

# Gemini Imaging Sonars

## Comparison sheet

Tritech has a range of Multibeam imaging sonars which can be used for shallow water operations and also deep water operations. The Gemini sonars are suitable for integration onto ROVs, AUVs, Vessel/Pole mounted and Diver Navigation Platforms.



MicronGemini 720s

Shallow water navigation and obstacle avoidance.



Gemini 720ik

Shallow water navigation, obstacle avoidance and target inspection.



Gemini 1200ikd

Shallow water navigation, obstacle avoidance and high resolution target inspection.



Gemini 720is

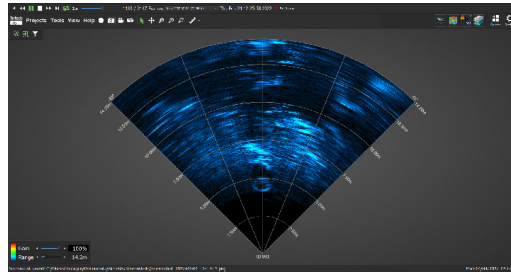
Deep water navigation, obstacle avoidance and target inspection.

Specification	MicronGemini 720s	Gemini 720ik	Gemini 1200ikd		Gemini 720is	
Operating frequency	720 kHz	720 kHz	720 kHz	1200 kHz	720 kHz	
Horizontal beamwidth	90°	120°	120°		120°	
Vertical beamwidth	20°	20°	20°	12°	20°	
Effective angular resolution	0.7°	0.25°	0.25°	0.12°	0.25°	
Maximum range	50 m	120 m	120 m	50 m	120 m	
Range resolution	8 mm	4 mm	4 mm	2.4 mm	4 mm	
Minimum range	0.2 m	0.2 m	0.1 m		0.2 m	
Supply voltage	12 to 48 V DC	19 to 74 V DC	19 to 74 V DC		19 to 74 V DC	
Comms	Ethernet Serial (RS232 / RS485)	Ethernet	Ethernet		Ethernet VDSL	
Material	Aluminium	Aluminium	Aluminium		Alu	Titanium
Depth rating	300 m or 750 m	350 m	350 m	1000 m	1000 m	4000 m
Weight in air	0.43 kg	1.40 kg	1.46 kg	2.03 kg	3.4 kg	5.0 kg
Weight in water	0.24 kg	0.43 kg	0.44 kg	0.92 kg	1.3 kg	3.0 kg
Temperature rating	-10 °C to 35 °C (operating), -20 °C to 50 °C (storage)					

# Underwater Targets and Identification



MicronGemini 720s



Approx target range = 7.5 m

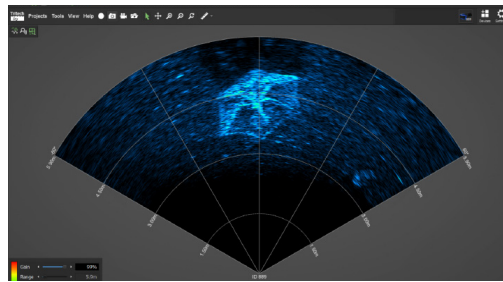
Tyres on seabed



Approx target size: 2 x 2 x 4 m



Gemini 720ik



Approx target range = 4.5 m

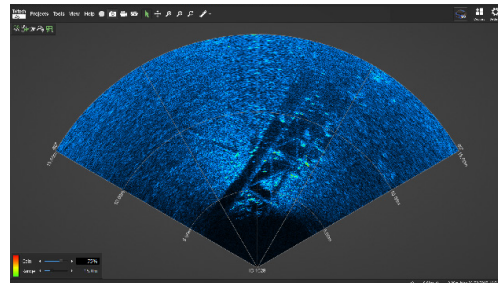
Umbrella



Approx target size: 1.5 x 1.5 x 2 m

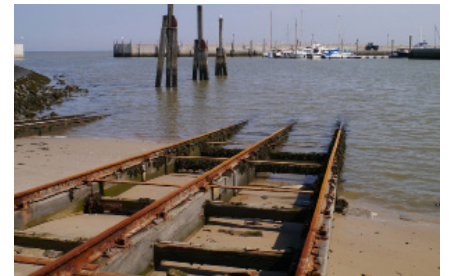


Gemini 1200ikd



Approx target range = 10 m

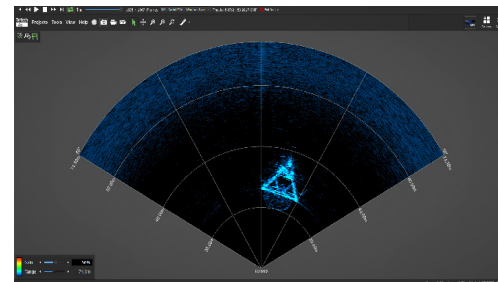
Steamboat Railings



Approx target size: 3 x 0.5 x 50 m



Gemini 720is



Approx target range = 30 m

Offshore Wind Turbine



Approx target size: 10 x 10 x 10 m