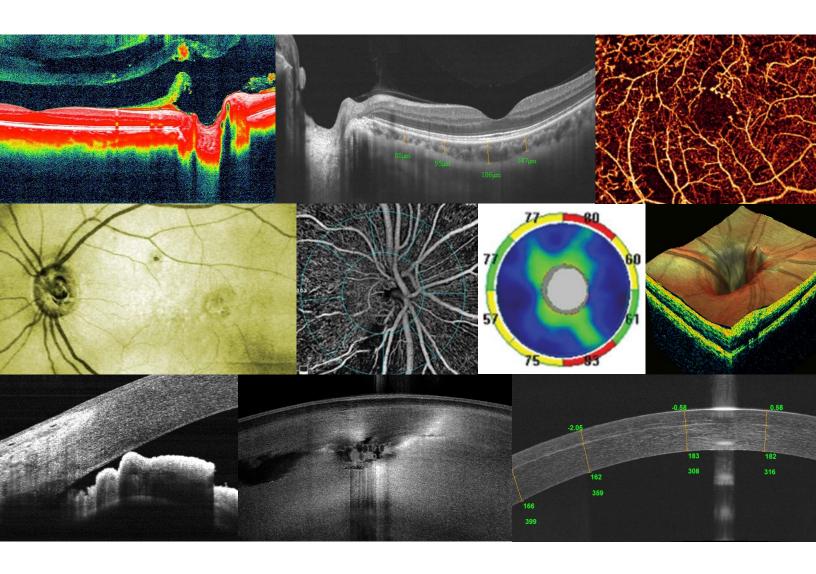
# Avanti<sup>®</sup> Widefield OCT

with AngioVue® OCT Angiography





# CONTENTS Introduction Retina Glaucoma Anterior Segment Specifications Networking Configurations About Us Optovue Exclusives

# Avanti® Widefield OCT with AngioVue® OCT Angiography

The Avanti Widefield OCT offers **state-of-the-art imaging** from the cornea to the choroid with exclusive technology that will change your approach to disease diagnosis and management.

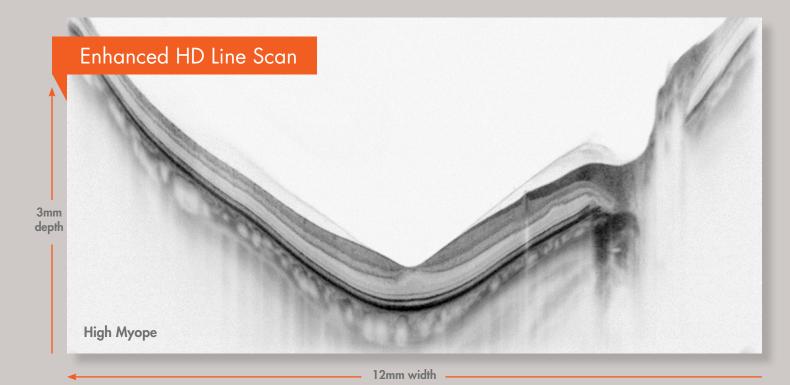
When you're ready, add AngioVue OCT Angiography (OCTA) to the Avanti platform to bring non-invasive vascular imaging to your practice. Ease into OCTA with **AngioVue Essential** or choose **AngioVue Comprehensive** to access all available OCTA features. For the retina specialist, there's **AngioVue Retina**, retina-only OCT and OCTA.

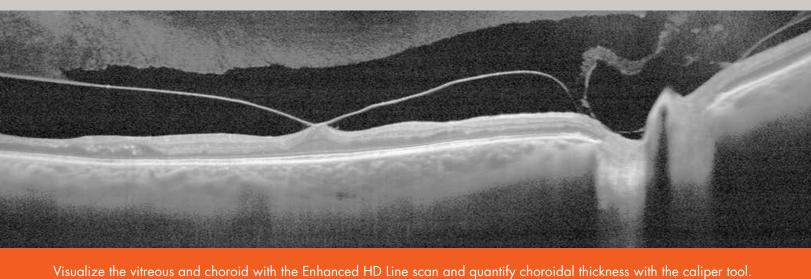
Optovue's flexible product configurations are easily upgradeable, so your OCT system meets the needs of your practice today and into the future.

