

Analysis Report

Report No.: 15010656HKG-001

FCC ID: IKQFMTD3PRO

The EUT is an in-car FM transmitter which transmits audio signal from external electronic devices like iPhone or iPad to the car radio. The electronic devices are connected with the EUT by 3.5 AUX IN plug. The EUT also provides an USB port for charging with 5V power output that can charge most of the electronic devices with USB 5V DC in. The Unit comes with a big LCD display to show the frequency & channel being transmitted to the car radio. The Unit is powered by car cigarette 12V socket. It can be operated in 100 different channels in the frequency band 88.1MHz to 107.9MHz with 200kHz channel spacing (88.1, 88.3, 88.7, 88.9, ... 107.9MHz).

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 35.7dBμV/m at 3m

Allowed field strength of production tolerance: +/- 3dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production was 38.7dBμV/m at 3m, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 0.002224\mu W$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 0.002224μW.

The SAR Exclusion Threshold Level at 107.9MHz:

= $3.0 \cdot (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$

= $3.0 \cdot 5 / \sqrt{0.1079}$ mW

= 45.7 mW

Since the above maximum output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.