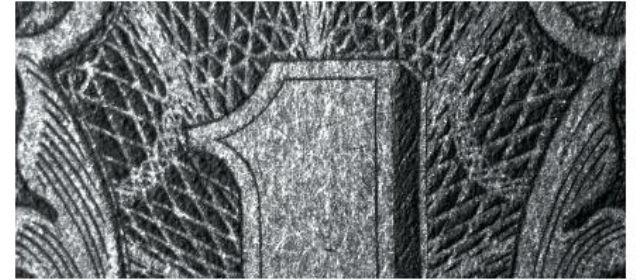


UV Lens Range

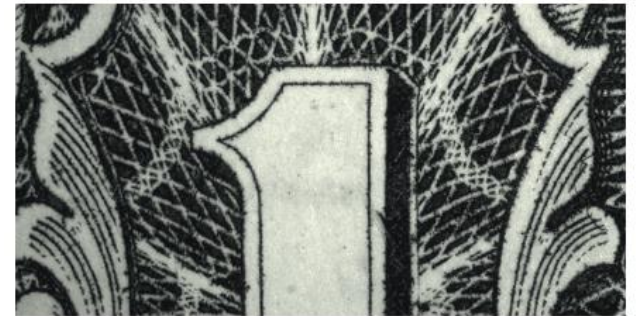
FL-BC7838-VGUV



FL-BC2528-VGUV



UV Lens with near UV light. The texture of material and unevenness of ink can be recognized



