

Exhibit 6

INDEX OF TEST RESULTS

<u>Exhibit #</u>	<u>Description</u>
6A	Not Applicable (NA), Reserved for the 800 band/Part 22 information
6B	Not Applicable (NA), Reserved for the 800 band/Part 22 information
6C	Not Applicable (NA), Reserved for the 800 band/Part 22 information
6D	Not Applicable (NA), Reserved for the 800 band/Part 22 information
6E	Not Applicable (NA), Reserved for the 800 band/Part 22 information
6F	Not Applicable (NA), Reserved for the 800 band/Part 22 information
6G	1900MHz/Part 24: RF Power
6H	1900MHz/Part 24: Modulation Characteristics
6I	1900MHz/Part 24: Occupied bandwidth
6J	1900MHz/Part 24: Spurious Emissions (conducted)
6K	1900MHz/Part 24: Spurious Emissions (radiated)
6L	1900MHz/Part 24: Frequency Stability

1900 MHz: RF POWER OUTPUT

Para. 2.985 (a)

The RF Power measured at the output terminals (antenna connector) is plotted against supply voltage variations.

EXHIBIT	SUPPLY VOLTAGE (V)	TEMPERATURE	POWER LEVEL	TX FREQ	Power (Watts)
6G2	Varied	+ 25 C	0	Mid Band	1
6G3	Varied	+ 25 C	15	Mid Band	.001

Output power was measured conducted, via a standard antenna connector.

The measurements were made using a Hewlett Packard 8922 M System Simulator with the following equipment:

Hewlett Packard 8922 M System Simulator  
Hewlett Packard 8593 E Spectrum Analyzer  
Hewlett Packard 8566 B Spectrum Analyzer

ESTIMATED ISOTROPIC RADIATED POWER

The following is a description of the substitution method used to obtain accurate EIRP readings at the carrier fundamental frequency:

- (1) EUT measurements are made at 3 m using calibrated antennas and equipment with known cable losses.
- (2) A peak measurement is made by raising and lowering the antenna and rotating the EUT 360 degrees. Horizontal and Vertical Polarization data is recorded.
- (3) A generator and dipole antenna are then substituted for the EUT. The dipole antenna is a half-wave dipole. If a dipole antenna cannot be used, then the designated antenna is referenced to a dipole antenna.
- (4) Measurements are made through the dipole antenna at known power levels to determine the system calibration factors at a given frequency.
- (5) At frequencies where no calibration data is taken, the value is interpolated between the closest data point above and below the transmit frequency. Calibration data is taken with a half-wave dipole antenna.

Measurements at a distance of 3 m from the source at the highest power level setting:

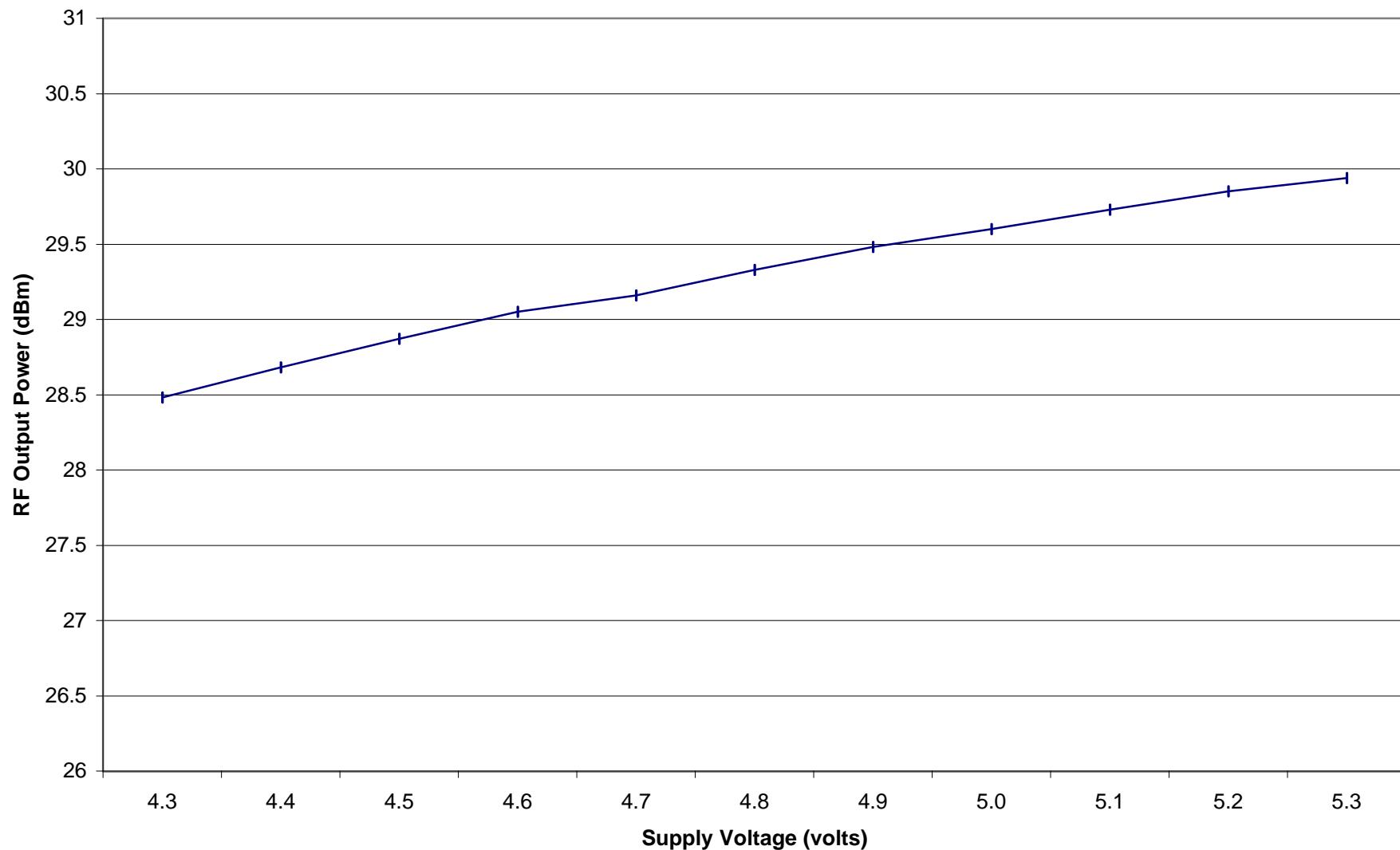
Frequency (MHz)	Rated Output Power (mW)	EIRP (dBm)
1880.8	832	29.2

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Ericsson Inc.

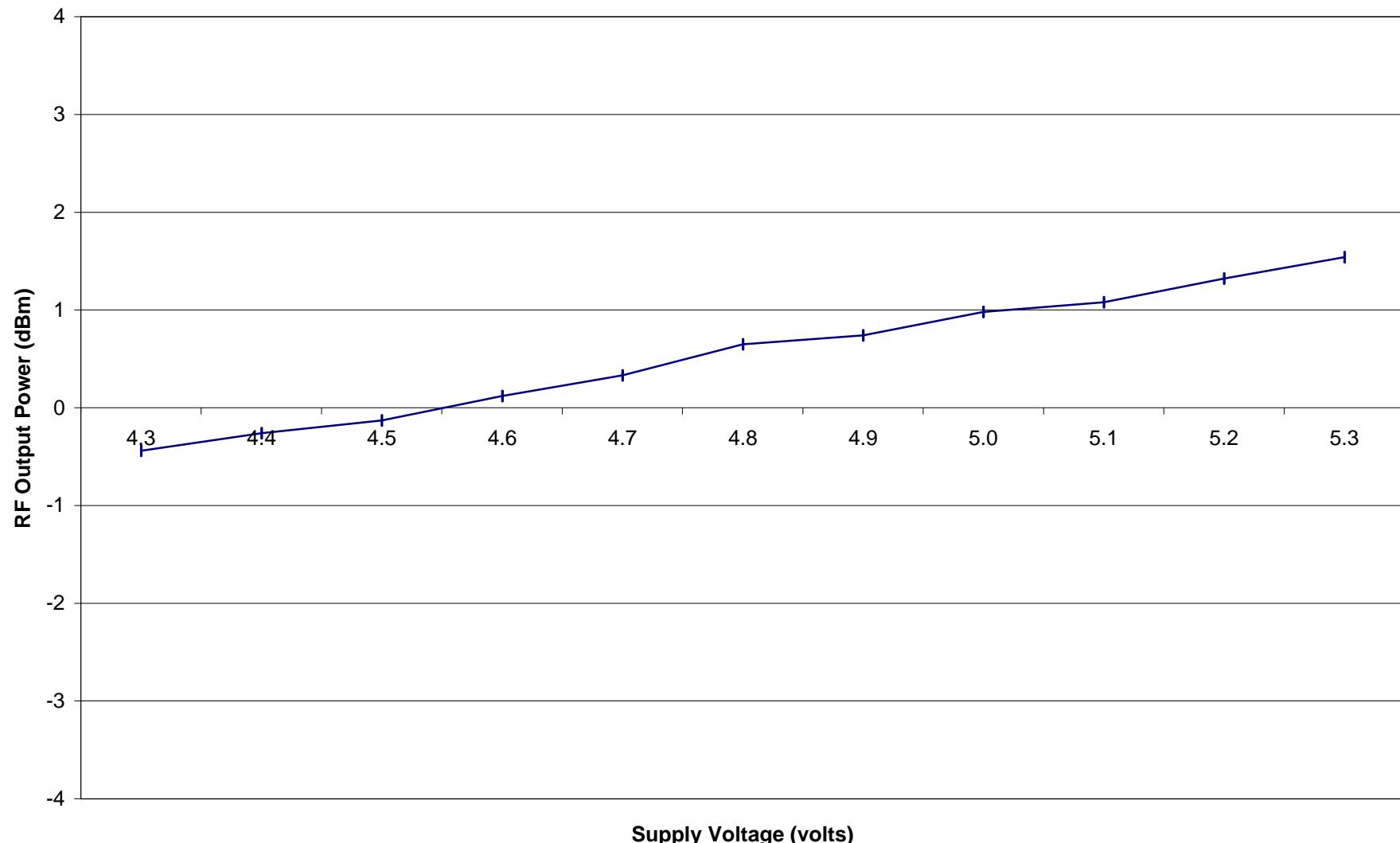
FCC ID:  
AXATR-394-A2

Exhibit 6G2

**RF Output Power vs. Supply Voltage, GSM Channel 660, Power Level 0**



**RF Output Power vs. Supply Voltage, GSM Channel 660, Power Level 15**



APPLICANT:  
**ERICSSON INC.**

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**AXATR-394-A2**

EXHIBIT 6H1

1900 MHz: MODULATION CHARACTERISTICS

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Para: Part 2.987 (a)(b)(d) and 24

**EXHIBIT**

6H2                   GAUSS FILTER CHARACTERISTICS (Modulation)  
6H3                   Modulation Characteristics  
6H4                   Differential Encoding

APPLICANT:  
ERICSSON INC.

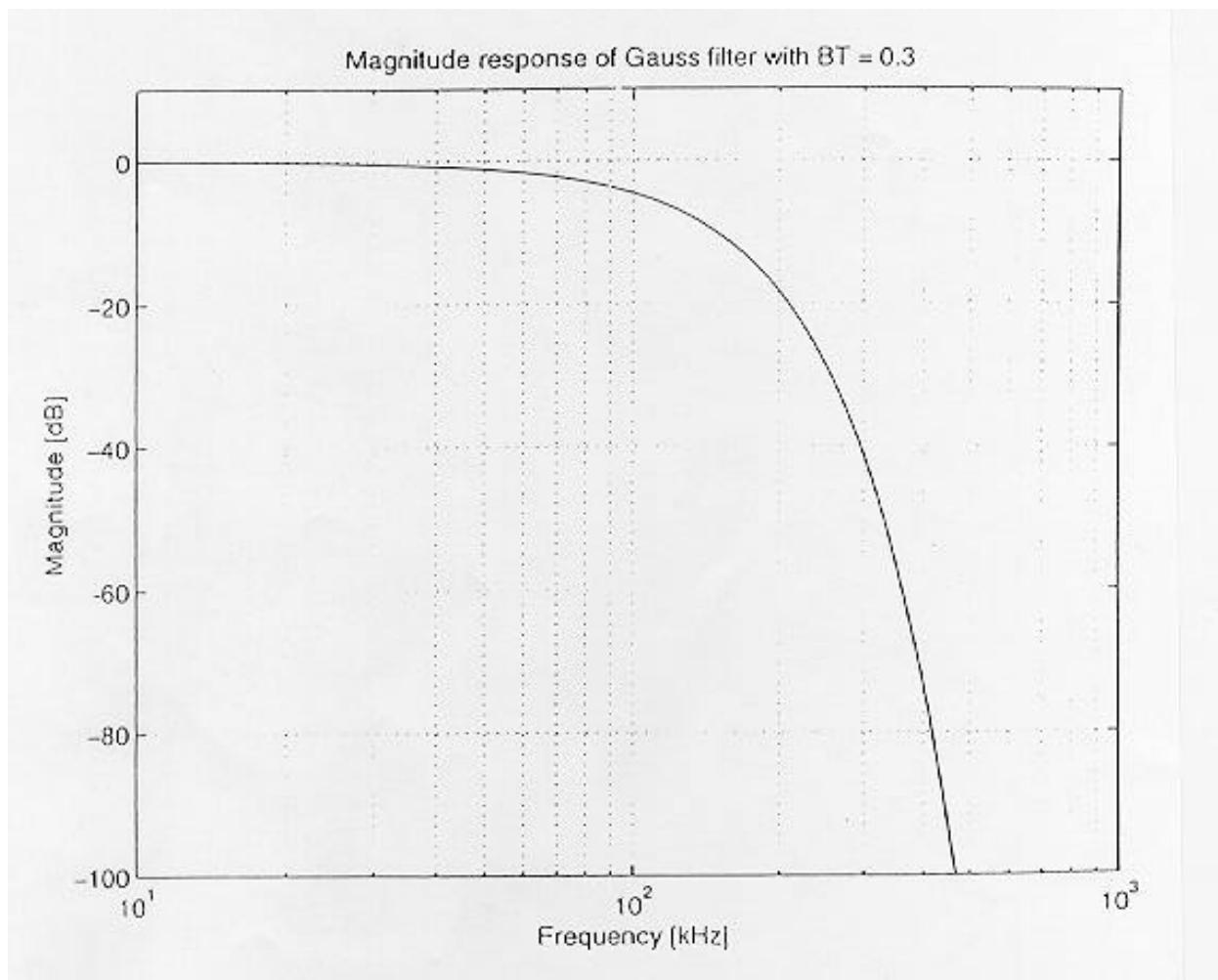
FCC ID NO:  
**AXATR-394-A2**

EXHIBIT 6H2

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MODULATION CHARACTERISTIC

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#### 4. MODULATION

This chapter defines the theoretical requirements of the modulator, inclusive of the differential encoder. The modulator receives the bits from the encryption unit and produces an RF modulated signal. The information bits are first differentially encoded and then passed to the modulator. The modulation is GMSK (Gaussian Minimum Shift Keying) with a BT product of 0.3.

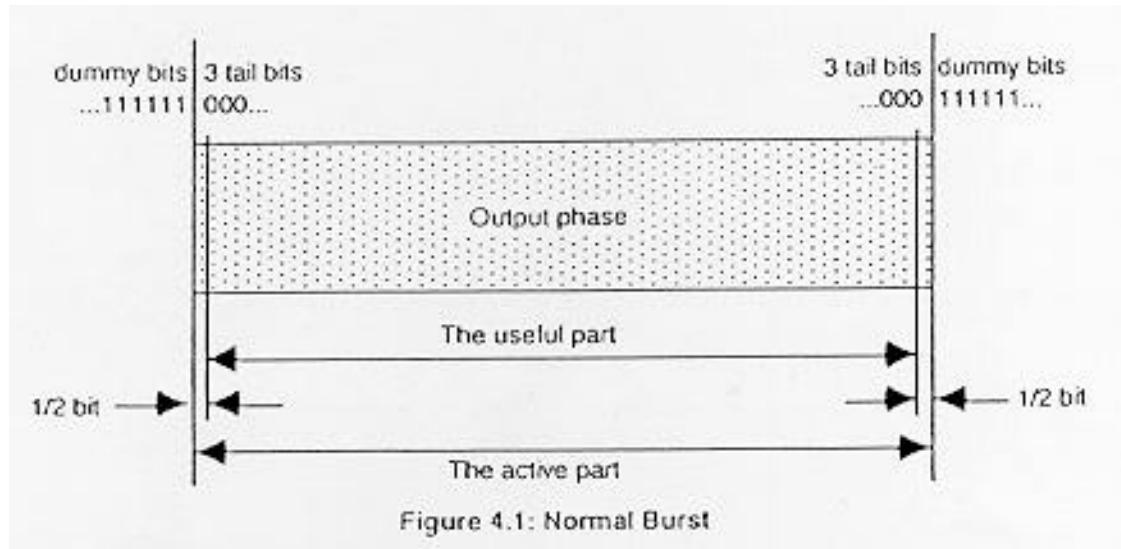
##### 4.1 Modulation Format

###### 4.1.1 Modulating Bit Rate

The modulating bit rate is  $1/T = 1625/6$  kb/s (approximately 270.833 b/s).

###### 4.1.2 Start And Stop Of The Burst

The bits contained within a burst are defined in chapter 2. For the purpose of the modulator specification that follows the bits entering the differential encoder prior to the first bit of the burst and following the last bit of the burst are consecutive logical ones and are denoted by the term dummy bits which define the start and end points of the useful and active parts of the burst as shown in Figure 4.1. The actual state of these bits is left to the manufacturer's implementation subject to the requirement that all performance specifications of this volume are met. Nothing is specified about the actual phase of the modulator output signal outside of the useful part of the burst. Figure 4.1 depicts the relationship between the active and useful part of the burst the tail bits and dummy bits {or a normal burst. The useful part of the burst lasts for 147 modulating bits.



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EXHIBIT 6H4

#### 4.1.3 Differential Encoding

Each data value  $d_i = (0,1)$  is differentially encoded. The output of the differential encoder is:

$$d_i = d_i \oplus d_{i-1}$$

where  $\oplus$  denotes modulo-2 addition.

The modulating data value  $\alpha I$  input to the modulator is:

$$\alpha I = 1 - 2d_i$$

where  $\alpha I \in \{-1, 1\}$

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EXHIBIT 6I1

**1900 MHz: OCCUPIED BANDWIDTH**

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Per 2.989 (c, l, h) the exhibits presented show the modulations that have to exist in a 1900 MHz Cellular System.

All the exhibits listed below are plots where the modulation condition is Psuedorandom Data (270,833kb/s) operating in the GSM (TDMA) mode. All plots were taken while transmitting at Power Level 0. Any frequency span not covered at the exhibits below was found to be unaffected by the transmitter/modulation.

**EXHIBIT**      Lower Channel (1850.2MHz, power level 0)

- 6I2      Plot showing 1MHz resolution bandwidth, peak power
- 6I3      Plot showing emissions bandwidth, center frequency at 1.8502GHz
- 6I4      Plot showing 100KHz span, resolution bandwidth 1% of necessary BW.

