# SAR  evaluation

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|---|---|---|
| **Test Standard** | : | KDB447498D04 General RF Exposure Guidance v01 |
| **FCC ID** | : | 2A7R3-ASIAIRMINI |

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MPE  Calculation  Method
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$E\ (V/m) = (30*P*G)^{0.5}/d$

Power Density: $Pd\ (W/m2) = E^2/377$

E = Electric Field (V/m)

P = Peak RF output Power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$Pd = (30*P*G)\ /\ (377*d^2)$

From the peak EUT RF output power, the minimum mobile separation distance, d=0 .2m, as well as the gain of the used antenna, the RF power density can be obtained .

**Calculated  Result  and  Limit  (WORSE  CASE  IS  AS  BELOW)**

2.4G

| Directional antennaGain (Numeric) | Peak Output Power (mW) | Power Density (s) (mW/cm$^2$) | Limit of Power Density (s) (mW/cm$^2$) | Test Result |
|---|---|---|---|---|
| 5dBi(3.162) | 16.08(802.11n40 2452) | 0.2551 | 1 | Compiles |

5G

| Directional antennaGain (Numeric) | Peak Output Power (mW) | Power Density (s) (mW/cm$^2$) | Limit of Power Density (s) (mW/cm$^2$) | Test Result |
|---|---|---|---|---|
| 3dBi(1.995) | 14.16(802.11a 5240) | 0.1034 | 1 | Compiles |