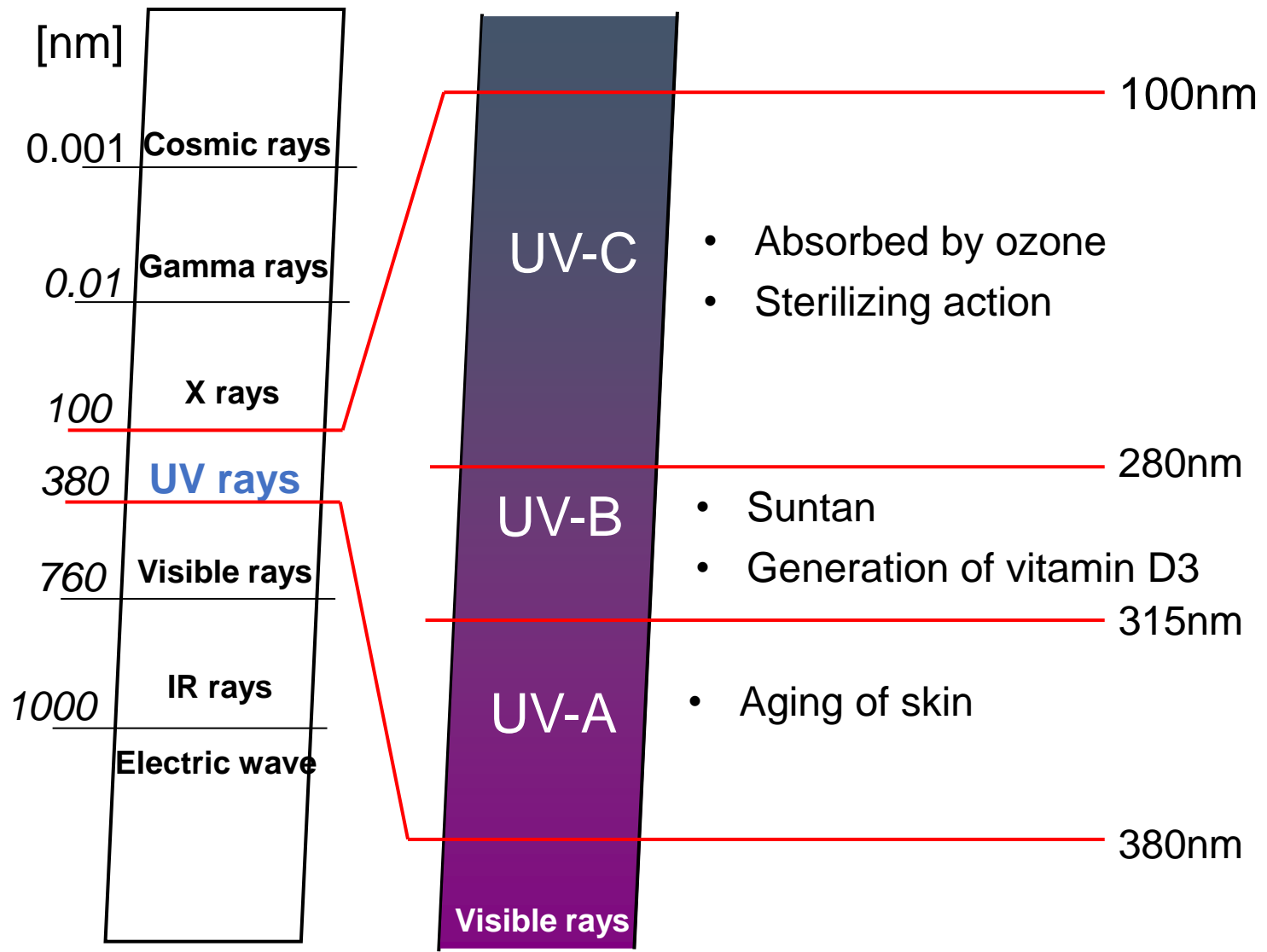
Ordinary Lens with visible light

An optical system that employs optical-grade quartz glass for imaging in the near-ultraviolet region. These lenses are optimised for applications in the inspection of minute surfaces. Extended wavelength range (230 nm to 800 nm) with peak performance at 365 nm

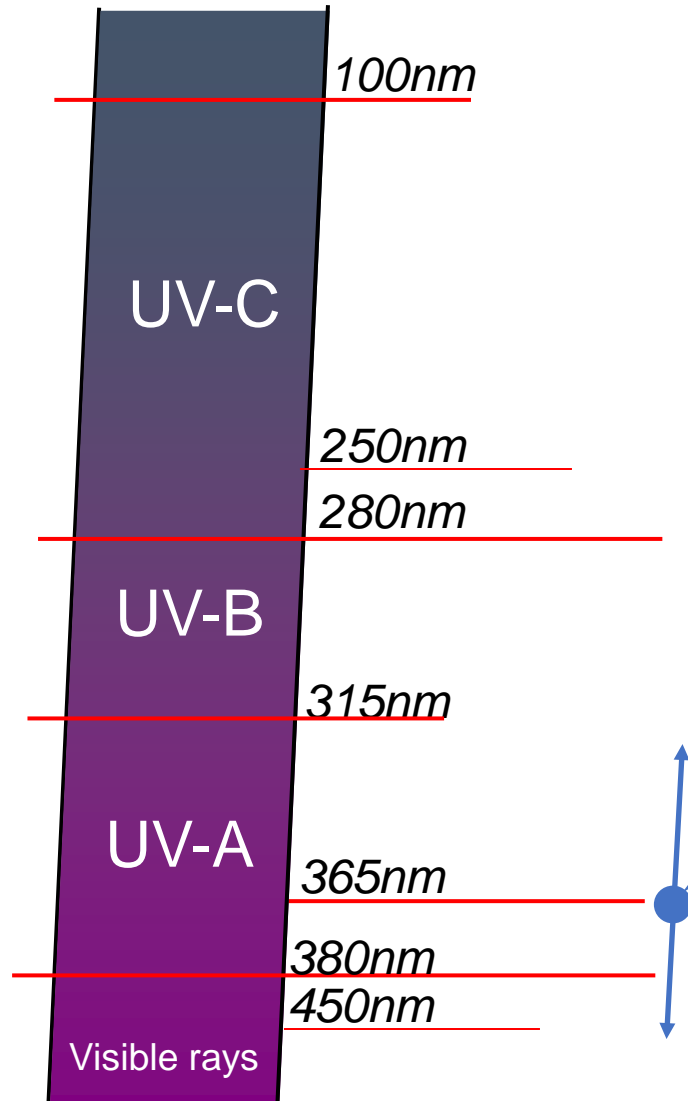
Lens Specification

	FL-BC2528-VGUV	FL-BC7838-VGUV
Focal length	25mm	78mm
Iris range	F2.8 to F16	F3.8 to F22
Format	1"	1"
Angle of view	29.7 degrees	9.5 degrees
Dimensions	30 x 25.4mm	62.5 x 109.3mm
Weight	36 grams	450 grams
Mount	C mount	C mount

What are UV rays?



