Shedding the RightLight on Business Video

An In-depth Look at Logitech BRIO.

Summary

BRIO is the latest addition to Logitech's portfolio of business-class web cameras, at the top of the company's lineup in terms of features and functionality.

The first ever Logitech webcam to incorporate High Dynamic Range (HDR), BRIO attempts to solve one of the biggest frustrations with desktop video: poor lighting. Ultra HD resolution, multiple mount options, and passive biometrics (utilizing the infrared sensor at the front of the device) make this webcam as much about security and video production as it is about conferencing. Certifications with the top conferencing apps, as well as compatibility with all types of desktops, allow it to fit into most any corporate environment. Businesses seeking a versatile video camera at a reasonable price point would be well served to consider Logitech BRIO.

HD Video Requires a High-Quality Camera

Video has become an integral part of business communications. Coworkers set up ad hoc video conferences to collaborate on projects. Companies hold town hall meetings that interconnect dozens or hundreds of participants via video. Executive teams record and stream important announcements to company-wide audiences. Human resources departments create training videos, while product teams generate video tutorials. Sales teams and customer support agents increasingly engage with prospects and customers via video interactions.

With video becoming ubiquitous, it is imperative that companies equip their employees for the best possible experience. Conference rooms have, for the past few years, been upgraded with easy-to-use video systems that provide the clear, crisp images employees need for effective communications. However, when it comes to individual users, video gear tends to be subpar.

Cameras have long been integrated into every mobile device in the information worker's arsenal, whether laptop, tablet, smartphone, or, in some cases, PC monitor. However, these cameras are far from optimal. In general, they support resolutions and frame rates low enough to make the quality of video calls and recordings distracting at best, unusable at worst.

Low-quality webcams were acceptable in the past. Back then, video applications were less sophisticated and network bandwidth more limited. But today's applications and networks can – with the right equipment – deliver an immersive, quality experience. Support for high-resolution video is becoming a core business requirement. This is, in part, what is driving demand for Ultra HD video cameras, sales of which are expected to grow at more than a 20% compounded annual growth rate over the next few years.[1] New applications and use cases are promoting the webcam from afterthought to a core component of the solution – but not all webcams are created equal.

The BRIO is designed to address these emerging business requirements and provide a high-quality device at a reasonable price. The BRIO offers many firsts, including High Dynamic Range (HDR) technology and support for USB 3.0. As Logitech's new top-of-the-line webcam, priced at $199, BRIO offers several cutting-edge features that simply have not been available in previous webcams.

Brightening the Landscape of Webcam Features

HDR

BRIO has many standout features, but the biggest is support for HDR. HDR technology captures images simultaneously at multiple exposures. The combined image creates a balanced exposure with brighter dark spots and darker bright spots – a much more visible image. HDR has been a longtime feature of more advanced cameras. BRIO is the first webcam to implement this feature, which has tremendous utility in a webcam.

HDR-enabled webcams have very practical implications in business settings, given that people have little control over where they work – especially today. Backgrounds in studios

BRIO Specifications

Sensor: 4K for Ultra HD images

Speed: 4K Ultra HD video @ 30 fps, 1080p HD video @ 30 or 60 fps, 720p HD video @ 30, 60 or 90 fps

Zoom: 5x

Exposure compensation: RightLight™ 3 with HDR

Field of view: Adjustable from 65°, 78°, and 90°

Microphones: Two omni-directional mics

Security: Face recognition via infrared sensor

Privacy: Physical shade

Connection types: USB 2.0, USB 3.0, UVC

Desktop compatibility: Windows, Mac, Chrome

Application certification: WebEx, Jabber, Skype for Business

Mount options: Universal clip and tripod thread

are controlled; backgrounds in offices, home offices, hotels, and parks are not. Too dark a space, and video conferencing participants look like they are working in a cave. Bright spots from windows or lamps can be distracting. Desk lamps can cause uneven lighting, such as a bright torso and dark face. Windows illuminate just one side of everything.

The fallback tool for lighting manage-ment is using win-dow blinds, but they create problems, too, as light usually escapes through them, creating a whole new set of un-even lighting issues. Closing blinds might not be possible in open office environ-ments.

