

# Antenna Report

## 1 General Information

The E4H use an internal antenna with a peak gain of 10.3 dBi (reference Figure 1 for plot). The test for the antenna patterns were performed at Sierra Wireless using there anechoic OTA chamber test range. The data that plot was taken from the data in the attached excel spread sheet (attachment 1).

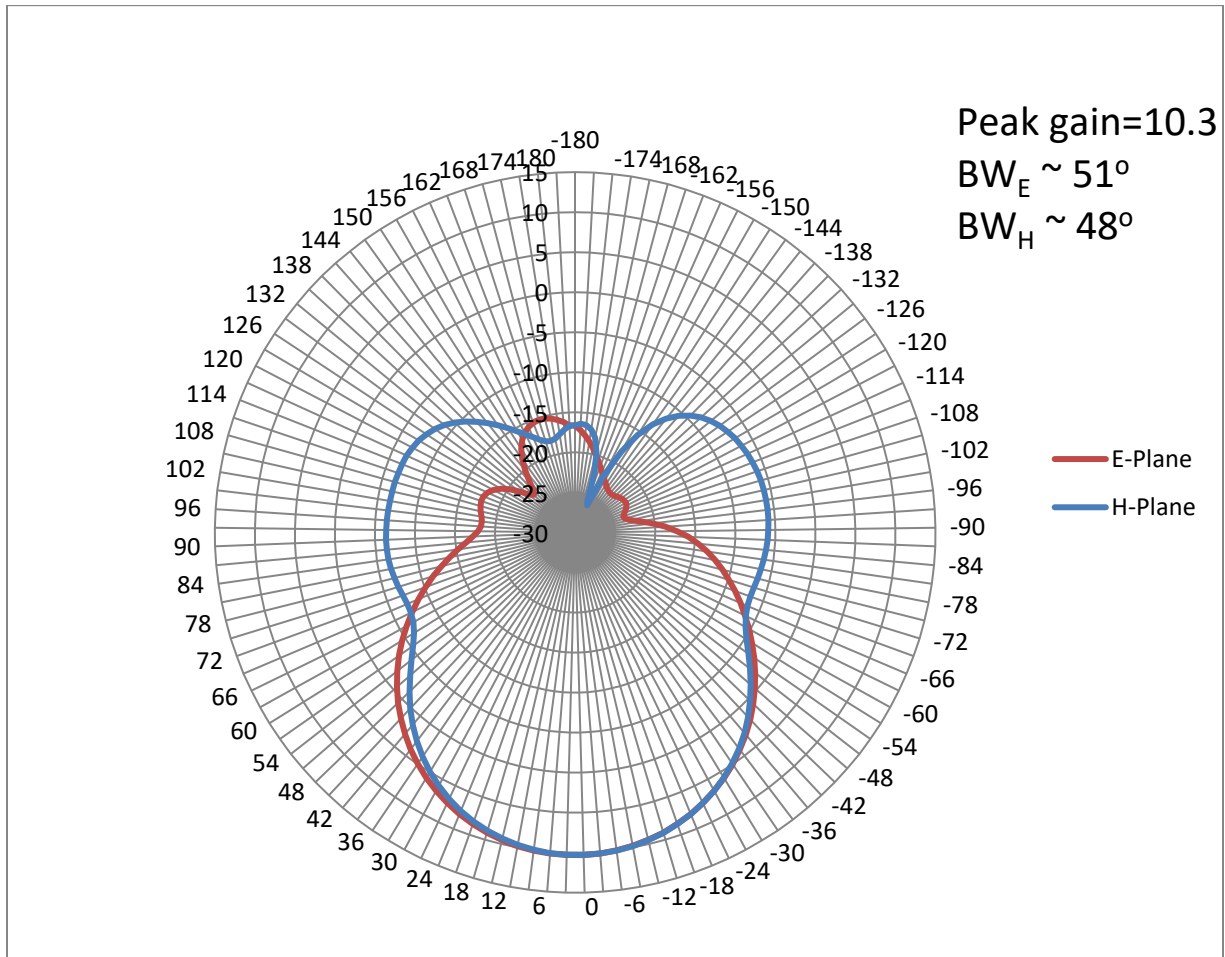


Figure 1. Gain of Internal Antenna



915 E4 Antenna  
Pattern Data.xlsx

Attachment 1. Antenna Pattern Data

## 2 Equipment List

The following equipment was used:

<i>Equipment</i>	<i>Used Description</i>
RF Signal Generator	Used to excite the Antenna Under Test (AUT)
RF Signal Analyzer	Used to measure the power level from the AUT
Measurement Antenna	Used to with the RF Signal Analyzer to collect the RF signal from the excited AUT.
Multi-Axis Positioner	Used to position the AUT in the X, Y, and Z axis.

