the equipment, only signals conducted onto the AC power lines are required to be measured.

(d) Particular attention should be paid to harmonics and subharmonics of the fundamental frequency as well as to those frequencies removed from the fundamental by multiples of the oscillator frequency. Radiation at the frequencies of multiplier states should also be checked.

[54 FR 17714, Apr. 25, 1989, as amended at 61 FR 14502, Apr. 2, 1996; 63 FR 42278, Aug. 7, 1998]

§ 15.35 Measurement detector functions and bandwidths.

The conducted and radiated emission limits shown in this part are based on the following, unless otherwise specified elsewhere in this part:

(a) On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a CISPR quasi-peak detector function and related measurement bandwidths, unless otherwise specified. The specifications for the measuring instrument using the CISPR quasi-peak detector can be found in Publication 16 of the International Special Committee on Radio Interference (CISPR) of the International Electrotechnical Commission. As an alternative to CISPR quasi-peak measurements, the responsible party, at its option, may demonstrate compliance with the emission limits using measuring equipment employing a peak detector function, properly adjusted for such factors as pulse desensitization, as long as the same bandwidths as indicated for CISPR quasi-peak measurements are employed.

NOTE: For pulse modulated devices with a pulse-repetition frequency of 20 Hz or less and for which CISPR quasi-peak measurements are specified, compliance with the regulations shall be demonstrated using measuring equipment employing a peak detector function, properly adjusted for such factors as pulse desensitization, using the same measurement bandwidths that are indicated for CISPR quasi-peak measurements.

(b) Unless otherwise stated, on any frequency or frequencies above 1000 MHz the radiated limits shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurements are specified in this part, including emission measurements below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules, e.g., see §§ 15.255, 15.509 and 15.511. Unless otherwise specified, measurements above 1000 MHz shall be performed using a minimum resolution bandwidth of 1 MHz. Measurements of AC power line conducted emissions are performed using a CISPR quasi-peak detector, even for devices for which average radiated emission measurements are specified.

(c) Unless otherwise specified, e.g. § 15.255(b), when the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value. The exact method of calculating the average field strength shall be submitted with any application for certification or shall be retained in the measurement data file for equipment subject to notification or verification.

[54 FR 17714, Apr. 25, 1989, as amended at 56 FR 13083, Mar. 29, 1991; 61 FR 14502, Apr. 2, 1996; 63 FR 42279, Aug. 7, 1998; 67 FR 34855, May 16, 2002]

§ 15.37 Transition provisions for compliance with the rules.

Equipment may be authorized, manufactured and imported under the rules in effect prior to June 23, 1989, in accordance with the following schedules:

(a) *For all intentional and unintentional radiators, except for receivers:*

Radio frequency equipment verified by the responsible party or for which an application for a grant of equipment authorization is submitted to the Commission on or after June 23, 1992, shall comply with the regulations specified in this part. Radio frequency equipment that is manufactured or imported on or after June 23, 1994, shall comply with the regulations specified in this part.

(b) *For receivers:* Receivers subject to the regulations in this part that are manufactured or imported on or after June 23, 1999, shall comply with the regulations specified in this part. However, if a receiver is associated with a transmitter that could not have been authorized under the regulations in effect prior to June 23, 1989, e.g., a transmitter operating under the provisions of §15.209 or §15.249 (below 960 MHz), the transition provisions in this section do not apply. Such receivers must comply with the regulations in this part. In addition, receivers are subject to the provisions in paragraph (f) of this section.

(c) There are no restrictions on the operation or marketing of equipment complying with the regulations in effect prior to June 23, 1989.

(d) Prior to May 25, 1991, person shall import, market or operate intentional radiators within the band 902–905 MHz under the provisions of §15.249. Until that date, the Commission will not issue a grant of equipment authorization for equipment operating under §15.249 if the equipment is designed to permit operation within the band 902–905 MHz.

(e) *For cordless telephones:* The manufacture and importation of cordless telephones not complying with §15.214(d) of this part shall cease on or before September 11, 1991. These provisions will not apply to cordless telephones which are repaired or refurbished, or re-imported after repair or refurbishment. Applications for a grant of equipment authorization of cordless telephones not complying with §15.214(d) of this part will not be accepted by the Commission after May 10, 1991. Cordless telephones that have previously received equipment authorization and that, without modification, already comply with the requirements of §15.214(d) of this part, need not be reauthorized.

(f) The manufacture or importation of scanning receivers, and frequency converters designed or marketed for use with scanning receivers, that do not comply with the provisions of §15.121(a)(1) shall cease on or before April 26, 1994. Effective April 26, 1993, the Commission will not grant equipment authorization for receivers that do not comply with the provisions of §15.121(a)(1). These rules do not prohibit the sale or use of authorized receivers manufactured in the United States, or imported into the United States, prior to April 26, 1994.

