Adapter TSOP-48_D3
EzoFlash+ adapter for 16 bit and 8/16 bit flash memory in TSOP-48 and TSOP-56 packages.

1. Part list.

IC1, IC2 - 74HC245
IC3 - 74HC573
IC4 - 74HC14
D1, D2 - 1N1418 or KD522
R1 - 9k1 or 10k
R2 - 1k
R3, R4, R5, R6 - 2k2
R-PACK1, R-PACK2 - 6k8 x 9 or 6k8..10k x 8
C1 - 220n
BU5 - Straight pin-header 2x16, division 2.54
BU7 - Straight pin-header 1x5, division 2.54
Jp A...F - Straight pin-header 1x8, division 2.54 / Jumper (3pcs)
Jp H - Straight pin-header 1x2, division 2.54 / Jumper (1pc)

Optional:
IC Socket DIL-14
IC Socket DIL-20 (3pcs)
Surface Mount 0.5mm TSOP-48 Socket Meritec 980020-48-01
Surface Mount 0.5mm TSOP-56 Socket Meritec 980020-56-01

Solder chip on adapter contactpads or apply socket.
Note. Extra contactpads are used according tsop56 layout - pin1, pin2, pin29.
Check and don't apply extra contactpads for tsop48 chips or TSOP-48 Meritec socket !
Don’t apply TSOP-56 Meritec socket for tsop48 chips, unable center chip in socket !

2. Description and info.

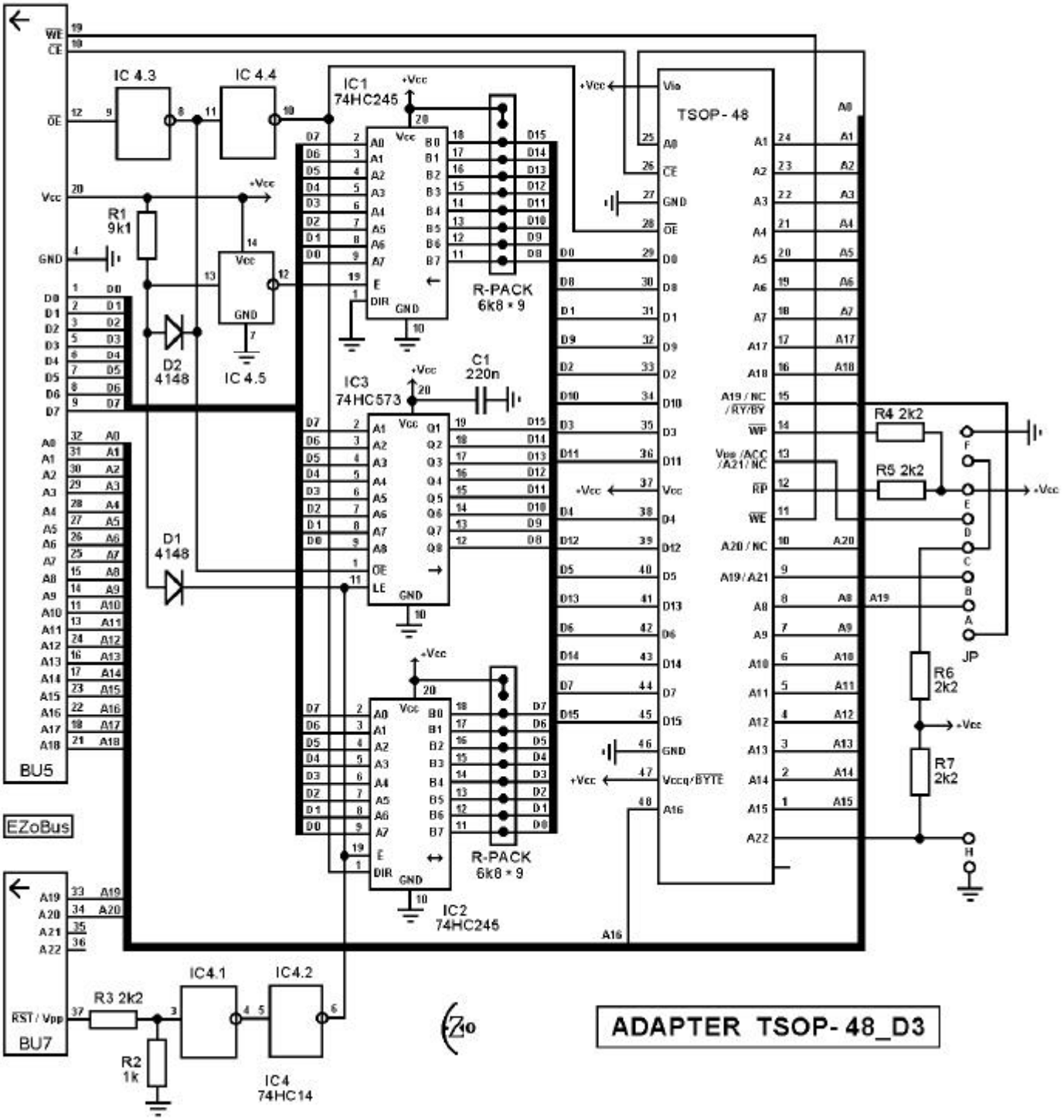
Adapter tsop48d3 replaces adapter tsop48d2.
Added tsop56 support and jumpers for partial read and write of high density (64 and 128Mb) memory in 32Mb blocks.

