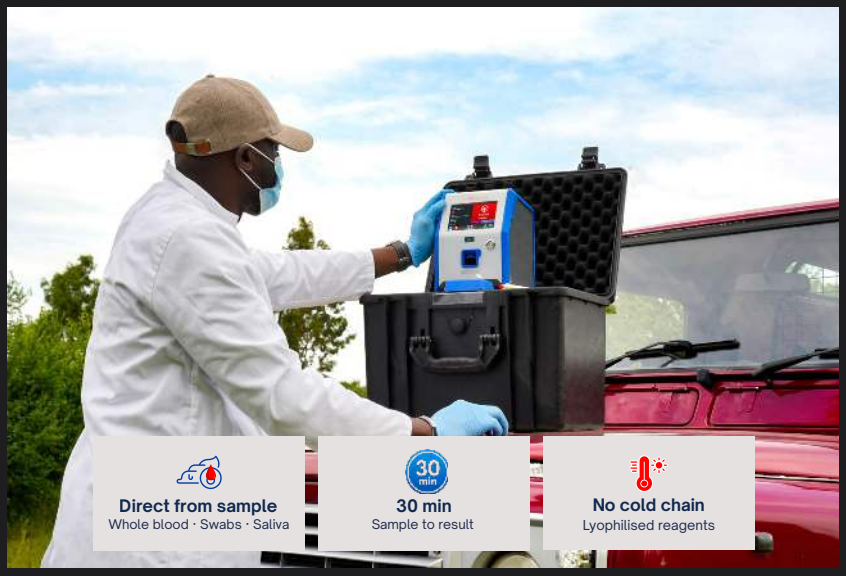
BIOGENE
.....pure innovation

CENOS
.....engineered prescient

AT PATIENT TESTING (APT)® PLATFORM

Rapid molecular testing platform for High Consequence Infectious Disease surveillance and detection



SYSTEM OVERVIEW: Four components. One complete solution.

CENOS Analyser

Portable 2.76 kg automated RT-qPCR with onboard display results.

XF Reagent System

Direct testing from crude samples. No extraction or cold-chain required.

THEIA Software

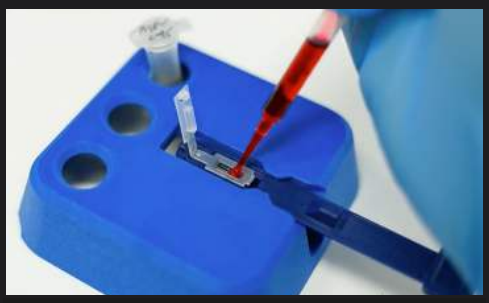
Advanced data analysis with amplification curves, Ct values, and audit logs.

Assay Panels

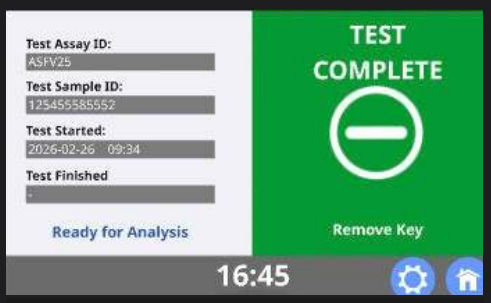
Multiplex detection for human, animal, and zoonotic targets.

HOW IT WORKS: Test to result in <30 minutes - 3 simple steps

Prepare XF reagents



Insert sample and start test



Automated detection and reporting

GPS module
Track and map outbreaks in real-time as they evolve – GPS tagged results, wherever you test.

Dual-channel optical engine
High-stability optical system with bicolour fluorescence detection.

Peltier thermal cycler
Rapid and precise thermal cycling – reliable in any environment

Portable
Lightweight: 2.76kg
Compact: 236mm (L) x 173mm (W) x 197mm (D)

Touch screen interface
Built-in display using a simplified "traffic light" output for non-expert users to see results instantly for immediate decision making.

Carbon-polymer reaction vessel
High surface area-to-volume ratio designed to maximise thermal transfer and PCR performance.

Barcode scanner
Integrated barcode scanner identifies the test, initiates the test run and assigns the results to a unique sample ID ensuring complete traceability.

Sample loading port
Designed for safe and efficient sample handling in any environment, supporting a rapid and safe workflow.

Onboard processing system
Autonomous unit that manages temperature control, signal acquisition, automated signal processing and result generation.

Power-flexible electronics
Runs on mains, vehicle batteries, solar, or portable power banks – truly off-grid capable.

BIOGENE LTD
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TECHNICAL SPECIFICATIONS

Physical characteristics	
Device dimensions	240 × 175 × 198 mm (H × W × D)
Device weight	2.76 kg
Handle	Integrated flip up handle for safe and secure carrying
Test Storage	⩽ 40 test results
Operating conditions	
Operating temperature	10 to 35 °C
Operating humidity	10 to 90%
Placement requirements	Even, flat, stable surface; kept away from water, corrosive environments, dust, chemical vapours, and direct sunlight
Storage & transport conditions	
Storage temperature	-10 to 40°C
Transport method	Must be transported in original Analyser protective case
Shock & vibration protection	IP67 case includes EVA precision cut foam for protection and stabilisation
Case protection	Waterproof and dustproof in the case (IP67), automatic pressure release valve for transportation
Analytical / performance specifications	
Measurement principle	RT-qPCR
Sample preparation	Crude sample inputs
Time to Result	⩽ 30minutes
Reaction vessel compatibility	Only with CENOS Analyser reaction vessel
Thermal ramp rate	>8°C/sec
Instrument warmup requirements	For temperatures below 10°C allow acclimatisation to temperature to minimally 10°C

Power Input (external DC power source required)	
Nominal input voltage: 15 V DC Operating input voltage range: 14 V to 16.5 V DC Maximum permitted DC input voltage: 16.5 V DC Maximum continuous input current: 12 A Maximum input power: 180 W	
Optical system specifications	
Spectrometer based detection	Blue excitation: 488nm. Collection from 530nm to 580nm Red excitation: 620nm. Collection from 650nm-800nm
Multiplex	Up to 6 targets
Excitation sources	LED
Software & data handling	
Software interface	THEIA software
Operating modes	Online and offline (standalone)
Data download options	USB, Ethernet, Wi-Fi
Device download format	JSON (JavaScript Object Notation)
THEIA export format	JSON (JavaScript Object Notation) or PDF
Interface & Connectivity	
Interface options	Touch screen display, barcode scanner, USB
Connectivity options	Ethernet, Wi-Fi, GPS
Accessories & compatible components	
Reaction vessel	Analyser reaction vessel
Key	Analyser key
Transport case	IP67 certified, shock absorbing
Additional accessories	Power supply, ethernet data cable, 90° USB adapter
Regulatory & compliance	
Manufacturing standard	Designed and manufactured under ISO 13485 certified QMS (BG Research Ltd)
Safety & labelling symbols	Refer to symbols and glossary section in instruction manual