

TEST REPORT

Applicant: 70mai Co., Ltd.
Address: Room 2220, Building 2, No.588 Zixing Road,
Minhang District, Shanghai, China
Equipment Type: Dash Cam
Model Name: A900-RC44H(refer to section 2.3)
Brand Name: 70mai
FCC ID: 2AOK9-D863
Test Standard: 47 CFR Part 2.1091
KDB 447498 D04 v01
Sample Arrival Date N/A
Test Date: N/A
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ISSUED BY:

Shanghai Tejet Communications Technology Co., Ltd. Testing Center

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Revision History

<u>Version</u>	<u>Issue Date</u>	<u>Revisions Content</u>
<u>Rev. 01</u>	<u>Jul. 30, 2026</u>	<u>Initial Issue</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shanghai Tejet Communications Technology Co., Ltd. Testing Center
Address	1-2/F., Building 1, No.222, Xuanlan Road, Xuanqiao, Pudong New District, Shanghai, China

1.2 Test Location

Name	Shanghai Tejet Communications Technology Co., Ltd. Testing Center
Location	1-2/F., Building 1, No.222, Xuanlan Road, Xuanqiao, Pudong New District, Shanghai, China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1352. The laboratory is a testing organization accredited by ISED as a accredited testing laboratory. The company number is 29671 and CAB identifier number is CN0142.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	70mai Co., Ltd.
Address	Room 2220, Building 2, No.588 Zixing Road, Minhang District, Shanghai, China

2.2 Manufacturer Information

Manufacturer	70mai Co., Ltd.
Address	Room 2220, Building 2, No.588 Zixing Road, Minhang District, Shanghai, China

2.3 General Description for Equipment under Test (EUT)

EUT Name	Dash Cam
Model Name Under Test	A900-RC44H
Series Model Name	A900
Description of Model name differentiation	A900-RC44H and A900 are two models of the same configuration, The circuit diagram and components are exactly the same, too. The only difference is that the model A900-RC44H has an Rear Camera (excluding the battery and radio frequency), but there are no other differences. (This information was provided by the applicant)
Hardware Version	LBCM061B1
Software Version	0.07W
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Technical Information

Network and Wireless connectivity	Bluetooth (BLE:1M&2M) 2.4G WIFI 802.11b, 802.11g, 802.11n(HT20/40), 802.11ax(HE20/40) 5G WIFI 802.11a, 802.11n(HT20/40), 802.11ac(VHT20/40), 802.11ax(HE20/40) GPS, GLONASS, Galileo, QZSS
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The requirement for the following technical information of the EUT was tested in this report:

Operating Mode	Bluetooth, WIFI	
Frequency Range	Bluetooth	2402 ~ 2480 MHz
	2.4G WIFI	2412 ~ 2462 MHz
	5G WIFI	U-NII-1: 5150 MHz to 5250 MHz, U-NII-3: 5725 MHz to 5850 MHz
Antenna Type	Bluetooth	PCB Antenna
	WIFI	PCB Antenna
Exposure Category	General Population/Uncontrolled Exposure	
Product Type	Mobile Device	
Note: This EUT doesn't have a simultaneous transmission mode.		

3 SUMMARY OF TEST RESULT

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 2.1091	Radiofrequency radiation exposure evaluation: mobile devices
2	KDB 447498 D04 v01	447498 D04 Interim General RF Exposure Guidance v01

4 DEVICE CATEGORY AND LEVELS LIMITS

Mobile Devices:

CFR Title 47 §2.1091(b)

For purposes of this section, a mobile device is 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 least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons.

FCC KDB 447498 D04 General RF Exposure Guidance v01 Limit

Evaluation of compliance with the exposure limits in § 1.1310 is necessary if the ERP of the device is greater than ERP_{20cm} in Formula (B.1) [repeated from § 2.1091(c)(1) and § 1.1307(b)(1)(i)(B)].

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

If the ERP is not easily obtained, then the available maximum time-averaged power may be used (i. e., without consideration of ERP only if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda/4$ or if the antenna gain is less than that of a half-wave dipole.

