# SATFINDER 5 HD Slim



- ***Mide señales DVB-S/S2 con la tabla NIT y analiza rápidamente su espectro***
- ***Soporta sistemas USALS y UNICABLE***
- ***La actualización de la base de datos y el software se realiza mediante una memoria USB***
- ***Se pueden recibir y presentar simultáneamente hasta ocho transpondedores***
- ***El visor de alta resolución muestra una muy buena lectura***
- ***La base de datos de transpondedores pre-programada puede editarse directamente en el medidor***

# Handy, Practical, Precise

The new SATFINDER 5 HD Slim from Alpsat Elektronik is a decidedly small and handy satellite meter that only measures 18x10x4 cm and weighs no more than 0.8 kg – and that already includes the battery. All this makes it a perfect companion for use even in the trickiest of places.

Take it in your hand for the first time and your eyes will probably stay glued to the 3.5-inch TFT high-resolution (960-540px) colour display right away. It is one of those rare examples that provides excellent readability even in direct sunlight. Below the display the manufacturer has placed a total of 12 buttons for operating and controlling the SATFINDER 5 HD Slim. All of them come with easy to grasp labelling and some have more than a single function depending on the menu that is accessed.

The top side of the meter features a satellite IF socket for connecting the cable from the reception system, as well as a TRS socket that becomes a fully-fledged AV interface with the help of an adapter cable. On the bottom side you will find the 12V DC socket for connecting the external power unit/charger and a USB socket that can be used to update either the meter's firmware or the pre-installed satellite, transponder and channel lists.

The integrated battery comes with a capacity of 2400 mAH and cannot be removed from the meter. It makes sure the SATFINDER 5 HD Slim stays operational for up to three hours before it needs to be recharged. Once that becomes necessary it does not take longer than two hours to reach full capacity again for mobile operation.

Alpsat Elektronik throws in a 12V DV power pack for use with the mains or a car power outlet, as well as a hugely practical protective cover with carrying strap and an F-type angled plug that allows rotating the satellite IF input by 90 degrees. Of course the meter is shipped with a user manual, and in this case it comes with helpful pictures and a useful overall layout. Working with this manual you won't need to be a pro for getting the knack of this device, which is always a good sign.

Let's have a look now at what's inside this neat little device. Alpsat has opted for an 800 MHz processor that can draw on 8 MB of cache and 512 MB of RAM. In total, the SATFINDER 5 HD Slim boasts 5000 transponder entries, 8000 TV and radio channels and 250 satellite entries.

When you call up the main menu you'll see that it consists of two entries for basic settings – one takes care of all satellite-related settings, while the other one deals with all general settings. Those include the usual suspects, such as OSD language. You can choose between a wide list of languages: English, Turkish, German, Spanish, Russian, French, Portuguese, Arabic, Dutch, Italian, Greek and lastly Serbian. Further options are the preferred unit for signal level measurements and video output.

An option we particularly appreciated was that the SATFINDER 5 HD Slim can be set to increase its LNB power supply by one Volt, something that is greatly beneficial with extreme coax cable lengths because it makes sure enough voltage arrives at those remote LNBs. Another solution worthy of special mention are the three available status menus that can be accessed to find out the current state of the RAM, the remaining battery capacity and the voltage supply to all available components.

Not only does the SATFINDER 5 HD Slim offer an extensive pre-programmed channel list, it also comes with excellent satellite and transponder entries that reflect the high effort put in by the manufacturer. A total of 159 European, American and Asian satellites are available, complete with


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**SATFINDER 5 HD Slim**
Extremely responsive meter for evaluating up to four transponders simultaneously

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corresponding transponder data. What's more, all entries can be easily be added directly on the meter – a welcome change from many other meters that require a PC to perform those tasks.

As far as LOF parameters are concerned, Alpsat went the whole hog and offers preset values for the Ku, Ka and C bands, as well as less frequently used LOFs and SCR frequencies. This adds up to almost 30 pre-programmed settings, and in case the one you're looking for is still not among them you're more than welcome to manually enter any valid frequency you may require.

