Product Description of Ethernet Infrared Thermal Camera

V1.0

Product Description of Ethernet Infrared Thermal Camera

Version number	Date Modified	Author	Approved By	Note
V1.0	201811			New

Contents

1 Introduction

Shenzhen Dianyang Ethernet SR series infrared thermal camera is a small-size radiometric infrared thermal imager. The product adopts imported detectors, with stable operation and excellent performance. It is equipped with unique temperature calibration algorithm and easy-to-use user interface. It is small in size, light in weight and rich in interface. It is suitable for quality control, heat source monitoring, security night vision, equipment maintenance etc.

SR Series Ethernet infrared thermal cameras are equipped with feature-rich client software and an easy-to-use SDK package that can be used to meet differentiated application needs, whether used alone or in a secondary development.

2 Benefits

- SR series Ethernet infrared thermal cameras include power input, Ethernet, GPIO, serial port and other electrical interfaces to meet different industrial application requirements.
- DC12V wide voltage, allowing input power of 9~15V, ripple less than 200mV DC power supply, internal overvoltage and reverse connection protection, input voltage is too high will cause the protection circuit to fail.
- RS232-TTL supports 3.3V level standard UART communication standard, which can be connected to PTZ, PC, GPS module, etc.
- Control 12V motorized lens
- Support IO input trigger
- Support RTSP, universal playback software can directly play the video
- Support mainstream brand NVR supplier recording storage.
- With professional analysis software and SDK development kit to meet the requirements of secondary development and independent use.
- Clear image, high temperature measurement accuracy, support -20 ° C ~ 350 ° C

3 Specification

The specification of SR Series Ethernet is listed below,

Item	**SR-19-640**	**SR-19-384**
Resolution	640x480	384x288
Pixel size	17um	
Frame Rate	30HZ	50Hz
NETD	60mK@25°C	
Temperature range	-20~350℃	
Radiometric		
Radiometric template	Support Full screen high and low temperature tracking, support point, line, rectangle, ellipse temperature measurement template, support high and low temperature tracking in the template	
Image enhancement	Adaptive stretching, manual enhancement, electronic zoom	
Color palette	White hot, black hot, iron, hottest, user-defined other palettes	
Single frame temperature	PNG or BMP picture format with full temperature information	
temperature stream	Full radiation temperature information storage	
Digital Video		
Digital output interface	Ethernet	
Data format	H.264, support RTSP	
Electrical Interface		
Power Supply	DC9 ~ 15V， typical power consumption 2.5W@25℃	
Ethernet interface	100/1000Base， support TCP, UDP, IP, DHCP, RTSP, ONVIF etc.	
Serial interface	RS485/RS232-TTL， UAV series, S-bus	
IO interface	1 alarm input and 1 alarm output	
Environment		
Working Temperature	-20 ~ +65℃	
Storage temperature	-40ºC ~ +85℃	
Humidity	10% ~ 95%	

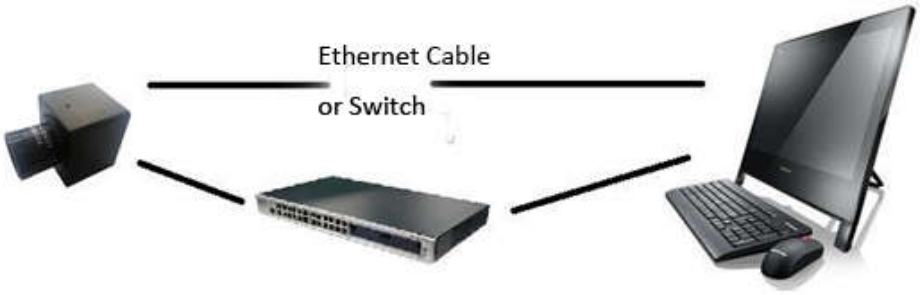
Shell protection	IP54
Shock	25G
Vibration	2G
Mechanical	
Weight	100g (without lens) 200g (with 25mm lens)
Dimension	56(L)*42(W)*42(H)mm without lens

Camera lens specification (SR-19-384 product as the example),

No.	Focus Length	FOV	Angular resolution
1	9mm	39.9° x 30.4°	2.1mrad
2	17mm	22.0° x 16.5°	1.1mrad
3	25mm	15.0° x 11.3°	0.68mrad
4	40mm	9.3° x 7.0°	0.43mrad

