

TELESTAR[®]

DIGIBIT TWIN



To conserve resources and protect the environment, we only provide the operating instructions in other languages as a download!



- DE** QR-Code scannen für mehrsprachige PDF-Anleitung.
- EN** Scan QR code for multilingual PDF instructions.

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1. Safety instructions

General safety

Read these instructions before first use and keep them in a safe place. Do not leave the appliance unattended near children and only use it as intended.

Power supply

Only use the mains adapter supplied or recommended. Avoid multiple sockets and extension cables to prevent overloading. Disconnect the mains plug if the appliance is not to be used for a long period of time or during a thunderstorm.

Operation & environment

Stellen Sie den Router auf eine stabile, trockene und gut belüftete Oberfläche. Setzen Sie das Gerät keinen extremen Temperaturen oder direkter Sonneneinstrahlung aus und halten Sie es von Feuchtigkeit, Wasserquellen und offenen Flammen fern.

Radio connections & interference

WLAN and SAT-IP signals can be impaired by obstacles or other electronic devices. Place the Internet router in an open location to ensure optimum signal strength. Do not use the device in the vicinity of medical devices if interference occurs.

Cleaning & maintenance

Before cleaning, disconnect the appliance from the power supply and unplug all cables. Use a dry, soft cloth and do not use cleaning agents or water. Do not open the appliance yourself, only have repairs carried out by specialised personnel.

Waste disposal

Dispose of the appliance in accordance with the local regulations for waste electrical and electronic equipment. Remove any batteries or rechargeable batteries before disposal and take them to a suitable collection point.

2. Delivery

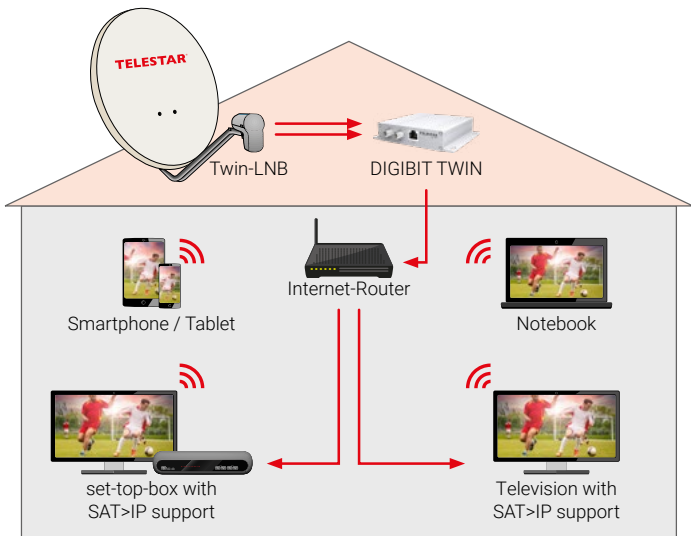
- TELESTAR DIGIBIT TWIN
- External power supply unit
- User manual

3. Introduction

The principle of the transmitter is very simple: connected to a twin or quattro switch LNB or a multi-switch, the DIGIBIT TWIN converts the satellite signals into IP technology and then makes them available for connection to a network router for feeding into a home network.

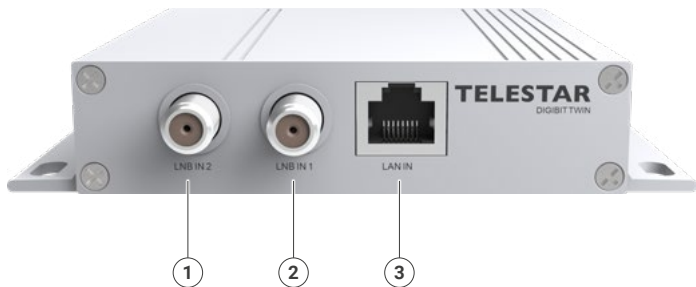
The Sat>IP technology enables the conversion and distribution of DVB-S/S2 satellite signals into a network. This allows TV programmes to be streamed via the home network to various devices such as smart TVs, PCs, tablets or smartphones without these having to be connected directly to a satellite system.

The converted satellite signals can be distributed via LAN and/or WLAN to up to two network connections in the home and used by IPTV-capable end devices. These „clients“ can be PCs, notebooks, tablet PCs, smartphones or TV sets, for example, provided they have the appropriate software or app.



