

New Product Announcement

Wired Sample Mounts (X150 and X151)

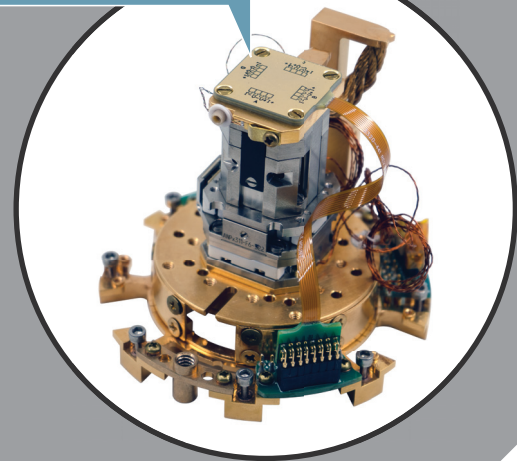
Make electrical contact to your sample while keeping it cold on a nanopositioner stack

Optical measurements often require electrical contact (for gating, transport measurements, and high frequency excitation) while focusing a microscope objective on the sample. Standard chip carriers are convenient because they allow you to use wire bonds to make contact to your sample and maintain a low optical working distance. However, standard chip carriers do not provide adequate thermal contact to maintain samples at low temperatures.

The Wired Sample Mount and RF Sample mount solve this issue by providing a gold-plated copper plane that is thermally connected to the X132 Thermal Link plate. The X150 Wired Sample mount provides 16 pre-wired pads for connecting DC electrical leads to your sample, while the X151 RF Sample mount provides 4 connections for RF coax wires and 8 pre-wired pads for connecting DC electrical leads. Unlike standard chip carriers, our gold-plated copper sample planes make metallic contact through solid copper to the Thermal Link plate – this will typically cool mounted samples to within < 50 mK of the Thermal Link temperature. Both mounts feature flexible connections ensuring nanopositioner motion is not hindered.



Wired Sample Mount (X150)
attached to Thermal Link plate



X150

* Wired Sample Mount (X150) Specifications:

- Compatible with full OptiCool temperature and magnetic field range
- Mounts to X132 Thermal Link Plate or X140 Rapid Thermal Stage
- Electrical connections:
 - 16 connections
 - Pads for wire bonding or soldering
 - Pads arrange in 4 four-probe sets
 - Automatic connections from pads to OptiCool front panel (no manual wiring)

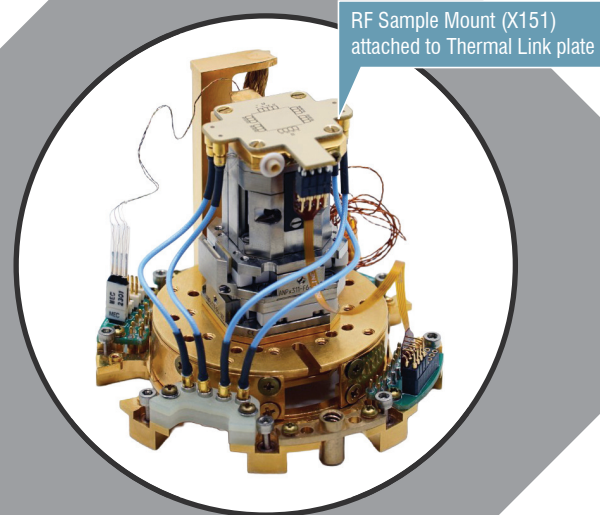
* Specifications subject to change without notice

Wired Sample Mount (X150)

The Wired Sample Mount (X150) features an integrated flexible circuit which carries the 16 wires to the pod flange. The Wired Sample Mount is designed to be used with OptiCool's Standard Sample Wiring (X300). The Wired Sample Mount Kit includes 4 Wired Sample Mounts, the mating PC board that goes on the Pod flange, and the associated mounting screws.

RF Sample Mount (X151)

The RF Sample Mount (X151) features 4 flexible coax cables for 4 RF sample lines as well as an integrated flexible circuit carrying 8 DC wires to the pod flange. The RF Sample Mount is designed to be used with the OptiCool's RF coax Wiring (X310) for its 4 coax connections and the Standard Sample Wiring (X300) for its 8 DC wires. The RF Sample Mount Kit includes 2 RF Sample mount PCBs, 4 coax lines and 2 DC flex lines.



X151

* RF Sample Mount (X151) Specifications:

- Compatible with full OptiCool temperature and magnetic field range
- Mounts to X132 Thermal Link Plate
- Electrical connections:
 - 4 Coax connects
 - 8 DC connects
 - Pads for wire bonding or soldering
 - RF Pads arranged with one connection to center pin and two to coax shield
 - DC Pads arranged in 2 four-probe sets
 - Automatic connections from pads to OptiCool front panel (no manual wiring)

* Specifications subject to change without notice (March 2026)



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