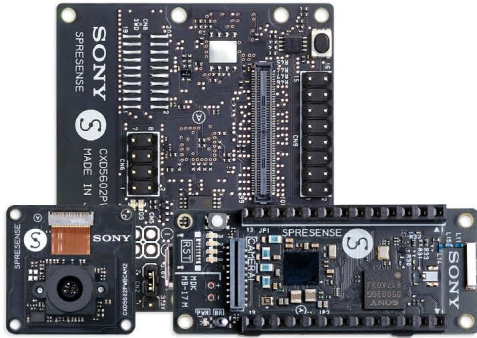


# SPRESENSE



High performance  
Low power consumption

6 ARM X Cortex M4 Integrated GPS Power management LTE-M NB-IoT  
HDR camera • 192kHz/24bit ADC

## High-performance microcontroller board with ultra-low power consumption

6-core microcontroller board with hi-res audio, camera input, internal GPS, Edge AI support and LTE connectivity.



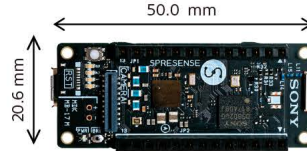
### Application Areas

- Industrial connectivity
- AI camera applications
- Predictive maintenance
- Robotics and drone control
- GPS tracking
- Remote monitoring
- Real-time sensor analysis
- Gesture recognition
- Sound diagnostics



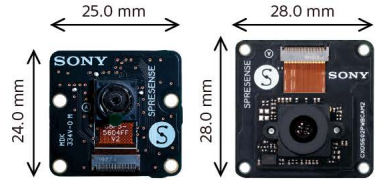
## SPRESENSE MAIN BOARD

CPU	ARM® Cortex® -M4F x 6
Clock	Max 156 MHz
SRAM	1.5 MB
ROM	8 MB
Digital I/O	GPIO, SPI, I2C, UART, I2S
GNSS	GPS, QZSS, GLONASS



## SPRESENSE CAMERA BOARD

SPRESENSE	CAMERA BOARD	HDR CAMERA
Effective pixels	5.11 Mpixels	1.23 Mpixels
Camera I/F	CMOS 8-bit parallel	
Control I/F	I2C	
FOV	78° ± 3°	50.3° ± 3°
F Value	2.0 ± 5%	2.0
HDR	No	Yes, 120dB

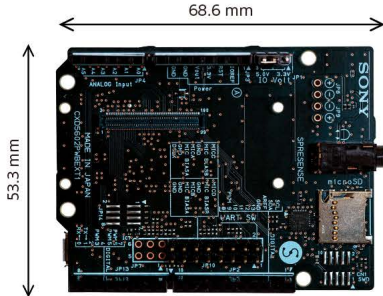


Spresense camera board

Spresense HDR camera board

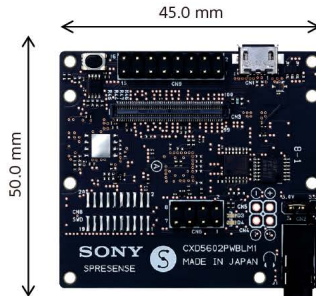
## SPRESENSE EXTENSION BOARD

Audio	4 ch analog microphone input 8 ch digital microphone input
	Headphone Output
Digital IO	3.3 V or 5 V digital I/O
Analog Input	6 ch (5.0 V range)
External memory interface	microSD card slot



## SPRESENSE LTE EXTENSION BOARD

RAT	LTE Cat-M1 & NB-IoT US: Band 2, 4, 12, 13 EU: Band 3, 20
Audio	2 ch analog microphone input 4 ch digital microphone input
	Headphone Output
Digital IO	3.3 V or 5 V digital I/O
Analog Input	2 ch (5.0 V range)
External memory interface	microSD card slot



For technical details and sales information about Spresense, please visit Sony Developer World:

[developer.sony.com/develop/spresense/](http://developer.sony.com/develop/spresense/)