SAR-based exemptions are constant at separation distances between 20 cm and 40 cm to avoid discontinuities in the threshold when transitioning between SAR-based and MPE-based exemption criteria at 40 cm, considering the importance of reflections.

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold P_{th} (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by Formula (B.2).

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B. 2})$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1). The example values shown in Table B.2 are for illustration only.

Table B.2—Example Power Thresholds (mW)

Frequency (MHz)	Distance (mm)										
		5	10	15	20	25	30	35	40	45	50
300		39	65	88	110	129	148	166	184	201	217
450		22	44	67	89	112	135	158	180	203	226
835		9	25	44	66	90	116	145	175	207	240
1900		3	12	26	44	66	92	122	157	195	236
2450		3	10	22	38	59	83	111	143	179	219
3600		2	8	18	32	49	71	96	125	158	195
5800		1	6	14	25	40	58	80	106	136	169

According with FCC KDB 447498 D04, Appendix A, Per § 1.1307(b)(3)(i)(A), a single RF source is exempt RF device (from the requirement to show data demonstrating compliance to RF exposure limits, as previously mentioned) if the available maximum time-averaged power is no more than 1 mW, regardless of separation distance.

This exemption applies to all operating configurations and exposure conditions, for the frequency range 100 kHz to 100 GHz, regardless of fixed, mobile, or portable device exposure conditions. This is a standalone exemption, and it cannot be applied in conjunction with any other test exemption.

When maximum available power each individual transmitting antenna within the same time averaging period is ≤ 1 mW, and the nearest parts of the antenna structures of the simultaneously operating transmitters are separated by at least 2 cm.

When the aggregate maximum available power of all transmitting antennas is ≤ 1 mW in the same time-averaging period.

5 ASSESSMENT RESULT

5.1 Output Power

Bluetooth	
Mode	BLE MAX
Conducted Power (dBm)	4.46
Antenna Gain (dBi)	0.61
EIRP (dBm)	5.07
Note: This report listed the worst case conducted power value, please refer to RF test report No. Ti-EE26050691-601 for more details.	

2.4G WIFI	
Mode	2.4G WIFI MAX
Conducted Power (dBm)	29.32
Antenna Gain (dBi)	0.61
EIRP (dBm)	29.93
Note: This report listed the worst case conducted power value, please refer to RF test report No. Ti-EE26050691-602 for more details.	

5G WIFI		
Mode	U-NII-1	U-NII-3
Conducted Power (dBm)	15.64	16.35
Antenna Gain (dBi)	0.16	0.30
EIRP (dBm)	15.80	16.65
Note: This report listed the worst case conducted power value, please refer to RF test report No. Ti-EE26050691-603 for more details.		

5.2 Tune-up power

Mode		Conducted Power Range (dBm)		EIRP Range (dBm)		ERP Range (dBm)	
Bluetooth		3.00	5.00	3.61	5.61	1.46	3.46
2.4G WIFI		28.00	30.00	28.61	30.61	26.46	28.46
5G WIFI	U-NII-1	15.00	17.00	15.16	17.16	13.01	15.01
	U-NII-3	15.00	17.00	15.30	17.30	13.15	15.15
Note1: ERP= EIRP -2.15dB.							
Note2: According KDB 447498 D04, used the greater of maximum conducted power and ERP to compare with the threshold value Pth.							

5.3 RF Exposure Evaluation Result

Evolution mode	f(MHz)	Distance (cm)	Maximum power (dBm)	Threshold Power (mW)	Plimit(mW)	Verdict
Bluetooth	2402	20	5.00	3.16	3060	Pass
2.4G WIFI	2412	20	30.00	1000	3060	Pass
5G WIFI (U-NII-1)	5250	20	17.00	50.12	3060	Pass
5G WIFI (U-NII-3)	5750	20	17.00	50.12	3060	Pass

5.4 Conclusion

This EUT is deemed to comply with the reference level limits, therefore the basic restrictions are compliant with human exposure limits.

Statement

1. The Testing Center guarantees the scientificity, accuracy and impartiality of the test, and is responsible for all the information in the report, except the information provided by the customer. The customer is responsible for the impact of the information provided on the validity of the results.
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--END OF REPORT--