### SPECIFICATION

#### SONIC 2022, 2024, 2026

- **System Architecture**
  - Embedded Processor
  - Separate topside processor, and in some cases the user is still required to use a separate PC or laptop.

#### Competitors

- **THE R2SONIC ADVANTAGE**
  - Elimination of bulky topside processor dramatically reducing system size, weight, portability and power consumption – creating a more stable solution.

#### Operating Frequencies

- **Wideband:** Any Frequency Selection 170 to 450 kHz to 1 Hz resolution (ie. 0.001kHz), in real-time
- **Optional 700kHz**

- **190 kHz 420 kHz**

- **NOT selectable to 1 Hz resolution (ie. 0.001kHz)**

- **NO 700 kHz option**

#### More system flexibility, select frequency in real-time to optimize to survey requirements or environment.

#### Beam Width

- **0.6° x 0.6° @ 700kHz[CWB4]**
- **1° x 1° @ 400kHz**

#### Ping Rate

- **60 Hz**
- **50 Hz**

#### Sample Rate

- **60,000**
- **60kHz**
- **1.25cm**

#### Signal Bandwidth

- **30,000 (approx.)**
- **30kHz (approx.)**
- **2.5cm (approx.)**

#### Range Resolution

- **Higher bandwidth with better ability to resolve a range for increased imagery definition over small scale features and targets.**

#### System Weight

- **Sonar Head: 10 kg , SIM: 2.4 kg**
- **Sonar Head: 10 kg, Processor 14 kg**

#### Nearly 2x less weight. Greater ease in installation and less cost to transport.

#### Snippets & TruePix™ Backscatter Output

- **Yes**
- **No.**

#### TruePix™ provides advantages of Snippets and Side Scan without the disadvantages, with up to 10,000 bottom samples, independent of bottom detection (but co-located with the bathymetry), including nadir water column, in a compact data record, with noise and multipath suppression.

#### TruePix™ is a more advanced backscatter method and more useful in data editing, aide in determining whether data points are outliers or real.

#### Number of Soundings Modes of Operation*

- **256/512/1024**
- **(Single, Dual, Quad Modes)**

#### **256/512**

- **Increased soundings with better spatial distribution for small bin sizes.**

#### Integrated Inertial Navigation System (INS)

- **Yes. IMU is decoupled from Sonar for ease of servicing.**
- **No.**

#### Seamlessly integrate high accuracy INS at substantially reduced cost with greater warranty coverage. IMU is separate from transducer for ease of servicing.

#### Warranty

- **3-years standard**
- **6-years with low cost service plan**
- **Unknown**

#### Greater warranty coverage.