## Attachment A

# **Salient Characteristics (Brand Name or Equal)**

## Referenced equipment is the Carl Zeiss Eye Clinic Analyzer

# 1. HFA3 MODEL 860 W/ LIQUID TRIAL LENS, RELEYE, KINETIC, GPA, HEAD TRK, GAZE TRK, PRINTER & TABLE (OR EQUAL)

Dimension: 46 L x 52 W x 58 H (cm) which is exactly equivalent to: 18.11 L x

20.47 W x 22.83 H (inch)

Electrical Requirement: 100-120v-50/60 Hz, 4.0A

Internal Storage: 500 Gb

Operating System: Windows 7-64 bit

Fixation Control
• Video eye monitor

- Heijl-Krakau blind spot monitor
- Gaze TrackingHead Tracking
- Vertex Monitoring

Liquid Trial Lens available in model 860 only.

SmartTouch interface: Touch screen interface allows for a more efficient workflow

RelEye: The RelEYE fixation monitoring system allows for systematic and pin point fixation inspection. The HFA 3 captures and keeps the image of the eye during the testing and just after, prior to the Result Review Screen. RelEYE cannot be viewed on the HFA 3 after terminating the test. Using the HFA 3, RelEYE is also available in FORUM Glaucoma Workplace (minimum version 2.0.3). Only FORUM can keep the RelEYE data stored for future usage for exporting exams.

Connectivity: For comprehensive connectivity the HFA 3 can be connected to FORUM (minimum version 3.2) with FORUM Glaucoma Workplace (minimum version 2.0.3). DICOM conformant as per the DICOM Conformant Statement.

HFA 3 also supports common file folder sharing used by most Electronic Medical Record Systems (EMR).

SITATM (Swedish Interactive Threshold Algorithm): A patented algorithm for fast and accurate visual field threshold measurements; it is the most commonly used test strategy and incorporates patient responses in real time.

SITA database: The SITA normative database contains normative data for SITA Standard and SITA Fast 30-2, 24-2 and 10-2 threshold visual field test results from healthy subjects aged 17 to 89.

Kinetic Testing: In kinetic testing, light stimulus of fixed characteristics is moved into the visual field from a non-seeing area, until it is detected by the patient. Typically, the stimulus is brought toward the center from several directions and the operator marks the location at which the patient first

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detects the stimulus (threshold point). The HFA 3 provides a kinetic graphical interface with full 180° testing range.

#### 2. VISUCAM 224 W/PRINTER AND TABLE (OR EQUAL)

3. <u>CIRRUS HD-OCT (Model 5000) with AngioPlex OCT Angiography Version 9.5.</u> <u>Includes GCGPA, Smart HD Scans, FastTrac, Adv RPE, GCA, Ant Seg Basic</u> (OR EQUAL)

Has the capability to capture and provide OCT Angiography: This capability for OCT Angiography is provided by a 1 single OCT scan that allows for visualization of both micro vascular and structural information in a noninvasive dye free scan by the OCT.

Has the ability to import and integrate the Cirrus Model HD OCT 4000 raw data. The raw data must be interchangeable between the Cirrus 4000 and Cirrus 5000 unit (or new unit being procured).

The unit must have exact Macular Scan Pattern of 512x128 for retina scan with exact scanning speed at 27,000 A-scans a second within a 6mmx6mm. Must be able to provide on Company Literature

The unit must have exact scan pattern of 200x200 in a 6mmx6mm cube for Glaucoma Scan with exact scanning speed at 27,000 A-scans a second. The scan pattern must be able to capture and provide RNFL, ONH, Neuro Retinal Rim Tissue, and 3-D Cube capabilities all in one scan

Scanning speeds: Scan at exactly 27,000 A-scans/sec, as well as the ability to scan at 68,000 A-scans/sec

Unit must be able to provide a report for Ganglion Cell Analysis that is derived from a scan must be comprised of 6mmx6mm cube scan with a minimum by 200x200 line scan pattern with no more than 30 microns between each slice.

Minimum Pupil Requirements must be 2.0mm or less.

Unit must utilize an LSO Fundus Camera (Line Scanning Laser Ophthalmoscope). .

The unit must Automatically Track to Prior Scan: The unit must be able to do this without technician needing to align to prior scan:

Anterior Segment scan that is at minimal 15.5 mm in length x 5.8 mm in depth. which is the full view of the Anterior Chamber. Must be able to provide on Company Literature.

Global Pachymetry report that is comprised of minimum of 24 radial scans and must be at a minimum 9mm in length.

The unit must be a 90 degree configuration, so that the tech (operator) must sit to the side (90 degrees) of the pa

**OCT Imaging:** 

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Methodology - Spectral domain OCT

Optical source - Superluminescent diode (SLD), 840 nm

Scan speed - 27,000 A-scans per second or 68,000 A-scans per second\*

\*All existing scan patterns in version 6.5 software will run at 27,000 A-scans per second, which is the same scan speed as the CIRRUS 4000.

\*\*All patient data from the Cirrus 4000 instrument can be transferred into the Cirrus 5000 seamlessly and used immediately for Guided Progression

Analysis or any other Cirrus analytical program\*\*

A-scan depth - 2.0mm (in tissue), 1024 points

Axial resolution - 5 um (in tissue)

Transverse resolution - 15 um (in tissue)

Cube scan pattern - 512 x 126 with over >67 million data ports and 47um spacing between lines

Cube scan pattern - 200 x 200 with over >40 million data ports and 30um spacing between lines

## Fundus Imaging:

Methodology - Line scanning ophthalmoscope (LSO) Live fundus image - during alignment and during OCT scan Optical source - Superluminescent diode (SLD), 750nm Field of view-36 degrees Wx 30 degrees H Frame rate - >20 Hz Transverse resolution - 25 um (in tissue)

#### Iris Imaging:

Methodology - CCD Camera
Resolution - 1280 x 1024
Live iris image - During alignment
Electrical and Physical:
Weight - 80 lbs.
Dimensions of instrument - 26L x 18Wx 21H (in)
Dimensions of table - 39L X 22W(in)

#### Fixation:

Internal fixation focus adjustment - -20D to +20D (diopters) Electrical rating (115V) - Single Phase, 100-120V~systems: 50/60Hz, 5A Electrical rating (230V) - Single Phase, 200-240V~systems: 50/60Hz, 2.5A

## Internal Computer:

Operating system/processor - Windows 7, i& Intel processor Memory: Hard drive/internal storage - >=750 GB, > 80,000 scans Display - Integrated 19" color flat panel display USB ports - 6 ports