Logitech's imple-mentation of HDR, called RightLight 3™, adjusts for work environments that are either too dark or too bright. With BRIO, video lighting becomes more balanced. Use cases include conferencing, webinars and broadcasts, and recording videos. RightLight 3 continuously adjusts as lighting conditions change throughout the webcam session. As a result, most spaces become suitable for video-related applications. The webcam offers a relatively inexpensive –

Webcam without HDR   **BRIO With HDR**

HDR corrects poor or difficult lighting in various environments.

and flexible – solution, compared to physically modifying existing spaces.
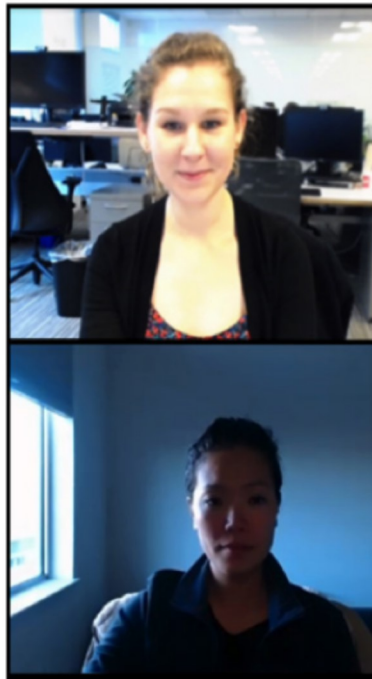
4K Sensor

Digital images are composed of pixels, and the more the merrier. For the past few years, higher-end webcams have supported 1080p; that is, 1080 rows and 1920 columns of pixels for a total of 2.07 million per image. Emerging 4K technology increases this four times, capturing and displaying more than eight million pixels in total.

Though 4K images may be overkill for current desktop video conferences, there are real use cases for 4K in many business settings. With BRIO, a company can invest in one camera for video conferencing and video production. For example, 4K video enables more post-processing options, such as cropping and zooming. 4K televisions are already popular, thus driving demand for 4K recorded webinars, training videos, and other video content.

4K has broad applicability beyond typical video conferences. Hospitals with active telemedicine practices rely on video calls for patient consultations and examinations, while factory workers and field technicians use video calls to share what they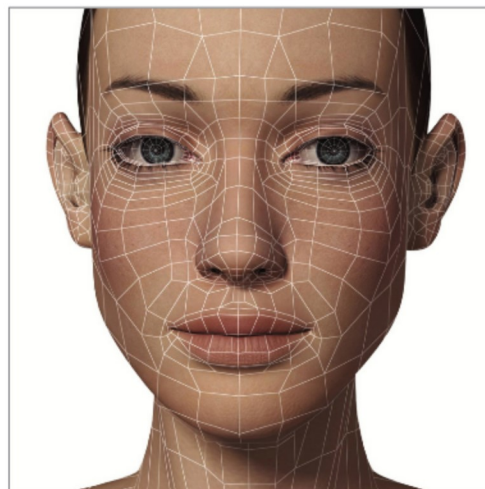're working on with remote colleagues. In either case, the healthcare or manufacturing firm relies on transmission of the highest quality video possible.

Infrared

Increasingly common in the enterprise, biometric authentication is appreciated by IT and end users alike. For workers, forgotten passwords that prevent them from launching applications or logging on to desktop PCs can not only be a source of considerable frustration, they can negatively impact productivity. Whether passwords are recovered by contacting IT or interacting with an app, time that users spend trying to get access to systems is time taken away from getting actual work done. Password recovery has a similar impact on the performance and productivity of IT staff. IT departments often spend considerable time resetting passwords for end users. This detracts from the time that could be spent on more critical tasks.

