

Gemini 720is

Real-time multibeam imaging sonar



Applications

- ROV/AUV navigation
- Obstacle avoidance
- Target recognition
- Search and Recovery
- Object detection

The 720is is a key product in Tritech's renowned multibeam sonar range and offers a realtime, high frequency imaging solution. The Gemini 720is operates at 720 kHz and this combined with Tritech's state-of-the-art processing electronics, produces images of superb clarity in harsh and deep water applications.

Benefits

- Near field focusing
- 4 mm / 0.2 in range resolution
- Clear wide angle field of view
- Suitable for low visibility environments
- Easier interpretation of sonar imagery

Features

- 720 kHz operating frequency
- CHIRP processing
- Wide 120° field of view
- Real-time updates for video like imagery
- Integrated velocimeter for accurate ranging

With 120° field of view and a fast update rate, the Gemini 720is is ideal for poor visibility environments.

The Gemini 720is is supplied with Genesis, Tritech's data acquisition and logging software, which offers users the ability to network and operate the sonar along with a range of other Tritech sensors from a single software interface.

The Genesis software offers additional features such as target tracking and already allows you to run a number of other Tritech sensors alongside your Gemini 720is such as MicronNav 200 USBL tracking system and Mechanical scanning sonars.

| Key Specification | |
|---------------------|---|
| Operating frequency | 720 kHz |
| Angular resolution | 1.0° acoustic, 0.25° effective |
| Range | 0.1 m - 120 m / 4 in - 394 ft |
| Supply voltage | 19 to 74 VDC |
| Power requirement | 16 - 27 W (range dependent) |
| Main port protocol | Ethernet or VDSL |
| Depth rating | 1000 m / 3281 ft or 4000 m / 13123 ft |
| Weight in air | 3.40 kg / 7.50 lbs or 5.00 kg / 11.02 lbs |
| Weight in water | 1.30 kg / 2.86 lbs or 3.00 kg / 6.61 lbs |

| Acoustic Specifications | |
|-------------------------|--|
| Operating frequency | 720 kHz |
| Angular resolution | 1.0° acoustic, 0.25° effective |
| Range | 0.1 m - 120 m / 4 in - 394 ft |
| Number of beams | 512 |
| Horizontal beamwidth | 120° |
| Vertical beamwidth | 20° (tilted down 10°) |
| Range resolution | 4 mm & 8 mm / 0.2 in & 0.3 in ¹ |
| Update rate | 5 - 97 Hz (range dependent) |
| Mode of operation | CHIRP or CW |

| Interface | |
|-------------------------|--|
| Supply voltage | 19 to 74 VDC |
| Power requirement | 16 - 27 W (range dependent) ² |
| 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 |

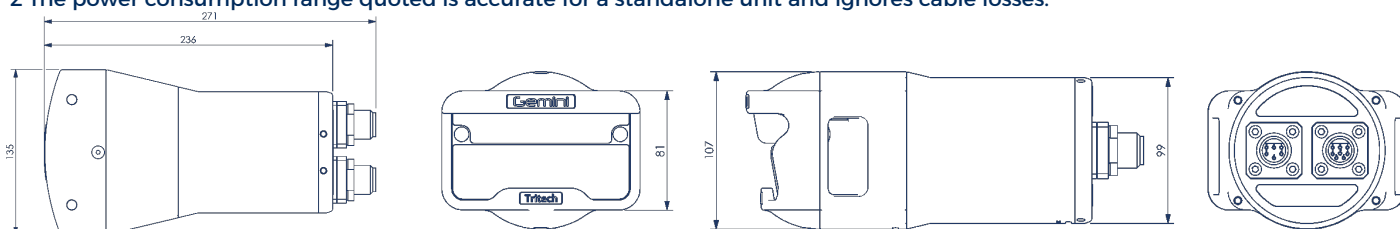
| Physical specification | |
|--------------------------------|---|
| Depth rating | 1000 m / 3281 ft or 4000 m / 13123 ft |
| Weight in air | 3.40 kg / 7.50 lbs or 5.00 kg / 11.02 lbs |
| Weight in water | 1.30 kg / 2.86 lbs or 3.00 kg / 6.61 lbs |
| Temperature rating (operating) | -10 °C to 35 °C / 14 °F to 95 °F |
| Temperature rating (storage) | -20 °C to 50 °C / 4 °F to 122 °F |
| Dimensions | 271 mm x 135 mm x 107 mm / 10.67 in x 5.32 in x 4.22 in |

| Software | 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 | |

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

1 Software switchable.

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



Tritech International Limited
Peregrine Road, Westhill Business Park
Westhill, Aberdeenshire AB32 6JL
United Kingdom
Email: sales@tritech.co.uk
Tel: +44 (0)1224 744111
Marketed by:

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