

## RF EXPOSURE EVALUATION

### EUT Specification

<b>EUT</b>	10.3-INCH reader
<b>Model Number</b>	SHERD-01-9BA
<b>FCC ID</b>	2A9YMSHERD-01
<b>Antenna gain (Max)</b>	2.14 dBi for WIFI 2.4 Band and BT 2.04 dBi for WIFI 5G Band I 2.04 dBi for WIFI 5G Band III
<b>Operation Frequency</b>	2.4G WIFI: 2412-2462MHz for 802.11b/g; 2412-2462MHz for 802.11n(HT20); 2422-2452MHz for 802.11n(HT40); BT: 2402-2480MHz 5G WIFI: Band I : 5180-5240 MHz Band III : 5745-5825 MHz
<b>Input Rating</b>	DC 5V, 2A
<b>Classification Per Stipulated Test Standard</b>	§ 15.247(i), § 2.1093

### Test Requirement:

According to §15.247(i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances*  $\leq 50$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f_{(\text{GHz})}}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR,}^{24} \text{ where}$

- $f_{(\text{GHz})}$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation<sup>25</sup>
- 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.

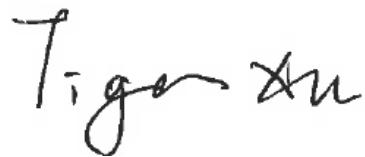
Routine SAR evaluation refers to that specifically required by §2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval.

One antenna is available for the EUT. The minimum separation distance is 5mm.

Mode	Frequency (MHz)	Max Measured Power (dBm)	Tune up Power (dBm)	Max tune up power(dBm)	Calculation Result	1-g SAR
2.4G WIFI	2412	6.25	6±1	7	1.556789	3
5G WIFI band I	5200	6.23	6±1	7	2.285824	3
5G WIFI band III	5475	5.92	6±1	7	2.402625	3
BT	2441	5.62	6±1	7	1.566120	3

The Product unsupported at the same time to Transmitting. According to KDB 447498, and no simultaneous SAR measurement is required.

Signature:



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