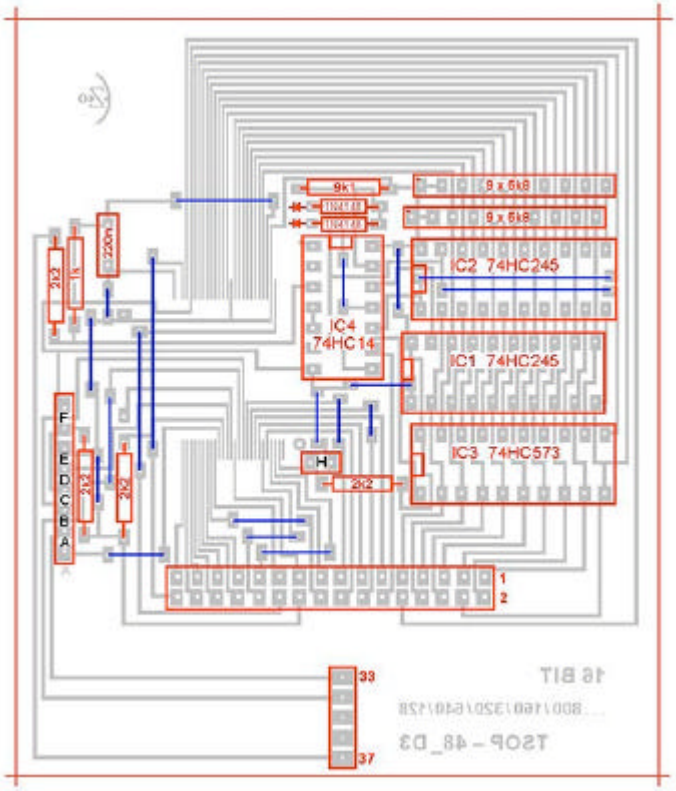
Adapter and SW provide high/low byte load , word programming and low/high byte read.
In programming (OE#=log1) Vpp pulse load (Vpp=high) and latch (Vpp=low) high byte on 74HC573.
While read (OE#=log0) Vpp switch high (Vpp=high) and low (Vpp=low) byte.

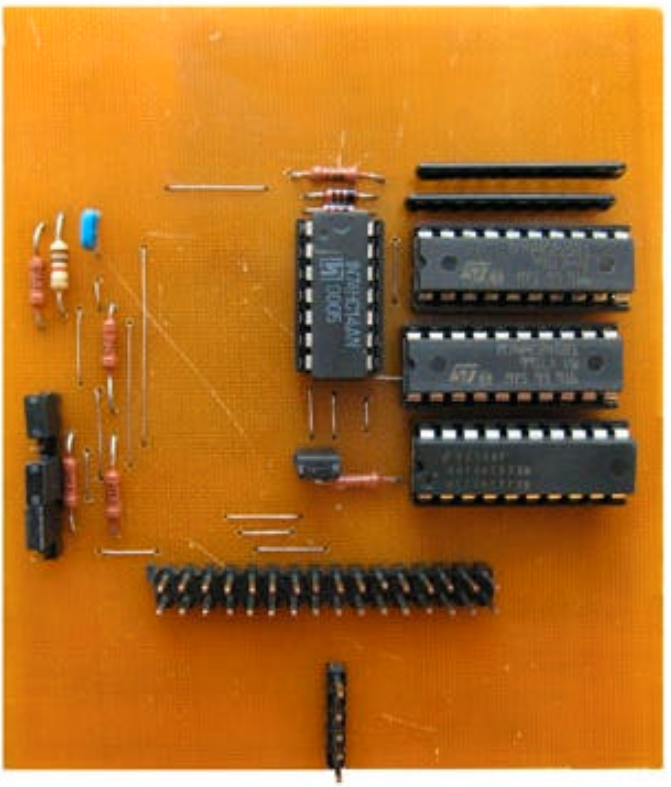
8/16 bit flash memory operates in 16bit mode, BYTE=log1.

