

# FOR CONTRAST

# PROJECTION

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Turn on the projector, and the screen awakens. Light. Life. Opportunity. Whether you're presenting to an audience dressed in t-shirts or ties, you want your images to have impact. And impact requires contrast. Used to be you'd dim the lights, pull the blinds – maybe squeeze your eyes half-shut to see if that helped. Sure, a few viewers might get sleepy. But really, what else could you expect in the dark?

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Supernova optical front projection screens open viewers' eyes with up to 10 times more contrast than standard front screens. The difference is striking – vivid, sharp pictures, even in broad daylight. Advanced optical technology is the secret to these ground-breaking displays. At last you don't have to make a dark room your goal. Just aim for impact. For everyone interested in image quality – enjoy.

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# PERCEPTION

## A question of physics

The award-winning Supernova is anything but “just another screen.” Standard front screens passively reflect the projected image – and all ambient light – back in all directions. This makes it virtually impossible to create a good viewing experience in a brightly lit room.

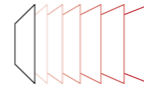
Although presenters try to compensate for the problem by turning off the lights and using curtains or window blinds, the disadvantages are still significant: projecting in the dark is inconvenient, it is difficult for viewers to take notes, audience interaction suffers, and viewers have a hard time staying alert.

**Active optical technology** Supernova goes beyond the limitations of standard front screens by using an active optical system. Made up of 7 high-tech layers, the screen forms an optical “sandwich” designed to enhance the image for optimum viewing – even in broad daylight.

One key component is an optical lens system that focuses and concentrates the projected light before reflecting it back towards viewers. Another is Supernova’s patented contrast enhancement filter, which absorbs diffused light from windows and room lighting.

### 7 layers for up to 10 times more contrast

The Supernova Screen is made up of 7 high-tech layers that actively ensure a superior viewing experience. Layers include:



- Unique patented optical lens film to reduce the impact of ambient light and thereby ensure better image contrast
- Technologically advanced reflection layer for revolutionary half-gain angles up to +/- 80°
- Black colour layer that sets new standards for colour reproduction
- Hard surface coating for screen scratch resistance and easy handling and a no-shimmer image

These unique properties have earned Supernova Infinity and Supernova Flex ISF approval.

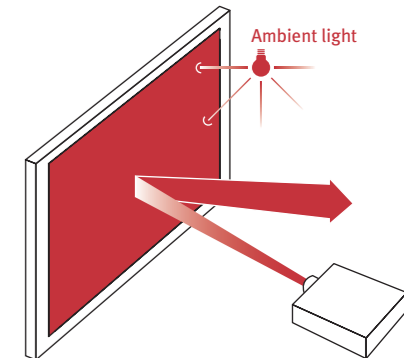


Supernova’s unique combination of new technologies actively enhances both image contrast and brightness – resulting in up to 10 times higher contrast and 2 times brighter images than traditional front screens.

Just what does that mean in practical terms? For the first time ever, you can leave the lights on when you present. You can maintain eye contact with your audience. Read their facial expressions. Clarify a point by quickly drawing on a whiteboard. Hold up a product sample for the group to see. And keep every viewer captivated.

Supernova features an active high-contrast filter that allows the projected image to be reflected while effectively absorbing incident light from other angles. This patented technology means the screen is virtually unaffected by diffused ambient light and is ideal for bright environments.

An elegant, high-impact design and variety of formats and finishes makes Supernova suitable for almost any installation environment.



**Award-winning performance** With its elegant design and variety of formats and finishes, Supernova is suitable for virtually any installation environment – from sun-drenched meeting rooms and fully lit auditoriums to halogen-filled stores and home entertainment centres. Generous, high-impact dimensions – larger and less expensive than both LCD and plasma screens – ensure that Supernova makes an impact on viewers and installers alike.

