

List of electronic components needed to upgrade to DVI output.

Thanks go to:

"Anthony" for his helpful hints in programming.

"Xion" for providing his original V4 MAC.

Voodoalert "Backfire"

RED means: Equip with corresponding component.

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.

All capacitors except C7 are MLCC types. We prefer high quality parts like MuRata or KEMET.

First please **remove** following components and discard:

R17	- Upper Side
R547	- Backside
R555	- Backside
R573	- Backside

Upper Side (Front Side)

CONNECTOR

P1 Molex 743204004

INTEGRATED CIRCUITRY

U2 Sil 164 CT 64

U6 74 HCT 4052 M

VR1 PQ1R33

DIODES

CR4 BAV99

CR9 BAV99

CR11 BAV99

CAPACITORS

C4 15nF / 0603 / MLCC

C6 2,2nF / 0603 / MLCC

C7 10μF / 16V / Elko or Tantal

RESISTORS

R1 10 kΩ / 0603

R3 100 Ω / 0603

R10 4,7kΩ / 0603

Backside

CAPACITORS

C525 100nF / 0603 / MLCC
C526 100nF / 0603 / MLCC
C531 100nF / 0603 / MLCC
C545 100nF / 0603 / MLCC
C562 100nF / 0603 / MLCC

C528 100pF / 0603 / MLCC
C532 100pF / 0603 / MLCC
C533 100pF / 0603 / MLCC
C535 100pF / 0603 / MLCC
C537 100pF / 0603 / MLCC
C547 100pF / 0603 / MLCC
C548 100pF / 0603 / MLCC

C544 220pF / 0603 / MLCC
C563 220pF / 0603 / MLCC

C519 10μF / 1206 / MLCC
C534 10μF / 1206 / MLCC
C536 10μF / 1206 / MLCC
C546 10μF / 1206 / MLCC
C564 10μF / 1206 / MLCC

RESISTORS

R525 100 Ω / 0603
R527 100 Ω / 0603
R534 100 Ω / 0603
R556 100 Ω / 0603
R564 100 Ω / 0603
R565 100 Ω / 0603

R522 10 kΩ / 0603
R524 10 kΩ / 0603
R531 10 kΩ / 0603
R566 10 kΩ / 0603

R577 2,2 kΩ / 1206
R568 4,7 kΩ / 1206
R56 22 Ω / 0603
R562 430 Ω / 0603

INDUCTIVITIES

L501 Ferrit Bead 0805 220 Ω
L503 Ferrit Bead 0805 220 Ω
L505 Ferrit Bead 0805 220 Ω
L506 Ferrit Bead 0805 220 Ω
L507 Ferrit Bead 0805 220 Ω
L508 Ferrit Bead 0805 220 Ω
L509 Ferrit Bead 0805 220 Ω

FUSE

F501 1210 500mA Fuse

Backfire. 3dfx-services@proton.me

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