

REFRACTION SYSTEMS

COMPANY	MODEL	ARTIFICIAL INTELLIGENCE FINAL RX	LM/AR SUBJ/UNAIDED COMPARISON	ADJUSTABLE CONVERGENCE FOR NEAR AT VARIABLE WORKING DISTANCE	AUTOMATIC INPUT OF VA	CHART LINKAGE	AUTOMATIC ALIGNMENT W/ PROJECTION SYSTEM	ADDITIONAL FEATURES
Marco	EPIC	yes	yes	yes	yes	yes	yes	Compact refraction system; has a footprint of 22 sq. ft.; reduces refraction time; delegation tool; split prism Jackson cross; integrates wavefront data into subjective refraction; adjustable motorized table, color touch screen that can be turned to patient for visual acuity education tool, can be networked into paperless EMR systems.
Marco	TRS-5100	yes	yes	yes	yes	yes	no (not needed)	Compact refraction system used in a traditional lane; reduces refraction time; delegation tool; split prism Jackson cross; can be networked into paperless EMR systems.
Marco	TRS-3100	no	yes	yes	yes	yes	no (not needed)	Wireless & compact refraction system used in a traditional lane; reduces refraction time; can be networked into paperless EMR systems.
Right Medical	Remote Vision	no	yes	yes	no	yes	n/a	Cordless remote control for optimal flexibility; speedy lens changes; quiet operation; programmable - up to 3 programs; full complement of accessories.
Topcon Medical Systems	CV-5000 Refraction System	suggested final Rx provided	yes	yes	yes	yes	yes	Incorporates color-coded cylinder refinement aids with traditional Jackson cross or split prism; can be integrated w/Topcon autorefractors, autoprojectors, VisiChart and M&S Smart System as well as many popular EMR systems; automated patient positioning features with the EXAM-5000 desk system.

AUTOREFRACTORS

COMPANY	MODEL	ALIGNMENT SYSTEM	VISUAL ACUITY	GLARE TESTING	KERATOMETER	ADDITIONAL FEATURES
Canon Medical Systems	RK-F1 Full-auto Ref-keratometer	fully automated, just press start	no	no	yes	Simultaneous display of referential retro-illuminated image; 2.5-mm minimum pupil size required; corneal diameter measurement; peripheral K reading; PD/VD & IOL; RS232C data output.
Marco	ARK-530A autorefractor/keratometer	auto align; auto fogging; auto tracking; joystick	no	no	yes	Cataract mark detection; virtual vision comparison; corneal size measurements; Eyetracking system; photopic/scotopic pupil size measurement; measuring range -30D to +25D; interfaces w/EPIC, TRS & Evolution.
Marco	ARK-560A autorefractor/keratometer	auto align; joystick; infrared mire alignment; auto fogging	yes	no	yes	Auto tracking/firing/alignment measuring; visual acuity; subjective refinement; corneal size measurement; pupil size measurements; spherical aberration of cornea; interfaces w/EPIC, TRS & Evolution.
Marco	OPD Scan	auto align; joystick; auto fogging	no	no	yes	Autorefractor; topographer; wavefront analyzer; OPD; internal OPD; pupillometer; retro illumination image; mesopic & photopic pupil displayed; asphericity; XP; Celeron M1.5 GHz Processor; interfaces w/EPIC, TRS & Evolution, the Marco H-D Eye Exam; EMR-ready through Marco Connect.
Marco	Palm AR Handheld	handheld; infrared mire alignment	no	no	no	Possesses features of tabletop ARs; quick mode; supine mode; interfaces w/EPIC, TRS & Evolution.
Marco	Palm ARK Handheld	handheld; infrared mire alignment	no	no	yes	Possesses features of tabletop ARs; quick mode; supine mode; interfaces w/EPIC, TRS & Evolution.
Marco	M3 autorefractor/keratometer/noncontact tonometer	auto align; joystick; infrared mire alignment; auto fogging	no	no	yes	Autorefractor/keratometer; mesopic & photopic pupil measurements; corneal size measurements; noncontact tonometer; softer air puff; adjustable monitor; motorized chin rest; high-speed measurements; interfaces w/EPIC, TRS & Evolution.
Oculus	PARK 1 Pachymeter/Autorefractor/Keratometer	joystick w/automatic measurement	no	no	yes	Combines a noncontact pachymeter, autorefractor and keratometer into one slim and easy-to-use instrument. 4 scan modes; 2.5 mm minimum pupil size; 5" color LCD monitor, thermal printer; 600 pachymetric points measured; USB connection and can be integrated into EMR. Dimensions: 20" x 10.2" x 21.7".
Reichert Technologies	RK600 Autorefractor/Keratometer	joystick w/automatic measurements	n/a	n/a	yes	Full-color LCD screen, icon-based operating system & built-in printer. 2.3-mm minimum pupil diameter, RS232C interface & video output terminal. Auto-start function initiates measurements automatically when alignment is achieved. Equipped w/an automatic power save turn off. Kerato-peripheral, IOL and PD measurements.
Reichert Technologies	RK700 Autorefractor/Keratometer	joystick, auto alignment and auto measurement, eye tracking	n/a	n/a	yes	Full-color LCD screen, icon-based operating system, 2.2-mm pupil diameter, built-in auto printer, RS232C interface, USB port. Auto alignment mode, one-touch automatic measurement, R/L eye movement. Measurement modes: IOL, KR, R, K, PK, NPD and photo mode for anterior eye pictures.
Right Medical	Retinomax Hand Held Autorefractor	handheld - automatic measurement with correct alignment	no	no	no	Precise measurements; Super Quick mode for optimal pediatric measurements; 2.5-mm minimum pupil size, retroillumination to identify cataracts or irregularities in the optical system; melody function assists with small children.
Right Medical	Retinomax K-Plus Hand Held Autorefractor	handheld - automatic measurement with correct alignment	no	no	yes	Precise measurements; Super Quick mode for optimal pediatric measurements; 2.5-mm minimum pupil size, retroillumination to identify cataracts or irregularities in the optical system; melody function assists with small children; peripheral keratometry measurements; selectable modes for optimal performance.
Right Medical	Speedy-1 Autorefractor	joystick with automatic measurement	no	no	no	The fastest measurement times - 0.01 seconds; precise measurements; 2.5-mm minimum pupil size; medical grade retroillumination; wireless data transfer to Remot Vision.
Right Medical	Speedy-K Autorefractor	joystick with automatic measurement	no	no	yes	The fastest measurement times - 0.01 seconds; precise measurements; 2.5-mm minimum pupil size; medical grade retroillumination; wireless data transfer to Remot Vision; peripheral keratometry measurements; selectable modes for optimal performance.
Tomey USA	RC-5000 Autorefractor/Keratometer	fully automatic eye-tracking system	yes	no	yes	Fully automatic touch-screen operation; calculates pupillary distance; high-speed built-in printer; power chin rest; 0.3-second measurement time or less; provides cataract and IOL mode.
Tomey USA	RT-7000 Autorefractor/Keratometer	fully automatic eye-tracking system w/topo & dry eye software	yes	no	yes	Fully automatic touch-screen operation; cataract & IOL mode; high-resolution color TFT display; 0.3-second measurement time; fluorescein stimulation; topographer & dry eye software. List of contact lenses. Built-in computer & printer.
Topcon Medical Systems	RM-8900 Autorefractometer	joystick; infrared measuring	no	no	no	2-mm minimum pupil size; color LCD display; auto fogging; rotary prism technology; built-in printer; interfaces w/ Topcon auto lensmeter, CV-5000 refraction system, and today's most popular EMR systems.
Topcon Medical Systems	KR-8900 Auto Kerato-Refractometer	joystick w/auto-firing; infrared measuring	no	no	yes/std.	2-mm minimum pupil size; central K readings; color LCD display, auto fogging; rotary prism technology; auto-fire mode; built-in printer; corneal pupil diameter measurement; interfaces w/Topcon auto lensmeter, CV-5000 refraction system and today's most popular EMR systems.
Topcon Medical Systems	KR-8000PA Auto Kerato-Refractometer Topographer	joystick w/auto-firing; infrared measuring	no	no	yes/std.	2-mm minimum pupil size; peripheral keratometry; optional color-mapping software available; corneal mapping measurements out to 9.2 mm; interfaces w/Topcon auto lensmeter, CV-5000 refraction system and today's most popular EMR systems; auto fogging; rotary prism Placido ring technology.
Topcon Medical Systems	KR-1W	auto-alignment, auto-focus and auto right/left simultaneous measure	no	no	yes	5 simultaneous measures to evaluate visual performance, both quantitatively and qualitatively. The KR-1W combines Hartmann-Shack wavefront aberrometry, near-infrared corneal topography, keratometry, pupillometry and auto-refraction. Multiple maps for overview analysis; large color touch screen; fully networkable in various configurations.
Trace Technologies, Corp.	iTrace Workstation Visual Function Analyzer	auto-align, auto-capture auto-fogging	no	no	yes	Integrated ray-tracing aberrometry, corneal topography, auto-refractometry, auto-keratometry, pupillometry in one device; multi-zonal refraction analysis at user-defined zone sizes for assessing photopic and scotopic vision.
Welch Allyn	14010 SureSight Autorefractor	direct view/data acquisition	no	no	no	Features Wavefront Sensing Technology; less than 5 seconds per eye test time; data acquisition from 14"; child-friendly; battery operated and portable; weighs 2 lbs.; IR data transfer to cordless printer.

WAVEFRONT ABERROMETERS

COMPANY	MODEL	MEASURING PRINCIPLE	METHOD	NUMBER OF DATA POINTS	POINT SPREAD FUNCTION	INTERNAL OPD/ LENTICULAR DIFFERENCE	ZERNIKE OUTPUT	ADDITIONAL FEATURES
Marco	OPD Scan III	dynamic spatial skiascopy	optical path difference	1,440	yes	yes	WF Refraction & RMS value on thermal tape. Zernike map displays bar graphs, WF error & RMS values given.	Topographer; wavefront analyzer; OPD; internal OPD; pupillometer; Angle Kappa; retro illumination image; spherical aberration of cornea; mesopic & photopic pupil displayed; combined with automated phoropter performs the Marco H-D Eye Exam; EMR ready through Marco Connect.
Topcon Medical Systems	KR-1W	Hartmann-Shack	Monocular auto-focus, auto-capture, simultaneous measure of 5 functions	2,209	yes	yes	WF refraction at actual photopic and scotopic pupil size; Zernike vector maps; RMS values displayed at actual pupil size, 4mm and 6mm	The KR-1W combines 5 simultaneous measures: Hartmann-Shack wavefront aberrometry, near-infrared corneal topography, keratometry, pupillometry and auto-refraction. Multiple WF analysis maps include: low- & high-order aberrations, spherical aberrations, ocular total aberrations, corneal & internal aberrations, Landolt's Ring simulation, Hartmann image, RMS, WF refraction & pupillometry, Zernike vector PSF/MTF, IOL selection maps, and customizable map displays. KR-1W Viewer software available.
Tracey Technologies, Corp.	iTrace Workstation Visual Function Analyzer	Infrared laser ray tracing	Auto-capture with monocular/binocular open-field and Badal Optometer fixation	256 rapid sequential points through 2-mm to 8-mm pupils	true, directly-measured PSF	yes	yes; including multizonal Zernike displayed as coefficients, bar graphs, and individual RMS or combined RMS terms	5-in-1 functionality also includes corneal topography, auto-refraction w/multi-zone analysis for photopic and scotopic conditions, pupillometry and keratometry; binocular open-field fixation; accommodation volume; VFA Summary display with potential visual complaints; cataract surgical applications including toric planning, Zaldivar Toric Caliper, Angle Kappa/Angle Alpha measurement and Chang Analysis; computer independent

