Sonatest Veo3 – Full Specification

Version 2.0 – as of October 27th,2021

GENERAL	PHASED ARRAY (32:128 PR)	UT-TOFD (2PR)	FMC-TFM (64 Elements)
Multi-scan Quantity	Up to 8 scans	Up to 2 scans (UT & TOFD) Up to 2 scans	Up to 6 TFM scans/ 1 FMC Scan
Pulsers / Receivers	32:128PR	2PR (4 connectors)	Up to 64 elements probe
Gain Range	80dB	100dB	80 dB
Sampling Frequency	125MHz @ 12-Bit (processing 16-Bit)	50/100/200MHz @ 10-Bit	125MHz @ 12-Bit (processing 16-Bit)
System Bandwidth	0.2 to 23 MHz	0.2 to 18 MHz	0.2 to 23 MHz
Max Pulse Rate Frequency	50 000 Hz	20 000 Hz	50 000 Hz
Pulse Voltage	100-50V ActiveEdge©	400-100V ActiveEdge©	100-50V ActiveEdge©
Focusing Mode	Natural or Constant Depth/Path/Offset/Resolution	n/a	Focusing at all points TFM & product and keep max TFM Intermode methods
Resolution	Up to 0. 1°	n/a	500K Pixel *(Maximum number of Pixel)
L-Scan Resolution	1 element, double resolution, or customer element steps	n/a	TFM and TFMi resolution up to 0.01mm
Max PA Beams	Focal laws Up to 4096 beams	n/a	FMC -> Post procession maximal 4096 Beams & 1024 pixel²
Measurement tools	EXTRACTION BOX, 4 gates/ A-Scan, TCG, DAC Split-DAC	4 gates/A-Scan, TCG, DGS/ Split-DGS, DAC/Split-DAC	EXTRACTION BOX and all the standard PA tools
General Phased Array		**General FMC/TFM Technique**	
Max Points per A-Scan	Up to 8192 points per A-Scan (sub-sampling available to reduce file size)	**Propagation mode**	12 TFM algorithms, Up to 4 modes per TFMi™
Data Storage & File Size	128 Gb SSD & **no file size limits**	**Fast TFM**	Sparse matrix Capture (SMC)
User Template	For improved conformity	**Envelope / TFM**	Hilbert Smoothing (Default)
Advanced Focal Law Calculator	Sectorial Pulse-Echo, Sectorial Pitch & Catch, Linear Pulse-Echo, Linear Pitch & Catch, Curve surface solution. CIVA and BeamTool Focal Law Compatible.	**TFM Calibration Wizard**	Velocity and Zero, Time Corrected Gain, Amplitude Fidelity Wizard
OPERATING SYSTEM			
Onboard Reporting Tools	PDF auto-report, Export data to CSV file, Save screen capture	**Onboard PDF Reader**	Ability to load and read any PDF documents
Onboard Scan Plan Tools	Onboard 3D live rendering	**Calibration Standards**	ISO18563 (EN16392) & EN12668
Integrated Online Help	ACTIVE help genius for parameter optimization procedures, reports	**Remote Control**	Powered by VNC & VPN
USER INTERFACE & PORTS	**PHASED ARRAY (32:128 PR)**	**UT-TOFD (2PR)**	
PA & UT Connectors	1 IPEX 128 channels	4 LEMO 1 or 4 BNC	
Instrument Display	10.4" wide 1024 x 600 LCD, LED Backlight 460cd/m2, Projective Capacitive Touch Panel Anti-glare Surface Treatment, Hardness of cover surface 6H		
Encoder Ports	2 axes: Scan, Index or Clicker (LEMO 1)		
GPIO Port (TTL)	Start, Stop, Index, Reset, Alarm(s), Trig... (LEMO 1)		
Communication Ports	WiFi 802.11n, Ethernet Gigabits & 3 master USB2		
Remote Display Ports	WiFi, Ethernet or VGA		
Data Transfer Ports	WiFi, Ethernet or USB		
OPERATING TIME, ENCLOSURE & ENVIRONMENTAL			
Operating Temperature	- 10°C to 40°C (14°F to 104°F) storage -20°C to 60°C (-4°F to 140°F)		
Operating Time	6h (hot swappable batteries)		
Power Input	AC 110V/240V @ 50Hz/60Hz		
Unit Dimensions	115 x 220 x 335 mm (4.52 x 8.66 x 13.19 in)		
Weight	5.1 kg (11 lb) no battery, 460 g (1 lb)/battery)		
Environmental Rating	Designed for: IP66 MIL-STD-461G section 5.21 RS103		

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Sonatest Software Specification

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UTmap	UTstudio+	Xpair
C-scan and merged C-scan Stitching	Gate edition in post-processing preserve amplitude information	VNC viewer with showing the whole instrument
C-scan flip/Rotation/Inversion	IFT Gate post-processing	Virtual key mat functionality
Independent C-scan analysis	Software Gain post processing	VPN network for remote application
Defect Auto-Sizing with contouring imaging	Drag and drop images in Microsoft suite	FTP transfer protocol to up/download file
Part image/photo importation	3D data rendering	Innovative Teaching tool
Export to CSV	A-B-C-End-Top-S-3D Views	Take Remote Control of your Instrument
Export to CSV Statistically Process	Raytracer with flaw positioning	Transfer Files
Automatic report generation Report	FMC data post-processing into 10 different mode	Send Configurations
	FMC CSV export	
	Annotation boxes to CSV table	