RRC101-IP

Quick start guide

THIESEN
HARDWARE
SOFTWARE
DESIGN
GMBH

Impressum

Editor

Thiesen Hardware- & Software-Design GmbH
Kommunikationstechnik

Version	As of	Status
1.0	13/10/2016	Released

Author	Checked	Released of
Alwin Hoffmann	André Wohnig	André Wohnig

Contact	Phone	E-Mail
Erik Habicht	+49 (0) 66 41 / 979-141	e.habicht@thiesen.com
Kevin Bellenbaum	+49 (0) 66 41 / 979-144	k.bellenbaum@thiesen.com

Description

Quick start guide. First steps to connect and install the RRC101-IP unit.

Table of contents

RRC101-IP – Quick start guide
Kommunikationstechnik

THIESEN
HARDWARE
SOFTWARE
DESIGN
GMBH

1 Precondition / Preamble

1. PC or Notebook/Laptop → hereafter referred to as PC

2. Switch + equivalent network cable respectively crossover cable → we recommend a switch

3. All units (RRC101-IP, RDU104, RRC101-IP-Marine) are in delivery status and with IP-address 192.168.56.1

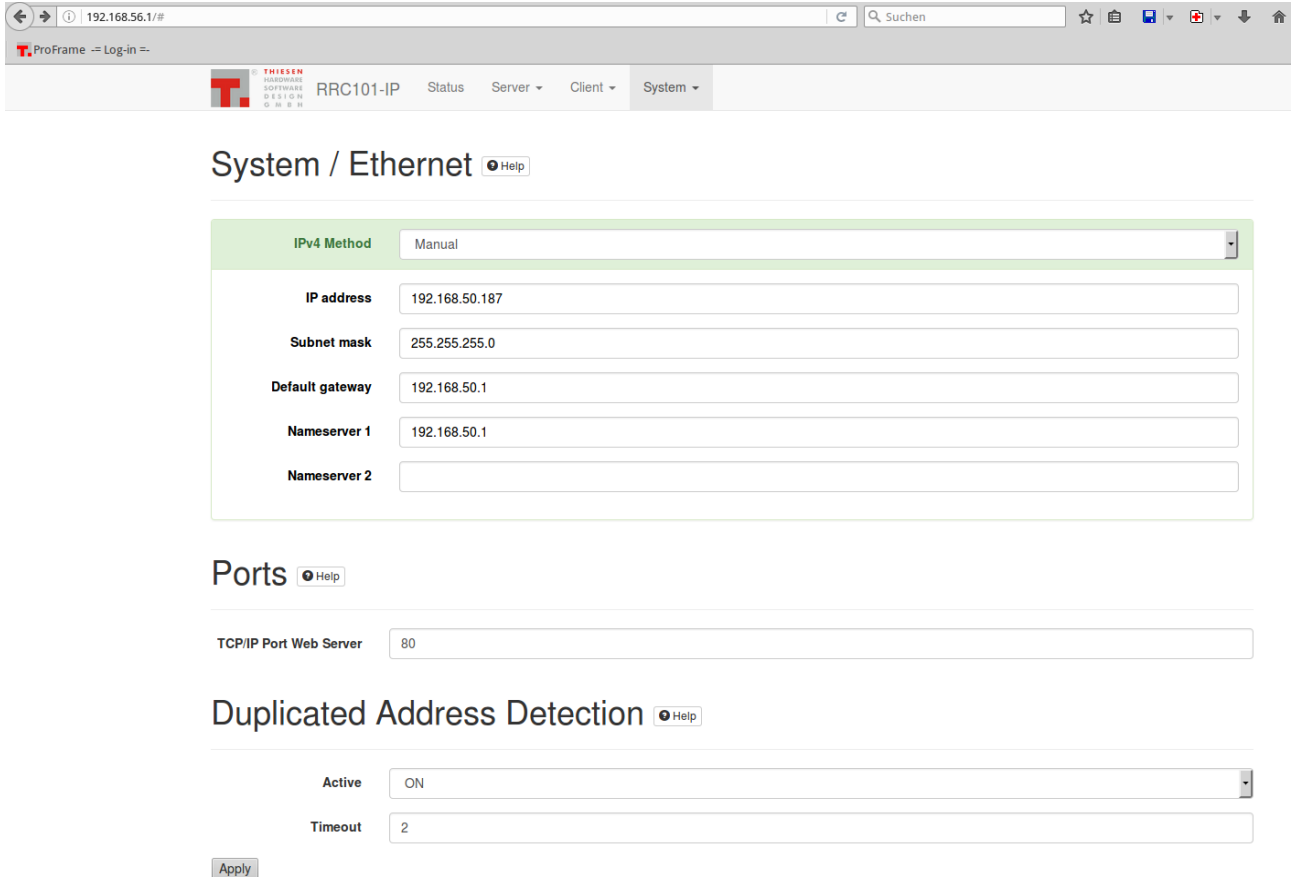4. The purpose is to configure all units via switch in a local network.