PERIMETERS

COMPANY	MODEL	STIMULUS	AREA OF FIELD	STANDARD TESTS	PRINTER	TEST STRATEGIES	ADDITIONAL FEATURES
Carl Zeiss Meditec	Humphrey Field Analyzer II-i Model 720i	Goldmann std. proj. size III only; Heijl-Krakau fixation monitor & video eye monitor	90°	threshold: 3 central, 1 periph. pattern; 4 screening central, 3 full-field periph. patterns	built-in thermal; can be hooked up to HP LaserJet	threshold: SITA, FastPac; full screen: age ref. strategy; threshold-related; 2-zone, 3-zone & quantify defects	Now with VFI, <i>EasyConnect</i> and HFA-NET Pro standard. Computerized silent projection system; reduces threshold testing by up to 70%; 12 test patterns w/static threshold & screening strategies to 90°; STATPAC2 software compares results w/age-matched normative data; CRT touch screen; wheelchair-accessible table w/built-in printer avail. DICOM Gateway compatible (optional). HFA II-i comes with the capability to connect to FORUM Data Management system. FORUM allows real-time viewing of reports or images from supported networked ZEISS and non-ZEISS instruments. FORUM supports bi-directional workflow for supported DICOM enabled devices, reducing charting errors and increasing patient throughput. Additionally, HFA, when utilized with FORUM, enables the archiving of raw data, automatic back up after every exam and the creation of combination structure function reports (with Cirrus HD-OCT).
Carl Zeiss Meditec	Humphrey Field Analyzer II-i Model 740i	Goldmann std. proj. size I, II, III, IV, V; Heijl-Krakau fixation monitor & video eye monitor; gaze tracking	90°	threshold: 4 central, 2 periph. patterns; screening: 5 central, 7 full-field/periph. patterns	built-in thermal; can be hooked up to HP LaserJet	threshold: SITA, FastPac; full screen: age ref. strategy; threshold-related; 2-zone, 3-zone & quantify defects	Now with VFI, <i>EasyConnect</i> , Guided Progression Analysis (GPA) and HFA-NET Pro standard. 19 test patterns; user-designed custom testing w/range to 90°; patented gaze-tracking system provides true reliability assessment without disrupting testing. Built-in 40 GB data storage; compares multiple STATPAC results via print-out; Goldmann I-V foveal threshold testing; red/blue testing; custom testing avail.; built-in VGA monitor hookup for remote viewing. DICOM Gateway compatible (optional). HFA II-i comes with the capability to connect to FORUM Data Management system. FORUM allows real-time viewing of reports or images from supported networked ZEISS and non-ZEISS instruments. FORUM supports bi-directional workflow for supported DICOM enabled devices, reducing charting errors and increasing patient throughput. Additionally, HFA, when utilized with FORUM, enables the archiving of raw data, automatic back up after every exam and the creation of combination structure function reports (with Cirrus HD-OCT).
Carl Zeiss Meditec	Humphrey Field Analyzer II-i Model 745i	Goldmann std. proj. size I, II, III, IV, V; Heijl-Krakau fixation monitor & video eye monitor; gaze tracking	90°	threshold: 4 central, 2 periph. patterns; screening: 5 central, 7 full-field/periph. patterns	built-in thermal; can be hooked up to HP LaserJet	threshold: SITA, FastPac; full screen: age ref. strategy; threshold-related; 2-zone, 3-zone & quantify defects	Includes all features of 740i; STATPAC for blue/yellow perimetry. DICOM Gateway compatible (optional). HFA II-i comes with the capability to connect to FORUM Data Management system. FORUM allows real-time viewing of reports or images from supported networked ZEISS and non-ZEISS instruments. FORUM supports bi-directional workflow for supported DICOM enabled devices, reducing charting errors and increasing patient throughput. Additionally, HFA, when utilized with FORUM, enables the archiving of raw data, automatic back up after every exam and the creation of combination structure function reports (with Cirrus HD-OCT).
Carl Zeiss Meditec	Humphrey Field Analyzer II-i Model 750i	Goldmann std. proj. size I, II, III, IV, V; Heijl-Krakau fixation monitor & video eye monitor; head tracking; vertex monitor; gaze tracking	90°	threshold: 4 central, 2 periph. patterns; screening: 5 central, 7 full-field/periph. patterns; SSA Kinetic	built-in thermal; can be hooked up to HP LaserJet	threshold: SITA, FastPac; full screen: age ref. strategy; threshold-related; 2-zone, 3-zone & quantify defects	Model 750i includes all of the previous features plus head tracking; automatic vertex monitoring; automatic pupil measurement; std. blue/yellow testing; kinetic testing and keyboard; all models upgradable. DICOM Gateway compatible (optional). HFA II-i comes with the capability to connect to FORUM Data Management system. FORUM allows real-time viewing of reports or images from supported networked ZEISS and non-ZEISS instruments. FORUM supports bi-directional workflow for supported DICOM enabled devices, reducing charting errors and increasing patient throughput. Additionally, HFA, when utilized with FORUM, enables the archiving of raw data, automatic back up after every exam and the creation of combination structure function reports (with Cirrus HD-OCT).
Carl Zeiss Meditec	Humphrey FDT Visual Field Instrument with frequency doubling	frequency doubled sinusoidal gratings (0.25 cpd; 25 Hz)	30°	screening: C-20 full threshold: C-20, N-30	n/a	n/a	45-second screening; 4-minute threshold; 19 lbs.; easy to use; age-related normative database.
Carl Zeiss Meditec	Humphrey Matrix Visual Field Instrument with frequency doubling	frequency doubled sinusoidal gratings	30°	screening: N-30,24-2 threshold: N-30-F, 24-2 FDT, 30-2 FDT Macula: 10-2, Macula Threshold (4°)	external 8.5 x 11 color printer	screening: MOBS threshold: Zest, MOBS	Fast screen <45 seconds; 20GB HD; CD RW drive; floppy drive; external keyboard; small footprint; statistical analysis w/age-related normative database; serial field, video eye monitoring; no eye patch needed; no trial lens needed out to ± 3.00D; ambient light testing.
Carl Zeiss Meditec	SITA SWAP	blue light; Goldmann std. proj. size V stimulus	n/a	threshold; single field analysis report	n/a	24-2	Available as a licensed option on all HFA II & II-i models; 745-750; blue-yellow threshold testing in 3 to 6 minutes per eye. Makes blue-yellow testing a clinically practical tool for early detection of glaucoma. Improved reproducibility; larger dynamic range & higher sensitivity than other SWAP tests.

PERIMETERS

COMPANY	MODEL	STIMULUS	AREA OF FIELD	STANDARD TESTS	PRINTER	TEST STRATEGIES	ADDITIONAL FEATURES
Haag-Streit USA	Octopus 900 BASIC	100% total fixation control; unique auto eye tracking; no fixation losses; video eye monitor and chin rest sensor; Goldmann standard projection I, II, III, IV, V. White/white (SAP)	90° in Goldmann spherical bowl	Diagnostic thresholds for glaucoma & macula; linear 32 & macula threshold; low vision; neurological; diabetes; blepharoptosis; multiple screening tests, including glaucoma & 130-point screenings, binocular and monocular Estermann. Plus custom test capabilities. Also includes 30-2, 24-2 and 10-2 programs.	Perimeter controlled by PC/LCD monitor & ink jet printer (all provided); EyeSuite software provided for long-term storage & data analysis and advanced progression analysis; easily networked; EZ to read 7 in 1 printout. Plus ability to provide HFA style printout.	TOP (tendency oriented perimetry) for thresholds in just over 2 1/2 minutes per eye; dynamic; normal - all age related; 1 and 2 level screening tests with supra-threshold	Automatic pupil measurement; automated lens holder; stimuli presentations are adaptive to patient responses; easily upgraded to 900 PRO series; wheelchair-accessible table provided; easily integrated with electronic medical records. Auto-export of PDF, jpg or png files. Simple drag/drop functionality for patient data management. Easily import existing HFA data (700 series) into EyeSuite. Auto-backup feature. EyeSuite's nonproprietary MySQL database can be utilized as single database for several perimeters.
Haag-Streit USA	Octopus 900 PRO	100% fixation control; unique auto eye tracking; no fixation losses; video eye monitor and chin rest sensor; one system offering standard static white/white + blue/yellow + Flicker + TRUE Goldmann Kinetic + low vision + red/white. Goldmann standard projection I, II, III, IV, V.	90° in Goldmann spherical bowl.	Diagnostic thresholds for glaucoma & macula; linear 32 & macula threshold; low vision; neurological; diabetes; blepharoptosis; multiple screening tests, including glaucoma & 130-point screenings, binocular and monocular Estermann. Plus custom test capabilities. Also includes 30-2, 24-2 and 10-2 programs.	Perimeter controlled by PC/LCD monitor & ink jet printer (all provided); EyeSuite Software provided for long-term storage & data analysis and advanced progression analysis; easily networked; viewing stations - no charge; EZ to read 7 in 1 printout. Plus ability to provide HFA style printout.	TOP (tendency oriented perimetry) for thresholds in just over 2.5 minutes per eye; dynamic; normal - all age related; 1 and 2 level screening tests with supra-threshold	Automatic pupil measurement; automated lens holder; stimuli presentations are adaptive to patient responses; easily upgraded to 900 PRO series; wheelchair-accessible table provided; easily integrated with electronic medical records or image management systems. Auto-export of PDF, jpg or png files. Simple drag/drop functionality for patient data management. Easily import existing HFA data (700 series) into EyeSuite. Auto-backup feature. EyeSuite's nonproprietary MySQL database can be utilized as single database for several perimeters.
Haag-Streit USA	Octopus 300	100% total fixation control, plus unique auto eye tracking; no fixation losses; video eye monitor and forehead rest sensor; Goldmann standard projection III, V; operates in diffused room lighting one system offering standardized static white/white and upgradeable to blue/yellow (SWAP) and Flicker.	30° direct projection; far distance correction only needed.	Diagnostic thresholds for glaucoma and macula; linear 32 threshold; low vision; multiple screening tests, including 30 second per eye; 1 minute per eye + custom testing to build multiple examinations	No outdated processor built in; easy to read 7-in-1 printout; auto print and/or export to our EyeSuite to supplied PC for long-term storage & data analysis; easily networked; easy integration with EMR or image management. Plus ability to provide HFA style printout.	TOP (Tendency Oriented Perimetry) for thresholds in just over 2 1/2 minutes per eye; dynamic; normal - all age related; 1 and 2 level screening tests with supra-threshold	Automatic pupil measurement; stimuli presentations are adaptive to patient responses; wheelchair-accessible table (either compact or universal sized) available; easily integrated with electronic medical records using provided EyeSuite Software package. No service contracts. Free software updates. Easily import existing HFA data (700 series) into EyeSuite. EyeSuite's standard, nonproprietary MySQL database can be utilized as single database for several perimeters.
Haag-Streit USA	Goldmann Kinetic	True Goldmann I thru V + 1a thru 4e. Control speed of 0 (static) or 2/3/4/5/10 degree per second. 4 vector types: test, guided, free and reaction time.	Software package to 900 Basic (option) & Pro (standard).	Build ANY kinetic test needed & save to library for perfectly repeated tests every time	n/a	Manual or automated Goldmann Kinetic; use of automated, guided or free vectors	Quantification of kinetic isopters for easy comparison; field correction based on reaction time of patients' response; zoom function to plot selected areas that can be used in combination with static perimetry.
Haag-Streit USA	EyeSuite Software Analysis Program	EyeSuite Software Analysis Program	Archive perimetry data with single field analysis.	EyeSuite Software standard on all 300 & 900 perimeters	n/a	n/a	Easily networked w/no extra charges for viewing stations; easily integrated w/electronic medical records. Archive perimetry data w/single-field analysis + cluster trend analysis structure function graph. New cluster and polar graphs.
Heidelberg Engineering	Heidelberg Engineering Perimeter (HEP)	SAP (standard automated perimetry) white-on-white; and FDF (Flicker Defined Form)	60°	10-2, 10-3, 24-2, 30-2, 0-60	yes	ASTA (Adaptive Staircase Thresholding Algorithm) standard; ASTA follow up, ASTA Fast, screening for both SAP & FDF perimeters	Structure/Function reports with Spectralis and HRT systems.
Kowa Optimed Inc.	AP-5000C	Goldmann std. proj. size II-V, Heijl-Krakau Eye fixation monitor	80°	25 test programs including threshold: Center 1 & 2, macula, periphery & meridian; screening: standard or precision; isopter: Goldmann & automatic perimeter is combined	External PC connected	threshold: IQAC aged reference screening 2,3,4 zone & quantify defects	In ocular fundus perimetry, the visual field is examined w/an ocular fundus image displayed on screen. System offers capability to overlap ocular fundus image & perimetry result so physician can better understand the retinal function.
Oculus Inc.	Centerfield II	Goldmann size II; Heijl-Krakau & central fixation; video eye monitor; static white-on-white & blue-on-yellow; auto kinetic	70°	30°; 10° macula; 30°course; 36°-70°; 70°; 0°-36°; sgl. pts. -36°; sgl. pts. -70°; 36° sectors; 10-2; 24-2; 30-2 quick screen	optional	3 suprathreshold; new CLIP threshold; fast threshold; 1 full threshold 4/2; qdmts; sgl. pts.; user-defined	Portable; compares exams; stats pkg.; progressive display; combo stats & kinetic display; color display; exam indep. of room light; free software upgrd.; adj. test pt. duration & intervals; 30-cm radius bowl; Goldmann std.; measures pupil size; trial lens holder; CLIP strategy for faster visual field exam.
Oculus Inc.	Twinfield	Goldmann size I-III; Heijl-Krakau & central fixation; video eye monitor; static white-on-white, blue-on-yellow & red-on-white; auto & manual kinetic	90°	all of the above plus indiv. test pts.; central & entire field	optional	3 suprathreshold; new CLIP threshold; fast threshold; 1 full threshold 4/2; qdmts; sgl. pts.; user-defined	Compares exams; stats pkg.; progressive display; combo stats & kinetic disp.; color of room light; free software upgrade; adj. test pt. duration & intervals; 30-cm radius bowl; Goldmann std.; measures pupil size; trial lens holder. CLIP strategy for faster visual field exam.
Oculus Inc.	Easyfield	Goldmann size III; Heijl-Krakau & central fixation; video eye monitor; static white-on-white	30°	10-2; 24-2; 30-2; preprogrammed quick tests	built-in	3 suprathreshold; fast threshold; full threshold 4/2; qdmts; sgl. pts.	Less than 12 lbs; portable; stats pkg.; CCD camera; moveable headrest & cone/bowl; color LCD display; stores 40,000 exams; screening rsits. 50-70 secs.; 30-cm radius bowl; free software upgrds.; exam indep. of room light; measures pupil size.; trial lens holder; two models; built-in console/computer; can use newer model w/own PC or laptop. CLIP strategy for faster visual field exam.
OPTOPOL Technology S.A. (distributed by Canon Medical Systems)	PTS 1000	Goldmann size I-V white, blue, red, green	100° (160 with fixation shift horizontally)	Accurate threshold, Intelligent advanced threshold, screening and quick 3-zone	Printout manager with predefined printout styles	Kinetic, screening, threshold, 3-zone, fast threshold, BSV (binocular single vision), flicker (critical fusion frequency), blue on yellow (SWAP), BDT (Binocular Drivers Test), advanced - reduced field option - neurological defects option	Eye monitoring by means of built-in video camera. Advanced auto-detection of eye position. Automatic pupil diameter measurement. Automatically controlled chin-rest enables you to set proper patient's position precisely and easily. Printout manager with predefined printout styles. Network capabilities (remote database, networked review stations). Direct database back-up. Special ventilation system is used to keep fresh air throughout examination inside stimulation bowl.
Paradigm Medical Industries Inc. Dicon Inc.	TKS 6000 autoperimeter	static w/kinetic fixation; Heijl-Krakau fixation monitor	±90°	10°, 30° & 60° field patterns; 13 programs std.	Inkjet std.; color printer support w/ FieldView.	threshold-related suprathreshold screening; quantify missed pts.; full threshold; HT	Supported by Adv. FieldView analysis software; USB storage; FieldLink data transfer to PC; voice recognition and voice prompts available in 28 languages.
Paradigm Medical Industries Inc. Dicon Inc.	LD 500 autoperimeter	static w/kinetic fixation; Heijl-Krakau fixation monitor.	±60°	10°, 30° & 60° field patterns; 13 programs std.	Inkjet std.; color printer support w/ Adv. FieldView.	threshold-related suprathreshold screening; quantify missed pts.; full threshold; HT	Half the size of TKS 6000 w/full-field capability; supported by Adv. FieldView analysis software; USB storage; FieldLink data transfer to PC; voice recognition and voice prompts available in 28 languages.
Paradigm Medical Industries Inc. Dicon Inc.	FieldLink Automated Perimetry System	static w/kinetic fixation; Heijl-Krakau fixation monitor.	±60°	10°, 30° & 60° field patterns; 13 programs std.	Inkjet std.; color printer support w/ FieldView.	threshold-related suprathreshold screening; quantify missed pts.; full threshold; HT	Includes FieldView Omega Analysis software; FieldLink communications software; laptop computer; deluxe table; voice recognition; voice prompts; Advanced FieldView.
Paradigm Medical Industries Inc. Dicon Inc.	LD 700	Goldmann size III; Heijl-Krakau; red LED fixation targets, static	30°	screening 30°, central field, suprathreshold, full & fast threshold	optional printer	threshold-related suprathreshold; full threshold; fast threshold	11 lbs., compact, easy to use; connects to any PC or purchase w/touch screen controller; full database for patient management, output range 540-590nm, alignment controls for patient comfort.
Reichert Technologies	Foresee PHP	Dot deviation signal flashed over macular loci	Central visual field - 14°	Central visual field test for CNV determination.	External color inkjet	n/a	Normative database; easy to interpret report w/mapping, change-over-time analysis & reliability indices.
Woodlyn/Medmont	M700	Goldmann Size III - pale green rear projection LED (red macula stimulus optional) 15 points x 3dB steps / 45 points x 1dB steps - video fixation monitoring feature	80°	central 30°, full 50°, peripheral 30° - 50°, macula 10°, glaucoma 22°/50°, neurological 50°, quickscan 22°/30°, driving 50°/80°, binocular 30°/40°, binocular driving test 160°, spatially adaptive test 50°; customize any test or build your own	use any printer via PC	central threshold, Medmont Flicker Perimetry	Instrument is controlled via PC, which allows for easy networking in your office and integration with your EMR or PM software. Software allows you to view exams in 2D or 3D, in color or greyscale, overlay retinal images over visual field exams (optional). Utilizes previous exams from patients to reduce test time and gives detailed regression reports or patient history. Customize printouts for your need.

