

Technovision

TecMP3A (-R)

Quick Reference Guide V1.5



Technovision Interactive

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Technical Specifications

Sound File Format:	MP3 (ISO 11172-3/44.1KHz max)
Memory Type:	SD / SDHC
Max. Memory Capacity	2 GB (SD FAT/FAT16) 32 GB (SDHC FAT32)
Supply Voltage	12 ~ 30 VDC
Power Connector	2.1mm center positive
Standby Current	60 mA
Max. Output	Stereo: 15W/channel (4 ohm load) Mono: 55W bridged load (BLT)
Serial Interface	RS-232 / RS-485
Parallel Interface	8 inputs, CMOS level logic
Physical Dimensions	Case 5.3''x 4''x 1.35''

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FULL USER MANUAL ALSO AVAILABLE ONLINE
www.technovision.com/manuals.html

Descriptions of the connectors

Parallel Interface Terminals: T1 - T8
Audio files can be TRIGGERED by grounding (connect to GD terminal) these using a button or motion sensor.

NOTE: When testing trigger inputs, do not simply touch the terminal screws together since they do not touch the terminal block contacts if turned completely counter clockwise.

System Reset Terminal: RS

Short terminal RS to the ground to reset the board.
Minimum reset duration is 100 ms.

Busy Output Terminal: BY

This output is connected to the collector of a C2328A transistor with a maximum sink current of 200mA.

Power Input Terminals: G and V+

If not using the 2.1mm power connector on the side, connect the external power supply's GROUND to terminal G, and the POSITIVE to terminal V+.

Line Output (LINE): 1/8" Stereo Phone Jack

This jack provides single ended line output for external amplification (TIP-L, RING-R, SLEEVE-GROUND). *1

Speaker Output Terminals: LF (left channel) & RT (right channel).

*1 The left channel is inverted for bridged mono mode.
See back page for more information.

Serial Interface Connector: DB9 Female

RS232 is 9600,8,N,1 with pin 3 as the RS232 INPUT to the TecMP3. Pin2 is the transmit and 5 is the GROUND.

Setup of the SD/SDHC card

The SD/SDHC card should have nothing on it except for the MP3 files and the MODE.TXT file.

File Number Assignment

The filename must always start with a 3 numbers ranging from 001 to 999. For example "start.mp3" has to be renamed "001start.mp3". This will be file 1 on the system.

The typical contents of the SD/SDHC card would be:
001_file1.mp3
002_sample2.mp3
003_audio3.mp3
004_playback.mp3
MODE.TXT

The Configuration mode File (MODE.TXT)

By default, the system works in the following mode (DNC) with the left audio channel inverted:

Direct Trigger

Non-Interruptible Playback

Closed trigger activation.

To operate the system in other modes, you need to create an ASCII text file named "MODE" with one of the following two-letter words on the first line: (where the first character is the trigger mode and the second character is the playback mode. A optional third letter is the trigger type - C,O,M or B. There is also a fourth letter (R) that switches the left channel back to Regular audio mode (see next page).

For example:

DN is **D**irect trigger mode and **N**on-interruptible. Other modes are:

DI (Direct, Interruptible)

DH (Direct, Holdable)

DS (Direct, Script)

BN (Binary, Non-interruptible)

BI (Binary, Interruptible)

BH (Binary, Holdable)

BS (Binary, Script)

SN (Sequential, Non-interruptible)

SI (Sequential, Interruptible)

SH (Sequential, Holdable)

RN (Round-Robin, Non-interruptible)

RS (Round-Robin, Script)

Trigger Modes (first letter in MODE.TXT)

(D) Direct Trigger (most popular)

In this mode each input directly triggers a corresponding file: T1 = File 001, T2 = File 002, ... T8 = File 008.

A trigger is valid when the input is shorted to the ground for at least 50 ms.

(S) Sequential Trigger

Use the Sequential Trigger to sequentially trigger up to 99 different files per input, as defined below:

T1 triggers File 001,002 ~ 099, 001, 002...

T2 triggers File 201,202 ~ 299, 201, 202...

T3 triggers File 301,302 ~ 399, 301, 302...

...

T8 triggers File 801,802 ~ 899, 801,802...

Each trigger on the same input activates the next file in the sequence until it does not find a file. It will then sequence back to the first file.

(B) Binary Trigger

To trigger a particular file, the first step is to signal the file number on T1 (LSB) ~ T7 (MSB). and T8 being the data latch.

(R) Round-Robin Trigger

This mode is very similar to the Direct Trigger mode except that the inputs are not prioritized - if multiple inputs are tied to ground then their files will be played one after another, instead of just the highest priority one.

Playback Modes (second letter in MODE.TXT)

The Playback Mode defines how the playback is to proceed. The Playback Mode does not apply when the system is controlled via the Serial Interface.

(N) Non-interruptible Playback

The file is played once per trigger. The playback is not interruptible except by the system reset. Looping is possible by applying a constant trigger on the input.

(I) Interruptible Playback

The file is played once per trigger if not interrupted (can not interrupt itself unless in DIM mode). The playback does not start until the trigger is removed (input returns to +5V).

(H) Holdable Playback

The file is played for as long as the input is triggered, looping if necessary. It is not interruptible except by the system reset.

(S) Script Playback

These are the script commands:

Fnnn - play file #nnn

Wnnnnn - wait nnnnn units of 0.1 second

Jnnn - jump to trigger #nnn

BF - turn off the Busy output

BN - turn on the Busy output

Rgnn – Random play files between g01 and gnn

i.e. R125 will play files randomly between 101 and 125

XNn - turn on relay #n

XNN - turn on all relays

XF#n - turn off relay #n

XFF - turn off all relays

END

More detailed information can be found in the Full User Manual.

Trigger Type (third letter in MODE.TXT)

(C) Closed..Keep triggering when contact closed

(O) Open..Trigger when contact opened

(M) Make..Trigger once when closed

(B) Break..Trigger once when opened

(-) Used in “DS-R” mode

Left Channel (Fourth letter in MODE.TXT)

By default the left channel is inverted. If using a MONO audio file, this creates a 4X more powerful differential output when a 8 ohm speaker is connected to the LEFT and RIGHT outputs from the TecMP3. To switch the audio back to REGULAR mode, enter ‘R’ as the fourth letter.

RS232 Serial Control

For serial control (RS-232/RS-485), replace the two-letter word in MODE.TXT with a two-digit address ranging from “00” to “32”. This number is used by your PC(or controller) to communicate with specific TecMP3s.

RS232 Commands

A## (address ##) – send before every command if the player ID is not 00.

F### (play file ###)

L### (loop file ###)

S (Stop file)

P (Pause file)

R (Resume file)

B (busy enquiry), “b” is busy and “s” is not

XN# (turn on relay #)

XNN (turn on all relays)

XF# (turn off relay #)

XFF (turn off all relays)

RELAY (-R) Option

Relay# (x) will activate when file (00x) is active. For example, relay#1 will activate whenever file 001 is playing.

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