

10.MPE ESTIMATION

10.1.Limit for General Population/ Uncontrolled Exposures

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

Frequency(MHz)	Power density (mW/ cm ²)	Averaging time(minutes)
2412	1	30
2437	1	30
2462	1	30

Note: F= Frequency in MHz

10.2. Estimation Result

EUT: 3G/4G Wireless N Router		
M/N: TL-MR3420		
Test date: 2015-10-15	Pressure: 101.4±1.0 kpa	Humidity: 52.3±3.0%
Tested by: Alice_Yang	Test site: RF site	Temperature: 23.2±0.6 °C

Test Mode	CH	Frequency (MHz)	Peak Output Power (dBm)	Output Power (mW)	Antenna Gain (dBi)	Antenna Gain (Linear)	MPE
11b	CH1	2412	22.97	198.15	4	2.51	0.0991
	CH6	2437	22.32	170.61	4	2.51	0.0853
	CH11	2462	22.90	194.98	4	2.51	0.0975
11g	CH1	2412	19.88	97.27	4	2.51	0.0486
	CH6	2437	23.57	227.51	4	2.51	0.1137
	CH11	2462	18.95	78.52	4	2.51	0.0393
11n HT20	CH1	2412	19.95	98.86	4	2.51	0.0494
	CH6	2437	23.44	220.80	4	2.51	0.1104
	CH11	2462	19.27	84.53	4	2.51	0.0423
11n HT40	CH3	2422	17.46	55.72	4	2.51	0.0279
	CH6	2437	23.26	211.84	4	2.51	0.1059
	CH9	2452	16.12	40.93	4	2.51	0.0205

$$MPE = \frac{PG}{4\pi R^2} \quad (R=20cm)$$

When incorporate the module or module-like transmitter in host device that operate in the mixed mobile and portable host platform exposure conditions, the test exclusion condition” [Σ of (the highest measured or estimated SAR for each standalone antenna configuration, adjusted for maximum tune-up tolerance) / 1.6 W/kg] + [Σ of MPE ratios] is ≤ 1.0” should be satisfied.

So the result will be 1.4W/kg / 1.6W/kg+0.1137/1≤ 1.0.