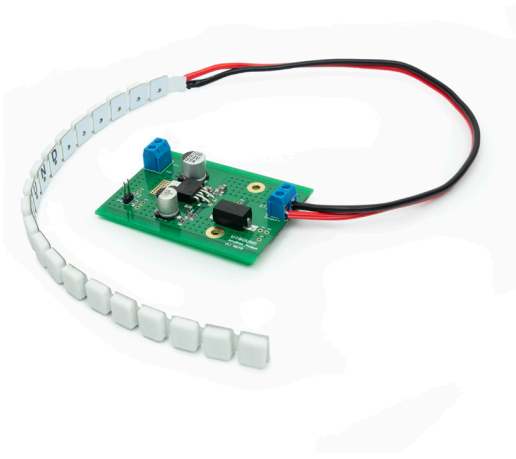


U))) SOUND

SOUND STRIPE

DIONE MAXI UY-R3020

QUICK GUIDE



Dione Maxi consists of an array of MEMS speakers and the external amplifier board Amalthea 2.0 to drive them. The speaker array, which is also referred to as the sound stripe, includes 20 USound Adap speakers connected in parallel. Due to its flexible structure and protective construction, the sound stripe is ideal for applications where audio is added on top of an existing design.

FEATURES SPEAKER ARRAY

- Bendable speaker array
- Lightweight construction
- Wide audio bandwidth: 2-20 kHz
- Hidden speakers for seamless integration
- Inherently protected from mechanical damage
- No magnetic field
- No heat generation

FEATURES AMPLIFIER

- Low distortion
- Frequency range up to 80 kHz
- Based on TI LM1875
- Constant DC output for speaker pre-excursion

PACKAGE CONTENT

- MEMS speaker array
- Amalthea 2.0 amplifier

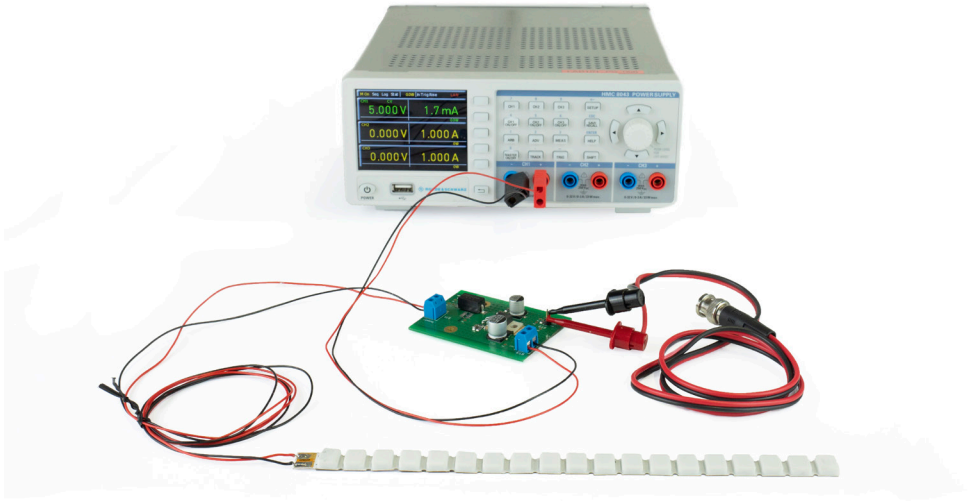


Dione Maxi UY-R3020 Quick Guide

Released on July 2020

USound GmbH | sales@usound.com

SETTING UP THE SYSTEM



- The positive wire goes to the “BE”-labeled pad and the negative wire to the “TE”.
- Connect the Dione sound stripe via the screw terminal ST1 to the Amalthea 2.0 amplifier board (output+ to positive wire, output- to negative wire).
- Provide power to Amalthea 2.0 by connecting 30V and GND to the board via the screw terminal ST3. A lab-supply or a simple DC supply can be used
- Connect your input source (e.g. Signal generator) to ST2, the audio input of the board.

SPECIFICATIONS

Supply Voltage (V_{CC})	30 V_{DC} recommended
Power Consumption (no input; $V_{CC} = 30\text{ V}$)	< 1.5 W (< 50 mA)
Max. input voltage (AC)	625 mV_{rms}
DC at Amplifier output	$V_{CC}/2$ from the DC supply
Gain at 1 kHz	15 V/V (23.5 dB)
SPL_{30cm} @ 4 kHz / 620 mV_{rms}	83 dB

For continuous operation mounting a heat sink on the amplifier is advised.

Detailed acoustical performance overview of the sound stripe can be found in the Dione Maxi datasheet.

RELATED DOCUMENTATION

Dione Maxi UY-R3020 Datasheet

Adap UT-P2019 Datasheet

COMPATIBLE PRODUCTS

Product name	Description
Helike UA-E3010	Development board for evaluating, rapid prototyping and designing audio solutions using our MEMS speaker technology

SIMILAR PRODUCTS

Product name	Description
Dione Mini UY-R3010 (coming soon)	MEMS speaker array with integrated amplifiers
Harpalyke UY-R2010	MEMS speaker array



IMPORTANT NOTICE AND DISCLAIMER

USound GmbH (“USound”) makes no warranties for the use of USound products, other than those expressly contained in USound’s applicable General Terms of Sale, located at www.usound.com. USound assumes no responsibility for any errors which may have crept into this document, reserves the right to change devices or specifications detailed herein at any time without notice, and does not make any commitment to update the information contained herein. No license to patents or other intellectual property rights of USound are granted in connection with the sale of USound products, neither expressly nor implicitly.

In respect of the intended use of USound products by the customer, the customer is solely responsible for observing existing patents and other intellectual property rights of third parties and for obtaining, as the case may be, the necessary licenses. For more information about USound patents visit <https://www.usound.com/patents/>.

Important note: The use of USound products as components in medical devices and/or medical applications, including but not limited to, safety and life supporting systems, where malfunctions of such USound products might result in damage to and/or injury or death of persons is expressly prohibited, as USound products are neither destined nor qualified for use as components in such medical devices and/or medical applications. The prohibited use of USound products in such medical devices and/or medical applications is exclusively at the risk of the customer.

