

**MPE CALCULATION**  
**FCC ID: 2AJGKIALGPS**

**RF Exposure Requirements:** 47 CFR §1.1307(b)  
**RF Radiation Exposure Limits:** 47 CFR §1.1310  
**RF Radiation Exposure Guidelines:** FCC OST/OET Bulletin Number 65  
**EUT Frequency Band:** 156.525MHz, 161.975MHz, 162.025MHz

**Equation:**

According to the procedure in KDB447498 (v05r02) section 4.3, SAR testing is excluded if the following criteria is met.

$$(P/d) * \sqrt{f} \leq 3.0 \text{ for 1-g SAR}$$

Where

P is the time averaged maximum conducted power in mW

d minimum separation distance in mm

f is the frequency in GHz

**The distance between the antenna and human body is 5mm. the calculation was based on the distance of 5mm.**

**In the test report, the highest power for AIS is 27.96dBm, which is 625.17mW.**

**The highest power for DSC is 26.42dBm, which is 438.53mW.**

**The EUT transmit 1 AIS message (25ms) per minute, the DC=25/60000=0.000417**

**The EUT transmit 3 DSC message (750ms) per 4 minutes, the DC=750\*3/240000=0.009375**

**The Average power for AIS is 625.17\*0.000417=0.26mW, -5.85dBm.**

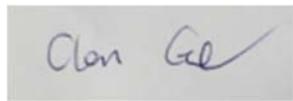
**The Average power for DSC is 438.53\*0.009375=4.11mW, 6.13dBm.**

Type	CH Freq (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Tune-up Tolerance	Max Tune-up power (dBm)	Measurement Distance (mm)
AIS	161.975	-5.85	0	±1	-4.85	5
DSC	156.525	6.13	0	±1	7.13	5

For AIS:  $(P/d) * \sqrt{f} = 0.02 < 3$  for 1g SAR

For DSC:  $(P/d) * \sqrt{f} = 0.56 < 3$  for 1g SAR

Therefore, EUT is not require SAR Evaluation.



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