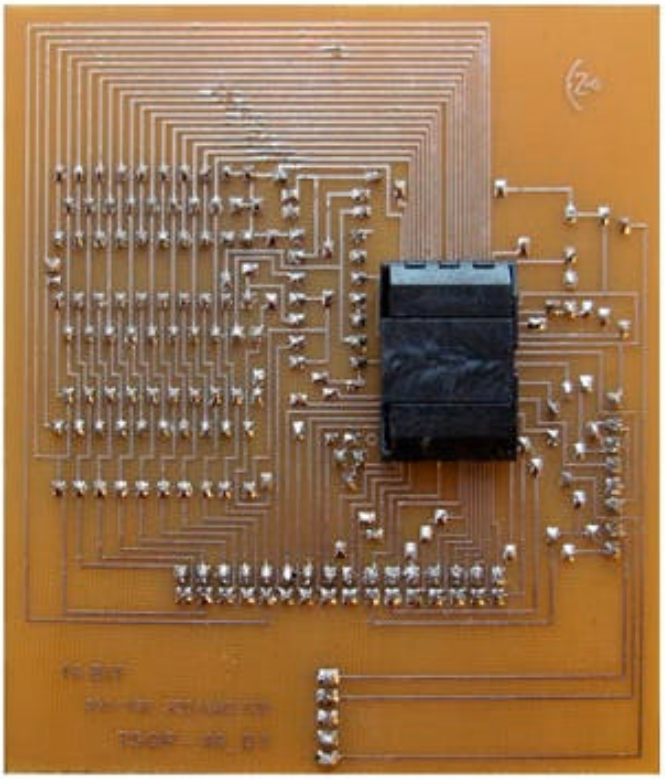
Adapter and SW don’t support temporary sector unprotect mode (+12V on RST) for 29LV/29Fxxx chips.

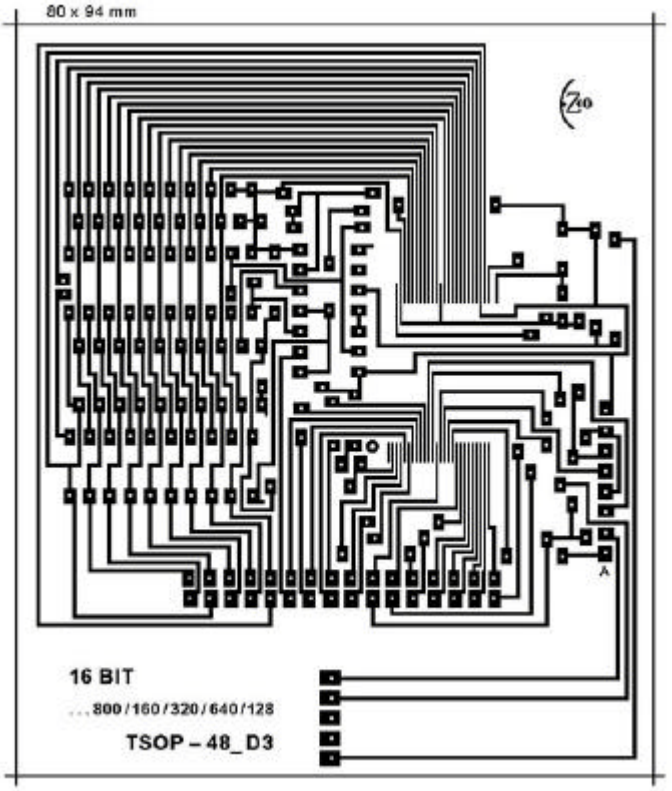
3. Schematic, PCB and pictures




9k1
9 x 6k8
9 x 6k8
220R
1k
2k2
IC4
74HC14
IC2 74HC245
IC1 74HC245
IC3 74HC573
H
2k2
F
E
D
C
B
A
2k2
2k2
1
2
33
37
16 BIT
TSOP – 48_D3






80 x 94 mm
16 BIT
...800/160/320/640/128
TSOP – 48_D3

4. Supported chip list

Willem programmer software version 0.97ja.
Verified chips on adapters tsop48d2 / tsop48d3 are underlined. Details find in chip_test file.
Software may not support some chips, report problem in EZoFlash forum.

Selected device group (uniform)
Request Adapter 3.3V, Flash 16bit (LV) > SST39LF/VFx00 >…
Request Adapter 3.3V, Flash 16bit (LV) > 29LVx00 >…;
- Vcc=3.3V. Jumpers Jp2 (+3.6V), Jp5 (A18), JpB (pin9-A19)
SST SST39LF200A, SST39VF200, SST39VF200A, SST39LF400A, SST39VF400, SST39VF400A, SST39LF800, SST39LF800A, SST39VF800, SST39VF800A, SST39LF160, SST39VF160, SST36VF1601, SST36VF1601C, SST36VF1601E, SST36VF1601G, SST36VF1602C, SST36VF1602E, SST36VF1602G, SST39VF1601, SST39VF1601C, SST39VF1602, SST39VF1602C, SST36VF3203, SST36VF3204, SST39VF320, SST39VF201, SST39VF3201B, SST39VF3202, SST39VF3202B

