

Ion S5™ and S5™ XL Systems & TypeStream™ Software (Research Use Only)

For Use with NXType™ NGS Typing Kits

The NXType™ Assay Advantage

Ion S5 System™

SPEED

Report HLA genotyping results in less than 3 days

SIMPLICITY

Shorten instrument setup time to less than 5 minutes

SCALABILITY

Suitable for low to high volume laboratories

Process up to 96 samples in a single run

SOFTWARE

Shorten time to results with automated genotyping

SUPPORT

Get front line support for the entire workflow

TypeStream™ NGS Analysis Software

ACCURATE

Accurate HLA genotyping and variant calling algorithm delivers 99.5% concordance

AUTOMATIC

Automatic HLA Genotyping reduces time to results

ANALYSIS

Comprehensive suite of analytical tools:

- o Review typing results
- o Navigate mapped sequences
- o Identify novel mutations
- o Assess read depth and coverage
- o Filter data by performance specification
- o Reanalyze runs



NXType™ NGS Assays the Ion S5™

Ion Torrent's new Ion S5 and S5 XL Systems integrate seamlessly into your work environment, incorporating a number of design innovations that bring both speed and simplicity to your workflow. Go from sample to results quickly without compromising performance or reliability.

The S5 platform uses cartridge-based consumables to enhance consistency and significantly shorten setup time.

Semiconductor sequencing technology captures natural biological activity and translates the information directly into digital nucleotide base calls. This direct-to-digital approach allows the Ion S5 systems to complete a run in as little as six hours, a fraction of the time traditional light-based sequencers require.

When sequencing is complete, TypeStream™ NGS analysis software automatically aligns unmapped sequences to the IMGT reference library to generate accurate HLA genotyping assignments. This data analysis workflow is automatic and optimized for speed, producing results in a manner that provides the HLA lab with the highest level of performance from an NGS workflow to date.

With simple setup, fast sequencing and automated analysis, NXType assays on an S5 System can take you from DNA-to-results in less than three days.

Ion S5™ System Specifications

Working environment	Temperature: 20–30°C (68–86°F) Humidity: 40–60%, noncondensing Altitude: Located between sea level and 2,000m (6,500 ft.) above sea level Thermal output at typical draw 1,200W: 4,094 BTU/hour	Instrument Clearances: Top: 30.5 cm (12.0 in.) Front: 30.5 cm (12.0 in.) Left: 10.0 cm (4.0 in.) Right: 30.5 cm (12.0 in.) Back: 30.5 cm (2.0 in.)
Connectivity	Ethernet: 1 GigE USB: 2 USB 2.0	Electric receptacle required: 2-prong with ground pin
Power	Voltage: 100– 240 V (max) Current: 14.5 A (max)	Frequency: 50/60 Hz Power draw: 1,350 W (max)
Dimensions	Width: 54.2 cm (21.4 in.) Depth: 80.6 cm (31.8 in.) Height: 50.9 cm (20.0 in.)	
Weight	Crated for shipping: 90.7 kg (200 lb.)	Free-standing: 63.5 kg (140 lb.)

Ion S5™ XL Torrent Server Specifications

Product configuration	A single free-standing tower computer appliance, included with the purchase of the Ion S5 XL System. Includes Torrent Suite™ Software with all necessary software components to deliver signal processing, base calling, read alignment, and variant calling.	
Processor	E5-2680 v3 or better	
Memory	128 GB minimum	
GPU processor	NVIDIA® K40	
Storage (approx.)	28 TB usable	
Operating System	Ubuntu® System	
Dimensions (approx.)	Width: 8.5/21.6 cm, Depth: 22.3 in/56.6 cm, Height: 22.3 in/56.6 cm	
Weight (approx.)	45kg (100 lb.)	
Power	Voltage: 100V (min) to 240V (max) Frequency: 50/60 Hz Current: 6.7 A (max) Power Draw: 1,100 W	
Data formats	Industry-standard FASTQ, SFF, BAM, and VCF format outputs	

Ordering Information

Instruments	Cat. No
<i>For Research Use Only. Not for use in diagnostic procedures.</i>	
Ion S5™ System	IONS5
Ion S5™ XL System	IONS5XL
Ancillary Equipment	Cat. No
<i>For Research Use Only. Not for use in diagnostic procedures.</i>	
Agilent 2200 TapeStation™ System	AG-TSYS
Ion OneTouch™ ES, 120V / 230V	ION-OT120 / ION-OT230
Ion Chip™ Minifuge, 120V / 230V	ION-M120 / ION-M230
Ion S5/Proton Minifuge™ Rotor & Bucket	IONS5-RB
Software	Cat. No
<i>For Research Use Only. Not for use in diagnostic procedures.</i>	
TypeStream™ Software	TSMGRX

Find out more at onelambda.com

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