

miniMOT V2

PRODUCT HIGHLIGHTS

- **Compact UHV system** suitable for MOT production from a background vapor
- **Active and passive pumps** to maintain vacuum quality
- **Integrated electronics** for vacuum control, alkali atom pressure control and to drive the miniMOT coils
- **Touchscreen interface** for seamless user control of system operation

The miniMOT V2 is a stand-alone, compact, ultra-high vacuum (UHV) trapped atom system equipped with an intuitive user interface designed to allow users to create quantum matter for immediate implementation in any research experiment, teaching laboratory for academic development and workforce training, or as a dedicated UHV system for prototype cold atom product development in computing and sensing applications. The miniMOT V2 can also be configured with AR coated UHV glass cells to meet your specific needs.



PRODUCT SPECIFICATIONS

Dimensions	5.9 in x 4.7 in x 11.8 in 149 mm x 119 mm x 298 mm
Vacuum*	< 1×10^{-8} Torr
Cell Clear Aperture**	54 x 19 mm (side walls) 10 mm dia. min. (end cap)
Magnetic Field Gradient***	13-14 G/A-cm
Center Cell Height	3.5 in / 89 mm
Weight	7.2 lb / 3.3 kg
Atom count****	>10
Atom temperature***	<mK range

* Without alkali load

**When equipped with a standard 2cm thin-walled glass cell

***This is the gradient along the coil axis and when using Infleqtion's miniMOT coils. For complete system specifications see miniMOT V2 user manual.

PRODUCT OPTIONS

Rb Source

Thin-Walled Cell CMMR0001

Square Cell CMMR0005X

Imaging Cell CMMR0003X

Cs Source

Thin-Walled Cell CMMC0001

Square Cell CMMC0005X

Imaging Cell CMMC0003X

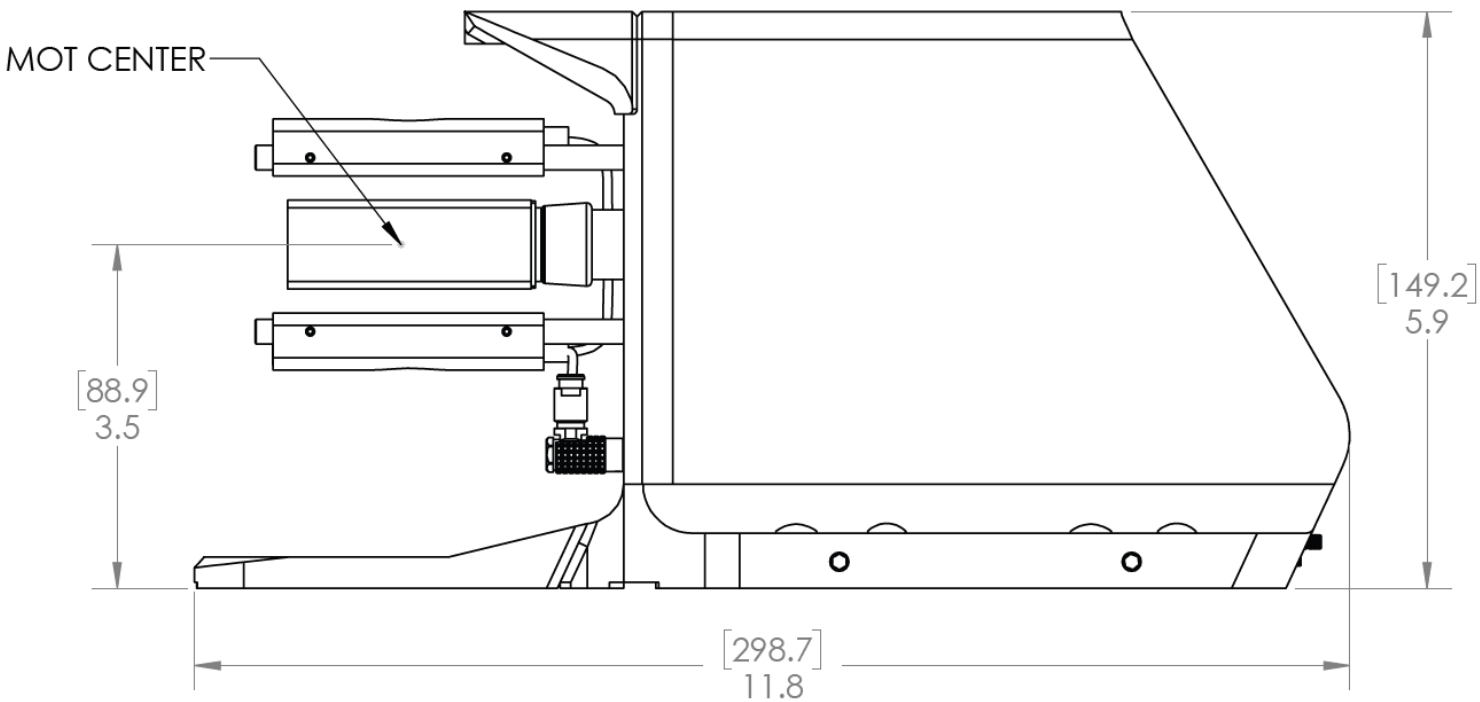
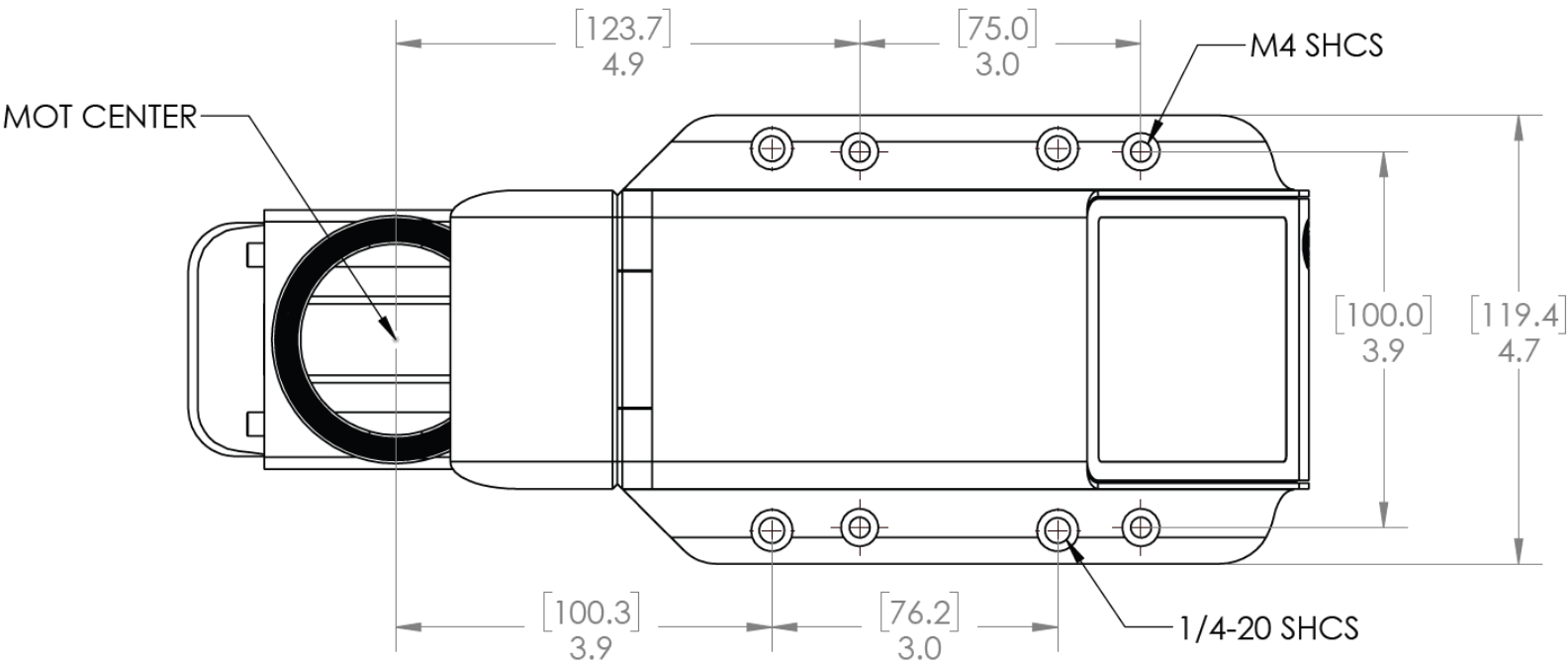
Note: X specifies AR coating type: H (Targeted), K (Broadband) or N (Uncoated)

The miniMOT V2 can be upgraded to a **miniMOT Package** (CMPX0001) our pre-assembled optics kit that allows users to quickly align the laser beams into the glass cell and enables MOTs to be created in hours, saving significant time and cost when establishing a complete quantum matter experiment.

Note: "X" specifies the atomic species (R - Rb, C - Cs)

For more information,
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MECHANICAL DRAWINGS
Measurements in mm and [inches]



UNCONTROLLED SALES DRAWING

For more information, please contact sales@inflection.com

