

Eycos S80.12 HD

First PVR for HDTV



No matter whether it's Anga Cable, Cabsat or Cebit, the catchword at all consumer electronics fairs these days is HDTV. While standard set-top boxes with CI interfaces were the talk of the town last year, this year manufacturers have made another leap forward and proudly present their new HDTV PVR receivers to a stunned audience.

One of the first companies to add such a unit to their product range is the up-and-coming Korean company Eycos, which has teamed up with tried-and-tested distributor Satforce for the German-speaking and European markets.

Naturally, our expectations were high when one of the first boxes of the S80.12 HD series arrived directly off the assembly line at our editorial office.

After it has been switched on the blue 9-digit alphanumeric display is illuminated which – together with the seven silver buttons on the front panel and the black case – creates a perfect appearance.

Generally, owners of this product are advised to keep a ready supply of spare batteries for the remote control, as the buttons on the box can only be used to perform a limited

number of operations. Two CI slots are hidden behind a flap on the right side of the front panel and can take up all standard CA modules like Irdeto, Seca, Viaccess, Conax, Cryptoworks, Alphacrypt etc.

While the reasoning behind the USB 2.0 interface is pretty clear to us, most of you will probably ask about the purpose of the S-ATA interface. The answer is quite simple, really: as one of the first manufacturers of PVRs Eycos has come to appreciate

External Freecom 500GB harddisk

Secondly, it generally can be a tiresome job to connect a receiver to a PC in order to transfer data because more often than not the PC is located in a different room of the house and endless cables are required.

Thirdly, many people like to bring their recordings to friends or their holiday home without having to create a DVD first. All these reasons clearly point



When we unpacked the unit all colleagues present agreed that the looks of the receiver were simply perfect. Finally, a manufacturer has decided to do away with all those labels and logos on the front panel indicating DiSEqC, MPEG, DD or whatever else there might be to brag about included features. We cannot praise this enough and hope that other manufacturers will follow suit so that stylishly designed boxes will not be spoilt by too many logos any longer.

If the front panel excites you, then the rear panel will probably leave you lost for words. Apart from all the usual suspects such as satellite IF input and loop-through output, digital audio output, scart and RCA

the fact that the permanently integrated receiver harddisk in many cases is far from being the perfect solution.

Firstly, consumers are forced to decide about the size of the harddisk right at the shop where they buy the device, and exchanging the harddisk afterwards is not only a tricky job but also requires an authorised dealer in order to make sure the warranty does not become void.

to a clear solution, which is an external harddisk.

Eycos has realised that this is what consumers demand and any external harddisk can be used with their latest device, no matter whether it sports a USB 2.0 or S-ATA interface.

You can even connect a harddisk to both interfaces in which case the receiver will ask which disk to use every time you start a recording or set a timer for a



recording. Swapping haddisks and transferring data to a PC becomes child's play and to top it off, even a USB stick with sufficient memory can be attached to the USB interface so that you can put several hours of recording in your pant pockets, for example.

Updating the operating system of the receiver can also take place with a USB stick so that the also available RS-232 interface will be out of work most of the time.

Our test unit came with an external Freecom 500GB hard-disk which has the added benefit of switching off as soon as the receiver goes into standby.

From a design point of view it also fits in nicely with the new S80.12 HD thanks to its blue LED on the front panel.

A USB extension cable is also included, which allows connecting external USB devices without having to fiddle around with the interface on the back of the receiver – a very thoughtful gesture.

The workmanship of the receiver lives up to the expectations we have in Eycos and the remote control is also

robust and sturdy, even though some users might find it to be a bit oversized. All buttons are clearly labelled and beginners should be able to use it right away, too.

Our test unit was shipped with a German operating manual and although this was labelled as a pre-release version it included all required information in a neat and sufficient manner.

Everyday use

The Eycos S80.12 HD is a product clearly geared towards the European market and thus it is hardly surprising that it comes pre-programmed with all channels that are likely to be received in European countries. The channel list includes up-to-date parameters for ASTRA 19.2° East, HOTBIRD 13° East and TURKSAT 42° East.

By the time the receiver is officially available in stores Eycos have promised to add ASTRA 3A 23.5° East and ASTRA2 28.2, both of which carry several HDTV channels across Europe. An updated channel list will also be made available on the manufacturer's website at www.eycos.de.

Pushing the 'Menu' button

will also leave you stunned, because Eycos has managed to arrange the many features of their new S80.12 HD into four neatly structured areas.

The first area deals with the antenna configuration and the channel list. All in all, 175 European, Asian and American satellites are listed, yet the list is not fully up-to-date and needs some revision. The manufacturer has promised to address this problem and offer an update by the time the official sales starts.

The receiver can handle C-band as well as Ku-band signals and even the most exotic LOFs won't pose a problem thanks to a manual LOF setting. You can choose to use the new Eycos receiver with a DiSEqC rotating system or a multifeed antenna since it features DiSEqC 1.0, 1.2 as well as 1.3 (USALS). The only thing missing is DiSEqC 1.1.

In line with all the positive attributes mentioned so far the receiver is also very quick when scanning for signals. Four and a half minutes is all it took to fully scan an 80-transponder satellite and it may well be that it set a new record for this job. All-in-all there is memory for

6000 channels, which should be sufficient for most users.

The second menu area helps to personalise the device, starting from selecting the desired language of the OSD (English, French, German, Spanish, Italian, Russian, Turkish, Dutch, Czech or Polish) and ranging from setting the brightness of the front panel LED all the way to a number of OSD settings.

