DAS-6102 4 channels

The DAS-6102 is a portable, rugged, ultra low power, high-performance, versatile 22-bit resolution digital seismic recording system

The standard system is configured for 4-channels. Optional configurations include configurations up to 32 channels. All channels operate synchronously up to 2,000 samples per second.

A standard 10Gb removable hard disk is included; with optional disk capacities to 32Gb. Data is retrieved by removal of the PC compatible compact hard drive, or through dial up telephone access (internal modem optional), or via LAN (Ethernet card optional).

The DAS-6102 includes a GPS receiver and antenna and "Smart Timing" software, allowing the user to select the timing accuracy, which will automatically control and minimize the GPS cycling times. The integrated display and keyboard allows for easy setup in the field and real time viewing of up to 3 waveforms.

The 24 to 32-channel configuration are the customer's preferences for large permanent installations such as dams.

Specifications subject to change without notice   4/01

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DAS6102 Specifications

Resolution	22-bit
Conversion type:	Delta sigma on each channel; modulation at 570 kHz
Dynamic range:	112dB @ 200 sps sampling rate
Sampling range:	1 – 2000 sps, precisely synchronous with time marks
Data Channels:	Standard 3+1 internal state of health (opt external); 8 to 32 optional; all fully synchronous
Recording Formats:	CSS or SEED with Steim-2 type compression
Antialiasing Filter (analog):	90dB @ 256kHz (primary sampling rate)
Antialiasing Filtering:	Built-in DSP-based digital filter
Analog Inputs:	True differential or single-ended +/-5V
Analog Gain:	Software-programmable 1, 2, 4, 8
CMR Rejection:	>90 dB @ gain = 1
Integral Non-linearity:	Less than or equal to 0.003%
Triggering	User defined, STA/LTA, and/or continuous (simultaneous)
Trigger Bandpass	User defined, up to 5 separate trigger bandpass per event detector.
Pre-event Data	Up to 90 Sec (100sps), user defined.
Post-event Data	User configured – no limitations
Timing Management	Intelligent GPS reference access and two phase-locked loops
Timing Accuracy	+/-0.005 sec of UTC
GPS Receiver:	Miniature external in a fully weatherized box; 70x30x15mm; connects via std 5m and (opt) up to 25m long RS-232 cable; optional RS-485 with up to 500m long cable
GPS Duty Cycle:	Once every 18 hrs to achieve <1msec accuracy, (Software Selectable)
Data Storage / Retrieval	Swappable miniature 10 GB+ hard disks (optional to 30 GB)
Data Formats	Mini-SEED w/Steim-2 compression up to x6 CSS 3.0: long integer; separate data description in ASCII
User Interface (field system)	Backlit 320x200 graphic LCD display, 12-key keypad; optional external compact mini PC keyboard.
I/O Protection	Over voltage, transient, EMI/RFI
External Connectors	Sensor input, RS-232, Power, GPS and optional LAN
Front Panel Connectors	PC Keyboard PS/2 Mini-DIN, To external PC (DB9)
Optional Remote Access	Telephone dial-up automatic data retrieval (periodically program-initiated or on request) Radio-Ethernet telemetry for up to 12 miles line-of-sight distance Direct recording to LAN (PC or SUN) *via* Ethernet card.
Physical Parameters:	Dimensions: ~300x400x175mm; Weight: 5.5 kg
Operating Temperatures:	-40 to + 60 C[1]
Power Supply:	External, Nominal: 12 Vdc; Range 7 - 16 Vdc; Power ~5 W
External Power Pack (opt)	Dual Gel Cell Batteries with AC charger

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[1] LCD display may not function at subzero temperatures; additional power may be needed to maintain hard drive at operating temperature in subzero conditions.

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