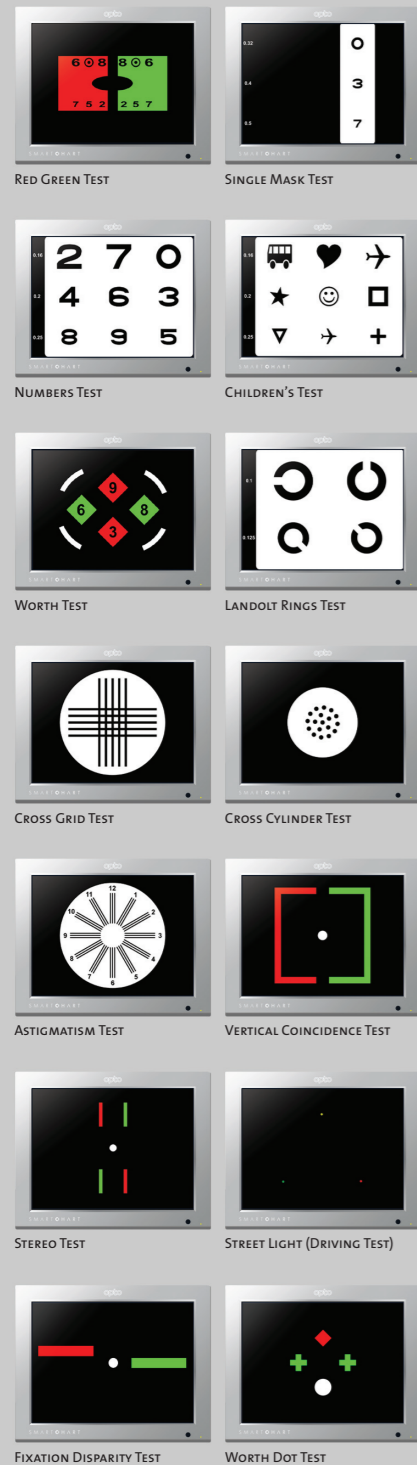


## main features



### ▶▶ UNMATCHED CLINICAL RESULTS

The SmartChart is calibrated utilizing the latest technologies to the highest standards in order to eliminate pixelization and optimize colour, contrast as well as bright and superb display clarity. The advanced device calibration techniques are supported by TRUE 18-bit & 24-bit video display technology maximizing and assuring precise outcome in determination of visual defects.

### ▶▶ CONVENIENCE & EASE

The SmartChart comes with either angle adjustable Wall Mount or height and angle adjustable Desk Stand maximizing flexibility in space confined areas. A simple to use IR remote with direct commands is intuitive and adds to overall convenience. The tests can be carried out in highly illuminated rooms creating comfortable and convenient environment for the patients, and clinician.

### ▶▶ HEARING & SPEECH IMPAIRED TESTS

A complete examination specially designed to support speech or hearing impaired patients. This important feature may be eligible for health care reimbursement in selected markets.

### ▶▶ ENHANCED CHILDREN TESTS & FIXATION METHODS

Vast quantity of optotypes, as well as HOTV or ALLEN Pre School tests are supported by Animations, Colourful Pictures and Videos improving child fixation and testing for all children.

### ▶▶ LOW VISION AMD OPTOTYPES

Standardized vision tests for patients with Age-related Macular Degeneration (AMD) allowing for optotype size and contrast alteration up to 20/1600 at a calibrated distance.

### ▶▶ PARAMOUNT CONTRAST TESTING

**Threshold Optotype Testing:**  
Complements and extends the assessment of visual function by simple acuity tests. At the cost of more complex and time-consuming procedures, contrast sensitivity measurements yield data about an individual's ability to see low-contrast targets over an extended range of target size (and orientation).

**Spatial Frequency Testing:**  
Significant sensitivity contrast test, which measures the ability to see objects that may not be outlined clearly or that do not stand out from their background. This is an important feature and is recommended for diagnostic of Cataract, Diabetic Retinopathy and other conditions. At the completion of the exam, the device plots a spatial frequency graph, which can then be saved and printed from the device.

### ▶▶ TEST & SYSTEM FILE MANAGER

This dynamic feature allows the SmartChart Pro to be customized to individual user or practice needs for simple upload or removal of videos and movies, new complementary tests in picture or diagram format, animations and slide shows for either research, educational and marketing purposes. The Video and Sound functions are an ideal practice marketing tool for demonstration videos and practice messages or an augment aid in children fixation methods.

### ▶▶ TEST RESULT REPORTING

Patients details can be easily entered into the system upon which the physician can carry out a sequence of acuity and series of visual tests, that can be presented in a legible format and stored or printed directly from the system.

### ▶▶ UNIVERSAL ACUITY STANDARDS

The SmartCharts have the vastest VISUS display range and units can be easily adopted to EU, US, UK, and International or Custom standards.

## competitive edge

### ▶▶ ADVANTAGES OVER CHART PROJECTORS

SmartCharts are maintenance free and offer countless advantages over conventional Chart Projectors.

- Extensive range of tests and optotypes with upgrade capability
- No maintenance & part replacement
- Precise adjustment of working distance and optotype setting
- Space saving
- Smooth and silent operation
- Operation in an illuminated environment
- Built in Computer
- Extensive Contrast tests
- Extensive Colour tests
- Extensive Stereo Tests
- Test Reporting capability
- Patient Education Tools
- Speech and Hearing Impaired Tests
- Animations and Videos for children fixation, educational and practice marketing purposes
- Random and User programmable sequencing
- Mirrored setup capability

### ▶▶ ADVANTAGES OVER SIMILAR, SOFTWARE & PC BASED SYSTEMS

Opto SmartChart outperforms ALL current contemporary visual acuity devices and offer tangible advantages over Software & PC Based Systems.

- The only TRUE 18-bit & 24-bit devices calibrated to the highest standards for size, contrast and colour depth, providing improved clinical results for the indication of visual acuity defects.
- Fully integrated customized design dedicated for visual acuity testing eliminating the real risk of computer related software or hardware incompatibility.
- Recurrent System upgrade\* capability is easy and evolutionary keeping pace with your practice needs and the latest developments visual acuity testing.
- Test Report function with direct print and network commands supported by customizable Patient Education and Video Function.
- MOST extensive amount of tests and functions allowing more precise determination of ocular diseases, other medical conditions and effects of pharmaceuticals on vision such as 100-HUE, Spital Contrast and Autostreogram Tests ALL supported by direct report analysis.

### SMARTCHART 15" SYSTEM

Includes a very large range of tests and key features. Designed to outperform most contemporary digital acuity system in the market, virtually at the price of a reputable brand Chart Projector.

#### Standard features are:

- Eye Anatomy Figures & Standard optotype Testing,
- Hearing and Speech impaired Testing,
- Extensive Children Tests supported by advanced fixation aids such as Animations and Colour Pictures.

### SMARTCHART PRO 19" SYSTEM

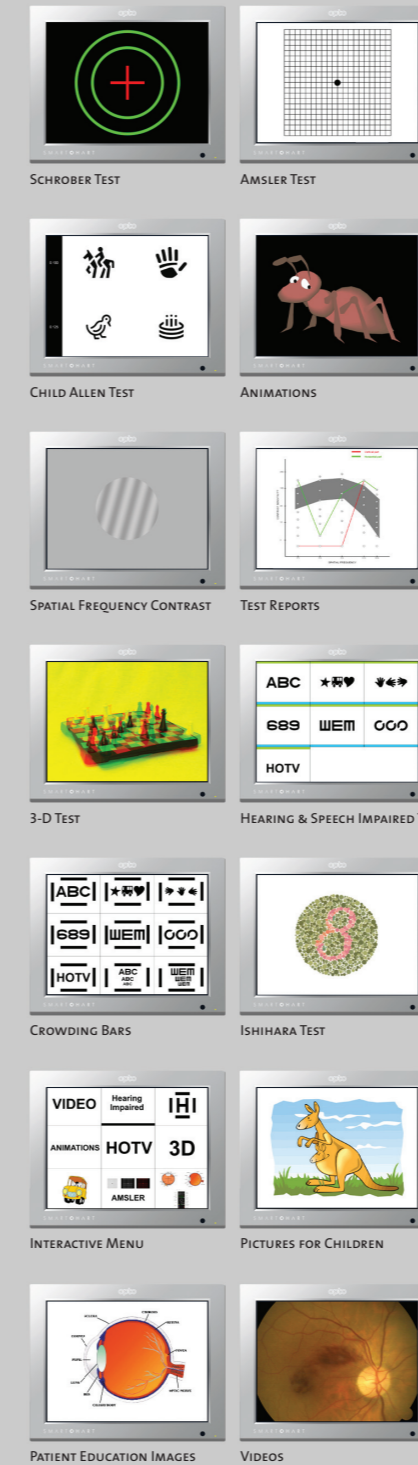
An ideal Digital Acuity System device for any modern Practice and those who always expect more from their investment. Includes of all tests and features included in the SmartChart 15" version plus:

