



## **No SAR justification for FCC ID : YGB-WDV5300**

### **Following FCC KDB 447498 D01 “General SAR test exclusion guidance”**

The corresponding SAR Exclusion Threshold condition listed below:

- 1) 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:  
$$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [f(\text{GHz})] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$
  - $f(\text{GHz})$  is the RF channel transmit frequency in GHz
  - Power and distance are rounded to the nearest mW and mm before calculation
  - The result is rounded to one decimal place for comparison

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 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:
  - a) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm) · ( $f(\text{MHz})/150$ )] mW, at 100 MHz to 1500 MHz
  - b) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm) · 10] mW at  $> 1500$  MHz and  $\leq 6$  GHz
- 3) At frequencies below 100 MHz, the following may be considered for SAR test exclusion.
  - a) The threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by  $[1 + \log(100/f(\text{MHz}))]$  for test separation distances  $> 50$  mm and  $< 200$  mm.
  - b) The 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.

### **Smallest distance from the antenna and radiating structures or outer surface of the device**

The minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander.



**Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch**

Tel: +86 769 8593 5656 Fax: +86 769 8593 1080 Email: [DGservice@cn.bureauveritas.com](mailto:DGservice@cn.bureauveritas.com)

**SAR Test Exclusion Thresholds**

Channel and Mode	Frequency (GHz)	Maximum source-based time averaged conducted output power including tune-up tolerance (mW)	Minimum separation distance (mm)	Result of Eq. 1	Limit for 1-g SAR	Limit for 10-g extremity SAR	Verdict
802.11b Ch 11	2.462	8.55	5mm	2.656	3.0	7.5	Exempt from SAR
802.11g Ch 11	2.462	8.87	5mm	2.756	3.0	7.5	Exempt from SAR
802.11n (HT20) Ch 1	2.412	7.91	5mm	2.456	3.0	7.5	Exempt from SAR
802.11n (HT40) Ch 3	2.422	6.64	5mm	2.066	3.0	7.5	Exempt from SAR

**Conclusion**

Therefore our device complies with FCC's RF radiation exposure limits for general population without SAR evaluation.