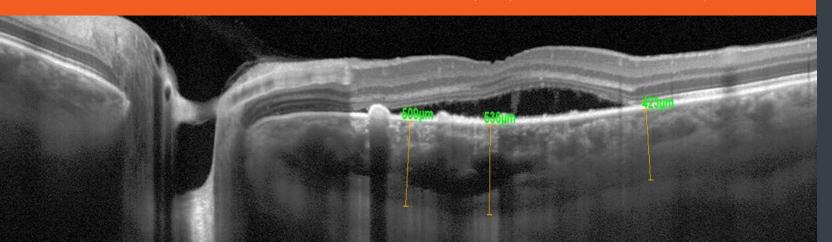


### Enhanced HD Imaging of the Vitreous and Choroid

12mm widefield scan with enhanced depth imaging mode provides high resolution views (5µm axial resolution and 15µm transverse) of the vitreous, retina and choroid with quantitative analysis tools.



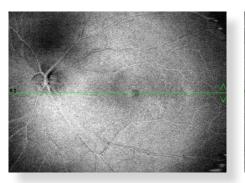


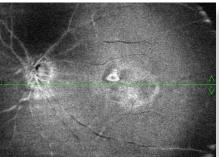


# 3D Widefield En Face Imaging

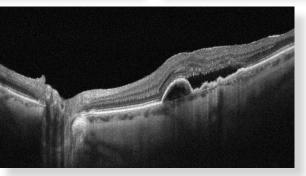
See the retina in three dimensions and study individual layers of the retina with en face imaging. Quickly identify structural abnormalities with the Widefield En Face Quad Image report.

Vitreous

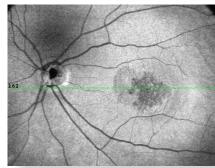


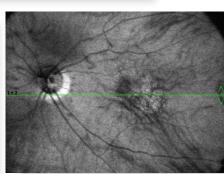


Neurosensory Retina



RPE

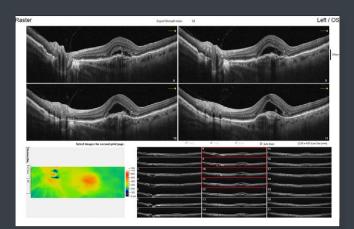




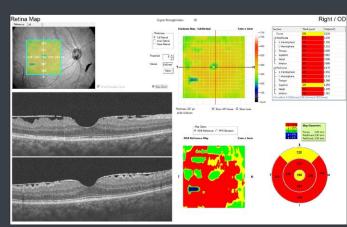
Choroid

# **Comprehensive Retinal Analysis**

Avanti reports provide a comprehensive assessment of the retina in an easy-to-read format.



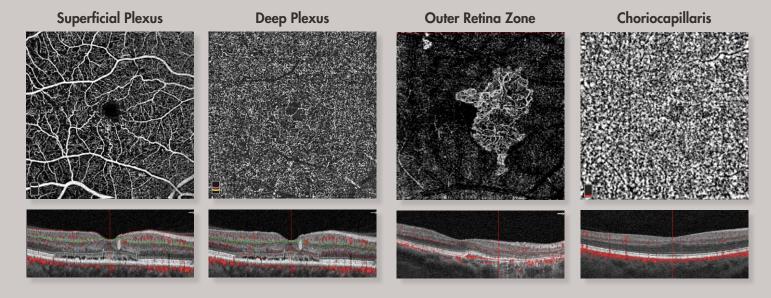
21-line Raster scan with thickness map in AMD.



Retinal Thickness Map with normative comparison showing epiretinal membrane.

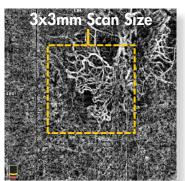
## AngioVue OCT Angiography

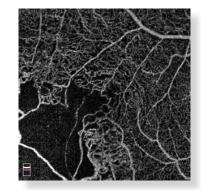
Add AngioVue OCTA to the Avanti platform to enable non-invasive vascular imaging of retinal and optic disc vessels.

