A computer generated image of a circuit board

Description automatically generatedDAI V4toV7 K7 module

# Overview

This module enables early DAI versions, a vintage computer from Data Application International, to have their cassette input behave like the latest versions, which are more performant. It notably allows old versions to read faster “optimized wav” files such as those generated with the DGV program.

**DO NOT MODIFY A DAI UNLESS YOU PERFECTLY KNOW WHAT YOU ARE DOING. THIS CAN BE DANGEROUS FOR YOU OR FOR THE DAI.**

DAI version V4 and DAI version V7 cassette input main difference is the lower minimum input voltage for the V7 version (around +/-0.2V vs +/-1.1V for a DAI V4). See annex to see which input stage you have.

Input characteristics will be even better with a TLC274 operational amplifier instead of the original LM324.

# Installation

This module replaces the IC14 of a DAI. It is recommended to solder an IC support instead of chip IC14 and to plug the module above.

Two wires need to be soldered, other pins being for development / measurements:

* Dai ground (example pin 6 of panel connector CON3) to module pin 1 or 6 (it is only required for high-speed reading with a TLC274)
* Dai cassette input (pin 5 of the connector CASS1) to module pin 4 (‘I’ label)

# Assembly

## Components layout

A white circuit board with purple dots and black circles

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C5 and C6 limit noise and are only necessary with a TLC374. C7 / C8 are optional.

## Bill of materials



Pins 12 & 13 of IC support should be cut not to go through the PCB (Printed Circuit Board). These 2 pins need however to be soldered on the top of PCB module.

IC support should have very long pins (which is unfortunately non-standard) or additional ‘pins’ need to be soldered below the module…(a thin PCB of 0.8mm mitigates this problem).

## Module scheme

A diagram of a circuit board

Description automatically generatedDiodes are 1N4148

## Module front PCB

A red and white circuit board

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# Annex - schemes

DAI version is written on the DAI PCB, on the right of the keyboard.

## A diagram of a circuit Description automatically generatedA computer circuit board with many wires Description automatically generatedDAI V4 scheme

## DAI V7 scheme

A diagram of a circuit

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