

Optical Components



Identification



Big Dipper Manager



Enrollment



in Korean



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For more than 25 years, AJ2&J2C has developed an iris recognition device by developing an optical component (camera module, IR-LED) that determines more than 70% of iris recognition performance and price in the iris recognition market. AJ2&J2C's iris recognition device can capture iris images with high resolution and insensitivity to external lighting, providing high recognition rates and convenient accessibility. In addition, the price competitiveness of our self-developed IR-LED is high because they generate strong light with low current. You will be able to experience the world's incredible iris recognition devices. Our products has been named to guide us using the mysterious iris like the Big Dipper in space. Your eyes are the key to security.

CEO Greeting

Recently, the contactless digital ID market is growing. We authenticate ourselves through PC & smartphones. We are exposed to a personal information leakage environment.

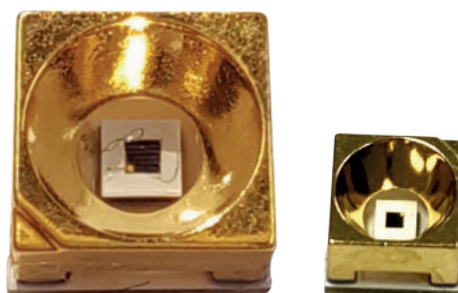
AJ2&J2C is trying to be a leader in reducing personal information leakage by applying iris recognition solutions to Digital ID gates.



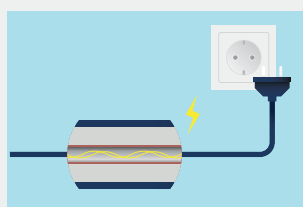
Sirius

IR-LED Module

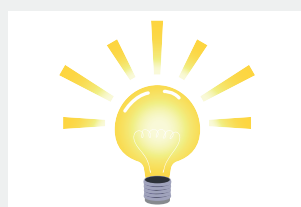
We introduce our self-developed cutting-edge IR-LED modules in two types, called Sirius. Sirius is the brightest white dwarf star in the galaxy. As its name implies, our Sirius is brighter than other competitors' IR-LED modules. Since Sirius is excellent in direct light and condensing function, it can be used in therapy, beauty and search light applications.



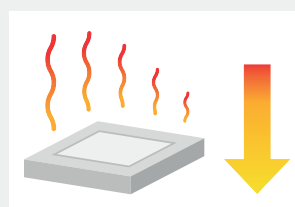
	J750(730)	J850
Infrared Wavelength [nm]	750	850
View Angle (°)	±9	±8.5
Forward Voltage [V]	Max 2.5	Max 3.13
Forward Current [mA]	Max 700	
Radiant Flux [mW]	450	481.3
Light Intensity [mW/sr]	1,032	2,754
Module Size [mm]	5.2 x 5.2 x 2.4	5.2 x 5.2 x 3.75



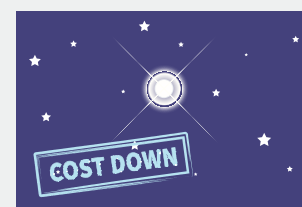
Save Current



**Produce Strong
Light With Little
Current**



**Produce Less
Thermal Heat**



**Direct Light &
Condensing Light**

Orion

5MP B&W Camera Module

We proudly introduce our self developed 5MP B&W Camera Modules, Orion series in three types: J3872, J4536 for smartphone, J7922 for IoT application. Orion is a prominent constellation and visible throughout the world. Our self-developed camera modules can capture pictures with high resolution at a short distance. With the world top lens design technology, our camera modules are optimized to IoT, healthcare device, medical equipment and smartphone application.



