

Adapter DIP-32_D1

EzoFlash+ adapter for 8 bit EPROM in DIP-32W and DIP-32 packages.

1. Part list.

BU5 – Straight pin-header 2x16, division 2.54

BU7 – Straight pin-header 1x5, division 2.54

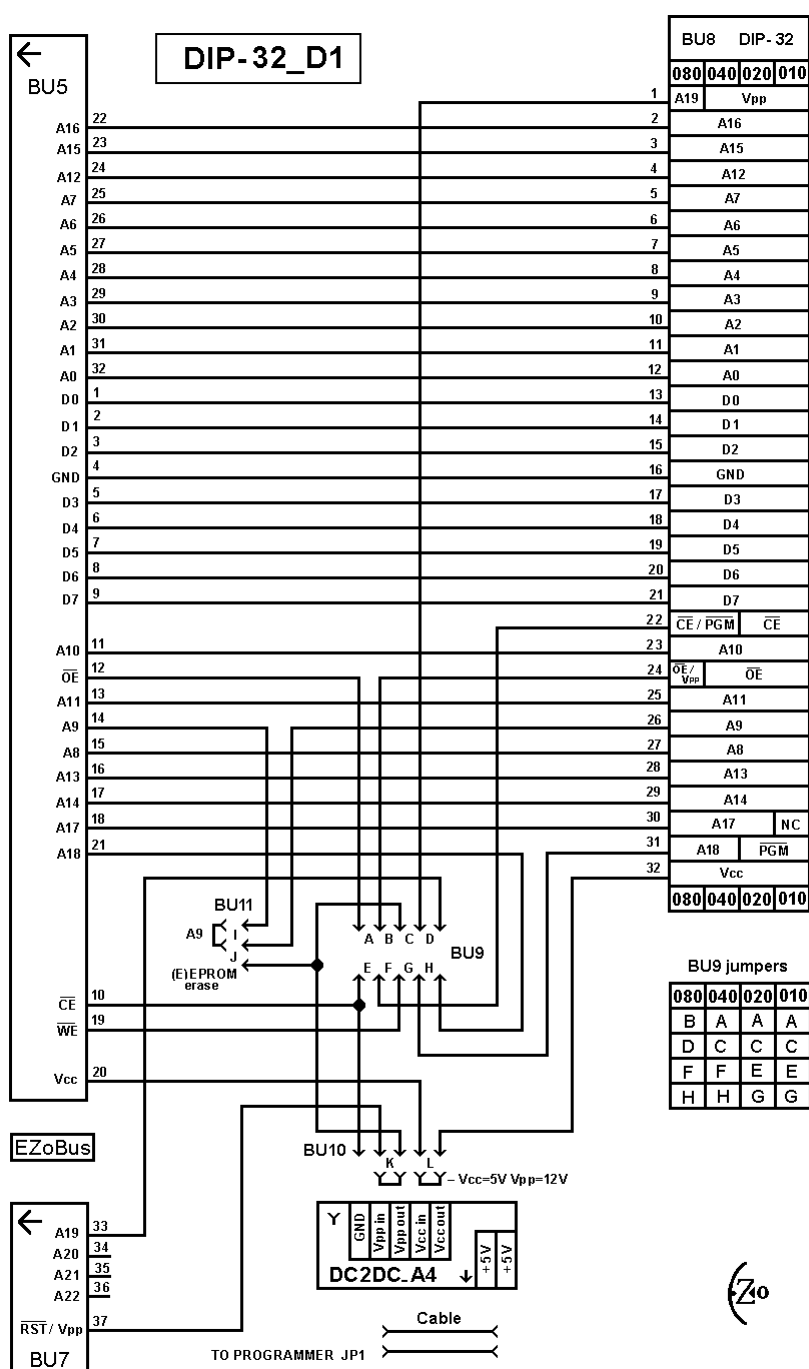
BU8 – IC Socket DIP-32 with angled pins

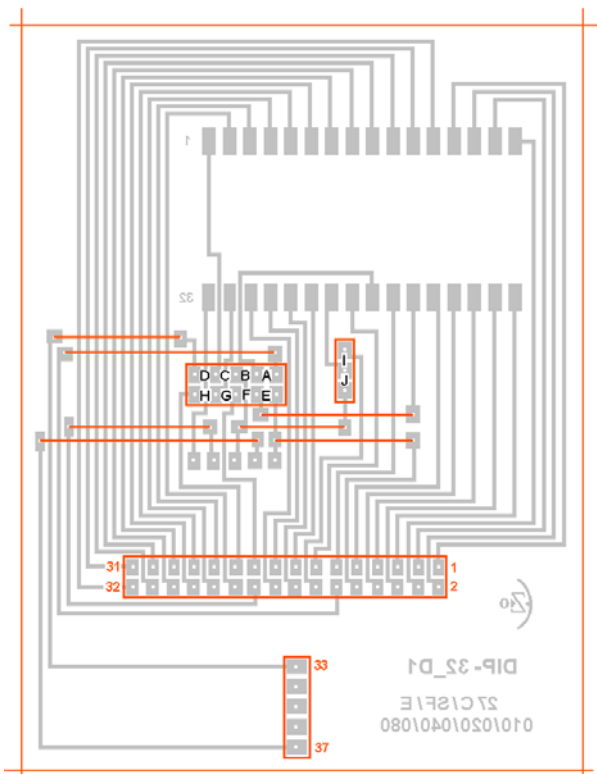
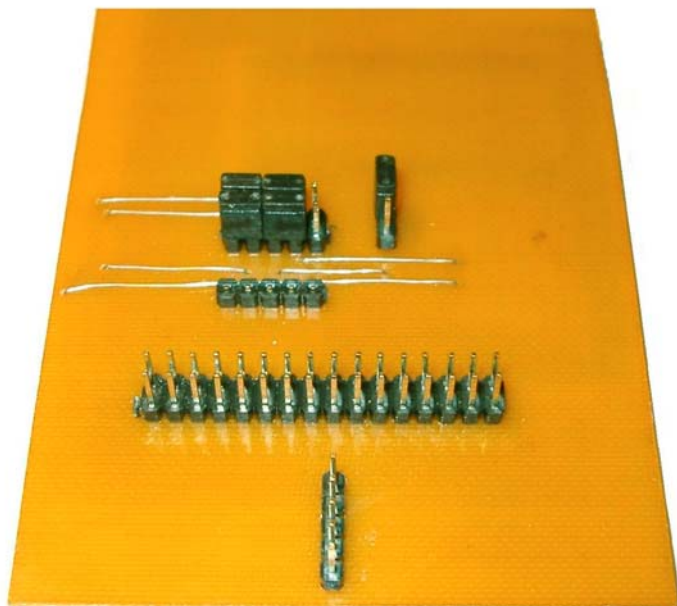
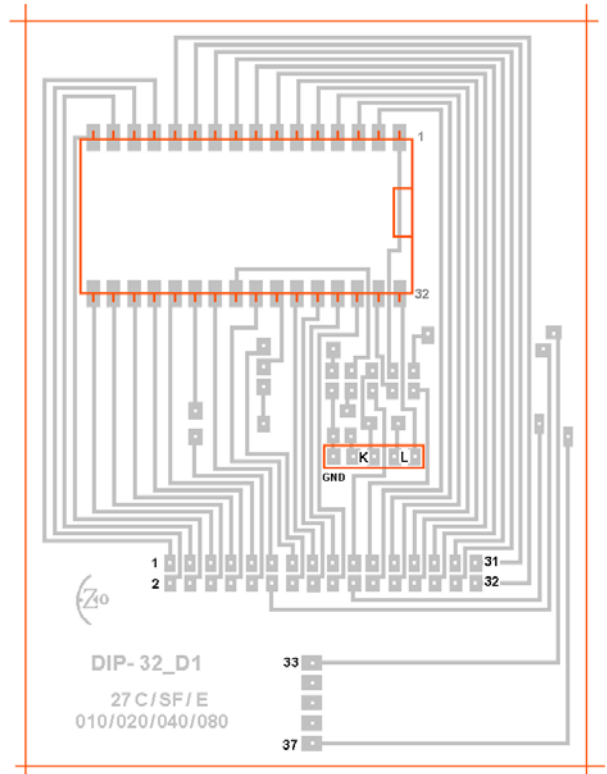
BU9 – Straight pin-header 2x5, division 2.54 / Jumper, division 2.54 (4pcs)

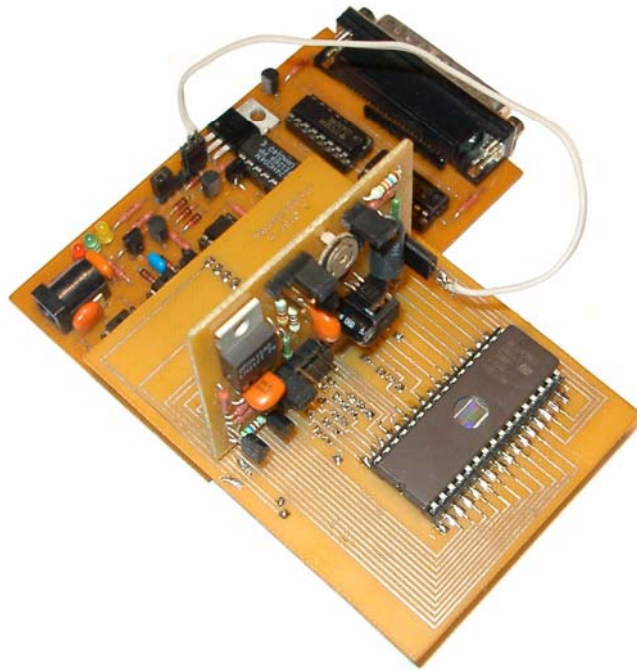
BU10 – Straight pin-header 1x5, division 2.54 (modified, move plastic to end) /
Jumper, division 2.54 (2pcs) / DC2DC_A4

