PeakTech DVB-S-S2 Signal Level Meter User Manual

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PeakTech®

PeakTech DVB-S-S2 Signal Level Meter

Safety precautions

This product complies with the requirements of the following directives of the European Union for CE conformity: 2014/30/EU (electromagnetic compatibility), 2014/35/EU (low voltage), 2011/65/EU (RoHS). To ensure safe operation of the equipment and eliminate the danger of serious injury due to short-circuits (arcing), the following safety precautions must be observed. Damages resulting from failure to observe the safety precautions are exempt from any legal claims whatever
Warning!

- Do not use this product near combustible or flammable materials and don’t turn it on in rooms with explosive environments.
- Do not connect this product to a piece of equipment or cable having a voltage with respect to ground on its chassis, as such connection can result in the risk of electrical shock.
- Use a proper Battery charger for charging internal rechargeable battery pack.
- Do not remove the case cover, as this can risk failures or loss of performance.
- Do not allow water to enter the product. This product is not waterproof.
- If condensation forms on this product due to a sudden change in temperature, use this product only after allowing it to dry sufficiently.
- Measuring instruments don’t belong to children hands-

Description of the appliance

Introduction
This powerful DVB-S2-meter for signal search in satellite systems offers a wide range of functions for daily use during the installation or testing of SAT-TV-systems. The graphical user interface with menu control allows all necessary functions such as the satellite search with corresponding LNB settings, large LED display for representation of the signal quality as well as the spectrum analyzer. To be suited for daily use in the installation operation, this meter features a robust plastic housing with rubber holster. In addition, the device comes in a convenient carrying case, in which the device and the extensive measurement accessories take place. The voltage is supplied via the integrated lithium-ion battery or the included AC adapter. Through these many important features, this device is the ideal companion for any electrician or television technician in the field service.

Technical characteristics

- 6 cm (2,4 “) color TFT display with 320 x 240 pixels
- DVB-S & S2 channel search (satellite system)
- Spectrum analyzer for all DVB functions
- Constellation diagram funstion
- The USALS and DiSEqC control also for the alignment of rotating equipment electronically
- It is suitable for measurement at Unicable-systems
- Rugged plastic case and holster with carrying strap
- Removable lithium-ion battery with 7,4V/1700mAh

Technical Data

General

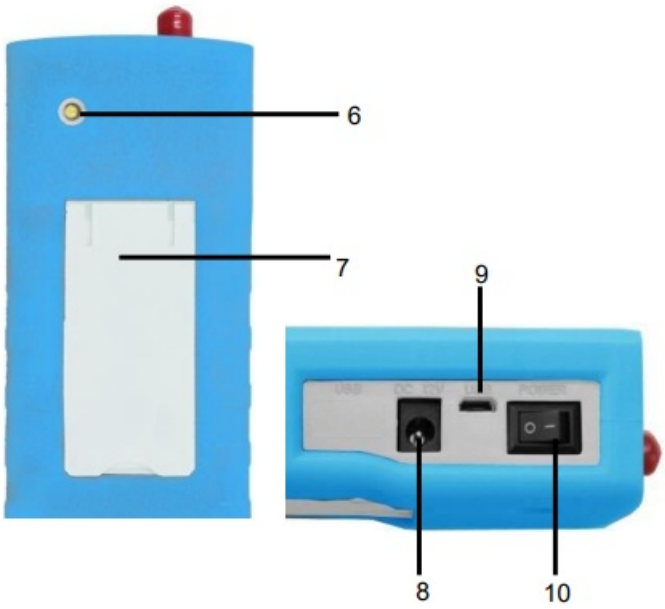
Display	6cm (2,4“) TFT-LCD (320×240)
Interface	1 x USB 2.0
AC-adapter	Input: 100 ~ 240 V AC; 50/60 Hz Output: 12V / 1A DC
Battery	7,4V / 1700mAh
Dimensions (WxHxD)	80 x 160 x 40 mm
Weight	350g

Satellite

Standard	DVB-S / DVB-S2
Frequency range	950 MHz-2150 MHz
LNB-Control	13/18V, max 500mA
Level range	-65dBm ~ -25dBm
Accuracy	C/N +/- 0,1 dB; Level +/- 0,1 dBµV
DiSEqC	Version 1.0 / 1.1 / 1.2
Demodulation (DVB-S)	QPSK
Demodulation (DVB-S2)	QPSK, 8PSK
Symbol rate	2 Mbps~~45 Mbps (SCPC / MCPC)
Switch control	22 kHz
Power consumption	max. 10W

Ports and operating elements on the front

1	LNB Input	
2	LCD-Display	
3	LED‘s for:	
	Power	Device is powered on
	22K	22kHz Mode
	13V	Vertical polarisation voltage
	18V	Horizontal polarisation voltage
	LOCK	Satellite signal detected
	CHARGE	Battery is being charged
4	Signal Quality display in %	
5	Arrow keys	Left, right, up, down
	OK	– OK-button to confirm the selection – Double-Click of the OK-button to edit the value, list of Satellites/Transponder or to display sub menus
	EXIT	Exit the present menu tot he previous



6	Flashlight
7	Tilt stand
8	Input socket for AC-adapter to charge the internal battery
9	USB-Port for connection to PC
10	On/Off switch

First steps before operation

This equipment has been tested thoroughly for functionality and possible external damage before it leaves the factory. Transport damages still can't be completely ruled out. Carefully unpack the unit and check for damage and completeness of the delivery. Please recharge the unit before initial startup for about 5 hours with the included AC adapter. The unit should be never charged for more than 12 hours.

Operation

Press the main switch (10) on the right side of the unit. The PeakTech® 9022 starts and the main menu is displayed. To turn off the PeakTech® 9022 after use, press the power switch (10) again.

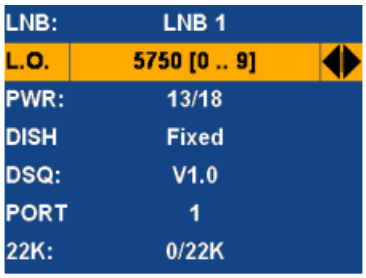
Main Menu

After switching on the device the main menu will be displayed.

Navigate with the arrow keys (right, left, up and down) to select the desired function and confirm the selection with the OK button. In the main menu you will find the various search functions for LNBconfiguration, Signal Find, Spectrum analyzer, Constellation, Positioner Setup, Multilevel, DISEqC-Scan, Settings, Information (Battery display, Factory settings, short manual, serial-number, firmware-version), Flashlight.

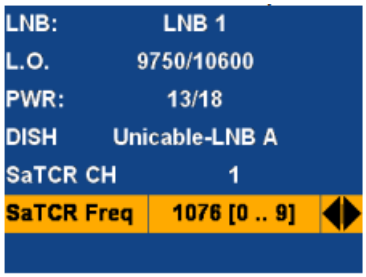
LNB-configuration

1. Press OK on“LNB CONFIG”to setup LNB configuration.
2. Double click OK to edit L.O.



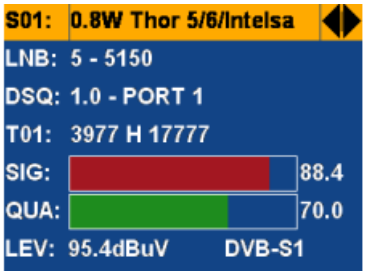
3. Use LEFT/RIGHT to select dish type: Fixed/Moved/UnicableLNB A/Unicable-LNB B.

4. Double click OK to edit SaTCR Freq

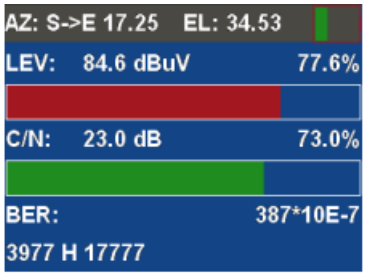


Signal Find

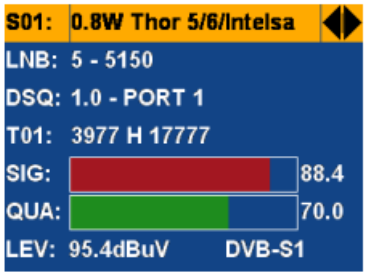
Press OK on “SIGNAL FIND” to select satellite and transponder.

