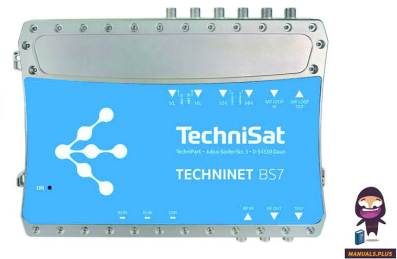**Manuals+** — User Manuals Simplified.

TECHNINET
**BS7 TechniSat
16 Way Head
Station**

TECHNINET BS7 TechniSat 16 Way Head Station User Guide

Contents

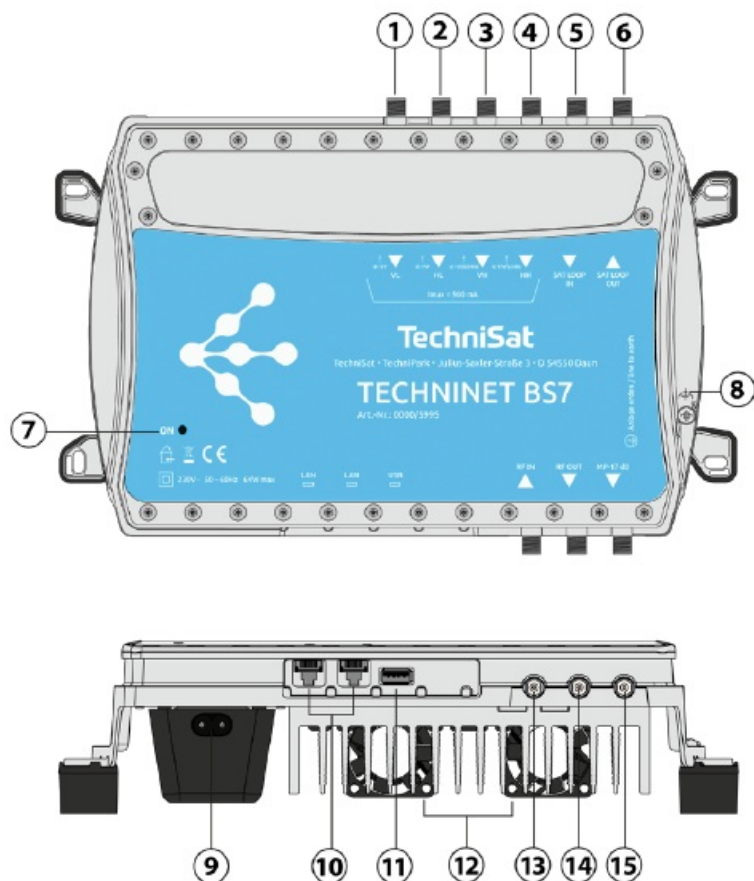# TECHNINET

TECHNINET BS7 TechniSat 16 Way Head Station

Introduction/Intended Use

- The TECHNINET BS7 DVBS2-QAM compact headend processes up 16 satellite input transponders into the same number of DVB-C cable channels, fully agile, in the range 46 to 862MHz (CCIR channels C02 to C69).
- The module provides 4 direct satellite inputs (one for each satellite polarity) and an additional loop input, to be connected to another BS7 master module. This master unit will generate in its satellite loop output, the satellite signals needed in the slave unit. The direct satellite inputs allow LNB or multi-switch powering.
- In the RF output, a loop input is available to aggregate the generated output channels with those coming from other BS7 units or other RF sources in the installation. A test output with an attenuated version of the output is also provided.
- The processing of each received transponder includes service filtering, useful whenever the unprocessed satellite baud rate is too high to fit in a QAM output channel. A Logical Channel Number (LCN) can be assigned to each output service, so the TV/IRD can present them according to this numbering. The field operator_id in the satellite input can be replaced. The SDT and NIT table version can be fixed. A headend global NIT allows the fast tuning of all services in case of an automatic channel search. EPG (Electronic Program Guide) can be enabled or disabled in the output. Finally, the values of transport_stream_id, and original_network_id for each QAM output can be edited and also network_id and network_name for all outputs.
- The configuration of the unit or the set of two units is done through a web interface. The complete operating instructions can be found in the download area for your product on the TechniSat website www.technisat.de or **www.technisat.com**.

Scope of delivery

- TECHNINET BS7 Base unit
- Quick start guide
- Mains cable
- 4X spacers for wall mounting

Description

1. SAT input 1 (V-LOW)
2. SAT input 2 (H-LOW)
3. SAT input 3 (V-HIGH)
4. SAT input 4 (H-HIGH)
5. SAT LOOP IN
6. SAT LOOP OUT
7. Power-status led*
8. Functional earthing
9. Power
10. 2X LAN-Anschluss – RJ45 GB Ethernet
11. USB-A connector
12. Fan
13. RF input
14. RF output
15. Test output (-17dB)

Power-status led:

- = Operation, input/output signal OK.

- = Error – No input signal/overload of the input signal.

- = Poor/weak input signal, margin too small, Input error detected, output power >85%, QAM channel overloaded.

Connecting to the unit's web control interface

Note:
The network data of the BS7 can be found on the side label (IP address, MAC address).

LAN connection

- First, connect a PC/laptop directly to one of the BS7's RJ45 Ethernet ports using an Ethernet cable.
- Configure the IP address of the PC/laptop so that the PC/laptop and the BS7 are in the same subnet.

WiFi connection
To connect the BS7 via WiFi, you need the optional WiFi adapter of the BS7 (Art. No.: 0010/5995), which you connect to the USB port of the BS7. After an automatic initialization process, you can connect to the WiFi hotspot, which should now appear in the WiFi search of your PC/laptop. The SSID of the BS7 has the following format: Techninet_mng_XXYYZZ, where XXYYZZ corresponds to the last digits of the MAC address of the BS7. A WiFi password is not required.

Open the web interface
To call up the web interface of the BS7, open a browser on the PC/laptop (Mozilla Firefox or Google Chrome recommended) and then the URL https://<IP address of the BS7> (for a LAN connection). Alternatively, the URL **http://config.local** also works for a connection via WiFi. The standard login details for accessing the web interface are User name web and password admin.

Note:
The TECHNINET BS7 can also be integrated via an existing network infrastructure (e.g. via a network router, only via LAN connection). In this case, the IP addresses are assigned by the DHCP server. The IP address of the BS7 assigned by the DHCP server must therefore be used when entering the address for the web interface.

Important safety instructions

Safe installation

1. Read these instructions before handling or connecting the equipment. Keep these instructions. Heed all warnings. Follow all instructions.
2. Clean only with a dry cloth.
3. Do not use this apparatus near water. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as glasses, shall be placed on the apparatus.
4. Do not block any ventilation openings. Install under the manufacturer's instructions. Please allow air circulation around the equipment.
5. Do not place the equipment in a highly humid environment.
6. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat. Do not place naked flames, such as lighted candles on or near the product.
7. Do not place the equipment in a place where it can suffer vibrations or shocks.
8. Only use attachments/accessories specified by the manufacturer.

Safe operation of equipment

- The ambient temperature should not be higher than 45ºC (113° F).
- Power requirements for this product are 230V~ 50/60Hz.
- It is strongly recommended not to connect the equipment to the main supply until all connections have been made.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.
- To disconnect the equipment from the mains supply pull the plug never the cable.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Unplug this apparatus during lightning storms or when unused for long periods.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as a power supply cord or plug is damaged, does not operate normally, or has been dropped.

WARNING!

- Reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
- Do not take the cover off the equipment without disconnecting it from the main supply.
- This apparatus must be securely attached to the floor/wall in accordance with the installation instructions.
- Do not connect the equipment to the mains supply until it is screwed to the wall.

Symbols

- Equipment designed for indoor use only.
- The equipment meets the safety requirements specified for Class II equipment with functional earthing.
- The equipment complies with the CE mark requirements.
- This symbol identifies a functional earthing. Only use the appliance with a properly installed earthing system.

 Electronic devices do not belong in household waste but must be disposed of properly per Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment. At the end of its service life, please dispose of this device at the designated public collection points. Remove the batteries before disposing of the device and dispose of them separately from the device.