Upper Channel (1909.8MHz, power level 0)

- 6I5      Plot showing 1MHz resolution bandwidth, peak power
- 6I6      Plot showing emissions bandwidth, center frequency at 1.9098GHZ
- 6I7      Plot showing 100KHz span, resolution bandwidth 1% of necessary BW.

The measurements were made per CFR 47, part 24 using the following equipment:

Hewlett Packard 8922 M System Simulator  
Hewlett Packard 8593 E Spectrum Analyzer

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15:46:35 OCT 22, 1998

MKR 1.850200 GHz  
29.27 dBm

REF 40.0 dBm #AT 30 dB

## PEAK

LOG

10

dB /

OFFS

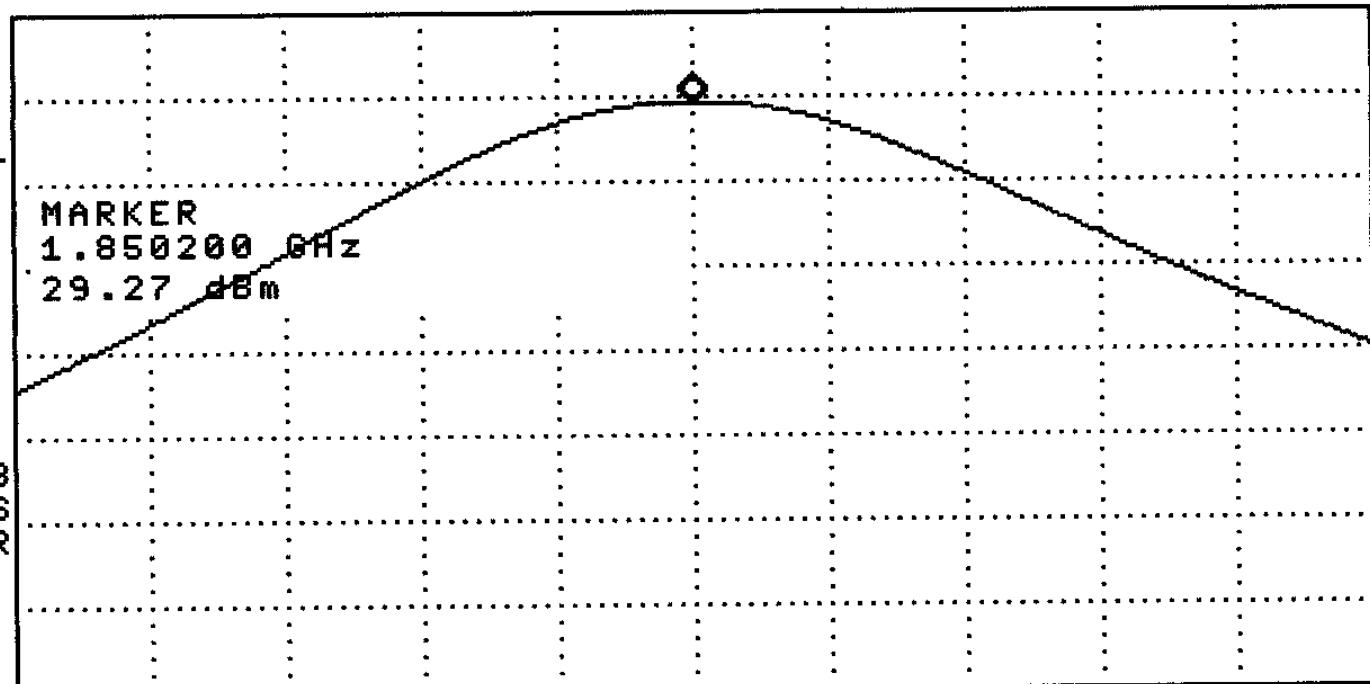
26.5

6

M&S

SC F

COR



1 More  
of 3  
RL

## Exhibit 6I2

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APPLICANT:  
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FCC ID NO:  
AXATR-394-A2

15:47:19 OCT 22, 1998

MKR A-AMP 250 kHz

.00

SPECTRUM  
ANALYZER

REF 40.0 dBm #AT 30 dB

PEAK

LOG

10

dB/

OFFST

26.5

dB

MKR-AMP  
.00 dB

MA SB  
SC FS  
CORR

CENTER 1.850200 GHz  
#RES BW 3.0 kHz

#VBW 3 kHz

SPAN 1.000 MHz  
#SWP 5.00 sec

More  
1 of 3  
RL

Exhibit 6I3

APPLICANT:  
ERICSSON INC.

FCC ID NO:  
AXATR-394-A2

15:49:28 OCT 22, 1998

MKR 1.8499973 GHz

-14.42 dBm SPECTRUM  
ANALYZER

REF 40.0 dBm #AT 30 dB

PEAK

LOG

10

dB/  
OFFST

26.5

dB

REF LEVEL  
40.0 dBm

DL

-13.0

dBm

MA SB

SC FS

CORR

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APPLICANT:  
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FCC ID NO:  
AXATR-394-A2

15:50:12 OCT 22, 1998

MKR 1.909800 GHz

29.35

dBm SPECTRUM  
ANALYZER

REF 40.0 dBm #AT 30 dB

PEAK

LOG

10

dB/  
OFFSET

26.5

MARKER  
1.909800 GHz  
29.35 dBm

MA SB

SC FS

CORR

CENTER 1.909800 GHz  
#RES BW 1.0 MHz

#VBW 1 MHz

SPAN 5.000 MHz  
#SWP 5.00 sec

More  
1 of 3  
RL

Exhibit 6I5

APPLICANT:  
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**AXATR-394-A2**

## Exhibit 6I6

15:50:55 OCT 22, 1998

MKR 4-AMP 245 kHz

1

REF 40.0 dBm #AT 30 dB

PEAK

LOG

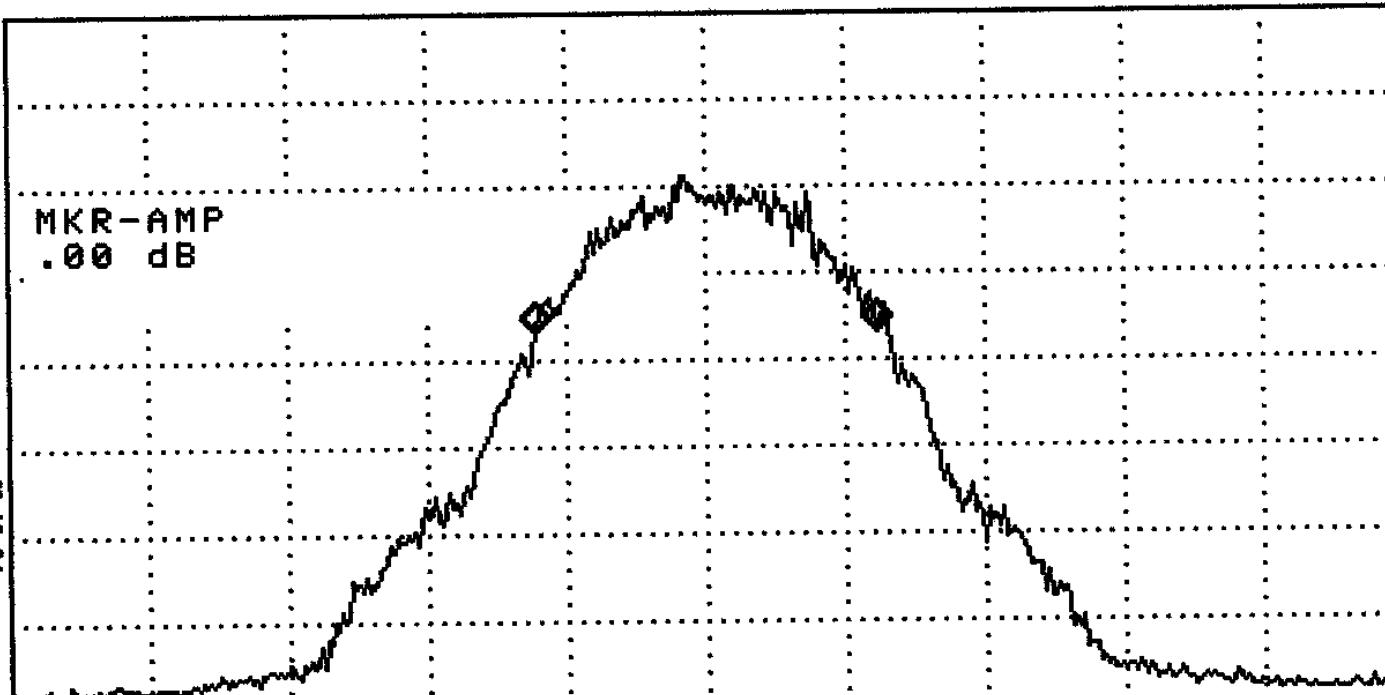
19

dB7

04 + 5

MKR-AMP  
.00 dB

MA SB  
SC F S  
CORR



CENTER 1.909800 GHz  
#RES BW 3.0 kHz

#UBW 3 kHz

SPAN 1.000 MHz  
#SWP 5.00 sec

1 More  
of 3  
RL

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APPLICANT:  
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FCC ID NO:  
AXATR-394-A2

15:53:05 OCT 22, 1998

MKR 1.9100023 GHz

-15.57 dBm

REF 40.0 dBm #AT 30 dB

PEAK

LOG

10

dB/

OFFST

26.5

REF LEVEL

dB

40.0 dBm

DL

-13.0

dBm

MA SB

SC FS

CORR

SPECTRUM  
ANALYZER

NADC  
ANALYZER

PCS1900  
ANALYZER

More  
1 of 3  
RL

START 1.9100000 GHz  
#RES BW 3.0 kHz

#VBW 3 kHz

STOP 1.9101000 GHz  
#SWP 5.00 sec

APPLICANT:  
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Exhibit 6J1

1900 MHz: SPURIOUS EMISSIONS (Conducted)

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Para: 2.991 and Part 24

Per 2.991 Spurious emissions at the antenna terminals (conducted) when properly loaded with an appropriate artificial antenna were measured. A 3KHz bandwidth was used for the measurement detailing the carrier. A 30KHz bandwidth was used for all other plots as no spurs were detected within 20dB of the limit and to limit the number of plots.

<u>Exhibit</u>	<u>Frequency (MHz)</u>	<u>Output Power (W)</u>
6J2	1850.20	1
6J3	1909.98	1
6J4	1850.20	.001
6J5	1909.98	.001

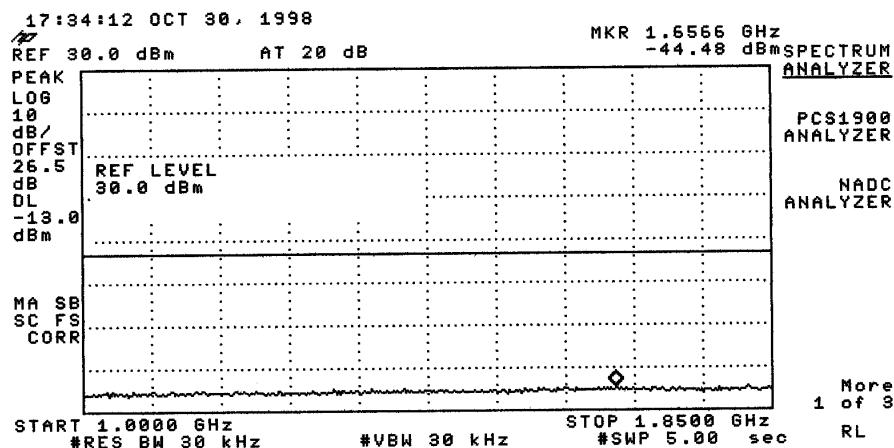
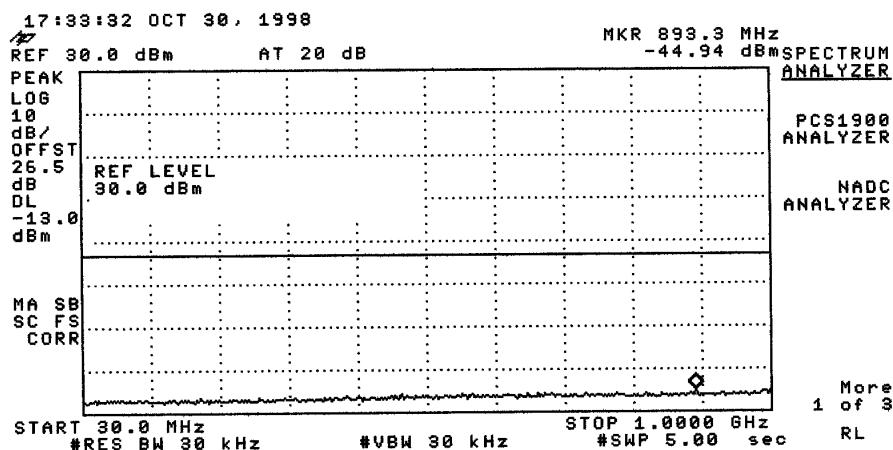
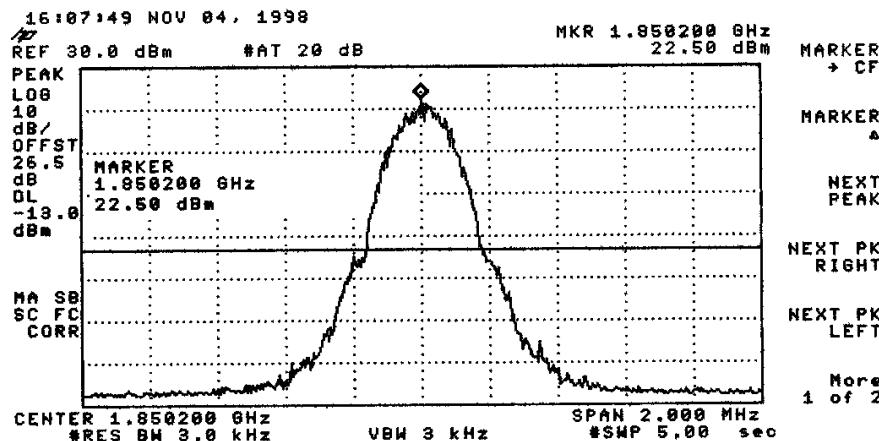
The measurements were made using the following equipment:

HP8958A Cellular Interface  
HP 6623A DC Power Supply  
HP 8596E Spectrum Analyzer  
Amr8801B Cellular System Simulator

APPLICANT:  
ERICSSON INC.

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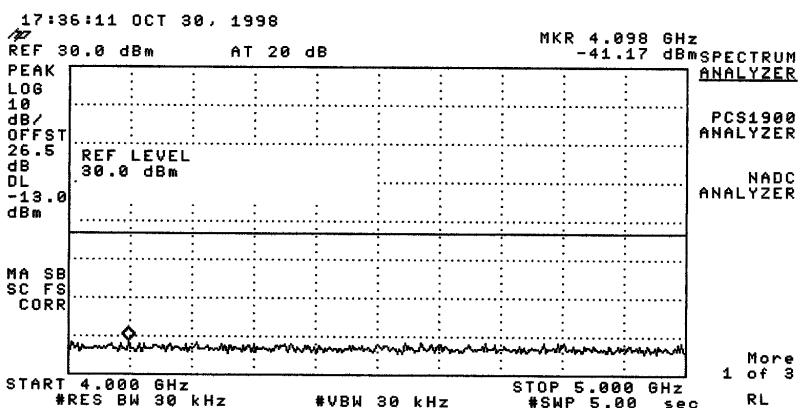
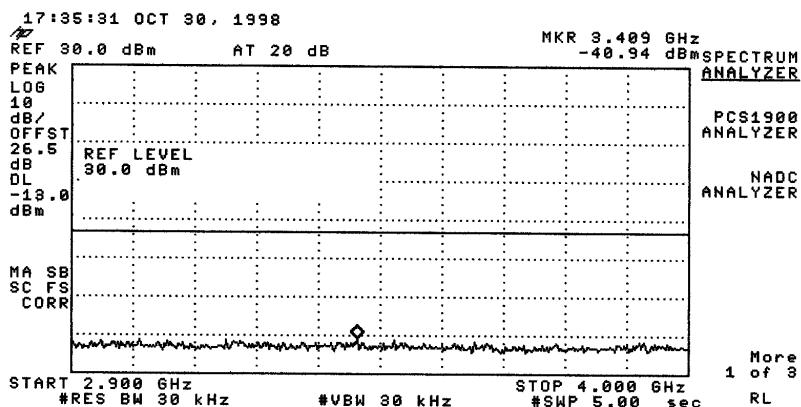
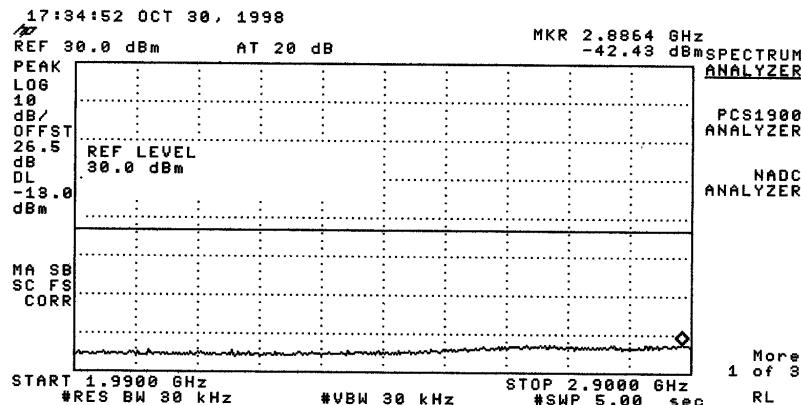
Exhibit 6J2



