



EXHIBIT 2A

Test Report Provided by Nortel Networks

Applicant: Nortel Networks

**For Original Equipment
Certification on:**

AB6NT800MFRM2

1.0 Frequency Stability Equipment Application Requirements

1.1 Standard Test Conditions and Test Equipment

The MFRM2 was tested under the following test conditions unless otherwise stated.

- Ambient Temperature: 20 to 35 degrees C
- Ambient Humidity: 20 to 40%
- DC supply Voltage: -48V Vdc and 24Vdc (Nominal)

1.2 EUT Identification List

Table 1 shows the identification of the components used in measuring Frequency Stability.

Table 1 - EUT Identification List

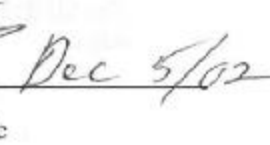
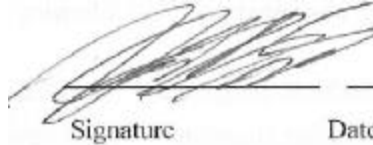
UUT Equipment Description	Make	Release Number	Serial Number
800MHz Radio Unit e/w:	NTGY30AA	R3	NNTM533GRLAD
MFRM2 Sub Module HCPA	NTGY82CA	R1	ASENAE000213
MFRM2 Sub Module MPEM	ADGY83CA	03	SMCLW0000100

2.0 Engineering Declaration

We certify that the information and data contained in this report is accurate and valid for the intended testing of the Frequency Stability of the Nortel MFRM2 CDMA Radio module.

Tested By:

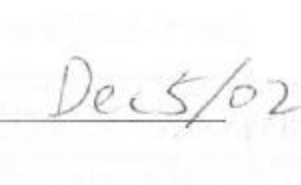
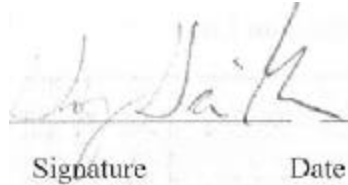
Harold Gill
Hardware Design Engineer
Nortel Networks
Calgary, Canada



Signature Date

**Approved and
Reviewed by By:**

Thomas Wong
Regulatory Prime
Nortel Networks
Calgary, Canada



Signature Date

2.1 Test Equipment List

Table 2 shows the identification of the test equipment used in this report.

Table 2 - Test Equipment List

Test Equipment Description	Instrument Make	Instrument Model	Serial Number	Calibration Due Date
Vector Signal Analyser	Agilent	E4406A	US39030245	9-Feb-2002
RF Power Meter	Agilent	E4419B	US3925043G	29-Dec-2002
Radio RF Interface Box	SED	38117assy1229 25.1	0002	Verified
RF Switch	DBP Microwave	3SNHIP21-A	902	Verified
Attenuator	Weinschl Corp	48-30-43	MJ785	Verified
RF Cable	Tensolite	64023	RF314	Verified
RF Cable		A0775004		Verified
RF Cable		A0775004		Verified
RF Cable		A0775004		Verified
DC power supply	Agilent	6674A	US36372016	20-jan-2003
GPSTM GPS Source	Nortel	NTGY850AA	NNTM74TM2 74H	N/A

3.0 FCC Requirements for Frequency Stability

3.1 FCC Part 2.1055

(a) The frequency stability shall be measured with variation of ambient temperature as follows:

(1) From -30 to +50 centigrade for all equipment except that specified in subparagraphs (2) and (3) of this paragraph.

(b) Frequency measurements shall be made at the extremes of the specified temperature range and at intervals of not more than 10 centigrade through the range. A period of time sufficient to stabilize all of the components of the oscillator circuit at each temperature level shall be allowed prior to frequency measurement. The short term transient effects on the frequency of the transmitter due to keying (except for broadcast transmitters) and any heating element cycling normally occurring at each ambient temperature level also shall be shown. Only the portion or portions of the transmitter containing the frequency determining and stabilizing circuitry need be subjected to the temperature variation test.

(d) The frequency stability shall be measured with variation of primary supply voltage as follows:

(1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.

(3) The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided. Effects on frequency of transmitter keying (except for broadcast transmitters) and any heating element cycling at the nominal supply voltage and at each extreme also shall be shown.

(e) When deemed necessary, the Commission may require tests of frequency stability under conditions in addition to those specifically set out in paragraphs (a), (b), (c) and (d) of this section. (For example, measurements showing the effect of proximity to large metal objects, or of various types of antennas, may be required for portable equipment.)

3.2 FCC Part 22.355 Frequency Tolerance

The carrier frequency of each transmitter in the 821-896MHz Frequency range, must be maintained within 1.5ppm tolerance, according to Table C-1 of this section.

