

# Downhole Specifications

	GeoWave® II	SlimWave®	MaxiWave®
<b>SEISMIC ACQUISITION</b>			
Data rate optimization on cable	Fully automatic		
Bandwidth @ -3 dB, 1/4 ms	1,666 Hz max		
Telemetry data rate	Up to 3 Mbit/s on 23,000 ft (7,000 m) cable Up to 4.2 Mbits/s		
Sample rate	1/4, 1/2, 1, 2, 4 ms		
DAS SigmaWave Compatibility	Yes / DAS Above		
Data transmission	True 24 bits. Lossless, gapless. Up to 4.2 Mbits/s		
Sensor type	Geophone SGHT-15	Geophone SGHT-15	Geophone SGO-15HT or Geophone SGHT-15
Multiple sensor mounting per component	standard dual, optional-quad	optional-quad	no
Max number of levels	120	24	100
Standard tool spacing	15 m (50 ft)		
Max tool spacing	61 m (200 ft), can be increased by adding GDU II as a booster	Max 1000 m between SHTU (telemetry) and last SAU (level)	20 m between levels
Maximum Length of Array	3,000 m (9842 ft)	1,000 m (3281 ft)	2,000 m (6560 ft)

<b>SURFACE SYSTEM</b>			
Acquisition panel	WaveLab II		
Software acquisition	WaveControl		
Recording	Standard and Continuous		
Event detection	Threshold or ratio function methods		
System test	Gain and distortion Noise and offset Pulse test		
Supply voltage & Freq.	85-264 Vac / 110-330 Vdc, 47-63 Hz		
Power output	1,200 W		
Physical	1 rack 19" 3U 31Kg (68lbs) + 1 rack 19" 5U 28Kg (62lbs)		

<b>LOGGING CABLE/DEPLOYMENT</b>			
Hepta cable	yes	yes	yes
3 conductors	yes	yes	no
Coax	no	yes	no
Mono cable	no	yes (reduced data rate)	no
Deployment fast	Standard/Deployment system	Standard	Standard/Deployment system

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<b>ELECTRICAL @25°C</b>			
Pre-amp gain	0, 18, 36 dB	20 or 40 dB	
ADC	24 bits Delta Sigma		
At 18 dB and 2 ms Full scale input signal Equivalent input noise	200 mV rms 170 nV rms	200 mV rms 158 nV rms	200 mV rms 158 nV rms
At 36 dB and 2 ms Full scale input signal Equivalent input noise	25 mV rms 150 nV rms	20 mV rms 100 nV rms	20 mV rms 100 nV rms
Instantaneous Dynamic Range	127 dB at 2 ms, 0 db Gain	122 dB	122 dB
Distortion	0.001%		
Crosstalk	>100 dB		

<b>MECHANICAL</b>			
Min tool diameter	2" 3/4 (70 mm)	1"11/16 (43 mm) without pads	3"1/2 (89 mm) without pads
Min well diameter	3" (76 mm)	2"1/4 (57 mm)	4" (101 mm)
Max well diameter	22" (559 mm)	13" (330 mm)	12.2" (310 mm)
Length (level)	1.216 mm (47"7/8)	1110 mm (43"5/7)	440 mm (17")
Weight (level)	18.9 Kg (41.6 lbs)	6,5 Kg (14,3 lbs)	8 Kg (17,6 lbs)
Anchoring arm	Standard 7" arm (options 5", 9"5/8, 13",20", 22")	Standard 7" arm (options 3"1/2, 5"1/2, 9"5/8, 13"3/8)	Standard 9"5/8 arm (options 7", 13"3/8)
Anchoring ratio	>7:1 (7" arm)	>10:1 (7" arm)	>4:1 (7" arm)

<b>ENVIRONMENT</b>			
Temperature rating	205°C (400°F) operating temp.	135°C (275°F) operating temp., 150°C (302°F) peak	135°C (275°F) operating, 150°C (302°F) peak.
Pressure rating	30,000 psi (2,070 bars)	14,500 psi (1,000 bar)	17,400 psi (1,200 bar)

<b>ACCESSORIES</b>			
Tension/compression	yes	yes	yes
Gamma ray	yes	yes	yes
CCL	yes	yes	yes

Note: Sercel reserves the right to change its specifications without prior notice.

# GeoWave II

MAXIMUM NUMBER OF LEVELS				
Intertool Spacing	Sampling rate			
	4-2 ms	1 ms	1/2 ms	1/4 ms
10 m (33 ft)	120	90	45 (45)	22 (22)
15 m (50 ft)	110	85	42 (42)	20 (22)
20 m (66 ft)	100	85	42 (42)	20 (22)
30 m (100 ft)	90 / 85	42	20 (20)	8 (22)
40 m (131 ft)	75	42	20	8
60 m (200 ft)	50	42	20	8

Maximum number of levels for Real-Time Lossless Data Transmission - All types of Acquisition

(\*for Microseismic ONLY in Downhole Conditions ONLY)

Number of GDU II boosters for Split Array Configuration (middle section) : 1 booster every 70 meters (230 feet), up to 10 boosters. Bottommost booster separation from the topmost shuttle of the bottom section - maximum 30 meters (100 feet)

Maximum Array Length - 3000 meters (9850 feet)

REQUIRED HST RATE (MBITS/S)				
Number of levels	Sampling rate			
	4-2 ms	1 ms	1/2 ms	1/4 ms
8	1	1	1	1
20	1	1	1,7	3,3
25	1	1,1	2,1	4,1
30	1	1,3	2,5	
40	1	1,7	3,3	
60	1,3	2,5		
80	1,7	3,3		
100	2,1	4,1		
120	2,5			

FIGURES FOR HST V2

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Ahead of the Curve<sup>SM</sup>