

# VARISCITE LTD. VAR-SOM-AM33 EMC Radiation test

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## Document Revision History

Revision	Date	Notes
1.0	17/Jan/2013	Initial

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## 1 Introduction

This Document presents the VAR-SOM-AM33 EMC radiation test, held at the "THE STANDARDS INSTITUTION OF ISRAEL" EMC test labs (<a href="http://www.sii.org.il/896-en/SII\_EN.aspx">http://www.sii.org.il/896-en/SII\_EN.aspx</a>).

## 2 Test Set up

Test setup includes VAR-SOM-AM33 Rev 1.1 module assembled on a VAR-AM33CustomBoard Rev 1.1 carrier board, powered by 12V linear power supply.

Dhrystone benchmark was used for 100% CPU utilization.

The following VAR-SOM-AM33 features were enabled:

- 1. 600mhz @ 100% utilization
- 2. 16 Bit LCD controller
- 3. Ethernet controller
- 4. Audio codec

The following VAR-AM33CustomBoard features were enabled:

- 1. 3.3V & 5V DC-DC power supply
- 2. LVDS Display transmitter.
- 3. USB HUB

#### 3 Results

#### 3.1 Radiation Spectrum

The blue line represents vertical & horizontal polarity radiation frequency measurements. The red line is the FCC Class B standard limits



Figure 1 VAR-SOM-AM33 v1.1

## 3.2 Peak Frequencies measurements

Frequency	Peak	QP	QP Limit	QP-QP Limit
MHz	dBuV/m	dBuV/m	dB	dB
125.014	35.5	31.8	43.5	-11.7
195.358	33.7	31.4	43.5	-12.1
211.515	35.1	31.3	43.5	-12.2
299.992	44.1	41.4	46.0	-4.6

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VAR-SOM-AM33 EMC RADIATION TEST

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