

Gemini 720ik

Real-time multibeam imaging sonar



A real-time, high frequency imaging solution, the Gemini 720ik operates at 720kHz and combined with Trittech's advanced processing electronics, it produces images of outstanding clarity, benefitting from 512 beams which results in a 0.25° effective angular resolution.

The Gemini 720ik has been developed specifically for shallow water operations with low power consumption and Compressed High Intensity Radar Pulse (CHIRP) processing for greater definition at long range. The product also has an integrated Velocity of Sound (VoS) sensor to ensure extremely accurate imaging and measurement.

The Gemini 720ik is supplied with Seanet Pro, Trittech's data acquisition and logging software, which offers users the ability to operate a number of Trittech sensors using this single software program.

A stand-alone Gemini software package provides users with a range of additional software features. This software can be upgraded to Gemini SeaTec for target identification, classification and tracking.

The capability to record data in a range of digital video formats and output screen shots for review comes as standard.



Compact underwater visualisation

The Gemini 720ik is the latest generation from Trittech's renowned multibeam sonar range and is ideal for small ROVs and shallow water operations.

At 1m range, this product offers a world-class 97Hz update rate for video-like imagery. Target tracking algorithms developed by SeeByte are embedded within the Gemini software as standard.

Benefits

- Near field focusing
- 8mm range resolution
- 350m depth rating
- Crisp, clear wide angle field of view
- Suitable for low visibility environments

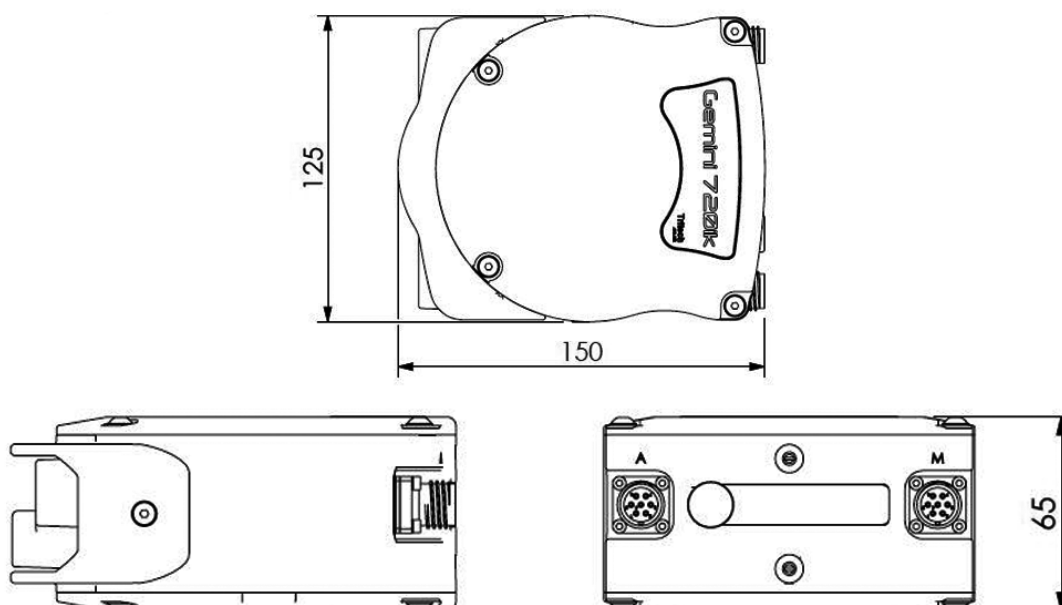
Features

- Real-time updates for video-like imagery
- World-class 97Hz update rate
- 120° field of view
- CHIRP processing
- Integrated velocimeter for accurate ranging
- Software development kit available
- SeeByte embedded target algorithms

Applications

- ROV/AUV navigation
- Obstacle avoidance
- Diver operations
- Target recognition
- Subsea monitoring and inspection

Specification



All dimensions are in mm, not to scale

Acoustic specifications	
Operating frequency	720kHz
Angular resolution	1.0° acoustic, 0.25° effective
Range	0.2m - 120m
Number of beams	512
Horizontal beamwidth	120°
Vertical beamwidth	20° (±10° about horizontal axis)
Update rate	5 - 97Hz (range dependent)
Range resolution	8mm
CHIRP support	Yes
Speed of Sound	VoS sensor

CHIRP support	
Supply voltage	19V to 74V DC
Power requirement	16W - 27W (range dependent) ¹
Main port protocol	Ethernet
Auxiliary port (optional)	RS232, TTL in, pass-through power
Connector type	MAIN port: Impulse MKS(W)-307-FCR AUX port: Impulse MKS(W)-307-FCR

Physical specification	
Depth rating	350m
Weight in air	1.40kg
Weight in water	0.43kg
Temperature rating	-10°C to 35°C (operating), -20°C to 50°C (storage)

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

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

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