EXHIBIT 2

Test Report Summary

Applicant: Nortel Networks

For Original Equipment Certification on:

AB6NT800MFRM2

Test Report Summary for FCC Class II Permissive Change Equipment Authorization

FCC ID : AB6NT800MFRM2 Multi-carrier Flexible Radio Module

Document:	TRS_AB6NT800MFRM2
Stream:	00
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Issue Date:	Dec 06, 2002
Security Status:	Nortel Networks Confidential
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1 Introduction

This test report is submitted in accordance with the FCC Rules and Regulations, Part 2, Subpart J, Sections 2.1046 through 2.1057 for equipment authorization of Nortel Networks' CDMA 800 MHz Multi-carrier Flexible Radio Module 2 (MFRM2). The 800 MHz MFRM2 is intended for use in the Domestic Public Cellular Radio Telecommunications Service and is designed in accordance with the following standards:

- *CFR 47, Part 22, Subpart H, Subpart H, Cellular Radiotelephone Service[1]*
- *CFR 47, Part 2, Subpart J, Equipment Authorization Procedures - Equipment Authorization[2]*
- *CFR 47, Part 24, Subpart E, Broadband Personal Communications Service [3]*

1. Test Result Summary

Table 1 summarizes the measurement results for the CDMA 800 MHz MFRM2.

Table 1: Test Results Summary

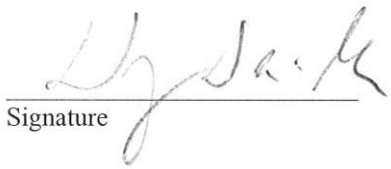
FCC Measurement Specification	FCC Limit Specification	Description	Results	Test(s) Conducted by	Remarks
2.1046	22.913	RF Output Power	Compliant	Sanmina Canada ULC	See Exhibit 2A
2.1047	22.901	Modulation Characteristics	Not Applicable		
2.1049		Occupied Bandwidth	OBW = 1.263 MHz (one carrier) OBW = 2.467 MHz (two carriers) OBW = 3.694 MHz (three carriers)	Sanmina Canada ULC	See Exhibit 2A
2.1051, 2.1057	22.901, 24.238	Spurious Emission at Antenna Terminals	Compliant	Sanmina Canada ULC	See Exhibit 2A
2.1053, 2.1057	22.901, 24.238	Field Strength of Spurious Radiation	Compliant	Sanmina Canada ULC	See Exhibit 2B
2.1055	22.913	Frequency Stability	Compliant	Nortel Networks	See Exhibit 2A

2. Engineering Declaration

The CDMA 800 MHz MFRM2 (Multi-carrier Flexible Radio 2) has been tested in accordance with the requirements contained in the Federal Communication Rules and Regulations Part 2, 22 and 24.

To the best of my knowledge, these tests were performed in accordance with good engineering practices using measurement procedures consistent with industry or commission standards or previous Commission correspondence or guidance and demonstrate that this equipment complies with the appropriate standards. All tests (including tests performed by Sanmina Canada ULC) were conducted on a representative sample of the equipment for which type acceptance/certification is sought.

Report Prepared by



Thomas Wong
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Dec 06, 2002

3. Type Acceptance Application Requirements

3.1 Name of Applicant

The applicant is Nortel Networks Inc.

3.2 Identification of Equipment

The equipment in this application for type acceptance is the Nortel's CDMA 800 MHz MFRM2 (Multi-carrier Flexible Radio Module 2). The 800MHz MFRM2 is marketed under the model number NT800MFRM2. The FCC ID number sought is AB6NT800MFRM2.

3.3 Quantity Production

The 800 MHz MFRM2 will be produced in quantity.

3.4 Technical Description

See Exhibit 3.

3.5 Type of Emissions

The 800 MHz MFRM2 Assembly is designed to operate in digital mode. The emission type is F9W for CDMA mode. The emission designators are 1M25F9W (1 Channel), 2M50F9W (2 Channels) and 3M73F9W (3 Channels). Testing was conducted in single channel, two channel, and 3 channel mode to determine compliance. The emission designators were calculated based on requirements of FCC Rule Part 2, Subpart C - Emissions, section 2.201 and Section 2.202.

