

# **BEACON LINE**

## **Technical Reference**

## Beacon Line Node



### Technical data

<b>Overview</b>	
Size (PCB incl. connectors)	90 x 33.4 x 16 mm
Housing	91 x 41 x 26 (max.) mm, PC-Macrolon (UL-94-V2)
Weight (incl. connectors)	55 g (incl. housing)
Operating temperature	-40 to 85 °C
Safety Class	IP40
Connection method	RJ45
Power supply	Passive PoE <sup>1</sup> (12-24 V)
Bluetooth class	Bluetooth LE 4.1 (Bluetooth Smart)
Max nodes	30
BLE Role	Observer and Broadcaster
BLE Filtering	iBeacon packet
BLE antenna	Internal PCB-antenna (2.4 GHz ~ 2.48 GHz)

<b>Main-CPU / Line Communication</b>	
CPU	Cortex M0, 32 MHz
Line Communication (Node to Node, Node to Gateway)	RS232 via RJ45
Host-Modul Power Consumption (average)	110 mW per Node
Full Beacon Line System (1 Gateway Ether, 2 Nodes)	1.1 W @ 24 VDC
Full Beacon Line System (1 Gateway Wifi, 2 Nodes)	1.3 W @ 24 VDC

<b>Technical Data BLE</b>	
CPU(s)	Cortex M0 incl. BLE-stack, Cortex M3, 24 MHz incl. RTOS
Memory	128 kB Flash, 20 kB SRAM
Active current	61 uA/MHz
Standby current	1 uA
Shutdown current	200 nA
BLE-stack	Bluetooth LE 4.1 (Bluetooth Smart)
TX-Power	Programmable +5dBm to 0dBm (1dBm steps), 0dBm to -21dBm (3dBm steps)
Spurious emission	-43 dBm @ f < 1 GHz, -46dBm @ f > 1GHz
RF frequency range	2402 MHz to 2480 MHz, programmable in 1-MHz steps
RF sensitivity	-95 dBm
Saturation	+4 dBm
Frequency error tolerance	+/- 250 kHz
Intermodulation	-36 dBm
Antenna	internal PCB antenna
Operating Temperature	-40 to +85 °C

<b>AGENCY CERTIFICATIONS</b>	
USA	FCC ID: TFB-1002, 15.247
Canada	IC ID: 5969A-1002, RSS 210
Europe	CE Compliant to standards EN 60950-1, EN 300 328, and EN 301 489
Japan	Giteki: 209-J00169
Australia / New Zealand	RCM

## Glossary

1. Passive PoETM (Power over Ethernet) is a simple way of providing power to an access point via an Ethernet cable. Passive PoETM uses free wires in the Ethernet cable (positive 4;5 / GND 7;8) to send the equipment's power from one end to the other.

## BEACON LINE

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