

CORE CAPABILITIES

DOWNHOLE

- JAE Smart DM Directional Sensor
- JAE Pulser Driver with memory
- Linear Pulse Mechanical Section
- Military MWD Connection

OPTIONAL

- JAE Digital Gamma While Drilling
- JAE Pressure While Drilling
- JAE GYRO While Drilling Controller
- At Bit, RSS and Resistivity Compatible

SURFACE

- JAE Dual Pulse Decoder with Auto Sync Recovery
- 21.5" Widescreen display or Optional Safe Area Decoder Interface
- Dual Transducer Technology
- At Bit, RSS and Resistivity Compatible
- All Handling Gear, Operating Equipment, Repair Tools and Replacement Parts for Continual Operation



GENERAL SPECIFICATIONS

DATA TRANSMISSION TYPE - Positive Pulse

SURVIVAL TEMPERATURE - -40°C to 195°C

COLLAR SIZES - 76mm - 203mm (3.0" - 9-5/8")

OPERATING FLOW RATE - 0.20 – 5.00 m³/min (50-1200+ gpm)

FLOW SWITCH - Vibration located in the Pulser Driver Electronics and Directional Sensor - SDM

POWER SUPPLY - Lithium 28 VDC / 3 amp

BATTERY CAPACITY - 500+ hours (using 2 battery modules)

BEND RADIUS 25° / 10m

LCM TOLERANCE 30 - 50 ppb concentration, any size, premixed

OPERATING PULSE WIDTH(S) 0.250 - 2.00 sec

INTERNAL LOGGING MEMORY 48 MB

PROGRAMMABLE SEQUENCES 4 primary + 2 dynamic downlinkable configurable sequences

SHOCK LIMIT 500g, 0.5 msec, ½ sine all axes

VIBRATION LIMIT 5–30 Hz @ 1" double amplitude, 30–500 Hz, 20g

RIG FLOOR DISPLAY

HAZARDOUS AREA ZONE 2 CERTIFIED

Laversab Widescreen Display Zone 2 Certified with Dual JAE Decoder installed. WIFI communication for Remote Drilling Operations

- Intel® Core i7TM Skylake CPU @ 1.7 / 4.4 GHz Quad Core
- 1TB Solid State NVMe
- 32 GB DDR RAM
- 21.5" Sunlight readable display with brightness control
- Capacitive touchscreen increased functionality
- Wide ranging 90-260 VAC operation at 50/60 Hz
- Operating temperature: -40°C to 60°C
- Windows 10 Professional (64-bit)

Rig-Ready Accessory Package:

- 30' AC Power cable Zone 2 with NEMA locking connector
- 2x Magnetic-Mount antennas
- (1x Type-N connector + 1x SMA connector)
- Mounting options: VESA, Panel & Hanger mount





JAE SMART DIRECTIONAL MODULE

SENSOR SPECIFICATIONS

	ACCURACY	TYPICAL
INCLINATION	$\pm 0.10^\circ$	$\pm 0.01^\circ$
	@ 90° INC $\pm 0.25^\circ$	$\pm 0.02^\circ$
AZIMUTH	@ 10° INC $\pm 0.50^\circ$	$\pm 0.10^\circ$
	@ 5° INC $\pm 1.0^\circ$	$\pm 0.20^\circ$
DIP ANGLE	$\pm 0.20^\circ$	$\pm 0.02^\circ$
GRAVITY FIELD	$\pm 1.25\text{mG}$	$\pm 0.25\text{mG}$
MAGNETIC FIELD	$\pm 125\text{ nT}$	$\pm 20\text{ nT}$
TOOL FACE	$0^\circ - 360^\circ$	$\pm 0.20^\circ$
TEMPERATURE	$-35 - 200^\circ\text{C}$	$\pm 0.50^\circ$
C-INCLINATION	$\pm 0.2^\circ$	
C-AZIMUTH	$\pm 0.5^\circ$	

MECHANICAL SPECIFICATIONS

LENGTH	29.2"
DIAMETER	1.36"
OPERATING TEMPERATURE	-20°C to 185°C
SURVIVAL TEMPERATURE	-40°C to 195°C
VIBRATION	20G RMS, 10-500Hz
OPERATING VOLTAGE	500G, 1ms. Half-sine
CURRENT DRAW @28V	80mA
MEMORY	48MB

FEATURES

Inclination, Azimuth, & Qualifiers. Continuous inclination & azimuth.

Toolface Orientation (MTF, GTF).

Battery statistics, Borehole temperature. Stick-Slip & RPM.