FL-BC2528-VGUV & FL-BC7838-VGUV



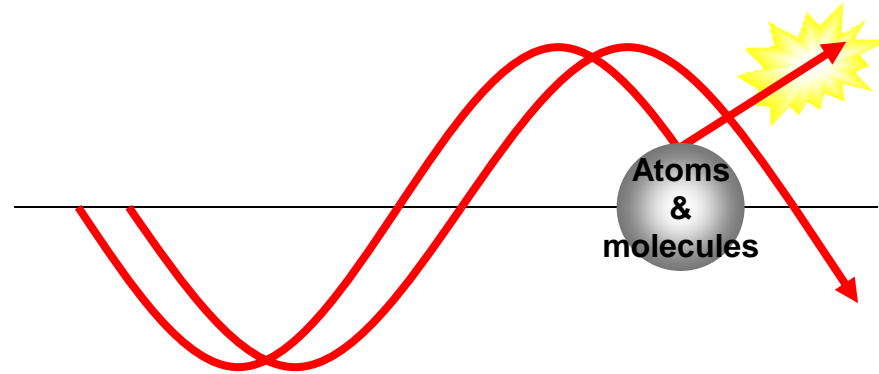
FL-BC2528-VGUV and FL-BC7838-VGUV

- 25mm F2.8 and 78mm F3.8
- Suitable for 1" format near UV cameras
- Utilising Optical Quartz Glass
- Working wavelength range from 230nm to 800nm utilising 10nm narrow bandpass filters
- Peak performance at 365nm
- Wavelength range stays in focus:
+/- 5nm (from 230nm to 800nm)

