

## DATA SHEET

Before you read on if you don't see your exact requirements here please see our custom build factsheet or contact us directly



Managing a network of field assets has never been easier with the NanoULTRA – Edge. Easy to configure and install it connects to your units via multiple communication options. The NanoULTRA – Edge transfers high resolution data seamlessly and securely from multiple assets, straight to our secure cloud platform, the CDLSmartHub™. Here, the raw data can be turned into actionable insights and allow you to rapidly gain the benefits of remote system monitoring. Investing in the NanoULTRA – Edge and CDLSmartHub™, gives you access to a fully integrated end-to-end IoT solution to effectively manage your assets.

## KEY FEATURES

- Seamless cellular communication with the CDLSmartHub™ asset cloud platform.
- Simple installation and configuration, achievable at scale with non-technical employees
- RS485 communication support for up to four Modbus slave devices (one off configuration charges apply – see price list)
- Instrument grade analogue inputs giving accurate, flexible measurements on a mass range of sensor options
- GPS location and tracking capabilities (on GPS unit)
- Digital input lines for monitoring states of machinery and assets
- Digital output lines for on/off control of machinery and assets
- Integrated SD card storage for mass storage of granular data sets
- On board back up battery for peace of mind in areas with poor power quality
- Compact and robust form factor for painless deployments into existing machinery and assets
- Firmware Over The Air (FOTA) for agile innovation and system management – no need to return units to base or deploy a service engineer when upgrading feature set



Cloud based IoT platform



GPS Option



FOTA upgrades



On board SD Card

## APPLICATIONS

- Single and multi-site installations, nationally and internationally
- Remote asset monitoring and control solutions
- Embedded solutions for original equipment manufacturers (OEM)
- Energy & Carbon management systems
- Voltage optimisation
- Water Quality instrumentation
- Process monitoring and control
- Corrosion monitoring
- Clean Renewable & Hybrid power
- Portable Generators
- UPS & emergency power systems
- Smart building control
- Smart grid transformer monitoring

## Physical

Case: Blue anodised aluminium extruded case

109x29x109mm

Mounting 'L' brackets as standard

## Power Supply

9-30Vdc

20mA @12Vdc when not transmitting

Mains adapter not included

Battery backup included

## Standard On-board Inputs and Outputs

4 x 16-bit instrument grade analogue inputs

CDLSmartHub™ selectable gain range:

0-2.5, 5, 10, 20 and 33 Vdc. 0-20ma.

When voltage range is selected the 16-bit resolution is applied to the selected voltage range

4 digital inputs, 4 digital outputs

(optically isolated)

## Communication Protocols

RS485

Support for up to 4x Modbus slaves

(new Modbus maps configured at additional cost)

Once set up on the CDLSmartHub™

unlimited Modbus register maps can be recalled via the CDLSmartHub™

## On Board SD Card Storage

Standard 4GB installed (Can support cards up to 32GB)

Sampling rate set via CDLSmartHub™ at rates from 15 seconds. (For Analogue and Digital Data)

Can provide storage for up to 10 years at a 15 second sample rate for 4 analogue inputs

Logs data in a standard, CSV file format (no special software needed to view)

## On Board FRAM Storage

Non-volatile buffer memory for

locations with intermittent GSM

coverage. Will last 48hrs with no

coverage on a 15 second sample rate

## Modem

2G, Quad-Band GSM

(850/900/1800/1900 MHz) connectivity

with GPRS class 12 support

## Antenna and Connector

SMA male bulkhead connector antenna for GSM

Combined GSM/GPS puck antenna for GPS

(Not included as standard, both available as accessories)

## FOTA

All firmware is FOTA enabled (firmware upgrade over the air)

## LEDs and Button

GSM active/server handshake

SD card status

General status

Force report

## Connectors

Connections via two, Molex microfit connectors

24 and 18 pin

## Environmental

-10 to +75 °C (operational)

-20 to +85 °C (storage)

## Location

Can be tracked with GPS on the

NanoULTRA – Edge GPS version. Cell mast location if GPS not available

Cell mast location on smart device can be used on NanoULTRA – Edge

For permanent installs of the device, linking to a Smart device can allow for GPS location to be fixed on the

CDLSmartHub™

Location data can be blended and plotted historically with associated measurements

## Approvals

CE

Radio equipment directive (RED)

## NanoULTRA – Edge Configuration and Management

The NanoULTRA – Edge transfers data to the CDLSmartHub™ as soon as the unit is powered up

All configuration is performed via CDLSmartHub™ to the NanoULTRA – Edge

Example settings include:

- Alarm levels
- Logging rates
- Reporting rates
- SD card logging rates
- Analogue input gain ranges (where appropriate)

## CDLSmartHub™

For live examples of the CDLSmartHub™ please visit:

<https://www.captiondata.com/products/cdlsmarthub/>

Web based configuration of remote NanoULTRA – Edge

- User management
- Alarm management and audit trails
- Trending of data

## Starter Kit – Standard

NUE-STD = NanoULTRA – Edge

NUE-CSH = CDLSmartHub™ 12 month subscription (mandatory purchase with the base unit)

NUE-AST = Recommended accessory pack with looms and antenna

## Starter Kit – GPS

NUE-GPS = NanoULTRA – Edge – GPS

NUE-CSH = CDLSmartHub™ 12 month subscription (mandatory purchase with the base unit)

NUE-AGP = Recommended GPS accessory pack with looms and antenna

## Contact Info

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