

# NWAA Labs

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## SOUND SURFACE REFLECTION TEST REPORT #: NWSR210809-01

Client: Sound Seal, Inc.  
50 H.P. Almgren Dr.  
Almgren, MA 01001

Test Date: 09 August 2021  
Report Date: 30 August 2021  
Test Specimen: S-4200 Panel 2inch

### INTRODUCTION

The methods and procedures used in this test conform to the provisions and requirements of ASTM Preliminary Procedure, *Standard Test Method for Surface Reflections by the Modified AES Standard AES-156*. The test volume is a cuboid, 205.74 m (675.0 ft) long by 106.68 m (350.0 ft) wide by 18.29 m (60.0 ft) high, and volume is 401,391.3 m<sup>3</sup> (14,175,000.0 ft<sup>3</sup>). There are six fixed surfaces in the test volume. There is a single source consisting of a SoundTube, 8inch speaker mounted in a pendant mount above the DUT on the microphone arc next to the #1 microphone about 3degree off to the side. We utilize nineteen Earthworks M-30 Omni directional microphones mounted in an arc, with the center of the arc located at the rotational origin of the DUT to gather the data. This test report relates only to the item(s) tested. Any advertisement that utilizes this test report or test data must not imply product certification or endorsement by NWAA Labs and must include all pages of the report.

### DESCRIPTION OF TEST SPECIMEN

The test specimen consisted of one sample unit that was 121.92 cm (48.0 inch) long by 121.92 cm (48.0 inches) wide by 5.08 cm (2.0 inches) thick panel mounted in the DUT test position. These panels were a front layer made from a semi hard material. The main body was made from fiberglass board with 6 lb. per cubic foot density.

## **DESCRIPTION OF TEST SPECIMEN (continued)**

This sample had the front face perforated in a periodic pattern to allow sound to pass through the front layer and into the main core. The sample was mounted on the rotary support in the test volume. (See pictures).

## **DESCRIPTION OF BASIC TEST RESULTS**

<b>Rated Bandwidth (-6Db)</b>	<b>500Hz-14KHz</b>
<b>Coverage Angles (2KHz)</b>	<b>38 deg H by 31 deg V</b>
<b>Material Construction</b>	<b>Fiberglass substrate with perforated front panel</b>
<b>Type of Surface Reflector</b>	<b>Phase Grating</b>

