

SKYTEM 312 HP

(HIGH POWER)



Next generation SkyTEM systems at a glance

The new generation of SkyTEM systems leverages:

- The new high power 250A transmitter featuring a patented technology for faster current turn-on and turn-off. The square waveform provides optimal excitation of buried conductors. A reduction in the number of transmitter loop turns reduces system weight, maximizing helicopter production rates.
- A fully digital multi-channel receiver for continuous sampled and streamed data with advanced and real-time signal gating and measured B-field. Enhanced features include extremely high accuracy due to a 5 MHz sample rate with 36-bit sample resolution and superior rejection of high-frequency noise.
- The redeveloped suspended receiver coil system offers a five-fold or more reduction in late time noise levels.
- A revolutionary rigid and lightweight carbon fibre carrier frame permits take-off with a full fuel tank – ideal for maximizing production rates in hot climates or operations in high elevations.
- An optional 12.5 Hz repetition frequency to measure 32 ms off-time data.
- MultiMoment to deliver near-surface resolution and considerable depth of investigation in one operation

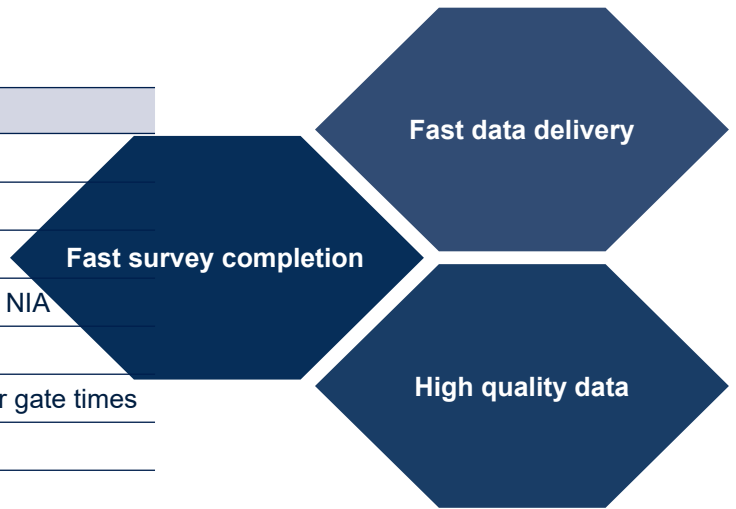
SkyTEM312 HP for deep exploration

Over the years, SkyTEM has succeeded to continuously bring new technological advancements to the airborne EM industry. Some years ago we set an ambitious goal – to develop state-of-the-art helicopter transient electromagnetic (TEM) systems that offer a combination of superior survey economics with exceptional exploration capabilities.

One of the results is a truly innovative technology – SkyTEM312 HP (High Power). This system is optimized to provide an exceptional depth of investigation effected by longer decay curves achieved using a 12.5 Hz repetition frequency and a new receiver coil suspension. In addition to this, the system offers data collection at markedly lower costs than ever before by leveraging breakthrough technology that has reduced the system weight substantially. The system is aerodynamically superior to any TEM system on the market. Recently the system has been upgraded with the MultiMoment feature to additionally deliver near-surface resolution data employing an integrated current waveform of low and high dipole moments.

Specifications of SkyTEM312 HP

	LM MODE	HM MODE
No. of transmitter turns	2	12
Transmitter area per turn	342 m ²	342 m ²
Transmitter current	~6Amp	220 - 250 Amp
Peak moment	~4,000 NIA	Up to 1,000,000 NIA
On time	1000 µs	8 ms
Off time	500 µs	32 ms, 29 ms for gate times
Repetition frequency	12.5 Hz	



SkyTEM312 HP benefits

Exploring deeper

The receiver coil system has enhanced the late-time signal-to-noise ratio by a factor of more than five. The re-engineered receiver coil system means you can explore deeper targets than ever before. SkyTEM has already demonstrated it has a depth of investigation equal to or better than any system on the market by mapping the Caber North deposit.

Improved characterization of geology and conductors

The digital multi-channel receiver provides measured B-field data delivering improved characterization of strong conductors. Furthermore, the high sample rate of the new fully digital receiver and increased suppression of high-frequency noise sources such as radio transmitters.

Make survey decisions in real-time during survey operations

One of SkyTEM's hallmarks is the unique ability to deliver preliminary data within 48 hours after collection, allowing near real-time review of survey progress and results. Quick review of the data gives you the power to reconfigure system parameters and maximize results in various geological settings. Customization is achieved within a couple of hours.

For example, the survey can start as a reconnaissance survey employing a 25 Hz repetition frequency for economics and later be reconfigured to a 12.5 Hz repetition frequency to obtain highly detailed spatial resolution over selected areas and greater depth of investigation.

Map at higher elevations

The new transmitter puts even the highest power SkyTEM system on a small 342 m² platform, making exploration in high elevation terrain with helicopter TEM more feasible than ever before and delivers cost-efficiencies unlike any other system on the market. The lightweight carbon fibre frame combined with the new transmitter reduces system weight by 100 kg in comparison with previous generation of SkyTEM systems.

More economical

The lightweight carbon fibre frame and high-power transmitter bring about further cost-efficiency benefits because in most situations SkyTEM312 HP can take-off with a full fuel tank.