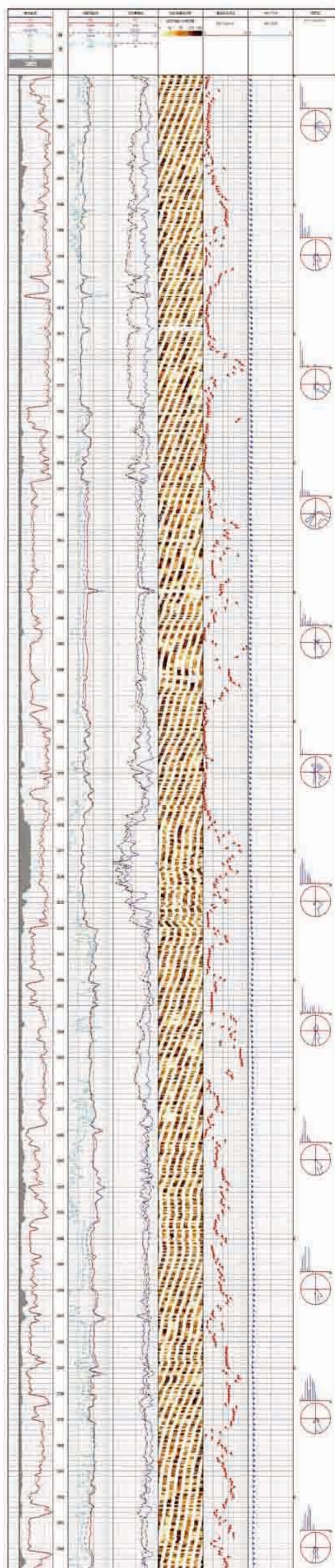
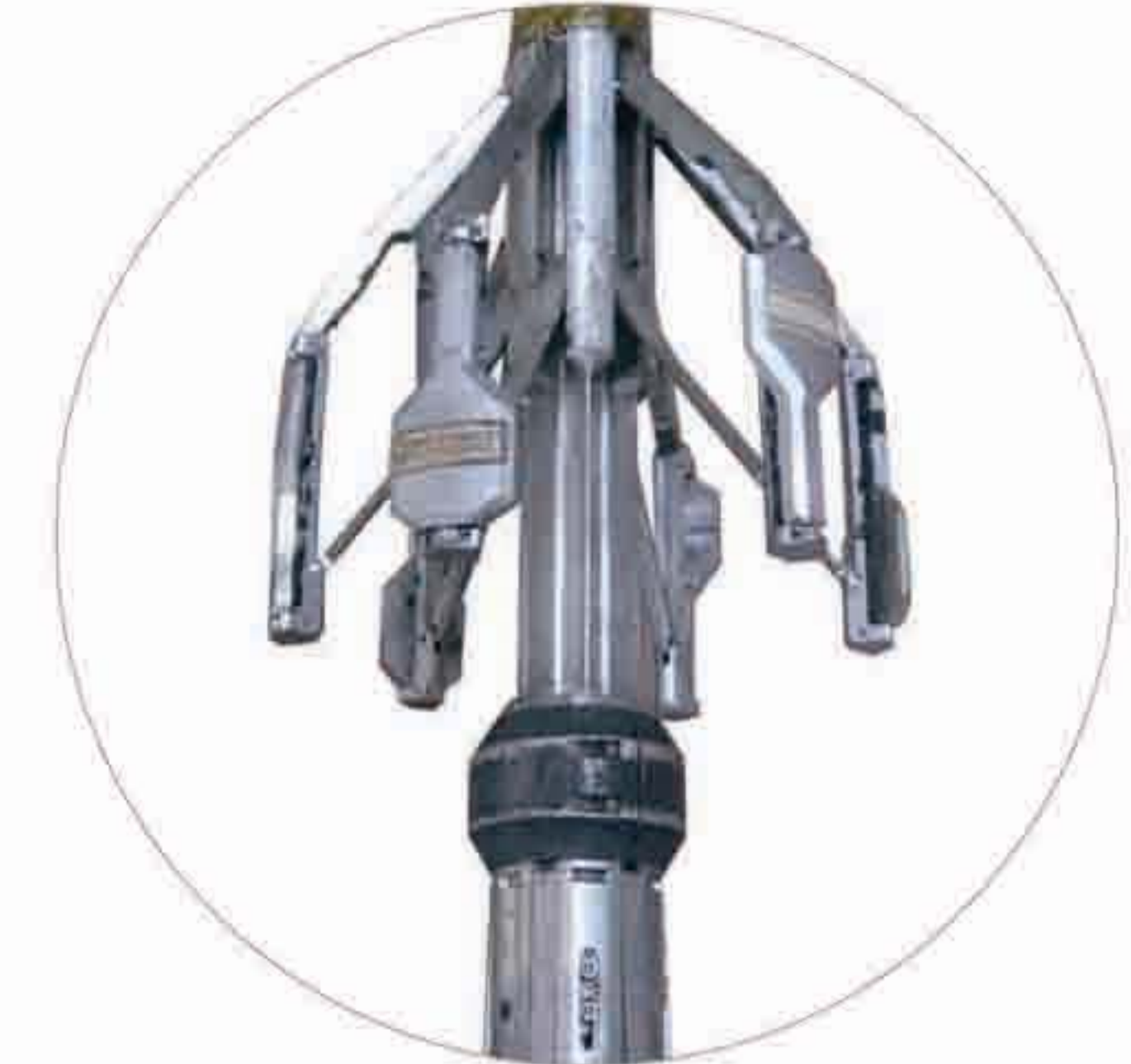


