

Camping & Caravan 2021

At Home on the Road





KATHREIN | Digital Systems GmbH

Who we are and what we stand for

We ensure the best possible radio and TV reception

KATHREIN Digital Systems is the market leader for digital satellite, terrestrial, cable or IP reception and signal distribution in buildings and caravans. Our high-quality and reliable product portfolio for modern TV and radio reception is constantly being expanded to include innovative solutions in the field of building technology.

Thanks to extensive know-how in development and unsurpassed quality standards in production, our solutions and systems are among the best in their class. High-quality satellite reception systems in conjunction with sophisti-

cated solutions for signal distribution – whether in single-family homes or in large building complexes – bring the signals to the receiving equipment in best HD quality. New technologies such as SAT>IP, optical SAT distribution or modular headend technology for hotel TV close the gap between traditional signal distribution and modern optical fibre and network technology.

KATHREIN Digital Systems' advanced solutions are also the best choice for mobile TV reception in caravans and mobile homes.

Find out more about us at www.kathrein-ds.com

Our awards:







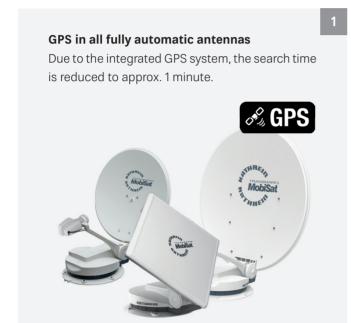




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Our Benefits at a Glance (HDP 650/750/850 GPS)

■ There are some very good reasons for choosing a fully automatic Kathrein antenna



3 years warranty

We optimise our products continuously and are so confident in their quality that we give a three years warranty on all HDP turntables



Quality made in Germany

All Kathrein turntables are developed and made in Germany. The use of high-quality materials ensures a long service life.



Aerodynamic design

The aerodynamic design of our fully automatic antennas HDP 750 and 850 reduces noise emission inside the vehicle to an absolute minimum.



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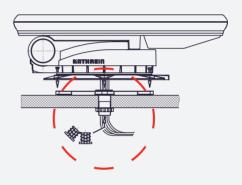
CAPcontrol app

App for controlling the automatic antennas, streaming live TV to mobile devices (in conjunction with the UFZ 131/132), detection of the HDZ 60/66/66 Skew inclinometer, integrated sat finder and voice assistant for aligning the HDS 166 plus antenna set, for example - all conveniently via smartphone/ tablet.



Cable feedthrough

The automatic Kathrein antennas provide two options for running the cables into the vehicle interior: out of the side of the antenna or directly from underneath the antenna.



Automatic update

Every month Kathrein engineers check whether the search transponder is still up to date and provide a download via satellite. The automatic antennas regularly check whether a new update is available and install it automatically if necessary.



CI-BUS

By using an additional adapter, the fully automatic antennas become CI-BUS compatible and can therefore be easily integrated into CI-BUS systems.



Satellite Reception Overview

	Footprint	Features	Page
Astra 19.2° East Hotbird 13° East	Modisal Market	 HDP 850 GPS Optimised installation height: 18 cm 85 cm parabolic reflector ensures large reception range Twin LNB for connecting a second receiver or TV set Automatic update Order no. 204500003 	10
		 HDP 750 GPS Optimised weight < 10 kg Optimised aerodynamics (low air resistance) Twin LNB for connecting a second receiver or TV set Automatic update Order no. 20310056 	12
		 HDP 650 GPS Compact design Installation height: 21 cm Twin LNB for connecting a second receiver or TV set Automatic update Order no. 20310055 	14
	катня	 CAP 500M CAP 500M plus All-in-one package for fully automatic satellite reception (Astra 19.2° East) Light and portable for mobile and flexible use No additional control unit required Streaming of TV and radio channels (plus) Order no. 203500003 203500004 	16

Fully Automatic Satellite Antennas

Perfect satellite reception



Solution 1: Customised satellite TV packages

Including HDP (650/750/850 GPS) and CTS TV set (22/24/27/32")



Caravan TV systems - the One-Cable-Solution by Kathrein and alphatronics

- Control of the antenna directly via the TV set
- Only one coax cable between the TV set and the antenna
- Minimum installation effort
- Live TV streaming to mobile devices (smartphones, tablets) with the UFZ 131/132 (optionally available)
- LED panels are 100% free of dead pixels
- Made in Germany

Solution 2: CAP all-in-one package

Recommended if a TV set with satellite tuner is already available.

Includes: Fully automatic antenna, **CAP** converter

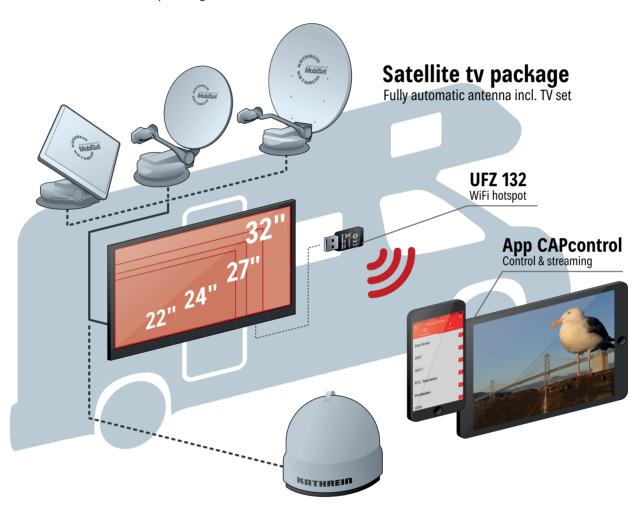


CAP 650 GPS/750 GPS/850 GPS/500M plus

- Receiver-independent antenna
- Compatible with any TV set/receiver with satellite
- Live TV streaming to mobile devices (smartphones, tablets) with the UFZ 131/132 (optionally available)

The One-Cable-Solution by Kathrein and alphatronics

Customised satellite TV packages



For your customised satellite TV package, select one of our fully automatic satellite antennas and the desired TV set from alphatronics. It provides the combined knowhow from both companies in one intelligent reception concept.

The fully automatic satellite antennas are controlled via the alphatronics TV set. A separate control unit or receiver is not required. This means that only two units are required for TV and radio reception in a caravan or motorhome (turntable and TV set). Kathrein and alphatronics attached great importance to ensuring that the antenna and the TV set can be easily connected with as little cabling effort as possible. Control of the antenna and transfer of the satellite signals to the TV set both run over the same coaxial cable.

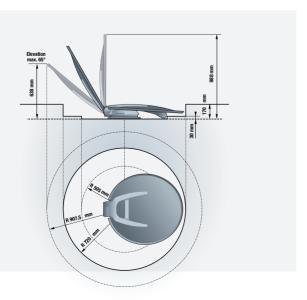
The large version

HDP 850 GPS

The HDP 850 GPS is based on the HDP 750 GPS, but has a newly designed support arm and an 85 cm parabolic reflector. By increasing the size of the parabolic reflector, the reception reserve and the operating radius of the system have been increased. The use of GPS permits quick alignment (approx. 1 minute) of the HDP 850 at any new location. Due to a revision of the mechanical design, the antenna now has a height of only 18 cm. Its aerodynamic shape allows a vehicle speed of up to 130 km/h (with the antenna lowered). When used with the CAPcontrol app and the UFZ 131 or 132 USB/Wi-Fi adapter, the HDP 850 also enables the streaming of live TV to mobile devices (smartphone/tablet).

