Sonatest

prisma

As **Simple** as you want

- 30 Second Configuration
- No Delay - UT to PA - one button away
- Configuration & Calibration Wizards
- “Parameter Genius” step by step assurance
- Minimize training: Common User Interface
- UT Studio - Fast and dynamic reporting

PA

UT

As **Capable** as you need

- UT, TOFD & PA Inspection Modes
- Multi-mode validation of inspection
- Upgradeable anytime, anywhere!
- Unique cursors for precision measurement
- Recordability: screen shots, full data recording, fully traceable.
- Customisable imaging layout.....29 to choose from.

prisma Specifications (Specification are subject to change)

	Conventional UT	Phased Array
Pulsers		
Configuration	2 UT Channels	16:16 or 16:64
Test Mode	Pulse-Echo, Transmit/Receive and TOFD	Pulse-Echo, Transmit/Receive
Transducer Socket	LEMO 1 or BNC	I-PEX
Pulse Voltage	-100 V to -450 V (in steps of 10 V)	-25 V to - 75 V (in steps of 5 V
PRF	3 Hz to 5 kHz	3 Hz to 5 kHz
Pulse Shape	Negative Square Wave (with ActiveEdge)	Negative Square Wave (with ActiveEdge)
Pulse Width	Adjustable: 25ns to 2000ns (2.5 ns resolution)	Adjustable: 25ns to 2000ns (2.5 ns resolution)
Edge Time	15 ns in 50 Ω load @200 V	15 ns in 50 Ω load @200 V
Output Impedance	5 Ω	10 Ω
Synchronisation	Encoder or free-running (time based)	Encoder or free-running (time based)
Focus Delay Range	n/a	0 to 10 µs (2.5 ns resolution)
Damping Resistor	Selectable: 50 Ω or 400 Ω	n/a
Receivers		
Gain Range	120 dB (-40 dB to 80 dB), Analog Gain	0 to 80 dB (0.1 dB steps), Analog Gain
Max Input Voltage	25 Vp-p	200 mVp-p
Input Impedance	1 kΩ (pitch and catch)	50 Ω
Bandwidth	200 kHz to 22MHz (-3 dB)	200 kHz to 14 MHz
Analog Filters	4	3
Digital Filters	10	10
Rectification	Full wave, positive, negative, none (RF)	Full wave, positive, negative, none (RF)
Single Enhancement	Digital filters, Averaging, Smoothing, Contouring	Digital filters, Smoothing
Focus Delay Range	n/a	16ns (interpolated to 3.8 ns)
Data Acquisition		
Architecture	2 channels, true 200 MHz sampling rate	16 Channels, Full digital Delay & Sum
Digitizer Resolution	12 bit DAC	12 bit DAC
Amplitude Measurement	[0% to 100%] or [0% to 150%] FSH	[0% to 100%] or [0% to 150%] FSH
Data Processing	16 bits/sample	16 bits/sample
Data Recording	Full raw data recording	Full raw data recording
File Size	up to 3 GB	up to 3 GB
Digitizing Frequency	50 MHz, 100 MHz, 200 MHz	65 MHz
Focal Laws	n/a	128
Focussing Type	n/a	Constant Depth, Constant Path, Constant Offset
Max A-Scan Length	8192 samples	4096 samples
Sub-Sampling	1:1 to 1:128	1:1 to 1:128
Reference	Initial Pulse or Gate/IFT supported	Initial Pulse or Gate/IFT supported
Trigger Sync.	Encoder or Internal	Encoder or Internal
Scan & Views		
Supported Scans	A-Scan & TOFD	S-Scan & L-Scan
Number of Scans	up to 4	1 (with up to 4 extracted A-Scans)
Views	A, B, C-Scan plus TOFD	A, B, C, L, S-Scan plus End & Top view
Colour Maps	up to 10	up to 10
Number of Layouts	12	17
Cursors		
Cursor Types	Cartesian, Hyperbolic (TOFD)	Cartesian, Extraction Box, Angular
Measurements	Path Length, Depth, Surface Distance, DAC, AWS, DGS	Path Length, Depth, Surface Distance, DAC, AWS

prisma Specifications continued (Specification are subject to change)

	Conventional UT	Phased Array
DAC & TCG		
DAC points	16	16
DAC	1 with 3 “sub DACs”	1 with 3 “sub DACs” per focal Law
TCG points	16	16
Gain Range	60 dB	40 dB
Max Gain Slope	60 dB/µs	50 dB/µs
Gates		
A-Scan Gates	4 gates per A-Scan	4 gates per A-Scan (3 extracted A-Scans per S/L-Scan
Gate Trigger	Flank/Peak	Flank/Peak
S/L-Scan	n/a	1 Extraction Box
Alarm LED	1 (sync on all gates & DACs)	1 (sync on all gates & DACs)
Measurements (A-Scan)	Peak & Flank (FSH, dB, D, BPL, SD) and Echo-to-Echo	Peak & Flank (FSH, dB, D, BPL, SD) and Echo-to-Echo
Interface & Reporting		
Help System	Active parameter description and Optimisation Tips	
Configuration Validation	Dynamic Help with Parameter Genius	
Wizards	Configuration, Velocity and Zero, Wedge Delay, Sensitivity, TCG, DAC, DGS, Element Activation, Encoder	
Languages (dynamic)	English, German, French, Spanish, Russian, Chinese	
Report Generation	PDF File (includes scans, setup, measurements, etc.), PNG screen capture, Customer Logo	
PDF Reader	Allows viewing any uploaded PDF file	
Inputs & Outputs		
Encoder	1 or 2 axis enconding (quadrature input)	
Digital Inputs	2 input lines (5V TTL)	
Digital Outputs	2 Output lines (5V TTL, 20 mA) for alarm or other external control	
Analogue Outputs	2 Analogue Outputlines (0-2V)	
Power Output	5V, 350 mA, current limited	
Enclosure		
Dimensions (HxWxD)	205mm x 300mm x 90 mm	
Weight	3.5 kg (with battery)	
Display Size	8.4 inch (diagonal)	
Display Resolution	800 x 600	
Display Colours	260k (65535 colours for scan palettes)	
Display Type	TFT LCD, 450 Cd/m2, with 2% refectivity	
USB ports	3 USB Master ports	
Ethernet	100 Mbps	
Battery & Power Supply		
Battery Type	Intelligent Li-ion	
Number of batteries	1	
Operation	On battery or on External power (DC Power Pack)	
Battery Replacement	Yes, no tools required	
Battery Recharge	Recharge in unit (with unit On or OFF) - External Battery Charger (std)	
Battery Life	Typical: 7 hours in UT mode, 6 hours in PA mode	
Environmental		
IP Rating	Designed to meet IP66	
Operating Temperature	-10 °C to 45 °C (14 °F to 113 °F)	
Storage Temperature	-25°C to 60°C (-13°F to 140°F)	

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prisma UT Standard Kit

Dual UT Channels with:

- A-Scan Recording
- 2 Axis Encoding
- Interface Triggering (IFT)

A,B and C Scan Displays
USB Stick (8GB)
Couplant
User Manual/ Quick User Guide
2 Point Neck Harness
Lithium-Ion Battery Packs (x2)
External battery charger
Power Cord & Power Supply adaptor
Screen Protector (Anti-Glare)
Transport Case (Airplane Carry on Size)

prisma UT/PA 16/16 Standard Kit

Dual UT channel kit above plus
16:16, manual PA

Options	
UT	**PA**
TOFD	16:64
*encoding for UT is standard	2 axis encoding & recording for PA
*IFT for UT is standard	IFT for PA

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