

RF Exposure Evaluation declaration

Product Name : WiFi Digital Microscope

Model No. : DMC-2513

FCC ID : R7RDMC2513

Applicant : VAST Technologies INC.

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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 standard through the calibration of the equipment and evaluated measurement uncertainty herein.

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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	WiFi Digital Microscope
Model No.	DMC-2513
Trade Name	Jabra
Contains FCC ID	R7RDMC2513
Frequency Range	2412-2462MHz for 802.11b/g/n-20BW, 2422-2452MHz for 802.11n-40BW
Number of Channels	802.11b/g/n-20MHz: 11, n-40MHz: 7
Data Speed	802.11b: 1-11Mbps, 802.11g: 6-54Mbps, 802.11n: up to 150Mbps
Channel separation	802.11b/g/n: 5 MHz
Type of Modulation	802.11b:DSSS (DBPSK, DQPSK, CCK) 802.11g/n:OFDM (BPSK, QPSK, 16QAM, 64QAM)
Antenna Type	FPC Antenna
Antenna Gain	Refer to the table “Antenna List”
Channel Control	Auto

1.2. Antenna List :

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	Walsin	RFFPA330805IMAB301	FPC Antenna	4.89dBi for 2.4 GHz

2. RF Exposure Evaluation

According to 1.1307 (b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

According to section 4.3.1/4.3.2 of KDB 447498 D01 Mobile Portable RF Exposure v06,

2.1. Standalone SAR test exclusion :

- 1) $[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR at test separation distances ≤ 50 mm
- 2) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance - 50 mm) · (f(MHz)/150)] mW, for 100 MHz to 1500 MHz at test separation distances > 50 mm
- 3) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance - 50 mm) · 10] mW for > 1500 MHz and ≤ 6 GHz at test separation distances > 50 mm

2.2. Simultaneous transmission SAR test exclusion :

When the sum of 1-g or 10-g SAR of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit, SAR test exclusion applies to that simultaneous transmission configuration

- (1) $(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}/x] \text{ W/kg}$ for test separation distances ≤ 50 mm; where $x = 7.5$
- (2) 0.4 W/kg for 1-g SAR and 1.0 W/kg for 10-g SAR, when the test separation distances is > 50 mm.

2.3. Measurement Result

Standalone SAR test exclusion:

WLAN 2.4G Peak Gain:4.89dBi

Mode	Frequency (MHz)	Maximum output power (dBm)	Emission Power Level (dBm)	Emission Power Level (mW)	separation distance (mm)	SAR test exclusion power (mW)
WLAN	2450	5	9.89	9.75	5	10

Emission Power = Maximum output power + Antenna Gain