

DOWNHOLE SEISMIC TOOLS

SPECIFICATIONS

	GeoWaves®	SlimWave™	MaxiWave®
Seismic acquisition			
Data rate optimization on cable		Fully automatic	
Bandwidth @ -3 dB, 1/4 ms		1,666 Hz max	
Raw telemetry rate		2,5 Mbit/s on 23,000 ft (7,000 m) cable up to 4 Mbits/s on shorter cable	
Sample rate		1/4, 1/2, 1, 2, 4 ms	
Data transmission		True 24 bits	
Sensor type	Geophone SGO-15HT	Geophone Omni 2400 15 Hz	Geophone SGO-15HT
Optional	SMC-1850 30 Hz or Gimbal SMC-1850 10 Hz	SMC-1850 30 Hz	SMC-1850 30 Hz
Double sensor mounting per component	optional	no	no
Max number of levels	32	24	100
Standard tool spacing	15 m (50 ft)		
Max tool spacing	Max 640 m between GHTU (telemetry) and last GAU (level)	Max 1000 m between SHTU (telemetry) and last SAU (level)	20 m between levels
Surface System			
Acquisition panel		WaveLab	
Software acquisition		WaveControl	
Recording		Continuous	
Event detection		Threshold or ratio function methods	
system test		Gain and distortion	
		Noise and offset	
		Crosstalk	
		Bandwidth	
		Pulse test	
Supply voltage & Freq.		85-264 Vac / 110-330 Vdc, 47-63 Hz	
Power output		1,200 W	
Physical		rack 19" 10U, 30 Kg (66 lbs)	
Logging cable/deployment			
Hepta cable	yes	yes	yes
Coax	optional	yes	no
Mono cable	no	yes (reduced data rate)	no
Deployment	Standard	Standard	Standard/Deployment system

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Electrical @25 °C (Typical)			
Pre-amp gain	20 or 40 dB		
ADC	ΔΣ 24 bits		
At 20 dB and 2 ms			
Full scale input signal	530 mVpp rms	400 mVpp rms	400 mVpp rms
Equivalent input noise	187 nv / rms	158 nV rms	158 nV rms
At 40 dB and 2 ms			
Full scale input signal	53 mVpp rms	40 mVpp rms	40 mVpp rms
Equivalent input noise	103 nV rms	100 nV rms	100 nV rms
Instantaneous Dynamic Range	123 dB	122 dB	122 dB
Distortion	0.001%		
Crosstalk	>100 dB		
Mechanical			
Min tool diameter	3"1/8 (79 mm) without pads	1"11/16 (43 mm) without pads	3"1/2 (89 mm) without pads
Min well diameter	4" (101 mm)	2"1/4 (57 mm)	4" (101 mm)
Max well diameter	16" (408 mm)	13" (330 mm)	13" (330 mm)
Length (level)	1262 mm (49"2/3)	1110 mm (43"5/7)	440 mm (17")
Weight (level)	21 Kg (45,3 lbs)	6,5 Kg (14,3 lbs)	8 Kg (17,6 lbs)
Anchoring arm	Standard 16" arm (options 5", 7", 9"5/8, 13")	Standard 7" arm (options 5"1/2, 9"5/8, 13"3/8)	Standard 9"5/8 arm (options 7", 13"3/8)
Anchoring ratio	>10:1 (7" arm)	>10:1 (7" arm)	>4:1 (7" arm)
Environment			
Temperature rating	170 °C (338 °F) operating temp. 180 °C (356 °F) peak	135 °C (275 °F) operating temp., 150 °C (302 °F) peak	135 °C (275 °F) operating, 150 °C (302 °F) peak.
Pressure rating	22,000 psi (1,500 bar)	14,500 psi (1,000 bar)	17,400 psi (1,200 bar)
Accessories			
Tension/compression	yes	yes	yes
Gamma ray	yes	yes	yes
CCL	yes	yes	yes