

## Device: Dream Chip - ATOM One Mini

ATOM one Mini are small POV cameras controller over serial. Via an ethernet to serial converter you can color control this camera using SKAARHOJ controllers.

For more information on the camera, please go to <https://www.dreamchip.de/products/atom-one-family/atom-one-mini.html>



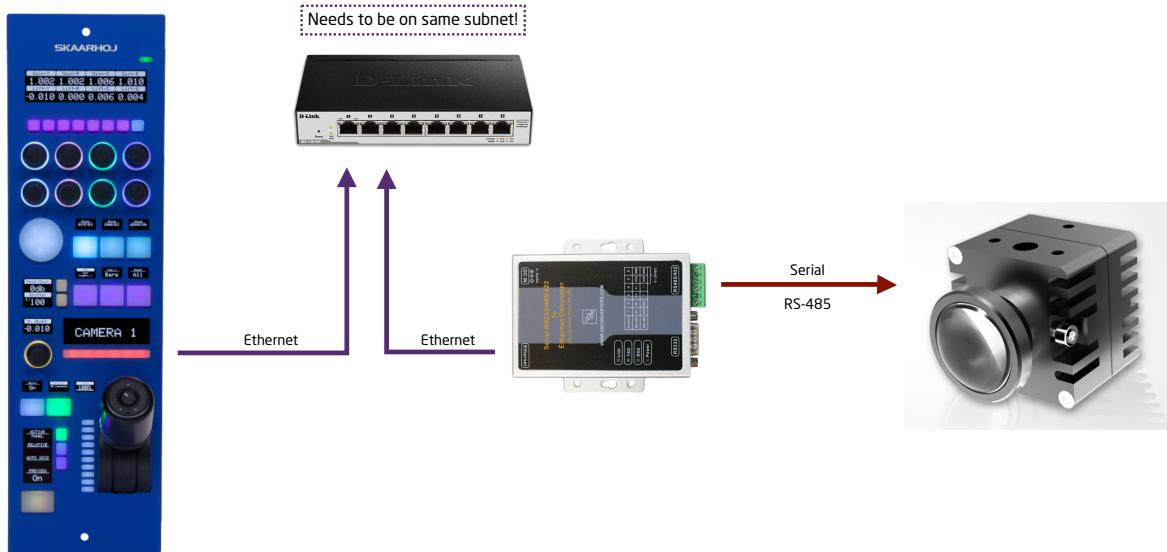
Please use the instructions in this manual to make connection between a SKAARHOJ controller and the ATOM One Mini Dream Chip camera.

As a extra resource please also watch this video <https://vimeo.com/328643703> from Dream Chip on how to prepare the camera



## Ethernet to Serial connection

To communicate via serial (RS-485) to the Dream Chip camera you need an Ethernet-Serial converter. We suggest you get a XS1200 from US Converters - <http://www.usconverters.com/serial-rs232-device-server>



There is a quirk you should know about: The XS1200 only accepts a single TCP connection at a time and it will take some time to realise if a client disconnected silently before it allows a new connection. In essence this means if the SKAARHOJ controller was connected and is rebooted without disconnecting, the XS1200 Server may not realise this before after some time. Therefore you may need to powercycle it along with the SKAARHOJ controller to make sure it will accept a connection.

Below you will find screenshots of how to configure the XS1200 converter (found of the web interface of the XS1200).

**SERIAL TO ETHERNET CONVERTER  
PART: XS1200  
WWW.USCONVERTERS.COM**

**Logout**

**Basic**   **Advance**   **Security**

**Serial Settings**

Device Name	DSM1
Data Baud Rate	115200
Data Bits	8
Data Parity	None
Stop Bits	1
Flow Control	None
Serial Type	RS485

