

# **Declaration of conformity**

Certification No.: ATJC21082580004700F

Reference report No. : ATJC21082580004700F

Applicant : Redkey USB LTD

Address : Kemp House, 160 City Road, London, EC1V 2NX, United Kingdom

Manufacturer : Redkey USB LTD

Address : Kemp House, 160 City Road, London, EC1V 2NX, United Kingdom

Product Name : USB Flash Drive

RKLEDV4UDP2ZN, RKLEDV4UDP3ZN, GKLEDV4UDP3ZN,

Model No. : AULEDV4UDP3ZN, PLEDV4UDP3ZN, OLEDV4UDP3ZN,

MLEDV4UDP3ZN, WLEDV4UDP3ZN, QLEDV4UDP3ZN

Rating(s) : 5V...., 1A

Trademark : N/A

Sufficient samples of the product have been tested and found to be in conformity with

Test Standards : CFR47, FCC Part 15 Subpart B, ANSI C63.4: 2014

The certification holder above has the right to fix FCC marking on the products complying with the specified standards.

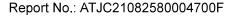
The certificate is based on a single evaluation of sample of above mentioned product. It does not imply an assessment of the whole production process.



Authorized Signer :









# FCC 47 CFR PART 15 Subpart B TEST REPORT

Equipment USB Flash Drive

Trademark N/A

RKLEDV4UDP2ZN, RKLEDV4UDP3ZN, GKLEDV4UDP3ZN,

Model No. AULEDV4UDP3ZN, PLEDV4UDP3ZN, OLEDV4UDP3ZN,

MLEDV4UDP3ZN, WLEDV4UDP3ZN, QLEDV4UDP3ZN

Report No. ATJC21082580004700F

Applicant Redkey USB LTD

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Kemp House, 160 City Road, London, EC1V 2NX, United Kingdom

Prepared by Shenzhen An-Teng Testing Service Co.

Floor 5, No. 11, Hebei Industrial Zone, Hualian Commu nity, Longhua

Street, Longhua District, Shenzhen,

Date of Test August 23 - August 25, 2021

Date of Issue August 25, 2021

Test Standard(s) CFR47, FCC Part 15 Subpart B, ANSI C63.4: 2014

In the configuration tested, the EUT complied with the standards specified above.

Tested:

Cris Song / Engineer

Date: August 25, 2021

Approved:

Date: August 25, 2021

#### Note:

The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report shall not be reproduced except in full, without prior written approval of ATJC. This document may be altered or revised by ATJC, personnel only, and shall be noted in the revision of the document.



# **Revision History**

Rev.	Issue Date	Revisions	Effect Page	Revised By
0	August 25, 2021	Initial Issue	All Page	Bussia Chen



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### 1. GENERAL INFORMATION

### 1.1. Description of EUT

1111200011pm011 01 20 1	
Equipment	USB Flash Drive
Trade Mark	N/A
Model Name	RKLEDV4UDP2ZN
Serial No.	RKLEDV4UDP3ZN, GKLEDV4UDP3ZN, AULEDV4UDP3ZN, PLEDV4UDP3ZN, OLEDV4UDP3ZN, MLEDV4UDP3ZN, WLEDV4UDP3ZN, QLEDV4UDP3ZN
Model Difference	All models are the same except for the difference in appearance, size and power
I/O Port	N/A
Rated Power Supply	5V <b></b> , 1A
Testing Voltage	5V <b></b> , 1A
EUT Power Rating	5W
Configuration	⊠ Table-top □ Floor-standing
Accessory Device	N/A
Cable Supplied	N/A

### 1. The EUT uses following adapter

Adapter	 
Manufacturer	 
Model	 
AC Input Power	 
DC Output Power	 
Plug Type	 
Power Cord	 

## 2. Other Accessory Device List and Details

Description	Manufacturer	Model	Note

# External I/O Cable

Cable Description	Shielded Type	Ferrite Core	Length(m)	Note
	☐ Shielded ⊠ Non-shielded	⊠ Yes □ No		
	-			

3. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or the User's Manual.



# 2. TEST SUMMARY

Test procedures according to the technical standards:

FCC Rules	Test Item	Test Result
§15.107	Conducted Emission	PASS
§15.109	Radiated Emission	PASS

Remark: N/A is abbreviation for Not Applicable.

The test was carried out in all the test modes, only the worst data are list in report.



### 3. FACILITIES

#### 3.1. Test Facility

#### ATJC-LAB

Floor 5, No. 11, Hebei Industrial Zone, Hualian Community, Longhua Street, Longhua District, Shenzhen, China.

#### 3.2. Test Instruments

The following list contains measurement equipment used for testing. The equipment conforms to the requirement of CISPR 16-1, ANSI C63.2 and other required standards.

Calibration of all test and measurement, including any accessories that may effect such calibration, is checked frequently to ensure the accuracy. Adjustments are made and correction factors are applied in accordance with the instructions contained in the respective.

# Table list of the test and measurement equipment

#### **Conducted Emission Measurement**

Item	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1	AMN	R&S	ESH3-Z5	831551852	2021.10.30
2	Pulse limiter	R&S	ESH3Z2	357881052	2021.10.30
3	EMI test Receiver	R&S	ESCI	834115/006	2021.11.01
4	Coaxial cable	ZDECL	Z302S-BNCJ-BNCJ-1.5M	18091904	2021.10.30
				Ver.	
5	CE Test software	FALA	EZ-EMC	EMC-con3A1	N/A
				.1	

#### Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1	TRILOG Broadband Antenna	Schwarzbeck	VULB 9168	869	2021.11.02
2	Double Ridged Broadband Horn Antenna	Schwarzbeck	BBHA 9120 D	1911	2021.11.02
3	Preamplifier	Agilent	8449B	3008A01838	2021.11.01
4	Amplifier	HP	8447E	2945A02747	2021.11.01
5	Coaxial cable	ETS	RFC-SNS-100-NMS-80 NI	1	2021.11.01
6	Coaxial cable	ETS	RFC-SNS-100-NMS-20 NI	1	2021.11.01
7	Coaxial cable	ETS	RFC-SNS-100-SMS-20 NI	1	2021.11.01
8	Coaxial cable	ETS	RFC-NNS-100-NMS-300 NI	1	2021.11.01
9	EMI test Receiver	R&S	ESPI	100362	2021.11.01
10	MXA signal analyzer	Agilent	N9020A	MY52090073	2021.11.01
11	RE Test software	FALA	EZ-EMC	Ver. FA-03A2 RE	N/A



# 4. Measurement uncertainty

The following table is for the measurement uncertainty, which is calculated as per the document CISPR 16-4 and ANSI C63.4.

Test	Parameters	Expanded Uncertainty (U <sub>Lab</sub> )	Expanded Uncertainty (U <sub>Cispr</sub> )
Conducted Emission	Level Accuracy: 150kHz to 30MHz	±1.22 dB	±3.6 dB
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	±3.67 dB	±5.2 dB
Radiated Emission	Level Accuracy: Above 1000MHz	±4.79 dB	N/A

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

# 4.1. Operating condition of EUT

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively

Pretest Mode	Description
Mode	Running

For Conducted Test	
Final Test Mode	Description
Mode	Running

For Conducted Test				
Final Test Mode	Description			
Mode	Running			

#### 4.2. Test conditions

Temperature: 15-25 °C Relative Humidity: 30-60 %

Atmospheric pressure: 800hPa-1060hPa



# 5. Conducted Emission

#### 5.1.Limit

## 

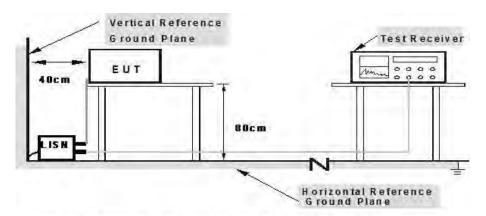
Fraguency of emission (MHz)	Conducted limit (dBµV)			
Frequency of emission (MHz)	Quasi-peak	Average		
0.15-0.5	66 to 56*	56 to 46*		
0.5-5	56	46		
5-30	60	50		

<sup>\*</sup>Decreases with the logarithm of the frequency.

# ☐ For Class A devices:

Fraguency of omission (MHz)	Conducted limit (dBμV)			
Frequency of emission (MHz)	Quasi-peak	Average		
0.15-0.5	79	66		
0.5-30	73	60		

### 5.2. Test setup



Note: 1.Support units were connected to second LISM.

2.Both of LISMs (AMM) are 80 cm from EUT and at least 80 from other units and other metal planes

The setup of EUT is according with ANSI C63.4 measurement procedure. Specification used with FCC Part 15 limits.

#### 5.3. EMI Test Receiver Setup

Frequency Range	9kHz-30MHz
Resolution Bandwidth	200Hz (9kHz-150kHz) 9kHz (150kHz-30MHz)



### 5.4. Test procedure

Measurement was performed in shielded room, and instruments used were followed clause 4 of ANSI C63.4.

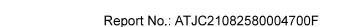
Detailed test procedure was following clause 7 of ANSI C63.4.

Frequency range 150kHz - 30MHz was checked and EMI receiver measurement bandwidth was set to 9 kHz.

#### 5.5. Test results

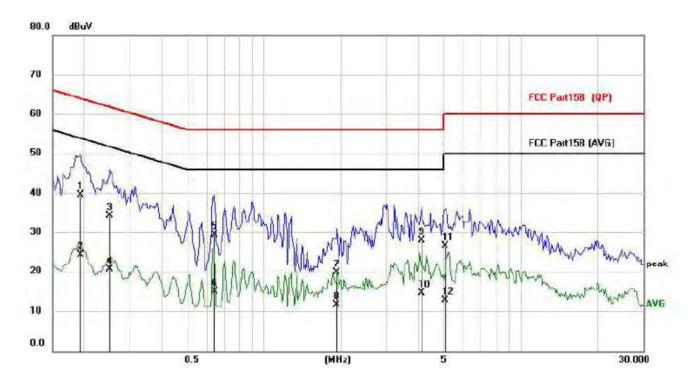
#### **PASS**

Please refer to the following page.





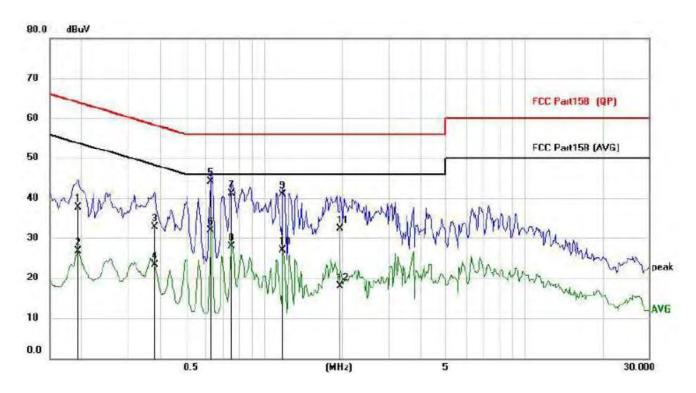
# Polarization: L



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1929	28.57	10.92	39.49	63.91	-24.42	QP	
2		0.1929	13.45	10.92	24.37	53.91	-29.54	AVG	
3		0.2514	23.26	10.92	34.18	61.71	-27.53	QP	
4	/	0.2514	9.58	10.92	20.50	51.71	-31.21	AVG	
5		0.6414	18.46	10.92	29.38	56.00	-26.62	QP	
6		0.6414	4.04	10.92	14.96	46.00	-31.04	AVG	
7		1.9206	8.68	10.96	19.64	56.00	-36.36	QP	
8		1.9206	0.49	10.96	11.45	46.00	-34.55	AVG	
9		4.0959	16.85	11.06	27.91	56.00	-28.09	QP	
10		4.0959	3.45	11.06	14.51	46.00	-31.49	AVG	
11		5.1020	15.38	11.10	26.48	60.00	-33.52	QP	
12		5.1020	1.54	11.10	12.64	50.00	-37.36	AVG	







No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1929	26.78	10.92	37.70	63.91	-26.21	QP	
2	0.1929	15.72	10.92	26.64	53.91	-27.27	AVG	
3	0.3800	21.69	10.92	32.61	58.28	-25.67	QP	
4	0.3800	12.37	10.92	23.29	48.28	-24.99	AVG	
5 *	0.6258	33.11	10.92	44.03	56.00	-11.97	QP	
6	0.6258	20.92	10.92	31.84	46.00	-14.16	AVG	
7	0.7506	30.25	10.92	41.17	56.00	-14.83	QP	
8	0.7506	17.08	10.92	28.00	46.00	-18.00	AVG	
9	1.1835	30.00	10.92	40.92	56.00	-15.08	QP	
10	1.1835	15.89	10.92	26.81	46.00	-19.19	AVG	
11	1.9674	21.27	10.96	32.23	56.00	-23.77	QP	
12	1.9674	6.88	10.96	17.84	46.00	-28.16	AVG	



### 6. Radiated emissions

#### 6.1 Limit

#### 

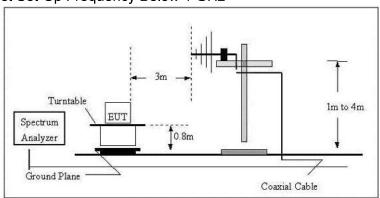
Frequency of emission	Field strength (n	nicrovolts/meter)
(MHz)	(microvolts/meter)	(dBµV/m)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

# ☐ For Class A devices (at 10m):

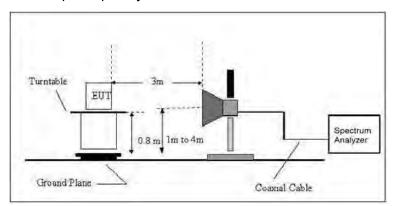
	•	
Frequency of emission	Field strength (r	nicrovolts/meter)
(MHz)	(microvolts/meter)	(dBµV/m)
30-88	90	39
88-216	150	43.5
216-960	210	46.4
Above 960	300	49.5

# 6.2. Test setup

### Radiated Emission Test Set-Up Frequency Below 1 GHz



### Radiated Emission Test Set-Up Frequency Above 1GHz



The radiated tests wer performed in 3 meter3 Charmber test site, using the setup accordance with the ANSI C63.4:2014.



#### EMI Test Receiver Setup and Spectrum Analyzer Setup

During the radiated emission test, the EMI test receiver and Spectrum Analyzer were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Detector
30MHz-1000MHz	100kHz	300kHz	120kHz	QP
Above 1GHz	1MHz	3MHz	1	PK
Above IGHZ	1MHz	10Hz	1	AVG

#### 6.3. Test procedure

The measurement was performed in a semi-anechoic chamber, and instruments used were followed clause 4 of ANSI C63.4.

Detailed test procedure was following clause 8 of ANSI C63.4.

#### 6.4. Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain The "Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Limit - Corrected Amplitude

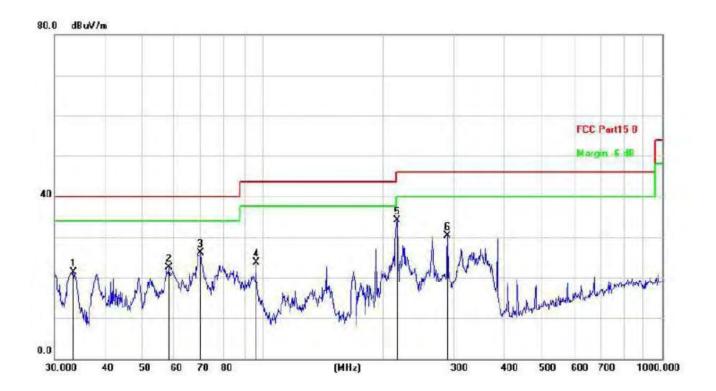
#### 6.5. Test results

#### **PASS**

Please refer to the following page.



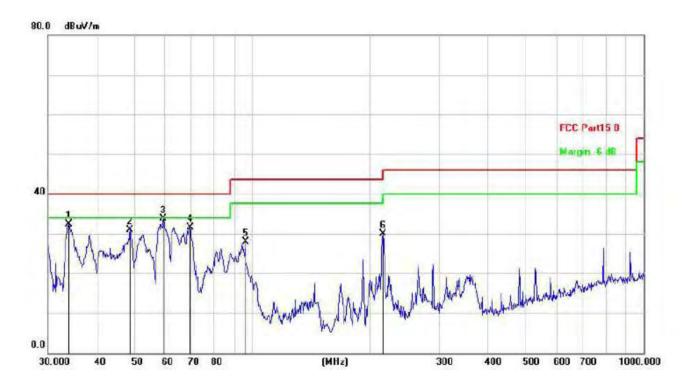
# Polarization: H



Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
33.4449	39.67	-18.38	21.29	40.00	-18.71	QP
58.2030	41.17	-18.70	22.47	40.00	-17.53	QP
69.8450	46.11	-19.91	26.20	40.00	-13.80	QP
96.0986	44.53	-20.82	23.71	43.50	-19.79	QP
216.7828	53.60	-19.52	34.08	46.00	-11.92	QP
289.0021	49.34	-18.94	30.40	46.00	-15.60	QP
	MHz 33.4449 58.2030 69.8450	Freq. Level MHz dBuV 33.4449 39.67 58.2030 41.17 69.8450 46.11 96.0986 44.53 216.7828 53.60	Freq. Level Factor  MHz dBuV dB  33.4449 39.67 -18.38  58.2030 41.17 -18.70  69.8450 46.11 -19.91  96.0986 44.53 -20.82  216.7828 53.60 -19.52	Freq. Level Factor ment  MHz dBuV dB dBuV/m  33.4449 39.67 -18.38 21.29  58.2030 41.17 -18.70 22.47  69.8450 46.11 -19.91 26.20  96.0986 44.53 -20.82 23.71  216.7828 53.60 -19.52 34.08	Freq.         Level         Factor         ment         Limit           MHz         dBuV         dB         dBuV/m         dB/m           33.4449         39.67         -18.38         21.29         40.00           58.2030         41.17         -18.70         22.47         40.00           69.8450         46.11         -19.91         26.20         40.00           96.0986         44.53         -20.82         23.71         43.50           216.7828         53.60         -19.52         34.08         46.00	Freq.         Level         Factor         ment         Limit         Over           MHz         dBuV         dB         dBuV/m         dB/m         dB           33.4449         39.67         -18.38         21.29         40.00         -18.71           58.2030         41.17         -18.70         22.47         40.00         -17.53           69.8450         46.11         -19.91         26.20         40.00         -13.80           96.0986         44.53         -20.82         23.71         43.50         -19.79           216.7828         53.60         -19.52         34.08         46.00         -11.92



# Polarization: V



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		33.9174	50.60	-18.35	32.25	40.00	-7.75	QP
2		48.6719	49.39	-18.42	30.97	40.00	-9.03	QP
3	*	59.2325	52.50	-18.73	33.77	40.00	-6.23	QP
4		69.3568	51.33	-19.85	31.48	40.00	-8.52	QP
5		96.0986	48.65	-20.82	27.83	43.50	-15.67	QP
6		216.0240	49.51	-19.55	29.96	46.00	-16.04	QP



# 7. Photographs of EUT

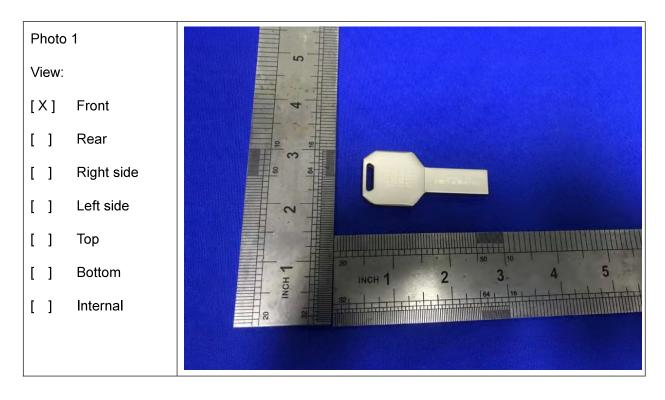






Photo 3	2
View:	
[ ] Front	
[ ] Rear	8 3
[ ] Right side	
[ ] Left side	7 - 3
[ ] Top	20 50 10
[ ] Bottom	INCH 1 2 3. 4
[X] Internal	8 8 8

----- End of the report -----



# **Declaration of conformity**

Certification No.: ATJC21090980002700F

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Address : Kemp House, 160 City Road, London, EC1V 2NX, United Kingdom

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Product Name : USB Flash Drive

RKUSBCV4PCBA3AL, BKUSBCV4PCBA3AL, GKUSBCV4PCBA3AL, AUKUSBCV4PCBA3AL,

Model No. : PKUSBCV4PCBA3AL, OKUSBCV4PCBA3AL,

MKUSBCV4PCBA3AL, WKUSBCV4PCBA3AL,

QKUSBCV4PCBA3AL

Rating(s) : 5V...., 1A

Trademark : N/A

Sufficient samples of the product have been tested and found to be in conformity with

Test Standards : CFR47, FCC Part 15 Subpart B, ANSI C63.4: 2014

The certification holder above has the right to fix FCC marking on the products complying with the specified standards.

The certificate is based on a single evaluation of sample of above mentioned product. It does not imply an assessment of the whole production process.



Authorized Signer:

Henry Tian Manage



Shenzhen An-Teng Testing Service Co., Ltd



# FCC 47 CFR PART 15 Subpart B TEST REPORT

Equipment USB Flash Drive

Trademark N/A

RKUSBCV4PCBA3AL, BKUSBCV4PCBA3AL, GKUSBCV4PCBA3AL,

Model No. AUKUSBCV4PCBA3AL, PKUSBCV4PCBA3AL, OKUSBCV4PCBA3AL, MKUSBCV4PCBA3AL,

WKUSBCV4PCBA3AL, QKUSBCV4PCBA3AL

Report No. ATJC21090980002700F

Applicant Redkey USB LTD

Kemp House, 160 City Road, London, EC1V 2NX, United Kingdom

Manufacturer Redkey USB LTD

Kemp House, 160 City Road, London, EC1V 2NX, United Kingdom

Prepared by Shenzhen An-Teng Testing Service Co.

Floor 5, No. 11, Hebei Industrial Zone, Hualian Community, Longhua

Street, Longhua District, Shenzhen,

Date of Test Sep. 06 - Sep. 09, 2021

Date of Issue Sep. 09, 2021

Test Standard(s) CFR47, FCC Part 15 Subpart B, ANSI C63.4: 2014

In the configuration tested, the EUT complied with the standards specified above.

