



Radio Test Report TR-167335.01 Rev 1

Antenna Pattern

MANUFACTURER: Eight Sleep

MODEL(s): 10503

TEST SITE: National Technical Systems - Silicon Valley
41039 Boyce Road
Fremont, CA 94538

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Revision History

Rev #	Made By	Date	Comments
0	M. Birgani	2/3/2023	
1	David Bare	2/9/2023	Revised to add peak gain for all three channels



Antenna Characteristics

Client:	Eight Sleep	PR Number:	PR167335
Models:	10503	T-Log Number:	TL167335-RA
Standard:	-	Project Manager:	Christine Krebill
		Contact:	Alex Lednev

Radiated 2D Antenna Patterns

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

General Test Configuration

The EUT and all local support equipment were located on a 1.5 meter high test table on the turntable for radiated testing.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT, unless otherwise noted.

Peak measurements performed with: RBW=3MHz, VBW=10MHz, peak detector

The antenna height was varied to obtain the maximum level after determining the angle of rotation producing the maximum level. Then the EUT was rotated again through 360° to obtain the pattern.

Date of Test: 1/18/2023

Test Engineer: Said Abdelwafi

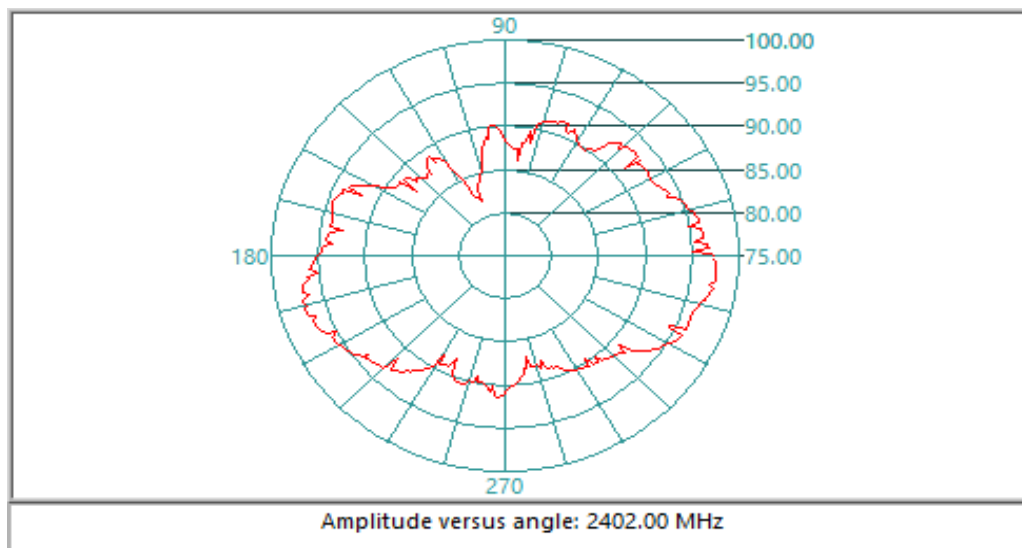
Test Location: Chamber # 7

