



Sonic 2020

Highly portable and compact Multibeam Echosounder that offers remarkable performance at a competitive price.

Ideally suited from entry level, up to experienced hydrography on smaller vessels including small ROV, ASV and AUV.

Additional features & benefits of the technologically advanced, user-friendly **Sonic 2020 Series**:

- ▶ Technical modes that can be upgraded remotely, anytime:
 - Ultra-high Resolution (UHR)
 - Pipeline mode
 - TruePix™ Compressed water column
 - Multispectral backscatter
 - Forward looking sonar (FLS)*
- ▶ Ultra-High Density (UHD), 1024 soundings per ping, resulting in greater resolution, particularly on the outer beams
- ▶ Selectable operating frequencies ‘on-the-fly’ in steps of 1Hz so you can choose the best frequency for the application or environment
- ▶ Dynamic focusing, essential to ensure high resolution in very shallow waters
- ▶ ROBO™ mode for simpler operation
- ▶ Runs on the Sonic Control Graphic User Interface
- ▶ The Integrated Sonic Series exceeds IHO-S44 Special Order when installed following R2Sonic manual instructions
- ▶ Value priced



Highly Portable



SV probe

Introducing the new **Sonic 2020-V Series**, with embedded IMU – first on the market!

The V-Series is an innovative, integrated solution. An enhanced version of the standard 2020 product that offers additional unique user benefits:

- ▶ New embedded Inertial Measurement Unit (IMU)
 - Single cable, less space and less risk of exposure than with a separate IMU
 - Improved performance with roll/pitch accuracy to 0.015°
 - Highly immune to GNSS outages
- ▶ New compact VOX-IM
 - Integrated connectors for additional motion/GPS equipment
 - RTK/RTCM input
 - Wide range of voltage input – AC and DC
- ▶ New VOX-App user interface
 - Easier system set up and interfacing with new embedded IMU / GNSS
 - Enhanced visual package and user interface



SIM Box



New Compact VOX-IM

Easy to Integrate on any platform



Extra Light & Compact!



New VOX-App User Interface

	Sonic 2020	Sonic 2020-V
Selectable Frequencies	200kHz – 450kHz (optional 700kHz)	
Minimum frequency increase	1Hz	
Beamwidth, across track and along track	1° x 1° at 700kHz (optional) 1.8° x 1.8° at 450kHz 4° x 4° at 200kHz	
Number of soundings	Up to 1024 soundings per ping	
Max speed (vessel)	11.1 knots for full coverage (The speed of the survey is primarily limited by the installation of the multibeam echosounder)	
Near-field focusing	Yes	
Roll stabilized beams	Yes	
Pitch stabilized beams	Yes	
ROBO™ Automated Operation	Auto power, gain and pulse width	
RangeTrac™, GateTrac™	Yes	
Saturation Monitor	Yes	
Selectable Swath Sector (Max Coverage)	10° to 130° Or up to 160° through engineering command User selectable in real-time	
Sounding Patterns	Equiangular Equidistant single / double / quad modes Ultra High Density (UHD)	
Sounding Depth	up to 200m+	
Pulse Length	15µs - 1ms	
Pulse Type	Shaped CW	
Ping Rate	up to 60Hz	
Bandwidth	up to 60kHz	
Immersion Depth	100m Optional 4000m FLS projectors are rated 4000m	100m
Bottom Detect Resolution	3mm	

Mechanical Specifications

	Sonic 2020	Sonic 2020-V
Sonar Dimensions (LWD)	140 x 161 x 133.5mm	
Sonar Weight (in air)	4.4kg	
Dimensions Sonar Interface Module (LWD) including connectors and feet	280 x 170 x 60mm	212 x 160 x 70.5mm
Weight Sonar Interface Module	2.4kg	2.9kg

Graphical User Interface (GUI)

	Sonic Control	VOX-App
Mains	90-260V AC 45-65Hz	90-260V AC or 10-55V DC
Power Consumption	20W avg	
Uplink / Downlink	10/100/1000Base-T Ethernet	
Sync in, Sync out	TTL	
Deck cable length	15m, optional 25m and 50m	

Sonic 2020-V INS Accuracies (with RTK)

Roll & Pitch	0.015°
Heading	0.015° with baseline >4m, 0.03° with baseline >2m
Heave	5cm or 5% real-time, 2cm or 2% delayed-heave
Position	Horizontal: 1cm + 0.5 ppm, Vertical: 1.5cm + 1 ppm

R2Sonic Service & Support

- ▶ Technical support 24/7/365, globally
- ▶ Firmware of all MBES can be upgraded remotely at no charge
- ▶ Fast, quality repairs performed by our team that engineered the multibeam sonar and the IMU
- ▶ 3-year standard warranty, upgradable to 6-years to further minimize your risk on investment
- ▶ Theoretical and hands-on personalized training delivered by our experts

Please contact us or visit r2sonic.com/products for more info.