J3872

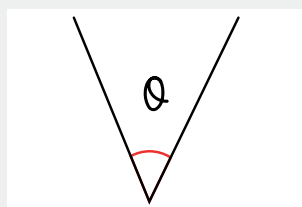
J4536

J7922

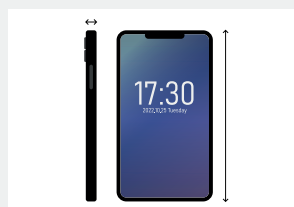
	J3872	J4536	J7922
Sensor Type	1/5", 1.12μm, COMS, B&W, Samsung(S5KE6YU)		
Frame Rate	5MP@30fps-4:3		
Output Format	RAW 8		
Interface	MIPI CSI2 : 2 Lanes		
EFL/TTL (mm)	1.924/3.2	4.238/3.950	7.309
F#	2.2	2.65	2.47
View Angle D/H/V(°)	84.95/72.34/57.2	45/36.6/28.3	28.4/23/17.6
Camera Size [mm]	6.35 x 6.35 x 3.80	6.35 x 6.35 x 4.55	6.35 x 6.35 x 7.84



Short-range Use



Narrow-angle View



Mobile Size



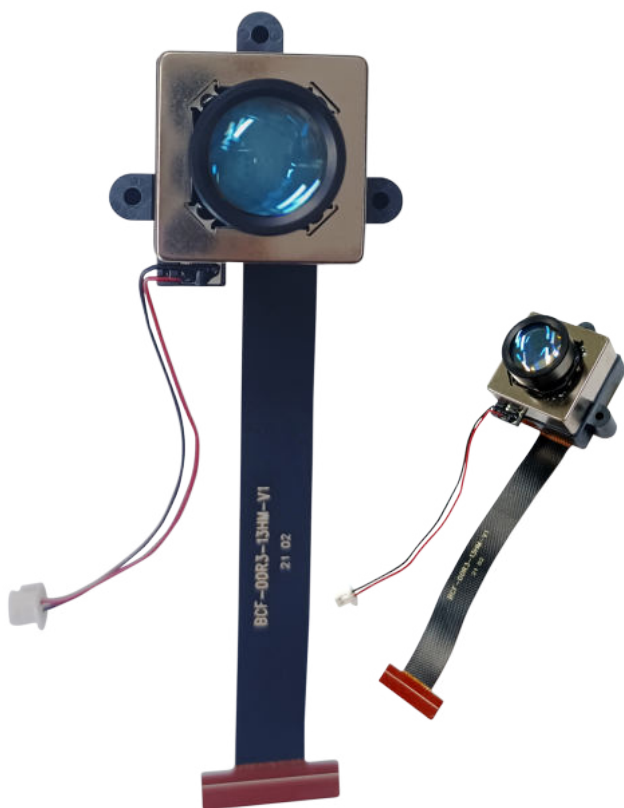
High Resolution & Clear

Can capture up to 300 pixels of a 1cm object.

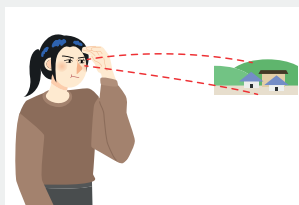
Jangsa

13MP AF B&W Camera Module

We proudly introduce our self-developed 13MP AF B&W Camera Module, Jangsa, which means strong man in Korean. We developed our own lens and VCM module for 13MP. As a standalone type, it is heavy because glass lenses are used for long-distance iris recognition. Jangsa can be lifted and lower heavy lenses without hysteresis.



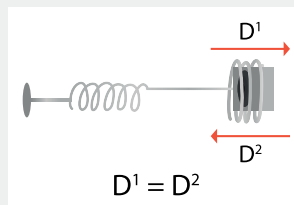
Sensor Type	1/3.2", 1.1μm, COMS, B&W, On Semiconductor(AR13335)
Frame Rate	13MP@30fps-4:3
Output Format	RAW 8
Interface	MIPI CSI2 : 2/4 Lanes
EFL/TTL (mm)	22.57/23.0
F#	2.1
View Angle D/H/V(°)	14/11.2/8
Driving Voltage	5V
Camera Size	29.79 x 27.79 x 23.45



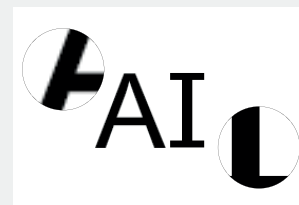
Long-range Use



AF (VCM), Lift Heavy Glass Lens



Keep Constant Hysteresis



Provide High Resolution

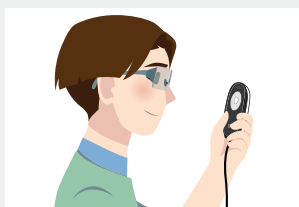
Alkaid

Single Hand-held Iris Recognition Device

As a never before seen Single Hand-held Iris Recognition Device in the biometric market, this future-oriented device identifies the user's iris from book-reading distance. Our Single Hand-held IRIS's brand is called "Alkaid". Alkaid means a bluish-white star of the second magnitude that marks the end of the handle of the Big Dipper. By using our self-developed 5MP camera modules and high intensity IR-LED modules, Alkaid can capture iris in high resolution without being sensitive to the surrounding light. The device can also capture the user's iris while wearing glasses.

