SoooGuard INC
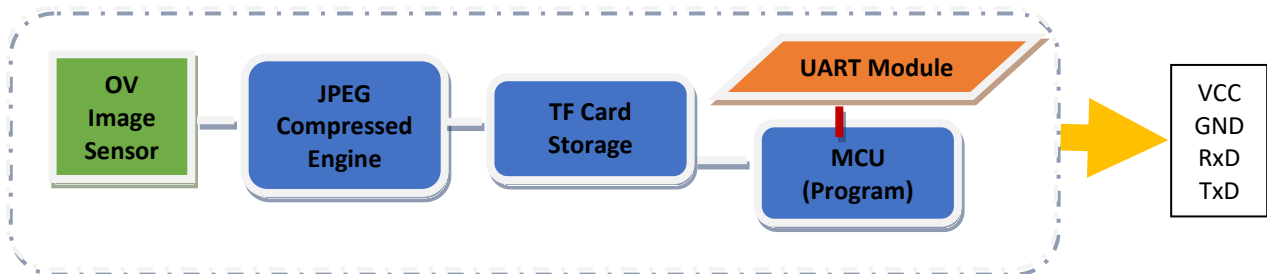
JPEG Compression
TF Card VGA Camera
UART Serial Interface

General Description

The TVTF030 is a high integrated indoor camera that performs as a video & 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, stored to TF Card and transferred to the host via UART port. The video can also be stored to TF Card and transmitted via UART Port.

Application

It supports Standard RS-232 / RS-485 / TTL interface. Now it is widely used Vehicle GPS tracking system, Robert Vision System, Industrial Process Control, Safety Protection etc.;
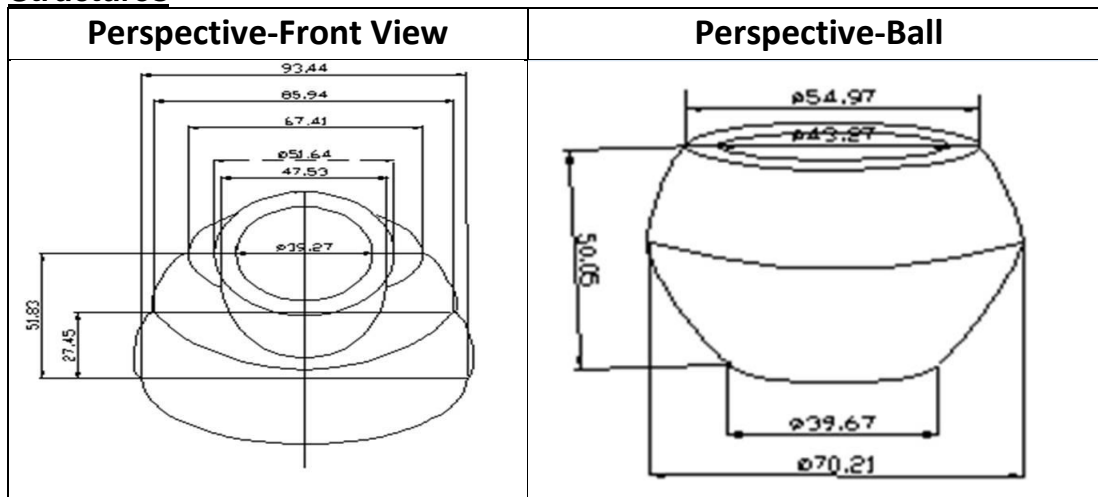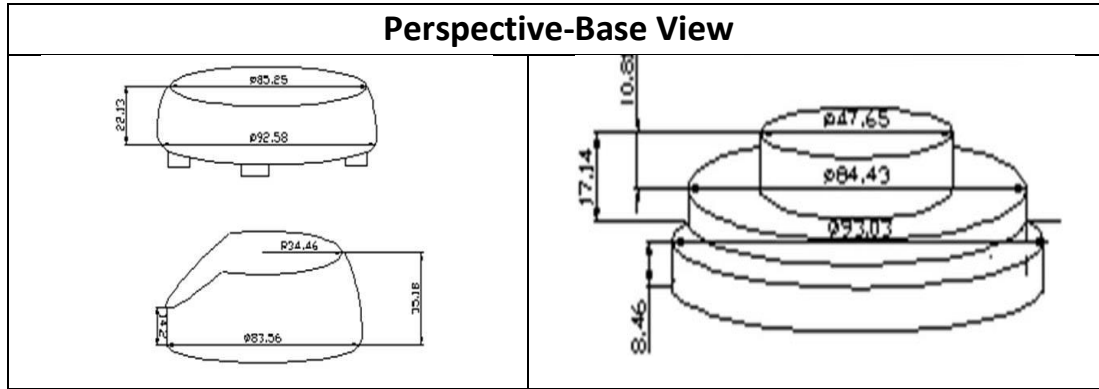
Block Diagram

