

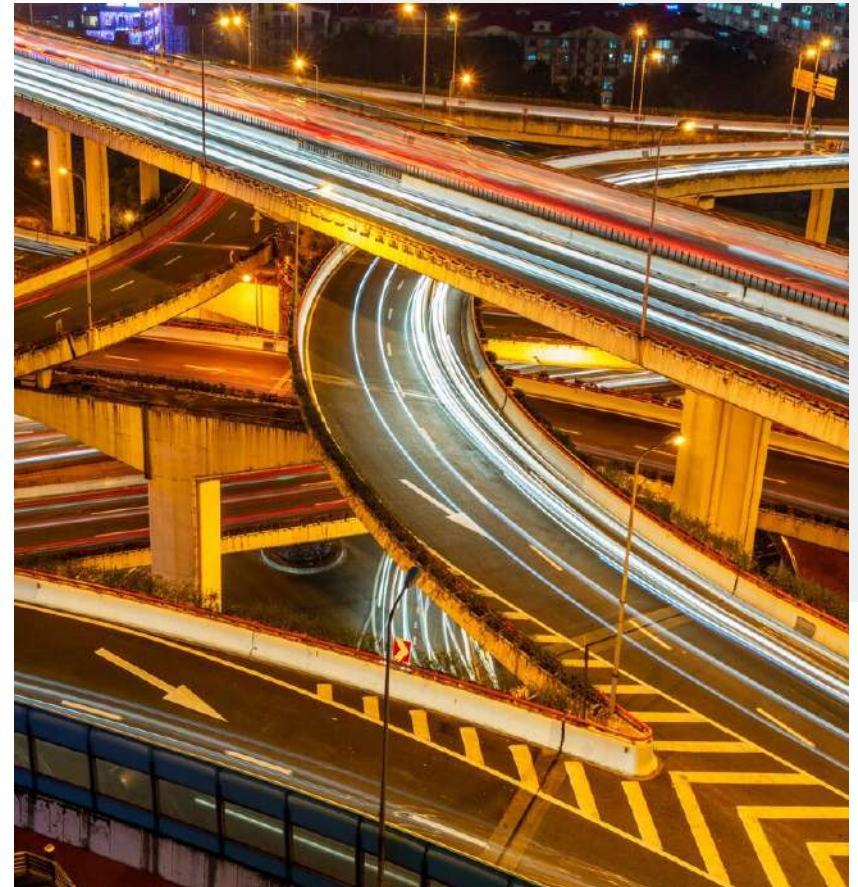


S O L U T I O N S

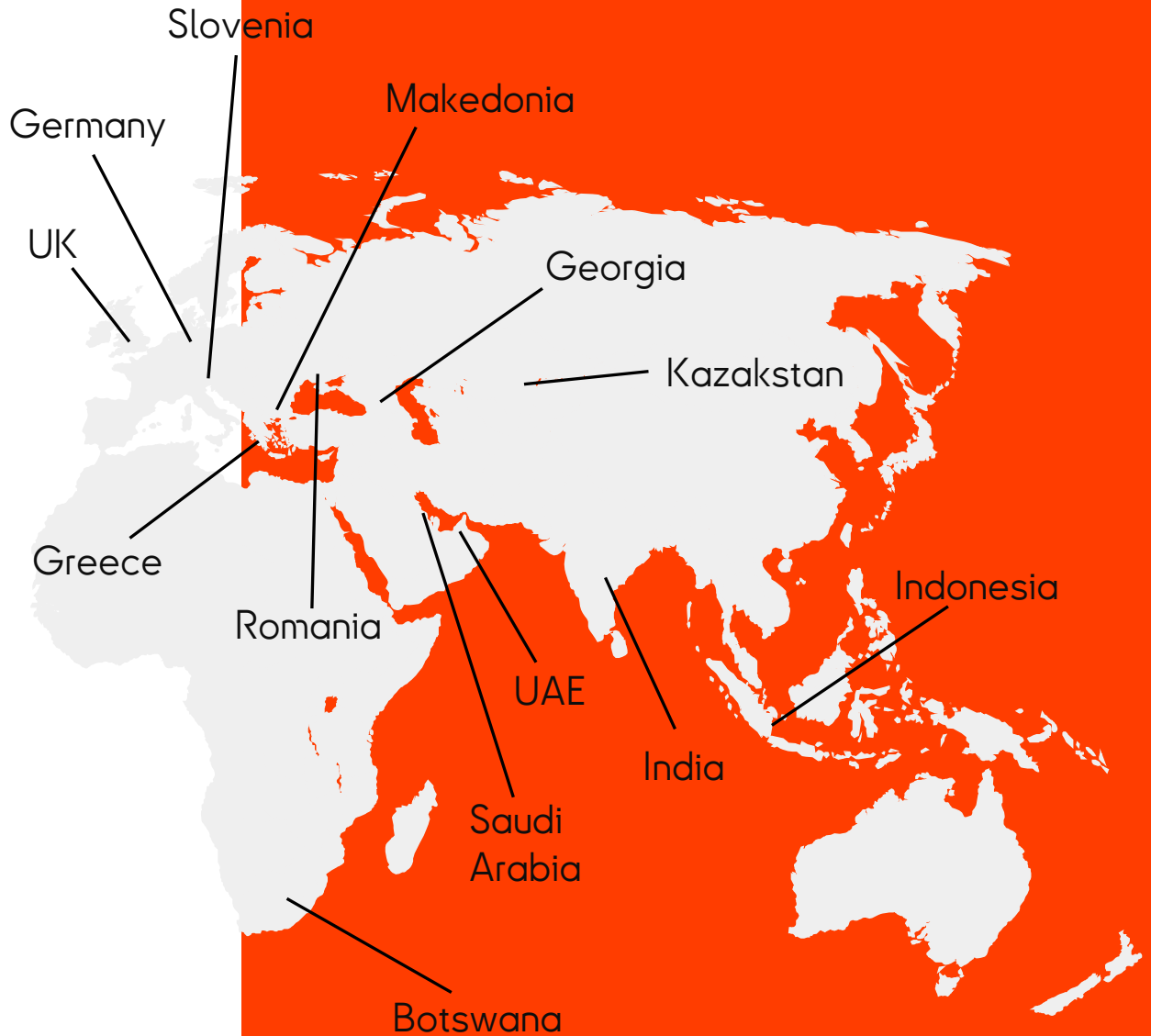
CORPORATE CATALOGUE
2025

Our mission

We are here to revolutionize urban lighting by providing intelligent street lighting control solutions that enhance safety, improve energy efficiency, and elevate the quality of life in communities. We are committed to harnessing advanced technologies to create adaptable, sustainable lighting systems that reduce environmental impact and operational costs. By transforming the way cities illuminate their streets and public spaces, we aim to build smarter, greener urban environments for a brighter future



**Empowering
global
innovation
with
advanced
systems for
15 years**



01

Significant Energy Savings

Optimize energy consumption by adjusting lighting levels based on real-time conditions, leading to reduced electricity costs and a smaller carbon footprint

02

Enhanced Public Safety

Improve visibility on streets and public spaces, reducing accidents and increasing the sense of security for residents and visitors

03

Environmental Sustainability

Support green initiatives by lowering energy usage and decreasing greenhouse gas emissions, contributing to a healthier environment

04

Cost-Effective Maintenance

Utilize real-time monitoring to identify and address issues promptly, reducing maintenance costs and extending the lifespan of lighting infrastructure

05

Data-Driven Decision Making

Access valuable analytics to inform infrastructure planning, optimize operations, and enhance resource allocation

06

Advanced Control and Flexibility

Customize lighting schedules, intensity, and zoning to meet specific community needs, seasonal changes, or special events

Why choose

07

Integration with Smart City Systems

Seamlessly connect with other smart city technologies for a unified, efficient management platform

09

Improved Quality of Life

Enhance the aesthetic appeal of urban environments, contributing to community pride and satisfaction

