CTK Co., Ltd.
386-1, Ho-dong, Cheoin-gu, Yongin-si, Gyeonggi-do, 449-100, Korea
Tel: +82-31-339-9970 Fax: +82-31-339-9855
www.e-ctk.com

RF EXPOSURE EVALUATION

Applicant	: BIXOLON Co., Ltd.
Applicant Address	: 7th~8th FL, Miraeasset Venture Tower, 685, Sampyeong-dong,Bundang-gu Seongnam-si, Gyeonggi-do, Korea
Kind of Product	: Thermal Receipt Printer
Equipment model name	: SRP-35*plusIII
RF power	: 14.446 dBm Peak Conducted
Antenna type	: Chip antenna
Antenna Gain	: -0.28 dBi
Frequency Range	: 2402 MHz - 2480 MHz
Number of channels	: 79 CH

** MPE Calculations **

The EUT will only be used with a separation of 20 centimeters or greater between the antenna and the body of the user. The MPE calculation for this exposure is shown below.

The peak radiated output power (EIRP) is calculated as follows:

EIRP = P + G EIRP = 14.446 + (-0.28) = 14.166 dBm => 26.10 mW	Where, P = Power input to the antenna (mW) G = Power gain of the antenna (dBi)

The numeric gain(G) of the antenna with a gain specified in dB is determined by:

$G = Log^{-1}$ (dB antenna gain / 10)

$G = Log^{-1}$ (-0.28/ 10)

G = 0.94

Power density at the specific separation:

$S = PG/(4R^2\pi)$ $S = (26.10)/(4 * 20^2 * \pi)$ $S = 0.005$ mW/cm^2	Where, S = Maximum power density (mW/cm^2) P = Power input to the antenna (mW) G = Numeric power gain of the antenna R = Distance to the center of the radiation of the antenna (20cm = limit for MPE)

The Maximum permissible exposure (MPE) for the general population is 1 mW/cm^2 .
The power density at 20cm does not exceed the 1 mW/cm^2 limit.

Estimated safe separation:

$R = \sqrt{(PG / 4\pi)}$ $R = \sqrt{(26.10 / 4\pi)}$ R = 1.44 cm	Where, P = Power input to the antenna (mW) G = Numeric power gain of the antenna R = Distance to the center of the radiation of the antenna (20cm = limit for MPE)