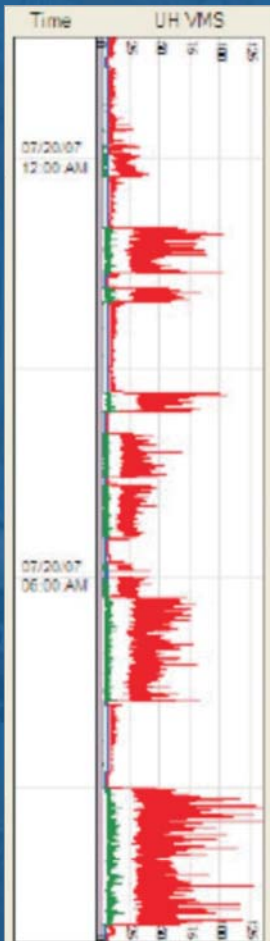


SureShot™ Vibration Memory Module (VMM™)

Advanced Systems
for
Drilling Performance™



Axial/Lateral
Vibration vs. Time



Axial/Lateral
Spectral Density of
High-vibration Event

Product Parameters	
Length(directional sensor+VMM)	69.8 in. (1,773 mm) 15.8 in. (401 mm) longer than standard SureShot sensor
Outside Diameter	1,875 in. (48 mm)
Measurement	
Measurement Devices	4 ± 250g Accelerometers, two-axis fluxgate magnetometer
Data Sampling Rate	Accelerometers - 1,000 samples/s Magnetometers - 100 samples/s
Real-Time Telemetry	Configurable at rig site
Memory Size	8 MB
Memory Recording	Average and peak data stored every 4 Seconds; 40 seconds of raw data samples stored at 1,000 samples/sec when each threshold is first crossed
Data Recorded:	
Max. Lateral Vibration	0 to 354g
RMS Lateral Vibration	0 to 354g
Max. Axial Vibration	0 to 250g
RMS Axial Vibration	0 to 250g
Rotation Rate	±1,500 RPM (± 157 rad/s)
Memory Dump	Connect to sonde at surface to program and dump memory
Environmental	
Temperature	0° to 347°F (0° to 175°C)
Pressure	20,000 psi (137.9Mpa)

