Series XC50/XC55/XC75

LED matrix displays with Ethernet interface

Ethernet connection

Operating instructions

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2   Legal note

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3   Overview

This manual describes the network properties of the XC50, XC55 and XC75 displays.

Network settings in delivery state and network integration

To configure the display you need a PC with network card or an already configured network.

Consult a member of your IT department, if possible, to integrate the display into your network.

To integrate the display into an existing network, it must be connected to the network. In the delivery state, the device will automatically obtain an IP address via DHCP and can be reached under this address. This ensures that plugging the display into your network does not cause any address conflicts.

For all possibilities described below, the following applies in principle:

Tip

If the website does not work, the reason could be that the display and the laptop have IP addresses which are located in different networks.

In this case, change the IP address of your laptop or consult your IT department.

IP address in case of missing DHCP server: 169.254.6.90/16

If the display is set to DHCP, as it is in the delivery state, but there is no DHCP server in the network, the display gives itself the fixed IP address 169.254.6.90 with the subnet mask 255.255.0.0.

This constellation occurs, for example, when the display is connected directly to a laptop.

Call the web page of the display

After the network connection exists, the display can be operated via its web page. There are several ways to do this:

- Via the PC program "XCplus Device Search"
- Via the name of the display
- Via the IP address of the display

The different options are described in the following sections.

4 PC Software XCPlus Device Search

Siebert displays with XCplus Technology can be found in local networks with the PC software XCplus Device Search.

For Windows computers, this method is the easiest in most cases.

Call web page via XCplus Device Search

First download the software "XCplus Device Search" free of charge from the Siebert Homepage: https://www.siebert-group.com/de/product-xc50-downloads.php

The software is available as a zip file. This can be unpacked, e.g. on the desktop or directly in the download directory. The software does not need to be installed.

n the unzipped directory there is the file XCplusDeviceSearch.exe:
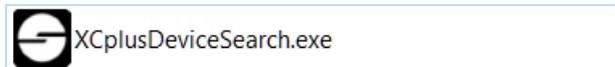
Start the search by double-clicking this file and confirm any Windows security warning that may appear by clicking the "Run" button.

Tip

The appearance and scope of this warning depends on the Windows version and the security settings on your computer.

Make sure that you share access to the correct networks (private, domain, public).

After that the operating window of the program Siebert XCplus DeviceSearch Software appears. After a short time the display should be found.

Tip

The search covers all networks accessible from the laptop. If the computer is also connected via Ethernet to a network with XC50/XC55 or XC75 displays, these displays are also shown.

The search uses UDP broadcasts. Displays that can only be reached via routers cannot be found for technical reasons.

In the following example, several displays are found. The display with the name "xc-display" shows the IP address 192.168.15.157, which was assigned by a DHCP server.
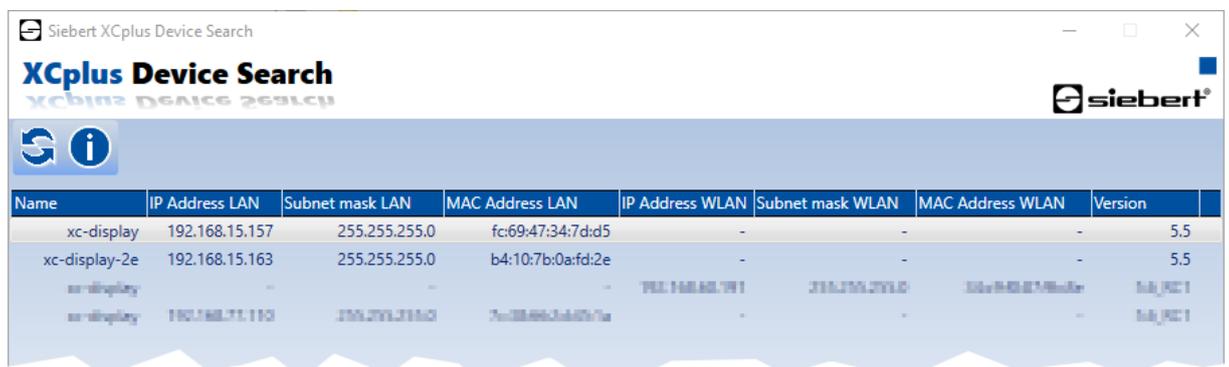
Name	IP Address LAN	Subnet mask LAN	MAC Address LAN	IP Address WLAN	Subnet mask WLAN	MAC Address WLAN	Version	
xc-display	192.168.15.157	255.255.255.0	fc:69:47:34:7d:d5	-	-	-	5.5	
xc-display-2e	192.168.15.163	255.255.255.0	b4:10:7b:0a:fd:2e	-	-	-	5.5	
xc-display	-	-	-					
xc-display				-		-		

By double-clicking on the required display, the web browser with the appropriate address is called up and the start screen of the display with the login dialog opens up.

Tip

If the website does not work, the reason could be that the display and the laptop have IP addresses that are located in different networks.

In this case, change the IP address of your laptop or consult your IT department.