Main features

- Optimised installation height: 18 cm
- Streaming of live TV by means of UFZ 131/132 USB/ Wi-Fi adapter and free CAPcontrol app
- Software update via satellite
- Large reception area due to high-gain 85 cm parabolic reflector
- Twin LNB for connecting a second receiver or TV set
- Automatic alignment with other satellites when changing channels











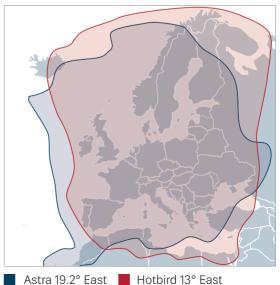






* Manufacturer's recommended retail price

Footprint



HDP 850 GPS - satellite TV packages

Solution 1

Fully automatic antenna **HDP 850 GPS**



- incl. alphatronics TV set
- Control of the antenna directly via the TV set
- Only one coax cable between the TV set and the antenna
- Only one remote control
- No additional control unit required
- Live TV streaming to mobile devices (smartphones, tablets) with the UFZ 131/132 (optionally available)

HDP 850 GPS, order no.: 204500003

RRP HDP only: € 1949.00

Order No. TV	Туре	RRP CTS-	RRP Total HDP + CTS-TV
204500007	CTS SL-22 DSBAI+K	€ 699.00	€ 2648.00
204500008	CTS SL-24 DSBAI+K	€ 769.00	€ 2718.00
204500009	CTS SL-27 DSBAI+K	€ 849.00	€ 2798.00
204500010	CTS SL-32 DSBAI+K	€ 899.00	€ 2848.00

Solution 2



- Receiver-independent antenna
- Compatible with any TV set or receiver with satellite tuner
- Live TV streaming to mobile devices (smartphones, tablets) with the UFZ 131/132 (optionally available)

Name	Contents	Order No.	RRP (€)
CAP 850 GPS	HDP 850 GPS and CAP converter	203500001	€ 1999.00

Recommended accessories

HDS 50 (only for solution 2)

External control unit for CAP x50 GPS Order no. 20410070, RRP € 199.00 More details on page 32

UFZ 132

USB/Wi-Fi adapter Order no. 204500005, RRP € 40.00 More details on page 33

HDZ 100

Roof gland Order no. 20410032, RRP € 29.00 More details on page 32

HDS 42

Master/slave switch Order no. 204000006, RRP € 59.00 More details on page 35

^{*} Manufacturer's recommended retail price

The light version

HDP 750 GPS

The use of a parabolic antenna increases the reception range compared to a planar antenna. What is more, it reduces the weight of the system considerably. A total weight of under 10 kg makes this antenna one of the lightest on the market. This antenna also features a twin LNB for connecting a second receiver. The use of GPS permits quick alignment (approx. 1 minute) of the HDP 750 GPS at any new location. The turntable plus the antenna have a height of only about 21 cm. The aerodynamic design allows a vehicle speed of up to 130 km/h (with the antenna lowered).

Main features

- Optimised weight: < 10 kg
- One of the lightest fully automatic turntables
- Optimised aerodynamics
 - Low air resistance
 - · Low noise emission
- Connection of a second receiver or TV set











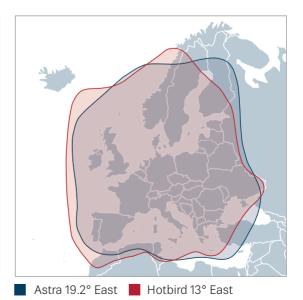




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Footprint



HDP 750 GPS - satellite TV packages

Solution 1

Fully automatic antenna **HDP 750 GPS** incl. alphatronics TV set



- Control of the antenna directly via the TV set
- Only one coax cable between the TV set and the antenna
- Only one remote control
- No additional control unit required
- Live TV streaming to mobile devices (smartphones, tablets) with the UFZ 131/132 (optionally available)

HDP 750 GPS, order no.: 20410084 **RRP HDP only:** € 1699.00

Order No. TV	Туре	RRP CTS-	RRP Total HDP + CTS-TV
204500007	CTS SL-22 DSBAI+K	€ 699.00	€ 2398.00
204500008	CTS SL-24 DSBAI+K	€ 769.00	€ 2468.00
204500009	CTS SL-27 DSBAI+K	€ 849.00	€ 2548.00
204500010	CTS SL-32 DSBAI+K	€ 899.00	€ 2598.00

Solution 2



- Receiver-independent antenna
- Compatible with any TV set or receiver with satellite tuner
- Live TV streaming to mobile devices (smartphones, tablets) with the UFZ 131/132 (optionally available)

Name	Contents	Order No.	RRP (€)
CAP 750 GPS	HDP 750 GPS and CAP converter	20310056	1749.00

Recommended accessories

HDS 50 (only for solution 2)

External control unit for CAP x50 GPS Order no. 20410070, RRP € 199.00 More details on page 32

UFZ 132

USB/Wi-Fi adapter Order no. 204500005, RRP € 40.00 More details on page 33

HDZ 100

Roof gland Order no. 20410032, RRP € 29.00 More details on page 32

HDS 42

Master/slave switch Order no. 204000006, RRP € 59.00 More details on page 35

^{*} Manufacturer's recommended retail price

The compact version

HDP 650 GPS

The fully automatic HDP 650 GPS is equipped with a planar antenna. This ensures a compact design and minimises the required space. In addition to a twin LNB it features GPS for quick alignment of the antenna (approx. 1 minute).

The turntable plus the antenna have a height of only about 21 cm. The aerodynamic design allows a vehicle speed of up to 130 km/h (with the antenna lowered).

Main features

- Compact design
- Easy installation only one cable for control and transmission of satellite signals necessary
- Connection of a second receiver or TV set







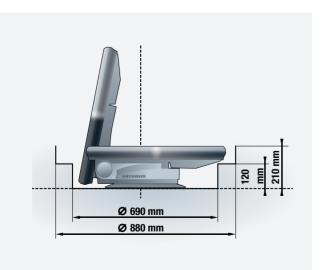




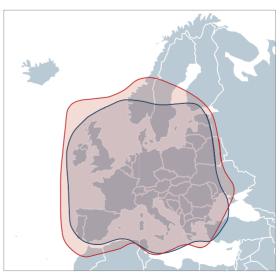




Space required



Footprint



Astra 19.2° East Hotbird 13° East

HDP 650 GPS - satellite TV packages

Solution 1

Fully automatic antenna HDP 650 GPS



- Control of the antenna directly via the TV set
- Only one coax cable between the TV set and the antenna
- Only one remote control
- No additional control unit required
- Live TV streaming to mobile devices (smartphones, tablets) with the UFZ 131/132 (optionally available)

HDP 650 GPS, order no.: 20410083 **RRP HDP only:** € 1799.00

Order No. TV	Туре	RRP CTS-	RRP Total HDP + CTS-TV
204500007	CTS SL-22 DSBAI+K	€ 699.00	€ 2498.00
204500008	CTS SL-24 DSBAI+K	€ 769.00	€ 2568.00
204500009	CTS SL-27 DSBAI+K	€ 849.00	€ 2648.00
204500010	CTS SL-32 DSBAI+K	€ 899.00	€ 2698.00

Solution 2

antenna

Fully automatic antenna HDP 650 GPS incl. CAP converter

- Receiver-independent antenna
- Compatible with any TV set or receiver with satellite tuner
- Live TV streaming to mobile devices (smartphones, tablets) with the UFZ 131/132 (optionally available)

Name	Contents	Order No.	RRP (€)
CAP 650 GPS	HDP 650 GPS and CAP converter	20310055	€ 1849.00

Recommended accessories

HDS 50 (only for solution 2)

External control unit for CAP x50 GPS Order no. 20410070, RRP € 199.00 More details on page 27

UFZ 132

USB/Wi-Fi adapter Order no. 204500005, RRP € 40.00 More details on page 28 HDZ 100

Roof gland Order no. 20410032, RRP € 29.00 More details on page 27

HDS 42

Portable antenna

CAP 500M

- All-in-one package for fully automatic reception of Astra 19.2° East
- Light and portable for mobile and flexible use
- Quick installation and TV reception typically within 90 seconds
- No additional control unit required
- Software update via Bluetooth
- Power supply directly via any TV or receiver with integrated satellite tuner
- No power consumption in standby mode
- Anti-theft protection

Scope of supply:

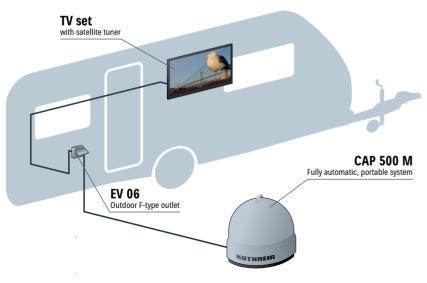
- Fully automatic satellite antenna
- 10 m coaxial cable
- Instruction manual/application notes



Footprint Astra 19.2° East



CAP 500M operated directly on the TV set



Portable antenna + streaming CAP 500M plus

- Live streaming of TV and radio channels to mobile devices using the free CAPcontrol app
- All-in-one package for fully automatic reception of Astra 19.2° East
- Light and portable for mobile and flexible use
- Quick installation and TV reception typically within 90 seconds
- Software update via Bluetooth
- Power supply directly via the CAP converter
- Anti-theft protection

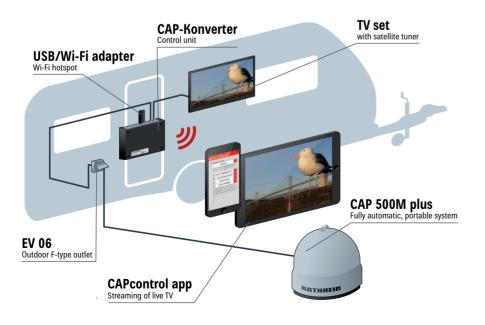


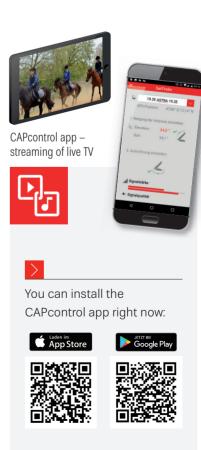
USB/Wi-Fi adapter

Scope of supply:

- Fully automatic satellite antenna
- 10 m coaxial cable
- Instruction manual/application notes
- Kathrein USB/Wi-Fi adapter
- CAP Converter

CAP 500M plus - streaming of live TV





CAP converter

KATHREI

alphatronics TV sets

CTS SL-xx

The SL+ line offers a plus in technology that will impress you. It features, among other things, Bluetooth 4.2, the new standard for an even faster connection setup, increased range and reduced power consumption.

A further highlight is the Basic Smart feature. Based on the Linux OS, an integrated browser is available for surfing the Internet. You can also choose from a selection of useful apps.

Another new feature is the 10-bit compression procedure for an even wider colour spectrum and radiant colours. The new audio DSP technology provides a better sound experience. A new digital processor ensures faster access times to your favourite stations.

All "K" variants are equipped with an integrated control for the Kathrein HDPs/CAPs and are available exclusively from Kathrein.







- Kathrein control: One-Cable-Solution
- Audio DSP technology
- 2× HDMI
- Integrated alphatronicsSound Bluetooth 5.0 module
- CI+ slot
- FPG
- Photo viewer
- 2× USB 2.0 port/media player
- DVD player integrated at the side (formats: CD, DVD, VCD, MP3, DVD-R, DVD-RW, DivX, JPEG)
- Internet SMART TV 9.0
- Smart TV portal
- Sleep timer
- On/Off switch
- VESA standard (100 × 100 mm)

Scope of supply:

- Remote control
- DVB-T antenna AN5
- Power supply unit
- YPbPr adapter
- AV adapter
- 12 V car cable
- Batteries
- Operating instructions

Caravan TV systems at a glance

Caravan TV systems - One-Cable-Solution by Kathrein and alphatronics

Order No.	Туре	RRP	Order No. TV	Туре	RRP CTS-TV	RRP Total HDP + CTS-TV		
			204500007	CTS SL-22 DSBAI+K	€ 699.00	€ 1648.00		
202500002	CAP 500M	€ 949.00	204500008	CTS SL-24 DSBAI+K	€ 769.00	€ 1718.00		
203500003	CAP SUUIVI	€ 949.00	204500009	CTS SL-27 DSBAI+K	€ 849.00	€ 1798.00		
			204500010	CTS SL-32 DSBAI+K	€ 899.00	€ 1848.00		
			204500007	CTS SL-22 DSBAI+K	€ 699.00	€ 2498.00		
20410083	HDP 650 GPS	£ 1700 00	204500008	CTS SL-24 DSBAI+K	€ 769.00	€ 2568.00		
20410063		€ 1799.00	204500009	CTS SL-27 DSBAI+K	€ 849.00	€ 2648.00		
				204500010	CTS SL-32 DSBAI+K	€ 899.00	€ 2698.00	
	HDP 750 GPS			204500007	CTS SL-22 DSBAI+K	€ 699.00	€ 2398.00	
20410084					€ 1699.00	204500008	CTS SL-24 DSBAI+K	€ 769.00
20410004		\$ € 1699.00	204500009	CTS SL-27 DSBAI+K	€ 849.00	€ 2548.00		
						204500010	CTS SL-32 DSBAI+K	€ 899.00
			204500007	CTS SL-22 DSBAI+K	€ 699.00	€ 2648.00		
204500003	HDP 850 GPS €	€ 1949 00	204500008	CTS SL-24 DSBAI+K	€ 769.00	€ 2718.00		
204300003			204500009	CTS SL-27 DSBAI+K	€ 849.00	€ 2798.00		
			204500010	CTS SL-32 DSBAI+K	€ 899.00	€ 2848.00		



TV sets from alphatronics are available in the following versions:

- 22" SL-22 DSBAI+K
- 24" SL-24 DSBAI+K
- 27" SL-27 DSBAI+K
- 32" SL-32 DSBAI+K



Dimensions TV sets

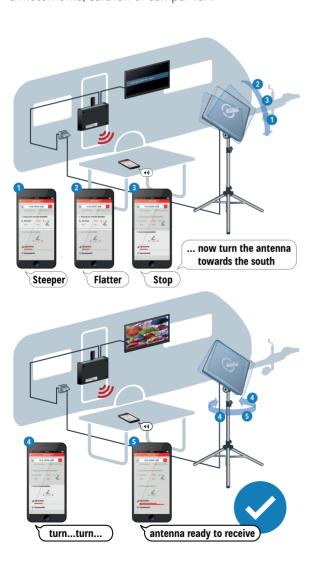
(W x H x D in mm; without stand):

- 22": 503 × 312 × 52 **24**": 552 × 340 × 52
- 27": 622 × 376 × 55
- 32": 732 × 437 × 61

Semi-automatic Satellite Antennas

Antenna Set HDS 166 plus 16 2030000002

This antenna set is a cost-effective, space-saving alternative to fully automatic satellite antennas. Perfect if you don't have satellite reception directly at the vehicle, e.g. if shaded by trees, and want to set up the system at some distance from the vehicle. The supplied components and the revised CAPcontrol app (Android and iOS) interact perfectly with each other. Once all components are set up and connected, the antenna is aligned in 60 seconds. The HDS 166 plus antenna set is your ideal companion - whether you are travelling in a motorhome, caravan or camper van.





HOW IT WORKS

- Voice assistant helps with the alignment
- Streaming of TV and radio channels to mobile devices
- 11 satellites pre-set
- A GPS-enabled smartphone/tablet is required for installation

Scope of supply

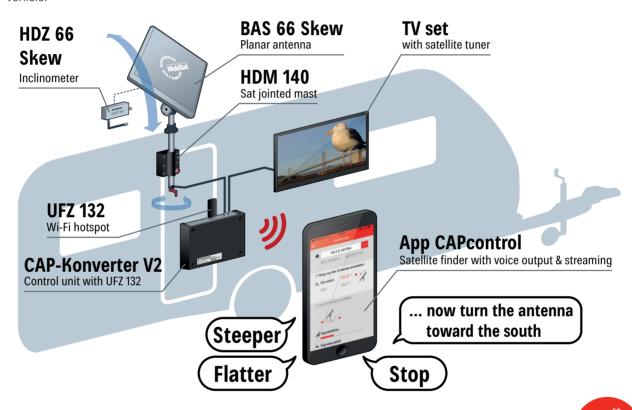
- BAS 66 planar antenna (with twin LNB)
- HDZ 66 inclinometer
- Tripod, adapter joint, incl. carry bags for tripod and antenna
- CAP converter V2 and UFZ 132 USB/Wi-Fi adapter
- 15 m coaxial cable

Recommended accessories

- EV 06 external socket | 218464
- 12 V power supply unit | 1683660 Adapter cable | 197500004 For connection to 230 V sockets (adapter cable is mandatory). Available from our CSS service and repair centre (Caravan- SAT-Service GmbH)

► All-in-one solution with HDM 140/HDM 141 jointed mast

The jointed masts allow optimal mounting and rapid alignment of the BAS 66 planar antenna from inside the vehicle.



