Specification

Model No.	:	LTEA.4000
Part No.	:	**LTEA.4000.A301111**
Product Name	:	LTE & 3G I-Bar Antenna
Features	:	Low profile for easy installation Fully customized cable and connector **RoHS** ✔

Top View

Side View

VERSION	DATE	PAGE	DESCRIPTION	CENTRE	APPROVED
A	09/22/2009	All	Antenna Design	San Diego	Ruben F. Cuadras

I. INTRODUCTION

The 3G / LTE I Bar is an external M2M antenna for LTE system communication

II. ANTENNA CHARACTERISTICS.

Parameter	IBAR 3G / 4G Antenna		
LTE+3G Band (MHz)	704–716&734-746	746–756&777-787	1710–1755&2110-2155
Return Loss (dB)	-10	-10	-10
Efficiency (%)	50	50	50
Gain (dBi)	3	3	1
Impedance		50 Ohms	
VSWR		≤3.5:1	
Polarization		Linear	
Dimensions		105 X 15 X 5 mm	
Connector		SMA-Male	
Cable Standard		RG174	
Cable Length and color		500 mm, Black	
Adhesive		3M 467	
RoHs Compliant		Yes	

III. TEST SET UP

A Satimo 3D Scan System with Anechoic Chamber

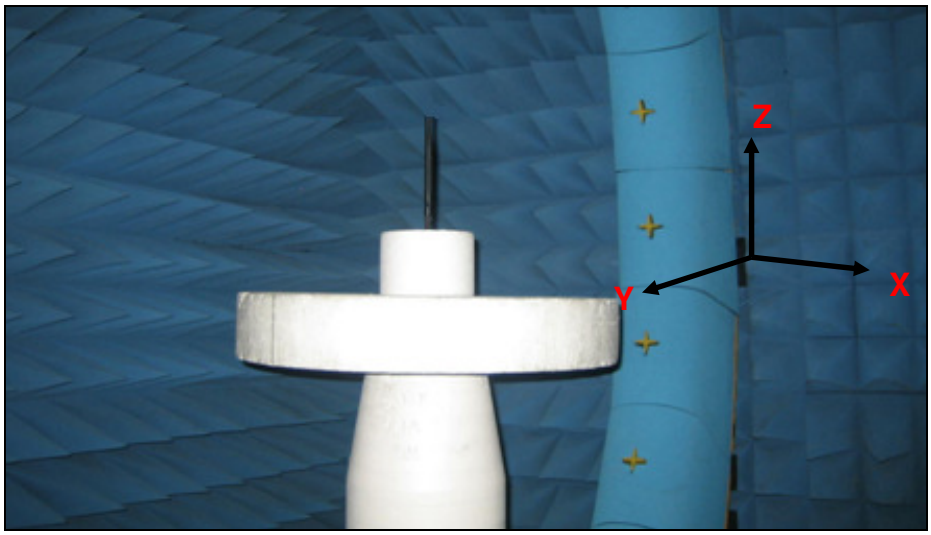

Figure 1. Satimo System in Chamber with I Bar in free space

Rhode &Schwartz ZVL6 Vector Network Analyzer

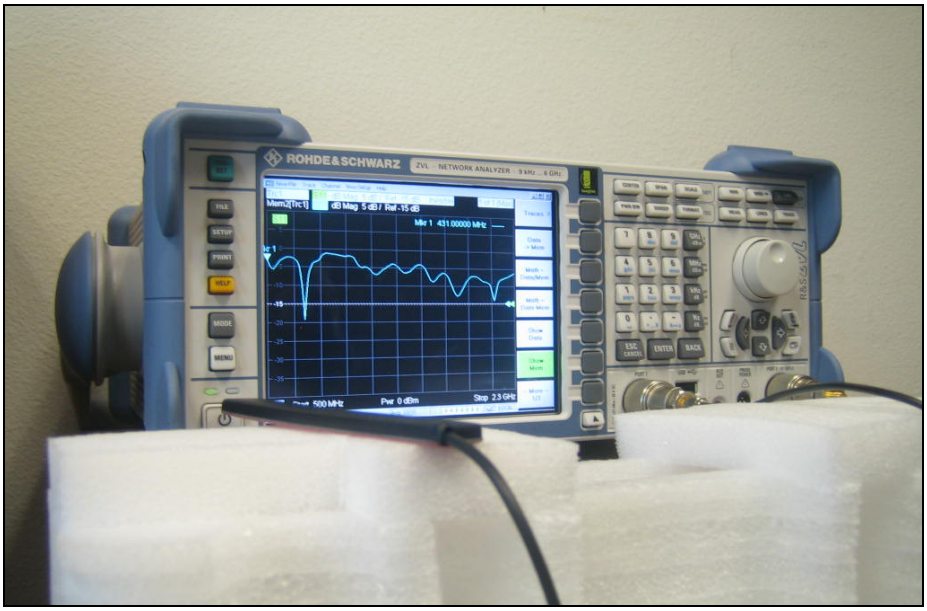

Figure 2. Taoglas Network Analyzer with I BAR

IV. ANTENNA PARAMETERS

The next antenna parameter graphs show Return Loss, VSWR and smith charts were measured with the Agilent Rhode & Schwartz ZVL6 Vector Network Analyzer. The Gain, Efficiency and Radiation Patterns were measured in the Satimo 3D Scan System.

A. Return Loss Data

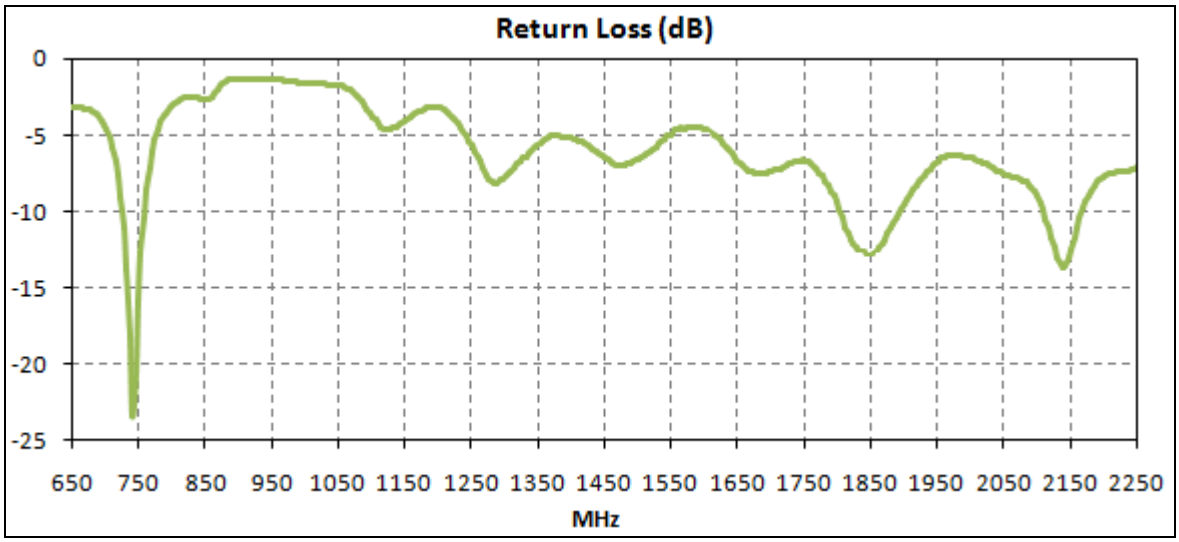

Figure 3. Return Loss for the LTE+3G Antenna.