US Patents: 10,132,924 • 10,605,914 • 11,079,490 EU Patent: EP3362817





Sonic 2022 with optional mount

Small form factor Multibeam Echosounder used extensively in Dredging, Construction, Ports and Harbor surveys worldwide.

Ideally suited for small survey vessels as well as ROV, ASV and AUV.

Additional features & benefits of the technologically advanced, user-friendly **Sonic 2022 Series:**

- ▶ Technical modes that can be upgraded remotely, anytime:
 - Ultra-high Resolution (UHR)
 - Pipeline mode
 - TruePix™ Compressed water column
 - Multispectral backscatter
 - Forward looking sonar (FLS)*
- ▶ Ultra-High Density (UHD), 1024 soundings per ping, resulting in greater resolution, particularly on the outer beams
- ▶ Selectable operating frequencies ‘on-the-fly’ in steps of 1Hz so you can choose the best frequency for the application or environment
- ▶ Dynamic focusing, essential to ensure high resolution in very shallow waters
- ▶ ROBO™ mode for simpler operation
- ▶ Runs on the Sonic Control Graphic User Interface
- ▶ The Integrated Sonic Series exceeds IHO-S44 Special Order when installed following R2Sonic manual instructions
- ▶ Value priced



Highly Portable



SV probe

Introducing the new **Sonic 2022-V Series**, with embedded IMU – first on the market!

The V-Series is an innovative, integrated solution. An enhanced version of the standard 2022 product that offers additional unique user benefits:

- ▶ New embedded Inertial Measurement Unit (IMU)
 - Single cable, less space and less risk of exposure than with a separate IMU
 - Improved performance with roll/pitch accuracy to 0.015°
 - Highly immune to GNSS outages
- ▶ New compact VOX-IM
 - Integrated connectors for additional motion/GPS equipment
 - RTK/RTCM input
 - Wide range of voltage input – AC and DC
- ▶ New VOX-App user interface
 - Easier system set up and interfacing with new embedded IMU / GNSS
 - Enhanced visual package and user interface



SIM Box



New Compact VOX-IM

Easy to Integrate on any platform



AUV*



ROV*



ASV/USV



Small Vessel

Extra Light & Compact!



New VOX-App User Interface

	Sonic 2022	Sonic 2022-V
Selectable Frequencies	170kHz – 450kHz (optional 700kHz)	
Minimum frequency increase	1Hz	
Beamwidth, across track and along track	0.6° x 0.6° at 700kHz (optional) 0.9° x 0.9° at 450kHz 2° x 2° at 200kHz	
Number of soundings	Up to 1024 soundings per ping	
Max speed (vessel)	11.1 knots for full coverage (The speed of the survey is primarily limited by the installation of the multibeam echosounder)	
Near-field focusing	Yes	
Roll stabilized beams	Yes	
Pitch stabilized beams	No	
ROBO™ Automated Operation	Auto power, gain and pulse width	
RangeTrac™, GateTrac™	Yes	
Saturation Monitor	Yes	
Selectable Swath Sector (Max Coverage)	10° to 160° User selectable in real-time	
Sounding Patterns	Equiangular Equidistant single / double / quad modes Ultra High Density (UHD)	
Sounding Depth	up to 400m+	
Pulse Length	15µs - 1ms	
Pulse Type	Shaped CW	
Ping Rate	up to 60Hz	
Bandwidth	up to 60kHz	
Immersion Depth	100m Optional 4000m FLS projectors are rated 3000m	100m
Bottom Detect Resolution	3mm	

Mechanical Specifications

	Sonic 2022	Sonic 2022-V
Receiver Dim (LWD)	276 x 109 x 190mm	
Receiver Mass	7.7kg	
Projector Dim (LWD)	273 x 108 x 86mm	
Projector Mass	3.3kg	
Sonar Interface Module (LWD)	280 x 170 x 60mm	212 x 160 x 70.5mm
Sonar Interface Module Mass	2.4kg	2.9kg

Graphical User Interface (GUI)

	Sonic Control 2022	VOX-App
Mains	90-260V AC 45-65Hz	90-260V AC or 10-55V DC
Power Consumption	35W avg	
Uplink / Downlink	10/100/1000Base-T Ethernet	
Sync in, Sync out	TTL	
Deck cable length	15m, optional 25m and 50m	

Sonic 2022-V INS Accuracies (with RTK)

Roll & Pitch	0.015°
Heading	0.015° with baseline >4m, 0.03° with baseline >2m
Heave	5cm or 5% real-time, 2cm or 2% delayed-heave
Position	Horizontal: 1cm + 0.5 ppm, Vertical: 1.5cm + 1 ppm

R2Sonic Service & Support

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US Patents: 10,132,924 • 10,605,914 • 11,079,490 EU Patent: EP3362817





Sonic 2024
with optional mount

The world's first broadband-wideband high resolution multibeam sonar for unprecedented system versatility, productivity and performance. Offers low power consumption and depth rating up to 6000m, making this model ideal for integration to ROV or AUV, for use in a wide range of applications including construction and monitoring, pipeline inspections and cable route surveys.