Technical Data

TECHNINET BS7
0000/5995

Satellite Inputs	Input frequency	MHz	950 – 2150	
	Symbol rate	Mbaud	2 – 42.5 (DVB-S) / 10-30 (DVB-S2/S2X)	
	Frequency steps	MHz	1	
	Input level	dBµV	49 bis/to 84 (-60 bis/to -25 dBm)	
	Input and output connectors	type	"F" – Female	
	Input impedance	Ω	75	
	LNB powering (1)	V /kHz	13-17- OFF/22kHz (ON-OFF)	
	Satellite selection (DiSEqC)		A, B, C, D	
	Modulation		DVB-S2X	QPSK/8PSK, 8/16/32 APSK (EN302307-2)
			DVB-S2	QPSK, 8PSK (EN302307)
			DVB-S	QPSK (EN300421)
	Internal FEC		LDPC	9/10, 8/9, 5/6, 4/5, 3/5, 3/4, 2/5, 2/3, 1/3, 1/4, 1/2
	External FEC		BCH	Bose-Chaudhuri-Hocquenghem
	Roll-off factor	%	20, 25, 35	
QAM modulator	Modulation format	QAM	16, 32, 64, 128, 256	
	Symbol rate	Mbaud	1 – 7.2	
	Roll-off factor	%	15	
	Block code		Reed Solomon (188,204)	
	Scrambling		DVB ET300429	
	Interleaving		DVB ET300429	
	Band with	MHz	<8.28 (7.2 Mbaud)	

	Output spectrum		Normal / Inverted (Select)
HF Ausgang **RF output**	Output frequency (select.)	MHz	46 – 862
	Frequency steps	kHz	250
	Maximum output level (select.)	dBµV	98 ± 5
	Attenuation (program)	dB	0-15 (Global) 0-10 (pro Kanal/per channel)
	Through losses (typ.)	dB	< 1
	Input/output connectors	type	"F" Female
	Output impedance	Ω	75
General	Power supply	V~ Hz	230 50/60
	Consumption (2)	P.max / W I.max /mA	64 625
	Protection index	IP	20
	Operating temperature	°C	-5 ~ 45
	Weight	kg	3
	Dimensions (WxHxD)	mm	285 x 200 x 76

1. I. max: 250 mA (input SAT 1 + input SAT 2) + 250 mA (input SAT 3 + input SAT 4).
2. Average power consumption with input signal and powering LNB (250 mA + 250 mA).

Note:
Select the installation location of the TECHNINET BS7 so that the maximum ambient temperature of 45° C (113° F) is not exceeded. Otherwise, this can lead to malfunctions and component failure.

Sound power level (LwA): 57dB.
A current version of the operating instructions and this quick guide, as well as further information, can be found in the download area for your product on the TechniSat website **www.technisat.de** or **www.technisat.com**.
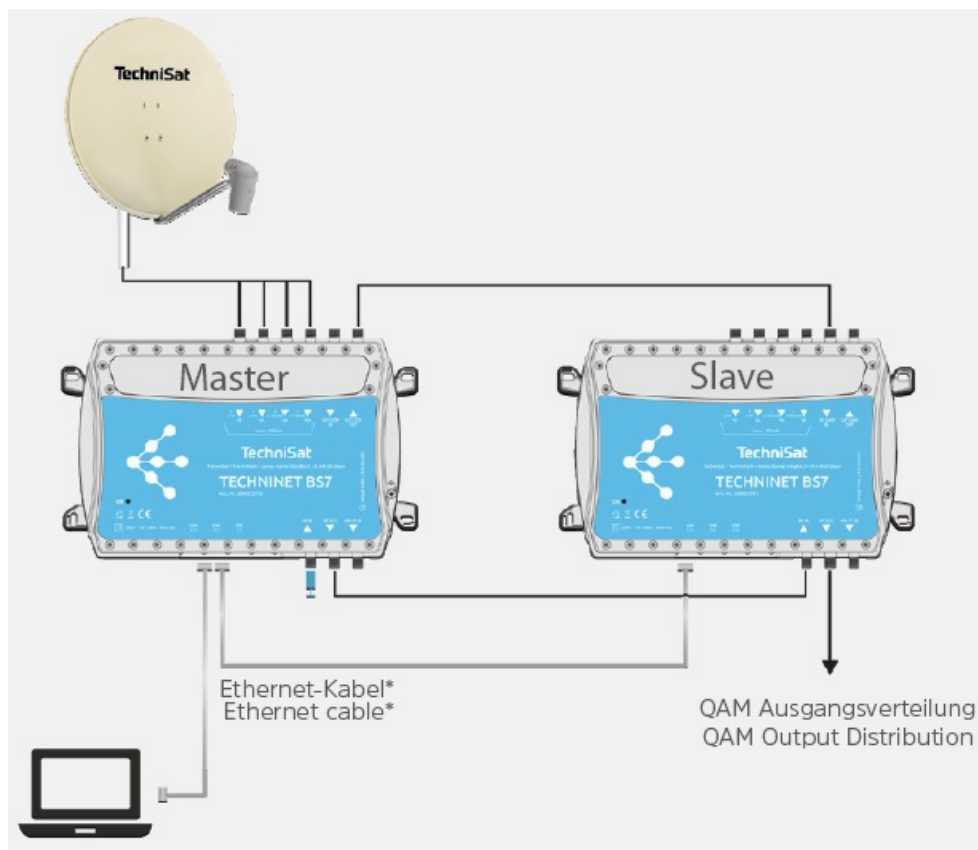
- Hereby, TechniSat declares that the radio equipment type TECHNINET BS7 complies with Directive 2014/53/EU. The full text of the EU Declaration of Conformity is available at the following internet address: **http://konf.tsat.de/?ID=25301**.

