

## PART 15—RADIO FREQUENCY DEVICES

3. The authority citation for part 15 continues to read as follows:

**Authority:** 47 U.S.C. 154, 302, 303, 304, 307 and 544A.

4. Section 15.37 amended by adding paragraph (l) to read as follows:

### § 15.37 Transition provisions for compliance with the rules.

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(l) U–NII Equipment operating in the 5.25–5.35 GHz band that are authorized under the certification procedure on or after [1 year after publication of R&O in ET Docket No. 03–122 in the **Federal Register**] shall comply with the DFS requirement specified in § 15.407. All U–NII Equipment operating in the 5.25–5.35 GHz band that are manufactured or imported on or after [2 years from publication of R&O in ET Docket No. 03–122 in the **Federal Register**] shall comply with the DFS requirement specified in § 15.407. Equipment authorized, imported or manufactured prior to these dates shall comply with the requirements for U–NII Equipment operating in the 5.25–5.35 GHz band that were in effect immediately prior to [60 days after publication of R&O in ET Docket No. 03–122 in the **Federal Register**].

5. Section 15.401 is revised to read as follows:

### § 15.401 Scope.

This subpart sets out the regulations for unlicensed National Information Infrastructure (U–NII) devices operating in the 5.15–5.35 GHz, 5.47–5.725 GHz and 5.725–5.825 GHz bands.

4. Section 15.403 is revised to read as follows:

### § 15.403 Definitions.

(a) *Access Point (AP)*. A U–NII transceiver that operates either as a bridge in a peer-to-peer connection or as a connector between the wired and wireless segments of the network.

(b) *Available Channel*. A radio channel on which a *Channel Availability Check* has not identified the presence of a radar.

(c) *Average Symbol Envelope Power*. The average symbol envelope power is the average, taken over all symbols in the signaling alphabet, of the envelope power for each symbol.

(d) *Channel Availability Check*. A check during which the U–NII device listens on a particular radio channel to identify whether there is a radar operating on that radio channel.

(e) *Channel Move Time*. The time needed by a U–NII device to cease all

transmissions on the Operating Channel upon detection of a signal above the DFS detection threshold. Transmissions during this period will consist of intermittent management and control signals required to facilitate vacating the Operating Channel.

(f) *Digital modulation*. The process by which the characteristics of a carrier wave are varied among a set of predetermined discrete values in accordance with a digital modulating function as specified in document ANSI C63.17–1998.

(g) *Dynamic Frequency Selection (DFS)* is a mechanism that detects signals from other systems and avoids co-channel operation with these systems, notably radar systems. The DFS process shall be required to provide a uniform spreading of the loading over all the available channels.

(h) *DFS Detection Threshold*. The required detection level defined by detecting a received signal strength (RSS) that is greater than a threshold specified, within the U–NII device channel bandwidth.

(i) *Emission bandwidth*. For purposes of this subpart the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier. Determination of the emissions bandwidth is based on the use of measurement instrumentation employing a peak detector function with an instrument resolution bandwidth approximately equal to 1.0 percent of the emission bandwidth of the device under measurement.

(j) *In-Service Monitoring*. Monitoring of the *Operating Channel* to check that a co-channel radar has not moved or started operation within range of the U–NII device.

(k) *Non-Occupancy Period*. The required period in which, once a channel has been recognized as containing a radar signal by a U–NII device, the channel will not be selected as an available channel.

(l) *Operating Channel*. Once a U–NII device starts to operate on an *Available Channel* then that channel becomes the *Operating Channel*.

(m) *Peak Power Spectral Density*. The peak power spectral density is the maximum power spectral density, within the specified measurement bandwidth, within the U–NII device operating band.

(n) *Peak Transmit Power*. The maximum transmit power as measured over an interval of time of at most 30/B (where B is the 26 dB emission

bandwidth of the signal in hertz) or the transmission pulse duration of the device, whichever is less, under all conditions of modulation.

(o) *Power Spectral Density*. The power spectral density is the total energy output per unit bandwidth from a pulse or sequence of pulses for which the transmit power is at its peak or maximum level, divided by the total duration of the pulses. This total time does not include the time between pulses during which the transmit power is off or below its maximum level.

(p) *Pulse*. A pulse is a continuous transmission of a sequence of modulation symbols, during which the average symbol envelope power is constant.

(q) *RLAN*. Radio Local Area Network.

(r) *Transmit Power*. The total energy transmitted over a time interval of at most 30/B (where B is the 26 dB emission bandwidth of the signal in hertz) or the duration of the transmission pulse, whichever is less, divided by the interval duration.

(s) *Transmit Power Control (TPC)*. A feature that enables a U–NII device to dynamically switch between several transmission power levels in the data transmission process.

(t) *U–NII devices*. Intentional radiators operating in the frequency bands 5.15–5.35 GHz and 5.470–5.825 GHz that use wideband digital modulation techniques and provide a wide array of high data rate mobile and fixed communications for individuals, businesses, and institutions.

7. Section 15.407 is amended by revising paragraph (a)(2), redesignating paragraphs (b)(3) through (b)(6) as paragraphs (b)(4) through (b)(7), adding a new paragraph (b)(3) and paragraph (h) to read as follows:

### § 15.407 General Technical Requirements.

(a) \* \* \*

(2) For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the peak transmit power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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(b) \* \* \*

(3) For transmitters operating in the 5.47–5.725 GHz band: all emissions outside of the 5.47–5.725 GHz band