

Amiko SHD-8900 Alien

Linux receiver with dual boot, more than one simultaneous recording and lots more...

• ***Linux receivers are the way to go these days, and if you look at all the features and options they offer it's not hard to see why. This development pleases us no end at TELE-satellite, as we see huge potential with Linux that is only waiting to be exploited by innovative companies. Karmacom from Hungary is one such company and with its own brand Amiko they are well on the way to waking up the sleeping giant that is Linux. The company's latest flagship receiver SHD-8900 has a very special treat in store: two operating systems in a single box!***



But let's not get carried away with Linux at this stage and look at the receiver itself first. Right out of the package we notice how small the box actually is. Measuring merely 22x16x4 cm it will find its place in even the smallest (or most crowded, for that matter), lounge room cabinet or TV rack.

And it creates a rather stylish impression with its buttonless front and the 4-digit segment display that light up in a fiery hue of red. Two LEDs indicate the current operating mode.

Of course, there's more than first meets the eye,

and a small flap hides a total of seven buttons to control the receiver whenever the remote control is out of reach, as well as a Conax card reader. While our test receiver had cutouts in place for CI slots it only came with the built-in card reader.

The back panel of the SHD-8900 comes equipped with all connection options you're likely to ever require. Apart from the DVB-S/S2 antenna input plus loop-through output there is HDMI for digital signal output, a coax digital audio output, three RCA jacks for stereo audio and composite video, a scart eu-

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roconnector, a USB 2.0 interface for external storage media, an Ethernet socket as well as a mechanic power switch and an RS-232 connection.

We've tested our share of remote controls, and the Amiko type is right up there with the best. For one thing, this is thanks to its ergonomic shape and logical layout. Added to that are the hugely practical function keys that can be used to access the numerous multime-

dia features of the receiver such as YouTube, Shoutcast Internet radio or Picasa, to name just a few.

The build quality of the SHD-8900 will meet even the most exacting demands and the manual (currently available in Hungarian and English) that is shipped with the receiver is of equally high quality.

Considering the fact that the Amiko SHD-8900 Alien comes with two entirely different operating systems we decided to split this test report into two distinct sections as well. We'll start out with an in-depth look at the default software by the name of Spark, before turning to all the features of Enigma 2 in connection with the latest Amiko offering in section two.

Spark

In case the name Spark rings a bell with some of our readers there's a reason for that: Amiko deliberately chose tried-and-test technology and software, which





is why Fulan's Spark software platform was selected alongside Enigma 2 (find out more about Spark elsewhere in this issue of TELE-satellite).

Amiko has done a great job integrating the Spark platform into its receiver, and during our test hardware and software behaved like a perfect match. With its support of all DiSEqC protocols (1.0, 1.1, 1.2 and 1.3) as well as SCR unicable solutions, the SHD-8900 should be happy with just about any existing antenna setup.

Video output is just as flexible and allows users to select all standard HDMI resolutions (576p, 720p, 1080i, 1080p) – if need be, this setting can be changed on the fly with a dedicated button on the remote control, without having to go through a separate menu.

We were in for a hugely pleasant surprise as far as the tuner is concerned: It scanned the entire bandwidth of HOTBIRD 13° East in only three and a half minutes, detecting 1446 TV channels and 394 radio channels, which is a real treat.

Regular readers know that none of our test reports is complete without checking a tuner's SCPC capabilities, and the SHD-8900 is no exception to that rule. This time we used the 12.620 MHz (V) transponder on EU-TELSAT W7 36° East with a symbol rate of merely 2894 Ks/s. We're pleased to announce that the Amiko box successfully locked and processed the

signal without even turning a hair.

One of the great joys of watching satellite TV is zapping through hundreds of channels from many corners of the earth, and it's here that cheer can easily turn into jeer in everyday use. No risk of the SHD-8900 falling into the jeer category, though, as it only takes slightly more than one second to switch from one channel to another. It goes without saying that the Amiko box comes with a fully-fledged EPG system that can either display current and next events for several channels at once, or more detailed information for a single channel.

You might look in vain for the PVR acronym in the SHD-8900 Alien's model designation, but this does not mean this feature is missing. Au contraire, all you need to do is plug in a USB storage medium to gain full recording and time-shift viewing functionality. While a recording takes place it is possible to watch an existing recording or another channel on the same transponder. With our test sample, several recordings at the same time were not possible, however this is about to change: a new software release, which will be available when this TELE-satellite issue appears, will allow multiple recordings of channels on same transponder.

If you're having one of those "there's nothing on TV" moments, then you may simply call up the integrated multimedia player which

1. Very practical channel list with excellent design
2. Cool: Contact data can be left for the user by the manufacturer
3. Editing the channel list
4. EPG view of each channel
5. The info bar appears every time a new channels is selected

6

Language Setting

English	Turkish	French
Deutsch	Polish	Česky
Ελληνικά	Русский	Slovakian
Spanish	Finland	Danish
Italiano	Sweden	Ukraine
Portuguese	Arabic	Persian

Page: 1/6 Next

11

File list

Group <Record> /storage/c/pvr/

- Alarabiya_1
- mbc1_1
- mbc4_1
- MBC_Action_1
- n24_1

File System	FAT32
Available	297.785 GB
Used	238.25 MB
Used%	0%

Name	Alarabiya_1
Type	trp
Size	2.206 MB

Group Sort Delete Select Find

Switch frame Change Item EXITExit

7

12

Satellite

- 01 Eutelsat(36.0E)
- 02 Astra 2D(28.2E)
- 03 Astra 3A/B(23.5E)
- 04 Astra 19.2E(19.2E)
- 05 Eutelsat W2(16.0E)
- 06 Hof Bird(13.0E)
- 07 Eutelsat W1(10.0E)
- 08 Eurobird(9.0E)
- 09 Eutelsat W3A(7.0E)
- 10 Sirius 2/3(5.0E)

LNb: Uni.(9750/10600)
 12V: ON
 22KHz: Auto
 DiSEqC: OFF
 Motor: OFF

L 72 Q 100

Scan Edit TP Auto DiSEqC

Change Item EXITExit

8

File list

Group <Music> /storage/c/

- 1-01 This Land is Your Land.n
- 1-02 The Star Spangled Bann...
- 1-03 America.mp3
- 1-04 This is My Country.mp3
- 1-05 Amazing Grace.mp3
- 1-06 America the Beautiful.mp
- pvr

File System	FAT32
Available	86.972 MB
Used	35.039 MB
Used%	29%

Name	1-05 Amazing Grace.m...
Type	mp3
Size	3.081 MB

Group Sort Delete Select Find

Switch frame Change Item EXITExit

13

Transponder

Number	Freq.	H/V	Sym.	FEC	CH. Num
57	12600	V	1824	5/6	0
58	12617	V	1331	3/4	0
59	12620	V	2894	3/4	0
60	12630	H	2238	5/6	0

Eutelsat(36.0E) Uni.(9750/10600)
 12V: ON 22KHz: Auto DiSEqC: OFF Motor: OFF

L 61 Q 100

Scan Add Edit Delete Find

Change Item EXITExit

9

Networking

- Youtube
- Shoutcast
- Picasa
- RSS

OKEnter Change Item EXITBack

14

SHOUTcast

Genre:30s 1/2

- 001 Radio Swing Worldwide - a SHOUTcast.com member station
30s 40s Swing Big Band 96kbps
- 002 Abacus.fm Vintage - a SHOUTcast.com member station
20s 30s 40s Big Band 96kbps
- 003 The 1940s Uk Radio Station for 20s, 30s, 40s, 50s Jazz, Swing, Jive, Big Band - a SHOUT
Swing Jive Jazz 20s 30s 128kbps
- 004 Abacus.fm Vintage Jazz - a SHOUTcast.com member station
Jazz 20s 30s 40s Swing Big Ban 96kbps
- 005 Radio Collector's MPB :: A sua fonte de classicos :: Brasil - a SHOUTcast.com member sta
MPB old time 30s 40s 50s 64kbps

