Prüfbericht-Nr.: *Test report no.:*	**CN23PXI2 004**	**Auftrags-Nr.:** *Order no.*:	168400062	Seite 1 von 8 *Page 1 of 8*
Kunden-Referenz-Nr.: *Client reference no.:*	**N/A**	**Auftragsdatum:** *Order date:*	2022-11-23	
Auftraggeber: *Client:*	**SZ DJI TECHNOLOGY CO., LTD.** Lobby of T2, DJI Sky City, No. 53 Xianyuan Road, Xili Community, Xili Street, Nanshan District, Shenzhen, China			
Prüfgegenstand: *Test item:*	DJI Mavic 3 Pro, DJI Mavic 3 Pro Cine			
Bezeichnung / Typ-Nr.: *Identification / Type no.:*	L2S, L2E			
Auftrags-Inhalt: *Order content*:	Test Report			
Prüfgrundlage: *Test specification:*	FCC Part 2: Section 2.1091 RSS-102 Issue 5			

Wareneingangsdatum: *Date of sample receipt:*	2022-12-06	Please refer to photo documents
Prüfmuster-Nr.: *Test sample no:*	A003384103-003 A003384103-004	
Prüfzeitraum: *Testing period:*	2022-12-06 to 2023-01-13	
Ort der Prüfung: *Place of testing:*	TÜV Rheinland (Shenzhen) Co., Ltd.	
Prüflaboratorium: *Testing laboratory:*	TÜV Rheinland (Shenzhen) Co., Ltd.	
Prüfergebnis*: *Test result*:*	Pass	

geprüft von: *tested by:*	X Hardy Suo	**genehmigt von:** *authorized by:*	X Lin Lin
Datum: *Date:* 2023-02-03		**Ausstellungsdatum:** *Issue date:* 2023-02-03	
Stellung / *Position:*	Sachverständige(r) / Expert	**Stellung** / *Position:*	Sachverständige(r) / Expert

Sonstiges / *Other:*

FCC ID: SS3-L2ES2212, IC: 11805A-L2ES2212, HVIN: L2S, L2E

Applicant & Manufacturer: SZ DJI TECHNOLOGY CO., LTD., Lobby of T2, DJI Sky City, No. 53 Xianyuan Road, Xili Community, Xili Street, Nanshan District, Shenzhen, China

Zustand des Prüfgegenstandes bei Anlieferung: Prüfmuster vollständig und unbeschädigt
Condition of the test item at delivery: *Test item complete and undamaged*

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhaft
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
** Legend:*	*1 = very good*	*2 = good*	*3 = satisfactory*	*4 = sufficient*	*5 = poor*
	P(ass) = passed a.m. test specification(s)		*F(ail) = failed a.m. test specification(s)*	*N/A = not applicable*	*N/T = not tested*

1. Radio Frequency Exposure

RESULT: **Pass**

Test standard : FCC Part 2: Section 2.1091
KDB 447498 D01 General RF Exposure Guidance v06
RSS-102 Issue 5

1.1 Product Technical Information

The **EUT** (**E**quipment **U**nder **T**est) is an aircraft (DJI Mavic 3 Pro with model L2S, DJI Mavic 3 Pro Cine with model L2E). It supports Bluetooth BLE, 2.4GHz SDR, 2.4GHz Wi-Fi, 5.2GHz SDR, 5.8GHz SDR, 5.8GHz Wi-Fi, GPS/BDS/Galileo and ADS-B functions.
*remark: SDR means specific defined radio, and cannot changes radio specification via software / firmware by end-users.

According to the declaration of the applicant, the electrical circuit design and PCB layout are identical, the different is that L2E has an additional SSD than L2S.

