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Report No.: 1905RSU032-U4 Report Version: V01 Issue Date: 06-12-2019

RF Exposure Evaluation Declaration

FCC ID: 2AOLGVS321H

APPLICANT: Honeywell, spol, s.r.o.-HTS CZ o.z.

Application Type: Certification

Product: Hearing Protection Headset

Model No.: VS321H

Brand Name: Honeywell

FCC Classification: Digital Transmission System (DTS)

Test Procedure(s): KDB 447498 D01v06

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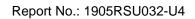


The test results relate only to the samples tested.

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

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Revision History

Report No.	Version	Description	Issue Date	Note
1905RSU032-U4	Rev. 01	Initial Report	06-12-2019	Valid

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1. PRODUCT INFORMATION

1.1. Equipment Description

Product Name:	Hearing Protection Headset		
Model No.:	VS321H		
Brand Name:	Honeywell		
Firmware Version:	3.10.00.53		
Software Version:	31-MCU1.1.3-BLE1.1.2		
Bluetooth Version:	V5.0 single mode (Bluetooth-LE Only)		
RFID Specification:	902MHz ~ 928MHz (Passive)		
Power Supply:	2 * AA alkaline batteries or 2 * Rechargeable NIMH batteries		

1.2. Product Specification Subjective

Frequency Range:	2402 ~ 2480MHz	
Type of Modulation:	GFSK	
Data Rate:	Up to 2Mbps	
Antenna Type:	PCB Antenna	
Antenna Gain:	0dBi	

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2. RF Exposure Evaluation

2.1. Limits

SAR Test Exclusion Thresholds for 100 MHz - 6 GHz and ≤ 50 mm

Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table. The equation and threshold in Note 1 must be applied to determine SAR test exclusion.

N 41 1—	_	40	4.5	20	05	
MHz	5	10	15	20	25	mm
150	39	77	116	155	194	SAR Test
300	27	55	82	110	137	Exclusion
450	22	45	67	89	112	Threshold
835	16	33	49	66	82	(mW)
900	16	32	47	63	79	
1500	12	24	37	49	61	
1900	11	22	33	44	54	
2450	10	19	29	38	48	
3600	8	16	24	32	40	
5200	7	13	20	26	33	
5400	6	13	19	26	32	
5800	6	12	19	25	31	
MHz	30	35	40	45	50	mm
150	232	271	310	349	387	SAR Test
300	164	192	219	246	274	Exclusion
450	134	157	179	201	224	Threshold
835	98	115	131	148	164	(mW)
900	95	111	126	142	158	
1500	73	86	98	110	122	
1900	65	76	87	98	109	
2450	57	67	77	86	96	
3600	47	55	63	71	79	
0000		4.0	53	59	66	
5200	39	46	55	00		
	39 39	46	52	58	65	

Note: 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:

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[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] * $[\sqrt{f(GHz)}] \le 3.0$ for 1-g SAR and ≤ 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 < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

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2.2. Test Result of RF Exposure Evaluation

Product	Hearing Protection Headset	
Test Item	RF Exposure Evaluation	

Test Mode	Frequency Band	Maximum Output Power		SAR Test Exclusion Threshold
	(MHz)	(dBm)	(mW)	(mW)
Bluetooth-LE	2402 ~ 2480	4.13	2.59	10

Note 1: Per FCC KDB 447498 D01v06, the SAR exclusion threshold for distances<50mm is defined by the following equation:

$$\frac{Max\ Power\ of\ Channel\ (mW)}{Test\ Separation\ Dist\ (mm)}*\sqrt{Frequency(GHz)} \leq 3.0$$

Based on the maximum conducted power of Bluetooth and the antenna to use separation distance, Bluetooth SAR was not required;

$$\left(\frac{2.59\text{mW}}{5}\right) * \sqrt{2.402} = 0.80 < 3.00$$

Note 2: When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Note 3: The nearest distance between EUT antenna and end user is 9 mm, detail plot refer to operation description.

_____ The End _____