**RADIATED EMISSIONS TEST REPORT , BANDEDGE EMISSIONS**

## I. GENERAL INFORMATION

| | |
|---|---|
| Requirement: | Federal Communications Commission<br>Class 2 Permissive Change Application |
| Test Requirements: | 15.205, 15.207, 15.209, 15.247 |
| Applicant: | Sonos Inc.<br>506 Chapala<br>Santa Barbara, CA 93101 |
| Product ID: | FCC ID: SBVCR000 (Sonos Controller) |
| Date of Original Grant: | 19 October 200 |

## II. DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)

The SBVCR000 is an 802.11g-only controller for a wireless music distribution system.

**RF Specifications**

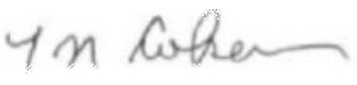
| | |
|---|---|
| RF Frequency Band | 2412-2462 MHz |
| RF Channels | 1, 6, and 11 only (limited by firmware) |
| Modulation Type | 802.11g OFDM only (limited by firmware) |
| Transmitter Output Power | +23 dBm maximum (0.200 watt) |
| Antenna to be added: | 5 dBi circuit card antenna |

## III. TEST LOCATION

All emissions tests were performed at:

Compliance Certification Services
571F Monterey Road
Morgan Hill, CA 95037

Testing performed 28 July 2004.



T.N. Cokenias 31 December 2004
Agent for Sonos Inc.

**TEST PROCEDURES**

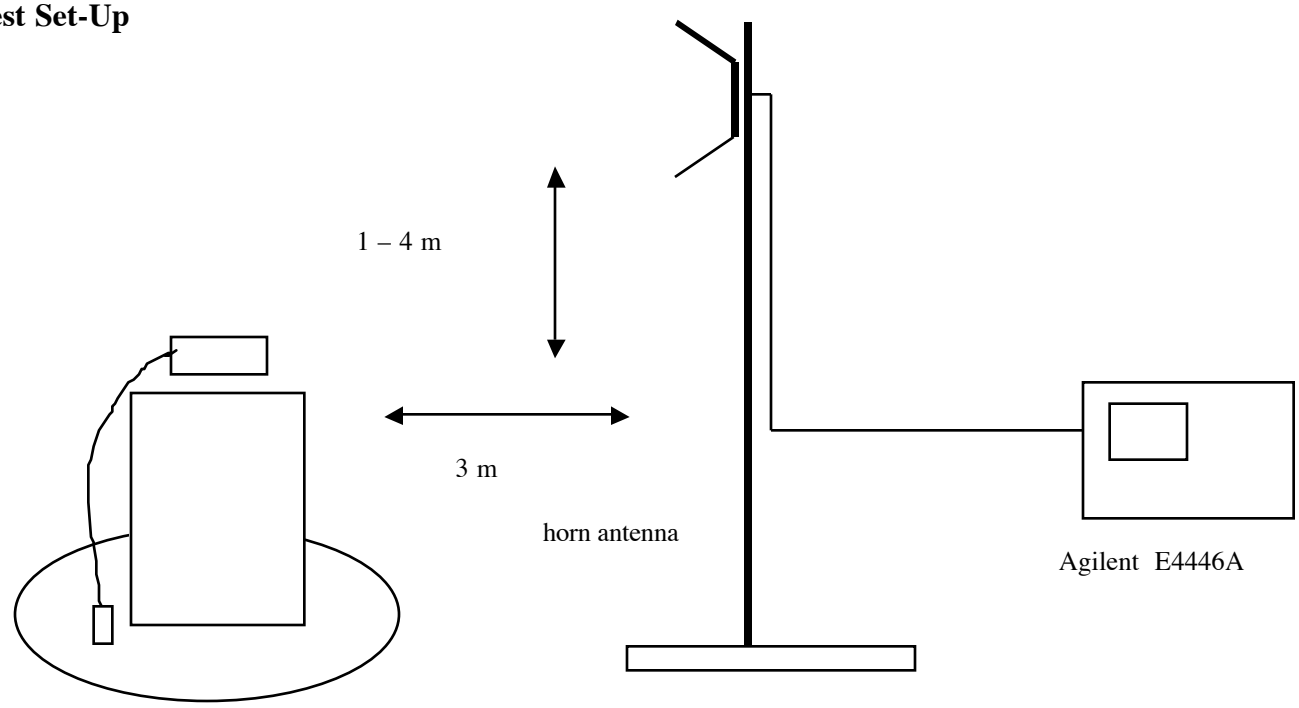
Radiated emissions testing per the methods of ANSI C63.4.

