



MARINE SONIC TECHNOLOGY



The SEA SCAN® ARC SCOUT

Marine Sonic Technology is revolutionizing the AUV market once again by introducing the incredibly powerful ultra compact Sea Scan® ARC Scout.

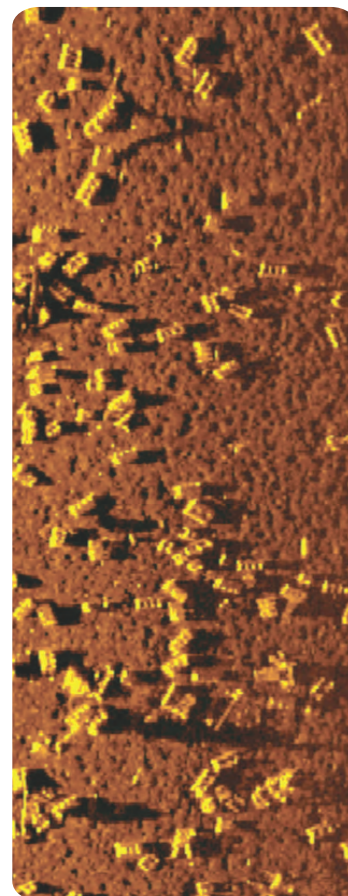
This High Resolution, Dual Simultaneous Frequency, Adaptive™ CHIRP Embedded system will allow for extended ranges while using less than 30 watts. Its unbelievable small size will fit almost any AUV system and give you back that extremely valuable space for additional payload.

Its a very fast and simple install. Virtually “Plug & Play” for new installations and allows for seamless transition from Sea Scan PC using your existing transducers.

The Sea Scan® ARC Scout is 100% Made in the U.S.A. and meets or exceeds NOAA & NO compliance standards.

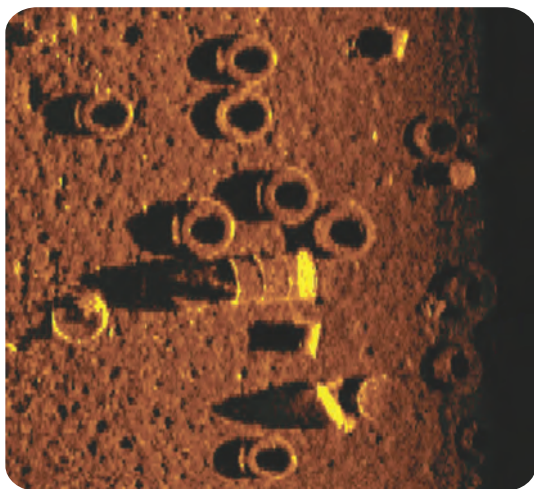
Scout your next mission and see what you have been missing!

MARINE SONIC TECHNOLOGY
 120 Newsome Drive, Suite H
 Yorktown, VA. 23606
 (804) 693-9602 - 1-800-447-4804
MarineSonic.com



KEY FEATURES:

- Utilizes Adaptive™ CHIRP
- Dual Simultaneous Frequencies
- Ultra Compact Design
- Minimal Power Consumption
- Seamless Transition from SSPC
- Extended Ranges
- Fast Simple installation
- Meets NOAA & NO Standards
- 100% Made in the U.S.A



COMPUTER

Interface	10/100 Ethernet, isolated RS232 Serial, TTL Sync-in, TTL Sync-out
Data Storage	External via Ethernet or on-board 64 GB SD Card

MECHANICAL

* Optional Custom Configurations Available Upon Request

Configuration 1 Dimensions	9.9 cm width x 9.4 cm length x 5.6 cm height (3.90" x 3.68" x 2.18")
Configuration 2 Dimensions	9.4 cm width x 19.74 cm length x 3.4 cm height (3.90" x 7.36" x 1.5")

ELECTRICAL

* Typical Power Consumption under normal operation, see detailed specs on

Power Supply	V min: 11.5V ; V Max: 20V
Power Consumption	Adjustable, range-dependent, Power consumption 15w

TECH & IMAGING

Frequencies	600/1200 kHz or 900/1800 kHz	
Technology	Marine Sonic Technology, Adaptive™ CHIRP, CW	
CHIRP Bandwidth	50 kHz to 200 kHz	
CHIRP Length	< 0.5 ms	
Maximum Image Ranges (per side)	600 kHz: 130 m 900 kHz: 80 m	1200 kHz: 45 m 1800 kHz: 25 m



MARINE SONIC TECHNOLOGY

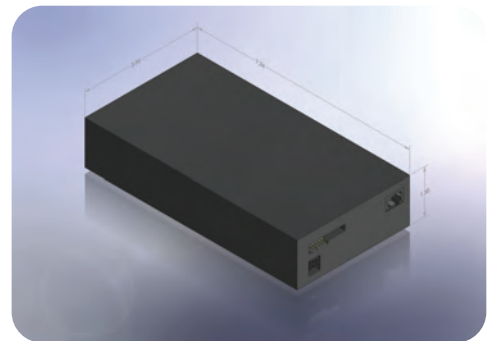
Transducer Specifications - Acoustic					
		600/1200 kHz Dual Freq.		900/1800 kHz Dual Freq.	
Frequency		600 kHz	1200 kHz	900 kHz	1800 kHz
Operating Range (maximum per side *1)	Normal Power Mode	130 meters	45 meters	80 meters	25 meters
	Low Power Mode *2	75 meters	25 meters	40 meters	15 meters
Along Track Resolution @ End of Near Field (two-way)		15.24 cm	7.62 cm	10.16 cm	5.08 cm
Across Track Resolution *3		0.4 cm to 1.5 cm 0.75 cm 1 cm 0.67 cm			
End Near Field		9.3 meters	4.6 meters	6.2 meters	3.1 meters
Horizontal Beam Angle		0.4° (one-way), < 0.3° (two-way)			
Vertical Beam Angle		24° (two-way)			
Transmit Pulse Technology		Marine Sonic Technology, Adaptive...CHIRP, CW			
Transmit Pulse Bandwidth *3		50 to 200 kHz			
Transmit Pulse Length		< 0.5 ms			
Data Collection Speed		5.28 knots max. (4.68 knots @ 100 meters range to meet NOAA Survey Standards)			



