

## TeleFusion

The TeleFusion tool provides reliable MWD mud pulse telemetry and wellbore survey in high temperature and high pressure hostile environment.

It employs a reliable positive mud pulser with sophisticated signal processing to boost telemetry rate and reliability. It also uses the latest integrated directional module for improved reliability and functionality. In addition it also provides many of the smart drilling environment monitoring capabilities including shock and vibration monitoring.

## Application

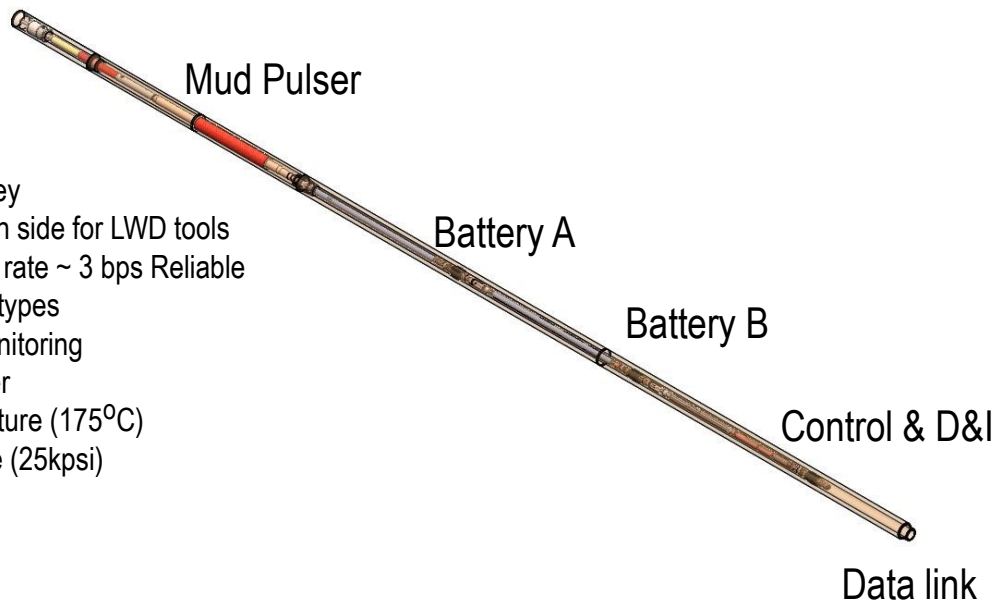
- Static and dynamic wellbore survey
- Wellbore and drilling environment monitoring
- RT data and power for LWD tools
- HTHP MWD service

## Benefit

- Accurate borehole survey
- Real-time clock and high side for LWD tools
- High effective telemetry rate ~ 3 bps Reliable transmission in all mud types
- Shock and vibration monitoring
- Threshold shock counter
- High operating temperature (175°C)
- High operating pressure (25kpsi)

## Features

- Reliable mud pulser
- Integrated digital D&I sensors
- RPM and stick-slip monitoring
- Axial and transverse vibration spectrum and shock monitoring
- Bi-axial flow sense
- Smart power control
- Bulkhead isolation between module



## TeleFusion

The TeleFusion tool can be easily combined with Oliden's GeoFusion, ArtFusion, and DartFusion LWD tools to provide seamless resistivity and well placement services through the use of advanced surface acquisition and data logging software.

### General Specifications

Signal Transmission	Positive mud pulse
Pulse Height	Adjustable
PulserSub OD	8.0, 6.75, 4.75-in.
Pressure Barrel OD	1.875-in
Flow Range	
8-in.	300 to 1100 gpm
6.75-in	150 to 750 gpm
4.75-in	125 to 350 gpm
Max. sand content	<1% recommended 3% by volume max
LCM tolerance	50 lb/bbl med. nut plug
Max. operating temperature	350 deg°F[175degC]
Max operating pressure	25,000 psi
Power supply	Battery or Turbine
Operating Voltage	28-40VDC
DownholeMemory	
Capacity	64MB
Recording time	400 Hrs
MWD Communication	Q-bus or RS485

### Operating Specification

Inclination	Range: 0-180°	Accuracy: +/- 0.1
Azimuth	Range: 0-360°	Accuracy: +/- 0.75 (Inc.>5°) Accuracy: +/- 1.0 (at 3°Inc.) Accuracy: +/- 2.0 (at 1°Inc.)
Toolface	Range: 0-360°	Accuracy: +/- 0.5 (Inc.>5°) Accuracy: +/- 1.0 (at 3°Inc.) Accuracy: +/- 2.5 (at 1°Inc.)
RPM	0-255 RPM	

### Directional Sensors

Tri-axial fluxgate magnetometer and quartz accelerometer

### Shocks and Stick-Slip

Shock Count	0-255 cps
Shock Peak	1000g
Stick-Slip	0-255 RPM
Shock and Stick-Slip risk	0 to 3

The rugged and reliable TeleFusion tool has been qualified under extreme shock and vibration conditions. Electrical boards are hard-mounted on the electrical chassis to allow them to operate under hostile drilling conditions.

Interconnects are designed with ease of operation and maintenance in mind, in addition to reliability consideration.

Specially developed extremely high strength materials are used for the pressure barrel to allow for operating under extremely high downhole pressure.