

Zoom Q3 Handy Video Recorder

Mike Rivers

Zoom is no stranger to held digital recorders. Their newest model, the Q3 is the ground- and price-breaking company's first hand held video recorder. It borrows a lot of technology and design philosophy from Zoom's family of audio recorders, and the Q3 brings a sense of "pro" to a field largely populated by camera phones.

You can make a high quality recording with any of Zoom's no-nonsense audio recorders right out of the box, however wading through the configuration menus brings to light a surprising array of features, some of which you've probably never thought about – for example whether the left/right mic orientation is from the perspective of the player or the audience. The Q3, on the other hand, is very straightforward, with the most detailed menu selection being "Sound Quality" (word length, sample rate, and MP3 bit rate). It's designed to bring excellent audio quality to point-and-shoot video, and that's exactly what it does.

Features



Weighing in at just over 6 ounces with two AA alkaline batteries installed, the Q3 has a good heft and doesn't feel at all like a toy. Its sturdy plastic case is shaped to fit the hand comfortably. Video resolution is fixed at 640 x 480 pixels (VGA), recording video as MOV (Quicktime) files using MPEG-4 SP data compression. (Sorry, no HD) Audio data rate is selectable from 48 through 320 kbps MP3, or uncompressed 16- or 24-bit PCM at 44.1 or 48 kHz sample rate. It's the video, not audio, that eats up the bytes, so using low bit rate MP3 encoding with your video projects saves only a trivial amount of media space.

The built-in X-Y stereo microphone array uses the same capsules as Zoom's top of the line H4n audio recorder, and they sound mighty good. An audio-only mode adds 16 or 24-bit recording at 96 kHz (but not 88.2 kHz) to the list of selectable audio formats, however it's doubtful that there's enough high frequency content coming from the mics to justify 96 kHz recording.

A clear and bright color LCD serves as a video monitor during recording and playback (320 x 240 resolution), with the video portion occupying a 1.8" diagonal

segment of the 2.5" diagonal display area. The remaining screen area is occupied by the audio record level meters, settings, operating mode (Ready, Record, or Play), remaining battery life, and available time on the recording media when in Ready mode or time from the start of the recording when recording or playing.

Controls are simple and obvious. A red button surrounded by a 4-way rocker controls most of the action. The Q3 powers up in the Ready mode. From there, pressing the red button starts and stops recording. It's that simple. The rocker's functions vary, depending on what you're doing. When recording, it controls the 2x digital zoom, in playback, it selects the file to be played and adjusts the audio playback volume. When the Menu button is pressed, the rocker scrolls through the menu and selects choices. Other front panel controls are a Play/Pause button and a Trash Can button for deleting either the currently selected file or all files (careful!!!). The Power button is recessed into the left side to guard against inadvertent shutdown.

The Q3 has neither an external mic nor line level audio input - the only way audio goes in is via its built-in mics. Nor is there a continuously adjustable record level control - a three position slide switch selects low, high, or automatic mic gain. A small speaker on the back (lens) side is useful to verify that you've made a recording, but it doesn't do justice to the audio quality of which the Q3 is capable. The headphone/line output jack allows monitoring with phones while recording (always a good idea) in addition to providing a place to connect an external amplifier and speakers for playback.

A TV output jack and supplied three conductor cable provides composite video and stereo audio to an external video monitor, TV, or A/V system. This output is only active during playback, precluding the use of an external monitor when recording. Furthermore, the display from the TV output contains some overlaid text - PLAY status, file number, and running time, somewhat distracting when watching your video on a larger screen.

The Q3 records to an SD or SDHC flash memory card up to 32 GB. A 2 GB card, giving roughly an hour's worth of video recording time with 16-bit 48 kHz audio, is included. While most handheld recorders have a USB port for transferring files to a computer, the Q3 goes one step better with a built-in USB cable stashed neatly in a recess in the side of the case. This cable is very short, barely an inch, so you'll need an extension if, like me, your desktop computer is under your desk. It's ideally suited, however, for connection to a notebook computer with USB ports at tabletop height. When connected, the Q3 appears to the computer as an external disk drive. Video files are in MOV (Quicktime) format, while audio-only files are either WAV or MP3. Sequentially numbered file names are created automatically when a recording is started and are time stamped with the date and time set from the menu.

The Handy Share program for Windows and Macintosh supplied with the Q3 offers very basic editing – just trimming the ends of the recording – and convenient uploading to YouTube or other file sharing services. You'll need a more serious editing program to assemble a video from multiple files. The Q3's MOV files imported just fine into Sony's Vegas.

In Use

There's really little to say here. This is a point-and-shoot device, and I pointed and shot. My first outing with the Q3 was at Banjo Camp North where, among other things, I was conducting a workshop entitled "Getting The Most From Your Portable Recorder." Most of the people who attend these camps come to learn and are usually toting some sort of recording device. Since the Q3 arrived just days before camp, I brought along to see if learning could be enhanced with video. The group thought that close-ups of the players' hands might be valuable for reference, so we grabbed a few minutes of playing for evaluation.

With the camera close enough to see good detail of the player's left (fretting) hands, the mics were in what would normally be an odd place for recording the banjo, but even so, the instrument recorded remarkably well. When you're handling the camera, the built-in video display is easy to see, and what you see is what you get.

