

<b>Prüfbericht-Nr.:</b> <i>Test report no.:</i>	<b>CN22SRMQ 004</b>	<b>Auftrags-Nr.:</b> <i>Order no.:</i>	<b>168379672</b>	<b>Seite 1 von 9</b> <i>Page 1 of 9</i>
<b>Kunden-Referenz-Nr.:</b> <i>Client reference no.:</i>	<b>N/A</b>	<b>Auftragsdatum:</b> <i>Order date:</i>	<b>2022-06-29</b>	
<b>Auftraggeber:</b> <i>Client:</i>	<b>SZ DJI TECHNOLOGY CO., LTD.</b> 14th Floor, West Wing, Skyworth Semiconductor Design Building No.18 Gaoxin South 4th Ave Nanshan District, Shenzhen, P.R. China			
<b>Prüfgegenstand:</b> <i>Test item:</i>	DJI Mavic 3E, DJI Mavic 3T			
<b>Bezeichnung / Typ-Nr.:</b> <i>Identification / Type no.:</i>	M3E, M3T			
<b>Auftrags-Inhalt:</b> <i>Order content:</i>	Test Report			
<b>Prüfgrundlage:</b> <i>Test specification:</i>	FCC Part 2: Section 2.1091			
<b>Wareneingangsdatum:</b> <i>Date of sample receipt:</i>	2022-07-07	Please refer to photo documents		
<b>Prüfmuster-Nr.:</b> <i>Test sample no.:</i>	A003293964-004~005 A003293964-010, 017, 018			
<b>Prüfzeitraum:</b> <i>Testing period:</i>	2022-07-14 to 2022-08-02			
<b>Ort der Prüfung:</b> <i>Place of testing:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
<b>Prüflaboratorium:</b> <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
<b>Prüfergebnis*:</b> <i>Test result*:</i>	Pass			
<b>geprüft von:</b> <i>tested by:</i>	<u>x Bell Hu</u>	<b>genehmigt von:</b> <i>authorized by:</i>	<u>X Lin Lin</u>	
<b>Datum:</b> <i>Date:</i>	2022-09-14 <small>Signed by: Bell Hu</small>	<b>Ausstellungsdatum:</b> <i>Issue date:</i>	2022-09-14 <small>Signed by: Lin Lin</small>	
<b>Stellung / Position:</b>	Assistants Project Manager	<b>Stellung / Position:</b>	Reviewer	
<b>Sonstiges / Other:</b>	FCC ID: SS3-M3E2206			
<b>Zustand des Prüfgegenstandes bei Anlieferung:</b> <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
<b>* Legende:</b>	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
<b>* Legend:</b>	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
<b>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.</b> <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>				

v05

## TEST SUMMARY

### 3.1.1 RF EXPOSURE COMPLIANCE

RESULT: Pass

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## 1. TEST SITES

### 1.1 TEST FACILITIES

#### TÜV Rheinland (Shenzhen) Co., Ltd.

362 Huanguan Road Middle Longhua District, Shenzhen 518110 People's Republic of China

FCC Registration No.: 694916

ISED wireless device testing laboratory: 25069

A2LA Certificate Number: 5162.01

### 1.2 Traceability

All measurement equipment calibrations are traceable to NIST or where calibration is performed outside the United States, to equivalent nationally recognized standards organizations.

### 1.3 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

### 1.4 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendixes of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

### 1.5 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at 362 Huanguan Road Middle Longhua District, Shenzhen 518110 People's Republic of China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

## 2. GENERAL PRODUCT INFORMATION

### 2.1 GENERAL DESCRIPTION

The Product is DJI Aircraft. It supports 2.4GHz SDR, 5.8GHz SDR and GNSS 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.

### 2.2 RATING AND SYSTEM DETAILS

**Table 1: General Information of EUT**

General Information of EUT	Value
Kind of Equipment	DJI Mavic 3E, DJI Mavic 3T
Type Designation	M3E, M3T(They are identical in circuitry design, PCB layout, electrical components and internal wiring, the only difference is that M3T camera supports thermal Imaging function, which not supported by M3E camera)
Operating Temperature Range	-10°C ~ 40 °C
Operating Voltage	AC 100-240V, 50/60Hz input via AC/DC adapter` or Battery operated (DC 15.4V)
Testing Voltage	Fully charged battery
Radiofrequency operating mode	1) 2.4GHz SDR: operating within 2400-2483.5MHz, supports 1.4MHz/3MHz/10MHz/20MHz/40MHz Bandwidth 2) 5.8GHz SDR: operating within 5725-5850MHz, supports 1.4MHz/3MHz/10MHz/20MHz/40MHz Bandwidth 3) GNSS: 1559 to 1610 MHz

