

Applicant: Savant Technologies LLC, dba GE Lighting, a Savant company

Product Name: Smart Plug

Model Number: CPLGSTDBLW1

FCC ID: PUU-CPLGSTDBLW1M

RADIO FREQUENCY EXPOSURE COMPLIANCE RESULT:

Test Standard: FCC CFR 47 § 1.1310 : Radiofrequency radiation exposure limits.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| Frequency range (MHz) | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm ²) | Averaging time (minutes) |
|--|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| (A) Limits for Occupational/Controlled Exposure | | | | |
| 0.3-3.0 | 614 | 1.63 | *100 | 6 |
| 3.0-30 | 1842/f | 4.89/f | *900/f ² | 6 |
| 30-300 | 61.4 | 0.163 | 1.0 | 6 |
| 300-1,500 | | | f/300 | 6 |
| 1,500-100,000 | | | 5 | 6 |
| (B) Limits for General Population/Uncontrolled Exposure | | | | |
| 0.3-1.34 | 614 | 1.63 | *100 | 30 |
| 1.34-30 | 824/f | 2.19/f | *180/f ² | 30 |
| 30-300 | 27.5 | 0.073 | 0.2 | 30 |
| 300-1,500 | | | f/1500 | 30 |
| 1,500-100,000 | | | 1.0 | 30 |

f = frequency in MHz * = Plane-wave equivalent power density

Note:

(1) Occupational/controlled exposure limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when a person is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

(2) General population/uncontrolled exposure limits apply in situations in which the general public may be exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

MPE Calculation Standard:

$$MPE(S) = PG/(4\pi R^2)$$

where: S = power density (in appropriate units, e.g. mW/ cm²)

P = power input to the antenna (in appropriate units, e.g., mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

Calculation Result:

For this EUT, General population/uncontrolled exposure limits applied.

The limit value $1.0\text{mW}/\text{cm}^2$ is available for this EUT.

The Output Power comes from the RF Test Report, and for this EUT, the Bluetooth and Wifi can not simultaneous transmission.

| Modulation | Peak Output Power | | Antenna Gain | | MPE | Limit | Verdict |
|------------|-------------------|---------|--------------|-----------|-----------------------------|-----------------------------|-----------|
| | (dBm) | (mW) | (dBi) | (Numeric) | (mW/cm^2) | (mW/cm^2) | |
| BLE | 5.213 | 3.32124 | 4.6 | 2.88403 | 0.00191 | 1.0 | Compliant |
| 802.11b | 13.94 | 24.7742 | 4.6 | 2.88403 | 0.01421 | 1.0 | Compliant |
| 802.11g | 15.45 | 35.0752 | 4.6 | 2.88403 | 0.02012 | 1.0 | Compliant |
| 802.11n20 | 15.43 | 34.914 | 4.6 | 2.88403 | 0.02003 | 1.0 | Compliant |
| 802.11n40 | 14.9 | 30.903 | 4.6 | 2.88403 | 0.01773 | 1.0 | Compliant |

For R = 20cm