CORNEAL TOPOGRAPHERS

COMPANY	MODEL	RESOLUTION	PROCESSING TIME	NUMBER OF RINGS	NUMBER OF DATA POINTS	WORKING DISTANCE	FOCUSING MECHANISM	ADDITIONAL FEATURES
Carl Zeiss Meditec	ATLAS Model 9000	0.01D; submicron	less than 1 second	22	thousands	70 mm	Joystick with patented Cone of Focus™ alignment system and Smart Capture™ Technology	Proven Placido disk technology and Arc-Step Algorithm for submicron elevation accuracy. Zernike corneal wavefront analysis for aspheric IOL selection, image simulation of higher order corneal aberrations, invisible ring illumination for patient comfort; auto pupillometry (scotopic & photopic) and white to white (HVID) measurement. PathFinder II Corneal Analysis Software screens for 5 different corneal conditions with >92% accuracy. MasterFit II CL fitting module. Small footprint, integrated Win XP computer with DVD-ROM/ethernet/USB. ATLAS comes with the onboard functionality to connect to FORUM Data Management system. FORUM allows real-time viewing of reports or images from supported networked ZEISS and non-ZEISS instruments. FORUM supports bi-directional workflow for supported DICOM enabled devices, reducing charting errors and increasing patient throughput.
Carl Zeiss Meditec	Visante <i>omni</i> (linking ATLAS with Visante OCT Model 1000)	0.01D; submicron	seconds	22 (ATLAS Placido), OCT pachymetry	thousands	47 mm	V-Trac™ Registration System	Only combined Placido + OCT system for anterior and posterior corneal topography including the Holladay Report; complete anterior segment imaging with full pachymetry map, anterior chamber angle and diameter measurements, corneal flap thickness measurement; Refractive Tools Software for surgical planning; Iridio-Corneal Tools Software to quantify angle anatomy; Topography Link Software compatible with ZEISS ATLAS Models 993, 995, and 9000. Visante <i>omni</i> comes with onboard functionality to connect to FORUM Data Management system. FORUM allows real-time viewing of reports or images from supported networked ZEISS and non-ZEISS instruments. FORUM supports bi-directional workflow for supported DICOM enabled devices, reducing charting errors and increasing patient throughput.
EyeQuip	Piccolo Topographer	< 1 micron	< 3 seconds	28	7,168 measured 75,000 analyzed	<10 mm	patented infrared vertex detector	Corneal wavefront mapping clearly displays corneal spherical aberration and low and high order aberrations that can be removed from the map individually; slit lamp or table top mount; use your laptop or desktop computer; Exclusive Wave Contact Lens Design Software included.
EyeQuip	Scout Topographer	< 1 micron	< 3 seconds; depends on computer	28	7,168 measured 75,000 analyzed	<10 mm	patented infrared vertex detector	Std. corneal wavefront mapping clearly displays low & high-order aberrations that can be removed from the map individually; opt. IR pupillometry; three interchangeable opt. IR pupillometry; three interchangeable Scout models; portable w/battery; slit lamp mounted or table-based w/a permanent headrest; use your laptop or desktop computer; exclusive Wave Contact Lens software designs custom RGP & soft lenses.
EyeSys Vison, Inc.	System 3000	high res	computer dependent	multi-res; up to 40 rings	up to 14,400	32 mm	3 camera apex detection with auto-capture	New desktop topographer/pupillometer. Solid state USB 2.0 digital design, patented high-resolution, 3-camera technology and patented multi-resolution, adaptable ring placido. Many options include corneal wavefront high-order aberration map, Holladay diagnostics, white to white measurement, etc.
EyeSys Vison, Inc.	Vista Portable CT	high res	computer dependent	26	10,600	12.5 mm	image sequence through focus auto-capture	Newly updated for 2008. Portable, fast and easy-to-use, solid state USB 2.0 digital design, no moving parts, automatic exam acquisition, map options include corneal wavefront high order aberration map, Holladay diagnostics, white to white measurement, etc.
Marco	OPD Scan III	high res	0.4 seconds	19 vertical; 23 horizontal	6,480	75 mm	XYZ axis fully automatic alignment	Diopter range is on CT 33.75 to 67.5 D; 0.5 to 11 mm; more than 11,800 data points; 33 rings, blue light. Includes axial, instantaneous, gradient, refractive & elevation maps; ARK; Angle Kappa, spherical aberration of cornea, wavefront analyzer; OPD; internal OPD; pupillometer; mesopic & photopic pupil displayed; Windows 2009 embedded; EMR-ready through Marco Connect.
Nidek	Magellan Mapper	high res; ± .03 mm	< 1 second	60	21,600	1.5 mm	XYZ joystick w/auto-offset correction	Klyce Corneal Navigator Screening Program aiding in the detection of nine corneal conditions; Corneal Aberrometry Software; NAVIS included.
Oculus Inc.	Easygraph	± 0.20D	1 second	22; high-res CCD camera	22,000	40 mm	automatic focusing; manual override	Exclusive "REAL" keratometer built in; image data transferred digitally to computer; Windows-compatible software; 3-D; overview image; Fourier analysis; height & refractive maps std.; keratoconus detection software; Zernike analysis software & contact lens fitting software opt.; contact lens software includes 35,000 lens database & fluor. image-simulation; ortho-k software also available. OxiMap Software shows the "breathability" of the contact lens.
Oculus Inc.	Keratograph	± 0.10D	1 second	22; high-res CCD camera	22,000	80 mm	automatic focusing; manual override	Exclusive "REAL" keratometer built in; image data transferred digitally to computer; Windows-compatible software; 3-D; overview image; Fourier analysis; height & refractive maps std.; keratoconus detection software & Zernike analysis software; contact lens software includes 35,000 lens database & fluor. image simulation; refractive comparison software for corneal refractive therapy; opt. pupillometry software avail. New Tear Film Scan Software analyzes the tear film retention of the cornea and OxiMap Software shows the "breathability" of the contact lens.
Oculus Inc.	Pentacam Basic	± 0.25D	max. 2 seconds	no rings; Scheimpflug camera	25,000 true elevation pts.	80 mm	automatic focusing; manual override	The Pentacam Basic is a rotating Scheimpflug camera system that includes the basic software modules that a practice needs for day-to-day use. Topography and elevation of the anterior and posterior surfaces of the cornea and pachymetry are seen in the basic software that includes the Overview Display, 1 Large Color, 4 Maps Refractive, Scheimpflug Image, Virtual Eye, Tomography, Topometric and the ability to Compare 2 Exams. Optional software includes Refractive Software Package, Cataract Software Package, the Holladay Report and Belin/Ambrosio Enhanced Ectasia software.
Oculus Inc.	Pentacam Classic	± 0.25D	max. 2 seconds	no rings; Scheimpflug camera	25,000 true elevation pts.	80 mm	automatic focusing; manual override	The Pentacam is a rotating Scheimpflug camera system; anterior & posterior corneal topography; anterior segment/chamber analysis; calculates chamber angle in degrees, camera chamber volume, diameter & height; creates moveable 3-D model; images anterior & posterior corneal surfaces, iris & the lens; quantifies & displays crystalline lens opacifications; measures IOL vault distance from any eye surface; detects optimal focus for anterior chamber imaging, Holladay Report with Equivalent K Readings for better IOL Calculation; 1 year free software upgrades.
Oculus Inc.	Pentacam HR (High Resolution)	+/- 0.1D	1 second	no rings; Scheimpflug camera	138,000 true elevation pts.	80 mm	automatic focusing; manual override	The Pentacam HR is a rotating Scheimpflug camera system; anterior & posterior corneal topography; anterior segment/chamber analysis; calculates chamber angle in degrees, camera chamber volume, diameter & height; creates moveable 3D model; images anterior & posterior corneal surfaces, iris & the lens; quantifies & displays crystalline lens opacifications; measures IOL vault distance from any eye surface; detects optimal focus for anterior chamber imaging, Holladay Report with Equivalent K Readings for better IOL Calculation; 1 year free software upgrades.
Precision Technology Services	Medmont E300	High Res	Instant	32	15120	65mm	joystick control with auto capture of 4 simultaneous images	The Medmont E300 is run from a laptop, making networking and EMR integration simple. The software includes a wide variety of analysis options, disease detection indices and a powerful C/L design module.
Tomey USA	TMS-4	800 x 600 pixels	3 seconds	25 & 31	8,000	70 mm	joystick	Provides spherical equivalent, regular astigmatism, asymmetry & higher-order alignment; provides refractive information w/3-mm & 6-mm diameter range; keratoconus screening. Klyce statistics; enhanced height & height change maps; contact lens software and dry eye software included. Placido cone.
Topcon Medical Systems	CA-200	+/- 0.01; 1 micron	< 10 sec.	24	10,000 measured points	80mm	auto focus and auto alignment	Complete corneal surface analysis; on board state-of-the art PC allows for complete stand-alone operation; 8-inch touch screen panel; WiFi communication with PC-based software; automatic "best image capture"; automatic pupil recognition; Keratoconus Index; additional modules available including contact lens fitting and Zernike analysis.
Topcon Medical Systems	KR-8000PA	n/a	n/a	10	3,600	85 mm	automatic alignment w/manual override	Tri-functional autorefractor/keratometer w/corneal mapping & contact lens fluorescein simulation fitting program; interfaces w/Topcon computerized lensmeters and CV-5000 vision tester.
Topcon Medical Systems	KR-1W	high resolution	simultaneous with other functions, 100 milliseconds	19, near infrared illumination	6,840	80 mm	auto-focus, auto-alignment with manual override	The KR-1W combines 5 simultaneous measures: Hartmann-Shack wavefront aberrometry, near-infrared corneal topography, keratometry, pupillometry and auto-refraction. Dioptric corneal measurement range is 33.75 D to 67.5 D (0.25 D steps) up to a 9.2-mm area, including 1-mm apical data. Multiple corneal topography maps include: Mire Image, axial power, instantaneous (refractive) power, Sim-K and other corneal indices, spherical aberration, IOL selection map and numerous other wavefront aberrometry features. KR-1W Viewer software available.
Tracey Technologies, Corp.	iTrace Combo Visual Functional Analyzer	.01 diopter/1µ	instant	25	9,000	20 mm	laser vertex	5-in-1 functionality including ray tracing wavefront aberrometry, multi-zone auto refraction, auto-keratometry, pupillometry; topography enabled by EyeSys Vision; provides corneal spherical aberration measurement for IOL selection; measures lenticular aberrations; keratoconus screening; asphericity index; computer-independent.
Ziemer Ophthalmic Systems	GALILEI G2™ Dual Scheimpflug Analyzer	+/- 0.1D	1-2 seconds	20	>122,000	58 mm	computer-aided 3D alignment	GALILEI G2™ is the only device on the market that combines a Placido-Disk system with a dual-rotating Scheimpflug Camera system and merges all data from its two subsystems into a single dataset to generate high-precision maps of anterior and posterior corneal surfaces and of the anterior segment. Features Ray Tracing for high-precision Total Corneal Power-based calculations of IOL Power in post-refractive eyes, and advanced keratoconus diagnostics.

