RF Exposure Compliance Requirement

Calculation formula：

E (V/m) = (30*P*G) 0.5/d

E = Electric Field (V/m)

P = Peak RF output Power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between EUT and antenna (m)

Remark: $E(V/m)=10^{X\ (dBUV/m)\ /20}\times10^{-6}$

$ERP=PG=(E*d)^2/30$, EIRP= ERP+2.15 dB

in the formula above, d=3m, field strength= 70.2dBuV/m (max described by client),

So P=0.0052mW

The worst case test separation distance is **5mm.**

The product belongs to **standalone portable device** base the FCC rule part 2.1091&2.1093. The transmission frequencies of the device are between 100 MHz and 6 GHz.

In KDB 447498 D01 v06: 4.3.1 Standalone SAR test exclusion considerations:

The SAR Test Exclusion Threshold is calculated from:

[(*max. power of channel, including tune-up tolerance, mW*)/(*min. test separation distance, mm*)] ·[√f(GHz)] ≤ 3.0 for 1-g SAR

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation 17
- The result is rounded to one decimal place for comparison

The Max Conducted Output Power and SAR Test Exclusion Threshold (mW) are listed below:

Transmit Frequency (MHz)	Output power (mW)	SAR Test Exclusion Threshold (mW)
433.92	0.0052	22.77

According to SAR Exclusion Threshold in KDB 447498 (D01) General RF Exposure Guidance v06, the SAR report is not required.

Test Location:

Intertek Testing Services Shenzhen Ltd. Guangzhou Branch

All tests were performed at:

Room102/104, No 203, KeZhu Road, Science City, GETDD Guangzhou, China