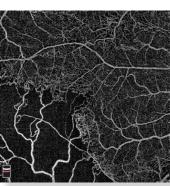


#### AngioVueHD™

High density OCTA (400x400 vs. traditional 304x304 density) provides unprecedented views of the fine vessels extending beyond the central 3x3mm region of the macula. AngioVueHD affords the highest resolution for large format images.





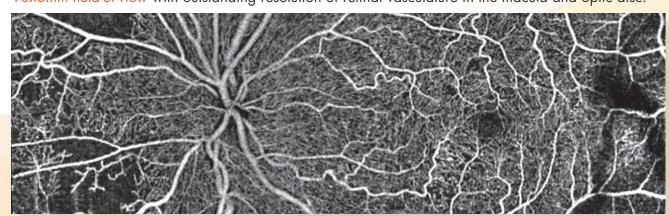


BRVO 6x6mm HD

CNV BRVO 3x3mm

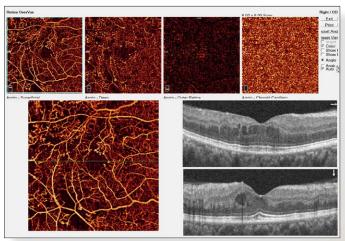
**AngioVueHD Automatic Montage** 

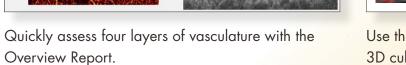
10x6mm field-of-view with outstanding resolution of retinal vasculature in the macula and optic disc.



#### AngioVue Comprehensive

OCTA with extensive analytical functionality and segmentation editing capabilities.





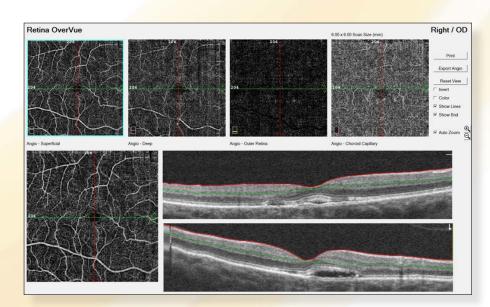
Sea desired in the second of t

Use the OCTA Working Page to scroll through the 3D cube to isolate vascular abnormalities.

Images courtesy of Dan Esmaili, MD, Los Angeles, California

#### **AngioVue Essential**

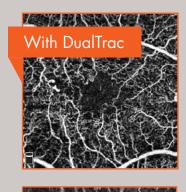
Streamlined OCTA image interpretation with a single-page report.



Assess four layers of vasculature to identify abnormalities that may require referral. Scrolling is enabled in the Choriocapillaris layer.

#### DualTrac<sup>™</sup> Motion Correction

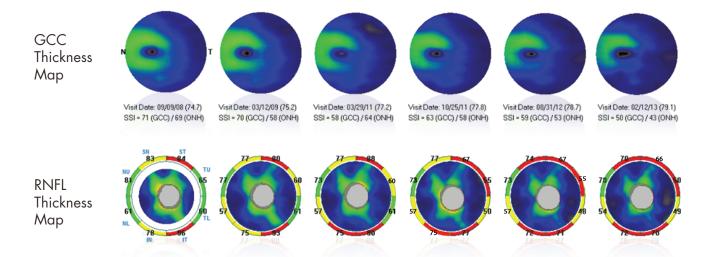
DualTrac Motion Correction
Technology combines real-time
tracking, a high-speed infrared
camera (30 frames/sec.), and
patented post-processing to enable
true 3D correction of distortion in
all directions. The outcome is ultra
precise motion correction resulting
in superior image quality.