Selected device group (16bit, Vpp, boot block)
Request Adapter 3.3V, Flash 16bit (LV) > Intel 28Fx00 > …
- Vcc=3.3V, Vpp=3.3V. Jumpers Jp2 (+3.6V), Jp5 (A18), JpAA (pin9-A21, pin15-A19)
Intel (TE,E) 28F800B3T, 28F800B3B, 28F800C3T, 28F800C3B, 28F160B3T, 28F160B3B, 28F160C3T, 28F160C3B, 28F320B3T, 28F320B3B, 28F320C3T, 28F320C3B, 28F640B3T, 28F640B3B, 28F640C3T, 28F640C3B **Macronix** MX28F160C3T, MX28F160C3B, MX28F160C3BT, MX28F160C3BB
Sharp LH28F400BG(H)E-TL, LH28F400BG(H)E-BL, LH28F800BG(H)E-TL, LH28F800BG(H)E-BL, LH28F160BG(H)E-TTL, LH28F160BG(H)E-BTL, LH28F160BJHE-TTL, LH28F160BJHE-BTL, LH28F320BF(H)E-PTTL, LH28F320BF(H)E-PBTL, LHF00L12, LHF00L13, LHF00L14, LHF00L15, LHF00L28, LHF00L29, LHF00L30, LHF00L31 **ST Micro / Numonix** M28W800T, M28W800B, M28W800BT, M28W800BB, M28W800CT, M28W800CB, M28W160T, M28W160B, M28W160BT, M28W160BB, M28W160CT, M28W160CB, M28W160ECT, M28W160ECB, M28W320BT, M28W320BB, M28W320CT, M28W320CB, M28W320EBT, M28W160EBB, M28W320ECT, M28W320ECB, M28W320FCT, M28W320FCB **Winbond** W28J161T, W28J161B

Selected device group (16bit, boot block)
Request Adapter 3.3V, Flash 16bit (LV) > 29LVx00 >…;
Request Adapter 3.3V, Flash 16bit (LV) > 29Fx00 >…;
- Vcc=5V. Jumpers Jp1, Jp3 (+5V), Jp5 (A18), JpB (pin9-A19)
Atmel AT49F2048, AT49F4096, AT49F8192, AT49F8192T, AT49F1604, AT49F1604T
Winbond W49F201
- Vcc=2.7-3.6V. Jumpers Jp2 (+3.6V), Jp5 (A18), JpB (pin9-A19)
Actrans AC39LV800 **Atmel** AT49LV2048, AT49LV2048B, AT49BV2048, AT49BV2048B, AT49LV4096, AT49BV4096, AT49LV8192, AT49LV8192T, AT49BV8192, AT49BV8192T, AT49LV160, AT49BV160, AT49BV160T, AT49BV160C, AT49BV160CT, AT49BV160D, AT49BV160DT, AT49BV1604A, AT49BV1604AT, AT49LV320, AT49BV320, AT49BV320T, AT49BV320A, AT49BV320AT, AT49BV320C, AT49BV320CT, AT49BV320D, AT49BV320DT
Hynix HY29LV320T, HY29LV320B **Winbond** W49L201, W49L401, W49L401T

Selected device group (8/16bit, boot block)
Request Adapter 3.3V, Flash 16bit (LV) > 29LVx00 >…;
Request Adapter 3.3V, Flash 16bit (LV) > 29Fx00 >…
- Vcc=5V. Jumpers Jp1, Jp3 (+5V), Jp5 (A18), JpB (pin9-A19)
Alliance AS29F200T, AS29F200B **AMD** AM29F100T, AM29F100B, AM29F200T, AM29F200B, AM29F200AT, AM29F200AB, AM29F200BT, AM29F200BB, AM29F400T, AM29F400B, AM29F400AT, AM29F400AB, AM29F400BT, AM29F400BB, AM29F800T, AM29F800B, AM29F800BT, AM29F800BB, AM29F160DT, AM29F160DB, **Amic** A29400TV, A29400UV, A29800TV, A29800UV, **Atmel** AT49F2048A, AT49F4096A, AT49F8192, AT49F8192T, AT49F8192A, AT49F8192AT, AT49F8011, AT49F8011T, AT49F1614, AT49F1614T **Bright** BM29F400T, BM29F400B **EON** EN29F800T, EN29F800B **Fujitsu** (MBM) 29F200T, 29F200B, 29F200TC,

29F200BC, 29F400T, 29F400B, 29F400TA, 29F400BA, 29F400TC, 29F400BC, 29F800T, 29F800B, 29F800TA, 29F800BA, 29F160TE, 29F160BE **Hynix** HY29F400T, HY29F400B, HY29F400AT, HY29F400AB, HY29F800T, HY29F800B, HY29F800AT, HY29F800AB **Macronix** MX29F100T, MX29F100B, MX29F200T, MX29F200B, MX29F400T, MX29F400B, MX29F400CT, MX29F400CB, MX29F800T, MX29F800B, MX29F800CT, MX29F800CB **Mitsubishi** M5M29FT800, M5M29FB800, M5M29FT160A, M5M29FB160A **Mosel Vitelic** V29C51400T, V29C51400B **ST Micro / Numonix** M29F100T, M29F100B, M29F100BT, M29F100BB, M29F200T, M29F200B, M29F200BT, M29F200BB, M29F200FT, M29F200FB, M29F400T, M29F400B, M29F400BT, M29F400BB, M29F400FT, M29F400FB, M29F800AT, M29F800AB, M29F800DT, M29F800DB, M29F800FT, M29F800FB, M29F160BT, M29F160BB, M29F160FT, M29F160FB **Texas Instr.** TMS29F400T, TMS29F400B **Toshiba** TC58F400, TC58F401