08

Regulatory Compliance

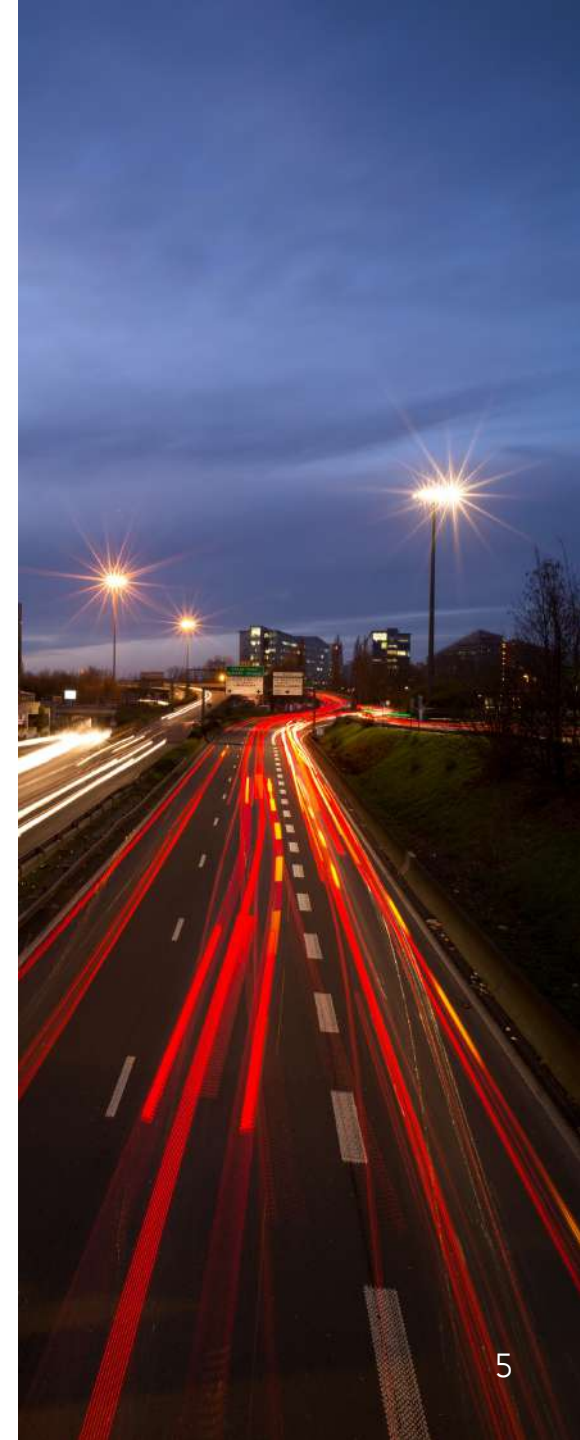
Stay ahead of evolving regulations with adaptive lighting solutions that meet or exceed industry standards for energy efficiency and environmental impact

10

Scalability and Future-Proofing

Implement a solution that grows with your city or organization's needs, ensuring long-term viability and adaptability to new technologies

our equipment





Smart Road

Automated Control Systems DITRA

Smart City



DITRA systems integrate advanced software with a wide range of equipment, offering unparalleled flexibility. The company has over 25 solutions for management and control of individual or grouped luminaires. These utilize both wired and wireless communication channels, ensuring efficient operation and total control

Smart Enterprise



Public institutions

Architectural



DITRA operates across multiple facets of the modern urban landscape, delivering tailored lighting control solutions for every area of a complex city



Cities



Highways



Industrial
Facilities



Shopping Centers



Residential
Complexes



Bridges and
Tunnels



Stadiums and
Sport Hubs



Parks and Public
Areas



Gas Stations



Theaters and
Concert Halls



Building Facades



Warehouses



Architectural
Monuments



Airports and Train
Stations



Transport and
Transfer Hubs



Key Advantages of the DITRA System

✓ Remote Control & Diagnostics

Manage lighting lines and individual luminaires

✓ Centralized Management

Unified control of outdoor, architectural lighting and infrastructure systems

✓ In-House Support

Dedicated dispatch and technical support services

✓ Geospatial Integration

GIS with GLONASS/ GPS capabilities

✓ Data Analysis

Advanced input, modeling, and analysis tools

✓ User-Friendly Interfaces

Tailored access levels with essential functionality

✓ Flexible Communication

Supports GSM, 3G/4G/LTE, Ethernet, PLC, and 868/915 MHz radio channels

✓ Scalable & Integrative

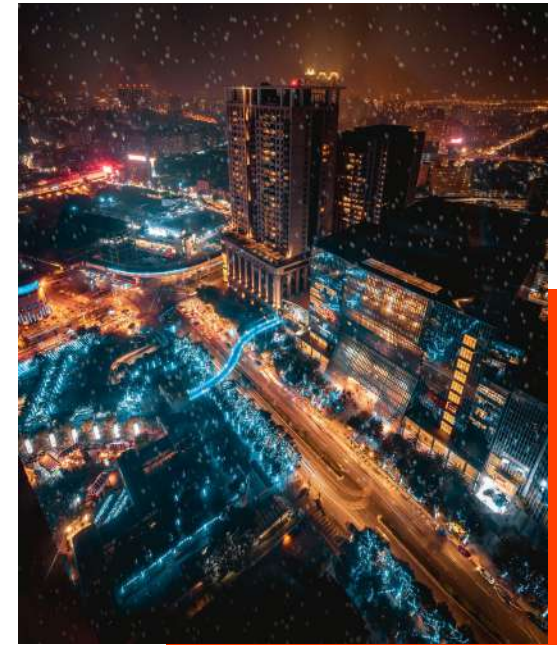
Modular expansion and higher-level systems integration

✓ Autonomous Operation

Operate on pre-arranged schedules even without communication channels to the control center

SOLUTIONS

Advanced lighting control solutions for modern cities



Integral element of Smart City and Smart Road

Smart lighting control systems



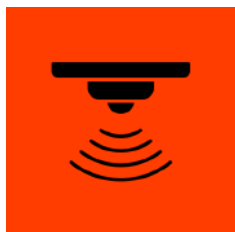
Group lighting control

Affordable and easy to install solution, allowing to optimize energy efficiency and create a unified management system for centralized control and automation



Individual lighting control

Precise and customizable management of individual lighting fixtures, allowing tailored adjustments for optimized energy efficiency, comfort, and greater operational flexibility



IoT devices

Comprehensive set of devices, designed to enable real-time data-driven analyses and management for a seamlessly connected and efficient urban environment

Choose your own level of immersion

Create a sophisticated network of interconnected lighting fixtures, all harmoniously managed through a unified software platform. Integrate advanced smart technologies to elevate your road, building, or city into a truly intelligent and future-ready environment.



DITRA Software

Unified software for management systems, lighting control, and road surface operation



DITRA Hardware

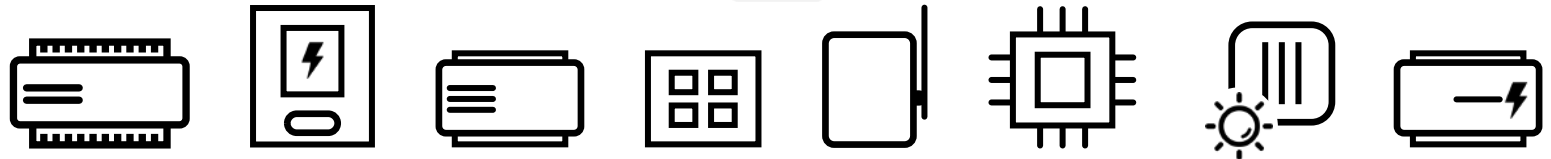


Group control



Individual control

Lighting control considering meteorological factors, traffic intensity, and road surface conditions



DITRA IoT devices

Collection and transmission of data from photo and video recording equipment



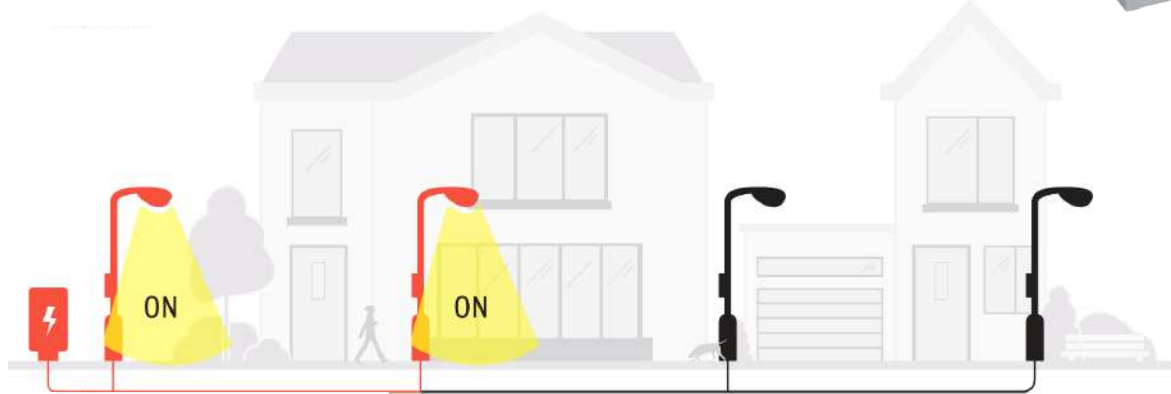
Third-party IoT devices

Capability to integrate third-party systems



Group control

Energy-efficient Control Solution

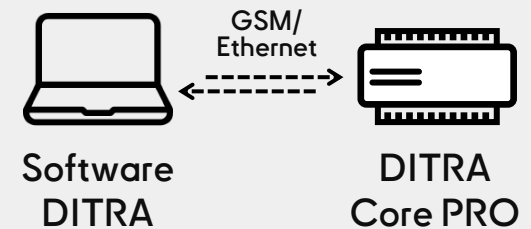


Cabinet controller
DITRA Core PRO

- On/off scheduling
- Independent phase control
- Electric meter data: current, power, voltage, etc.
- Fault detection
- Built-in GPS and astronomical clock

