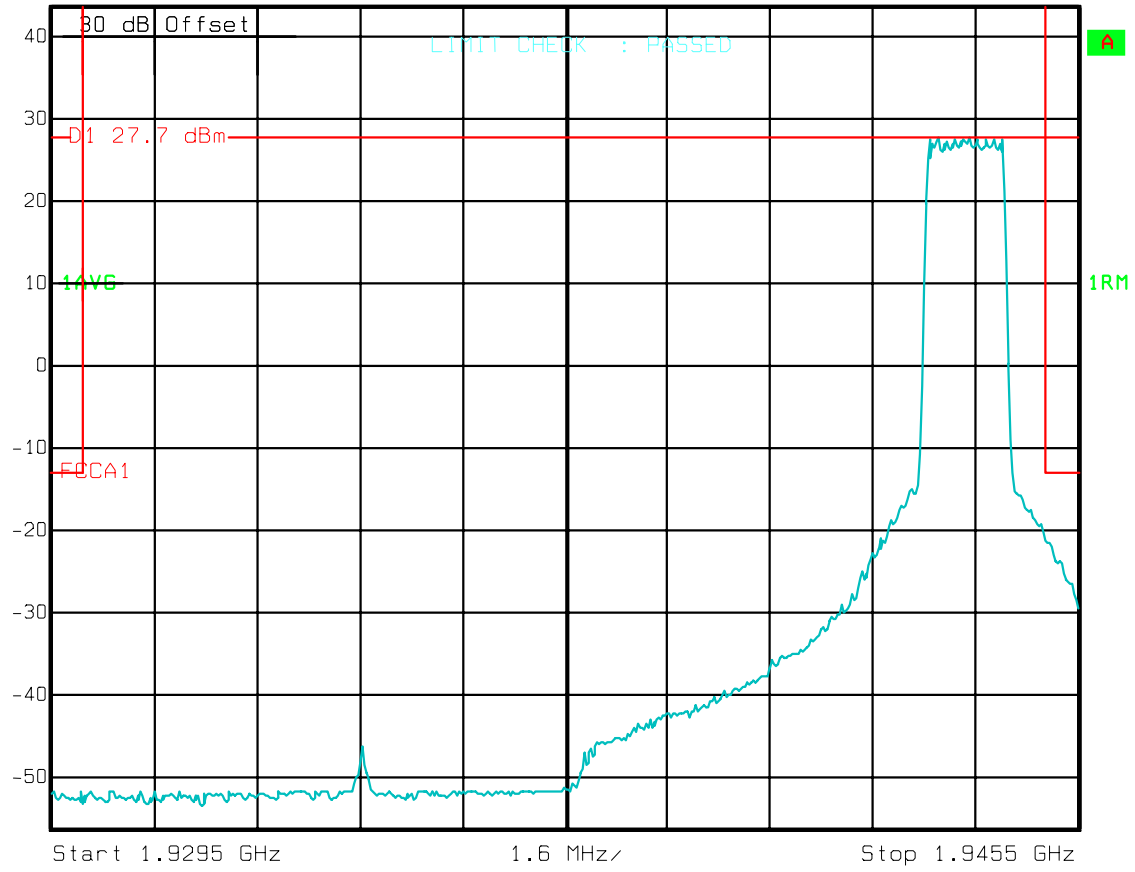
RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm



Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 25, POWER OUTPUT = 24 W
Date: 7.FEB.2001 13:35:11



Ref Lvl 43.8 dBm
RBW 30 kHz RF Att 30 dB
VBW 30 kHz
SWT 500 ms Unit dBm

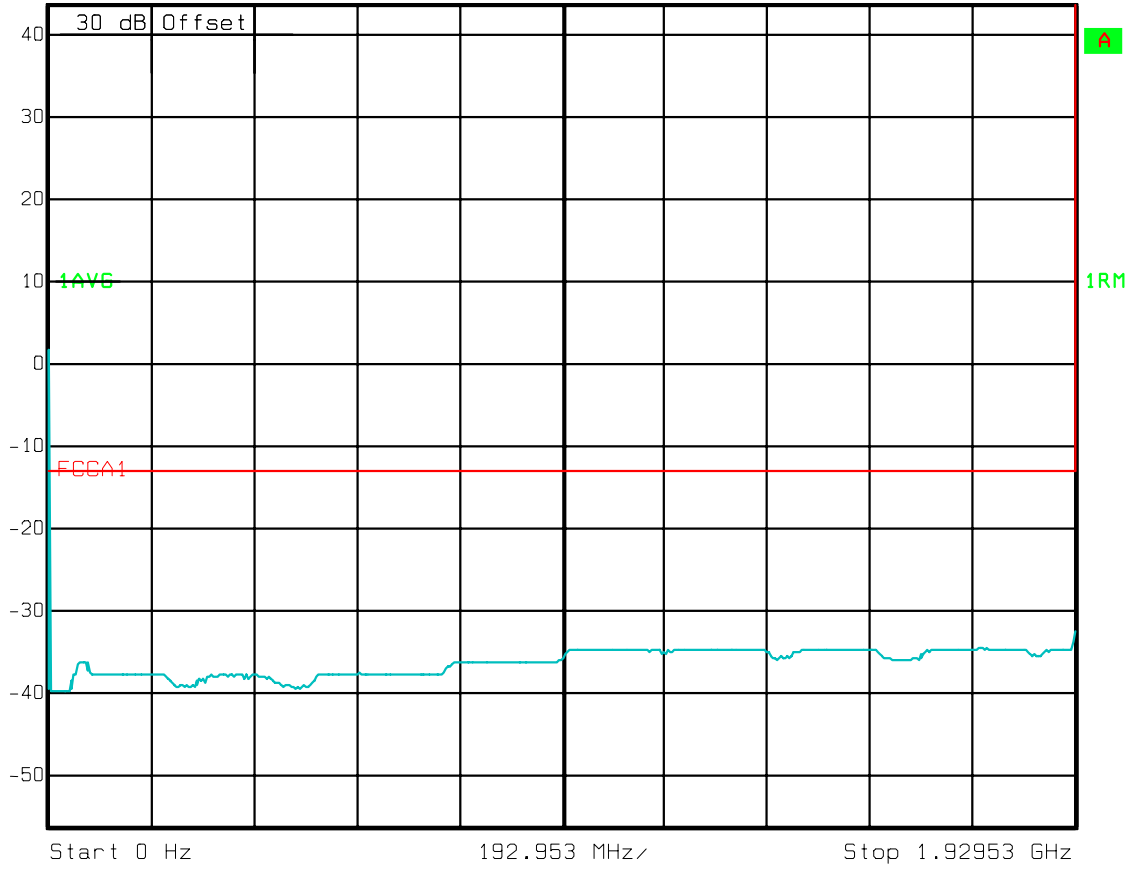


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 275, POWER OUTPUT = 24 W
Date: 7.FEB.2001 14:45:07



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

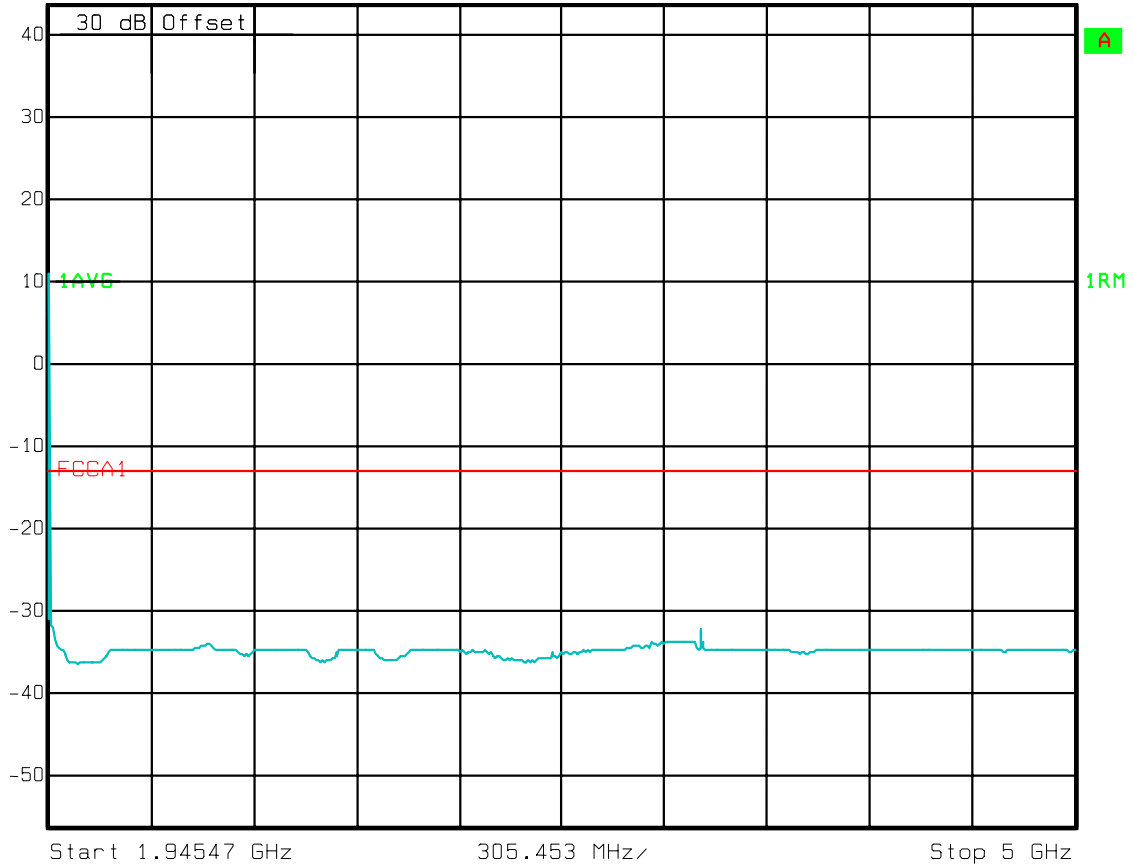


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 275, POWER OUTPUT = 24 W
Date: 7.FEB.2001 14:46:29



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

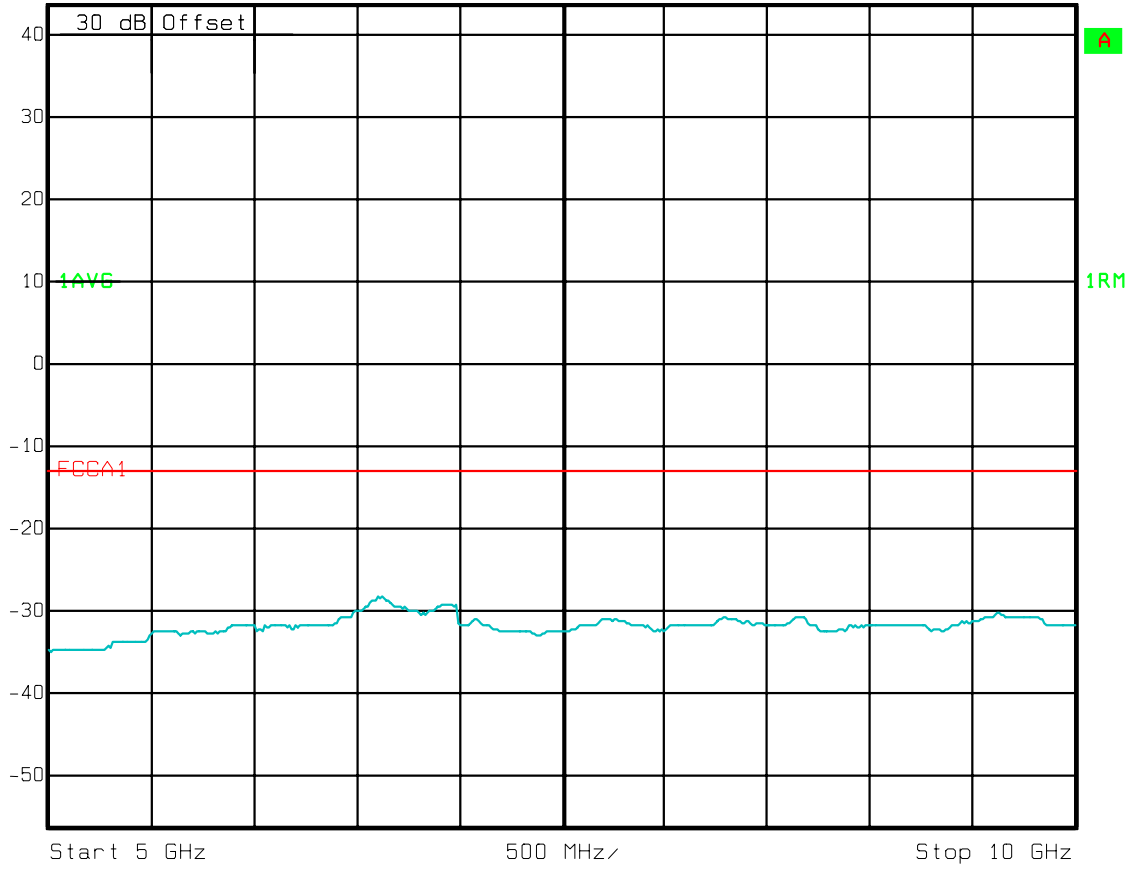


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 275, POWER OUTPUT = 24 W
Date: 7.FEB.2001 14:47:57



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

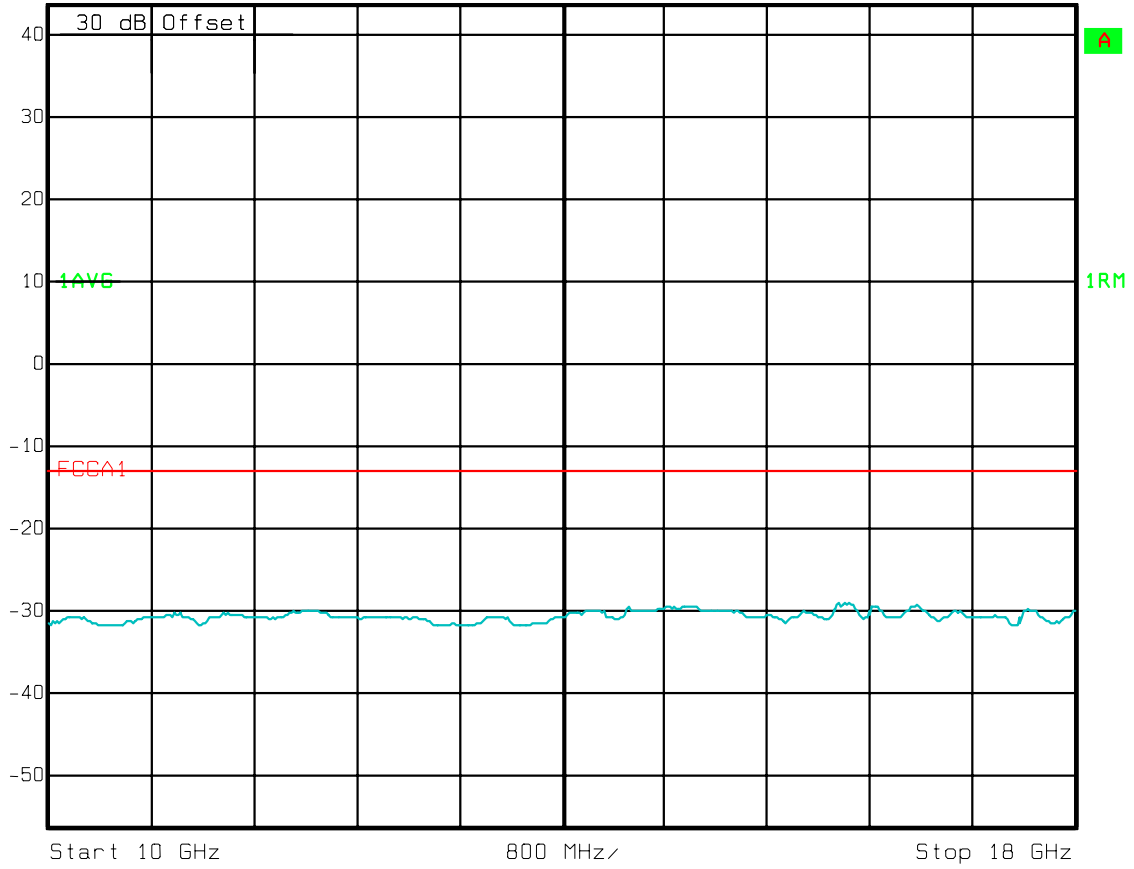


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 275, POWER OUTPUT = 24 W
Date: 7.FEB.2001 14:48:41



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

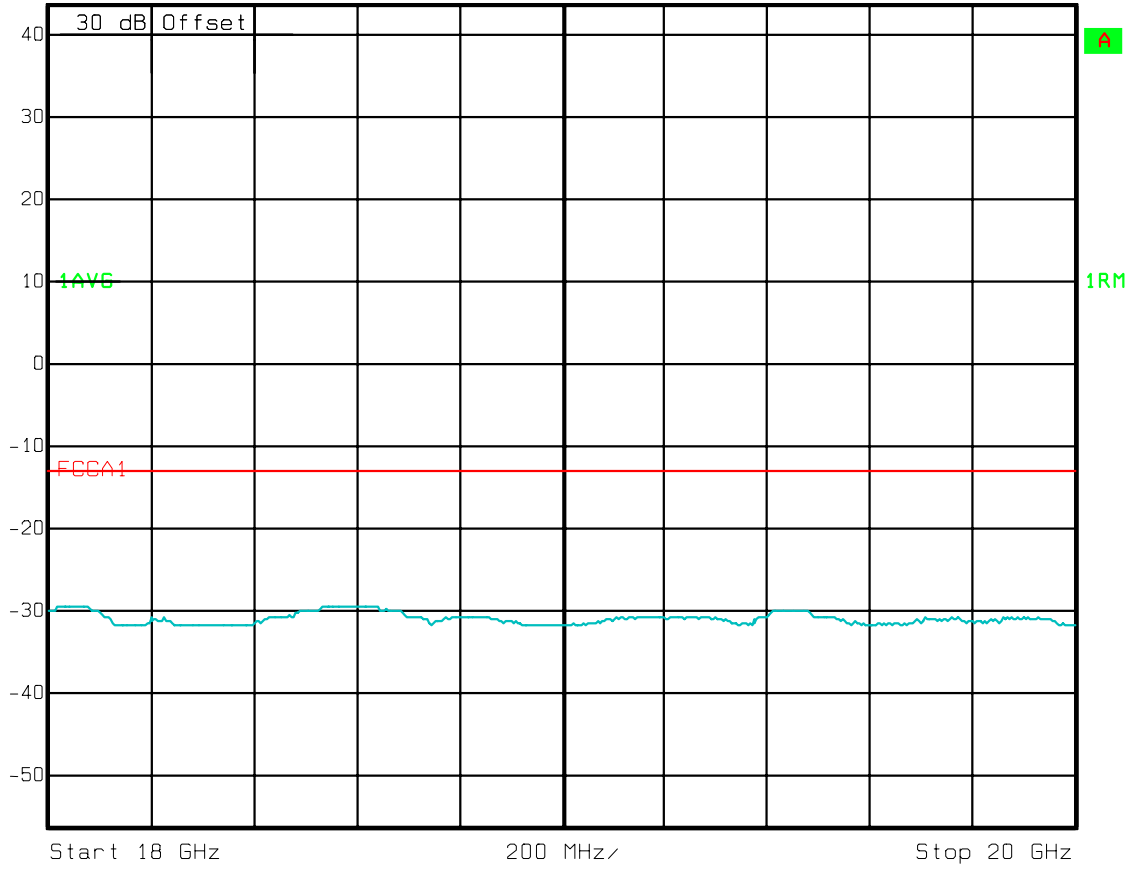


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 275, POWER OUTPUT = 24 W
Date: 7.FEB.2001 14:49:23



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm



Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 275, POWER OUTPUT = 24 W
Date: 7.FEB.2001 14:50:04

Measurement: 4
SPURIOUS EMISSIONS
AT ANTENNA TERMINALS

BLOCK D

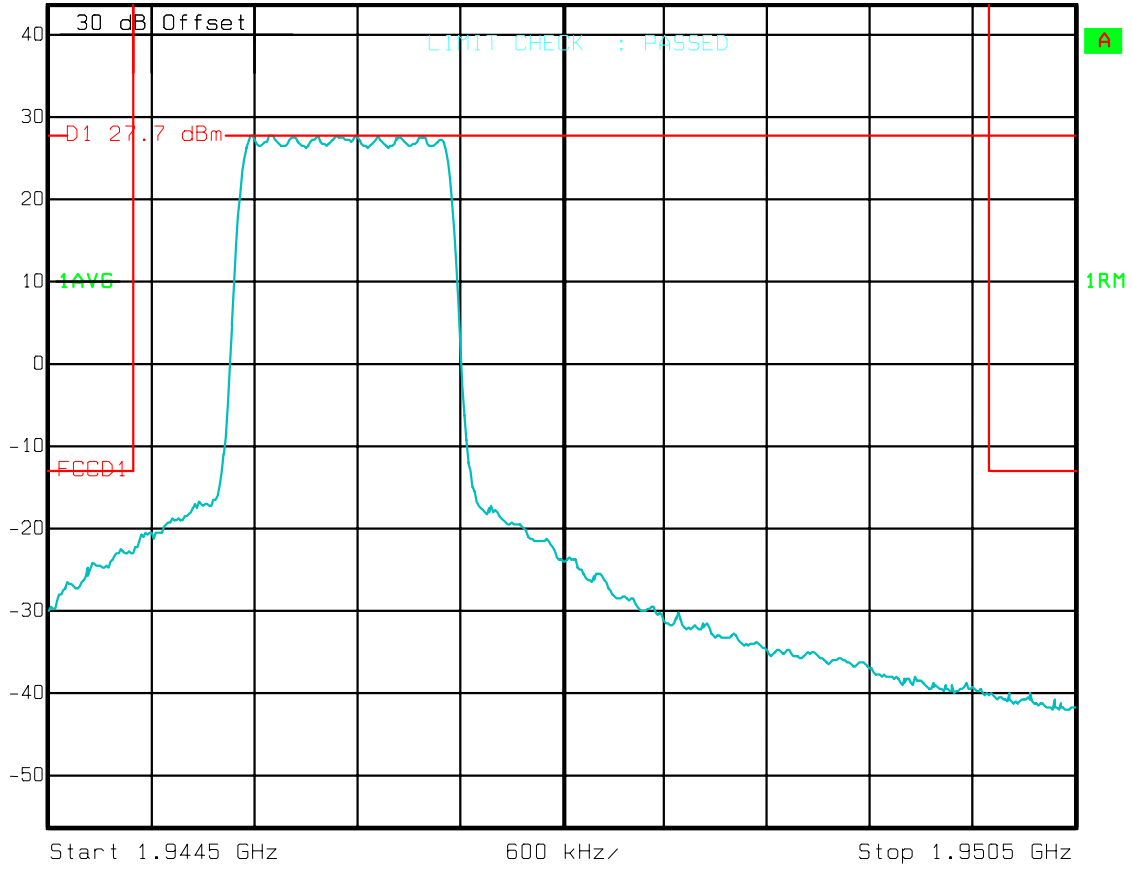
(1945 - 1950 MHz)

Left Edge:	1946.25 MHz	(Channel 325)
Right Edge:	1948.75 MHz	(Channel 375)



Ref Lvl
43.8 dBm

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

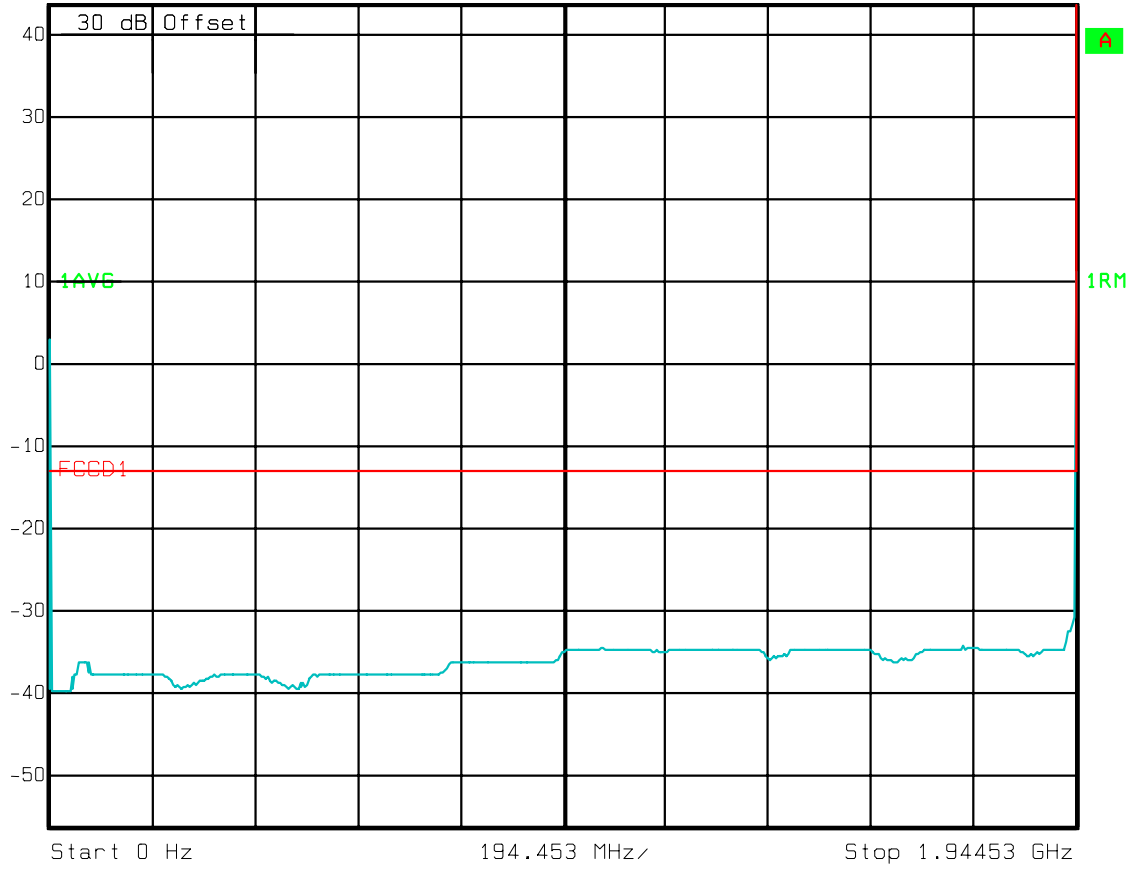


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 325, POWER OUTPUT = 24 W
Date: 7.FEB.2001 16:48:04



