November 1998 doc.: IEEE 802.11-98/379

## IEEE P802.11 Wireless LANs

## **Revised FCC Regulations**

**Date:** November, 1998

Author: Masahiro Morikura

NTT

Phone: +81-468-59-3132 Fax: +81-468-55-1172

e-Mail: morikura@mhosun.wslab.ntt.co.jp

## **Abstract**

This document presents the outband emission issue of FCC regulations at 5GHz U-NII band that are revised in June 24,1998.

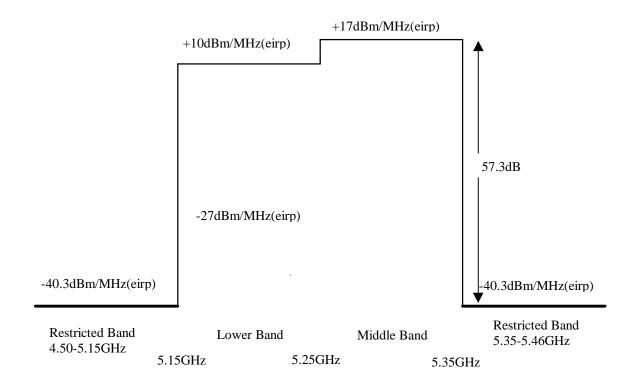
Extracts from FCC regulations(revised June 24,1998): Amendment of the Commission's Rules to provide for Operation of Unlicensed NII Devices in the 5 GHz Frequency Range

APENDIX A: FINAL RULES
PART 15 -- RADIO FREQUENCY DEVICES
§ 15.407 General technical requirements.

- (b) Undesirable Emission Limits: Except as shown in Paragraph (b)(6) of this Section, the peak emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:
- (1) For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.
- (3) For transmitters operating in the 5.725-5.825 GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP of -27 dBm/MHz.
- (4) The above emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
  - (5) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in Section 15.209. Further, any U-NII devices using

an AC power line are required to comply also with the conducted limits set forth in Section 15.207.

- (6) The provisions of § 15.205 of this part apply to intentional radiators operating under this section.
- (7) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency block edges as the design of the equipment permits



To decide to channel allocation of the Lower band and the Middle band, undesirable emission from the Middle band to the Lower band must be taken into account.

Submission page 2 Masahiro, NTT