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.

NOVATECH™ products have been proven throughout the world’s oceans and trusted around the globe for over 40 years.
## 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. depndnt)
- **Storage Temperature:** -40 to +50 C typical (batt. depndnt)

### 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.

<table>
<thead>
<tr>
<th>Mode of Operation</th>
<th>Condition</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep</td>
<td>7 to 28 VDC</td>
<td>&lt; 20 µA</td>
</tr>
<tr>
<td>GPS Location Acquisition</td>
<td>First fix</td>
<td>24 mA</td>
</tr>
<tr>
<td>Iridium SBD Transmission</td>
<td>Avg. current trans. 135 mA, Peak, 10 ms bursts 1000 mA</td>
<td></td>
</tr>
</tbody>
</table>

### 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")
- **Hull Material:** Anodized Aluminum
- **Cap:** Delrin

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