Tested : Cris Song / Engineer

Date : Sep. 09, 2021

Approved:

Date: Sep. 09, 2021

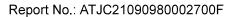
#### Note:

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# **Revision History**

Rev.	Issue Date	Revisions	Effect Page	Revised By
0	Sep. 09, 2021	Initial Issue	All Page	Cris Song





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### 1. GENERAL INFORMATION

### 1.1. Description of EUT

Equipment	USB Flash Drive
Trade Mark	N/A
Model Name	RKUSBCV4PCBA3AL
Serial No.	BKUSBCV4PCBA3AL, GKUSBCV4PCBA3AL, AUKUSBCV4PCBA3AL, PKUSBCV4PCBA3AL, OKUSBCV4PCBA3AL, MKUSBCV4PCBA3AL, WKUSBCV4PCBA3AL, QKUSBCV4PCBA3AL
Model Difference	All models are the same except for the difference in appearance, size and power
I/O Port	N/A
Rated Power Supply	5V <b></b> , 1A
Testing Voltage	5V <b></b> , 1A
EUT Power Rating	5W
Configuration	⊠ Table-top □ Floor-standing
Accessory Device	N/A
Cable Supplied	N/A

### 1. The EUT uses following adapter

Adapter	 
Manufacturer	 
Model	 
AC Input Power	 
DC Output Power	 
Plug Type	 
Power Cord	 

# 2. Other Accessory Device List and Details

Description	Manufacturer	Model	Note

# External I/O Cable

Cable Description	Shielded Type	Ferrite Core	Length(m)	Note
	☐ Shielded ⊠ Non-shielded	⊠ Yes □ No		
	-			

3. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or the User's Manual.



# 2. TEST SUMMARY

Test procedures according to the technical standards:

FCC Rules	Test Item	Test Result
§15.107	Conducted Emission	PASS
§15.109	Radiated Emission	PASS

Remark: N/A is abbreviation for Not Applicable.

The test was carried out in all the test modes, only the worst data are list in report.



### 3. FACILITIES

#### 3.1. Test Facility

#### ATJC-LAB

Floor 5, No. 11, Hebei Industrial Zone, Hualian Community, Longhua Street, Longhua District, Shenzhen, China.

#### 3.2. Test Instruments

The following list contains measurement equipment used for testing. The equipment conforms to the requirement of CISPR 16-1, ANSI C63.2 and other required standards.

Calibration of all test and measurement, including any accessories that may effect such calibration, is checked frequently to ensure the accuracy. Adjustments are made and correction factors are applied in accordance with the instructions contained in the respective.

#### Table list of the test and measurement equipment

#### Conducted Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1	AMN	R&S	ESH3-Z5	831551852	2021.10.30
2	Pulse limiter	R&S	ESH3Z2	357881052	2021.10.30
3	EMI test Receiver	R&S	ESCI	834115/006	2021.11.01
4	Coaxial cable	ZDECL	Z302S-BNCJ-BNCJ-1.5M	18091904	2021.10.30
				Ver.	
5	CE Test software	FALA	EZ-EMC	EMC-con3A1	N/A
				.1	

#### Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1	TRILOG Broadband Antenna	Schwarzbeck	VULB 9168	869	2021.11.02
2	Double Ridged Broadband Horn Antenna	Schwarzbeck	BBHA 9120 D	1911	2021.11.02
3	Preamplifier	Agilent	8449B	3008A01838	2021.11.01
4	Amplifier	HP	8447E	2945A02747	2021.11.01
5	Coaxial cable	ETS	RFC-SNS-100-NMS-80 NI	1	2021.11.01
6	Coaxial cable	ETS	RFC-SNS-100-NMS-20 NI	1	2021.11.01
7	Coaxial cable	ETS	RFC-SNS-100-SMS-20 NI	1	2021.11.01
8	Coaxial cable	ETS	RFC-NNS-100-NMS-300 NI	1	2021.11.01
9	EMI test Receiver	R&S	ESPI	100362	2021.11.01
10	MXA signal analyzer	Agilent	N9020A	MY52090073	2021.11.01
11	RE Test software	FALA	EZ-EMC	Ver. FA-03A2 RE	N/A



# 4. Measurement uncertainty

The following table is for the measurement uncertainty, which is calculated as per the document CISPR 16-4 and ANSI C63.4.

Test	Parameters	Expanded Uncertainty (U <sub>Lab</sub> )	Expanded Uncertainty (U <sub>Cispr</sub> )
Conducted Emission	Level Accuracy: 150kHz to 30MHz	±1.22 dB	±3.6 dB
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	±3.67 dB	±5.2 dB
Radiated Emission	Level Accuracy: Above 1000MHz	±4.79 dB	N/A

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

## 4.1. Operating condition of EUT

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively

Pretest Mode	Description
Mode	Running

For Conducted Test		
Final Test Mode	Description	
Mode	Running	

For Conducted Test				
Final Test Mode Description				
Mode	Running			

#### 4.2. Test conditions

Temperature: 15-25 ℃ Relative Humidity: 30-60 %

Atmospheric pressure: 800hPa-1060hPa



# 5. Conducted Emission

#### 5.1.Limit

### 

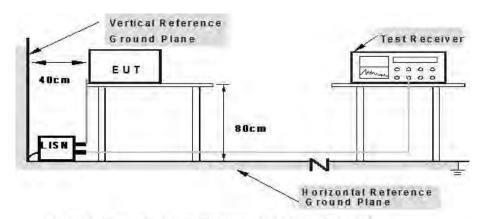
Frequency of emission (MHz)	Conducted li	mit (dBµV)
Frequency of emission (MHz)	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

<sup>\*</sup>Decreases with the logarithm of the frequency.

#### ☐ For Class A devices:

Fraguency of omission (MHz)	Conducted	limit (dBµV)
Frequency of emission (MHz)	Quasi-peak	Average
0.15-0.5	79	66
0.5-30	73	60

### 5.2. Test setup



Note: 1.Support units were connected to second LISM.

2.Both of LISMs (AMM) are 80 cm from EUT and at least 80 from other units and other metal planes

The setup of EUT is according with ANSI C63.4 measurement procedure. Specification used with FCC Part 15 limits.

### 5.3. EMI Test Receiver Setup

Frequency Range	9kHz-30MHz
	200Hz (9kHz-150kHz) 9kHz (150kHz-30MHz)



## **5.4. Test procedure**

Measurement was performed in shielded room, and instruments used were followed clause 4 of ANSI C63.4.

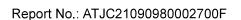
Detailed test procedure was following clause 7 of ANSI C63.4.

Frequency range 150kHz - 30MHz was checked and EMI receiver measurement bandwidth was set to 9 kHz.

#### 5.5. Test results

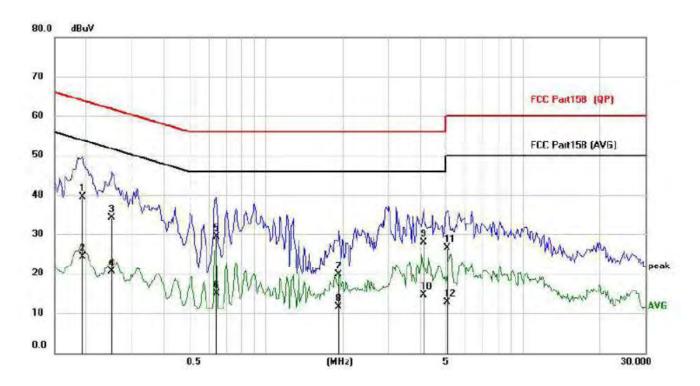
#### **PASS**

Please refer to the following page.

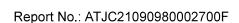




# Polarization: L

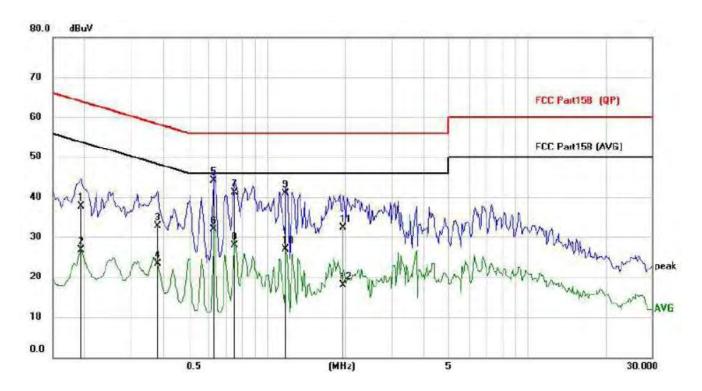


z dBuV 929 28.57 929 13.45 514 23.26	dB 10.92 10.92 10.92	dBuV 39.49 24.37	dBuV 63.91 53.91	dB -24.42	Detector	Comment
929 13.45	10.92	75305750	3077	10000000	QP	
4447 - 44475		24.37	53.91			
514 23.26	10.02		00.01	-29.54	AVG	
	10.32	34.18	61.71	-27.53	QP	
514 9.58	10.92	20.50	51.71	-31.21	AVG	
414 18.46	10.92	29.38	56.00	-26.62	QP	
414 4.04	10.92	14.96	46.00	-31.04	AVG	
206 8.68	10.96	19.64	56.00	-36.36	QP	
206 0.49	10.96	11.45	46.00	-34.55	AVG	
959 16.85	11.06	27.91	56.00	-28.09	QP	
959 3.45	11.06	14.51	46.00	-31.49	AVG	
020 15.38	11.10	26.48	60.00	-33.52	QP	
020 1.54	11.10	12.64	50.00	-37.36	AVG	
1	414 18.46 414 4.04 206 8.68 206 0.49 959 16.85 959 3.45 020 15.38	414     18.46     10.92       414     4.04     10.92       206     8.68     10.96       206     0.49     10.96       959     16.85     11.06       959     3.45     11.06       920     15.38     11.10	414     18.46     10.92     29.38       414     4.04     10.92     14.96       206     8.68     10.96     19.64       206     0.49     10.96     11.45       959     16.85     11.06     27.91       959     3.45     11.06     14.51       920     15.38     11.10     26.48	414     18.46     10.92     29.38     56.00       414     4.04     10.92     14.96     46.00       206     8.68     10.96     19.64     56.00       206     0.49     10.96     11.45     46.00       959     16.85     11.06     27.91     56.00       959     3.45     11.06     14.51     46.00       920     15.38     11.10     26.48     60.00	414     18.46     10.92     29.38     56.00     -26.62       414     4.04     10.92     14.96     46.00     -31.04       206     8.68     10.96     19.64     56.00     -36.36       206     0.49     10.96     11.45     46.00     -34.55       959     16.85     11.06     27.91     56.00     -28.09       959     3.45     11.06     14.51     46.00     -31.49       920     15.38     11.10     26.48     60.00     -33.52	414 18.46 10.92 29.38 56.00 -26.62 QP 414 4.04 10.92 14.96 46.00 -31.04 AVG 206 8.68 10.96 19.64 56.00 -36.36 QP 206 0.49 10.96 11.45 46.00 -34.55 AVG 2095 16.85 11.06 27.91 56.00 -28.09 QP 2095 3.45 11.06 14.51 46.00 -31.49 AVG 2000 15.38 11.10 26.48 60.00 -33.52 QP





