

DK-Technologies DK1, 2 & 3

Meters are supposed to help keep us honest.

Of course, it's no secret that they can also help us stick to the letter of the law while wringing the maximum possible impact out of the material at hand.

ROB JAMES

DK-Technologies has developed a cost effective instrument, the DK Meter, which can be used to add industry standard loudness metering to an existing set-up and will also find a ready market built in to consoles. The DK Meter is available in three versions, DK 1 is stereo, DK 2 works with stereo and 5.1 as does DK 3 but this version has HD SDI/SDI connectivity. The only paper documentation is a Quick Start Guide on a C5 sheet and no CD with a user manual or firmware update is supplied either. Downloads and online documentation are the way to go. The most up to date User Manual can be downloaded from the DK Technologies website along with the latest firmware.

Why do so many devices these days resemble smart phones? The DK meter is a smart metal-cased cuboid with radiused corners and a front panel made entirely of glass. It looks like a phone that's just a little too fond of burgers.

Connections to the outside world are all made via a single 15-pin D-Sub connector on the rear. Four tapped holes are provided for mounting the unit. This is more than adequate where the meter is to be built in to a console or furniture but for external mounting DK includes a couple of mounting plates and a double socket arm from the excellent RAM mount range. For applications requiring a more complex mounting arrangement there are a huge variety of interchangeable components available including standalone bases and longer arms.

A cable harness is supplied with three BNC connectors (easily adaptable to XLR AES 3) for six channels of AES-3id digital and a USB A-type plug for power and connection to a PC for such things as updates. A multiregion USB wall-wart power supply is also included. SPDIF can be connected and is accepted and two balanced analogue inputs are also available on the meter socket. If these are needed a suitable cable will be required. Note that the digital inputs are currently 48kHz only at 16 or 24 bits. DK1 can only access two AES pairs and the analogue inputs.

The device is controlled by just three capacitive, touch-sensitive 'buttons' that are areas marked out on the glass front below the screen itself. They function as soft-keys with their functions indicated by labels on the screen. On power up the right-hand button is labelled Menu. To keep things manageable the more detailed options are contained in folders some of which

have further sub-folders.

Once into the set-up screens the buttons become Move up, Move down and Select. Pressing Select on a folder spills the contents down the screen. Selecting a sub-folder does the same until you end up at the parameters themselves. Pressing the Select button on an open folder or sub-folder collapses it. One minor annoyance is that some of the parameter lists are not circular, for example when setting output matrix assignments the options might range from 'Off : INT' to 'RS : DIG' but to get from one to the other you have to scroll through all the rest. To return to an audio metering mode you have to scroll all the way up to Exit and press select.

On first power up the factory default is a stereo meter with the first pair of digital inputs as the source. To the left of the display is a phase bargraph and this is followed by an amplitude meter that defaults to True Peak with a dBFS scale but which can use any of a huge variety of ballistics, scales and references standards. On the right, a further bar shows integrated loudness and to the right of this is a graph of loudness against time. This can run indefinitely and displays a three-and-a-half minute rolling window. The graph can be scrolled as required to reveal areas of interest. At the top of the screen, up to four labelled numeric displays can be set to show any of a wide variety of loudness parameters, values and maximum peak level. Four user modes are available. Default is Administrator and along with

Supervisor this gives access to the full range of set up options. Normal and Restricted cut down the options available and will reduce the time it takes to navigate in the menus during normal operation. There are 11 alternative configurations (6 for DK 1). Whenever a preset is selected, or parameters are changed, this becomes the new power-on default. An internal routing matrix enables any input to be routed to any meter 'channel' and a restart enables any changes.

Loudness measurement has received so much coverage recently that I won't go into the

nuts and bolts again. Suffice to say the DK has all the

bases covered apart from data export.

(The DK Meter's bigger siblings do have this.) It can

cope with all the present standards and their variants and has an interesting trick up its sleeve.

A mysterious option displays something called 'reclaim factor'.

It transpires that this is the difference between the long-term gated loudness and the instantaneous gated value. This gives you an idea of how much extra loudness you have 'in hand' at any moment.

For reasons best known to themselves DK refers to the Short Term measurement as 'sliding'. The window can be set to 0, 3, 10 or 30 seconds. 3 seconds is the EBU mode standard and if set to zero it becomes an instantaneous measure.

Following DK's usual pattern some features are optional and are activated by means of software keys. Keys are entered using the meter update utility and some exciting new features are already being developed. It is also worth noting that a stereo DK 1 can be upgraded to a 5.1 DK 2.

DK 1 and its siblings offer a very versatile and reasonably priced (UK£995 + VAT) answer to several questions. It is ideal for installation within consoles relieving manufacturers of the necessity to roll their own. The current obsession with loudness metering is making a lot of facilities scratch their heads. As a complete solution, or as an adjunct to existing metering arrangements, the DK Meter can be set up for use by unskilled personnel. Equally, it provides all of what the audio professional would wish for. While the rash of loudness metering plug-ins may provide an answer for some, in many circumstances there is no substitute for a proper, calibrated hardware meter. ■

PROS

Cost-effective hardware metering with loudness; clear bright display; upgradable.

CONS

Menu structure could be better; no data logging; 48kHz sampling rate only.

Contact

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