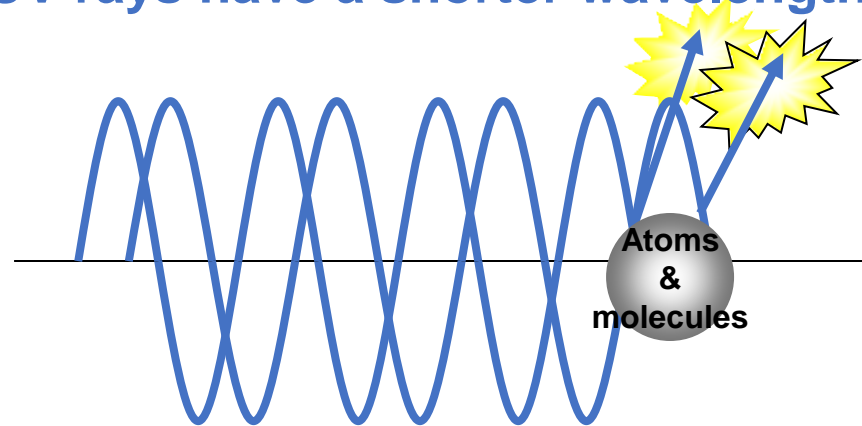


Scattering of rays

IR Rays have a longer wavelength



UV rays have a shorter wavelength



- Hit atoms and molecules
- Tend to scatter

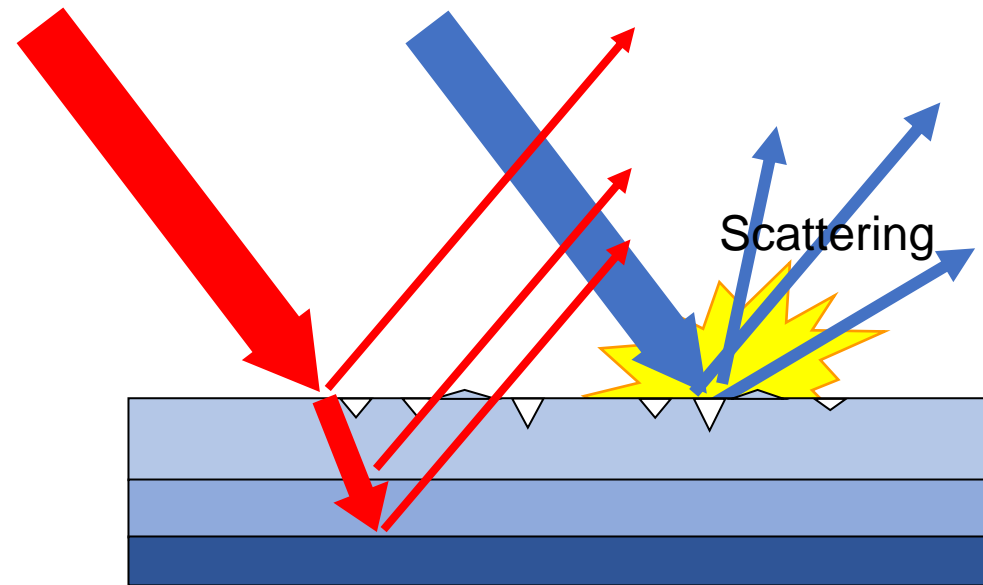
Scattering of rays

Near IR rays

UV rays

(Longer wavelength)

(Shorter wavelength)

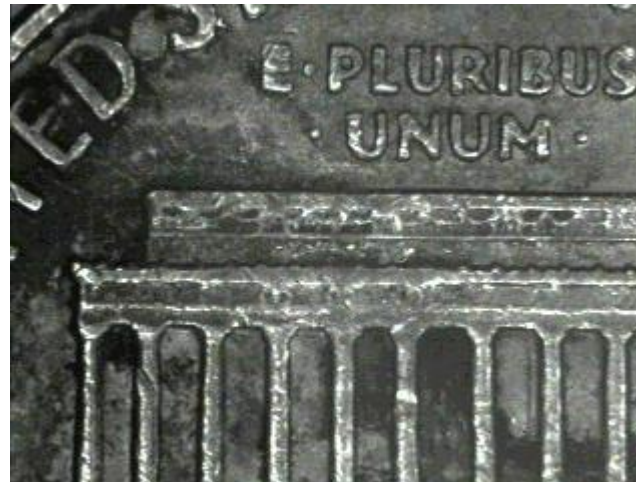


- UV rays are ideal to see surface details including dents, dust and scratches

UV Inspection Examples

- Surface inspection of circuit boards and soldering condition: Clearer to detect damage, dust or stains
- Manufacturing and quality control of semiconductors: Leaves no damage or effect on the objects
- Used with microscopes in medical applications
- Detection of forgery, falsified documents, paper money and credit cards: A genuine U.S. dollar bill does not emit light and the transparent stamp that appears on credit cards
- Inspection of oil contamination and leakage
- Fiber Optics Inspection
- Space & Aerospace Inspection
- Uneven & Irregular Surface Inspection

