Main Features

- Ideal for VSP & Microseismic surveys.
- Up to 62 satellites.
- 3” Outside Diameter Tool.
- Standard 7 conductor wireline.
- Real time data transmission.
- Multiple 3 component sensor options.
- 24-bit delta sigma convertors.
- Unique Active Cooling System for continuous operation at 385°F (195°C).
- 25,000psi (1700 bar) high pressure rating.
- Up to >600’ (200m) between satellites.
- Gapless recording for passive monitoring surveys.
- Quick and easy conversion from Analogue to Digital operation.
- Tractor Deployable
- New: Integrated high side indicator in every receiver.

Functionality

- The Geochain™ VSP array has been designed for use in open and cased holes using standard 7 conductor wireline. The array is based on the well proven ASR-1 downhole geophone and can be used in wells up to 25,000 psi (1,750 bar) and hole sizes from 3½”-22” (89 to 559mm).
- The modular nature of the ASR-1 tool allows quick optimisation for various surveys ranging from high temperature deep well check shot to complex high sensitivity microseismic monitoring.

Specifications

**Length** 35” (884mm)
**Diameter** 3” (76mm) without nodes
**Weight** 41lbs (19kg)
**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 / 437°F (225°C) EHT / 385°F (195°C) Digital
**Pressure** 25,000psi (1750 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 or GMP & GSP-1 (Digital)
**Surface Specifications**
- Recording panel GPP or GMP & GSP-1 (Digital)
- DCP-2 & GSP-1 (Analogue)

**Downhole Specifications**
- Max. No. of Satellites 62
- X-TAS Telemetry
  - Sample interval
  - Bandwidth Hz
  - ASR’s
  - ASR’s with DFU
  - 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 Copy of 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