JMGO N1S Ultimate 4K

The Pinnacle of the N1S Series

NETFLIX

World's First Triple Laser 4K Projector with Google TV

Reviewer's Guide

JMGO

1. **4K Ultra Brightness with Triple Laser Light source**

2. **Google TV Projector with licensed Netflix** Users can easily access over 10,000 apps, enjoying endless entertainment content.

3. **Integrated Gimbal Design** Instant image calibration is achieved through flexible vertical adjustment and intelligent adaptive features.

- *Additional Note: Tips for Filming the Projected Image to Avoid Color Distortion*

- *Appendix: Specification Table*

4K Ultra Brightness with Triple Laser light source

- Uncompromising details enabled by self-developed **MALC™** Triple Color Laser Optics

- Bright and vivid display powered by triple color laser

- Explore unprecedented depths of sound with our audio system

Self-developed MALC™ Triple Color Laser Optics

Feature Description

The **MALC™ (Microstructure Adaptive Laser Control) Triple Color Laser Optics** is a patented technology innovated by JMGO team.
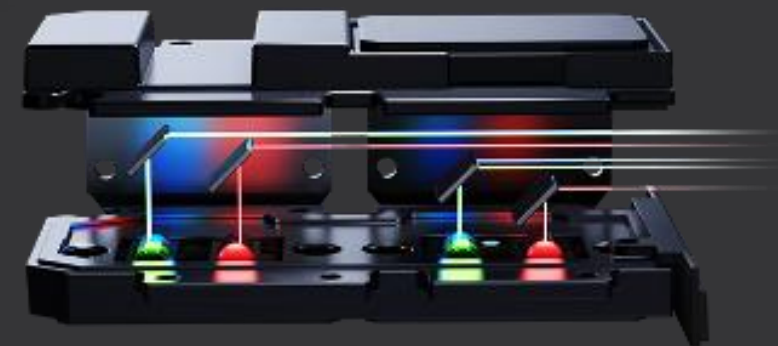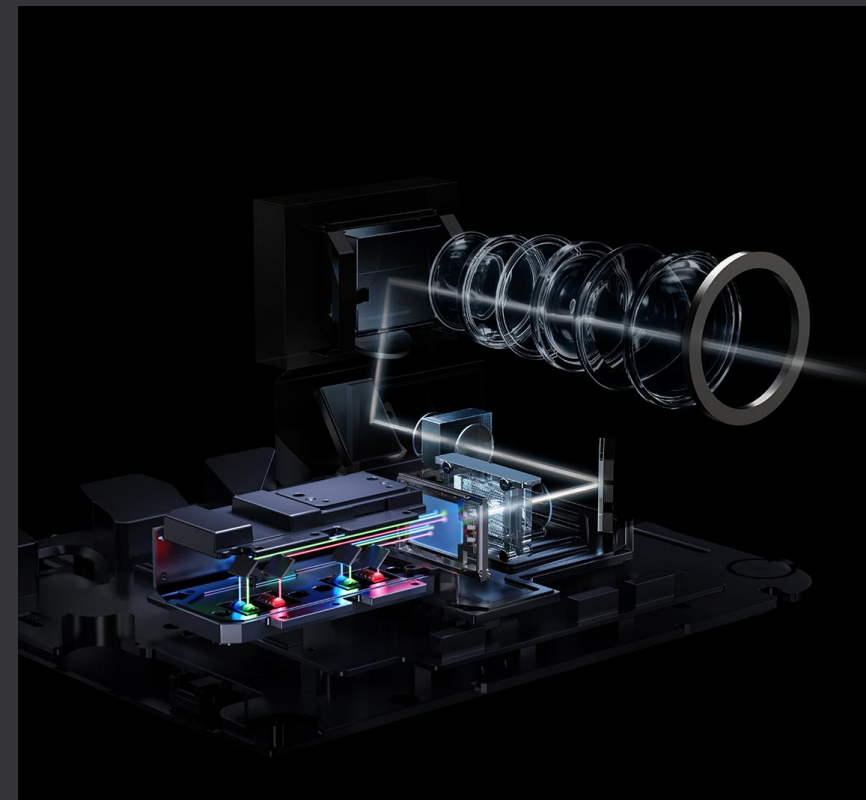
Nine patents are applied to this compact light engine to achieve better **brightness, colors and efficiency**. The patented solutions applied to the MALC engine include:

1. **Modularization Laser Stacking**

   In collaboration with Nichia, we have developed the NUMB12T laser, the industry-leading 9-chip laser, which is **the first of its kind to successfully integrate multiple RGB laser light sources and attain the joint illumination of this amalgamated light source**.

