

## IBIS-FM EVO

The next generation of ground-based radar monitoring system



Next generation long-range radar for open-pit slope monitoring

## RELY ON A TRUE SET-AND-FORGET SYSTEM

IBIS-FM EVO represents the state of the art of slope monitoring radar for semi-permanent and safety-critical monitoring. With a maximum scan range of up to 5km and an integration with Guardian Software IBIS-FM EVO is designed to measure sub-millimeter displacements in real time with the highest data quality in all weather conditions. IBIS-FM EVO is able to measure multiple scales of displacements, from fast accelerations associated with the risk of collapse to early detection of very slow movements.

## A GROUND-BREAKING MONITORING METHOD

IBIS-FM EVO is equipped with our most powerful radar sensor, combined with the unique free-running acquisition technique. Further improves the quality of the acquired data for better informed decisions.  
\*Patent pending

## HI-SENSE FOR AN ADVANCED ATMOSPHERICS MANAGEMENT

Hi-Sense is the new **state-of-the-art algorithm**, embedded in Guardian software, improving productivity in radar slope monitoring. With the new Hi-Sense algorithm, effects introduced by fast-changing meteorological conditions, are processed with unparalleled fidelity improving productivity in radar slope monitoring: **reduced false positives** and **extended sensitivity** to a wider range of movement trends.

## MAXIMISE PRODUCTIVITY

The design of the IBIS-FM EVO is optimized to minimize maintenance even in the harshest conditions of open pit mines. Remote trouble shooting is made easier with a dedicated, integrated live-streaming camera, which is particularly useful for installations where physical access to the system is difficult.

## AN INNOVATIVE SCAN FEATURE

The reduced scan time of up to 30 seconds, now four times faster than before, and the new bidirectional scan, significantly reduce the impact of atmospheric variations and make it possible to track even faster slope movements than before. The innovative bidirectional scan also improves system durability and reduces wear and power consumption over time.

## LOW POWER CONSUMPTION AND HIGHER RELIABILITY

IBIS-FM EVO has enhanced the already durable and trusted design of IBIS-FM, to further improve operational availability and power consumption (reduced by up to 25%), confirming its position as the most dependable, durable semi-permanent radar on the market.

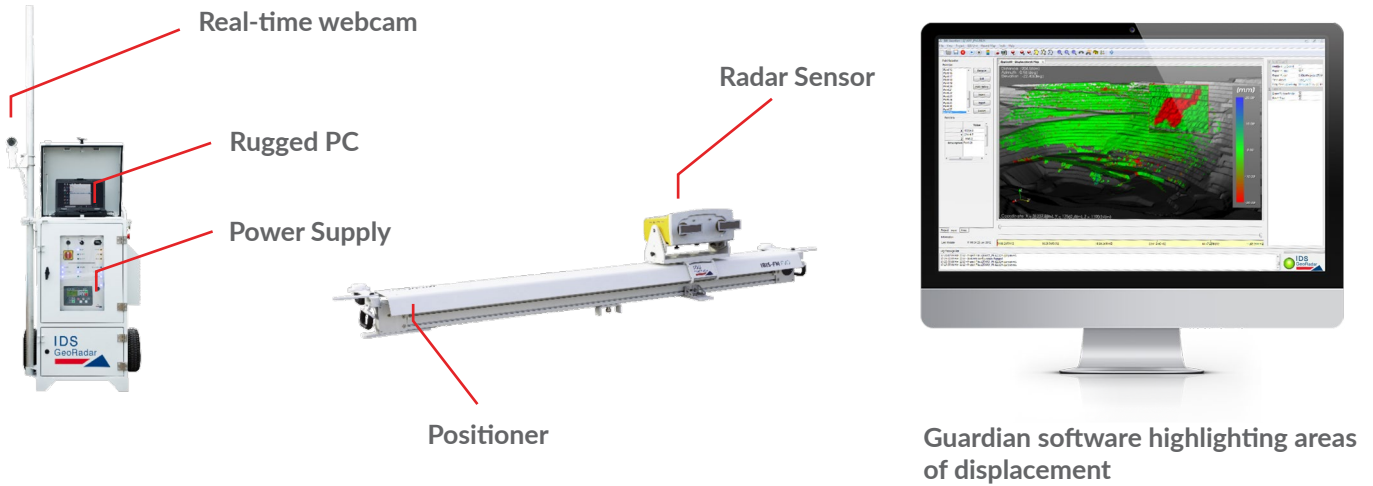
## DIFFERENT VERSIONS FOR TAILORED BENEFITS

IBIS-FM EVO, besides standard version, is available in a **Short** and **Long** version for a wider range of applications and tailored benefits.

APPLICATIONS	BENEFITS
 Safety critical monitoring (rapid displacements)	 Hi-Sense advanced algorithm for the cleanest view of displacements.
 Early detection of slow movements in support of mine planning operations and geotechnical analysis	 One technology for tactical and strategic monitoring with full-scale coverage in time and space
 Long-term continuous monitoring	 Data immediately available
 Long-range and broad area coverage (5000 m)	 Set-and-forget semi-permanent installation (indoor/outdoor)
 Tailings dam and waste dump monitoring	 Proven high in-service availability: limited number of moving parts and low maintenance requirements (minimum downtime)



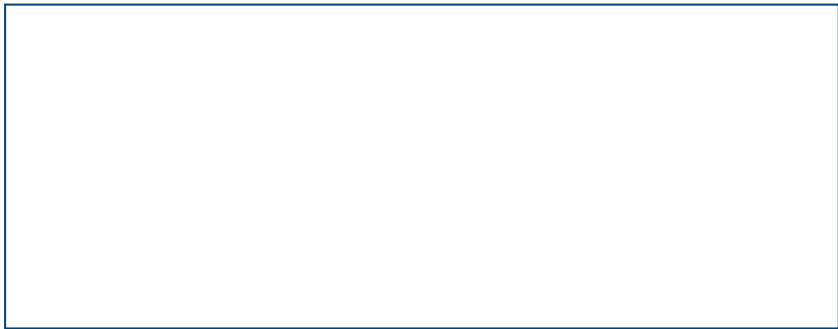
**IBIS-FM EVO CONFIGURATION**



SYSTEM SPECIFICATIONS		SOFTWARE SPECIFICATIONS
SPATIAL RESOLUTION*	@1 km SHORT: 0.375 m x 9.7 m STANDARD: 0.375 m x 4.3 m LONG: 0.375 m x 2.7 m	<b>GUARDIAN</b> <ul style="list-style-type: none"> <li>• User friendly intuitive interface</li> <li>• Real-time automatic processing</li> <li>• Hi Sense advanced Automatic Atmospheric Correction algorithm.</li> <li>• Alarm generation with user-defined levels, zones and multiple alarm criteria</li> <li>• Long datasets for geotechnical back analysis</li> <li>• Fully geo-referenced interactive data handling</li> <li>• Import of multiple digital layers for displaying geological information</li> <li>• Exportability of output to mine planning software and data is available from the second scan</li> </ul>
ACCURACY	up to 0.1 mm (Line of Sight displacement)	
OPERATING RANGE*	50 m to 5.000 m	
SCAN TIME	SHORT: Min. 20 seconds STANDARD: Min. 30 seconds LONG: Min. 45 seconds	
POWER CONSUMPTION	75-90W depending on acquisition time interval	
ENVIRONMENTAL	Rain and dust resistant	
CERTIFICATION	CE, FCC, IC	

\*Please refer to Data Sheet for detailed technical specs.





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