



## 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

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

Config. Used: 1

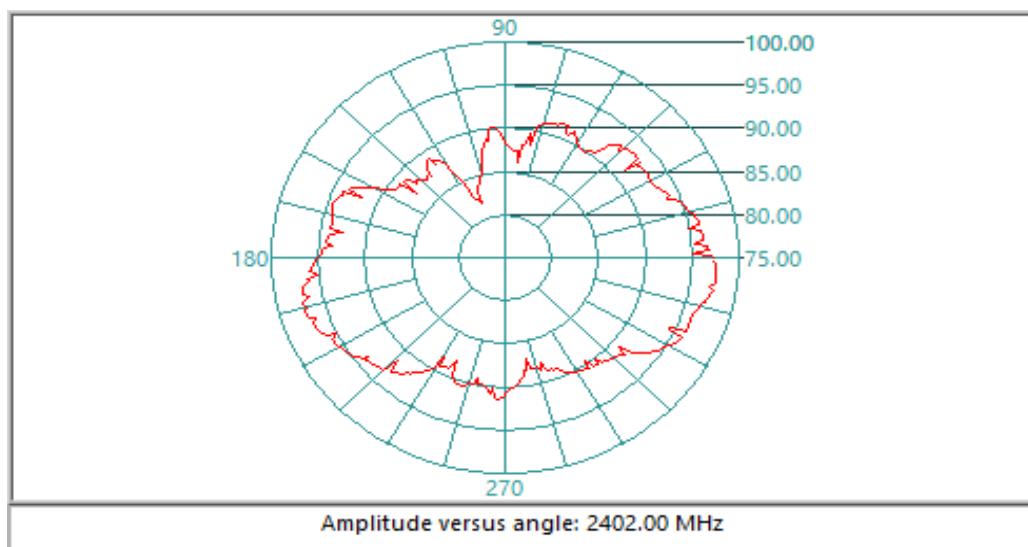
Test Engineer: Said Abdelwafi

Config Change: -

Test Location: Chamber # 7

EUT Voltage: 120V/ 60Hz

### BLE Trace Antenna Patterns



Maximum 97.7 dbu $\mu$ V/m ~ 2.5 dBm EIRP

Antenna power = 6.2 dBm

Peak Antenna Gain: 2.5 - 6.2 = -3.7 dBi

Client: Eight Sleep

PR Number: PR167335

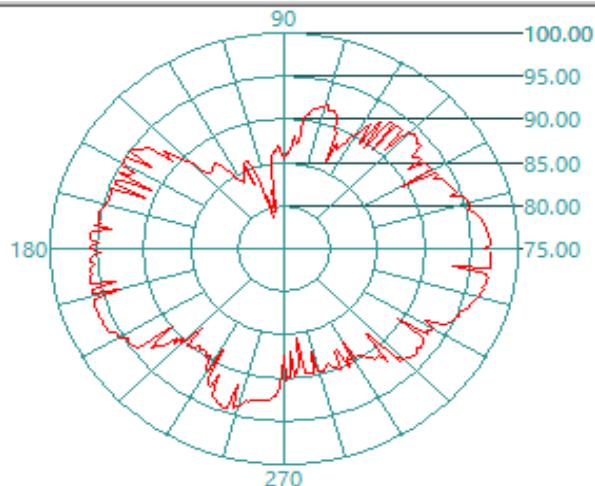
Models: 10503

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Standard: -

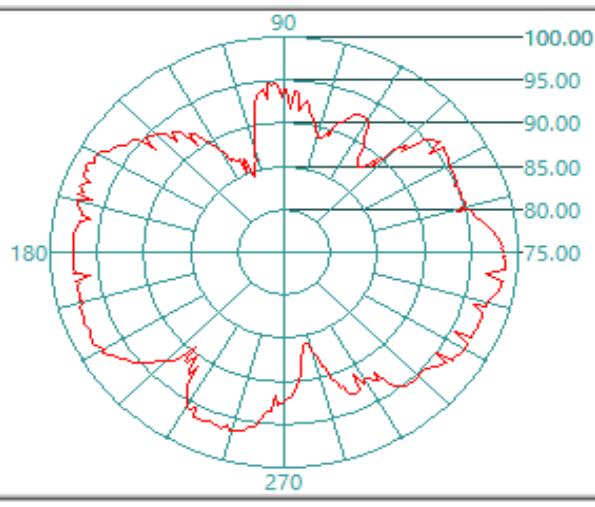
Project Manager: Christine Krebill

Contact: Alex Lednev


 Maximum 97.2 dbu $\mu$ V/m ~ 2.0 dBm EIRP

Antenna power = 6.7 dBm

Peak Antenna Gain: 2 - 6.7 = -4.7 dBi


 Maximum 98.8 dbu $\mu$ V/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
Models: 10503	T-Log Number:	TL167335-RA
-	Project Manager:	Christine Krebill

<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 P/N	WC062583	12-Sep-22	-
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



## *Radio Test Report*

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-	Project Manager:	Christine Krebill

### **End of Report**

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