Genre Favorites Add to Favorites

OK Play

10

Picasa

Featured 1/149

Featured User Album

OK Play

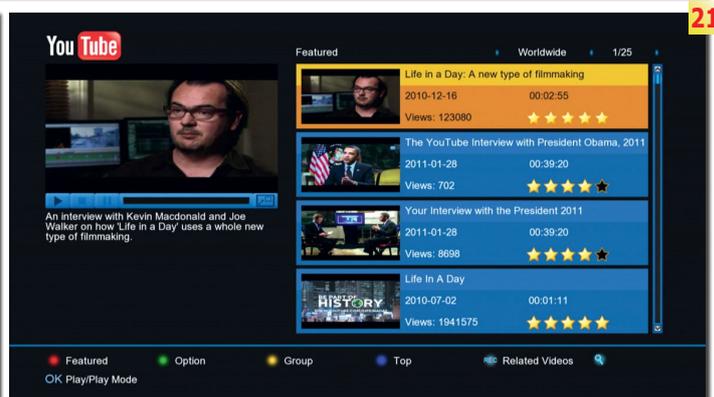
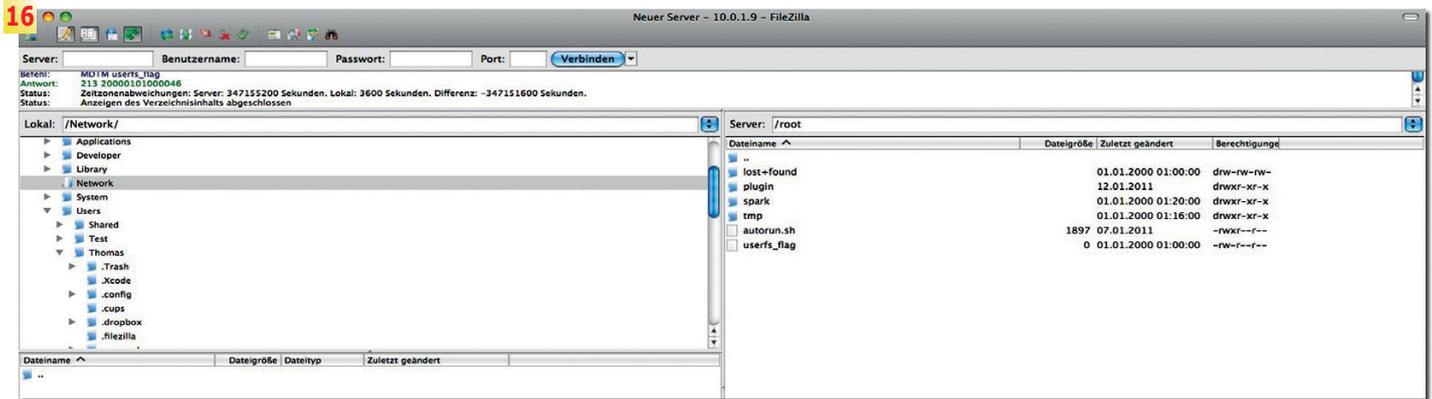
15

Welcome to the STB online service system

Message

- Upgrade Software
- Weather Forecast
- FAQ
- User Manual
- E-book
- Config

OKEnter Switch Item EXITExit



6. Step 1 of the installation wizard: language selection

7. Main menu

8. MP3 playback

9. Get access to YouTube, Shoutcast, Picasa and RSS feeds with the new Amiko satellite receiver

10. Photo presentation via Picasa

11. List of recorded content

12. Satellite entries can be edited with a wide range of options

13. Flawless SCPC reception during our test

14. Access to Shoutcast Internet radio

15. Using the Spark platform Amiko offers its customers countless additional features such as a news service, Q&A as well as updated channel lists and software