Supernova has also made an impact on the professional review community. In 2005 and 2006, Supernova won the Insight Media Best Buzz Award for Best Screen Technology at Info-Comm, the professional AV and information communications

industry’s largest event. And CES, the Consumer Electronics Association, presented Supernova with an Honoree Award in 2006 and 2007.

By combining the superior image quality typically limited to optical rear projection with the minimal space requirements and installation ease of front screens, Supernova delivers the best of both worlds.

# LIFE

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In the boardroom, it's all business. Facts, figures and forecasts projected at their bottom-line best. Meanwhile, the teddy bear on that Supernova in the toy store opens Jenny's eyes – and her mother's purse. Champions Bar and Grill, on the other hand, notes that on game night, large-screen cheerleaders make even a home-team defeat easier to swallow. Night or day, at work or play, Supernova successfully reflects all sides of life.

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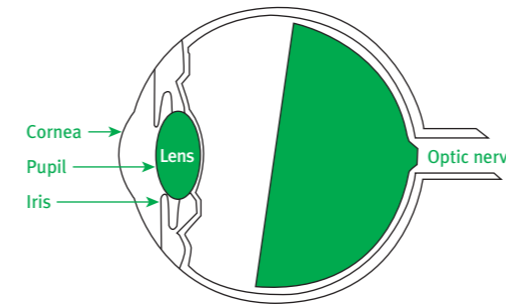
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You can scan your local newspaper by the light of the moon – just as you can at high noon. The eye is an incredibly flexible mechanism, and Supernova is designed to take its complex operation into account – without taking unfair advantage of its adaptability. The result of this scientific approach? A front projection screen that captures more than an admiring glance. In fact your audience just might applaud.

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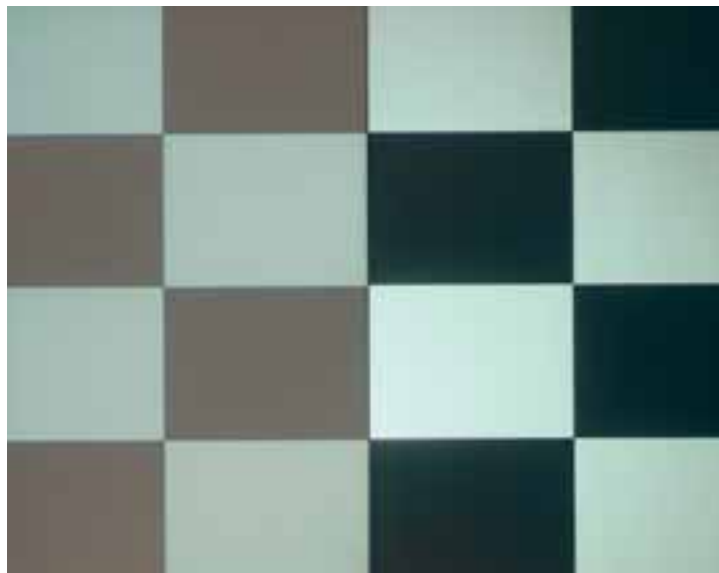
# SCIENCE

## A question of biology



The cornea admits light to the interior of the eye, while the pupil size is adjusted by the iris to allow light passage. When the eye has to adapt constantly – like between a brightly lit screen and a dark room – it causes eye stress. Unlike Supernova.

Supernova is the world's first front projection screen to break the 15:1 contrast barrier. Worth a closer look, don't you think?



Split-screen comparison of Supernova (right half) and a standard front screen using a 1200 ANSI Lumen LCD projector in a brightly lit environment (350 lux measured at the screen centre).

Supernova's built-in filter ensures excellent image contrast and black levels. This results in more vivid colours and more detailed images.

Could be you've experienced it yourself at some point – a dark room, a presentation that doesn't exactly put you on the edge of your seat. Your eyelids grow heavy, your mind starts to wander . . . .

The human eye reacts differently in different projection environments. And although the eye is an extremely adaptable mechanism, it protests when forced to accommodate beyond its comfort zone. "Eye-gonomics" is a term we've developed to express the science of designing presentation equipment to fit the viewer, rather than forcing the viewer to try to accommodate the presentation.

**Eye-gonomical displays** Let's take an example: If the brightest point in a room is more than 10 times brighter than the darkest point, it's poor eye-gonomics. The viewer will experience eye stress, low concentration and eye fatigue from trying to constantly switch between looking at a brightly lit screen and a dark room. While that's not exactly the desired audience response, it's a typical front projection scenario, where projector brightness is boosted to try to make up for low contrast.

An eye-gonomical display, on the other hand, does two things: 1) It is balanced with the brightness of the surrounding environment, so that the eye doesn't have to adapt constantly – which causes eye stress. And 2) It ensures a contrast level in the perceived screen image that fits the eye's need for comfortable viewing. Like Supernova.



**Contrast is key** Contrast is crucial to the perfect image – especially when using single lens projectors, which often are very bright but have relatively poor black levels. Even a bright projector cannot significantly improve image contrast in a bright room, however. Only a screen designed to complement the projection environment can do that.

Conventional front screens operate with contrast ratios in the range of 2-3:1 at 500 lux ambient light and are traditionally associated with dark rooms, curtains and window blinds. They reflect ambient light as much as the projector's light, creating poor contrast levels. These low contrast ratios often cause eyestrain – and make it hard for the audience to concentrate.

**Supernova breaks the contrast barrier** Empirical studies show that in order for a viewer to be able to see detailed information in a clear way, the minimum acceptable contrast in the image should be 15:1. Good contrast begins at 20:1 in image contrast ratio.

Supernova is the world's first front projection screen to break the 15:1 contrast barrier. With contrast levels exceeding 20:1 on some Supernova Screens and with a peak gain of up to 2, Supernova delivers more vivid colours and more detailed images than standard screens. Which keeps your audience captivated.

# NEW

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As the world's leading supplier of optical screen technology, you might think we'd take a moment to relax and enjoy the view. We're the first to admit we appreciate a quality visual experience. But we know that the key to creating them is fast forward, not pause. That's why every major development in optical projection technology since the '90s has come from our laboratories. And why we'll continue to make products that get you excited.

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# EXPERIENCE

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For nearly two decades, we've built up a reputation based on superior products, skilled support and continuous innovation. And customers from Oakland to Osaka have relied on our quality display solutions since the start. Hundreds of thousands of screens later, you could say we've learned a thing or two. Even better – we've never stopped learning. After all, the most direct path to development begins with an open mind. And results in the feedback we hear most frequently from customers: "Yes!"

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## A question of chemistry

dnp denmark is the world's leading supplier of optical projection screens for high-quality display solutions. Via our global network of professional AV partners and installers, we provide visionary companies and quality-conscious consumers with powerful media for communication, information and entertainment.

Since 1989, dnp denmark has been the worldwide large screen production centre of Dai Nippon Printing Co. Ltd., one of the world's largest printing and media concerns, with an annual turnover exceeding USD 13 billion.

**All the support you need** dnp's distributors and dealers are among the most skilled professionals in the AV community – which means that the purchase of a Supernova Screen gives you access to a world of knowledge, tools and inside information, all designed to help you create the perfect image. In fact, we provide the most extensive R&D and technical support in the optical screen industry.

Along with your Supernova Screen, you get access to a world of knowledge, tools and inside information that allows you to create the perfect image no matter where you're presenting. ↴



From the moment we start working together, your needs are in focus. Members of our support team can help you specify the ideal screen for your unique situation. And once an order is placed, it is confirmed within 24 hours for standard products. Delivery security? Nearly 100%.

But long-term relationships are more important to us than short-term sales. Many customers and suppliers have been with dnp since our start nearly two decades ago – which must be one reason why year after year, dnp is rated as the preferred supplier for leading companies in the AV industry. It's not only a matter of good chemistry; it's the result of good business.

