RF EXPOSURE EVALUATION REPORT

FCC ID	:	2ATQRSMODBV3
Equipment	:	SkydioLink Third Generation Radio Module
Brand Name	:	Skydio
Model Name	:	SMODBV3
Applicant	:	Skydio, Inc. 3000 Clearview Way San Mateo, CA 94402
Manufacturer	:	Skydio, Inc. 3000 Clearview Way San Mateo, CA 94402
Standard	:	47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC has been evaluated this product in accordance with 47 CFR Part2.1091 and it complies with applicable limit.

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC evaluation.

The results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Laboratory, the test report shall not be reproduced except in full

Approved by: Cona Huang / Deputy Manager

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History of this test report

Report No.	Version	Description	Issued Date
FA230303001	Rev. 01	Initial issue of report	Jul. 31, 2023

1. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	SkydioLink Third Generation Radio Module
Brand Name	Skydio
Model Name	SMODBV3
FCC ID	2ATQRSMODBV3
Wireless Technology and Frequency Range	WLAN 2.4 GHz Band: 2400 MHz ~ 2483.5 MHz WLAN 5.2 GHz Band: 5150 MHz ~ 5250 MHz WLAN 5.3 GHz Band: 5250 MHz ~ 5350 MHz WLAN 5.6 GHz Band: 5470 MHz ~ 5725 MHz WLAN 5.8 GHz Band: 5725 MHz ~ 5850 MHz
Mode	WLAN: 802.11a/b/g/n/ac/ax HT20/HT40/VHT20/VHT40/VHT80/HE20/HE40/HE80
HW Version	360-207231-000-3
FW Version	P2GoldenSPC_ver1.1.0

Reviewed by: Jason Wang

Report Producer: Daisy Peng

Antenna Information (Low gain)				
0	Ant. Type	Dipole	connector	u.FL
	Model No.	360-205976-000		
	Peak Gain (dBi)			
	2400~2483.5MHz	**1.91**	5470~5725MHz	1.33
	5150~5250MHz	**1.35**	5725~5850MHz	**1.4**
	5250~5350MHz	1.9		
2	Ant. Type	Dipole	connector	u.FL
	Model No.	360-205976-000		
	Peak Gain (dBi)			
	2400~2483.5MHz	1.9	5470~5725MHz	**1.37**
	5150~5250MHz	1.33	5725~5850MHz	1.35
	5250~5350MHz	**2.1**		

Antenna Information (High gain)				
0	Ant. Type	Dipole	connector	u.FL
	Model No.	360-208447-000		
	Peak Gain (dBi)			
	2400~2483.5MHz	4.57	5470~5725MHz	**6.84**
	5150~5250MHz	**7.47**	5725~5850MHz	**7.33**
	5250~5350MHz	**7.76**	5925-7125MHz	
2	Ant. Type	Dipole	connector	u.FL
	Model No.	360-208447-000		
	Peak Gain (dBi)			
	2400~2483.5MHz	**4.62**	5470~5725MHz	5.42
	5150~5250MHz	5.84	5725~5850MHz	6.03
	5250~5350MHz	6.46	5925-7125MHz	

2. Maximum RF average output power among production units

Mode	Max conducted power(dBm) (with low gain Ant)	Max conducted power(dBm) (with high gain Ant)
WLAN 2.4 GHz Band	29.98	29.93
WLAN 5.2 GHz Band	28.59	28.08
WLAN 5.3 GHz Band	23.66	22.71
WLAN 5.6 GHz Band	23.91	23.65
WLAN 5.8 GHz Band	29.96	29.24

3. Determination of exemption

Per 1.1307(b)(3), (i) For single RF sources (i.e., any single fixed RF source, mobile device, or portable device, as defined in paragraph (b)(2) of this section): A single RF source is exempt if:

(A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(ii)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(ii)(A);

(B) Or the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold Pth (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by:

$$\text{Pth (mW)} = \text{ERP}_{20cm}\,(d / 20)^{x} \quad \text{for distance } d \le 20cm$$

$$\text{Pth (mW)} = \text{ERP}_{20cm} \quad \text{for distance } 20cm < d \le 40cm$$

$$x = -log10\left(\frac{60}{ERP_{20cm}\sqrt{f}}\right)$$

ERP_{20cm}(mW) 0.3 GHz ≤ f < 1.5 GHz: 2040 f
1.5 GHz ≤ f ≤ 6 GHz: 3060

(C) Or using Table 1 and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least λ/2π, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of λ/4 or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	1,920 R^2.
1.34-30	3,450 R^2/f^2.
30-300	3.83 R^2.
300-1,500	0.0128 R^2f.
1,500-100,000	19.2R^2.

4. RF Exposure Evaluation

4.1. Standalone assessment

General Note:

1. Pi is mean the available maximum time-averaged power or the ERP, whichever is greater, for fixed, mobile, or portable RF source i at a distance between 0.5 cm and 40 cm
2. Pth is mean the exemption threshold power (Pth) according to the § 1.1307(b)(3)(i)(B) formula for fixed, mobile, or portable RF source i.
3. In this report was used Part1.1307(b)(3)(i)(B) perfrom RF Exposure evaluation
4. The distance of 20cm is for this device

<with Low gain Ant>

Band	Antenna Gain (dBi)	Maximum Conducted Power (dBm)	Maximum EIRP (dBm)	Maximum ERP (dBm)	Maximum EIRP (mW)	Maximum ERP (mW)	Pi (dBm)	Pi (mW)	Part1.1307 option(b) Threshold (mW)
WLAN2.4GHz Band	1.91	29.98	31.9	29.74	1545.25	941.89	29.98	995.41	3060.000
WLAN 5.2 GHz Band	1.35	28.59	29.9	27.79	986.28	601.17	28.59	722.77	3060.000
WLAN 5.3 GHz Band	2.10	23.66	25.8	23.61	376.70	229.61	23.66	232.27	3060.000
WLAN 5.6 GHz Band	1.37	23.91	25.3	23.13	337.29	205.59	23.91	246.04	3060.000
WLAN 5.8 GHz Band	1.40	29.96	31.4	29.21	1367.73	833.68	29.96	990.83	3060.000

<with High gain Ant>

Band	Antenna Gain (dBi)	Maximum Conducted Power (dBm)	Maximum EIRP (dBm)	Maximum ERP (dBm)	Maximum EIRP (mW)	Maximum ERP (mW)	Pi (dBm)	Pi (mW)	Part1.1307 option(b) Threshold (mW)
WLAN2.4GHz Band	4.62	29.93	34.6	32.40	2851.02	1737.80	32.40	1737.80	3060.000
WLAN 5.2 GHz Band	7.47	28.08	35.6	33.40	3589.22	2187.76	33.40	2187.76	3060.000
WLAN 5.3 GHz Band	7.76	22.71	30.5	28.32	1114.29	679.20	28.32	679.20	3060.000
WLAN 5.6 GHz Band	6.84	23.65	30.5	28.34	1119.44	682.34	28.34	682.34	3060.000
WLAN 5.8 GHz Band	7.33	29.24	36.6	34.42	4539.42	2766.94	34.42	2766.94	3060.000

Conclusion:

According to 47 CFR §1.1307, the RF exposure analysis concludes that the RF Exposure is FCC compliant.