16. Thanks to FTP plug-ins can be transferred from a PC to the receiver

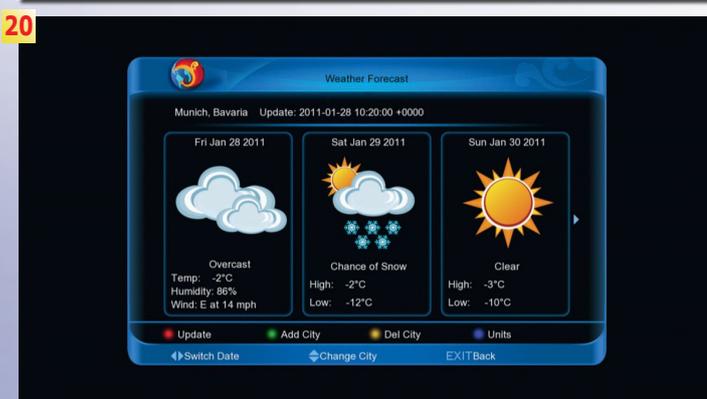
17. System settings

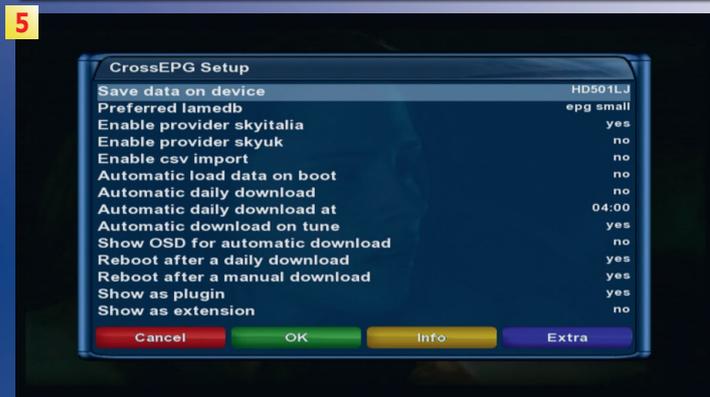
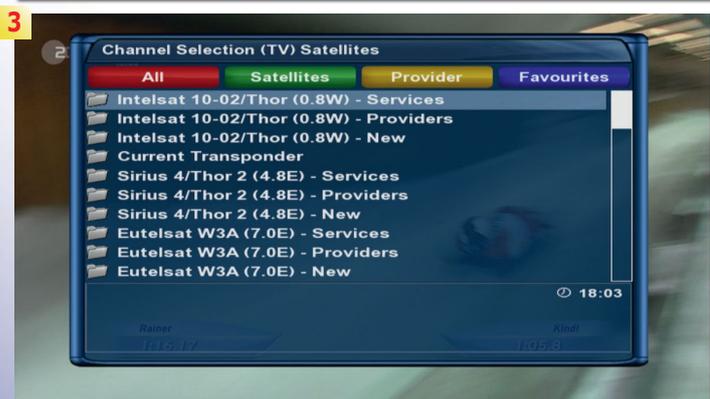
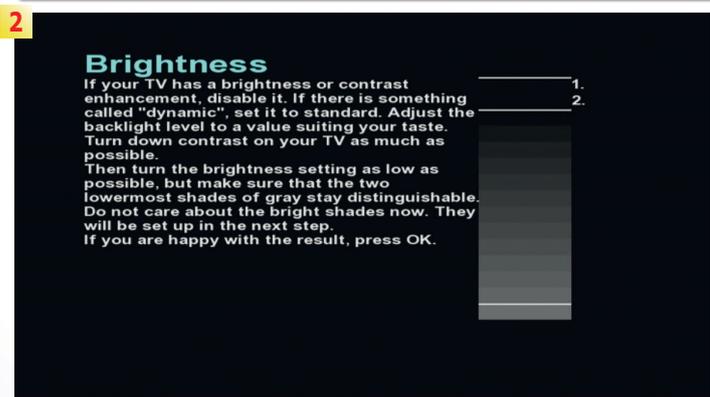
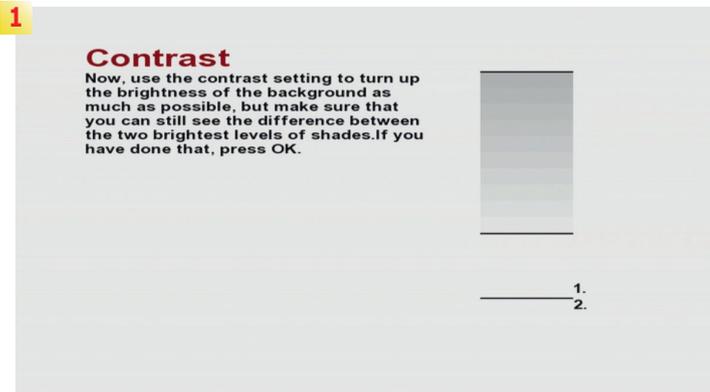
18. Transponder entries can be edited easily and conveniently

19. Selecting the required video format

20. Current weather reports are available for download

21. Access to YouTube videos





supports a wide range of file formats such as AVI, MKV, MPG, TS, WMA, WMV, M2TS, FLV, DAT, ASF and MP3. We threw some video sequences at the player and found that all of them were played back flawlessly. We call that a PVR system which really deserves that name.

A whole range of plugins is available to add new features and functions to the software, and thanks to FTP the file directory of the SHD-8900 can be accessed directly via the Internet, the OSD menu or a PC for plugin installation.