Config. Used: 1

Config Change: -

EUT Voltage: 120V/ 60Hz

BLE Trace Antenna Patterns



Maximum: 97.7 dbμV/m ~

2.5 dBm EIRP

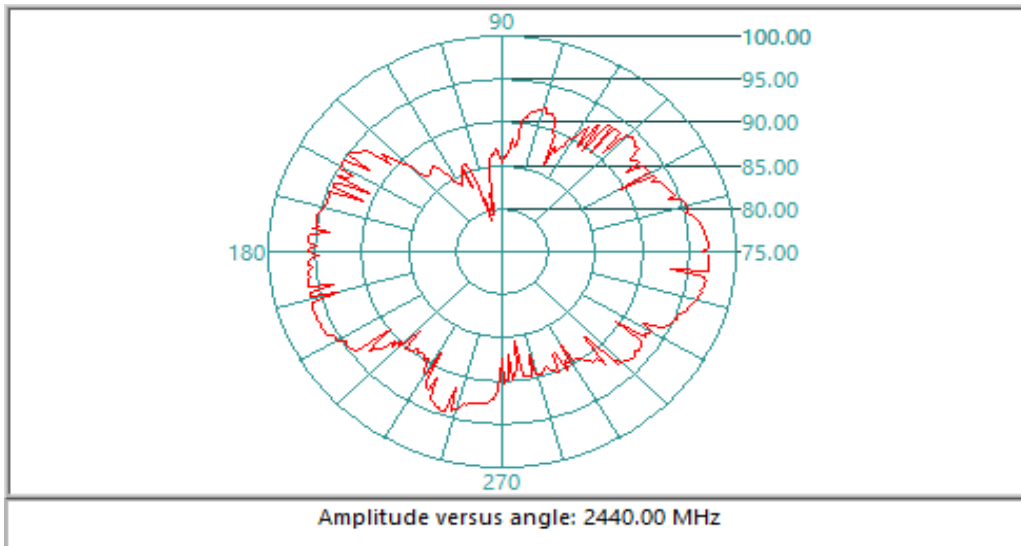
Antenna power = 6.2 dBm

Peak Antenna Gain: 2.5 - 6.2 = -3.7 dBi

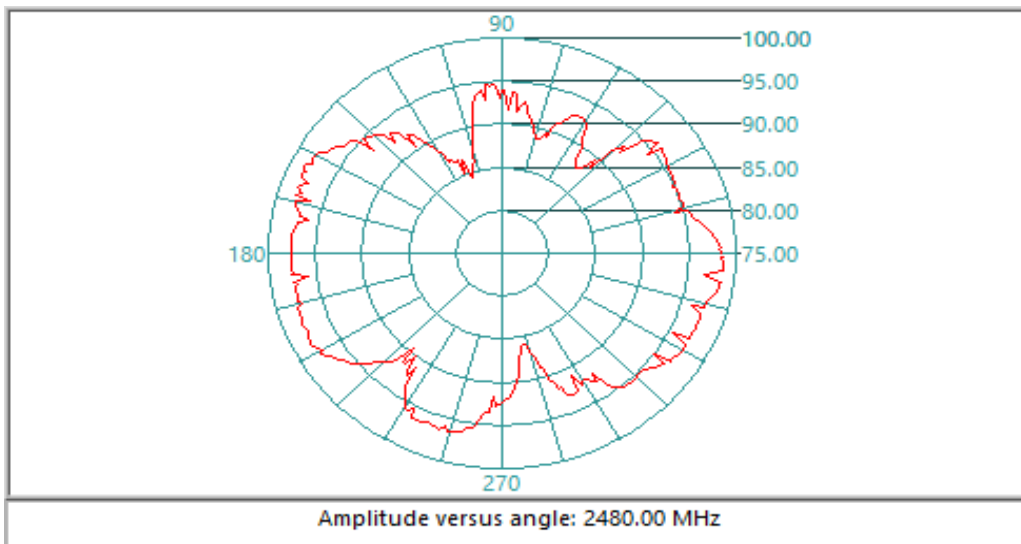


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Maximum 97.2 dbuV/m ~ 2.0 dBm EIRP
Antenna power = 6.7 dBm
Peak Antenna Gain: 2 - 6.7 = -4.7 dBi



Maximum 98.8 dbuV/m ~ 3.6 dBm EIRP
Antenna power = 6.3 dBm
Peak Antenna Gain: 3.6 - 6.3 = -2.7 dBi



Test Equipment Used

Client: Eight Sleep	PR Number:	PR167335
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-	Contact:	Alex Lednev

<u>Manufacturer</u>	<u>Description</u>	<u>Model #</u>	<u>Serial #</u>	<u>Cal Date</u>	<u>Cal Due</u>
National Technical Systems	NTS EMI Software (rev 2.10)	N/A	WC022452	N/A	-
Agilent Technologies	PSA Spectrum Analyzer	E4446A	WC055670	24-Oct-22	-
EMCO	Horn Antenna, 1-18 GHz (SA40-Purple)	3115	WC062583	12-Sep-22	-
		P/N			
Hewlett Packard	High Pass filter, 3.7 GHz	84300-80038	WC064434	09-Feb-22	09-Feb-23
MITEQ	Preamplifier, 1-18 GHz	AFS44	WC080962	18-Jul-22	18-Jul-23



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End of Report

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