- Vcc=2.7-3.6V. Jumpers Jp2 (+3.6V), Jp5 (A18), JpB (pin9-A19)

ACTrans AC29LV160T, AC29LV160B, AC29LV320T, AC29LV320B **Alliance** AS29LV400T, AS29LV400B, AS29LV800T, AS29LV800B, AS29LV160T, AS29LV160B, **AMD** AM29LV200T, AM29LV200B, AM29LV200BT, AM29LV200BB, AM29LV400T, AM29LV400B, AM29LV400BT, AM29LV400BB, AM29LV800T, AM29LV800B, AM29LV800BT, AM29LV800BB, AM29LV800DT, AM29LV800DB, AM29LV160T, AM29LV160B, AM29LV160BT, AM29LV160BB, AM29LV160DT, AM29LV160DB, AM29LV160MT, AM29LV160MB, AM29LV320DT, AM29LV320DB, AM29LV320MT, AM29LV320MB **Amic** A29L400TV, A29L400UV, A29L800TV, A29L800UV, A29L160TV, A29L160UV,A29L320T, A29L320U, A29L320AT, A29L320AU **Atmel** AT49LV2048A, AT49BV2048A, AT49LV4096A, AT49BV4096A, AT49LV8192A, AT49LV8192AT, AT49BV8192A, AT49BV8192AT, AT49LV8011, AT49LV8011T, AT49BV8011, AT49BV8011T, AT49LV161, AT49LV161T, AT49LVBV161, AT49BV161T, AT49LV1614, AT49LV1614T, AT49BV1614, AT49BV1614T, AT49LV1614A, AT49LV1614AT, AT49BV1614A, AT49BV1614AT, AT49BV162A, AT49BV162AT, AT49BV163A, AT49BV163AT, AT49BV163D, AT49BV163DT, AT49LV321, AT49LV321T, AT49BV321, AT49BV321T, AT49LV3218, AT49LV3218T AT49BV3218, AT49BV3218T, AT49BV322A, AT49BV322AT, AT49BV322D, AT49BV322DT **EliteMT** F49L400UA, F49L400BA **EON** EN29LV400T, EN29LV400B, EN29LV400AT, EN29LV400AB, EN29LV800T, EN29LV800B, EN29LV800AT, EN29LV800AB, EN29LV800BT, EN29LV800BB, EN29LV800CT, EN29LV800CB, EN29LV160T, EN29LV160B, EN29LV160AT, EN29LV160AB, EN29LV160BT, EN29LV160BB, EN29LV320T, EN29LV320B, EN29LV320AT, EN29LV320AB, EN29LV320BT, EN29LV320BB **ESI** ES29LV400DT, ES29LV400DB, ES29LV400ET, ES29LV400EB, ES29LV800DT, ES29LV800DB, ES29LV160DT, ES29LV160DB, ES29LV160ET, ES29LV160EB, ES29LV320DT, ES29LV320DB **Fujitsu** (MBM) 29LV200T, 29LV200B, 29LV200TA, 29LV200BA, 29LV200TC, 29LV200BC, 29LV400T, 29LV400B, 29LV400TA, 29LV400BA, 29LV400TC, 29LV400BC, 29LV800T, 29LV800B, 29LV800TA, 29LV800BA, 29LV800TB, 29LV800BB, 29LV160T, 29LV160B, 29LV160TE, 29LV160BE, 29LV320TE, 29LV320BE, 29PL32TM, 29PL32BM **Hynix** HY29LV400T, HY29LV400B, HY29LV400AT, HY29LV400AB, HY29LV800T, HY29LV800B, HY29LV800AT, HY29LV800AB, HY29LV160T, HY29LV160B, HY29LV160BT, HY29LV160BB **LinkSmart** L29S400, L29S400B, L29S800, L29S800B, L29S160, L29S160B **Macronix** MX29LV400T, MX29LV400B, MX29LV400CT, MX29LV400CB, MX29LV401T, MX29LV401B, MX29LV800T, MX29LV800B, MX29LV800AT, MX29LV800AB, MX29LV800BT, MX29LV800BB, MX29LV800CT, MX29LV800CB, MX29LV160T, MX29LV160B, MX29LV160AT, MX29LV160AB, MX29LV160BT, MX29LV160BB, MX29LV160CT, MX29LV160CB, MX29LV160DT, MX29LV160DB, MX29LV161T, MX29LV161B, MX29LV320T, MX29LV320B, MX29LV320AT, MX29LV320AB, MX29LV320CT, MX29LV320CB, MX29LV320DT, MX29LV320DB, MX29LV320MT, MX29LV320MB, MX29L8100T, MX29L8100B, MX29L1610T, MX29L1610B, MX26LV400T, MX26LV400B, MX26LV800T, MX26LV800B, MX26LV800AT, MX26LV800AB, MX26LV1600T, MX26LV160B, MX26LV160AT, MX26LV160AB **Mitsubishi** M5M29GT160B, M5M29GB160B **Renesas** M5M29KT331A, M5M29KB331A **Sanyo** LE28FV4101T, LE28FW4101T, LE28FU4101T **Spansion** S29AL004D..-01, S29AL004D..-02, S29AL008D..-01, S29AL008D..-02, S29AL016D..-01, S29AL016D..-02, S29AL016M..-01, S29AL016M..-02, S29AL016M..-R1, S29AL016M..-R2, S29GL016A..-R1, S29GL016A..-R2, S29AL032D..-03, S29AL032..-04, S29GL032A..-R3, S29GL032A..-R4, S29GL032M..-R3, S29GL032M..-R4 **ST_Micro / Numonix** M29W200BT, M29W200BB, M29W400T, M29W400B, M29W400BT, M29W400BB, M29W400DT, M29W400DB, M29W400FT, M29W400FB, M29W800T, M29W800B, M29W800AT, M29W800AB, M29W800DT, M29W800DB, M29W800FT, M29W800FB, M29W160BT, M29W160BB, M29W160DT, M29W160DB, M29W160ET, M29W160EB, M29W160FT, M29W160FB, M29W320DT, M29W320DB, M29W320ET, M29W320EB, M29W320FT, M29W320FB **Texas Instr.** TMS29LF800T,