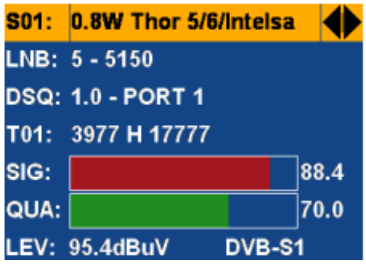


1. Press OK to display signal information, such as level, Carrier/Noise ration and the Bit/Error rate.

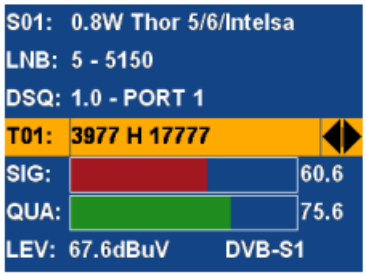


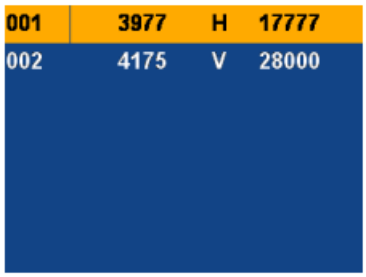
2. Move the cursor to satellite and double click OK to display satellite list



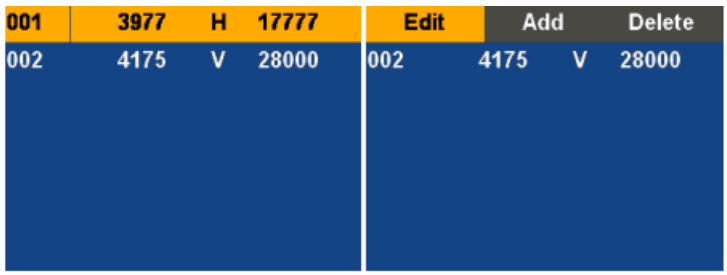


3. Move the cursor to TP and double click OK to display TP list

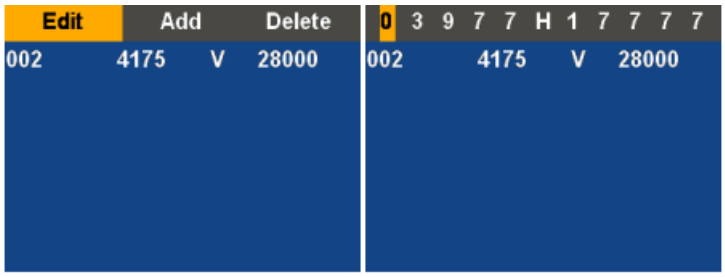




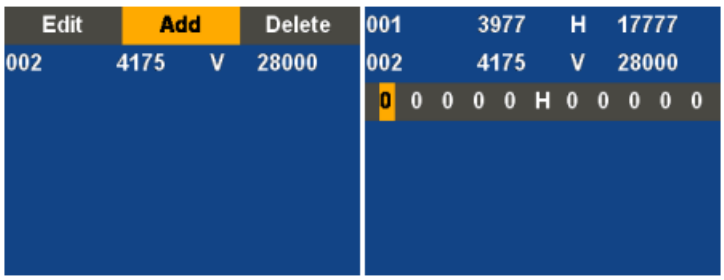
4. Double click OK to open the sub menu to Edit/Add/Delete the Transponder.



5. Select Edit and Press OK to edit the TP



6. Select “Add” and confirm with “OK” to add a transponder to the list.

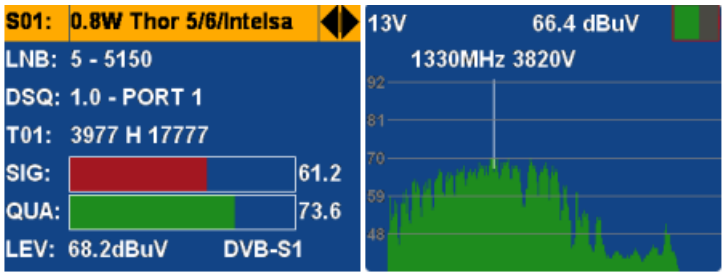


After the TP list editing, press OK to save, or press EXIT to cancel the edit.