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

General Information of EUT	**Value**
Kind of Equipment	DJI Mavic 3 Pro, DJI Mavic 3 Pro Cine
Type Designation	L2S (product name: DJI Mavic 3 Pro) L2E (product name: DJI Mavic 3 Pro Cine)
Operating Voltage	DC 15.4V (Re-charged Battery, 15.4 V, 5000mAh, 77Wh)
Extreme Temperature Range	-10ºC to +40ºC
Radiofrequency operating mode	1) Bluetooth: operating within 2400-2483.5MHz, supports BT 5.1@BLE only, 1Mbps&2Mbps 2) 2.4GHz SDR: operating within 2400-2483.5MHz, supports 1.4MHz/3MHz/10MHz/20MHz/40MHz Bandwidth 3) 2.4GHz Wi-Fi: operating within 2400-2483.5MHz, supports 20MHz/40MHz Bandwidth and IEEE 802.11 b/g/n20/n40/ax20/ax40 4) 5.2GHz SDR: operating within 5150-5250MHz, supports 10MHz/20MHz/40MHz Bandwidth **(not applicable for Canada market)** 5) 5.8GHz SDR: operating within 5725-5850MHz, supports 1.4MHz/3MHz/10MHz/20MHz/40MHz Bandwidth 6) 5.8GHz Wi-Fi: operating within 5725-5850MHz, supports 20MHz/40MHz/80MHz Bandwidth and IEEE 802.11 a/n20/n40/ac20/ac40/ac80/ax20/ax40/ax80 7) GPS & BDS & Galileo (receiver): operating within 1559-1610MHz 8) ADS-B (receiver): operating at 978MHz (1MHz Bandwidth) and 1090MHz (2MHz Bandwidth)
Technical Specification of Bluetooth	
Operating Frequency	2402-2480MHz
Type of Modulation	GFSK
Data Rate	1Mbps, 2Mbps
Channel Number	40 channels for Bluetooth BLE
Channel Separation	1MHz and 2MHz
Antenna Type	Integral Antenna
Antenna Number	1 (ANT0)

Antenna Gain	-2.5 dBi
The type of wideband data transmission equipment	DTS
Technical Specification of 2.4GHz SDR	
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	1Tx4Rx for SISO mode (ANT0 or ANT1 or ANT2 or ANT3) 2Tx4Rx for MIMO mode (ANT0+ANT1, or ANT0+ANT3, or ANT2+ANT1, or ANT2+ANT3)
Antenna Gain	1.5dBi for ANT0 2dBi for ANT1 2dBi for ANT2 1.5dBi for ATN3
The type of wideband data transmission equipment	DTS
Technical Specification of 2.4GHz Wi-Fi	
Operating Frequency	2412 - 2462MHz for 802.11b/g/n(HT20)/ax20(HE20) 2422 - 2452MHz for 802.11n(HT40)/ax40(HE40)
Type of Modulation	DSSS(DBPSK/DQPSK/CCK) OFDM(BPSK/QPSK/16QAM/64QAM) OFDMA(BPSK/QPSK/16QAM/64QAM/256QAM/1024QM)
Data Rate	1/2/5.5/11 Mbps for 802.11b 6/9/12/18/24/36/48/54 Mbps for 802.11g MCS0 ~ MCS15 for 802.11n MCS0 ~ MCS11 for 802.11ax
Multi-RU	No, full RU
Channel Number	11 channels for 802.11b/g/n(HT20)/ax20(HE20) 7 channels for 802.11n(HT40)/ax40(HE40)
Channel Separation	5 MHz
Antenna Type	Integral Antenna
Antenna Number	1Tx1Rx 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	DTS