Hexapod Resistivity Imaging Tool (RIT)

The Hexapod Resistivity Imaging Tool (RIT) is a resistivity imaging instrument. The instrument measures the conductivity of the formation it traverses. The data is presented as high resolution images from which geological information is derived such as fractures, bedding, stratigraphy, dip information, depositional environments, etc. The instrument also provides the best geometric definition of the borehole, derived from six independent mechanical calipers.



Specifications

Telemetry	Standard WTS
Bandwidth (tool)	190 words per depth sample mode 2 - 40 Kbits/sec mode 5 - 104 Kbits/sec mode 7 - 121 Kbits/sec
Sample Interval:	120 samples/ft High resolution imaging Mode 120 samples/ft Extra high resolution imaging Mode 60 samples/ft Diplog Mode (max. instrument capability)
High Resolution imaging mode	20 ft/min
Extra high resolution imaging mode	10 ft/min
Diplog mode	50 ft/min
NOTE:	The max. logging speeds achievable are governed by the Telemetry and ACQ. system capabilities.
Data Recorded (Min):	RAD1 ~ RAD6 Radius measure from tool axis to each pad Gains (Bucker, Pad, Guard) BTN1-BTN24 Button currents for each of six pads Guard Voltage
Plotter/CRT Display	Auxiliary curves calipers, gains, etc. All buttons as VDL or Wiggle plots
Numerical display	All recorded data
Measuring Range	Caliper RAD1 through RAD6 as allowed by mandrel 5.5 in. to 21 in. BTN1 through BTN24 Resistance 1200 Ohms to 20 MOhms (Formation Apparent Resistivity 0.1 to 2000 Ohm-m w/theoretical K factor) Actual tool response to be evaluated during Field Test
Borehole coverage:	
Resistivity Image	59% in 7 ^{7/8} in. dia. borehole
Orientation Sensor Type	Orientation obtained from ORT
Accuracy	Caliper ±0.25 inch from 2.75 in. to 10.5 in. (Radius)
BTN1 through BTN24 Resistance	Non-calibrated
Wireline Requirements:	7 conductor
Cable Head	420Vac/0.8A
Tool Bus	180Vac/2.0A
Pad Characteristics:	
Number of buttons	24 buttons, 2 rows of 12
Circumferential spacing	0.1in.
Longitudinal spacing	0.3in.
Button size	0.16 in. diameter
Note:	Pads are staggered vertically to allow nesting to 5" dia. when fully closed.

Supported Combinations:	ORT Orientation DST Gamma Ray TTR Tool RTS & RTS-2
Maximum Temperature:	RIT-PA 350°F (176°C) RIT-EA 350°F (176°C) RIT-MA 350°F (176°C)
Maximum Pressure	20,000psi (137.9MPa)
Instrument Weight:	RIT-PA 150lbs (68.2kg) RIT-EA 150lbs (68.2kg) RIT-MA 300lbs (136.4kg)
Instrument Length:	RIT-PA 9.1feet (2.77m) RIT-EA 9.1feet (2.77m) RIT-MA 12.5feet (3.81m)
Instrument Diameter:	RIT-PA 3.63in. (92.2mm) RIT-EA 3.63in. (92.2mm) RIT-MA 5.0in. (127.0mm)
Mechanical Features:	
Arms	6 independent
Pad Force (approx.)	25 - 100 lbf (11.3-45.4 kgf) (Adjustable)
Calipers	6 independent readings
Target Borehole Dia	6 ^{7/8} to 16 inches
Hole Deviation	Vertical to Horizontal
Caliper Range Dia	5.5 in. to 21 in. (13.97 - 53.3 cm)
Pad Articulation	±10 degrees (Radially)
Power Train:	
RIT-MA	DC Motor w/Power Screw - Torque Output 4500 oz-in
Motor Power:	
RIT-MA	115VDC <1.0 Amps intermittent duty cycle
Electrical Isolation:	
Between RIT-EA and RIT-MA	Built-in top of MA
Centralization:	
RIT-MA	6 Arms Ganged Power Standoff 3.5 inches (8.9 cm) (Radially/Adjustable)
Mechanical Alignment:	
RIT-EA/ RIT-PA/ RIT-MA	Keyed Joints
Components Tensile Load Capacity:	
RIT-EA	76,000 lbf (34,483Kg)
RIT-MA	41,000 lbf (18,603Kg)
RIT-PA	52,000 lbf (23,593Kg)
Components Compressive Load Capacity:	
RIT-EA	56,000 lbf (25,408Kg)
RIT-MA	41,000 lbf (18,603Kg)
RIT-PA	56,000 lbf (25,408Kg)