

# RF EXPOSURE REPORT

Applicant	Sunita Telecom.Co.,Ltd.
Address	4E23,No.5,Hsin Yi Road,Sec.5,Taipei,Taiwan

Manufacturer or Supplier	Dong guan City Baoyide Industrial Co.,LTD						
Address	A - 105A, bairun high end industrial park, changping town, dongguan city, guangdong province, China						
Product	5G Wi - Fi Flash Disk						
Brand Name	V-smart						
Model	FD - 100						
Additional Model & Model Difference	N/A						
Date of tests	Aug. 17, 2017 ~ Sep. 26, 2017						

- **KDB 447498 D01**
- **⊠** IEEE C95.1

#### CONCLUSION: The submitted sample was found to **COMPLY** with the test requirement

Tested by Andy Zhu Project Engineer / EMC Department	Approved by Glyn He Supervisor / EMC Department
Andy	Date: Oct. 26, 2017

Date: Oct. 26, 2017

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# **RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FS170817N033	Original release	Oct. 26, 2017

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Report Version 1



### 1. CERTIFICATION

FCC ID:	2ANUBVSMARTFD100		
PRODUCT:	5G Wi - Fi Flash Disk		
BRAND NAME:	V-smart		
MODEL NO.:	FD - 100		
ADDITIONAL NO.:	N/A		
TEST SAMPLE: Engineering Sample			
APPLICANT:	Sunita Telecom.Co.,Ltd.		
STANDARDS:	FCC Part 2 (Section 2.1091)		
	KDB 447498 D01		
	IEEE C95.1		

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#### 2. RF EXPOSURE DEFINE

The corresponding SAR Exclusion Threshold condition, listed below:

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]  $\cdot [\sqrt{f(GHz)}] \le 3.0$  for 1-g SAR and  $\le 7.5$  for 10-g extremity SAR,16 where

- > f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq$  50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

- 2) At 100 MHz to 6 GHz and for test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following:
  - a) [Threshold at 50 mm in step 1) + (test separation distance 50 mm)·( f(MHz)/150)] mW, at 100MHz to 1500 MHz
- b) [Threshold at 50 mm in step 1) + (test separation distance 50 mm)·10] mW at > 1500 MHz and ≤ 6 GHz
- 3) At frequencies below 100 MHz, the following may be considered for SAR test exclusion.
  - a) The threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by [1 + log(100/f(MHz))] for test separation distances > 50 mm and < 200 mm.
  - b) The threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by ½ for test separation distances ≤ 50 mm.
  - c) SAR measurement procedures are not established below 100 MHz. When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any test results to be acceptable.

#### 3. CLASSIFICATION

The antenna of this product, under normal use condition, is at less than 20cm away from the body of the user. So, this device is classified as **Portable Device**.



### 4. SAR TEST EXCLUSION THRESHOLDS

The antennas provided to the EUT, please refer to the following table:

Transmitter Circuit	Peak Gain (dBi)	Antenna Type
Chain 0	1.5	PCB Antenna

The tuned conducted Average Power (declared by client)

Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
802.11b	2412-2462	7	+-2.5	4.5	9.5
802.11g	2412-2462	7	+-2.5	4.5	9.5
802.11n(HT20)	2412-2462	7	+-2.5	4.5	9.5
802.11a	5745-5825	5	+-2.5	2.5	7.5
802.11ac(HT20)	5745-5825	5	+-2.5	2.5	7.5
802.11n(HT20)	5745-5825	5	+-2.5	2.5	7.5
802.11ac(HT40)	5745-5825	5	+-2.5	2.5	7.5
802.11n(HT40)	5745-5825	5	+-2.5	2.5	7.5

The measured conducted Average Power

Mode	Frequency (MHz)	Averaged Power (dBm)		
802.11b	2462	9.46		
802.11g	2462	9.43		
802.11n(HT20)	2437	8.74		
802.11a	5825	7.48		
802.11ac (20MHz)	5745	7.35		
802.11n (20MHz)	5825	7.37		
802.11ac (40MHz)	5795	7.25		
802.11n (40MHz)	5795	7.26		

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#### **SAR Test Exclusion Thresholds**

FREQUENC Y BAND (MHz)	Maximum source-based time averaged conducted output power (dBm)	Minimum separation distance (mm)	Result of Eq. 1	Limit for 1-g SAR	Limit for 10-g extremit y SAR	Verdict
2412-2462	9.5	5	2.80	3.0	7.5	Exempt from SAR
5745-5825	7.5	5	2.71	3.0	7.5	Exempt from SAR

#### Conclusion

Therefore this device complies with FCC's RF radiation exposure limits for general population without SAR evaluation.

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