

Orchestrating a brighter world

NEC



NEC Display Solutions

Digital Cinema Solutions

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“ A major reason for us to choose NEC was that they are able to offer display and projection solutions for our foyer, as well as our cinema projectors. It improves our efficiency and productivity, getting cinema wide display solutions from one trusted partner. ”

Hans-Joachim Flebbe,
CEO, Flebbe Services GmbH



Step into the future of Cinema

Are you ready for the new age of Cinema? The perfect visual experience through all stages of the Customer journey. A journey that gains and retains visitors in a melting pot of leisure, infotainment and ultimately wows in the theatre, increasing takings in the foyer and per seat revenues?

Whether it is driving new custom to your venue with the latest LED Video walls or announcing new attractions in High Bright Displays, signage solutions showcase upcoming events, promotions and releases in captivating illumination that will draw the crowd.

Make your venue the preferred location to experience the latest titles with the added colour, detail and dimension that Digital Cinema Laser technology offers, giving your visitors the ultimate immersive movie experience. Once the curtain falls, increase revenue at in-venue concessions with strategic digital signage showing cross-sales promotions.

Enjoy higher throughput and best ergonomic working conditions in the ticket office with smart desktop monitor solutions. Keep your business running and profitable. Our display solutions are designed to operate consistently in the most challenging environments and we offer comprehensive Service level agreements to keep your unique visual experience up and running.

Stand out from the Crowd



Photography by Adrian Weinbrecht

“ We are really excited to launch the new LED screens at ODEON Leicester Square. It is an iconic film destination that has become synonymous with red-carpet film premieres, so we are thrilled to be able to move the première experience into the digital age with these state of the art LED screens. The recent regeneration of Leicester Square has breathed new life in to the area, and we hope that these screens, which are the largest of their kind in Europe, will help re-assert the square’s position as London’s home of entertainment. ”

Andy Edge, Commercial Director at ODEON

Create a World of Entertainment



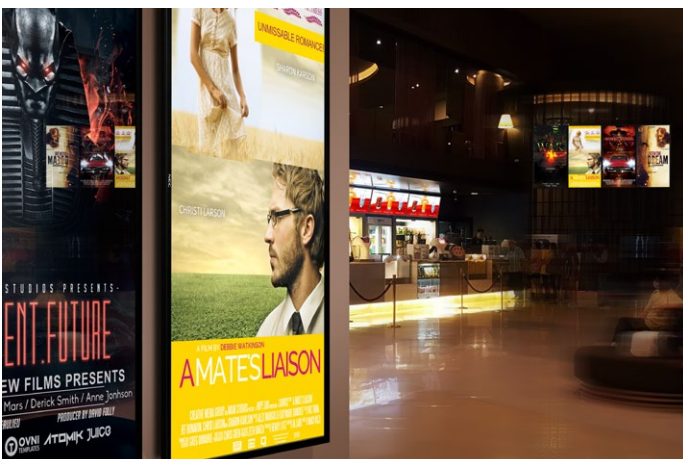
Light up the Town!

From the facade, to the foyer, to the theatre, Digital Display Solutions capture passer-by's attention with a memorable glimpse of the immersive experience on offer. Choosing the right signage solutions can help cinemas to gain, entertain, retain and satisfy customers. Combined with a cutting-edge, best in class cinematic experience signage helps maximise customer visits, loyalty and per seat revenues.

From the street, a fine pitch LED video wall is the perfect crowd stopper, with its eye-catching brightness, vibrant colours and precise picture. Once inside, Large Format Digital Signage Posters engage, inform and promote, generating more sales at concessions or counters.

Digital screens also save money for the venue, allowing instant content change, eliminating the need to regularly hire traditional 'cherry picker' lifts to laboriously change poster boards. In the foyer, high brightness displays and video walls can introduce the breath-taking visual experience to follow. Large screen video walls can also be divided so operators can stream different content simultaneously, ideal for premieres where live red carpet footage can be integrated into the walls.

Outdoor LED and IP Cabinet LCD solutions are designed to perform well in challenging environments throughout all seasons and combined with a reputation for long term performance NEC Displays offer enviably low total cost of ownership figures.



The Future of the Foyer

Cinemas are changing, operators are turning venues into personalised social spaces with a non-stop entertainment experience visitors love. This leads to more positively rated overall stays and more frequent revisits. Today's display technology plays a key role in turning the lobby into a virtual amusement park.

