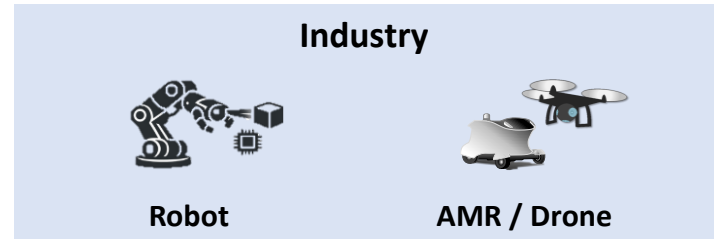
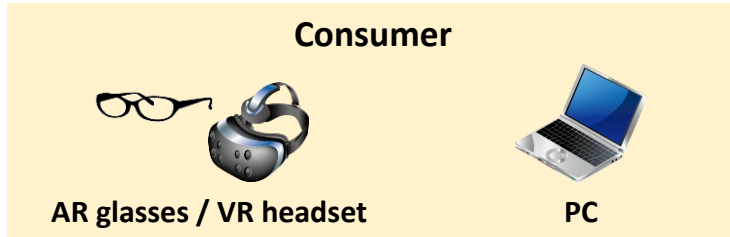


Multi-Sensing Bridge IC

(KM2NS0 series) for Multiple Sensor Aggregation

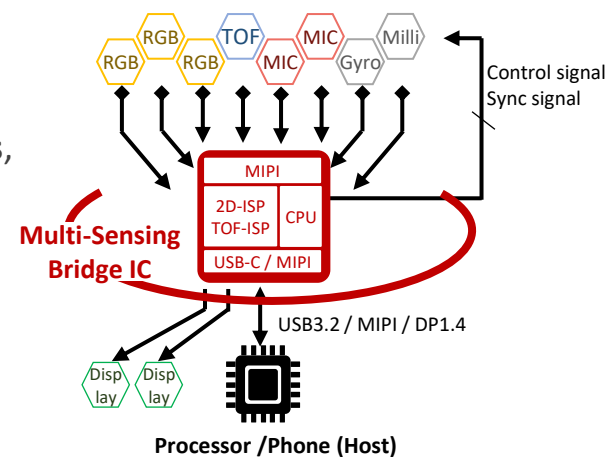
Applications



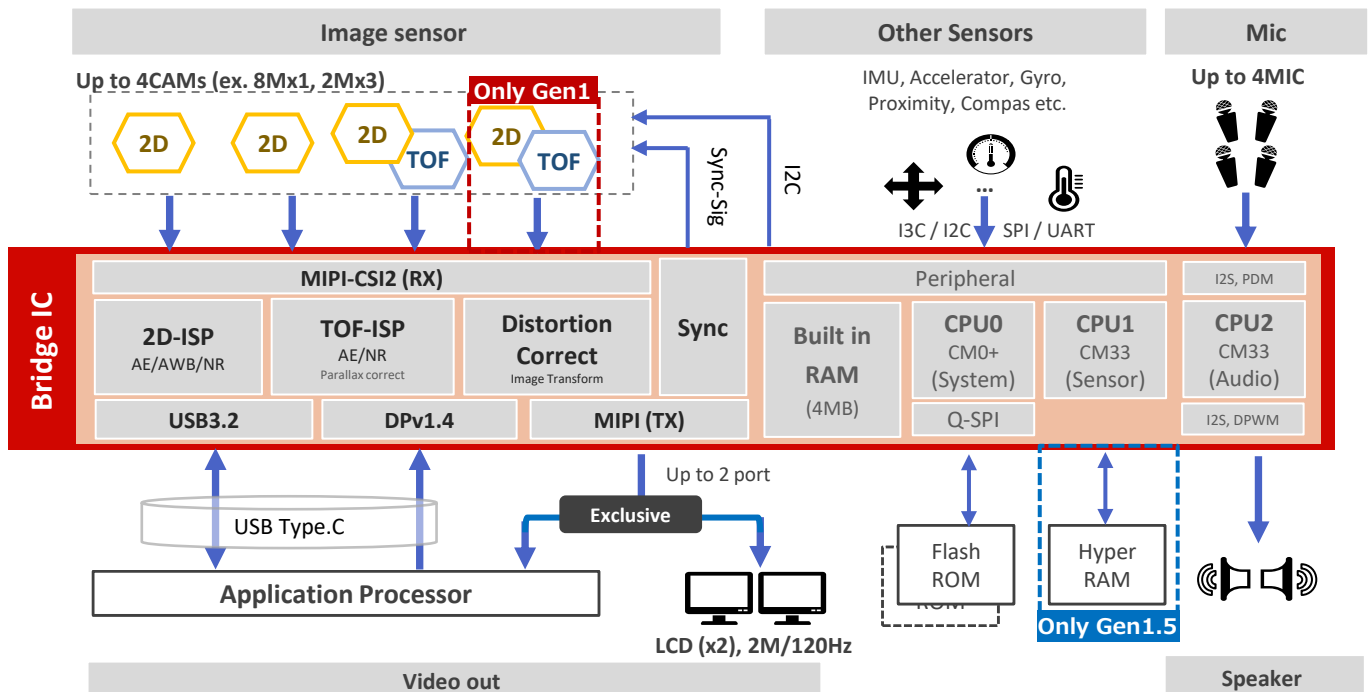
Features

- ◆ Aggregates multiple sensor I/Fs into a single chip and communicates via MIPI/USB.
- ◆ Controls the timing of cameras, audio and other sensors, and corrects parallax by cameras.
- ◆ Images from Host are processed and displayed on the screen.
ex. 3DOF on AR glasses

Overview



Block diagram (for Consumer)



* TOF ... Supported 3D sensors are NTCJ's ToF sensors only
* CM0+/CM33 ... "Cortex" is a trademark of Arm Limited.