5 Call via the display name

In delivery state the display has the name "xc-display".

If your network is configured properly, you can reach the display under this name. To do this, enter http://xc-display in your web browser.

Tip

With the program 'ping.exe' you can check via the command prompt whether the name of the display is known. To do this, enter the command 'ping xc-display'. If the name is known, the matching IP address is output.

```
H:\>ping xc-display

Ping wird ausgeführt für xc-display [192.168.15.152] mit 32 Bytes Daten:
Antwort von 192.168.15.152: Bytes=32 Zeit<1ms TTL=64
Antwort von 192.168.15.152: Bytes=32 Zeit<1ms TTL=64
Antwort von 192.168.15.152: Bytes=32 Zeit<1ms TTL=64
```

Tip

You can change the name of the display.

If the call via the name does not work, it could be that the name has already been changed.

6 Call via the IP address

If the display is assigned an IP address by a DHCP server and this IP address is known, then the web page can be called directly.

Please enter http://<IP>/ in your web browser and replace <IP> with the correct IP address.

Tip
With the program 'ping.exe' you can check via the command prompt whether the display can be reached via its IP address. To do this, enter the command 'ping <IP>'; e.g.:

```
H:\>ping 192.168.15.155

Ping wird ausgeführt für 192.168.15.155 mit 32 Bytes Daten:
Antwort von 192.168.15.155: Bytes=32 Zeit<1ms TTL=64
Antwort von 192.168.15.155: Bytes=32 Zeit<1ms TTL=64
Antwort von 192.168.15.155: Bytes=32 Zeit<1ms TTL=64
Antwort von 192.168.15.155: Bytes=32 Zeit<1ms TTL=64

Ping-Statistik für 192.168.15.155:
    Pakete: Gesendet = 4, Empfangen = 4, Verloren = 0
    (0% Verlust),
Ca. Zeitangaben in Millisek.:
    Minimum = 0ms, Maximum = 0ms, Mittelwert = 0ms
```

Tip
If the website does not work, the reason could be that the display and the laptop have IP addresses which are located in different networks.

In this case, change the IP address of your laptop or consult your IT department.

7 Service IP address in delivery state: 169.254.213.90/16

If all possibilities mentioned so far fail, there is the possibility to call the display via your service IP:

Condition	IP address(s)
Delivery state	169.254.213.90/16
Alternative	10.20.6.90/8, 192.168.132.90/24, 192.128.20.10/24, 169.254.11.90/16

The service IP address can be changed by the user. However, it must always be one of the five alternatives mentioned. Thus a display can always be found by trying out the five possible addresses.

Tip
The service IP address can only be used if there is only one Siebert display in the network.

If you operate several Siebert displays in a network, they will have the same service IP address and the address can no longer be clearly assigned to a device. To use the service IP address in this case, the relevant display must be operated on its own with a laptop..

8   Log on to the display

Now the start page of the display can be accessed via one of the described options. The admin password in the delivery state is: xc-admin
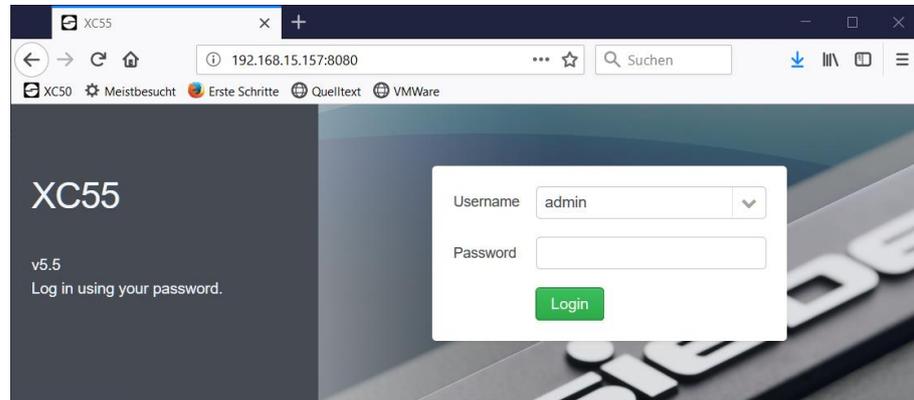
Tip

If the website does not work, the reason could be that the display and the laptop have IP addresses which are located in different networks.

In this case, change the IP address of your laptop or consult your IT department.

First Start Wizard

At the very first start a dialog pops up after logging in, asking you to change the passwords for security reasons.

The passwords can be changed at any time later, if necessary.