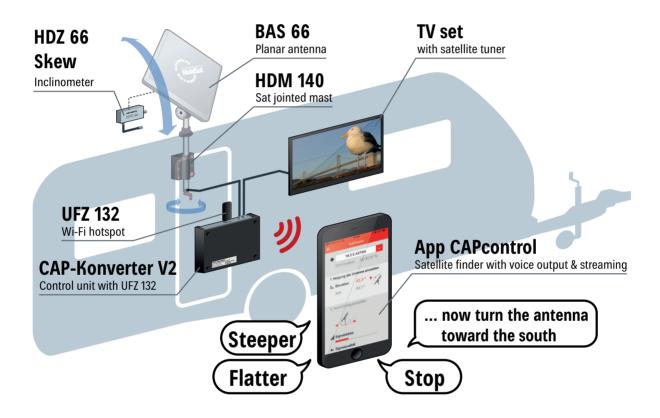
The HDM set includes:

Order no.	Product	Description		RRP in €*
2000000001	Planar antenna with twin LNB and skew adapter plate; reception area: 10.7–12.75 GHz, suitable for HDM jointed mast		on area: 10.7–12.75	199.00
218456 or	HDM 140 or	HDM 140: twin jointed mast for BAS 66/BAS 66 Skew for caravar long	n installation, 103 cm	224.00
218457	57 HDM 141	HDM 141: twin jointed mast for BAS 66/BAS 66 Skew for caravan long (shorter version)	installation, 76.5 cm	224.00
204500002	HDZ 66 Skew	DZ 66 Skew Inclinometer: Required for easy alignment via app		99.00
204500001	204500001 CAP converter V2 Control unit: Required for easy alignment via app		рр	239.00
204500005	USB/Wi-Fi adapter: for wireless integration of suitable network-compatible Kathrein receivers, IEEE 802.11n, Wi-Fi hotspot		compatible Kathrein	40.00
			Total	801.00

^{*} Manufacturer's recommended retail price

Extension set for existing jointed mast systems

The extension set allows the extension of a flat antenna already installed in the caravan (e.g. BAS 66 with HDM 140 jointed mast) in such a way that it can be aligned via app.



The extension set comprises:

Order no.	Product	Description		RRP (€)
204500002	HDZ 66 Skew	Inclinometer: Installation set for BAS 66/BAS 66 Ske	ew	99.00
204500001	CAP converter V2	erter V2 Control unit: Required for easy alignment via app		239.00
204500005	04500005 UFZ 132 USB/Wi-Fi adapter: for wireless integration of suitable network-compatible Kathrein receivers, IEEE 802.11n, Wi-Fi hotspot		mpatible Kathrein	40.00
			Total	378.00

^{*} Manufacturer's recommended retail price

Manual Satellite Antennas

Antenna set HDS 166 20310052

The HDS 166 is an antenna set for manual antenna alignment and satellite search. It includes a planar antenna, tripod, adapter joint, 15 m coax cable and a carry bag. This set is the perfect alternative to a fully automatic, permanently mounted antenna.

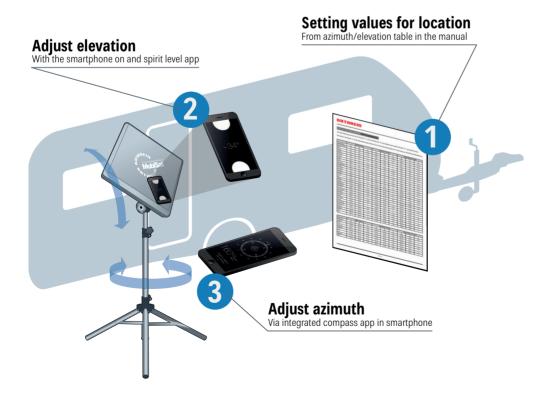
The BAS 66 Skew planar antenna can be easily set up and aligned with a satellite using a smartphone with compass app (depending on the smartphone and the operating system, the app might be pre-installed).

It only takes three easy steps to align the antenna:

- 1 Look up the setting values in the enclosed azimuth/elevation table
- 2 Start the compass app, place the smartphone on the planar antenna and set the elevation of the antenna
- 3 Determine the satellite position using a spirit level app and turn the antenna to that direction (e.g. Astra 19.2° E in the Munich area = 169.80°)



* Manufacturer's recommended retail price



Planar antenna BAS 66 Skew



Despite its small size, the BAS 66 Skew planar antenna offers optimal satellite reception. This is due to the specific honeycombed dipole structure of the reception surface.

- For use on stationary motorhomes, caravans or HGVs
- For mounting on the HDM 14x jointed masts (details on page 29)
- With integrated twin LNB (two outputs)
- With skew adapter plate for optimised reception at the fringe area of the satellite footprint

Recommended accessories

- HDM jointed masts (HDM 140/141/143) (details on page 29)
- HDZ 66 Skew inclinometer RRP: € 99.00



Inclinometer

HDZ 66 Skew

Installation set for BAS 66 Twin – easy alignment of the antenna in combination with the UFS 940, UFS 946 or CAP converter.

- Installation set for the planar antennas BAS 66 and BAS 66 Skew
- Easy alignment of the antenna in combination with the UFS 940/UFS 946/CAP converter
- Installation with a few simple steps on the LNB housing of the BAS 66 and BAS 66 Skew
- Display of the required and actual elevation in the receiver menu/HDS 50 control panel/CAP control app
- Display of the elevation also possible with set skew
- Display of the set skew in the HDS 50 control panel/ CAP control app
- No additional cable required between antenna and receiver





Planar antenna for stationary use **BAS 65**

- For mounting on walls, masts, brackets and on flat surfaces
- Including mounting support for easy antenna alignment
- For the reception of digital satellite TV and radio channels
- Frequency range: 10.70–12.75 GHz
- Power supply via the coaxial cable
- With integrated twin LNB (two outputs)











Offset parabolic antennas **KEA 650**

- Foldable LNB arm made of aluminium
- Aluminium reflector, powder-coated
- Rear support, mast and closing brackets of galvanised sheet steel (fully assembled)
- Nuts and bolts in stainless steel
- Reflector colours: White, graphite



Universal LNBs KEL 411, KEL 422

The Kathrein Euroline universal feed systems are suitable for satellite reception systems with a 40 mm LNB fixing plate. They are intended for reception of satellites in the Ku band, e.g. Astra, EUTELSAT, Turksat, and Hispasat etc. All LNBs are HDTV/DVB-S2 compatible.