3.3 Test Results

Table 4 and Table 5 shows the results for Frequency stability versus temperature variation. Table 3 shows the results for Frequency versus Power Supply Voltage

Table 3 - Test Results for Frequency Stability versus Power Supply Voltage

Voltage (V)	Maximum Carrier Frequency Deviation (ppm)	Maximum Carrier Frequency Deviation (Hz)	10 MHz GPS Reference (MHz)
40	-0.0048	-4.22	10.000000
48 nominal	0.0043	3.79	10.000000
56	-0.0023	-2.01	10.000000
20	0.0091	7.99	10.000000
24 nominal	-0.0057	-4.98	10.000000
28	0.0022	1.9	10.000000

Table 4 - Test Results for Frequency Stability versus Temperature for 24V operation

Temperature (°C)	Maximum Carrier Frequency Deviation (ppm)	Maximum Carrier Frequency Deviation (Hz)	10 MHz GPS Reference (MHz)
-30	-0.0035	-3.09	10.000000
-20	-0.0024	-2.12	10.000000
-10	0.0017	1.46	10.000000
0	0.0002	0.15	10.000000
10	0.0013	1.16	10.000000
20	-0.0057	-4.98	10.000000
30	0.0002	0.19	10.000000
40	0.0006	0.51	10.000000
50	-0.0019	-1.64	10.000000

Table 5 - Test Results for Frequency Stability versus Temperature for 48V operation

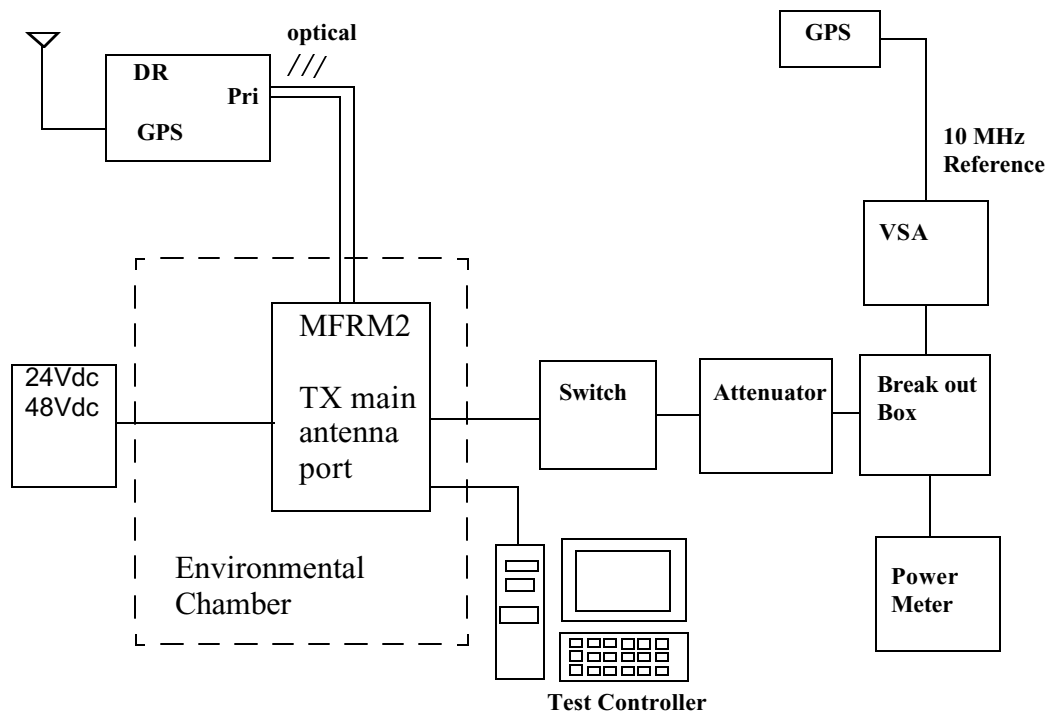
Temperature (°C)	Maximum Carrier Frequency Deviation (ppm)	Maximum Carrier Frequency Deviation (Hz)	10 MHz GPS Reference (MHz)
-30	-0.0027	-2.41	10.000000
-20	-0.0019	-1.65	10.000000
-10	0.0010	0.87	10.000000
0	-0.0024	-2.13	10.000000
10	-0.0005	-0.48	10.000000
20	0.0043	3.79	10.000000
30	-0.0004	-0.38	10.000000
40	-0.0026	-2.28	10.000000
50	0.0007	0.63	10.000000

The maximum frequency deviation was found to be 0.0091 ppm (7.99 Hz). This deviation is more than sufficient to ensure that the fundamental emission stays within the authorized frequency block. Therefore the MFRM2 complies with the FCC requirement.

3.4 Test Procedure

The equipment was configured as shown in Figure 1

Figure 1 - Test Configuration for Frequency Stability



The MFRM2 was configured to transmit at channel 350 (880.50 MHz).

At 20 degree C ambient temperature, measurements were made with the primary supply voltage set to 85, 100 and 115% of the nominal value. The frequency stability was measured at a primary supply voltage of both 24 Vdc and 48 Vdc.

The MFRM2 was subjected to ambient temperatures from -30 to +50 degrees C at intervals of 10 degrees C.

At each of the above specified ambient temperatures, the maximum carrier power was monitored using the power meter. All measurements were conducted with a source 10MHz referenced to GPS.