# Polarization: N



0.1929 0.1929	dBuV 26.78 15.72	dB 10.92	dBuV	dBuV	dB	Detector	Comment
0.1929		10.92	72.20				Comment
7.00	15.72		37.70	63.91	-26.21	QP	
0.0000		10.92	26.64	53.91	-27.27	AVG	
0.3800	21.69	10.92	32.61	58.28	-25.67	QP	
0.3800	12.37	10.92	23.29	48.28	-24.99	AVG	
0.6258	33.11	10.92	44.03	56.00	-11.97	QP	
0.6258	20.92	10.92	31.84	46.00	-14.16	AVG	
0.7506	30.25	10.92	41.17	56.00	-14.83	QP	
0.7506	17.08	10.92	28.00	46.00	-18.00	AVG	
1.1835	30.00	10.92	40.92	56.00	-15.08	QP	
1.1835	15.89	10.92	26.81	46.00	-19.19	AVG	
1.9674	21.27	10.96	32.23	56.00	-23.77	QP	
	6.88	10.96	17.84	46.00			
	0.6258 0.7506 0.7506 1.1835 1.1835	0.6258 20.92 0.7506 30.25 0.7506 17.08 1.1835 30.00 1.1835 15.89 1.9674 21.27	0.6258     20.92     10.92       0.7506     30.25     10.92       0.7506     17.08     10.92       1.1835     30.00     10.92       1.1835     15.89     10.92       1.9674     21.27     10.96	0.6258     20.92     10.92     31.84       0.7506     30.25     10.92     41.17       0.7506     17.08     10.92     28.00       1.1835     30.00     10.92     40.92       1.1835     15.89     10.92     26.81       1.9674     21.27     10.96     32.23	0.6258     20.92     10.92     31.84     46.00       0.7506     30.25     10.92     41.17     56.00       0.7506     17.08     10.92     28.00     46.00       1.1835     30.00     10.92     40.92     56.00       1.1835     15.89     10.92     26.81     46.00	0.6258     20.92     10.92     31.84     46.00     -14.16       0.7506     30.25     10.92     41.17     56.00     -14.83       0.7506     17.08     10.92     28.00     46.00     -18.00       1.1835     30.00     10.92     40.92     56.00     -15.08       1.1835     15.89     10.92     26.81     46.00     -19.19	0.6258       20.92       10.92       31.84       46.00       -14.16       AVG         0.7506       30.25       10.92       41.17       56.00       -14.83       QP         0.7506       17.08       10.92       28.00       46.00       -18.00       AVG         1.1835       30.00       10.92       40.92       56.00       -15.08       QP         1.1835       15.89       10.92       26.81       46.00       -19.19       AVG



# 6. Radiated emissions

#### 6.1.Limit

### 

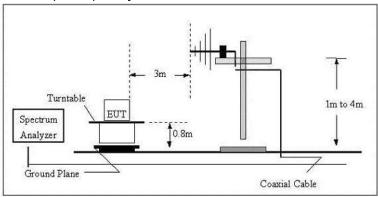
Frequency of emission	Field strength (microvolts/meter)				
(MHz)	(microvolts/meter)	(dBµV/m)			
30-88	100	40			
88-216	150	43.5			
216-960	200	46			
Above 960	500	54			

### ☐ For Class A devices (at 10m):

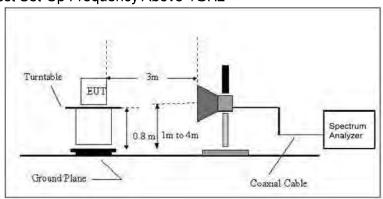
Frequency of emission	Field strength (microvolts/meter)				
(MHz)	(microvolts/meter)	(dBµV/m)			
30-88	90	39			
88-216	150	43.5			
216-960	210	46.4			
Above 960	300	49.5			

# 6.2. Test setup

Radiated Emission Test Set-Up Frequency Below 1 GHz



#### Radiated Emission Test Set-Up Frequency Above 1GHz



The radiated tests wer performed in 3 meter3 Charmber test site, using the setup accordance with the ANSI C63.4:2014.



#### EMI Test Receiver Setup and Spectrum Analyzer Setup

During the radiated emission test, the EMI test receiver and Spectrum Analyzer were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Detector
30MHz-1000MHz	100kHz	300kHz	120kHz	QP
Above 1GHz	1MHz	3MHz	1	PK
Above IGHZ	1MHz	10Hz	1	AVG

#### 6.3. Test procedure

The measurement was performed in a semi-anechoic chamber, and instruments used were followed clause 4 of ANSI C63.4.

Detailed test procedure was following clause 8 of ANSI C63.4.

# 6.4. Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain The "Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Limit - Corrected Amplitude

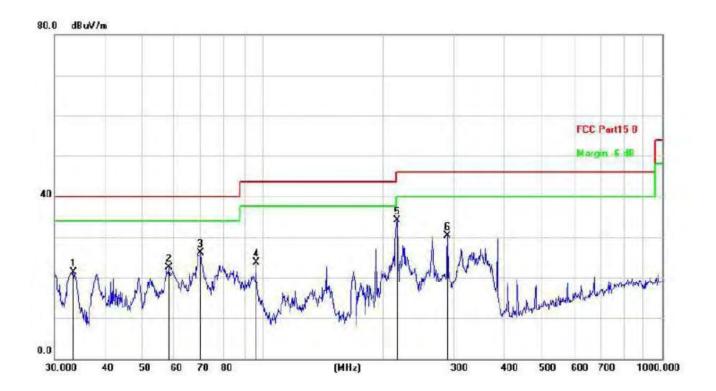
#### 6.5. Test results

#### **PASS**

Please refer to the following page.



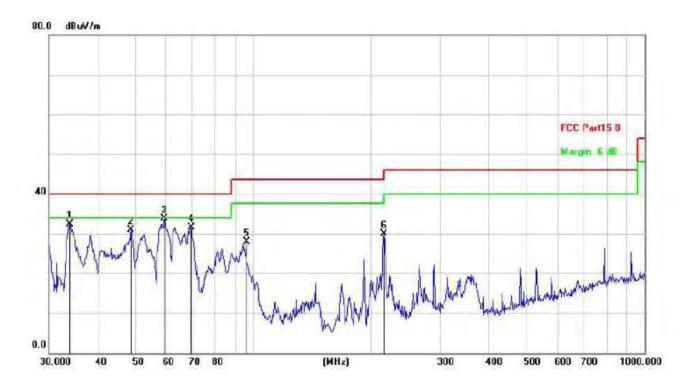
# Polarization: H



Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
33.4449	39.67	-18.38	21.29	40.00	-18.71	QP
58.2030	41.17	-18.70	22.47	40.00	-17.53	QP
69.8450	46.11	-19.91	26.20	40.00	-13.80	QP
96.0986	44.53	-20.82	23.71	43.50	-19.79	QP
216.7828	53.60	-19.52	34.08	46.00	-11.92	QP
289.0021	49.34	-18.94	30.40	46.00	-15.60	QP
	MHz 33.4449 58.2030 69.8450	Freq. Level  MHz dBuV  33.4449 39.67  58.2030 41.17  69.8450 46.11  96.0986 44.53  216.7828 53.60	Freq. Level Factor  MHz dBuV dB  33.4449 39.67 -18.38  58.2030 41.17 -18.70  69.8450 46.11 -19.91  96.0986 44.53 -20.82  216.7828 53.60 -19.52	Freq. Level Factor ment  MHz dBuV dB dBuV/m  33.4449 39.67 -18.38 21.29  58.2030 41.17 -18.70 22.47  69.8450 46.11 -19.91 26.20  96.0986 44.53 -20.82 23.71  216.7828 53.60 -19.52 34.08	Freq.         Level         Factor         ment         Limit           MHz         dBuV         dB         dBuV/m         dB/m           33.4449         39.67         -18.38         21.29         40.00           58.2030         41.17         -18.70         22.47         40.00           69.8450         46.11         -19.91         26.20         40.00           96.0986         44.53         -20.82         23.71         43.50           216.7828         53.60         -19.52         34.08         46.00	Freq.         Level         Factor         ment         Limit         Over           MHz         dBuV         dB         dBuV/m         dB/m         dB           33.4449         39.67         -18.38         21.29         40.00         -18.71           58.2030         41.17         -18.70         22.47         40.00         -17.53           69.8450         46.11         -19.91         26.20         40.00         -13.80           96.0986         44.53         -20.82         23.71         43.50         -19.79           216.7828         53.60         -19.52         34.08         46.00         -11.92



# Polarization: V



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		33.9174	50.60	-18.35	32.25	40.00	-7.75	QP
2		48.6719	49.39	-18.42	30.97	40.00	-9.03	QP
3	*	59.2325	52.50	-18.73	33.77	40.00	-6.23	QP
4		69.3568	51.33	-19.85	31.48	40.00	-8.52	QP
5		96.0986	48.65	-20.82	27.83	43.50	-15.67	QP
6		216.0240	49.51	-19.55	29.96	46.00	-16.04	QP



# 7. Photographs of EUT

Photo 1	
View:	2
[X] Front	
[ ] Rear	8 3 5 E
[ ] Right	e e
[ ] Left s	
[ ] Top	20 10 10 10 10 10 10 10 10 10 10 10 10 10
[ ] Botto	NCH 1 2 3 4 5
[ ] Intern	

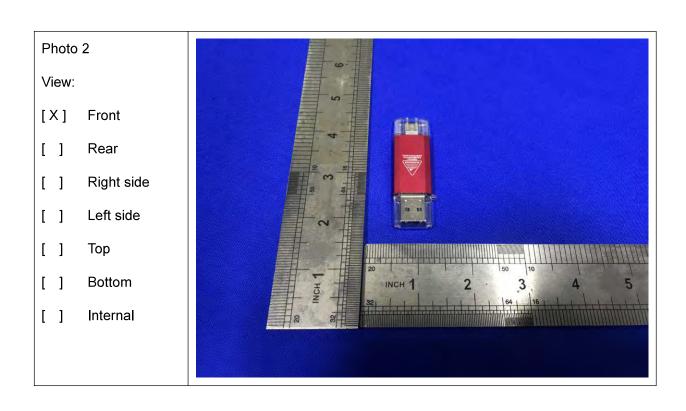




Photo 3	9-
View:	φ.
[X] Front	
[ ] Rear	
[ ] Right side	2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
[ ] Left side	
[ ] Top	
[ ] Bottom	20 50 10
[ ] Internal	INCH 1 2 3 4 5

----- End of the report -----



# **Declaration of conformity**

Certification No.: ATJC21091680004200F

Reference report No. : ATJC21091680004200F

Applicant : Redkey USB LTD

Address : Kemp House, 160 City Road, London, EC1V 2NX, United Kingdom

Manufacturer : Redkey USB LTD

Address : Kemp House, 160 City Road, London, EC1V 2NX, United Kingdom

Product Name : USB Flash Drive

RKUSBV3UDP2AL, RKUSBV4UDP2AL, GKUSBV4UDP2AL,

Model No. : PKUSBV4UDP2AL, OKUSBV4UDP2AL, MKUSBV4UDP2AL,

WKUSBV4UDP2AL, QKUSBV4UDP2AL

Rating(s) : 5V**...**, 1A

Trademark : N/A

Sufficient samples of the product have been tested and found to be in conformity with

Test Standards : CFR47, FCC Part 15 Subpart B, ANSI C63.4: 2014

The certification holder above has the right to fix FCC marking on the products complying with the specified standards.

The certificate is based on a single evaluation of sample of above mentioned product. It does not imply an assessment of the whole production process.



Authorized Signer :



Shenzhen An-Teng Testing Service Co., Ltd

Floor 5, No. 11, Hebei Industrial Zone, Hualian Community, Longhua Street, Longhua District, Shenzhen, China.



# FCC 47 CFR PART 15 Subpart B TEST REPORT

Equipment USB Flash Drive

Trademark N/A

RKUSBV3UDP2AL, RKUSBV4UDP2AL, GKUSBV4UDP2AL,

Model No. PKUSBV4UDP2AL, OKUSBV4UDP2AL, MKUSBV4UDP2AL,

WKUSBV4UDP2AL, QKUSBV4UDP2AL

Report No. ATJC21091680004200F

Applicant Redkey USB LTD

Kemp House, 160 City Road, London, EC1V 2NX, United Kingdom

Manufacturer Redkey USB LTD

Kemp House, 160 City Road, London, EC1V 2NX, United Kingdom

Prepared by Shenzhen An-Teng Testing Service Co.

Floor 5, No. 11, Hebei Industrial Zone, Hualian Commu , Longhua

Street, Longhua District, Shenzhen, China.

