

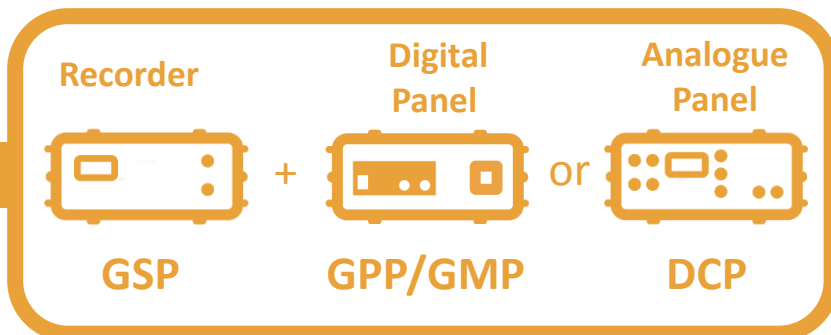


Main Features

- Ideal for **VSP & Microseismic** surveys in the most hostile wells.
- Up to 62 satellites.
- **30,000psi (2100 bar) pressure rating.**
- 3.25" (82.5mm) Outside Diameter Tool.
- Standard 7 conductor wireline.
- Real time data transmission.
- Multiple 3 component sensor options.
- 24-bit delta sigma converters.
- Unique Active Cooling System for continuous operation at 385°F (195°C).
- Up to 600' (200m) between satellites.
- Gapless recording for passive monitoring surveys.
- Quick and easy conversion from Analogue to Digital operation.
- Tractor Deployment.

Functionality

- Geochain EHP is one of the latest evolutionary branches of the established Geochain™ VSP digital seismic system, operating with up to 62 satellites for maximum logging and recording efficiency within the most hostile of high pressure environments.
- The Geochain EHP system is fully compatible with all standard Geochain™ electronics and sensor modules in addition to all standard surface control panels.



SURFACE PANELS

LEADERS IN BOREHOLE SEISMIC TECHNOLOGY

ASR-1 (EHP) Satellite Specifications

Length	35" (884mm)
Diameter	3.25" (82.5mm) without nodes
Weight	44 lbs (19.8kg)
Max locking range	12" (305mm) Standard or 22" (559mm) with an arm extender
Max locking force	300 lbs (Standard Arm)
Temperature	400°F (204°C) Analogue / 385°F (195°C) Digital
Pressure	30,000psi (2100 bar)
Sensors	3 Component Gimbal – Sensor SM-4 HT 10Hz 3 Component Fixed – SMC 2400 15Hz Omni- Dual/Quad
Well Deviation Control	0°-95°
Panels	GPP & GSP-1 (Digital) DCP-2 & GSP-1 (Analogue) GMP

Downhole Specifications

Max. No. of Satellites	62			
X-TAS Telemetry	<i>Sample interval</i>	<i>Bandwidth Hz</i>	<i>ASR's</i>	<i>ASR's with DFU</i>
	1/4ms	1600	8	15
	1/2ms	800	16	30
	1ms	400	32	60
	1.5ms	266	48	
	2ms	200	62	

Dynamic Range >112dB @ 0dB pre-gain (minimum)

A/D convertor 24 bit Delta-Sigma

Downhole Gain 42-54dB

Distortion <0.02%

DC offset Self-calibrating

Max data rate 4 Mbit/second

Min. data rate 256kbit/second

Wireline 7 Conductor (Heptacable)

Surface Specifications

Recording panel GPP or GMP & GSP-1 (Digital) DCP-2 and GSP-1 (Analogue)

Software ASL Acquisition Suite and VSProwess© Processing Software

Cable equalisation Fully automatic using internal DSP chip

Airgun firing pulse 60 V, 30ms

Test system Fully automatic with comprehensive report generation

PC Interface USB

Power Requirements 100/230 V AC, 47-63 Hz universal input, 30 watts

Operating Temp 32-104°F (0-40°C)

Enclosure Standard 19" rack mounting