2 Configuration

2.1 General procedure / connection

1. Set the IP address of the PC to correct network (192.168.56.0) for address-range 192.168.56.1 (preset IP-address of the units) and 192.168.56.2 to 192.168.56.254.
    Recommended IP-address for PC: 192.168.56.100

2. Connect PC and Switch.

3. Connect the units one after the other with the switch and proceed as follows: At first connect the server - then the Clients.

4. Open up your Browser at the PC (we recommend Mozilla Firefox) and enter the IP-address of the RRC101-IPs 192.168.56.1 and confirm your input with **<Enter>**.

5. The Browser Login-Dialogue will appear.
    Log in with
    Username: admin
    Password: admin

6. The Webinterface opens up.

2.2 Server Configuration

At first the Server has to be configured. The next steps have to be carried out even in case of a „point-to-point" connection. → One „point" has to be the Server the other one the Client.

7. **Set the Server IP-address**. From Menue „*System*" → choose „*Ethernet*".
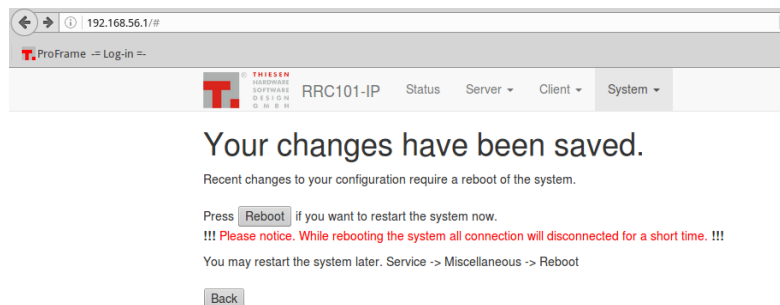Do the following settings:

IP address	→	favoured IP-address
Subnet mask	→	respective Subnet-Mask

Is a connection via internet requested the „**Default gateway**" and the „**Nameserver**" have to be adapted.

Confirm the settings by pressing the „*Apply*" butoon and activate the new settings with a reboot in the appearing Dialogue-box „*Your changes have been saved.*" → Press „*Reboot*" Button → the unit reboots. This may take up to 2 minutes.
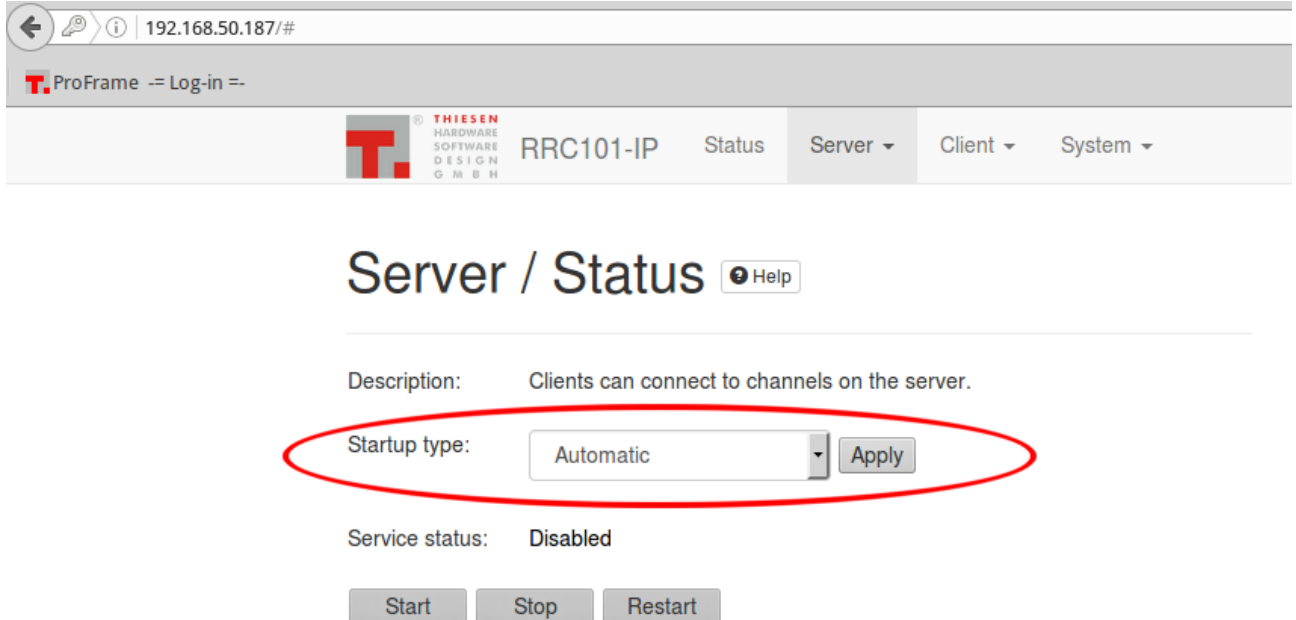
8. **Set the starting sequence to automatic**
    From the menue „*Server*" → „*Status*" choose the „**Startup type**" and set it to „**Automatic**"

