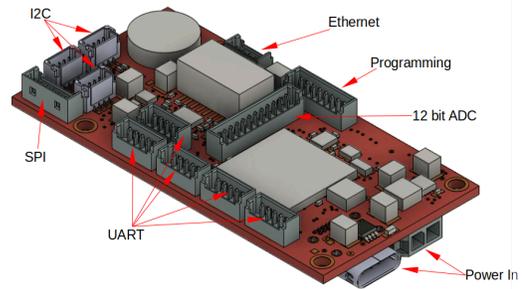


Product Line Description: The AcSense OEM product line provides compact, flexible, configurable data acquisition for customers needing multi-channel, synchronous, high-rate analog with variable-rate digital data streaming or logging. Small size, moderate power, and rapid configuration without programming has made this product a popular choice for AUV, ASV, and moored underwater sensing systems requiring data from acoustic arrays and environmental sensors.



AcSense-Digital Characteristics:

Analog in	4x differential 12 bit, up to 3.125 MS/s. Additional lower-rate channels available.
microSD card	Up to 512 GB validated, slot located short end of the board.
Ethernet	100 Mb Ethernet data streaming.
I2C	3x independent I2C busses (QWIIC connector compatible).
SPI	2x SPI bus (1 on ADM header, 1 available for general SPI use).
UART	5x 3.3V TTL UART 5-wire (use converter for RS232 or RS485 serial).
Vacuum sensor	On-board barometric sensor.
Accelerometer	3-axis accelerometer, 3-axis gyro (ICM-42670-P).
Configuration	User configurable via SD card file; customization available.
Clock	External RTC or GPS suggested. SNTP and PPS edge detect supported
GPIO	Unassigned pins can be used for GPIO.

Standard AcSense-OEM Configurations:

Property	AcSense-OEM-Mini	AcSense-OEM-8CH	AcSense-OEM-16CH
Boards	AcSense-Digital AcSense-IA-CAFE	AcSense-Digital AcSense-ADM AcSense-IB-CM*	AcSense-Digital AcSense-ADM (x2) AcSense-IB-CM* (x2)
A2D: Channels	4	8	16
A2D: Bit depth	12	16 bits	
Max Sample Rate	100 kS/s/ch	52 kS/s/ch	
Analog Gain	Adjustable	1x	
Highpass/Lowpass	Adjustable	Configured by Interface Board Option	
Input Voltage	3.7-17 V	3.7-17 V	
Typical Power Draw	0.95 W	1.4 W	1.9 W
Stack Dimensions	1.25" x 2.5" x 0.5"	1.25" x 4" x 1.05"	1.25" x 4" x 1.525"
Data Management	Ethernet streaming or logging to micro-SD card.		
Temperature	-20 C to 50 C active, -40 C to 70 C storage.		
User Software	Open source (MIT license) interface, parsing, and data visualization code.		

(*Additional input boards for filter, gain, input range, configuration options available.)