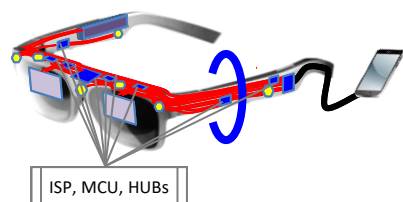
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As of Oct. 1, 2026

■ Proposal for AR-glasses

Current

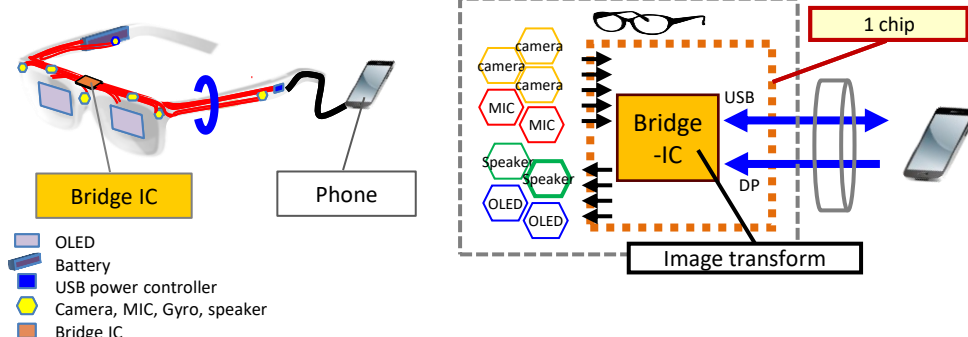
Consists of multi chips



- ISP, MCU, HUBs
- OLED
- Battery
- ISP, MCU, HUB
- Camera, MIC, Gyro, speaker

Our proposal

Integrated on a single chip



- Integrated on a single chip (9x9mm²)
- Power consumption: <0.9 W (AV mode)
- Low latency using Hardware ISPs <3ms
- OLED display after 3DOF deformation of DP data
- USB transfer of camera image to phone after lens distortion correction
- Synchronizing the sensors sampling timing and compensating for parallax

■ Product line-up

Nuvoton is preparing two types of products for consumer.

