

## 1. MPE ESTIMATION

### 1.1. Limit for General Population/ Uncontrolled Exposures

Frequency	Power density (mW/ cm <sup>2</sup> )	Averaging time(minutes)
300MHz----1.5GHz	F/1500	30
1.5GHz---100GHz	1.0	30

Frequency(MHz)	Power density (mW/ cm <sup>2</sup> )	Averaging time(minutes)
2402	1	30
2441	1	30
2480	1	30

Note: F= Frequency in MHz

### 1.2. Estimation Method

Calculate the MPE with below formula:

$$MPE = \frac{P \cdot G}{4\pi R^2}$$

P=Output power

G=Antenna Gain

R=Estimate distance

Note: The estimate distance is 20cm

### 1.3. Estimation Result

EUT: ACTIVE SPEAKER SYSTEM		
M/N: SA-CT260H		
Test date: 2013-05-11	Pressure: 101.2±1.0 kpa	Humidity: 51.6±3.0%
Tested by: Leo-Li	Test site: RF Site	Temperature : 20.8±0.6 °C

Cable loss: 1 dB							
Test Mode	CH	Frequency ( MHz )	Peak Output Power (dBm)	Output Power (mW)	Antenna Gain (dBi)	Antenna Gain (Linear)	MPE
GFSK	CH0	2402	1.44	1.39	2.12	1.63	0.0005
	CH39	2441	1.56	1.43	2.12	1.63	0.0005
	CH78	2480	1.12	1.29	2.12	1.63	0.0004
8DPSK	CH0	2402	0.88	1.22	2.12	1.63	0.0004
	CH39	2441	0.90	1.23	2.12	1.63	0.0004
	CH78	2480	0.33	1.08	2.12	1.63	0.0003
GFSK	CH1	2404	7.37	5.46	-2.4073	0.57	0.0006
	CH13	2440	7.70	5.89	-2.4073	0.57	0.0006
	CH25	2476	7.73	5.92	-2.4073	0.57	0.0007

### 1.4. Estimation for simultaneous transmission operations

According to KDB447498 Clause 7.2, Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on calculated or measured field strengths or power density, is  $\leq 1.0$ .

The sum of the MPE ratios for two transmitting antennas incorporated in this host device is  $0.0011 < 1.0$ , So the simultaneous transmission operations can be excluded.