

A fully automated LIMS-controlled HiScan or iScan system reduces the burden on support staff and minimizes costly errors when processing hundreds or thousands of samples per day.

Convenient Modular Design Expands Applications

The HiScan system can be easily upgraded with the SQ Module and cBot cluster generation system to enable next-generation sequencing functionality. The compact SQ Module provides all the components necessary to perform Illumina’s sequencing by synthesis (SBS) chemistry, including an integrated paired-end fluidics system for seamless second-read sequencing. This provides the HiScan system with the flexibility to take on any course of research, easily adapting to keep pace with changing research needs.

Workstation and Software

The HiScan and iScan systems include a computer workstation that controls all aspects of the scanner. This automated system provides laser control, precision mechanics control (including focus motor), detection of excitation signals, image registration, image extraction, and data output (Table 3).

Data analysis is supported by Illumina’s GenomeStudio® software, featuring visualization tools, advanced data manipulation attributes, and extensive reporting capabilities. GenomeStudio software consists of application-specific modules with a common framework. This modular architecture makes the HiScan and iScan systems truly multi-purpose instruments for wide-ranging genetic analysis, while providing a consistent user environment and tools for integrated analysis.

Installation and Support

Comprehensive installation and training is included with every scanner purchase. Site requirements are listed in Table 4. Following installation by a Field Service Engineer, extensive on-site training is performed by an Illumina Field Applications Scientist for the purchased array application. Ongoing technical support is provided by Illumina Technical Support Scientists.

Table 4: Site Requirements

Parameter	Specification
Power	Dedicated circuit, 100–120/200–240 VAC, 50/60 Hz, 360 VA, 15A for 110V Reader/12A for 220V Reader
Pressured Pneumatic Line	30–35 psi pressurized air for isolation table with 5 µm element filter
Environmental Conditions	<ul style="list-style-type: none"> • Up to 2,000 m elevation • 10–30°C • 10–90% relative humidity • Overvoltage II installation category

Warranty and Service

Illumina has one of the industry’s best service organizations, with a strong drive to ensure customer satisfaction. A comprehensive 12-month warranty that covers the scanner, hardware, accessories, and installed Option Packages is included with each system purchase.

The Standard Warranty includes:

- Emergency on-site service calls during normal business hours
- One on-site preventative maintenance service
- Software upgrades for the applications purchased
- Parts, labor, and consumables for system maintenance or repairs
- Phone support and assistance

Flexible extended warranty options ensure that every system continues to operate at optimum performance.

Summary

The HiScan and iScan systems are cutting-edge array instruments that support a wide breadth of applications. For the highest throughout, fastest time to answer, and flexibility to easily introduce next-generation sequencing into the lab, choose the HiScan

Table 3: Scanner Specifications

Parameter	HiScan	iScan
Pixel Resolution	0.375 µm	0.53 µm
Laser Excitation	532 nm and 660 nm dual-laser excitation	532 nm and 658 nm dual-laser excitation
Image File Output	TIFF or JPG data file output with automatic image quality analysis (uncompressed or compressed)	TIFF or JPG data file output with automatic image quality analysis (uncompressed or compressed)
Dimensions (W x H x D)	71.9 cm x 74.5 cm x 69.9 cm	52 cm x 45 cm x 66 cm
Dimensions of Air Table (W x H x D)	N/A	61 cm x 6 cm x 69 cm
Weight	136 kg	65 kg

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