



TOQUARTZ
Tech Specifications

TOQUARTZ®

IR Quartz Cuvette

Product Catalog

Integrated Engineering & Agile Production
for Demanded Specifications



TOQUARTZ® IR QUARTZ CUVETTE

High-Purity Quartz Cells for Spectroscopy

TOQUARTZ® is a specialized manufacturer of high-purity quartz products based in China, serving global B2B clients in laboratory instrumentation, biomedical research, and environmental monitoring. With in-house engineering support and flexible production capabilities, we offer both standard and custom IR quartz cuvettes with fast delivery and consistent quality.



TOQUARTZ

Product Overview



High-precision infrared quartz cuvettes with 99.99% SiO₂ purity offering exceptional optical transmission in the 120-4500nm wavelength range. Designed for FTIR, NIR analysis, and precision spectroscopy applications requiring high chemical resistance and thermal stability.

IR QUARTZ CUVETTE



Key Features

- **Superior Optical Properties:** Transmission range from 120nm to 4500nm with no absorption peaks
- **High Material Purity:** $\geq 99.99\%$ SiO_2 content for minimal spectral interference
- **Chemical Resistance:** Excellent stability against most acids, bases, and organic solvents
- **Thermal Stability:** Withstands temperatures up to 1100°C with low thermal expansion
- **Precision Manufacturing:** Dimensional tolerance of $\pm 0.1\text{mm}$ with polished optical surfaces
- **Customization Options:** Available in various path lengths and configurations



IR QUARTZ CUVETTE



Applications

- **Analytical Instrumentation:** Integration into FTIR and NIR spectrometers
- **Medical Diagnostics:** Analysis of biological samples including blood and protein solutions
- **Pharmaceutical Analysis:** Quality control and formulation testing
- **Food Science:** Composition analysis and quality verification
- **Chemical Research:** Compound identification and reaction monitoring
- **Environmental Monitoring:** Analysis of pollutants and industrial emissions



TECHNICAL SPECIFICATIONS

Parameter	Specification	Notes
Material	High-purity quartz ($\geq 99.99\% \text{ SiO}_2$)	Free from UV/IR interfering impurities
Transmission Range	120-4500nm	No absorption peaks within range
Standard Path Lengths	1, 2, 5, 10, 20, 50, 100mm	Custom path lengths available
Window Thickness	1.25mm \pm 0.1mm	Optimized for IR transmission
Dimensional Tolerance	\pm 0.1mm	For standard products
Surface Finish	Polished, bubble-free, scratch-free	Optical grade finishing
Temperature Resistance	Up to 1100°C	Short-term exposure
Thermal Expansion Coefficient	$5.5 \times 10^{-7} / ^\circ\text{C}$	Low thermal expansion for stability
Chemical Resistance	Excellent for most acids/bases	Except HF and concentrated fluoride solutions



SIZE CHART



Item no.	Description	Capacity	Path Length	LxWxH	Wavelength Range
AT-BSM-2001	Micro IR quartz cuvette with lid(350ul-1750ul) slit (1-5mm)	350ul/700ul/1050ul/1400ul/1750ul	10mm	12.5x12.5x45 mm	260nm-3500nm



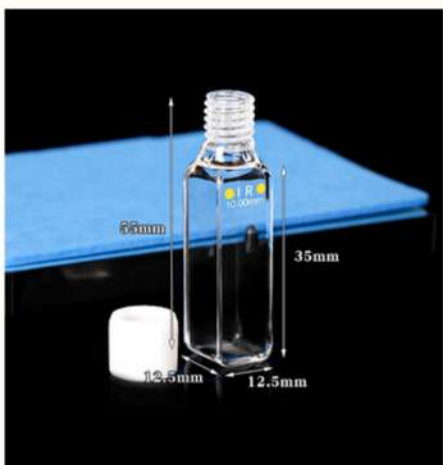
Item no.	Description	Capacity	Path Length	LxWxH	Wavelength Range
AT-BSM-2002	IR quartz cuvette(10mm)	3.5ml	10mm	12.5x12.5x45 mm	260nm-3500nm



SIZE CHART



Item no.	Description	Capacity	Path Length	LxWxH	Wavelength Range
AT-BSM-2002-1	IR quartz cuvette(10mm) with cover	3.5ml	10mm	12.5x12.5x45 mm	260nm-3500nm



Item no.	Description	Capacity	Path Length	LxWxH	Wavelength Range
AT-BSM-2003	IR quartz fluorescence cuvette cell with screw cap(10mm/3.5ml)	3.5ml	10mm	12.5x12.5x55 mm	300nm-3500nm



SIZE CHART



Item no.	Description	Capacity	Path Length	LxWxH	Wavelength Range
AT-BSM-2004	IR quartz fluorescence cell with stopper(10mm)	3.5ml	10mm	12.5x12.5x45 mm	300nm-3500nm



Item no.	Description	Capacity	Path Length	LxWxH	Wavelength Range
AT-BSM-2005	IR quartz cuvette/Quartz infrared microcolorimetric dish 350-1.75ml jgs3/ two way light	350ul-1.75ml	10mm	12.5x12.5x45 mm	260nm-3500nm



SIZE CHART



Item no.	Description	Capacity	Path Length	LxWxH	Wavelength Range
AT-BSM-2006	IR Quartz Cuvette(30mm)	10.5ml	30mm	12.5x32.5x45 mm	300nm-3500nm



Item no.	Description	Capacity	Path Length	LxWxH	Wavelength Range
AT-BSM-2007	IR quartz cuvette(40mm)	14ml	40mm	12.5x42.5x45 mm	260nm-3500nm



SIZE CHART



Item no.	Description	Capacity	Path Length	LxWxH	Wavelength Range
AT-BSM-2007-1	IR quartz cuvette(50mm)	18ml	50mm	12.5*52.5*45mm	260nm-3500nm



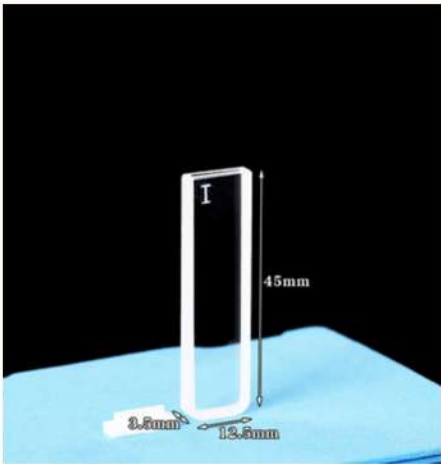
Item no.	Description	Capacity	Path Length	LxWxH	Wavelength Range
AT-BSM-2008	1PCS 700ul Quartz Fluorescent Cuvette Cell (path length 2mm)	700ul	2mm	12.5x4.5x45mm	200nm-2500nm



SIZE CHART



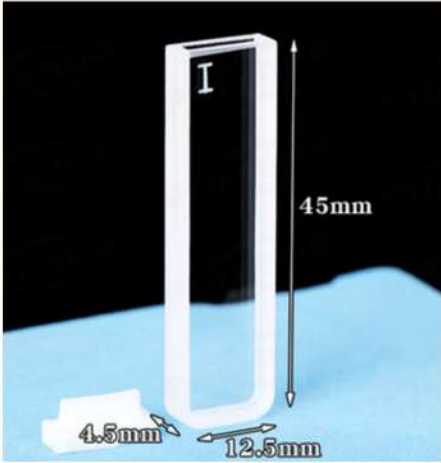
Item no.	Description	Capacity	Path Length	LxWxH	Wavelength Range
AT-BSM-2009	IR quartz cuvette(20mm)	7ml	20mm	12.5x22.5x45 mm	300nm-3500nm



Item no.	Description	Capacity	Path Length	LxWxH	Wavelength Range
AT-BSM-2010	IR quartz cuvette(1mm)	350ul	1mm	12.5x45x45mm	300nm-3500nm



SIZE CHART



Item no.	Description	Capacity	Path Length	LxWxH	Wavelength Range
AT-BSM-2011	IR quartz cuvette(2mm)	700ul	2mm	12.5x45x45mm	300nm-3500nm



Item no.	Description	Capacity	Path Length	LxWxH	Wavelength Range
AT-BSM-2011-1	IR quartz cuvette(5mm)	/	5mm	12.5x45x45mm	300nm-3500nm



SIZE CHART



Item no.	Description	Capacity	Path Length	LxWxH	Wavelength Range
AT-BSM-2012	IR quartz cuvette(5mm)	1.75ml	5mm	12.5x7.5x45 mm	300nm-3500nm



CUSTOMIZATION SERVICES

We support full customization based on your drawings or application needs:

- Non-standard optical path lengths
- Custom window thickness
- Specialized external dimensions
- Sealed/stoppered designs
- Flow-through configurations
- Temperature control compatibility
- Instrument-specific mounting features

CLEANING AND MAINTENANCE

- Rinse with distilled water immediately after use
- For organic contaminants, use a 1:2 mixture of hydrochloric acid and ethanol
- For oil-based residues, rinse with petroleum ether
- Final rinse should be with distilled water (3x) followed by air drying
- Never use alkaline solutions, abrasive materials, or hard brushes
- Store clean, dry cuvettes in protective case away from dust and humidity



QUALITY ASSURANCE

All TOQUARTZ® IR Quartz Cuvettes undergo rigorous quality control to ensure consistent performance in demanding applications.:

- Dimensional verification
- Material composition analysis
- Visual inspection for defects
- Thermal shock resistance testing

Contact Information

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TOQUARTZ® - Precision Quartz Solutions for Industry and Research

For technical specifications, custom requirements, or pricing information, please contact our sales team.