Date of Test Sep. 16 - Sep. 22, 2021

Date of Issue Sep. 22, 2021

Test Standard(s) CFR47, FCC Part 15 Subpart B, ANSI C63.4: 2014

In the configuration tested, the EUT complied with the standards specified above.

Tested:

Cris Song / Engineer

Date : Sep. 22, 2021

Approved:

Date : Sep. 22, 2021

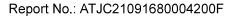
#### Note:

The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report shall not be reproduced except in full, without prior written approval of ATJC. This document may be altered or revised by ATJC, personnel only, and shall be noted in the revision of the document.



# **Revision History**

Rev.	Issue Date	Revisions	Effect Page	Revised By
0	Sep. 22, 2021	Initial Issue	All Page	Cris Song





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7	Photo	ographs of EUT	



# 1. GENERAL INFORMATION

# 1.1. Description of EUT

III Decempaen er Ee i	
Equipment	USB Flash Drive
Trade Mark	N/A
Model Name	RKUSBV4UDP2AL
Serial No.	RKUSBV3UDP2AL, GKUSBV4UDP2AL, PKUSBV4UDP2AL, OKUSBV4UDP2AL, MKUSBV4UDP2AL, WKUSBV4UDP2AL, QKUSBV4UDP2AL
Model Difference	All models are the same except for the difference in appearance.
I/O Port	N/A
Rated Power Supply	5V <b></b> , 1A
Testing Voltage	5V <b></b> , 1A
EUT Power Rating	5W
Configuration	□ Table-top □ Floor-standing
Accessory Device	N/A
Cable Supplied	N/A

# 1. The EUT uses following adapter

Adapter		
Manufacturer		
Model	-	
AC Input Power		
DC Output Power	1	
Plug Type	1	
Power Cord		

# 2. Other Accessory Device List and Details

Description	Manufacturer	Model	Note

### External I/O Cable

Cable Description	Shielded Type	Ferrite Core	Length(m)	Note
	☐ Shielded ⊠ Non-shielded	⊠ Yes □ No		
				-

3. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or the User's Manual.



# 2. TEST SUMMARY

Test procedures according to the technical standards:

FCC Rules	Test Item	Test Result
§15.107	Conducted Emission	PASS
§15.109	Radiated Emission	PASS

Remark: N/A is abbreviation for Not Applicable.

The test was carried out in all the test modes, only the worst data are list in report.



# 3. FACILITIES

## 3.1. Test Facility

### ATJC-LAB

Floor 5, No. 11, Hebei Industrial Zone, Hualian Community, Longhua Street, Longhua District, Shenzhen, China.

### 3.2. Test Instruments

The following list contains measurement equipment used for testing. The equipment conforms to the requirement of CISPR 16-1, ANSI C63.2 and other required standards.

Calibration of all test and measurement, including any accessories that may effect such calibration, is checked frequently to ensure the accuracy. Adjustments are made and correction factors are applied in accordance with the instructions contained in the respective.

## Table list of the test and measurement equipment

### **Conducted Emission Measurement**

Item	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1	AMN	R&S	ESH3-Z5	831551852	2021.10.30
2	Pulse limiter	R&S	ESH3Z2	357881052	2021.10.30
3	EMI test Receiver	R&S	ESCI	834115/006	2021.11.01
4	Coaxial cable	ZDECL	Z302S-BNCJ-BNCJ-1.5M	18091904	2021.10.30
				Ver.	
5	CE Test software	FALA	EZ-EMC	EMC-con3A1	N/A
				.1	

#### Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1	TRILOG Broadband Antenna	Schwarzbeck	VULB 9168	869	2021.11.02
2	Double Ridged Broadband Horn Antenna	Schwarzbeck	BBHA 9120 D	1911	2021.11.02
3	Preamplifier	Agilent	8449B	3008A01838	2021.11.01
4	Amplifier	HP	8447E	2945A02747	2021.11.01
5	Coaxial cable	ETS	RFC-SNS-100-NMS-80 NI	1	2021.11.01
6	Coaxial cable	ETS	RFC-SNS-100-NMS-20 NI	1	2021.11.01
7	Coaxial cable	ETS	RFC-SNS-100-SMS-20 NI	1	2021.11.01
8	Coaxial cable	ETS	RFC-NNS-100-NMS-300 NI	/	2021.11.01
9	EMI test Receiver	R&S	ESPI	100362	2021.11.01
10	MXA signal analyzer	Agilent	N9020A	MY52090073	2021.11.01
11	RE Test software	FALA	EZ-EMC	Ver. FA-03A2 RE	N/A



# 4. Measurement uncertainty

The following table is for the measurement uncertainty, which is calculated as per the document CISPR 16-4 and ANSI C63.4.

Test	Parameters	Expanded Uncertainty (U <sub>Lab</sub> )	Expanded Uncertainty (U <sub>Cispr</sub> )
Conducted Emission	Level Accuracy: 150kHz to 30MHz	±1.22 dB	±3.6 dB
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	±3.67 dB	±5.2 dB
Radiated Emission	Level Accuracy: Above 1000MHz	±4.79 dB	N/A

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

# 4.1. Operating condition of EUT

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively

Pretest Mode	Description
Mode	Running

For Conducted Test	
Final Test Mode	Description
Mode	Running

For Conducted Test		
Final Test Mode	Description	
Mode	Running	

### 4.2. Test conditions

Temperature: 15-25 °C Relative Humidity: 30-60 %

Atmospheric pressure: 800hPa-1060hPa



# 5. Conducted Emission

### 5.1.Limit

# 

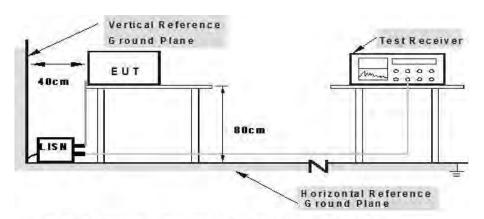
Fraguency of emission (MHz)	Conducted li	mit (dBµV)
Frequency of emission (MHz)	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

<sup>\*</sup>Decreases with the logarithm of the frequency.

### ☐ For Class A devices:

Fraguency of omission (MHz)	Conducted limit (dBμV)				
Frequency of emission (MHz)	Quasi-peak	Average			
0.15-0.5	79	66			
0.5-30	73	60			

# 5.2. Test setup



Note: 1.Support units were connected to second LISM.

2.Both of LISMs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

The setup of EUT is according with ANSI C63.4 measurement procedure. Specification used with FCC Part 15 limits.

# 5.3. EMI Test Receiver Setup

Frequency Range	9kHz-30MHz
Resolution Bandwidth	200Hz (9kHz-150kHz) 9kHz (150kHz-30MHz)



## **5.4. Test procedure**

Measurement was performed in shielded room, and instruments used were followed clause 4 of ANSI C63.4.

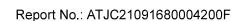
Detailed test procedure was following clause 7 of ANSI C63.4.

Frequency range 150kHz - 30MHz was checked and EMI receiver measurement bandwidth was set to 9 kHz.

### 5.5. Test results

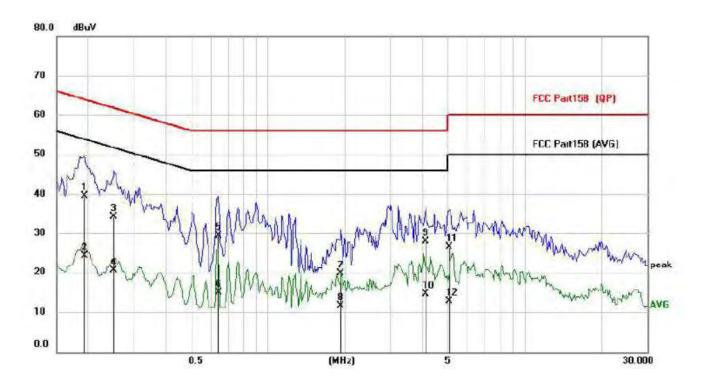
#### **PASS**

Please refer to the following page.





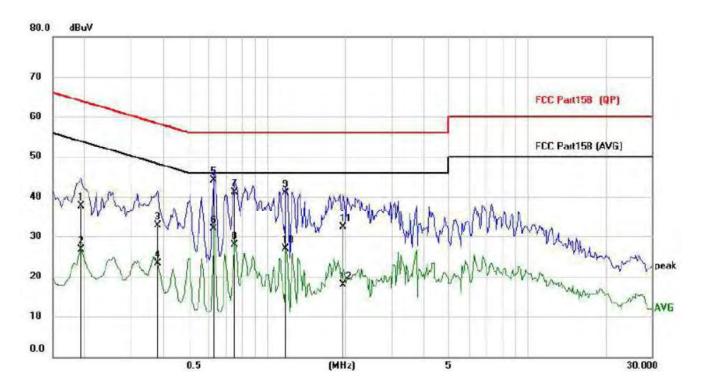
# Polarization: L



No. I	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	7	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1929	28.57	10.92	39.49	63.91	-24.42	QP	
2		0.1929	13.45	10.92	24.37	53.91	-29.54	AVG	
3		0.2514	23.26	10.92	34.18	61.71	-27.53	QP	
4		0.2514	9.58	10.92	20.50	51.71	-31.21	AVG	
5		0.6414	18.46	10.92	29.38	56.00	-26.62	QP	
6		0.6414	4.04	10.92	14.96	46.00	-31.04	AVG	
7		1.9206	8.68	10.96	19.64	56.00	-36.36	QP	
8		1.9206	0.49	10.96	11.45	46.00	-34.55	AVG	
9		4.0959	16.85	11.06	27.91	56.00	-28.09	QP	
10		4.0959	3.45	11.06	14.51	46.00	-31.49	AVG	
11		5.1020	15.38	11.10	26.48	60.00	-33.52	QP	
12		5.1020	1.54	11.10	12.64	50.00	-37.36	AVG	



# Polarization: N



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1929	26.78	10.92	37.70	63.91	-26.21	QP	
2	0.1929	15.72	10.92	26.64	53.91	-27.27	AVG	
3	0.3800	21.69	10.92	32.61	58.28	-25.67	QP	
4	0.3800	12.37	10.92	23.29	48.28	-24.99	AVG	
5 *	0.6258	33.11	10.92	44.03	56.00	-11.97	QP	
6	0.6258	20.92	10.92	31.84	46.00	-14.16	AVG	
7	0.7506	30.25	10.92	41.17	56.00	-14.83	QP	
8	0.7506	17.08	10.92	28.00	46.00	-18.00	AVG	
9	1.1835	30.00	10.92	40.92	56.00	-15.08	QP	
10	1.1835	15.89	10.92	26.81	46.00	-19.19	AVG	
11	1.9674	21.27	10.96	32.23	56.00	-23.77	QP	
12	1.9674	6.88	10.96	17.84	46.00	-28.16	AVG	



# 6. Radiated emissions

### 6.1 Limit

### 

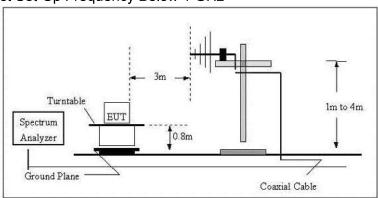
Frequency of emission	Field strength (microvolts/meter)			
(MHz)	(microvolts/meter)	(dBµV/m)		
30-88	100	40		
88-216	150	43.5		
216-960	200	46		
Above 960	500	54		

# ☐ For Class A devices (at 10m):

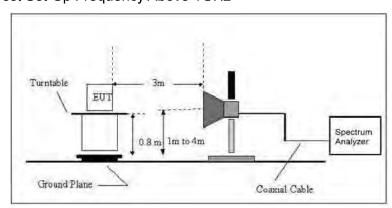
	•			
Frequency of emission	Field strength (microvolts/meter)			
(MHz)	(microvolts/meter)	(dBµV/m)		
30-88	90	39		
88-216	150	43.5		
216-960	210	46.4		
Above 960	300	49.5		

# 6.2. Test setup

# Radiated Emission Test Set-Up Frequency Below 1 GHz



# Radiated Emission Test Set-Up Frequency Above 1GHz



The radiated tests wer performed in 3 meter3 Charmber test site, using the setup accordance with the ANSI C63.4:2014.



