Part 1. Wireless Power Load Controller

1.1 WIRELESS CONTROLLER

A. Load Controller

1. The Load Controller shall be either Echoflex model ELEDR-AU120-277, ELEDRH-AU 240-347, Power Load Controllers by Echoflex Solutions Inc., or approved equal

2. Mechanical
   a. The Controller shall mount to a ½" electrical junction box knock out using the threaded nipple and retaining nut
   b. The Controller shall have LEARN and CLEAR buttons for manual linking of switches and sensors
      1) The buttons shall be accessible when the Controller is mounted
   c. The Controller shall have two LED indicators to display power/operational mode and linked device information
   d. The Controller shall be UL 2043 plenum rated

3. Electrical
   a. The Controller shall be available in 120-277VAC, 50/60 Hz or 240-347VAC, 50/60 Hz configuration
   b. The Controller shall provide a single, non-isolated latching SPST relay output, fully rated at:
      1) 20.0 Amps at 120VAC through 277VAC for Electronic or Magnetic Ballast and LED Driver loads
      2) 16.0 Amps at 347VAC for Electronic or LED Driver loads
      3) 20.0 Amps at 347VAC for Magnetic Ballast loads
      4) 3.0HP at 120VAC
   c. The Controller shall use a 902 MHz EnOcean radio. Systems that use other radio frequencies shall not be acceptable
   d. The internal radio shall have a radio range of 24 m (80 ft.) – commercial office space, (typical), up to 100 m (330 ft.) line of sight
   e. The Controller shall be UL listed, conform to UL 60730, and be certified to CAN/CSA Standard E60730
   f. The Controller shall comply with FCC Part 15.231 and IC RSS-210

4. Functional
   a. The Controller shall provide switching control for an individual light fixture, lighting zone, motor load, or miscellaneous electrical loads

b. The Controller shall support wireless Echoflex switches and sensors for relay control

    1) The Controller shall support linking of at least 20 wireless devices in any combination of Echoflex stations, sensors, interfaces or gateways. Systems that do not support at least 20 remote devices shall not be acceptable

    2) The Controller shall automatically configure for automatic lights-on with occupancy when no switches have been linked

    3) The Controller shall support daylighting control when a wireless photo sensor is linked

c. The Controller shall provide the option of single or dual-hop wireless signal repeating to other controllers. Systems that do not provide signal repeating shall not be acceptable

d. The Controller shall support Central Command functions for use with integrated control systems

e. The Controller shall store values for a minimum of 15 Presets

    1) Presets shall include a ramp time and output value

f. The Controller shall support Preset Command messages

    1) Supported Preset commands shall include: Preset Teach, Preset Activate, Zone Raise/Lower Start, Zone Raise/Lower End, Zone Set Output Level, Preset Record, Lockout, and Zone Mask Set

g. The Controller shall support a minimum of 24 Preset Zones defined by a zone mask

    1) If a Preset Command transmitting device is linked to the Controller and the message includes a zone mask shared with the Controller, the Controller will respond to the command

h. The Controller shall support commissioning and linking through software and/or mechanical means. Controllers that do not support both shall not be acceptable

i. The Controller shall provide configuration variables that allow customization of the controllers' operation with linked sensors, switches, interfaces and gateways

j. The Controller shall provide the option of reporting relay status wirelessly

k. The Controller shall save all configuration settings and linked device details in non-volatile memory

    1) The Controller shall provide the option of saving user-defined configuration settings and linked devices as recoverable default settings

l. The Controller shall provide the option of resetting to factory defaults