



## MASTER TIMINGS --DCLK1.75 +5٧ +5٧ +5٧ ↑ U1 +5V ↑ U11 U12 74LS174N R29 74LS169BN 4.7K TBP18s030 Y1 14 Mhz C51 CLK<sub>14</sub> CLK<sub>1.75</sub> 22pF QA 6 3D 11 4D 3 1D 01 2Q -DCLKRASCAS Q2 3Q -DCLKRAS Q3 4 Q4 6 Q5 7 Q6 9 Q7 9 4Q DCLKcas U3B 74F04 U3A U3C 14 6D 13 5D 1Q 6Q -DCLKEF936x 74F04 74F04 -DCLKclr QD 11× 5Q -DCLK\_WRITE R2 R3 $\rightarrow$ GND GND 470 470 GND GND GND DCLK14 Author: InsaneDruid License: CC BY-SA 4.0 creativecommons.org/licenses/by-sa/4.0/ reverse-engineered in 2022 Sheet: MASTER TIMINGS File: master\_timings.kicad\_sch Title: LOW SPEED GRAPHIK Size: A4 Date: 2022-03-13 Rev: V001 KiCad E.D.A. kicad 7.0.9 ld: 3/10

## GPD & ROM +5٧ U18 DPFT[0..7] - D DPET[0..4] **≈** 74LS374 D[0..7]D 00 2 DPEIO 01 5 DPETI 02 6 DPET2 03 9 DPET3 04 12 DPET4 05 15 DPET5 06 16 DPET6 07 DPET7 U6D 74LS32 $BR/\overline{W}$ MOD REG. 12 74LS32 HCOPY 1 OE CLK1.75D +5V U9 EF936x GND FMAT —DDIN —DDW -{MFREE MSL0 MSL1 MSL2 DPETO 33 DPET1 32 DPET2 31 DPET3 30 DPET4 29 DPET5 28 DPET6 27 DPET7 26 DPET7 26 D7 MSL1 MSL3 MSL3 -DMSL[0..3] ADISPLAY DADO DAD1 39 ADISPLAY1 DAD2 38 ADISPLAY2 DAD5 2 ADISPLAY5 +5V ADISPLAY DAD4 3 DAD3 4 ADISPLAY3 DAD6 5 ADISPLAY6 CLKEF936xD 1 CK LPCK 00 15 MOD REG. 01 14 13 HCOPY 02 03 12 04 110 × 05 10 × 06 7 E 74LS138 LPCKD--DADISPLAY[0..6] ~{ALL 22 DALL APET4 APET5 APET6 9 DPET 7 8 DPET 6 7 DPET 6 6 DPET 4 5 DPET 3 4 DPET 2 2 DPET 1 1 DPET 0 SYNC -DSYNC APETO 9 APET1 10 APET2 11 APET3 12 A3 R31 12K DLIGHTPEN\_ENABLE BLK -DBLK PHI2 6 E3 E2 XFXX 4 E1 VB 16 IRQ 13 WHITE ~{WHITE DWHITE APET[0..11] GND GND 25 24 23 32 22 BR/W 21 PHI2 20 19 18 17 16 16 15 14 12 APET10 APET8 APET6 APET6 APET6 APET6 APET6 APET6 APET6 APET6 APET6 APET7 APET0 APET JQ3 GND GND +50 +5V U40A 74LS20 U29 2332A APET11 3 1 74LS20 APETO APET10 APET11 CSAPET +5٧ XFXX 9 AOXX.AEXX PHI2 12 PHI2 13 R26 4.7K APET1 APET2 APET3 APET4 6 A2 5 A3 4 A4 3 A5 1 A7 23 A8 22 A9 19 A10 18 A11 DO 9 DPETO D1 10 DPET1 D2 11 DPET2 D3 13 DPET3 D4 14 DPET4 D5 16 DPET6 D7 17 DPET7 APET5 APET6 APET7 U14F 74LS05 Арет8 Арет9 CSAPET 12 ENA BUF 2 J10 +5V JP3 1 10K APET10 U5D 74LS08 APET11 3 JP2 GND $\uparrow$ APET[0..11] GND Author: InsaneDruid License: CC BY-SA 4.0 creativecommons.org/licenses/by-sa/4.0/ reverse-engineered in 2022 Sheet: GPD & ROM File: gdp\_rom.kicad\_sch Title: LOW SPEED GRAPHIK Size: A3 Date: 2022-03-13 KiCad E.D.A. kicad 7.0.9 Rev: V001