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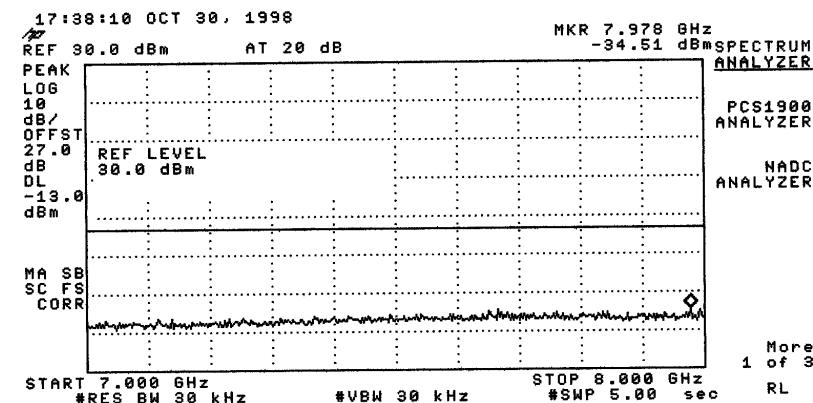
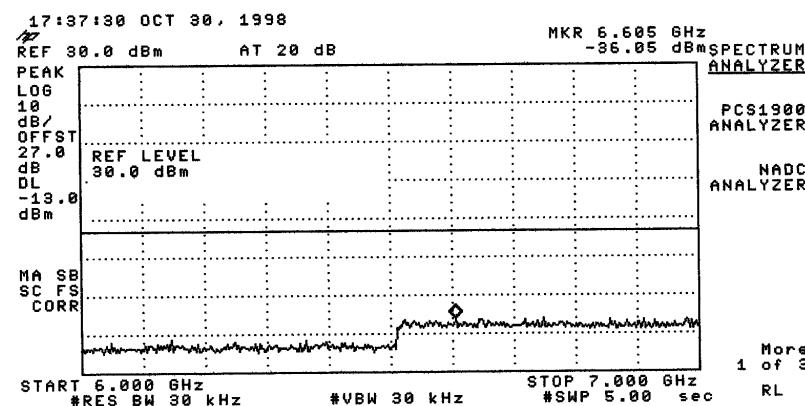
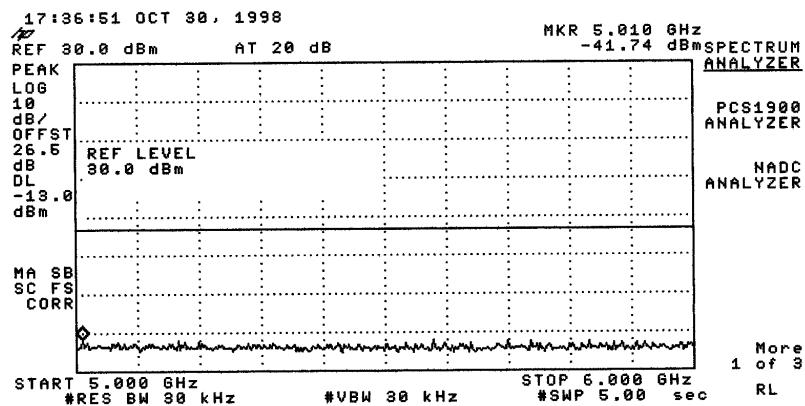
Exhibit 6J2



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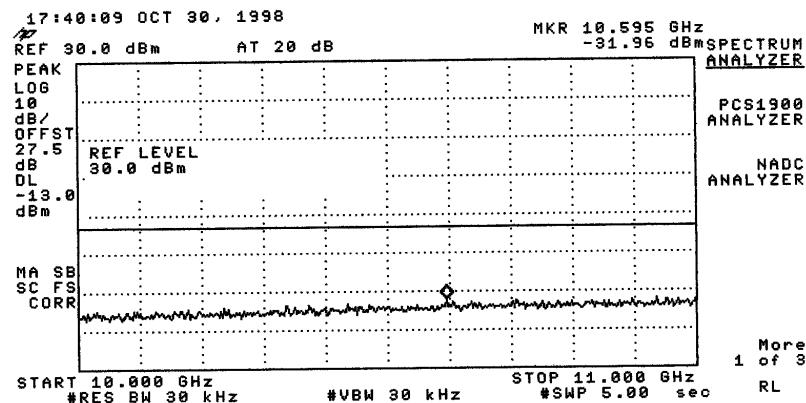
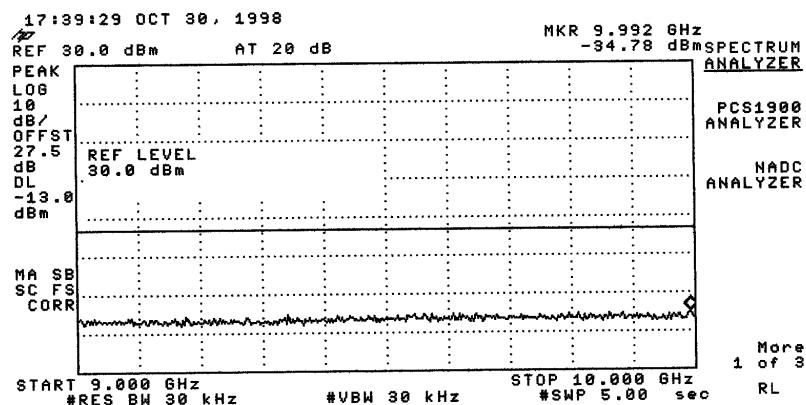
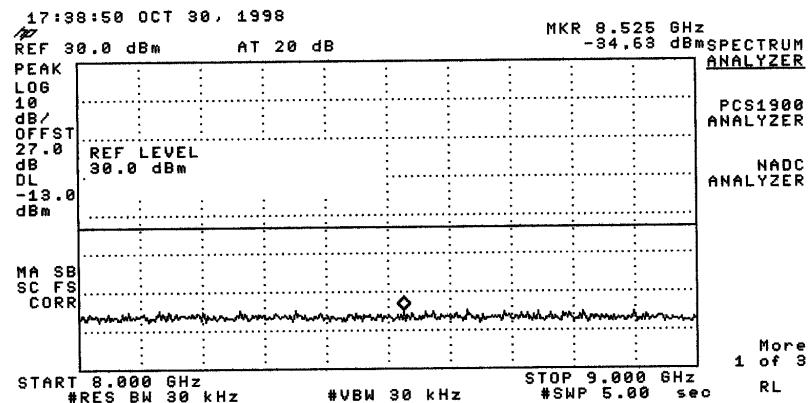
Exhibit 6J2



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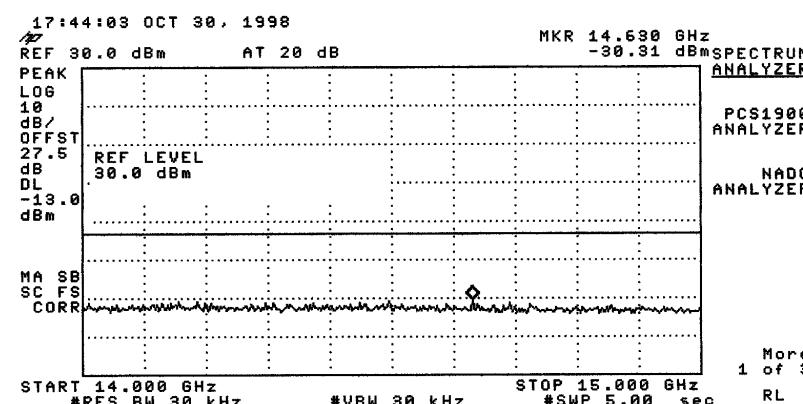
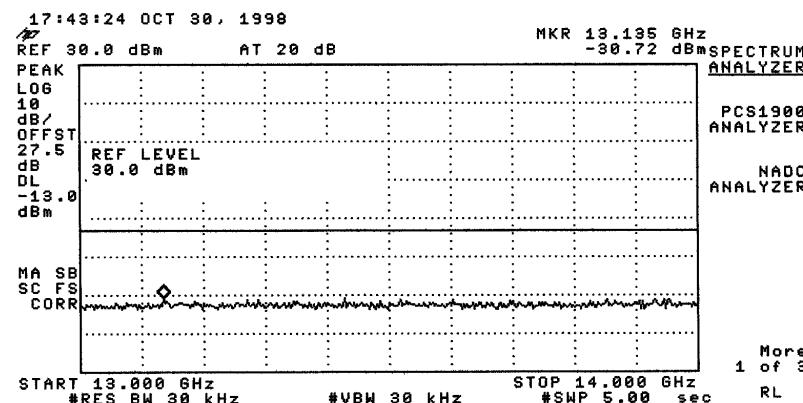
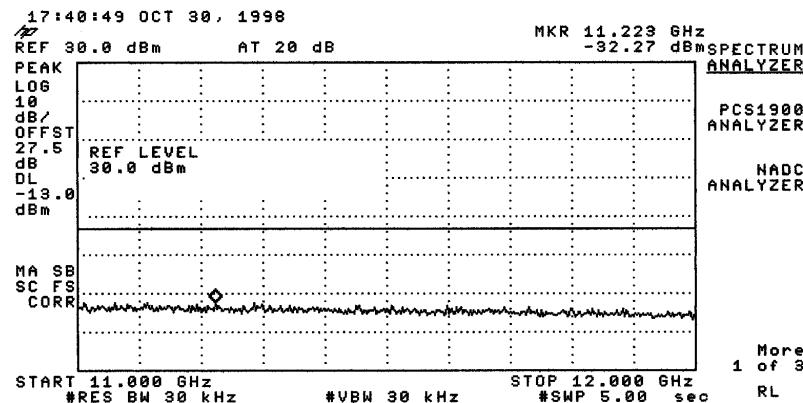
Exhibit 6J2



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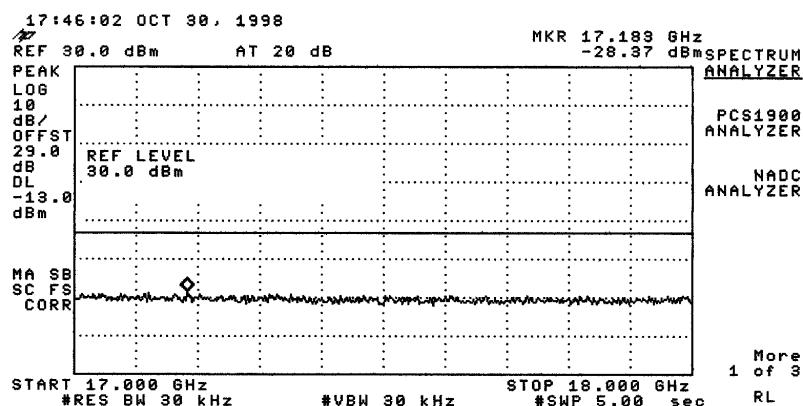
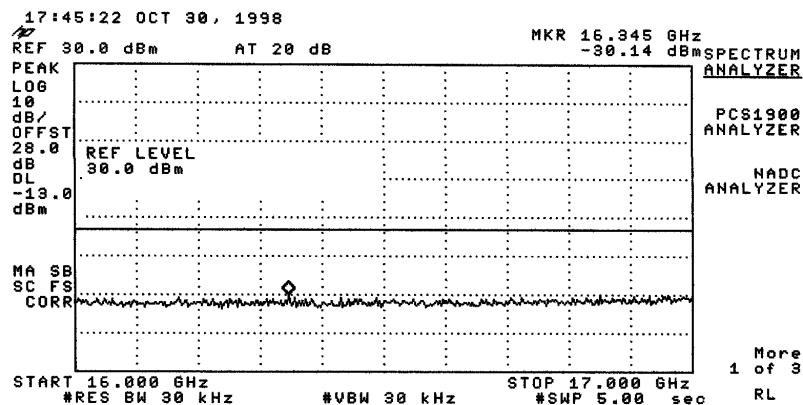
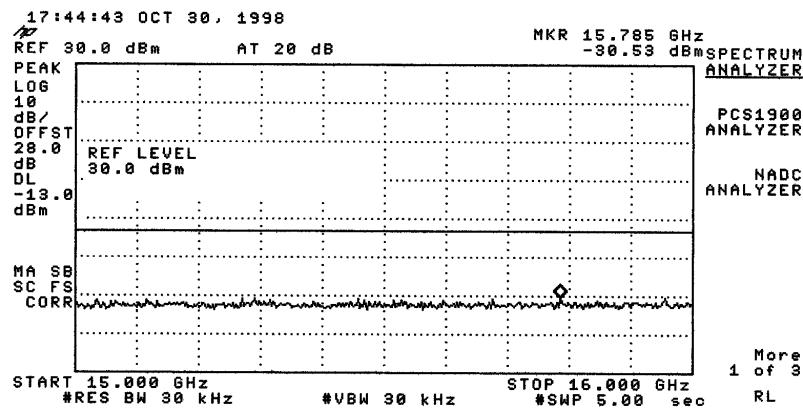
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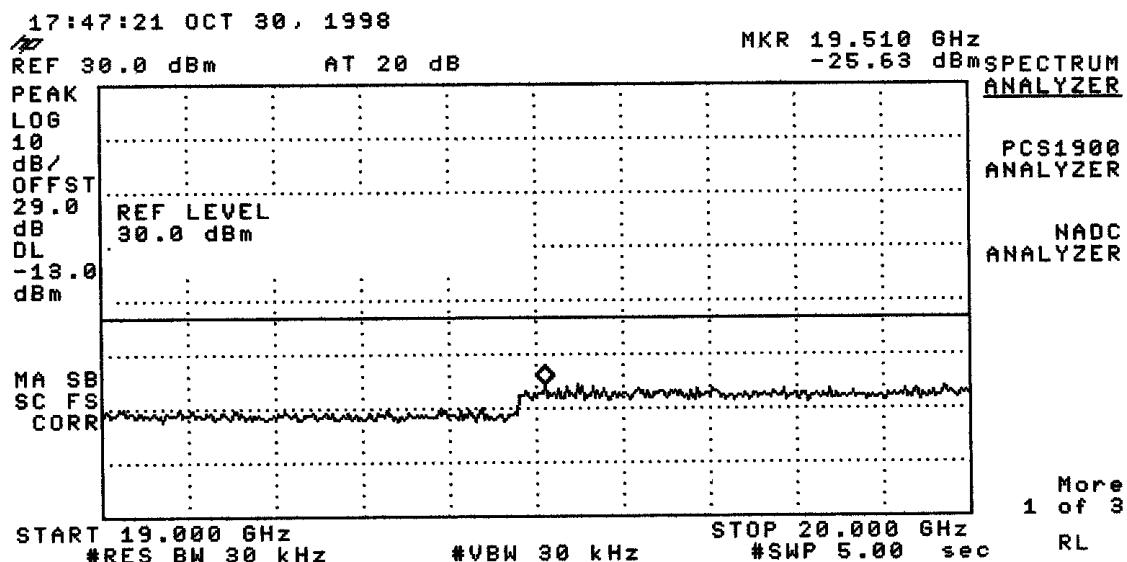
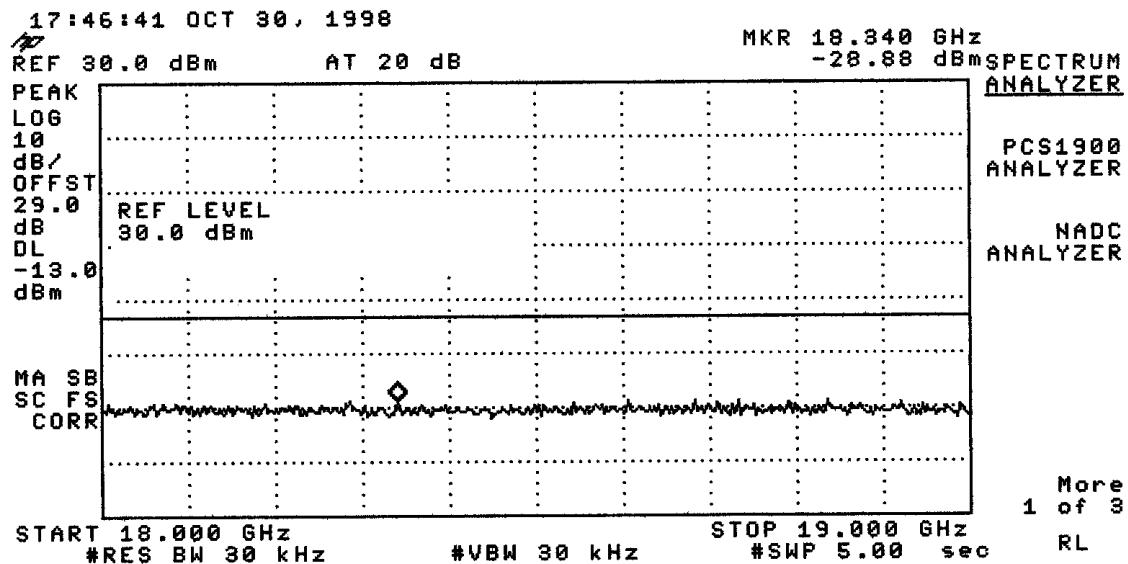
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ERICSSON INC.

FCC ID NO:  
AXATR-394-A2

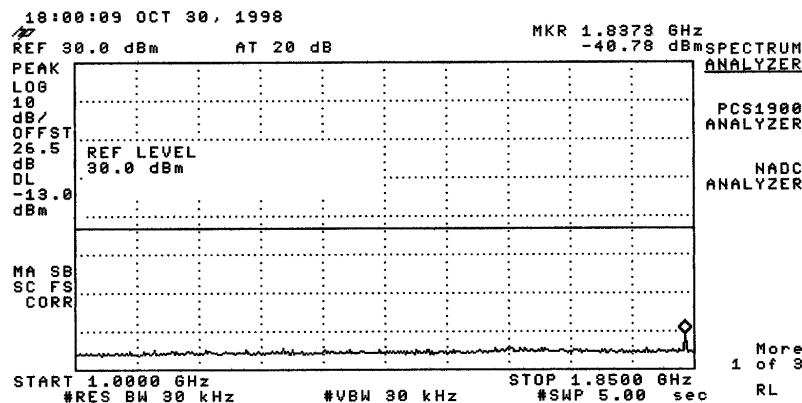
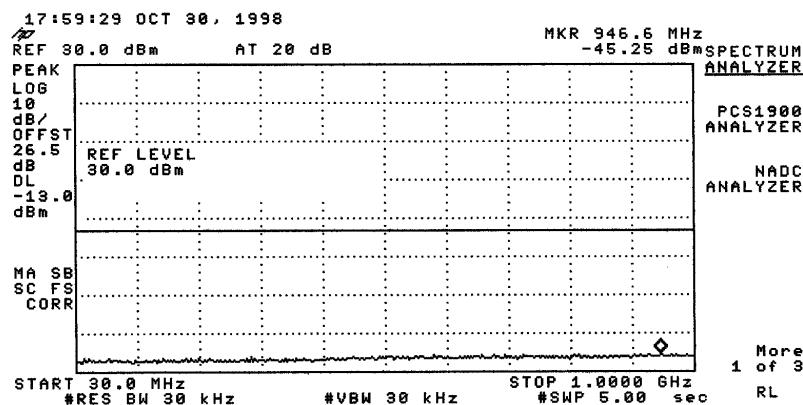
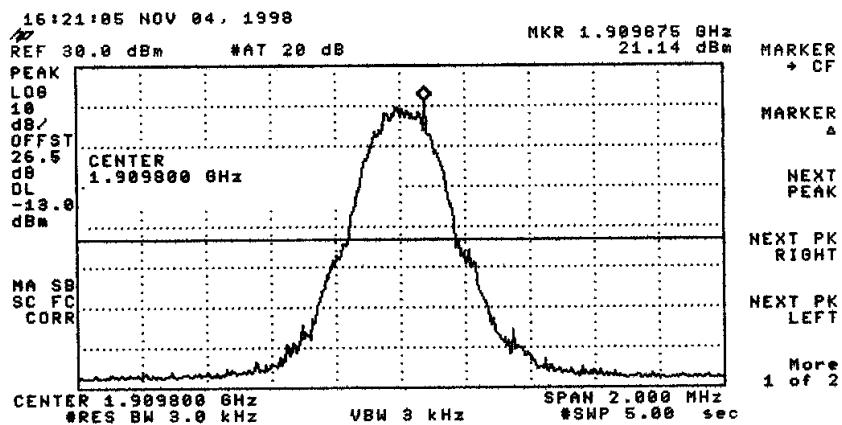
Exhibit 6J2



