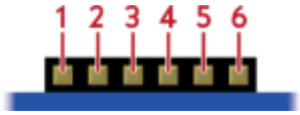
Pmod MAXSONAR

Buy Reference Manual Technical Support
Pmod MAXSONAR
Maxbotix Ultrasonic Range Finder
Features

- Ultrasonic range finder with effective detection range of 6 in - 255 in (15 cm - 648 cm)
- Detect object distance with 1.0 in (2.54 cm) resolution up to 20 ft away
- Continuous measurement (free run) operation
- Three options for sending range data: UART, analog and PWM
- 6-pin Pmod port with UART interface

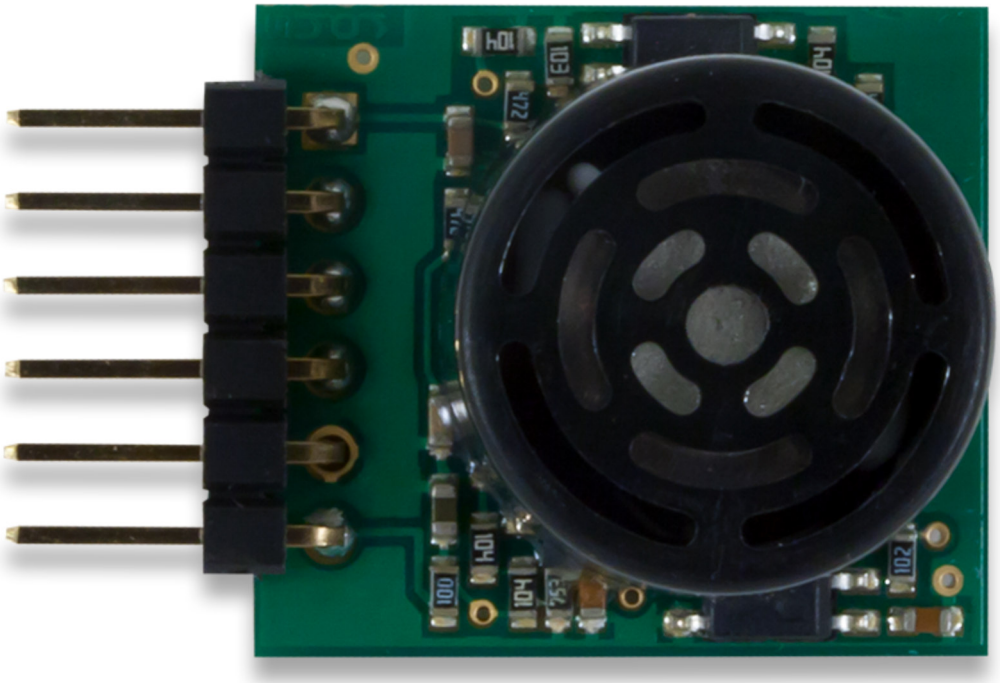
Electrical
Bus
UART, GPIO ()
Specification Version
1.2.0
Logic Level
3.3V
Physical
Width
0.9 in (2.28 cm)
Length
0.80 in (2.03 cm)
Documentation
Primary IC
MaxBotix LV-MaxSonar-EZ1 (http://maxbotix.com/documents/LV-MaxSonar-EZ_Datasheet.pdf)
Reference Manual
Pmod MAXSONAR Reference Manual (https://digilent.com/reference/pmod/pmodmaxsonar/reference-manual)
3D Model
STP model (https://digilent.com/reference/_media/pmod/pmodmaxsonar/pmodmaxsonar-stp.zip)
J1 Pinout