### EMI Test Receiver Setup and Spectrum Analyzer Setup

During the radiated emission test, the EMI test receiver and Spectrum Analyzer were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Detector
30MHz-1000MHz	100kHz	300kHz	120kHz	QP
Above 1GHz	1MHz	3MHz	1	PK
Above IGHZ	1MHz	10Hz	1	AVG

### 6.3. Test procedure

The measurement was performed in a semi-anechoic chamber, and instruments used were followed clause 4 of ANSI C63.4.

Detailed test procedure was following clause 8 of ANSI C63.4.

### 6.4. Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain The "Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Limit - Corrected Amplitude

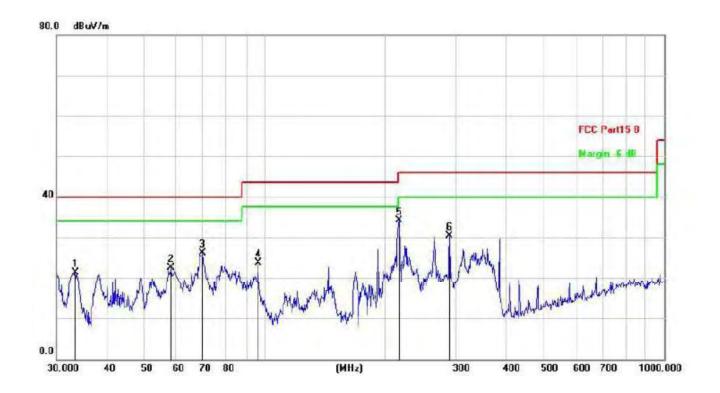
### 6.5. Test results

### **PASS**

Please refer to the following page.



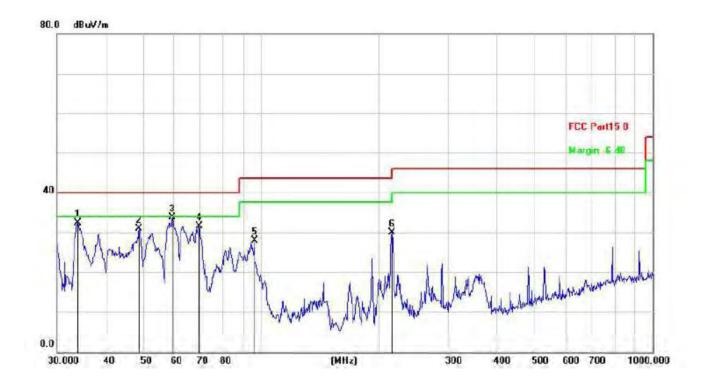
# Polarization: H



Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
33.4449	39.67	-18.38	21.29	40.00	-18.71	QP
58.2030	41.17	-18.70	22.47	40.00	-17.53	QP
69.8450	46.11	-19.91	26.20	40.00	-13.80	QP
96.0986	44.53	-20.82	23.71	43.50	-19.79	QP
216.7828	53.60	-19.52	34.08	46.00	-11.92	QP
289.0021	49.34	-18.94	30.40	46.00	-15.60	QP
	MHz 33.4449 58.2030 69.8450	Freq. Level  MHz dBuV  33.4449 39.67  58.2030 41.17  69.8450 46.11  96.0986 44.53  216.7828 53.60	Freq. Level Factor  MHz dBuV dB  33.4449 39.67 -18.38  58.2030 41.17 -18.70  69.8450 46.11 -19.91  96.0986 44.53 -20.82  216.7828 53.60 -19.52	Freq. Level Factor ment  MHz dBuV dB dBuV/m  33.4449 39.67 -18.38 21.29  58.2030 41.17 -18.70 22.47  69.8450 46.11 -19.91 26.20  96.0986 44.53 -20.82 23.71  216.7828 53.60 -19.52 34.08	Freq.         Level         Factor         ment         Limit           MHz         dBuV         dB         dBuV/m         dB/m           33.4449         39.67         -18.38         21.29         40.00           58.2030         41.17         -18.70         22.47         40.00           69.8450         46.11         -19.91         26.20         40.00           96.0986         44.53         -20.82         23.71         43.50           216.7828         53.60         -19.52         34.08         46.00	Freq.         Level         Factor         ment         Limit         Over           MHz         dBuV         dB         dBuV/m         dB/m         dB           33.4449         39.67         -18.38         21.29         40.00         -18.71           58.2030         41.17         -18.70         22.47         40.00         -17.53           69.8450         46.11         -19.91         26.20         40.00         -13.80           96.0986         44.53         -20.82         23.71         43.50         -19.79           216.7828         53.60         -19.52         34.08         46.00         -11.92



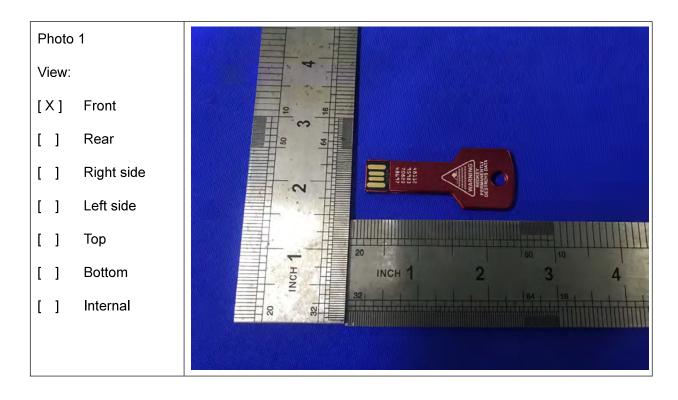
# Polarization: V



MHz 33.9174	dBuV	dB	dBuV/m	dD/es		
33 9174			dbaynn	dB/m	dB	Detector
00.0111	50.60	-18.35	32.25	40.00	-7.75	QP
48.6719	49.39	-18.42	30.97	40.00	-9.03	QP
59.2325	52.50	-18.73	33.77	40.00	-6.23	QP
69.3568	51.33	-19.85	31.48	40.00	-8.52	QP
96.0986	48.65	-20.82	27.83	43.50	-15.67	QP
216.0240	49.51	-19.55	29.96	46.00	-16.04	QP
*	59.2325 69.3568	59.2325 52.50 69.3568 51.33 96.0986 48.65	59.2325 52.50 -18.73 69.3568 51.33 -19.85 96.0986 48.65 -20.82	59.2325     52.50     -18.73     33.77       69.3568     51.33     -19.85     31.48       96.0986     48.65     -20.82     27.83	59.2325     52.50     -18.73     33.77     40.00       69.3568     51.33     -19.85     31.48     40.00       96.0986     48.65     -20.82     27.83     43.50	59.2325     52.50     -18.73     33.77     40.00     -6.23       69.3568     51.33     -19.85     31.48     40.00     -8.52       96.0986     48.65     -20.82     27.83     43.50     -15.67



# 7. Photographs of EUT



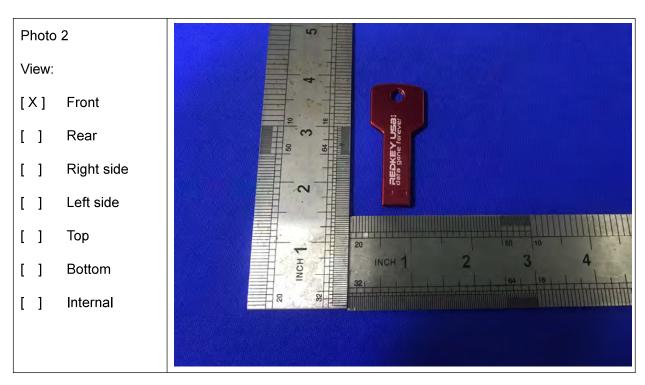




Photo 3	5
View:	4
[X] Front	
[ ] Rear	S S S S S S S S S S S S S S S S S S S
[ ] Right side	
[ ] Left side	
[ ] Top	20
[ ] Bottom	INCH 1 2 3 4
[ ] Internal	8 8 8

----- End of the report -----



# **Declaration of conformity**

Certification No.: ATJC21091680004300F

Reference report No. : ATJC21091680004300F

Applicant : Redkey USB LTD

Address : Kemp House, 160 City Road, London, EC1V 2NX, United Kingdom

Manufacturer : Redkey USB LTD

Address : Kemp House, 160 City Road, London, EC1V 2NX, United Kingdom

Product Name : USB Flash Drive

RKUSBV1UDP2FE, RKUSBV2UDP2FE, RKESDV2UDP2FE, RKUSBV3UDP2FE, RKUSBV4UDP2FE, BKUSBV1UDP3FE, BKUSBV2UDP3FE, BKUSBV4UDP3FE, GKUSBV1UDP3FE,

Model No. : GKUSBV2UDP3FE, GKUSBV4UDP3FE, AUUSBV4UDP3FE,

PUSBV4UDP3FE, GKUSBV4UDP3FE, AUUSBV4UDP3FE, PUSBV4UDP3FE, OUSBV4UDP3FE, MUSBV4UDP3FE,

WUSBV4UDP3FE, QUSBV4UDP3FE

Rating(s) : 5V**....**, 1A

Trademark : N/A

Sufficient samples of the product have been tested and found to be in conformity with

Test Standards : CFR47, FCC Part 15 Subpart B, ANSI C63.4: 2014

The certification holder above has the right to fix FCC marking on the products complying with the specified standards.

The certificate is based on a single evaluation of sample of above mentioned product. It does not imply an assessment of the whole production process.



Authorized Signer:

Henry Jian Manage



Shenzhen An-Teng Testing Service Co., Ltd

Floor 5, No. 11, Hebei Industrial Zone, Hualian Community, Longhua Street, Longhua District, Shenzhen, China.



# FCC 47 CFR PART 15 Subpart B TEST REPORT

Equipment USB Flash Drive

Trademark N/A

RKUSBV1UDP2FE, RKUSBV2UDP2FE, RKESDV2UDP2FE, RKUSBV3UDP2FE, RKUSBV4UDP2FE, BKUSBV1UDP3FE,

BKUSBV2UDP3FE, BKUSBV4UDP3FE, GKUSBV1UDP3FE,

Model No. GKUSBV2UDP3FE, GKUSBV4UDP3FE, AUUSBV4UDP3FE,

PUSBV4UDP3FE, OUSBV4UDP3FE, MUSBV4UDP3FE,

WUSBV4UDP3FE, QUSBV4UDP3FE

Report No. ATJC21091680004300F

Applicant Redkey USB LTD

Kemp House, 160 City Road, London, EC1V 2NX, United Kingdom

Manufacturer Redkey USB LTD

Kemp House, 160 City Road, London, EC1V 2NX, United Kingdom

Prepared by Shenzhen An-Teng Testing Service Coultd.

Floor 5, No. 11, Hebei Industrial Zone, Hualian Commi v, Longhua

Street, Longhua District, Shenzhen, China

Date of Test Sep. 16 - Sep. 22, 2021

Date of Issue Sep. 22, 2021

Test Standard(s) CFR47, FCC Part 15 Subpart B, ANSI C63.4: 2014

In the configuration tested, the EUT complied with the standards specified above.

