

Features

- Configurable OCT Systems Optimized for High-Sensitivity Imaging
 1 2 Mt2. A-Scan Rate and 107 d8 Sensitivity
 7 pm Avail Resolution in Art with 1.7 mm Imaging Depth
 (390 nm Center Wavelength)
 Indudes Computer and Thortimage*OCT Software Package (See the Software Tab)
 Build-You-Ovm and Preconfigured Systems Available
 See the Edocutions* Tab for More Information on Thortidate' OCT Systems

Choose Components to Build or Customize Your OCT System

- One 930 nm, High-Sensitivity Base Unit (Required)
 Standard, User-Customizable, and Handheid Scanners available
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 Rings and Immerson-Style Sample Spaces for Air Octable 1970 or Applications
 Rings, and Immerson-Style Sample Spaces for Air Octable 1970 or Applications
 Scanner Stand and Translation Stage Accessories
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The components below can also be used to upgrade your existing Thorlabs OCT system with additional features and are fully compatible out of the box with Thorlabs OCT systems and accessories. While most systems are upgradable, we recommend contacting the <u>OCT Team</u> to determine the optimal solution for your system and intended application.



We're Happy to Assist!

Contact Us

Exploring the Options?

In the Budgetary Phase?

n prices vary based on the exact compor our conversations, we can ensure your quote is tailored to your requirements.

OEM or Custom Projects?

Click here to learn about our OEM capabilities





Click on the Image Below or in the Table to the Right for Details on Customization Options







Callisto Series Complete Preconfigured System



- Complete Preconfigured 930 nm OCT Imaging System
- ▶ High-Sensitivity Imaging (See Tables Below)
 ▶ Fully Customizable Using Other Callisto Series Components

Thorlabs offers this complete, preconfigured Callisto OCT system, which is fully compatible with all Callisto Series OCT components. The CAL110C1 configuration feat center wavelength of 930 nm and is designed for high-sensitivity imaging applications.

This Callisto Series OCT system configuration is built completely from components sold in sections located lower on this page. This preconfigured system includes the thir mandatory OCT system core components (the base unit, a scanning system with its reference length adapter, and a scan lens list), as well as two optional accessories (scanner stand and translation stage). For more information about a component included in the preconfigured system, click on the component description in the table to the lower left to navigate down to the related section on this page.

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Preconfigured System Included Components					
System Item #	CAL110C1				
Base Unit	CAL110				
Scanning System	OCTG-900 (Standard Scanner)				
Scan Lens Kit	OCT-LK3-BB				
Reference Length Adapter	OCT-RA3				
Accessories: Stand and Stage	OCT-STAND(/M) (Scanner Stand) and OCT-XYR1(/M) (Translation Stage)				

Click on the component description to navigate down to the related section on this page.

Preconfigured System Key Specifications				
System Item #	CAL110C1			
Imaging Depth (Air/Water)	1.7 mm / 1.3 mm			
Axial Resolution (Air/Water)	7.0 µm / 5.3 µm			
Lateral Resolution	8 µm			
A-Scan/Line Rate	1.2 kHz			
Sensitivity	107 dB			

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Docs Part Number - Universal Qty +1];;; CAL110C1 Spec Add To Cart

OCT Base Unit (Required OCT System Component)



- ▶ 930 nm High-Sensitivity Base Unit 107 dB Sensitivity at 1.2 kHz A-Scan Rate
- ▶ 1.7 mm Imaging Depth and 7 µm Axial Resolution

Thorlabs' CAL110 Base Unit is optimized for high sensitivity (107 dB) at an A-Scan line rate of 1.2 kHz. Thus, the Callisto is ideal for imaging static, in vitro samples that require good contrast to distinguish features. The CAL110 offers up to 1.7 mm imaging death with 7 up of sixtle sensitivity.

Base Unit Item #	CAL110
Center Wavelength	930 nm
Imaging Depth (Air/Water)	1.7 mm / 1.3 mm
Axial Resolution (Air/Water)	7.0 µm / 5.3 µm
A-Scan Line Rate	1.2 kHz
Sensitivity ^a	107 dB (at 1.2 kHz)
Maximum Pixels per A-Scan	512
Compatible Scanners	OCTP-900(/M), OCTG-900, and OCTH-900

Typical Values Measured Using a Scanner with a Common Reference/Sample Path and 50% Path Split



Windows 7^b, 64 Bit Dual Core, ≥2.5 GHz 4 GB ≥250 GB Memory Data Acquisition USB

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+1	Qty	Docs	Part Numbe	er - Universal	Price	Available
+1}⊒		B	CAL110	Callisto OCT Base Unit, 930 nm, 7.0 µm Resolution, 1.2 kHz	\$20,157.10	Lead Time
Add	To Cart					

