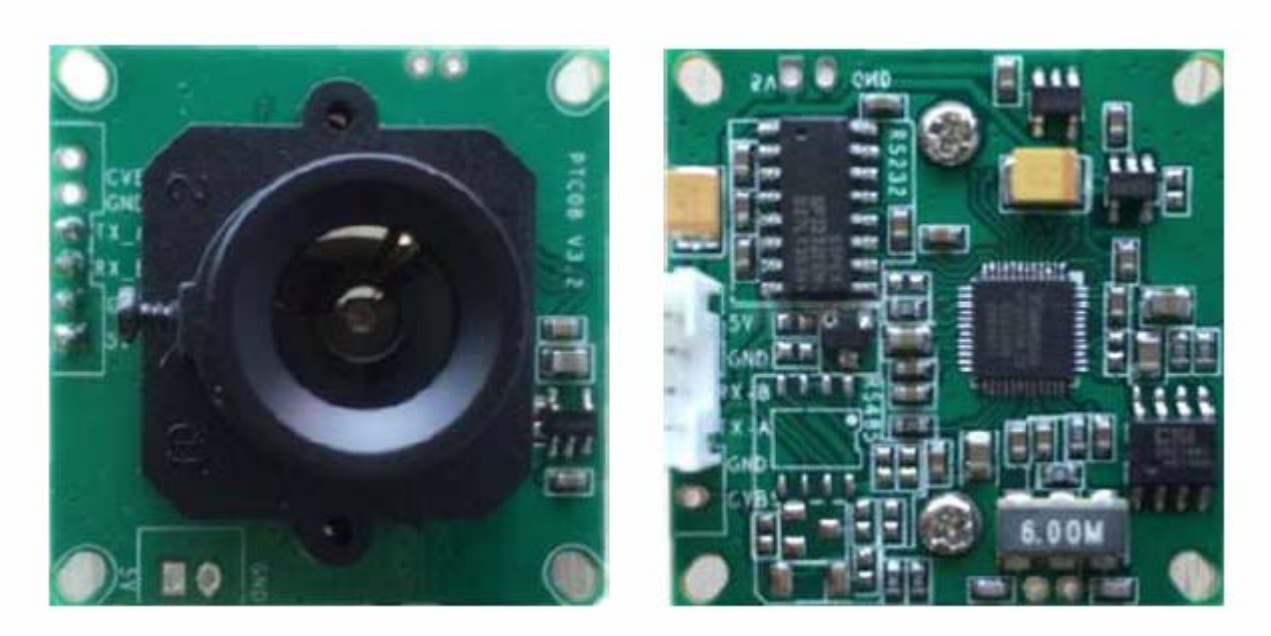
General Description

The PTC08 JPEG compression module performs as a video camera or a JPEG compressed still camera and can be attached to a wireless or PDA host. Users can send out a snapshot command from the host in order to capture a full resolution single-frame still picture. The picture is then compressed by the JPEG engine and transferred to the host.



Features

Small in size, 32x32mm
QVGA resolution, up sample to VGA
Low power consumption, 5V operation
UART interface support up to 115200 bps , (default 38400bps)
Built-in JPEG CODEC
Built in lens, optional
User friendly command

