Luna Pulse

4-Input Pulse Counter with LoRaWAN® long-range low-power radio

32-bit Pulse Counter Metering Node

- LoRaWAN low-power long-range connectivity
- Four 32-bit dry-contact counting digital inputs
- Up to 1 kHz simultaneous counting (4 kHz total)
- Battery life up to 10 years with daily reporting
- Keep track of sensors with multi-constellation GNSS
- Fully reconfigurable via LoRaWAN downlinks



Product Description

Definium's 4-input pulse counter with LoRaWAN is a drop-in solution for monitoring pulses, such as those produced by common water, gas, electricity meters or agricultural sensors. Automatically collect accurate counting data periodically without the cost and burden of manually visiting premises.

Based on Definium's Internet of Things sensor platform and backed by long-range low-power LoRa® radio, each sensor has a designed battery life of up to 10 years with daily reporting.

Each dry-contact digital input is capable of simultaneously measuring up to 1 kHz with periodic reporting. The optional multiconstellation GNSS ensures you won't lose track of your device.

Each input is made available via an IP-rated standard connector (depending on variant, see below). Both connector halves are pro-

vided and optionally can be terminated to bare wires.

Each sensor comes pre-configured with unique LoRaWAN ids and encryption keys, so configuration is optional. Settings on the device can be altered remotely via LoRaWAN or locally via USB.

Incoming data can be integrated directly into existing SCADA or other systems, replacing manual data-entry processes with upto-date information automatically. Daily usage patterns (or more frequent, if configured) provides a valuable source of data for advanced analysis, helping to inform business decisions.

Definium Technologies designs and manufactures its devices inhouse in Launceston, Tasmania. Definium produces a broad range of gateways and sensors to use in any IoT network.

Product Selector

Model	Re	gion		Sen	sors	Rad	dios	Int	erfac	es	Fea	ture	s	Encl	losure
	AU915, AS923 (Australia / Asia)	US915 (United States)	EU868 (Europe)	Dry-contact digital inputs	Digital Outputs	LoRa, LoRaWAN, FSK	Multi-constellation GNSS	USB Serial Console	LoRaWAN Downlink Config	Bluetooth	Periodic Reporting	Threshold-based Alarm	Solar & Rechargeable Battery	IP65 Polycarbonate	IP66+ Polycarbonate
DT1068	0	0	0	4	2	•		•	•	•	•	•	•	•	
DT1068-OUTBACK	0	0	0	4	2	•	•	•	•	•	•	•	•		•

Ensure you order the correct product for your LoRaWAN region. \bullet = Included. \circ = Differs with product variants.



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Features

Inputs	Four dry-contact counting digital inputs 32-bit 1 kHz simultaneous counting Periodic reporting of counter values
LoRaWAN	Class A LoRaWAN™1.0.2 Support Supports multiple regions (firmware variants) Supports adaptive data rate Device settings configurable via downlink Pre-configured EUI and keys with QR-code Reconfigurable LoRaWAN™keys via USB serial
GNSS (Outback)	Concurrent multi-constellation GNSS (3) GPS, Gallileo, GLONASS, and BeiDou support GPS time synchronisation

Electrical Data

Power	3.6 V Lithium battery (LS14500-compatible)
Input limit	0 V minimum, 3.6 V maximum
Consumption	Up to 120 mA (transmitting) Below 5 uA (sleeping) Up to 10 years battery life (varies with report frequency)

Enclosure

 $\begin{array}{ll} \text{IP65 Polycarbonate} & 95\times75\times35\text{ mm, }300\text{ g} \\ \text{IP67 Polycarbonate} & 82\times85\times56\text{ mm, }300\text{ g} \\ \text{Enclosures may vary slightly, contact us for latest info} \end{array}$

Environmental data, quality & reliability

Operating range	-20°C to 60°C		
RoHS compliant (lead-free)			

Security

Secure internal storage of keys
Radio noise-based random number generator

Certifications and approvals

AS/NZS CISPR 32: 2015, AS/NZS 4268:2017

Other certifications planned:

AS/NZS 60950.1:2011, IEC 60950-1, CENELEC EN 60950-1, 47 CFR 15.247, 47 CFR 15.207, 47 CFR 15.247, 47 CFR 15.215, IDA TS SRD

Support products

DT1046	Definium Nexus 8 LoRaWAN Gateway with CAN, LTE, PoE				
LoRaWAN network provision and hosting via partners					

Further Information

For conact information, see www.definium.net/contact.

For more product details and ordering information, see the product data sheet.

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