   The NUMB12T laser solution is presently **the only one capable of achieving modularization of lasers** in the industry.

   Compared to existing lasers (14-chip or 28-chip), **the solution offers 10 to 15% higher optical efficiency, 40% smaller package size, 10% better heat dissipation performance, at 30% lower cost.**

Self-developed MALC™ Triple Color Laser Optics

Feature Description *(cont.)*

2. **Quad Layered Diffuser System**

   The laser initially emits a small spot with highly concentrated energy, and the diffuser's purpose is to shape the laser spot to 16:9 and homogenize the light completely.

   Our diffuser lens features **400 miniature partitions** to provide micron-level diffusion. By employing **four layers of this highly precise diffuser**, we can achieve a projected image with greater uniformity than the industry average.

   The existing diffuser commonly used in the industry have partition numbers ranging from several dozen to over one hundred, with an average uniformity of 85%. However, our 400-partition diffuser surpasses this average, attaining **an impressive uniformity of over 95%**.

Self-developed MALC™ Triple Color Laser Optics

Feature Description *(cont.)*

3. **Dynamic Light Speckle Reducer Technology（LSR）**

The MALC™ engine utilizes an innovative LSR module to **reduce scatter caused by beam interference**, which is a common problem.

The module is designed to adjust the passing laser beam with adaptive amplitude and frequency through a diffuser that vibrates at high speed in the XY axis.

This process increases randomness and suppresses interference, **leading to a 96% reduction in scatter**.

Overall Results:

- **3500 ANSI** Lumens
- **1600:1** Static Contrast Ratio
- **110% BT.2020** Wide Color Gamut
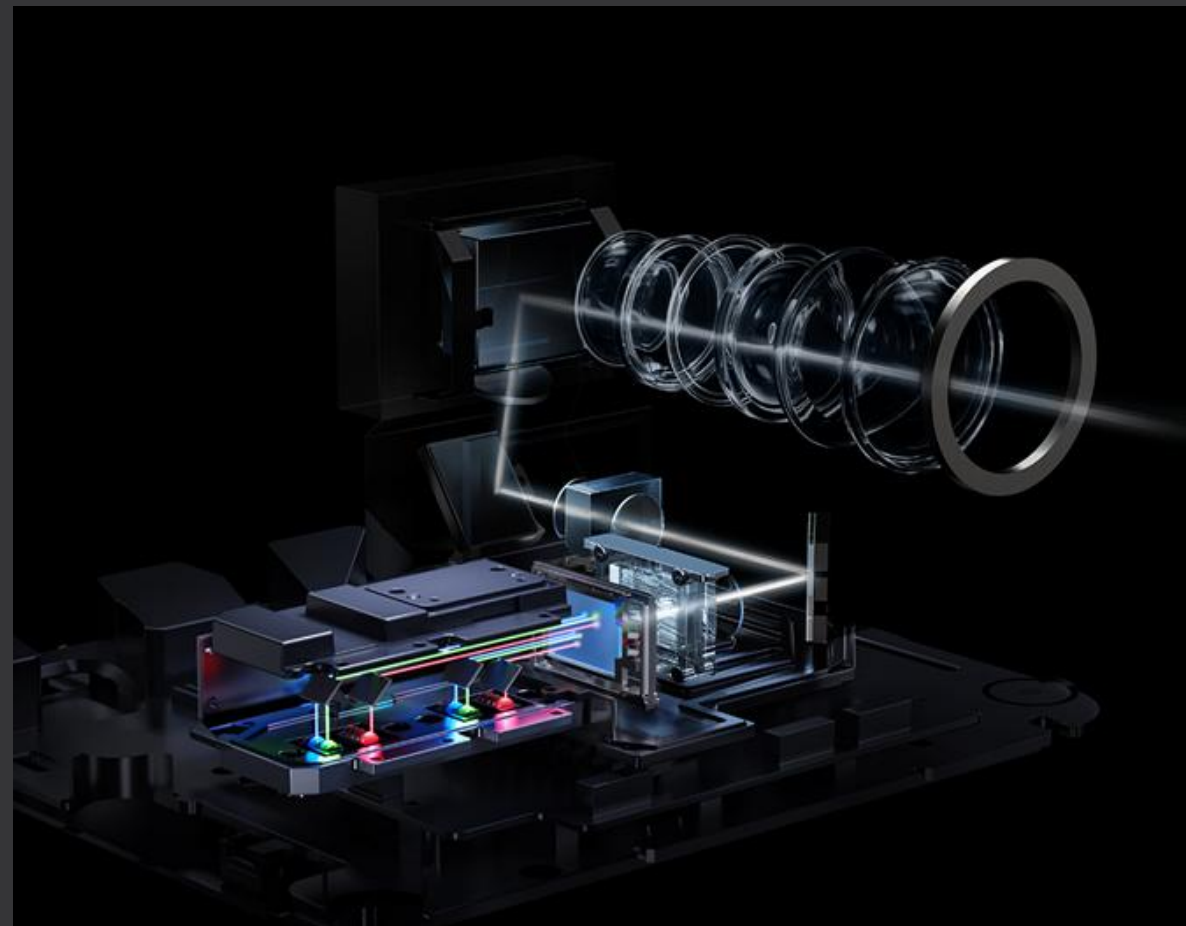- **△E<1** Color Accuracy
- **1.07 Billion** colors, 10bit Color Depth

Self-developed MALC™ Triple Color Laser Optics

Suggested Review Methods:

1. **Brightness Measurement:** Measure the brightness of the projected image with a light meter.

2. **Contrast Ratio Measurement:** Measure the contrast ratio of the projected image with a contrast meter.

3. **Resolution Test:** Perform a resolution test with a pattern generator to ensure that the projector is capable of displaying high-resolution images.

4. **Uniformity Test:** Use a uniformity test pattern to check for any unevenness in the projected image.

5. **Input Lag Test:** Use a stopwatch to measure the time it takes for a signal to be processed and displayed on the projector.

6. **Temperature Test:** Measure the temperature of the projector's exhaust to make sure it isn't running too hot.

Bright and vivid display powered by MALC™ Triple Color Laser Optics

Feature Description

On top of the benefits brought by the MALC™ Triple Color Laser Optics, the nature of a triple color laser light source means the N1S Ultimate 4K can project 4K UHD images with accurate and vivid colors that outshine competing LED projectors and single laser projectors.

Suggested Review Methods

1. **Check the Color Wheel:** Check whether the laser projector has a full-color wheel with an even representation of colors.

2. **Check Color Accuracy:** Use a colorimeter or spectrophotometer to check the accuracy of colors compared to the source.

3. **Check Color Gamut:** Use a colorimeter to check the full range of colors covered by the projector.

4. **Check Color Uniformity:** Check for any inconsistencies in the colors across the entire image.

Experience ultimate bass immersion.

Feature Description

JMGO create a powerful sound system, providing a cinematic quality of sound to accompany the stunning visuals.

With **2*10W speakers**, the sound system boasts **45Hz extreme low-frequency bass,** and is certified by Dolby Audio and DTS decoding for improved sound reproduction.

Suggested Review Methods

1. **Listen for sound clarity:** Test the projector's sound system by playing a variety of sound sources such as music, movies, and other audio clips. Listen for clarity, range, and depth.

2. **Test for sound fidelity and distortion:** Play a variety of audio clips at different volumes to check for any distortion or other sound issues.

Google TV Projector with Built-in Netflix
Users can easily access over 10,000 apps, enjoying endless entertainment content.

- Google TV system

- Licenced Netflix

Rich content provided by Google TV

Feature Description

N1S Ultimate 4K comes with a full Google TV system, including:

1. No more jumping between apps:
Everything is in one place. Browse movies, episodes, live TV, and more from across your favorite apps. It's easier than ever to discover what to watch.

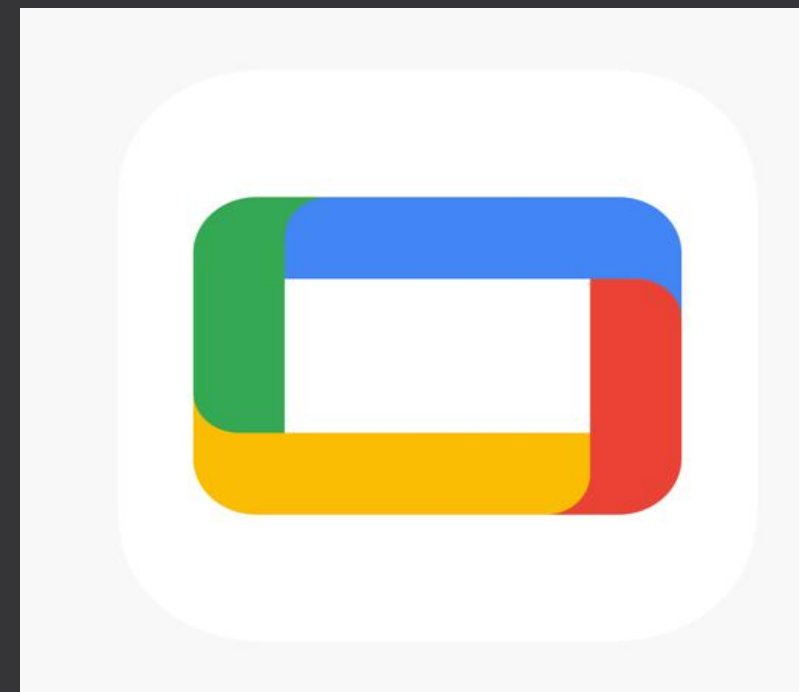**2. Just ask Google Assistant:**
find what you want fast, just ask Google Assistant. Use your voice remote to search across all apps including live TV and YouTube. Find exactly what you're looking for.

