



# LH7A404-11 Radiated Emissions Scan: 30 MHz – 1 GHz

## White Paper 249

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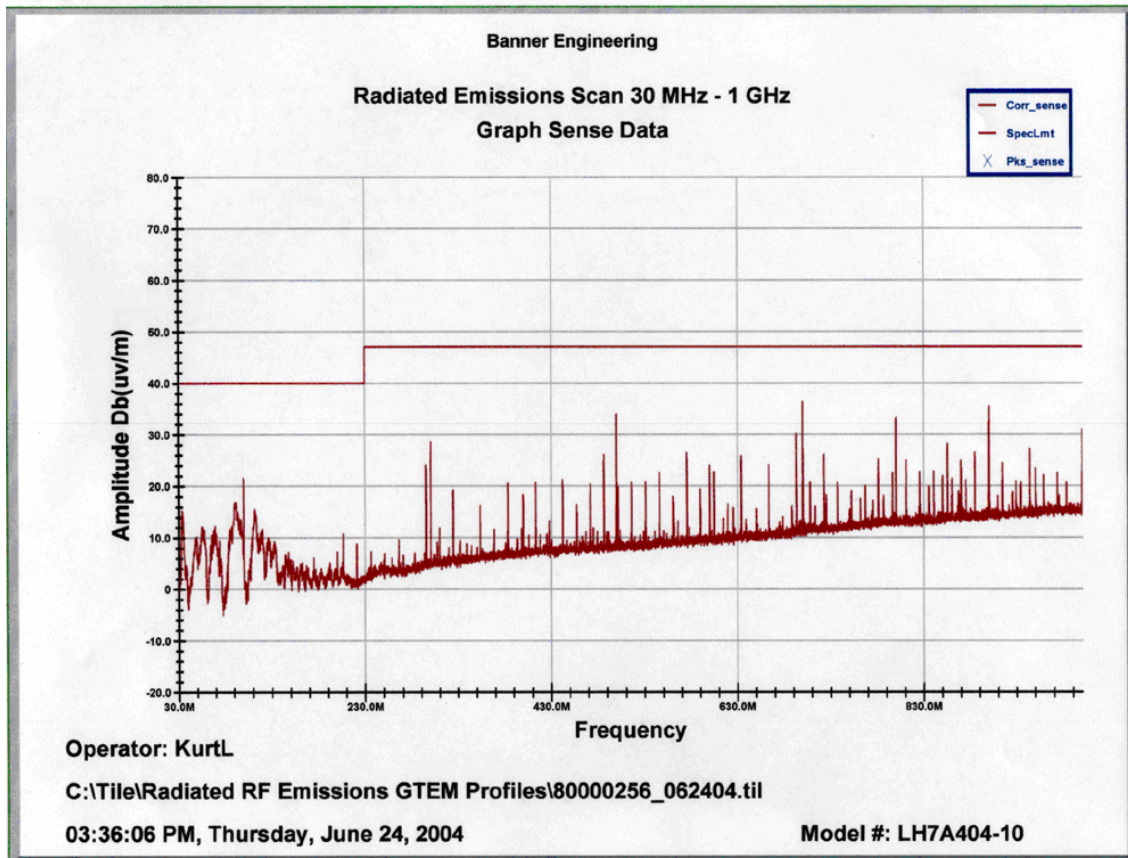
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### REVISION HISTORY

REV	EDITOR	DESCRIPTION	APPROVAL	DATE
A	Erik Reynolds, James Wicks	Release	ECR	07/03

