

EXHIBIT 2

Test Report Summary

Applicant: Nortel Networks

**For Class II Permissive
Change on :**

**FCC: AB6NT1900SFRM
IC: 332D-1900SFRM**



Test Report Summary for FCC Equipment Authorization

FCC ID : AB6NT1900SFRM (SFRM)
IC ID: 332D-1900SFRM

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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 1900 MHz SFRM radio module. The 1900 MHz SFRM is intended for use in the Domestic Public Cellular Radio Telecommunications Service and is designed in accordance with the following standards:

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

1. Test Result Summary

Table 1 summarizes the measurement results for the CDMA 1900 SFRM.

Table 1: Test Results Summary

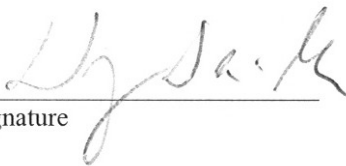
FCC Measurement Specification	FCC Limit Specification	Description	Results	Test(s) Conducted by	Remarks
2.1046	24.232	RF Output Power	Compliant	Nortel Networks	See Exhibit 2A and 2B
2.1047		Modulation Characteristics	Not Applicable		
2.1049		Occupied Bandwidth	Performed	Nortel Networks	See Exhibit 2A and 2B
2.1051, 2.1057	24.238	Spurious Emission at Antenna Terminals	Compliant	Nortel Networks	See Exhibit 2A and 2B
2.1053, 2.1057	24.238	Field Strength of Spurious Radiation	Compliant	Solelectron (Ottawa)	See Exhibit 2C
2.1055	24.238	Frequency Stability	Compliant	Nortel Networks	See Exhibit 2A

2. Engineering Declaration

The CDMA 1900 MHz SFRM has been tested in accordance with the requirements contained in the Federal Communication Rules and Regulations Part 2 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, Calgary) were conducted on a representative sample of the equipment for which original equipment certification is sought.

Report Prepared by



Signature

Thomas Wong
Regulatory Prime
Nortel Networks
Calgary, Alberta

March 3, 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 1900 MHz SFRM. The 1900MHz SFRM is marketed under the model number NT1900SFRM. The FCC ID number sought for original equipment certification is AB6NT1900SFRM. The IC number is 332D-1900SFRM.

3.3 Quantity Production

The 1900 MHz SFRM will be produced in quantity.

3.4 Technical Description

See Exhibit 3.

3.5 Type of Emissions

The 1900 MHz SFRM assembly is designed to operate in digital mode.

The emission type is F9W for CDMA mode (IS95A and IS2000). The emission designator is 1M25F9W.

The emission type is D9W for 1xEV-DO mode (IS856). The emission designators are 1M25D9W.

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 1900 MHz SFRM operates in the 1900 MHz cellular band where the operating frequency ranges are 1850 – 1910 MHz for the receiver and 1930 – 1990 MHz for the transmitter. The following table shows the valid CDMA channels within this band. The 1900MHz cBTS RM

meets all FCC requirements within the valid (and conditional valid if A/D, B/E, or C/F are under the same operator) channels.

Band	CDMA Channel Number	Transmitter Frequency Assignment for Base Station (MHz)	Valid IS97 CDMA Frequency Assignment
A	0-24	1930.00-1931.20	In-Valid
	25-275	1931.25-1943.75	Valid
	276-299	1943.80-1944.95	Cond. Valid
D	300-324	1945.00-1946.20	In-Valid
	325-375	1946.25-1948.75	Valid
	376-399	1948.80-1949.95	Cond. Valid
B	400-424	1950.00-1951.20	In-Valid
	425-675	1951.25-1963.75	Valid
	676-699	1963.80-1964.95	Cond. Valid
E	700-724	1965.00-1966.20	In-Valid
	725-775	1966.25-1968.75	Valid
	776-799	1968.80-1969.95	Cond. Valid
F	800-824	1970.00-1971.20	In-Valid
	825-875	1971.25-1973.75	Valid
	876-899	1973.80-1974.95	Cond. Valid
C	900-924	1975.00-1976.20	In-Valid
	925-1175	1976.25-1988.75	Valid
	1176-1199	1988.80-1989.95	Cond. Valid

3.7 Range of Operating Power

The 1900 MHz SFRM range of operating RF power is 0 dBm (1W) to 42.3 dBm.

3.8 Complete Circuit Diagrams

The Tx chain of the 1900 MHz SFRM is made up of a radio module, PA module (an OEM equipment) and DPM (an OEM equipment - duplexer). Exhibit 8 contains the schematics of circuit cards inside the radio module and Exhibit 9 contains the parts lists of the circuit cards inside the radio module.

3.9 Tune-up Procedure

The tune-up tests will be performed as part of the factory testing on the 1900MHz SFRM. 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 1900MHz RM via the high speed serial 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.

3.12 Circuit Description for Limiting Modulation

This system 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 Method and Test Result

4.1 Tests performed Based on IS95 carrier by Nortel Networks

RF Power Output

The maximum measured RF output power was 42.10 dBm for IS95 carrier.

Occupied Bandwidth

The maximum measured occupied bandwidth was 1,272.50 kHz for IS95 carrier.

Spurious Emissions at Antenna Terminals

The minimum pass margin for IS95 carrier is:

1 MHz upper and lower band edge measurements was 12.63 dB

1 MHz to 20 GHz measurements was 12.67 dB.

Frequency Stability

The worst case of the frequency stability over temperature –30 deg to 50 deg C and 85% to 115% of the nominal voltages is 0.008 ppm.

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

4.2 Tests performed Based on IS856 carrier by Nortel Networks

RF Power Output

The maximum measured RF output power was 42.77 dBm for IS856 carrier.

Occupied Bandwidth

The maximum measured occupied bandwidth was 1,259.1 kHz for IS856 carrier.

Spurious Emissions at Antenna Terminals

The minimum pass margin for IS856 carrier is:

1 MHz upper and lower band edge measurements was 13.33 dB
1 MHz to 20 GHz measurements was 8.64 dB.

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

4.3 Tests performed by Sanmina, Calgary

Radiated Emission Test Results from 30MHz to 20 GHz

The minimum pass margin: 30.15 dB for H-Pol
The minimum pass margin: 26.05 dB for V-Pol

Please refer to the Exhibit 2C for all test setups and results in details provided by Sanmina (Ottawa).