



Product Introduction

Gamma-At-Bit Imaging System (SNM-GABIMG)

Introduction

The Gamma-At-Bit Imaging System solves the measurement blind spot problem in geosteering. The system places gamma imaging detectors at the drill bit, with a gamma measurement zero length of 0.4m, enabling real-time, rapid identification of formation lithology changes. Measurement data is transmitted across the mud motor via electromagnetic wave carrier and then to the surface through the drilling fluid channel, effectively improving reservoir encounter rates and increasing single well production.

Features

- /// Wireless transmission across mud motor with maximum distance up to 20m
- /// Gamma measurement zero length of 0.4m
- /// Full-time imaging capability during both composite and directional drilling
- /// Suitable for all drilling fluid environments, including oil-based drilling fluids and saturated salt water systems

Application

The Gamma-At-Bit Imaging System has been applied in more than 70 wells in Sichuan-Chongqing shale gas, Shanxi coalbed methane, and other blocks, with cumulative footage exceeding 55,000m, cumulative downhole time exceeding 11,500h, and continuous failure-free operation time exceeding 1,000h.





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System Specifications

OD	φ176mm
Receiver Sub Length	1360 mm
Tranmitter Sub Length	900 mm
Signal Transmission Method	Wireless Transmission
Max. Working Pressure	20kpsi
Working temperature	-40 ~ 150 C
Battery Life	≥200h
Shock	1000g@0.5ms
Vibration	20g RMS

Measurement Parameters

Gamma Range	0 ~ 1000API	Gamma Measurement Accuracy	±5% F.S.
Measurement Sector	Supports 8 real-time sectors, 16 memory sectors	Sensitivity	0.52CPS/API
Near Inclination Range	0 ~ 180°	Near Inclination Accuracy	±1.0°
Vertical Resolution	20 cm	Operating Voltage	18 ~ 40VDC
Azimuth Measurement Range	0 ~ 360°	Gamma Sampling Period	Adjustable
Rotation Speed Measurement	10 ~ 450rpm	Rotation Speed Measurement Accuracy	±0.5% F.S.
Wireless Transmission Distance	20m	Power	≤2W