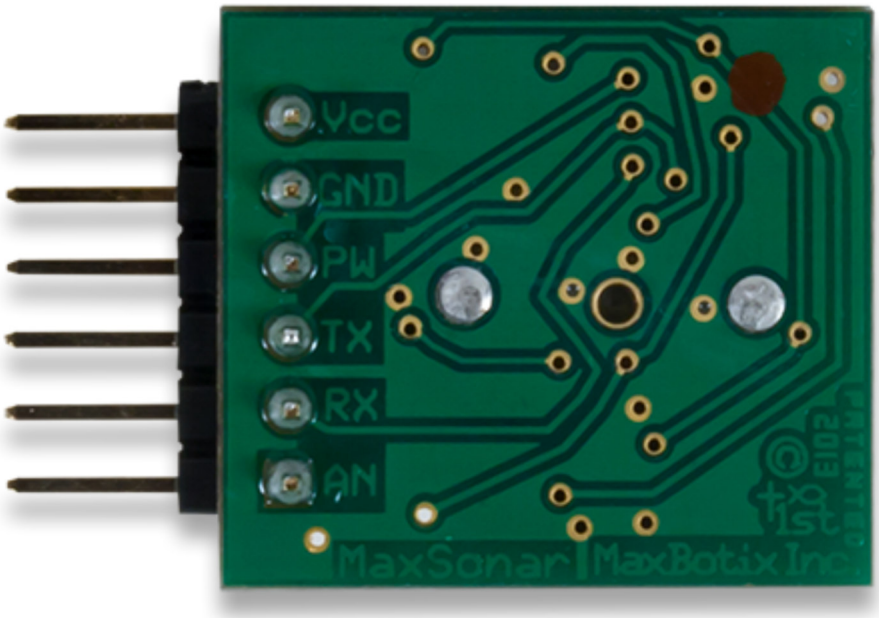


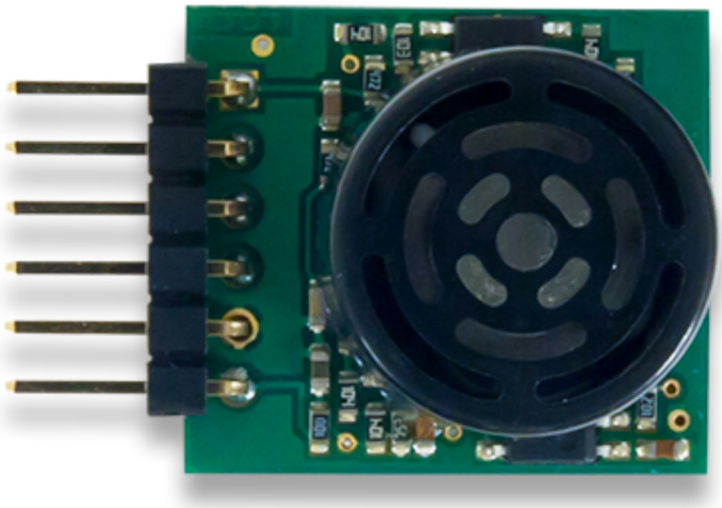
(https://digilent.com/reference/_media/reference/pmod/pmod-pinout-1x6.png)
Pin 1
AN
Pin 2
RX
Pin 3
TX
Pin 4
PWM
Pin 5
GND ()
Pin 6
VCC ()

The Digilent Pmod MAXSONAR (Revision A) is an ultrasonic range finder with a resolution of 1 inch up to 255 inches away.

(https://digilent.com/reference/_media/reference/pmod/pmodmaxsonar/pmodmaxsonar-0.png)




Vcc
GND
PW
TX
RX
AN
MaxSonar | MaxBotix Inc.



Example Projects

Microprocessor

- Installing the Digilent Core for Arduino (https://digilent.com/reference/microprocessor/guides/digilent-core-install)
- Library and MPIDE Example (https://digilent.com/reference/_media/reference/pmod/pmodmaxsonar/pmodmaxsonar-mpide-lib.zip)
- Halloween Box Monster (http://www.instructables.com/id/Halloween-Box-Monster/) - Community Project
- ChipKIT Parking Obstacle Sensor (http://www.instructables.com/id/ChipKIT-Parking-Obstacle-Sensor/) - Community Project
- Keep close to me (digilent robot project) (http://www.instructables.com/id/Keep-close-to-me-digilent-robot-project/) - Community Project

Programmable Logic

- Gesture detection based controlling device (http://www.instructables.com/id/Gesture-detection-based-controlling-device/)
- Getting Started with Digilent Pmod IPs (https://digilent.com/reference/learn/programmable-logic/tutorials/pmod-ips/start)
    - Digilent Pmod IPs are only supported in Vivado and Xilinx SDK versions 2019.1 and earlier.

Additional Resources

- Specification Version 1.2.0: PDF (https://digilent.com/reference/_media/reference/pmod/pmod-interface-specification-1_2_0.pdf)

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pmod (https://digilent.com/reference/tag/pmod?do=showtag&tag=pmod), pmod-start (https://digilent.com/reference/tag/pmod-start?do=showtag&tag=pmod-start), pmod-uart (https://digilent.com/reference/tag/pmod-uart?do=showtag&tag=pmod-uart), pmod-gpio (https://digilent.com/reference/tag/pmod-gpio?do=showtag&tag=pmod-gpio), pmodmaxsonar (https://digilent.com/reference/tag/pmodmaxsonar?do=showtag&tag=pmodmaxsonar), ultrasonic (https://digilent.com/reference/tag/ultrasonic?do=showtag&tag=ultrasonic), range-finder (https://digilent.com/reference/tag/range-finder?do=showtag&tag=range-finder), resource-center (https://digilent.com/reference/tag/resource-center?do=showtag&tag=resource-center)

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