^{*} Manufacturer's recommended retail price

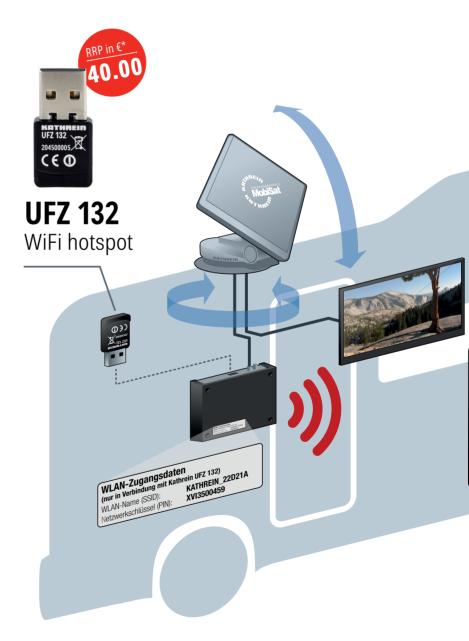
Unique Features

Antenna control and live streaming to a smartphone/tablet

By setting up a Wi-Fi hotspot, TV and radio broadcasts can be streamed to mobile devices (smartphones, tablets, etc.) without an additional Internet router.

USB/Wi-Fi adapter **UFZ 132**

- Supports the Wireless Standards IEEE 802.11a/b/g/n with a data rate of up to 433 Mbps
- No additional software required
- Supports 2.4 and 5 GHz ISM bands (dual
- Supports 64/128 bit WEP, WPA and WPA2 encryption
- Power supply via the USB port
- Suitable for CAP converters and alphatronics TV sets



^{*} Manufacturer's recommended retail price

App CAPcontrol





CAPcontrol app

Convenient and versatile features

The Kathrein CAPcontrol app has been extensively revised and now offers several new features. In addition to the previously known features of controlling the fully automatic antennas and live TV (in connection with the optionally available UFZ 132), the app now includes an integrated satellite finder which was especially designed for the BAS 66 Skew planar antenna and the HDZ 66 Skew inclinometer. In combination with the CAP converter V2 or an alphatronics TV set with Kathrein control, this antenna can now be aligned conveniently via smartphone or tablet.

CAPcontrol app features

- Control of the automatic antennas
- Live TV streaming to mobile devices (smartphone/
- Display of software version and update of the fully automatic antennas
- Detection of the HDZ 60/66 inclinometer
- Integrated sat finder
- Voice assistant for aligning the antenna set HDS 166 plus







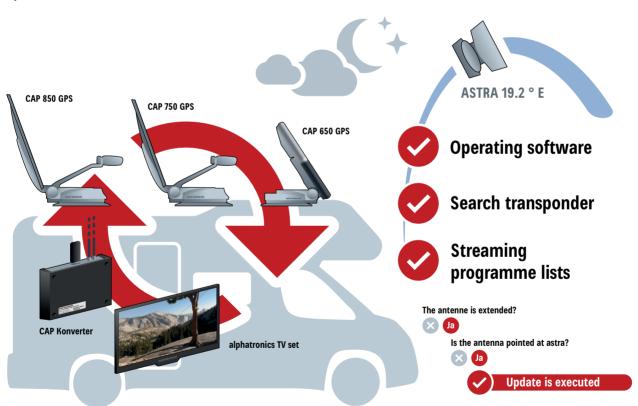


Software update via satellite

You probably know this from your own experience: You are looking forward to a good film, switch on your automatic antenna to watch TV, but the system can't find a satellite signal and keeps on searching for minutes. This often happens when the search transponder has changed frequency. The only remedy is to get a control unit update from the manufacturer.

We have solved this problem by means of a special download transponder via Astra 19.2° East. Every month, Kathrein engineers check whether the search transponder is still up to date and provide a download via satellite. The Kathrein software checks regularly whether a new update is available and, if this is the case, installs it automatically - it couldn't be simpler.

Good reception, wherever you are and whenever you need it - automatic overnight update

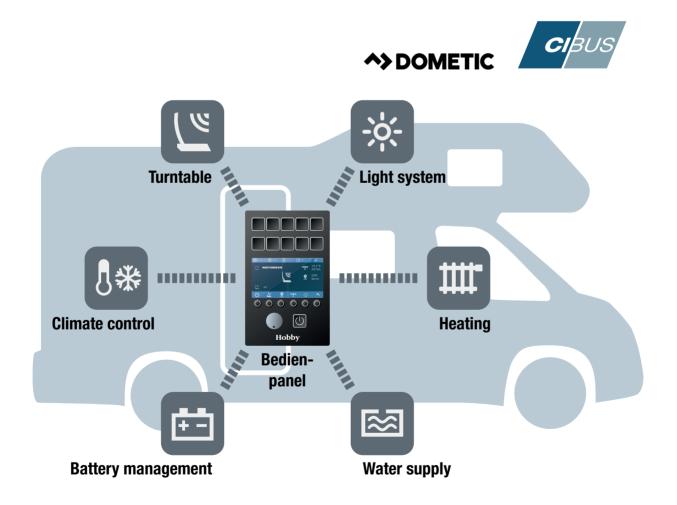


Central control of the fully automatic antenna via the CI-BUS

The digital lifestyle has long since found its way into caravans and motorhomes. The CI-BUS interface (Caravanning Industry-BUS) enables the convenient operation of all electrical devices that conform with this standard via a central control unit.

Kathrein makes sure that campers will now be able to optimise broadcast reception in their caravan or motorhome just as conveniently. By using an additional adapter, our receiver-independent CAP x50 GPS antennas become CI-BUS compatible and can therefore be easily integrated into CI-BUS systems. Hobby Caravan were the first to offer the CAP 650 GPS - our CI-BUS compatible fully automatic antenna - as an exclusive extra for their motorhomes and caravans.

Of course, we aim to connect our products also with other central control units via the CI-BUS. Thanks to our collaboration with DOMETIC, our fully automatic antennas can now be controlled via a central DOMETIC control unit.



Satellite reception in camper vans

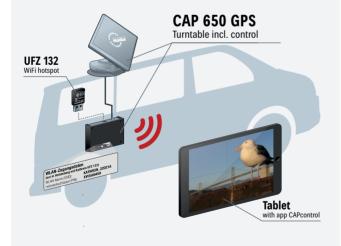
Camper vans - small, compact and nippy - are becoming more and more popular among camping enthusiasts. Satellite reception in such a confined space requires compact solutions. Our fully automatic CAP 650 GPS antenna and the HDS 166 or HDS 166 plus antenna set fulfil these specific demands.

Option 1

TV reception with the CAP 650 GPS

The compact CAP 650 GPS requires little space on the vehicle and can also be operated without a TV set.

In this case, the system is controlled via a mobile device (tablet, smartphone). Thanks to live streaming, TV channels can be received directly via the mobile device and displayed on the screen.



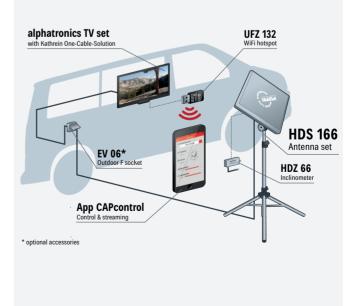
Option 2

TV reception with the HDS 166 or HDS 166 plus

The HDS 166 antenna set is the ideal solution for campers who don't want to mount an antenna on their vehicle. The special features of this set are its very small pack size and its quick alignment via smartphone.

The perfect addition: alphatronics SL line TV set (with Kathrein control)

The alignment via smartphone is even quicker if combined with an appropriate alphatronics TV set and the UFZ 131/132. The revised CAPcontrol app now detects the inclinometer (included with the HDS 166). Thanks to the additionally integrated satellite finder, the antenna can be optimally aligned even without direct view of the TV screen.



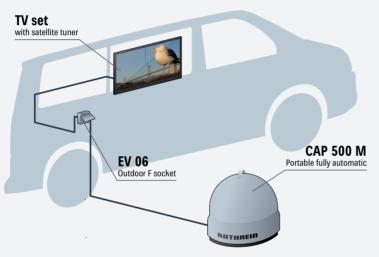


Option 3

TV reception with the CAP 500M or CAP 500M plus

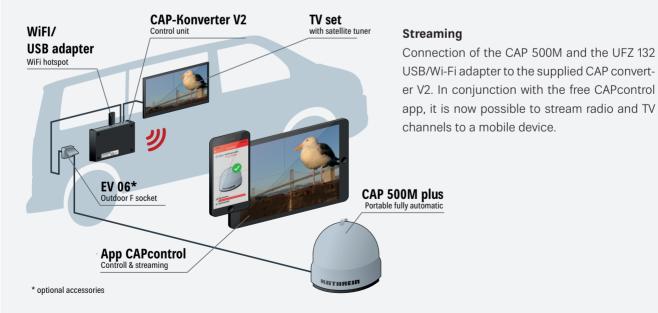
For campers who don't want to mount an antenna on their vehicle but still want an automatic antenna, the CAP 500M or the CAP 500M plus set is the ideal solution. The CAP 500M does not require its own power supply, but is simply connected to the TV set with satellite tuner using the supplied antenna cable.

