

A vibrant yellow bird with a bright blue beak is perched on a weathered wooden post. The bird is facing right, and its feathers have a fine, woven texture. The background is a soft, out-of-focus light green. The title 'A BREATH OF FRESH AIR' is overlaid on the right side of the image. 'A' is white, 'BREATH' is blue, 'OF' is white, 'FRESH' is green, and 'AIR' is green.

A BREATH OF FRESH AIR

Simon Stafford takes
a look at the Case
Air wireless remote
camera control
system distributed by
Tether Tools.

Many photographers, regardless of whether they are working in a studio or on location, have come to appreciate the benefits of tethering their digital camera to a larger viewing screen, such as a smartphone, tablet device or computer, as they shoot pictures.

Working in this manner not only enables a photographer to preview adjustments made to camera settings and composition in real time via a camera's Live View feature, but also operate the camera remotely, as well as download the recorded images directly to the device and, if required, even open them directly in their normal image editing application to improve the efficiency of their workflow.

Despite its potential appeal, tethered shooting via a hard-wire connection places limitations on freedom of movement and range between the camera and viewing device, so a wireless solution is often preferable.

However, it is only the most recent D-SLR cameras that offer built-in Wi-Fi support and, where the camera manufacturer offers its own dedicated external Wi-Fi transceiver as an optional accessory, these are often very expensive and only compatible with a specific camera model. In both cases the functionality of the Wi-Fi feature and its supporting software is very limited and far from effective and reliable. The Nikon SnapBridge application, even in its latest incarnation, is a case in point!

The Case Air device, manufactured by Cheering Technology Inc. and distributed through Tether Tools, is one example of a number of independent solutions to wireless remote control photography that has become available. This relatively inexpensive device supports connections between a wide range of Nikon D-SLR camera models and many smartphones, tablets and computers compatible with the iOS, Android, Mac OS and Windows platforms. I have tested the Case Air over a period of months in a variety of different situations, both in the studio and in the field, and found there is a lot to like about it.

At 67 x 40 x 14 mm (L x W x D) the Case Air is very compact; it weighs just 50 grams, so it is easily stowed in your camera bag and does not interfere with camera handling once it is attached. The battery is a built-in, rechargeable Lithium-ion unit that can be charged from any standard USB charger or alternatively by connecting it to a computer; the device is supplied with two USB charging cables, one with a USB-A male connector, the other with a USB-A female connector. Charging takes approximately one hour and, based on my testing, a full charge will provide at least four to five hours of use. The controls of the Case Air could not be simpler, consisting of a single On/Off button, which also activates a battery-charge status indicator lamp. Overall the build quality of the unit seems very good; it has a clean, low profile, so does not snag on clothing and it has proved to be robust, plus the USB cable connection point is very secure. However, the Case Air cannot be considered to be waterproof, so will require protection when working in damp conditions, or inclement weather.

The Case Air unit can be mounted to the accessory shoe of the camera via its integrated cold shoe or attached to the camera strap-attachment point using the supplied lanyard.

Initial Set-up & Ease of Us

To connect the camera to a smart phone or tablet device you download the free Case Remote App, which is available for both iOS and Android platforms from the Apple Store or Google Play Store respectively. To connect the camera to a computer it is necessary to download the free Case Remote application, which is available for both Mac OS and Windows platforms, again available free, via the Tether Tools website.

The Case Air unit is connected to the camera by plugging in one end of the appropriate USB cable to the socket on the device and the other to the camera's USB port. Case Air is supplied with three USB cables: USB 2.0 to Mini-B 5-pin, USB 2.0 to Mini-B 8-pin and, USB 3.0 to Micro-B.

The camera should be switched on first, followed by the Case Air unit by pressing and holding its power button for a couple of seconds; the battery charge indicator lamp will light: green (Full) indicates >60%, yellow (Half) indicates 30-60%, and red (Low) indicates <30% charge level. The Wi-Fi status lamp, which illuminates in blue, will flicker as the system starts up or updates the connection and once the lamp glows continuously it indicates the Case Air has established its local Wi-Fi hotspot and the system is ready for use.

"The Case Air unit can be mounted to the accessory shoe of the camera via its integrated cold shoe..."





You connect your mobile device or computer to the Case Air Wi-Fi hotspot in just the same way you would connect it to any other Wi-Fi network, via the device's Wi-Fi settings control panel, connecting it to the network named "Case_Rxxxxxx".

Once a connection has been established during the initial set-up, which takes a couple of seconds, a prompt for a password is displayed on the viewing device's screen.

At this point it is necessary to enter the PWD code printed on the label attached to the underside of the Case Air device (once the network connection is fully established this latter step does not have to be repeated provided the Case Air network is remembered).