B. VSWR Data

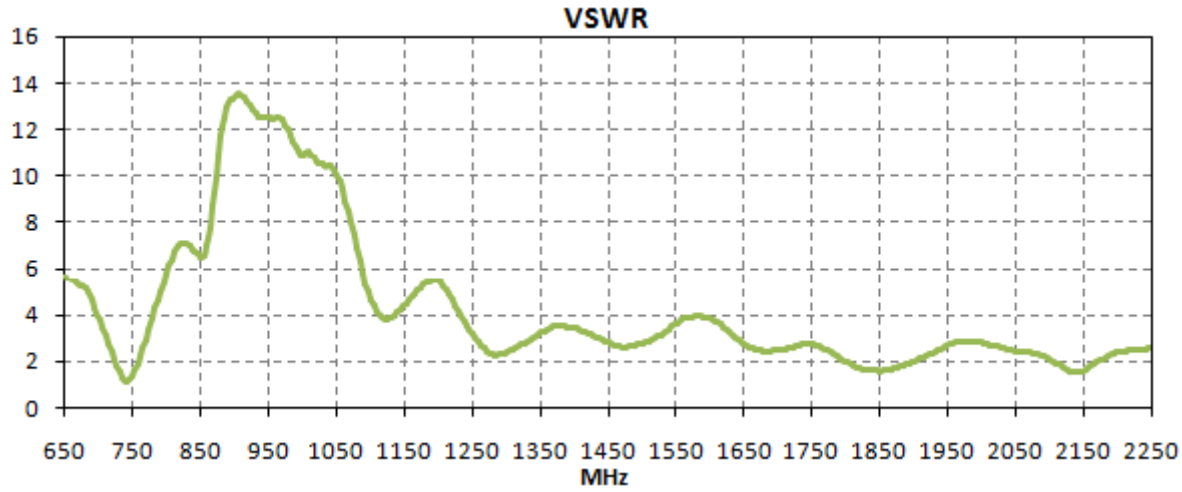

Figure 4. VSWR for the LTE+3G Antenna.

C. Efficiency Data

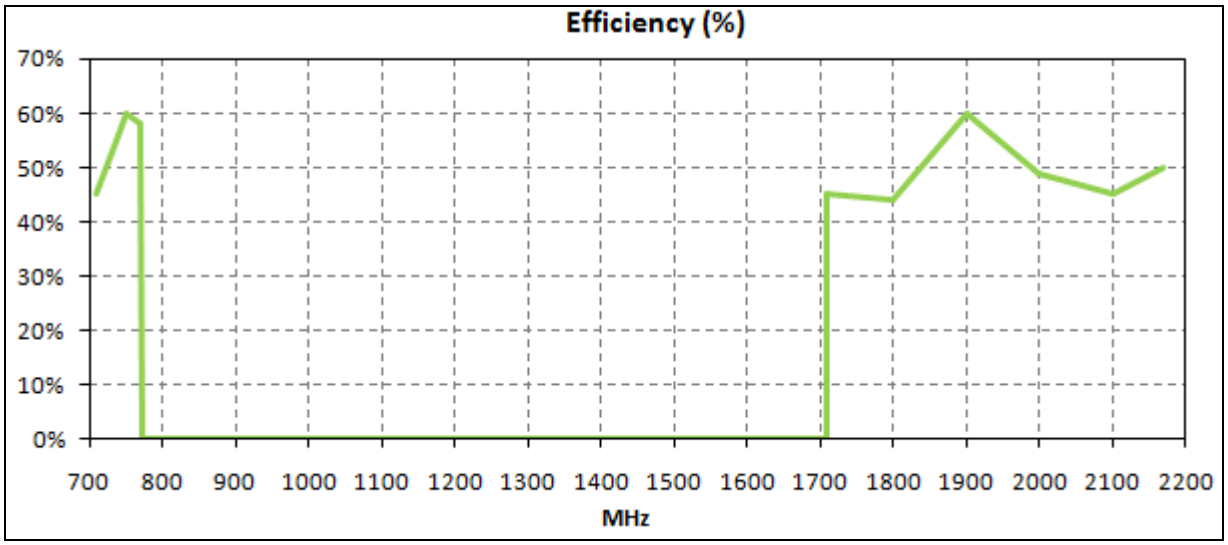

Figure 5. Efficiency for the LTE+3G Antenna.

