CINITY LED

CINITY LED cinema display system

Powered by

GDC Technology

The New High-tech Format
Create the ultimate moviegoing experience.
Leading the future.

CINITY Introduction

China Film CINITY Technology Co., Ltd. (CINITY), established in October 2016, is a technology company jointly invested by **China Film Co., Ltd.** and **Huaxia Film Distribution Co., Ltd.** CINITY specializes in high-end film formats, technology integration, equipment sales, and technical services.

CINITY, the high-end film format developed by the company, serves as its flagship projection brand. The company is dedicated to innovating and advancing film technology, fostering a seamless integration of film and technology, and maintaining a spirit of continuous innovation. Leveraging the comprehensive industry chain and platform resources of China Film, CINITY aims to lead the industry through technological advancements by perfecting high-end film format technology and product development.

The **CINITY film system**, officially launched in August 2019, stands as a groundbreaking achievement. It is the world's first to seamlessly integrate seven high-end film projection technologies: 4K resolution, 3D visuals, high brightness, high frame rates, high dynamic range, wide color gamut, and immersive sound. This innovative technology significantly the clarity, color vibrancy, motion smoothness, detail richness, action coherence, and sound realism. As a state-owned independent brand with core intellectual property rights, CINITY represents a remarkable technological milestone in China's film industry.

Aligned with its original intentions and plans, CINITY is leading the future with CINITY LED.

Building a Complete Industry Chain

Genre Selection

Scriptwriting

Directorial Team

Pre-production

Post-production

Distribution and Exhibition

https://cinitytoinfinity.com

Highlights

High frame rate

CINITY LED cinema display system supports high frame rate formats of up to 120 frames per second, eliminating the motion blur of 24 frames and delivering clearer images. It supports a maximum of 120 frames for 2D and 60 frames per eye for 3D 4K.
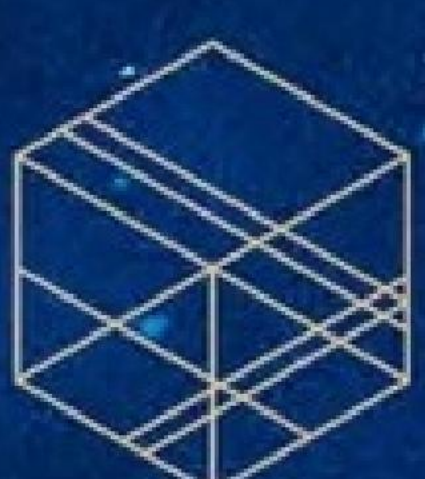
4K

The overall pixel count of the 4K resolution is four times that of 2K (2048×1080), providing a more vivid display quality.

High brightness

The maximum brightness for 2D in the CINITY LED cinema display system is 146fL (approximately 500 nits), which is ten times higher than regular cinemas both domestically and internationally.

3D

The CINITY LED cinema display system utilizes self-emitting semiconductor display technology. The highest brightness for 3D per eye is 17fL, surpassing regular cinemas domestically and internationally by 2-3 times. The crosstalk for 3D can be as low as 0.2%, significantly lower than the existing industry standards for 3D systems.

High dynamic range

The CINITY LED cinema display system has a peak brightness of 146fL (approximately 500 nits) for 2D, a minimum black level of 0.005nit, and a dynamic range of up to 100,000:1, which is 50 times the standard of traditional cinema projection systems.

Wide color gamut

The CINITY LED cinema display system complies with the DCI-P3 color gamut standard, enabling the reproduction of vibrant colors that traditional cinemas cannot achieve, creating a more natural visual perception for the human eye.

Immersive sound

With precise time and spatial reproduction of sound objects, the audio provides a more immersive experience. Currently, CINITY adopts the mainstream immersive audio formats in the market and supports future open audio standards.

CINITY LED Cinema Display System

CINITY is committed to promoting continuous innovation of trends in filmmaking and digital cinema technologies. It continuously drives technological advancements and pioneering product development in high-tech format films. To further enhance the high-tech format film industry chain, enrich high-tech film technology products, and create differentiated and diversified viewing experiences, CINITY places significant value on and actively explores LED display technology research. Its independently innovated LED cinema display system has achieved stunning strong results.

- The LED cinema display system has achieved full domestic production and has independent core intellectual property rights on servers and controllers, fully realizing the independent control and branding of CINITY products and solutions.

