

List of electronic components needed to upgrade to DVI output.

Thanks go to:

"Gold Leader" for providing his original V5 PCI MAC.

"Physikant" for his meticulous work.

"Anthony" for his helpful hints.

"Löschzwerg" for spelling correction.

Of course, all the other people who participated in the thread and pushed this project forward with their contribution of knowledge and experience.

Voodooalert "Backfire"

RED means: Equip with corresponding component

BLACK means: **Do Not Populate** with part or remove installed part. (DNP)

Note:

Please never start this work unless you have at least semi-professional knowledge and skills in microelectronics. The traces and pads are highly sensitive and easily ruined.

Recommended tools:

- Stereo working microscope or a damn good magnifier
- Preheating device
- Soldering station with very fast control and depot soldering tip
- High quality flux
- High quality SMD solder
- High quality SMD tweezers
- PCB aids

The ferrite beads are recommended to be used. You can try 0,22μH SMD coils instead. I did it on a V4 4500 and it works properly.

All capacitors except C9 are MLCC types. We prefer high quality parts like MuRata or KEMET.

FRONT PCB

CONNECTOR

P1 Molex 743204004

INTEGRATED CIRCUITRY

U1 Sil 164 CT 64

U3 74 HCT 4052 M

VR1 PQ1R33

DIODES

CR7 BAV99

CR8 BAV99

CR11 BAV99

CR01 DNP

CR02 DNP

CR03 DNP

CR04 DNP

CR05 DNP

CR06 DNP

CR09 DNP

CR10 DNP

CAPACITORS

C1 10 μ F / 1206 / X7R (3,3 μ F on original PCI MAC)

C2 100nF / 0603 / X7R

C3 100nF / 0603 / X7R

C6 100pF / 0603 / C0G

C9 10 μ F / 16V / X7R/ 1206 (3,3 μ F on original PCI MAC)

C10 100pF / 0603 / C0G

C11 10 μ F / 10-16V / 3,9mm

C12 100pF / 0603 / C0G

C16 10 μ F / 16V / X7R / 1206 (3,3 μ F on original PCI MAC)

C20 10 μ F / 16V / X7R / 1206 (3,3 μ F on original PCI MAC)

RESISTORS

R1 **10 k Ω / 0603**
R3 **100 Ω / 0603**
R5 **430 Ω / 0603**
R10 **100 Ω / 0603**
R11 **10 k Ω / 0603**
R12 **10 k Ω / 0603**
R20 **100 Ω / 0603**
R23 **4,7 k Ω / 0603**

R2 *DNP*
R7 *DNP*
R8 *DNP*
R17 *DNP*
R18 *DNP*
R19 *DNP*
R13 *DNP*

LOCATION: L/H SIDE OF HEATSINK

R21 **220 Ω /0603**

LOCATION: L/H SIDE OF RAM

R34 *DNP*  **HAS TO BE REMOVED!!**

INDUCTIVITIES

L9 **Ferrit Bead 0805 220 Ω**
L10 **Ferrit Bead 0805 220 Ω**
L11 **Ferrit Bead 0805 220 Ω**

REAR PCB

CAPACITORS

C573 100pF / 0603 / C0G
C574 100pF / 0603 / C0G
C575 100pF / 0603 / C0G
C576 100nF / 0603 / X7R
C577 100pF / 0603 / C0G
C578 100pF / 0603 / C0G
C583 220pF / 0603 / C0G
C587 100nF / 0603 / X7R
C588 220pF / 0603 / C0G

RESISTORS

R556 10 k Ω / 0603
R558 100 Ω / 0603
R560 100 Ω / 0603
R563 10 k Ω / 0603
R577 100 Ω / 0603
R578 10 k Ω / 0603

R554 DNP
R555 DNP
R557 DNP
R559 DNP
R561 DNP
R562 DNP
R579 DNP

INDUCTIVITIES

L502 Ferrit Bead 0805 220 Ohm
L503 Ferrit Bead 0805 220 Ohm
L504 Ferrit Bead 0805 220 Ohm
L505 Ferrit Bead 0805 220 Ohm

FUSE

F501 1210 500mA Fuse

LOCATION: Bottom

R574 DNP ←-- **HAS TO BE REMOVED!!**
R575 DNP ←-- **HAS TO BE REMOVED!!**