**Measurement Equipment Used:**

Agilent E4446A spectrum analyzer
EMCO 3115 horn antenna, 1-18 GHz

**Radiated Emissions Above 1 GHz**
**Test Requirement: 15.205, 15.209, 15.247**

**Test Set-Up**




**Test Procedures, 1- 26 GHz:**

1. The EUT was placed on a wooden table resting on a turntable on the Site A 10m open area test site. The search antenna was placed 3m from the EUT. The EUT antenna was mounted vertically as per normal installation.

2. The turntable was slowly rotated to locate the direction of maximum emission at each emission falling in the restricted bands of 15.205. Radiated emissions were investigated for a LOW channel, in the 2310-2390 MHz restricted band, and for the HIGH channel in the 2483.5 – 2500 MHz restricted band.

3. Once maximum direction was determined, the search antenna was raised and lowered in both vertical and horizontal polarizations. The maximum readings so obtained are recorded in the data listed below.

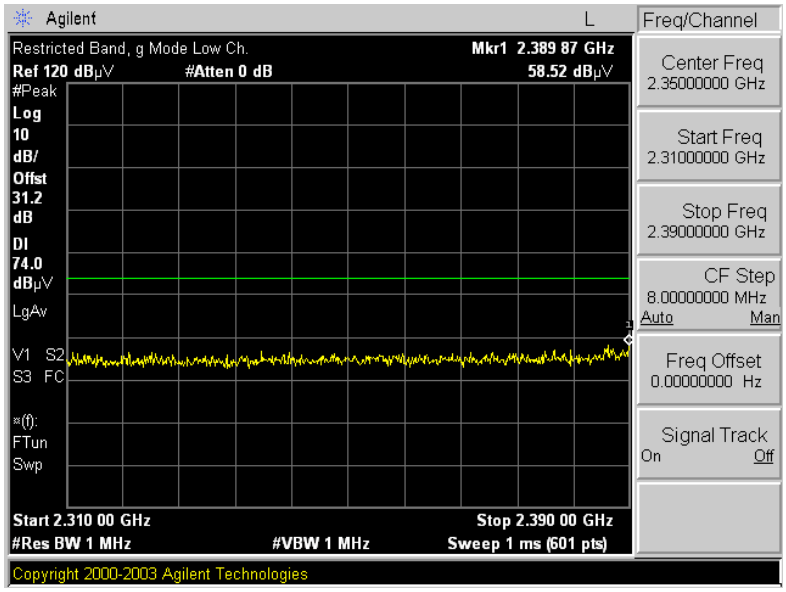
| **Channel** | **Frequency, MHz** |
|---|---|
| 1 (Low ) | 2412 |
| 11 (High) | 2462 |

Radiated emissions were performed at each frequency for the follwing antenna:.

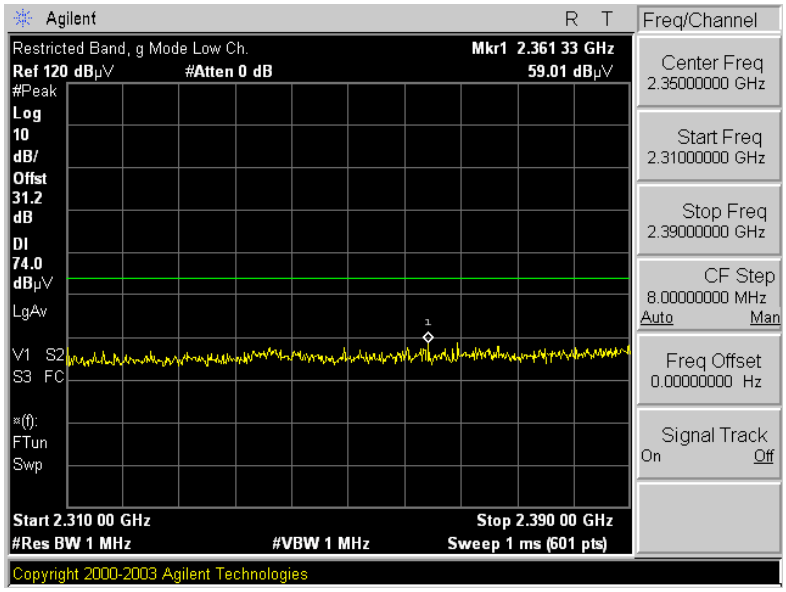
| **Antenna Type** | **Deployment** | **Gain** | **Antenna Mfr.** | **Model** |
|---|---|---|---|---|
| Ckt card omni | Point to Multipoint | 5 dBi max | Ricon Networks | HH |