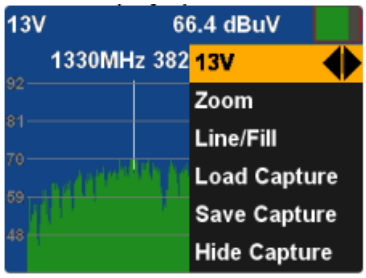
Spektrumanalyzer (SPECTRUM)

Press OK on “SPECTRUM” to enter the spectrum analyzer.

1. Select the satellite and transponder and Press OK to display Spectrum



2. Double click OK to display spectrum sub function menu

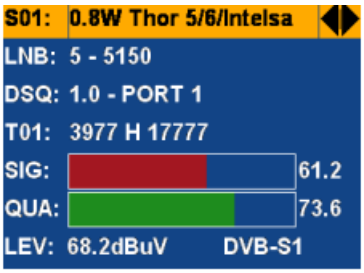


3. Save and load the capture for comparing the trail of Spectrum.

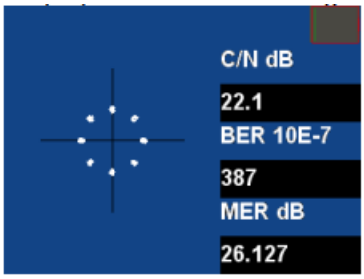
Constellation diagram (Constellation)

Press OK on “CONSTELLATION” to enter the constellation menu.

1. Select satellite and transponder



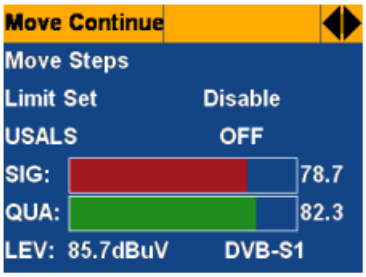
2. Press OK to display the Constellation diagram



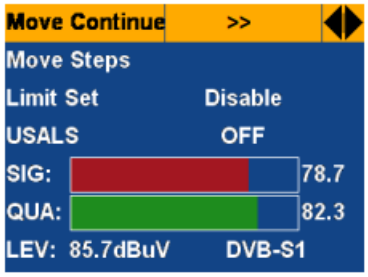
Positioner Setup

Press OK on “POSITIONER SETUP” to select satellite and transponder

1. Press OK to setup the positioner



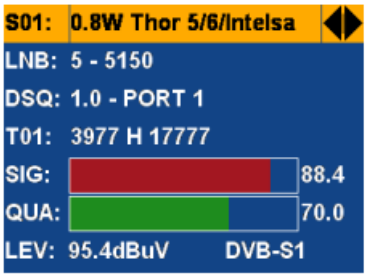
2. Select the item “Move Continue” or “Move Steps” and press the arrow keys (left, right) to change the position.



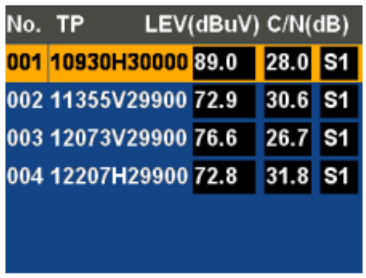
3. If you have set the desired position, press the “OK” button to save the setting.

Multi Level Transponder

Press OK on “MULTI TP” to select the satellite.