Additional features & benefits of the technologically advanced, user-friendly **Sonic 2024 Series**:

- ▶ Technical modes that can be upgraded remotely, anytime:
 - Ultra-high Resolution (UHR)
 - Pipeline mode
 - TruePix™ Compressed water column
 - Multispectral backscatter
 - Forward looking sonar (FLS)*
- ▶ Ultra-High Density (UHD), 1024 soundings per ping, resulting in greater resolution, particularly on the outer beams
- ▶ Selectable operating frequencies 'on-the-fly' in steps of 1Hz so you can choose the best frequency for the application or environment
- ▶ Dynamic focusing, essential to ensure high resolution in very shallow waters
- ▶ ROBO™ mode for simpler operation
- ▶ Runs on the Sonic Control Graphic User Interface
- ▶ The Integrated Sonic Series exceeds IHO-S44 Special Order when installed following R2Sonic manual instructions
- ▶ Value priced



Highly Portable



SV probe

Introducing the new **Sonic 2024-V Series**, with embedded IMU – first on the market!

The V-Series is an innovative, integrated solution. An enhanced version of the standard 2024 product that offers additional unique user benefits:

- ▶ New embedded Inertial Measurement Unit (IMU)
 - Single cable, less space and less risk of exposure than with a separate IMU
 - Improved performance with roll/pitch accuracy to 0.015°
 - Highly immune to GNSS outages
- ▶ New compact VOX-IM
 - Integrated connectors for additional motion/GPS equipment
 - RTK/RTCM input
 - Wide range of voltage input – AC and DC
- ▶ New VOX-App user interface
 - Easier system set up and interfacing with new embedded IMU / GNSS
 - Enhanced visual package and user interface



SIM Box



New Compact VOX-IM

Easy to Integrate on any platform



AUV*



ROV*



ASV/USV



Small Vessel

Extra Light & Compact!



New VOX-App User Interface

	Sonic 2024	Sonic 2024-V
Selectable Frequencies	170kHz – 450kHz (optional 700kHz)	
Minimum frequency increase	1Hz	
Beamwidth, across track and along track	0.3° x 0.6° at 700kHz (optional) 0.45° x 0.9° at 450kHz 1° x 2° at 200kHz	
Number of soundings	Up to 1024 soundings per ping	
Max speed (vessel)	11.1 knots for full coverage (The speed of the survey is primarily limited by the installation of the multibeam echosounder)	
Near-field focusing	Yes	
Roll stabilized beams	Yes	
Pitch stabilized beams	No	
ROBO™ Automated Operation	Auto power, gain and pulse width	
RangeTrac™, GateTrac™	Yes	
Saturation Monitor	Yes	
Selectable Swath Sector (Max Coverage)	10° to 160° Or up to 160° through engineering command User selectable in real-time	
Sounding Patterns	Equiangular Equidistant single / double / quad modes Ultra High Density (UHD)	
Sounding Depth	up to 400m+	
Pulse Length	15µs - 1ms	
Pulse Type	Shaped CW	
Ping Rate	up to 60Hz	
Bandwidth	up to 60kHz	
Immersion Depth	100m Optional 4000m & 6000m FLS projectors are rated 3000m	100m
Bottom Detect Resolution	3mm	

Mechanical Specifications

	Sonic 2024	Sonic 2024-V
Receiver Dim (LWD)	480 x 109 x 190mm	
Receiver Mass	12.9kg	
Projector Dim (LWD)	273 x 108 x 86mm	
Projector Mass	3.3kg	
Sonar Interface Module (LWD)	280 x 170 x 160	212 x 160 x 70.5mm
Sonar Interface Module Mass	2.4kg	2.9kg

Graphical User Interface (GUI)

	Sonic Control 2024	VOX-App
Mains	90-260V AC, 45-65Hz	90-260V AC or 10-55V DC
Power Consumption	50W avg	
Uplink / Downlink	10/100/1000Base-T Ethernet	
Sync in, Sync out	TTL	
Deck cable length	15m, optional 25m and 50m	

Sonic 2024-V INS Accuracies (with RTK)

Roll & Pitch	0.015°
Heading	0.015° with baseline >4m, 0.03° with baseline >2m
Heave	5cm or 5% real-time, 2cm or 2% delayed-heave
Position	Horizontal: 1cm + 0.5 ppm, Vertical: 1.5cm + 1 ppm

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Sonic 2026
with optional mount



Highly Portable



SV probe



SIM Box



New Compact VOX-IM



New VOX-App User Interface

The ultimate, first choice Multibeam Echosounder for advanced hydrography applications, research and seafloor characterization. High resolution, low operating frequencies for extended range coverage at 800m+, ideal for installation on surface vessels, ROV or AUV.