"Once a connection is established, the Case Air device allows you to take remote control of all the principal camera settings..."

Finally, you open the Case Air Remote App on your mobile device or computer and within a couple of seconds it will recognize your camera automatically and display the model number in the main page of the Case Air App.

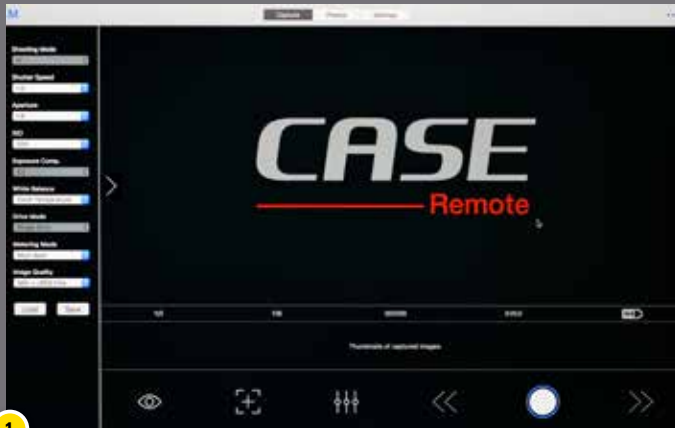
In the time I have been using the Case Air, this has proved to be quick, reliable and very straightforward.

What Can It Do?

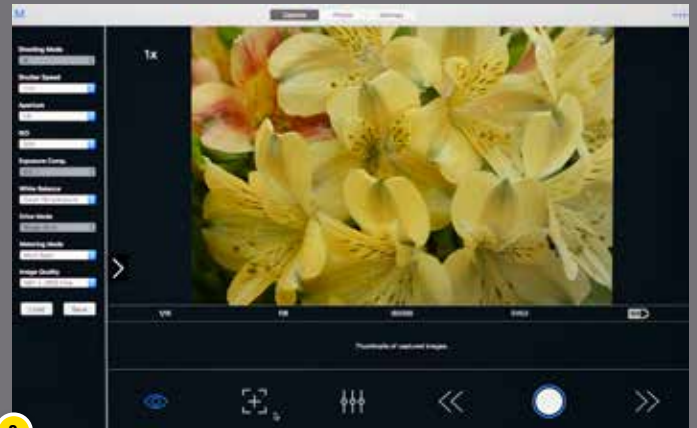
Once a connection is established, the Case Air device allows you to take remote control of all the principal camera settings, including shutter speed, aperture, ISO, exposure compensation, white balance, shutter release mode, metering pattern and image size and quality. The current settings for shutter speed, aperture, ISO and exposure compensation, together with the camera battery charge status are shown in the main Case Remote pane displayed on the viewing device. To open a real time feed of Live View from the camera you simply either touch, or in the case of using a computer, click on the 'eye' icon in the main control panel; it is remarkably responsive with only a very minimal lag. A second tap or click on this icon closes Live View.

You can activate autofocus anywhere within the camera's frame area by again simply touching or clicking on the required point within the Live View image to position the focus point and then touching or clicking on the AF icon. A double-tap, or double-click on the focus point shifts the display of the viewing device to a 5x magnification, which is really useful of assessing the critical accuracy of focus. Another double-tap or double-click restores the display to the normal (1x magnification) full-frame view. There is also a focus-fine adjustment feature for manual focus, with a variable step size. When you want to take a photograph you just tap or click on the 'shutter button' icon.

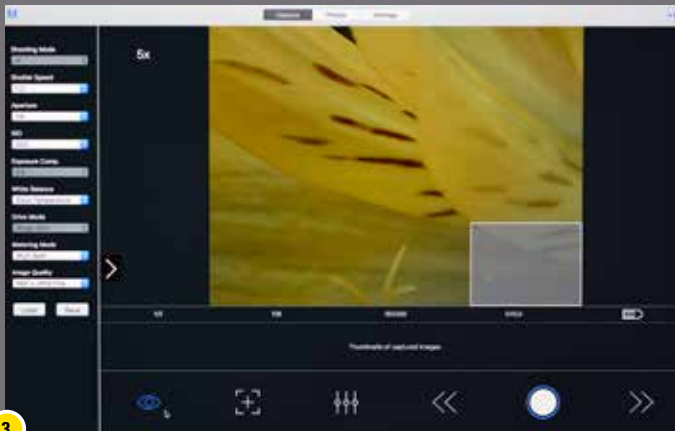
Via a settings panel you can choose which image files to download to the viewing device; all image files are always saved