**Network Settings**

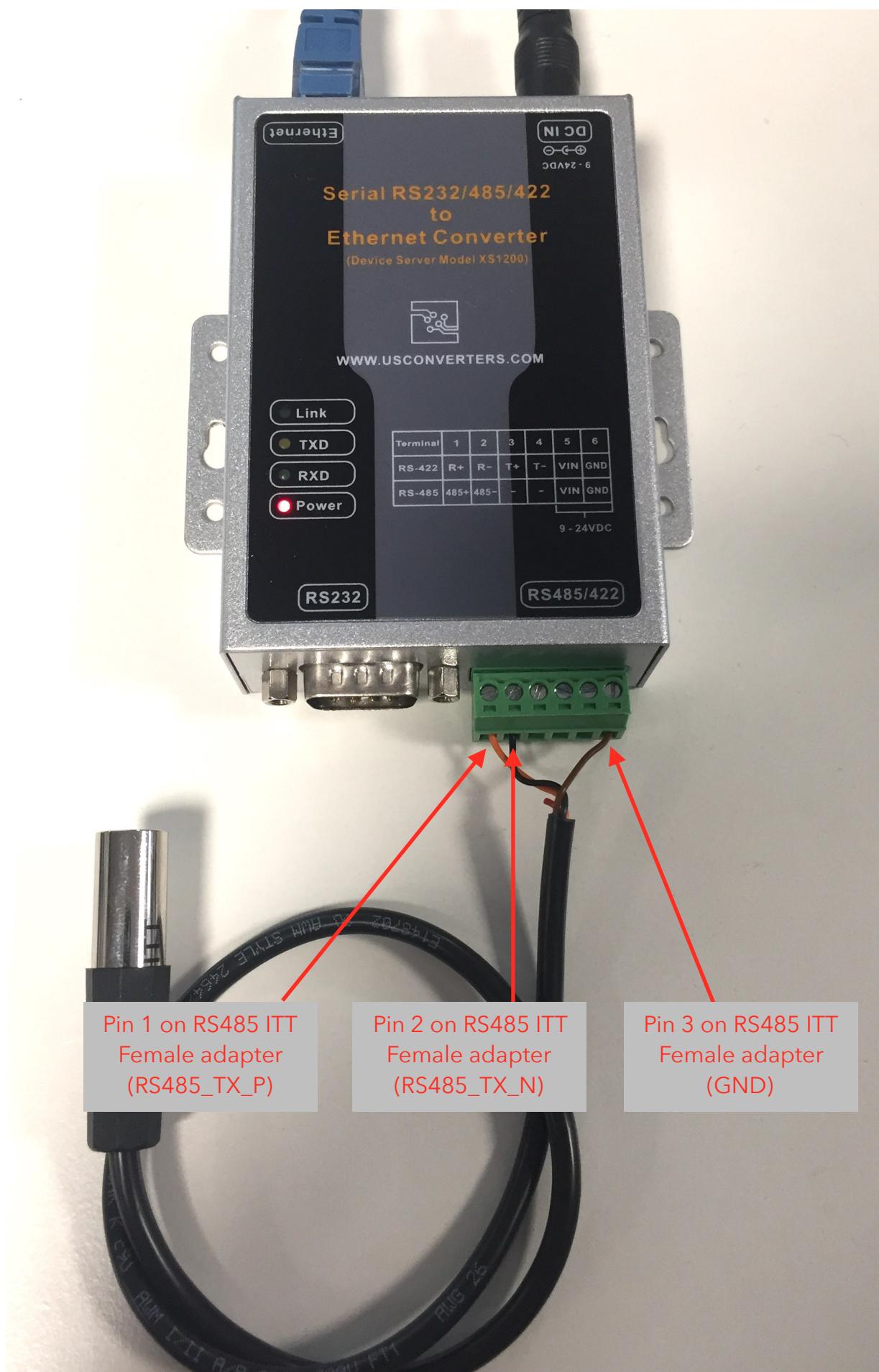
DHCP Client	Disable
Static IP Address	192.168.10.230
Static Subnet Mask	255.255.255.0
Static Default Gateway	192.168.10.1
Static DNS Server	168.95.1.1
Connection Type	TCP
Transmit Timer	100 <i>Please enter an integer between 10~65535 ms</i>
Server/Client Mode	Server
Server Listening Port	5000 <i>Please enter an integer between 1024~65535</i>
Client Destination Host Name/IP	192.168.2.2 <i>Please enter host name or IP address</i>
Client Destination Port	5000 <i>Please enter an integer between 1024~65535</i>

Apply   Cancel   Reboot   Restore default

Make sure to set up an IP address in your range here. This is the IP address you must also set up inside the SKAARHOJ controller for the Device Core! Here it is set to 192.168.10.230 and corresponding subnet mask.