Items		Gen1 (KM2NS001)	Gen1.5 (KM2NS0XXX)
Application		AR glasses, Compact IoT Devices	
Package		9x9 mm ² BGA (Height 1.2mm) (288pins, 0.5mm pitch)	
Power supply		3.3, 1.8, 0.9 V	
Function	MIPI	RX (CSI2, x4port) TX (DSI/CSI2, x2port)	RX (CSI2, x3port) TX (DSI/CSI2, x2port)
	Audio	I2S (x3), PDM(x2), DPWM(x2)	
	USB Type.C	Yes (with DP-Alt)	
	External MEM	Serial FlashROM	Serial FlashROM, HyperRAM
Peripheral		I3C (x1), Serial I/F up to x10 (I2C / SPI / UART) *Also covers the use by camera	
Operating Temperature (Ta)		0 to +85 °C	
Sample release		Now	CY2026 Q3
MP target		Now	CY2026 Q4

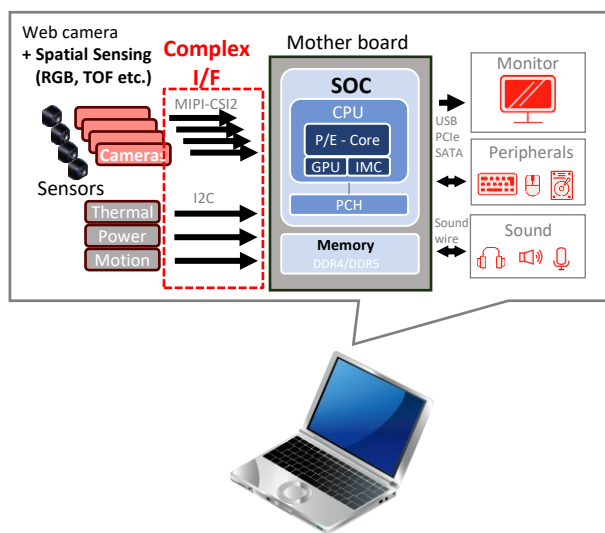
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As of Oct. 1, 2026

■ Proposal for PC

Assumption

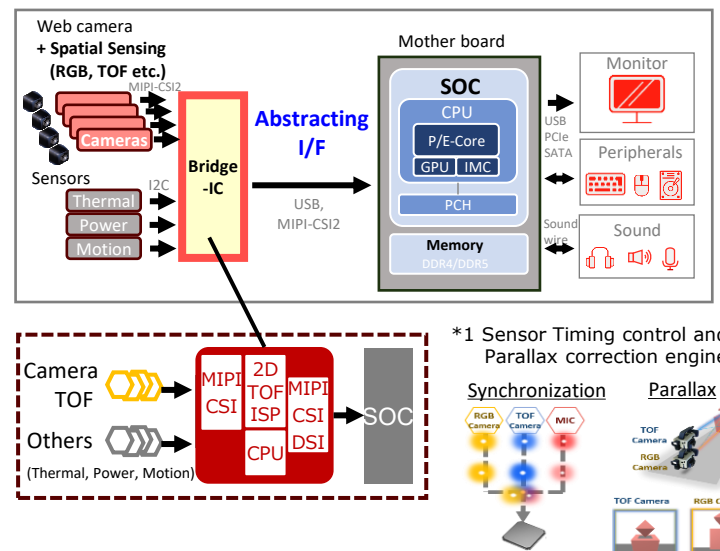
The use cases for AI are increasing.
(Face recognition, Hand gesture, Eye tracking ...)
→ Increased number of spatial sensors.
→ Sensor I/F become to be complex.