- Low vision AMD optotypes
- Video capability with 128-bit Sound
- Test reporting and Printout
- Spatial Frequency Contrast test
- 100-HUE and Autostereogram
- System and patient File manager

### SMARTCHART WINPRO 19" SYSTEM

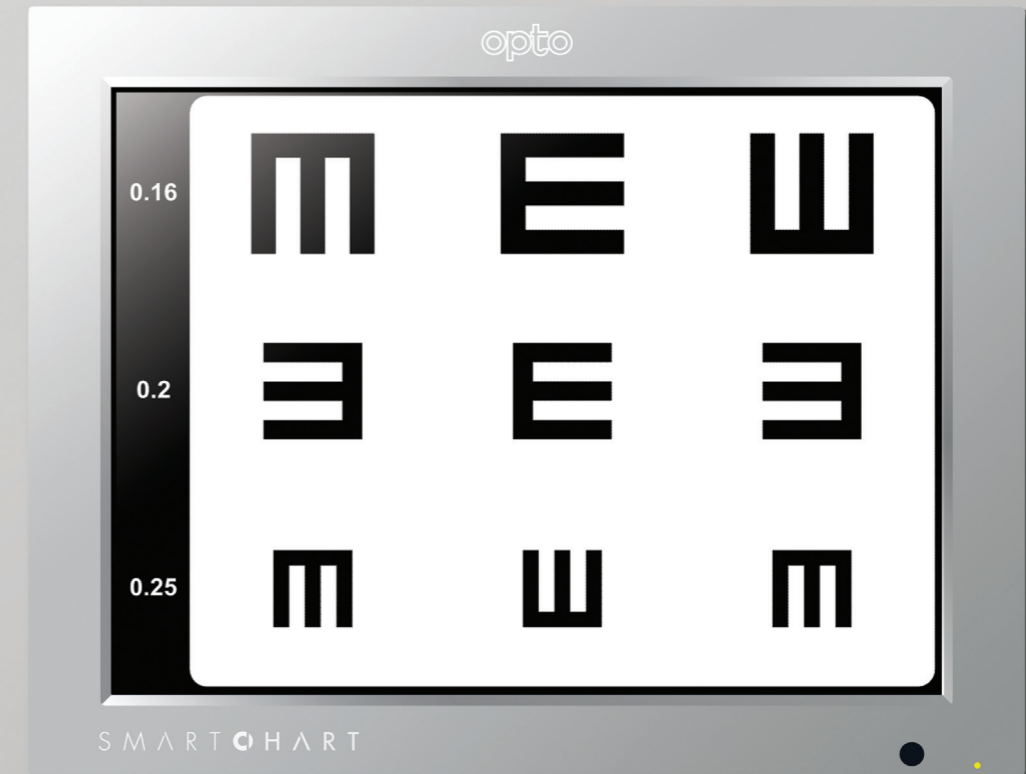
Offers a completely new dimension in modern Digital Acuity Testing, satisfying expectation of even the most demanding Physicians and Practices. Includes all tests of SmartChart Pro 19" version plus:

- Networking capability
- Larger storage capacity
- Standard Windows PC functionality
- Remote examination observation through connection of secondary monitors



## system specifications

|   | ▶▶ SMARTCHART   | ▶▶ SMARTCHART PRO  | ▶▶ SMARTCHART WINPRO   |
|---|---|--|--|
| DISPLAY TYPE  | 15" LCD TFT Display 18-bit  | 19" LCD TFT Display – 24-bit   | 19" LCD TFT Display – 24-bit   |
| BACKGROUND ILLUMINATION   | 200cd/m2 – na 200cd/m2  | 200cd/m2 na 200cd/m2   | 200cd/m2 na 200cd/m2   |
| REFRACTION TEST RANGE   | Adjustable 2.0 -7m (6.65-22.8 ft) (for standard tests)  | Adjustable 2.0 -7m (6.65-22.8 ft) (for standard tests) 0.6m (1.96 ft) (for Low Vision AMD tests with Automatic patient shift message)  | Adjustable 2.0 -7m (6.65-22.8 ft) (for standard tests) 0.6m (1.96 ft) (for Low Vision AMD tests with Automatic patient shift message)  |
| STANDARD CHART TYPES  | LogMAR, ETDRS, Snellen, Snellen Contrast, Snellen Modified  | LogMAR, ETDRS, Snellen, Snellen Contrast, Snellen Modified   | LogMAR, ETDRS, Snellen, Snellen Contrast, Snellen Modified   |
| OPTOTYPE TYPES  | Letters, Numbers, Snellen E, Landolt C Rings, Figures for Children, Hand Optotypes, HOTV, Crowding Bars, AMD Optotypes  | Letters Snellen, Letters Sloan, Numbers (4 types), Snellen E, Landolt C Rings, Figures for Children, Children Pre-School, Hands, HYVA, ALLEN, HOTV, Crowding Bars, LOW VISION Optotypes  | Letters Snellen, Letters Sloan, Numbers (4 types), Snellen E, Landolt C Rings, Figures for Children, Children Pre-School, Hands, HYVA, ALLEN, HOTV, Crowding Bars, LOW VISION Optotypes  |
| OPTOTYPE DISPLAY UNITS (METRIC AND IMPERIAL)                            | Snelled dec., LogMAR, Snellen m (6/), Snellen m (5/), Snellen m (4/), Snellen m (3/), Snellen m (2/), Snellen ft (20/), Snellen ft (10/), VAR, None                       | Snelled decimal, LogMAR, Snellen m (6/), Snellen m (5/), Snellen m (4/), Snellen m (3/), Snellen m (2/), Snellen ft (20/), Snellen ft (10/), VAR, None   | Snelled decimal, LogMAR, Snellen m (6/), Snellen m (5/), Snellen m (4/), Snellen m (3/), Snellen m (2/), Snellen ft (20/), Snellen ft (10/), VAR, None   |
| STANDARD TESTS  | Visual Acuity, Astigmatism, Cross Cylinder, Duochrome Balance, Red Green, Contrast Sensitivity, Amsler, Fixation Point, Schober, Worth, Ishihara, Street Lamp, Stereo, 3D | Visual Acuity, Astigmatism, Cross Cylinder, Duochrome Balance, Red Green, Contrast Sensitivity, Amsler, Fixation Point, Schober, Worth, Ishihara, Street Lamp, Stereo, 3D, Phoria, Four dots test, Fixation Disparity, Animations, Pictures for Children, 100-HUE colour | Visual Acuity, Astigmatism, Cross Cylinder, Duochrome Balance, Red Green, Contrast Sensitivity, Amsler, Fixation Point, Schober, Worth, Ishihara, Street Lamp, Stereo, 3D, Phoria, Four dots test, Fixation Disparity, Animations, Pictures for Children, 100-HUE colour |
| HEARING / SPEAKING IMPAIRED TESTS                                       | Available for all standard Optotypes  | Available for all standard optotypes   | Available for all standard Optotypes   |
| CHILDREN FIXATION   | Animations, Pictures  | Custom, Video, Animations, Pictures  | Custom, Video, Animations, Pictures  |
