MONARQ
Intelligent Control Solutions For Architectural Lighting
2016 CATALOGUE

Full Turnkey Solutions • Remote Lighting Control
DMX Transceivers • Ethernet Converters
Direct Relay Control • LED Pixel Mapping Solutions
INTRODUCTION

Sundrax Electronics develops and manufactures professional hardware and software for lighting management. The company’s mission is to develop innovative, turn-key, fully integrated solutions for remote lighting management in different areas of the lighting industry.

MONARQ system is Sundrax’s recent, state-of-the-art development for fully intelligent remote management of architectural lighting integrated into telemetry systems of the Smart City street lighting network providing perfect IoT compatibility.

While constantly working on functional enhancement of MONARQ, we employ a dedicated and talented group of electronics engineers who work with the latest technologies, using cutting-edge tools to create lighting control systems providing seamless integration and highest reliability in wireless DMX control (Sundrax’s BeDMX technology), ArtNet/sACN > DMX converters, LED drivers and individual pixel strip controllers.

Municipalities, maintenance companies, lighting designers, and facility managers will find MONARQ solutions useful to “take command” of all the lighting installations and move forward with timeless style, impeccable quality and passionate craftsmanship together with Sundrax.
Remote Control & Diagnostics

WITH QULON MONARQ CENTRAL ARCHITECTURAL PROCESSOR

Fast, secure, and fault-free Architectural Lighting Control by Sundrax Electronics. We offer industry leading reliability and remote access to your lighting installations via GSM anywhere any time. Multiple sites, multiple scenarios, real-time eye control — everything is included and incorporated into all-in-one architectural lighting control solution.

- Manage remote installations live via GSM or Ethernet
- Set and override values in a couple of clicks
- Receive alerts through SMS, email or in the software
- Check status of your installations on the map at any time
Full control and administration via GSM
Use GSM connection to upload standard scenarios for onsite lighting management or even control your installations live. Management via GSM adds more flexibility to administer your sites remotely and simplifies network access.

2048 DMX channels
Monitor and control up to 4 DMX universes (wired, wireless, and Ethernet-based) in any project type with no additional splitters or switchers. Use any combination of automatic, manual or scheduled inputs to create complex multi-functional installations.

Ethernet interface
Create Ethernet-based control network to send DMX or ArtNet/sACN data and expand the level of intelligence and incorporate your lighting fixtures into ‘Internet of Things’ for communication with other systems.

2 sensor inputs
Now your visual spectacles are adjustable to react to the data transmitted from external sensors, i.e. temperature, traffic, atmospheric pressure, wind speed, or sunlight. Let loose and relax.
Static & Dynamic
REMOTE ARCHITECTURAL LIGHTING CONTROL FOR MIXED INSTALLATIONS
USING WIRELESS TRANSCEIVERS, DMX AND DIRECT RELAY CONTROL
Full turnkey solution
FOR REMOTE ARCHITECTURAL LIGHTING CONTROL & MONITORING
ArtGate Arma

ArtGate Arma is multifunctional device for bi-directional DMX512-ArtNet/sACN converting. DMX512 data streams received by ArtGate Arma are transmitted through Ethernet LAN in 10/100Base-T mode and vice versa. Carefully crafted “off-track” enclosure is excellent for any outdoor installations under any weather conditions. It is time to relax and be confident that your outdoor installations are well-handled.

Housing: solid metal case
Dimensions, mm: 115(D) x 55(H) x 90(W)
Operating Temperature: -40…+70°C
Power supply: ~100-270 VAC, 50/60 Hz
Supported protocols: ArtNet I, II, III/ sACN, DMX512, RDM
Ethernet port: 10/100 Base-TX
Setup: Web interface
Indications: LEDs for DMX and Ethernet activity

Bi-directional DMX512 ArtNet/sACN converting
Software-configurable parameters of DMX signal (break, mab, length of frame)
Configurable DMX port direction (input, output, output with loopback)
Ready for severe weather conditions (IP65)
The concept of OMNIA installation in Espoo relies on full interaction with audience. Façade of the building acts as free billboard for personal messages. People send text messages to special number and then enjoy them transmitted letter by letter on the full façade of OMNIA building.

OMNIA

Espoo, Finland

Designed by

Powered by
BeDMX is a 2.4GHz wireless technology specifically developed by Sundrax Electronics to exchange DMX/RDM or ArtNet/sACN signal with RadioGates transceivers. BeDMX technology provides bidirectional communication with Adaptive Frequency Hopping (AFH) and long-range transmission up to 1500 m. AFH helps to avoid disturbance from any other wireless equipment by a hop rate of 1600 hops per second so you stay calm and sure that your installation works with no surprises.

| No need for cabling | Bidirectional communication provides diagnostics | Multiple universes in a network | Unbreakable long range connection | No interference from devices using 2.4 GHz |
All in one
RadioGates are transceivers meaning that they act as transmitter AND receiver at the same time. No need to guess how many transmitters and receivers you need or to switch between modes. All RadioGates are bi-directional supporting Remote Device Management (RDM) protocol for two-way communication.

Easy monitoring and configuration
Simple single button configuration and LED indication save your nerves and time. Create advanced multi-universe installations within seconds and enjoy resistant cable-free connection with RadioGates.

Survives just about anything
RadioGates by Sundrax are manufactured in waterproof solid metal IP65 enclosures, so these little creatures withstand any storm rainfalls, freezing, or extreme humidity. All ports are galvanically isolated.

Back-ups within a second
If one of your DMX devices dies in the middle of a show you can seamlessly switch to a backup RadioGate in a second with no interruption to a running show.
Synchronized Wireless Control
FOR APARTMENT CLUSTER
Media Player

LED PIXEL MAPPING WITH

Small scale server optimized for cabinet installation. Provides fast connectivity, hosting, remote setup and control for outdoor LED installations and shows with its dual display output via DVI or ArtNet/sACN.

Supported protocols: ArtNet, sACN
Card Reader: 4-in-1: SD/SDHC/SDXC/MMC
Memory: 2 GB Up to 4 GB DDR3 at 1333MHz
Storage: 320GB Up to 500GB SATA II (5400RPM), up to 32GB SSD
Dimensions, mm: 219(D) x 172.5(H) x 29(W)
Mass: 0.69 kg
Mounting: VESA bracket or surface
Video mapping and live effects on large-scale RGB LED walls of any complexity are now handled by our excellent PixelGates. PixelGate Arma is a pixel strip controller developed for individual pixel control at indoor and outdoor installations when you need to convert ArtNet (DMX over Ethernet) or ACN data to your LED strip protocol.

Each PixelGate Arma carries 8 ports onboard supporting up to 8192 information channels. 2 Ethernet ports and integrated splitter allows chaining of multiple PixelGates to enlarge the number of controlled pixels.

IP65 case makes devices perfectly resistant to water, dust, fog, and smoke which is crucial for LED mapped installations located outdoors.
SPLITTER ARMA
SINGLE-CHANNEL DMX-512 SPLITTER/REPEATER WITH FIVE OUTPUTS

Housing: solid metal case
Dimensions, mm: 115(D) x 55(H) x 90(W)
Operating Temperature: -40…+70°C
Power supply: ~100-270 VAC, 50/60 Hz

Supported protocols: DMX512, RDM
DMX input ports: 1 isolated
DMX output ports: 5 isolated
Setup: by DIP switches
Indication: LED for DMX input
LEDGate DIN

COMPACT LED DRIVER

Housing: DIN mounted metal/ plastic case
Dimensions, mm: 142(D) x 105(H) x 75(W)
Operating Temperature: -40...+70°C
Power supply: 12/24 VDC
Control Interface: DMX512
Supported protocols: DMX512, RDM
LED outputs: 4 or 8
DMX512 interfaces: 1
Setup: by DIP switches
Indication: LED for DMX activity

ArtGate DIN

ArtNet to DMX converter, splitter, booster, intelligent merger with Ethernet input and 4 bidirectional DMX inputs. User-friendly web interface provides remote DMX signal timing setup, port configuration, and other parameters, as well as firmware update. DIN rail enclosure makes the device ideal for fixed architectural installations.

Unlimited quantity of configuration profiles
Controls and dims 4 output lines via DMX
Supports RDM for diagnostics

Housing: DIN mounted metal/ plastic case
Dimensions, mm: 142(D) x 105(H) x 75(W)
Operating Temperature: -40...+70°C
Power supply: ~100-270 VAC, 50/60 Hz
Supported protocols: ArtNet I, II, III/ sACN, DMX512, RDM
Ethernet port: 10/100 Base-TX
DMX connectors: Terminal blocks 15 EDGV
DMX ports: 2 or 4 isolated
Setup: Web interface
Indication: LED for DMX and Ethernet activity
QULON Meteo
TEMPERATURE, HUMIDITY AND PRESSURE SENSOR

Qulon Meteo provides information about air temperature (−40°...+70°C range), relative humidity and atmospheric pressure which can be used as a trigger for architectural lighting scenarios. Easy pole mounting installation. Remote control and monitoring. Integrated into lighting management system. Compact and accurate as a Swiss watch.

QULON Photo
HI-RES POLE MOUNT CAMERA

Qulon Photo designed to monitor lighting installations remotely and transmit high-resolution photos to the control room. Snapshots from fully autonomous Qulon Photo are sent via built-in GSM/3G/HSPA modem. Night vision available. Integrated into lighting management system.
QULON-R
EXTENSION MODULE FOR LIGHTING CONTROL

Qulon-R is additional extension module to Qulon Central Control and Monitoring System and MONARQ system for architectural lighting control providing additional 16 independent inputs and 8 relay outputs to the Central Gateway (QULON MONARQ).

Iceberg Skating Place
Architectural lighting of Iceberg Skating Palace for XXII Winter Olympic Games was designed and implemented with Sundrax’s Central Gateways (QULON MONARQ) and several extension modules QULON-R.
All-In-One Street + Architectural

GAN RIVER LIGHTING MANAGEMENT CONCEPT

Sundrax Electronics is pioneer in street and architectural lighting management integration under one single powerful software and database.

QUILON System provides unique opportunity to centralize remote management of road & street lighting while MONARQ System is seamlessly integrated into QULON software to manage your architectural and façade lighting through all-in-one solution.
Light Coder

VISUALIZING SOFTWARE
FOR ARCHITECTURAL LIGHTING DESIGNERS

Light Coder is our special software developed for professional lighting designers to create, edit and play architectural and art lighting scenarios in a quick way. Straightforward design and flexible import/export parameters save your time and nerves for pure creative work. A must have for live lighting design and real-time preview.

Visual playback and scenario planning

Simple workflow

No special prior training required
Full Integration into City Lighting Management System

- Edit live
- Export scenarios
- Control status on the map