



Acoustic Sensor NM2101

6-Channel ADC Unit User's Manual



This product's driver uses ASIO Driver Interface Technology and the Steinberg ASIO SDK. ASIO is a trademark and software of Steinberg Media Technologies GmbH.

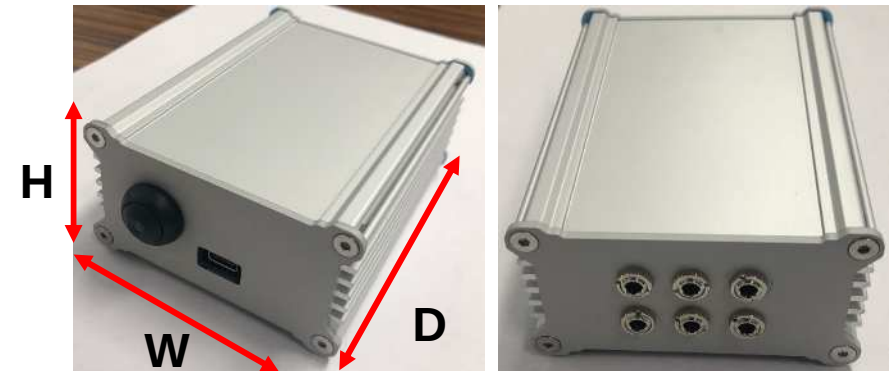
Nisshinbo Micro Devices Inc.
Module Development Division

Overview

■ Overview

This unit can connect up to six acoustic sensors and is capable of AD conversion at a sampling frequency of 192 kHz. When connected to a PC via USB, it is recognized as an audio interface, allowing data to be recorded and displayed on the PC.

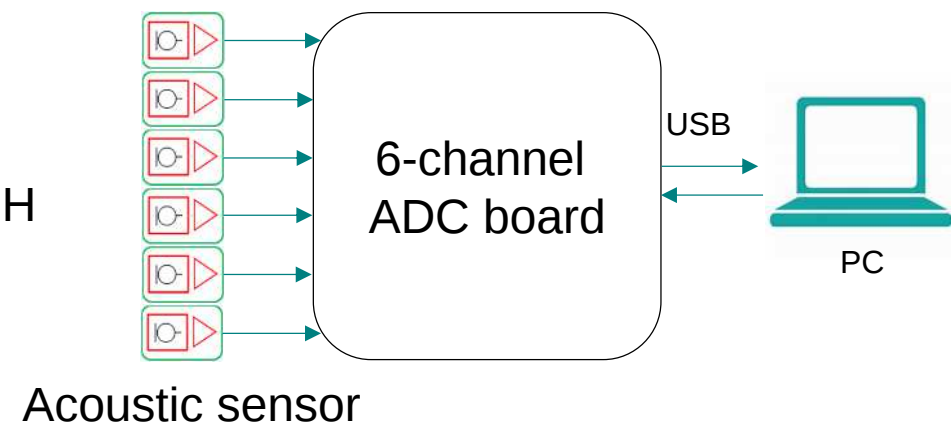
■ Appearance



■ Features

- Multi-channel input: 6 analog channels
- High-speed sampling: 192 kHz
- USB power supply: 5V
- Compact: 100mm D x 76mm W x 41mm H
- Lightweight: Approximately 233g

■ System Configuration



Specification

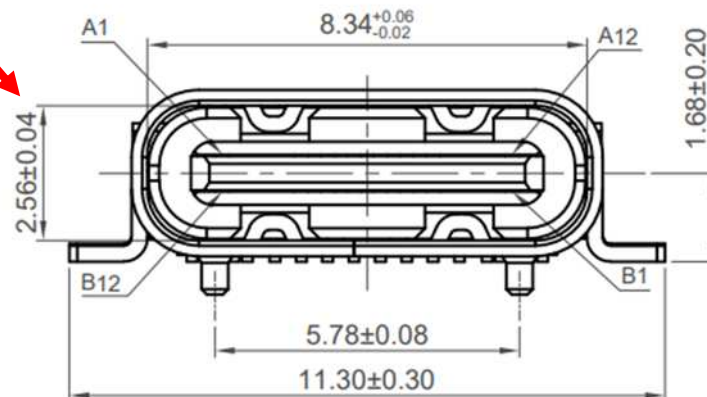
Major item	Item	Specifications
Input (Analog)	Number of channels	6ch
	Maximum input voltage	2.8Vpp
	Input frequency range	1 to 96kHz
	Input impedance	10kΩ
	Sensor power supply	3.3V
	Resolution	24bit
	Sampling frequency	44.1k/48k/88.2k/96k/176.4k/192kHz
	Connector	Audio mini jack (3.5mm)
Function	Power On/Off	Power switch
	USB Device Class	USB Audio Class 2.0