BU11 – Straight pin-header 1x3, division 2.54, / Jumper, division 2.54 (1pc)

2. Schematic, PCB and pictures







3. Settings, verified chip list and info.

Willem programmer software version 0.97ja

Programmer jumpers - W/Jp1- wire cable to dc2dc_a4, Jp3 (+5V), Jp5 (A18)

dip32d1 jumpers A...E according to density – A,C,E,G (1Mb, 2Mb); A,C,F,H (4Mb), B,D,F,H (8Mb),
jumper I (A9)

27010, 27020, 27040

Selected device EPROM > 27xxx > ..., twp=1.2ms

dc2dc_a4 jumpers –

JpR (Vcc from LM317), JpM (Vcc=5.8V) , JpP (Vpp=11..14V)

Adjust R5 - Vpp=12.8V

No verified chips.

27C010, 27C101, 27C1001, 27C020, 27C201, 27C2001, 27C040, 27C401, 27C4001, 27C080, 27C801

Selected device EPROM > 27Cxxx > ..., twp=140mks

dc2dc_a4 jumpers –

JpR (Vcc from LM317), JpM , (Vcc=5.8V) , JpP (Vpp=11..14V)

Adjust R5 - Vpp=12.8V

Verified chips :

AM27C010, Intel D27C010, D27C010A, MX27C1000, M5M27C101K, NM27C010QE, Signetic 27C010, ST Micro M27C1001, TMS27C010A, TC571000D

AM27C020, AT27C020, M5M27C201K, ST Micro M27C2001, TMS27C020

AM27C040, M5M27C401K, NM27C040Q, Nec D27C4001D, ST Micro M27C4001, TMS27C040, TC574000D, ST Micro M27C801.

Electrically erasable EPROM

Selected device EPROM Electrical Erase >...

W27x010/020/040, MX26C1000/2000/4000

dc2dc_a4 jumpers – JpR (Vcc from LM317), JpP (Vpp=11...14V)

Erase – adjust R5- Vpp=14V(W27...), Vpp=12.8V (MX26C...)

Set jumper JpJ. Action Erase. Set back jumper JpI !!

Program – adjust R5- Vpp=12.0V (W27...), Vpp=12.8V (MX26C..., set jumpers M, N, Vcc=6.2V)

SST27SF010/020, W27C/E01/02

Chips are erased/programmed without dc2dca4. Set jumpers JpK, JpL (+5, +12V from programmer).

Set jumpers Jp1, Jp3, Jp5 (Vcc=5V), JpJ (erase), JpI (read, program).

SST37VF512/010/020/040, PM37LV512

Chips are erased/programmed without dc2dca4. Set jumpers JpK, JpL (+5, +12V from programmer).

Set jumpers Jp2, Jp5 (Vcc=3.6V).

For all chips set jumpers E (pin22 CE#), G (pin31 WE#). For SST37VF040 provide wired (cannot be done with jumper) connection between BU9 pins 7 (DIP-32 pin1) and 10 (programmer A18).

Remove jumpers A...D.

Erase – set jumpers B (OE#=Vpp), J (A9=Vpp). Indicator will run cycles 0...2%. Cancel.

Blank check - set jumpers A (OE#), I (A9).

Program – set jumpers B (OE#=Vpp), I (A9). Program verify fail (chip 0x0000 0x04, buffer 0x..).

Verify, read – set jumpers A (OE#), I (A9).

Verified chips:

W27E01, W27C02, W27E040, SST27SF020.

Chip test results find in chip_test.xls file.

Note.

Chips are tested in long period, different dc2dc adapters and voltages used, SW 0.97g and 0.97ja . dc2dca4 is functionally equal to previous versions (a2, a3; same jumpers).

Adjust other Vpp value or change Vcc=6.2V (jumper N), change twp, if required from EPROM datasheets or programming fail.

A range of chips (1Mb, 2Mb, 4Mb) are programmed without dc2dc_a4. Set jumpers JpK, JpL. (Vcc=5V, Vpp=12V).

How to adjust Vpp ?

Install dc2dc_a4 and eprom adapter without target chip on ezoflash+.

Connect power supply, PC and run SW. Adjust Vpp on LM317- IN with R5

1Mb, 2Mb, 4Mb chip read available without dc2dc_a4. Set jumpers JpK, JpL.

Only erased EPROM can be programmed. Initially, and after each erasure, all bits of the EPROM are in the logic high state. Run SW command Blank check to assure all bytes are 0xFF.

Logic lows are programmed into desired locations. Repeat programming (check voltage, increase twp) on logic low programming failure.

Programmed logic low can be erased only by ultraviolet light (UV lamp , wavelength 2537 Angstroms, intensity 12mW/cm2, chip window 1..2cm from UV source, exposure time 12...20 minutes).

Chips without window (except electrically erasable) are OTP (one time programmable) and cannot be erased.

Report problems and share your experience on Willem and EZoFlash forums.