

Smart Lighting Node Zhaga version

Multi functional plug-and-play lighting controller unit compliant with Zhaga Book 18. Can control any luminaire powered by DALI-2/D4i LED drivers.



FULLY FUNCTIONAL DALI-2/D4i LIGHTING CONTROLLER DEVICE

Certified Zhaga-D4i control device supporting IEC 62386 Part 251 (Luminaire Data), Part 252 (Energy Data) and Part 253 (Diagnostic and Maintenance Data). Compliant to IEC62386 Part 150 (Aux power supply)

ADVANCED SMART LIGHTING WITH ADAPTATIVE CONTROL

Autonomous schedule profiles supporting dusk and dawn events in addition to fixed time events. Dynamic lighting based on environmental illuminance and motion sensors

IRONCLAD SECURITY

Robust, scalable and self healing mesh network secured through 128 bits data encryption by embedded hardware security module

EASY REMOTE MANAGEMENT

Managed via Smart CMS over an IPv6/6LoWPAN mesh network with simplified operations for monitoring and OTA updates

SELF HEALING MESH NETWORK

Includes narrowband radio controller designed to manage Sub 1-GHz mesh networks

TECHNICAL SPECIFICATIONS

OPERATING CONDITIONS

Operating temperature range	-40°C to 70°C
Storage temperature range	-40°C to 85°C
Humidity	0 to 93% +/-3% without condensing

POWER

Power supply	Nominal: 24 VDC
Power consumption	<0.3W typical
Appliance class	Class II
Surge protection	3 kV
Power backup source	up to 72 hours with internal super capacitor for RTC

NFC INTERFACE

Standard	ISO/IEC 15693
Forum type	5
Frequency	13.56MHz
Reader/Writer	Short range / Long range

NARROWBAND NETWORK INTERFACE

Radio protocol	802.15.4 g - 6LoWPAN
Frequency band	868MHz and 915MHz (subject to local regulations)
Data rate	100kbps
Max TX power	≤ 14 dBm (subject to local regulations)
RX sensitivity	≤ -99 dBm (BER <1%)
TX bandwidth	≤ 200kHz
RX bandwidth	260kHz
Data encryption	AES - 128bit Enhanced security with HW security module (Crypto Engine) support
Antenna	Embedded PCB antenna

INPUT / OUTPUT CONTROL

Temperature sensor	Embedded Temperature sensor
Light sensor	Embedded Ambient Illuminance detection
Dimming control	Up to 8 DALI-1 or DALI-2 Control Gear
Tilt/Shock sensor	Embedded - impact detection, tilt angle changes

GPS CAPABILITIES

Support for GPS, Galileo, BeiDou and
GLONASS

< 2.5 m (CEP-50)

ENVIRONMENTAL

Diameter 80mm

Height 39mm

Weight 70g

Case material Polycarbonate, UV stabilized
f1 rated

Case protection IP66, IK09

Connector Zhaga Book 18

EUROPE: STANDARDS & CERTIFICATIONS

Directive

2014/53/EU (RED)
2011/65/EU (RoHS II)
2015/863/EU (RoHS III)
2017 No. 1206 (Radio)

Electrical and
Telecommunication
Standards

EN 62311:2008
EN IEC 55015:2019 + A11:2020
EN 61547:2009
EN IEC 63000:2018
ETSI EN 301 489-1 V2.2.3
ETSI EN 301 489-3 V2.3.2
ETSI EN 301 489-17 V3.2.4
ETSI EN 301 489-19 V2.1.0
ETSI EN 300 220-2 V3.1.1
ETSI EN 303 413 V1.2.1
IEC EN 61347-1:2015 + AMD1:2017
IEC EN 61347-2-11:2001 + AMD1:2017
IEC EN 62368-1:2014/AC:2015/
AC:2017/A11:2017



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KEY FEATURES

- » 4-pin Zhaga Book 18 connector twist-lock socket
- » ON/OFF and dimming functions, customized schedules, and dynamic sensor-based lighting
- » Alarm detection and accurate monitoring of key operating parameters
- » Comprehensive event logger and scheduler, Real Time Clock, embedded astronomical clock, and integrated tilt/shock sensor
- » Proven data security with AES-128 end-to-end encryption
- » Weather resistant IP66 rating with rain skirt for enhanced physical protection
- » Data loss protection with power outage detection and event generation (Last Gasp feature)
- » Supports Over-the-Air (OTA) firmware updates via the Smart CMS

Information subject to change without prior notice. Technical specifications may vary according to Part No. Please check the datasheet for the exact specifications. **Do not reproduce, publish or share without permission.**

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