Telecommunication Laboratories,

Chunghwa Telecom Co., Ltd.

MPE Evaluation Report

Applicant : Chilin Eletronics Co., Ltd.

3F No.4, Lane 81, Chien-I Road, Chung-Ho Dist.

New Taipei City, Taiwan, R.O.C.

Manufacturer : Chilin Eletronics Co., Ltd.

Trade Name : Chilin

EUT Description : ZigBee Module

Model Number: ZBM-2400

The ZigBee Module ZBM-2400 (FCC ID: CO9ZBM2400) was tested in CHTTL(Telecommunication Laboratories, Chunghwa Telecom Co., Ltd.). The conducted RF output power is 6.9 dBm (Please refer to P.29 in the test report). The field strength is 99.9dBuv/m in 3m chamber (Please refer to P.18 in the test report). Antenna gain: 2 dBi (Please refer to P.7 in the test report).

Watts = $[(V/m \times meters)^2]/30 \times 10^{(dBi/10)}$, V/m = 2.434

$W/m^2 = (V/m)^2 / 377 = 1.58 \times 10^{-2}\ W/m^2$,

MPE = $1.58 \times 10^{-3}\ mW/cm^2$

The MPE is 1.58 x 10^{-3} mW/cm^2 which is compliant with the MPE limits of 1.1310.

1.1310 MPE Limits

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*($900/f^2$)	6
30–300	61.4	0.163	1.0	6
300–1500			f/300	6
1500–100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*($180/f^2$)	30
30–300	27.5	0.073	0.2	30
300–1500			f/1500	30
1500–100,000			1.0	30

f = frequency in MHz
* = Plane-wave equivalent power density

NOTE 1 TO TABLE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2 TO TABLE 1: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

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Test Engineer: Shin-yen Du July 24 2012

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