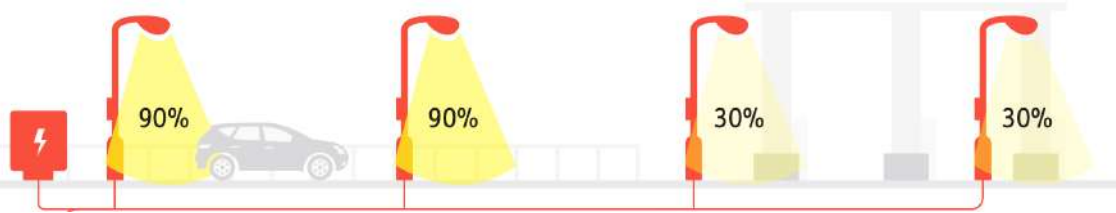
Easy and budget-friendly way to connect your luminaires into a single system:

- Possibility of installation in existing outdoor lighting control cabinets
- Low installation and maintenance costs
- Cost-effective energy-saving solution
- Integration into the existing management system



Group control

Energy-efficient Control + Dimming

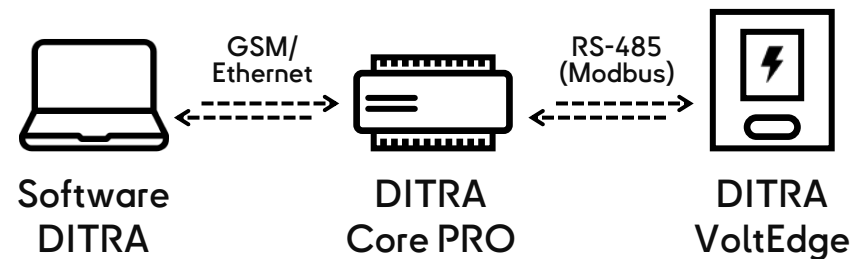


Dimming module DITRA VoltEdge

Save up to 40% of energy using phase dimming module VoltEdge

The VoltEdge stabilizes and manages voltage in three-phase networks with conventional lamps, offering phase dimming (180-245V) for 230V networks, up to 40% energy savings, and extended bulb life with “soft start” technology. It includes diagnostics, overload protection, short-circuit resistance, and an emergency bypass for reliability and safety

- Fast payback of solutions
- Voltage stabilization
- Increased lifespan of gas discharge lamps
- Low installation and maintenance costs
- Integration into an existing control system



Individual control

Power Line Solution



Power line cabinet
controller **DITRA**
Liteline



Power line
luminaire controller
DITRA Liteline Node

liteline

developed by DITRA, enables remote control and data transmission over 230V AC power lines, ideal for Smart City and IoT applications. It ensures stable communication with connected fixtures requiring constant monitoring. Compliant with CENELEC EN 50065-1, Simpline uses narrow-band C-band modulation and filtering inductances to prevent signal interference. The half-duplex “master-slave” system includes a central gateway (master) managing uniquely addressed nodes (slaves) via polling and commands. For long or noisy power lines, certain nodes retransmit signals to maintain reliable network communication

01

Monitoring the operational status of luminaires

02

Collecting data on energy consumption of each luminaire

03

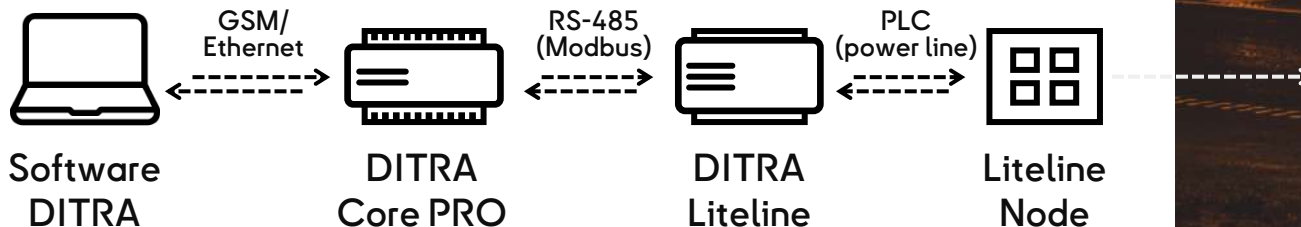
Gathering information from meters

04

Controlling the performance of each luminaire on the line

We recommend using Liteline solution if:

- Radio control is prohibited by state regulations
- Radio connection is hindered by some physical obstacles that cannot be avoided
- Street-light luminaire design forbids installation of 13 cm protruding antenna of radio module (decorative luminaires, historic significance)



3 types of installation:

- On the pole
- Inside of the pole
- OEM inside the housing

Individual control

Radio Channel Solution

LiWave

developed by DITRA, enables remote control and data transmission via 868/915 MHz narrow-band wireless channels, ideal for Smart City and IoT applications. Using low-speed 2-FSK modulation, it offers long-range, stable communication with flexible frequency selection to avoid interference. The half-duplex “master-slave” system connects a base station (master) to uniquely addressed nodes (slaves), allowing individual, group, or network-wide control. Nodes can retransmit signals to extend coverage, ensuring reliable communication across large areas / complex infrastructures



Radio Channel Gateway
DITRA LiWave Base
Station



Radio Channel luminaire
controller DITRA LiWave
Node



01

Monitoring and control of each lighting fixture are readily available from any central location

02

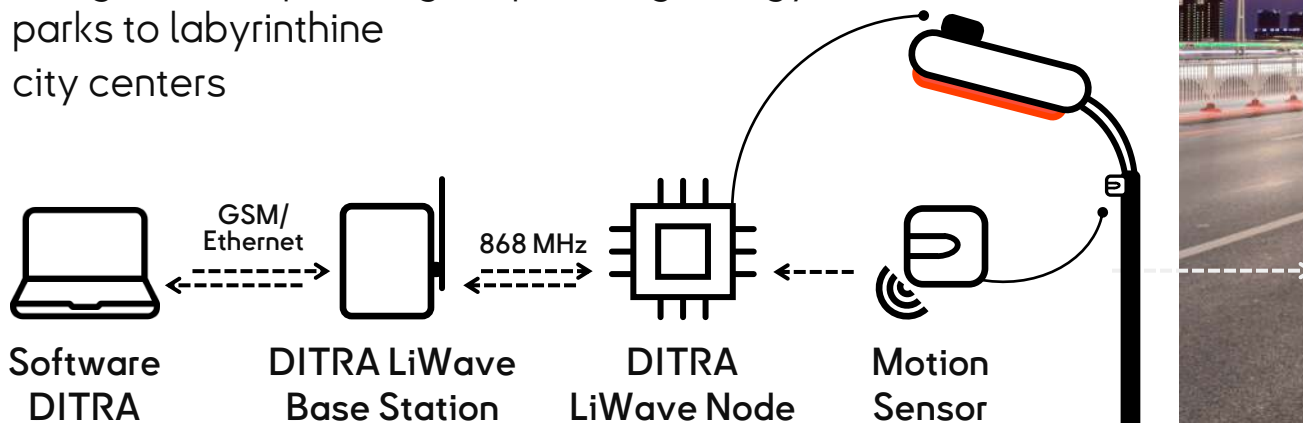
Suitable for a vast array of geographical landscapes and urban designs, from sprawling parks to labyrinthine city centers

03

Adjusting and expanding lighting networks becomes seamless due to the lack of physical wiring constraints

04

Specialized base stations allow the incorporation of motion sensors, further optimizing energy use



We recommend using LiWave solution in:

- Public Spaces: Enhances parks, squares, and leisure areas with adaptable lighting
- Transport Infrastructure: Supports efficient lighting management on less frequented roads and railway platforms
- Motion Sensor Integration: Maximizes energy savings in low-traffic zones through dynamic lighting adjustments

5 types of installation:

On the pole / on the housing / on the luminaire arm / on the NEMA socket / on the wall

