

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

Product Name: Direct Connect Full Color A19

Model Number: CLEDA199CD1, CLEDA199CDRV

FCC ID: PUU-A19-DMFCV

## 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 <sup>2</sup> ) | Averaging time (minutes) |
|----------------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| <b>(A) Limits for Occupational/Controlled Exposure</b>         |                               |                               |                                     |                          |
| 0.3-3.0                                                        | 614                           | 1.63                          | *100                                | 6                        |
| 3.0-30                                                         | 1842/f                        | 4.89/f                        | *900/f <sup>2</sup>                 | 6                        |
| 30-300                                                         | 61.4                          | 0.163                         | 1.0                                 | 6                        |
| 300-1,500                                                      |                               |                               | f/300                               | 6                        |
| 1,500-100,000                                                  |                               |                               | 5                                   | 6                        |
| <b>(B) Limits for General Population/Uncontrolled Exposure</b> |                               |                               |                                     |                          |
| 0.3-1.34                                                       | 614                           | 1.63                          | *100                                | 30                       |
| 1.34-30                                                        | 824/f                         | 2.19/f                        | *180/f <sup>2</sup>                 | 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/ cm<sup>2</sup>)

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

| Modulation | Peak Output Power |         | Antenna Gain |           | MPE                  | Limit                | Verdict   |
|------------|-------------------|---------|--------------|-----------|----------------------|----------------------|-----------|
|            | (dBm)             | (mW)    | (dBi)        | (Numeric) | ( $\text{mW/cm}^2$ ) | ( $\text{mW/cm}^2$ ) |           |
| BLE        | 7.106             | 5.1357  | 0.5          | 1.12202   | 0.00115              | 1.0                  | Compliant |
| 802.11b    | 15.98             | 39.6278 | 0.5          | 1.12202   | 0.00885              | 1.0                  | Compliant |
| 802.11g    | 15.68             | 36.9828 | 0.5          | 1.12202   | 0.00826              | 1.0                  | Compliant |
| 802.11n20  | 14.83             | 30.4089 | 0.5          | 1.12202   | 0.00679              | 1.0                  | Compliant |

For R = 20cm