D. Gain Data

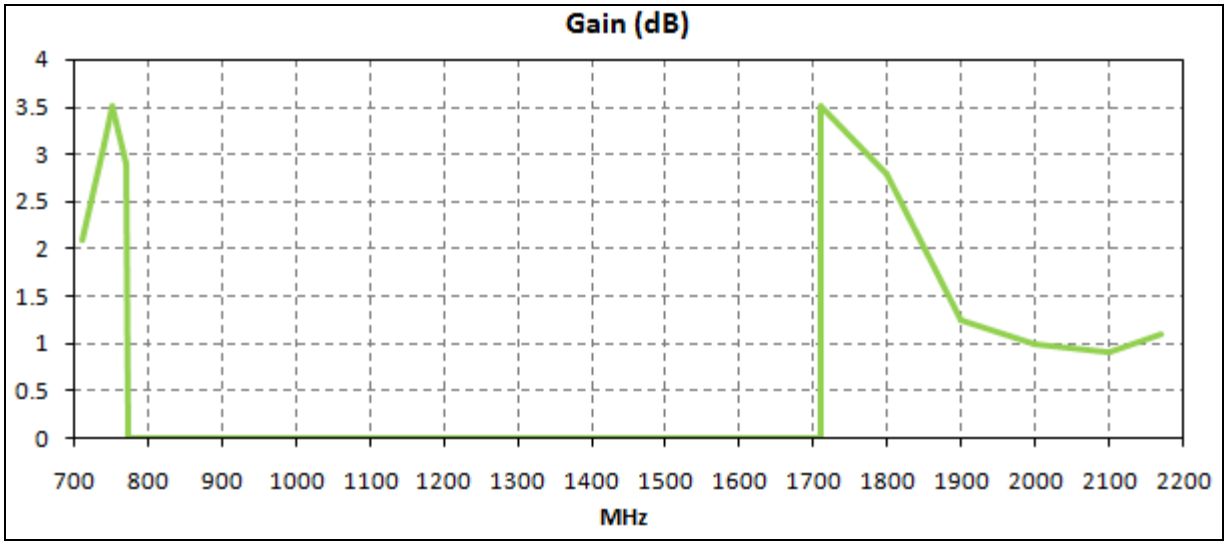

Figure 6. Gain for the LTE+3G Antenna.

E. Radiation Pattern Data.

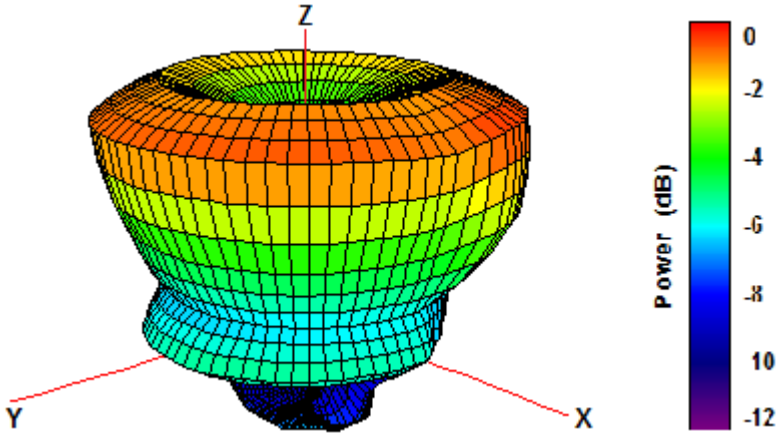

Figure 7. Radiation pattern 3D view at 750 MHz, Figure 1 as reference (dB).

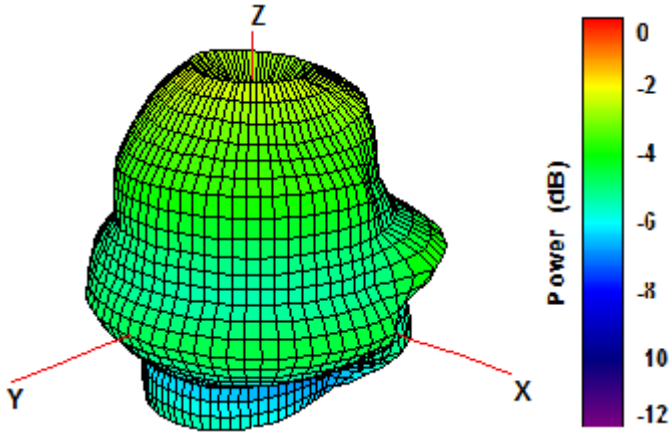

Figure 8. Radiation pattern YZ 3D view at 1750 MHz, Figure 1 as reference (dB).

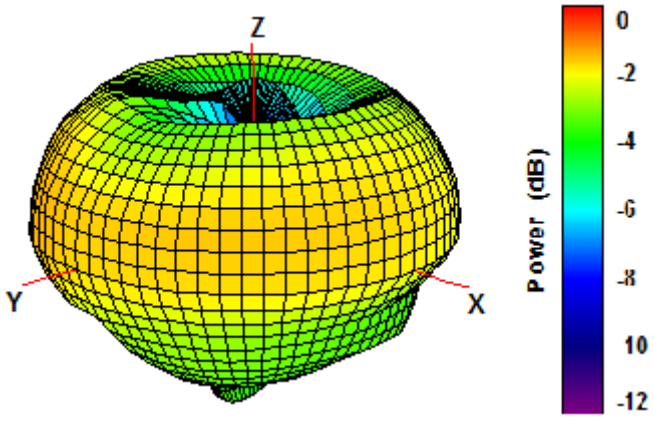

Figure 9. Radiation pattern XY plane, at 2150 MHz, Figure 1 as reference (dB).