### Welcome

HD-T2



Horizon Global Electronics Ltd.



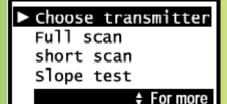
# **Introducing The New HD-T2**

Horizon Global Electronics Ltd proudly present the HD-T2 installation meter.

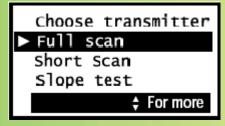


The HD-T2 has all the familiar easy to use features of Horizon meter products along with new DVB-T2 functions.

### Easy to use

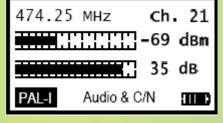


The HD-T2 has been designed with ease of use in mind. A full scan will auto tune to the next available channel (Digital or Analogue). A Short scan will only step through the digital mux carriers of your chosen transmitter.



Here we have opted to perform a full scan and the screen shots below illustrate the measurement results for an analogue carrier (including the video and audio levels).

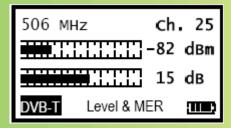
```
471.25 MHz Ch. 21
-81 dBm
26 dB
PAL-I Vidéo & C/N
```



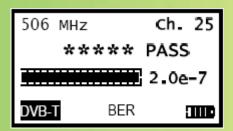
Video levels

Audio levels

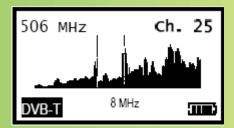
## Digital functions

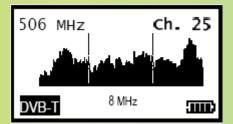


Here we can see that a lock has been obtained on a DVB-T mux the RF level and MER are both shown along with a DVB-T digital signal indicator.



Pressing the On button will step you through all of the digital measurement modes. On the left the pass fail indicator is illustrated along with a numerical BER measurement value.

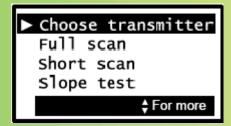






Pressing the On button again shows the spectrum display modes and modulation parameters.

# Selecting a transmitter

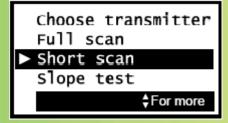


Selecting a transmitter is easy, you can choose from regions as illustrated here or by entering the first half of the post code of the installation site.





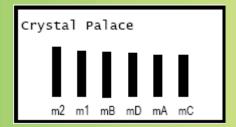
Here the Crystal Palace transmitter has been selected.



When you select short scan only the services available from Crystal Palace would be stepped through.

When selecting by post code you are given a choice of transmitters that cover that region. Power transmitters are marked with a plus symbol. The HD-TM Plus also features a favourite transmitter list for even faster access to the most commonly used transmitter selections.

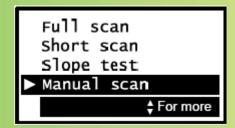
# Slope Test



The Slope test function will enable you to compare RF levels of up to 6 predetermined MUX frequencies for the transmitter that you have selected. These levels are shown in a histogram format.

On pressing the down key the slope calculation will take place. The selected spot frequency (in this example m2) has a level of -58 dBm and is now referred to as a 0 dB level; the other measurements shown (m1, mB, mD, mA and mC) are relative to that zero reference level. By using the up and down keys to select m2, m1, mB, mD, mA or mC, the highlighted selection then becomes the 0dB reference level.

## Scanning

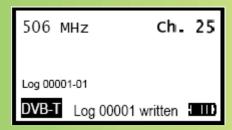






The Manual Scan mode allows you to step through each channel manually to find the desired channel. First you select a standard (DVB-T/PAL-I) and press the Right arrow button to continue. A spectrum is then displayed, indicating the RF level at each channel. An arrow beneath this spectrum points to the currently selected channel, and this may be moved using the Left/Right buttons until the desired channel(s) are found. The meter will indicate a valid channel by emitting an audible tone and the carrier type indicator changing, and pressing the On button will display the channel, spectrum and parameter information as in the other scan types.

# Logging



A log function is also available so that you can store sequential measurements within your meter for download to your PC and insertion into your installation documentation at a later time. The logging application is available as a free download via the **www.horizonhge.com** web site.

## **General Specification**









Easy to read 128 x 64 pixel high brightness LCD (Adjustable).

Rapid access menu system with transmitter favourites.

Real time measurement (Analogue and Digital DVB-T / T2).

Spectrum display FM, DAB, VHF and UHF.

Constellation display DVB-T / T2.

Slope test (Ideal for distribution systems).

Data logging (Featuring a log all function).

11 Languages selectable (Major European languages).

Replaceable input connectors (F type).

USB connection for transmitter updates.

12V DC car charger included.

Charge from 90 to 250V AC (Internal charger).

Select transmitter by region, post code or favourite.

Nylon carry case with accessory pocket.

RF Measurement of DAB / FM (Including spectrum display).

Masthead amp supply 5V active antenna and 12V DC.

High capacity Li-ion battery pack.

## Detailed specifications

#### Input:

VHF & UHF (45 to 864 MHz) Sensitivity -80 to -10 dBm Bandwidths 6,7 and 8MHz FFT 1K, 2K, 8K, 16K, 32K and 8K, 16K, 32K Extended QPSK, 16, 64, and 256 QAM

#### Levels:

SNR (dB) MER (dB) 0 to 38 expressed in dB (Typical 34)

### **T2MI MPLP Analysis:**

PLP Selection T2 Frame BB Frame L1 etc

#### Locks:

AGC P1 Lock L1 Pre Lock L1 Post Lock Demod Lock Ts Lock

#### **Active PLP:**

Code Rate Constellation Constellation Rotation **FEC Frame** Group ID ID In Band Signaling PLP Type Time interleave frame interval Time interleave length

#### PLPs basics:

Signal Level SNR LDPC Iterations Pre LDPC BER Post LDPC BER Post BCH BER MER T2 Lock indicator

#### L1 Current:

Frames / Super Frames **CFDM Symbols Transmission System** L1 Post Constellation P.A.P.R. FFT Guard Interval Plot Pattern **FEC Frame** Code rate Bandwidth Extension Network ID System ID Cell ID T2 Stream Type

L1 Post Extension L1 Post Info size L1 Repeat

Number RF Frequencies

RF Index

Regeneration Flag

**Note:** Subject to change prior to final release version.

# Thank you



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