

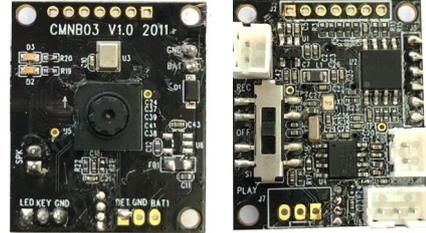
AI Module with voice recording

Description

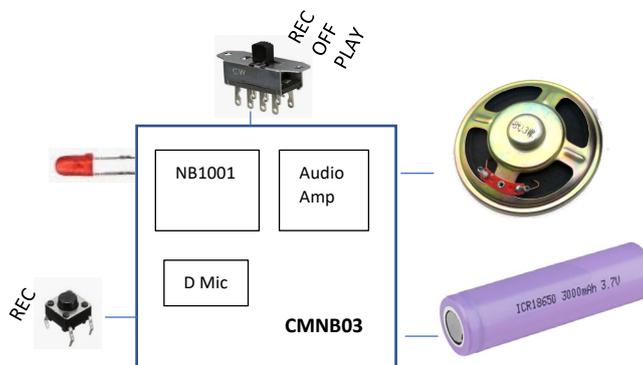
CMNB03-01 is a member of AI modules which has built in voice recording and play back function. It will playback a prerecorded message when a face is detected. It is good for interactive toys, gadgets and advertisement application.

Features:

- Small in size: 30×25mm, easy to install
- No internet nor WIFI needs
- Built in digital microphone for message recording
- Built in audio amp for power speaker output
- Playback message when face detect
- Battery operation



Block diagram



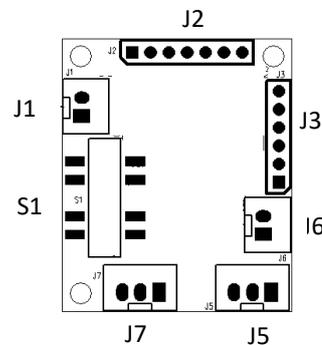
Operation

1. There is a 3-postion slide switch for mode select
2. At off position, it will turn off power supply to module.
3. At play mode, when there is a face detect, it will play the prerecorded message. It works only face detect, no other object detection. It will resume detection after few second when message ended.
4. To record a message, slide switch to record, press REC button and speak to the module. Duration of message has been set at 30sec. (length of recording can be set on OEM base)
5. LED to indicate power status as well as motion detect

Board layout and connector

(All connectors are 2mm pitch)

J1	Power input
J2	NC (for internal test)
J3	NC (for internal test)
J5	KEY/LED/GND
J6	Speaker output
J7	DET/GND/BATT (Option)
S1	Slide switch REC/OFF/PLAY



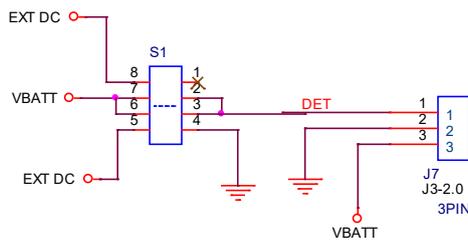
Electrical characteristics

Parameter	Condition	Min	Max	Unit
Operation voltage		3.6	6.0	V
Operation current	Standby		90	mA
	Playing audio (8 Ohm spk)		300	mA

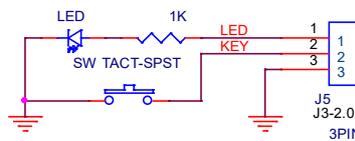
Application Note

1. This module has been designed for face detect, therefore good image of face is important for successful detection. Below are some hints for playing.
 - a. Detection distance is set at about 50cm to 100cm.
 - b. Strong backlight or too dark environment is not good for detection.
 - c. Always place module at the level of people's head
 - d. Sometimes it will happened false detect, that is a trade off.
 - e. Power can be lithium battery or alkaline AAx4. Suggest to use DC5V for long time operation

2. Mode select can use on board slide switch or external switch by using J7. When use external switch, please use external DC power instead, no need power connected to J1.



3. For audio recording, external key switch is needed. Refer to the schematic as below. LED is an option for external output. This LED is in parallel to D2 on the module, which is to indicate face detected.



Board layout and dimension

