



Geode NX SBC Radiated Emissions Scan: 30 MHz – 1 GHz

White Paper 325

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REVISION HISTORY

REV	EDITOR	DESCRIPTION	APPROVAL	DATE
A	Jed Anderson	Release	PO	6/23/06

1 Geode NX SBC Radiated Emissions Scan: 30 MHz – 1 GHz

1.1 Test Results

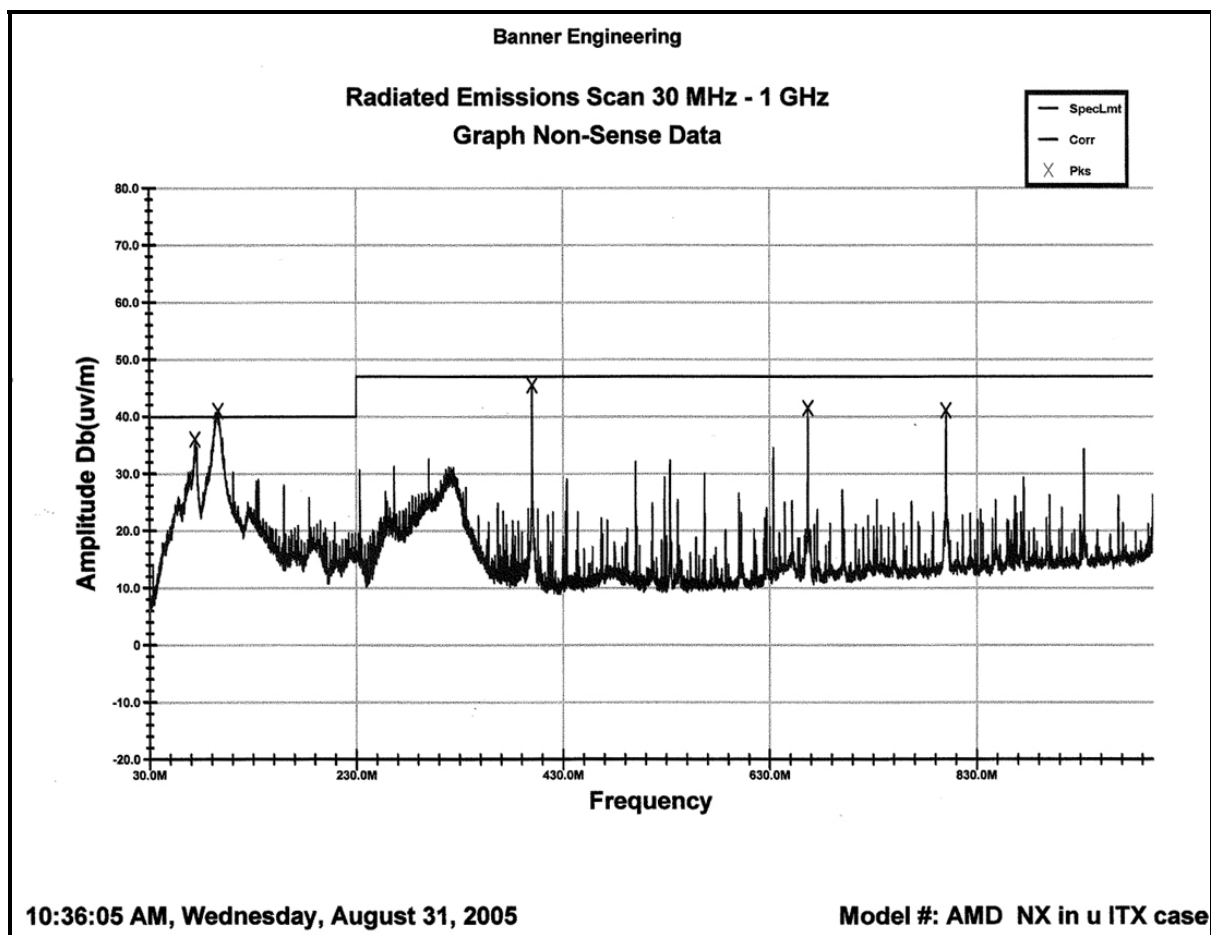


Figure 1.1: Geode NX SBC Test Results

The horizontal line across the graph denotes the maximum emissions level for FCC Class A. FCC Class B level is 10dB lower than Class A (shown).

