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COMMERCIAL-IN-CONFIDENCE

SAR EXCLUSION DOCUMENT

Document 75949856-10 Issue 01

FCC Standalone SAR Test Exclusion Considerations (KDB 447498 D01) Section 4.3.1 a)

100 MHz – 6 GHz – Separation Distance ≤50 mm

The 1g SAR Test exclusion thresholds for 100 MHz to 6 GHz test separation distances ≤ 50 mm are determined by:

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

- 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
- When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied.

SAR Exclusion Result: (use spreadsheet calculator)


Frequency (GHz)	Power Output mW	Duty Cycle %	Maximum Power (Tune up Value) * (mW)	Test Separation Distance (mm)	SAR Test Exclusion Threshold	Limit**	SAR Test Exclusion (Yes/No)
2401	7	100	7	5	2.2	3.0	Yes
2485	7	100	7	5	2.2	3.0	Yes

* Maximum power including tolerance of the time averaged declared conducted output power of the device.

** Select ≤ 3.0 for 1g SAR and ≤ 7.5 for 10g extremity SAR.

The SAR exclusion threshold has been evaluated using the formula described above from information supplied by the manufacturer below. Based on the calculation above, the EUT is categorically excluded from SAR testing.

Approved by


Jon Kenny
Authorised Signatory

Date 16 June 2021



Manufacturer's Declaration of Product Information:

Equipment Description

Technical Description: <i>(Please provide a brief description of the intended use of the equipment)</i>	BLE tag used for tagging both assets and personnel
Manufacturer:	Omni Id
Model:	Sense Shield
Part Number:	CP14791

If more than one frequency band is supported, please confirm which combinations of bands are capable of Simultaneous Transmit.	
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Frequency Band 1: Please detail (one entry for each band). e.g GSM 900 / WCDMA FDD I etc .

Antenna Model:	PCB Etch	
Antenna length:	NA	cm
Bottom frequency:	2401	MHz
Middle frequency:	2485	MHz
Top frequency:	2485	MHz

Maximum power (input to the antenna including a tolerance):	8	dBm
Antenna gain (or maximum gain allowed):	0	dBi

I hereby declare that the information supplied is correct and complete.

Name: Charles Vilner
Position held: Omni-ID Engineering Director
Date: 4th February 2021