

Spinel 2 Mega Pixels Weatherproof Serial JPEG Camera

SC20MPF User Manual

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Getting Started

The SC20MPF Camera is a high-end reliable serial camera which can be attached to any host system that requires a JPEG compressed still camera for embedded imaging applications. The camera uses a 1/2.7" CMOS color image sensor along with a JPEG compression chip that provides a low powered camera system. The camera has an on-board serial interface (TTL/RS232/RS485) that is ideal for a direct connection to any host microcontroller UART or a PC system COM port.

What's in the box: camera body with cable and mounting bracket



1. Connecting the camera to a computer

Power the camera with DC 12V power supply (please use 5V instead if the camera is a customized 5V version, **please be extra careful when wiring up the 5V version camera, as any wrong wiring would damage the camera immediately and the camera can not be repaired**), and connect the camera to a windows computer through serial port if the computer has one, if the computer does not have serial port and/or the camera comes in TTL or RS485 interface, please use an USB to serial adaptor (Spinel provides a complimentary USB to serial adaptor with first camera order, please make sure install the driver prior to use).

The wiring instruction would be:

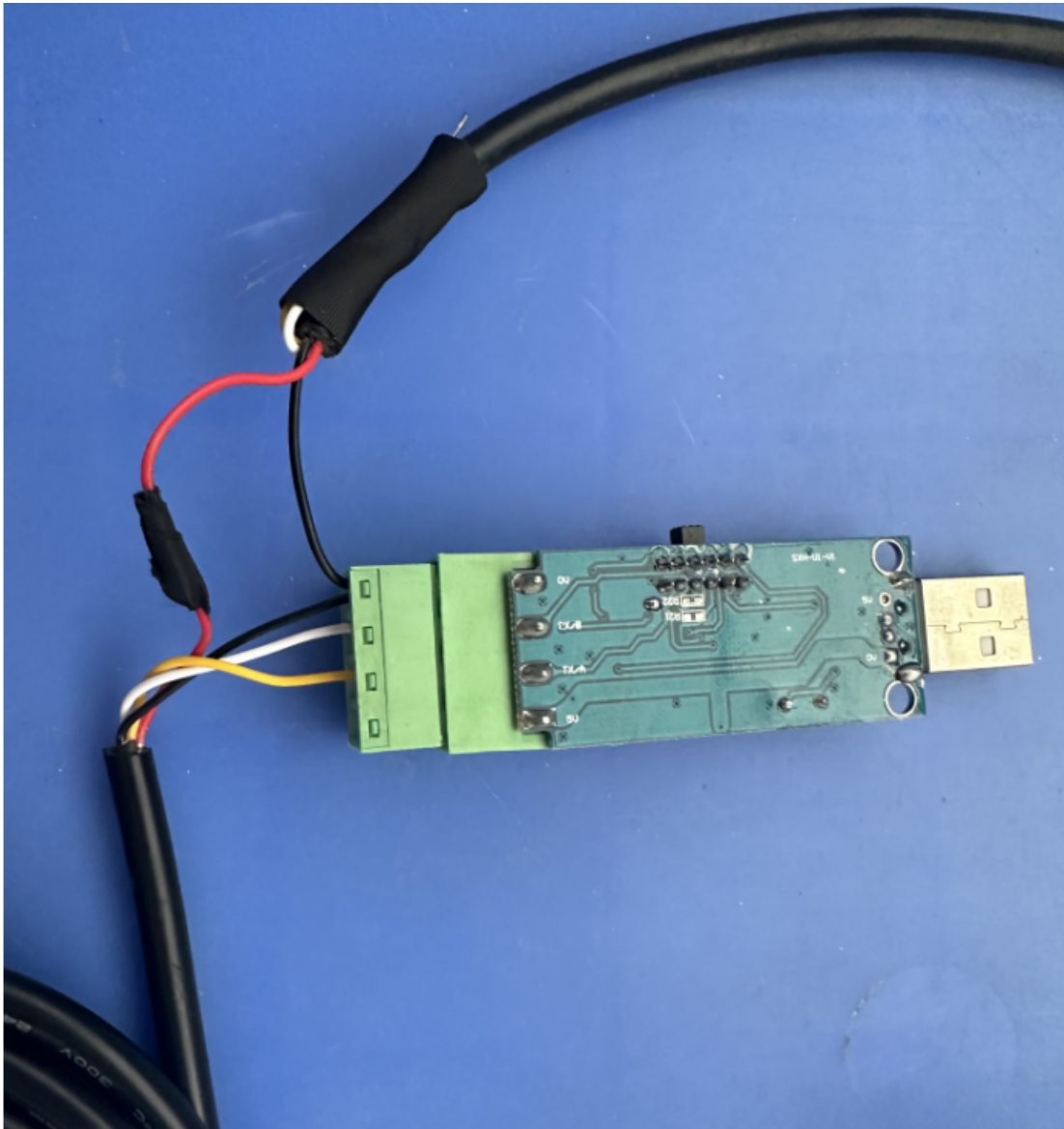
Red wire to power 12V (or 5V)

