

# iSurface

- Surface rated Iridium® beacon
- Asset tracking in the open ocean
- Heat resistant construction
- Robust, durable design



TRACKING & MONITORING

NOVATECH™ products have been proven throughout the world's oceans and trusted around the globe for over 40 years.

The NOVATECH™ iSurface is a lightweight, self-contained, user serviceable, bi-directional GPS satellite beacon that utilizes the features and functionality of the Iridium satellite network. The iSurface offers global, pole-to-pole coverage for surface mooring and buoy monitoring requirements. The easy to install beacon uses standard "D" cell batteries and is designed to report 4,500+ Short Burst Data (SBD) messages or operate for approximately 1.5 years after installation.

The iSurface is suitable for long duration deployments and is designed for asset tracking on the open ocean. Manufactured and tested in Atlantic Canada, the iSurface was designed with harsh marine environments in mind.



# iSurface

## TECHNICAL SPECIFICATIONS

### TEMPERATURE

Operating Temperature (excluding batteries) -30 to +70 C  
Storage Temperature (excluding batteries) -40 to +85 C

### BATTERY TEMPERATURE

*Applies to version with internal batteries.*

Battery Type Alkaline  
Operating Temperature -18 to +55 C typical (batt. dependnt)  
Storage Temperature -40 to +50 C typical (batt. dependnt)

### ELECTRICAL

#### Power Supply

Batteries (iSurface) 7x Alkaline D-cells  
Power Supply Voltage (iSurface-RH) 7 to 28 VDC

### POWER CONSUMPTION

*Typical values at room temperature w/ a supply voltage of 12 VDC.*

Mode of Operation	Condition	Current
Sleep	7 to 28 VDC	< 20 $\mu$ A
GPS Location Acquisition	First fix	24 mA
Iridium SBD Transmission	Avg. current trans. Peak, 10 ms bursts	135 mA 1000 mA

### INRUSH CURRENTS

Typical inrush currents with a supply voltage of 12 VDC  
Peak in-rush current TBD  
In-rush current pulse duration TBD

### REVERSE VOLTAGE INPUT

Reverse Polarity Protection -40 VDC maximum

### GPS RECEIVER

Receiver type 48-channel L1 SiRFstarIVTM receiver  
Frequency Range 1616 to 1626.5 MHz  
Sensitivity -117 dBm

### ANTENNA

Type Dual band GPS/Iridium ceramic patch

### OPERATION

*On/OFF control is achieved via a magnetic reed switch. When an external magnet is present, the unit is forced into a low-power sleep mode to conserve energy.*

### CONNECTIVITY

Local Bluetooth SPP (Serial Port Profile)  
Remote Iridium SBD

### CONFIGURATION INTERFACE

Local Configuration Bluetooth SPP communications using a Windows Application  
Over-The-Air Configuration Bi-directional Iridium SBD communications using Relay (Asset Management Website)

### PHYSICAL

Weight: 2.2 kg (4.85 lbs)  
Overall Length: 52 cm (20.47")  
Hull Width: 4.8 cm (1.89")  
Head Unit Width: 6.7 cm (2.63")  
Material Anodized Aluminum