Once all initial settings are completed we can now turn to aligning and optimising a satellite antenna. For a first approximate alignment the SATFINDER 5 HD offers a satellite search as well as spectrum mode. For both options it makes sense to first select the desired satellite on the list and then check whether all pre-set parameters are indeed correct. At this stage it is also possible to change the LOF and to activate DiSEqC commands. With the SATFINDER 5 HD supporting all DiSEqC protocols from 1.0 to 1.3 you obviously have all options and possibilities at hand to make full use of that feature. It is even possible

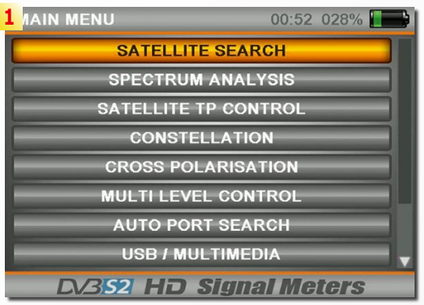
**1. Main menu of the SATFINDER 5 HD Slim from Alpsat**
**2. Selecting the desired satellite from the comprehensive pre-programmed database**
**3. Signal measurement**
**4. Signal measurement with all relevant reception parameters**
**5. Pre-programmed channel list of the SATFINDER 5 HD Slim**
**6. All DiSEqC protocols are supported, including those for motor-controlled antennas**
**7. Spectrum display**
**8. Various spectrum display option**
**9. Selection menu in multi-transponder view**
**10. Multi-transponder view**
**11. Constellation diagram**
**12. Cross-polarisation measurement**

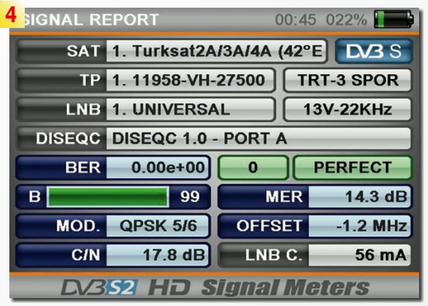
to manage the supply voltage to the LNBs according to your requirements. Either you leave it entirely to the meter – depending on the currently selected frequency – or you can manually select 13V, 18V, 21V, 13V+22kHz or 18V+22kHz.

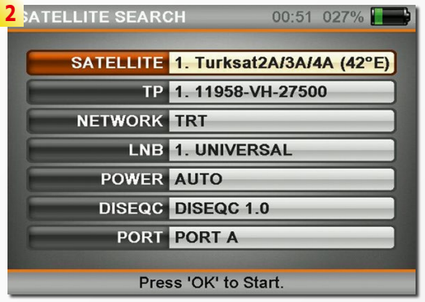
After a touch of the OK button the SATFINDER 5 HD Slim will present the currently received signal spectrum right away. The selected frequency and the scale of the y-axis can easily be changed at any time using the cross-shaped navigation button. Once you have identified a signal peak you simply press the OK button again for the meter to analyse that particular frequency. It only takes a few seconds for the SATFINDER 5 HD Slim to find out the originating satellite and the channel provider, as long as those data are being transmitted in the NIT via satellite or are available in the internal memory of the meter. When you have found your target satellite using this method – which really worked like a treat in our test – you can then conveniently analyse and evaluate every single frequency with a satellite search.

When doing this, the SATFINDER 5 HD Slim does not only indicate signal quality and signal strength, but of course also C/N ratio, BER and MER. A thing we found very useful is an option to change the desired transponder, satellite or even DiSEqC setting right here and there, without needing to go back to where we started. What this means is that once the antenna is roughly pointing in the right direction, users can move on to fine-tuning the system. To that end, the SATFINDER 5 HD Slim has a number of tools available such as cross-polarisation measurements, constellation diagram and multi-transponder measurements.

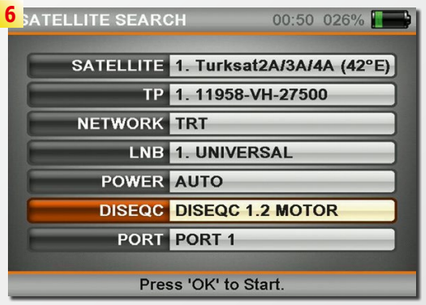
What a cross-polarisation measurement does is help you receive signals from orbital

