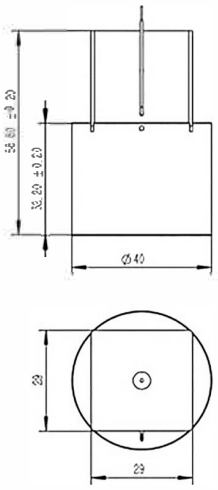
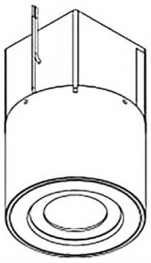
Solar blind ultraviolet ICMOS





In the past 20 years, the application of engineering technology aimed at detecting ultraviolet radiation targets has developed rapidly in the military and civilian fields, driving the development of ultraviolet imaging devices and related technologies, making ultraviolet detection technology a new dual-use optoelectronic technology developed after infrared, low-light, and laser technologies. "Sun blind UV detection device technology" is a supporting technology for sun blind UV products, and is one of the key high-tech developments in developed countries in the world today.

The solar blind ultraviolet ICMOS is composed of main components such as a solar blind ultraviolet image intensifier, a light cone, and CMOS. The vacuum ultraviolet photodetector, known as the solar blind ultraviolet image intensifier, is the core device of the solar blind ultraviolet ICMOS detection system.

The main application directions include missile early warning, solar blind ultraviolet corona detection systems, etc.

Solar blind ultraviolet ICMOS specifications

Chip Model		Sony IMX178	SonyIMX265	OnSemi PYTHON1300
Chip type		CMOS, Rolling Shutter	CMOS, Global shutter	CMOS, Global shutter
Cathode sensitivity	260nm	40mA/W	40mA/W	40mA/W
	280nm	27mA/W	27mA/W	27mA/W
Resolution		25lp/mm (II TUBE)	25lp/mm (II TUBE)	25lp/mm (II TUBE)
		15lp/mm (ICMOS)	15lp/mm (ICMOS)	15lp/mm (ICMOS)
Electron gain		$1X10^5$	$1X10^5$	$1X10^5$
Pixel size		2.4um×2.4um	4.8um×4.8um	3.45um×3.45um
Resolution		3072×2048	1280×1024	2048×1536
Pixel		6 million	3.2 million	3.2 million
Frame frequency		42.7fps	37.5fps	37.5fps
Interface		USB3.0	USB3.0	Gigabit Ethernet
Power supply		0~5Vdc (External gain)	0~5Vdc (External gain)	0~5Vdc (External gain)
		3Vdc (II tube)	3Vdc (II tube)	3Vdc (II tube)
		5Vdc (USB)	5Vdc (USB)	5Vdc (USB)
Power		2.7W	3W	3.2W