



Measurement While Drilling (MWD)

LogIT MWD Laptop & Surface Software

- Integrated gamma LWD logging software
- Wireless connection to Rig Floor Display
- Programs tool string and decoder
- Tool diagnostics and surface testing capabilities
- Single application for MWD, tool programming, and tool diagnostics
- Real-time display of decoding data and historical view of mud pulse data
- Integrated survey sheet with plan and vertical section view
- Display and transmit WITS data from external sources
- Visual and audible alerts to decoding events
- Full screen customizable drillers view for rig floor display
- Tool tracking module available

Pressure Transducer and Cable

- 5000 psi NPT and Hammer Union style isolated transducers
- 80' cable for short distance between doghouse and standpipe connections
- Zero noise, double braided shield cable • protective cage

Pulser

- Poppet driven by high efficiency brush-less DC motor
- Advanced power supply; minimizes motor impact on battery voltage
- Flow sensor vibration controlled and user configurable
- Integrated memory logging collects detailed view of all motor, communication and environmental events down-hole
- High tolerance to LCM

Rig Floor Display

CE, ATEX Zone 2, NEMA 4x, IP65, Class 1/Division 2 certified

- Large 15" sunlight readable, anti-glare, glove compatible touch screen display
- Integrated heater allows operation from -40°C to 60°C (-40°F to 140°F)
- High environmental performance and reliability
- Automatically decodes mud pulses and displays to Rig Floor Display/safe area laptop
- Auto detect telemetry sequences for rotating and sliding modes (switches between the two modes without cycling pumps, on the fly)
- Down-link via pumps sequences, string rotation sequences or combination of both
- Wireless communication to Rig Floor Display
- Intrinsically safe connection to certified Class
- Rugged design with visual indicators of pressure
- Multiple encoding schemes with advanced decoding

Directional Module and Controller

- Low power (0.6W idle, 3.0W peak)
- Integrated memory with full data logging
- Communication protocol adds extra sensors
- Toolface accuracy $\pm 1.0^{\circ}$
- Inclination accuracy $\pm 0.1^{\circ}$
- Azimuth accuracy $\pm 0.5^{\circ}$ (at 90° Inclination)
- Total g field accuracy $\pm 3.0^{\circ}\text{mg}$;
total h field accuracy $\pm 3.0\text{ nT}$
- RPM measurement 2-200 RPM $\pm 2\%$ of value

HPC Battery Modules

- Dual battery configuration with automatic battery switching
- Battery monitor with power usage as well as shock and vibration logging

