

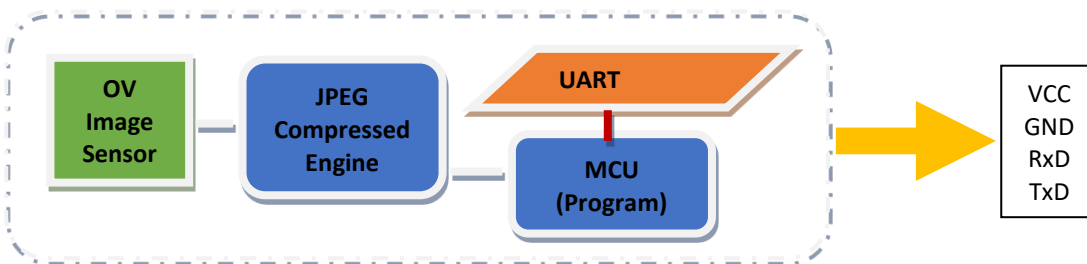
General Description

The TVM030 is a **Mini camera module** that performs as a JPEG compressed still camera, which also provides a standard serial UART port (RS-232 / RS-485 / TTL) 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 JPEG engine and transferred to host via UART port.

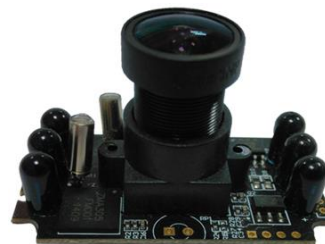
Application

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



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;
- Miny:** Camera Module is Tiny designed;

Packing list

| | |
|------------|---|
| Camera | 1 |
| Data Cable | 2 |

Datasheet

| 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 | 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 | 6pcs-850 IR Led | 6pcs-940 IR Led |
| Minimum Illumination | 1 Lux (IR ON) | |
| | 5 Lux (IR OFF) | |
| Night Vision | 4 Meter- 5 Meter | |
| Day/Night Switch | Auto / Light Resister | |
| Image | | |
| Resolution | VGA / QVGA / QQVGA | |
| Pixels | 0.3 Mega Pixels | |
| Compression | JPEG Format | |
| Video | None | |
| Day Mode | Fraction Color Cast Image | Little Color Cast Image |
| Night Mode | 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 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) | 45 * 25 | |
| Packing Method | Anti Static Bag | |