



4 RADIATED

4.1 Radiated Test Methodology

Before final measurements of radiated emissions were made on the open-field three/ten meter range; the EUT was scanned indoors at one and three meter distances. This was done in order to determine its emissions spectrum signature. The physical arrangement of the test system and associated cabling was varied in order to determine the effect on the EUT's emissions in amplitude, direction and frequency. This process was repeated during final radiated emissions measurements on the open-field range, at each frequency, in order to insure that maximum emission amplitudes were attained.

Final radiated emissions measurements were made on the three-meter, open-field test site. The EUT was placed on a nonconductive turntable 0.8 meters above the ground plane. The spectrum was examined from 30 MHz to 1000 MHz.

At each frequency, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters in order to determine the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarizations. The spectrum analyzer's 6 dB bandwidth was set to 120 kHz, and the analyzer was operated in the CISPR quasi-peak detection mode. No video filter less than 10 times the resolution bandwidth was used. When any clock exceeds 108 MHz, the EUT was tested between 1 to 2 Gigahertz in peak mode with the resolution bandwidth set at 1 MHz as stated in ANSI C63.4. The highest emission amplitudes relative to the appropriate limit were measured and recorded in this report.

Note: Rhein Tech Laboratories, Inc. has implemented procedures to minimize errors that occur from test instruments, calibration, procedures, and test setups. Test instrument and calibration errors are documented from the manufacturer or calibration lab. Other errors have been defined and calculated within the Rhein Tech quality manual, section 6.1. Rhein Tech implements the following procedures to minimize errors that may occur: yearly as well as daily calibration methods, technician training, and emphasis to employees on avoiding error.



COMPANY NAME: NMB TECHNOLOGIES, INC.
EUT: RT3604
WORK ORDER NUMBER: 2000340
FCC ID: AQ6-3604

4.2 Radiated Emission Data

The following data lists the significant emission frequencies. All readings are Quasi-Peak unless otherwise stated.

Radiated Emission				Temperature: 97°F		Humidity: 16%			
Emission Frequency (MHz)	Test Detector	Antenna Polarity (H/V)	Turntable Azimuth (deg)	Antenna Height (m)	Analyzer Reading (dBuV/m)	Site Correction Factor (dB/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
78.268	Qp	V	225	1.0	42.5	-22.4	20.1	30.0	-9.9
81.000	Qp	H	90	1.0	44.1	-21.6	22.5	30.0	-7.5
126.000	Qp	H	145	1.0	39.0	-16.6	22.4	30.0	-7.6
135.000	Qp	V	225	1.0	39.1	-17.4	21.7	30.0	-8.3
216.024	Qp	V	90	1.0	38.3	-17.7	20.6	30.0	-9.4
232.725	Qp	V	90	1.0	37.7	-16.9	20.8	37.0	-16.2
336.020	Qp	V	145	1.0	36.3	-12.7	23.6	37.0	-13.4

Test Personnel:

Signature: 

Date: August 7, 2000

Typed/Printed Name: K. Franck Schupp