transmission equipment	
Technical Specification of 5.2GHz SDR	
Operating Frequency	5157-5245MHz for 10MHz Bandwidth 5161-5240MHz for 20MHz Bandwidth 5170-5230MHz for 40MHz Bandwidth
Type of Modulation	OFDM (QPSK, 16QAM, 64QAM)
Channel Number	89 channels for 10MHz Bandwidth 80 channels for 20MHz Bandwidth 61 channels for 40MHz Bandwidth
Channel Separation	1MHz for 10MHz Bandwidth 1MHz for 20MHz Bandwidth 1MHz for 40MHz Bandwidth
Antenna Type	Integral Antenna
Antenna Number	1Tx4Rx for SISO mode (ANT0 or ANT1 or ANT2 or ANT3) 2Tx4Rx for MIMO mode (ANT0+ANT1, or ANT0+ANT3, or ANT2+ANT1, or ANT2+ANT3)
Antenna Gain	3dBi for ANT0 1dBi for ANT1 1dBi for ANT2 3dBi for ATN3
The type of wideband data transmission equipment	DTS
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	1Tx4Rx for SISO mode (ANT0 or ANT1 or ANT2 or ANT3) 2Tx4Rx for MIMO mode (ANT0+ANT1, or ANT0+ANT3, or ANT2+ANT1, or ANT2+ANT3)
Antenna Gain	3dBi for ANT0 2.5dBi for ANT1 2.5dBi for ANT2 3dBi for ATN3
The type of wideband data transmission equipment	DTS
Technical Specification of 5.8GHz Wi-Fi	

Operating Frequency	5745–5825MHz for 802.11 a/n20/n40/ac20/ac40/ac80/ax20/ax40/ax80
Type of Modulation	OFDM(BPSK/QPSK/16QAM/64QAM) OFDMA(BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM)
Data Rate	1) 6/9/12/18/24/36/48/54 Mbps for 802.11a 2) MCS0 ~ MCS15 for 802.11 20/n40/ac20/ac40/ac80 3) MCS0 ~ MCS11 for 802.11 ax20/ax40/ax80
Multi-RU	No, full RU
Channel Number	5 channels for 802.11a/n20/ac20/ax20 2 channels for 802.11n40/ac40/ax40 1 channels for 802.11ac80/ax80
Channel Separation	20MHz, 40MHz, 80MHz
Antenna Type	Integral Antenna
Antenna Number	1Tx1Rx for SISO mode (ANT0 or ANT1) 2Tx2Rx for MIMO mode (ANT0+ANT1)
Antenna Gain	2dBi for ANT0 2dBi for ANT1
The type of wideband data transmission equipment	DTS

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

For IC:

Frequency Range (MHz)	Electric Field (V/m rms)	Magnetic Field (A/m rms)	Power Density (W/m^2)	Reference Period (minutes)
$0.003\text{-}10^{21}$	83	90	-	Instantaneous*
0.1-10	-	$0.73/f$	-	6**
1.1-10	$87/f^{0.5}$	-	-	6**
10-20	27.46	0.0728	2	6
20-48	$58.07/f^{0.25}$	$0.1540/f^{0.25}$	$8.944/f^{0.5}$	6
48-300	22.06	0.05852	1.291	6
300-6000	$3.142f^{0.3417}$	$0.008335f^{0.3417}$	$0.02619f^{0.6834}$	6
6000-15000	61.4	0.163	10	6
15000-150000	61.4	0.163	10	$616000/f^{1.2}$
150000-300000	$0.158f^{0.5}$	$4.21 \times 10^{-4} f^{0.5}$	$6.67 \times 10^{-5} f$	$616000/f^{1.2}$

Note: f is frequency in MHz.
*Based on nerve stimulation (NS).
** Based on specific absorption rate (SAR).

1.4 Radio Frequency Exposure Calculation Formula

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

where: S = power density (in appropriate units, e.g. mW/cm^2)
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 Descriptions of Antennas

The EUT has 4 (ANT0, ANT1, ANT2, ANT3) antennas for 2.4G/5.2G/5.8GHz SDR and 2.4G/5.8GHz Wi-Fi for transmitting, the details as below table:

2.4GHz SDR and ANT Gain			
ANT0	ANT1	ANT2	ANT3
1.5dBi	2dBi	2dBi	1.5dBi
5.2GHz SDR and ANT Gain			
ANT0	ANT1	ANT2	ANT3
3.0dBi	1.0dBi	1.0dBi	3.0dBi
5.8GHz SDR and ANT Gain			
ANT0	ANT1	ANT2	ANT3
3.0dBi	2.5dBi	2.5dBi	3.0dBi
BT/2.4GHz Wi-Fi and ANT Gain		**5.8GHz Wi-Fi and ANT Gain**	
ANT0	ANT1	ANT0	ANT1
-2.5dBi	-2.5dBi	2.0dBi	2.0dBi