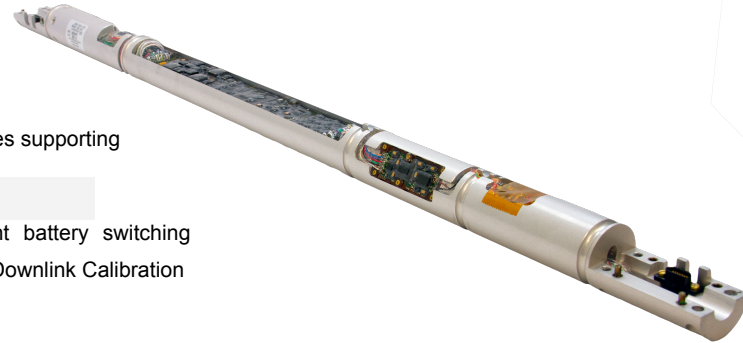
Multi-Axial shock & vibration.

Babelfish mnemonics.

Azimuthal gamma ready, with variables supporting up to 16 bins in a single packed word.

INDUSTRY LEADER IN ACCELEROMETERS AND MAGNETIC ACCURACY

- Compatible with RSS and at Bit Technology
- Highest Temperature Rated Accelerometers in the Industry
- Best Rotational Inc and Azm available
- Azimuthal Gamma controller data sensitive Geo Logging



FEATURES

Smart power management. Efficient battery switching

Directional Module Flow & Rotation Downlink Calibration coefficients stored on-board

M-ary Telemetry protocol

Integrated Azimuthal Gamma Controller

JAE DUAL TRANSDUCER



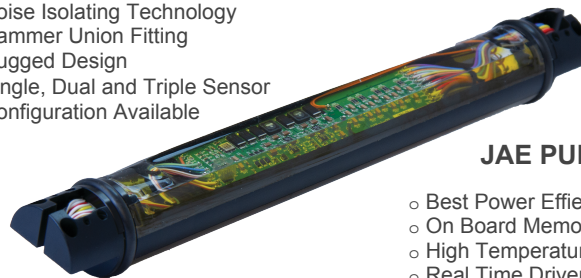
FEATURES

- Two 10K psi Sensors -One Housing
- Allows for Dual Decoder Signal Processing
- Noise Isolating Technology
- Hammer Union Fitting
- Rugged Design
- Single, Dual and Triple Sensor Configuration Available

LINEAR PULSER WITH JAE PULSER DRIVER

MOTOR DRIVEN HEAVY DUTY LINEAR DRIVE

- Proven and rugged Linear Drive with Powerful Motor
- Short Design for closer to bit readings and At Bit and RSS Communications

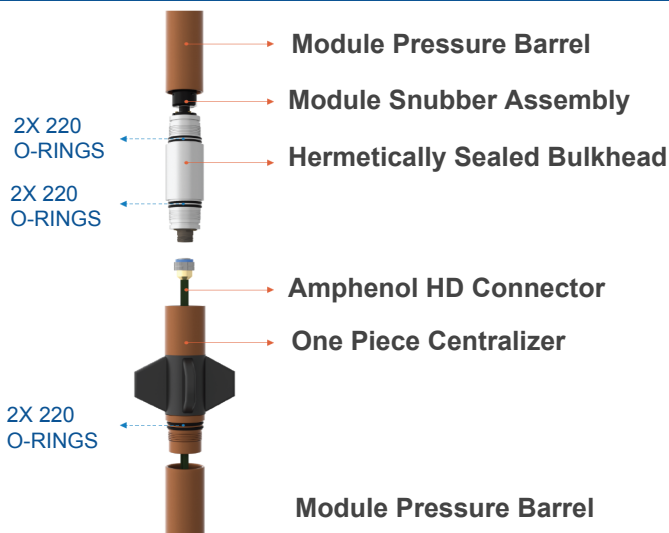


JAE PULSER DRIVER

- Best Power Efficiency Available
- On Board Memory with SDM Communication
- High Temperature Qualified
- Real Time Driver Data Displayed on Decoder



MILITARY MWD CONNECTION



Technical Training and On-Site Support

All Kit Packages, Tool Sales and Rentals are supported with technical training On and Off Site. Fasdrill conducts in house training sessions for individuals and companies.

REMOTE OPERATIONS

- Remote deliverables including surveys and data logs
- Remote trouble shooting and technical support
- Remote monitoring

"A great drilling project requires the best tools and even better technical support"
- Fasdrill Operations Team

ON-SITE AND REMOTE OPERATIONS

