

Technovision Inc.

TecMP3

Quick Reference Guide



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Technical Specifications

Sound File Format:	MP3 (ISO 11172-3)
Memory Type:	CompactFlash, type I,5V
Max. Memory Capacity:	2 GB (FAT)
Max. Recording Time:	> 1 hour
Supply Voltage:	10 ~ 32 VDC
Standby Current:	150 mA
Max. Audio Output:	10W/CH (4 ohm load)
Serial Interface:	RS-232 / RS-485
Parallel Interface:	8 inputs, CMOS level
Physical Dimensions:	Board 5.6" x 6.8" x 1.3"
	Case 6.0" x 4.8" x 1.7"
(-R unit)	Case 6.0" x 7.5" x 1.7"

UPDATE: 12-2012

Descriptions of the connectors

Parallel Interface Terminals: T1 - T8
Audio files can be TRIGGERED by grounding these using a button or motion sensor.

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 taken from a transistor's collector and internally pulled up to +5V through a 10K resistor (R11).

Power Input Terminals: G and V+
Connect the power supply's GROUND to terminal G, and the POSITIVE output 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).

Speaker Output Terminals: LF (left channel) & RT (right channel).
The speaker outputs are single ended (unbalanced).

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 CompactFlash card.

The Compact Flash card should have nothing on it except for the MP3 files and the MODE.TXT file. Typically, each MB of memory should hold a minute of audio. DO NOT USE LEXAR CARDS

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 CF 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):

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 option third letter is the trigger type – C,O,M or B.

For example:
DN is Direct trigger mode and Non-interruptible. Other commands 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.

(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.

(S) Sequential Trigger

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

T1 triggers File 001 ~ 099.....

T8 triggers File 801 ~ 899

Each trigger on the same input activates a different file in the sequence.

(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

XNn - turn on relay #n

XNN - turn on all relays

XFn - 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

RS232 Serial Control

For serial control (RS-232/RS-485), replace the two-letter word 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)

Major Firmware Updates

2.0 September 2008..FAT32 support added

2.4 July 2009..ID 00 support added