# MP3 Player Module

## MCU, Switch Control

## NA-MP3M Ver 7.0

Related Products : NA-EMP3 (MP3 Module Unit)

R&D : http://www.neotics.co.kr E-Mail : neotics@neotics.co.kr
Sales : http://www.logiccamp.co.kr E-Mail : sales@logiccamp.co.kr

## 1. MP3 Player Module.

NA-MP3M (MP3 player module) is designed for various industrial applications and can play high quality MP3 files of voice messages, sound effects, music, and so on. It can be controlled directly by keys or I2C commands of an external MCU. Thus, it can be used as a stand alone MP3 player or as a part of your high esteemed products of voice or sound information systems.

## 2. Features.

. Small-sized Industrial MP3 Player Module.

. Bulit-In S/D Card Socket on MP3 Play Module.

. Operating voltage for use : 3,3 V or 5V (Use Only One Voltage)

. Able to play from S/D Card or USB Memory.(User Selection)

. Remote control from Micro controller : MCU(I2C), Switch(Key).

. Supports 3 operation modes

Key Switch mode ( MODE1)

Predefined MP3 player mode controlled by an external Switch key matrix

PC or MCU Control mode (MODE2)

Predefined MP3 player mode controlled by an external MCU via the I2C interface

PC or MCU Control (Choice Play Sound) mode (MODE3)

You Can Direct Choice Play Sound, Voice from S/D Card or USB Memory.

. 7 ports for an external Switch key matrix

( Some of the ports are used for I2C interface and mode selection between MODE2 and MODE3 )

. 2 Channel stereo audio output ports

. 12Mbps full speed USB interface ports (USB host)

. Built in sound mode: POP, JAZZ, ROCK CLASSIC, R&B and Bass Boost.

. Supports 8kHz, 16kHz, 32kHz, 11.025kHz, 22.05kHz, 44.1kHz, and 48kHz of sampling rates.

. Supports 8kbps to 320kbps bit rates and VBR (variable bit rate)

. Supports ID3TAG v.1.0, v.1.1, v.2.2, v.2.3, and v.2.4

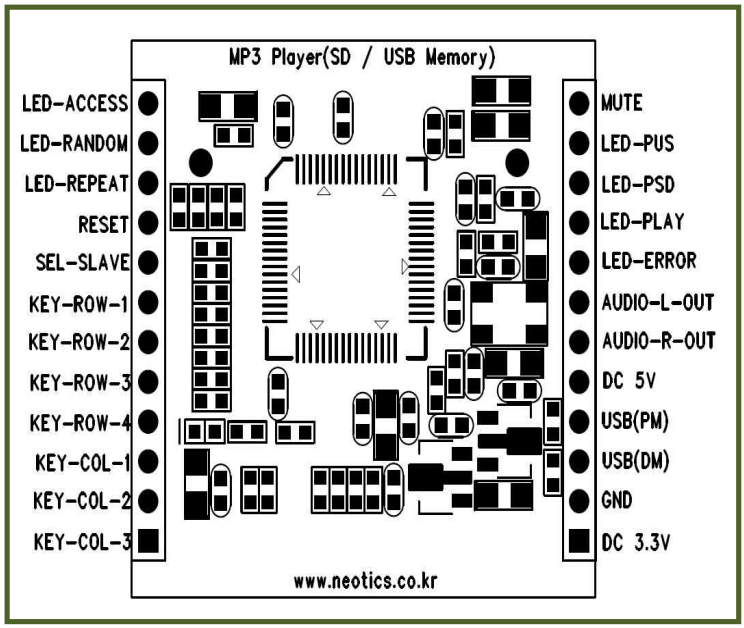
## 3. Applications

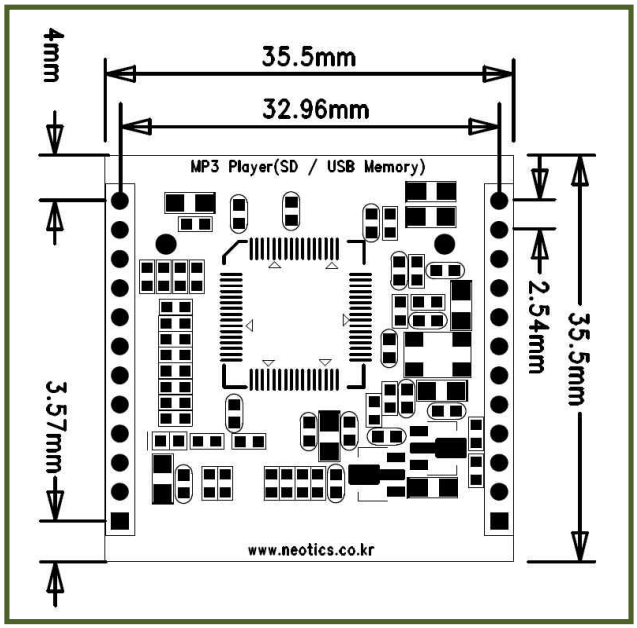
. Industrial Sound(Voice)Information Goods.
. High Quality Elevator Voice System
. Automatic Information Center & Voice Service System.

