

Federal Communications Commission

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service’s points of interconnection with customer premises. Access BPL does not include power line carrier systems as defined in §15.3(t) or In-House BPL as defined in §15.3(gg).

(gg) *In-House Broadband over Power Line (In-House BPL)*. A carrier current system, operating as an unintentional radiator, that sends radio frequency energy by conduction over electric power lines that are not owned, operated or controlled by an electric service provider. The electric power lines may be aerial (overhead), underground, or inside the walls, floors or ceilings of

user premises. In-House BPL devices may establish closed networks within a user’s premises or provide connections to Access BPL networks, or both.

(hh) *Slant-Range distance*. Diagonal distance measured from the center of the measurement antenna to the nearest point of the overhead power line carrying the Access BPL signal being measured. This distance is equal to the hypotenuse of the right triangle as calculated in the formula below. The slant-range distance shall be calculated as follows:

$$d_{slant} = \sqrt{(h_{pwr_line} - h_{ant})^2 + (d_h)^2}$$

Where:

d_{slant} is the slant-range distance, in meters (see Figure 1, below);

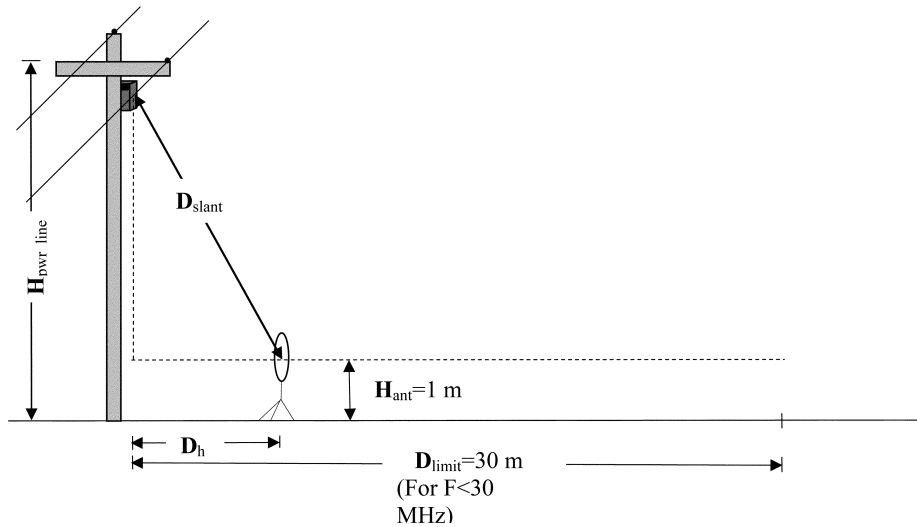
d_h is the horizontal (lateral) distance between the center of the measurement antenna and the vertical projection of the

overhead power line carrying the BPL signals down to the height of the measurement antenna, in meters;

h_{pwr_line} is the height of the power line, in meters; and

h_{ant} is the measurement antenna height, in meters.

Figure 1 – Illustration of Slant-Range Distance



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D_{slant} is the slant-range distance, in meters;
 D_{h} is the horizontal (lateral) distance between the center of the measurement antenna and the vertical projection of the overhead power line carrying the BPL signals down to the height of the measurement antenna, in meters;
 D_{limit} is the distance at which the emission limit is specified in Part 15 (e.g., 30 meters for frequencies below 30 MHz);
 $H_{\text{pw-line}}$ is the height of the power line, in meters; and
 H_{ant} is the measurement antenna height, in meters.

(ii) *Level Probing Radar (LPR)*: A short-range radar transmitter used in a wide range of applications to measure the amount of various substances, mostly liquids or granulates. LPR equipment may operate in open-air environments or inside an enclosure containing the substance being measured.

[54 FR 17714, Apr. 25, 1989, as amended at 55 FR 18340, May 2, 1990; 57 FR 33448, July 29, 1992; 59 FR 25340, May 16, 1994; 61 FR 31048, June 19, 1996; 62 FR 26242, May 13, 1997; 64 FR 22561, Apr. 27, 1999; 65 FR 64391, Oct. 27, 2000; 66 FR 32582, June 15, 2001; 67 FR 48993, July 29, 2002; 70 FR 1373, Jan. 7, 2005; 76 FR 71907, Nov. 21, 2011; 78 FR 34927, June 11, 2013; 79 FR 12677, Mar. 6, 2014; 82 FR 41103, Aug. 29, 2017]

§ 15.5 General conditions of operation.

(a) Persons operating intentional or unintentional radiators shall not be deemed to have any vested or recognizable right to continued use of any given frequency by virtue of prior registration or certification of equipment, or, for power line carrier systems, on the basis of prior notification of use pursuant to § 90.35(g) of this chapter.

(b) Operation of an intentional, unintentional, or incidental radiator is subject to the conditions that no harmful interference is caused and that interference must be accepted that may be caused by the operation of an authorized radio station, by another intentional or unintentional radiator, by industrial, scientific and medical (ISM) equipment, or by an incidental radiator.

(c) The operator of a radio frequency device shall be required to cease operating the device upon notification by a Commission representative that the device is causing harmful interference. Operation shall not resume until the condition causing the harmful interference has been corrected.

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(d) Intentional radiators that produce Class B emissions (damped wave) are prohibited.

[54 FR 17714, Apr. 25, 1989, as amended at 75 FR 63031, Oct. 13, 2010]

§ 15.7 [Reserved]

§ 15.9 Prohibition against eavesdropping.

Except for the operations of law enforcement officers conducted under lawful authority, no person shall use, either directly or indirectly, a device operated pursuant to the provisions of this part for the purpose of overhearing or recording the private conversations of others unless such use is authorized by all of the parties engaging in the conversation.

§ 15.11 Cross reference.

The provisions of subparts A, H, I, J and K of part 2 apply to intentional and unintentional radiators, in addition to the provisions of this part. Also, a cable system terminal device and a cable input selector switch shall be subject to the relevant provisions of part 76 of this chapter.

§ 15.13 Incidental radiators.

Manufacturers of these devices shall employ good engineering practices to minimize the risk of harmful interference.

§ 15.15 General technical requirements.

(a) An intentional or unintentional radiator shall be constructed in accordance with good engineering design and manufacturing practice. Emanations from the device shall be suppressed as much as practicable, but in no case shall the emanations exceed the levels specified in these rules.

(b) Except as follows, an intentional or unintentional radiator must be constructed such that the adjustments of any control that is readily accessible by or intended to be accessible to the user will not cause operation of the device in violation of the regulations. Access BPL equipment shall comply with the applicable standards at the control adjustment that is employed. The measurement report used in support of an application for Certification and the