5V

3V3

K2
PS/2 Kbd skt

6
4
2
1
3
5

PS/2
KBD

R5 10k   R3 10k   R4 10k   R2 10k

Q2

3   2   1

2

VN10KN3-G

Q1

3   1
2

PS/2_DAT

PS/2_CLK

GND

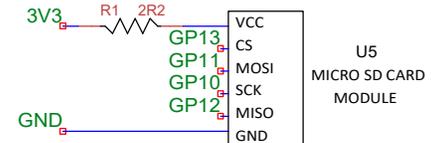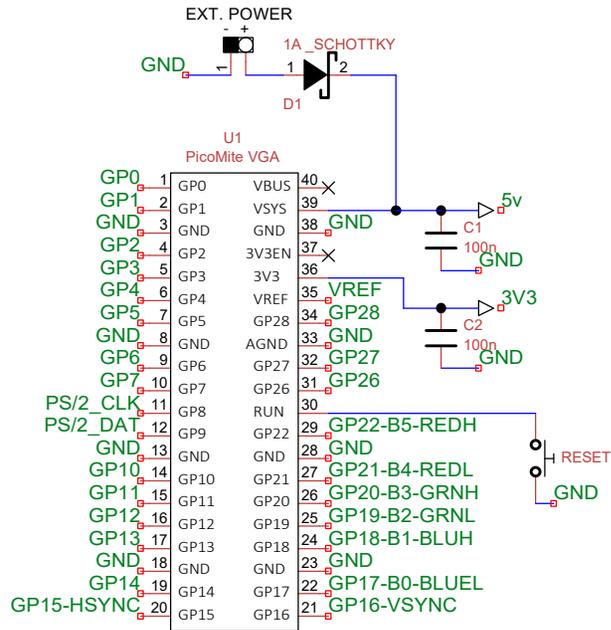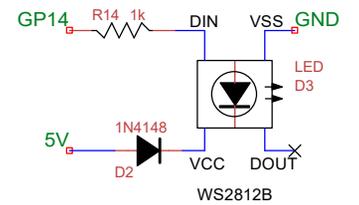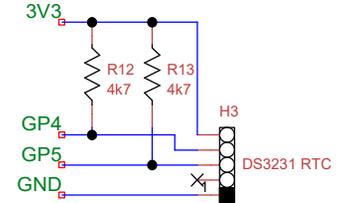U4
LEVEL SHIFTER

Note: 2N7000 will usually work
and has same pinout. BS170
will work, but 1 and 3 are
reversed.
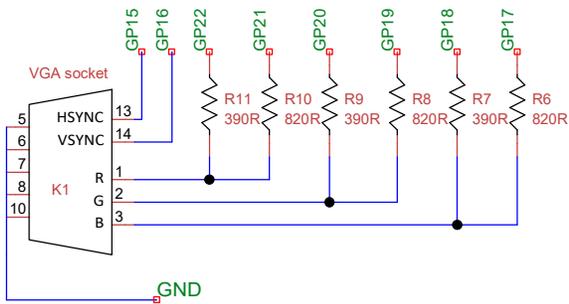
Note: Normal supply is 5V via
USB on PicoMite. Both supplies
can be connected simultaneously.

EXT. POWER
- +

GND   1

1A _SCHOTTKY
1   2

D1

3V3   R1   2R2

GP13   VCC
GP11   CS
GP10   MOSI
GP12   SCK
        MISO
GND   GND

U5
MICRO SD CARD
MODULE

Note: This module contains
decoupling capacitors

U1
PicoMite VGA

GP0	1	GP0	VBUS	40		
GP1	2	GP1	VSYS	39		5v
GND	3	GND	GND	38	GND	
GP2	4	GP2	3V3EN	37		C1 100n
GP3	5	GP3	3V3	36		GND
GP4	6	GP4	VREF	35	VREF	3V3
GP5	7	GP5	GP28	34	GP28	C2 100n
GND	8	GND	AGND	33	GND	GND
GP6	9	GP6	GP27	32	GP27	
GP7	10	GP7	GP26	31	GP26	
PS/2_CLK	11	GP8	RUN	30		RESET
PS/2_DAT	12	GP9	GP22	29	GP22-B5-REDH	
GND	13	GND	GND	28	GND	GND
GP10	14	GP10	GP21	27	GP21-B4-REDL	
GP11	15	GP11	GP20	26	GP20-B3-GRNH	
GP12	16	GP12	GP19	25	GP19-B2-GRNL	
GP13	17	GP13	GP18	24	GP18-B1-BLUH	
GND	18	GND	GND	23	GND	
GP14	19	GP14	GP17	22	GP17-B0-BLUEL	
GP15-HSYNC	20	GP15	GP16	21	GP16-VSYNC	

3V3

R12 4k7   R13 4k7

GP4

GP5

GND

H3

DS3231 RTC

VGA socket

GP15 GP16 GP22 GP21 GP20 GP19 GP18 GP17

HSYNC   13
VSYNC   14

5
6
7
8
10

R   1
G   2
B   3

K1

R11 390R   R10 820R   R9 390R   R8 820R   R7 390R   R6 820R

GND

GP14   R14   1k   DIN   VSS   GND

R14 1k

LED
D3

5V   1N4148

D2   VCC   DOUT

WS2812B

H2

GP0
GP26
GP27
GP28
GP1
VREF
3V3
GND

1

H1

GP7
GP6
GP3
GP2
3V3
GND

1

Configuration

Use the Standard PicoMiteRP2350 firmware, not the
VGA version.
V6.01.00RC23 or later.

OPTION LCDPANEL VGA222_640 GP15, GP17
OPTION SYSTEM I2C GP4, GP5
OPTION RTC AUTO ENABLE
OPTION SDCARD GP13, GP10, GP11, GP12

Alternative video drivers are VGA222_320,
VGA222_720 and VGA222_360

Title	
PicoStick VGA222	
Author	
Mixtel90	MMBasic by Geoff Graham + Pe
File	
Z:\Computing\0_PicoM ... PicoStick VGA222.dsn	
Revision	Date
0	11 March 2026

eter Mather
Document
Sheets 1 of 1