CORNEAL BIOMECHANICS

Reichert Technologies	Ocular Response Analyzer	noncontact	0 to 60 mm Hg	automatic	tabletop/instrument stand 30 lbs.	Measures IOP & Corneal Hysteresis (CH), the world's first indicator of corneal biomechanical properties, & IOPcc (corneal compensated IOP), which is less affected by corneal properties than traditional methods of tonometry.
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PACHYMETERS

NAME	MODEL	TYPE	WEIGHT	RANGE	BUILT-IN IOP CALCULATOR	PORTABILITY	POWER SOURCE	ADDITIONAL FEATURES
Accutome	AccuPach VI	desktop	3.1 lbs.	300 to 999 microns	yes	yes	universal	Voice output; gentle touch probe; easy-to-use touch screen; new Digital Signal Analysis for accuracy.
Accutome	PachPen	handheld	3 oz.	300 to 999 microns	yes	yes	lithium battery	Ergonomically designed to fit comfortably in hand; gentle touch probe; can store & average nine measurements; new Digital Signal Analysis for accuracy.
DGH Technology Inc.	DGH-55 Pachmate	handheld	3.6 oz.	200 to 1100 microns, flap option 95 to 1100 microns	yes	yes	two AAA batteries	Carrying case; extra charger; extra batteries included; bilateral mode; totally portable.
DGH Technology Inc.	DGH-550 Pachette 2	desktop	4 lbs.	200 to 1100 350 microns, flap option 95 to 1100 microns	yes	yes	A/C	Carrying case; extra charger; extra batteries included; bilateral mode; totally portable.
DGH Technology Inc.	DGH-555 Pachette 3	desktop	1.4 lbs.	200 to 1100 microns; flap option 95 to 1100 microns	yes	yes	two AA batteries	Carrying case; extra charger; extra batteries included; bilateral mode; totally portable.
Micro Medical Devices	P2000 FastPach	handheld	8 oz.	100 to 1200 microns	yes	yes	dual rechargeable batteries	Easy one-touch operation; auto data capture; advanced pattern batteries recognition; automatic IOP adjustment; corneal waveform display; hi-res color LCD and touch screen controls; wireless print; upgradeable to AP2000 (A-scan and pachymeter); ADA; 200+ patient scans on single charge.
Micro Medical Devices	P2000 Pachymeter	handheld	10 oz.	60 to 1200 microns	yes	yes	rechargeable batteries	Automatic IOP adjustment; corneal waveform technology (A-scan of cornea); choice of 20 or 50 MHz probe; corneal mapping; batteries; FemtoScan flap measurement mode; patient database, DSAEK/Thin Flap Mode, hi-res LCD touch screen controls; LRI software.
Paradigm Medical Industries, Inc. Dicon Inc.	P-2200	desktop	3.6 lbs.	200 to 1500 microns	yes	yes	A/C	Pachymeter system w/LCD monitor; 20 MHz P-probe, probe holder; calibration cylinder; foot switch; A/C adapter; built-in thermal printer.
Paradigm Medical Industries, Inc. Dicon Inc.	P-2500 P/A	desktop	3.6 lbs.	200 to 1500 microns	yes	yes	A/C	A-scan pachymeter combination; portable & sleek; 10 MHz A-scan probe & 20 MHz P-probe large LED Display w/auto gain control, 8 axial readings; 6 IOL calculations; built-in thermal printer.
Sonomed Inc.	300AP	desktop	3.25 lbs./1.4 kg.	100 to 1000 microns	yes	yes	A/C	A-scan & pachymeter in one unit; small footprint, portable w/touch-screen user interface; built-in probe sensitivity test & auto calibration check; straight or 45°.
Sonomed Inc.	300P	desktop	3.25 lbs./1.4 kg.	100-1000 microns	yes	yes	A/C	Small footprint, portable, w/touchscreen user interface; built-in probe sensitivity test & automatic calibration check; straight or 45° angled 20 MHz probe.
Tomey USA	SP-100	handheld	1.17 lbs.	150-1200 microns	yes	yes	lithium rechargeable battery	Handheld with built-in printer; IOP calculations and network ready; simple to use and highly accurate; user programmable nomograms.

BINOCULAR INDIRECTS

COMPANY	MODEL	TYPE	SPOT SIZE	FILTERS	POWER SOURCE	PORTABILITY	ADDITIONAL FEATURES
Heine	SIGMA 150	S-Frame Spectacle	small & large	integrated red free; cobalt, yellow and diffuser available	mPACK lithium ion portable power source	yes with mPACK portable power source	Mounted to lightweight, fully adjustable S-Frame — weighs a mere 5.2 oz. Variable pupil scope (for optimized views in pupils 10mm-2mm) with no presets; carbon fiber frame for durability. Xenon halogen bulb offers a CRI Rating of 98.5 for accurate color rendering. 100% dust-proof. Guaranteed for life.
Heine	SIGMA 150 K	headmount	small & large	integrated red free; cobalt, yellow and diffuser available	wired to stand, desktop, wall-mount and mPACK portable power source	yes with mPACK portable power source	Variable pupil scope (for optimized views in pupils 10mm-2mm) with no presets; carbon fiber frame for durability. Xenon halogen bulb offers a CRI Rating of 98.5 for accurate color rendering. 100% dust-proof. Guaranteed for life.
Heine	SIGMA 150 KC	headmount	small & large	integrated red free; cobalt, yellow and diffuser available	wired to stand, desktop, wall-mount and mPACK portable power source	yes with mPACK portable power source	Variable pupil scope (for optimized views in pupils 10mm-2mm) with no presets; carbon fiber frame for durability. Xenon halogen bulb offers a CRI Rating of 98.5 for accurate color rendering. 100% dust-proof. Guaranteed for life.
Heine	OMEGA 500	headmount	small, medium & large	integrated red-free, cobalt blue, amber and diffuser	wired to stand, wired to wall, wall-mounted, mPACK Li-Ion Portable Power Pack	yes with mPACK Portable Power Pack	Variable pupil scope (for optimized views in pupils 10mm-2mm) with no presets; aluminum chassis mounting for all optical components for durability. All features fully integrated. Xenon halogen bulb offers a CRI Rating of 98.5 for accurate color rendering. 100% dust-proof guaranteed.
Heine	OMEGA 500 Unplugged	headmount	small, medium & large	integrated red-free and cobalt blue; amber and diffuser	Unplugged Li-polymer headband mounted battery. Available with exclusive mobile transformer or wall-mounted charger.	yes, Unplugged allows freedom to work without cables and cords	Variable pupil scope (for optimized views in pupils 10mm-2mm) with no presets; aluminum chassis mounting for all optical components for durability. All features fully integrated. Xenon halogen bulb offers a CRI Rating of 98.5 for accurate color rendering. 100% dust-proof guaranteed.
Heine	OMEGA 200	headmount	small, medium & large	integrated red-free and cobalt blue; yellow available as substitution	wired to stand, desktop, wall-mount and mPACK Portable Power Pack	yes with mPACK Portable Power Pack	The choice for teaching and operating rooms. Integrated teaching mirrors on the left and right. Variable pupil scope (for optimized views in pupils 8mm-1.2mm); aluminum chassis mounting for all optical components for durability.
Keeler Instruments	All Pupil II Wired	headmount with exclusive headband dimmer control	small; medium; large	built-in UV/safety filter; red free; diffuser	Smart Pack Convertible (mobile, wall or desk) or Wall Pack	yes with Smart Pack	Halogen or LED illumination. Lightweight; less than 500 grams; easy to use; brightest; PD range 47 mm-75 mm.
Keeler Instruments	All Pupil II Wireless	headmount with exclusive headband dimmer control	small; medium; large	built-in UV/safety filter; red-free; diffuser	standard wireless system, with 2 lithium ion batteries and charging/docking station	yes, 2 lithium ion batteries	Halogen or LED illumination. Lightweight; less than 500 grams; easy to use; brightest. PD range 47 mm-75 mm.
Keeler Instruments	All Pupil II Slimline Wireless	headmount with exclusive headband dimmer control	small, medium, large	built-in UV/safety filter; red-free; diffuser	2nd generation slimline wireless system with 2 lithium ion batteries and charging/docking station	yes, 2 lithium ion polymer batteries	LED illumination. Lightweight; less than 500 grams; easy to use; brightest. PD range 47 mm-75 mm.
Keeler Instruments	Fison Wired	headmount	large	safety filter; red-free; cobalt blue	desk or wall-mountable transformer	no	the standard
Keeler Instruments	Spectra Plus	exclusive sport frame, available in red, light blue dark blue, black	large	red-free; cobalt blue	lithium ion battery	yes, lithium ion battery	LED illumination — first indirect to use LED illumination. Lightweight (less than 500 grams); easy to use, can be worn over glasses; PD range 48 mm-76 mm.
Keeler Instruments	Vantage Plus Convertible Wired	headmount with exclusive headband dimmer control	Intelligent optical system ensures best stereopsis on any settings - small pupil, medium and large	coated UV/safety filtered, optics; red-free, cobalt blue and diffuser	3 options in 1: Smart Pack Convertible (mobile, wall or desk) or Wall Pack	yes with Smart Pack	Convertible illumination from natural LED to Xenon standard. IOS optics with single-step aperture spot size & convergence to maximum 3D stereopsis; Hi-Mag Retina Lens to improve patient care and enhance visualization of the fundus. PD range 52 mm-76 mm.
Keeler Instruments	Vantage Plus Convertible Slimline Wireless	headmount with exclusive headband dimmer control	Intelligent optical system ensures best stereopsis on any settings - small pupil, medium and large	coated UV/safety filtered, optics; red-free, cobalt blue and diffuser	2nd generation slimline wireless system with 2 lithium ion batteries and charging/docking station	yes, 2 lithium ion polymer batteries	Convertible illumination from natural LED to Xenon standard. IOS optics with single-step aperture spot size & convergence to maximum 3D stereopsis; Hi-Mag Retina Lens to improve patient care and enhance visualization of the fundus. PD range 52 mm-76 mm.
Keeler Instruments	Vantage Plus Digital Slimline Wireless	headmount with USB interface	Intelligent optical system ensures best stereopsis on any settings - small pupil, medium and large	coated UV/safety filtered optics, red-free, cobalt blue and diffuser	2nd generation slimline wireless system with 2 lithium ion batteries and charging/docking station	yes, first and only digital ophthalmoscope with USB interface	First digital inocular indirect system, Not OLD Analog. Utilize Vantage Plus LED Digital Wireless in your office, operating room, and teaching facility or anywhere you want to capture digital images.
Kowa/Neitz	IO-Alpha	small pupil	small (19 mm); med. (50 mm); large (80 mm)	UV; blue; red-free	opt. cordless rechargeable battery pack; carrying case	AC power wall- or desk-mount; portable, rechargeable battery	Continuously adjustable observation angle; teaching mirror; video capability.

BINOCULAR INDIRECTS

COMPANY	MODEL	TYPE	SPOT SIZE	FILTERS	POWER SOURCE	PORTABILITY	ADDITIONAL FEATURES
Kowa/Neitz	IO-H	BIO	medium	blue; red-free	opt. cordless rechargeable battery pack; carrying case	AC power wall- or desk-mount; portable, rechargeable battery	Lightweight; halogen illumination.
Kowa/Neitz	IO-TV	video BIO; small pupil	small; medium; large	UV; blue; red-free	requires AC power source for CCD camera; carrying case	AC power wall- or desk-mount; portable, rechargeable battery	Color CCD camera; continuous NTSC output.
Tech Optics International	Task-Vision	headmount, frame or frameless	small, medium, large	orange	optional Bright Light Star LED 35k lithium rechargeable battery pack	yes/wireless lithium battery pack	Can be worn over prescription, safety or laser safety glasses; lightweight.
Tech Optics International	Task-Vision #227, 229, 330, 350	Distance telescopic spectacles, frame or frameless	monocularly or binocularly	clear coated	optional Bright Star LED 35k LUX - lithium rechargeable battery	yes/wireless lithium battery pack	Can be worn over prescription, safety or laser safety glasses or as spectacles; lightweight.
Welch Allyn	12500 Binocular Indirect	headmount	small; medium; large	cobalt blue or yellow; red-free	portable power pack; wall- or desk-mount	yes	Video-aligned optics for crystal clear views; lightweight comfort; true small pupil capability; UV/IR filter; 100 hrs. lamp life; widest PD range (49 mm to 74 mm), leather padded headband.
Welch Allyn	12500-D Binocular Indirect	headmount	small; medium; large	diffuser; cobalt blue or yellow; red-free	portable power pack; wall- or desk-mount	yes (w/portable power source)	Diffuser filter expands illuminated area; video-aligned optics; for crystal clear views; lightweight comfort; true small pupil capability; widest PD range (49 mm to 79 mm); leather-padded headband.

RETINAL CAMERAS

COMPANY	MODEL	TYPE	FIELD OF VIEW	ANGIO-GRAPHY	NUMBER/TYPE OF PORTS	FLASH STIMULUS	VIDEO CAPACITY	ADDITIONAL FEATURES
Canon Medical Systems	CR-1 Mark II	non-mydratric digital retina camera	45°	no	digital	n/a	n/a	Full 45-degree retinal images, 2x magnification, 1/4 flash intensity of the CR-1, illuminated operation panel, Swivel, 5.7" LCD monitor, single joystick operation, 15.1 MP EOS digital SLR camera back, optional imageSPECTRUM software and DICOM software.
Canon Medical Systems	CR-2	non-mydratric retinal camera	45° optical with 2x digital magnification	not available	1 USB	white LED with auto exposure available	3.0 inch LCD monitor on dedicated EOS digital camera body	Small and compact design, full 45° retinal images, 2x magnification, color photography, digital red-free photography, digital cobalt photography, white LED flash, low flash intensity, moveable internal fixation dot, anterior lens compensator for external photos, omni-directional joystick, optional imageSPECTRUM software, DICOM software and hard shell travel case.
Canon Medical Systems	CF-1	mydratric digital fundus camera	50°	yes	digital	n/a	n/a	Small-diameter mode; color photography; red free photography; fluorescein angiography (FA); proprietary control software outputs retinal imaging information into optional imageSPECTRUM software; 10.1 MP EOS digital SLR camera back; 2X magnification and DICOM software.
Canon Medical Systems	CX-1	hybrid mydratric/non-mydratric digital retinal camera	50° (mydratric) 45° (non-mydratric)	yes	digital	n/a	n/a	One touch selection between mydratric and non-mydratric mode; mydratric and non-mydratric fundus autofluorescence (FAF) photography modes (color, red-free, fluorescein angiography, FAF, cobalt); EOS camera technology with 15.1 mega pixels; 2X magnification; optional imageSPECTRUM software and DICOM software.
Carl Zeiss Meditec	FF450 ^{Plus}	full-feature fundus camera with color, red free, FA, ICG and optional fundus-autofluorescence, Designed for digital interface.	50°, 30°, 20°	yes	2 main interface ports; 4 digital, video and/or film cameras possible simultaneously	360 W/s Max	yes	High resolution ZEISS optics. Each angle of view has its own "telescope" lens to optimize image quality at all three magnifications; upper camera port optimized for digital interface. Fully integrated with VISUPAC Digital Imaging and Archive Management System.
Carl Zeiss Meditec	VISUPAC Digital Imaging and Archive Management System	digital imaging and archive management system	50°, 30°, 20°	yes	3 digital sensors available; USB and ethernet ports	n/a	import, store & play video	Digital Image Capture System based on relational database for complete image management, documentation, progression viewing and image enhancement. Various high resolution digital sensor options and combinations. Integrated report generator. Network ready and DICOM conform. VISUPAC comes with the onboard functionality to connect to FORUM Data Management System. FORUM allows real-time viewing of reports or images from supported networked ZEISS and non-ZEISS instruments. FORUM supports bi-directional workflow for supported DICOM enabled devices, reducing charting errors and increasing patient throughput.
Carl Zeiss Meditec	VISUCAM ^{PRO MM}	non-mydratric digital fundus camera with color, red free, red and blue	45°, 30°	no	internal digital sensor; USB and ethernet ports	Xenon flash lamp; 16 steps	no	All-integrated design with onboard database system. Auto-flash, auto-focus, 3.3mm small pupil mode, various preset internal fixation points and stereo capture mode. Large LCD monitor for patient management; alignment, capture and review. Network ready and DICOM conform. Telemedicine ready. VISUCAM comes with the onboard functionality to connect to FORUM Data Management system. FORUM allows real-time viewing of reports or images from supported networked ZEISS and non-ZEISS instruments. FORUM supports bi-directional workflow for supported DICOM enabled devices, reducing charting errors and increasing patient throughput.
Carl Zeiss Meditec	VISUCAM ^{MMFA}	non-mydratric/mydratric digital fundus camera for color, red free, red, blue and FA and optional ICGA and FAF	45°, 30°	yes	internal digital sensor; USB and ethernet ports	Xenon flash lamp; 20 steps depending on mode	no	All-integrated design with onboard database system. Auto-flash, auto-focus, 3.3mm small pupil mode, various preset internal fixation points and stereo capture mode. Large LCD monitor for patient management; alignment, capture and review. Easily upgradable to fundus-autofluorescence and indocyanine green angiography. Network ready and DICOM conform. Telemedicine ready. VISUCAM comes with the onboard functionality to connect to FORUM Data Management system. FORUM allows real-time viewing of reports or images from supported, networked ZEISS and non-ZEISS instruments. FORUM supports bi-directional workflow for supported DICOM enabled devices, reducing charting errors and increasing patient throughput.
Clarity Medical Systems	RetCam 3	digital: premature infant, children & adult anterior chamber	30°, 80°, 120°, 130°	FA option	2 USB 2.0; 1 primary; 1 Ethernet port	no flash	yes	Fully integrated imaging system that delivers the next generation of ophthalmic visualization, photo documentation and ease of use with a new user interface, redesigned cart and ergonomic hand piece. This advanced system incorporates DICOM compatibility and image annotation feature. Brilliant, full-color images can be captured for immediate assessment of the retina and anterior chamber; digital images can also be sent electronically to the ophthalmologist for immediate evaluation and longitudinal tracking over time. The RetCam 3 Digital Imaging System makes it possible to facilitate ophthalmic care in the hospital NICU, PICU and operating room.
Clarity Medical Systems	RetCam Shuttle	digital: premature infant, children & adult anterior chamber	30°, 80°, 120°, 130°	no	2 USB 2.0; 1 primary; 1 Ethernet port	no flash	yes	RetCam Shuttle enables ophthalmic imaging with a convenient, mobile system that can be easily maneuvered into tight spaces and transported to affiliate hospitals. The Shuttle system enables on-site or remote documentation of the pediatric retina and pediatric or adult anterior chamber. Network capability allows transfer of images to any networked system or to a physician for remote evaluation.
CenterVue, SpA	DRS	Non-mydratric digital fundus camera	45° x 40°	no	4 (1 wired Ethernet, wireless Ethernet, 2 USB)	auto-adjusted intensity using LED illumination	no	High quality images using the most advanced technologies at an affordable price. Fully automatic operation: Auto-alignment, auto flash, autofocus. Network ready - view images on your office computer, iPad, smartphone.
Escalon Digital Solutions	E5	digital conversion of mydratric fundus camera	any	yes	n/a	n/a	n/a	Digital imaging for most mydratric fundus camera; 5 MP CCR sensor; calibrated measurement tools; Auto Eye-Map montage feature; DICOM-compliant; integrates with PACS and OphthaVision AXIS for side-by-side review of images from different modalities.
Escalon Digital Solutions	E6 Single	digital conversion of mydratric fundus camera	any	yes	n/a	n/a	n/a	Digital imaging for most mydratric fundus camera; 6 MP CCR sensor for excellent image quality in a single cameraback; calibrated measurement tools; Auto Eye-Map montage feature; DICOM-compliant; integrates with PACS and OphthaVision AXIS for side-by-side review of images from different modalities.
Escalon Digital Solutions	E6 Dual	digital conversion of mydratric fundus camera	any	yes	n/a	n/a	n/a	Digital imaging for most mydratric fundus camera; Dual 6MP CCR sensors dedicated for color and monochromatic to provide the highest quality color images and angiograms; calibrated measurement tools; Auto Eye-Map montage feature; DICOM-compliant; integrates with PACS and OphthaVision AXIS for side-by-side review of images from different modalities.
Escalon Digital Solutions	E11	digital conversion of mydratric fundus camera	any	yes	n/a	n/a	n/a	Digital imaging for most mydratric fundus camera; 11 MP CCR sensor for specialized settings; calibrated measurement tools; Auto Eye-Map montage feature; DICOM-compliant; integrates with PACS and OphthaVision AXIS for side-by-side review of images from different modalities.
Heidelberg Engineering	Spectralis HRA with TruTrack	confocal scanning laser	30x30°; up to 150° with optional lens	yes; high-speed video angiography	firewire and USB	n/a	yes; high-speed video	Available with simultaneous OCT
Kowa Optimed Inc.	Genesis D Handheld Fundus Camera	joystick w/auto-firing and infrared measuring	30° horizontal	yes	1 primary port; USB 2.0 digital interface	n/a	no still; digital only	Compact flash memory; LCD monitor for picture review; color mydratric photography; indirect lens holder accessory; VK-2 digital imaging system; EMR connectivity; DICOM; JPG and BMP export for telemedicine; connection to portable notebook computer as well as desktop.

All claims made by manufacturer

RETINAL CAMERAS

COMPANY	MODEL	TYPE	FIELD OF VIEW	ANGIO-GRAPHY	NUMBER/TYPE OF PORTS	FLASH STIMULUS	VIDEO CAPACITY	ADDITIONAL FEATURES
Kowa Optimed Inc.	Genesis Df Handheld Fundus Camera	joystick w/auto-firing and infrared measuring	30° horizontal	yes	1 primary port; USB 2.0 digital interface	n/a	no still; digital only	Fluorescein angiography (FA) photography; compact flash memory; LCD monitor for picture review; color mydriatic photography; indirect lens holder accessory; VK-2 digital imaging system; EMR connectivity; DICOM; JPG and BMP export for telemedicine; connection to portable notebook computer as well as desktop.
Kowa Optimed Inc.	nonMyd 7 Fundus Camera	compact; tabletop; nonmydriatic color	nonmydriatic 45°/20°	yes	1 primary port; 1-6.1 mega pixel camera back w/USB 2.0 digital interface	n/a	no still; digital only	LCD monitor for alignment and focusing; small-pupil mode; preset flash exposures; nonmydriatic color photography; camera has internal working distance and focusing dots; with VK-2 digital imaging system; EMR connectivity; DICOM; JPG and BMP export for telemedicine; offers connections for both portable notebook and desktop computers.
Kowa Optimed Inc.	nonMyd Alpha-D III Retinal Camera	compact; tabletop; nonmydriatic color	nonmydriatic 45°/30°	yes	1 primary port; 1 USB 2.0 digital interface	n/a	no still; digital only	LCD monitor for alignment and focusing; small-pupil mode; preset flash exposures; color photography; nonmydriatic color photography; fluorescein angiography (FA) photography; red-free photography; camera has internal working distance and focusing dots; VK-2 digital imaging system; EMR connectivity; DICOM; JPS and BMP export for telemedicine. Ideal for telemedicine applications as it offers connections to both portable notebook and desktop computers.
Kowa Optimed Inc.	VX-10(a) Two-in-One Fundus Camera	compact tabletop; mydriatic; nonmydriatic color/FA	mydriatic: 50°/30° nonmydriatic: 45°/27°	yes	2 primary ports; Upper = digital interface/35 mm/ Polaroid	n/a	no still; digital only	LCD monitor for alignment and focusing; small-pupil mode; preset flash exposures; color photography; nonmydriatic color photography; fluorescein angiography (FA) photography; red-free photography; camera has internal working distance and focusing dots; VK-2 digital imaging system; EMR connectivity; DICOM; JPG and BMP export for telemedicine.
Kowa Optimed Inc.	nonmyd WX3D	simultaneous stereo; digital; nonmyd color; compact; table top	nonmydriatic 45° stereo 34° (20x27)	no	1 primary port; 12 megapixel digital camera back w/USB 2.0 interface	n/a	n/a	LCD monitor for alignment and focusing; small-pupil mode; preset flash exposures; nonmydriatic color photography; camera has internal working distance and focusing dots; with VK-2 digital imaging system; EMR connectivity; DICOM; JPG and BMP export for telemedicine; offers connections for both portable notebook and desktop computers. Automatic Mosaic merge function; 45° and simultaneous stereo; preset internal fixation - central, disc macula plus 8 other positions
Nidek	AFC-210/230 Pro Photographer	table top, non-mydriatic	45°	no	2 USB 1 RGB	1 W/s to 25 W/s	yes	21 megapixels for detection of diabetic retinopathy, auto-focus & auto alignment on y-axis or x-y-z axis. Small-pupil mode, stereo mode, montage capability.
OIS	OIS EyeScan	anterior and posterior portable camera	40°	yes	n/a	yes	yes	The OIS EyeScan is the only portable imaging device that gives practices the ability to image both the anterior and posterior segment of the eye. With color retinal imaging, fluorescein in angiography, stereo optic nerve head imaging, tear film, red reflex and topical fluorescein imaging modules, the OIS EyeScan is unmatched in quality and comprehensive imaging capabilities.
OIS	Winstation Essential	digital conversion of mydriatic fundus camera	any	yes	n/a	n/a	n/a	Designed to meet the needs of general ophthalmologists by delivering a good quality image ideal for primary documentation purposes through the use of its 3.2 megapixel sensor. Using OIS Symphony, images can be enhanced and reviewed side by side with imported ophthalmic diagnostic reports produced by other devices in the clinic. Single-click integration with different EMR systems can be provided.
OIS	Winstation Retina	digital conversion of mydriatic fundus camera	any	yes	n/a	n/a	n/a	With its 5.3 megapixel sensor, it's designed to meet the needs of retina specialists who require excellent image quality with more detail for a higher level of diagnostic ability than general ophthalmologists require. Using OIS Symphony, images can be enhanced and reviewed side by side with imported ophthalmic diagnostic reports produced by other devices in the clinic. Single click integration with different EMR systems can be provided.
OIS	Winstation 5000	digital conversion of mydriatic fundus camera	any	yes	n/a	n/a	n/a	With its 35-mm, 6-megapixel CCD, it's designed to meet the needs of more demanding retina specialists who require the best image quality available. Using OIS Symphony, images can be enhanced and reviewed side by side with imported ophthalmic diagnostic reports produced by other devices in the clinic. Single-click integration with different EMR systems can be provided.
OIS	Winstation 11K	digital conversion of mydriatic fundus	any	yes	n/a	n/a	n/a	With its 35-mm, 11-megapixel CCD, it's designed for research & teaching institutions that demand the most detailed images on the market today. Using OIS Symphony, images can be enhanced and reviewed side by side with imported ophthalmic diagnostic reports produced by other devices in the clinic. Single-click integration with different EMR systems can be provided.
Topcon Medical Systems	TRC-NW8	nonmydriatic	45°	no	1 std: digital CCD	6 W/s to 27 W/s	yes	Color fundus with unique red-free imaging. High quality 12.1 megapixel images with Nikon digital camera. Auto focus, auto capture, auto small pupil detector, stereo mode, and Auto Mosaic™. Can be combined with Topcon's IMAGEnet™ Lite and EyeRoute® Systems for image management and networking. Compatible with today's most popular EMR systems.
Topcon Medical Systems	TRC-NW300	nonmydriatic	45°	no	digital CCD built-in	3.3 W/s to 13 W/s	yes	8 megapixel built-in capture device; auto focus, auto exposure and auto shoot; direct printout to digital printer; can be combined with Topcon's IMAGEnet™ Lite and EyeRoute® Systems for image management and networking. Compatible with today's most popular EMR systems.
Topcon Medical Systems	TRC-50DX/ TRC-50DX ICG	digital/film mydriatic	20°; 35°; 50°	yes	2 std: 35 mm or digital CCD	12 W/s to 300 W/s	n/a	Digital-ready; can accept a variety of photo devices; Color fundus, red-free & fluorescein filters. Autofluorescence & ICG filters also included on TRC-50DX ICG. Touch-screen control panel; 21 flash settings; small pupil mode; can be connected to Topcon's IMAGEnet system.
Topcon Medical Systems	TRC-NW8F	non-mydriatic	45°	yes	4 USB; 1 standard 35 mm	0.7 to 63 W/s	no	Auto focus, auto capture mydriatic/non mydriatic retinal camera with color, red free and fluorescein angiography capabilities. Auto small pupil detection. 12.3 megapixel upgradable sensor. Stereo image capability, nine internal fixation targets that facilitate the composing of wide angle views of the retina. Seamlessly communicates with the IMAGEnet capture system and Synergy data management system. Compatible with today's most popular EMRs.