Individual control

GSM Solution

- Wire, Zhaga and NEMA plug versions
- Waterproof case (IP65)
- Advanced voltage measurement: RMS, max RMS, and peak amplitude
- Individual lighting control without extra wiring
- Key features: energy savings, fast installation, and low costs
- Embedded: light sensor, GSM antenna, GPS receiver, triac for load switching
- Supports scheduled on/off, dimming, and motion sensor input
- Automatic map-based node positioning



Luminaire controller
DITRA NEMA GSM Node

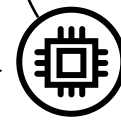


- Individual lighting control without additional intermediary equipment
- Quick and easy solution deployment
- Simple plug-and-play
- Instant activation
- Universally compatible



Software
DITRA

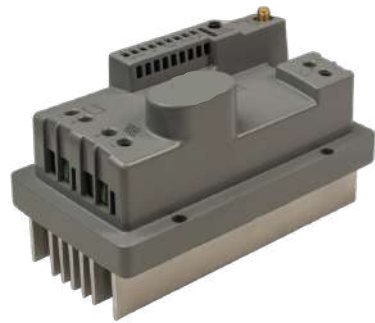
GSM



DITRA GSM
Node

Individual control

Solar Powered Solution



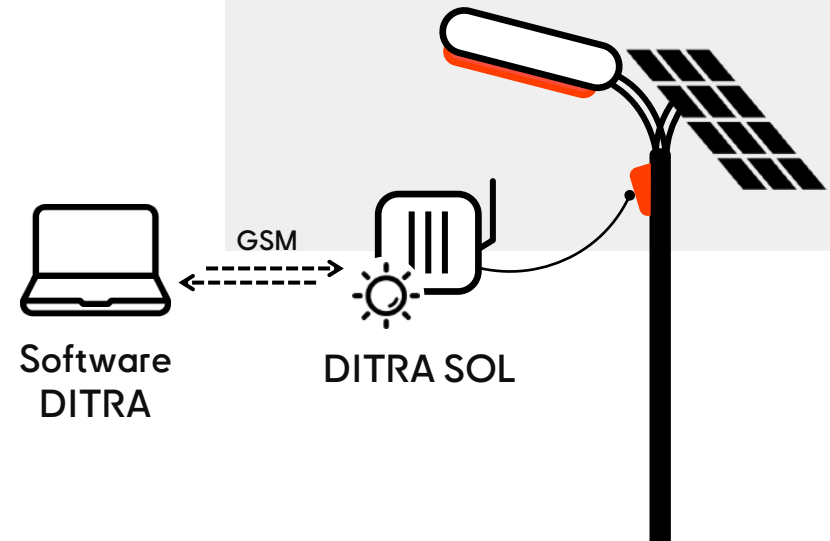
GSM controller for standalone solar powered lighting solutions
DITRA SOL



SOL

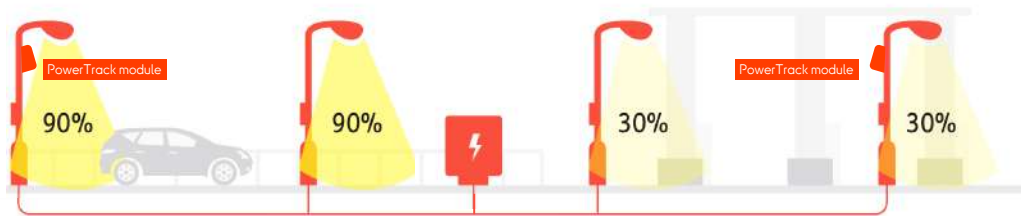
The new generation of controllers for solar-powered lighting offers real-time charging control and remote monitoring for standalone systems. It enables scheduling, live control, real-time battery status updates, and detailed performance insights. Additionally, it enhances safety at pedestrian crossings, bus stops, and traffic lights by ensuring reliable operation at all times.

- MPPT charging (97% efficiency)
- Optimized 3-step battery charging (bulk, absorption, float)
- Auto-detection of system voltage (12V/24V)
- Supports GEL, AGM, and Flooded batteries
- Remote management via GPRS
- Integrated LED driver with current monitoring
- Light control scheduling
- Overload protection

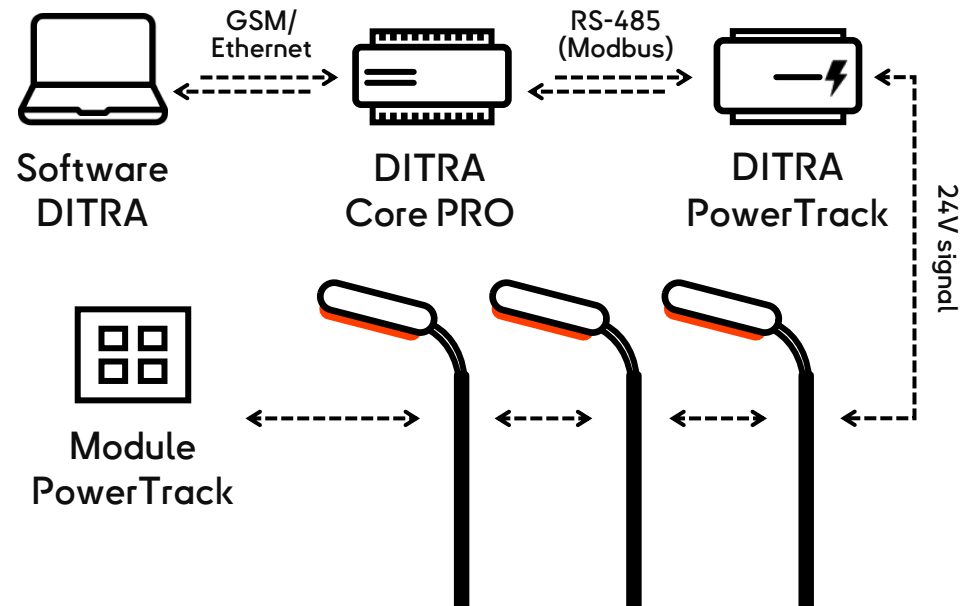


Additional Feature

Power line integrity monitoring



- Ensuring the integrity control of power lines at designated checkpoints
- Real-time monitoring of the cable line
- Locking mode to protect the device's internal circuits from overvoltage



Architectural lighting

Architectural lighting shapes a city's identity, enhances its aesthetics, and creates a unique atmosphere. Unified streetlights, facade illumination, and landscape lighting come together to form a harmonious urban lighting design



STATIC FACADE LIGHTING

Highlight architectural features with precision, creating stunning landmarks that enhance city identity, foster pride, and save energy with sustainable technology



DYNAMIC FACADE LIGHTING

Bring architecture to life with dynamic lighting systems that create captivating motion effects, boost tourism, enhance civic pride, and reinforce a city's unique identity



LANDSCAPE LIGHTING

Enhance outdoor spaces with landscape lighting that highlights natural beauty, adds depth and ambiance, and creates inviting environments for communities to enjoy



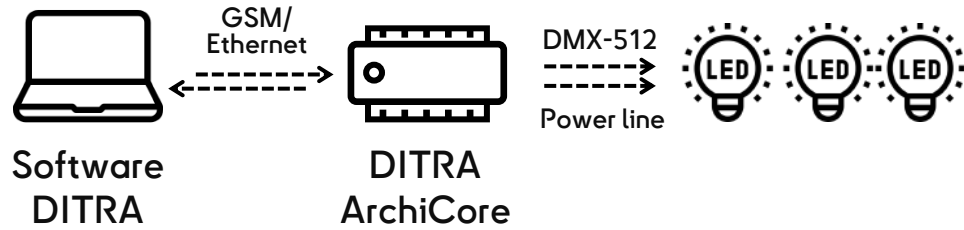
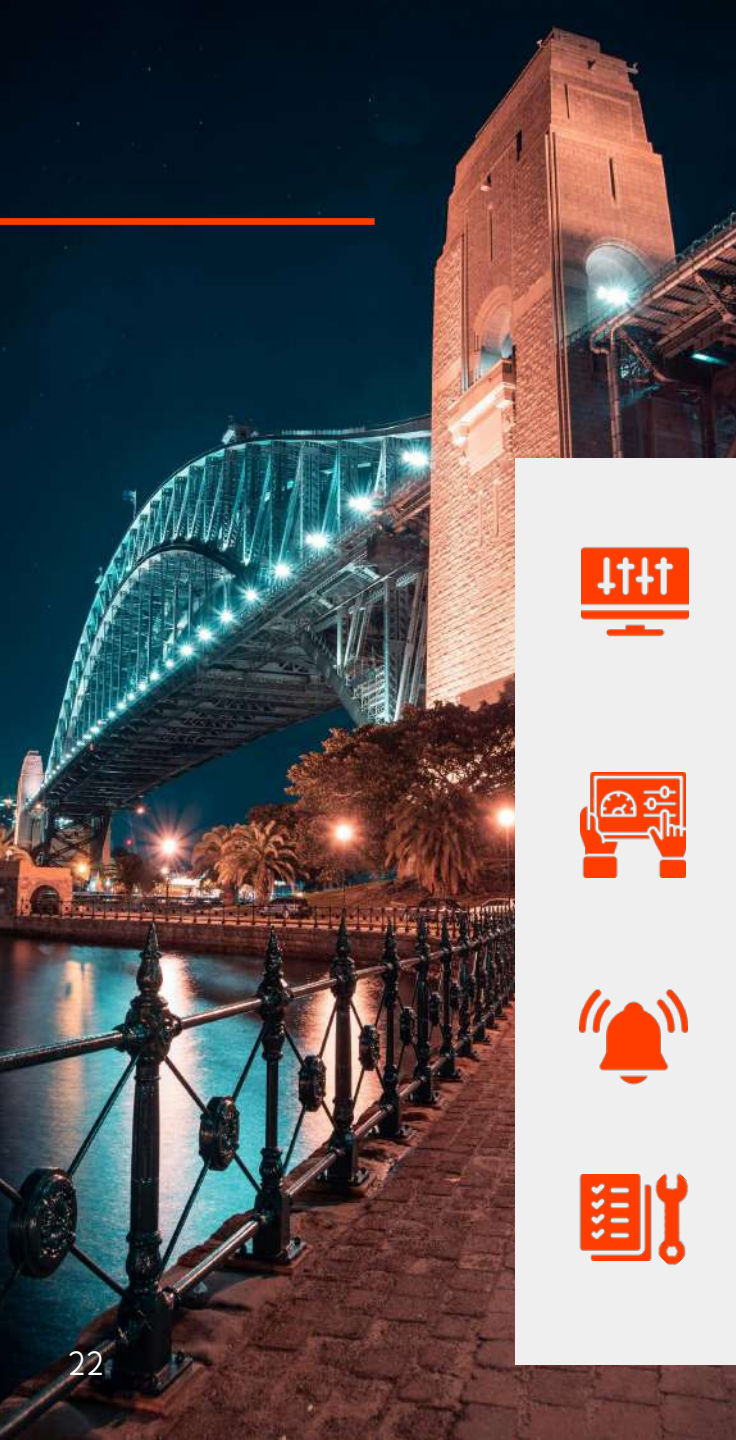
FESTIVE LIGHTING

Transform public spaces with festive lighting solutions that create enchanting atmospheres, elevate community spirit, and make celebrations unforgettable



ARCHITECTURAL FORMS LIGHTING

Illuminate architectural forms with precision lighting solutions that enhance design details, create striking visual impact, and elevate the aesthetic appeal of any structure



Monitoring and control
of architectural lighting
systems and their energy
consumption



Remote management
of architectural lighting
systems with scheduling
and real-time control



Notification
of irregularities and
logging of fault causes



Planning and tracking
of maintenance activities



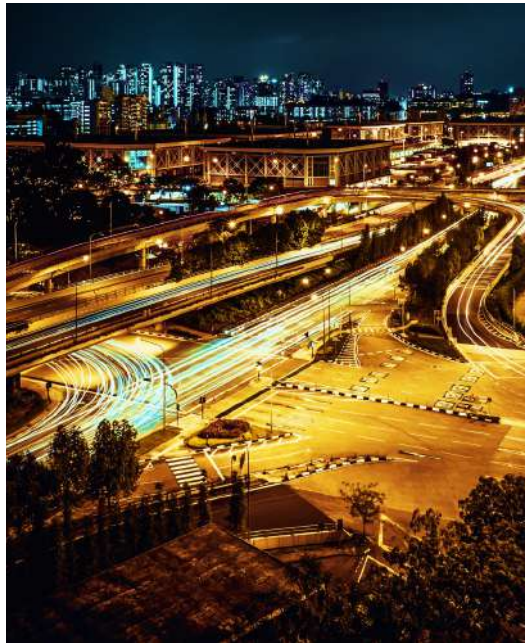
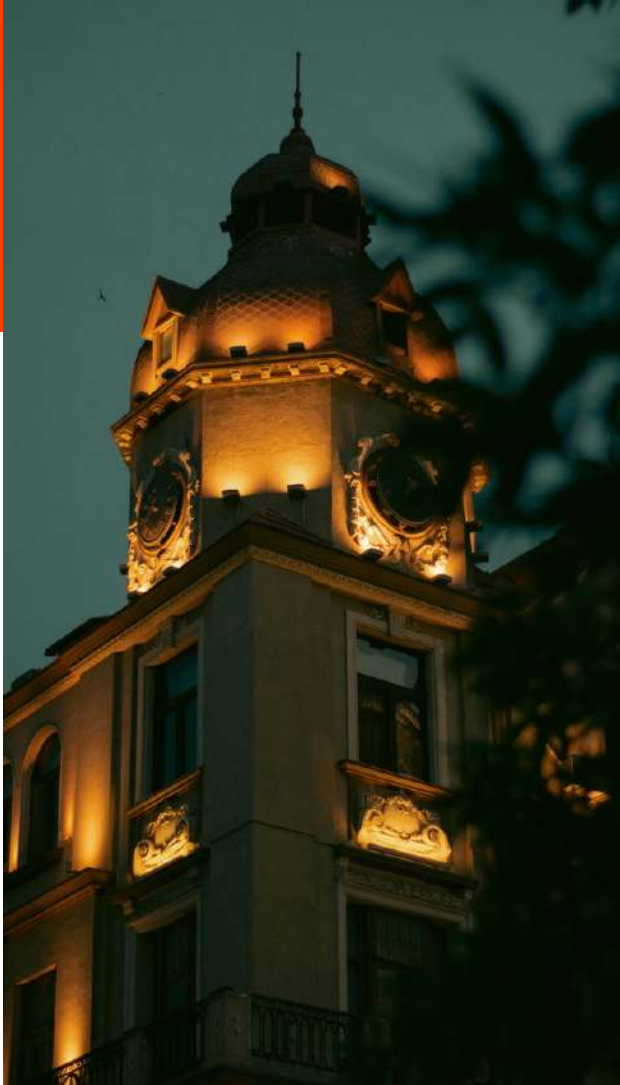
Luminaire controller
DITRA ArchiCore Node



Cabinet controller
DITRA ArchiCore

SOFTWARE

Unified software platform for optimal efficiency and flexibility



DITRA Portfolio

of Software Solutions

SMART STREEL LIGHT DITRA CMS

- Centralized management of smart street lighting networks
- Real-time configuration and commissioning of devices
- Advanced diagnostics and fault detection
- Monitoring energy consumption and savings
- Graphical GPS-based mapping of all street lighting assets
- Automated notifications for outages and maintenance
- User-friendly analytics and reporting tools

SMART ARCHITECT LIGHT LIGHTFORM STUDIO

- Design and management of architectural lighting
- Built-in visualizer for real-time lighting previews
- Seamless integration with DITRA hardware

LIGHTCONTROL STUDIO

- Multimedia playback and synchronized lighting control
- Network-based transmission via ArtNet
- Supports scheduled and real-time commands

SMART CITY INTEGRATION PLATFORM DITRA SYNERGY

- Digital twin creation for city-wide monitoring and planning
- Unified management of lighting, traffic, and utilities
- AI-driven decision support and advanced data analytics
- Modular design with possibility to integrate other DITRA Software solutions as separate modules and with Open API for third-party integration
- Mobile apps for operations, maintenance, and citizen engagement

DITRA CMS

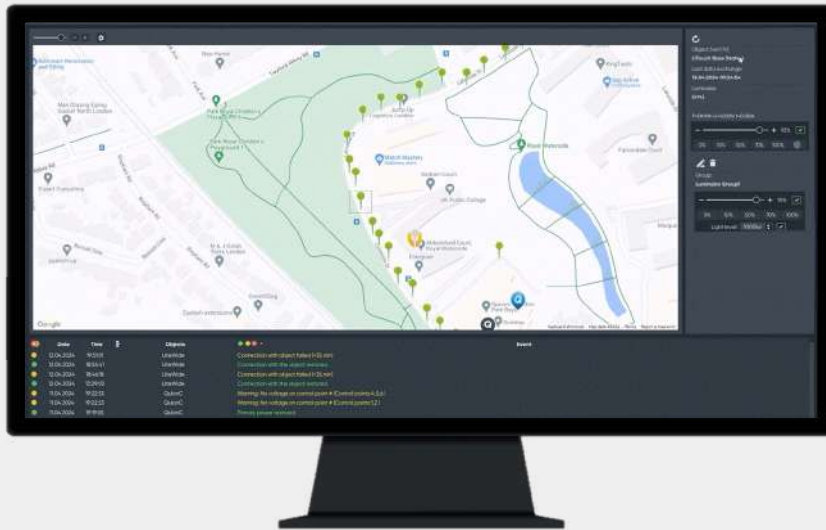
Live Street Lighting Management

DITRA CMS offers a flexible lighting control solution with an intuitive interface for configuring dimming profiles, grouping luminaires, and assigning zones. It provides live graphical status updates of street lighting assets, precisely mapped via GPS



