

AD-MEM03 INSTRUCTIUNI**DESCRIERE :**

Este un programator paralel evoluat care permite programarea unui numar mare de tipuri de memorii si controlere , EPROM,EEPROM,FLASH,I2C,PIC,MCS-51,AVR, 93Cxx, ISP in special din cele utilizate in ultima perioada

Este o aplicatie a programatorului cunoscut pe internet ca : PROGRAMATOR WILLEM . Programatorul Willem este unul din cele mai populare programatoare universale de memorii utilizate in prezent pentru programarea memoriilor de tip nou prezente in aparatura electronica moderna .

Programatorul permite cu ajutorul unor adaptoare extinderea tipurilor de memorii si controlere cu care poate lucra (**ADAPTOARELE NU SINT INCLUSE IN PRODUS**)

O caracteristica importanta este faptul ca poate programa si memorii seriale uzuale Programatorul utilizeaza o singura tensiune de alimentare uzuala (9Vcc-12Vcc) restul tensiunilor necesare diverselor tipuri de memorii (12Vcc, 21.5Vcc,15Vcc,25Vcc se obtin cu ajutorul convertorului UP CONVERTOR care se afla pe modulul programator .

Pe modul se afla de asemenea conectori pentru semnalele importante pentru programare care pot fi folosite cu diverse adaptoare .

Programatorul utilizeaza portul paralel la calculatorului

SOFTUL ultimele variante lucreaza sub Win 9x/ME/NT/2000/XP

Lista memoriilor care sint recunoscute de programator :

1. EPROM

27C64, 27C128, 27C256, 27C512, 27C010, 27C020, 27C040,27C1001
M27C1001, M27C2001, M27C4001
27C080 (A19) ,M27C801,M87C257
2716(Vpp25V),2732, (adapter DIP24)
2764, 27128, 27256, 27512, 27010,
Vpp12.5V

2. EEPROM

28C65,28C64, 28C128, 28C256,28C512, 28C010, 28C020, 28C040
M28C16A/17A (DIP28)
(Adapter or Jumper) 28C16,XLS2816 (DIP24)

2. FLASH Memory

28F64, 28F128, 28F256, 28F512,28F010, 28F020
MX26C1000, MX26C2000, MX28F1000, MX28F2000
Am28F256A, Am28F512A, Am28F010A, Am28F020A (New command
erase/prog.)
-- intel ---
i28F001BX, 28F004, 28F008, 28F016

29F64, 29F128, 29F256, 29F512, 29F010, 29F020, 29F040, 29F080
29F001, 29F002, 29F004, 29F008, 29F016, 29F032

3. Serial (I2C) EEPROM

24C02, 24C04, 24C08, 24C16, 85C72, 85C82, 85C92
--- page write ---
24C32, 24C64, 24C128, 24C256, 24C512

4. Microwire EEPROM

<----- Data 8bit -----> (pin 6 -> ORG. [Schematic connect to GND])
93C06, 93C46, 93LC46, 93C56, 93C57,
93C66, 93C76, 93C86 (8bit), AT59C11, AT59C22, AT59C13
CAT35C102, CAT35C104, CAT35C108 (pullup pin7)
<-----Data 16bit-----> (pin 6 -> NC [No Connect])
93C06A, 93C46X, 93C56, 93C66, 93C76, 93C86 (NS)

5. MicroChip Controller

PIC 16C84, 16F84, 16F84A, 16F627/16F628
12C508/A, 12C509/A, 12CE518, 12CE519, 16C505
16C620, 16C621, 16C622, 16CE623, 16CE624, 16CE625, 16C710/711
---ICSP connector---
16F870, 16F871, 16F872, 16F873, 16F874, 16F876, 16F877
PIC16F873A, PIC16F874A, PIC16F876A, PIC16F877A

7. Atmel Flash Memory

AT29C256, AT29C512, AT29C010A, AT29C020, AT29C040, AT29C040A
W29EE512, W29EE011, W29EE012, W29C020(128), W29C040
PH29EE010(W29EE011)
ASD AE29F1008 (AT29C010), AE29F2008 (AT29C020)
Ver 0.992 up(DOS). Can run under win9x
(disable prog. CPUIdle or CPUCool)
Command seq. 555/AA, 2AAA/55, 5555/A0
AT49F512, AT49F010, AT49F020, AT49F040
SST39SF010, SST39SF020, SST39SF040
AT49F001, AT49F002, AT49F008A
Command seq. 555/AA, 2AA/55, 555/A0
Am29F512, Am29F010, Am29F020, Am29F040, HY29F080
29F002, 29F002T, Pm29F002T