Atlas

D/ N Type-850   **D/ N Type-940**

Structures

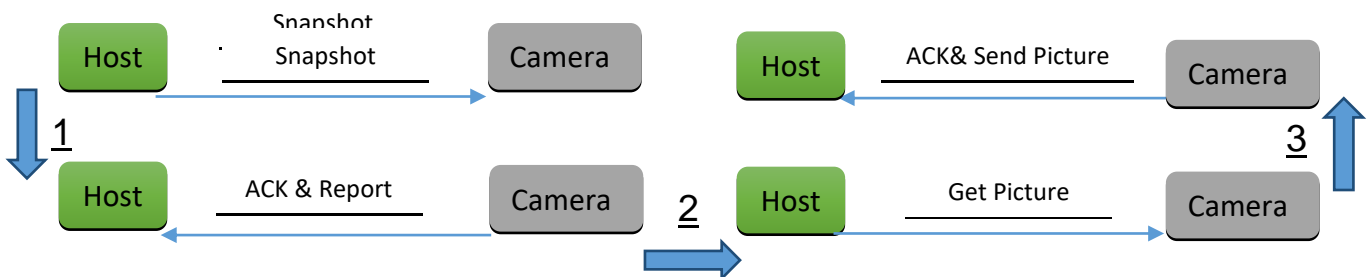| Perspective-Front View	Perspective-Ball

Perspective-Base View

Features

- **Cost Effective:** Low-cost & low-powered solution for a image acquisition system;
- **Various Pixel Dimension:** VGA / QVGA / QQVGA for different requirements;
- **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;
- **Picture / Video Storage:** Support up to 32G TF Card for picture and video storage

Packing list

- Camera   1
- Self-Drilling Screw   3
- Certificate of Approval   1

Command Summary

No.	Function	Description
1	Snapshot	Request camera to snapshot a specific size picture & divide it into packages.
2	Report	Camera report picture size & number of packages of the snapshot to host deice
3	Get Picture	Host device sends to get the specified picture data package
4	Send Picture	Camera transmits the specified data package to host device
5	Change ID No.	The host sends this command to change the camera ID NO..
6	Alter Compression Rate	Host sends this to set new picture compression rate to adjust picture quality.
7	Change Baud Rate	Setting a new Baud Rate for Camera

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	18pcs-850 IR Led	18pcs-940 IR Led
Minimum Illumination	1 Lux (IR ON)	
	5 Lux (IR OFF)	
Night Vision	5 Meter - 6 Meter	
Day/Night Switch	Auto / Light Resister	

Image

Resolution	VGA / QVGA / QQVGA	
Pixels	0.3 Mega Pixels	
Compression	JPEG Format	
Frame Rate	Max 30FPS	
Video Bitrate	3768kbps (640*480)	
Audio Bitrate	352kbps (Optional)	
Day Mode	Fraction Color Cast I mage	Little Color Cast Image
Night Mode	Black & White Image	
Mirror	Erect image with normal installation / flip installation	
OSD Display	None	
SD Card Storage	Max 32G	

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	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℃ (-4°F~158°F)	
Operate Hum.	10%~85% Non-condensing	
Storage Temp.	-25°C~75℃ (-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)	0.3 (for Reference)	
Product Size (mm)	Φ92* 66	
Packing Method	Gift Box	