DITRA CMS module **Command Centre**

Command Centre is the core module for configuring, monitoring, and managing smart street lighting networks. It enables real-time asset analysis, network commissioning, and fault detection, supporting administrators during installation and operation



DITRA CMS module Geolocation mapping

The module enables the creation of detailed pole-based layouts, allowing for better visualization and management. It provides real-time status display, offering clear visualization of both controlled and uncontrolled luminaires on a map. Additionally, it features geolocation mapping, displaying luminaires with precise coordinates for accurate placement and monitoring

DITRA CMS module Light Planner

Light Planner enables operators to program and adjust urban lighting in response to real-time city dynamics. It supports schedules by sunset/sunrise, daily/weekly plans, events, and advanced profiles. Lamps can adapt light levels to location, time, traffic, weather, and other conditions





DITRA CMS module Dispatcher mode

The module is designed to optimize the organization of lighting groups and facilitate system monitoring. It provides dispatchers with an intuitive interface to structure lighting networks efficiently, enabling seamless tracking of system status and quick identification of any issues, ensuring reliable and streamlined operations

DITRA CMS module Mnemonic diagrams

The module provides real-time visualization and control of cabinet components, enabling online management. It allows for the creation of a unified interactive schematic of the power supply and lighting system, with the ability to program interactions between all its elements. Additionally, it supports the display of data from multiple sensors, for enhanced system monitoring and control



Additional features

that deliver smarter management, real-time insights,
and enhanced efficiency

Integration with SCADA & ITS systems

Integration with Intelligent Transportation systems
Integration with SCADA via OPC (OLE for Process Control) protocol

Solar powered systems control

Control and management of autonomous solar-powered lighting systems

Intellectual monitoring & control



Traffic monitoring

Monitoring of vehicle movement on multi-lane roads and highways (up to 6 lanes) with vehicle classification by multiple types



Environmental condition

Monitoring of air temperature, relative humidity, and atmospheric pressure



Photo capturing

Photo capturing of high-risk areas, construction site activities, and other similar scenarios



Illumination level

Illumination level measurement range: 1-10,000 lux

DITRA Statistics Server

Data repository and analytics tool

DITRA Statistics Server allows to store telemetry data in a unified database, including user actions, device operation, errors, and malfunctions; generate multiple charts and reports, for example, on energy consumption and savings, and much more

Include extra features:

Monitoring of maintenance activities

Integration with third-party systems via JSON (JavaScript Object Notation) protocol

Object documentation and passporting

Automated email distribution of reports



DITRA Light Studios

for Architectural Lighting



LightForm Studio

LightForm Studio is advanced lighting design software for creating, configuring, and managing dynamic architectural lighting. With a built-in visualizer, DMX script support, and seamless DITRA hardware integration, it ensures real-time control and flawless execution, turning creative visions into stunning masterpieces



LightControl Studio

A versatile software solution for multimedia playback and synchronized lighting control. Designed for Windows, it enables seamless video and audio streaming, network-based transmission via ArtNet, and synchronized execution of lighting scenarios. LightControl Studio supports both scheduled and real-time dispatcher commands, providing powerful tools for complex multimedia and lighting integration

DITRA Synergy

Smart City. Smarter Decisions.

DITRA Synergy is a modular platform transforming cities into intelligent ecosystems with seamless infrastructure coordination, smarter decisions, and efficient service management

Open API & Modular Expansion

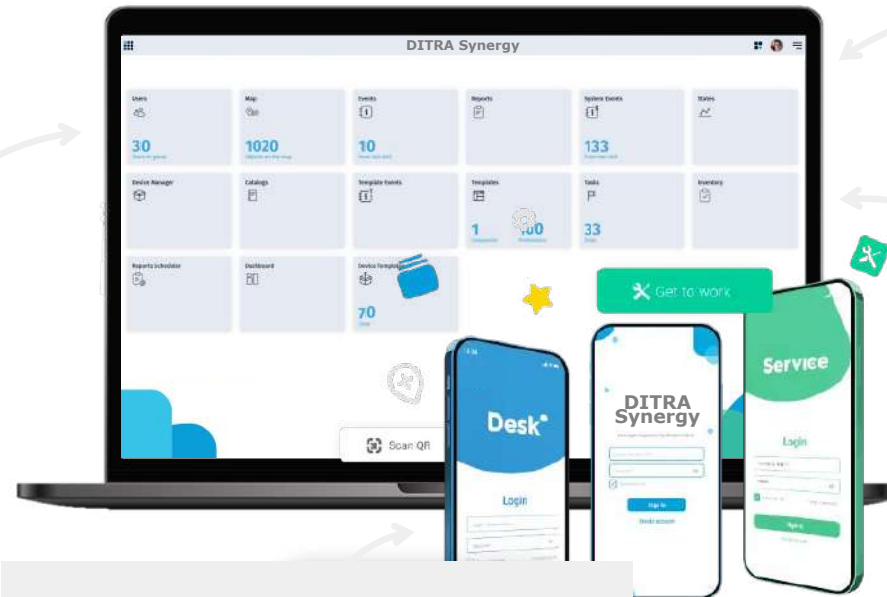
Easily integrate DITRA softwares as separate modules or third-party solutions, devices, and applications to extend functionality

Digital Twin Creation

Build a comprehensive virtual replica of the city for instant monitoring and planning

Integrated Infrastructure Management

Coordinate and optimize diverse urban systems through a single platform



Comprehensive Data Analysis

Aggregate and analyze data from various sources with intuitive visualization tools

Multiple applications

For smart lighting, eco-monitoring, smart parking, urban safety, traffic optimization, city services and much more

AI-Powered Decision Support

Leverage built-in AI to provide actionable insights and support data-driven decisions

Building Smarter Cities

with DITRA Synergy and Smart Poles

Expand your capabilities in control and monitoring by combining the Synergy software with our advanced Smart Pole solution, creating an efficient and intelligent management system of the new generation

Zhaga Hub Station (internal or external)

The Zhaga Hub Docking Station integrates Smart Pole sensors and modules with DALI 2.0, enabling efficient data transfer, remote management via DITRA Synergy, energy efficiency, and easy sensor replacement or upgrades without system interrupting operation

Real-time data from multiple sensors

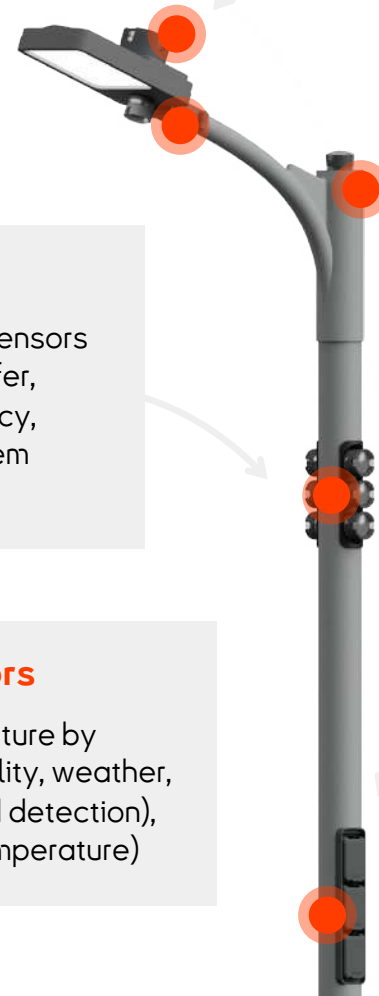
Smart Pole sensors enhance urban infrastructure by monitoring environmental conditions (air quality, weather, UV, wind), ensuring safety (gas, motion, flood detection), and optimizing energy efficiency (infrared temperature)

One controller managing the entire system

Provides full control, enabling easy lighting customization, data analysis, socket management, and notifications, ensuring comfort, safety, and energy efficiency in a smart environment