**Leaders in innovation** We believe in continuous improvement. That's why every major development in the field of optical projection technology over the past decade has come from our laboratories. One key factor to our success: the pipeline of new technologies and technical solutions that runs between dnp denmark and our mother company in Japan.

Looking at innovation from a "green" point of view, dnp has a well-established environmental management system. Our annual green account report secures efficiency in consumption of raw materials and energy and minimizes our impact on the surrounding environment.

Our TQM system guarantees high, uniform product quality. Production takes place in a clinically clean, controlled environment. And every screen undergoes the strictest quality checks before it leaves our factory, which is certified according to ISO 9001:2000. ↴



Photo: Hans Søndergaard

From a management standpoint, dnp constantly improves product performance, quality and supply chain management through the use of Total Quality Management principles and the Kaizen system, a Japanese philosophy of continual improvement. At the heart of every one of these initiatives is one goal: satisfying the customer – today and every day.

## An answer to your needs

Supernova Screens are ideal anywhere that requires a superior front presentation solution. The series is made up of three overall types of optical screens, with new models constantly in development. Available in a wide variety of finishes, formats and sizes, it's easy to find a screen that fits both your technical needs and installation environment. Call your Supernova dealer for a demo. For detailed information on specific models, see [www.supernovascreen.com](http://www.supernovascreen.com)



Supernova won the Insight Media Best Buzz Award for Best Screen Technology at InfoComm, the professional AV and information communications industry's largest event, in 2005 and 2006. The Consumer Electronics Association also presented Supernova with an Honoree Award in 2006 and 2007. Supernova Infinity and Supernova Flex have earned ISF approval.



### The Supernova difference

- Excellent front projection viewing experiences in brightly lit environments
- Up to 10 times higher contrast than conventional front screens for more vivid colours and more detailed images
- Up to 2 times brighter images than standard front screens – minimizes overall installation cost since only a small projector is needed
- Superior image quality – no bright spots, no dark corners
- Prevents viewer eye stress and fatigue
- Allows the presenter to read the audience's facial expressions and switch between presentation modes without turning lights on/off
- 100% flat screen surface for perfect, undistorted images
- Up to +/- 80° half-gain angle for superior images regardless of where the viewer is seated
- Full-colour balance conservation for up to 180° viewing angle – the same vivid colours, no matter where the viewer sits
- No shimmer – completely passive surface, so viewers see the image, not the screen
- Market's best black level for better colour saturation and more vivid colours
- Easy installation
- Compatible with all LCD, DLP and LCOS projectors

### Fixed screens

- Available in a wide variety of screen sizes from 72"
- Modular model provides unlimited screen size possibilities with a seamless viewing experience
- Choose from a wide variety of framing options to match any décor and budget
- Elegant design

### Retractable screens

- Quickly roll up and down the screen at the touch of a button – no permanent screen to take up precious wall space
- Can be rolled down over an existing wall hanging, such as a painting or flat screen television, for versatility and tasteful interior design
- Flat image surface without the use of an unsightly draping system and without the visible wires in a tab-tensioning system
- Compatible with all standard mains voltages and plugs for worldwide use
- Screen covers in a variety of materials to match any décor
- Available in sizes from 72"

### Portable screens

- Easily transportable for use anywhere
- Supernova large-screen image quality in a handy design
- Lightweight but robust case for safe, comfortable transport
- Available in sizes from 40"





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**dnp Screens of the art™** dnp denmark is the worldwide large-screen centre of Dai Nippon Printing Co. Ltd. With a total annual turnover of USD 13 billion and approximately 40,000 employees, the DNP Group is one of the world's largest printing and media companies. For more information, please see [www.dnp.dk](http://www.dnp.dk) or [www.dnp.co.jp](http://www.dnp.co.jp)

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[www.supernovascreen.com](http://www.supernovascreen.com)

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Dealer: