LED_MATRIX_DRIVERS

CER_RESO X1
XTAL0_DRV0 — XTAL1_DRV0

CER_RESO X2
XTAL0_DRV1 — XTAL1_DRV1

CER_RESO X3
XTAL0_DRV2 — XTAL1_DRV2

CER_RESO X4
XTAL0_DRV3 — XTAL1_DRV3

IC1 ATMEGA328P-M
- 4 VCC
- 6 VCC
- 18 AVCC
- 20 AREF
- 19 ADC6
- 22 ADC7
- 33 GND(PAD)
- 21 GND
- 5 GND
- 3 GND
- 12 (PCINT0/CLK0/ICP1)PB0 ROW6_DRV0
- 13 (PCINT1/OC1A)PB1 ROW7_DRV0
- 14 (PCINT2/OC1B/SS)PB2 CS0
- 15 (PCINT3/OC2A/MOSI)PB3 MOSI
- 16 (PCINT4/MISO)PB4 MISO
- 17 (PCINT5/SCK)PB5 SCK
- 7 (PCINT6/XTAL1/TOSC1)PB6 XTAL0_DRV0
- 8 (PCINT7/XTAL2/TOSC2)PB7 XTAL1_DRV0
- 23 (PCINT8/ADC0)PC0 ROW0_DRV0
- 24 (PCINT9/ADC1)PC1 ROW1_DRV0
- 25 (PCINT10/ADC2)PC2 ROW2_DRV0
- 26 (PCINT11/ADC3)PC3 ROW3_DRV0
- 27 (PCINT12/SDA/ADC4)PC4 ROW4_DRV0
- 28 (PCINT13/SCL/ADC5)PC5 ROW5_DRV0
- 29 (PCINT14/RESET)PC6 RESET_DRV0
- 30 (PCINT16/RXD)PD0 COL0_DRV0
- 31 (PCINT17/TXD)PD1 COL1_DRV0
- 32 (PCINT18/INT0)PD2 COL2_DRV0
- 1 (PCINT19/OC2B/INT1)PD3 COL3_DRV0
- 2 (PCINT20/XCK/T0)PD4 COL4_DRV0
- 9 (PCINT21/OC0B/T1)PD5 COL5_DRV0
- 10 (PCINT22/OC0A/AIN0)PD6 COL6_DRV0
- 11 (PCINT23/AIN1)PD7 COL7_DRV0

RESET_DRV0 R1

IC2 ATMEGA328P-M
ROW6_DRV1, ROW7_DRV1, CS1, MOSI, MISO, SCK, XTAL0_DRV1, XTAL1_DRV1, ROW0_DRV1, ROW1_DRV1, ROW2_DRV1, ROW3_DRV1, ROW4_DRV1, ROW5_DRV1, RESET_DRV1, COL0_DRV1, COL1_DRV1, COL2_DRV1, COL3_DRV1, COL4_DRV1, COL5_DRV1, COL6_DRV1, COL7_DRV1
RESET_DRV1 R2

IC3 ATMEGA328P-M
ROW6_DRV2, ROW7_DRV2, CS2, MOSI, MISO, SCK, XTAL0_DRV2, XTAL1_DRV2, ROW0_DRV2, ROW1_DRV2, ROW2_DRV2, ROW3_DRV2, ROW4_DRV2, ROW5_DRV2, RESET_DRV2, COL0_DRV2, COL1_DRV2, COL2_DRV2, COL3_DRV2, COL4_DRV2, COL5_DRV2, COL6_DRV2, COL7_DRV2
RESET_DRV2 R3

IC4 ATMEGA328P-M
ROW6_DRV3, ROW7_DRV3, CS3, MOSI, MISO, SCK, XTAL0_DRV3, XTAL1_DRV3, ROW0_DRV3, ROW1_DRV3, ROW2_DRV3, ROW3_DRV3, ROW4_DRV3, ROW5_DRV3, RESET_DRV3, COL0_DRV3, COL1_DRV3, COL2_DRV3, COL3_DRV3, COL4_DRV3, COL5_DRV3, COL6_DRV3, COL7_DRV3
RESET_DRV3 R4

LED Matrices

MATRIX1 LED_8X8
anodes A0 A1 A2 A3 A4 A5 A6 A7
cathodes C0 C1 C2 C3 C4 C5 C6 C7
COL0_DRV0 COL1_DRV0 COL2_DRV0 COL3_DRV0 COL4_DRV0 COL5_DRV0 COL6_DRV0 COL7_DRV0
ROW0_DRV0 ROW1_DRV0 ROW2_DRV0 ROW3_DRV0 ROW4_DRV0 ROW5_DRV0 ROW6_DRV0 ROW7_DRV0

MATRIX2 LED_8X8
COL0_DRV1 COL1_DRV1 COL2_DRV1 COL3_DRV1 COL4_DRV1 COL5_DRV1 COL6_DRV1 COL7_DRV1
ROW0_DRV1 ROW1_DRV1 ROW2_DRV1 ROW3_DRV1 ROW4_DRV1 ROW5_DRV1 ROW6_DRV1 ROW7_DRV1

MATRIX3 LED_8X8
COL0_DRV2 COL1_DRV2 COL2_DRV2 COL3_DRV2 COL4_DRV2 COL5_DRV2 COL6_DRV2 COL7_DRV2
ROW0_DRV2 ROW1_DRV2 ROW2_DRV2 ROW3_DRV2 ROW4_DRV2 ROW5_DRV2 ROW6_DRV2 ROW7_DRV2

MATRIX4 LED_8X8
COL0_DRV3 COL1_DRV3 COL2_DRV3 COL3_DRV3 COL4_DRV3 COL5_DRV3 COL6_DRV3 COL7_DRV3
ROW0_DRV3 ROW1_DRV3 ROW2_DRV3 ROW3_DRV3 ROW4_DRV3 ROW5_DRV3 ROW6_DRV3 ROW7_DRV3

BOARD-TO-BOARD CONNECTORS

P1 CONN_2X2
CS0 — 1 2 — SCK
— 3 4 — RESET_DRV0

P2 CONN_2X2
MISO — 1 2
CS1 — 3 4 — RESET_DRV1

P3 CONN_2X2
MOSI — 1 2 — CS2
— 3 4 — RESET_DRV2

P4 CONN_2X2
RESET_DRV3 — 1 2
CS3 — 3 4

POWER FILTERING
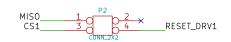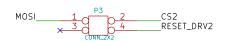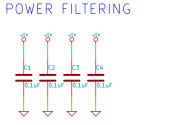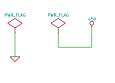
C1 0.1uF C2 0.1uF C3 0.1uF C4 0.1uF
PWR_FLAG PWR_FLAG

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Sheet: /
Title:
Size: User   Date:
KiCad E.D.A.   Id: 1/1
Rev: