

IBIS-FM	
TECHNICAL SPECIFICATIONS	
Accuracy	+/- 0.1 mm (l.o.s.)
Spatial Resolution ⁽¹⁾	Range 0.5 m, Cross Range: 4.4 mrad @1 km, 0.5 m by 4.4 m @2 km, 0.5 m by 8.8 m
Area Coverage	Extremely broad (e.g. @2 km an area around 5 km ²)
Operating Range	10 m to 4500 m
Operating Temperature ⁽²⁾	-50°C to +55°C
Scan Time	Less than 3 min
Power Consumption	Less than 100 W
Weight	250 kg, depending on the version
Environment	IP66
Certifications	FCC, CE, IC
OPTIONAL ITEMS	
The IBIS FM basic configuration, including linear scanner, radar sensor and power supply module, can be provided with the optional tools listed below	
Genset	Diesel generator controlled by IBIS Controller
Digital Camera	High Resolution Digital Camera
Radio Link	Wi-Fi point-to-point link for data transfer
Radio Link Repeater	Radio link repeater for data transfer
Weather Station	Weather station controlled by IBIS Controller
SOFTWARE SPECIFICATIONS	
IBIS Controller: Acquisition & system management software	Session setup wizard Power supply control Status information Preliminary data processing

	Automatic data transfer
IBIS Guardian: Real time processing, data interpretation & early warning software	Automatic atmospheric correction Alarm generation with user-defined levels Multiple alarm criteria based on area definition 3D interactive data representation Data export to mine planning third party software External Digital Terrain Model (DTM) import
RADIO-EQUIPMENT SPECIFICATIONS	
Transmitter specifications	
Radio-frequency band ⁽¹⁾	17.05-17.35 GHz
Maximum power at the antenna connector	12 dBm
Emission bandwidth ⁽¹⁾	300 MHz
Modulation	Linear Frequency Modulated Continuous Wave (LFMCW)
Spurious emissions	<-30 dBm/MHz
Standby emissions	<-70 dBm/MHz
Receiver specifications	
Radio-frequency band ⁽¹⁾	17.05-17.35 GHz
Antenna specifications⁽³⁾	
-3dB Beamwidth	In the horizontal plane: 50 deg In the vertical plane: 20 deg
Polarization	Vertical
Gain	14 dBi

(1) 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.

(2) For temperature below -20° the system must be operated inside a heated container shelter

(3) The specification refers to antenna type 6. Antenna with different characteristics can be used according to the application requirements