For serial commands the default for the ATOM one mini is 115200 8N1 (from their manual).

Cabling to the XS1200 is via the RS-485 connector. 3 wires are necessary. GND and then 485+ and 485-.



Look in the ATOM one mini manual for cabling instructions. For the RS485 ITT Female M-XL-3-11L connector the 3 wires are indicated as GND, RS485\_TX\_N and RS485\_TX\_P.

The coloration between these and the XS1200 is the following:

RS485\_TX\_N = 485-

RS485\_TX\_P = 485+

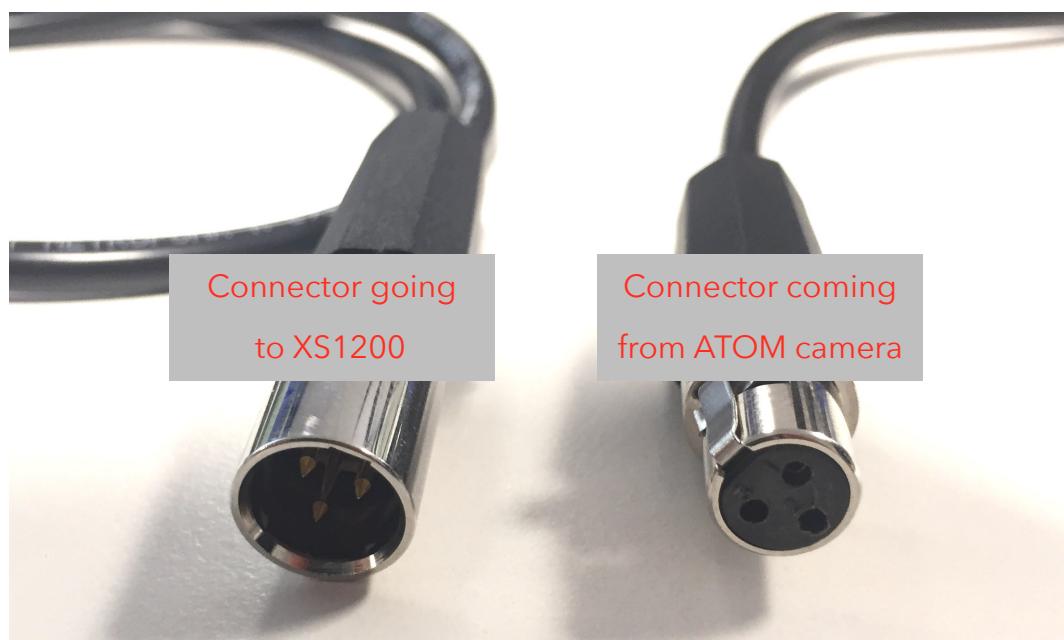
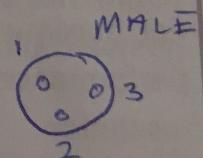
### 3.1 Power / RS485 Connector