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

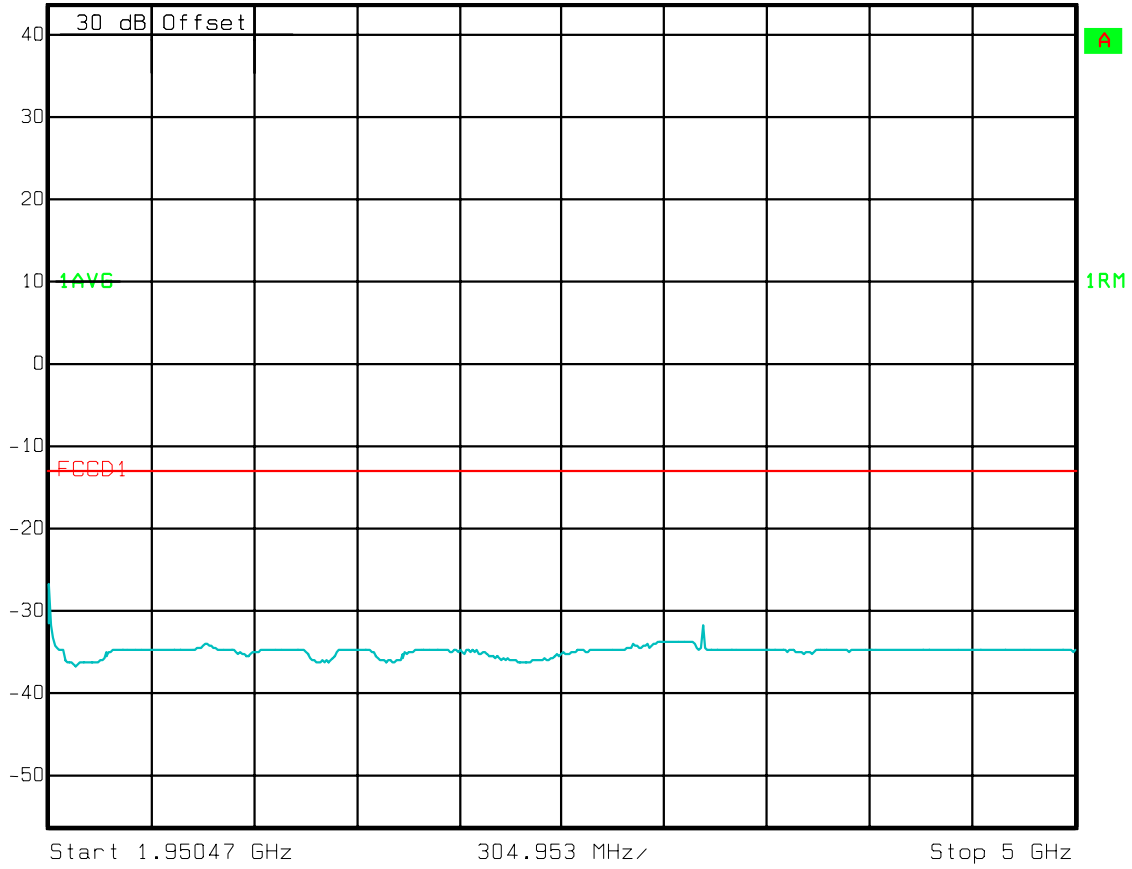


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 325, POWER OUTPUT = 24 W
Date: 7.FEB.2001 16:49:08



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

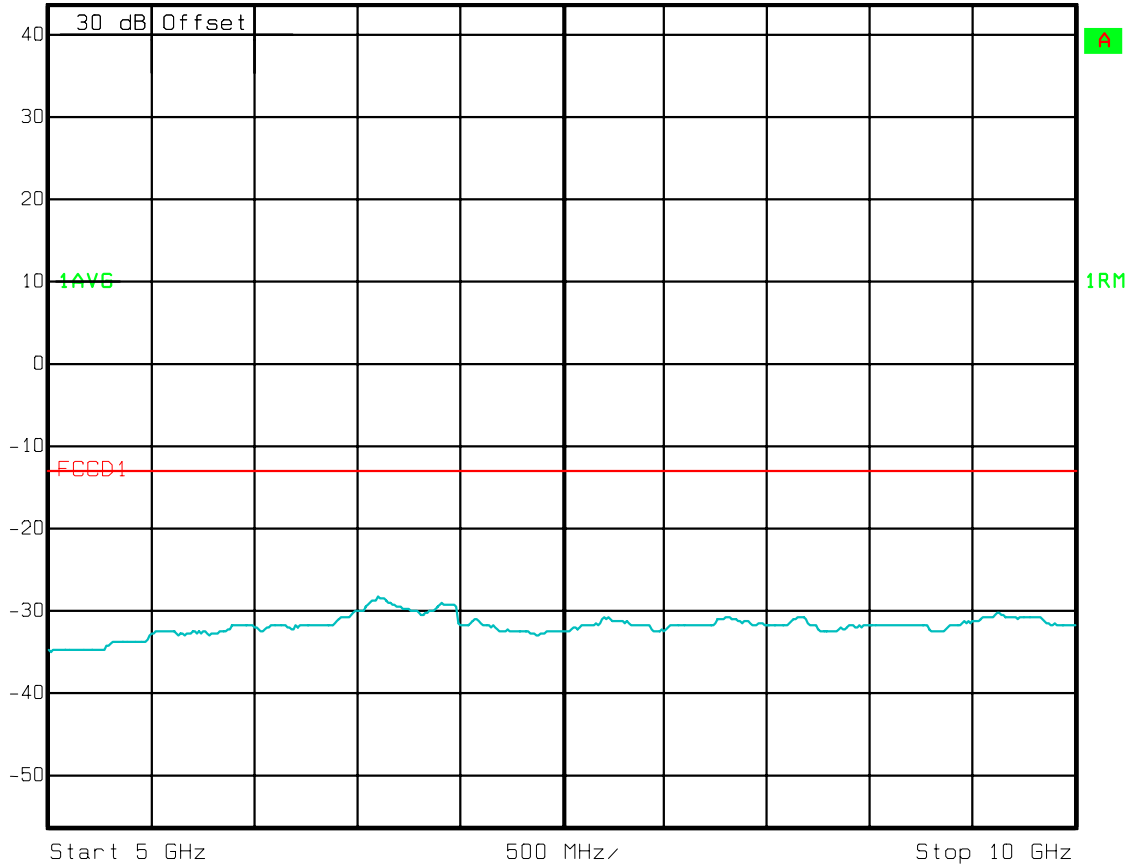


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 325, POWER OUTPUT = 24 W
Date: 7.FEB.2001 16:50:10



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

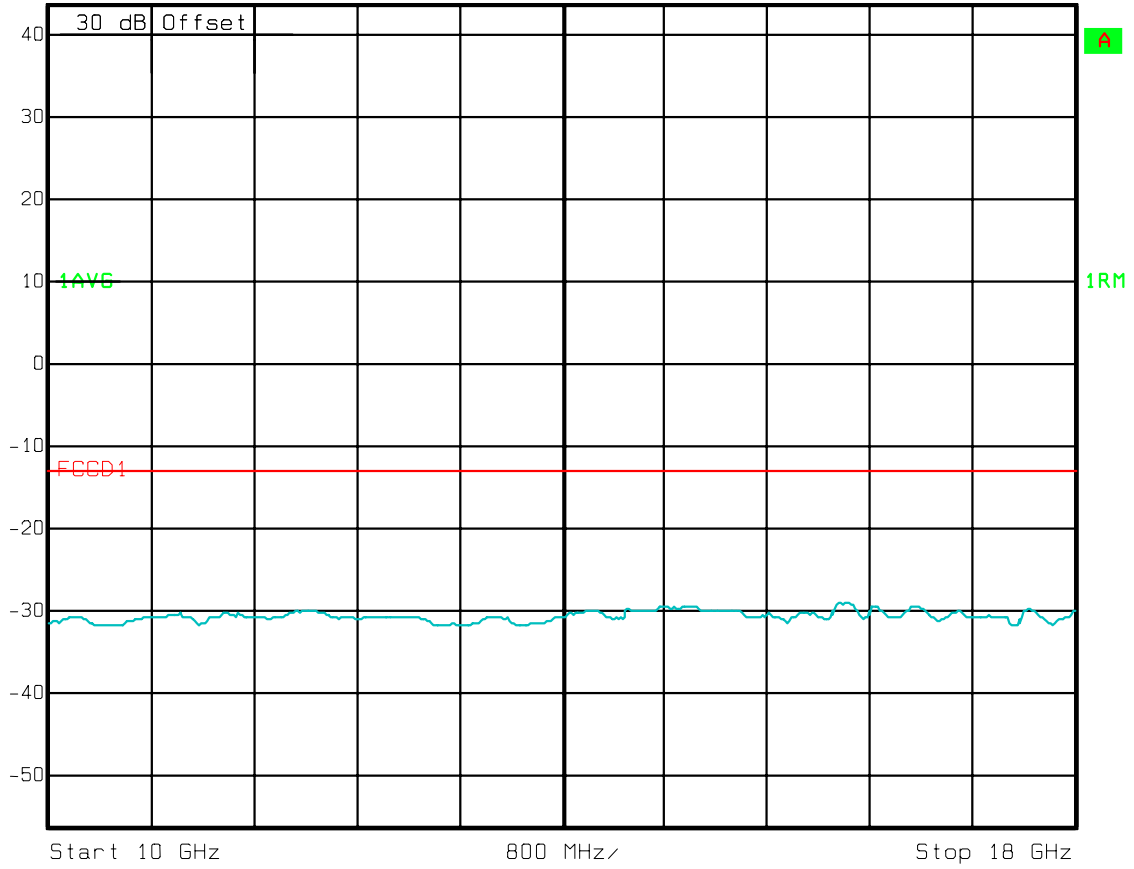


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 325, POWER OUTPUT = 24 W
Date: 7.FEB.2001 16:50:57



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

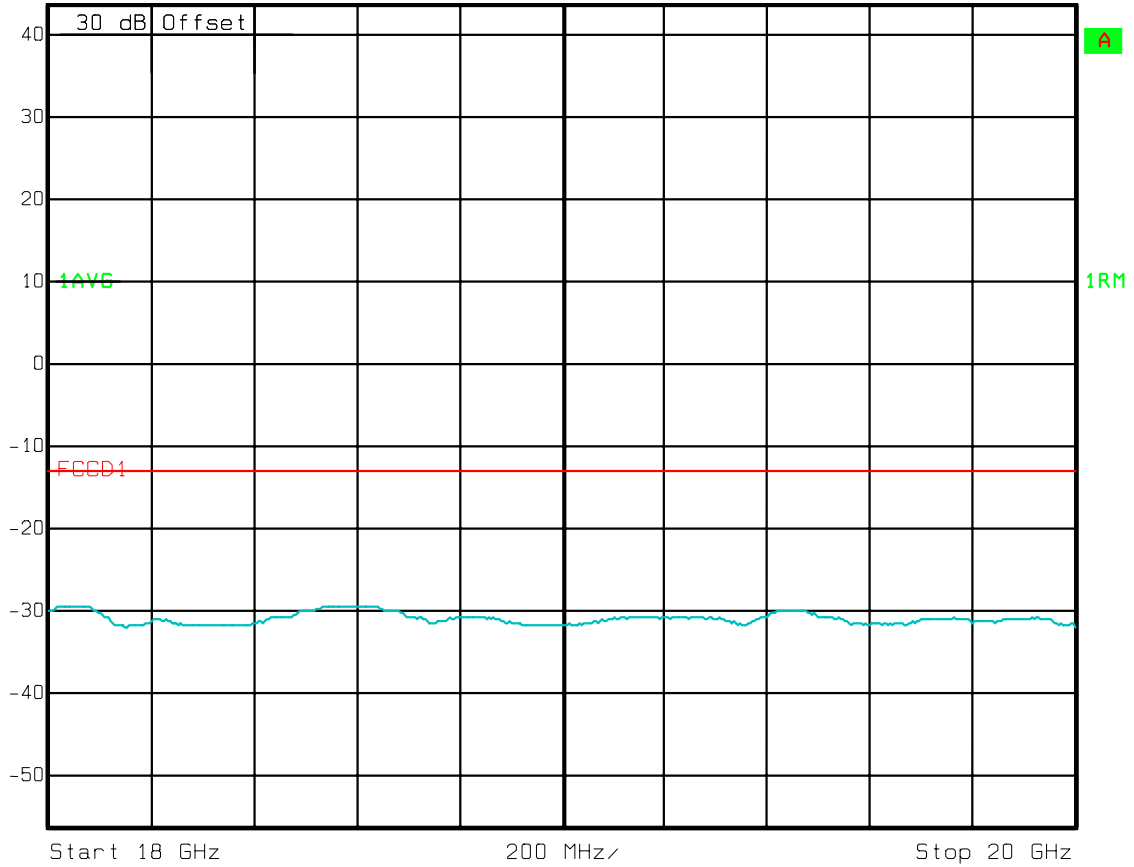


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 325, POWER OUTPUT = 24 W
Date: 7.FEB.2001 16:51:48

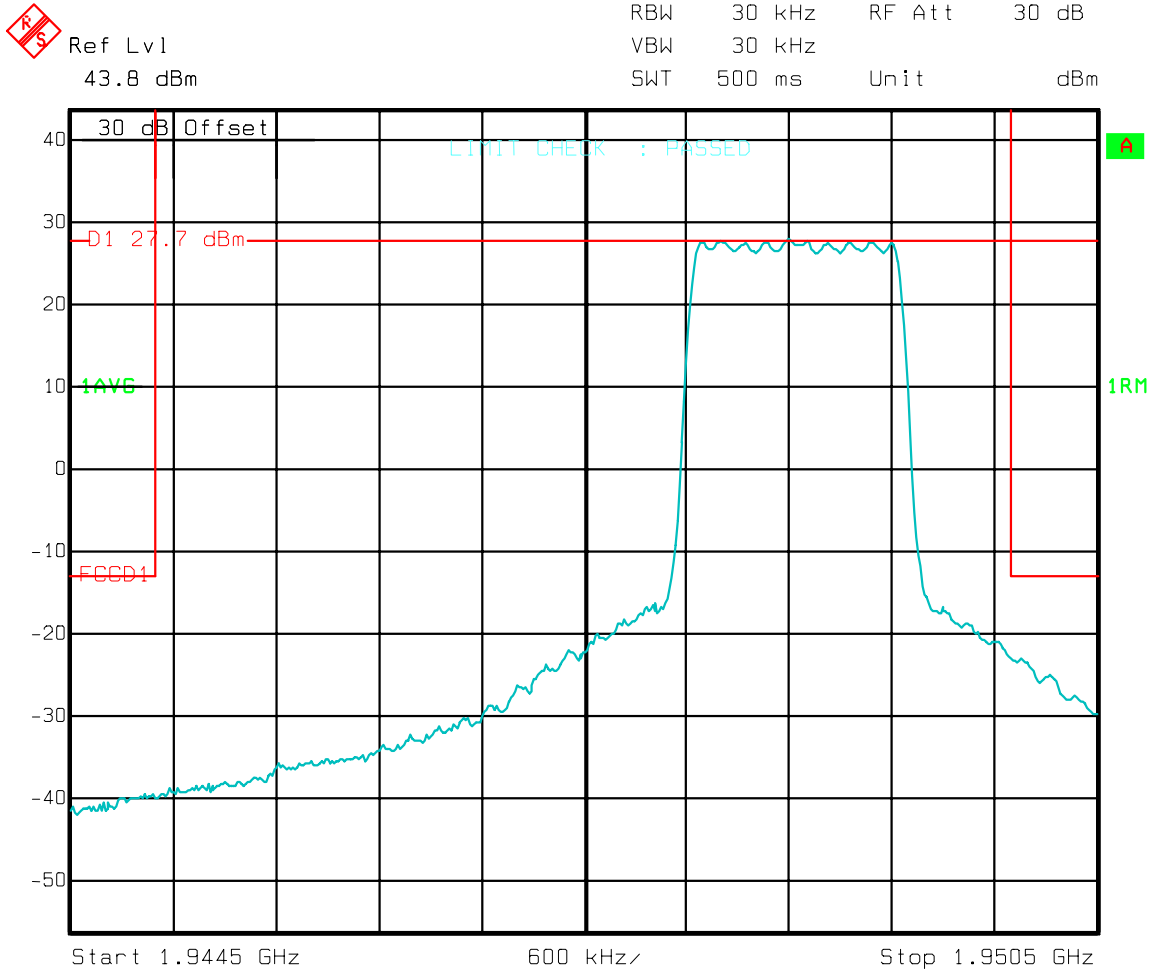


Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm



Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 325, POWER OUTPUT = 24 W
Date: 7.FEB.2001 16:52:35

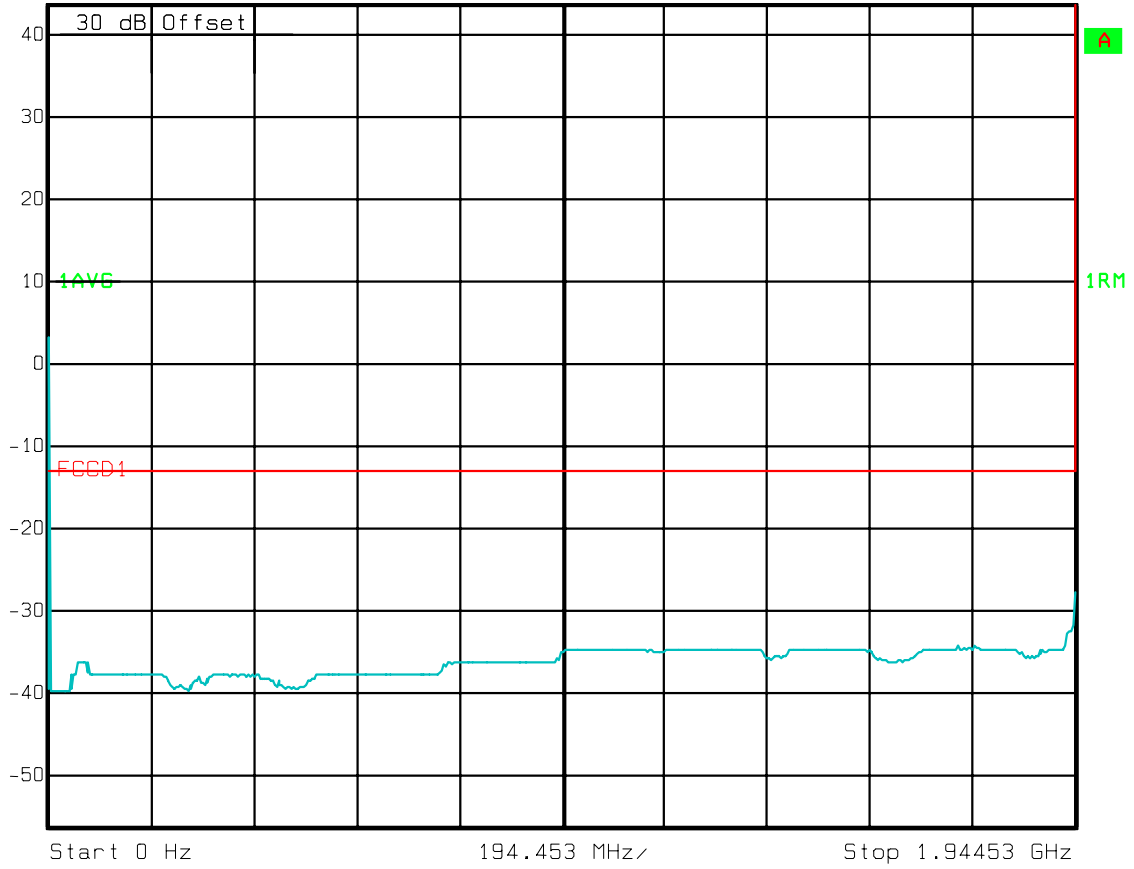


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 375, POWER OUTPUT = 24 W
Date: 7.FEB.2001 16:40:53



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

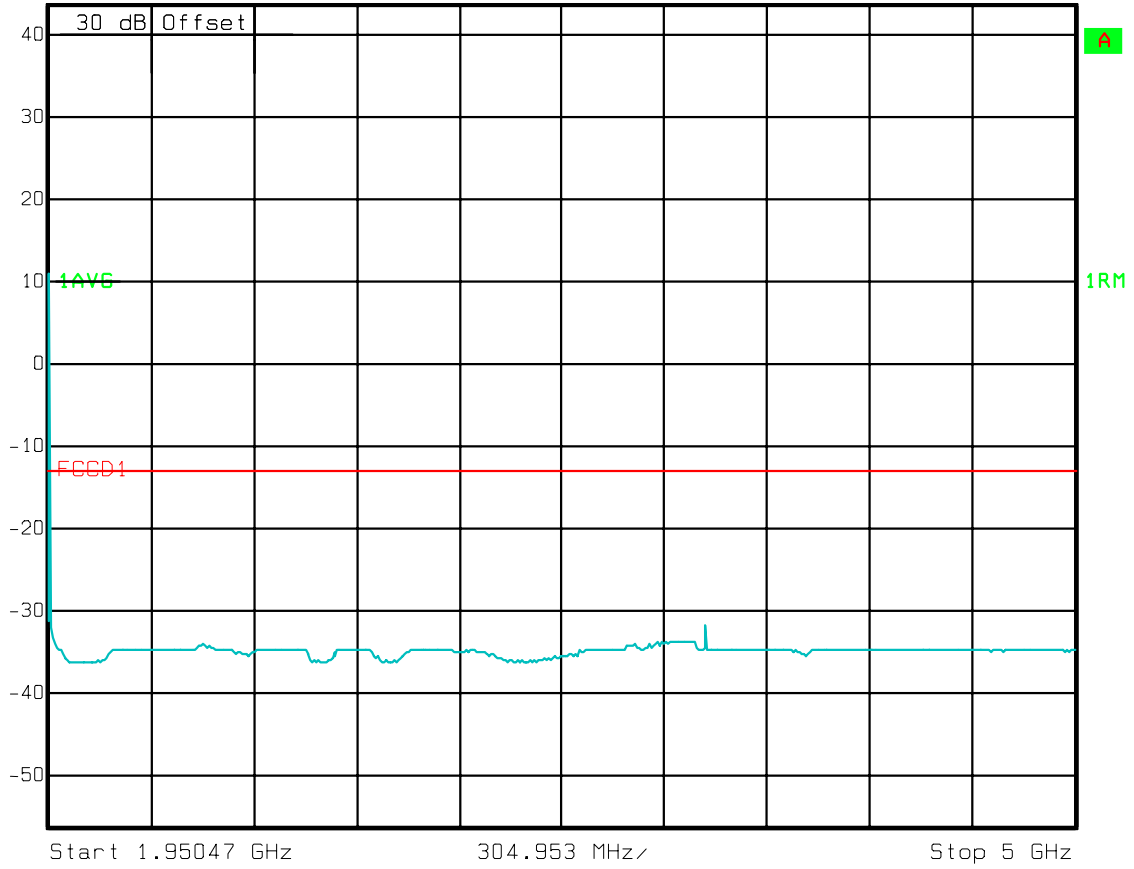


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 375, POWER OUTPUT = 24 W
Date: 7.FEB.2001 16:42:17



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

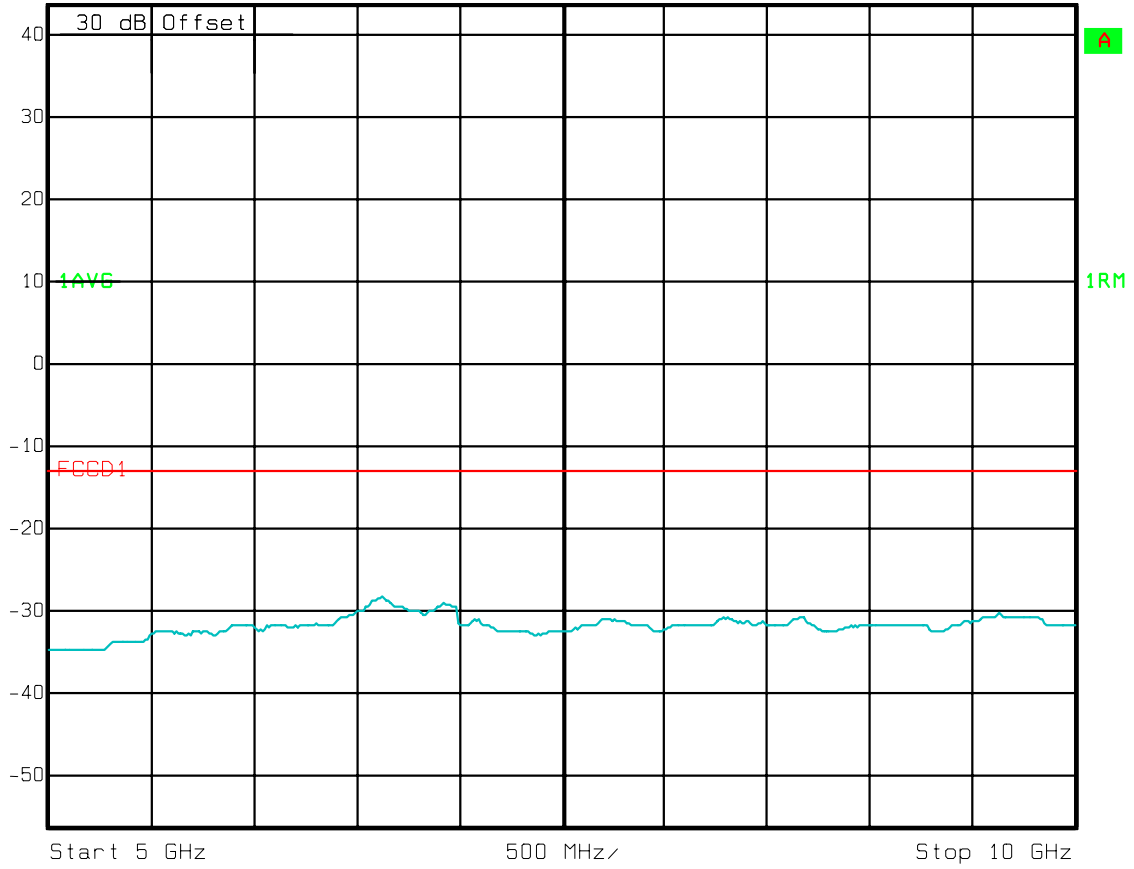


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 375, POWER OUTPUT = 24 W
Date: 7.FEB.2001 16:43:12



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

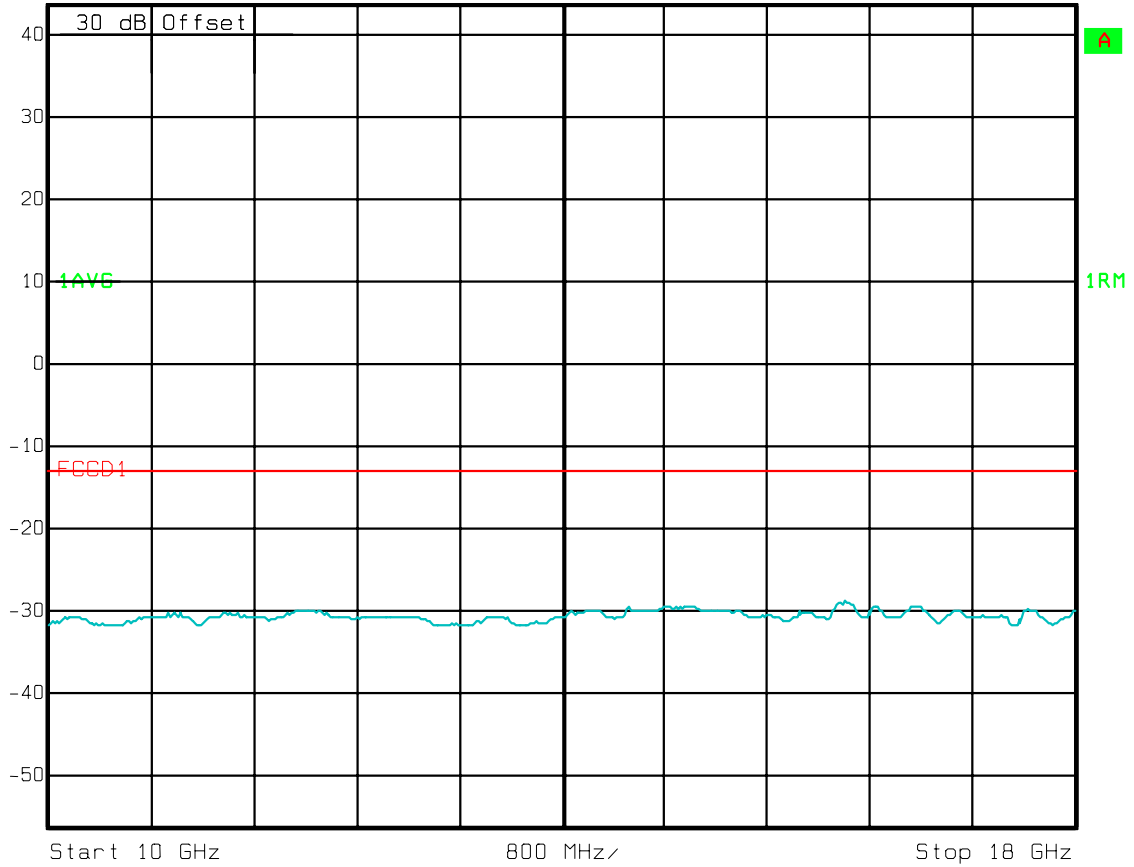


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 375, POWER OUTPUT = 24 W
Date: 7.FEB.2001 16:44:28



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

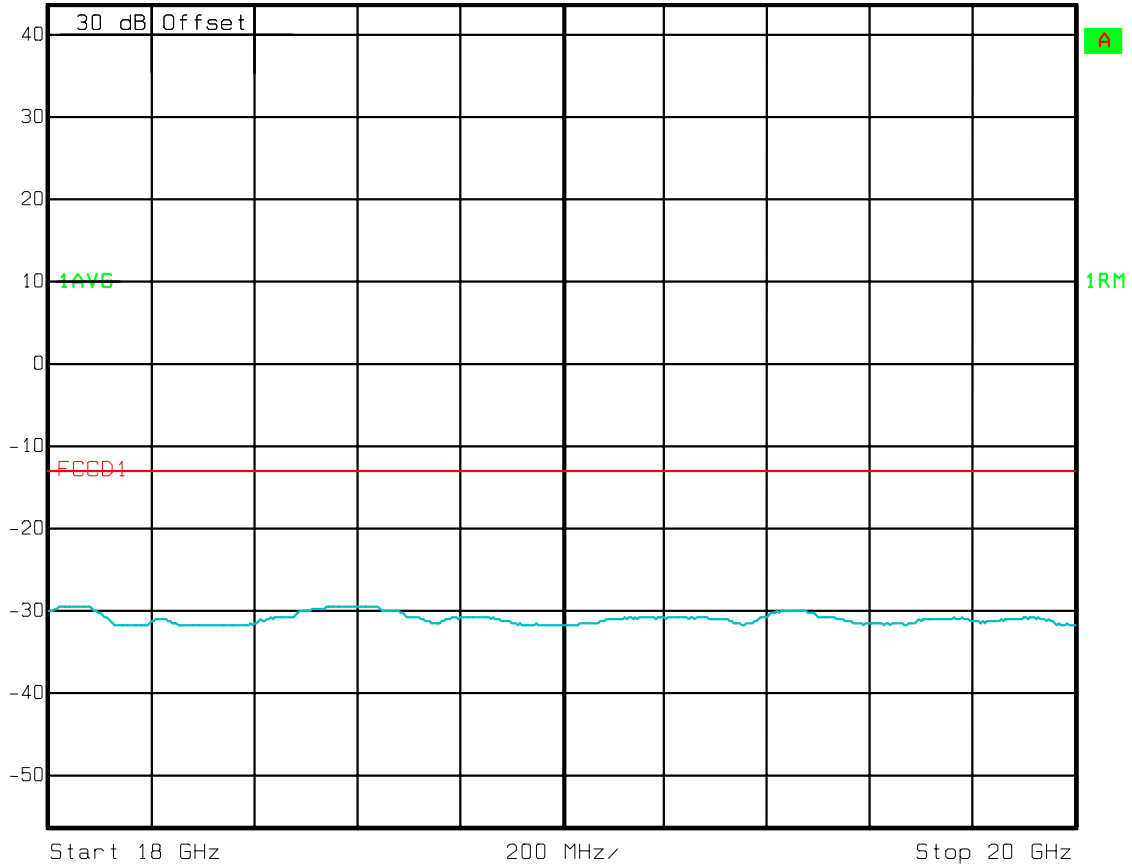


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 375, POWER OUTPUT = 24 W
Date: 7.FEB.2001 16:45:10



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm



Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 375, POWER OUTPUT = 24 W
Date: 7.FEB.2001 16:45:53

Measurement: 4
SPURIOUS EMISSIONS
AT ANTENNA TERMINALS

BLOCK B

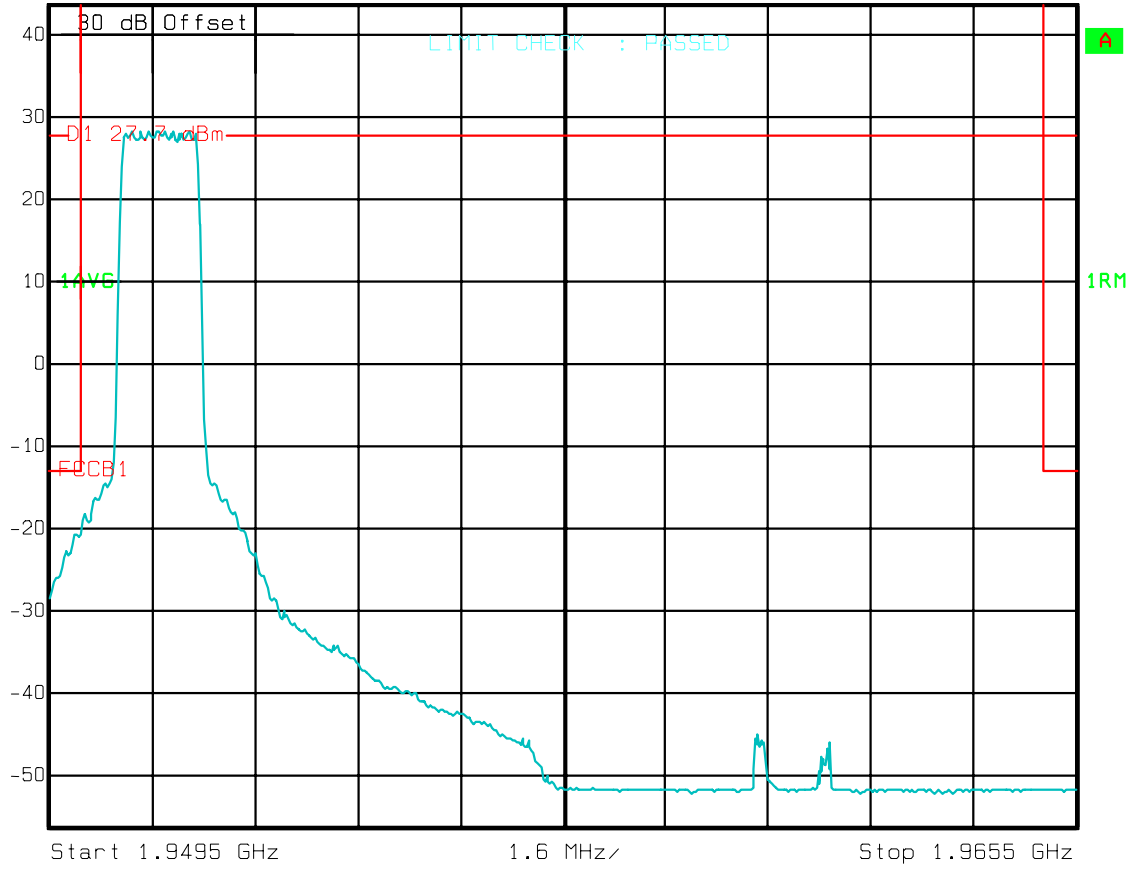
(1950 - 1965 MHz)

Left Edge:	1951.25 MHz	(Channel 425)
Right Edge:	1963.75 MHz	(Channel 675)



Ref Lvl
43.8 dBm

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

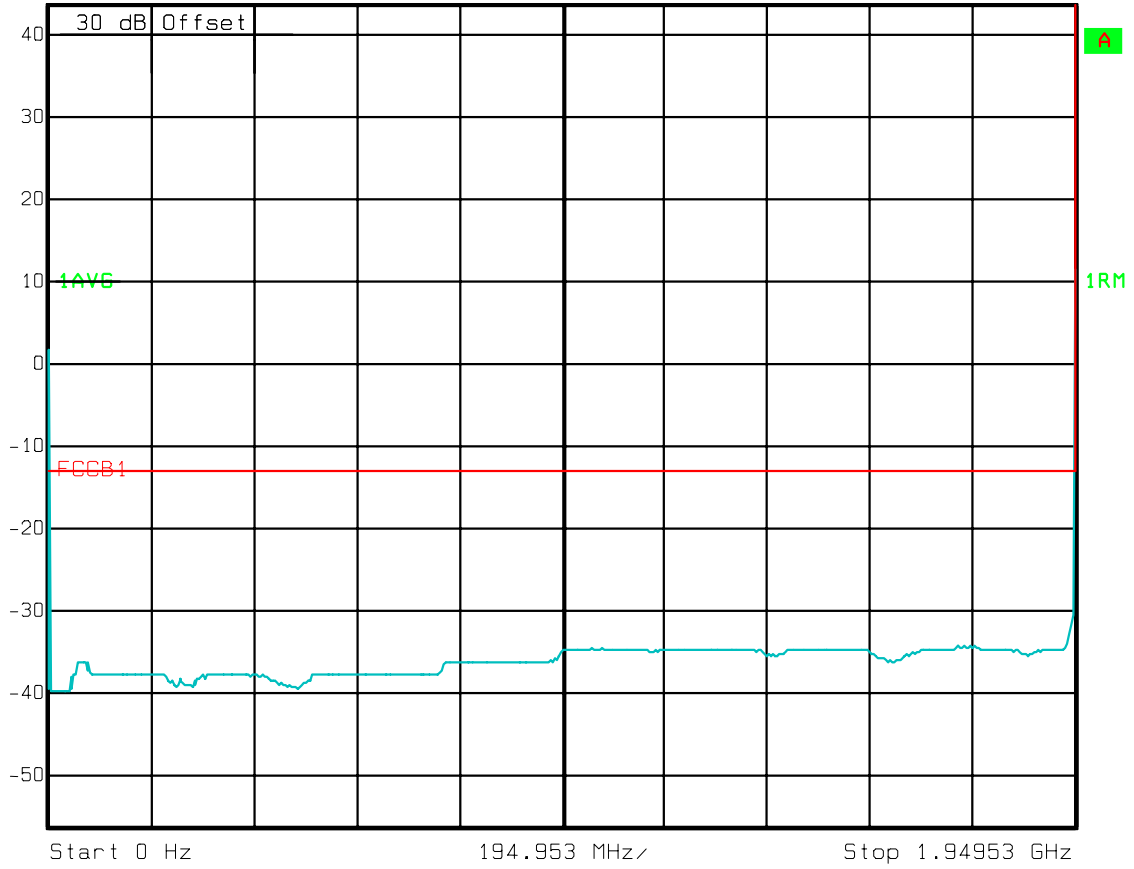


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 425, POWER OUTPUT = 24 W
Date: 8.FEB.2001 17:05:03



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

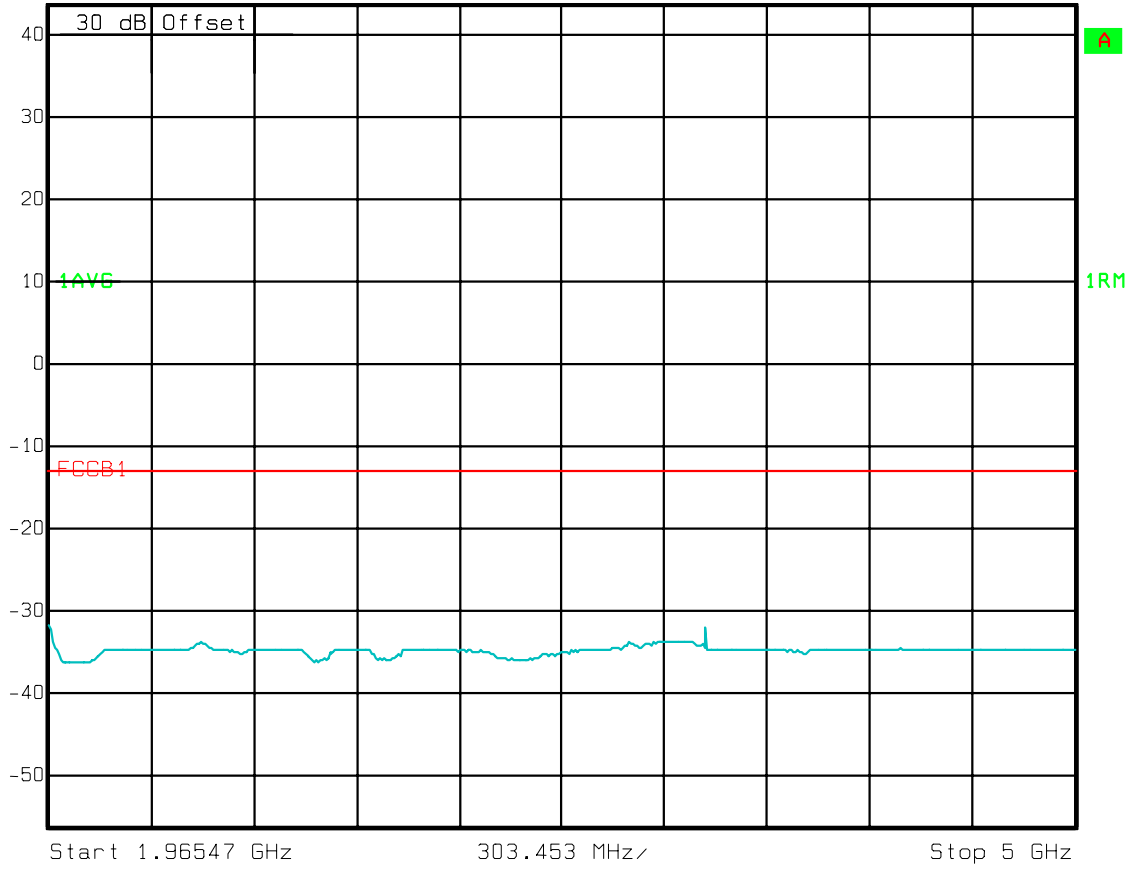


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 425, POWER OUTPUT = 24 W
Date: 8.FEB.2001 17:06:12



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

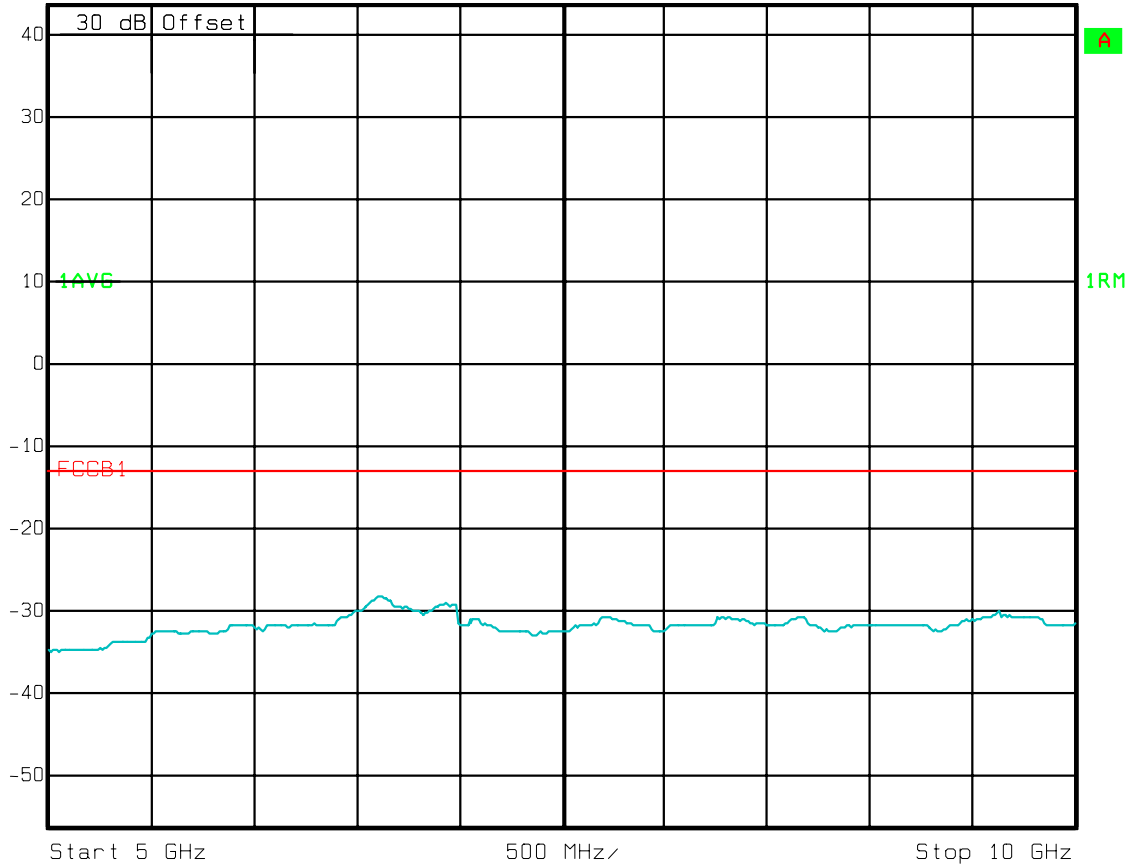


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 425, POWER OUTPUT = 24 W
Date: 8.FEB.2001 17:07:39



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

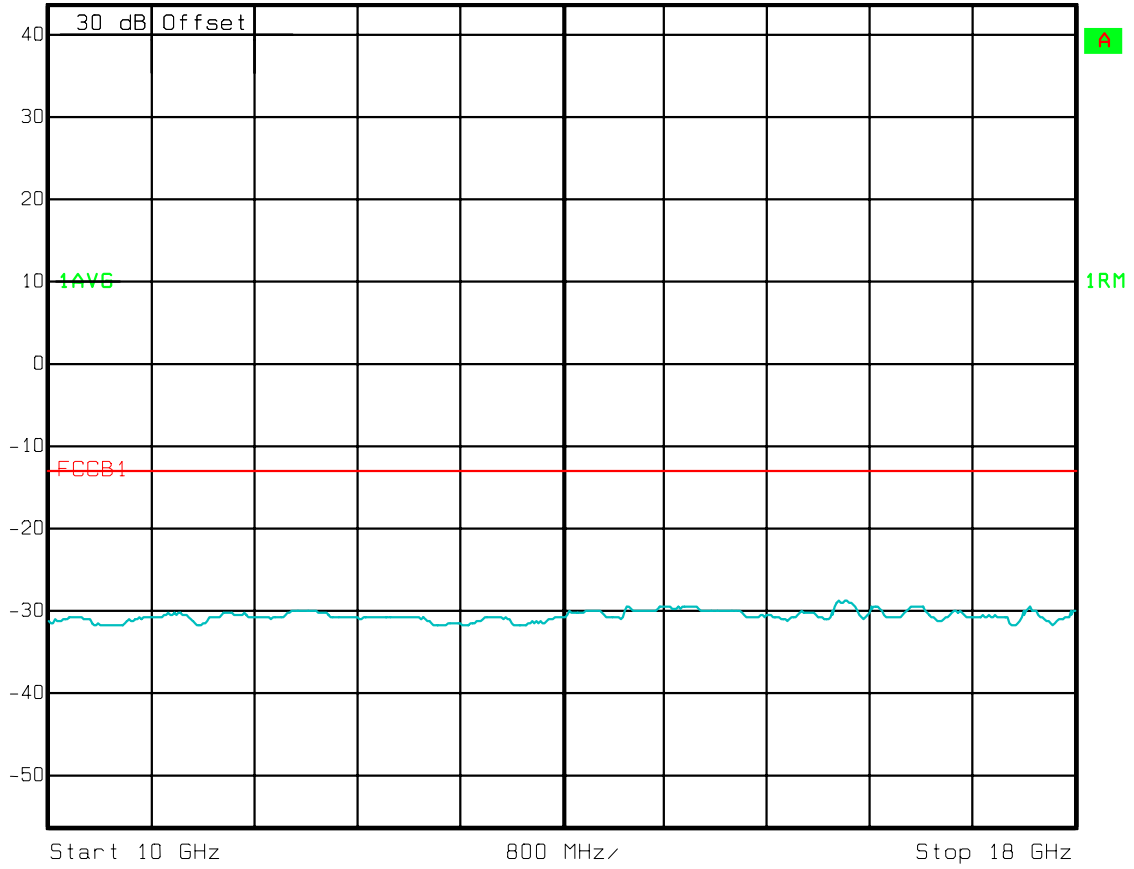


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 425, POWER OUTPUT = 24 W
Date: 8.FEB.2001 17:08:22



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

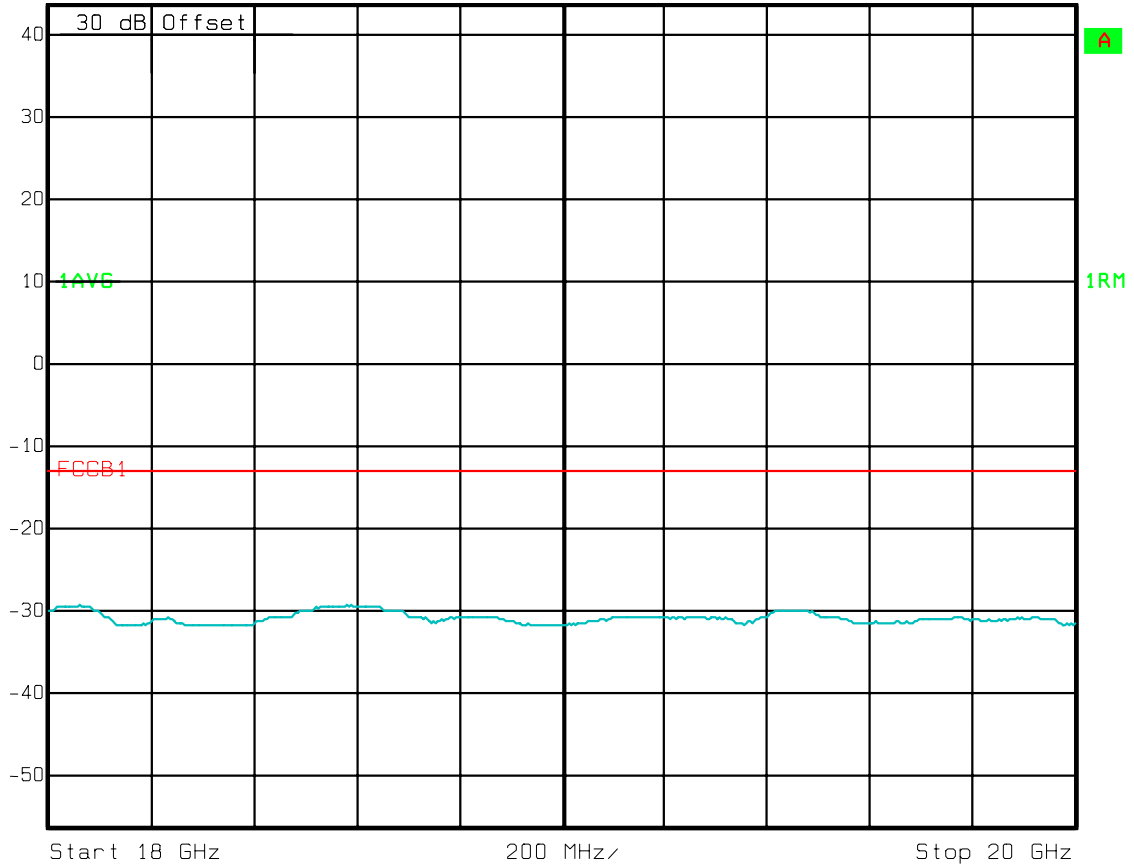


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 425, POWER OUTPUT = 24 W
Date: 8.FEB.2001 17:10:21



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

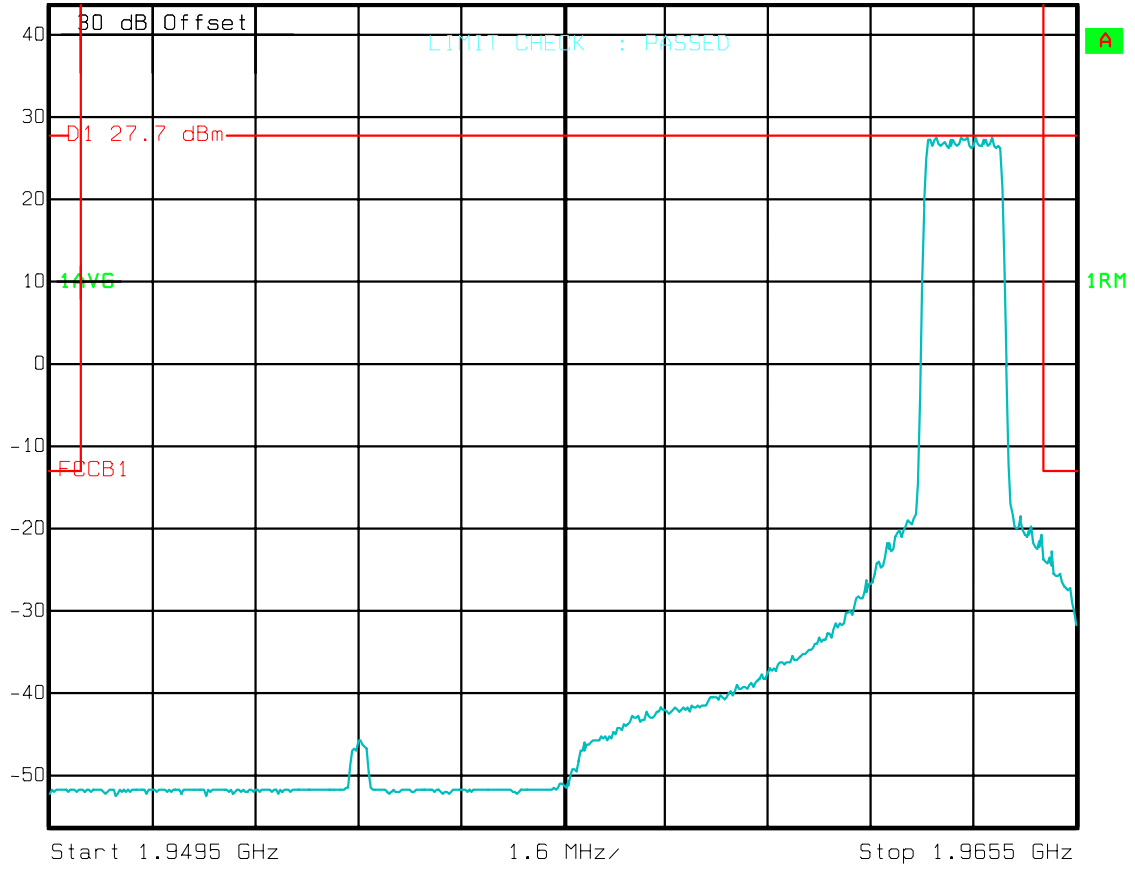


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 425, POWER OUTPUT = 24 W
Date: 8.FEB.2001 17:11:06



Ref Lvl
43.8 dBm

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

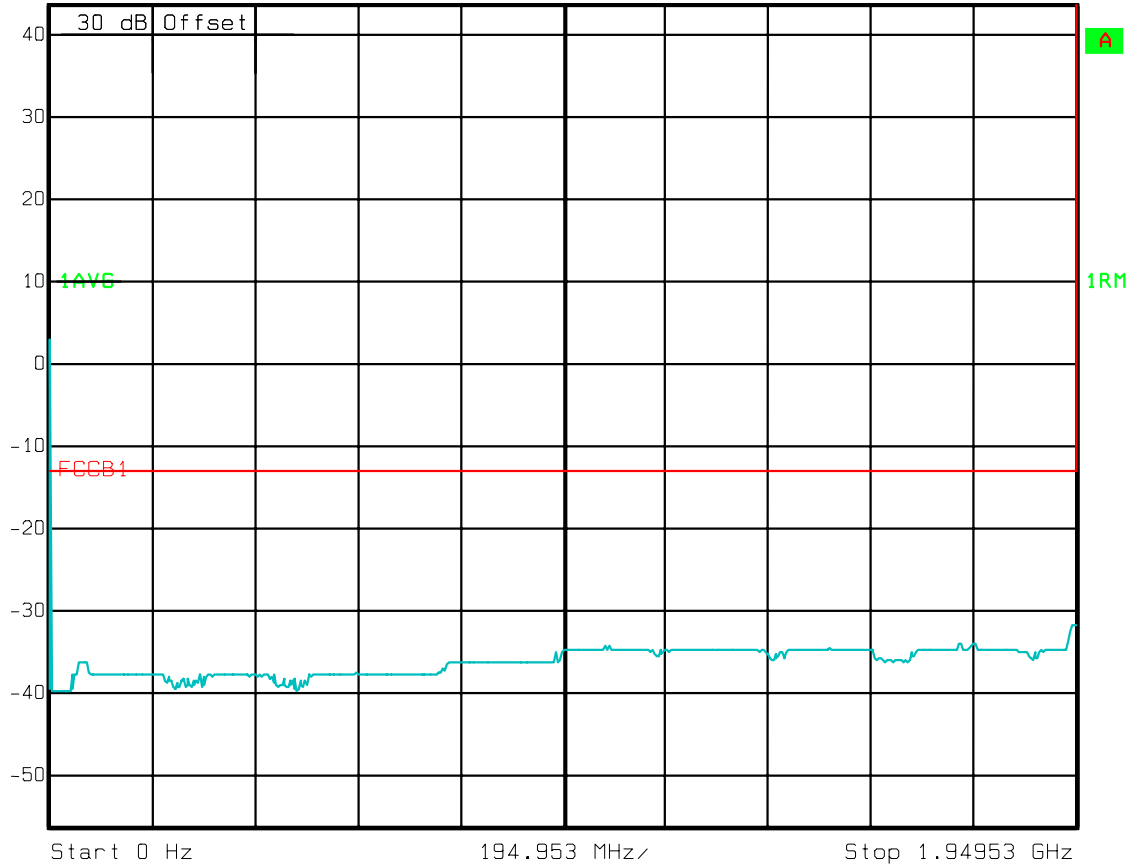


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 675, POWER OUTPUT = 24 W
Date: 8.FEB.2001 16:50:54



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
 VBW 1 MHz
 SWT 500 ms Unit dBm

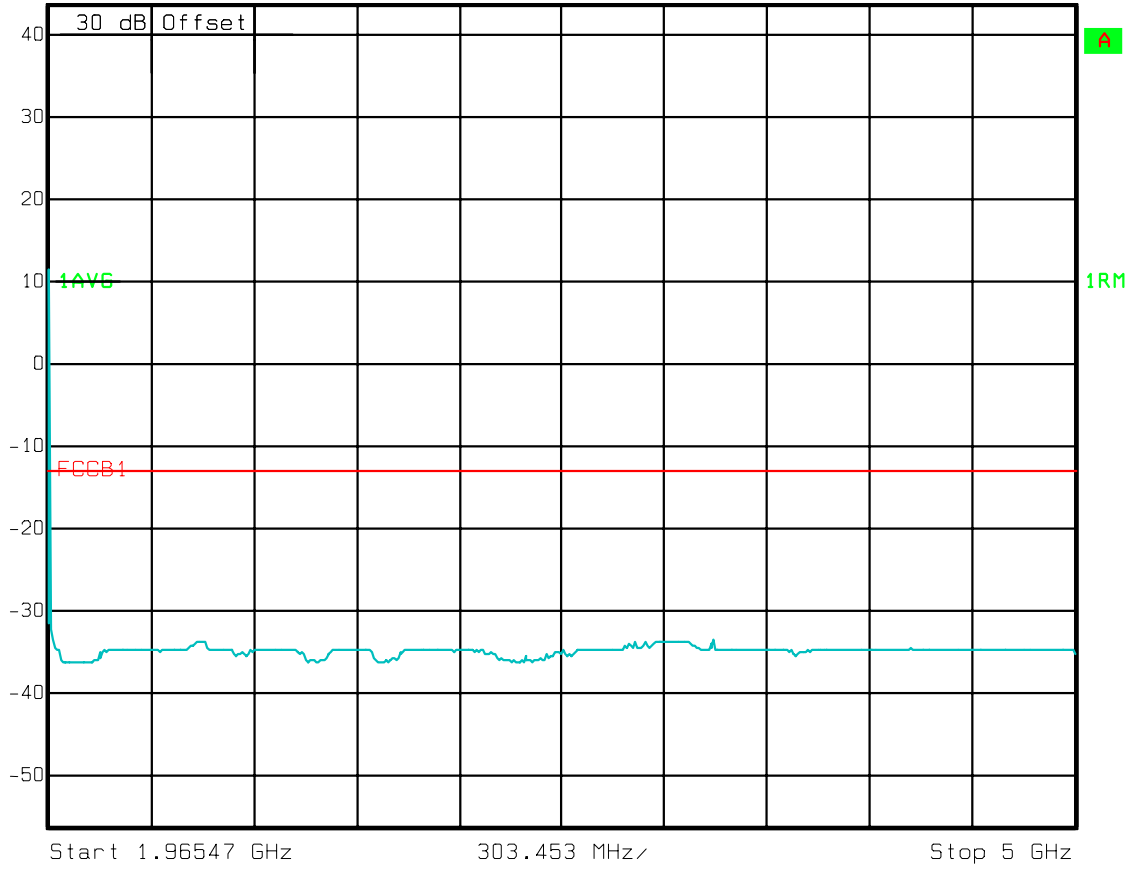


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLX)
 Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
 CHANNEL 675, POWER OUTPUT = 24 W
 Date: 8.FEB.2001 16:52:07



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

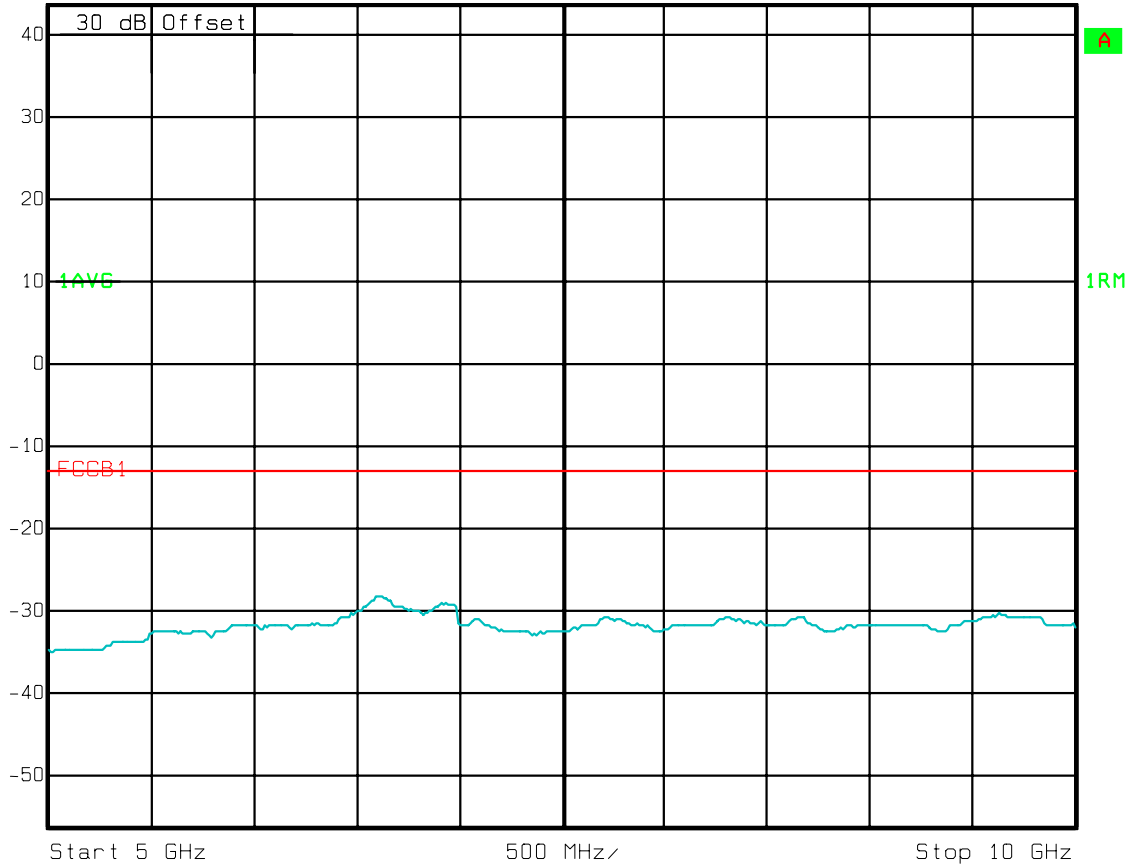


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 675, POWER OUTPUT = 24 W
Date: 8.FEB.2001 16:52:53



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

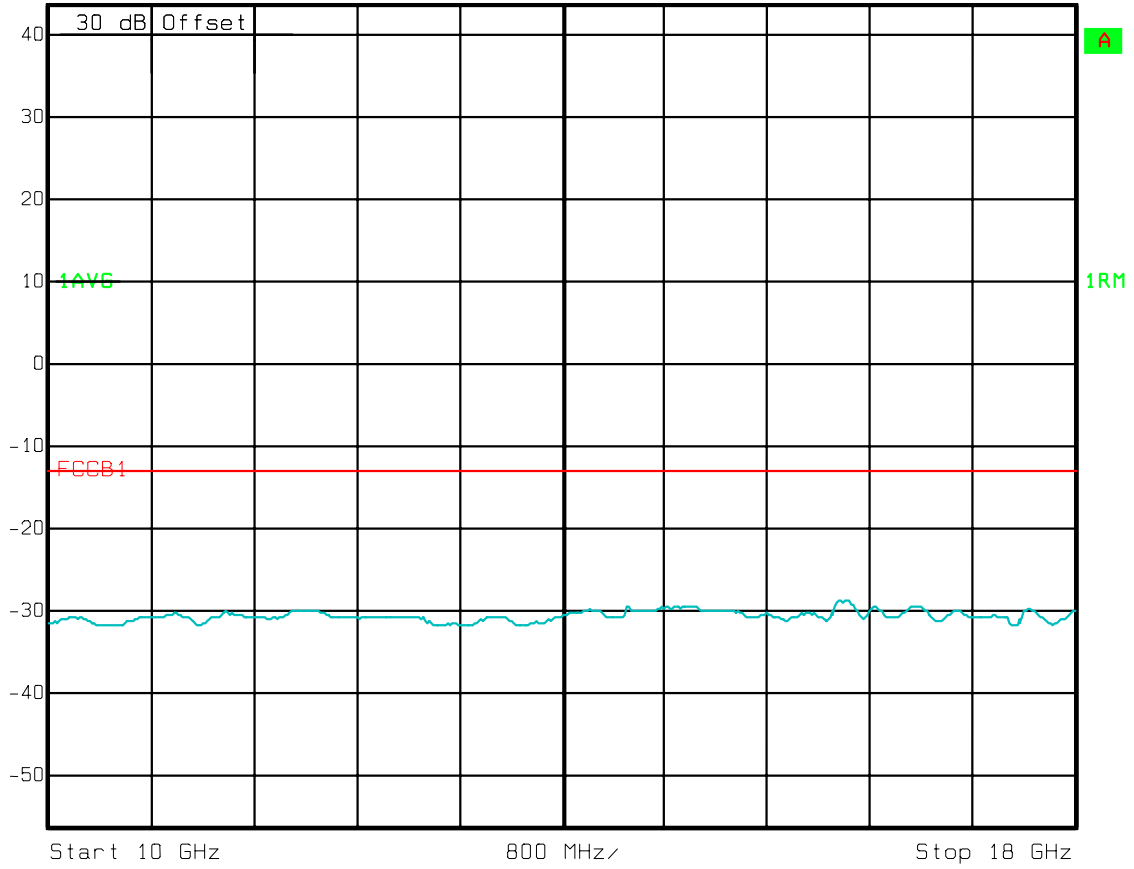


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 675, POWER OUTPUT = 24 W
Date: 8.FEB.2001 16:53:38



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

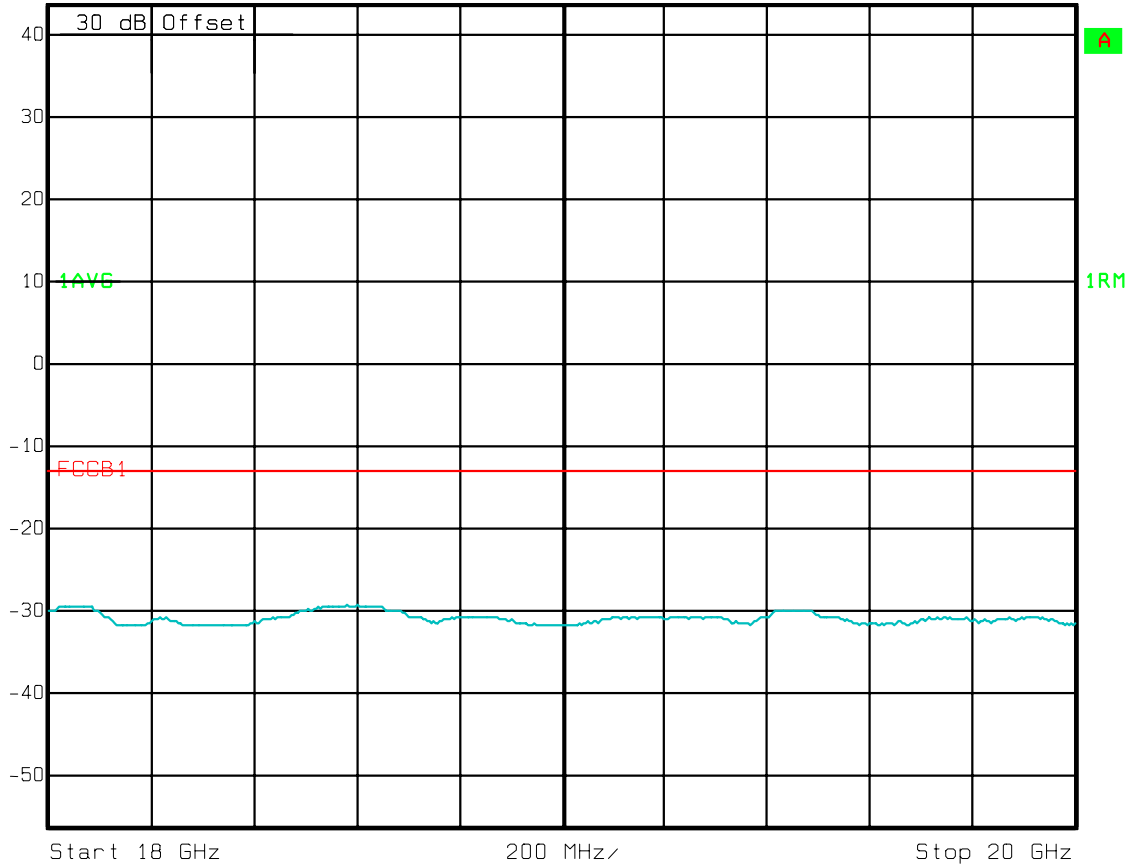


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 675, POWER OUTPUT = 24 W
Date: 8.FEB.2001 16:54:20



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm



Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 675, POWER OUTPUT = 24 W
Date: 8.FEB.2001 16:55:02

Measurement: 4
SPURIOUS EMISSIONS
AT ANTENNA TERMINALS

BLOCK E

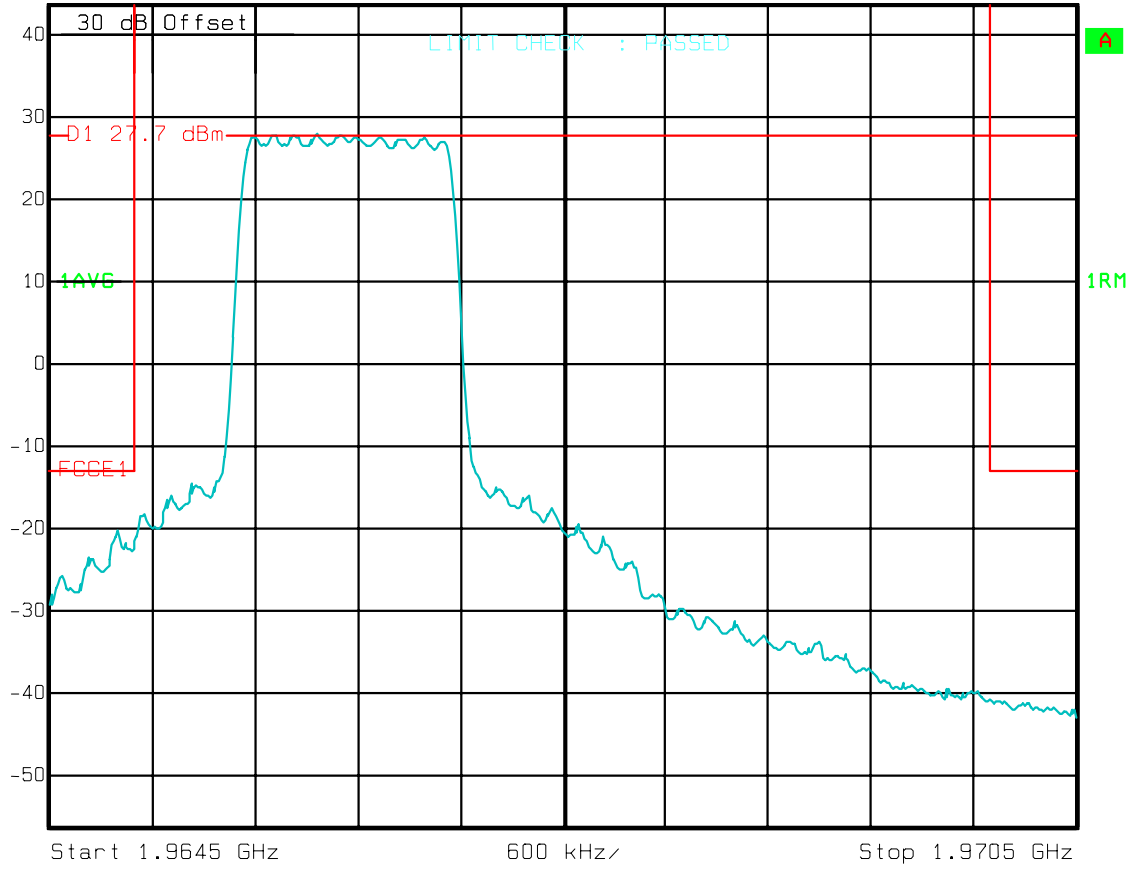
(1965 - 1970 MHz)

Left Edge:	1966.25 MHz	(Channel 725)
Right Edge:	1968.75 MHz	(Channel 775)



Ref Lvl
43.8 dBm

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

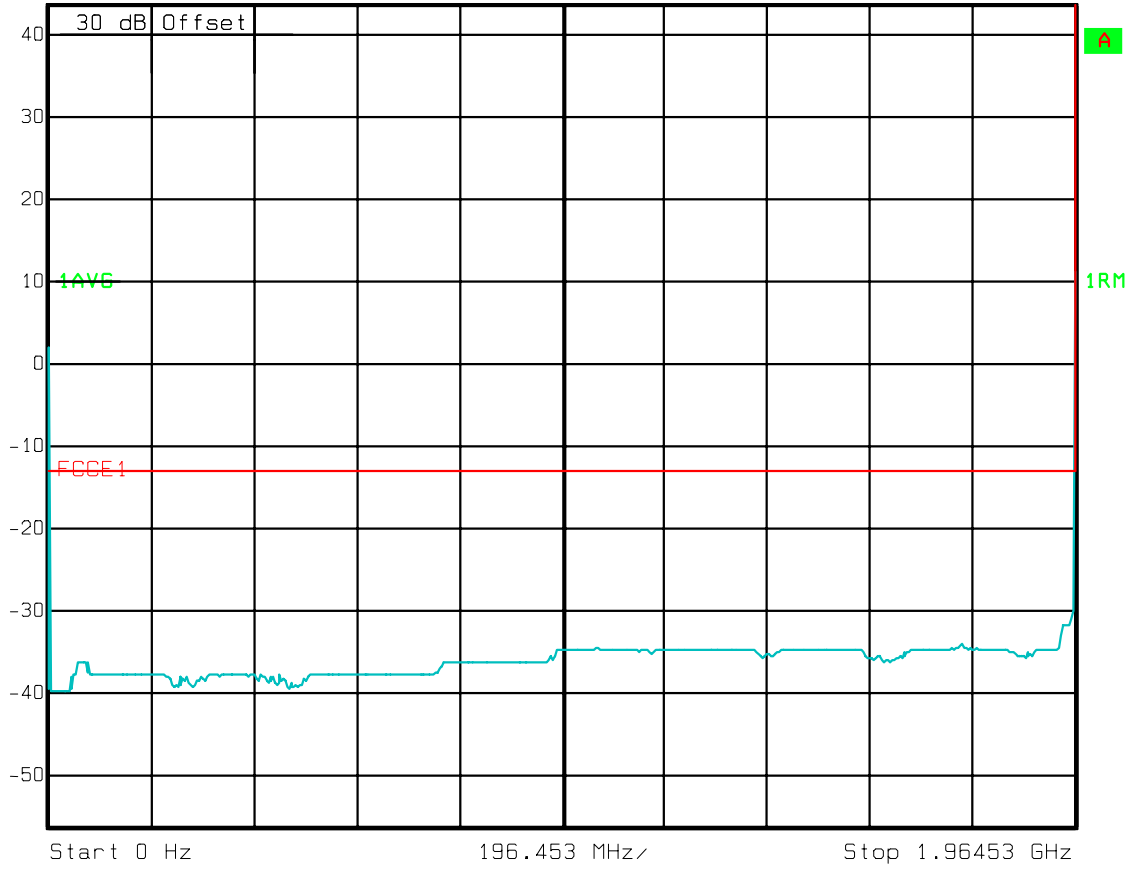


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 725, POWER OUTPUT = 24 W
Date: 8.FEB.2001 16:21:50



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

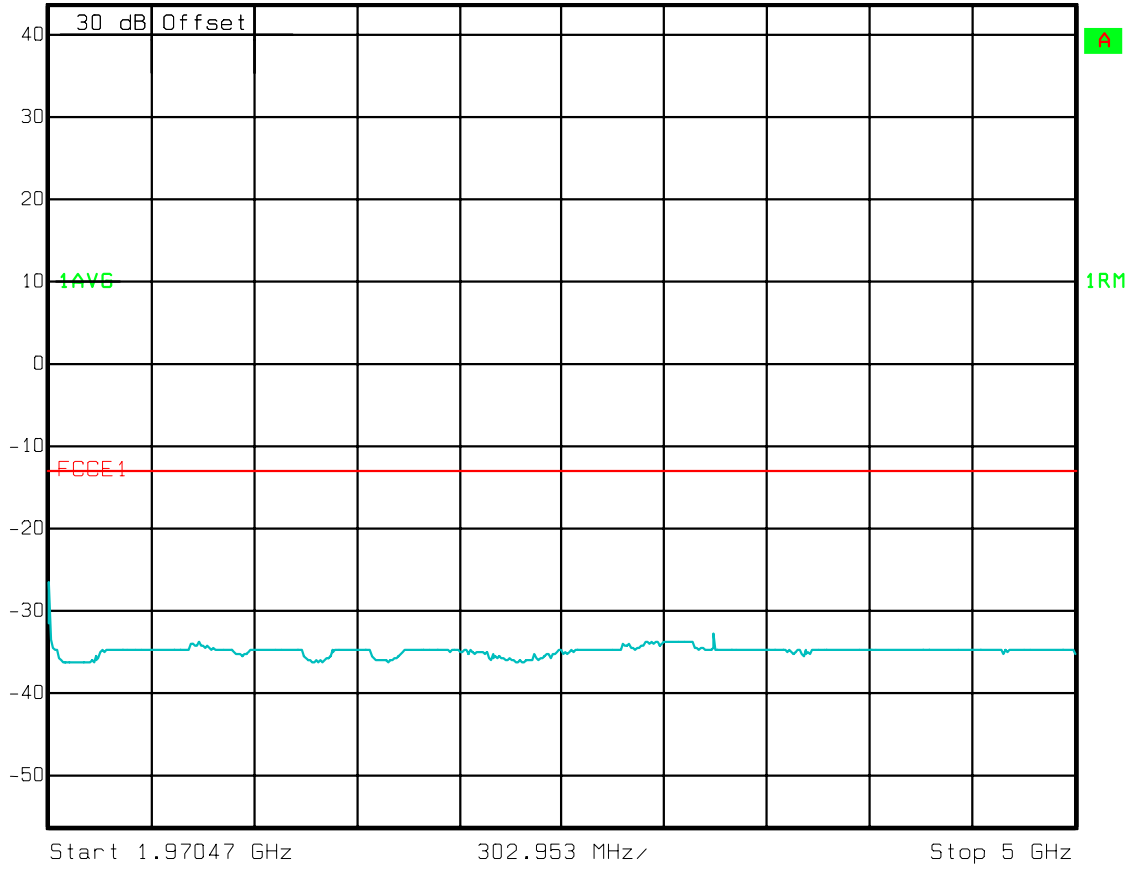


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 725, POWER OUTPUT = 24 W
Date: 8.FEB.2001 16:23:02



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

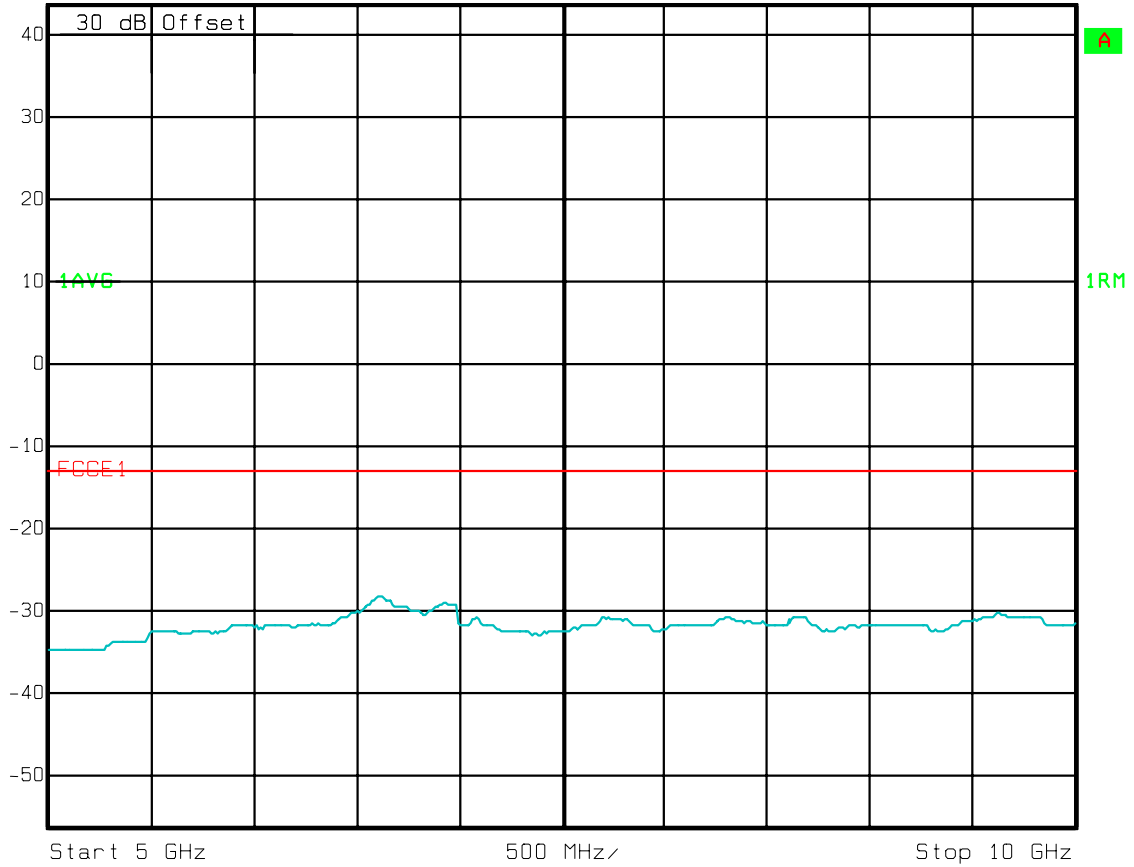


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 725, POWER OUTPUT = 24 W
Date: 8.FEB.2001 16:23:46



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

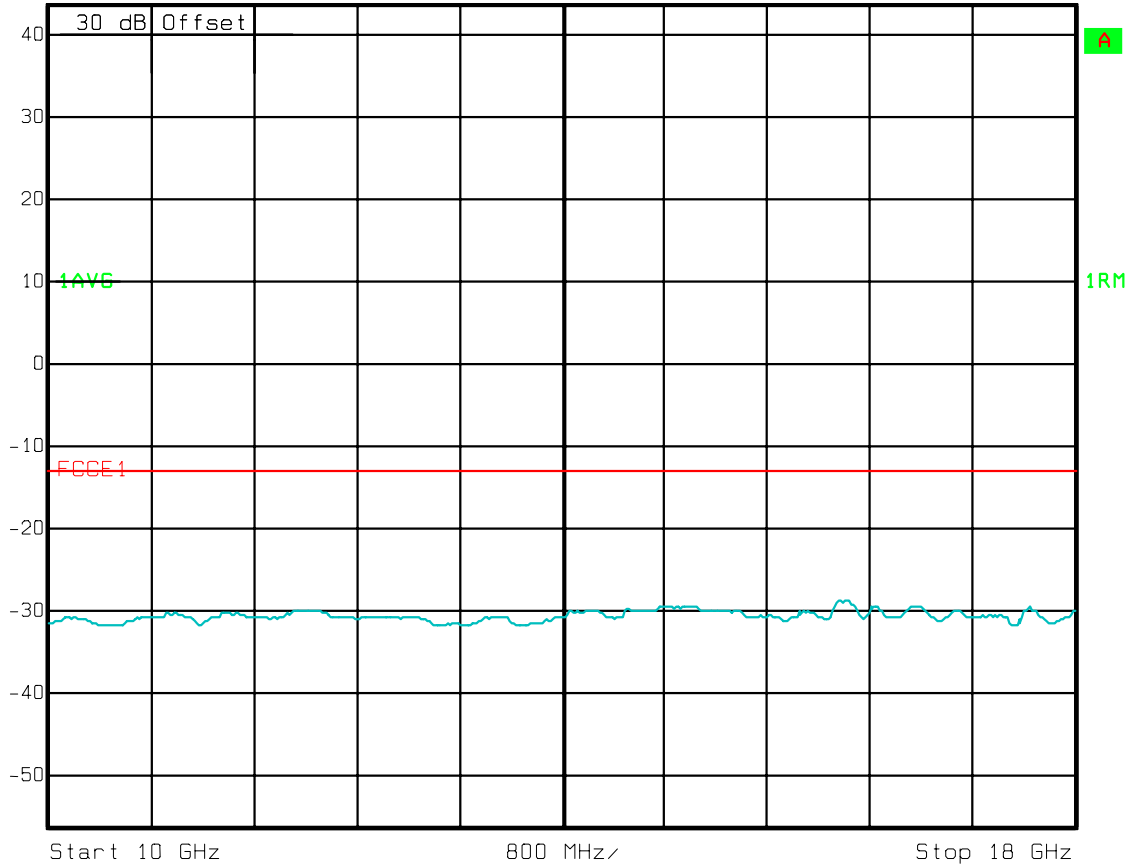


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 725, POWER OUTPUT = 24 W
Date: 8.FEB.2001 16:25:05



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

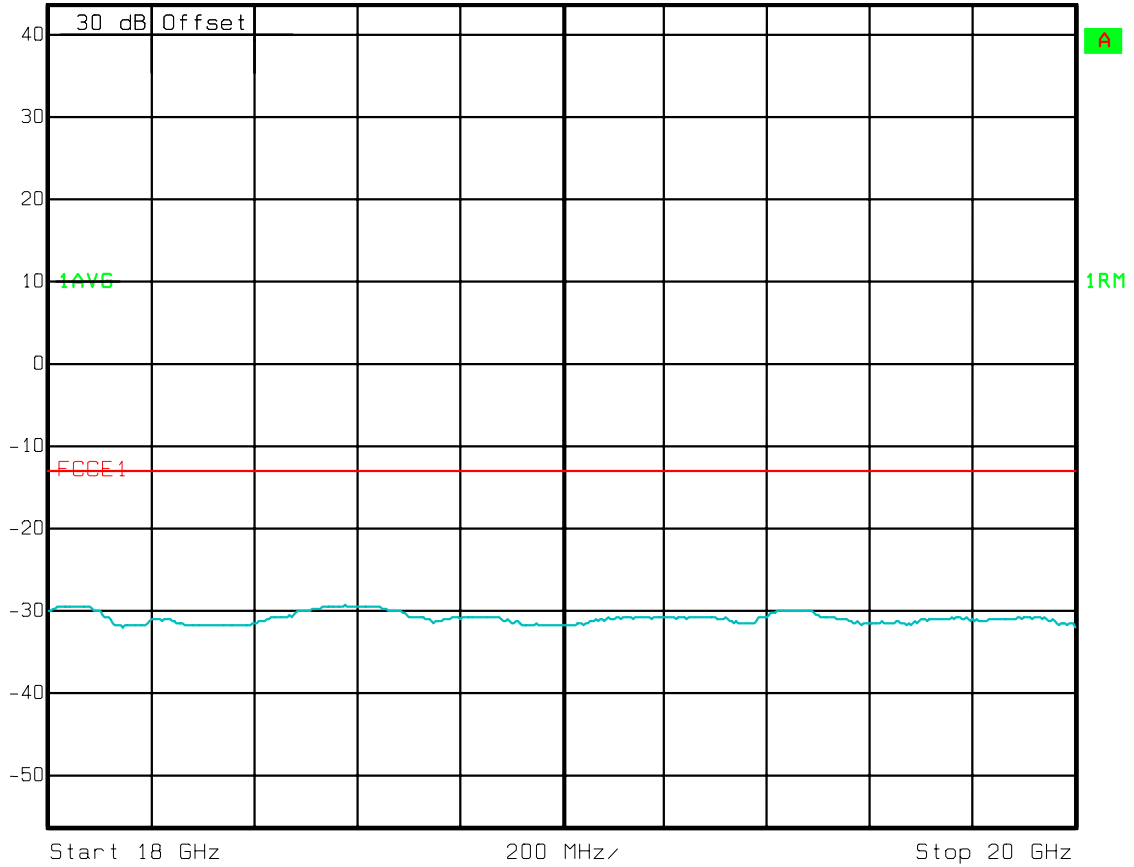


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 725, POWER OUTPUT = 24 W
Date: 8.FEB.2001 16:25:47



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

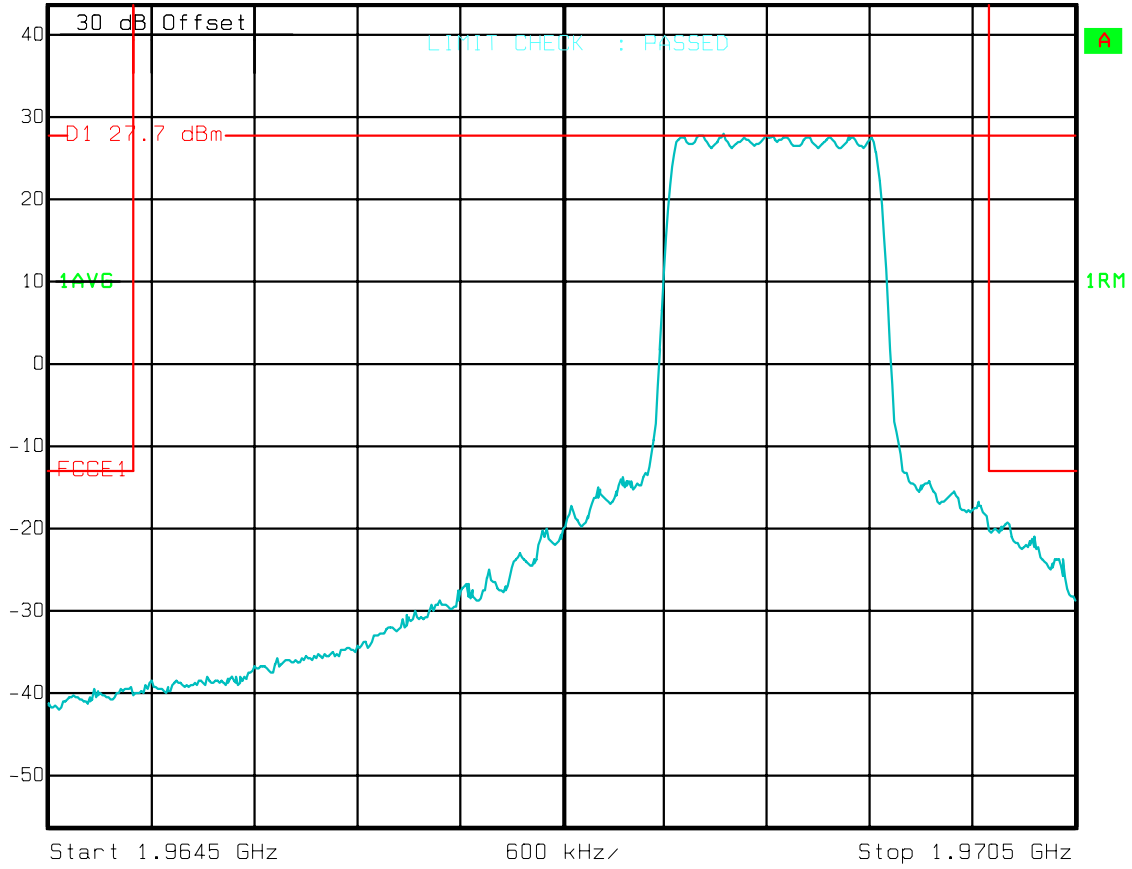


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 725, POWER OUTPUT = 24 W
Date: 8.FEB.2001 16:26:32



Ref Lvl
43.8 dBm

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

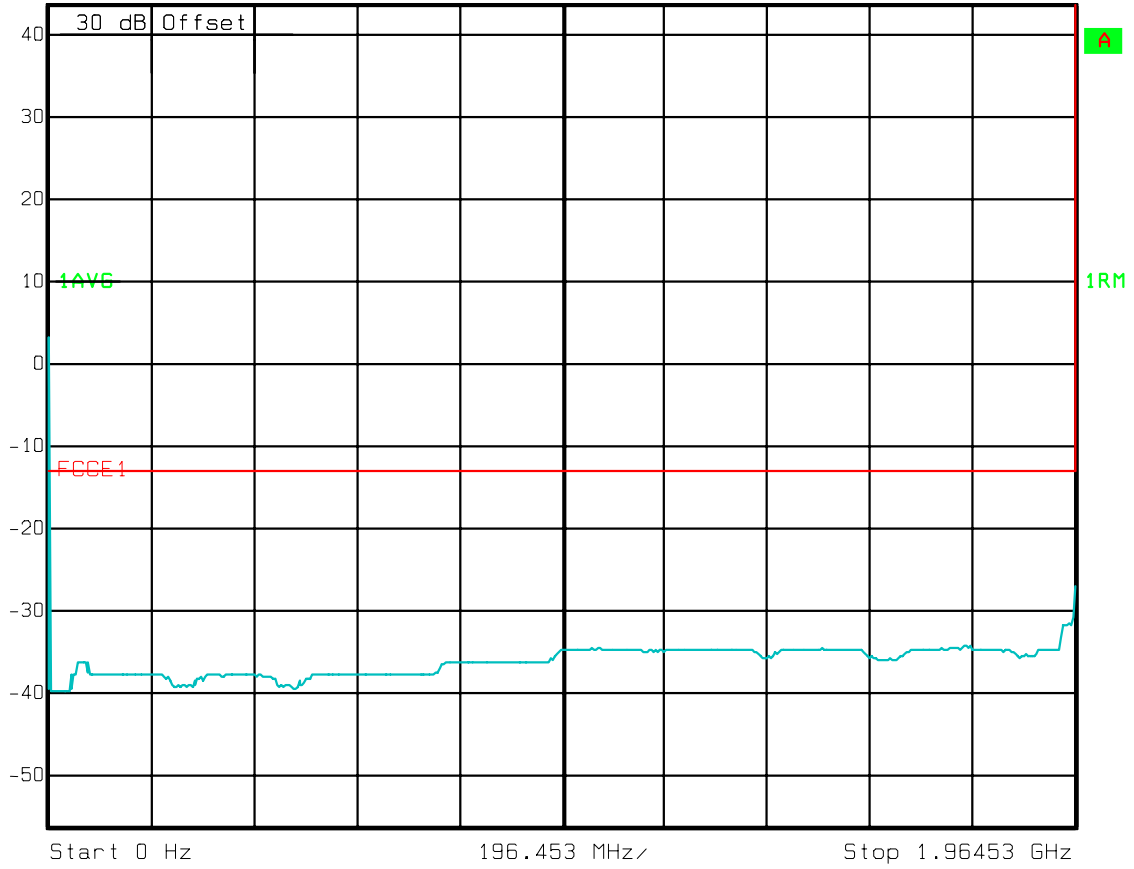


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 775, POWER OUTPUT = 24 W
Date: 8.FEB.2001 16:13:03



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

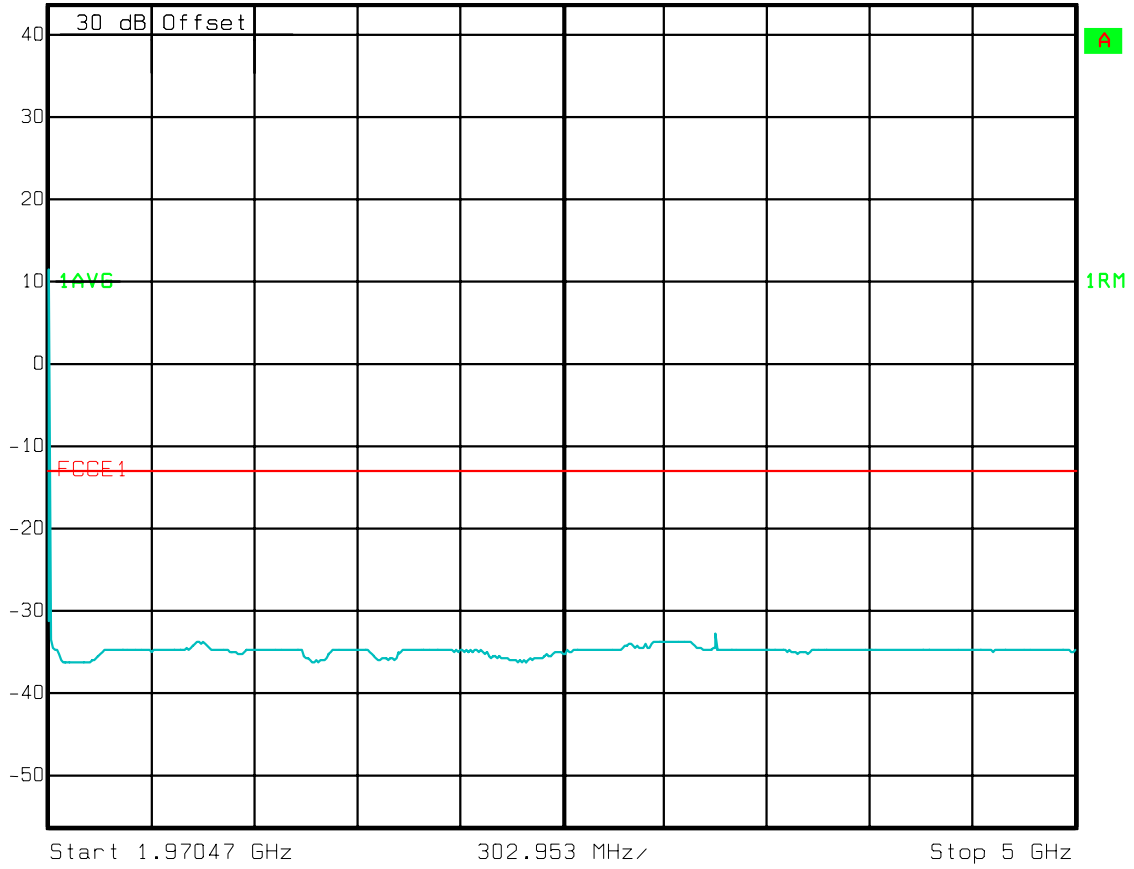


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 775, POWER OUTPUT = 24 W
Date: 8.FEB.2001 16:14:50



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

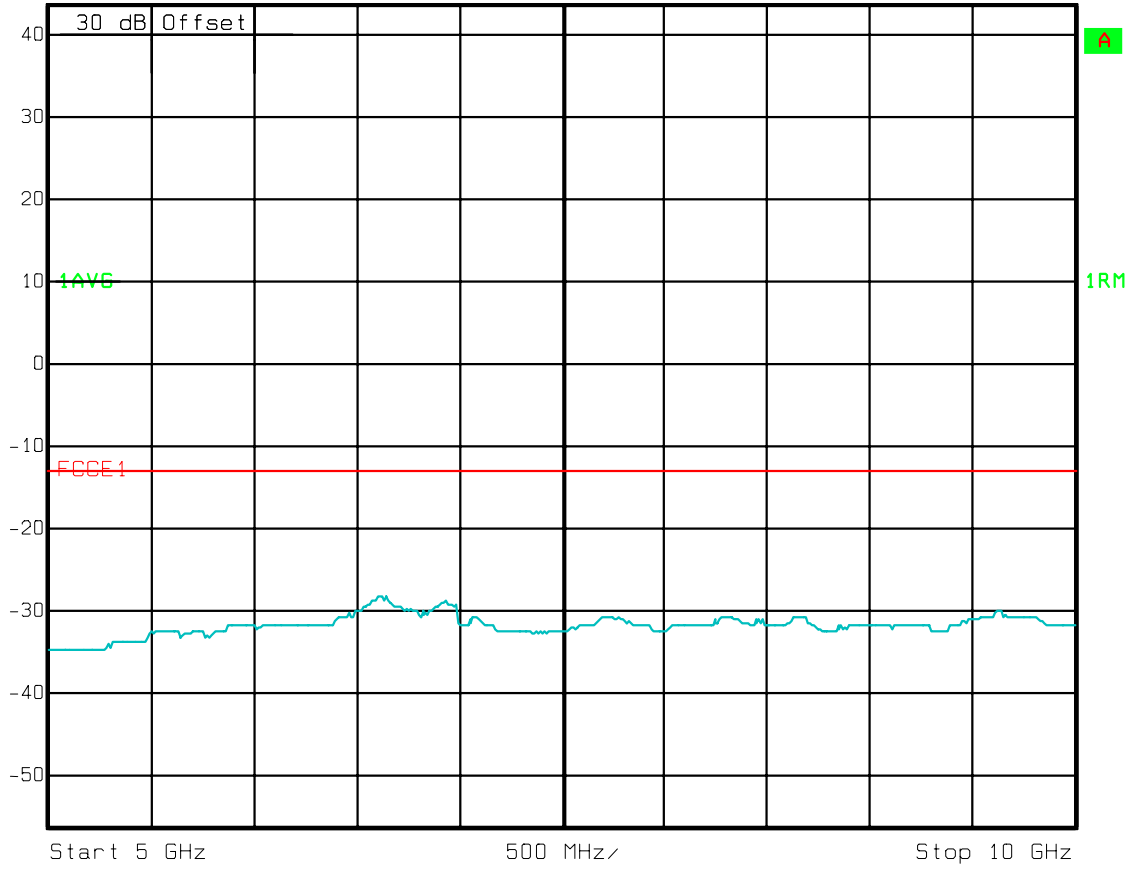


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 775, POWER OUTPUT = 24 W
Date: 8.FEB.2001 16:15:43



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

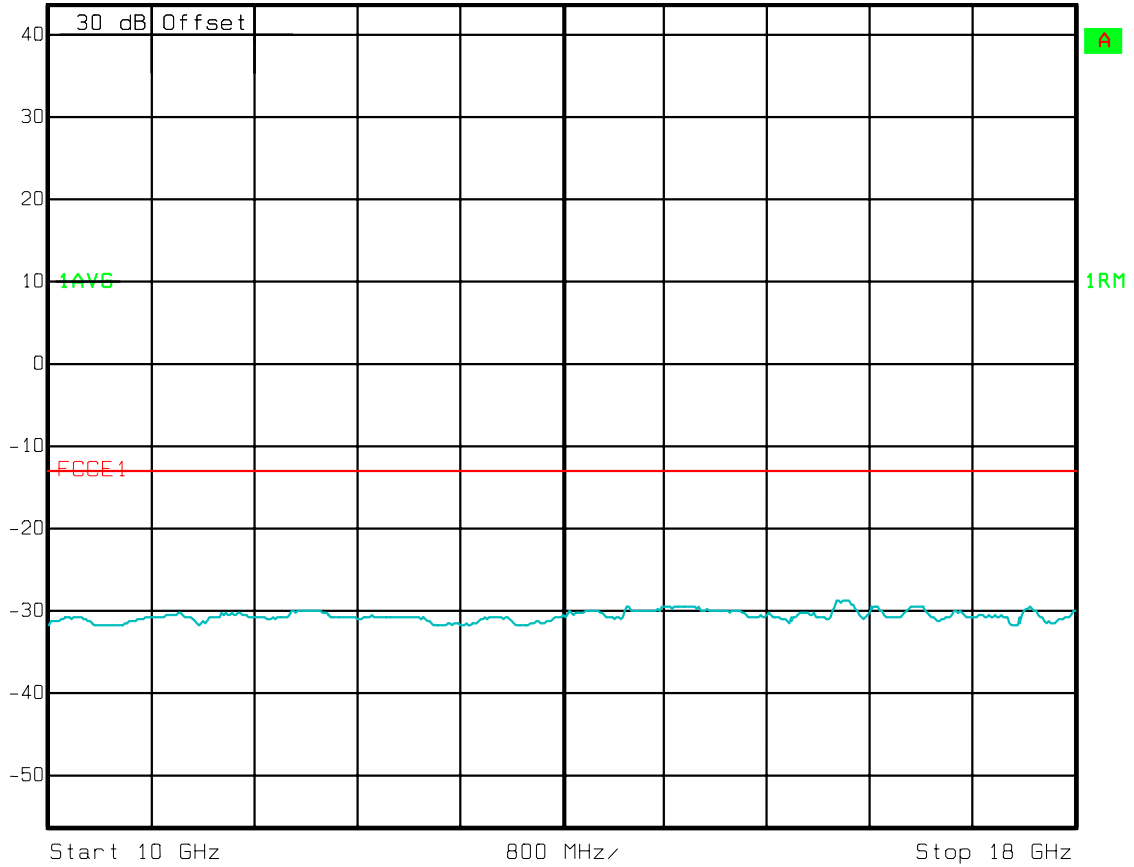


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 775, POWER OUTPUT = 24 W
Date: 8.FEB.2001 16:16:28



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

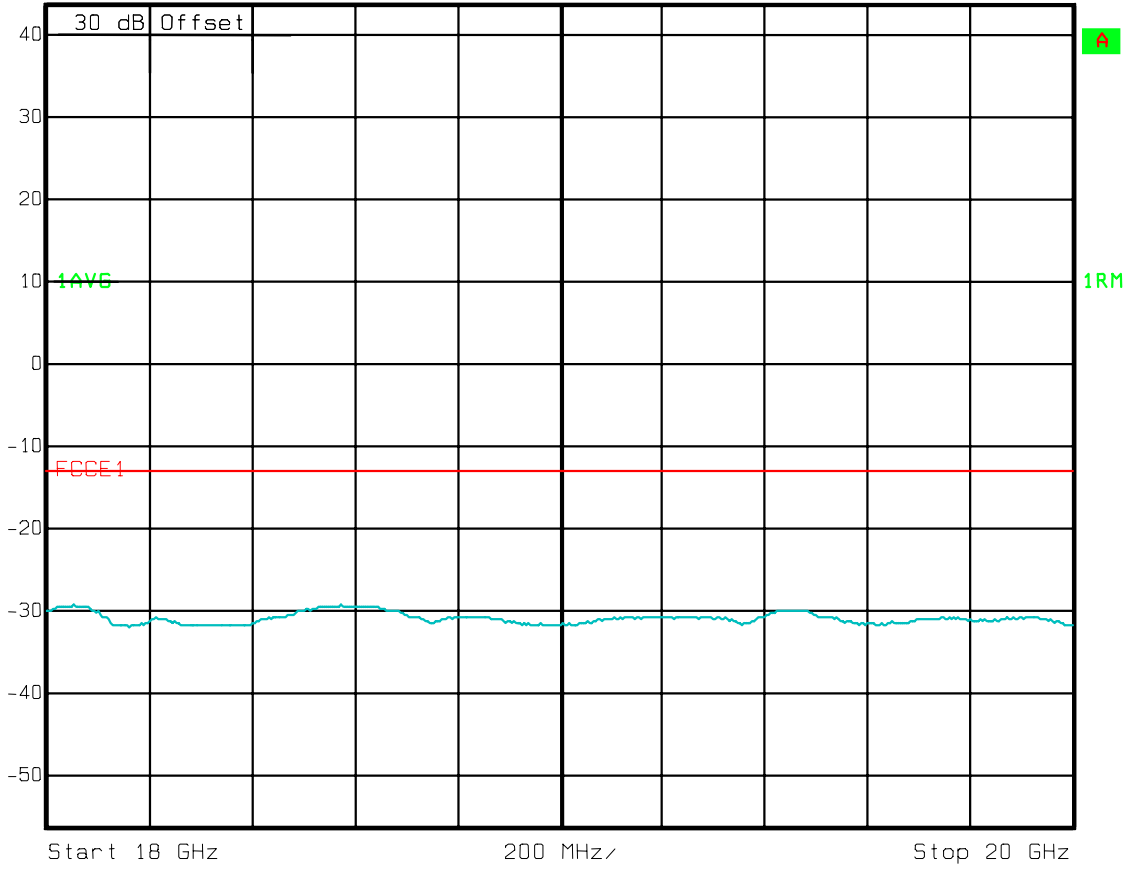


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 775, POWER OUTPUT = 24 W
Date: 8.FEB.2001 16:17:10



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm



Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 775, POWER OUTPUT = 24 W
Date: 8.FEB.2001 16:17:53

Measurement: 4
SPURIOUS EMISSIONS
AT ANTENNA TERMINALS

BLOCK F

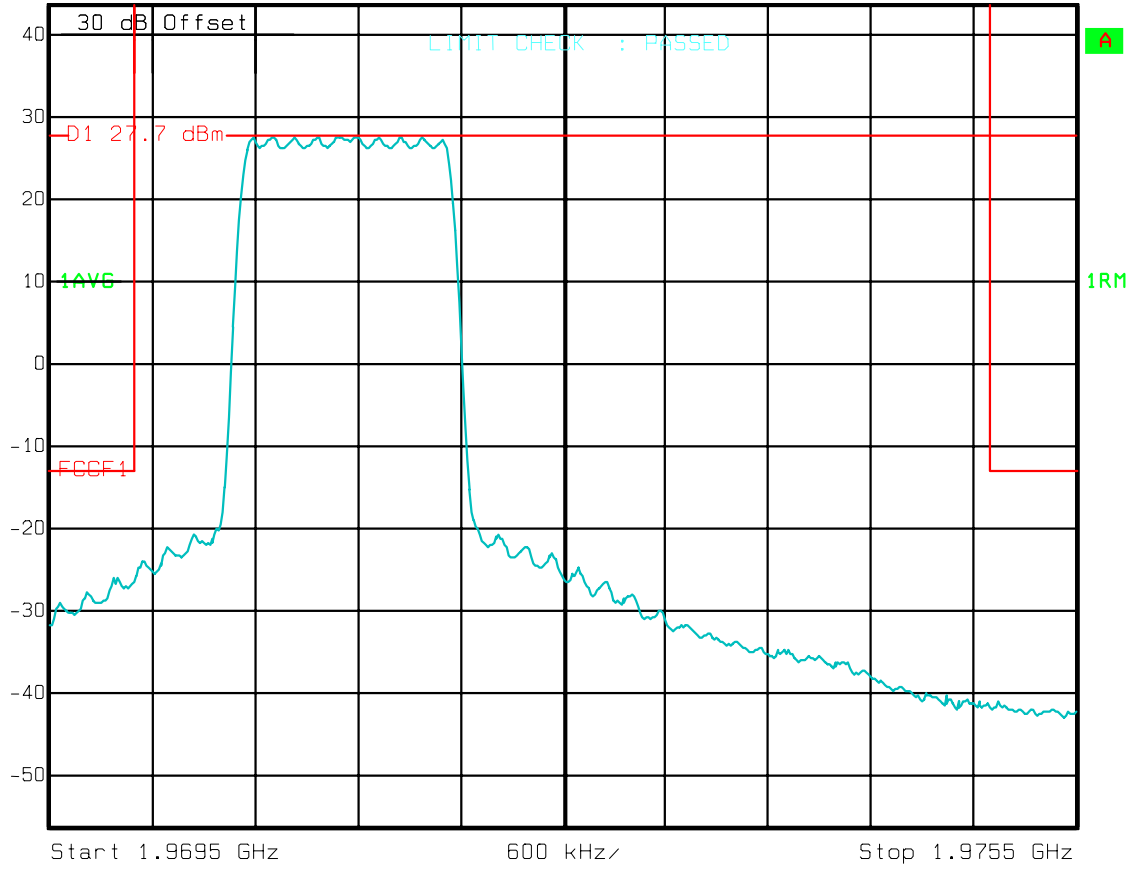
(1970 - 1975 MHz)

Left Edge:	1971.25 MHz	(Channel 825)
Right Edge:	1973.75 MHz	(Channel 875)



Ref Lvl
43.8 dBm

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

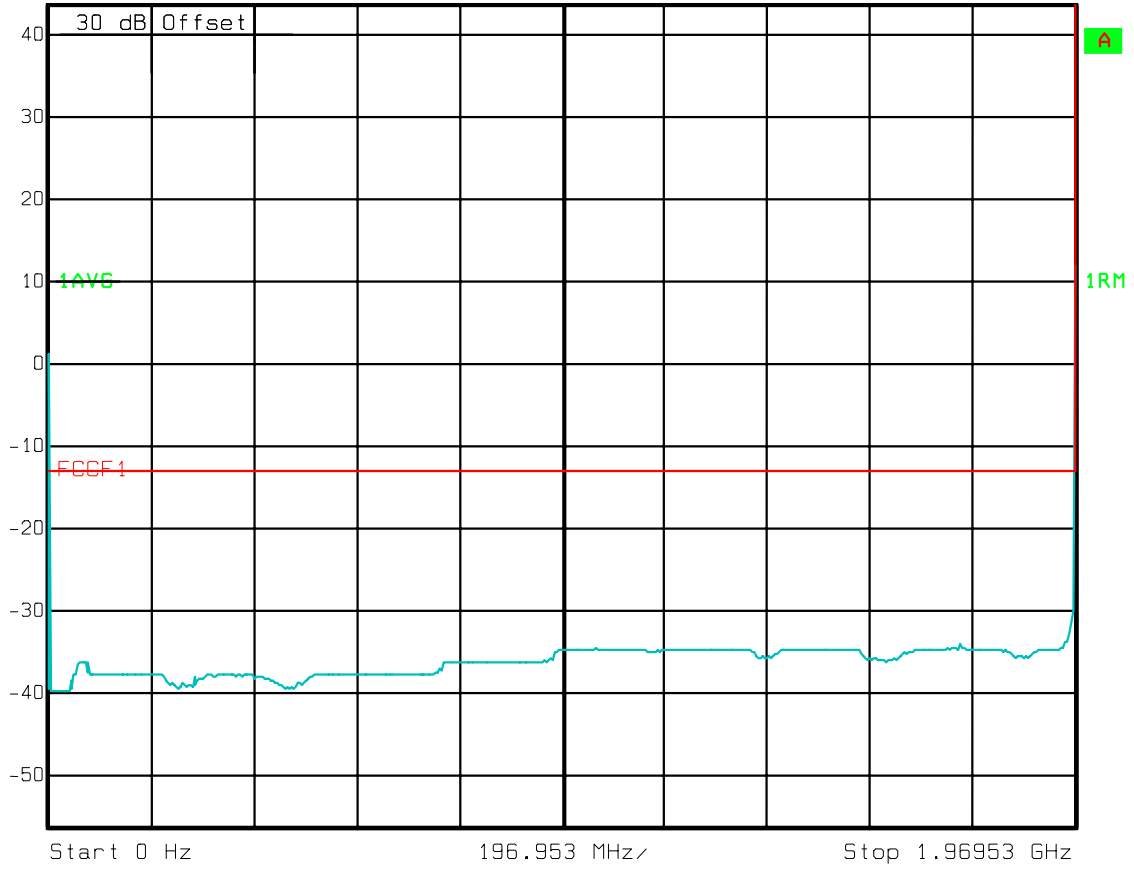


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 825, POWER OUTPUT = 24 W
Date: 9.FEB.2001 7:52:03



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

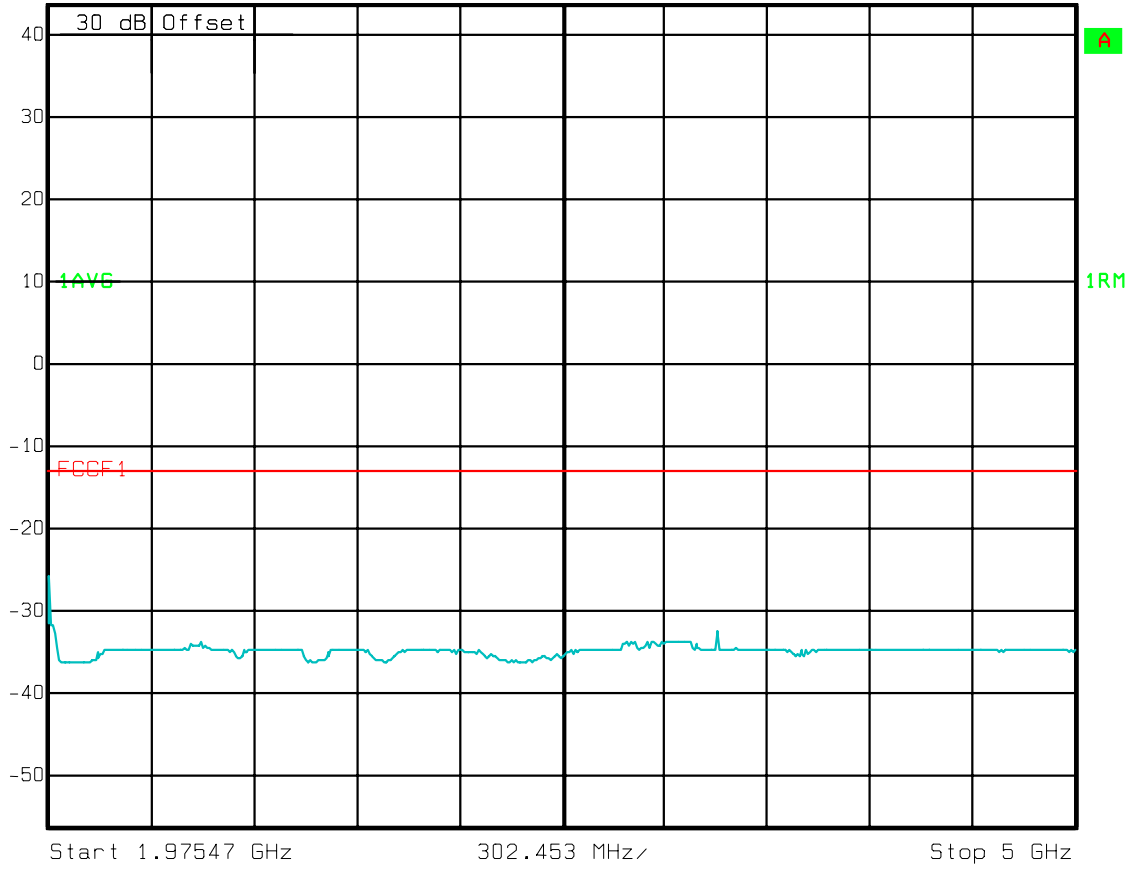


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 825, POWER OUTPUT = 24 W
Date: 9.FEB.2001 7:53:05



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

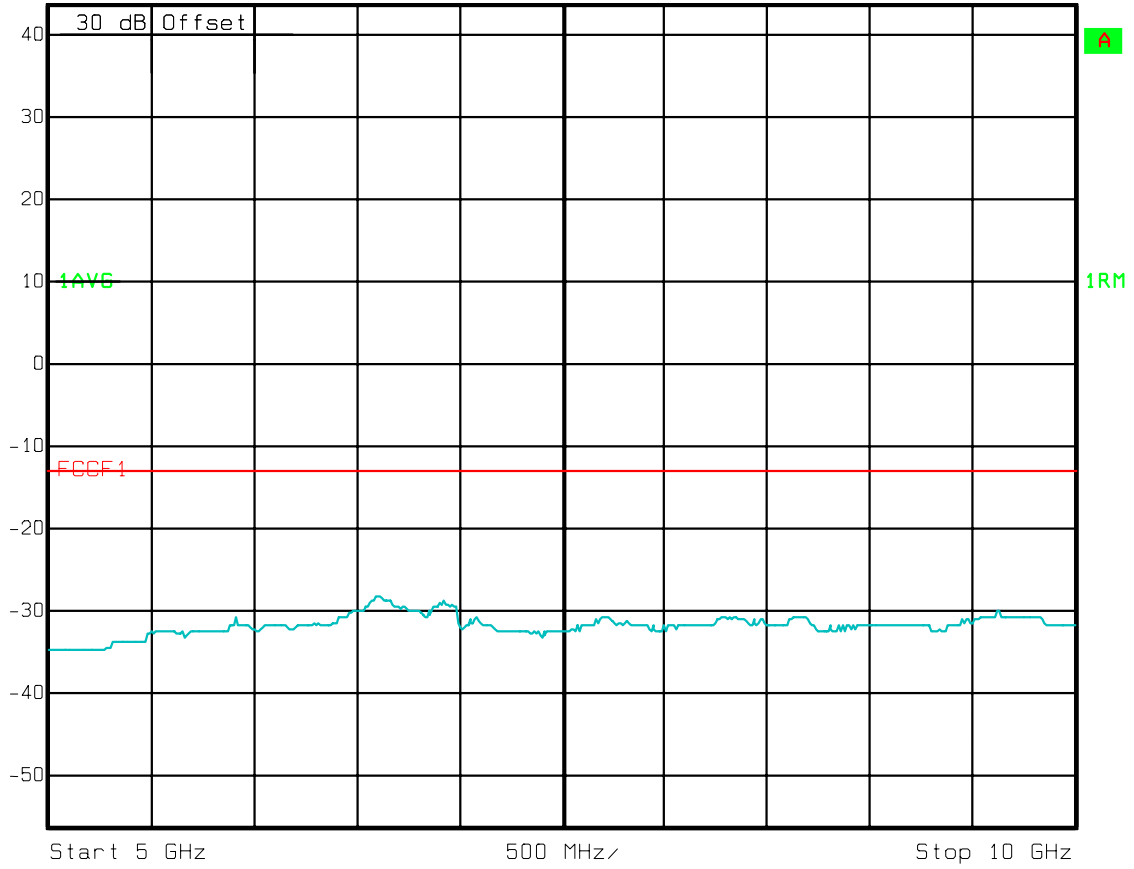


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 825, POWER OUTPUT = 24 W
Date: 9.FEB.2001 7:53:52



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

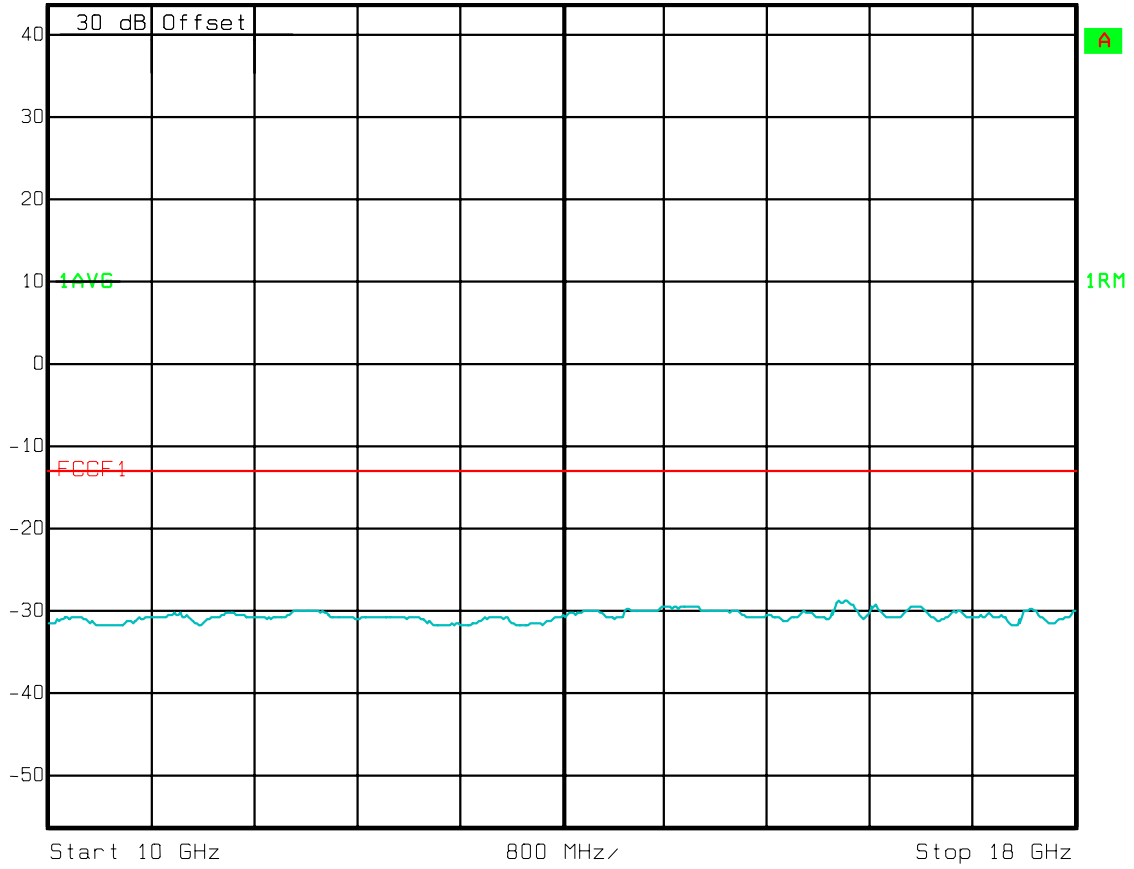


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 825, POWER OUTPUT = 24 W
Date: 9.FEB.2001 7:54:35



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

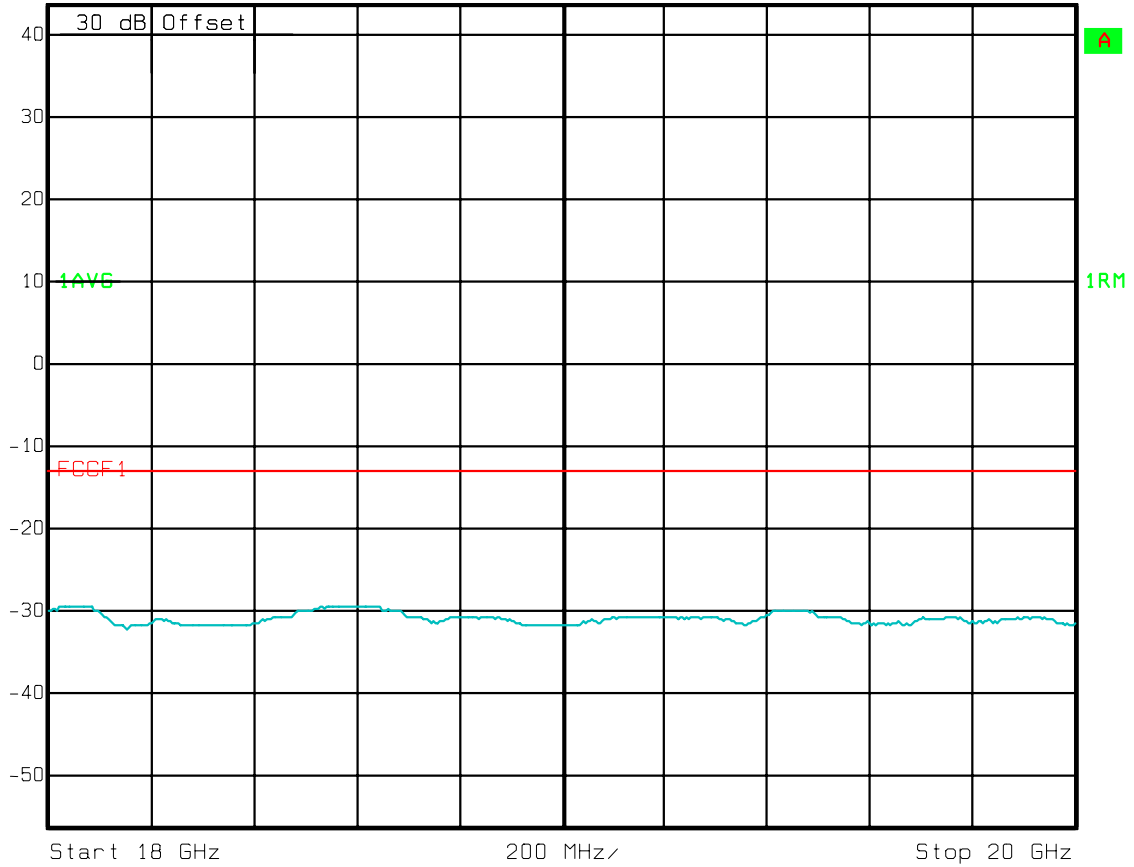


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 825, POWER OUTPUT = 24 W
Date: 9.FEB.2001 7:55:17



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

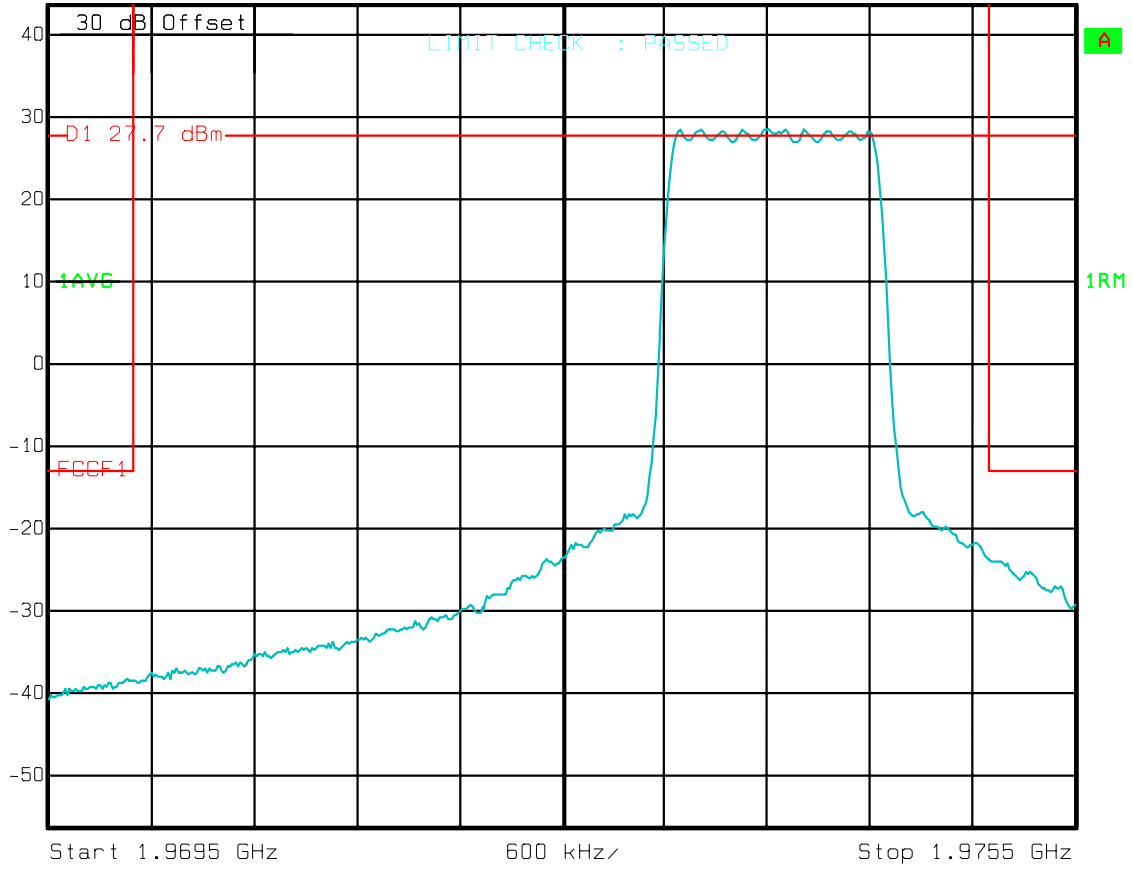


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 825, POWER OUTPUT = 24 W
Date: 9.FEB.2001 7:56:00



Ref Lvl
43.8 dBm

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

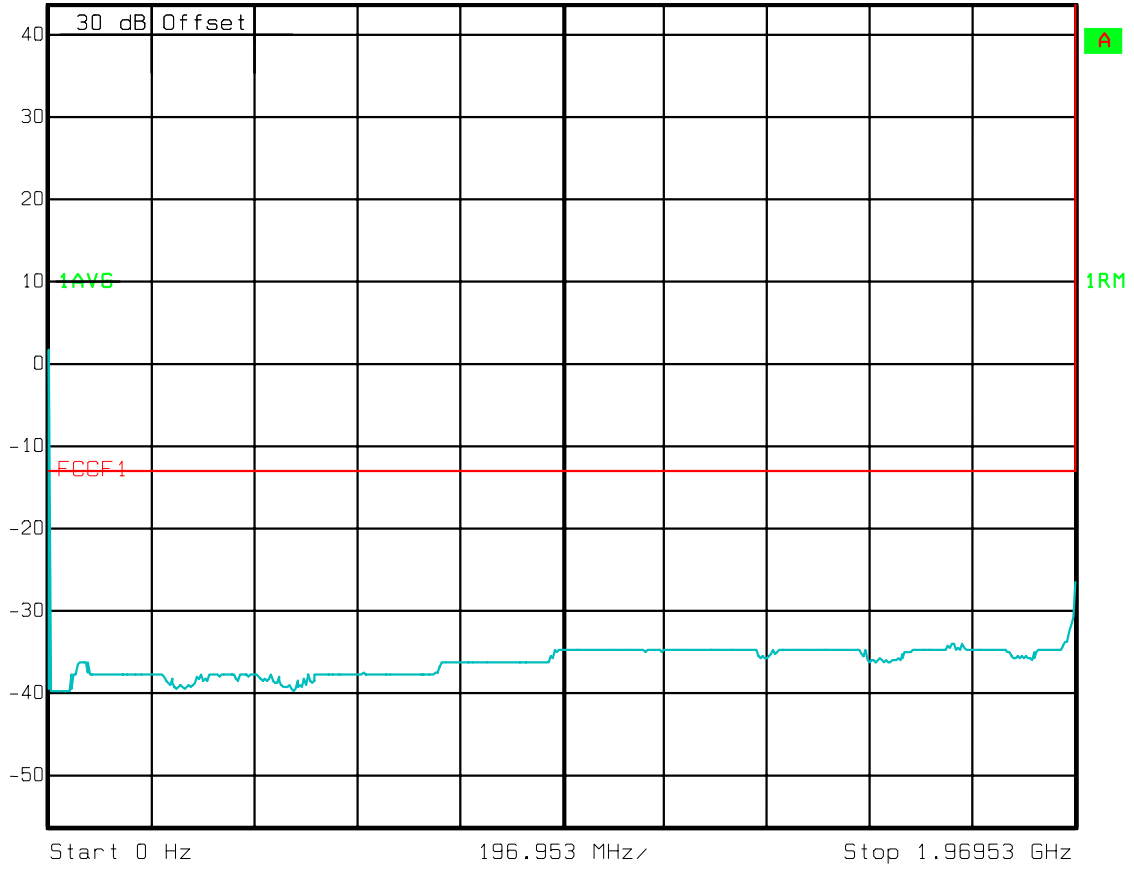


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 875, POWER OUTPUT = 24 W
Date: 9.FEB.2001 8:00:04



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

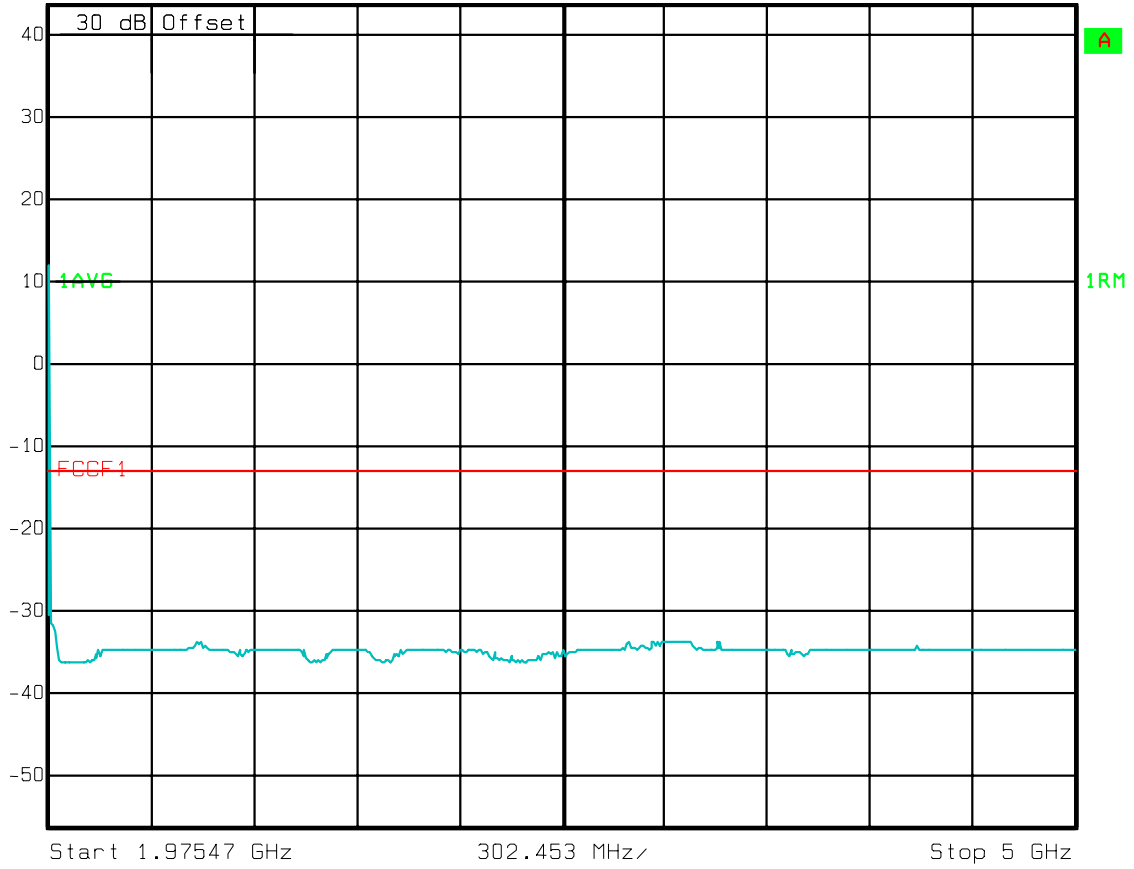


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 875, POWER OUTPUT = 24 W
Date: 9.FEB.2001 8:01:01



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

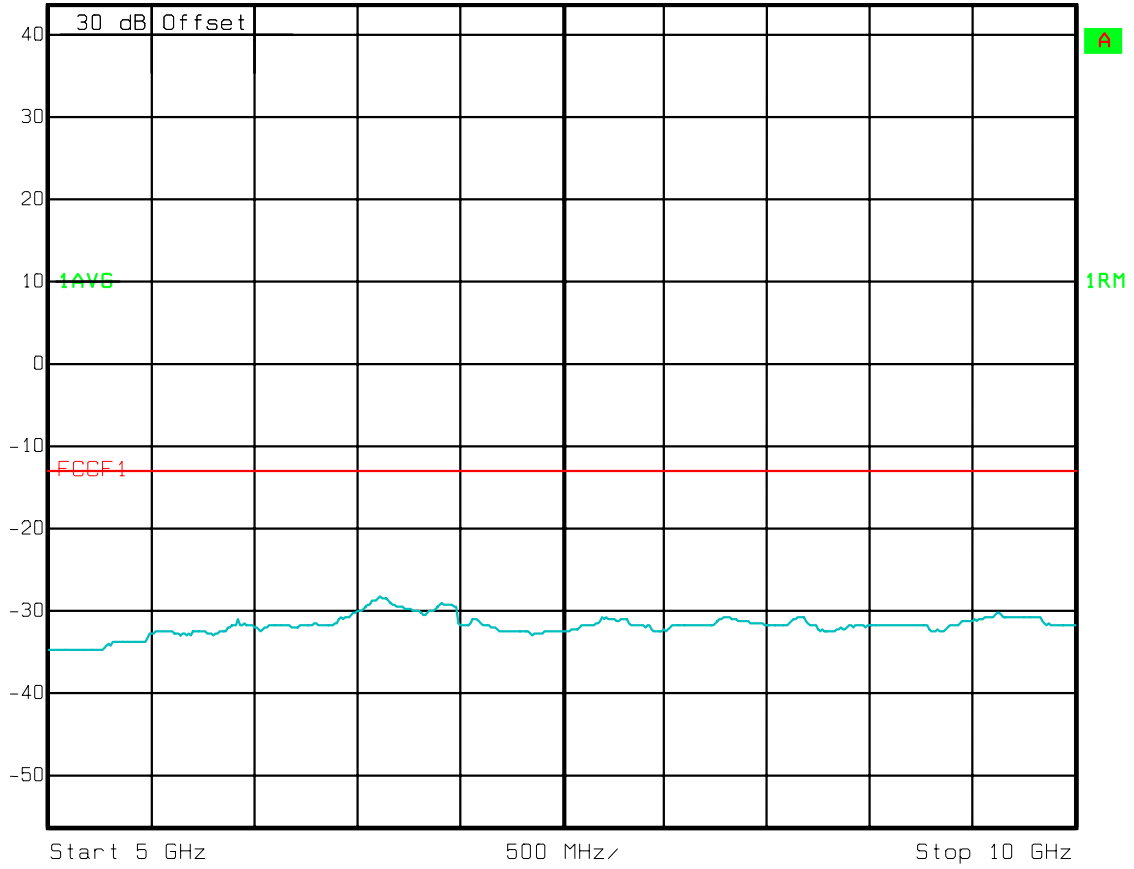


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 875, POWER OUTPUT = 24 W
Date: 9.FEB.2001 8:01:51



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

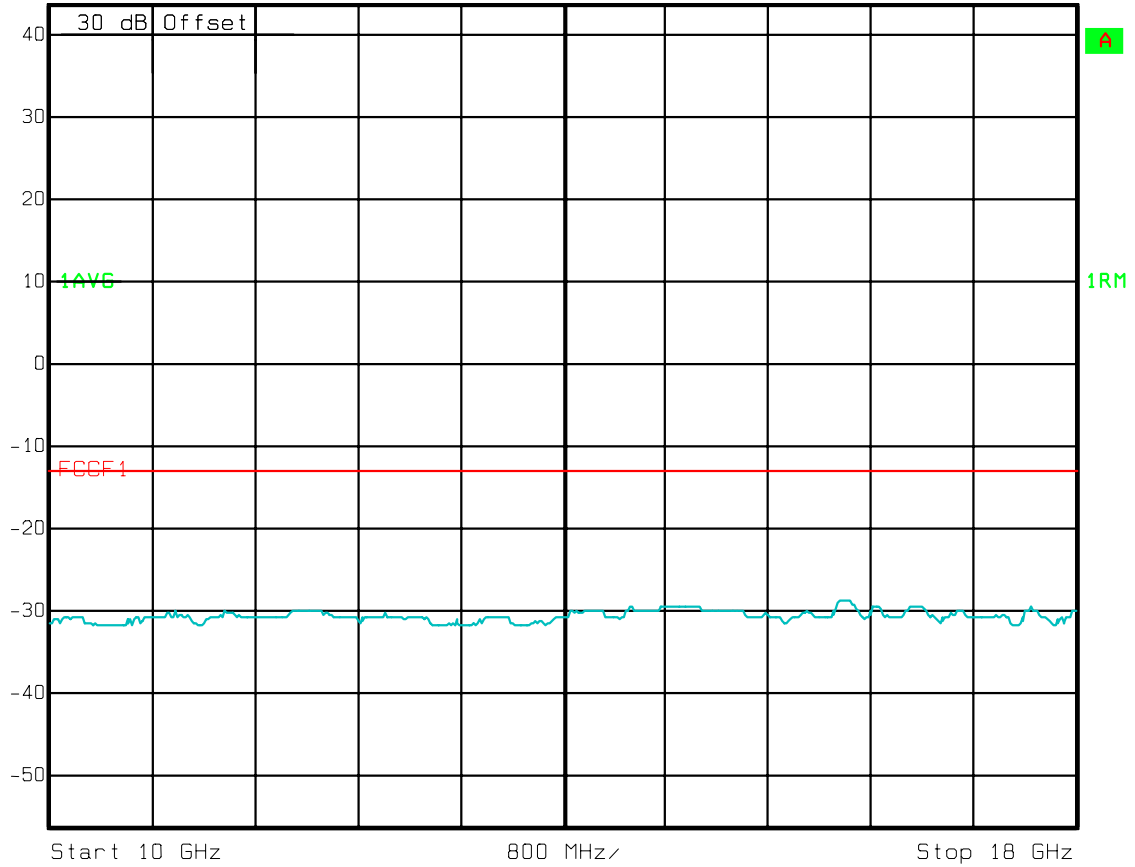


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 875, POWER OUTPUT = 24 W
Date: 9.FEB.2001 8:02:41



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

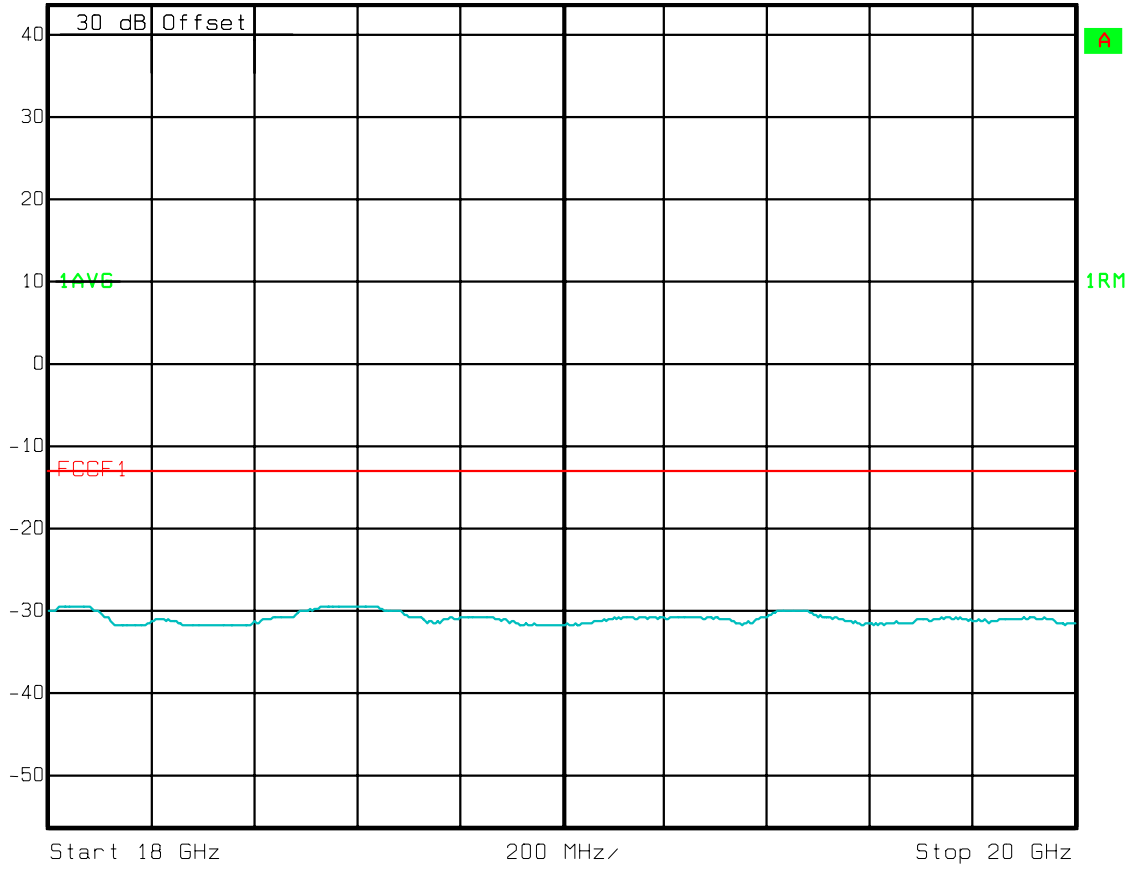


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 875, POWER OUTPUT = 24 W
Date: 9.FEB.2001 8:03:25



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm



Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 875, POWER OUTPUT = 24 W
Date: 9.FEB.2001 8:04:33

Measurement: 4
SPURIOUS EMISSIONS
AT ANTENNA TERMINALS

BLOCK C

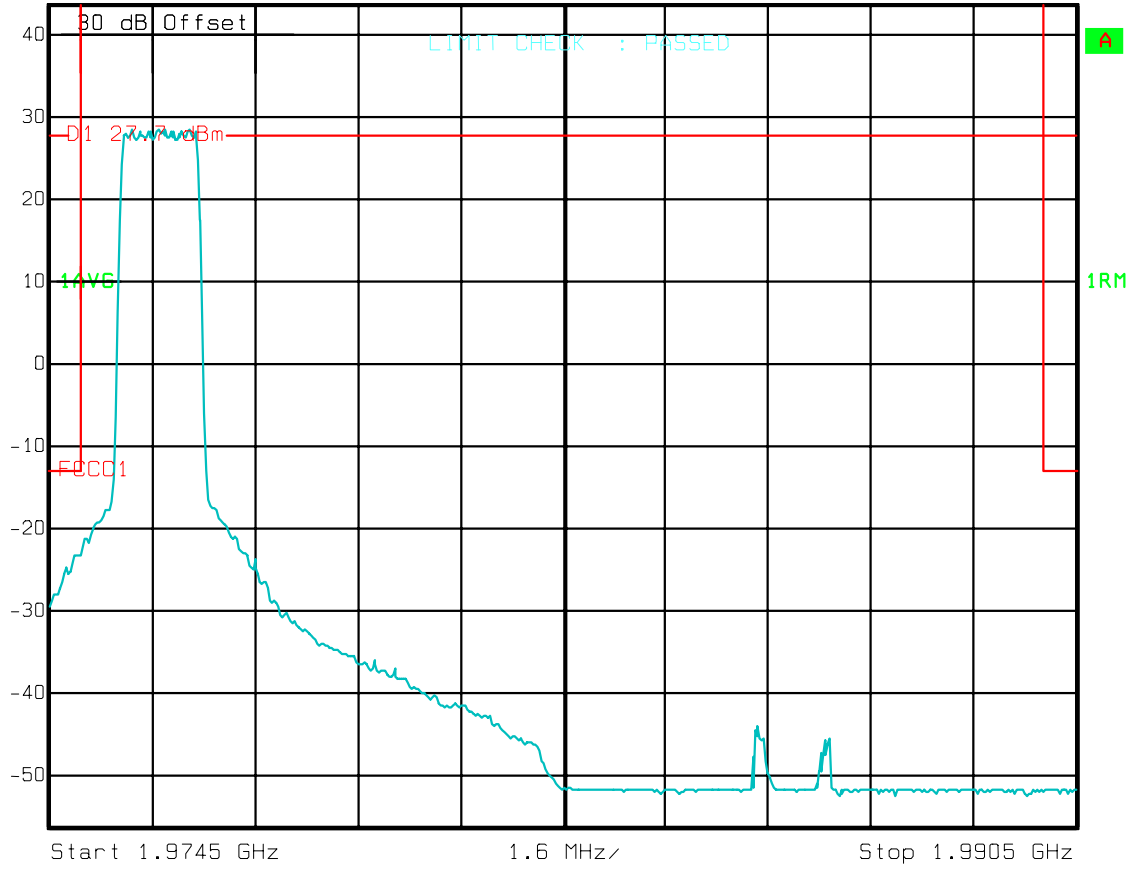
(1975 - 1990 MHz)

Left Edge:	1976.25 MHz	(Channel 925)
Right Edge:	1988.75 MHz	(Channel 1175)



Ref Lvl
43.8 dBm

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

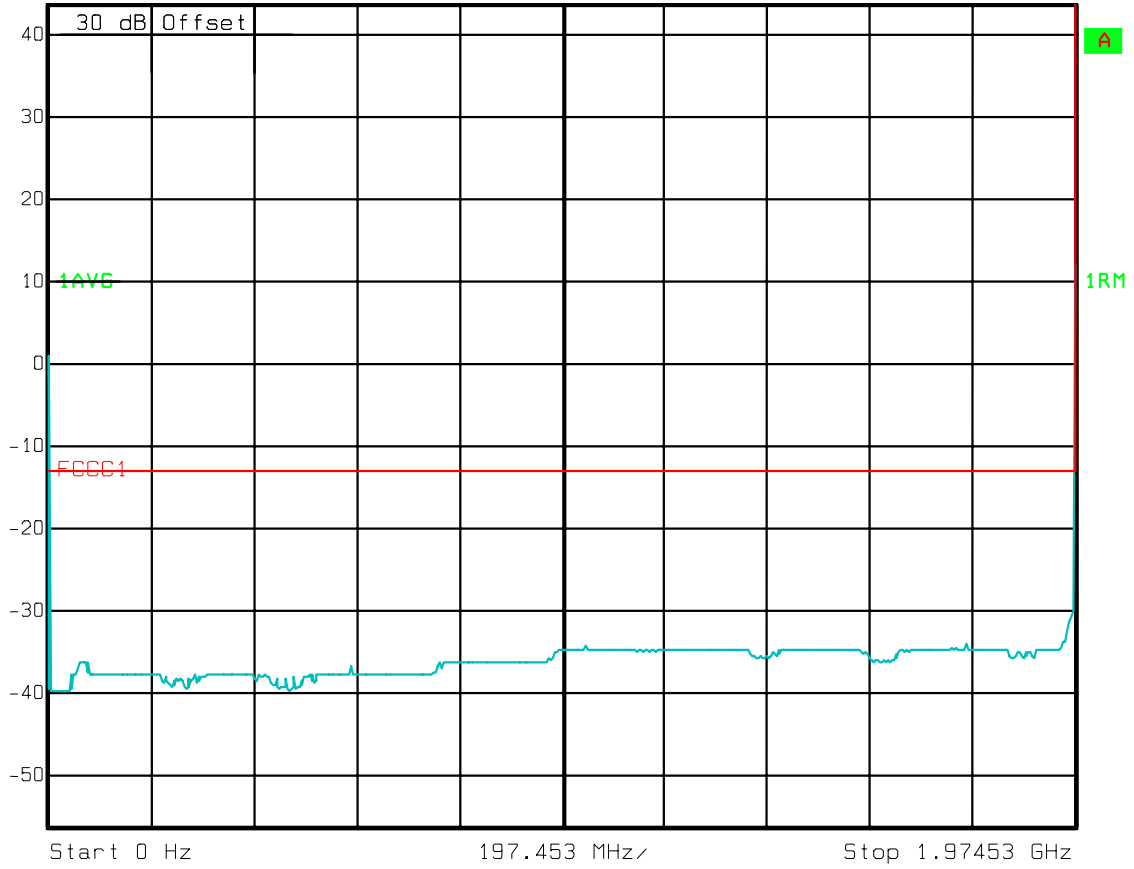


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 925, POWER OUTPUT = 24 W
Date: 9.FEB.2001 8:07:15



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

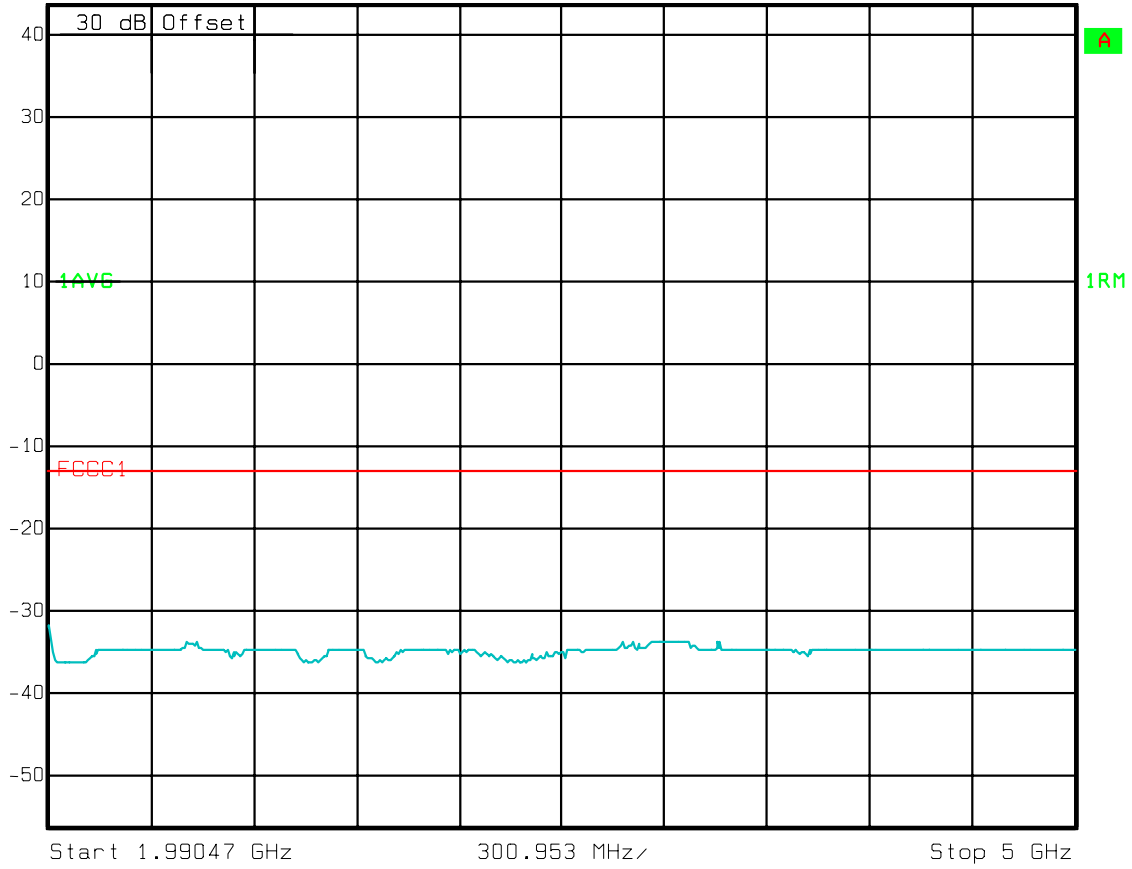


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 925, POWER OUTPUT = 24 W
Date: 9.FEB.2001 8:08:11



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

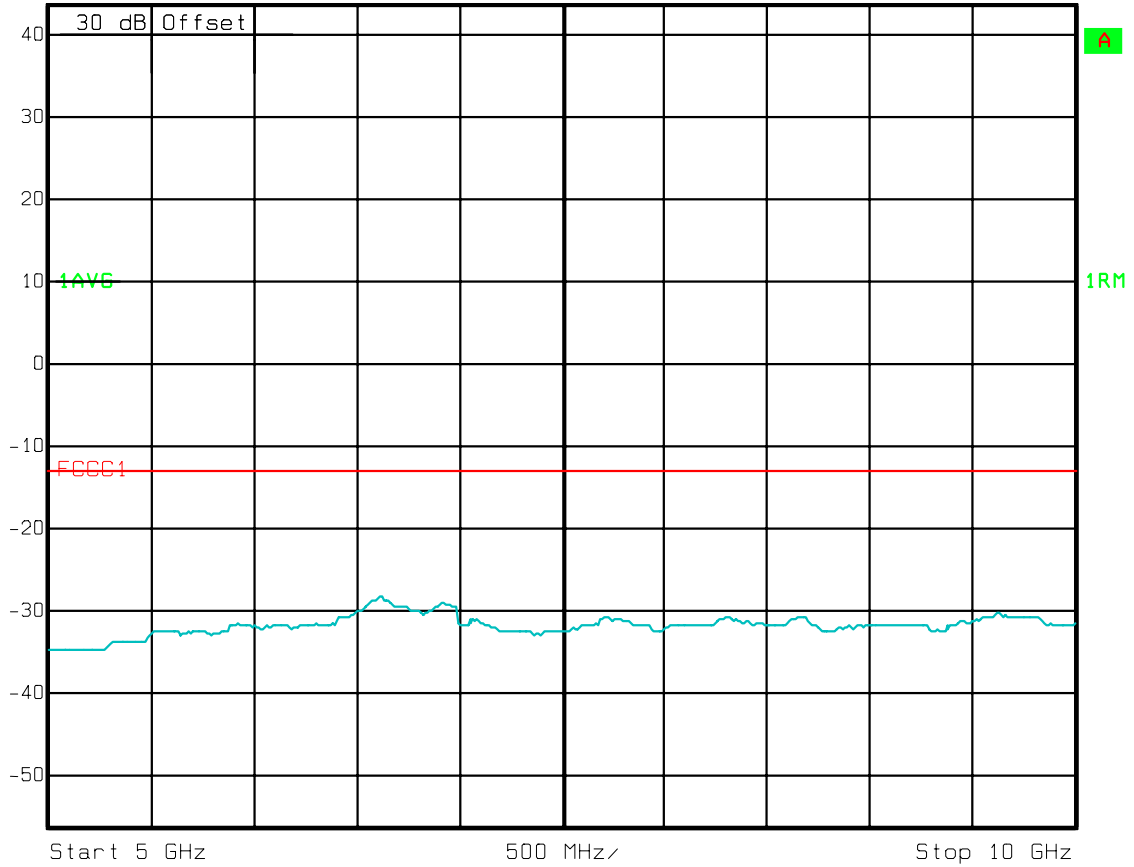


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 925, POWER OUTPUT = 24 W
Date: 9.FEB.2001 8:08:57



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

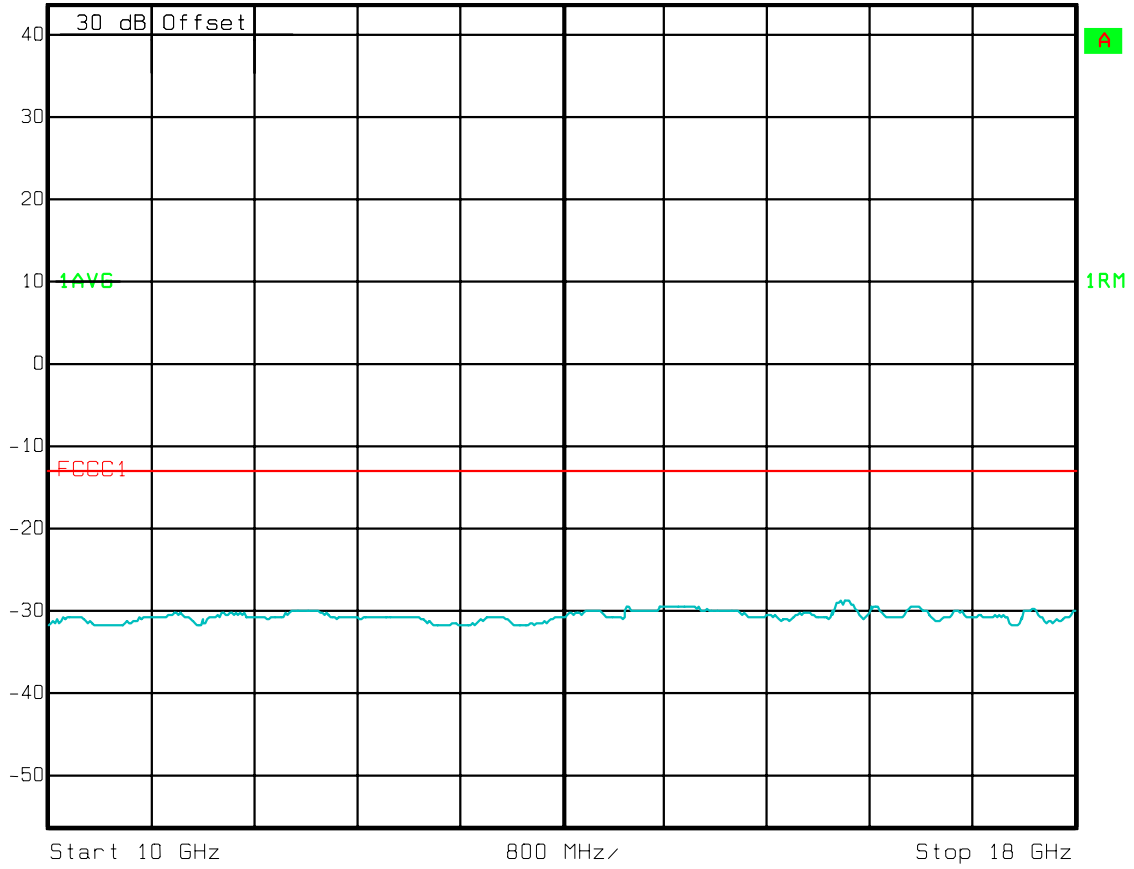


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 925, POWER OUTPUT = 24 W
Date: 9.FEB.2001 8:09:37



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

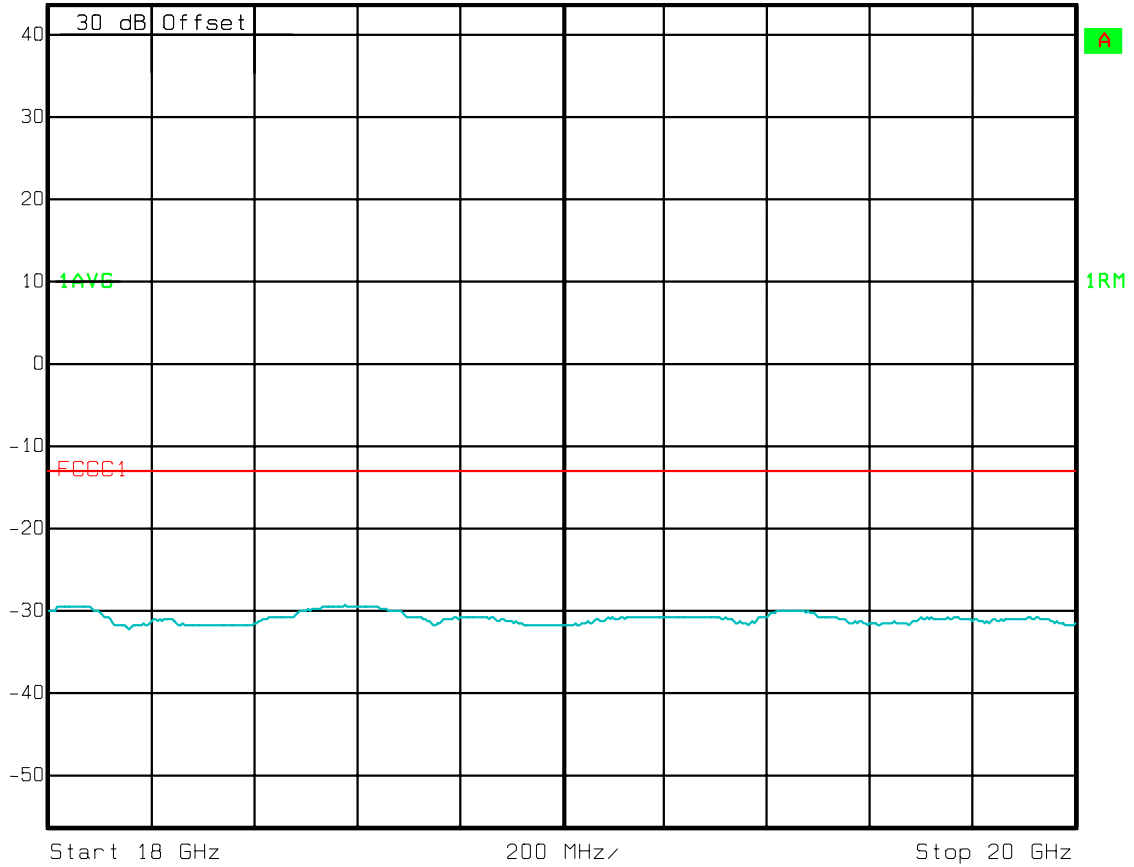


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 925, POWER OUTPUT = 24 W
Date: 9.FEB.2001 8:10:18



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

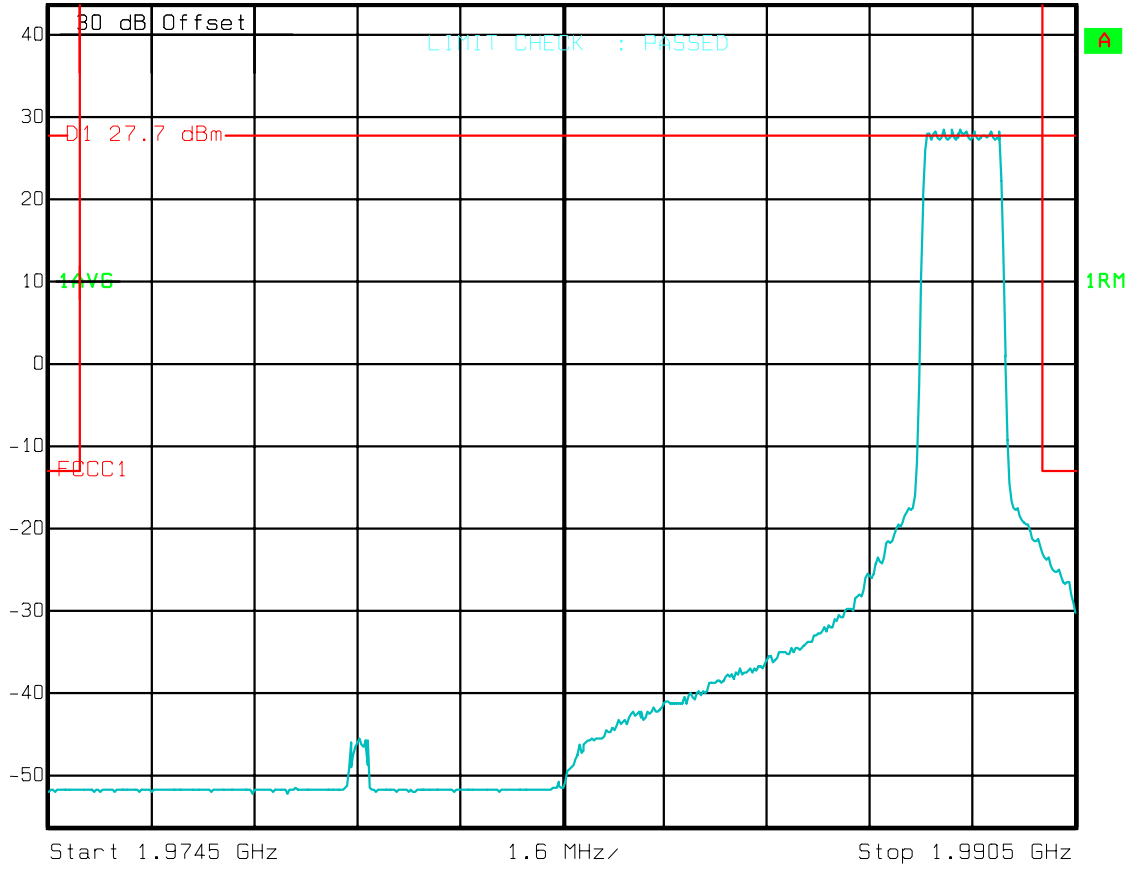


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 925, POWER OUTPUT = 24 W
Date: 9.FEB.2001 8:11:00



Ref Lvl
43.8 dBm

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

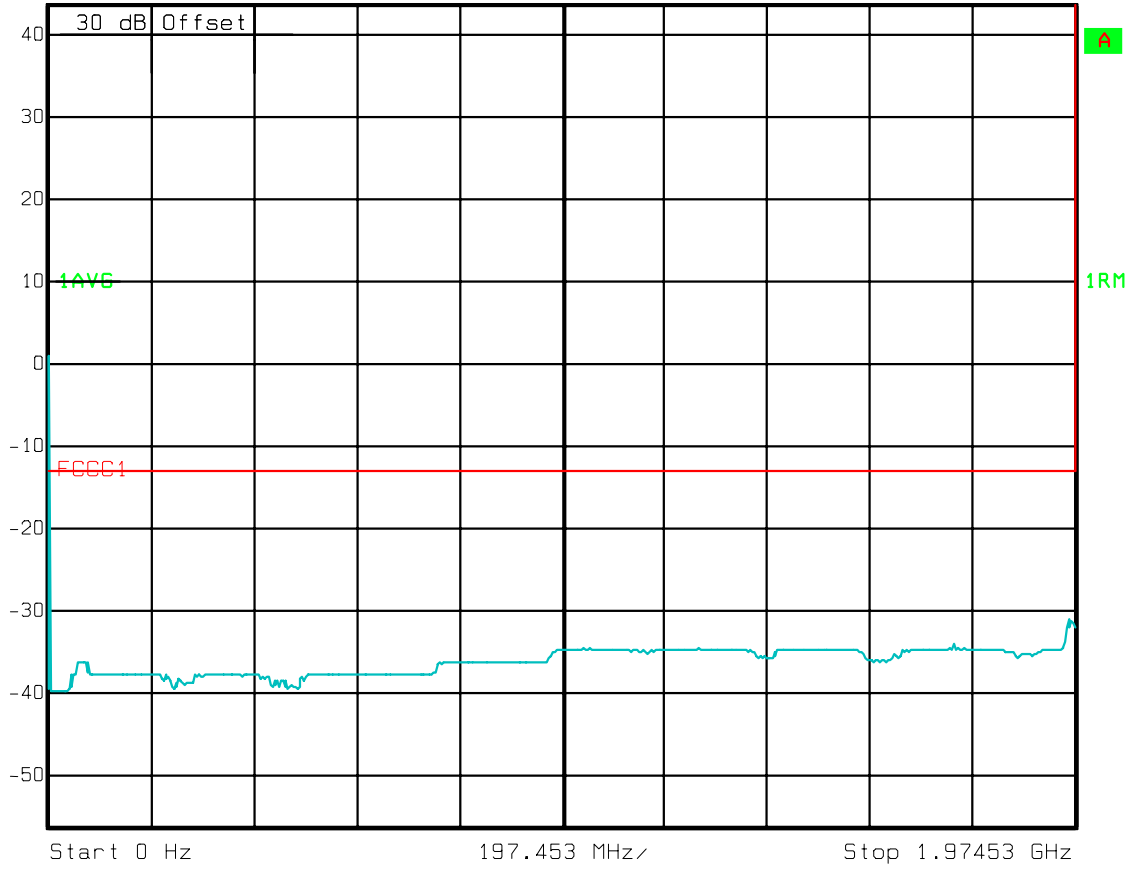


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 1175, POWER OUTPUT = 24 W
Date: 9.FEB.2001 8:19:55



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

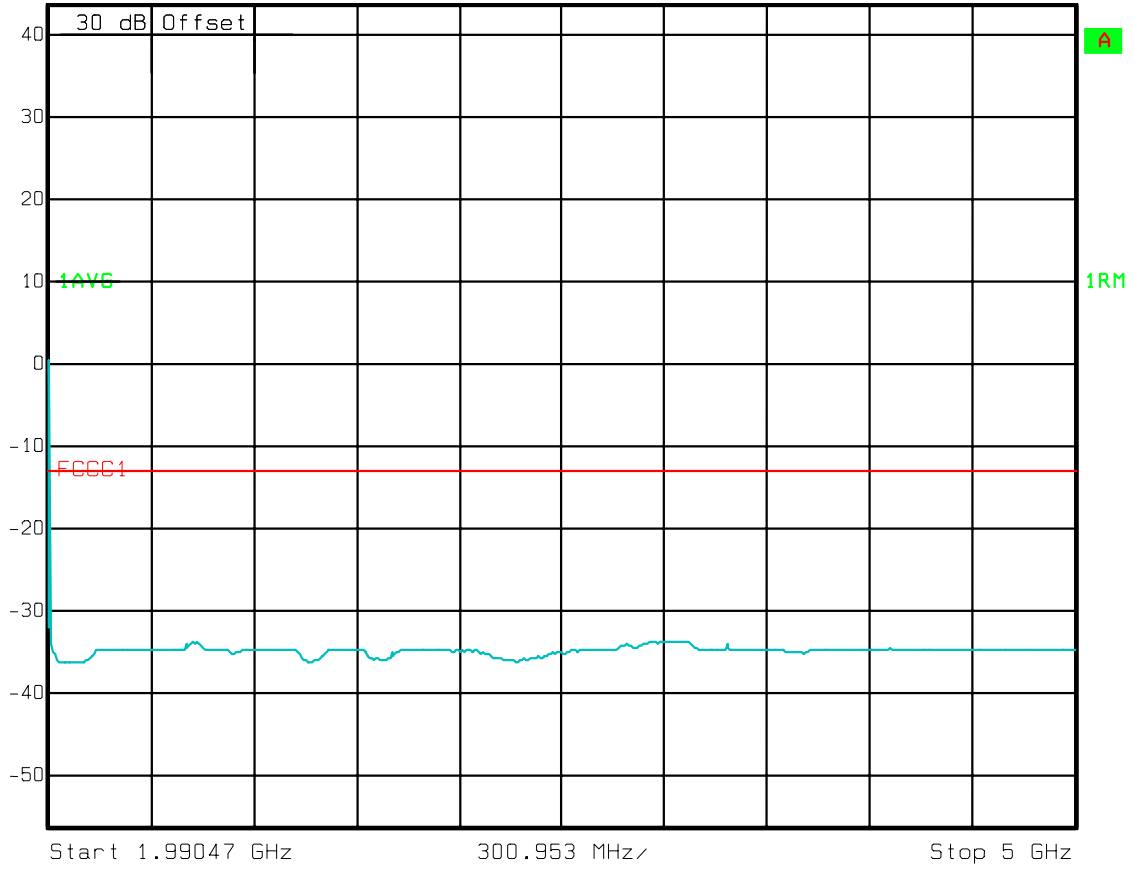


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 1175, POWER OUTPUT = 24 W
Date: 9.FEB.2001 8:21:08



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

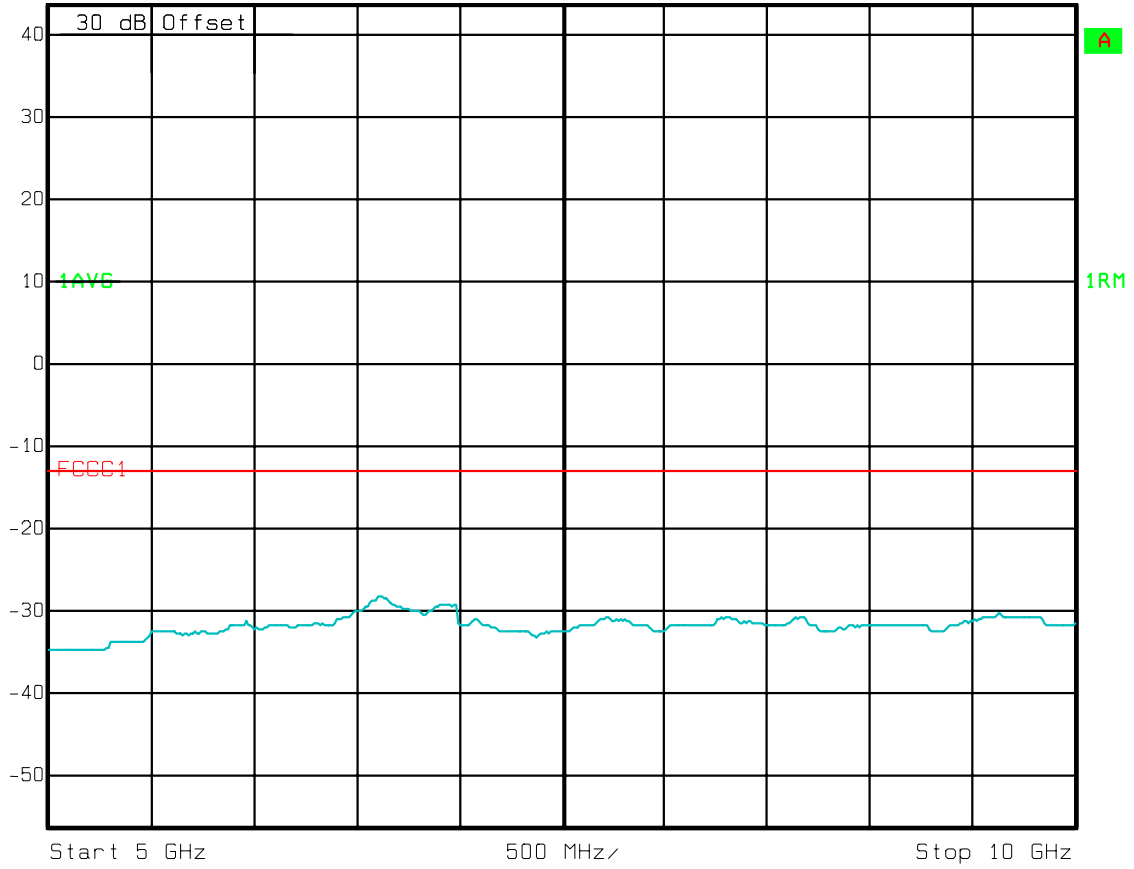


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 1175, POWER OUTPUT = 24 W
Date: 9.FEB.2001 8:24:44



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

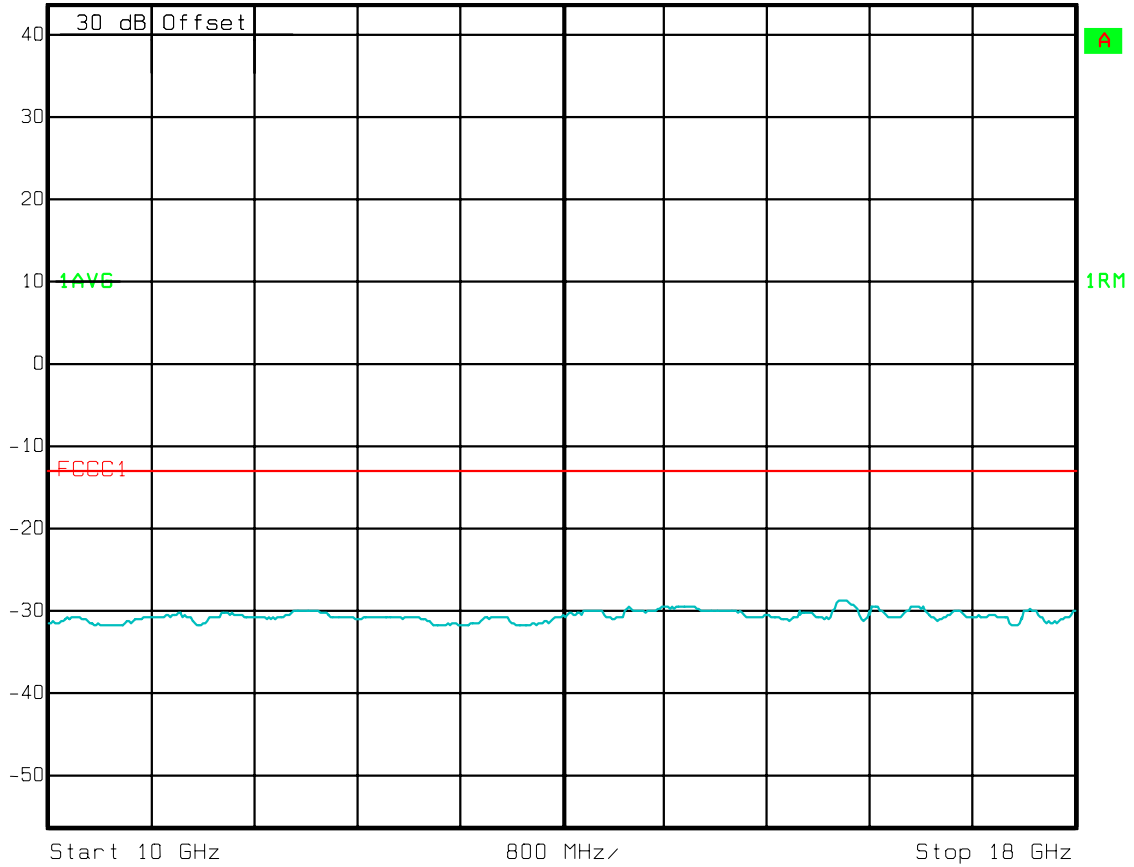


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 1175, POWER OUTPUT = 24 W
Date: 9.FEB.2001 8:25:22



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm

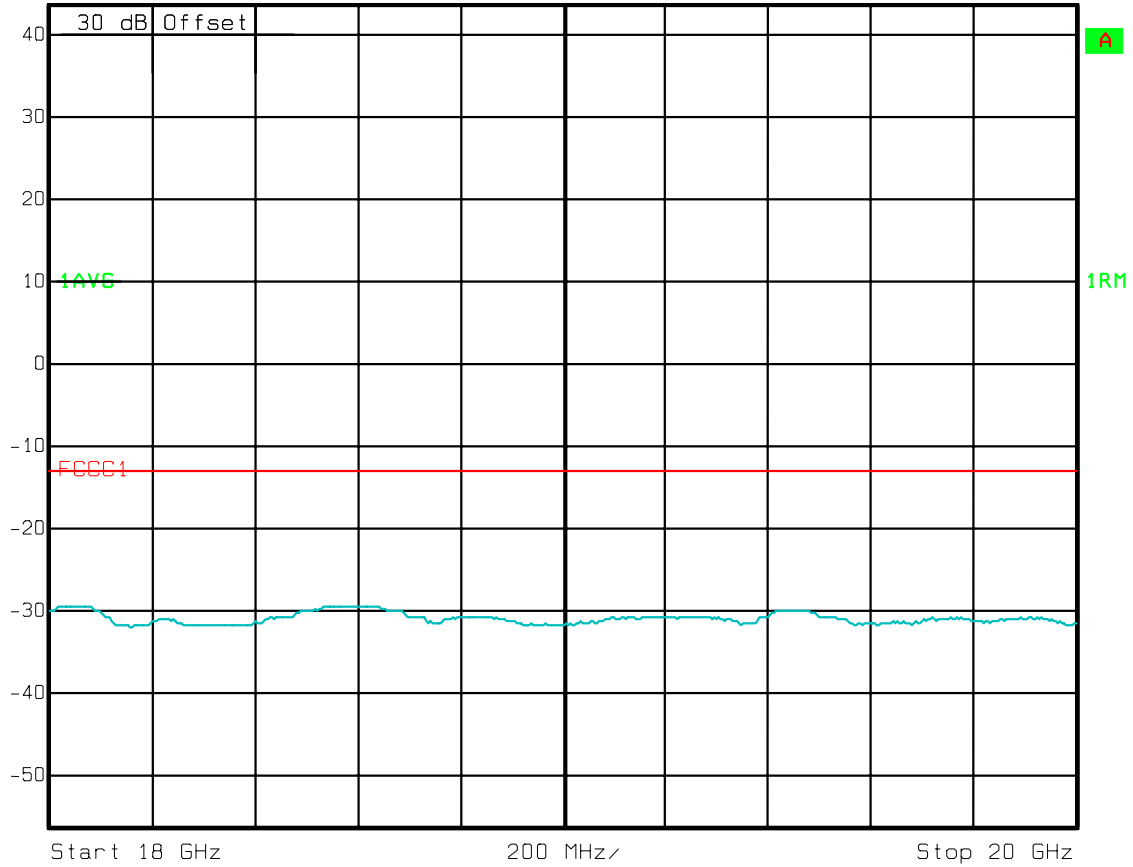


Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 1175, POWER OUTPUT = 24 W
Date: 9.FEB.2001 8:26:01



Ref Lvl
43.8 dBm

RBW 1 MHz RF Att 30 dB
VBW 1 MHz
SWT 500 ms Unit dBm



Title: SPURIOUS EMISSIONS AT TX ANTENNA (DUPLEX)
Comment A: FCC ID: AS5CMP-42. CDMA FLEXENT DISTRIBUTED BASE STATION PCS
CHANNEL 1175, POWER OUTPUT = 24 W
Date: 9.FEB.2001 8:26:39

Measurement: 5

**FIELD STRENGTH OF SPURIOUS
RADIATION**

SECTION 2.1053

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 file31040/SIT)

The PCBR was assembled with a Flexent Power Amplifier (ICLA) and all other associated equipment in an **FLEXENT®** CDMA Radio Frequency Unit Cabinet. The tests were repeated for each RF filter installed between antenna port terminal and Flexent Power Amplifier RF Power output port. 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 (a) (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 24.238 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

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 measurement levels are equal to or greater than 53.9 dB μ V/meter. Over the spectrum investigated, 10 MHz to 10th harmonic of the carrier, no reportable spurious emissions were detected. This demonstrates that the PA, the subject of this application, complies with Sections 2.1053, 24.238 and 2.1057 of the Rules.

**MEASUREMENT OF FREQUENCY
STABILITY**
SECTION 2.1055

MEASUREMENT OF FREQUENCY STABILITY**SECTION 2.1055****RESPONSE:**

The frequency stabilization and accuracy of the CDMA signal amplified by the PA(FCC ID: AS5CMP-42) is a function of the input signal which it is provided from the PCBR (FCC ID: **AS5CMP-41**). The Baseband Unit (BBU) contains Time Frequency Unit. The TFU provides the time and frequency reference (19.66 MHz) used by the PCBR (FCC ID: **AS5CMP-41**). The reference frequency to PCBR is supplied through a Fiber Optic link from the BBU. The Reference frequency 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 provide 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 frequency stability test, the PA output frequency was measured as installed and tested in a FLEXENT PCS CDMA Distributed System. The entire Distributed system (BBU and RFU) was subjected to the FCC specified environments while operating at full rated power. The frequency stabilization and accuracy of the CDMA signal amplified by the PA(FCC ID: AS5CMP-42) is a function of the input signal which it is provided from the PCBR (FCC ID:AS5CMP-41) cofiled application and therefore data considered not applicable for PA filing.

**FREQUENCY SPECTRUM TO BE
INVESTIGATED**
SECTION 2.1057

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, 24.238, ANSI C63.4, TIA/EIA-97-C.

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	6/30/00	12
HP	437B	3125U24744	Power Meter	1/12/01	12
HP	778D	18300	Dual Directional Coupler	6/28/00	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	7/31/00	12
Electro-Metrics	EM-2135/EMC-60	44174	Test Receiver	12/29/00	12
EMCO	3146	9509-4165	Log-Periodic Antenna	8/15/00	12
Rohde & Schwarz	ESVP	879807/049	Test Receiver	9/11/00	12
Rohde & Schwarz	EPM	883613/014	Panorama Monitor	N/A	N/A
EMCO	3115	9006-3460	Double Ridged Horn 1-18 Ghz	5/22/00	12
Advantest	R3465	J003788	Spectrum Analyzer	6/2/00	12
HP	58503	3710A01153	GPS Frequency Reference Receiver	N/A	N/A
HP	E4406A	US39480797	VSA SERIES Transmitter Tester	1/19/00	12
HP	8482A	US37294201	Power Sensor	5/16/00	12

* Calibrated before use.