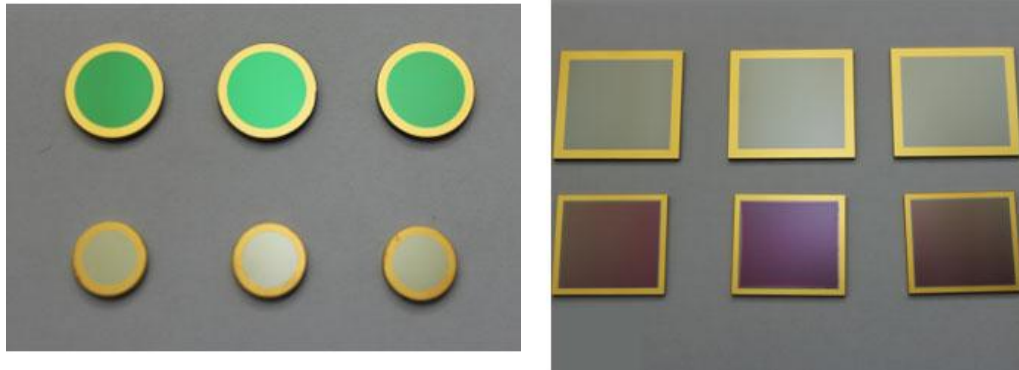


Packaging windows for FPA' s detectors

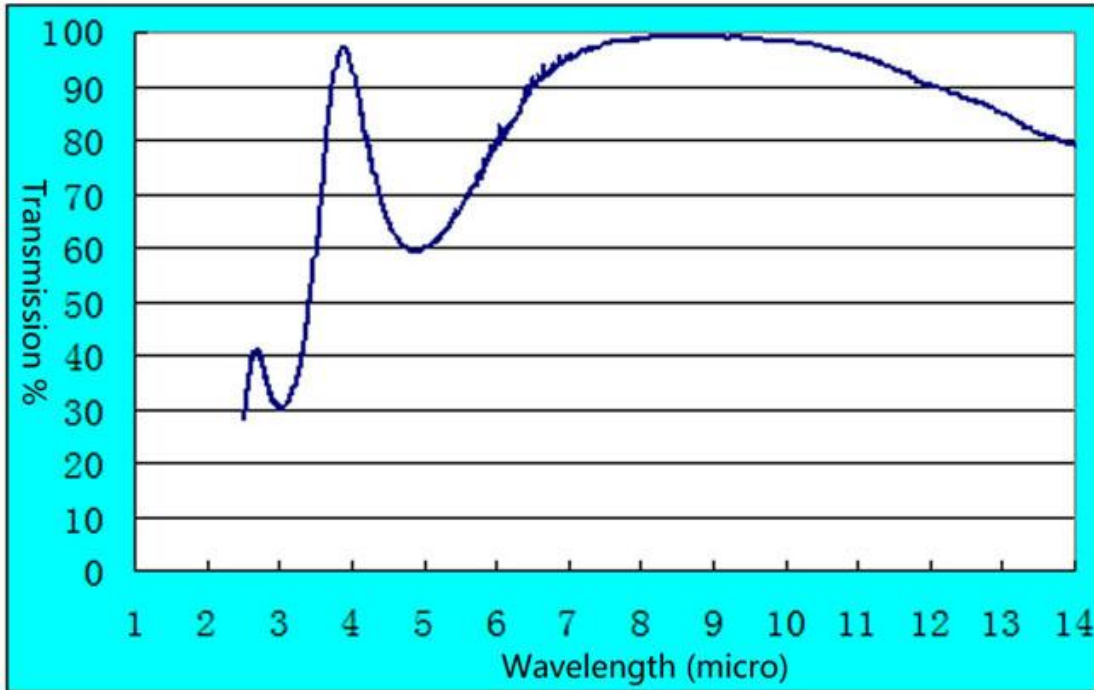
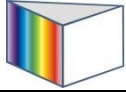
Packaging windows is a key components for the FPA detectors of thermal imaging cameras, it possesses both infrared filtering and welded packaging, germanium (Ge) and Silicon (si) are often used as the substrates materials. Several kinds of filtering coating is available: broad band AR coating, long-pass filtering coating, band pass filtering. The high quality metalizing coating is made on the edge of the windows, the customi metallization is available upon your request.



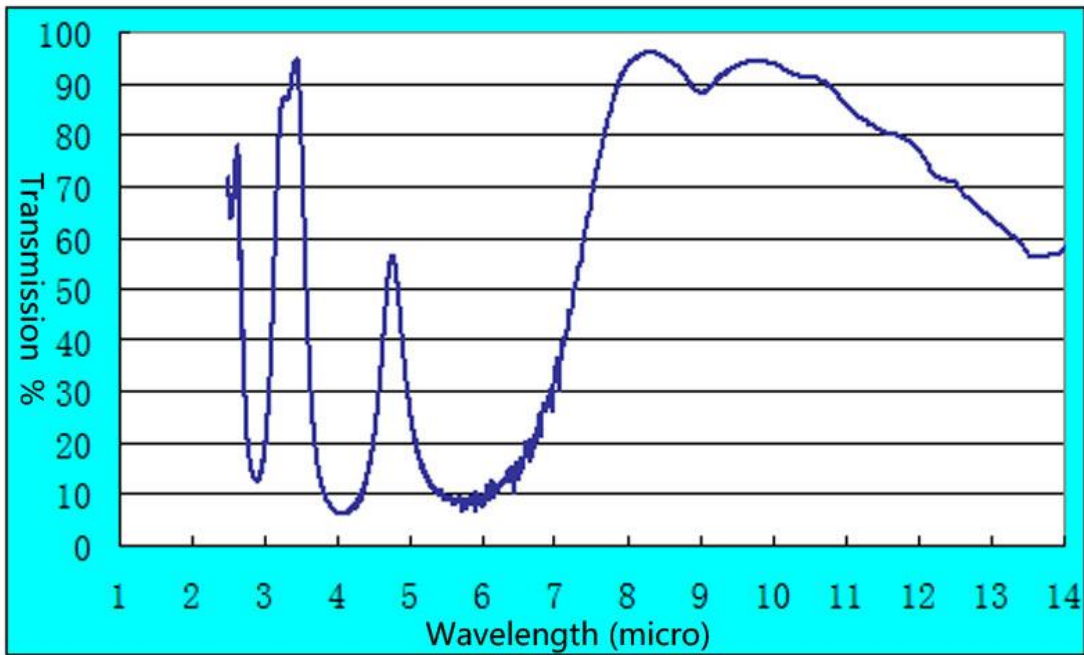
Modules or types

Germanium (Ge) and Silicon (Si) are often used as the substrates of packaging windows, there are several types of filtering modules for your selection.

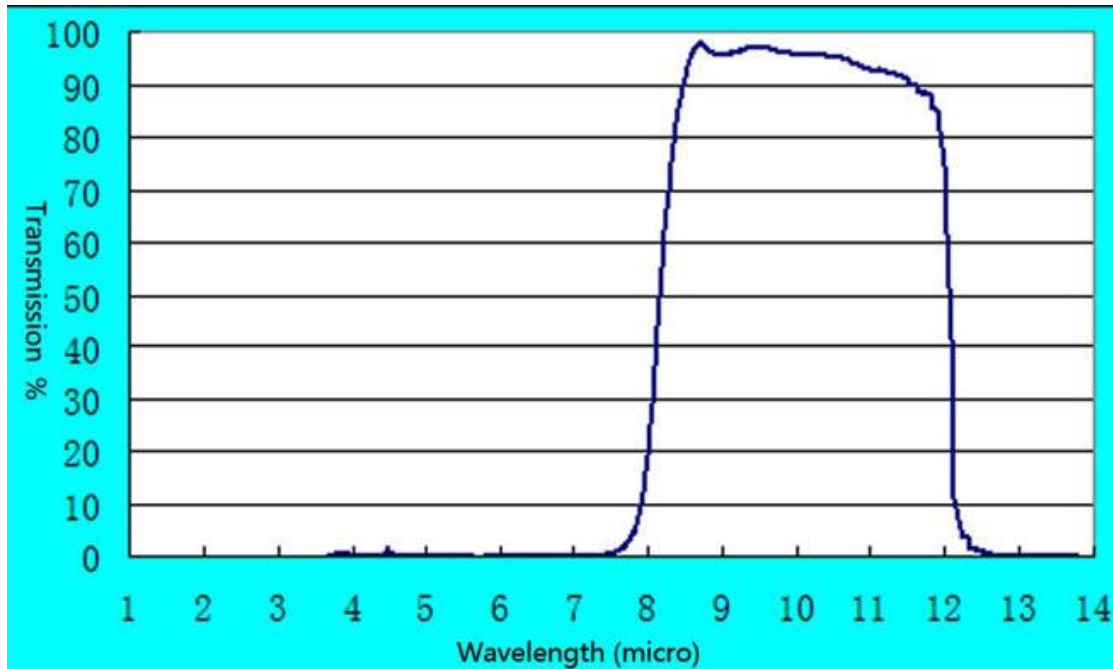
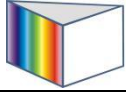
Filtering specifications of packaging windows	
AR coating on Ge substrate	T>94%@7-12μm
AR coating on Si substrate	T>88%@8-12μm
Long pass filtering coating on Ge substrate	T<1%@<7μm, Tavg>92%@8-12.5μm
Long pass filtering coating on Si substrate	T<1%@<7μm, Tavg>80%@8-12.5μm
Band pass filtering coating on Ge substrate	T<1%@<7.5μm, Tavg>90%@8-12μm, T<1%@>12.5μm
Broad band AR coating on Ge substrate	Tavg>92%@2-14μm



Transmission of Ge windows with AR@7-14 micro



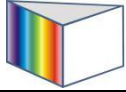
Transmission of Si windows with AR@8-12 micro



Transmission of Ge windows with band-pass filtering coating

SPECIFICATIONS

Specifications of packaging windows	
Substrate materials	Germanium, Silicon
Dimensions	Customized
Thickness/Diameter tolerance	+/-0.05mm
Surface quality	60/40 S/D
Parallelism	< 1 arc minute
Clear aperture	>90%
Chamfer	<0.2x45degree
Coating	Custom IR coating
Metallization materials	Au, Ag or Cu (upon customer's request)



Drawing example of metallized IR windows