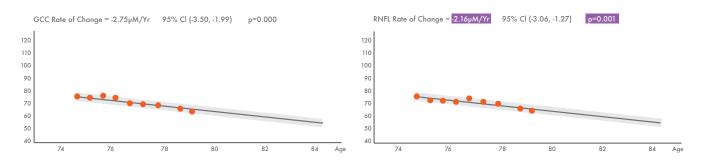


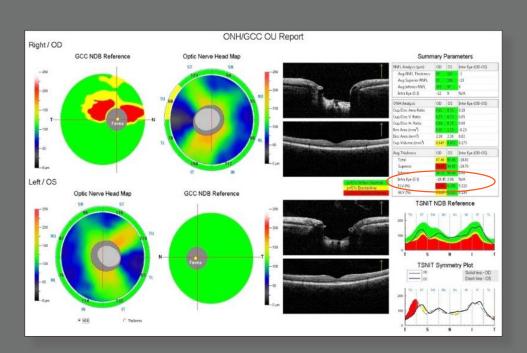
#### **Trend Analysis**

Trend analysis tracks change in both GCC and RNFL and produces a single-page report to estimate future progression.



Trend plots approximate rate of change in GCC and RNFL thickness based on all available OCT data.





## Optovue Exclusive: Focal Loss Volume Analysis

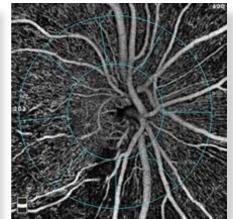
Focal loss volume (FLV) measures the average amount of focal loss over the entire GCC map.

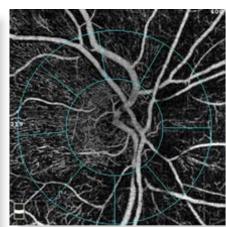
This metric has been scientifically validated as the single best predictor of conversion to glaucoma<sup>1</sup>.

# OCT Angiography of the Optic Disc

Gain new information on optic disc vasculature with the AngioDisc scan.







Normal

Moderate Glaucoma

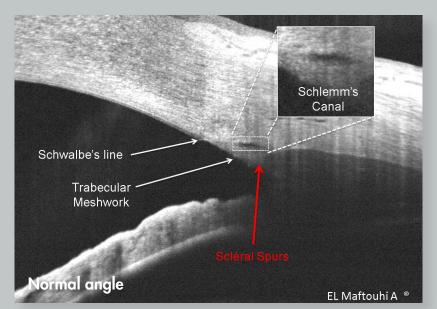
Advanced Glaucoma

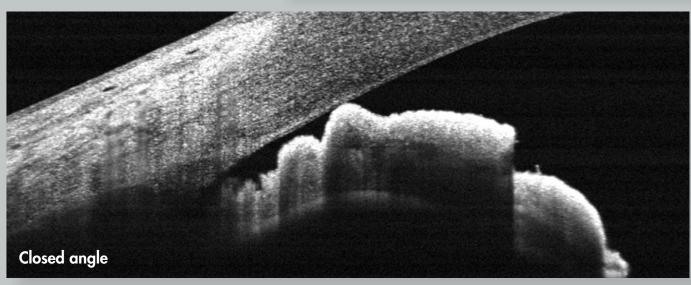
Images courtesy of Drs. Weinreb, Nudleman, Goldbaum, Zangwill, San Diego, California

## **Angle Analysis**

Acquire high-resolution images of the irido-corneal angle to visualize angle structure, the trabecular meshwork and Schlemm's canal.

Quantitative measurement tools enable careful assessment of the angle in glaucoma patients.



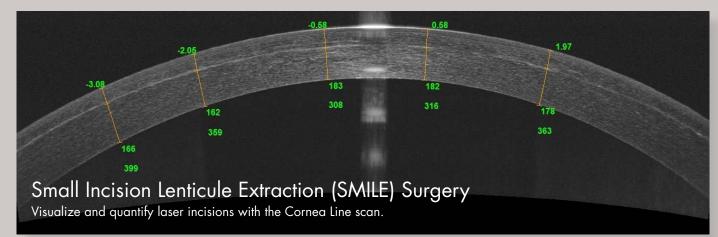


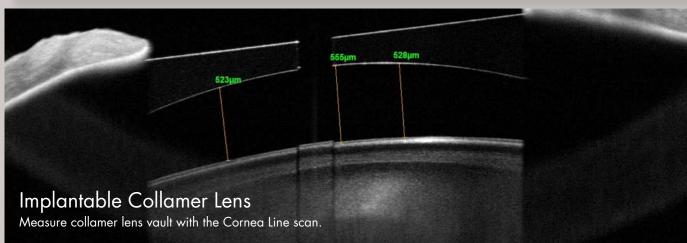
<sup>1.</sup> Zhang X, Loewen N, Tan O, Greenfield D, Schuman J, Varma R, Huang D. Predicting Development of Glaucomatous Visual Field Conversion Usin

