

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.
 $(P/d)^* \sqrt{f} \leq 3.0$ 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 $625.17 * 0.000417 = 0.26$ mW, -5.85dBm.

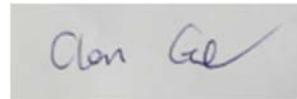
The Average power for DSC is $438.53 * 0.009375 = 4.11$ mW, 6.13dBm.

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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