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EXHIBIT 2

TEST REPORT SUMMARY

**Applicant: Nortel Networks
For Original Equipment
Application on:**

FCC: AB6NT2100V3231

IC: 332D-2G1V3231

NORTEL CDMA BTS Development

Test Summary for Original Equipment Authorization

FCC Tx ID: AB6NT2100V3231
IC ID: 332D-2G1V3231

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Table of Contents

1	INTRODUCTION	5
2	SUMMARY	6
3	ENGINEERING DECLARATION.....	7
4	CERTIFICATION APPLICATION REQUIREMENTS	8
5	TEST METHODS AND TEST RESULTS.....	10

List of Tables

Table 1. Test Results Summary	6
Table 2. AWS V3231 FCC Part 27 Test Summary	10
Table 3. Spurious Emissions at the AWS V3231 Ant. Port - one Carrier IS95.....	11
Table 4. Spurious Emissions at the AWS V3231 Ant. Port - two Carrier IS95	11
Table 5. Spurious Emissions at the AWS V3231 Ant. Port - three Carrier IS-95	12
Table 6. Spurious Emissions at the AWS V3231 Ant. Port - one Carrier IS-856.....	12
Table 7. Spurious Emissions at the AWS V3231 Ant. Port - three Carrier IS-856	13
Table 8. Spurious Emissions at the AWS V3231 Ant. Port - three Carrier Combined IS-95 & IS-856	14

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 2100 MHz Village Base Station V3231. The 2100 MHz VBTS 3231 is intended for use in the Domestic Public Cellular Radio Telecommunications Service and is designed in accordance with the following standards:

- *CFR 47, Part 27, Subpart C, Miscellaneous Wireless Communications Services/Technical Standards [1]*
- *CFR 47, Part 2, Subpart J, Equipment Authorization Procedures – Equipment Authorization [2]*

2 Summary

Table 1 summarizes the measurement results for the CDMA 2100 MHz vBTS 3231.

Table 1: Test Results Summary

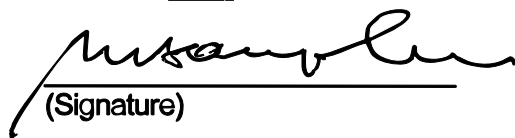
FCC Measurement Specification	FCC Limit Specification	Description	Results	Test(s) Conducted by	Remarks
2.1033(c)(8)		Measurement of DC Power	Provided		
2.1046	27.50 (d)	RF Output Power	Provided	Nortel	See Exhibit 2A
2.1047		Modulation Characteristics	Not Applicable		
2.1049		Occupied Bandwidth	Provided	Nortel	See Exhibit 2A
2.1051, 2.1057	27.53	Spurious Emission at Antenna Terminals	Compliant	Nortel	See Exhibit 2A
2.1053, 2.1057	27.53	Field Strength of Spurious Radiation	Compliant	NTS	See Exhibits 2B,2C
2.1055	27.54	Frequency Stability	Compliant	Nortel	See Exhibit 2A

3 Engineering Declaration

The CDMA 2100 MHz vBTS 3231 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 performed by NTS Calgary were conducted on a representative sample of the equipment for which certification is sought.

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4. Certification Application Requirements

4.1 Name of Applicant

The applicant is Nortel Networks Inc.

4.2 Identification of Equipment

The equipment in this application for type acceptance is the Nortel's CDMA 2100 MHz VBTS3231. The 2100MHz VBTS3231 is marketed under the model AWS 2100MHz VBTS3231. The FCC ID number sought is AB6NT3231VBTS.

The IC ID number sought is 332D-3231VBTS.

4.3 Quantity Production

The 2100 MHz vBTS3231 will be produced in quantity.

4.4 Technical Description

See Exhibit 3.

4.5 Type of Emissions

The 2100MHz vBTS3231 assembly is designed to operate in digital mode to support up to 3 carriers. The emission designator for IS97 carrier is 1M25F9W. The emission designator for IS864 carrier is 1M25D9W. Tests were conducted with 1, 2, or 3 carrier(s). The emission designators were calculated based on requirements of FCC Rule Part 2, Subpart C - Emissions, section 2.201 and Section 2.202.