    Confirm with „*Apply*" → no reboot necessary. The settings will be confirmed with „*Your changes have been saved*".
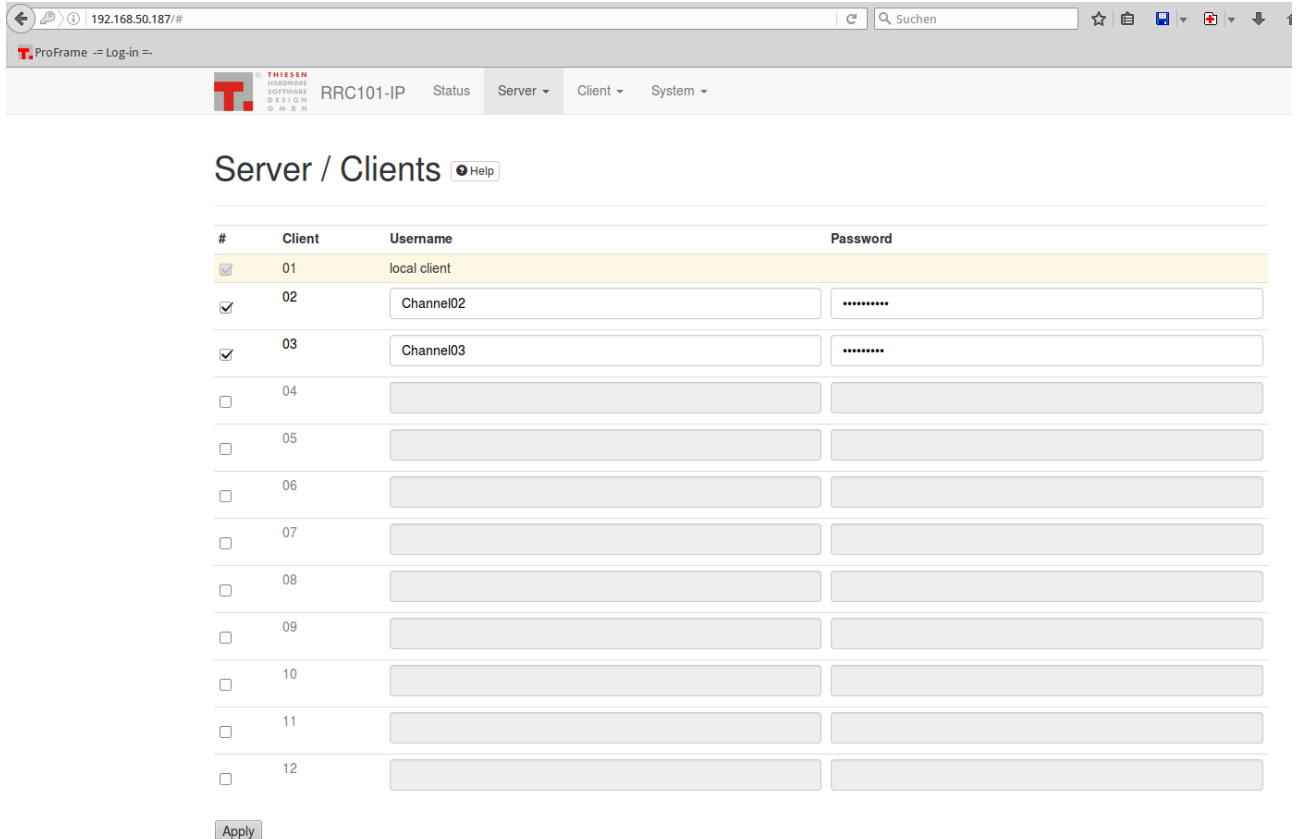
9. **Register the Clients**

In order to connect Clients with the Server there has to be a Username-Passwort – combination registered for every Client. Later on the client authenticates himself with this combination at the server.