RETINAL ACUITY METER

COMPANY	MODEL	DESIGN	ILLUMINATION	OPTICS	CALIBRATION	COMPONENTS	SPECIAL FEATURES
AMA Optics Inc.	Retinal Acuity Meter-RAM	Handheld, stand alone	High illumination	CCFT	Automatic Convergent light	Meter, Carrier Frames Pinhole Clip, Occluder	The RAM uses bright, calibrated illumination, exact distance & 1-mm pinhole apertures to accurately measure retinal acuity; assesses macular function & forecasts postoperative vision. Prevents unnecessary surgeries & reduces unexpected poor outcomes. Reproducible & easy.

RETINAL SCANNERS

COMPANY	MODEL	TYPE OF LASER	FIELD OF VIEW	AREA OF RETINA ANALYZED	PRINTOUT DETAIL	ADDITIONAL FEATURES
Bioptigen, Inc.	HHP SDOCT, Adult Human	840 nm SLD, standard or broadband	2° x 2°-60° x 60°	Full retinal thickness and RNFL; contoured C-slices of retinal layers; vessel flow using Doppler	SDOCT image, study information	HHP SDOCT provides high-resolution, high-speed SDOCT imaging in a hand-held, robust, and easily transportable solution that is ideal for clinical, bedside, and operating room imaging. Advanced spectrometer design permits single-shot, falloff-mitigated imaging at 17 frames per second. Standard resolution approaches 4.5 µm in tissue and the broadband option affords < 3 µm ultra-high resolution imaging. Fully customizable scan geometry and density enable pathology-targeted imaging. Registration, averaging, and volume rendering enhance data display. On-screen callipers provide manual distance measurements. Open access to both raw and processed data. Optional accessories include the telecentric cornea bore, HHP microscope base, and chin-rest mounted scanner.
Bioptigen, Inc.	HHP SDOCT, Pediatric	840 nm SLD, standard or broadband	2° x 2°-70° x 70°	Full retinal thickness and RNFL; contoured C-slices of retinal layers; vessel flow using Doppler	SDOCT image, study information	HHP SDOCT provides high-resolution, high-speed SDOCT imaging in a hand-held, robust, and easily transportable solution that is uniquely designed for pediatric imaging. Custom imaging bore optics provide unparalleled resolution in premies, neonates, infants, toddlers, and children. Advanced spectrometer design permits single-shot, falloff-mitigated imaging at 17 frames per second for fast alignment and imaging in uncooperative patients. Standard resolution approaches 4.5 µm in tissue and the broadband option affords < 3 µm ultra-high resolution imaging. Fully customizable scan geometry and density enable pathology-targeted imaging. Open access to both raw and processed data. Optional accessories include the telecentric cornea bore, HHP microscope base, and chin-rest mounted scanner.

RETINAL SCANNERS

COMPANY	MODEL	TYPE OF LASER	FIELD OF VIEW	AREA OF RETINA ANALYZED	PRINTOUT DETAIL	ADDITIONAL FEATURES
Bioptigen, Inc.	HHP SDOCT, Preclinical	840 nm SLD, standard or broadband	0.4° x 0.4°-50° x 50°	Contoured C-slices of retinal layers; vessel flow using Doppler	SDOCT image, study information	HHP SDOCT provides high-resolution, high-speed SDOCT imaging in a hand-held, robust, and easily transportable solution that is uniquely designed for preclinical research, enabling true bench-to-bedside imaging with one system. Optimized imaging optics are available for mouse (FOV given here, lateral resolution less than 3 µm), rat, and macaque. Uniquely designed small-animal imaging mount enables high throughput imaging of mouse and rat models with rapid, accurate alignment every time. All benefits of the HHP SDOCT Adult Retina system plus solutions for preclinical research. Optional accessories include mouse or rat bite bars for fine alignment and motion reduction, telecentric cornea bore, and HHP imaging base.
Carl Zeiss Meditec	Cirrus HD-OCT Model 4000	840 nm superluminescent diode	36° x 30°	Macula and retinal layers; segmented RPE and ILM layers; Optic Nerve Head and RNFL.	Data from single macula cube scan provides: high resolution cross-hair image; 3D layer map of ILM and RPE; 3D retinal thickness map; 3D cube image; LSO fundus image; OCT fundus image with overlay of thickness map or slab. Comparison to normative data. Optic disc scan provides assessment of RNFL and ONH with comparison to normative data; GPA analysis shows comparison of RNFL thickness measurements over time and indicates statistically significant change. The results show event analysis, trend analysis and a quantified rate of change. Enhanced 20x raster scan provides exquisite high-definition B-scan images. Anterior segment imaging provides visualization of the angle and central corneal thickness measurement.	Designed for efficiency. Easy and fast scan acquisition. Small footprint. Modern integrated design fits in the corner of a room. Anterior segment imaging requires no add-on lens. Auto-center feature aligns peripapillary circle for RNFL analysis. Unique Fovea Finder function ensures accurate registration and excellent repeatability of macular thickness measurements. Enhanced HD Raster Scan uses Selective Pixel Profiling to display finely detailed images. Cirrus HD-OCT comes with the onboard functionality to connect to the FORUM Data Management system, allowing real-time viewing of reports or images from supported networked ZEISS and non-ZEISS instruments. Cirrus Model 4000 is the premium model, offering an LSO fundus image and advanced software features.
Carl Zeiss Meditec	Cirrus HD-OCT Model 400	840 nm superluminescent diode	36° x 30°	Macula & retinal layers; segmented RPE and ILM layers; optic nerve head and RNFL.	Data from single macula cube scan provides: high resolution cross-hair image; 3D layer map of ILM and RPE; 3D retinal thickness map; 3D cube image; live OCT fundus image with overlay of thickness map or slab. Optic disc scan provides assessment of RNFL with comparison to normative data. Anterior segment imaging provides visualization of the angle and central corneal thickness measurement.	Cirrus Model 400 provides core HD-OCT functionality for retina, glaucoma and anterior segment, the same integrated design and has the smaller budget in mind. Features Live OCT Fundus™ technology for the fundus image. Anterior segment imaging requires no add-on lens. Auto-center feature aligns peripapillary circle for RNFL analysis. Unique Fovea Finder function ensures accurate registration and excellent repeatability of macular thickness measurements. Cirrus HD-OCT comes with the onboard functionality to connect to the FORUM data management system, allowing real-time viewing of reports and images.
Carl Zeiss Meditec	GDxPRO	780-798 nm GaAlAs laser diode	20° x 20°	nerve fiber layer	RNFL deviation map; thickness map; NFI score; TSNIT parameters; TSNIT graph; quality score; patient & practice information; single & serial analysis formats.	The simplest way to classify and manage the glaucoma patient with assessment of RNFL integrity. Operator independent; has intuitive printout; no dilation required; less sensitive to variations in disc size than other instruments. Ideally suited for those specializing in glaucoma or building a glaucoma practice. Small footprint. Portable. Live Fundus View and Auto Registration. Touch Screen, mouse or keyboard navigation. GDxPRO comes with the onboard functionality to connect to FORUM, allowing real-time viewing of reports and images.
Carl Zeiss Meditec	Stratus OCT	820 nm superluminescent diode	26° vertical x 20.5° horizontal	Macula and retinal layers, RNFL and optic nerve head.	Objective RNFL & retinal thickness; normative data comparison for RNFL & macula thickness; optic nerve head analysis w/disc, cup & rim measurements & ratios. GPA Advanced Serial Analysis for RNFL.	Provides direct cross-sectional images & retinal measurements; images & analyzes macular thickness, retinal nerve fiber layer & optic disc; normative data for RNFL & macula provide age-matched reference values for comparison w/normal population. GPA Advanced Serial Analysis identifies statistically significant change and rate of change to RNFL. Stratus OCT comes with the onboard functionality to connect to the FORUM Data Management system, allowing real-time viewing of reports or images.
Heidelberg Engineering, Inc.	HRT3 with Glaucoma Module	Confocal scanning laser ophthalmoscope; 670 nm diode laser	15° x 15°	optic nerve head; RNFL	Comprehensive optic nerve reports: OU w/cup, rim, RNFL & asymmetry analysis	The HRT Glaucoma Module with TruTrack™ Image Alignment Technology provides clinicians with a powerful option for management of the glaucoma patient. Use in combination with other HRT modules for retina and cornea applications.
Heidelberg Engineering, Inc.	HRT3 with Retina Module	Confocal scanning laser ophthalmoscope; 670 nm diode laser	15° x 15°	macula & peripheral retina	Retina reports: Graphic & statistical analysis of retina with 2D & 3D topography; thickness and reflectance maps and trend analysis.	Proprietary TruTrack™ Image Alignment Technology enables repeat scanning and alignment of images essential for tracking change with retinopathies, such as DME, CME, AMD. Network applications and viewing licenses available.
Heidelberg Engineering, Inc.	HRT3 with Cornea Module	Confocal scanning laser ophthalmoscope; 670 nm diode laser	400 µm x 400 µm	anterior segment & corneal layers; epithelium to endothelium	In-vivo histology & semi-automatic endothelial cell count analysis; live movie capture	The Rostock Cornea Module adds confocal laser microscopy to the HRT system, enabling capture and review of finely detailed images of the cornea's cellular structure, from epithelium to endothelium.
Heidelberg Engineering, Inc.	Spectralis® OCT	488 nm OPS laser; 820 nm diode laser; 870 nm SLD	30°, 20°, 15°	retinal layers, RNFL, posterior pole	Displays infrared, fundus autofluorescence, OCT, posterior pole & RNFL analysis.	At 40 kHz, Spectralis® OCT scans 100 times faster than time-domain OCT. Proprietary TruTrack™ Active Eye Tracking enables precise repeat scanning and noise reduction.
Heidelberg Engineering, Inc.	Spectralis® OCT ^{PLUS}	488 nm OPS laser; 820 nm diode laser; 870 nm SLD	55°, 35°, 30°, 25°, 20°, 15°; composite images up to 120°	retinal layers, RNFL, posterior pole & wide-angle fundus images	Displays infrared, fundus autofluorescence, OCT, posterior pole & RNFL analysis.	At 40 kHz, Spectralis® OCT ^{PLUS} scans 100 times faster than time-domain OCT. Proprietary TruTrack™ Active Eye Tracking enables precise repeat scanning, noise reduction and widefield imaging. Upgradable to FA+OCT and HRA+OCT models.
Heidelberg Engineering, Inc.	Spectralis® HRA	488 nm OPS laser; 790 nm diode laser; 820 nm diode laser	55°, 35°, 30°, 25°, 20°, 15°; composite images up to 120°	posterior pole & wide-angle fundus images	Displays infrared, red-free, fundus autofluorescence, FA, ICGA images	TruTrack™ Image Alignment Technology enables precise tracking over time, noise reduction, and stunning widefield pan-retinal images in real time. It produces fundus images of the retina and choroid unseen in digital or film photography.
Heidelberg Engineering, Inc.	Spectralis® FA+OCT	488 nm OPS laser; 820 nm diode laser; 870 nm SLD	55°, 35°, 30°, 25°, 20°, 15°; composite images up to 120°	retinal layers, RNFL, posterior pole & wide angle fundus images	Displays infrared, red-free, fundus autofluorescence, FA, OCT, posterior pole & RNFL analysis	At 40 kHz, Spectralis® FA+OCT scans 100 times faster than time-domain OCT. Proprietary TruTrack™ Active Eye Tracking enables precise repeat scanning, noise reduction and widefield imaging. Upgradable to HRA+OCT model.
Heidelberg Engineering, Inc.	Spectralis® HRA + OCT	488 nm OPS laser; 790 nm diode laser; 820 nm diode laser; 870 nm SLD	55°, 35°, 30°, 25°, 20°, 15°; composite images up to 120°	retinal layers, RNFL, posterior pole & wide-angle fundus images	Displays infrared, red-free, fundus autofluorescence, FA, ICGA, OCT, posterior pole & RNFL analysis.	Spectralis® HRA+OCT is the ultimate combination platform. It combines the best of cSLO fundus imaging and angiography with SD-OCT. It is the only SD-OCT with TruTrack™ Active Eye Tracking, which enables precise repeat scanning, noise reduction and widefield imaging.
Heidelberg Engineering	Spectralis OCT with TruTrack	OCT and cSLO	15-30°	macula, OHN and posterior pole	multiple analyses for each scan type	TruTrack active eye tracking, BluePeak laser autofluorescence, Heidelberg Noise Reduction, AutoRescan, FoDi alignment technology, network ready
Opko Instrumentation	Spectral OCT/SLO	830 nm super luminescent diode	variable up to 30 degrees	fovea, retina, inner/outer retinal layers, RPE, posterior pole, optic nerve, RNFL	Combined OCT B-Scan and confocal SLO images with exact location/orientation of the OCT image on the SLO Fundus image. Combined topography thickness report with up to 6 high resolution radial B-Scan OCT images. "Auto-Compare" report of multiple topography maps (progression/regression plot) including location of retinal thickness changes overlaid on the SLO Fundus image. High resolution raster OCT scan and macula scan. Optic nerve head & RNFL analysis including (over time) "Auto-Compare" regression map of multiple scans. User selected "customize reports."	Fully automated Auto-focusing and Auto Coherence for quick and easy operation; 27,000 A-scan/sec, "RETEST" feature automatically ensures repeated location of the OCT scans and microperimetry testing. Optional - microperimetry retinal function with real-time SLO tracking. Optional cornea/anterior segment OCT imaging and analysis of cornea and anterior segment.
Optos	P200	scanning laser technology; low-powered red (633 nm) and green (532 nm) lasers	200°	central pole & periphery; up to 200° internal scan; up to 82% of the retina with standard gaze and even more with eye steering	Includes image enhancements, such as area of interest magnified; individual laser separations; image annotations & gray scale detail views, ResMax mode for enhanced central pole detail, as well as 3D Wrap patient orientataton tool for enhanced patient education	Green laser scans from sensory retina to RPE; red laser scans from RPE to choroid; Proprietary review software enables image magnification; contrast, brightness and gamma adjustment; annotation, notes; individual laser separation views; P200 produces optomap® ultra-widefield digital retinal imaging procedures to support screening and wellness examinations (20 microns) and optomap® plus medical retinal imaging (20 microns, ResMax = 17 microns) with enhanced features supporting medically necessary reimbursable procedures
Optos	P200C	scanning laser technology; low-powered red (633 nm) and green (532 nm) lasers	200°	central pole & periphery; up to 200° internal scan; up to 82% of the retina with standard gaze and even more with eye steering	Includes image enhancements, such as area of interest magnified; individual laser separations; image annotations & gray scale detail views, ResMax mode for enhanced central pole detail, as well as 3D Wrap patient orientataton tool for enhanced patient education	Green laser scans from sensory retina to RPE; red laser scans from RPE to choroid; Proprietary review software enables image magnification; contrast, brightness and gamma adjustment; annotation, notes; individual laser separation views; P200C produces optomap® ultra-widefield digital retinal imaging procedures to support screening and wellness examinations (20 microns) and optomap® plus medical retinal imaging (20 microns, ResMax = 11 microns) with enhanced features supporting medically necessary reimbursable procedures. Soft face pad and chin rest for patient comfort and better image alignment.