3.6 Frequency Range

The 800 MHz MFRM2 operates in the 800 MHz cellular band where the operating frequency ranges are 824 – 849 MHz for the receiver and 869 - 894 MHz for the transmitter. The following table shows the CDMA channels within this band meeting FCC requirements (based on single carrier mode).

Band	CDMA Channel Number	Transmitter Center Frequency Assignment for Base Station (MHz)	Channel Meeting FCC Requirements
A''	991-1023	869.040-870.000	Non-compliance
A	1-3	870.030-879.090	Non-compliance
	4-296	870.120-878.880	Compliance
	297-333	878.910-879.990	Non-compliance
B	334-370	881.020-881.100	Non-compliance
	371-630	881.130-888.900	Compliance
	631-666	888.930-889.980	Non-compliance
A'	667-716	890.010-891.480	Non-compliance

B'	717-753	891.510-892.590	Non-compliance
	754-763	892.620-892.890	Compliance
	764-799	892.920-893.970	Non-compliance

3.7 Range of Operating Power

The 800 MHz MFRM2 range of operating RF power is 0 dBm to 47.3 dBm . The maximum RF power output is 47.3 dBm..

3.8 Complete Circuit Diagrams

The Tx chain of the 800 MHz MFRM2 radio system for certification is made up of MFRM2 (consists of radio and PA portions) and DPM (an OEM equipment). Exhibit 8 contains the schematics of circuit cards inside the MFRM2 and Exhibit 9 contains the parts lists of the circuit cards inside MFRM2.

3.9 Tune-up Procedure

The tune-up tests will be performed as part of the factory testing on the MFRM2. This procedure includes power output levels, spurious emissions, and occupied bandwidth. There are no end-user adjustments that will have any effect on these settings. No tune-up testing is required in the field.

3.10 Circuit Description for Frequency Determining and Stabilizing

The Global Positioning Satellite Timing Module (GPSTM) is the primary clock source in the system. It consists of two outputs:

EVEN_SEC Clock and,
SYS_CLK (at 8fc or 9.8304 MHz)

In addition, the GPSTM has a 10 MHz reference output that can be used to synchronize external measurement equipment during system testing.

The GPSTM distributes the primary clock signals directly to the Control Module (CM) and the CORE modules (see Exhibit 3) which in-turn distribute the clock signals to the digital modules and to the MFRM2 via the high speed optical link.

The GPSTM has a frequency stability of better than 1.0 part per billion.

3.11 Circuit Description for Suppression of Spurious Radiation

The Tx band pass filter in the DPM provides out of band emission rejection and permits only signals in the Tx band to the antenna for emission. The close inband spurs are being taken care of by the BBPD (Band Band Pre-Distortion) circuitry in the MFRM2.

3.12 Circuit Description for Limiting Modulation

This systems employs digital modulation techniques producing CDMA forward and reverse channel air interfaces which are compatible with IS 95A and IS 97A technical standards.

4. Test Method and Test Result

4.1 Tests performed by Nortel Networks

Frequency Stability

The frequency stability over temperature –30 deg to 50 deg C and 85% to 115% of the nominal voltages is 0.0091 ppm.

Please refer to the Exhibit 2A for all test setups and results in details provided by Nortel Networks.

4.2 Tests performed by Sanmina Canada ULC

RF Power Output

The maximum measured RF output power was 47.3 dBm for single carrier.

The maximum measured RF output power was 47.2 dBm for two carriers.

The maximum measured RF output power was 47.4 dBm for three carriers.

Occupied Bandwidth

The maximum measured occupied bandwidth was 1263 KHz for single carrier.

The maximum measured occupied bandwidth was 2467 KHz for two carriers.

The maximum measured occupied bandwidth was 3694 KHz for three carriers.

Spurious Emissions at Antenna Terminals

The minimum pass margin for one, two and three carrier(s) is:

1 MHz upper and lower band edge measurements was 3.33 dB
1 MHz to 10 GHz measurements was 13.94 dB.

Radiated Emission Test Results from 30MHz to 10 GHz

The minimum pass margin: 39.10 dB for H-Pol
35.72 dB for V-Pol

Please refer to the Exhibit 2B for all test setups and results in details provided by Sanmina Canada ULC.