

Prüfbericht-Nr.: <i>Test report no.:</i>	CN22IMHT 003	Auftrags-Nr.: <i>Order no.:</i>	168348142	Seite 1 von 4 Page 1 of 4
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	2021-12-21	
Auftraggeber: <i>Client:</i>	SZ DJI TECHNOLOGY CO., LTD 14th Floor, West Wing, Skyworth Semiconductor Design Building No.18 Gaoxin South 4th Ave Nanshan District, Shenzhen, P.R. China			
Prüfgegenstand: <i>Test item:</i>	DJI Avata			
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	QF2W4K			
Auftrags-Inhalt: <i>Order content:</i>	Test Report			
Prüfgrundlage: <i>Test specification:</i>	FCC Part 2: Section 2.1091			
Wareneingangsdatum: <i>Date of sample receipt:</i>	2022-04-14	Please refer to photo documents		
Prüfmuster-Nr.: <i>Test sample no.:</i>	A003241715-010 A003241715-012			
Prüfzeitraum: <i>Testing period:</i>	2022-04-19 to 2022-05-05			
Ort der Prüfung: <i>Place of testing:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von: <i>tested by:</i>	 Hardy Suo		genehmigt von: <i>authorized by:</i>	 Lin Lin
Datum: <i>Date:</i>	2022-05-10		Ausstellungsdatum: <i>Issue date:</i>	2022-05-10
Stellung / Position:	Sachverständige(r) / Expert		Stellung / Position:	Sachverständige(r) / Expert
Sonstiges / Other:	FCC ID: SS3-QF2W4K22			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend N/A = nicht anwendbar	4 = ausreichend N/T = nicht getestet
* Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory N/A = not applicable	4 = sufficient N/T = not tested
<p>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i></p>				

v05

1. Radio Frequency Exposure

RESULT:
Pass

Test standard

:

 FCC Part 2: Section 2.1091
 KDB 447498 D01 General RF Exposure Guidance v06

1.1 Product Technical Information

The EUT (Equipment Under Test) is an Aircraft. It supports 2.4GHz SDR, 5.8GHz SDR, GNSS and ADS-B functions.

*remark: SDR means specific defined radio, and cannot changes radio specification via software/firmware by end-users.

For details refer to the User Manual, Technical Description and Circuit Diagram.

General Information of EUT	Value
Kind of Equipment:	DJI Avata
Type Designation:	QF2W4K
Trademark:	DJI
Operating Temperature Range:	-10 °C ~ 40 °C
Operating Voltage:	Battery operated (DC 14.76V@2420mAh, Li-ion battery)
Radiofrequency operating mode	1) 2.4GHz SDR (receiver): operating within 2400-2483.5MHz, supports 1.4MHz Bandwidth 2) 5.8GHz SDR: operating within 5725-5850MHz, supports 1.4MHz/10MHz/20MHz/40MHz Bandwidth 3) GPS & BDS & Galileo (receiver): operating within 1559-1610MHz 4) ADS-B (receiver): operating at 978MHz (1MHz Bandwidth) and 1090MHz (2MHz Bandwidth)
Technical Specification of 5.8GHz SDR	
Operating Frequency	5728.5-5846.5MHz for 1.4MHz Bandwidth 5730.12-5848.12MHz for 1.4MHz Bandwidth (CA mode) 5730.5-5844.5MHz for 10MHz Bandwidth 5735.5-5839.5MHz for 20MHz Bandwidth 5745.5-5829.5MHz for 40MHz Bandwidth
Type of Modulation	OFDM (QPSK, 16QAM, 64QAM)
Channel Number	60 channels for 1.4MHz Bandwidth 60 channels for 1.4MHz Bandwidth (CA mode) 115 channels for 10MHz Bandwidth 105 channels for 20MHz Bandwidth 85 channels for 40MHz Bandwidth
Channel Separation	2MHz for 1.4MHz Bandwidth 2MHz for 1.4MHz Bandwidth (CA mode) 1MHz for 10MHz Bandwidth 1MHz for 20MHz Bandwidth 1MHz for 40MHz Bandwidth
Antenna Type	Integral Antennas
Antenna Number	1Tx2Rx for SISO mode (ANT0 or ANT1) 2Tx2Rx for MIMO mode (ANT0+ANT1)

Antenna Gain	2.5dBi for ANT0 2.5dBi for ANT1
The type of wideband data transmission equipment	Non-FHSS

1.2 Product Classification

This device defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at 20 cm is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons.

1.3 Radio Frequency Exposure Limit

For FCC:

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)
300-1,500	--	--	f/1500
1,500-100,000	--	--	1.0

1.4 Radio Frequency Exposure Calculation Formula

$$S = \frac{PG}{4\pi R^2}$$

where: S = power density (in appropriate units, e.g. mW/cm²)
 P = power input to the antenna (in appropriate units, e.g., mW)
 G = power gain of the antenna in the direction of interest relative to an isotropic radiator
 R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

or:

$$S = \frac{EIRP}{4\pi R^2}$$

where: EIRP = equivalent (or effective) isotropically radiated power

1.5 Calculation Result

1.5.1 Stand-alone transmission MPE

Mode	*Measured RF Output Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	FCC Limit (mW/cm ²)
5.8GHz SDR	776.25	2.5	20	0.28	1.0

Note:

1. *5.8GHz SDR RF Output Power: Refer to test report CN22IMHT 002.

1.5.2 Simultaneous transmission MPE

Not applicable.

1.5.3 Conclusion

Therefore the maximum calculations result of above are meet the requirement of Radio Frequency Exposure (MPE) limit.