



23 Aug 2005

To: Federal Communications Commission
Industrie Canada
From: Nortel Networks
Subject: Professional Installation and Configuration
FCC ID: RVW2330 IC: 332R-2330

Gentlemen,

The purpose of this letter is to address power reduction concerns when using high gain antennas on the 5.15 to 5.25 GHz UNII band.

The current FCC and Industrie Canada rules allow an RF transmit power of +17 dBm when operating within the 5.15 – 5.25 GHz band. Additionally, the FCC and Industrie Canada require that the RF transmit power limit be reduced 1dB for every additional dBi or antenna gain above 6 dBi.

A similar reduction in power is required for operation in the 5.25 – 5.35 band from a level of 24 dBm for antenna gains over 6 dBi.

In order to comply with the FCC requirements regarding maximum transmit power limit, it is necessary to reduce the RF transmit power when using the access point with the antennas (or an antenna of similar type and gain).

The following table outlines the maximum RF transmit power limits for the 5.15 – 5.25 GHz "802.11 A" band with the indicated antennas.

Mfg.	Part No.	Type	Specified Antenna Gain (dBi)	Power Limit Reduction (dB)	5.15 - 5.25 GHz Max RF Power Allowed (dBm)	5.25 - 5.35 GHz Max RF Power Allowed (dBm)
Cushcraft	S51514WPN36RSM	Panel	14	8	9	16
Cushcraft	S5153WPBN36RSM	Omni	6	0	17	24

Nortel is cognizant of the fact that Nortel is responsible for continued compliance on the access point even when installed in the field. In order to ensure that the Nortel installation meet the FCC and Industrie Canada regulatory requirements, the configuration of the access points to the correct transmit power for a given antenna will be performed by a trained professional installer. Information detailing the correct RF power levels for the antennas requiring power reduction will be included in the installation notes, however, modified installation notes are not available at this time. The edited installation instructions will be added to the installation manual or on the Nortel web site or both as soon as possible.

Compliance with FCC Part 15.15

FCC Part 15.15(b) states:

"An intentional or unintentional radiator must be constructed such that the adjustments of any control that is readily accessible by or intended to be accessible to the user will not cause operation of the device in violation of the regulations."

Compliance with Part 15.15 will be accomplished by a professional, trained configuring the access-points correctly during the installation. Professional installation and configuration of the devices is required due to the complexity of a typical installation. A typical installation may consist of several dozen access points installed throughout a corporate building or campus. Installation, configuration and testing of the system are not trivial tasks and must be performed by trained professionals. The configuration settings of the access point are password protected to eliminate the possibility of unauthorized personnel altering the configuration and thus disrupting the proper performance of the network, therefore the end user of the network will not have access to the configuration of the access points.

If there is any additional information required, please contact me at the email address below

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