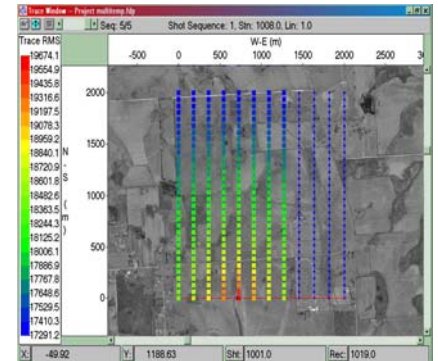


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SPECIFICATIONS RECORDING SYSTEM



General Specifications

System Control, Line Management and Quality Control

SUN Blade Workstation including:
Solaris Operating System
Operator input via X-Windows
MOTIF Graphical Interface
OMNI planning functions
Optional: VISTA data quality control

Data Receiver Unit (DRU)

96 Radio Frequencies per DRU
Synthesized Frequency Control
Up to 768 seismic channels per DRU
Option for multiple retrieval groups per profile

Recording Modes

Air Gun — Dynamite — Vibroseis

Data Storage

IBM 3480, 3490 & 3590 compatible cartridge drives and other SCSI storage devices

Recording Format

SEG-D Rev 0 or Rev 2, 8048 or 8058
SEG-Y Rev 0

Plotter

Direct Thermal

Operating Environment

Ambient Temperature
Humidity

0°C to 50°C
5 to 95%, non-condensing

Power

220 VAC, 50/60 Hz

Filter Specifications

Playback Digital Filters

Low-Cut and High-Cut
Selectable in 1Hz increments
6 to 60dB/Octave slope

Radio Specifications

RF Specifications

214 – 234 MHz Telemetry RF Band
20KHz RF Channel Spacing

Data Receiver Sensitivity

-102dBm

Bit Error Rate

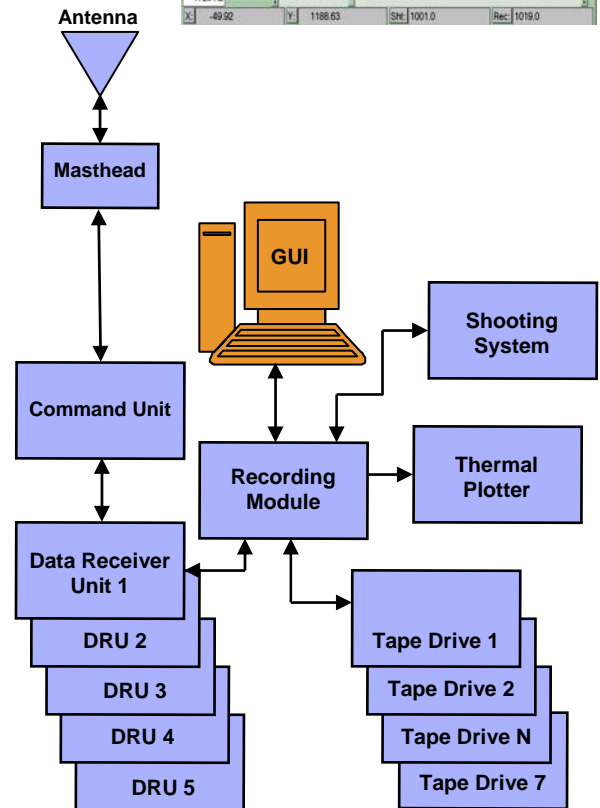
10⁻⁶ with Signal to Noise Ratio >23dB

Antenna System

High Gain Array with RF Pre-amplifier & Rotator

Command Transmitter

20 Watts nominal RF Power
Synthesized Frequency Control
QPSK Modulation with Forward Error Correction



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Fairfield Industries



Fairfield Industries, 14100 Southwest Freeway, Suite 600, Sugar Land, TX 77478
Tel: 281-275-7500 Fax: 281-275-7550 www.fairfield.com
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SPECIFICATIONS

REMOTE UNIT

Seismic Specifications

@ 2 ms sample interval, 25°C & 31.25 Hz input test signal

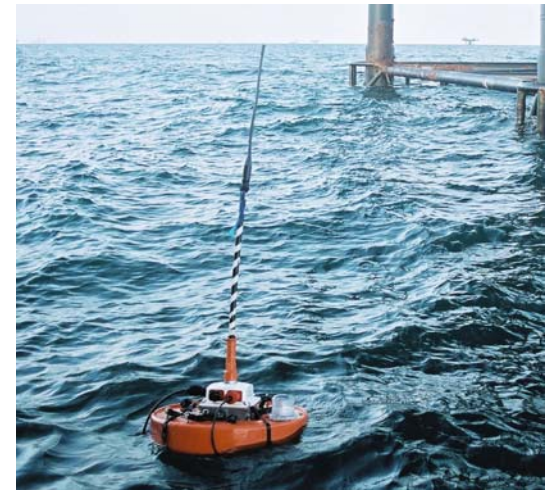
ADC Resolution	24-bits
Sample Intervals (milliseconds)	½, 1, 2, 4
Crossfeed	110dB
Total Harmonic Distortion (THD)	0.0004% @ 24dB & -3dB full scale
Preamplifier Gain (K-Gain)	12, 24, 36dB
Equivalent Input Noise <i>Preamp Inputs Shorted</i>	1.5µV @ K=12dB 0.4µV @ K=24dB 0.156µV @ K=36dB
DC Offset	Less than 10% of Input Noise with Offset Filter enabled
Input Full Scale Signal (RMS)	1448mV @ K=12dB 362mV @ K=24dB 90.5mV @ K=36dB
Time Standard	1ppm
Gain Accuracy, Trace to Trace	0.15% (external source)
Common Mode Rejection (CMRR)	>100dB @ 24dB K-Gain
Input Impedance, Differential	20KΩ
Channel Capacity	Hardware Configurable 4 or 8 Software Selectable 1 to 4 or 1 to 8
Operating Temperature Range	-40°C to +60°C

RU Filter Specifications

Low-Cut & Offset Filter	Selectable - OUT to 60 Hz in 1 Hz steps @ 6dB/Oct Offset Filter disabled when set to OUT		
Anti-Alias Filter (digital) (linear phase response)	Sample Interval	f ₀ -3dB	f _{Stop Band} < -130dB
	½ ms	824 Hz	1,000 Hz
	1 ms	412 Hz	500 Hz
	2 ms	206 Hz	250 Hz
	4 ms	103 Hz	125 Hz

RU Radio Specifications

Transmitter Output Power	½ Watt (+27dBm) mean
Power Leveling	+27dBm to -40dBm 67 x 1dB steps
Receiver Sensitivity	-101dBm
Receiver Bit Error Rate	10 ⁻⁶ with RF Signal to Noise Ratio >17dB



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