



Scientific Instrument Interface Module (SIIM)

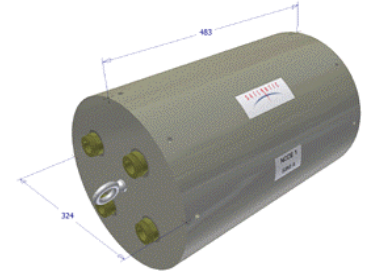
Satlantic's Scientific Instrument Interface Module (SIIM) is an advanced unit for underwater sensor interfacing specifically designed for cabled observatories and other real time acquisition applications. The SIIM provides power distribution and Ethernet protocol conversion to scientific sensors and allows for cost effective collection of complex sensor arrays. The SIIM is available in shallow water diver serviceable and deep-water deployable systems.

Designed for easy control and monitoring, the SIIM interfaces directly into Satlantic's Data Acquisition and Control Network (**DACNet**) ocean observatory operating system. In more complex distributed systems it can form the collection point through the Satlantic Node Control Module (**NCM**).

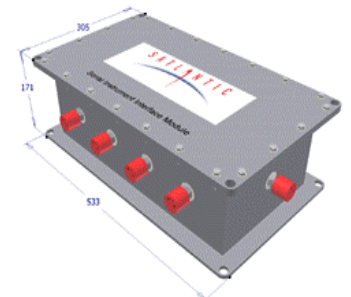
The SIIM system is scalable for various applications, but typically includes a 48VDC or 400VDC input for power of up to 2800W and a 10/100BASE-TX network interface. For fiber optic systems and higher voltage applications, the NCM is recommended.

The SIIM power system has network addressable power switching for up to six devices, each with their user selectable voltages (5, 6, 12, 15, 18, 24, 36, 48) at up to 10A each, although special applications can be accommodated. Power channels are isolated and fault protected from thermal, overcurrent, and ground faults. Power channel isolation prevents faults on one channel from affecting other channels on the SIIM. The DACNet interface provides remote monitoring and control of each power channel, either automatically or manually for full system control.

The SIIM communications system provides managed network switches using SNMP for main 10/100BASE-TX communications and allows sensor inputs of EIA232/422/485 or 10/100BASE-TX. SNMP management of the communications system enables automated or manual adjustments to network operation. Both the SNMP Manager and DACNet will alert the system operator of fault conditions by email and through the main DACNet GUI.



Deep Water Module



Shallow Water Module



The SIIM system is highly modular and is easy scalable providing a highly flexible solution for underwater sensor networking. Combined with the NCM and DACNet, these products provide users with the full capabilities of Satlantic's Ocean Observatory System representing the most reliable, cost effective, commercial-off-the-shelf solution to ocean monitoring programs.

SIIM Specifications

Depth Ratings

Shallow: 50m or Deep: 300m

Pressure Case

Titanium or Stainless Steel

System Interface

Input Power:

36-75VDC or 250-425VDC up to 10A

Communications:

10/100BASE-TX

Interface:

SEA CON MINO-8-CCPL or Subconn BH-8-FS

Instrument Interface

Instrument Ports:

4-6 typical (scalable to meet user requirements)

Output Power:

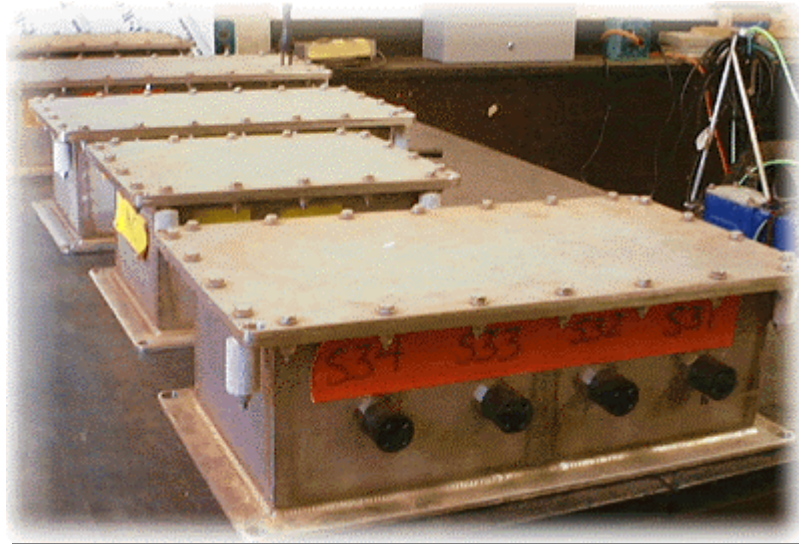
5, 6, 12, 15, 18, 24, 36, 48VDC up to 10A

Communications:

EIA-232/422/485 and 10/100BASE-TX

Interface:

SEA CON MINO-8-CCPL or Subconn BH-8-FS



SIIM Shallow Module
Bonne Bay Observatory