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FCC ID NO:  
AXATR-394-A2

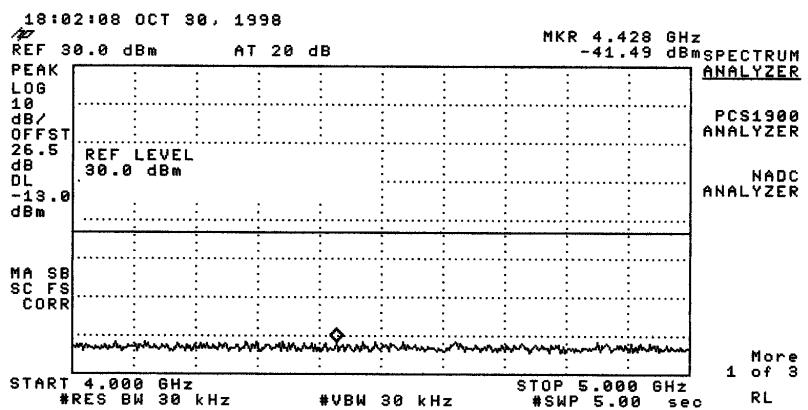
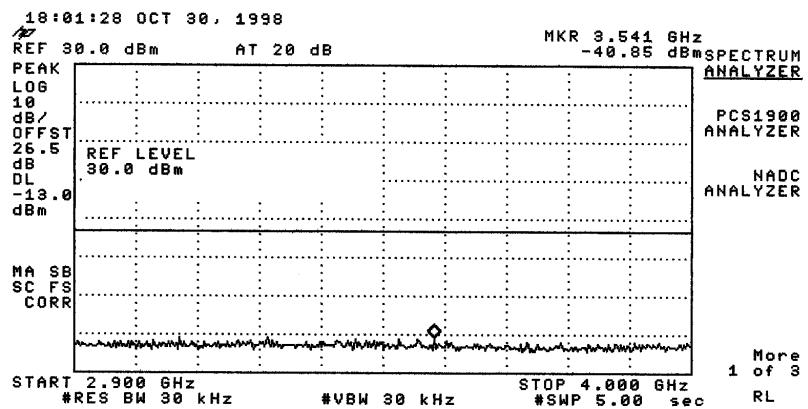
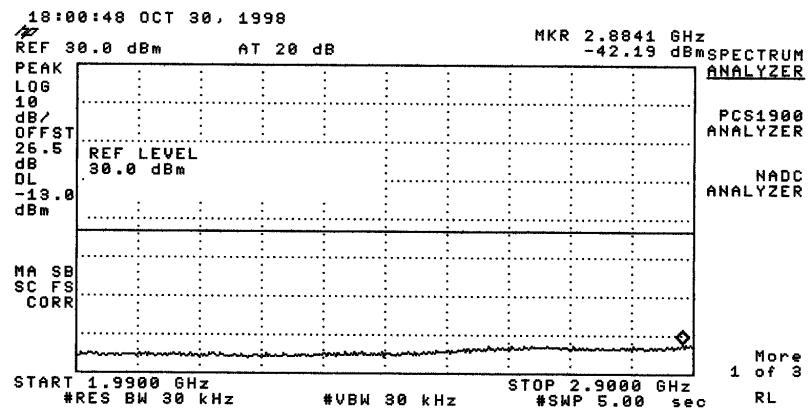
Exhibit 6J3



APPLICANT:  
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FCC ID NO:  
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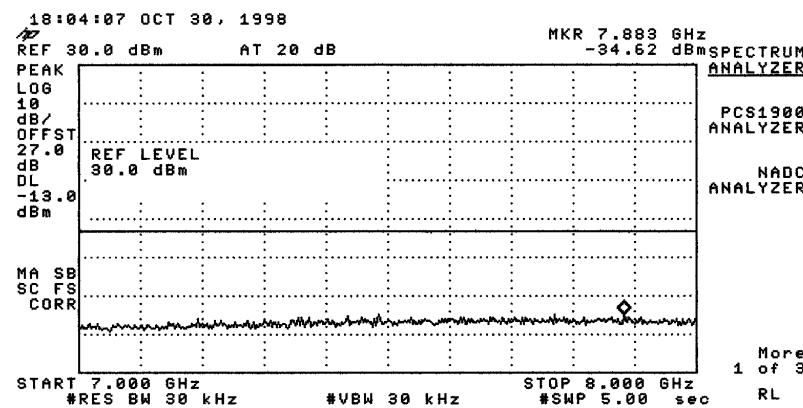
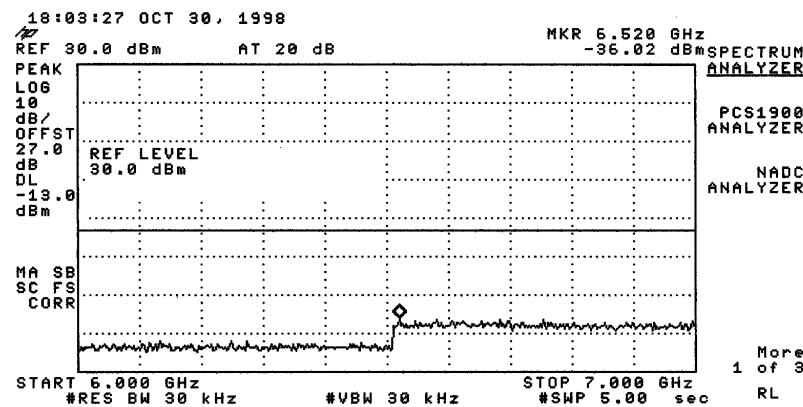
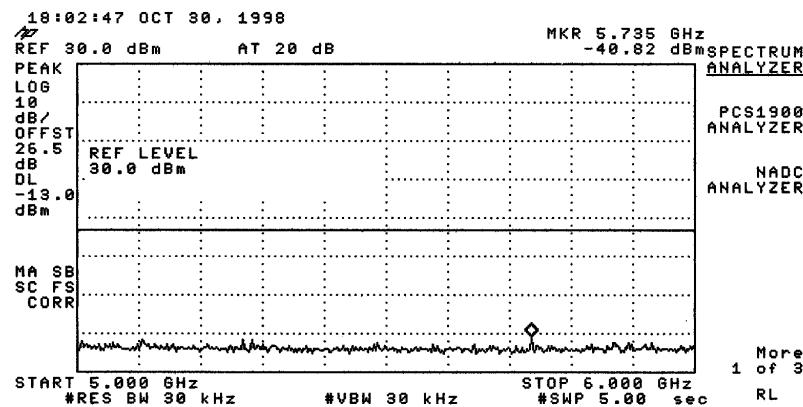
Exhibit 6J3



APPLICANT:  
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FCC ID NO:  
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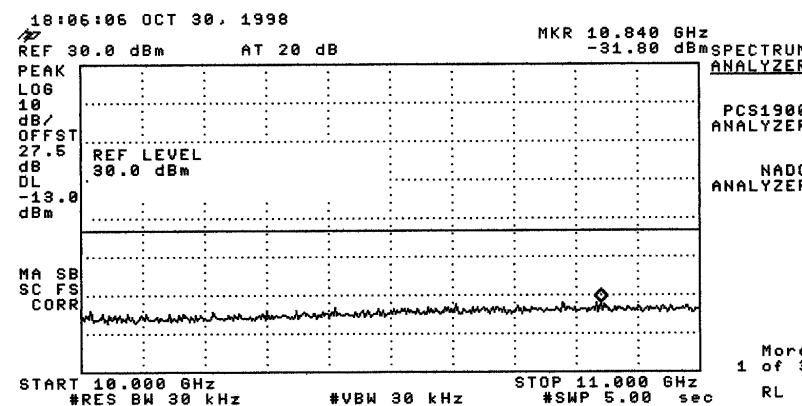
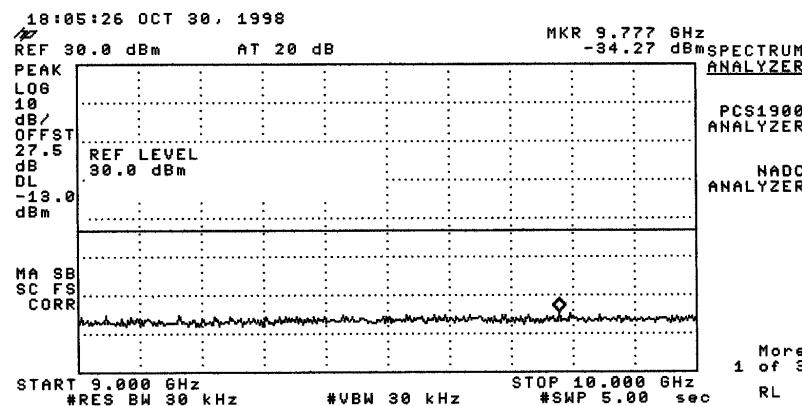
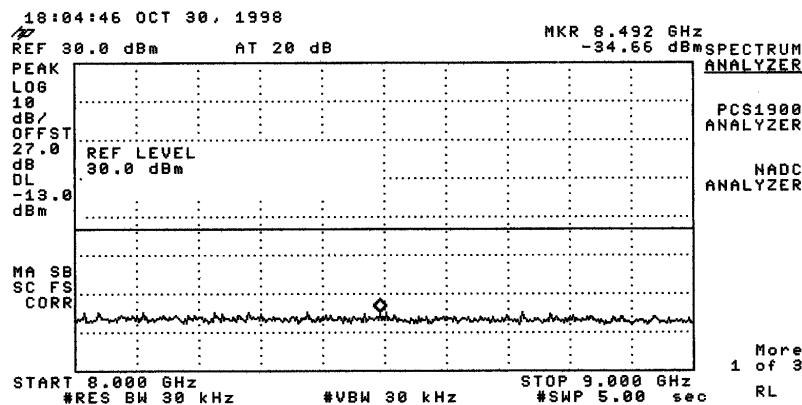
Exhibit 6J3



APPLICANT:  
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FCC ID NO:  
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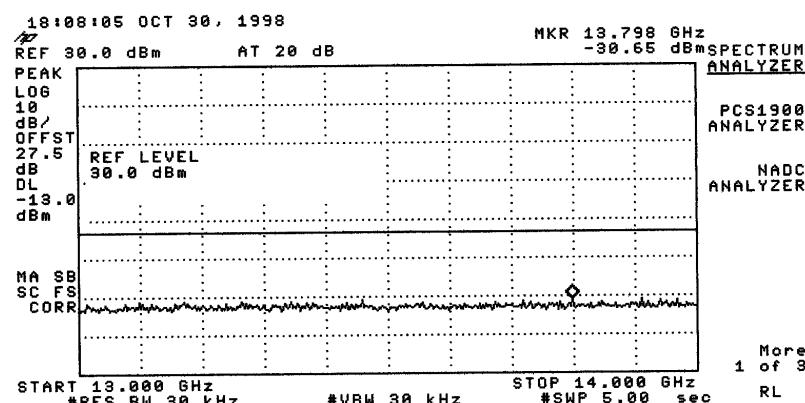
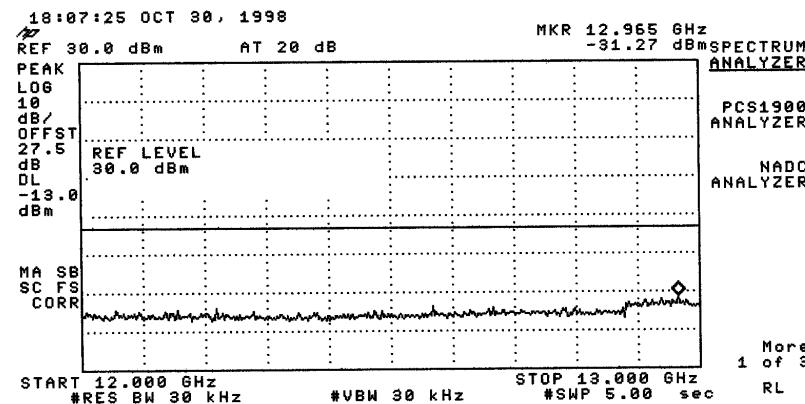
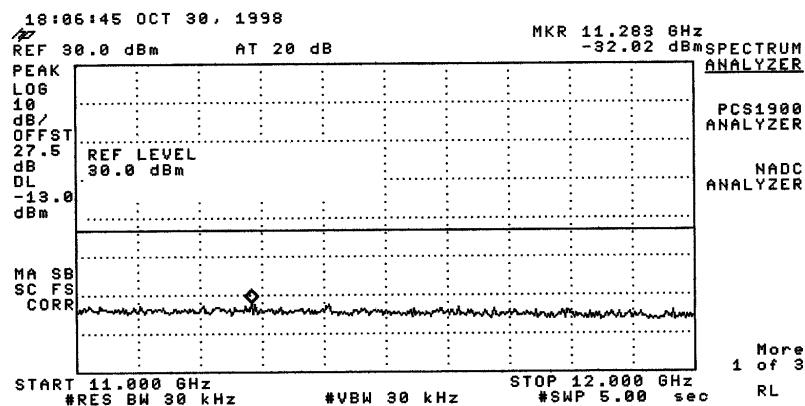
Exhibit 6J3



APPLICANT:  
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FCC ID NO:  
AXATR-394-A2

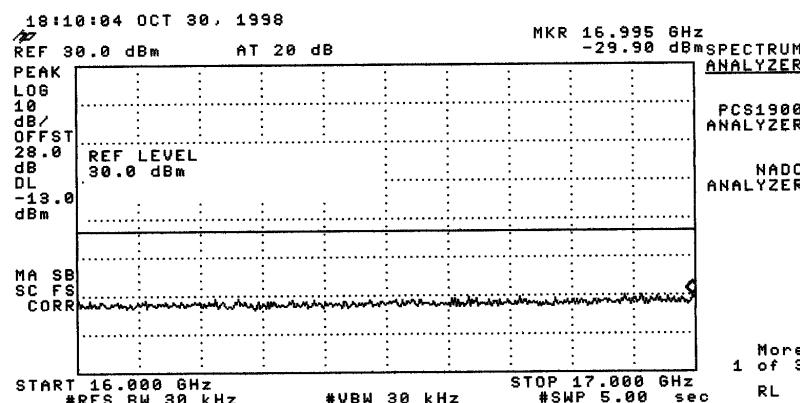
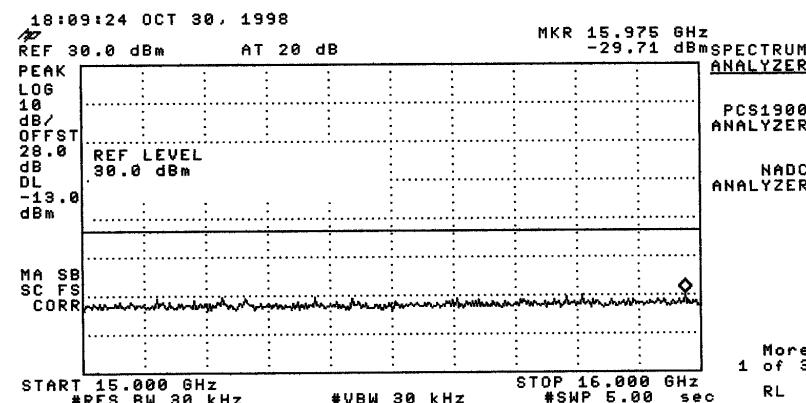
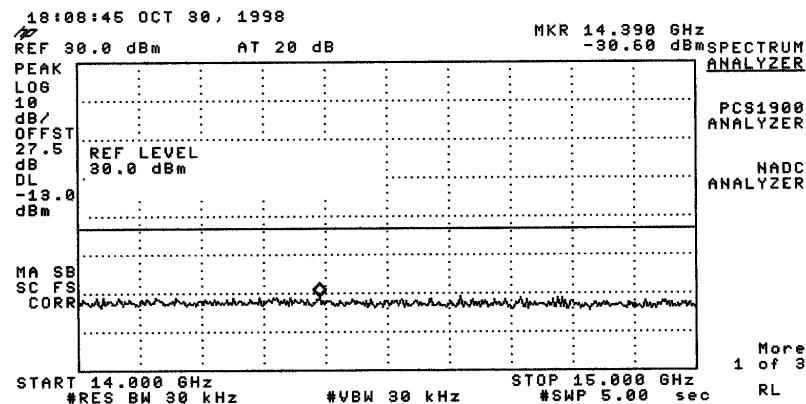
Exhibit 6J3



APPLICANT:  
ERICSSON INC.

FCC ID NO:  
AXATR-394-A2

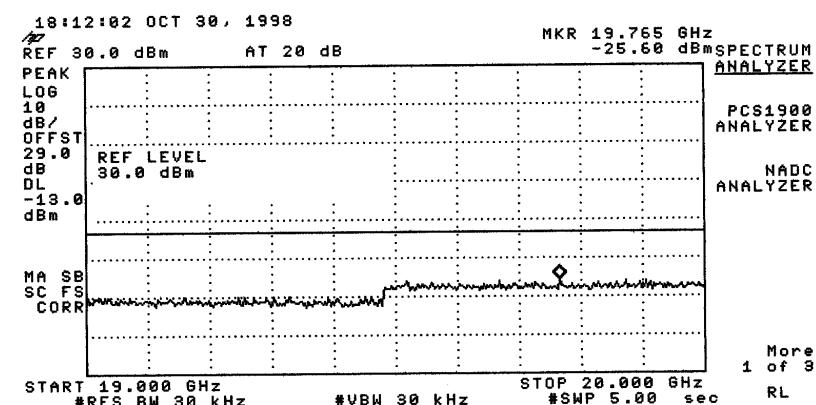
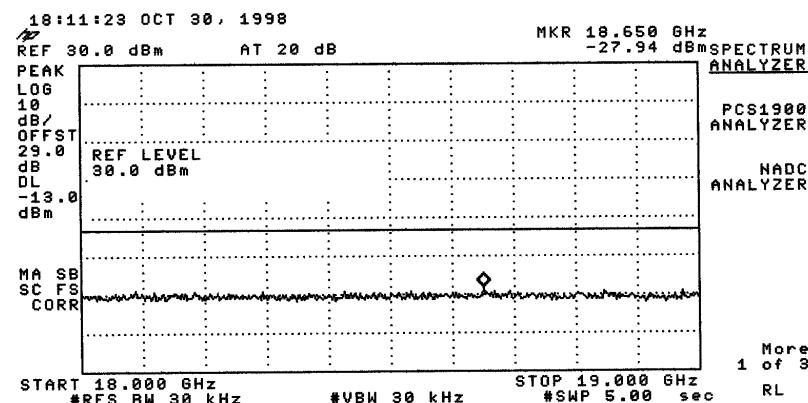
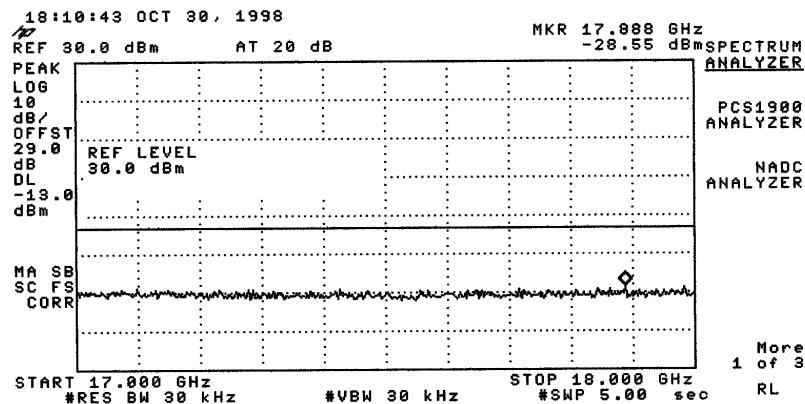
Exhibit 6J3



APPLICANT:  
ERICSSON INC.