4.6 Frequency Range

The 2100 MHz vBTS 3231 operates in the 2100 MHz cellular band where the operating frequency ranges are 1710 – 1755 MHz for the receiver and 2110 – 2155 MHz for the transmitter. The 2100MHz VBTS 3231 meets all FCC requirements within the valid channels of this frequency range.

4.7 Range of Operating Power

The 2100 MHz VBTS 3231 range of operating RF power is 0 dBm to 48.95 dBm . The maximum RF power output is 48.95 dBm..

4.8 Complete Circuit Diagrams

The Tx chain of the 2100 MHz vBTS 3231 for certification is made up of the radio, PA and DPM (Duplexer and filter, an OEM equipment). Exhibit 8 contains the schematics of circuit cards inside the 2100MHz vBTS3231 and Exhibit 9 contains the parts lists of the circuit cards inside 2100MHz vBTS3231.

4.9 Tune-up Procedure

The tune-up tests will be performed as part of the factory testing on the 2100MHz vBTS3231. 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.

4.10 Circuit Description for Frequency Determining and Stabilizing

The Global Positioning Satellite Timing Card (GPSTC) in the vBTS 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 GPSTC has a 10 MHz reference output that can be used to synchronize external measurement equipment during system testing.

The GPSTC distributes the primary clock signals directly to control board which in-turn distribute the clock signals to the radio via the high speed serial link.

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

4.11 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 2100MHz vBTS3231.

4.12 Circuit Description for Limiting Modulation

This system employs digital modulation techniques producing CDMA forward and reverse channel air interfaces which are compatible with IS 97, and IS864 technical standards.

5 Test Methods and Test results

5.1 Measurement of DC Power

This 3231 VBTS has three PA pallets. Each pallet has 2 transistors (connected in parallel) comprising the final gain block. The average current below is identical for all PA pallets. The average current values @ Pout = 48.67 dBm are:

The main transistor (Q1) is drawing 5.25 A and the auxiliary transistor (Q2) is drawing 1.65 A at an ambient temperature of 25 deg. C, the VBTS was powered from -48Vdc

5.2 RF Power Output

The maximum measured RF output power for one carrier was 48.92 dBm.
The maximum measured RF output power for two carriers was 48.93 dBm.
The maximum measured RF output power for three carriers was 48.95 dBm.

5.3 Occupied Bandwidth

5.3.1 IS-95

The maximum measured occupied bandwidth for one carrier was 1.2657 MHz.
The maximum measured occupied bandwidth for two carriers was 2.4877 MHz.
The maximum measured occupied bandwidth for three carriers was 3.7189 KHz.

5.3.2 IS-856

The maximum measured occupied bandwidth for one carrier was 1.2675 MHz.
The maximum measured occupied bandwidth for three carriers was 3.7111 MHz.

5.3.2 IS-95 and IS-856

The maximum measured occupied bandwidth for three carriers was 3.7195 KHz.

5.4 Frequency Stability

The frequency deviation over the temperature range -40 deg. C to 50 deg. C was 3.65 Hz (1.73 ppb) and over 85% to 115% of the nominal voltages was 13.51 Hz (6.42 ppb). which is in the part 27.54 limits.

5.5 Radiated Emission Test Results from 30MHz to 22 GHz

Test performed by NTS for both IS-95 and IS-856. Please refer to the Exhibit 2B and 2C for all test setups and results in details provided by NTS, Calgary.

Table 2. AWS V3231 FCC Part 27 Test Summary

Test		Test Specification	Test Result	Note
N.	Description			
1	Radiated Spurious Emissions IS-95	FCC Part 27 (g)	PASS	1. Test perform by NTS, Test results Exh.2B 2. test Performed by NTS, Test results Exh.2C
2	Radiated Spurious Emissions IS-856	FCC Part 2.1053 FCC Part 21057	PASS	

5.6 Spurious Emissions at Antenna Terminals

5.6.1 Test results for IS-95

Table 3. Spurious Emissions at the AWS V3231 Ant. Port - One Carrier IS95

Frequency	Spurious Emissions Level (dBm)	Margin to FCC Limit of -13 dBm (dB)
2109 to 2110 MHz (lower adjacent 1 MHz); Channel 25	-26.92	13.92
2155 to 2156 MHz (upper adjacent 1 MHz); Channel 875	--25.11	12.11
9 kHz to lower adjacent 1MHz (RBW=1MHz)	-21.89	8.89
upper adjacent 1MHz to 5 GHz (RBW=1MHz)	-19.52	6.52
5 GHz to 22 GHz (RBW=1MHz)	-23.93	10.93