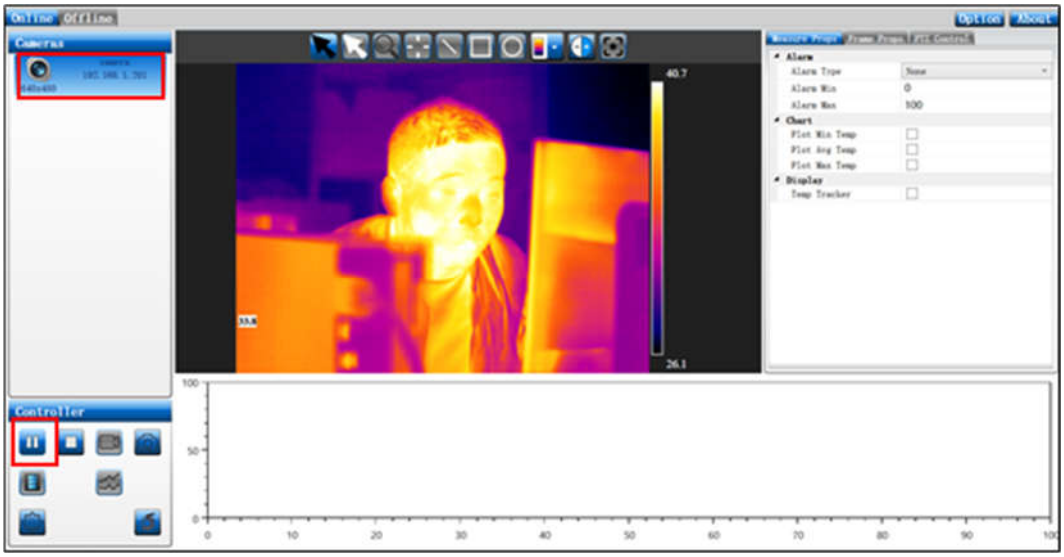
4 Analysis Software

The analysis software can analysis the temperature of infrared videos and images, to connect the infrared thermal camera below,



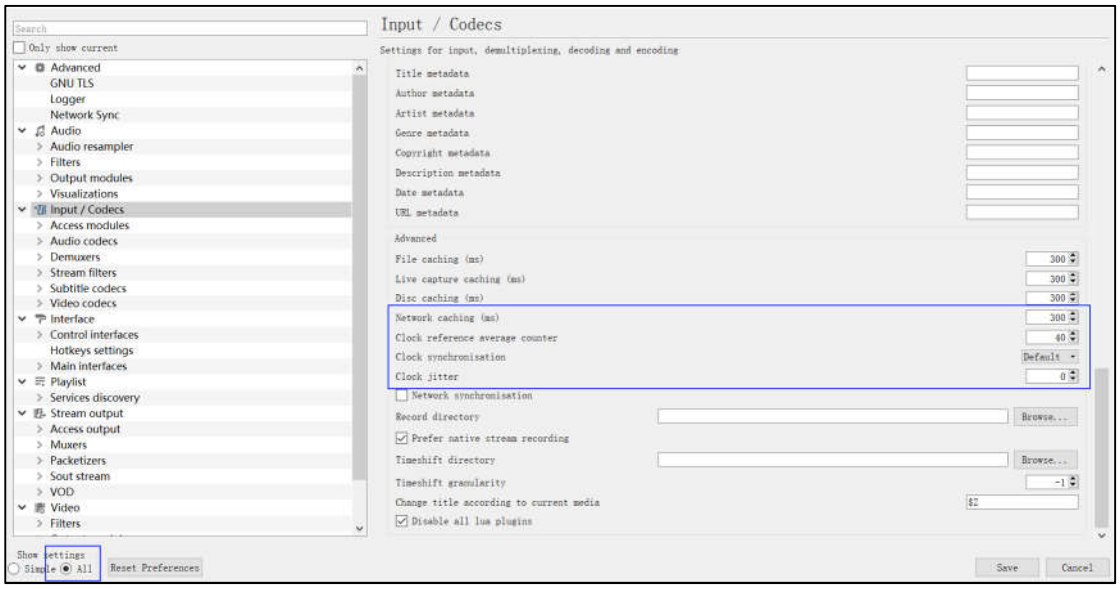
To connect infrared thermal camera with PC through Ethernet cable or switch, the IP address is “192.168.1.x”, x is not the same as the camera, and the subnet is “255.255.255.0”

Open the analysis software, to scan the camera in the left side, then connect the camera,



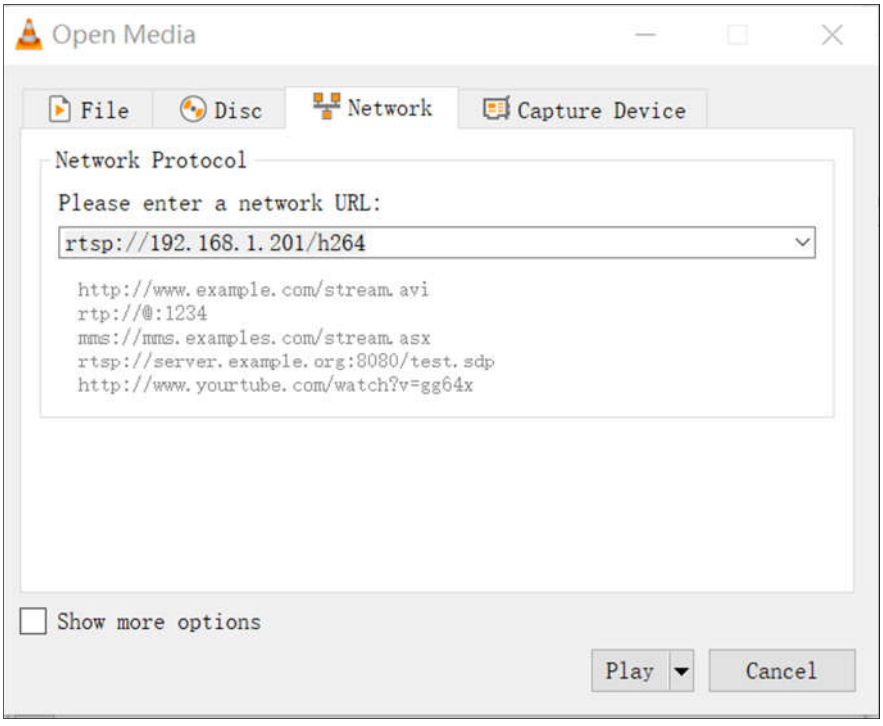
SR series infrared thermal camera also support RTSP software and equipment to view the videos to measure the temperature, it supports NVR equipment such as Hikivision and Dahua etc. mainstream brand.

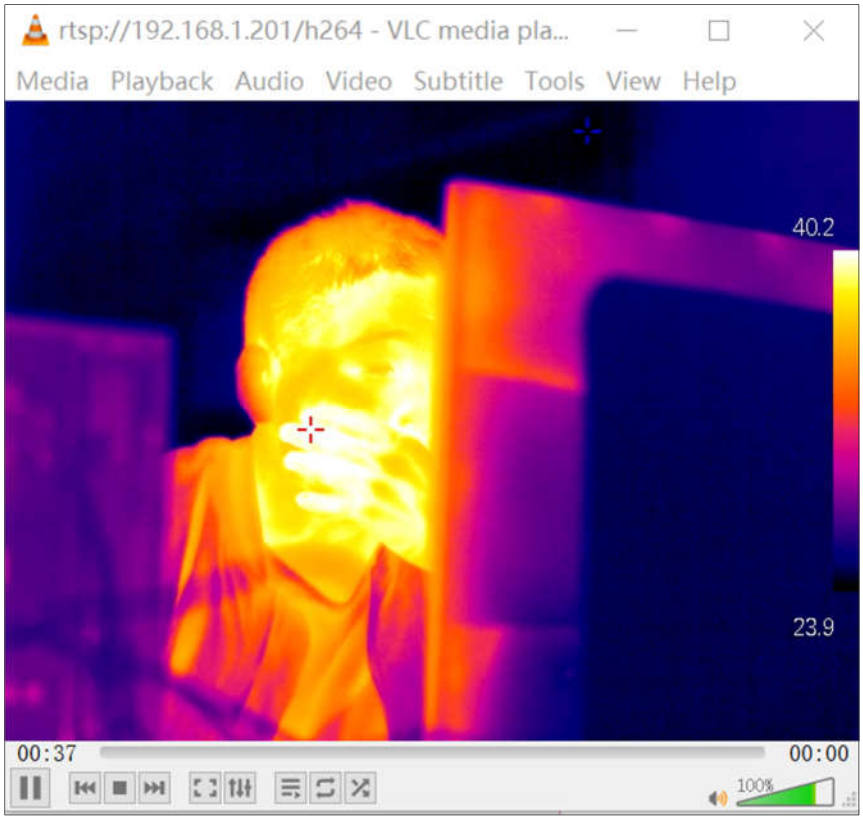
SR series infrared thermal camera also can be viewed by VLC media player, open “tools – preferences – show settings - all” please refer to the below figure to configure,



VLC – Media – Open Network Stream, input below stream address,

rtsp://192.168.1.201/h264， 192.168.1.xxx is the camera IP address, press play to open stream.