Administration of users

On the page Settings / Users you can add new users with limited rights and own passwords.
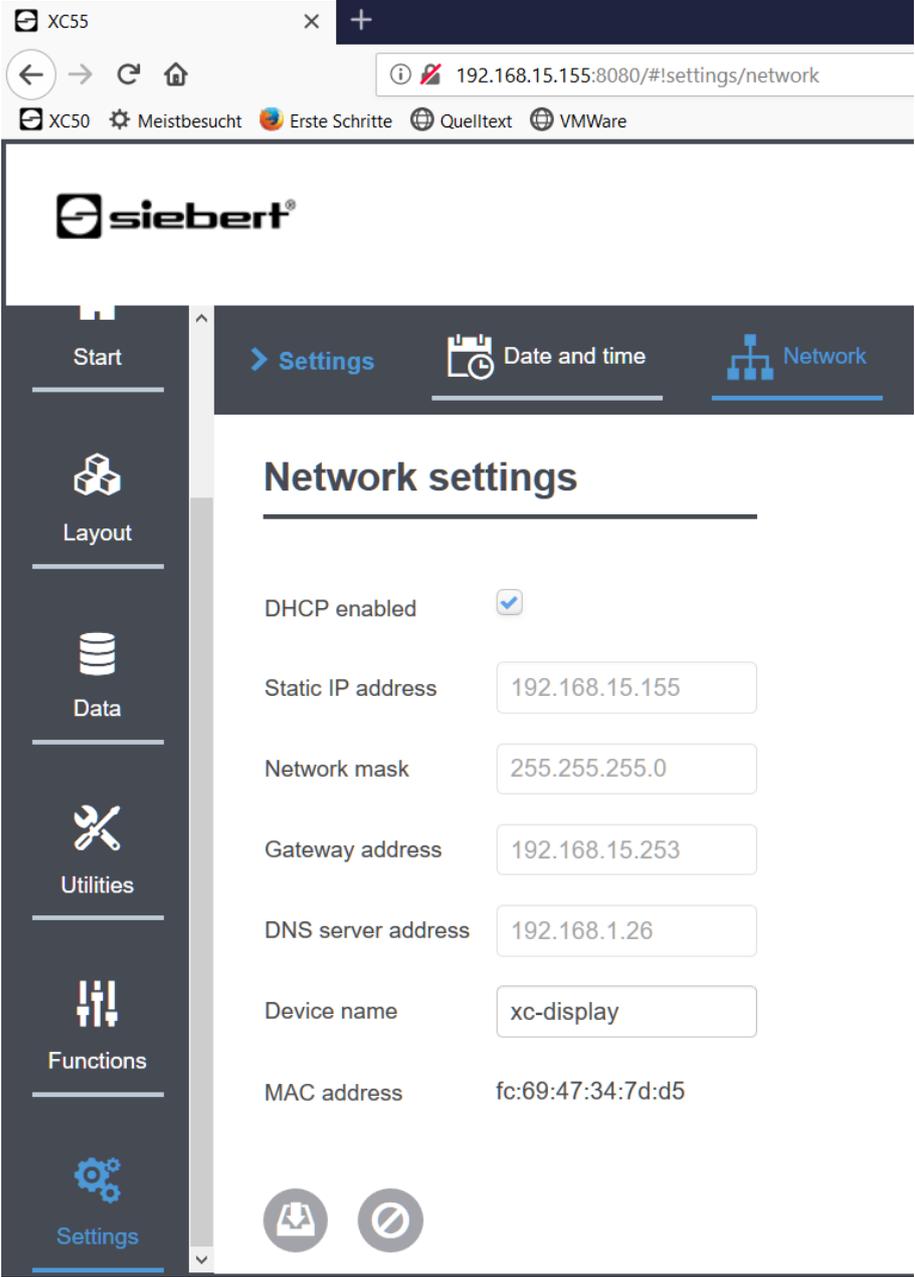
In the delivery state only the user <admin> is defined:

user	password
admin	xc-admin

The user 'admin' has full access to all settings and can modify the display data in full extent.

Changing the IP settings by the user "admin"

As user "admin" you can adapt the IP settings on the web page "Settings/Network" to the requirements of your network.

You can change the service IP address of the display in "Settings/System".

9 Factory settings

The displays are delivered with the following settings.

Properties	Value	Changeable
Password for admin	xc-admin	Yes
IP address	DHCP	Yes
IP address without DHCP	169.254.6.90	No
Name of the display	xc-display	Yes
Service IP address	169.254.213.90/16	One out of five possible addresses

As service IP address one of the five alternatives can be selected.ausgewählt werden:

10.20.6.90/24, 192.168.132.90/24, 192.128.20.10/24, 169.254.11.90/16, 169.254.213.90/16

1 Network resources

The displays require the following network protocols and port numbers for correct function.

Port	TCP/UDP	Protocol	Use
22	TCP/UDP	ssh	sftp, scp
80	TCP	http	Forwarding
123	UDP	ntp	NTP client
137	TCP	nbns	Windows share
138	UDP	nbns	Windows share
139	UDP	nbns	Windows share
445	TCP	cifs	Windows share
1900	UDP	ssdp	Bonjour
5350	UDP	nat-pmp-status	Bonjour
5351	UDP	nat-pmp	Bonjour
5353	UDP	mdns	Bonjour
8080	TCP	http	Web interface
9000	TCP	raw	User data

Tip
If you have network problems, first check your firewall and router settings.
Consult a colleague from the IT department.