2 FCC Class A Testing

2.1 Test Equipment

The Geode NX SBC was pre-scanned to the FCC Class A standard using a PC workstation running TILE software, and the following:

Model Number	Manufacturer	Description	Serial Number
HP8591 EM	Hewlett Packard	Spectrum Analyzer	3509A00168
HP8447 F	Hewlett Packard	OPT Space H64 Amplifier	311A06087
5305	EMCO	5300 Series Anechoic Chamber	9412-1126

2.2 Test Setup

The test results were obtained by running the SBC in a mini-ITX case. The following peripherals were connected: PS2 mouse, PS2 keyboard, serial RS232 cable, parallel cable, VGA display, Ethernet, two USB mice (one into each USB host port), audio speaker, and 12V power supply. This was done to most closely emulate the ports used in a typical setup.

The SBC mounted in the mini-ITX case was placed in the Anechoic Cell and the radiation emissions were measured by the Spectrum Analyzer. Data was then sent to the PC workstation where the custom TILE software program calculated the numbers and printed the results in easy to read graphs.

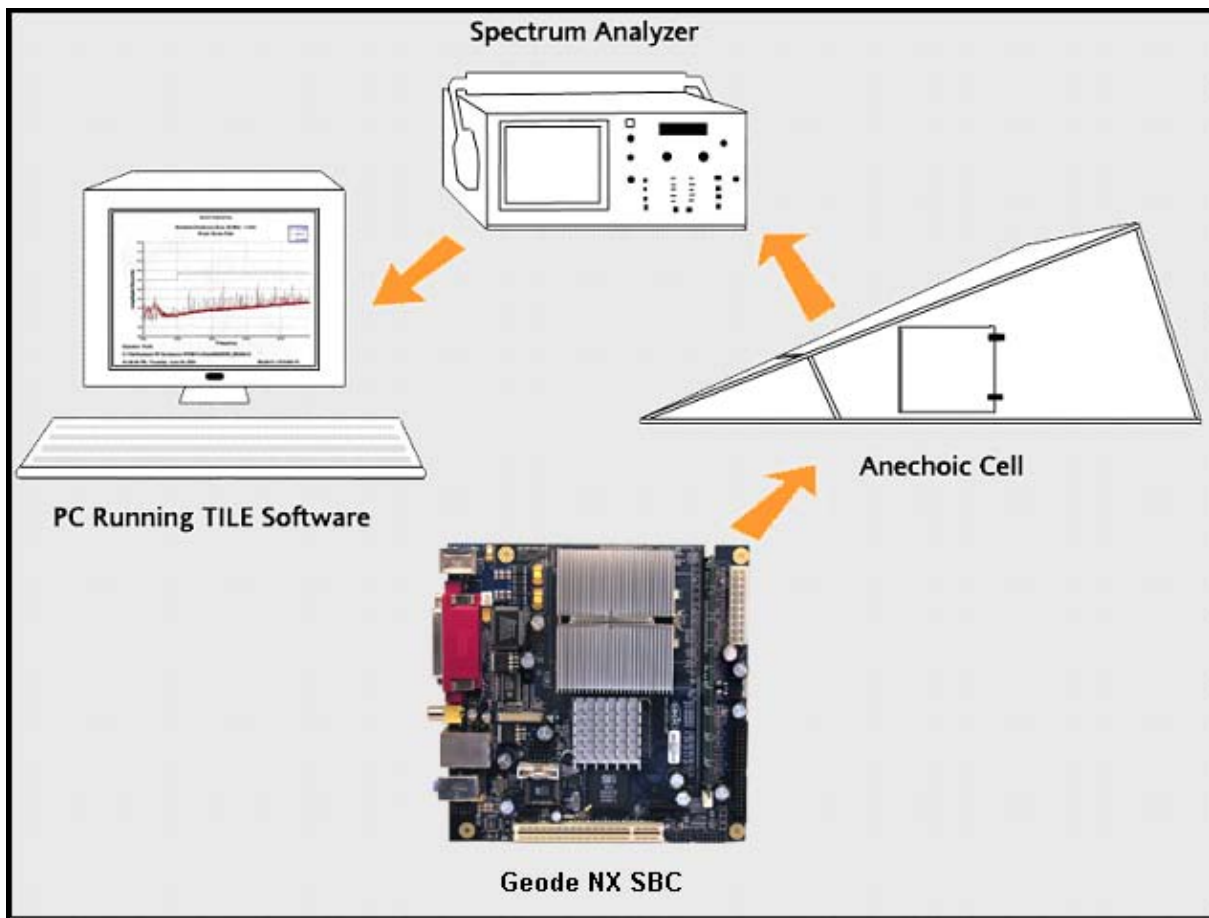


Figure 2.1: Test Results Diagram (Mini-ITX Case Not Shown)