# 1 LH7A404-11 Radiated Emissions Pre-Scan: 30 MHz – 1 GHz

## 1.1 Pre-Scan Test Results



**Figure 1.1: LH7A404-11 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

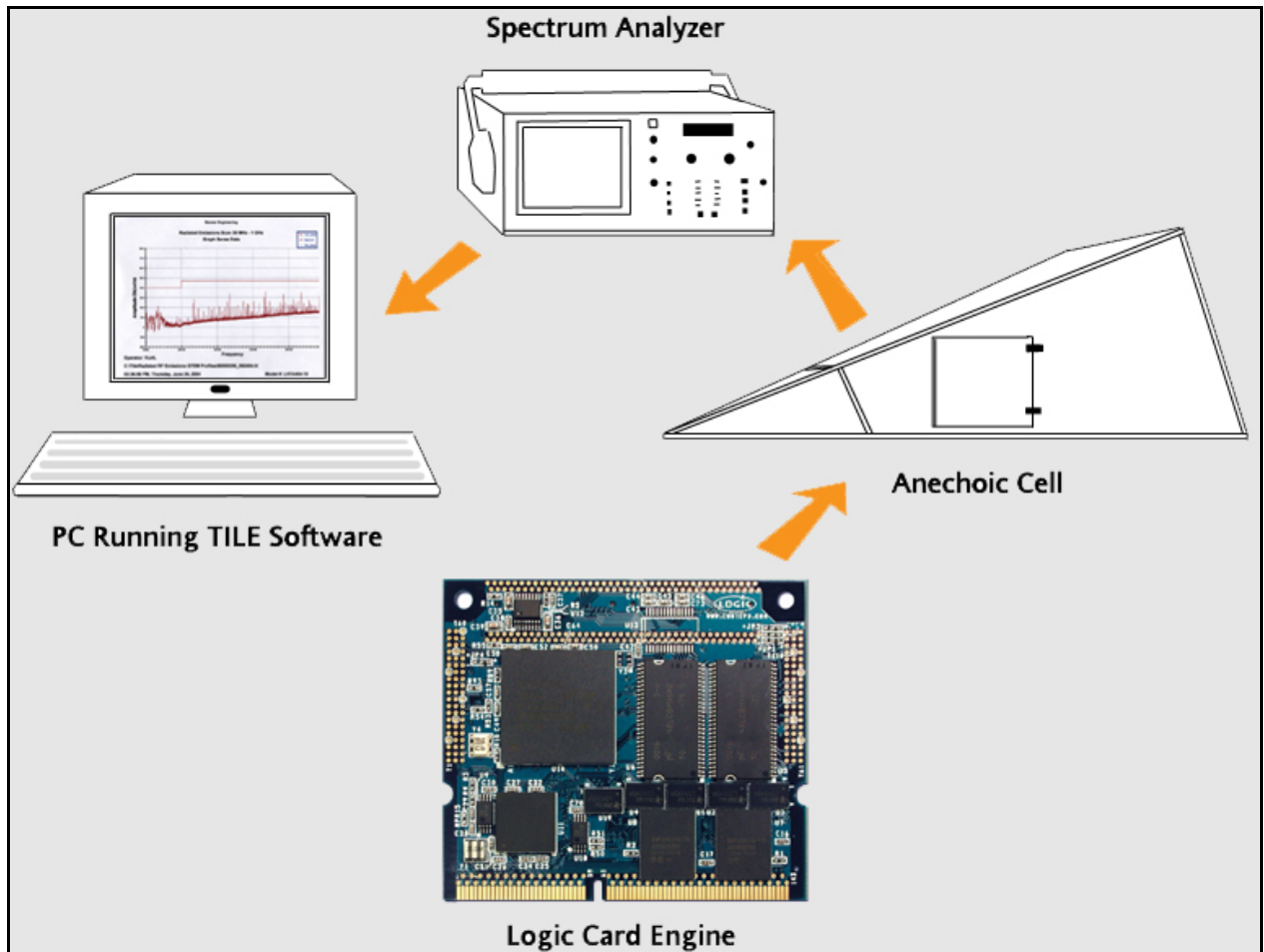
The LH7A404 Card Engine was pre-scanned to the FCC Class A standard using a PC Workstation running TILE software, and the following:

Model Number	Manufacturer	Description	Serial Number	Calibration Date
HP8591 EM	Hewlett Packard	Spectrum Analyzer	3509A00168	4/6/2004
HP8447 F	Hewlett Packard	OPT Space H64 Amplifier	311A06087	5/10/2004
5305	EMCO	5300 Series Anechoic Chamber	9412-1126	None Required

## 2.2 Test Setup

The test results were obtained by running the card engine on a modified low cost EVB Board (FCC board). The modified board consisted only of a DB-9 serial port connection and power jack. All other headers and connectors were taken off of the layout and not populated for this FCC board. This was done to minimize as much as possible the radiation from the baseboard and to focus on emissions generated by the card engine.

The card engine 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 populated the results in easy to read graphs.



**Figure 2.1: Test Results Diagram (Card Engine Baseboard Not Shown)**