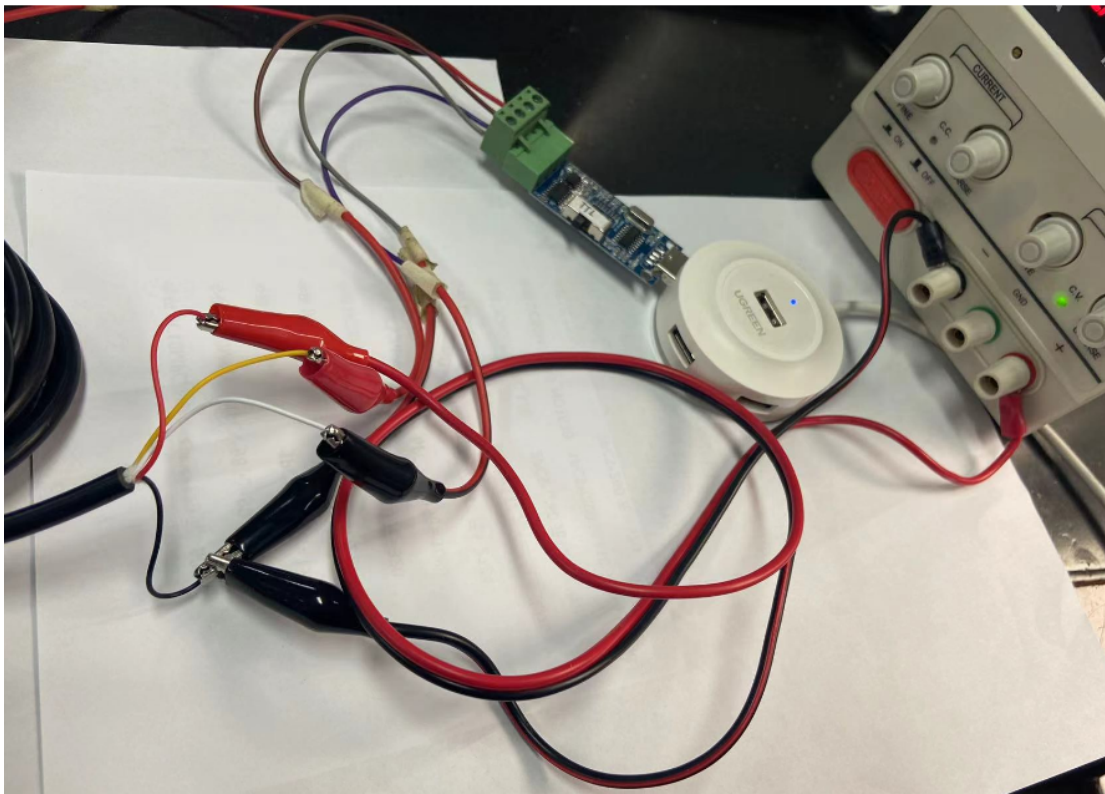
Black wire to GND (please make sure common all three GND's from power supply, camera and computer or USB to serial adaptor for TTL and RS232 versions)