## 3 Test Chamber & Set up pictures

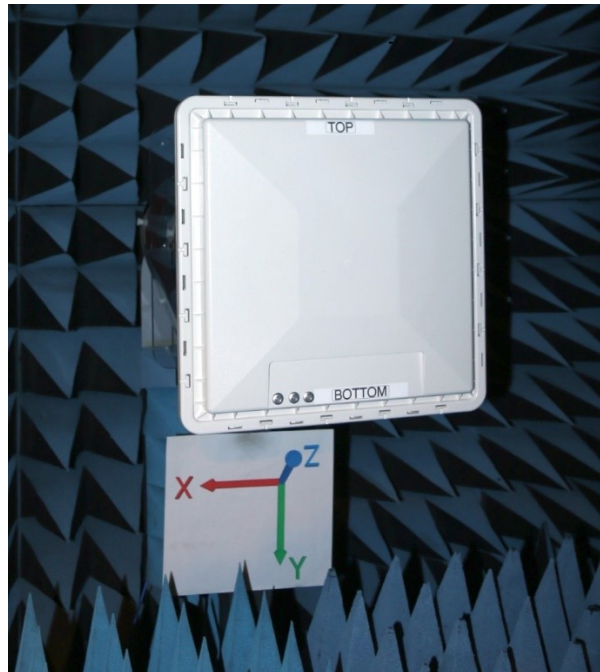


Photo 1. AUT Mounting X Y Z Reference

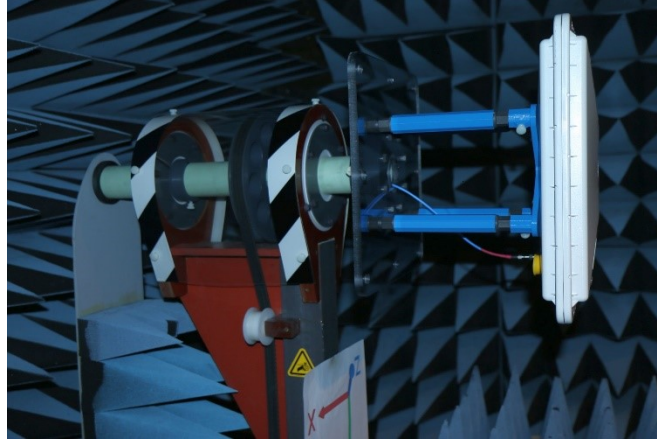


Photo 2. Antenna Mounting on Multi Axis Positioner

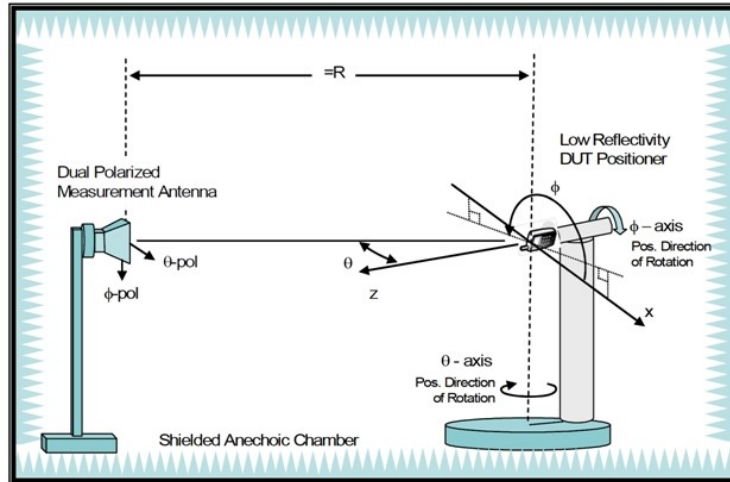


Diagram 1. AUT Test Chamber Setup

#### 4 Engineer Contact

The following engineer is the contact person for the content of this report.

**Michael P. Gonzales** | Analog/RF/DSP Design Engineer  
TransCore | 8600 Jefferson St. NE | Albuquerque, NM 87113  
Office: 505 856 8022  
Email: [Michael.Gonzales@Transcore.com](mailto:Michael.Gonzales@Transcore.com).