

Seismic Digitizer

NDAS-8426N



Introduction

NDAS-8426N is a seismic digitizer designed to acquire and transfer high quality data in seismic networks and to store data on a local drive.

NDAS-8426N provides a 24-bit synchronized data registration via 6 channels and is well suited for connecting analog instruments by various manufacturers.

Along with analog instruments, there is an option to connect digital seismometers and accelerometers made by R-sensors. The data are stored in a file on a local 256 GB SD drive as well as on external USB drives in miniSeed, binary and text formats. The Seedlink protocol is used for telemetry.

The system is clocked with a high precision quartz that is being corrected with the use of external sources of GPS/GLONASS accurate time signals as well as via Ethernet over NTP and PTP protocols.

The data logger has 4 auxiliary channels as well as alarm relays to control external devices.

Additional instruments are possible to connect.

Technical Data

Characteristic	Unit	Value
Number of channels	pcs	6
Data width	bit	24
Input type		sigma-delta, differential input
Input impedance		180 k Ω 2700 pF
Sampling frequency FD	sps	1, 10, 50, 100, 125, 250, 500, 1000, 2000, 4000, 8000 Hz
Dynamic range		132 dB at 100 sps
Hardware gain G		Software switchable 1, 2, 4, 8, 12
Maximum input signal with a 1: 1 divider and a gain of 1	Volts	\pm 40 V peak-to-peak differential voltage
GNSS receiver		GPS / GLONASS
GNSS timing accuracy	Sec	< 10 μ s
Reference generator stability	ppm	0.1 ppm
Power consumption		1.2 W excluding sensors, Wi-Fi, 3G, Ethernet; 1.8 W typical average
Data Recording Mode		continuous, schedule
Data recording format		binary, ASCII, miniSeed
Data storage	Gb	internal microSDXC cards of up to 256 GB, any volume external USB drives
Data transfer		Seedlink over Ethernet
Supply voltage	Volts	12-48 V (7.5-60 V permissible)
Temperature range	$^{\circ}$ C	-20 $^{\circ}$ C - +85 $^{\circ}$ C - standard SD-card
Dimensions	mm	225 x 146 x 55 mm excluding connectors dimensions
Weight	kg	1.2 - 1.5 kg
Case material		Aluminum alloy, IP-65 waterproof
Case connectors		7-pin type for RS-485 power and interface; 10-pin type for inputs of main ADC for calibration and sensors power (2 pcs); inputs of auxiliary ADC and outputs of signal relay (1 pc); micro USB-B for data reading and configuration; RJ-45 type for Ethernet; USB-A for connecting external drives and CME-ND digital sensors; SMA-F type for GPS / Wi-Fi / 3G / 4G / LTE antennas
Delivery set		1.5 m USB type A/B standard cable, 3 m active GPS antenna, Wi-Fi SMA antenna, microSD 32 GB (installed), User manual
Additional network options		Power over Ethernet, up to 24 ADC channels, low power version, RS-485 wired interface to connect external sensors
Life Time	Yr	10 yr