

## ARIS Defender 1800 Specifications

### *Detection Mode*

|                         |                              |
|-------------------------|------------------------------|
| Operating Frequency     | 1.1 MHz                      |
| Beamwidth (two-way)     | 0.5° H by 14° V              |
| Source Level (average)  | 204 dB re 1 $\mu$ Pa at 1 m  |
| Nominal Effective Range | 35m @ 15°C water temperature |

### *Identification Mode*

|                         |                              |
|-------------------------|------------------------------|
| Operating Frequency     | 1.8 MHz                      |
| Beamwidth (two-way)     | 0.3° H by 14° V              |
| Source Level (average)  | 195 dB re 1 $\mu$ Pa at 1 m  |
| Nominal Effective Range | 15m @ 15°C water temperature |

### *Both Modes*

|                       |                                                           |
|-----------------------|-----------------------------------------------------------|
| Number of beams       | 96                                                        |
| Beam Spacing          | 0.3° nominal                                              |
| Field-of-View         | 28° horizontal x 14° vertical                             |
| Max frame rate        | 3.5-12 frames/sec                                         |
| Minimum Range Start   | 0.7m                                                      |
| Downrange Resolution  | 3mm to 23mm                                               |
| Transmit Pulse Length | 4 $\mu$ s to 40 $\mu$ s                                   |
| Remote Focus          | 0.7m to infinity                                          |
| Power Consumption     | 20 Watts typical                                          |
| Weight in Air         | 12.36 kg (27.25 lb) <i>As Explorer</i> 6.11 kg (13.44 lb) |
| Weight in Water       | Neutral 1.89 kg (4.16 lb)                                 |
| Dimensions            | 47cm x 24cm x 22cm                                        |
| Depth rating          | 100m <i>As Explorer</i> 300m (1000 ft)                    |

|                      |               |
|----------------------|---------------|
| Data Comm Link       | HomePlug      |
| Maximum cable length | 150m (500 ft) |

|                                        |                                               |
|----------------------------------------|-----------------------------------------------|
| <i>Data Power Pack</i>                 | 28.8V Li-ion battery, up to 4-hour operation  |
|                                        | 64 Gb data storage, minimum 14-hour recording |
| <i>Underwater Head Mounted Display</i> | 800 x 600 SVGA                                |

|                               |               |                                        |
|-------------------------------|---------------|----------------------------------------|
| Data Comm Link                | HomePlug      | 100BaseT Ethernet                      |
| Maximum standard cable length | 150m (500 ft) | 3m (10 ft) <i>ROV Integration Whip</i> |

|                               |                                          |
|-------------------------------|------------------------------------------|
| Minimum PC Requirements:      | Windows 10 or Higher                     |
|                               | 100BaseT Wired Ethernet (USB Adapter OK) |
| Recommended PC Configuration: | DirectX 11 compatible graphics           |

|                |                |
|----------------|----------------|
| Multi-Core CPU |                |
| 16 GB RAM      | 1 GB Video RAM |

