

IBIS-FM EVO	
TECHNICAL SPECIFICATIONS	
Accuracy ⁽¹⁾	0.1 mm (Line of Sight displacement)
Spatial Resolution ⁽²⁾	@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
Field of view ⁽³⁾	80°
Operating Range	50 m to 5000 m
Operating Temperature ⁽⁴⁾	-20°C to +55°C
Scan Time	Minimum 20 seconds (Short) Minimum 30 seconds (Standard) Minimum 45 seconds (Long)
Average Power Consumption	75-90 W depending on acquisition time interval
Weight	Radar Sensor 12 kg Positioner 38 kg (Short) – 50 kg (Standard) – 60 kg (Long) Supply Unit 177 kg (130 kg with no battery)
Environment	Rain and dust resistant
Certifications	CE, FCC, IC
OPTIONAL ITEMS	
The IBIS-FM Evo basic configuration, including positioner, radar sensor and power supply unit, can be provided with the optional tools listed below	
Genset	Diesel generator for supply autonomy
Solar Panels	For additional or full supply autonomy
Eagle Vision Camera	High Resolution Panoramic Camera
Radio Link	Wi-Fi point-to-point link for data transfer
Weather Station	Automatically controlled weather station
GNSS Compass	Dual GNSS sensor for automatic georeferencing

SOFTWARE SPECIFICATIONS	
IBIS Controller: Acquisition & system management software	Monitoring session setup wizard Power supply control Status information Automatic data transfer and storing
Guardian: Real time processing, data interpretation & early warning software	Automatic atmospheric correction 3D interactive data representation Multiple alarm criteria based on user defined area and thresholds Automatic alarm generation and notification Data export to third party software
RADIO-EQUIPMENT SPECIFICATIONS	
Radio-frequency band ⁽²⁾	17.0-17.4 GHz
Maximum power at the antenna connector	20 dBm
Emission bandwidth ⁽²⁾	400 MHz
Modulation	Linear Frequency Modulated Continuous Wave (LFMCW)

- (1) Typical instrumental accuracy measured in controller environment assuming stable atmospheric condition (pressure, humidity and temperature). The accuracy is measured as Line of Sight displacement standard deviation evaluated in one hour assuming a stable reference target providing a Signal to Noise Ratio (SNR) better than 30dB.
- (2) Range resolution depends on the frequency bandwidth permitted by local radio regulation. As an example, in USA and Europe the bandwidth is limited to 200 MHz and the range resolution is 0.75 m.
- (3) Typical horizontal field of view assuming standard antenna specifications and monitoring scenarios.
- (4) For temperature below -20° the system must be operated inside a heated container shelter