Digital Signage Advantages

- Entertain with Large Video Walls with gamification and 'New Release' Movie Trailers
- Way-finding to ease navigation guiding visitors to concessions and other sales points
- Ticket boxes with display technology and self-ordering kiosks
- Real movie clips with in-sequence advertising to increase bookings
- Display interaction with visitors via sensors, touch and interactivity
- Generate new revenues by selling advertising space within your display portfolio

Extend your active entertainment zone from the theatre to the entire venue with digital surfaces integrated into the architecture for a seamless, all-encompassing, digital experience. In addition, enjoy lower running costs with NEC's smart technology ensuring our displays can draw the minimum power required to perform well in their ambient environment.

Digital signage helps to enhance sales opportunities through better communication, maintain contact with audiences even when they have left the venue and to capitalise on a high resonance advertisement space with the flexibility to fit the environment. A lobby can become an orchestra of display surfaces ready to play any combination of content over scheduled times and connect to social media and viral activities. Playing live or scheduled content in selected zones can be achieved with simple single touch controls.

Data exchange from large screen to mobile devices is increasingly popular in the personal journey in public spaces. Be ready for the change and shift in visitor expectations with NEC sensor driven solutions such as leafengine that can ensure that exactly the content that is of interest to the particular viewer is shown instantly maximising the opportunity with that visitor.

Upsize your Signage and Sales



Meet and Eat

The restaurant and concessions are one of the most social places inside the Cinema. A place to meet friends and family, a chance to connect to all the extra-movie offers. For Cinema owners they represent the ideal zone to increase revenues with well conceived signage. Digital messaging can increase the visits to concessions and the average spend during a visit. It can also cross sell experiences within the venue promoting longer lasting relationships with loyalty schemes.

Digital Menu Boards have a proven record of increased sales and per person turnover and are equally effective at the fast food counter as they would be in the local take-away. Annual savings as high as 1800€ for each menu board switched to Digital, with no paper printing, no frequent installation change and savings in deliveries.

Changes can be instant with the days highly popular items promoted further or the focus moved to items the operator wants to move. Dynamic content can be twenty times more attention gaining than static content. Cinema goers receive live, up to date, information so today's special or combo gets noticed and bought. Campaigns combined with Social media can enhance this process, increasing visits and buying rates by sending information and offers to a smart phone user.

Entertain visitors with other venue attractions whilst queuing or choosing from the menu board. Drinks and sides can be promoted to increase the average sale value. With its ability to engage all five senses the food counter can benefit most from appetising signage.



Sales Success Without Digital Signage



Sales Success With Digital Signage

Menu Boards: Reasons to go Digital*

- 67% Centralised Control of Menu Board Content
- 49.1% Low Cost Menu Change
- 47.2% Increased Customer Satisfaction
- 37.7% Increased Sales

* Digital Signage Today Customer Survey



Coca-Cola



... and now for the Main Event



Enter Hollywood

The movie theatre firmly remains the champion of the Cinema, where the movie takes centre stage. The combination of the screenplay, high quality 4K image with super wide colour replication, enhanced sound and the 3D experience can take the viewer to another world. Add in personalised lounge seating or popcorn and cola and it creates an unmatched experience.

Trailers, often captivating in themselves, can be interwoven with advertising to increase revenues and engagement by running live games that the audience can participate in via smart phone. Advertisements screened in the theatre can become a highlight within the total cinema experience with links across other areas of the venue for a unified retail experience helping to increase sales at the concessions stand.

When it comes to the movie, the expectations can be great and the technology chosen to play the title at its best are essential to getting visitors loyalty and frequent return. Audiences demand an 'out of this world' experience with captivating and immersive imagery complimented by expansive sound that enthrals.

Why Digital Cinema Projection?

The digitisation of Cinema projection, including new technical possibilities, such as 3D, HFR, iMAX or 6P with higher brightness and advanced colour replication creates new opportunities. These opportunities will turn the venue into a mainstay in an increasingly competitive leisure activities space. Brightness levels can be as high as 70,000 ANSI lumen to provide the ideal picture on a large screen or brighter, larger theatre. Only Digital Cinema Projection can meet the new demands with a solution in NEC's Digital Cinema Portfolio for all sizes of venues and screens.

