



1055 Tierra Del Rey
Chula Vista, CA91910

Antenna Report
Levetor

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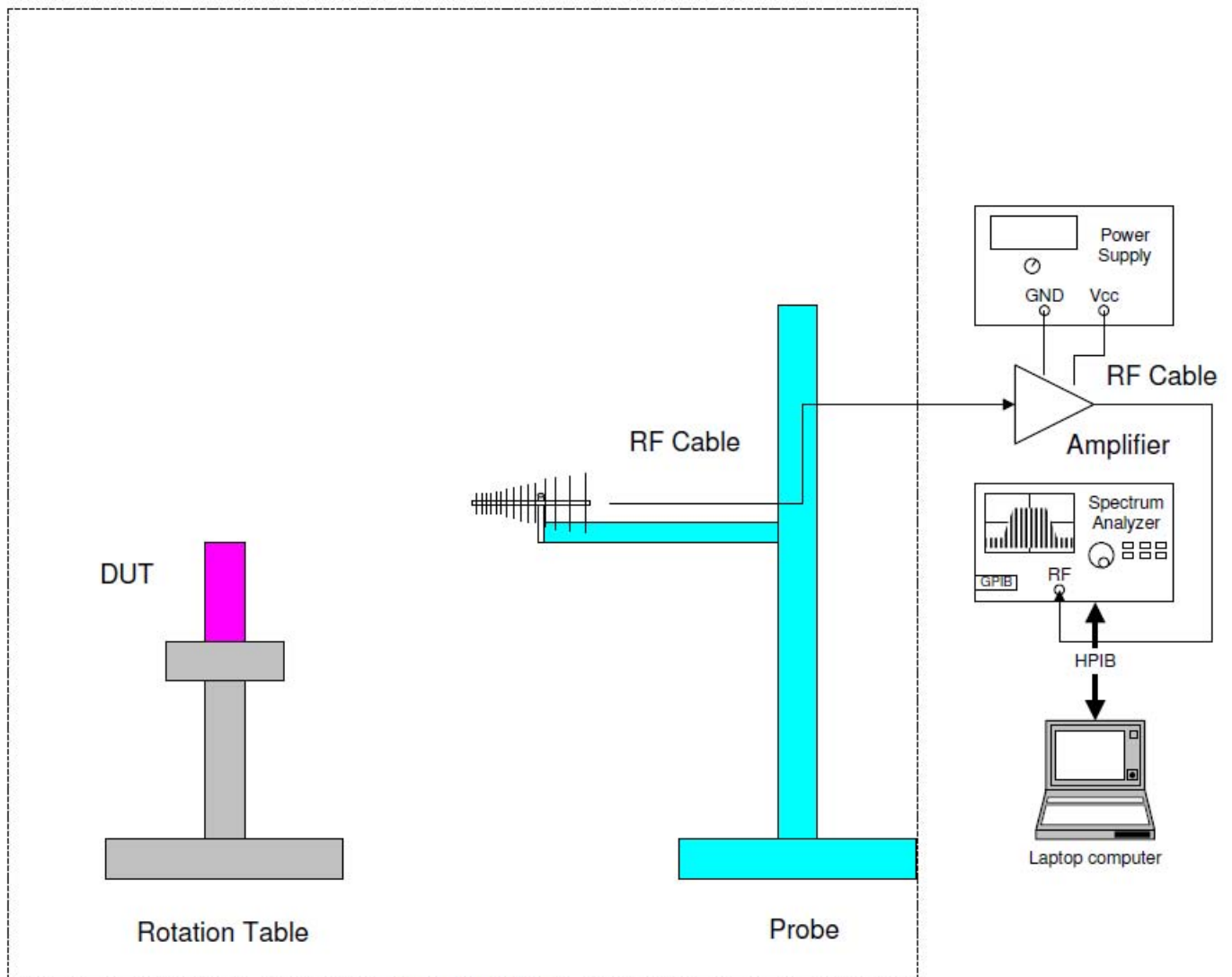
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1 Purpose

The purpose for this document is to document the specifications of the internal antenna. The antenna will be an internal antenna in the Leveter. This antenna will not be accessible by the user.

2 Block diagram of Measurement

The following is the block diagram is the measurement of max gain of antenna. Before measuring the gain the input to the antenna was measured for the three channels.





3 Specification

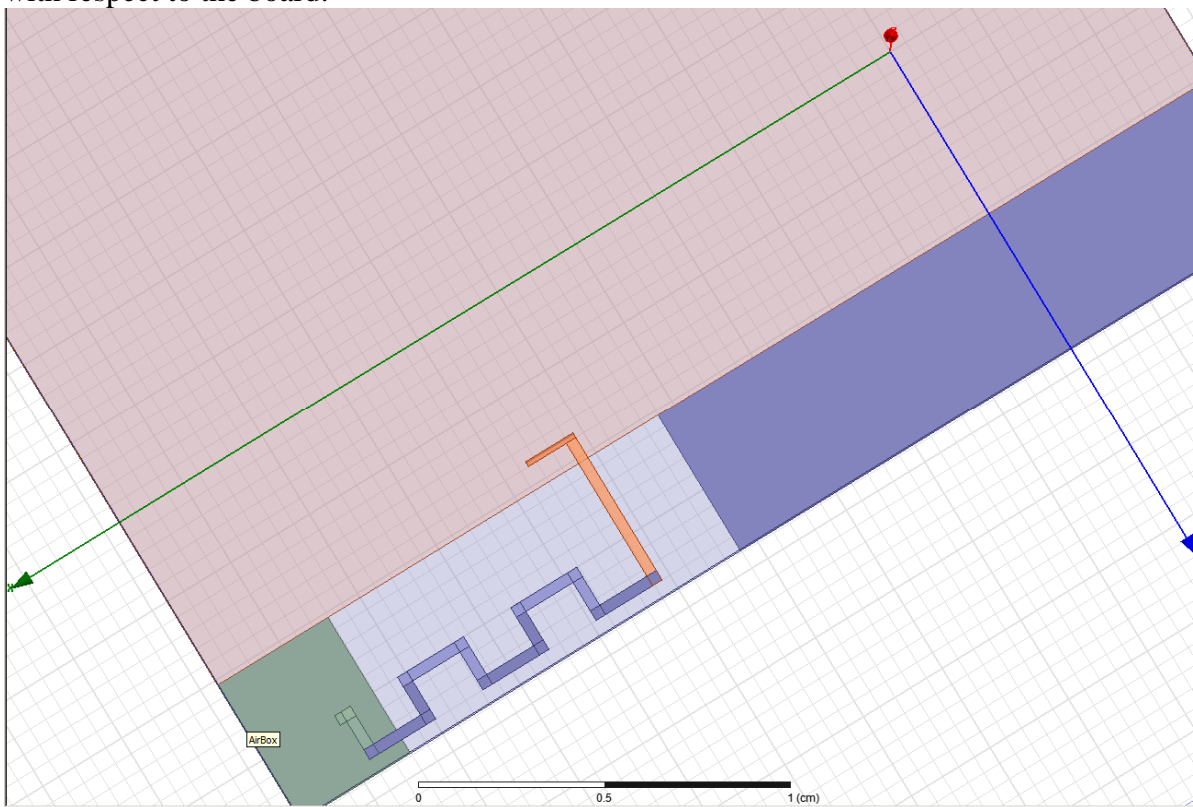
The following are the antenna specifications:

Parameter	Typical	Units
Frequency of operation	2.4 to 2.48	GHz
Gain Low (2402MHz)	-1	dBi
Gain Mid (2441 MHz)	-1	dBi
Gain High (2482GHz)	-1	dBi
Type	Meandering	
Internal/External	Internal	User can not access

The antenna is a printed antenna. Customer does not have access to antenna.

4 Antenna Pattern

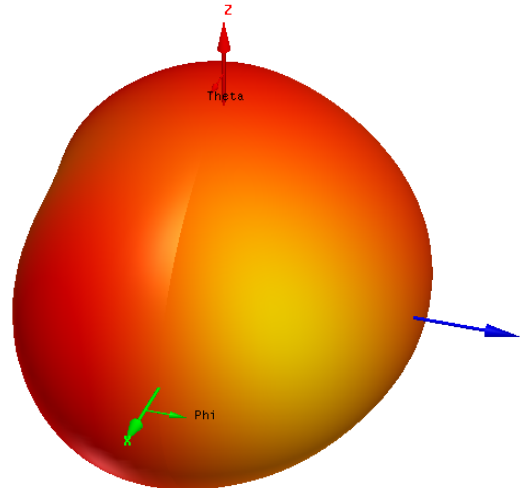
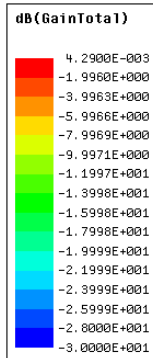
This section presents the antenna pattern of the remote. The first step is to make reference to the coordinates with respect to the board:



Please notice the location of the xyz as shown in the above drawing



The following is the 3d pattern of the antenna. This was done for a frequency of 2.45GHz. Please use the above picture for the reference.



A cut in the theta 0 and theta 90 is shown below:

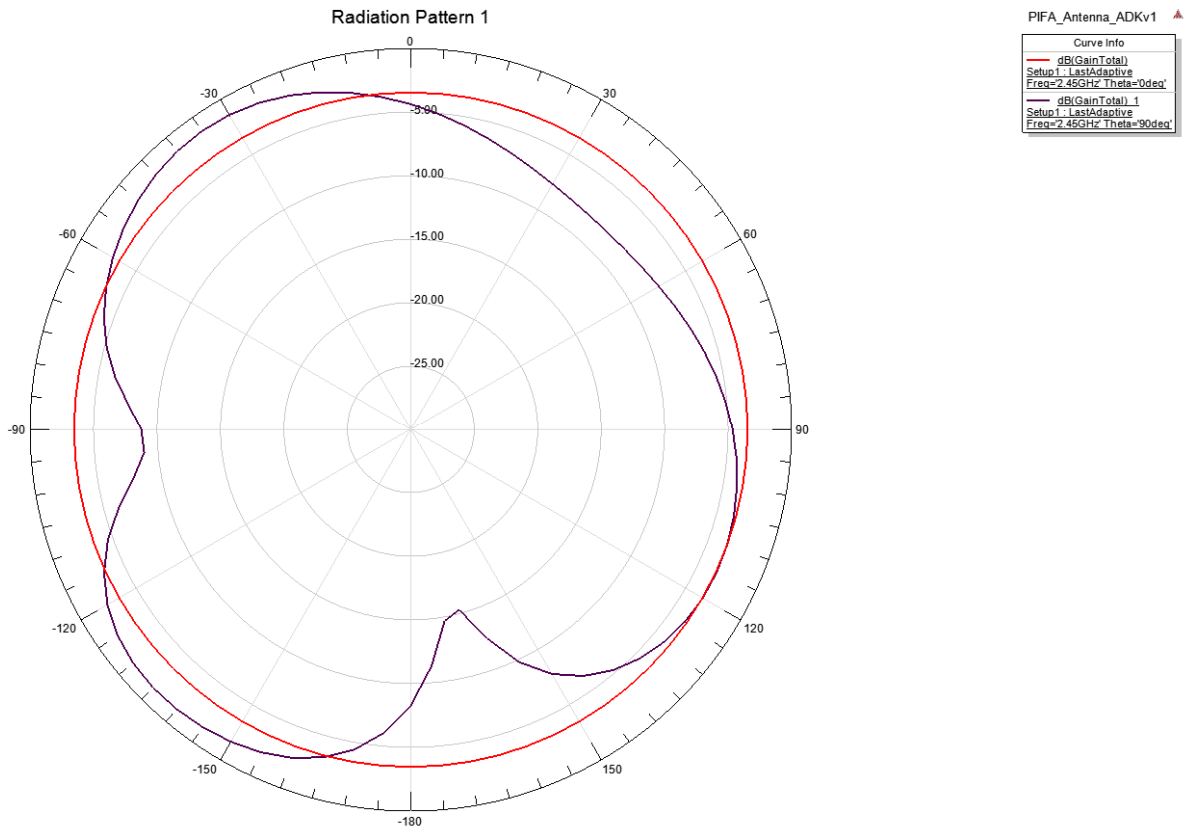


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On the above figure the red is for theta 90 degree angle. While the black trace is for a phi of 0 degree.