6. Serial Peripheral Interface (SPI)

[Atmel] AT25010, 020, 040 (A8-A0)
AT25080, 160, 320, 640, 128, 256 (A15-A0)
[ST] W95010....256, Microchip 25x010 - 25x640

--- Byte programming
25010,25020,25040
--- Page programming
25C080,25C160,25C320,25C640,25C128,25C256,25C512
AT25HP256,AT25HP512
AT25HP1024 (24bit address)
-- CAT64LCxxx (16bit DATA IN/OUT) use Socket 93Cxxx
CAT64LC010, CAT64LC020, CAT64LC040

7. Atmel EEPROM

AT28C256, AT28C010, AT28C040

8. Nonvolatile SRAM (DS12xx)

DS1220,DS1225Y, DS1230Y/AB, DS1245Y/AB, DS1249Y/AB

9. Static RAM (Test RAM)

6116, 6264, 62256, 62512, 628128

10. EPROM winbond,SST , Electrical Erase Chip

W27E512, W27E010, W27C010, W27C020, W27C040
SST27SF256, SST27SF512, SST27SF010, SST27SF020
MX26C4000
Vcc = 3.3-3.6V SST37VF512, SST37VF010, SST37VF020, SST37VF040

11. Flash Memory SST,Sanyo

SST28SF040A ,LE28F4001

ADAPTOARE UTILIZABILE CU AD-MEM 03 :

1.

Atmel AT89Cxx (COD ADAPTOR MCS-51)

Adapter 32pin to MCS-51

Atmel Auto Select
AT89C51,52,55, AT89LV51,52,55
AT89S8252 (8K+2K), AT89S53, AT89LS8252,AT89LS53
AT89C1051,AT89C2051,AT89C4051 (20pin)
AT89C51RC (32KB), AT89C55WD (6.2V)
SST89C54/58, SI89C52
Intel Auto Select

i87C51, i87C51FA, i87C51FB
i8xC51,i8xC52,i8xC54,i8xC58 (tWP = 100uS*25 Pulse

2.

Atmel AVR 8-bit RISC AT90Sxxx
(Parallel programming)
Adapter 32pin to MCS-51

read,write,erase,verify,checkempty,Lockbits ,Fusebits)
AT90S1200,AT90S2313
90S2333, 90S4433, 90S4414, 90S8515, 90S4434, 90S8535
reference AT90S2313 pin
Function Lockbit read AT90S2313 Errata Sheet.pdf

3.

MCS-48,MCS-41
Adapter 32pin to MCS-48/41

ROM (read/verify)
P8048AH, P8049AH,P8050AH, P8042AH Vea = 12V
P8041, P8042
OTP (read/verify/Program)
P8748,P8749H,P8742H Vea = 18V
EPROM (read/verify/Program)
D8748,D8749,D8742,D8741, D8742 Vea = 18V

4.

FLASH memory 8/16bit
(Software Data Protection)
Adaptor (TSOP48)

Am29F400,Am29F800,29F160,29F320 (read,write byte mode)
HY29F200, HY29F400, HY29F800 , AT49F2048A, AT49F4096A, AT49F8192A

5.

FLASH memory 8/16bit (Vpp12V)
(Software Data Protection)
Adapter (TSOP48)

i28F200,i28F400,i28F800,i28F160 (TSOP48)
28F001(DIP32 or PLCC32)

6.

EPROM 16bit (DIP40) (1-4Mbit)
Adapter Eprom 16bit
Eprom only

27C1024 (27C210), 27C2048 (27C2002), 27C4096 (27C4002),
by use Resister pull up Data Bus (0xFF), A0 select low or high byte)

7.

EPROM 16bit (DIP42) (4-32Mbit)

Adapter Eprom DIP42

Eprom only

M27C400(DIP40), 27C800, 27C160, 27C322

Schematic by Toomas Toots

(read,Program byte mode

by use Resister pull up Data Bus (0xFF), A0 select low or high byte)

8.