With the decision to bring the Spark software platform on board, the Amiko at the same time benefits from a full multimedia package and dedicated online platform, both of which can be used with the receiver. Multimedia features include playback of YouTube videos, Internet radio via Shoutcast, photo presentation via Picasa as well as subscribing to various RSS feeds. Thanks to the Spark software platform Amiko is able to provide its customers with valuable files such as manuals, Q&A documents, channel lists and software updates in real time for online access. We particularly loved Amiko's own news service which alerts Amiko customers to available software updates, up-to-date channel lists or any other worthwhile information. This takes a lot of work and research off the shoulders of Amiko's customers.

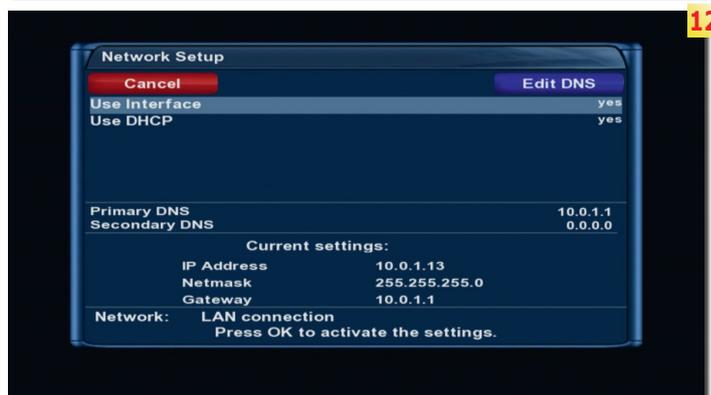
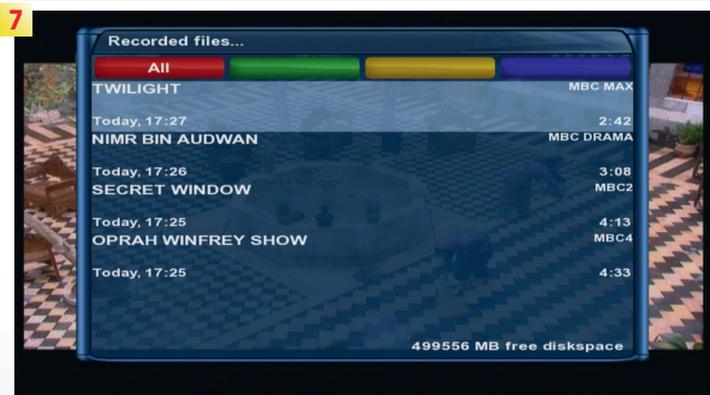
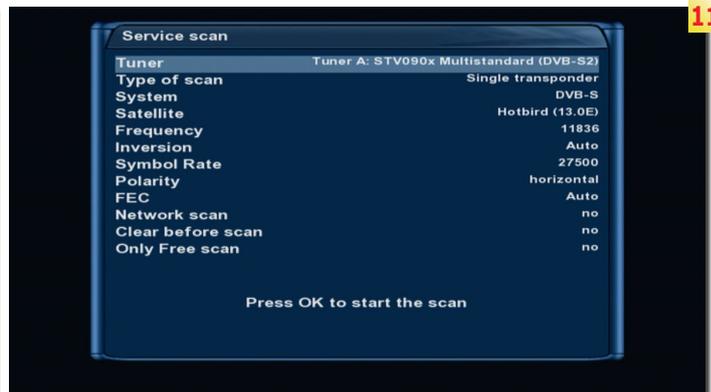
Enigma 2

No operating system is

perfect, and even if one system seems to offer paradise to Joe Average, Jane Average might beg to differ as she is looking for entirely different features. So why not implement dual boot for a Linux-based satellite receiver, a feature that has been available for PCs for some time already? Amiko has done just that with its SHD-8900 and ships the receiver with a boot loader capable of starting up with either Spark or Enigma 2. If you want to make use of these two options all you need to do is press OK while turning on the box. This allows selecting the preferred operating system right on the receiver. Once either Spark or Enigma 2 is selected the receiver uses that operating system until a new option is chosen.