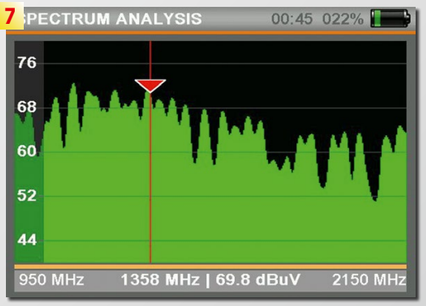


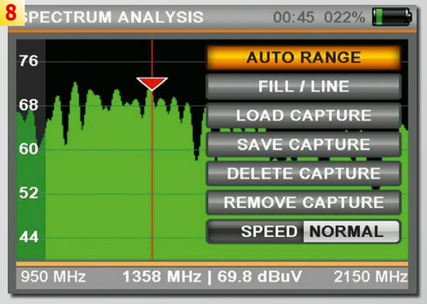



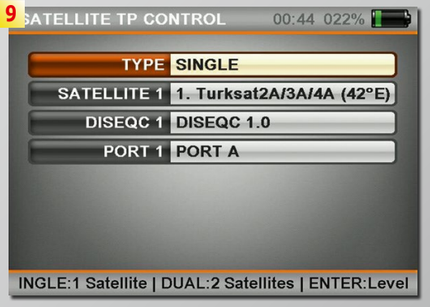





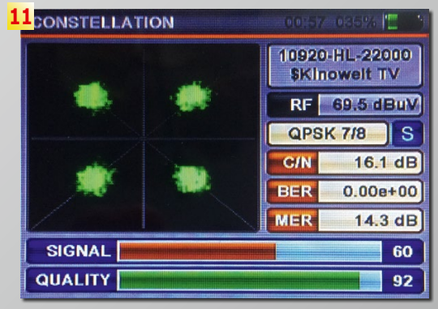



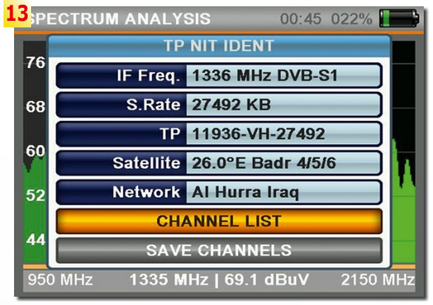



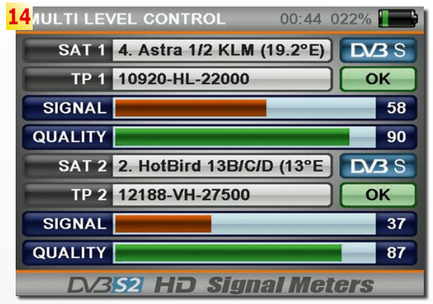



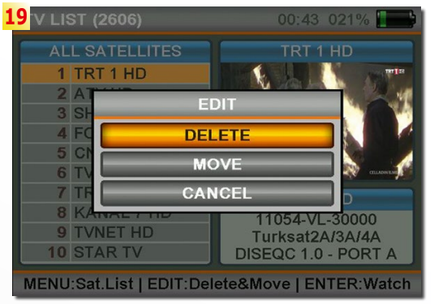


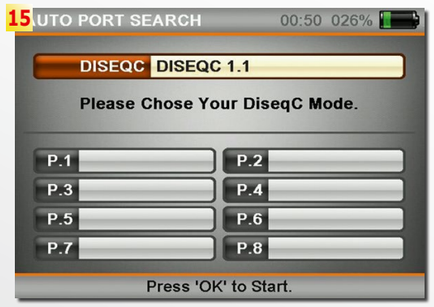


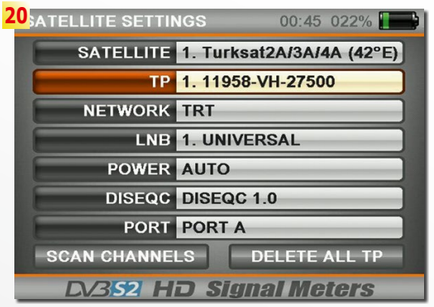



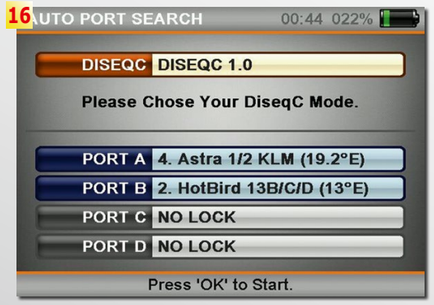


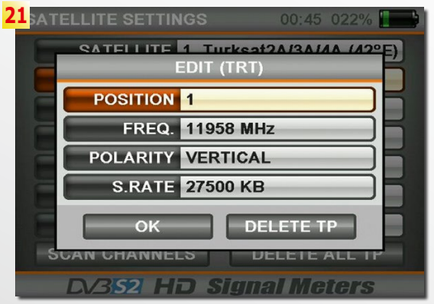


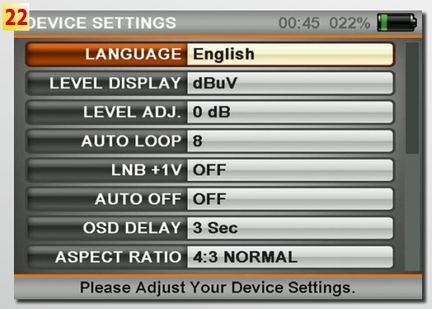








positions that are relatively far away from the southernmost reception spot of the antenna. The best possible reception level for both the horizontal and vertical polarisations can be achieved by rotating the LNB around its axis. While doing so, the SATFINDER 5 HD Slim continually measures the reception level of a frequency with 13V and 18V LNB supply voltage and indicates measured peaks for direct comparison. This way it is almost child's play to adjust cross-polarisation for optimum reception.

A constellation diagram provides visual clues regarding the received signal: The closer together individual image points are positioned and the closer to the centre of the diagram they are located, the fewer errors the received signal has. Apart from the constellation diagram itself, the SATFINDER 5 HD Slim also shows the C/N, BER and MER values, which is a great feature that supports the visual clues with hard facts.

One thing the SATFINDER 5 HD Slim is particularly good at is its satellite transponder control measurements, for which it offers two different modes: One looks at four transponders at a time, the other one checks out eight transponders. All reception parameters are presented both in a numeric and a visual way, which helps tre-

**13. Automatic satellite and transponder detection**

**14. Multi-transponder view of two transponders on two different satellites**

**15. Both DiSEqC 1.0 and 1.1 are supported for Auto DiSEqC**

**16. It only takes a few seconds for Auto DiSEqC to correctly identify all connected signal leads**

**17. Channel list with live TV**

**18. Selecting the desired satellite for TV and radio reception**

**19. Editing the channel list**

**20. All satellite and transponder entries can easily be edited and new entries can be added at any time**

**21. Editing a transponder entry**

**22. System settings**

mendously with aligning an antenna using transponders with varying signal strength. And that's not even the best part: This simultaneous presentation of different transponders' parameters is not restricted to one satellite at a time, but can be used with two satellites – which is to say the SATFINDER 5 HD Slim can present up to eight transponders from two satellites simultaneously! This can truly take the horror out of aligning a multi-focus antenna, which is an awesome achievement. Please note, however, that the meter takes some five seconds until the reception parameters of all eight transponders are refreshed, so you should make a point of moving the antenna slowly and only one step at a time. We also noticed that some pre-stored transponder data were out-of-date so we strongly recommend you first check and – if necessary – update all data before performing a multi-transponder measurement.

Another feature you may want to look at is Auto DiSEqC. Using it the SATFINDER 5 HD Slim will detect all satellite positions whose signals are led to the individual ports, no matter which DiSEqC protocol is used. If you have to deal with large-scale distribution setups and complex DiSEqC configurations on a regular basis, Auto DiSEqC will significantly reduce your workload.

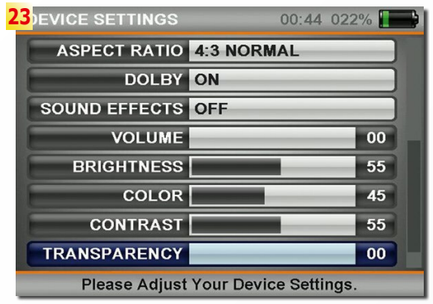
After we had looked at all features and functions of the SATFINDER 5 HD Slim in theory and from the comfort of our test center, it was time to wander outside to our antenna farm. There we have a number of offset antennas, some of them motor-controlled. Using the new SATFINDER meter we wanted to find out how it performs in a real-world job. The first thing we noticed was that the display remained perfectly readable even after rays of sun had found their way through the cloud cover. If truth were told, the contrast of the display is best when out of the sun, but we were definitely able to clearly read all content even in direct sunlight. As could be expected, antenna alignment was an absolutely hassle-free affair, with the spectrum display reacting very swiftly to all signal changes. This meant we were able to speed up antenna movement along the Clark Belt without risking missing a satellite position. And while we're at it: We did pause at regular intervals so that the SATFINDER 5 HD Slim could take a moment to analyse the odd signal peak in the spectrum. As a matter of fact, the meter correctly identified five of the six transponders we threw at it.