BRIO's IR sensor, working with Windows Hello, improves security via passive biometric authentication. Getty Images

BRIO's infrared sensor brings passive biometrics to desktop users. Working in conjunction with facial recognition software, such as Windows Hello™, BRIO's IR scanner lets desktop systems recognize and authenticate end users, relieving them of the need to type in passwords. More than visual facial recognition, Hello uses IR to measure the depth of facial features, essentially creating a 3D map of the face. Windows Hello won't work with ordinary webcams. Microsoft does recognize and trust the BRIO for use with Windows Hello.
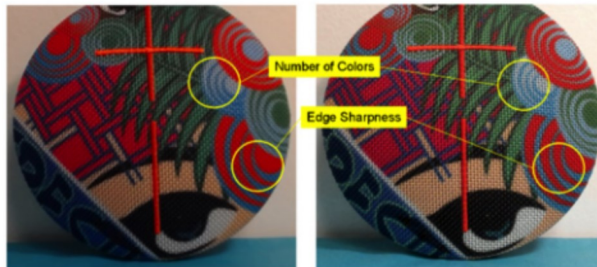
5x Zoom

The BRIO has two advantages when it comes to digital zoom. The first relates to its 4K sensor which has a lot of pixels and enables a smooth, high quality zoom. This enables the second advantage: a 5x digital zoom at all HD modes. This is an improvement over Logitech's previous generation of webcams that offered a 4x zoom.
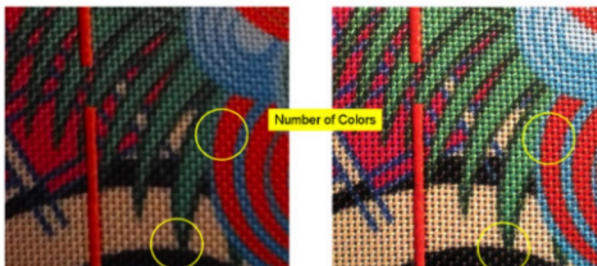
Zoom is useful in conferences and recordings where the presenter needs to show a document or other small object. It also has a direct bearing on healthcare and factory floor settings, when the user needs to zero in on details.
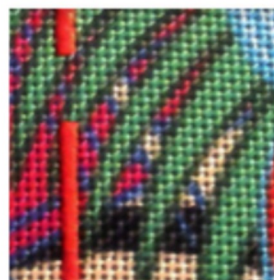
Other Webcam vs BRIO

Zoom: Image at 2X

Zoom: Image at 4X

Zoom: Image at 5X

Other Features

- **Field of view:** Web cameras typically capture a predetermined field of view that is bound by the focal length of the lens and the sensor shape and size. Most webcams have a fixed field of view in the 50- to 90-degree range. The BRIO is the first Logitech webcam to support three field of view settings. Where only one person is likely in the picture, a narrow field of view is best. A conference room environment may be better served with a wider field of view. In keeping with other features that make it so highly adaptable to different use cases, BRIO supports 65-, 78-, and 90-degree fields of view. Note, this is different than a zoom setting, and the preferred setting survives reboots.

- **Privacy shutter:** Facebook founder and CEO Mark Zuckerberg and FBI Director James Comey both cover their webcams when not in use. The threat that a hacker could compromise a camera is real albeit rare. No one wants to facilitate unauthorized views into their offices or homes. The easy solution is a lens cap, and Logitech includes a physical privacy shutter with the BRIO. When the camera is not in use, the end user can cover the lens with this built-in, attached cover.

- **Cisco, Microsoft, and more:** Business video conferencing technology does not exist within a vacuum. Video peripherals need to work across technologies, in particular conferencing software and services. On its first day, the BRIO sports a long list of certified applications including Cisco WebEx, Cisco Jabber, Cisco Spark, Microsoft Skype for Business, Zoom, Vidyo, and many more.

- **Dual-mount options:** Placement is paramount to webcam versatility. Logitech has made it easier to place the camera in the right place with dual mounting options on the BRIO. Most commonly the webcam will be placed on the top edge of a monitor with its flexible clip mount. For maximum flexibility, Logitech also provides a tripod thread.

- **USB 3:** The C930e, previously at the high end of Logitech's webcam portfolio, was something of an engineering marvel. It supported 1080p at 30 fps over a USB 2 connection. Because USB 2 does not offer sufficient capacity for 1080p video stream, the camera pre-compressed the video stream before it reached the computer. BRIO supports USB 3 with higher USB bandwidth, so it elevates the resolution support from 1080p30 to 4K at 30 frames per second.