- The system is designed, developed, and produced strictly according to the following standards, with some core indicators surpassing the DCI standards:
  - ❑ "Direct View Display D-Cinema Addendum, Version 1.1; dated 1 March 2023"
  - ❑ "DCI High Dynamic Range D-Cinema Addendum, Version 1.1, dated 1 March 2023"
  - ❑ "Technical Requirements and Measurement Methods for Cinema LED Display Projection Systems" - China Film Co., Ltd. Enterprise Standard
  - ❑ "Technical Requirements for CINITY Digital Film Distribution Mastering and Packaging" - China Film Co., Ltd. Enterprise Standard

- The CINITY LED cinema display system is the first film LED screen tested for blue light according to the international standard IEC62471 and has obtained TUV Rheinland certification for low blue light and flicker-free performance. This ensures the safety of viewers' eyes during high-brightness, high-quality viewing experiences.
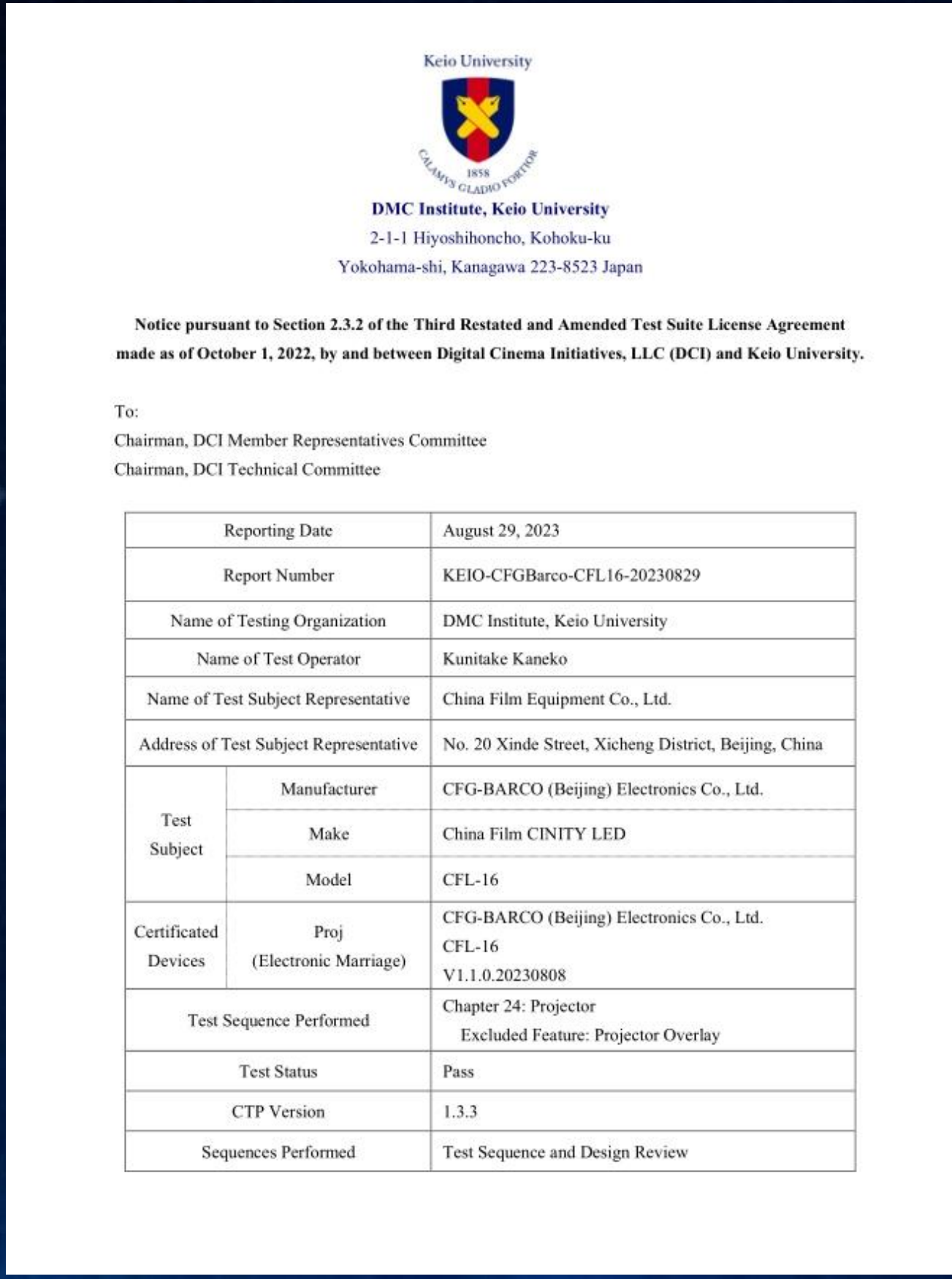
Product through the DCI test certification certificate
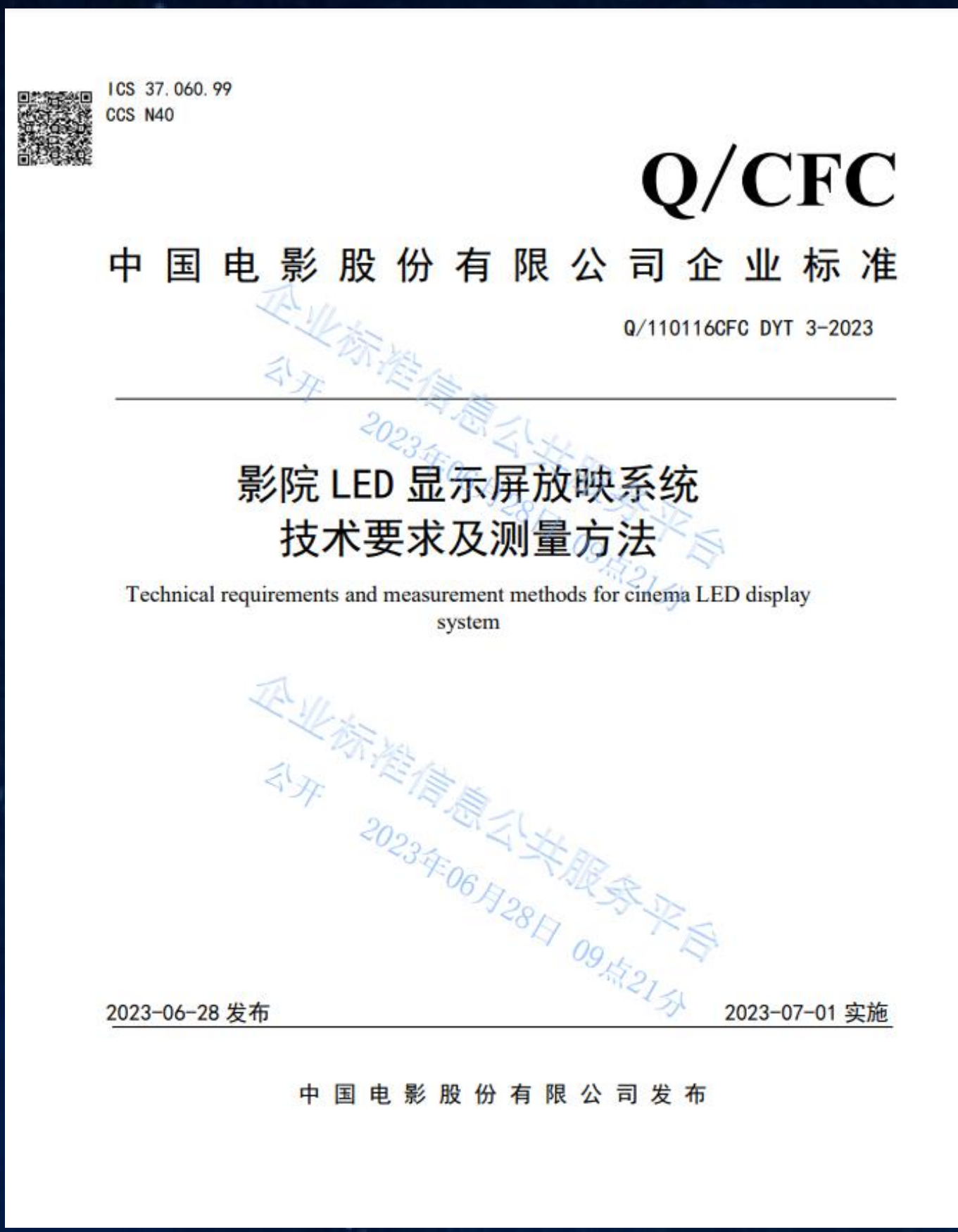
China Film CINITY LED enterprise standard

The product has passed the IEC62471 low blue light test, and the test results have achieved an exemption level.

The product passed the 1EC 62471 blue light test, and the green health test reached A++ rating

Low Blue Light and Flicker-Free Product Certification

One-stop theatre solution. Create differentiation.

CINITY LED Exclusive Mastering	The world's first 4K 120fps display	0.005nit	500nit
The CINITY LED cinema display system is closely integrated with the CINITY LED Mastering System. All movies projected on the CINITY LED cinema display system will be provided with versions exclusively mastered by CINITY LED.	4K - Higher resolution. 120fps - Eliminates motion blur from 24fps, resulting in clearer images. Supports a maximum of 120fps for 2D and 60fps per eye for 3D 4K.	The minimum black level of 0.005nit, reaching the deepest level among cinema-grade LEDs.	The brightness mode supports a maximum of 500nits, ensuring an immersive 3D movie viewing experience.

100000:1	Outstanding energy performance	Golden seat throughout theatre	Diverse Operations
The system boasts a high contrast ratio of up to 100,000:1.	Higher photoelectric conversion rate, allowing the screen to stay in "cool panel" mode for extended periods.	3-4 times wider viewing angle than metallic screens.	Provides endless possibilities for cinemas, including live sports broadcasts, ceremonial events, private gatherings, interactive educational experiences, competitive gaming, and more.

Specifications

Model	CFL-20	CFL-16	CFL-14	CFL-10	CFL-7
Full screen dimension	20.48m x 10.8m	16.384m x 8.64m	14m x 7.34m	10.24m x 5.41m	7m x 3.67m
Pixel pitch	P5.0	P4.0	P3.4	P2.5	P1.7
Cabinet quantity	288	144	160	80	40
LED screen weight	5760kg	3650kg	2500kg	1400kg	680kg
Resolution	4096 x 2160				
Brightness mode	48nit (SDR); 299.6nit (DCI HDR); 499.7nit (CINITY HDR)				
Minimum darkfield brightness	0.01-0.024nit (SDR); 0.005nit (DCI HDR and CINITY HDR)				
Contrast ratio	Maximum 100000:1				
Color gamut	100% DCI-P3/Rec.709				
Frame rate	2D mode 4K: Maximum 120fps 3D mode 4K: Maximum 60fps (per eye)				
Signal bit rate	Maximum 1250Mbps				
Light conversion function	Gamma2.6 (SDR)/ ST 2084 (DCI HDR)/ CINITY Log (CINITY HDR)				
Alternative content interface	1x HDMI 2.1a (support 4K 120fps)				
3D crosstalk	0.20%				
3D entry rate	16%				
Certification	DCI, CCC, CB, CE, FCC, IEC 62471, ⅢV Rheinland Low Blue Light & Flicker-Free Certification				
Lamp bead lifespan	100000 hours				
Operation temperature	0~45°C				
Operation humidity	5~90% (Non-condensing)				
TMS	GDC, CFT, AAM				

CINITY AMR

CINITY AMR (AI Master Reproduction) is an artificial intelligence-based remastering process developed by CINITY. It optimizes the clarity, dynamic range, color gamut, brightness, and frame rate of conventional films through AI techniques. This process enhances the visual experience by making the movie images clearer, colors more vibrant, motion smoother, details more intricate, and actions more seamless. CINITY AMR significantly enhances the realism and immersion of films.

CINITY Camera

CINITY has developed the CINITY Camera, which combines the brand's characteristics in frame rate, brightness, contrast, color gamut, and more. This camera is designed to meet the needs of shooting and on-set monitoring. It offers strong compatibility and high stability, adapting to existing workflows while providing forward-looking specifications and performance. CINITY is continuously researching, developing, and upgrading the camera to achieve national production and independent control.

The CINITY Camera supports loading CINITY's exclusive color effects (stylized LUT) and allows for high frame rate shooting, including 4K at 24/30/60 frames per second. It also enables real-time monitoring of CINITY's high frame rate effects through corresponding settings.