FCC ID NO:  
AXATR-394-A2

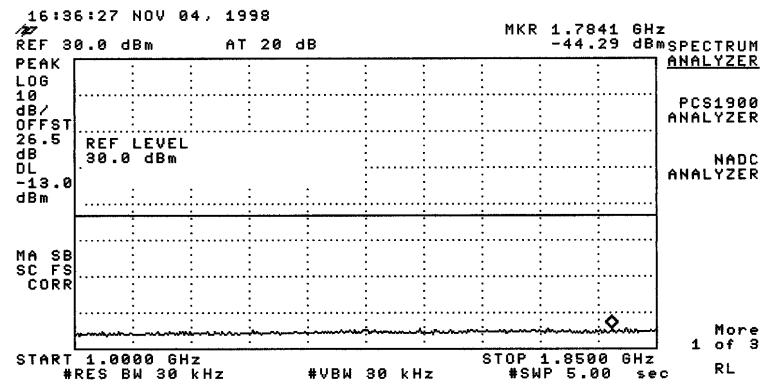
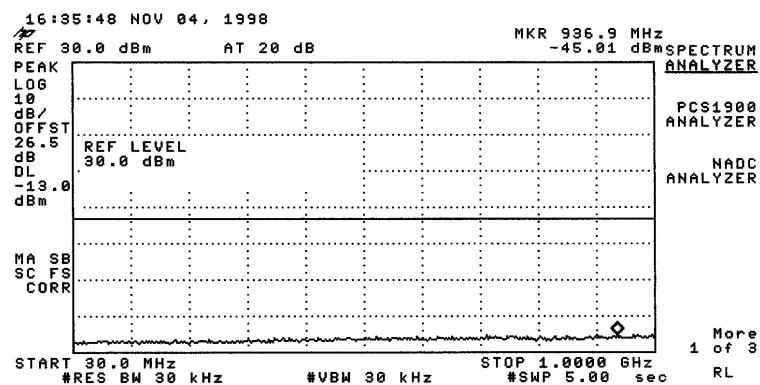
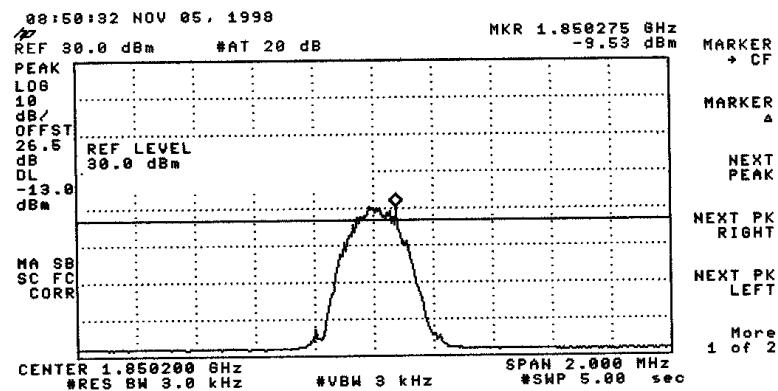
Exhibit 6J3



APPLICANT:  
ERICSSON INC.

FCC ID NO:  
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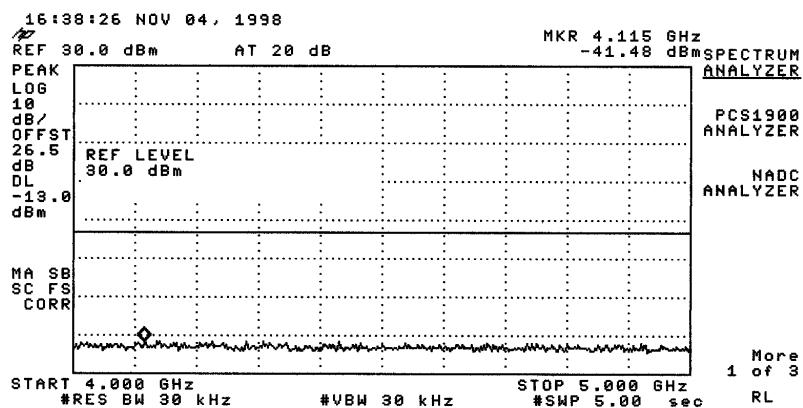
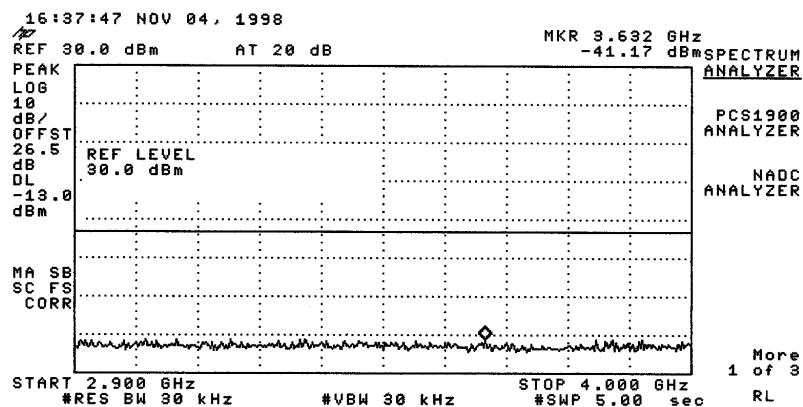
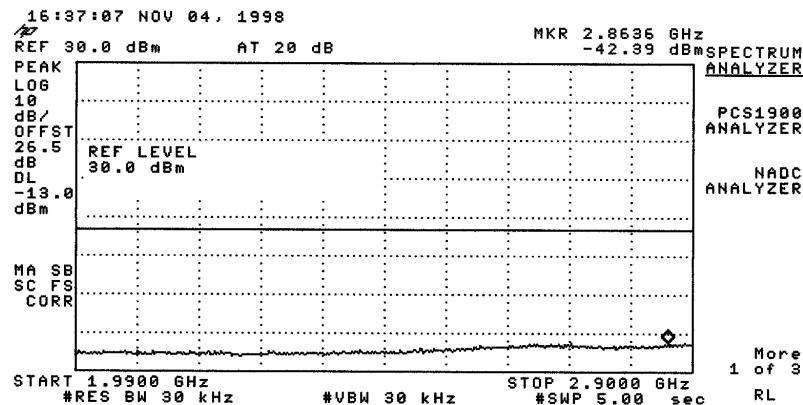
Exhibit 6J4



APPLICANT:  
ERICSSON INC.

FCC ID NO:  
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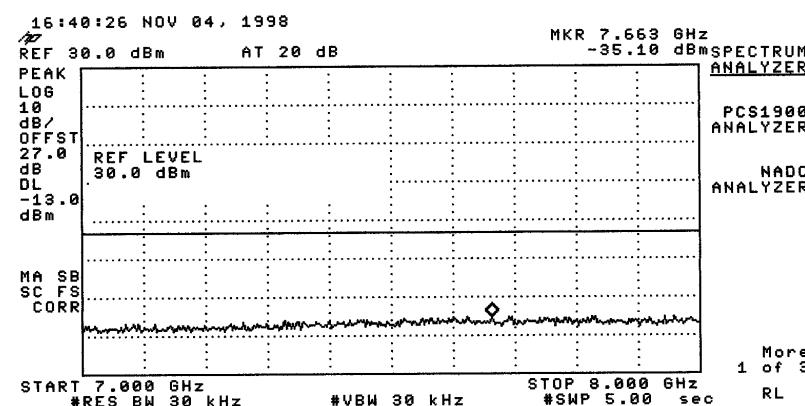
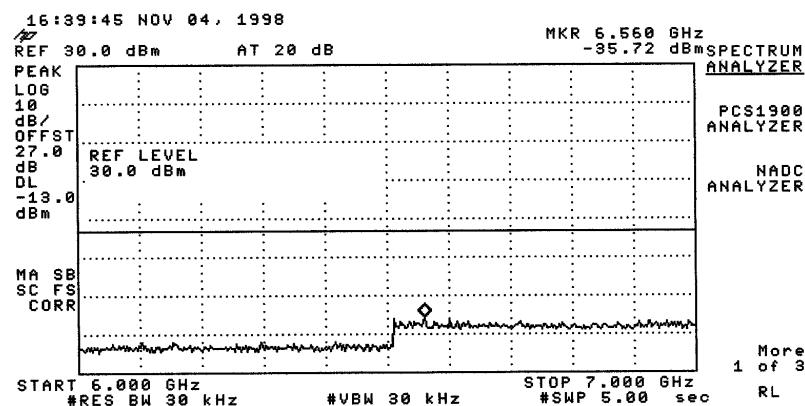
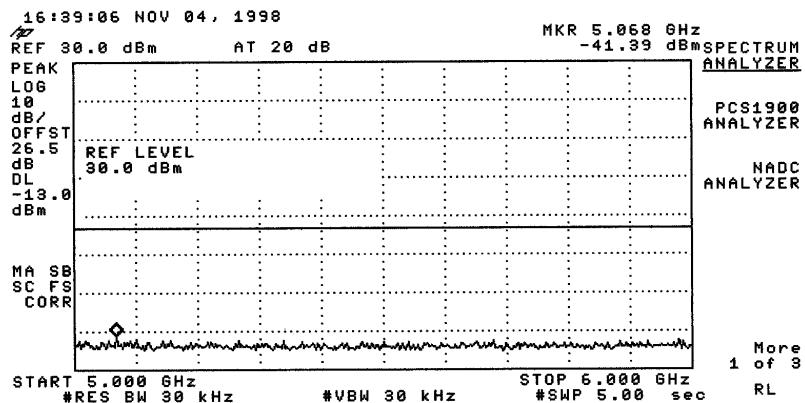
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APPLICANT:  
ERICSSON INC.

FCC ID NO:  
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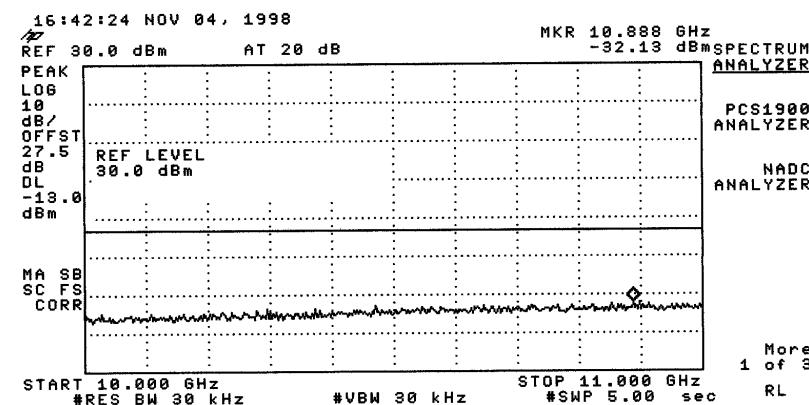
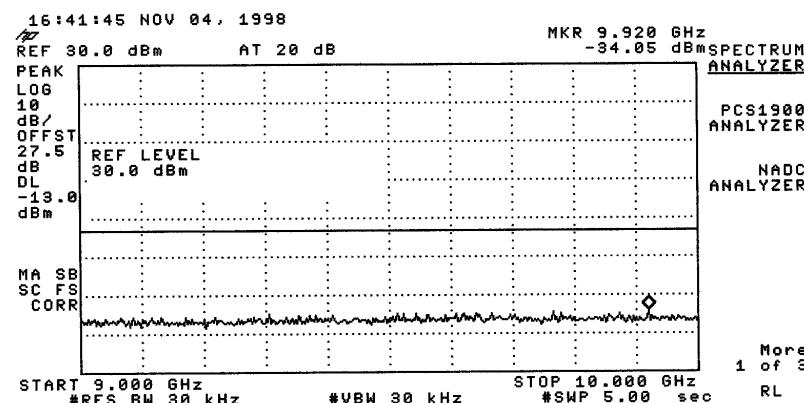
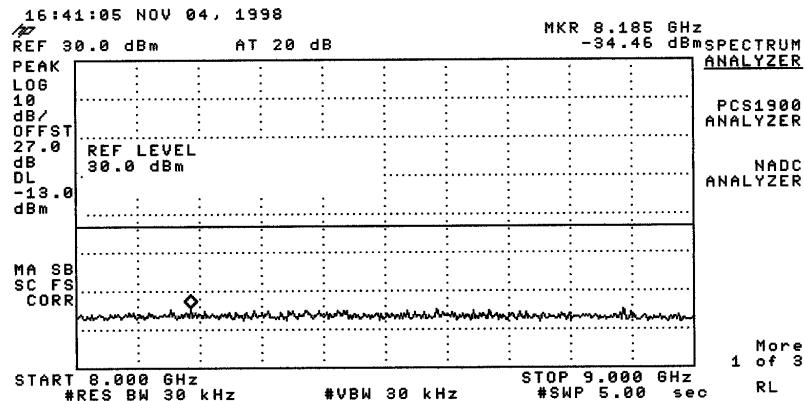
Exhibit 6J4



APPLICANT:  
ERICSSON INC.

FCC ID NO:  
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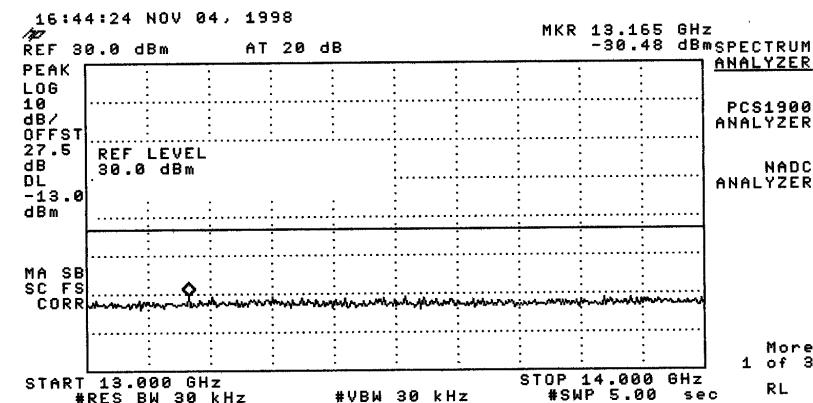
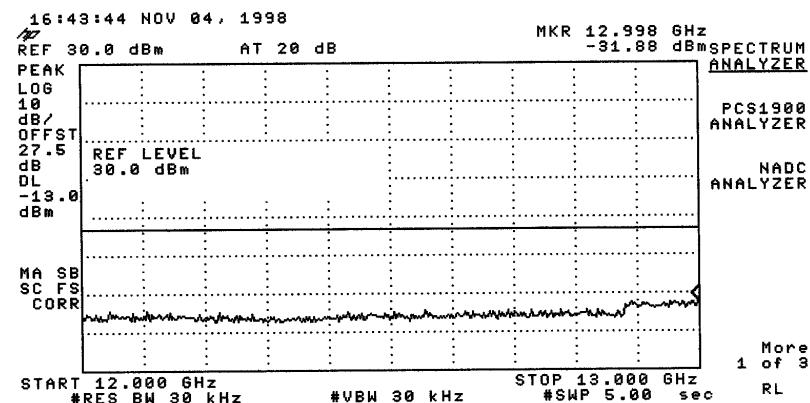
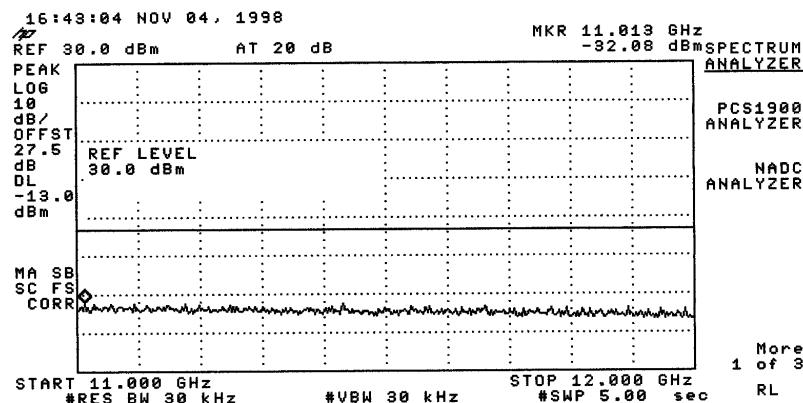
Exhibit 6J4



APPLICANT:  
ERICSSON INC.

FCC ID NO:  
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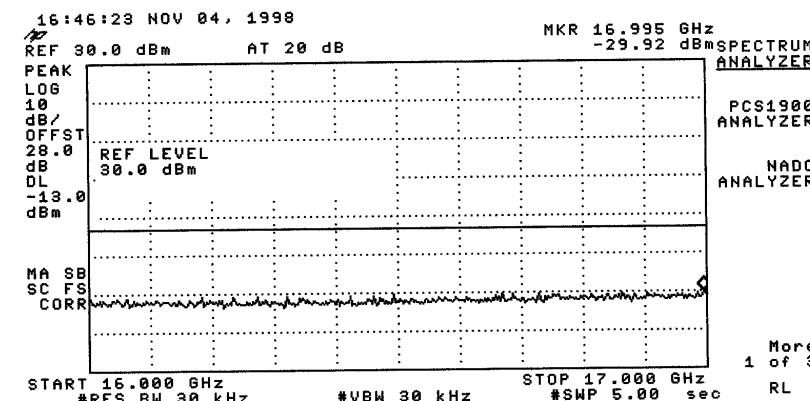
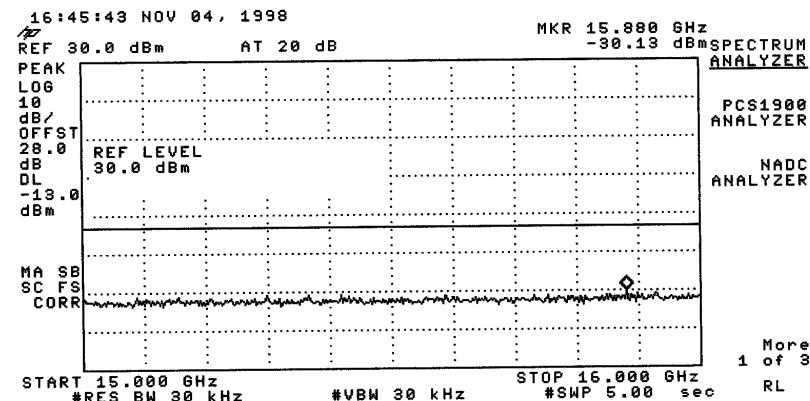
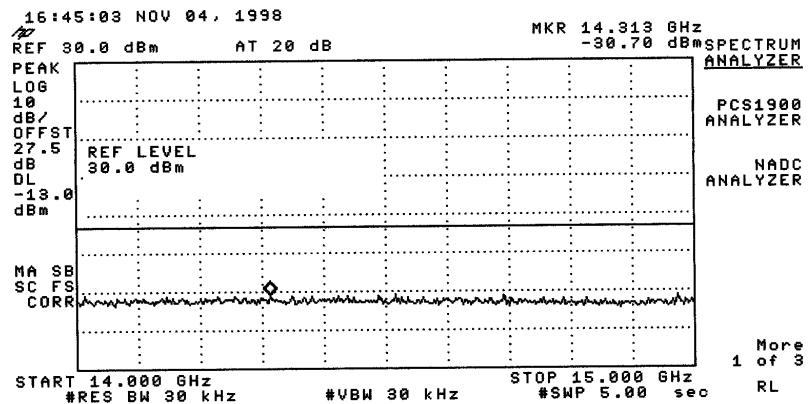
Exhibit 6J4



APPLICANT:  
ERICSSON INC.