TMS29LF800B **Toshiba** TC58FVT400, TC58FVB400, TC58FVT800, TC58FVB800, TC58FVT160, TC58FVB160, TC58FVT160A, TC58FVB160A **Utron** UT29L800AT, U29L800AB, UT29L1600AT, UT29L1600AB, UT29L3200AT, UT29L3200AB **Winbond** W19B320AT, W19B320AB, W19B320ST, W19B320SB, W19L320ST, W19L320SB

Selected device group – 8/16bit, dual bank, boot block
Request Adapter 3.3V, Flash 16bit (LV) > 29LVx00 >…;
Request Adapter 3.3V, Flash 16bit (LV) > 29Fx00 >…
- Vcc=2.7-3.6V. Jumpers Jp2 (+3.6V), Jp5 (A18), JpB (pin9-A19)
AMD AM29DL400BT, AM29DL400BB, AM29DL800BT, AM29DL800BB, AM29DL161DT, AM29DL161DB, AM29DL162DT, AM29DL162DB, AM29DL163DT, AM29DL163DB, AM29DL164DT, AM29DL164DB, AM29DL320GT, AM29DL320GB, AM29DL322DT, AM29DL322DB, AM29DL322GT, AM29DL322GB, AM29DL323CT, AM29DL323CB, AM29DL323DT, AM29DL323DB, AM29DL323GT, AM29DL323GB, AM29DL324DT, AM29DL324DB, AM29DL324GT, AM29DL324GB, **Amic** A29DL323TV, A29DL323UV, A29DL324TV, A29DL324UV **Fujitsu** (MBM) 29DL400TC, 29DL400BC, 29DL800TA, 29DL800TB, 29DL161TD, 29DL161BD, 29DL161TE, 29DL161BE, 29DL162TD, 29DL162BD, 29DL162TE, 29DL162BE, 29DL163TD, 29DL163BD, 29DL163TE, 29DL163BE, 29DL164TD, 29DL164BD, 29DL164TE, 29DL164BE, 29DL321TD, 29DL321BD, 29DL322TD, 29DL322BD, 29DL322TE, 29DL322BE, 29DL323TD, 29DL323BD, 29DL323TE, 29DL323BE, 29DL324TD, 29DL324BD, 29DL324TE, 29DL324BE, **Hynix** HY29DL162T, HY29DL162B, HY29DL163T, HY29DL163B **NEC** uPD29F032202AL-T, uPD29F032202AL-B, uPD29F032203AL-T, uPD29F032203AL-B, uPD29F032204AL-T, uPD29F032204AL-B **Samsung** K8D1716UBC, K8D1716UTC, K8D3216UBC, K8D3216UTC **Sanyo** LE28DW8163, LE28DW1621T, LE28DW3212T **ST_Micro / Numonix** M29DW323DT, M29DW323DB, M29DW324DT, M29DW324DB, **Toshiba** TC58FVT321, TC58FVB321, TC58FVM5T2A, TC58FVM5B2A, TC58FVM5T3A, TC58FVM5B3A **Winbond** W19B322MT, W19B322MB, W19B323MT, W19B323MB, W19B324MT, W19B324MB