Scanning Systems (Required OCT System Component)

- Scan an OCT Light Source Beam Across a Sample to Acquire 2D or 3D Images
- Scan an Quality Options
 Standard Scanner for High Stability and Ease-of-Use
 Standard Scanner for High Stability and Ease-of-Use
 User-Claim Canadard Scanners with Open Construction for Customization of Scan Path
 Portable Hamiltonia Scanner for Applications Requiring High Michailty

Thorists' OCT Scanning Systems are designed to scan the OCT light source beam across a sample for 20 cross-sectional and 20 volumetric imaging. OCT applications can vury vieldy, from his assimal imaging to industrial imbrobials analysis, with each crowing a different set of scanning parameters. We currently offer three types of beam scanning systems for use with our Callisto Base Unit: standard, user-customizable, and handheld.

Each scanner contains an OCT interferometer with a sample arm and a reference arm. The reference arm of the OCT interferometer is placed near the sample and housed within the scanning system Itself to guarantee the place stability of the sample arm relative to the reference arm. Except for different sample distances and reflectivities (e.g., while imaging through water), the reference arm graph length, as well as the reference arm from the properties of the

Standard Scaner
The CIT-990 Standard Scanner is idea for imaging applications that require a stable, easy-to-operate action. The recommendation of the standard scanner is contained under its regood, light highly housing that renormate the risk of medialignment. The standard scanner is coupled with a reference path length datance inductor for ease-of-use during reference adjustments. A knob located at the top of the standard scanner allows for fine adjustments to the reference path length datance inductor for ease-of-use

Veer-Customizable Scanner
The CCTP-960(M) User-Customizable Scanner is designed with an open construction to enable easy customization
of the optical beam stable using Thorlabs' standard optomechanical components. This scanner features 5M1
(1.003-40) ports and 4-H0 taped holes at several locations that allow mounting of 5M1-threaded or 30 mm cagelens int.
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Click to Enlarge User-Customizable OCT Scanner Click to Enlarge Standard OCT Scanner CAL110

Standard Scanner Requires Purchase of <u>Reference Length Adapter</u>
 Sample Z-Spacers Recommended When Using OCTH-900





Compact Handheld Scanner

Stanlier Will Handheld Scanner is specifically designed for applications requiring high mobility. Easy access buttons located directly on the scanner analytic mobility in the compact and split behaviorable COTI Software. Users can program each button from a selection of imaging and acquisition on offware controls and the software user visual and suido refereduck for button prosess. The COTI-400 feature a removable cover under the handle that provides access to the reference length and intensity strange. Compable scanner lanes lists and cample >spa for the COTI-900 are soid below; z-spacers help maintain the correct working distance when using the handheld scanner, Please note that due to the limitations of the internal MEMS scanner, the fram rate (e.e., 8-Scan rate) similated to 3 frames per second when using the handheld scanner.

Based on your currency / country selection, your order will ship from Newton, New Jersey Customer Inspired User-Customizable Scanner for 900 nm & 930 nm SD-OCT Systems, Imperial Lead Time \$12,730.80 Docs Part Number - Universal OCTG-900 Standard Scanner for 900 nm & 930 nm SD-OCT Systems \$12,200,35 CCTH-900 Standard Scenner To. 355 mm. Sp. OCT Systems

B OCTH-900 Handheld Scanner for 900 nm & 930 nm SD-OCT Systems Lead Time

Qty Docs Part Number - Metric Price Available OCTP-900/M Customer Inspired User-Customizable Scanner for 900 nm & 930 nm SD-OCT Systems, Metric \$12,730.80 Lead Time Add To Cart

Scan Lens Kit (Required OCT System Component)

- ► Telecentric Scan Lenses Provide a Flat Imaging Plane ► Lens AR Coated for 800 1100 nm
- Scan Lens Kits for Standard / User-Customizable Scanners Include

 Can Lens Can Lens

 Ill limitation Tube

 IR Card

 Calibration Target
- Compact Scan Lens Kits Designed for the OCTH-900 Handheld Scanner with Integrated Scan Lens and Illumination Ring

 To be functional, an OCT system build must include a base unit, a scanning system, and a scan



Scanner with Integrated Scan Lens and Illumination Ring include a base unit, a scannin-protein, and a scan Thoristor's Scan Lens Kits enable easy exchange of scan lenses in an OCT gratem, providing the flexibility to tallor imaging resolution or working distance for each application. Based on our line of OCT leterant scan lenses, these lens kits minimal distortion without extensive post-image processing and maximize coupling of the light scattered or emitted from the standard (Item # OCTF-900) and user-customizable (Item # OCTF-900) scanners, as well as two lens kits compatible with the handfeld scanner (Item # OCTF-900) scanners, as well as two lens kits compatible with the handfeld scanner (Item # OCTF-900) scanners, as well as two lens kits compatible with



