11 August, 2009

FCC ID: VZTNT2410AA
Product Name: NT2410AAE5, Universal Radio Module (URM)

RF Safety Calculation

Prediction of MPE limit at a given distance

Reference_1: Equation from page 51 of EN 50385: Basic standard for the calculation and measurement of electromagnetic field strength and SAR related to human exposure from radio base stations and fixed terminal stations for wireless telecommunication systems (110 MHz - 40 GHz)

Reference 2: Equation from page 18 of OET Bulletin 65, Edition 97-01: Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields.

URM 700: NT2410AAE5, 700MHz

$$S = \frac{PG}{4\pi R^2}$$

where: S = power density
P = power input to the antenna
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna

Maximum peak output power at antenna input terminal:	46.00	(dBm)
Maximum peak output power at antenna input terminal:	39810.71706	(mW)
Antenna gain(typical):	14.8	(dBi)
Maximum antenna gain:	30.1995172	(numeric)
Prediction distance:	450	(cm)
Prediction frequency:	751	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	0.5	(mW/cm^2)
Power density at prediction frequency:	0.472460	(mW/cm^2)
Maximum allowable antenna gain:	15.04604896	(dBi)
Margin of Compliance:	0.246048959	