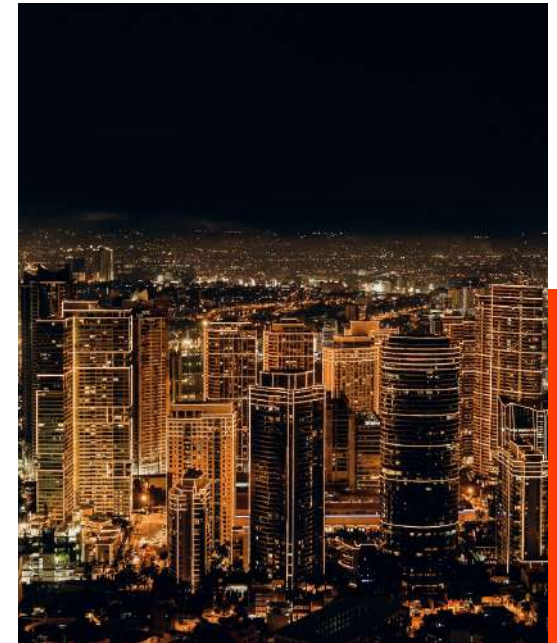
External and internal Socket Units: EV charging solutions and Energy Management

The AC Charging Controller optimizes power distribution, monitors usage, and enables remote control via DITRA Synergy. The External Socket Unit provides efficient, protected outdoor power for EV chargers and devices, while the Internal Socket Unit delivers secure, centralized EV charging within the pole



EQUIPMENT

State-of-the-art lighting control devices, ensuring seamless integration and reliable performance within a unified control system



Central module DITRA

of the automated lighting control system



CORE PRO

Controller enables remote management and monitoring of outdoor lighting lines.

It is a compact unit that can be supplied as part of an outdoor lighting cabinet or retrofitted into existing ones.

Key features:

- Built-in relays independently control 4 magnetic starters
- Integrated power supply from a 220V mains
- Built-in GSM modem supporting SMS, CSD, and GPRS communication protocols
- Integrated non-volatile clock
- Built-in backup power source
- Voltage monitoring on outgoing power lines
- Supports connection of multiple electricity meters with RS-485/CAN interfaces
- Allows connection of 2 discrete sensors, such as door opening and fire safety sensors
- Supports expansion modules to increase the number of inputs and outputs
- Allows connection of additional modules via RS-485 protocol to enhance functionality
- Enables control and diagnostics via mobile devices
- Supports remote firmware updates



CORE PRO-2

Next generation of the CORE PRO module. Controller is equipped with a GSM/3G/4G modem and an Ethernet port. GPS/GLONASS functionality has been added



CORE Light

Small version of street light controller with reduced number of control points for remote management and monitoring of outdoor lighting lines



CORE Mini

Ultra compact street lighting controller with connection via wire for remote management and monitoring of outdoor lighting lines

CORE controller variations

Powerline solutions



LiteLINE

Cabinet controller is designed for individual control and monitoring of luminaires via the power line (PLC)

Key features:

- Luminaire operational status monitoring
- Energy consumption tracking
- Individual and group power adjustment (0–100%)



Wire PLC Node

The PLC Node provides dimming via various interfaces (DALI, PWM, 1-10 V) and provides individual load control (on/off). It is installed in the luminaire housing or inside the pole. The unit is powered from 110-230 V. The power of the luminaire is supported up to 1000 W. The unit is compatible with third-party motion sensors

Key features:

- Individual luminaire control without the need for additional cabling
- Input for a motion sensor
- Built-in relay for load disconnection



Nema PLC Node



Screw PLC Node

Radio channel solutions



LiWAVE

The controller is a LiWave-based 868/ 915 MHz radio modem for controlling luminaires with LiWave Nodes. It enables individual control, data collection, and transmission to a central server via RS-485 (MODBUS)

Key features:

- Luminaire status monitoring
- Energy consumption tracking
- Individual and group power adjustment (0–100%)



LiWAVE Base Station

The Base Station serves as a gateway and remotely controls and monitors up to 1000 luminaires via 868/915 MHz radio at distances of up to 5 km

Key features:

- Operates on unlicensed radio frequencies
- Designed for harsh climates (IP65)
- Connects with server via 2G/ 3G/ 4G / Ethernet



LiWAVE Node

Installed on each luminaire, the luminaire node operates via 868/915 MHz radio and supports DALI, PWM, 1-10 V dimming, and on/off load control

Key features:

- Individual wireless luminaire control
- Built-in light sensor
- Integrated GPS/ GLONASS receiver
- Built-in relay for load disconnection
- Input for motion sensor
- Automatic module positioning on the map
- Wire, NEMA, and Zhaga connectors

GSM solution



GSM Node

The lighting control node for a decentralized wireless system. Each node has a built-in GSM module and connects directly to the server. Nodes are configured and managed remotely using the DITRA software

Key features:

- Connectors: Wire, NEMA, Zhaga
- Waterproof housing (IP65)
- Individual wireless luminaire control
- Built-in light sensor
- Integrated GSM/GLONASS receiver
- Built-in relay for load switching
- Scheduling or dispatcher-controlled on/off/dimming
- Automatic module positioning on the map

LoRa solution



LoRa Node

Our system is designed with adaptability in mind. In response to customer requirements or specific technical specifications, we can seamlessly replace our proprietary LiWave protocol with the widely-used LoRa protocol. This transition ensures full compatibility and maintains the same high-performance characteristics of the system, including reliability, data integrity, and scalability

Key features:

This flexibility allows us to address diverse project needs while leveraging the strengths of both protocols, providing a tailored solution without compromising on quality or functionality

Powerline integrity monitoring



PowerTRACK

The PowerTrack controller monitors line integrity at designated control points equipped with line integrity monitoring modules (PowerTrack Modules). It operates by addressably polling the modules with a 24-48V DC voltage when power is off, preventing luminaire activation

Key features:

- RS-485 interface connection to DITRA CORE PRO
- Fully isolated RS-485 interface
- Built-in 220V power supply
- Monitors power line status at up to 100 points



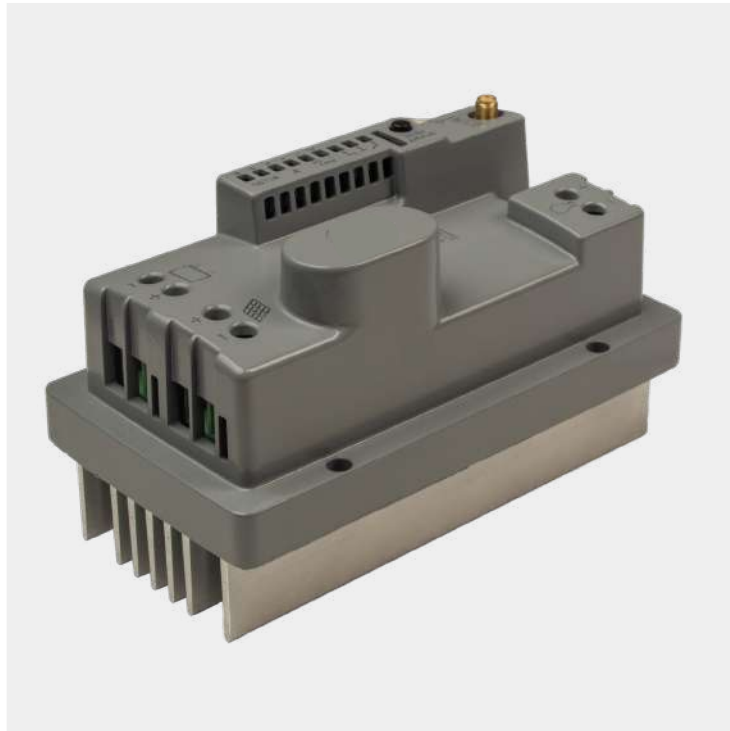
PowerTRACK Module

The Module is designed for installation at line integrity control points and provides real-time monitoring of the cable line when standard power supply voltage is absent

Key features:

- Communication with PowerTRACK controller
- Protection mode to safeguard internal circuits from overvoltage

Solar power solution



SOL

The SOL Controller provides remote control of the AOS (autonomous solar-powered lighting systems) and diagnostics of all its components, with the capability to transmit data to the unified DITRA software via GSM/GPRS communication channels

Key features:

- MPPT (Maximum Power Point Tracking) charge technology (efficiency 97%)
- Optimized 3-step process of the battery charge (bulk charge, absorption charge, float charge)
- Automatic detection of the nominal accumulator (12V/24V)
- Supports three types of batteries (GEL, AGM, Flooded)
- Remote management and configuration via GPRS/SMS
- Integrated LED driver
- Control and monitoring of current supplied to the lamp
- Schedule of events for light control
- Electronic protection against over-load current