Item #	OCT-LK2-BB	OCT-LK3-BB	OCT-LK4-BB	OCTH-LK20-BB	OCTH-LK30-BB
Click Image to Enlarge	E Company	O Co			6
Design Wavelength		900 nm / 930 nm		900 nm	/ 930 nm
Compatible Scanner	OCTG-900	(Standard) or OCTP-900 (User-C	Customizable)	OCTH-900 Har	ndheld Scanner
Lateral Resolutiona	4 μm	8 µm	12 µm	9 μm	14 µm
Focal Length	18 mm	36 mm	54 mm	20 mm	30 mm
Working Distance	3.4 mm (with Tube) ^b 7.5 mm (without Tube)	24.9 mm (with Tube) ^b 25.1 mm (without Tube)	41.6 mm (with Tube) ^b 42.3 mm (without Tube)	12 mm	22 mm
Field of View	6 mm x 6 mm	10 mm x 10 mm	16 mm x 16 mm	Ø8 mm	Ø10 mm
Lens Threading	M25 × 0.75	M25 x 0.75	M25 × 0.75		or Z-Spacer) or OCTH-900)

a. 1/e² Beam Diameter at Focus b. The illumination tube is user-ren

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+1	Qty	Docs	Part Number - Univ	versal	Price	Available
+1}⊒		B	OCT-LK2-BB	OCT Scan Lens Kit, 18 mm FL, 900 nm / 930 nm	\$2,056.02	Lead Time
+1}⊒		=	OCT-LK3-BB	OCT Scan Lens Kit, 36 mm FL, 900 nm / 930 nm	\$1,406.75	Lead Time
+1}⊋			OCT-LK4-BB	OCT Scan Lens Kit, 54 mm FL, 900 nm / 930 nm	\$1,406.75	Lead Time
+1}⊒			OCTH-LK20-BB	OCT Scan Lens Kit for OCTH-900, 20 mm FL, 900 nm / 930 nm	\$1,071.29	Lead Time
+1}⊒			OCTH-LK30-BB	OCT Scan Lens Kit for OCTH-900, 30 mm FL, 900 nm / 930 nm	\$1,071.29	Lead Time
Add	To Cart	1				

Reference Length Adapters (Required for Standard Scanners)



▶ Arm Adapters for Matching Reference Path Length to the Sample Path Length
▶ Use Multiple Reference Adapters for Rapid Switching Between Scan Lens Kits
▶ Must be Purchased with Standard Scanner (Item # OCTG-900)

Item #a	Compatible Scan Lens Kit
OCT-RA2	OCT-LK2-BB
OCT-RA3	OCT-LK3-BB



These adapters adjust the reference arm path length within the OCTG-900 Standard Scanner to match the sample path length of the scan lens used. Choose from three options that are compatible with the scan lens its total owner. Address are already to the scan lens its window. Reference lend adapters also enable the user to quickly swap between different scan lens list without going through extensive adjustments during each switch. The table to the windthing between significant part provides a compatibility kit to help elect the appropriate reference adjustments.

OCT-LK4-BB Multiple reference adapters can be purchased for rapid switching between scan lens kits.

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+1	Qty	Docs	Part Numbe	er - Universal	Price	Available
+1];;;		E	OCT-RA2	Length Adapter for SD-OCT Standard Scanner & OCT-LK2(-BB) Scan Lens Kit	\$551.88	Lead Time
+1}⊒			OCT-RA3	Length Adapter for SD-OCT Standard Scanner & OCT-LK3(-BB) Scan Lens Kit	\$551.88	Lead Time
+1}⊒			OCT-RA4	Length Adapter for SD-OCT Standard Scanner & OCT-LK4(-BB) Scan Lens Kit	\$551.88	Lead Time
Add	To Cart)				

Sample Z-Spacers (Optional Accessories)



▶ Sample Z-Spacers Position Scanner at Optimal Working Distance From Sample
▶ Ring (Air) and Immersion (Liquid) Z-Spacers Available
▶ Two Z-Spacers Recommended for Use with OCTH-900 Handheld Scanner

Thorlabs offers both ring and immersion style sample Z-spacers that enable optimal positioning of a scanning system relative to the sample. The OCT-AIR3, OCT-IMM3, and OCT-IMM4-Z-spacers feature invaried rings that allow the spacing distance to be adjusted and locked in place for increased stability. Several Z-spacer options are available; please see that belied below for compubility with our scanners and less kits.