Usually, until I've spent some time making friends with a new firmware-based recorder, I'm occasionally surprised by some odd default setting or I push a wrong button by mistake, but my only surprises with the Q3 right from the get-go was just how good the audio sounded, and that I didn't make any dumb mistakes.

When recording a concert performance from about 10 feet back from the stage, the stereo image wasn't pinpoint accurate, but it offered a good perspective relative to the picture. There was a good sense of room ambience without being muddy. My workshop recordings were all hand-held (I make no claims to being a professional videographer), while during the concert, the recorder was mounted on a camera tripod (there's a 1/4-20 socket in the base).

There's about a 30 dB difference between the low and high mic gain settings. At the high gain setting, the audio meters reach full scale at approximately 85 dB SPL (C weighted), while at low gain, peak level was at a bit over 110 dB SPL (pretty loud). The Auto mode can add about 10 dB more gain to the fixed high gain setting if necessary, yielding decent audio quality at about 55 dB SPL (normal conversation at about 2 feet) at the mics.

I don't usually like automatic gain controls, but this one did a good job, particularly given the lack of a manual gain adjustment. It's really an automatic

gain setter rather than a gain rider. In the Ready mode (before actual recording starts), it quickly finds a setting that puts the audio peaks at around -6 dBFS. When the sound level goes up, the gain lowers to accommodate the higher level, but unlike a compressor or AGC, the gain remains at the lower setting until the recording stops. The upside is that you don't hear background noise come up when the music stops. The downside is that a blast of feedback or a singer unexpectedly screaming into a mic can result in everything after that surprise event being recorded at a lower level. It's just the ticket, though, for a recording in a club where the level usually just creeps up as the night goes on.

The only other audio setting is a low cut filter which was helpful in taming traffic noise for a man-in-the-street recording. A supplied foam wind screen helped a little in a breeze. The only video setting (new with version 2.01 firmware, to which I updated while I had the unit in for review) is apparently a brightness range selection appearing on the menu as Scene Select, and offering a choice of Auto or Concert Lighting for a brightly lit stage.

Zoom doesn't specify the expected battery life, but I installed a pair of freshly charged 2000 mAH nickel-metal hydride cells, set the battery type accordingly (this affects the only battery indicator), and started recording. After a bit over 2 hours, the battery indicator changed from no bars to an exclamation point, and it ran another hour after that before displaying "Low Battery" with the recorder shutting down a few seconds later. No video or audio recorded prior to shutdown was lost.

Little Niggles

The hinged door covering the SD card slot feels flimsy and will probably be the first thing (and perhaps the only thing) that breaks, though I made the same prediction about the Zoom H2 and mine hasn't broken in nearly three years. Curiously, when facing the business (LCD) side of the recorder and inserting the memory card, the label on the card faces away from you which, intuitively (to me) is upside down. While the card can't be inserted incorrectly unless really forced, it could lead to some fumbling in the dark.

File management is a bit odd. The Q3 has no real file browser – to select a recording for playback, you must scroll through the files by number. The file naming convention is ZOOM0001.MOV, ZOOM0002.MOV, etc. but you only see the file names when you open the memory card from a computer. Scrolling through the recordings displays numbers like 1/6 (recording 1 of 6), 2/6 . . . 6/6. When a recording is deleted, the gap in the numbering closes – if you had six recordings and deleted one in the middle, the last one would become 5/5, making session note keeping tricky. It insists that files be named ZOOMnnnn.MOV and won't find a file that's been renamed from a computer.

Documentation is pretty skimpy, but the Q3's operation is so obvious and intuitive that a comprehensive technical manual is hardly necessary. The docs aren't too clear about installing or using the Handy Share software, and the user is only warned on Page 11 of the manual (who ever gets that far?) that the program is delivered on the SD memory card. A utility which installs on your computer when you run a setup program from the original memory card copies Handy Share and the setup program to a new SD card, perpetuating itself, but of course taking up space that could be used for recording. Other than just to see that it worked, I didn't use Handy Share, and I expect that most of our readers here will probably ignore it as well.

Conclusion

One of the hardest things for me when writing a review is figuring out just what the manufacturer had in mind when he designed the product, and to evaluate how well it does what it's intended to do, not how I wish it was. The Zoom Q3 is in every way a YouTube recorder, and in fact that's how it's marketed and labeled. Point, shoot, trim off the ragged ends, and upload. It does this very well, and if that's what you're after, it's a great choice. It's less of a MeTube recorder, however. You can put it on a tripod, stand back a few feet, sing a song, and put it up on YouTube, but without a video monitor or a buddy manning the camera, you can't be sure you didn't move out of the frame until you play back the recording. With some trial and error, you'll can show off your performing talents or be a blogging talking head, but without a monitor to see where you're pointing the camera, the Q3 is the wrong tool to make, for example, a tutorial video showing how to disassemble a microphone.

In The Box

Q3 recorder, video output cable, 2 AA cells, 2 GB SD card preloaded with Handy Share, foam windscreen, soft pouch, quick start guide. Price: \$300, \$199 street

<http://www.samsontech.com/products/productpage.cfm?prodID=2020&brandID=4>