

# Compact™ Oil-Base Microimager

Delivers high-definition, fullbore images in nonconductive muds

## Applications

- Visualizing complex structures
- Identifying faults and fractures and their orientation
- Determining structural dip
- Defining crossbeds, thin beds, and net-to-gross ratio in sand-shale sequences
- Identifying sand-shale facies and sand counts
- Evaluating secondary porosity
- Depth-matching, orientation and substitution of cores, structural and breakout analysis, and true vertical depth (TVD) analysis

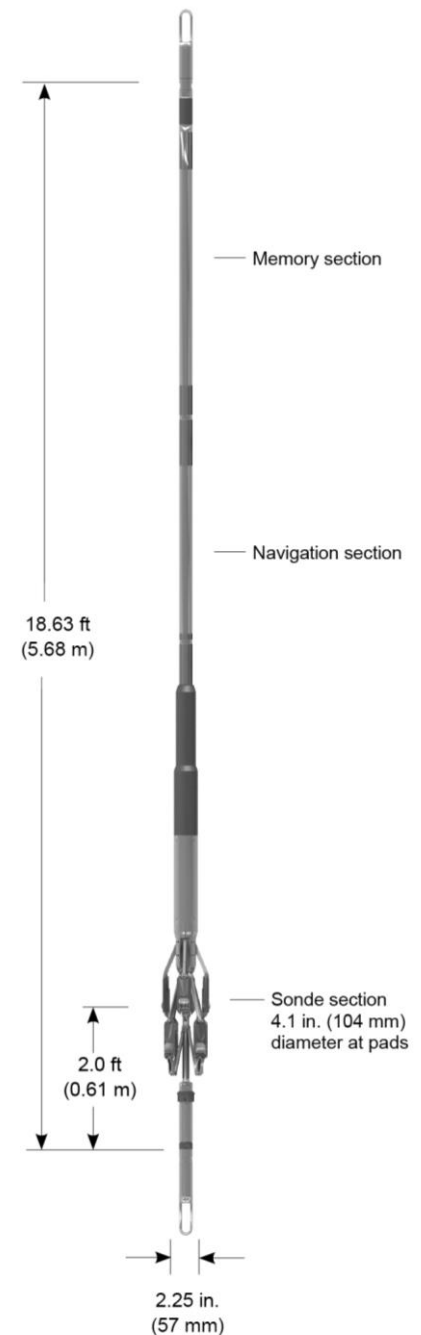
## Features and Benefits

- Eight pads with 72 measurement electrodes and excellent dynamic range measurement electronics deliver superb pad contact for reliable microresistivity data and six independent caliper readings.
- Each pad is gimballed, and pad pressure is selectable.
- The tool delivers high-definition images in oil-based muds, regardless of borehole conditions that would exclude conventional tools.
- The microimager records all high-resolution data into flash memory in the time domain, which is independent from the wireline data.
- The resulting high-definition, fullbore images improve geological interpretation for confident decision making in complex reservoirs.
- An integrated navigation package is positioned close to the pads.
- The tool is compatible with Reveal 360° image processing, a digital imaging technology that uses microresistivity measurements to deliver a complete 360° view.
- The microimager is fully combinable with other Compact logging tools.

## Tool Description

The Compact oil-base mud microimager (COI) provides formation images in oilbase muds for dip and fracture detection, sedimentary structure characterization, thin-bed evaluation, facies analysis, and orientated resistivity and dipmeter computation. The excellent borehole coverage and high-resolution imaging provided by the COI enable detailed reservoir description and enhance decision making.

The tool operates in any oil-, diesel-, or synthetic-based mud. The COI consists of a memory section (MIM) and a measurement section (MOE). High-resolution, time-based data is recorded into the MIM while 3.9-in. (10-cm) depth-based data is transmitted to the surface.



The Compact oil-base microimager (COI) provides high-quality, fullbore images for a variety of applications.



# Compact™ Oil-Base Microimager

## Specifications

### Measurement

Data	Microresistivity imaging, borehole geometry, and multi-arm caliper
Logging speed	2,000 ft/hr (10 m/min)
Vertical microresistivity resolution	0.4 in. (10 mm)
Axial microresistivity resolution	0.2 in. (5 mm)
Accuracy	Caliper: $\pm 0.2$ in. (5 mm) Deviation: $\pm 0.1^\circ$ Azimuth: $\pm 5^\circ$
Depth of investigation	0.5 in. (12.7 mm) nominal for microresistivity
Measurement range	Tilt: $0^\circ$ to $180^\circ$ Azimuth: $0^\circ$ to $360^\circ$ Microresistivity: no practical limit
Borehole fluids	Oil-, diesel-, and synthetic-based muds

### Mechanical

Maximum outer diameter	4.10 in. (104 mm)
Length	18.63 ft (5.68 m)
Weight (air)	141 lb (64 kg)
Maximum temperature	320°F (160°C)
Maximum pressure	15,000 psi (103 MPa)
Maximum borehole diameter	13 in. (330 mm)
Minimum borehole diameter	4.6 in. (117 mm)