Choose from the menue „**Server**" → „**Clients**", tick off a box to activate a client and register the Username-Passwort – combination. *Username* and *Password* are arbitrary but have a few restrictions (see below). Confirm the entries with „**Apply**" and the dialogue „*Your changes have been saved.*" appears. Activate the settings py pressing the „**Restart**" button → the restart takes only a few seconds.
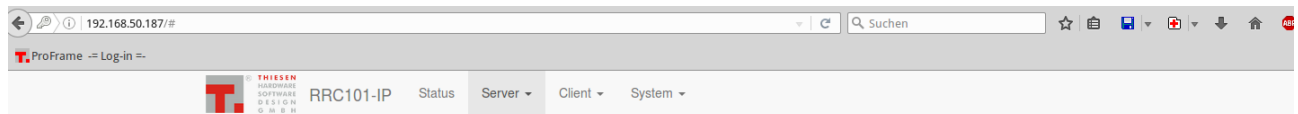The „*Client 01*" is the server and is intern also noted as a client. This setting cannot be changed.
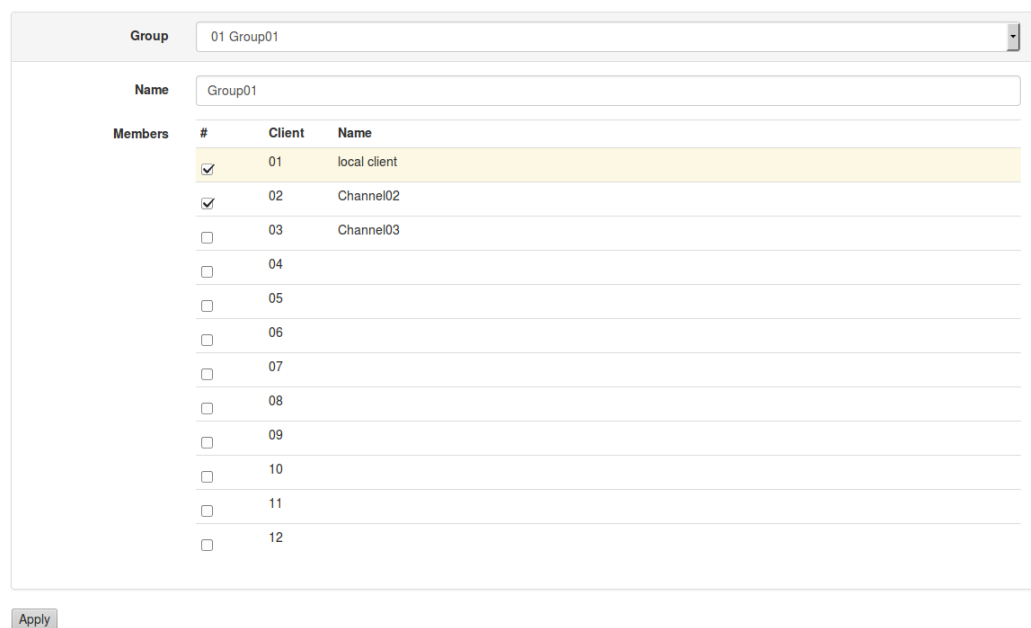

Restrictions: - Valid characters : A-Z, a-z, 0-9 and the special characters ".", "_", "-"
- Username   : 5 to 20 characters
- Password   : 3 to 30 characters
- special characters ".", "_", "-" are not to be set at the beginning nor the end.

10. To establish at least one group

Which untits can communicate with each other resectively are allowed to communicate with each other is regulated in groups. At least one group has to be active to obtain a communication.

Choose from the menu „**Server**" → „**Groups**".

