Cam1
OV7670 CAMERA MODULE
OV7670 Module

U_logi-cam
logi-cam.SchDoc

ValentF(x)
ELECTRONICS INNOVATION

Title	PMOD Camera Adapter		
Revision: R1.0	Sheet:	1 of 2	
Date: 3/19/2014	Engineer: M. Jones		

A

RST

JP1

P1

LED_DRIVE	1	CS/SCL1/CTS	D1	7	RST
HREF	2	MOSI/SCL2/RTS	D2	8	VSYNC
CTL_DATA	3	MISO/SDA1/RXD	D3	9	CTL_CLK
XCLK	4	SCK/SDA2/TXD	D4	10	PCLK
GND	5	GND	GND	11	GND
3V3	6	VCC	VCC	12	3V3

2X6 .1" HEADER MALE

P2

D1	1	CS/SCL1/CTS	D1	7	D0
D3	2	MOSI/SCL2/RTS	D2	8	D2
D5	3	MISO/SDA1/RXD	D3	9	D4
D7	4	SCK/SDA2/TXD	D4	10	D6
GND	5	GND	GND	11	GND
	6	VCC	VCC	12	

2X6 .1" HEADER MALE

3V3
DNP C1
GND .1uF

J1

CTL_CLK	3	VCAM-3V3	GND	2	
	1			4	
		SIOC	SIOD		CTL_DATA
VSYNC	5	VSYNC	HREF	6	HREF
PCLK	7	PCLK	XCLK	8	XCLK
D7	9	D7	D6	10	D6
D5	11	D5	D4	12	D4
D3	13	D3	D2	14	D2
D1	15	D1	D0	16	D0
RST	17	RST	PWDN	18	

OV7670 CAM HEADER

R1
10k
DNP
GND

GND

B

3V3
R2
10k

LED_DRIVE

DNP R4
Res2

R5
10 Ohm 1/4W

LED Header
(Flash)

P3
| 1 |
| 2 |
Header2

GND

3V3
JP3
Q1
Si2347DS-T1-GE3

JP2

P4
| 1 |
| 2 |
Header2

EXT_PWR
GND

3V3
DNP R3
10k
GND
DNP C2
.1uF

3V3
DNP R8
10k
GND

J2

CTL_CLK	3	VCAM-3V3	GND	2	
	1			4	
		SIOC	SIOD		CTL_DATA
VSYNC	5	VSYNC	HREF	6	HREF
PCLK	7	PCLK	XCLK	8	XCLK
D7	9	D7	D6	10	D6
D5	11	D5	D4	12	D4
D3	13	D3	D2	14	D2
D1	15	D1	D0	16	D0
GND	17	GND	NC	18	
	19	FSIN	PWR_DWN	20	RST

OV7725 CAM HEADER

T1

Resistors
Only 1 1/4W resistor is installed by
default. This assumes the user will be
outputting 30mA of current to a white
LED vf = 3 V
R = (3.3-3)/.030 = 10ohms. Note that
the transistor has 10ohm internal drop, so
only 10ohms is needed for the 30mA.

100mA Equivelent Resistance = 3Ohms
R4 = 4.2 ohms
4.2||10 = 3ohms

External Input Power - MOSFET
will only work correctly wtih 3V3.
Header for high Current
Applications. If using External
Power Cut trace on JP3

Logo1
Valent Logo 500

Logo2

Valent Logo 750

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