

Technovision TM21



Quick Reference Guide

Revision 2021/02
F/W 1.6

www.technovision.com

Max. Output Power

8W MONO (12Vdc supply with 8 ohm load)
6W per channel stereo (12Vdc supply with 4 Ohm load)

Supported File Types

MP3 (MPEG-1 LEVEL 3 up to 44.1KHz, ISO 11172-3 compliant)

Trigger Input

One input for push button, motion sensor, or DC control voltage

Max. Number of Sound Files

99

Flash Card Type

SDHC formatted with FAT32 / 32GB max.

Supply Voltage

10 ~ 15 VDC regulated

Typical Current

120 mA (standby) or 200mA (average)

Physical Dimensions (excluding mounting wings) (W x D x H)

80mm x 73mm x 30 mm

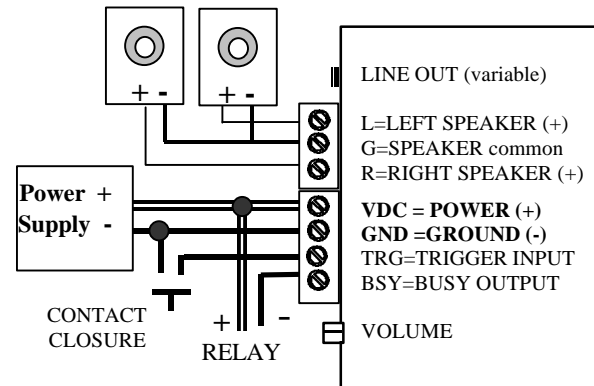
3.1" x 2.8" x 1.3"

Physical Dimensions (including mounting wings) (W x D x H)

95mm x 92mm x 30 mm

3.7" x 3.2" x 1.3"

Typical Wiring Diagram



Line Out Jack (TIP = LEFT CHANNEL)

The output (level set by volume knob) from this 3.5mm stereo phone jack can be used to feed an external power amplifier.

Speaker Outputs

The speaker outputs are single ended. Load impedance is 4 to 8 Ohms.

VDC is the DC Power Input (9 to 15 VDC)

Be sure the supply voltage is within the specifications or the unit may be damaged.

GND is the GROUND from the power supply

TRG (Trigger Input)

Both a contact closure to GROUND or a 0VDC signal will trigger the TM21. The trigger is normally pulled high (internally) to 2.9 VDC.

BSY (Busy Output)

This open collector output from a transistor is activated during audio playback. Maximum load is 100 mA. This output can be used to turn on an external relay that further controls a device such as a motor or a light.

Volume Knob

Turn the knob clockwise to increase the output level. It affects both the speaker output AND the LINE OUT.

SD Card

Both SD (FAT16) and SDHC (FAT32) cards are supported. Files on the flash card should be properly numbered (see Numbering Files section). Be sure to turn the unit off before Inserting the card (face up). To remove the card, push it again.

Numbering Files on the SDHC card

Sound files must be numbered consecutively starting from 001, even if only one file is used. The 3-digit file number must be added at the beginning of the filename, e.g. "001 Anyname.mp3". Sound files are played according to the numbering sequence. The first trigger plays file 001, the second trigger plays file 002 and etc. When the next file number is missing, the sequence restarts from 001.

Background Music (firmware 1.3 or higher)

If there is a file called "000.mp3" on the flash card, the player will automatically loop this file but can be interrupted by a trigger.

System Configuration (MODE.TXT)

The system can be configured for different modes of operation by adding a simple text file named MODE.TXT on the flash card. Put only **UPPERCASE** letters in the file (as described below) and save the file as a "text document". If there is no MODE.TXT on the flash card, the system will operate in the default, DNC mode.

First Configuration Letter (D)

The first letter should always be a "D" except for the Timer Mode (see Timer Mode below).

Second Configuration Letter (H, I or N)

"H" = Holdable

The playback only plays when a trigger is provided.

"I" = Interruptible

The playback can be interrupted by a new trigger.

"N" = Non-interruptible

The playback cannot be interrupted by a new trigger.

Third Configuration Letter (O, C, M or B)

"O" = Open.

A constant trigger is provided when the trigger is HIGH (open). Can be used to loop files (see notes below)

"C" = Closed.

A constant trigger is provided when the trigger is LOW (grounded).

"M" = Make.

A single trigger is provided when trigger is LOW (grounded).

"B" = Break.

A single trigger is provided when the trigger goes from LOW to HIGH.

Fourth Configuration Letter (Q mode)

By placing a Q as the fourth character, the left channel output is inverted to create a more powerful mono output (or virtual surround for stereo files) when a SINGLE speaker is attached to the LEFT+ and RIGHT+ speaker outputs.

Additional Notes:

Timer (idle) Mode

Timer Mode is configured by using "Txx" for the configuration letters, where "xx" is a two digit number specifying the interval in minutes. For example, "T30" will automatically start playing the next file 30 minutes from when the last file ended, starting from file 001. In Timer (idle) mode, the player functions in DNC mode, so you can still manually trigger the TM21 when it is not playing a file.

Looping Files

Name the sound file(s) **001.mp3, 002.mp3...** and put the text "**DNO**" into the MODE.TXT file.

There is also a full user manual available online at:
www.technovision.com/manuals.html