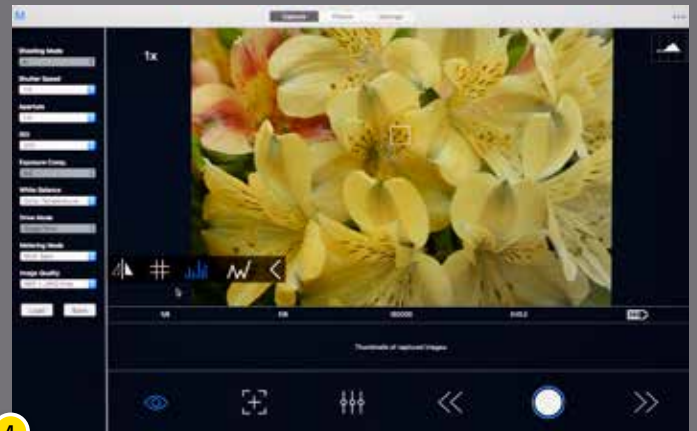
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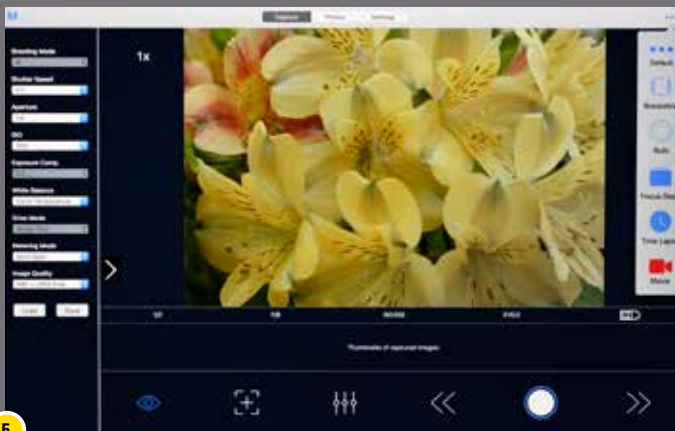
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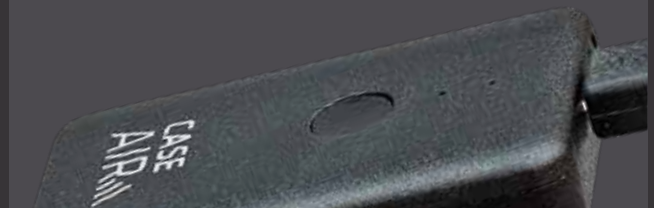
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1. The Case Air application home page
2. The Case Air application Live View display with AF point displayed in green
3. The Case Air application Live View display with 5x magnification, which is very useful for checking critical focus accuracy
4. The Case Air application display with fly-out menu for accessing the display for features, such as a real-time luminance histogram and grid overlay
5. The Case Air application display with drop-down menu for accessing functions, such as the focus-stacking feature and exposure bracketing
6. The Case Air application display for exposure bracketing with a sequence of 9 frames with a step of 2 stops adjustment

// To open a real time feed of Live View from the camera you simply either touch, or in the case of using a computer, click on the 'eye' icon in the main control panel; it is remarkably responsive with only a very minimal lag.



7. The Case Air application display for the interval timer feature
8. The Case Air display of recorded images can be adjusted to show all images or only images of a certain file type.
9. The Case Air application allows a wide range of camera settings to be selected and adjusted.



to the memory card(s) installed in the camera as per the configuration selected for the relevant menu settings on the camera. For example, you may only require the preview thumbnail image to be displayed on the viewing device, or you can choose to download the full JPEG, or NEF Raw file, but of course the size of the file being downloaded will dictate the transfer time. The settings panel also allows you to select a focus-peaking display with a choice of level and colour, a grid overlay to assist composition and camera alignment, a real-time histogram (luminance only or RGB), and finally a maximum number of frames when shooting in a continuous release mode.

In the main Case Air display pane there is a fly-out menu from where you can select: a horizontal flip of the displayed

“The user interface is simple, uncluttered and laid out in a logical manner; however, on smartphones with small screens everything becomes somewhat cramped”

Live View image, a grid overlay, histogram (luminance only), and focus-peaking display. Clicking on the exposure mode icon shown in the top-left corner of the main window will hide/reveal the list of adjustable camera settings, while on the opposite corner a click on the displayed icon will reveal/hide a tab from where you can select range of shooting

features. In addition to the default shooting option for conventional shooting there are options for exposure bracketing, bulb timer, focus stacking, time-lapse shooting and video recording.

The exposure-bracketing function permits a sequence of frames to be taken with an adjustment to either the shutter speed, lens aperture or ISO setting across a range of plus/minus 3 stops in steps of one-third of a stop. The bulb-time function, which is only available in manual exposure mode, has a duration that can be set from 1 second up to a maximum of 59 minutes and 59 seconds. The focus-stacking function enables up to nine frames to be taken in a sequence with the focus distance either moving sequentially away or toward the camera, with a step of three different size options. The time-lapse function can record a maximum of one thousand frames; the start time for the first frame can be set in hours/minutes/seconds, as can the interval between each frame.

Clicking on the photos tab will display a thumbnail image for each image file recorded, indicating Raw files with a label marked “RAW”. By selecting a thumbnail image it is possible to display the EXIF data for the file, enlarge the thumbnail view, select the image for download to the viewing device or delete the image; there is also a ‘Select all’ button.

Performance

I tested the Case Air with D850, D810, D500, D7200 and even my ageing D300s, connecting the cameras to a range of

Mac devices including a 15-inch MacBook Pro (2014), 13-inch MacBook Pro (2017), and iPhone 5s, 6s, and 8; I have not tested the Android/Windows versions of the case Air system.

In general the Case Air hardware worked reliably and functioned as expected. The Wi-Fi hotspot the Case Air creates is strong and stable, even in urban environments crowded with wireless networks. Range will vary according to local conditions, but the manufacturer suggests a maximum operating range of up to 45m (150 feet). The streamed camera Live View is dependable and responsive, exhibiting minimal lag; I did not experience any unexpected loss of connection or failure during data transfer.

The user interface is simple, uncluttered and laid out in a logical manner; however, on smartphones with small screens everything becomes somewhat cramped, so an iPhone 7 or later is preferable. The manufacturer of Case Air has been very proactive in developing the supporting software and diligent in keeping it up to date with the latest camera models. The latest iteration of the Case Air software will supposedly support the Nikon D850; however, I found that compared with using the D810 some functions did not operate as reliably as I had experienced with other camera models and the video function did not work. I suspect there are still some bugs to be fixed before Case Air and the D850 will work with full compatibility. Consequently, on the Mac devices with which I have tested it, the software has performed well – it has proved to be stable, and the various features and functions have operated without any issues (the D850 aside).

The exposure-bracketing function works well enough but is somewhat limited in terms of its scope compared with the in-camera function found on all the tested camera models. The bulb-timer function provides a sufficiently long maximum duration for all practical purposes. The focus-stacking feature is useful, although nowhere near as flexible as the feature on the Nikon D850, since it is limited to a maximum of only nine frames per sequence; however, it provides an option to automate focus stacking, which is not available on any Nikon D-SLR other than a D850 currently. The limited frame count means that

it is not really suitable for close-up or macro photography, but for any application where the focus distance is that much greater, such as landscape photography, it works well. Similarly the maximum sequence



of 1000 frames means the time-lapse function is limited by comparison to the built-in function in a number of Nikon camera models; for example, the D810 and D850 can be set to take up to 9999 frames, and by using the electronic shutter options available on the latter these can be recorded with only one full cycle of the mechanical shutter mechanism.

“In comparison to the competition, especially SnapBridge, the Case Air system provides a useful and practical range of features in a small, lightweight unit, supported by reliable software (excepting the seemingly as yet incomplete support for the D850), regardless of whether you connect to a smartphone or computer.”

Summary

The Case Air is far from the only device of its type on the market. Probably the best-known alternative is Camranger, which offers a very similar set of features in an equally small and compact unit and with well-regarded software; however, it is somewhat more expensive. There are cheaper alternatives, for example, the CamFi wireless remote control product, which again offers a similar range of features to Case Air; however, image display is less well-implemented, focus adjustment is less refined and the unit is larger and heavier. Another cheaper option is the Pulse device from Alpine Laboratories, but it does not provide anywhere near the same level of functionality or device compatibility. The option for wireless remote control photography offered by Nikon is its still fundamentally flawed SnapBridge, which continues to drive me to distraction, even when trying to use the latest iteration.

In comparison to the competition, especially SnapBridge, the Case Air system provides a useful and practical range of features in a small, lightweight unit, supported by reliable software (excepting the seemingly as yet incomplete support for the D850), regardless of whether you connect to a smartphone or computer. Despite the relative limitations of the exposure bracketing, time-lapse and focus-stacking functions for any photographers using an older D-SLR or one that does not have built-in wi-fi, the Case Air system has the potential to expand the way they work with their camera; even for photographers using a wi-fi enabled camera, the range of tools available with Case Air, such as Focus Stacking, will have potential appeal. Recommended. ■

Further details of the Case Air system can be viewed here: <https://www.tethertools.com/product/case-air-wireless-tethering-system/>