Transducer Specifications - Physical					
		600/1200 kHz Dual Freq.		900/1800 kHz Dual Freq.	
Depth Rating		600 meters (1,698 ft), 1000 meters (3,281 ft)			
Dimensions *4	600 meter LxWxD	42cm x 7.6cm x 2.4cm (16.6" x 3.0" x 0.93")		42cm x 3.8cm x 2cm (16.6" x 1.5" x 0.78")	
	1000 meter LxWxD	42cm x 7.6cm x 2.8cm (16.6" x 3.0" x 1.1")		42cm x 3.8cm x 2.3cm (16.6" x 1.5" x 0.91")	
Weight *4	600 meter	880g(1.94lb) in air, 170g(0.37lb) in sea water		340g(0.75lb) in air, 85g(0.19lb) in sea water	
	1000 meter	940g(2.11lb) in air, 200g(0.44lb) in sea water		420g(.93lb) in air, 115g(.25lb) in sea water	
Installed Transducer Depression Angle		10° down from horizontal			
Material		PVC/Stainless Steel			

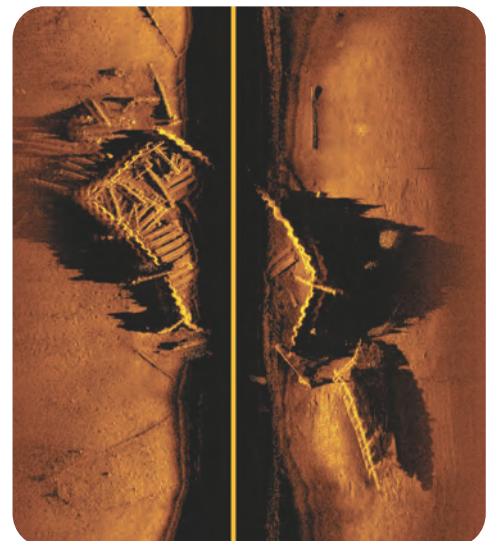


Sea Scan ARC Scout Sonar Module - Power Specifications						
Power Supply	Input Voltage		Min: 11.5VDC	Max: 20VDC	Absolute Max: 24VDC	
	Input Power (Peak)		60W			
Operational Mode	2 Channel 600kHz	2 Channel 900kHz	2 Channel 1200kHz	2 Channel 1800kHz	4 Channel 600/1200kHz	4 Channel 900/1800kHz
Power Consumption *5	9W	10W	10W	12W	16W	18W
Low Power Mode *2, 5	9W	8W	8W	7W	13W	11W
Idle Power Consumption *6	3.5W					
Sleep Mode Power Consumption	Wake on LAN		2.5W			
	Wake on Sync-In		1.5W			



Sea Scan ARC Scout Sonar Module - Physical Specifications		
Dimensions	Configuration 1	9.9 cm x 9.4 cm x 5.6cm (3.9"x3.68"x2.18")
	Configuration 2	19.74 cm .4cm x 3.4cm (7.77"x3.68"x1.33")
Weight	Configuration 1	752g (1.66lb) in air
	Configuration 2	1000g (2.2lb) in air
Operational Temperature	-40°C to 60°C	
Storage Temperature	-50°C to 80°C	

Sea Scan ARC Scout Sonar Module - Interface Specifications	
Control Interface	10/100 Ethernet, Isolated RS232 Serial, Isolated TTL Sync-In, Isolated TTL Sync-Out
Data Storage	External via Ethernet or On-Board 64GB SD Card
File Format	SDS (standard), XTF (with SDS to XTF Conversion)
Auxiliary Data Inputs	NMEA-0183 (Latitude, Longitude, SOG, COG, Heading, Depth, Altitude, Roll, Pitch, SOS)



- 1- Maximum range in sea water. Other water types may yield different ranges. Maximum range is defined as the ability to see soft bottom that yields definable targets and dark shadows.
- 2- User selectable. Low power mode reduces the power consumption when operating at shorter ranges.
- 3- Across track resolution is dependent on the bandwidth. Typical resolution is 0.5cm @ 150kHz bandwidth.
- 4- Typical dimensions, weights, and materials. Custom cable penetrator, connector, hull fitting, streamlining, and mounting options are included in the system cost.
- 5- Power consumption is range dependent. Stated power consumption rating is the average of the operating ranges.
- 6- Power consumption without data collection.

System Options

- Sonar Module Pressure Housing
- Custom Sonar Module Configurations
- Transducer Pressure Test & Certification
- Extended Transducer Depth Ratings, Up to Full Ocean Depth
- Single Frequency Transducers