Additionally, we offer two ring-style Z-spacers that are designed specifically for the OCTH-900 Handheld Scanner; these spacers greatly assist in maintaining the correct sample working distance when using the handheld scanner. The spacing distance on the OCTH-AIR20 and OCTH-AIR30 Z-Spacers can be adjusted by rotating the spacer

Click to Falance

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Item #a	Туре	Adjustable	Adjustment Range	Lockable	Compatible Scanner	Compatible Scan Lens Kit
OCT-AIR3	Ring (Air)	Yes	+3.5 mm / -1.0 mm	Yes		OCT-LK3-BB
OCT-IMM3	Immersion	Yes	+3.4 mm / -1.1 mm	Yes	OCTG-900 OCTP-900(/M)	OCT-EK3-BB
OCT-IMM4	Immersion	Yes	+1.0 mm / -17.0 mm	Yes	0011 000(111)	OCT-LK4-BB
OCTH-AIR20	Ring (Air)	Yes	±4 mm	No	OCTH-900°	OCTH-LK20-BB
OCTH-AIR30	Ring (Air)	Yes	±2 mm	No	00111-900-	OCTH-LK30-BB

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+1	Qty	Docs	Part Number - U	Iniversal	Price	Available
+1}⊒			OCT-AIR3	Ring-Style Sample Z-Spacer for OCT-LK3(-BB) Scan Lens Kit	\$772.63	Lead Time
+1 등		iii e	OCT-IMM3	Immersion-Style Sample Z-Spacer for OCT-LK3(-BB) Scan Lens Kit	\$938.20	Lead Time
+1}⊒			OCT-IMM4	Immersion-Style Sample Z-Spacer for OCT-LK4(-BB) Scan Lens Kit	\$1,048.57	Lead Time
+1}⊒			OCTH-AIR20	Ring-Style Sample Z-Spacer for OCTH-LK20(-BB) Scan Lens Kit	\$199.11	Lead Time
+1}⊒			OCTH-AIR30	Ring-Style Sample Z-Spacer for OCTH-LK30(-BB) Scan Lens Kit	\$199.11	Lead Time
Add	To Cart					

Scanner Stand (Optional Accessory)



- ▶ Recommended Stand for Mounting Standard or User-Customizable Scanners
 ▶ Focus Block with Coarse/Fine Z-Axis Travel on Ø1.5° Stainless Steel Post
 ▶ 12" x 14" (300 mm x 350 mm) Aluminum Breadboard with 1/4"-20 (M6) Tapped Holes

The focus block attaches to a 12" x 14" (300 mm x 350 mm) aluminum breadboard via the included 01.5" post. The aluminum breadboard has side gips and rubber feet for easy lifting and transportation. There is an array of 1/4"-20 (146) for maintaining the set for mounting option-chains. For until 1/4"-20 (146) lapsed holes allow the mounting of the OCT-XYR1.

Translation Stage (sold below the thorough of the OCT-XYR1/M Translation Stage to the OCT-STAND/M directly underneath the scan lens. A 1/4"-20 (146) counterbore is also provided for executing the 01.5" post.



				Based on your currency / country selection, you	ır order will ship fro	m Newton, New Jer
+1	Qty	Docs	Part Number - Imp	erial	Price	Available
+1}⊒		B	OCT-STAND	Stand for Standard and User-Customizable OCT Scanning Systems, 1/4"-20 Tapped Holes	\$2,164.24	Today
+1	Qty	Docs	Part Number - Met	ric	Price	Available
+1}⊒		B	OCT-STAND/M	Stand for Standard and User-Customizable OCT Scanning Systems, M6 Tapped Holes	\$2,164.24	Today

Translation Stage (Optional Accessory)



- Optional Translation Stage with 0.5" (13 mm) of XY Travel and 360° Rotation

ations
10 lbs (4.5 kg)
Ø4.18" (Ø106 mm)
1.65" (41.8 mm)
1/2" (13 mm)
0.025" (0.5 mm)
0.001" (10 µm) per Division



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+1	Qty	Docs	Part Number - Imperial	Price	Available
+1}⊒			OCT-XYR1 XY Stage with Solid Top Plate, 1/2" Travel, 360° Rotation, Imperial Taps	\$772.63	Today
+1	Qty	Docs	Part Number - Metric	Price	Available
+1}⊒			OCT-XYR1/M XY Stage with Solid Top Plate, 13 mm Travel, 360° Rotation, Metric Taps	\$772.63	5-8 Days
Ada	To Cart				

Additional OCT Imaging Systems & Components

Callisto Series OCT Systems and Components

OCT Systems for OEM Applications Vega Series OCT Systems and Components Ganymede Series OCT Systems and Components Telesto Series PS-OCT Systems and Components OCT Components

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