- **Omni-directional microphone:** Video experts say that the key to great video is great sound. Most Logitech webcams offer two very good omni-directional microphones. The BRIO uses similar audio technology to that used by previous generations, which works well in most situations. Noise cancellation technology built into BRIO helps filter out background sounds. Separate USB microphones are more suitable for larger rooms and noisy environments.
- **Background replacement:** In theory, the BRIO distinguishes the subject in the foreground from background, although replacing the background is a complex proposition. However, the feature is good at blurring the background, which is also useful for enhancing privacy and minimizing distractions.

Webcam Considerations

Avoiding device obsolescence

Webcams, like all peripherals and other hardware devices, are subject to obsolescence. Consumers need to replace their smartphones every few years to take advantage of the latest and greatest technology has to offer. It is similar with PCs, laptops, tablets, and digital cameras, most of which have longer lifespans than mobile devices do.

Logitech's Webcam Lineup

BRIO sits at the high end of a portfolio of business-grade webcams that Logitech has introduced in recent years. Though the company is adopting branded names for its newer models, such as BRIO and the recently introduced ConferenceCam, most of its devices still go by their model names. Taken together, they comprise a comprehensive lineup of webcams suitable to a range of business needs.

	Webcam B525: Entry-level webcam comparable to standard built-in webcams on popular laptops. Supports 720p video at 30 fps, 69° field of view, autofocus, one omni-directional microphone, no privacy shutter. Retail price: $59.99. Competes with Microsoft 6Ch LifeCam Cinema 720p and Creative Labs WebCam Go Plus.
	Webcam C925e: Mid-range webcam optimized for HD video conferencing. Supports 1080p video at 30 fps, 78° field of view, autofocus, two omni-directional microphones, internal privacy shutter, tripod-ready universal clip. Retail price: $99.99. Competes with Microsoft's LifeCam Cinema and Creative Live! Cam Socialize VGA.
	Webcam C930e: The top-of-line device before BRIO. Supports H.264 UVC, 1080p video at 30 fps, 90° field of view, autofocus, 4x zoom, digital pan/tilt, two omni-directional microphones, external privacy shutter, tripod-ready universal clip, USB 2 connector. Retail price: $129.99. Competes with Microsoft's LifeCam Studio.
	BRIO: Supports 4K Ultra HD at 30 fps, 1080p and 720p at 60 fps, adjustable from 65°, 78°, and 90° field of view, autofocus, RightLight 3 with HDR, 5x zoom, pan/tilt, two omni-directional microphones, external privacy shutter, tripod-ready universal clip, USB 3 connector. Retail price: $199.99. Competes with Creative BlasterX Senz3D, Razer Stargazer.

In addition to each of the webcams, Logitech also offers bundles that combine the webcam and audio solutions appropriate for various room sizes.

The combination of features packed into BRIO – HDR, IR, 4K over USB 3.0 – results in a camera that will remain useful for years to come. By purchasing and distributing webcams with advanced features such as HDR and 4K, IT departments can stay a step or two ahead of the curve. BRIO should last for years before being considered outdated.

Value of versatility and adaptability

Webcams are highly versatile and useful for:
• Video calling individuals, groups
• Recording or streaming live content
• Use in multiple locations including the office, home, on the road, and in the field
• Use in multiple industries including general office, medical, manufacturing, and legal
• Macs and PCs

BRIO works equally well as a conference camera or recording device and captures quality 4K video in a variety of environments. It has been certified for interoperability with all numerous and leading applications.

BRIO: The Right Choice for Video

BRIO will be particularly useful with Windows 10. Its IR capabilities allow the webcam to play a role in desktop security via Windows Hello, and it provides a quality microphone for use with Microsoft Cortana. It is also certified for use with Apple and Google products. BRIO webcams are ready for a mixed environment of Windows, Apple, and Chromebook devices.

Whether for conferencing or recording, office or home, telemedicine or virtual arraignment, business or prosumer, cost-conscious IT director or forward-thinking CIO, BRIO has something for everyone. With Ultra HD recording and HDR, IR-enabled security and virtual assistant-driven voice commands, BRIO raises the bar for workplace webcams. As a result, businesses that buy BRIO can be assured of having a future-proof video endpoint that will stand users in good stead for years to come.

1 4K Camera Market Size, Competitive Market Share and Forecast 2016-2023.

Talking Pointz ™

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