

# Stilltek iRadar Stream Gauge

## iRadar INNOVATION

Small form factor  
Lightweight  
Low cost  
Solar powered  
Self-contained  
No infrastructure required.  
Global coverage  
Easy Deployment

## iRadar OPTIONS:

- Extended Range  
Extended range Radar units are available for up to 70 meters
- Rain gauge

The iRadar can be equipped with a tipping bucket rain gauge to measure precipitation as well as water levels.

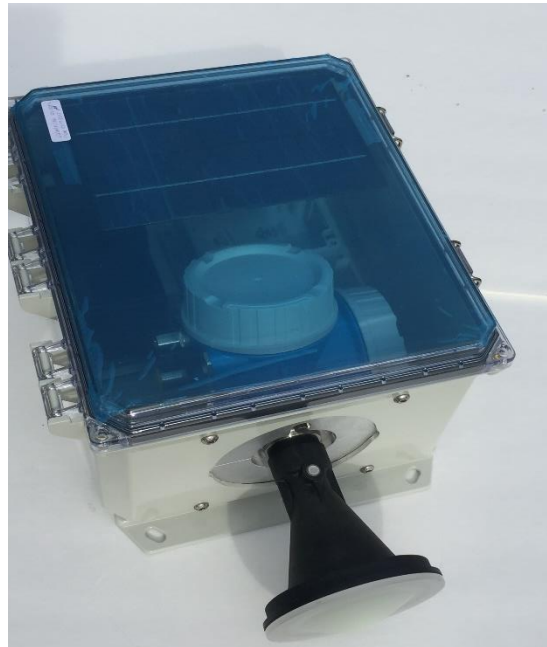
- GPS module  
Equipped with a GPS, the iRadar will report its precise location useful for portable operations.

## AIRTIME & DATA COST:

The iRadar uses a binary compressed data format to minimize airtime data costs. A typical deployment, reporting stream level once per hour cost approximately \$13.50 per month.

## REMOTE CONFIGURATION:

The iRadar measurement and communication intervals can be configured and adjusted remotely after deployment through the 2-way SBD satellite link.



The iRadar is an innovative low-cost water level gauge that is easily deployed on bridges and other structure to measure water levels. It provides real-time data through the Iridium satellite network. The Iridium network provides global 24/7 coverage throughout the world.

Having real-time data can be critical for monitoring, predicting and issuing warnings to the public for river, coastal as well as inland flooding.

The iRadar is completely self-contained powered by a battery with solar panel charging which allows it to be deployed in remote areas without power or communication.

The compact enclosure makes it easily deployable wherever there is a bridge or other structures over the water.

The iRadar was developed under a Cooperative Research and Development Agreement with National Weather Service Alaska River Forecast Center a unit of

- Measures distance to water using a 26 Ghz pulsed radar up to 65.6 ft (20 meters) with options for 40 and 70 meters.
- No external wiring required, completely self-contained.

Compact form factor  
12.6 x 10.6 x 7.1 in  
(18 x 10.5 x 7.1 in w radar horn)

- No Infrastructure required
- Battery powered with solar charging provides continuous operation 24/7.
- Global communication coverage through the Iridium satellite network. Works anywhere on the globe.
- Real-time reporting.
- Real-time clock maintains time synchronized with satellite network.
- Compact size makes iRadar easily deployed on bridge or other structures.

# Installation and Deployment



The compact size and weight of the iRadar makes deploying a new iRadar very straight forward process. On the left is a typical bridge deployment using commercial off the shelf parts commonly available at retail and wholesale providers.

The weight of the iRadar at 16.50 lbs. does not require heavy duty hardware and can easily be mounted on electrical conduit using stainless steel hose clamps.

The two requirements for reliable operation are to provide clear sky to sunlight for charging as well as a clear view of the sky for satellite communication.

Bridge mounting inevitably requires some compromise as the bridge may obscure satellite coverage (shadowing) but in most cases the iRadar will still produce acceptable

## TECHNICAL SUPPORT

We pride ourselves in providing excellent customer service.

We believe our success is totally dependent on our customer's experience and success of their mission.

## DATA DELIVERY

Upon deployment, data is immediately available through our web site. Our data service provides an API to integrate data into your infrastructure or website. We support multiple data formats including html, json, csv, xml and shef.

## TURNKEY SOLUTION

The iRadar provides a turnkey solution for water level monitoring without requiring infrastructure. They may be deployed on a permanent or temporary or portable basis.

## FURTHER INFO

For more information on any of our products or services please visit us on the Web at:

[www.stilltek.com](http://www.stilltek.com)

## iRadar Specifications

Distance Measurement: 3-66 ft (1-20m)

Distance Accuracy: +/- 2 mm

Distance Resolution: +/- 1 mm (.04in)  
Size: 12.6 x 10.6 x 7.1 in  
(18 x 10.5 x 7.1 in w radar)

Weight: 16.50lb

Power Battery: 6VDC (10.0Ah)  
Solar: 9VDC (4 Watt)  
Avg Current: < 2ma w/ hourly transmission

Communication: Iridium Short Burst Data  
two-way transceiver

Data Format: json, html table, csv,  
xml, shef

Warranty: 90-day warranty.  
2 year on Radar unit

Other: Real Time Clock  
1024 Kbit Non-volatile storage  
(~2yr data logging)  
On board and outside air temperature sensor

## OPTION SPECIFICATION

Distance  
20m 7-131 ft (2-40m)  
70m 7-230 ft (2-70m)  
Accuracy:  
40,70m +/- 3mm

## SERVICES AVAILABLE

Technical Support  
Installation and Setup  
Maintenance  
Application Support  
Hardware Support  
Extended Warranty



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