FLASH memory 8/16bit

(Software Data Protection)

Adapter (TSOP48LV)

29LV200, 29LV400,29LV800,29LV160,29LV320 (read,write byte mode)

9.

Firmware Hub / LPC FLASH

Adapter Firmware Hub/LPC (PLCC32) (PP mode) (3.3V)

-- Firmware Hub

82802AB, 82802AC, AT49LW040, AT49LW080

SST49LF002A, SST49LF003A, SST49LF004A, SST49LF008A

W49V002FA, W39V040FA

-- LPC flash

SST49LF020, SST49LF040

W49V002A, W39V040A

10.

P28F002BC

Adapter P28F002BC (DIP40)

BOOT BLOCK FLASH MEMORY

- P28F002BC

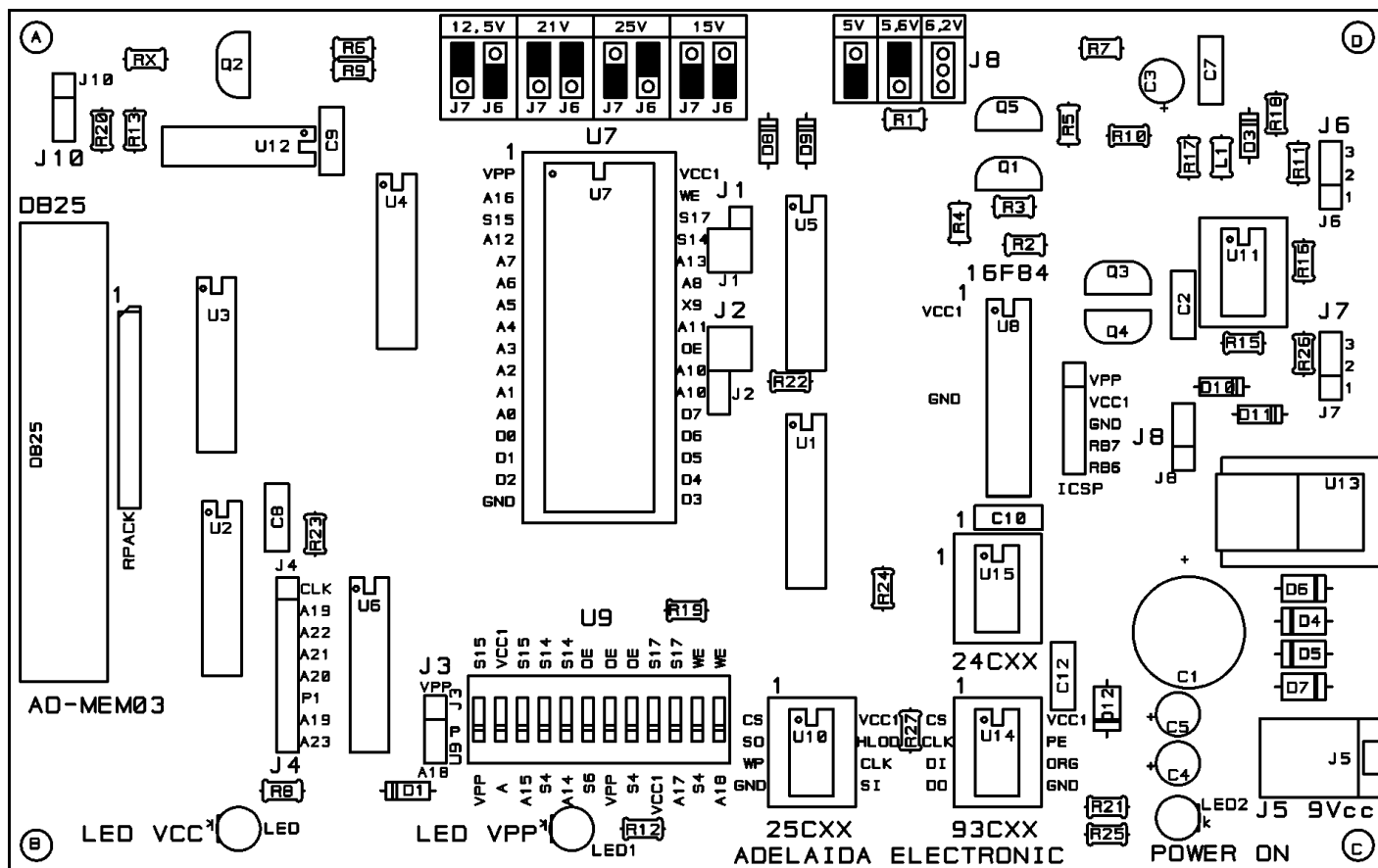
Programatorul este realizat pe cablaj dublu stratificat cu treceri metalizate de calitate ridicata , toate modulele fiind testate functional .