| CHILDREN TESTS  | Pictures, Hand Optotypes, Children Figures, Children Pre-School, HOTV   | Custom, Pictures, Standard optotypes, Hand Optotypes, Children Figures, Children Pre-School, HOTV, HYVA, ALLEN Pre-School  | Custom, Pictures, Standard optotypes, Hand Optotypes, Children Figures, Children Pre-School, HOTV, HYVA, ALLEN Pre-School  |
| MASKING (AVAILABLE FOR ALL TYPES OF CHARTS)                             | Single Optotype, Line (Horizontal), Column (Vertical)   | Single Optotype, Line (Horizontal), Column (Vertical), Underlining single & horizontal for LogMAR & ETDRS  | Single Optotype, Line (Horizontal), Column (Vertical), Underlining single & horizontal for LogMAR & ETDRS  |
| RED GREEN MASKS (ADJUSTABLE COLOUR DEPTH FOR PHOROPTER FILTER MATCHING) | Available for all standard Optotypes  | Available for all standard Optotypes   | Available for all standard Optotypes   |
| CONTRAST TESTS  | Optotype Threshold, Red Green   | Spatial Frequency, Optotype Threshold, Red Green   | Spatial Frequency, Optotype Threshold, Red Green   |
| TEST REPORTING  | NOT AVAILABLE   | Acuity, Crowding Bars, Hearing Impaired, Fixation Disparity, 100-HUE & Contrast Testing  | Acuity, Crowding Bars, Hearing Impaired, Fixation Disparity, 100-HUE & Contrast Testing  |
| SAVING PATIENT & TEST DATA  | NOT AVAILABLE   | As .pdf to USB Pen Drive   | As .pdf to Internal HDD, to USB Pen Drive, Through Network   |
| FILE MANAGER  | NOT AVAILABLE   | Copy, Edit, Delete & Import Files (Patient Data, Video, Animations, Pictures) from USB Pen Drive)  | Copy, Edit, Delete & Import Files (Patient Data, Video, Animations, Pictures) via Network & USB Pen Drive)   |
| PATIENT EDUCATION   | Eye anatomy figures   | Custom, Videos, Presentations  | Custom, Videos, Presentations  |
| MIRROR FUNCTION   | Available for all tests   | Available for all tests  | Available for all tests  |
| SEQUENCE PROGRAMMING  | 3 user defined programs with up to 20 steps each  | 3 user defined programs with up to 45 steps each   | 3 user defined programs with up to 45 steps each   |
| RANDOM SEQUENCING   | Available for all optotype tests  | Available for all optotype tests   | Available for all optotype tests   |
| AUTOMATIC POWER OFF FUNCTION  | Adjustable 0.5 – 4hr<br>Adjustable 4 -10min Auto Suspend Off  | Adjustable 0.5 – 4hr<br>Adjustable 4 -10min Auto Suspend Off   | Adjustable 0.5 – 4hr<br>Adjustable 4 -10min Auto Suspend Off   |
| REMOTE CONTROL  | IR  | IR   | IR   |
| DIMENSIONS  | 366W x 291H x 50D mm  | 443W x 368H x 122D mm  | 443W x 368H x 122D mm  |
| WEIGHT  | 3.5Kgs (7.7lbs)   | 6Kgs (13.2lbs)   | 6.5Kgs (13.2lbs)   |
| POWER REQUIREMENTS  | 90-240 VAC 50/60HZ auto-ranging   | 90-240 VAC 50/60HZ auto-ranging  | 90-240 VAC 50/60HZ auto-ranging  |
| POWER CONSUMPTION   | 19W   | 60W (max)  | 65W (max)  |



## visual acuity system



The Opto SmartChart is the world's most powerful and versatile digital acuity system. Presented in a sleek and attractive medical grade LCD panel with a custom-made built in computer, ads value and enhances the modern look of any clinical practice. SmartChart performs all tests used by Ophthalmologists and Optometrists with reporting tools, as well as easily customized to any of their clinical needs and practices.