

Device: Kaya Instruments



Introduction

The Iron from Kaya Instruments can be controlled from SKAARHOJ panels using a Ethernet-Serial converter. The Device Core is still in Alpha.

Ethernet to Serial connection

To communicate via serial (RS-485) to the camera you need an Ethernet-Serial converter. We suggest you get a TCP232-306 from USR- <https://www.usriot.com/products/serial-to-ethereum-server.html>

Below you will find screenshots of how to configure the USR-TCP232-306 converter (found on the web interface of the TCP232-306). Notice the IP address of the TCP232-306 (Static IP Address) must match the IP settings of the Kaya Instruments Device Core.

Parameter

- IP type: Static IP
- Static IP: 192 . 168 . 10 . 48
- Submask: 255 . 255 . 255 . 0
- Gateway: 192 . 168 . 10 . 1
- DNS Server: 208 . 67 . 222 . 222

Parameter

- Baud Rate: 115200 bps
- Data Size: 8 bit
- Parity: None
- Stop Bits: 1 bit
- Local Port Number: 5000 (0~65535)
- Remote Port Number: 8234 (1~65535)
- Work Mode: TCP Server
- Remote Server Addr: 192.168.0.201 [192.168.0.201]
- RESET:
- LINK:
- INDEX:
- Similar RFC2217:

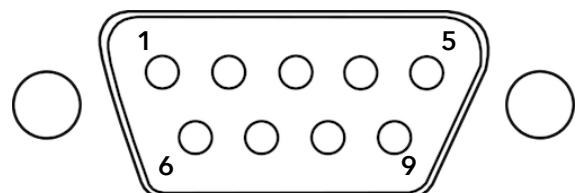
Parameter

- Heartbeat Packet Type: None
- Register Packet Type: ASCII
- Short Connection:
- TCP Server-kick off old connection:
- Buffer Data Before Connected:
- UART Set Parameter:

Parameter

- Module Name: USR-TCP232-306
- Webserver Port: 80
- Username: admin
- Password: admin
- MAC Address: 9C-A5-25-A3-FD-C8
- Max Clients Connect To TCP Server: 4 (1~16)
- Reset Timeout: 3600 (0~65535s)

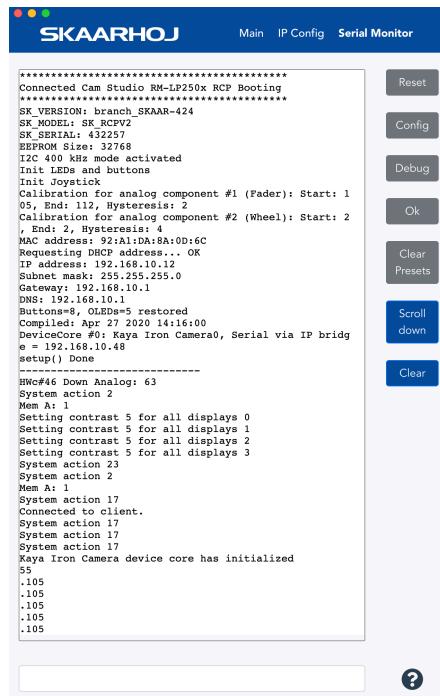
Wiring to the Camera/Converter



Pin	Definition
2	RXD
3	TXD
5	GND

Camera/ConverterConfirm Connection

The Serial Monitor from the Firmware Application can be used to monitor connection status.



When the Serial Monitor reports

Connected to client.

Kaya Iron Camera device core has initialized

connection to the Serial Converter and the camera have been established.

Actions

An excerpt of the actions in the Device Core

- Kaya Instruments Iron Cameras: Exposure Mode
- Kaya Instruments Iron Cameras: Exposure Auto
- Kaya Instruments Iron Cameras: Exposure
- Kaya Instruments Iron Cameras: White Balance Mode
- Kaya Instruments Iron Cameras: White Balance Level
- Kaya Instruments Iron Cameras: White Balance Calculation Mode
- Kaya Instruments Iron Cameras: Black Level Mode
- Kaya Instruments Iron Cameras: Black Level
- Kaya Instruments Iron Cameras: Analog Black Level
- Kaya Instruments Iron Cameras: Analog Gain Level
- Kaya Instruments Iron Cameras: Gain Mode
- Kaya Instruments Iron Cameras: Gain Auto
- Kaya Instruments Iron Cameras: Gain
- Kaya Instruments Iron Cameras: Flip
- Kaya Instruments Iron Cameras: Test Pattern