

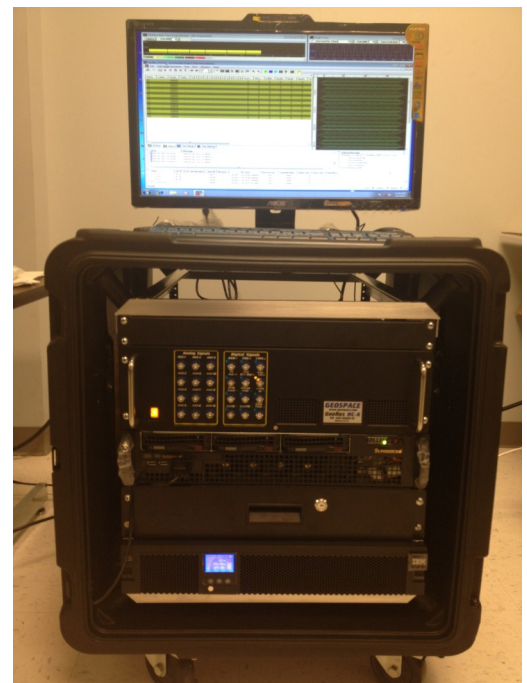
GeoRes System HC-A

GeoRes System HC-A	High Capacity Central Analog System
Channel Capacity	Scalable: Increments of 24 channels Up to 144 channels per chassis
Chassis Expansion	Scalable: Up to 8 chassis for a total of 1152 channels
Sample Interval	¼ms, ½ms, 1ms, 2ms, 4ms
Record Length	64 seconds with no intra-time
Overlapping records	System can time stamp and store overlapping timing
Data Format on Disc	SEGD Rev2
Data Storage System	Internal 2 terabyte RAID or External Raid if required.
Recording Modes	Time Break Trigger Continuous Acquisition Overlapping Shooting (System overlapping: time stamp on header)
Remote Control	Can be operated remotely via secure network
GPS Synchronization	Better than 1 part in 10 million
Flexible Architecture	GeoRes HC system architecture is designed to be flexible for easy software upgrades. Works with HC-W system for simultaneous down hole recording.
Operating Temperature	0 to +50 °C
Storage Temperature Range:	-20 to 70 °C
Auxiliary Module	Twelve 24-Bit Analog inputs for source reference
Power Supply	120-240 VAC
Central UPS	To provide power in case of power interruption

GeoRes System Tests

The seismic channel performance and sensor tests can be performed by the GeoRes System. The user can choose a partial or complete set of tests that can be run in sequence. The user can also choose to display all of the results or only the failures. In the tests described below, the system software automatically controls the Channel Input Switch Positions and Test Oscillator Settings during the tests. All tests can be run at all sample intervals and preamp gains of the GeoRes Seis Channels.

- Harmonic Distortion
- Impulse Response
- Equivalent Input Noise
- Gain Accuracy
- Common Mode Rejection
- Crossfeed (multi-channel)
- Instantaneous System Dynamic Range
- Geophone Impedance and THD



GeoRes System HC-A

Features and Specifications

- Built-in GPS
- Built-in full resolution test signal generator
- Scalability up to 1152 channels
- Continuous recording mode
- Compatible with vibratory, explosive and impulsive energy sources
- 12 analog inputs for source signal recording
- Accepts standard analog sensor input
- Available as 24 to 144 channel versions in 24 channel increments
- 24-bit delta-sigma ADC
- 1 Hz to 1600 Hz freq. response
- <1 μ sec. of UTC (GPS clock)
- Operating Temperature: 0° C to +50° C
- Selectable Gains:
 - X1, X2, X4, X8, X16, X32, X64
 - 0, 6, 12, 18, 24, 30, 36 dB
- Sample Intervals:
 - .25, .5, 1, 2, 4 milliseconds

Max input signal: 1.80 Vrms @ 0 Gain
Total Dynamic Range: 140 dB
System Dynamic Range @ 0dB Gain: <ul style="list-style-type: none">126 dB @ 4 msec SI124 dB @ 2 msec SI120 dB @ 1 msec SI117 dB @ .5 msec SI106 dB @ .25 msec SI
Equivalent Input Noise @ 2 msec SI: <ul style="list-style-type: none">1.13 μV @ Gain 0 dB.58 μV @ Gain 6 dB.33 μV @ Gain 12 dB.22 μV @ Gain 18 dB.19 μV @ Gain 24 dB.18 μV @ Gain 30 dB.17 μV @ Gain 36 dB
Input Impedance: <ul style="list-style-type: none">20 kohms/0.06 μf Difference Mode5 kohms Common Mode

System Dynamic Range @ 2 msec SI <ul style="list-style-type: none">124 dB @ Gain 0 dB123 dB @ Gain 6 dB122 dB @ Gain 12 dB120 dB @ Gain 18 dB115 dB @ Gain 24 dB110 dB @ Gain 30 dB105 dB @ Gain 36 dB
Total Harmonic Distortion: 0.001%
Common Mode Rejection: 80db
Gain Accuracy: 1%
Anti-Alias Filter: <ul style="list-style-type: none">Rejection @ Nyquist: 130 dBFrequency @ -3 dB: 0.83 NyquistLinear or Minimum Phase
GPS Time Standard: <1 ppm
Mounts in a standard 19" rack.

All specifications subject to change without notice



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