A feature worth mentioning is the automatic detection of AC3 audio. Thanks to this, owners of DD 5.1 home theatre systems won't have to manually select the Dolby Digital soundtrack – this task is fully taken care of by the receiver.

The AV settings of the S80.12 HD can be used to pair the receiver with your TV set or beamer by choosing parameters like resolution (576p, 720p or 1080i), colour system (PAL or NTSC) as well as signal types CVBS or RGB for those using a scart connection.

Naturally, you can also define whether your TV is 4:3 or 16:9, so that the receiver sends the correctly formatted signal via HDMI. Furthermore, the internal clock can be set manually or synced with satellite data.

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our SCPC test when it received and processed symbol rates from as low as 1.6 MS/s. No troubles with DVB-S2 reception

either, which is available for symbol rates between 10 and 32 MS/s.

Expert Conclusion



The Eycos S80.12 HD is one of the very first PVR receivers for receiving and recording HDTV channels, and even as a pioneer in the field it worked reliably and flawlessly during our tests. The external harddisk brings back the fun to transferring data to a PC and creating DVDs, so that a cosy evening in front of the telly at the weekend lodge is no longer out of the question – simply bring along the harddisk with your favourite movies or shows. In general, the new Eycos is a perfect addition to your living room equipment as it's very easy to familiarise oneself with all its features.

The DiSEqC 1.1 protocol for addressing up to 16 LNBS would come in handy for all owners of a multifeed antenna.

One of the main features of a PVR is the possibility of setting the timer to record a certain event. Here the Eycos box draws a distinction between Event Timer and Remind Timer.

Setting a Remind Timer will simply prompt the receiver to switch to a selected channel at a given time, while an Event Timer entry will make sure the receiver records the selected program on the harddisk. In total, 30 timer entries can be defined, and genuine couch potatoes will appreciate the fact that daily or weekly events can be programmed as well.

The last two menu areas deal with any CI modules that might be inserted and with the two interfaces for external harddisks. Similar to the Windows Explorer you can directly address external USB or S-ATA harddisks. New directories can be created at the touch of a button and recordings can be deleted, moved or renamed. New disks can be formatted and the data consistency of existing disks can be checked at any time.

One button labelled 'Upload Channel' can easily be overlooked, yet it hides a feature many owners of satellite receivers have been waiting for for ages. Simply press the button and the current channel list is transferred to and stored on the harddisk.

For one thing, this facilitates channel list editing to a large extent, and for another thing, this feature is handy to

create a backup which can be used whenever the channel list gets messed up after a channel search or a system reset.

Zapping between channels is real fun with the S80.12 HD, because the new channel appears on screen after about one second. Even when switching between HDTV and SDTV channels we did not experience any noticeable delay.

If you want to start a new recording manually all you have to do is push the 'Record' button. In case two harddisks are attached the receiver asks which of the two you'd like to use.

Since the new Eycos box is only equipped with a single tuner you can only watch channels that are transmitted on the same transponder as the recorded channel and you can only switch to any other channel once the recording has finished.

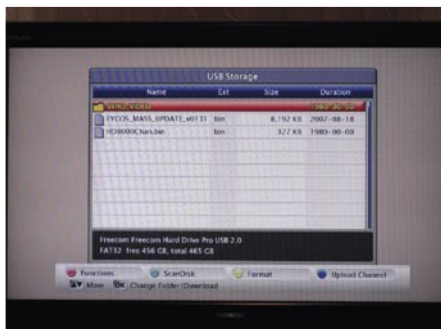
Even though we tried real hard we were unable to upset the receiver during recording a HDTV channel. All recordings were played back brilliantly and without any glitches.

The tuner used by Eycos turned out to be worth every penny and even when pushed to the limits with a weak signal from NILESAT 7° West at a test site in Vienna we could not detect any difficulties. BBC HD also came in interference-free at another test site in Munich.

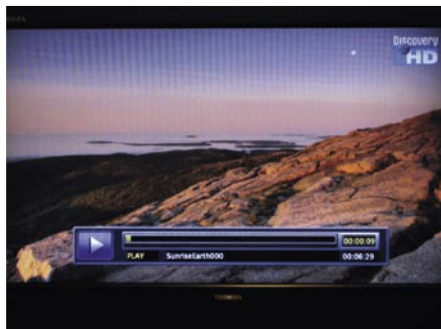
The S80.12 HD also passed



TECHNIC DATA	
Manufacturer	Eycos
Distributor	Satforce Kommunikationstechnik GmbH
Tel	+49 (0)86 54 773 851
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E-Mail	info@satforce.com
Model	S80.12 HD
Function	Digital HDTV Satellite PVR Receiver
Channel memory	6000
Satellites	175
Symbolrate	2~45 Ms/sec. (in test from ca. 1.6 Ms/s) in DVB 10~31 Ms/s in DVB-S2
SCPC compatible	yes
USALS	yes
DiSEqC	1.0 / 1.2 / 1.3
Scart euroconnectors	2
Audio/Video outputs	3xRCA
YUV	yes
HDMI	yes
USB 2.0	yes
S-ATA	yes
UHF output	no
0/12 Volt connection	no
Digital Audio output	yes
EPG	yes
C/Ku-Band compatible	yes
Power supply	95-250 VAC, 50/60 Hz



Harddisk explorer



Playback bar



EPG for one channel