**Test Results:** PASS. Worst case results are presented. Refer to data below.

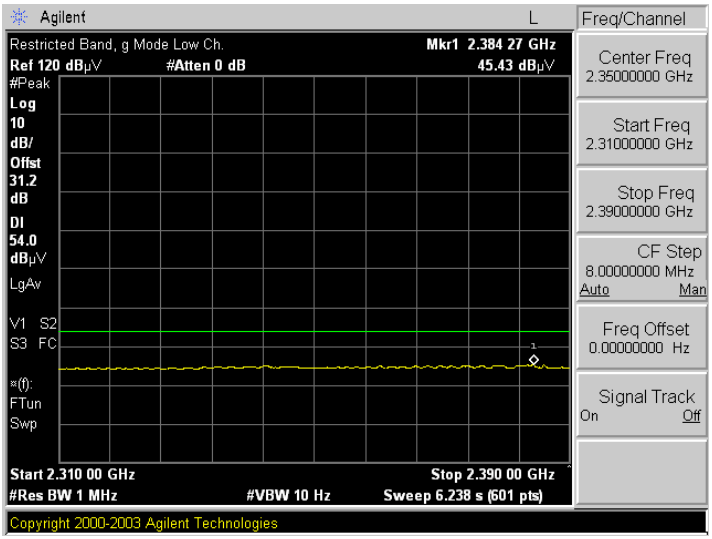
## LOW channel, peak, horizontal



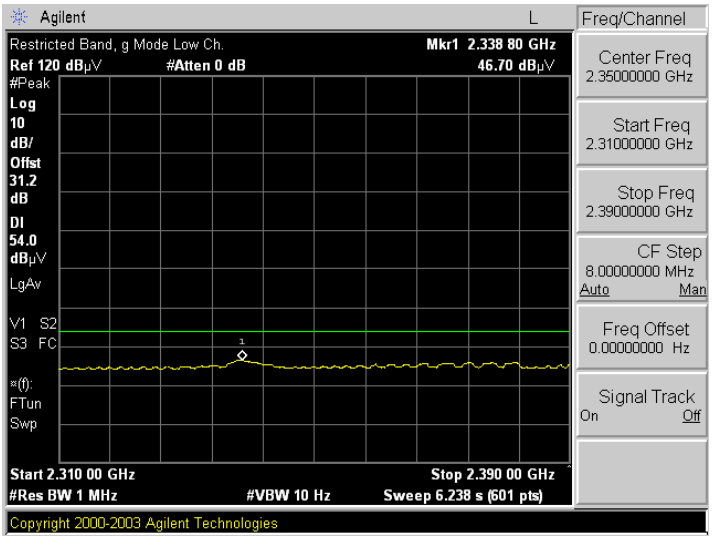

## LOW channel, peak, vertical



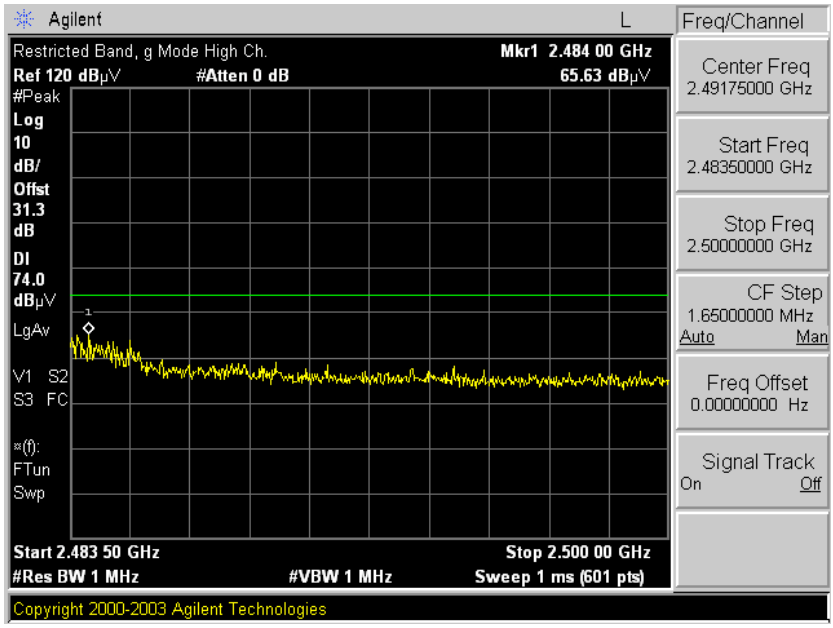
## LOW channel average, horizontal



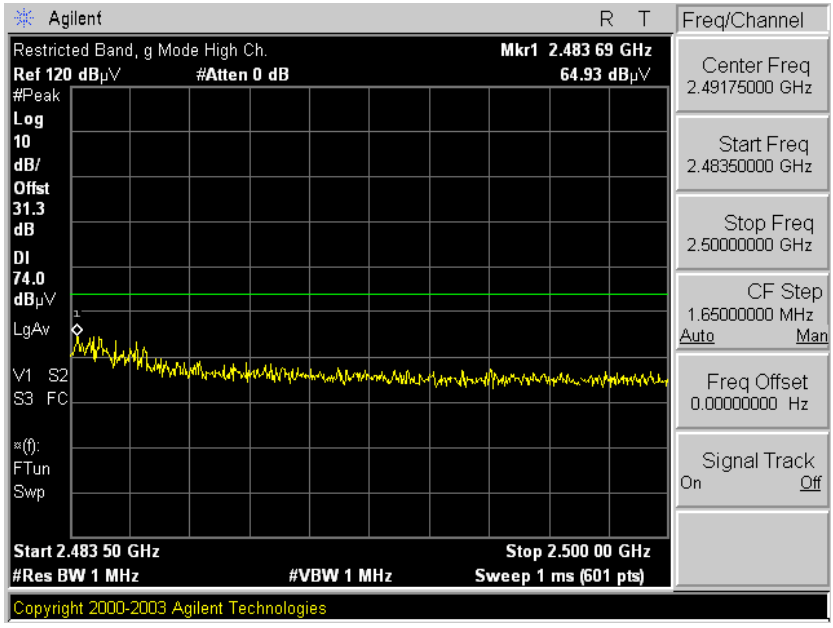

## LOW channel average, vertical



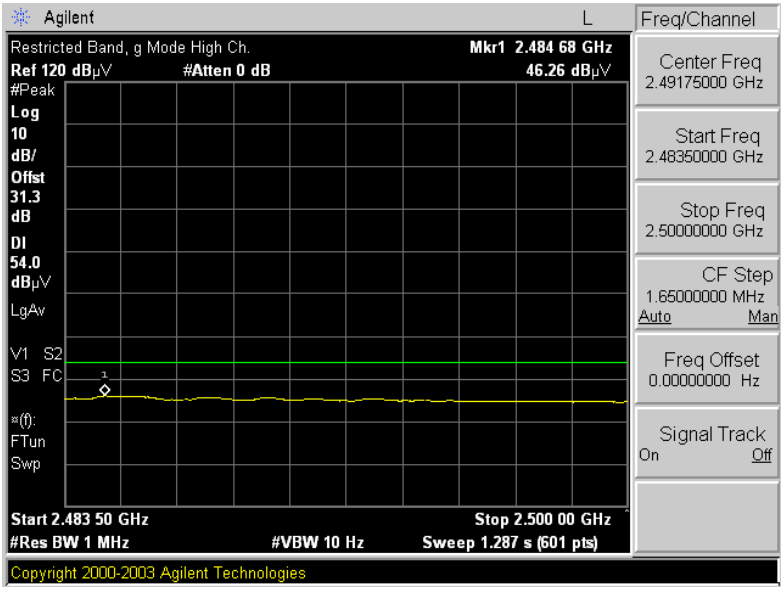
## HIGH channel peak, horizontal




## HIGH channel peak, vertical



## High channel average, horizontal




## High channel average, vertical