## Analysis Report

The equipment under test (EUT) is a AromaRest model AromaRest 1.1 with Bluetooth function operating in 2402-2480MHz. The EUT is powered by adapter(input: AC 100-240V 50/60Hz 1.5A; output: DC 24V 2A). For more detail information pls. refer to the user manual.

**Classic Bluetooth function:**

Modulation Type: GFSK, π/4-DQPSK and 8-DPSK
Bluetooth Version: 5.0
Antenna Type: PCB Antenna
Antenna Gain: 1dBi
The nominal radiated output power specified: 5.1dBm (Tolerance: +/-2dB)

According to the KDB 447498:

The maximum radiated emission for the EUT is 102.3 dBμV/m at 3m in the frequency 2.441GHz = [(FS*D) ^2 / 30] mW
= 7.1 dBm which is within the production variation

The minimum radiated emission for the EUT is 100.9 dBμV/m for at 3m in the frequency 2.402GHz = [(FS*D) ^2 / 30] mW
= 5.7 dBm which is within the production variation

The maximun conducted output power specified is 6.1dBm = 4.07mW
The source- based time-averaging conducted output power
= 4.07* Duty cycle mW <= 4.07 mW (Duty Cycle<=100%)

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.480) mW
= 9.53 mW

Since the source-based time-averaging conducted output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.

**BLE function:**

Modulation Type: GFSK

Bluetooth Version: 5.0 BLE

Antenna Type: PCB Antenna

Antenna Gain: 1dBi

The nominal radiated output power specified: 5.1dBm (Tolerance: +/-2dB)

According to the KDB 447498:

The maximum radiated emission for the EUT is 102.0 dBμV/m at 3m in the frequency 2.480GHz = [(FS*D) ^2 / 30] mW
= 6.8 dBm which is within the production variation

The minimum radiated emission for the EUT is 99.4 dBμV/m for at 3m in the frequency 2.402GHz = [(FS*D) ^2 / 30] mW
= 4.2 dBm which is within the production variation

The maximun conducted output power specified is 6.1dBm = 4.07mW
The source- based time-averaging conducted output power
= 4.07* Duty cycle mW <= 4.07 mW (Duty Cycle<=100%)

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.480) mW
= 9.53 mW

Since the source-based time-averaging conducted output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.