Optional modules



DALI

The DALI Module is designed for managing DALI-compatible luminaires, enabling individual control, performance monitoring, and data transmission to the DITRA system via RS-485 (MODBUS)

Key features:

- DALI protocol support
- Individual luminaire control
- Remote configuration and monitoring
- RS-485 (MODBUS) communication
- Surge protection up to 305V
- Remote firmware updates
- DIN-rail installation



VoltEDGE

The VoltEDGE Module stabilizes and controls voltage in three-phase networks with conventional lamps. Only by providing phase dimming in 170-235V range for 220V networks, module saves up to 40% of energy costs and prolongs bulb lifetime (through “soft start”)

Key features:

- Brightness regulation for gas-discharge and LED luminaires
- Extends lamp lifespan with soft start and voltage stabilization
- Energy savings of up to 40% through dimming
- Remote control via RS-485 (MODBUS)
- Built-in bypass and overvoltage protection (up to 305V).
- Reactive power compensation
- Durable IP54-rated design

Protection devices



PulsePROTECT

Single-phase Inrush Current Limiter is used to reduce the damaging effects of inrush currents generated by drivers (switching power supplies) of LED luminaires, LED strips, and other capacitive loads on the switching contacts of control devices, as well as to prevent false tripping of automatic circuit breakers

Key features:

- Limits inrush current
- Reduces damaging impacts
- Protects switching contacts
- Indicates operational state
- Manages overload protection
- Adjustable power-on delay
- DIN rail mountable
- Operates up to 305 V
- Adjustable current and delay
- Prevents false breaker trips



PulsePROTECT-3

The Three-Phase Inrush Current Limiter is designed to minimize the damaging effects of inrush currents generated by drivers (switching power supplies) of LED luminaires, LED strips, and other capacitive loads in three-phase networks. It protects the switching contacts of control

Key features:

- State indication
- Power-on delay control
- DIN rail mounting
- Limits inrush current
- Reduces damaging effects
- Protects switching contacts
- Adjustable overload protection
- Reliable at 380 V
- Adjustable current and delay
- Prevents false breaker trips

Expansion devices



PLX

Backs up the functionality of DITRA system controllers, enabling autonomous lighting control and managing two starters and DITRA series control modules in the event of a central controller failure



MultiCONNECT

Increases the number of acknowledgment points (up to 16 per device) for detecting voltage on power lines and adding relay outputs (up to 8 per device) to expand the number of control groups



RS-Split

Increases the number of connectable devices, extending connection range, and boosting RS-485 interface load capacity by splitting one line into five directions or two lines into three directions each



MultiPOINT

Increases the number of acknowledgment points (up to 16 per device) for detecting voltage on power lines



HighVoltRELAY

Provides telemetry, remote control, and parameter measurement in AC networks, ensuring state monitoring and control via telemechanical channels



MultiRELAY

Adds relay outputs (up to 8 per device) to expand the number of control groups

Sensors



Zhaga D4i Smart Microwave Motion Sensor

Integrates seamlessly into architectural and commercial lighting systems, enhancing efficiency, security, and adaptability. With remote-controllable features, it delivers reliable, energy-efficient, and flexible lighting management



Zhaga D4i Smart Infrared Motion Sensor

Enhances lighting efficiency, security, and adaptability. Designed for seamless integration into commercial and architectural systems, it offers reliable performance, energy savings, and remote-controllable infrared technology for smart, dynamic lighting management



Wire Daylight Sensor

Adjusts ambient lighting based on daylight and visibility conditions, with RS-485 (Modbus-RTU) or optional wireless communication. Featuring a GPS receiver, remote configuration, LED indicators, and IP66 dust and water resistance, it's powered by 100-250 V AC and designed for luminaire integration



Meteo Sensor

Measures air temperature, humidity, and pressure, transmitting data via RS-485 (Modbus-RTU) to the DITRA control system, with remote configuration, versatile mounting options, and 10-48 V DC power supply

Sensors



IR Temperature Sensor

The IR Temperature Sensor, powered by 10-48V DC, measures pavement temperature, transmits data via RS-485 (Modbus-RTU) to DITRA or third-party systems, and supports remote configuration through Luminance Sensors or cabinet controllers



Photo & luminance Sensor

The Luminance Sensor, powered by 100-240V, combines a camera and light sensor for tunnel lighting, surveillance, and high-resolution photo transmission, communicating via RS-485 (Modbus-RTU) and 2G/3G/4G networks, with configuration possible remotely or manually



SmartTRAFFIC

The SmartTRAFFIC Sensor, equipped with a high-frequency radar, collects traffic data, classifies vehicles into six categories, supports up to six lanes, mounts on vertical surfaces, and enables remote management via DITRA software over GSM or RS-485 (MODBUS RTU)

Architectural lighting control



Archicore

Cabinet controller for architectural and artistic lighting of the DITRA system, featuring 4 relay outputs, built-in DMX512 ports, an integrated GSM/3G/4G modem with GLONASS/GPS support, and an Ethernet interface

Key features:

- Supports 2048 lighting channels with precision and simplicity
- Real-time dynamic scenario and setting adjustments
- RS-485 port for direct electric meter and sensor data access
- Proactive electrical fault detection for system reliability
- Surge-resistant with voltage resilience up to 305 V
- Non-volatile memory for critical configuration retention



Archicore Node

A compact, sealed control node for architectural and artistic lighting of the DITRA system, featuring 1 relay output, 1 DMX512 port, an integrated GSM/GPRS/3G/4G modem, and a GLONASS/GPS module

Key features:

- Controls up to 512 channels for intricate lighting displays
- Creates and synchronizes personalized DMX scenarios effortlessly
- GPS-driven precision for device synchronization
- Remote configuration via 2G/3G/4G networks
- Non-volatile memory protects setups from power interruptions
- Handles electrical loads from 1-1000 W for versatile lighting designs

DITRA Hardware



DITRA Server

The DITRA Server is a dedicated 1U hardware solution optimized for flawless operation and management of DITRA software in building systems

Key features:

- Pre-configured for DITRA software with a tailored Windows Server OS
- Central hub for synchronized management of DITRA ecosystem components
- Ensures uninterrupted data flow and secure historical data storage
- Compatible with third-party applications and end-points



DITRA MediaPLAYER

The DITRA Media Player is a specialized device for scheduled or command-based playback of video and audio content on various display systems via VGA, HDMI, or MODBUS (TCP/IP)

Key features:

- Plays video and audio content on screens and projectors
- Scheduled playback or command-based control via ArchiCORE or third-party equipment
- Remote management and diagnostics via GSM 4G modem or Ethernet
- Reliable operation for architectural and artistic lighting projects

DITRA Cabinets

We provide fully equipped outdoor lighting control cabinets, from basic switching to individual luminaire management, tailored to customer requirements



Outdoor Lighting Control Cabinet

Integrates DITRA equipment for automated and manual control, diagnostics, and centralized outdoor lighting management. Tailored to customer requirements, it supports various installations and enclosure types, ensuring efficient operation and compliance with project needs



Substation Telemechanics Cabinet

Customizable solution equipped with DITRA devices for centralized control, diagnostics, and data management of substation telemechanics. Designed to meet any project specifications, it ensures reliable performance with flexible installation and enclosure options



Architectural Lighting Control Cabinet

Provides automated and manual control of static and dynamic architectural lighting, featuring diagnostics and centralized management. Custom-built for project needs, it offers versatile enclosures and installation options, ensuring precise and efficient lighting control

Making It Happen

A step-by-step project implementation program that enables us to deliver precise turnkey solutions to our customers



Audit

Evaluation of the existing lighting infrastructure –a critical foundation for effective lighting management

Design

Selection of the most suitable technology, deployment plan development to ensure comprehensive coverage of lighting control network with minimal costs

Tuning and installation

Physical installation of devices, configuration of network settings, and adjusting lighting parameters to suit any specific needs. Our team conducts careful testing and calibration to make certain that the system operates reliably and efficiently, fully prepared for final commissioning and long-term performance

Commissioning

Testing and verifying the entire lighting system to ensure it meets all functional and performance standards. Integrating the equipment into the software and verifying that the software operates correctly, along with testing all network components and checking their interactions

Personnel training

Training staff on system operation and maintenance. We provide various instructions and guidelines, ensuring a smooth transition to regular use. This phase guarantees that the integrated system is ready for reliable, long-term performance

Support

Our support services include troubleshooting, regular system updates, and performance monitoring to maintain optimal functionality. This continuous support ensures that any issues are promptly addressed, extending the system's reliability and efficiency over time. We provide free of charge full 3-Year performance warranty and 24/7 customer support

DIRA
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