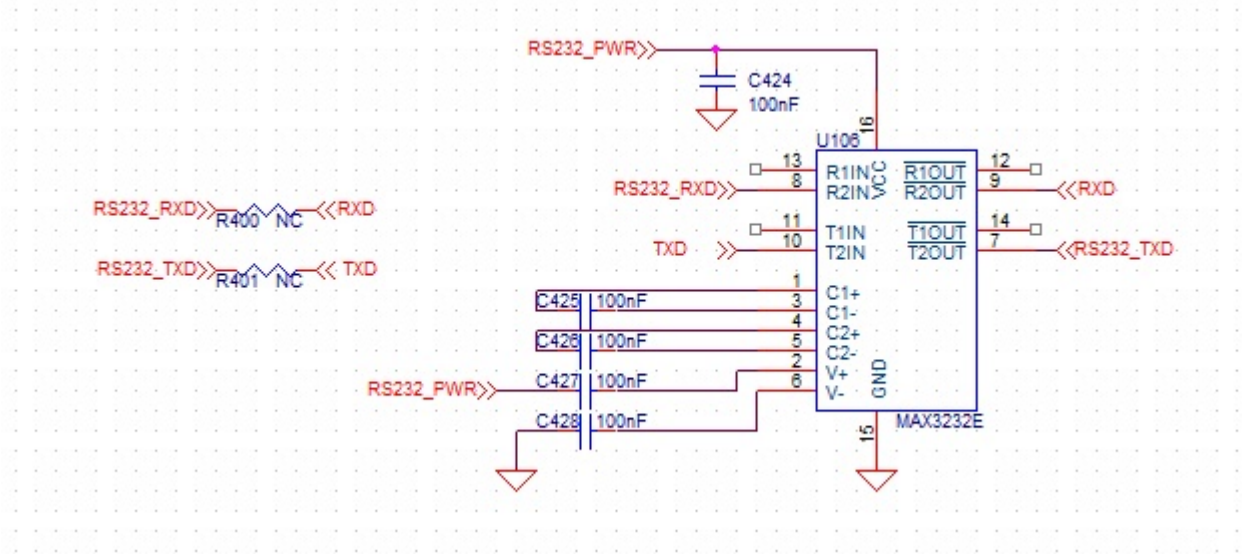
Pin Description

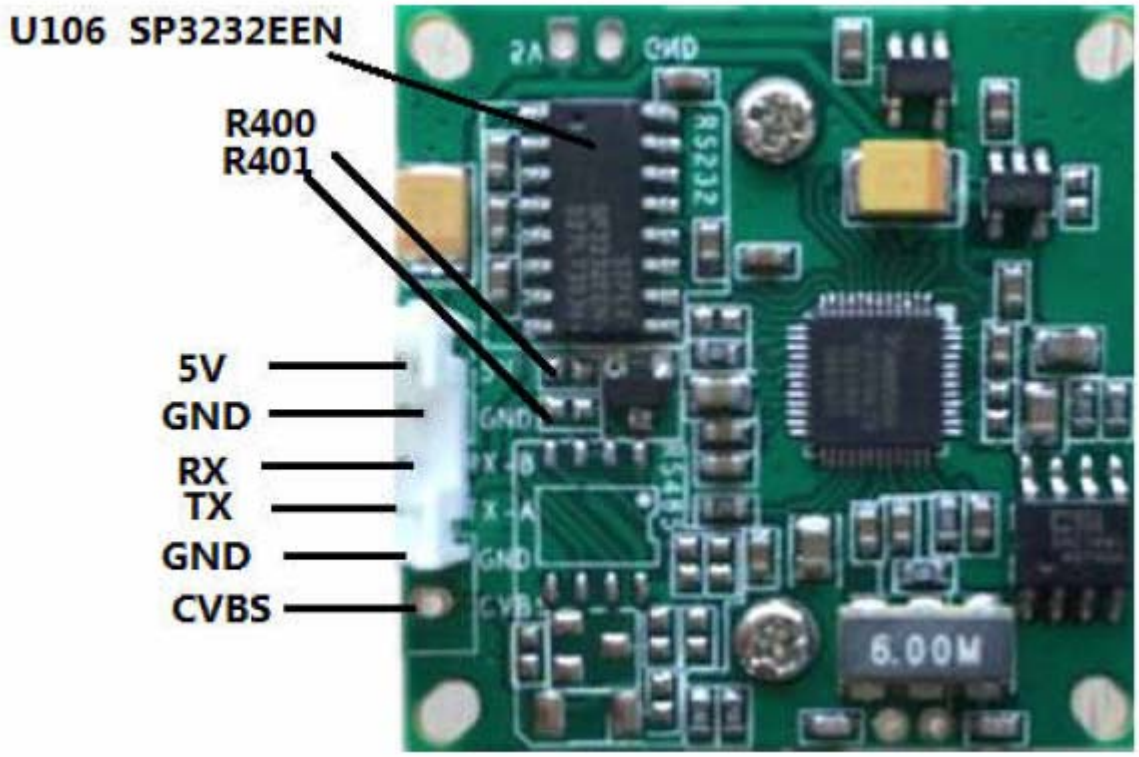
Pin	Description
TX	Data Transmit (RS232 level)
RX	Data Receive (RS232 level)
GND	Power Ground
VCC	Power 5 VDC

