

Skydio

Antenna Under Test report (AUT)

Model Name: 360-208447-000

Equipment: Controller

Manufacturer: Skydio Inc.

Test Location: EMT Labs (ElectoMagnetic Test, Inc.) - 1547
Plymouth Street, Mountain View, CA 94043-1229

Report Date: 06/18/2023

Report Number: 360-208447-000-2_AUT_004

Report Release History

Report Version	Description	Date Issued
004	360-208447-000 Original Dual Band Antenna Report	6/18/2023

Test Condition:

Test Condition	Test Engineer	Test Environment (°C / %)	Test Date
Radiated	Manan Modi	20-24 / 45-60	04/14/2023

Test Engineer signature :

**Test Frequency:**

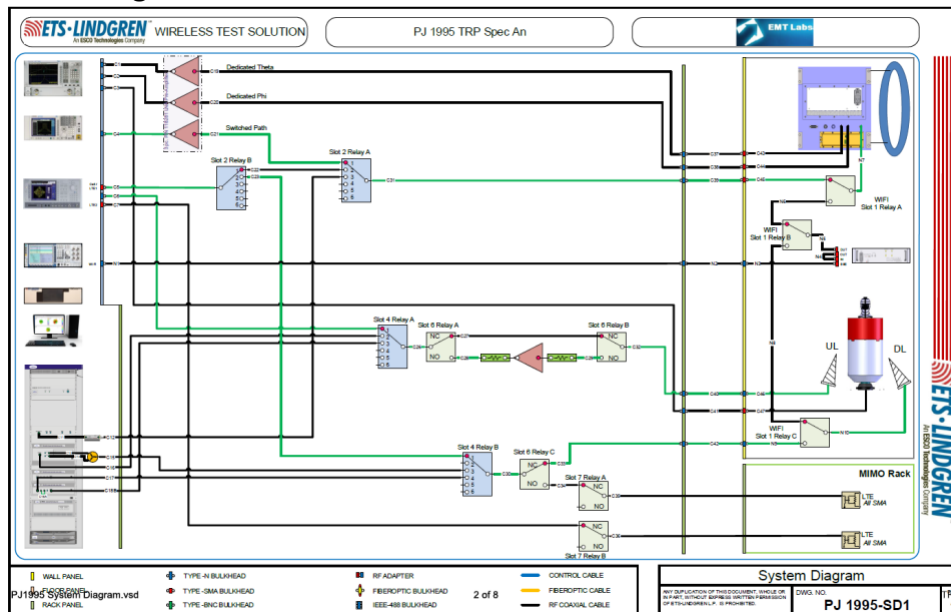
Band (MHz)	Test Frequency (MHz)
2400-2480	2450
5150-5250	5200
5250-5350	5300
5470-5725	5700
5725-5850	5800

Antenna Information:

Ant. Position	Brand Name	Model Name	Ant. Type	Connector
Antenna 1 inner	Skydio	360-208447-000	Dipole	u.FL
Antenna 2 outer	Skydio	360-208447-000	Dipole	u.FL

Test Configuration:

Block diagram for ETS 8923 Chamber



Description of the test chamber:

Please fill in our chamber specification

Length: 13 ft Width: 13 ft Height: 13 ft

Turntable height: adjusted to center antenna in center of chamber.

Measurement antenna height? N/A, 23 dual polarized antennas are mounted in a ring configuration, spaced 15 degrees apart.

The measurement uncertainty associated with the data collected in this report is 1.90 dB.

Test Equipment list:

Equipment Name	Manufacturer	Model Number	Serial Number	Cal Cycle	Cal Date
Amplifier, Limiting	ETS Lindgren	109646	001695339	N.C.R.	N/A
Analyzer, Network (PNA-L)	Agilent Technologies	N5239A	MY52291042	1 Year	6/22/2022
Analyzer, Signal	Rohde & Schwarz	FSW8	104071	1 Year	2/15/2023
EMCenter 2-Slot RF System	ETS Lindgren	7000-004	00116754	N.C.R.	N/A
EMCenter 7-Slot RF System	ETS Lindgren	7000-001	00159836	N.C.R.	N/A
EMQuest Data Acquisition and Analysis Software	ETS Lindgren	Version 1.13 Build 21271	1438	N/A	N/A
System Amplifier Modules	ETS Lindgren	SAM-01	00169708	N.C.R.	N/A
System Amplifier Modules	ETS Lindgren	SAM-01	00169709	N.C.R.	N/A
System Amplifier Modules	ETS Lindgren	SAM-01	00169710	N.C.R.	N/A

Test Method:

The ETS AMS 8923 OTA chamber uses the “great circle” cut method, whereby the measurement antenna ring remains fixed with 15 degree spacing and the EUT is rotated about two axes in sequential order. The radiated RF performance of the Equipment Under Test (EUT) is measured by sampling the radiated transmit power of the mobile at various locations surrounding the device. A three-dimensional characterization of the 'transmit' performance of the EUT is pieced together by analyzing the data from the spatially distributed measurements. Data points taken every 15 degrees in the theta and in the phi axes are deemed sufficient to fully characterize the EUT's Far-Field radiation pattern and total radiated power. All of the measured power values will be integrated.