The number of the available groups depends on the number of the maximum possible clients:

$$
\begin{array}{llll}
2-8 & \text{clients} & \rightarrow & 8 \text{ groups} \\
9-16 & \text{clients} & \rightarrow & 16 \text{ groups} \\
17-24 & \text{clients} & \rightarrow & 24 \text{ groups} \\
25-32 & \text{clients} & \rightarrow & 32 \text{ groups}
\end{array}
$$

The maximum available groups are already stored in the dropdown-Box „**Group**".

In order to establish a group from the dropdown-Box pick group „**01 Group01**" → the under „*9. Clients entry*" *already stored* clients will be listed.

To add a client to a group tick the box in the column „**#**". The client cannot communicate with other units of the group if it is not ticked (see Client03).

Group-names can be changed by entering a new name into field „**Name**" while the desired group is selected/active.

All entered data will be saved by pressing the „**Apply**" button. Activate the new settings with the button „**Restart**" at the following dialogue „*Your changes have been saved.*" → the restart takes only a few seconds.

2.3 Client configuration

11. **To set the Client IP-Address**.
Choose from the menue „**System**" → „**Ethernet**" and do the following settings:
IP address → requested IP-address
Subnet mask → appropriate Subnet-mask

Is a connection via internet requested the „**Default gateway**" and the „**Nameserver**" have to be adapted.

The setting „**Apply**" has to be confirmed. Activate the new settings with the „**Reboot**" button in the following dialogue „*Your changes have been saved.*" → the new start takes up to 2 minutes.

12. **Connect with the server**
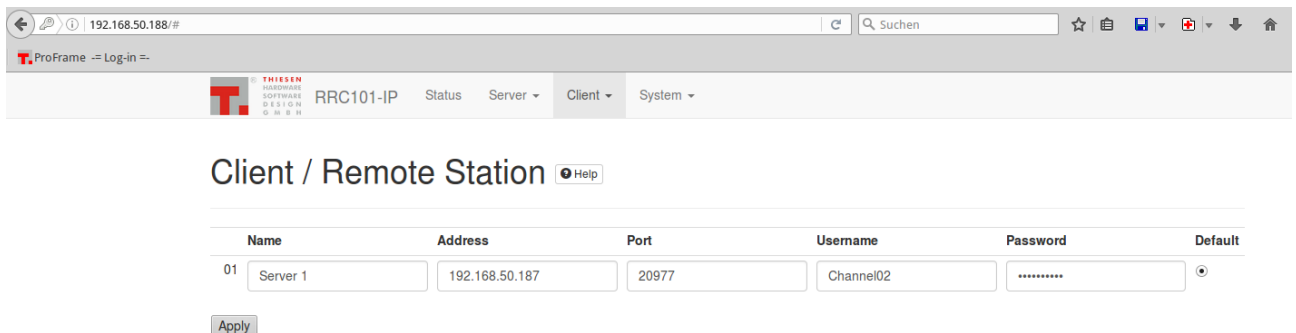The connection to the server has to be stored at each client. Therefor choose the menu „**Client**" → „**Remote Station**".

Name → Insert a name for the server of which the connection is desired with. This entry will not be copied from the other clients!

Address → Enter the IP-Adresse of the Server, as noted under „*7. Server IP-Address*".

Port → This is the default TCP/IP-Port (Control) of the server. Normally this Port has not be changed. Port-Settings will be set at the server under „**Server**" → „**Ports**" and have to be readjusted at every client.

Username → Enter an appropriate user name as stored under „*9. Clients*"

Password → Enter an appropriate password as stored under „*9. Clients* "

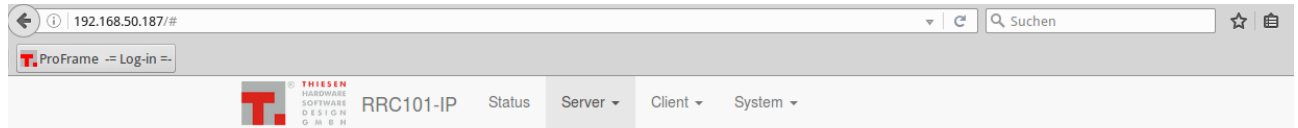**RRC101-IP – Quick start guide**
Kommunikationstechnik