3. Curated recommendations:
Personalized entertainment for everyone in your home. With personal profiles, discover new favorites with recommendations just for you.

4. Build your watchlist:
Add movies and shows from your TV, mobile app, or Google Search by clicking the watchlist icon. Ready to watch when you are.

Google TV

Built-in Netflix

Feature Description

N1S Ultimate 4K comes with built-in Netflix, including:

1）Netflix on Google TV: OS comes with Netflix. Compared with the N1 Ultra series of Android TV 11, Google TV has richer streaming resources.

2）Netflix Quickly Wake Up: the Netflix app can cast and wake up with one click, and wake up with one click on the remote control

Extensive connectivity featuring versatile ports for various devices

Feature Description

N1S Ultimate 4K offers versatile connectivity options, including:

1. 2x HDMI 2.1 port (supports eARC), for connecting various gaming consoles, streaming sticks, and dedicated sound systems.
2. 1x USB-A 2.0
3. 1x 3.5mm Headphone Jack
4. 1x DC Port for Power Supply

Laptop

TV Stick

Game Console

Speaker

Extensive Connectivity

USB   HDMI1   HDMI2(eARC)

USB	**HDMI**	**Headphone Jack**	**Wireless Screen Display**
USB Flash Disk Portable Hard Disk	Laptop Network Set-top-BoX DVD Player Come Machine	3.5mm Connection Size	Smart PhoneTablet PC

Integrated Gimbal Design
Flexible vertical adjustment enabled by the gimbal design with smart adaptive features allowing for instant image calibration.

- Integrated Gimbal Design

- Multi Adaptive System

Integrated pan & tilt design

Feature Description

Powered by superior mechanical and algorithmic design, the **N1S Ultimate 4K** projector features an integrated gimbal solution. The solution includes:

1. **Ultra-Thin 2-axis Gimbal System**

    It allows for stepless rotation adjustment **up to 135° in the vertical and 360° in the horizontal direction**, enabling it to be set up in a stable and flexible manner.

    This is achieved by **replacing the traditional spindle with Nitrile Rubber** and **innovative O ring structural design** via **tens of thousands of reliability tests** on the rotation and movement of the structure.

2. **Instant Gimbal-like Display Correction**

    The JMGO team implemented a solution architecture built on **a 6-axis IMU (Inertial measurement unit), ToF and a proprietary algorithm** to seamlessly execute attitude fitting, trapezoidal correction and auto focus.

    The technology enables the projector to **automatically adjust the projected image** and make it appear correctly placed **within seconds** when the projector is switched on.

Integrated Gimbal Design

Feature Description

N1S Ultimate 4K is equipped with **3D TOF Sensors** and **CMOS Hi-res Cameras**, and utilizes **smart recognition algorithms developed by JMGO**, based on user feedback and experience, allowing it to detect and adjust to the environment with ease. Features include:
- **Adaptive Brightness:** Adjusts brightness according to the ambient lights
- **Auto Screen Fitting:** Automatically adapts to the screen precisely
- **Smart Obstacle Avoidance:** Moves the screen away from the light switch and other obstacles

Suggested Review Methods

1. **Brightness:** Adjust the brightness level of the light in the environment, and measure the light output at various distances, to check if the projector is automatically meeting the target brightness for the room and environment.

2. **Screen Fitting:** Test the projector's ability to adjust to different size screens, and to adjust the image size to fit the screen.

3. **Obstacle Avoidance:** Test the projector's ability to detect and avoid obstacles during installation. Check if the projector can detect and avoid obstacles, such as furniture and walls, before projecting its image.

Integrated pan & tilt design

Suggested Review Methods

1. **Flexibility Test:** Test the projector's physical flexibility by adjusting its angle and position.