4. Overview and connections

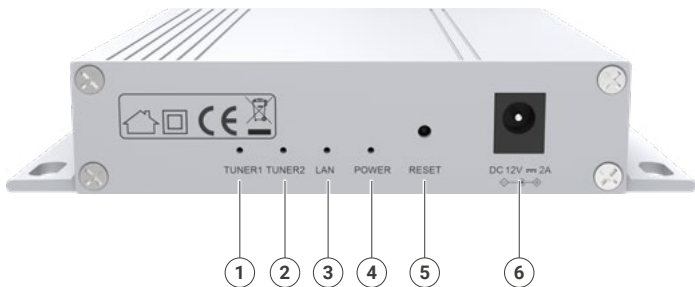
4.1 Front panel



- 1. LNB 2 / Tuner 2**
Second connection from the LNB.
- 2. LNB 1 / Tuner 1**
First connection from the LNB.
- 3. LAN connection**
LAN connection to the Internet router.

4. Overview and connections

4.2 Rear panel



1. Control-LED (Tuner 1)

Lights up when tuner 1 has been successfully connected to the LNB.

2. Control-LED (Tuner 2)

Lights up when tuner 2 has been successfully connected to the LNB.

3. Control-LED (LAN)

Lights up when the LAN connection to the Internet router has been successfully established.

4. Control-LED (POWER)

Lights up when the power supply has been successfully established with the SAT>IP router.

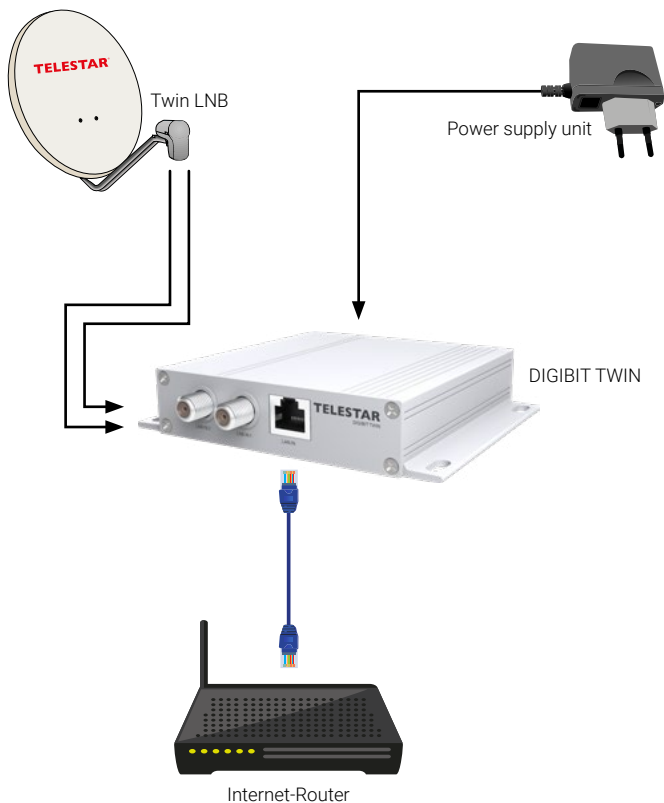
5. Reset button

Press the button to reset all settings of the SAT>IP router.

6. Power supply

Connect the supplied mains adapter here.

5. Connecting the components



5. Connecting the components

The information given here refers to the illustration on page 10:

1. Antenna inputs

Connect the output(s) of an LNB or multiswitch to the DIGIBIT TWIN. If you only want to use a single device (client device) in the network with the DIGIBIT TWIN, a connection from the satellite system is sufficient. Connect this to the Tuner 1 connection. If you want to use two devices independently of each other for TV reception via the network, both LNB inputs must be connected.

2. Network connection

Connect the DIGIBIT TWIN to your Internet router using a network cable.

3. Power supply

Connect the plug-in power supply unit to the DIGIBIT TWIN and plug it into a socket.

6. Installing SAT>IP Routers

These installation instructions serve as general instructions for commissioning the Sat>IP router. The instructions have been deliberately kept general, as home networks can be configured differently depending on the application. If you have any questions or uncertainties, please contact your installation company.