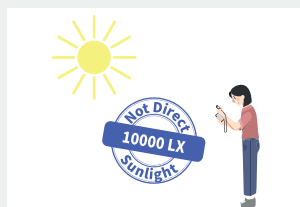


Dimensions	32g, 89mm x 50mm x 14mm
Interface	USB 3.0/2.0 UVC Support (Type C)
Illumination	Near infrared LED (850 nm)
Subject Positioning LED Indicators	Orange/Red/Blinking Red/Green
Eye Safety Standard	IEC 62471
Image Quality	ISO/IEC 19794-6/High Level
Operating Temp. / Humidity	0 ~ 40[°C]
Host OS	Windows 10, Linux, Android



Quick & Fast Iris Recognition

It is easy and comfortable to use even while wearing glasses at 25 ~ 35cm distance.



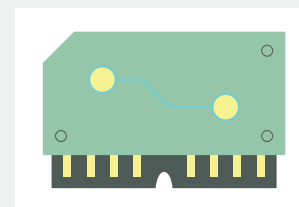
Can Be Used For Outdoor

It's possible in 10,000-lux not direct sunlight. The above lighting can be ordered by choice.



USB 2.0/3.0, UVC Protocol Support

It's compatible with UVC Protocol so the device is stable and will not need to disconnect-connect frequently.



Custom-made Iris Recognition Module

Modularize the iris recognition function to the size required by user and supply it in custom production method.

* SDK and example programs are provided.

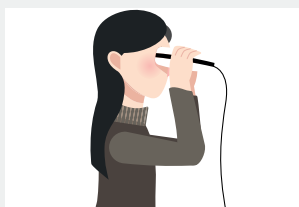
Mizar

Dual Enrollment Iris Device

This device is a dual enrollment iris device that simultaneously registers both iris images for large groups of people. This Dual Enrollment IRIS Device brand name is called “Mizar”. Mizar is a second-magnitude star in the handle of the Big Dipper. Because of its wide operating temperature range, Mizar is suitable for INDUSTRIAL market. Mizar provides a fast capture speed and high image resolution.



Dimensions	350g, 165mm x 180mm x 50mm
Interface	USB 3.0/2.0 UVC Support (Type C)
Illumination	Near infrared LED (850 nm)
Eye Safety Standard	IEC 62471
Image Quality	ISO/IEC 19794-6/High Level
Host OS	Windows 10, Linux, Android
Water Proof	Meet IP64



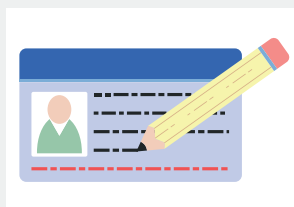
Convenient Iris Recognition

Since it is used like goggles, even first-time users can easily and comfortably use this device.



USB 2.0/3.0, UVC Protocol Support

It's compatible with UVC Protocol so the device is stable and will not need to disconnect-connect frequently.



Registration of Two Iris

Many people can register iris images quickly and intuitively.



Big Data

It is possible to capture a clear and accurate iris image for building an artificial intelligence dataset.

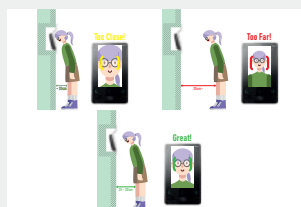
Megrez

Access Control / Time & Attendance

As a never before seen Access Control/Time & Attendance Device in the biometric market, this incredible performance and amazing-priced device identifies the user's face and iris at a book-readable distance. Our device brand is "Megrez". Megrez corresponds to the part connecting the mouth and handle of the ladle of the Big Dipper. Megrez can use its own 5MP camera module and high-strength IR-LED module to capture iris in high resolution without being sensitive to ambient light. Megrez can be used outdoors with sunlight and can recognize the user's iris while wearing glasses. The security level can be enhanced by combining facial recognition and iris recognition.

