

§ 18.307

47 CFR Ch. I (10-1-01 Edition)

(c) The field strength limits for RF lighting devices shall be the following:

Frequency (MHz)	Field strength limit at 30 meters (µV/m)
Non-consumer equipment:	
30-88 .....	30
88-216 .....	50
216-1000 .....	70
Consumer equipment:	
30-88 .....	10
88-216 .....	15
216-1000 .....	20

NOTES

1. The tighter limit shall apply at the boundary between two frequency ranges.

2. Testing for compliance with these limits may be made at closer distances, provided a sufficient number of measurements are taken to plot the radiation pattern, to determine the major lobes of radiation, and to determine the expected field strength level at 30, 300, or 1600 meters. Alternatively, if measurements are made at only one closer fixed distance, then the permissible field strength limits shall be adjusted using 1/d as an attenuation factor.

[50 FR 36070, Sept. 5, 1985, as amended at 51 FR 17970, May 16, 1986; 52 FR 43197, Nov. 10, 1987]

§ 18.307 Conduction limits.

For the following equipment, which is designed to be connected to a low voltage public utility power line, the RF voltage conducted back into the power lines measured with a line impedance stabilization network (LISN) shall be limited to:

(a) Ultrasonic equipment:

Frequency band in which device operates (MHz)	Range of frequency measurements	
	Lowest frequency	Highest frequency
Below 1.705 .....	Lowest frequency generated in the device, but not lower than 9 kHz.	30 MHz.
1.705 to 30 .....	Lowest frequency generated in the device, but not lower than 9 kHz.	400 MHz.
30 to 500 .....	Lowest frequency generated in the device or 25 MHz, whichever is lower.	Tenth harmonic or 1,000 MHz, whichever is higher.
500 to 1,000 .....	Lowest frequency generated in the device or 100 MHz, whichever is lower.	Tenth harmonic.
Above 1,000 .....	.....do .....	Tenth harmonic or highest detectable emission.

Frequency (MHz)	Maximum RF line voltage measured with a 5 µH/50 ohm LISN (µV)
0.010-0.49 .....	1000
0.49-30 .....	200

(b) Induction cooking ranges manufactured after February 1, 1980:

Frequency (MHz)	Maximum RF line voltage measured with a 5µH/50 ohm LISN (mV)
0.010-0.1 .....	10-1 (linear interpolation)
0.1-0.5 .....	1
0.5-30 .....	0.25

(c) RF lighting devices:

Frequency (MHz)	Maximum RF line voltage measured with a 50 µH/50 ohm LISN (µV)
Non-consumer equipment:	
0.45 to 1.6 .....	1,000
1.6 to 30 .....	3,000
Consumer equipment:	
0.45 to 2.51 .....	250
2.51 to 3.0 .....	3,000
3.0 to 30 .....	250

NOTES

1. These conduction limits shall apply outside the bands specified in § 18.301.

2. For ultrasonic equipment, compliance with these conduction limits shall preclude the need to show compliance with the field strength limits below 30 MHz unless requested by the Commission.

3. The tighter limits shall apply at the boundary between two frequency ranges.

[50 FR 36067, Sept. 5, 1985, as amended at 52 FR 43198, Nov. 10, 1987; 64 FR 37419, July 12, 1999]

§ 18.309 Frequency range of measurements.

(a) For field strength measurements: