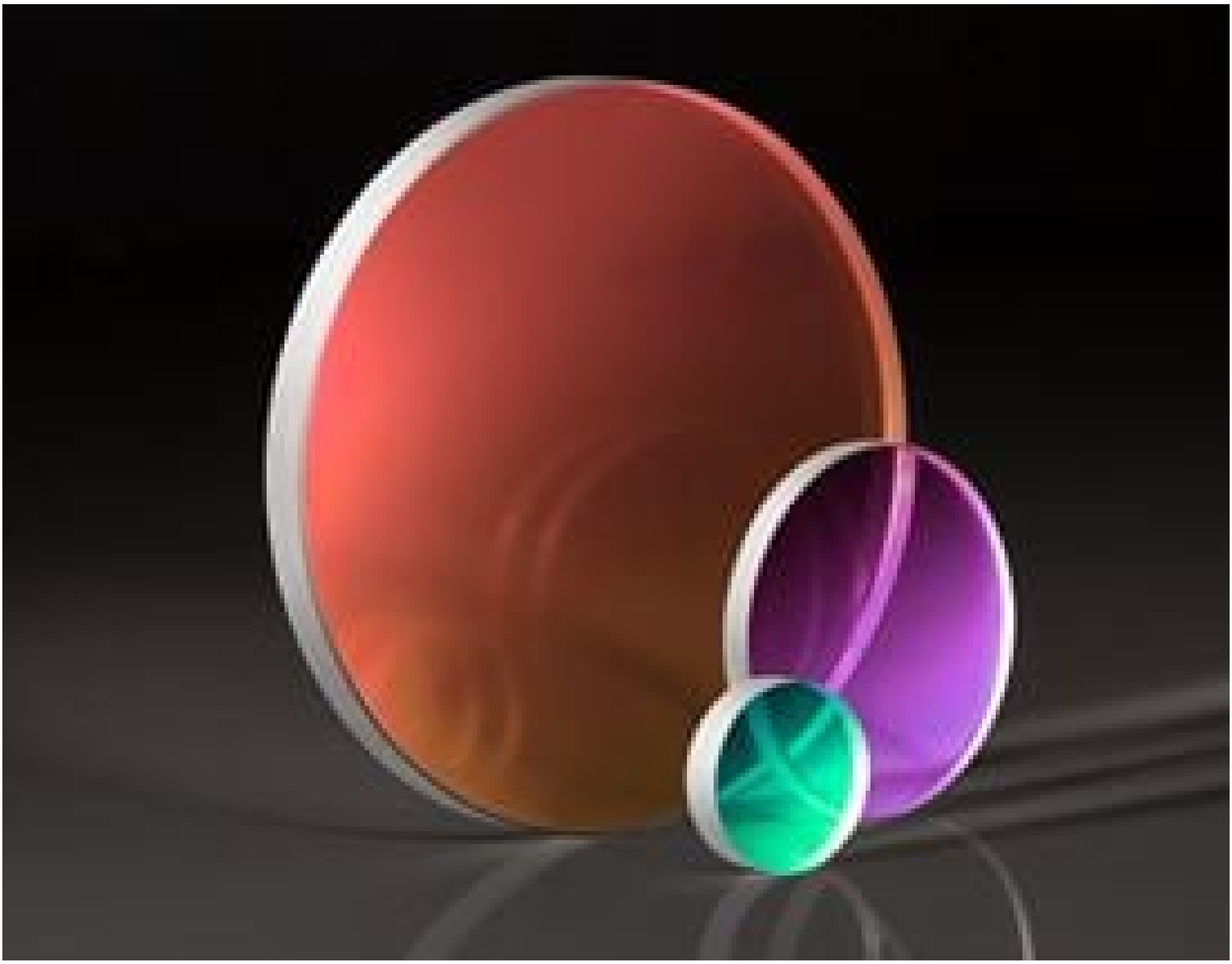
12.7mm Dia., 2mm Thick, Uncoated, ISP Optics Quartz Window | Q-W-12-2

See More by ISP Optics



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SPECIFICATIONS

General

Type:
Protective Window

Model Number:
Q-W-12-2

Physical & Mechanical Properties

Bevel:
Protective as needed

Clear Aperture (%):
85

Clear Aperture CA (mm):
10.79

Diameter (mm):
12.70 +0.00/-0.13

Thickness (mm):
2.00 ±0.13

Edges:
Fine Ground

Knoop Hardness (kg/mm^2):
522.00

Parallelism (arcmin):
<3

Poisson's Ratio:
0.16

Young's Modulus (GPa):
73

Optical Properties

Abbe Number (v_d):
67.8

Coating:
Uncoated

Index of Refraction (n_d):
1.458

Substrate:
Quartz

Surface Flatness (P-V):
1λ per inch @ 633nm

Surface Quality:
40-20

Wavelength Range (nm):
190 - 3500

Material Properties

Coefficient of Thermal Expansion CTE (10^{-6}/°C):
0.52 (+5 to +35°C) 0.57 (0 to +200°C) 0.48 (-100 to +200°C)

Density (g/cm^3):
2.20

Regulatory Compliance

RoHS 2015:
Compliant

Certificate of Conformance:
View

Reach 240:
Compliant

PRODUCT DETAILS

- High Transmission from 190 - 3500nm
- High Chemical Resistance
- Low Coefficient of Thermal Expansion

ISP Optics Quartz Windows feature crystalline quartz (SiO_2) substrates, providing high transmission from the UV to the MWIR. Unlike fused silica, crystalline quartz does not have hydroxide ion impurities, allowing for its use between 1.4 - 2.7µm with no dips in transmission. The material also has high chemical resistance, a low coefficient of thermal expansion, and relatively high hardness, making these windows advantageous for use in harsh environments or those with fluctuating temperatures. ISP Optics Quartz Windows are ideal for use in UV, visible, or infrared applications as protective windows to protect sensors, lasers, or other electro-optical components.