Tested: Cris Song / Engineer

Date : Sep. 22, 2021

Approved:

Date : Sep. 22, 2021

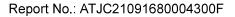
### Note:

The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report shall not be reproduced except in full, without prior written approval of ATJC. This document may be altered or revised by ATJC, personnel only, and shall be noted in the revision of the document.



# **Revision History**

Rev.	Issue Date	Revisions	Effect Page	Revised By
0	Sep. 22, 2021	Initial Issue	All Page	Cris Song





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# 1. GENERAL INFORMATION

# 1.1. Description of EUT

i.i.Description of Loi	
Equipment	USB Flash Drive
Trade Mark	N/A
Model Name	RKUSBV4UDP2FE
Serial No.	RKUSBV1UDP2FE, RKUSBV2UDP2FE, RKESDV2UDP2FE, RKUSBV3UDP2FE, BKUSBV1UDP3FE, BKUSBV2UDP3FE, BKUSBV4UDP3FE, GKUSBV4UDP3FE, GKUSBV4UDP3FE, GKUSBV4UDP3FE, PUSBV4UDP3FE, OUSBV4UDP3FE, MUSBV4UDP3FE, WUSBV4UDP3FE, QUSBV4UDP3FE
Model Difference	All models are the same except for the difference in appearance.
I/O Port	N/A
Rated Power Supply	5V <b></b> , 1A
Testing Voltage	5V <b></b> , 1A
EUT Power Rating	5W
Configuration	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Accessory Device	N/A
Cable Supplied	N/A

# 1. The EUT uses following adapter

Adapter	 
Manufacturer	 
Model	 
AC Input Power	 
DC Output Power	 
Plug Type	 
Power Cord	 

### 2. Other Accessory Device List and Details

Description	Manufacturer	Model	Note

### External I/O Cable

Cable Description	Shielded Type	Ferrite Core	Length(m)	Note
	$\square$ Shielded $\boxtimes$ Non-shielded	⊠ Yes □ No		
	-			

3. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or the User's Manual.



# 2. TEST SUMMARY

Test procedures according to the technical standards:

FCC Rules	Test Item	Test Result
§15.107	Conducted Emission	PASS
§15.109	Radiated Emission	PASS

Remark: N/A is abbreviation for Not Applicable.

The test was carried out in all the test modes, only the worst data are list in report.



# 3. FACILITIES

## 3.1. Test Facility

### **ATJC-LAB**

Floor 5, No. 11, Hebei Industrial Zone, Hualian Community, Longhua Street, Longhua District, Shenzhen, China.

### 3.2. Test Instruments

The following list contains measurement equipment used for testing. The equipment conforms to the requirement of CISPR 16-1, ANSI C63.2 and other required standards.

Calibration of all test and measurement, including any accessories that may effect such calibration, is checked frequently to ensure the accuracy. Adjustments are made and correction factors are applied in accordance with the instructions contained in the respective.

# Table list of the test and measurement equipment

### **Conducted Emission Measurement**

Item	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1	AMN	R&S	ESH3-Z5	831551852	2021.10.30
2	Pulse limiter	R&S	ESH3Z2	357881052	2021.10.30
3	EMI test Receiver	R&S	ESCI	834115/006	2021.11.01
4	Coaxial cable	ZDECL	Z302S-BNCJ-BNCJ-1.5M	18091904	2021.10.30
				Ver.	
5	CE Test software	FALA	EZ-EMC	EMC-con3A1	N/A
				.1	

#### Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1	TRILOG Broadband Antenna	Schwarzbeck	VULB 9168	869	2021.11.02
2	Double Ridged Broadband Horn Antenna	Schwarzbeck	BBHA 9120 D	1911	2021.11.02
3	Preamplifier	Agilent	8449B	3008A01838	2021.11.01
4	Amplifier	HP	8447E	2945A02747	2021.11.01
5	Coaxial cable	ETS	RFC-SNS-100-NMS-80 NI	1	2021.11.01
6	Coaxial cable	ETS	RFC-SNS-100-NMS-20 NI	1	2021.11.01
7	Coaxial cable	ETS	RFC-SNS-100-SMS-20 NI	1	2021.11.01
8	Coaxial cable	ETS	RFC-NNS-100-NMS-300 NI	1	2021.11.01
9	EMI test Receiver	R&S	ESPI	100362	2021.11.01
10	MXA signal analyzer	Agilent	N9020A	MY52090073	2021.11.01
11	RE Test software	FALA	EZ-EMC	Ver. FA-03A2 RE	N/A



# 4. Measurement uncertainty

The following table is for the measurement uncertainty, which is calculated as per the document CISPR 16-4 and ANSI C63.4.

Test	Parameters	Expanded Uncertainty (U <sub>Lab</sub> )	Expanded Uncertainty (U <sub>Cispr</sub> )
Conducted Emission	Level Accuracy: 150kHz to 30MHz	±1.22 dB	±3.6 dB
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	±3.67 dB	±5.2 dB
Radiated Emission	Level Accuracy: Above 1000MHz	±4.79 dB	N/A

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

### 4.1. Operating condition of EUT

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively

Pretest Mode	Description
Mode	Running

For Conducted Test	
Final Test Mode	Description
Mode	Running

For Conducted Test				
Final Test Mode Description				
Mode	Running			

### 4.2. Test conditions

Temperature: 15-25 ℃ Relative Humidity: 30-60 %

Atmospheric pressure: 800hPa-1060hPa



# 5. Conducted Emission

### 5.1.Limit

### 

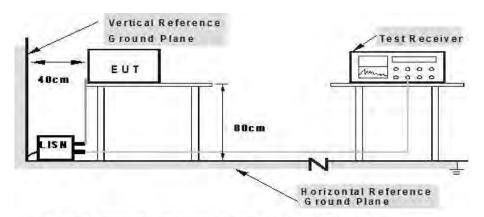
Fraguency of emission (MHz)	Conducted limit (dBµV)				
Frequency of emission (MHz)	Quasi-peak	Average			
0.15-0.5	66 to 56*	56 to 46*			
0.5-5	56	46			
5-30	60	50			

<sup>\*</sup>Decreases with the logarithm of the frequency.

# ☐ For Class A devices:

Frequency of emission (MHz)	Conducted limit (dBμV)			
	Quasi-peak	Average		
0.15-0.5	79	66		
0.5-30	73	60		

# 5.2. Test setup



Note: 1.Support units were connected to second LISM.

2.Both of LISMs (AMM) are 80 cm from EUT and at least 80 from other units and other metal planes

The setup of EUT is according with ANSI C63.4 measurement procedure. Specification used with FCC Part 15 limits.

# 5.3. EMI Test Receiver Setup

Frequency Range	9kHz-30MHz
Resolution Bandwidth	200Hz (9kHz-150kHz) 9kHz (150kHz-30MHz)



# 5.4. Test procedure

Measurement was performed in shielded room, and instruments used were followed clause 4 of ANSI C63.4.

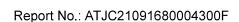
Detailed test procedure was following clause 7 of ANSI C63.4.

Frequency range 150kHz - 30MHz was checked and EMI receiver measurement bandwidth was set to 9 kHz.

### 5.5. Test results

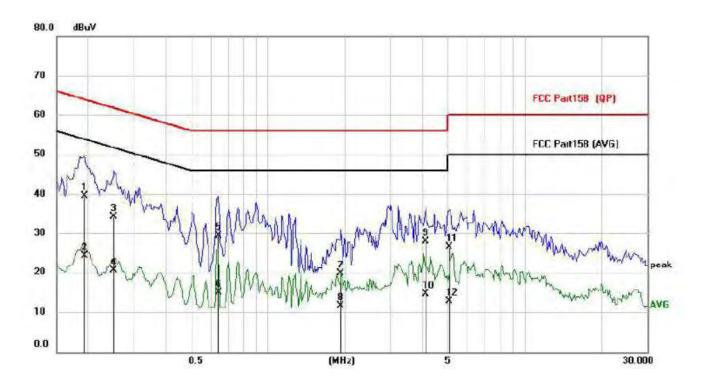
### **PASS**

Please refer to the following page.

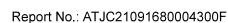




# Polarization: L

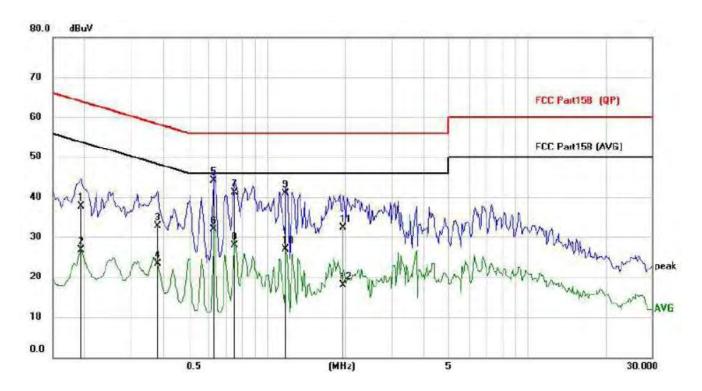


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1929	28.57	10.92	39.49	63.91	-24.42	QP	
2		0.1929	13.45	10.92	24.37	53.91	-29.54	AVG	
3		0.2514	23.26	10.92	34.18	61.71	-27.53	QP	
4	/	0.2514	9.58	10.92	20.50	51.71	-31.21	AVG	
5		0.6414	18.46	10.92	29.38	56.00	-26.62	QP	
6		0.6414	4.04	10.92	14.96	46.00	-31.04	AVG	
7		1.9206	8.68	10.96	19.64	56.00	-36.36	QP	
8		1.9206	0.49	10.96	11.45	46.00	-34.55	AVG	
9		4.0959	16.85	11.06	27.91	56.00	-28.09	QP	
10		4.0959	3.45	11.06	14.51	46.00	-31.49	AVG	
11		5.1020	15.38	11.10	26.48	60.00	-33.52	QP	
12		5.1020	1.54	11.10	12.64	50.00	-37.36	AVG	





# Polarization: N



0.1929 0.1929	dBuV 26.78 15.72	dB 10.92	dBuV	dBuV	dB	Detector	Comment
0.1929		10.92	10000			20100101	Comment
477.50	15.72		37.70	63.91	-26.21	QP	
0.2000	10.12	10.92	26.64	53.91	-27.27	AVG	
0.3800	21.69	10.92	32.61	58.28	-25.67	QP	
0.3800	12.37	10.92	23.29	48.28	-24.99	AVG	
0.6258	33.11	10.92	44.03	56.00	-11.97	QP	
0.6258	20.92	10.92	31.84	46.00	-14.16	AVG	
0.7506	30.25	10.92	41.17	56.00	-14.83	QP	
0.7506	17.08	10.92	28.00	46.00	-18.00	AVG	
1.1835	30.00	10.92	40.92	56.00	-15.08	QP	
1.1835	15.89	10.92	26.81	46.00	-19.19	AVG	
1.9674	21.27	10.96	32.23	56.00	-23.77	QP	
	15 75/5/	10.96	17.84				
	0.6258 0.7506 0.7506 1.1835 1.1835	0.6258 20.92 0.7506 30.25 0.7506 17.08 1.1835 30.00 1.1835 15.89	0.6258     20.92     10.92       0.7506     30.25     10.92       0.7506     17.08     10.92       1.1835     30.00     10.92       1.1835     15.89     10.92       1.9674     21.27     10.96	0.6258     20.92     10.92     31.84       0.7506     30.25     10.92     41.17       0.7506     17.08     10.92     28.00       1.1835     30.00     10.92     40.92       1.1835     15.89     10.92     26.81	0.6258     20.92     10.92     31.84     46.00       0.7506     30.25     10.92     41.17     56.00       0.7506     17.08     10.92     28.00     46.00       1.1835     30.00     10.92     40.92     56.00       1.1835     15.89     10.92     26.81     46.00	0.6258     20.92     10.92     31.84     46.00     -14.16       0.7506     30.25     10.92     41.17     56.00     -14.83       0.7506     17.08     10.92     28.00     46.00     -18.00       1.1835     30.00     10.92     40.92     56.00     -15.08       1.1835     15.89     10.92     26.81     46.00     -19.19	0.6258       20.92       10.92       31.84       46.00       -14.16       AVG         0.7506       30.25       10.92       41.17       56.00       -14.83       QP         0.7506       17.08       10.92       28.00       46.00       -18.00       AVG         1.1835       30.00       10.92       40.92       56.00       -15.08       QP         1.1835       15.89       10.92       26.81       46.00       -19.19       AVG