Selected group – 8/16bit, Vpp, boot block
Request Adapter 3.3V, Flash 16bit (LV) > Intel 28Fx00 > …
- Vcc=5V, Vpp=5.0V. Jumpers Jp1, Jp3 (+5V), Jp5 (A18), JpAA (pin9-A21, pin15-A19)
Intel (TE,E) 28F200CVT, 28F200CVB, 28F200B5T, 28F200B5B, 28F400CVT, 28F400CVB, 28F400CET, 28F400CEB, 28F400B5T, 28F400B5B, 28F800CVT, 28F800CVB, 28F800CET, 28F800CEB, 28F800B5T, 28F800B5B **ISSI** IS28F200BVT, IS28F200BLVT, IS28F200BVB, IS28F200BLVB, IS28F400BVT, IS28F400BLVT, IS28F400BVB, IS28F400BLVB
Micron MT28F200B1WG-T, MT28F200B1WG-B, MT28F200B5-T, MT28F200B5-B, MT28F400B1WG-T, MT28F400B1WG-B, MT28F400B5-T, MT28F400B5-B, MT28F800B1WG-T, MT28F800B1WG-B, MT28F800B5-T, MT28F800B5-B **Sharp** LH28F400BV(H)E-TL, LH28F400BV(H)E-BL, LH28F800BV(H)E-TV, LH28F800BV(H)E-BV **Texas Instr.** TMS28F200A-T, TMS28F200A-B, TMS28F400A-T, TMS28F400A-B, TMS28F800A-T, TMS28F800A-B, TMS28F1600T, TMS28F1600B **Winbond** W28V400T, W28V400B
- Vcc=3.3V, Vpp=3.3V. Jumpers Jp2 (+3.6V), Jp5 (A18) , JpAA (pin9-A21, pin15-A19)
Intel (TE,E) 28F400B3T, 28F400B3B **Micron** MT28F200B3WG-T, MT28F200B3WG-B, MT28F400B3WG-T, MT28F400B3WG-B, MT28F800B3WG-T, MT28F800B3WG-B
Sharp LH28F800BJ(H)E-PTTL, LH28F800BJ(H)E-PBTL, LH28F800BV(H)E-TTL, LH28F800BV(H)E-BTL, LH28F160BJ(H)E-T, LH28F160BJ(H)E-B, LH28F160BV(H)E-TTL, LH28F160BV(H)E-BTL, LH28F320BJ(H)E-PT, LH28F320BJ(H)E-PB **Winbond** W28J800T, W28J800B, W28J160T, W28J160B, W28J320T, W28J320B

TSOP-48_D3 specific support

Selected device group (16bit, Vpp, boot block)
Request Adapter 3.3V, Flash 16bit (LV) > Intel 28Fx00 > 28F320C3T or 28F320C3B
- Vcc=3.3V, Vpp=3.3V. Jumpers Jp2 (+3.6V), Jp5 (A18), JpA (pin15-A19), JpC (pin9-A21), JpE (pin13-Vpp=Vcc)
JpF on (A21-log0). Get ID, Read , Erase and Write first 32Mb block
JpF off (A21-log1). Read , Erase and Write second 32Mb block
Intel TE28F640C3T, TE28F640C3B **Macronix** MX28F640C3T, MX28F640C3B, MX28F640C3BT, MX28F640C3BB **Numonix** M28W640FCT, M28W640FCB, M28W640HCT, M28W640HCB **Sharp** LH28F640BF(H)E-PTTL, LH28F640BF(H)E-PBTL **ST Micro** M28W640CT, M28W640CB, M28W640ECT, M28W640ECB, M28W640FCT, M28W640FCB