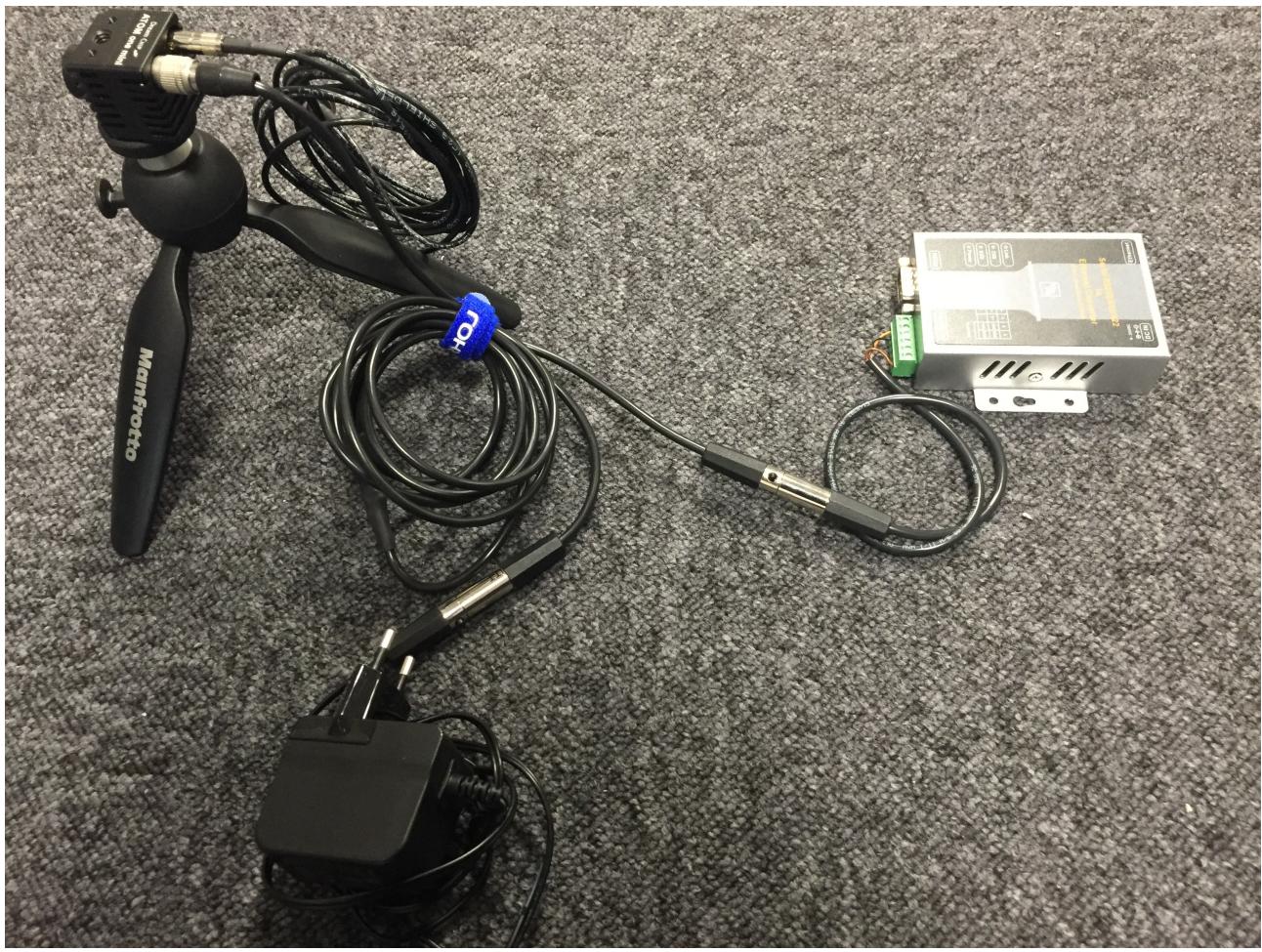
The power connector is a Hirose male HR10 6 pin connector. The following table shows required plugs. Dream Chip offers a mini XLR adapter.

	Female HR10A-7P-6S(73)	Signal	Dream Chip 4-wire Power Cable	Power ITT Male M-XL-3-12L	RS485 ITT Female M-XL-3-11L
6	Power in	red		1	
5	GND	brown		3	3
4	RS485_TX_P				
3	RS485_TX_N				
2	RS485_TX_N	black			2 brown
1	RS485_TX_P	orange			1 white

### 3.2 SDI Output

The HD-BNC output is SMPTE 292M / 424M complaint.





## ATOM one Family

Currently we have control of the ATOM one Mini. We are working on expanding control for the rest of the ATOM one family.