The plus version (incl. CAP converter and USB/Wi-Fi adapter) is ideal if no TV set can be installed in the camper/caravan and you want to stream to a mobile device.



Without streaming

Direct connection of the CAP 500M to the TV set using the supplied antenna cable. No additional cables required.



Accessories and DVB-T2 Antennas

External control unit for the CAP x50 GPS series **HDS 50**

The external control panel HDS 50 enables you to operate the CAP 650 GPS, 750 GPS and 950 GPS easily and conveniently without having to switch on a receiver or TV set. Selecting a satellite, lowering the antenna to the park position and other functions are available and can be accessed via the intuitive menu navigation. An LC display provides the necessary overview.



- Compatible with the CAP x50 GPS series
- No separate power supply required
- Easy wall mounting
- Including 3 m connection cable
- Dimensions (W x H x D in mm) 125 × 68 × 25

Control unit

CAP converter V2

The CAP converter is included with the fully automatic CAP x50 and CAP 500M plus antennas and the HDS 166 plus antenna set, where it serves as the central control unit. It is also available separately and is recommended if you want to convert a receiver-based CAP antenna into a receiver-independent solution. You can also use the CAP converter and the UFZ 131/132 USB stick to expand the HDS 166 antenna set to include live TV on smartphones/tablets and alignment via the voice assistant.





Please note: Adapting the CAP system (6xx, 7xx or 9xx) to the CAP converter, requires an update of the turntable firmware. This update can be performed by our service centres.

Roof gland

HD7 100

- Protective housing for cable interfaces
- Suitable for cable extension on the roof
- For a maximum of two RF cables and one DC cable
- Optimised for CAP systems
- Easy installation
- Unused cable entries can be closed off with integrated blind caps
- Connector size of cable duct: up to 29 x 17 mm



^{*} Manufacturer's recommended retail price

USB/Wi-Fi adapter UF7 132

USB/Wi-Fi adapter for live TV/radio streaming to mobile devices in conjunction with the free CAPcontrol app (iOS and Android); IEEE 802.11n; Wi-Fi hotspot

- Supports the Wireless Standards IEEE 802.11a/b/g/n with a data rate of up to 433 Mbps
- No additional software required
- Supports 2.4 and 5 GHz ISM bands (dual band)
- Supports 64/128 bit WEP, WPA and WPA2 encryption
- Power supply via the USB port
- Suitable for CAP converters and alphatronics TV sets



Outdoor outlet

EV 06

Outdoor outlet with 5 m coax cable, connection: F-type connector





Active DVB-T/T2 indoor antenna BZD

- Remote feeding (5 V/30 mA) via the coax cable from the DVB-T2 receiver
- 2 m connection cable included
- Integrated trap filter for GSM and LTE interference



Active DVB-T/T2 indoor antenna BZD

- Remote feeding (5 V/30 mA) via the 3 m USB remote feed cable, e.g. from the TV set
- Integrated trap filter for GSM and LTE interference











Active DVB-T/T2 outdoor antenna **BZD 40**

- Remote feeding (5 V/30 mA) via the coax cable from the DVB-T2 receiver
- Included accessories: fixing material for wall/mast mounting, 10 m connection cable, F-plug and IEC plug

^{*} Manufacturer's recommended retail price

Satellite jointed masts and tripod stand

HDM 140, 141, 143, HDS 100

The jointed masts allow optimal mounting and rapid alignment of the BAS 66 planar antenna from inside the vehicle. The jointed masts are made of rust-proof and seawater-resistant Duralium. The swivel heads are made of die-cast

aluminium. In conjunction with the BAS 66, this is the manual alternative to the automatic system. The maximum permissible vehicle speed is 130 km/h.





For mounting the BAS 66 planar antenna on caravans or motorhomes, length 103 cm



Mast HDM 141

Shorter version of HDM 140, length 76.5 cm



Mast HDM 143

For upgrading a terrestrial to a satellite reception system with the BAS 66 planar antenna



Duralium mast HDM 135

Length 2 m, diameter 35 mm, incl. mounting brackets and roof seal



Satellite tripod mast HDS 100

Ideal for flexibly setting up the BAS 65 or KEA 650 satellite antenna. The telescopic, rotatable extension allows easy alignment of a mounted antenna. Aluminium tripod mast with 2 mm wall thickness (light and very stable), securing pegs for stabilisation on the ground, incl. carry bag



Spare parts for many products from our "Camping and Caravan" range are available from the Kathrein factory repair centre CSS Caravan-Sat-Service GmbH (see address on page 43).

^{*} Manufacturer's recommended retail price

Master/slave switch

HDS 42

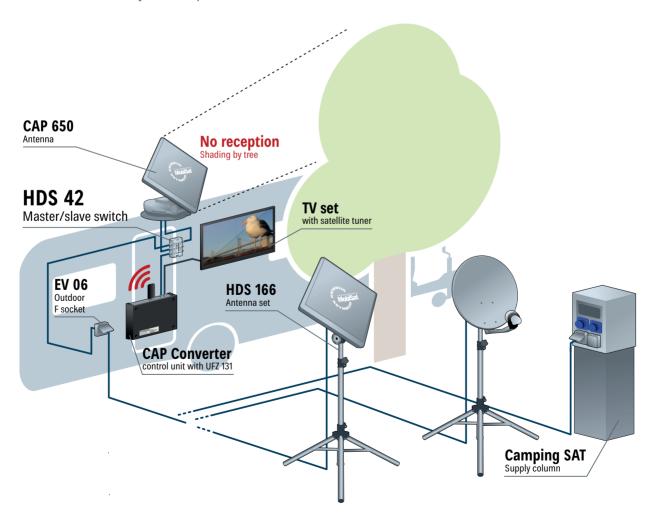
The HDS 42 master/slave switch was developed for customers who have a remote antenna in addition to a fully automatic antenna or who want to use a satellite signal available at the site.

The HDS 42 connects both systems and automatically detects which system is currently receiving a signal The highlight of this solution: There is no need to reconnect the cables.

Since the CAP converter serves as the central unit for both systems, the free CAPcontrol app can be used for both receive paths. You can also use the app to watch free-to-air stations on your smartphone/tablet.