2. **Projection Test:** Set up the projector in different locations with different orientations and project an image to check the brightness, clarity, and sharpness of the image.

3. **Stability Test:** Test the projector's stability by shaking or vibrating it.

Additional Note

- Tips for Filming the Projected Image to Avoid Color Distortion

Tips for Filming the Projected Image to Avoid Color Distortion

Due to the rationale of projecting via laser, when you're filming the projected image directly with the camera on your mobile devices (especially devices with no Manual White Balance function), most likely you will encounter color distortion in the pictures and videos you're taking for your review content.

Here's a step-by-step guide for setting up such filming devices for the accurate representation of the projected image of the review unit:

1. Download **DSLR Camera** app via the App Store (iOS) or Google Play Store (Android)

2. Turn on the app and access the options for setting the camera on your devices

3. Switch the Auto WB option to **Manual WB**, adjust the **color temperature to 4K**, and the **color tint to 100**

4. Adjust the **shutter speed to 1/60**

Additional Scenarios

1. At any Place of Your Home.

2. A Companion to Light Up Your Party

Scenario 1: Immersive Home Theater

Key Message

JMGO N1S Ultimate 4K projector utilizes MALC™ triple-color laser technology. With its integrated gimbal design and smart feature support, it can be effortlessly set up in any room of your home. Enjoy ultra-high brightness and Dolby audio, transforming your space into an immersive home theater.

Recommended Hashtags:
#JMGO4KProjector #TripleLaserProjector

Applicable Features:
1. Sound: 20 watt Dolby Audio Immersive Experience.
2. Integrated Gimbal Design and Instant Gimbal-like Display Correction: next level adjustability and flexibility
3. Stunning visuals: bright, lifelike picture quality powered by MALC™ Triple Color Laser Optics

Instructions:

Move the projector to an dark room and enable the Auto screen Fitting feature to automatically adjust the image during setup. This ensures an immersive home theater experience.

Scenario 2: A Buddy for Outdoor Adventures

Key Message

JMGO N1S Ultimate 4K is a portable laser cinema ideal for illuminating your outdoor movie nights. It can be packed into a dedicated EPP case, making it easy to carry into the outdoors for camping or RV trips.

Recommended Hashtags:
#JMGO4KProjector #TripleLaserProjector

Applicable Features:
1. Brightness: 3500 ANSI Lumens Ultra-brightness easily use in outdoor.
2. Integrated Gimbal Design and Instant Gimbal-like Display Correction: next level adjustability and flexibility
3. EPP carrying case: made of EPP foam, an environmentally-friendly material that protects the projector inside

Instructions:
1. Show the **N1S Ultimate 4K** together with the EPP carrying case as one of the must-have gears for those who enjoy outdoor adventures.
2. Set up the projector in a camping site or inside the van to demonstrate how the integrated gimbal design and calibration software enables the N1S Ultimate 4K to easily adapt to different types of projection surface.

Appendix

- Specification Table

Specification Table

Display

Brightness	3500 ANSI Lumens	Resolution	4K UHD
Contrast Ratio	1,600:1 (Static)	Throw Ratio	1.2:1
Color Gamut	110% BT.2020	Display Technology	DLP
Color Accuracy	ΔE <1	HDR	HDR 10
Laser Speckle Reduction Rate	>97%	Color Depth	10-Bit Color Depth (1.07B Colors)
Brightness Uniformity	>95%	Zooming	Digital Zoom
Projection Mode	Front projection, Rear projection, Front ceiling projection, Rear ceiling projection		
3D Support	supports local 3D and external 3D sources sources		

Hardware

SoC	MediaTek MT9629
Display Chip	TI 0.47" DMD
RAM	2GB
ROM	32GB
Light Source	Triple color laser
Lamp Life	30,000 Hours

Audio

Certification	DTS, Dolby Audio
Tuning	JMGO Master Sound

Software

OS	Google TV with Native Netflix
Smart Features	Multi Adaptive System Auto Screen Fitting Smart Object Avoidance Smart Eye Protection

General Specs

Dimensions	9.49*7.99*9.29 in	Speaker	20-watt speakers
Weight	9.92 lb.	Noise Level	<26dB
Wi-Fi	Wi-Fi 6	Bluetooth	5.1
Connectivity	2x HDMI 2.1 (one supports eARC), 1x USB-A 2.0, 1x 3.5mm Headphone Jack, 1x DC Port		

203mm / 7.99 inches
241mm / 9.48 inches
236mm / 9.29 inches

Thank You!