**PURCHASE SPECIFICATIONS FOR THE CONTROL & MONITORING UNIT**(FOR S4GA RADIO CONTROLLED EQUIPMENT)

MODEL: UR-201

Control & Monitoring unit Specification

Control & Monitoring Unit (CMU) provides User with the ability to remotely control and monitor S4GA Solar LED Runway Lighting. It provides remote control over the lights from the ATC tower, pilot radio (on defined 118-136 Mhz frequency) and over cellphone (GSM-based).

Control & Monitoring Unit shall allow for:

* Remote control and monitoring for Solar Airfield Lighting System and other S4GA radio controlled equipment,
* 3-way remote control over airfield lighting:
* From ATC, manually – by using knobs located on the control unit front panel,
* Via Air-Band Radio: frequency range 118-136 Mhz,
* Via GSM Phone (voice call or SMS);
* Independent control (activation and change of brilliancy) over minimum 3 separate groups of airfield lighting (for example Runway + Approach, Taxiway, PAPI),
* In case of Wireless signal failure the light shall allow for manual activation using Emergency On/Off Button,
* Automatic Alarm SMS: in case of light’s critical failure (e.g. lack of wireless control over the light or low battery) – user will automatically receive alarming sms informing about critical failure.

Control & Monitoring Unit shall offer the following features:

* Rechargeable back-up battery providing minimum 24 hrs of autonomy
(with all functions operations at all times),
* Power supply via 90-240 VAC,
* Detachable antennas,
* Externally mounted (on the high mast) antenna for optimal radio range,
* Immediate and simultaneous on/off control of the airfield lights,
* Grouping entire airfield lighting/equipment in at least 3 major groups
(controlled separately),
* Control of entirely lighting system or separate groups of lights,
* Selecting preferable operating modes such as dusk-till-dawn, remote (allows for remote activation of lights) or flash,
* Ability to remotely activate the system via VHF, GSM and manual switches,
* Minimum 3-step intensity level of group of lights,
* Setting timer for remotely activated lights,
* Built-in circuit breaker protecting against short circuit / overload,
* Built in antennas lighting strike arresters,
* Built-in transportation fuse,
* Built-in USB port / HDMI Port.

**Wireless Control Range**

The system shall be capable of reliable wireless control up to a 1,5 kilometers line-of-sight distance between the controller and any light.