## 4. MP3 Player Module Specification.

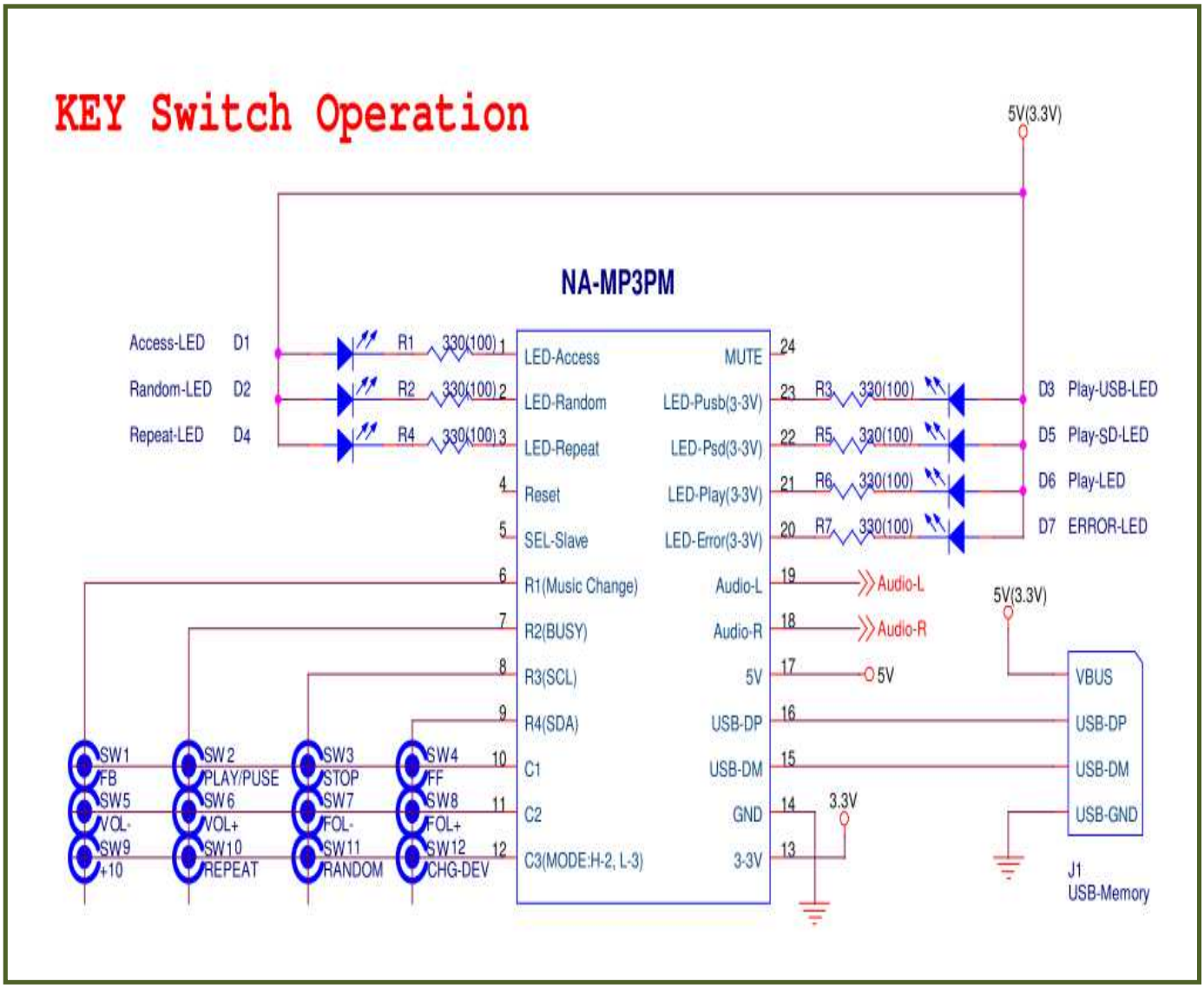
| Items | Specification |
|---|---|
| Operating Voltage | DC 3.3V or DC 5V(Use Only One Voltage) |
| Operating Current | under 50mA |
| External Memory | S/D Card or USB Memory |
| Play File Type | MP3 Type |
| Control | Micro controller (MCU : I2C) TTL-Level |
| Sampling rates | 8kHz, 16kHz, 32kHz, 11.025kHz,<br>22.05kHz, 44.1kHz, 48kHz |
| Output Signal | Stereo(L, R) Audio Line-Output Level |

## 5. MP3 Player Module PIN Descriptions & Size.

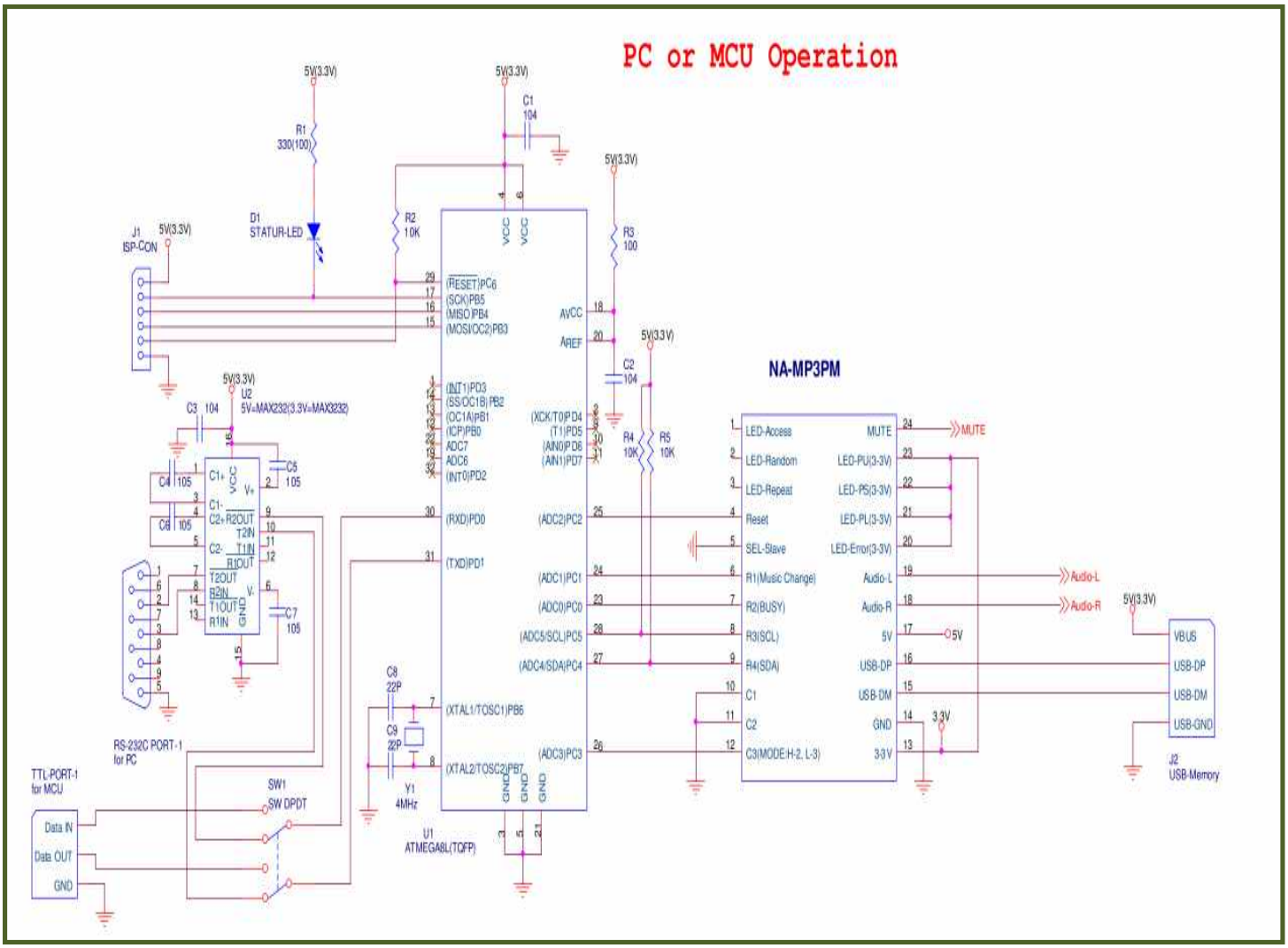


## 6. MP3 Player Module Test Circuit.(Mode-1)



## 7. MP3 Player Module Test Circuit.(Mode-2,3)




## ***** Caution*****

1. Check the features first to connect with other equipment.
2. This circuit is strictly tested.
3. The developer, manufacturer or dealer is not responsible for any malfunctioning/damage caused by connection with other equipment.
4. Appropriate permit /approval is required for some products utilizing this module, depending on functions and usages.

- **For more information and inquiry, please refer to the sites below.**