

EA # 92755

FCC LABORATORY

FAX MESSAGE FROM

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Mar 3 11 11 AM '99

DATE: March 2, 1999 TIME: _____
TO: Greg Czumak
COMPANY: FCC/Equipment Authorization Division
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NO. OF PAGES INCLUDING COVER SHEET 11
REFERENCE: FCC ID: CKEJHU-1961; Japan Radio; Correspondence #6302

MESSAGE:

Per your request of Feb. 26 referenced above.

1. Table 1, conducted emissions (inexplicably omitted from filing) follows.
2. Maximum number of carriers is 120 (1.07 W/carrier).
3. Three-tone plots as follows:

Exhibit 9J - CDMA input signal 2.6 dBm
9K - CDMA output 51.1 dBm
9L - CDMA output 45.1 dBm
9M - TDMA input signal 2.6 dBm
9N - TDMA output 51.1 dBm
9O - TDMA output 45.1 dBm
9P - GSM input signal 2.6 dBm
9Q - GSM output signal 51.1 dBm
9R - GSM output signal 45.1 dBm

Originals follow by express mail for the file. Please call if you have any further questions.

Regards,

RSJ

TABLE 1

TRANSMITTER CONDUCTED SPURIOUS
1980 MHz, 26 Vdc Input, 32 and 128 watts

	Spurious Frequency <u>MHz</u>	dB Below Carrier <u>Reference</u>
<u>128W</u>		
	3960.000	87
	5940.000	86
	7920.000	>85
	9900.000	>83
	11880.000	>82
	13860.000	>81
	15840.000	>82
	17820.000	>78
	19800.000	>78
	Required: $43+10\text{Log}(P)$	64

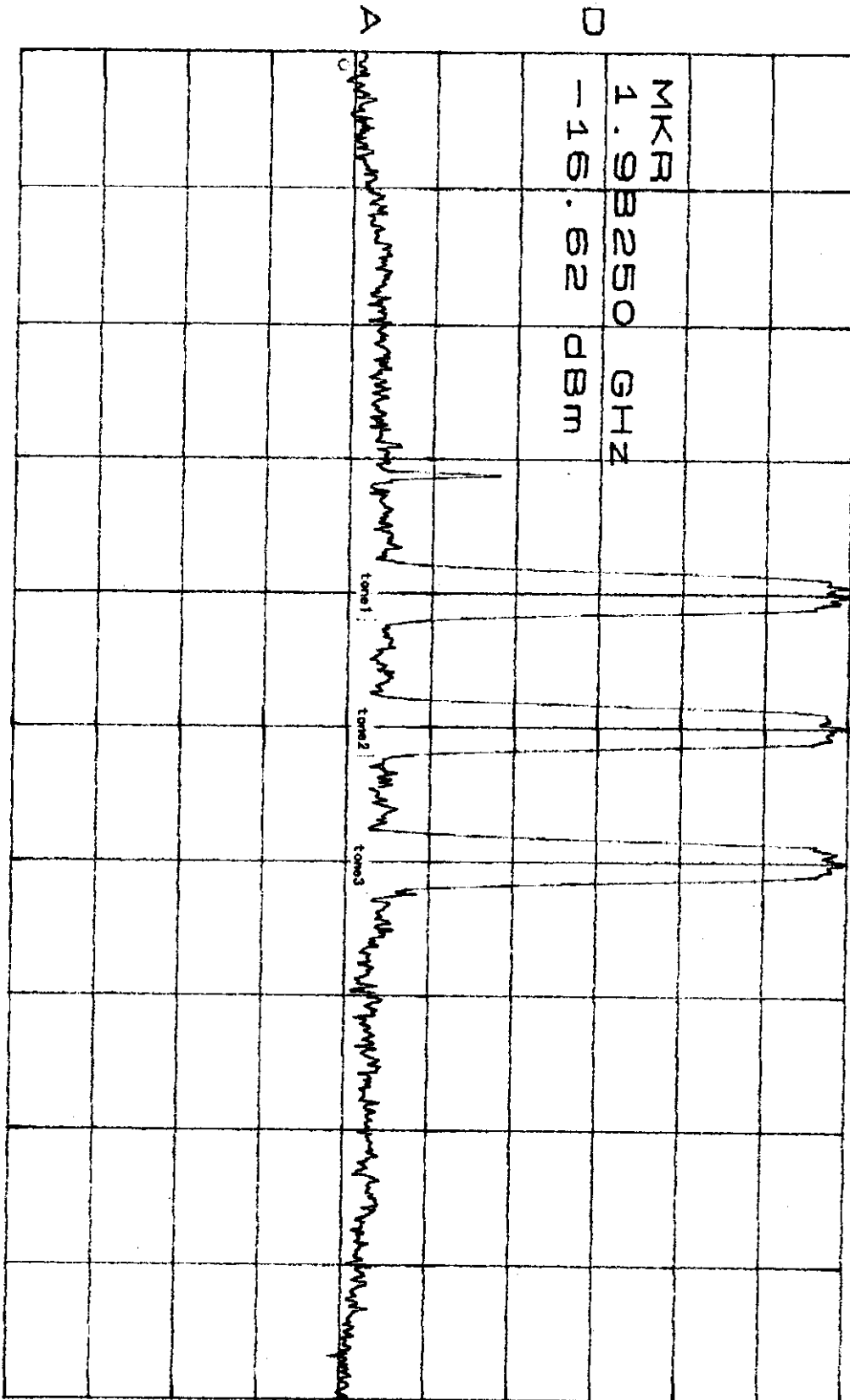
<u>32W</u>		
	3960.000	93
	5940.000	94
	7920.000	>91
	9900.000	>90
	11880.000	>88
	13860.000	>86
	15840.000	>86
	17820.000	>85
	19800.000	>82
	Required: $43+10\text{Log}(P)$	58

All other emissions from 10 MHz to the tenth harmonic were 20 dB or more below FCC limit.

