NB-IoT Dali Gateway

ECL-DALI-NB

The ECL-DALI, an NB-IoT multi-master controller is luminaire-mounted control device to monitor and control public lighting supporting the Zhaga-D4i standard.

ECL-DALI control devices have Zhaga connectors and comply with D4i requirements that can communicate over NB-IoT with external networks. It has GPS version for easy commissioning.

The device is suitable for outdoor, smart-city applications. Municipalities and cities can future-proof their street light investments because they will be able to upgrade their lighting with Zhaga-D4i certified components in the future.

Physical Specifications
- Size: 80mm radius, 98mm height
  80mm Lumawise Endurance Zhaga Box
- Weight: ~300 grams
- DIN Rail Mounting

Environmental Specifications
- -35 ... +75°C operating temperature
- -40 ... +85°C storing temperature

Power Input
- 24-32 VDC
- Overvoltage and overcurrent protection

Dali Interface
- Bus powered device
- Maximum system current 250 mA
- 16VDC Dali bus voltages
- Data transfer rate 1200 bits per second
- Max. distance between two communicating units 300 meters (984 feet)
- Each dali component connected to the interface may consume a maximum of 2 mA

Wireless Features
- Supports various bands over NB-IoT Module
  Bands supported B1, B3, B5, B8, B20, B28
- GPS+GLONASS
  GPS: L1 Band Receiver (1575.42MHz)
  GLONASS: L1 Band Receiver (1601.71MHz)
- Embedded Patch Antenna
  Highest Sensitivity -167dBm@Tracking mode
  -149dBm@Acquisition mode
- Ultra Low Power Consumption
  26mA@Tracking mode
  30mA@Acquisition mode
- Support DGPS, QZSS, SBAS (WASS/EGNOS/MSAS/GAGAN)
- Easy use push-n-eject SIM card connector

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Serial Interfaces
• Internal Micro USB (Microprocessor
  software update)
• Internal TTL UART (Terminal connection)
• 300bps - 460kbps communication speed
• 7E1, 7O1, 8N1, 8E1, 8O1 framing

Regulatory Approvals
• GCF (Global)
• CE (Europe)
• Anatel (Brazil)
• KC (South Korea)
• NCC (Taiwan, China)
• JATE/TELEC (Japan)
• RCM (Australia/New Zealand)
• NBTC (Thailand)
• IMDA (Singapore)
• Others: RoHS Compliant ATEX (Europe)

Other Hardware Features
• ARM Microprocessor (32-bit ARM®
  Cortex®-M4 120Mhz 1Mbyte Flash)
• Real Time Clock (RTC)
• Built In Flash Memory (4Mbyte)
• Hardware watchdog
• NB-IoT LED Status Indicator
• IPV4, IPV6, UDP, CoAP, LwM2M, Non-IP,
  DTLS, TCP protocol stack
• CE Certified