**Sipeed 6+1 Microphone Array for Dock/Go/Bit**

**Sipeed’ s 6+1 Microphone Array is an expansion board for MAIX AI development boards**

AI is pervasive today, from consumer to enterprise applications. With the explosive growth of connected devices, combined with a demand for privacy/confidentiality, low latency and bandwidth constraints, AI models trained in the cloud increasingly need to be run at the edge.

MAIX is Sipeed’ s purpose-built module designed to run AI at the edge. It delivers high performance in a small physical and power footprint, enabling the deployment of high-accuracy AI at the edge, and the competitive price make it possible embed to any IoT devices. Sipeed MAIX is quite like Edge TPU, but it acts as master controller, not an accelerator like Edge TPU, so it is more low cost and low power.

Sipeed 6+1 Microphone Array is a 6-microphone expansion board for MAIX AI development boards designed for AI and voice applications. Including 6+1 digital microphones, 12 three-color LEDs, it supports sound localization, beam forming, speech recognition etc. With 6+1 microphone array and MAIX development boards, application like AI speaker can be prototyped easier and faster. Prototype of sound source tracking camera can also be built rapidly if add a Pan-Tilt camera.

**Features**

* MEMS microphone: 6 MSM261S4030H0 form an array:
* Sound Pressure Level: 140 dB SPL
* Sensitivity: -26(dB, dBFS @1kHz 1Pa)
* Signal to noise ratio: 57 dB (20kHz bandwidth, A-weighted)
* THD<1% (100dB SPL @1kHz S=Nom, Rload>2k)
* Clock frequency: 1.0-4.0Mhz (normal mode); 150-800khz (low power mode)
* 12 LEDs form a ring light array:
* Synchronous of two-lane
* 8 Bit (256 level) color Set
* 5Bit (32 level) brightness adjustment
* Connector: Support 2\*5P 2.54mm header and 10P 0.5mm FPC connector

**Applications**

* Sound localization
* Beam forming
* Speech recognition

**Key Search Terms**

Sipeed, MAIX, AI, IoT, mic array, sound localization, beam forming speech recognition

**Parts Lists**

* Sipeed 6+1 Microphone Array x 1
* Ribbon Cable with 10pin IDC connector x 1
* 5pin PFC ribbon cable x 1