Connector Pin Assignment

USB Type-C Jack



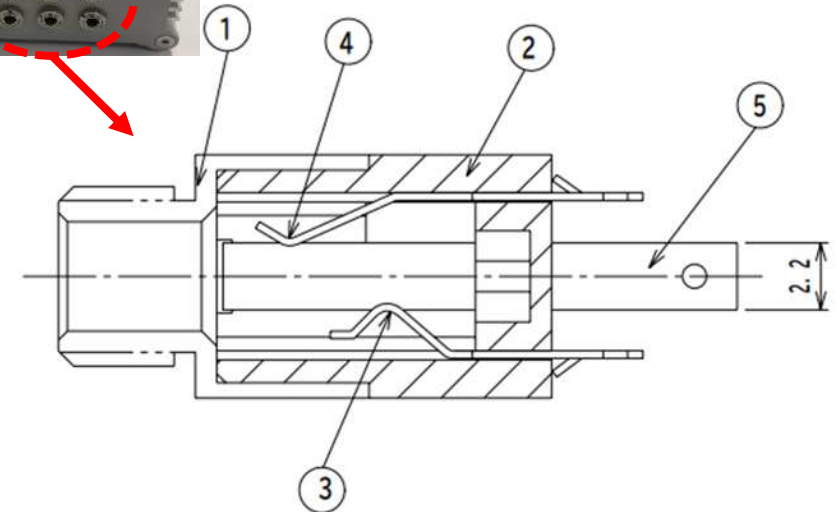
Pin	Signal	Mating Sequence	Pin	Signal	Mating Sequence
A1	GND	First	B12	GND	First
A4	Vbus	First	B9	Vbus	First
A5	CC1	Second	B8	SBU2	Second
A6	Dp1	Second	B7	Dn2	Second
A7	Dn1	Second	B6	Dp2	Second
A8	SBU1	Second	B5	CC2	Second
A9	Vbus	First	B4	Vbus	First
A12	GND	First	B1	GND	First
SHELL	GND		SHELL	GND	



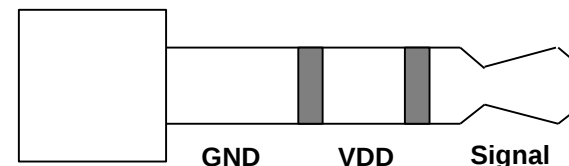
3-Pole Audio Mini Jack



GND
Signal
VDD



Reference:
Acoustic sensor output plug pin configuration



Driver Installation

A dedicated driver is required to use it on a Windows PC. For information on obtaining the driver, please contact us through our website.