NOTE: Carrier notch filter used to increase dynamic range.

*ATTEN 20dB VAVG 25 MKR -16.62dBm
 RL -16.8dBm 10dB/ 1.98250GHz

EXHIBIT 9J
 FCC ID No. OKE JHU-1961



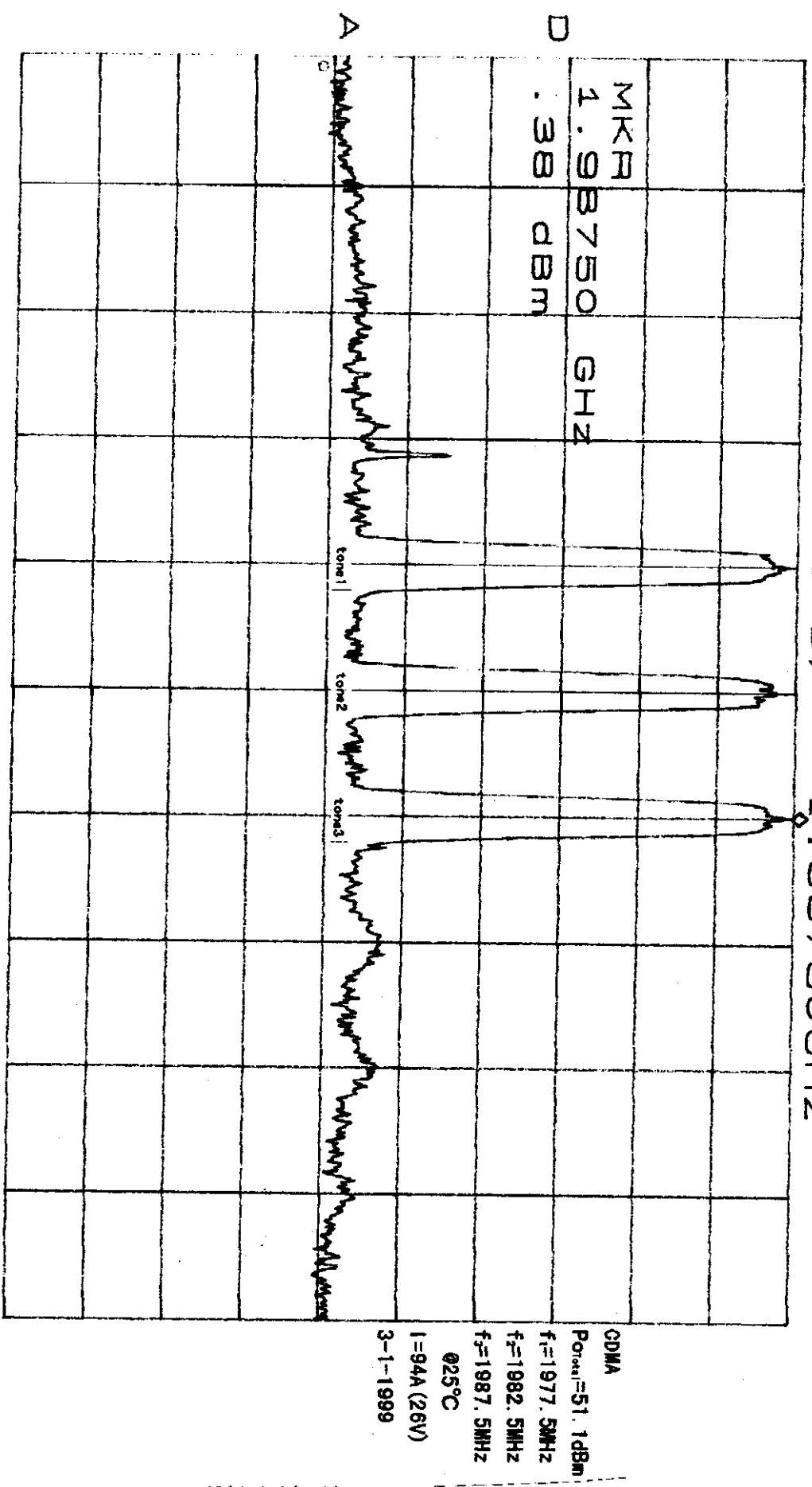
CENTER 1.98250GHz SPAN 50.00MHz
 *RBW 100kHz VBW 100kHz SWP 50.0ms

Figure 2-10 CDMA Source HP E2508A1

(note)
 The signals exist on both sides of
 the desired CDMA signals are spurious
 coming from Signal Source

