Take the customized patient treatment plan to the **NEXT LEVEL OF PERSONALIZATION**

Improved treatment planning

- A topo-integrated, wavefront-guided technology enabling data-driven personalization

Improved diagnostic capabilities

- Topographic maps, views, and summary metrics

Improved workflow

- Shorten, automate, and eliminate steps for faster turnaround

Committed to your practice's success

- Support and expertise from a proven leader

INSIDE +OUT

Call your sales rep today to upgrade to the **iDESIGN®** Refractive Studio.

Developed and manufactured in Silicon Valley, California.

Johnson & Johnson VISION

iDesign Refractive Studio

SYSTEM SPECIFICATIONS

Wavefront Aberrometer	
Measurement Principle	Hartmann-Shack
Wavefront Diameter	Up to 8.5 mm
Analysis	Wavefront Fourier analysis equivalent to the 16th order term
Spherical Equivalent Range	-16 D to +12 D (for a 6-mm wavefront diameter), 0.01 D increments
Cylinder Range	Up to 8 D (for a 6-mm wavefront diameter), 0.01 D increments
Axis	1° increments
Measurement Spatial Resolution	0.177 mm
Data Points	Approximately 1250 measurement points for a 7-mm pupil
Map Types	All order aberrations wavefront, high order aberrations wavefront, all order aberrations refractive, high order aberrations refractive correction, all order aberrations point spread function, high order aberrations point spread function, all order and high order aberration differences
Topographer	
Measurement Principle	Full corneal gradient
Measurement Area	> 8.3 mm surface area with true central 3-mm data
Data Points	> 1000
Map Type	Axial power and elevation (best fit sphere), axial power and elevation differences, mean curvature, instantaneous curvature, CT irregularity, refractive power, summary metrics, ellipsoidal elevation, internal aberrations,WF irregularity, wavefront refraction, CT difference
Wavefront Refraction	
Measurement Range	
• Sphere	-16 D to +12 D (for a 6-mm wavefront diameter), 0.01 D increments
• Cylinder	Up to 8 D (for a 6-mm wavefront diameter), 0.01 D increments
• Axis	1° increments
Keratometer	
Measurement Range	
• Curvature Radius	Measures spherical surfaces in the range of 6.5 mm to 9.1 mm radius of curvature
• Refractive Power	37 D to 52 D
• Axis	51.92 to 37.09
Measurement Area	Adjustable fixation target: 4 target choices + settable brightness (5 levels)
Pupillometer	
Measurement Diameter	Up to 9.5 mm
Image Type	Automatic acquisition of mesopic and photopic image
Display	1024 x 768 flat panel
Input	100/120/220/240 VAC at 50/60 Hz
Power	750 VA
Physical Dimensions of the Optical Head	(L, W, H): 50.8 cm, 45.7 cm, 68.6 cm, including base
Weight of Optical Head	36 kg

References

1. Neal D. iDesign system: Going beyond WaveScan. Presented at the ESCRS Amsterdam 2013. REF2016RF0025.

2. Based on mathematical calculation: WaveScan WaveFront System/**iDESIGN®** Refractive Studio = 0.01D. Manifest refraction = 0.25D. Manifest 0.25 ÷ iDESIGN® Refractive Studio 0.01 = 25. 25X more precise.

3. Based on mathematical calculation: WaveScan System = ~240 micro-refractions. **iDESIGN®** Refractive Studio = 1,257 micro-refractions. iDESIGN® Refractive Studio 1,257 ÷ 240 = 5.23X the resolution.

For healthcare professionals only. Please reference the Instructions for Use for a complete list of Indications and Important Safety Information and contact our specialists in case of any question.

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iDesign Refractive Studio

EVERY TREATMENT **IS A TRUE ORIGINAL**

INSIDE +OUT

TOPO-INTEGRATED WAVEFRONT TECHNOLOGY

Johnson & Johnson VISION

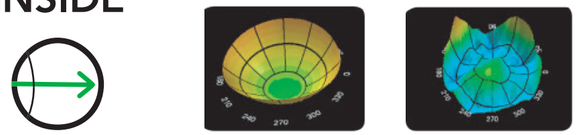
Customized planning for **CUSTOMIZED TREATMENT**

The topo-integrated, wavefront-guided technology ensures every treatment plan is a true original

When you measure better, you treat better – The **iDESIGN®** Refractive Studio enhances treatment planning with a proprietary INSIDE+OUT approach that adds corneal topography measurements to the wavefront-guided procedure.

WAVEFRONT ANALYSIS | Maps the entire visual pathway

INSIDE



- Measures both lower- and higher-order aberrations
- 1,257 data points capture the most minuscule distortions[1]
- 25x more precise than conventional measurements like manifest refraction[2]
- 5x the resolution with high-definition Hartmann-Shack Wavefront Sensor[3]

+

CORNEAL TOPOGRAPHY | Maps the entire surface of the cornea

+OUT

- Uses a built-in full-gradient topographer to capture 1,200 x and y slopes to interpret minuscule variations in the corneal surface[1]

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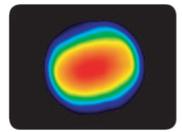
TOPO-INTEGRATED WAVEFRONT GUIDED

INSIDE +OUT



- Individual patient's topographic data are used to vertex wavefront-guided data from pupil to corneal plane
- Individual patient's topographic data are used to calculate accurate treatment delivery by taking into account cosine compensation

Improved diagnostic capabilities

Capture and account for more in every procedure

ADDITIONAL SET OF TOPOGRAPHIC MAPS, VIEWS, AND SUMMARY METRICS

The **iDESIGN®** Refractive Studio adds a comprehensive set of diagnostics capabilities to ensure a more informed view of the patient's refractive error.

MAPS

- Mean curvature
- Instantaneous curvature
- Internal aberrations
- Ellipsoidal elevation
- CT irregularity
- WF irregularity
- Higher-order CT aberrations

FEATURES

- Easier scale access
- Data overlays
- User configurable
- Multiple custom review
- Cursor readout
- Summary metrics

Improved workflow

Experience more efficiency in planning for users, technicians and patients

One-click acquisition	5-in-1 measurements in a single capture sequence for efficient workflow and patient qualification
Selectable fixation targets	New fixation targets and illumination settings to help patient examinations
Rx at lane length	Wavefront refraction is displayed at the lane length which allows for easy comparison with manifest refraction
Network printer	Ability to print to the surgery network printer
Daily verification	Automated and easy-to-use daily verification
Integration of the new look-up table into the treatment planner	Sphero-cylinder coupling look-up table is now integrated into the treatment planner

THE DIFFERENCE IN THE DATA ALLOWS FOR THE NEXT LEVEL OF PERSONALIZATION

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