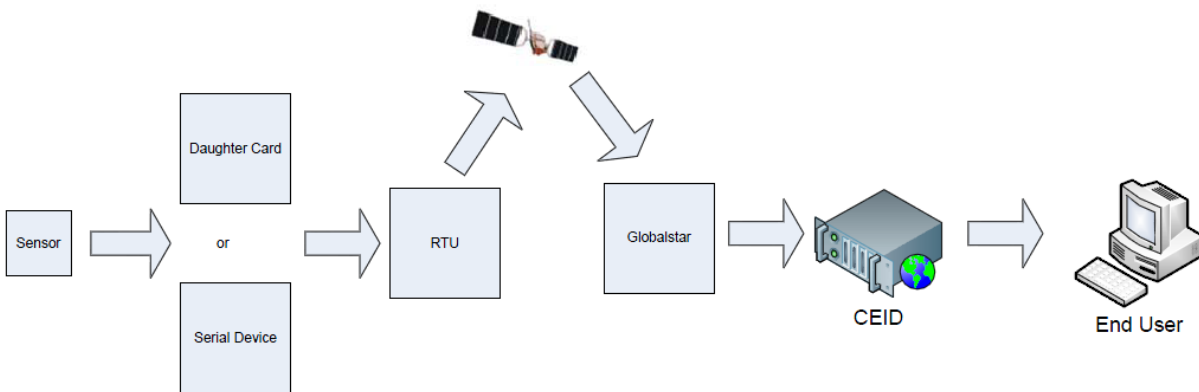


# GL2100 Operation Description

## **Overview:**

The GL-2100 is part of a system designed to transmit various types of data through the Globalstar Network. The internal workings of the system are transparent to the user allowing them to send serial data through the network through a Serial Interface Engine (SIE) or from an external sensor. All details required to transmit the packet are handled by the system. The data then flows through Globalstar to a server at Cutting Edge Industrial Design when the data is then pushed out to the client.



## **Daughter Board:**

Field data can enter the GL-2100 through a standard RS232 connection or through a sensor. This data is conditioned and formatted by the Daughter Card. The Daughter Card decides when the data is to be transmitted. The data is then serially handed off to the Main Board where the transmission of the information is handled.

## **Main Board:**

The Main Board has a on board GPS and a STX2 (Satellite Communication Module). When the Daughter Card makes a request to transmit the data the Main Board will look at the GPS coordinates to determine what frequency to transmit on. This will depend on the proximity to a Radio Astronomy Site. Data is then transmitted in a 9 or 36 Byte packet through Globalstar. The antenna is a shared GPS – Globalstar patch antenna (4 ½ dBic). The RF switch is controlled by the Main Board processor and will isolate the GPS module during satellite transmission.