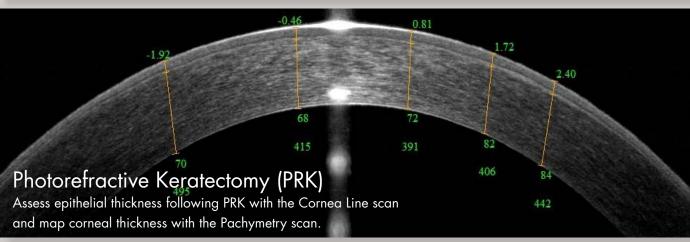
Raseline Fourier-Domain Optical Coherence Tomography, Am J Ophthalmol. 2016 Mar.: 163:29:37

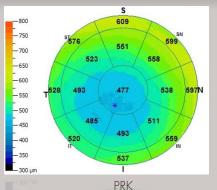
# PRK and Post-Myopic PRK

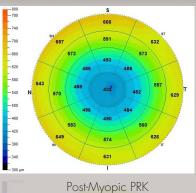
Quickly map corneal thickness with the Pachymetry scan.



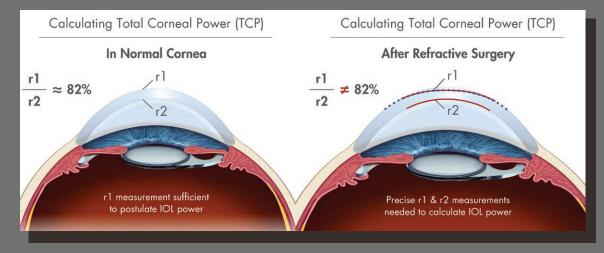








# **Cataract Surgery**



Total Cornea Power (TCP)® measures the front and back surface of the cornea to enable precise calculation of corneal power in post-laser vision correction patients.

#### **TCP DATA POINTS**

Enter the data points into the ASCRS calculator to generate recommended lens power. http://iolcalc.ascrs.org/

#### **CORNEAL POWER**

Within central 3mm zone

Power	<b>Net</b> 41.08	<b>Anterior</b> 47.20	Posterior -6.22
CURVATURE   Anterior R:	<b>RADIUS</b> 7 966	Posterior R:	6 434

#### **PACHYMETRY**

Layer Offset	Thickness		
SN-IT (2-5mm):	9	S-I (2-5mm):	8
Min:	463	Location Y:	59
Min-Median:	-33	Min-Max:	-71

Min thickness at (-0.129mm, 0.059mm) indicated as\*

#### **EPITHELIUM**

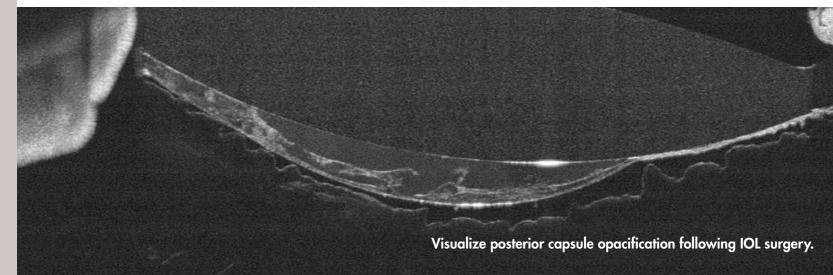
 Epithelium statistics within central 5mm

 S (2-5mm):
 55
 I (2-5mm):
 57

 Min:
 51
 Max:
 61

 Std Dev:
 2.3
 Min-Max:
 -10

Min/Max thickness indicated as\*/+



Specifications Networking

#### TECHNICAL SPECIFICATIONS

OCT Scanning Speed

70,000 A-scans per second

Optical Axial Resolution

(digital pixel sampling = 3 µm)

Optical Transverse Resolution

~15 microns

~5 microns

OCT Axial Imaging Depth

2 to 3 mm

(dependent on scan protocol)