THIESEN
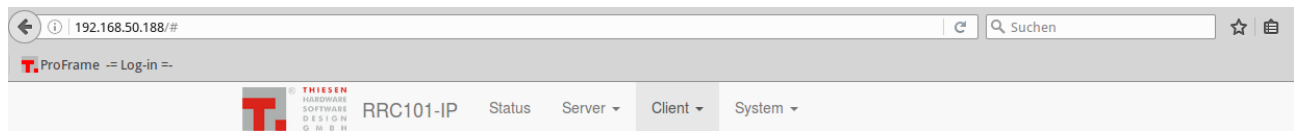HARDWARE
SOFTWARE
DESIGN
GMBH

2.4 Check connections

13. At the **Server** choose „*Server*" → „*Overview*" from the menu. All links and their current status are shown.

14. At the **Client** choose „**Client**" → „*Overview*" from the menu. The connection with the server and its current status is shown.
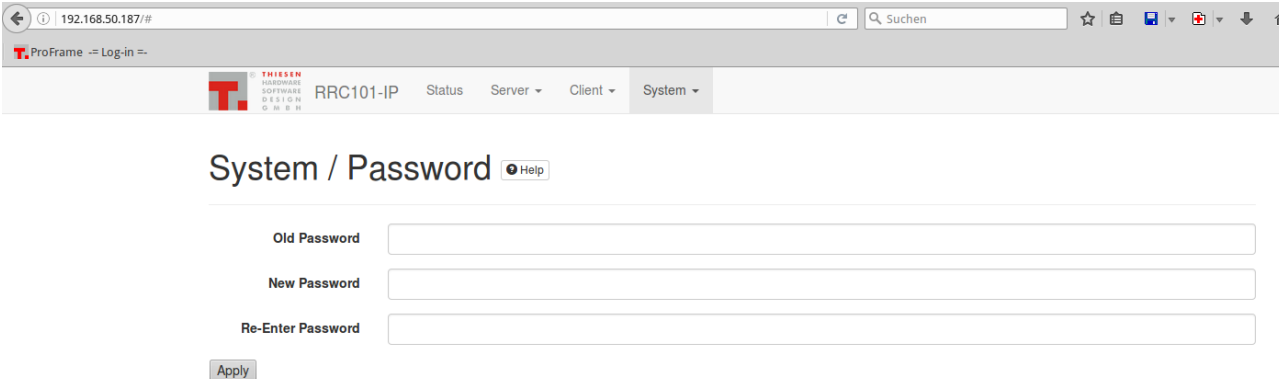
2.5 Change password for Webinterfaces

To change the password for the Webinterfaces choose the menu „*System*" → „*Password*" and do the requested settings.

Confirm the new setting by pressing the „*Apply*" button.

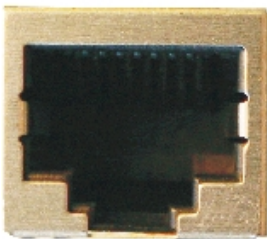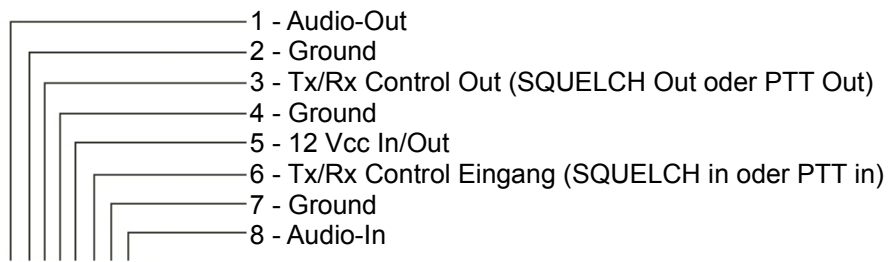**Note the restrictions**:   - valid characters: A-Z,   a-z,   0-9 and ".", "-"
                                    - Password: 5 to 30 characters
                                    - special characters ".", "-" are not to be set at the beginning nor the end.

RRC101-IP – Quick start guide
Kommunikationstechnik

THIESEN
HARDWARE
SOFTWARE
D E S I G N
G M B H

3 Pin assignment

To produce a cable to connect the RRC101-IP and the radio unit refer to the pin assignment below:

3.1 AUDIO

1 - Audio-Out
2 - Ground
3 - Tx/Rx Control Out (SQUELCH Out oder PTT Out)
4 - Ground
5 - 12 Vcc In/Out
6 - Tx/Rx Control Eingang (SQUELCH in oder PTT in)
7 - Ground
8 - Audio-In

3.2 DATA

1 - I/0 7 or RS232 TxD (default: RS232)
2 - I/0 6 or RS232 RxD (default: RS232)
3 - Ground
4 - I/0 5
5 - I/0 4
6 - I/0 3
7 - I/0 2
8 - I/0 1