UV lens



Ordinary lens

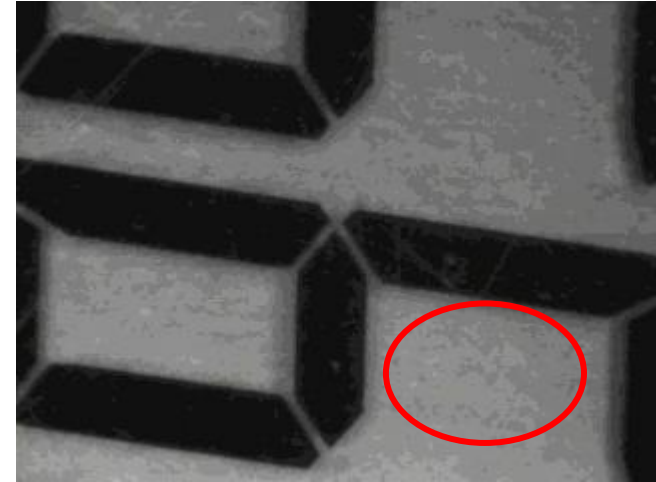


Examples

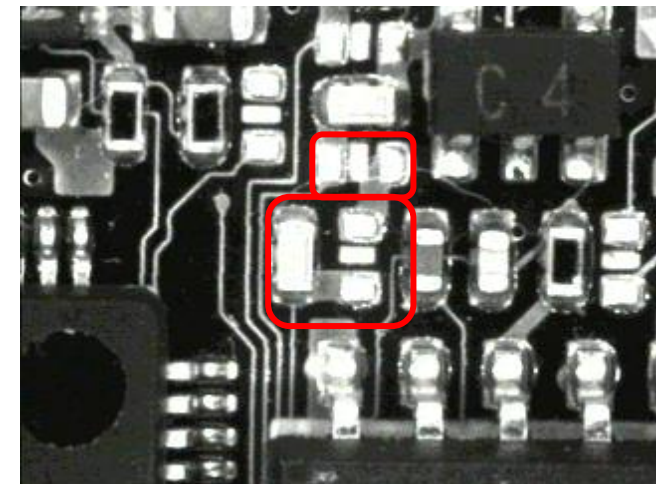
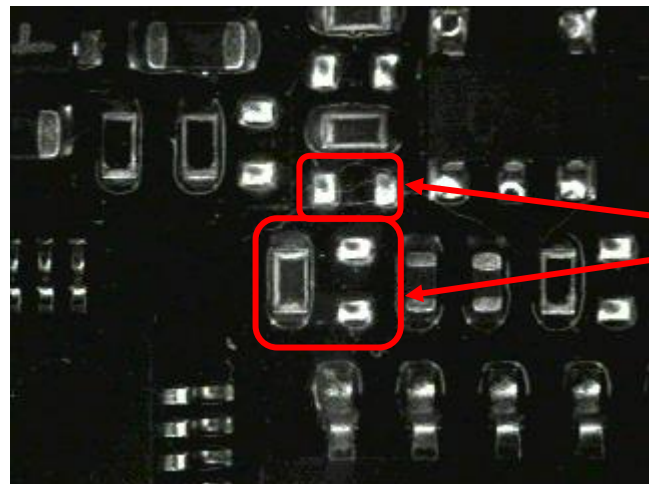
UV lens

Ordinary lens

LCD
Display



Printed
Circuit
Board



Dust

Scratch

Easy to see
on-board
parts and
soldering
conditions.

Examples

UV lens



Ordinary lens



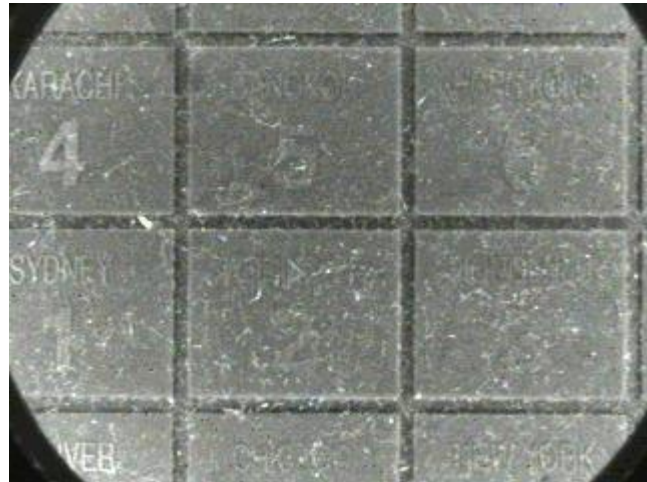
Fibres



Uneven
Surface

Examples

UV lens



Ordinary lens



Surface
Layer

UV camera: SONY XC-EU50
Std. Camera: SONY XC-ES50
Thanks to SONY Corp. for the images