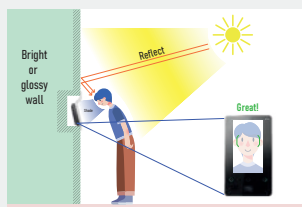


Dimensions	260g, 100mm x 160mm x 30mm
Performance	1.5GHz, Quad-Core 64-bit Cortex-A72(ARM v8)
Display	TFT-LCD 5.0" (720x1280)
RF Card Reader	Mifare(1K, 4K, Ultralight)
Interface	Ethernet, Wifi(Optional), USB2.0x2, Relayx2, GPIOx4, Audio (Voice guidance:Korean, English)
Power Supply Requirement	12V DC, 2.0A
Eye Safety Standard	IEC 62471
Image Quality	ISO/IEC 19794-6/High Level
Operating Temp. / Humidity	-20 ~ 75[°C] (Opt. : -30 ~ 85[°C]) / 10 ~ 90% RH. Non-condensing
Host OS	Linux (Kernel 5.10)



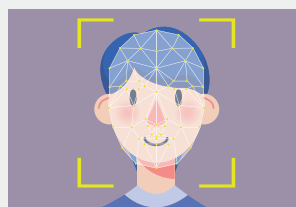
With Glasses At 25~35cm

It is easy and comfortable to recognize iris insensitive to external lighting.



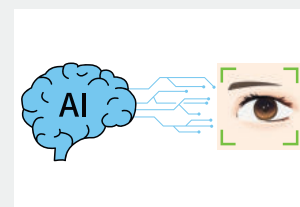
Can Be Used For Outdoor

It's possible in 10,000-lux not direct sunlight. The above lighting can be ordered by choice.



Strengthen Security Levels

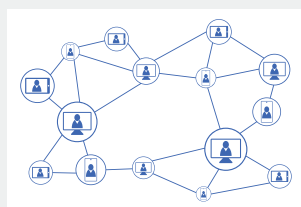
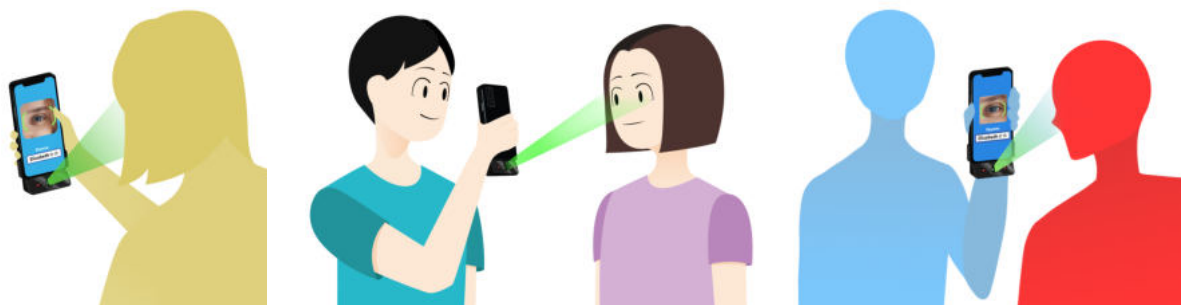
The 2MP color camera can be used to enhance the security level with iris+face recognition.



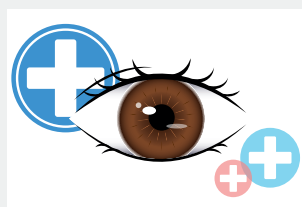
AI Iris Recognition Algorithm

We will soon release an AI iris recognition algorithm to supply algorithms at a low price.

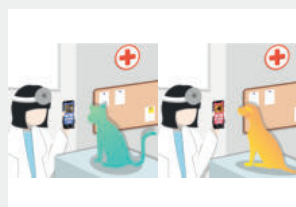
Alkaid Plug



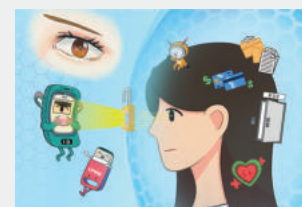
With Digital ID Solution



Can Be Used For Self-diagnosis



Identify Pet's Iris



Security