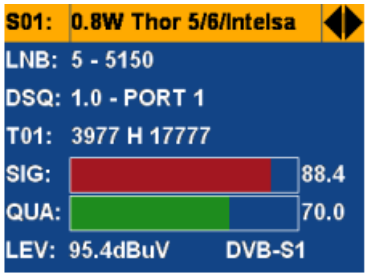


1. Click OK to display the list of transponder with the corresponding level and signal quality.

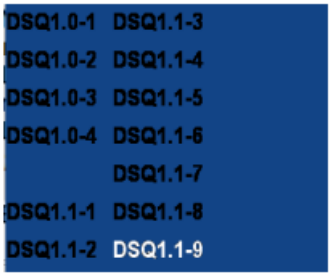


DiSEqC Scan

Press OK on “DiSEqC Scan” to select satellite and transponder

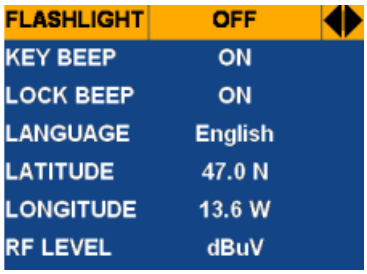


Press OK again to search DiSEqC automatically

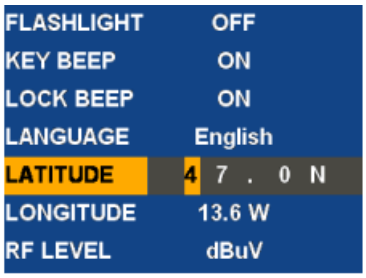


Settings

Press OK on “SETTINGS” to open the system setup



1. Double click OK to edit LATITUDE



2. Double click OK to edit LONGITUDE

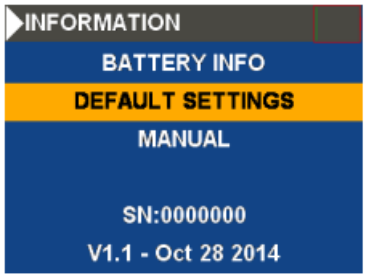
Information

Press OK on “INFORMATION” to display the system information

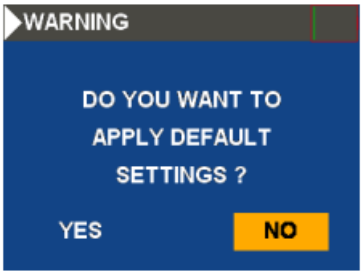
1. BATTERY INFO

   Press the “OK” button to display the charge status of the internal battery.
2. Default Settings

   Press the “OK” button to reset the device to factory defaults.



To protect against accidental resetting of the device, you receive a confirmation prompt here whether the device should really be set to factory defaults.



Flash light
Select “Flashlight” and press the “OK” button to the measuring point illumination on or- off.

Transponder Update

1. Use MS Excel to edit the transponder list “sattp.csv”
2. Connect the USB cable to the instrument and a USB port on your PC
3. Turn on the meter
4. Start the “SatEditor” software and open the “sattp.csv”
5. Click the “WRITE” button to store the transponder list on the device.

Notes on using lithium-ion batteries

Note: Always follow the following precautions when handling Li-Ion batteries:

- Do not work in environments with extreme temperatures or very high pressure differentials, as this may lead to unwanted chemical reactions within the battery. While using Li-Ion batteries this may cause smoke, fire or bursting of the battery.
- Never expose the battery to contact with fire or heat. Avoid storing the battery in direct sunlight.
- Never destroy or open the housing of the battery by drilling, cutting, hitting or other physical action, because an internal short circuit with possible heat / fire can occur.
- Never immerse the battery in water or connect the positive (+) and minus (-) pins with a metal object.
- The Li-Ion battery pack is suitable for use only with the supplied charger. At the first charging, the device should be loaded at least 5 hours but not more than 12 hours.
- Store the battery at least in temperatures of 0°C and maximum 40°C.
- To preserve the battery power even on prolonged storage, charge the battery at least once every six months.
- Replace the battery only with an identical original part.
- A Li-Ion battery does not belong in household waste and should be submitted separately at the local waste station or directly send it back to your dealer/manufacturer.

Charging the battery

The lithium ion battery requires an AC/DC adapter with an output of 12V / 1A. The charging time depends on the discharge of the battery, but it should not take more than 5 hours. Normally the battery should be fully recharged after about 2 – 3 hours. During the measuring operation of the LCD display appears in the top right corner of the battery status indicator in order to always provide you with the current state of charge.

Scope of delivery

Scope of delivery of the PeakTech® 9022

1. PeakTech® 9022
2. Rubber Holster
3. Carrying case
4. USB-connection cable
5. AC adapter 100-240 V AC; 12V/1A DC
6. Software-CD with Editor-Software for satellites and transponder

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Documents / Resources

	**PeakTech DVB-S-S2 Signal Level Meter** [pdf] User Manual DVB-S-S2, Signal Level Meter, Level Meter, Meter, DVB-S-S2

References

- Home