Table 4. Spurious Emissions at the AWS V3231 Ant. Port - Two Carrier IS95

Frequency (Band)	Spurious Emissions Level (dBm)	Margin to FCC Limit of -13 dBm (dB)
2109 to 2110 MHz (lower adjacent 1 MHz); Channel 25, 50	-24.30	11.30

2155 to 2156 MHz (upper adjacent 1 MHz); Channel 850, 875	-21.69	8.69
9 kHz to lower adjacent 1MHz (RBW=1MHz)	-19.01	6.01
upper adjacent 1MHz to 5 GHz (RBW=1MHz)	-17.69	4.69
5 GHz to 22 GHz (RBW=1MHz)	-23.80	10.80

Table 5. Spurious Emissions at the AWS V3231 Ant. Port - Three Carrier IS-95

Frequency (MHz)	Spurious Emission Level (dBm)	Margin to FCC Limit of -13 dBm (dB)
2109 to 2110 MHz (lower adjacent 1 MHz); Channel 25, 50, 75	-23.07	10.07
2155 to 2156 MHz (upper adjacent 1 MHz); Channel 825, 850, 875	-19.43	6.43
9 kHz to lower adjacent 1MHz (RBW=1MHz)	-18.60	5.60
upper adjacent 1MHz to 5 GHz (RBW=1MHz)	-17.07	4.07
5 GHz to 22 GHz (RBW=1MHz)	-23.90	10.90

5.6.2 Test results for IS-856**Table 6. Spurious Emissions at the AWS V3231 Ant. Port One Carrier IS-856 (QPSK)**

Frequency (MHz)	Spurious Emissions Level (dBm)	Margin to FCC Limit of -13 dBm (dB)
2109 to 2110 MHz (lower adjacent 1 MHz); Channel 25	-27.38	14.38

2155 to 2156 MHz (upper adjacent 1 MHz); Channel 875	-26.39	13.39
9 kHz to lower adjacent 1MHz (RBW=1MHz)	-20.65	7.65
upper adjacent 1MHz to 5 GHz (RBW=1MHz)	-19.69	6.69
5 GHz to 22 GHz (RBW=1MHz)	-23.66	10.66

Table 7. Spurious Emissions at the AWS V3231 Ant. Port – 3 Carrier IS-856 (8PSK)

Frequency (MHz)	Spurious Emissions Level (dBm)	Margin to FCC Limit of -13 dBm (dB)
	3Carrier 8PSK	3Carrier
2109 to 2110 MHz (lower adjacent 1 MHz); Channel 25, 50, 75	-25.61	12.61
2155 to 2156 MHz (upper adjacent 1 MHz); Channel 825, 850, 875	-21.05	8.05
9 kHz to lower adjacent 1MHz (RBW=1MHz)	-20.07	7.07
upper adjacent 1MHz to 5 GHz (RBW=1MHz)	-17.12	4.12
5 GHz to 22 GHz (RBW=1MHz)	--23.80	10.80

5.6.3 Test results for combined IS-95 and IS-856

Table 8. Spurious Emissions at the AWS V3231 Ant. Port – 3 Carrier Combined IS-95 & IS-856 (16QAM)

Frequency (MHz)	Spurious Emissions Level (dBm)	Margin to FCC Limit of -13 dBm (dB)
	3Carrier 16QAM IS95	3Carrier
2109 to 2110 MHz (lower adjacent 1 MHz); Channel 25, 50, 75	-24.66	11.66
2155 to 2156 MHz (upper adjacent 1 MHz); Channel 825, 850, 875	-21.15	8.15
9 kHz to lower adjacent 1MHz (RBW=1MHz)	-18.87	5.87
upper adjacent 1MHz to 5 GHz (RBW=1MHz)	-17.14	4.14
5 GHz to 22 GHz (RBW=1MHz)	-23.74	10.74