ANT ID and Tx combinations	BT	2.4GHz SDR	5.2GHz SDR	5.8GHz SDR	2.4GHz Wi-Fi	5.8GHz Wi-Fi
ANT0	☒	☒	☒	☒	☒	☒
ANT1	☐	☒	☒	☒	☒	☒
ANT2	☐	☒	☒	☒	☐	☐
ANT3	☐	☒	☒	☒	☐	☐
ANT0+ANT1	☐	☒	☒	☒	☒	☒
ANT0+ANT3	☐	☒	☒	☒	☐	☐
ANT2+ANT1	☐	☒	☒	☒	☐	☐
ANT2+ANT3	☐	☒	☒	☒	☐	☐

1.6 Calculation Result

1.6.1 Stand-alone transmission MPE

Mode	*Measured RF Output Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm²)	FCC Limit (mW/cm²)	Power Density (W/m²)	IC Limit (W/m²)
Bluetooth	10.13	-2.5	20	0.001	1.0	0.011	5.3
2.4GHz Wi-Fi	29.70	-2.5	20	0.104	1.0	1.044	5.3
2.4GHz SDR	28.06	2	20	0.202	1.0	2.016	5.3
5.2GHz SDR**	18.18	3	20	0.026	1.0	--	--
5.8GHz Wi-Fi	19.10	2	20	0.026	1.0	0.256	9.7
5.8GHz SDR	27.09	3	20	0.203	1.0	2.029	9.7

Note:
1. *Bluetooth, 2.4GGHz Wi-Fi, 2.4GHz SDR RF Output Power: Refer to test report CN23PXI2 001
2. *5.2GHz SDR RF Output Power: Refer to test report CN23PXI2 003
3. *5.8GHz Wi-Fi, 5.8GHz SDR RF Output Power: Refer to test report CN23PXI2 002
4. **5.2GHz SDR is not applicable for Canada market

1.6.2 Simultaneous transmission MPE

The product has multiple transmitters, the Simultaneous Transmission possibilities are listing below:

Simultaneous Tx Combination	Configuration
1	2.4GHz Wi-Fi + 5.2GHz SDR
2	2.4GHz Wi-Fi + 5.8GHz SDR
3	5.8GHz Wi-Fi + 2.4GHz SDR

Per KDB 447498 D01 v06, simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on calculated or measured field strengths or power density, is ≤ 1.0.

For FCC

No.	Test Mode	Calculation (mW/cm²)	Limit (mW/cm²)	Calculation	Limit	Result
1	2.4GHz Wi-Fi + 5.2GHz SDR	0.104	1	0.130	1	Pass
		0.026	1			
2	2.4GHz Wi-Fi + 5.8GHz SDR	0.104	1	0.307	1	Pass
		0.203	1			
3	5.8GHz Wi-Fi + 2.4GHz SDR	0.026	1	0.228	1	Pass
		0.202	1			

For IC

No.	Test Mode	Calculation (W/m²)	Limit (W/m²)	Calculation	Limit	Result
1	2.4GHz Wi-Fi + 5.8GHz SDR	1.044	5.3	0.406	1	Pass
		2.029	9.7			
2	5.8GHz Wi-Fi + 2.4GHz SDR	0.256	9.7	0.407	1	Pass
		2.016	5.3			

Remark: Bluetooth function is only for quick connecting of 2.4GHz Wi-Fi and 5.8GHz Wi-Fi, without continuous transmissions, hence no simultaneous transmission for Bluetooth and 2.4GHz/5.2GHz/5.8GHz SDR, Bluetooth and 2.4G/5.8GHz Wi-Fi.

1.6.3 Conclusion

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