Measured Values and Calculation of Correlated / Uncorrelated Gains:

Peak Gain Table

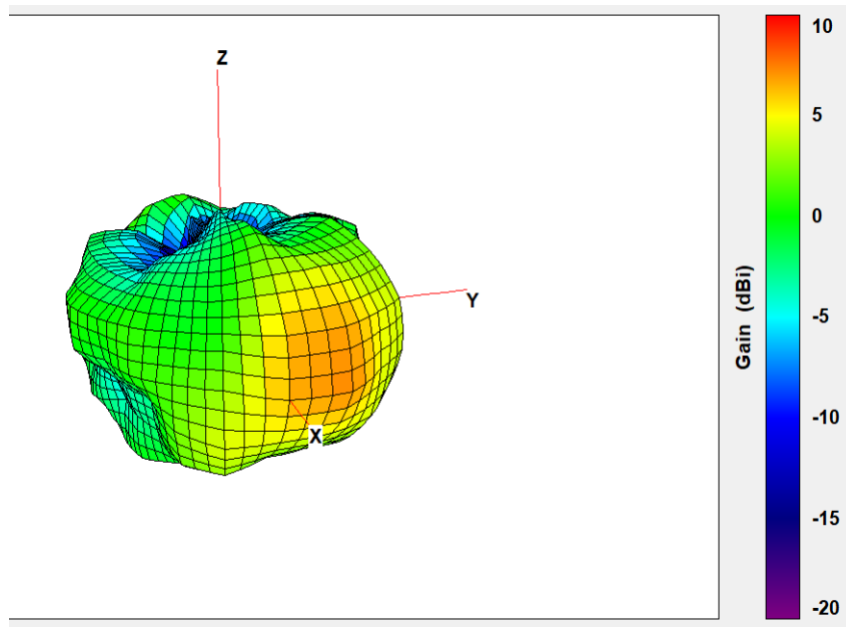
Band (MHz)	2400-2480	5150-5250	5250-5350
Frequency (MHz)	2450	5200	5300
Ant.1 Max Gain (dBi)	4.57	7.47	7.76
Ant.2 Max Gain (dBi)	4.62	5.84	6.46
Max Gain (dBi)	4.62	7.47	7.76

Band (MHz)	5470-5725	5725-5850	
Frequency (MHz)	5700	5800	
Ant.1 Max Gain (dBi)	6.84	7.33	
Ant.2 Max Gain (dBi)	5.42	6.03	
Max Gain (dBi)	6.84	7.33	

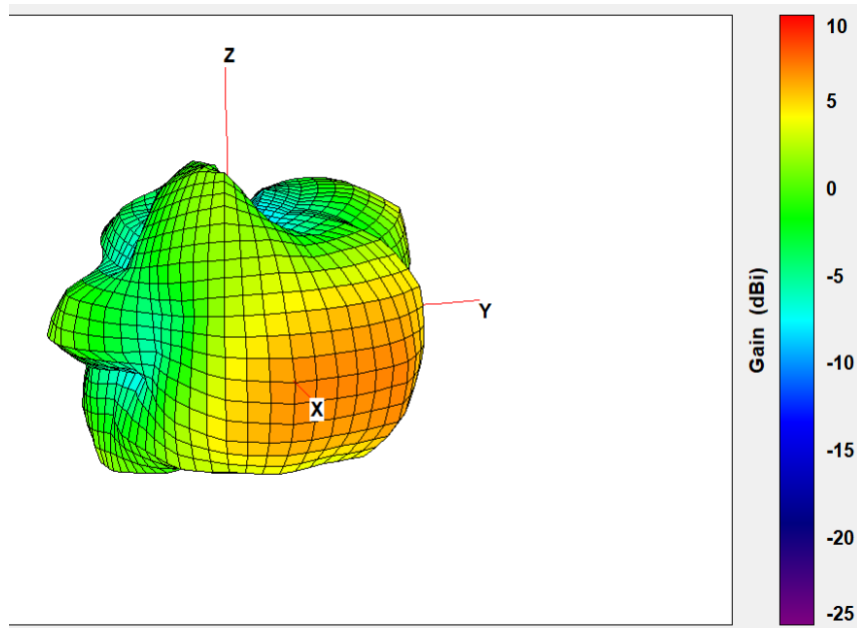
Frequency (MHz)	Theta (deg)	Correlated Gain (dBi)	Uncorrelated Gain (dBi)
2450	90	7.61	4.60
5200	90	9.70	6.73
5300	90	10.14	7.16
5700	90	9.17	6.19
5800	90	9.71	6.73

3D Radiation Pattern:

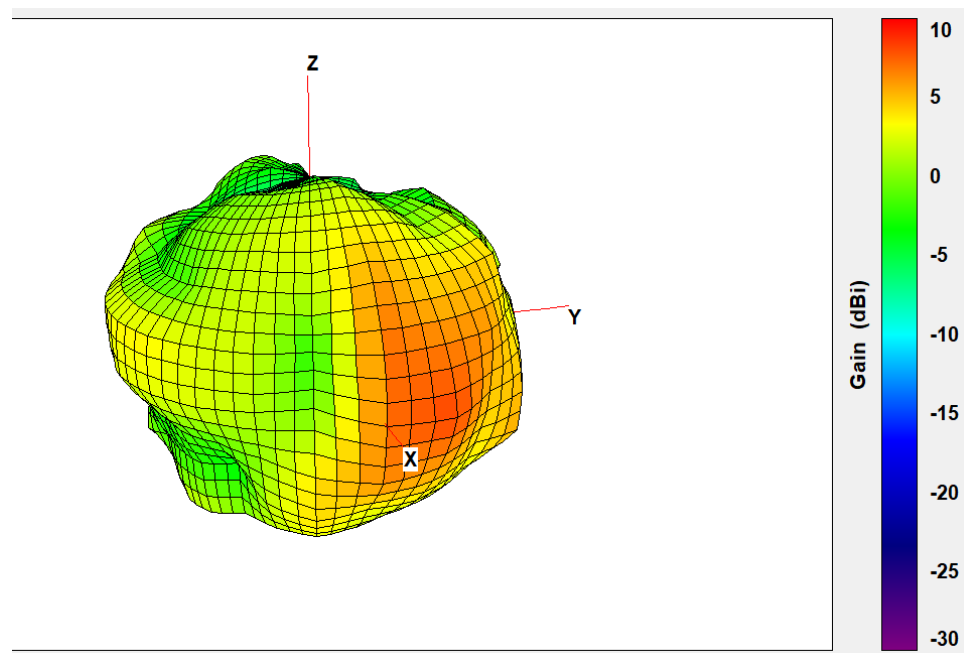
5200MHz



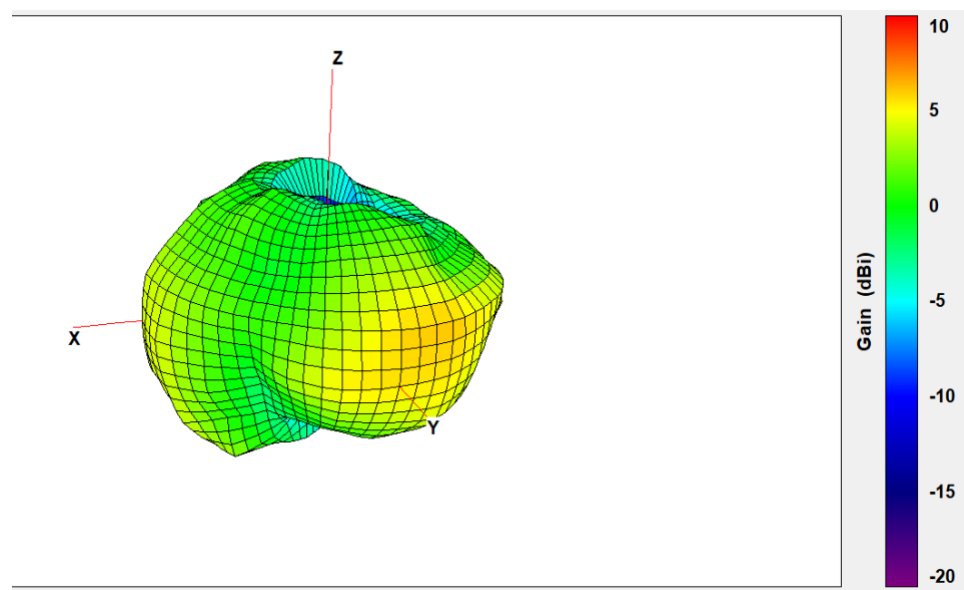
5300MHz



5700MHz



5800MHz



2.4G (2450MHz)

