

Accessory Data Sheet

Gemini 720ik

A real-time, high frequency imaging solution, the **Gemini 720ik** operates at 720kHz and combined with Tritech'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, Tritech's data acquisition and logging software, which offers users the ability to operate a number of Tritech 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.

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



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

INTERFACE

Supply Voltage	19V to 74V DC
Power Requirement	16W - 27W (range dependent)
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 SPECIFICATIONS

Depth Rating	350 m (1150 ft)
Weight in Air	1.40kg
Weight in Water	0.43kg
Temperature Rating	-10°C to 50°C (operating), -20°C to 50°C (storage)

BENEFITS

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

APPLICATIONS

- ROV navigation
- Obstacle avoidance
- Diver operations
- Taret recognition
- Subsea monitoring and inspection