Programatorul fiind destul de complex si necesita cunostinte despre tipurile de memorii utilizate si tensiunile de alimentare necesare acestora .

Se recomanda studierea DATA SHEET –ului acestor memorii inainte de programare

Nu se vor scoate din soclu memoriile in timpul operatiei de citire sau inscriere

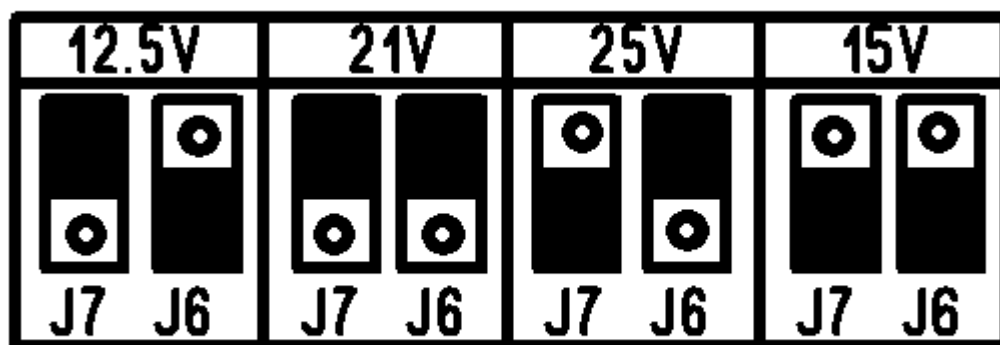
Fata plantata modul AD-MEM03



Semnalizari pe modul :

- LED VCC semnalizeaza prezenta tensiunii se alimentare pentru memorii
- LED VPP semnalizeaza prezenta tensiunii de Vpp
- LED POWER ON semnalizeaza prezenta tensiuni de alimantere in modul

J6,J7 se folosesc pentru fixarea tensiunilor Vpp conform desenului de pe modul permitind obtinerea tensiunilor : 12.5V, 21V, 25V, 15V



J2,J1 se folosesc pentru :

NORMAL	2732	2716	2816	i28F001	AT29C256	ERASE W27C/SST27XXX
J1 	J1 	J1 	J1 	J1 	J1 	J1
J2 	J2 	J2 	J2 	J2 	J2 	J2

J3,J4 se folosesc pentru :

NORMAL	29X040	27C080	AT29C256
J4 	J4 	J4 	J4
J3 	J3 	J3 	J3

J9 se foloseste pt setare conform indicatiilor din soft care apar pentru fiecare tip de memorie

ICSP conector - se poate folosi cu diferite adaptoare pentru circuitele din familia de controlere Microchip .

Alimentare modul

Pentru alimentare se poate folosi orice alimentator nestabilizat cu tensiune 9Vcc-12Vcc /0.5A

sau alimentare cu un tranfosrmator 12Vca / 0.5A

– pe modul se afla punte de redresare si filtraj .

Test Hardware

Dupa instalarea softului aferent ,acesta permite testarea modului programator .

Se vor folosi numai cabluri paralele 1 la 1 cu toate conexiunile (nu mai lungi de 1.5m)

Nu se for folosi cabluri de tip null modem !

Se vor folosi setarile din soft **PCB3**

Informatii despre Up grade soft si moduri de utilizare se gasesc la adresele :

www.geocities.com/mpu51/eprom/eprom.html

<http://www.willem.org>

Pe ultima adresa exista si un forum care poate fi recomandat pentru informatii diverse legate de tipuri de memorii care nu se regasesc initial in lista .