

XT34TR1 - February 05, 2025

Item # XT34TR1 was discontinued on February 05, 2025. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

34 mm RAIL CARRIERS FOR Ø1/2" POSTS

- Mount Ø1/2" Posts onto XT34 Rails
- Dovetail Clamping Design
- Spring-Loaded Thumbscrew Post Lock



XT34TR2

Used in a Raman Spectrometer System. See Applications Tab for More Information



OVERVIEW

Features

- Mount Ø1/2" Posts to 34 mm Rails
- Available in Three Post-to-Rail Working Distances:
 - 0.5" (12.5 mm)
 - 1.0" (25.0 mm)
 - 1.5" (37.5 mm)



Rail carriers aid in making parallel beam paths on opposite sides of the rail.



Three versions provide different post-to-rail working distances.

Advantages

- 34 mm Rails Available with Lengths up to 2 m, Maximizing Axial Adjustment Range
- 34 mm Rails are a Solid Aluminum Extrusion, Forming a Rigid Base for Rail Carrier Assemblies
- Double-Bored Post-Mounting Hole Minimizes Post Height Drift, While a Spring-Loaded Thumbscrew Decreases Post Tip/Tilt
- Rail Carriers can be Removed and Reinserted without Disturbing other Carriers

Thorlabs' XT34 Rail Carriers allow the user to integrate our Ø1/2" TR series post-mounted optomechanical components into our 34 mm rail systems. The minimal 0.60" (15.2 mm) width of these rail carriers allows multiple carriers to be stacked directly against each other, allowing the user to efficiently utilize the entire length of the selected 34 mm rail. These rail carriers offer the convenience of using standard Ø1/2" post-mounted optics without the need for additional adapters while keeping

the optical elements aligned on axis. The three different post-to-rail working distances give the user the freedom to achieve multiple horizontal optical axes with the same 34 mm rail.

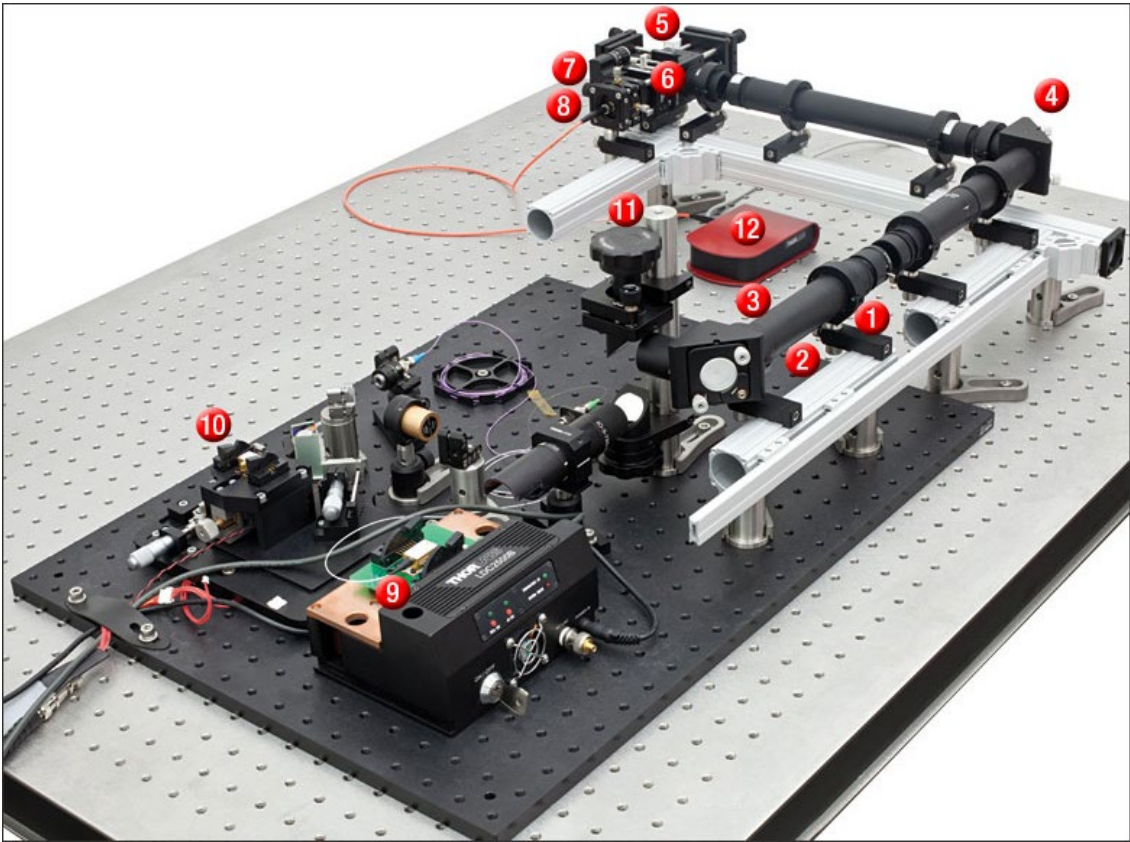
Our rail carriers employ a single 1/4"-20 (M6) cap screw locking mechanism, while the dovetail clamping design securely fastens the rail carriers to any 34 mm rail. A double-bored mounting hole ensures three lines of contact with the mounted Ø1/2" post. The post is secured in place using a spring-loaded hex-locking thumbscrew that eases final adjustment of the post's height. Both thumbscrews can be tightened using a 3/16" (5 mm) balldriver (not included).