<https://www.nisshinbo-microdevices.co.jp/ja/contact/>

1. Save the installation folder to any desired location

 Nisshinbo_UsbAudio_v5.30.0_2022-03-25_setup

2. Run the .exe file in the folder with the 6chADC disconnected from the PC.

 Nisshinbo_UsbAudio_v5.30.0_2022-03-25_setup.exe

3. When the setup screen appears, click the 'Next>' button.



4. Specify the destination and press the 'Install' button

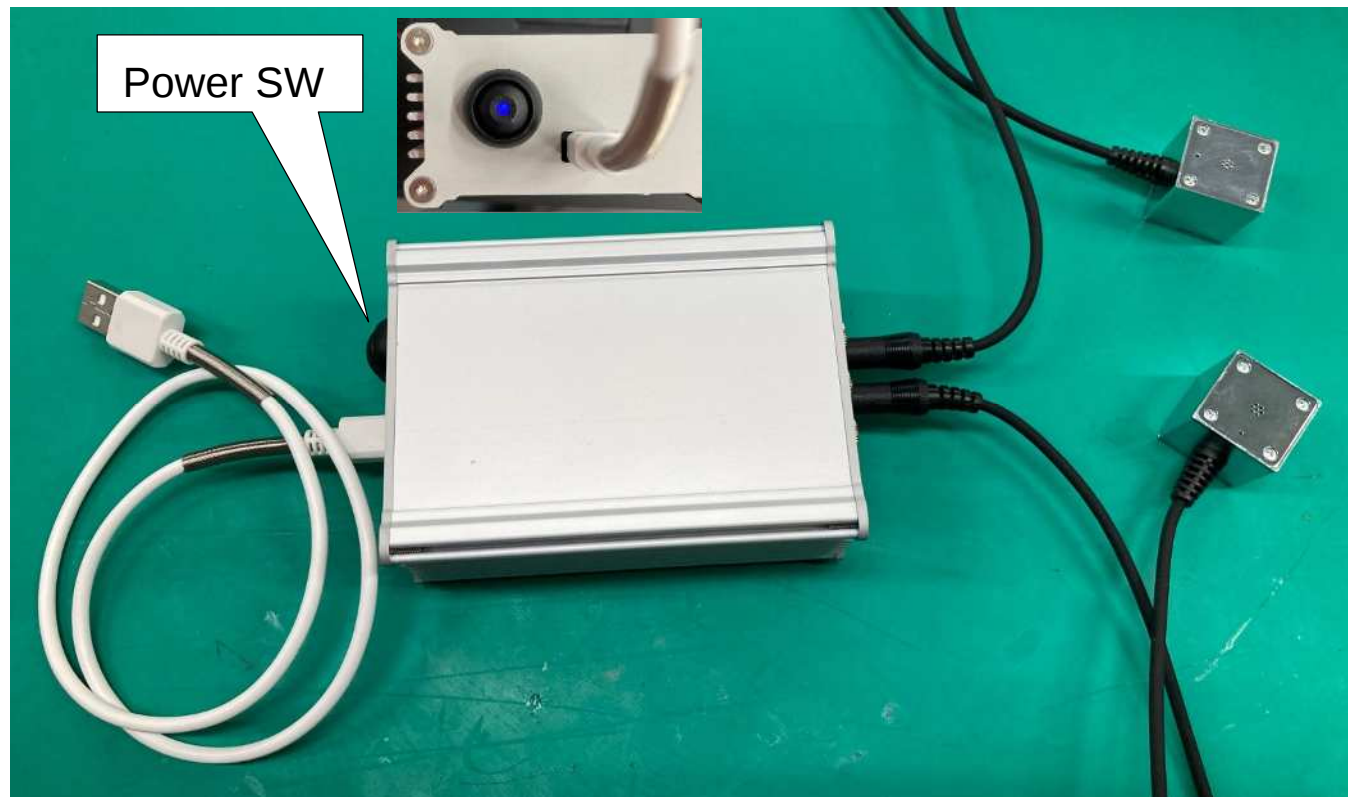


5. Once the installation progresses and is complete, press the 'Finish' button.



Cable Connection

1. With the power turned off, insert the acoustic sensor plug into the jack of the 6-channel ADC unit.
2. Connect the 6-channel ADC (Type-C) and the PC (Type-A) using the included USB cable.
3. Press the power switch on the 6-channel ADC (LED lights up, recognized as a microphone on the PC).



Warranty and Notice

- This device is exclusively for acoustic sensors. Do not connect other sensors or devices.
- Do not use it for purposes other than acquiring data from the acoustic sensor.
- Do not use it if it is damaged, as there is a risk of electric shock, injury, or fire.
- When transporting, be careful not to drop or tip it over.
- This product is not waterproof. Exposure to water or condensation may cause electric shock or malfunction.
- If any abnormalities occur, stop using it immediately. There is a risk of electric shock, injury, or fire.
- If the product malfunctions within one year of purchase under normal usage within the specified range, it will be repaired or replaced with a substitute.
- Compensation for secondary damages is not covered by our warranty.
- This product is an evaluation board for the acoustic sensor, so please refrain from shipping products that incorporate this product to the market.



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