5 Dimension

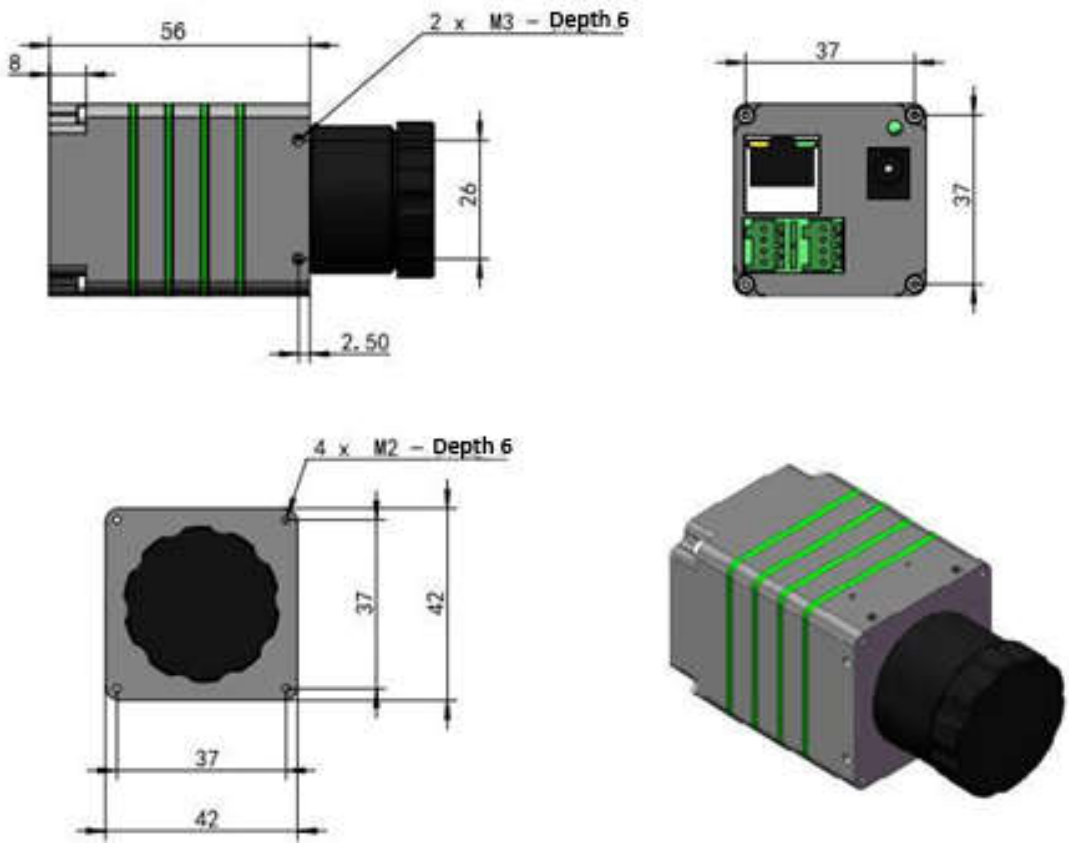


Figure: SR series dimension (mm)

6 Package List

The package list is below,

No.	Item	Qty.	Remark
1	Waterproof case	1	
2	SR series infrared camera	1	
3	Infrared lens	1	Standard f25 lens
4	Power Adapter	1	AC110/220V to DC12V/2A power adapter
5	Socket terminal	2	For external interface connection and transfer (depending on model)
6	Paper Quick Operation Guide	1	
7	Product service card	1	
8	U disk	1	Includes software installation package and instructions for use

Remark,

1. The radiometric type camera is configured as an athermalizing lens

2. The temperature range is -20 °C ~ 350 °C, if requires a higher temperature range will be customized.

3. The backplane interface includes below, if require other interface will be customized,

- one RJ45
- one alarm in and one alarm out IO
- one power interface
- one serial port