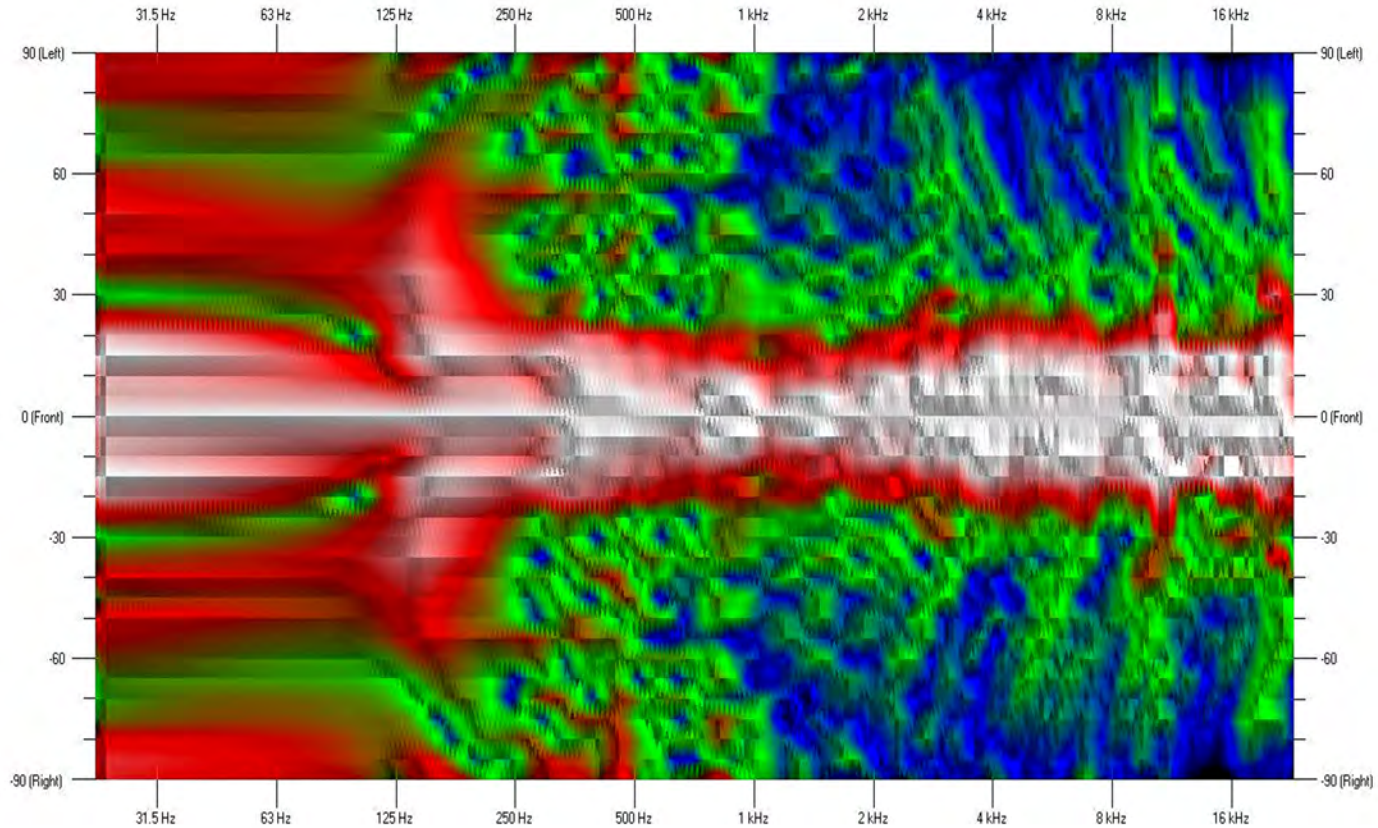
Submitted by,  
NWAA Labs Inc



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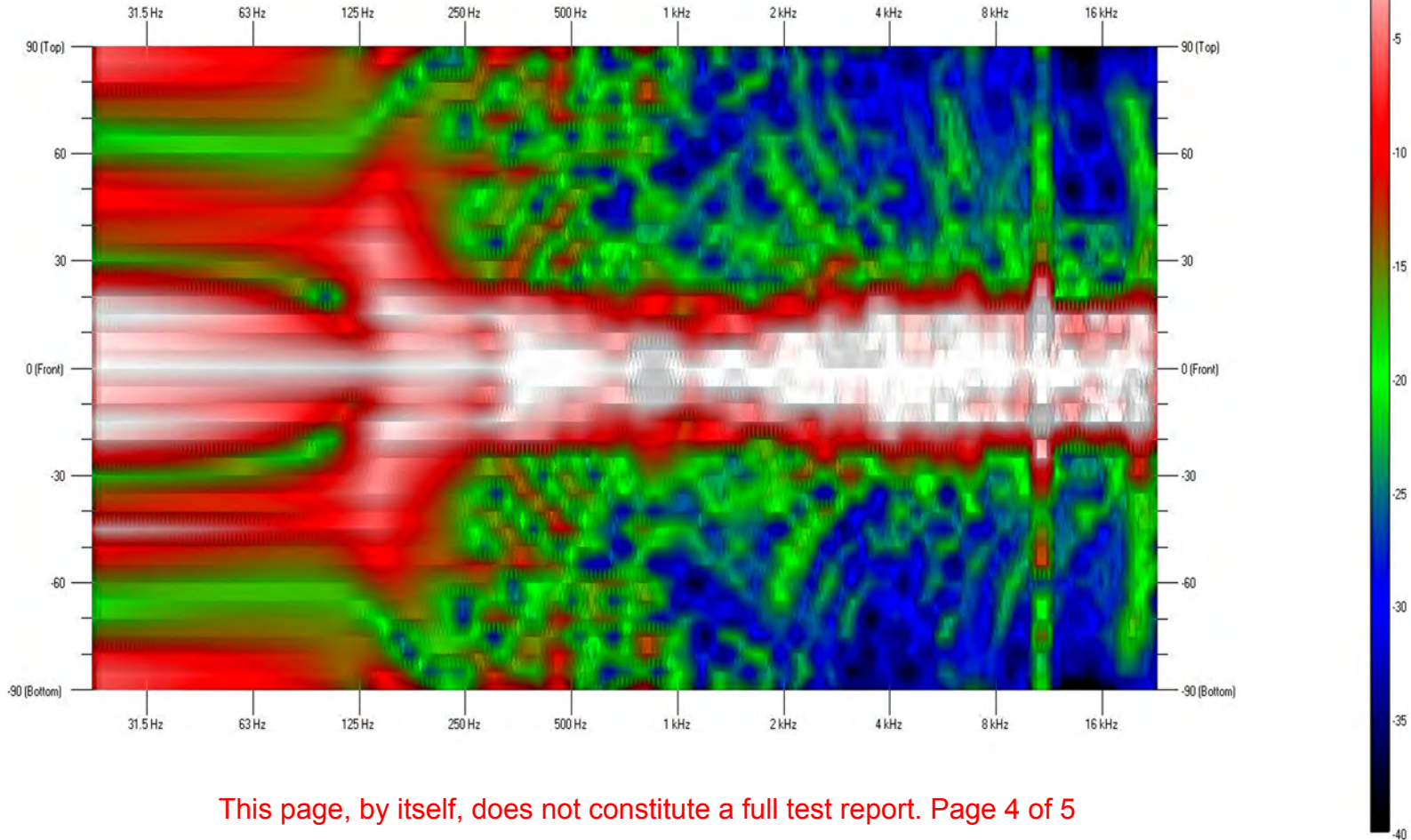
Ron Sauro  
NWAA Labs Inc

# Horizontal Mapping



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# Vertical Mapping



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