Default, the TX and RX are RS232 level ,,but if you want it work as TTL level, we can get it as follow:

(1) Remove SP3232 IC (U106)

(2) Add 0 Ohm resistance in R400 and R401





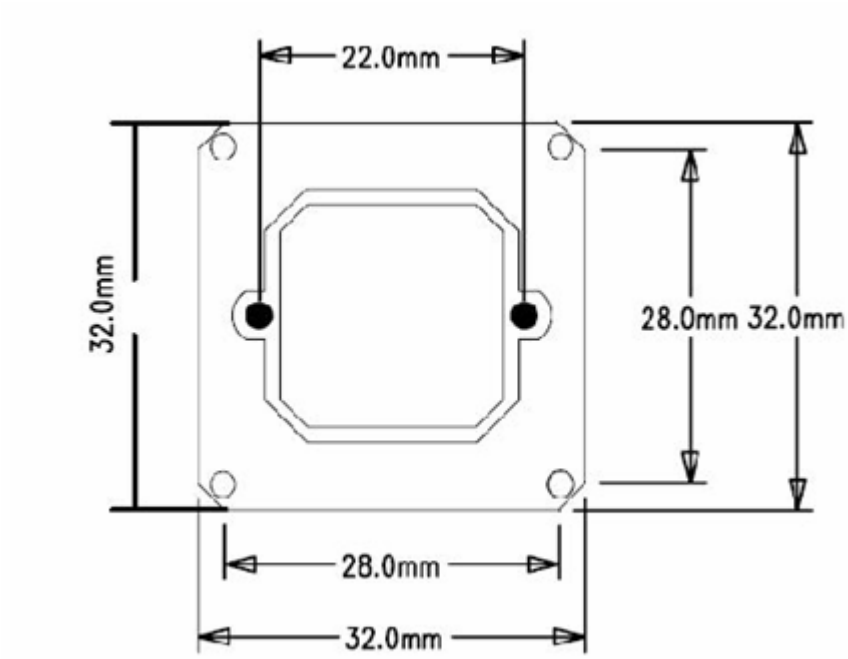
Electrical Specification

Parameter	Min	TVp	Max	Unit
DC supply voltage	3.3	5.0	6.0	V
Operation Current	60	70	85	mA
Operating temperature range	-20	20	85	℃

DSP and Lens Specification

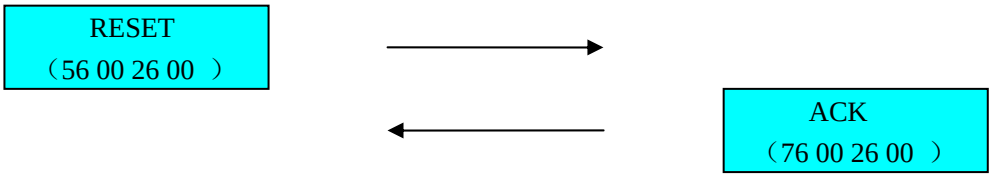
Description	Parameter
DSP	VC0706
Sensor	MT9V011
Imager Format	1/4"
F/#	2.0
Focal length (mm)	3.6mm
Field of View Diagonal (deg)	64
Distortion	0.38%
Relative Illumination	>53%
Filter Option IR-cut filter	included