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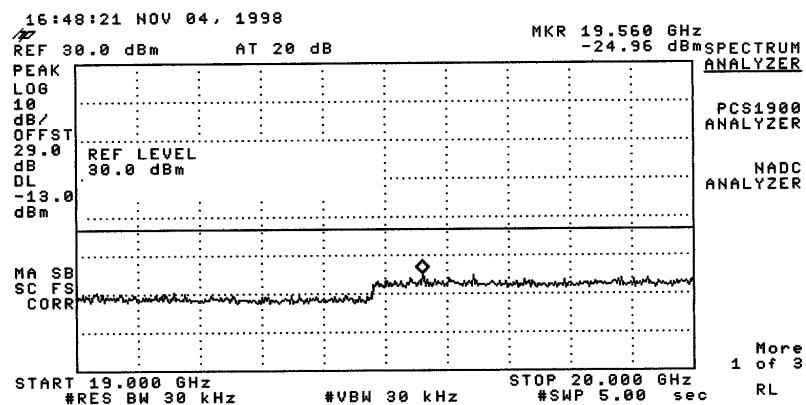
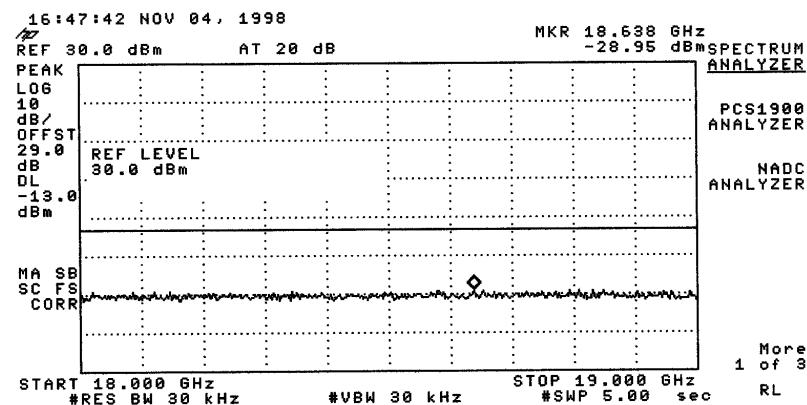
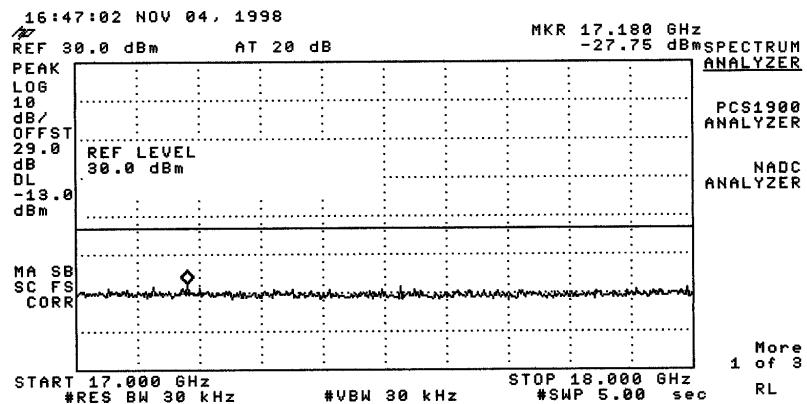
Exhibit 6J4



APPLICANT:  
ERICSSON INC.

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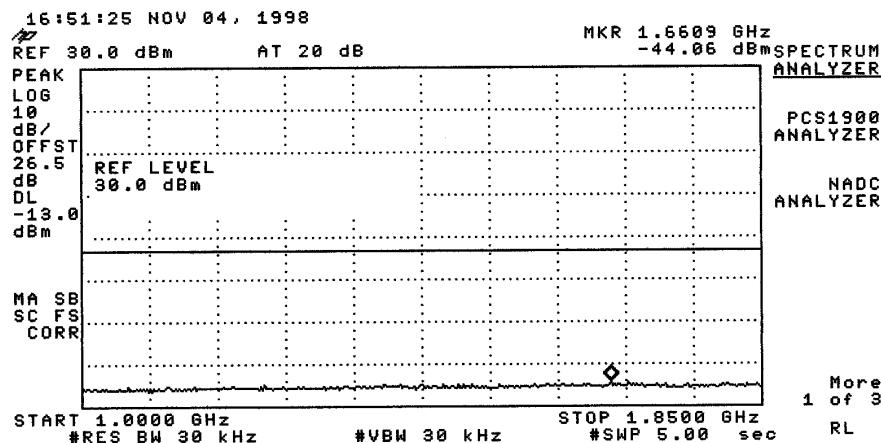
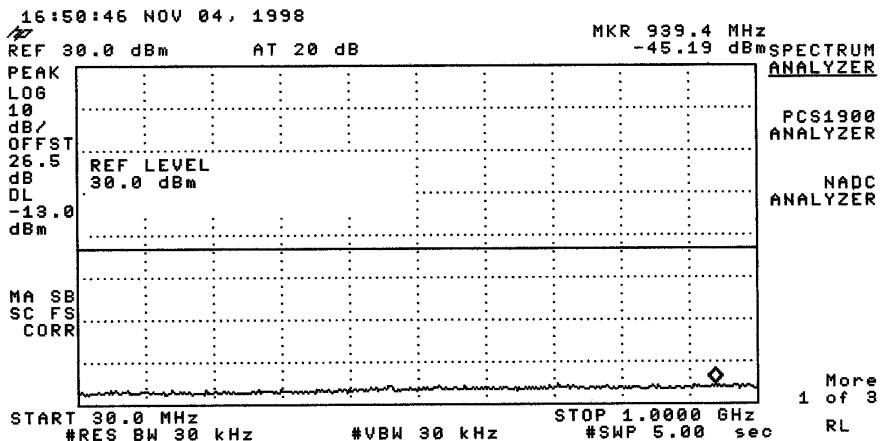
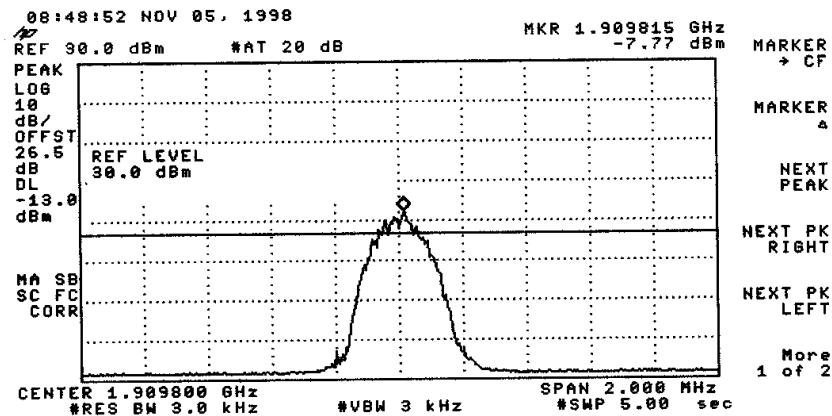
Exhibit 6J4



APPLICANT:  
ERICSSON INC.

FCC ID NO:  
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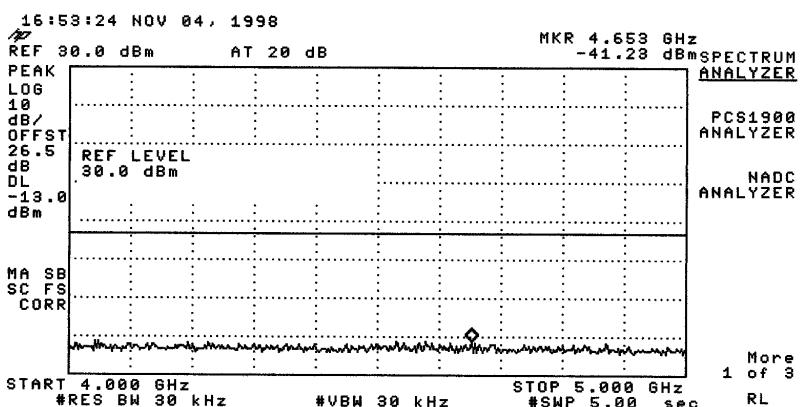
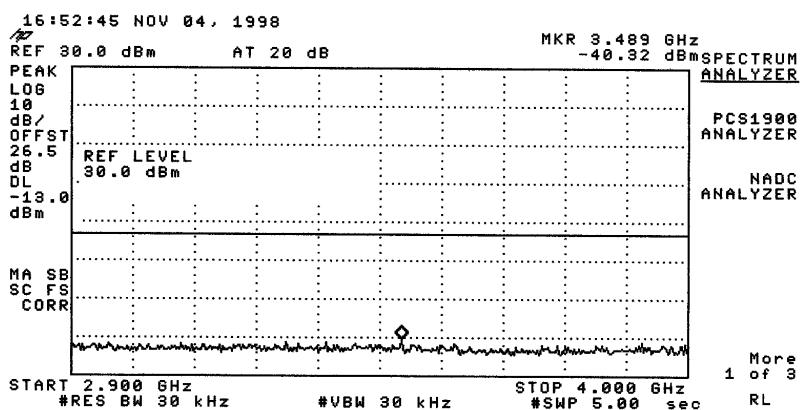
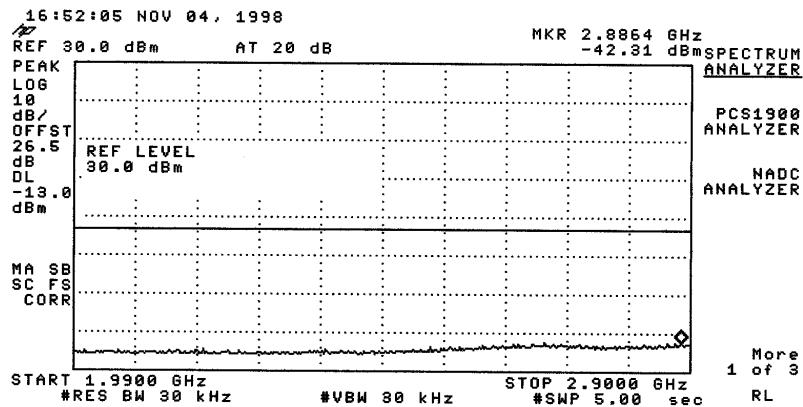
Exhibit 6J5



APPLICANT:  
ERICSSON INC.

FCC ID NO:  
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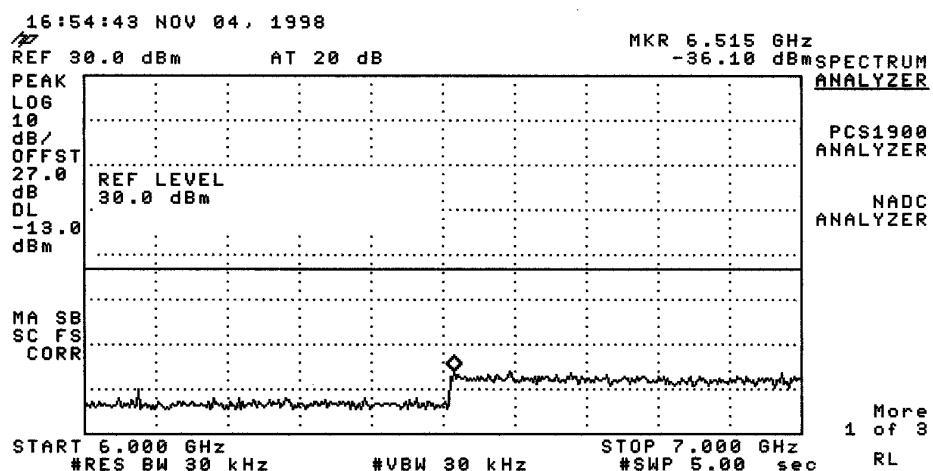
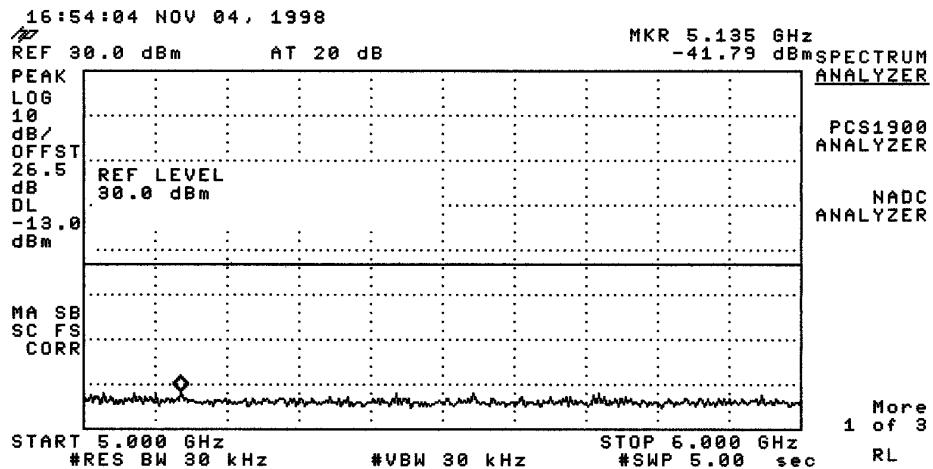
Exhibit 6J5



APPLICANT:  
ERICSSON INC.

FCC ID NO:  
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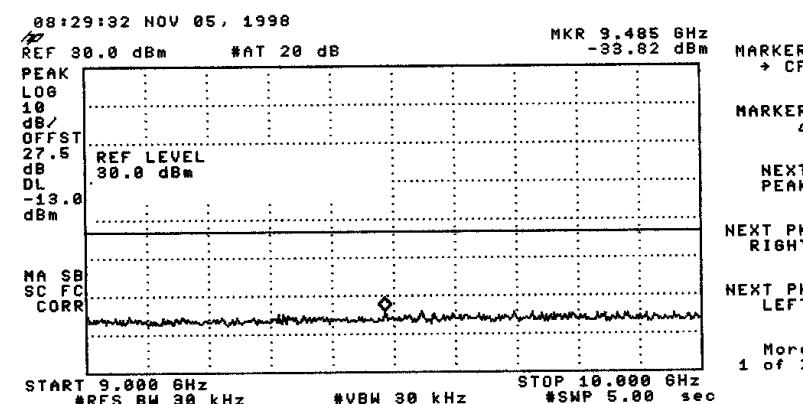
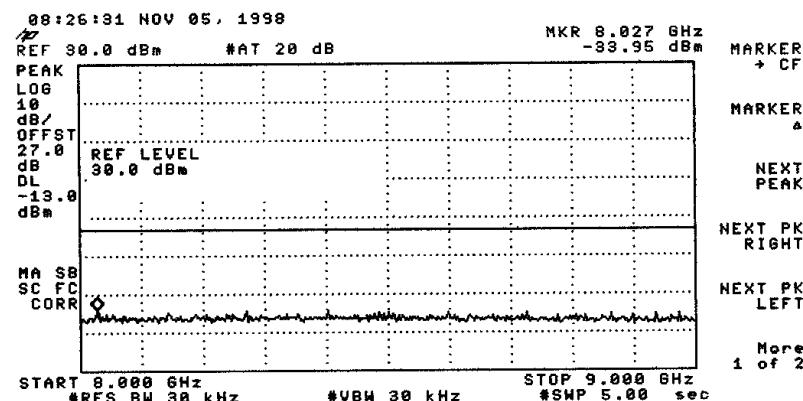
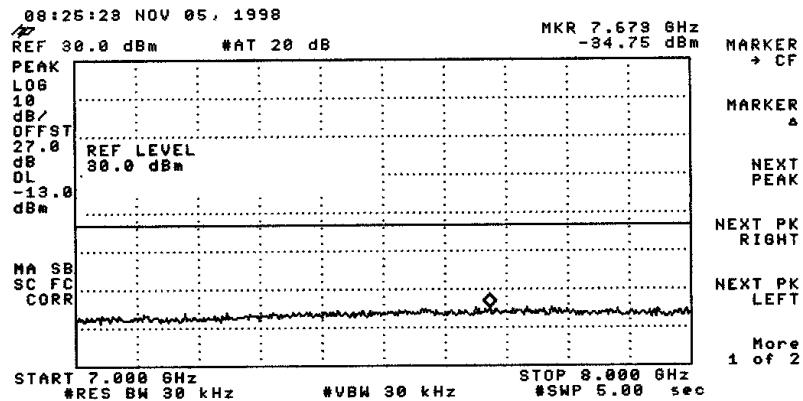
Exhibit 6J5



APPLICANT:  
ERICSSON INC.

FCC ID NO:  
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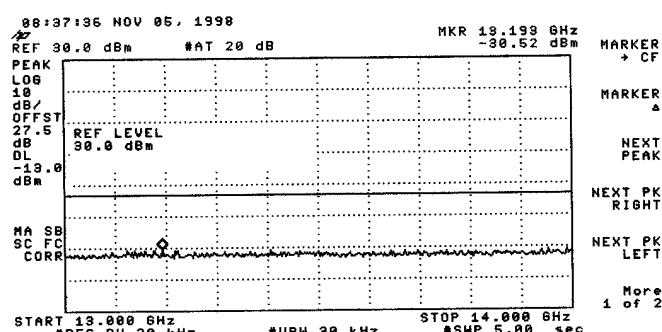
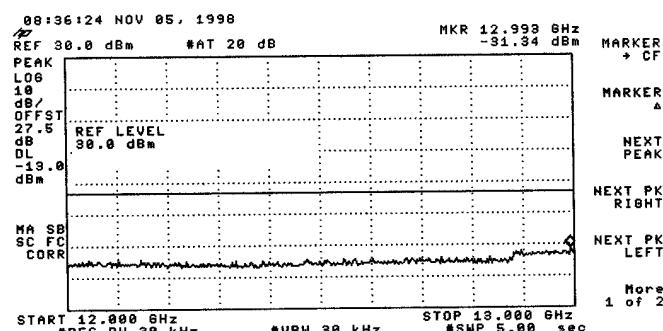
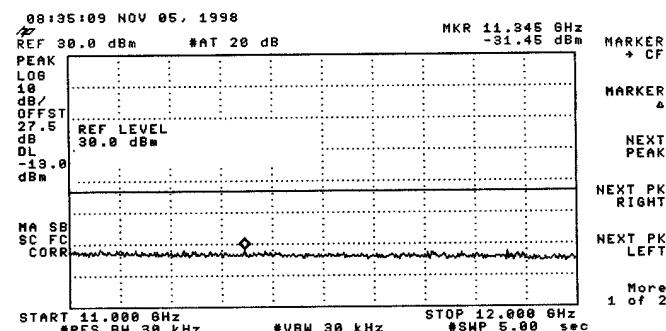
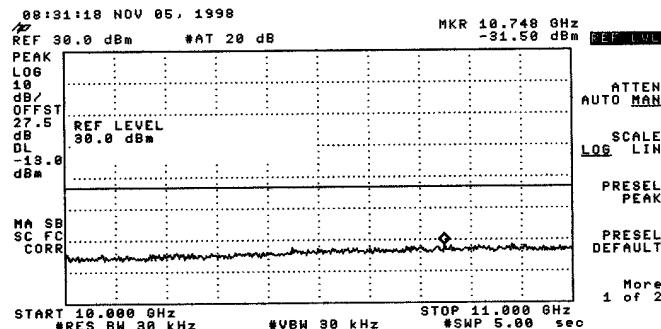
Exhibit 6J5



APPLICANT:  
ERICSSON INC.