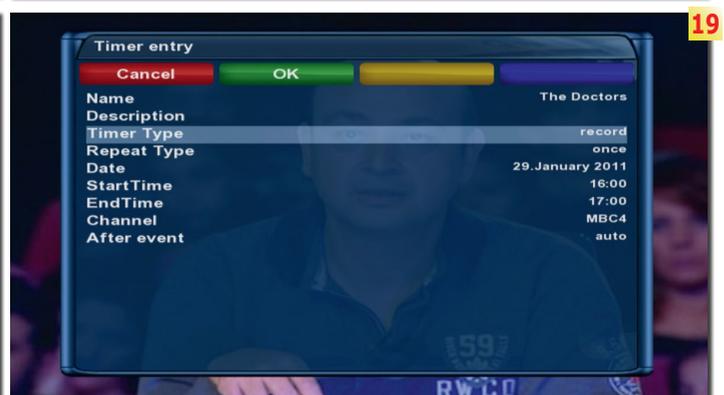
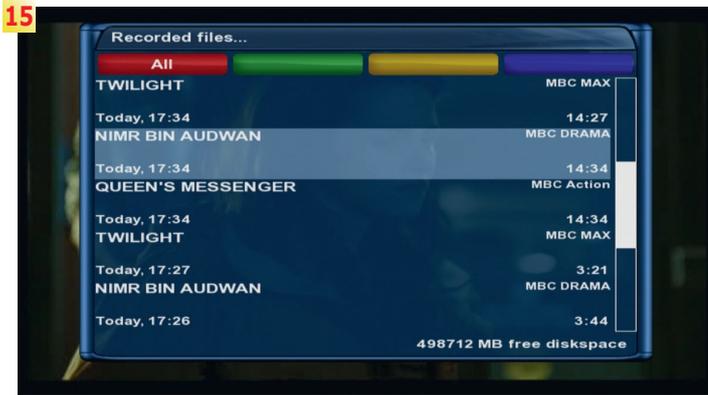
After the receiver is turned on for the first time an installation wizard pops up and guides through the entire installation process. At first you need to select your preferred OSD languages, with the options being English, German, Arabic, Catalan, Hungarian, Czech, Danish, Dutch, Greek, Portuguese, Estonian, French, Lithuanian, Icelandic, Italian, Norwegian, Polish, Romanian, Russian, Spanish, Swedish, Turkish and Ukrainian. The next step is to adjust the video output of the SHD-8900 to the existing TV panel. Next to the standard HDMI resolutions of 576p, 720p, 1080i with 50/60 Hz the receiver can also create a 1080p output, a feature that is rare even among newer satellite receivers. Next, the Amiko box

1. Adjusting the contrast setting on the TV using a test pattern
2. Adjusting the brightness setting on the TV using a test pattern
3. Channel list categorised by satellites
4. Automatic channel search on HOTBIRD 13° East
5. Using Enigma 2 as the operating software the Amiko SHD-8900 can download EPG for any number of pre-selected channels



creates two test patterns for adjusting brightness and contrast settings of the TV panel so that you will arrive at an optimum video quality. In our opinion this is a particularly helpful and innovative feature and goes to show that developers have put a great deal of thought into this system.

Before we're ready to rumble the receiver needs some information about the individual reception setup in place. All DiSEqC protocols (1.0, 1.1, 1.2 and 1.3) are supported so that the Amiko box is the right choice for a standard single or multi-feed antenna as well as for a multi-focus dish or a DiSEqC motor.



6. DiSEqC settings

7. In our test we were able to record up to four streams at the same time without any problems

8. Graphic multi EPG

9. The info bar appears every time a new channels is selected

10. Main menu of Enigma 2 with the SHD-8900 Alien

11. Manual channel search

12. Network settings

13. List of installed plug-ins

14. Setting the recording time

15. List of recorded events

16. Pre-stored satellite entries can easily be edited

17. Language selection

18. Two different standby modes are available

19. Creating a timer entry

Network access is a must in order to use all Enigma 2 feature to the full, and this is why network configuration is included in the installation wizard. Unless your network at home is of a truly complex or exotic type we recommend activating the receiver's DHCP so that it will detect and take over all network parameters (IP address, gateway, DNS server) automatically.

Now that the basics are finished we can't wait to explore all the features of Enigma 2. Yet, there is one more job to complete – the receiver's channel list is still empty and begging to be filled with everything the sky has to offer. Transponder data of major European

satellite positions are pre-stored so that we can start scanning these birds right away.

