1. Instrument Overview

<table>
<thead>
<tr>
<th>Instrument Name:</th>
<th></th>
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<tbody>
<tr>
<td>PI Name(s):</td>
<td></td>
</tr>
<tr>
<td>Employer/Affiliation:</td>
<td></td>
</tr>
<tr>
<td>Phone Number:</td>
<td></td>
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<tr>
<td>Email Address:</td>
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<tr>
<td>Planned Proposal Date:</td>
<td></td>
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<tr>
<td>Instrument Vendor (or developer):</td>
<td></td>
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<tr>
<td>Instrument Model (if commercial):</td>
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<tr>
<td>Proposed Location(s):</td>
<td></td>
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<tr>
<td>Deployment Depth (m):</td>
<td></td>
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<tr>
<td># Instruments Requested:</td>
<td></td>
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<tr>
<td>Expected Deployed/Operational Life:</td>
<td></td>
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<tr>
<td>Maturity of Instrument (e.g. commercial, prototype, concept):</td>
<td></td>
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<tr>
<td>Estimated Deployment Readiness Date:</td>
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Brief Description of Instrument/Platform Objectives:
2. Electrical

2.1 Instrument Power Requirements

<table>
<thead>
<tr>
<th>Input Voltage Range (V)</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Peak Operating Current (A)</td>
<td></td>
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<tr>
<td>Power-on Inrush Current (A)</td>
<td></td>
</tr>
<tr>
<td>Power-on Inrush Duration (ms)</td>
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</tbody>
</table>

Describe any known sensitivity to power supply noise:

2.2 Electrical Isolation

☐ Instrument is electrically isolated from seawater

If not, Explain:

2.3 Communication Protocol(s) (select supported):

☐ RS-232; ☐ CTS/RTS required? ☐ RS-422
☐ RS-485 (half duplex) ☐ RS-485 (full duplex)
☐ Ethernet: 10Base-T ☐ Ethernet: 100Base-T
☐ Other:  

2.4 Timing (select all that apply):

☐ Instrument has an internal real-time clock
☐ Instrument uses 1 PPS signal input
☐ Instrument connects to an external NTP server
☐ Instrument connects to a PTP server
☐ Instrument clock can be set via software command

Describe Expected Method for time-stamping data:

Other electrical information (e.g., on-board processor type/limitations):


3. Mechanical

3.1 Dimensions

<table>
<thead>
<tr>
<th>Length (inches)</th>
<th>(cm)</th>
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</thead>
<tbody>
<tr>
<td>Width (inches)</td>
<td>(cm)</td>
</tr>
<tr>
<td>Height (inches)</td>
<td>(cm)</td>
</tr>
</tbody>
</table>

3.2 Weight

| Dry Weight (lb) | (kg) |
| In water weight (lb) | (kg) |

3.3 Depth Rating

Maximum Depth Rating (m)

3.4 Materials

List Materials in contact with seawater:

3.5 Connector

Connector Model and Pinout (may be attached as a separate sheet):

3.6 Photos/Drawings

Please provide drawings, photos, or solid models attached as a separate sheet.

Other mechanical information:

4. Deployment, Recovery and Handling

4.1 Deployment

☑️ Instrument will be mounted directly on existing platform
☐ Instrument has its own platform or frame
Describe deployment operations (e.g. free fall to seafloor, use of ship's wire, ROV handling), including any special preparation required (may be attached as a separate sheet):

4.2 Recovery

Describe recovery operations, including any special post-recovery procedures (may be attached as a separate sheet):

4.3 Special Sampling/Calibration/Verification Requirements

Describe any special reference measurements or samples that must be taken during deployment and/or recovery of the instruments, or considered for placement on the array (e.g., must be near CTD, gas tight fluid sample needed, etc.):

4.4 Special Handling

Describe any special handling considerations (e.g. instrument must be kept in temperature-controlled environment):

Other deployment, recovery, or handling information:
5. Output Data & Command/Control

5.1 Output Data (select all that apply)

- Data will be streamed in real (or near-real) time
- Data will be recovered from instrument after deployment (e.g., sample analysis)

List measured scientific parameters (may be attached as a separate sheet):

- Sampling Frequency (Hz)
- Data Output Frequency (Hz)
- Estimated daily data output (MB)

Describe the output data and provide an example data record (may be attached as a separate sheet):

5.2 Command and Control (Select all that apply)

- Instrument requires remote command interface to operate
- Top-side GUI-based software is available for operations
- Instrument can be operated through a command line interface

Describe instrument command protocol (may be attached as separate sheet):

Other output data and command/control information:
5.3 Data Embargo

A one-year data embargo is requested and will be included in the Data Management Plan.

Describe data embargo considerations (may be attached as separate sheet):

6. Environmental

Select all that apply

☐ While deployed, instrument will be in contact with the seafloor

If checked, describe the interface with the seafloor (e.g. on tripod, within frame, buried in caisson, etc.):

If checked, provide frequency (including out-of-band emissions), source level and interval of acoustic output:

☐ Instrument outputs acoustic signals

☐ Instrument outputs optical signals

If checked, provide wavelength, power level, and interval of optical output:

If checked, list exhausted chemicals, concentrations, volume and output interval:

☐ Instrument exhausts chemicals into surrounding water

☐ Instrument is sensitive to environmental outputs from other deployed equipment

If checked, describe sensitivity to other equipment:

If checked, how close and to which instrument/platform (e.g., within 20m of installed pressure sensor)

☐ Instrument should be deployed adjacent to or near another instrument or platform

Other environmental information:
7. Marine Implementing Organization Review

Suggested Node(s) & Port(s):

Port Modifications Needed:

Platform Modifications or Mounting Equipment Needed:

Recommended Configuration (connectors, type, length):

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Overall Instrument Readiness

- READY - Instrument is fully developed; interfaces are known and understood
- Minor modifications are needed to make this instrument ready
- More development is needed to make instrument ready (this may include selection and implementation of communications protocols, conversion from battery power, etc.)