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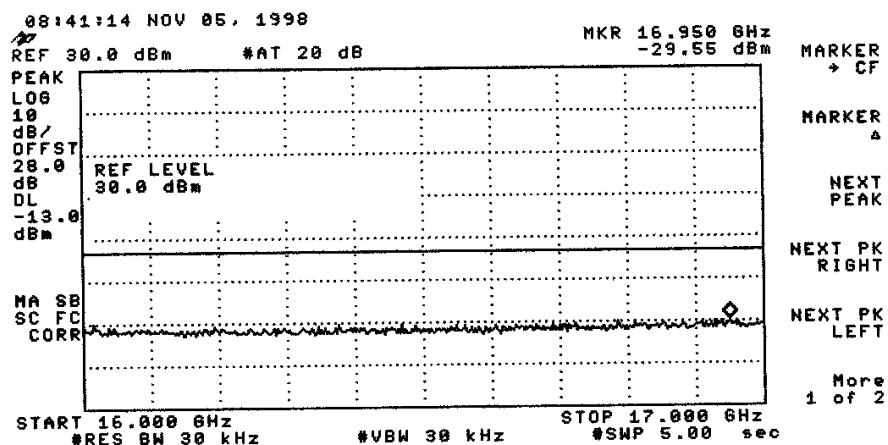
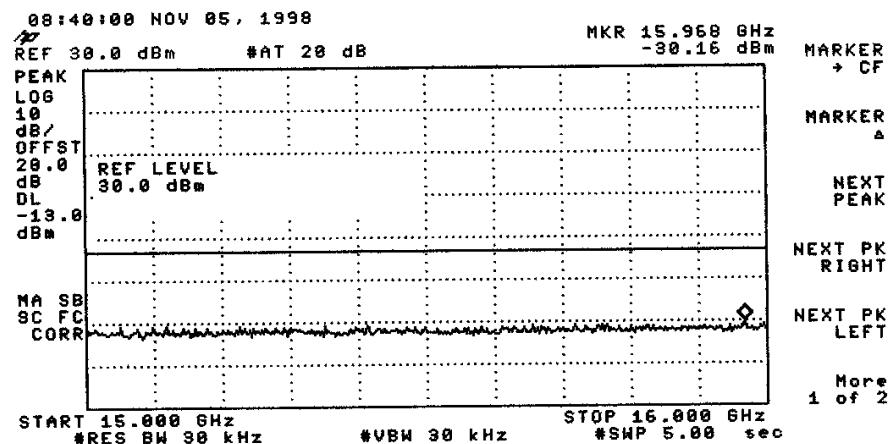
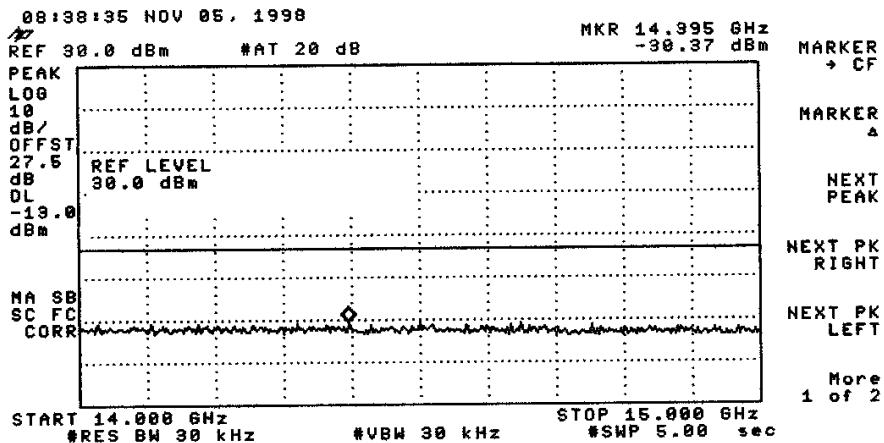
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APPLICANT:  
ERICSSON INC.

FCC ID NO:  
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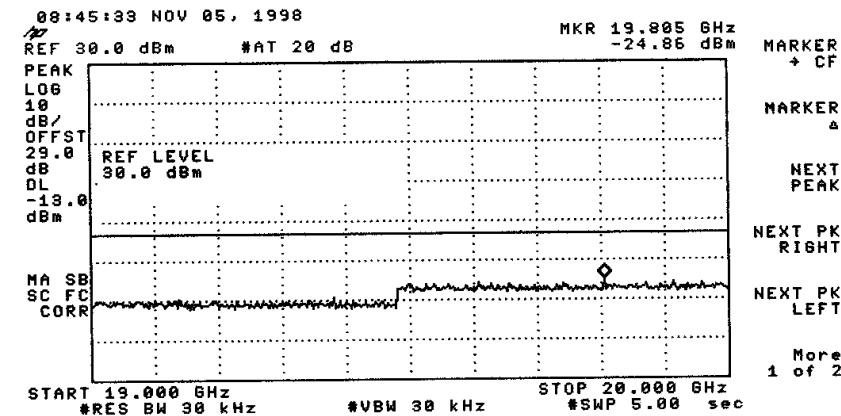
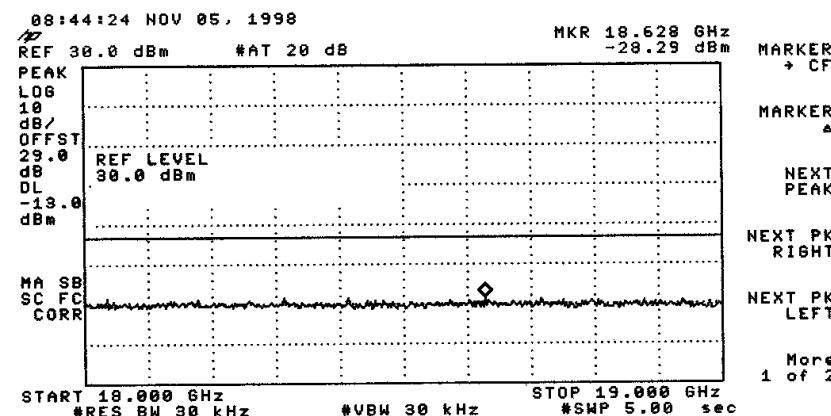
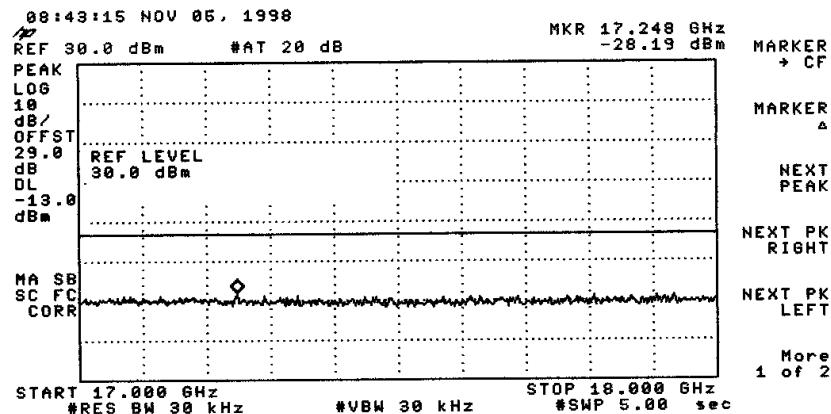
Exhibit 6J5



APPLICANT:  
ERICSSON INC.

FCC ID NO:  
AXATR-394-A2

Exhibit 6J5



APPLICANT:  
ERICSSON INC

FCC ID NO:  
AXATR-394-A2

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1900 MHz: SPURIOUS EMISSIONS (radiated)

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Para: 2.993 and Part 24

Per 2.993 and Part 24, field strength of spurious radiation was measured on Ericsson's 3 meter site in Lynchburg, VA. The site and equipment are described in the site description and attenuation measurements for the Ericsson Inc. 3 meter radiation site #22 filed with the FCC in Colombia MD on June 5. 1997. The measurement procedure is per IS137A, but done on a 3 meter test site. Results are shown on the following exhibits:

<u>Exhibit</u>	<u>Frequency (MHz)</u>	<u>Output power(W)</u>
6K2	1850.2	1.0
6K3	1850.2	0.001
6K4	1880.8	1.0
6K5	1880.8	0.001
6K6	1909.8	1.0
6K7	1909.8	0.001

The measurements were made using a Hewlett Packard 8922 M Simulator along with the following equipment:

Hewlett Packard 8922 M System Simulator  
Hewlett Packard 8593 E Spectrum Analyzer  
Hewlett Packard 8566 B Spectrum Analyzer  
Hewlett Packard 437B Power Meter