AngioVue Imaging Volume

 $304 \times 304$  A-scans (for non-HD scans)

400 x 400 A-scans (for HD scans)

Acquisition Time Per OCTA Imaging Volume

~3 seconds

3x3mm, 6x6mm HD, 8x8mm

(AngioVue Essential includes 6x6mm scan only)

AngioVue Imaging Size (Optic Disc)

AngioVue Imaging Size (Retina)

4.5x4.5mm HD, 6x6mm HD

12x9mm

#### **NETWORKING SPECIFICATIONS**

Operating System

Field of View

Windows 7;

64-bit OS compatible

Hard Drive Availability

Minimum 50GB

Processor Speed

Minimum Intel i5

Recommended Intel i7

3 GHz or higher

Computer RAM

Minimum 4GB RAM

Recommended 8GB RAM

Dedicated Graphics Card

Not required

Recommended NVIDIA GTX 970

Monitor Resolution

1920x1080, 1680x1050, 1600x1024, 1600x900

Network Bandwidth

1 Gbps or higher

#### TABLE SPECIFICATIONS

Width

37.4 inches (950mm)

Depth

23.6 inches (600mm)

Height (Adjustable)

27.4-35.2 inches (695-995mm)

# **Networking Solutions**

- NetVue Pro allows viewing and modification of images from a single Optovue OCT system on up to eight review stations. In addition, with NetVue Pro, new patient scans may be captured while existing scans are reviewed.
- NetVue Enterprise enables
   viewing and modification of
   images from multiple Optovue
   OCT systems on up to 20 review
   stations.
- NetVue Web is a browser-based solution that brings Optovue OCT images to a smart phone, tablet or PC.
- DICOM. All Optovue products are DICOM-compliant, featuring C-store and Modality Worklist.
   Optovue products have successfully interfaced with several PACS, including government systems such as the Vista Imaging System.



Configurations \_\_\_\_\_ About Us

The Avanti Widefield OCT platform with AngioVue OCTA is available in a variety of configurations to meet the specific needs of your practice.

	Avanti Widefield OCT	AngioVue Comprehensive	AngioVue Retina	AngioVue Essential
Retina OCT	•	•	•	•
RNFL / Disc OCT	•	•		•
Anterior Seg OCT	•	•		•
Wellness	•	•		•
Retina OCTA		•	•	•
Optic Disc OCTA		•	•	
OCTA Overview Report		•	•	•
OCTA Working Page		•	•	
Live Tracking	•	•	•	•



# Innovating Technologies that Transform the Lives of Patients and Clinicians Around the World

# First and Foremost in the Advancement of OCT Technology

From the first SD-OCT image generated to our transformative OCTA technology, Optovue technologies provide clinicians with information so new, they demand a different approach to treatment decision algorithms. Optovue's long history of "firsts" demonstrates that innovation is the backbone of our scientific heritage. We committed to furthering OCT image quality, efficiency and clinical applications.

#### **Our Bold Vision**

Over the past decade, and in collaboration with industry-leading ophthalmic specialists, we have pursued a bold and single-minded vision to offer advanced eye care technology to patients around the world by expanding the frontiers of OCT innovation, and significantly improving accessibility to OCT technology to make it a standard part of every eye exam.

## Over 10,000 Systems in 10 Years

Since our founding, 10 years ago, we have installed over 10,000 products in many different countries. Headquartered in Fremont, Calif., we employ a passionate and talented team dedicated to the development, manufacture and sale of OCT and OCTA systems.

Find your local Optovue distributor:

optovue.com/contact

# OPTOVUE EXCLUSIVES:

- Focal loss volume (FLV) analysis for glaucoma
- Total Cornea Power (TCP) for anterior segment surgery
- Split-spectrum technology (SSADA) on OCTA scans
- 3D Projection Artifact Removal
- DualTrac Motion Correction Technology

Optovue extends sincere appreciation to Adil El Maftouhi OD (Centre Rabelais, Lyon, France) for the use of his images throughout this brochure. Unless noted, all images are courtesy of Adil El Maftouhi.



2800 Bayview Dr., Fremont, CA 94538 phone 1.510.743.0985

optovue.com