RETINAL SCANNERS

COMPANY	MODEL	TYPE OF LASER	FIELD OF VIEW	AREA OF RETINA ANALYZED	PRINTOUT DETAIL	ADDITIONAL FEATURES
Optos	200Dx	scanning laser 200° technology; low-powered red (633 nm) and green (532 nm) lasers	200°	central pole & periphery; up to 82% of the retina with standard gaze and and even more with eye steering	Includes image enhancements, such as area of interest magnified; individual laser separations; image annotations & gray scale detail views, ResMax mode for enhanced central pole detail, as well as 3D Wrap patient orientaton tool for enhanced patient education	Green laser scans from sensory retina to RPE; red laser scans from RPE to choroid; integrated software tools enable image magnification; contrast, brightness and gamma adjustment; annotation, notes; individual laser separation views; image overlay and auto review, auto archive, patient education tools, stereo imaging and 3D wrap; 200Dx produces optomap® ultra-widefield digital retinal imaging procedures to support wellness screening and diagnostic examinations (20 microns) and optomap® plus medical retinal imaging (20 microns, ResMax = 17 microns); with enhanced features supporting medically necessary reimbursable procedures. 200Dx features a soft face pad to easier align and image patients as well as enhanced image quality; crisp images, superior field illumination, distinct visualization of the RNFL, small vessel and macular detail, improved optic disk view and uniform lighting from pole to periphery
Optos	200Tx	scanning laser 200° technology; low-powered red (633 nm), green (532 nm) and blue (488 nm) lasers	200°	central pole & periphery; up to 200° internal scan; up to 82% of the retina with standard gaze and even more with eye steering	Includes image enhancements, such as area of interest magnified; individual laser separations; image annotations & gray scale detail views, ResMax mode for enhanced central pole detail, as well as 3D Wrap patient orientaton tool for enhanced patient education	Green laser scans from sensory retina to RPE; red laser scans from RPE to choroid; proprietary review software enables image magnification; contrast, brightness and gamma adjustment; annotation, notes; individual laser separation views; 200Tx produces optomap® ultra-widefield digital retinal imaging procedures to support screening and wellness examinations (20 microns) and optomap® plus medical retinal imaging (14 microns, ResMax = 11 microns) with enhanced features supporting medically necessary reimbursable procedures, as well as the optomap® fa ultra-widefield angiography procedure and optomap® at ultra-widefield autofluorescence imaging to support treatment planning.
Optovue, Inc.	RTVue	840 nm superluminescent diode	46° on 14mm line scan	Pachymetry map, angle measurement, Ganglion Cell Complex (GCC®), RNFL, full retina, inner retina, outer retina, optic nerve head, macula, anterior & posterior pole	Stunning, high-resolution B-scans from line and cross line scans with ability to adjust scan lengths and angles. Retinal thickness mapping segmenting inner, outer and full retina normative database reference coloring. Enhanced grid scan. Volumetric analysis. OCT fundus image with overlaid color-coded thickness map and ETDRS thickness values. Optic disc scan provides disc parameters, RNFL thickness mapping, as well as symmetry, change and TSNIT analysis. with normative database reference coloring. Patented Ganglion Cell Complex (GCC®) analysis including normative database reference coloring, 3D macula and 3D optic disc scans provide for 3D visualization, volume rendering, and en face imaging. Full 6mm diameter pachymetry mapping, color coded with minimum thickness marker, as well as user-defined corneal point thickness. Angle visualization with measurement. 3D Cornea.	Optovue exclusively offers the Ganglion Cell Complex (GCC®) Analysis for greater confidence in retina and glaucoma assessment. Visit-to-visit registration and rotational correction achieved with Vessel Tracing. Optic nerve head scan calculates center of the disc for automatic placement of TSNIT. 3D Cube line-by-line comparison. Change analysis on up to four maps for glaucoma and retina. Server and office networking for real-time viewing and manipulation of patient data. EMR integration facilitated via networking application.
Optovue, Inc.	iVue	840 nm superluminescent diode	7 x 7 en face	RNFL, full retina, inner retina, outer retina, optic nerve head, macula, posterior pole, anterior segment, pachymetry map, angle measurement.	Stunning, high-resolution B-scans from cross line scans with ability to adjust the scan angle. Color-coded retinal thickness mapping segmenting inner, outer and full retina with overlaid ETDRS thickness values. 7-line raster incorporated in retina map scan and displays high-resolution B-scan images. Optic disc scan provides RNFL thickness mapping, as well as TSNIT, OU, and change analysis. Upgradeable 3D macula and 3D disc scans capture 67 million data points with 47 microns between B-scans. Includes en face analysis. Upgradeable 6x6 mm Ganglion Cell Complex thickness map. Full 6mm diameter pachymetry mapping, color-coded with minimum thickness marker as well as user-defined corneal point thickness. Angle visualization with measurement.	iVue is the smallest, most compact spectral-domain OCT in the world. Designed to be very easy and fast, it also includes a convenient footswitch control and LCD touch-screen on the scanner head. iTravel is a rolling case, especially designed to transport iVue safely and with ease. Small footprint with option for corner placement. Optic nerve head scan calculates center of the disc for automatic placement of TSNIT. One-button auto adjustment. Standard package includes anterior and posterior imaging. iWellness Exam is a pay-per-visit program available on iVue. iWellness scan pattern includes 7x7mm Retinal Thickness Mapping with 7-line raster presenting high-resolution B-scans. Also included is 6x6 mm Ganglion Cell Complex Thickness Map to aid in glaucoma detection as well as asymmetry analysis.
Topcon Medical Systems	3D OCT-2000	840 nm superluminescent diode	45°	Over 500 scan options available; macula and retinal layers; RNFL; RPE; ILM; IS/OS; Bruch's membrane; optic nerve head and disc analysis	RNFL trend analysis, optic nerve head analysis & trending; retinal thickness map; 3D; B scan; compare; fundus image; retinal layer segmentation	Only SD-OCT with an integrated non-mydratic retinal camera. Automatic EDT reference setting; True 3-D view of the retina, featuring Topcon's TrueMap™ software. Pin-point Registration™ allows doctor to map exact location of the OCT image with the fundus image. Comes with EyeRoute® On Board, Topcon's image management system, pre-loaded on it.