Mechanical Specification （unit：mm）



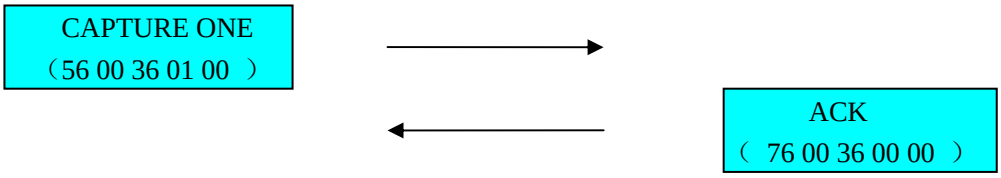
Command Protocol （hex format data）

1 RESET：56 00 26 00 RETURN：76 00 26 00

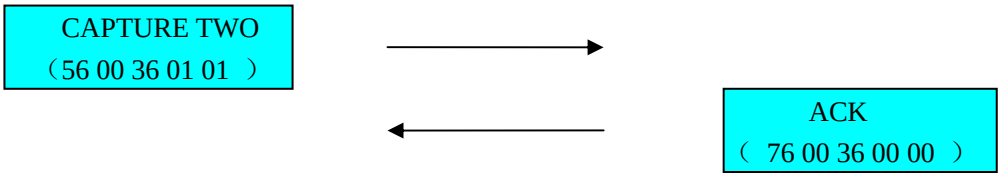


2 CAPTURE A IMAGE：

CAPTURE A IMAGE CAMMAND

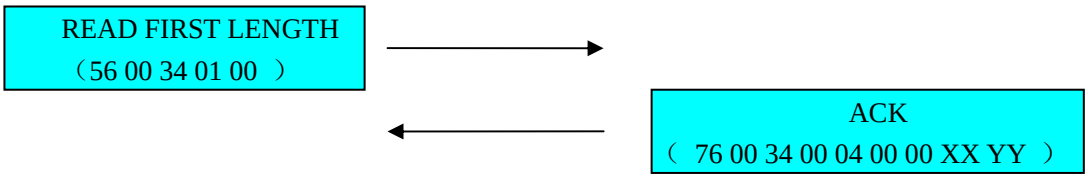


CAPTURE TWO IMAGE CAMMAND



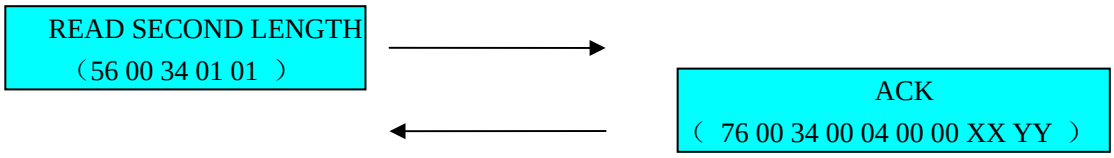
3 READ IMAGE DATA LENGTH：

READ FIRST IMAGE DATA LENGTH



XX YY ------- image length, XX--- high byte, YY--- low byte

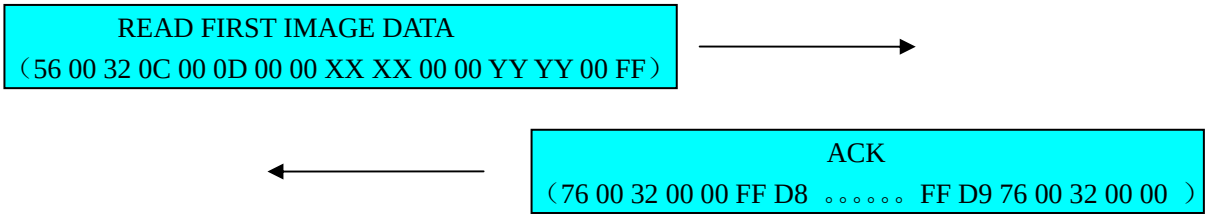
READ SECOND IMAGE DATA LENGTH



XX YY ------- image length, XX--- high byte, YY--- low byte

4 READ IMAGE DATA：

READ FIRST IMAGE DATA



READ SECOND IMAGE DATA

READ SECOND IMAGE DATA
（56 00 32 0C 01 0D 00 00 XX XX 00 00 YY YY 00 FF）

ACK
（76 00 32 00 00 FF D8 。。。。。。 FF D9 76 00 32 00 00 ）

00 00 XX XX

---- start address（the address must be times of 8, for example 00 00 ）

00 00 YY YY ----the length of image data（high byte, low byte）

Notice:JPEG IMAGE DATA must be FF D8 in first, and FF D9 in end.

5 STOP CAPTURE：56 00 36 01 03 RETURN：76 00 36 00 00

STOP CAPTURE
（56 00 36 01 03）

ACK
（76 00 36 00 00）

6 SETTING IMAGE COMPRESSIBILITY：56 00 31 05 01 01 12 04 XX

RETURN：76 00 31 00 00

XX ----default value: 36 （range：00 ----FF）

SET COMPRESSIBILITY
（56 00 31 05 01 01 12 04 XX）

ACK
（76 00 31 00 00）

7 SETTING IMAGE RESOLUTION： （default：320 * 240）

56 00 31 05 04 01 00 19 11 （320*240） RETURN：76 00 31 00 00

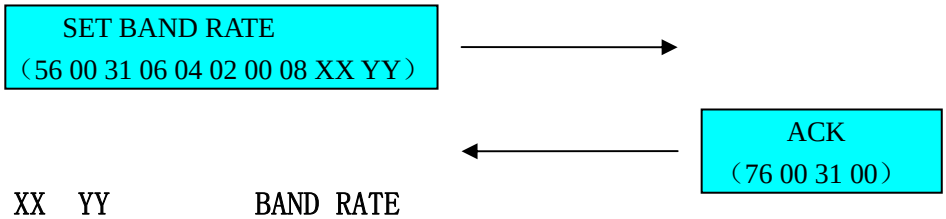
56 00 31 05 04 01 00 19 00 （640*480）