* Manufacturer's recommended retail price



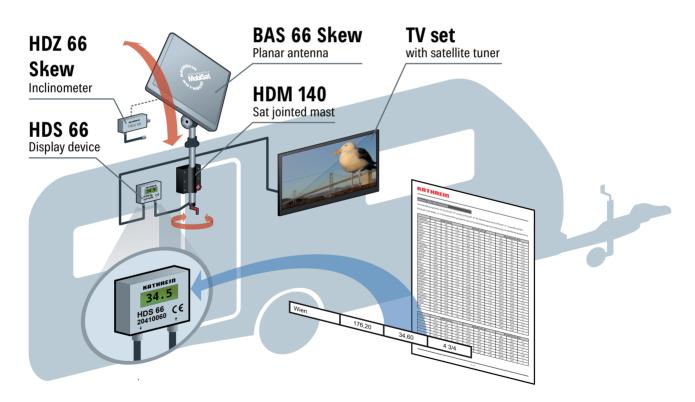
Display unit

HDS 66

- Shows the actual elevation of the inclinometer HDZ 60 or HDZ 66
- The display backlight switches off automatically if the elevation remains unchanged (energy saving mode)
- The display backlight switches on automatically if the elevation changes
- Easy wall mounting



Aligning the planar antenna using the HDS 66



^{*} Manufacturer's recommended retail price

Technical Data

Туре	UFZ 132
Order no.	204500005
Standard	IEEE 802.11ac/a/b/g/ng
Connection	USB 2.0
Data rates [Mbps]	11b: 1/2/5.5/11
Data rates [Mbps]	11g: 6/9/12/24/36/48/54
Data rates [Mbps]	11n: up to 300
Operating temperature [°C]	-20 to +70
Unit dimensions [mm]	29.3 × 15 × 7.5
Weight [kg]	0.02

Туре	BAS 66 Skew	BAS 65	
Order no.	200000001	20010032	
Application	Mobile use	Stationary use	
Mounting options	HDM 140, 141, 143	Wall, mast, boom, flat surface	
Reception range [GHz]	Switchable: 10.70-11.70 (0 kHz) 11.70-12.75 (22 kHz)		
Polarisation	Switchable: vertical (14 V) horizontal (18 V)		
Gain [dB]	> 55		
Half width range [°] 1)	Typically < 3		
LNB	2 switchable outputs		
Output frequency [MHz]	950–1950/1100–2150		
Oscillator frequency (L.O.) [GHz]	9.75/10.6		
Supply voltage LNB [V]	Vertical: 11.5–14.0 – horizontal: 16.0–19.0		
Max. current drain [mA]	220		
Wind load [N] ²⁾	240		
Mast clamp range [mm]	-	38–50	
Setting range elevation [°]	0-90 (HDM 14×)	0–50	
Setting range azimuth [°]	360	± 65 (wall mounting), 360 (mast mounting)	
Dimensions net/gross [mm]	$500 \times 500 \times 109$ (without bracket)/600 \times 600 \times 200	$500 \times 500 \times 121$ (without bracket)/ $600 \times 600 \times 200$	
Weight net/gross [kg]	5.9/7.5	6.5/8.5	

 $^{^{\}rm 1})$ At mid-band $^{\rm 2})$ At a dynamic pressure of 800 N/m² acc. to EN 60728-11

Туре	CAP 850 GPS	CAP 750 GPS	CAP 650 GPS
Order no.	203500001	20310056	20310055
Diameter parabolic reflector approx. [cm]	85	60	-
Required space radius/height [cm]	90.8/98.8	80.7/84	88/70
LNB	2 switchable outputs: V/H (14/18 V) Low/high (0/22 kHz)		
Supply voltage LNB [V]	Vertical: 11.5-14 – horizontal: 16–19		
Input frequency [GHz]	10.70–12.75		
Output frequency [MHz]	950-1950/1100-2150		
Oscillator frequency (L.O.) [GHz]	9.75/10.60		
Supply voltage (vehicle battery) [V]	10.5–15.5		
Current drain from the 12 V supply [A]:	Typically 3		
Current drain from the receiver [mA]	Typically 160		
Setting range: Elevation/azimuth/skew [°]	0-65/370/±45	0-75/370/±45	0-80/370/±15
Weight of the turntable with parabolic reflector/planar antenna [kg]	11.8/-	9.7/–	-/14.5
Dimensions gross [mm]	934 × 985 × 384	620 × 815 × 268	599 × 582 × 373
Weight net/gross [kg]	15.7/21.7	13.3/17.2	17.2/22.35

CAP all-in-one packages include: pre-assembled antenna, mounting plate and mounting material with roof gland, complete set of cables, installation and operating instructions, CAP

Туре	CAP 500M CAP 500 Plus		
Order no.	203500003 203500004		
Input frequency [GHz]	10.7–12.75		
Polarisation	Horizontal/vertical		
Antenna gain [dBi]	31.0		
EIRP min. [dbW]	51		
Search time (typically) [s]	90		
LNB outputs	1		
LNB output frequency [MHz]	950–2150		
Supply voltage [V]	13–18		
Current consumption [W]	5.4 (during search)		
L.O. Frequency [V DC]	9.75/10.6		
Dimensions net/gross [mm]	450 × 440/535 × 535 × 495		
Weight net/gross [kg]	4.7/8.0	5.4/9.0	

Туре	CTS SL-32 DSBAI+K	CTS SL-27 DSBAI+K	CTS SL-24 DSBAI+K	CTS SL-22 DSBAI+K
Order no.	204500010	204500009	204500008	204500007
Screen size [cm (")]	80 (32")	68.5 (27")	60 (24")	55 (22")
alphatronicsView wide angle LED display 178°/178°	E LED Display			
Picture format		16:9 wid	escreen	
Resolution	1920 × 1080 full HD			
Contrast ratio	3000:1	1000:1		
Luminance	250 cd/m ²	230 cd/m ²	250 cd/m ²	300 cd/m ²
Response time [ms]	< 5			
Viewing angle [h, v]	178, 178			
Tuner		PAL B/G, NT	SC, SECAM	
Sound power [W]	2×5			
External power supply [AC/DC]	100–240 VAC, 12 VDC			
Dimensions (W x H x D) with stand [mm]	732 × 476 × 213	622 × 408 × 175	552 × 370 × 154	503 × 343 × 154
Dimensions (W x H x D) w/o stand [mm]	732 × 437 × 61	622 × 376 × 55	552 × 340 × 54	503 × 312 × 53
Dimensions gross [mm]	816 × 520 × 143	680 × 445 × 125	630 × 405 × 118	580 × 375 × 11
Weight with stand [kg]	6.75	5.2	4.2	3.7
Weight w/o stand [kg]	6.7	4.7	3.9	3.4
Weight gross [kg]	8.8	6.7	5.7	5
Energy efficiency class	F			
Energy consumption [kWh/1000h]	32/26/22/20			
Colour	Brushed anthracite			

Туре	BZD 30	BZD 32	BZD 40
Order no.	20710002	20710013	20710005
Reception range [MHz]	174-230/470-790	174-230/470-790	174-230/470-862
Figure of merit [dB/K] 1)	Typically -28.5	Typically -28.4	Typically -32
Gain [dB]	B III: 18, B IV/V: 15	B III: 18, B IV/V: 15	B III: 18, B IV/V: 15
Max. output level [dBµV] 2)	Typically 95	Typically 95	95
Permissible remote feed voltage [V]	5	5	5–25
Dimensions [mm]	140 × 195	140 × 195	204 × 196 × 71 ³⁾
Packing unit/weight [pc./kg]	1(10)/0.5	1(10)/0.5	1(10)/1.23
Dimension, single package [mm]	245 × 160 × 70	245 × 160 × 70	250 × 210 × 80

¹⁾ Bandwidth 8 MHz, Tu 290 K, connection cable a = 3.5 dB, receiver NF = 7 dB @ 560 MHz ²⁾ Measured at the antenna output, in compliance with EN 60728-5 for 60 dB intermodulation distance (2 transmitters – 3rd order) ³⁾ Including bracket

Advice and Service

Caravan service centres

Germany

1 alphatronics GmbH

Breitengraserstraße 6 90482 Nürnberg Phone: +49 911 216 554 40 info@alphatronics.de

CSS Caravan-Sat-Service GmbH Werksreparaturstelle

Bahnhofstr. 110 83224 Grassau Phone: +49 8641 69984-27 service@css-grassau.de

RAPP GmbH Fachhandel

Auer Straße 7 89287 Bellenberg Phone: +49 7306 927 521-1 info@elektro-rapp.com

Wohnwagen Vogt GmbH

Koblenzer Str. 53 66115 Saarbrücken Phone: +49 681 482 549 70 info@wohnwagen-vogt.de

Knocks Motors GmbH & Co. KG

Schulland 1 34474 Diemelstadt-Ammenhausen Phone: +49 5694 990 990 service@knocks-motors.com

6 Williges Elektronik Service GmbH

Solinger Straße 13 28199 Bremen Phone: +49 421 504 021 info@williges-elektronik.de