6.1 Requirements for accessories

To ensure that the DIGIBIT TWIN functions smoothly in the network, certain minimum requirements must be met for the accessories. Please note the following:

- Network speed (LAN): Only use DSL routers with a data throughput of at least 500 Mbit/s via LAN.
- Network speed (WLAN): To ensure trouble-free operation of the WLAN function, the data throughput of the DSL router used should be at least 300 Mbps. Otherwise, blocking and connection errors may occur, especially if several clients are connected via WLAN.
- Signal strength: The data throughput via WLAN decreases with increasing distance from the router to the end device. To maintain a stable WLAN connection over longer distances, we recommend using a WLAN repeater. Here too, the device should support a minimum speed of 300 Mbit/s.

Please note that other network functions, such as Internet access, may be impaired when using multiple clients via WLAN.

Note:

If possible, use the Sat-to-IP function via LAN. So-called powerline or dLAN adapters (network via socket) can also be used to bridge longer distances. Please note that the data throughputs can vary greatly between different manufacturers. If in doubt, the dLAN adapter used should offer the same data throughput as your DSL router.

6. Installing SAT>IP Routers

6.2 Commissioning

Connect the device to your home network using a LAN cable and plug the power supply unit into a socket. The LAN LED lights up as soon as the connection is established.

Note:

DHCP is activated in the device on delivery. This function automatically assigns the device an IP address from your connected router so that access to the configuration menu is not absolutely necessary.

If you want to make changes to the IP address or equip the device with new software, you must call up the configuration menu via the web interface.

6.2.1 Web interface

The web interface allows you to configure the DIGIBIT TWIN and can be accessed with any PC, tablet or smartphone that is in the same network as the Sat-to-IP router.

To do this, open the configuration menu of your network router (in the example of an AVM FritzBox) via a web browser. Select the item Home network. The router will show you all existing connections in the network. Select the DIGIBIT TWIN here.

The screenshot shows the web interface of a FritzBox 7270. The top navigation bar includes the Fritz logo and the model name 'FRITZ!Box 7270'. Below the navigation bar, there are several menu items: 'Übersicht', 'Internet', 'Telefonie', 'Heimnetz', 'Netzwerk', 'USB-Geräte', 'Speicher (NAS)', 'FRITZ!Box-Name', 'WLAN', 'DECT', 'System', and 'Assistenten'. The 'Netzwerk' section is active, showing a table of network connections. The table is divided into 'Aktive Verbindungen' (Active Connections) and 'Ungenutzte Verbindungen' (Unused Connections). The active connections table has columns for Name, IP-Adresse, Verbindung, and Eigenschaften. The unused connections table has columns for Name, IP-Adresse, and Eigenschaften.

Name	IP-Adresse	Verbindung	Eigenschaften
Aktive Verbindungen			
PC-192-168-0-48	192.168.0.48	LAN 100 Mbit/s	[Icon] [X]
PC-192-168-0-66	192.168.0.66	WLAN 54 Mbit/s	[Icon] [X]
Telestar-47693c-2	192.168.0.20	LAN 100 Mbit/s	[Icon] [X]
Ungenutzte Verbindungen			
android-2c4f0dea6991eeb1	192.168.0.62	WLAN	[Icon] [X]
android-43470b927908ta	192.168.0.61	WLAN	[Icon] [X]
android-483c8e5ca9d7537	192.168.0.64	WLAN	[Icon] [X]
android-4fa30db17d9e9e9a	192.168.0.21	WLAN	[Icon] [X]

6. Installing SAT>IP Routers

The DIGIBIT TWIN web interface will now open with a password prompt. The factory-set password is „admin“.



A login form with a 'Password:' label, an empty text input field, and a 'Login' button.

The configuration menu of the DIGIBIT TWIN now opens.

SAT>IP	
Status	UUID
Network	MAC
System	00-11-05-CE-0F-C7

6. Installing SAT>IP Routers

6.2.2 Status

You can see the MAC address of the device under Status.

6.2.3 Network

In the factory setting, the network IP is automatically assigned by the connected router. In addition to this dynamic IP, a fixed IP address can also be set so that the DIGIBIT TWIN can also be operated in the network without a router. You can make these settings under the corresponding menu item.



Attention:

Please ensure that you enter the specific settings for your network correctly. If you are unsure, please consult your network administrator. If the device can no longer be reached via the web interface with the settings you have entered or cannot establish a connection to an end device, you can reset the device to the factory settings.

6. Installing SAT>IP Routers

Fixed IP address

If you want to assign a fixed IP address to the device, uncheck DHCP. Enter the desired IP address and the parameters of your network:

- MASK: Subnet mask
- GATEWAY: IP address of the router
- DNS IP: Address of the DNS server

Then click on the „Save“ button.