*ATTEN 40dB VAVG 25 MKR .38dBm
 RL .7dBm 10dB/ 1.98750GHz

EXHIBIT 9K
 FCC ID No. CKE JHU-1961

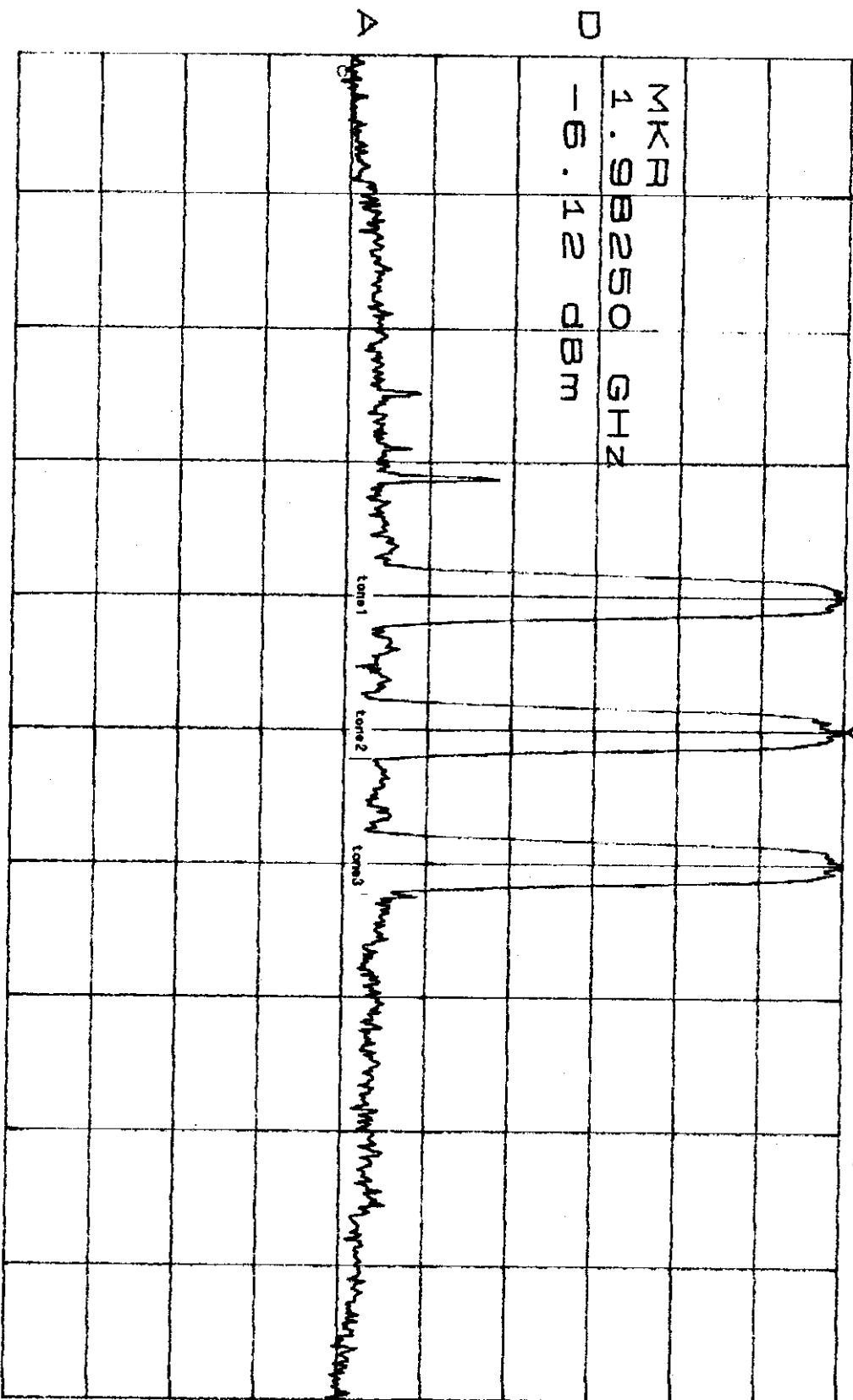


CENTER 1.98250GHz SPAN 50.00MHz
 *RBW 100KHz VBW 100KHz SWP 50.0ms

Figure 2-11 JRC JHU-1961 : Amplifier Output with CDMA Source

(note)
 The signals exist on both sides of
 the desired CDMA signals are spurious
 coming from Signal Source

