

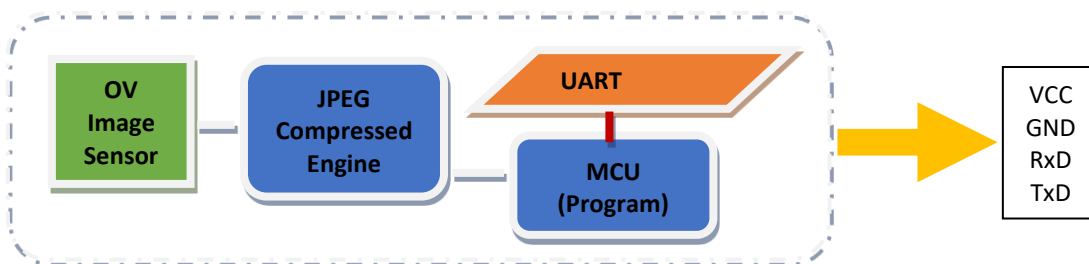
General Description

The TVQ030 is a high integrated camera module that performs as a JPEG compressed still camera, which also provides a standard serial UART port for communication. Users can request a full pixel dimension single-frame still picture by sending out a snapshot command from host. The picture is then compressed by the JPEG engine and transferred to the host via UART port.

Application

It supports Standard RS232 / RS485 / TTL interface. Now it is widely used Vehicle GPS tracking system, Robot Vision System, Industrial Process Control, Safety Protection etc.;

Block Diagram



Atlas



Daytime Type



D/ N Type-850



D/ N Type-940

Features

- Cost Effective:** Low-cost & low-powered solution for a image acquisition system;
- Various Pixel Dimension:** VGA / QVGA / QQVGA for different requirements;
- Low Image Data:** JPEG compressed with 4-compression ratio configuration;
- Multiple UART Ports:** RS-232, RS-485, TTL for different hosts;
- Different Baud Rate:** Support Max 115200bps;
- Application Environment:** Daytime Mode or Day / Night Mode;
- Lower Requirement of Host:** Use Sub-packet to solve the small storage volume of Host;

Packing list

Camera	1
Data Cable	1

Datasheet

Type	Daytime Type	D/ N Type-850	D/ N Type-940
Sensor			
Type	1/4 OV CMOS Progressive Sensor		
S/N Ratio	50dB		
Dynamic Range	60dB		
AEC	Yes		
AGC	Yes		
AWB	Yes		
Electronic Shutter	Automatic from 1/60(1/50)~1/100,000 Sec.		

Lens			
Type	Color Lens	Double-peak 850-IR Lens	Double-peak 940-IR Lens
Mount	M12		
Focal Length (mm)	2.8 / 3.6 / 6 / 8 / 12		
F.O.V (D.H.V)	120°, 90°, 75° (2.8mm Lens F.O.V. for reference)		
Iris	Fixed		
Infrared Led			
IR Led	None	18pcs-850 IR Led	18pcs-940 IR Led
Minimum Illumination	5 Lux	1 Lux (IR ON)	
		5 Lux (IR OFF)	
Night Vision	None	5 Meter- 6 Meter	
Day/Night Switch	None	Auto / Light Resister	
Image			
Resolution	VGA / QVGA / QQVGA		
Pixels	0.3 Mega Pixels		
Compression	JPEG Format		
Video	None		
Day Mode	Color Image	Fraction Color Cast I image	Little Color Cast Image
Night Mode	None	Black & White Image	
Mirror	Erect image with normal installation / flip installation		
OSD Display	None		
SD Card Storage	None		
Communication			
UART Interface	RS232 / RS485 / TTL		
ID No.	Default "0"		
Data Frame Type	8+n+1		
Baud Rate (bps)	2400 / 9600 / 14400 / 19200 / 38400 / 57600 / 115200		
Protocol	TV Protocol / OV528 / VC0706		
Testing Software	ZMCapture / ZMTOOLS		
Power			
Power Supply	3.3V / 5V / 9V-36V		
Standby Current	70mA @ 5V		
Working Current	IR Off: 110-130mA @ 5V		
	IR On: 350-360mA @ 5V		
Environment			
Operate Temp.	-20°C~70°C (-4°F~158°F)		
Operate Hum.	10%~85% Non-condensing		
Storage Temp.	-25°C~75°C (-13°F~167°F)		
Storage Hum.	0%~90% Non-condensing		
Cable			
Cable			
Cable Type	Shielded Line / Non-shielded Line		
Cable Length	0.5 Meter		
Power Converter	None / 9V-36V Power Input		
Converter Place	None / TBD		
Connector			
Connector	Wire Lead Only / DB9 Female Connector / Others		
Standard Pin Des.	PIN 1: VCC (Red Wire)		
	PIN 2: TXD (Green Wire)		
	PIN 3: RXD (Yellow Wire)		
	PIN 5: GND (Black Wire)		
Physical Index			
Net Weight (kg)	0.1-0.15 (for Reference)		
Product Size (mm)	38 * 38 / 32 * 32		
Packing Method	Anti Static Bag		