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IKAN'S IMPRESSIVE D7

Multiple Functions for Field Monitoring

digital VIDEO Excellence Award

Quick Take

♥♥♥♥♥♥

Product: ikan D7

Pros: Excellent functionality, incredible array of options for any situation, great screen and performance.

Cons: The L Series battery option leaves a lot to be desired in functionality.

Bottom Line: An incredible tool for any camera, with nearly every option you could desire in a monitor. Despite the battery complaint, it gets our highest recommendation.

MSRP: $999

Online: ikancorp.com/productdetail.php?id=496

Onboard monitors are a necessity in today's workplace. Especially with the popularity of HDSLR cameras, whose small LCD screens make the already difficult challenge of focusing nearly impossible, having a high-resolution, larger screen on which to judge your image is of paramount importance.

I've spent some time with one of ikan's newer models, the ikan D7, a 7" HD-SDI 1280 x 800 LCD monitor with a cavalcade of features.

Pulling the D7 out of the box, it has a great feel. It's sturdy, with solid construction. It weighs in at 9.5 oz. Its 7" form factor may sound small, but it feels huge when you put it on top of an HDSLR. It's the perfect size for an onboard monitor—large enough to really see and judge an image but small enough to keep the weight down.

The first great feature of the D7 is its dual input—both HDMI *and* 3G HD-SDI. In addition, both inputs

have loop-through options to feed out to an external recorder or an additional monitor. Unfortunately there's no conversion in the monitor. You can't take HDMI in to SDI output or vice versa.

The standard 1/4"-20 threaded socket in the base of the monitor (mislabeled in the quick start guide as a 1/2"-20) is augmented with three more mounting points with 1/4"-20 threaded sockets on each side and the top, meaning that you can mount the monitor from any of its four sides.

The contrast ratio is a little low at 800:1, which made me wary about using this monitor for exposure

judgments, but that hesitation was allayed when I saw all the features the D7 offers, including peaking and pixel-to-pixel mapping for focus and false color and clip guides for exposure. I haven't seen another onboard monitor with this many features and options.

Starting with the absolute prerequisite, the D7 has a "check field" function, which gives the user the blue-only option that is necessary to calibrate the monitor. It also has a green-only, red-only and monochrome (black and white) check function, should you require them.

Throughout this product evaluation it was my experience that ikan takes each option/function to the nth degree, giving the user not just one choice but pretty much *any choice* for a given scenario.

WAVEFORM

Once you get past the calibration stage—the D7 provides easy access to chroma, phase, brightness and contrast—it's time to start looking at an image. As I said, the 800:1 contrast ratio is a little low for me to trust that the on-screen image is representative enough for exposure judgment, but have no fear—ikan includes a waveform in the monitor functions. Not only do you have the option of a full-screen waveform monitor to judge exposure, there is also a full-screen vectorscope, a full-screen parade (RGB) waveform function, and then a quad-screen display in which your

ikan D7 Specifications

Diagonal	7" diagonal
Contrast Ratio	800:1
Dimensions	7" (W) x 4.9" (H) X 1" (D)
Brightness	400 nits
Inputs	3G-SDI, HDMI
Resolution	1280 x 800
Viewing Angles	178° horizontal/ 178° vertical
Weight	1 lb.
Shipping Weight	4 lb.
Video Outputs	HDMI, SDI

image (in an odd low-contrast representation), waveform, vectorscope and waveform RGB parade appear on the screen simultaneously.

And if that weren't enough, you can also cycle through to the last step of this function and have your waveform, vectorscope and parade waveform superimposed over your image (the transparency is defined through a menu option) in the lower-fifth of the screen. The individual scopes are pretty small at that point and really only useful for a glance to check if the levels are behaving based on memory from seeing them in the full-screen or

quad-screen options.

FALSE COLOR

Going further into exposure help, if you're not a fan of the waveform monitor, ikan includes a false color option. I have typically stayed away from false color as I don't have that much experience with it and I always struggle to remember what color is what. ikan solves that confusion by putting an IRE-to-color scale right on the screen. This actually makes false color a function I might utilize.

ikan's false color option is intuitive and informative. What areas are near clipping? Look at the bright yellow to red areas. Do I still have detail in that shadow? If it's cyan or blue, yes, you do. Where's my key Zone V hitting? Look for that bright purple and see.

My only complaint with ikan's false color function is that they incorporated gray into it. My eye and my brain are used to seeing gray as a middle gray—and their gray tone is just slightly off from 18 percent—but it's close enough that when surrounded by other colors, it can trick my eye. So I'm looking for what is Zone V and my eye goes to the gray tones, which are actually 59-78 IRE levels—in the Zone VI to Zone VII area. If there weren't a scale on the screen, that would trip me up constantly. In addition, there's a "clip guide" function that simply shows you what areas of your image are beyond 100 or below 0 IRE.

PEAKING

Moving on to focus, I'm a big fan of peaking. In my career, when I've had a digital camera on my shoulder, I was generally working as a one-man-band, pulling my own focus. Looking at a tiny 2.5" black-and-white LCD screen and trying to judge focus is a lot like trying to drive a car by looking out a pinhole!

Having a peaking function helped me to see much more clearly what areas of my image had the sharpest contrast (denoting the sharpest focus) and saved my bacon on a number of occasions. Far too many onboard monitors settle with the red "focus assist" function, which I find can be annoying and difficult to see depending on what you're shooting.

