

Micron Gemini

Real-time micro multibeam imaging sonar



Applications

- Obstacle avoidance
- Target Identification
- Navigation
- Diver operations

The Micron Gemini is the latest addition to Tritech's Micron and Gemini product families and offers powerful, real-time sonar imaging in the body of a Gemini 720im. With greatly improved image quality, a 90° horizontal field of view and 50m range, the Micron Gemini offers cost effective obstacle avoidance and navigation for small ROVs and AUVs, as well as utilisation with Tritech's Diver Mounted Display system.

Benefits

- Improved image quality
- 90° horizontal field of view
- Ethernet and serial communications
- Serial Auxiliary port
- Low power

Features

- 20Hz update rate
- 300m or 750m depth rated
- CHIRP & CW processing
- Depth, pressure and temperature readings
- Optional built in AHRS

With Tritech's advanced processing electronics, the Micron Gemini operates at 720kHz, to produce images of outstanding clarity. The system benefits from 128 beams and an effective angular resolution of 0.7°.

To ensure the most detailed image possible, the Micron Gemini utilises advanced adaptive processing by switching between Compressed High Intensity Radar Pulse (CHIRP) and Continuous Wave (CW) modes of operation.

With incredibly compact dimensions, the Micron Gemini can be used in applications where size is critical but a small mechanically scanning sonar doesn't offer the real-time imaging required. Alongside improved image quality, the Micron Gemini now includes a built in pressure sensor, depth sensor and optional AHRS.

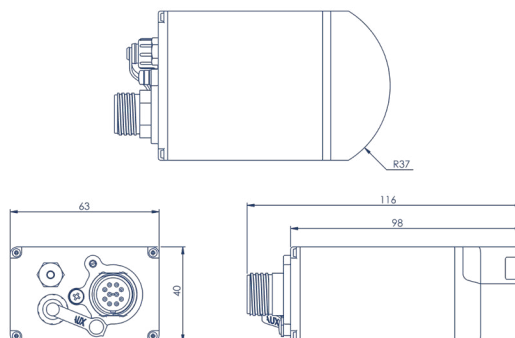
Key Specification	
Operating frequency	720kHz
Angular resolution	2.34° acoustic, 0.7° effective
Range	0.2m to 50m / 0.6ft to 164ft
Supply voltage	12 to 48V DC
Power requirement	5W - 8.5W (range dependent)
Main port protocol	Ethernet (100Base-T) and/or Serial (RS232 or RS485)
Depth rating	300m / 1148ft or 750m / 2460ft
Weight in air	0.43kg / 0.97lbs
Weight in water	0.24kg / 0.53lbs

Acoustic Specifications		Integrated Sensors		
Operating frequency	720kHz	Depth	Integrated pressure sensor	
Angular resolution	2.34° acoustic, 0.7° effective	Temperature	Integrated temperature sensor	
Range	0.2m to 50m / 0.6ft to 164ft	Attitude & Heading	AHRS sensor ¹	
Number of beams	128	Software	Minimum	Recommended
Horizontal beam width	90°	Included	Genesis	
Vertical beam width	20° (±10° about horizontal axis)	Processor	2GHz	3GHz Quad Core
Range resolution	8mm / 0.31in	Graphics	3D hardware accelerated graphics card	
Update rate	3 to 20Hz (range dependent)	SDK	Available on request	
Mode of operation	CW or CHIRP	OS	Microsoft Windows 7, 10	

Interface	
Supply voltage	12 to 48V DC
Power requirement	5W - 8.5W (range dependent)
Main port protocol	Ethernet (100Base-T) and/or Serial (RS232 or RS485)
Auxiliary port protocol	Serial (RS232 or RS485)
Connector type	Main: Impulse MKS(W)-3L10, Impulse MKS(W)-307 & Trittech Micron Aux: Trittech Micron

Physical specification	
Depth rating	300m or 750m / 984ft or 2460ft
Weight in air	0.43kg / 0.97lbs
Weight in water	0.24kg / 0.53lbs
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

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



Not to scale. Measurements in mm.

Trittech 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:

0729-SOM-00001 Issue: 05

