EXHIBIT 2

Test Report Summary

Applicant: Nortel Networks

For Class II Permissive Change on:

AB6NT800RM-CBTS

332D-CBS800RM

Test Report Summary for
Original Equipment Authorization

FCC ID : AB6NT800RM-CBTS 800MHz Radio Module for Compact BTS

Document:	TRS_AB6NT800RM-CBTS
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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 Radio Module (RM) for Compact BTS (cBTS). The 800 MHz RM 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]*

2. Test Result Summary

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

Table 1: Test Results Summary

FCC Measurement Specification	FCC Limit Specification	Description	Results	Test(s) Conducted by	Remarks
2.1033(c)(8)		Measurement of DC Power	Provided		
2.1046		RF Output Power	Provided	Nortel Networks	See Exhibit 2A
2.1047		Modulation Characteristics	Not Applicable		
2.1049		Occupied Bandwidth	Provided	Nortel Networks	See Exhibit 2A
2.1051, 2.1057	22.917	Spurious Emission at Antenna Terminals	Compliant	Nortel Networks	See Exhibit 2A
2.1053, 2.1057	22.917	Field Strength of Spurious Radiation	Compliant	ETC	See Exhibit 2B
2.1055	22.355	Frequency Stability	Compliant	Nortel Networks	See Exhibit 2A

2. Engineering Declaration

The CDMA 800 MHz RM (Radio Module) for cBTS (Compact BTS) has been tested in accordance with the requirements contained in the Federal Communication Rules and Regulations Part 2 and 22.

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 ETC) were conducted on a representative sample of the equipment for which type acceptance/certification is sought.

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Feb 7, 2005

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 RM (Radio Module) for cBTS (Compact BTS). The 800MHz RM is marketed under the model cBTS 800MHz RM . The FCC ID number sought is AB6NT800RM-CBTS.

3.3 Quantity Production

The 800 MHz RM will be produced in quantity.

3.4 Technical Description

See Exhibit 3.

3.5 Type of Emissions

The 800MHz RM Assembly is designed to operate in digital mode. The emission type is F9W for IS95 and IS2000 digital modulation, and D9W for IS856 digital modulation. The emission designators for IS95 and IS2000 are 1M25F9W (1 Channel), 2M50F9W (2 Channels) and 3M73F9W (3 Channels). The emission designators for IS856 are 1M25D9W (1 Channel), 2M50D9W (2 Channels) and 3M73D9W (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 RM 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. (for multi-carrier mode, the center frequency of the carrier closest to the band edge is used).

Band	CDMA Channel Number	Transmitter Center Frequency Assignment for Base Station (MHz)	Channel Meeting FCC Requirements
A'' + A	991-1014	869.040-869.730	Non-compliance
	1015-308	869.760-879.240	Compliance
	309-333	879.270-879.990	Non-compliance
B	334-357	880.020-880.710	Non-compliance
	358-642	880.740-889.260	Compliance
	643-666	889.290-889.980	Non-compliance
A'	667-691	890.010-890.730	Non-compliance
	692	890.760	Compliance
	693-716	890.790-891.480	Non-compliance
B'	717-741	891.510-892.230	Non-compliance
	742-775	892.260-893.250	Compliance
	776-799	893.280-893.970	Non-compliance

3.7 Range of Operating Power

The 800 MHz RM 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 RM radio system for certification is made up of the 800MHz RM (radio, and PA) and DPM (Duplexer and filter, an OEM equipment). Exhibit 8 contains the schematics of circuit cards inside the 800MHz RM and Exhibit 9 contains the parts lists of the circuit cards inside 800MHz RM.

3.9 Tune-up Procedure

The tune-up tests will be performed as part of the factory testing on the 800MHz RM. 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 800MHz RM 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 RM.

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, IS2000, and IS856 technical standards.

4. Test Methods and Test Results

4.1 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:
Final Output Transistor: It has four final stage power transistors in parallel. The final state output power transistors each draw average about 3.8A @ 27Vdc.

4.2 Tests performed by Nortel Networks

RF Power Output for IS95 and IS2000

The maximum measured RF output power was 47.35 dBm for single carrier.
The maximum measured RF output power was 47.32 dBm for two carriers.
The maximum measured RF output power was 47.29 dBm for three carriers.

RF Power Output for IS856

The maximum measured RF output power was 47.14 dBm for single carrier.
The maximum measured RF output power was 47.27 dBm for three carriers. (including mix modulation modes).

Occupied Bandwidth for IS95 and IS2000

The maximum measured occupied bandwidth was 1267 KHz for single carrier.
The maximum measured occupied bandwidth was 2469 KHz for two carriers.
The maximum measured occupied bandwidth was 3687 KHz for three carriers (including mix modulation modes).

Occupied Bandwidth for IS856

The maximum measured occupied bandwidth was 1267 KHz for single carrier.
The maximum measured occupied bandwidth was 3671 KHz for three carriers (including mix modulation modes).

Spurious Emissions at Antenna Terminals for IS95 and IS2000

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

1 MHz upper and lower band edge measurements was 10.51 dB
1 MHz to 10 GHz measurements was 10.27 dB.

Spurious Emissions at Antenna Terminals for IS856

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

1 MHz upper and lower band edge measurements was 10.62 dB
1 MHz to 10 GHz measurements was 8.35 dB.

Frequency Stability

The frequency stability over temperature –5 deg to 50 deg C and 85% to 115% of the nominal voltages was 0.0093 ppm. Since the cBTS is an indoor product, the operating temperature range is from -5 to 50 deg C stated in Nortel's design documents. This test was performed within the operator temperature range of the cBTS.

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

4.2 Tests performed by NTS – Calgary (Formerly Sanmina-SCI)

The tests were performed in the 10M chamber with three cBTS and each cBTS had three 800MHz RM. The total number of 800MHz RM being tested was 9. Three 800MHz RMs are the optimized RM and the other six are the current production version.

Radiated Emission Test Results from 30MHz to 10 GHz

The minimum pass margin after the substitution method for 9 radios: 29.75 dB for H-Pol
27.94 dB for V-Pol

Please refer to the Exhibit 2C for all test setups and results in details provided by Sanmina-SCI.