6.2.4 System

Various functions for device maintenance and management are available under „System“.

Status	Online firmware update Firmware version available on the server: Unknown <input type="button" value="Update"/>
Network	Local firmware update SAT>IP Firmware: <input type="text"/> <input type="button" value="Browse"/> <input type="button" value="Update"/>
System	Change password New password: <input type="text"/> Retype new password: <input type="text"/> <input type="button" value="Change"/>

6. Installing SAT>IP Routers

Online firmware update:

If new software for your device is available online, you can download it here. The „Update“ button will then be activated.

lokale firmware-update:

You can update the device's software via your local network. If required, download the latest firmware for the device from www.telestar.de and unzip the file. Use the „Browse“ field to select the xxx.bin file and then click on „Update“.

Change password:

Here you can change the factory-set password (admin) to a new password of your choice. Enter the new password twice and confirm the change by clicking on the „Change“ button.

6.2.5 Reset device

If the device is no longer responsive or in the event of malfunctions or inadvertently incorrectly set network parameters, you can restore the factory settings of your DIGIBIT TWIN here. Attention: Individual settings will be lost!

Please proceed as follows:

- Press the reset button on the side of the device with a pointed object (e.g. a needle).
- The LAN LED goes out briefly and restarts.

The device is now reset to the factory settings.

7. Examples for clients

7.1 Hardware solutions

There are a large number of satellite receivers on the market that support the Sat>IP protocol as client devices. Customers have the option of selecting a suitable SAT>IP client that meets their individual needs.

These devices offer convenience and flexibility and can be integrated into the home network either via an Ethernet cable or a USB WLAN dongle. The connection to the TV set is usually made via HDMI.

Find out about the different models available and their functions to find the ideal SAT>IP client for your home.

7.2 Apps for iOS and Android

The **EyeTV** app or the **SAT>IP** app are suitable for mobile devices and can be downloaded from the iTunes Store (for iPhone/iPad) or the Google Play Store (for Android devices). These applications have been specially developed for operation with Sat-to-IP routers and behave in a similar way to conventional satellite receivers. They offer functions such as channel search, EPG (Electronic Programme Guide) and PVR (Personal Video Recorder) functions with timeshift.

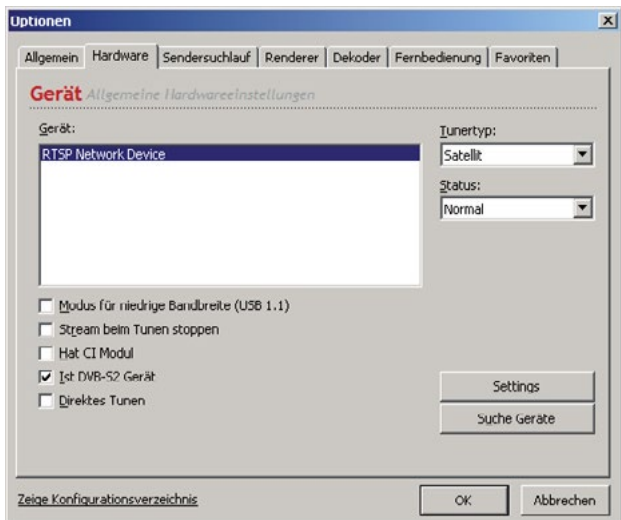
There may also be other apps on the market that offer similar functions. Find out about the options available to find the best solution for your needs.

7. Examples for clients

7.3 PC programme (DVB Viewer)

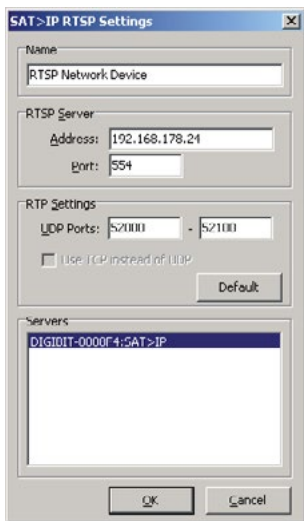
You can download the DVB Viewer programme at www.dvbviewer.com. After installing the programme, proceed as follows for the one-off setup:

1. Select Settings and then Options.
2. Click on Hardware.



7. Examples for clients

Click on Settings and select the DIGIBIT device from the server list. Confirm your selection with OK.



