



Arducam Parallel Camera Adapter Board Datasheet

Rev 1.0, NOV 2018

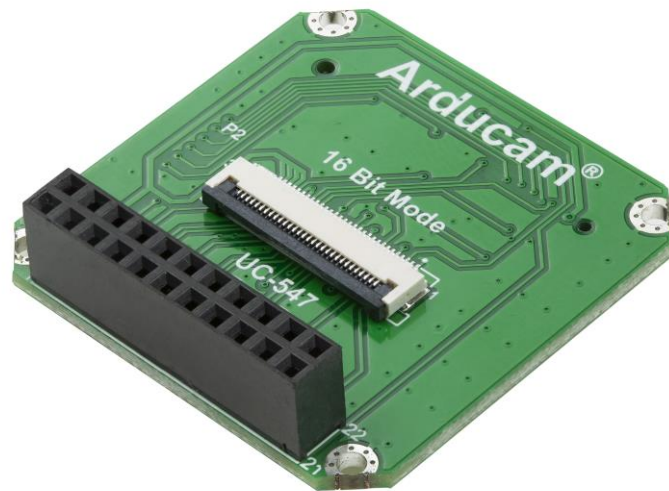


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1 Introduction

The Parallel adapter board is designed only for Arducam USB3 camera shield, which help add support for 8bit pin header connection camera modules and support 10bit/12bit FPC connection camera modules.

2 Supported Pin Header Connection Camera

Resolution	Pin Header Connection Camera Breakout Board
0.3MP	OV7670,OV7675,MT9V022,MT9V034
1.3MP	MT9M001
2MP	OV2640
3MP	OV3640
5MP	OV5640,OV5642

3 Supported FPC Connection Camera

Resolution	FPC Connection Camera Breakout Board
1.3MP	AR0134, AR0135
5MP	MT9P001
9MP	MT9N001
10MP	MT9J001, MT9J003
14MP	MT9F001

4 Pin Definition

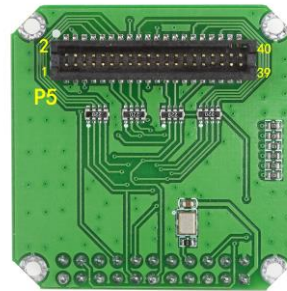
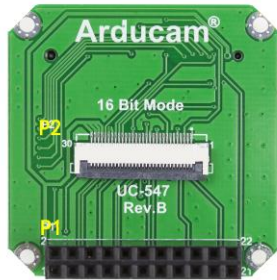


Table 1 P2 FPC Connector Pin Definition

Pin No.	PIN NAME	TYPE	DESCRIPTION
1	GND	Ground	Power ground
2	FLASH	Output	Flash output control
3	Trigger	Input	Exposure synchronization input
4	VSYNC	Output	Active High: Frame Valid; indicates active frame
5	HREF	Output	Active High: Line/Data Valid; indicates active pixels
6	Data11	Input	Pixel Data Output 11 (MSB)
7	Data10	Input	Pixel Data Output 10
8	Data9	Input	Pixel Data Output 9
9	Data8	Input	Pixel Data Output 8
10	Data7	Input	Pixel Data Output 7
11	Data6	Input	Pixel Data Output 6
12	Data5	Input	Pixel Data Output 5
13	GND	Ground	Power ground
14	Data4	Input	Pixel Data Output 4
15	Data3	Input	Pixel Data Output 3
16	Data2	Input	Pixel Data Output 2
17	Data1	Input	Pixel Data Output 1
18	Data0	Input	Pixel Data Output 0(LSB)
19	NC	NC	NC
20	PCLK	Input	Pixel Clock output from sensor
21	SCL	Input	Two-Wire Serial Interface Clock
22	SDATA	Bi-directional	Two-Wire Serial Interface Data I/O
23	RST	Input	Sensor reset signal, active low
24	GND	Ground	Power ground
25	GND	Ground	Power ground
26	STANDBY	Input	Standby-mode enable pin (active HIGH)
27~30	VCC	POWER	3.3v Power supply

Table 2 P1 Pin Header Connector Pin Definition

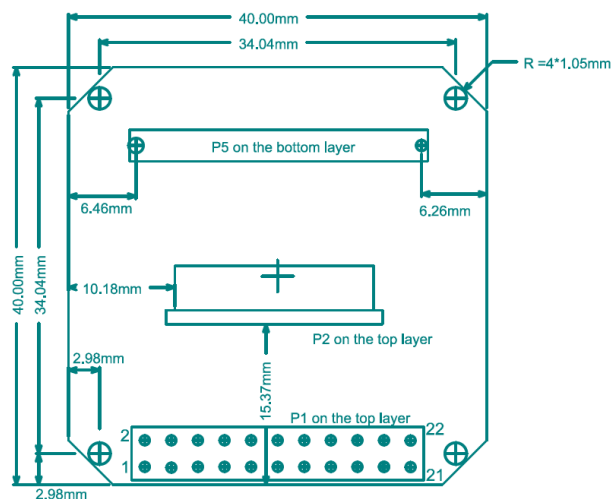
Pin No.	PIN NAME	TYPE	DESCRIPTION
1	VCC	POWER	3.3v Power supply
2	GND	Output	Flash output control
3	SCL	Input	Two-Wire Serial Interface Clock
4	SDATA	Bi-directional	Two-Wire Serial Interface Data I/O
5	VSYNC	Output	Active High: Frame Valid; indicates active frame
6	HREF	Output	Active High: Line/Data Valid; indicates active pixels
7	PCLK	Output	Pixel Clock output from sensor
8	XCLK	Input	Master Clock into Sensor
9	Data7	Output	Pixel Data Output 7
10	Data6	Output	Pixel Data Output 6
11	Data5	Output	Pixel Data Output 5
12	Data4	Output	Pixel Data Output 4
13	Data3	Output	Pixel Data Output 3
14	Data2	Output	Pixel Data Output 2
15	Data1	Output	Pixel Data Output 1
16	Data0	Output	Pixel Data Output 0(LSB)
17	NC	NC	NC
18	NC	NC	NC
19	RESET	Input	Sensor reset signal, active low
20	STANDBY	Input	Standby-mode enable pin (active HIGH)
21	TRIGGER	Input	Exposure synchronization input
22	FLASH	Output	Flash output control

Table 3 P5 USB3 Camera Shield Connector Pin Definition

Pin No.	PIN NAME	TYPE	DESCRIPTION
1	VCC	POWER	3.3v Power supply
2	VCC	POWER	3.3v Power supply
3	GND	Ground	Power ground
4	GND	Ground	Power ground
5	SCL	Input	Two-Wire Serial Interface Clock
6	SDATA	Bi-directional	Two-Wire Serial Interface Data I/O
7	Data12	Input	Pixel Data Output 12
8	Data10	Input	Pixel Data Output 10
9	Data13	Input	Pixel Data Output 13
10	Data11	Input	Pixel Data Output 11
11	Data6	Input	Pixel Data Output 6
12	Data8	Input	Pixel Data Output 8
13	Data0	Input	Pixel Data Output 0
14	Data3	Input t	Pixel Data Output 3
15	Data4	Input	Pixel Data Output 4

16	RESET-USB	Input	Sensor reset signal, active low
17	Data9	Input	Pixel Data Output 9
18	Data7	Input	Pixel Data Output 7
19	STANDBY	Input	Standby-mode enable pin (active HIGH)
20	NC	NC	NC
21	NC	NC	NC
22	TRIGGER	Input	Exposure synchronization input
23	HREF	Output	Active High: Line/Data Valid; indicates active pixels
24	Data14	Input	Pixel Data Output 14
25	VSYNC	Output	Active High: Frame Valid; indicates active frame
26	NC	NC	NC
27	GND	Ground	Power ground
28	NC	NC	NC
29	GND	Ground	Power ground
30	PCLK	Input	Pixel Clock output from sensor
31	Data5	Input	Pixel Data Output 5
32	Data1	Input	Pixel Data Output 1
33	Data15	Input	Pixel Data Output 15
34	NC	NC	NC
35	NC	NC	NC
36	Data2	Output	Pixel Data Output 2
37	NC	NC	NC
38	NC	NC	NC
39	RST	Input	Reset signal, active low
40	NC	NC	NC

5 Mechanical Dimension



6 Technical Support

Please check more information about using this camera from Arducam USB camera shield user guide or contact support@arducam.com for more support.