(g) For CPU boards and power supplies designed to be used with personal computers: The manufacture and importation of these products shall cease on or before June 19, 1997 unless these products have been authorized under a Declaration of Conformity or a grant of certification, demonstrating compliance with all of the provisions in this part. Limited provisions, as detailed in §15.101(d), are provided to permit the importation and manufacture of these products subsequent to this date where the CPU boards and/or power supplies are marketed only to personal computer equipment manufacturers.

(h) The manufacture or importation of scanning receivers, and frequency converters designed or marketed for use with scanning receivers, that do not comply with the provisions of §15.121 shall cease on or before October 25, 1999. Effective July 26, 1999 the Commission will not grant equipment authorization for receivers that do not comply with the provisions of §15.121. This paragraph does not prohibit the sale or use of authorized receivers manufactured in the United States, or imported into the United States, prior to October 25, 1999.

(i) Effective October 16, 2002, an equipment approval may no longer be obtained for medical telemetry equipment operating under the provisions of §15.241 or §15.242. The requirements for obtaining an approval for medical telemetry equipment after this date are found in Subpart H of Part 95 of this chapter.

(j) All radio frequency devices that are authorized under the certification,

verification or declaration of conformity procedures on or after July 12, 2004 shall comply with the conducted limits specified in §15.107 or §15.207 as appropriate. All radio frequency devices that are manufactured or imported on or after July 11, 2005 shall comply with the conducted limits specified in §15.107 or §15.207, as appropriate. Equipment authorized, imported or manufactured prior to these dates shall comply with the conducted limits specified in §15.107 or §15.207, as appropriate, or with the conducted limits that were in effect immediately prior to September 9, 2002.

(k) Radar detectors manufactured or imported after August 28, 2002 and marketed after September 27, 2002 shall comply with the regulations specified in this part. Radar detectors manufactured or imported prior to January 27, 2003 may be labeled with the information required by §§2.925 and 15.19(a) of this chapter on the individual equipment carton rather than on the device, and are exempt from complying with the requirements of §15.21.

[54 FR 17714, Apr. 25, 1989; 54 FR 32339, Aug. 7, 1989; 55 FR 25095, June 20, 1990; 56 FR 3785, Jan. 31, 1991; 58 FR 25575, Apr. 27, 1993; 61 FR 31049, June 19, 1996; 64 FR 22561, Apr. 27, 1999; 65 FR 44008, July 17, 2000; 67 FR 45670, July 10, 2002; 67 FR 48993, July 29, 2002]

Subpart B—Unintentional Radiators

§15.101 Equipment authorization of unintentional radiators.

(a) Except as otherwise exempted in §§15.23, 15.103, and 15.113, unintentional radiators shall be authorized prior to the initiation of marketing, as follows:

Type of device	Equipment authorization required
TV broadcast receiver	Verification.
FM broadcast receiver	Verification.
CB receiver	Declaration of Conformity or Certification.
Superregenerative receiver	Declaration of Conformity or Certification.
Scanning receiver	Certification.
Radar detector	Certification.
All other receivers subject to part 15	Declaration of Conformity or Certification.
TV interface device	Declaration of Conformity or Certification.
Cable system terminal device	Declaration of Conformity.
Stand-alone cable input selector switch	Verification.
Class B personal computers and peripherals	Declaration of Conformity or Certification.[1]
CPU boards and internal power supplies used with Class B personal computers.	Declaration of Conformity or Certification.[1]
Class B personal computers assembled using authorized CPU boards or power supplies.	Declaration of Conformity.
Class B external switching power supplies	Verification.
Other Class B digital devices and peripherals	Verification.
Class A digital devices, peripherals and external switching power supplies.	Verification.
All other devices	Verification.

Note to table: Where the above table indicates more than one category of authorization for a device, the party responsible for compliance has the option to select the type of authorization.

[1] Applications for this equipment will no longer be accepted by the Commission once domestic Telecommunication Certification Bodies are available to certificate the equipment. See §2.960 of this chapter.

(b) Only those receivers that operate (tune) within the frequency range of 30–960 MHz, CB receivers and radar detectors are subject to the authorizations shown in paragraph (a) of this section. However, receivers indicated as being subject to Declaration of Conformity that are contained within a transceiver, the transmitter portion of which is subject to certification, shall be authorized under the verification procedure. Receivers operating above 960 MHz or below 30 MHz, except for radar detectors and CB receivers, are exempt from complying with the technical provisions of this part but are subject to §15.5.

(c) Personal computers shall be authorized in accordance with one of the following methods:

(1) The specific combination of CPU board, power supply and enclosure is tested together and authorized under a Declaration of Conformity or a grant of certification;

(2) The personal computer is authorized under a Declaration of Conformity or a grant of certification, and the CPU