The following is the return loss for the antenna:

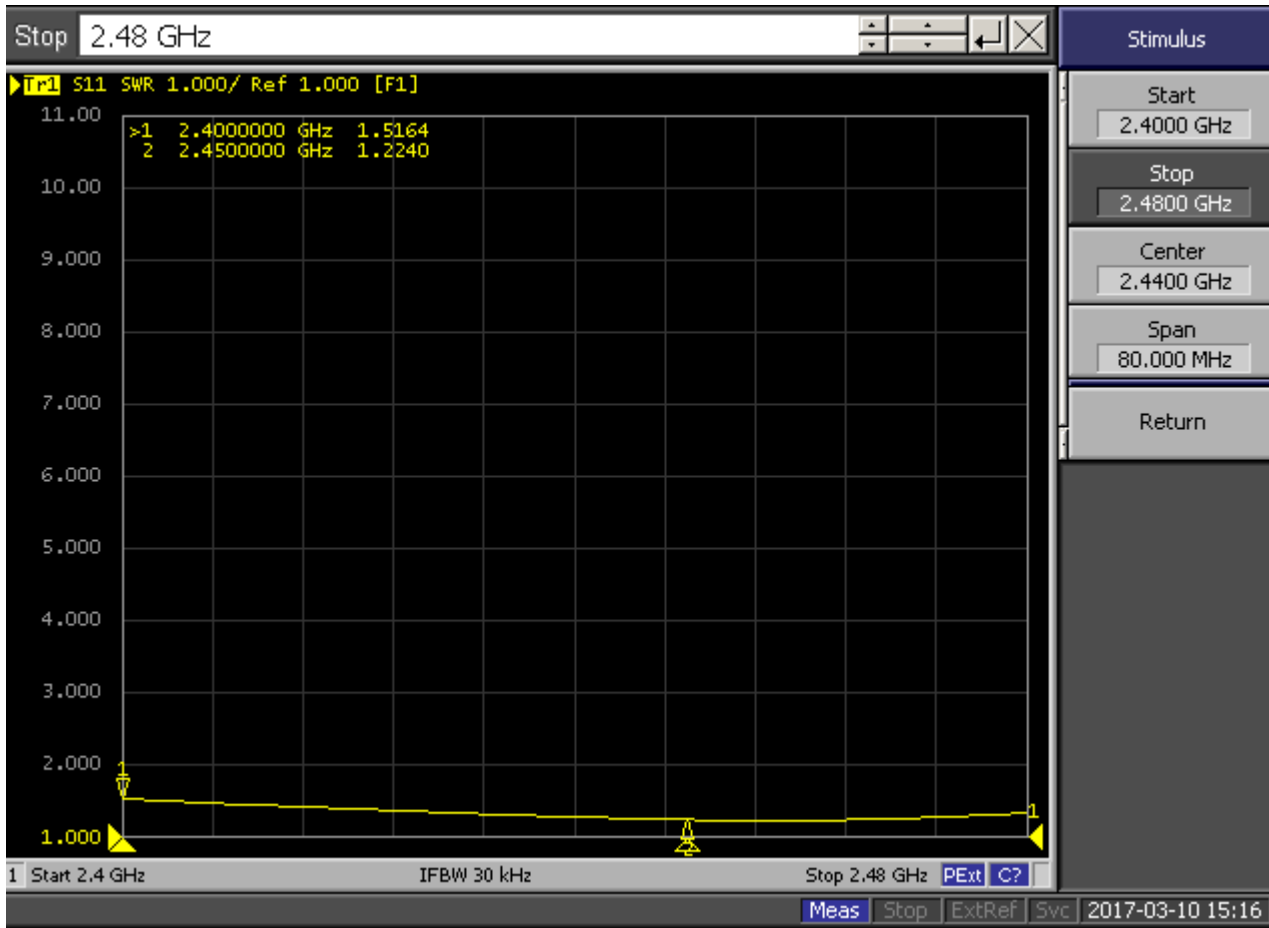


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Notice antenna is matched at frequency of interest.