APPLICANT:  
ERICSSON INC

FCC ID NO:  
AXATR-394-A2

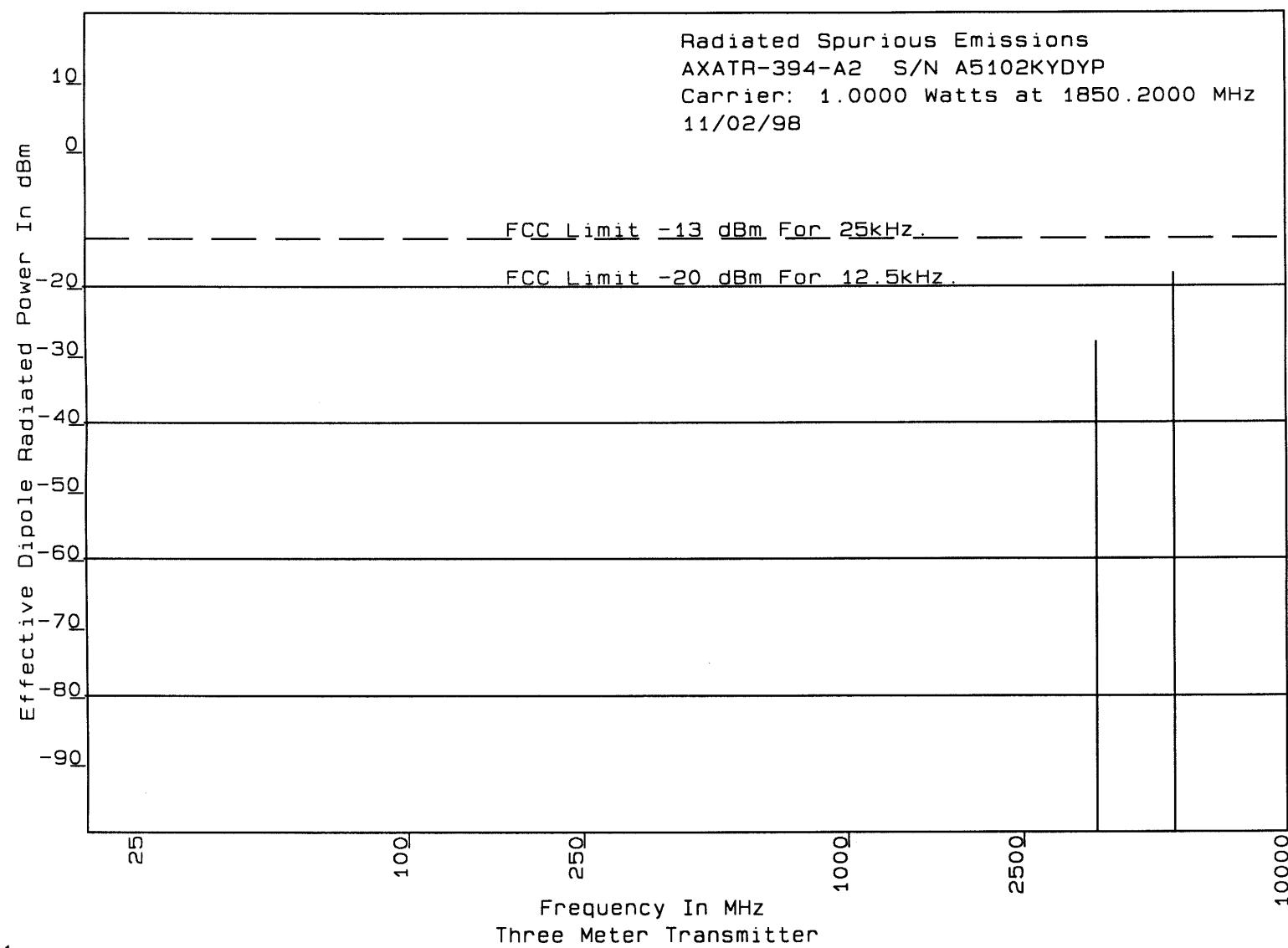


Exhibit 6K2

APPLICANT:  
ERICSSON INC

FCC ID NO:  
AXATR-394-A2

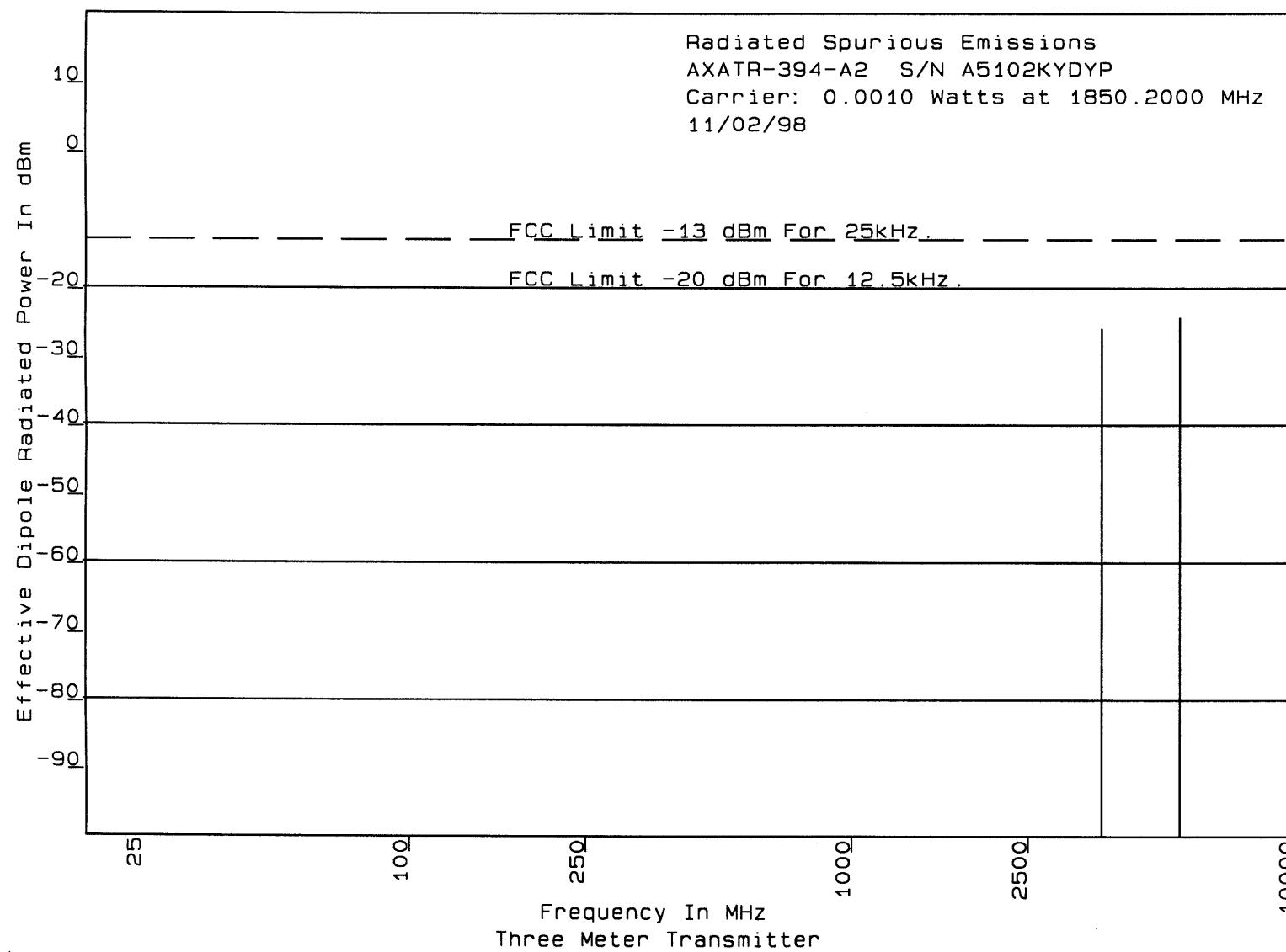


Exhibit 6K3

APPLICANT:  
ERICSSON INC

FCC ID NO:  
AXATR-394-A2

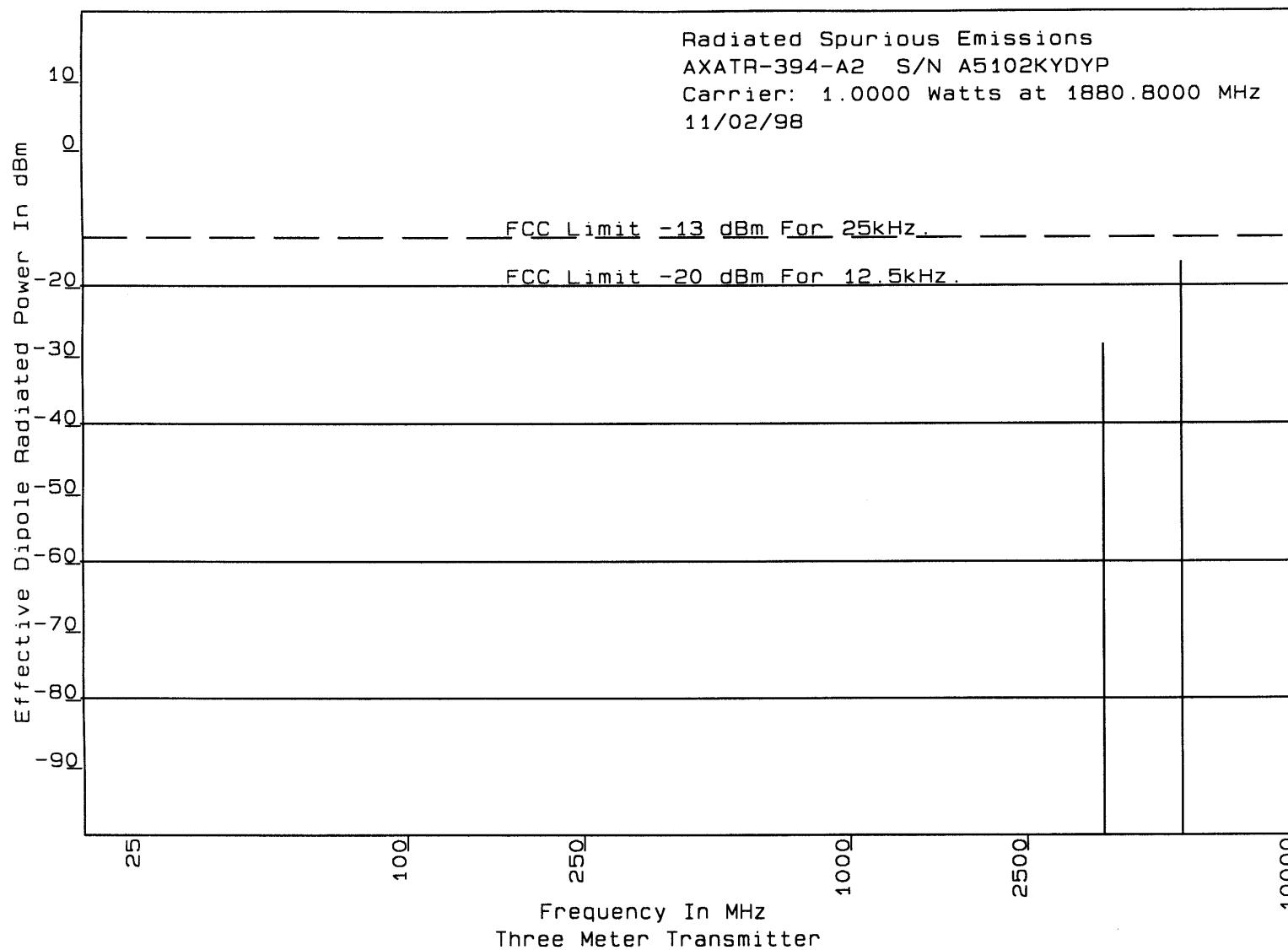


Exhibit 6k4

APPLICANT:  
ERICSSON INC

FCC ID NO:  
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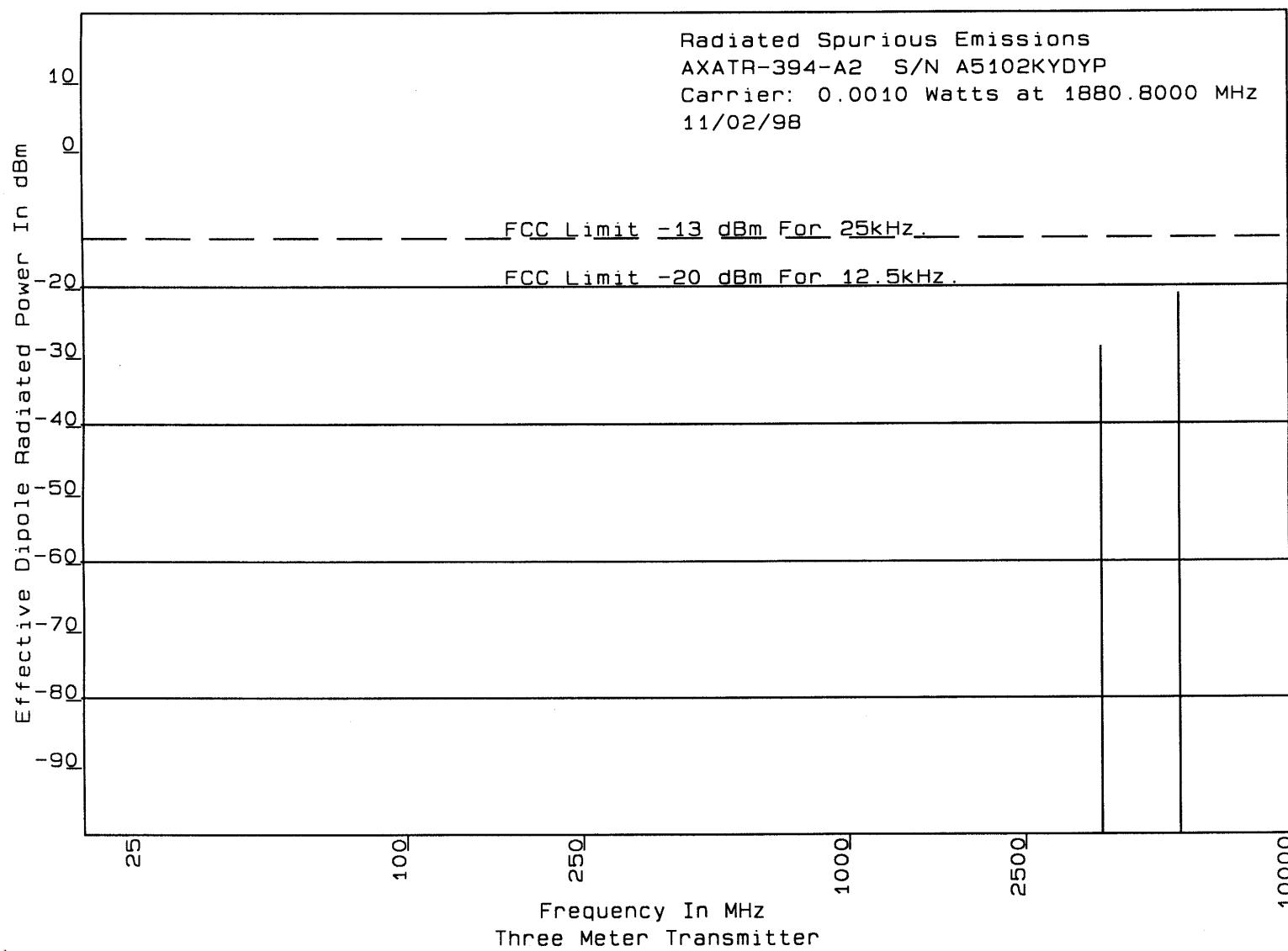


Exhibit 6K5

APPLICANT:  
ERICSSON INC

FCC ID NO:  
AXATR-394-A2

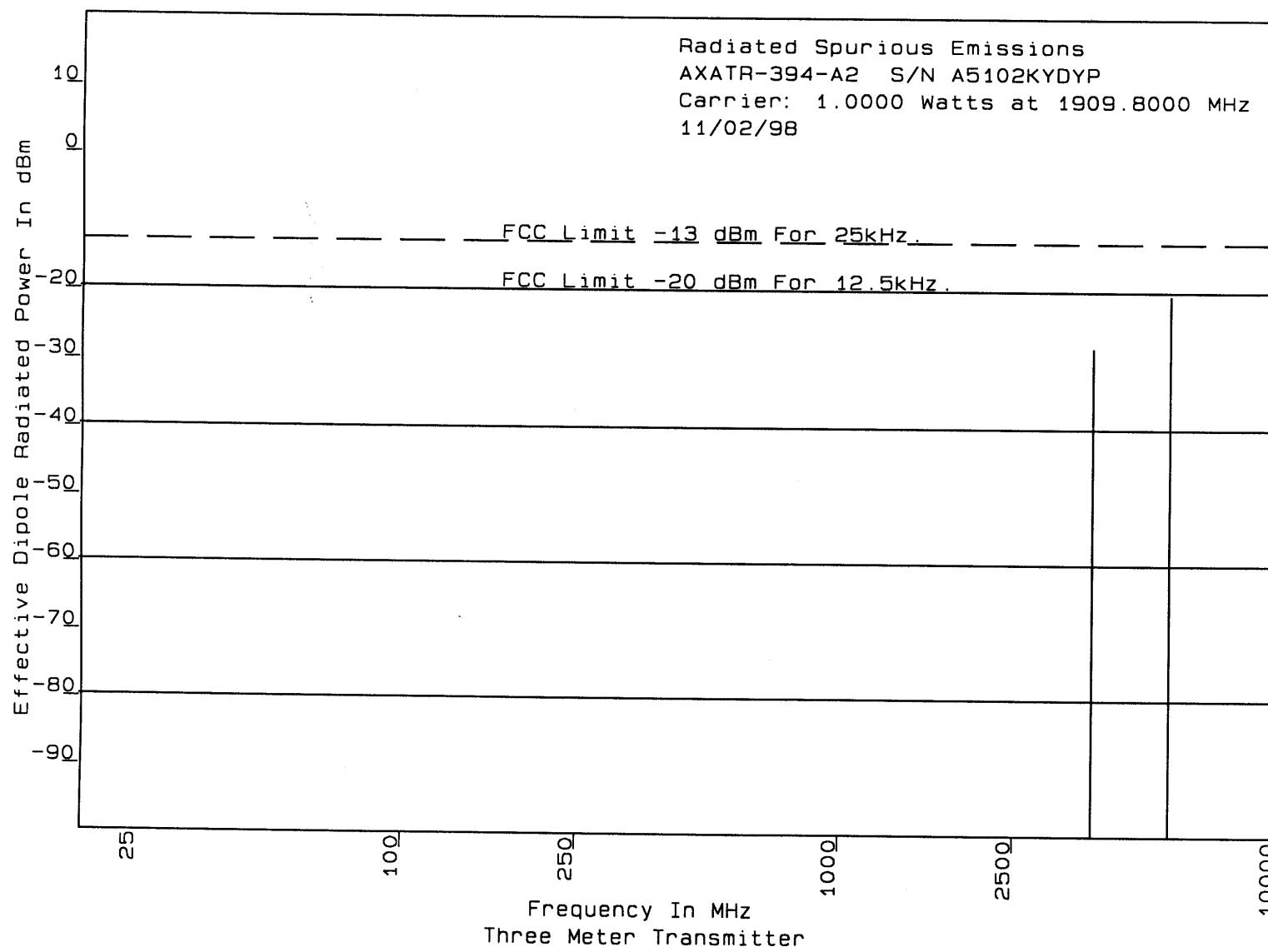


Exhibit 6k6

APPLICANT:  
ERICSSON INC

FCC ID NO:  
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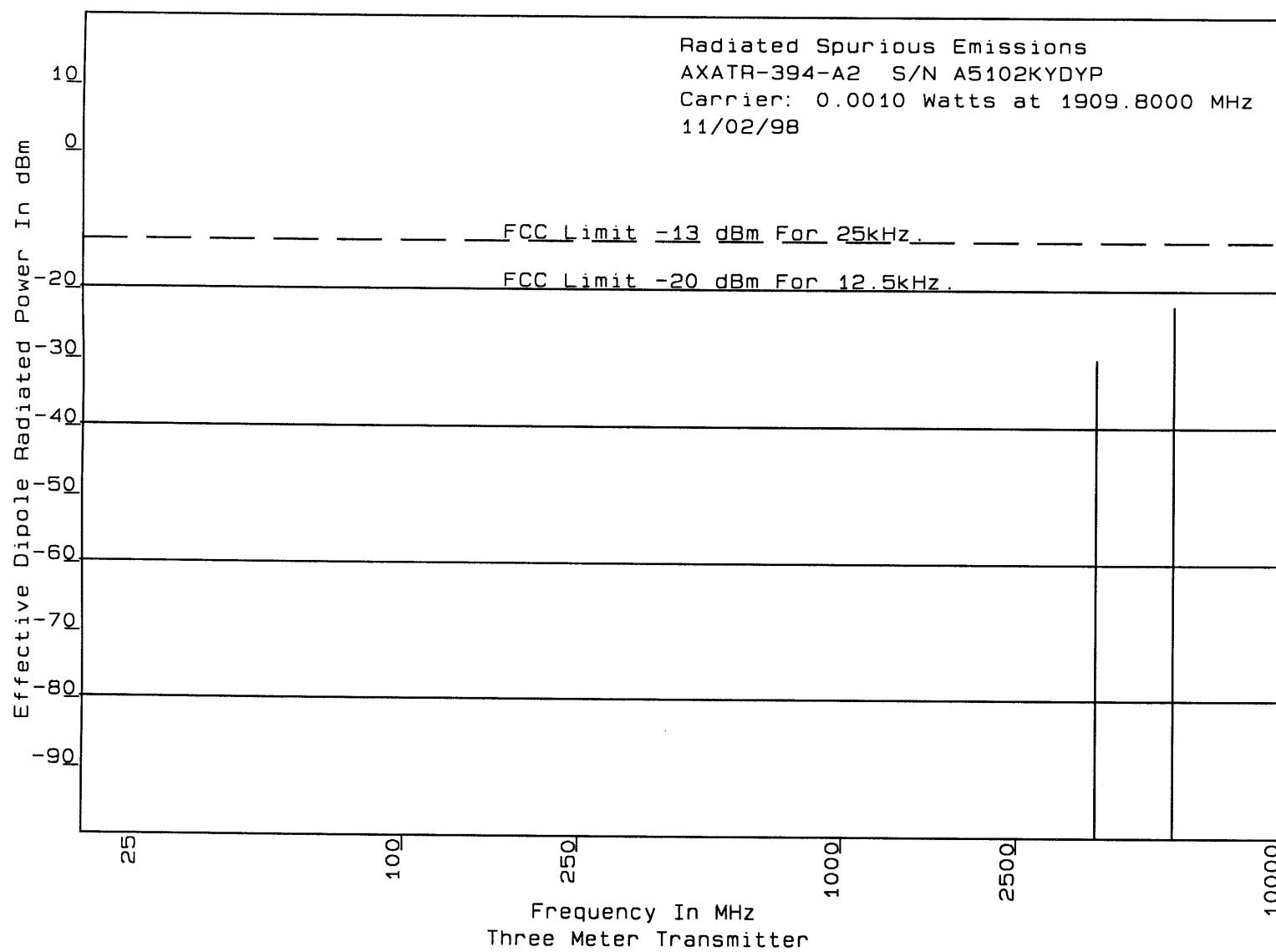


Exhibit6k7

APPLICANT:  
ERICSSON INC

FCC ID NO:  
AXATR-394-A2

EXHIBIT 6L1

**1900 MHz: FREQUENCY STABILITY**

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Per 2.995 (a)(1),(b),(d)(1)

Per 2.995 (a)(1),(b),(d)(1), variation of output frequency as a result of varying either voltage or temperature is shown in Exhibit 6L2 and 6L3 respectively.

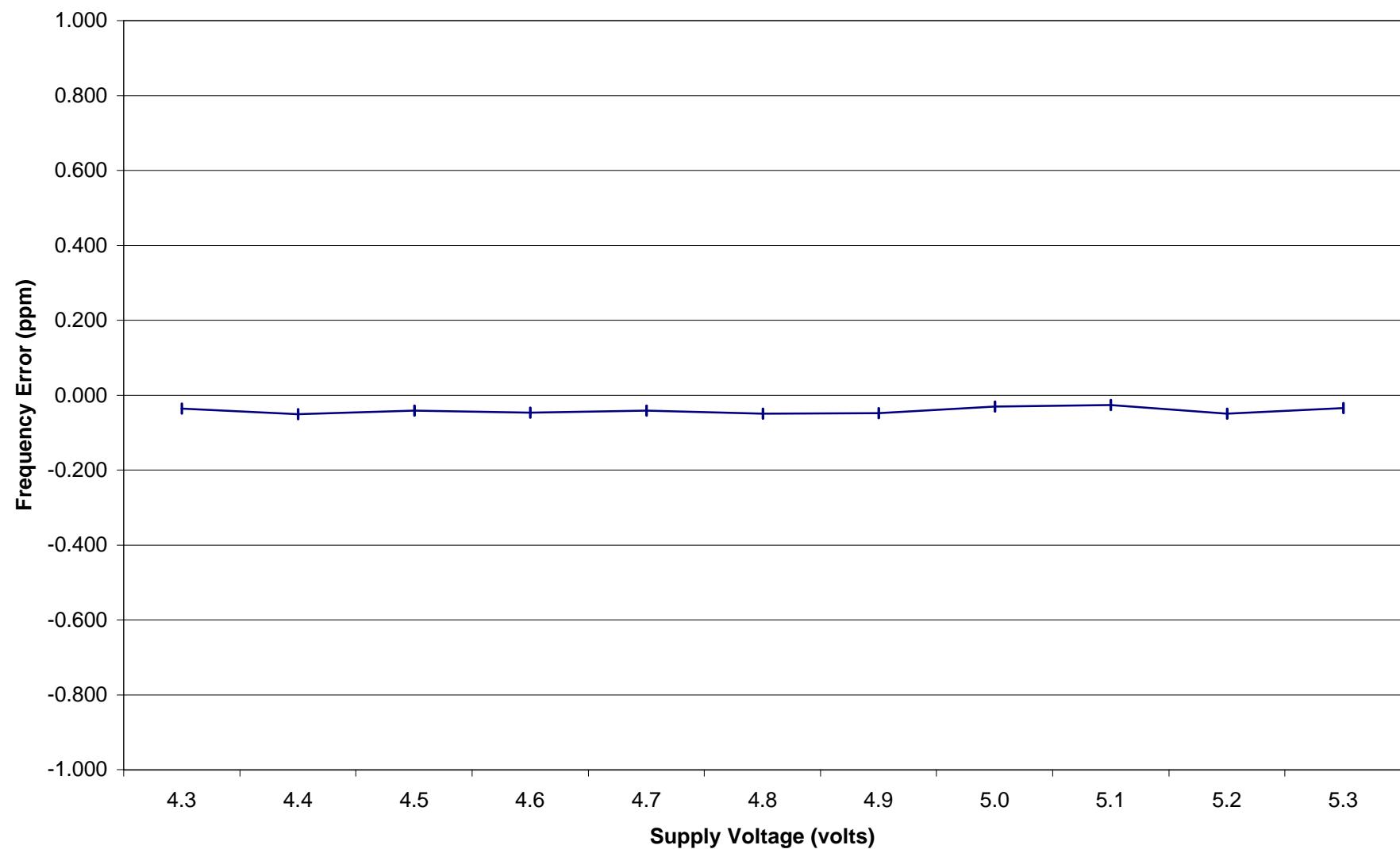
<u>EXHIBIT #</u>	<u>Voltage</u>	<u>Temperature</u>
6L2	4.3 to 5.3 Volts (varied)	+25 C
6L3	4.8 Volts	Varied

Note: The manufacturers rated voltage for the battery is 4.3 VDC to 5.3 VDC.

The measurements were made using a Hewlett Packard 8953DT North American Dual Mode Cellular Test System which includes the following equipment:

HP8958A Cellular Interface  
HP 6623A DC Power Supply  
HP 8596E Spectrum Analyzer  
HP 437B RF Power Meter  
HP 8901B Modulation Analyzer  
HP 8903B Audio Analyzer  
Thermotron SM-8C Temperature Chamber

**Frequency Error vs. Supply Voltage, GSM Channel 660, Power Level 0**



Applicant:  
Ericsson Inc.

FCC ID:  
AXATR-394-A2

Exhibit 6L3

**Frequency Error vs. Temperature, GSM Channel 660, Power Level 0**