Our proposal

Bridge IC abstracts complex sensor interfaces

- Minimize SOC CPU load for sensor control
- Sensor Timing control and Parallax correction^{*1}
- USB transfer of camera image to SOC after lens distortion correction
- Low latency using Hardware ISPs <3ms
- Design standardization and reuse, improved scalability



■ Product line-up

Nuvoton is preparing two types of products for consumer.

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Sample release		Now	CY2026 Q3
MP target		Now	CY2026 Q4

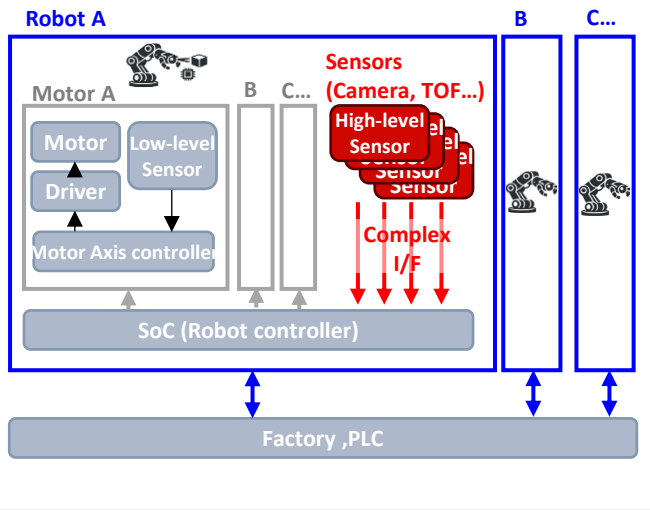
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As of Oct. 1, 2026

■ Proposal for Robot in Factory

Assumption

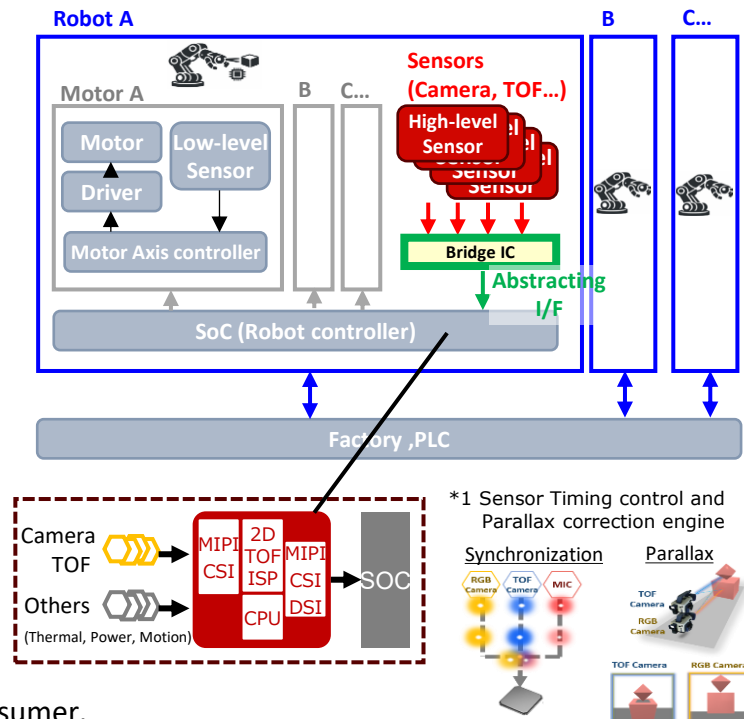
The use cases for AI are increasing.
(Object recognition, Spatial recognition ...)
→ Increased number of spatial sensors.
→ Sensor I/F become to be complex.



Our proposal

Bridge IC abstracts complex sensor interfaces

- Minimize SOC CPU load for sensor control
- Sensor Timing control and Parallax correction*1
- USB transfer of camera image to SOC after lens distortion correction
- Low latency using Hardware ISPs <3ms
- Maintenance with the sensor block separated
- Design standardization and reuse, improved scalability



■ Product line-up

Nuvoton is preparing two types of products for consumer.

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As of Oct. 1, 2026