Manual and automatic modes are available for channel search. We tried out an automatic search on HOTBIRD 13° East, which unfortunately took nine long minutes and found 2056 TV and radio channels. It seems like the interplay between hardware and software has some room for improvement in this regard. After all, the Spark platform achieved the same task five and half minutes faster, which can feel like an eternity. In addition, the Spark software of the new Amiko receiver also did a better job with SCPC signals. With Enigma 2 the

box had a hard time locking the 12.620 (V) transponder on EUTELSAT W7 36° East, while the same receiver with a different software (Spark) couldn't care less about low symbol rates. All this shows that some fine-tuning is still required to propel the Amiko/Enigma couple further up on the receiver ranking.

Once the channel list is filled it can be edited to your heart's content with Enigma 2 without even having to run through a dedicated menu. We cannot think of any other operating system with the same ease of use.

All you need to do is press the MENU button while the channel list is displayed and the software will offer you all editing features that are available. Want to move a channel to your favourites list (which, incidentally, can be organised using markers)? One touch of a button and it's done. In the overall list you can either chose all channels, all satellites, all providers or favourites.

The keypad on the remote control can always be used to enter text in the same way we use our mobile phones for texting, a feature that is awesome for

renaming channel names or recordings, for example. Several people in our editorial offices tried it out and they all felt this was a much more convenient way of entering text than using a virtual keyboard on screen and the arrow buttons on the remote to select letters. We should not have to mention that all channel list entries can be augmented with current EPG data so that current event information is added to channel list data. This way you can see what's on before even zapping to a particular channel. Those of you arguing that the Amiko SHD-8900 only has a single tuner and therefore can only provide EPG data of the selected channel, or of channels on the same transponder, are right. However, Enigma 2 can be set to turn

on automatically at a given time (during night-time, for example) and download EPG data from previously selected channels to be stored locally. That's a truly brilliant feature which makes EPG data available for channels from different transponders at any time.

In general, the EPG of the Amiko SHD-8900 Alien in combination with the Enigma 2 software is a good example of how to do it right. It offers three presentation modes: (1) graphic multi EPG for five channels at time – you simply select the required bouquet and get EPG information for five channels per screen page, all nicely presented; (2) standard multi EPG for 15 channels per screen page without graphic presentation and

(3) single EPG with content information, a listing of actors in a movie and the like (if provided by the channel).

In our opinion the Enigma 2 info bar is worthy of special praise. Every time a new channel is selected it is inserted on the bottom of the screen for some seconds and shows current and next events, as well as icons for additional channel information (encryption, EPG, subtitles, audio channels, etc.).

All PVR features worked smoothly under Enigma 2 – but frankly, we didn't expect anything less. Time-shift viewing is available at any time for lossless interruption of the live program. When we tested how many recordings the Amiko SHD-8900 Alien can handle simultaneously

under Enigma 2 (or if more than one is possible at all) we were lost for words: One recording is the minimum requirement, two simultaneous recordings would be a brilliant bonus, three would be great, but the Amiko box even managed four, all of which were neatly stored on our external hard disk. The impressive thing is that the number of simultaneous recordings is only limited by the data speed of the hard disk, which in our case did not allow for more than four SD streams at the same time. As far as HD content is concerned, our setup only managed one channel at a time. As mentioned before, the SHD-8900 is a single tuner receiver, which means that all simultaneously recorded content must be transmitted on the same



ALIEN

transponder. Still, we've never had a single-tuner PVR receiver before which was capable of handling up to four SD recordings at the same time. Even the Spark software does not allow more than one, although the hardware apparently is capable of much more.

Where there is light, there is also shadow – in this case playing back recorded content lacks some important features. To tell the truth, all entries are presented in a very pleasing way and can be edited to make for large font sizes or to add additional information, but this is reduced to eye candy when it's not possible to fast forward or rewind. Enigma 2 even goes so far as to insert a message that this feature is not yet available. As an alternative, you can use the number keys on the remote

to jump to a selected time index within a recording.

On a much brighter note, the multimedia features of Enigma 2 are nothing short of unique. Not only is a media player available that will process virtually all current audio, video and image file formats, there is even an integrated DVD player. This way you cannot only watch satellite TV and listen to satellite radio with the SHD-8900 but also call up a DVD movie, provided its content has been extracted and stored on an external hard disk or USB stick before.

A virtually endless supply of plug-ins is part and parcel of Enigma 2, all of which can be downloaded from the Internet free of charge. With these software extensions you can add all sorts of features to your satel-

lite receiver, ranging from conventional video games to current weather reports all the way to emulators. All you need is your set-top box and access to the Internet. Software updates are loaded and implemented in the same way, so you will no longer need modem cables and a PC to install a new version of your receiver's operating system.

We particularly liked the option to fully customise the OSD of the receiver under Enigma 2 to reflect your personal taste. A number of skins (pre-stores design schemes) can be downloaded from the Internet and then activated on the receiver. So if you're not entirely happy with the default look of your OSD you are free to browse available alternatives and exchange the existing skin with a new one.

We believe the huge variety will cater for every taste.

The comprehensive network integration of the Amiko flagship receiver is rounded off with a very special feature of the Enigma 2 platform: A fully-fledged web interface for remote access to the receiver from anywhere with an Internet connection. To access your Amiko SHD-8900 at home all you need to do is key in its IP address in the address field of any Internet browser and – no matter where you are – you are then able to access the most important functions like channel switching, creating a timer entry for a recording, sending a message to the receiver, and so on. If you need to access a receiver feature that is not implemented in the web interface you can always call up a virtual re-



Expert Opinion

+

With two different operating systems users can decide which one is best for them.

Excellent remote control with quick access to special features.

Both software platforms appear to be well-designed and mature – we experienced no freezes or software bugs.

High-definition 1080p content is processed natively and put out as 1080p.



Thomas Haring
TELE-satellite
Test Center
Austria

-

None

remote control and use it like your real remote at home by clicking on the required button on the screen. Since you can do this from more or less anywhere you can easily access your box while on holidays, change some settings if required, and put it back into standby mode – all with a few mouse clicks!

Talking of standby: No matter which operating system is active (Spark or Enigma

2), the Amiko SHD-8900 always offers either normal standby or deep standby. Looking at the energy diagrams in this report the vast difference in power consumption between the two modes becomes strikingly obvious.

The Amiko SHD-8900 is a very well built HDTV PVR receiver with high-quality hardware. Being shipped with two different operating systems users can decide which platform better meets their requirement and offers the features they really want and need. We tested both platforms and can recommend both, as neither of them had obvious flaws. They look and feel entirely different, but both are user-friendly and will work nicely for the whole family. With its 1080p video output via HDMI this receiver will be a good choice even for future HDTV transmission standards.

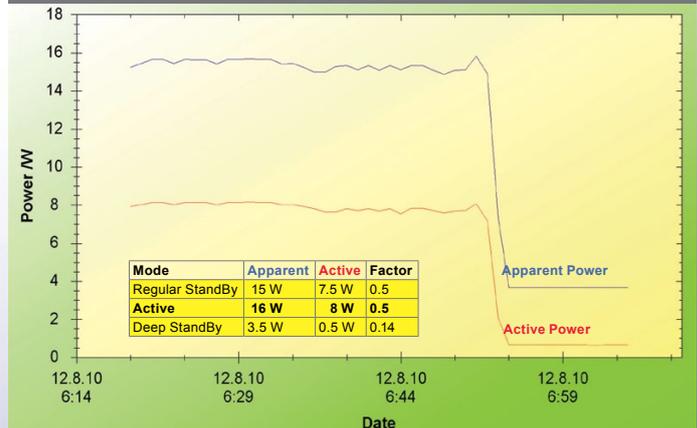


TECHNICAL

DATA

Manufacturer	Karmacom Kft., Ganz Ábrahám street 5, Nagytárca 2142, Hungary
Tel.	+36-1 431 8932
Fax	+36-1 431 8933
E-Mail	info@karmacom.tv
Model	SHD-8900 Alien
Function	Digital HDTV DVB-S2 receiver with various multimedia & Internet features including dual boot
Channel Memory	unlimited
Symbol rate	2-45 Ms/sec.
SCPC Compatible	yes
DiSEqC	1.0 / 1.1 / 1.2 / 1.3
USALS	yes
HDMI Output	yes
Scart Connector	yes
Audio/Video Outputs	3x RCA
Component Video Output	no
S-Video Output	no
UHF Modulator	no
0/12 Volt Connector	no
Digital Audio Output	yes
EPG	yes
C/Ku-Band compatible	yes
PVR-Function	yes
USB 2.0 Connector	yes
Ethernet	yes
E-SATA	no
Silicon Tuner	yes

ENERGY DIAGRAM



First 15 minutes: Active use with recording, playback and channel switching

Second 15 minutes: Standby mode

Third 15 minutes: Deep standby mode with very low power consumption