Thorlabs offers a wide and growing complement of accessories for 34 mm rails, including clamps and angle brackets, breadboard mounts, rail carriers, mounting platforms, lens tube adapters, and rail joiners. Together with size adapters that incorporate 66 mm and 95 mm rails into an XT34 setup, these tools provide a complete family of rigid, versatile building blocks suited for virtually any optomechanical setup.

XT34 34 mm Optical Rail Accessories								
								
Rails	Rail Platform Positioners	Clamps and Angle Brackets	Breadboard Mounting	Size Adapters	Rail Joiners	Rail Carriers	Mounting Platforms	Lens Tube Adapter

APPLICATIONS

Raman Spectroscopy System



Parts	Description	Image	Fig #*
XT34TR2	XT34 TR Rail Carrier		1
XT34-500	34 mm Construction Rail		2
SM1L30	SM1 Lens Tube		3

KCB1	Right-Angle Kinematic Mirror Mount		4
CVH100	Cuvette Holder for Micro & Macro Cuvettes		5
CFH2R	Stackable Filter Holder Block for Ø1" Optics		6

*See figure above

Parts	Description	Image	Fig #*
SM1SMA	SMA Fiber Adapter Plate with External SM1 Thread		7
CXY1A	30 mm Cage System, XY Translating Lens Mount		8
TPA780P20	780 nm Tapered Amplifier		9
TLK-L780M	Tunable Laser Kit, 770 nm, Littman Configuration		10
RS99	Complete Periscope Assembly		11
CCS200	Compact Spectrometer, 200 - 1000 nm		12

Part Number	Description	Price	Availability
XT34TR1/M	Customer Inspired! 34 mm TR Rail Carrier, 12.5 mm Post-to-Rail Working Distance	\$44.85	3 Weeks
XT34TR2/M	Customer Inspired! 34 mm TR Rail Carrier, 25.0 mm Post-to-Rail Working Distance	\$47.24	3 Weeks
XT34TR3/M	Customer Inspired! 34 mm TR Rail Carrier, 37.5 mm Post-to-Rail Working Distance	\$49.90	In Stock
XT34TR1	Customer Inspired! 34 mm TR Rail Carrier, 0.5" Post-to-Rail Working Distance	\$44.85	3 Weeks
XT34TR2	Customer Inspired! 34 mm TR Rail Carrier, 1.0" Post-to-Rail Working Distance	\$47.24	In Stock
XT34TR3	Customer Inspired! 34 mm TR Rail Carrier, 1.5" Post-to-Rail Working Distance	\$49.90	In Stock