

Nortel Networks Limited  
P.O. Box 3511, Station C  
Ottawa ON K1Y 4H7 · Canada  
**Tel** 613 763 7847  
**Fax** 613 763 8091

[www.nortelnetworks.com](http://www.nortelnetworks.com)

June 9, 2000

Radio Denis Lalonde  
Compatibility Eng.

Federal Communications Commission  
Authorization and Evaluation Division  
Equipment Authorization Branch  
7435 Oakland Mills Road  
Columbia, Maryland, 21046

**Re: AB6CTR2807M**

Dear Sir or Madam:

This document describes the method used for determining the minimum separation distance between the CTR and the general public in order to prevent RF exposure as per paragraph 1.1310.

The minimum separation distance was determined with calculations. They were done using FCC OST/OET Bulletin 65 ("Evaluating Compliance with FCC Specified Guidelines for Human Exposure to Radiofrequency Radiation"). The aperture antenna equations for predicting RF fields from that document were used. They yielded the following results.

The power density of the 28-07M CTR:

- at the surface of the antenna is  $0.75 \text{ mW/cm}^2$  (OST/OET Bulletin 65 equation 11)
- in the near field ( $R < 2.8 \text{ m}$ ) is less than  $0.3 \text{ mW/cm}^2$  (equation 12, 13, 14)
- in the transition region ( $2.8\text{m} < R < 6.8\text{m}$ ) is less than  $0.13 \text{ mW/cm}^2$  (equation 16, 17)
- in the far field ( $R > 6.8 \text{ m}$ ) is less than  $0.13 \text{ mW/cm}^2$  (equation 18)

Power = 22.5 dBm = 1 dB compression point of the CTR

Antenna diameter = 13.7 inches

Frequency = 28275 MHz

Antenna gain = 36.2 dBi

The FCC General Population limit is  $1 \text{ mW/cm}^2$ , hence the use of 0 cm as the minimum separation limit.

A drawing of the radiation warning label and a picture of its location as been submitted. The exhibit type of those files is "ID Label/Location Info". Their file name are;

- CTR\_RF\_Label.pdf
- RF\_Label\_Position.pdf

The size of the label is 2.5 inches by 3.5 inches. A label is installed on both sides of the CTR.

Regards,

Denis Lalonde  
Product Integrity - Kanata  
Wireless Products  
email: [denisl@nortelnetworks.com](mailto:denisl@nortelnetworks.com)  
Nortel Networks