

# Maximum Permissible Exposure Report

Product	:	Dashcam
Model Name	:	DrivePro 250
FCC ID	:	A4Z-A00E61
Test Regulation	:	47 CFR FCC Part 2.1091
<b>Received Date</b>	:	2021/4/1
Issued Date	:	2021/5/17
Applicant	:	Transcend Information Inc. No. 70, Xing Zhong Rd., NeiHu Dist., Taipei, Taiwan
Issued By	:	Underwriters Laboratories Taiwan Co., Ltd. Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan



The results reported herein have been performed in accordance with the laboratory's terms of accreditation. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report are responsible of the test sample(s) provided by the client only and are not to be used to indicate applicability to other similar products.



# **REVISION HISTORY**

## Original Test Report No.: 4789884421-US-R1-V0

Rev.	Test report No.	Date	Page revised	Contents
Original	Test report No. 4789884421-US-R1-V0	2021/5/17	-	Initial issue
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#### 1. Attestation of Test Results

APPLICANT:	Transcend Information Inc. No. 70, Xing Zhong Rd., NeiHu Dist., Taipei, Taiwan		
EUT DESCRIPTION:	Dashcam		
BRAND:	Transcend		
MODEL:	DrivePro 250		
SAMPLE STAGE:	Engineering Verification Test sample		

APPLICABLE STANDARDS				
STANDARD	Test Results			
47 CFR FCC PART 2.1091	PASS			

Underwriters Laboratories Taiwan Co., Ltd. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by Underwriters Laboratories Taiwan Co., Ltd. based on interpretations and/or observations of test results. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by Underwriters Laboratories Taiwan Co., Ltd. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Underwriters Laboratories Taiwan Co., Ltd. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Prepared By:

Sally Lu Project Handler Date: 2021/5/17

Approved and Authorized By:

Waternil Guan Date : 2021/5/17 Engineer



## 2. Test Methodology and Reference Procedures

The tests documented in this report were performed in accordance with KDB 447498 D01 General RF Exposure Guidance v06.

### **3.** Facilities and Accreditation

Test Location	Underwriters Laboratories Taiwan Co., Ltd.	
Address	AddressBuilding B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan	
Accreditation Certificate	Underwriters Laboratories Taiwan Co., Ltd. is accredited by TAF, Laboratory Code 3398. The full scope of accreditation can be viewed at <a href="http://accreditation.taftw.org.tw/taf/public/basic/viewApplyItems.action?unitNo=3398">http://accreditation.taftw.org.tw/taf/public/basic/viewApplyItems.action?unitNo=3398</a>	



## 4. Equipment Under Test

#### 4.1. Description of EUT

Product Name	Dashcam				
Brand Name	Transcend				
Model Name	DrivePro 250	DrivePro 250			
<b>Operating Frequency</b>	WLAN	2412MHz ~ 2462MHz			
Modulation	WLAN CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM				
Number of Channel	2.4G WLAN	11 for 802.11b, 802.11g, 802.11n (HT20) 7 for 802.11n (HT40)			
S/N	3765389				
Software Version	1.1				



#### Note:

1. The EUT provides one completed transmitter and one receiver.

Modulation Mode	Tx,Rx Function
802.11b	1TX,1RX
802.11g	1TX,1RX
802.11n (HT20)	1TX,1RX
802.11n (HT40)	1TX,1RX

2. The EUT contains following accessory devices:

Product	Brand	Model	Description
Car Charger	Transcend	TS-DPL	Input: 10-28Vdc, 1.5A Output: 4.6-5.25Vdc, 2A
Car Charger	Transcend	TS-DPL3	Input: 10-24Vdc, 1.6A Output: 5Vdc, 2.4A
Hardware Power Cable	Transcend	TS-DPK2	Input: 10-28Vdc, 1.35A Output: 5Vdc, 2A
MicroSD Card	Transcend	-	Memory type: 32GB/ 64GB/128GB
Cradle	-	-	-

3. The above EUT information is declared by manufacturer and for more detailed features description, please refer the manufacturer's or user's manual.



#### 4.2. Description of Available Antennas

Ant. No.	Transmitter Circuit	Brand Name	d Name Model Name		Maximum Gain (dBi)
		WALSIN			
1	Chain $(0)$	TECHNOLOGY	RFANT3216120A3T	Chip	2.8
		CORPORATION			

Note: The above antenna information was provided from customer and for more detailed features description, please refer the manufacturer's specification or user's manual.



### 5. Requirement

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure								
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E 2,  H 2 or S (minutes)				
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				
Note 1: $f = frequency$	Note 1: f = frequency in MHz, * means Plane-wave equivalent power density							

Note 2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Power Density (S) is calculated by the following formula:

 $S = (P*G) / 4\pi R^2$ 

where: S = power density (in appropriate units, e.g. mW/ cm<sup>2</sup>)

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)



## 6. Radio Frequency Radiation Exposure Evaluation

Evaluation Frequency	Max. Average power	Antenna Gain	Max. EIRP	Max. EIRP	Power density @ 20 cm	Limit
(MHz)	(dBm)	(dBi)	(dBm)	( <b>mW</b> )	(mW/cm <sup>2</sup> )	$(mW/cm^2)$
2412 ~ 2462	13.98	2.08	16.06	40.365	0.00803	1

Note:

1. Max. EIRP (dBm) = Max. Average power (dBm) + Antenna Gain (dBi)

2. Max. EIRP (mW) =  $10^{(Max. EIRP (dBm) / 10)}$ 

3. Power density (mW/cm<sup>2</sup>) = Max. EIRP (mW) / [ $4 \times \pi \times (\text{calculated distance})^2$ ], the calculated distance is 20 cm.

#### **Conclusion:**

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.

### **END OF REPORT**