CONTRAST SENSITIVITY TESTS

COMPANY	MODEL	TYPE	ALIGNMENT MONITOR	CONTRAST SENSITIVITY TYPE	DAY/NIGHT TARGET ILLUMINATION	DAY/NIGHT GLARE LUMINANCE	ADDITIONAL FEATURES
Marco	SSC-350	stand alone; 1.1 meter test distance from exam chair	n/a	4 contrast levels on all available optotypes (Snellen, ETDRS, numbers, tumbling E and children's charts)	yes; normal and low photopic luminance viewing conditions	Day & Night Monocular and Binocular glare; 3 glare levels	Wireless remote control; 27 chart types: letter, numbers, tumbling "E," ETDRS, color stereo, phorias, binocular balance children's charts; ability to isolate single character, horizontal line and vertical line on all. Compatible with EPIC or TRS refraction system.
M&S Technologies Inc.	HACSS-Holladay Automated Contrast Sensitivity System	Automated CSF system, including hardware & software. Can be integrated with Smart System 2020 visual acuity system.	n/a	US Patent Number: 7,354,155. Sinusoidal bulls-eye displayed at photopic (85cd/m2) & mesopic (3cd/m2) levels. FDA required protocol from 18 down to 1.5 cycles per degree.	day & night includes NDF filter to reduce luminance levels from 85 cd/m2 to 3cd/m2.	yes, 3 glare levels	Fully automated system eliminates technician bias; includes Quick Test program for repeat patient screening thereby minimizing test time; automatic data collection & export feature into M&S DataRight Services. Complies w/ANSI & ISO standards, FDA guidelines. Test time 5 minutes per eye.
Oculus	Mesotest II	Tests for mesopic vision and glare sensitivity. Important supplements to photopic vision testing, especially when night-driving vision capability requires assessment.	n/a	4 contrast levels without glare (surr. illumination 0.032 cd/m2) 4 contrast levels with glare (3°, surr. illumination 0.1 cd/m2) Landolt ring in six positions for every contrast level	yes - tests are carried out under normal visual conditions without instrument myopia. The unit is designed in such a way that the results are unaffected by different interpupillary distances of patients	4 contrast levels with or without glare	Motor-operated test procedures. All tests are mounted on a dust-protected, high-quality optical projector disc. The elastic viewing aperture is made of comfortable material. Innovative - no fogging up of spectacles or viewing aperture. Comfortable and safe use of the instrument by the clearly arranged and illuminated control unit or through the serial interface by PC/Laptop. LED light source - no necessity to change lamps.
Precision Vision	Chart (Cat. No. 2126) Glare Filter (Cat. No. 2147) Low Photopic Filter (Cat. No. 2148)	translucent letter chart; back-illuminated in portable fluorescent light box	n/a	letter chart consisting of 20/50 letter size at 13.1 ft.; contrast decreases by row in 0.25 logarithmic steps	yes; includes normal & low photopic luminance viewing conditions	yes; includes glare filter w/central low luminance target surrounded by higher luminance glare	Includes normative values & by-letter score sheet for precise clinical & research applications.
Precision Vision	Portable Illuminated Cabinet (Cat. No. 914) ETDRS Illuminator Cabinet (Cat. No. 2425)	back illuminated portable fluorescent light box	n/a	Wide selection of high and low contrast charts sold separately	The 914 Cabinet is self illuminated with ND filters available. The 2425 ETDRS Cabinet is self illuminated at 160 cd/m² with available mesopic filter for 3 cd/m².	no glare	Precision Vision's 914 Cabinet is approved and presently the only illuminated cabinet used by all branches of the US Armed Forces. Portable and storage pockets in back with an optional adjustable base. The ETDRS 2425 is used by the National Eye Institute and FDA-approved as the world's first ETDRS illuminated cabinet for full and low contrast testing. Can be wall mounted or used with an optional adjustable base.
Precision Vision	Rabin Super Vision Chart (Cat. No. 2128) NVG Filter (Cat. No. 932)	Translucent letter chart, back-illuminated must be used with Cat. No. 914 cabinet. NVG filter is used to simulate military night vision goggles.	n/a	8 different Log CS levels plus high contrast acuity		no glare	Developed by Jeff Rabin, OD, PhD, LTC US Army (Ret.). Charts are useful in general practice and research.
Precision Vision	Colenbrander Mixed Contrast Chart (Cat. No. 4071) and Colenbrander Mixed Contrast Chart (Cat. No. 4070)	Chart 4071 is a translucent letter chart, back-illuminated to be used with Cat. No. 2425 Cabinet. Chart 4070 is an opaque mixed contrast letter and text chart in near, computer and intermediate distance test	n/a	High contrast (black) and 20% Weber low contrast	Intended for use in well-lit offices	no glare	Developed by August Colenbrander, MD, this test provides high-contrast targets on left and low-contrast targets on the right for fast and effective contrast testing with uniform illumination and distance.
Precision Vision	PVWAT (Cat. No. 6001 - 6008)	Computerized Visual Acuity Software with Contrast Sensitivity testing	n/a	Highly adjustable contrast levels in 6 different optotypes crowded or uncrowded in single presentation, one line or ETDRS chart layout	Self illuminated for use with or without lights	Glare source sold separately	Precise calibration of contrast levels, brightness, sizes, and spacing in selectable progression; logarithmic ETDRS or traditional Snellen on a high quality display/computer. Complies with ANSI & ISO standards.

All claims made by manufacturer

CONTRAST SENSITIVITY TESTS

COMPANY	MODEL	TYPE	ALIGNMENT MONITOR	CONTRAST SENSITIVITY TYPE	DAY/NIGHT TARGET ILLUMINATION	DAY/NIGHT GLARE LUMINANCE	ADDITIONAL FEATURES
Precision Vision	IVA (Cat. No. 6100)	Interactive Computerized Visual Acuity Software with Contrast Sensitivity testing	n/a	Multiple contrast levels in 6 different optotypes crowded or uncrowded in single presentation, one line or ETDRS chart layout	Self illuminated for use with or without lights	Glare source sold separately	Automated, interactive computer program for determination of peak contrast sensitivity and a low contrast acuity at various contrast levels. A high quality display that is calibrated for low-contrast testing. Complies with ANSI & ISO standards.
Stereo Optical Co. Inc.	Functional Vision Analyzer	closed vision tester w/EyeView software	yes	3-choice, 5-frequency sine-wave (FACT) or low-contrast letters (CAT)	day & night homogenous illumination (continually calibrated to ensure accuracy)	day & night binocular glare testing 2 glare levels (continually calibrated to ensure accuracy)	Features distance/near lens system; new unsurpassed homogenous illumination; only new vision tester that complies w/American National Standards Institute std. Z80.21-1992 (R1998); includes EyeView software demonstrating contrast sensitivity results by pictures.
Stereo Optical Co. Inc.	Optec 5500(P)	stand-alone vision tester; requires 2 sq. ft.	yes	3-choice, 5-frequency sine-wave (FACT) or low-contrast letters (CAT)	day only (factory calibrated); homogenous illumination	no glare	Features distance/near lens system; choose from 150 different tests that can include distance/near Snellen acuity (ETDRS format) color, stereo test, lateral/vertical phoria & potential acuity.
Stereo Optical Co. Inc.	Optec 5000(P)	stand-alone vision tester; requires 2 sq ft.	yes	3-choice, 5-frequency sine-wave (FACT) or low-contrast letters (CAT)	day only (factory calibrated); homogenous illumination	no glare	Features distance/near lens system; choose from 150 different tests that can include distance/near Snellen acuity (ETDRS format) color, stereo test, lateral/vertical phoria & potential acuity.
Stereo Optical Co. Inc.	Optec 1000P	stand-alone	yes	3-choice, 5-frequency (FACT) or low-contrast letters (CAT)	day only (factory calibrated)	no glare	Distance only w/Snellen acuity.
VectorVision Inc.	CSV-1000	stand-alone; 8 to 4 meter test distance from exam chair; non-view-in	3 choice; 4 frequency sine wave	self-calibrated light instrument (patented)	self-calibrated light box (patented)	yes	Wireless remote control; interchangeable test faces; everything from contrast gratings to pediatric symbols; ETDRS acuity.

TONOMETERS & BLOOD FLOW ANALYZERS

COMPANY	MODEL	TYPE	MEASUREMENT RANGE	ALIGNMENT	PORTABILITY/WEIGHT	OPTIONS	SPECIAL FEATURES
Accutome	Accupen Handheld Tonometer	contact, applanation	5 to 60 mmHg	manual	handheld, portable 3.0 oz	n/a	Ergonomic design with gravity offset technology, providing accurate IOP measurements and no calibration. Long-lasting battery - 15,000 measurements.
Guiden Ophthalmics	Schiotz	contact	0 to 127.5 mmHg	manual	0.5 lbs.		Very portable; lightweight; great for emergency use; inexpensive; durable.
Haag-Streit USA	Goldmann Applanation Tonometer AT 870	applanation	0 to 80 mmHg				
Haag-Streit USA	Goldmann Applanation Tonometer AT 900	applanation	0 to 80 mmHg				
Haag-Streit USA	Perkins Mk2 Handheld Applanation Tonometer	applanation	n/a				
Icare USA	Icare TAOi tonometer	rebound	7 to 50 mmHg	manual	8.8 oz (250 g)		Easy to use, handheld tonometer for accurate & patient-friendly IOP measuring without anesthesia.
Keeler Instruments	KAT - Keeler Applanation Tonometer R type	applanation	0 to 80 mmHg	manual	slit lamp mounted/.69 kg	Mountable to the post fitted to the top of the optical body. Carrying case optional.	Keeler designed and manufactured along with disposable prisms. Fits most tower-type slit lamps.
Keeler Instruments	KAT - Keeler Applanation Tonometer T type	applanation	0 to 80 mmHg	manual	slit lamp mounted/.41 kg	Fitted to the guide plate on the optical axis for the microscope and illumination arm.	Keeler designed and manufactured along with disposable prisms. Fits most tower-type slit lamps.
Keeler Instruments	Pulsair Desktop Tonometer	noncontact	5 to 50 mmHg	manual	desktop/smallest footprint/35 lbs.	smallest footprint/smallest priced	No consumables (LED illumination); smallest footprint; easy-to-use; soft puff technology & built-in printer
Keeler Instruments	Pulsair Easy Eye Noncontact Tonometer	noncontact	7 to 50 mmHg	manual	yes, weighs less than 9 lbs.	carrying case; rechargeable battery	Wall, desk or slit-lamp mountable; accuracy within ±0.6 mm Hg Goldmann, Soft Puff technology & built-in printer.
Keeler Instruments	Pulsair IntelliPuff Tonometer	noncontact	5 to 50 mmHg	manual	handheld/portable 1.96 lb handpiece	wall mountable or desktop	No consumables (LED illumination); smallest footprint; easy-to-use; soft puff technology & built-in printer
Kowa Optimed Inc.	KT-800 Noncontact Tonometer	noncontact	0 to 60 mmHg	3D automatic alignment	tabletop/instrument stand 39.6 lbs.	optional 3x long eye relief for presbyopic users	3-D auto alignment function; soft airflow, no measurement range switching; eyelid obstruction monitor; electronically operated chin rest; built-in video camera & TFT color 5.6 monitor for ease of use.
Kowa Optimed Inc.	HA-2	applanation	0 to 60 mmHg	manual	handheld/battery operated 0.53 lbs.	optional 3x long eye relief for presbyopic users	
Marco	M3	noncontact	0 to 60 mmHg	manual or automatic	desktop unit automatic (55 lbs.)		Softer air puff; measures pupil size & corneal size; autorefractor/keratometer, adjustable monitor; motorized chin rest; high speed measurements; interfaces w/EPIC, TRS & Evolution.
Marco	NT-510	noncontact	0 to 60 mmHg	manual or automatic	desktop unit (42 lbs.)	printer, rechargeable battery comes std.	Advanced soft-air pulse control; automatic safety lock.
Paradigm Medical Industries	Ocular Blood Flow Analyzer (BFA)	applanation	IOP measurement: 6 high; no upper limit	manual	portable; console: 12 lbs. workstation: 23 lbs.	printer; slit-lamp adaptability	Identify POAG & NT; identify glaucoma suspects w/low pulsatile ocular blood flow (POBF); identify central retinal vein occlusions; monitor & quantify the effect of glaucoma treatment plans; measure IOPs & POBF by volume; monitor & manage current systemic drug therapy.
Reichert Technologies	CT100 Applanation Tonometer	applanation	0 to 80 mmHg	manual	slit lamp mounted		Fits most tower-type slit lamps.
Reichert Technologies	CT210 Applanation Tonometer	applanation	0 to 80 mmHg	manual	slit lamp mounted		Fits most compact-type slit lamps.
Reichert Technologies	Model 30 Pneumatonometer	contact applanation	5 to 80 mmHg	manual	12 lbs.	tonography	An easy-to-use instrument providing fast accurate tonometry & opt. tonography functions. The system measures IOP in the range of 5 to 80 mm Hg. Forty readings per second are recorded & charted, including ocular pulse. The chart recorder produces a permanent printout of the desired test for patient files.
Reichert Technologies	Tono-Pen XL	contact applanation	5 to 80 mmHg	manual	2.25 oz.		An easy-to-use portable, handheld instrument providing fast & accurate intraocular pressure readings w/accuracy comparable to the Goldmann tonometer. Harvesting data at a rate of 500 samples per second, the Tono-Pen gently contacts the cornea & displays the average of four independent readings, along w/a statistical coefficient.
Reichert Technologies	PT100 Portable NCT	noncontact	0 to 60 mmHg	manual	handheld/portable; 2.7 lbs.	wireless IR printer; carrying case; re-chargeable battery; charging base	Cordless, wireless data transmission; patient eye illumination; demo puff; icon-based operating system; macroview of eye.
Reichert Technologies	Tono-Pen AVIA	contact applanation	5 to 55 mm Hg	manual	handheld, portable 71 g.	n/a	Portable, light & user-friendly. Provides fast measurements, strongly correlated w/Goldmann tonometry. Long battery life, w/no need for calibration. Ergonomic design provides maximum comfort & ease of use & large LCD screen display readings on both sides of instrument.
Reichert Technologies	Reichert 7	noncontact	7 to 60 mm Hg	automatic	tabletop/instrument stand 30 lbs.	internal printer	Demo puff, icon-based operating system, softest puff in the industry, full auto-alignment and 1-touch operation.
Reichert Technologies	Reichert 7CR Auto Non-Contact Tonometer + Corneal Response Technology	noncontact	7 to 60 mmHg	automatic	tabletop/instrument stand 30 lbs.		Demo puff, icon-based operating system, industry's softest puff, full auto-alignment and 1-touch operation. Patented corneal response technology compensates for the biomechanical properties of the cornea, providing IOPcc, a measure of intraocular pressure that is less influenced by corneal properties than other tonometers.
Tomey	FT-1000	noncontact	0 to 60 mm Hg	full auto	18 kg / 39.7 lbs.	n/a	Touch alignment. Gentle air noise assures patient is examined comfortably. Measurement lag time of 15 ms reduces measurement errors.
Topcon Medical Systems	CT-80	noncontact	0 to 60 mm Hg	manual/automatic	about 18 kg or 39.7 lbs.	optional adjustable instrument table	Built-in video camera & monitor; auto measurement, digital display & built-in printer; triple safety function; dual sensor system & 30% faster interval time.
Woodlyn Inc.	#44000 R900	applanation/Goldmann	0 to 80 mm Hg				
Ziemer Ophthalmic Systems	PASCAL Dynamic Contour Tonometer - wireless	Dynamic Contour Tonometer	1 to 200 mm Hg	manual	slit lamp-mounted; 1 lb.	wireless printer; carrying case; rechargeable batteries	Provides highly accurate IOP; Ocular Pulse Amplitude & Quality score; IOP not affected by corneal biomechanical properties; validated in in-vivo clinical trials; easy to use; digital display with option of using wireless printer; EMR ready

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