White wire to RX/RS485 A

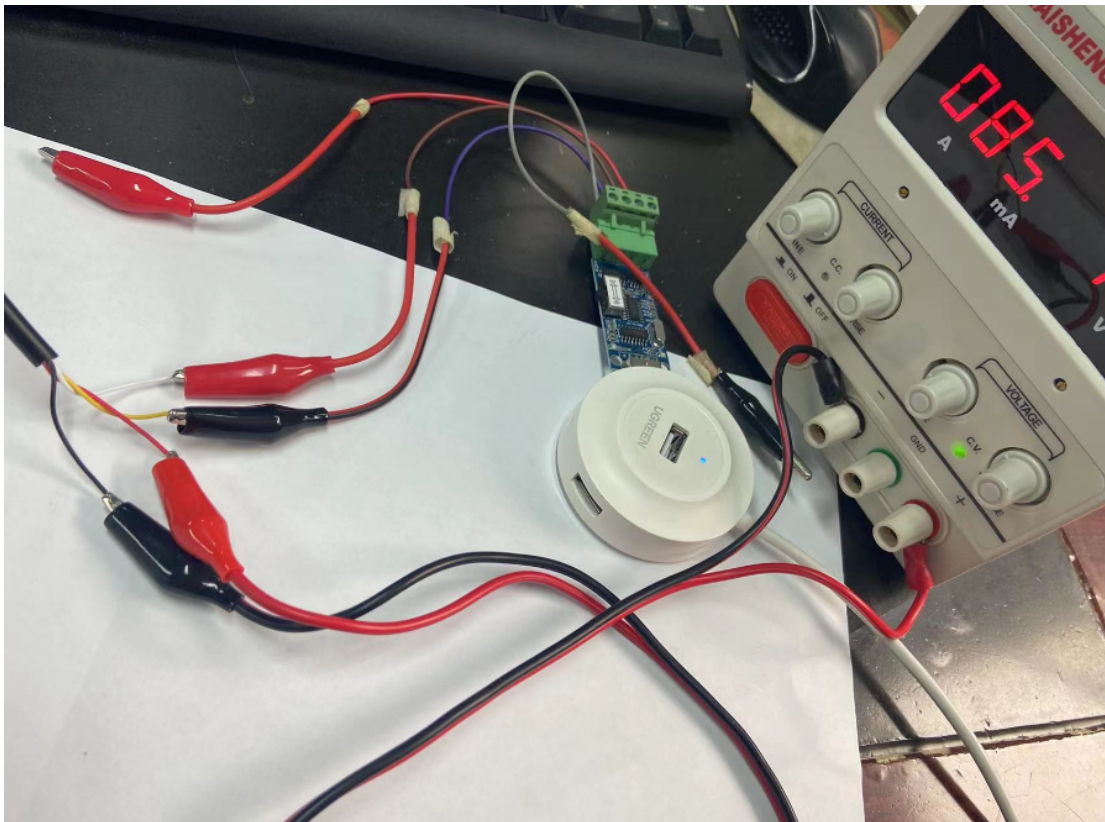
Yellow wire to TX/RS485 B

The wiring with Spinel supplied USB adaptor for reference:



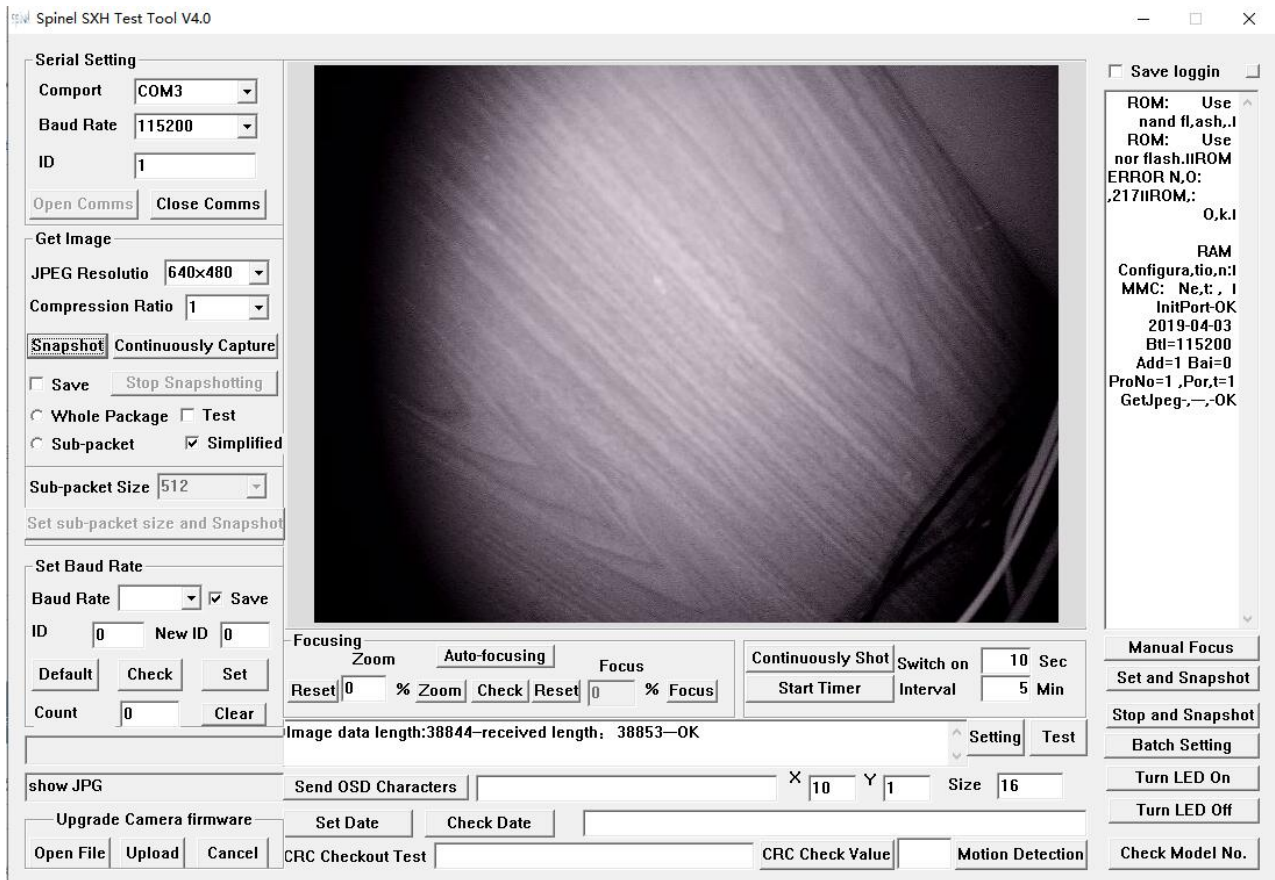


For RS485 camera, you do not need to common the three grounds:

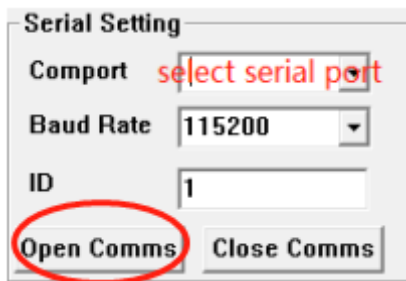


2. Run Spinel SXH Test Tool V4.0 (the test tool can be downloaded from Spinel's website)

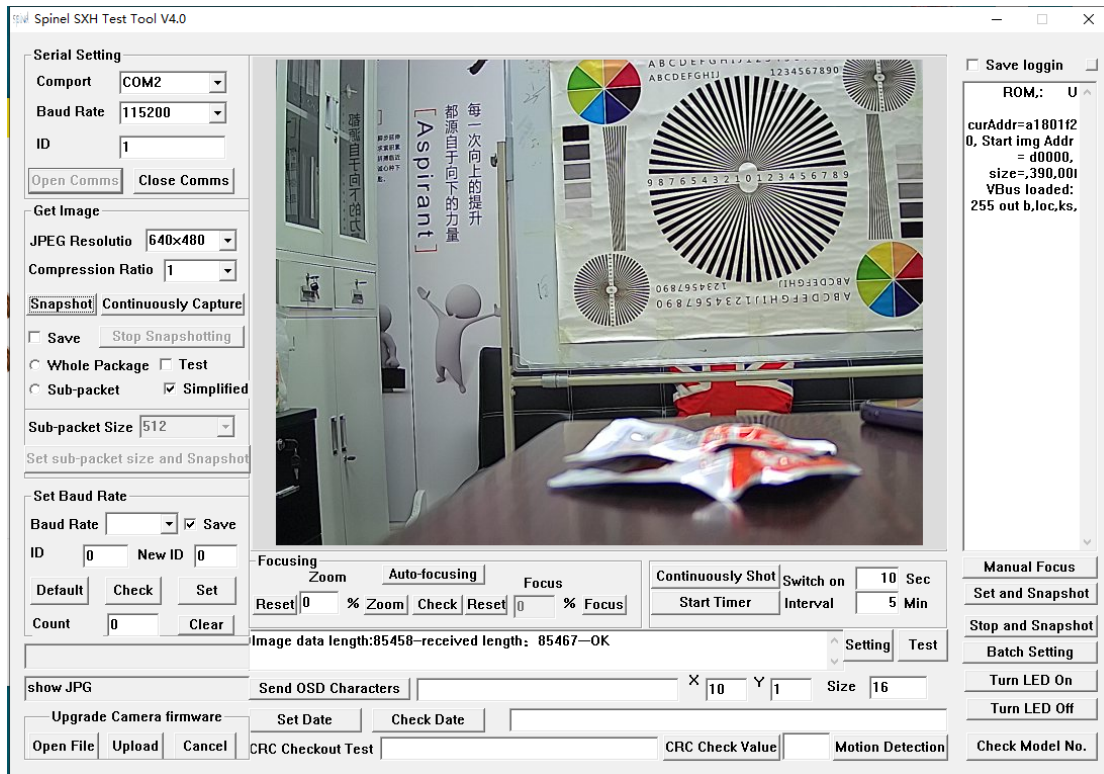
The following image illustrates the interface of the test tool software.



2.1 **Open comms**, the default baud rate is 115200bps unless a different baud rate is pre-set upon request.



2.2 There is no need to choose the method of image capturing, please simply **click on “snapshot”** to take a still image at any JPEG resolution you have selected under “Get Image” box. After the process is finished, the image will show up in the window as the screenshot above.



2.3 This test tool also allows to you change the baud rate, ID address and upgrade the camera if needed.

3. Pair camera with your host device

Please refer to the SXH protocol by Spinel V4.0 to write your own program or coding, to pair the camera with your host device that you want to use to control the camera for taking images.

4. Troubleshooting

For any technical issue or error, please use “SSCOM serial debug tool” to test the camera and figure out what the issues are, the “SSCOM serial debug tool” and instruction can be downloaded from Spinel’s websites:

www.spinelectronics.com

5. Model numbers and configurations

Part Number	Configuration
SC20MPF_TTL_WL	Standard 12V SC20MPF camera with white light LED & TTL interface
SC20MPF_TTL_IR	Standard 12V SC20MPF camera with IR LED & TTL interface
SC20MPF_232_WL	Standard 12V SC20MPF camera with white light LED & RS232 interface
SC20MPF_232_IR	Standard 12V SC20MPF camera with IR LED & RS232 interface
SC20MPF_485_WL	Standard 12V SC20MPF camera with white light LED & RS485 interface
SC20MPF_485_IR	Standard 12V SC20MPF camera with IR LED & RS485 interface

SC20MPF_TTL_IR_5V	5V SC20MPF camera with IR LED & TTL interface
SC20MPF_232_IR_5V	5V SC20MPF camera with IR LED & RS232 interface
SC20MPF_485_IR_5V	5V SC20MPF camera with IR LED & RS485 interface

For questions regarding this user manual, please email to info@spinelectronics.com

Or Call +1(800) 837-5859. Thank you.