Selected device group (8/16bit, 16bit, boot block)
Request Adapter 3.3V, Flash 16bit (LV) > 29Fx00 >29F320
- Vcc=3.3V. Jumpers Jp2 (+3.6V), Jp5 (A18), JpB (pin9-A19, tsop56/pin11-A19), JpD (pin13-A21, tsop56/pin15 -A21)
- 32Mb chips, TSOP-56
AMD AM29LV320MH, AM29LV320ML **Macronix** MX29LV320MH, MX29LV320ML, MX29GL320EH, MX29GL320EL **Spansion** S29GL032A..-R1, S29GL032A..-R2, S29GL032M..-R1, S29GL032M..-R2, S29GL032N..-01, S29GL032N..-02, S29GL032N..-V1, S29GL032N..-V2
- 64Mb chips, TSOP-48 , TSOP-56.
JpF on (A21-log0).
Get ID, Read and Write first 32Mb block. Erase and Get ID (extended) - apply utility erase2
JpF off (A21-log1). Read and Write second 32Mb block
AMD AM29LV640MT, AM29LV640MB, AM29LV640MH (TSOP-56), AM29LV640ML (TSOP-56), AM29DL640D, AM29DL640G, AM29DL640H **Amic** A29L640T, A29L640B **EON** EN29LV640T, EN29LV640B, EN29PL064, EN29GL064T, EN29GL064T (TSOP-56), EN29GL064B, EN29GL064B (TSOP-56), EN29GL064H, EN29GL064H (TSOP-56), EN29GL064L, EN29GL064L (TSOP-56) **Fujitsu** MBM29DL640E, MBM29DL64DF, MBM29PL64LM, MBM29PL64LM (TSOP-56) **Macronix** MX29LV640T, MX29LV640B, MX29LV640BT, MX29LV640BB, MX29LV640DT, MX29LV640DB, MX29LV640ET, MX29LV640EB, MX29LV640MT, MX29LV640MB, MX29LV640MH (TSOP-56), MX29LV640ML (TSOP-56), MX29GL640ET, MX29GL640EB, MX29GL640EH (TSOP-56), MX29GL640EL (TSOP-56) **Macronix KH** KH29LV640DT, KH29LV640DB **Numonix** M29W640FT, M29W640FB, M29W640GT, M29W640GT (TSOP-56), M29W640GB, M29W640GB (TSOP-56), M29W640GH, M29GW640GH (TSOP-56), M29W640GL, M29W640GL (TSOP-56), M29DW640F, M29DW641F, M29W064FT, M29W064FB **Renesas** M5M29KT641A, M5M29KB641A **Samsung** K8D6316UTM, K8D6316UBM, K8P6415UQB **Spansion** S29GL064A..-R1 (TSOP-56), S29GL064A..-R2 (TSOP-56), S29GL064A..-R3, S29GL064A..-R4, S29GL064A..-R8, S29GL064A..-R9, S29GL064M..-R1 (TSOP-56), S29GL064M..-R2 (TSOP-56), S29GL064M..-R3, S29GL064M..-R4, S29GL064N..-01 (TSOP-56), S29GL064N..-V1 (TSOP-56), S29GL064N..-02 (TSOP-56), S29GL064N..-V2 (TSOP-56), S29GL064N..-03, S29GL064N..-04, S29JL064H **SST** SST38VF6401, SST38VF6402, SST38VF6403, SST38VF6404, SST39VF6401, SST39VF6401B, SST39VF6402, SST39VF6402B **ST Micro** M29W640DT, M29W640DB, M29W640FT, M29W640FB, M29W640GT, M29W640GT (TSOP-56), M29W640GB, M29W640GB (TSOP-56), M29W640GH, M29GW640GH (TSOP-56), M29W640GL, M29W640GL (TSOP-56), M29DW640D, M29DW640F, M29DW641F **Toshiba** TC58FVT641, TC58FVB641, TC58FVM6T2A, TC58FVM6B2A, TC58FVM6T5B, TC58FVM6B5B
- 128Mb chips, TSOP-56
JpF on (A21-log0) , JpH on (A22-log0).
Get ID, Read and Write first 32Mb block. Erase and Get ID (extended) - apply utility erase2
JpF off (A21-log1), JpH on (A22-log0). Read and Write second 32Mb block.
JpF on (A21-log0), JpH off (A22-log1). Read and Write third 32Mb block.
JpF off (A21-log1), JpH off (A22-log1). Read and Write fourth 32Mb block.
AMD AM29LV128MH , AM29LV128ML **EON** EN29GL128H, EN29GL128L **Fujitsu** MBM29PL128LM, MBM29PL12M **Macronix** MX29LA128MT, MX29LA128MB, MX29LV128DT, MX29LV128DB, MX29LV128MT, MX29LV128MB, MX29LV128MH, MX29LV128ML, MX29GL128EH, MX29GL128EL, MX29GL128EU, MX29GL128ED **Numonix** M29W128FH,

M29W128FL, M29W128GH, M29W128GL, M29DW127G, M29DW128F, M29DW128G **Samsung** K8Q2815UQB **Spansion** S29GL128M, S29GL128N **ST Micro** M29W128FH, M29W128FL, M29W128GH, M29W128GL, M29DW128F **Toshiba** TC58FVM7T2A, TC58FVM7B2A, TC58FVM7T5B, TC58FVM7B5B

Selected device group (16bit, boot block)
Request Adapter 3.3V, Flash 16bit (LV) > 29Fx00 >29F320
- Vcc=3.3V. Jumpers Jp2 (+3.6V), Jp5 (A18), JpA (pin15-A19), JpC (pin9-A21), JpE (pin13-ACC/Vpp=Vcc)
- 64Mb chips, TSOP-48
JpF on (A21-log0).
Get ID, Read and Write first 32Mb block. Erase and Get ID (extended) - apply utility erase2
JpF off (A21-log1). Read and Write second 32Mb block
AMD AM29LV641DH, AM29LV641DL, AM29LV641GH, AM29LV641GL, AM29LV641MH, AM29LV641ML **Atmel** AT49BV640, AT49BV640T, AT49BV6416, AT49BV6416T, AT49BV642D, AT49BV642DT **EON** EN29LV641H, EN29LV641L **Fujitsu** MBM29LV650UE, MBM29LV651UE, MBM29PL65LM **Macronix** MX29LV640U, MX29LV640BU, MX29LV641MH, MX29LV641ML, MX26L6419, MX26L6420 **Spansion** S29GL064A..-R6, S29GL064A..-R7, S29GL064M..-R6, S29GL064M..-R7, S29GL064N..-06, S29GL064N..-07, S29GL064N..-V6, S29GL064N..-V7 **ST Micro** M29W641DH, M29W641DL

5. Utility erase2

64-128Mb memory chip erase takes longer time than assigned for selected 29F320.
Willem SW can return chip erase timeout error.
Utility erase2 automatically activate AMD/Fujitsu flash memory Chip erase command with 300 sec timeout. Additionally utility return chip first word content before and after erase, extended chip ID.