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Choosing the Right Projector to Fit Your Business Needs

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Projectors are an integral part of nearly every conference room, used for tasks ranging from sharing meeting notes between a few team members to introducing a new policy or procedure to the entire company.

And today's projectors are light years ahead of the clunky, noisy units of the past that took several minutes to warm up. Modern projectors offer a variety of inputs to connect video sources and display an image comparable to many flat panel displays. Many units offer split screen features for video conferencing, allowing users to see both content and conference participants at the same time. Some units might be appropriate for a small "huddle room" where just a few people might be participating while others are meant for a large meeting room where a presentation will be viewed by dozens or hundreds of participants.

Today's workforce is naturally fluent in using digital and mobile technologies, and as such they demand modern and smart meeting technology. But thanks to outdated meeting room technologies, more than 71 percent of today's employees are dissatisfied with the collaboration tools their employers offer, according a 2015 study by San Jose, Calif.-based Dimensional Resource, and another 34 cite technical issues as the main reason why meetings are slow and unproductive.

With corporate presentations taking place with audiences ranging from three or four people to a hundred or more, features such as brightness, color accuracy, resolution and contrast are becoming increasingly important. In addition, the ability to incorporate wireless connectivity is paramount, while the ability to easily install those projectors and manage groups of projectors from a central location can help save valuable time. And advanced power management features can help avoid costly repairs and minimize ongoing operating costs.

So choosing the right projector to fit a company's needs can be a daunting task. Pick one that has limited features, and the projector is likely to be a source of frustration. Choose one that is more powerful than needed, and the extra investment is wasted.

Projector considerations

Not every projector is alike, and to make the right choice it's important to know the key features and what they mean. Here are a few items to consider when choosing a projector for corporate applications:

Brightness & color accuracy

One of the main considerations in choosing a projector is how large an image needs to be for its intended audience to see it clearly. Will the unit be used by just a few people in a small, dimly lit room? Or will it be used by many viewers in a large conference room?

If so, will they need to have the room lights on as well to take notes? If that's the case, a projector with high brightness may be called for.

Projector brightness is measured in ANSI lumens, with corporate units typically ranging from 3,000 to 6,000 lumens or more. The higher the brightness, the easier the image will be to see, especially in a large room with significant ambient light.

A projector with a brightness in the range of 3,000 to 3,500 lumens, for example, would likely be appropriate for a small, dark room with a 60-80" screen and a viewing audience of fewer than 10 people. A brightness of 3,500-5,000 lumens would be a good fit for a medium-size room with an 80-120" screen and an audience of 10-40 people, while a projector with a brightness of 5,000-6,000 lumens would work for a large meeting room under 300" and fewer than 60 people in the audience.

Projectors that can display images of 100" or larger offer increased flexibility, including serving as a replacement for digital signage by projecting large images on walls or the sides of buildings.

The global No. 1 DLP projector brand BenQ, for example, offers projectors with brightness levels ranging from 3,500 to 6,000 lumens, making them an appropriate solution for medium- to large-size conference rooms, training rooms, classroom and houses of worship.

BenQ's projectors also deliver true-to-life colors and pristinely legible text over a lifespan of many years. The projectors' DLP chip is rated to last more than 100,000 hours without degradation. BenQ DLP projectors pump more light into each individual pixel, which means small-size text and fine details are more defined.

Resolution and contrast

In simple terms, resolution is the clarity of the picture produced by the projector. The resolution a user needs depends in large part on the resolution of the content source, but as the resolution of laptops and tablets continue to increase, the safe bet is to get the highest-resolution projector possible.

In addition, with the advent of HD and ultra-HD displays, viewers are accustomed to viewing high-resolution images on nearly every display they see. It's better to have the capability to project extremely high-resolution images only occasionally than to not have the feature when needed.

Contrast, when it comes to projectors, is the ratio of the whitest white and the darkest black that the projector is capable of producing. The higher the number, the better the contrast. The combination of high resolution and high contrast ratio allows text, graphics and video to be projected with the clarity and sharpness needed to keep viewers engaged and focused on the presentation.

BenQ's MH750 projector, introduced at the beginning of September, boasts full HD (1920 x 1080p) resolution, 4500 ANSI lumens of brightness and a 10000:1 high contrast ratio. It also features dual HDMI inputs, ensuring convenient and flexible switching between two inputs.

Wireless presentation

One projector consideration that has become increasingly important over the past few years is that of connectivity. Until recently, delivering content from a laptop to a projector required a cable connection that limited both the type of source device and where the presenter could sit.

In addition, multiple speakers would be required to take turns at the host computer, slowing down the proceedings while each person brought up their own presentation.

Until now.

To solve those issues BenQ developed InstaShow™, an intuitive and easy-to-use, no-software solution wireless presentation solution that allows multiple presenters to present on any device, with plug and play operation that requires no driver installation or execution.

InstaShow is compatible with any OS or hardware platform with no application installation or execution needed when being connected. The only requirement is USB and HDMI

ports on the source device and HDMI inputs on the projector or other display device. With the basic InstaShow package no further action is necessary. For additional transmitters, connecting the source and display is as simple as pressing the pairing keys on the host device and the transmitter for five seconds the first time they are used. The host can also be put into pairing mode via Web control for those projectors that may be mounted in the ceiling or are otherwise hard to reach.

The system allows for up to 16 presenters at once, with each person presenting from their own device. InstaShow supports up to 60Hz 1080p video and stereo sound without cables.

And for sensitive information, InstaShow provides AES-128-bit security encryption and WPA2 authentication, allowing presenters to share confidential information without the concern for security breaches during the presentation.

Installation flexibility

BenQ's projectors facilitates adoption of new technology by making use of existing ceiling mounts and restricted spaces to deliver large-scale projected images. The company's SU931 model, for example, can replace projectors mounted anywhere from 1.4 to 8.8 meters from the screen and project images up to 240 inches, avoiding costly renovation or installation downtime.

In addition, the projector's lens shift feature, conveniently placed adjacent to the lens, compensates for minor miscalculations and misalignment during installation. On BenQ's SU931 projector, for example, the control enables vertical lens movement by 102.5-105 percent within the projector chassis for perfectly aligned pictures without distortion.

And the 2D keystone correction feature gives users a wider projector installation or placement area, freeing them from space constraints. By correcting the trapezoid effect using horizontal and vertical adjustments, this feature compensates for any angle or position compromises.

Comprehensive LAN Control Compatibility & Management

BenQ projectors are widely compatible with leading control systems including Crestron, AMX, and PJ-Link for network control via LAN, making it simple to integrate into corporate network infrastructures. BenQ projector models also support RS-232 for reliable long-distance installations up to 15 meters for situations without LAN infrastructure.

BenQ Multiple Display Administrator (MDA) software helps users control and manage multiple projectors simultaneously through a LAN port. Along with convenience, MDA also offers function such as integration with centralized monitoring and the ability to easily blank projectors not in use, lowering power costs and offering full access and control over every projector directly.

The MDA software allows users to simultaneously and remotely manage multiple displays via a LAN port, saving precious time on adjusting individual units, monitoring how they work and making sure the projectors are all in prime shape.

Power management

In addition to wasted electricity, leaving a projector running while unattended can cause heat buildup and a shortening of lamp life, resulting in unnecessary repairs. It's important, then, to consider a projector that has the capability to account for forgetful users with features such as Auto Power Off for automatic shutoff and Eco Blank for video muting.

BenQ's projectors features the company's SmartEco technology, which automatically adjusts lamp power to deliver bright, vibrant images to conserve the life of the lamp. To further reduce power consumption, an "Eco Blank" mode allows users to blank out the screen whenever projection isn't needed, while a "No Source Detected" mode automatically reduces power consumption to 30 percent when no source has been detected for more than three minutes. An "Auto Power Off" function automatically shuts down the projector when not in use for 30 minutes.

InstaShow specs

Video Outputs - HDMI 1.4, comply with HDCP

Frame Rate - Up to 30 fps depending on environment

Output Resolution - 800 x 600, 1280x720 (720P),1024 x 768 (XGA),1280 x 768,1280x800(WXGA), 1280 x 1024,1280 x 960,1360 x 768,1440 x 900,1400 x 1050,1680 x 1050, 1920x1080 (1080p)

Input Resolution - Up to 1920x1080

Simultaneous Connections - 16 pcs

Audio - Stereo, Radio quality 16 bits 48KHz

Wireless - IEEE 802.11ac, 5GHz, 2T2R

Data Rate Wireless - Up to 400Mbps

Authentication Protocol - WPA2 (WPA2-PSK (Pre-Shared key) / WPA2-Enterprise)

Security (encryption) - AES 128 bit

Reach - Max. 8m between InstaShow Button and InstaShow Host

Source: BenQ

About the sponsor:

Whether it is a smartphone, a computer monitor, or a television screen, the world is constantly shaped and moved by display technology. As a leader of this digital transformation, BenQ endeavors to explore all possibilities to develop comprehensive display solutions that create value for your customers in diverse fields. With over 30 years heritage of technical-know-how under its belt, BenQ prides itself on serving business professionals across various vertical markets including visual display, corporate, education, and specialty display. Above all, from offering design expertise, futureproof solutions to world-class service, BenQ establishes itself as the most complete business solution provider in the industry. BenQ makes change visible.