*ATTEN 30dB VAVG 25 MKR -6.42dBm
RL -6.6dBm 10dB/ 1.98250GHZ



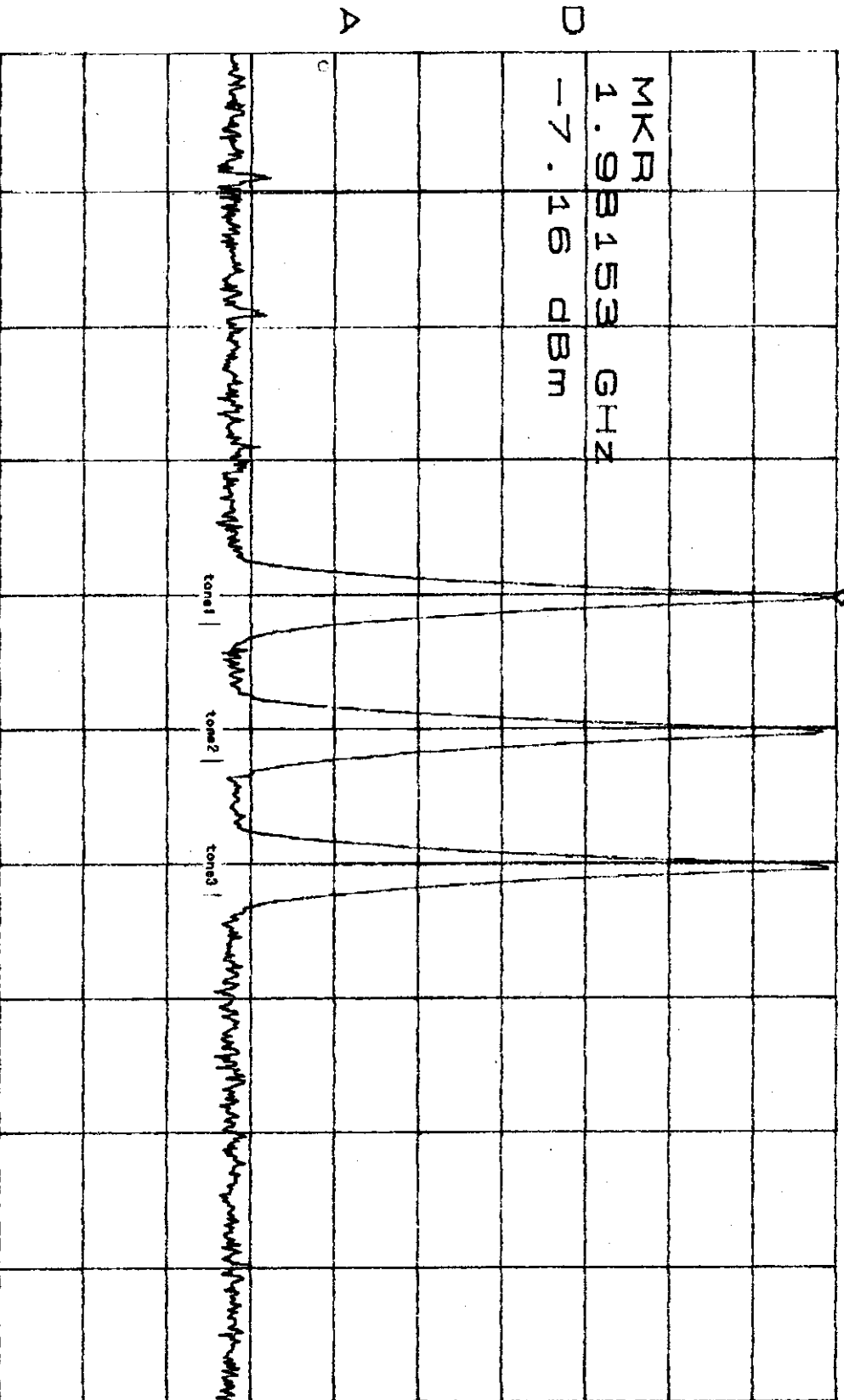
CDMA
Power=45.1dBm
f1=197.5MHz
f2=198.5MHz
f3=198.5MHz
@25°C
I=80A (26V)
3-1-1999

CENTER 1.98250GHZ SPAN 50.00MHZ
*RBW 100KHZ VBW 100KHZ SWP 50.0MS

Figure 2-12 JRC JHU-1961 : Amplifier Output with CDMA Source

(note)
The signals exist on both sides of
the desired CDMA signals are spurious
coming from Signal Source

*ATTEN 20dB VAVG 25 MKR -7.16dBm
PL -6.8dBm 10dB/ 1.98153GHz

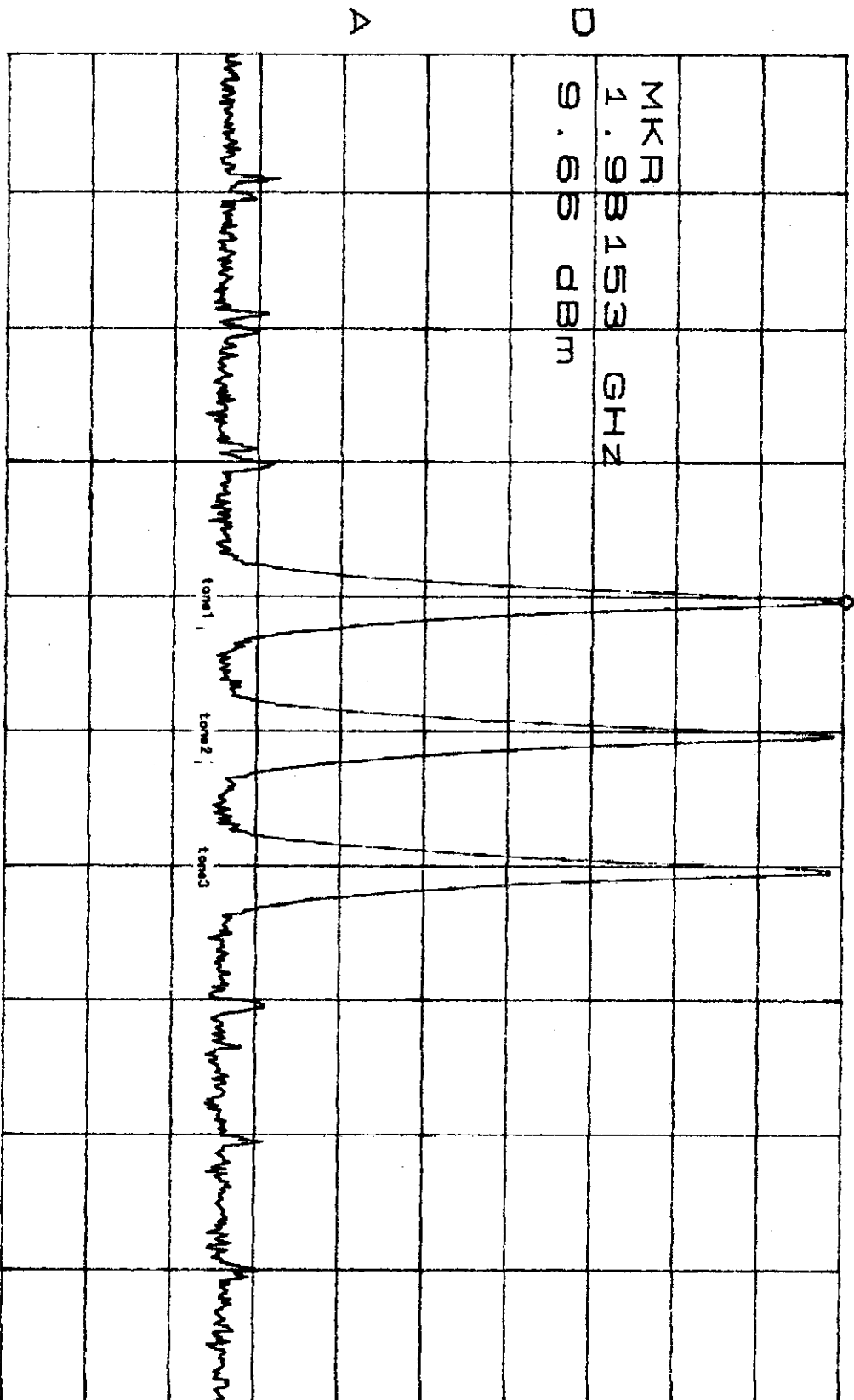


TDMA
P_{intone1}=2.6dBm
f₁=1981.5MHz
f₂=1982.5MHz
f₃=1983.5MHz
@25°C
3-1-1999

CENTER 1.98250GHz SPAN 10.00MHz
*RBW 30KHz VBW 30KHz SWP 50.0ms

Figure 2-13 TDMA Source HP E2508A

*ATTEN 30dB VAVG 25 MKR 9.66dBm
 RL 10.3dBm 10dB/ 1.98153GHz

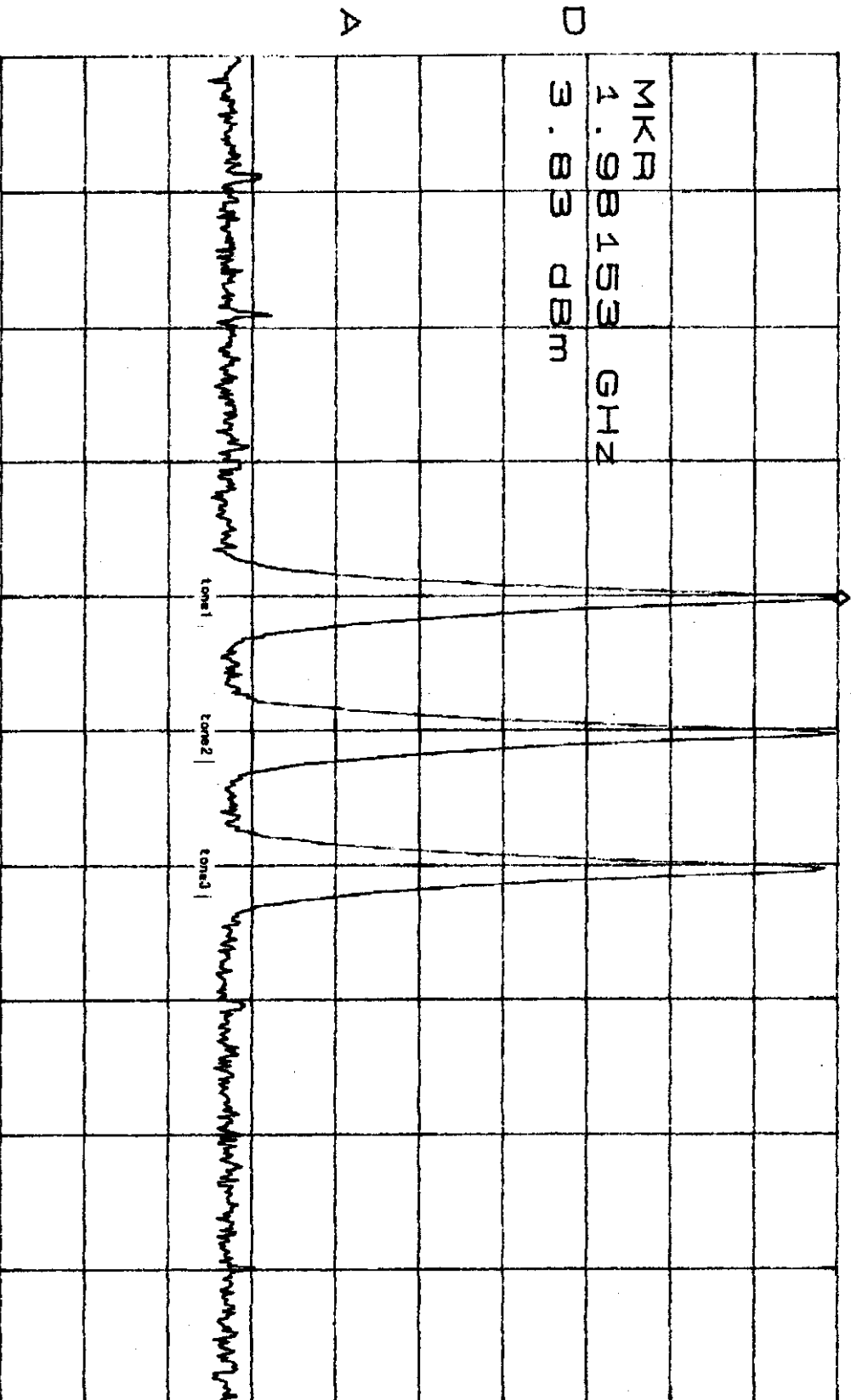


TDMA
 Power=51.1dBm
 f₁=1981.5MHz
 f₂=1982.5MHz
 f₃=1983.5MHz
 @25°C
 I=94A (26V)
 3-1-1999

CENTER 1.98250GHz SPAN 10.00MHz
 *RBW 30kHz VBW 30kHz SWP 50.0ms

Figure 2-14 JRC JHU-1961 : Amplifier Output with TDMA Source

*ATTEN 30dB VAVG 25 MKR 3.83dBm
PL 4.5dBm 10dB/ 1.98153GHz



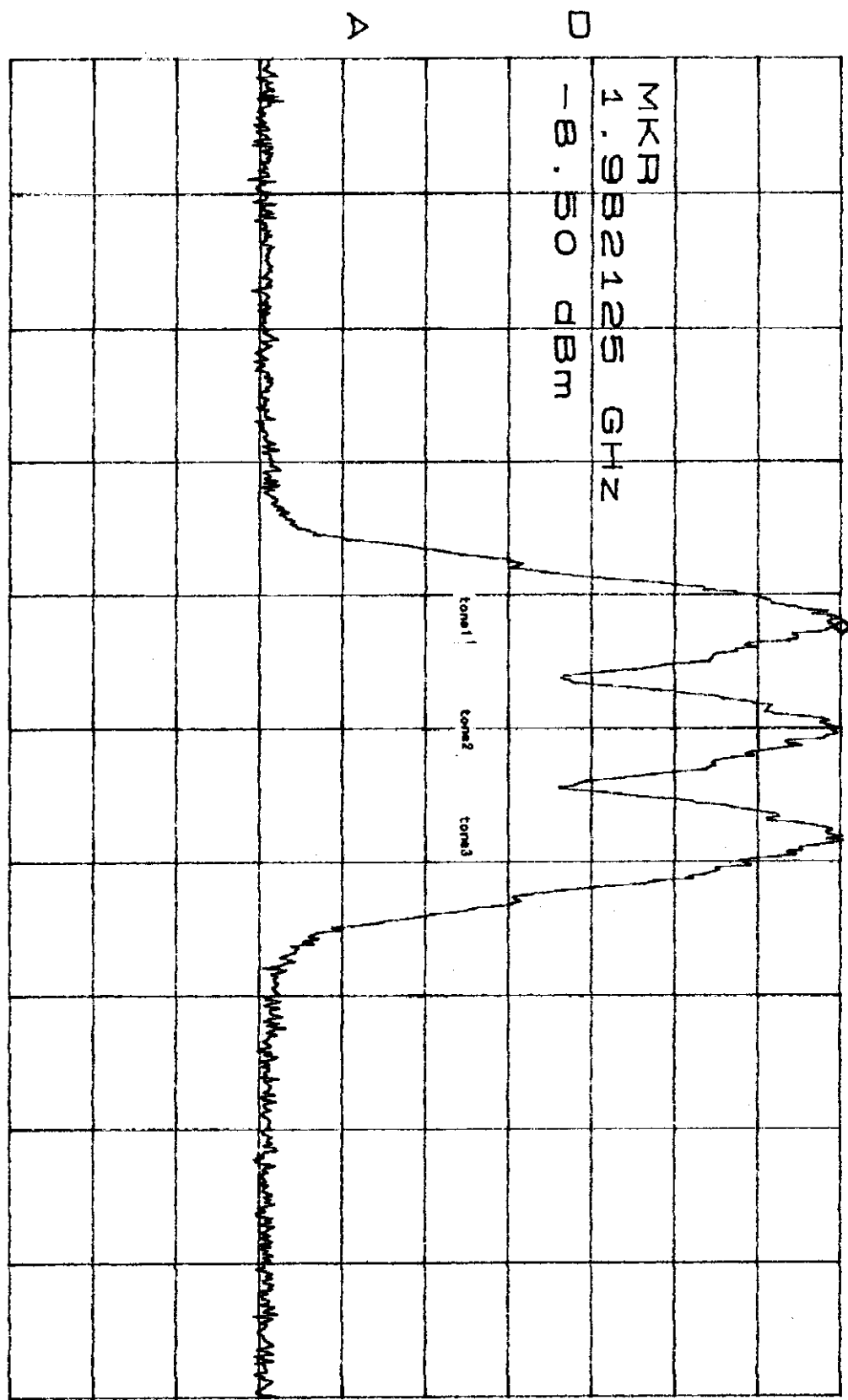
TDMA
Power=45.1dBm
f₁=1981.5MHz
f₂=1982.5MHz
f₃=1983.5MHz
@25°C
I=60A(26V)
3-1-1999

CENTER 1.98250GHz SPAN 10.00MHz
*RBW 30kHz VBW 30kHz SWP 50.0ms

Figure 2-15 JRC JHU-1961 : Amplifier Output with TDMA Source

*ATTEN 20dB VAVE 25 MKR -8.50dBm
 RL -7.70dB 10dB/ 1.982125GHz

EXHIBIT 9P
 FCC ID No. OKE JHU-1961



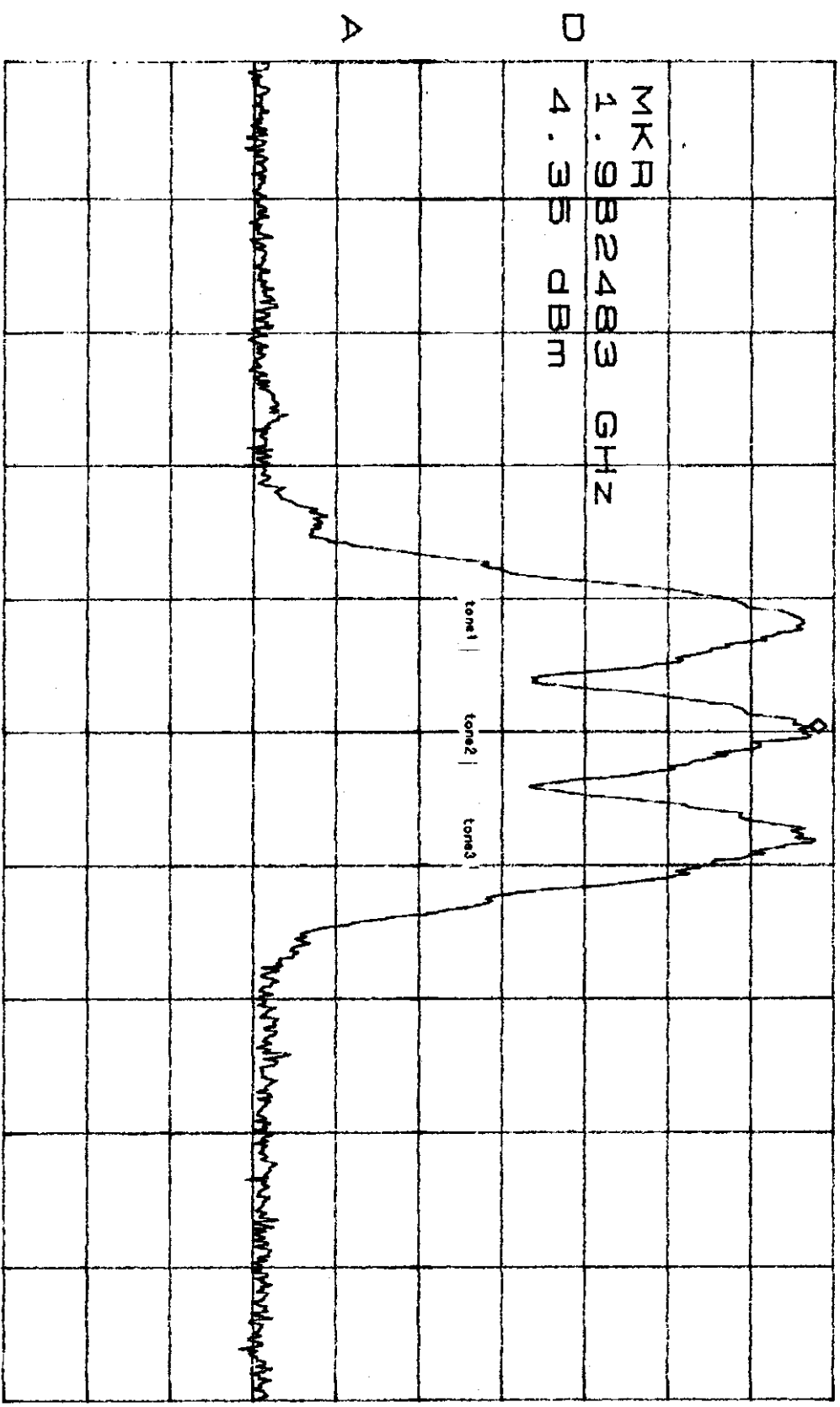
GSM
 P₁ = 2.6dBm
 f₁ = 1982.1MHz
 f₂ = 1982.5MHz
 f₃ = 1982.9MHz
 025°C
 3-1-1989

CENTER 1.982500GHZ SPAN 5.000MHZ
 RBW 30KHZ VBW 30KHZ SWP 50.0MS

Figure 2-16 GSM Source HP E2508A

*ATTEN 40dB VAVG 25 MKR 4.35dBm
 RL 7.2dBm 10dB/ 1.982483GHz

EXHIBIT 90
 FCC ID No. CKE JHU-1961



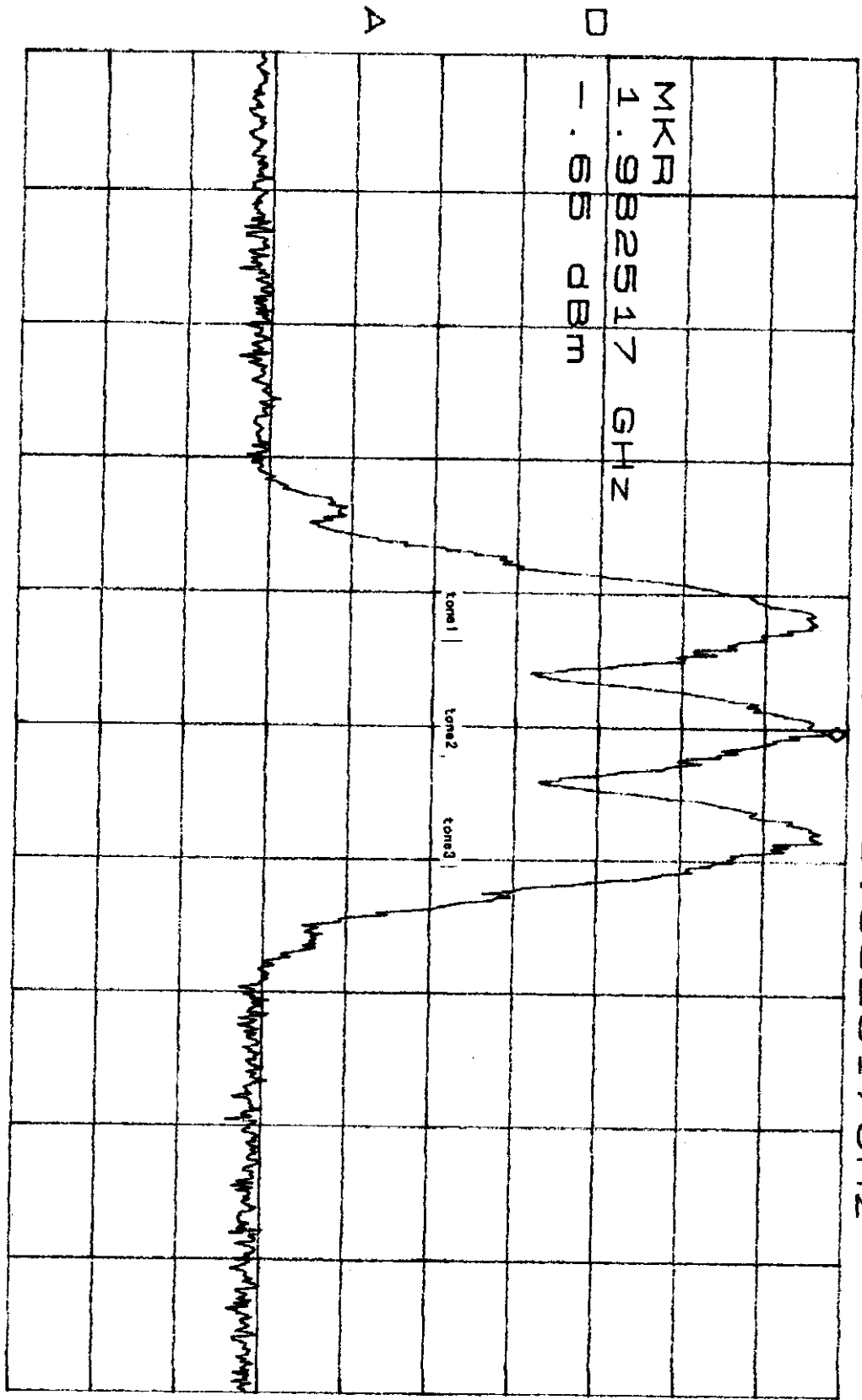
GSM
 P_{out}=51.1dBm
 f₁=1982.1MHz
 f₂=1982.5MHz
 f₃=1982.9MHz
 1=94A(26V)
 025°C
 3-1-1999

CENTER 1.982500GHZ SPAN 5.000MHZ
 *RBW 30KHZ VBW 30KHZ SWP 50.0MS

Figure 2-17 JRC JHU-1961 : Amplifier Output with GSM Source

*ATTEN 30dB VAVG 25 MKR - .65dBm
 FL 1.7dBm 10dB/ 1.982517GHz

EXHIBIT 9R
 FCC ID No. CKE JHU-1961



GSM
 Power=45.1dBm
 f₁=1982.1MHz
 f₂=1982.5MHz
 f₃=1982.9MHz
 @25°C
 I=60A (26V)
 3-1-1999

CENTER 1.982500GHz SPAN 5.000MHz
 *RBW 30kHz VBW 30kHz SWP 50.0ms

Figure 2-18 JRC JHU-1961 : Amplifier Output with GSM Source