

§ 95.2565

specify a channeling scheme for MedRadio systems.

(a) MedRadio transmitters associated with medical implant devices, which incorporate a frequency monitoring system as set forth in § 95.2559(a), may transmit on any frequency in the 401–406 MHz band.

(b) MedRadio transmitters associated with medical implant devices, which do not incorporate a frequency monitoring system as set forth in § 95.2559(a), may transmit on any frequency in the 401–402 MHz or 405–406 MHz bands, or on the frequency 403.65 MHz in the 402–405 MHz band.

(c) MedRadio transmitters associated with medical body-worn devices, regardless of whether a frequency monitoring system as set forth in § 95.2559(a) is employed, may transmit on any frequency in the 401–402 MHz or 405–406 MHz bands.

(d) MedRadio transmitters that are used externally to evaluate the efficacy of a more permanent medical implant device, regardless of whether a frequency monitoring system as set forth in § 95.2559(a) is employed, may operate on any frequency in the 402–405 MHz band, provided that:

(1) Such external body-worn operation is limited solely to evaluating with a patient the efficacy of a fully implanted permanent medical device that is intended to replace the temporary body-worn device;

(2) RF transmissions from the external device must cease following the patient evaluation period, which may not exceed 30 days, except where a health care practitioner determines that additional time is necessary due to unforeseen circumstances;

(3) The maximum output power of the temporary body-worn device must not exceed 200 nW EIRP; and

(4) The temporary body-worn device must comply fully with all other MedRadio rules applicable to medical implant device operation in the 402–405 MHz band.

(e) Only MedRadio transmitters that are part of a Medical Micropower Network (MMN) may operate in the 413–419 MHz, 426–432 MHz, 438–444 MHz, and 451–457 MHz bands. Each MedRadio transmitter that is part of an MMN must be capable of operating in each of the fol-

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lowing bands: 413–419 MHz, 426–432 MHz, 438–444 MHz, and 451–457 MHz. All MedRadio transmitters that are part of a single MMN must operate in the same band.

(f) Only MedRadio transmitters that are part of a Medical Body Area Network (MBAN) may operate in the 2360–2400 MHz band.

§ 95.2565 MedRadio frequency accuracy.

Each MedRadio transmitter type must be designed to maintain a frequency stability of ± 100 ppm of the operating frequency over the applicable temperature range set forth in this section. Frequency stability testing shall be performed over the appropriate temperature range.

(a) 25 °C to 45 °C in the case of medical implant transmitters; and

(b) 0 °C to 55 °C in the case of MedRadio programmer/control transmitters and medical body-worn transmitters.

§ 95.2567 MedRadio radiated power limits.

Each MedRadio transmitter type must be designed such that the MedRadio equivalent isotropically radiated power (M-EIRP) does not exceed the limits in this section. Compliance with these limits must be determined as set forth in § 95.2569.

(a) *Transmitters subject to frequency monitoring—401–406 MHz.* For MedRadio transmitters that are not excepted under § 95.2559(b) from the frequency monitoring requirements of § 95.2559(a):

(1) The M-EIRP within any 300 kHz bandwidth within the 402–405 MHz band must not exceed 25 microwatts.

(2) The M-EIRP within any 100 kHz bandwidth within the 401–402 MHz or 405–406 MHz bands must not exceed 25 microwatts.

(b) *Transmitters excepted from frequency monitoring—401–402 MHz and 405–406 MHz.* For MedRadio transmitters that are excepted under § 95.2559(b)(2) or (3) from the frequency monitoring requirements of § 95.2559(a):

(1) The M-EIRP of any transmitter operating in the 401–401.85 MHz or 405–406 MHz bands must not exceed 250 nanowatts in any 100 kHz bandwidth.

(2) The M-EIRP of any transmitter operating in the 401.85–402 MHz band must not exceed 25 microwatts in any 150 kHz bandwidth.

(c) *Transmitters excepted from frequency monitoring—403.65 MHz.* For MedRadio transmitters that are excepted under § 95.2559(b)(4) from the frequency monitoring requirements of § 95.2559(a), the M-EIRP must not exceed 100 nanowatts in the 300 kHz bandwidth centered at 403.65 MHz.

(d) *Transmitters—other frequency bands.* For MedRadio transmitters operating in the 413–419 MHz, 426–432 MHz, 438–444 MHz, or 451–457 MHz bands:

(1) The peak M-EIRP over the frequency bands of operation must not exceed the lesser of zero dBm (1 mW) or $10 \log (B) - 7.782$ dBm, where B is the MedRadio 20 dB emission bandwidth in megahertz.

(2) The peak power spectral density must not exceed 800 microwatts per megahertz in any one megahertz band.

(e) *Transmitters—2360–2390 MHz band.* For MedRadio transmitters operating in the 2360–2390 MHz band, the M-EIRP over the bands of operation must not exceed the lesser of zero dBm (1 mW) or $10 \log (B)$ dBm, where B is the MedRadio 20 dB emission bandwidth in megahertz.

(f) *Transmitters—2390–2400 MHz band.* For MedRadio transmitters operating in the 2390–2400 MHz band, the M-EIRP over the bands of operation must not exceed the lesser of 13 dBm (20 mW) or $16 + 10 \log (B)$ dBm, where B is the MedRadio 20 dB emission bandwidth in megahertz.

§ 95.2569 MedRadio field strength measurements.

Compliance with MedRadio equivalent isotropic radiated power (M-EIRP) limits can be determined by measuring the radiated field strength from the transmitter type, in accordance with the rules in this section.

(a) Radiated field strength values corresponding to the M-EIRP limits in § 95.2567 are given in the table in this paragraph, for an open area test site, and for a test site equivalent to free space, such as a fully anechoic test chamber. Field strength is measured at a distance of 3 meters from the equipment under test.

M-EIRP limit	Open area (mV/m)	Free space (mV/m)
1 mW	115.1	57.55
25 μW	18.2	9.1
250 nW	1.8	0.9
100 nW	1.2	0.6

(b) Compliance with the maximum transmitter power requirements in § 95.2567 is based on measurements using a peak detector function and measured over an interval of time when transmission is continuous and at its maximum power level. In lieu of using a peak detector function, measurement procedures that have been found to be acceptable to the FCC in accordance with § 2.947 of this chapter may be used to demonstrate compliance.

(c) For a MedRadio transmitter intended to be implanted in a human body, radiated emissions and M-EIRP measurements for transmissions by stations authorized under this section may be made in accordance with an FCC-approved human body simulator and test technique. Guidance regarding SAR measurement techniques dielectric parameters for the tissue-equivalent material can be found in the Office of Engineering and Technology (OET) Laboratory Division Knowledge Database (KDB).

§ 95.2571 MedRadio emission types.

A MedRadio station may transmit any emission type appropriate for communications in this service. Voice communications, however, are prohibited.

§ 95.2573 MedRadio authorized bandwidths.

Each MedRadio transmitter type must be designed such that the MedRadio emission bandwidth does not exceed the applicable authorized bandwidth set forth in this section.

(a) For MedRadio transmitters operating in the 402–405 MHz band, the maximum authorized bandwidth is 300 kHz. Such transmitters must not use more than 300 kHz of bandwidth (total) during a MedRadio communications session. This provision does not preclude full duplex or half duplex communications provided that the total bandwidth of all of the channels employed