









# SAR Exemption Evaluation Report

Product Name: Virtual Reality System

Model No. : MI-A

FCC ID : 2AGOZMI-A

Applicant : Oculus VR LLC

Address : 1 Hacker Way, Bldg 18 Menlo Park CA 94025-1456

Date of Receipt: Sep. 12, 2017

Test Date : Sep. 12, 2017~ Nov. 02, 2017

Issued Date : Dec. 01, 2017

Report No. : 1792054R-RF-US-P20V02

Report Version : V 1.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

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## **Test Report Certification**

Issued Date: Dec. 01, 2017

Report No.: 1792054R-RF-US-P20V02



Product Name : Virtual Reality System

Applicant : Oculus VR LLC

Address : 1 Hacker Way, Bldg 18 Menlo Park CA 94025-1456

Manufacturer : Oculus VR LLC

Address : 1 Hacker Way, Bldg 18 Menlo Park CA 94025-1456

Model No. : MI-A

FCC ID : 2AGOZMI-A EUT Voltage : 1.5 V dc, 190 mA

Test Voltage : DC 1.5V

Applicable Standard : KDB 447498D01V06

FCC Part1.1310

Test Result : Complied

Performed Location : DEKRA Testing & Certification (Suzhou) Co., Ltd.

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FCC Designation Number: CN1199

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(Adm. Specialist: Kathy Feng)

Reviewed By :

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Approved By :

(Engineering Manager: Harry Zhao )

Harry Than



#### 1. RF Exposure Evaluation

#### 1.1. Limits

#### According to KDB 447498 D01 General RF Exposure Guidance v06

#### 4.3.1 Standalone SAR test exclusion considerations

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)]  $\cdot$  [ f(GHz)]  $\leq$  3.0 for 1-g SAR and  $\leq$  7.5 for 10-g extremity SAR, 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

3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

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  $\leq$  5 mm, a distance of 5 mm according to 5) in section 4.1 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, and as illustrated in Appendix B:
- a) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance 50 mm)·( f(MHz)/150)] mW, at 100 MHz to 1500 MHz
- b) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance 50 mm)·10] mW at > 1500 MHz and  $\leq$  6 GHz
- 3) The 1-g and 10-g SAR test exclusion thresholds for below 100 MHz at test separation distances ≤ 50 mm are determined by:
- a) The power 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 power threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by  $\frac{1}{2}$  for test separation distances  $\leq$  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. Note: when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.



#### 1.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

The temperature and related humidity: 18 and 78% RH.

### 1.3. Test Result of RF Exposure Evaluation

Product Name		Virtual Reality System			
Test Item	:	RF Exposure Evaluation			
Test Site	:	AC-6			

#### Antenna Gain:

Model No.	N/A							
Antenna manufacturer	SPEED							
Antenna Delivery	$\boxtimes$	1*TX+1*RX			2*TX+2*RX		3*TX+3*RX	
Antenna technology	$\boxtimes$	SISO						
		МІМО		Basic				
				CDD				
				Sectorized				
				Beam	-forming			
Antenna Type		External		Dipole				
				Secto	rized			
		Internal		PIFA				
			$\boxtimes$	РСВ				
				Ceramic Chip Antenna				
				Mono	pole Antenna			
Antono Toologo	Ant Gain							
Antenna Technology		(dBi)						
⊠siso	Ant1:2.45							



Based on The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm and the formula below:

Estimated SAR=
$$\sqrt{f(GHz)} * \frac{\text{(Max Power of channel, mW)}}{\text{Min. Separation Distance, mm}}$$

The Maximum tune-up power is -2.5dBm.

Band	Exposure Condition	Pmax	Pmax	Distance	f(GHz)	calculation	Stand-alone Test	SAR Test
		(dBm)	(mw)	(mm)		result	exclusion	
		(abiii)					threshold	
BLE	limb	-2.5	0.562	5	2.402	0.17	7.5	No

Conclusion: 2402MHz-2480MHz SAR was not required.

The End	
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