Click on the "about" option in the menu bar to get the Licence agreement and third-party software declaration.

Application examples

Example 1
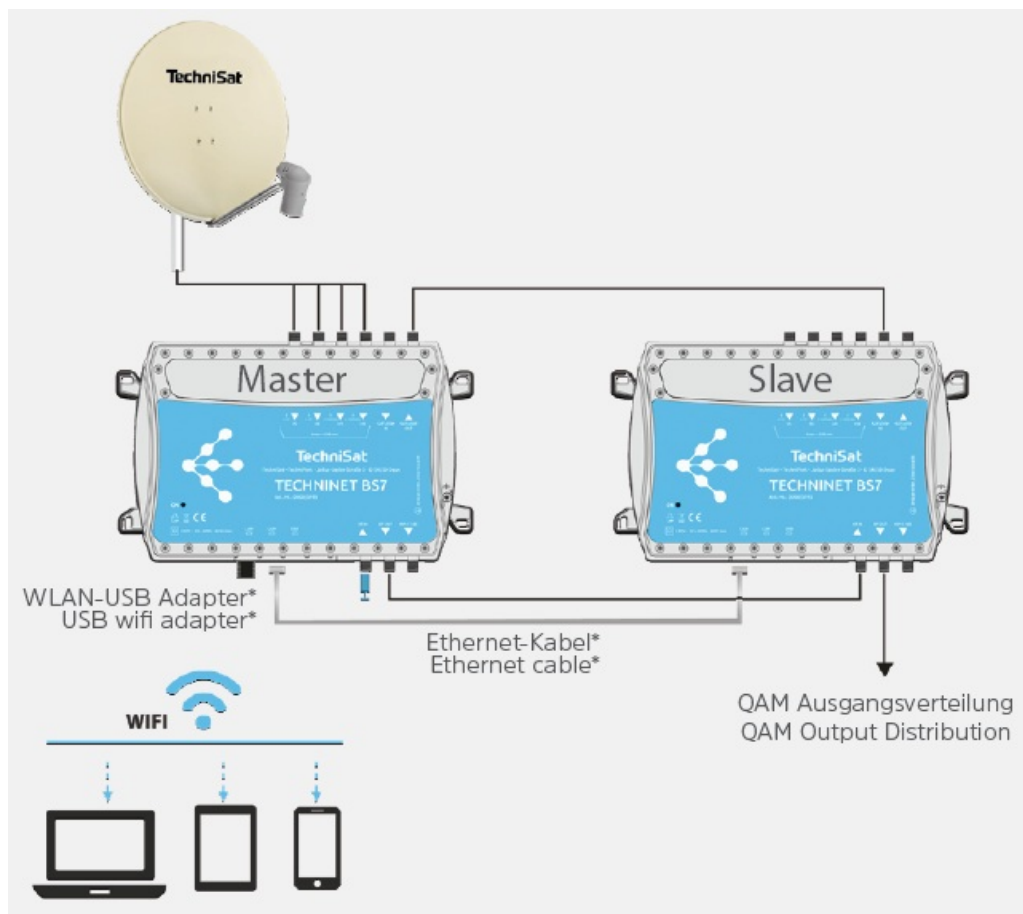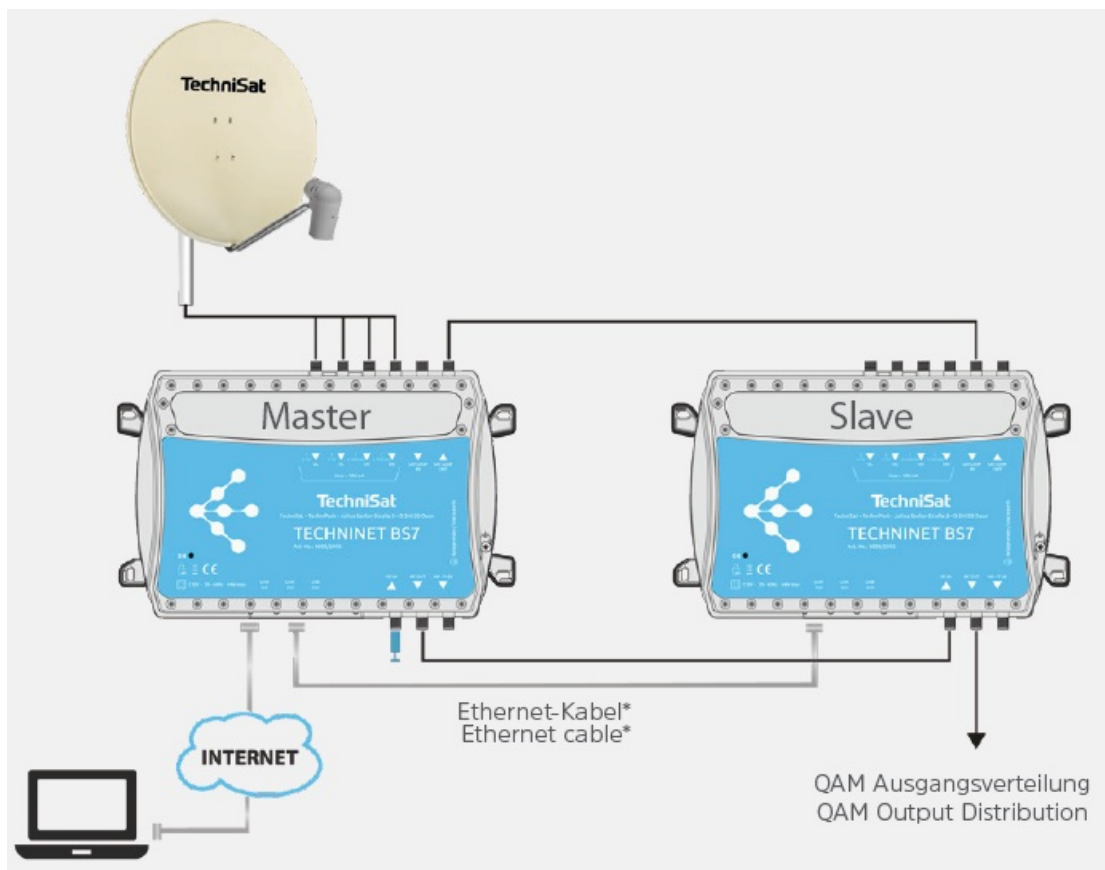Configuration via Ethernet connection

Example 2
Configuration via WiFi connection

Remote
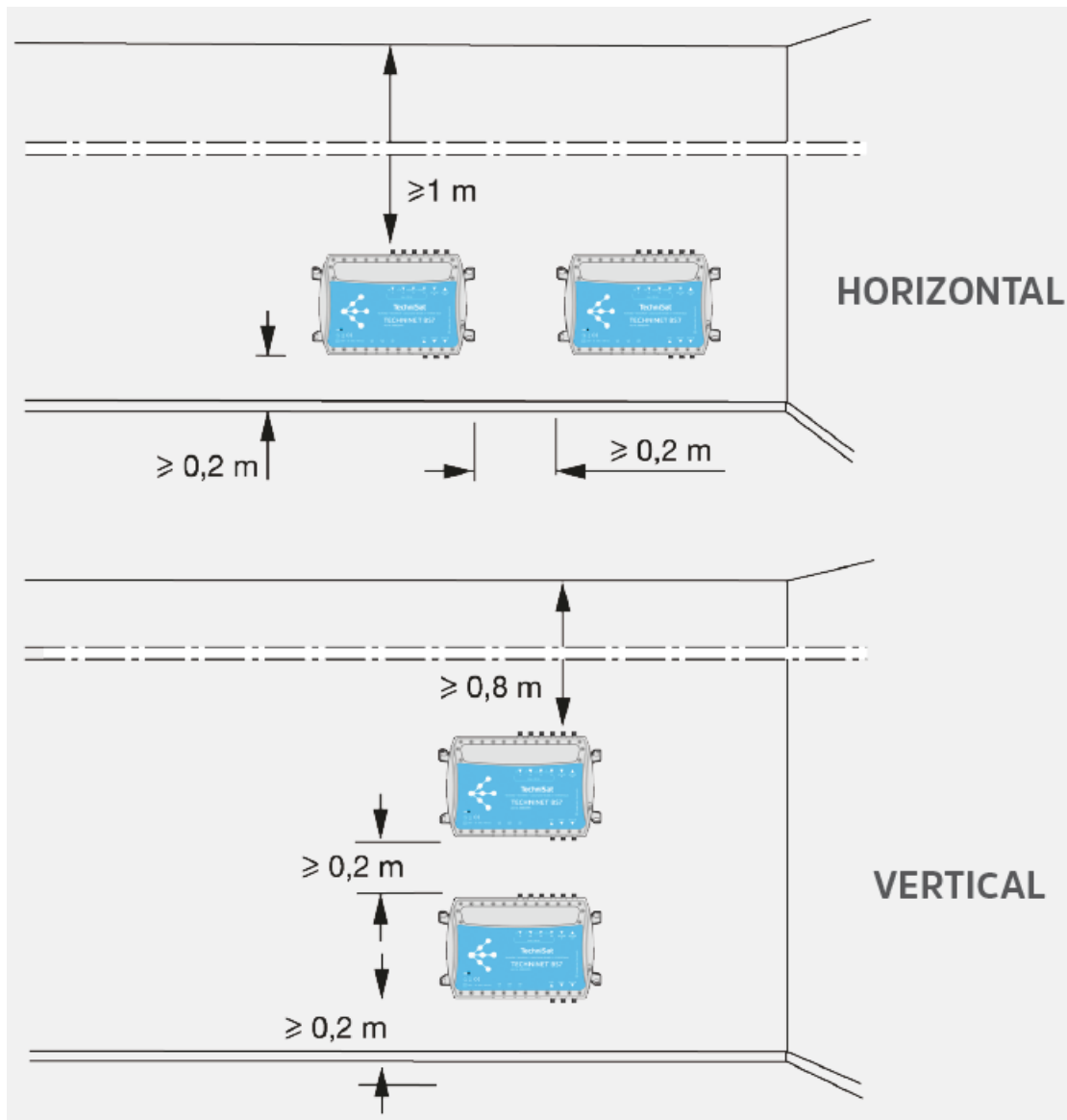Remote configuration via Internet router

Not included in the scope of delivery

Mounting

IMPORTANT!

- Horizontal placement of the unit is strongly recommended, hanging them as near to the floor as possible.
- If the horizontal placement is impossible, then vertical placement is allowed.
- Respect the recommended minimum distances in the attached schemes.
- Use the supplied spacers and corresponding screws** for wall mounting.
- To avoid interference, use 75 Ω DC decoupled F terminating resistors (not supplied) on all unused connections.

4 screws size 4x65mm (not included).

Technisat Digital GmbH / Julius-Saxler-Straße 3 / D-54550 Daun **www.technisat.de**/**www.technisat.com**.
Hotline: Mo. – Fr. 8:00 – 17:00 unter Tel.: 03925/9220 1271.

Documents / Resources

TECHNINET BS7 TechniSat 16 Way Head Station [pdf] User Guide
BS7, BS7 TechniSat 16 Way Head Station, TechniSat 16 Way Head Station, 16 Way Head Station, Head Station, Station

References

- **User Manual**