

Introduction

The RSflite (linear scanning only) and VEO3 phased array instruments, along with WheelProbe 2 128 or 64 element versions and UTmap software, have been entirely designed and optimised for the needs in various industries, including aerospace, composite and automotive sectors. These complete package options helps to qualify new composites at the design stage as well as detect reflective defects during manufacturing or after impacts. The portable and battery-operated kit allows for the detection and precise sizing of delamination's, disbonding and porosities in materials. This solution is equally efficient for manufacturing or maintenance.



Figure 1: The WheelProbe 2, with its patented rubber design, adapts to all kind of composite materials



Figure 2: RSflite, combined with the WheelProbe2 and the UTmap software, is the perfect turnkey solution for the composite industry.

Industries

- Aerospace Aeronautical Inspection
- Aerospace Astronautical Inspection
- Wind Power Renewables Sector
- Maritime Shipping Industries
- Automotive Industry
- NDT Service Providers

Application

- Corrosion / Thickness measurement
- Composite Material Inspection
- Plastics Inspection
- Storage Vessel Inspection
- Material Bonding Inspection
- Asset integrity

Typical Parts

- Frames
- Carbon-fibre-reinforced polymers
- Aircraft components
- Car frames

Inspection Techniques

- Phased Array L-Scan

Features and Benefits

- The RSflite and VEO3 user interface is optimised for composite mapping inspections
- The UTmap data analysis software, with its analysis tools and C-Scan stitching capability, increases overall productivity and defect measurement precision.
- The WheelProbe 2 is easy to use and features a lightweight, ergonomic design.
- Users can generate high-quality results for all types of materials, including those with high attenuation



Figure 3: WP2 128 element and 64 element versions shown with Sonatest's other composite inspection probe options, X3 Glider and the X6B Hydroglider

Frequency recommendations according to the thickness

$1 \text{ mm} < T < 10 \text{ mm} = 10 \text{ MHz}$

$2.5 \text{ mm} < T < 25 \text{ mm} = 5 \text{ MHz}$

$T > 25 \text{ mm} = 2.25 \text{ MHz}$

The 10 MHz WheelProbe 2 is the perfect solution for high-precision inspections.

For further information or support, please contact the Sonatest Applications Team: applications@sonatest.com

Recommended Tool Package

Category	Part #	Description
Product	RSFLITE BNC/LEMO or VEO3 BNC/LEMO	RSflite and VEO3 are 128-channel linear scanning capable instruments
Product option	SW-RSFLITE-CLOUD	Xpair software manages data transfer and allows for remote control of the instrument.
Probe	WP2-5MHZ-128E *10 MHz WP2 is also available for thinner material	<ul style="list-style-type: none">• Frequency: 5 MHz Elements: 128
Probe Option #1	WP2-PACK2	<ul style="list-style-type: none">• Vertical handle• Back flat roller• Filing equipment• Maintenance tools Rugged transportation case
Probe Option #2	WP2-ADV-KIT2	<ul style="list-style-type: none">• 2 x Flat roller• Remote control• Front roller assembly• Laser guidance kit Phone display kit
Software	UTMAP	Software suitable for C-Scan analyses

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Sonatest (Head Office)
Dickens Road, Old
Wolverton Milton Keynes,
MK12 5QQ t: +44 (0)1908
316345 e:
sales@sonatest.com
Sonatest

(North America)
12775 Cogburn, San Antonio Texas,
78249
t: +1 (210) 697-0335 e:
sales@sonatestinc.com