The D7 has the red color peaking option as well, but following ikan's give-them-every-possible-option methodology, you can change that red to green or blue or any color on the spectrum, including white. With full control over RGB color values in

False color

the peaking, plus full control over the intensity of the peaking (scale of 1 to 10), you can have any option you want. Again, I've never seen this kind of flexibility in a peaking function in any system.

Going even a step further, if you actually prefer peaking against a black-and-white image, as with all the old digital camera viewfinders, you have that option too. In addition to peaking, the monitor has a sharpening mode—an interesting function that could go even a step further to helping determine critical focus with HDSLR cameras.

FUNCTION BUTTONS

All in all, the D7 has 13 different functions: check field (blue, green, red, monochromatic), pixel-to-pixel, windows 1, windows 2 (used when you have multiple inputs), HV delay (horizontal/vertical video blanking), guides, crosshair, peaking (selected color, selected color against monochrome), false color, clip guide, underscan, DSLR scaling, and waveform (waveform, vectorscope, parade, quad-screen and superimpose).

Herein lies one of my biggest complaints: the D7 has only four assignable function buttons, but it has 13 functions! In a more perfect world I'd want at least five function buttons—for check field, pixel-to-pixel, peaking, false color and waveform—so I'm one button short of my optimum. This wouldn't be such a big deal except that I discovered you can't actually execute any of the functions through the menu; you have to have a button assigned to execute any given option.

The need for more function buttons comes into play the more you work with the monitor. For instance, you can set your DSLR scaling (that will help fill the screen with the feed from your HDSLR camera), but if you engage pixel-to-pixel mode, the DSLR scaling reverts to "normal" and you have to re-execute that function—keeping in mind that each function requires one of the four buttons assigned to it to execute.

I discovered another give-them-every-possible-option function that helps remedy the shortage of buttons: there are five user modes selectable in the menu setup function. This means you can assign different functions to each button depending on the situation.

I set three main user settings:

User 1: Initial Setup
Check Field
DSLR Scaling
Underscan
Waveform

Peaking

User 2: Exposure
Waveform
False Color
Clip Check
User 3: Shooting/Focus
Peaking
Pixel-to-Pixel
Crosshair
DSLR Scaling

When I'm setting up the monitor and camera, I activate User 1 in the menu setup function. Four function buttons are assigned to the features I need: check field to calibrate the monitor, DSLR scaling to set the camera's feed in the monitor, underscan to check the image and framing, and waveform/vectorscope to check the image when shooting charts.

As I'm lighting, I can move to User 2 in the menu setup and have buttons assigned to waveform/vectorscope, false color and clip check to allow me to make all the necessary exposure judgments.

Finally, when I'm shooting, I can set it to User 3 and have buttons for peaking, pixel-to-pixel, DSLR scaling (to return the image to full after pixel-to-pixel) and crosshair to turn the center crosshair on/off as needed.

I set one user mode for the random functions that I would hardly ever need—windows, HV delay and guides—just to have those handy.

IN USE

The monitor has a great range of backlight and brightness options that allowed me to use it in direct sunlight. It's hard to judge an image in direct sunlight, but with the monitor's many confidence functions, you can easily double-check any exposure or image issues. Although I'd still like a small hood to shade the monitor, I was able to work very well without one. (ikan offers a sun hood for the D7 for $34.95.)

The monitor has a 7-24V DC power input and comes with an AC plug. The version I tested included a Sony L Series battery plate (which was great for me—it meant I could use my old PD-150 batteries with the monitor), but this turned out to be my biggest complaint about the monitor. The L battery plate terminals are too large. So much so that I was sure I had the wrong plate, until I was advised to just "get tough" with it.

It took brute force to get the battery onto the connecting plate (not something you can do while the plate is on the back of the monitor) and even more brute force (actually *slamming* it against a flat surface) to free the battery. With use, this situation has gotten a little bit better—but it's something that I hope ikan will fix quickly.

The battery plate has another problem: the plate itself fits on the back on the monitor very loosely, with no positive lock, no click, nothing that holds it in place. In fact, it comes off with

Quad-screen

keep the plate from sliding off. That's great except the lock switch has no lock either! You engage it and it simply drops away. There's no mechanism to hold it in place. It's a confusingly bad design.

A final complaint associated with the battery: the monitor itself doesn't have any kind of battery charge indicator. When the battery goes, there's a phantom flicker in the monitor that quickly boils over to a violent storm. That's your only indication that it's time to change batteries. Luckily it doesn't affect the recording function at all (unless you're using the loop-through function of the monitor to an external recorder), so you can keep rolling and, if necessary, pull the HDMI to re-engage the camera's viewfinder for those last few emergency moments.

Just the size of the screen combined with the pixel-to-pixel functions, screen sharpness and peaking would make this an amazing monitor for HDSLR cameras, but the fact that the monitor has so many other functions and great versatility makes it a great onboard monitor for *any* camera. Despite the battery plate shortcomings, I was extremely impressed with the flexibility and functionality of this monitor. **dv**

the slightest nudge. I discovered through reading the quick start manual that there's a switch for a "battery plate lock," but all it does is extend a piece of plastic into the space behind the plate in order to