**Table 2: Technical Specification of EUT**

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) 5727.5-5844.5MHz for 3MHz Bandwidth 5730.2-5847.2MHz for 3MHz 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) 40 channels for 3MHz Bandwidth 40 channels for 3MHz 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) 3MHz for 3MHz Bandwidth 3MHz for 3MHz Bandwidth (CA mode) 1MHz for 10MHz Bandwidth 1MHz for 20MHz Bandwidth 1MHz for 40MHz Bandwidth
Antenna Type	Integral Antenna
Antenna Number	4 Integral Antennas, only SISO and 2X2MIMO modes supported.
Antenna Gain	3.0 dBi for Ant 0 & Ant 3 2.5 dBi for Ant 1 & Ant 2
The type of wideband data transmission equipment	Non-FHSS
<b>Technical Specification of 2.4GHz SDR</b>	
Operating Frequency	2403.5-2469.5MHz for 1.4MHz Bandwidth 2405.12-2471.12MHz for 1.4MHz Bandwidth (CA mode) 2405.5-2468.5MHz for 3MHz Bandwidth 2408.2-2471.2MHz for 3MHz Bandwidth (CA mode) 2407.5-2467.5MHz for 10MHz Bandwidth 2412.5-2462.5MHz for 20MHz Bandwidth 2422.5-2452.5MHz for 40MHz Bandwidth
Type of Modulation	OFDM (QPSK, 16QAM, 64QAM)
Channel Number	34 channels for 1.4MHz Bandwidth 34 channels for 1.4MHz Bandwidth (CA mode) 22 channels for 3MHz Bandwidth 22 channels for 3MHz Bandwidth (CA mode) 61 channels for 10MHz Bandwidth 51 channels for 20MHz Bandwidth 31 channels for 40MHz Bandwidth
Channel Separation	2MHz for 1.4MHz Bandwidth 2MHz for 1.4MHz Bandwidth (CA mode) 3MHz for 3MHz Bandwidth 3MHz for 3MHz Bandwidth (CA mode) 1MHz for 10MHz Bandwidth 1MHz for 20MHz Bandwidth 1MHz for 40MHz Bandwidth
Antenna Type	Integral Antenna
Antenna Number	4 Integral Antennas, only SISO and 2X2MIMO modes supported.
Antenna Gain	1.5 dBi for Ant 0 & Ant 3 2.0 dBi for Ant 1 & Ant 2
The type of wideband data transmission equipment	Non-FHSS

## 3. Test Results

### 3.1 Transmitter Requirements & Test Suites

#### 3.1.1 RF Exposure Compliance

**RESULT:** **Pass**

Test standard	:	FCC Part 1.1091
Limit	:	Table 1 of 47 CFR FCC Part 1.1310
Kind of test site	:	Shielded room

This device is mobile device, and the applicant declares that the minimum separation distance is greater than 20cm. Therefore MPE measurement or computational modelling should be used to determine compliance.

MPE Calculation is based on the conducted power, and considering maximum power and Antenna gain. The following formula is used to MPE evaluation.

$$Pd = \frac{P_{out} * G}{4R^2\pi}$$

Where

$P_d$  = power density in mW/cm<sup>2</sup> or W/m<sup>2</sup>

$P_{out}$  = output power to antenna in mW or W

$G_{num}$  = Antenna gain in numeric

$\pi$  = 3.14159

R = Distance between observation point and the center of radiator in cm or m

### 3.1.1.1 Radio Frequency Exposure Limit

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

### 3.1.1.2 Radio Frequency Exposure Calculation Formula

**Table 3: Test Results of RF Exposure Calculations for FCC, stand-alone mode**

Operating Mode	Max. EIRP* incl. tune-up (dBm)	Distance (cm)	MPE P <sub>d</sub> (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Verdict
2.4GHz SDR	32.00	20	0.315	1.0	Pass
5.8GHz SDR	32.50	20	0.354	1.0	Pass

Note:

1. The 2.4GHz SDR and 5.8GHz SDR mode of EUT cannot transmitting simultaneously.
2. 2.4G SDR and 5.8GHz SDR RF Output Power: Refer to test report CN22SRMQ 002 & CN22SRMQ 003.
3. EIRP= Conducted power +Directional Gain

### 3.1.1.3 Simultaneous transmission MPE

Not applicable.

The 2.4GHz SDR and 5.8GHz SDR mode of EUT cannot transmitting simultaneously.

### 3.1.1.4 Conclusion

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



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