

A PRACTICAL APPROACH ON DIGILYZER DL1



Digilyzer is the latest development in the Minstrument series. It is a comprehensive and complete digital analyzer that covers most measurements in the digital audio domain. Despite its amazing power it is battery operated and small enough to fit in the palm of your hand. The DL1 is a highly sophisticated stand alone digital audio analysis tool.

This guide will give you a closer look at the advantages and functions of the DL1. The operation is very straightforward and intuitive (average familiarization time is less than two minutes). A minimal knowledge of digital audio is all that is required to operate the unit.

Try it and see just how easy it is to get all the answers you need using the power of the Digilyzer DL1.

10 good reasons to use the Digilyzer every day!

1. Listen to the signal - With no signal there is not much to analyze.
2. Correct wiring - More mistakes are made than you think.
3. The engineers true audio rescue tool.
4. Listen to ADAT signal - No extensive wiring to listen to the tape.
5. Status analysis - a closed book?
6. Panic! Five minutes to air.
7. Why should I be interested in Bit statistics?
8. Event logging - A measure to rectify all unexpected errors.
9. How loud should broadcast material be? DL1 knows.
10. Why do I need an oscilloscope?



DL1 Screenshot: Carrier Information

errors. These errors can cause many audible effects and should ideally never occur. In case such an error occurs it is important to notice it and, for example, activate the “Event logger” for further analysis.

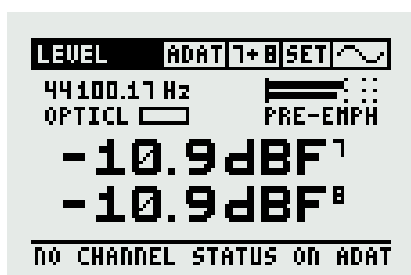
An error is indicated by filling the error indicator box black. When there is no error the filling of the box gets less until its white again (like a slow decay of a bar graph). In case such errors are indicated it would be necessary to follow the line and locate the mismatched format converter or impedance imbalance or indeed identify the overlong cable. You might be surprised at how often such mistakes occur.

3. The video engineer’s true audio rescue tool.

Be honest, most video engineers give little consideration to audio and in the process create format compatibility and synchronization problems. This, despite the fact that most signal degradation becomes audible before visible effects appear. There is even less understanding of digital audio in the video domain.

That is why the Digilyzer becomes an irreplaceable aid to the video engineer. It effortlessly provides all the necessary information to complete the perfect job. The DL1 measures the sampling frequencies, formats, special status settings, audio content analysis and many more details. All this, in a handy, portable, inexpensive box.

4. Listen to ADAT signals without special wiring.



DL1 Screenshot: Channel Selection

Try to listen to the individual tracks of an ADAT multi track recorder or even the new HD24 hard disc recorder without first connecting all the channels through your mixing console. It just isn’t possible as the recorder has no headphones output. The DL1 makes it possible. Simply connect it to the 8 channel optical ADAT output and select which channel or channel pair is routed to the speaker or headphone out on your DL1.

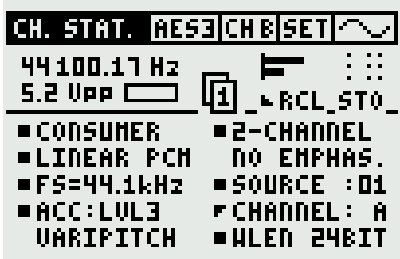
The Alesis 8 channel light pipe ADAT I + II interface is very widely used because of its ease of use and small connector size. This is especially so in semi pro/domestic applications and computer based hard disc recorders. The problem is that no measurement or monitoring equipment can directly handle the ADAT signals. DL1 changes that. It can accept and process ADAT signals through its optical TOS link input. As with any other digital signal DL1 offers the converted ADAT signal at the speaker or headphone output. The channel selector allows to quickly toggle through the four available channel pairs with a single up/down key press.

TASCAM TDIF signals can also be connected to the DL1 using a

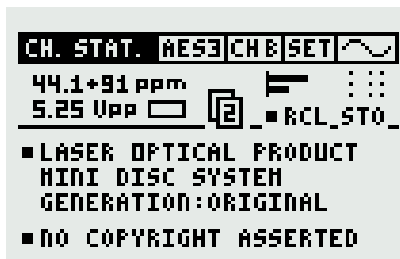
“WLEN 24 BIT”: It reports to have a 24 bit resolution but in reality there are less than 24 bits active. A quick switch over to bits statistics would indicate the details of the resolution of the operational converter. It is not easy to cheat the DL1’s eyes!

There is a great deal of channel status information being conveyed and so the DL1 is programmed to display it within two pages to make it easier to read and digest.

If you need to see if the channel status is changing in respect to the current status simply store the current status by accessing “STO”: If any bit in the status is subsequently altered then the square flag in front of “RCL” will turn into a triangle and toggle indicating a discrepancy. Pressing and releasing “RCL” will cause the screen indicator to toggle between the actual and recalled status allowing you to find the difference at a glance. This procedure can be applied to all pages of the status information.



DL1 Screenshot: Consumer Format page 1



DL1 Screenshot: Consumer Format page 2

Consumer status

Whenever a consumer status is embedded in the bit stream DL1 automatically switches to transparent consumer format, again giving you all interpretation without the need for any tables.

Any difference between channel A and channel B will be indicated by the square bullet signs turning to triangles and toggling. As well any deviation to the stored status will be shown in the bullet sign in front of “RCL”

The Digilyzer also interprets the fairly complex nested category tables providing simple device category statements such as “LASER OPTICAL PRODUCT”, “MINI DISC SYSTEM”, etc.. So the DL1 will even indicate whether the material is original or once only copied material.

6. Panic! Five minutes to air.

We have all been there! Five minutes to air and the main guest arrives with his small mini disc system and the request to record the interview. Given time there would be no problem but with only five minutes to go?

The problem is that in the available digital environment is no analog output. You need to wire the minidisk into the digital bus output. No problem with DL1. Connect it into the digital output and then connect mini disc player to the DL1’s headphone output. The Digilyzer is a full 24 bit 96 kHz D/A converter that meets the highest requirements of broadcast and live environments. A little word of warning: do not forget to disable the automatic gain control and activate a stereo function like vu ppm.

