



BUREAU
VERITAS

Test Report No.: FS170517N049-2

RF EXPOSURE REPORT

Applicant	Arts Electronics Co., Ltd.
Address	NO.1, SHANGXING LU, SHANGJIAO COMMUNITY, CHANGAN TOWN, DONGGUAN CITY, GUANGDONG PROVINCE, CHINA

Manufacturer or Supplier	Arts Electronics Co., Ltd.
Address	NO.1, SHANGXING LU, SHANGJIAO COMMUNITY, CHANGAN TOWN, DONGGUAN CITY, GUANGDONG PROVINCE, CHINA
Product	VR All-in-One HMD
Brand Name	N/A
Model	HC574-L
Additional Model & Model Difference	N/A
Date of tests	May 28, 2017 ~ Jun. 12, 2017

- FCC Part 2 (Section 2.1091)
- KDB 447498 D01
- IEEE C95.1

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

Tested by Breeze Jiang Project Engineer / EMC Department	Approved by Glyn He Supervisor / EMC Department
	 Date: Jul. 14, 2017

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Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch

No. 34, Chenwulu Section, Guantai Rd., Houjie
Town, Dongguan City,
Guangdong 523942, China

Tel: +86 769 8593 5656
Fax: +86 769 8593 1080
Email: customerservice.dg@cn.bureauveritas.com



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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FS170517N049-2	Original release	Jul. 14, 2017

Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch

No. 34, Chenwulu Section, Guantai Rd., Houjie
Town, Dongguan City,
Guangdong 523942, China

Tel: +86 769 8593 5656
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1. CERTIFICATION

FCC ID:	TZIHC574L
PRODUCT:	VR All-in-One HMD
BRAND NAME:	N/A
MODEL NO.:	HC574-L
ADDITIONAL NO.:	N/A
TEST SAMPLE:	Engineering Sample
APPLICANT:	Arts Electronics Co., Ltd.
STANDARDS:	FCC Part 2 (Section 2.1091)
	KDB 447498 D01
	IEEE C95.1



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:

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

- $f(\text{GHz})$ 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 ≤ 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 $[1 + \log(100/f(\text{MHz}))]$ 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 $\frac{1}{2}$ 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 minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander. (See below figure)



4. SAR TEST EXCLUSION THRESHOLDS

The tuned conducted Average Power (declared by client)

Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
GFSK	2402-2480	-4	+2	-6	-2
8DPSK	2402-2480	-7	+2	-9	-5
802.11b	2412-2462	12	+2	10	14
802.11g	2412-2462	7	+2	5	9
802.11n(HT20)	2412-2462	7	+2	5	9

The measured conducted Average Power

Mode	Frequency (MHz)	Averaged Power (dBm)
GFSK	2402	-3.11
8DPSK	2402	-6.04
802.11b	2462	12.48
802.11g	2462	8.09
802.11n(HT20)	2462	7.62



SAR Test Exclusion Thresholds

Mode	Frequency (GHz)	Maximum source-based time averaged conducted output power including tune-up tolerance (mW)	Minimum separation distance (mm)	SAR test exclusion thresholds (mW) for 1-g SAR	SAR test exclusion thresholds (mW) for 10-g extremity SAR	Verdict
BT	2402-2480	0.631	65	245.218	388.093	Exempt from SAR
WLAN	2412-2462	25.119	65	245.566	388.962	Exempt from SAR



Conclusion

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