

# iLevel Remote Water Level Monitoring System

- 10 m SONAR Range
- 150 m LASER Range
- 1 cm Accuracy
- Up to 1000 samples per second
- Integrated ARM7 CPU
- Integrated Iridium satellite transceiver
- Onboard data processing and storage
- Works anywhere in the world
- Rugged waterproof design



The "iLevel" remote water level monitor delivers real time water level measurements, to your PC or mobile device, from anywhere in world via the Iridium low earth orbiting (LEO) satellite network. The system is, contactless, maintenance free and can be powered by mains power, solar panel or wind generator.

The iLevel comes with optional Laser (Long Range) or Sonar (Short Range) measuring systems, delivering better than 1 cm of accuracy over distances of up to 100 meters.

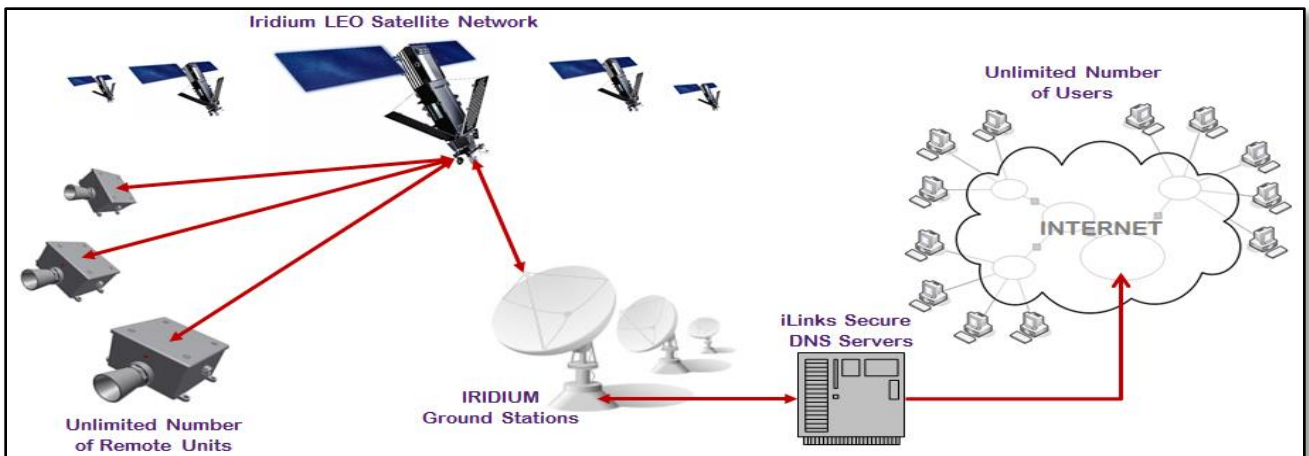
## ONBOARD INTELLIGENCE

A powerful ARM-7 32 Bit processor and 500 Mb of onboard flash memory gives the "iLevel" unmatched processing power. With sampling rates of up to 100 measurements per second, the iLevel analyses large volumes of real-time data and sends the post-processed results to the user at pre-configured time periods, minimizing satellite bandwidth and costs.

The internal Iridium short burst data (SBD) MODEM sends the processed data directly to a secure WEB site from anywhere in the world

## SYSTEM OPERATION

Once power is applied to the "iLevel" the unit immediately begins to measure the water surface at 10 times per second, higher sampling rates are available if required. The data is stored onboard the unit until the pre-determined user selectable sampling period has been reached, usually 30 minutes. At the end of the sampling period, the data is processed onboard and the resultant WATER LEVEL and SIGNIFICANT WAVE HEIGHT is transmitted to a secure iLinks WEB site via the Iridium satellite network. Users have the option to securely log in to the iLinks WEB site and view or retrieve their data or have their data sent directly to the their own WEB site, PC or mobile device by way of Direct IP, E-Mail or SMS.



# iLevel Specifications

REMOTE WATER LEVEL MONITOR SPECIFICATIONS	
<b>SONAR MEASUREMENT</b>	
Type	High Power Accoustic Pulse
Frequency	42 KHz
Beam	Precise Narrow Beam
Operating Range	1 to 10 meters (3 to 35 feet)
Calibration	Real Time Auto Calibration
Accuracy	Better than 1 cm (0.4 inch)
Measurement Frequency	10Hz
<b>COMMUNICATIONS</b>	
	iRidium 9602 SBD Satellite MODEM
<b>INTERFACE PROTOCOLS</b>	
	TCP/IP, UDP/IP, DHCP, SMTP, SMS
<b>PROCESSOR</b>	
32 Bit ARM processor	AT91SAM3X8E
Digital I/O Pins	54 (of which 12 provide PWM output)
Analog Input Pins	12
Analog Outputs Pins	2 (DAC)
Flash Memory for user applications	1 Mb
SRAM:	96 Kb
Clock Speed	84 MHz
<b>ELECTRICAL</b>	
Voltage	9 to 35 VDC
Power	5.0 Watts
<b>ENVIRONMENTAL</b>	
Operating Temperature	-20°C to +60°C
Storage Temperature	-40°C to +90°C
Protection Class	IP67
Extremely Low Temperatures	Optional Internal Heater
<b>PHYSICAL</b>	
Construction	Rugged PVC
Dimensions	65 mm (H), 122 mm (W), 122 mm (L)
Weight	325 g
<b>STANDARDS &amp; APPROVALS</b>	
	FCC, Industry Canada, RoHS, PTCRB
	Class 1 Div2, Carrier Specific Approvals

**NOTE:** The specifications above relate to the short range SONAR version of the iLevel. Specifications for the long range LASER version will be made available on request.

For more specific information on the iLevel or to arrange a system demonstration you can call us on +1 281 665 3954 or e-mail at [info@ilinks.us](mailto:info@ilinks.us)