56 00 31 05 04 01 00 19 22 （160*120）

SET RESOLUTION
（56 00 31 05 04 01 00 19 XX）

ACK
（76 00 31 00 00）

8 BAND RATE：（ default: 38400bps ）



XX	YY	BAND RATE
AE	C8	9600
56	E4	19200
2A	F2	38400
1C	4C	57600
0D	A6	115200

9 PTC08 initial operation process

（1）power on

（2）delay 2.5s

（3）set image resolution command (optional)

（4）set image compressibility command (optional)

（5）reset command(when run optonal step 3)

Notice: Please choose the corresponding photo process

PTC08 get a image operation process

（1）stop capture command 56 00 36 01 02

（2）capture a image command 56 00 36 01 00

（3）read image data length command 56 00 34 01 00

（4）read image data command 56 00 32 0C 00 0D 00 00 XX XX 00 00 YY YY 00 FF

PTC08 capture two image operation process

（1）power on and delay 2.5s

（2）capture two image command 56 00 36 01 01

（3）stop capture command 56 00 36 01 02

Each performs a stop capture command will snap a photo, execution will capture

two 2 times.

For example, performs onece it will snap a first photo while performs second ,it will capture the second photo.

Notice: If perform 3 times will overwrite the first photo and perform fourth will overwrite a second photo.It is two times a cycle overwrite.

（4）read first image data length command 56 00 34 01 00

（5）read first image data command 56 00 32 0C 00 0D 00 00 XX XX 00 00 YY YY 00 FF

（6）read second image data length command 56 00 34 01 01

（7）read second image data command

56 00 32 0C 01 0D 00 00 XX XX 00 00 YY YY 00 FF