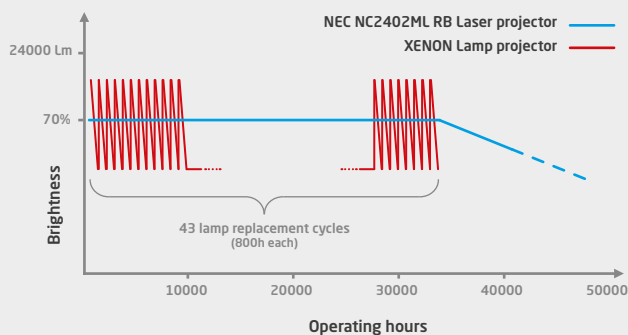
Visitors continuously demand a better visual experience. While 2K was the most common recent Digital Cinema standard, the majority of cinemas are now investing in 4K DCI Compliant Playback to ensure future-proof performance. This demand is fuelled by the advantage of showing perfect quality movies even from proximity viewing as well as the confidence in longer performance lifecycles and lower operational costs.

Associated Digital Solutions such as Integrated Media Servers allow faster and more versatile exchange of content and intelligent playback of pre-defined playlists. Cinemas can benefit from flexibility in setting the screen size appropriate to the changing demands for each venue or audience without costly site alterations with projection features such as motorised zoom.

Major benefits of NEC Digital Cinema Laser Projection

Minimise your "Total Cost Of Ownership"

- Savings up to €900/yr due to lower power consumption
- Generous life time extension up to 50,000 h with one RB Laser Light Source
- No need for lamp replacements represents savings of up to €1,000/yr for replacement lamps



Technology that 'Fits the Purpose'

- Compact design that fits perfectly in small projection booths
- Low heat emission allows an easy booth construction without exhaust extraction requirements
- Easy transportation makes Laser projection ideal for mobile applications

Enjoy Natural DCI Colours throughout the Entire Laser Life

- Unique picture & colour processing offering film enjoyment in outstanding quality
- Scalable brightness from 30% to 100% for 2D and 3D movies
- Maintains the best image quality with very stable brightness over its lifecycle
- Enhanced colour space of RGB Laser, matching the REC2020 specification, guarantees the widest and most natural colour and makes the solution future-proof

Reduce Downtimes and Service Efforts

- An increased amount of individual light sources makes the projector more robust against failure
- Dust Resistance reduces maintenance requirements

Laser - Designed for the Long Run

Whatever the size and format of your venue, NEC has conventional or Laser customisable projection solutions that will fit, whether it is for small or mobile, or large, premium and specialised Cinemas. Laser light source technology is reinventing the dynamics of the movie theatre with new levels of image brightness, power usage and crucially, reliability and service free operation.

Laser as a light source allows individual adjustment of brightness levels to meet the specific brightness requirements for 2D as well as 3D movie playback, ensuring crisp and perfectly adapted images.

Laser Phosphor based projectors are the ideal choice for small and mid-sized screens ensuring low maintenance and lower total cost of ownership.

RB Laser based projectors combine the advantages of both laser phosphor and RGB laser technologies delivering a wide colour space and bright image output paired with cost effective operation and operational efficiency for mid and larger sized screens.

RGB Laser based projectors incorporate the future colour space REC2020 that provides a wider range of natural and rich colours supporting Premium Large Format (PLF) and special format screens.

Modular Cinema Projection

Introducing a new modularity concept, NEC launches the world's first cinema RB laser projector series that integrates a modular laser light system with a projector head. The modular approach enables cinema venues to plug in the appropriate light module based on the required brightness they need. This functionality allows projectors to be adapted according to screen size, ensuring that each projector can be deployed in any size auditorium.

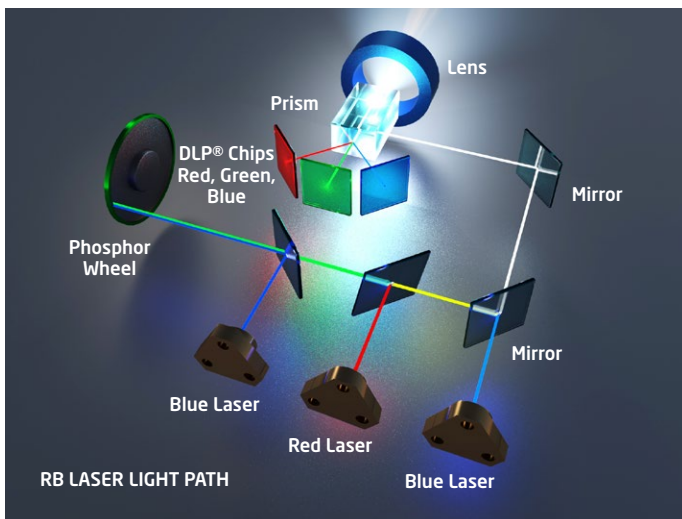
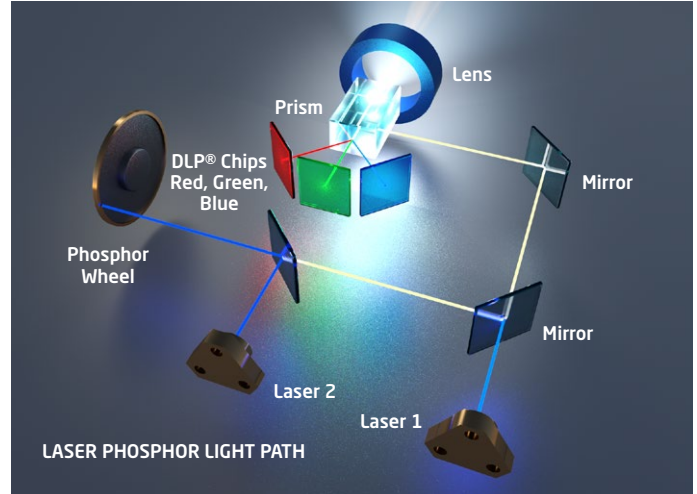
Offering cinema operators unbeatable versatility, the modular light system (with 18,000, 20,000 and 24,500 ANSI lumen options) protects your investment. As you migrate from 2K to 4K or reuse legacy NC2000 projector lenses, the solution adapts accordingly whilst opening new opportunities for screening alternative content.

New financing options offer 'light as a service', whereby operators can lease the light engine to lower their CAPEX whilst guaranteeing constant brightness output; in the event of a fault, failure or reduction in brightness, a replacement laser light source will be provided immediately.

The Laser Revolution

Optical Architecture of a Laser Phosphor Light Source

Laser/Phosphor systems include the Solid State Light Source combined with phosphor to produce images that adhere to the SMPTE colour space. Laser-illuminated projectors use arrays of laser sources illuminating a micro-display engine. In the most common Laser Phosphor approach, a blue laser is used for creating the blue colour in the final image, but the same blue laser is also used to illuminate a yellow phosphor wheel, which emits the yellow light. This yellow light is then split by a prism or colour wheel into green and red light components. For the Cinema, this method delivers very good colours along with good image uniformity and high brightness.

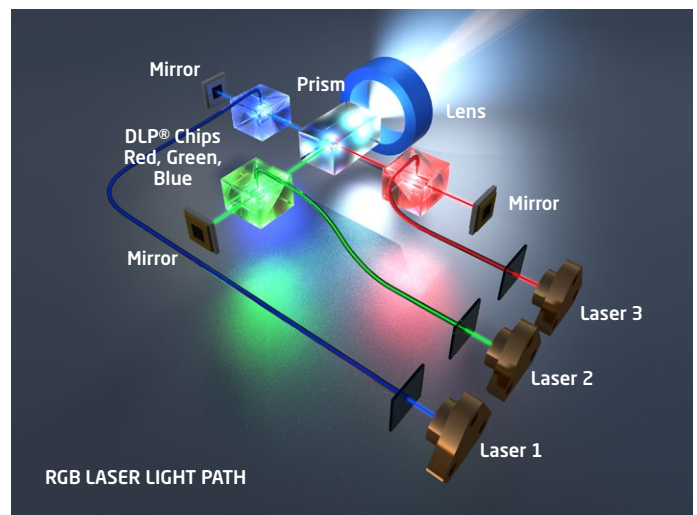


Optical Architecture of an RB Laser Light Source

RB laser technology combines the advantages of brilliant colour reproduction with cost efficiency. In RB laser projection a blue laser is used to create the blue colour and a red laser is used to create the red colour in the final image. The green colour is generated by a green phosphor wheel emitting green light. This technique allows very efficient light reproduction by avoiding optical filters resulting in more intense and more natural colours especially in the red colour segment plus a higher brightness output. This technology delivers brilliant colours and brightness uniformity. The brightness level is high yet power consumption is low with good light efficiency and a wide colour space.

Optical Architecture of an RGB Laser Light Source

RGB laser on the other hand, uses the so-called 'pure laser' technology. Here red, green and blue lasers are delivered directly to the image chip. The product of this technique creates a light pipe consisting of absolutely pure light that is split into the three RGB components. The light is emitted in very narrow RGB bands with very distinct spectral frequencies. This technology allows the creation of a large colour space that easily exceeds even that of Adobe RGB or DCI and can already cover the demanding Rec. 2020 colour space. This technology produces the best colours and brightness uniformity alongside the highest brightness for the ultimate cinematic experience, yet the benefits need to be balanced against the higher cost implication.



The show must go on

The most essential element in the Cinema business model is to maximise the projectors chargeable operation and minimise downtime that can represent lost revenue and damage to a venue's reputation.

Therefore Cinemas need products to perform consistently throughout their life-cycle and service partners to react instantly in response to performance failures.

Operators benefit from the vast experience NEC has gained in providing best in class equipment and effective Support Solutions. Industrial grade components are chosen to ensure highest durability even in demanding environments and local service hubs are selected to provide spares in the fast turnaround times.

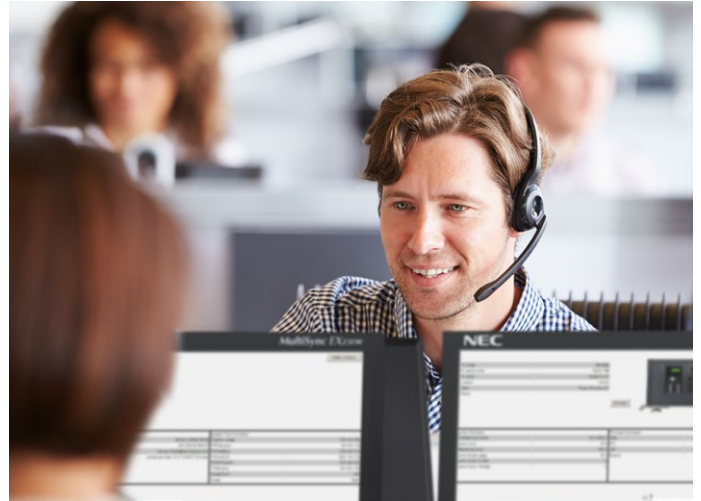
Understanding the high requirements from cinemas NEC have developed a range professional warranty conditions and warranty extensions to its partners. The experiences gained help NEC to enjoy long and lasting partnerships with the cinemas. Cinemas can rely on professional support from the first contact and throughout the complete operational time. This is underwritten by a strong network of authorized service partners throughout EMEA.

We understand the need for highly skilled theatre room operators and provide technical trainings in order to secure the high level of work and skill-set in your cinemas.

We work with leading International Integrators and Cinema chains that require international Cross Border Service and offer one single service point to support installations across Europe, Middle East, Africa and beyond.

NEC Prism Refurbishment Programme

Where projection equipment has been in constant use for several years however, inevitably there is some detrimental effect on the resultant projected image. Therefore this programme provides a fast and cost-effective cleaning, repair and refurbishment process, supporting operational safety and long-term use for all projectors that demonstrate reduced performance levels or are non-operational. Following a precise diagnostic evaluation of each defective part, the NEC Service Centre in the United Kingdom will carry out a prism cleaning or repair to ensure consistent maximum performance.



Early Warning Solutions

The NEC remote support solution that manages the majority of NEC display devices is ideal for multi-device installations from the entrance area to the theatre room. Cinemas get an easy to use and sophisticated graphical user interface (GUI), in order to reduce their administration effort and costs by remotely diagnosing and correcting technology issues with connected display devices. Designed to run from a central location. Operators are continuously provided with automatic monitoring and control of devices while alerts can be set when specified parameters within the display device change. Our cinema projectors are also compatible with all common TMS-applications (theatre management system) ensuring quick and complete control and checks of all the cinema equipment.

Exhibitors and integrators can manage and maintain their equipment's operation live in situ with the NEC NOC Service Agreement. Recognising that efficient customer support and service is the key to success as well as balancing productivity and costs, NOC is a solution Cinemas can depend on. A software based system that provides a remote link with projectors, irrespective of quantity or geography, it allows the operator to analyse any projector's status anywhere. Potential issues, including errors or, say, the looming need to change a lamp, will be highlighted, and the operator can either make corrections remotely, or else assign a technician to effect repairs in the field.

Experience you can Trust

NEC is a name to trust. We have more than 10,000 Digital Cinema projectors installed in Europe, Middle East and Africa alone, underlining the crucial role NEC plays in creating the optimum Cinema Experience and keeping it operational.

laser
light source

NEC

DIGITAL
PICTURE BY
DLP
CINEMA
TEXAS INSTRUMENTS

NC2402ML

The Future of Laser Modularity



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