Additional features & benefits of the technologically advanced, user-friendly **Sonic 2026 Series**:

- ▶ Technical modes that can be upgraded remotely, anytime:
 - Pipeline mode
 - TruePix™ Compressed water column
 - Multispectral backscatter
 - Forward looking sonar (FLS)*
- ▶ Ultra-High Density (UHD), 1024 soundings per ping, resulting in greater resolution, particularly on the outer beams
- ▶ Selectable operating frequencies ‘on-the-fly’ in steps of 1Hz so you can choose the best frequency for the application or environment
- ▶ Dynamic focusing, essential to ensure high resolution in very shallow waters
- ▶ ROBO™ mode for simpler operation
- ▶ Runs on the Sonic Control Graphic User Interface
- ▶ The Integrated Sonic Series exceeds IHO-S44 Special Order when installed following R2Sonic manual instructions
- ▶ Value priced

Introducing the new **Sonic 2026-V Series**, with embedded IMU – first on the market!

The V-Series is an innovative, integrated solution. An enhanced version of the standard 2026 product that offers additional unique user benefits:

- ▶ New embedded Inertial Measurement Unit (IMU)
 - Single cable, less space and less risk of exposure than with a separate IMU
 - Improved performance with roll/pitch accuracy to 0.015°
 - Highly immune to GNSS outages
- ▶ New compact VOX-IM
 - Integrated connectors for additional motion/GPS equipment
 - RTK/RTCM input
 - Wide range of voltage input – AC and DC
- ▶ New VOX-App user interface
 - Easier system set up and interfacing with new embedded IMU / GNSS
 - Enhanced visual package and user interface

Easy to Integrate on any platform



Extra Light & Compact!



	Sonic 2026	Sonic 2026-V
Selectable Frequencies	170kHz – 450kHz (optional 90kHz + 100kHz)	
Minimum frequency increase	1Hz	
Beamwidth, across track and along track	0.45° x 0.45° at 450kHz (optional) 1° x 1° at 200kHz 2° x 2° at 90kHz & 100kHz (optional)	
Number of soundings	Up to 1024 soundings per ping	
Max speed (vessel)	11.1 knots for full coverage (The speed of the survey is primarily limited by the installation of the multibeam echosounder)	
Near-field focusing	Yes	
Roll stabilized beams	Yes	
Pitch stabilized beams	Yes	
ROBO™ Automated Operation	Auto power, gain and pulse width	
RangeTrac™, GateTrac™	Yes	
Saturation Monitor	Yes	
Selectable Swath Sector (Max Coverage)	10° to 160° User selectable in real-time	
Sounding Patterns	Equiangular Equidistant single / double / quad modes Ultra High Density (UHD)	
Sounding Depth	up to 800m+	
Pulse Length	15µs - 2ms	
Pulse Type	Shaped CW	
Ping Rate	up to 60Hz	
Bandwidth	up to 60kHz	
Immersion Depth	100m Optional 4000m FLS projectors are rated 4000m	100m
Bottom Detect Resolution	3mm	

Mechanical Specifications

	Sonic 2026	Sonic 2026 -V
Receiver Dim (LWD)	480 x 109 x 190mm	
Receiver Mass	12.9kg	
Projector Dim (LWD)	480 x 109 x 196mm	
Projector Mass	13.4kg	
Sonar Interface Module (LWD)	280 x 170 x 60mm	212 x 160 x 70.5mm
Sonar Interface Module Mass	2.4kg	2.9kg

Graphical User Interface (GUI)

	Sonic Control 2026	VOX-App
Mains	90-260V AC, 45-65Hz	90-260V AC or 10-55V DC
Power Consumption	100W avg	
Uplink / Downlink	10/100/1000Base-T Ethernet	
Sync in, Sync out	TTL	
Deck cable length	15m, optional 25m and 50m	

Sonic 2026-V INS Accuracies (with RTK)

Roll & Pitch	0.015°
Heading	0.015° with baseline >4m, 0.03° with baseline >2m
Heave	5cm or 5% real-time, 2cm or 2% delayed-heave
Position	Horizontal: 1cm + 0.5 ppm, Vertical: 1.5cm + 1 ppm

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