ēKo® PRO Series

ēKo Base Station

FOR ENVIRONMENTAL MONITORING

The ēKo base station consists of three components- the ēKo base radio, the ēKo gateway and the ēKoView web application

ēKo Gateway

The ēKo Gateway is an embedded Sensor Network gateway device. The ēKo gateway runs the Debian Linux operating system. It comes preloaded with Crossbow's Sensor Network management and data visualization software packages, ēKoView and XServe. These programs are automatically started when the gateway is turned on. Plug-and-play at start-up, the gateway and ēKoView web interface easily allows users to view data real-time, run reports, set alerts and more

Features:

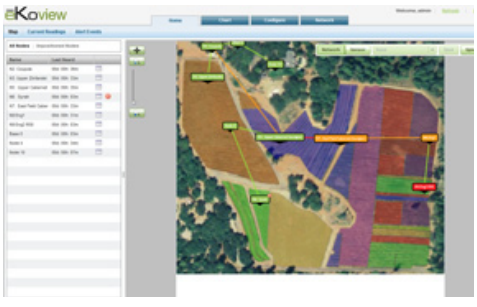
- Stores and provides full access to all data collected
- Preloaded with sensor network management and data visualization software package (eKoView)
- Software and web application to view data from a simple internet browser
- Ability to see data anywhere, anytime

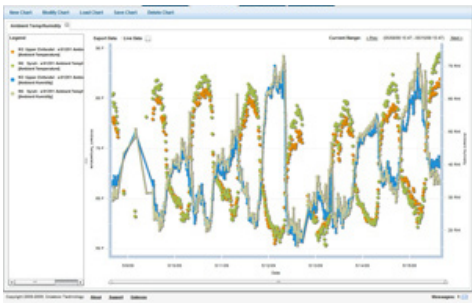
ēKo Base Radio

The ēKo base radio is a fully integrated package that provides the connection between the nodes, sensors and Gateway. The base radio integrates a Crossbow IRIS processor/radio board, antenna and USB interface board which is preprogrammed with Crossbow's XMesh low-power networking protocol for communication with ēKo Nodes. The USB interface is used for data transfer between the base radio and the ēKoView application running inside the ēKo Gateway. The ēKo base radio is available in the standard or long-range configuration.

ēKoView – Web Interface

ēKoView offers a familiar and intuitive web browser based (i.e. Internet Explorer, Firefox, etc.) interface for sensor network data visualization. The ēKoView web application makes it easy for users to start monitoring and access their data from anywhere in the world via a laptop or smart phone. Through ēKoView's simplified intuitive interface, users can quickly setup and easily configure their views to display only the data that they are interested in. Real-time vital data and easy to use algorithms for disease modeling, etc. gives users the control needed to manage and maintain crop health. ēKoView comes pre-installed on the ēKo Gateway, a plug-and-play web server





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Gateway	EG2100
Operating System	Debian Linux OS
Flash Memory	
Type	USB plug – in
Memory Size	4 GB (gigabytes)
Connectors	
Ethernet	1 RJ45
USB	2 USB 2.0 host (USB 1.0/1.1 compatible)
Visual Indicators	
5 LEDs	Status indicators
Power	
Supply Voltage	5V
Power	4W
Mechanical	
Enclosure	Indoor rated
Operating Temperature	6C to 40C ambient
Operating Humidity	10% to 80% non-condensing
Size / Weight	5.2" x 0.83" x 3.6" / 0.35 lbs

eKo Base Radio	EB2110	EB2120
Radio		
Frequency	2.405 to 2.480 GHz	
Channels	16 channels available	
Type	DSSS, IEEE 802.15.4	
Transmitter Power Output	+3dBm (typical)	+18dBm (typical)*
Receive Sensitivity	-101dbm (typical)	
Outdoor Range Per Hop	Typical 500ft to 1500ft line of sight per hop. Range extends through mesh networking hops.	Typical 2000ft to 2 miles line of sight per hop. Range extends through mesh networking hops.
Antenna	Removable dipole antenna.	
Antenna Connector	Reverse SMA compatible with most wifi indoor and outdoor antennas	
Certifications	FC CE RoHS COMPLIANT	
Visual Indicator		
5 LED	Indicate power and radio communication	
Cables		
USB	6ft USB cable between eKo base radio and eG2100 gateway.	
Power		
Voltage	Supplied via USB cable from gateway.	
Operating Current	30 mA average	
Mechanical		
Enclosure	Indoor rated	
Operating Temperature	6C to 40C ambient	
Operating Humidity	10% to 80% non-condensing	
Size / Weight	2.25" x 1.25" x 4" / 0.25 lbs	

*Non-US: typical +10dBm

Ordering Information

Model	Description
EG2100	eKo Gateway
EB2110	eKo Standard Base Radio
EB2120**	eKo Long Range Base Radio

*** EB2120 pending international certifications.*
Available for purchase for US end-use only.