Wohnmobile & Caravans Linke

Grevenbarg 1 23970 Kritzow/Wismar-Ost Phone: +49 3841 283 758 wohnmobile-linke@t-online.de

8 SP. Minke

Hauptstraße 75 21266 Jesteburg Phone: 49 4183 2222 minke-jesteburg@t-online.de

Reisemobil und Wohnwagen Service Zivkovic

Kölner Straße 59 45481 Mülheim an der Ruhr Phone: +49 208 62 68 350 ReiWo-Service@arcor.de

10 Günther Reizner

Breinloher Weg 11 91166 Georgensgmünd Phone: +49 917 270 022 60 reisemobilservice@t-online.de

Caravan Reisemobile Böhm

Bischofswerdaer Landstraße 3 01920 Elstra Phone: +49 357 93 397 641 caravan-boehm@gmx.de

12 HAMPL CARAVAN - MC Rent Gera

Liebschwitzer Str. 148 07551 Gera Phone: +49 365 20 58 822 info@hampl-caravan.de

13 M. Michalk GmbH & Co **Automobile KG**

Am Juliusturm 21 13599 Berlin Phone: +49 30 33 89 02 0 mmautomobile@t-online.de

14 Brock - Das mobile Freitzeitzentrum

Weddeler Straße 7 38104 Braunschweig Phone: +49 531 360138 info@brock-freizeitzentrum.de

Austria

1 Auto Heiss

Schießstand 3a 6401 Inzing Phone: +43 5238 540 55 info@campingheiss.at

2 KATHREIN Digital Systems Vertriebs **GmbH**

Gnigler Straße 56 5020 Salzburg Phone: +43 662 875 531 32 josef.bauer@kathrein-gmbh.at

Wohnwagen Pusch GmbH

Linzerstraße 138 4810 Gmunden Phone: +43 7612 676 00 office@pusch-wohnwagen.at

Sulzbacher GmbH - Hymer Reisemobile

Goldenberg 1 4070 Eferdina Phone: +43 7272 254 2 christian@sulzbacher.at hymerteile@sulzbacher.at

MOBOS e.U. - Herbert Schmid

Sarobagasse 25 2103 Langenzersdorf Phone: +43 664 524 526 2 office@mobos.at

6 Kledo Reisemobile

Gradnerstraße 66 5055 Graz Phone: +43 316 272 715 ringwald@kledo.at

Falle GmbH

Maria Galler Straße 59 9500 Villach Phone: +43 4242 325 40 fahrzeuge@falle.at

Switzerland

KHC Service GmbH

Grenzstrasse 20, 5525 Fischbach-Göslikon Phone: +41 76 589 57 79 info@caravan-technik.ch

Farelec Fischer

Mirchelgässli 6, 3532 Zäziwil Phone: +41 31 711 48 37 technik@campingfisch.ch

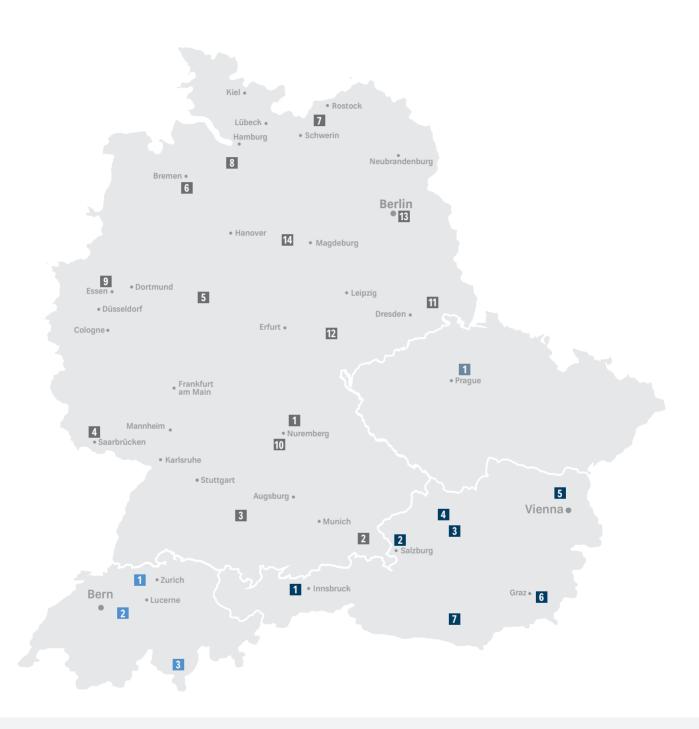
Vulku Valentin Caravan Service

A Ramél 23 6593 Cadenazzo Phone: +41 798 983 033 info@caravanticino.ch

Czech Republic/Slovakia

KARAVANYPRO s.r.o. 1

F.V. Veselého 193 00 Praha 9 - Horní Pocernice Phone: +420 720 705 139 info@karavanypro.cz



Advice and information

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KATHREIN Digital Systems GmbH Eiselauer Weg 13 89081 Ulm

Phone: +49 731 270 909 70 support@kathrein-ds.com

Austria

KATHREIN Digital Systems Vertriebs GmbH Gnigler Straße 56

5020 Salzburg Phone: +43 662 875 531 office@kathrein-gmbh.at For further information regarding service and support, go to

www.kathrein-ds.com/support/ kundenberatung



DAB+ Radios

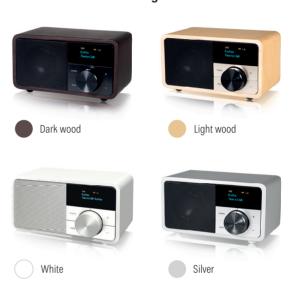
DAB+ 1 mini

The DAB+1 mini is a small, portable FM/DAB+ radio with a powerful sound. Equipped with Bluetooth for wireless audio streaming, it leaves nothing to be desired when streaming from mobile phone to radio. An integrated rechargeable battery pack, an OLED display as well as an antenna socket for an external wire antenna perfectly round off the smallest member of our DAB+ family. The DAB+1 mini is available in four colours – white, silver, light/dark real wood veneer.

Features

- DAB+ and FM
- Bluetooth for audio streaming
- OLED display for DAB services and information
- Integrated rechargeable battery
- Including antenna cable (wire antenna, 3.5 mm jack cable) and USB charging cable (USB Micro, 5 V/1 A)

Available in the following colours:





DAB+ 10 tower

The DAB+ 10 tower is a modern, portable FM/ DAB+/Internet radio. In addition to Bluetooth for wireless audio streaming, the tower radio is equipped with Wi-Fi, allowing you to use Deezer, Tidal, Napster, Qobuz and Spotify Connect as well as Internet radio.

Of course the tower also offers other features such as an alarm clock, sleep timer, pairing via NFC and control via the UNDOK[™] app. This radio has an integrated charger for rechargeable batteries and a compartment for disposable batteries (switchable) - you can easily take it out and about, wherever you go.

Features

- Internet radio/DAB+/FM RDS
- Deezer, Tidal, Napster, Qobuz and Spotify Connect
- Bluetooth for audio streaming
- UNDOK[™] app for playback control
- UPnP/DMR music streaming
- 2.4" backlit colour display
- Output power: 1 × 10 W (RMS)
- Mains adapter 12 VDC/1.5 A with charger for rechargeable batteries and compartment for disposable batteries (switchable, batteries not included)































Your specialist supplier:

Sales Germany

KATHREIN Digital Systems GmbH Eiselauer Weg 13 89081 Ulm, Germany order@kathrein-ds.com

Sales Austria

KATHREIN Digital Systems GmbH Gnigler Straße 56 5020 Salzburg, Austria Phone: +43 662 875 531 Fax: +43 662 878 344-9 office@kathrein-gmbh.at www.kathrein-gmbh.at

Sales International

KATHREIN Digital Systems GmbH Eiselauer Weg 13 89081 Ulm, Germany Phone: +49 731 927 67-0 order@kathrein-ds.com www.kathrein-ds.com | Sales International

Technical advice for specialist suppliers

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