

Voltage regulator module for FIC 486-GAC-2

This brings 486 dx4 (3.3v) support by connecting a small circuit to the header block labeled “3V” on the motherboard. This header block has 1x6 pins.

Normally pins 2 and 5 receive 5v from the motherboard.

When pins 1 and 6 of this header block are connected to each other, then pins 2 and 5 are no longer connected to 5v from the PSU. This means you can output another voltage on those pins. Pins 3 and 4 are ground.

We can thus implement a voltage regulator module for this motherboard by creating a small circuit that takes input voltage from pins 1 and 6, uses pins 3 and 4 as ground, and outputs 3.3v (or other value like 3.45v) to pins 2 and 5.

The image below is a simplistic example implementation that illustrates the concept.

Pins 1-6 are bridged and receive 5v from the motherboard, while pin 4 is connected to ground and pin 5 is 3.3v. Note that your VRM may have a different pinout. It may also require you to add a capacitor to the input and the output line. Finally, you should use both ground pins and both output pins, contrary to this example who uses only one of each. Because the VRM will carry 1.8A at peak times it will become hot and need a heat sink.

