

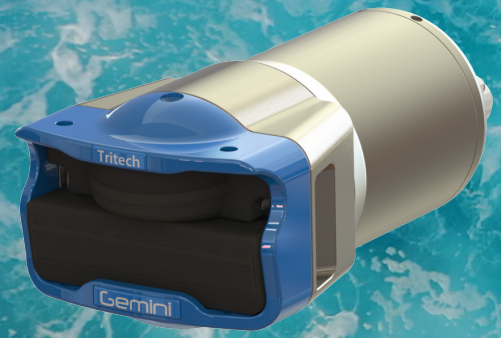
Gemini 1200id

High resolution, dual-frequency forward-looking imaging multibeam sonar

The Gemini 1200id multibeam sonar operates at two acoustic frequencies, 720kHz for long range target detection, and 1200kHz for enhanced high-resolution imaging. With the same physical size and connection interface as the Gemini 720is, the Gemini 1200id offers an easy upgrade path to higher resolution imaging.

The Gemini 1200id is built on the same platform as the industry standard 720is sonar. It features, a wide 120° horizontal field of view when operating at 720kHz or 1200kHz frequencies and has improved attenuation of waterborne electrical noise for optimal imaging performance. An integrated velocity-of-sound sensor ensures that a target is displayed to a high degree of positional accuracy. CHIRP processing provides improved target separation over longer ranges.

The 1200id is fully compatible with Tritech's software package, Genesis. This ensures improved user interaction and allows for control of multiple Tritech products from within one software package. Software development kits (SDK) are also available for Windows and Linux operation systems.



Benefits

- Obstacle Avoidance
- ROV/AUV Navigation
- Detailed object imaging
- Target Detection
- Subsea monitoring

Features

- Switch between 720 kHz and 1200 kHz
- Wide 120° horizontal field of view
- CHIRP processing
- Integrated velocimeter for accurate ranging
- Real-time video-like imagery
- Long range object detection
- Short range detailed imaging
- Same size and interfaces as the Gemini 720is
- Software development kit available

| Key Specification | Low Frequency Mode | High Frequency Mode |
|---------------------|--------------------------------|--------------------------------|
| Operating frequency | 720 kHz | 1200 kHz |
| Angular resolution | 1.0° acoustic, 0.25° effective | 0.6° acoustic, 0.12° effective |
| Range | 0.1 m - 120 m / 4 in - 394 ft | 0.1 m - 50 m / 4 in - 164 ft |
| Depth rating | 4000 m / 13123 ft | |
| Supply Voltage | 19 to 74 VDC | |
| Power Requirements | 16 - 27 W (range dependent) | |
| Main Port Protocol | Ethernet or VDSL | |
| Update rate | 5 - 40 Hz (range dependent) | |
| Mode of operation | CHIRP or CW | |

| Acoustic specifications | Low frequency mode | High frequency mode |
|-------------------------|--|--------------------------------|
| Operating frequency | 720 kHz | 1200 kHz |
| Angular resolution | 1.0° acoustic, 0.25° effective | 0.6° acoustic, 0.12° effective |
| Range | 0.1 m - 120 m / 4 in - 394 ft | 0.1 m - 50 m / 4 in - 164 ft |
| Number of beams | 512 | 1024 |
| Horizontal beam width | 120° | 120° |
| Vertical beam width | 20° | 12° |
| Range resolution | 4 mm / 0.2 in | 2.4 mm / 0.1 in |
| Update rate | 5 - 40 Hz (range dependent) | |
| Mode of operation | CHIRP and CW | |
| Speed of sound | Integrated Velocity of Sound sensor for accuracy | |

Interface

| | |
|-------------------------|--|
| Supply voltage | 19 to 74 Vdc |
| Power requirement | 16 - 27 W (range dependent) ¹ |
| Main port protocol | Ethernet or VDSL |
| Auxiliary port protocol | RS232, RS485 (half duplex), TTL in, Ethernet |
| Connector type | Seacon 55 series, Subconn FCR 15 series or Schilling SeaNet |
| VDSL cable length | Maximum length for VDSL and power is 300 m / 984 ft, if power is provided locally the maximum length for VDSL communication is 500 m / 1640 ft |

Physical specification

| | |
|--------------------------------|----------------------------------|
| Depth rating | 4000 m / 13123 ft |
| Weight in air | 5.0 kg / 11.0 lbs |
| Weight in water | 3.0 kg / 6.6 lbs |
| Temperature rating (operating) | -10 °C to 35 °C / 14 °F to 95 °F |
| Temperature rating (storage) | -20 °C to 50 °C / 4 °F to 122 °F |

| Software requirements | Minimum | Recommended |
|-----------------------|---------------------------------------|-----------------|
| Included | Genesis | |
| Processor | 2 GHz | 3 GHz Quad Core |
| Graphics | 3D hardware accelerated graphics card | |
| SDK | Available on request | |
| Operating system | Microsoft Windows 7, 10, 11 | |

Specification subject to change in line with Tritech's policy of continual product development

¹ The power consumption range quoted is accurate for a standalone unit and ignores cable losses