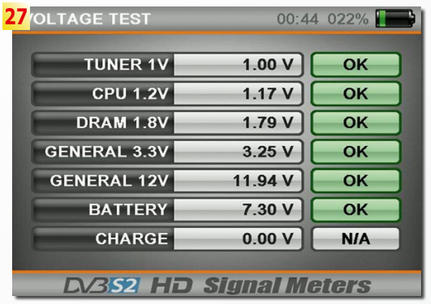
Fine-tuning the antenna alignment went just as smoothly. With the help of multi-transponder measurements of two, four or eight transponders at a time it was child's play to add an additional LNB to our Wavefrontier antenna. But this feature also proved its worth when it came to setting up a conventional ASTRA 19.2° East/HOTBIRD 13° East combination.

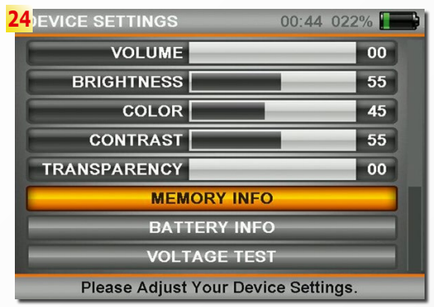
After all this praise the question remains whether the actual measurement results provided by the SATFINDER 5 HD Slim are also accurate. Well, we matched them to the results given out by one of our professional meters and could not detect any significant deviation. Obviously, the data are not 100% identical, but the difference always stayed within a tolerable margin. Different hardware components alone account for some of the deviation.

And we're still not fully done yet. The SATFINDER 5 HD Slim sports fully-fledged TV and radio reception functionality for SD and HD channels coming in as DVB-S or DVB-S2 signals. So if need be, the SATFINDER 5 HD Slim can easily be used as a mobile satellite receiver whenever you're out and about. You should bear in mind, however, that the built-in display of the meter can present pictures from external sources, but not video and music.

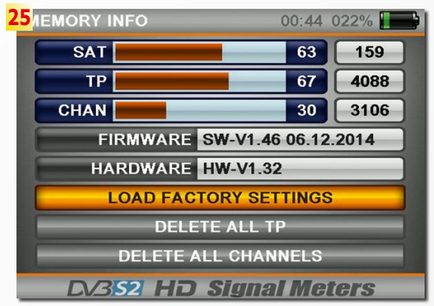
To sum up, the SATFINDER 5 HD Slim from Alpsat Elektronik fully met out expectation and then some. What we particularly loved was the tuner's swift reaction to all signal changes, as well as the multi-transponder view.



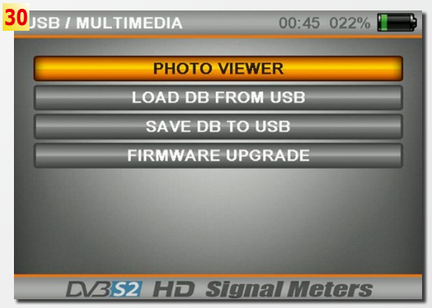










**23. System settings**
**24. Three dedicated menu items of the SATFINDER 5 HD Slim provide details on internal memory use, battery state and voltage supply**
**25. Information on the internal memory**
**26. Information on the battery**
**27. Information on the power supply**
**28. DVB-S SDTV reception**
**29. DVB-S2 HDTV reception**
**30. The USB port can be used to present pictures on the meter's display, to update and save the pre-programmed databases, and to perform an update of the operating system**

## EXPERT OPINION


**+**
- **Comprehensive pre-programmed transponder database**
- **Swift reaction of the tuner to changing reception parameters**
- **Multi-transponder display**
- **Accurate signal measurement**
- **Very light and handy**
- **Wide range of features, including and radio and TV reception for HD and SD channels**
- **Preprogrammed transponder database is updated every 3 months at www.satfinder5.de**

**–**
- **Tools are required to exchange the built-in battery**