Exit the Options menu by pressing the OK button. The programmes can then be displayed via the software user interface.



8. Troubleshooting

Symptom	Possible causes
Which clients can be used? Are there already client devices on the market?	There are many satellite receivers on the market that support the Sat>IP protocol as client devices. Customers can select a suitable SAT>IP client that meets their needs.
Which apps work apart from the Eyetv app? Which apps are available in the App Store?	There are various applications. Please search for Sat>IP (SatIP) in the search function in the App Store or GooglePlay Store.
I can't find the Eyetv app in Google play.	If the EyeTV app is not found, your Android smartphone may not be compatible with this application.
The DIGIBIT TWIN cannot be accessed via the web interface. What could be the reason for this?	Check your cable connection (LAN). The IP addresses must be in the same logical network. Often the port must be specified in the address line of the web browser (e.g. 192.168.2.25:8080). Communication between the devices may be blocked by a firewall.
iPhone/iPad establishes a connection via WLAN. As soon as the Eyetv app is started, the browser opens with the login window of the Fritz Box.	It is probably a new FritzBox that has not yet been configured. Every browser automatically opens the login screen of the FritzBox if it has not yet been configured. To solve the problem, simply run through the FritzBox login wizard.
How many programmes can be transmitted simultaneously?	The number of programmes that can be transferred depends on the bandwidth of the IP network. A maximum of two client devices can be operated which can independently receive all satellite programmes and transponders of one or more satellite positions.
Why is my Fritz Box not recognised?	This can have various causes: Either a MAC filter is activated, a crossed cable is being used or the port is not enabled.

8. Fehlerbehebung

Symptom	Possible causes
How high is the traffic (load) depending on the participant and station?	An SD channel requires around 3-7 Mbps, while an HD channel requires 20-30 Mbps. If you calculate with a bandwidth of 35 Mbit/s per subscriber, you are on the safe side.
DVB Viewer for PC can only play radio programmes	Your computer may not have the necessary codecs to play videos. Download an up-to-date audio-video codec pack for your operating system from the Internet and install it. Television programmes should then also be displayed. You can identify missing codecs in the DVB Viewer under Settings > Options > Decoder.
The DVB Viewer does not display radio or television programmes.	The DIGIBIT must first be registered in the DVB Viewer. Open the programme and select Hardware settings under Settings > Options. Select the DIGIBIT and confirm the selection. If problems still occur, make sure that all the necessary audio-video codecs are installed on your computer. You can find the required codecs in the DVB Viewer under Options > Decoder.
What network speed is required?	Please only use 300 Mbit WLAN routers or 1 Gbit LAN.
Do I need an Internet connection to operate the DIGIBIT TWIN?	No, an Internet connection is not required to operate the DIGIBIT TWIN.
Can I operate the DIGIBIT TWIN with any DSL router?	In principle, the DIGIBIT TWIN can be operated with any DSL router as long as the data throughput of the router is sufficient. When using a DSL router with a data throughput of 100 Mbit, blocking or a reduction in the number of clients may occur. DSL routers with a data throughput of 1000 Mbit (LAN) or 300 Mbit (WLAN) are recommended.

9. Specifications

Performance features

SAT>IP for two subscribers

Transmits HD and SD channels

Compatible with Twin LNB, Quattro Switch LNB and multi-switch

Simple installation with Plug & Play

Web configuration from any device in the network

Compact, robust design with multi-switch look

Reset button

Low energy consumption

Connections

1x Ethernet 10/100

2x F-socket

Power supply

100-240 V AC, 50/60 Hz, 12 V DC, 2A

Operation: max. 24 W

Standby: <0.3 W

10. Conformity information

Hereby, Telestar GmbH declares that the following device is in compliance with the essential requirements and other relevant provisions of Directive 2014/30/EU and 2014/35/EU and the Radio Equipment Directive 2014/53/EU:

TELESTAR DIGIBIT TWIN (Art. No. 5310476)

The declaration of conformity for these products is available from the company TELESTAR GmbH, Brückenstraße 2, D-97618 Niederlauer

You can download the declaration of conformity from our homepage:
<https://www.telestar.de/support/dl/>

Disclaimer:

These operating instructions have been compiled with the utmost care. Nevertheless, we accept no liability for any errors, misprints or incorrect information. We reserve the right to make changes and further technical developments.
Use is at your own risk.

WEEE Reg.-Nr DE49015927



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