# 6. Radiated emissions

### 6.1 Limit

### 

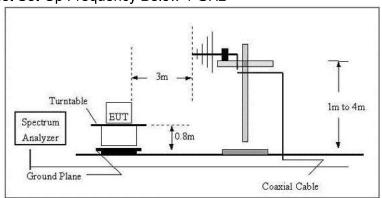
Frequency of emission	Field strength (microvolts/meter)					
(MHz)	(microvolts/meter)	(dBµV/m)				
30-88	100	40				
88-216	150	43.5				
216-960	200	46				
Above 960	500	54				

# ☐ For Class A devices (at 10m):

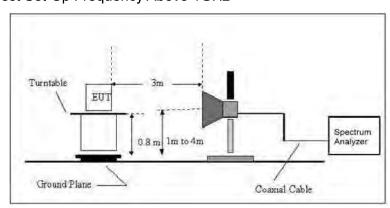
Frequency of emission	Field strength (n	nicrovolts/meter)
(MHz)	(microvolts/meter)	(dBµV/m)
30-88	90	39
88-216	150	43.5
216-960	210	46.4
Above 960	300	49.5

# 6.2. Test setup

Radiated Emission Test Set-Up Frequency Below 1 GHz



# Radiated Emission Test Set-Up Frequency Above 1GHz



The radiated tests wer performed in 3 meter3 Charmber test site, using the setup accordance with the ANSI C63.4:2014.



### EMI Test Receiver Setup and Spectrum Analyzer Setup

During the radiated emission test, the EMI test receiver and Spectrum Analyzer were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Detector
30MHz-1000MHz	100kHz	300kHz	120kHz	QP
Above 1CII-	1MHz	3MHz	1	PK
Above 1GHz	1MHz	10Hz	1	AVG

### 6.3. Test procedure

The measurement was performed in a semi-anechoic chamber, and instruments used were followed clause 4 of ANSI C63.4.

Detailed test procedure was following clause 8 of ANSI C63.4.

### 6.4. Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain The "Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Limit - Corrected Amplitude

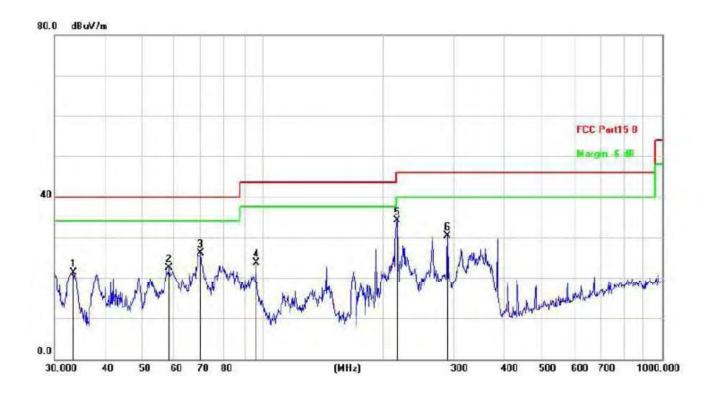
### 6.5. Test results

### **PASS**

Please refer to the following page.



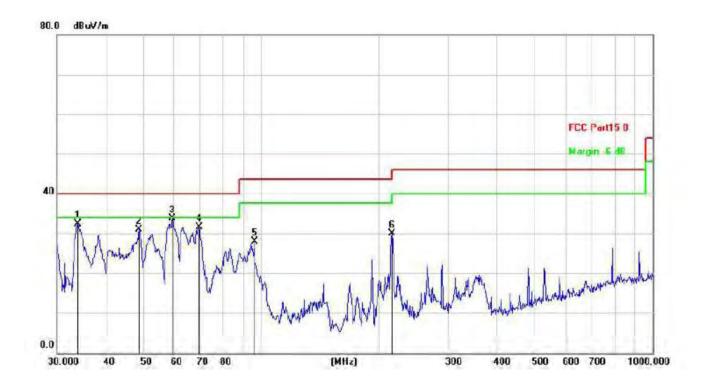
# Polarization: H



Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
33.4449	39.67	-18.38	21.29	40.00	-18.71	QP
58.2030	41.17	-18.70	22.47	40.00	-17.53	QP
69.8450	46.11	-19.91	26.20	40.00	-13.80	QP
96.0986	44.53	-20.82	23.71	43.50	-19.79	QP
216.7828	53.60	-19.52	34.08	46.00	-11.92	QP
289.0021	49.34	-18.94	30.40	46.00	-15.60	QP
	MHz 33.4449 58.2030 69.8450	Freq. Level MHz dBuV 33.4449 39.67 58.2030 41.17 69.8450 46.11 96.0986 44.53 216.7828 53.60	Freq. Level Factor  MHz dBuV dB  33.4449 39.67 -18.38  58.2030 41.17 -18.70  69.8450 46.11 -19.91  96.0986 44.53 -20.82  216.7828 53.60 -19.52	Freq. Level Factor ment  MHz dBuV dB dBuV/m  33.4449 39.67 -18.38 21.29  58.2030 41.17 -18.70 22.47  69.8450 46.11 -19.91 26.20  96.0986 44.53 -20.82 23.71  216.7828 53.60 -19.52 34.08	Freq.         Level         Factor         ment         Limit           MHz         dBuV         dB         dBuV/m         dB/m           33.4449         39.67         -18.38         21.29         40.00           58.2030         41.17         -18.70         22.47         40.00           69.8450         46.11         -19.91         26.20         40.00           96.0986         44.53         -20.82         23.71         43.50           216.7828         53.60         -19.52         34.08         46.00	Freq.         Level         Factor         ment         Limit         Over           MHz         dBuV         dB         dBuV/m         dB/m         dB           33.4449         39.67         -18.38         21.29         40.00         -18.71           58.2030         41.17         -18.70         22.47         40.00         -17.53           69.8450         46.11         -19.91         26.20         40.00         -13.80           96.0986         44.53         -20.82         23.71         43.50         -19.79           216.7828         53.60         -19.52         34.08         46.00         -11.92



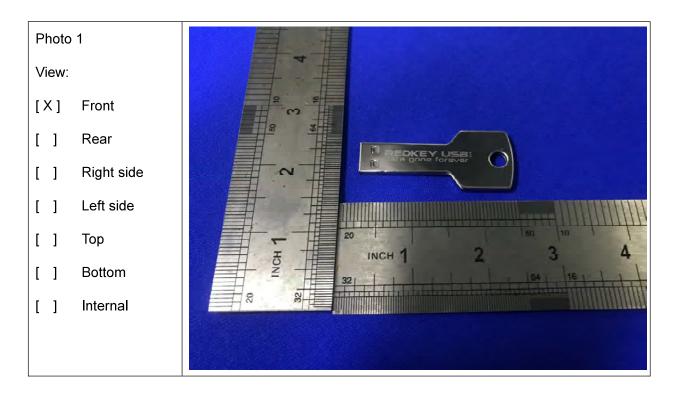
# Polarization: V

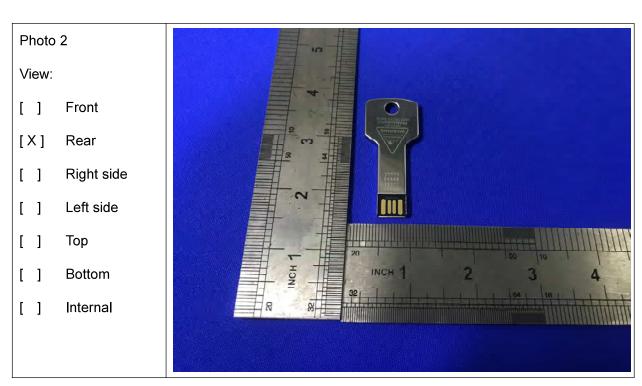


Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
	33.9174	50.60	-18.35	32.25	40.00	-7.75	QP
	48.6719	49.39	-18.42	30.97	40.00	-9.03	QP
*	59.2325	52.50	-18.73	33.77	40.00	-6.23	QP
	69.3568	51.33	-19.85	31.48	40.00	-8.52	QP
	96.0986	48.65	-20.82	27.83	43.50	-15.67	QP
	216.0240	49.51	-19.55	29.96	46.00	-16.04	QP
		MHz 33.9174 48.6719 * 59.2325 69.3568 96.0986	Mk. Freq. Level  MHz dBuV  33.9174 50.60  48.6719 49.39  * 59.2325 52.50  69.3568 51.33  96.0986 48.65	Mk. Freq. Level Factor  MHz dBuV dB  33.9174 50.60 -18.35  48.6719 49.39 -18.42  * 59.2325 52.50 -18.73  69.3568 51.33 -19.85  96.0986 48.65 -20.82	Mk.         Freq.         Level         Factor         ment           MHz         dBuV         dB         dBuV/m           33.9174         50.60         -18.35         32.25           48.6719         49.39         -18.42         30.97           *         59.2325         52.50         -18.73         33.77           69.3568         51.33         -19.85         31.48           96.0986         48.65         -20.82         27.83	Mk.         Freq.         Level         Factor         ment         Limit           MHz         dBuV         dB         dBuV/m         dB/m           33.9174         50.60         -18.35         32.25         40.00           48.6719         49.39         -18.42         30.97         40.00           *         59.2325         52.50         -18.73         33.77         40.00           69.3568         51.33         -19.85         31.48         40.00           96.0986         48.65         -20.82         27.83         43.50	Mk.         Freq.         Level         Factor         ment         Limit         Over           MHz         dBuV         dB         dBuV/m         dB/m         dB           33.9174         50.60         -18.35         32.25         40.00         -7.75           48.6719         49.39         -18.42         30.97         40.00         -9.03           *         59.2325         52.50         -18.73         33.77         40.00         -6.23           69.3568         51.33         -19.85         31.48         40.00         -8.52           96.0986         48.65         -20.82         27.83         43.50         -15.67

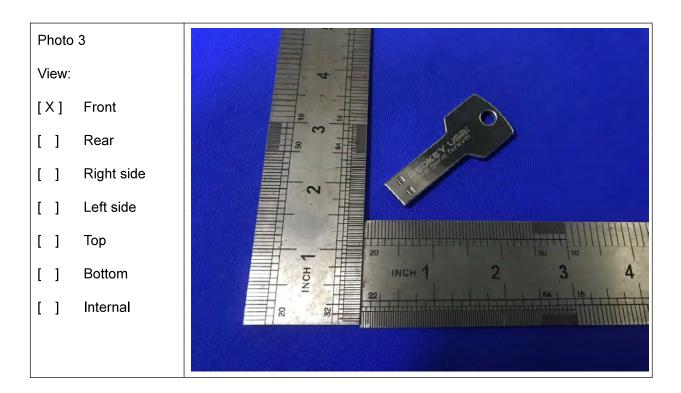


# 7. Photographs of EUT









----- End of the report -----